

# other marine percoidids Stocks

v4.63 (Dec-07-2023)

Not present Present Preferred

Stock	Time Series Types			
	B/Bmsy	U/Umsy	B/Bmgt	U/Umgmt
1. ATLCROAKMATLC [Atlantic croaker Mid-Atlantic Coast]	TB SSB	ER F	TB SSB	ER F
2. AUSSALMONNZ [Australian salmon New Zealand]	TB SSB	ER F	TB SSB	ER F
3. AXBRMNWA [Axillary seabream North West Africa]	TB SSB	ER F	TB SSB	ER F
4. BCROAKCWAGIN-LBR [Bobo croaker Central West Africa Guinea-Liberia]	TB SSB	ER F	TB SSB	ER F
5. BGRUNTCWACIV-BEN [Bigeye grunt Central West Africa Cote Divoire-Benin]	TB SSB	ER F	TB SSB	ER F
6. BGRUNTCWACOG.AGO [Bigeye grunt Central West Africa Congo.-Angola]	TB SSB	ER F	TB SSB	ER F
7. BKCDLFENI [Black cardinalfish East coast of North Island]	TB SSB	ER F	TB SSB	ER F
8. BLACKGROUPERGMSATL [Black grouper Gulf of Mexico and South Atlantic]	TB SSB	ER F	TB SSB	ER F
9. BLTILESATLC [Blueline tilefish Southern Atlantic coast]	TB SSB	ER F	TB SSB	ER F
10. BLUEFISHATLC [Bluefish Atlantic Coast]	TB SSB	ER F	TB SSB	ER F
11. BRMSOJ [Yellow sea bream Sea of Japan]	TB SSB	ER F	TB SSB	ER F
12. BRMSPPCWACIV-BEN [Seabream Central West Africa Cote Divoire-Benin]	TB SSB	ER F	TB SSB	ER F
13. BRMSPPCWAGAB-AGO [Seabream Central West Africa Gabon-Angola]	TB SSB	ER F	TB SSB	ER F
14. BRMSPPCWAGIN-LBR [Seabream Central West Africa Guinea-Liberia]	TB SSB	ER F	TB SSB	ER F
15. BSBASSMATLC [Black sea bass Mid-Atlantic Coast]	TB SSB	ER F	TB SSB	ER F
16. BSBASSSATL [Black sea bass South Atlantic]	TB SSB	ER F	TB SSB	ER F
17. BSBRMNWAMRT-SEN [Bluespotted seabream North West Africa Mauritania-Senegal]	TB SSB	ER F	TB SSB	ER F
18. CJOBMHI [Crimson jobfish Main Hawaiian Islands]	TB SSB	ER F	TB SSB	ER F
19. CJOBOKWI [Crimson jobfish Okinawa Islands]	TB SSB	ER F	TB SSB	ER F
20. COBGM [Cobia Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
21. COBSATLC [Cobia Southern Atlantic coast]	TB SSB	ER F	TB SSB	ER F
22. CPANDMEDGSA15-16 [Common pandora Malta Island and South of Sicily (GSA 15, 16)]	TB SSB	ER F	TB SSB	ER F
23. CPANDMEDGSA9 [Common pandora Ligurian and North Tyrrhenian Sea]	TB SSB	ER F	TB SSB	ER F
24. CROAKSPPCWACIV-BEN [Croaker Central West Africa Cote Divoire-Benin]	TB SSB	ER F	TB SSB	ER F
25. CROAKSPPCWAGAB-AGO [Croaker Central West Africa Gabon-Angola]	TB SSB	ER F	TB SSB	ER F
26. CROAKSPPCWAGIN-LBR [Croaker Central West Africa Guinea-Liberia]	TB SSB	ER F	TB SSB	ER F

27. CROAKSPPNWASEN_GMB [Croaker North West Africa Senegal - The Gambia]	TB SSB	ER F	TB SSB	ER F
28. EBASSGSA7 [European seabass Gulf of Lions]	TB SSB	ER F	TB SSB	ER F
29. EBASSIVbc-VII [European seabass ICES 4bc-7]	TB SSB	ER F	TB SSB	ER F
30. EBASSVla-VIib-j [European seabass ICES 6a-7b-j]	TB SSB	ER F	TB SSB	ER F
31. EBASSVIIlab [European seabass ICES 8ab]	TB SSB	ER F	TB SSB	ER F
32. EBASSVIIlc-IXa [European seabass ICES 8c-9a]	TB SSB	ER F	TB SSB	ER F
33. FSNAPOKWI [Flame snapper Okinawa Islands]	TB SSB	ER F	TB SSB	ER F
34. GAGGM [Gag Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
35. GAGSATLC [Gag Southern Atlantic coast]	TB SSB	ER F	TB SSB	ER F
36. GGRUNTCWAGAB-AGO [Grey grunt Central West Africa Gabon- Angola]	TB SSB	ER F	TB SSB	ER F
37. GGRUNTCWAGIN-LBR [Grey grunt Central West Africa Guinea- Liberia]	TB SSB	ER F	TB SSB	ER F
38. GHBRMGSA7 [Gilthead seabream Gulf of Lions]	TB SSB	ER F	TB SSB	ER F
39. GJOBMHI [Green jobfish Main Hawaiian Islands]	TB SSB	ER F	TB SSB	ER F
40. GLGROUPTSATLCGM [Goliath grouper Southern Atlantic coast and Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
41. GRSNAPGM [Gray snapper Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
42. HHTILEECS [Horsehead tilefish East China Sea]	TB SSB	ER F	TB SSB	ER F
43. JSNAPOKWI [Japanese snapper Okinawa Islands]	TB SSB	ER F	TB SSB	ER F
44. LDENTCWAAGO [Large eye dentex Central West Africa Angola]	TB SSB	ER F	TB SSB	ER F
45. LDENTNWA [Large eye dentex North West Africa]	TB SSB	ER F	TB SSB	ER F
46. LJOBOKWI [Lavender jobfish Okinawa Islands]	TB SSB	ER F	TB SSB	ER F
47. LNSNAPGM [Lane snapper Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
48. MORWONGESE [Jackass morwong Eastern half of Southeast Australia]	TB SSB	ER F	TB SSB	ER F
49. MORWONGWSE [Jackass morwong Western half of Southeast Australia]	TB SSB	ER F	TB SSB	ER F
50. MUTSNAPSATLCGM [Mutton snapper Southern Atlantic coast and Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
51. NZSNAPNZ1BOP-HAGU [New Zealand snapper New Zealand SNA 1 Bay of Plenty and Hauraki Gulf]	TB SSB	ER F	TB SSB	ER F
52. NZSNAPNZ1ENLD [New Zealand snapper New Zealand SNA 1 east Northland]	TB SSB	ER F	TB SSB	ER F
53. NZSNAPNZ7 [New Zealand snapper New Zealand SNA 7]	TB SSB	ER F	TB SSB	ER F
54. NZSNAPNZ8 [New Zealand snapper New Zealand Area 8 (Auckland and Central West)]	TB SSB	ER F	TB SSB	ER F
55. PANDSPPNW [Pandora spp North West Africa]	TB SSB	ER F	TB SSB	ER F
56. PICAMEDGSA25 [Picarel Cyprus Island]	TB SSB	ER F	TB SSB	ER F
57. RBRMECS [Red seabream East China Sea]	TB SSB	ER F	TB SSB	ER F
58. RBRMIX [Red seabream ICES 9]	TB SSB	ER F	TB SSB	ER F
59. RBRMMEDGSA1-3 [Red seabream Alboran Island Sea (GSA 1,3)]	TB SSB	ER F	TB SSB	ER F
60. RBRMSETOE [Red seabream Inland Sea of Japan (East)]	TB SSB	ER F	TB SSB	ER F
61. RBRMSETOW [Red seabream Inland Sea of Japan (West)]	TB SSB	ER F	TB SSB	ER F
62. RBRMVI-VII-VIII [Red seabream ICES 6-7-8]	TB SSB	ER F	TB SSB	ER F
63. RBRMX [Red seabream Azores Grounds]	TB SSB	ER F	TB SSB	ER F
64. RGROUPGM [Red grouper Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
65. RGROUPSATL [Red grouper South Atlantic]	TB SSB	ER F	TB SSB	ER F

66. RGRUNTNWA [Rubberlip grunt North West Africa]	TB SSB	ER F	TB SSB	ER F
67. RMULLMEDGSA1 [Red mullet Northern Alboran Sea]	TB SSB	ER F	TB SSB	ER F
68. RMULLMEDGSA10 [Red mullet South Tyrrhenian Sea]	TB SSB	ER F	TB SSB	ER F
69. RMULLMEDGSA11 [Red mullet Sardinia]	TB SSB	ER F	TB SSB	ER F
70. RMULLMEDGSA15-16 [Red mullet Malta Island and South of Sicily (GSA 15, 16)]	TB SSB	ER F	TB SSB	ER F
71. RMULLMEDGSA17-18 [Red mullet Adriatic Sea (GSA 17,18)]	TB SSB	ER F	TB SSB	ER F
72. RMULLMEDGSA19 [Red mullet Western Ionian Sea]	TB SSB	ER F	TB SSB	ER F
73. RMULLMEDGSA22 [Red mullet Aegean Sea]	TB SSB	ER F	TB SSB	ER F
74. RMULLMEDGSA25 [Red mullet Cyprus Island]	TB SSB	ER F	TB SSB	ER F
75. RMULLMEDGSA29 [Red mullet Black Sea]	TB SSB	ER F	TB SSB	ER F
76. RMULLMEDGSA5 [Red mullet Balearic Island]	TB SSB	ER F	TB SSB	ER F
77. RMULLMEDGSA6 [Red mullet Northern Spain]	TB SSB	ER F	TB SSB	ER F
78. RMULLMEDGSA7 [Red mullet Gulf of Lions]	TB SSB	ER F	TB SSB	ER F
79. RMULLMEDGSA9 [Red mullet Ligurian and North Tyrrhenian Sea]	TB SSB	ER F	TB SSB	ER F
80. RPANDCWACIV-BEN [Red pandora Central West Africa Cote Divoire-Benin]	TB SSB	ER F	TB SSB	ER F
81. RPANDNWA [Red pandora North West Africa]	TB SSB	ER F	TB SSB	ER F
82. RPORGYSATLC [Red porgy Southern Atlantic coast]	TB SSB	ER F	TB SSB	ER F
83. RSNAPGM [Red snapper Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
84. RSNAPSATLC [Red snapper Southern Atlantic coast]	TB SSB	ER F	TB SSB	ER F
85. SBMSPPNWAMAR [Seabreams spp North West Africa Morocco]	TB SSB	ER F	TB SSB	ER F
86. SBREAMCH [Deepwater cardinalfish Chile]	TB SSB	ER F	TB SSB	ER F
87. SCUPNWATLC [Scup Northwestern Atlantic Coast]	TB SSB	ER F	TB SSB	ER F
88. SKSNAPCARIB [Silk snapper Caribbean]	TB SSB	ER F	TB SSB	ER F
89. SMULLMEDGSA15-16 [Surmullet Malta Island and South of Sicily (GSA 15, 16)]	TB SSB	ER F	TB SSB	ER F
90. SMULLMEDGSA5 [Surmullet Balearic Island]	TB SSB	ER F	TB SSB	ER F
91. SMULLMEDGSA9 [Surmullet Ligurian and North Tyrrhenian Sea]	TB SSB	ER F	TB SSB	ER F
92. SNAPSAUSGSV [Snapper Gulf St. Vincent]	TB SSB	ER F	TB SSB	ER F
93. SNAPSAUSSER [Snapper South-East Region]	TB SSB	ER F	TB SSB	ER F
94. SNAPSAUSSGWC [Snapper Spencer Gulf and West Coast]	TB SSB	ER F	TB SSB	ER F
95. SNOWGROUPSATLC [Snowy grouper Southern Atlantic coast]	TB SSB	ER F	TB SSB	ER F
96. STRIPEDBASSGOMCHATT [Striped bass Gulf of Maine / Cape Hatteras]	TB SSB	ER F	TB SSB	ER F
97. STRMULLIIIa-IV-VIId [Striped red mullet ICES 3a-4-7d]	TB SSB	ER F	TB SSB	ER F
98. STRMULLVI-VIIabcefghijk-VIII-IXa [Striped red mullet ICES 6-7abcefghijk-8-9a]	TB SSB	ER F	TB SSB	ER F
99. SUNIMHI [Sleek unicornfish Main Hawaiian Islands]	TB SSB	ER F	TB SSB	ER F
100. SWHITSE [School whiting Southeast Australia]	TB SSB	ER F	TB SSB	ER F
101. TARAKNZ [Tarakiki Sub-Antarctic]	TB SSB	ER F	TB SSB	ER F
102. THREADCWACIV-BEN [Threadfin Central West Africa Cote Divoire-Benin]	TB SSB	ER F	TB SSB	ER F
103. THREADCWAGAB-AGO [Threadfin Central West Africa Gabon-Angola]	TB SSB	ER F	TB SSB	ER F
104. THREADCWAGIN-LBR [Threadfin Central West Africa Guinea-Liberia]	TB SSB	ER F	TB SSB	ER F
105. TILEGM [Tilefish Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
106. TILEMATLC [Tilefish Mid-Atlantic Coast]	TB SSB	ER F	TB SSB	ER F

107. TILESATLC [Tilefish Southern Atlantic coast]	TB SSB	ER F	TB SSB	ER F
108. TSGTFMHI [Twosaddle goatfish Main Hawaiian Islands]	TB SSB	ER F	TB SSB	ER F
109. VSNAPGM [Vermilion snapper Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
110. VSNAPSATLC [Vermilion snapper Southern Atlantic coast]	TB SSB	ER F	TB SSB	ER F
111. WEAKFISHATLC [Weakfish Atlantic Coast]	TB SSB	ER F	TB SSB	ER F
112. WGROUPNWAMRT-SEN [White grouper North West Africa Mauritania-Senegal]	TB SSB	ER F	TB SSB	ER F
113. WSGTFMHI [Whitesaddle goatfish Main Hawaiian Islands]	TB SSB	ER F	TB SSB	ER F
114. YEGROUPGM [Yellowedge grouper Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
115. YFGTFMHI [Yellowfin goatfish Main Hawaiian Islands]	TB SSB	ER F	TB SSB	ER F
116. YSGTFMHI [Yellowstripe goatfish Main Hawaiian Islands]	TB SSB	ER F	TB SSB	ER F
117. YTSNAPSATLCGM [Yellowtail snapper Southern Atlantic coast and Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F

## Atlantic croaker Mid-Atlantic Coast [ATLCROAKMATLC]

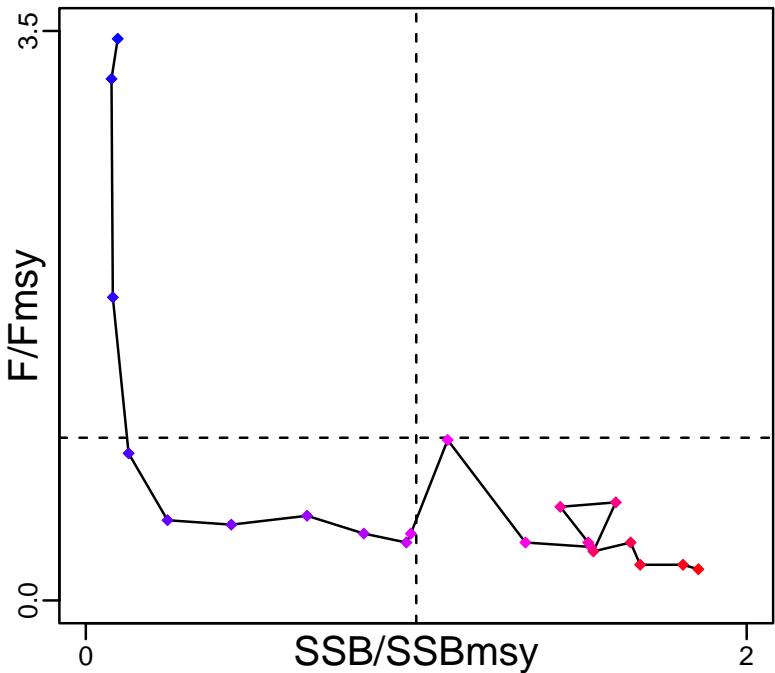
<b>Metadata</b>	
<b>Scientific Name</b>	Micropogonias undulatus
<b>Current Assess ID</b>	ASMFC-ATLCROAKMATLC-1981-2008-HIVELY
<b>Area</b>	Mid-Atlantic Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Atlantic States Marine Fisheries Commission
<b>Asmts in RAM</b>	2002, 2008

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2008	72,362
<b>Fmsy</b>	Fmsy-1/yr	2008	0.365
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	M-1/yr	2002	0.3
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

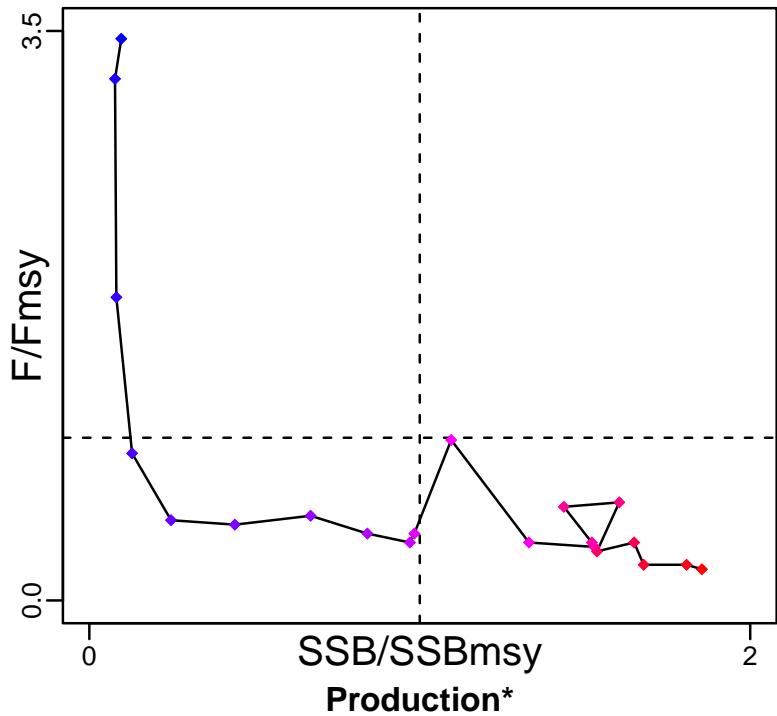
<b>Time Series</b>						
Type	ID	Asmt Year	Curr Value	Sex	Age	
<b>TB</b>	-	-	-	-	-	
<b>SSB</b>	SSB-MT	2008	134,143	Females	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2008	643,964,000	-	0	
<b>F</b>	F-1/yr	2008	0.07	-	-	
<b>ER</b>	ER-ratio	2002	0.088	-	-	
<b>TC</b>	-	-	-			
<b>TL</b>	TL-MT	2008	12,647			
<b>TB/TBmsy</b>	-	-	-			
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2008	1.854			
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2008	0.192			
<b>ER/ERmsy</b>	-	-	-			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

Atlantic croaker Mid-Atlantic Coast [ATLCROAKMATLC]

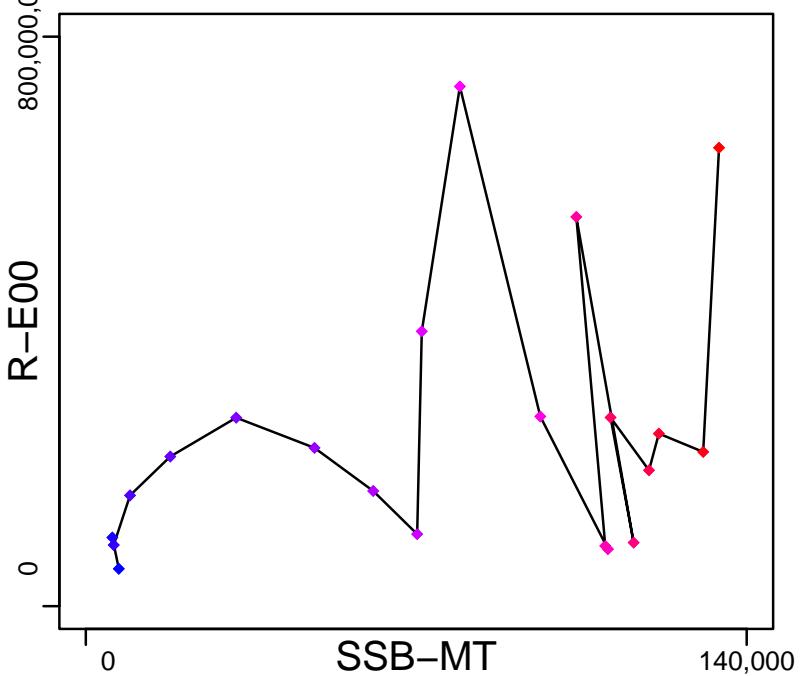
Kobe MSYpref (1981–2008–HIVELY)



Kobe MGTPref (1981–2008–HIVELY)



Spawner Recruit (1981–2008–HIVELY)



Production\*



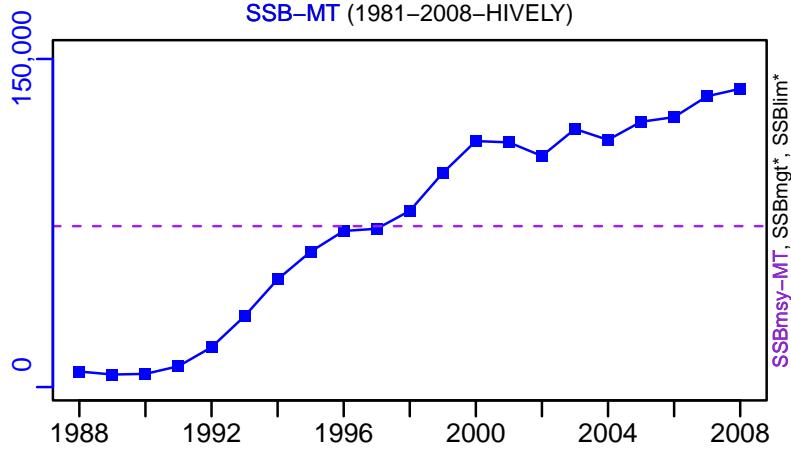
◆ Start Year   ◆ End Year   \* No Data

Atlantic croaker Mid-Atlantic Coast [ATLCROAKMATLC]

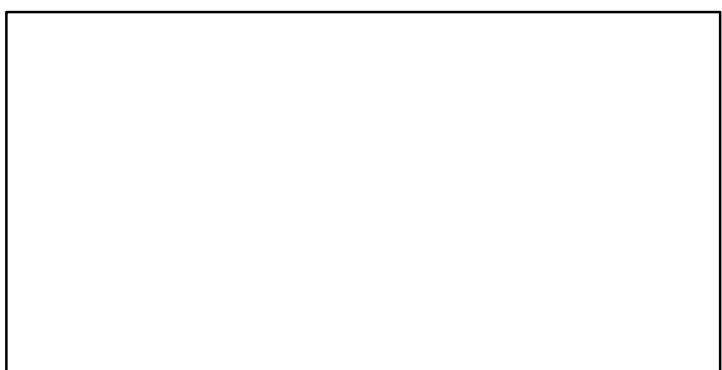
**TB\***



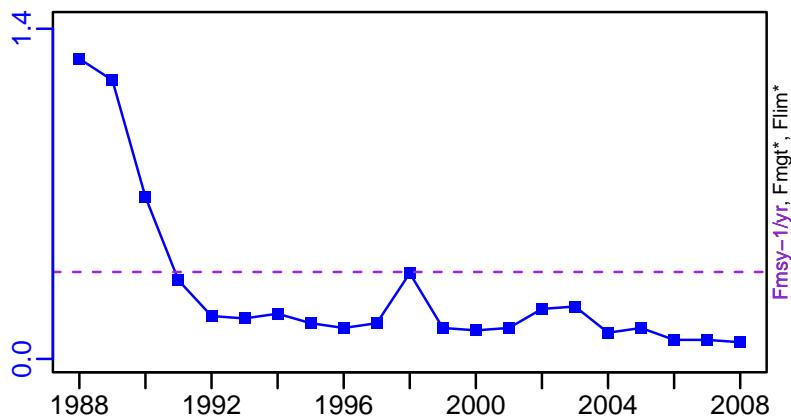
**SSB-MT (1981–2008–HIVELY)**



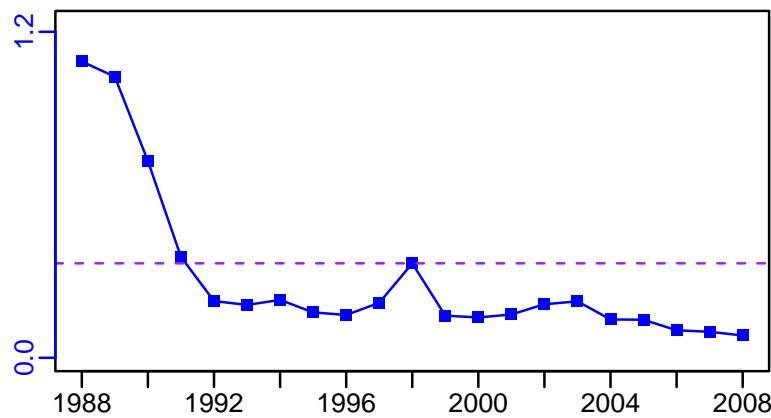
**TN \***



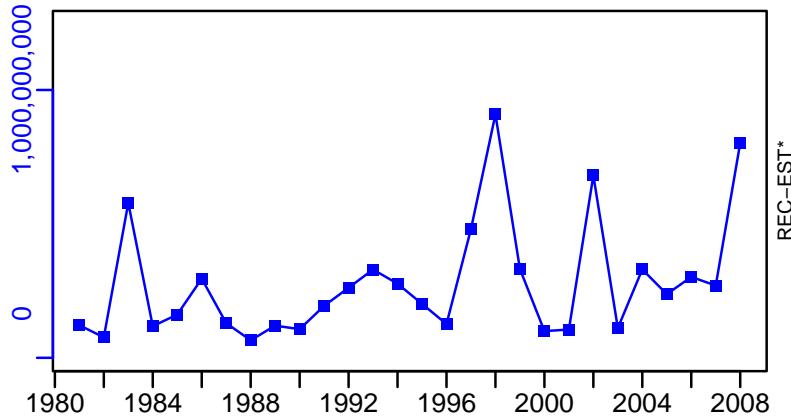
**F-1/yr (1981–2008–HIVELY)**



**ER-calc-ratio (1981–2008–HIVELY)**



**R-E00 (1981–2008–HIVELY)**

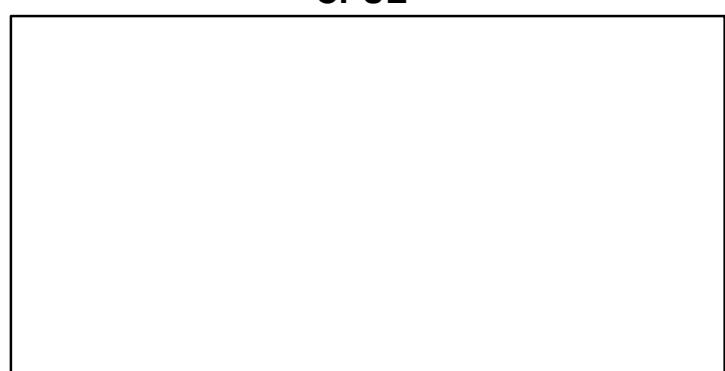
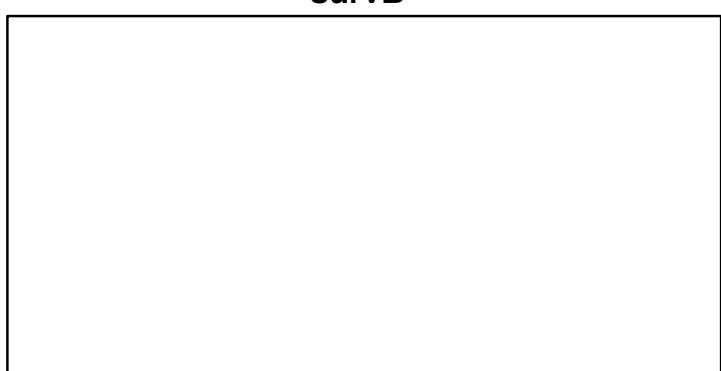
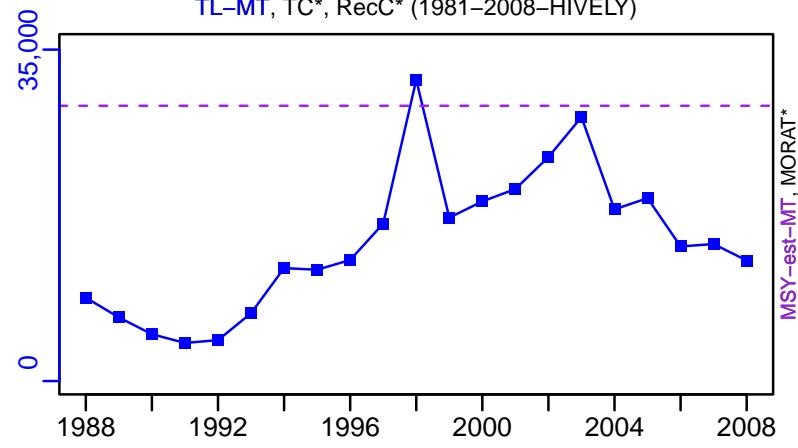


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - Lim BRP	* No Data

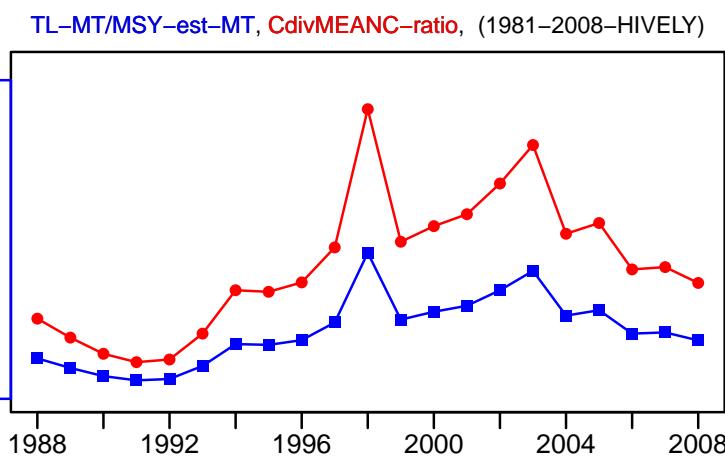
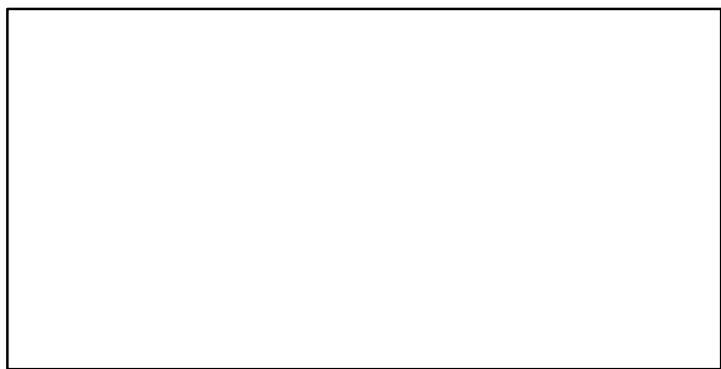
Atlantic croaker Mid-Atlantic Coast [ATLCROAKMATLC]

TL-MT, TC\*, RecC\* (1981–2008-HIVELY)

TAC\*, Cpair\*, Cadv\*



EFFORT\*



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Australian salmon New Zealand [AUSSALMONNZ]

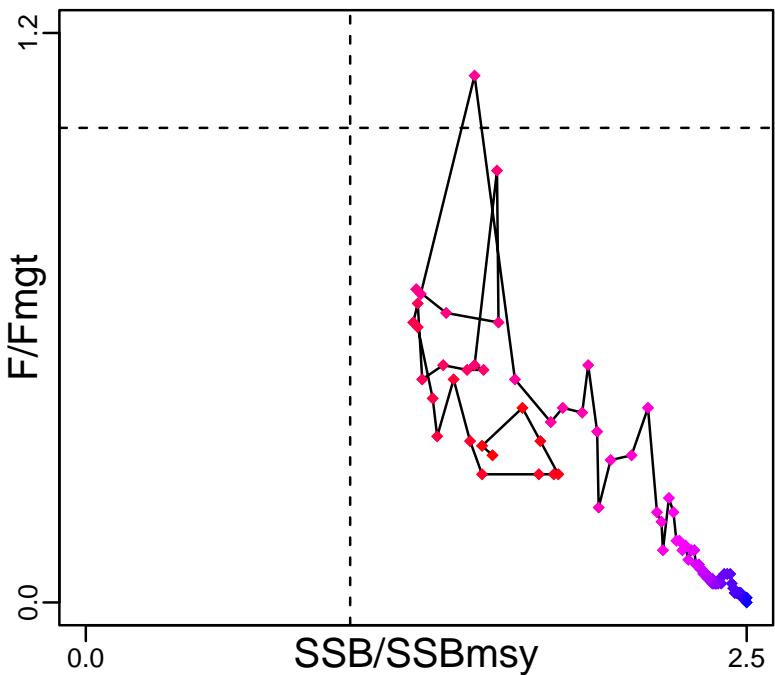
<b>Metadata</b>	
<b>Scientific Name</b>	Arripis trutta
<b>Current Assess ID</b>	NIWA-AUSSALMONNZ-1929-2013-FU
<b>Area</b>	New Zealand
<b>Management Authority</b>	Ministry of Fisheries, New Zealand national management
<b>Assessor</b>	National Institute of Water and Atmospheric Research
<b>Asmts in RAM</b>	2013, 2006

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	TBmsy-calc-MT	2006	28,246
<b>SSBmsy</b>	SSBmsy-MT	2013	17,680
<b>Fmsy</b>	Fmsy-1/yr	2006	0.32
<b>ERmsy</b>	ERmsy-ratio	2006	0.119
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2013	22,984
<b>Fmgt</b>	Fmgt-1/yr	2013	0.215
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	SSB0-MT	2013	44,200
<b>MSY</b>	MSY-MT	2006	3372
<b>M</b>	M-1/yr	2013	0.2
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

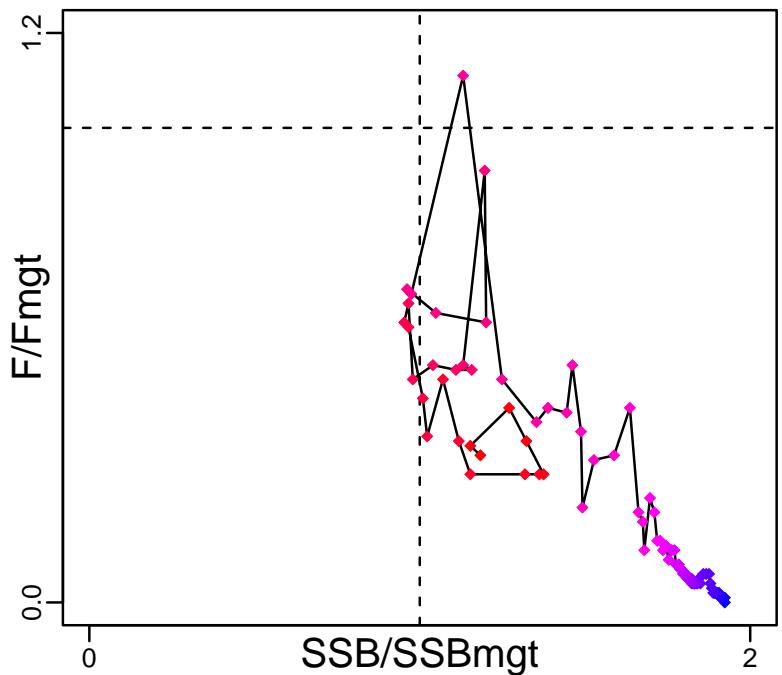
<b>Time Series</b>						
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>	
<b>TB</b>	TB-MT	2006	22,600	-	1+	
<b>SSB</b>	SSB-MT	2013	27,200	-	4 to 20	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2013	7,430,000	Both	-	
<b>F</b>	F-1/yr	2013	0.07	Both	-	
<b>ER</b>	ER-ratio	2006	0.099	-	-	
<b>TC</b>	TC-MT	2013	1680			
<b>TL</b>	-	-	-			
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2006	0.8			
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	1.538			
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2006	0.328			
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2006	0.83			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2013	1.183			
<b>F/Fmgt</b>	FdivFmgt-dimensionless	2013	0.31			
<b>ER/ERmgt</b>	-	-	-			

Australian salmon New Zealand [AUSSALMONNZ]

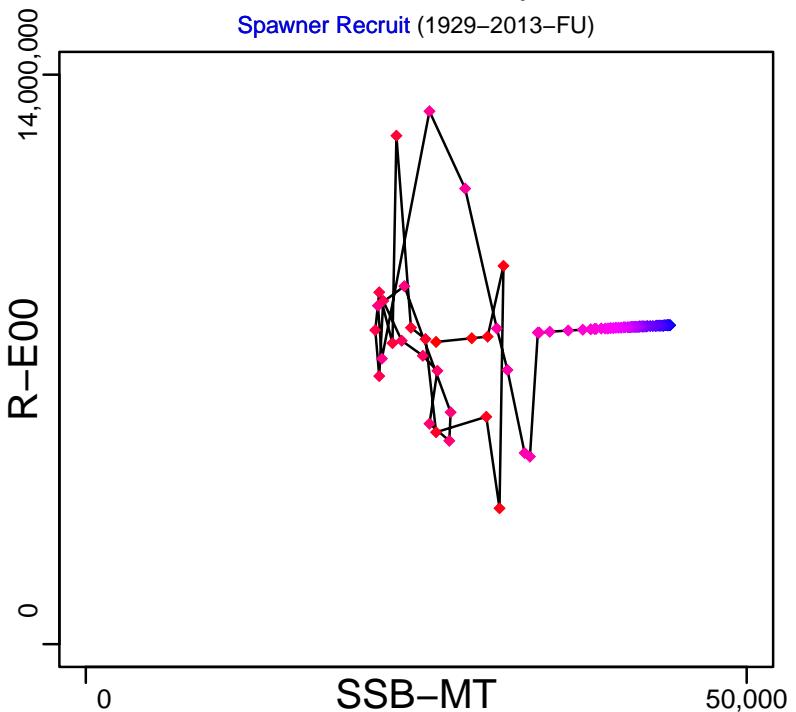
Kobe MSYpref (1929–2013–FU)



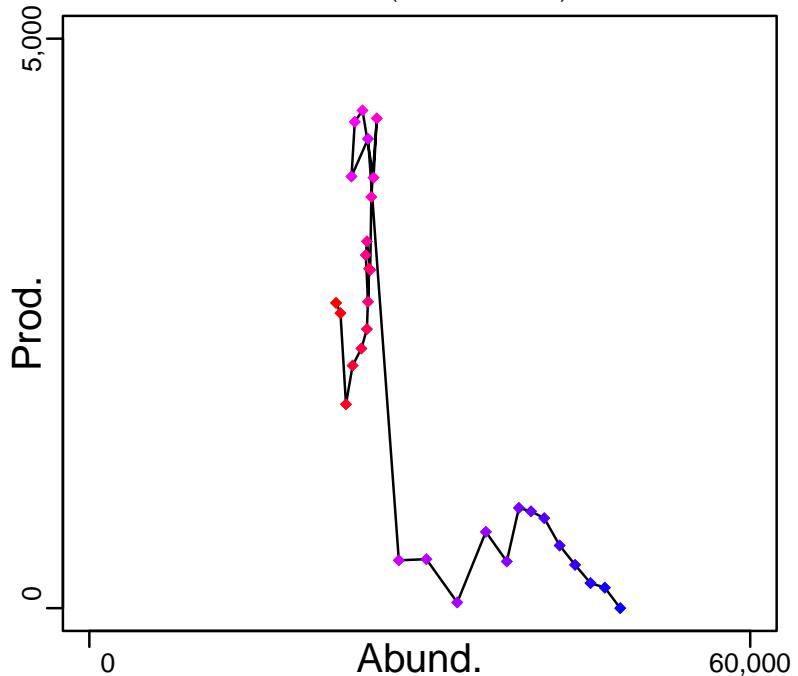
Kobe MGTpref (1929–2013–FU)



Spawner Recruit (1929–2013–FU)



Production (1929–2013–FU)

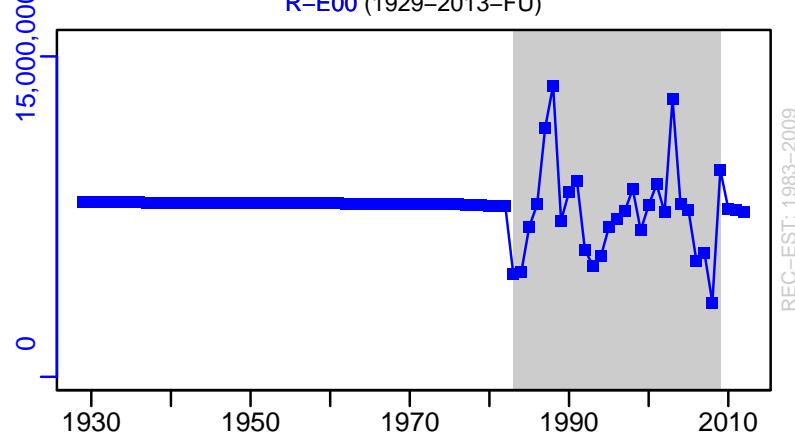
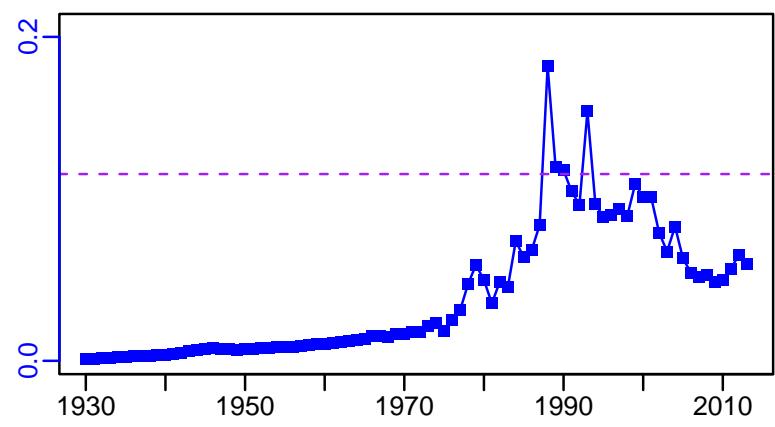
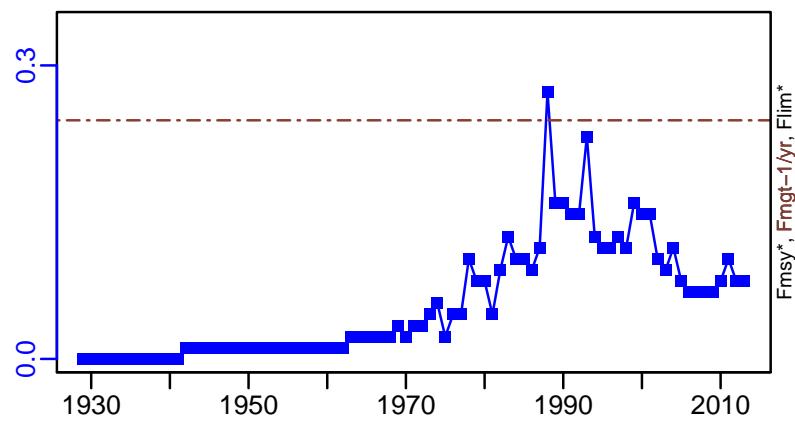
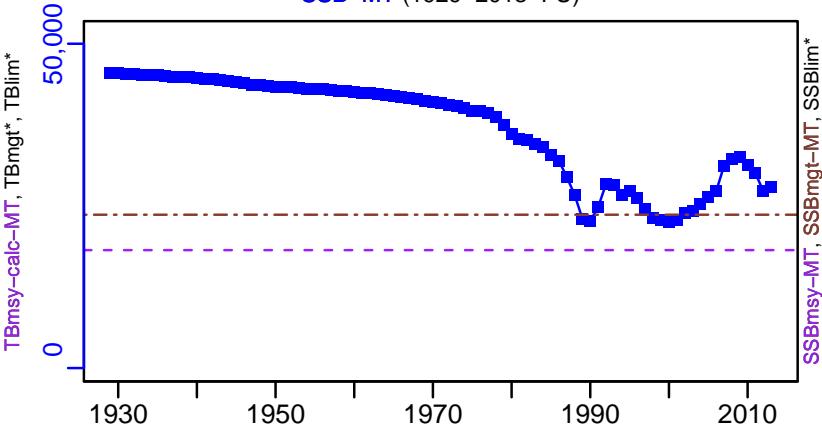
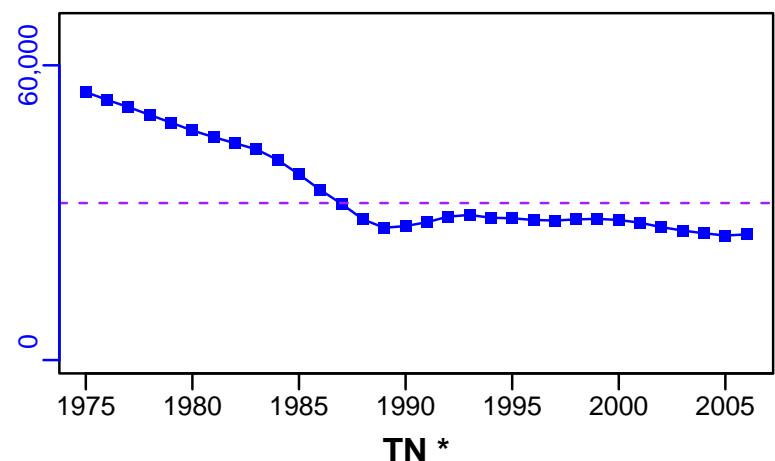


◆ Start Year	◆ End Year	*	No Data
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Australian salmon New Zealand [AUSSALMONNZ]

TB-MT (1975–2006-JENSEN)

SSB-MT (1929–2013-FU)

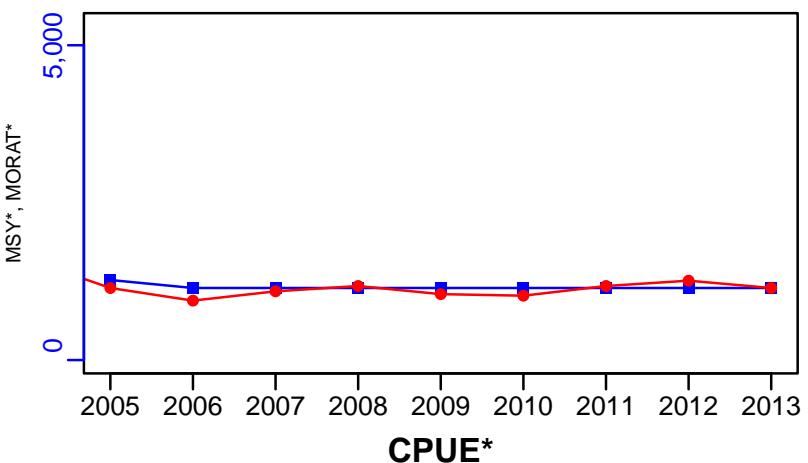
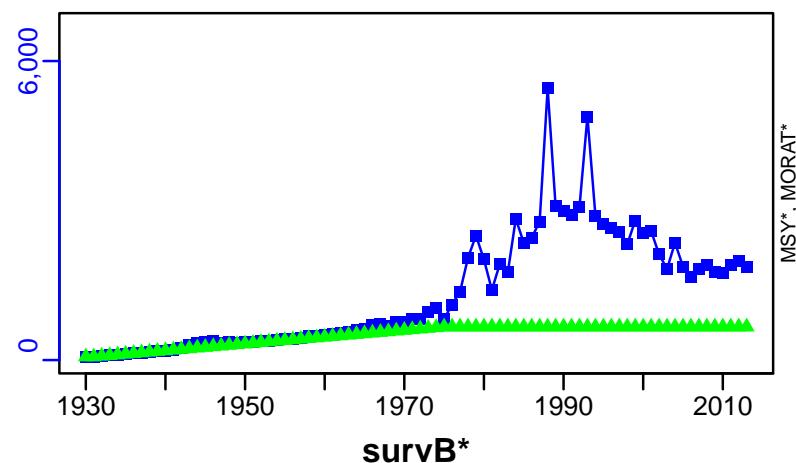


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	··· Lim BRP	* No Data

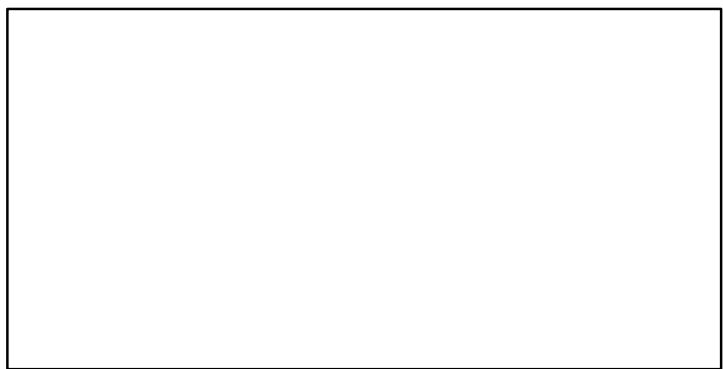
Australian salmon New Zealand [AUSSALMONNZ]

TC-MT, TL\*, RecC-MT (1929–2013-FU)

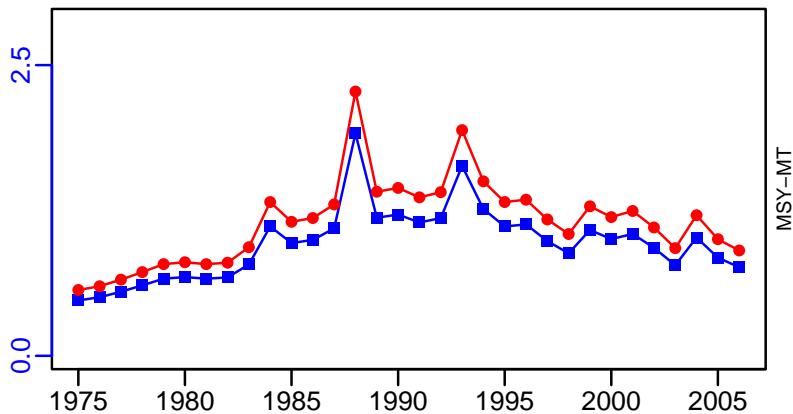
TAC-MT, Cpair-MT, Cadv\* (1929–2013-FU)



EFFORT\*



TC-MT/MSY-MT, CdivMEANC-ratio, (1975–2006-JENSEN)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - MSY	* No Data

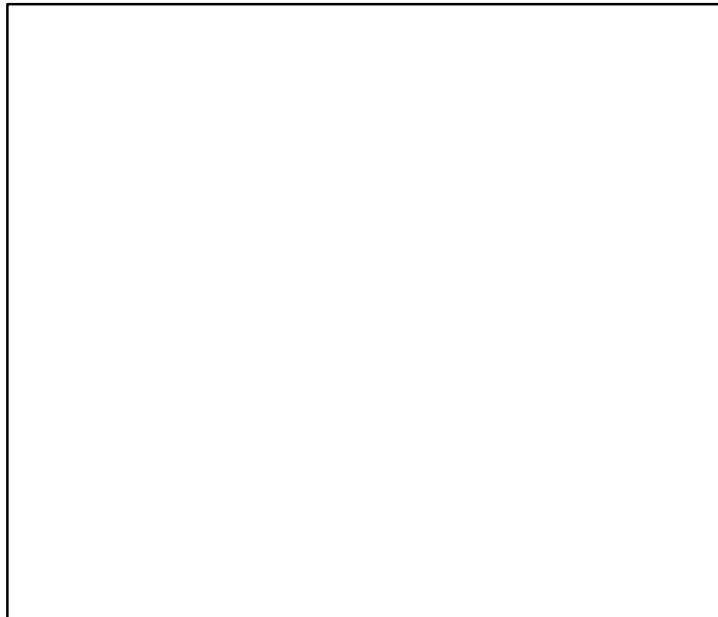
## Axillary seabream North West Africa [AXBRSMNWA]

Metadata	
<b>Scientific Name</b>	Pagellus acarne
<b>Current Assess ID</b>	FAO-DR-AXBRSMNWA-1990-2016-ASHBROOK
<b>Area</b>	North West Africa
<b>Management Authority</b>	Food and Agriculture Organization of the United Nations
<b>Assessor</b>	FAO/CECAF Working Group on the Assessment of Demersal Resources
<b>Asmts in RAM</b>	2016

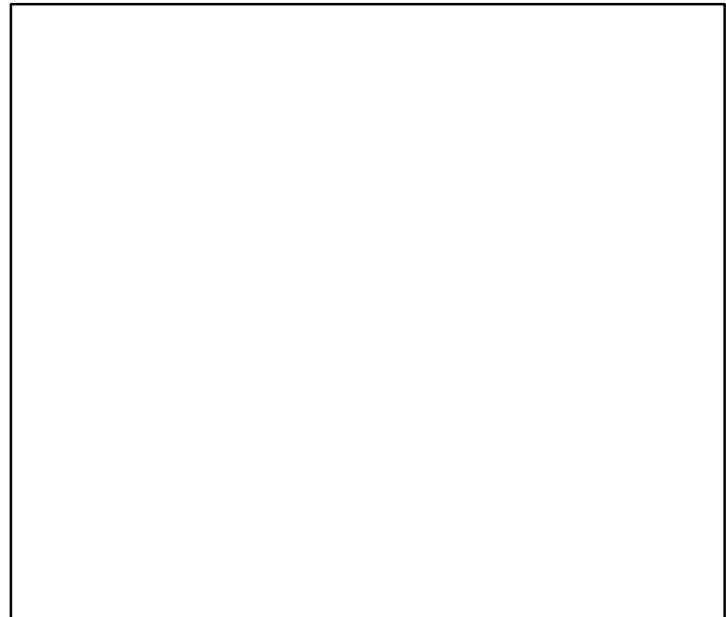
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2016	1598		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

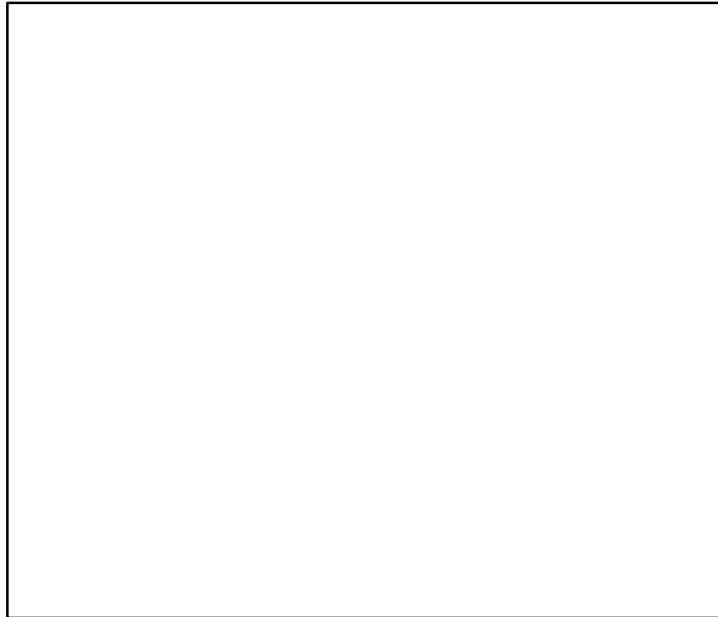
**Kobe MSY\***



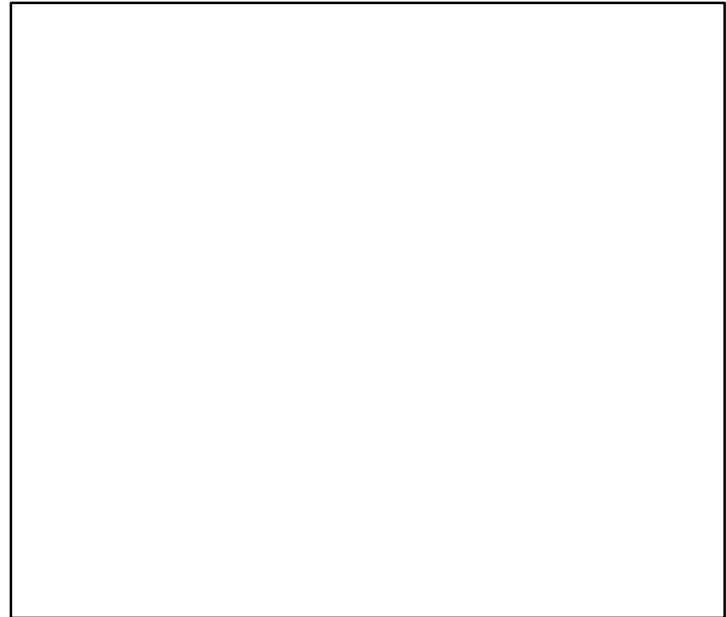
**Kobe MGT\***



**Spawner Recruit\***



**Production\***



◆ Start Year ♦ End Year \* No Data

Axillary seabream North West Africa [AXBRMNWA]

**TB\***



**SSB\***



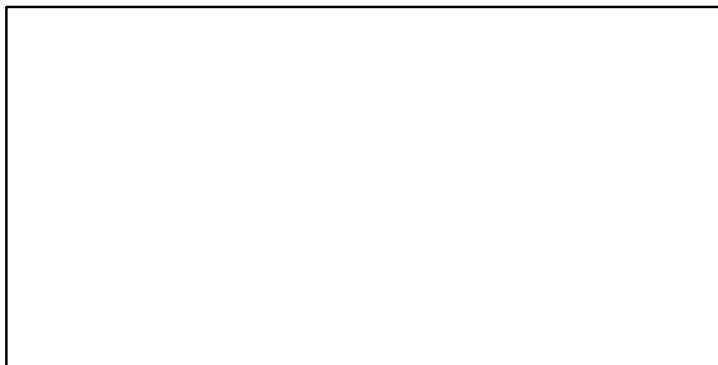
**TN \***



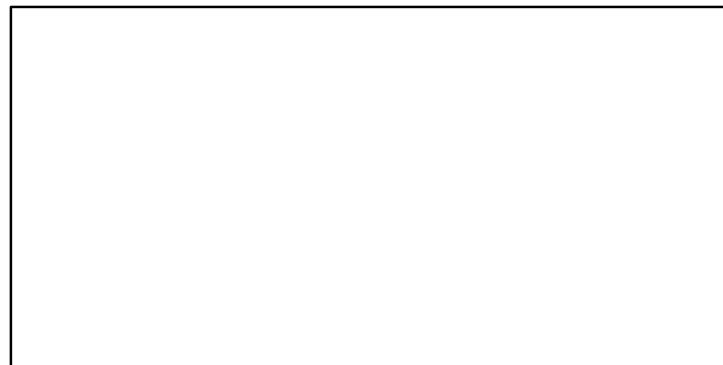
**F\***



**ER\***



**Recruits\***

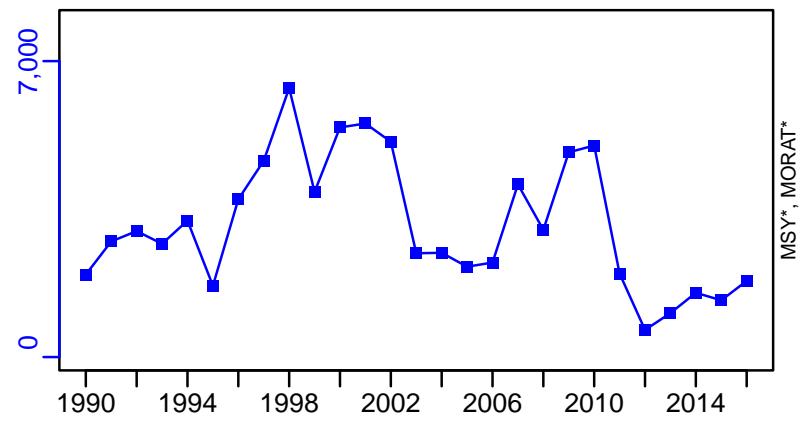


- |       |                    |       |            |   |         |
|-------|--------------------|-------|------------|---|---------|
| ■     | Listed time series | - - - | Target BRP | — | Rec-Est |
| - - - | MSY-based BRP      | - - - | Lim BRP    | * | No Data |

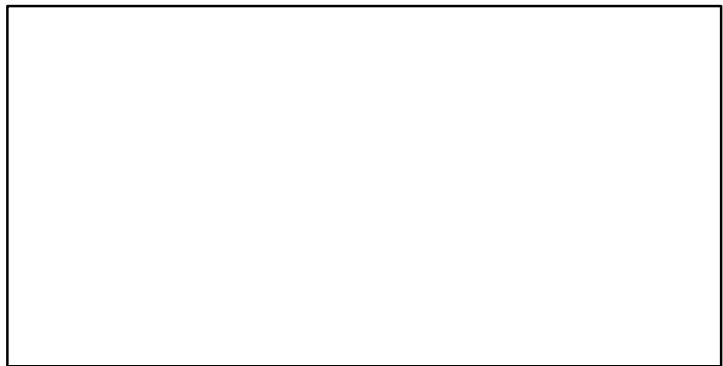
Axillary seabream North West Africa [AXBRMNWA]

TC-MT, TL\*, RecC\* (1990–2016-ASHBROOK)

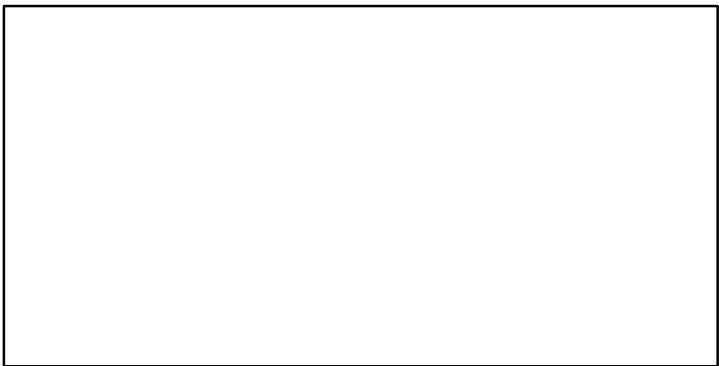
TAC\*, Cpair\*, Cadv\*



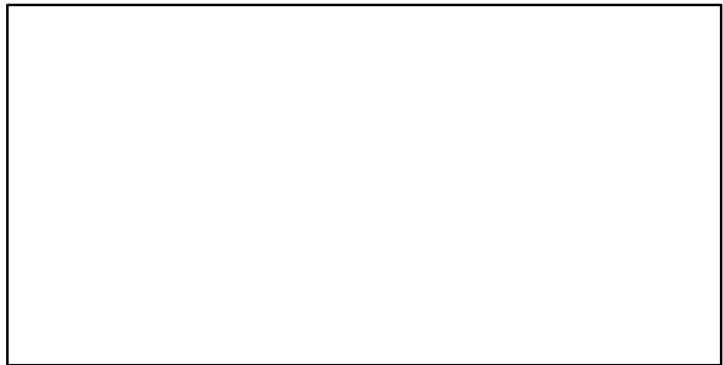
survB\*



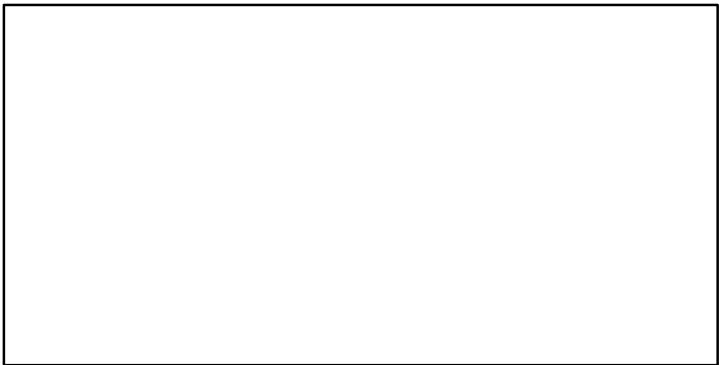
CPUE\*



EFFORT\*



CdivMSY\*



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - - MSY                | * No Data |

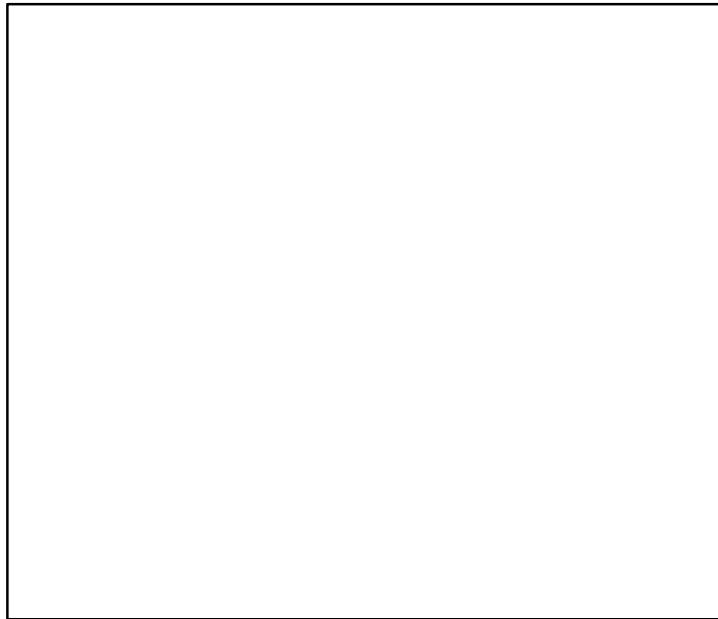
## Bobo croaker Central West Africa Guinea-Liberia [BCROAKCWAGIN-LBR]

<b>Metadata</b>	
<b>Scientific Name</b>	Pseudotolithus elongatus
<b>Current Assess ID</b>	FAO-DR-BCROAKCWAGIN-LBR-1994-2007-CHING
<b>Area</b>	Central West Africa Guinea-Liberia
<b>Management Authority</b>	Food and Agriculture Organization of the United Nations
<b>Assessor</b>	FAO/CECAF Working Group on the Assessment of Demersal Resources
<b>Asmts in RAM</b>	2007

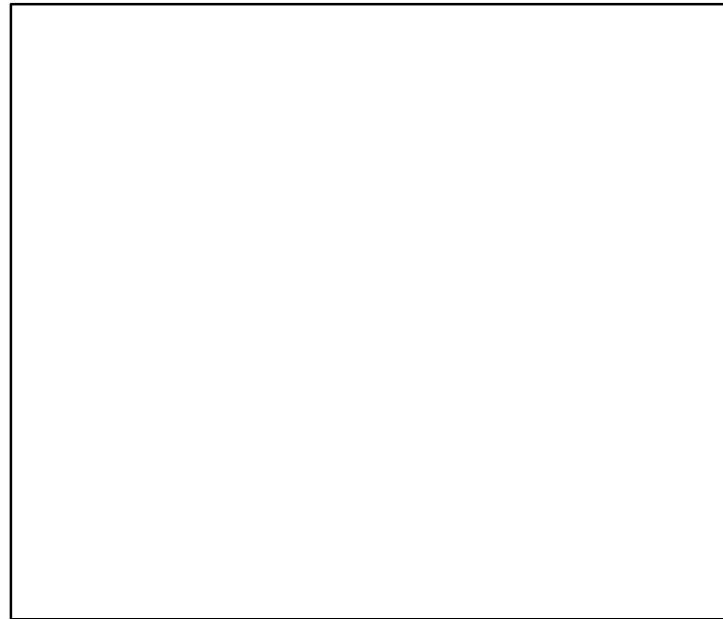
<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

<b>Time Series</b>					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2007	9070		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

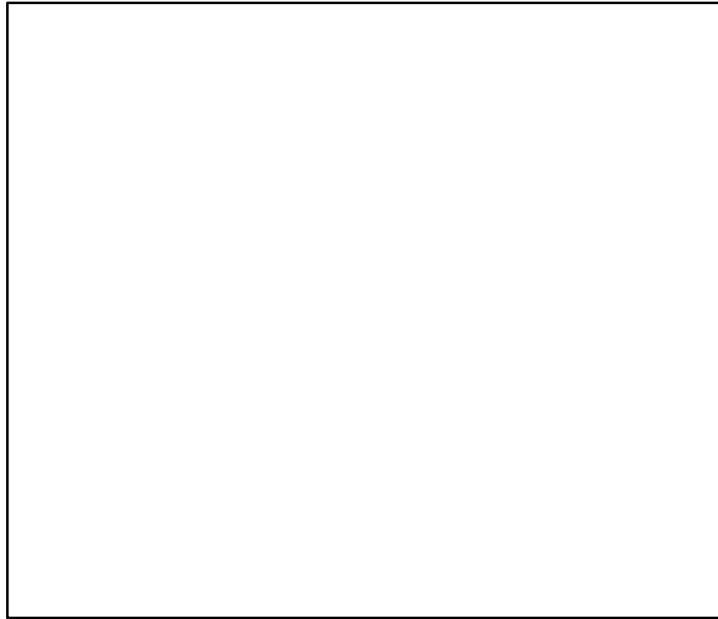
**Kobe MSY\***



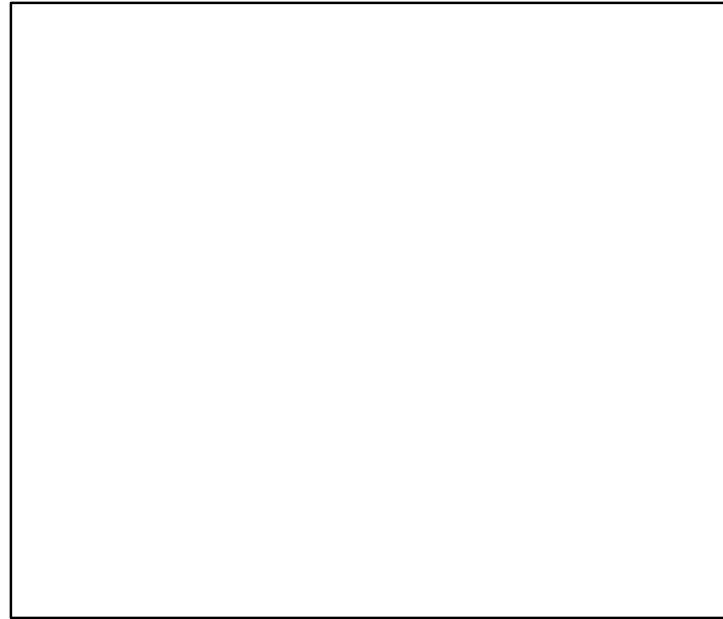
**Kobe MGT\***



**Spawner Recruit\***



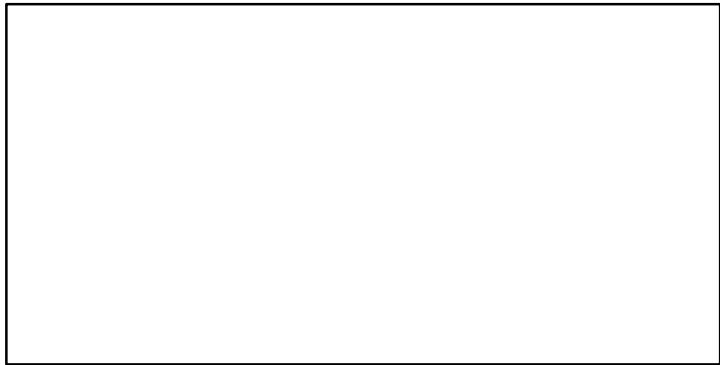
**Production\***



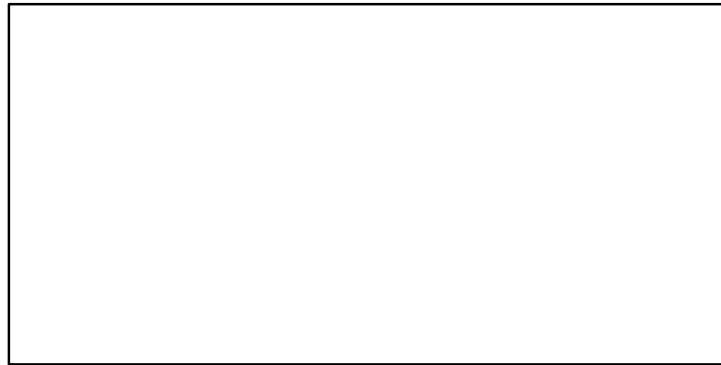
◆ Start Year ♦ End Year \* No Data

**Bobo croaker Central West Africa Guinea–Liberia [BCROAKCWAGIN–LBR]**

**TB\***



**SSB\***



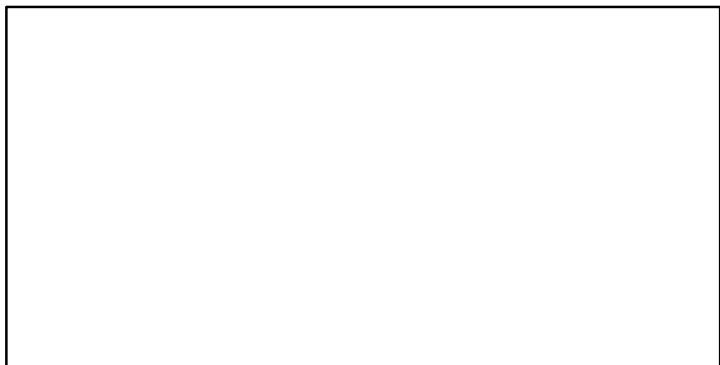
**TN \***



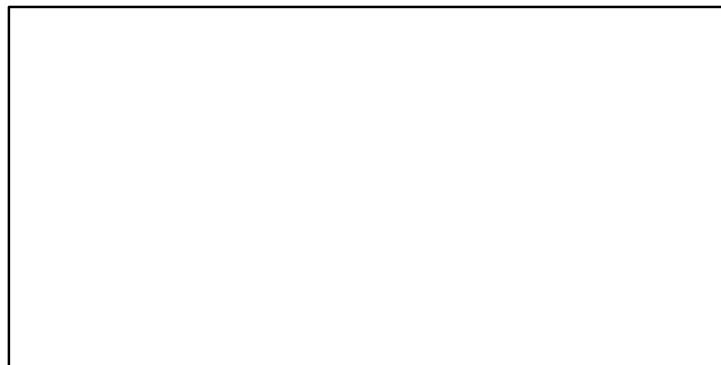
**F\***



**ER\***



**Recruits\***

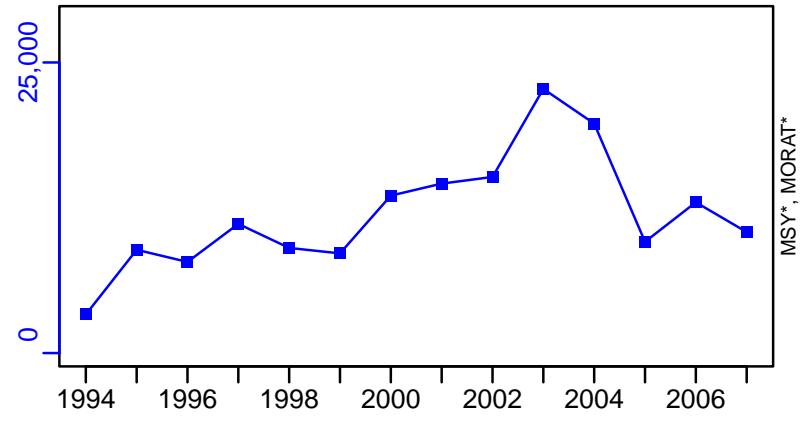


- |                      |                  |           |
|----------------------|------------------|-----------|
| ■ Listed time series | - - - Target BRP | — Rec-Est |
| - - - MSY-based BRP  | - - - Lim BRP    | * No Data |

**Bobo croaker Central West Africa Guinea–Liberia [BCROAKCWAGIN–LBR]**

TC–MT, TL\*, RecC\* (1994–2007–CHING)

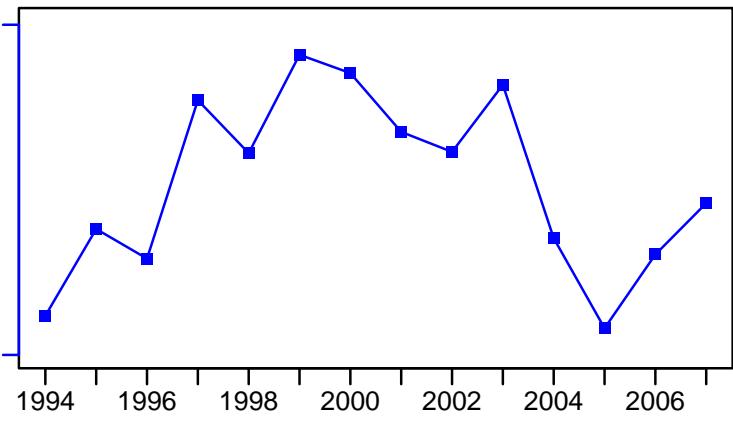
TAC\*, Cpair\*, Cadv\*



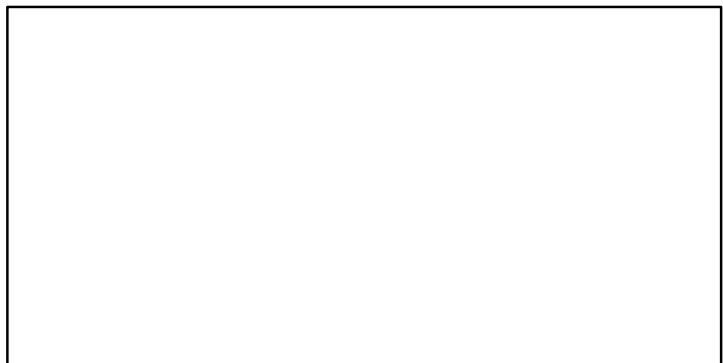
survB\*



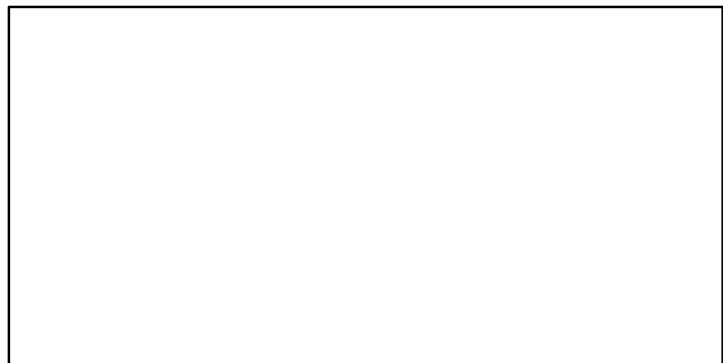
CPUE–kg/day (1994–2007–CHING)



EFFORT\*



CdivMSY\*



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - MSY                  | * No Data |

## Bigeye grunt Central West Africa Cote Divoire-Benin [BGRUNTCWACIV-BEN]

Metadata	
Scientific Name	Brachydeuterus auritus
Current Assess ID	FAO-DR-BGRUNTCWACIV-BEN-1990-2006-CHING
Area	Central West Africa Cote Divoire-Benin
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO/CECAF Working Group on the Assessment of Demersal Resources
Asmts in RAM	2006

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2006	21,400		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

**Kobe MSY\***

**Kobe MGT\***

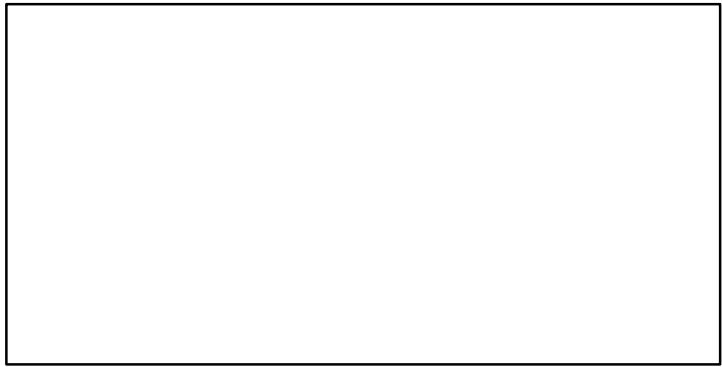
**Spawner Recruit\***

**Production\***

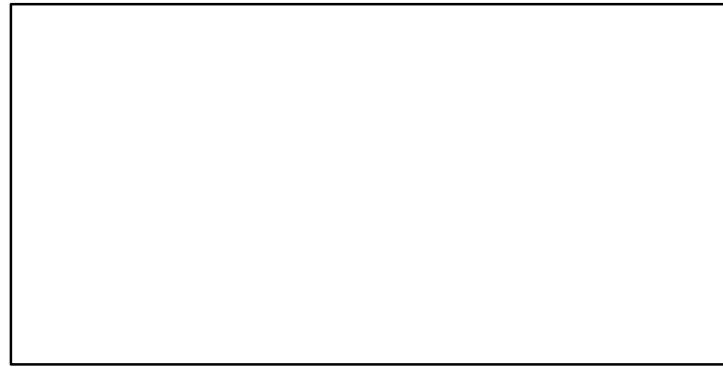
◆ Start Year ◆ End Year \* No Data

**Bigeye grunt Central West Africa Cote Divoire–Benin [BGRUNTCWACIV–BEN]**

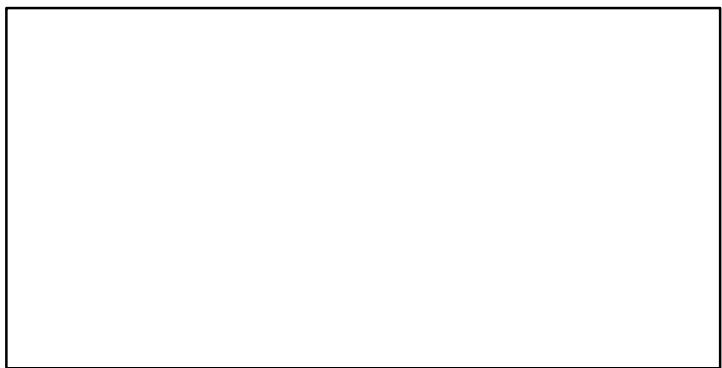
**TB\***



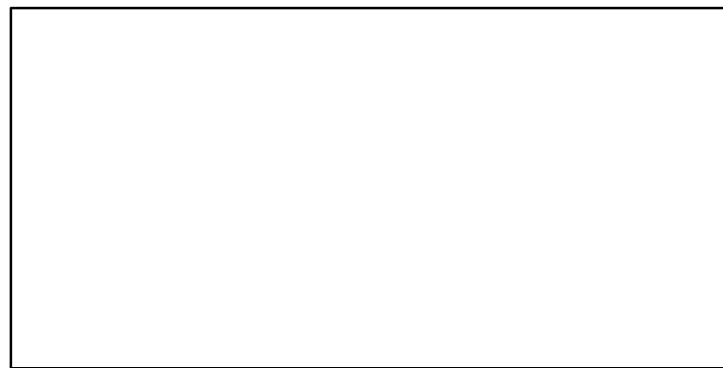
**SSB\***



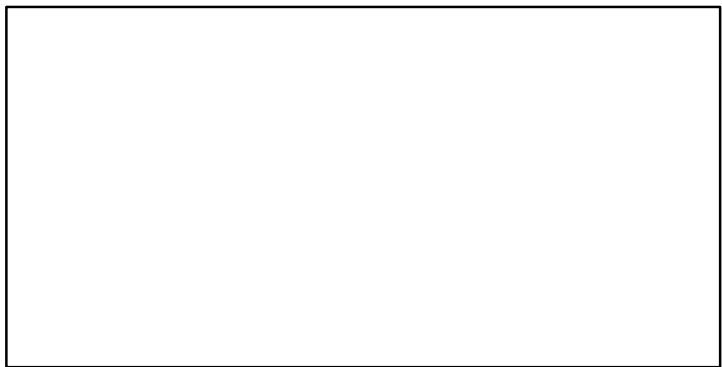
**TN \***



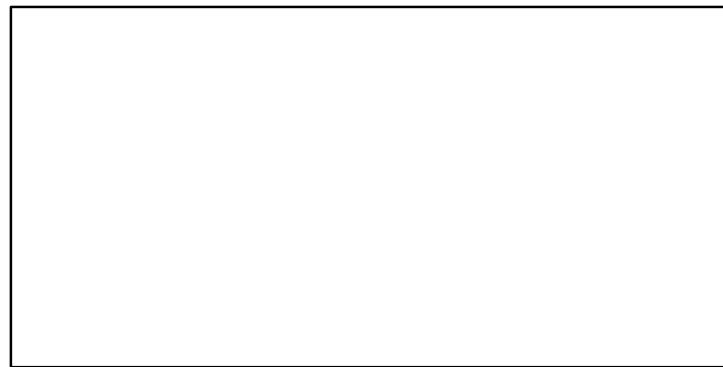
**F\***



**ER\***



**Recruits\***

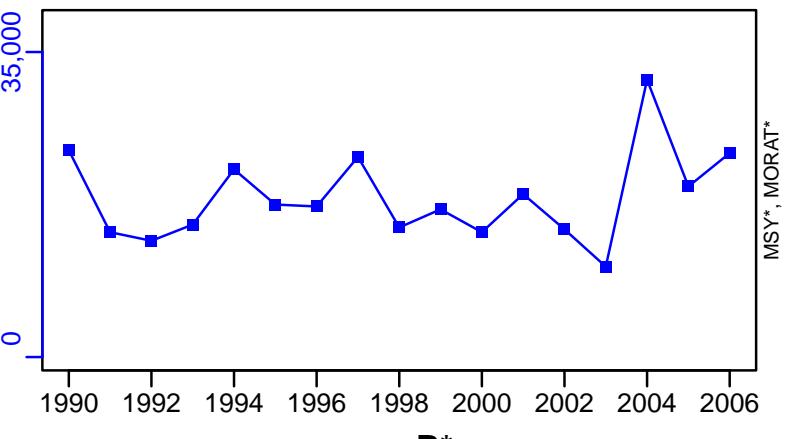


- |       |                    |       |            |   |         |
|-------|--------------------|-------|------------|---|---------|
| ■     | Listed time series | - - - | Target BRP | — | Rec-Est |
| - - - | MSY-based BRP      | - - - | Lim BRP    | * | No Data |

**Bigeye grunt Central West Africa Cote Divoire–Benin [BGRUNTCWACIV–BEN]**

TC-MT, TL\*, RecC\* (1990–2006–CHING)

TAC\*, Cpair\*, Cadv\*



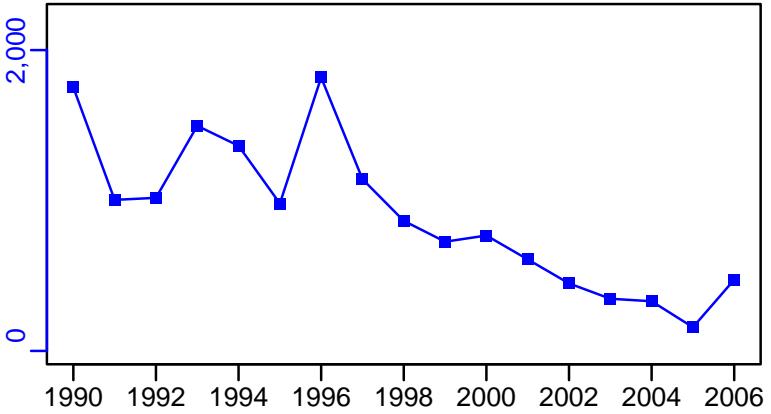
**survB\***

MSY\*, MORAT\*

CPUE–kg/day (1990–2006–CHING)

**EFFORT\***

**CdivMSY\***



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - MSY                  | * No Data |

## Bigeye grunt Central West Africa Congo\_Angola [BGRUNTCWACOGAGO]

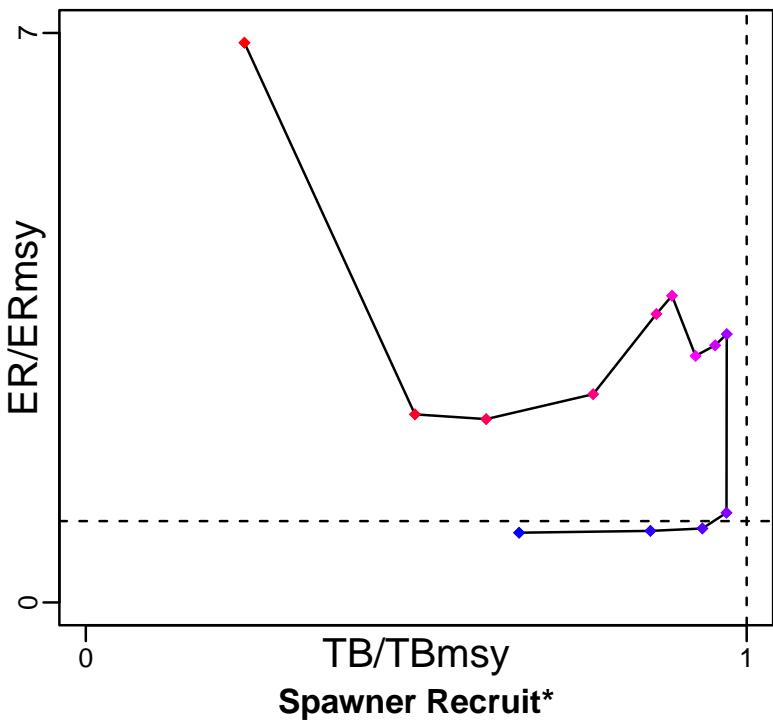
Metadata	
<b>Scientific Name</b>	Brachydeuterus auritus
<b>Current Assess ID</b>	FAO-DR-BGRUNTCWACOGAGO-1995-2007-CHING
<b>Area</b>	Central West Africa Congo_Angola
<b>Management Authority</b>	Food and Agriculture Organization of the United Nations
<b>Assessor</b>	FAO/CECAF Working Group on the Assessment of Demersal Resources
<b>Asmts in RAM</b>	2007

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

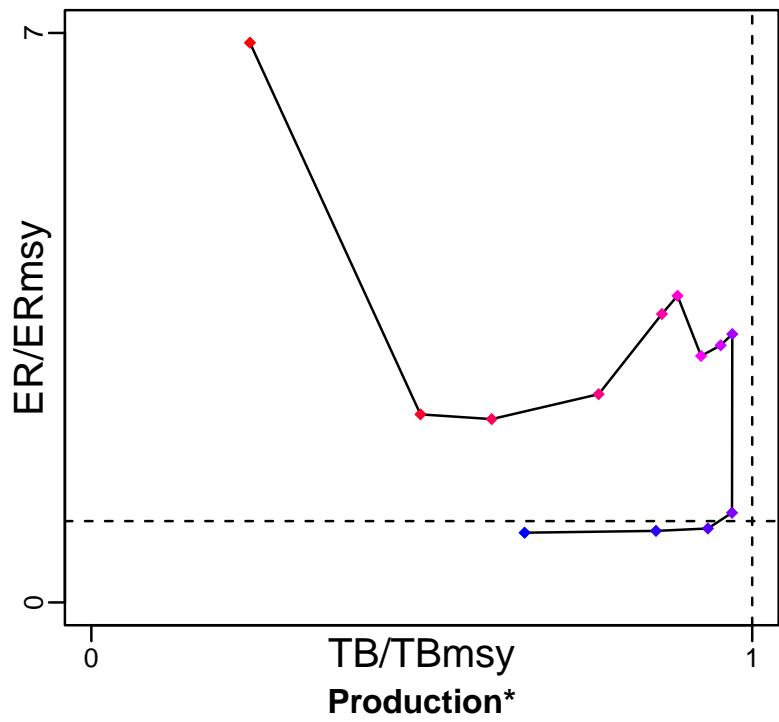
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-index	2007	144	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2007	4790		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

**Bigeye grunt Central West Africa Congo\_Angola [BGRUNTCWACOG\_AGO]**

Kobe MSYpref (1995–2007–CHING)



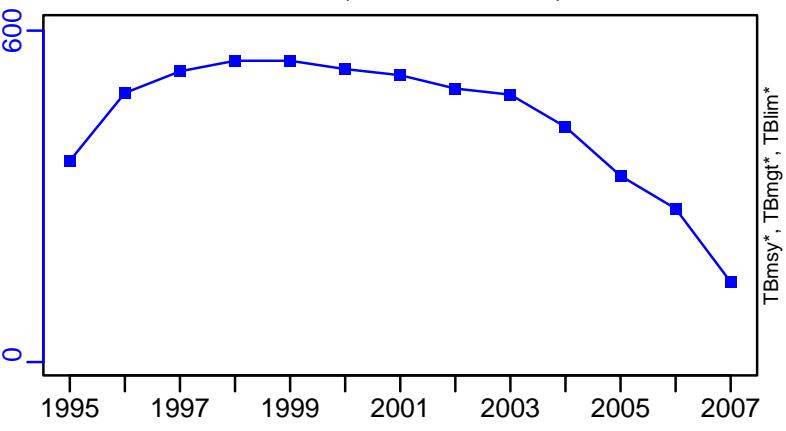
Kobe MGTpref (1995–2007–CHING)



◆ Start Year ◆ End Year \* No Data

**Bigeye grunt Central West Africa Congo\_Angola [BGRUNTCWACOG\_AGO]**

TB-index (1995–2007–CHING)



**SSB\***



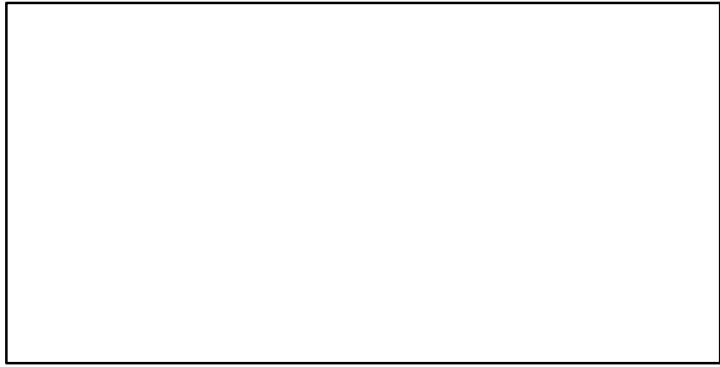
**TN \***



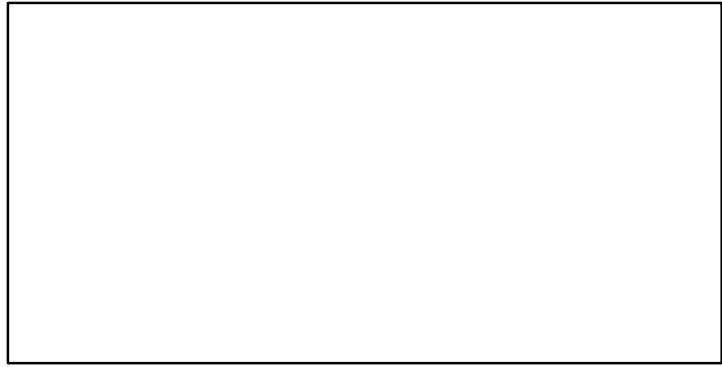
**F\***



**ER\***



**Recruits\***

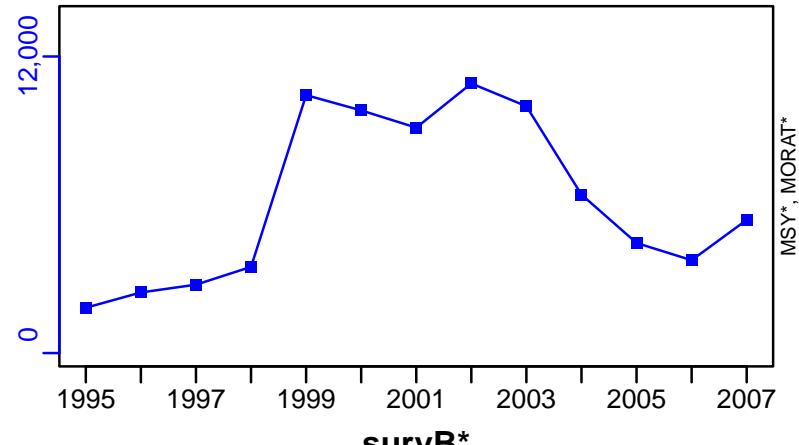


- |                      |              |           |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| — MSY-based BRP      | — Lim BRP    | * No Data |

**Bigeye grunt Central West Africa Congo\_Angola [BGRUNTCWACOG\_AGO]**

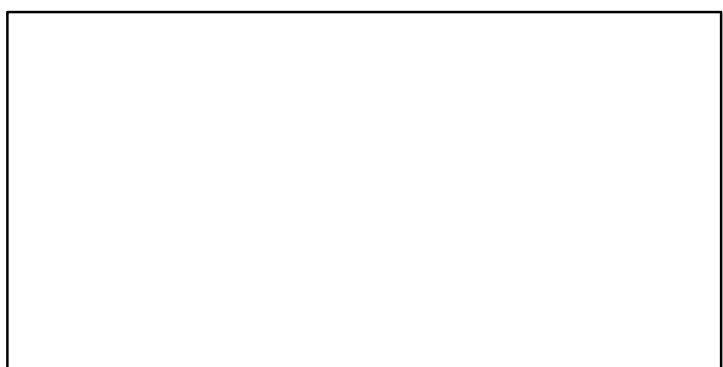
**TC-MT, TL\*, RecC\* (1995–2007-CHING)**

**TAC\*, Cpair\*, Cadv\***

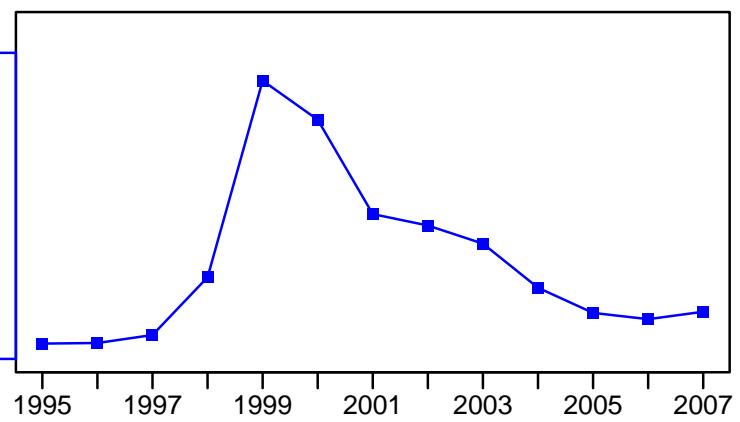


MSY\*, MORAT\*

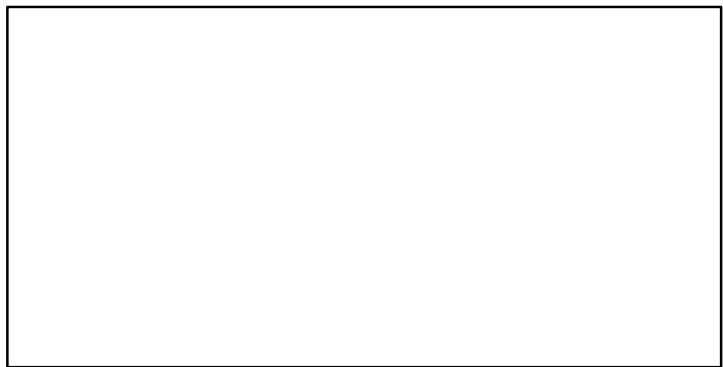
**survB\***



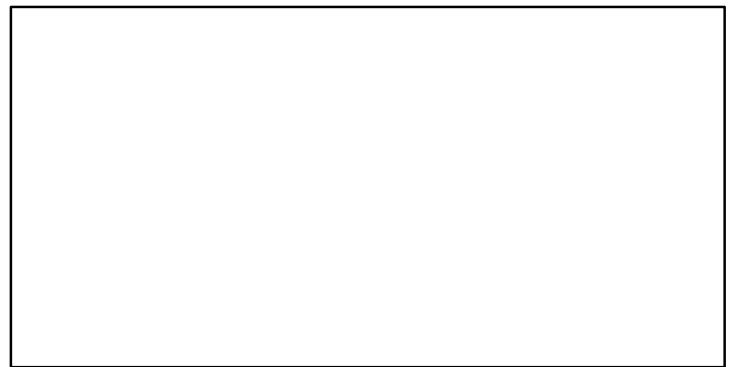
**CPUE-kg/day (1995–2007-CHING)**



**EFFORT\***



**CdivMSY\***



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - MSY                  | * No Data |

## Black cardinalfish East coast of North Island [BKCDLFENI]

<b>Metadata</b>	
<b>Scientific Name</b>	Epigonus telescopus
<b>Current Assess ID</b>	NIWA-BKCDLFENI-1923-2009-CORDUE
<b>Area</b>	East coast of North Island
<b>Management Authority</b>	Ministry of Fisheries, New Zealand national management
<b>Assessor</b>	National Institute of Water and Atmospheric Research
<b>Asmts in RAM</b>	2009

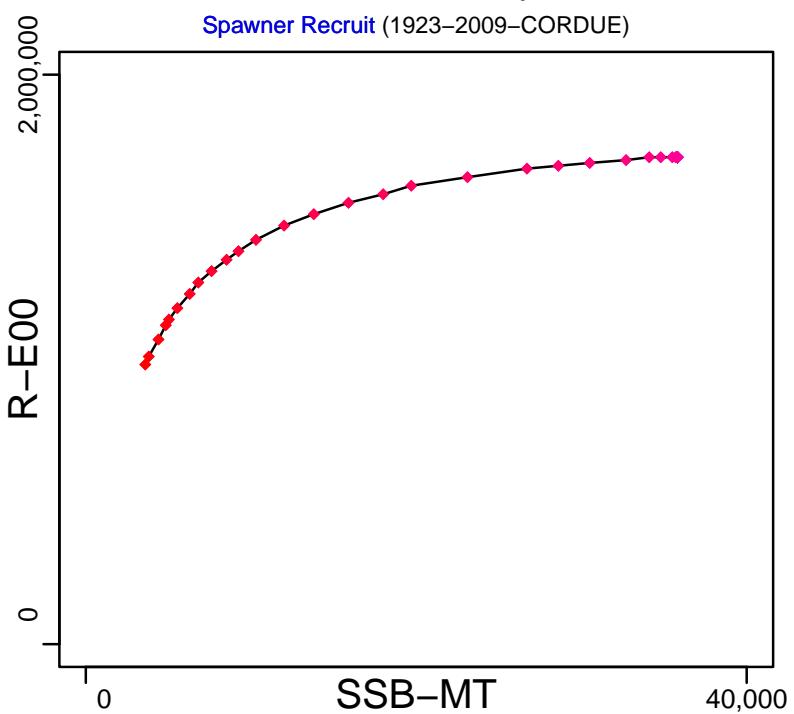
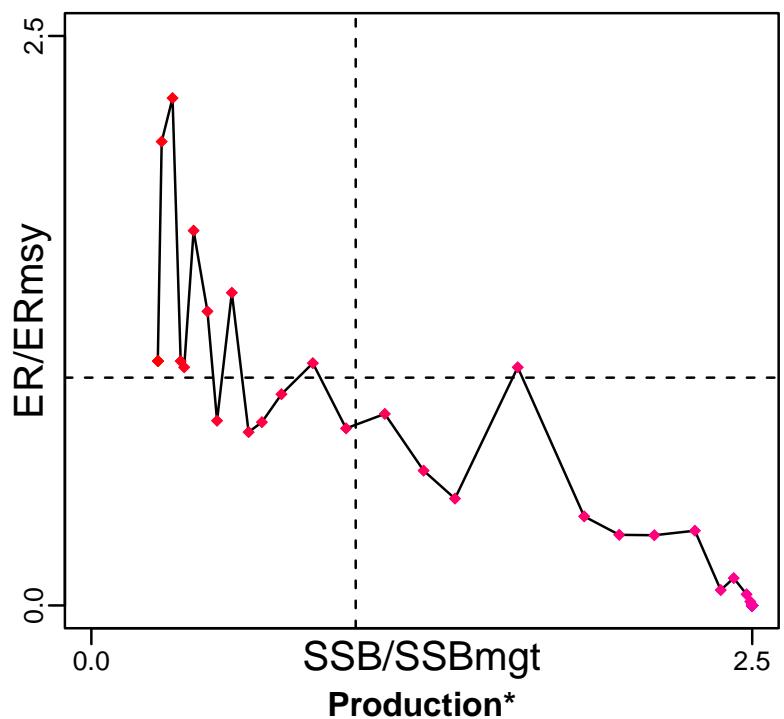
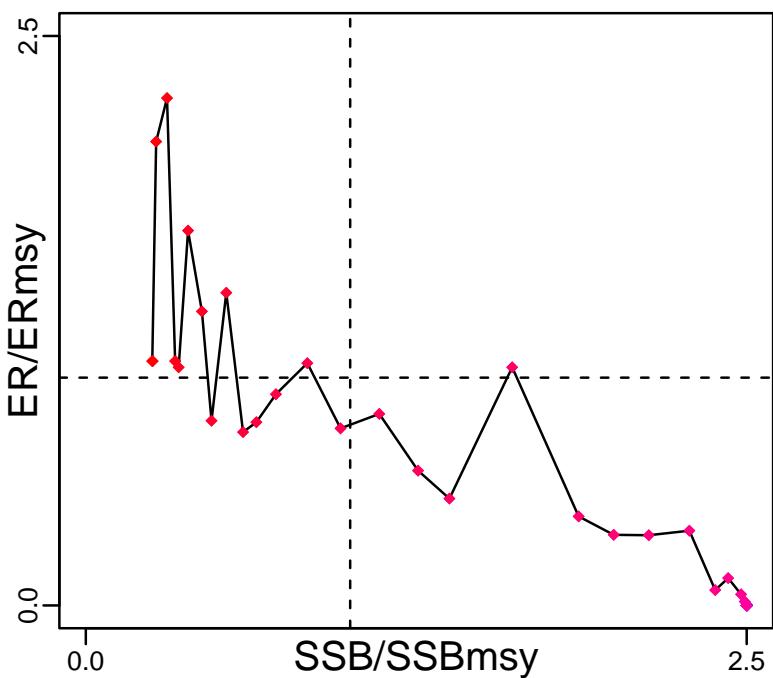
<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	TBmsy-MT	2009	6055
<b>SSBmsy</b>	SSBmsy-MT	2009	14,322
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2009	0.11
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2009	14,322
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	SSB0-MT	2009	35,804
<b>MSY</b>	MSY-MT	2009	666
<b>M</b>	M-1/yr	2009	0.04
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

<b>Time Series</b>						
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>	
<b>TB</b>	-	-	-	-	-	
<b>SSB</b>	SSB-MT	2009	3620	Both	39.5	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2009	982,000	-	1	
<b>F</b>	F-1/yr	2009	0.457	-	-	
<b>ER</b>	ER-ratio	2009	0.118	-	-	
<b>TC</b>	TC-MT	2009	980			
<b>TL</b>	-	-	-			
<b>TB/TBmsy</b>	-	-	-			
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2009	0.253			
<b>F/Fmsy</b>	FdivFmsy-dimensionless	2009	4.16			
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2009	1.073			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2009	0.253			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

**Black cardinalfish East coast of North Island [BKCDLFENI]**

Kobe MSYpref (1923–2009–CORDUE)

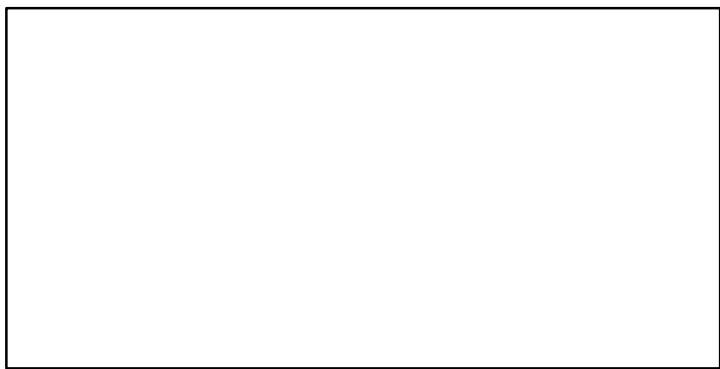
Kobe MGTpref (1923–2009–CORDUE)



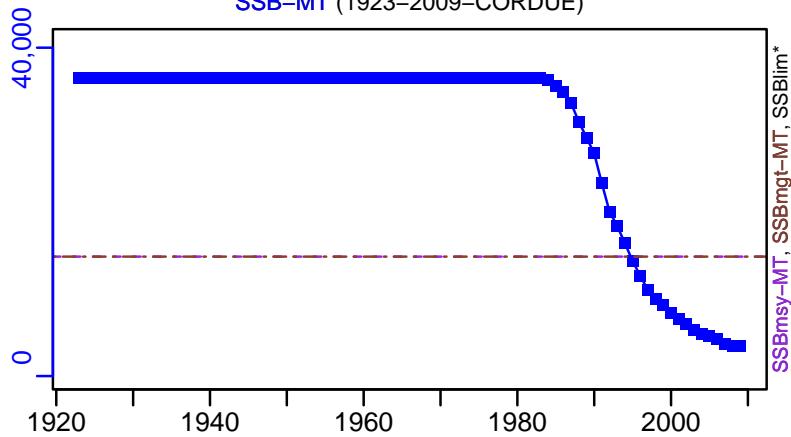
◆ Start Year   ◆ End Year   \* No Data

**Black cardinalfish East coast of North Island [BKCDLFENI]**

**TB\***



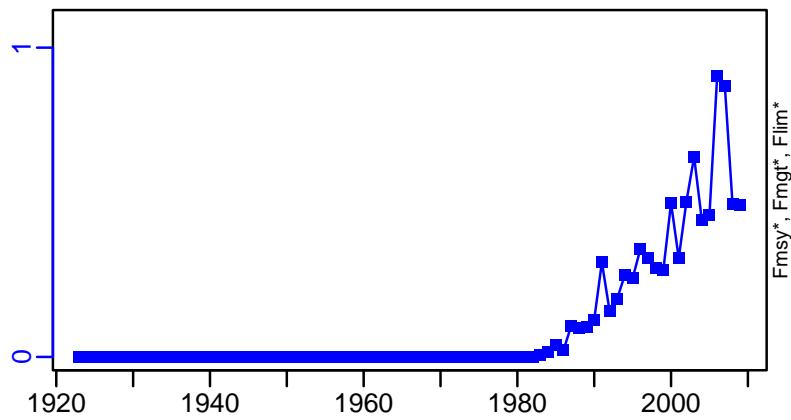
**SSB-MT (1923–2009–CORDUE)**



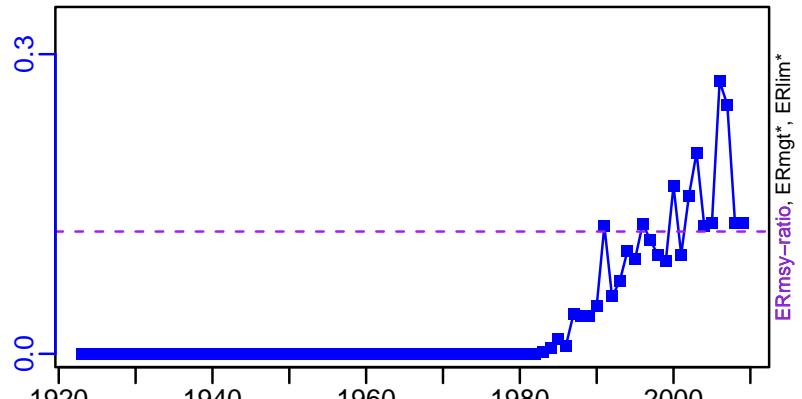
**TN \***



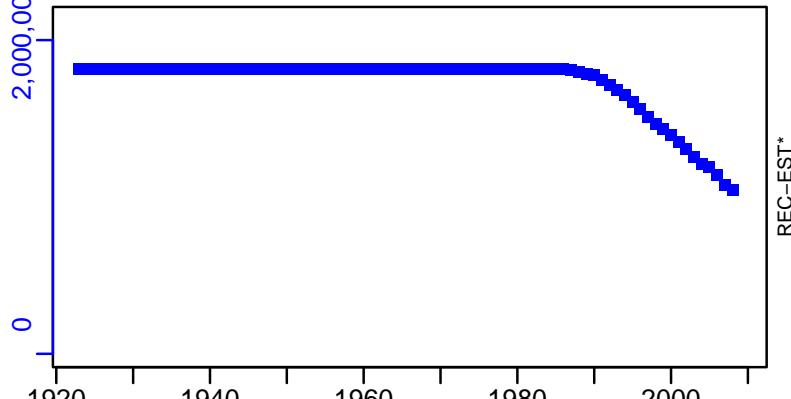
**F-1/yr (1923–2009–CORDUE)**



**ER-ratio (1923–2009–CORDUE)**



**R-E00 (1923–2009–CORDUE)**

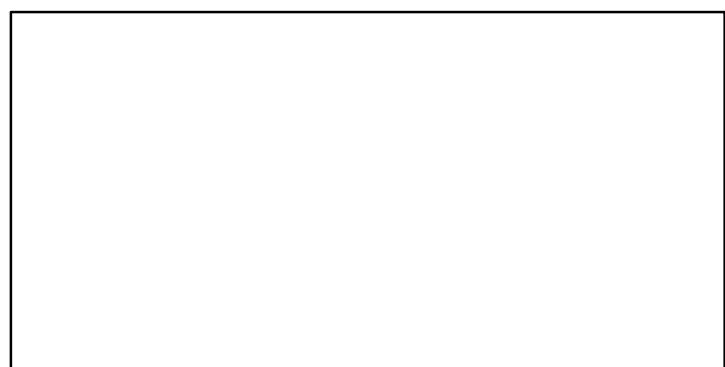
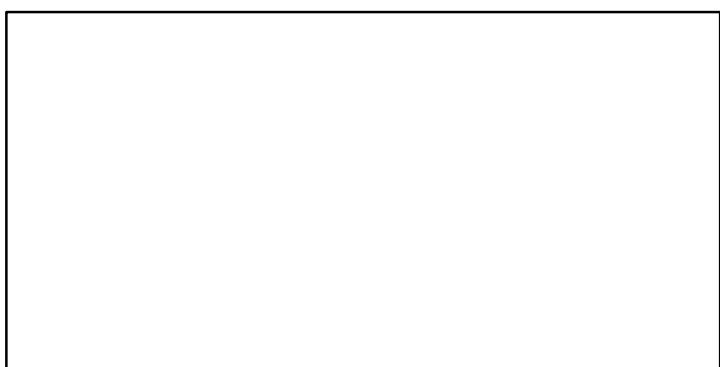
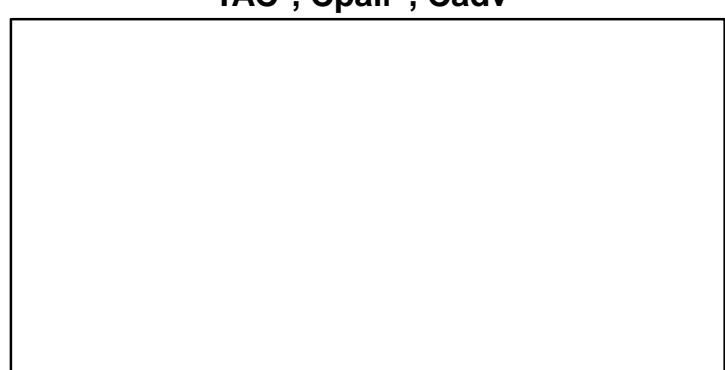
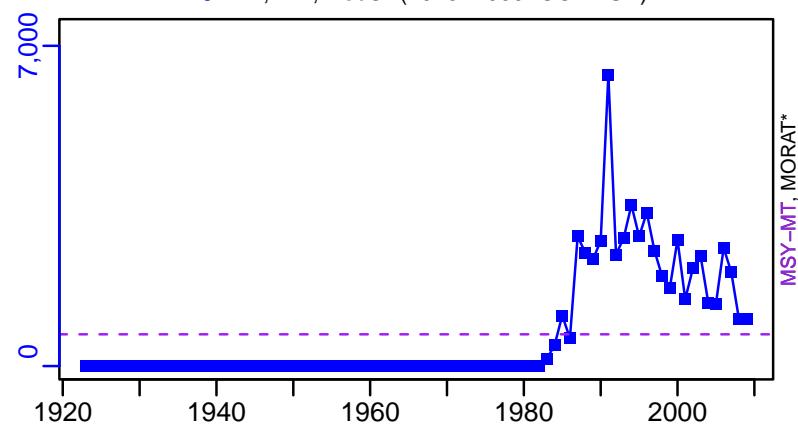


- |                      |              |           |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| - - MSY-based BRP    | ··· Lim BRP  | * No Data |

**Black cardinalfish East coast of North Island [BKCDLFENI]**

TC-MT, TL\*, RecC\* (1923–2009–CORDUE)

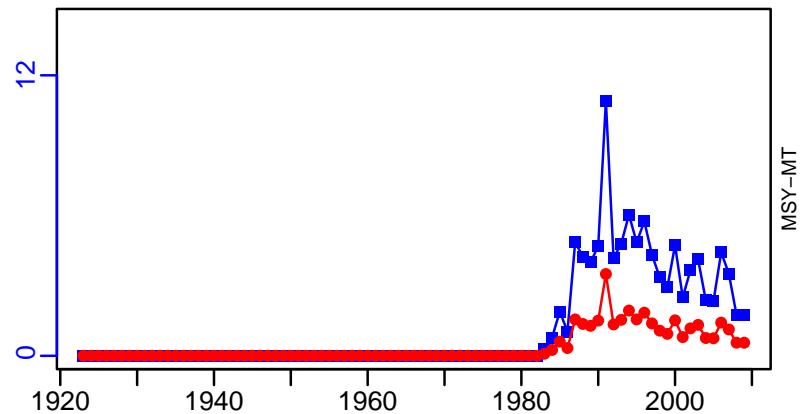
TAC\*, Cpair\*, Cadv\*



**EFFORT\***



TC-MT/MSY-MT, CdivMEANC-ratio, (1923–2009–CORDUE)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Black grouper Gulf of Mexico and South Atlantic [BLACKGROUPERGMSATL]

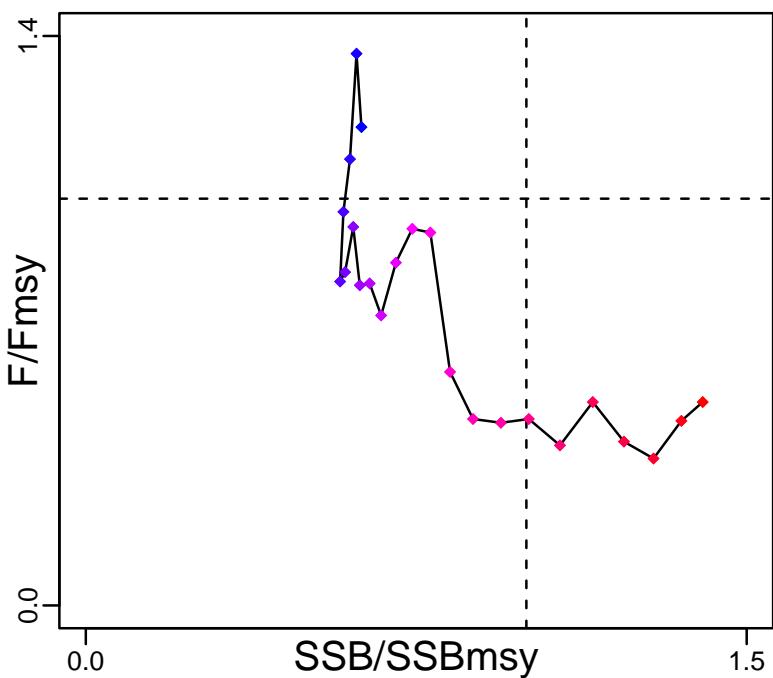
Metadata	
<b>Scientific Name</b>	Mycteroperca bonaci
<b>Current Assess ID</b>	SEFSC-BLACKGROUPERGMSATL-1986-2008-THORSON
<b>Area</b>	Gulf of Mexico and South Atlantic
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southeast Fisheries Science Center
<b>Asmts in RAM</b>	2008

Reference Points			
Type	ID	Asmt Year	Value
<b>TBm sy</b>	-	-	-
<b>SSBm sy</b>	SSBm sy-pr-MT	2008	2685
<b>Fm sy</b>	Fm sy-pr-1/yr	2008	0.216
<b>ERm sy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	M-1/yr	2008	0.136
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

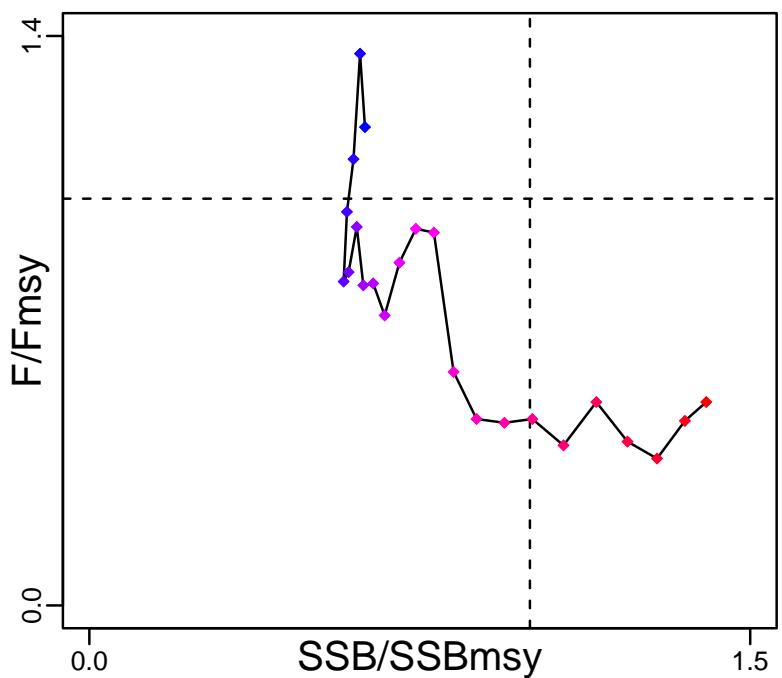
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2008	3760	Both	7+
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2008	169,000	-	1
<b>F</b>	F-1/yr	2008	0.108	Females	5
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2008	138		
<b>TL</b>	TL-MT	2008	99		
<b>TB/TBm sy</b>	-	-	-		
<b>SSB/SSBm sy</b>	SSB-MT/SSBm sy-pr-MT	2008	1.4		
<b>F/Fm sy</b>	F-1/yr/Fm sy-pr-1/yr	2008	0.5		
<b>ER/ERm sy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

**Black grouper Gulf of Mexico and South Atlantic [BLACKGROUPERGMSATL]**

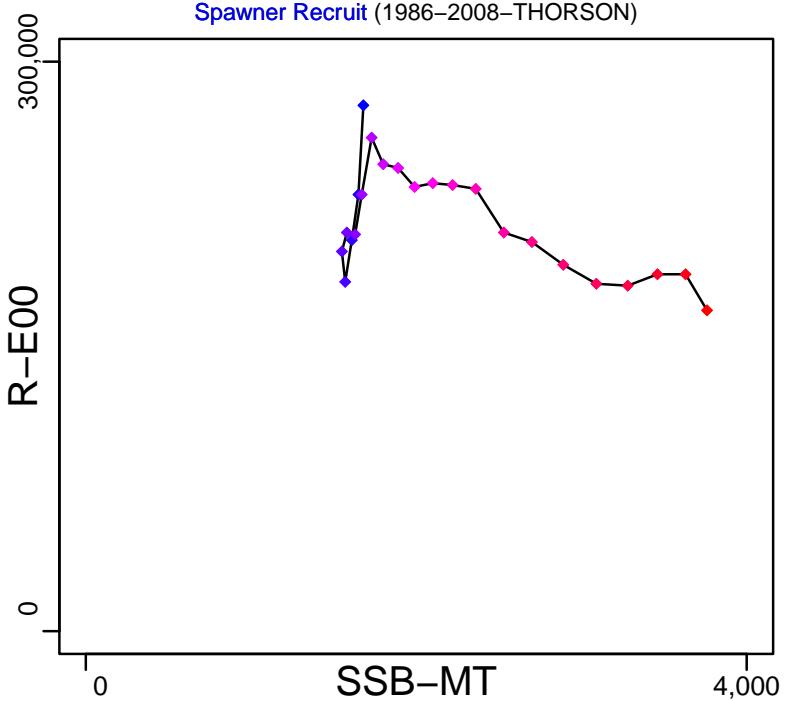
Kobe MSYpref (1986–2008–THORSON)



Kobe MGTpref (1986–2008–THORSON)



Spawner Recruit (1986–2008–THORSON)

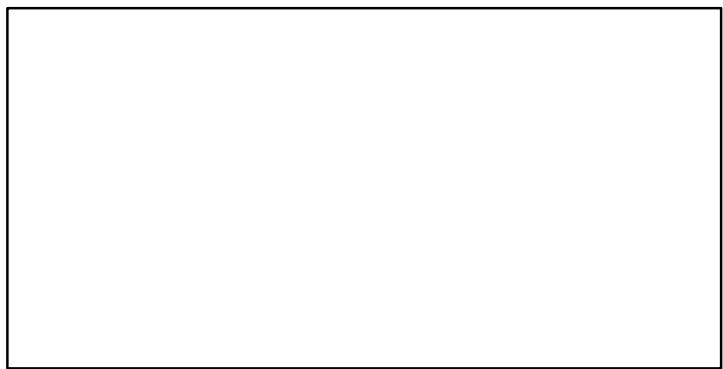


Production\*

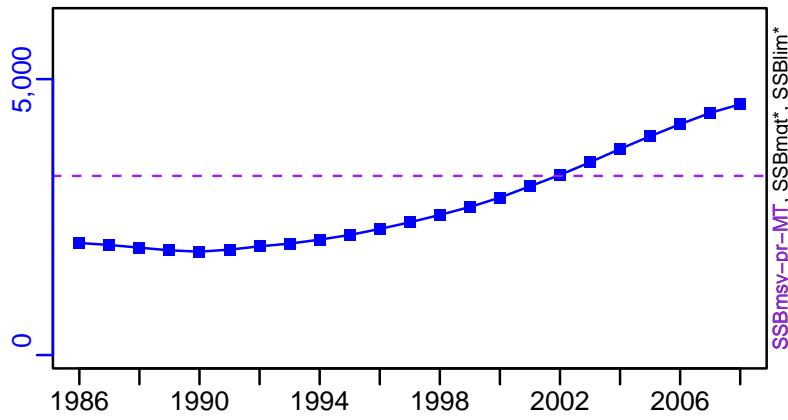
♦ Start Year   ◆ End Year   \* No Data

**Black grouper Gulf of Mexico and South Atlantic [BLACKGROUPERGMSATL]**

**TB\***



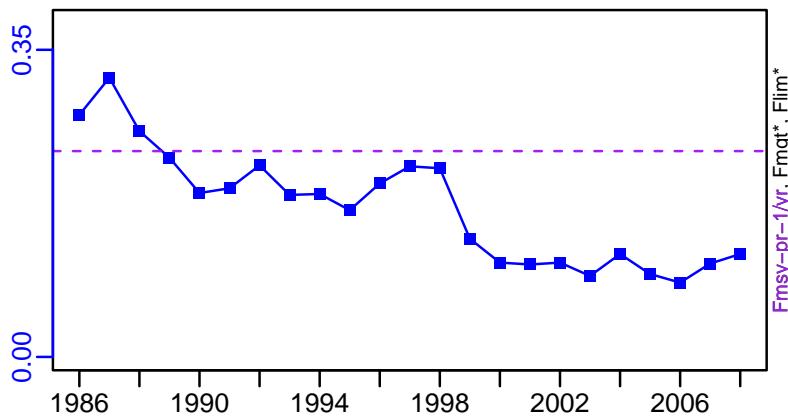
**SSB-MT (1986–2008–THORSON)**



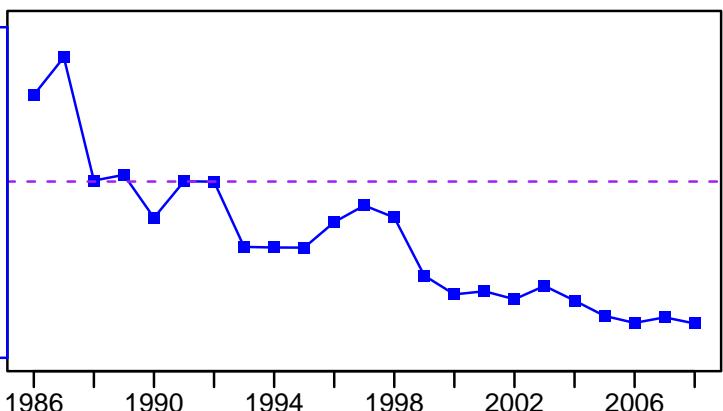
**TN \***



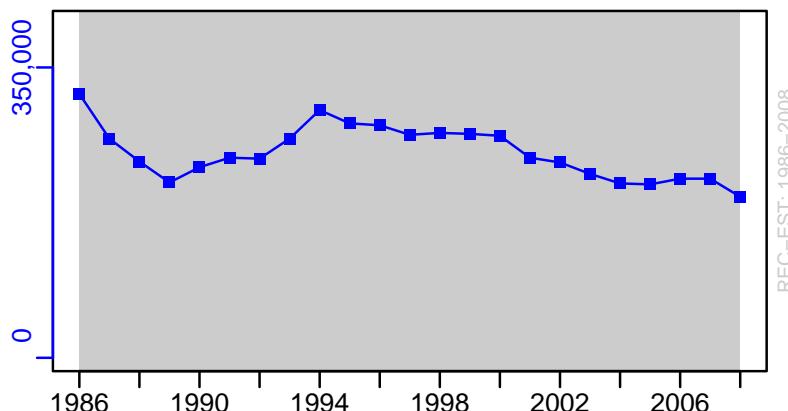
**F-1/yr (1986–2008–THORSON)**



**ER-calc-ratio (1986–2008–THORSON)**



**R-E00 (1986–2008–THORSON)**



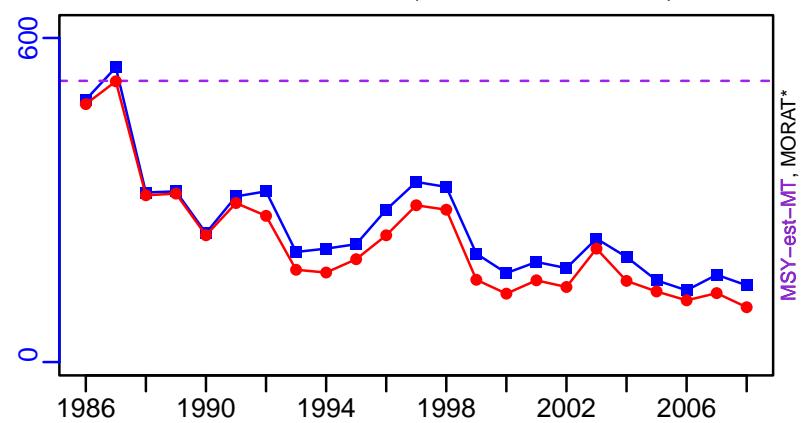
REC-EST: 1986–2008

- |                      |              |           |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| - - - MSY-based BRP  | - - Lim BRP  | * No Data |

**Black grouper Gulf of Mexico and South Atlantic [BLACKGROUPERGMSATL]**

TC-MT, TL-MT, RecC\* (1986–2008–THORSON)

TAC\*, Cpair\*, Cadv\*



survB\*



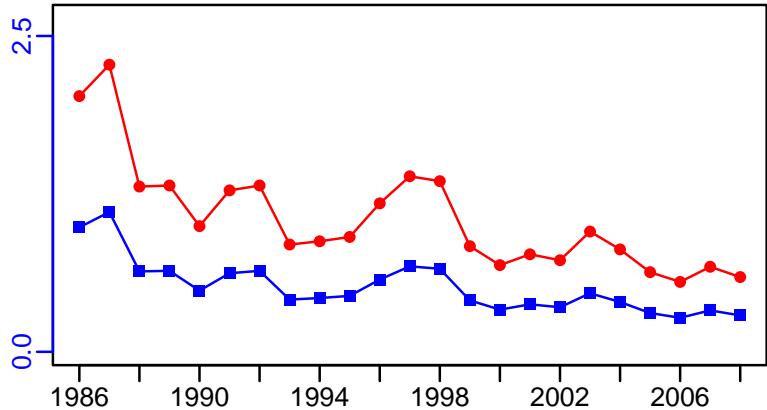
CPUE\*



EFFORT\*



TC-MT/MSY-est-MT, CdivMEANC-ratio, (1986–2008–THORSON)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Blueline tilefish Southern Atlantic coast [BLTILESATLC]

<b>Metadata</b>	
<b>Scientific Name</b>	Caulolatilus microps
<b>Current Assess ID</b>	SEFSC-BLTILESATLC-1958-2015-SISIMP2021
<b>Area</b>	Southern Atlantic coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southeast Fisheries Science Center
<b>Asmts in RAM</b>	2015, 2011

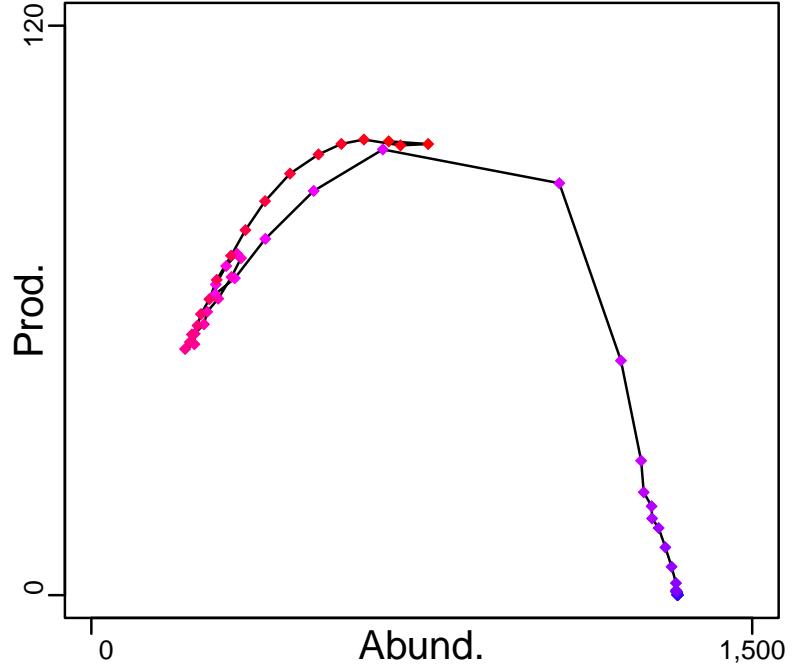
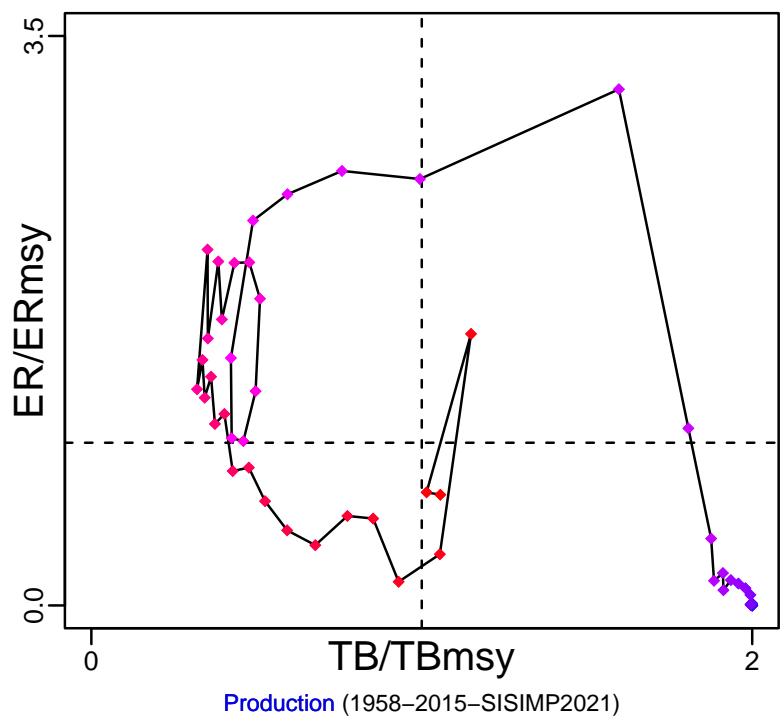
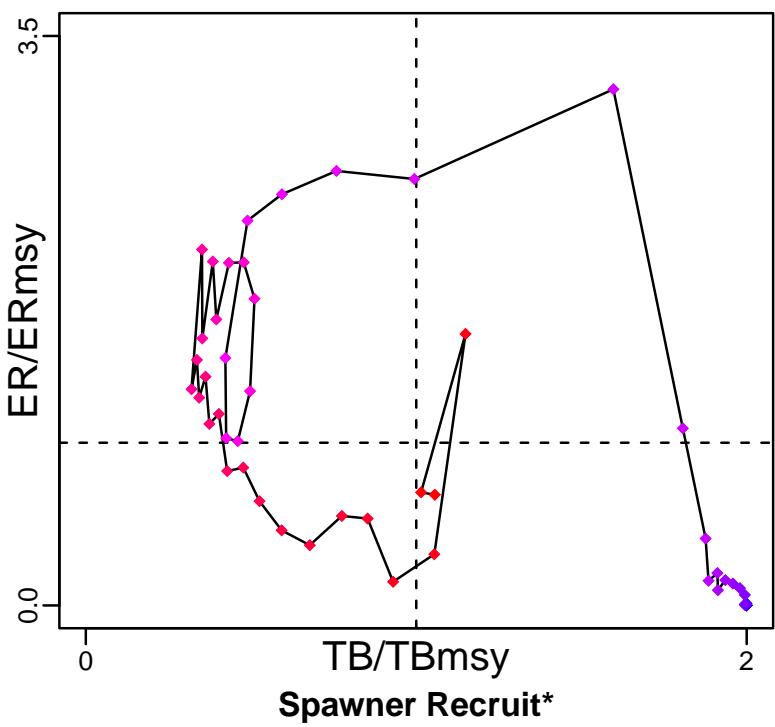
<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	TBmsy-MT	2015	665
<b>SSBmsy</b>	SSBmsy-MT	2011	247
<b>Fmsy</b>	Fmsy-1/yr	2015	0.146
<b>ERmsy</b>	ERmsy-calc-ratio	2015	0.145
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2015	96
<b>M</b>	-	-	-
<b>TBlim</b>	TBlim-MT	2015	499
<b>SSBlim</b>	SSBlim-MT	2011	222
<b>Flim</b>	Flim-1/yr	2015	0.146
<b>ERlim</b>	-	-	-

<b>Time Series</b>						
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>	
<b>TB</b>	TB-MT	2015	703	-	-	
<b>SSB</b>	SSB-MT	2011	202	Females	3+	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	-	-	-	-	-	
<b>F</b>	F-1/yr	2015	0.134	-	-	
<b>ER</b>	ER-calc-ratio	2015	0.098	-	-	
<b>TC</b>	TC-MT	2015	69			
<b>TL</b>	-	-	-			
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2015	1.056			
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2011	0.818			
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2015	0.918			
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-calc-ratio	2015	0.68			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

**Blueline tilefish Southern Atlantic coast [BLTILESATLC]**

Kobe MSYpref (1958–2015–SISIMP2021)

Kobe MGTpref (1958–2015–SISIMP2021)

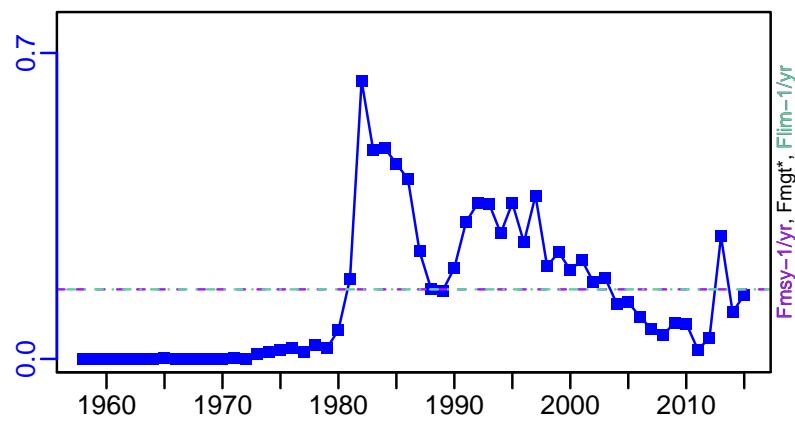
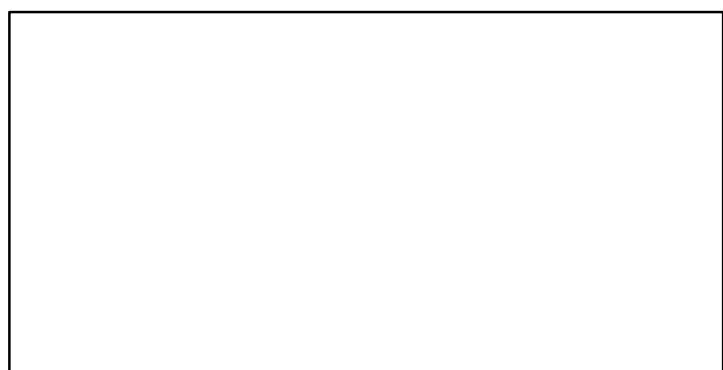
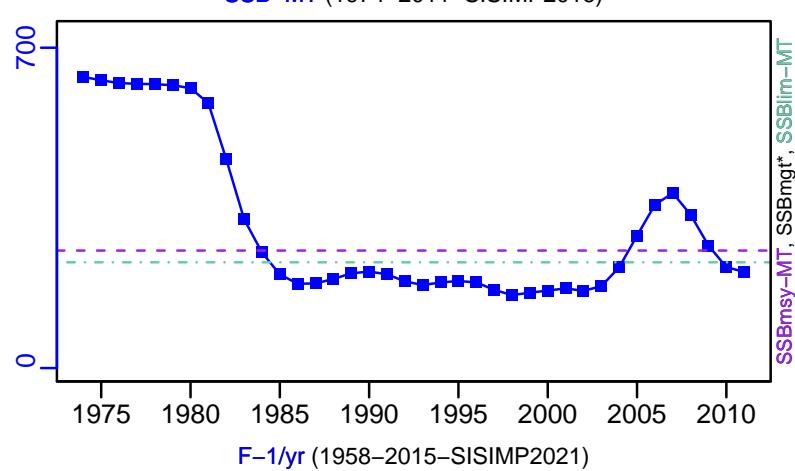
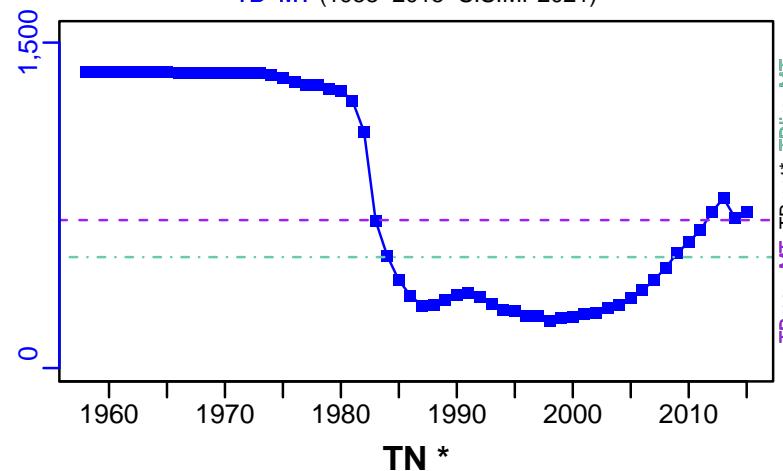


◆ Start Year	◆ End Year	*	No Data
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### Blueline tilefish Southern Atlantic coast [BLTILESATLC]

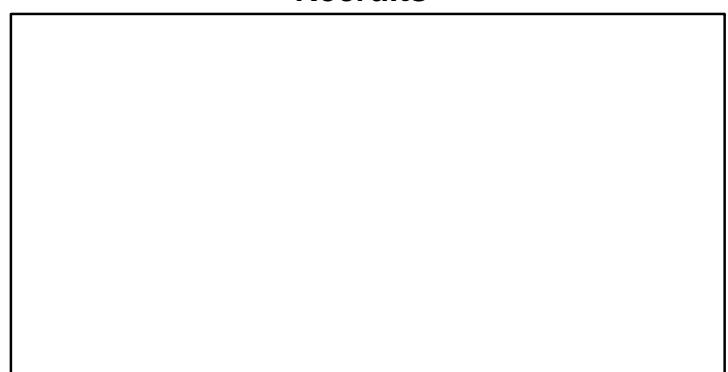
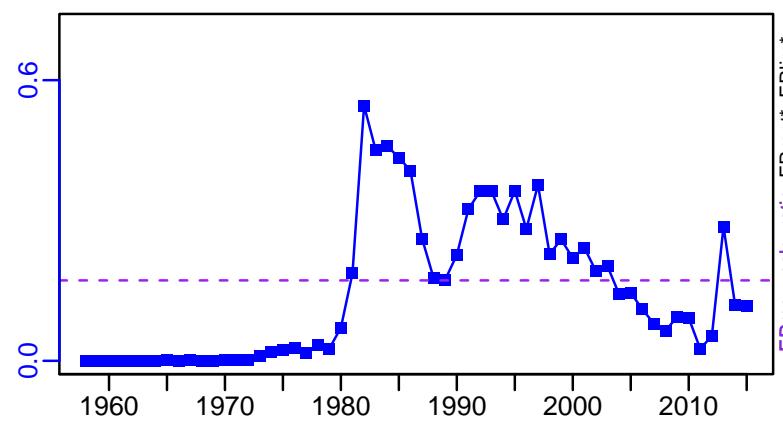
TB-MT (1958–2015–SISIMP2021)

SSB-MT (1974–2011–SISIMP2016)



ER-calc-ratio (1958–2015–SISIMP2021)

Recruits\*

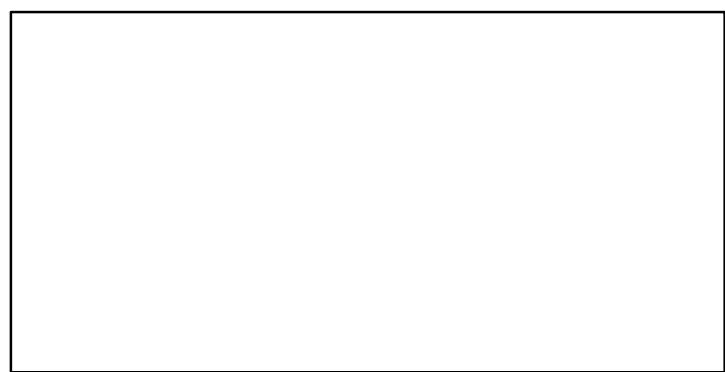
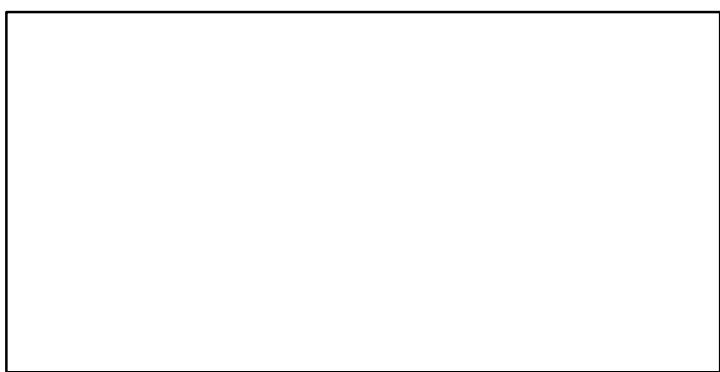
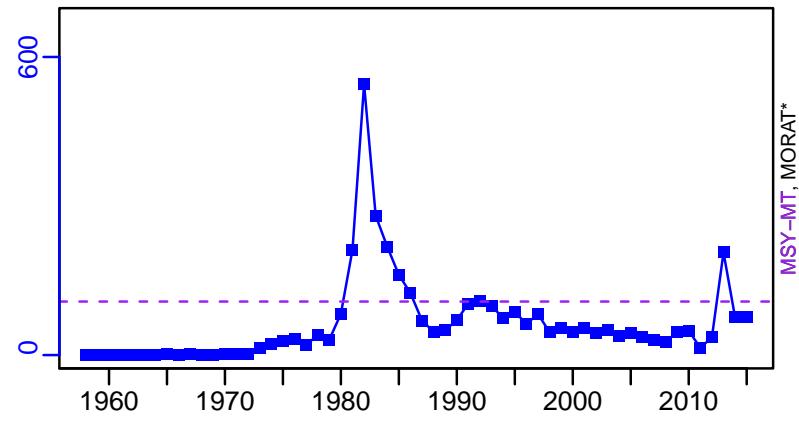


- |                      |               |           |
|----------------------|---------------|-----------|
| ■ Listed time series | — Target BRP  | — Rec-Est |
| - - - MSY-based BRP  | - - - Lim BRP | * No Data |

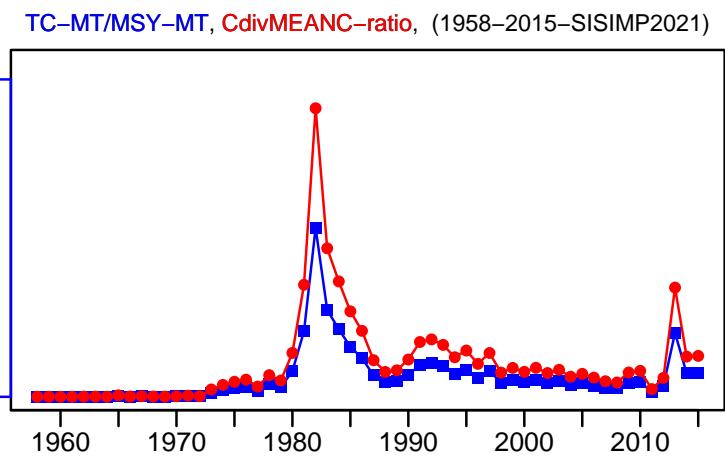
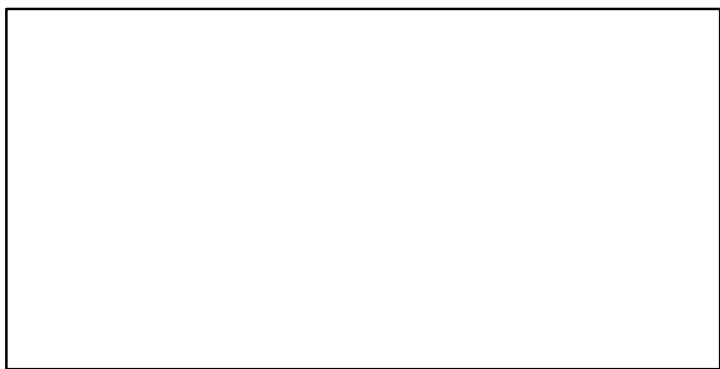
**Blueline tilefish Southern Atlantic coast [BLTILESATLC]**

TC-MT, TL\*, RecC\* (1958–2015–SISIMP2021)

TAC\*, Cpair\*, Cadv\*



**EFFORT\***



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Bluefish Atlantic Coast [BLUEFISHATLC]

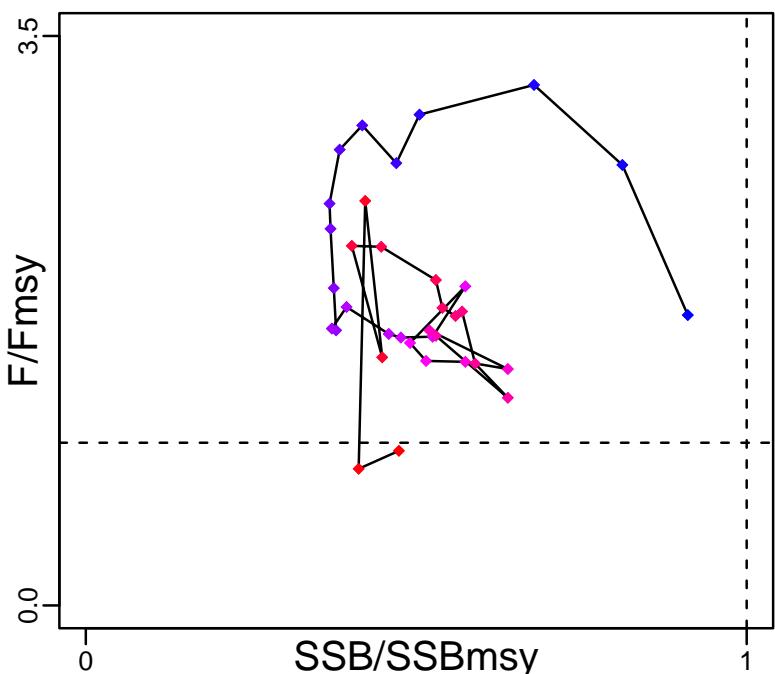
<b>Metadata</b>	
<b>Scientific Name</b>	Pomatomus saltatrix
<b>Current Assess ID</b>	NEFSC-BLUEFISHATLC-1985-2019-SISIMP2021-2
<b>Area</b>	Atlantic Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northeast Fisheries Science Center
<b>Asmts in RAM</b>	2007, 2014, 2018, 2019

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	TBmsy-MT	2007	147,052
<b>SSBmsy</b>	SSBmsy-MT	2019	202,000
<b>Fmsy</b>	Fmsy-1/yr	2019	0.181
<b>ERmsy</b>	ERmsy-ratio	2007	0.106
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2019	25,500
<b>M</b>	M-1/yr	2007	0.2
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2019	101,000
<b>Flim</b>	Flim-1/yr	2019	0.181
<b>ERlim</b>	-	-	-

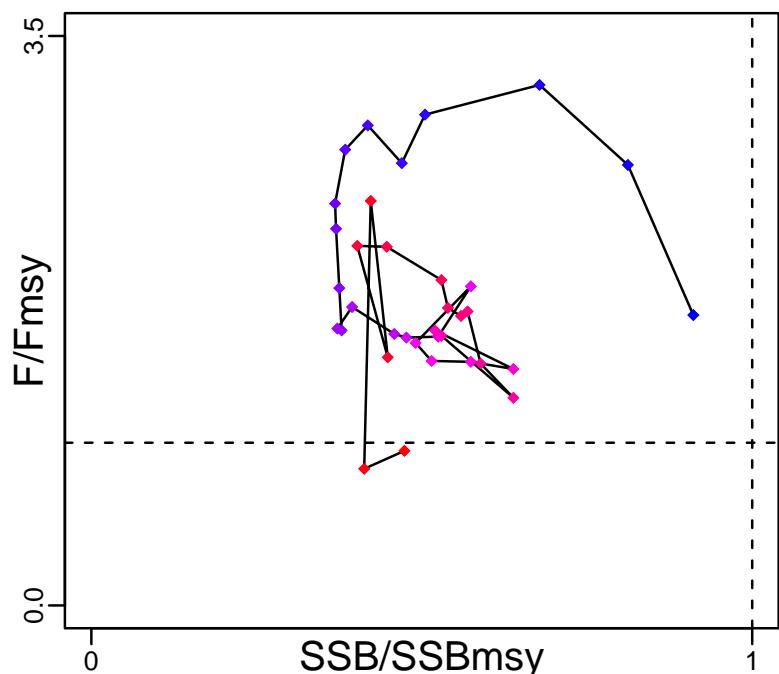
<b>Time Series</b>					
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>
<b>TB</b>	TB-MT	2014	94,300	-	-
<b>SSB</b>	SSB-MT	2019	95,700	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2019	27,900,000	-	0
<b>F</b>	F-1/yr	2019	0.172	-	-
<b>ER</b>	ER-calc-ratio	2014	0.104	-	-
<b>TC</b>	TC-MT	2019	15,000		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2007	1.047		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2019	0.474		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2019	0.95		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2007	0.954		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

Bluefish Atlantic Coast [BLUEFISHATLC]

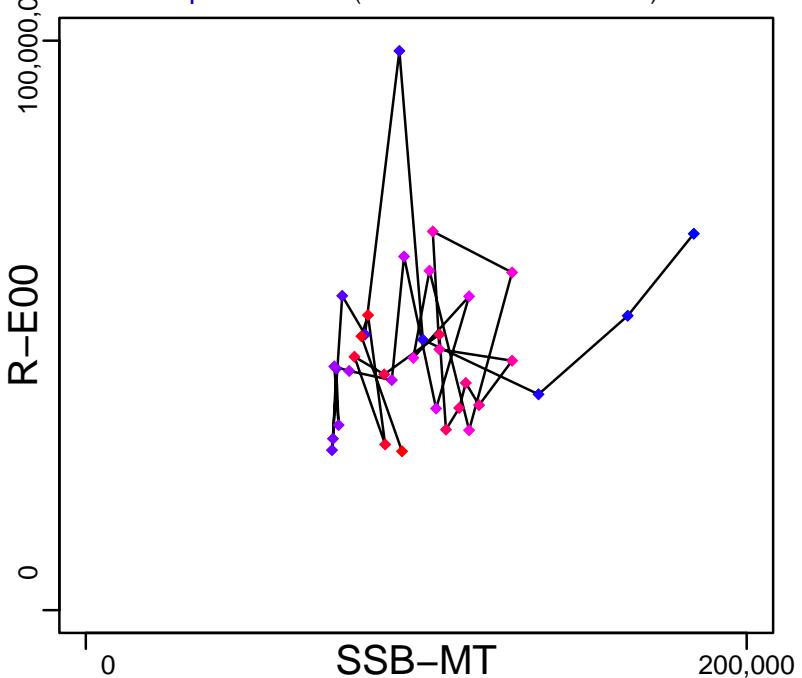
Kobe MSYpref (1985–2019–SISIMP2021–2)



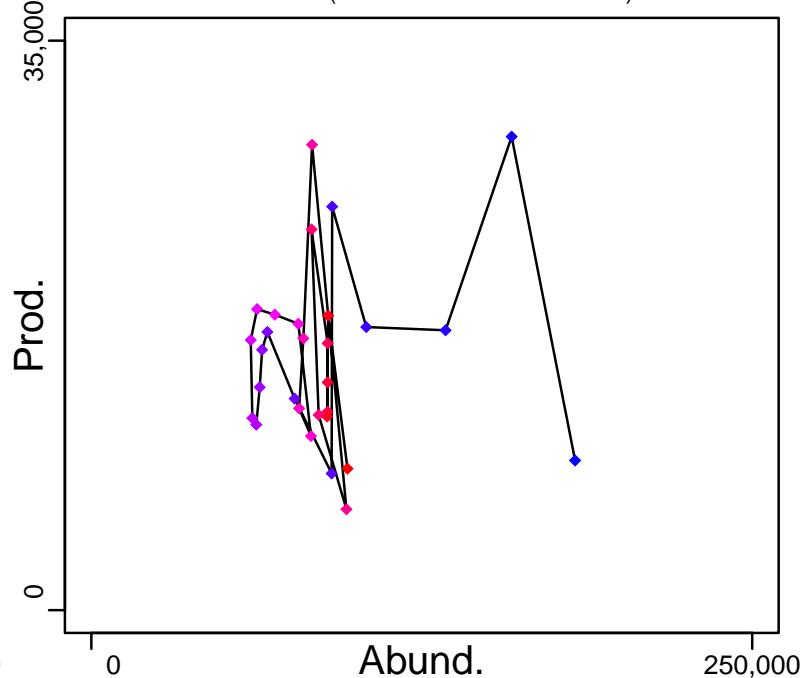
Kobe MGTpref (1985–2019–SISIMP2021–2)



Spawner Recruit (1985–2019–SISIMP2021–2)



Production (1985–2019–SISIMP2021–2)

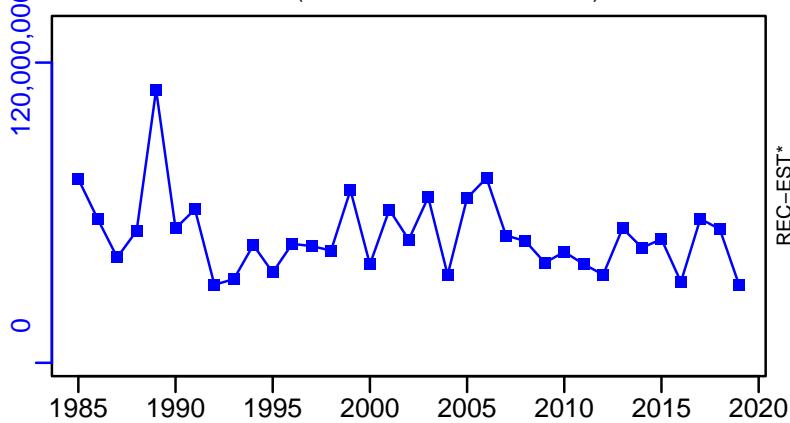
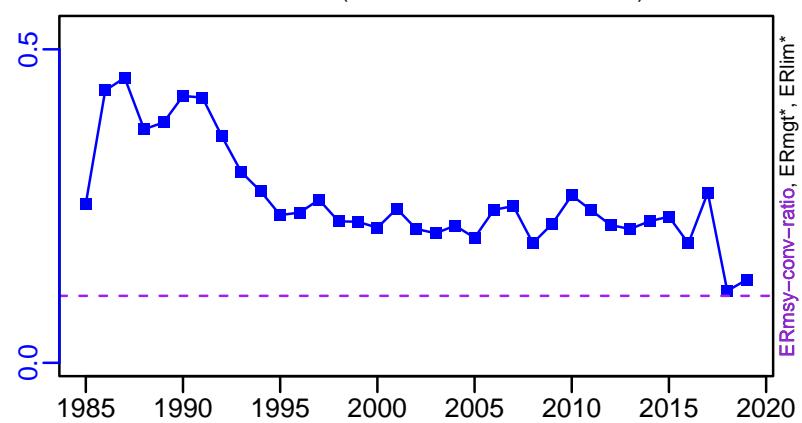
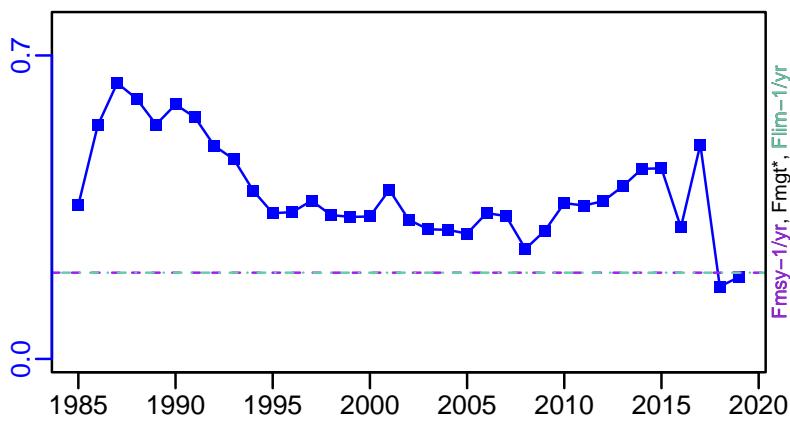
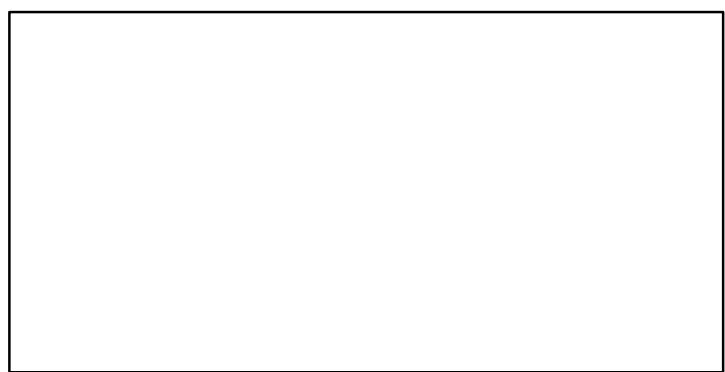
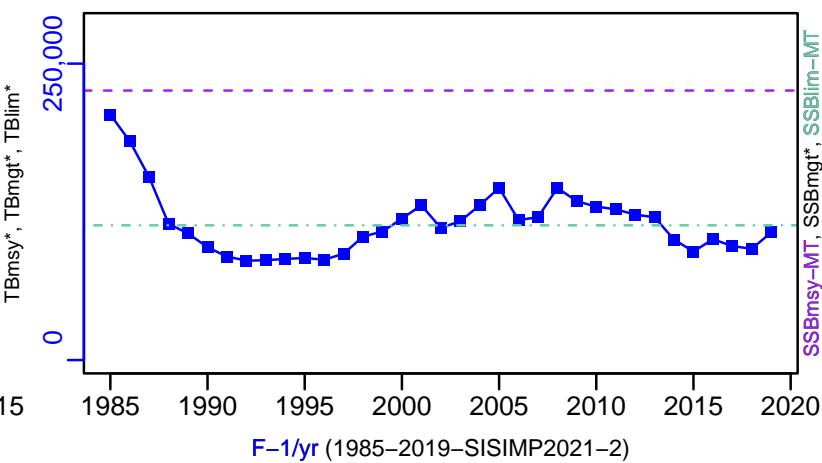
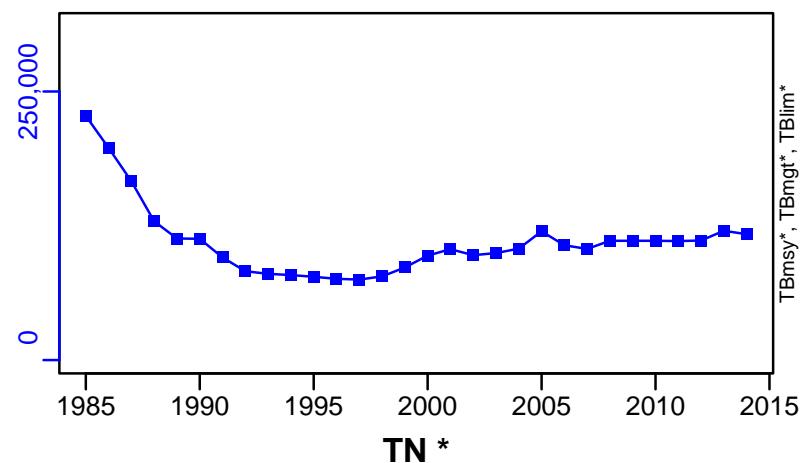


◆ Start Year   ◆ End Year   \* No Data

### Bluefish Atlantic Coast [BLUEFISHATLC]

TB-MT (1985–2014–SISIMP2016)

SSB-MT (1985–2019–SISIMP2021–2)

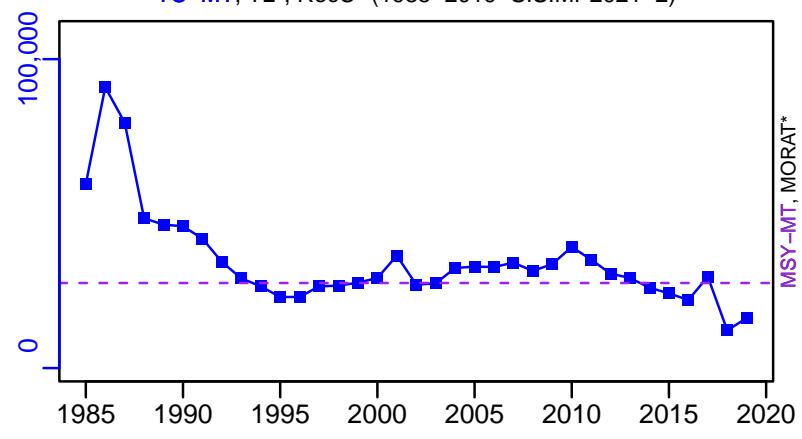


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - Lim BRP	* No Data

Bluefish Atlantic Coast [BLUEFISHATLC]

TC-MT, TL\*, RecC\* (1985–2019–SISIMP2021–2)

TAC\*, Cpair\*, Cadv\*



MSY-MT, MORAT\*

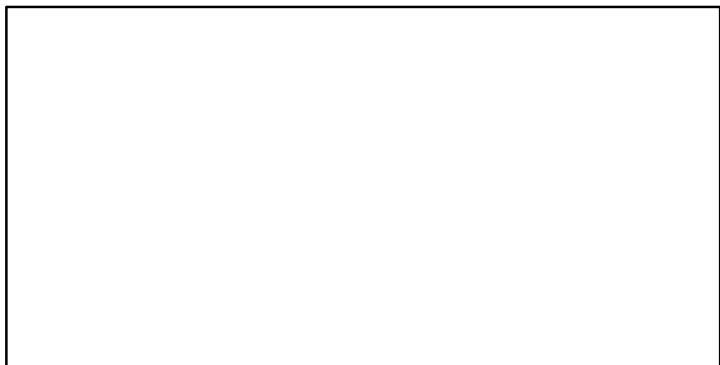
survB\*



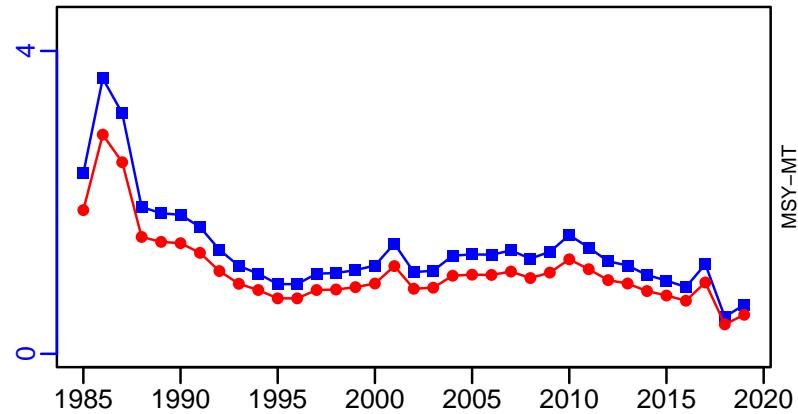
CPUE\*



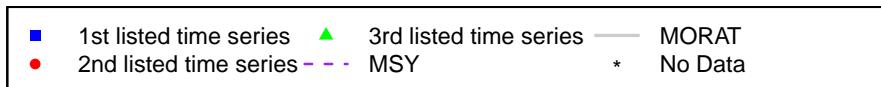
EFFORT\*



TC-MT/MSY-MT, CdivMEANC-ratio, (1985–2019–SISIMP2021–2)



MSY-MT

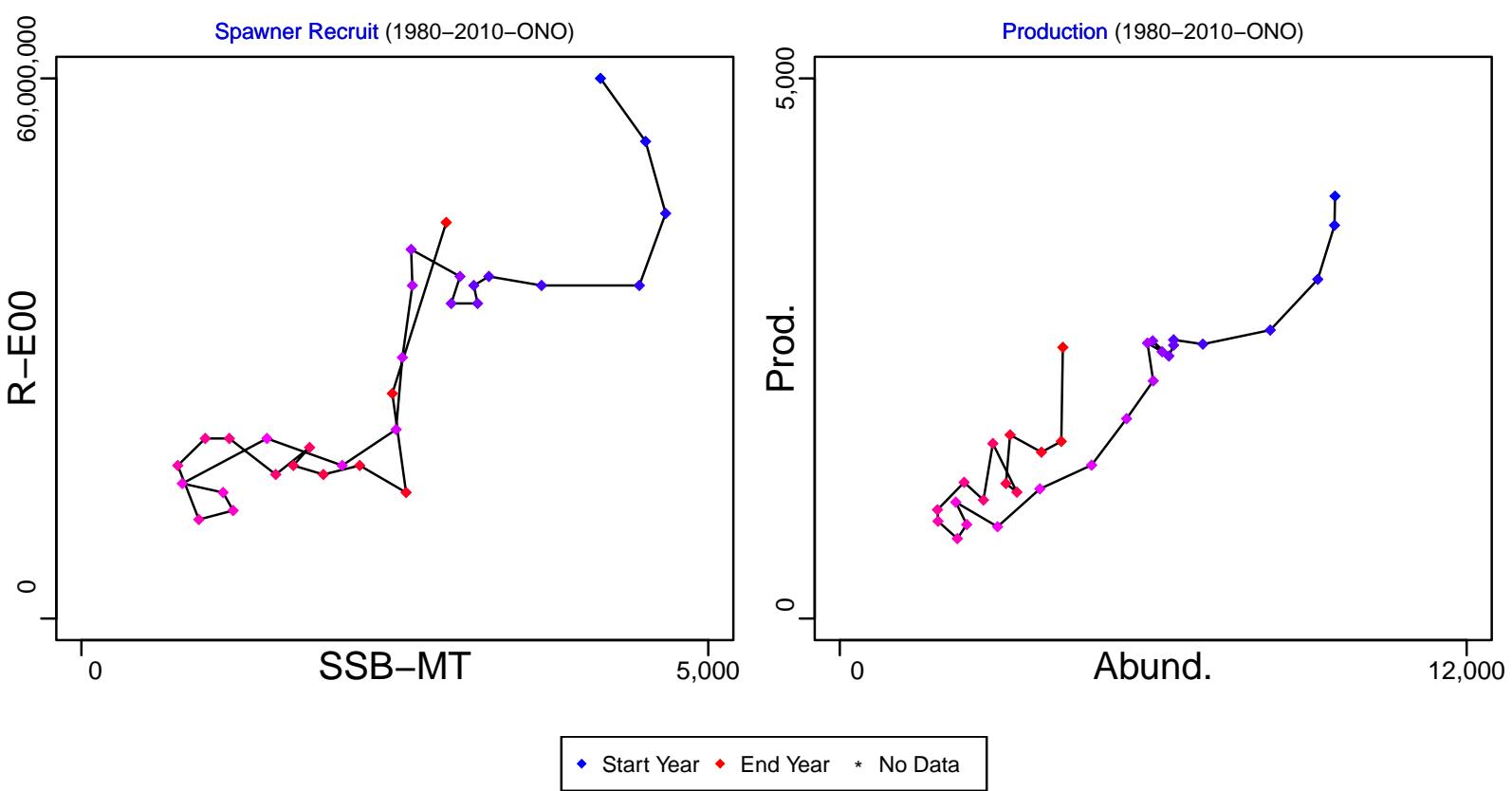


## Yellow sea bream Sea of Japan [BRMSOJ]

<b>Metadata</b>	
<b>Scientific Name</b>	Dentex tumifrons
<b>Current Assess ID</b>	FAFRFJ-BRMSOJ-1980-2013-JPNIMP2016
<b>Area</b>	Sea of Japan
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>	2010, 2013

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	M-1/yr	2013	0.22
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

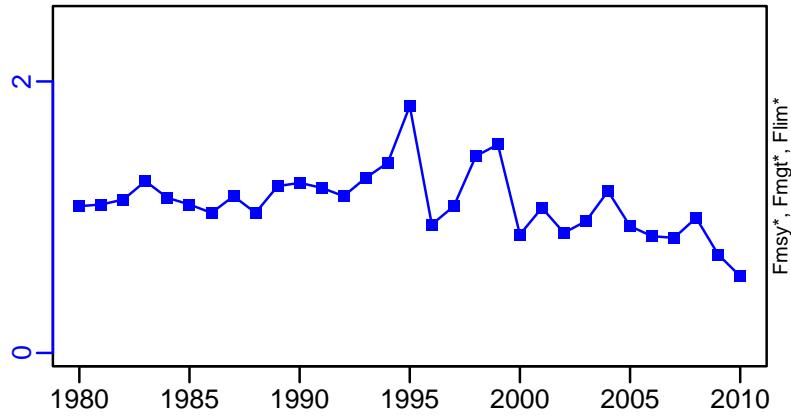
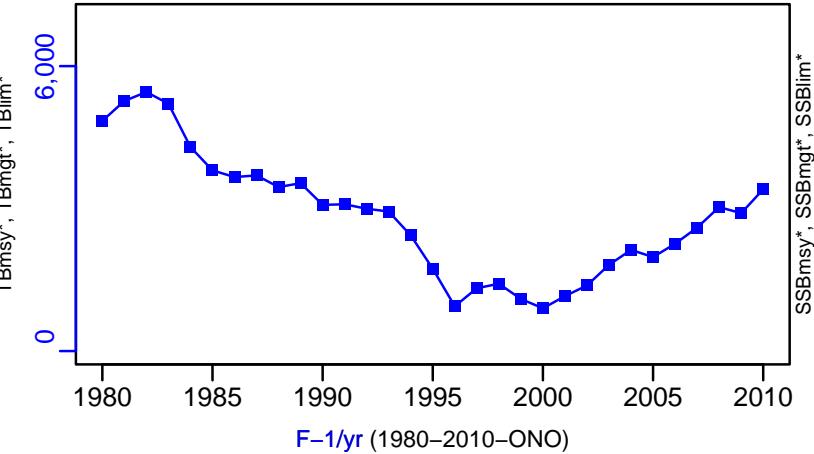
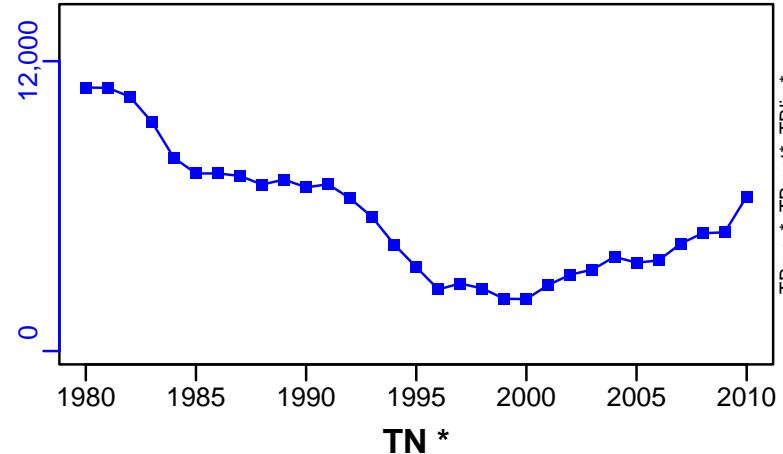
<b>Time Series</b>					
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>
<b>TB</b>	TB-MT	2010	5560	-	0
<b>SSB</b>	SSB-MT	2010	2910	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2010	$4.4 \times 10^7$	-	-
<b>F</b>	F-1/yr	2010	0.46	-	0 to 4
<b>ER</b>	ER-ratio	2010	0.219	-	-
<b>TC</b>	TC-MT	2013	4140		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

**Kobe MSY\*****Kobe MGT\***

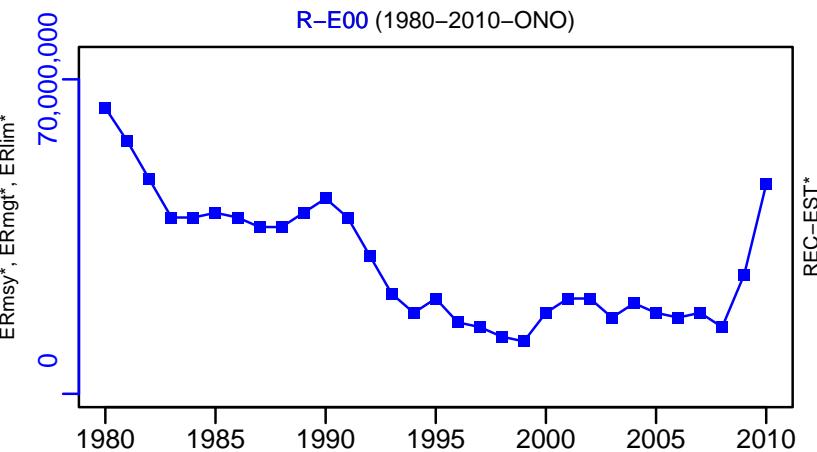
**Yellow sea bream Sea of Japan [BRMSOJ]**

**TB-MT (1980–2010–ONO)**

**SSB-MT (1980–2010–ONO)**



**ER-ratio (1980–2010–ONO)**

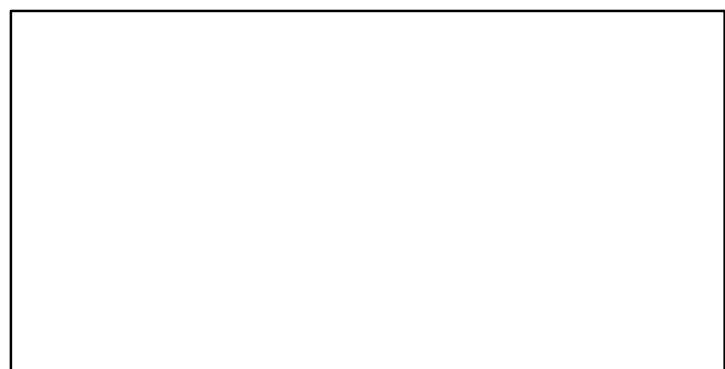
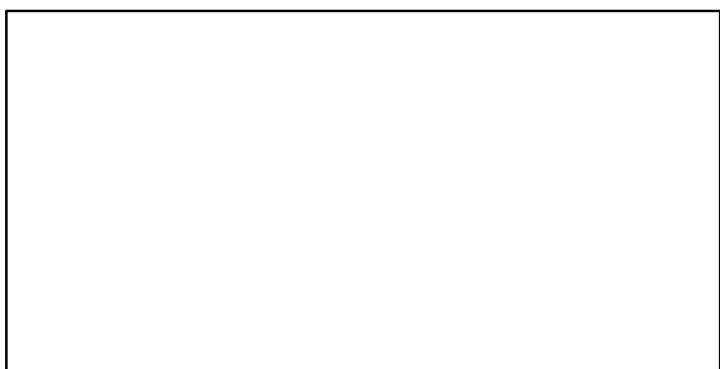
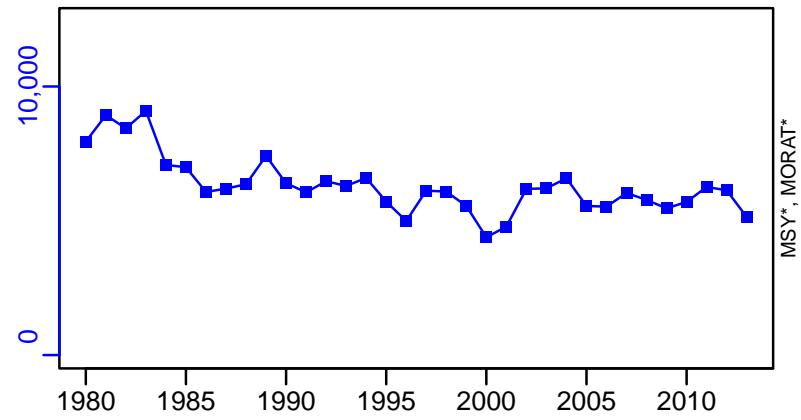


■ Listed time series	— Target BRP	— Rec-Est
- - MSY-based BRP	--- Lim BRP	* No Data

Yellow sea bream Sea of Japan [BRMSOJ]

TC-MT, TL\*, RecC\* (1980–2013–JPNIMP2016)

TAC\*, Cpair\*, Cadv\*



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - MSY                  | * No Data |

## Seabream Central West Africa Cote Divoire-Benin [BRMSPPCWACIV-BEN]

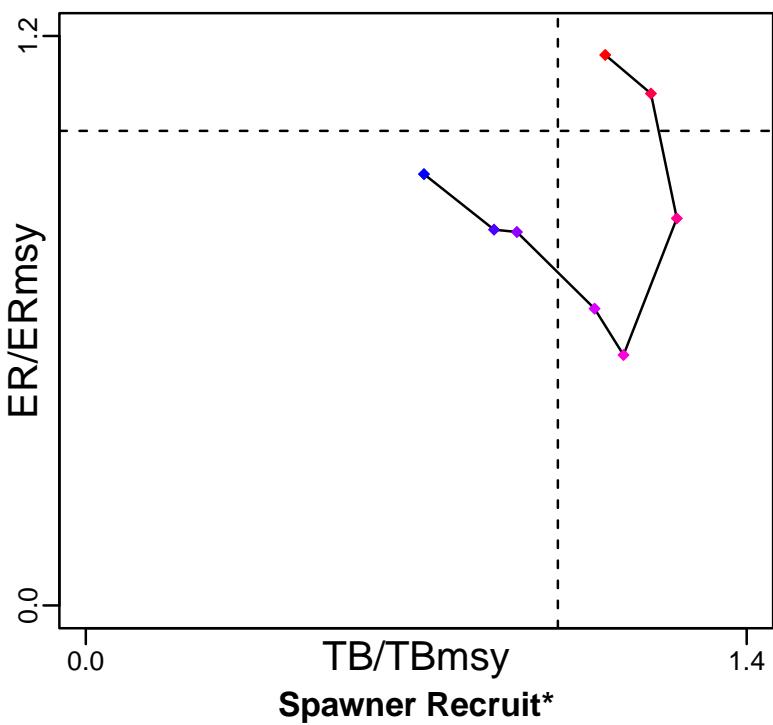
<b>Metadata</b>	
<b>Scientific Name</b>	Dentex spp
<b>Current Assess ID</b>	FAO-DR-BRMSPPCWACIV-BEN-1990-2007-CHING
<b>Area</b>	Central West Africa Cote Divoire-Benin
<b>Management Authority</b>	Food and Agriculture Organization of the United Nations
<b>Assessor</b>	FAO/CECAF Working Group on the Assessment of Demersal Resources
<b>Asmts in RAM</b>	2007

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

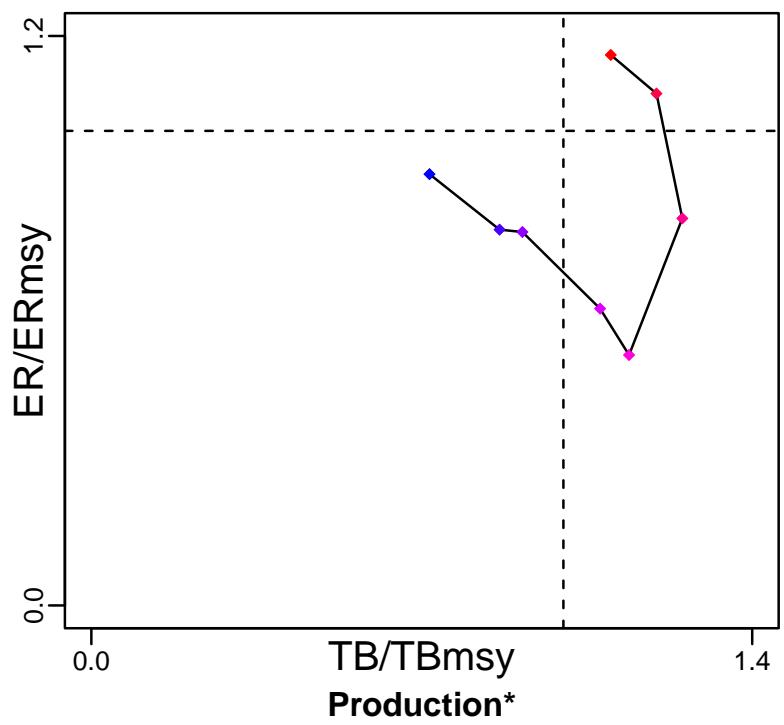
<b>Time Series</b>						
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>	
<b>TB</b>	TB-index	2007	24	-	-	
<b>SSB</b>	-	-	-	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	-	-	-	-	-	
<b>F</b>	-	-	-	-	-	
<b>ER</b>	-	-	-	-	-	
<b>TC</b>	TC-MT	2007	9450			
<b>TL</b>	-	-	-			
<b>TB/TBmsy</b>	-	-	-			
<b>SSB/SSBmsy</b>	-	-	-			
<b>F/Fmsy</b>	-	-	-			
<b>ER/ERmsy</b>	-	-	-			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

Seabream Central West Africa Cote Divoire–Benin [BRMSPPCWACIV–BEN]

Kobe MSYpref (1990–2007–CHING)



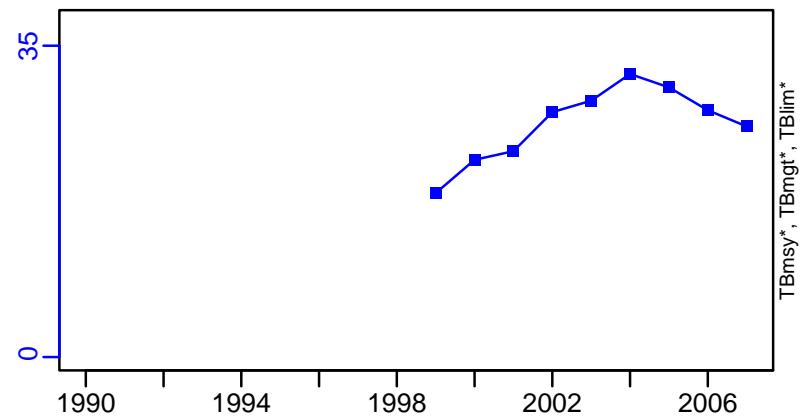
Kobe MGTPref (1990–2007–CHING)



◆ Start Year    ♦ End Year    \* No Data

**Seabream Central West Africa Cote Divoire–Benin [BRMSPPCWACIV–BEN]**

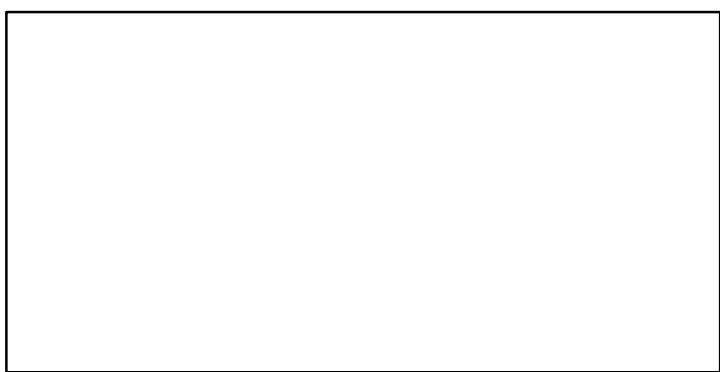
TB-index (1990–2007–CHING)



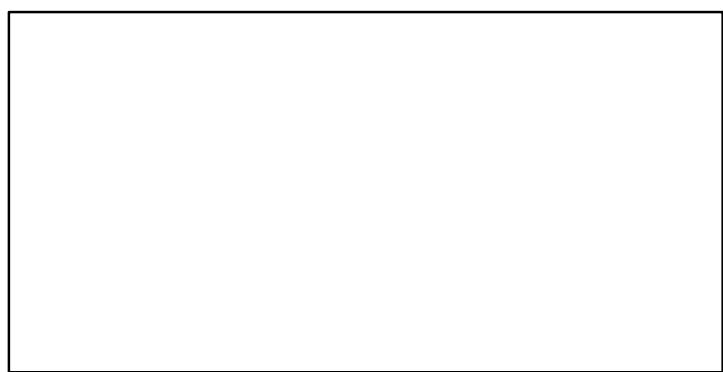
**SSB\***



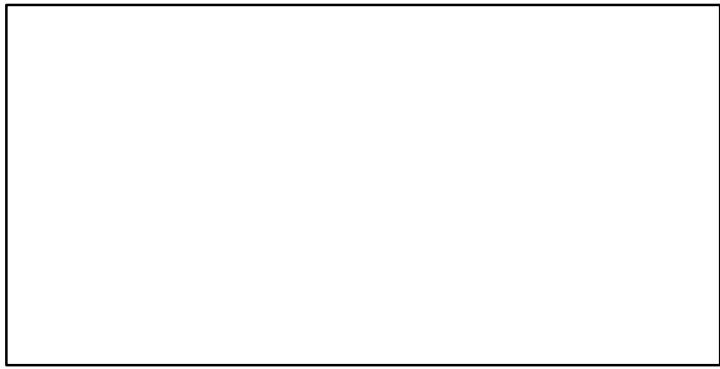
**TN \***



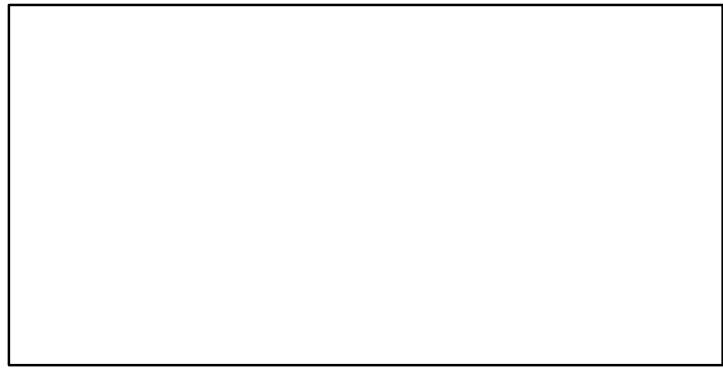
**F\***



**ER\***



**Recruits\***

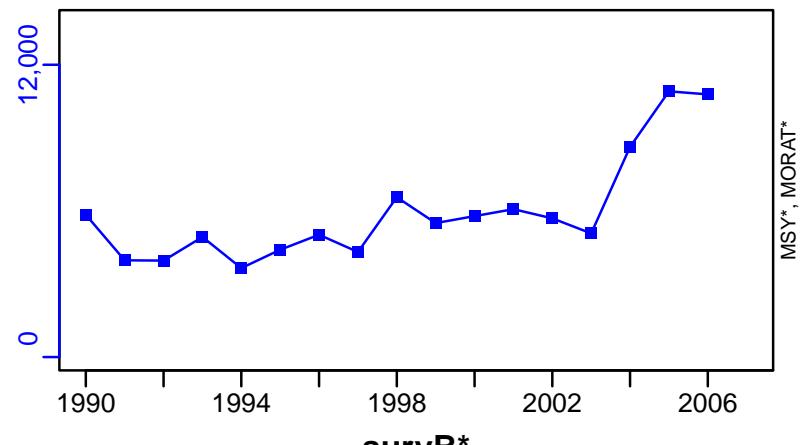


- |                      |              |           |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| — MSY-based BRP      | — Lim BRP    | * No Data |

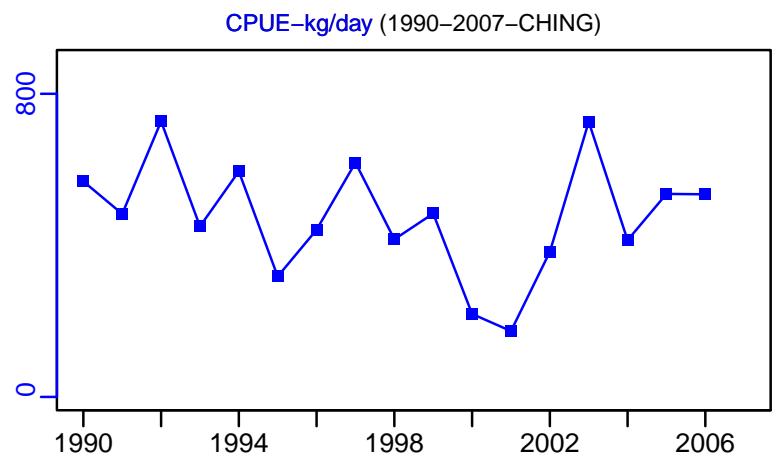
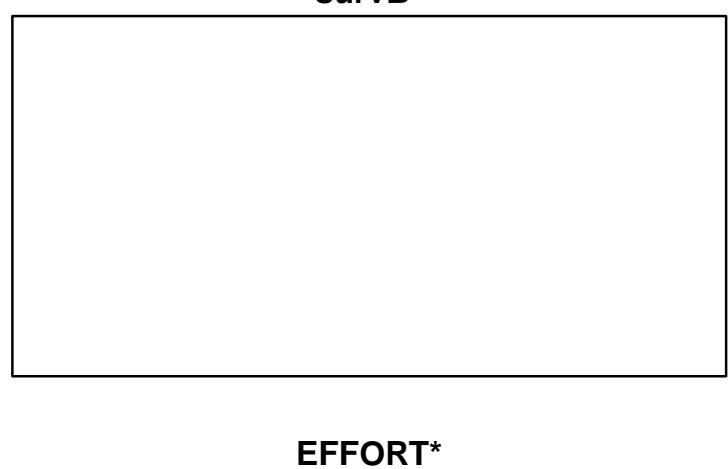
**Seabream Central West Africa Cote Divoire–Benin [BRMSPPCWACIV–BEN]**

TC–MT, TL\*, RecC\* (1990–2007–CHING)

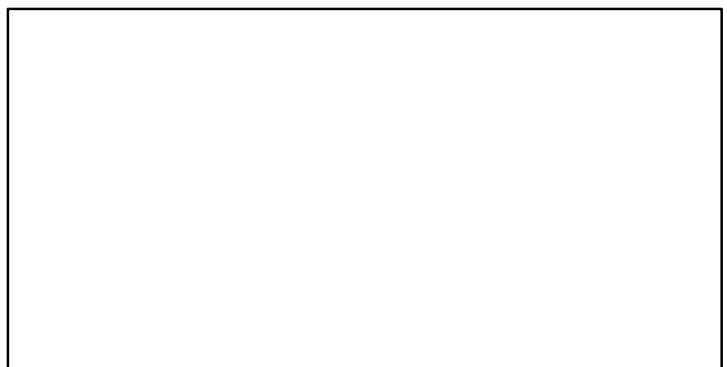
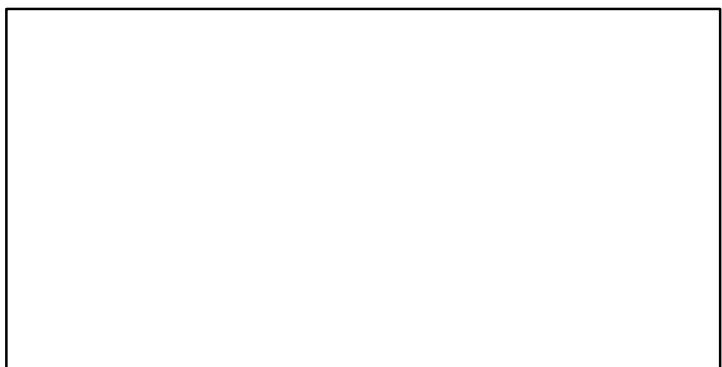
TAC\*, Cpair\*, Cadv\*



MSY\*, MORAT\*



1990 1994 1998 2002 2006



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - - MSY                | * No Data |

## Seabream Central West Africa Gabon-Angola [BRMSPPCWAGAB-AGO]

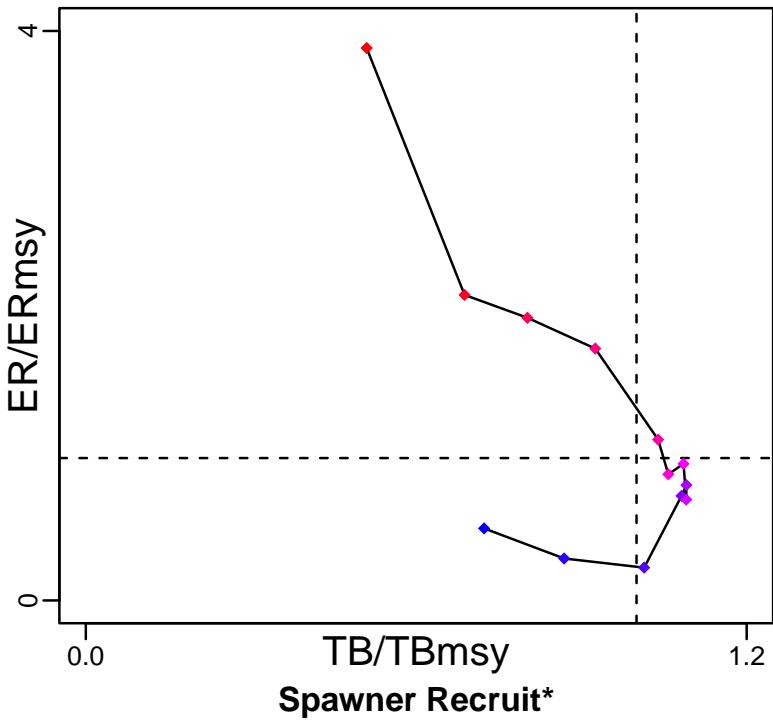
<b>Metadata</b>	
<b>Scientific Name</b>	Dentex spp
<b>Current Assess ID</b>	FAO-DR-BRMSPPCWAGAB-AGO-1995-2007-CHING
<b>Area</b>	Central West Africa Gabon-Angola
<b>Management Authority</b>	Food and Agriculture Organization of the United Nations
<b>Assessor</b>	FAO/CECAF Working Group on the Assessment of Demersal Resources
<b>Asmts in RAM</b>	2007

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

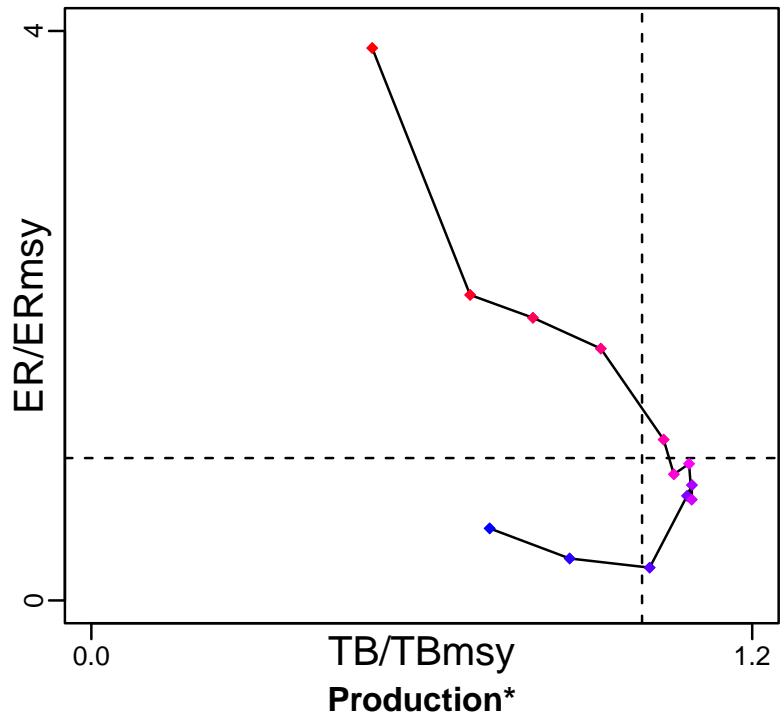
<b>Time Series</b>					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-index	2007	154	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2007	13,300		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

**Seabream Central West Africa Gabon–Angola [BRMSPPCWAGAB–AGO]**

Kobe MSYpref (1995–2007–CHING)



Kobe MGTPref (1995–2007–CHING)

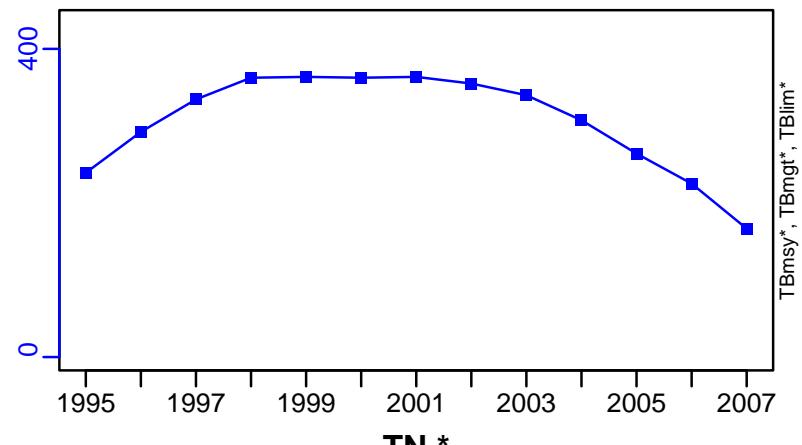


◆ Start Year ◆ End Year \* No Data

**Seabream Central West Africa Gabon–Angola [BRMSPPCWAGAB–AGO]**

TB-index (1995–2007–CHING)

**SSB\***



**TN \***

TB<sub>msy</sub>\* , TB<sub>ngt</sub>\* , TB<sub>lim</sub>\*

**F\***

**ER\***

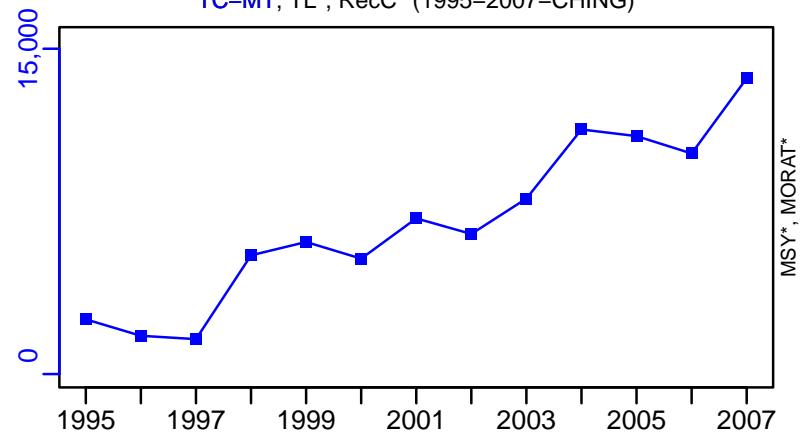
**Recruits\***

- |                      |              |           |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| — MSY-based BRP      | — Lim BRP    | * No Data |

**Seabream Central West Africa Gabon–Angola [BRMSPPCWAGAB–AGO]**

TC-MT, TL\*, RecC\* (1995–2007–CHING)

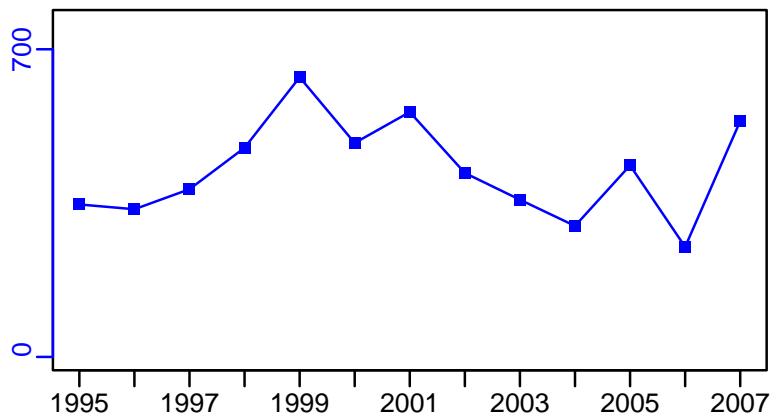
TAC\*, Cpair\*, Cadv\*



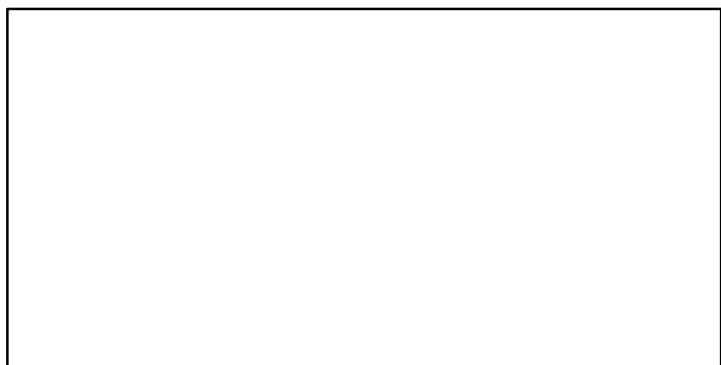
survB\*



CPUE–kg/day (1995–2007–CHING)



EFFORT\*



CdivMSY\*



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - - MSY                | * No Data |

## Seabream Central West Africa Guinea-Liberia [BRMSPPCWAGIN-LBR]

<b>Metadata</b>	
<b>Scientific Name</b>	Dentex spp
<b>Current Assess ID</b>	FAO-DR-BRMSPPCWAGIN-LBR-1994-2007-CHING
<b>Area</b>	Central West Africa Guinea-Liberia
<b>Management Authority</b>	Food and Agriculture Organization of the United Nations
<b>Assessor</b>	FAO/CECAF Working Group on the Assessment of Demersal Resources
<b>Asmts in RAM</b>	2007

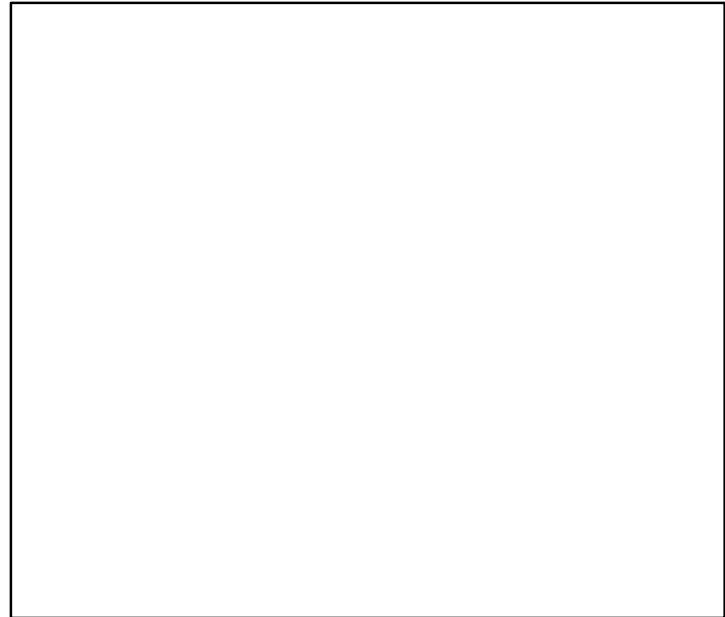
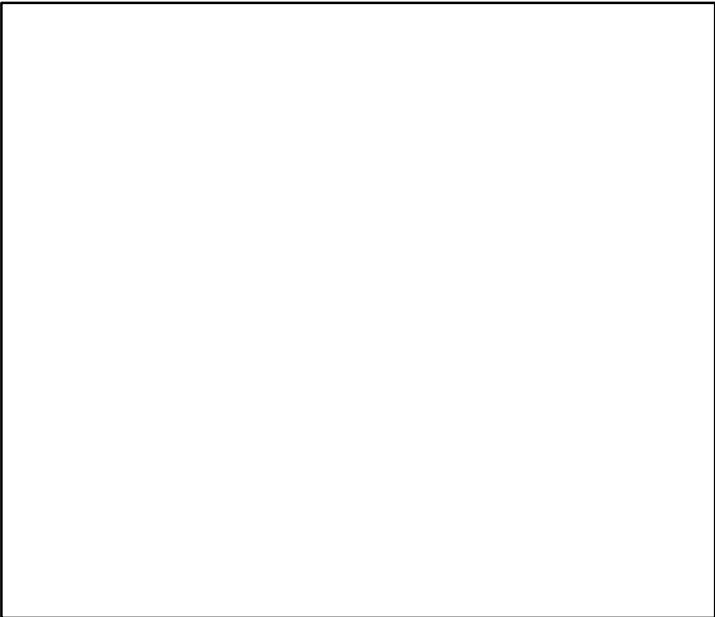
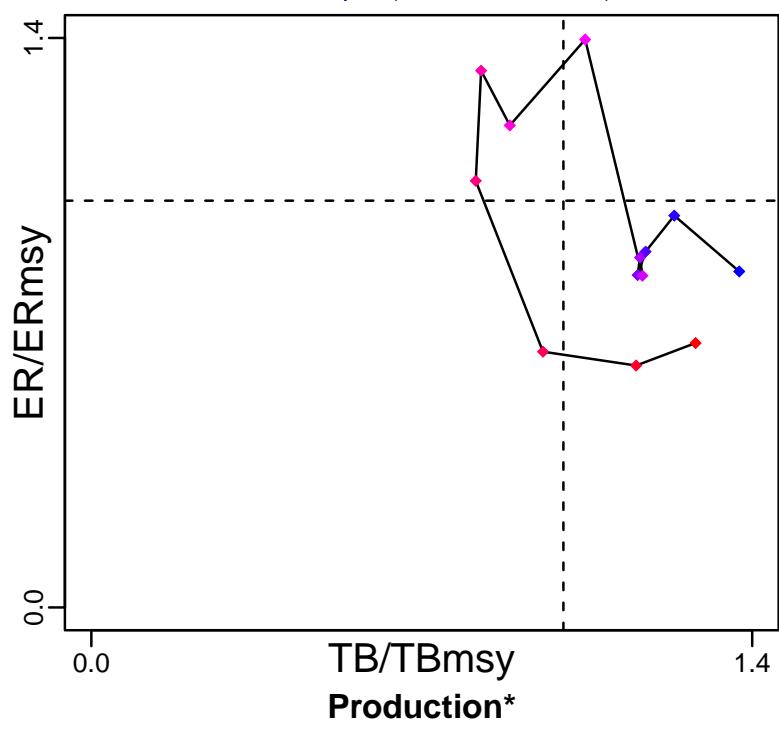
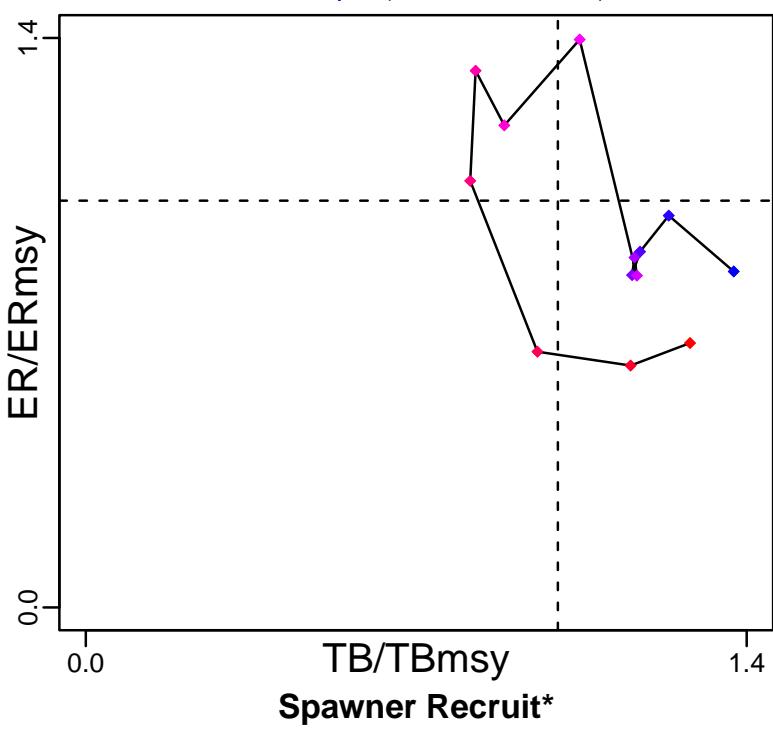
<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

<b>Time Series</b>					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2007	4910		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

**Seabream Central West Africa Guinea–Liberia [BRMSPPCWAGIN–LBR]**

Kobe MSYpref (1994–2007–CHING)

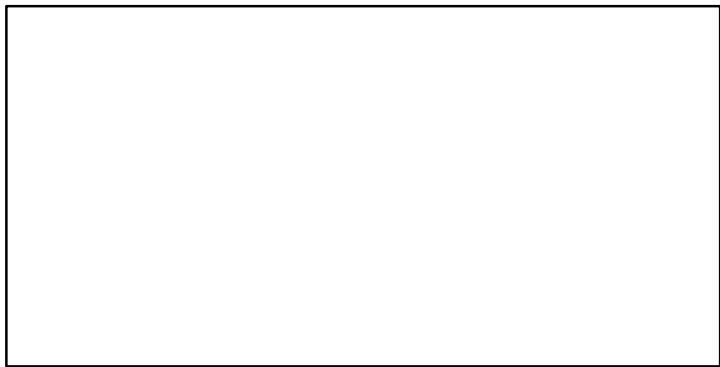
Kobe MGTPref (1994–2007–CHING)



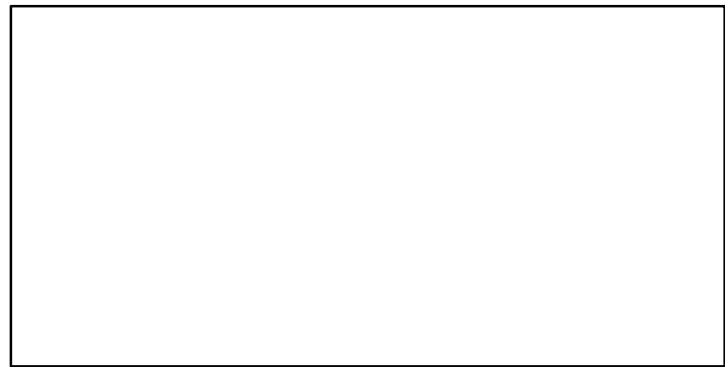
◆ Start Year ◆ End Year \* No Data

**Seabream Central West Africa Guinea–Liberia [BRMSPPCWAGIN–LBR]**

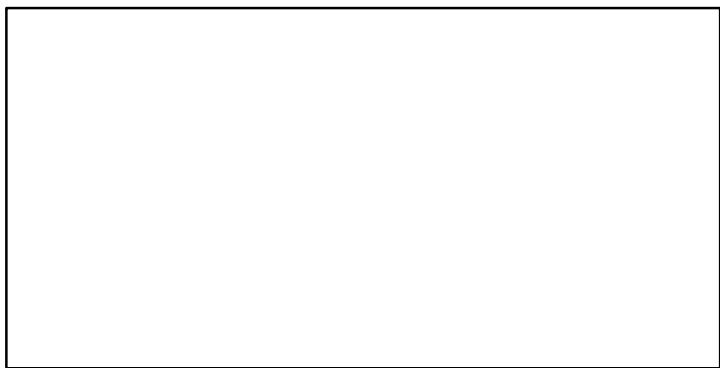
**TB\***



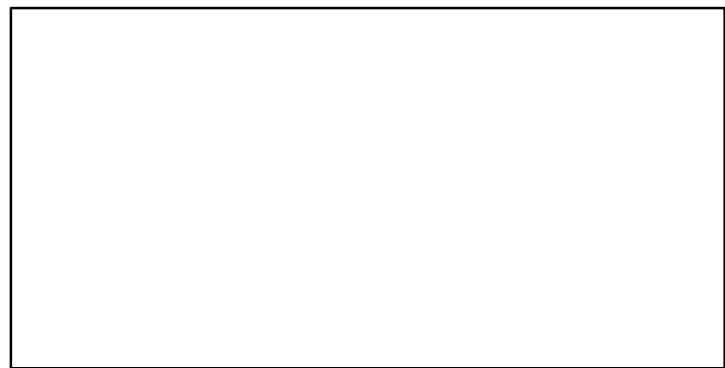
**SSB\***



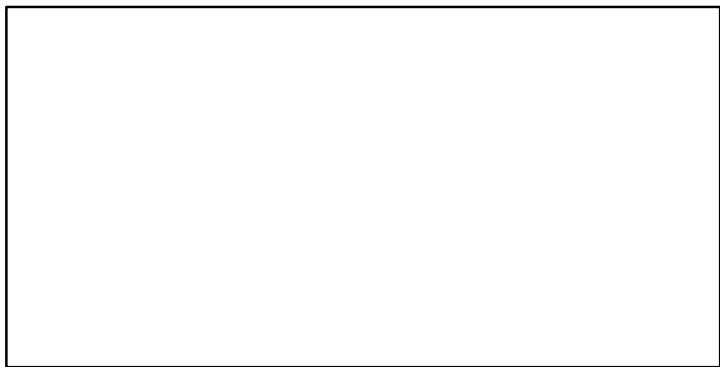
**TN \***



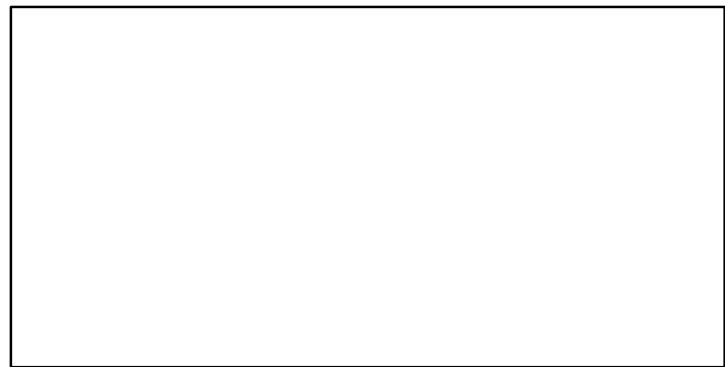
**F\***



**ER\***



**Recruits\***

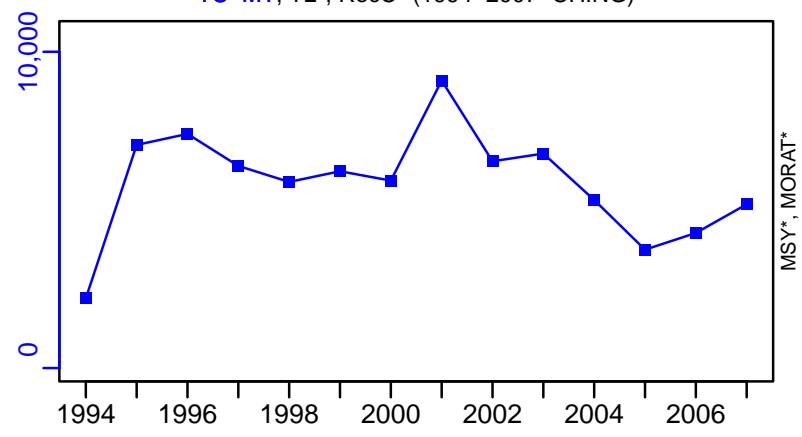


- |       |                    |       |            |   |         |
|-------|--------------------|-------|------------|---|---------|
| ■     | Listed time series | - - - | Target BRP | — | Rec-Est |
| - - - | MSY-based BRP      | - - - | Lim BRP    | * | No Data |

Seabream Central West Africa Guinea–Liberia [BRMSPPCWAGIN–LBR]

TC–MT, TL\*, RecC\* (1994–2007–CHING)

TAC\*, Cpair\*, Cadv\*

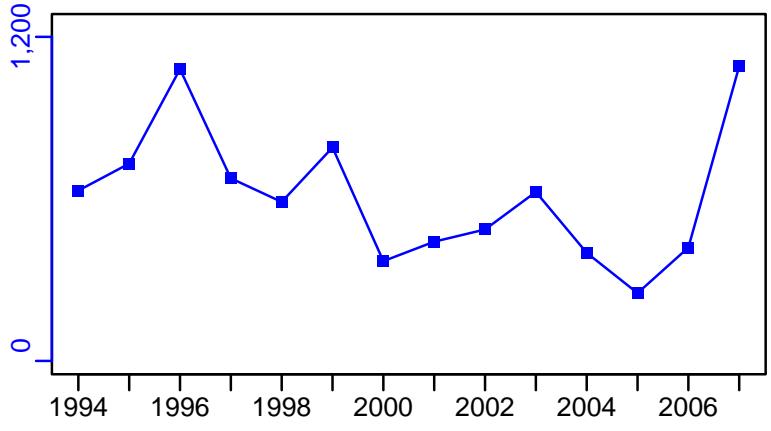


survB\*

MSY\*, MORAT\*



CPUE–MT/day (1994–2007–CHING)



EFFORT\*

CdivMSY\*



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Black sea bass Mid-Atlantic Coast [BSBASSMATLC]

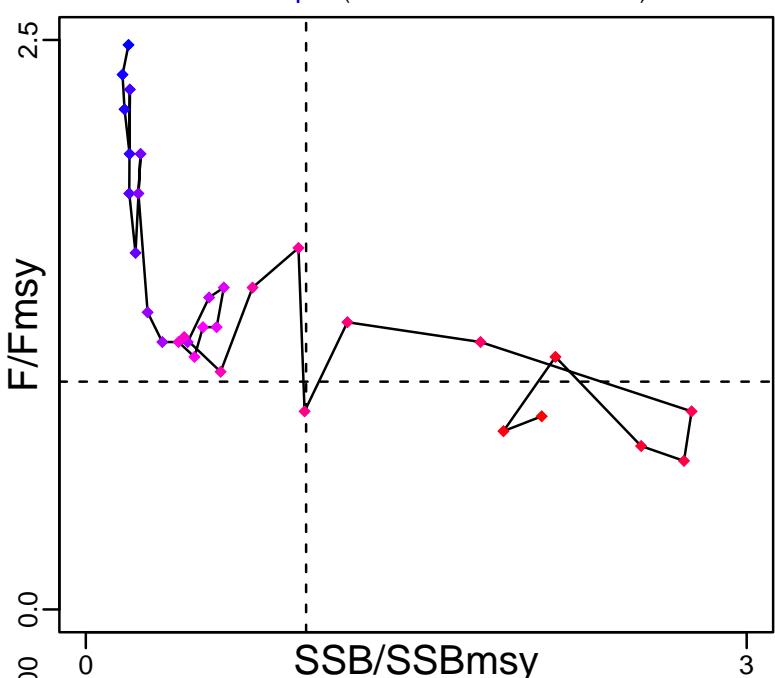
<b>Metadata</b>	
<b>Scientific Name</b>	Centropristes striata
<b>Current Assess ID</b>	NEFSC-BSBASSMATLC-1989-2019-SISIMP2021-2
<b>Area</b>	Mid-Atlantic Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northeast Fisheries Science Center
<b>Asmts in RAM</b>	2015, 2007, 2011, 2018, 2019

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	TBmsy-MT	2015	17,256
<b>SSBmsy</b>	SSBmsy-MT	2019	14,400
<b>Fmsy</b>	Fmsy-1/yr	2019	0.46
<b>ERmsy</b>	ERmsy-calc-ratio	2015	0.179
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2019	5330
<b>M</b>	M-1/yr	2015	0.4
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2019	7220
<b>Flim</b>	Flim-1/yr	2019	0.46
<b>ERlim</b>	-	-	-

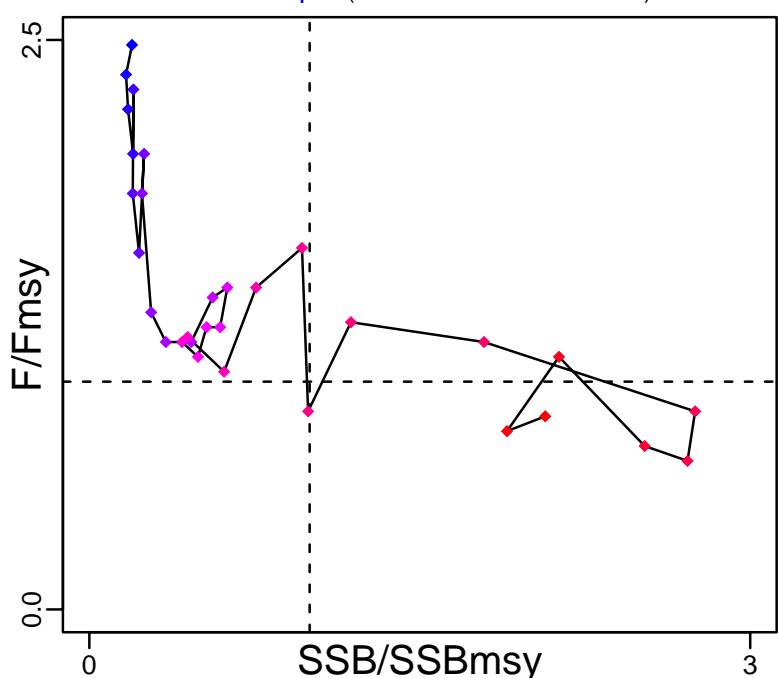
<b>Time Series</b>						
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>	
<b>TB</b>	TB-MT	2015	16,850	Both	-	
<b>SSB</b>	SSB-MT	2019	29,800	-	-	
<b>TN</b>	TN-E00	2015	70,334,820	Both	-	
<b>R</b>	R-E00	2019	$4.62 \times 10^{10}$	-	1	
<b>F</b>	F-1/yr	2019	0.39	-	-	
<b>ER</b>	ER-calc-ratio	2015	0.07	-	-	
<b>TC</b>	TC-MT	2019	7990			
<b>TL</b>	TL-MT	2015	1183			
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2015	0.976			
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2019	2.069			
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2019	0.848			
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-calc-ratio	2015	0.391			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

Black sea bass Mid-Atlantic Coast [BSBASSMATLC]

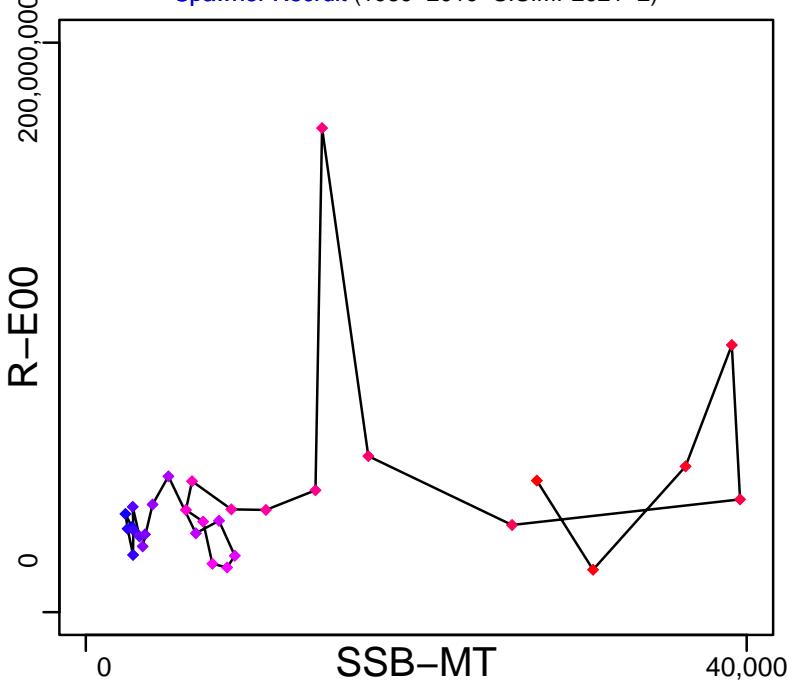
Kobe MSYpref (1989–2019–SISIMP2021–2)



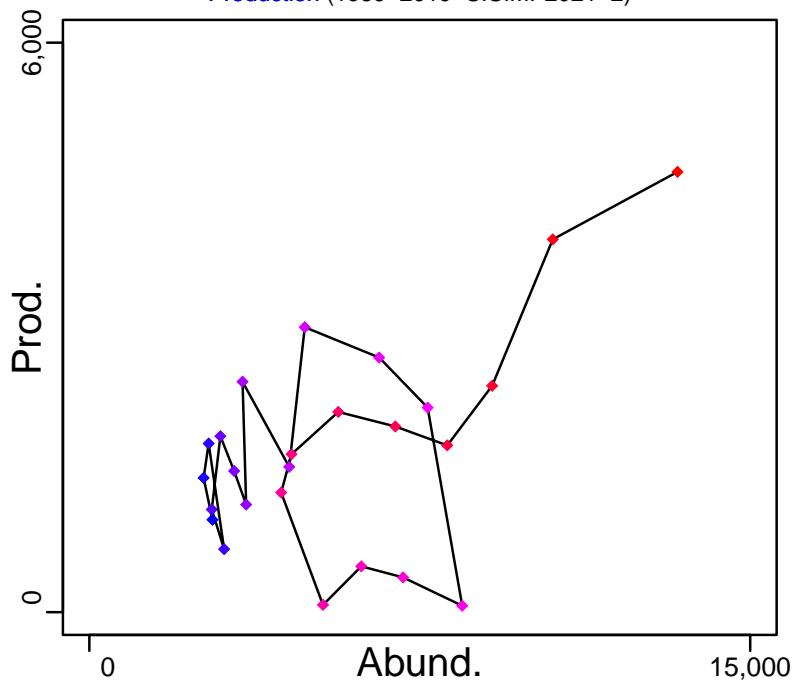
Kobe MGTpref (1989–2019–SISIMP2021–2)



Spawner Recruit (1989–2019–SISIMP2021–2)



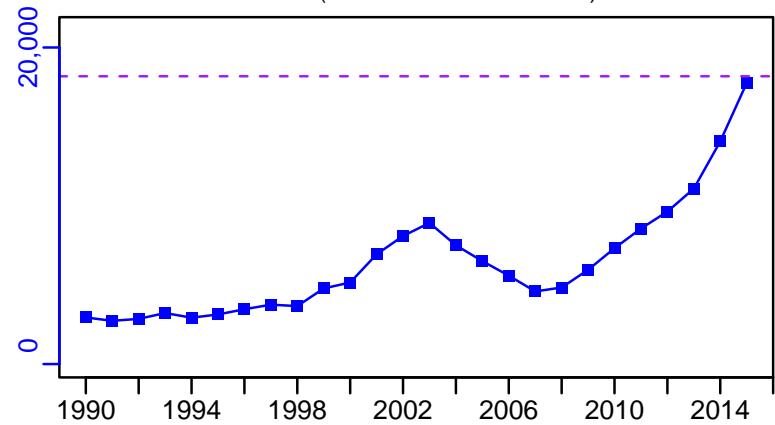
Production (1989–2019–SISIMP2021–2)



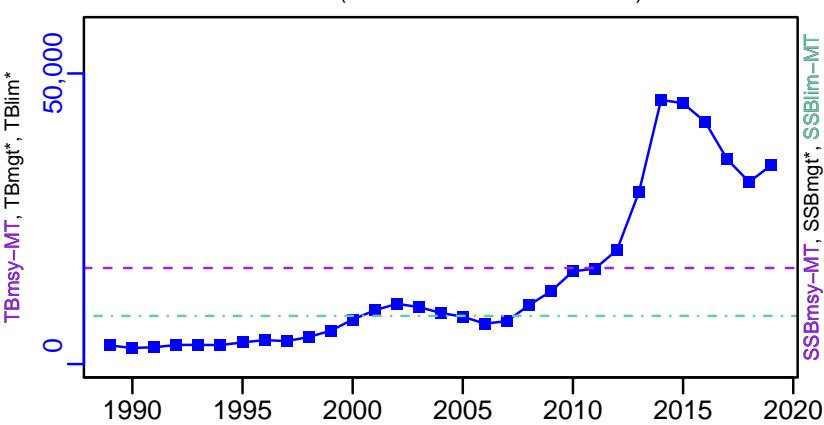
◆ Start Year ♦ End Year \* No Data

### Black sea bass Mid-Atlantic Coast [BSBASSMATLC]

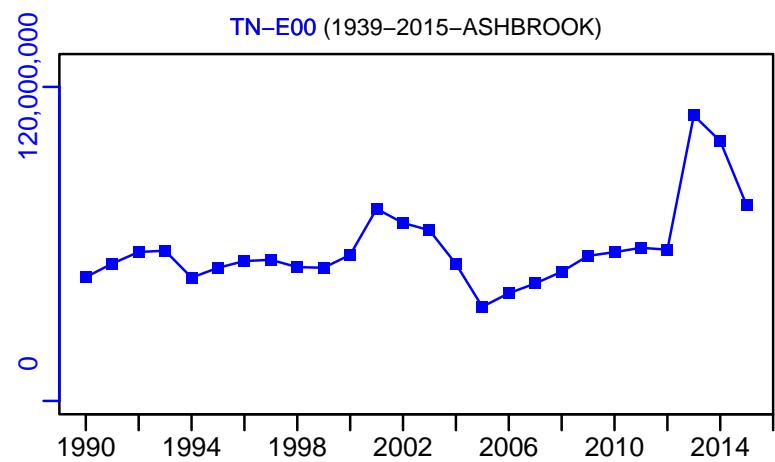
TB-MT (1939–2015–ASHBROOK)



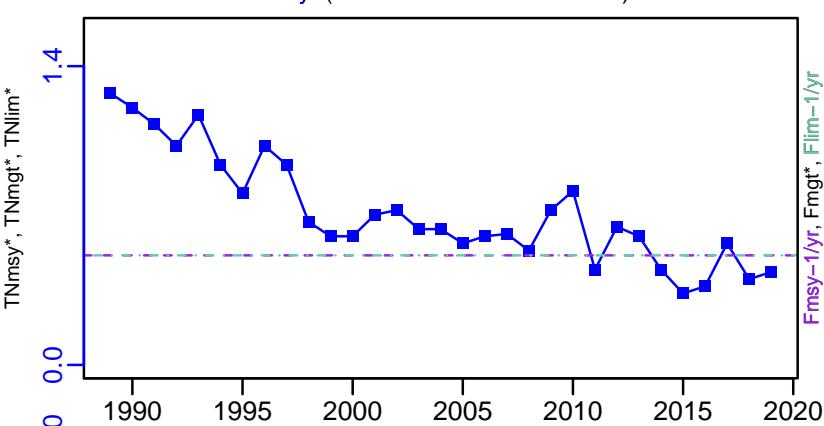
SSB-MT (1989–2019–SISIMP2021–2)



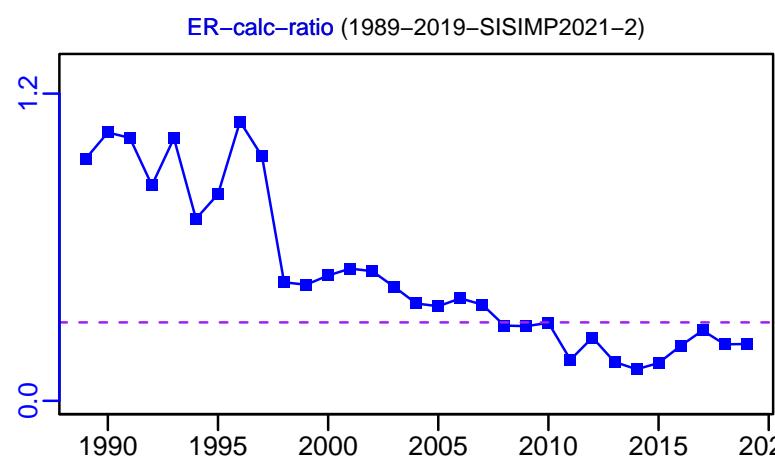
TN-E00 (1939–2015–ASHBROOK)



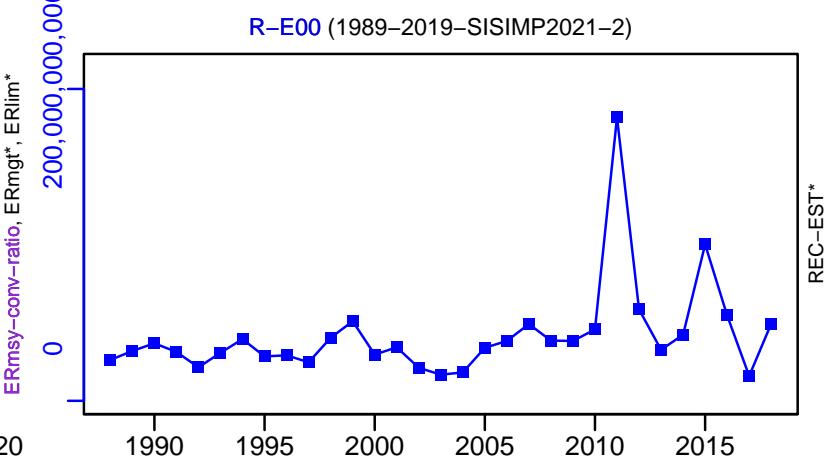
F-1/yr (1989–2019–SISIMP2021–2)



ER-calc-ratio (1989–2019–SISIMP2021–2)



R-E00 (1989–2019–SISIMP2021–2)

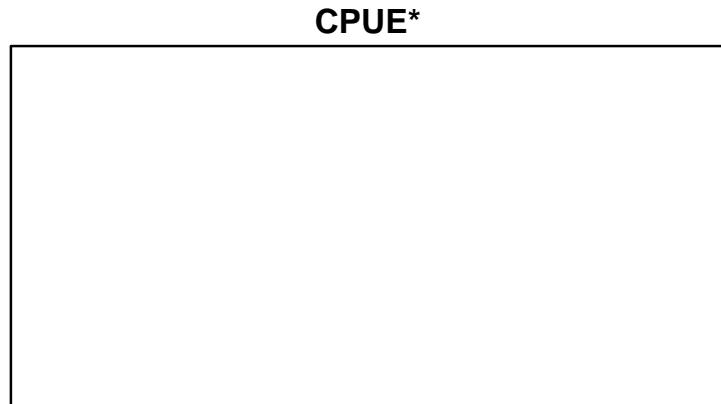
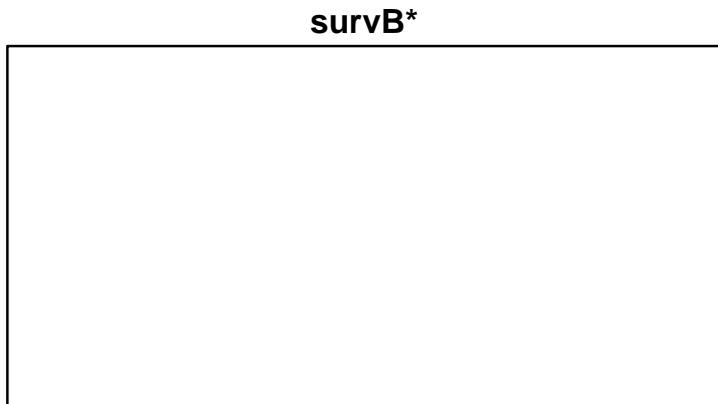
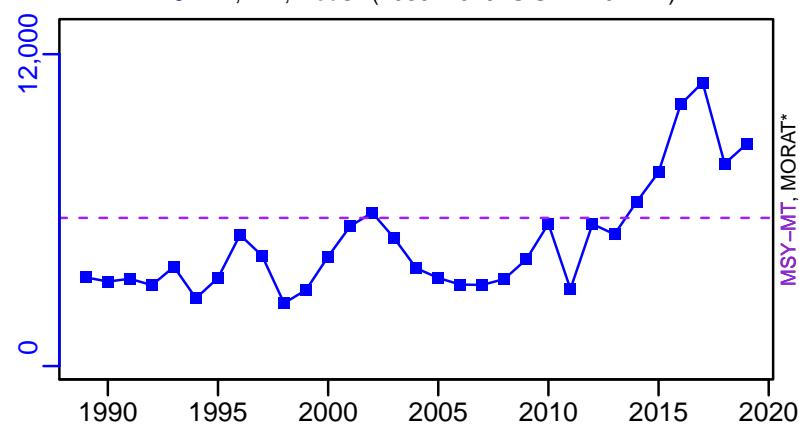


<span style="color: blue;">■</span>	Listed time series	<span style="color: purple;">—</span>	Target BRP	<span style="color: gray;">—</span>	Rec-Est
<span style="color: purple;">—</span>	MSY-based BRP	<span style="color: green;">—</span>	Lim BRP	*	No Data

**Black sea bass Mid-Atlantic Coast [BSBASSMATLC]**

TC-MT, TL\*, RecC\* (1989–2019–SISIMP2021–2)

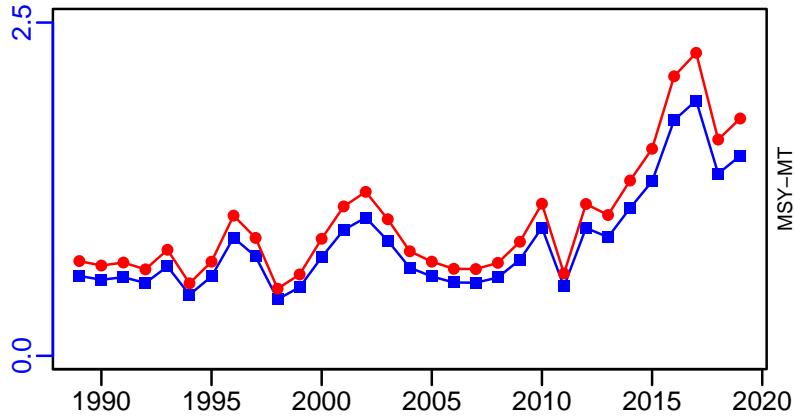
TAC\*, Cpair\*, Cadv\*



**EFFORT\***



TC-MT/MSY-MT, CdivMEANC-ratio, (1989–2019–SISIMP2021–2)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Black sea bass South Atlantic [BSBASSSATL]

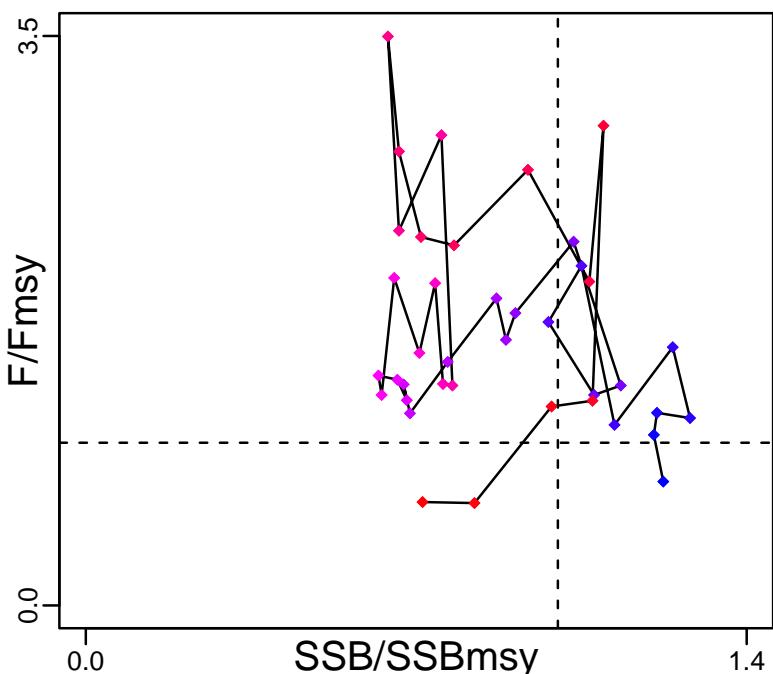
<b>Metadata</b>	
<b>Scientific Name</b>	Centropristes striata
<b>Current Assess ID</b>	SEFSC-BSBASSSATL-1977-2016-SISIMP2021
<b>Area</b>	South Atlantic
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southeast Fisheries Science Center
<b>Asmts in RAM</b>	2010, 2016, 2012

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	TBmsy-MT	2010	5399
<b>SSBmsy</b>	SSBmsy-E00eggs	2016	$3 \times 10^{12}$
<b>Fmsy</b>	Fmsy-1/yr	2016	0.31
<b>ERmsy</b>	ERmsy-calc-ratio	2010	0.148
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2016	424
<b>M</b>	M-1/yr	2010	0.38
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-E00eggs	2016	$1.859 \times 10^{12}$
<b>Flim</b>	Flim-1/yr	2016	0.31
<b>ERlim</b>	-	-	-

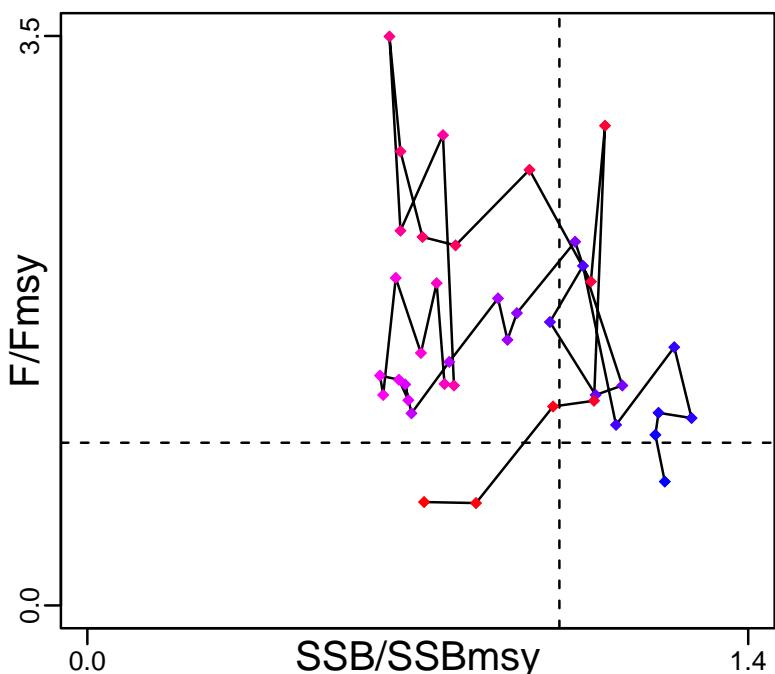
<b>Time Series</b>						
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>	
<b>TB</b>	TB-MT	2010	3800	-	-	
<b>SSB</b>	SSB-E00eggs	2016	$2.14 \times 10^{12}$	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2016	20,625,990	-	1	
<b>F</b>	F-1/yr	2016	0.197	-	-	
<b>ER</b>	ER-calc-ratio	2010	0.154	-	-	
<b>TC</b>	TC-MT	2016	262			
<b>TL</b>	TL-MT	2010	585			
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2010	0.704			
<b>SSB/SSBmsy</b>	SSB-E00eggs/SSBmsy-E00eggs	2016	0.713			
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2016	0.635			
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-calc-ratio	2010	1.037			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

**Black sea bass South Atlantic [BSBASSSATL]**

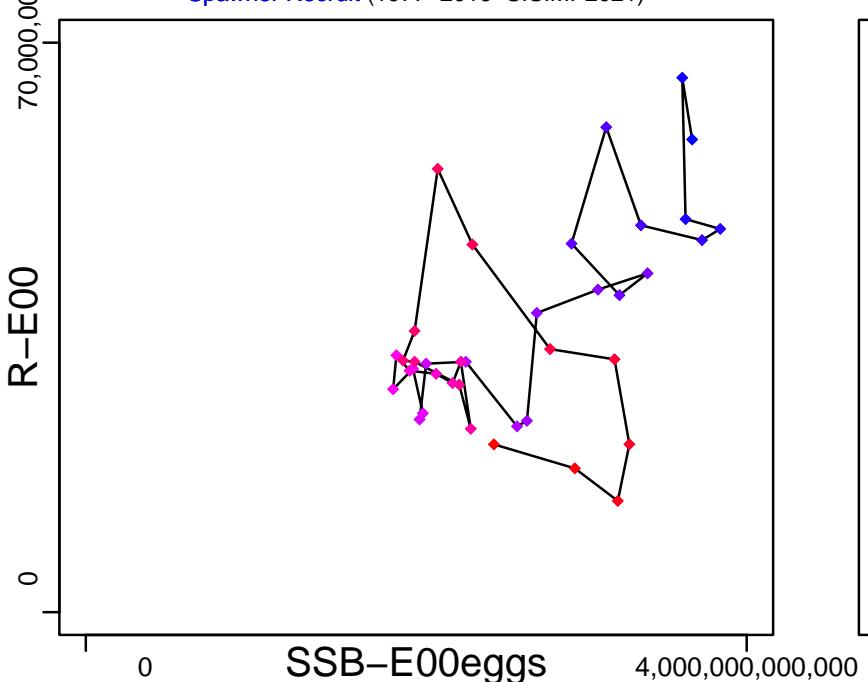
Kobe MSYpref (1977–2016–SISIMP2021)



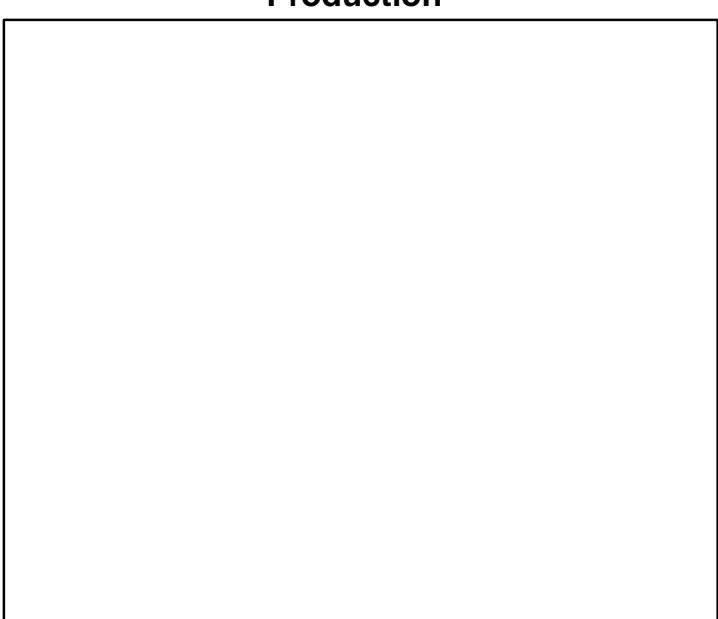
Kobe MGTpref (1977–2016–SISIMP2021)



Spawner Recruit (1977–2016–SISIMP2021)



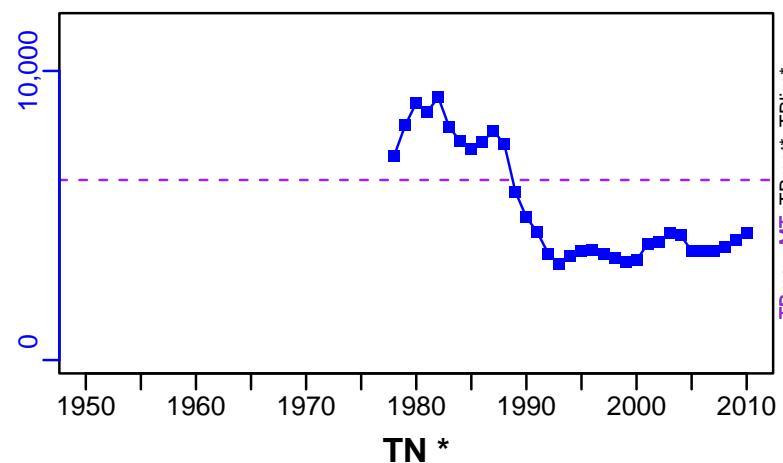
Production\*



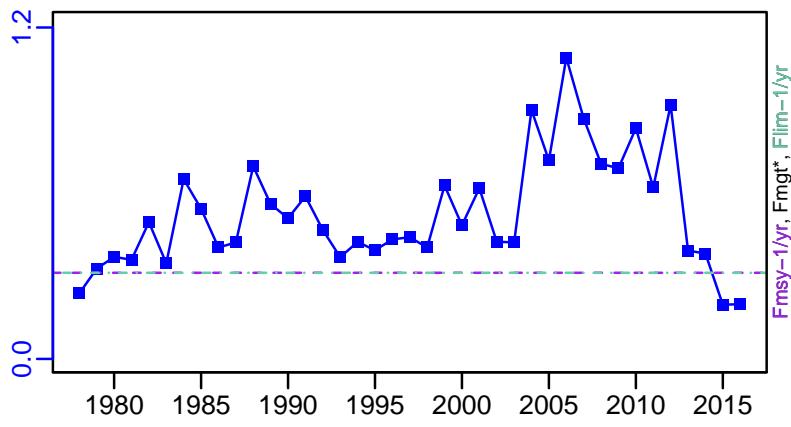
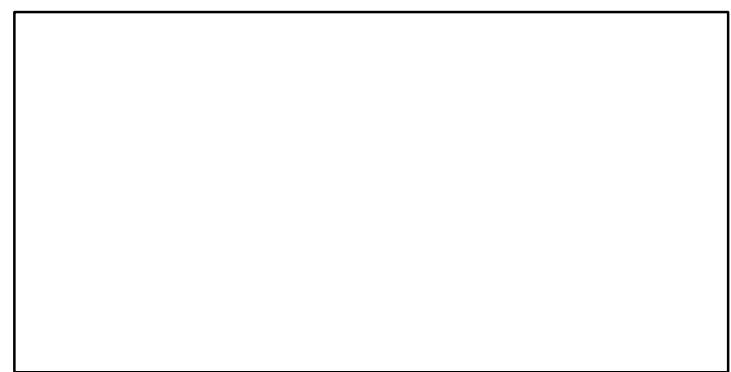
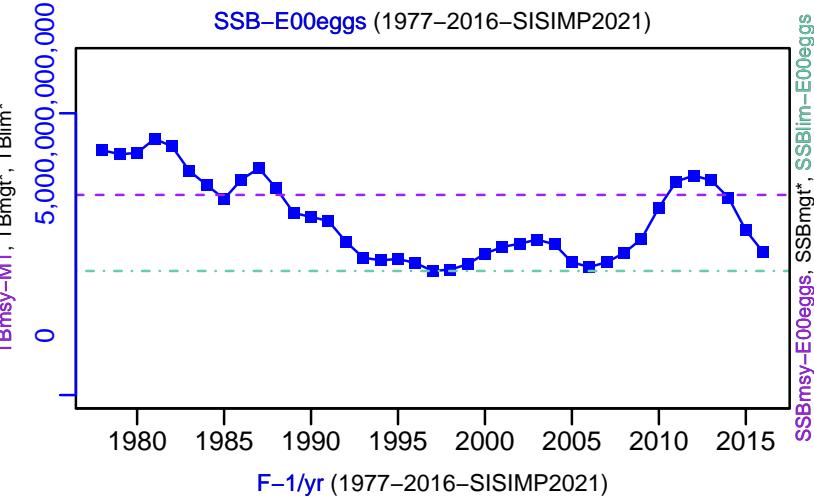
◆ Start Year    ♦ End Year    \* No Data

### Black sea bass South Atlantic [BSBASSSATL]

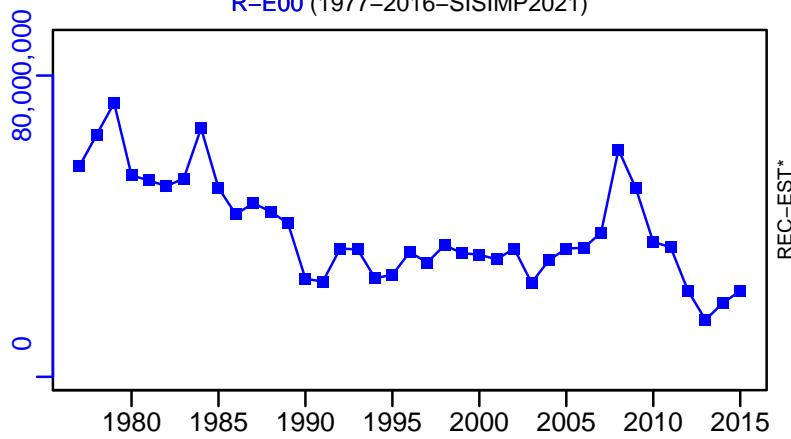
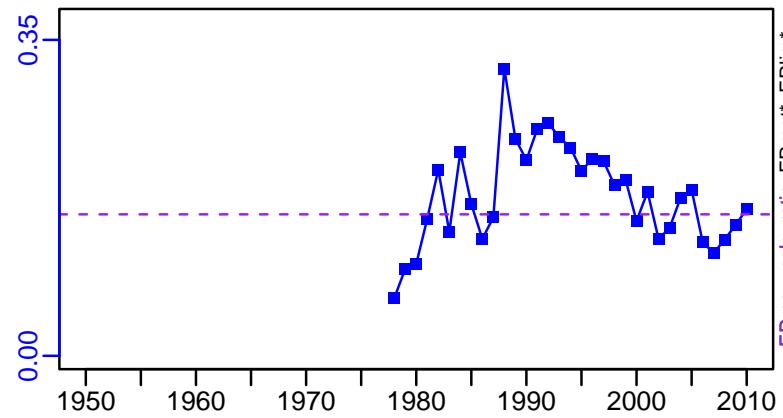
TB-MT (1950–2010–HIVELY)



SSB-E00eggs (1977–2016–SISIMP2021)



ER-calc-ratio (1950–2010–HIVELY)

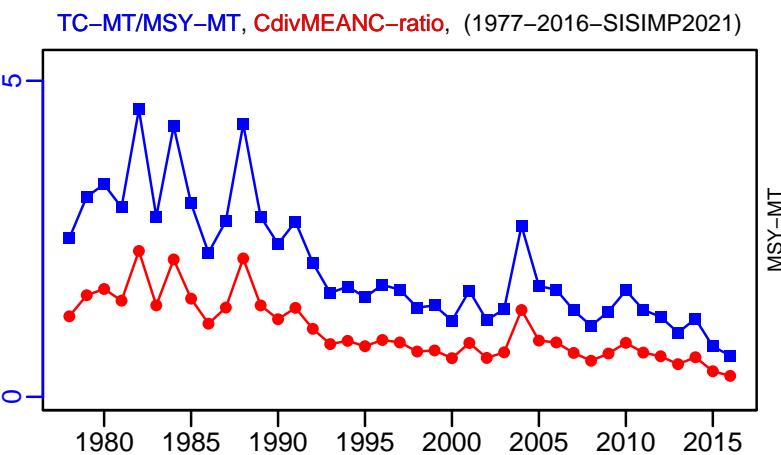
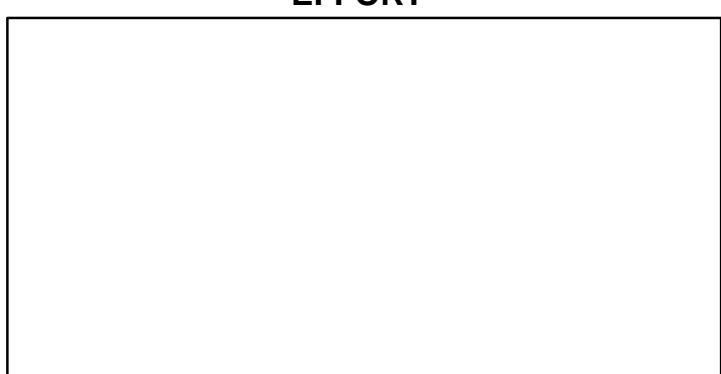
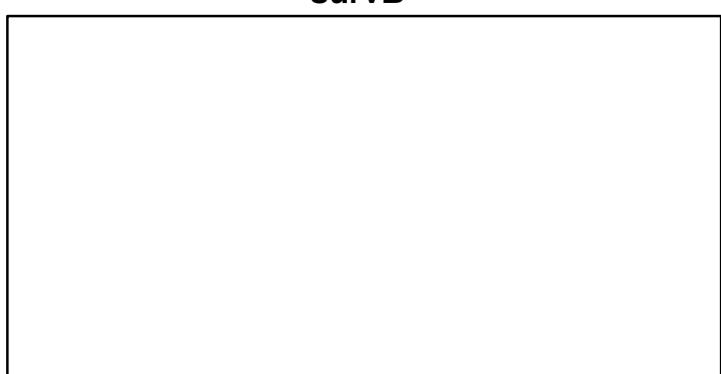
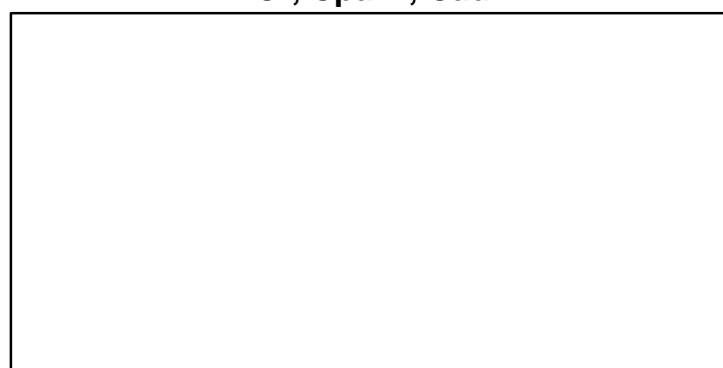
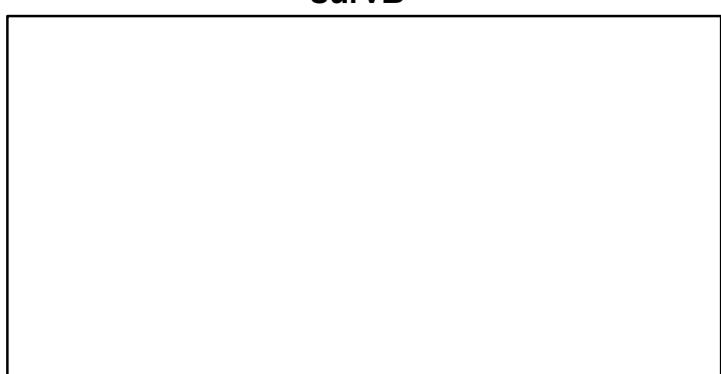
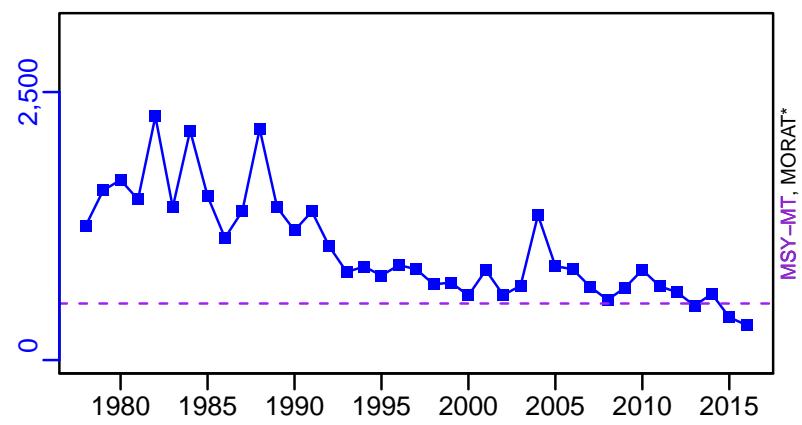


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	--- Lim BRP	* No Data

**Black sea bass South Atlantic [BSBASSSATL]**

TC-MT, TL\*, RecC\* (1977–2016–SISIMP2021)

TAC\*, Cpair\*, Cadv\*



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

**Bluespotted seabream North West Africa Mauritania-Senegal  
[BSBRMNWAMRT-SEN]**

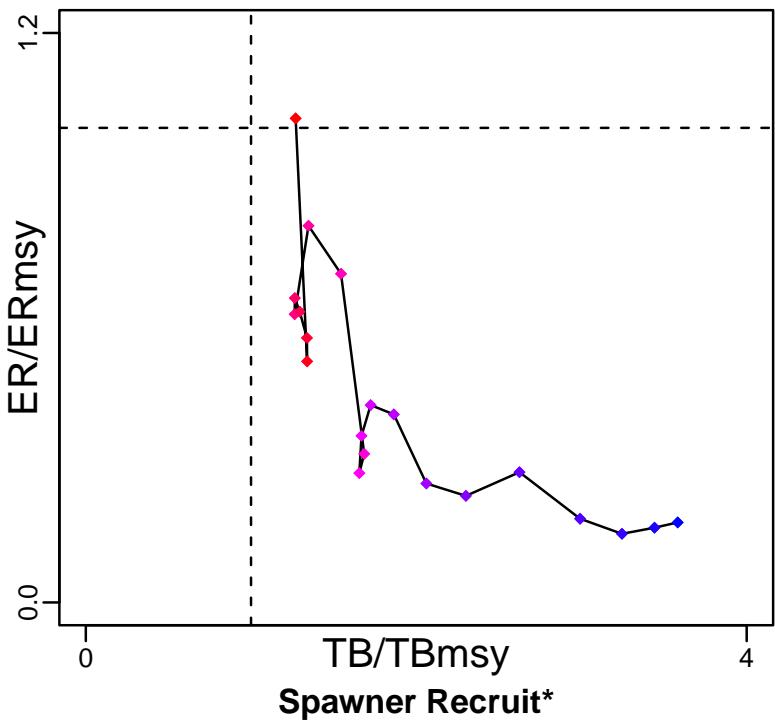
Metadata	
<b>Scientific Name</b>	Pagrus caeruleostictus
<b>Current Assess ID</b>	FAO-DR-BSBRMNWAMRT-SEN-1990-2016-ASHBROOK
<b>Area</b>	North West Africa Mauritania-Senegal
<b>Management Authority</b>	Food and Agriculture Organization of the United Nations
<b>Assessor</b>	FAO/CECAF Working Group on the Assessment of Demersal Resources
<b>Asmts in RAM</b>	2016

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

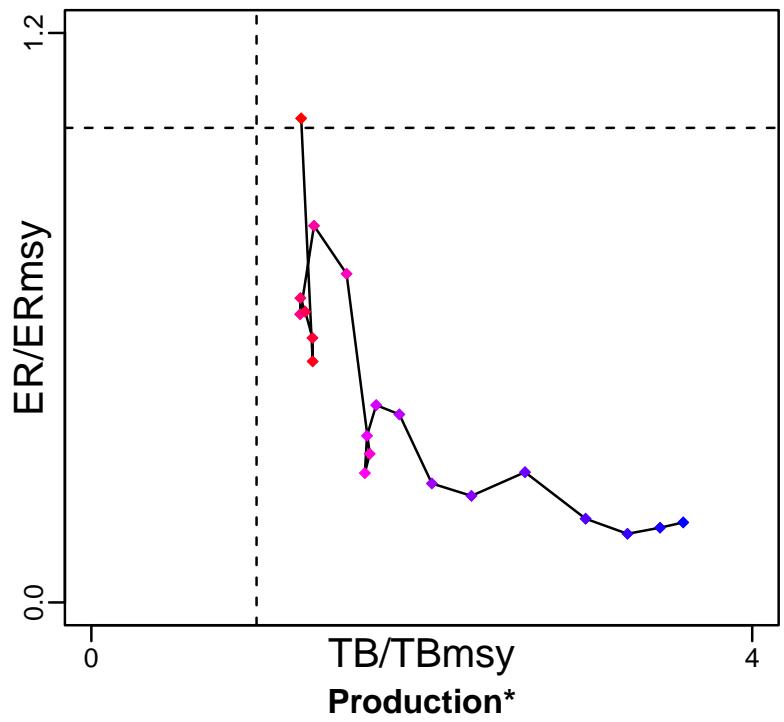
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2016	11,672		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

Bluespotted seabream North West Africa Mauritania–Senegal [BSBRMNWAMRT–SEN]

Kobe MSYpref (1990–2016–ASHBROOK)



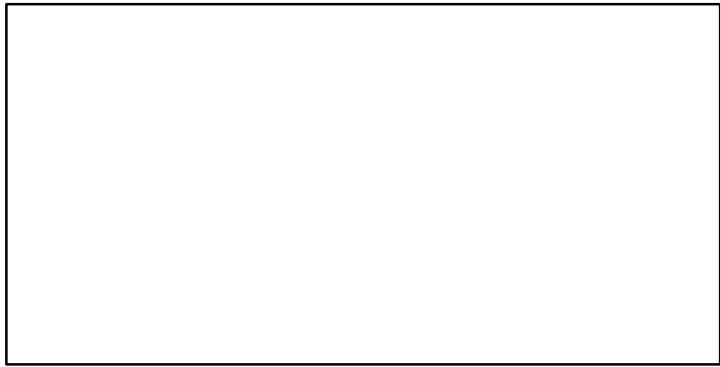
Kobe MGTpref (1990–2016–ASHBROOK)



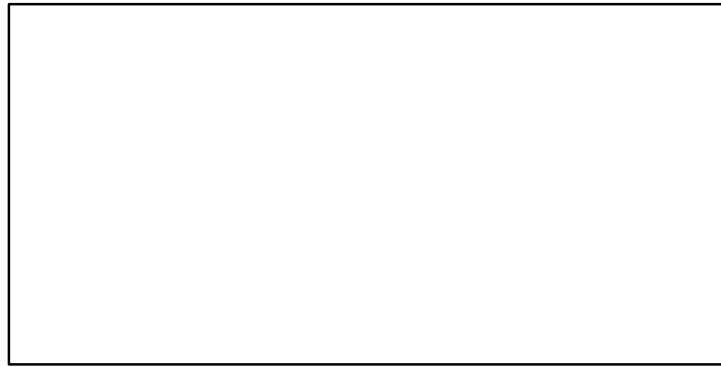
◆ Start Year    ♦ End Year    \* No Data

**Bluespotted seabream North West Africa Mauritania–Senegal [BSBRMNWAMRT–SEN]**

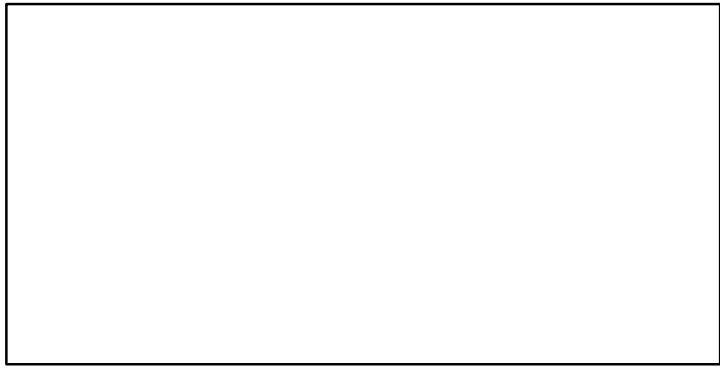
**TB\***



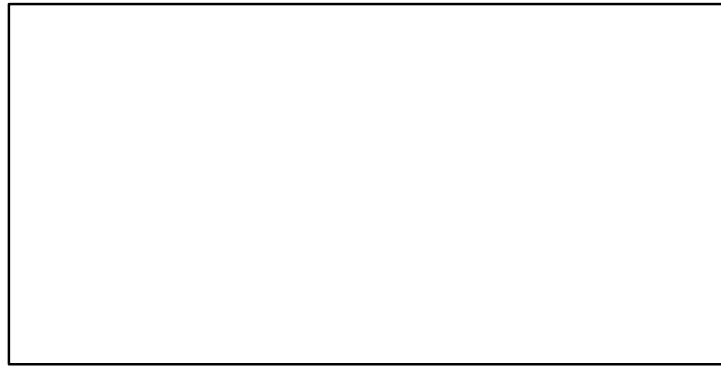
**SSB\***



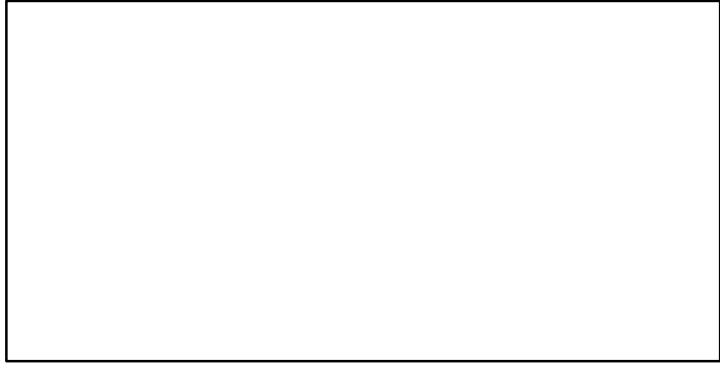
**TN \***



**F\***



**ER\***



**Recruits\***

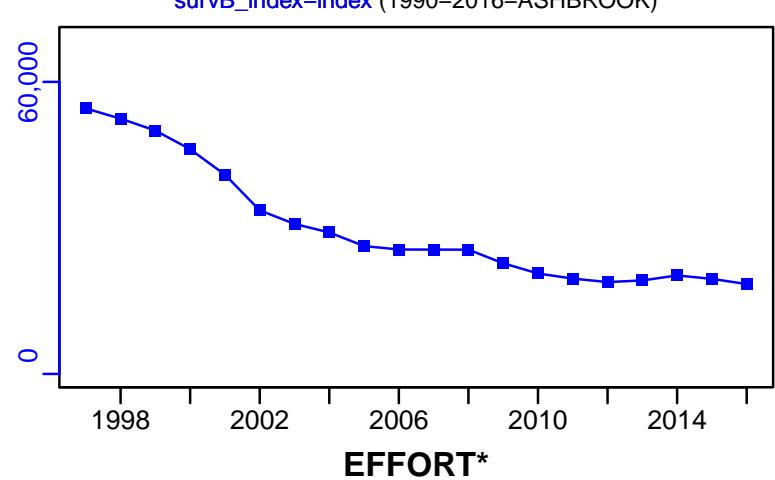
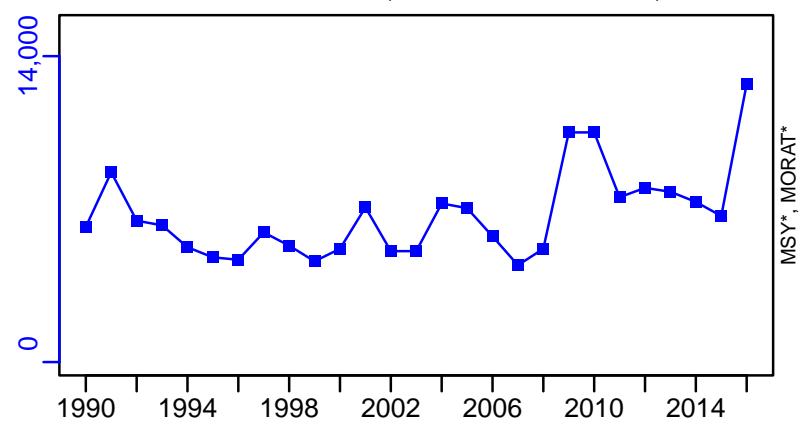


- |                      |                  |           |
|----------------------|------------------|-----------|
| ■ Listed time series | - - - Target BRP | — Rec-Est |
| - - - MSY-based BRP  | - - - Lim BRP    | * No Data |

**Bluespotted seabream North West Africa Mauritania–Senegal [BSBRMNWAMRT–SEN]**

TC–MT, TL\*, RecC\* (1990–2016–ASHBROOK)

TAC\*, Cpair\*, Cadv\*



EFFORT\*

CPUE\*

CdivMSY\*

- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - MSY                  | * No Data |

## Crimson jobfish Main Hawaiian Islands [CJOBMHI]

<b>Metadata</b>	
<b>Scientific Name</b>	Pristipomoides filamentosus
<b>Current Assess ID</b>	PIFSC-CJOBMHI-1949-2016-SISIMP2021
<b>Area</b>	Main Hawaiian Islands
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Pacific Fisheries Science Center
<b>Asmts in RAM</b>	2016

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2016	312
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

<b>Time Series</b>					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2016	190		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

Crimson jobfish Main Hawaiian Islands [CJOBMHI]

**Kobe MSY\***

**Kobe MGT\***

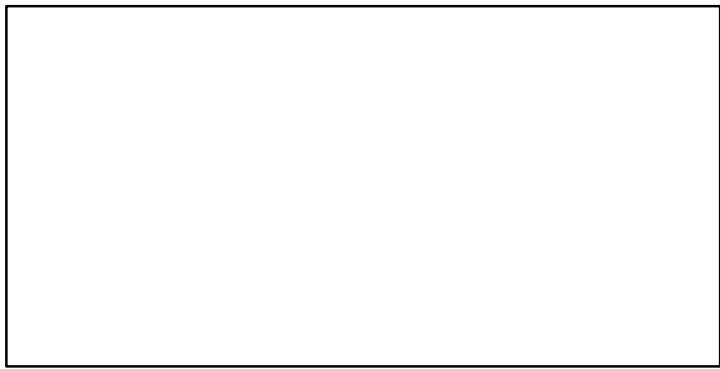
**Spawner Recruit\***

**Production\***

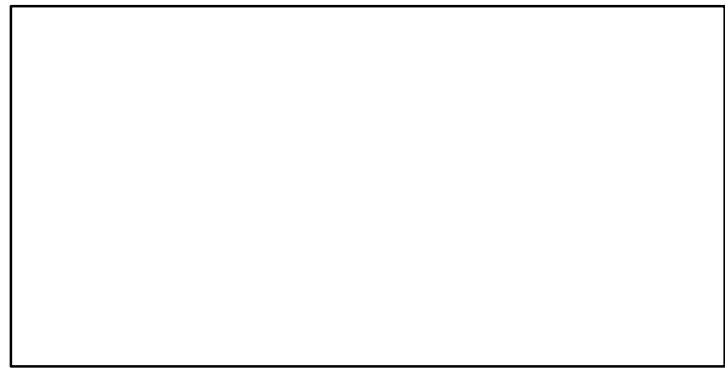
◆ Start Year   ◆ End Year   \* No Data

Crimson jobfish Main Hawaiian Islands [CJOBMHI]

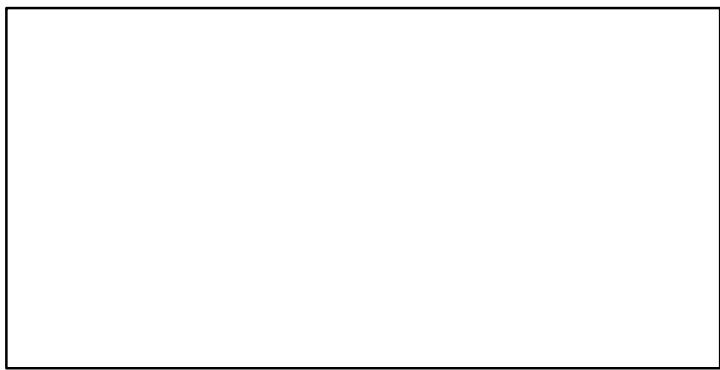
**TB\***



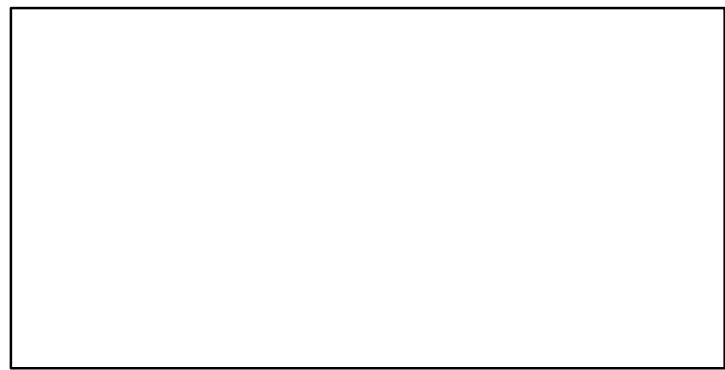
**SSB\***



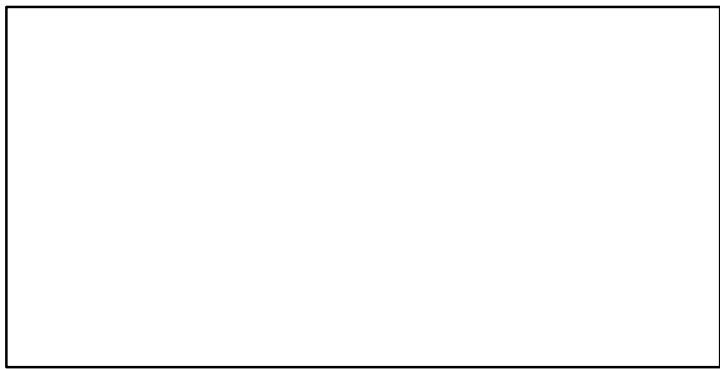
**TN \***



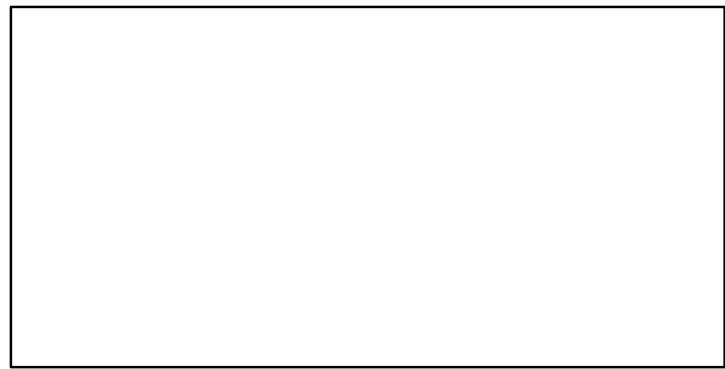
**F\***



**ER\***



**Recruits\***

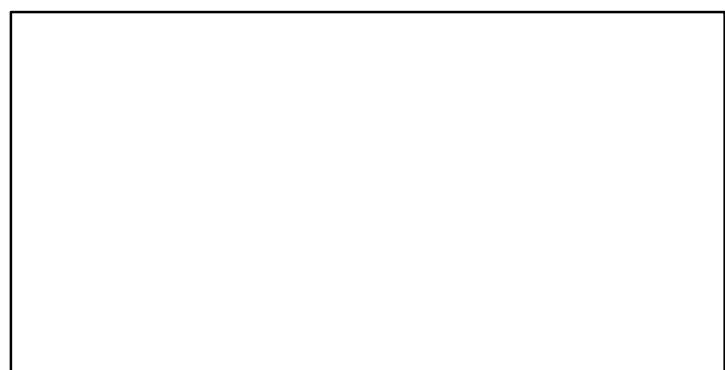
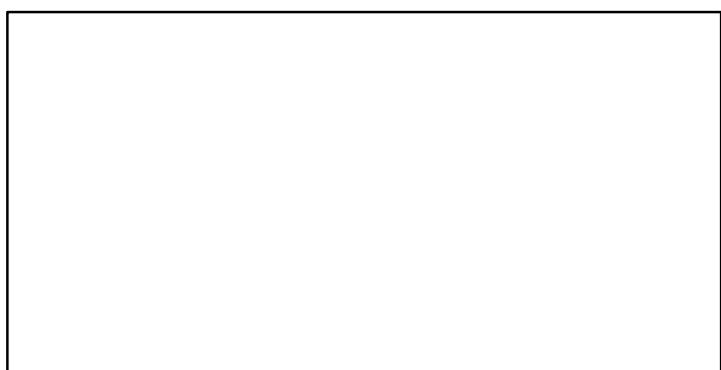
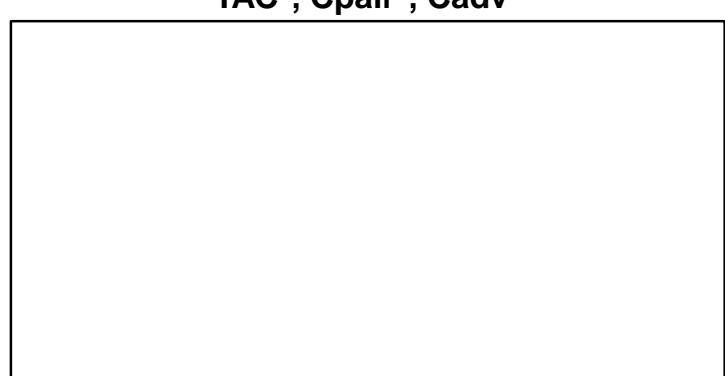
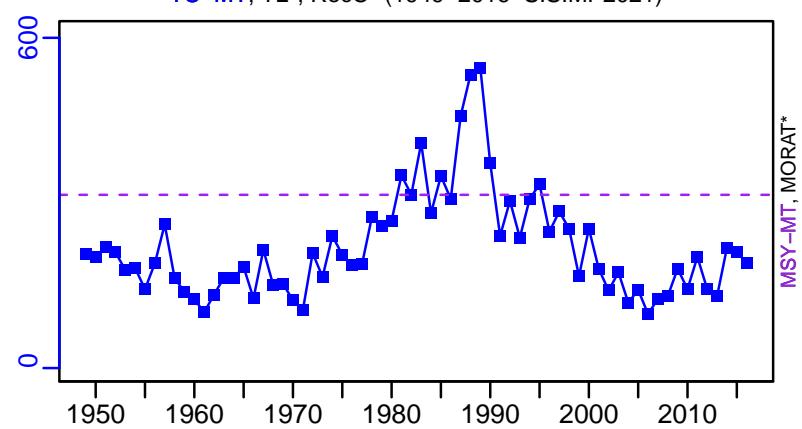


- |       |                    |       |            |   |         |
|-------|--------------------|-------|------------|---|---------|
| ■     | Listed time series | - - - | Target BRP | — | Rec-Est |
| - - - | MSY-based BRP      | - - - | Lim BRP    | * | No Data |

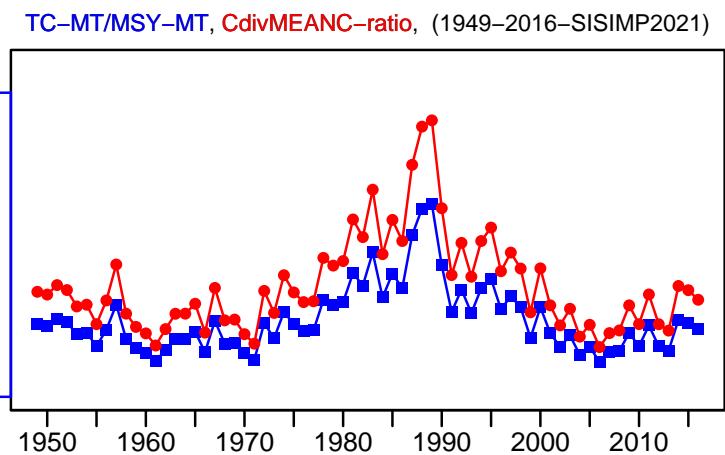
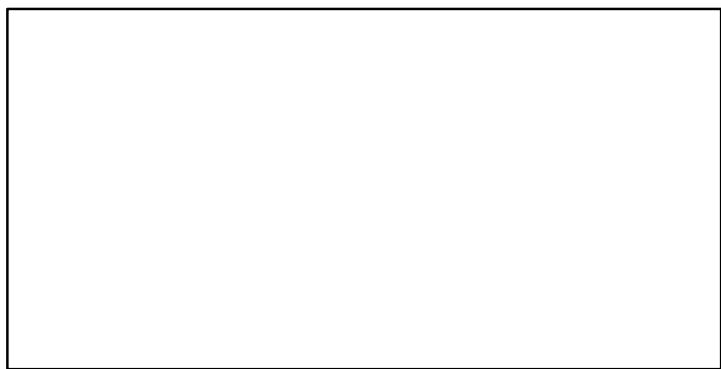
Crimson jobfish Main Hawaiian Islands [CJOBMHI]

TC-MT, TL\*, RecC\* (1949–2016–SISIMP2021)

TAC\*, Cpair\*, Cadv\*



**EFFORT\***



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Crimson jobfish Okinawa Islands [CJOBOKWI]

<b>Metadata</b>	
<b>Scientific Name</b>	Pristipomoides filamentosus
<b>Current Assess ID</b>	FAFRFJ-CJOBOKWI-1989-2013-JPNIMP2016
<b>Area</b>	Okinawa Islands
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>	2013

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

<b>Time Series</b>					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2013	25		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

**Kobe MSY\***

**Kobe MGT\***

**Spawner Recruit\***

**Production\***

◆ Start Year ♦ End Year \* No Data

Crimson jobfish Okinawa Islands [CJOBOKWI]

**TB\***



**SSB\***



**TN \***



**F\***



**ER\***



**Recruits\***

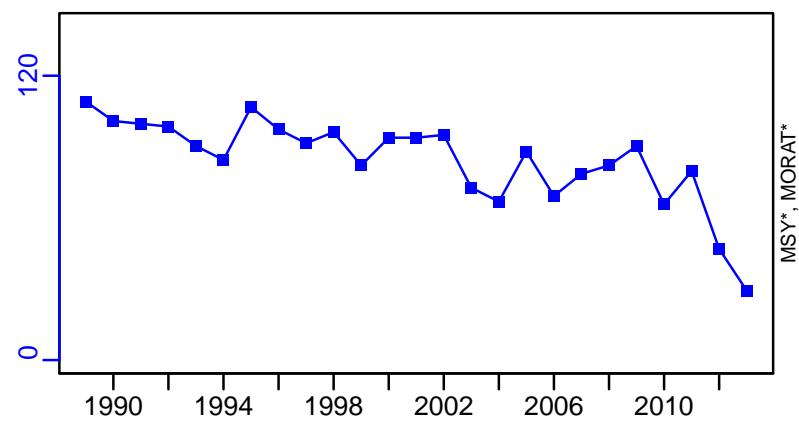


- |       |                    |       |            |   |         |
|-------|--------------------|-------|------------|---|---------|
| ■     | Listed time series | - - - | Target BRP | — | Rec-Est |
| - - - | MSY-based BRP      | - - - | Lim BRP    | * | No Data |

Crimson jobfish Okinawa Islands [CJOBOKWI]

TC-MT, TL\*, RecC\* (1989–2013–JPNIMP2016)

TAC\*, Cpair\*, Cadv\*



survB\*

CPUE\*

EFFORT\*

CdivMSY\*

- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - MSY                  | * No Data |

## Cobia Gulf of Mexico [COBGM]

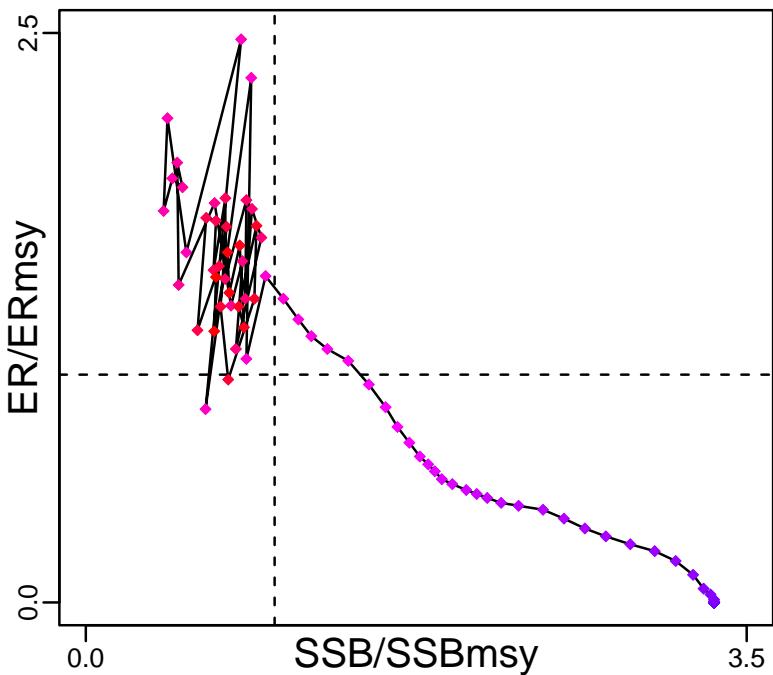
<b>Metadata</b>	
<b>Scientific Name</b>	Rachycentron canadum
<b>Current Assess ID</b>	SEFSC-COBGM-1927-2018-SISIMP2021-2
<b>Area</b>	Gulf of Mexico
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southeast Fisheries Science Center
<b>Asmts in RAM</b>	2011, 2018

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	TBmsy-calc-MT	2018	10,606
<b>SSBmsy</b>	SSBmsy-MT	2018	5410
<b>Fmsy</b>	Fmsy-1/yr	2011	0.378
<b>ERmsy</b>	ERmsy-ratio	2018	0.231
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	Fmgt-1/yr	2011	0.378
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2018	2450
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2018	3350
<b>Flim</b>	Flim-1/yr	2011	0.378
<b>ERlim</b>	ERlim-ratio	2018	0.231

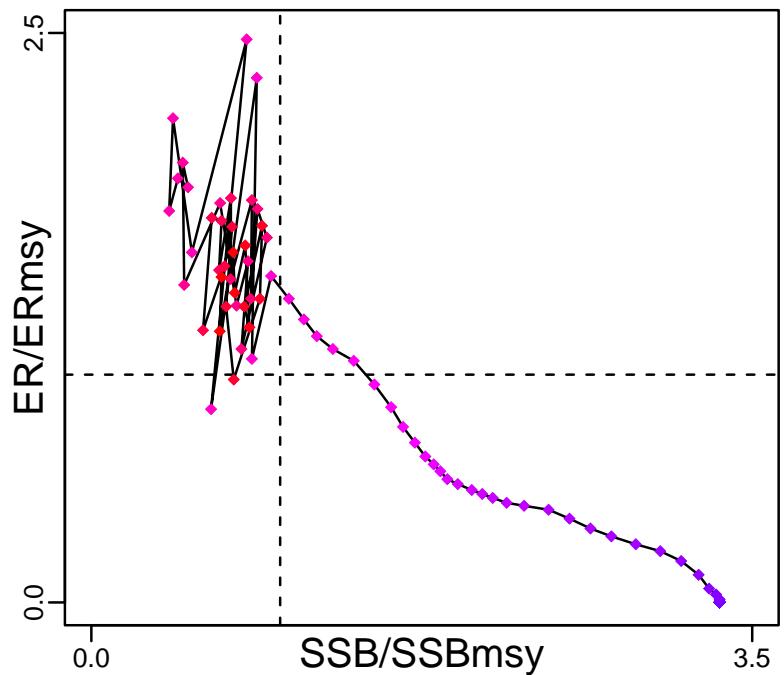
<b>Time Series</b>						
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>	
<b>TB</b>	TB-MT	2011	3020	-	1+	
<b>SSB</b>	SSB-MT	2018	3730	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2018	1,300,000	-	0	
<b>F</b>	F-1/yr	2011	0.676	-	-	
<b>ER</b>	ER-ratio	2018	0.33	-	-	
<b>TC</b>	TC-MT	2018	1870			
<b>TL</b>	-	-	-			
<b>TB/TBmsy</b>	-	-	-			
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2018	0.689			
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2011	1.788			
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2018	1.429			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2011	1.788			
<b>ER/ERmgt</b>	-	-	-			

Cobia Gulf of Mexico [COBGM]

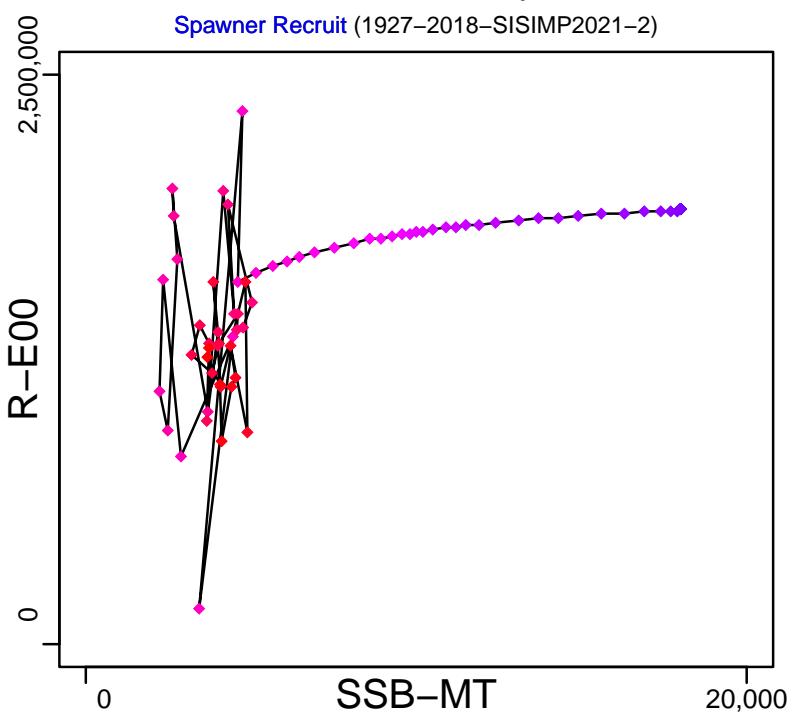
Kobe MSYpref (1927–2018–SISIMP2021–2)



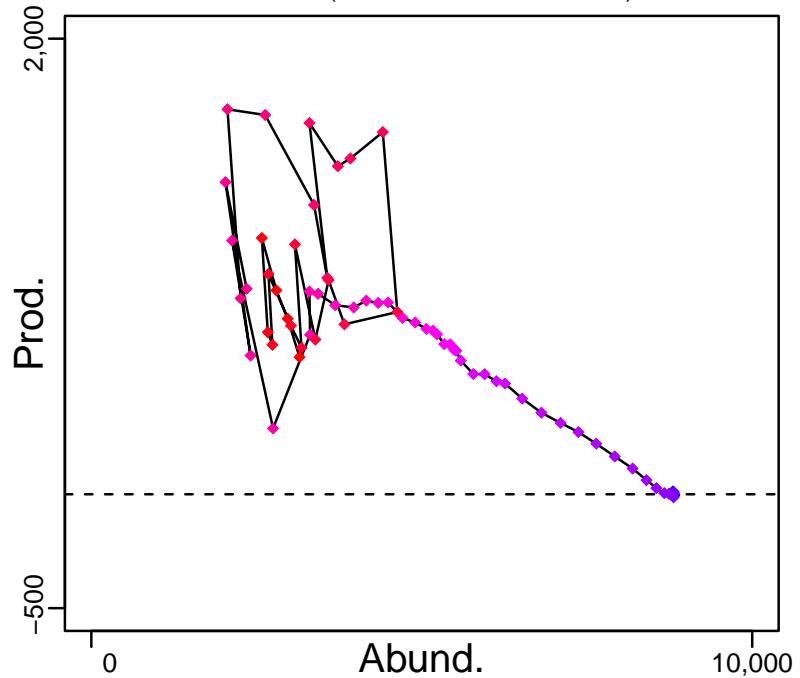
Kobe MGTpref (1927–2018–SISIMP2021–2)



Spawner Recruit (1927–2018–SISIMP2021–2)



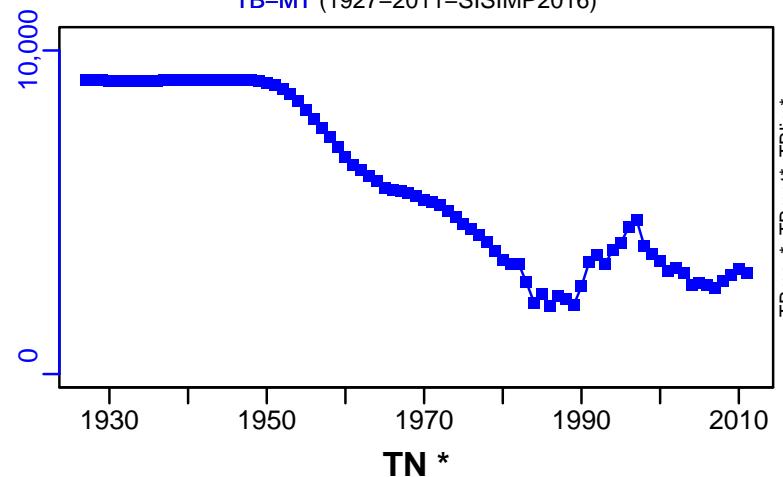
Production (1927–2018–SISIMP2021–2)



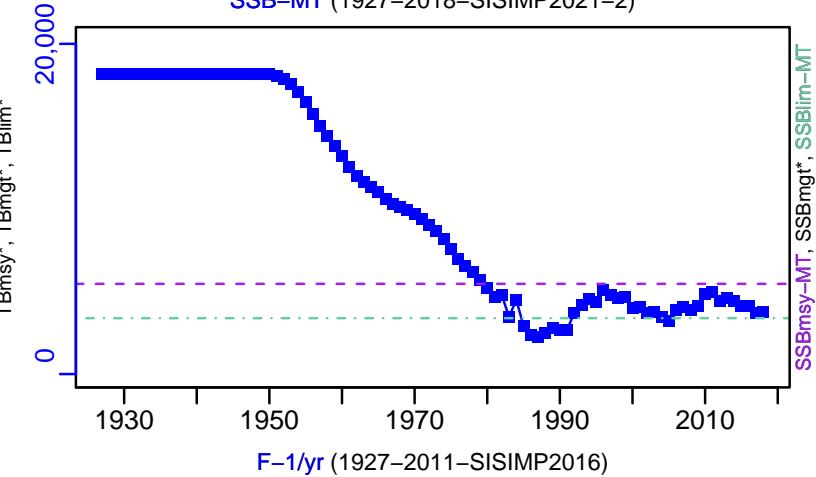
- ◆ Start Year
- ◆ End Year
- \* No Data

### Cobia Gulf of Mexico [COBGM]

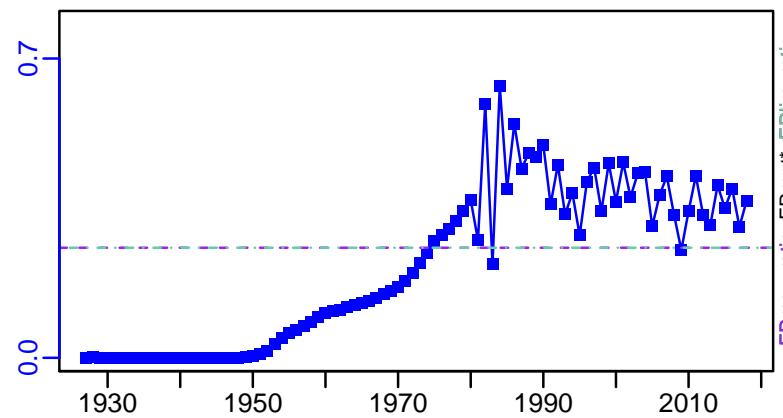
TB-MT (1927–2011–SISIMP2016)



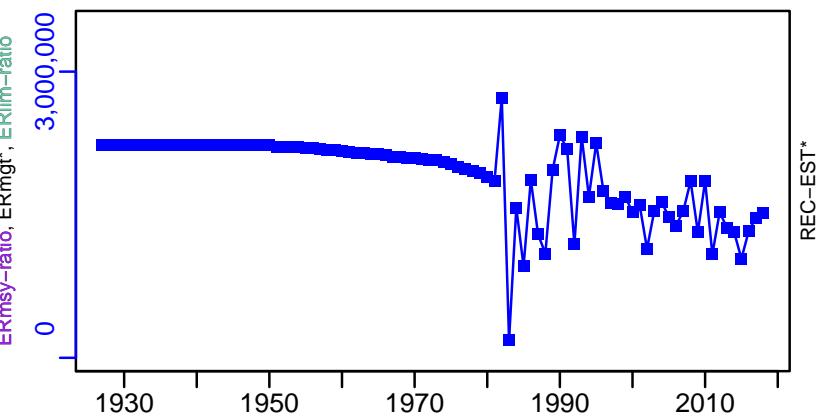
SSB-MT (1927–2018–SISIMP2021–2)



ER-ratio (1927–2018–SISIMP2021–2)



R-E00 (1927–2018–SISIMP2021–2)

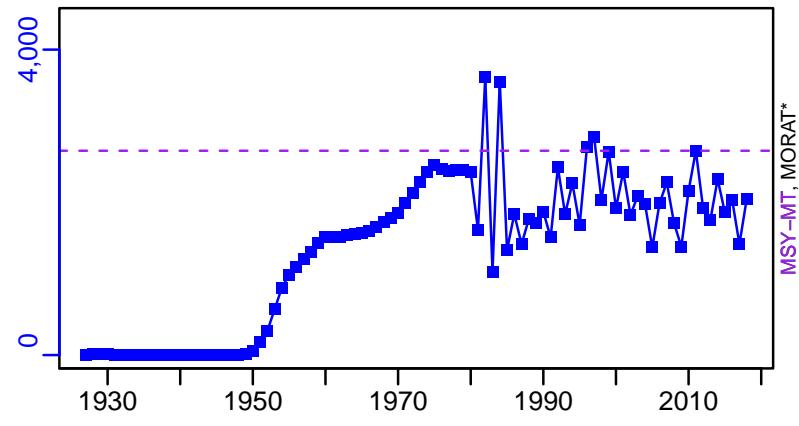


- |                      |              |           |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| — MSY-based BRP      | --- Lim BRP  | * No Data |

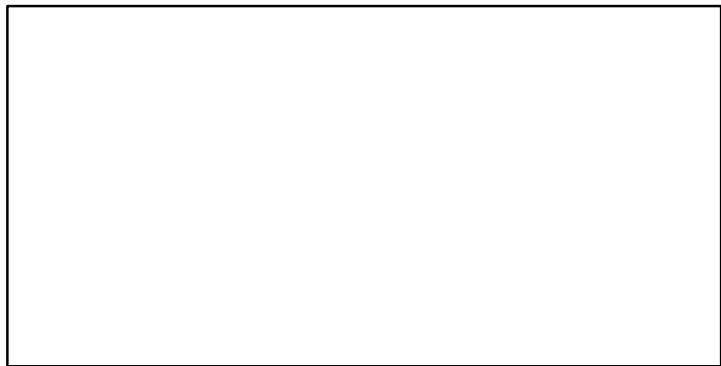
Cobia Gulf of Mexico [COBGM]

TC-MT, TL\*, RecC\* (1927–2018–SISIMP2021–2)

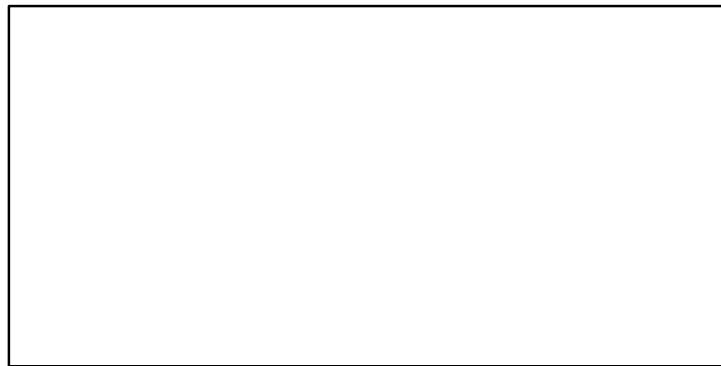
TAC\*, Cpair\*, Cadv\*



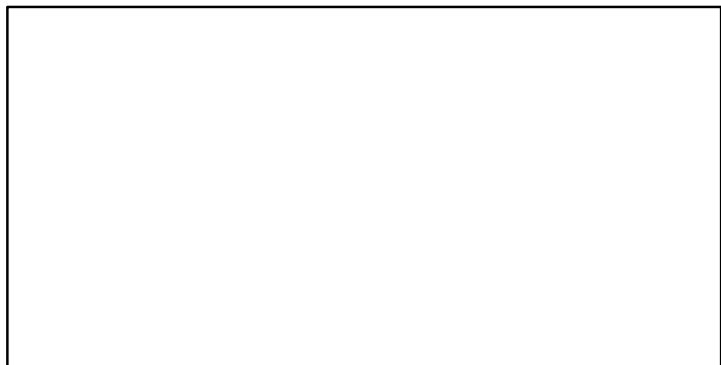
**survB\***



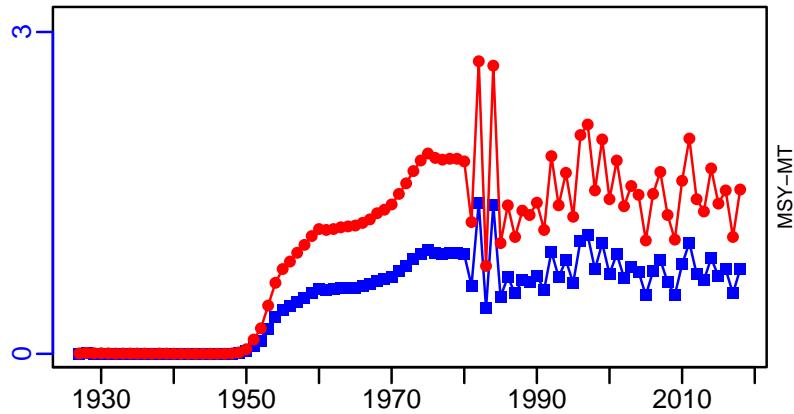
**CPUE\***



**EFFORT\***



TC-MT/MSY-MT, CdivMEANC-ratio, (1927–2018–SISIMP2021–2)



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - - MSY                | * No Data |

## Cobia Southern Atlantic coast [COBSATLC]

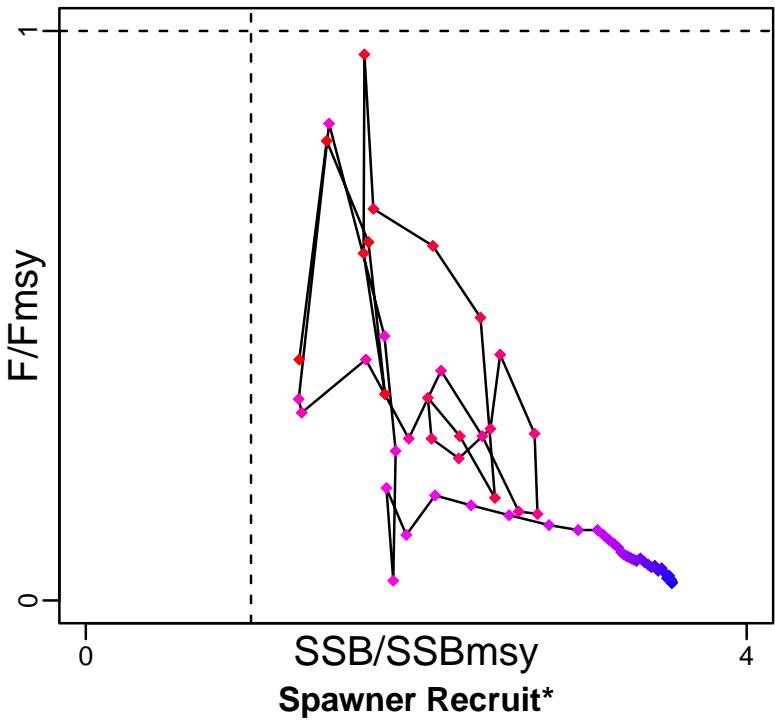
Metadata	
<b>Scientific Name</b>	Rachycentron canadum
<b>Current Assess ID</b>	SEFSC-COBSATLC-1950-2011-SISIMP2016
<b>Area</b>	Southern Atlantic coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southeast Fisheries Science Center
<b>Asmts in RAM</b>	2011

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2011	537
<b>Fmsy</b>	Fmsy-1/yr	2011	0.461
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2011	367
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2011	397
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

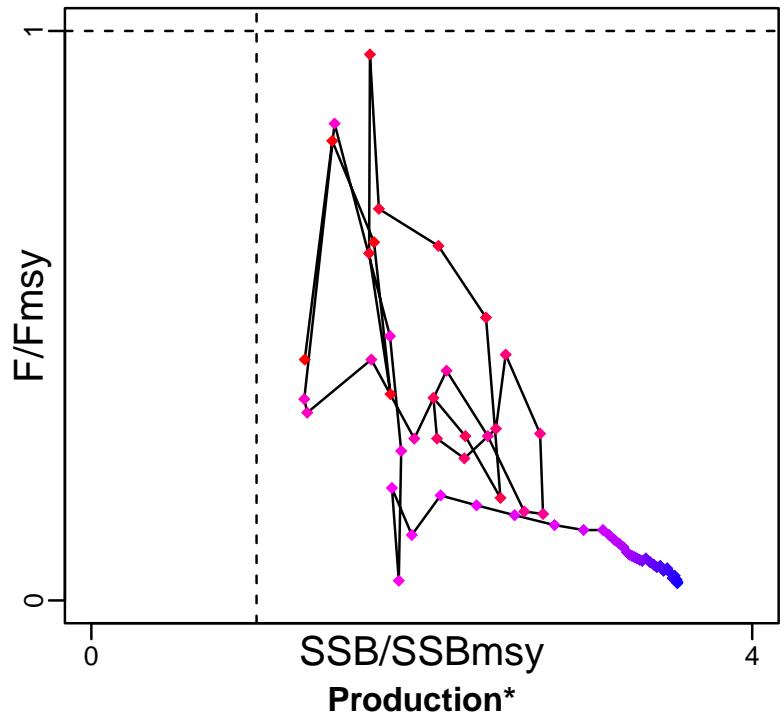
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
<b>TB</b>	-	-	-	-	-	-
<b>SSB</b>	SSB-MT	2011	693	Females	2+	
<b>TN</b>	-	-	-	-	-	-
<b>R</b>	-	-	-	-	-	-
<b>F</b>	F-1/yr	2011	0.195	-	-	
<b>ER</b>	-	-	-	-	-	
<b>TC</b>	-	-	-			
<b>TL</b>	TL-MT	2011	15			
<b>TB/TBmsy</b>	-	-	-			
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2011	1.292			
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2011	0.423			
<b>ER/ERmsy</b>	-	-	-			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

**Cobia Southern Atlantic coast [COBSATLC]**

Kobe MSYpref (1950–2011–SISIMP2016)



Kobe MGTpref (1950–2011–SISIMP2016)



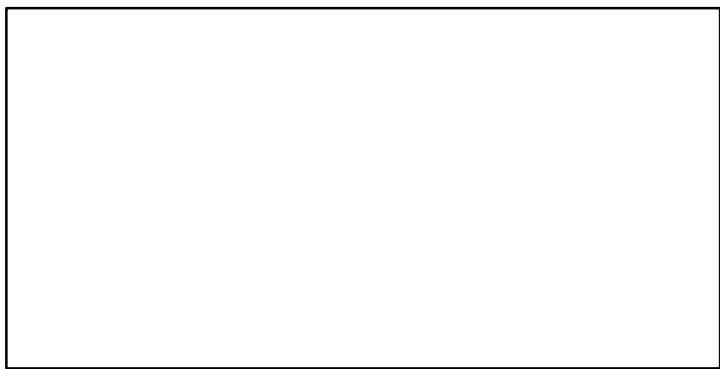
**Spawner Recruit\***

**Production\***

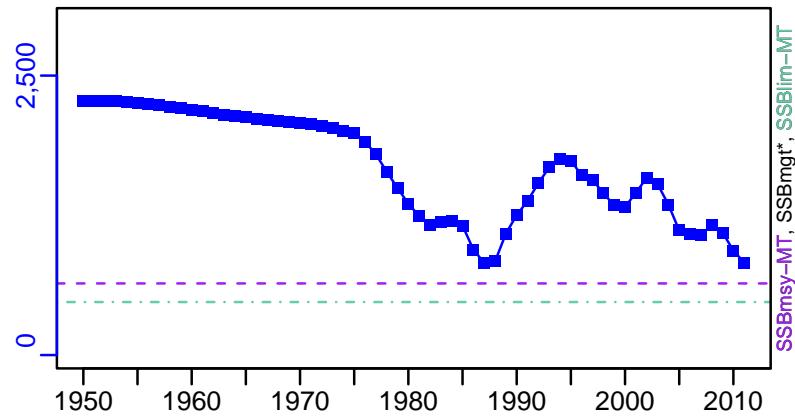
◆ Start Year   ◆ End Year   \* No Data

Cobia Southern Atlantic coast [COBSATLC]

**TB\***



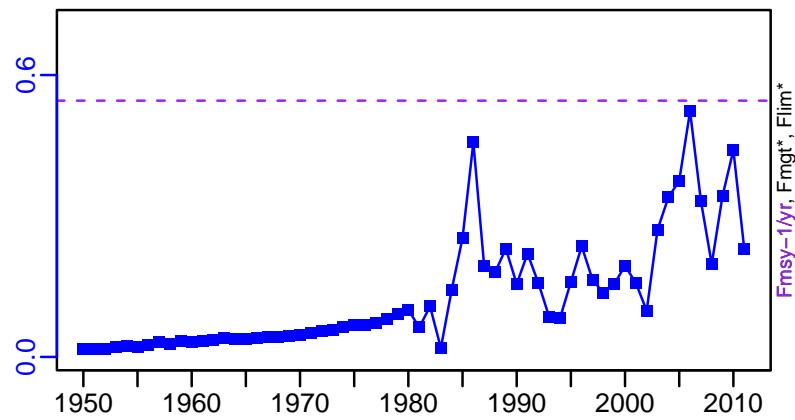
SSB-MT (1950–2011–SISIMP2016)



**TN \***

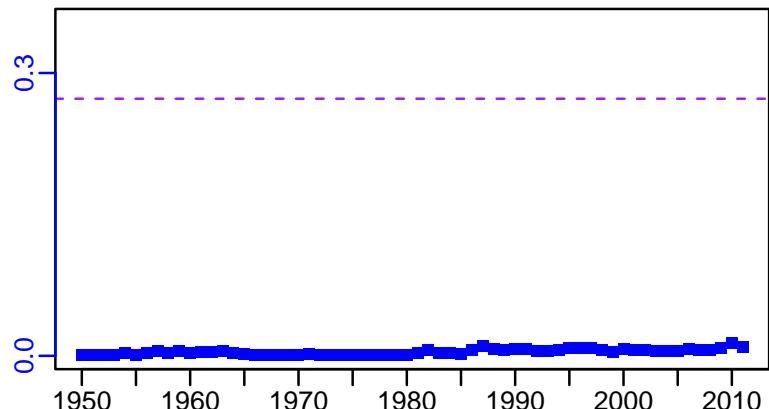


F-1/yr (1950–2011–SISIMP2016)

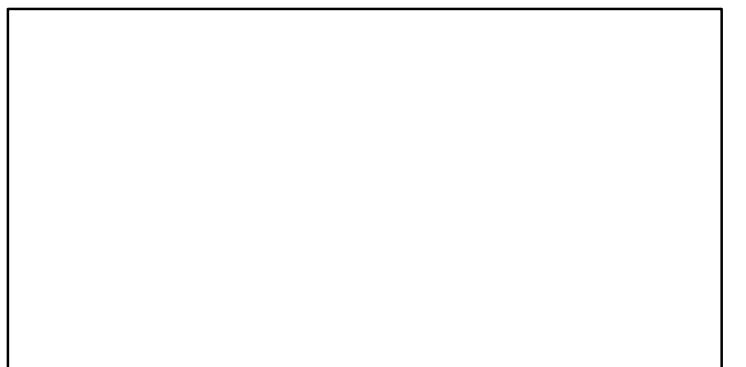


ER-calc-ratio (1950–2011–SISIMP2016)

ER<sub>mgt</sub>-conv-ratio, ER<sub>mgt</sub>, ER<sub>lim</sub>\*



**Recruits\***

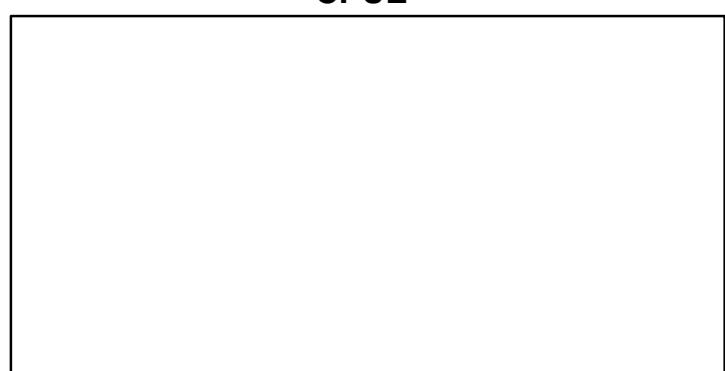
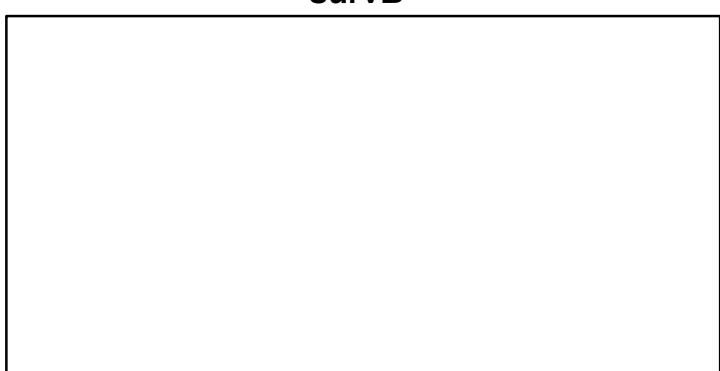
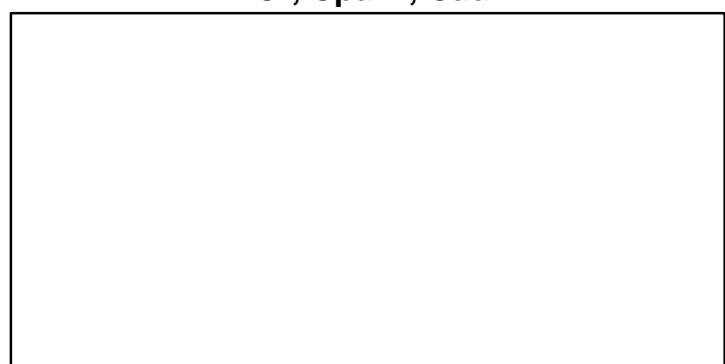
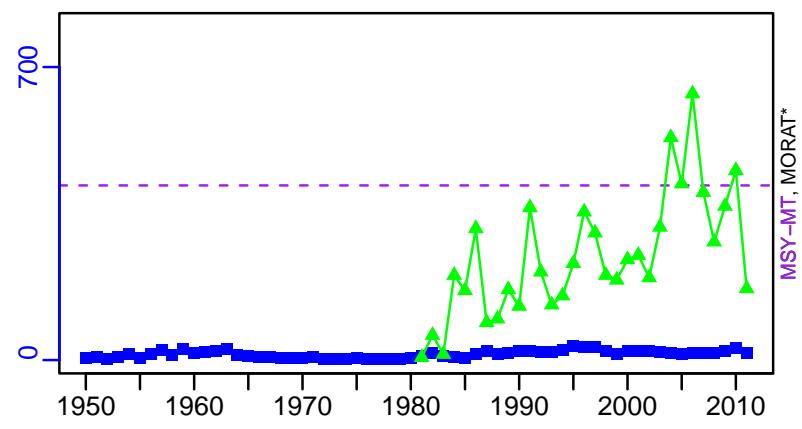


- Listed time series    - - - Target BRP    — Rec-Est
- - - MSY-based BRP    - - - Lim BRP    \* No Data

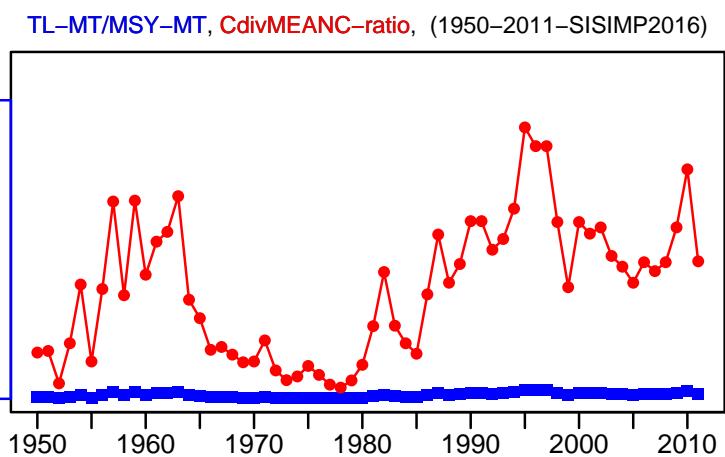
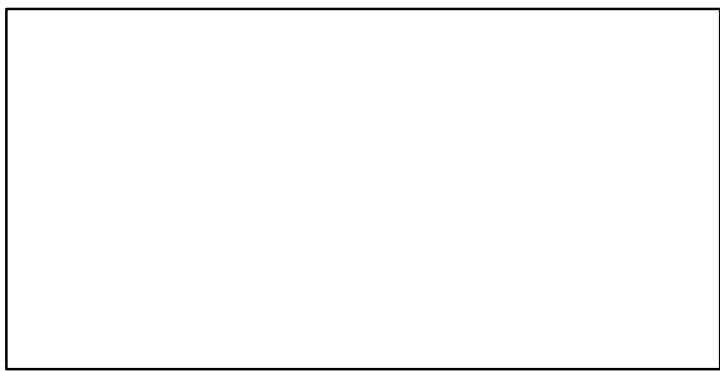
Cobia Southern Atlantic coast [COBSATLC]

TL-MT, TC\*, RecC-MT (1950–2011–SISIMP2016)

TAC\*, Cpair\*, Cadv\*



**EFFORT\***



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

**Common pandora Malta Island and South of Sicily (GSA 15, 16)**  
**[CPANDMEDGSA15-16]**

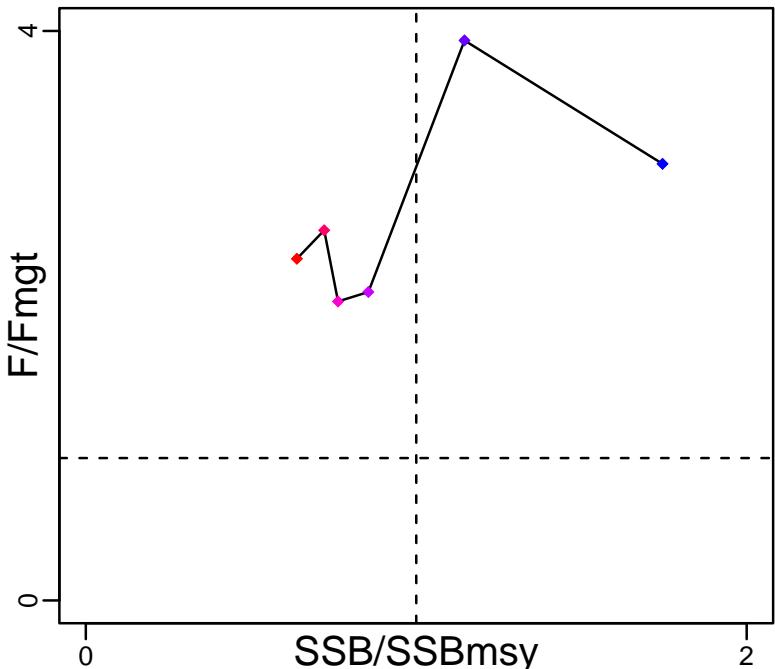
Metadata	
<b>Scientific Name</b>	Pagellus erythrinus
<b>Current Assess ID</b>	STECF-CPANDMEDGSA15-16-2006-2011-OSIO
<b>Area</b>	Malta Island and South of Sicily (GSA 15, 16)
<b>Management Authority</b>	General Fisheries Council for the Mediterranean, DG MARE, and national states
<b>Assessor</b>	Scientific, Technical and Economic Committee for Fisheries
<b>Asmts in RAM</b>	2011

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	Fmgt-1/yr	2011	0.3
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

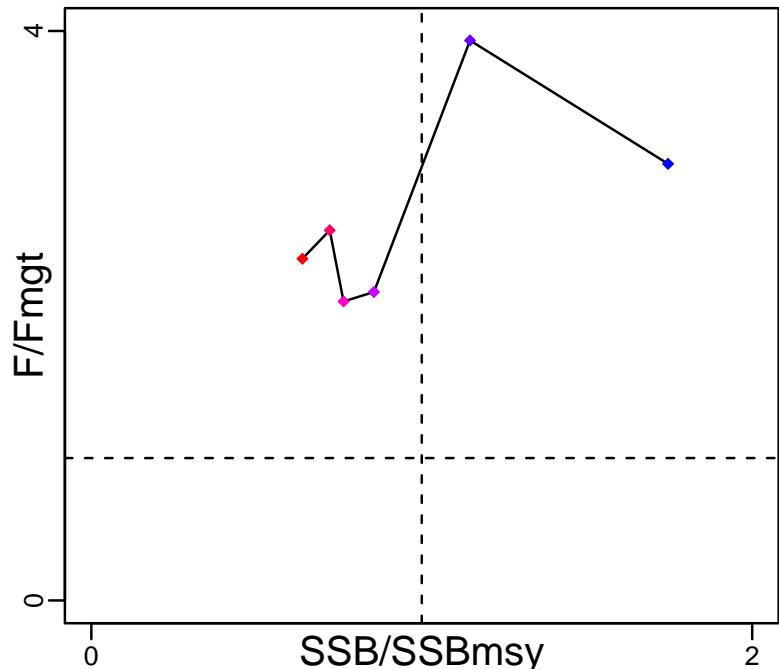
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2011	549	-	2+
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2011	4,850,000	-	-
<b>F</b>	F-1/yr	2011	0.72	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2011	273		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2011	2.4		
<b>ER/ERmgt</b>	-	-	-		

Common pandora Malta Island and South of Sicily (GSA 15, 16) [CPANDMEDGSA15–16]

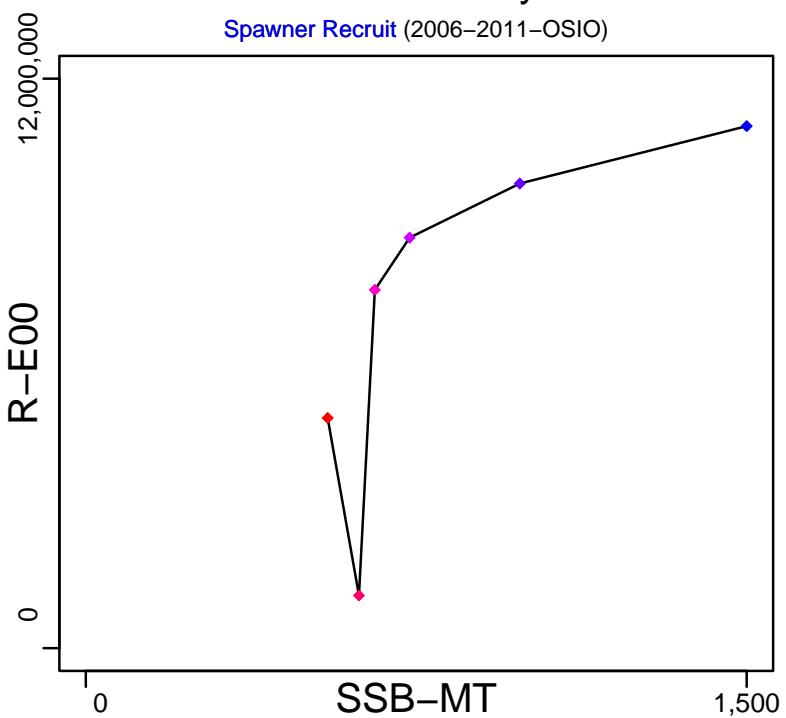
Kobe MSYpref (2006–2011–OSIO)



Kobe MGTpref (2006–2011–OSIO)



Spawner Recruit (2006–2011–OSIO)



SSB/SSB<sub>msy</sub>

Production\*

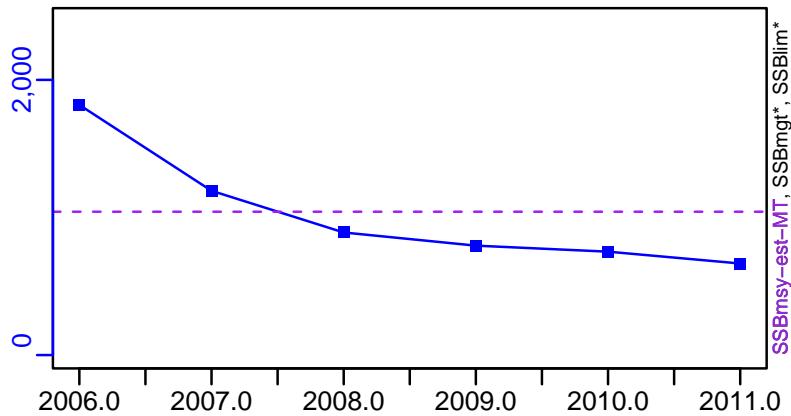
◆ Start Year    ♦ End Year    \* No Data

Common pandora Malta Island and South of Sicily (GSA 15, 16) [CPANDMEDGSA15–16]

**TB\***



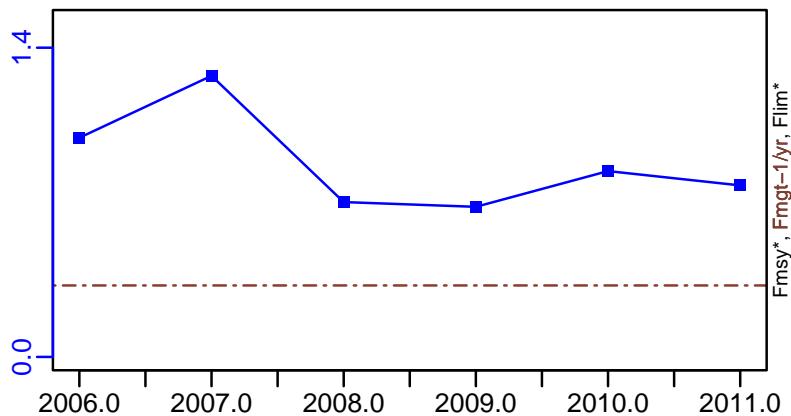
**SSB-MT (2006–2011–OSIO)**



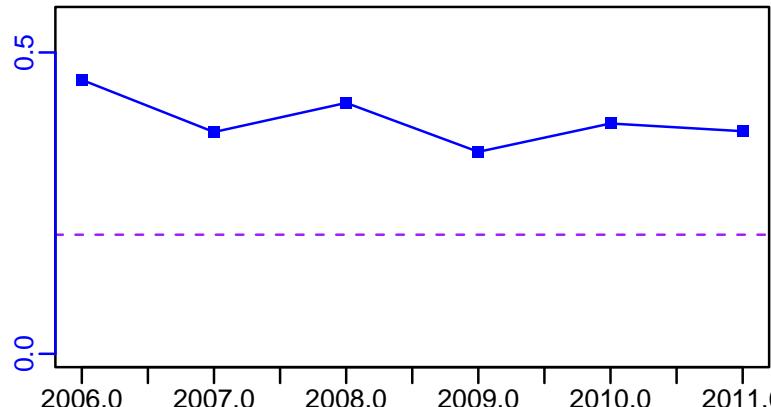
**TN \***



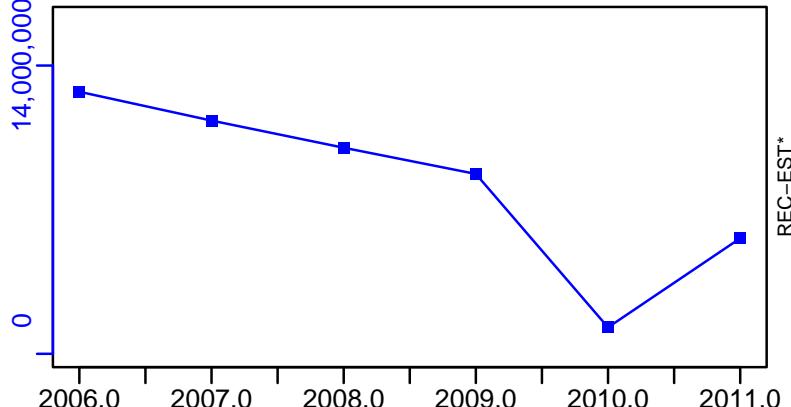
**F-1/yr (2006–2011–OSIO)**



**ER-calc-ratio (2006–2011–OSIO)**



**R-E00 (2006–2011–OSIO)**

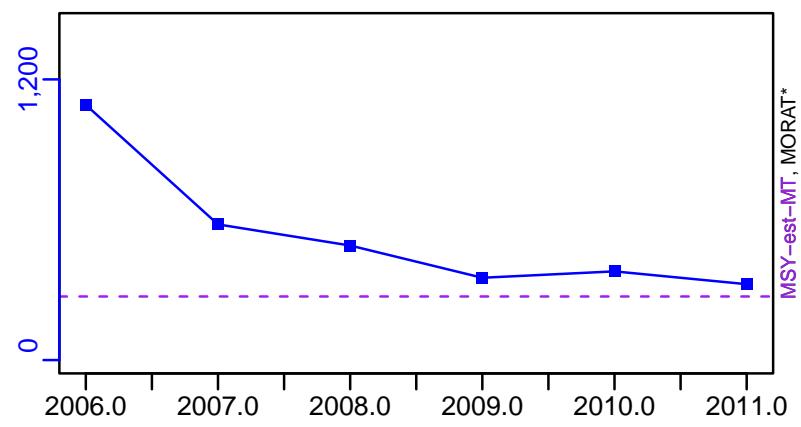


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - - Lim BRP	* No Data

Common pandora Malta Island and South of Sicily (GSA 15, 16) [CPANDMEDGSA15–16]

TC-MT, TL\*, RecC\* (2006–2011–OSIO)

TAC\*, Cpair\*, Cadv\*



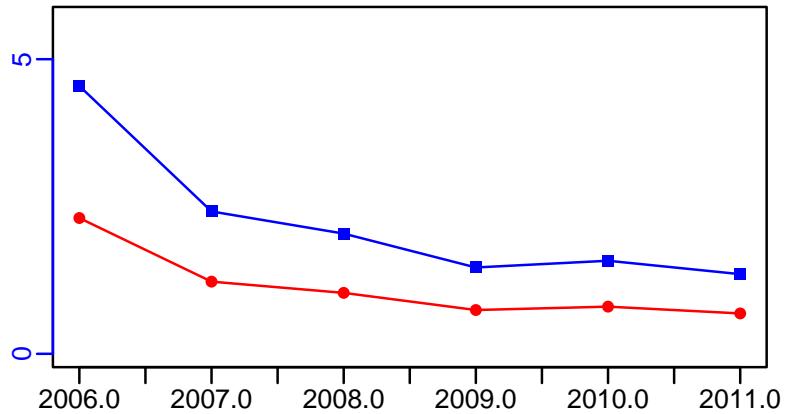
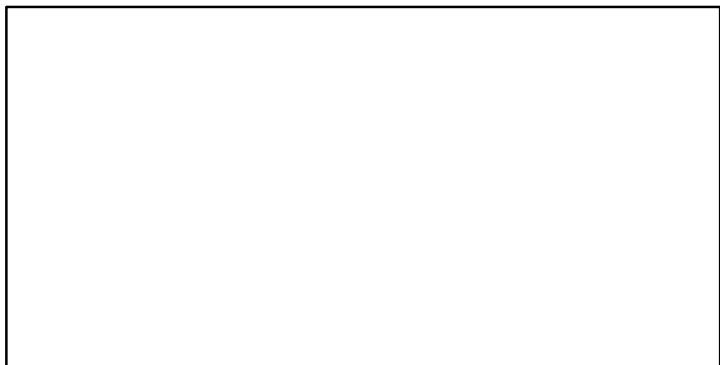
survB\*

MSY-est-MT, MORAT\*

CPUE\*

EFFORT\*

TC-MT/MSY-est-MT, CdivMEANC-ratio, (2006–2011–OSIO)



- 1st listed time series    ▲ 3rd listed time series    — MORAT
- 2nd listed time series    - - - MSY                 \* No Data

## Common pandora Ligurian and North Tyrrhenian Sea [CPANDMEDGSA9]

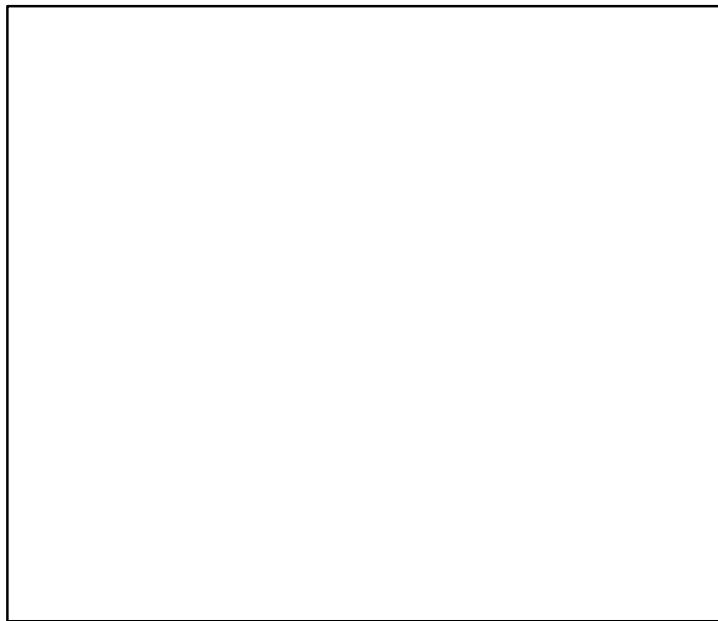
Metadata	
<b>Scientific Name</b>	Pagellus erythrinus
<b>Current Assess ID</b>	STECF-CPANDMEDGSA9-2006-2010-OSIO
<b>Area</b>	Ligurian and North Tyrrhenian Sea
<b>Management Authority</b>	General Fisheries Council for the Mediterranean, DG MARE, and national states
<b>Assessor</b>	Scientific, Technical and Economic Committee for Fisheries
<b>Asmts in RAM</b>	2010

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	Fmgt-1/yr	2010	0.48
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

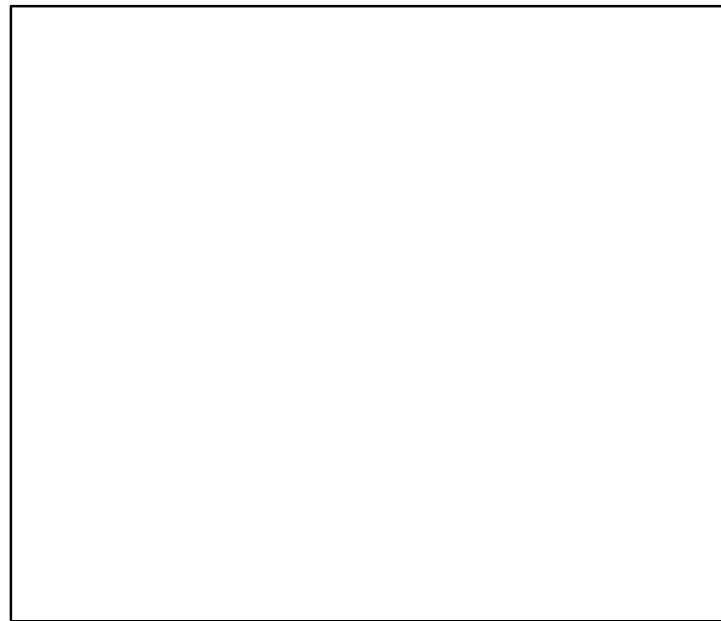
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2010	171		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

**Common pandora Ligurian and North Tyrrhenian Sea [CPANDMEDGSA9]**

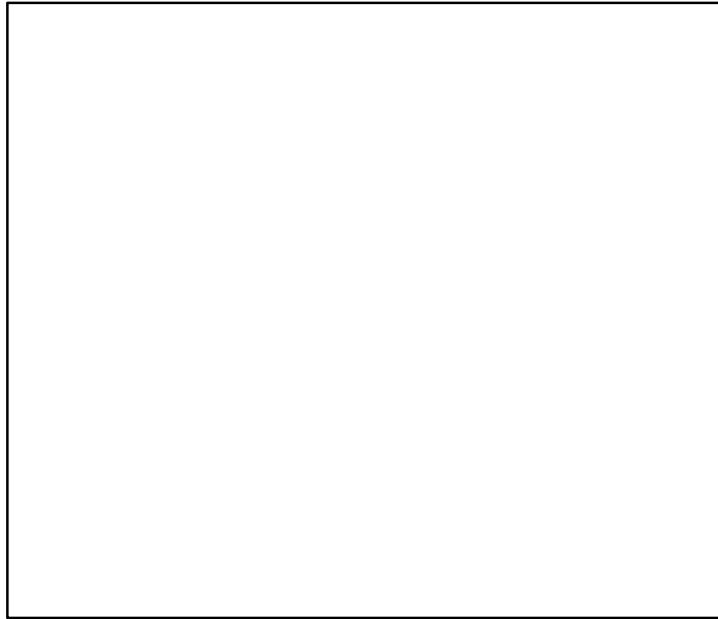
**Kobe MSY\***



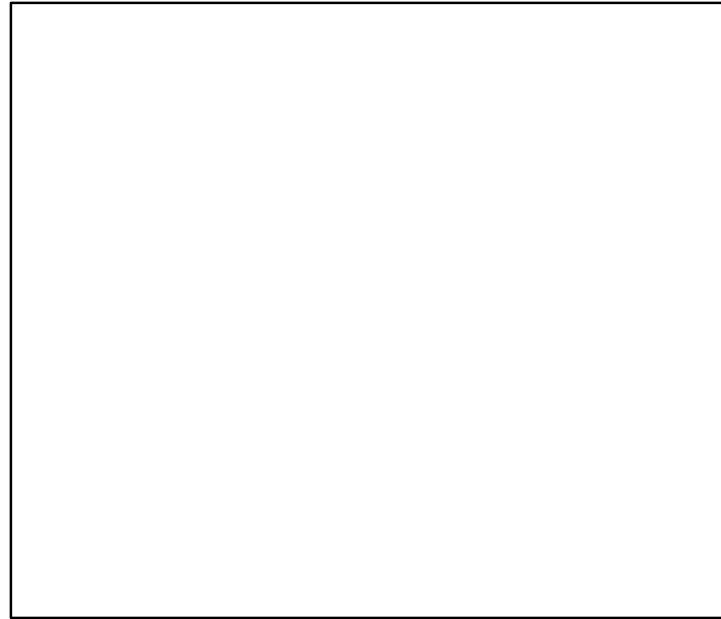
**Kobe MGT\***



**Spawner Recruit\***



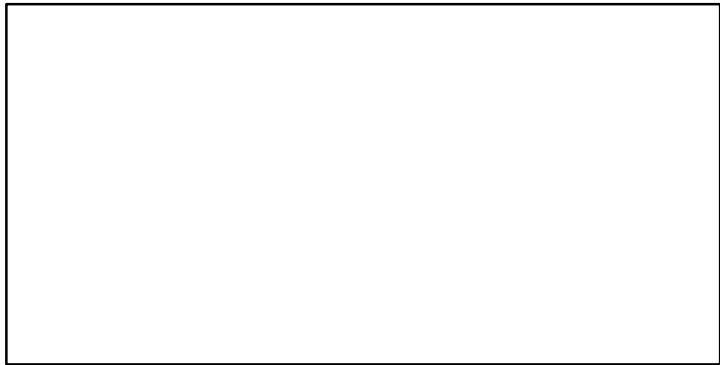
**Production\***



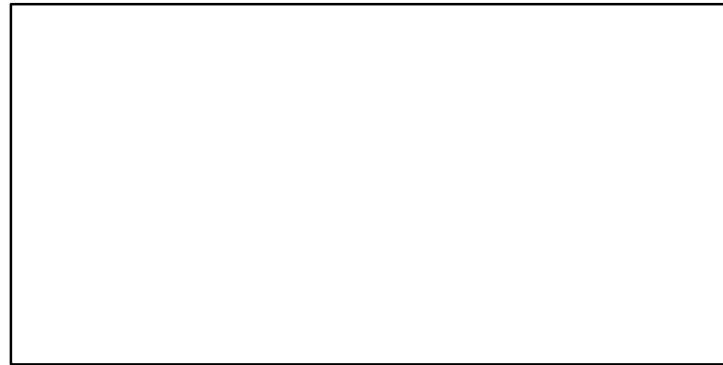
◆ Start Year ♦ End Year \* No Data

**Common pandora Ligurian and North Tyrrhenian Sea [CPANDMEDGSA9]**

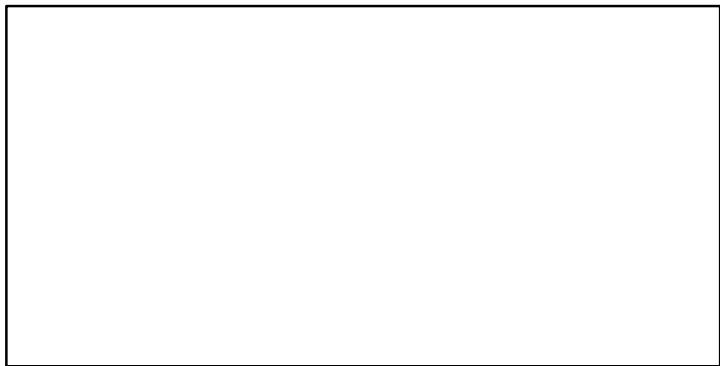
**TB\***



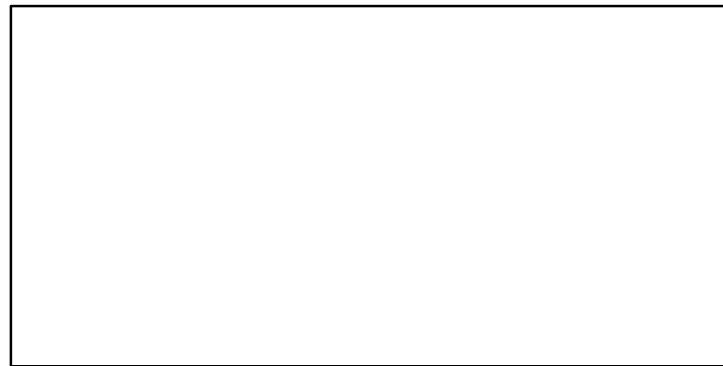
**SSB\***



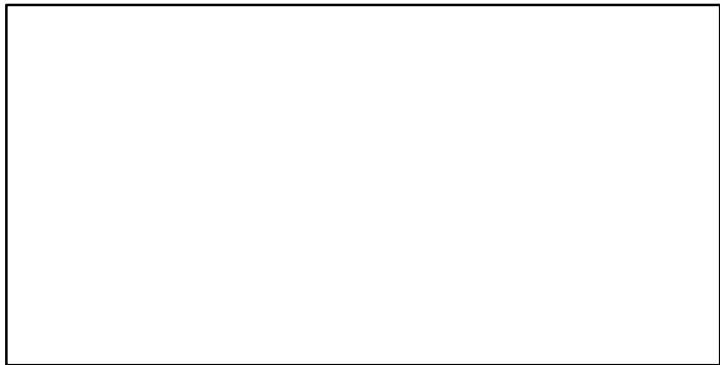
**TN \***



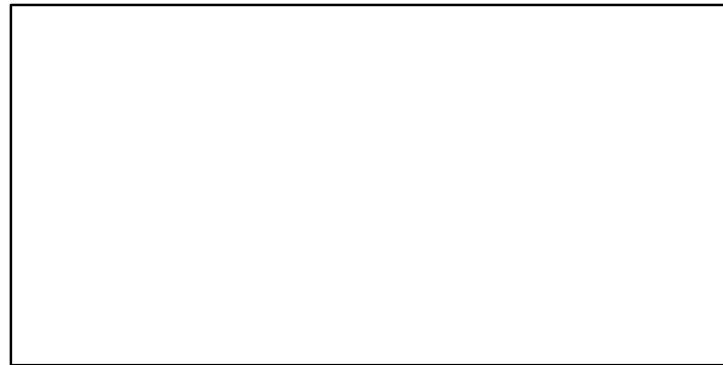
**F\***



**ER\***



**Recruits\***

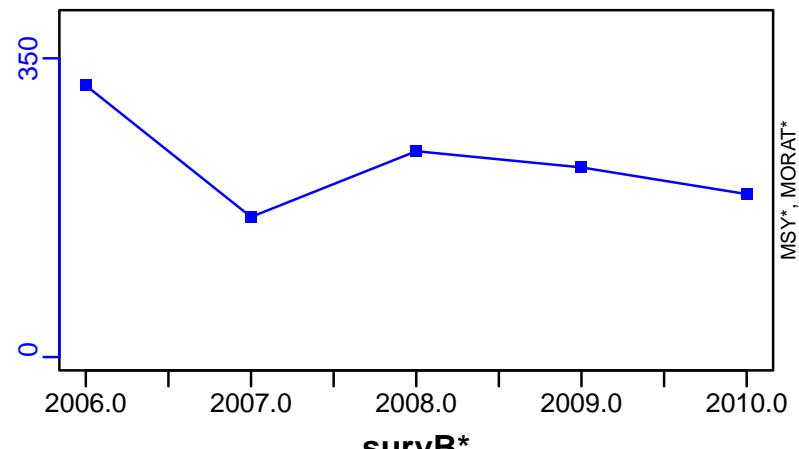


- |                      |                  |           |
|----------------------|------------------|-----------|
| ■ Listed time series | - - - Target BRP | — Rec-Est |
| - - - MSY-based BRP  | - - - Lim BRP    | * No Data |

**Common pandora Ligurian and North Tyrrhenian Sea [CPANDMEDGSA9]**

TC-MT, TL\*, RecC\* (2006–2010–OSIO)

TAC\*, Cpair\*, Cadv\*



MSY\*, MORAT\*

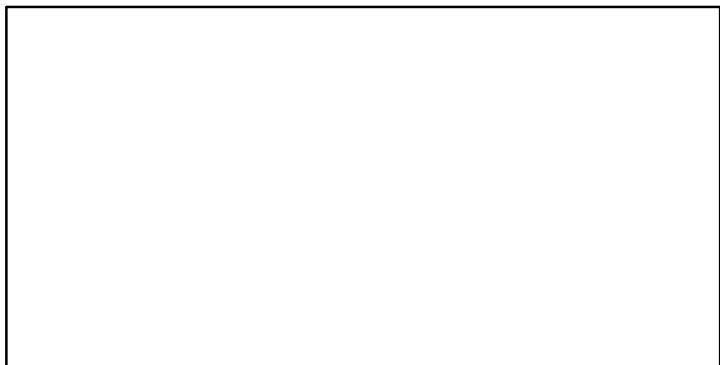
**survB\***



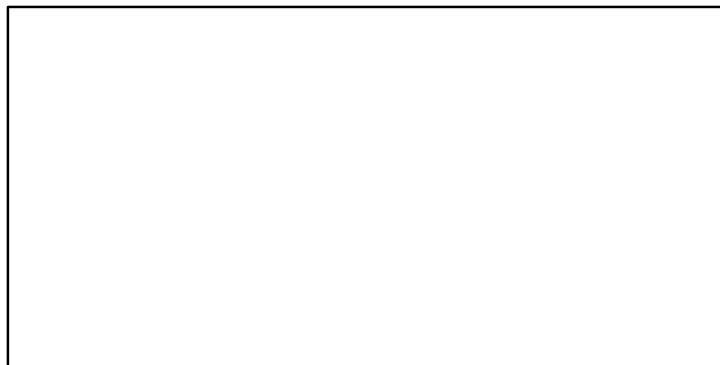
**CPUE\***



**EFFORT\***



**CdivMSY\***



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - MSY                  | * No Data |

## Croaker Central West Africa Cote Divoire-Benin [CROAKSPPCWACIV-BEN]

Metadata	
<b>Scientific Name</b>	Pseudotolithus spp
<b>Current Assess ID</b>	FAO-DR-CROAKSPPCWACIV-BEN-1990-2006-CHING
<b>Area</b>	Central West Africa Cote Divoire-Benin
<b>Management Authority</b>	Food and Agriculture Organization of the United Nations
<b>Assessor</b>	FAO/CECAF Working Group on the Assessment of Demersal Resources
<b>Asmts in RAM</b>	2006

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2006	2790		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

**Kobe MSY\***

**Kobe MGT\***

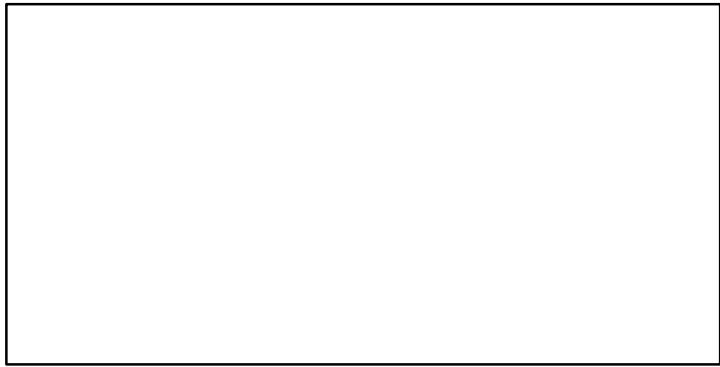
**Spawner Recruit\***

**Production\***

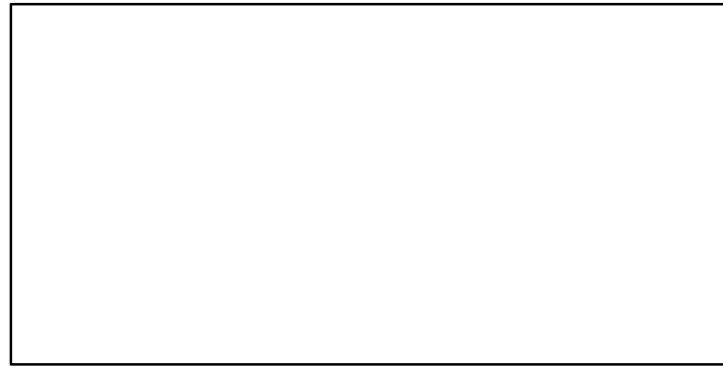
◆ Start Year ♦ End Year \* No Data

**Croaker Central West Africa Cote Divoire–Benin [CROAKSPPCWACIV–BEN]**

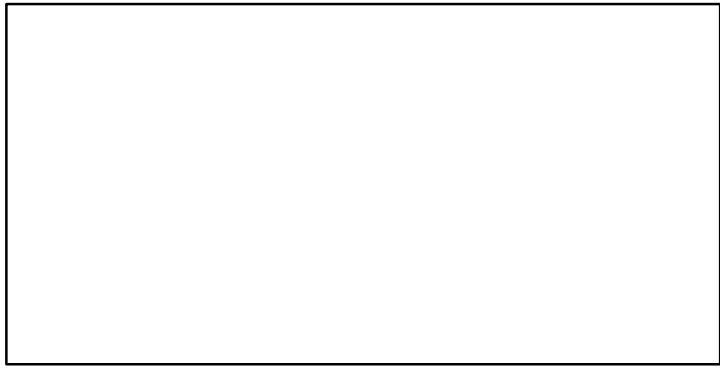
**TB\***



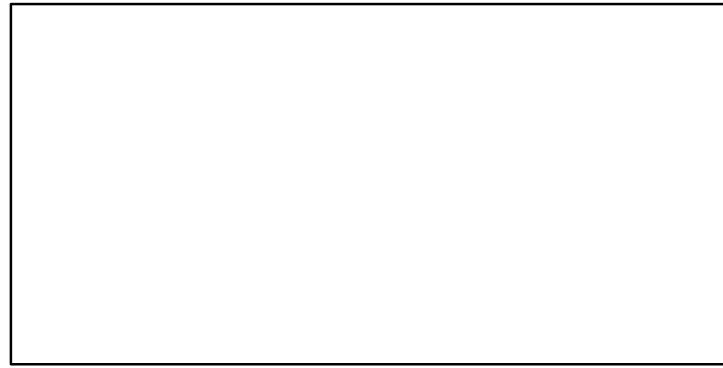
**SSB\***



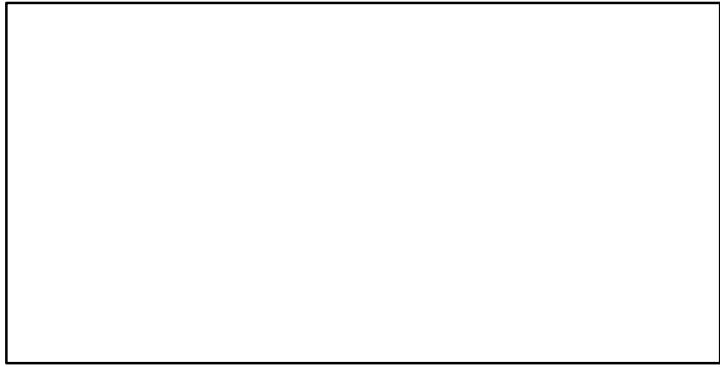
**TN \***



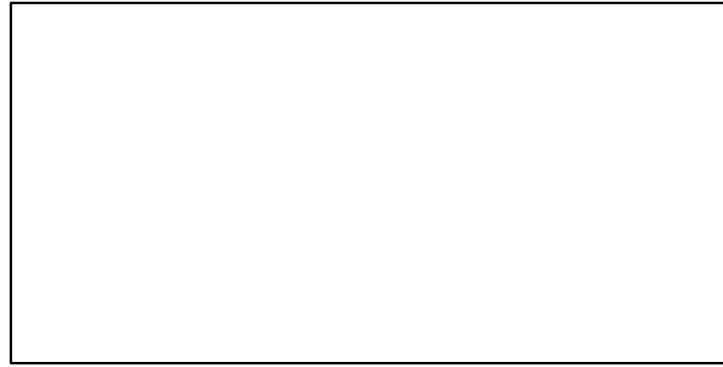
**F\***



**ER\***



**Recruits\***

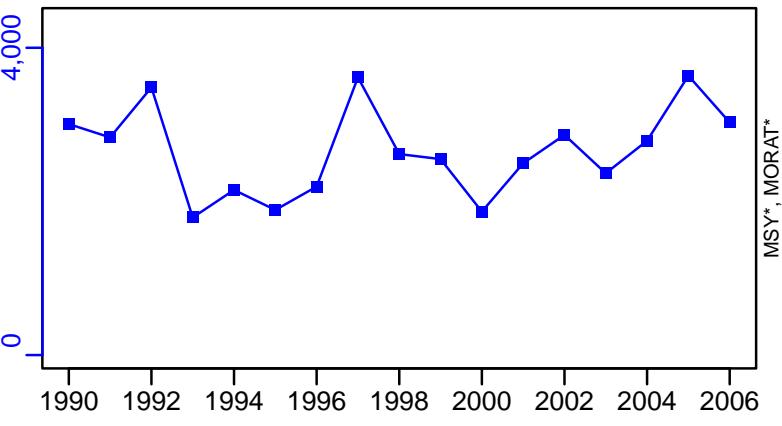


- |       |                    |       |            |   |         |
|-------|--------------------|-------|------------|---|---------|
| ■     | Listed time series | - - - | Target BRP | — | Rec-Est |
| - - - | MSY-based BRP      | - - - | Lim BRP    | * | No Data |

Croaker Central West Africa Cote Divoire–Benin [CROAKSPPCWACIV–BEN]

TC-MT, TL\*, RecC\* (1990–2006–CHING)

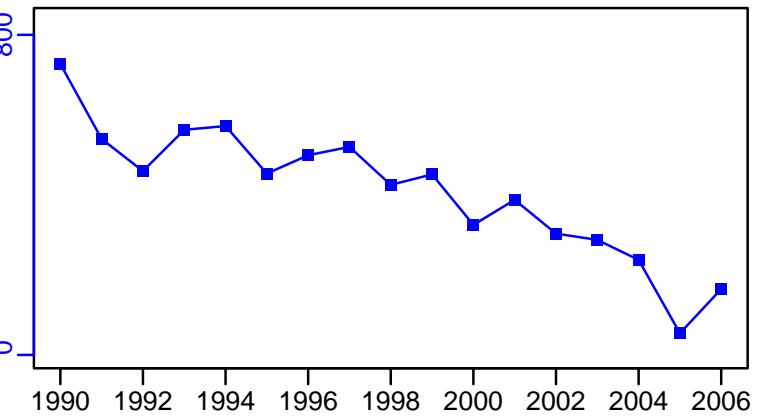
TAC\*, Cpair\*, Cadv\*



survB\*



CPUE–kg/day (1990–2006–CHING)



EFFORT\*



CdivMSY\*



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - MSY                  | * No Data |

## Croaker Central West Africa Gabon-Angola [CROAKSPPCWAGAB-AGO]

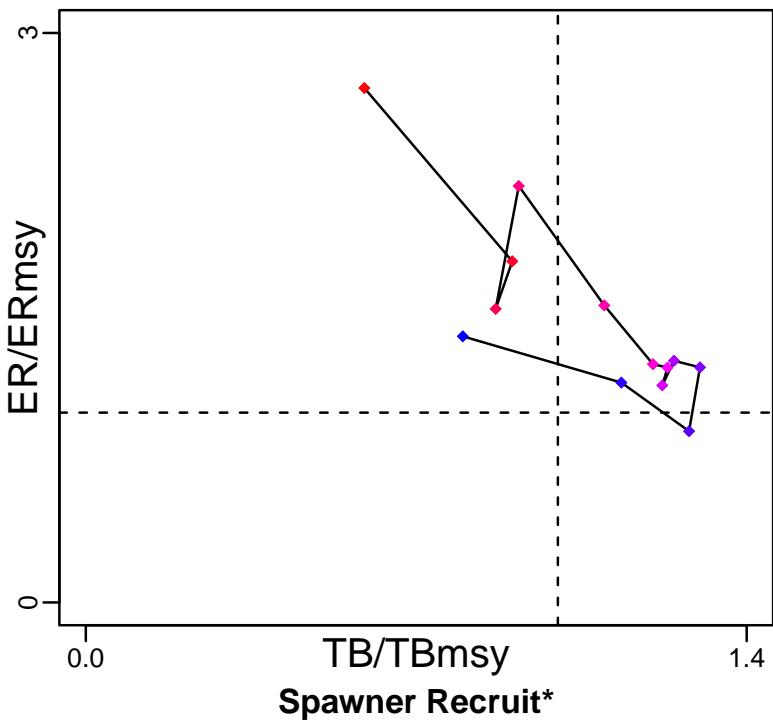
Metadata	
<b>Scientific Name</b>	Pseudotolithus spp
<b>Current Assess ID</b>	FAO-DR-CROAKSPPCWAGAB-AGO-1990-2007-CHING
<b>Area</b>	Central West Africa Gabon-Angola
<b>Management Authority</b>	Food and Agriculture Organization of the United Nations
<b>Assessor</b>	FAO/CECAF Working Group on the Assessment of Demersal Resources
<b>Asmts in RAM</b>	2007

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

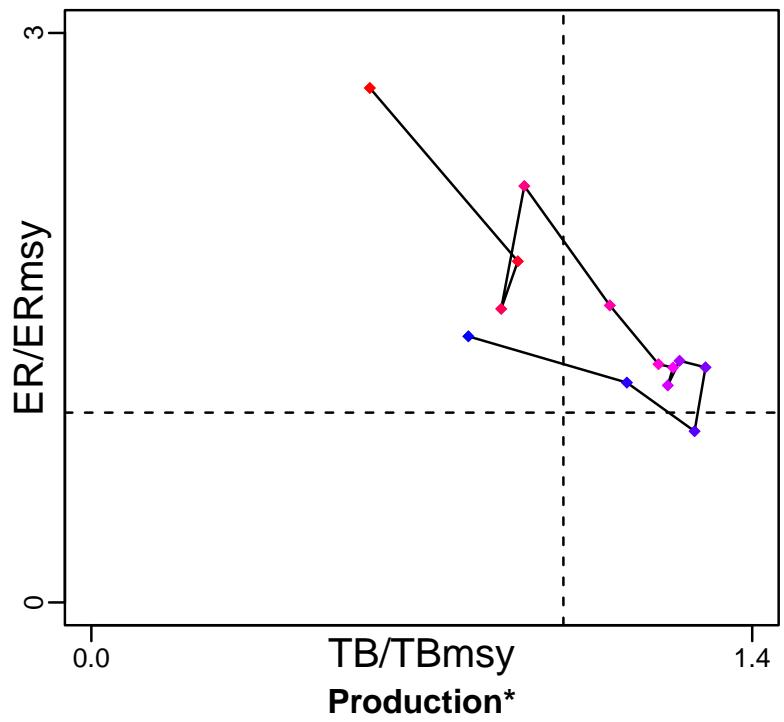
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-index	2007	351	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2007	38,700		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

Croaker Central West Africa Gabon–Angola [CROAKSPPCWAGAB–AGO]

Kobe MSYpref (1990–2007–CHING)



Kobe MGTPref (1990–2007–CHING)

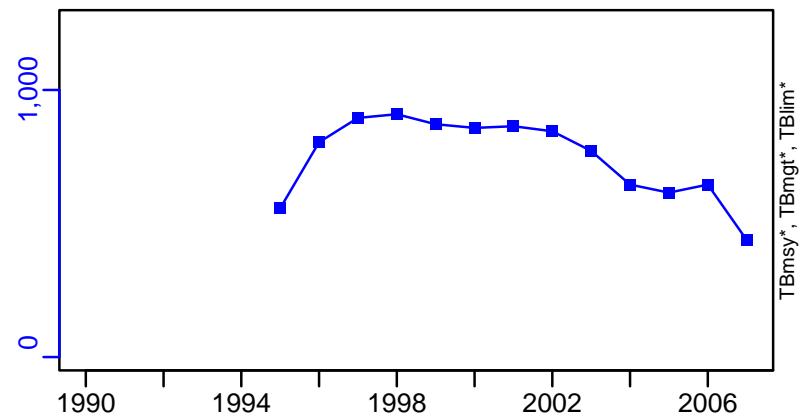


◆ Start Year   ◆ End Year   \* No Data

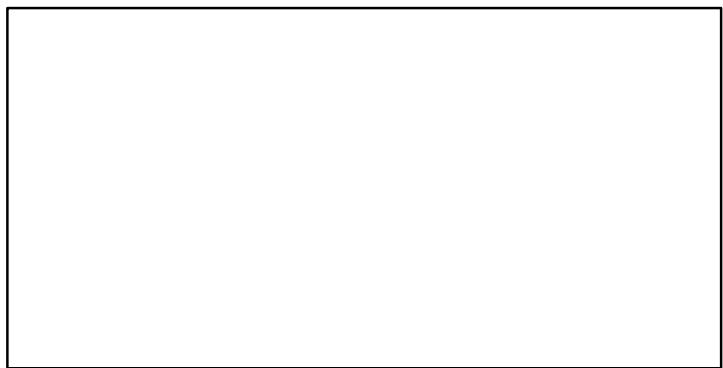
Croaker Central West Africa Gabon–Angola [CROAKSPPCWAGAB–AGO]

TB-index (1990–2007–CHING)

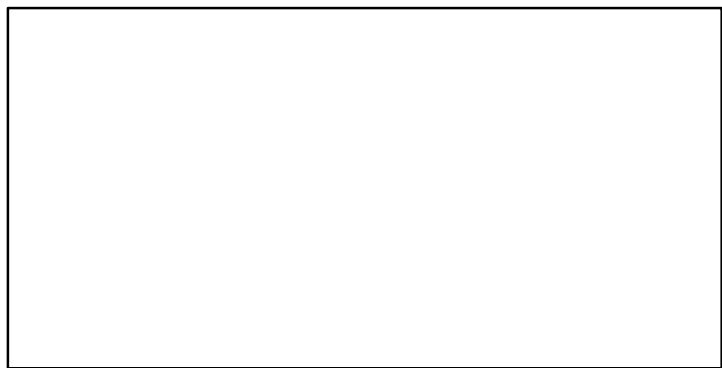
**SSB\***



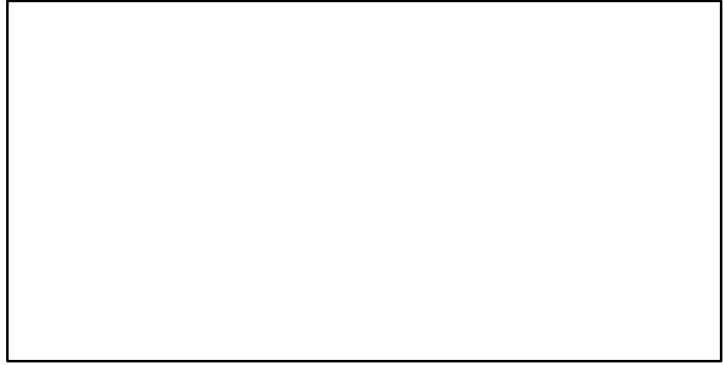
**TN \***



**F\***



**ER\***



**Recruits\***

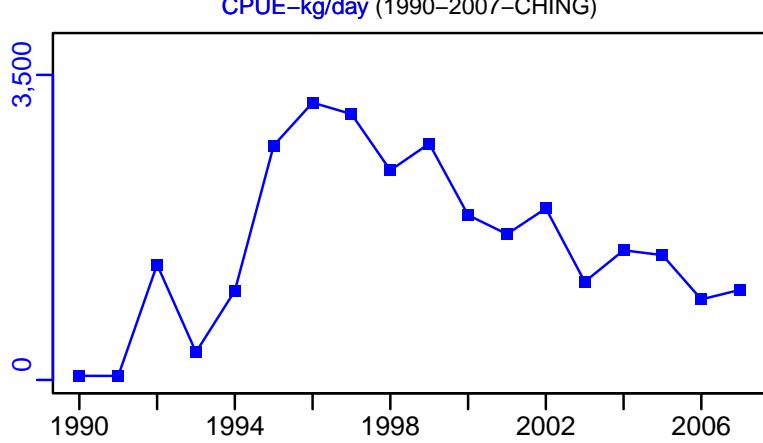
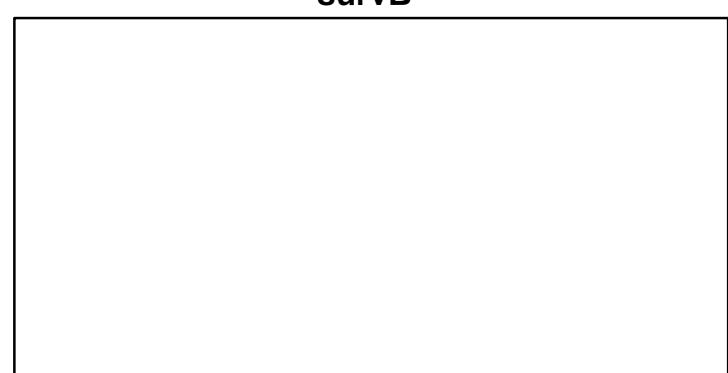
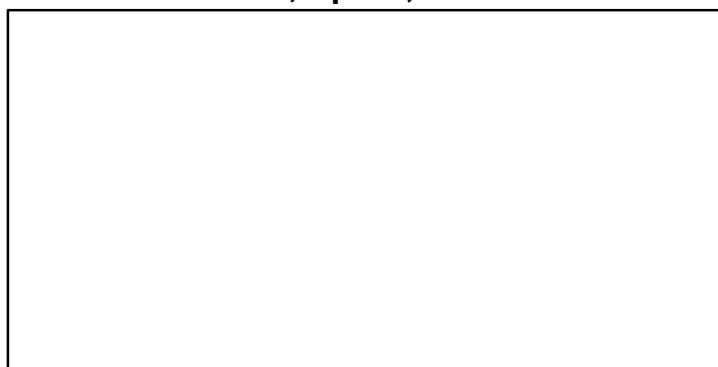
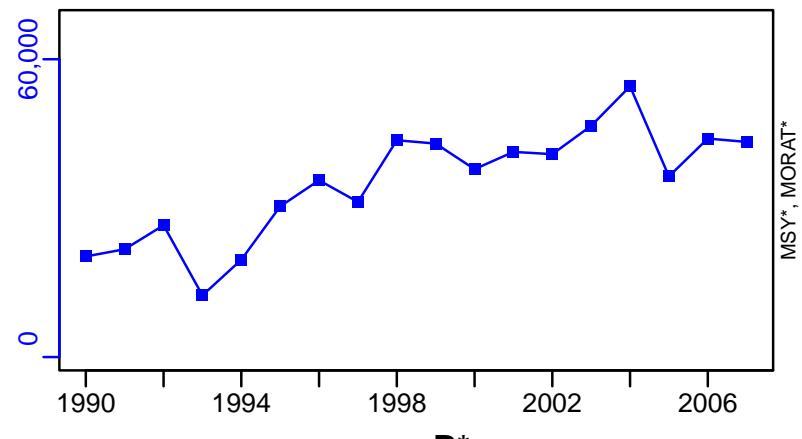


- |                      |              |           |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| — MSY-based BRP      | — Lim BRP    | * No Data |

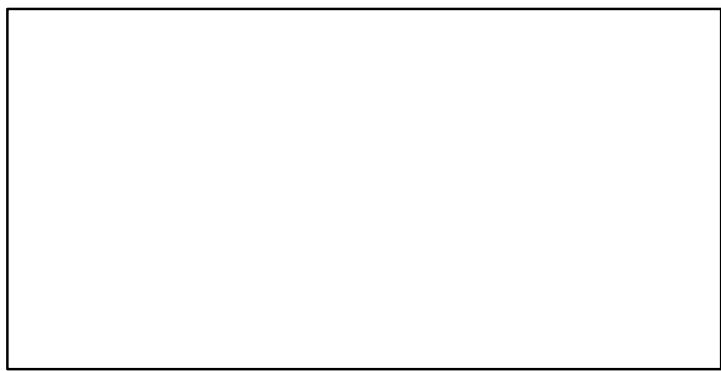
Croaker Central West Africa Gabon–Angola [CROAKSPPCWAGAB–AGO]

TC-MT, TL\*, RecC\* (1990–2007–CHING)

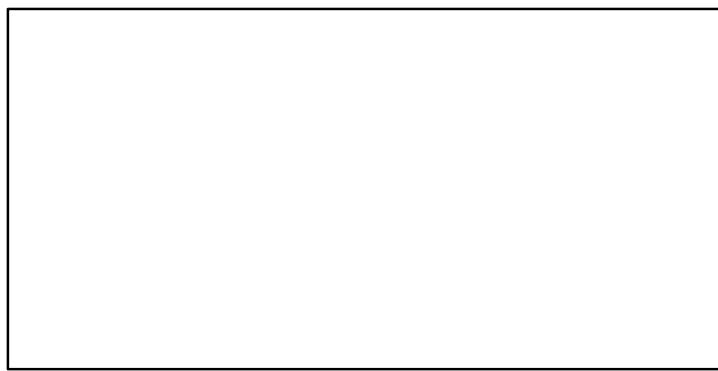
TAC\*, Cpair\*, Cadv\*



**EFFORT\***



**CdivMSY\***



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - MSY                  | * No Data |

## Croaker Central West Africa Guinea-Liberia [CROAKSPPCWAGIN-LBR]

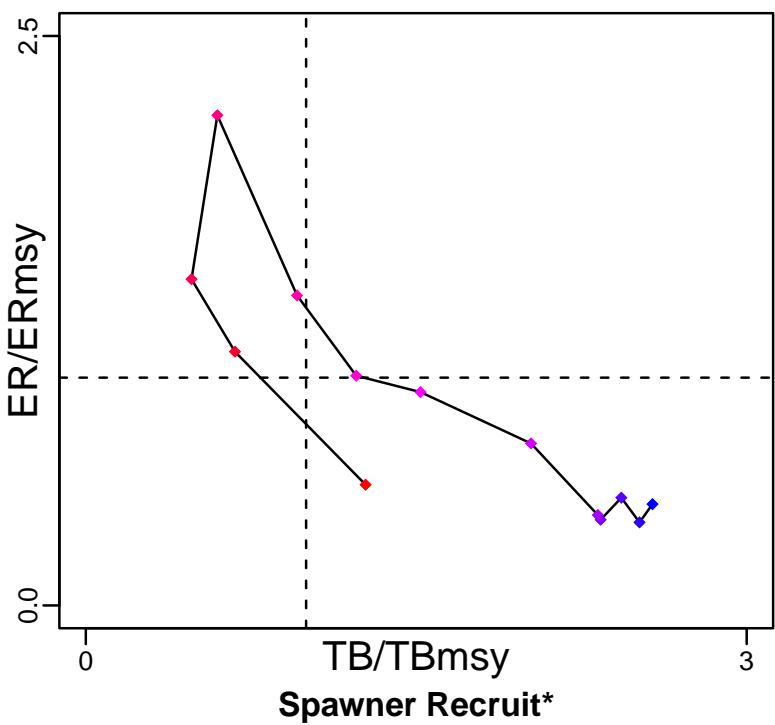
Metadata	
<b>Scientific Name</b>	Pseudotolithus spp
<b>Current Assess ID</b>	FAO-DR-CROAKSPPCWAGIN-LBR-1994-2007-CHING
<b>Area</b>	Central West Africa Guinea-Liberia
<b>Management Authority</b>	Food and Agriculture Organization of the United Nations
<b>Assessor</b>	FAO/CECAF Working Group on the Assessment of Demersal Resources
<b>Asmts in RAM</b>	2007

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERrmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

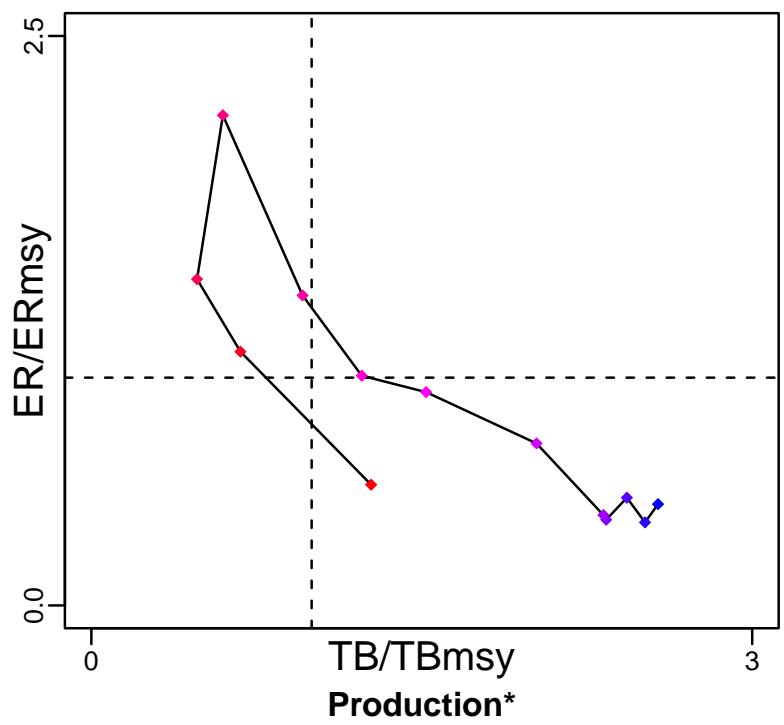
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
<b>TB</b>	TB-index	2007	40	-	-	
<b>SSB</b>	-	-	-	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	-	-	-	-	-	
<b>F</b>	-	-	-	-	-	
<b>ER</b>	-	-	-	-	-	
<b>TC</b>	TC-MT	2007	4730			
<b>TL</b>	-	-	-			
<b>TB/TBmsy</b>	-	-	-			
<b>SSB/SSBmsy</b>	-	-	-			
<b>F/Fmsy</b>	-	-	-			
<b>ER/ERrmsy</b>	-	-	-			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

Croaker Central West Africa Guinea–Liberia [CROAKSPPCWAGIN–LBR]

Kobe MSYpref (1994–2007–CHING)



Kobe MGTPref (1994–2007–CHING)

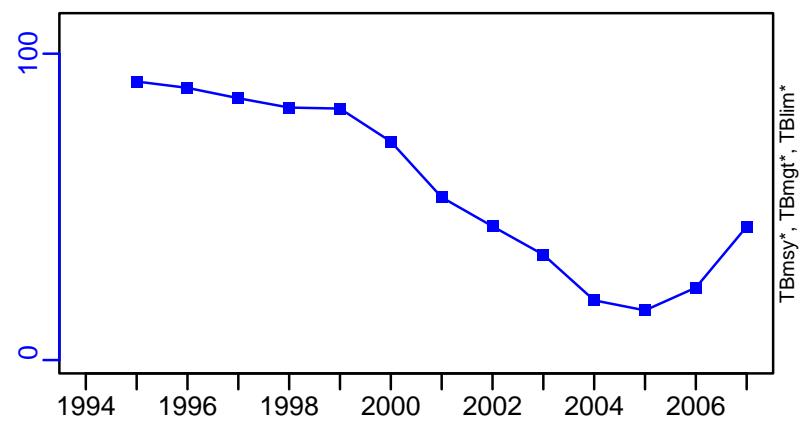


◆ Start Year ◆ End Year \* No Data

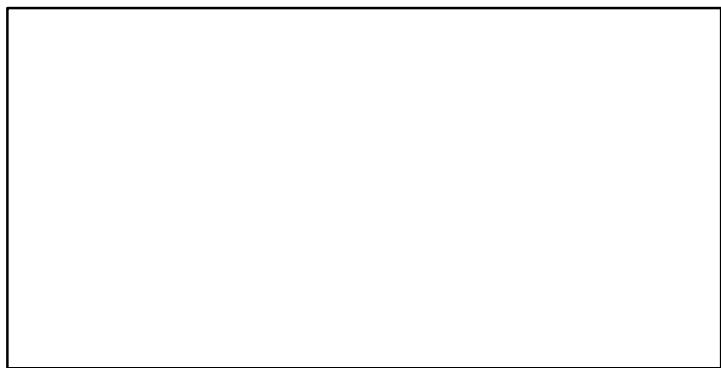
Croaker Central West Africa Guinea–Liberia [CROAKSPPCWAGIN–LBR]

TB-index (1994–2007–CHING)

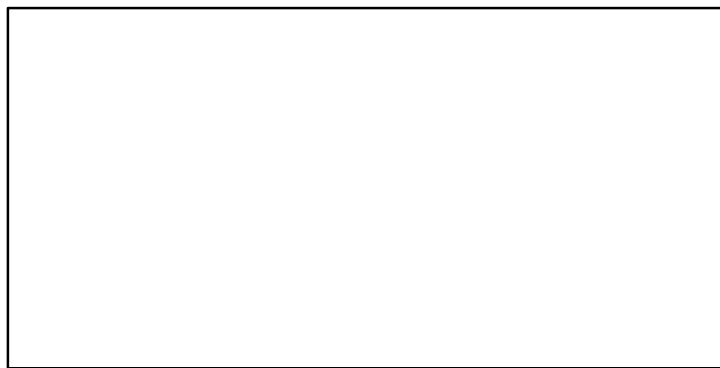
**SSB\***



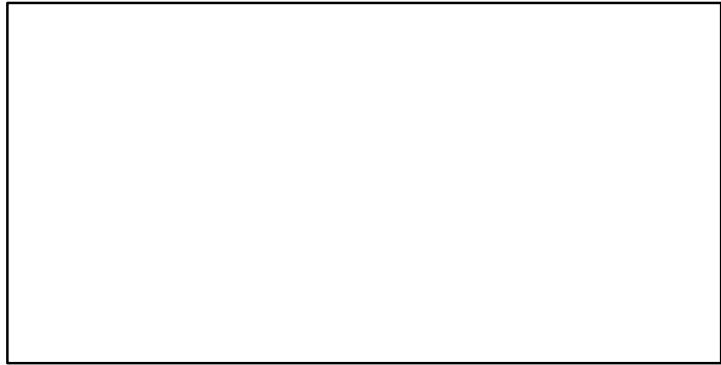
**TN \***



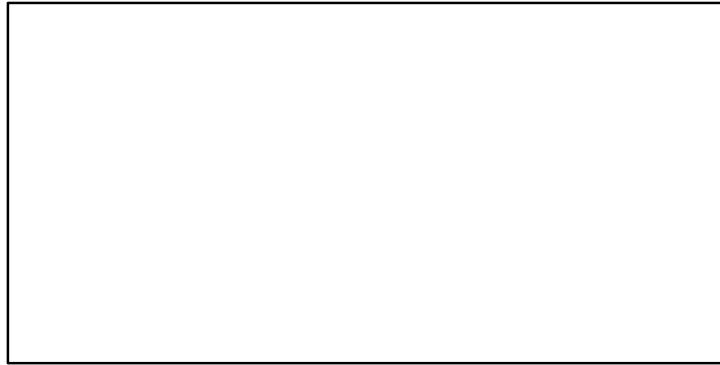
**F\***



**ER\***



**Recruits\***

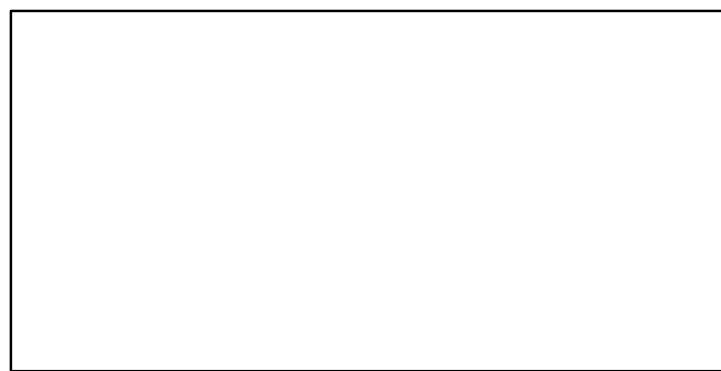
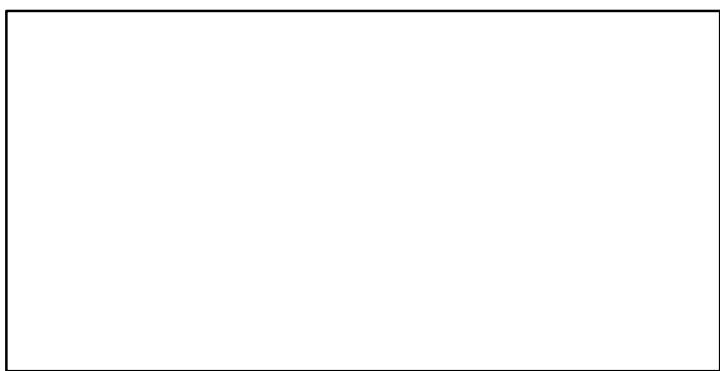
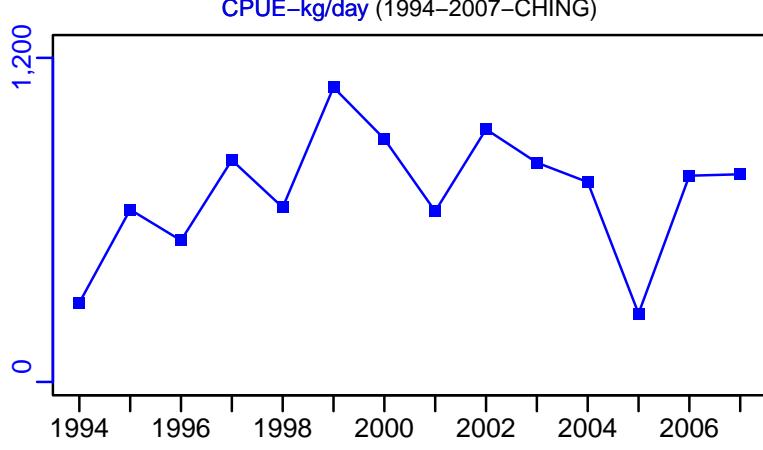
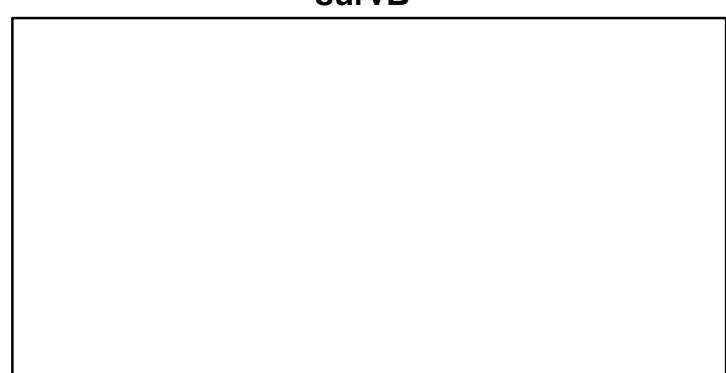
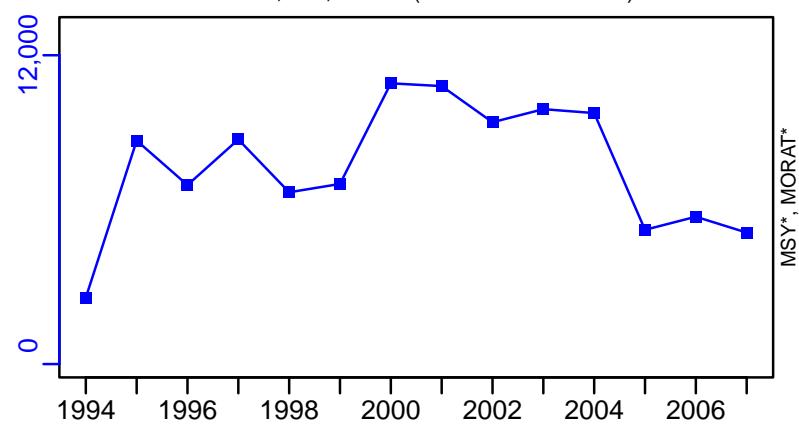


- |                      |              |           |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| — MSY-based BRP      | — Lim BRP    | * No Data |

Croaker Central West Africa Guinea–Liberia [CROAKSPPCWAGIN–LBR]

TC–MT, TL\*, RecC\* (1994–2007–CHING)

TAC\*, Cpair\*, Cadv\*



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - - MSY                | * No Data |

**Croaker North West Africa Senegal\_The Gambia [CROAKSPPNWASEN\_GMB]**

Metadata	
<b>Scientific Name</b>	Pseudotolithus spp
<b>Current Assess ID</b>	FAO-DR-CROAKSPPNWASEN_GMB-1990-2016-ASHBROOK
<b>Area</b>	North West Africa Senegal_The Gambia
<b>Management Authority</b>	Food and Agriculture Organization of the United Nations
<b>Assessor</b>	FAO/CECAF Working Group on the Assessment of Demersal Resources
<b>Asmts in RAM</b>	2016

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2016	3147		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

**Kobe MSY\***

**Kobe MGT\***

**Spawner Recruit\***

**Production\***

◆ Start Year ◆ End Year \* No Data

**TB\***



**SSB\***



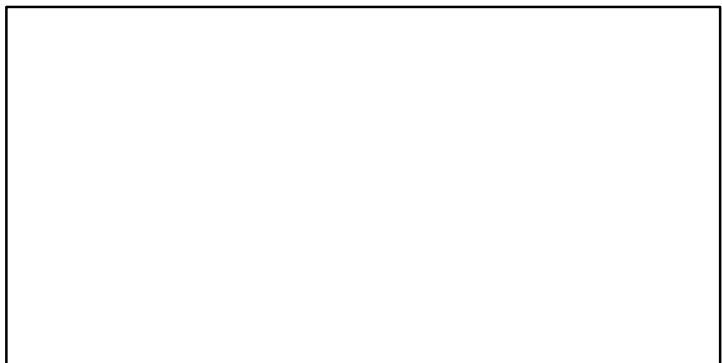
**TN \***



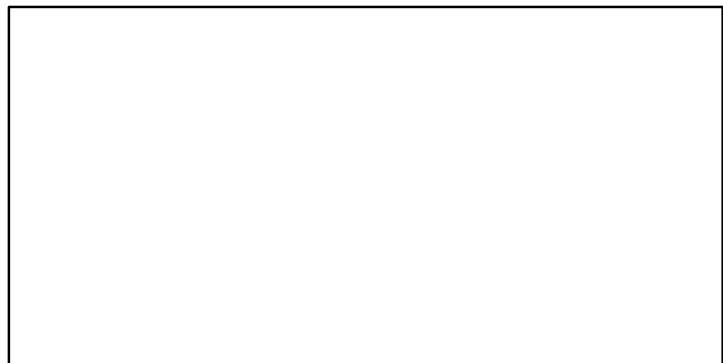
**F\***



**ER\***



**Recruits\***

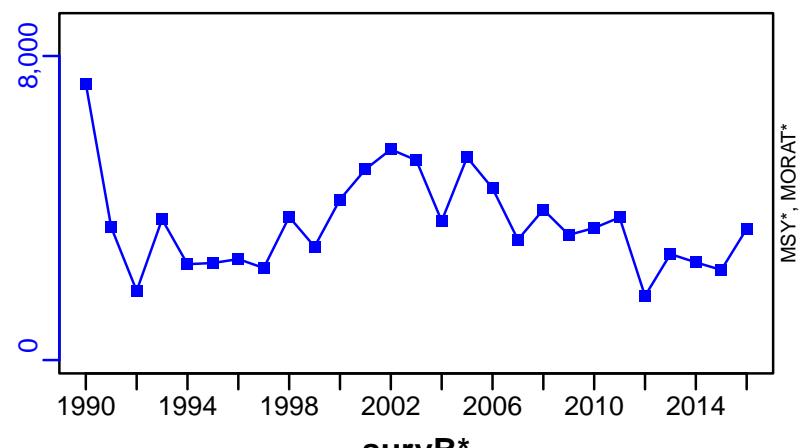


- |                      |                  |           |
|----------------------|------------------|-----------|
| ■ Listed time series | - - - Target BRP | — Rec-Est |
| - - - MSY-based BRP  | - - - Lim BRP    | * No Data |

Croaker North West Africa Senegal\_The Gambia [CROAKSPPNWASEN\_GMB]

TC-MT, TL\*, RecC\* (1990–2016-ASHBROOK)

TAC\*, Cpair\*, Cadv\*



survB\*

CPUE\*

EFFORT\*

CdivMSY\*

- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - - MSY                | * No Data |

## European seabass Gulf of Lions [EBASSGSA7]

<b>Metadata</b>	
<b>Scientific Name</b>	Dicentrarchus labrax
<b>Current Assess ID</b>	STECF-EBASSGSA7-2002-2015-OSIO
<b>Area</b>	Gulf of Lions
<b>Management Authority</b>	General Fisheries Council for the Mediterranean, DG MARE, and national states
<b>Assessor</b>	Scientific, Technical and Economic Committee for Fisheries
<b>Asmts in RAM</b>	2015

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	Fmgt-1/yr	2015	0.136
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

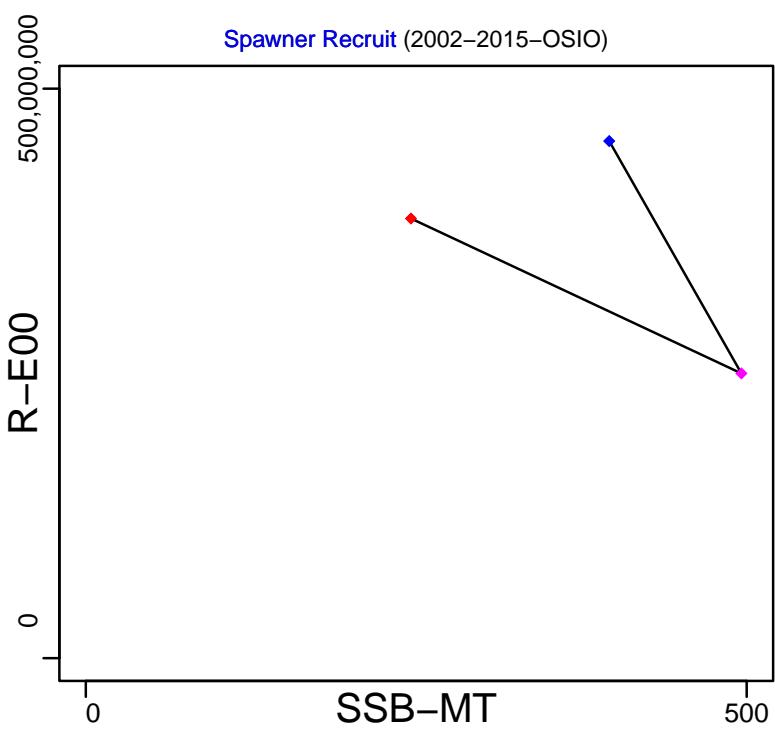
<b>Time Series</b>					
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2015	246	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2015	$3.86 \times 10^8$	-	-
<b>F</b>	F-1/yr	2015	0.536	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	-	-	-		
<b>TL</b>	TL-MT	2015	272		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2015	3.941		
<b>ER/ERmgt</b>	-	-	-		

Kobe MSY\*

Kobe MGT\*

Spawner Recruit (2002–2015–OSIO)

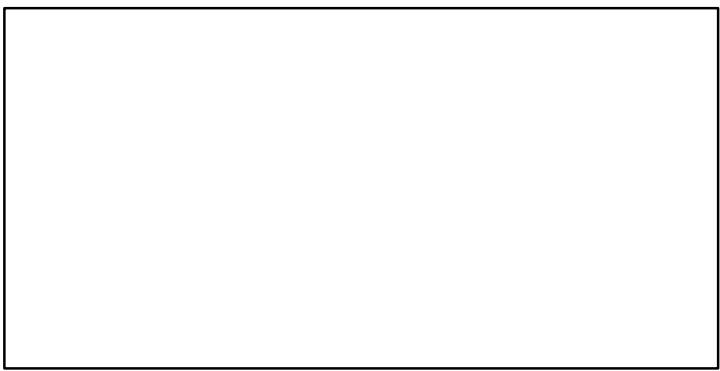
Production\*



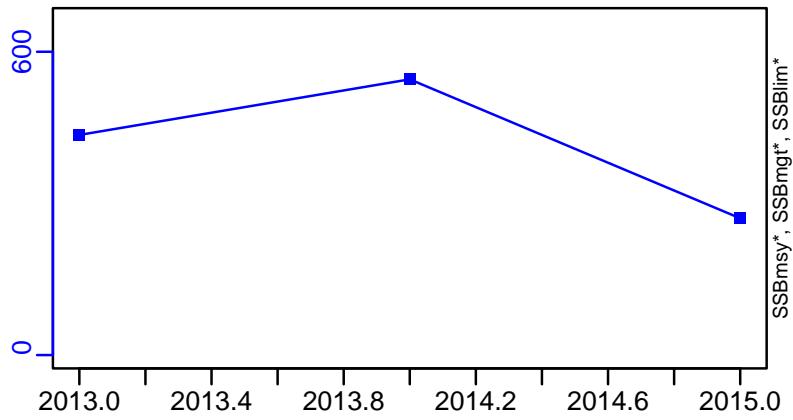
◆ Start Year    ♦ End Year    \* No Data

European seabass Gulf of Lions [EBASSGSA7]

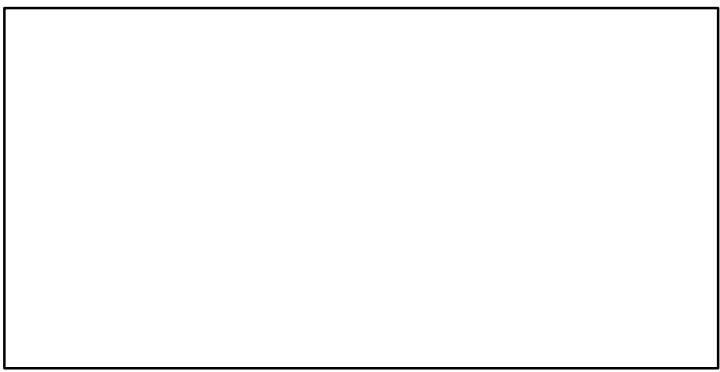
**TB\***



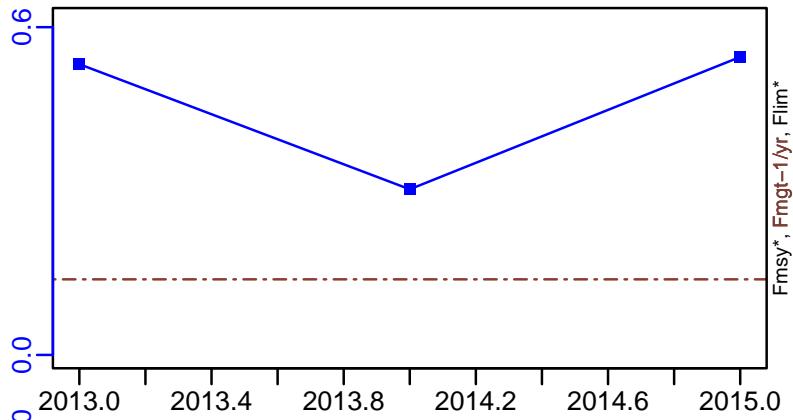
**SSB-MT** (2002–2015–OSIO)



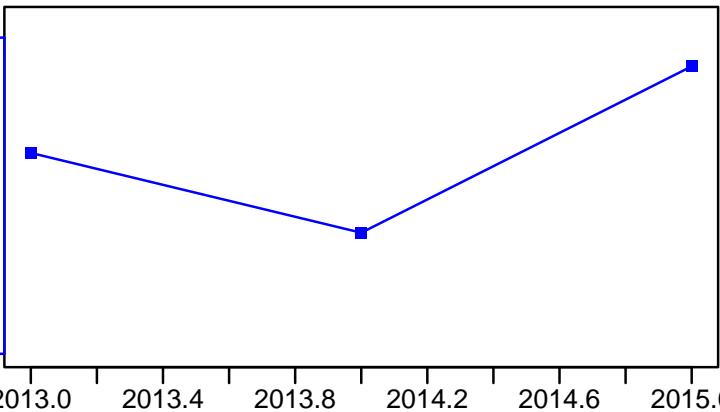
**TN \***



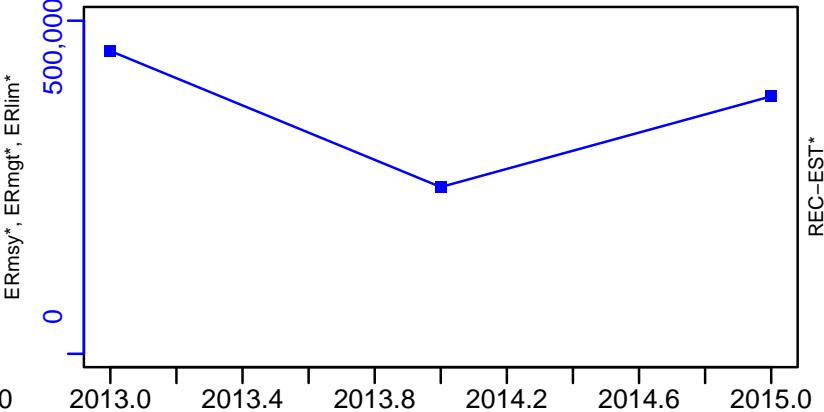
**F-1/yr** (2002–2015–OSIO)



**ER-calc-ratio** (2002–2015–OSIO)



**R-E00** (2002–2015–OSIO)

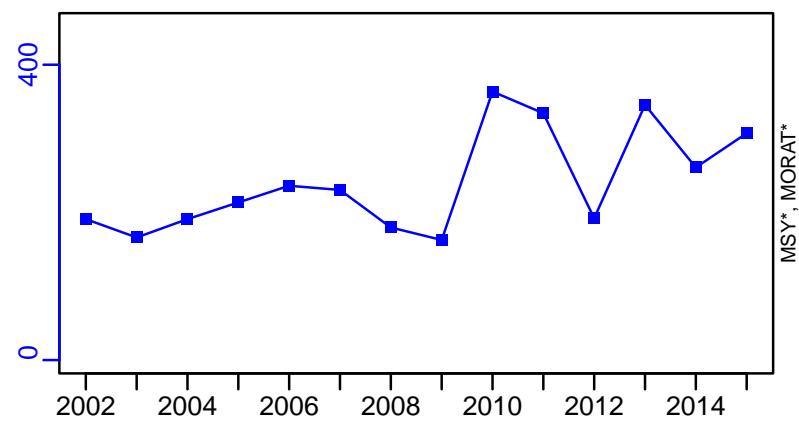


- Listed time series    - - - Target BRP    — Rec-Est
- - MSY-based BRP    - - Lim BRP    \* No Data

European seabass Gulf of Lions [EBASSGSA7]

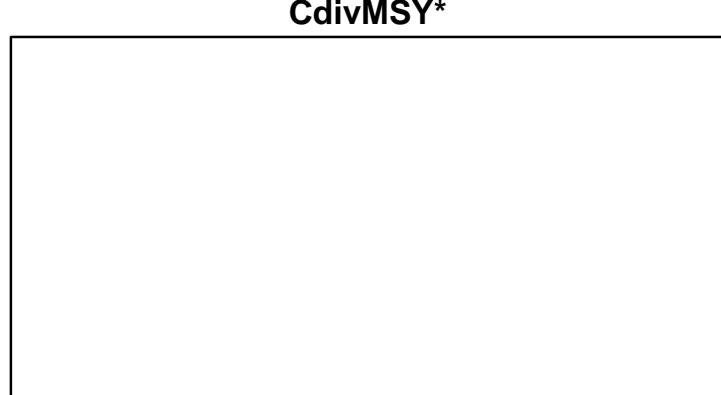
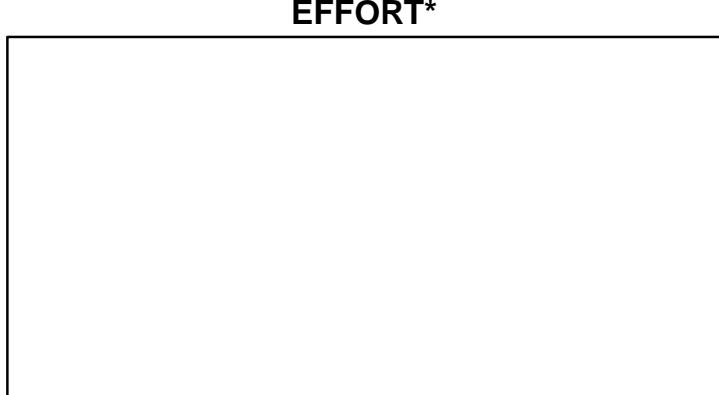
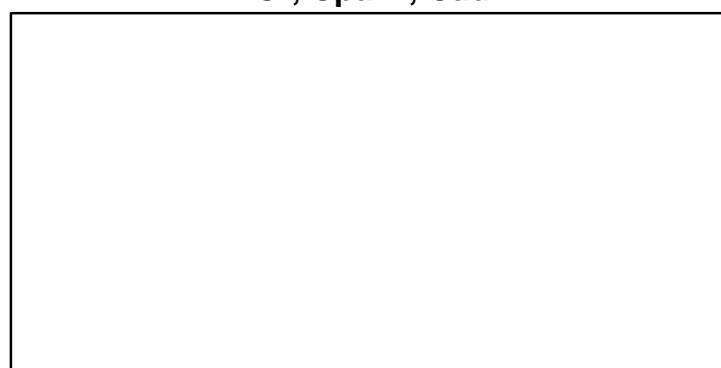
TL-MT, TC\*, RecC\* (2002–2015–OSIO)

TAC\*, Cpair\*, Cadv\*



MSY\*, MORAT\*

TAC\*, Cpair\*, Cadv\*



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - - MSY                | * No Data |

## European seabass ICES 4bc-7 [EBASSIVbc-VII]

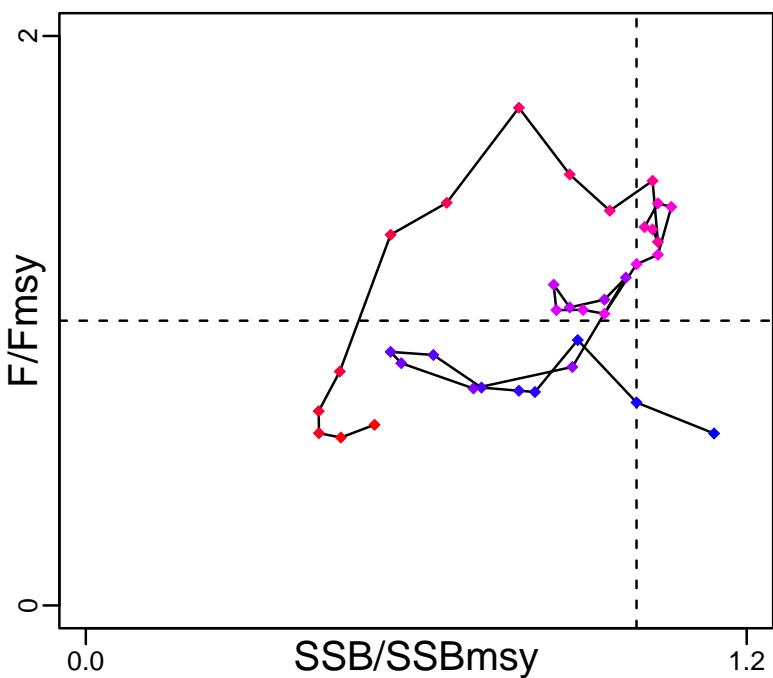
<b>Metadata</b>	
<b>Scientific Name</b>	Dicentrarchus labrax
<b>Current Assess ID</b>	WGCSE-EBASSIVbc-VII-1985-2021-ICESIMP2021-2
<b>Area</b>	ICES 4bc-7
<b>Management Authority</b>	International Council for the Exploration of the Sea
<b>Assessor</b>	Working Group on Celtic Seas Ecosystems
<b>Asmts in RAM</b>	2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	Fmsy-1/yr	2021	0.171
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2020	14,439
<b>Fmgt</b>	Fmgt-1/yr	2021	0.171
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2021	10,300
<b>Flim</b>	Flim-1/yr	2021	0.254
<b>ERlim</b>	-	-	-

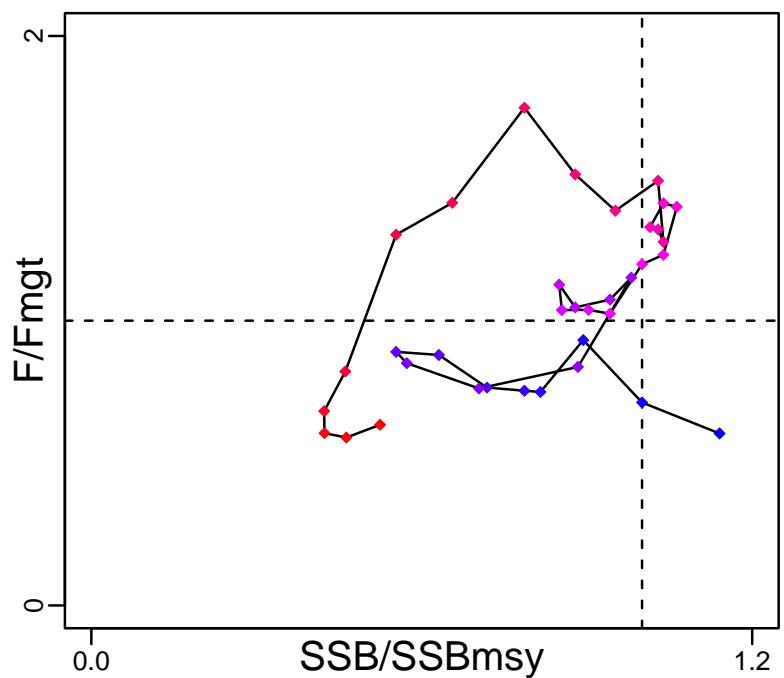
<b>Time Series</b>						
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>	
<b>TB</b>	TB-MT	2017	10,800	Both	-	
<b>SSB</b>	SSB-MT	2021	11,600	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2021	9,700,000	-	0	
<b>F</b>	F-1/yr	2021	0.109	-	-	
<b>ER</b>	ER-calc-ratio	2017	0.106	-	-	
<b>TC</b>	TC-MT	2018	1150			
<b>TL</b>	TL-MT	2021	1040			
<b>TB/TBmsy</b>	-	-	-			
<b>SSB/SSBmsy</b>	-	-	-			
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2021	0.634			
<b>ER/ERmsy</b>	-	-	-			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2020	0.762			
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2021	0.634			
<b>ER/ERmgt</b>	-	-	-			

European seabass ICES 4bc–7 [EBASSIVbc–VII]

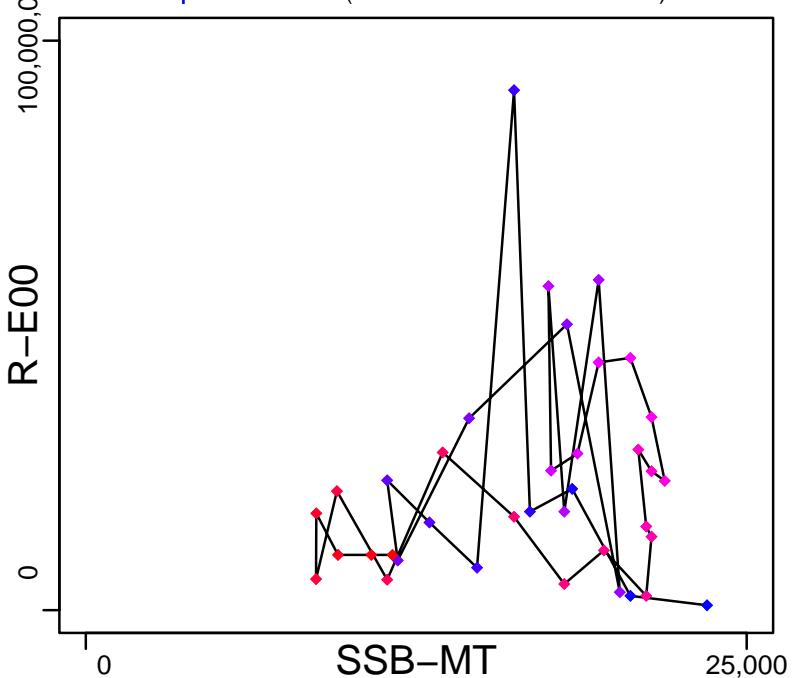
Kobe MSYpref (1985–2021–ICESIMP2021–2)



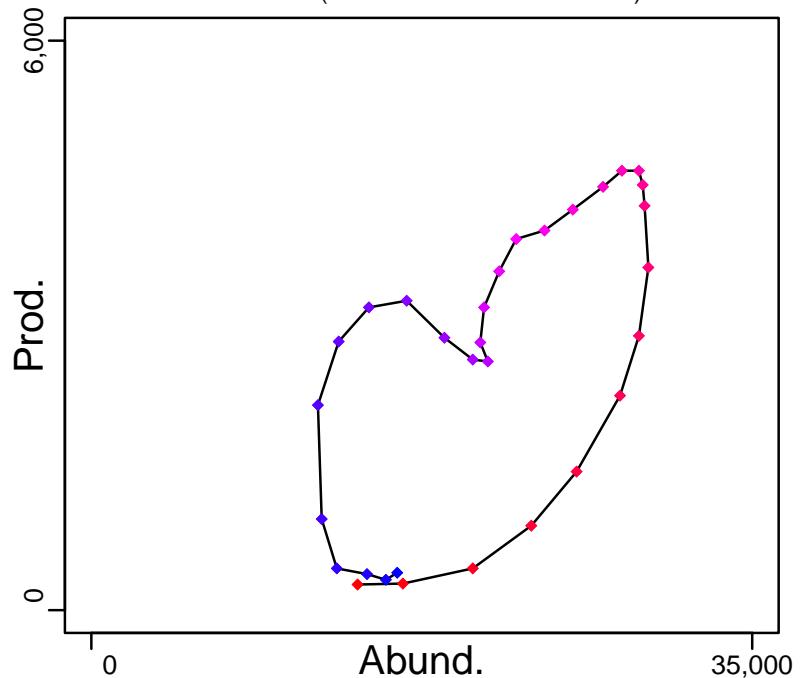
Kobe MGTpref (1985–2021–ICESIMP2021–2)



Spawner Recruit (1985–2021–ICESIMP2021–2)



Production (1985–2021–ICESIMP2021–2)

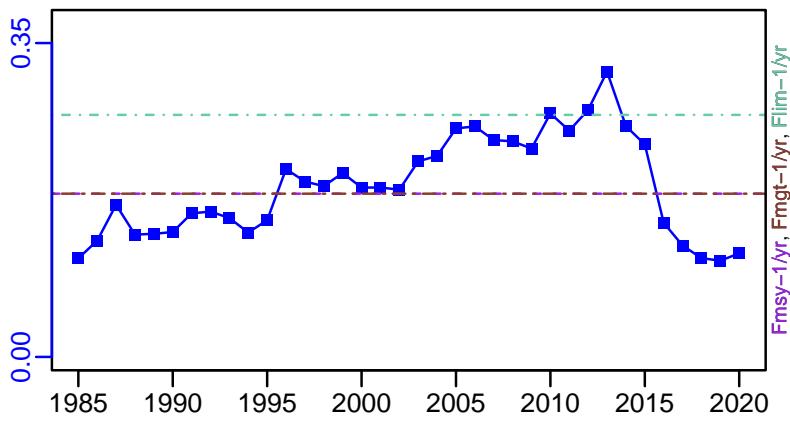
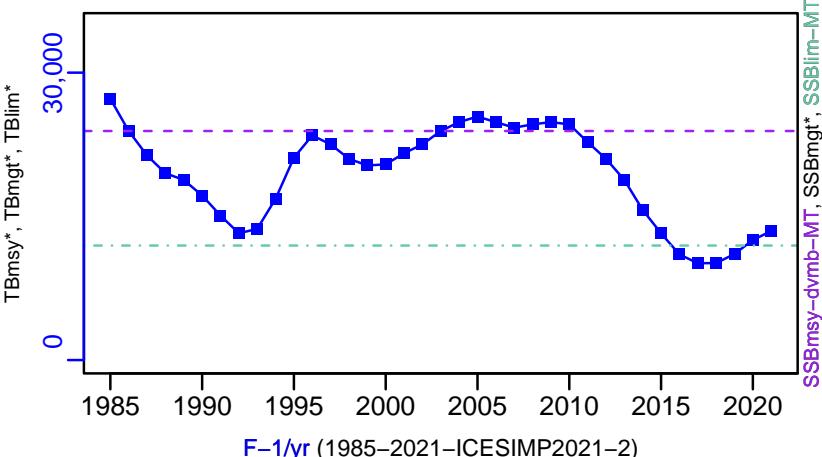
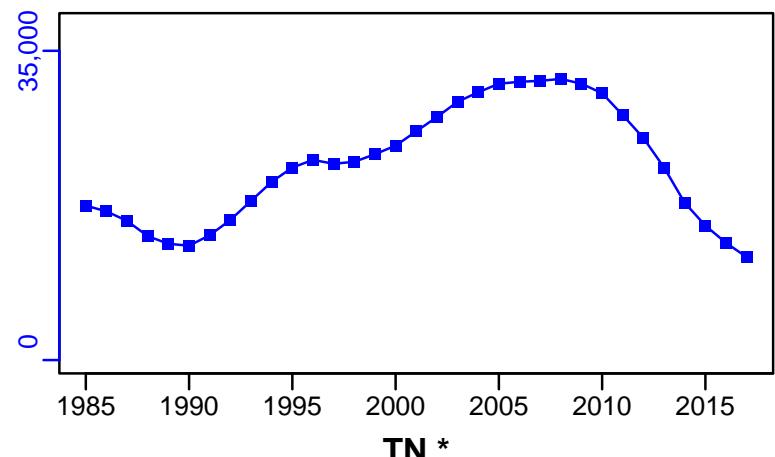


◆ Start Year ♦ End Year \* No Data

### European seabass ICES 4bc–7 [EBASSIVbc–VII]

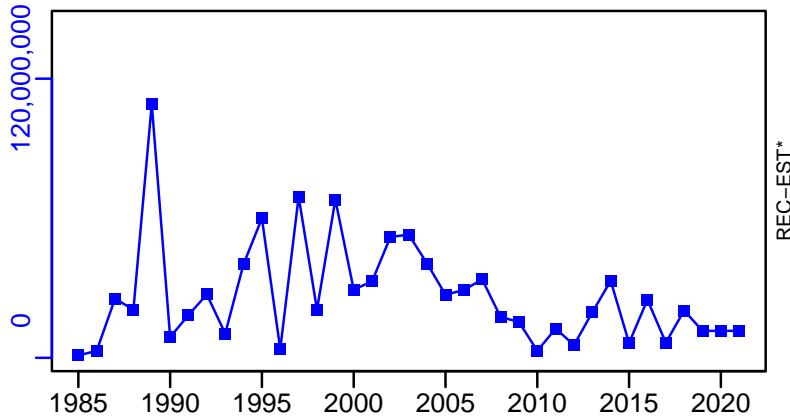
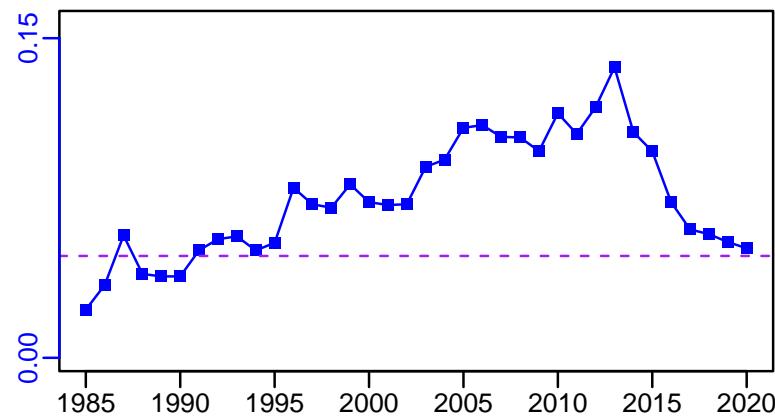
TB-MT (1985–2017–ICESIMP2018)

SSB-MT (1985–2021–ICESIMP2021–2)



ER-calc-ratio (1985–2021–ICESIMP2021–2)

R-E00 (1985–2021–ICESIMP2021–2)

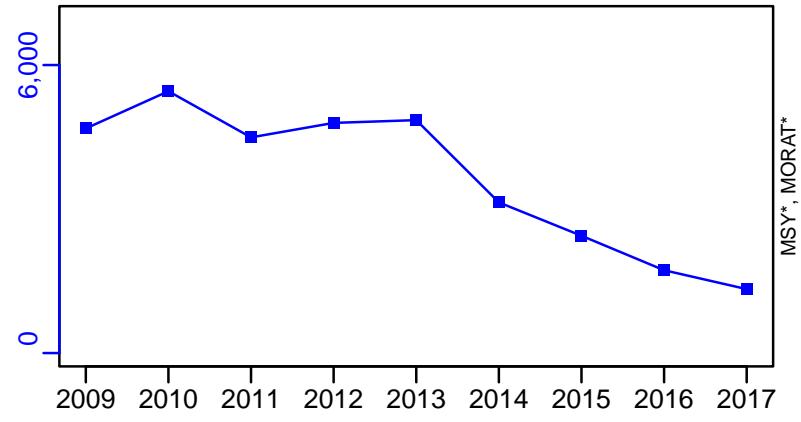


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - - Lim BRP	* No Data

European seabass ICES 4bc–7 [EBASSIVbc–VII]

TC–MT, TL\*, RecC\* (1985–2018–ICESIMP2018)

TAC\*, Cpair\*, Cadv\*

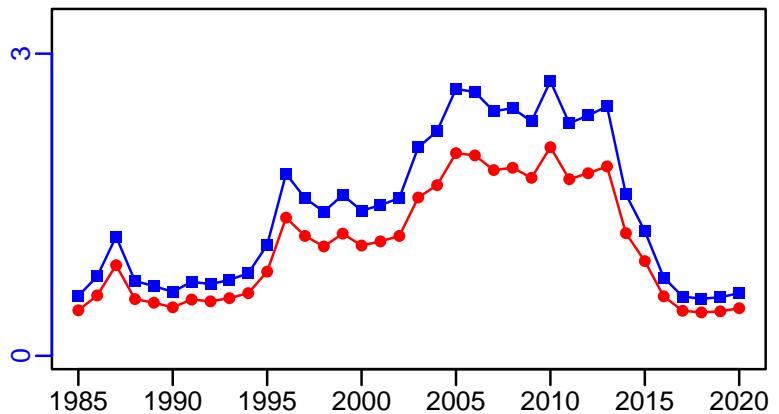
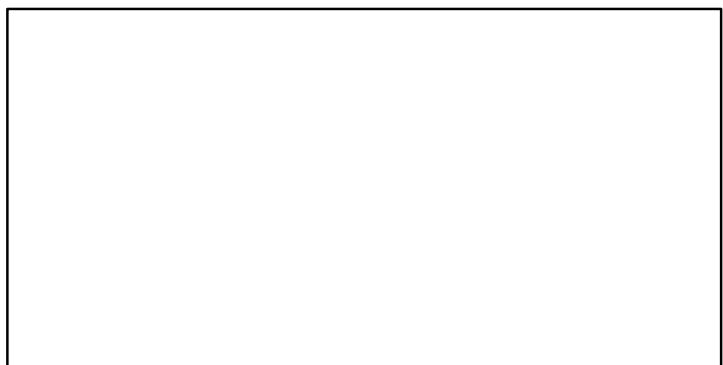


survB\*

CPUE\*

EFFORT\*

TL–MT/MSY–est–MT, CdivMEANC–ratio, (1985–2021–ICESIMP2021–2)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - MSY	* No Data

## European seabass ICES 6a-7b-j [EBASSVIa-VIIb-j]

<b>Metadata</b>	
<b>Scientific Name</b>	Dicentrarchus labrax
<b>Current Assess ID</b>	WGCSE-EBASSVIa-VIIb-j-2000-2019-ICESIMP2021-2
<b>Area</b>	ICES 6a-7b-j
<b>Management Authority</b>	International Council for the Exploration of the Sea
<b>Assessor</b>	Working Group on Celtic Seas Ecosystems
<b>Asmts in RAM</b>	2015, 2016, 2019

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

<b>Time Series</b>					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2015	2		
<b>TL</b>	TL-MT	2019	0.04		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

**Kobe MSY\***

**Kobe MGT\***

**Spawner Recruit\***

**Production\***

◆ Start Year ♦ End Year \* No Data

**TB\***



**SSB\***



**TN \***



**F\***



**ER\***



**Recruits\***

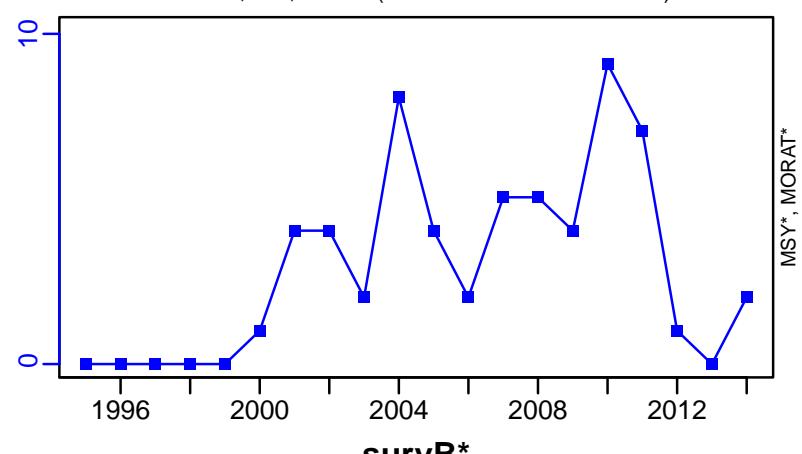


- |                      |                  |           |
|----------------------|------------------|-----------|
| ■ Listed time series | - - - Target BRP | — Rec-Est |
| - - - MSY-based BRP  | - - - Lim BRP    | * No Data |

European seabass ICES 6a–7b–j [EBASSVla–VIIb–j]

TC–MT, TL\*, RecC\* (1995–2015–ICESIMP2016)

TAC\*, Cpair\*, Cadv\*



survB\*

CPUE\*

EFFORT\*

CdivMSY\*

- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - MSY                  | * No Data |

## European seabass ICES 8ab [EBASSVIIlab]

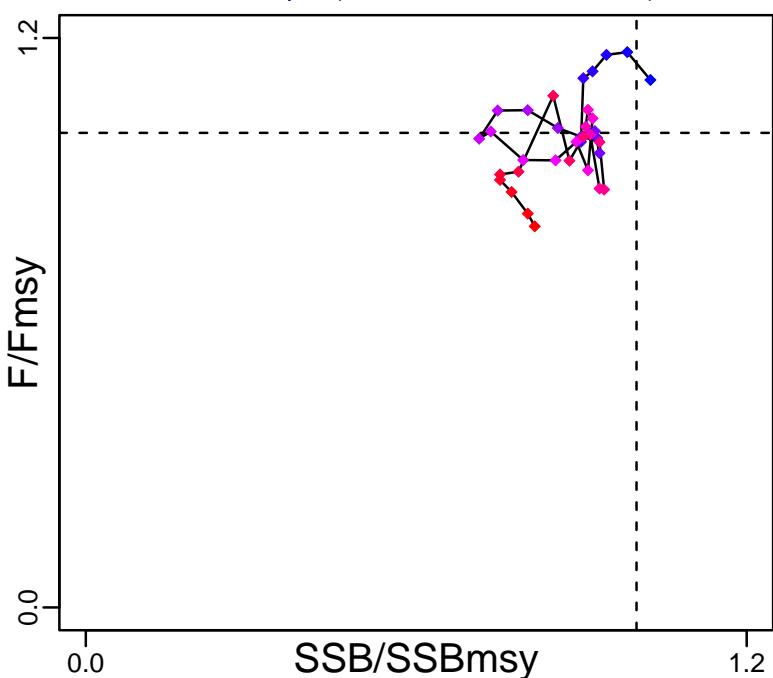
<b>Metadata</b>	
<b>Scientific Name</b>	Dicentrarchus labrax
<b>Current Assess ID</b>	WGBIE-EBASSVIIlab-1985-2021-ICESIMP2021-2
<b>Area</b>	ICES 8ab
<b>Management Authority</b>	International Council for the Exploration of the Sea
<b>Assessor</b>	Working Group for the Bay of Biscay and the Iberian Waters Ecoregion
<b>Asmts in RAM</b>	2019, 2020, 2021, 2014, 2016

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	Fmsy-1/yr	2021	0.138
<b>ERrmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2020	16,688
<b>Fmgt</b>	Fmgt-1/yr	2021	0.138
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2021	11,900
<b>Flim</b>	Flim-1/yr	2020	0.172
<b>ERlim</b>	-	-	-

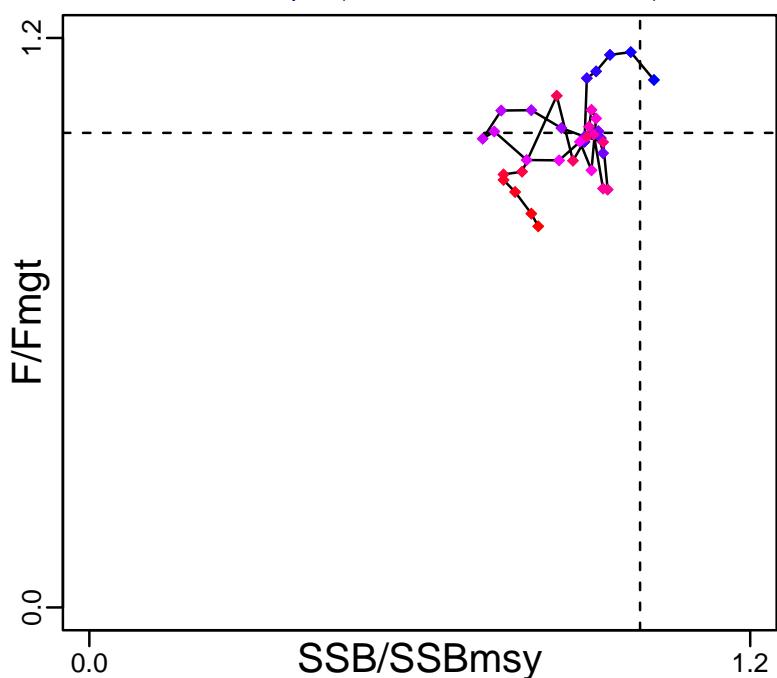
<b>Time Series</b>					
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2021	18,600	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2021	17,900,000	-	0
<b>F</b>	F-1/yr	2021	0.111	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2021	2130		
<b>TL</b>	TL-MT	2021	2090		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2021	0.803		
<b>ER/ERrmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2020	1.097		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2021	0.803		
<b>ER/ERmgt</b>	-	-	-		

European seabass ICES 8ab [EBASSVIIlab]

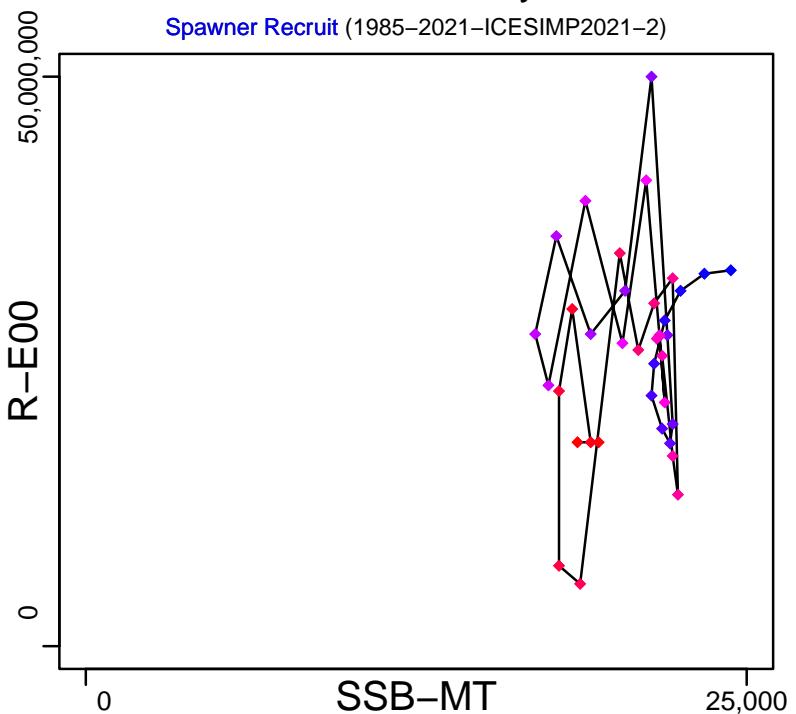
Kobe MSYpref (1985–2021–ICESIMP2021–2)



Kobe MGTpref (1985–2021–ICESIMP2021–2)



Spawner Recruit (1985–2021–ICESIMP2021–2)



Production\*



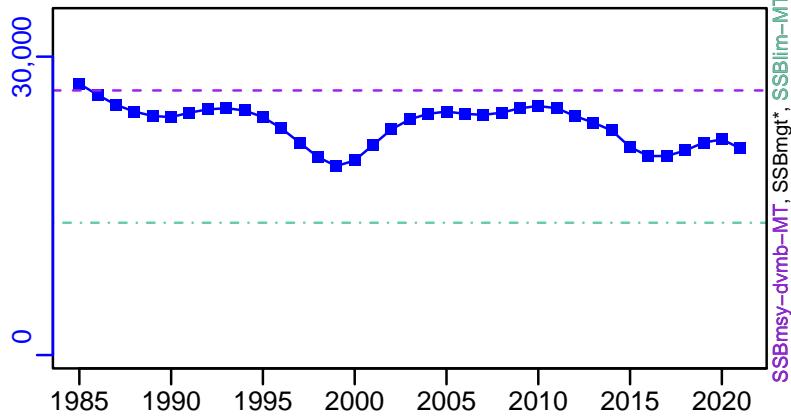
◆ Start Year	◆ End Year	*	No Data
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European seabass ICES 8ab [EBASSVIIlab]

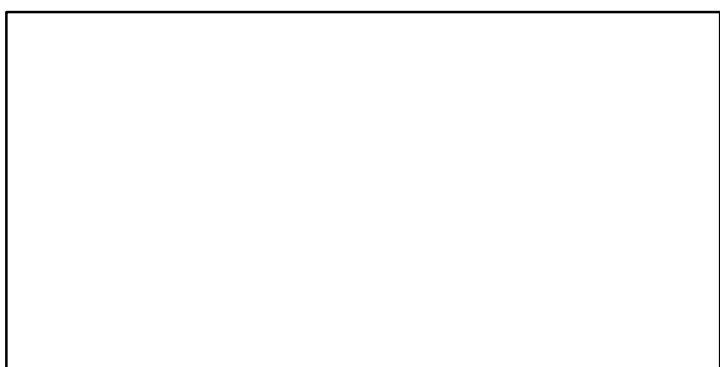
**TB\***



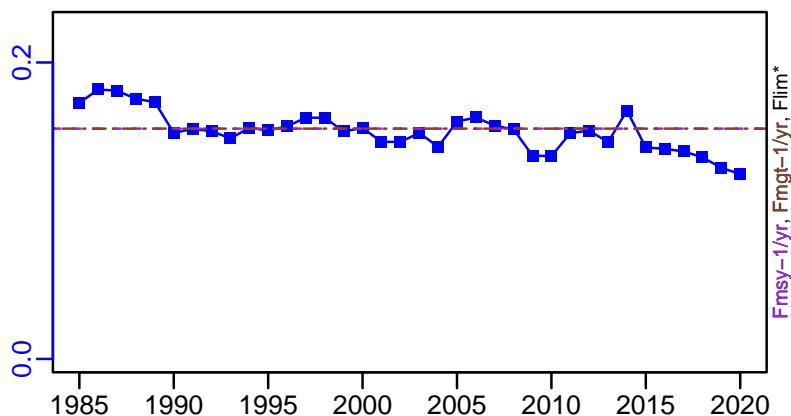
**SSB-MT** (1985–2021–ICESIMP2021–2)



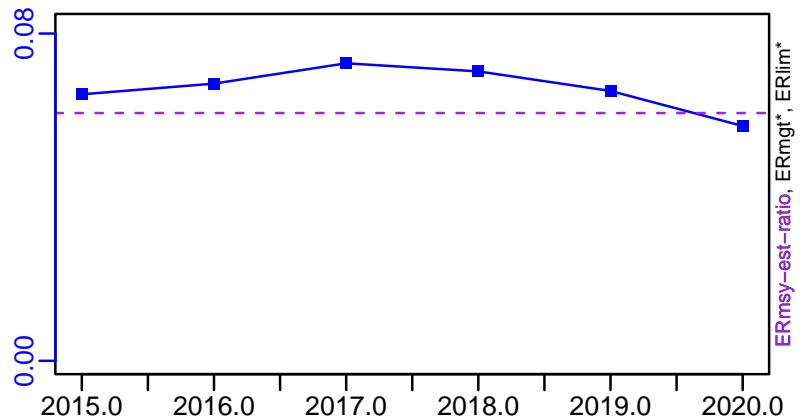
**TN \***



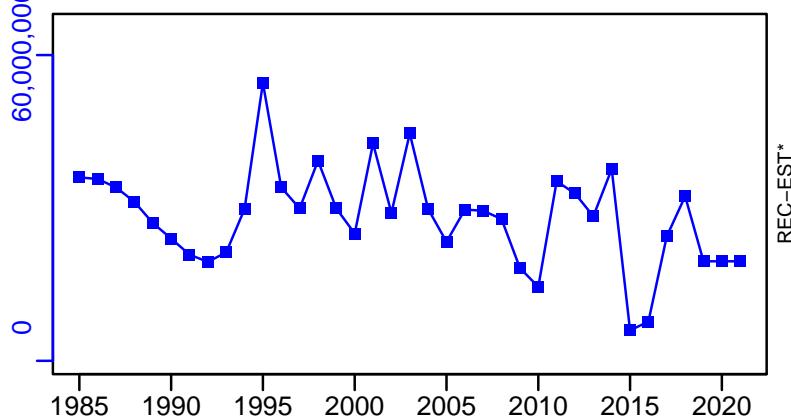
**F-1/yr** (1985–2021–ICESIMP2021–2)



**ER-calc-ratio** (1985–2021–ICESIMP2021–2)



**R-E00** (1985–2021–ICESIMP2021–2)

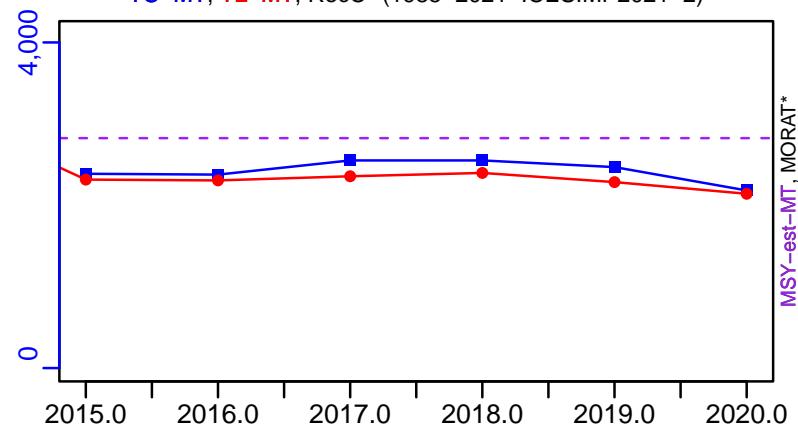


- |                      |              |           |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| - - MSY-based BRP    | - - Lim BRP  | * No Data |

European seabass ICES 8ab [EBASSVIIlab]

TC-MT, TL-MT, RecC\* (1985–2021–ICESIMP2021–2)

TAC\*, Cpair\*, Cadv\*



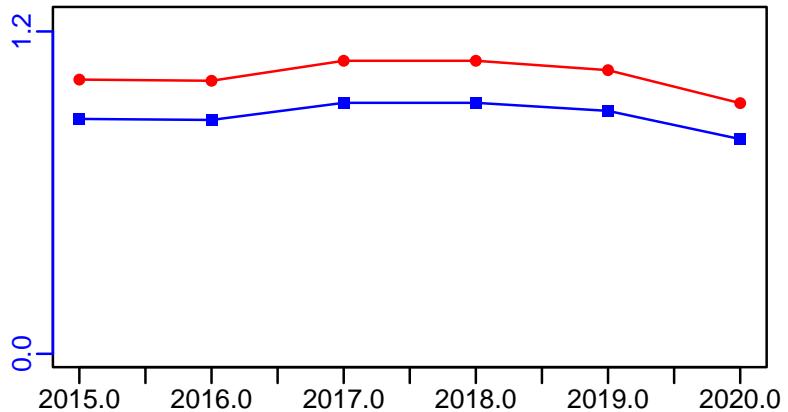
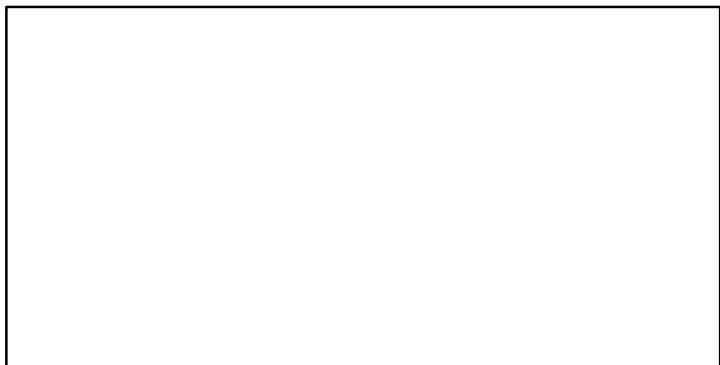
survB\*

MSY-est-MT, MORAT\*

CPUE\*

EFFORT\*

TC-MT/MSY-est-MT, CdivMEANC-ratio, (1985–2021–ICESIMP2021–2)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

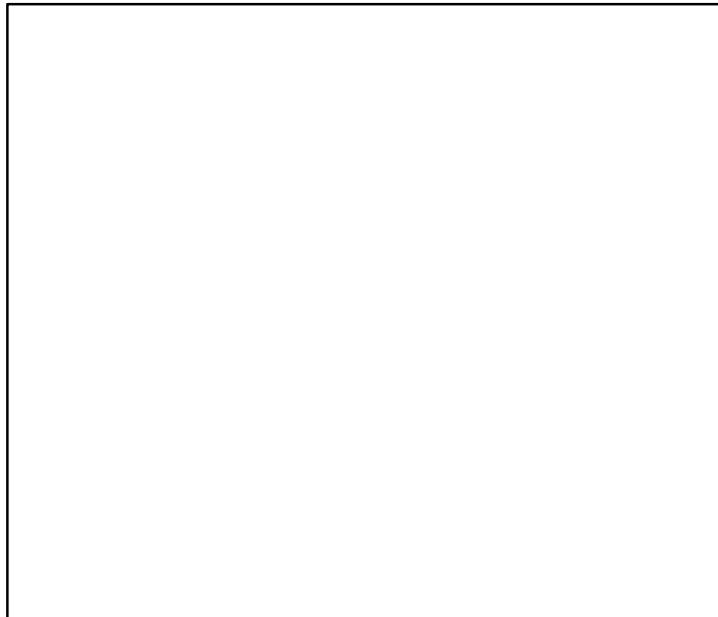
## European seabass ICES 8c-9a [EBASSVIIIC-IXa]

<b>Metadata</b>	
<b>Scientific Name</b>	Dicentrarchus labrax
<b>Current Assess ID</b>	WGBIE-EBASSVIIIC-IXa-1978-2020-ICESIMP2021-2
<b>Area</b>	ICES 8c-9a
<b>Management Authority</b>	International Council for the Exploration of the Sea
<b>Assessor</b>	Working Group for the Bay of Biscay and the Iberian Waters Ecoregion
<b>Asmts in RAM</b>	2015, 2016, 2018, 2020

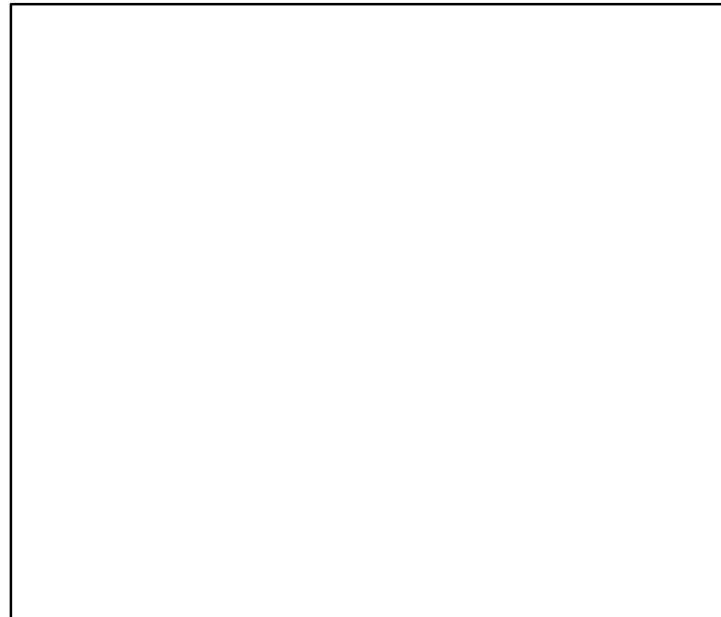
<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

<b>Time Series</b>					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2015	917		
<b>TL</b>	TL-MT	2020	896		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



**Production\***



◆ Start Year ♦ End Year \* No Data

**TB\***



**SSB\***



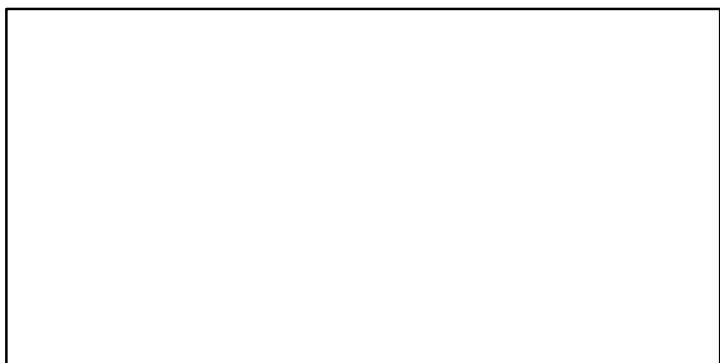
**TN \***



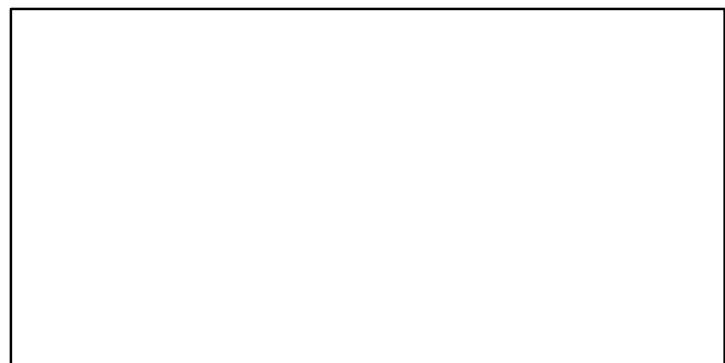
**F\***



**ER\***



**Recruits\***

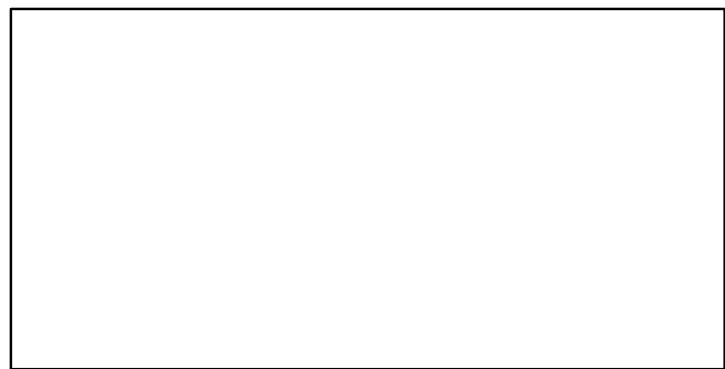
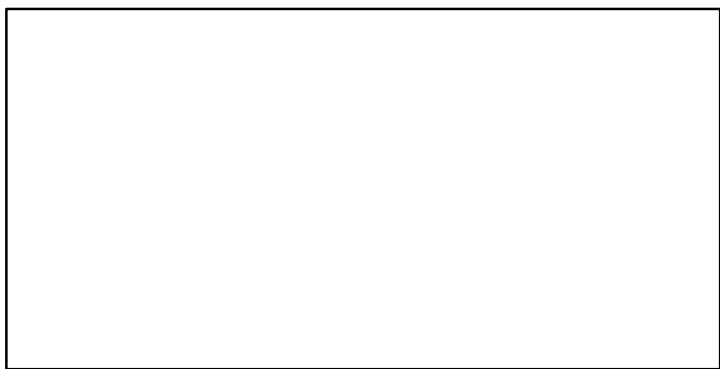
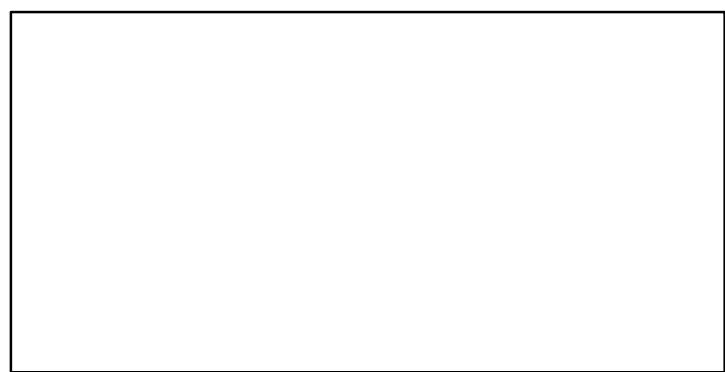
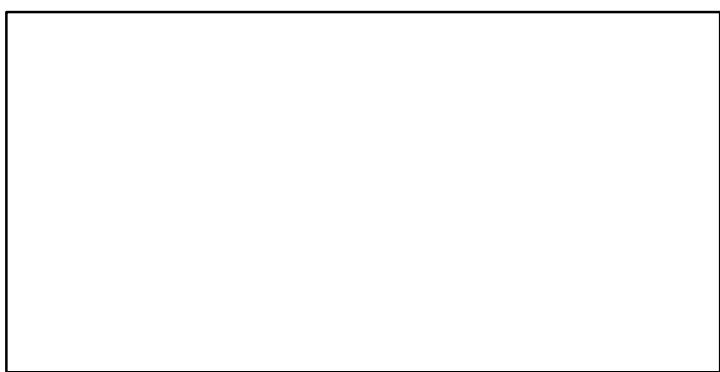
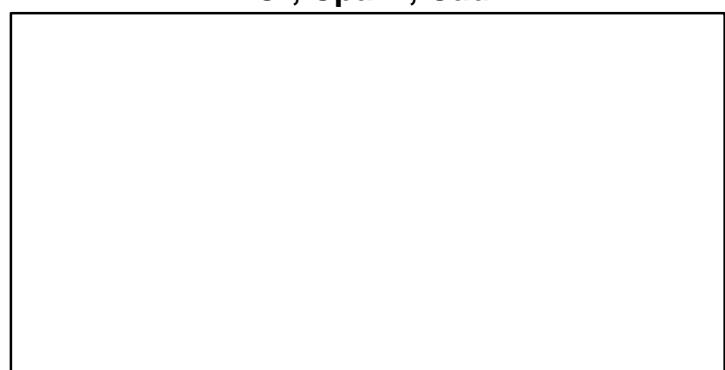
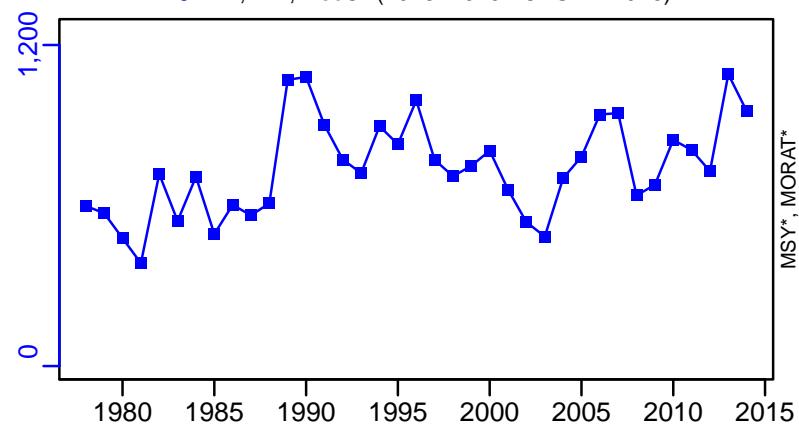


- |                      |                  |           |
|----------------------|------------------|-----------|
| ■ Listed time series | - - - Target BRP | — Rec-Est |
| - - - MSY-based BRP  | - - - Lim BRP    | * No Data |

European seabass ICES 8c–9a [EBASSVIIIC–IXa]

TC–MT, TL\*, RecC\* (1978–2015–ICESIMP2016)

TAC\*, Cpair\*, Cadv\*



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - MSY                  | * No Data |

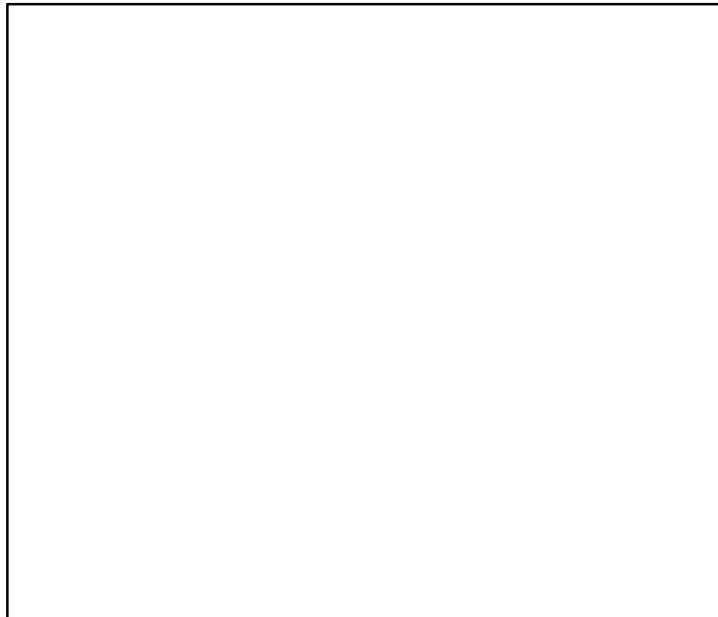
## Flame snapper Okinawa Islands [FSNAPOKWI]

<b>Metadata</b>	
<b>Scientific Name</b>	Etelis coruscans
<b>Current Assess ID</b>	FAFRFJ-FSNAPOKWI-1989-2013-JPNIMP2016
<b>Area</b>	Okinawa Islands
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>	2013

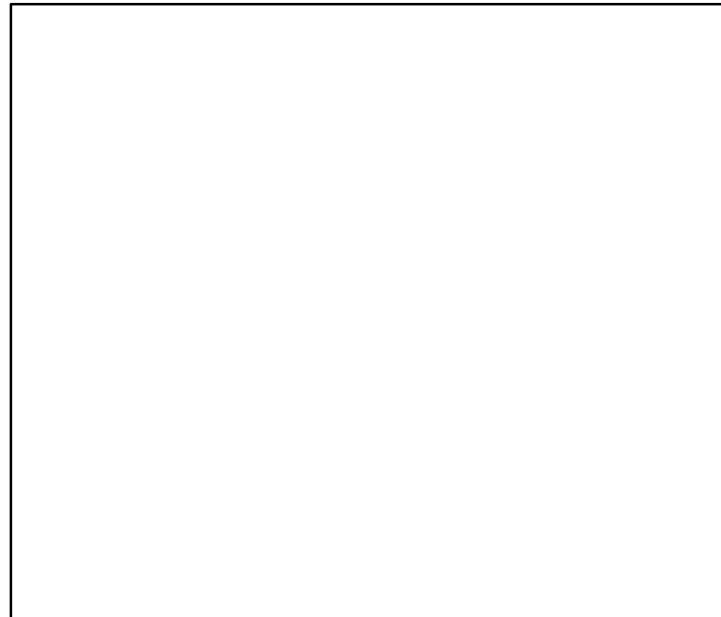
<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

<b>Time Series</b>					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2013	103		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



**Production\***



◆ Start Year ♦ End Year \* No Data

Flame snapper Okinawa Islands [FSNAPOKWI]

**TB\***



**SSB\***



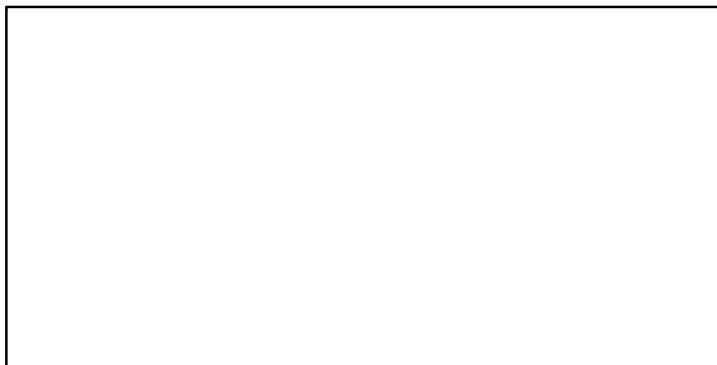
**TN \***



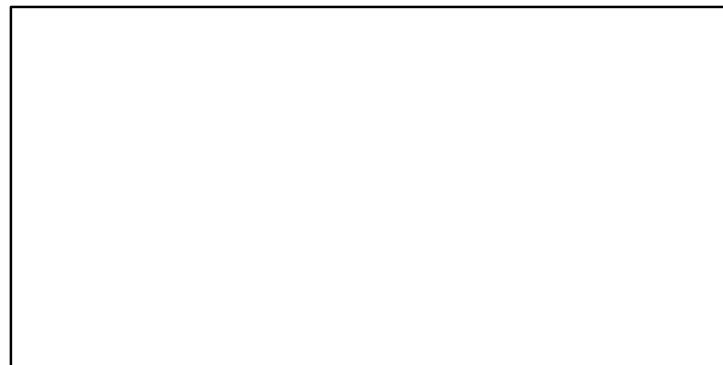
**F\***



**ER\***



**Recruits\***

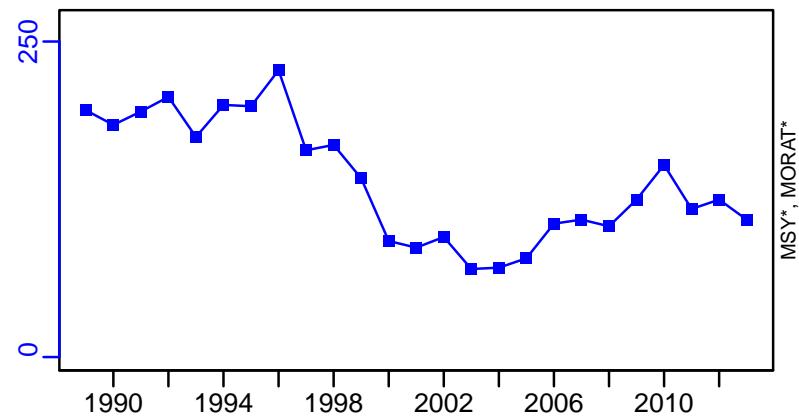


- |                      |                  |           |
|----------------------|------------------|-----------|
| ■ Listed time series | - - - Target BRP | — Rec-Est |
| - - - MSY-based BRP  | - - - Lim BRP    | * No Data |

Flame snapper Okinawa Islands [FSNAPOKWI]

TC-MT, TL\*, RecC\* (1989–2013–JPNIMP2016)

TAC\*, Cpair\*, Cadv\*



survB\*

CPUE\*

EFFORT\*

CdivMSY\*

- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - MSY                  | * No Data |

## Gag Gulf of Mexico [GAGGM]

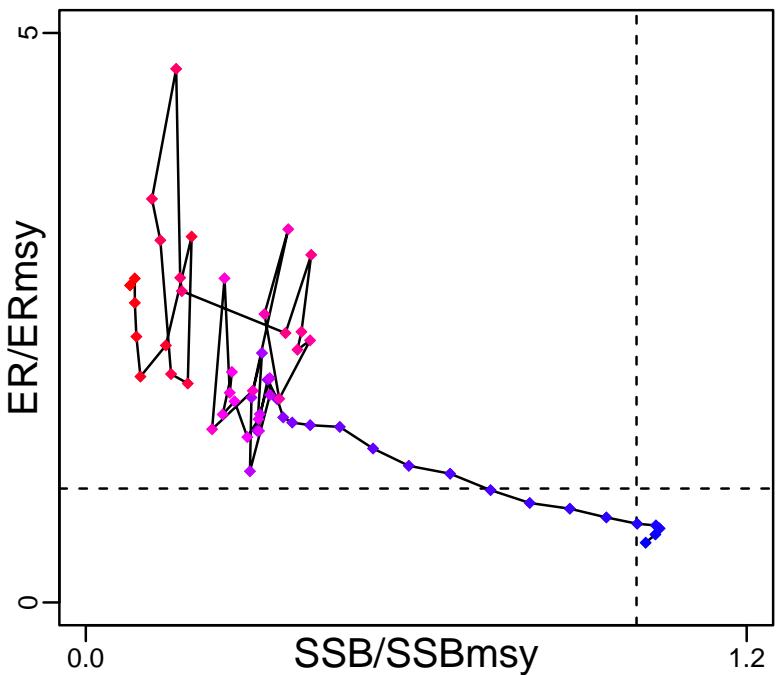
Metadata	
<b>Scientific Name</b>	Mycteroperca microlepis
<b>Current Assess ID</b>	SEFSC-GAGGM-1963-2019-SISIMP2022
<b>Area</b>	Gulf of Mexico
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southeast Fisheries Science Center
<b>Asmts in RAM</b>	2012, 2019

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2019	28,560
<b>Fmsy</b>	Fmsy-pr-1/yr	2012	0.108
<b>ERmsy</b>	ERmsy-ratio	2019	0.148
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2012	27,558
<b>Fmgt</b>	Fmgt-1/yr	2012	0.081
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	M-1/yr	2012	0.134
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

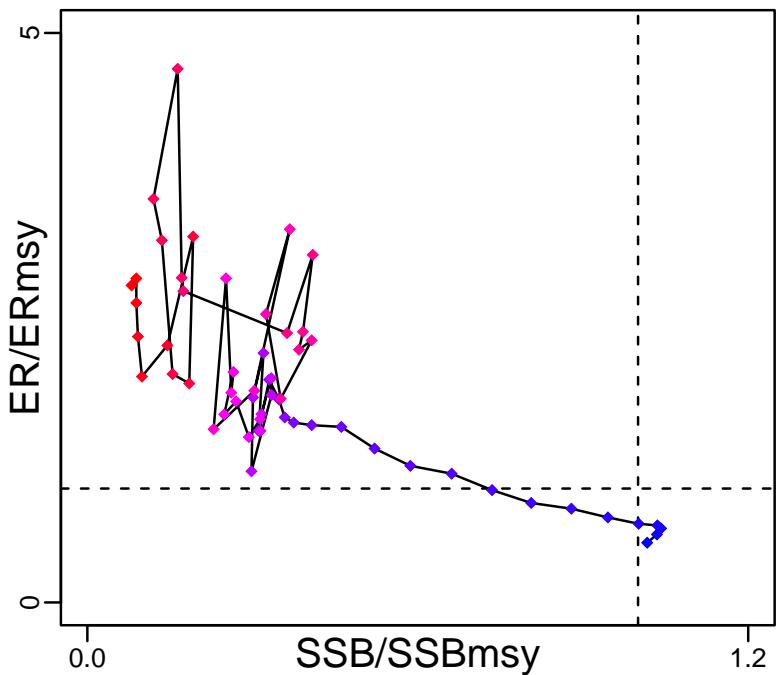
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2019	2295	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2019	2,805,700	-	0
<b>F</b>	F-1/yr	2012	0.083	-	-
<b>ER</b>	ER-ratio	2019	0.412	-	3
<b>TC</b>	TC-MT	2019	1712		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2019	0.08		
<b>F/Fmsy</b>	F-1/yr/Fmsy-pr-1/yr	2012	0.769		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2019	2.784		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2012	0.428		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2012	1.025		
<b>ER/ERmgt</b>	-	-	-		

### Gag Gulf of Mexico [GAGGM]

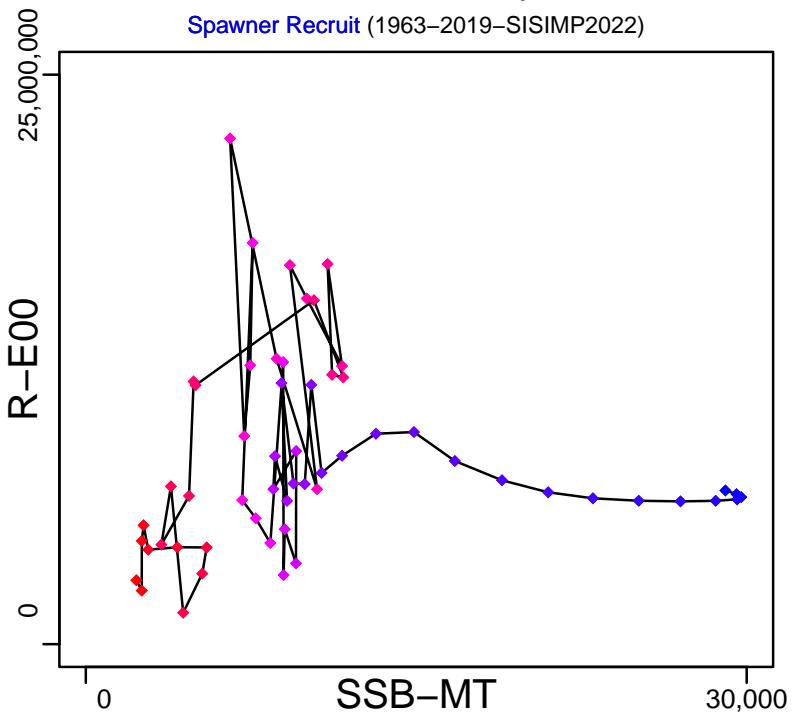
Kobe MSYpref (1963–2019–SISIMP2022)



Kobe MGTpref (1963–2019–SISIMP2022)



Spawner Recruit (1963–2019–SISIMP2022)



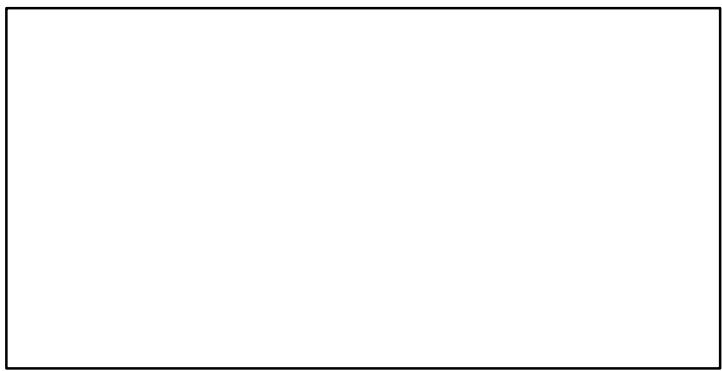
**Production\***



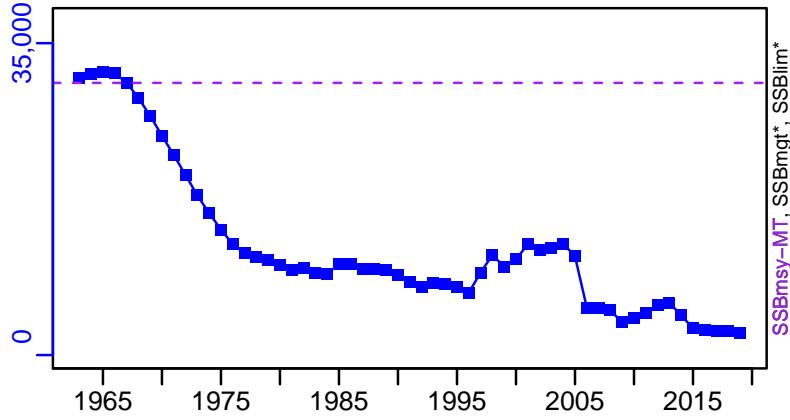
◆ Start Year	◆ End Year	* No Data
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Gag Gulf of Mexico [GAGGM]

**TB\***



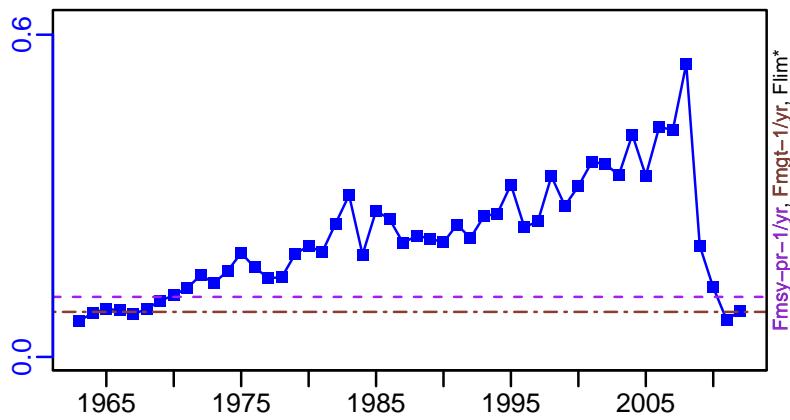
SSB-MT (1963–2019–SISIMP2022)



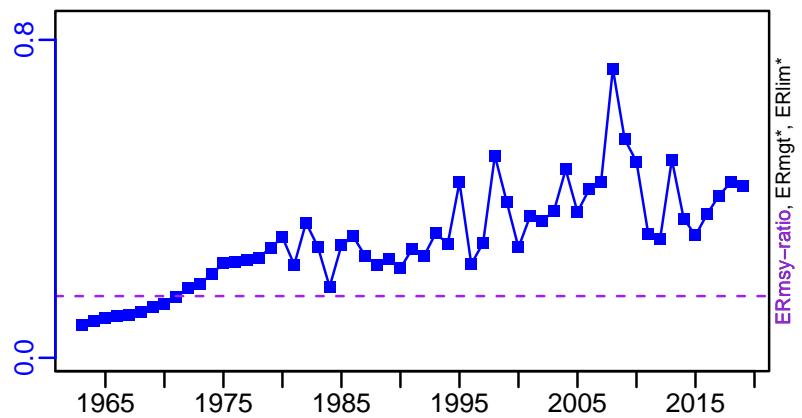
**TN \***



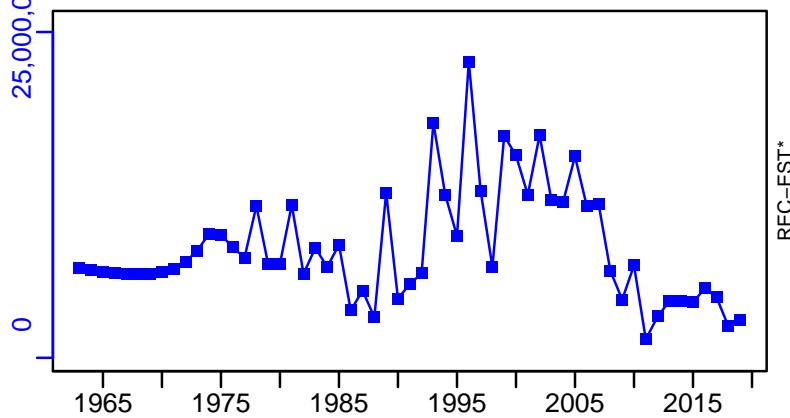
F-1/yr (1963–2012–HIVELY)



ER-ratio (1963–2019–SISIMP2022)



R-E00 (1963–2019–SISIMP2022)

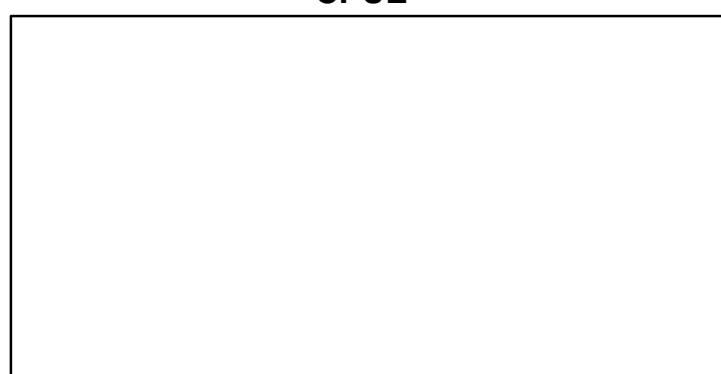
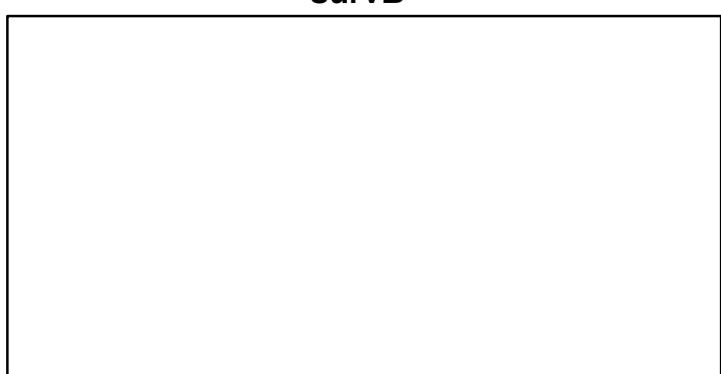
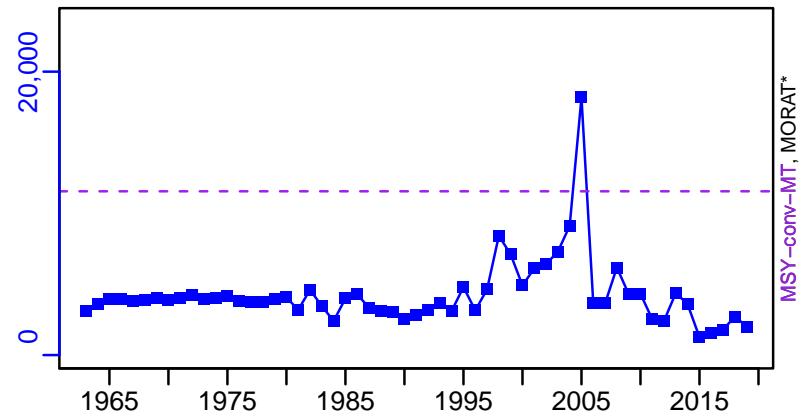


- |                      |              |           |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| - - MSY-based BRP    | - - Lim BRP  | * No Data |

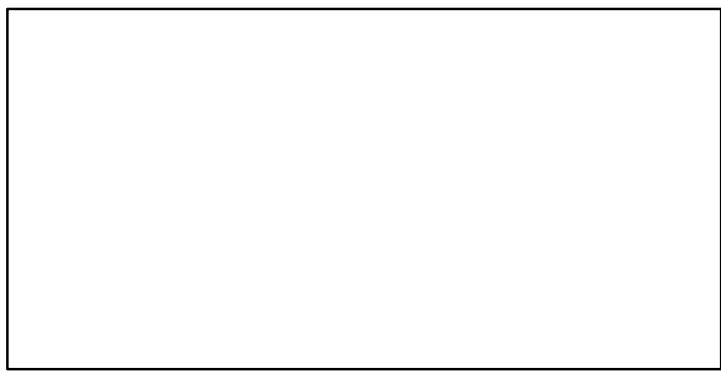
Gag Gulf of Mexico [GAGGM]

TC-MT, TL\*, RecC\* (1963–2019–SISIMP2022)

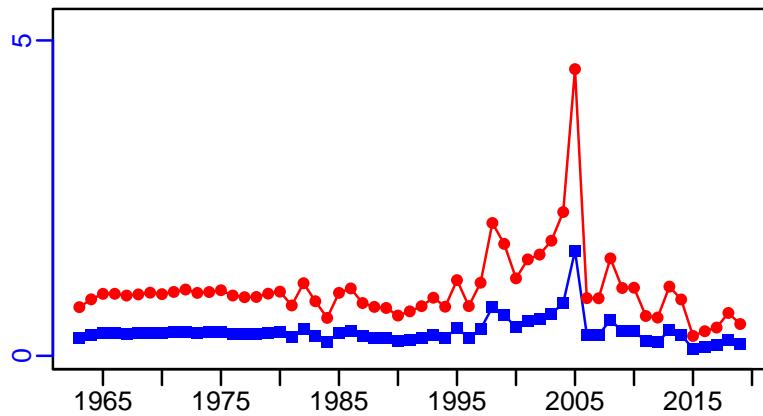
TAC\*, Cpair\*, Cadv\*



**EFFORT\***



TC-MT/MSY-conv-MT, CdivMEANC-ratio, (1963–2019–SISIMP2022)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Gag Southern Atlantic coast [GAGSATLC]

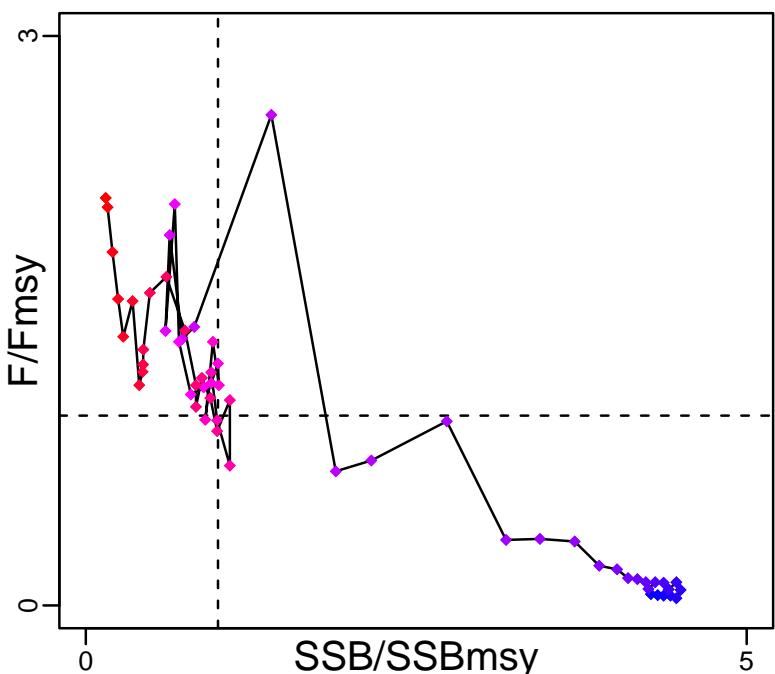
Metadata	
<b>Scientific Name</b>	Mycteroperca microlepis
<b>Current Assess ID</b>	SEFSC-GAGSATLC-1962-2019-SISIMP2021-2
<b>Area</b>	Southern Atlantic coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southeast Fisheries Science Center
<b>Asmts in RAM</b>	2005, 2012, 2019

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2005	6475
<b>SSBmsy</b>	SSBmsy-MT	2019	1560
<b>Fmsy</b>	Fmsy-1/yr	2019	0.368
<b>ERmsy</b>	ERmsy-ratio	2005	0.124
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2019	662
<b>M</b>	M-1/yr	2005	0.14
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2019	1170
<b>Flim</b>	Flim-1/yr	2019	0.368
<b>ERlim</b>	-	-	-

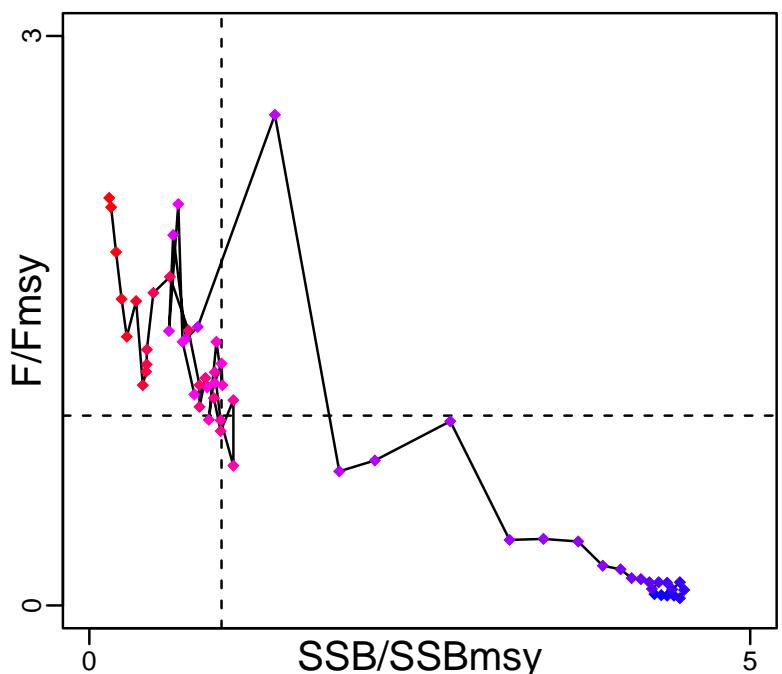
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
<b>TB</b>	TB-MT	2012	2620	-	1+	
<b>SSB</b>	SSB-MT	2019	235	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2019	283,000	-	1	
<b>F</b>	F-1/yr	2019	0.79	-	-	
<b>ER</b>	ER-calc-ratio	2012	0.094	-	-	
<b>TC</b>	TC-MT	2019	247			
<b>TL</b>	-	-	-			
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2005	0.646			
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2019	0.151			
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2019	2.147			
<b>ER/ERmsy</b>	-	-	-			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

Gag Southern Atlantic coast [GAGSATLC]

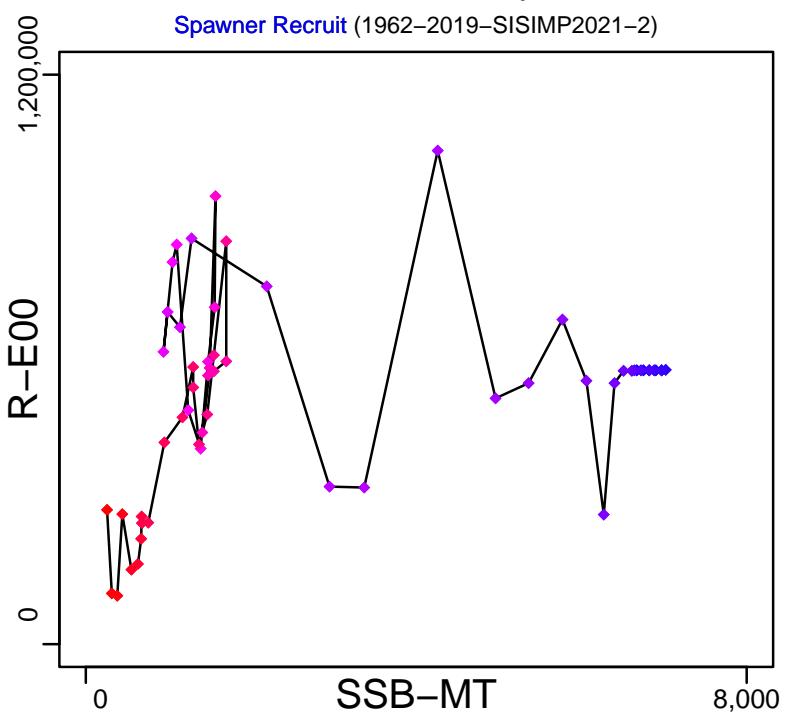
Kobe MSYpref (1962–2019–SISIMP2021–2)



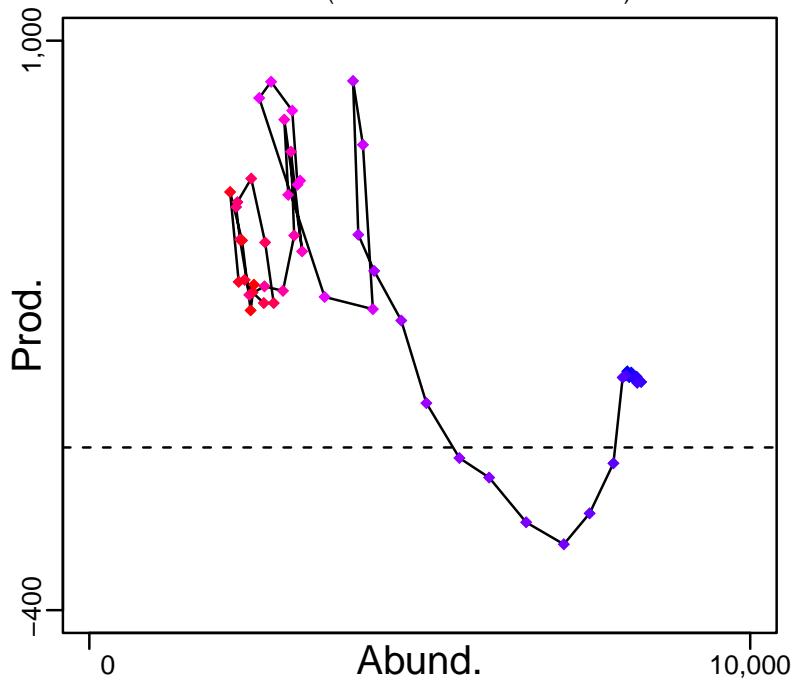
Kobe MGTpref (1962–2019–SISIMP2021–2)



Spawner Recruit (1962–2019–SISIMP2021–2)



Production (1962–2019–SISIMP2021–2)

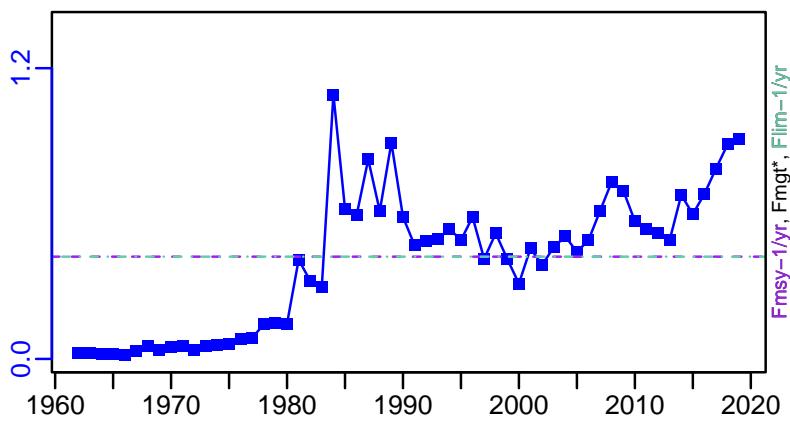
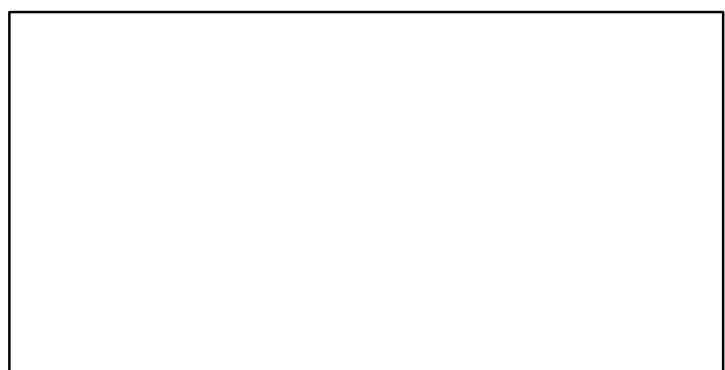
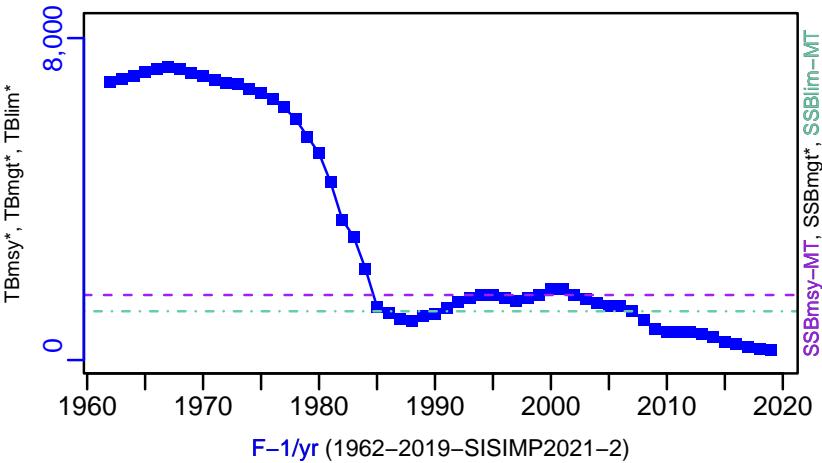
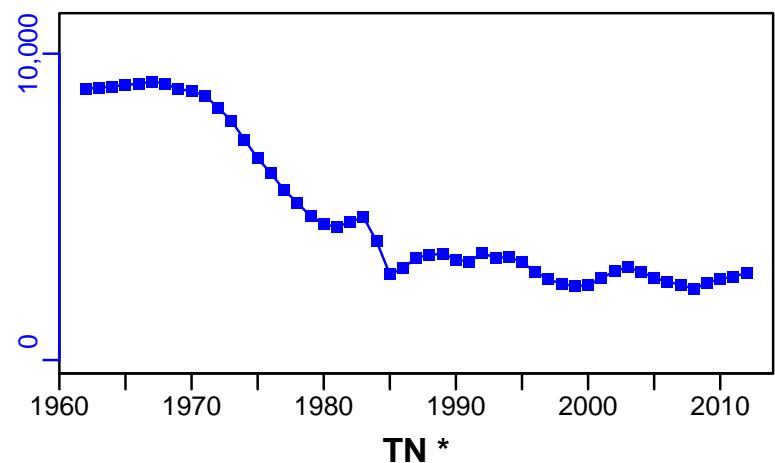


◆ Start Year   ◆ End Year   \* No Data

### Gag Southern Atlantic coast [GAGSATLC]

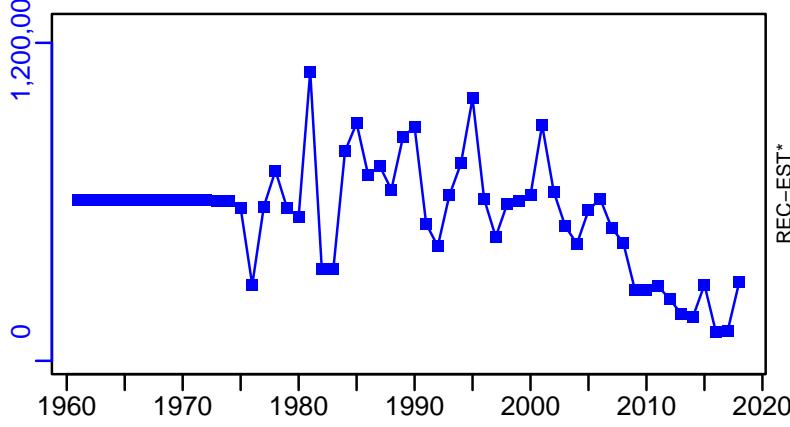
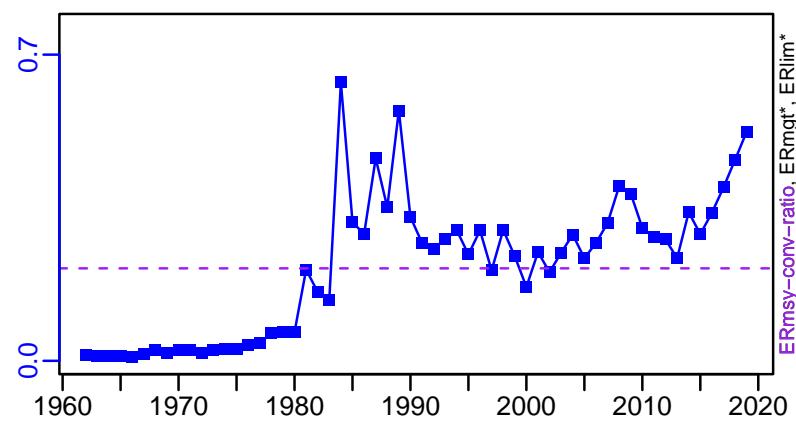
TB-MT (1962–2012–SISIMP2016)

SSB-MT (1962–2019–SISIMP2021–2)



ER-calc-ratio (1962–2019–SISIMP2021–2)

R-E00 (1962–2019–SISIMP2021–2)

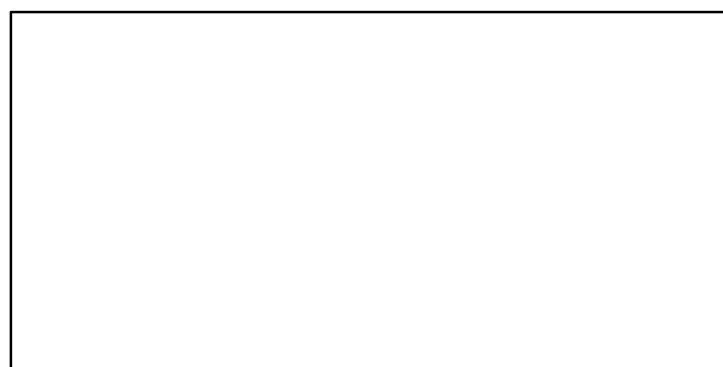
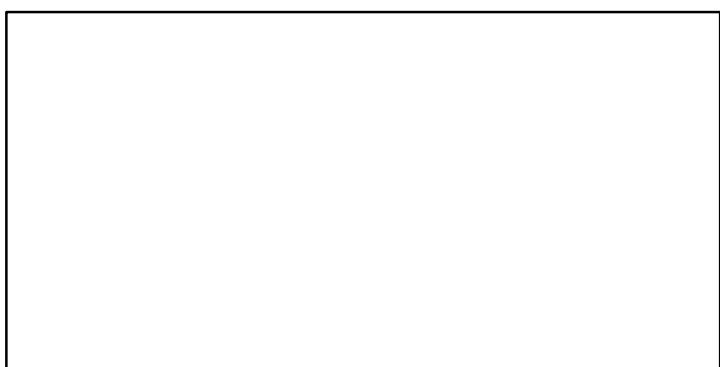
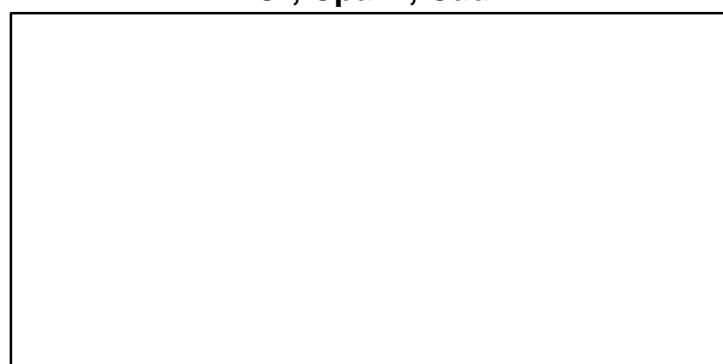
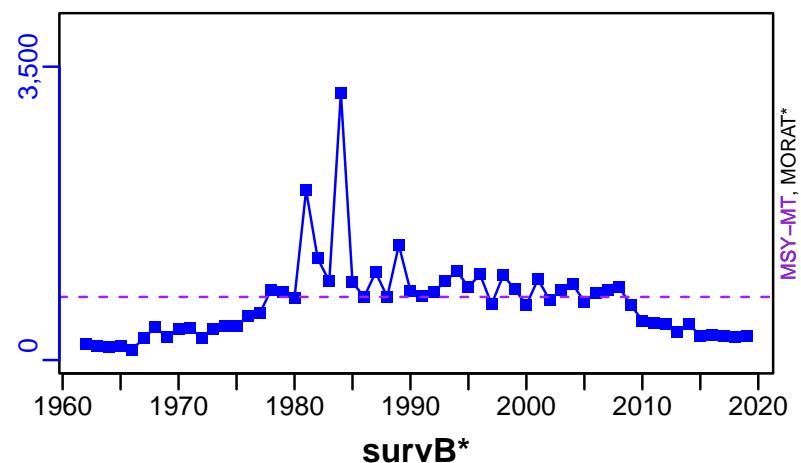


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	--- Lim BRP	* No Data

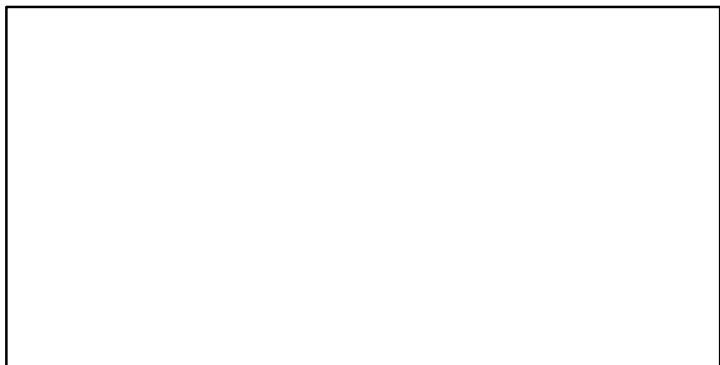
Gag Southern Atlantic coast [GAGSATLC]

TC-MT, TL\*, RecC\* (1962–2019–SISIMP2021–2)

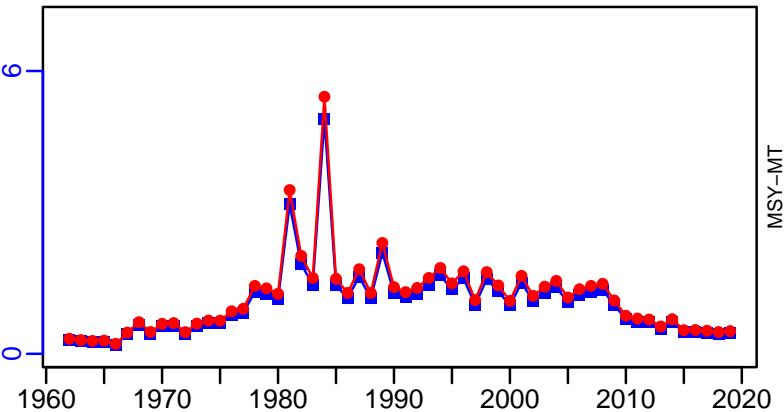
TAC\*, Cpair\*, Cadv\*



**EFFORT\***



TC-MT/MSY-MT, CdivMEANC-ratio, (1962–2019–SISIMP2021–2)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Grey grunt Central West Africa Gabon-Angola [GGRUNTCWAGAB-AGO]

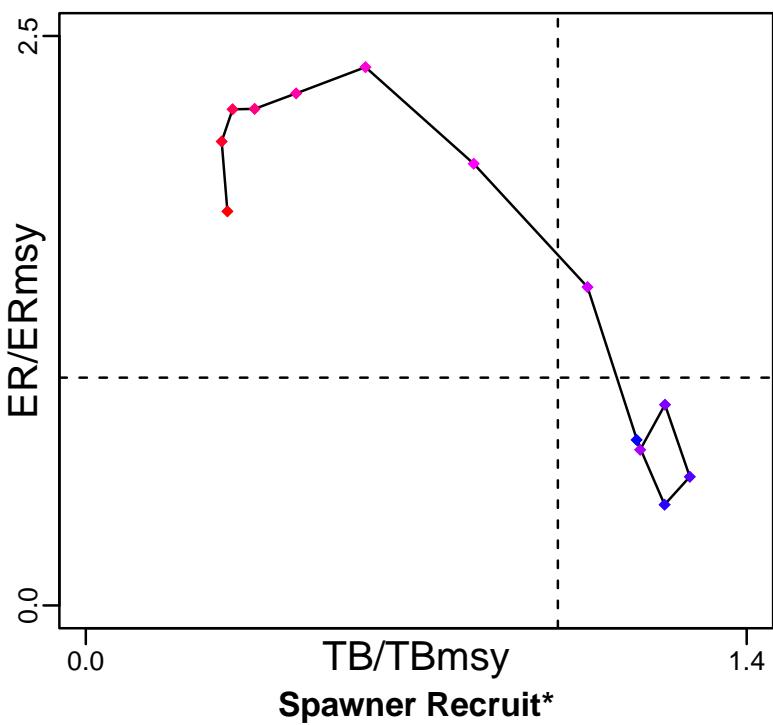
<b>Metadata</b>	
<b>Scientific Name</b>	Pomadasys spp
<b>Current Assess ID</b>	FAO-DR-GGRUNTCWAGAB-AGO-1995-2007-CHING
<b>Area</b>	Central West Africa Gabon-Angola
<b>Management Authority</b>	Food and Agriculture Organization of the United Nations
<b>Assessor</b>	FAO/CECAF Working Group on the Assessment of Demersal Resources
<b>Asmts in RAM</b>	2007

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

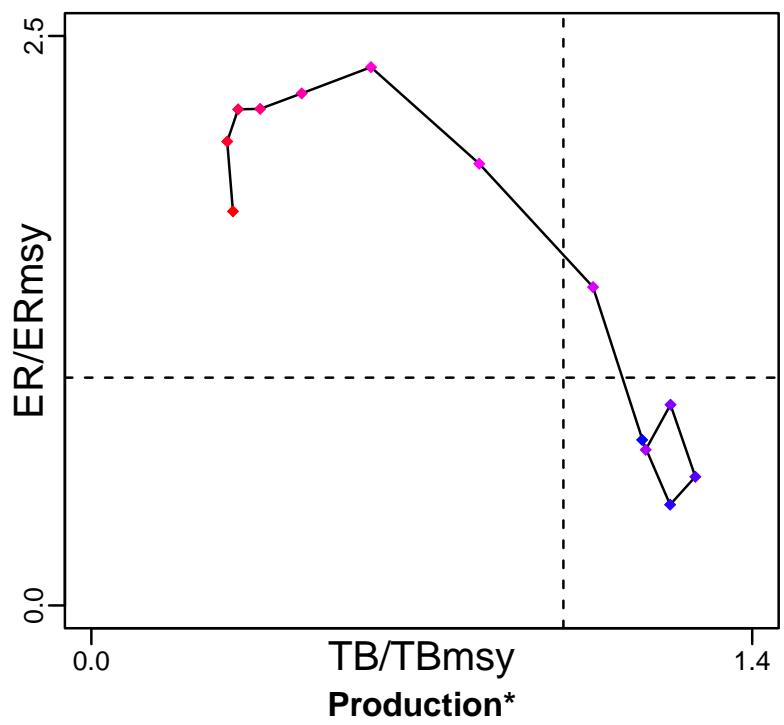
<b>Time Series</b>					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-index	2007	19	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2007	912		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

**Grey grunt Central West Africa Gabon–Angola [GGRUNTCWAGAB–AGO]**

Kobe MSYpref (1995–2007–CHING)



Kobe MGTPref (1995–2007–CHING)

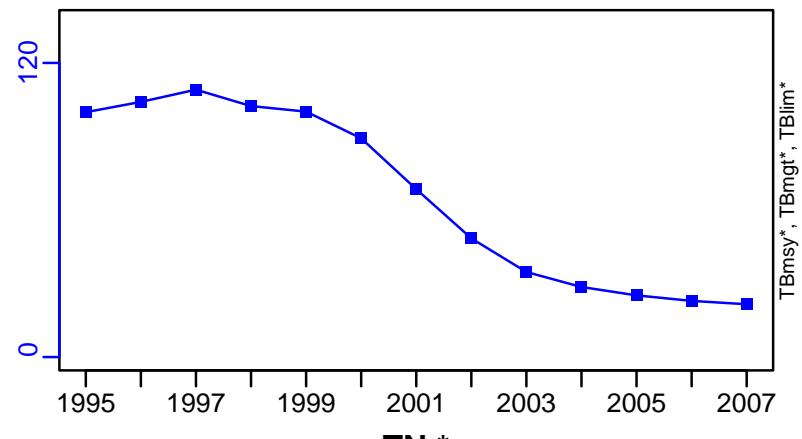


◆ Start Year  
 ◆ End Year  
 \* No Data

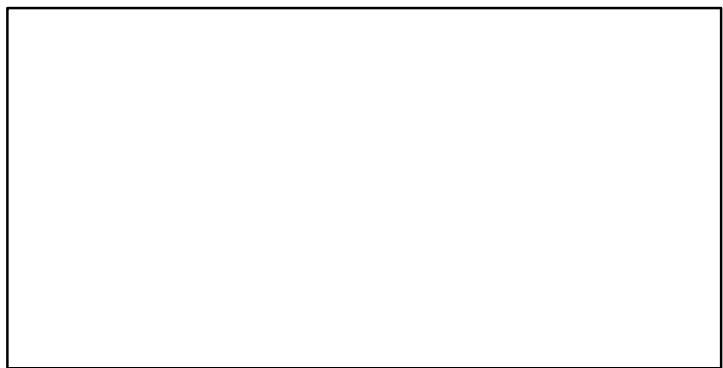
**Grey grunt Central West Africa Gabon–Angola [GGRUNTCWAGAB–AGO]**

TB-index (1995–2007–CHING)

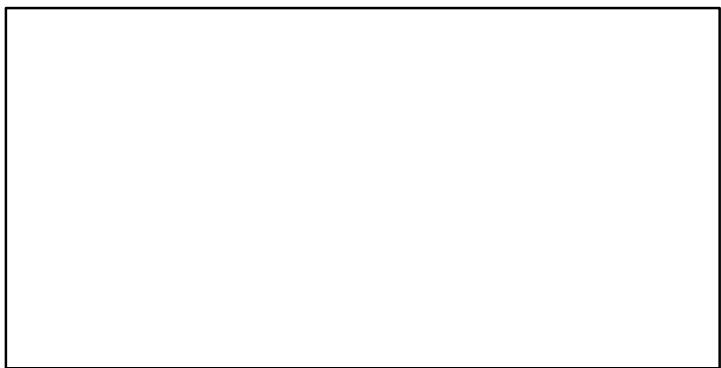
**SSB\***



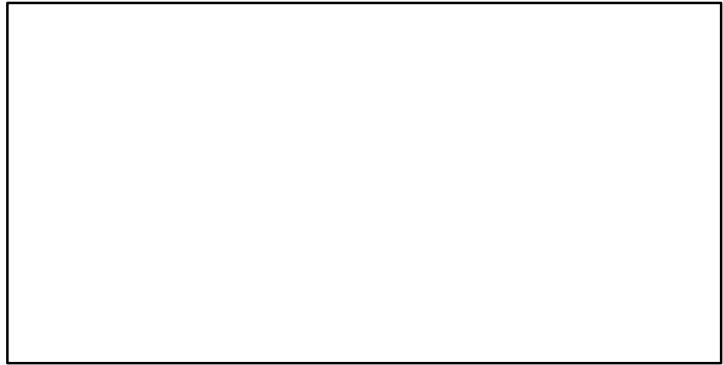
**TN \***



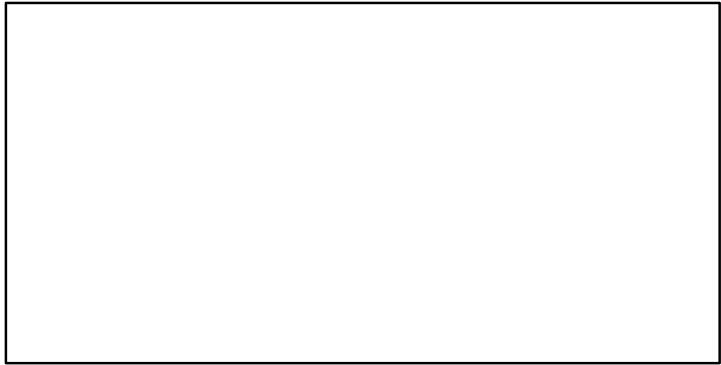
**F\***



**ER\***



**Recruits\***

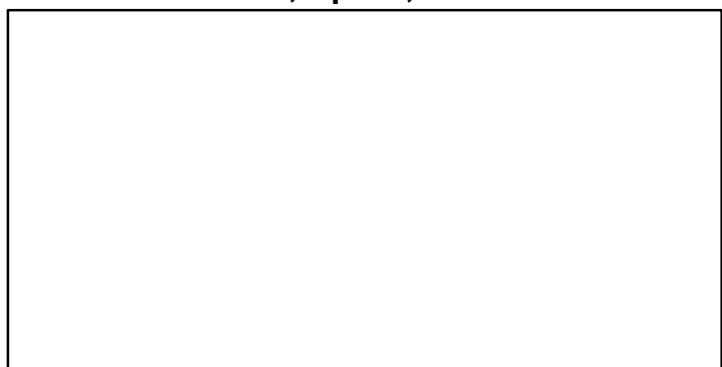
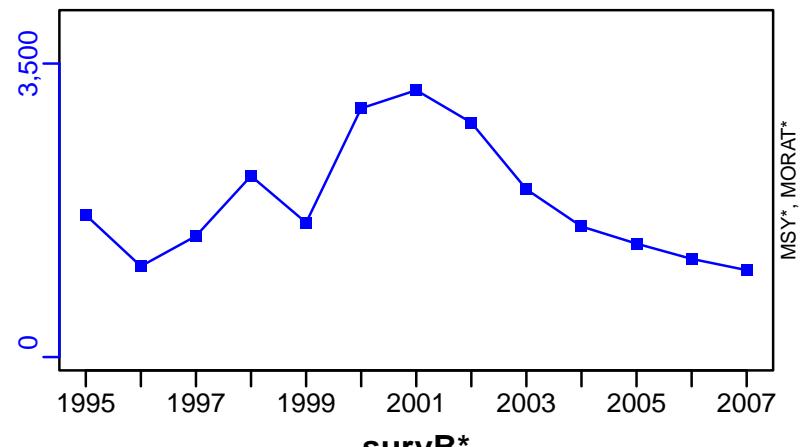


- |                      |              |           |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| — MSY-based BRP      | — Lim BRP    | * No Data |

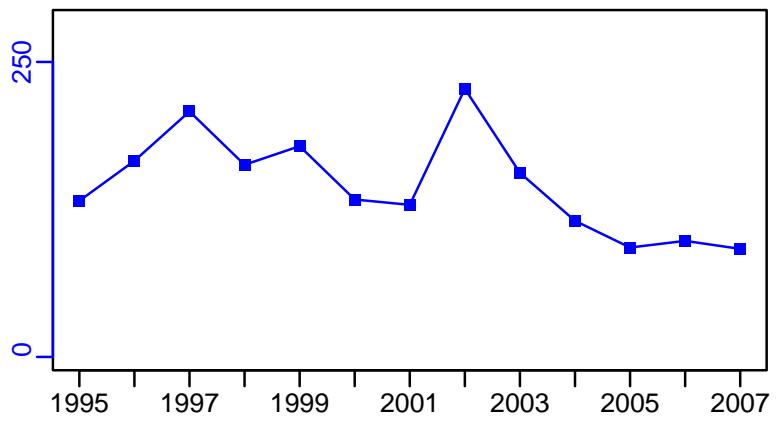
**Grey grunt Central West Africa Gabon–Angola [GGRUNTCWAGAB–AGO]**

TC-MT, TL\*, RecC\* (1995–2007–CHING)

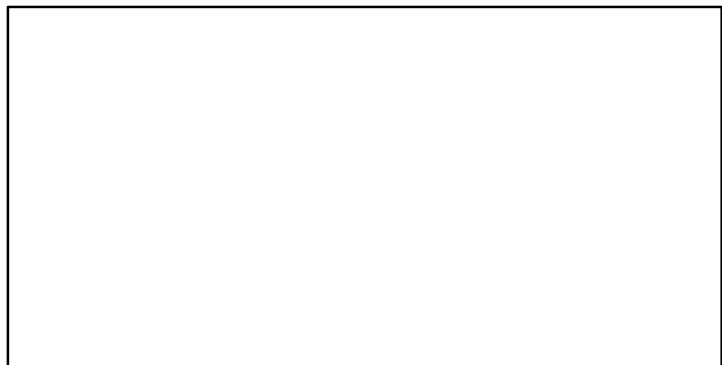
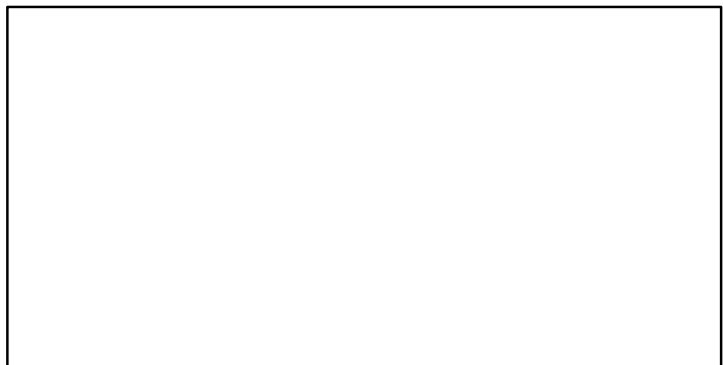
TAC\*, Cpair\*, Cadv\*



CPUE–kg/day (1995–2007–CHING)



CdivMSY\*



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - - MSY                | * No Data |

## Grey grunt Central West Africa Guinea-Liberia [GGRUNTCWAGIN-LBR]

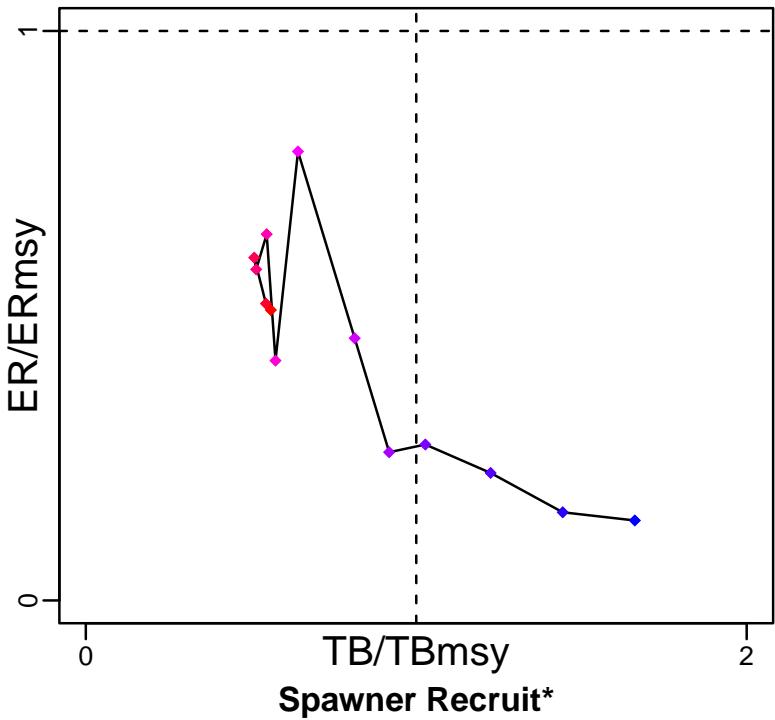
<b>Metadata</b>	
<b>Scientific Name</b>	Pomadasys spp
<b>Current Assess ID</b>	FAO-DR-GGRUNTCWAGIN-LBR-1994-2007-CHING
<b>Area</b>	Central West Africa Guinea-Liberia
<b>Management Authority</b>	Food and Agriculture Organization of the United Nations
<b>Assessor</b>	FAO/CECAF Working Group on the Assessment of Demersal Resources
<b>Asmts in RAM</b>	2007

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

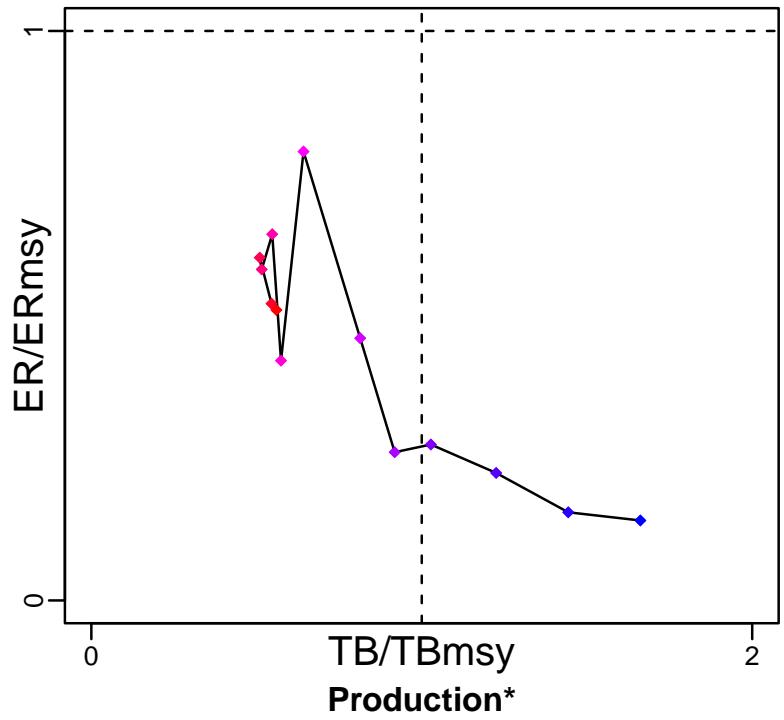
<b>Time Series</b>					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-index	2007	1150	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2007	2020		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

Grey grunt Central West Africa Guinea–Liberia [GGRUNTCWAGIN–LBR]

Kobe MSYpref (1994–2007–CHING)



Kobe MGTPref (1994–2007–CHING)

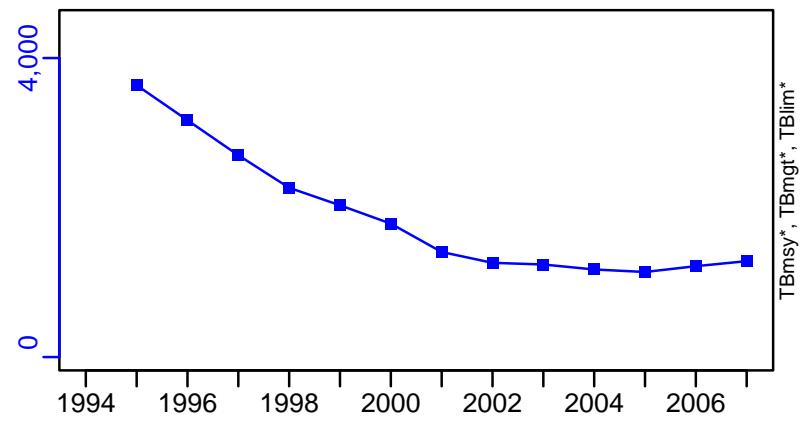


◆ Start Year   ◆ End Year   \* No Data

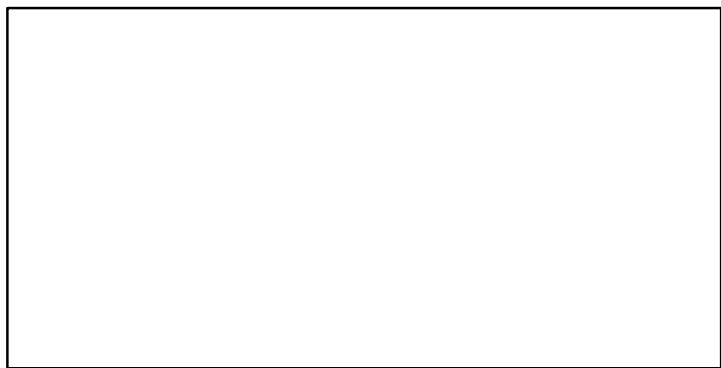
Grey grunt Central West Africa Guinea–Liberia [GGRUNTCWAGIN–LBR]

TB-index (1994–2007–CHING)

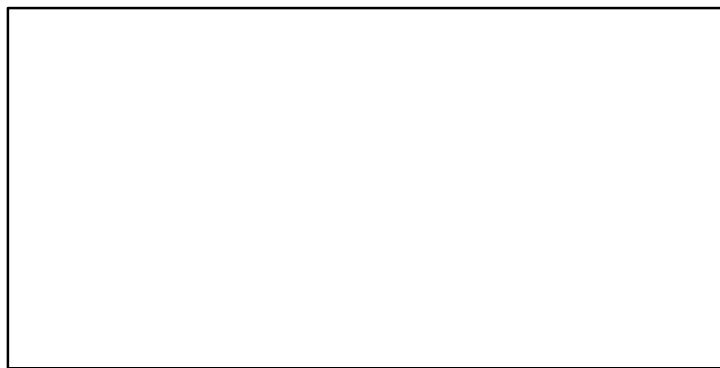
**SSB\***



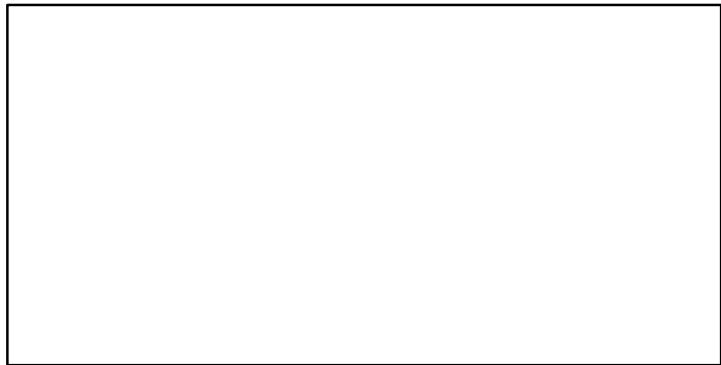
**TN \***



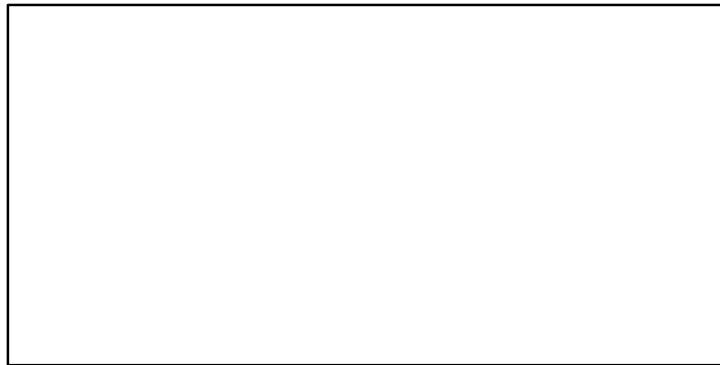
**F\***



**ER\***



**Recruits\***

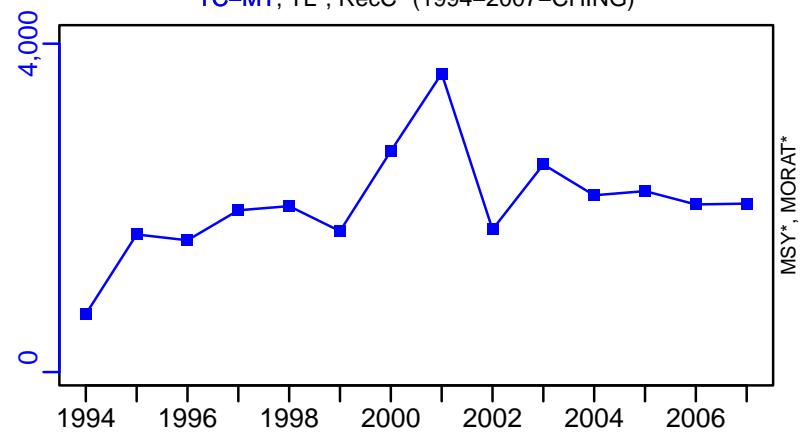


- |                      |              |           |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| — MSY-based BRP      | — Lim BRP    | * No Data |

Grey grunt Central West Africa Guinea–Liberia [GGRUNTCWAGIN–LBR]

TC–MT, TL\*, RecC\* (1994–2007–CHING)

TAC\*, Cpair\*, Cadv\*

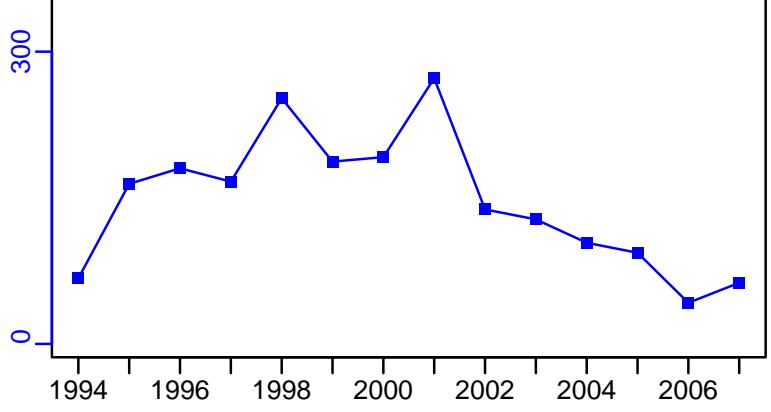


survB\*

MSY\*, MORAT\*

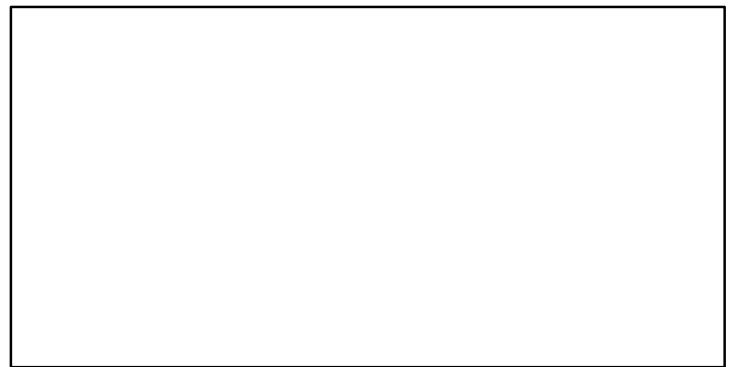
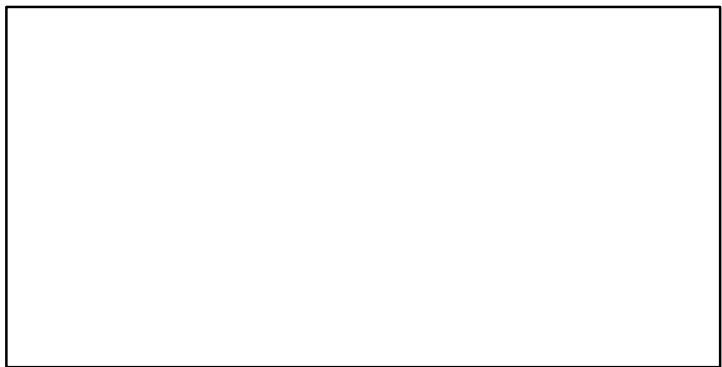


CPUE–MT/day (1994–2007–CHING)



EFFORT\*

CdivMSY\*



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - MSY                  | * No Data |

## Gilthead seabream Gulf of Lions [GHBRMGSA7]

Metadata	
<b>Scientific Name</b>	Sparus aurata
<b>Current Assess ID</b>	STECF-GHBRMGSA7-2013-2015-OSIO
<b>Area</b>	Gulf of Lions
<b>Management Authority</b>	General Fisheries Council for the Mediterranean, DG MARE, and national states
<b>Assessor</b>	Scientific, Technical and Economic Committee for Fisheries
<b>Asmts in RAM</b>	2015

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	Fmgt-1/yr	2015	0.19
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

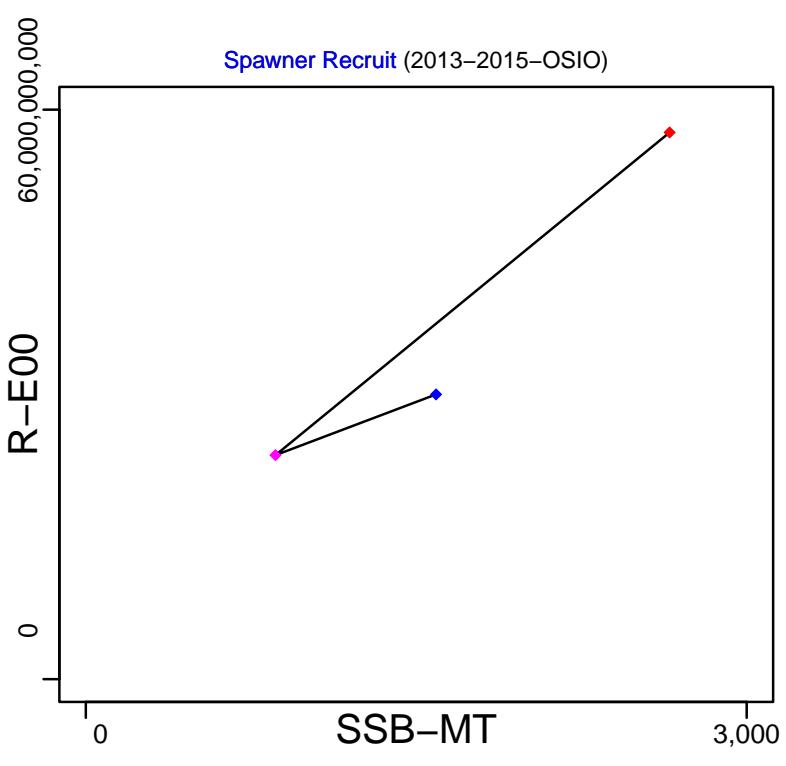
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2015	2650	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2015	$5.76 \times 10^{10}$	-	-
<b>F</b>	F-1/yr	2015	0.45	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	-	-	-		
<b>TL</b>	TL-MT	2015	1700		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2015	2.368		
<b>ER/ERmgt</b>	-	-	-		

Kobe MSY\*

Kobe MGT\*

Spawner Recruit (2013–2015–OSIO)

Production\*



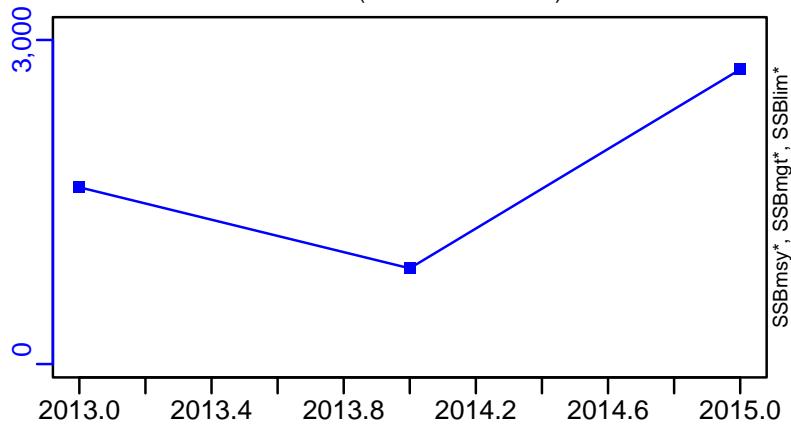
◆ Start Year ◆ End Year \* No Data

Gilthead seabream Gulf of Lions [GHBRMGS7]

**TB\***



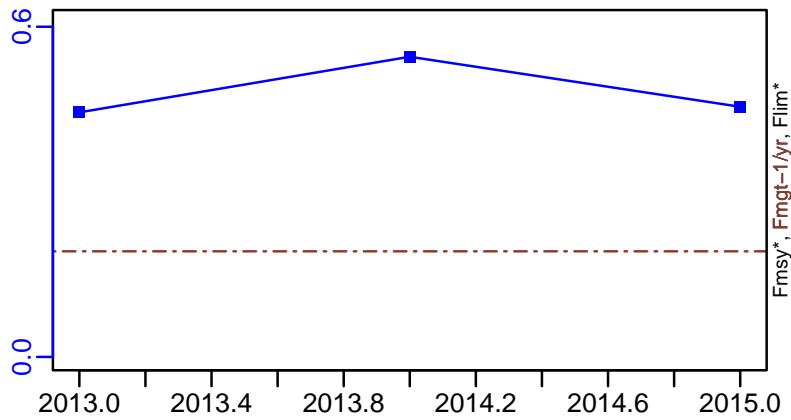
**SSB-MT (2013–2015–OSIO)**



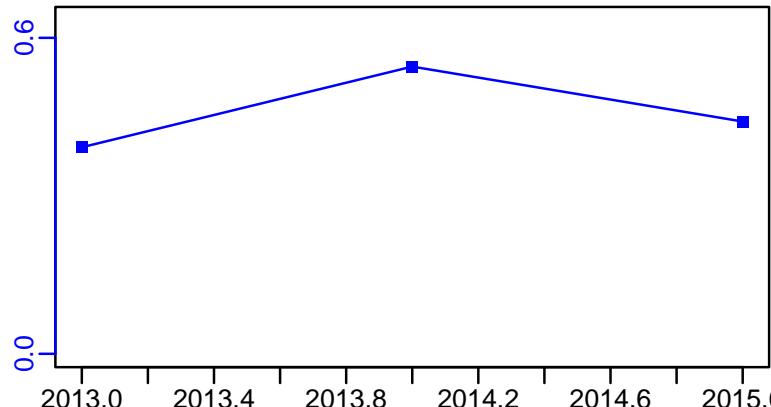
**TN \***



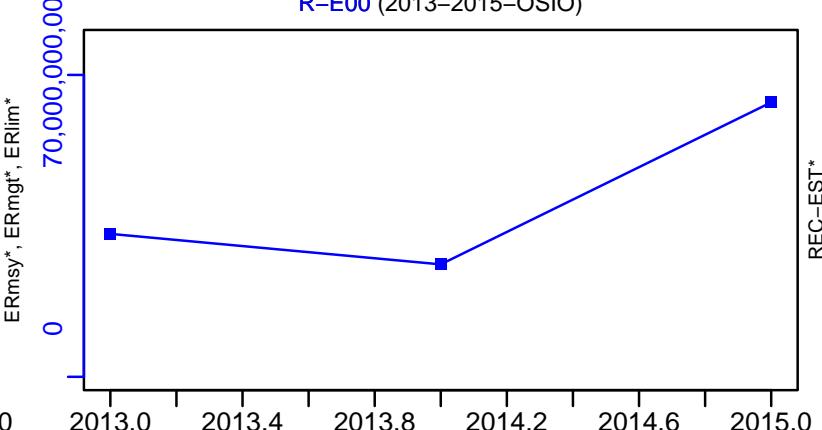
**F-1/yr (2013–2015–OSIO)**



**ER-calc-ratio (2013–2015–OSIO)**



**R-E00 (2013–2015–OSIO)**

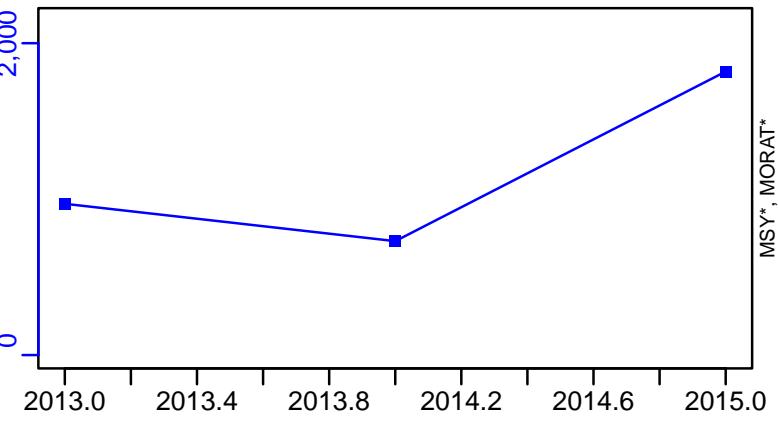


- Listed time series    - - - Target BRP    — Rec-Est
- - MSY-based BRP    - - Lim BRP    \* No Data

**Gilthead seabream Gulf of Lions [GHBRMGS7]**

TL-MT, TC\*, RecC\* (2013–2015–OSIO)

TAC\*, Cpair\*, Cadv\*



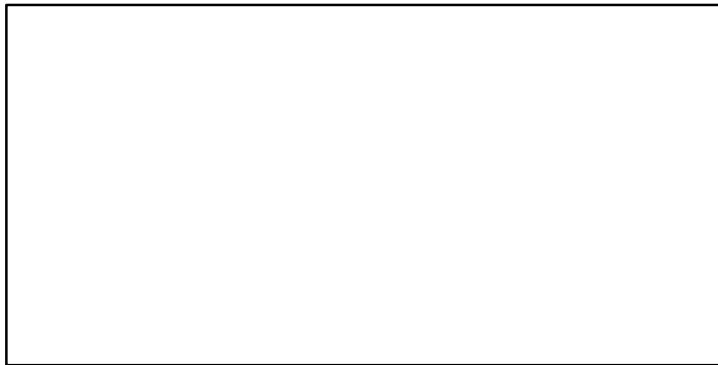
**survB\***



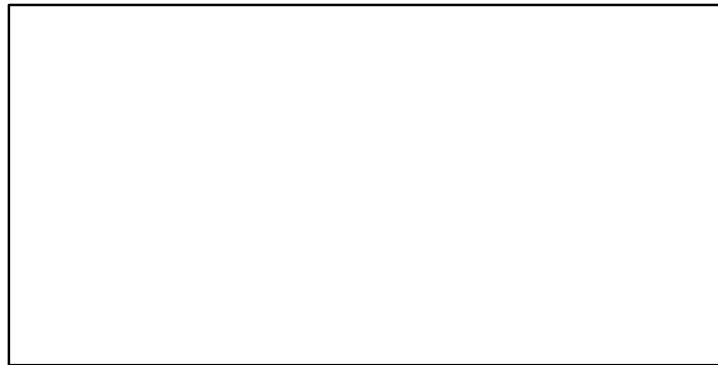
**CPUE\***



**EFFORT\***



**CdivMSY\***



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - - MSY                | * No Data |

## Green jobfish Main Hawaiian Islands [GJOBMHI]

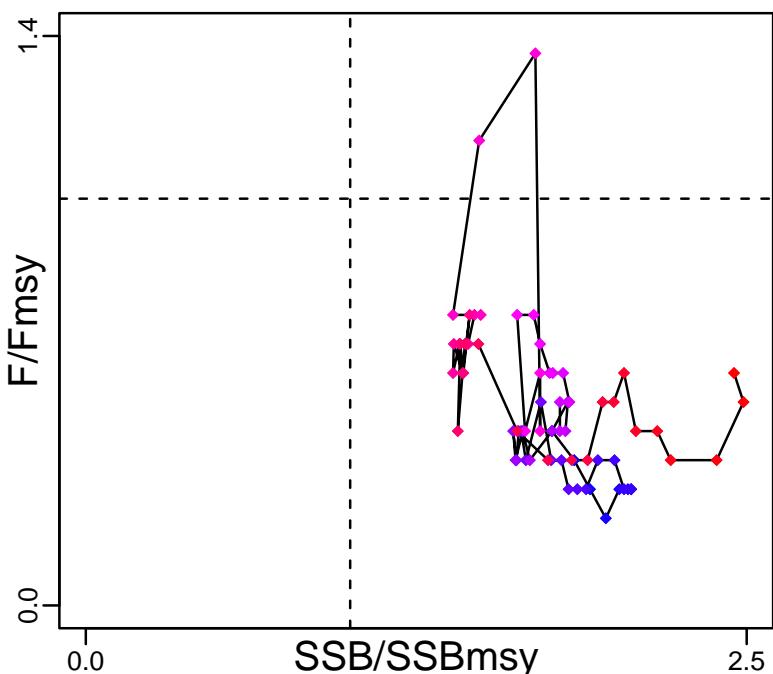
<b>Metadata</b>	
<b>Scientific Name</b>	Aprion virescens
<b>Current Assess ID</b>	PIFSC-GJOBMHI-1948-2018-SISIMP2021-2
<b>Area</b>	Main Hawaiian Islands
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Pacific Fisheries Science Center
<b>Asmts in RAM</b>	2018, 2015

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2018	334
<b>Fmsy</b>	Fmsy-1/yr	2018	0.14
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2018	334
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2018	301
<b>Flim</b>	Flim-1/yr	2018	0.14
<b>ERlim</b>	-	-	-

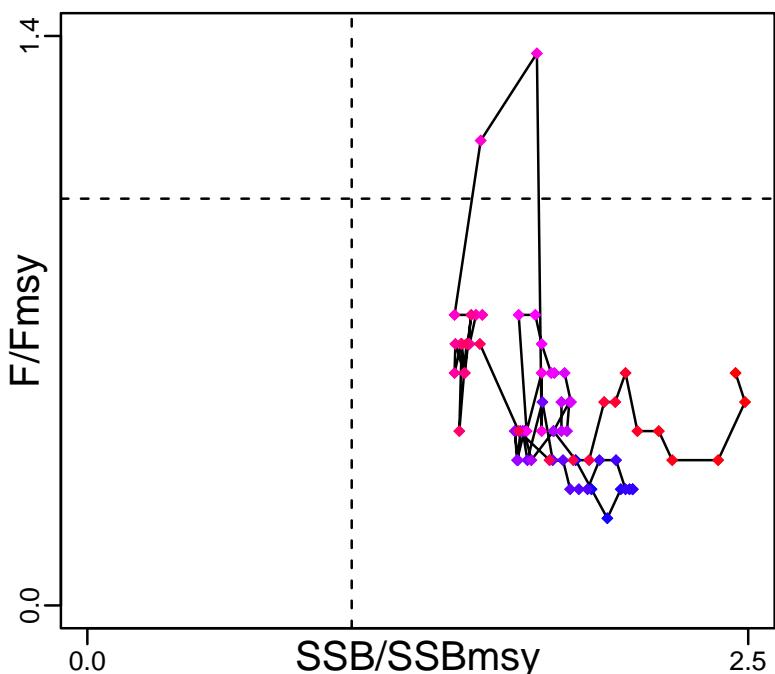
<b>Time Series</b>					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2018	819	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2018	74,000	-	0
<b>F</b>	F-1/yr	2018	0.08	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2018	125		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2018	2.452		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2018	0.571		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

**Green jobfish Main Hawaiian Islands [GJOBMHI]**

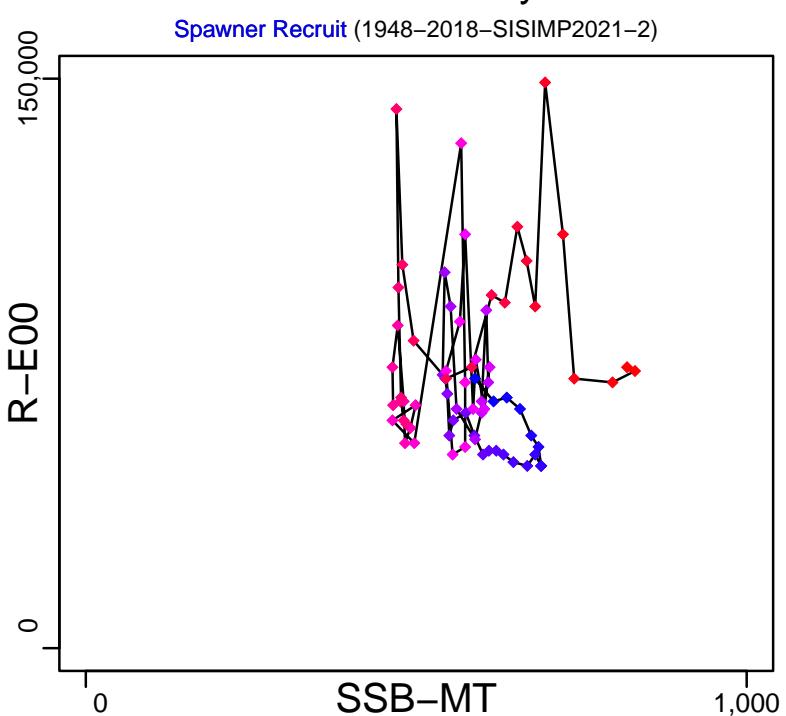
Kobe MSYpref (1948–2018–SISIMP2021–2)



Kobe MGTpref (1948–2018–SISIMP2021–2)



Spawner Recruit (1948–2018–SISIMP2021–2)



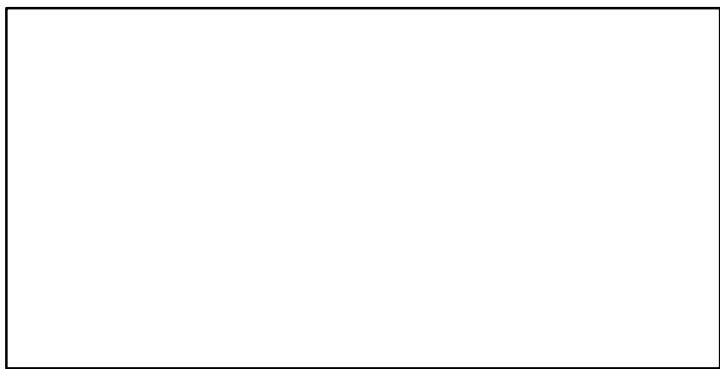
**Production\***



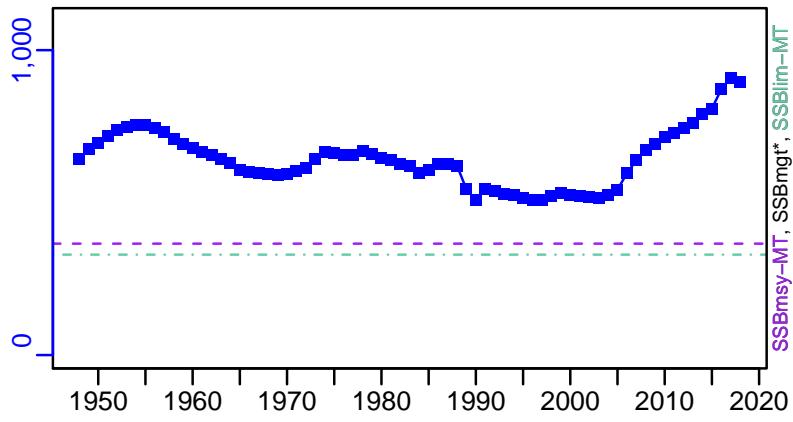
◆ Start Year   ◆ End Year   \* No Data

Green jobfish Main Hawaiian Islands [GJOBMHI]

**TB\***



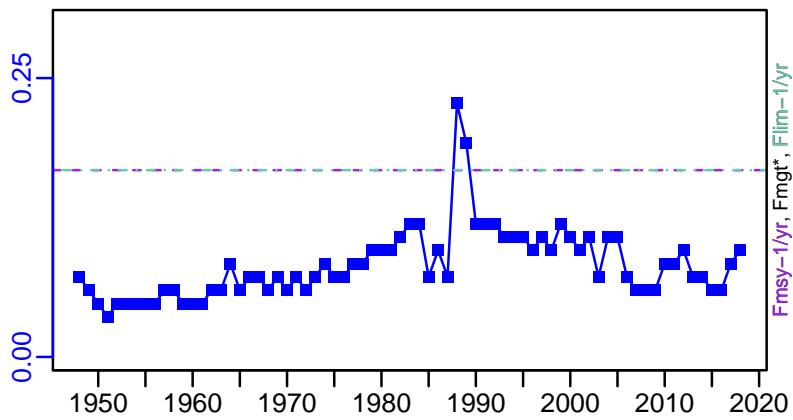
**SSB-MT (1948–2018–SISIMP2021–2)**



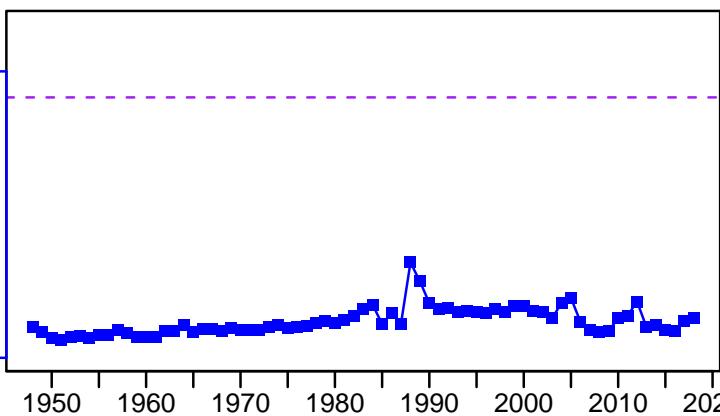
**TN \***



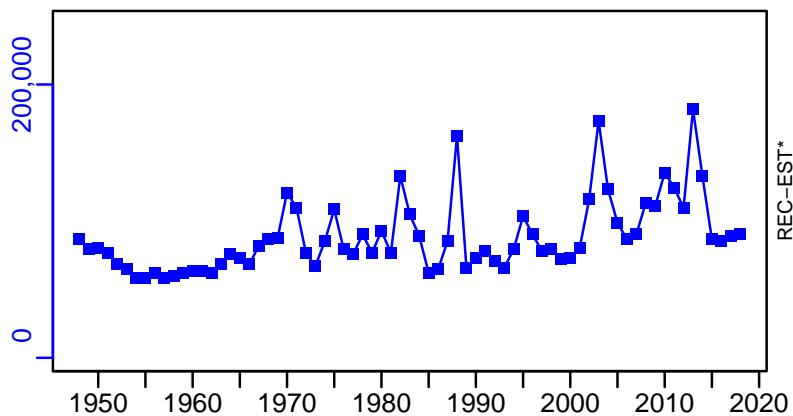
**F-1/yr (1948–2018–SISIMP2021–2)**



**ER-calc-ratio (1948–2018–SISIMP2021–2)**



**R-E00 (1948–2018–SISIMP2021–2)**

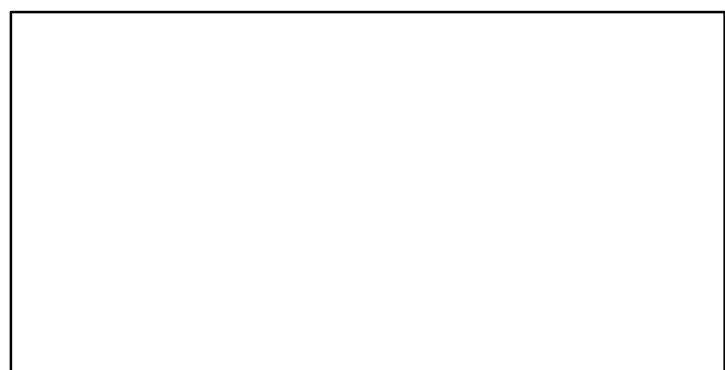
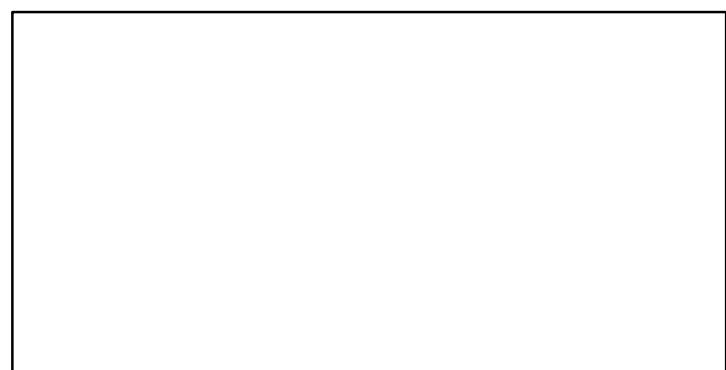
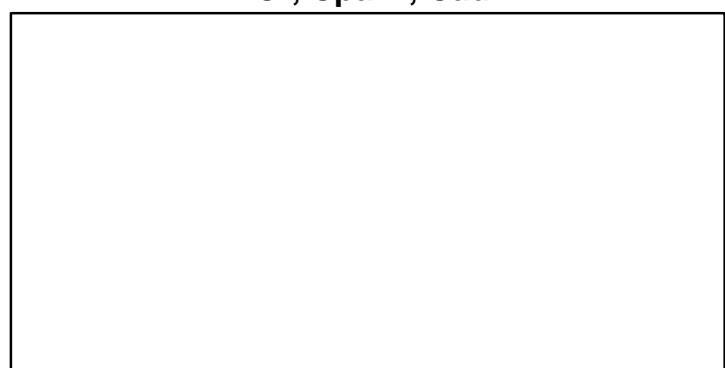
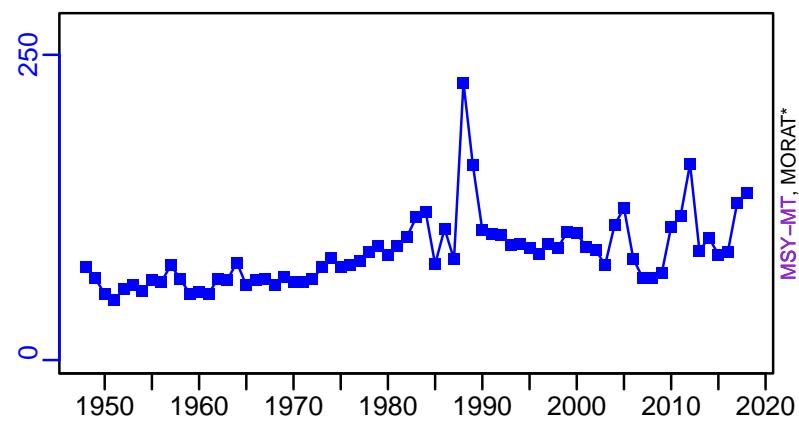


- |                      |              |           |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| - - MSY-based BRP    | - - Lim BRP  | * No Data |

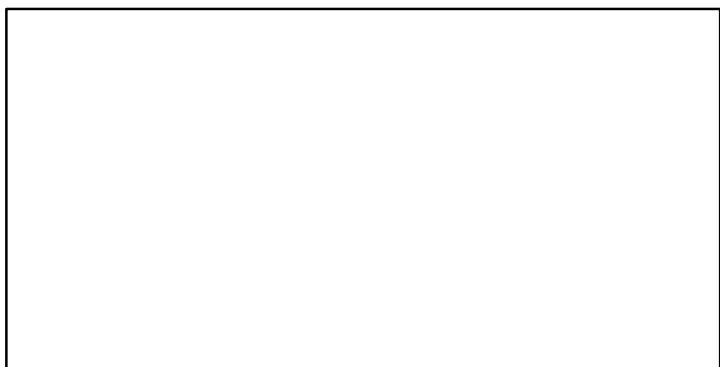
**Green jobfish Main Hawaiian Islands [GJOBMHI]**

TC-MT, TL\*, RecC\* (1948–2018–SISIMP2021–2)

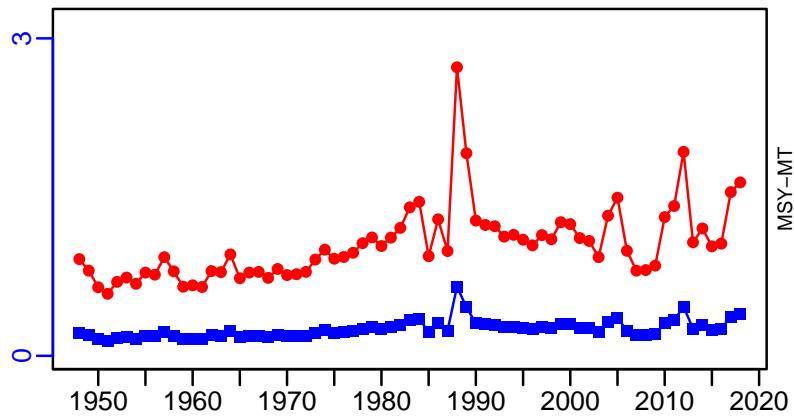
TAC\*, Cpair\*, Cadv\*



**EFFORT\***



TC-MT/MSY-MT, CdivMEANC-ratio, (1948–2018–SISIMP2021–2)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Goliath grouper Southern Atlantic coast and Gulf of Mexico [GLGROUPSATLCGM]

Metadata	
<b>Scientific Name</b>	Epinephelus itajara
<b>Current Assess ID</b>	SEFSC-GLGROUPSATLCGM-1950-2009-SISIMP2016
<b>Area</b>	Southern Atlantic coast and Gulf of Mexico
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southeast Fisheries Science Center
<b>Asmts in RAM</b>	2009

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2009	0		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

**Kobe MSY\***

**Kobe MGT\***

**Spawner Recruit\***

**Production\***

◆ Start Year ♦ End Year \* No Data

**Goliath grouper Southern Atlantic coast and Gulf of Mexico [GLGROUPSATLCGM]**

**TB\***



**SSB\***



**TN \***



**F\***



**ER\***



**Recruits\***

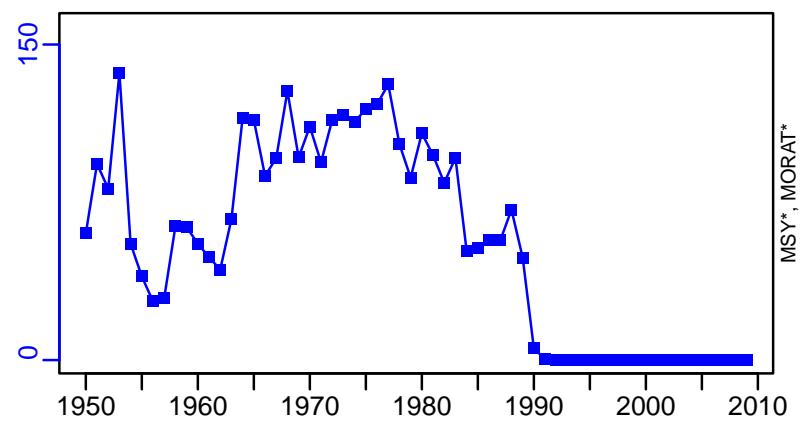


- |       |                    |       |            |   |         |
|-------|--------------------|-------|------------|---|---------|
| ■     | Listed time series | - - - | Target BRP | — | Rec-Est |
| - - - | MSY-based BRP      | - - - | Lim BRP    | * | No Data |

Goliath grouper Southern Atlantic coast and Gulf of Mexico [GLGROUPSATLCGM]

TC-MT, TL\*, RecC\* (1950–2009–SISIMP2016)

TAC\*, Cpair\*, Cadv\*



**survB\***

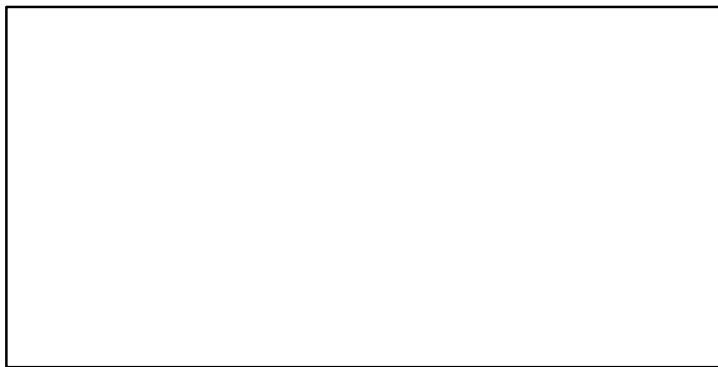
MSY\*, MORAT\*



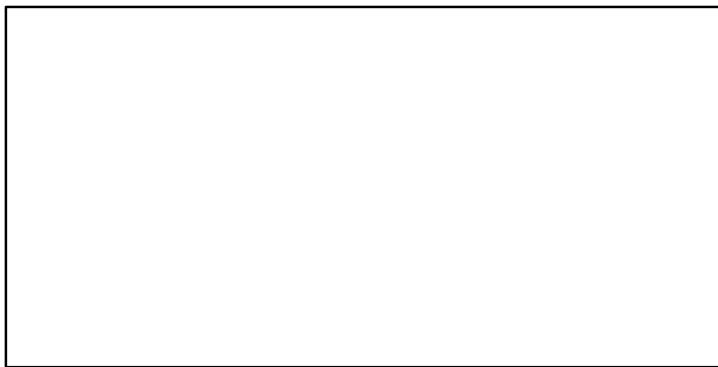
**CPUE\***



**EFFORT\***



**CdivMSY\***



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - MSY                  | * No Data |

## Gray snapper Gulf of Mexico [GRSNAPGM]

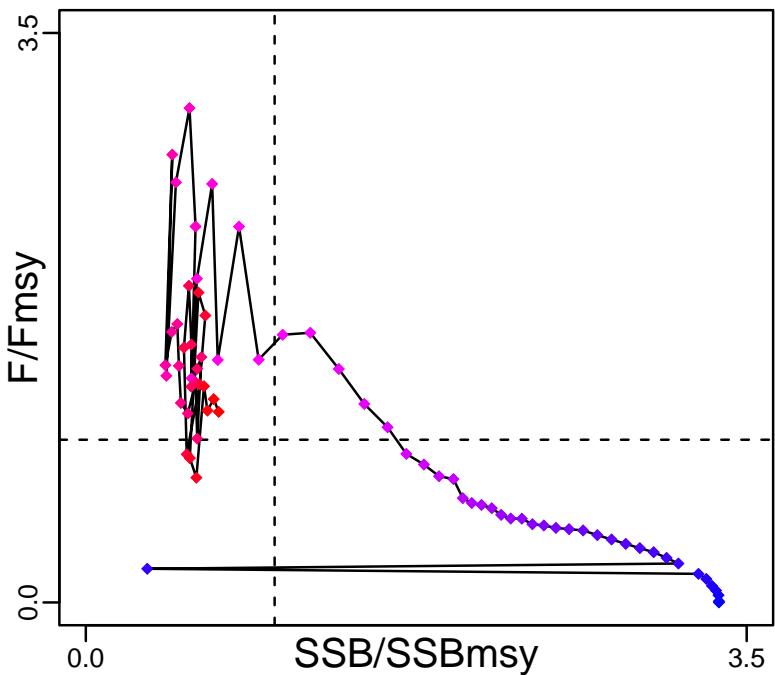
<b>Metadata</b>	
<b>Scientific Name</b>	Lutjanus griseus
<b>Current Assess ID</b>	SEFSC-GRSNAPGM-1945-2015-SISIMP2021
<b>Area</b>	Gulf of Mexico
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southeast Fisheries Science Center
<b>Asmts in RAM</b>	2015

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2015	6621
<b>Fmsy</b>	Fmsy-1/yr	2015	0.115
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	Fmgt-1/yr	2015	0.115
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2015	1100
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2015	6621
<b>Flim</b>	Flim-1/yr	2015	0.115
<b>ERlim</b>	-	-	-

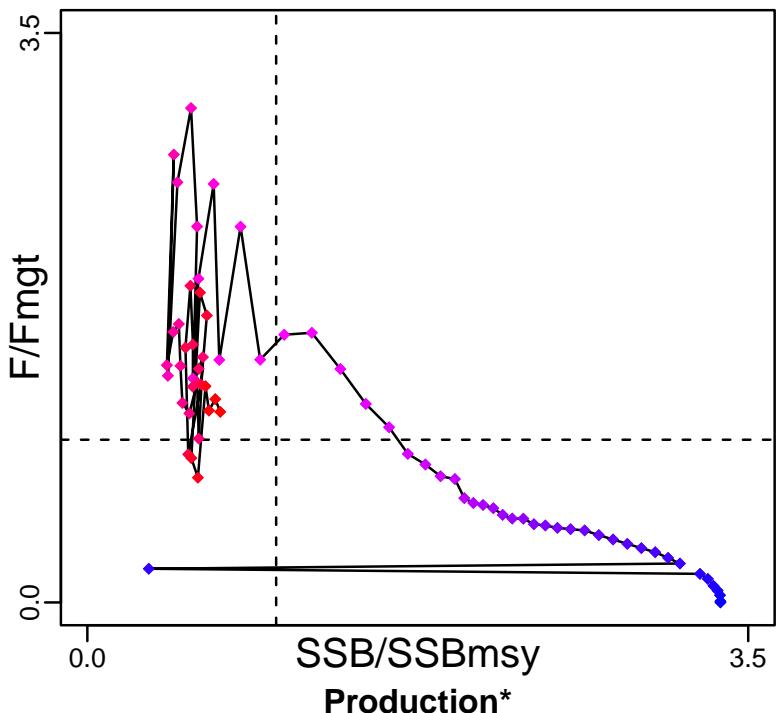
<b>Time Series</b>					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2015	4660	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2015	10,223,200	-	0
<b>F</b>	F-1/yr	2015	0.135	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2015	882		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2015	0.704		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2015	1.171		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2015	1.171		
<b>ER/ERmgt</b>	-	-	-		

Gray snapper Gulf of Mexico [GRSNAPGM]

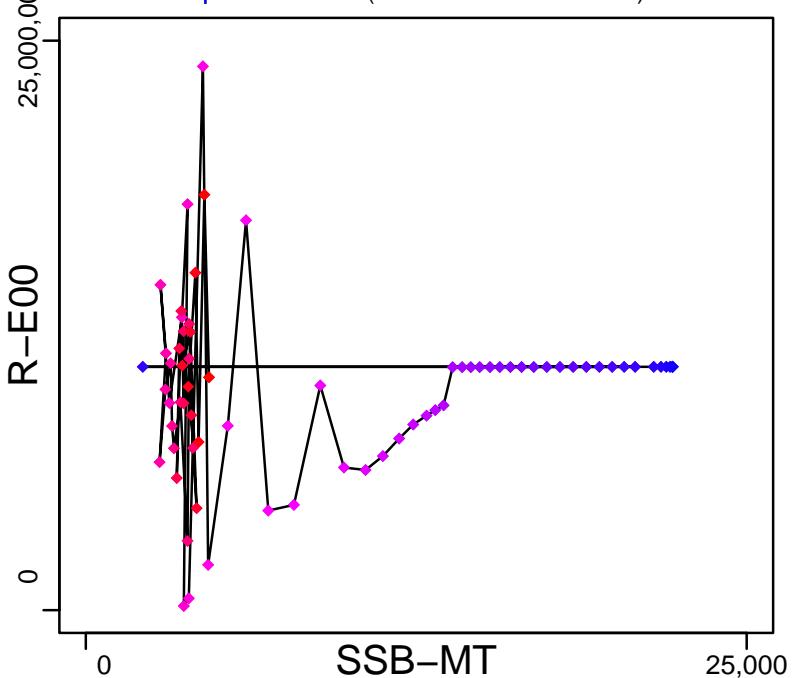
Kobe MSYpref (1945–2015–SISIMP2021)



Kobe MGTpref (1945–2015–SISIMP2021)



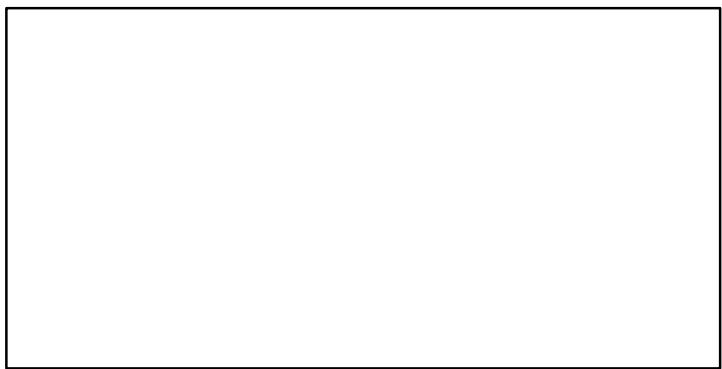
Spawner Recruit (1945–2015–SISIMP2021)



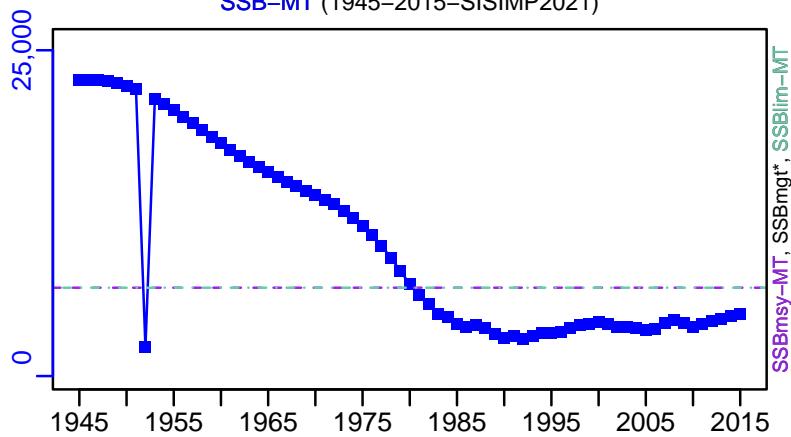
◆ Start Year	◆ End Year	*	No Data
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Gray snapper Gulf of Mexico [GRSNAPGM]

**TB\***



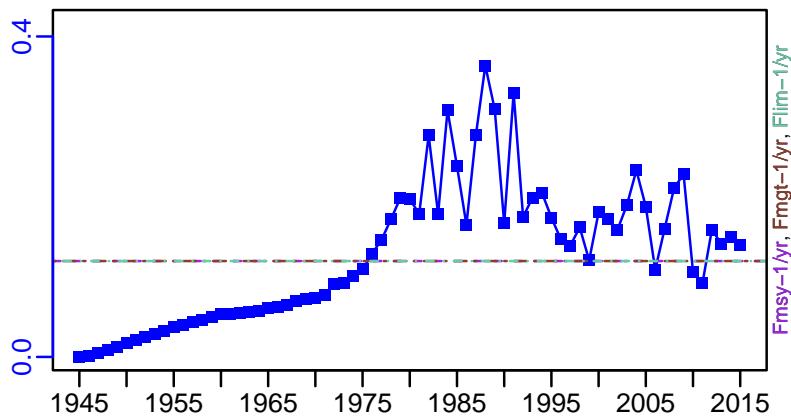
SSB-MT (1945–2015–SISIMP2021)



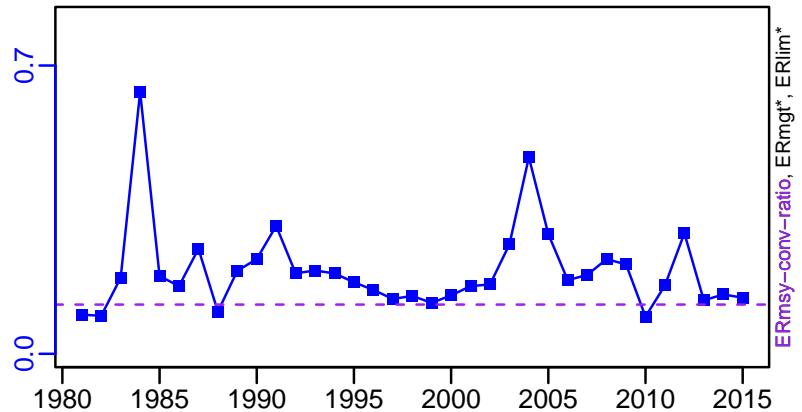
**TN \***



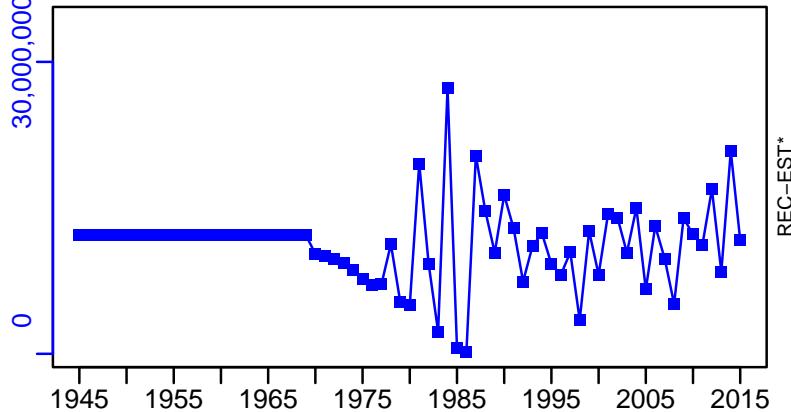
F-1/yr (1945–2015–SISIMP2021)



ER-calc-ratio (1945–2015–SISIMP2021)



R-E00 (1945–2015–SISIMP2021)

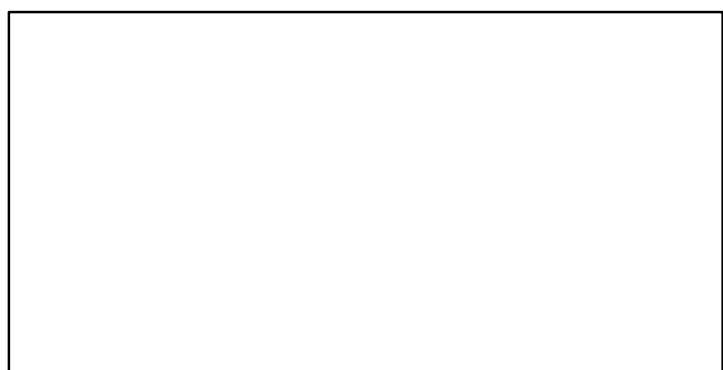
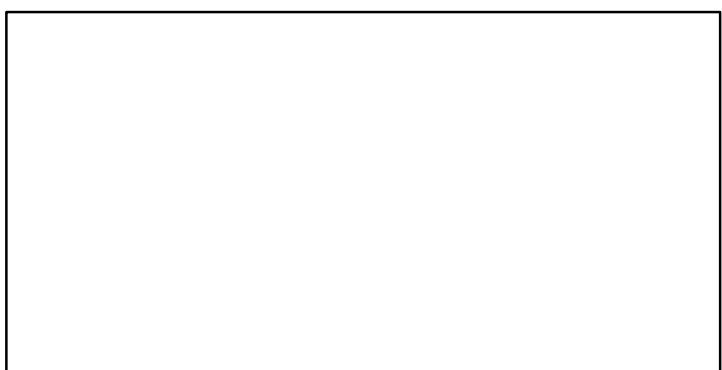
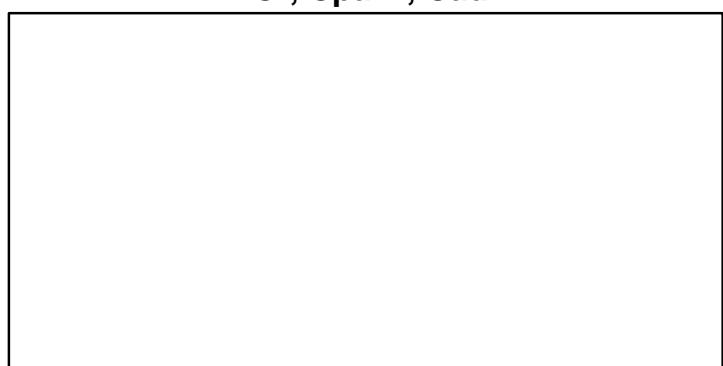
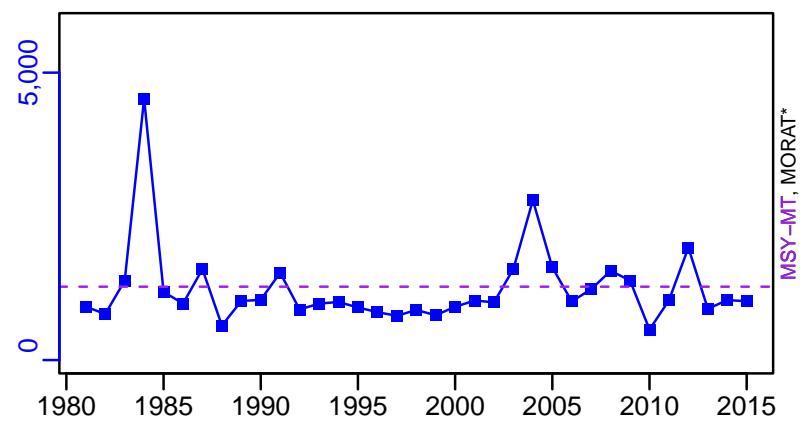


■ Listed time series	— Target BRP	— Rec-Est
- - MSY-based BRP	- - Lim BRP	* No Data

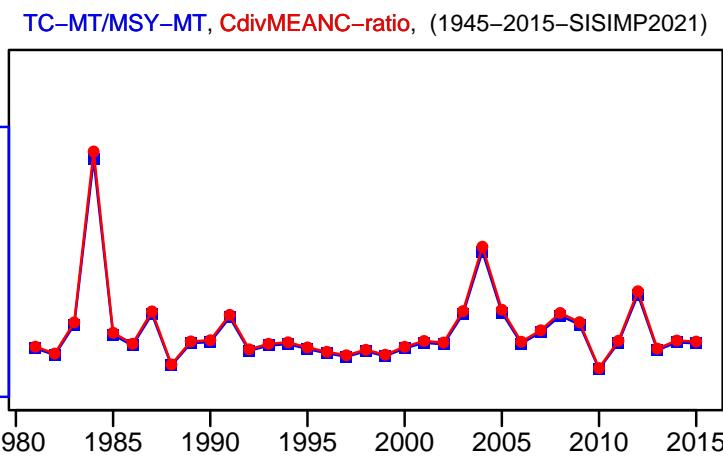
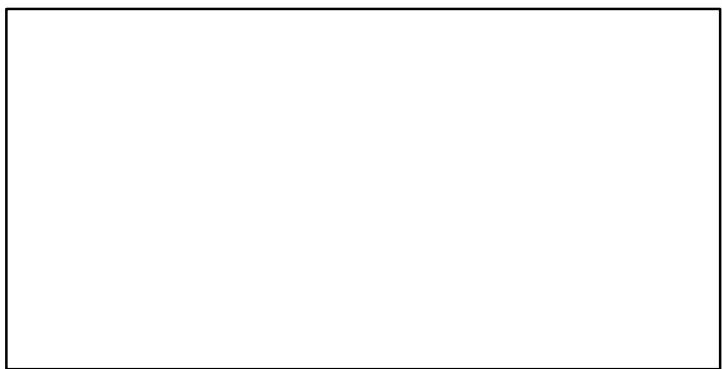
Gray snapper Gulf of Mexico [GRSNAPGM]

TC-MT, TL\*, RecC\* (1945–2015–SISIMP2021)

TAC\*, Cpair\*, Cadv\*



**EFFORT\***



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

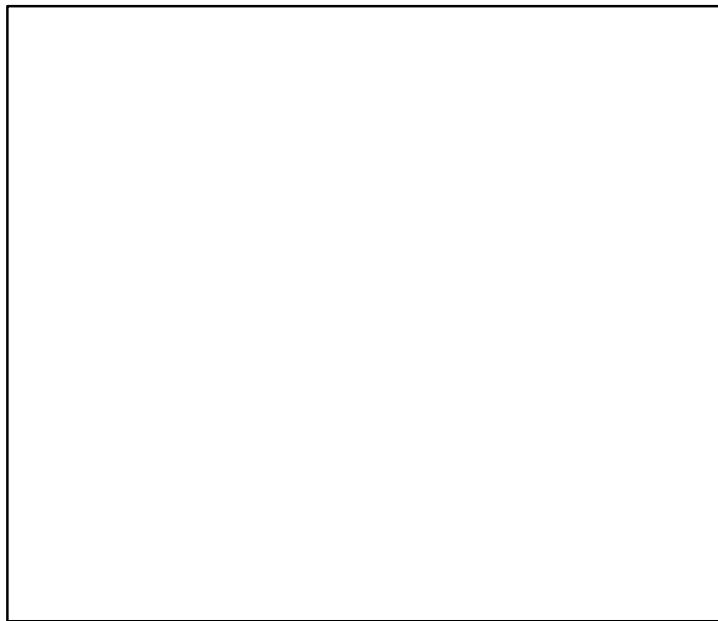
## Horsehead tilefish East China Sea [HHTILEECS]

Metadata	
<b>Scientific Name</b>	Branchiostegus japonicus
<b>Current Assess ID</b>	FAFRFJ-HHTILEECS-1985-2013-JPNIMP2016
<b>Area</b>	East China Sea
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>	2013

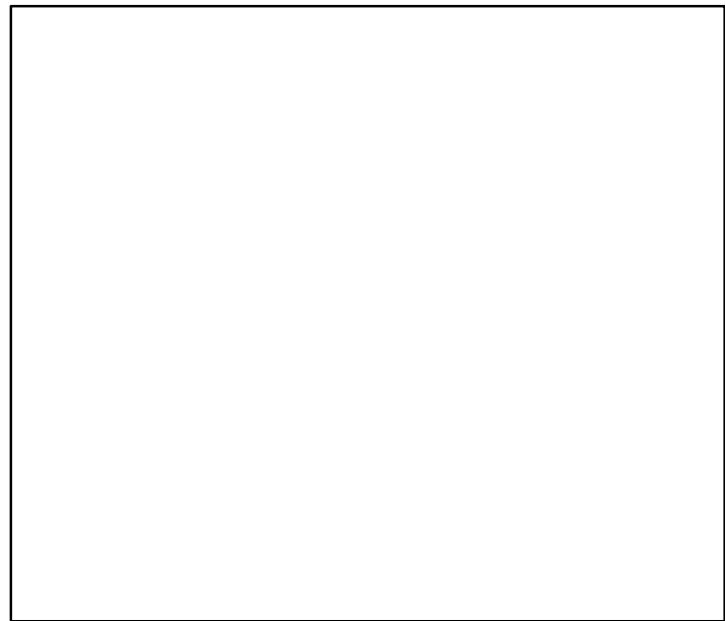
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2013	611		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

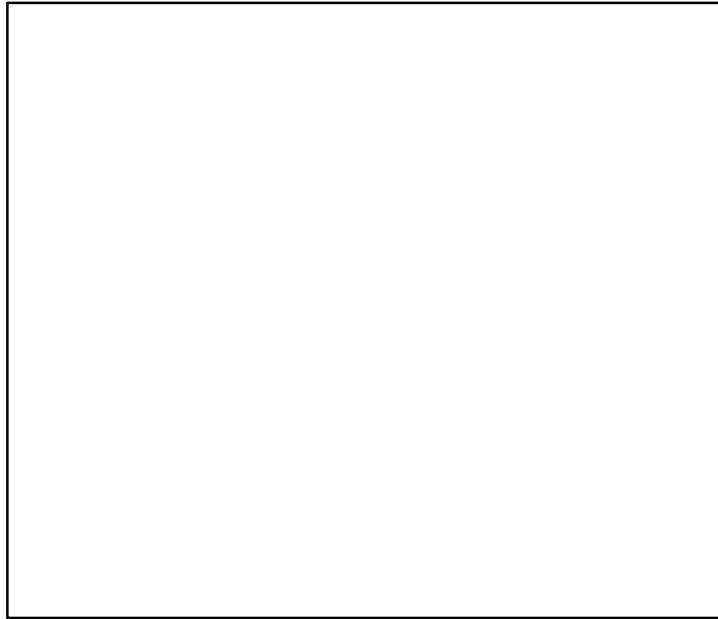
**Kobe MSY\***



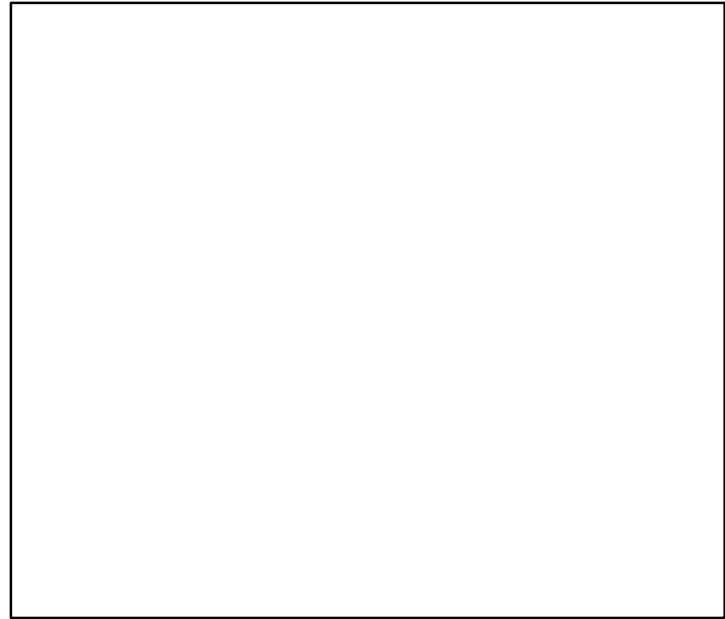
**Kobe MGT\***



**Spawner Recruit\***



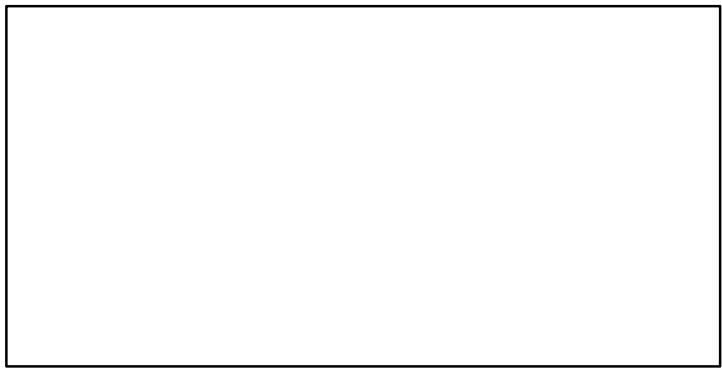
**Production\***



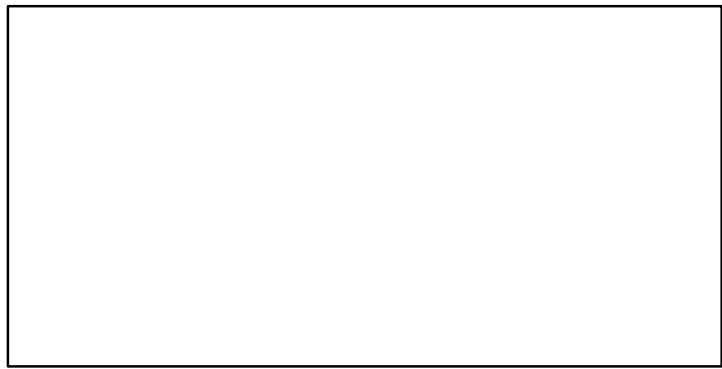
◆ Start Year ♦ End Year \* No Data

Horsehead tilefish East China Sea [HHTILEECS]

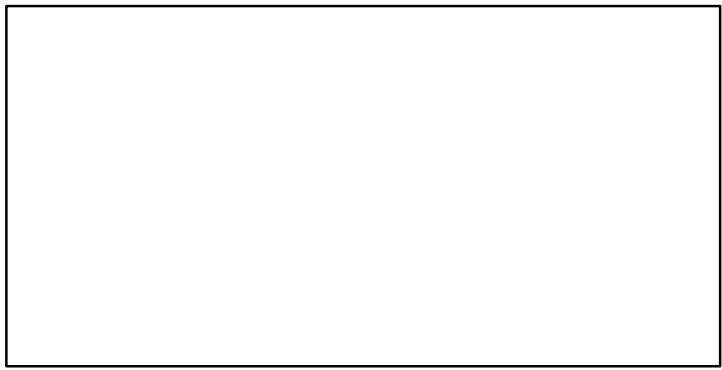
**TB\***



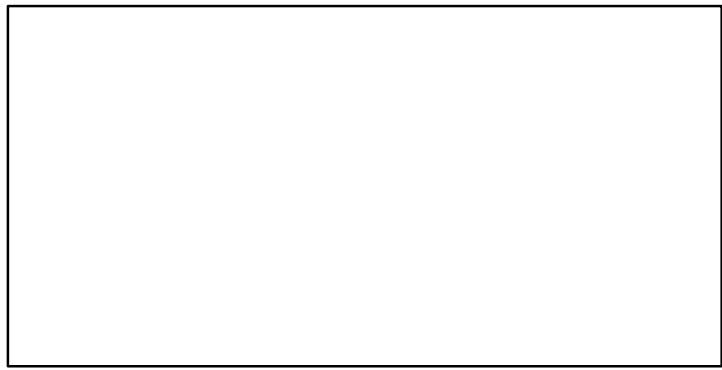
**SSB\***



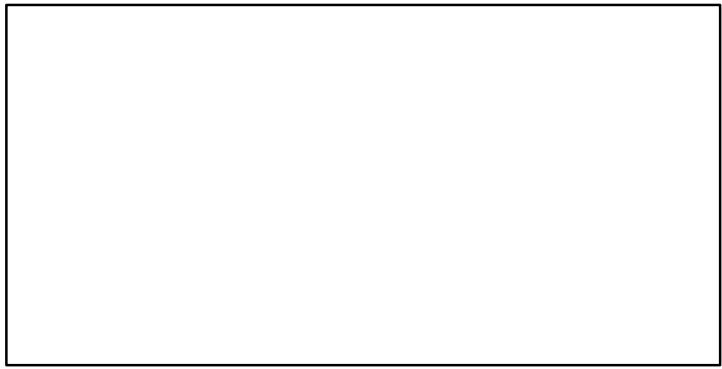
**TN \***



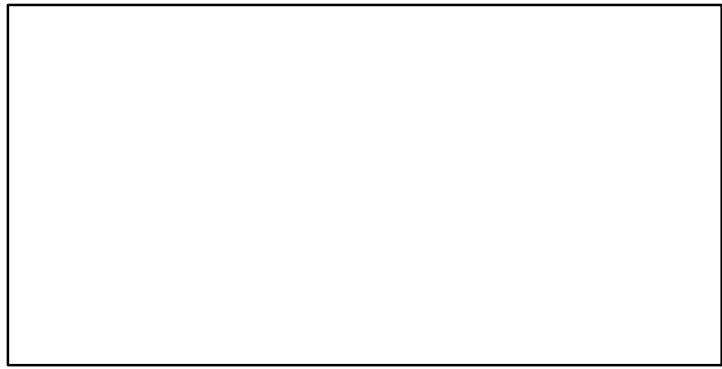
**F\***



**ER\***



**Recruits\***

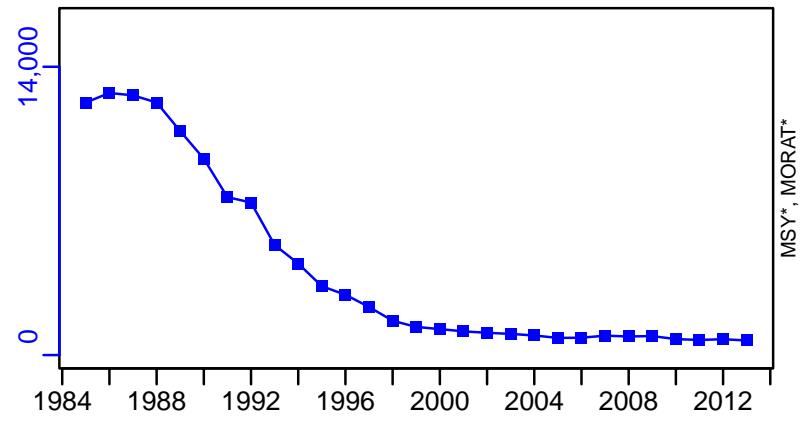


- |                      |                  |           |
|----------------------|------------------|-----------|
| ■ Listed time series | - - - Target BRP | — Rec-Est |
| - - - MSY-based BRP  | - - - Lim BRP    | * No Data |

Horsehead tilefish East China Sea [HHTILEECS]

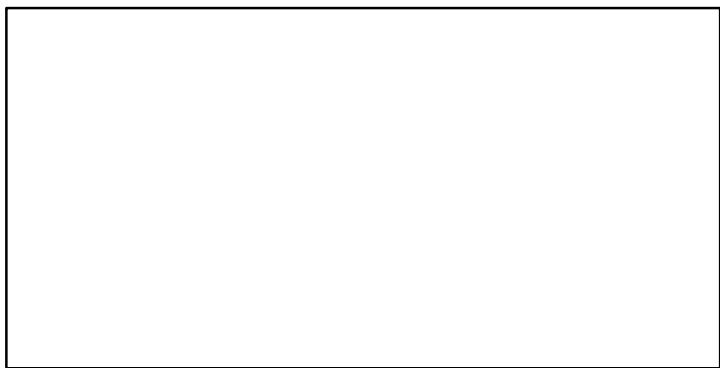
TC-MT, TL\*, RecC\* (1985–2013–JPNIMP2016)

TAC\*, Cpair\*, Cadv\*

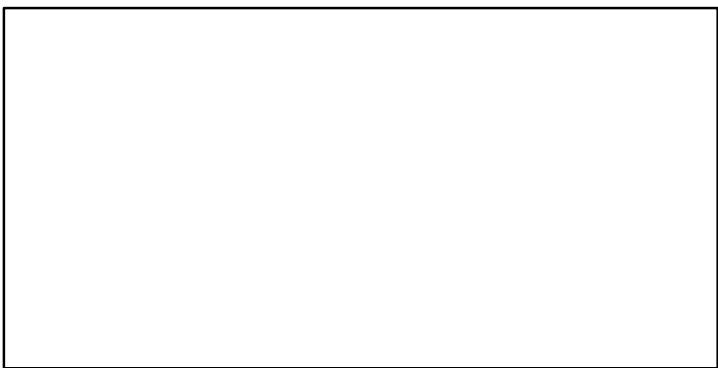


survB\*

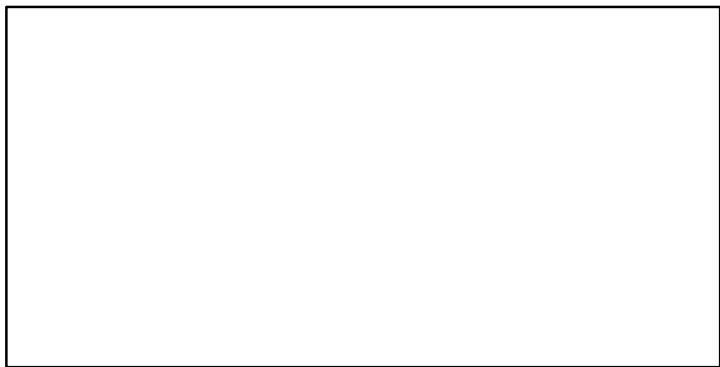
MSY\*, MORAT\*



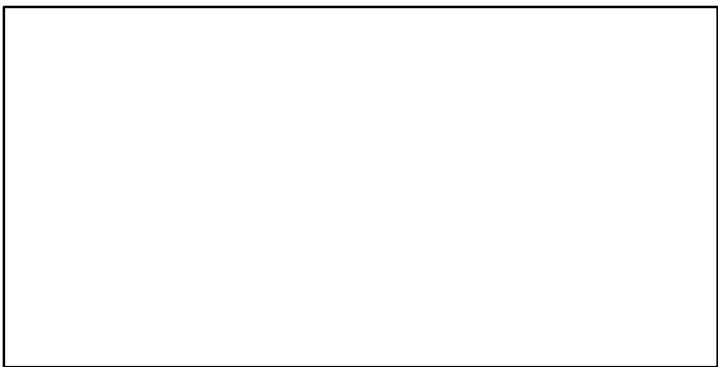
CPUE\*



EFFORT\*



CdivMSY\*



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - - MSY                | * No Data |

## Japanese snapper Okinawa Islands [JSNAPOKWI]

<b>Metadata</b>	
<b>Scientific Name</b>	Paracaelio caerulea
<b>Current Assess ID</b>	FAFRFJ-JSNAPOKWI-1989-2013-JPNIMP2016
<b>Area</b>	Okinawa Islands
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>	2013

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

<b>Time Series</b>					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2013	153		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

**Kobe MSY\***

**Kobe MGT\***

**Spawner Recruit\***

**Production\***

◆ Start Year ♦ End Year \* No Data

Japanese snapper Okinawa Islands [JSNAPOKWI]

**TB\***



**SSB\***



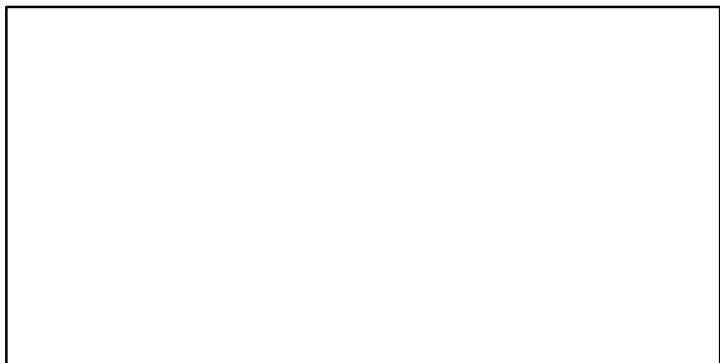
**TN \***



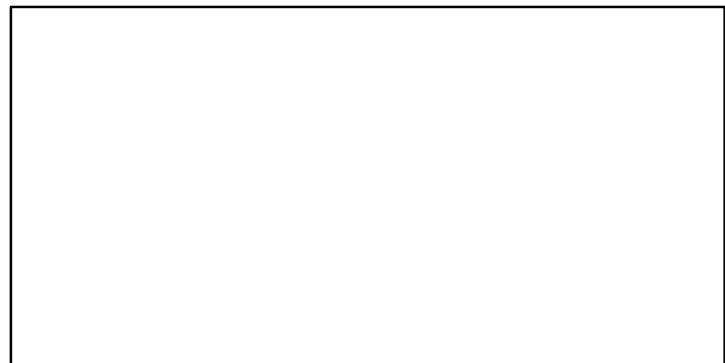
**F\***



**ER\***



**Recruits\***

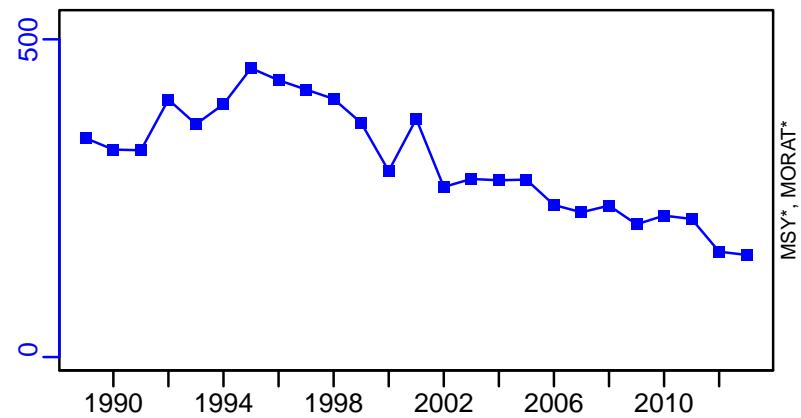


- |                      |                  |           |
|----------------------|------------------|-----------|
| ■ Listed time series | - - - Target BRP | — Rec-Est |
| - - - MSY-based BRP  | - - - Lim BRP    | * No Data |

Japanese snapper Okinawa Islands [JSNAPOKWI]

TC-MT, TL\*, RecC\* (1989–2013–JPNIMP2016)

TAC\*, Cpair\*, Cadv\*



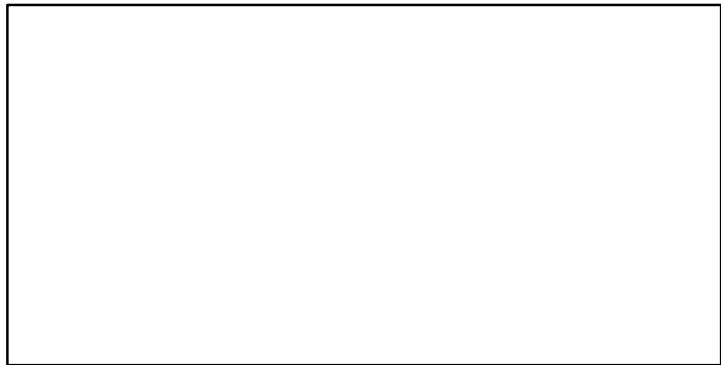
survB\*



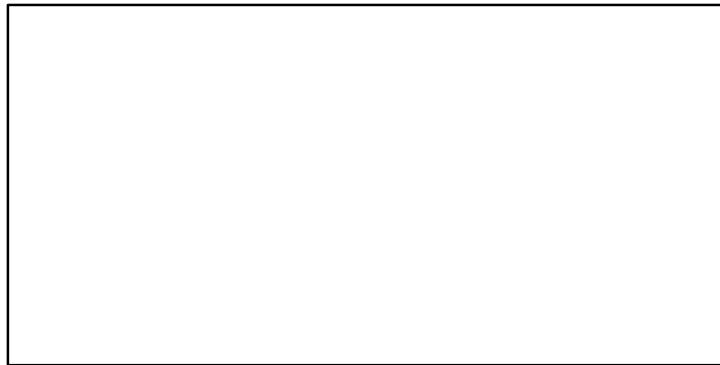
CPUE\*



EFFORT\*



CdivMSY\*



- |                                                                                                              |                                                                                               |                                                                              |
|--------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|
| <ul style="list-style-type: none"> <li>■ 1st listed time series</li> <li>● 2nd listed time series</li> </ul> | <ul style="list-style-type: none"> <li>▲ 3rd listed time series</li> <li>- - - MSY</li> </ul> | <ul style="list-style-type: none"> <li>— MORAT</li> <li>* No Data</li> </ul> |
|--------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|------------------------------------------------------------------------------|

## Large eye dentex Central West Africa Angola [LDENTCWAAGO]

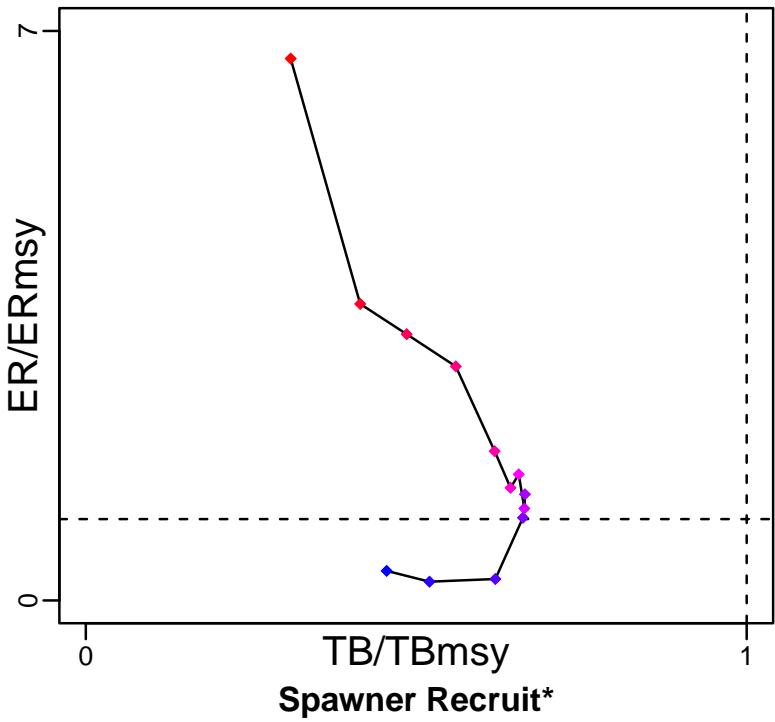
<b>Metadata</b>	
<b>Scientific Name</b>	Dentex macrophthalmus
<b>Current Assess ID</b>	FAO-DR-LDENTCWAAGO-1995-2007-CHING
<b>Area</b>	Central West Africa Angola
<b>Management Authority</b>	Food and Agriculture Organization of the United Nations
<b>Assessor</b>	FAO/CECAF Working Group on the Assessment of Demersal Resources
<b>Asmts in RAM</b>	2007

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

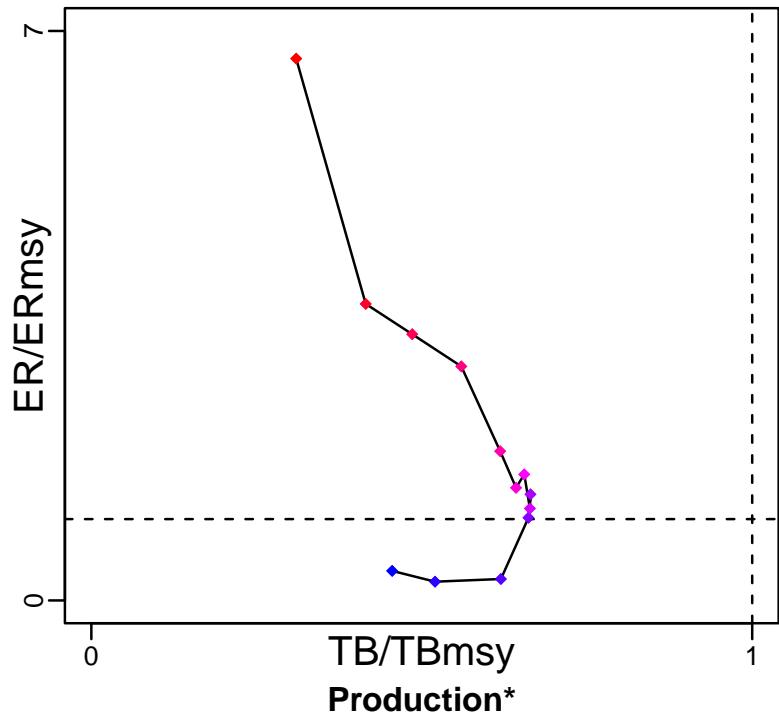
<b>Time Series</b>					
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>
<b>TB</b>	TB-index	2007	155	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2007	19,100		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

**Large eye dentex Central West Africa Angola [LDENTCWAAGO]**

Kobe MSYpref (1995–2007–CHING)



Kobe MGTPref (1995–2007–CHING)



**Spawner Recruit\***

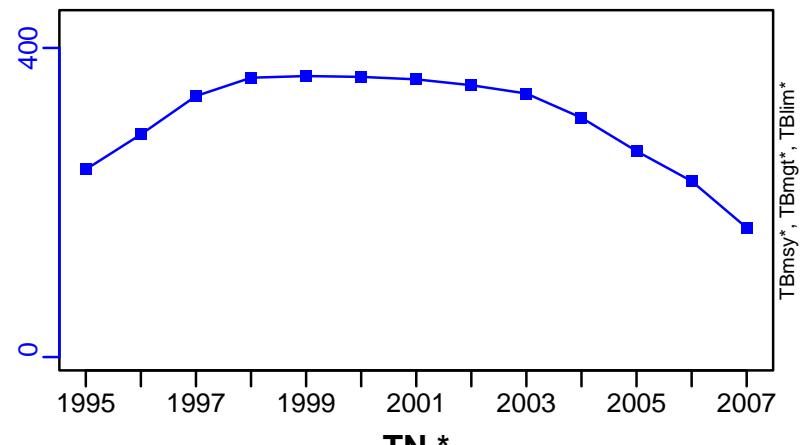
**Production\***

◆ Start Year ◆ End Year \* No Data

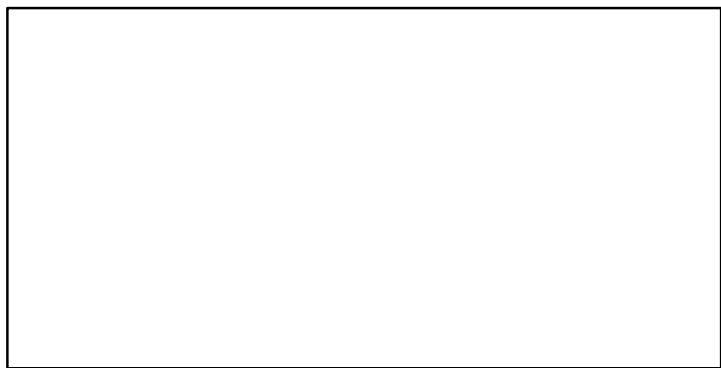
**Large eye dentex Central West Africa Angola [LDENTCWAAGO]**

TB-index (1995–2007–CHING)

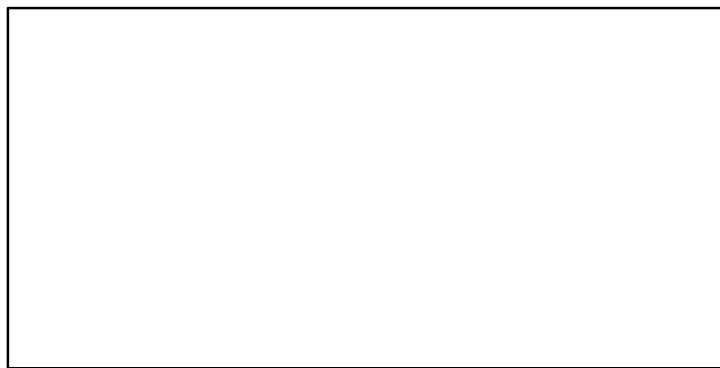
**SSB\***



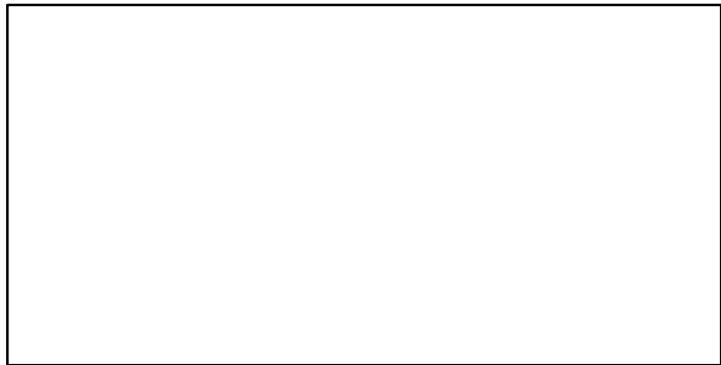
**TN \***



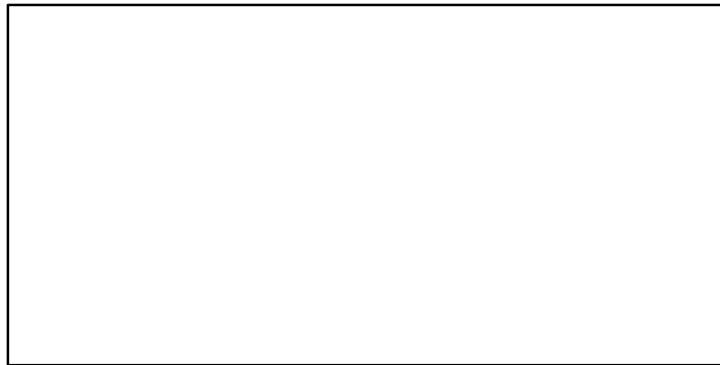
**F\***



**ER\***



**Recruits\***

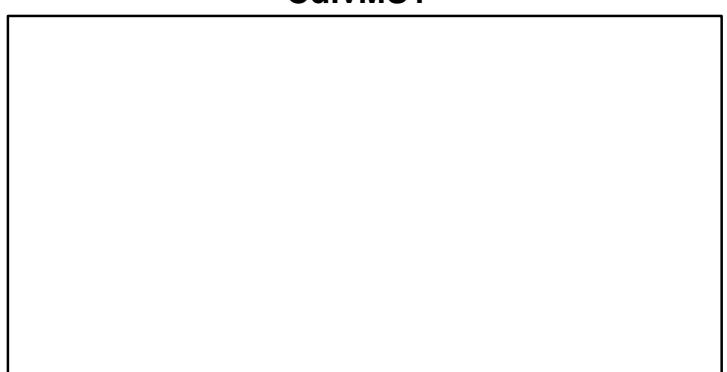
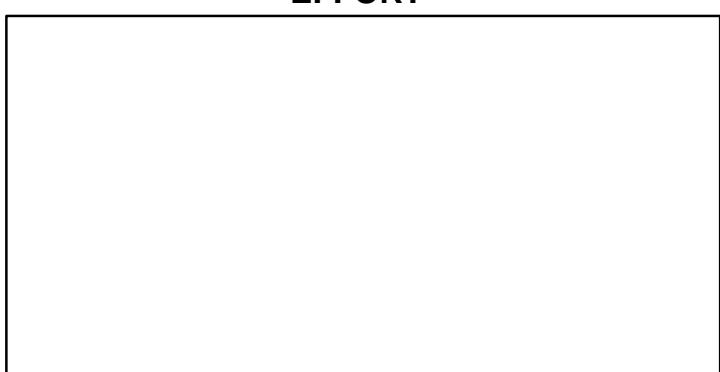
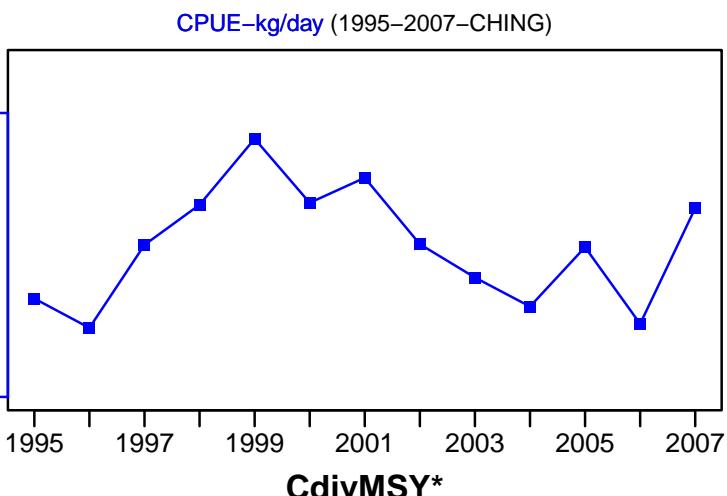
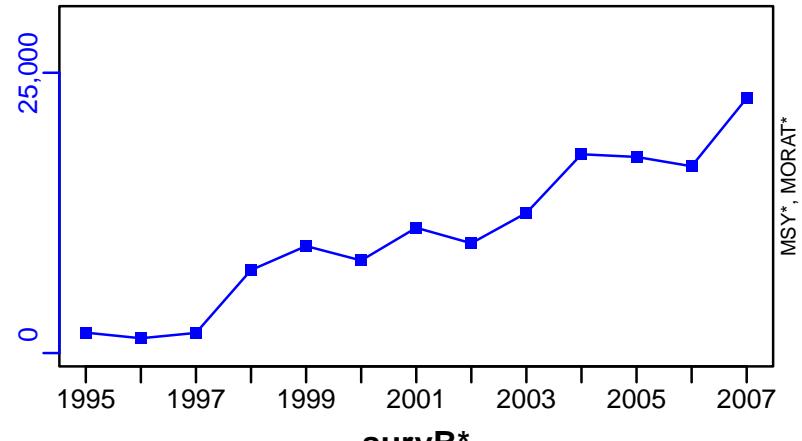


- |                      |              |           |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| — MSY-based BRP      | — Lim BRP    | * No Data |

**Large eye dentex Central West Africa Angola [LDENTCWAAGO]**

TC-MT, TL\*, RecC\* (1995–2007-CHING)

TAC\*, Cpair\*, Cadv\*



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - - MSY                | * No Data |

## Large eye dentex North West Africa [LDENTNWA]

<b>Metadata</b>	
<b>Scientific Name</b>	Dentex macrophthalmus
<b>Current Assess ID</b>	FAO-DR-LDENTNWA-1982-2016-ASHBROOK
<b>Area</b>	North West Africa
<b>Management Authority</b>	Food and Agriculture Organization of the United Nations
<b>Assessor</b>	FAO/CECAF Working Group on the Assessment of Demersal Resources
<b>Asmts in RAM</b>	2016

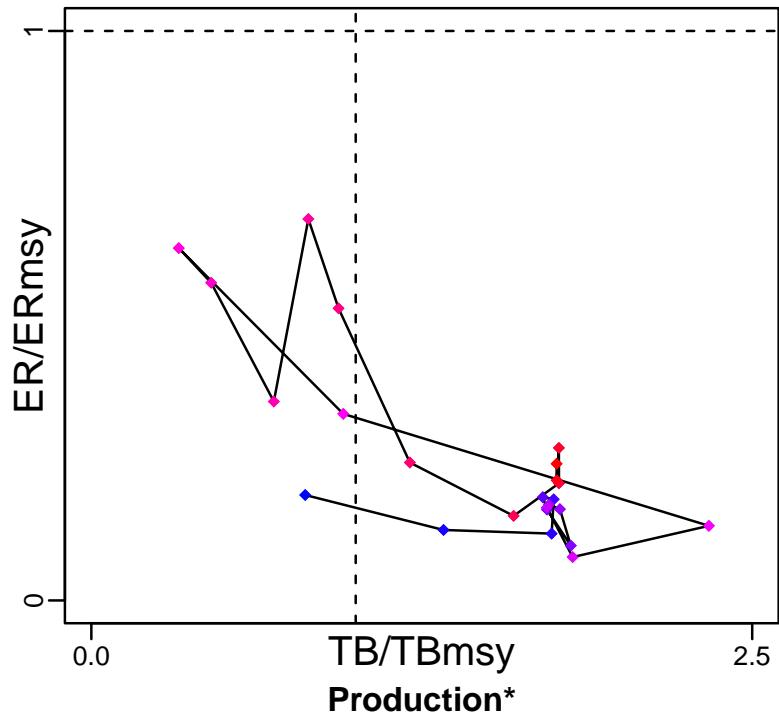
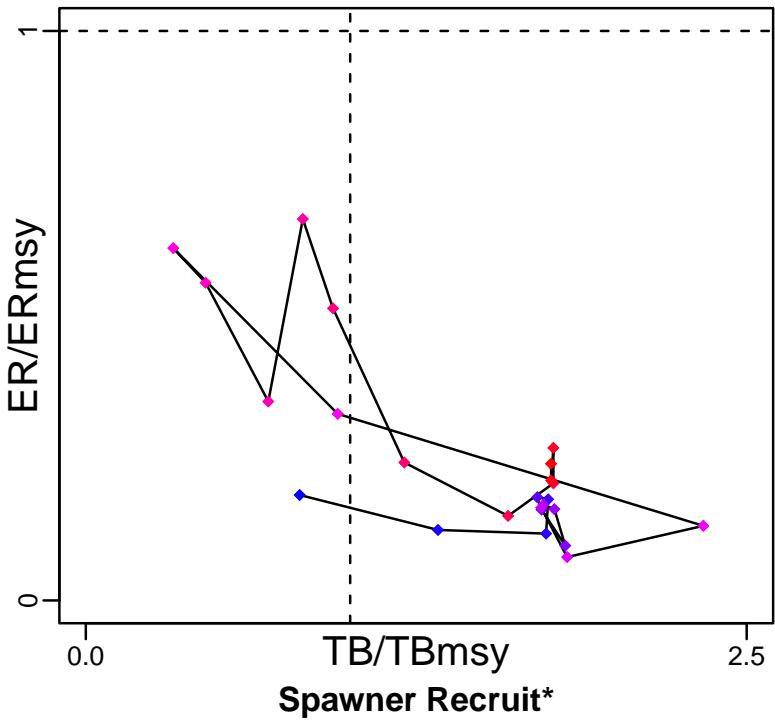
<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

<b>Time Series</b>					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2016	7188		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

Large eye dentex North West Africa [LDENTNWA]

Kobe MSYpref (1982–2016–ASHBROOK)

Kobe MGTpref (1982–2016–ASHBROOK)



◆ Start Year   ◆ End Year   \* No Data

**Large eye dentex North West Africa [LDENTNWA]**

**TB\***



**SSB\***



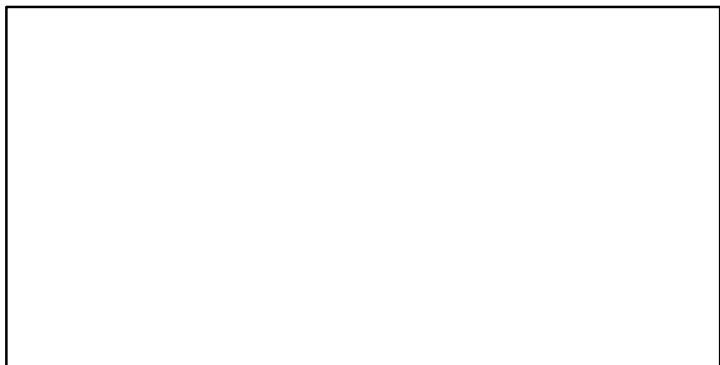
**TN \***



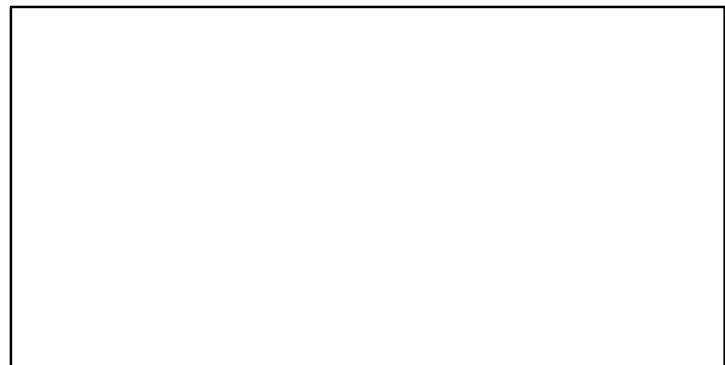
**F\***



**ER\***



**Recruits\***

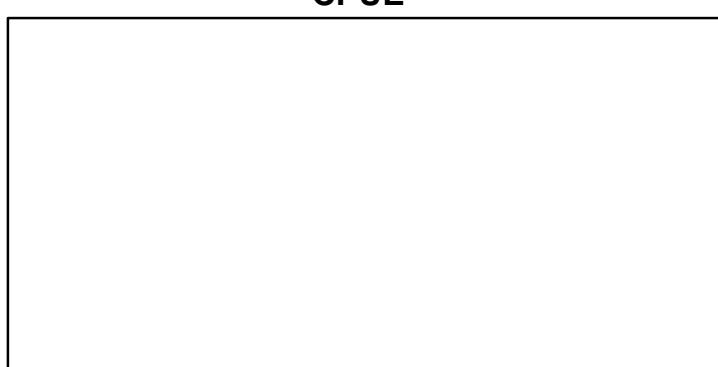
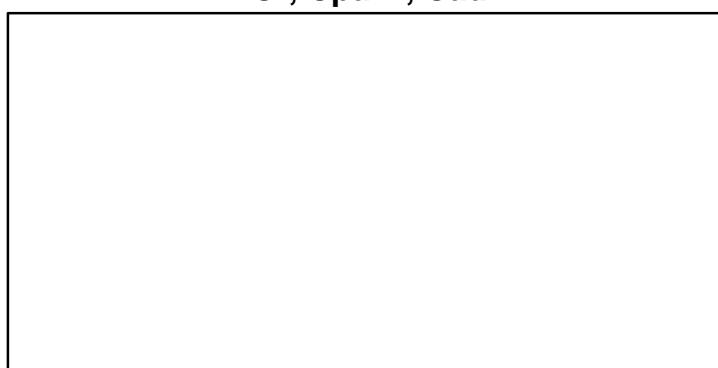
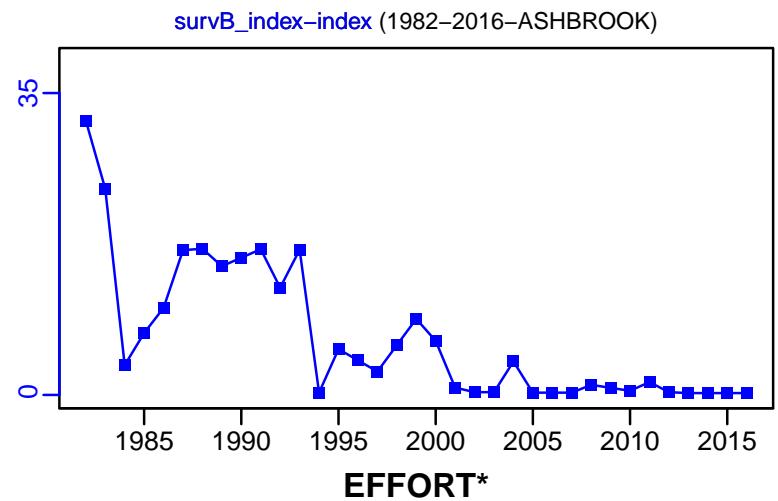
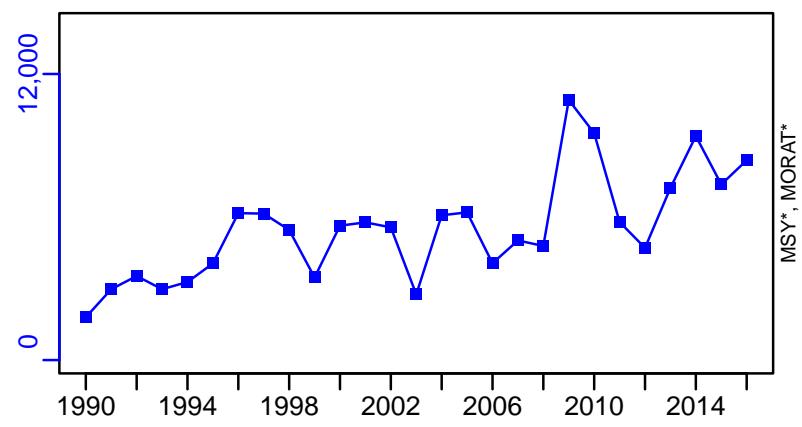


- |                      |                  |           |
|----------------------|------------------|-----------|
| ■ Listed time series | - - - Target BRP | — Rec-Est |
| - - - MSY-based BRP  | - - - Lim BRP    | * No Data |

**Large eye dentex North West Africa [LDENTNWA]**

TC-MT, TL\*, RecC\* (1982–2016-ASHBROOK)

TAC\*, Cpair\*, Cadv\*



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - MSY	* No Data

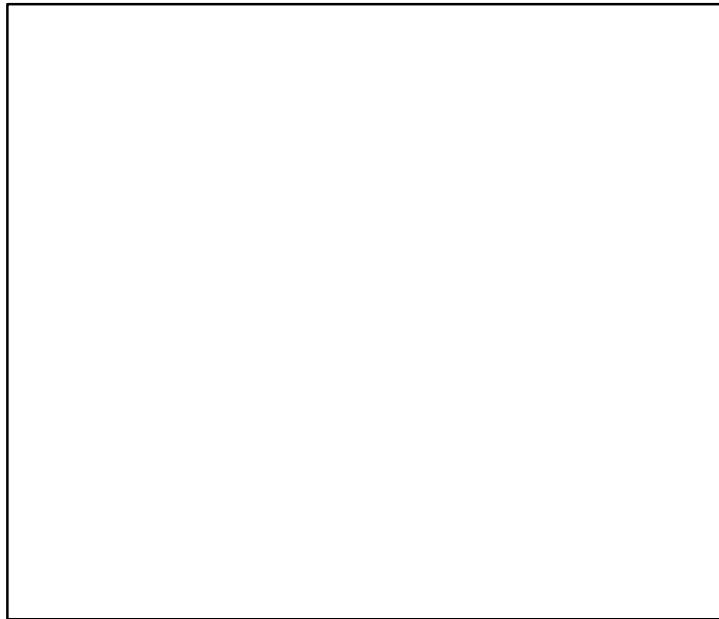
## Lavender jobfish Okinawa Islands [LJOBOKWI]

Metadata	
Scientific Name	Pristipomoides sieboldii
Current Assess ID	FAFRFJ-LJOBOKWI-1989-2013-JPNIMP2016
Area	Okinawa Islands
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013

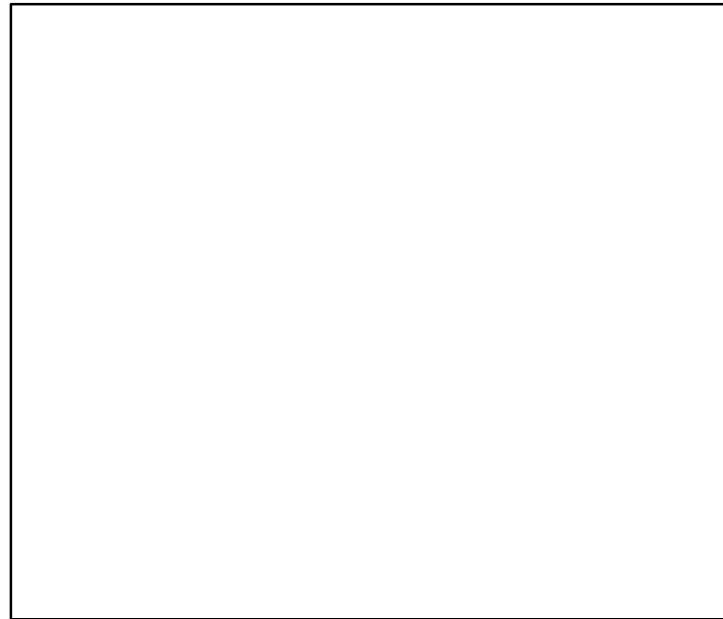
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2013	103		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

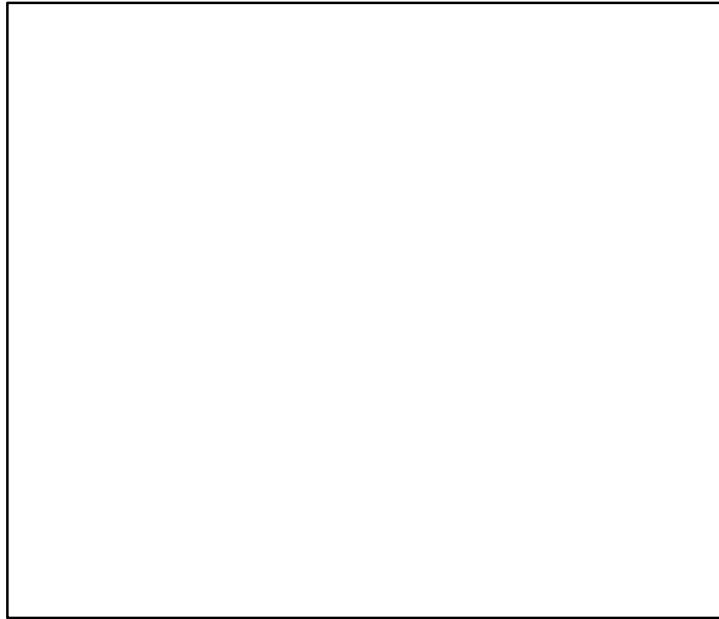
**Kobe MSY\***



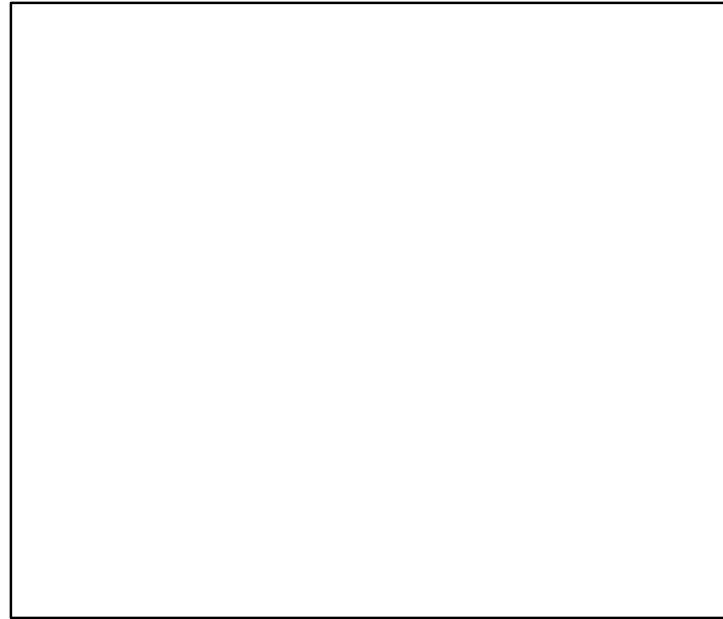
**Kobe MGT\***



**Spawner Recruit\***



**Production\***



◆ Start Year ♦ End Year \* No Data

**Lavender jobfish Okinawa Islands [LJOBOKWI]**

**TB\***



**SSB\***



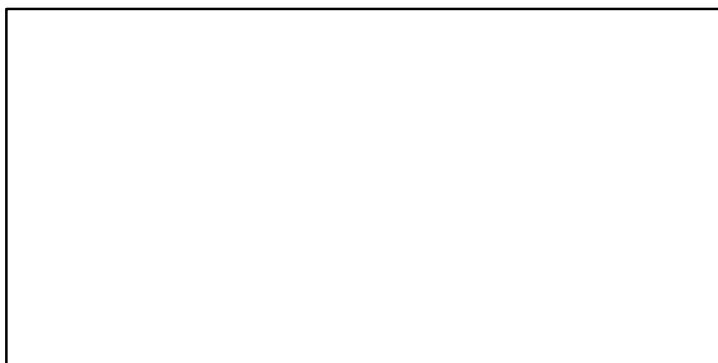
**TN \***



**F\***



**ER\***



**Recruits\***

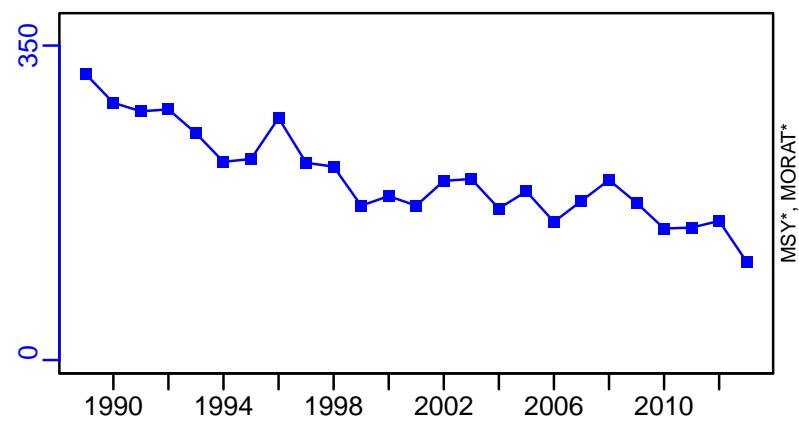


- |                      |                  |           |
|----------------------|------------------|-----------|
| ■ Listed time series | - - - Target BRP | — Rec-Est |
| - - - MSY-based BRP  | - - - Lim BRP    | * No Data |

Lavender jobfish Okinawa Islands [LJOBOKWI]

TC-MT, TL\*, RecC\* (1989–2013–JPNIMP2016)

TAC\*, Cpair\*, Cadv\*



MSY\*, MORAT\*

survB\*

CPUE\*

EFFORT\*

CdivMSY\*

- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - MSY                  | * No Data |

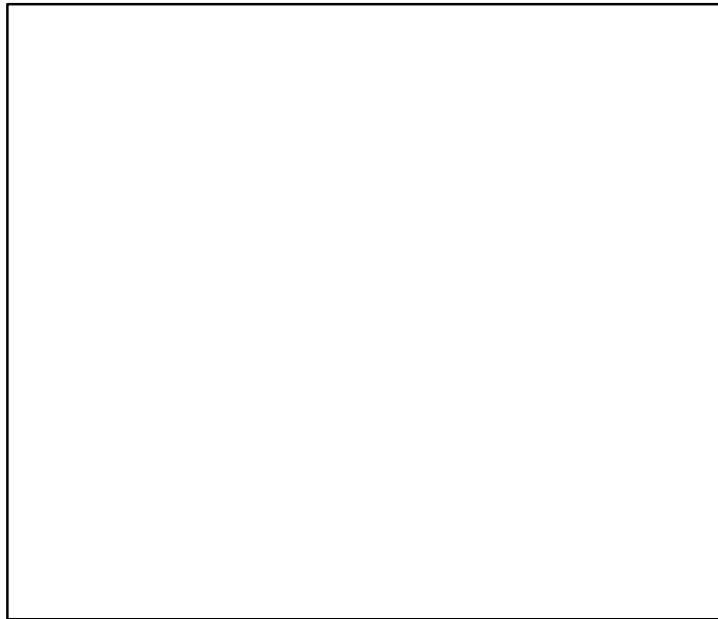
## Lane snapper Gulf of Mexico [LNSNAPGM]

<b>Metadata</b>	
<b>Scientific Name</b>	Lutjanus synagris
<b>Current Assess ID</b>	SEFSC-LNSNAPGM-1986-2018-SISIMP2021-2
<b>Area</b>	Gulf of Mexico
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southeast Fisheries Science Center
<b>Asmts in RAM</b>	2014, 2018

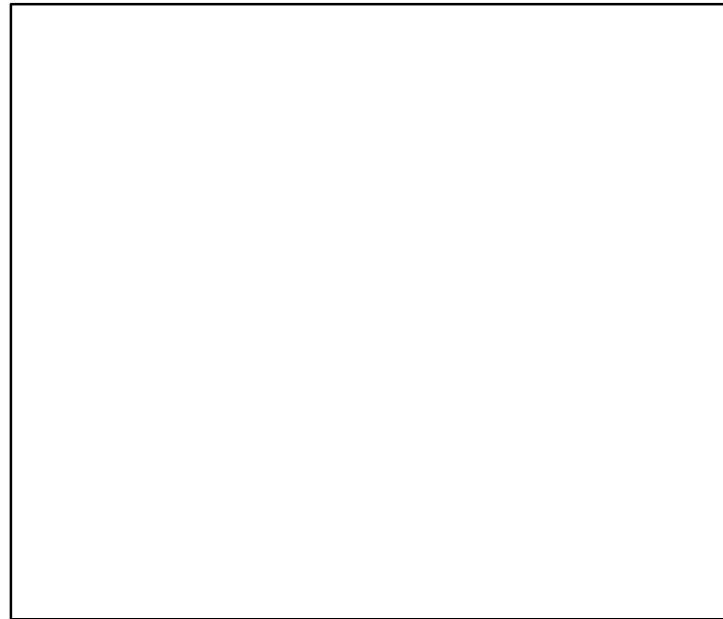
<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2014	141
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

<b>Time Series</b>					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2014	147		
<b>TL</b>	TL-MT	2018	166		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

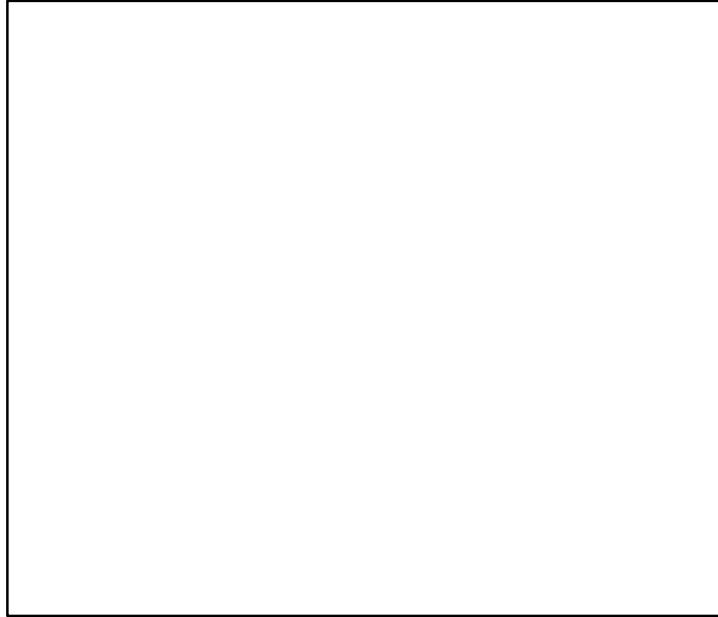
**Kobe MSY\***



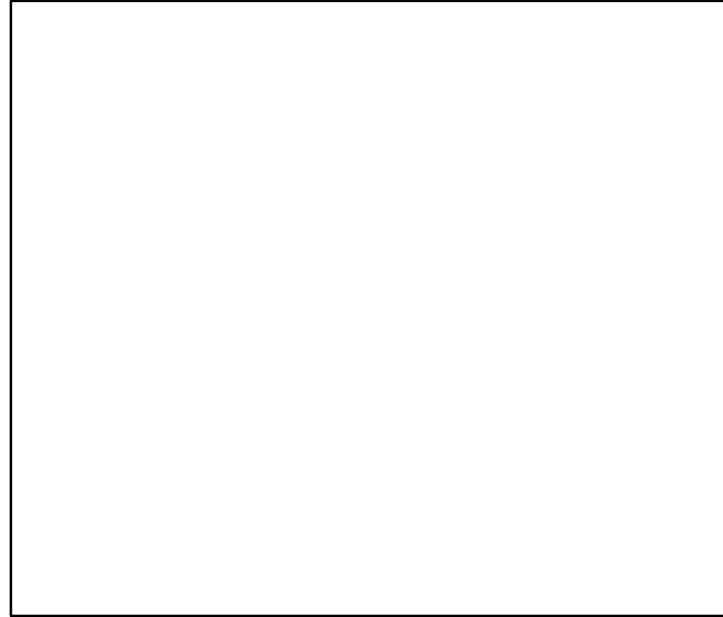
**Kobe MGT\***



**Spawner Recruit\***



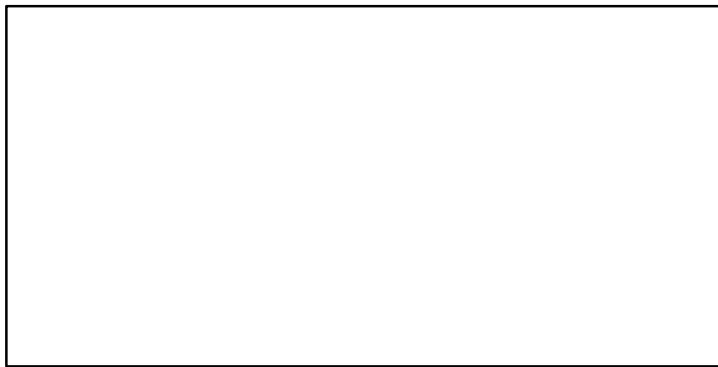
**Production\***



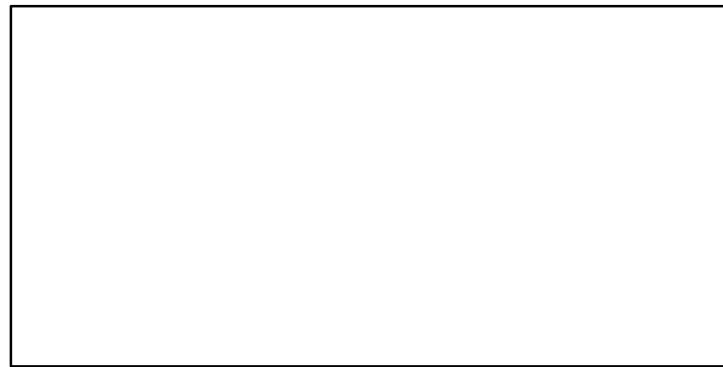
◆ Start Year ♦ End Year \* No Data

**Lane snapper Gulf of Mexico [LNSNAPGM]**

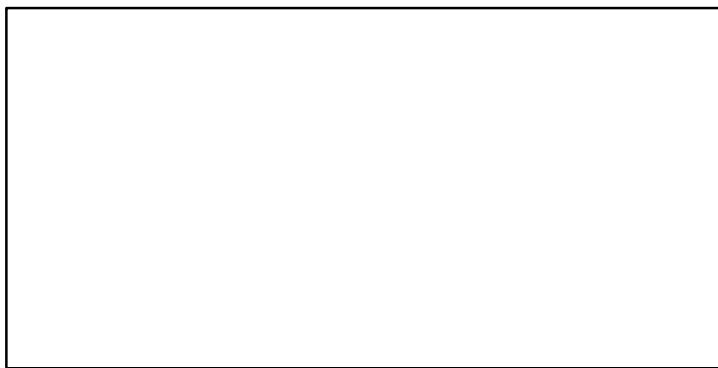
**TB\***



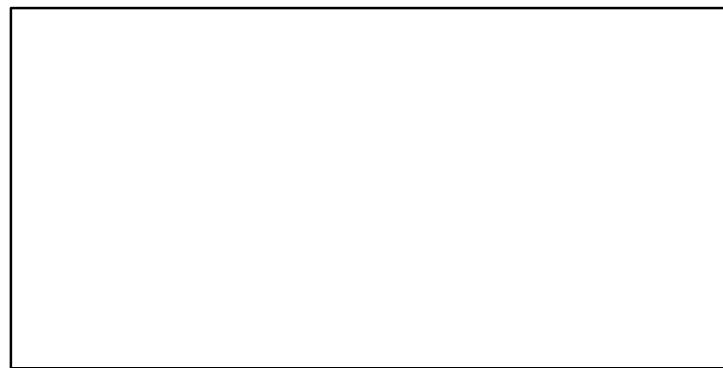
**SSB\***



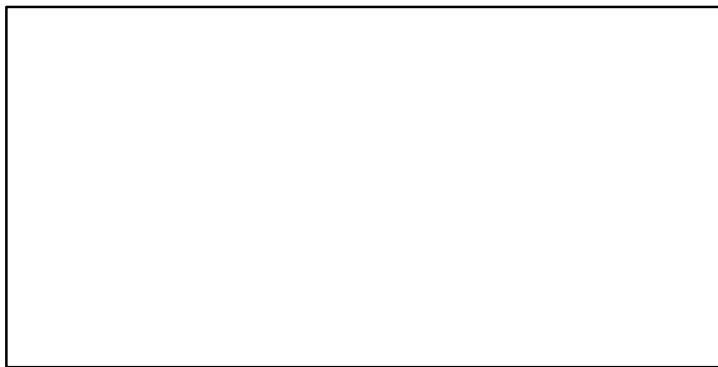
**TN \***



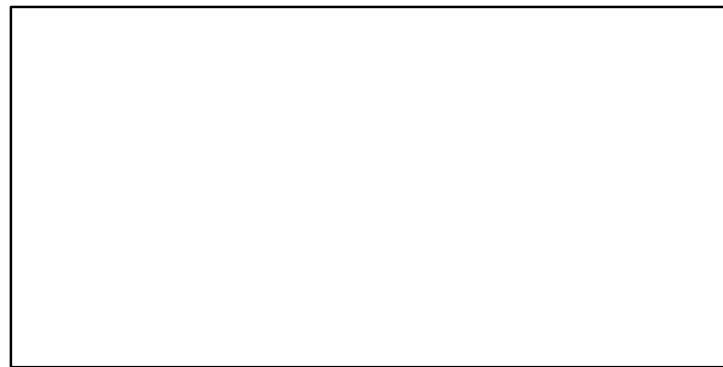
**F\***



**ER\***



**Recruits\***

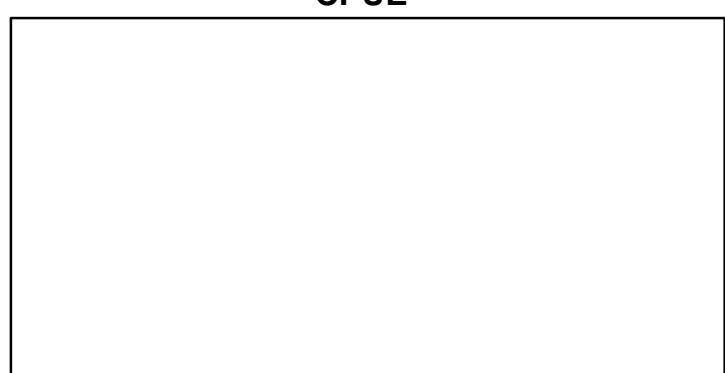
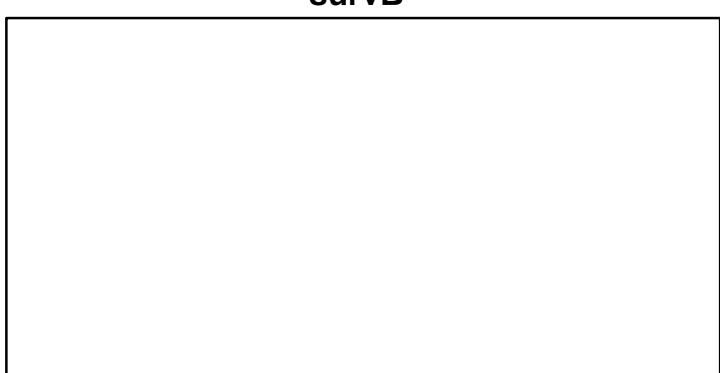
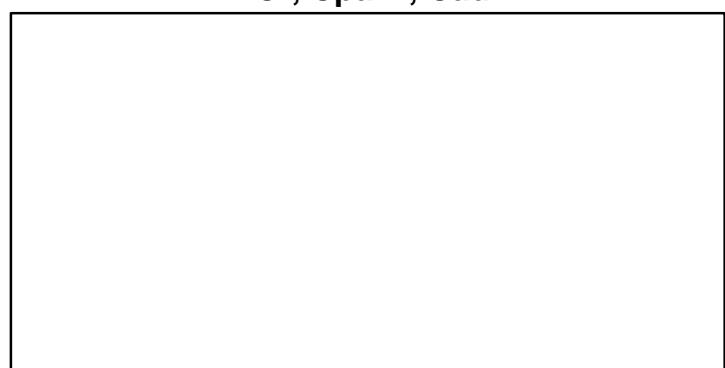
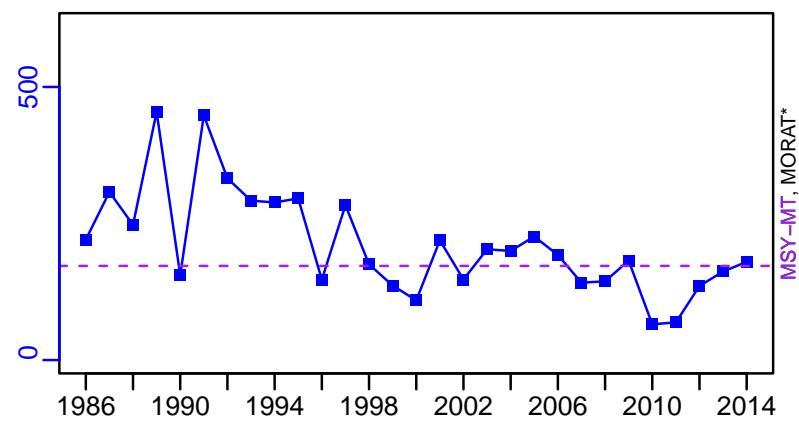


- |                      |                  |           |
|----------------------|------------------|-----------|
| ■ Listed time series | - - - Target BRP | — Rec-Est |
| - - - MSY-based BRP  | - - - Lim BRP    | * No Data |

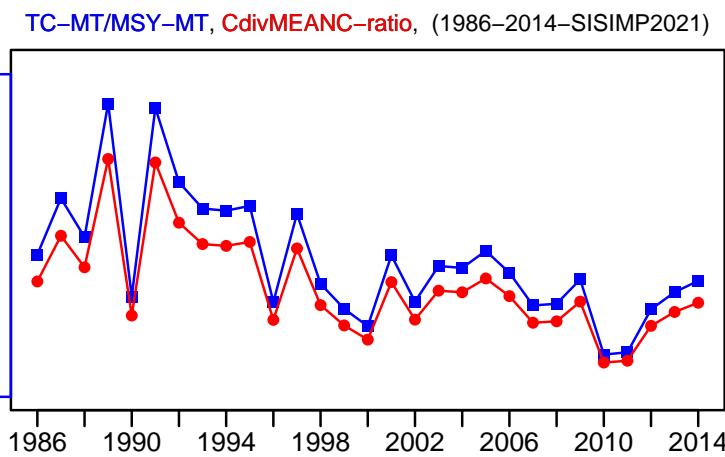
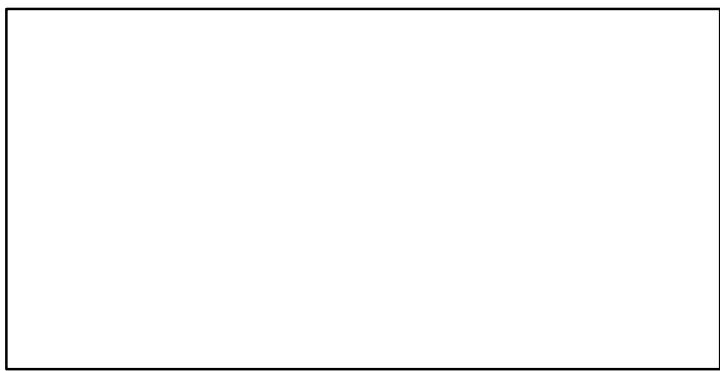
Lane snapper Gulf of Mexico [LNSNAPGM]

TC-MT, TL\*, RecC\* (1986–2014–SISIMP2021)

TAC\*, Cpair\*, Cadv\*



EFFORT\*



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Jackass morwong Eastern half of Southeast Australia [MORWONGESE]

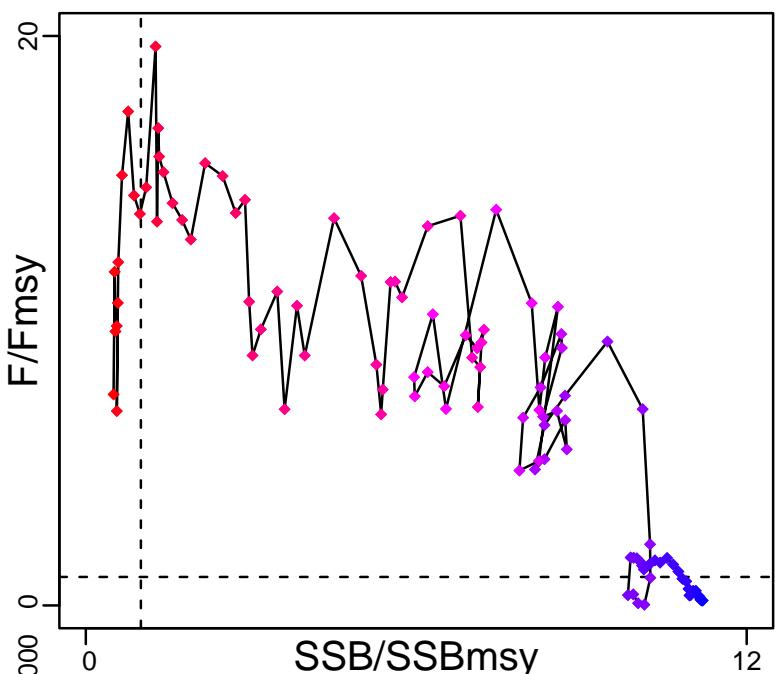
Metadata	
Scientific Name	Nemadactylus macropterus
Current Assess ID	CSIRO-MORWONGESE-1915-2020-MOESENEDER
Area	Eastern half of Southeast Australia
Management Authority	Australian Fisheries Management Authority, Australia national management
Assessor	Commonwealth Scientific and Industrial Research Organization
Asmts in RAM	2014, 2017, 2020

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2020	2128
<b>Fmsy</b>	Fmsy-1/yr	2020	0.128
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2020	3566
<b>Fmgt</b>	Fmgt-1/yr	2020	0.079
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2020	9019
<b>SSB0</b>	SSB0-MT	2020	7429
<b>MSY</b>	MSY-MT	2020	425
<b>M</b>	M-1/yr	2020	0.15
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2020	1486
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

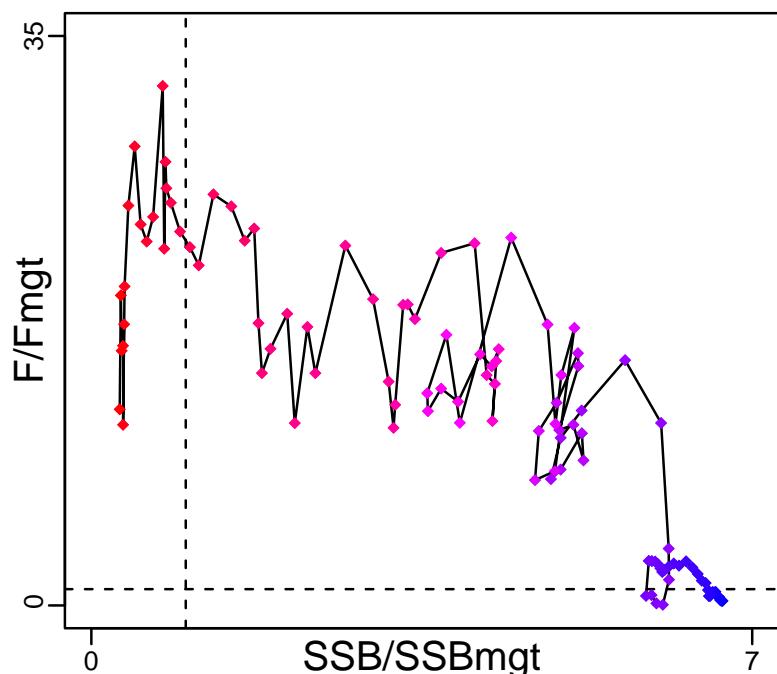
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
<b>TB</b>	TB-MT	2020	1528	-	-	
<b>SSB</b>	SSB-MT	2020	1073	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2020	$9.61 \times 10^{11}$	-	-	
<b>F</b>	F-1/yr	2020	0.95	-	-	
<b>ER</b>	ER-ratio	2020	0.071	-	-	
<b>TC</b>	TC-MT	2020	103			
<b>TL</b>	TL-MT	2017	139			
<b>TB/TBmsy</b>	-	-	-			
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2020	0.504			
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2020	7.411			
<b>ER/ERmsy</b>	-	-	-			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2020	0.301			
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2020	12.053			
<b>ER/ERmgt</b>	-	-	-			

**Jackass morwong Eastern half of Southeast Australia [MORWONGESE]**

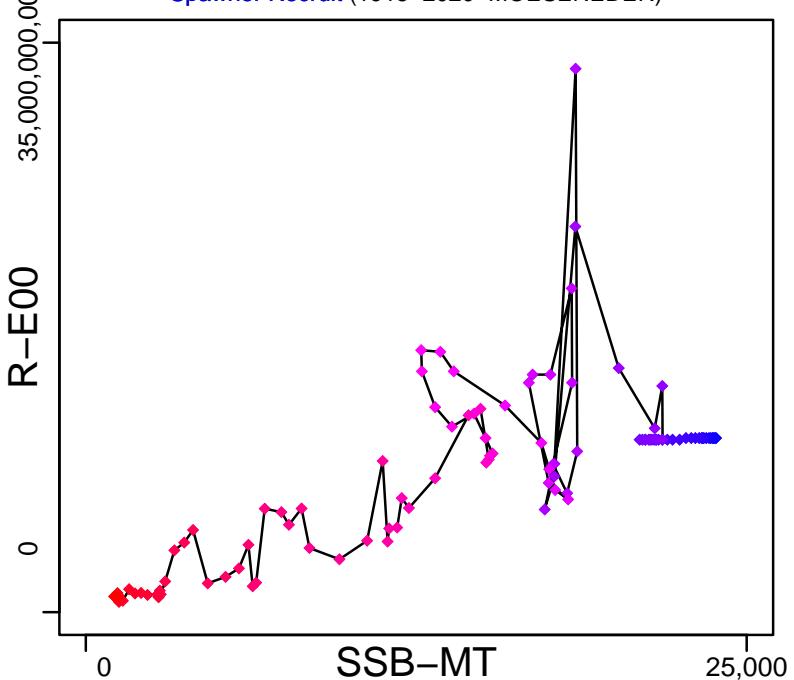
Kobe MSYpref (1915–2020–MOESENEDER)



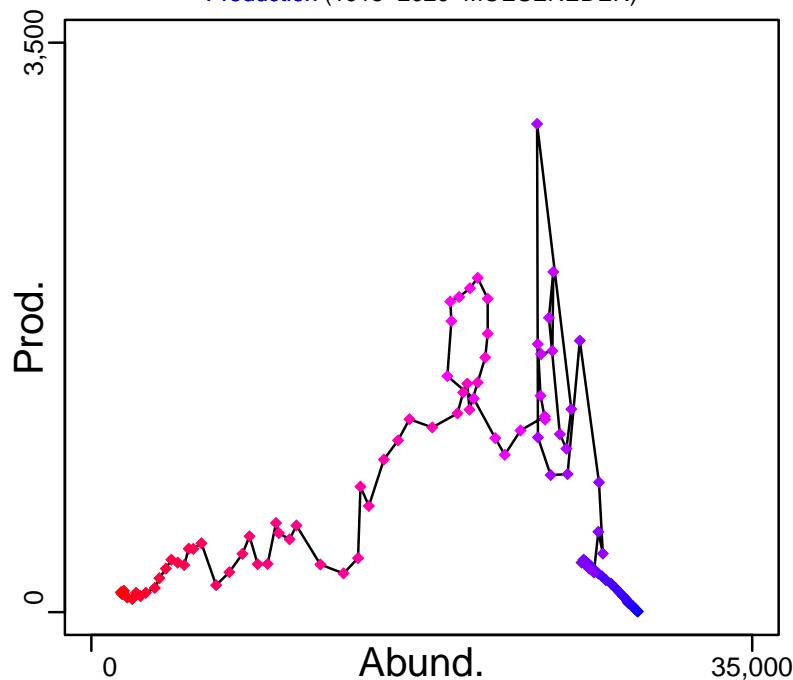
Kobe MGTpref (1915–2020–MOESENEDER)



Spawner Recruit (1915–2020–MOESENEDER)



Production (1915–2020–MOESENEDER)

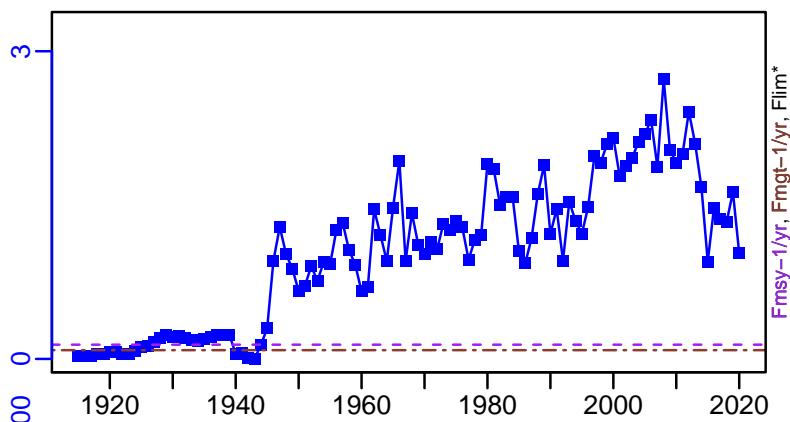
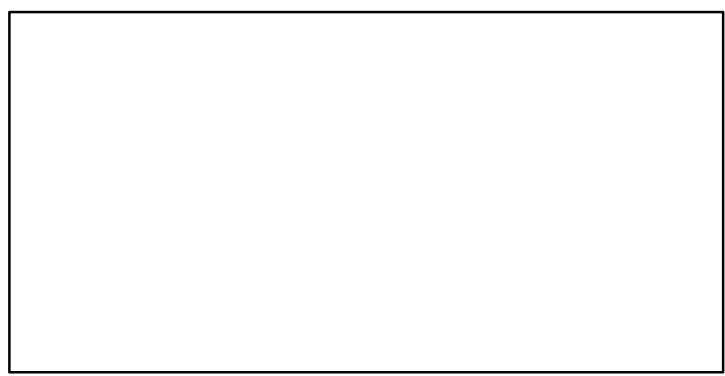
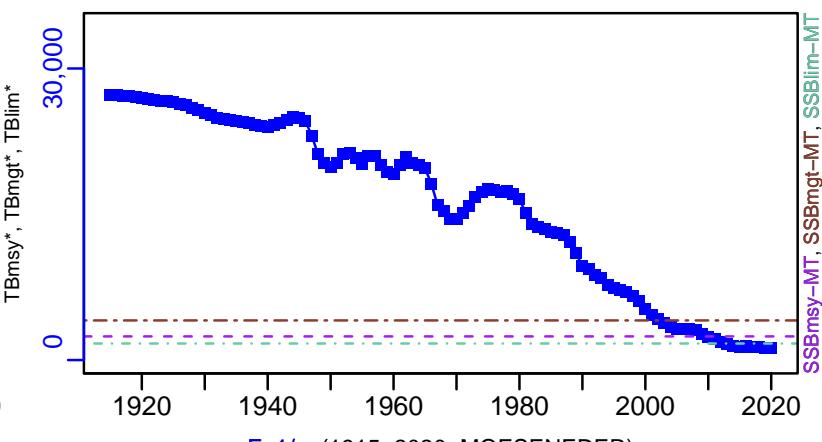
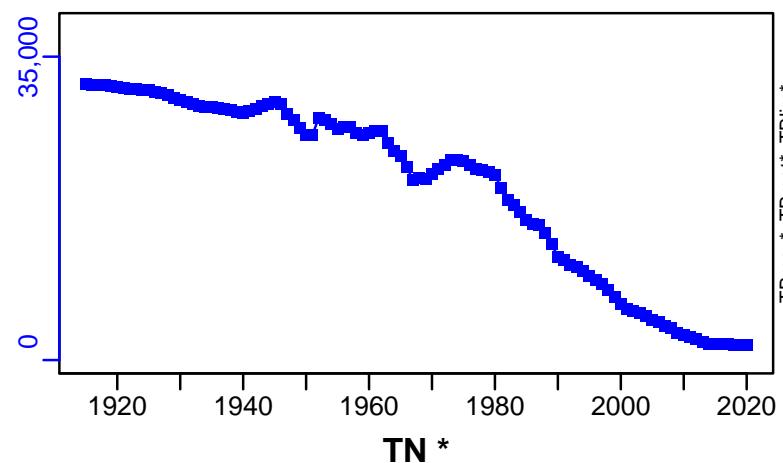


◆ Start Year	◆ End Year	*	No Data
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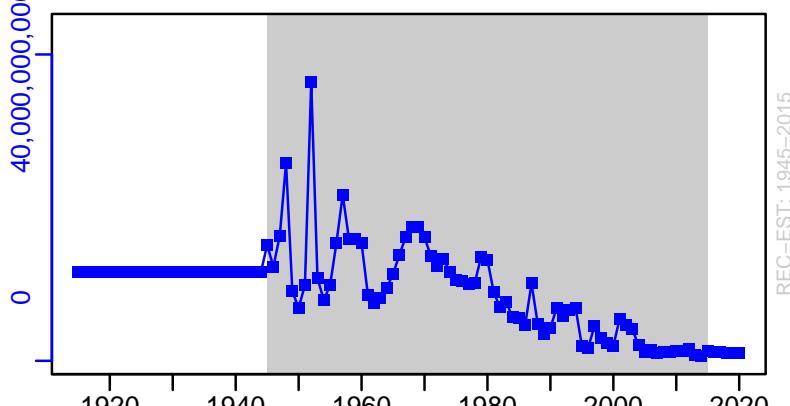
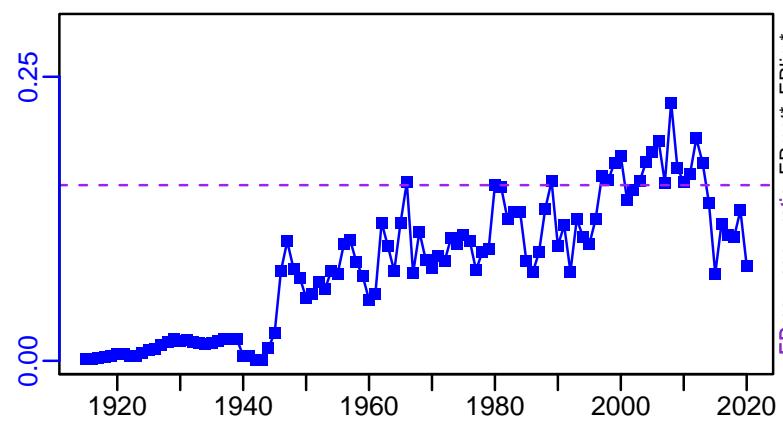
**Jackass morwong Eastern half of Southeast Australia [MORWONGESE]**

**TB-MT** (1915–2020–MOESENEDER)

**SSB-MT** (1915–2020–MOESENEDER)



**ER-ratio (1915–2020–MOESENEDER)**



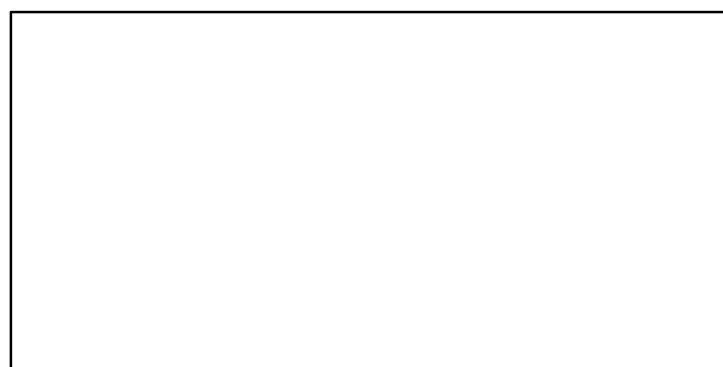
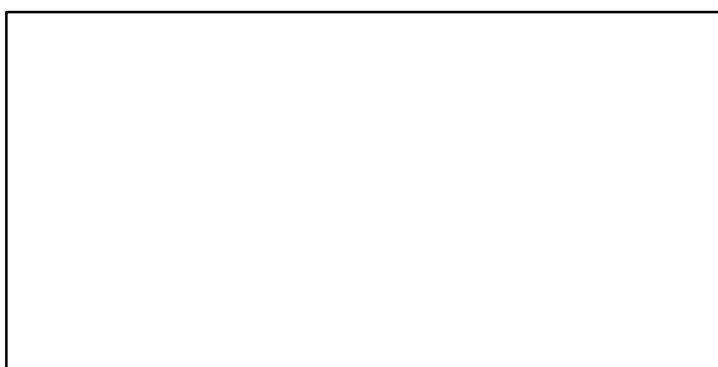
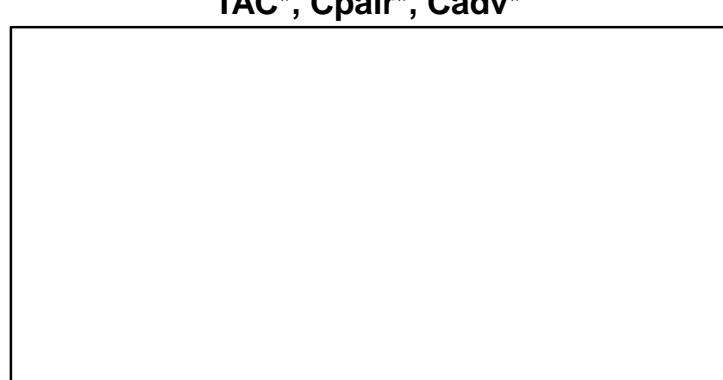
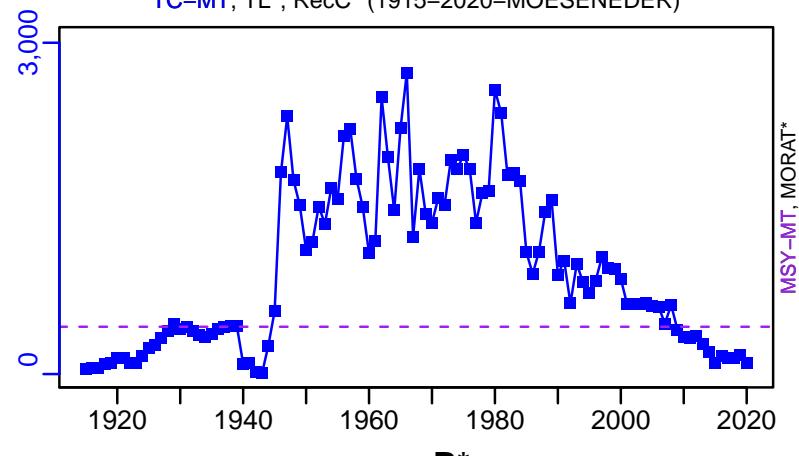
REC-EST: 1945–2015

■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	··· Lim BRP	* No Data

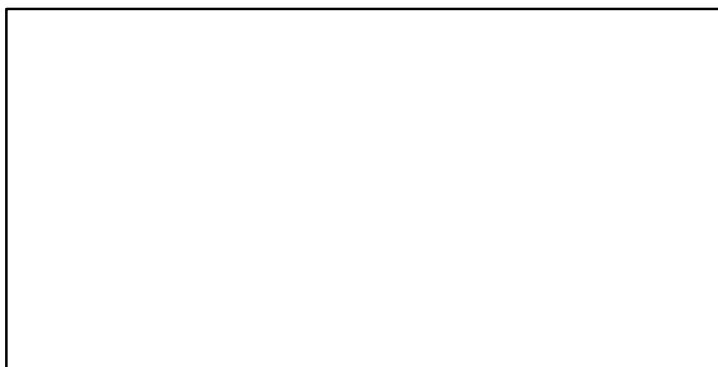
**Jackass morwong Eastern half of Southeast Australia [MORWONGESE]**

TC-MT, TL\*, RecC\* (1915–2020–MOESENEDER)

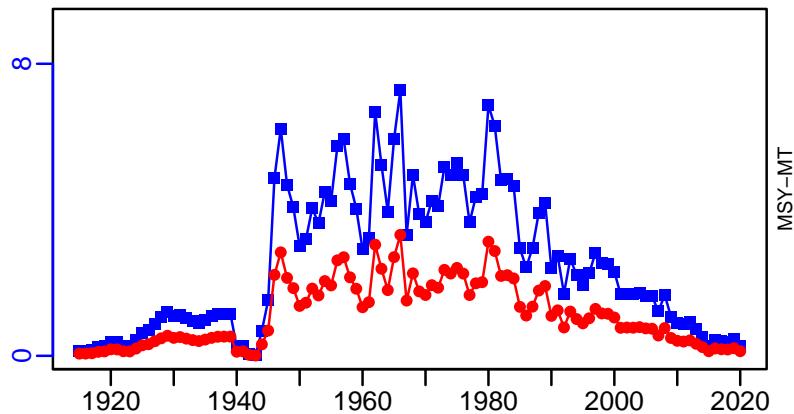
TAC\*, Cpair\*, Cadv\*



**EFFORT\***



TC-MT/MSY-MT, CdivMEANC-ratio, (1915–2020–MOESENEDER)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - MSY	* No Data

## Jackass morwong Western half of Southeast Australia [MORWONGWSE]

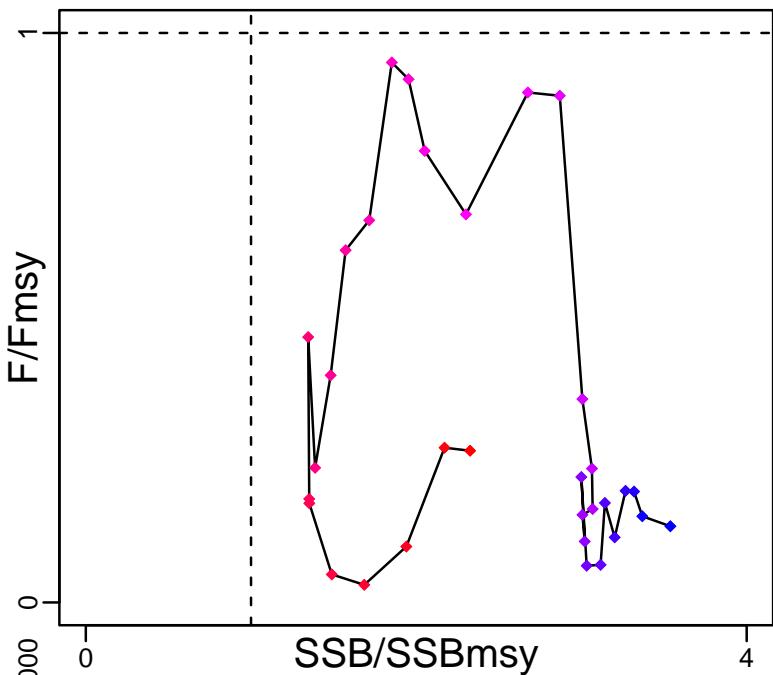
Metadata	
<b>Scientific Name</b>	Nemadactylus macropterus
<b>Current Assess ID</b>	CSIRO-MORWONGWSE-1986-2017-MOESENEDER
<b>Area</b>	Western half of Southeast Australia
<b>Management Authority</b>	Australian Fisheries Management Authority, Australia national management
<b>Assessor</b>	Commonwealth Scientific and Industrial Research Organization
<b>Asmts in RAM</b>	2014, 2017

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2017	775
<b>Fmsy</b>	Fmsy-1/yr	2017	0.149
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2017	1317
<b>Fmgt</b>	Fmgt-1/yr	2017	0.09
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2017	3314
<b>SSB0</b>	SSB0-MT	2017	2743
<b>MSY</b>	MSY-MT	2017	180
<b>M</b>	M-1/yr	2017	0.15
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2017	549
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

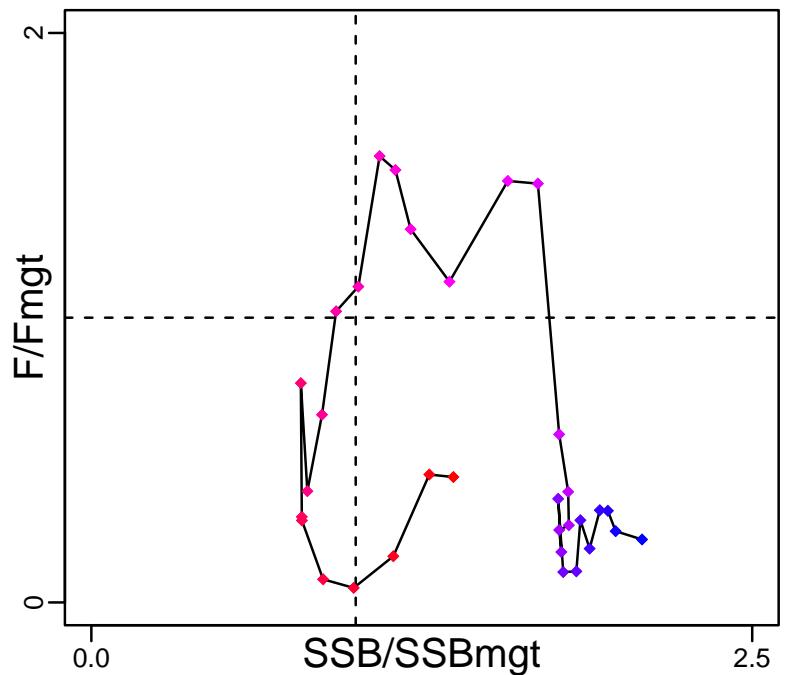
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
<b>TB</b>	TB-MT	2017	2338	-	-	
<b>SSB</b>	SSB-MT	2017	1803	Females	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2017	$1.14 \times 10^{12}$	-	-	
<b>F</b>	F-1/yr	2017	0.04	-	-	
<b>ER</b>	ER-ratio	2017	0.039	-	-	
<b>TC</b>	-	-	-			
<b>TL</b>	TL-MT	2017	87			
<b>TB/TBmsy</b>	-	-	-			
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2017	2.326			
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2017	0.266			
<b>ER/ERmsy</b>	-	-	-			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2017	1.37			
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2017	0.44			
<b>ER/ERmgt</b>	-	-	-			

**Jackass morwong Western half of Southeast Australia [MORWONGWSE]**

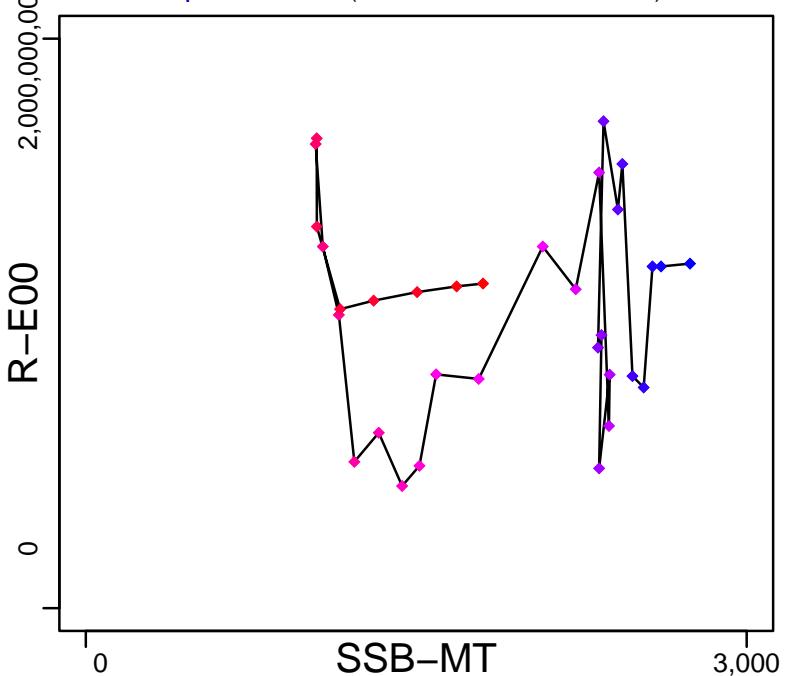
Kobe MSYpref (1986–2017–MOESENEDER)



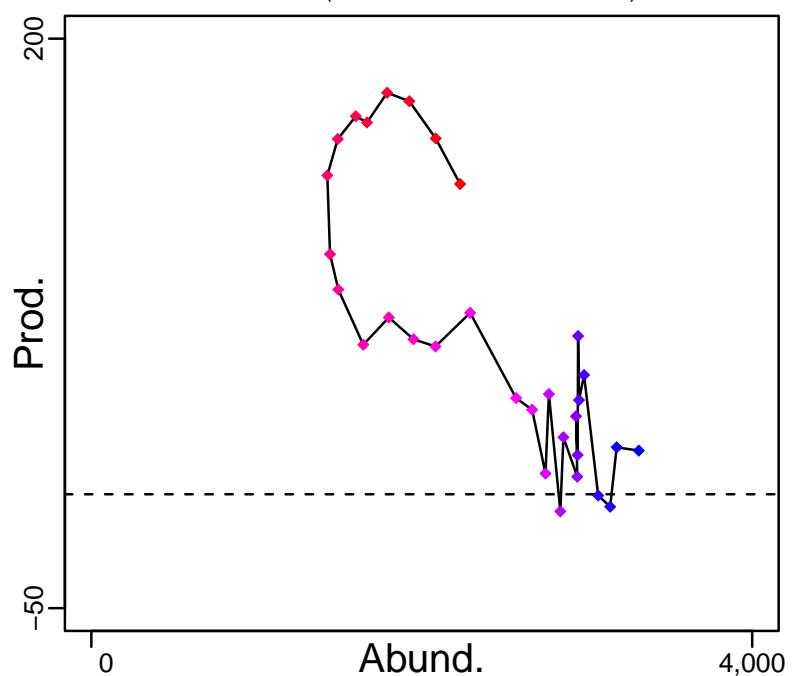
Kobe MGTpref (1986–2017–MOESENEDER)



Spawner Recruit (1986–2017–MOESENEDER)



Production (1986–2017–MOESENEDER)

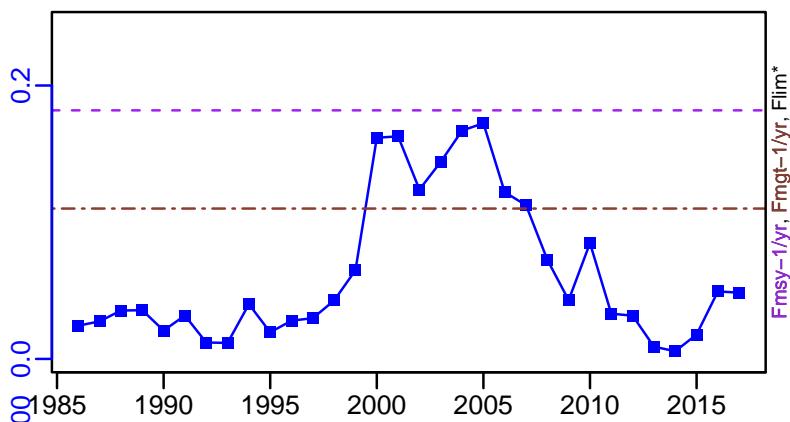
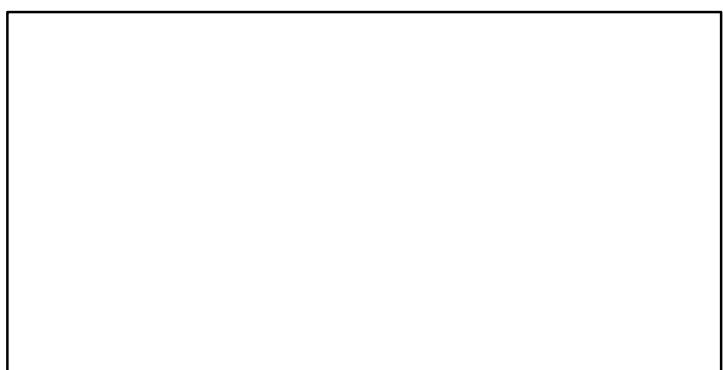
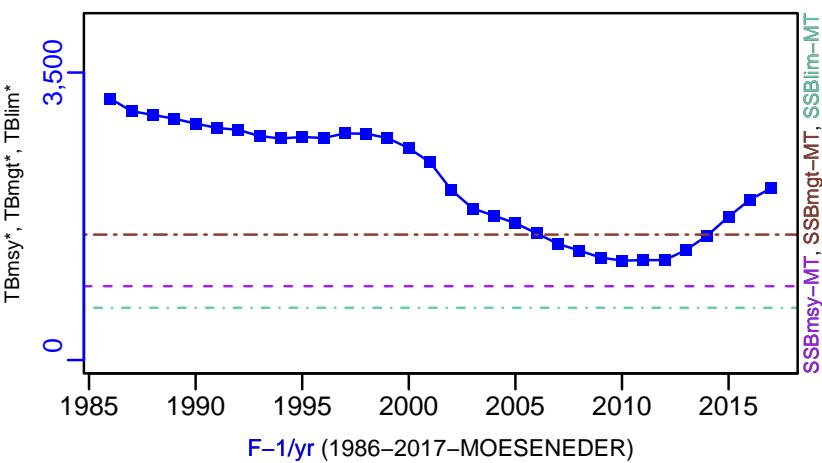
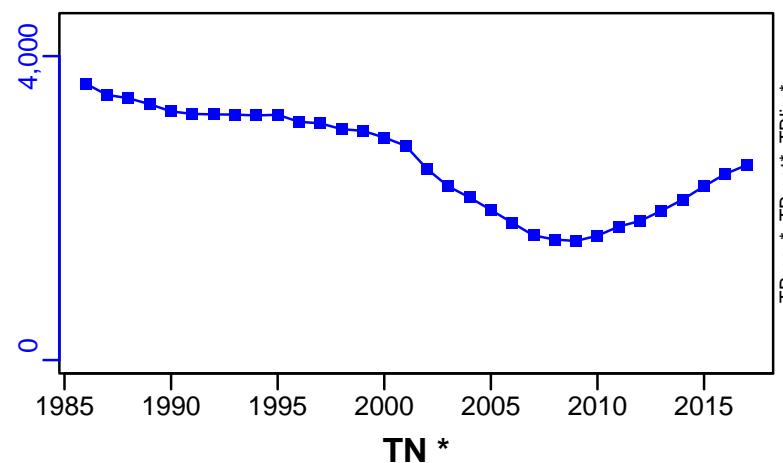


◆ Start Year ◆ End Year \* No Data

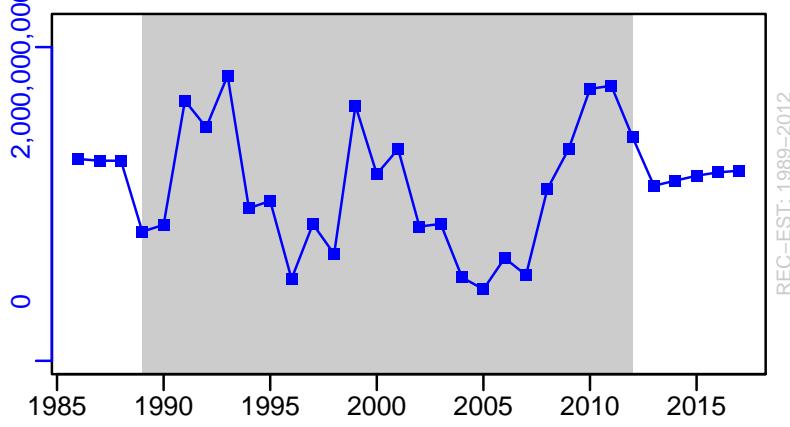
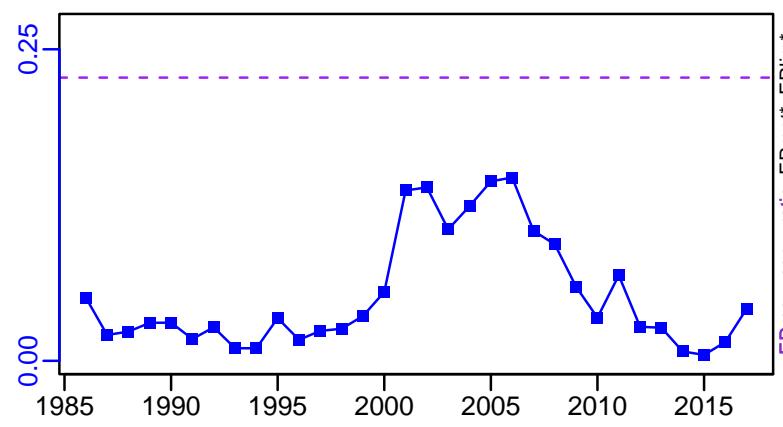
### Jackass morwong Western half of Southeast Australia [MORWONGWSE]

TB-MT (1986–2017–MOESENEDER)

SSB-MT (1986–2017–MOESENEDER)



ER-ratio (1986–2017–MOESENEDER)



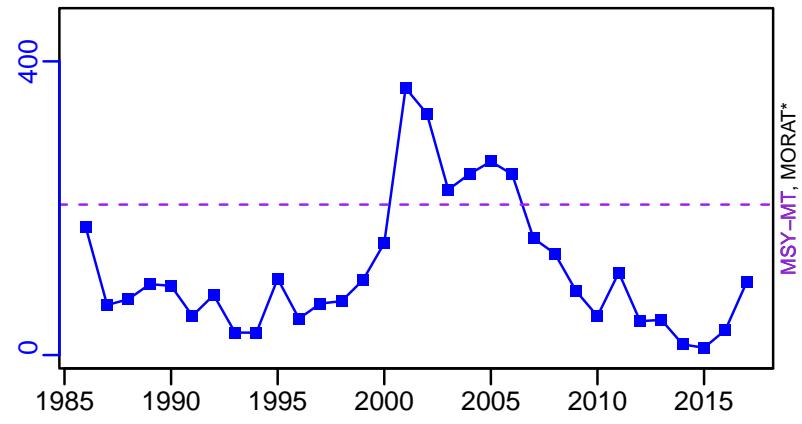
REC-EST: 1989–2012

■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	--- Lim BRP	* No Data

**Jackass morwong Western half of Southeast Australia [MORWONGWSE]**

TL-MT, TC\*, RecC\* (1986–2017–MOESENEDER)

TAC\*, Cpair\*, Cadv\*



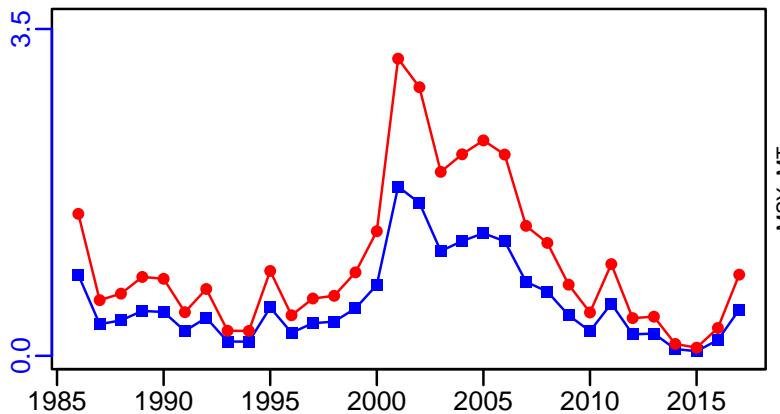
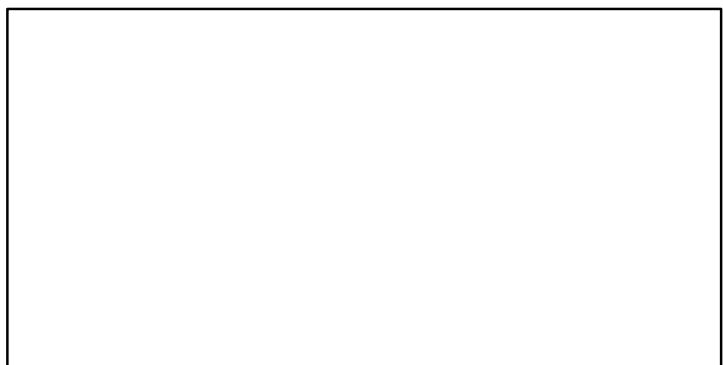
**survB\***

**CPUE\***



**EFFORT\***

TL-MT/MSY-MT, CdivMEANC–ratio, (1986–2017–MOESENEDER)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Mutton snapper Southern Atlantic coast and Gulf of Mexico [MUTSNAPSATLCGM]

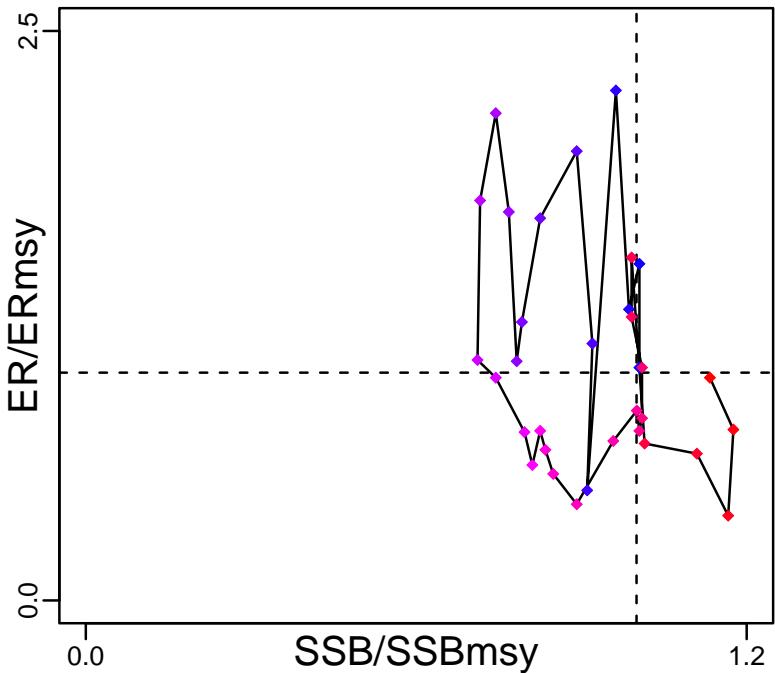
Metadata	
<b>Scientific Name</b>	Lutjanus analis
<b>Current Assess ID</b>	SEFSC-MUTSNAPSATLCGM-1981-2013-SISIMP2016
<b>Area</b>	Southern Atlantic coast and Gulf of Mexico
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southeast Fisheries Science Center
<b>Asmts in RAM</b>	2006, 2013

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2013	2299
<b>SSBmsy</b>	SSBmsy-MT	2013	2109
<b>Fmsy</b>	Fmsy-pr-1/yr	2006	0.34
<b>ERmsy</b>	ERmsy-ratio	2013	0.18
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2013	414
<b>M</b>	M-1/yr	2006	0.11
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2013	1877
<b>Flim</b>	-	-	-
<b>ERlim</b>	ERlim-ratio	2013	0.18

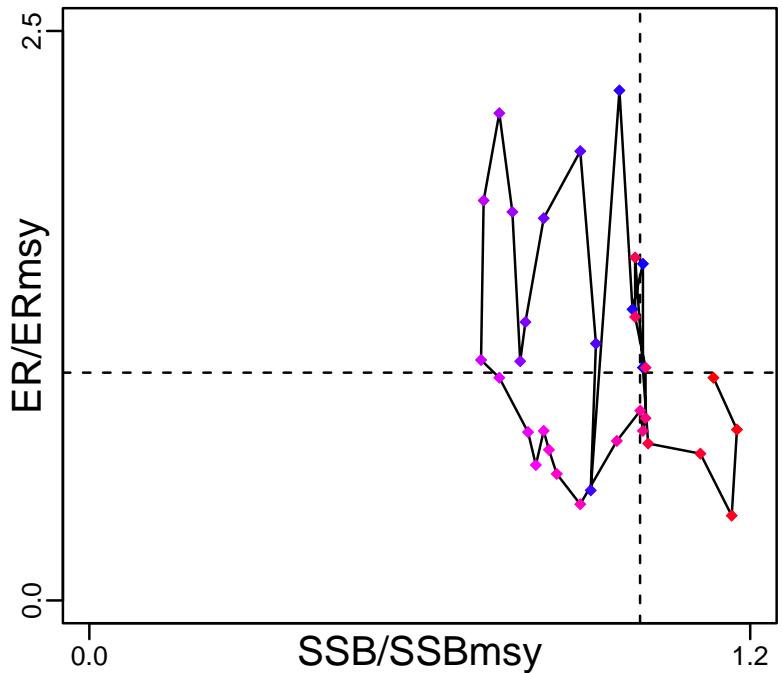
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	5210	-	-
<b>SSB</b>	SSB-MT	2013	2390	Females	4+
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2006	1,580,000	-	-
<b>F</b>	F-1/yr	2006	0.18	-	-
<b>ER</b>	ER-ratio	2013	0.176	-	3
<b>TC</b>	TC-MT	2013	404		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2013	2.266		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	1.133		
<b>F/Fmsy</b>	F-1/yr/Fmsy-pr-1/yr	2006	0.529		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2013	0.978		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

Mutton snapper Southern Atlantic coast and Gulf of Mexico [MUTSNAPSATLCGM]

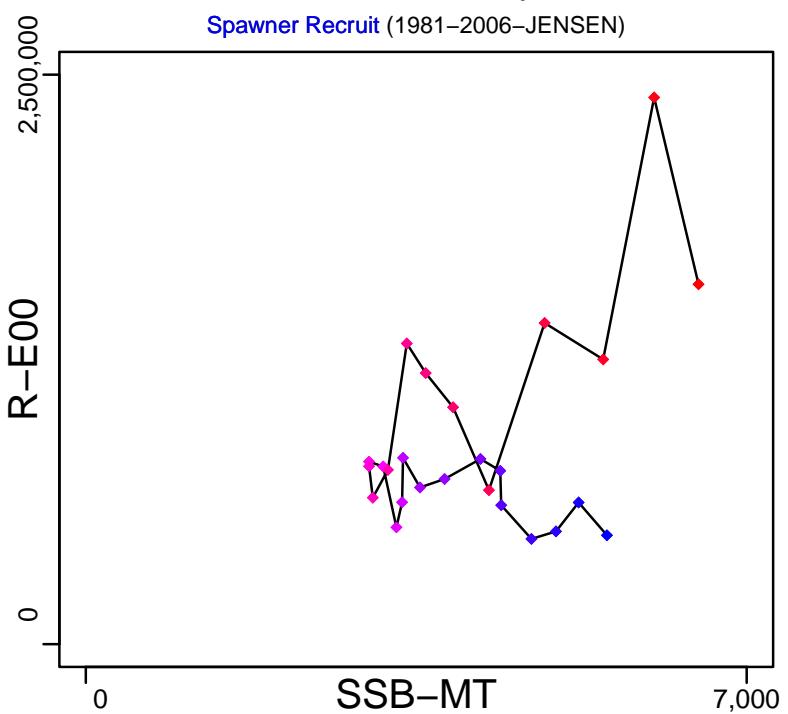
Kobe MSYpref (1981–2013–SISIMP2016)



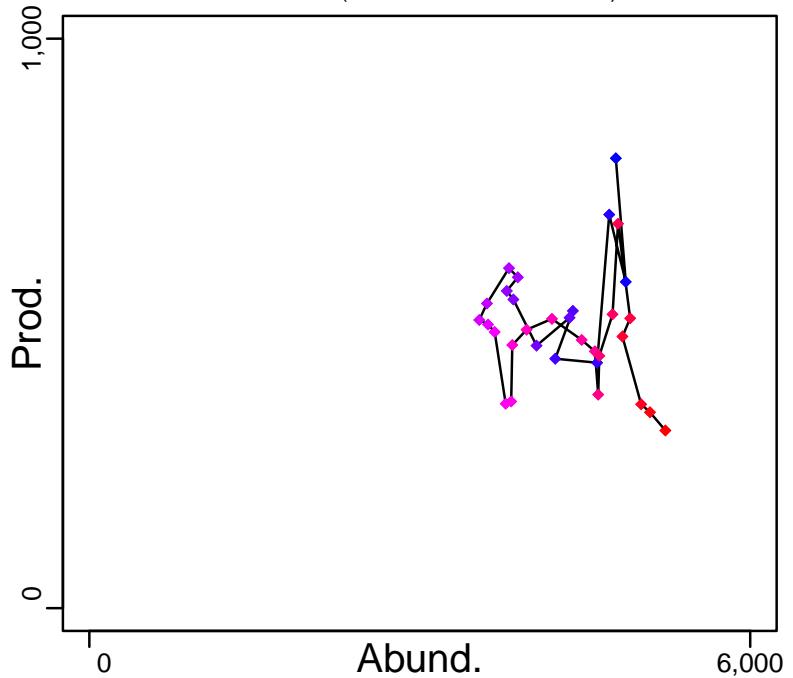
Kobe MGTpref (1981–2013–SISIMP2016)



Spawner Recruit (1981–2006–JENSEN)



Production (1981–2013–SISIMP2016)

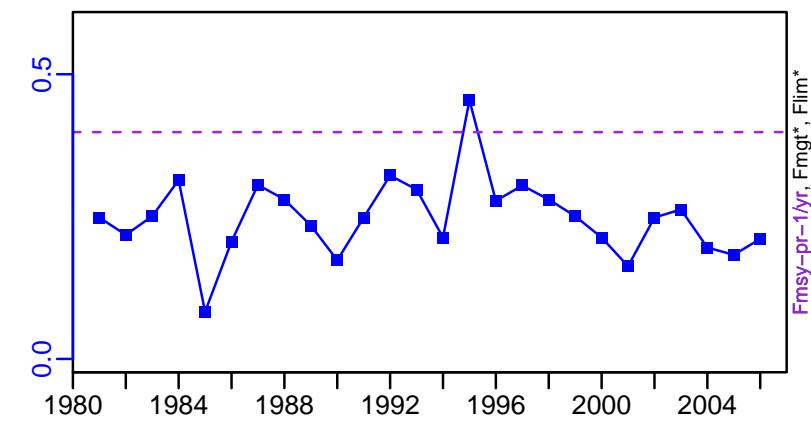
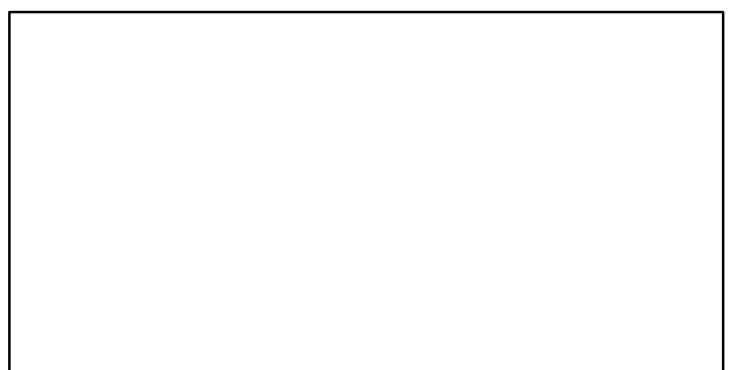
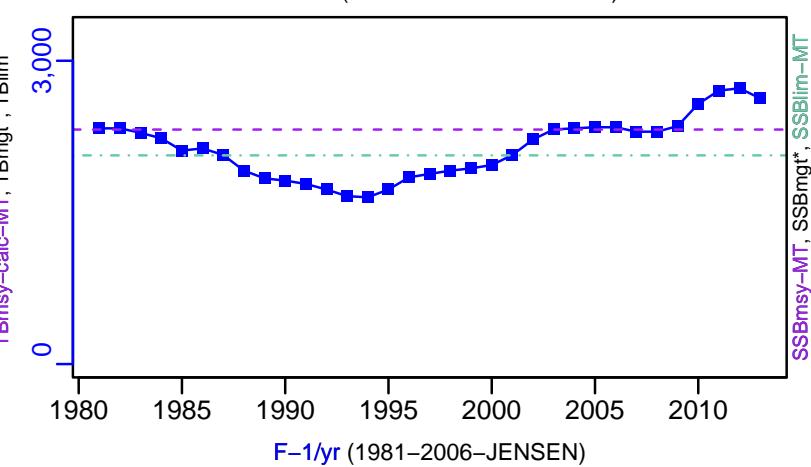
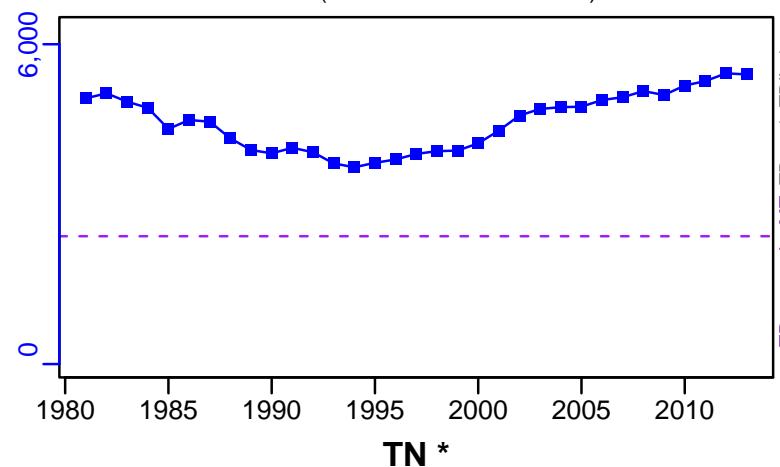


◆ Start Year   ◆ End Year   \* No Data

Mutton snapper Southern Atlantic coast and Gulf of Mexico [MUTSNAPSATLCGM]

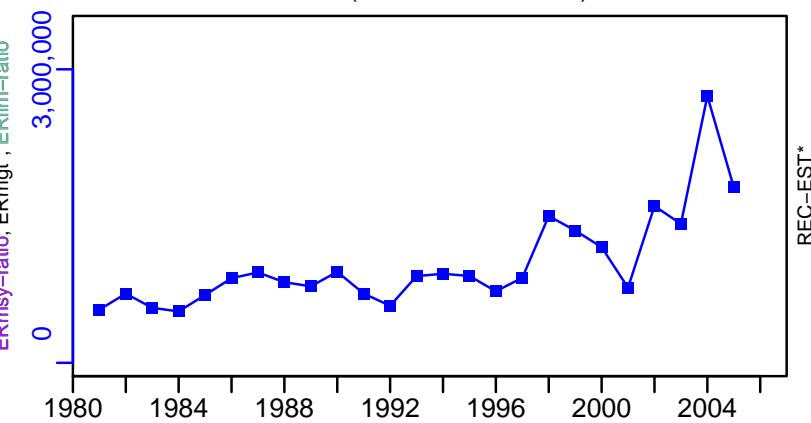
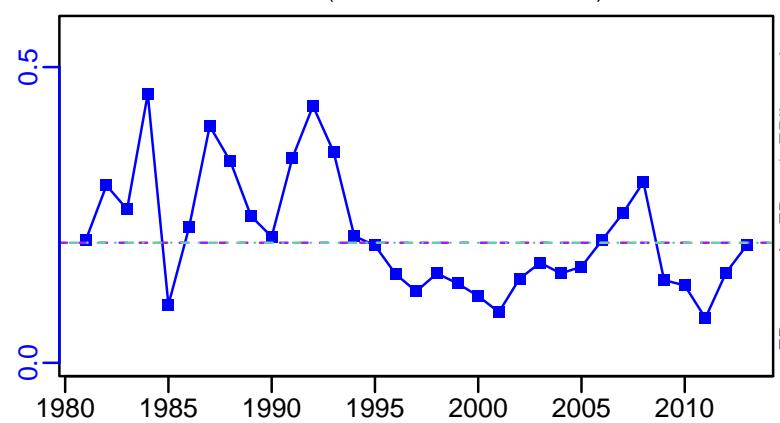
TB-MT (1981–2013–SISIMP2016)

SSB-MT (1981–2013–SISIMP2016)



ER-ratio (1981–2013–SISIMP2016)

R-E00 (1981–2006–JENSEN)

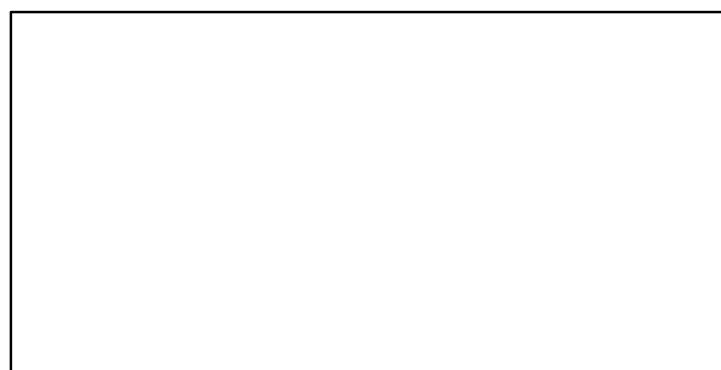
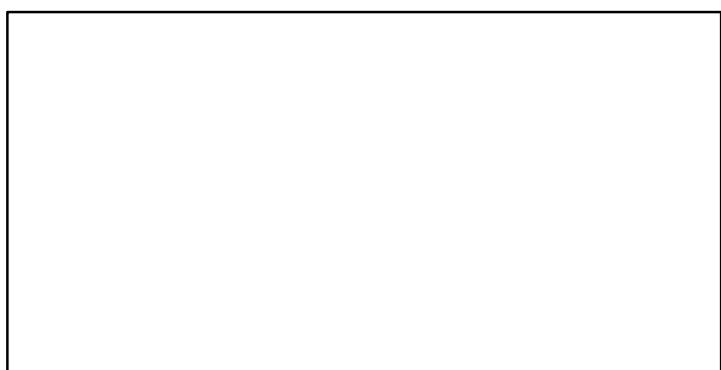
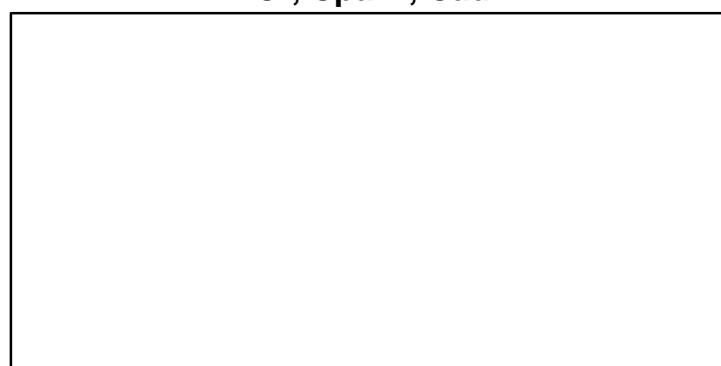
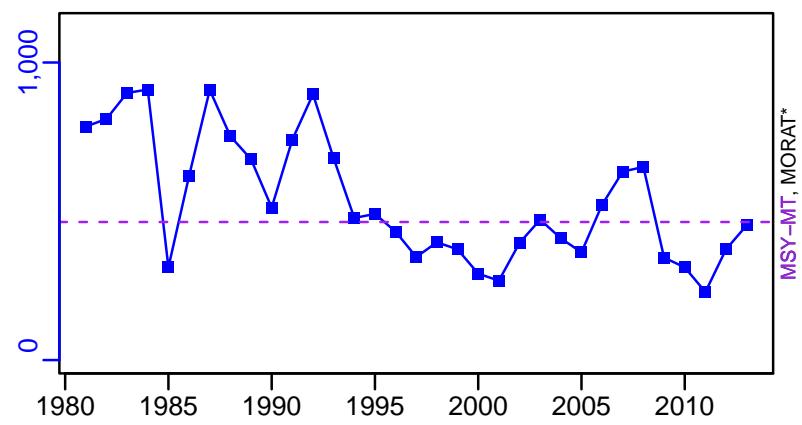


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	--- Lim BRP	* No Data

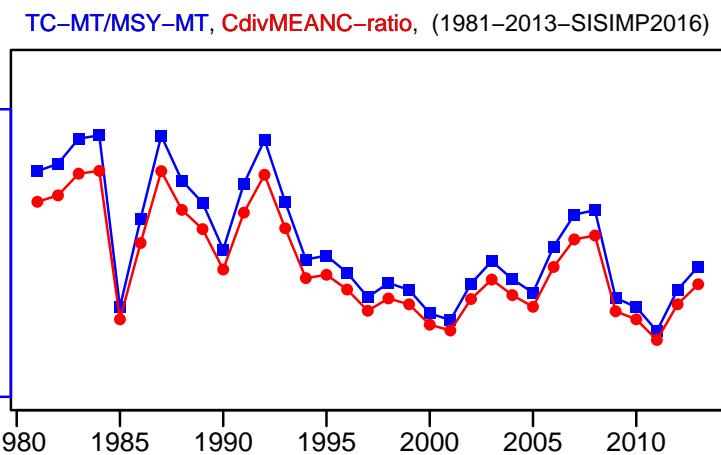
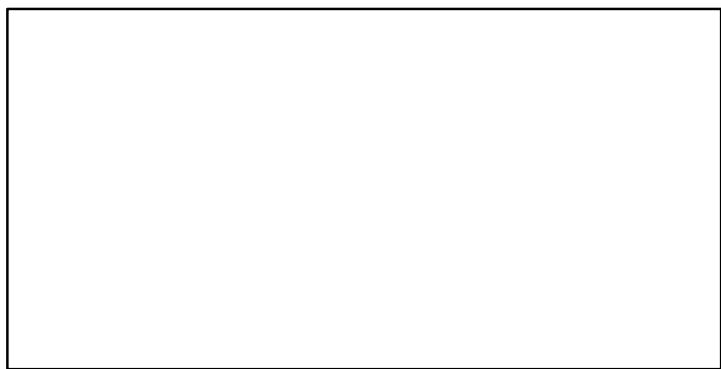
Mutton snapper Southern Atlantic coast and Gulf of Mexico [MUTSNAPSATLCGM]

TC-MT, TL\*, RecC\* (1981–2013–SISIMP2016)

TAC\*, Cpair\*, Cadv\*



EFFORT\*



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - MSY	* No Data

**New Zealand snapper New Zealand SNA 1 Bay of Plenty and Hauraki Gulf  
[NZSNAPNZ1BOP-HAGU]**

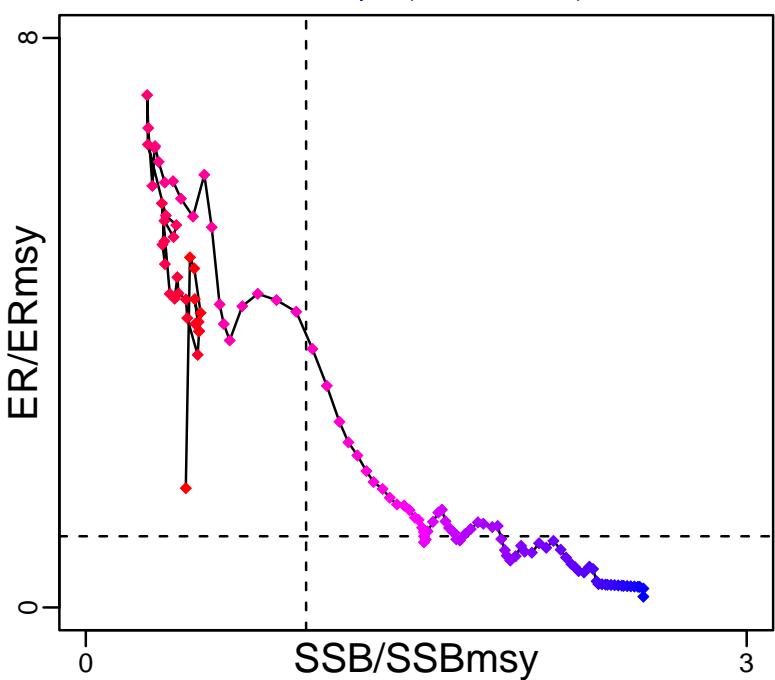
Metadata	
<b>Scientific Name</b>	Chrysophrys auratus
<b>Current Assess ID</b>	NIWA-NZSNAPNZ1BOP-HAGU-1899-2013-FU
<b>Area</b>	New Zealand SNA 1 Bay of Plenty and Hauraki Gulf
<b>Management Authority</b>	Ministry of Fisheries, New Zealand national management
<b>Assessor</b>	National Institute of Water and Atmospheric Research
<b>Asmts in RAM</b>	2013

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2013	122,479
<b>Fmsy</b>	-	-	-
<b>ERrmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2013	122,479
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	SSB0-MT	2013	306,198
<b>MSY</b>	-	-	-
<b>M</b>	M-1/yr	2013	0.075
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

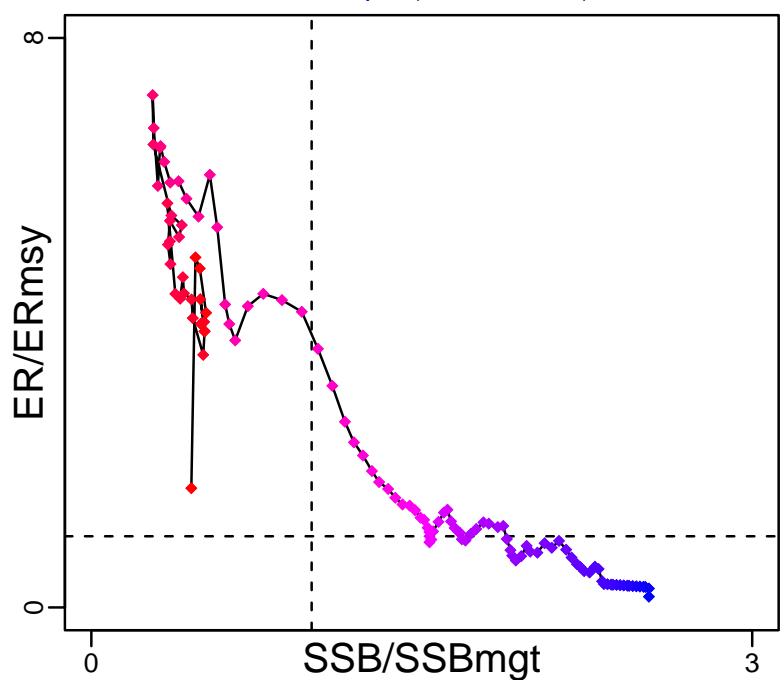
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2013	55,600	-	4 to 20
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	$1.4 \times 10^7$	Both	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2013	2300		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.454		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERrmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2013	0.454		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

New Zealand snapper New Zealand SNA 1 Bay of Plenty and Hauraki Gulf [NZSNAPNZ1BOP-HAGU]

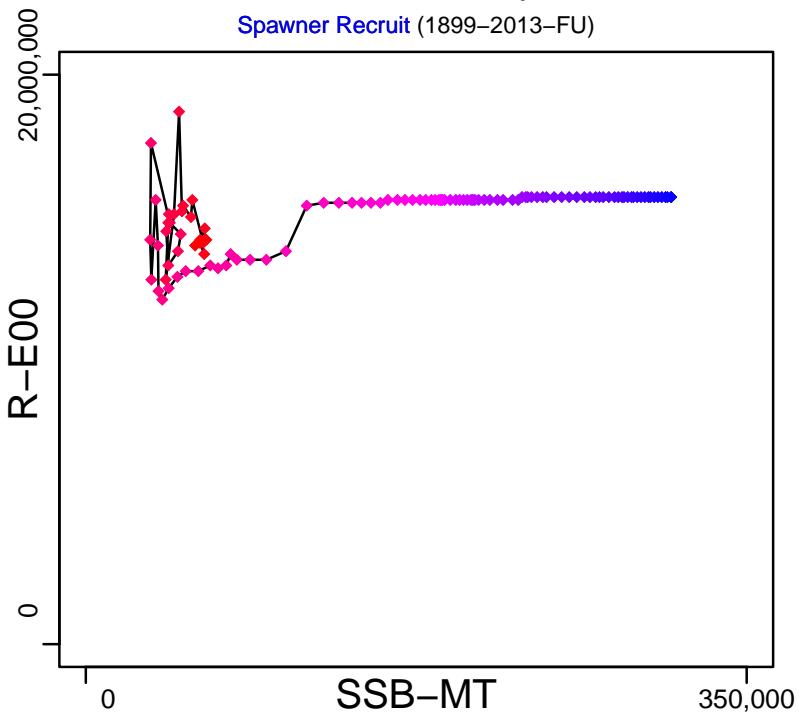
Kobe MSYpref (1899–2013–FU)



Kobe MGTpref (1899–2013–FU)



Spawner Recruit (1899–2013–FU)



Production\*



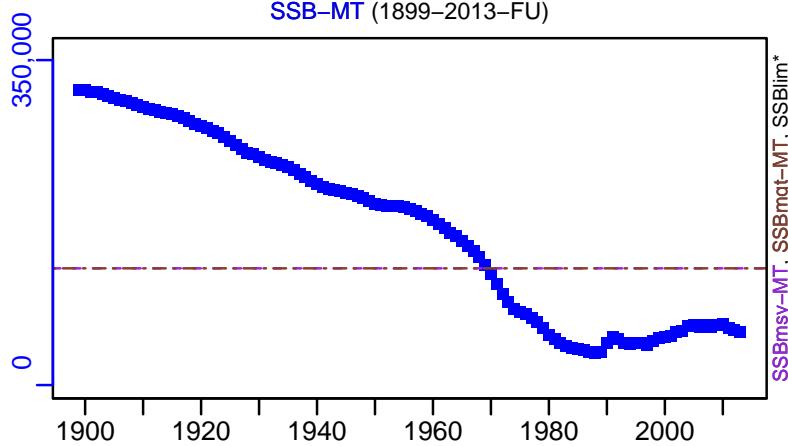
◆ Start Year   ◆ End Year   \* No Data

New Zealand snapper New Zealand SNA 1 Bay of Plenty and Hauraki Gulf [NZSNAPNZ1BOP-HAGU]

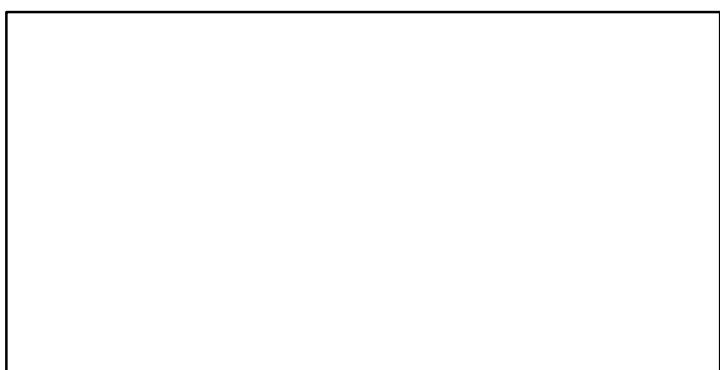
**TB\***



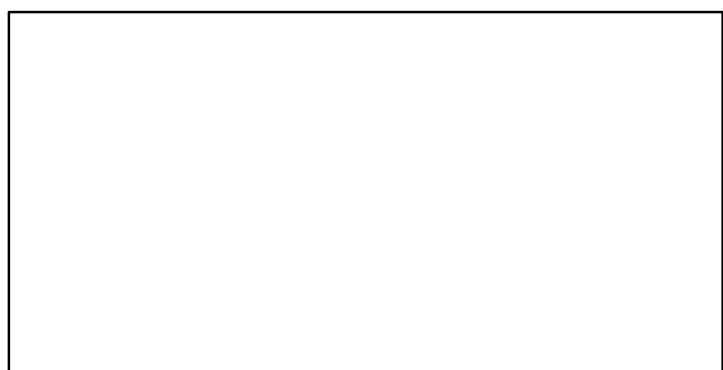
**SSB-MT (1899–2013–FU)**



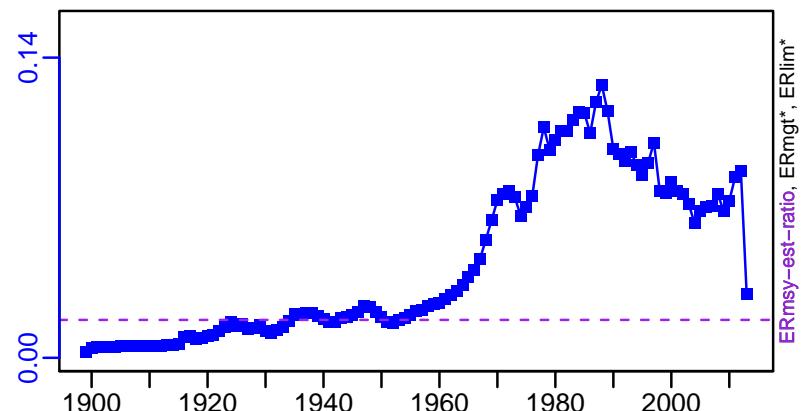
**TN \***



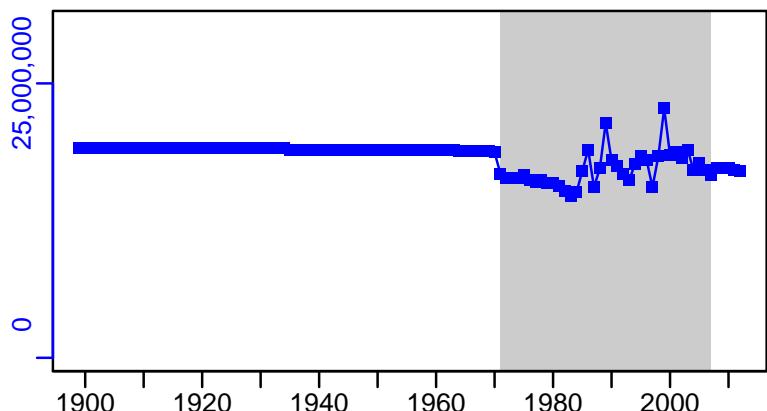
**F\***



**ER-calc-ratio (1899–2013–FU)**



**R-E00 (1899–2013–FU)**



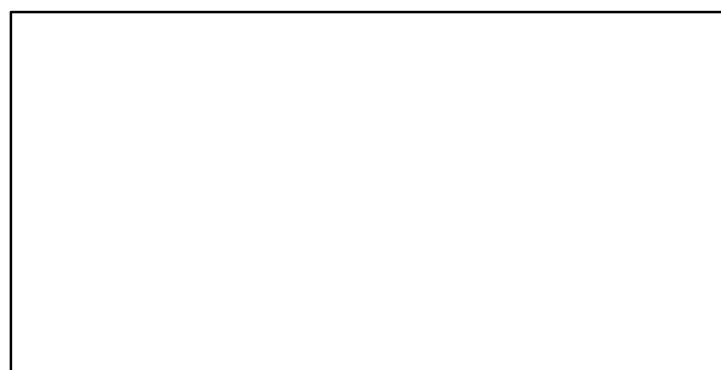
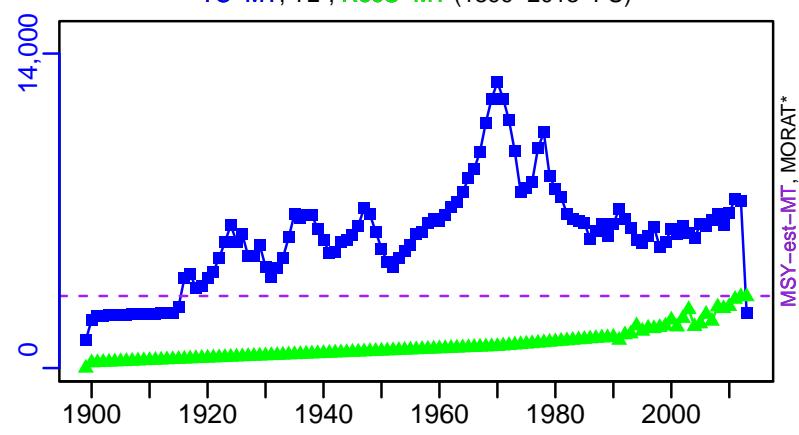
REC-EST: 1971–2007

- |                      |              |           |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| - - - MSY-based BRP  | - - Lim BRP  | * No Data |

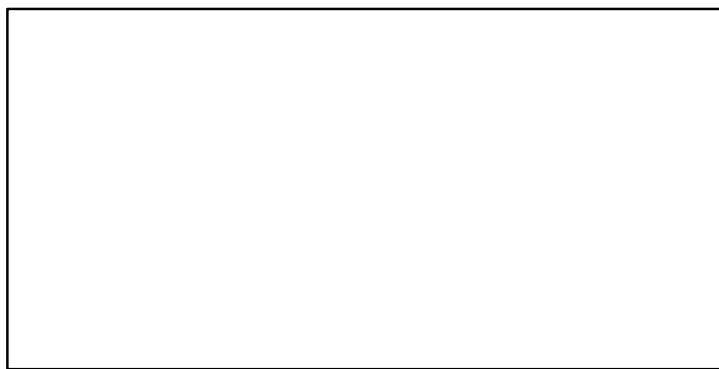
New Zealand snapper New Zealand SNA 1 Bay of Plenty and Hauraki Gulf [NZSNAPNZ1BOP-HAGU]

TC-MT, TL\*, RecC-MT (1899–2013-FU)

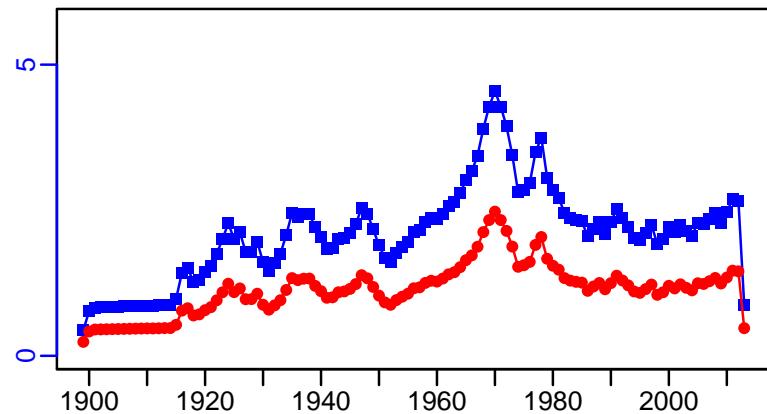
TAC\*, Cpair\*, Cadv\*



**EFFORT\***



TC-MT/MSY-est-MT, CdivMEANC-ratio, (1899–2013-FU)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## New Zealand snapper New Zealand SNA 1 east Northland [NZSNAPNZ1ENLD]

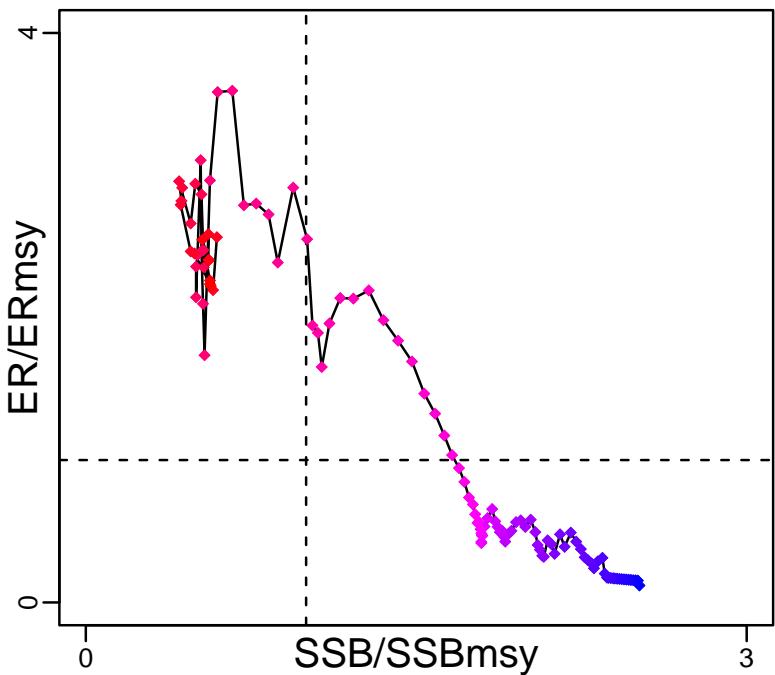
Metadata	
<b>Scientific Name</b>	Chrysophrys auratus
<b>Current Assess ID</b>	NIWA-NZSNAPNZ1ENLD-1899-2013-FU
<b>Area</b>	New Zealand SNA 1 east Northland
<b>Management Authority</b>	Ministry of Fisheries, New Zealand national management
<b>Assessor</b>	National Institute of Water and Atmospheric Research
<b>Asmts in RAM</b>	2013

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2013	28,570
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2013	28,570
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	SSB0-MT	2013	71,425
<b>MSY</b>	-	-	-
<b>M</b>	M-1/yr	2013	0.075
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

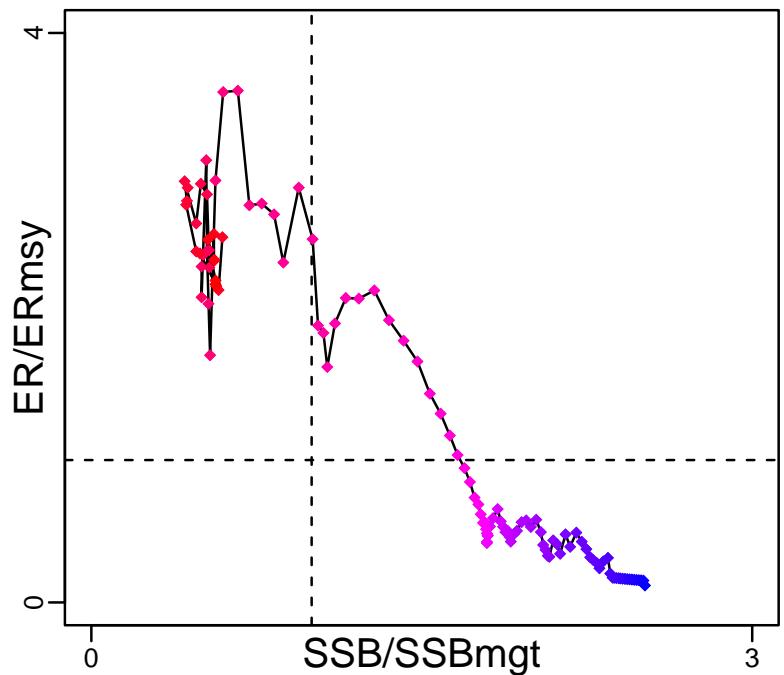
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2013	16,200	-	4 to 20
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	3,730,000	Both	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2013	1750		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.567		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2013	0.567		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

New Zealand snapper New Zealand SNA 1 east Northland [NZSNAPNZ1ENLD]

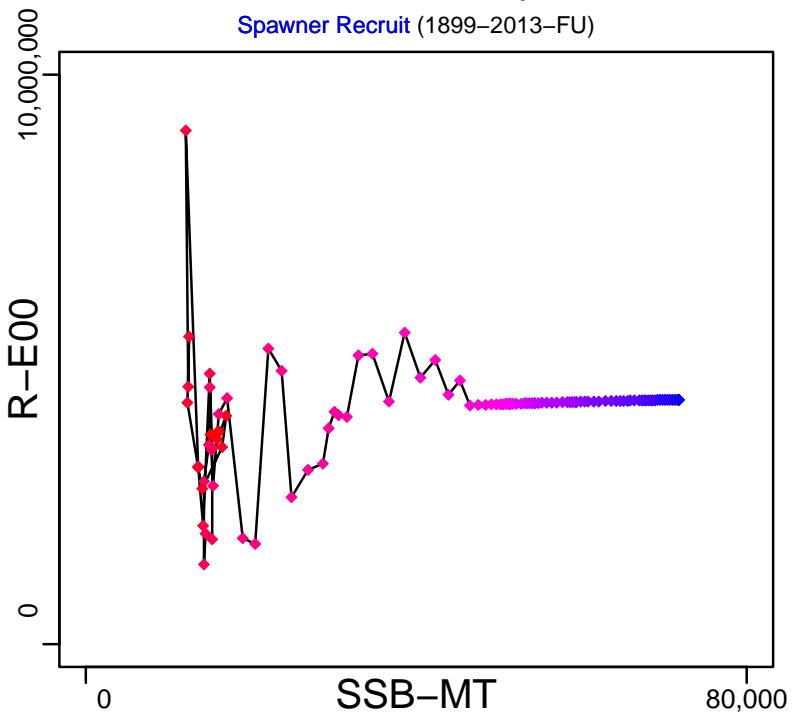
Kobe MSYpref (1899–2013–FU)



Kobe MGTpref (1899–2013–FU)



Spawner Recruit (1899–2013–FU)



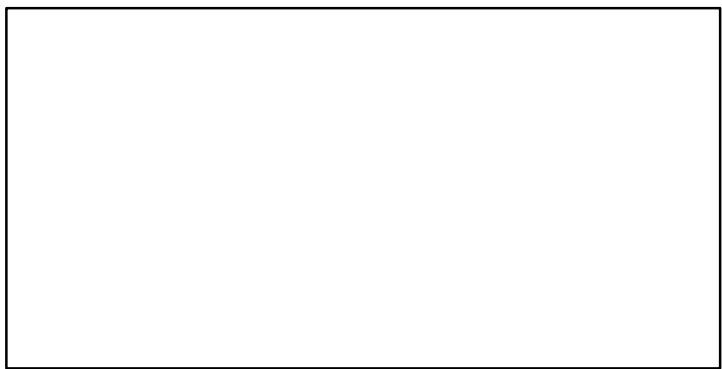
Production\*



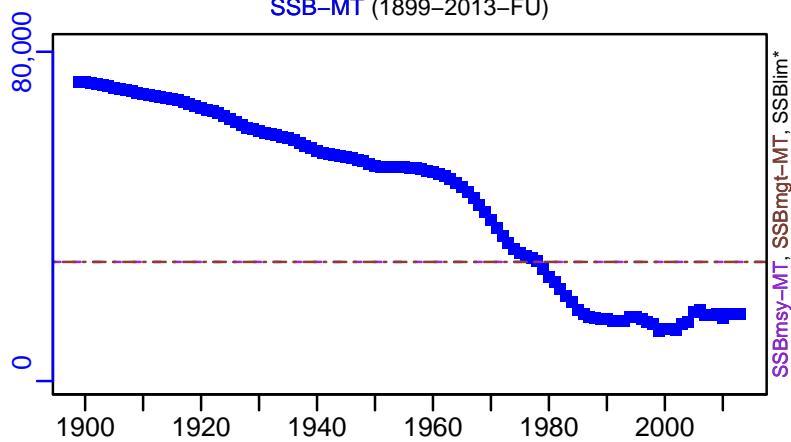
◆ Start Year	◆ End Year	*	No Data
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New Zealand snapper New Zealand SNA 1 east Northland [NZSNAPNZ1ENLD]

**TB\***



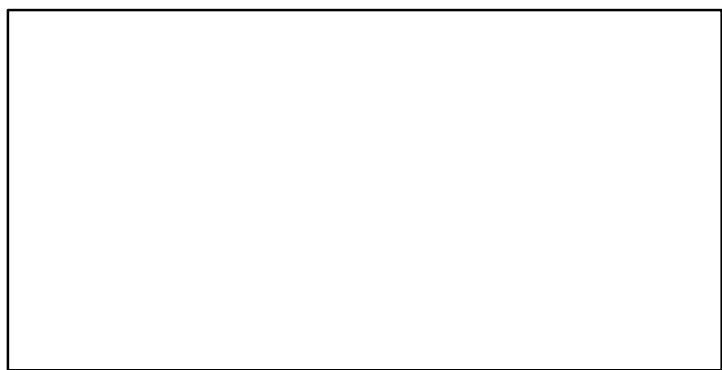
**SSB-MT (1899–2013–FU)**



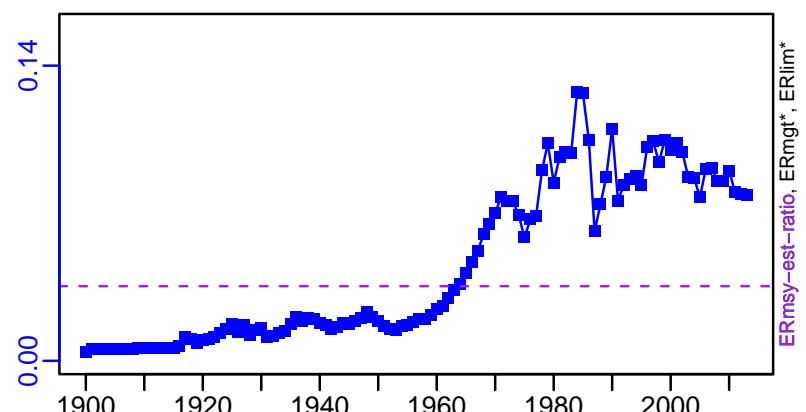
**TN \***



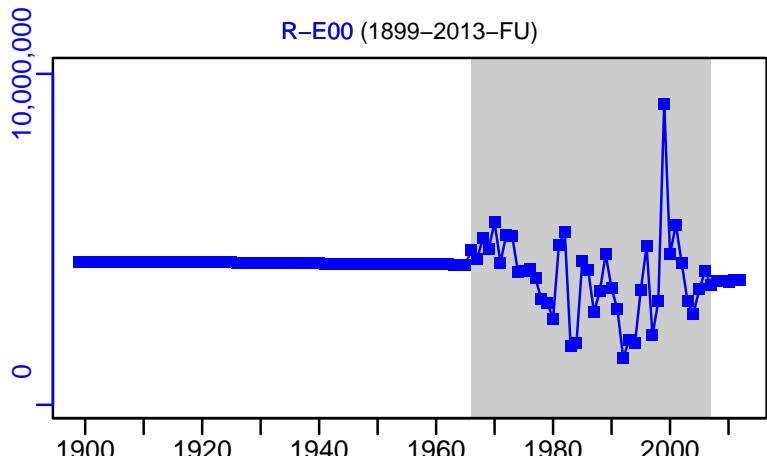
**F\***



**ER-calc-ratio (1899–2013–FU)**



**R-E00 (1899–2013–FU)**



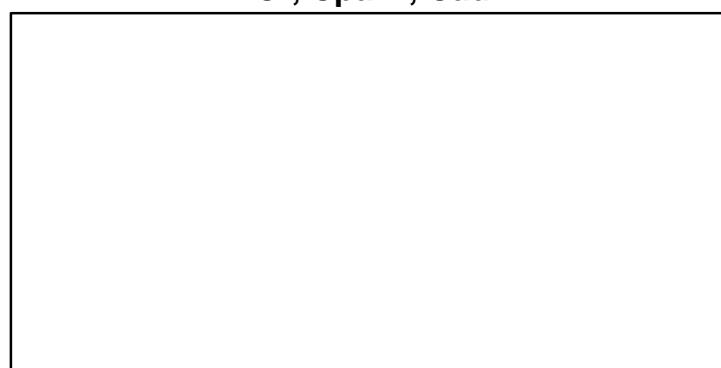
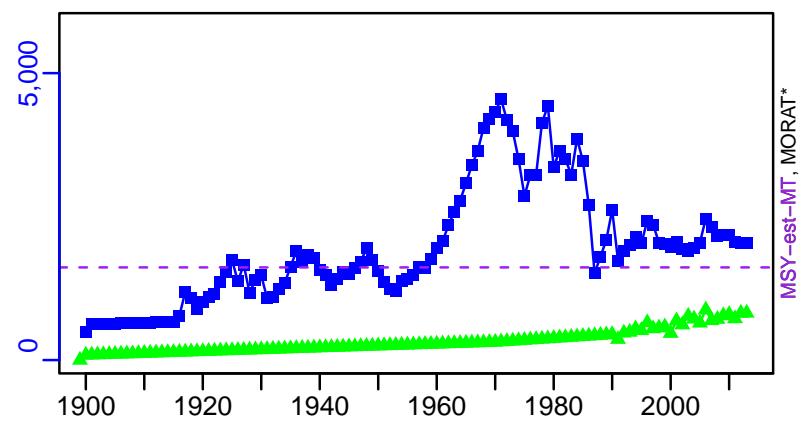
REC-EST: 1966–2007

- |                      |              |           |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| - - - MSY-based BRP  | --- Lim BRP  | * No Data |

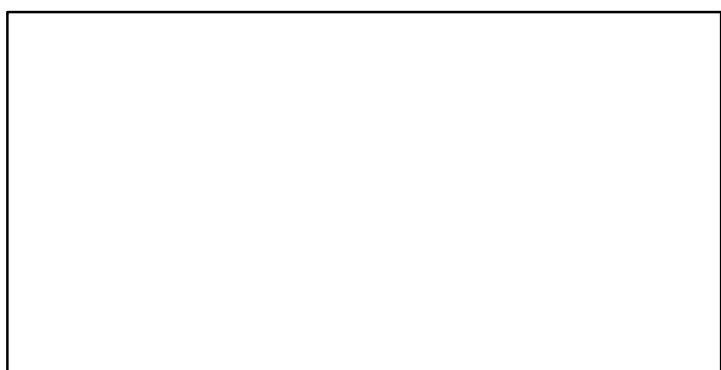
New Zealand snapper New Zealand SNA 1 east Northland [NZSNAPNZ1ENLD]

TC-MT, TL\*, RecC-MT (1899–2013-FU)

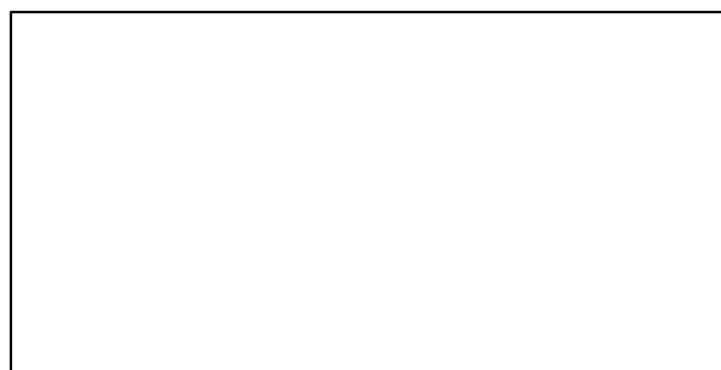
TAC\*, Cpair\*, Cadv\*



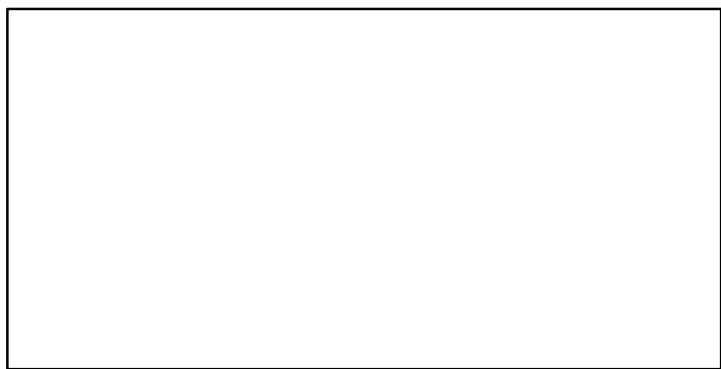
survB\*



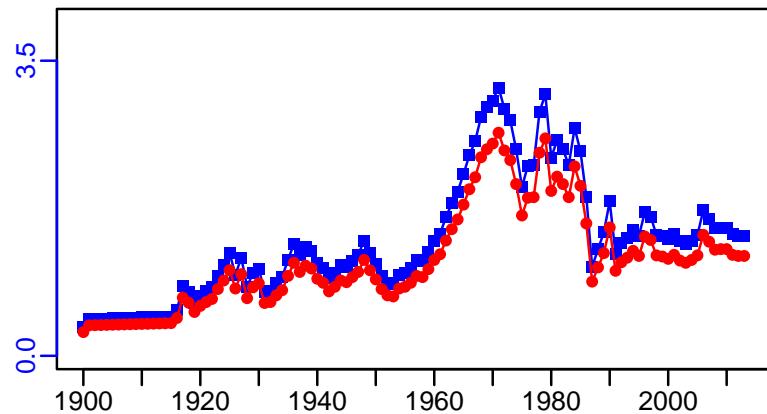
CPUE\*



EFFORT\*



TC-MT/MSY-est-MT, CdivMEANC-ratio, (1899–2013-FU)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## New Zealand snapper New Zealand SNA 7 [NZSNAPNZ7]

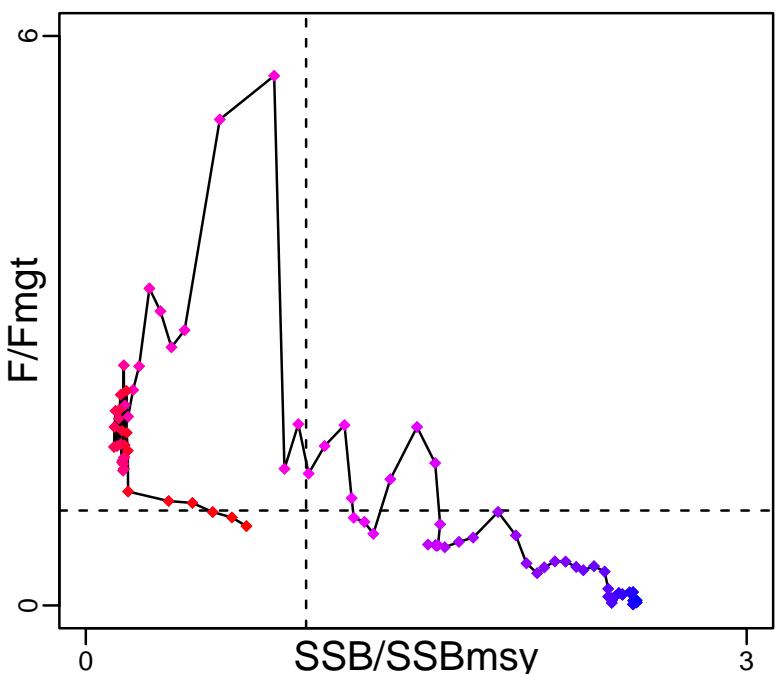
Metadata	
<b>Scientific Name</b>	Chrysophrys auratus
<b>Current Assess ID</b>	NZMFishINSHOREWG-NZSNAPNZ7-1931-2014-LANGLEY
<b>Area</b>	New Zealand SNA 7
<b>Management Authority</b>	Ministry of Fisheries, New Zealand national management
<b>Assessor</b>	Inshore Working Group
<b>Asmts in RAM</b>	2014

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2014	6199
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2014	6199
<b>Fmgt</b>	Fmgt-1/yr	2014	0.056
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	SSB0-MT	2014	15,497
<b>MSY</b>	MSY-MT	2014	699
<b>M</b>	M-1/yr	2014	0.075
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

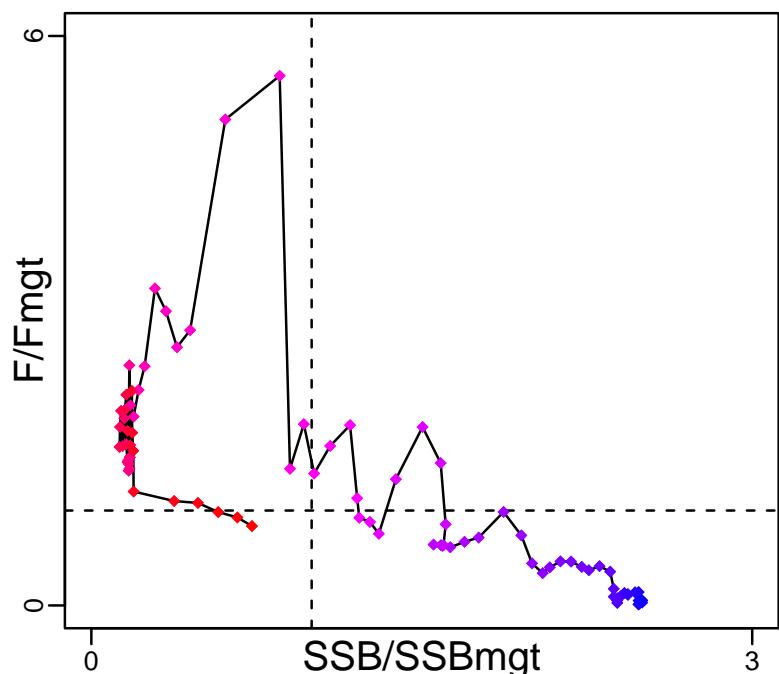
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
<b>TB</b>	-	-	-	-	-	
<b>SSB</b>	SSB-MT	2014	4520	Females	3 to 30+	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2014	757,000	Both	0	
<b>F</b>	-	-	-	-	-	
<b>ER</b>	-	-	-	-	-	
<b>TC</b>	TC-MT	2014	426			
<b>TL</b>	TL-MT	2014	200			
<b>TB/TBmsy</b>	-	-	-			
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2014	0.729			
<b>F/Fmsy</b>	-	-	-			
<b>ER/ERmsy</b>	-	-	-			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2014	0.729			
<b>F/Fmgt</b>	FdivFmgt-dimensionless	2014	0.836			
<b>ER/ERmgt</b>	-	-	-			

New Zealand snapper New Zealand SNA 7 [NZSNAPNZ7]

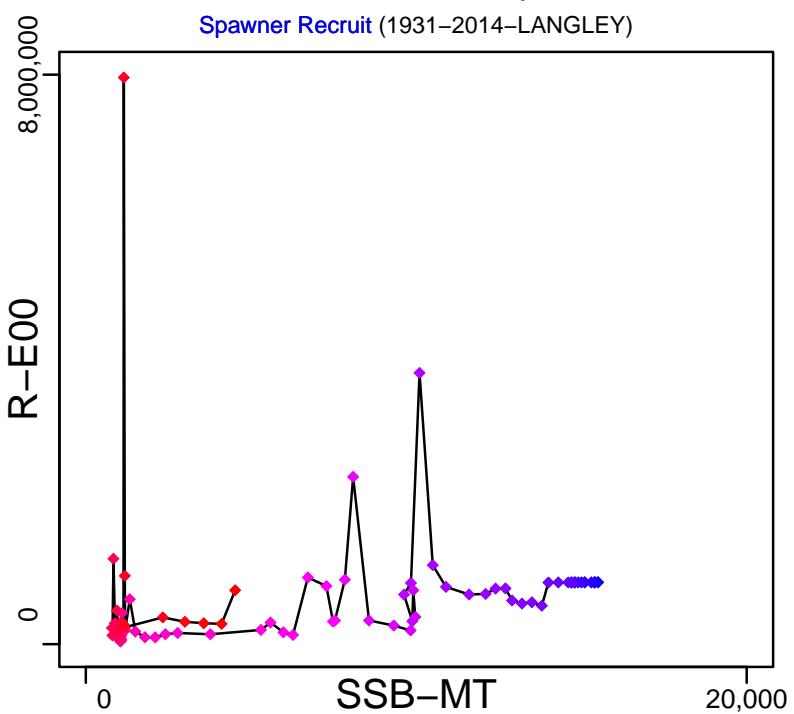
Kobe MSYpref (1931–2014–ANGLEY)



Kobe MGTPref (1931–2014–ANGLEY)



Spawner Recruit (1931–2014–ANGLEY)



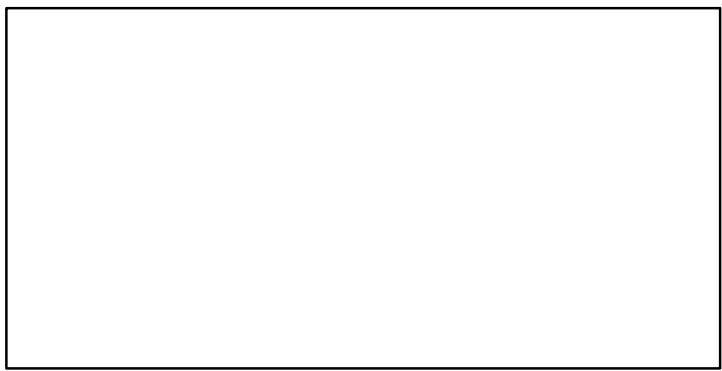
Production\*



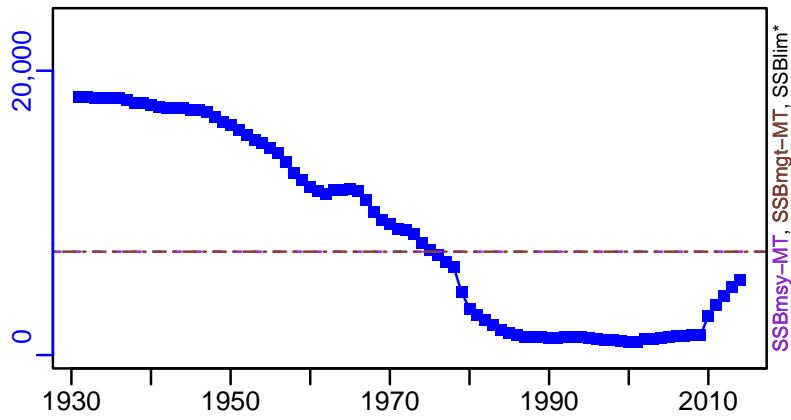
◆ Start Year	◆ End Year	*	No Data
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New Zealand snapper New Zealand SNA 7 [NZSNAPNZ7]

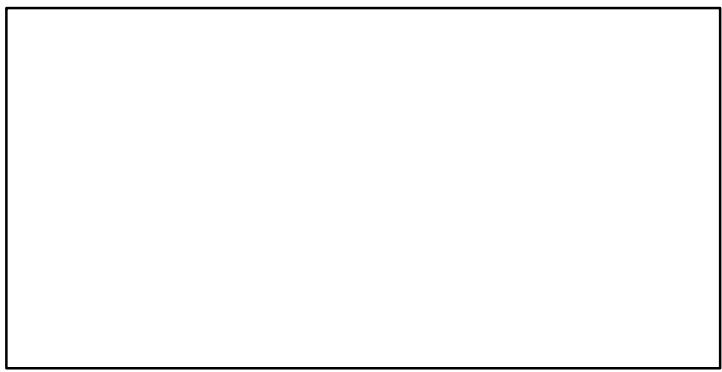
**TB\***



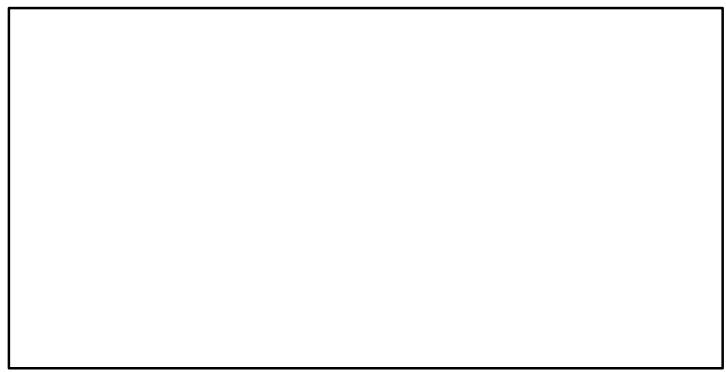
**SSB-MT (1931–2014–ANGLEY)**



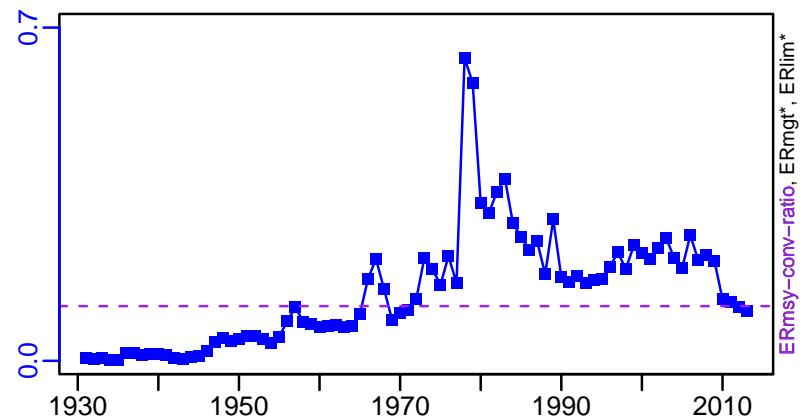
**TN \***



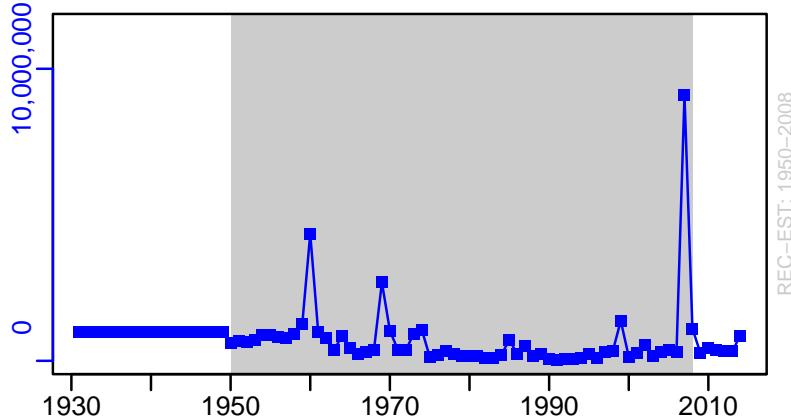
**F\***



**ER-calc-ratio (1931–2014–ANGLEY)**



**R-E00 (1931–2014–ANGLEY)**



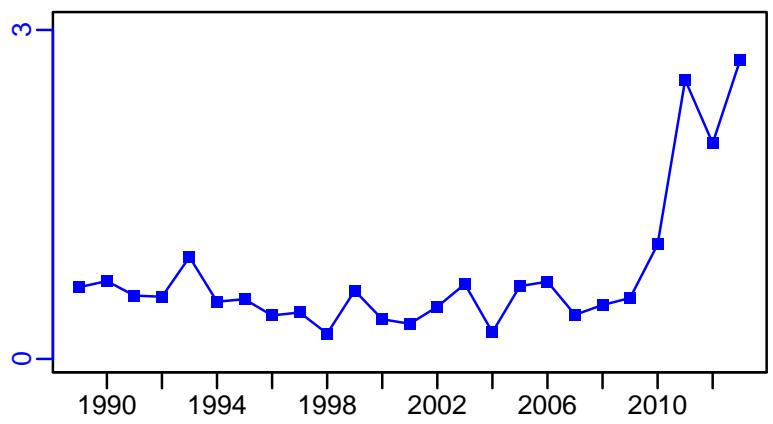
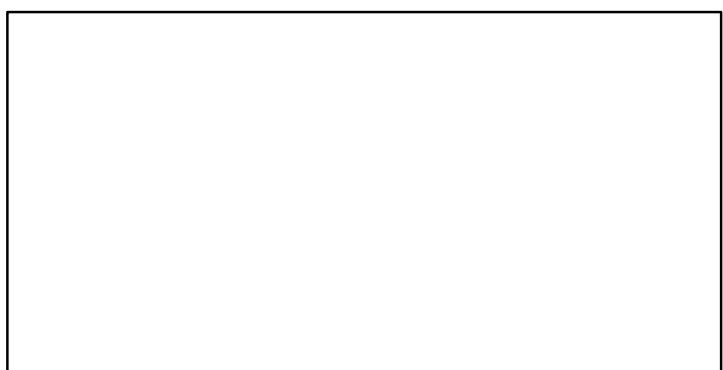
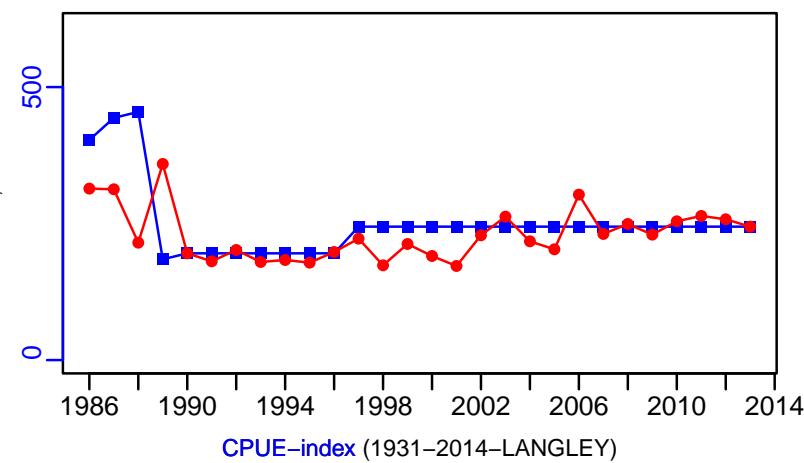
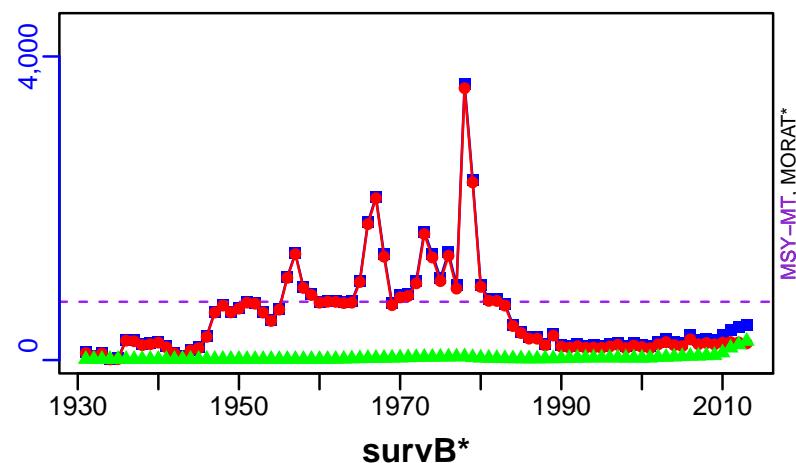
REC-EST: 1950–2008

- |                      |              |           |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| - - MSY-based BRP    | --- Lim BRP  | * No Data |

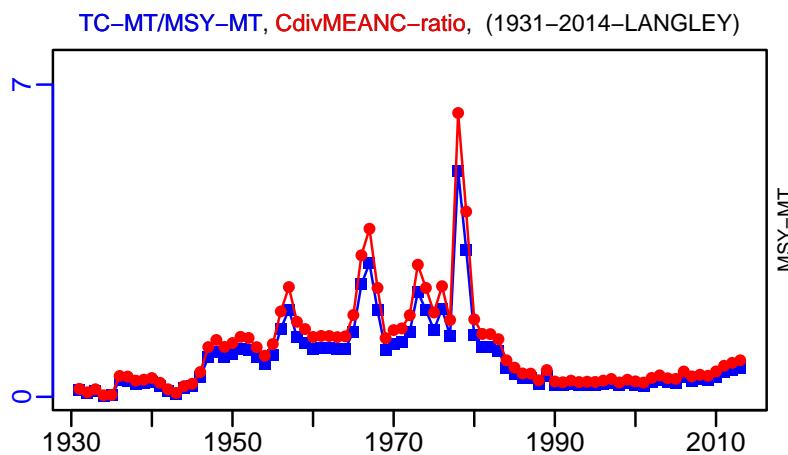
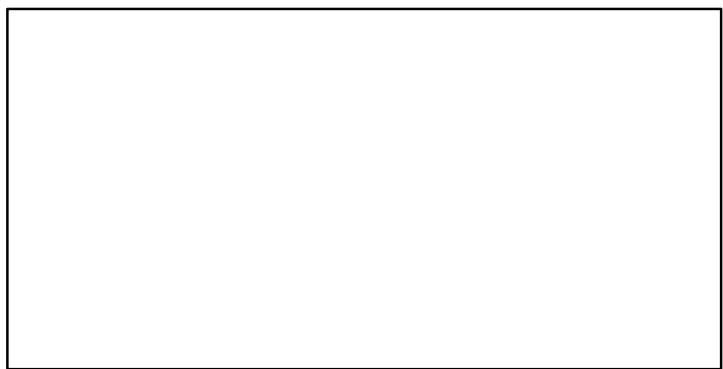
### New Zealand snapper New Zealand SNA 7 [NZSNAPNZ7]

TC-MT, TL-MT, RecC-MT (1931–2014–LANGLEY)

TAC-MT, Cpair-MT, Cadv\* (1931–2014–LANGLEY)



**EFFORT\***



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

**New Zealand snapper New Zealand Area 8 (Auckland and Central West)  
[NZSNAPNZ8]**

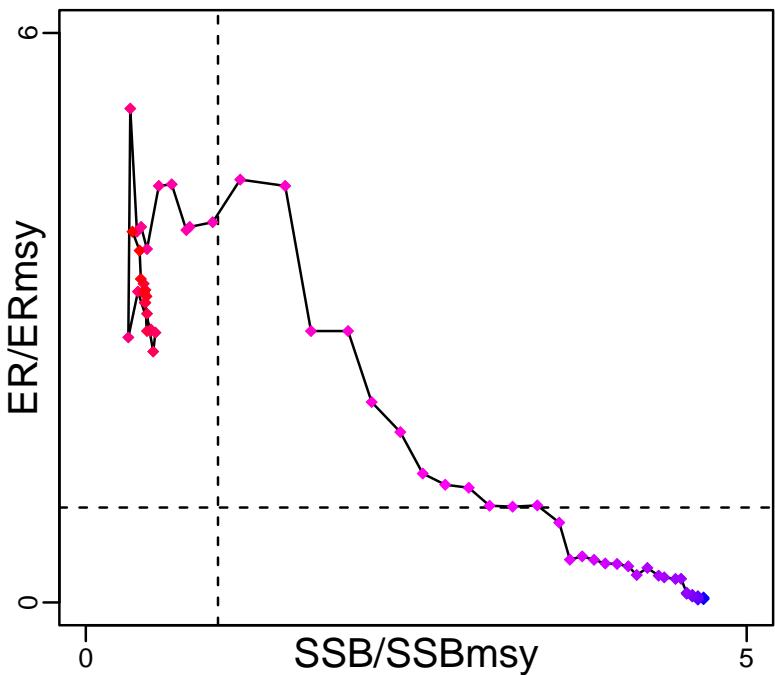
Metadata	
<b>Scientific Name</b>	Chrysophrys auratus
<b>Current Assess ID</b>	NZMFishINSHOREWG-NZSNAPNZ8-1931-2005-JENSEN
<b>Area</b>	New Zealand Area 8 (Auckland and Central West)
<b>Management Authority</b>	Ministry of Fisheries, New Zealand national management
<b>Assessor</b>	Inshore Working Group
<b>Asmts in RAM</b>	2005

Reference Points				
Type	ID	Asmt Year	Value	
<b>TBmsy</b>	TBmsy-calc-MT	2005	37,979	
<b>SSBmsy</b>	SSBmsy-MT	2005	23,536	
<b>Fmsy</b>	Fmsy-1/yr	2005	0.092	
<b>ERrmsy</b>	ERrmsy-ratio	2005	0.06	
<b>TBmgt</b>	-	-	-	
<b>SSBmgt</b>	-	-	-	
<b>Fmgt</b>	-	-	-	
<b>ERmgt</b>	-	-	-	
<b>TB0</b>	-	-	-	
<b>SSB0</b>	SSB0-MT	2005	120,884	
<b>MSY</b>	MSY-MT	2005	2285	
<b>M</b>	M-1/yr	2005	0.051	
<b>TBlim</b>	-	-	-	
<b>SSBlim</b>	-	-	-	
<b>Flim</b>	-	-	-	
<b>ERlim</b>	-	-	-	

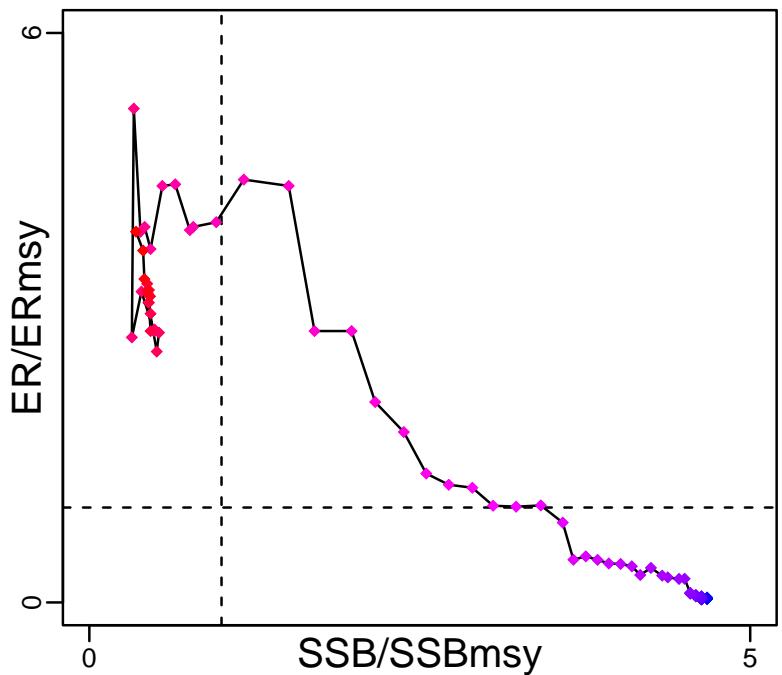
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
<b>TB</b>	-	-	-	-	-	
<b>SSB</b>	SSB-MT	2005	8310	Both	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2005	1,770,000	-	3	
<b>F</b>	F-1/yr	2005	0.23	-	-	
<b>ER</b>	ER-ratio	2005	0.235	-	-	
<b>TC</b>	TC-MT	2005	1950			
<b>TL</b>	-	-	-			
<b>TB/TBmsy</b>	-	-	-			
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2005	0.353			
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2005	2.492			
<b>ER/ERrmsy</b>	ER-ratio/ERrmsy-ratio	2005	3.906			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

New Zealand snapper New Zealand Area 8 (Auckland and Central West) [NZSNAPNZ8]

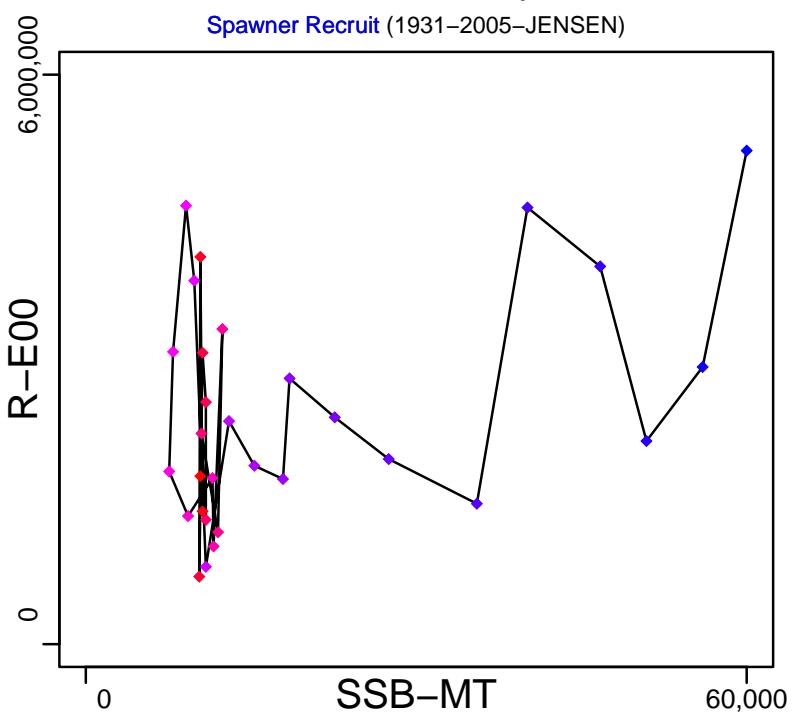
Kobe MSYpref (1931–2005–JENSEN)



Kobe MGTpref (1931–2005–JENSEN)



Spawner Recruit (1931–2005–JENSEN)



**Production\***



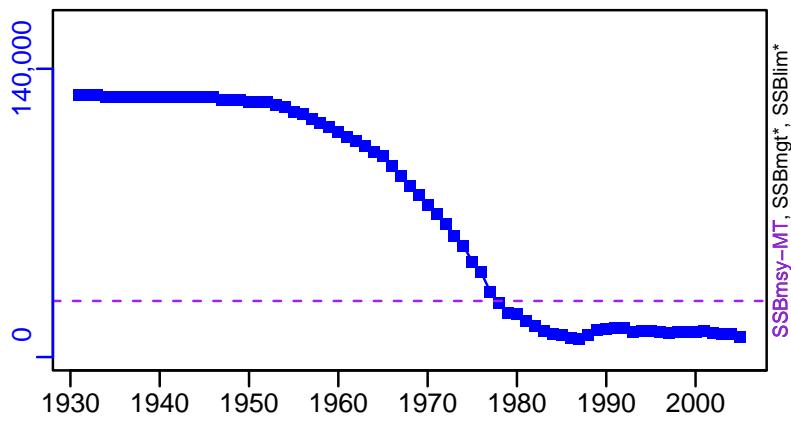
◆ Start Year	◆ End Year	* No Data
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New Zealand snapper New Zealand Area 8 (Auckland and Central West) [NZSNAPNZ8]

**TB\***



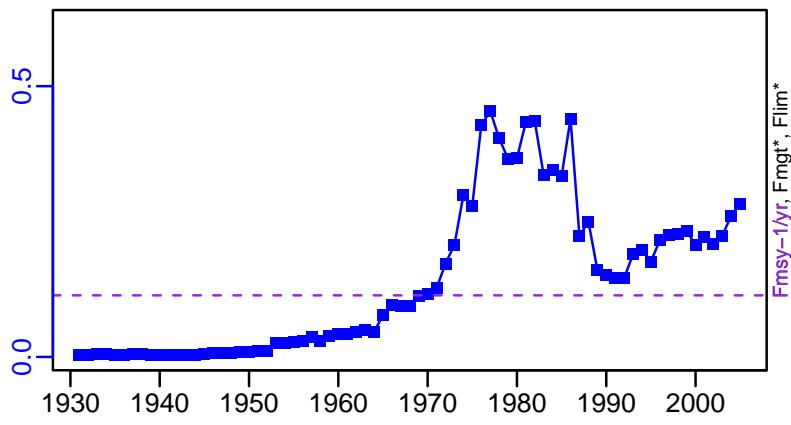
**SSB-MT (1931–2005–JENSEN)**



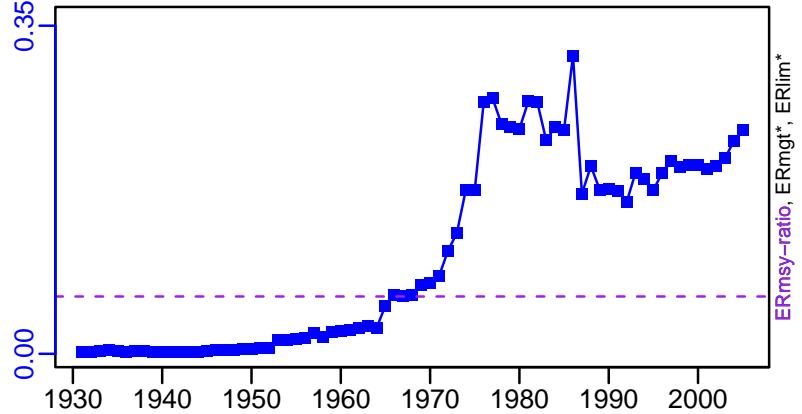
**TN \***



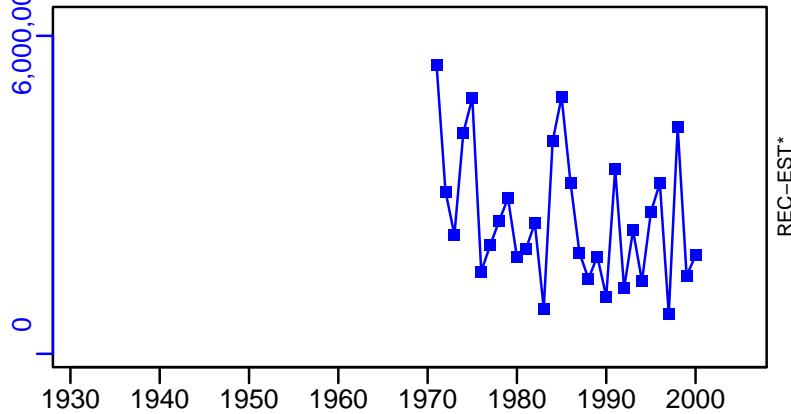
**F-1/yr (1931–2005–JENSEN)**



**ER-ratio (1931–2005–JENSEN)**



**R-E00 (1931–2005–JENSEN)**

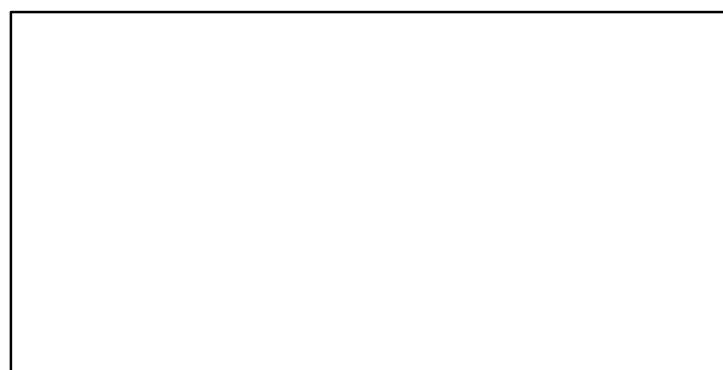
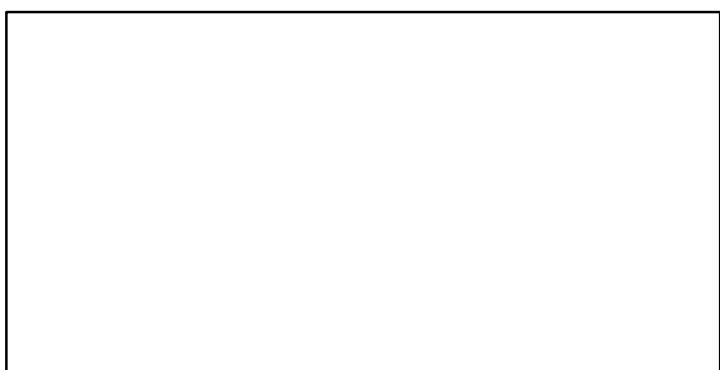
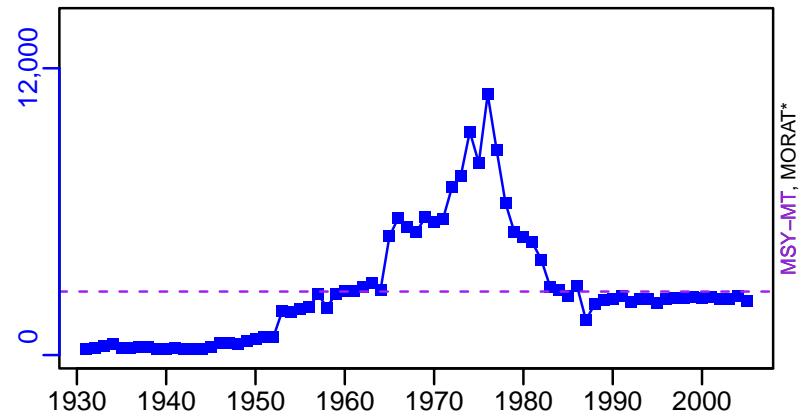


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	— Lim BRP	* No Data

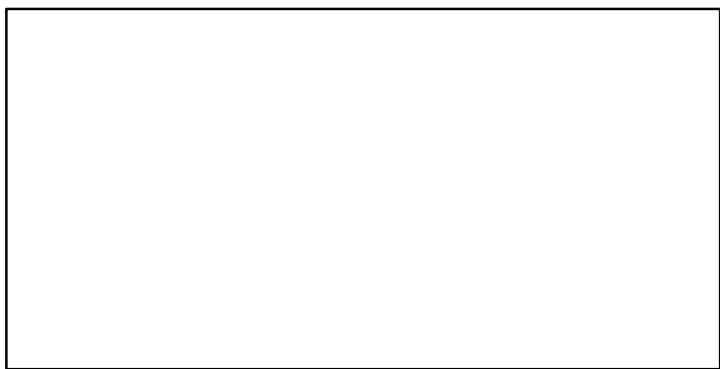
New Zealand snapper New Zealand Area 8 (Auckland and Central West) [NZSNAPNZ8]

TC-MT, TL\*, RecC\* (1931–2005–JENSEN)

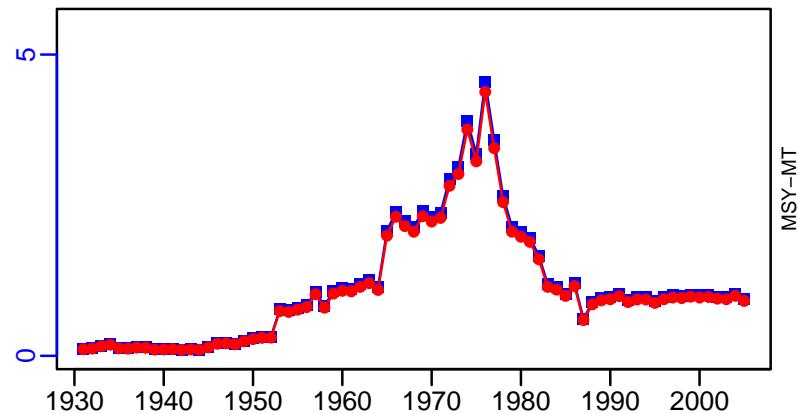
TAC\*, Cpair\*, Cadv\*



**EFFORT\***



TC-MT/MSY-MT, CdivMEANC-ratio, (1931–2005–JENSEN)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Pandora spp North West Africa [PANDSPPNWA]

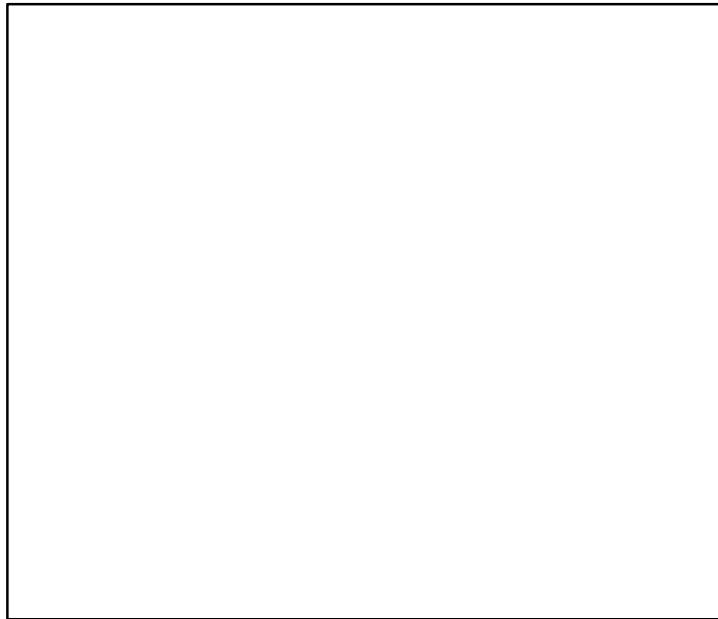
<b>Metadata</b>	
<b>Scientific Name</b>	Pagellus spp
<b>Current Assess ID</b>	FAO-DR-PANDSPPNWA-1990-2016-ASHBROOK
<b>Area</b>	North West Africa
<b>Management Authority</b>	Food and Agriculture Organization of the United Nations
<b>Assessor</b>	FAO/CECAF Working Group on the Assessment of Demersal Resources
<b>Asmts in RAM</b>	2016

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

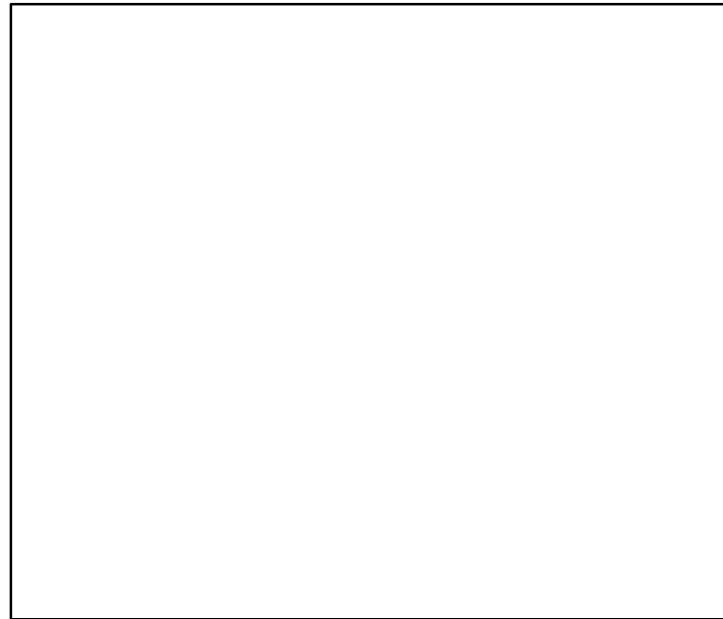
<b>Time Series</b>					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2016	2701		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

**Pandora spp North West Africa [PANDSPPNWA]**

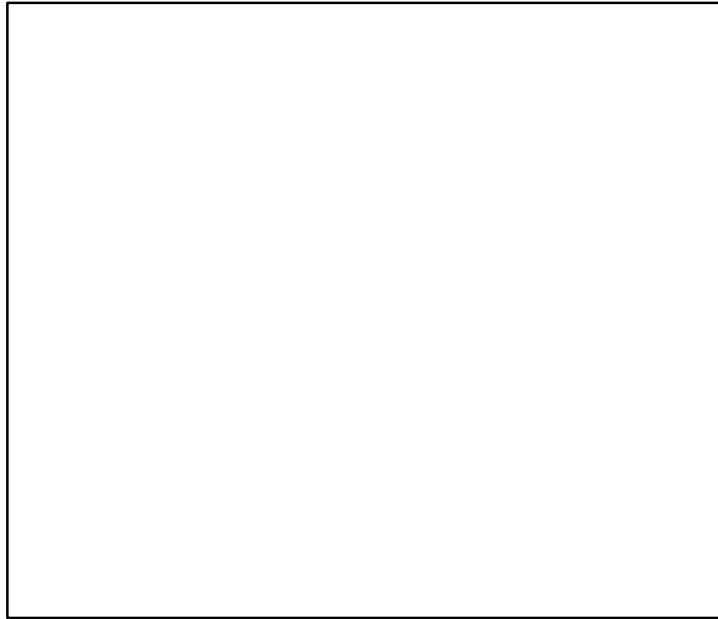
**Kobe MSY\***



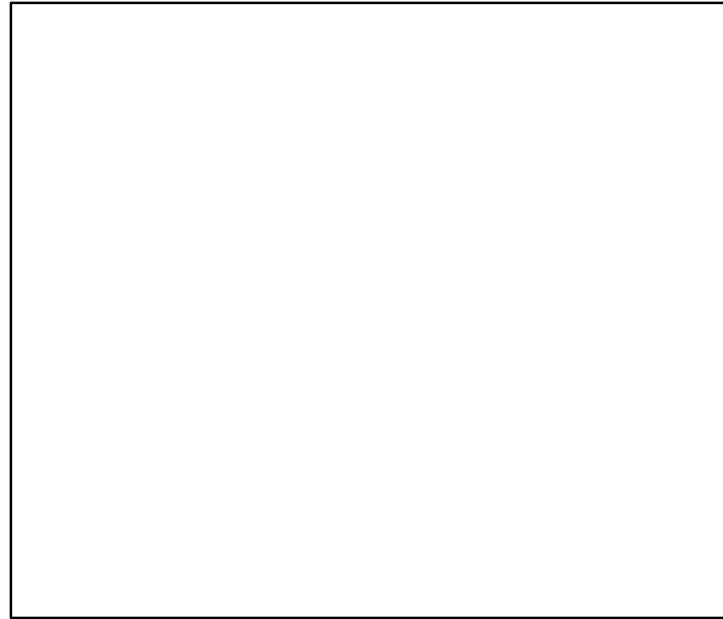
**Kobe MGT\***



**Spawner Recruit\***



**Production\***



◆ Start Year ♦ End Year \* No Data

**Pandora spp North West Africa [PANDSPPNWA]**

**TB\***



**SSB\***



**TN \***



**F\***



**ER\***



**Recruits\***

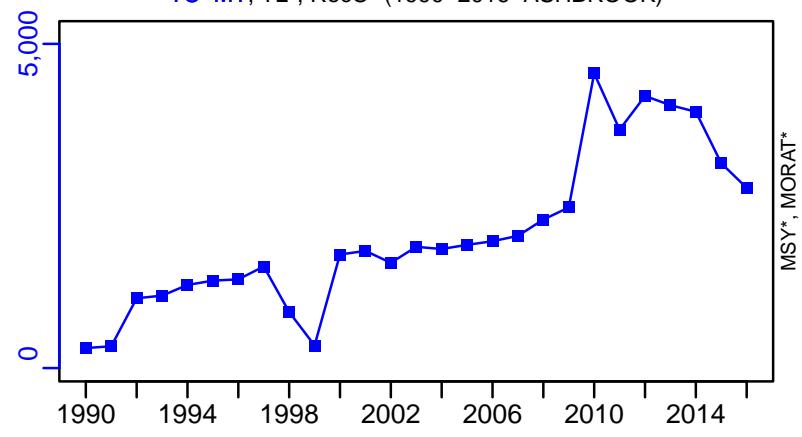


- |                      |                  |           |
|----------------------|------------------|-----------|
| ■ Listed time series | - - - Target BRP | — Rec-Est |
| - - - MSY-based BRP  | - - - Lim BRP    | * No Data |

**Pandora spp North West Africa [PANDSPPNWA]**

TC-MT, TL\*, RecC\* (1990–2016-ASHBROOK)

TAC\*, Cpair\*, Cadv\*



survB\*



CPUE\*



EFFORT\*



CdivMSY\*



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - - MSY                | * No Data |

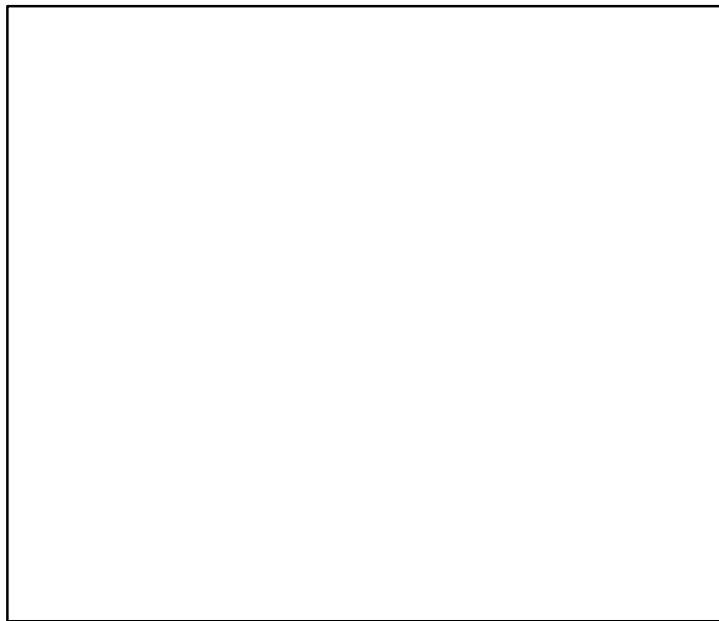
## Picarel Cyprus Island [PICAMEDGSA25]

Metadata	
<b>Scientific Name</b>	Spicara smaris
<b>Current Assess ID</b>	STECF-PICAMEDGSA25-2005-2010-OSIO
<b>Area</b>	Cyprus Island
<b>Management Authority</b>	General Fisheries Council for the Mediterranean, DG MARE, and national states
<b>Assessor</b>	Scientific, Technical and Economic Committee for Fisheries
<b>Asmts in RAM</b>	2010

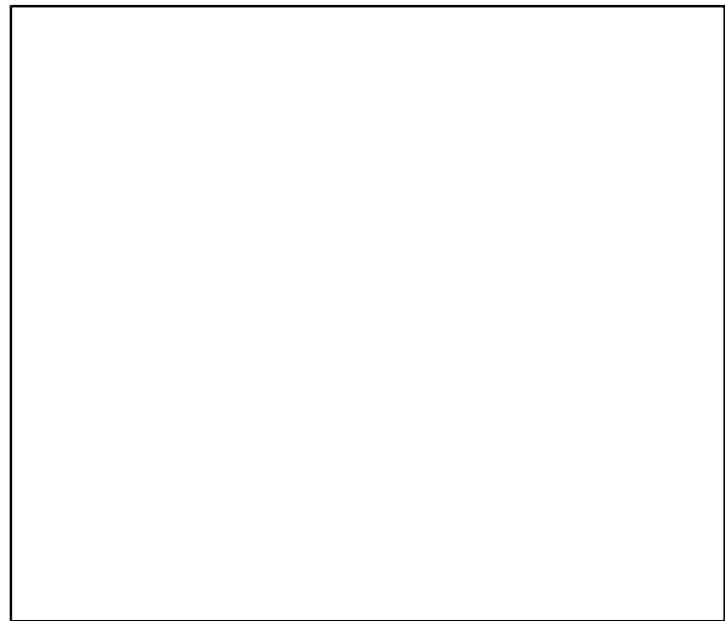
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	Fmgt-1/yr	2010	0.31
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2010	1350	-	0+
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	F-1/yr	2010	0.08	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2010	245		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2010	0.258		
<b>ER/ERmgt</b>	-	-	-		

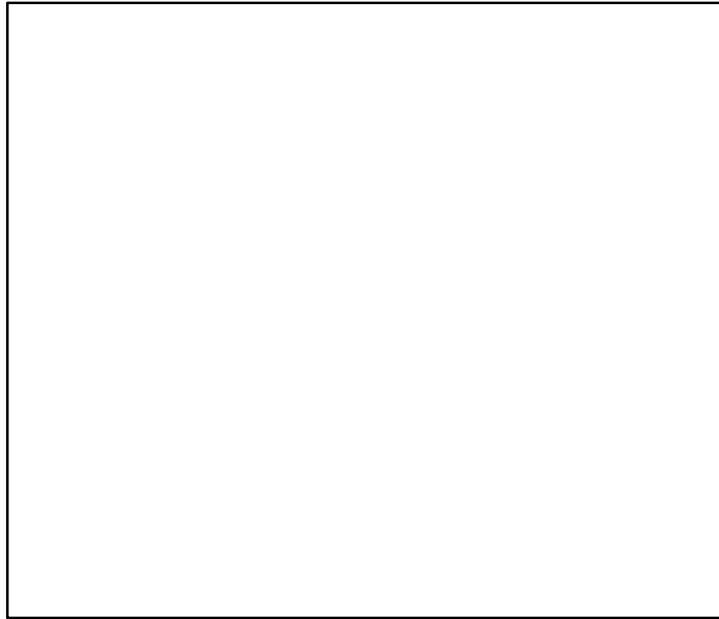
**Kobe MSY\***



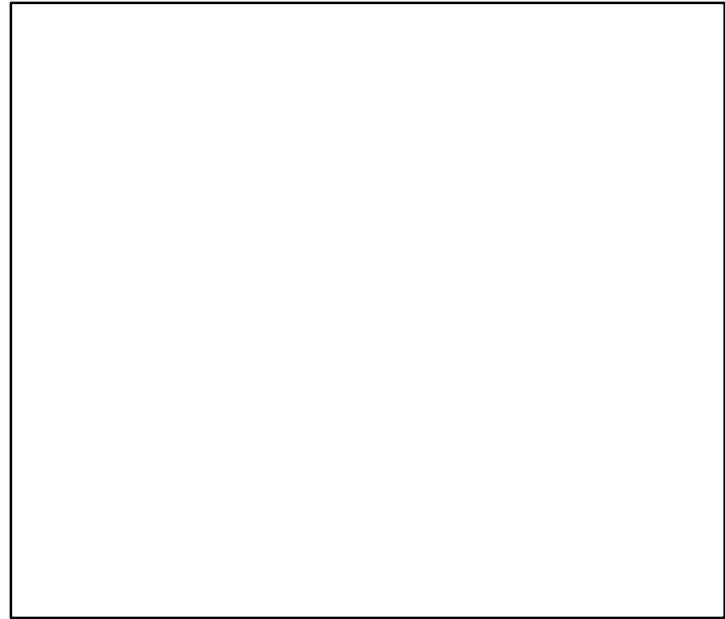
**Kobe MGT\***



**Spawner Recruit\***



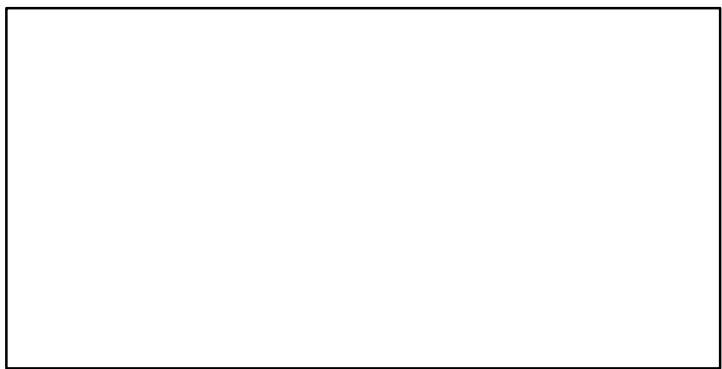
**Production\***



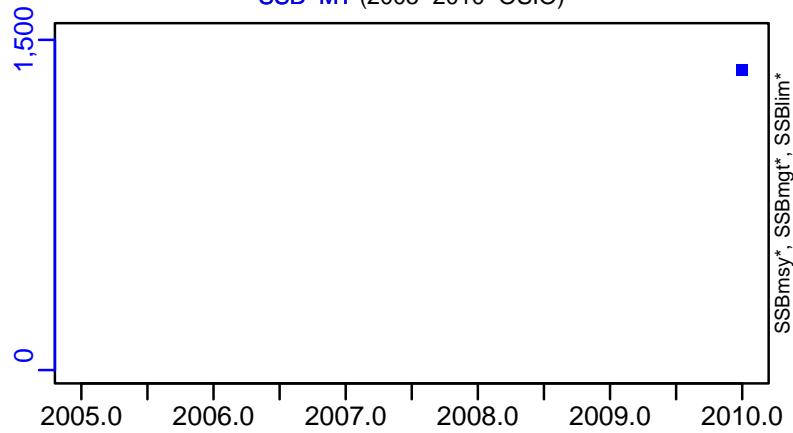
◆ Start Year ♦ End Year \* No Data

**Picarel Cyprus Island [PICAMEDGSA25]**

**TB\***



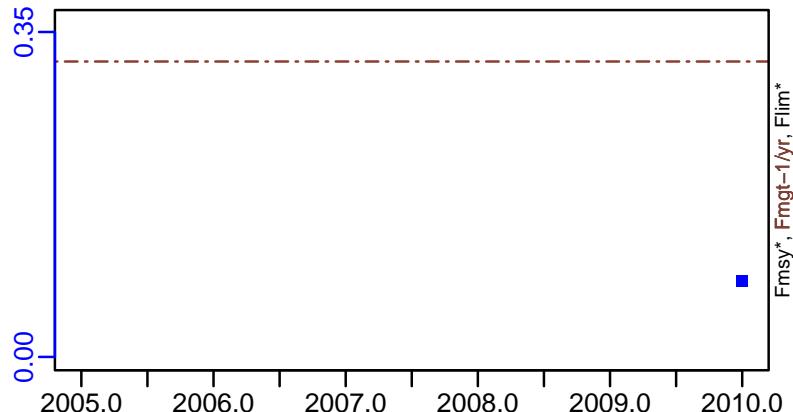
**SSB-MT (2005–2010–OSIO)**



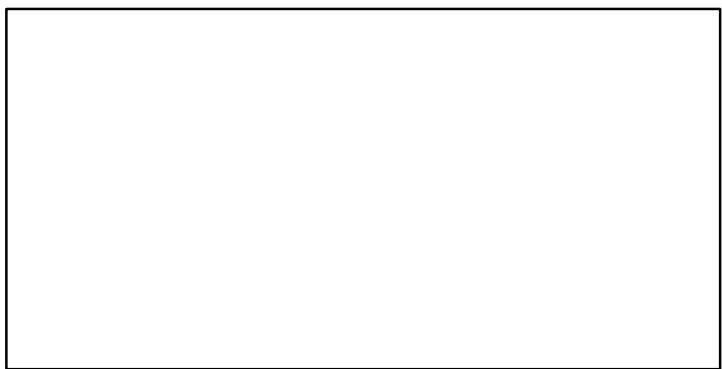
**TN \***



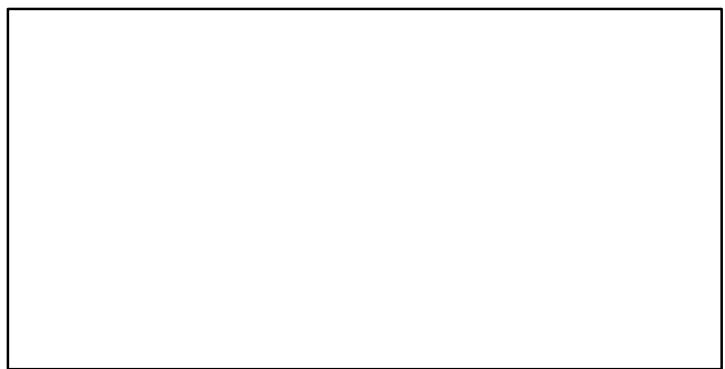
**F-1/yr (2005–2010–OSIO)**



**ER\***



**Recruits\***

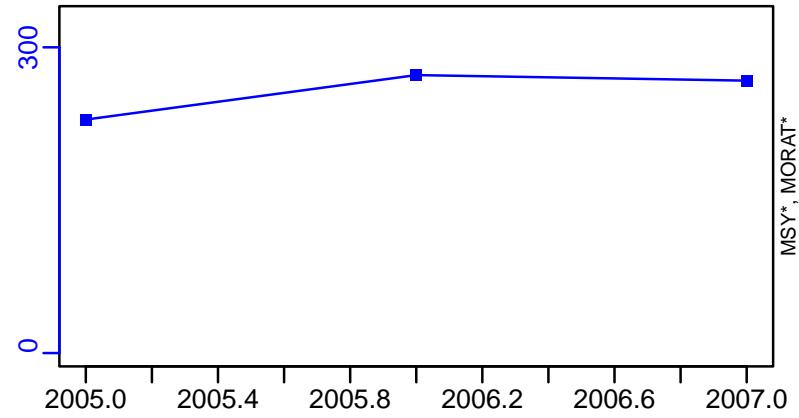


- |                      |              |           |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| — MSY-based BRP      | — Lim BRP    | * No Data |

Picarel Cyprus Island [PICAMEDGSA25]

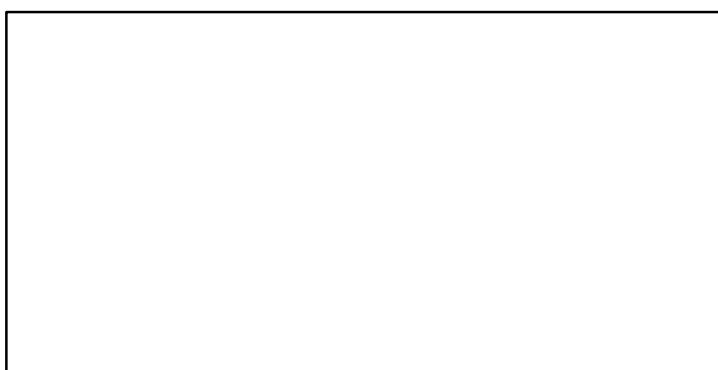
TC-MT, TL\*, RecC\* (2005–2010–OSIO)

TAC\*, Cpair\*, Cadv\*

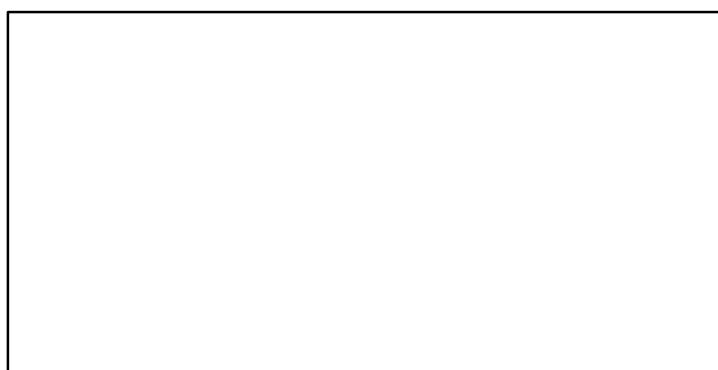


MSY\*, MORAT\*

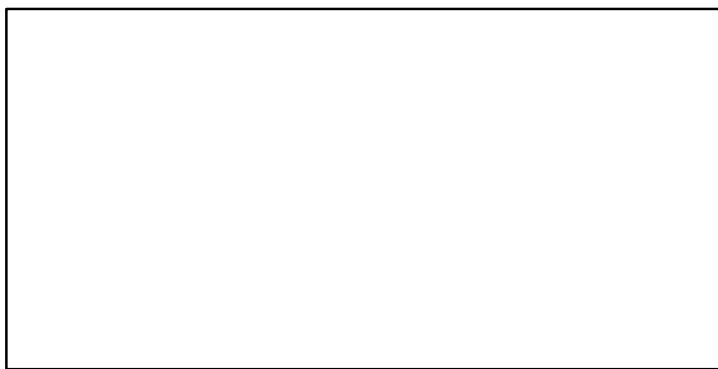
survB\*



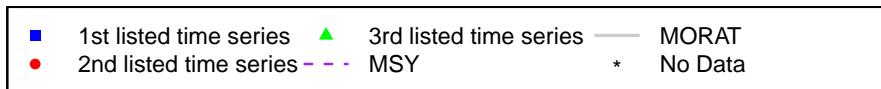
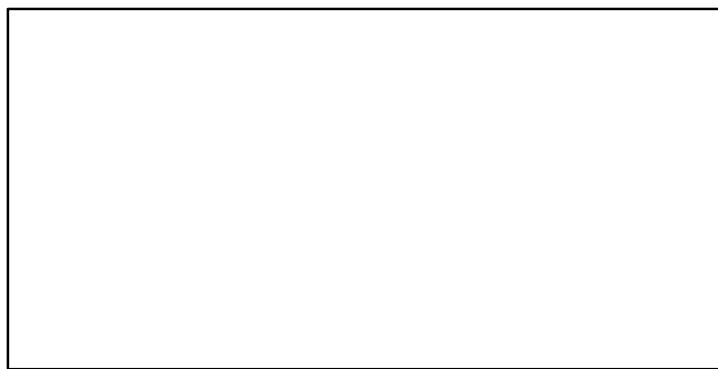
CPUE\*



EFFORT\*



CdivMSY\*



## Red seabream East China Sea [RBRMECS]

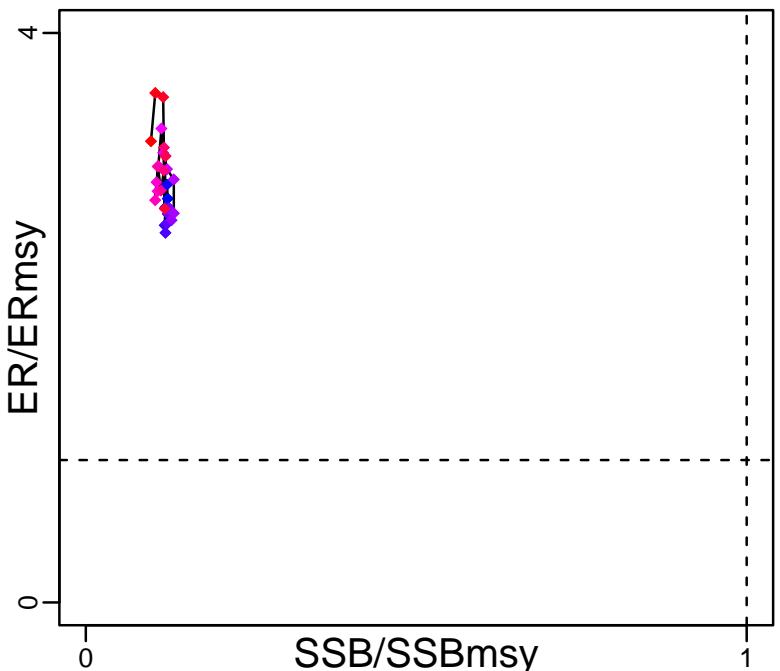
<b>Metadata</b>	
<b>Scientific Name</b>	Pagrus major
<b>Current Assess ID</b>	FAFRFJ-RBRMECS-1969-2013-JPNIMP2016
<b>Area</b>	East China Sea
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>	2010, 2013

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	TBmsy-calc-MT	2013	96,880
<b>SSBmsy</b>	SSBmsy-MT	2013	87,132
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2013	0.12
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2013	11,626
<b>M</b>	M-1/yr	2013	0.125
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2010	9900
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

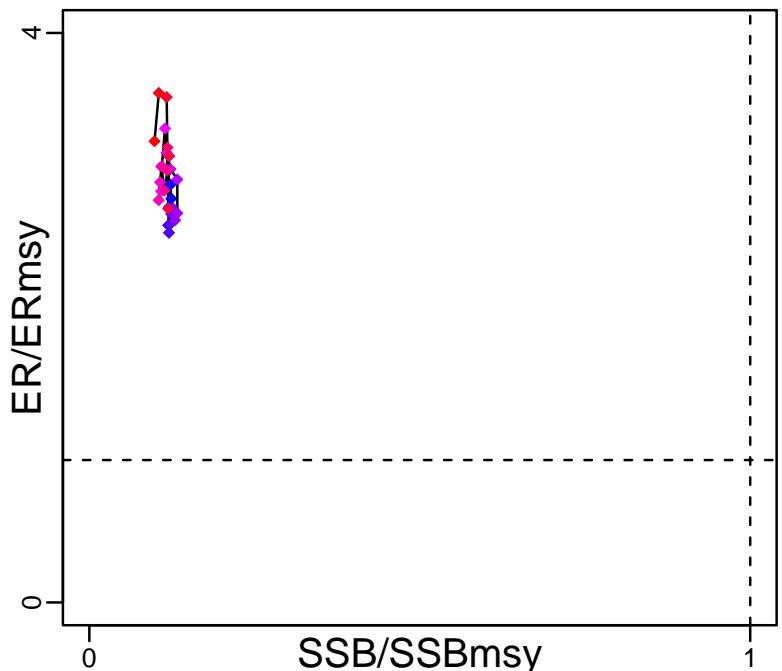
<b>Time Series</b>						
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>	
<b>TB</b>	TB-MT	2013	14,200	-	1	
<b>SSB</b>	SSB-MT	2013	8590	Both	3	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2013	10,800,000	-	1	
<b>F</b>	-	-	-	-	-	
<b>ER</b>	ER-calc-ratio	2013	0.389	-	-	
<b>TC</b>	TC-MT	2013	5520			
<b>TL</b>	-	-	-			
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2013	0.147			
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.099			
<b>F/Fmsy</b>	-	-	-			
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	3.239			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

**Red seabream East China Sea [RBRMECS]**

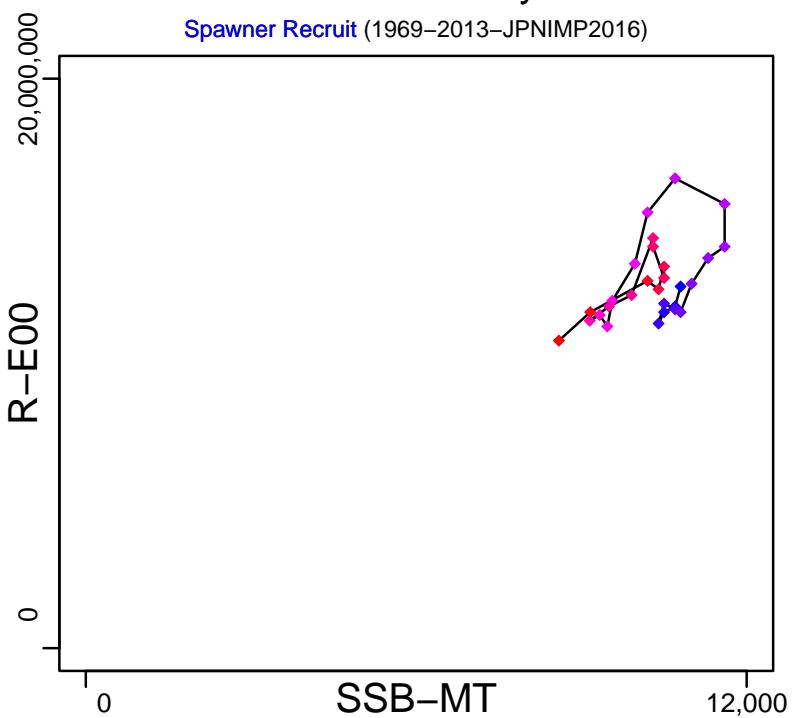
Kobe MSYpref (1969–2013–JPNIMP2016)



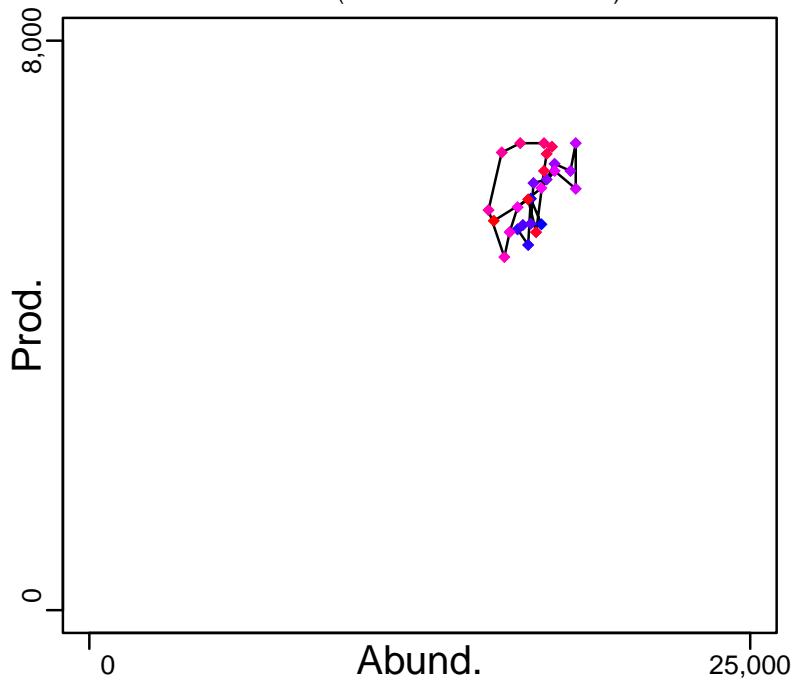
Kobe MGTpref (1969–2013–JPNIMP2016)



Spawner Recruit (1969–2013–JPNIMP2016)



Production (1969–2013–JPNIMP2016)

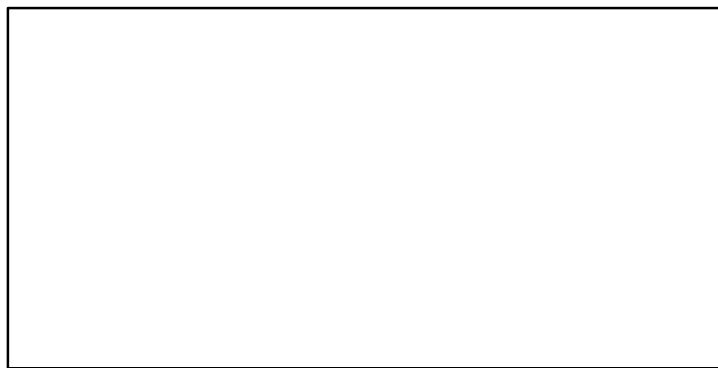
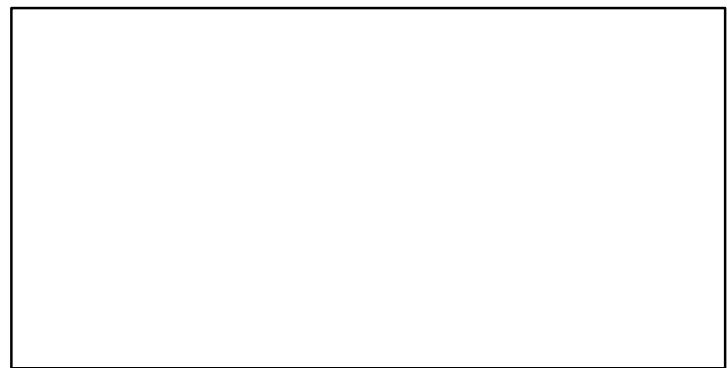
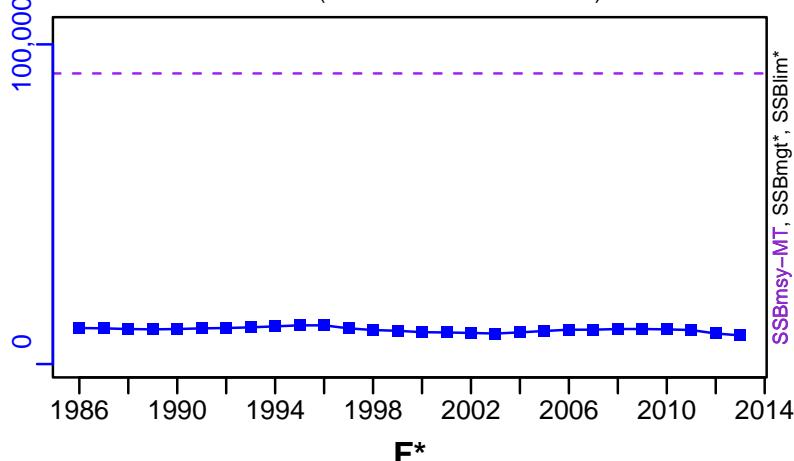
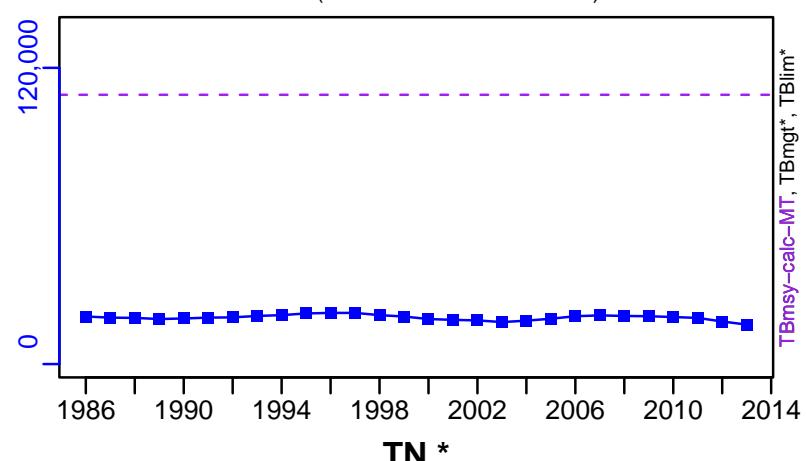


◆ Start Year	◆ End Year	*	No Data
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**Red seabream East China Sea [RBRMECS]**

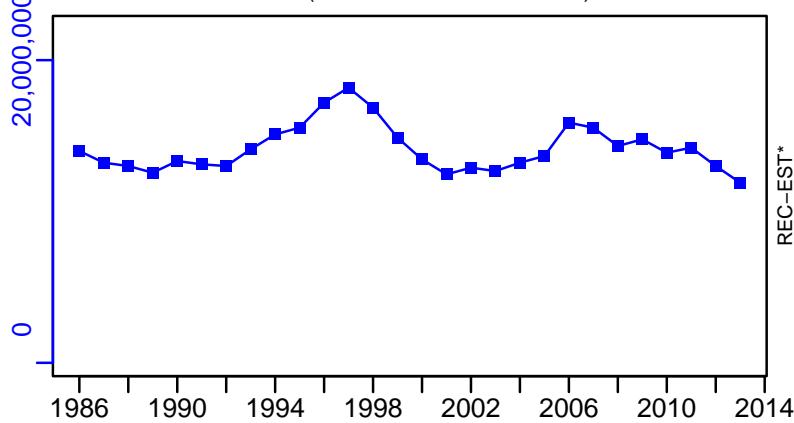
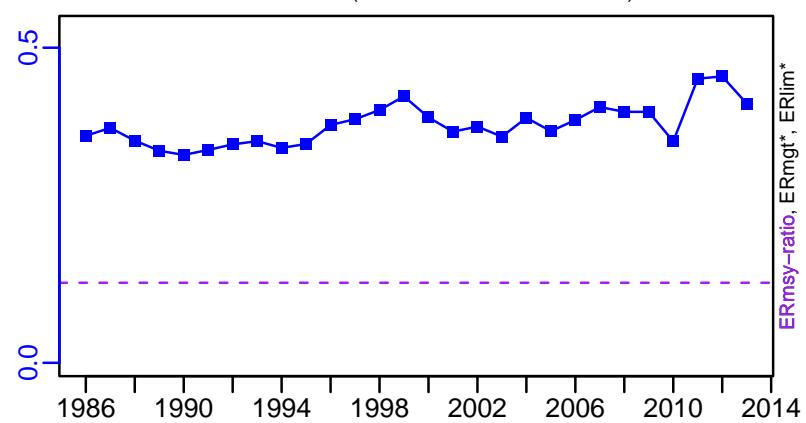
TB-MT (1969–2013–JPNIMP2016)

SSB-MT (1969–2013–JPNIMP2016)



ER-calc-ratio (1969–2013–JPNIMP2016)

R-E00 (1969–2013–JPNIMP2016)

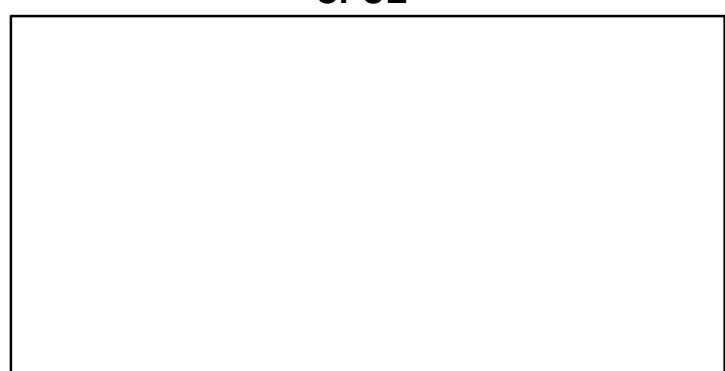
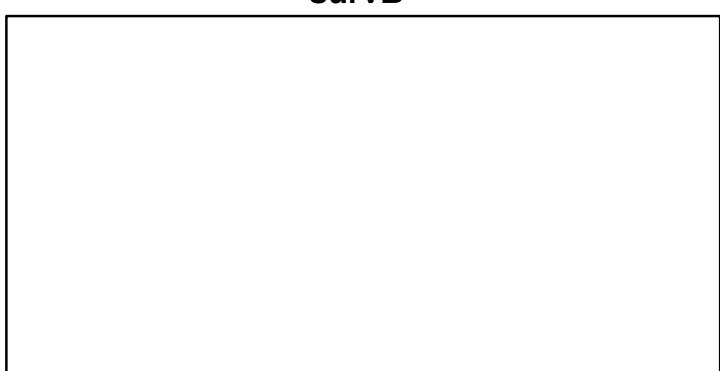
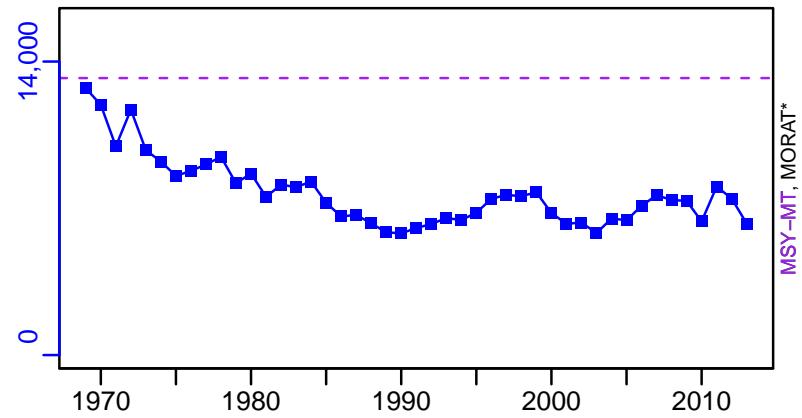


■ Listed time series	— Target BRP	— Rec-Est
- - MSY-based BRP	--- Lim BRP	* No Data

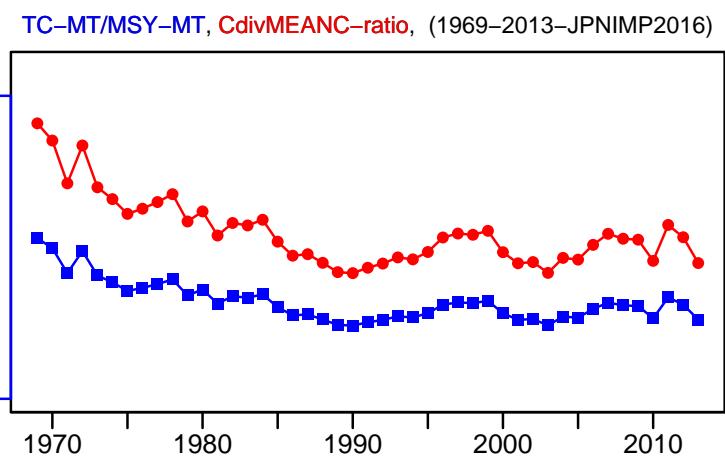
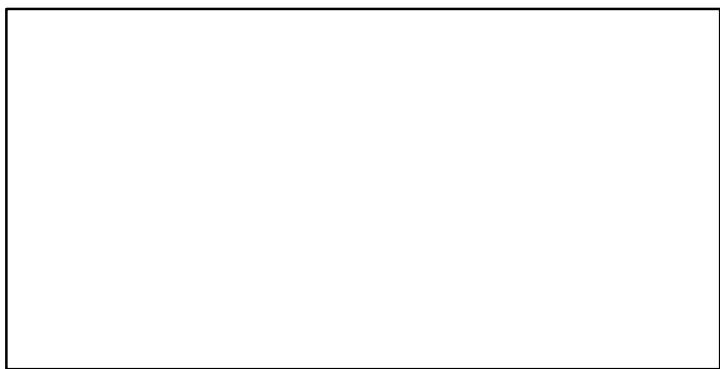
Red seabream East China Sea [RBRMECS]

TC-MT, TL\*, RecC\* (1969–2013–JPNIMP2016)

TAC\*, Cpair\*, Cadv\*



**EFFORT\***



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

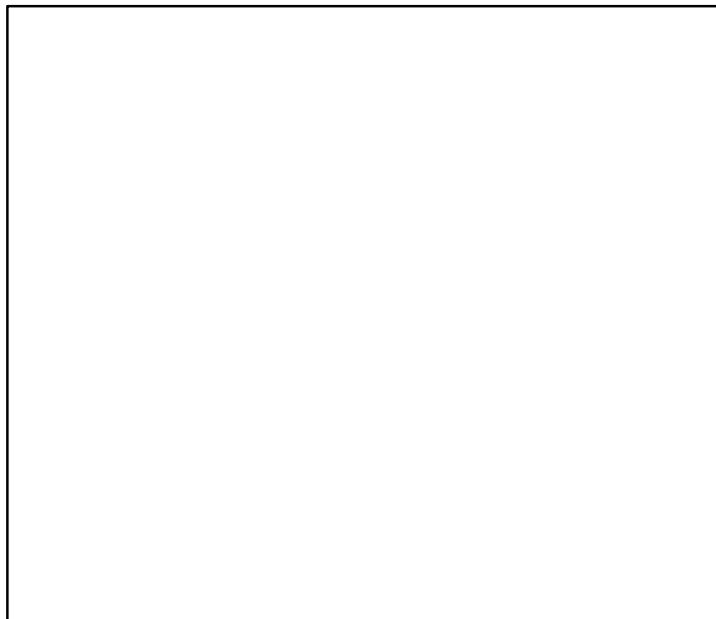
## Red seabream ICES 9 [RBRMIX]

<b>Metadata</b>	
<b>Scientific Name</b>	Pagellus bogaraveo
<b>Current Assess ID</b>	WGDEEP-RBRMIX-1988-2019-ICESIMP2021-2
<b>Area</b>	ICES 9
<b>Management Authority</b>	International Council for the Exploration of the Sea
<b>Assessor</b>	Working Group on the Biology and Assessment of Deep-Sea Fisheries Resources
<b>Asmts in RAM</b>	2016, 2017, 2019

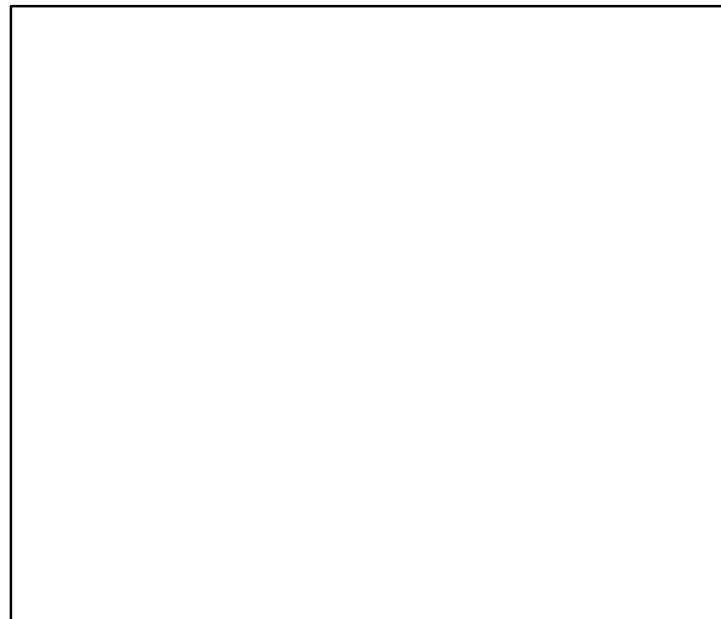
<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

<b>Time Series</b>					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2016	295		
<b>TL</b>	TL-MT	2019	60		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

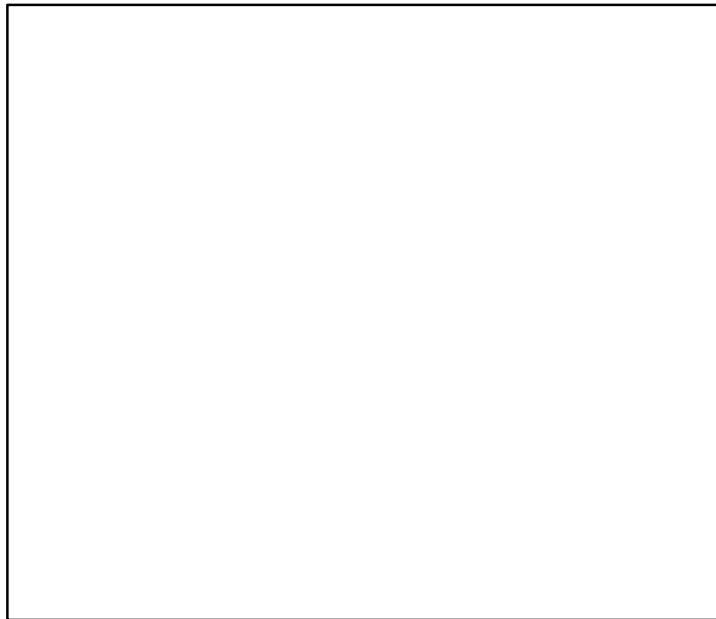
**Kobe MSY\***



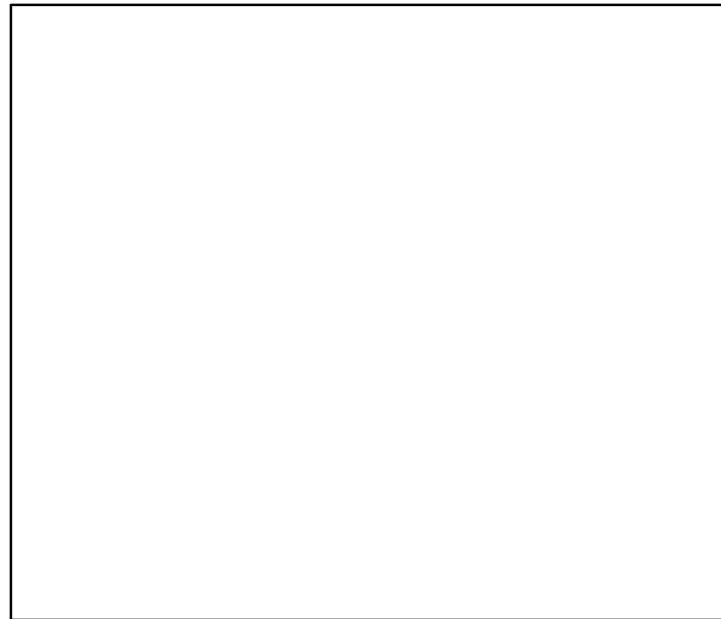
**Kobe MGT\***



**Spawner Recruit\***



**Production\***



◆ Start Year ♦ End Year \* No Data

**Red seabream ICES 9 [RBRMIX]**

**TB\***



**SSB\***



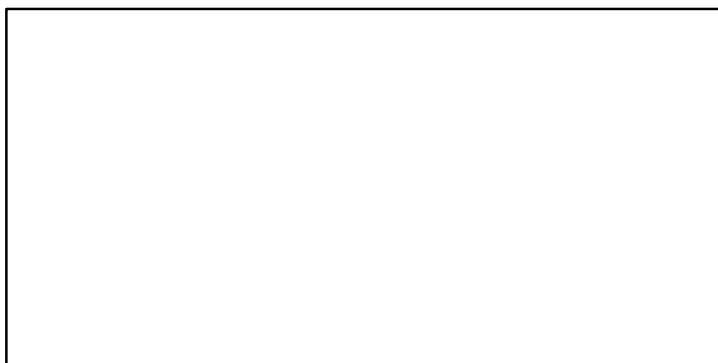
**TN \***



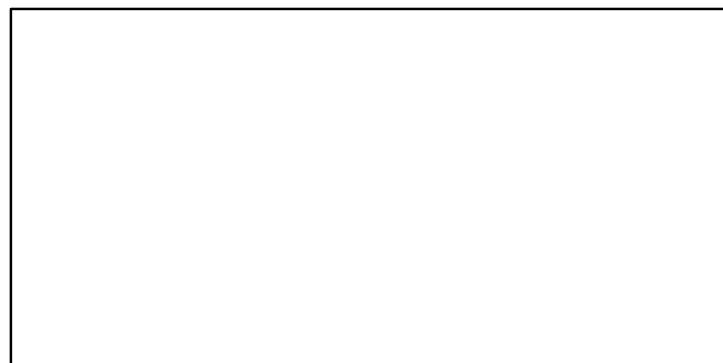
**F\***



**ER\***



**Recruits\***

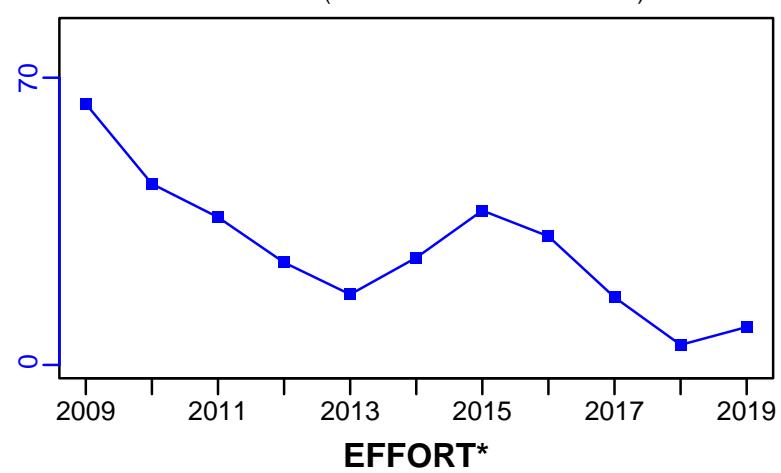
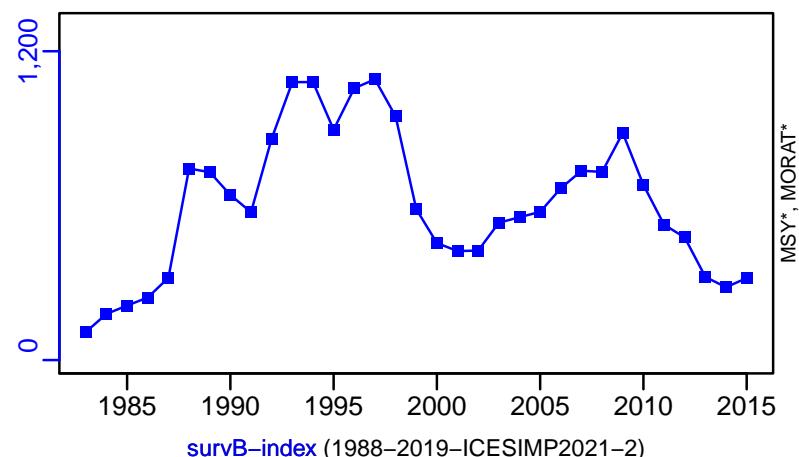


- |                      |                  |           |
|----------------------|------------------|-----------|
| ■ Listed time series | - - - Target BRP | — Rec-Est |
| - - - MSY-based BRP  | - - - Lim BRP    | * No Data |

**Red seabream ICES 9 [RBRMIX]**

TC-MT, TL\*, RecC\* (1983–2016–ICESIMP2016)

TAC\*, Cpair\*, Cadv\*



CPUE\*

CdivMSY\*

- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - MSY                  | * No Data |

## Red seabream Alboran Island Sea (GSA 1,3) [RBRMMEDGSA1-3]

<b>Metadata</b>	
<b>Scientific Name</b>	Pagellus bogaraveo
<b>Current Assess ID</b>	GRP7-RBRMMEDGSA1-3-2009-2011-BANOBI
<b>Area</b>	Alboran Island Sea (GSA 1,3)
<b>Management Authority</b>	General Fisheries Council for the Mediterranean, DG MARE, and national states
<b>Assessor</b>	INRH-NADOR, IEO-MALAGA
<b>Asmts in RAM</b>	2011

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	M-1/yr	2011	0.2
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

<b>Time Series</b>					
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	F-1/yr	2011	0.194	-	2 to 6
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2011	258		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

**Kobe MSY\***

**Kobe MGT\***

**Spawner Recruit\***

**Production\***

◆ Start Year ♦ End Year \* No Data

Red seabream Alboran Island Sea (GSA 1,3) [RBRMMEDGSA1–3]

**TB\***



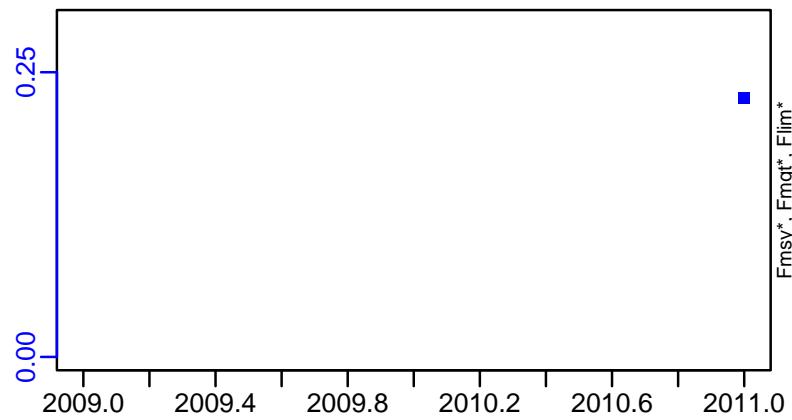
**SSB\***



**TN \***



**F-1/yr (2009–2011–BANOBI)**



**ER\***



**Recruits\***

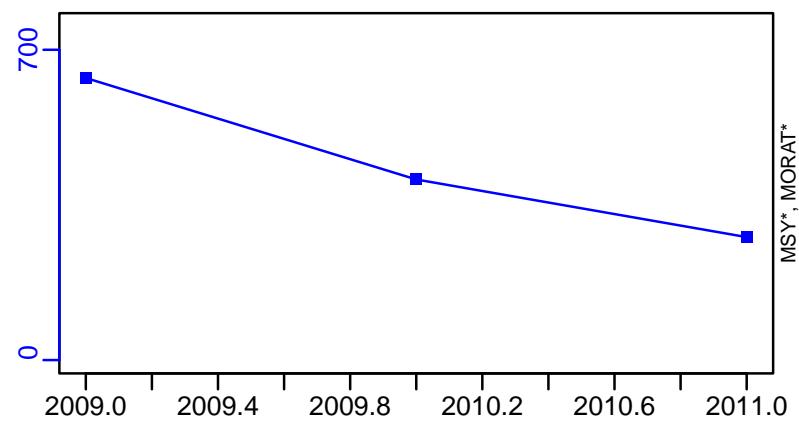


- |                      |              |           |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| - - MSY-based BRP    | --- Lim BRP  | * No Data |

Red seabream Alboran Island Sea (GSA 1,3) [RBRMMEDGSA1–3]

TC-MT, TL\*, RecC\* (2009–2011–BANOBI)

TAC\*, Cpair\*, Cadv\*



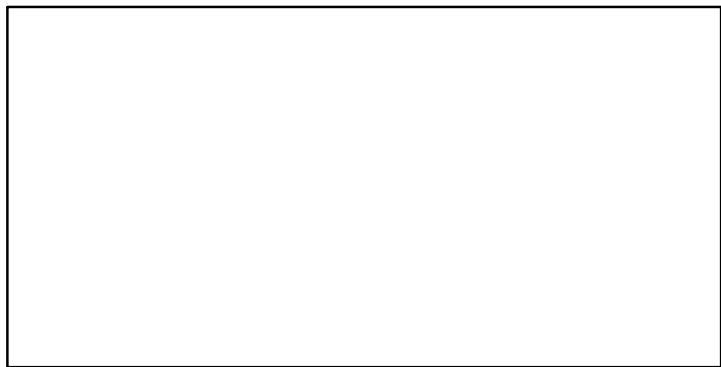
**survB\***



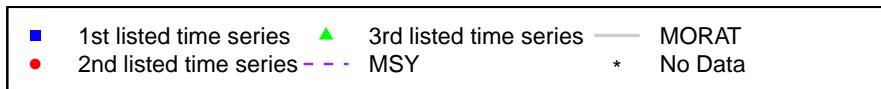
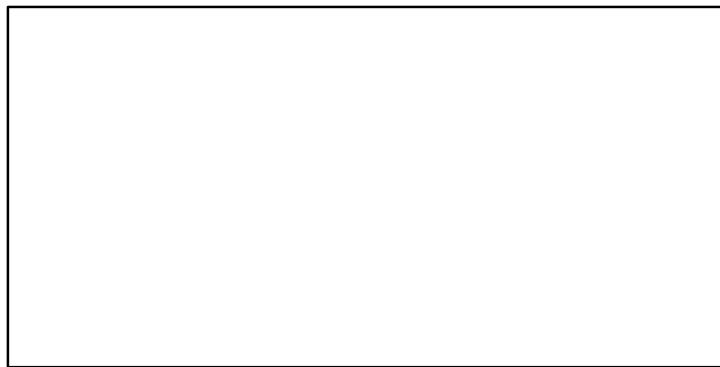
**CPUE\***



**EFFORT\***



**CdivMSY\***



## Red seabream Inland Sea of Japan (East) [RBRMSETOE]

<b>Metadata</b>	
<b>Scientific Name</b>	Pagrus major
<b>Current Assess ID</b>	FAFRFJ-RBRMSETOE-1977-2013-JPNIMP2016
<b>Area</b>	Inland Sea of Japan (East)
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>	2010, 2013

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	TBmsy-calc-MT	2013	21,417
<b>SSBmsy</b>	SSBmsy-MT	2013	16,552
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2013	0.145
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2013	3106
<b>M</b>	M-1/yr	2013	0.24
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2010	304
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

<b>Time Series</b>						
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>	
<b>TB</b>	TB-MT	2013	4030	-	0	
<b>SSB</b>	SSB-MT	2013	1680	Both	3	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2013	8,730,000	-	0	
<b>F</b>	-	-	-	-	-	
<b>ER</b>	ER-calc-ratio	2013	0.447	-	-	
<b>TC</b>	TC-MT	2013	1800			
<b>TL</b>	-	-	-			
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2013	0.188			
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.101			
<b>F/Fmsy</b>	-	-	-			
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	3.08			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

Red seabream Inland Sea of Japan (East) [RBRMSETOE]

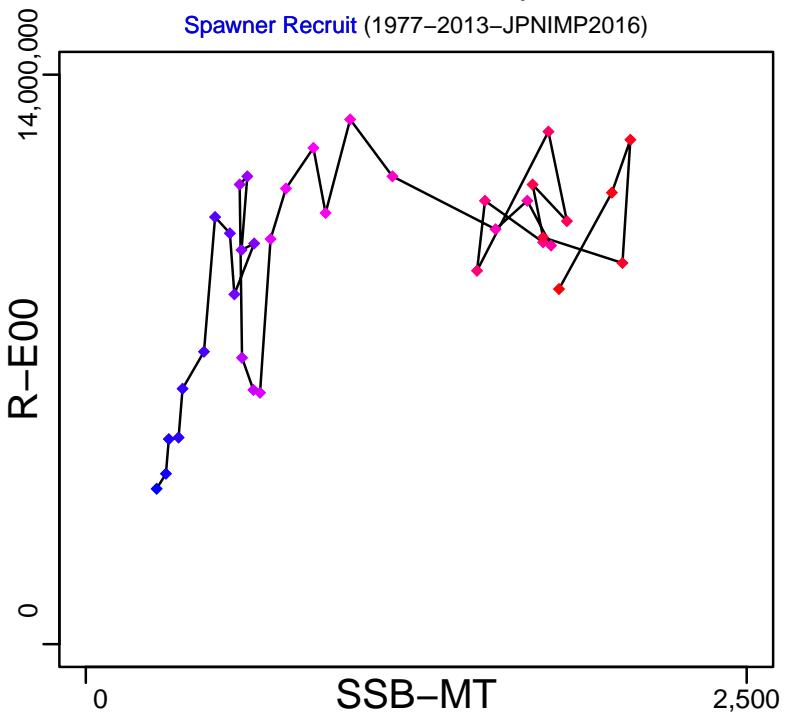
Kobe MSYpref (1977–2013–JPNIMP2016)



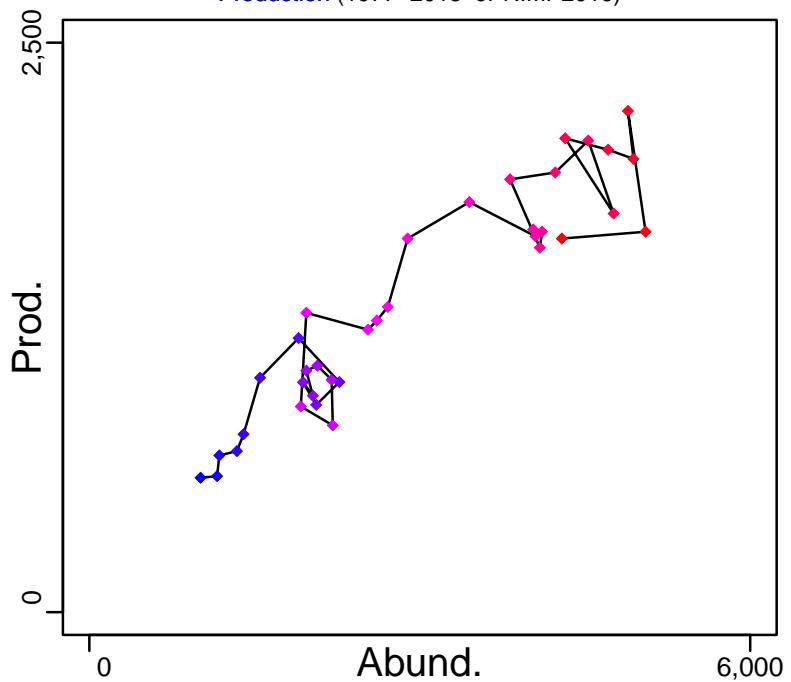
Kobe MGTpref (1977–2013–JPNIMP2016)



Spawner Recruit (1977–2013–JPNIMP2016)



Production (1977–2013–JPNIMP2016)

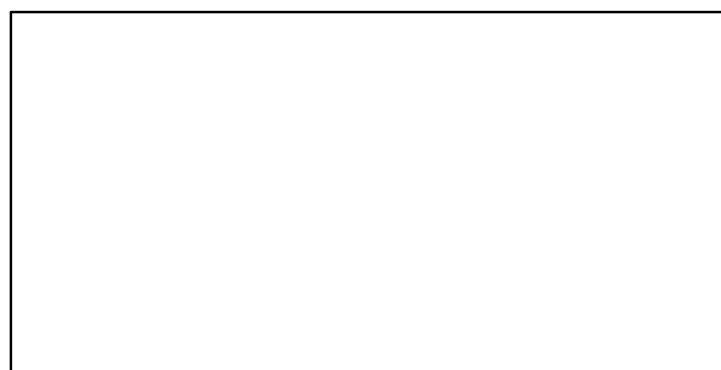
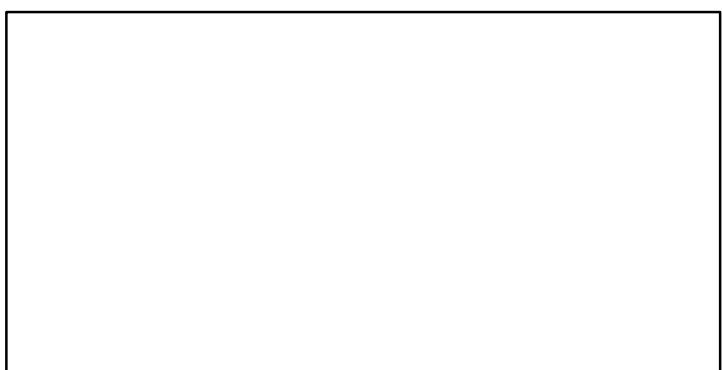
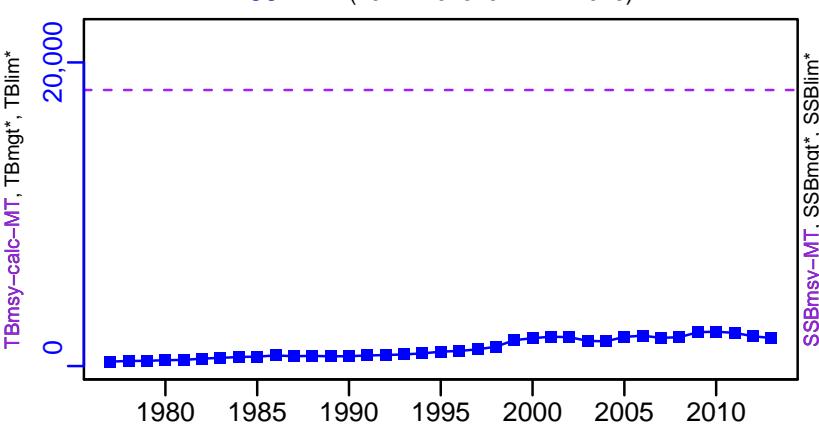
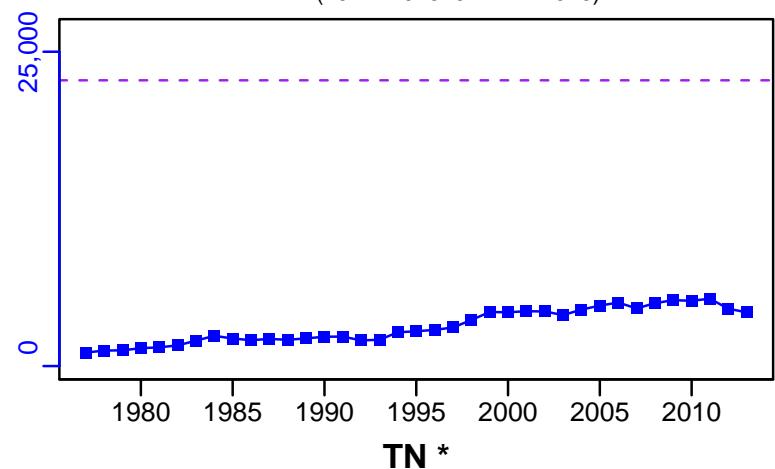


◆ Start Year   ◆ End Year   \* No Data

Red seabream Inland Sea of Japan (East) [RBRMSETOE]

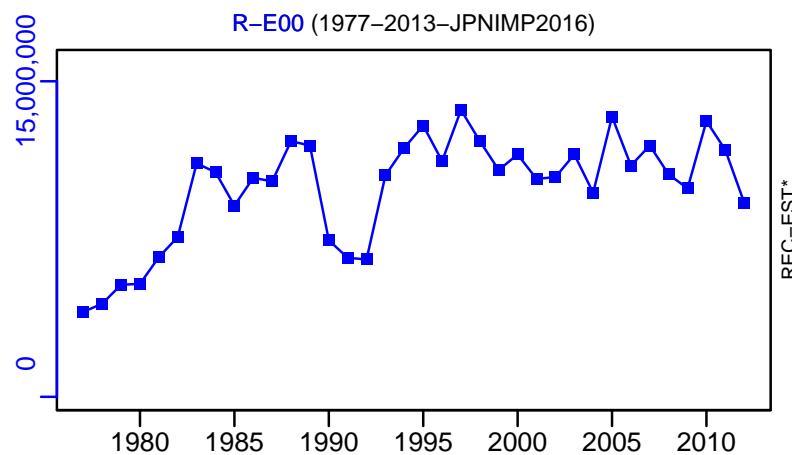
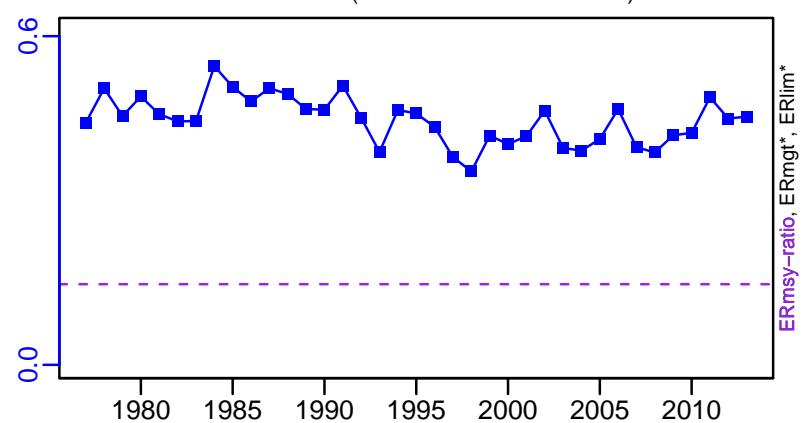
TB-MT (1977–2013–JPNIMP2016)

SSB-MT (1977–2013–JPNIMP2016)



ER-calc-ratio (1977–2013–JPNIMP2016)

R-E00 (1977–2013–JPNIMP2016)

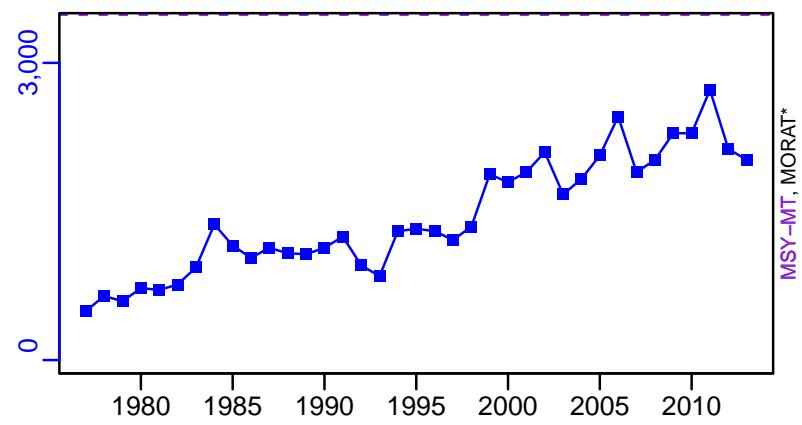


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - Lim BRP	* No Data

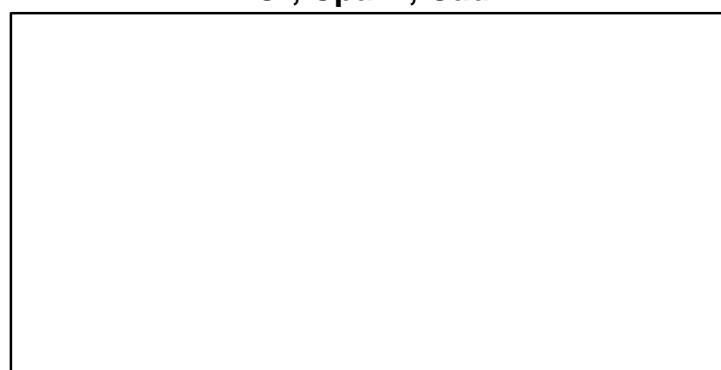
Red seabream Inland Sea of Japan (East) [RBRMSETOE]

TC-MT, TL\*, RecC\* (1977–2013–JPNIMP2016)

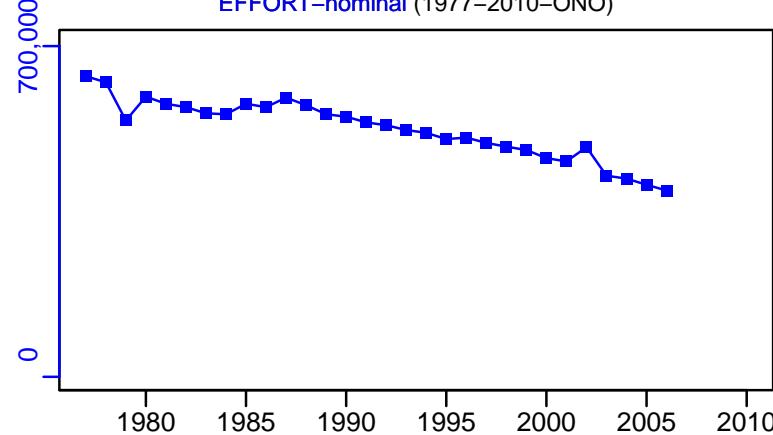
TAC\*, Cpair\*, Cadv\*



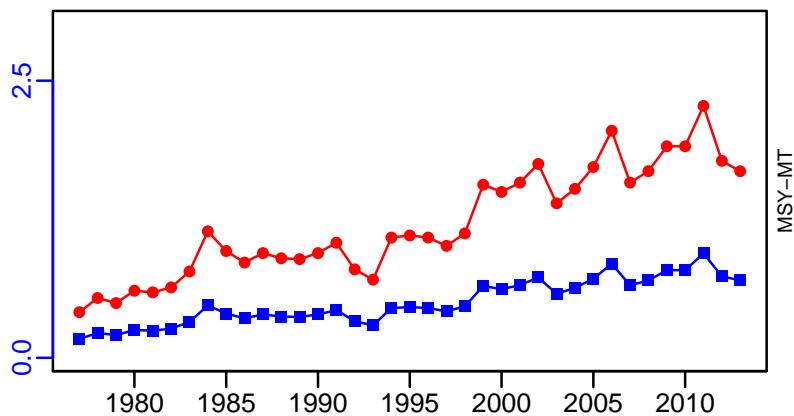
CPUE\*



EFFORT-nominal (1977–2010–ONO)



TC-MT/MSY-MT, CdivMEANC-ratio, (1977–2013–JPNIMP2016)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - MSY	* No Data

## Red seabream Inland Sea of Japan (West) [RBRMSETOW]

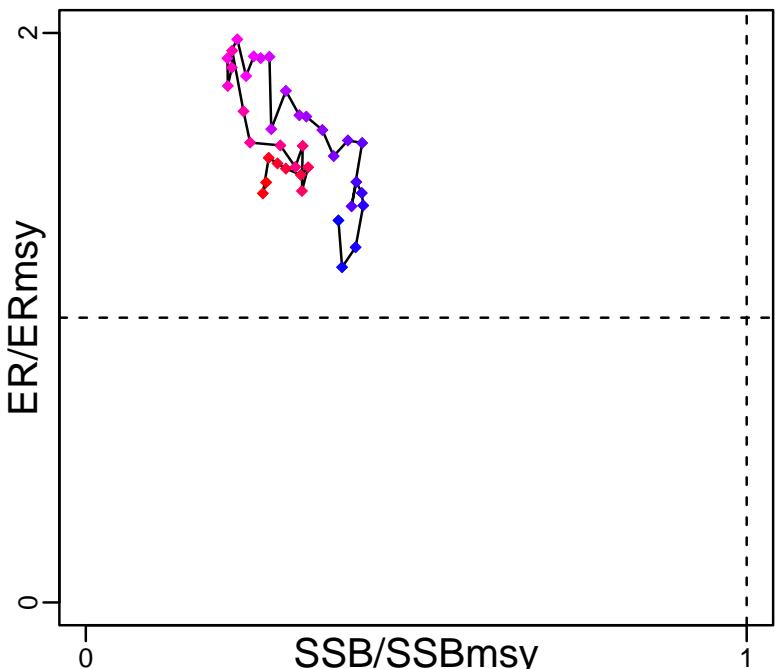
<b>Metadata</b>	
<b>Scientific Name</b>	Pagrus major
<b>Current Assess ID</b>	FAFRFJ-RBRMSETOW-1977-2013-JPNIMP2016
<b>Area</b>	Inland Sea of Japan (West)
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>	2010, 2013

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	TBmsy-calc-MT	2013	24,122
<b>SSBmsy</b>	SSBmsy-MT	2013	18,103
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2013	0.173
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2013	4173
<b>M</b>	M-1/yr	2013	0.24
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2010	4212
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

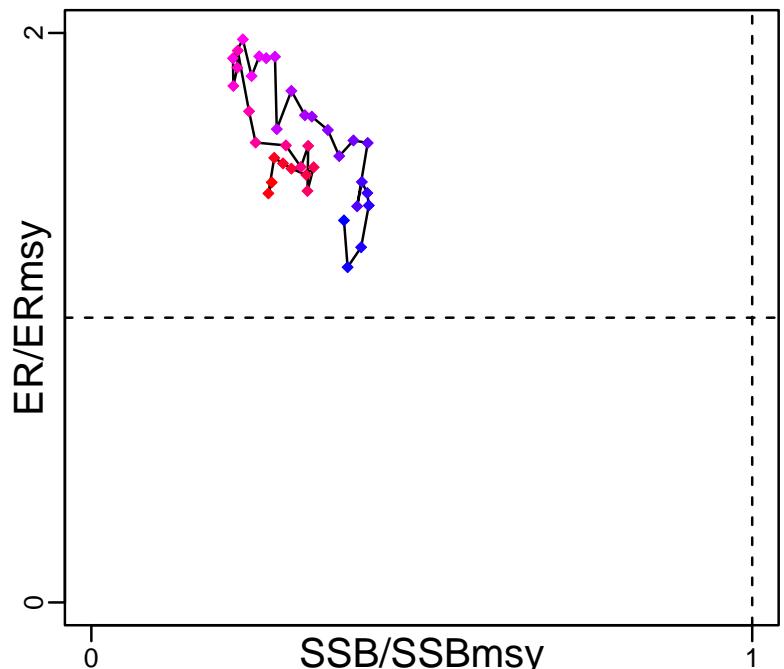
<b>Time Series</b>						
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>	
<b>TB</b>	TB-MT	2013	8620	-	0	
<b>SSB</b>	SSB-MT	2013	4940	Both	3	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2013	8,300,000	-	0	
<b>F</b>	-	-	-	-	-	
<b>ER</b>	ER-calc-ratio	2013	0.255	-	-	
<b>TC</b>	TC-MT	2013	2200			
<b>TL</b>	-	-	-			
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2013	0.357			
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.273			
<b>F/Fmsy</b>	-	-	-			
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	1.475			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

Red seabream Inland Sea of Japan (West) [RBRMSETOW]

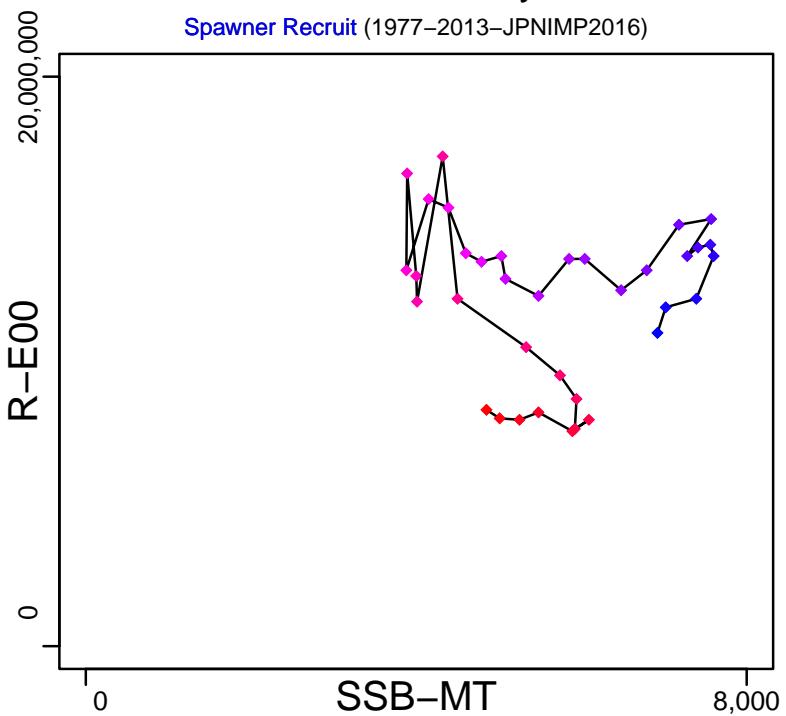
Kobe MSYpref (1977–2013–JPNIMP2016)



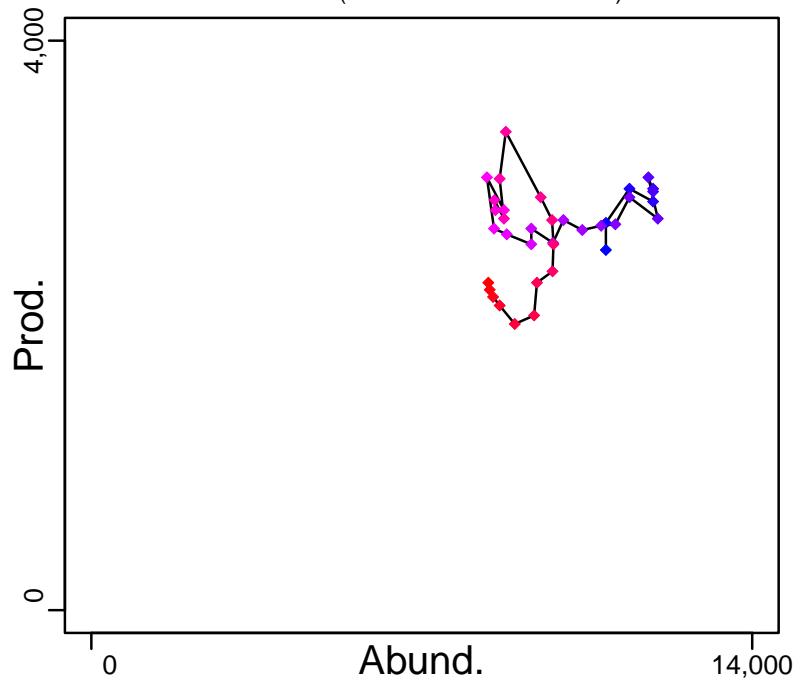
Kobe MGTpref (1977–2013–JPNIMP2016)



Spawner Recruit (1977–2013–JPNIMP2016)



Production (1977–2013–JPNIMP2016)

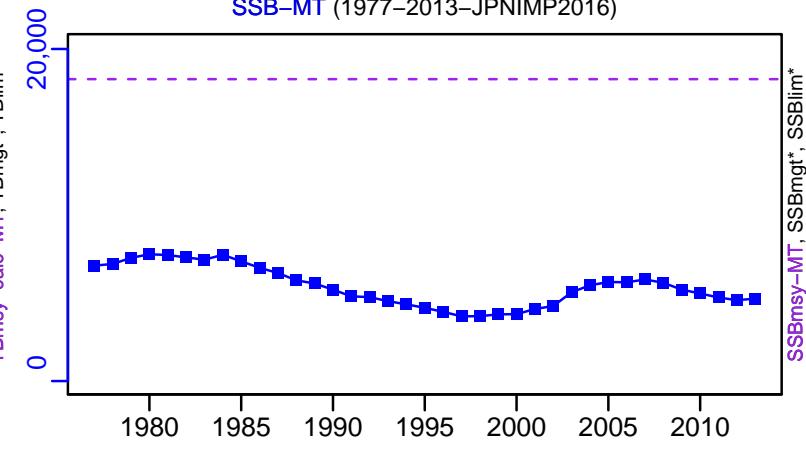
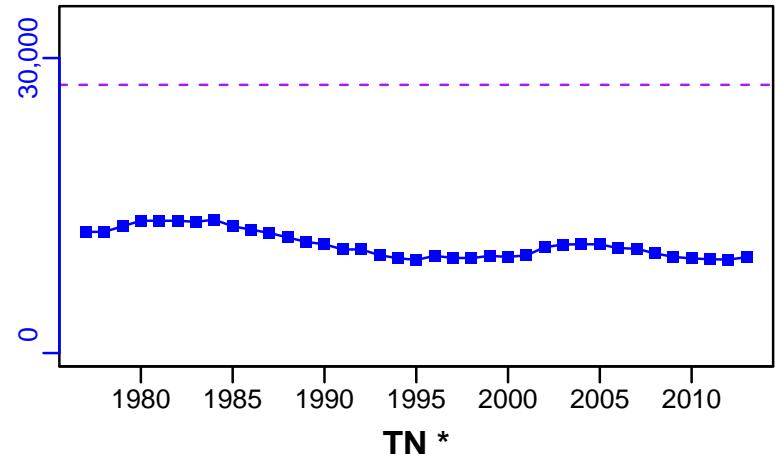


◆ Start Year	◆ End Year	*	No Data
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Red seabream Inland Sea of Japan (West) [RBRMSETOW]

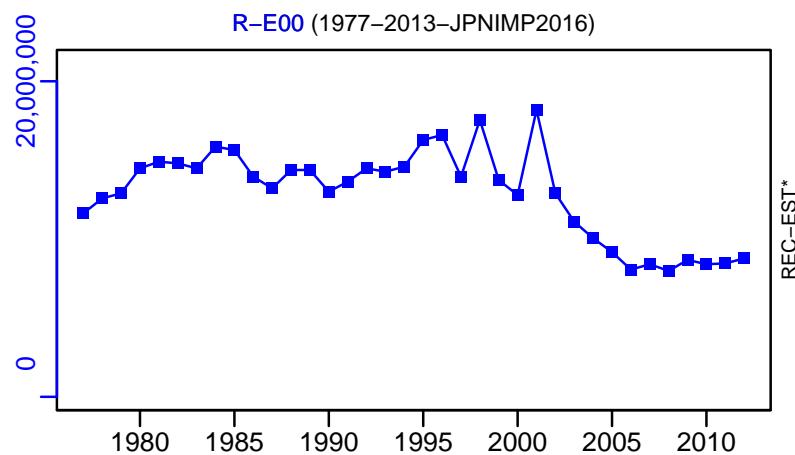
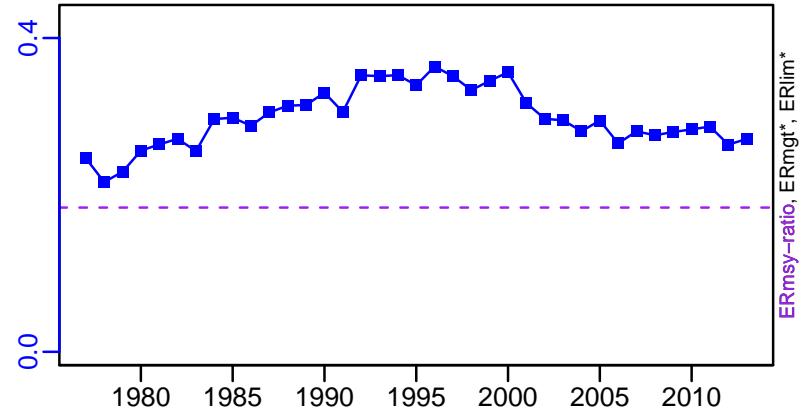
TB-MT (1977–2013–JPNIMP2016)

SSB-MT (1977–2013–JPNIMP2016)



ER-calc-ratio (1977–2013–JPNIMP2016)

R-E00 (1977–2013–JPNIMP2016)

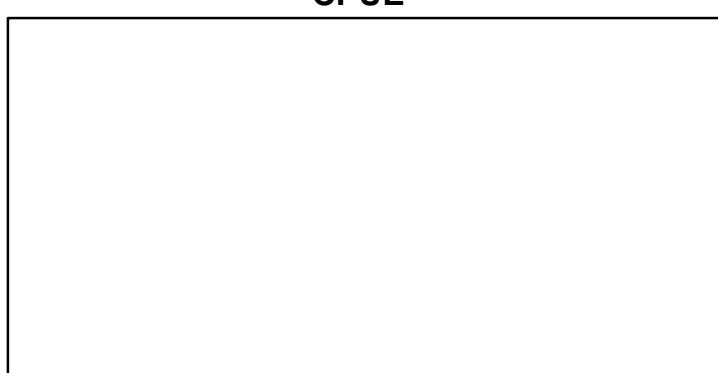
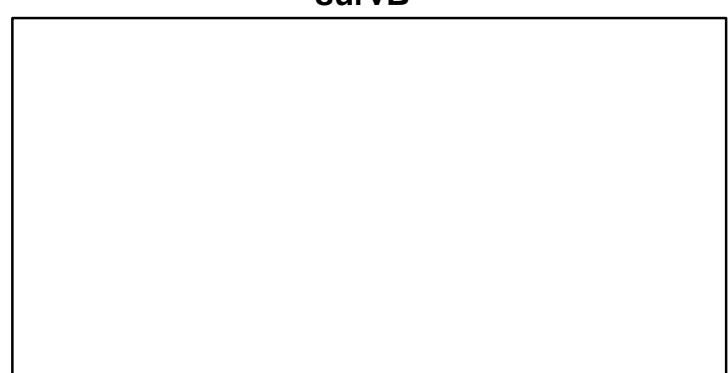
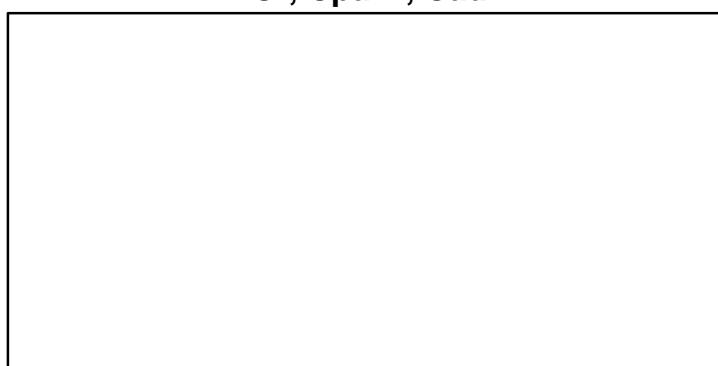
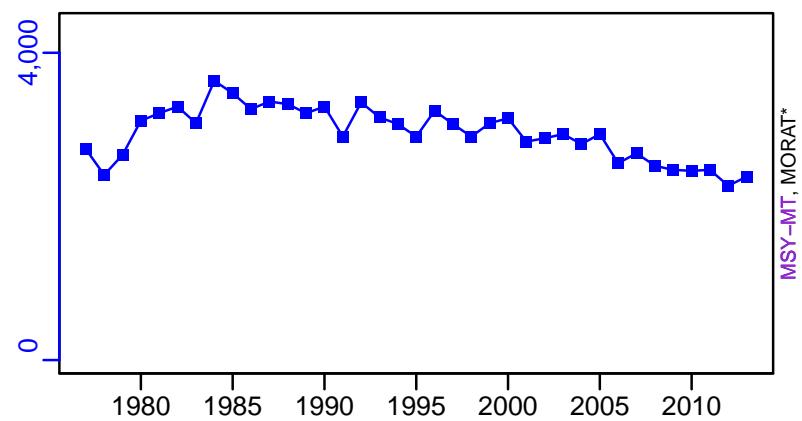


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - - Lim BRP	* No Data

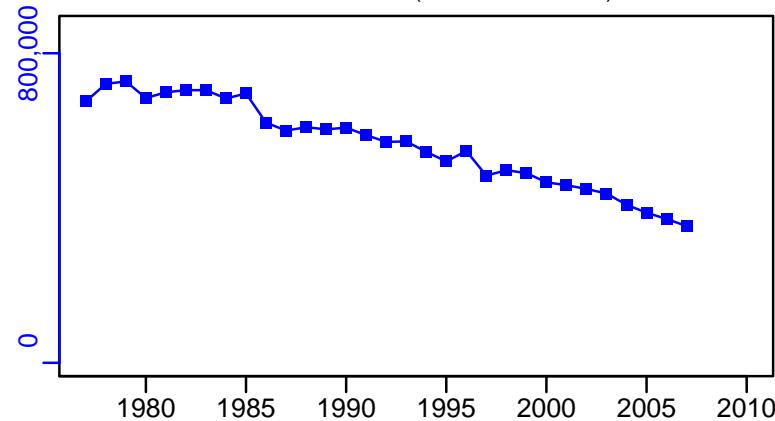
**Red seabream Inland Sea of Japan (West) [RBRMSETOW]**

TC-MT, TL\*, RecC\* (1977–2013–JPNIMP2016)

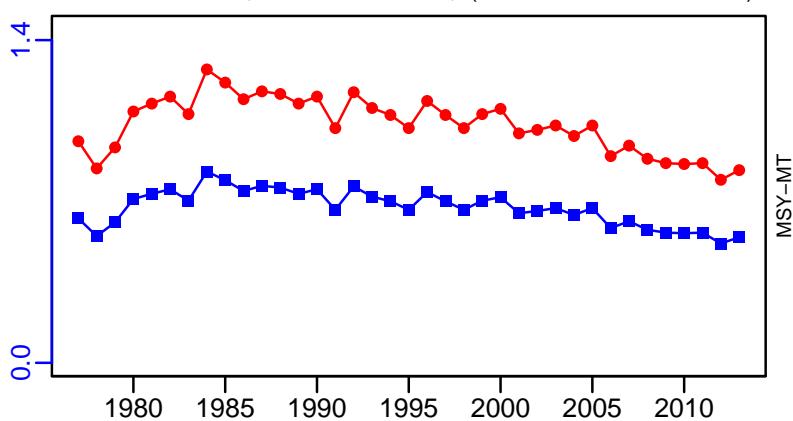
TAC\*, Cpair\*, Cadv\*



**EFFORT-nominal (1977–2010–ONO)**



**TC-MT/MSY-MT, CdivMEANC-ratio, (1977–2013–JPNIMP2016)**



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - MSY	* No Data

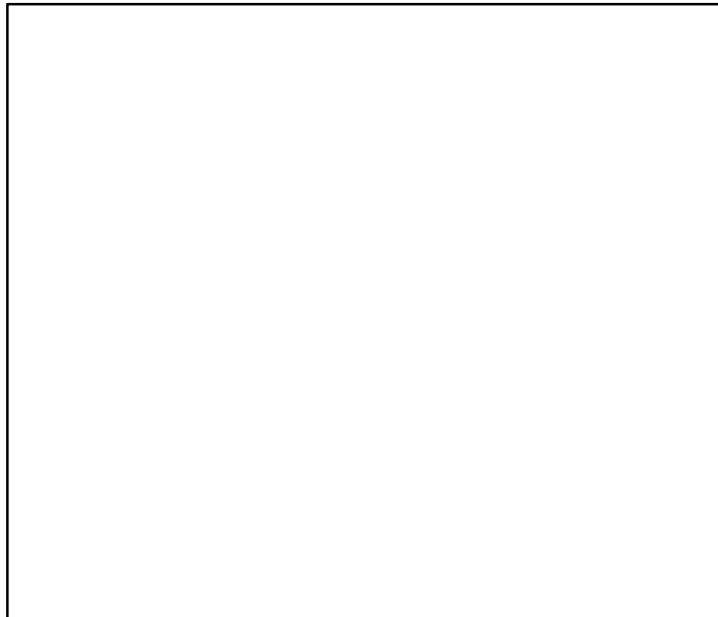
## Red seabream ICES 6-7-8 [RBRMVI-VII-VIII]

<b>Metadata</b>	
<b>Scientific Name</b>	Pagellus bogaraveo
<b>Current Assess ID</b>	WGDEEP-RBRMVI-VII-VIII-1948-2019-ICESIMP2021-2
<b>Area</b>	ICES 6-7-8
<b>Management Authority</b>	International Council for the Exploration of the Sea
<b>Assessor</b>	Working Group on the Biology and Assessment of Deep-Sea Fisheries Resources
<b>Asmts in RAM</b>	2016, 2017, 2019

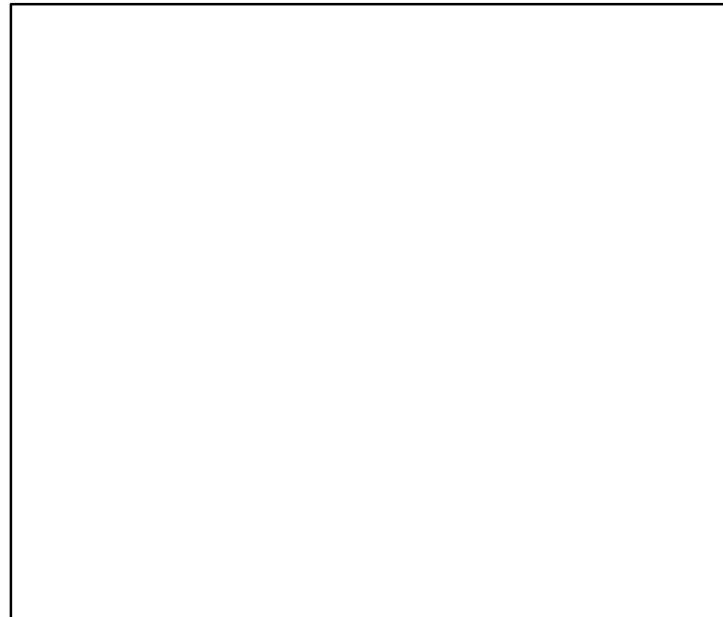
<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

<b>Time Series</b>					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2019	98		
<b>TL</b>	TL-MT	2019	98		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



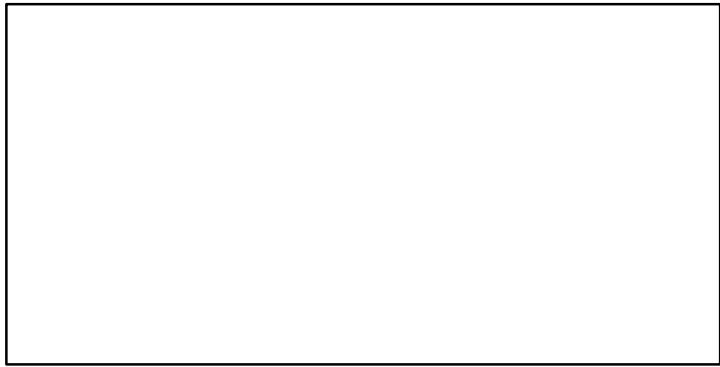
**Production\***



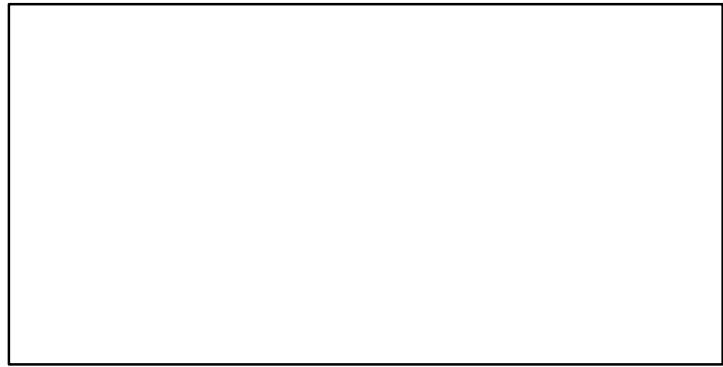
◆ Start Year ♦ End Year \* No Data

**Red seabream ICES 6–7–8 [RBRMVI–VII–VIII]**

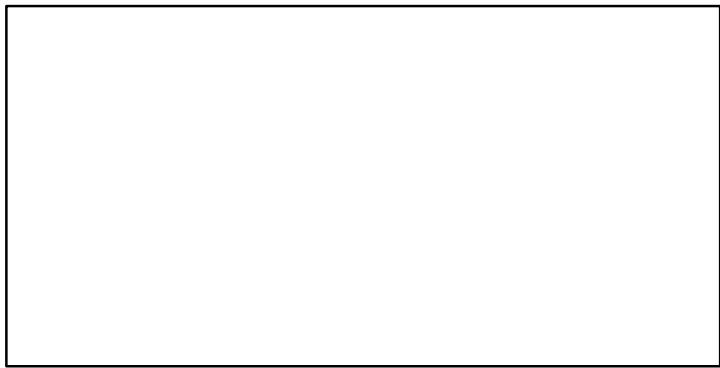
**TB\***



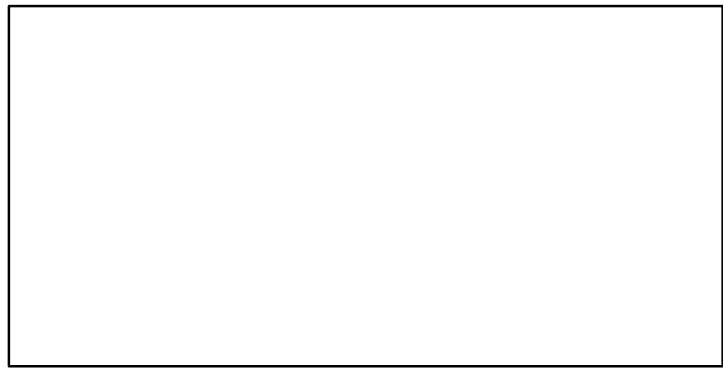
**SSB\***



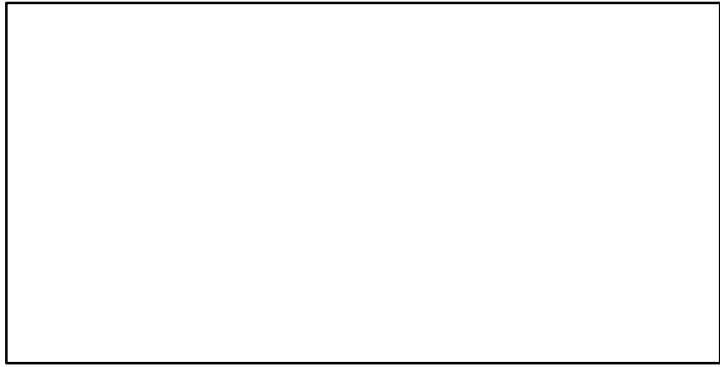
**TN \***



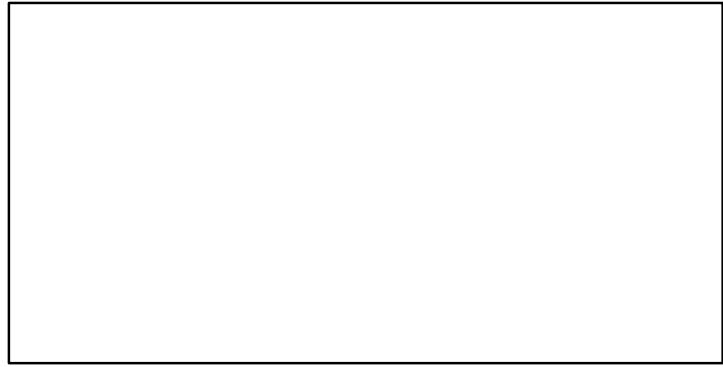
**F\***



**ER\***



**Recruits\***

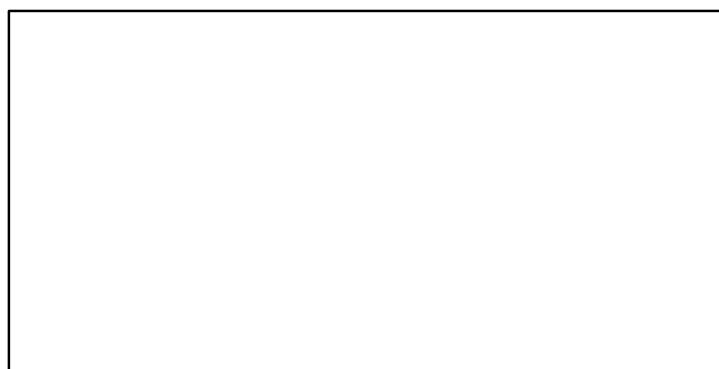
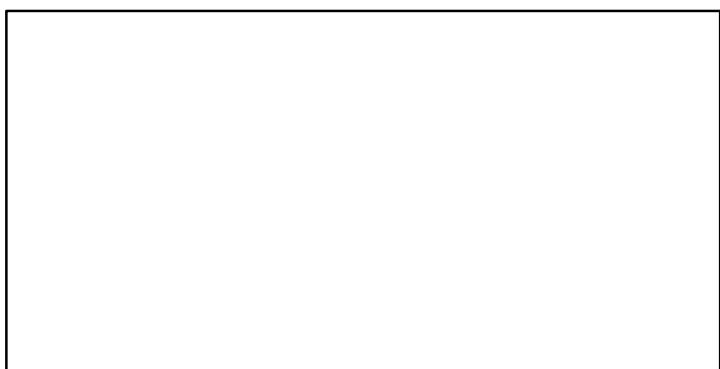
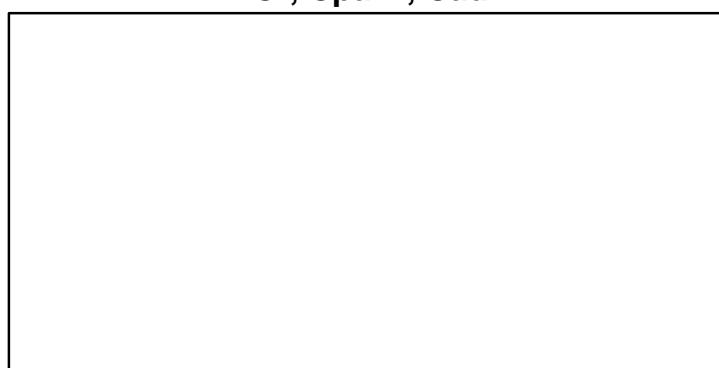
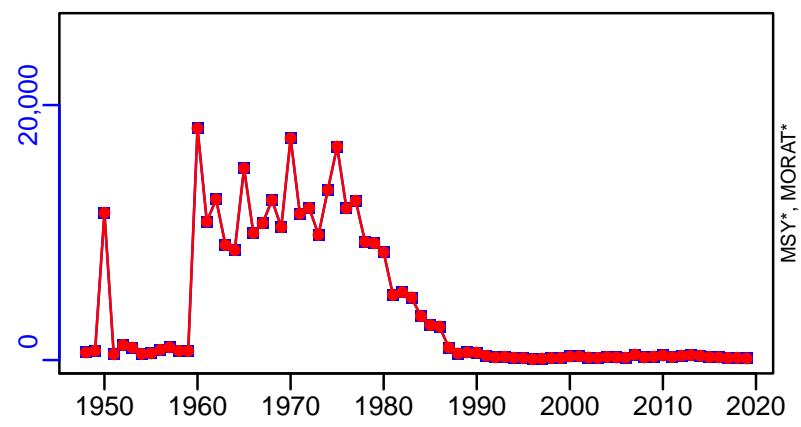


- |                      |                  |           |
|----------------------|------------------|-----------|
| ■ Listed time series | - - - Target BRP | — Rec-Est |
| - - - MSY-based BRP  | - - - Lim BRP    | * No Data |

Red seabream ICES 6–7–8 [RBRMVI–VII–VIII]

TC–MT, TL–MT, RecC\* (1948–2019–ICESIMP2021–2)

TAC\*, Cpair\*, Cadv\*



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - - MSY                | * No Data |

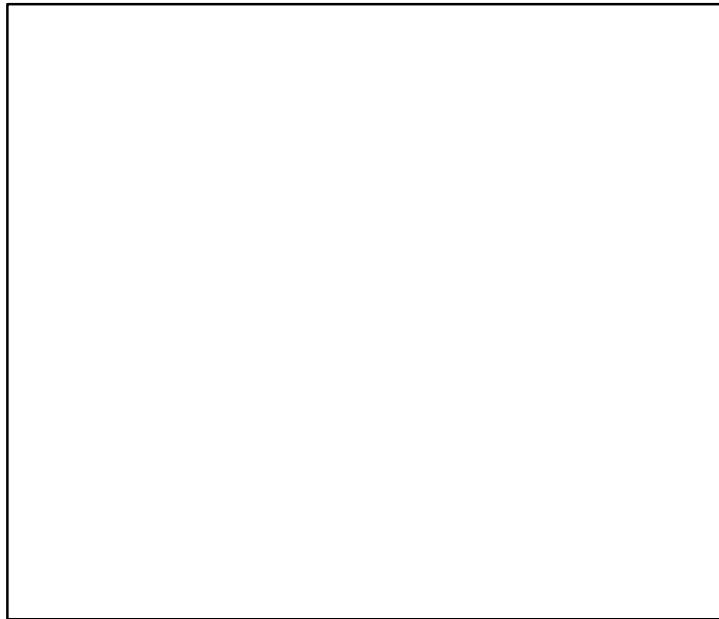
## Red seabream Azores Grounds [RBRMX]

<b>Metadata</b>	
<b>Scientific Name</b>	Pagellus bogaraveo
<b>Current Assess ID</b>	WGDEEP-RBRMX-1980-2020-ICESIMP2021-2
<b>Area</b>	Azores Grounds
<b>Management Authority</b>	International Council for the Exploration of the Sea
<b>Assessor</b>	Working Group on the Biology and Assessment of Deep-Sea Fisheries Resources
<b>Asmts in RAM</b>	2016, 2016, 2017, 2018, 2019, 2020

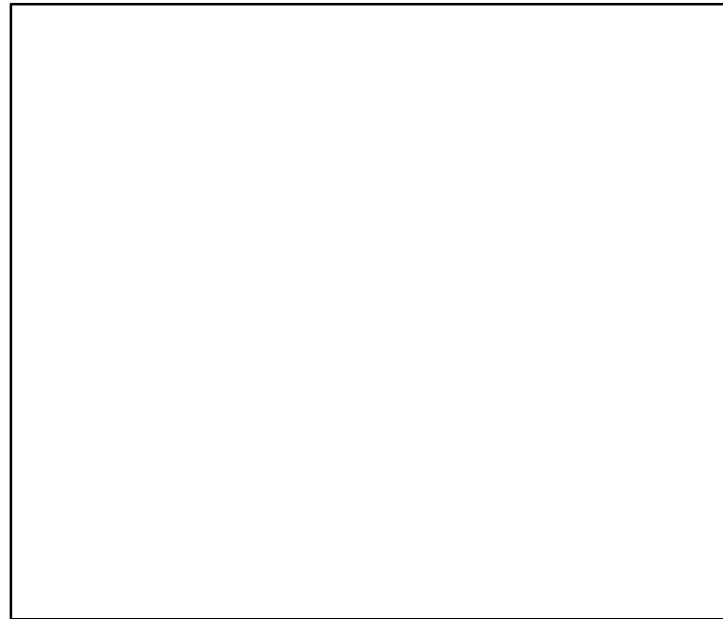
<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

<b>Time Series</b>					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2018	445		
<b>TL</b>	TL-MT	2020	491		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

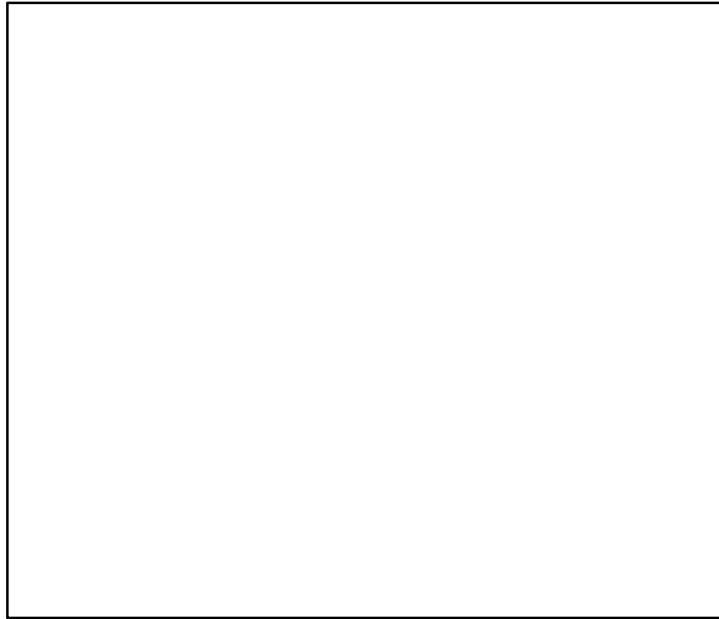
**Kobe MSY\***



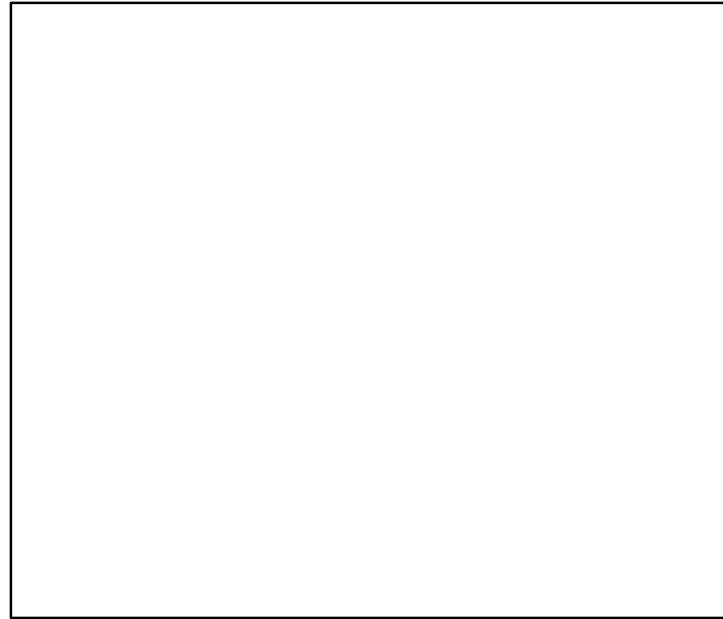
**Kobe MGT\***



**Spawner Recruit\***



**Production\***



◆ Start Year ♦ End Year \* No Data

Red seabream Azores Grounds [RBRMX]

**TB\***



**SSB\***



**TN \***



**F\***



**ER\***



**Recruits\***

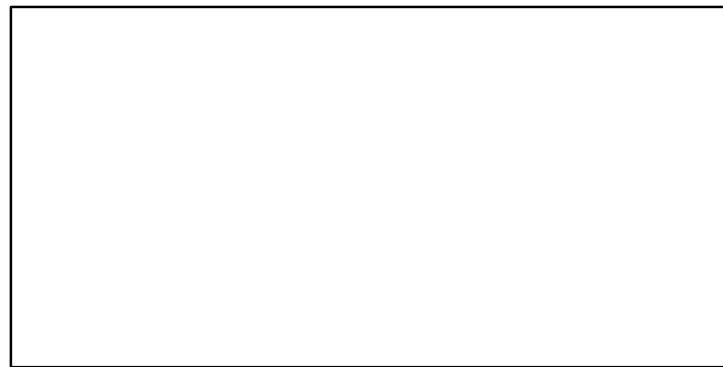
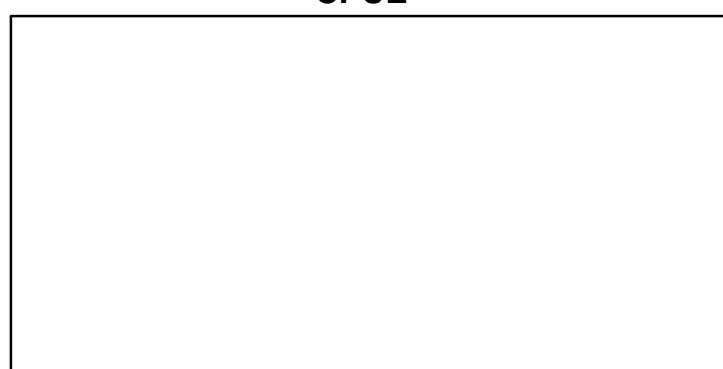
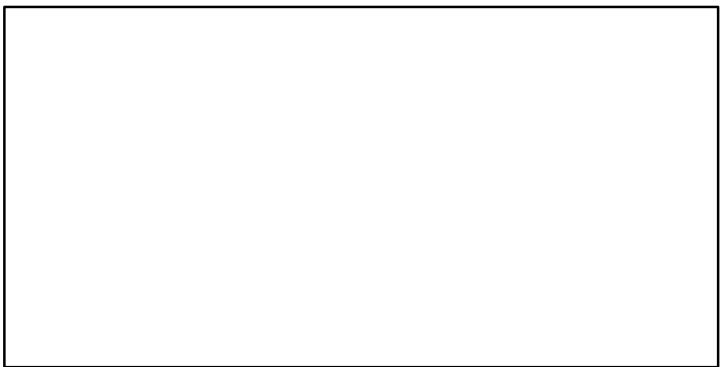
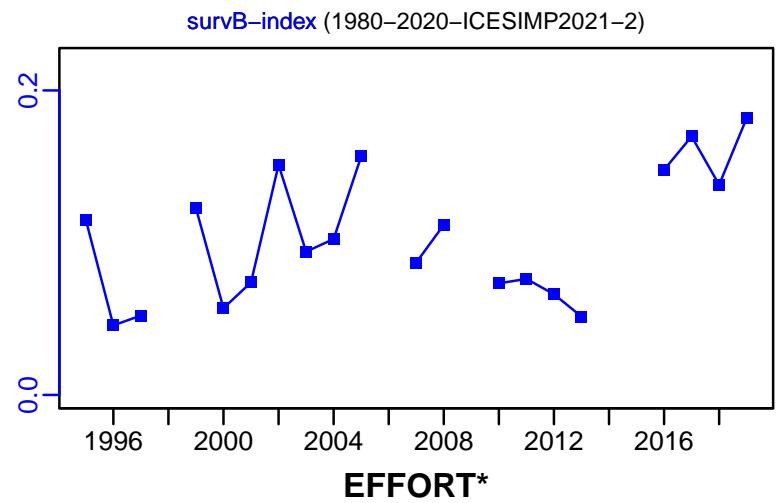
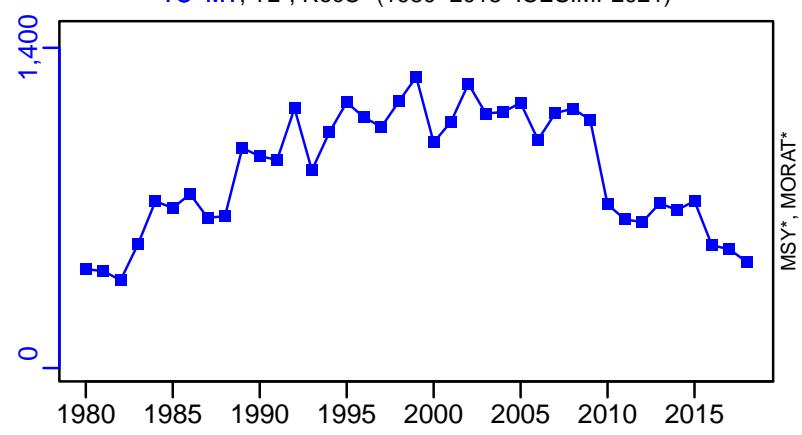


- |       |                    |       |            |   |         |
|-------|--------------------|-------|------------|---|---------|
| ■     | Listed time series | - - - | Target BRP | — | Rec-Est |
| - - - | MSY-based BRP      | - - - | Lim BRP    | * | No Data |

Red seabream Azores Grounds [RBRMX]

TC-MT, TL\*, RecC\* (1980–2018–ICESIMP2021)

TAC\*, Cpair\*, Cadv\*



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - MSY                  | * No Data |

## Red grouper Gulf of Mexico [RGROUPGM]

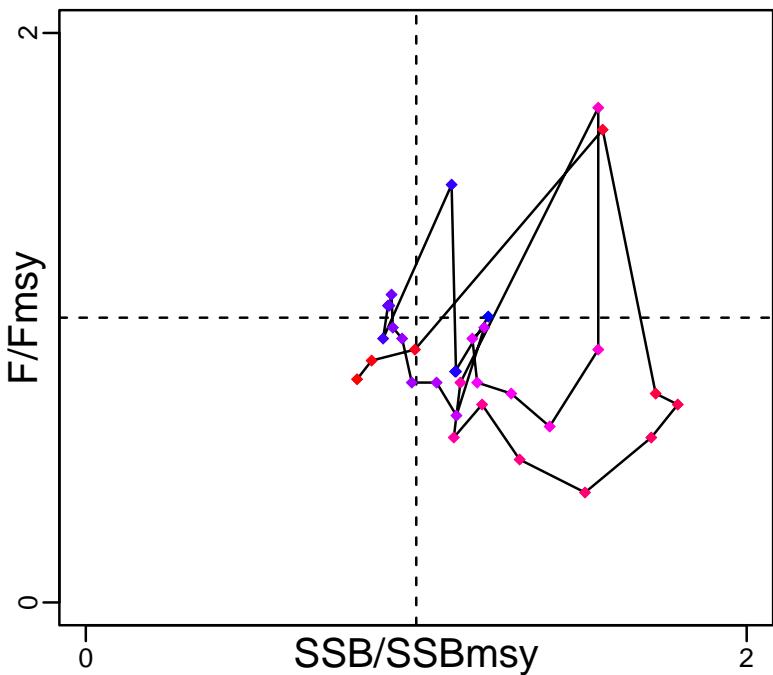
<b>Metadata</b>	
<b>Scientific Name</b>	Epinephelus morio
<b>Current Assess ID</b>	SEFSC-RGROUPGM-1963-2017-SISIMP2021-2
<b>Area</b>	Gulf of Mexico
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southeast Fisheries Science Center
<b>Asmts in RAM</b>	2017, 2005, 2013

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	TBmsy-calc-MT	2013	30,798
<b>SSBmsy</b>	SSBmsy-E00eggs	2017	$7.48 \times 10^8$
<b>Fmsy</b>	Fmsy-1/yr	2017	0.259
<b>ERmsy</b>	ERmsy-ratio	2013	0.212
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	ERmgt-ratio	2013	0.164
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2013	6529
<b>M</b>	M-1/yr	2005	0.14
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-E00eggs	2017	$3.74 \times 10^8$
<b>Flim</b>	Flim-1/yr	2017	0.259
<b>ERlim</b>	ERlim-ratio	2013	0.212

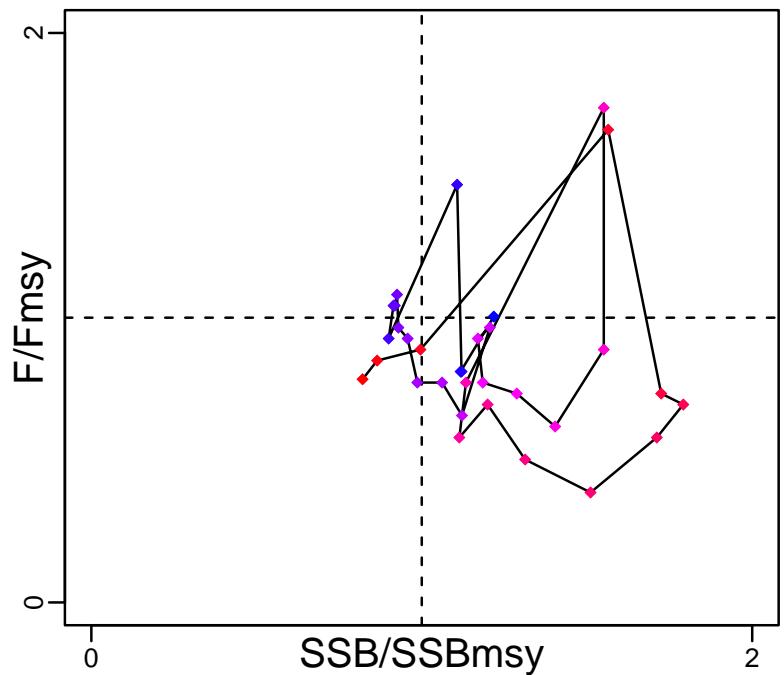
<b>Time Series</b>						
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>	
<b>TB</b>	TB-MT	2013	46,500	-	0+	
<b>SSB</b>	SSB-E00eggs	2017	$6.14 \times 10^8$	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2017	14,200,000	-	0	
<b>F</b>	F-1/yr	2017	0.203	-	-	
<b>ER</b>	ER-ratio	2013	0.126	-	-	
<b>TC</b>	TC-MT	2017	1510			
<b>TL</b>	-	-	-			
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2013	1.51			
<b>SSB/SSBmsy</b>	SSB-E00eggs/SSBmsy-E00eggs	2017	0.821			
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2017	0.784			
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2013	0.594			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

**Red grouper Gulf of Mexico [RGROUPGM]**

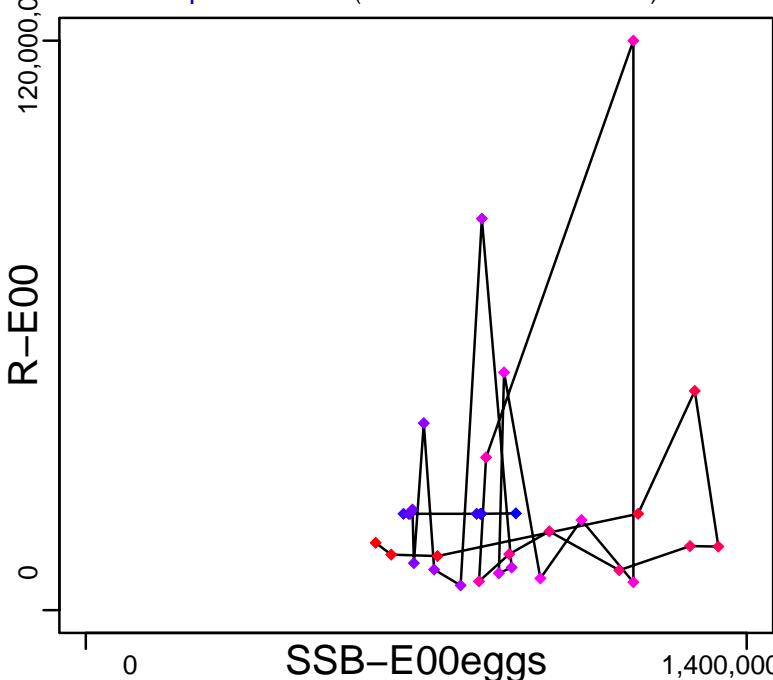
Kobe MSYpref (1963–2017–SISIMP2021–2)



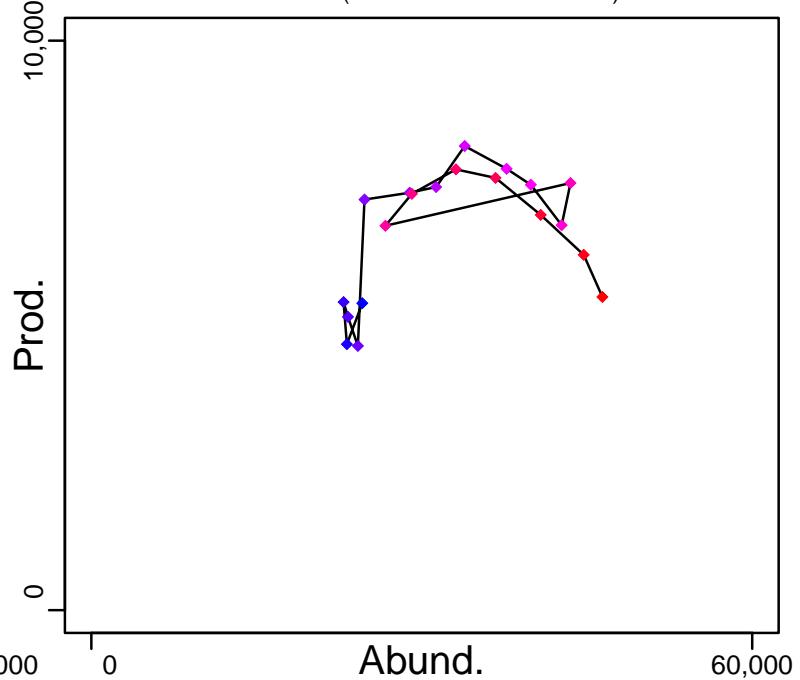
Kobe MGTpref (1963–2017–SISIMP2021–2)



Spawner Recruit (1963–2017–SISIMP2021–2)



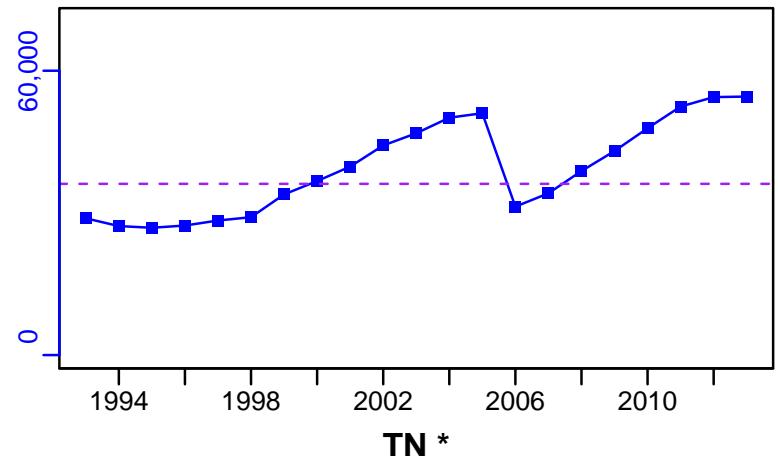
Production (1993–2013–SISIMP2016)



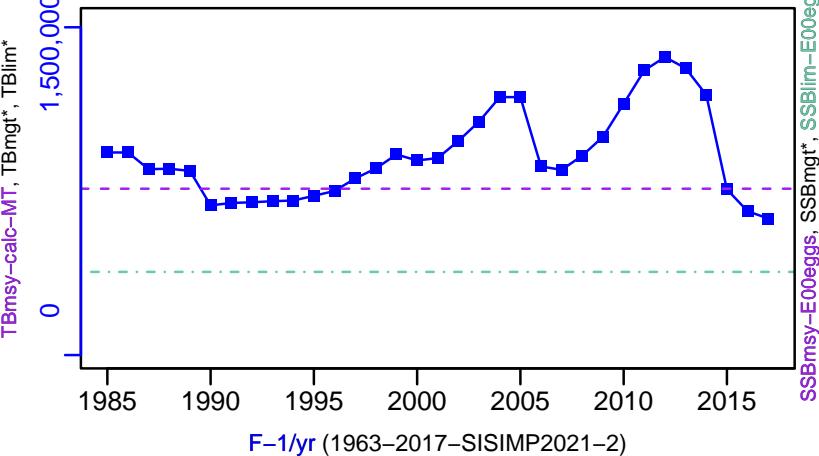
◆ Start Year   ◆ End Year   \* No Data

### Red grouper Gulf of Mexico [RGROUPGM]

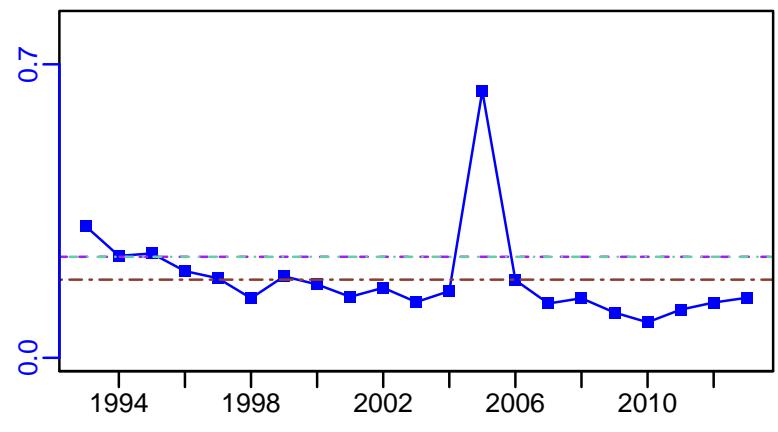
TB-MT (1993–2013–SISIMP2016)



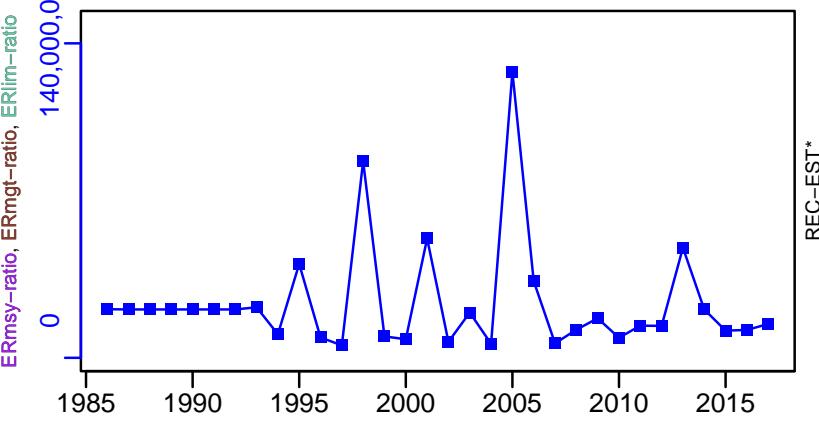
SSB-E00eggs (1963–2017–SISIMP2021–2)



ER-ratio (1993–2013–SISIMP2016)



R-E00 (1963–2017–SISIMP2021–2)

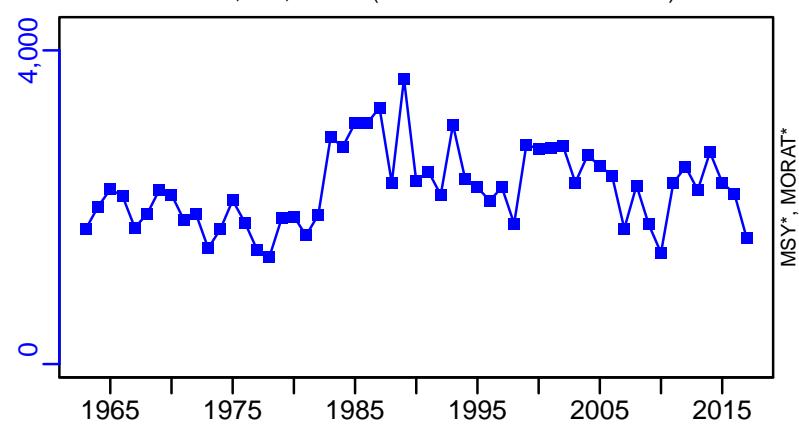


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	--- Lim BRP	* No Data

**Red grouper Gulf of Mexico [RGROUPGM]**

TC-MT, TL\*, RecC\* (1963–2017–SISIMP2021–2)

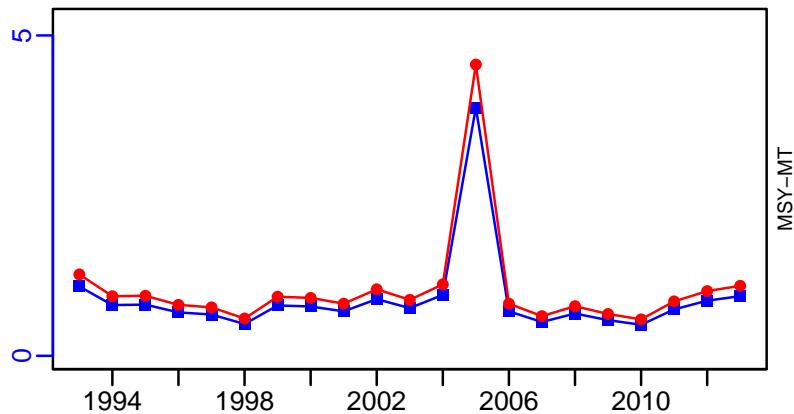
TAC\*, Cpair\*, Cadv\*



**EFFORT\***



TC-MT/MSY-MT, CdivMEANC-ratio, (1993–2013–SISIMP2016)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Red grouper South Atlantic [RGROUPSATL]

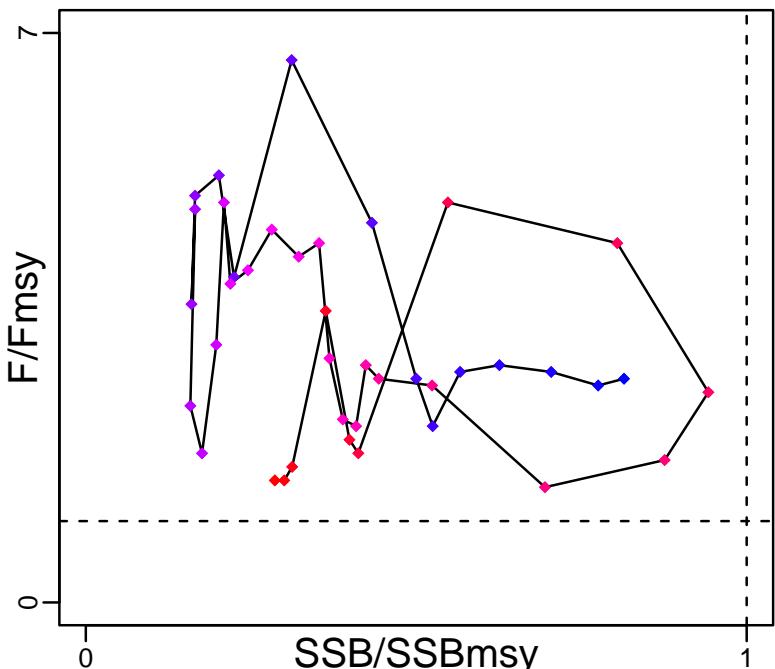
<b>Metadata</b>	
<b>Scientific Name</b>	Epinephelus morio
<b>Current Assess ID</b>	SEFSC-RGROUPSATL-1975-2015-SISIMP2021
<b>Area</b>	South Atlantic
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southeast Fisheries Science Center
<b>Asmts in RAM</b>	2015, 2009

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-MT	2009	3680
<b>SSBmsy</b>	SSBmsy-MT	2015	3183
<b>Fmsy</b>	Fmsy-1/yr	2015	0.12
<b>ERmsy</b>	ERmsy-calc-ratio	2009	0.137
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2009	503
<b>M</b>	M-1/yr	2009	0.14
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2015	2387
<b>Flim</b>	Flim-1/yr	2015	0.12
<b>ERlim</b>	-	-	-

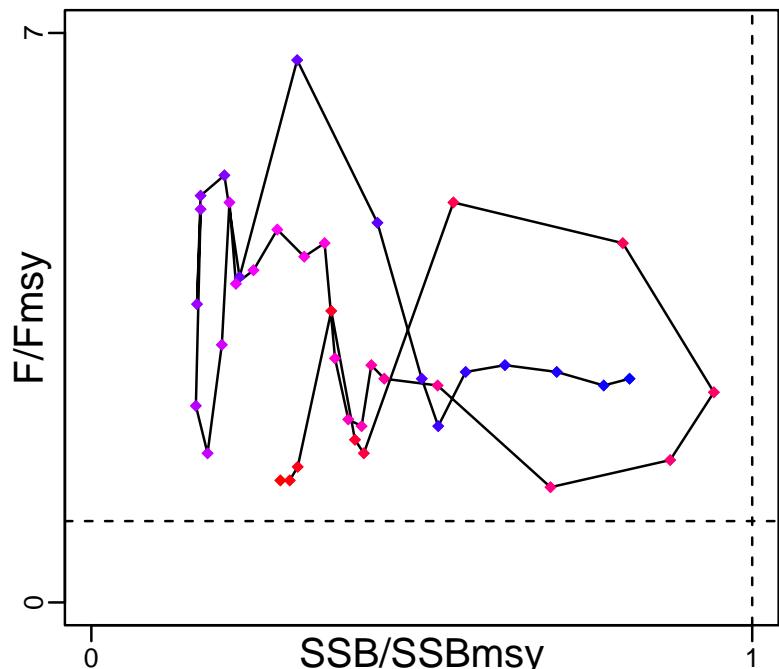
<b>Time Series</b>						
Type	ID	Asmt Year	Curr Value	Sex	Age	
<b>TB</b>	TB-MT	2009	2760	-	-	
<b>SSB</b>	SSB-MT	2015	911	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2015	151,485	-	1	
<b>F</b>	F-1/yr	2015	0.18	-	-	
<b>ER</b>	ER-calc-ratio	2009	0.222	-	-	
<b>TC</b>	TC-MT	2009	665			
<b>TL</b>	TL-MT	2009	647			
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2009	0.75			
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2015	0.286			
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2015	1.5			
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-calc-ratio	2009	1.62			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

**Red grouper South Atlantic [RGROUPSATL]**

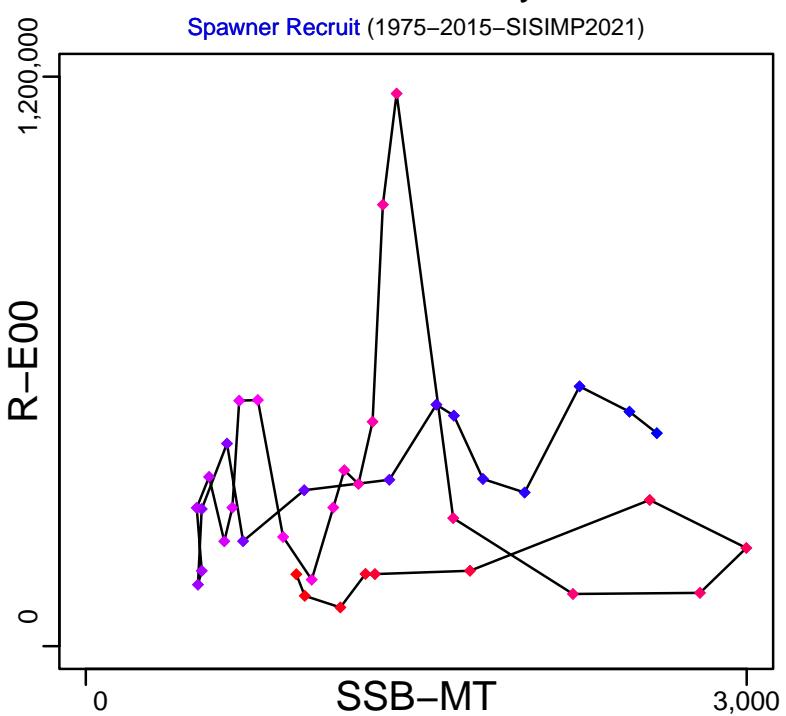
Kobe MSYpref (1975–2015–SISIMP2021)



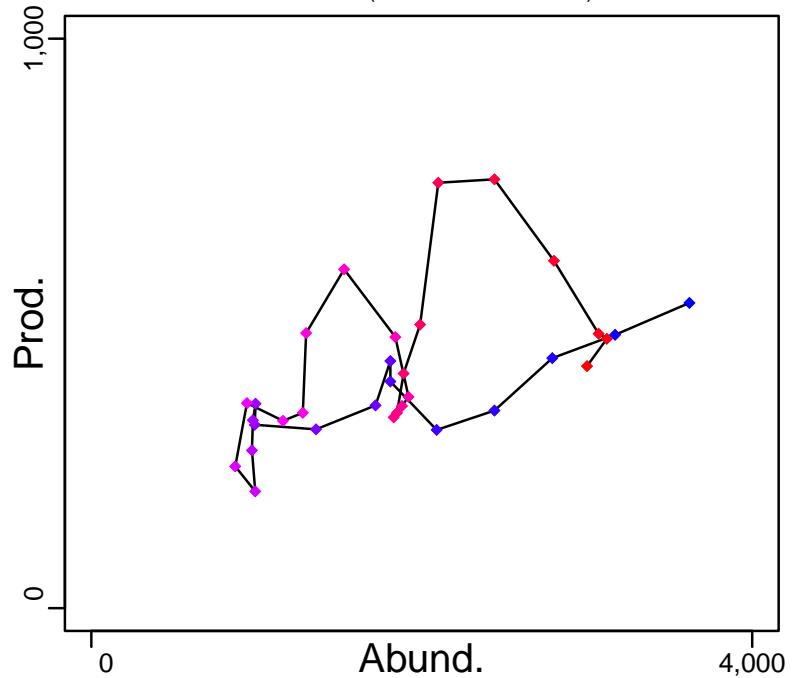
Kobe MGTpref (1975–2015–SISIMP2021)



Spawner Recruit (1975–2015–SISIMP2021)



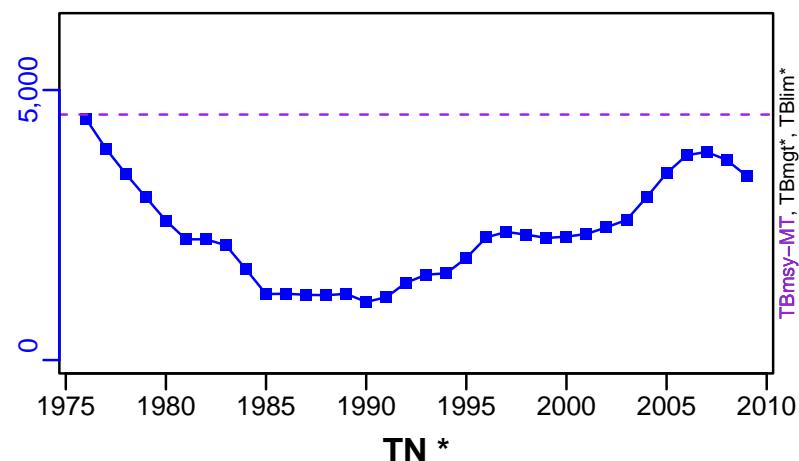
Production (1976–2009–HIVELY)



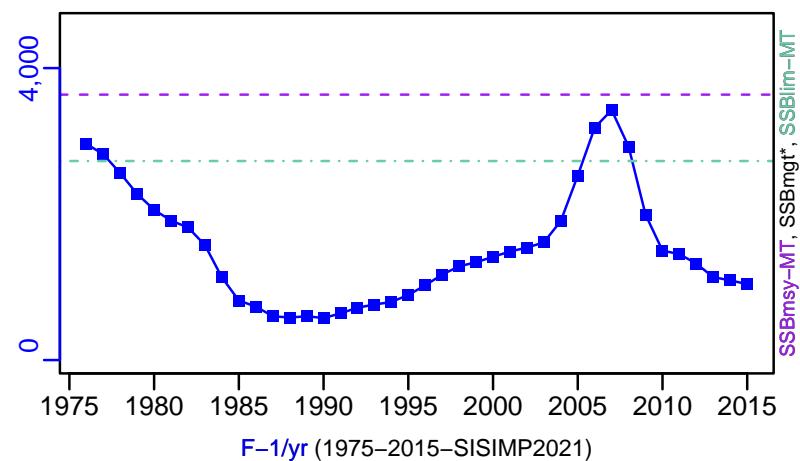
◆ Start Year   ◆ End Year   \* No Data

### Red grouper South Atlantic [RGROUPSATL]

TB-MT (1976–2009–HIVELY)



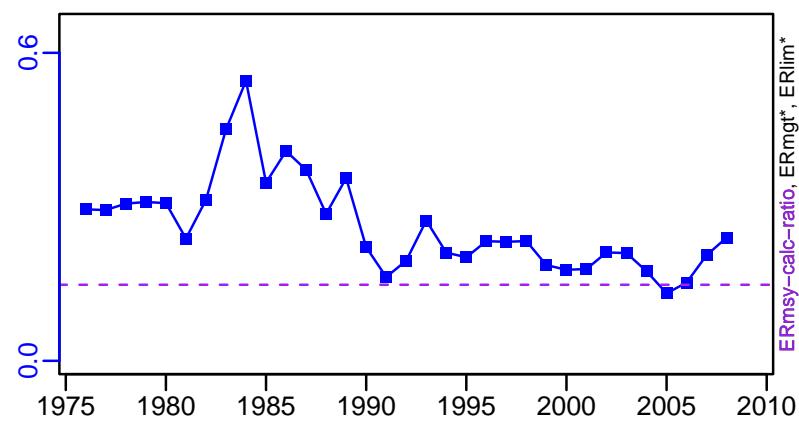
SSB-MT (1975–2015–SISIMP2021)



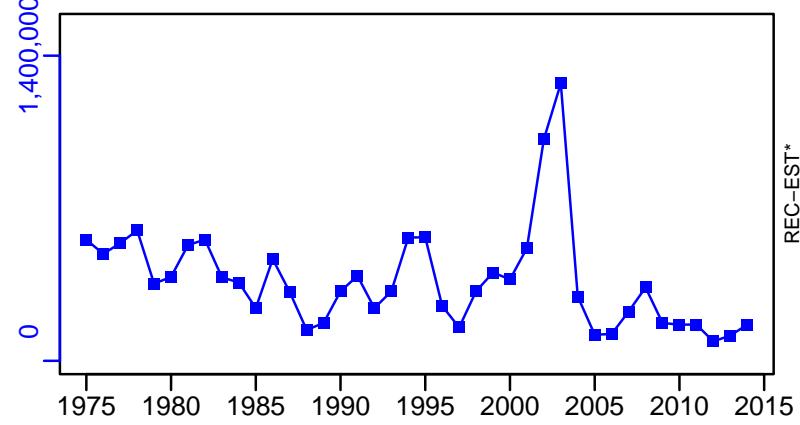
**TN \***

Fmsy-1/yr, Fmgt\*, Fmgt-1/yr, SSBmgt\*, SSBlim\*, SSBlim-1/yr

ER-calc-ratio (1976–2009–HIVELY)



R-E00 (1975–2015–SISIMP2021)



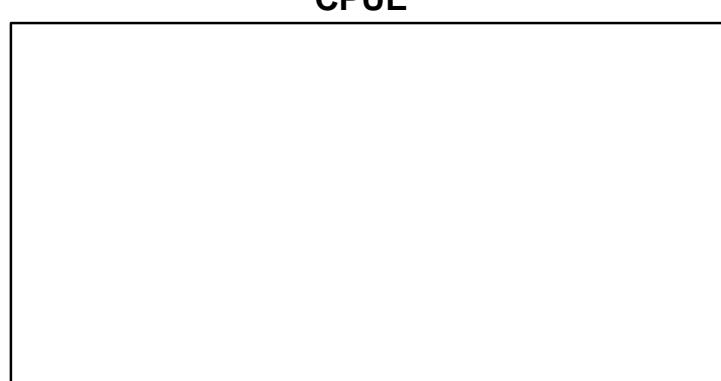
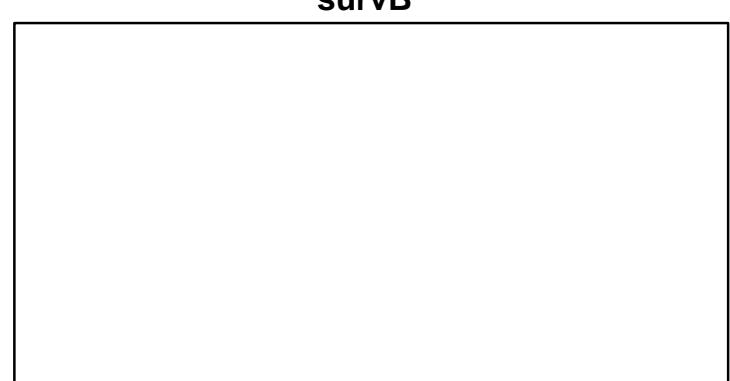
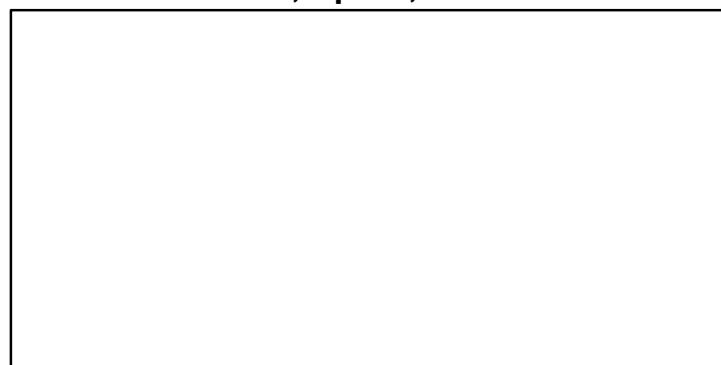
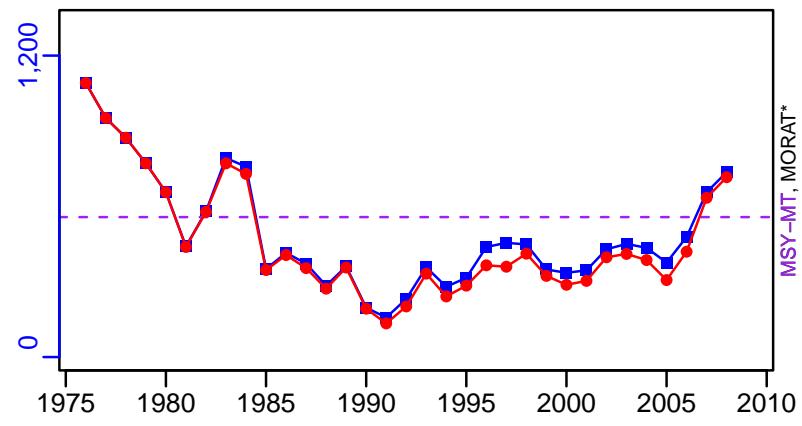
REC-EST\*

- |                      |              |           |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| - - MSY-based BRP    | - - Lim BRP  | * No Data |

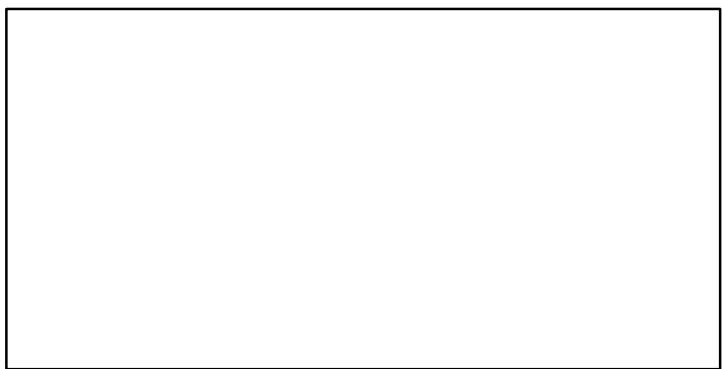
**Red grouper South Atlantic [RGROUPSATL]**

TC-MT, TL-MT, RecC\* (1976–2009–HIVELY)

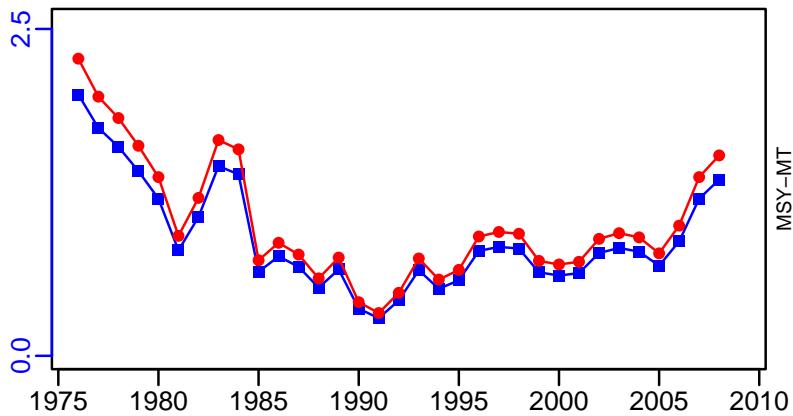
TAC\*, Cpair\*, Cadv\*



**EFFORT\***



TC-MT/MSY-MT, CdivMEANC-ratio, (1976–2009–HIVELY)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Rubberlip grunt North West Africa [RGRUNTNWA]

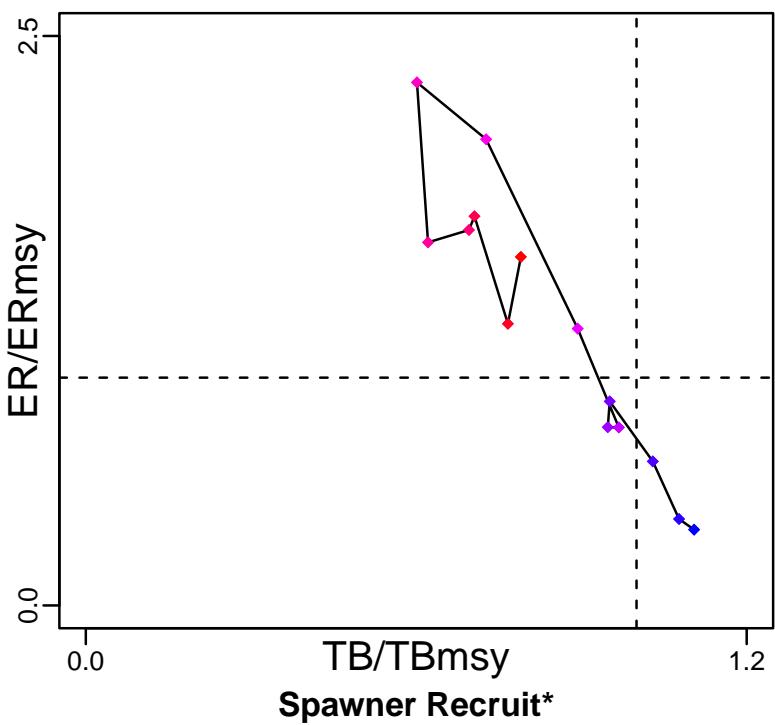
Metadata	
<b>Scientific Name</b>	Plectorhinchus mediterraneus
<b>Current Assess ID</b>	FAO-DR-RGRUNTNWA-1990-2016-ASHBROOK
<b>Area</b>	North West Africa
<b>Management Authority</b>	Food and Agriculture Organization of the United Nations
<b>Assessor</b>	FAO/CECAF Working Group on the Assessment of Demersal Resources
<b>Asmts in RAM</b>	2016

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

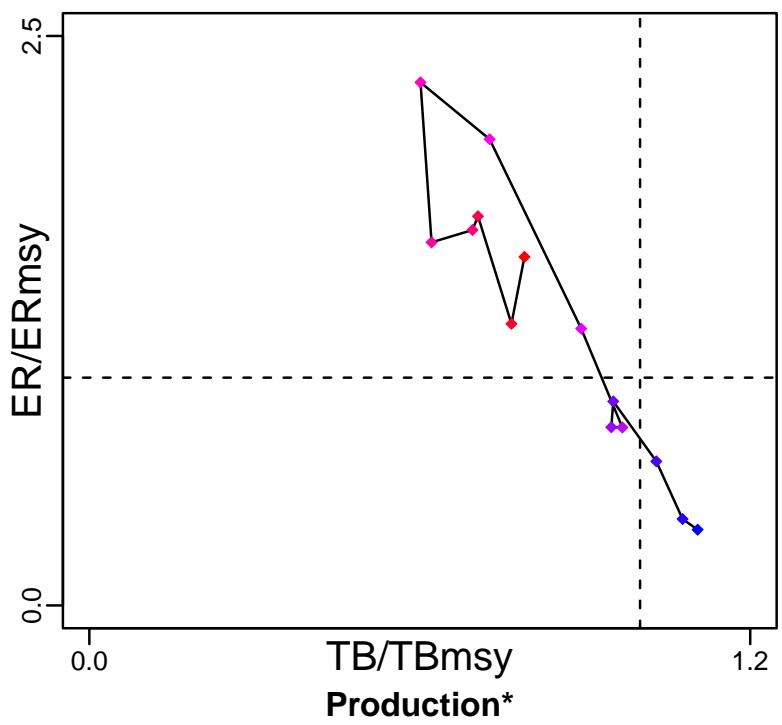
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2016	7708		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

Rubberlip grunt North West Africa [RGRUNTNWA]

Kobe MSYpref (1990–2016–ASHBROOK)



Kobe MGTpref (1990–2016–ASHBROOK)



◆ Start Year   ◆ End Year   \* No Data

Rubberlip grunt North West Africa [RGRUNTNWA]

**TB\***



**SSB\***



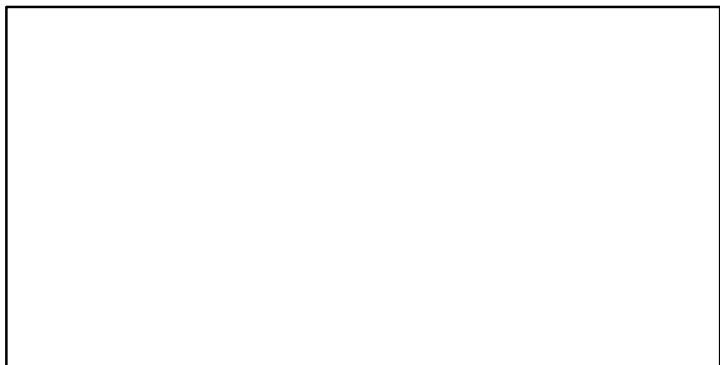
**TN \***



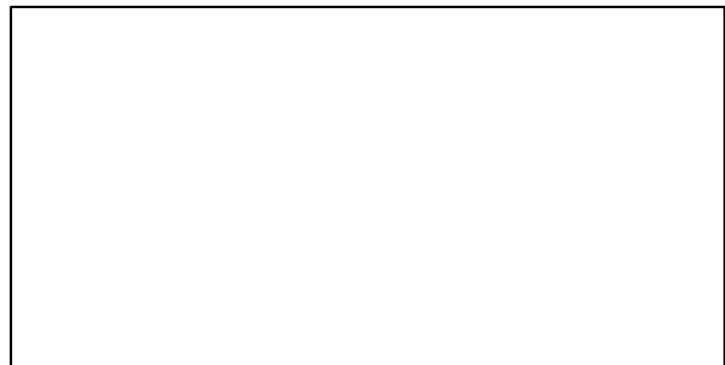
**F\***



**ER\***



**Recruits\***

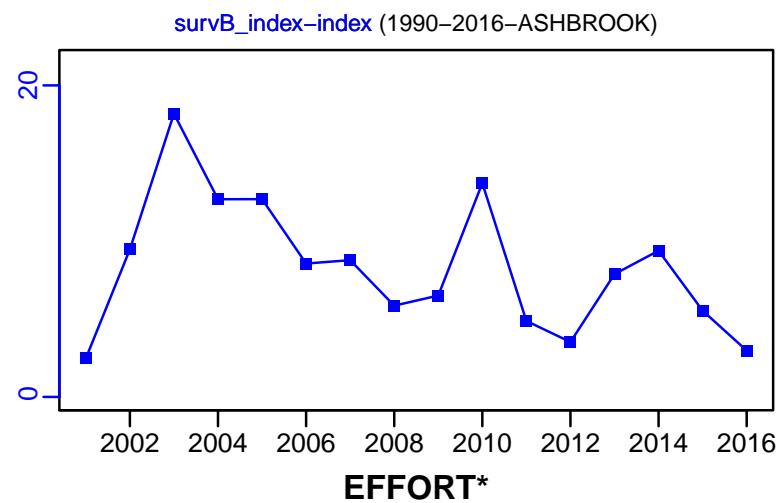
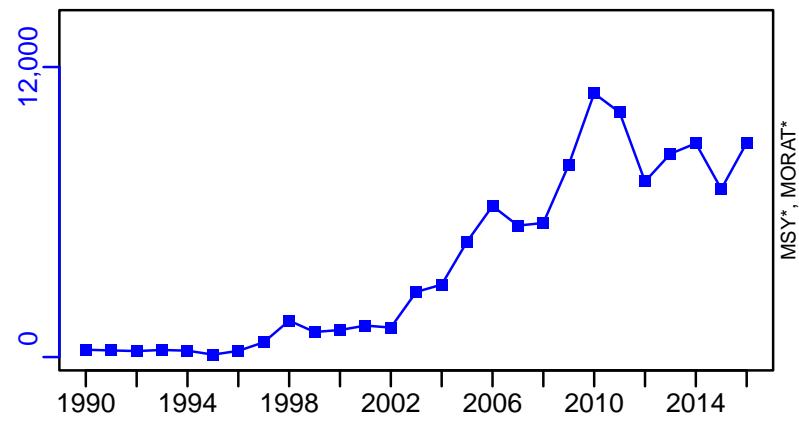


- |                      |                  |           |
|----------------------|------------------|-----------|
| ■ Listed time series | - - - Target BRP | — Rec-Est |
| - - - MSY-based BRP  | - - - Lim BRP    | * No Data |

Rubberlip grunt North West Africa [RGRUNTNWA]

TC-MT, TL\*, RecC\* (1990–2016-ASHBROOK)

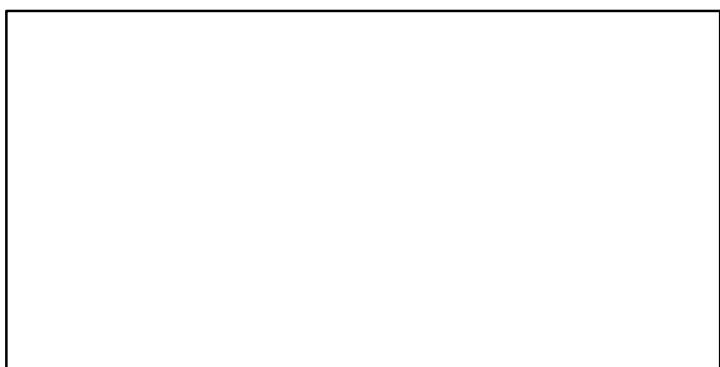
TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



CdivMSY\*



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - - MSY                | * No Data |

## Red mullet Northern Alboran Sea [RMULLMEDGSA1]

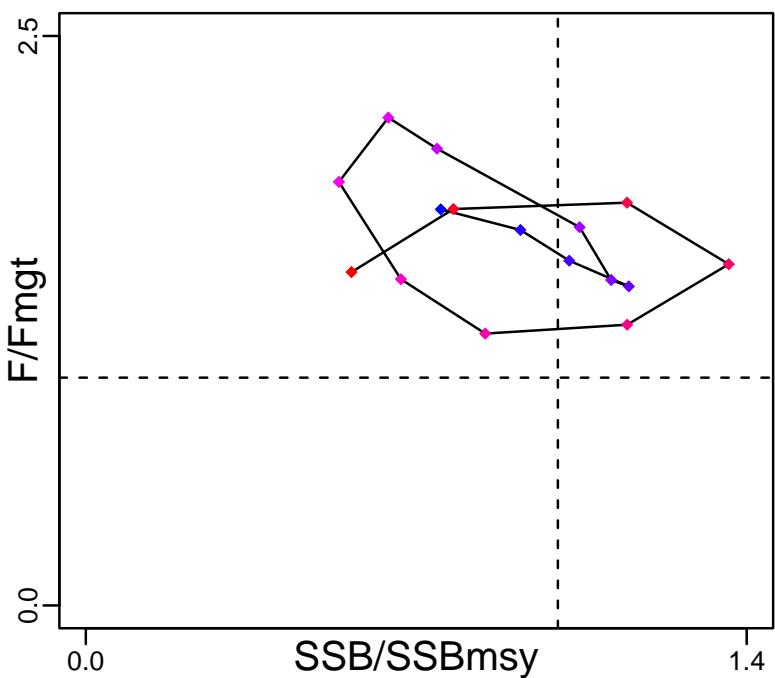
<b>Metadata</b>	
<b>Scientific Name</b>	Mullus barbatus
<b>Current Assess ID</b>	STECF-RMULLMEDGSA1-2004-2019-MEDIMP2021-2
<b>Area</b>	Northern Alboran Sea
<b>Management Authority</b>	General Fisheries Council for the Mediterranean, DG MARE, and national states
<b>Assessor</b>	Scientific, Technical and Economic Committee for Fisheries
<b>Asmts in RAM</b>	2013, 2019

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	Fmgt-1/yr	2019	0.702
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

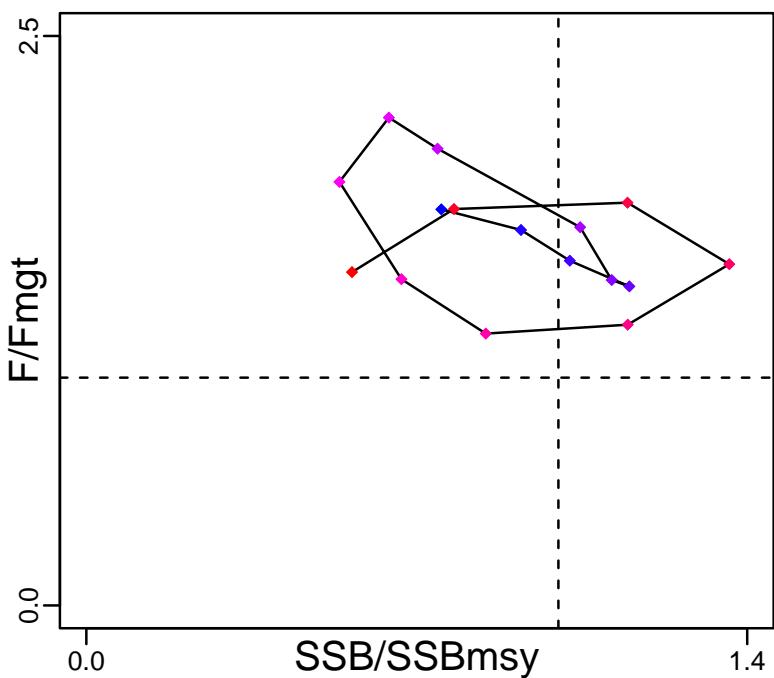
<b>Time Series</b>					
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2019	161	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2019	3,890,013	-	-
<b>F</b>	F-1/yr	2019	1.028	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2019	115		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2019	1.463		
<b>ER/ERmgt</b>	-	-	-		

Red mullet Northern Alboran Sea [RMULLMEDGSA1]

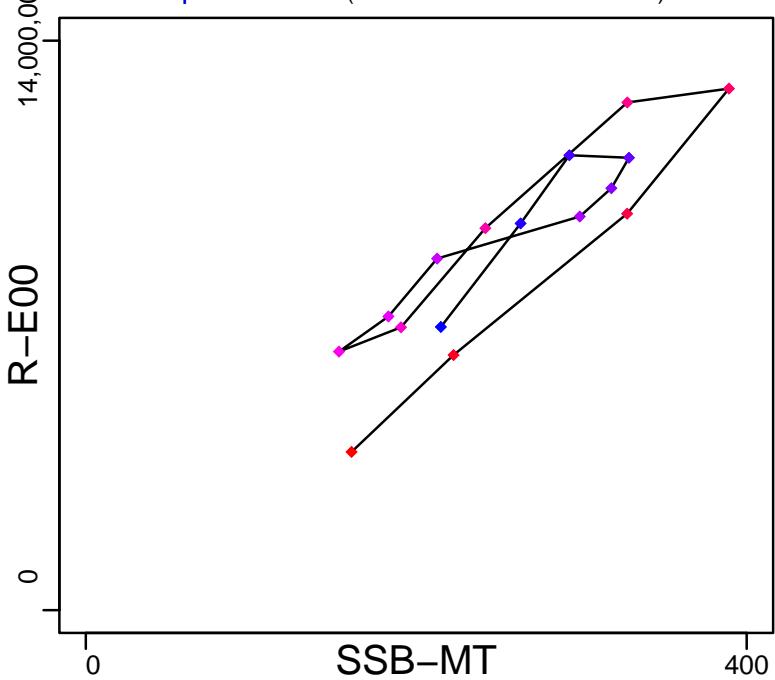
Kobe MSYpref (2004–2019–MEDIMP2021–2)



Kobe MGTpref (2004–2019–MEDIMP2021–2)



Spawner Recruit (2004–2019–MEDIMP2021–2)



Production\*



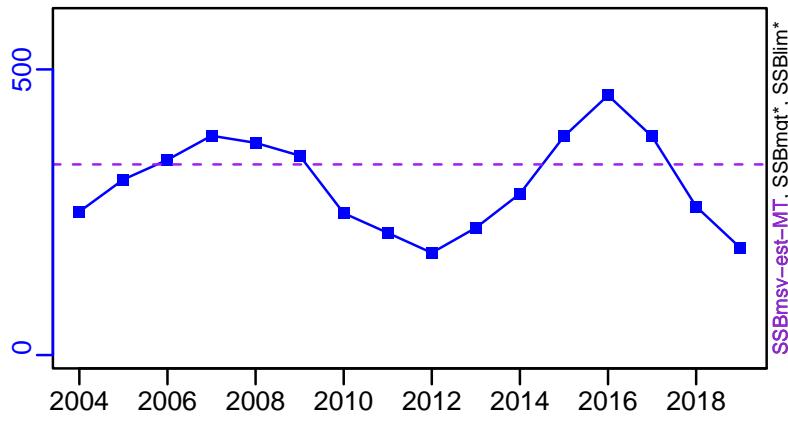
♦ Start Year   ♦ End Year   \* No Data

Red mullet Northern Alboran Sea [RMULLMEDGSA1]

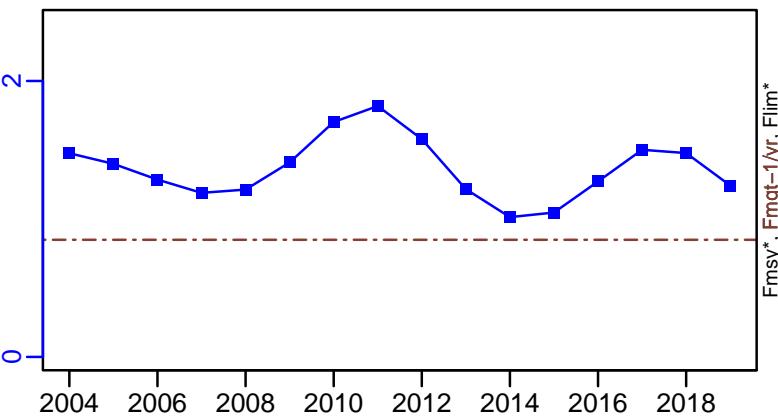
**TB\***



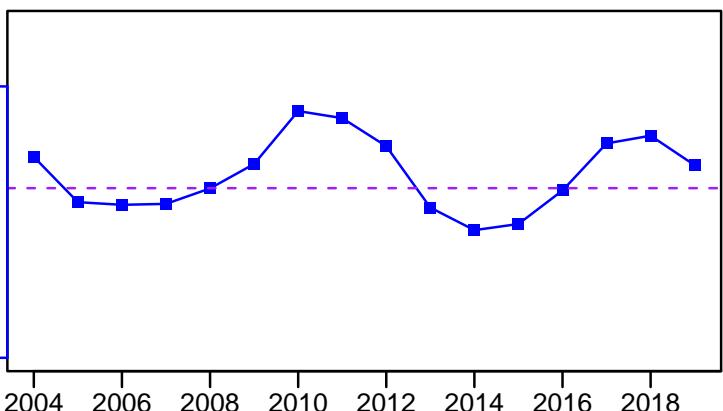
**SSB-MT** (2004–2019–MEDIMP2021–2)



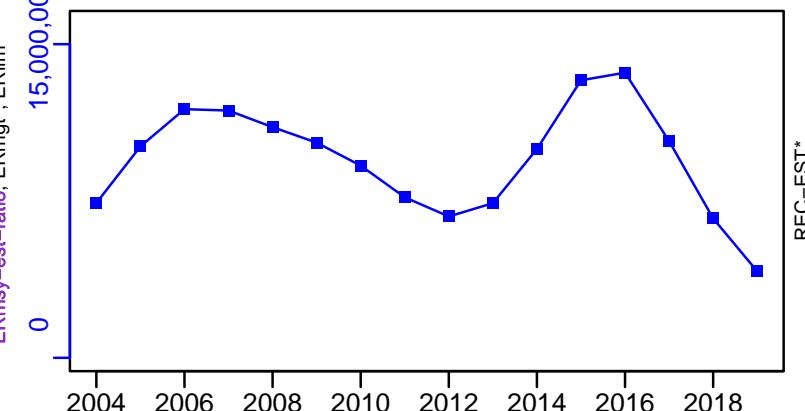
**TN \***



**ER-calc-ratio (2004–2019–MEDIMP2021–2)**



**R-E00 (2004–2019–MEDIMP2021–2)**

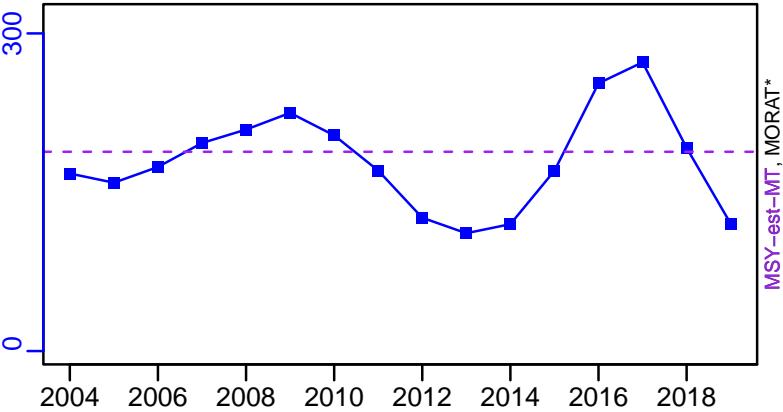


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - Lim BRP	* No Data

Red mullet Northern Alboran Sea [RMULLMEDGSA1]

TC-MT, TL\*, RecC\* (2004–2019–MEDIMP2021–2)

TAC\*, Cpair\*, Cadv\*



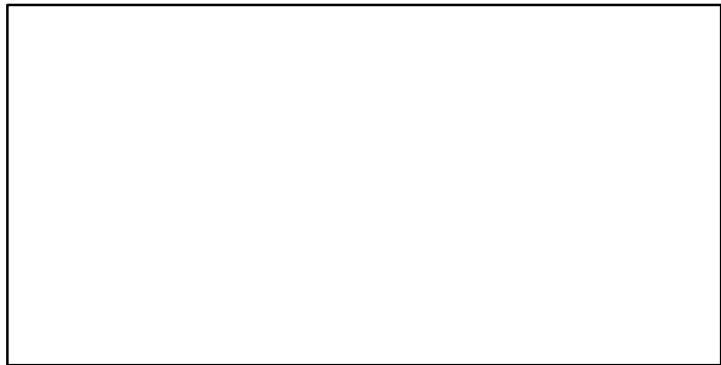
survB\*



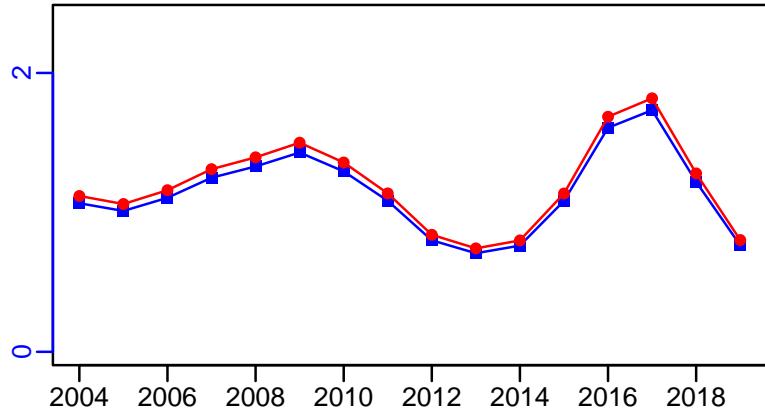
CPUE\*



EFFORT\*



TC-MT/MSY-est-MT, CdivMEANC-ratio, (2004–2019–MEDIMP2021–2)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Red mullet South Tyrrhenian Sea [RMULLMEDGSA10]

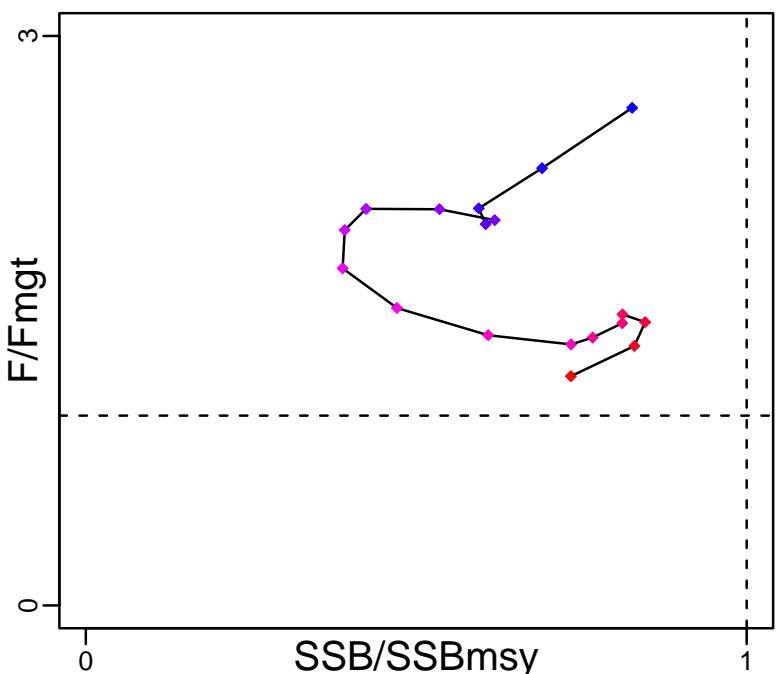
<b>Metadata</b>	
<b>Scientific Name</b>	Mullus barbatus
<b>Current Assess ID</b>	STECF-RMULLMEDGSA10-2002-2019-MEDIMP2021-2
<b>Area</b>	South Tyrrhenian Sea
<b>Management Authority</b>	General Fisheries Council for the Mediterranean, DG MARE, and national states
<b>Assessor</b>	Scientific, Technical and Economic Committee for Fisheries
<b>Asmts in RAM</b>	2019, 2010

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	Fmgt-1/yr	2019	0.393
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

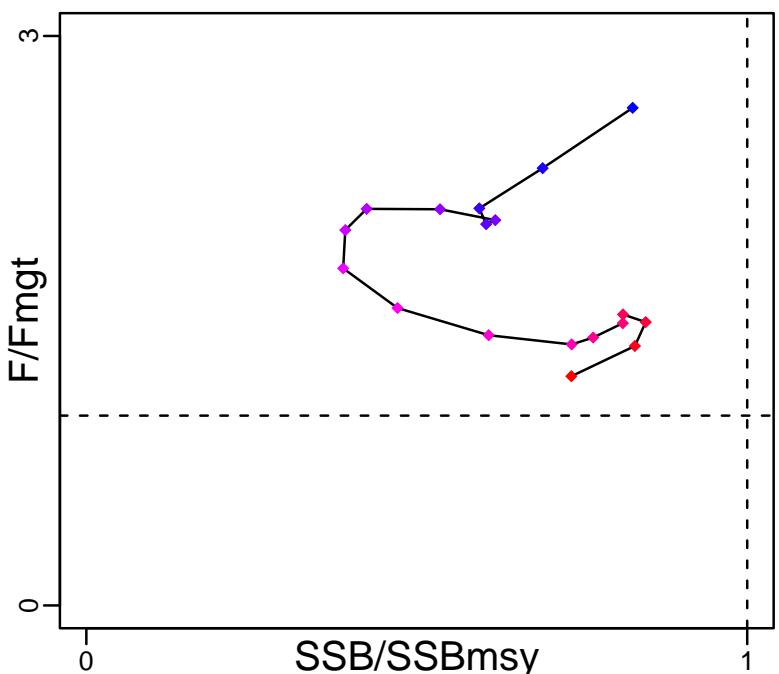
<b>Time Series</b>					
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2019	661	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2019	124,069,753	-	-
<b>F</b>	F-1/yr	2019	0.475	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2019	334		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2019	1.207		
<b>ER/ERmgt</b>	-	-	-		

**Red mullet South Tyrrhenian Sea [RMULLMEDGSA10]**

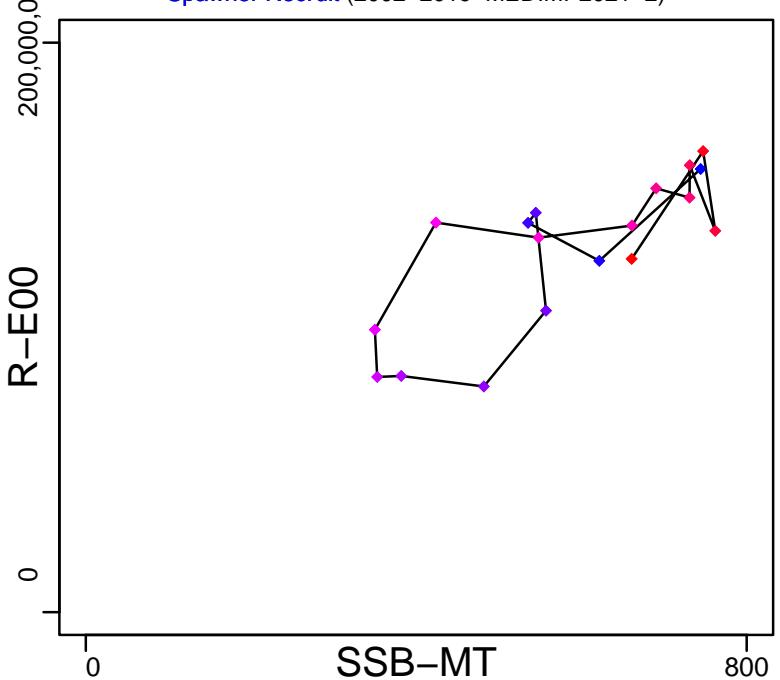
Kobe MSYpref (2002–2019–MEDIMP2021–2)



Kobe MGTpref (2002–2019–MEDIMP2021–2)



Spawner Recruit (2002–2019–MEDIMP2021–2)



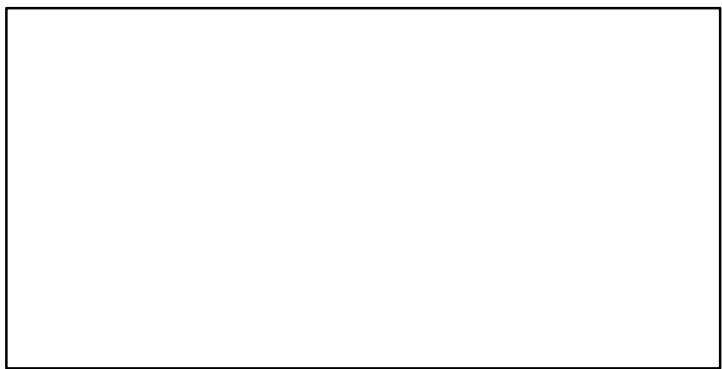
SSB/SSB<sub>msy</sub>

**Production\***

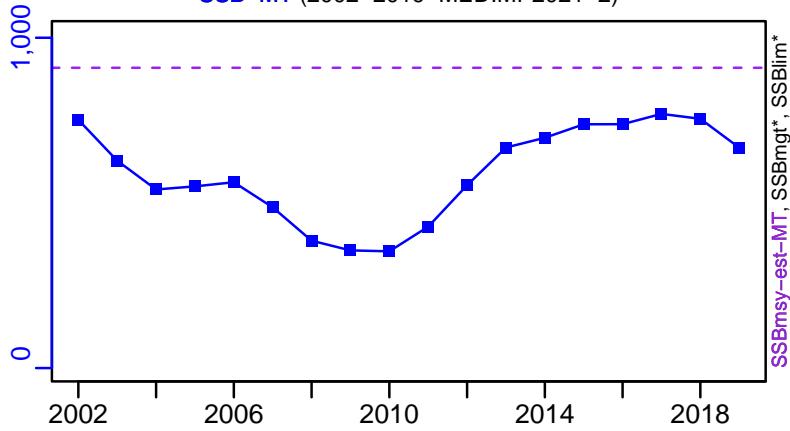
♦ Start Year   ♦ End Year   \* No Data

Red mullet South Tyrrhenian Sea [RMULLMEDGSA10]

**TB\***



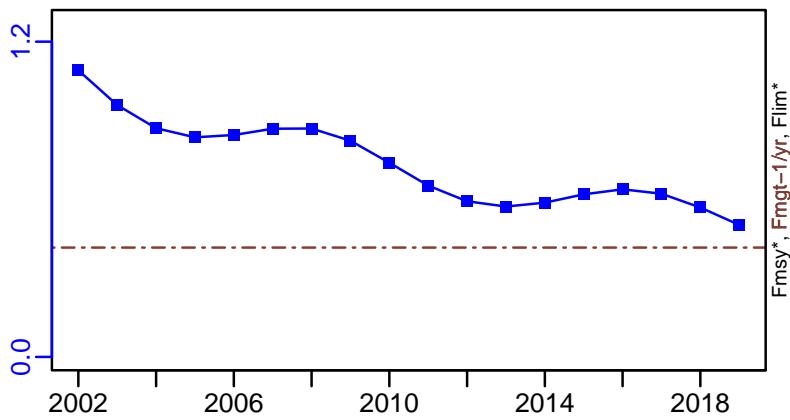
**SSB-MT (2002–2019–MEDIMP2021–2)**



**TN \***

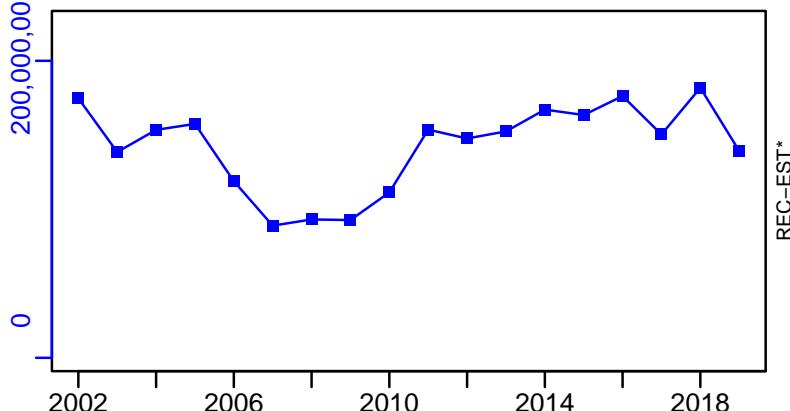
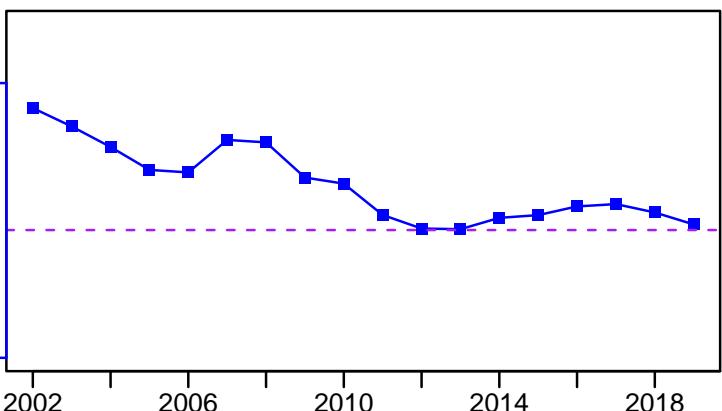


**F-1/yr (2002–2019–MEDIMP2021–2)**



**ER-calc-ratio (2002–2019–MEDIMP2021–2)**

**R-E00 (2002–2019–MEDIMP2021–2)**

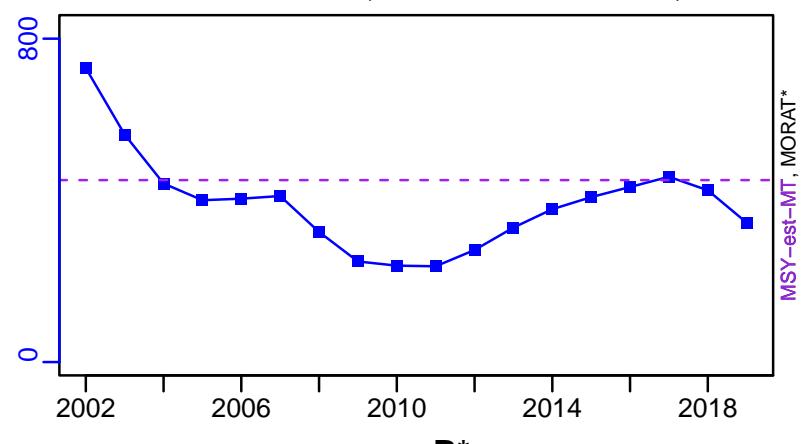


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	--- Lim BRP	* No Data

**Red mullet South Tyrrhenian Sea [RMULLMEDGSA10]**

TC-MT, TL\*, RecC\* (2002–2019–MEDIMP2021–2)

TAC\*, Cpair\*, Cadv\*



survB\*

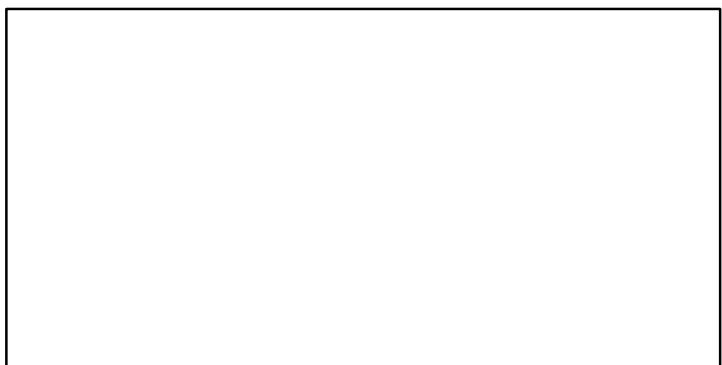
MSY-est-MT, MORAT\*



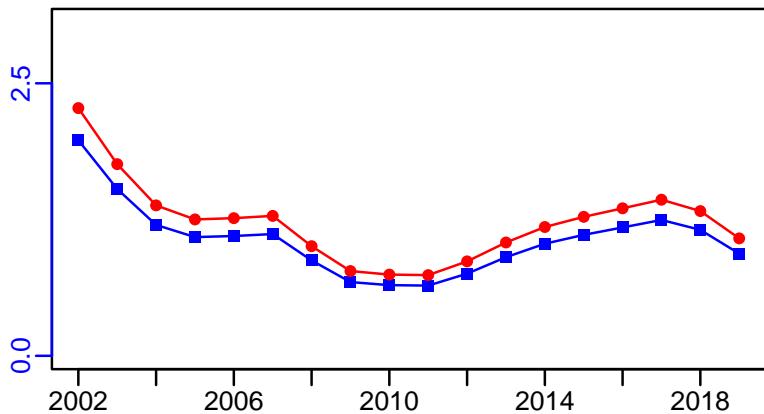
CPUE\*



EFFORT\*



TC-MT/MSY-est-MT, CdivMEANC-ratio, (2002–2019–MEDIMP2021–2)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	— MSY	* No Data

## Red mullet Sardinia [RMULLMEDGSA11]

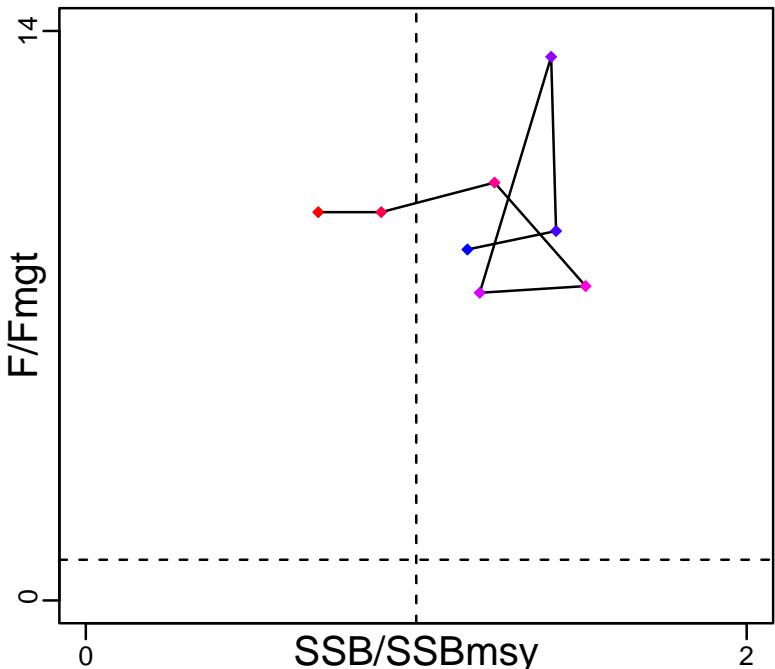
<b>Metadata</b>	
<b>Scientific Name</b>	Mullus barbatus
<b>Current Assess ID</b>	STECF-RMULLMEDGSA11-2005-2012-OSIO
<b>Area</b>	Sardinia
<b>Management Authority</b>	General Fisheries Council for the Mediterranean, DG MARE, and national states
<b>Assessor</b>	Scientific, Technical and Economic Committee for Fisheries
<b>Asmts in RAM</b>	2012

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	Fmgt-1/yr	2012	0.11
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

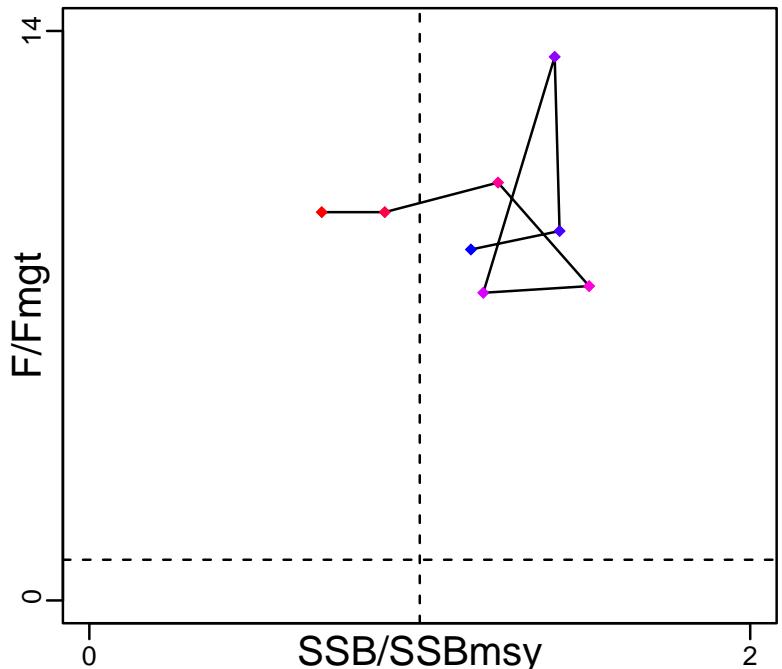
<b>Time Series</b>					
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2012	94	-	1+
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2012	26,600,000	-	-
<b>F</b>	F-1/yr	2012	1.05	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2012	136		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2012	9.545		
<b>ER/ERmgt</b>	-	-	-		

**Red mullet Sardinia [RMULLMEDGSA11]**

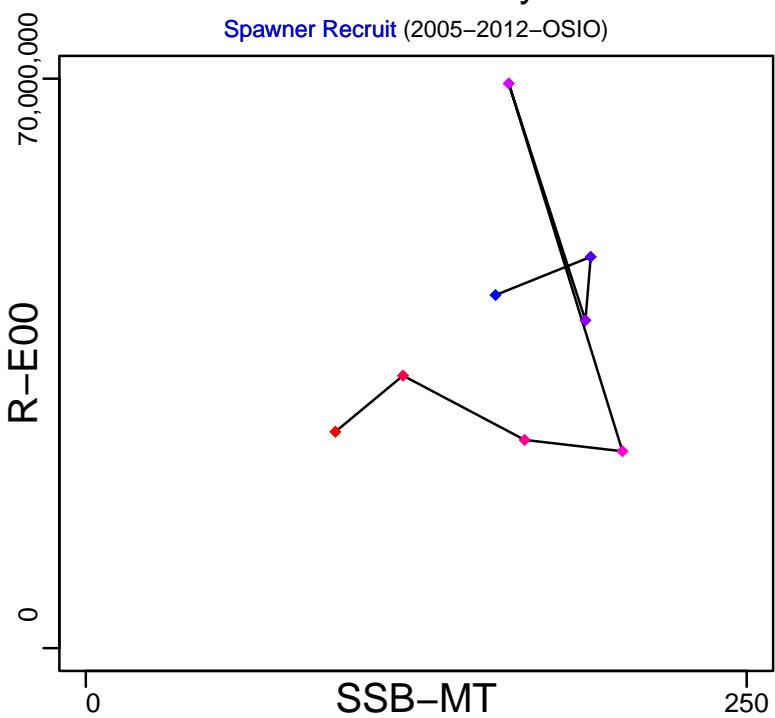
Kobe MSYpref (2005–2012–OSIO)



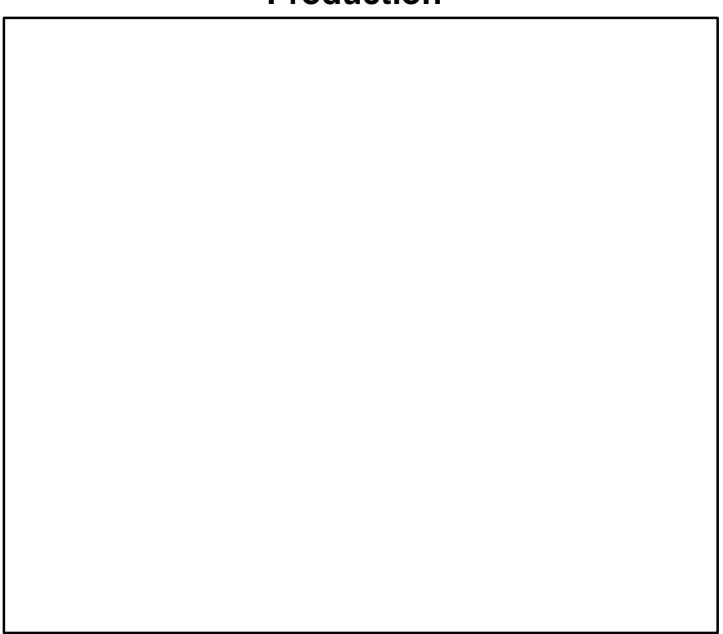
Kobe MGTpref (2005–2012–OSIO)



Spawner Recruit (2005–2012–OSIO)



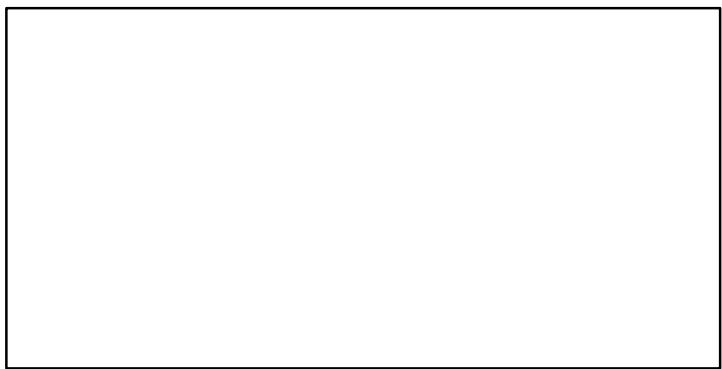
Production\*



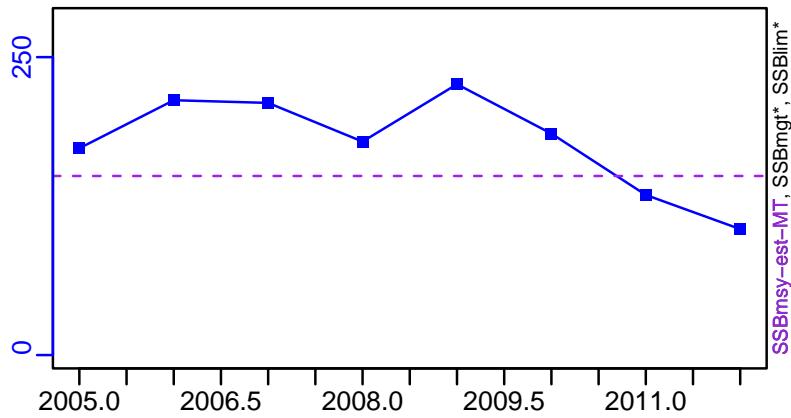
◆ Start Year ◆ End Year \* No Data

Red mullet Sardinia [RMULLMEDGSA11]

**TB\***



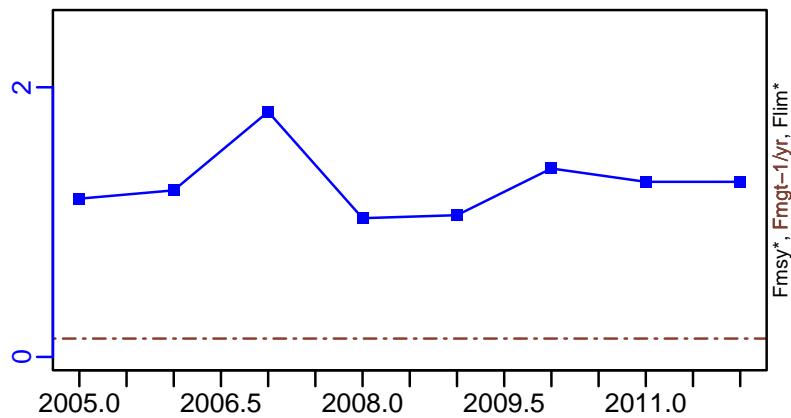
**SSB-MT** (2005–2012–OSIO)



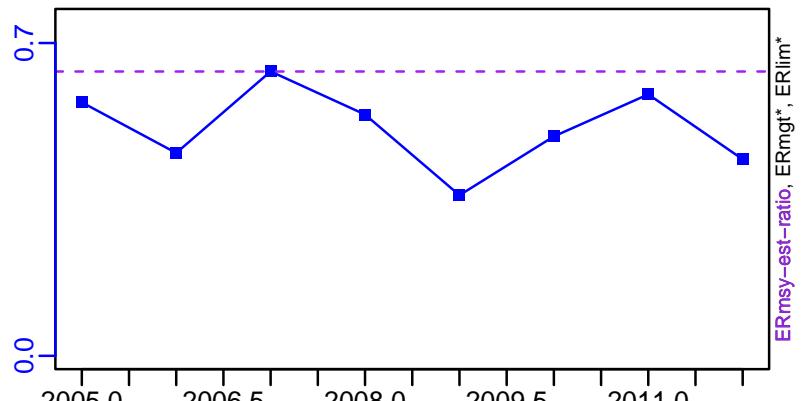
**TN \***



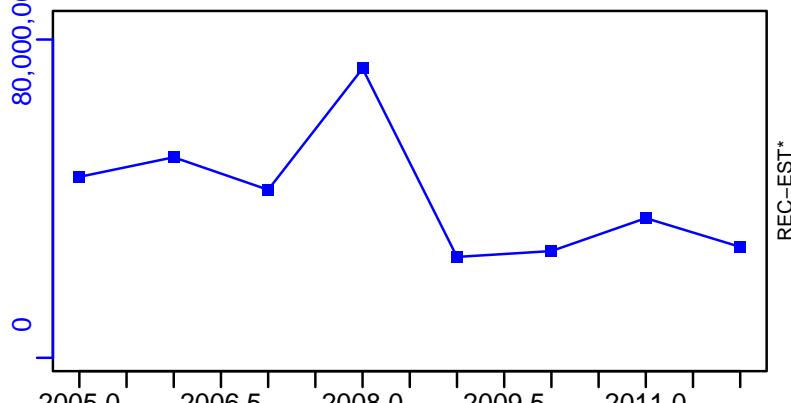
**F-1/yr** (2005–2012–OSIO)



**ER-calc-ratio** (2005–2012–OSIO)



**R-E00** (2005–2012–OSIO)

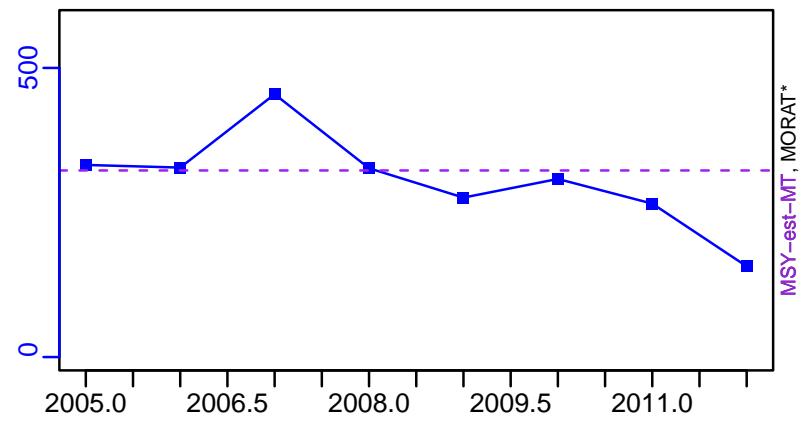


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - - Lim BRP	* No Data

**Red mullet Sardinia [RMULLMEDGSA11]**

TC-MT, TL\*, RecC\* (2005–2012–OSIO)

TAC\*, Cpair\*, Cadv\*



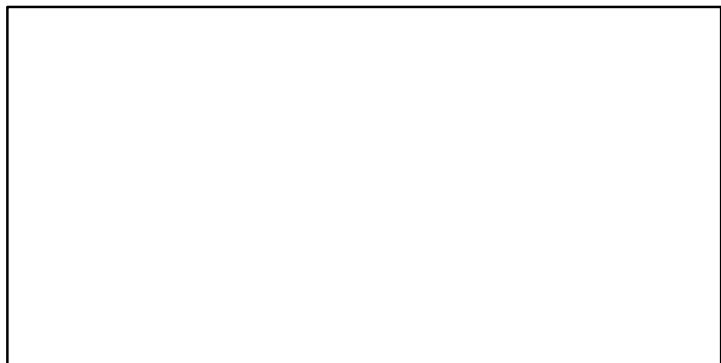
**survB\***



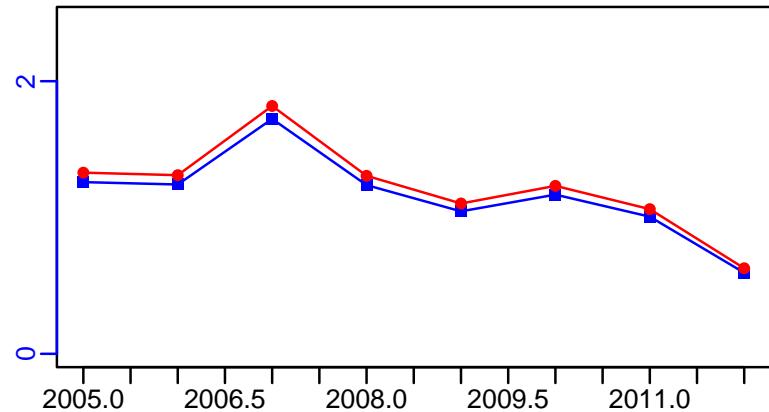
**CPUE\***



**EFFORT\***



TC-MT/MSY-est-MT, CdivMEANC-ratio, (2005–2012–OSIO)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	— MSY	* No Data

## Red mullet Malta Island and South of Sicily (GSA 15, 16) [RMULLMEDGSA15-16]

<b>Metadata</b>	
<b>Scientific Name</b>	Mullus barbatus
<b>Current Assess ID</b>	STECF-RMULLMEDGSA15-16-2005-2011-OSIO
<b>Area</b>	Malta Island and South of Sicily (GSA 15, 16)
<b>Management Authority</b>	General Fisheries Council for the Mediterranean, DG MARE, and national states
<b>Assessor</b>	Scientific, Technical and Economic Committee for Fisheries
<b>Asmts in RAM</b>	2011

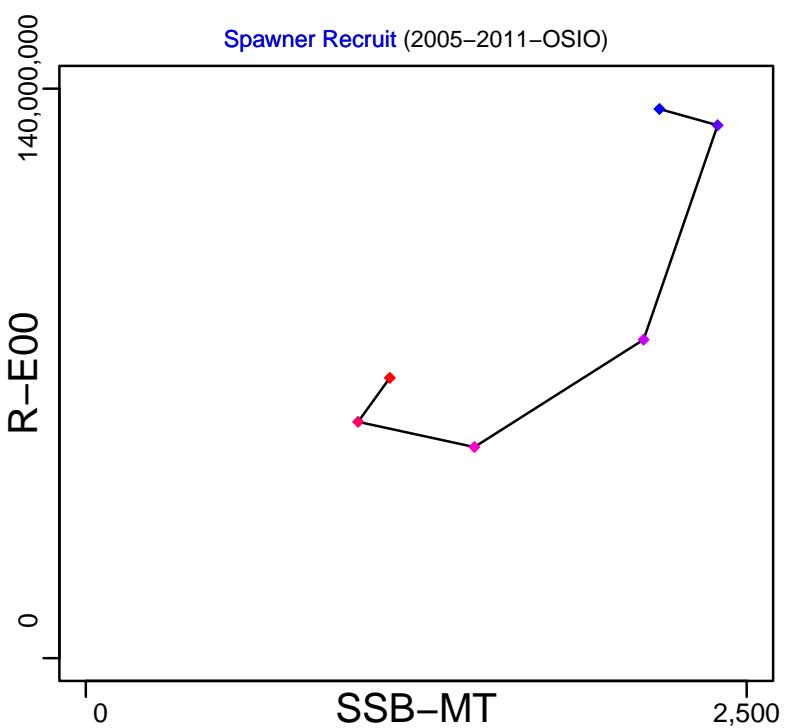
<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	Fmgt-1/yr	2011	0.45
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

<b>Time Series</b>					
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2011	1150	-	1.5+
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2011	68,900,000	-	-
<b>F</b>	F-1/yr	2011	1.3	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2011	609		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2011	2.889		
<b>ER/ERmgt</b>	-	-	-		

Kobe MSY\*

Kobe MGT\*

Spawner Recruit (2005–2011–OSIO)



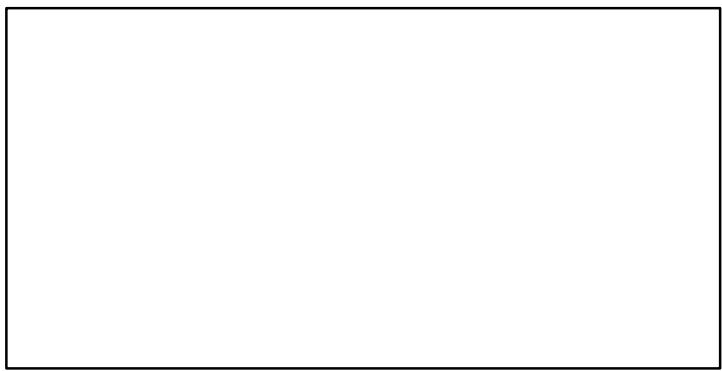
Production\*



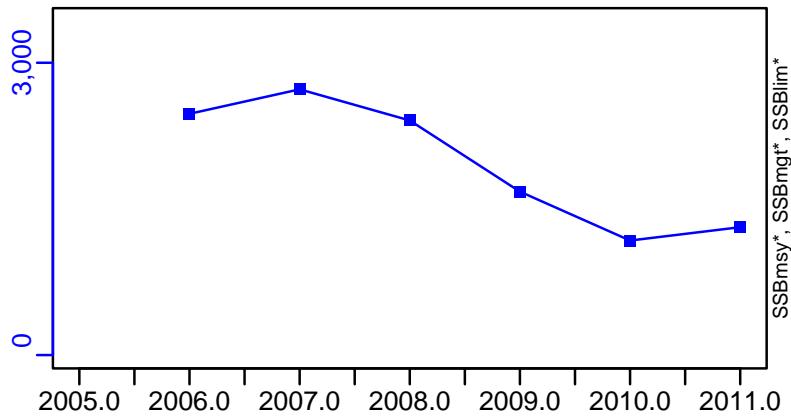
◆ Start Year   ◆ End Year   \* No Data

Red mullet Malta Island and South of Sicily (GSA 15, 16) [RMULLMEDGSA15–16]

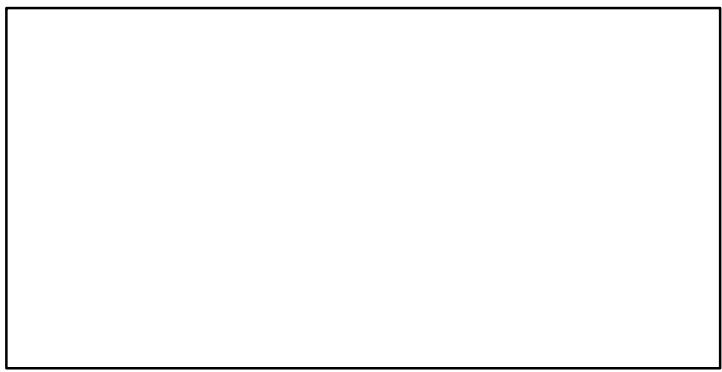
**TB\***



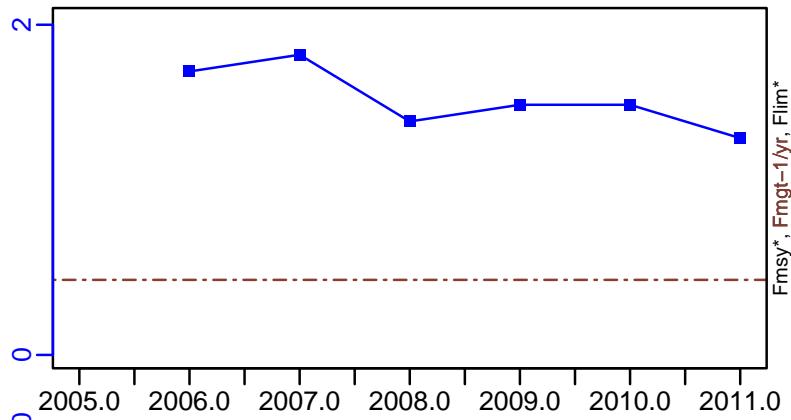
**SSB-MT (2005–2011–OSIO)**



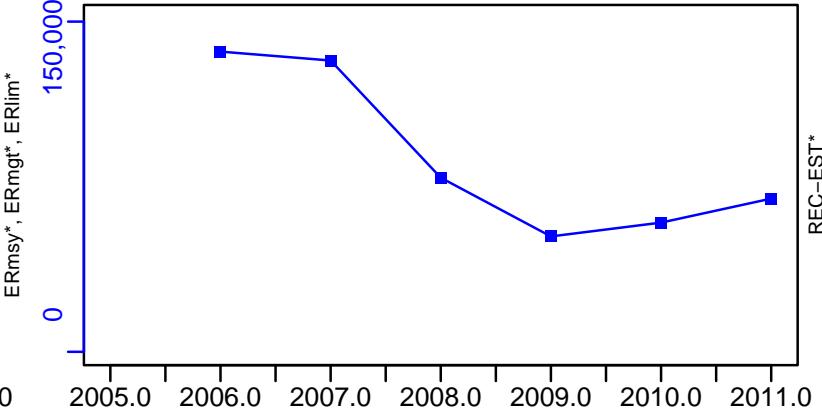
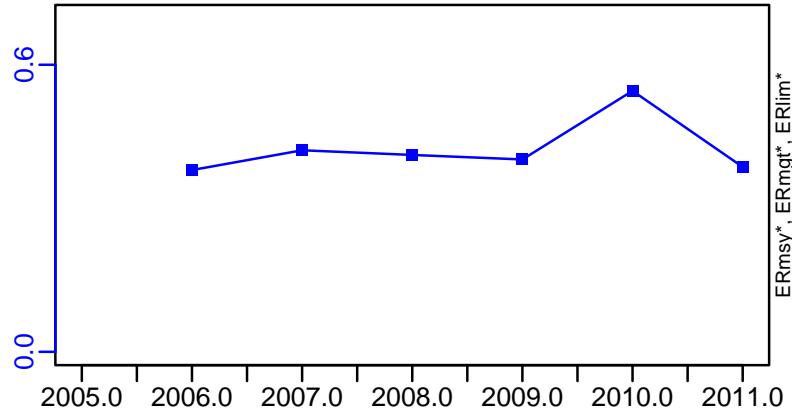
**TN \***



**F-1/yr (2005–2011–OSIO)**



**ER-calc-ratio (2005–2011–OSIO)**

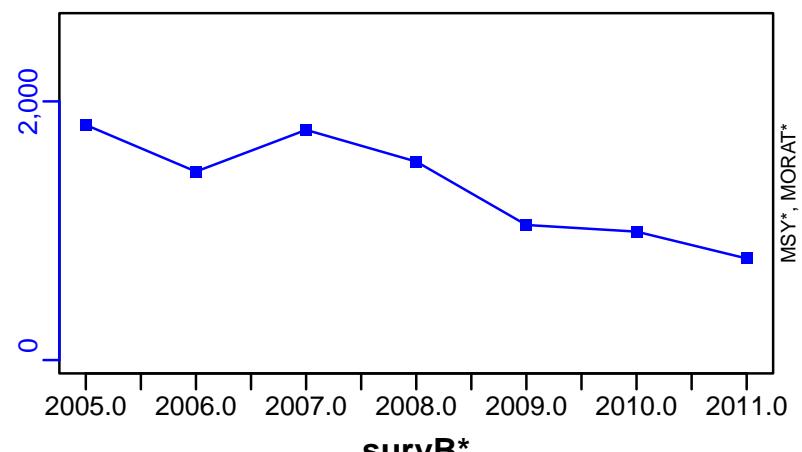


■ Listed time series	— Target BRP	— Rec-Est
- - MSY-based BRP	--- Lim BRP	* No Data

**Red mullet Malta Island and South of Sicily (GSA 15, 16) [RMULLMEDGSA15–16]**

**TC–MT, TL\*, RecC\* (2005–2011–OSIO)**

**TAC\*, Cpair\*, Cadv\***



MSY\*, MORAT\*

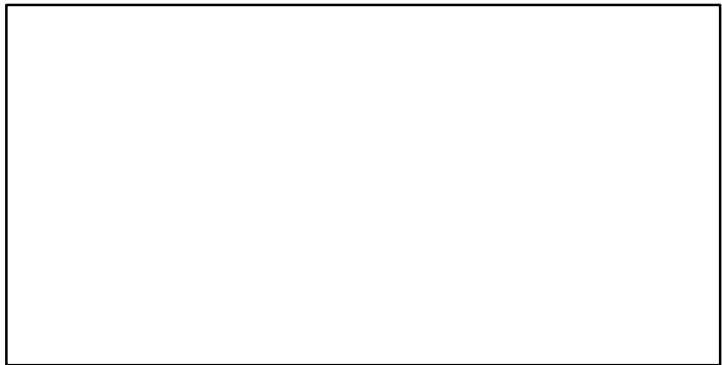
**survB\***



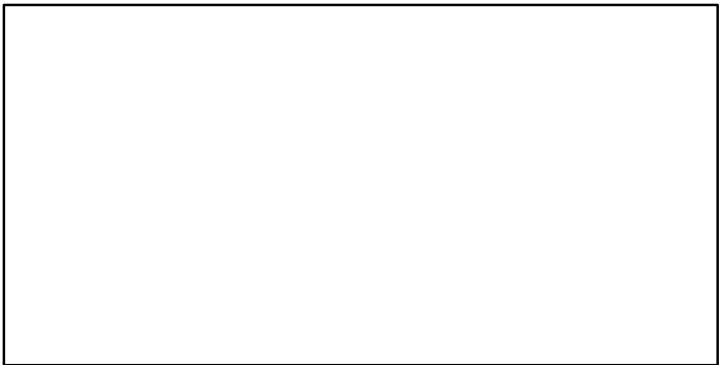
**CPUE\***



**EFFORT\***



**CdivMSY\***



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - MSY                  | * No Data |

## Red mullet Adriatic Sea (GSA 17,18) [RMULLMEDGSA17-18]

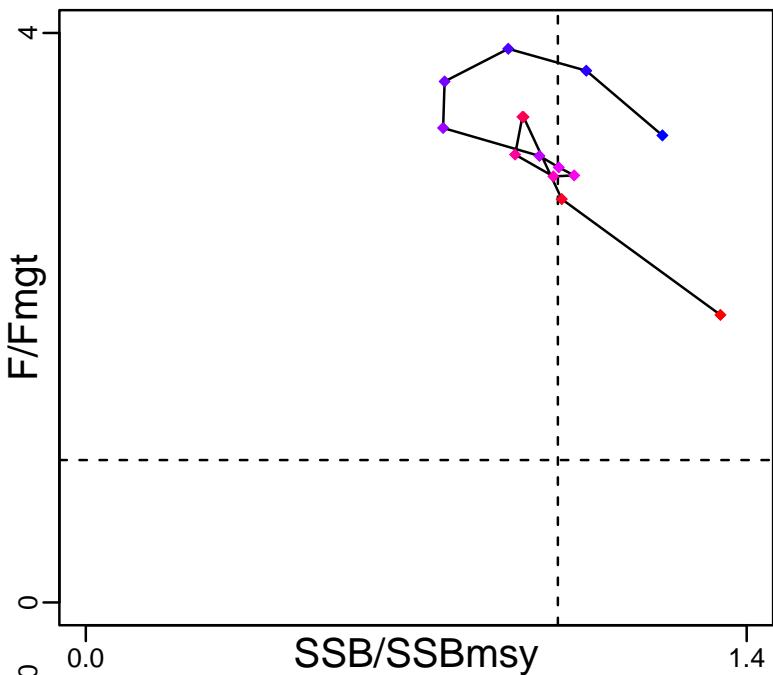
<b>Metadata</b>	
<b>Scientific Name</b>	Mullus barbatus
<b>Current Assess ID</b>	STECF-RMULLMEDGSA17-18-2006-2019-MEDIMP2021-2
<b>Area</b>	Adriatic Sea (GSA 17,18)
<b>Management Authority</b>	General Fisheries Council for the Mediterranean, DG MARE, and national states
<b>Assessor</b>	Scientific, Technical and Economic Committee for Fisheries
<b>Asmts in RAM</b>	2019, 2014

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	Fmgt-1/yr	2019	0.34
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

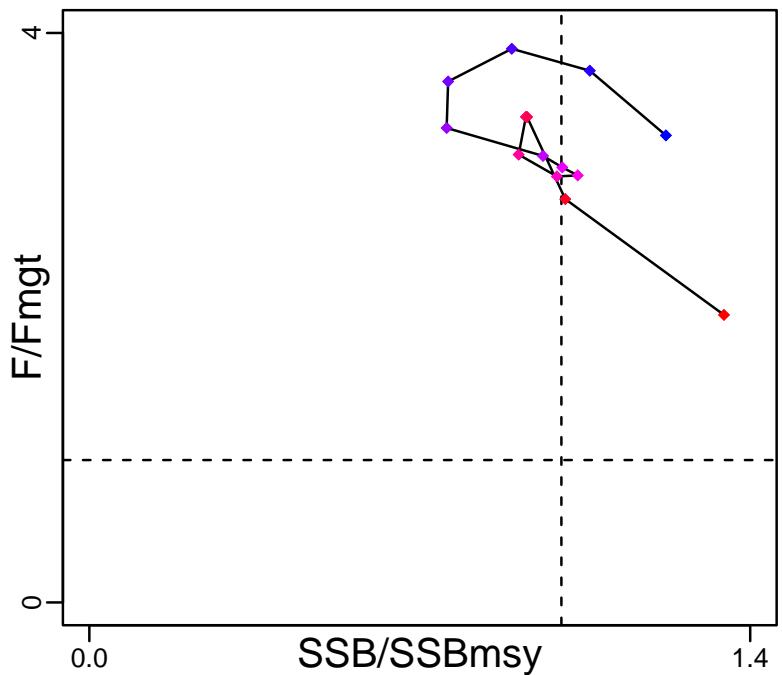
<b>Time Series</b>					
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2019	7587	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2019	955,114,012	-	-
<b>F</b>	F-1/yr	2019	0.687	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2019	4632		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2019	2.02		
<b>ER/ERmgt</b>	-	-	-		

Red mullet Adriatic Sea (GSA 17,18) [RMULLMEDGSA17–18]

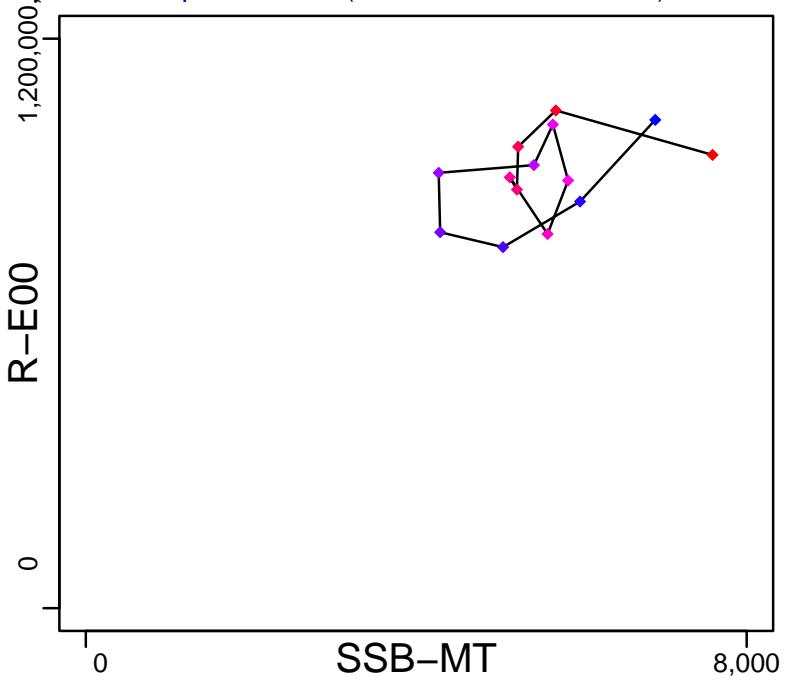
Kobe MSYpref (2006–2019–MEDIMP2021–2)



Kobe MGTpref (2006–2019–MEDIMP2021–2)



Spawner Recruit (2006–2019–MEDIMP2021–2)



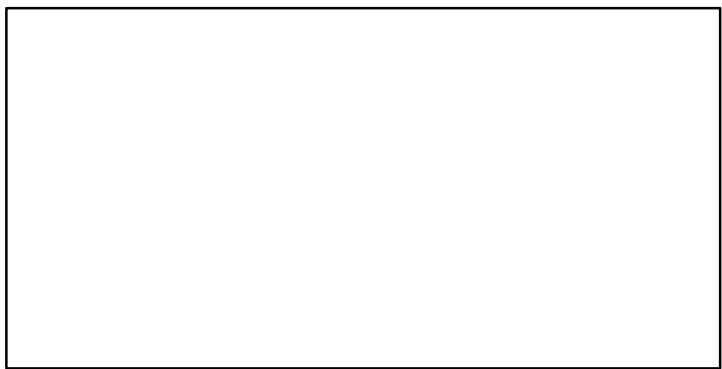
SSB/SSB<sub>msy</sub>

Production\*

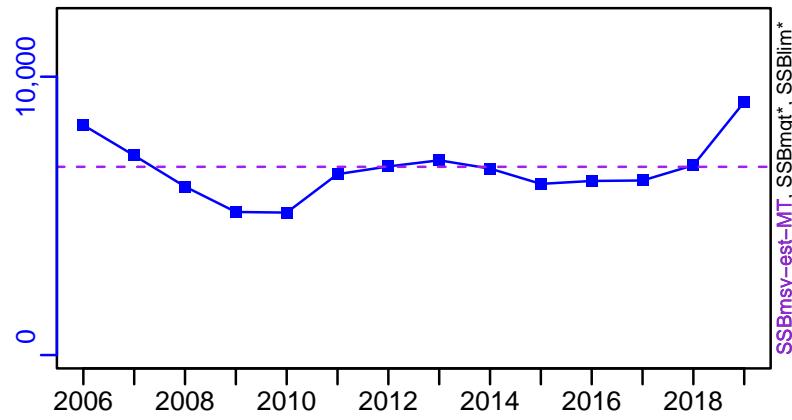
♦ Start Year    ◆ End Year    \* No Data

Red mullet Adriatic Sea (GSA 17,18) [RMULLMEDGSA17–18]

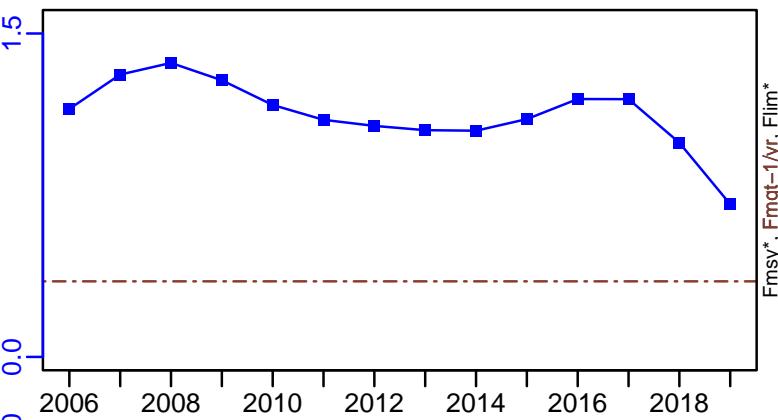
**TB\***



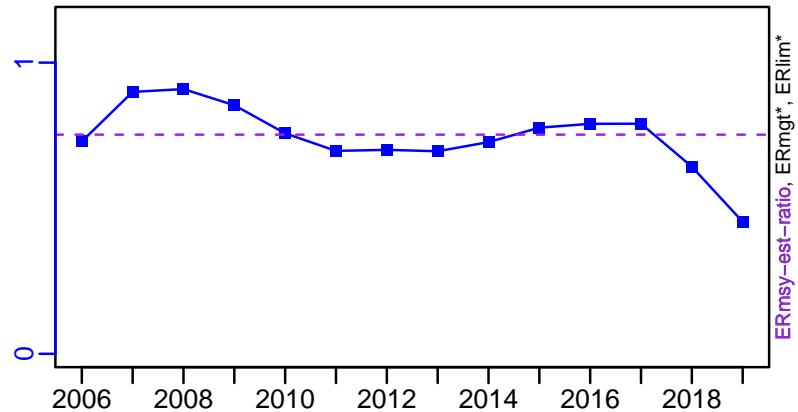
**SSB-MT** (2006–2019–MEDIMP2021–2)



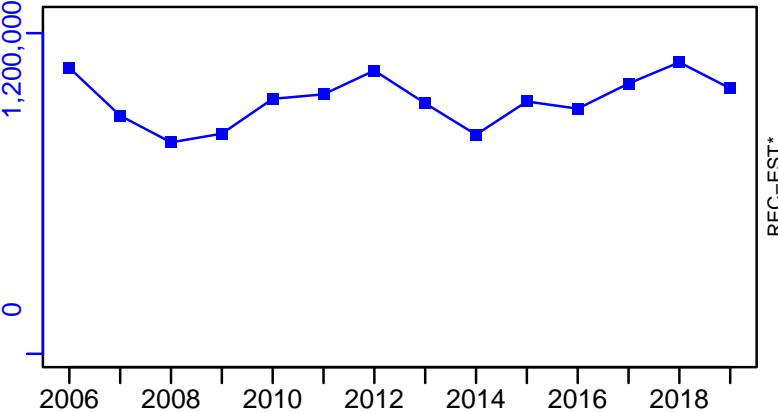
**TN \***



**ER-calc-ratio (2006–2019–MEDIMP2021–2)**



**R-E00 (2006–2019–MEDIMP2021–2)**

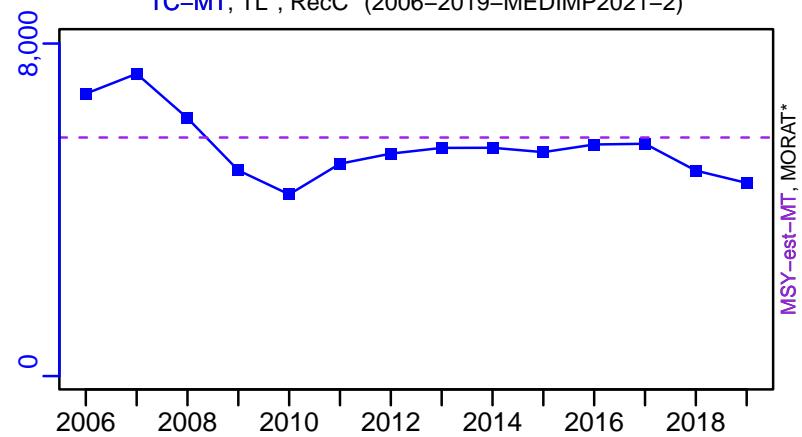


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - Lim BRP	* No Data

Red mullet Adriatic Sea (GSA 17,18) [RMULLMEDGSA17–18]

TC-MT, TL\*, RecC\* (2006–2019–MEDIMP2021–2)

TAC\*, Cpair\*, Cadv\*



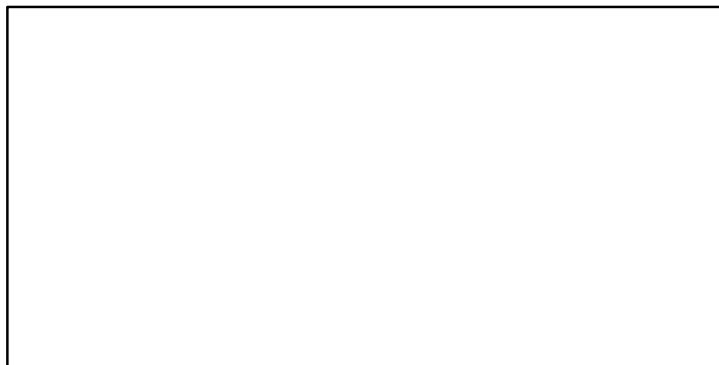
survB\*



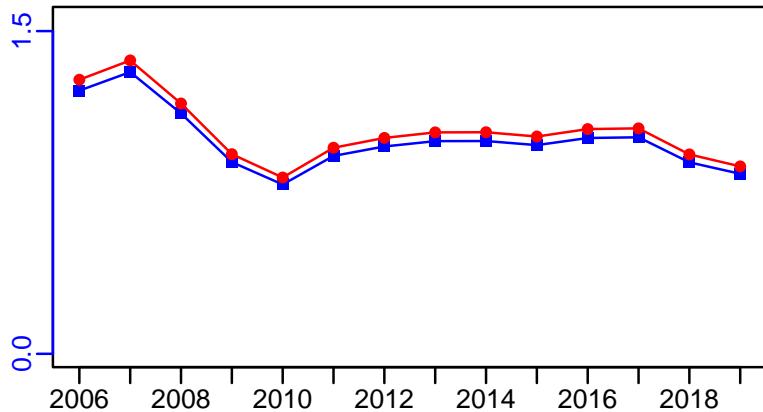
CPUE\*



EFFORT\*



TC-MT/MSY-est-MT, CdivMEANC-ratio, (2006–2019–MEDIMP2021–2)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - MSY	* No Data

## Red mullet Western Ionian Sea [RMULLMEDGSA19]

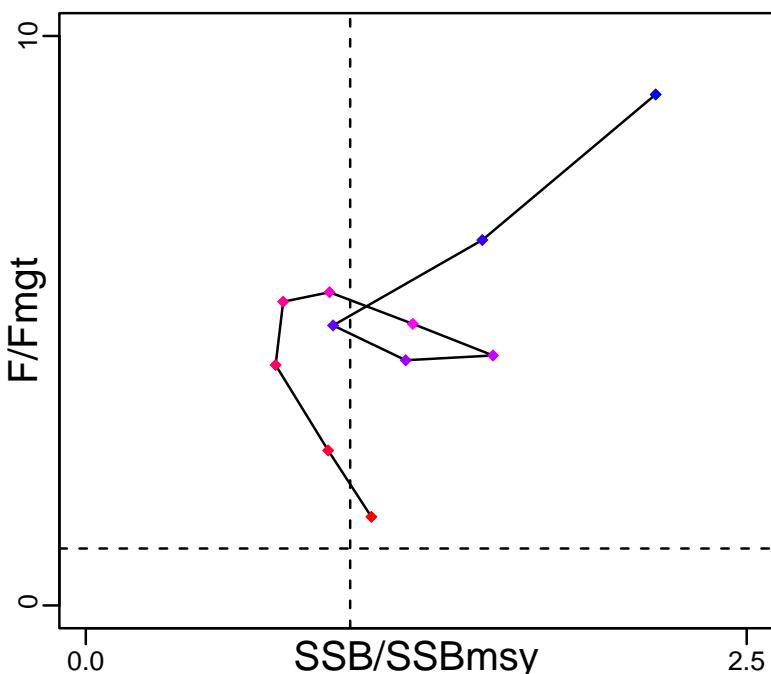
<b>Metadata</b>	
<b>Scientific Name</b>	Mullus barbatus
<b>Current Assess ID</b>	STECF-RMULLMEDGSA19-2006-2016-MEDIMP2021-2
<b>Area</b>	Western Ionian Sea
<b>Management Authority</b>	General Fisheries Council for the Mediterranean, DG MARE, and national states
<b>Assessor</b>	Scientific, Technical and Economic Committee for Fisheries
<b>Asmts in RAM</b>	2014, 2016

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	Fmgt-1/yr	2016	0.36
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

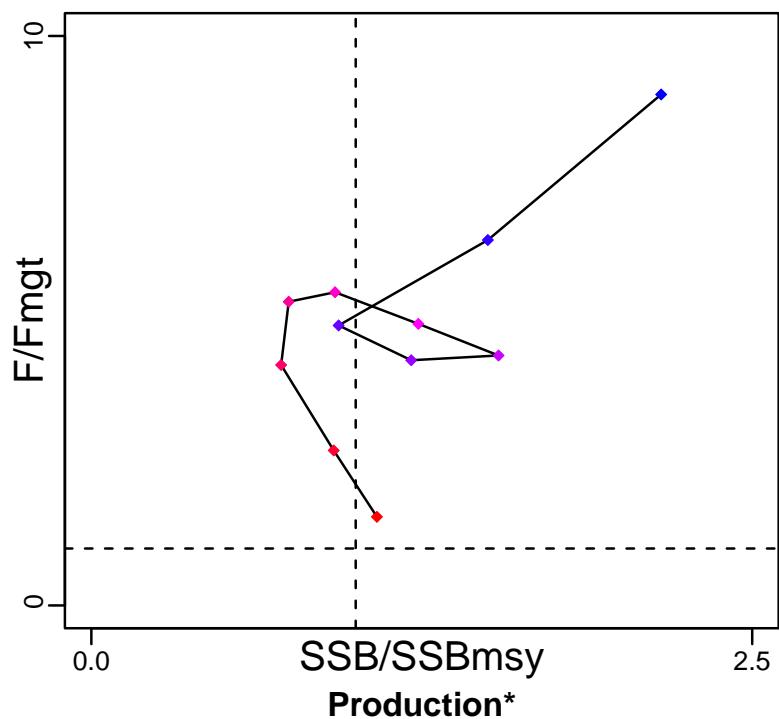
<b>Time Series</b>					
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2016	641	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2016	27,230,000	-	-
<b>F</b>	F-1/yr	2016	0.56	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2016	278		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2016	1.556		
<b>ER/ERmgt</b>	-	-	-		

Red mullet Western Ionian Sea [RMULLMEDGSA19]

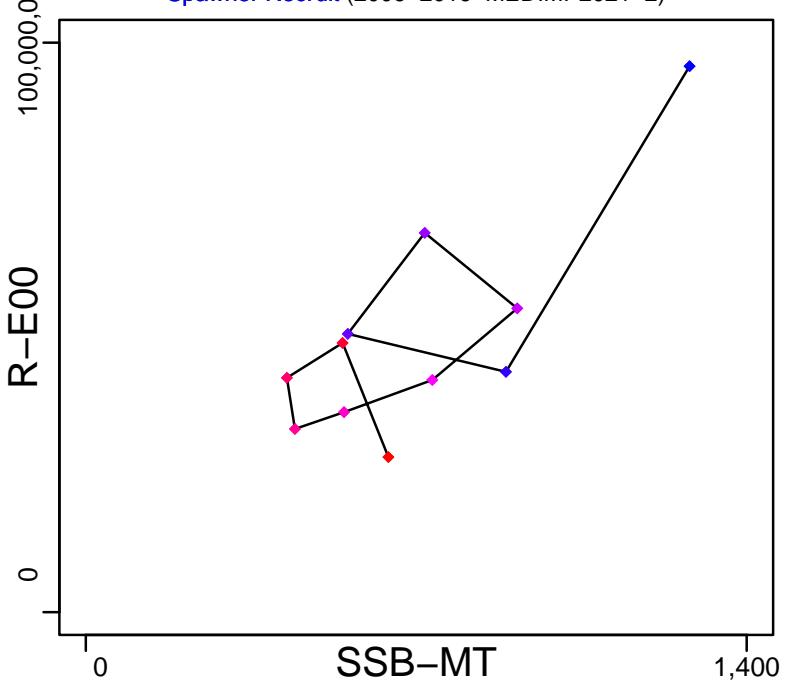
Kobe MSYpref (2006–2016–MEDIMP2021–2)



Kobe MGTpref (2006–2016–MEDIMP2021–2)



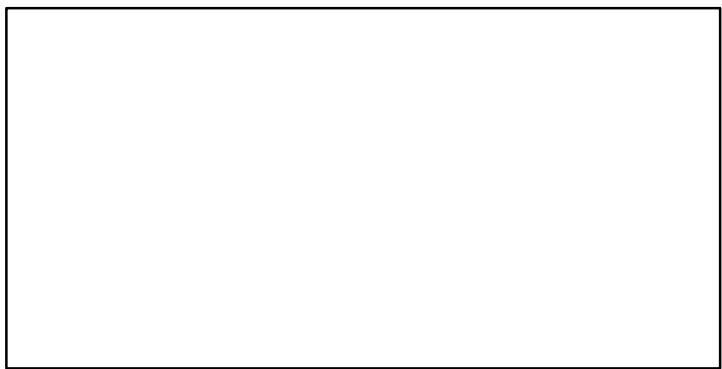
Spawner Recruit (2006–2016–MEDIMP2021–2)



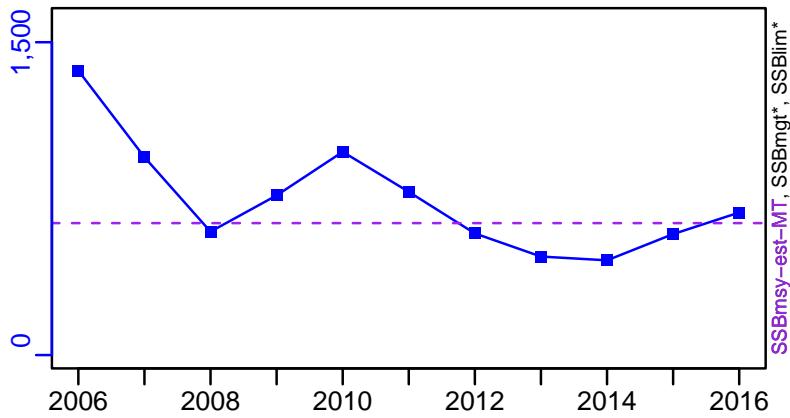
◆ Start Year   ◆ End Year   \* No Data

Red mullet Western Ionian Sea [RMULLMEDGSA19]

**TB\***



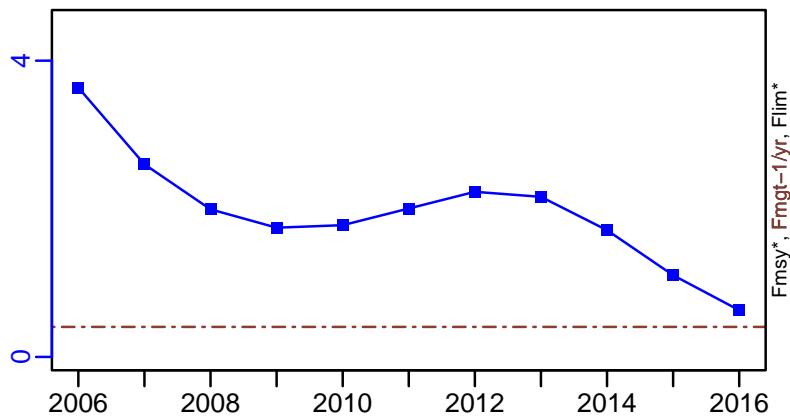
**SSB-MT** (2006–2016–MEDIMP2021–2)



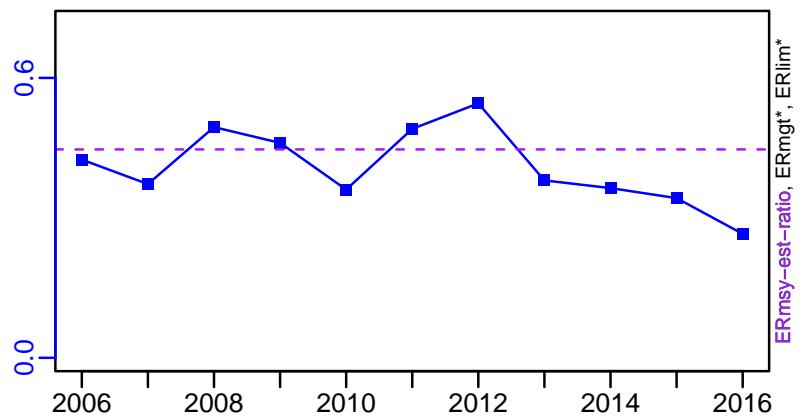
**TN \***



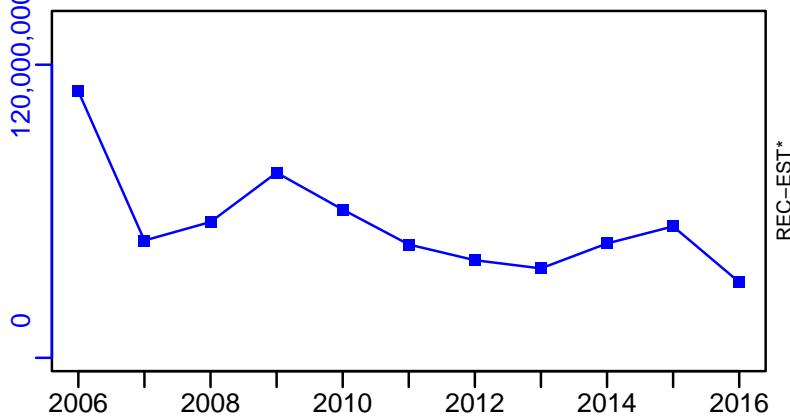
**F-1/yr** (2006–2016–MEDIMP2021–2)



**ER-calc-ratio** (2006–2016–MEDIMP2021–2)



**R-E00** (2006–2016–MEDIMP2021–2)

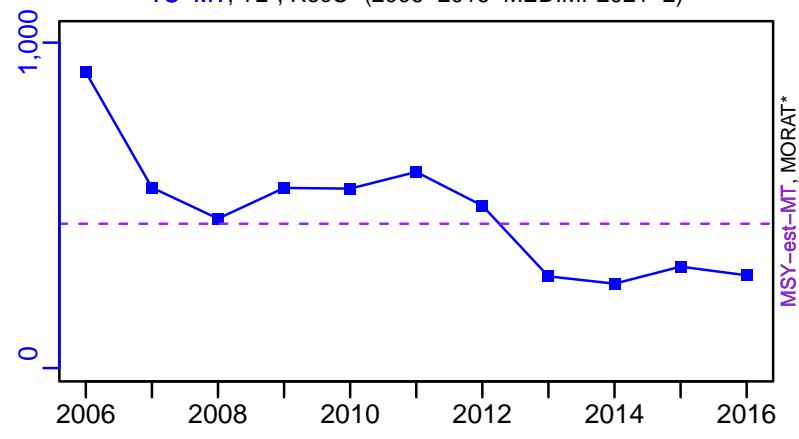


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - - Lim BRP	* No Data

Red mullet Western Ionian Sea [RMULLMEDGSA19]

TC-MT, TL\*, RecC\* (2006–2016–MEDIMP2021–2)

TAC\*, Cpair\*, Cadv\*



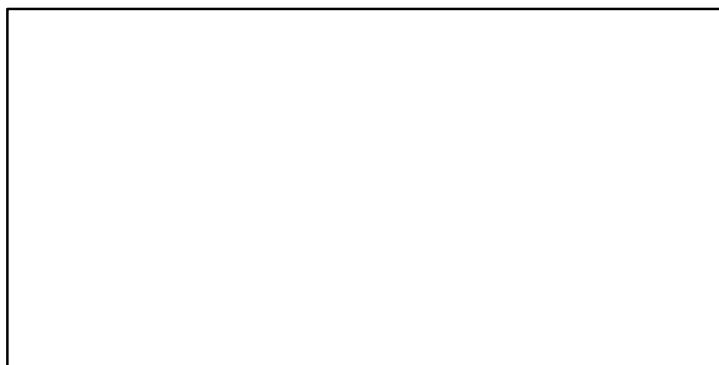
survB\*

MSY-est-MT, MORAT\*

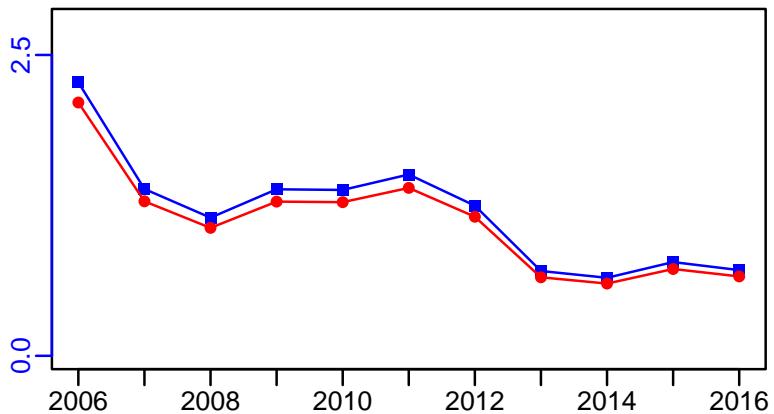
CPUE\*



EFFORT\*



TC-MT/MSY-est-MT, CdivMEANC-ratio, (2006–2016–MEDIMP2021–2)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - MSY	* No Data

## Red mullet Aegean Sea [RMULLMEDGSA22]

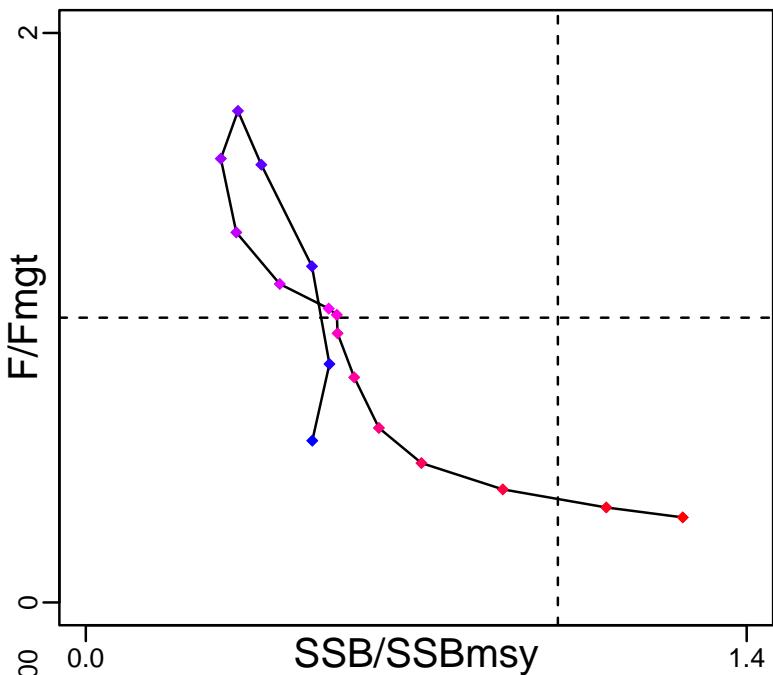
<b>Metadata</b>	
<b>Scientific Name</b>	Mullus barbatus
<b>Current Assess ID</b>	STECF-RMULLMEDGSA22-2003-2019-MEDIMP2021-2
<b>Area</b>	Aegean Sea
<b>Management Authority</b>	General Fisheries Council for the Mediterranean, DG MARE, and national states
<b>Assessor</b>	Scientific, Technical and Economic Committee for Fisheries
<b>Asmts in RAM</b>	2019

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	Fmgt-1/yr	2019	0.501
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

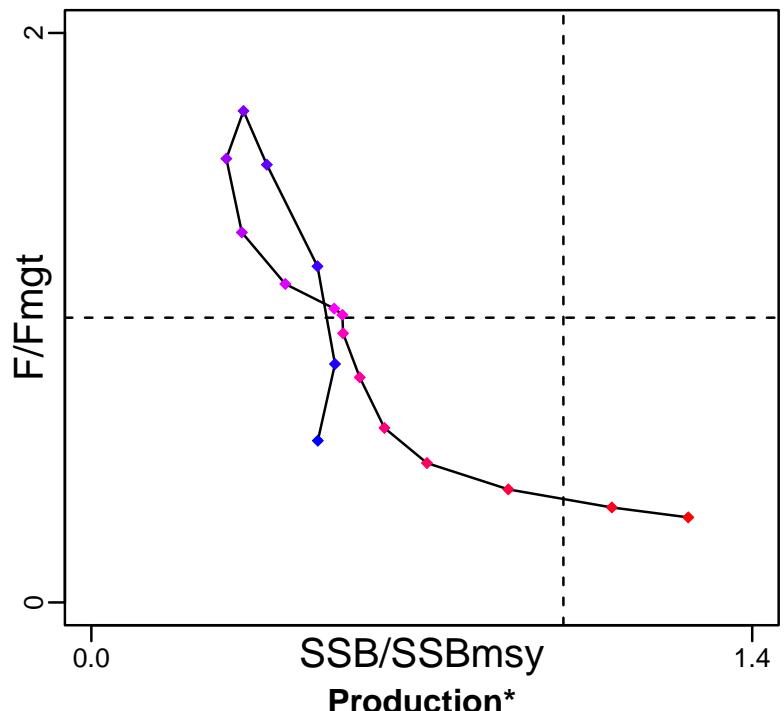
<b>Time Series</b>					
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2019	12,379	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2019	$2 \times 10^{11}$	-	-
<b>F</b>	F-1/yr	2019	0.15	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2019	1804		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2019	0.299		
<b>ER/ERmgt</b>	-	-	-		

Red mullet Aegean Sea [RMULLMEDGSA22]

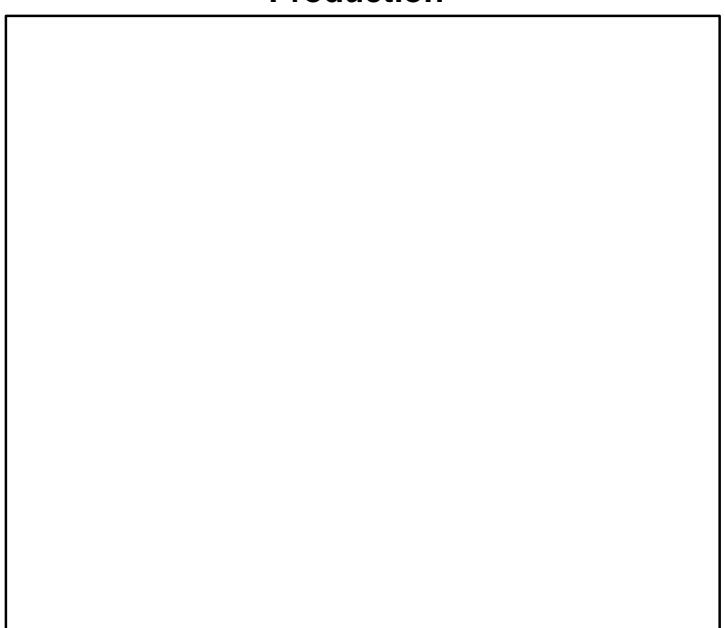
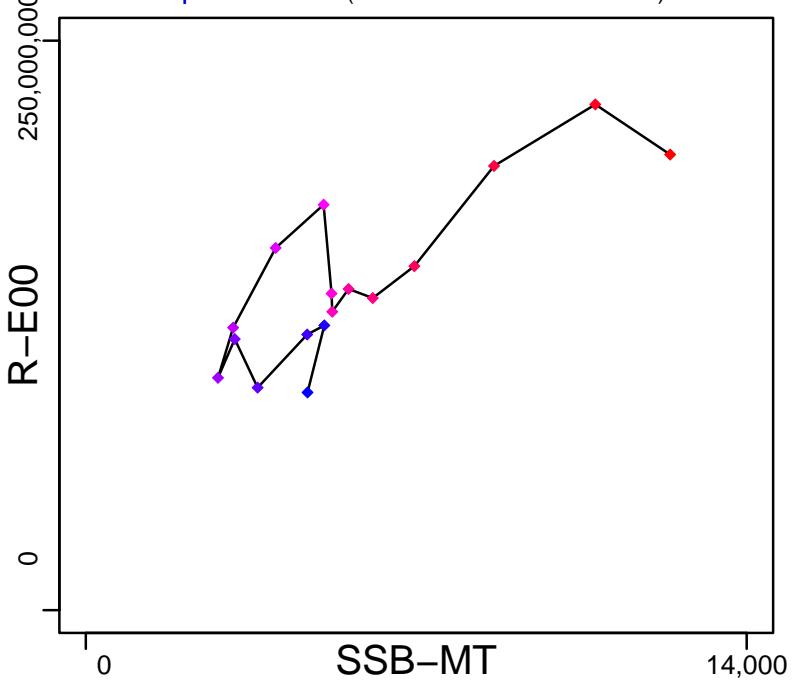
Kobe MSYpref (2003–2019–MEDIMP2021–2)



Kobe MGTpref (2003–2019–MEDIMP2021–2)



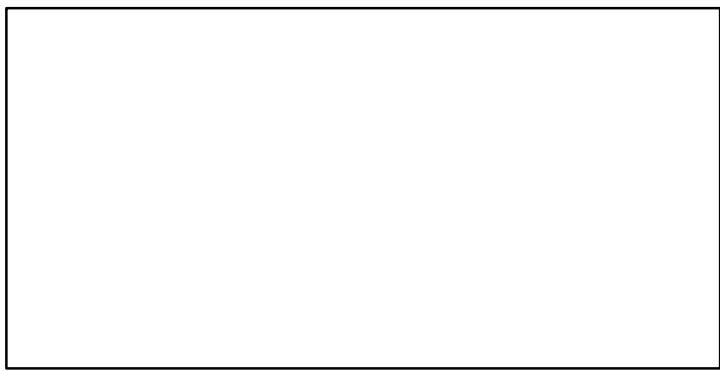
Spawner Recruit (2003–2019–MEDIMP2021–2)



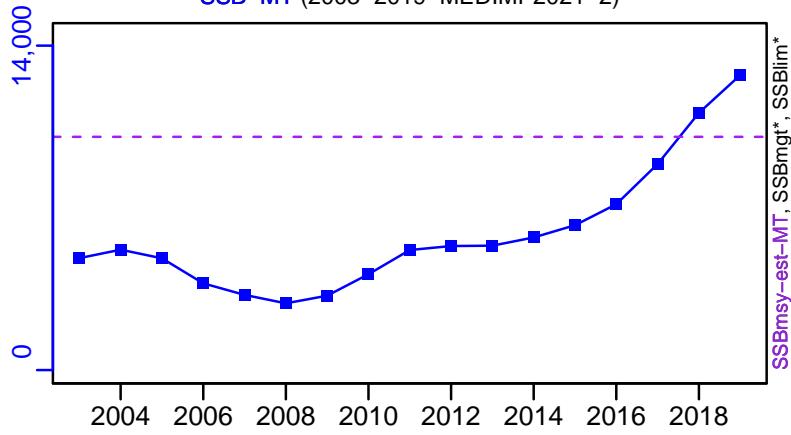
◆ Start Year ◆ End Year \* No Data

Red mullet Aegean Sea [RMULLMEDGSA22]

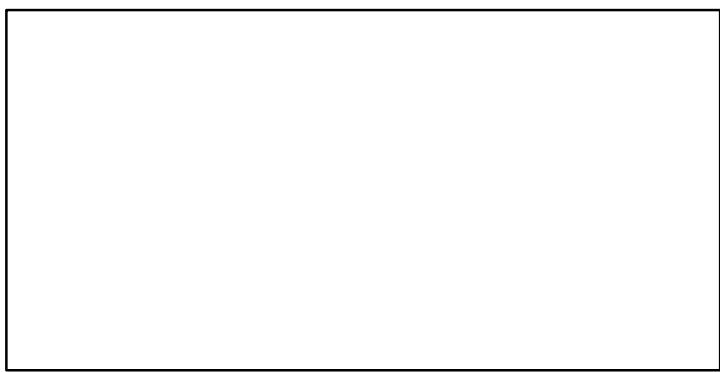
**TB\***



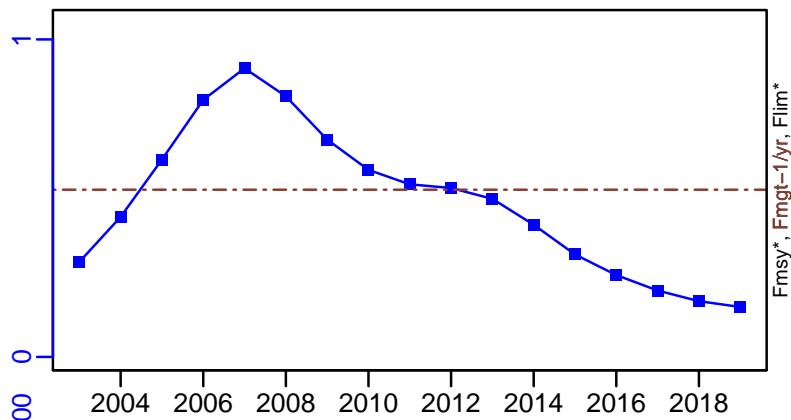
**SSB-MT (2003–2019–MEDIMP2021–2)**



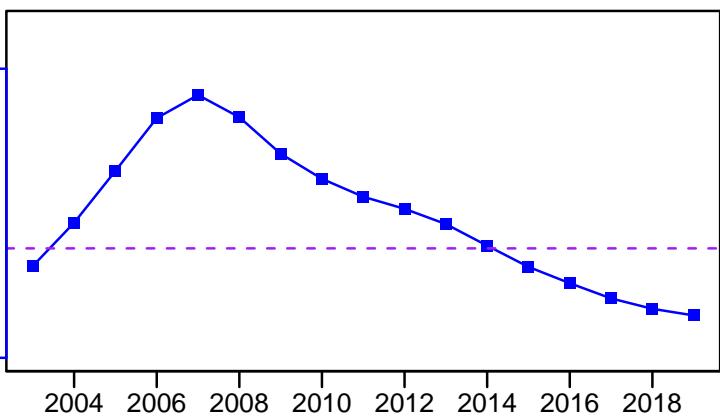
**TN \***



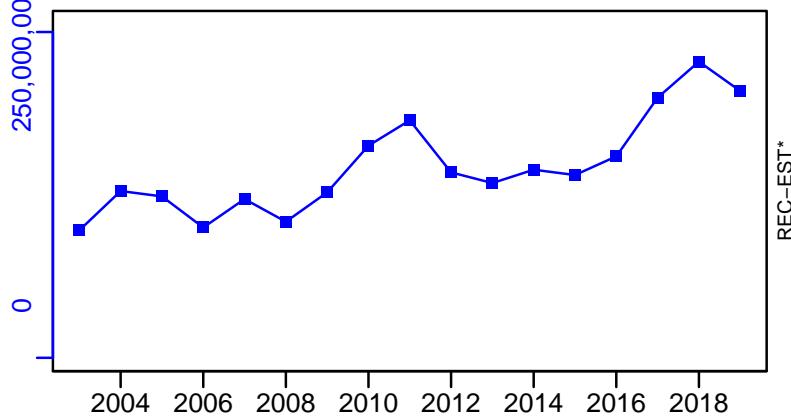
**F-1/yr (2003–2019–MEDIMP2021–2)**



**ER-calc-ratio (2003–2019–MEDIMP2021–2)**



**R-E00 (2003–2019–MEDIMP2021–2)**

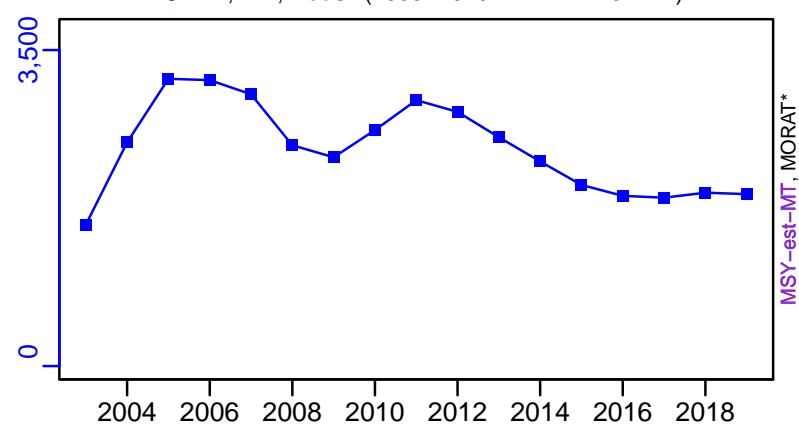


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	— Lim BRP	* No Data

Red mullet Aegean Sea [RMULLMEDGSA22]

TC-MT, TL\*, RecC\* (2003–2019–MEDIMP2021–2)

TAC\*, Cpair\*, Cadv\*



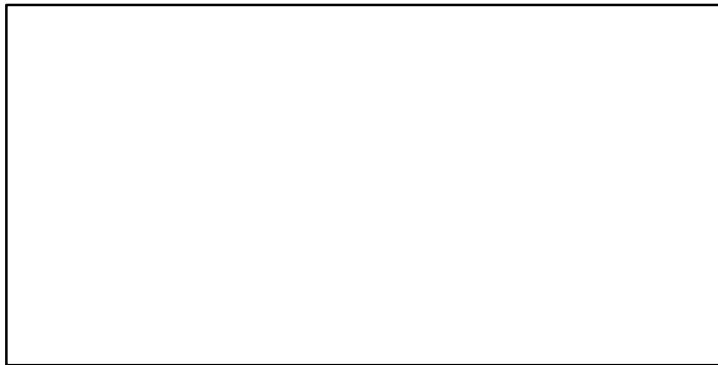
survB\*



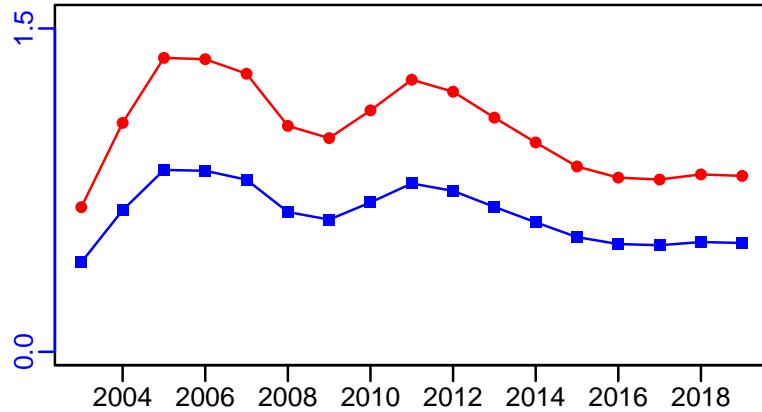
CPUE\*



EFFORT\*



TC-MT/MSY-est-MT, CdivMEANC-ratio, (2003–2019–MEDIMP2021–2)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - MSY	* No Data

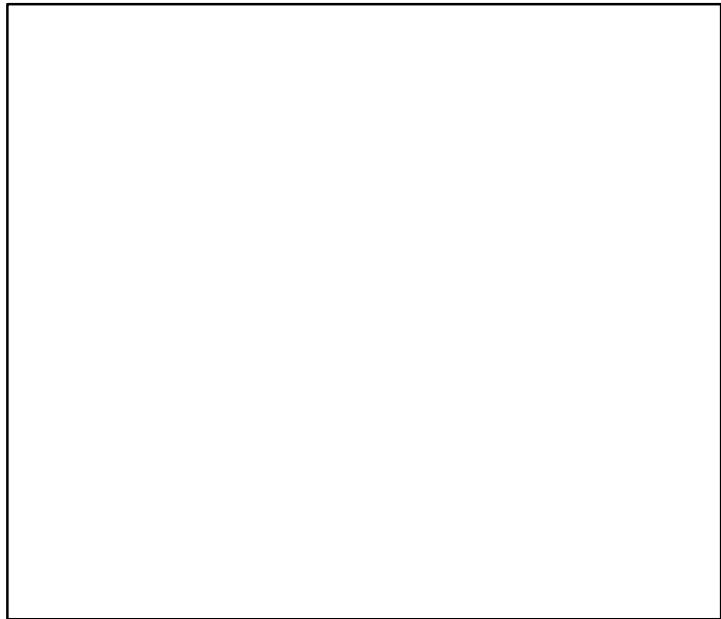
## Red mullet Cyprus Island [RMULLMEDGSA25]

<b>Metadata</b>	
<b>Scientific Name</b>	Mullus barbatus
<b>Current Assess ID</b>	STECF-RMULLMEDGSA25-2005-2008-OSIO
<b>Area</b>	Cyprus Island
<b>Management Authority</b>	General Fisheries Council for the Mediterranean, DG MARE, and national states
<b>Assessor</b>	Scientific, Technical and Economic Committee for Fisheries
<b>Asmts in RAM</b>	2008

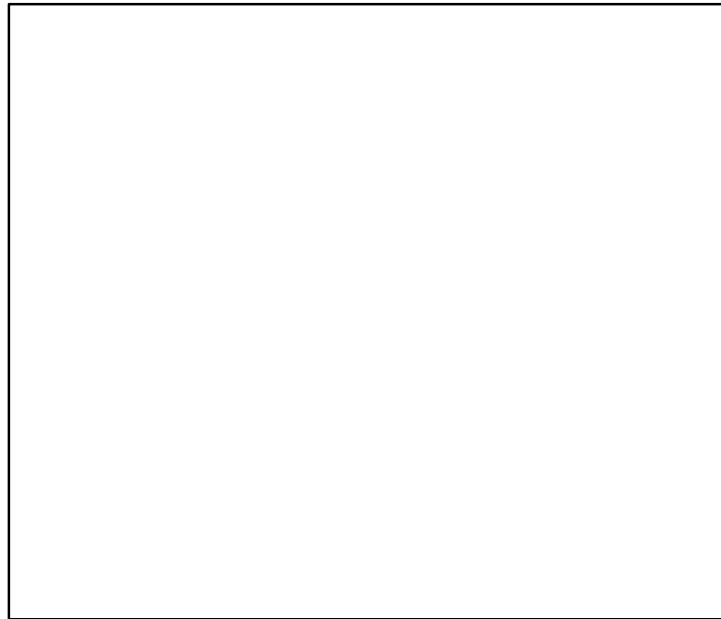
<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	Fmgt-1/yr	2008	0.22
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

<b>Time Series</b>					
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2008	58	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2008	1,480,000	-	-
<b>F</b>	F-1/yr	2008	0.84	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2008	33		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2008	3.818		
<b>ER/ERmgt</b>	-	-	-		

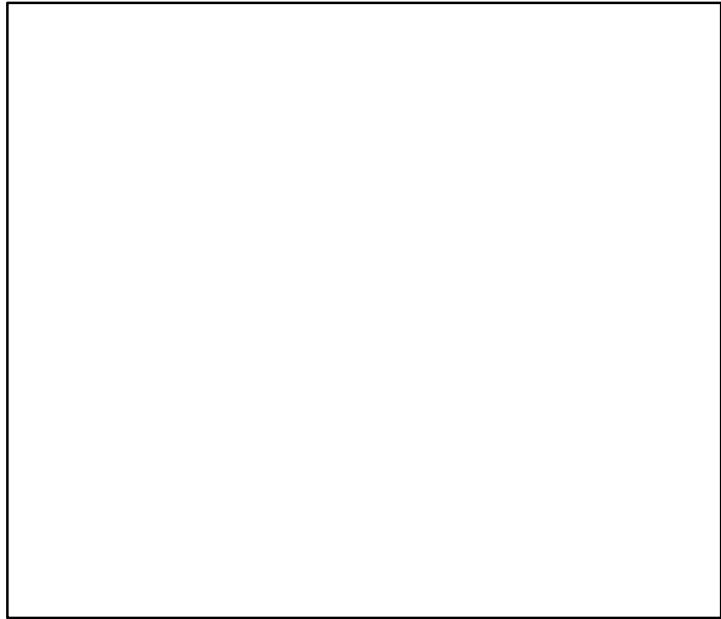
**Kobe MSY\***



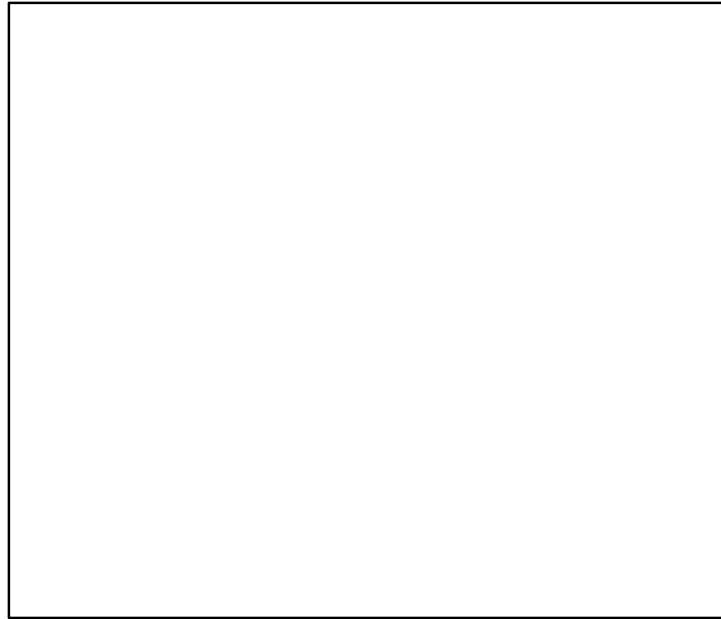
**Kobe MGT\***



**Spawner Recruit\***



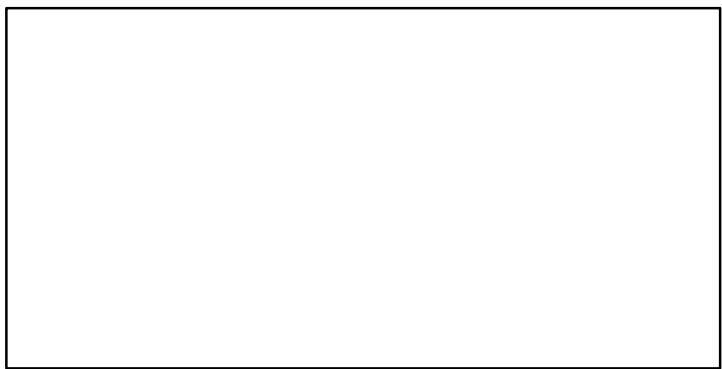
**Production\***



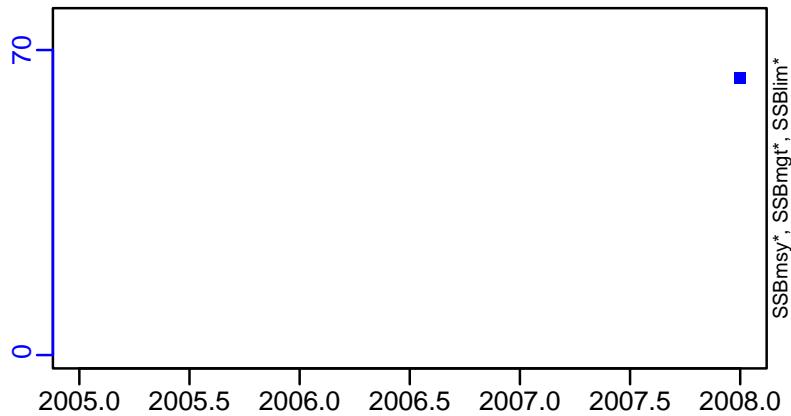
◆ Start Year ♦ End Year \* No Data

Red mullet Cyprus Island [RMULLMEDGSA25]

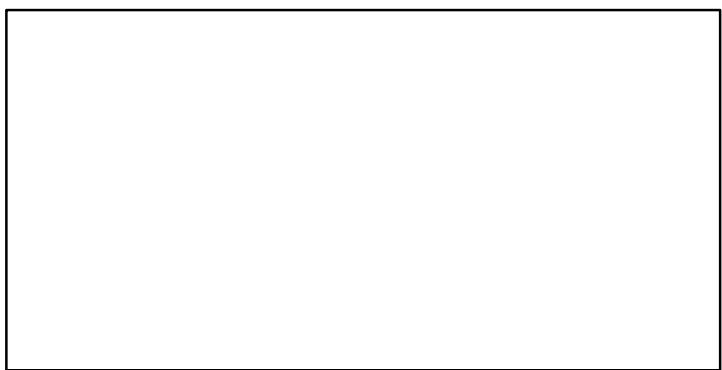
**TB\***



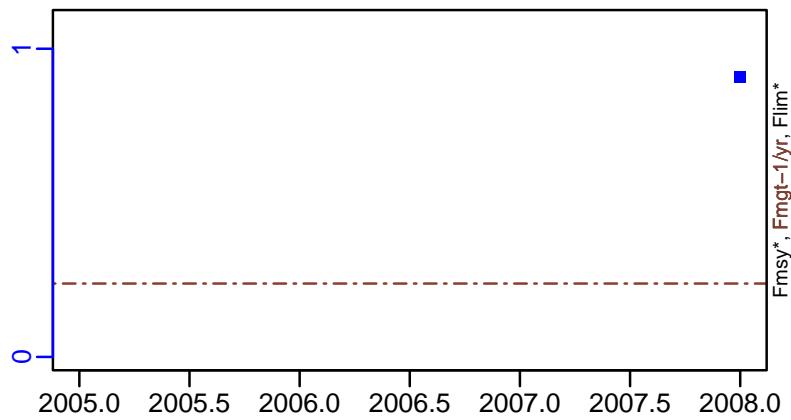
**SSB-MT** (2005–2008–OSIO)



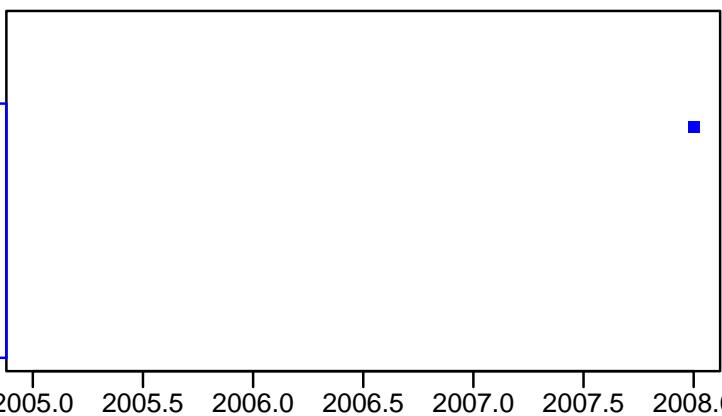
**TN \***



**F-1/yr** (2005–2008–OSIO)



**ER-calc-ratio** (2005–2008–OSIO)



**R-E00** (2005–2008–OSIO)

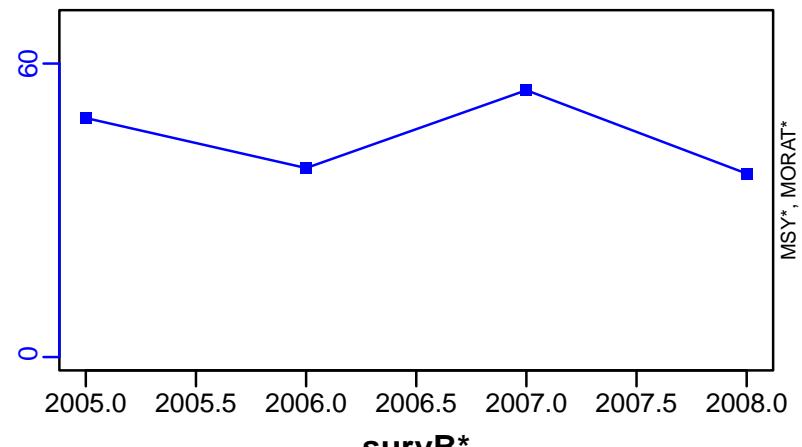


- Listed time series
- - - Target BRP
- - - MSY-based BRP
- - - Lim BRP
- Rec-Est
- \* No Data

Red mullet Cyprus Island [RMULLMEDGSA25]

TC-MT, TL\*, RecC\* (2005–2008–OSIO)

TAC\*, Cpair\*, Cadv\*



survB\*

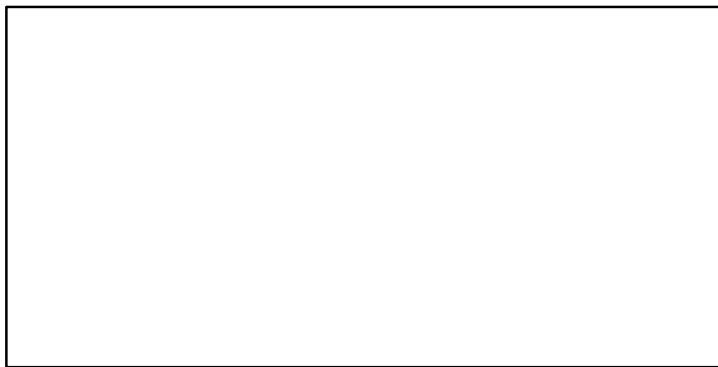
MSY\*, MORAT\*



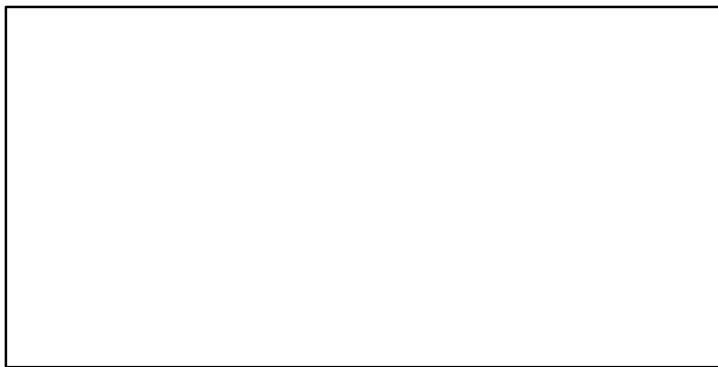
CPUE\*



EFFORT\*



CdivMSY\*



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - - MSY                | * No Data |

## Red mullet Black Sea [RMULLMEDGSA29]

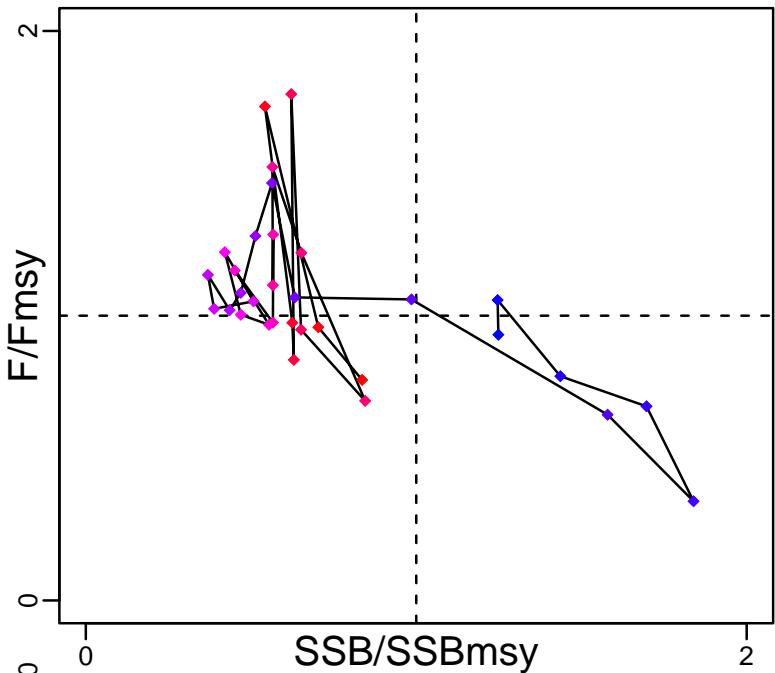
<b>Metadata</b>	
<b>Scientific Name</b>	Mullus barbatus
<b>Current Assess ID</b>	SGSABS-RMULLMEDGSA29-1990-2021-HIVELY
<b>Area</b>	Black Sea
<b>Management Authority</b>	General Fisheries Council for the Mediterranean, DG MARE, and national states
<b>Assessor</b>	Subregional Group on Stock Assessment for the Black Sea
<b>Asmts in RAM</b>	2021, 2014, 2016

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	Fmsy-1/yr	2021	0.7
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	Fmgt-1/yr	2021	0.7
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

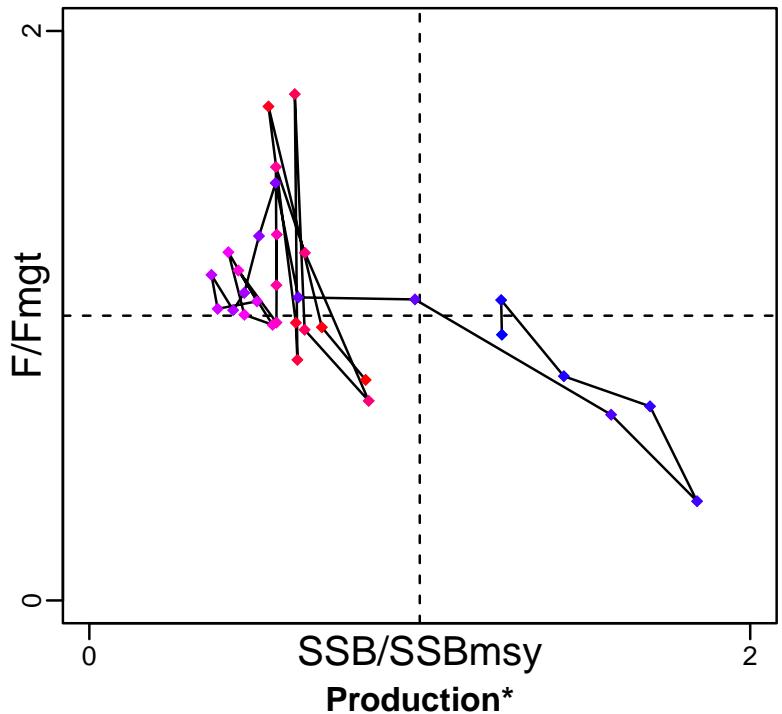
<b>Time Series</b>					
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2021	6933	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2021	2,822,999,790	-	0
<b>F</b>	F-1/yr	2021	0.542	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2016	3617		
<b>TL</b>	TL-MT	2021	3151		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2021	0.775		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2021	0.775		
<b>ER/ERmgt</b>	-	-	-		

Red mullet Black Sea [RMULLMEDGSA29]

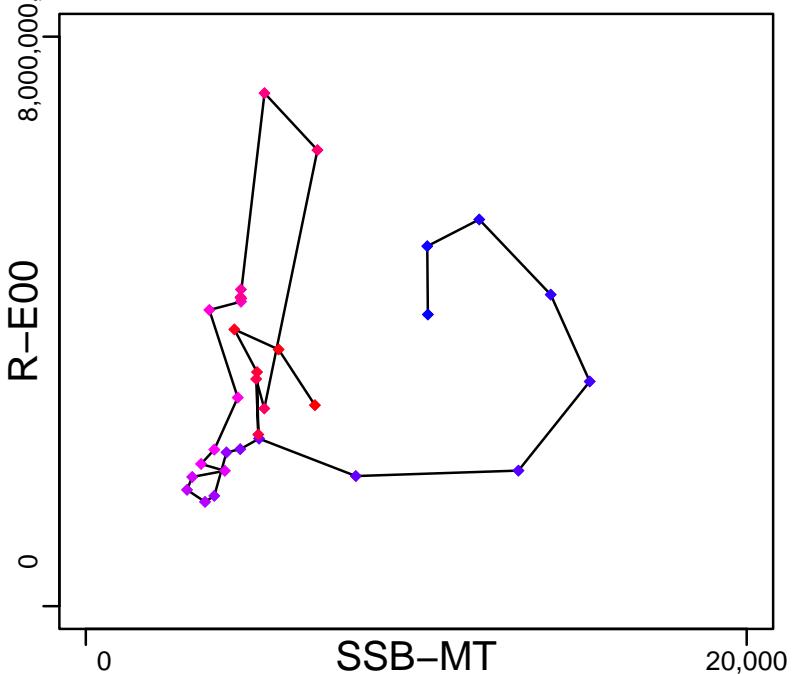
Kobe MSYpref (1990–2021–HIVELY)



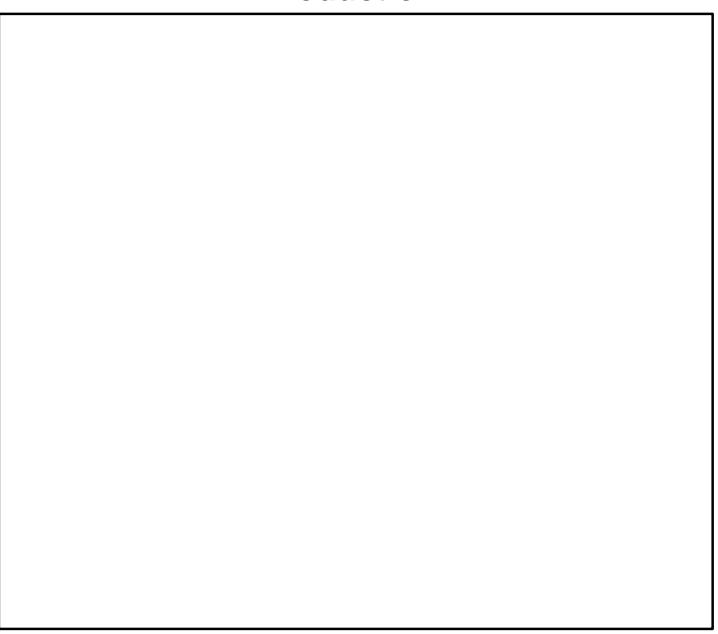
Kobe MGTPref (1990–2021–HIVELY)



Spawner Recruit (1990–2021–HIVELY)



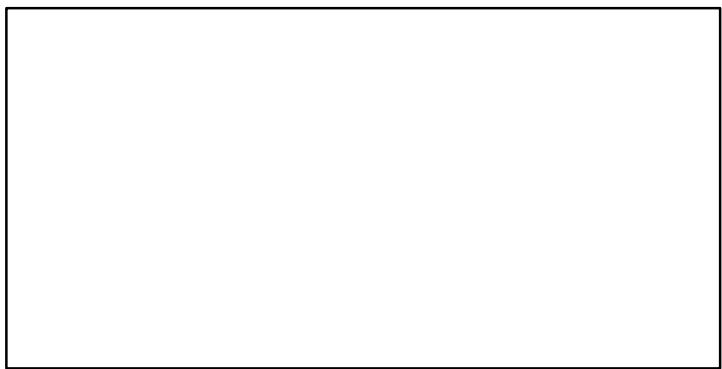
Production\*



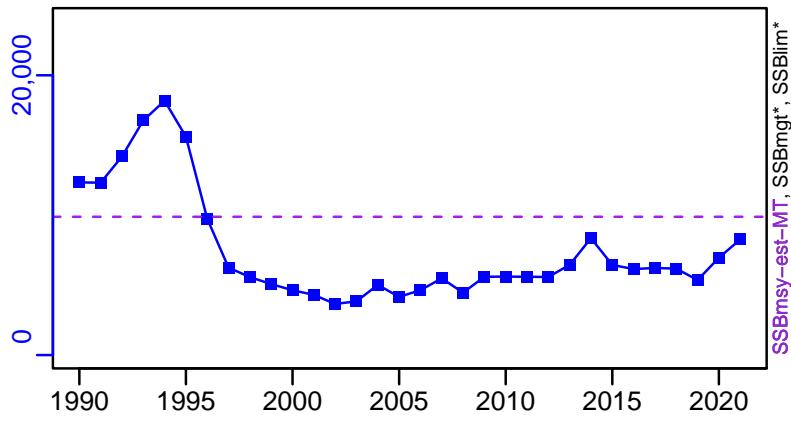
♦ Start Year   ♦ End Year   \* No Data

Red mullet Black Sea [RMULLMEDGSA29]

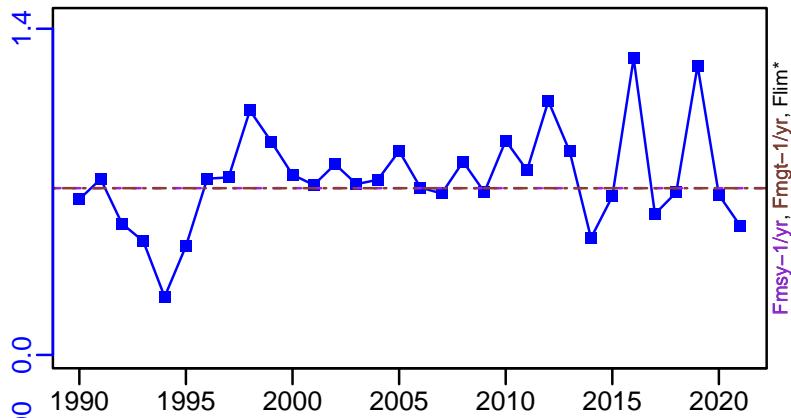
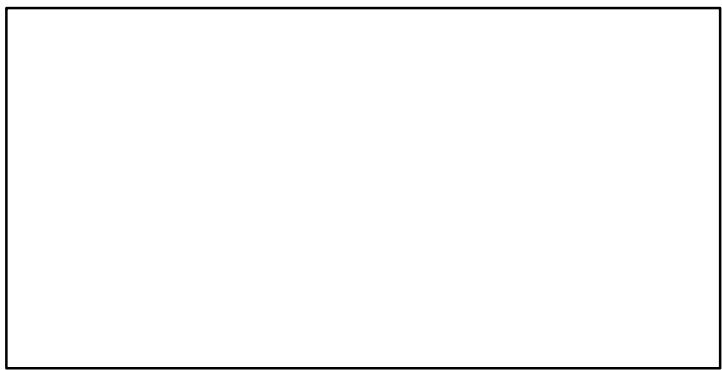
**TB\***



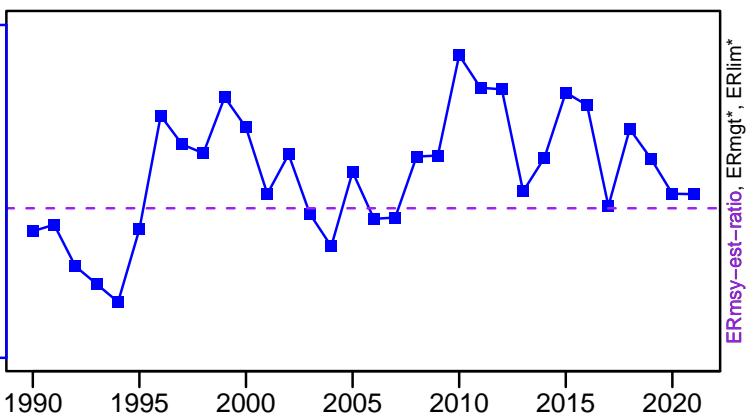
**SSB-MT (1990–2021–HIVELY)**



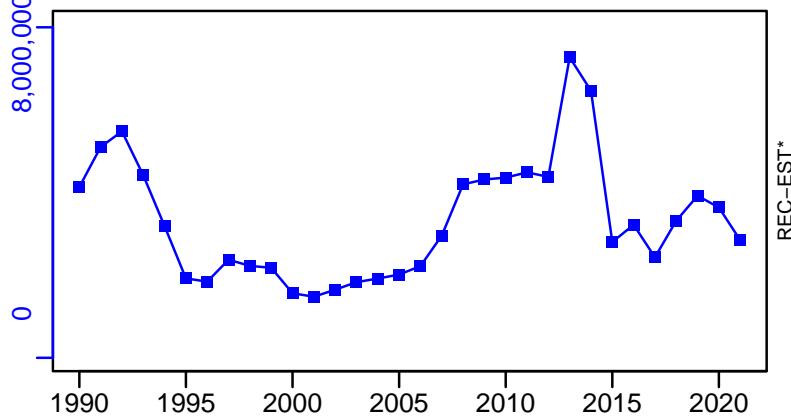
**TN \***



**ER-calc-ratio (1990–2021–HIVELY)**



**R-E00 (1990–2021–HIVELY)**

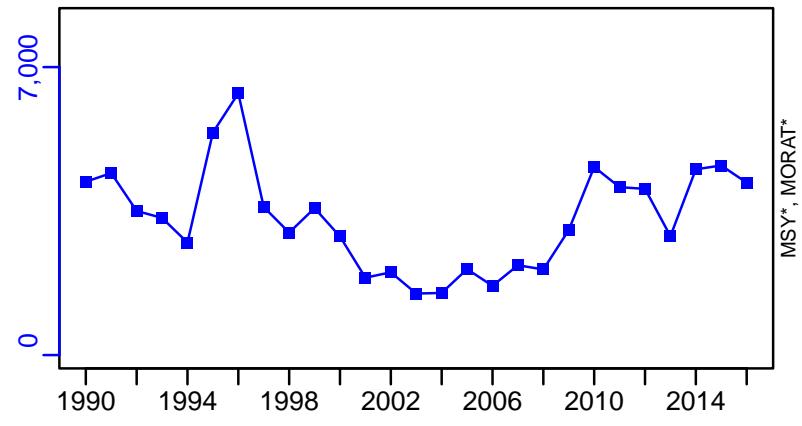


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - Lim BRP	* No Data

**Red mullet Black Sea [RMULLMEDGSA29]**

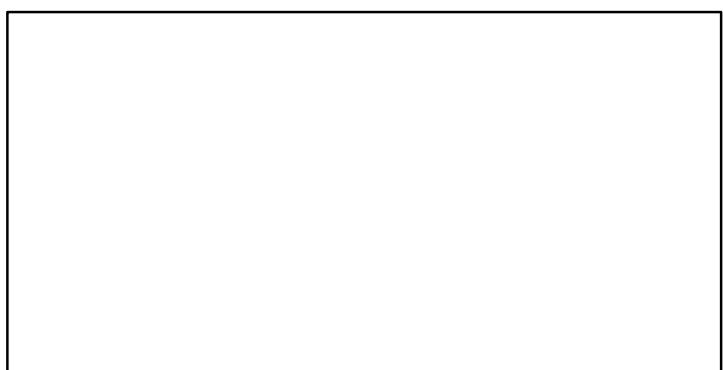
TC-MT, TL\*, RecC\* (1990–2016–MEDIMP2021–2)

TAC\*, Cpair\*, Cadv\*

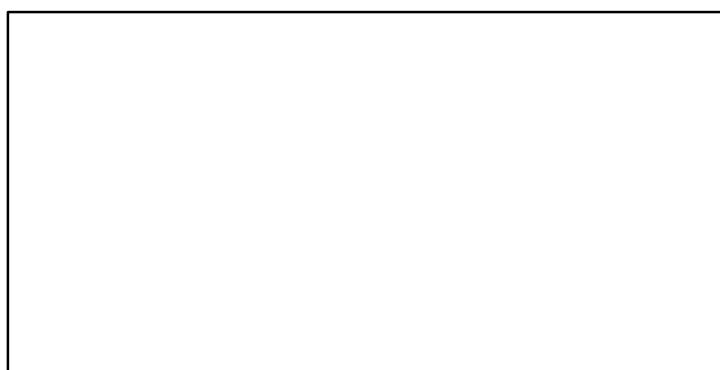


survB\*

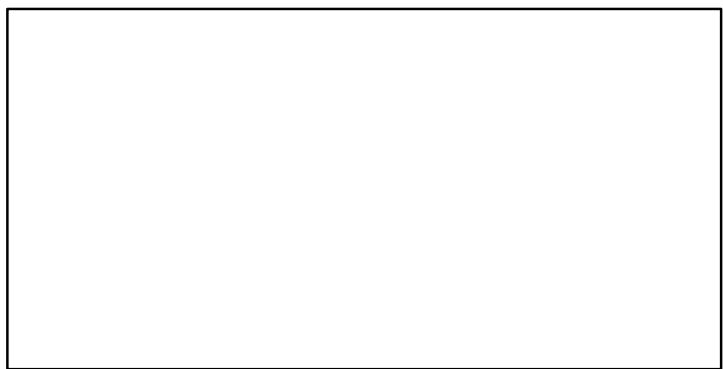
MSY\*, MORAT\*



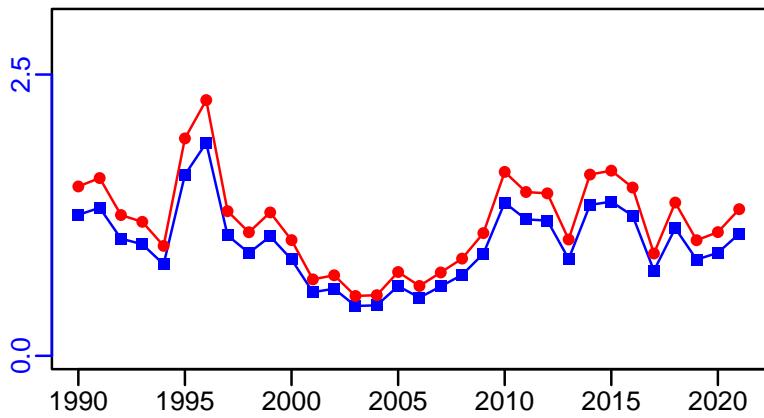
CPUE\*



EFFORT\*



TL-MT/MSY-est-MT, CdivMEANC-ratio, (1990–2021–HIVELY)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	— MSY	* No Data

## Red mullet Balearic Island [RMULLMEDGSA5]

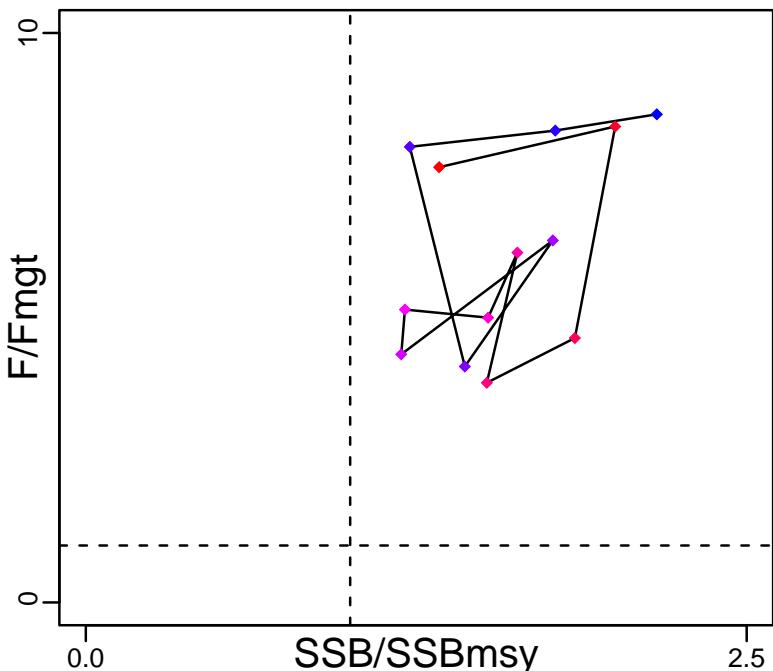
<b>Metadata</b>	
<b>Scientific Name</b>	Mullus barbatus
<b>Current Assess ID</b>	STECF-RMULLMEDGSA5-2000-2012-OSIO
<b>Area</b>	Balearic Island
<b>Management Authority</b>	General Fisheries Council for the Mediterranean, DG MARE, and national states
<b>Assessor</b>	Scientific, Technical and Economic Committee for Fisheries
<b>Asmts in RAM</b>	2012

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	Fmgt-1/yr	2012	0.14
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

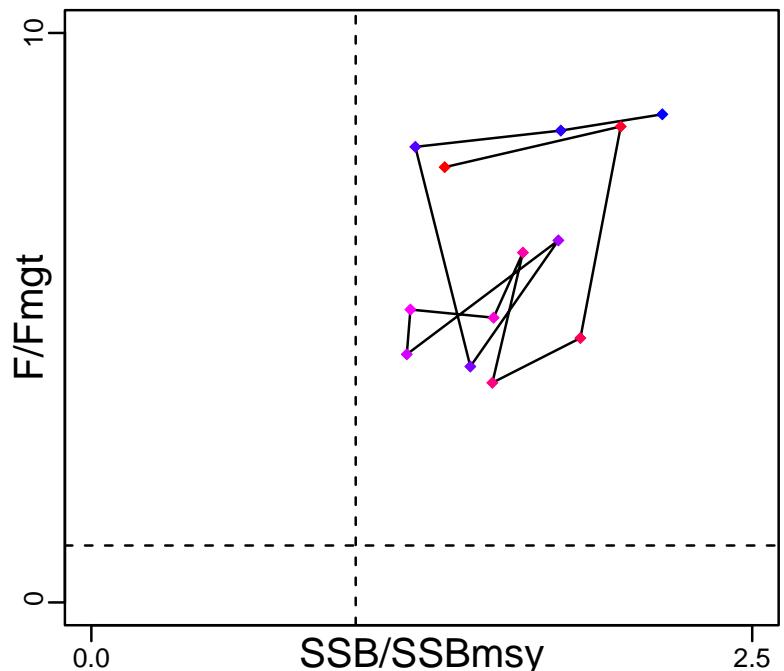
<b>Time Series</b>					
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2012	29	-	1+
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2012	1,050,000	-	-
<b>F</b>	F-1/yr	2012	1.07	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2012	16		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2012	7.643		
<b>ER/ERmgt</b>	-	-	-		

**Red mullet Balearic Island [RMULLMEDGSA5]**

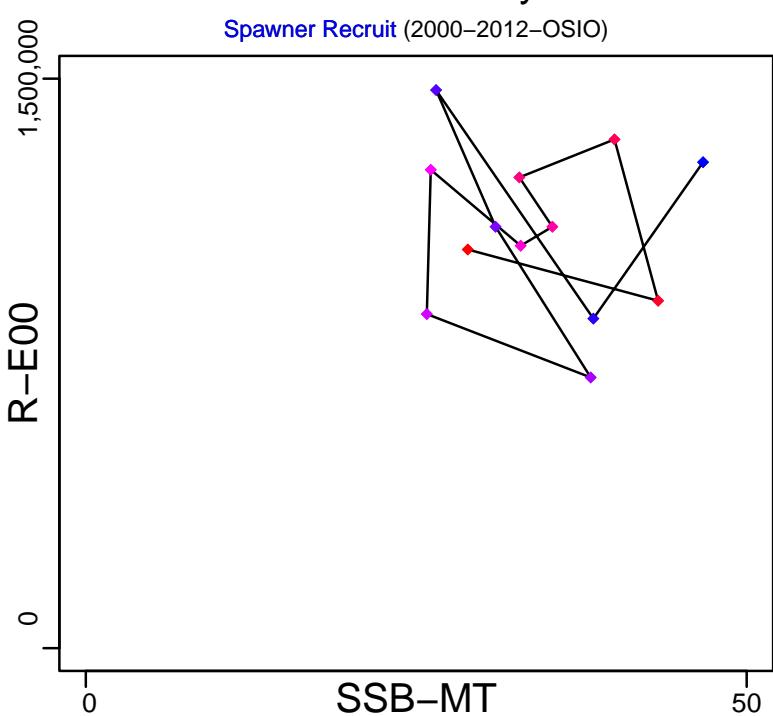
Kobe MSYpref (2000–2012–OSIO)



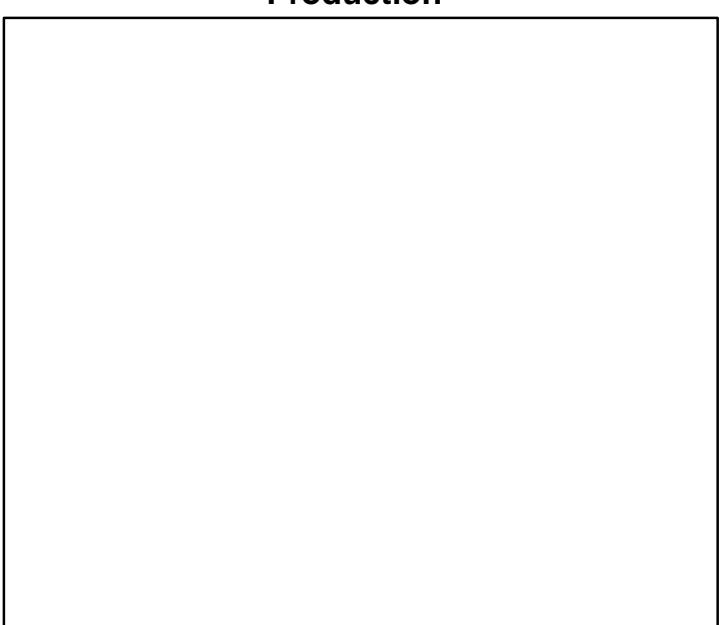
Kobe MGTpref (2000–2012–OSIO)



Spawner Recruit (2000–2012–OSIO)



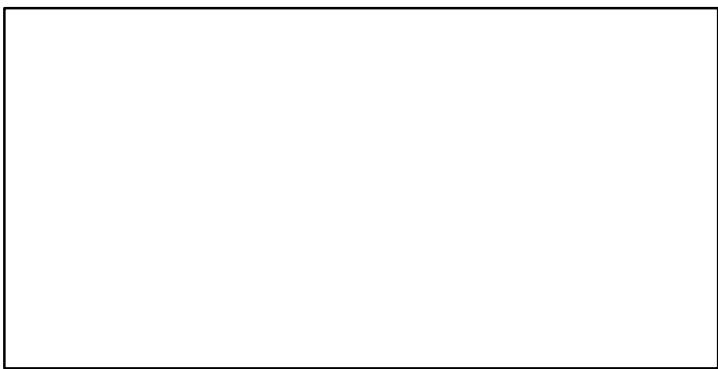
Production\*



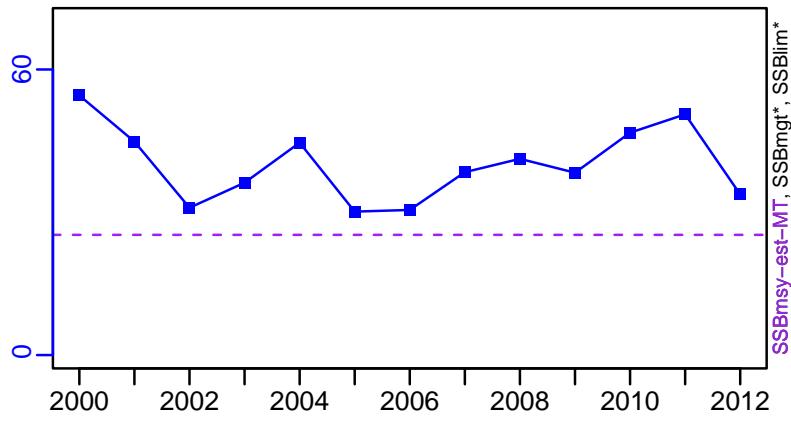
♦ Start Year    ◆ End Year    \* No Data

Red mullet Balearic Island [RMULLMEDGSA5]

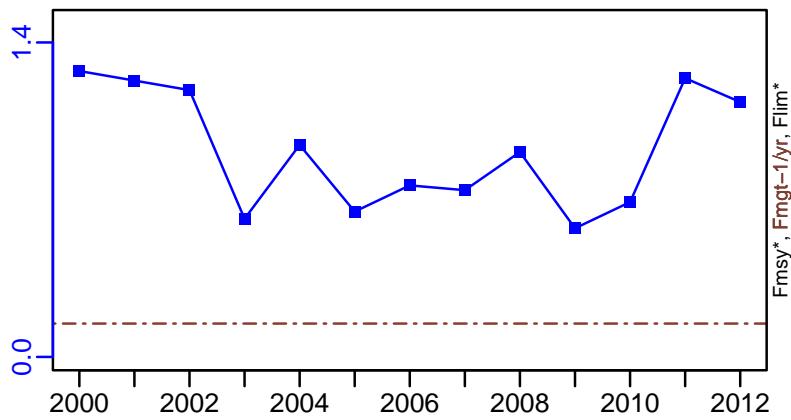
**TB\***



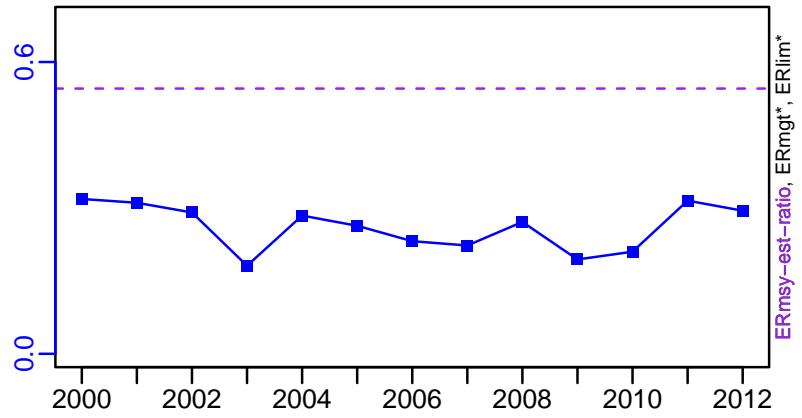
**SSB-MT (2000–2012–OSIO)**



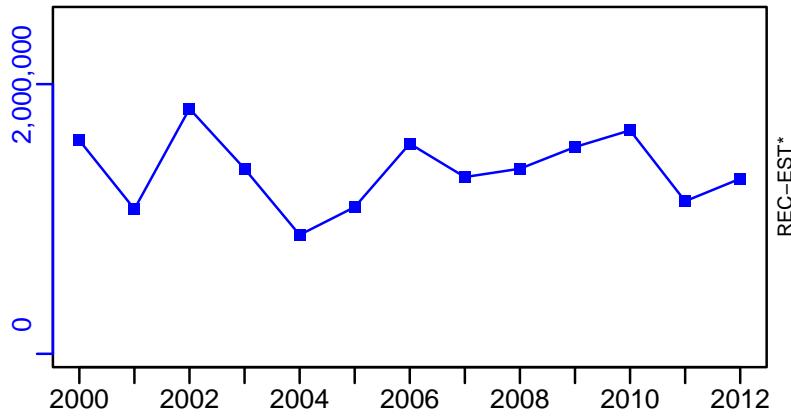
**TN \***



**ER-calc-ratio (2000–2012–OSIO)**



**R-E00 (2000–2012–OSIO)**

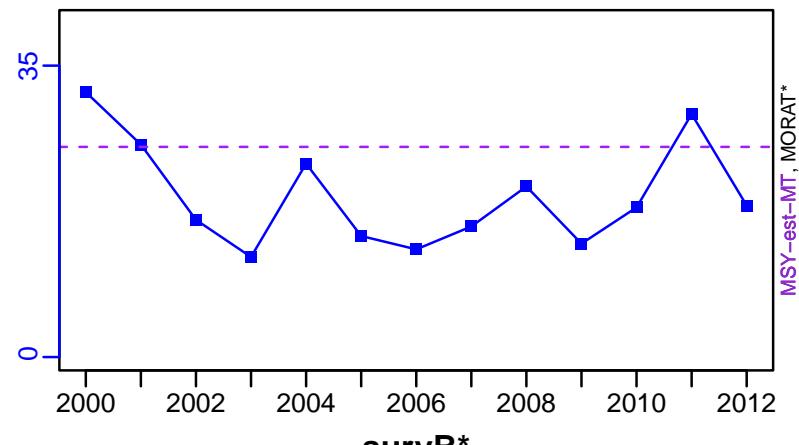


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - - Lim BRP	* No Data

**Red mullet Balearic Island [RMULLMEDGSA5]**

TC-MT, TL\*, RecC\* (2000–2012–OSIO)

TAC\*, Cpair\*, Cadv\*



survB\*

MSY-est-MT, MORAT\*

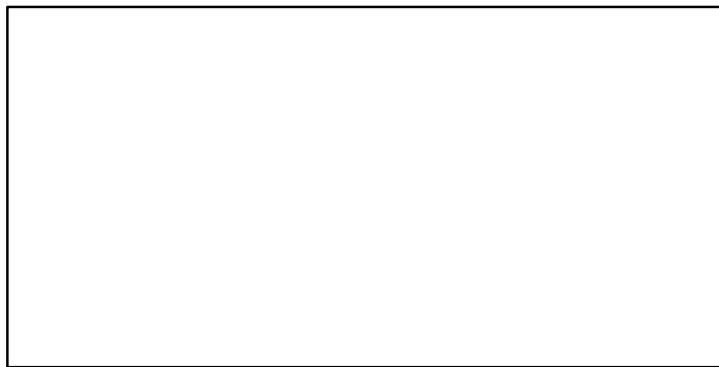
TAC\*, Cpair\*, Cadv\*



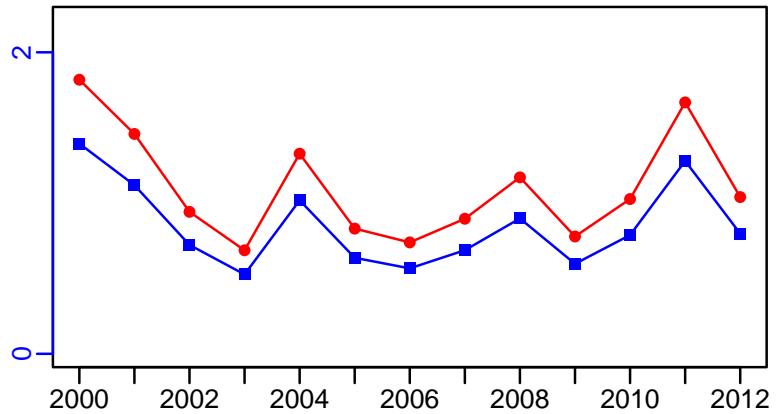
CPUE\*



EFFORT\*



TC-MT/MSY-est-MT, CdivMEANC-ratio, (2000–2012–OSIO)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Red mullet Northern Spain [RMULLMEDGSA6]

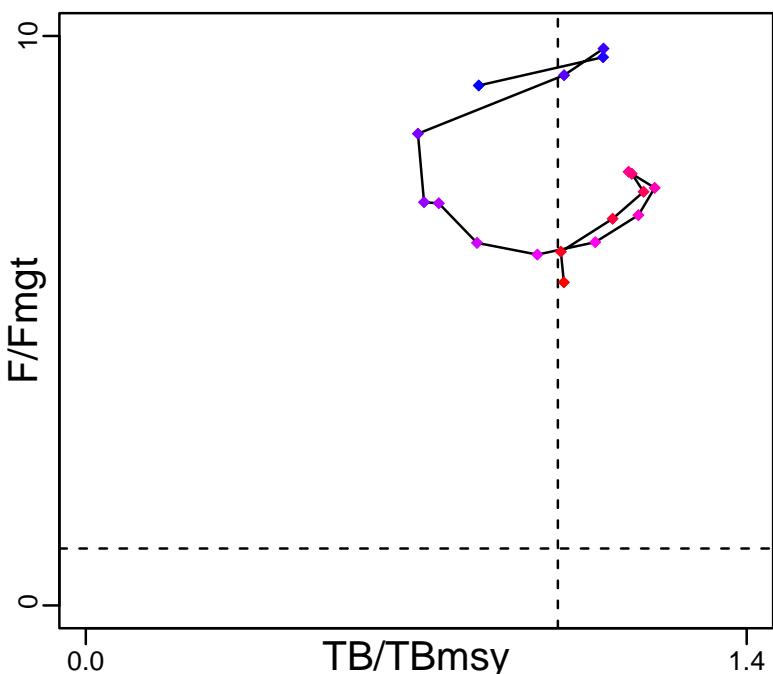
<b>Metadata</b>	
<b>Scientific Name</b>	Mullus barbatus
<b>Current Assess ID</b>	WGSAD-RMULLMEDGSA6-2004-2021-HIVELY
<b>Area</b>	Northern Spain
<b>Management Authority</b>	General Fisheries Council for the Mediterranean, DG MARE, and national states
<b>Assessor</b>	Working Group on Stock Assessment of Demersal Species
<b>Asmts in RAM</b>	2013, 2019, 2021

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	Fmgt-1/yr	2021	0.25
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

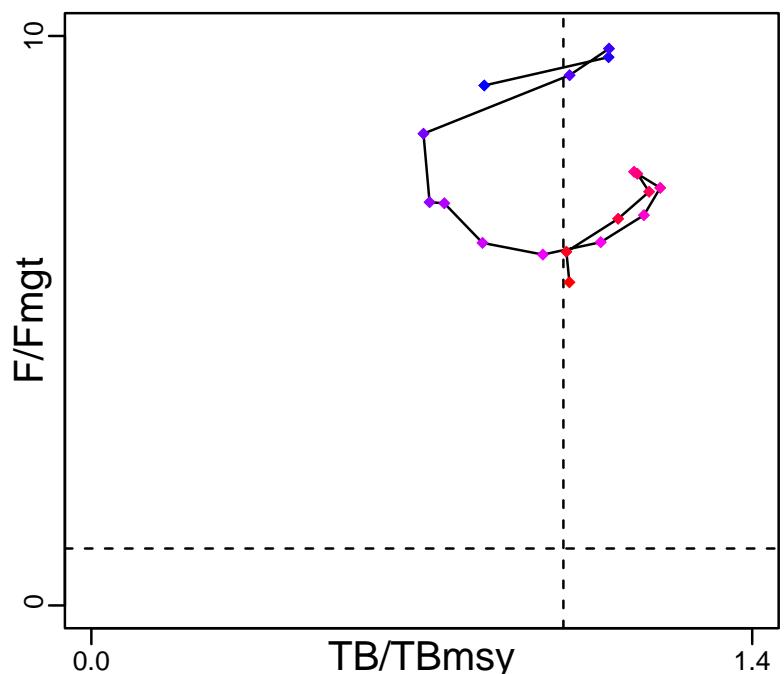
<b>Time Series</b>					
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>
<b>TB</b>	TB-MT	2021	3006	-	-
<b>SSB</b>	SSB-MT	2021	849	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2021	99,163,000	-	-
<b>F</b>	F-1/yr	2021	1.419	-	-
<b>ER</b>	ER-calc-ratio	2021	0.327	-	-
<b>TC</b>	TC-MT	2019	1546		
<b>TL</b>	TL-MT	2021	982		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2021	5.674		
<b>ER/ERmgt</b>	-	-	-		

**Red mullet Northern Spain [RMULLMEDGSA6]**

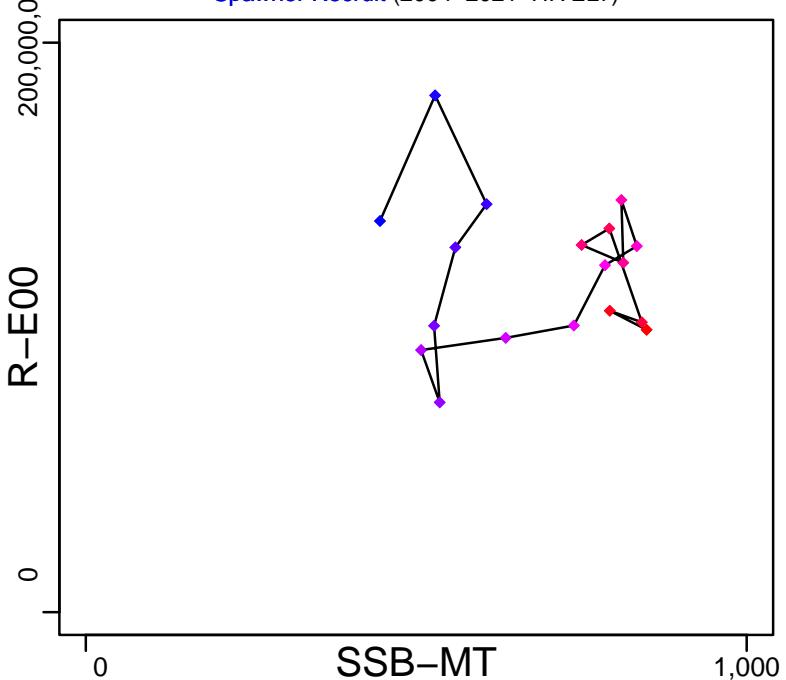
Kobe MSYpref (2004–2021–HIVELY)



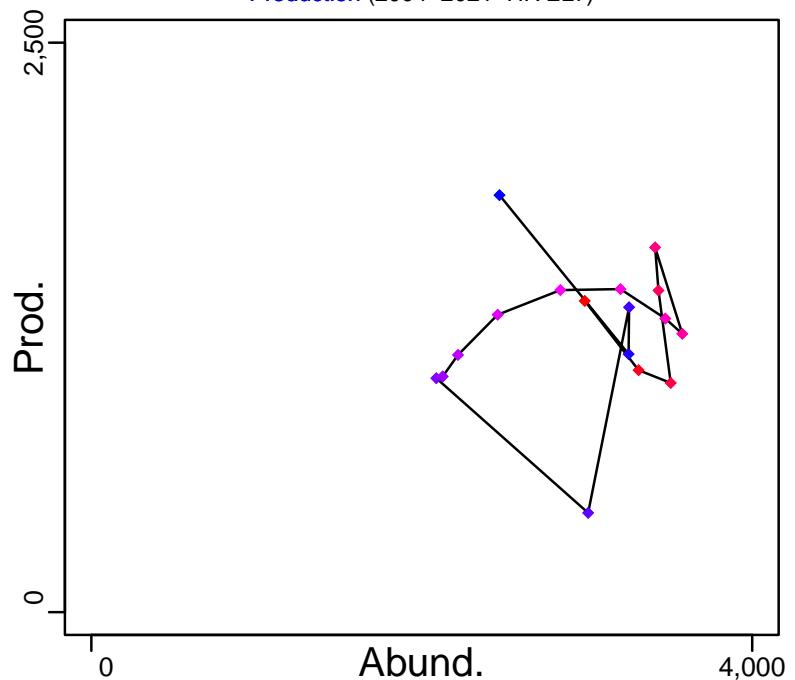
Kobe MGTPref (2004–2021–HIVELY)



Spawner Recruit (2004–2021–HIVELY)



Production (2004–2021–HIVELY)

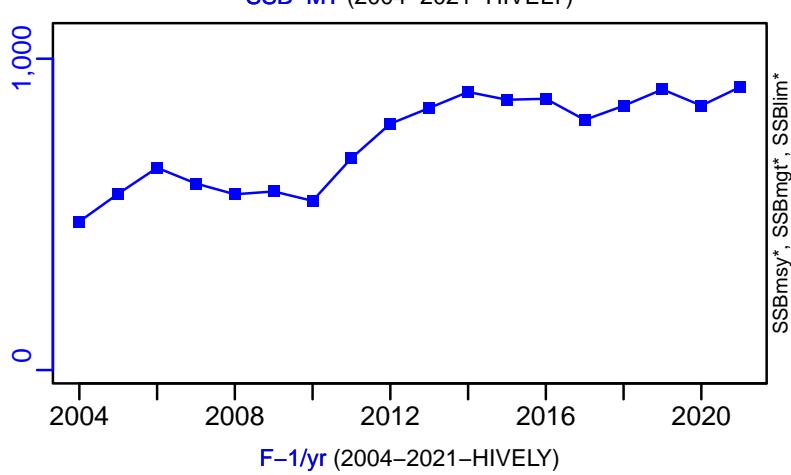
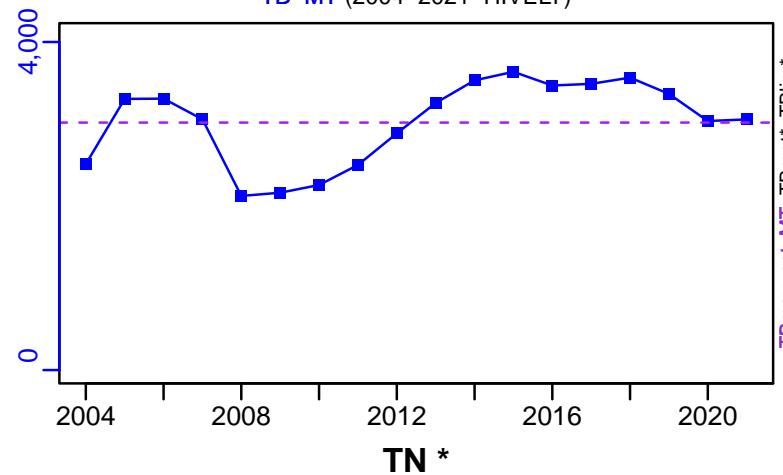


◆ Start Year   ◆ End Year   \* No Data

Red mullet Northern Spain [RMULLMEDGSA6]

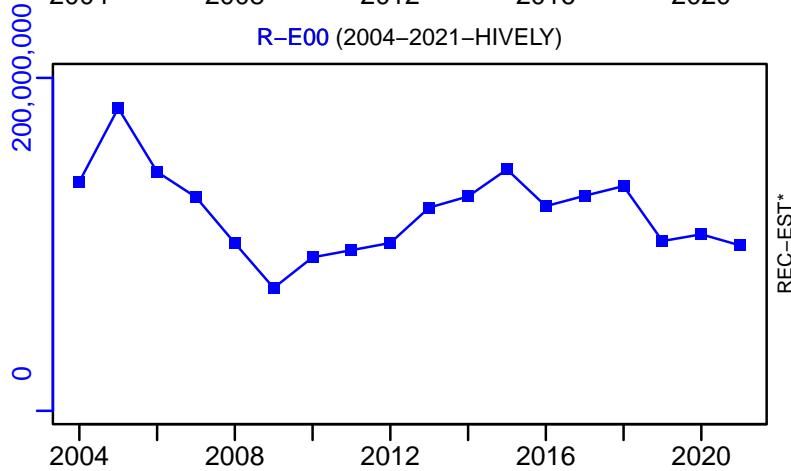
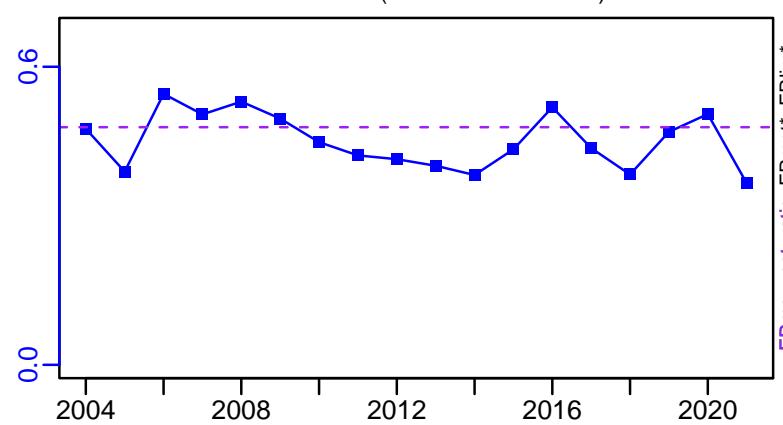
TB-MT (2004–2021–HIVELY)

SSB-MT (2004–2021–HIVELY)



ER-calc-ratio (2004–2021–HIVELY)

R-E00 (2004–2021–HIVELY)

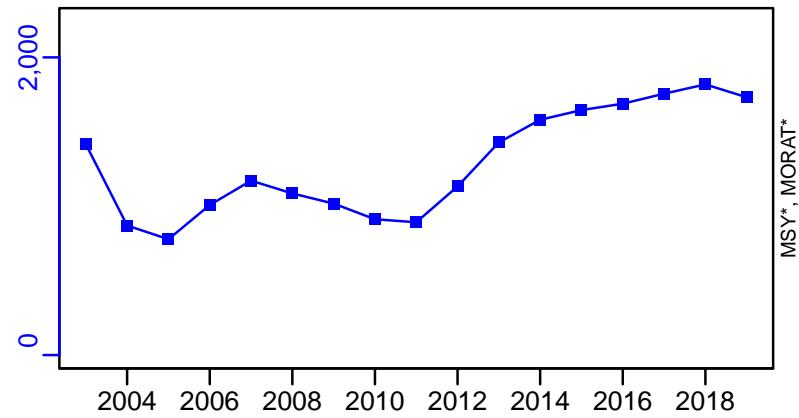


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	— Lim BRP	* No Data

**Red mullet Northern Spain [RMULLMEDGSA6]**

TC-MT, TL\*, RecC\* (2003–2019–MEDIMP2021–2)

TAC\*, Cpair\*, Cadv\*



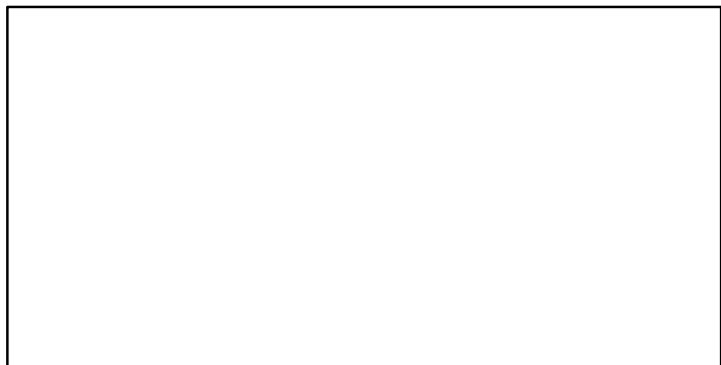
survB\*



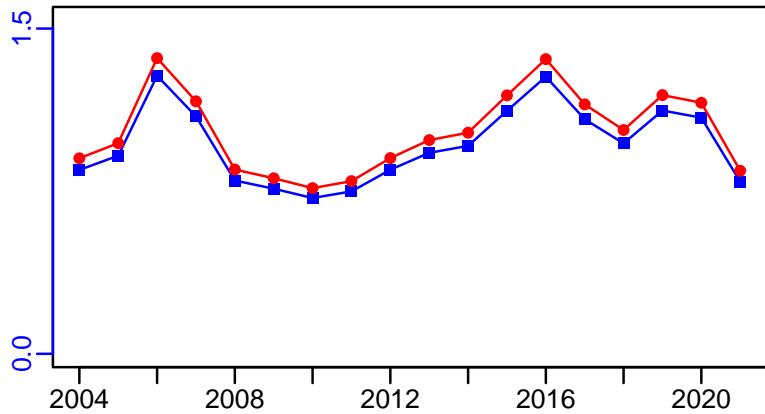
CPUE\*



EFFORT\*



TL-MT/MSY-est-MT, CdivMEANC-ratio, (2004–2021–HIVELY)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Red mullet Gulf of Lions [RMULLMEDGSA7]

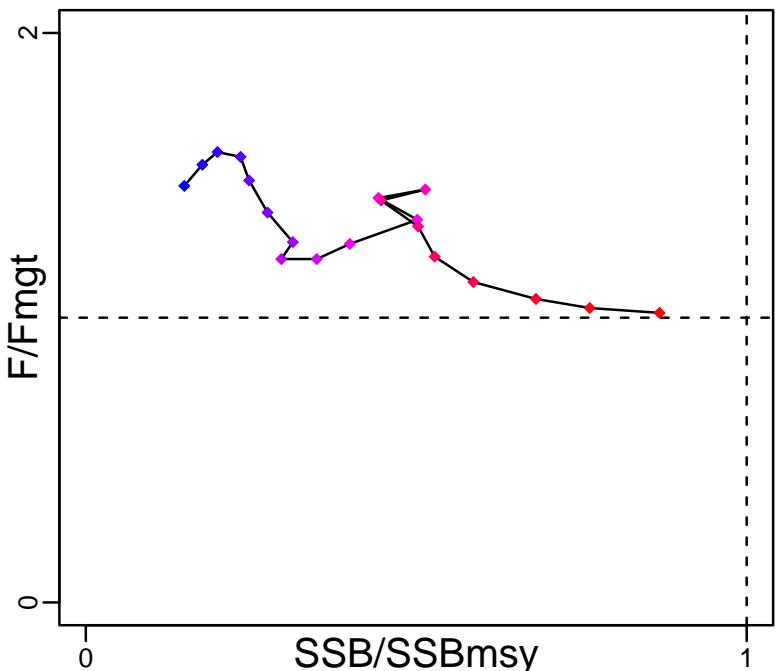
<b>Metadata</b>	
<b>Scientific Name</b>	Mullus barbatus
<b>Current Assess ID</b>	WGSAD-RMULLMEDGSA7-2002-2021-HIVELY
<b>Area</b>	Gulf of Lions
<b>Management Authority</b>	General Fisheries Council for the Mediterranean, DG MARE, and national states
<b>Assessor</b>	Working Group on Stock Assessment of Demersal Species
<b>Asmts in RAM</b>	2019, 2013, 2021

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2021	870
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2021	870
<b>Fmgt</b>	Fmgt-1/yr	2021	0.471
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2021	123
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

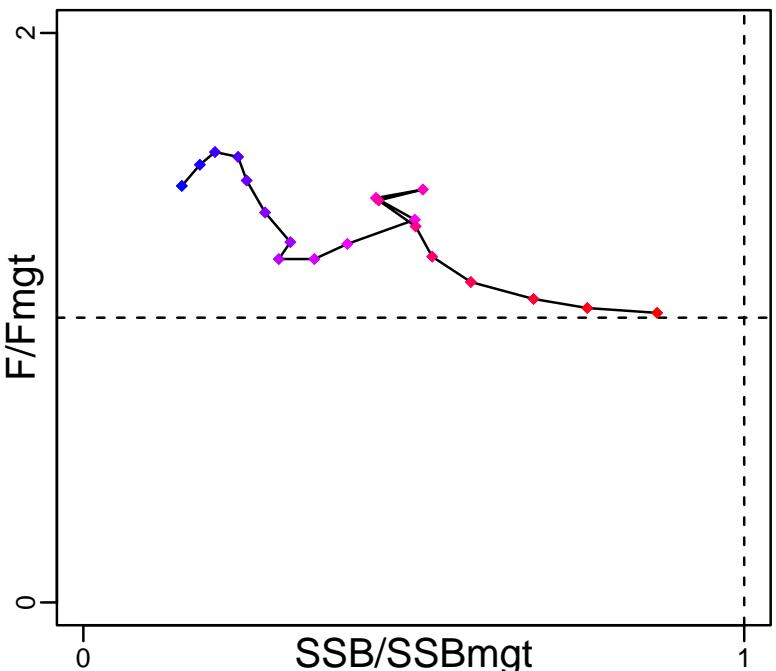
<b>Time Series</b>						
Type	ID	Asmt Year	Curr Value	Sex	Age	
<b>TB</b>	-	-	-	-	-	
<b>SSB</b>	SSB-MT	2021	755	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2021	109,799,920	-	-	
<b>F</b>	F-1/yr	2021	0.479	-	-	
<b>ER</b>	-	-	-	-	-	
<b>TC</b>	TC-MT	2019	320			
<b>TL</b>	TL-MT	2021	432			
<b>TB/TBmsy</b>	-	-	-			
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2021	0.868			
<b>F/Fmsy</b>	-	-	-			
<b>ER/ERmsy</b>	-	-	-			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2021	0.868			
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2021	1.017			
<b>ER/ERmgt</b>	-	-	-			

**Red mullet Gulf of Lions [RMULLMEDGSA7]**

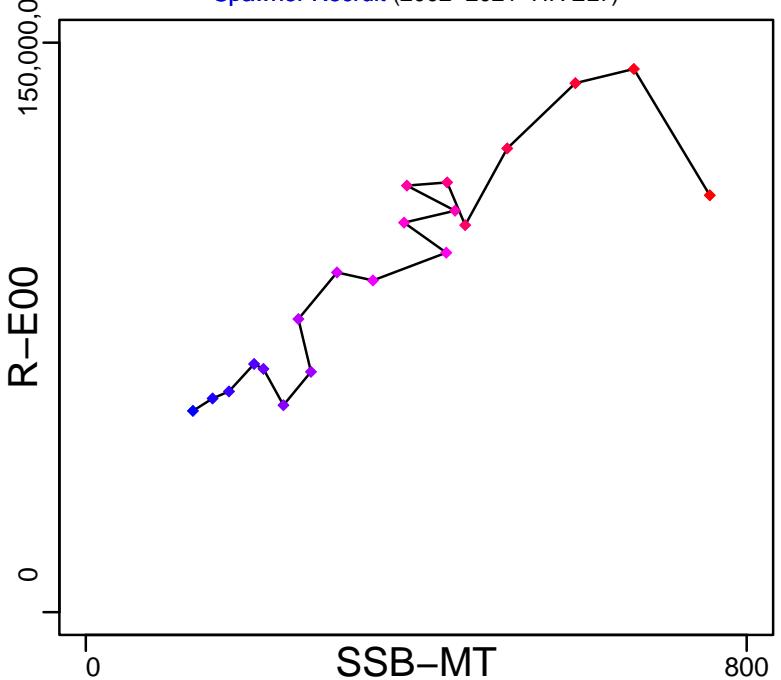
Kobe MSYpref (2002–2021–HIVELY)



Kobe MGTPref (2002–2021–HIVELY)



Spawner Recruit (2002–2021–HIVELY)



SSB/SSBmgt

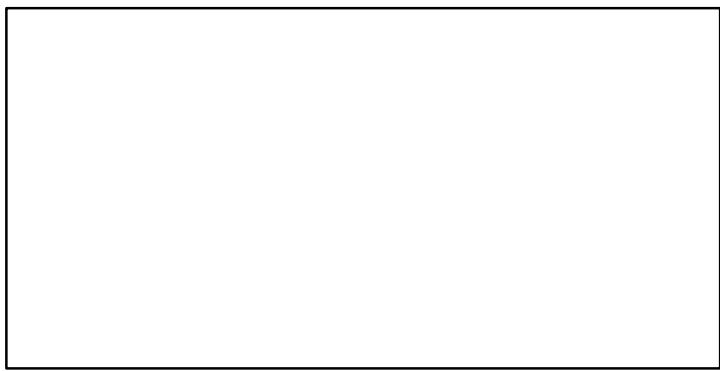
**Production\***



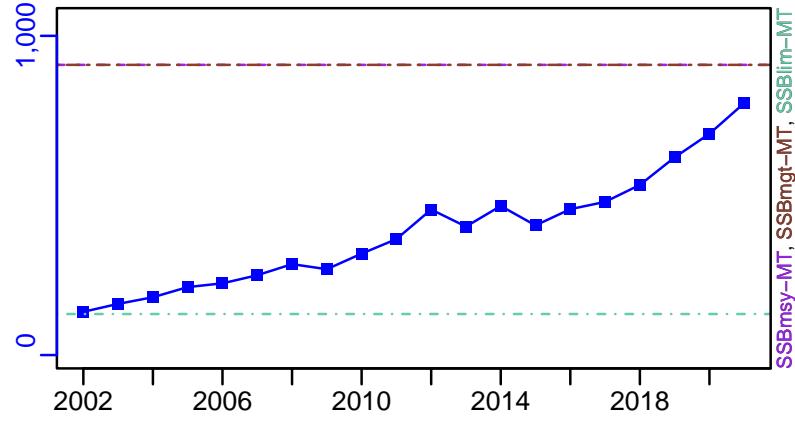
♦ Start Year    ◆ End Year    \* No Data

Red mullet Gulf of Lions [RMULLMEDGSA7]

**TB\***



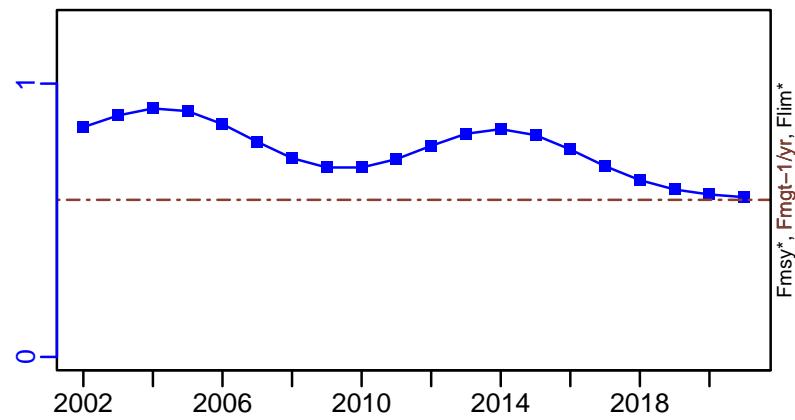
**SSB-MT (2002–2021–HIVELY)**



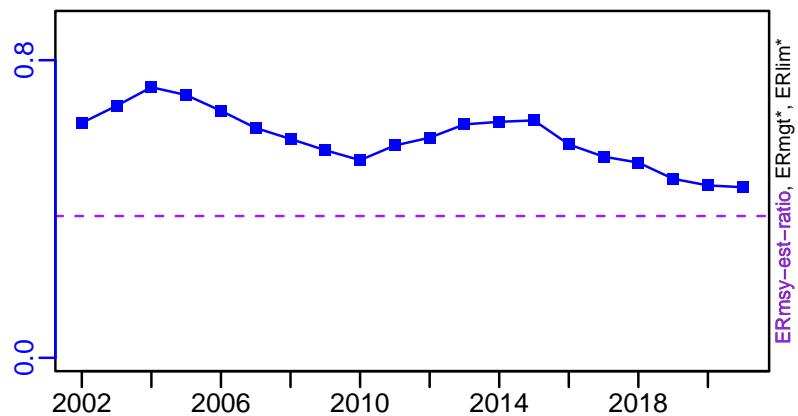
**TN \***



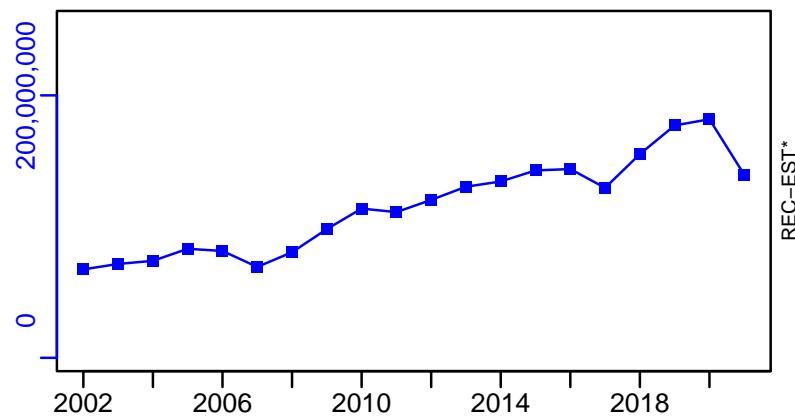
**F-1/yr (2002–2021–HIVELY)**



**ER-calc-ratio (2002–2021–HIVELY)**



**R-E00 (2002–2021–HIVELY)**

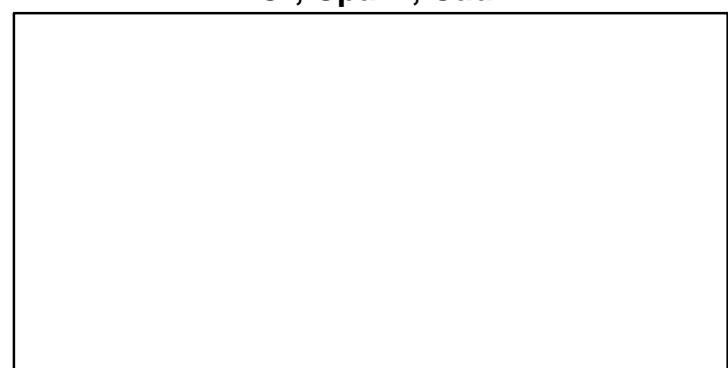
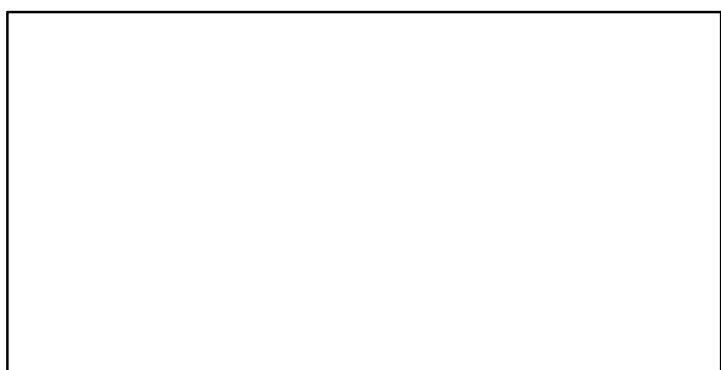
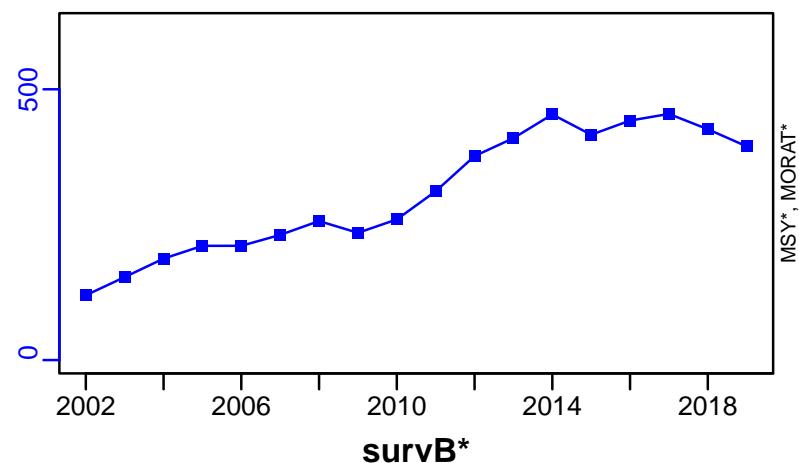


■ Listed time series	— Target BRP	— Rec-Est
- - MSY-based BRP	- - Lim BRP	* No Data

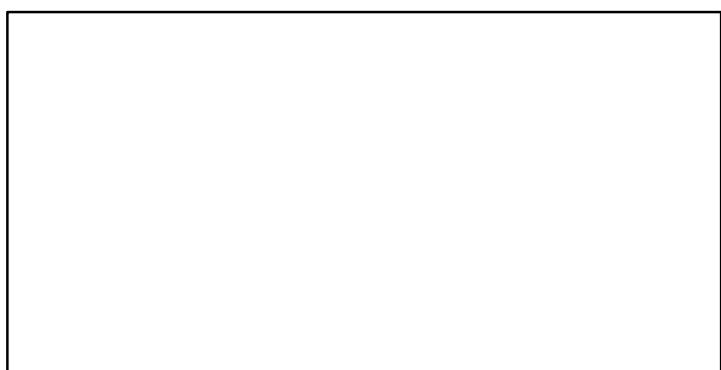
**Red mullet Gulf of Lions [RMULLMEDGSA7]**

TC-MT, TL\*, RecC\* (2002–2019–MEDIMP2021–2)

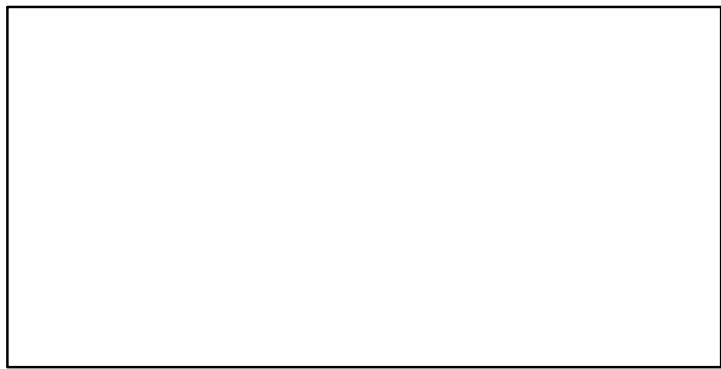
TAC\*, Cpair\*, Cadv\*



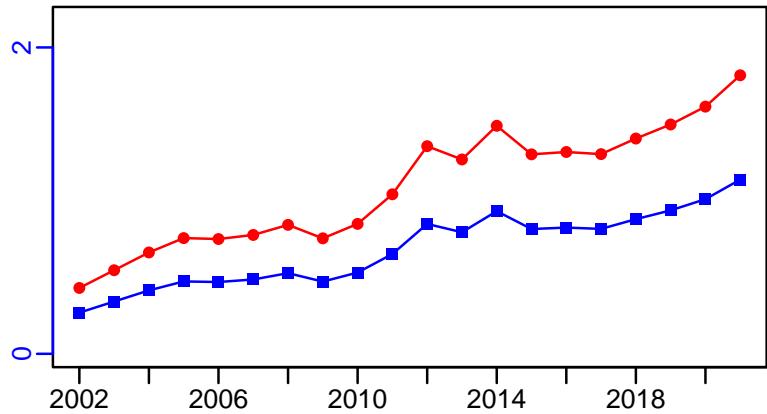
CPUE\*



**EFFORT\***



TL-MT/MSY-est-MT, CdivMEANC-ratio, (2002–2021–HIVELY)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Red mullet Ligurian and North Tyrrhenian Sea [RMULLMEDGSA9]

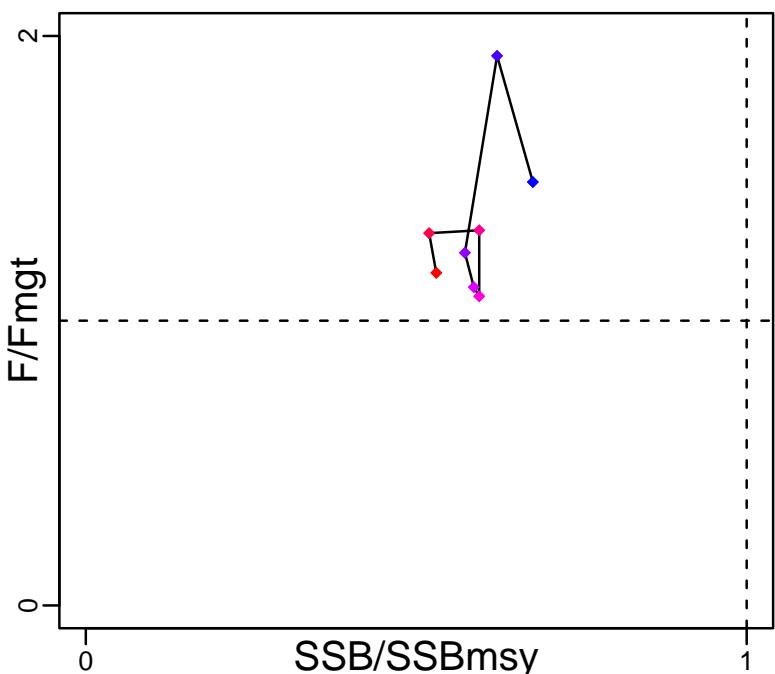
<b>Metadata</b>	
<b>Scientific Name</b>	Mullus barbatus
<b>Current Assess ID</b>	STECF-RMULLMEDGSA9-2004-2019-MEDIMP2021-2
<b>Area</b>	Ligurian and North Tyrrhenian Sea
<b>Management Authority</b>	General Fisheries Council for the Mediterranean, DG MARE, and national states
<b>Assessor</b>	Scientific, Technical and Economic Committee for Fisheries
<b>Asmts in RAM</b>	2019, 2013

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	Fmgt-1/yr	2019	0.506
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

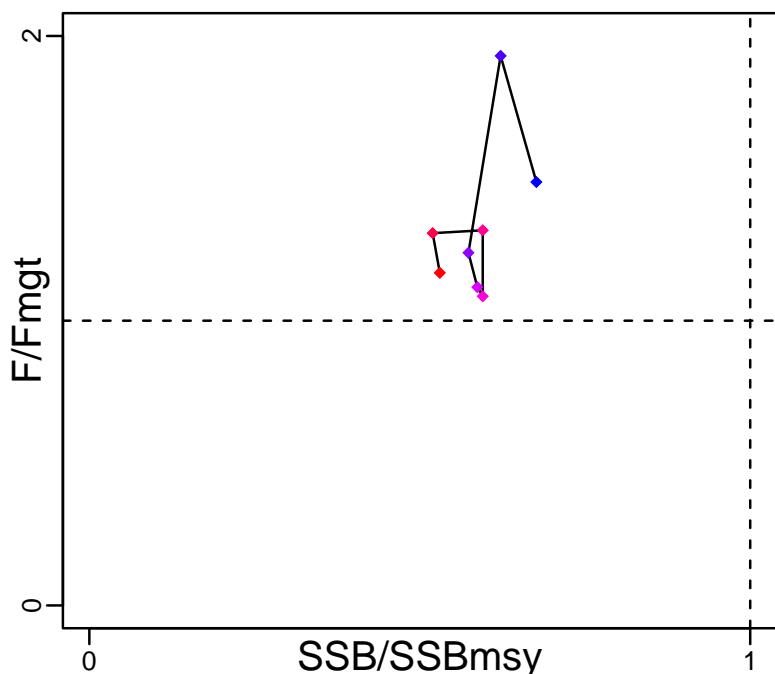
<b>Time Series</b>					
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2019	1409	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2019	271,663,084	-	-
<b>F</b>	F-1/yr	2019	0.846	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2019	1011		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2019	1.67		
<b>ER/ERmgt</b>	-	-	-		

Red mullet Ligurian and North Tyrrhenian Sea [RMULLMEDGSA9]

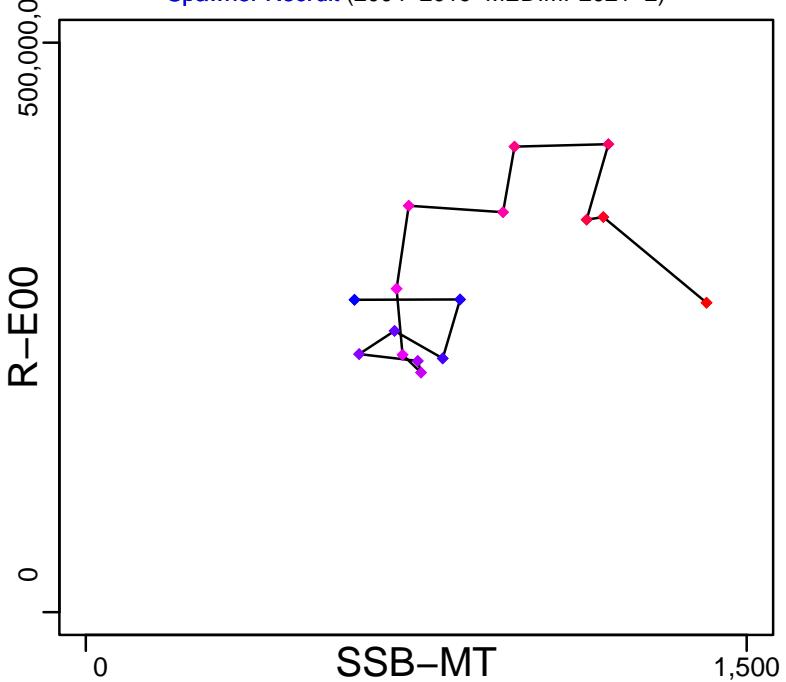
Kobe MSYpref (2006–2013–OSIO)



Kobe MGTpref (2006–2013–OSIO)



Spawner Recruit (2004–2019–MEDIMP2021–2)



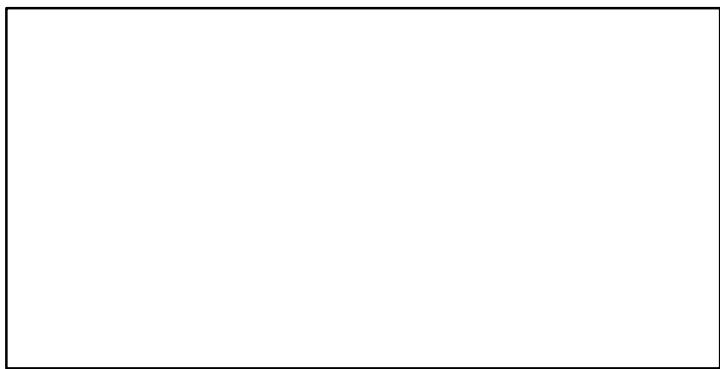
SSB/SSB<sub>msy</sub>

Production\*

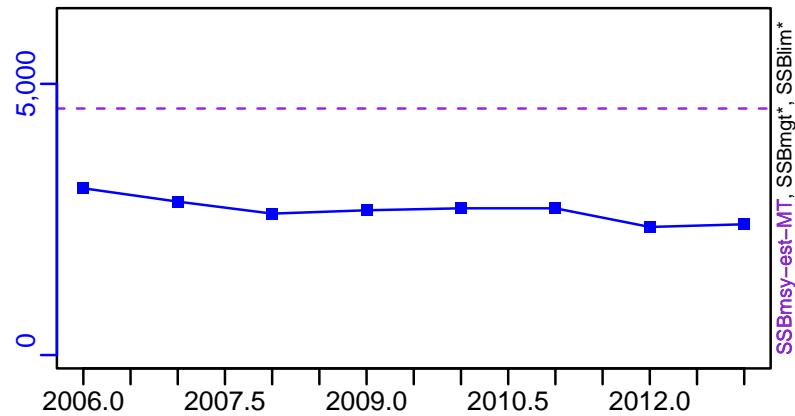
♦ Start Year    ◆ End Year    \* No Data

Red mullet Ligurian and North Tyrrhenian Sea [RMULLMEDGSA9]

**TB\***



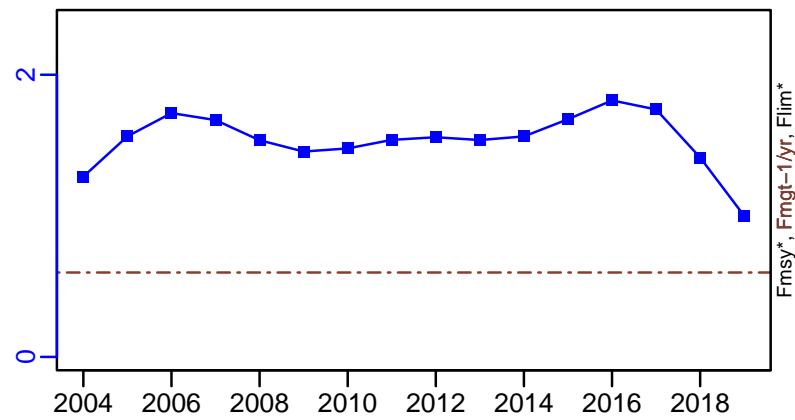
**SSB-MT (2006–2013–OSIO)**



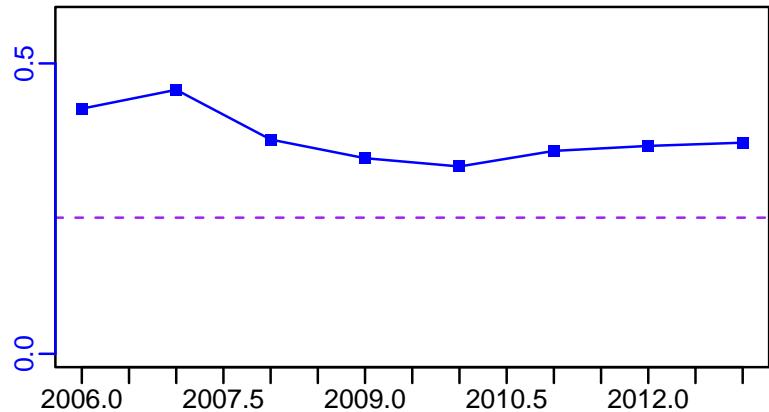
**TN \***



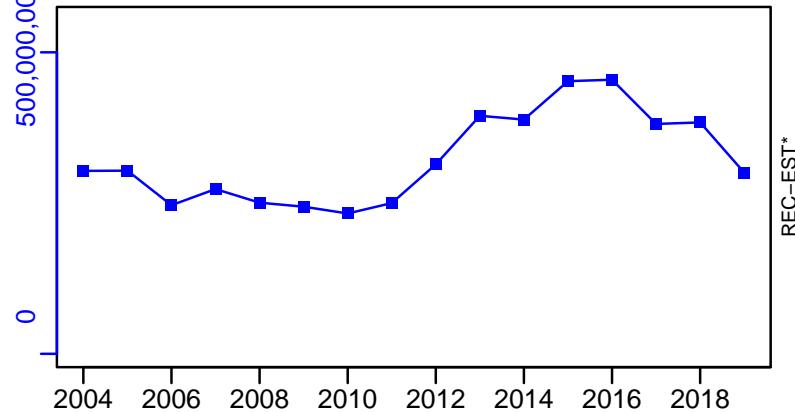
**F-1/yr (2004–2019–MEDIMP2021–2)**



**ER-calc-ratio (2006–2013–OSIO)**



**R-E00 (2004–2019–MEDIMP2021–2)**

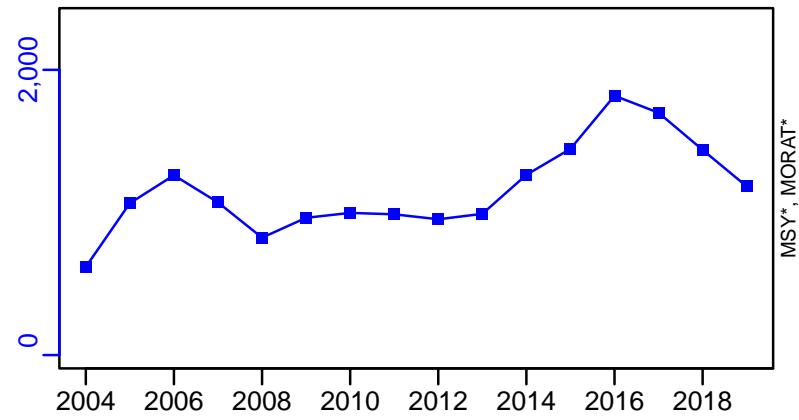


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - Lim BRP	* No Data

**Red mullet Ligurian and North Tyrrhenian Sea [RMULLMEDGSA9]**

TC-MT, TL\*, RecC\* (2004–2019–MEDIMP2021–2)

TAC\*, Cpair\*, Cadv\*



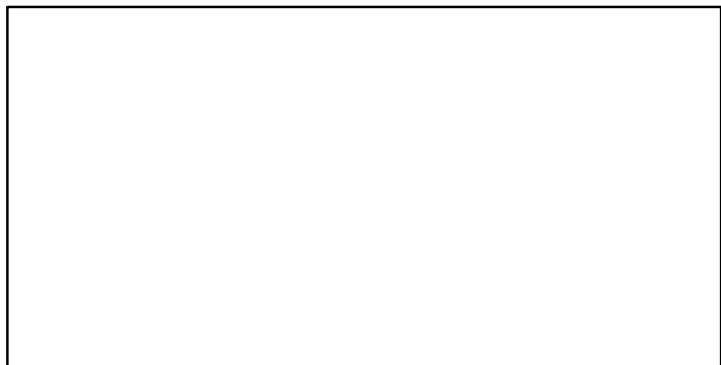
survB\*



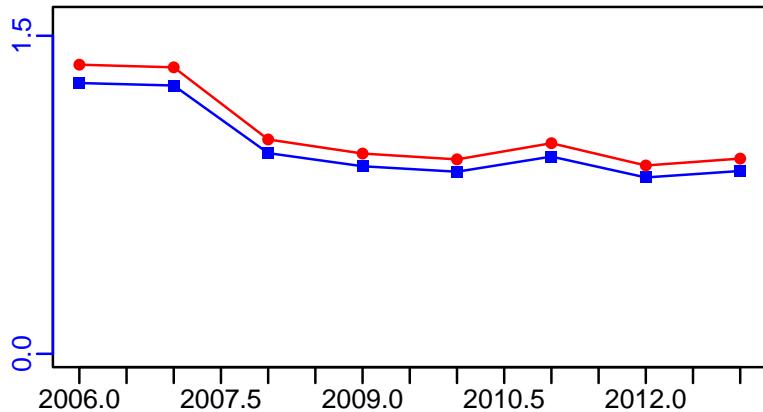
CPUE\*



EFFORT\*



TC-MT/MSY-est-MT, CdivMEANC-ratio, (2006–2013–OSIO)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Red pandora Central West Africa Cote Divoire-Benin [RPANDCWACIV-BEN]

<b>Metadata</b>	
<b>Scientific Name</b>	Pagellus bellottii
<b>Current Assess ID</b>	FAO-DR-RPANDCWACIV-BEN-1990-2007-CHING
<b>Area</b>	Central West Africa Cote Divoire-Benin
<b>Management Authority</b>	Food and Agriculture Organization of the United Nations
<b>Assessor</b>	FAO/CECAF Working Group on the Assessment of Demersal Resources
<b>Asmts in RAM</b>	2007

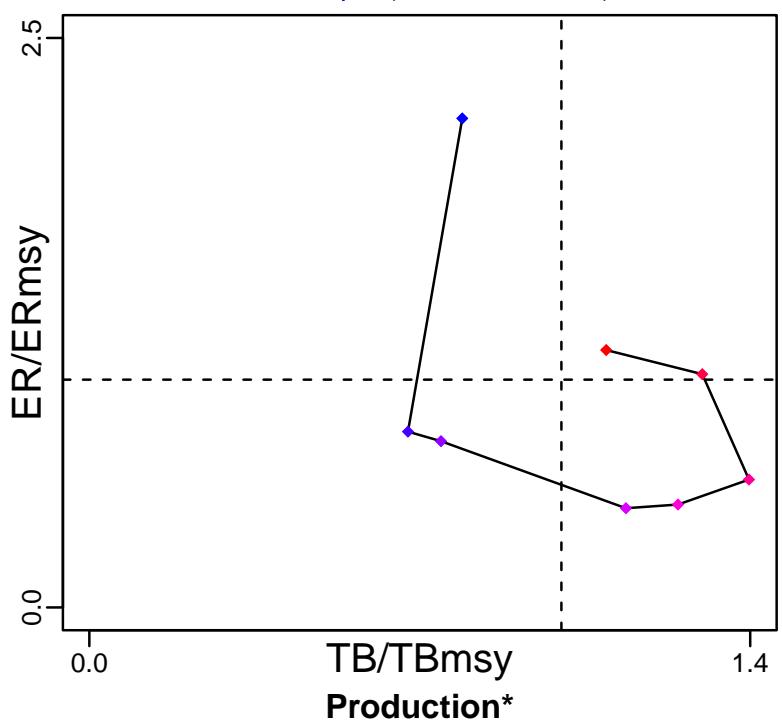
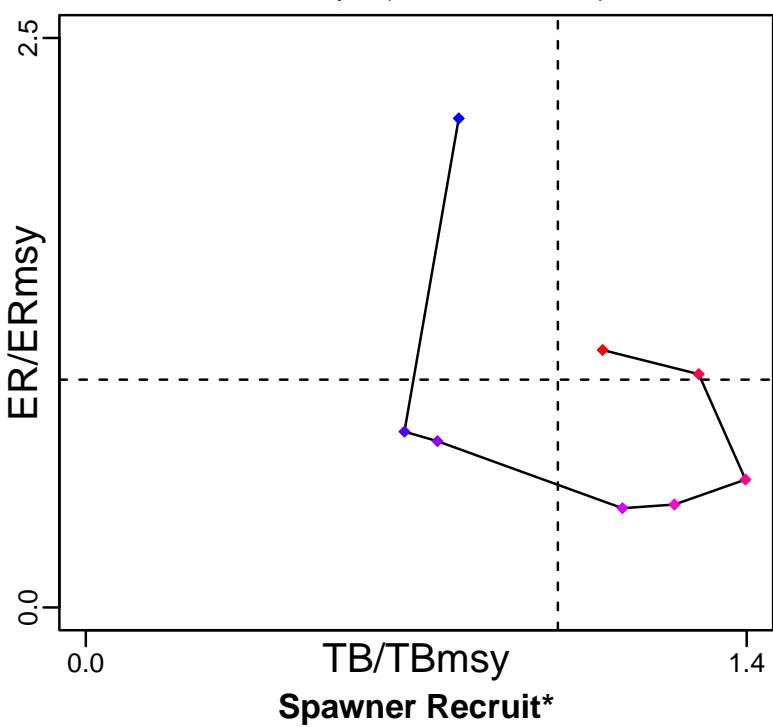
<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

<b>Time Series</b>					
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>
<b>TB</b>	TB-index	2007	16	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2007	8170		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

Red pandora Central West Africa Cote Divoire–Benin [RPANDCWACIV–BEN]

Kobe MSYpref (1990–2007–CHING)

Kobe MGTPref (1990–2007–CHING)

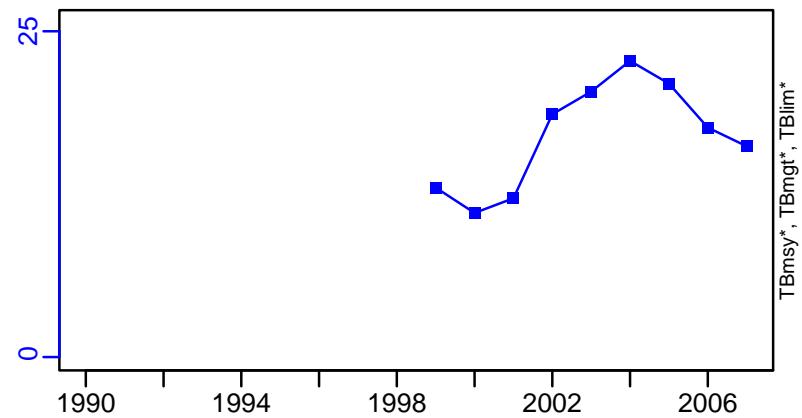


◆ Start Year    ♦ End Year    \* No Data

Red pandora Central West Africa Cote Divoire–Benin [RPANDCWACIV–BEN]

TB-index (1990–2007–CHING)

**SSB\***



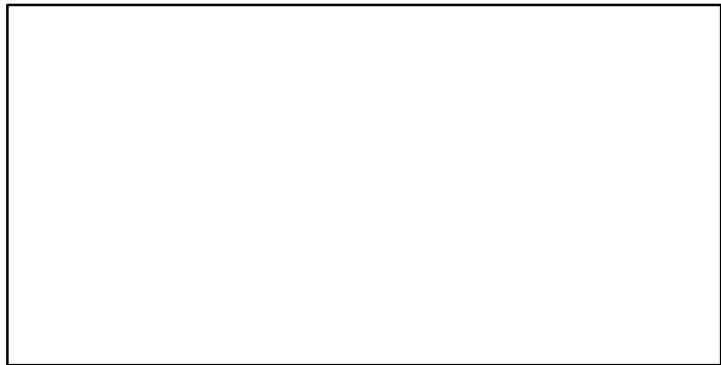
**TN \***



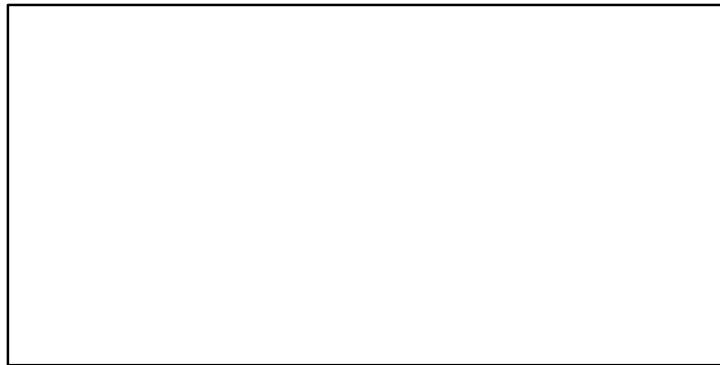
**F\***



**ER\***



**Recruits\***

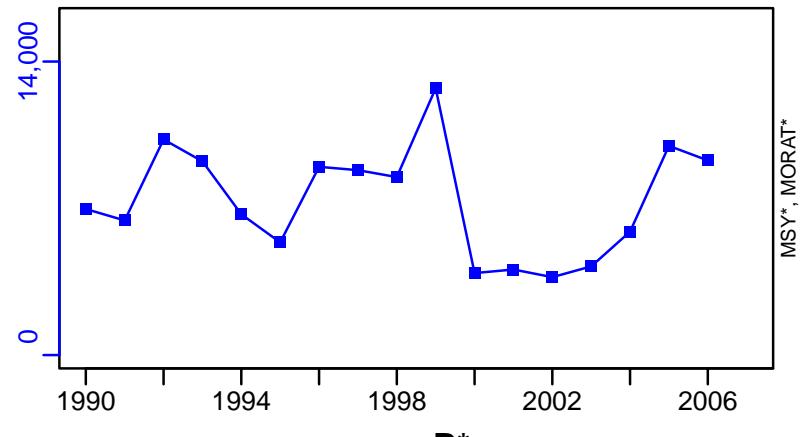


- |                      |              |           |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| — MSY-based BRP      | — Lim BRP    | * No Data |

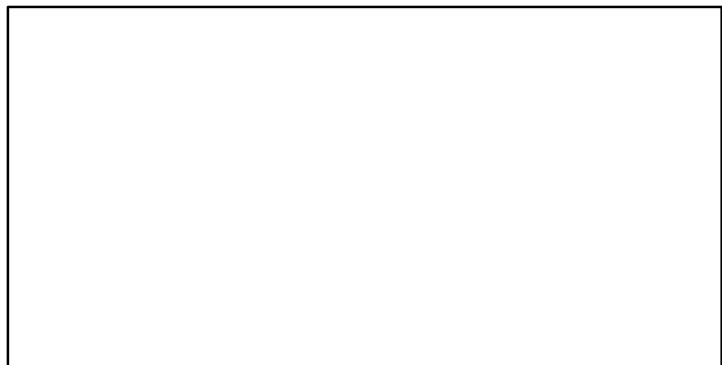
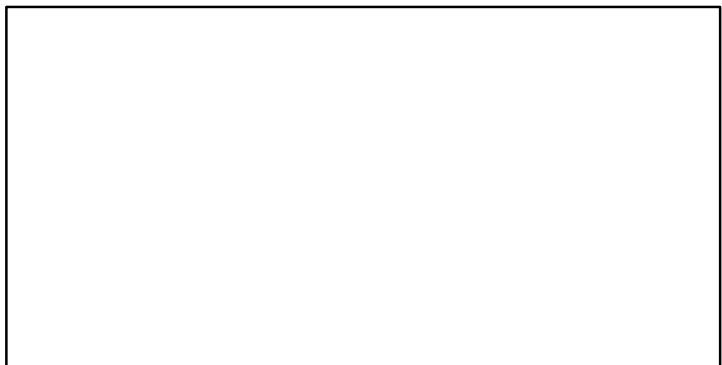
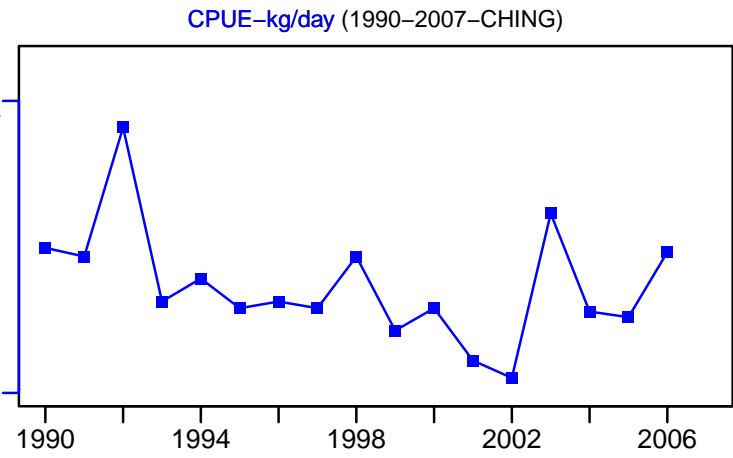
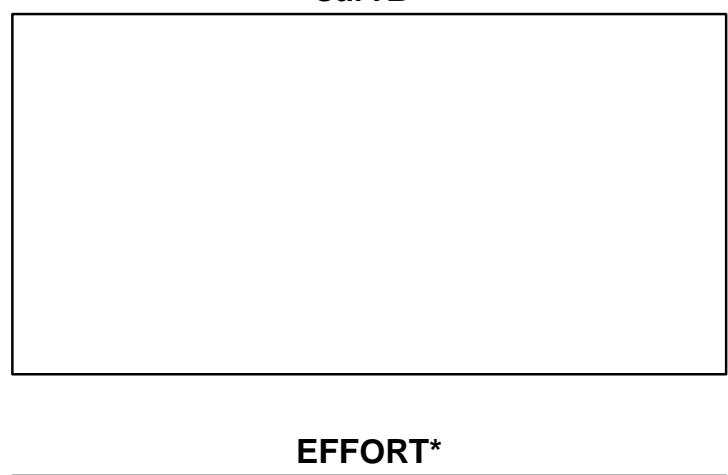
Red pandora Central West Africa Cote Divoire–Benin [RPANDCWACIV–BEN]

TC–MT, TL\*, RecC\* (1990–2007–CHING)

TAC\*, Cpair\*, Cadv\*



MSY\*, MORAT\*



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - MSY                  | * No Data |

## Red pandora North West Africa [RPANDNWA]

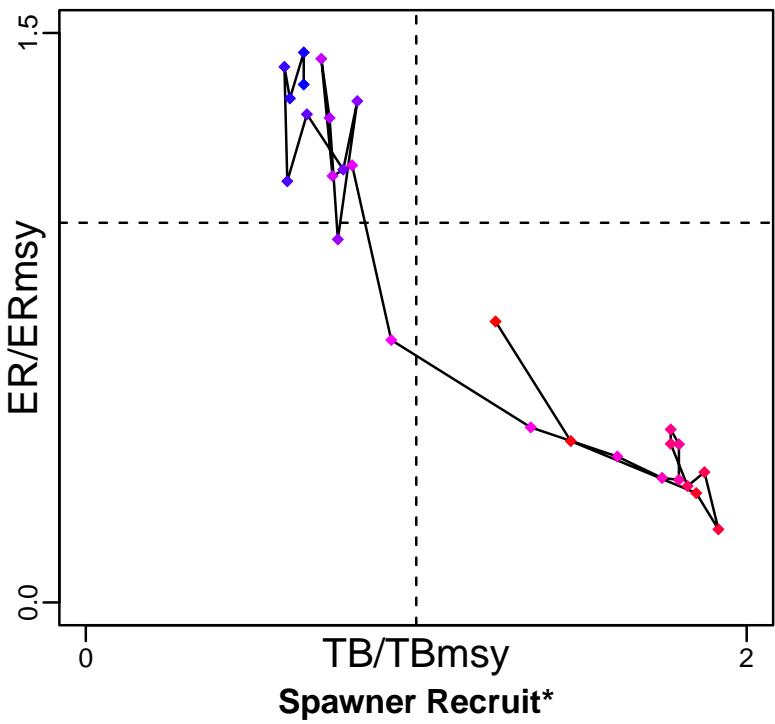
<b>Metadata</b>	
<b>Scientific Name</b>	Pagellus bellottii
<b>Current Assess ID</b>	FAO-DR-RPANDNWA-1990-2016-ASHBROOK
<b>Area</b>	North West Africa
<b>Management Authority</b>	Food and Agriculture Organization of the United Nations
<b>Assessor</b>	FAO/CECAF Working Group on the Assessment of Demersal Resources
<b>Asmts in RAM</b>	2016

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

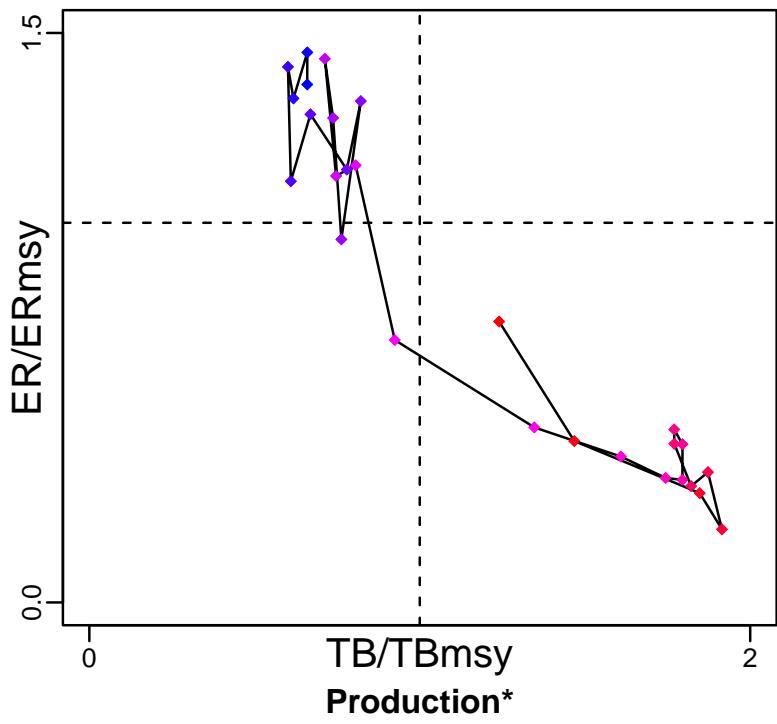
<b>Time Series</b>					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2016	9304		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

Red pandora North West Africa [RPANDNWA]

Kobe MSYpref (1990–2016–ASHBROOK)



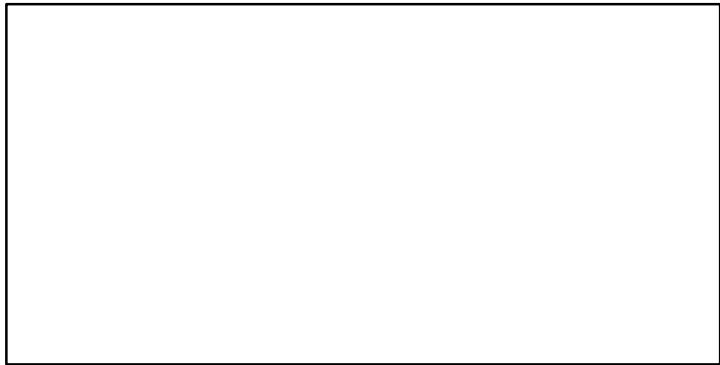
Kobe MGTpref (1990–2016–ASHBROOK)



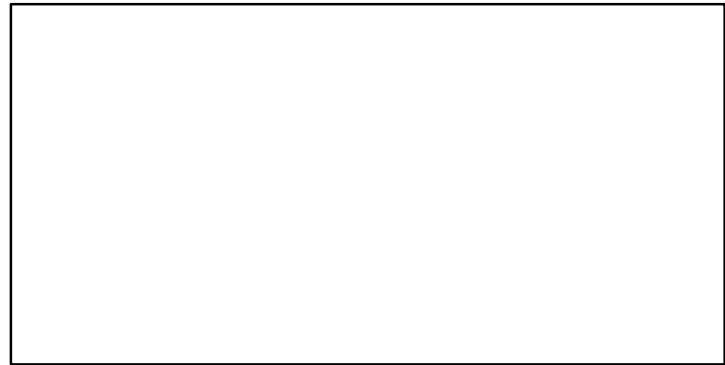
◆ Start Year ◆ End Year \* No Data

Red pandora North West Africa [RPANDNWA]

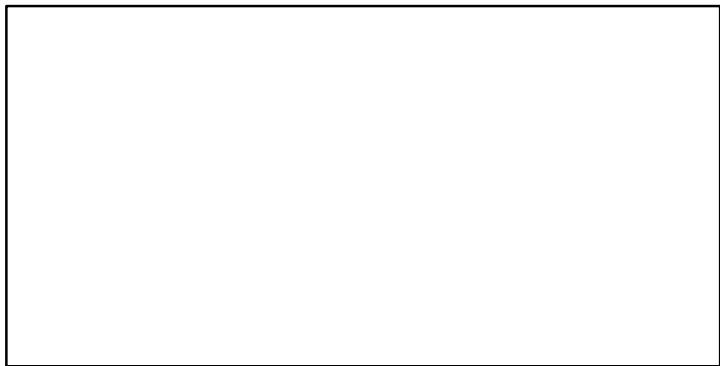
**TB\***



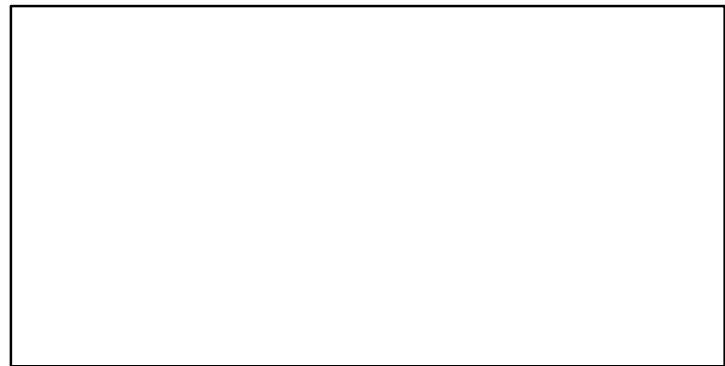
**SSB\***



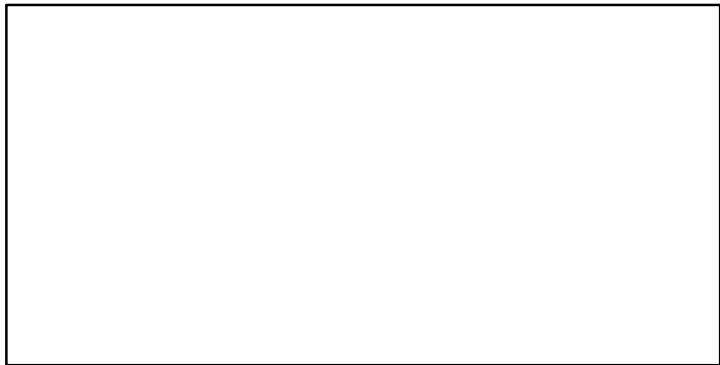
**TN \***



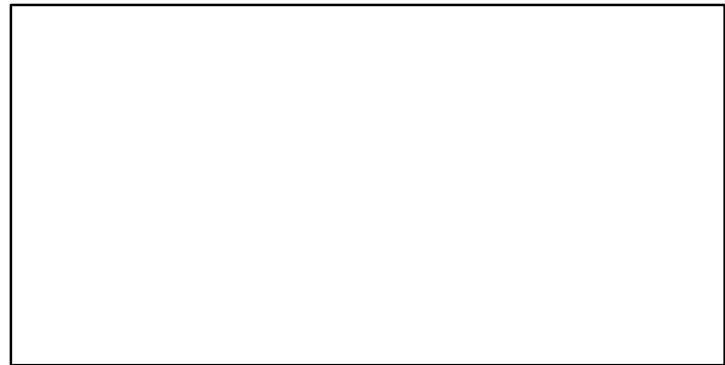
**F\***



**ER\***



**Recruits\***

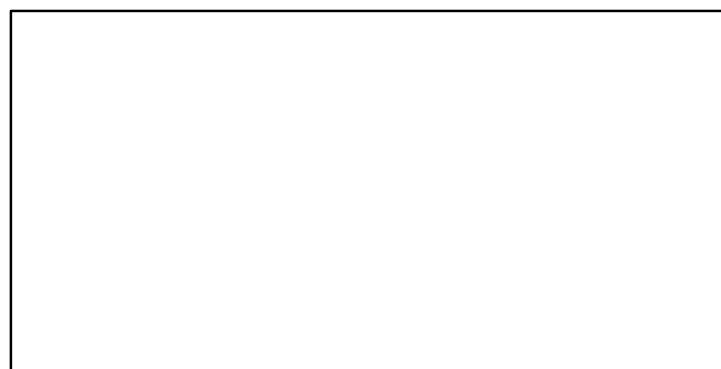
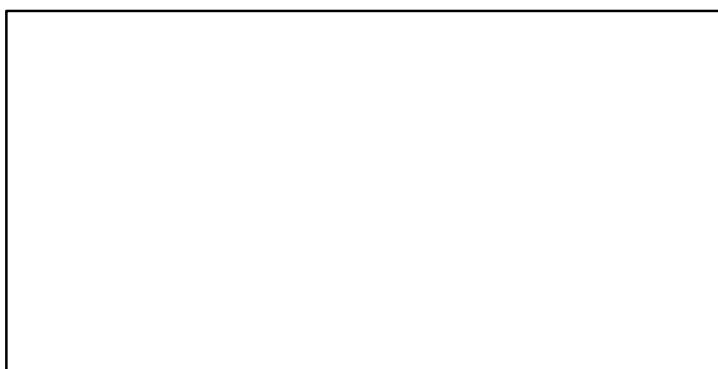
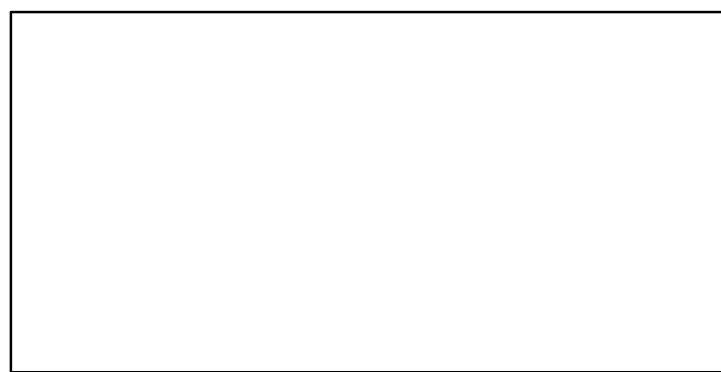
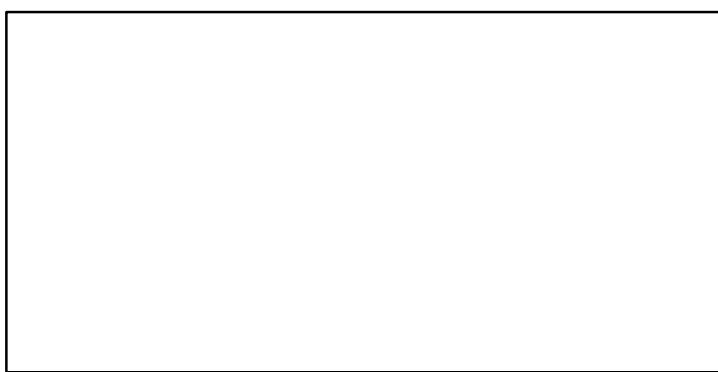
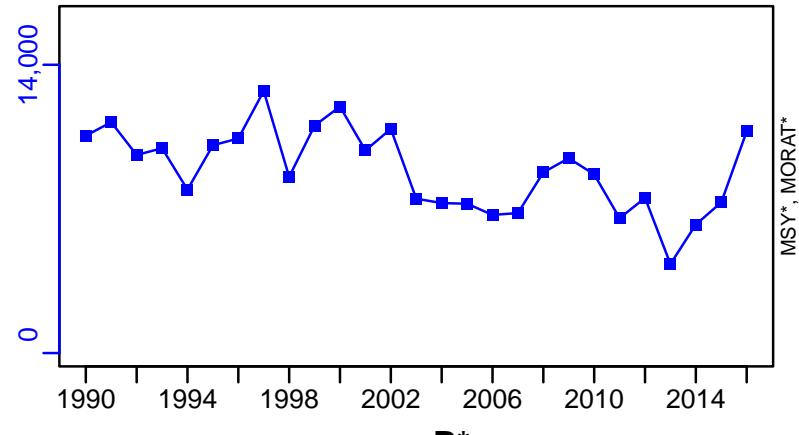


- |                      |                  |           |
|----------------------|------------------|-----------|
| ■ Listed time series | - - - Target BRP | — Rec-Est |
| - - - MSY-based BRP  | - - - Lim BRP    | * No Data |

Red pandora North West Africa [RPANDNWA]

TC-MT, TL\*, RecC\* (1990–2016-ASHBROOK)

TAC\*, Cpair\*, Cadv\*



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - MSY                  | * No Data |

## Red porgy Southern Atlantic coast [RPORGYSATLC]

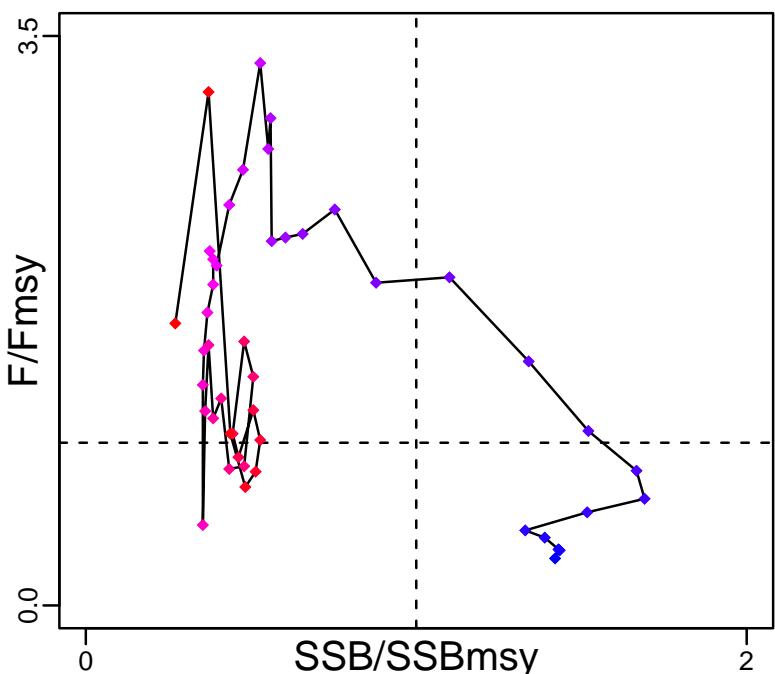
<b>Metadata</b>	
<b>Scientific Name</b>	Pagrus pagrus
<b>Current Assess ID</b>	SEFSC-RPORGYSATLC-1972-2017-SISIMP2021-2
<b>Area</b>	Southern Atlantic coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southeast Fisheries Science Center
<b>Asmts in RAM</b>	2012, 2017

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	TBmsy-MT	2012	4254
<b>SSBmsy</b>	SSBmsy-MT	2017	2880
<b>Fmsy</b>	Fmsy-1/yr	2017	0.18
<b>ERmsy</b>	ERmsy-calc-ratio	2012	0.089
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2017	241
<b>M</b>	M-1/yr	2012	0.23
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2017	2250
<b>Flim</b>	Flim-1/yr	2017	0.18
<b>ERlim</b>	-	-	-

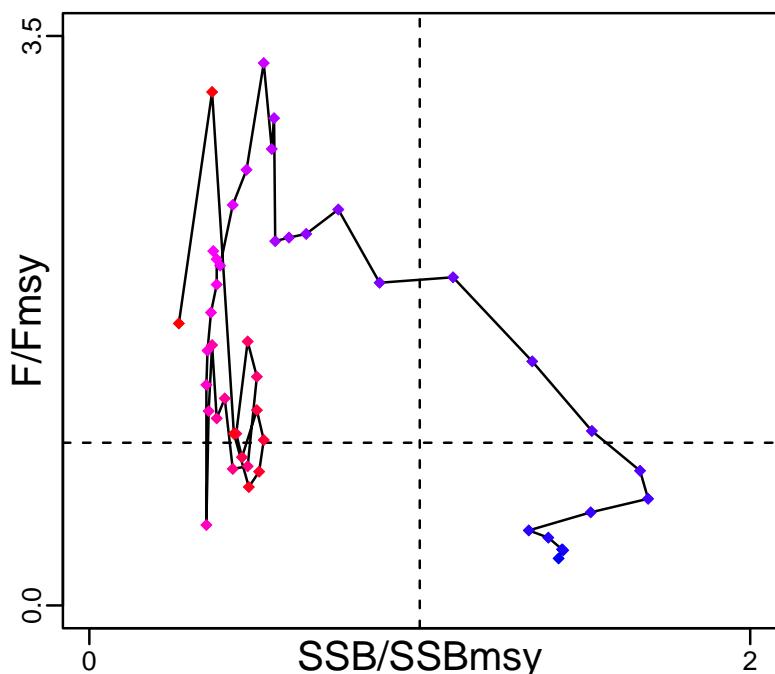
<b>Time Series</b>						
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>	
<b>TB</b>	TB-MT	2012	2020	-	-	
<b>SSB</b>	SSB-MT	2017	780	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2017	345,000	-	1	
<b>F</b>	F-1/yr	2017	0.312	-	-	
<b>ER</b>	ER-calc-ratio	2012	0.077	-	-	
<b>TC</b>	TC-MT	2017	115			
<b>TL</b>	TL-MT	2012	155			
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2012	0.475			
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2017	0.271			
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2017	1.733			
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-calc-ratio	2012	0.863			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

Red porgy Southern Atlantic coast [RPORGYSATLC]

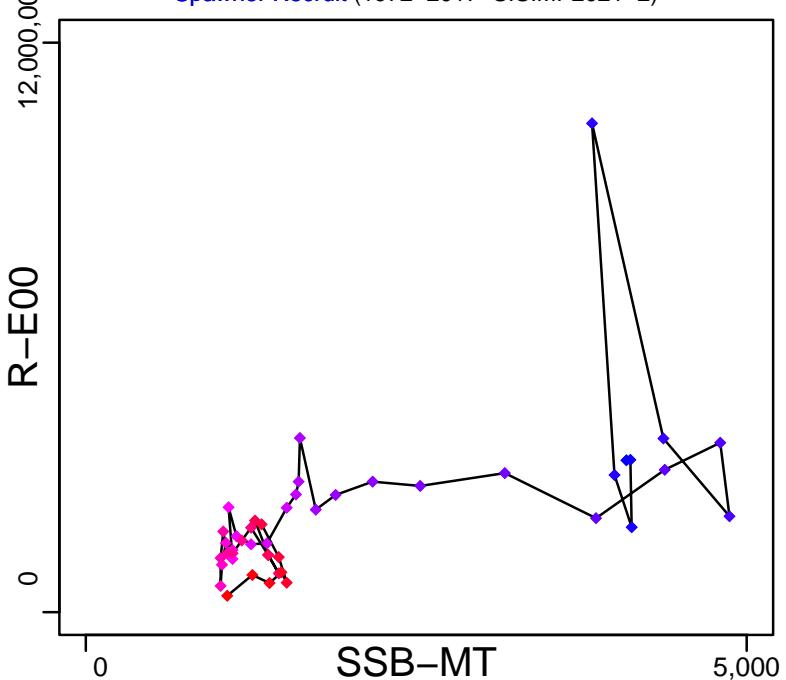
Kobe MSYpref (1972–2017–SISIMP2021–2)



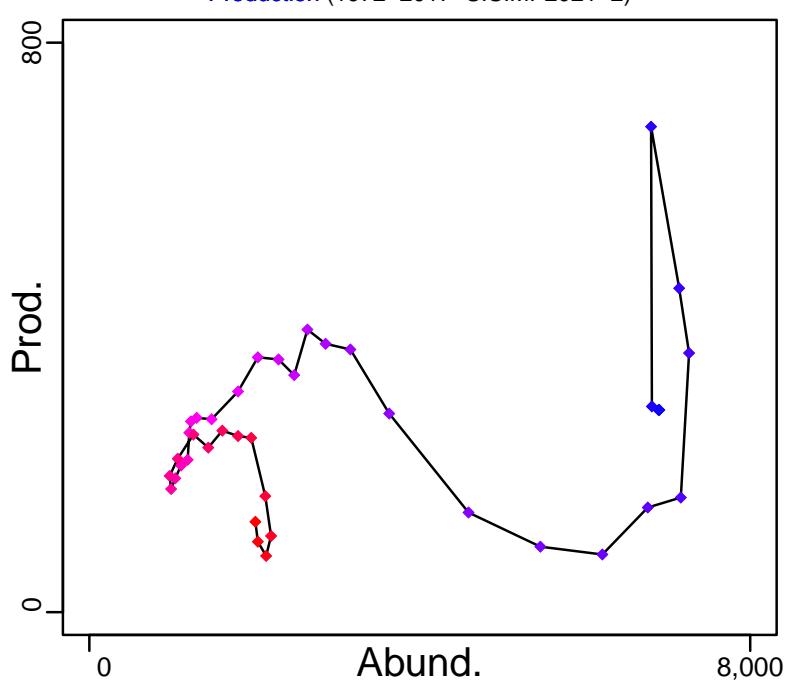
Kobe MGTpref (1972–2017–SISIMP2021–2)



Spawner Recruit (1972–2017–SISIMP2021–2)



Production (1972–2017–SISIMP2021–2)

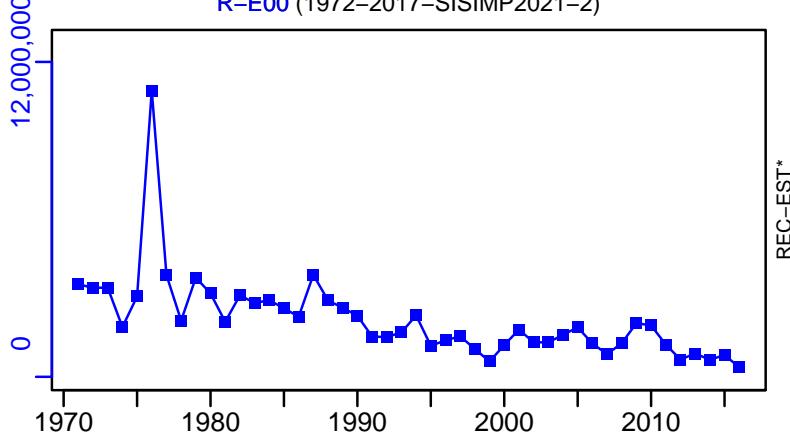
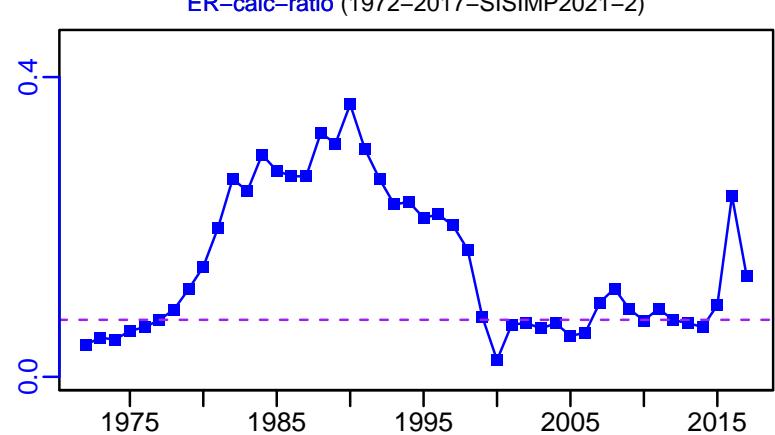
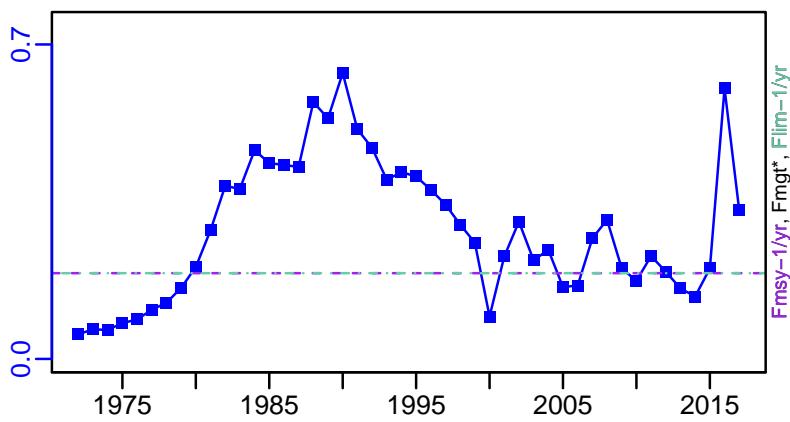
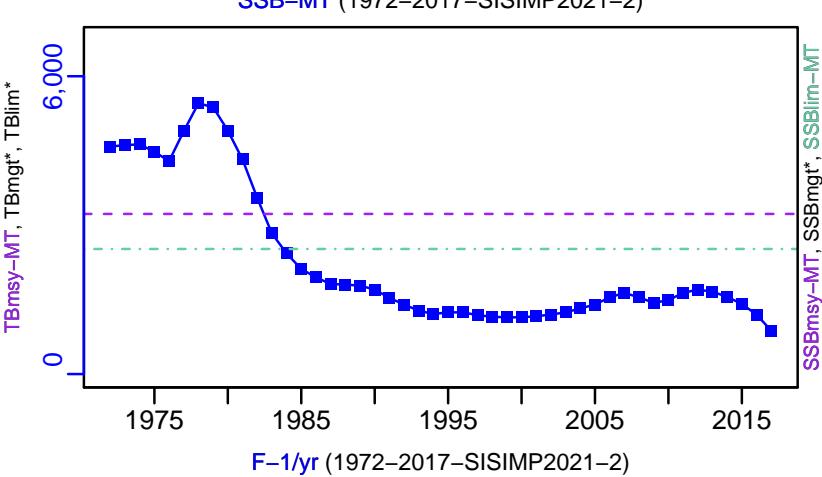
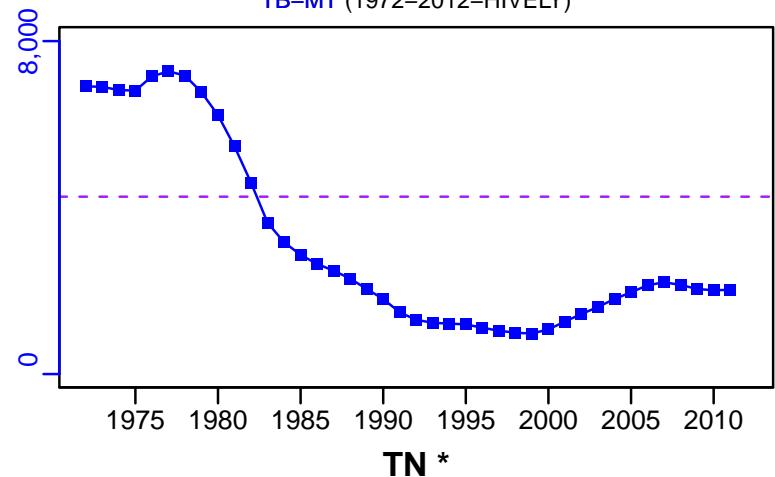


◆ Start Year   ◆ End Year   \* No Data

**Red porgy Southern Atlantic coast [RPORGYSATLC]**

TB-MT (1972–2012–HIVELY)

SSB-MT (1972–2017–SISIMP2021–2)

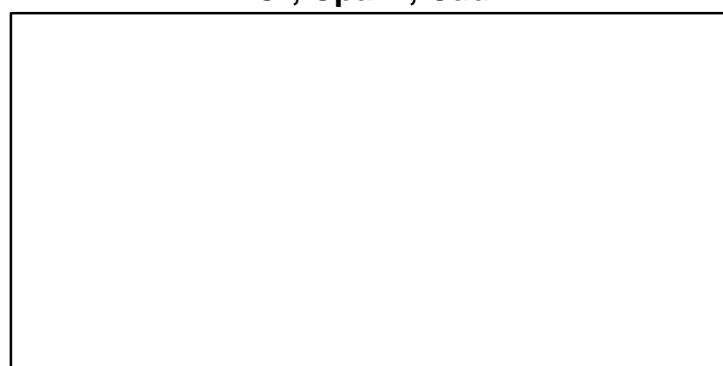
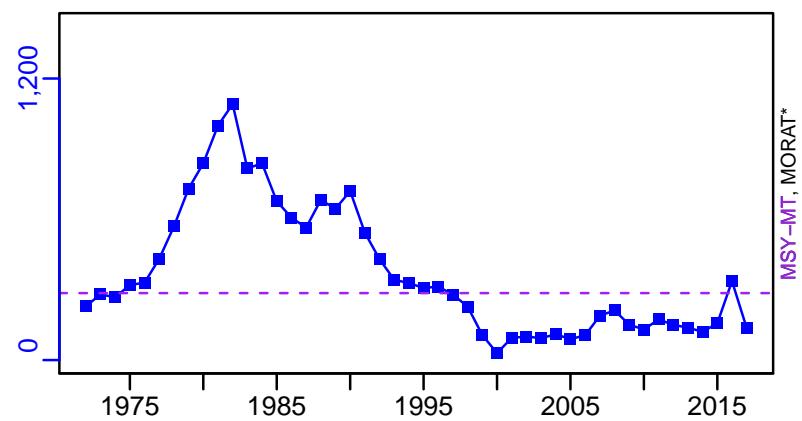


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	— Lim BRP	* No Data

Red porgy Southern Atlantic coast [RPORGYSATLC]

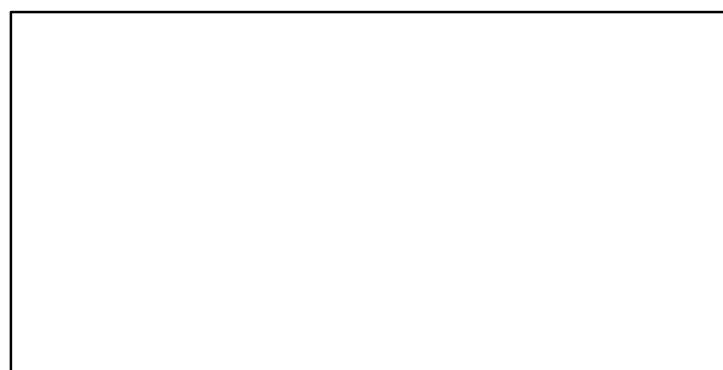
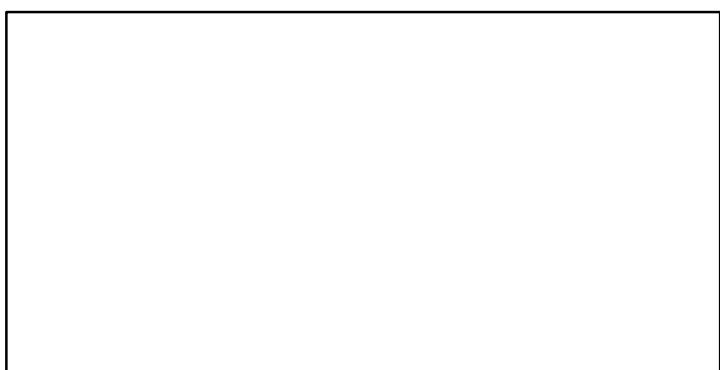
TC-MT, TL\*, RecC\* (1972–2017–SISIMP2021–2)

TAC\*, Cpair\*, Cadv\*

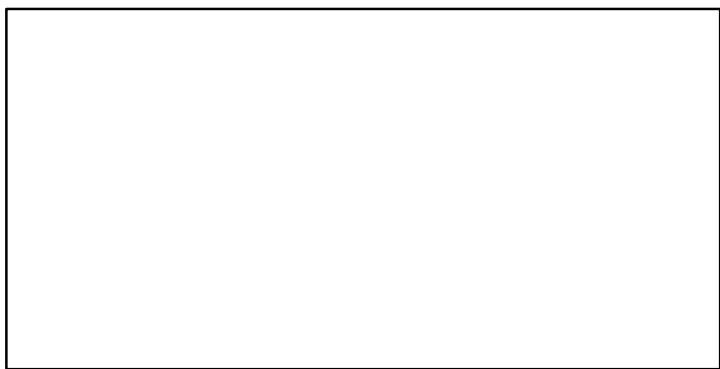


survB\*

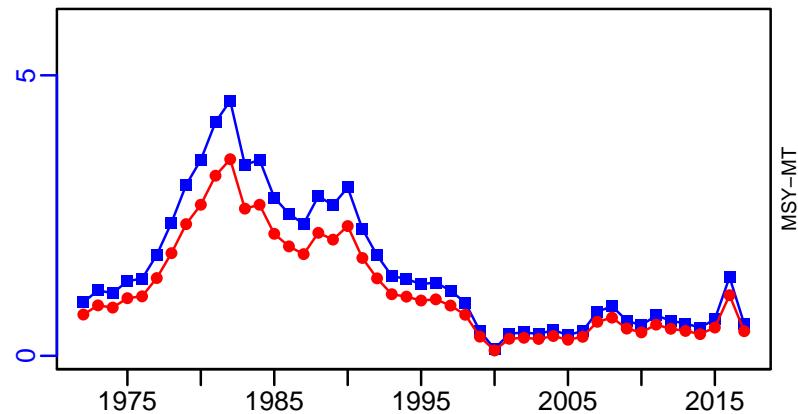
CPUE\*



EFFORT\*



TC-MT/MSY-MT, CdivMEANC-ratio, (1972–2017–SISIMP2021–2)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Red snapper Gulf of Mexico [RSNAPGM]

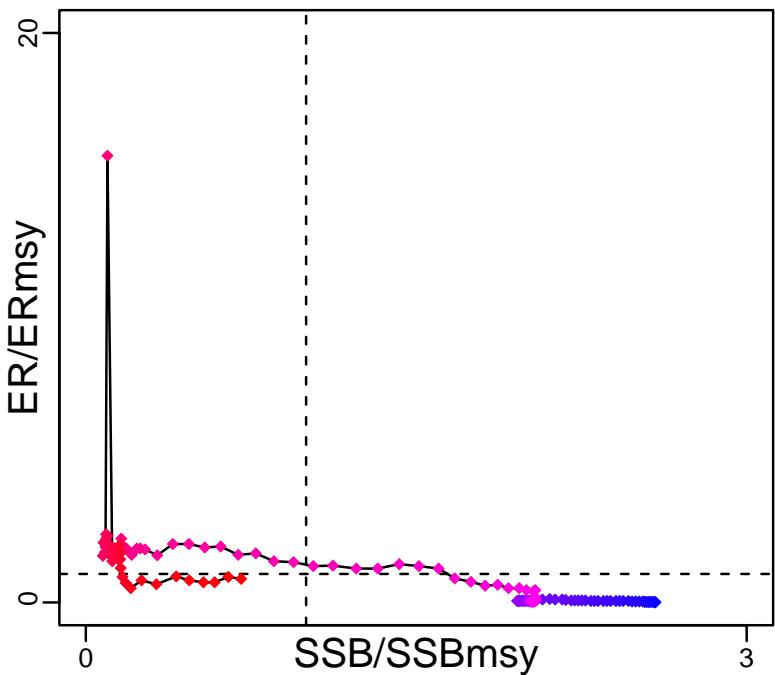
<b>Metadata</b>	
<b>Scientific Name</b>	Lutjanus campechanus
<b>Current Assess ID</b>	SEFSC-RSNAPGM-1872-2016-SISIMP2021-2
<b>Area</b>	Gulf of Mexico
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southeast Fisheries Science Center
<b>Asmts in RAM</b>	2011, 2013, 2016, 2016

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	TBmsy-calc-MT	2016	101,667
<b>SSBmsy</b>	SSBmsy-E00eggs	2016	$1.23 \times 10^{15}$
<b>Fmsy</b>	Fmsy-pr-1/yr	2011	0.08
<b>ERmsy</b>	ERmsy-ratio	2016	0.058
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	ERmgt-ratio	2016	0.058
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2016	5897
<b>M</b>	M-1/yr	2011	0.09
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-E00eggs	2016	$6.15 \times 10^{14}$
<b>Flim</b>	-	-	-
<b>ERlim</b>	ERlim-ratio	2016	0.058

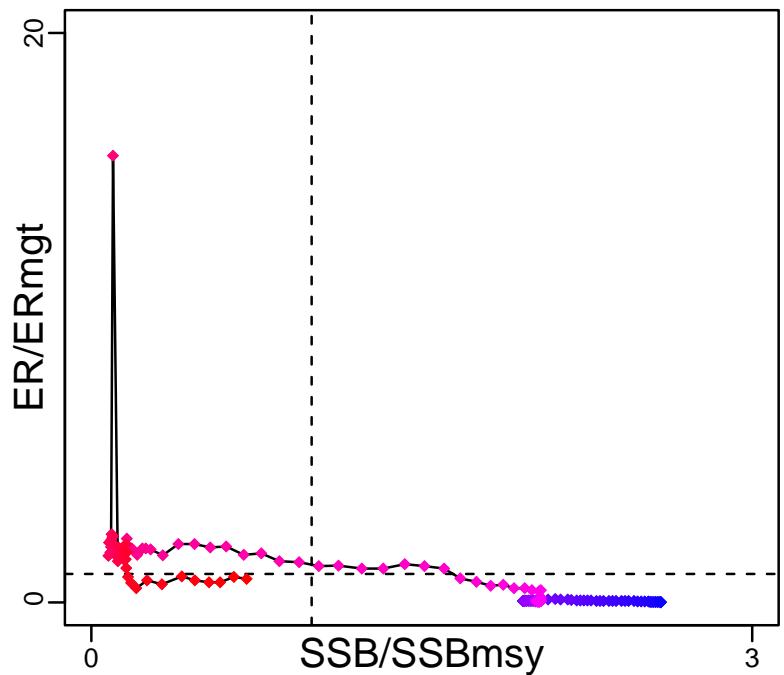
<b>Time Series</b>						
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>	
<b>TB</b>	TB-MT	2013	64,100	-	0+	
<b>SSB</b>	SSB-E00eggs	2016	$8.67 \times 10^{14}$	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2016	138,792,000	-	0	
<b>F</b>	F-1/yr	2011	0.062	-	-	
<b>ER</b>	ER-ratio	2016	0.048	-	-	
<b>TC</b>	TC-MT	2016	3050			
<b>TL</b>	TL-MT	2011	1630			
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2013	0.536			
<b>SSB/SSBmsy</b>	SSB-E00eggs/SSBmsy-E00eggs	2016	0.705			
<b>F/Fmsy</b>	F-1/yr/Fmsy-pr-1/yr	2011	0.774			
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2016	0.828			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

**Red snapper Gulf of Mexico [RSNAPGM]**

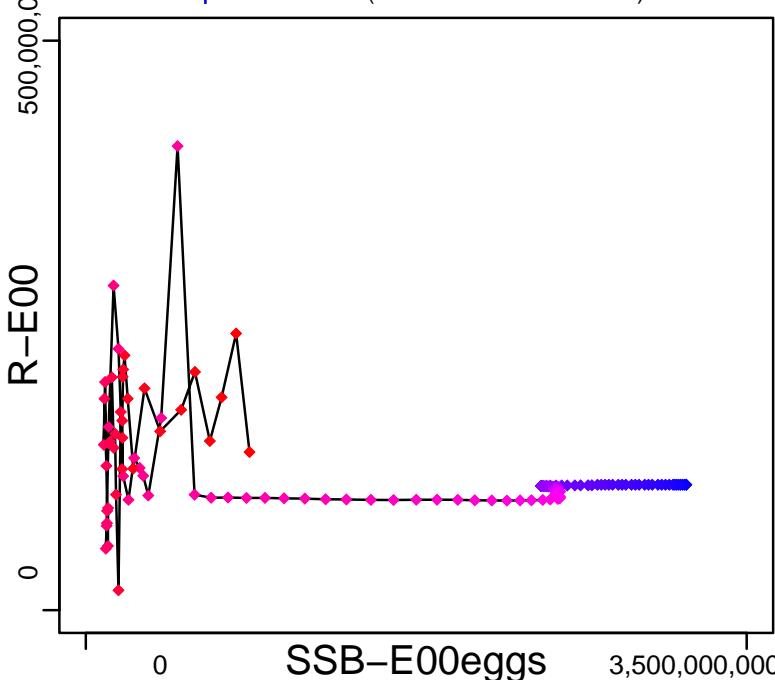
Kobe MSYpref (1872–2016–SISIMP2021)



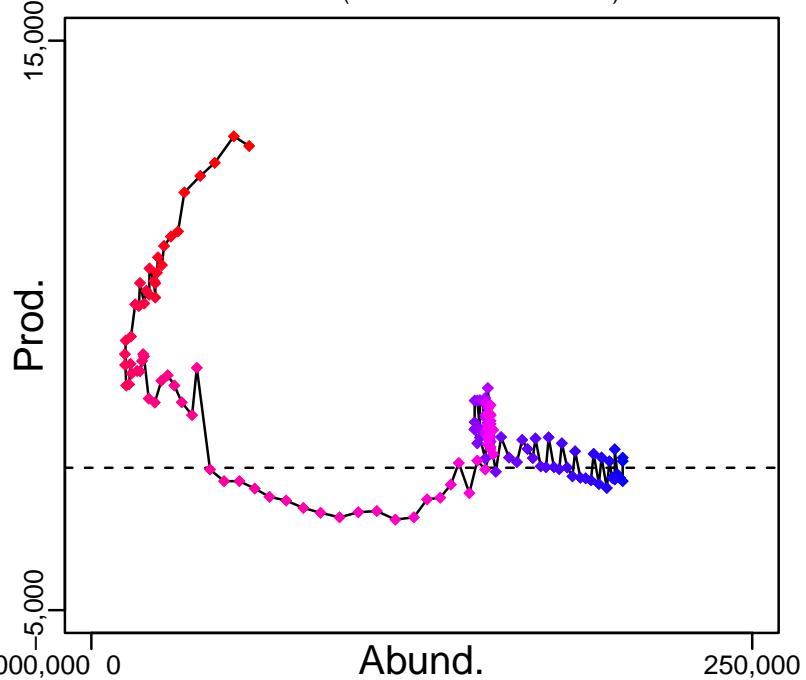
Kobe MGTpref (1872–2016–SISIMP2021)



Spawner Recruit (1872–2016–SISIMP2021)



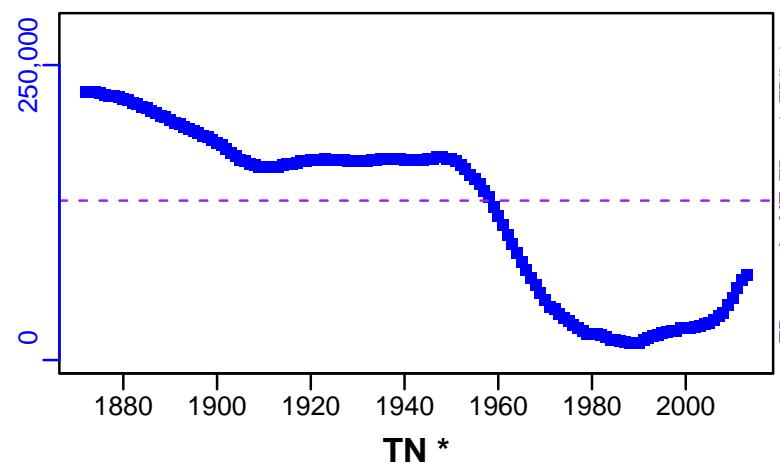
Production (1872–2013–SISIMP2016)



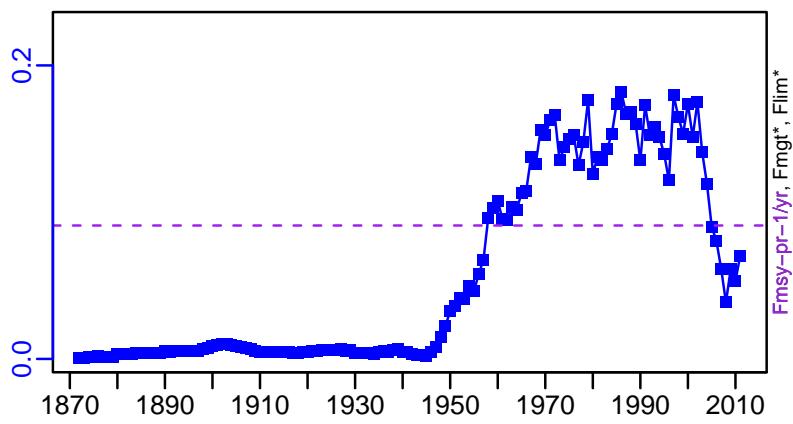
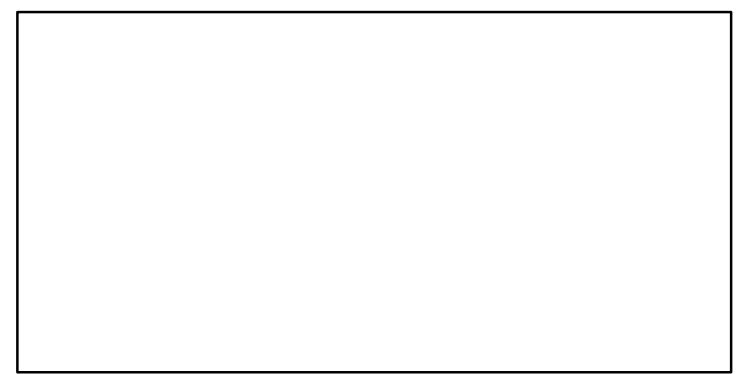
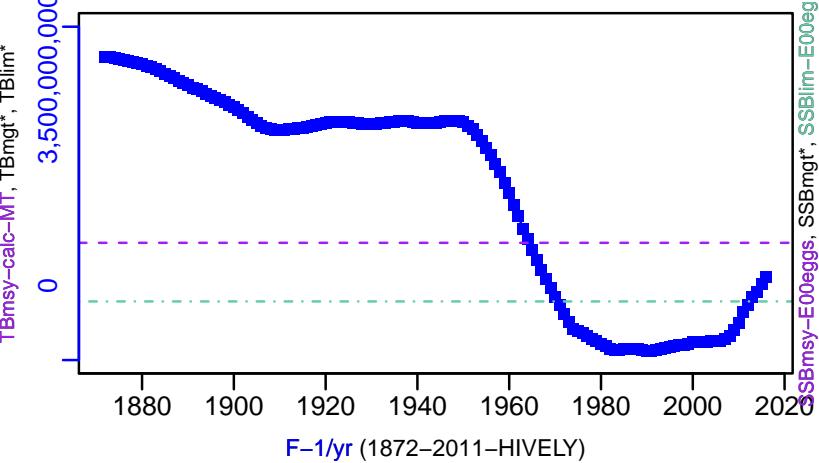
◆ Start Year	◆ End Year	*	No Data
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Red snapper Gulf of Mexico [RSNAPGM]

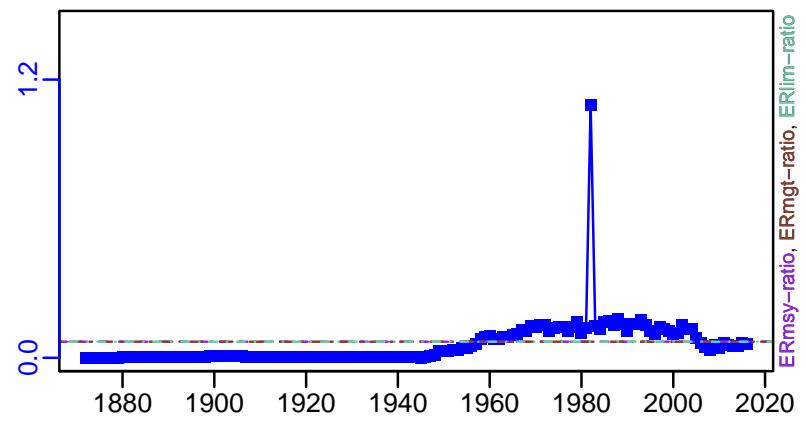
TB-MT (1872–2013–SISIMP2016)



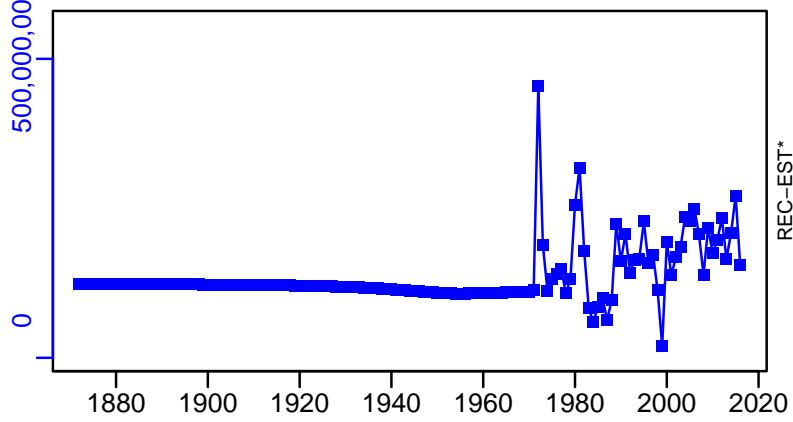
SSB-E00eggs (1872–2016–SISIMP2021)



ER-ratio (1872–2016–SISIMP2021)



R-E00 (1872–2016–SISIMP2021)

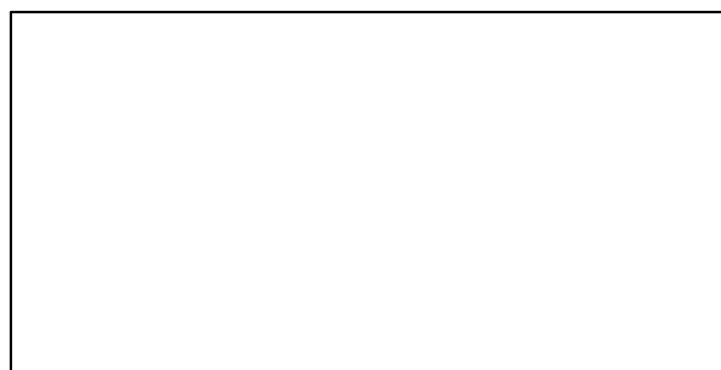
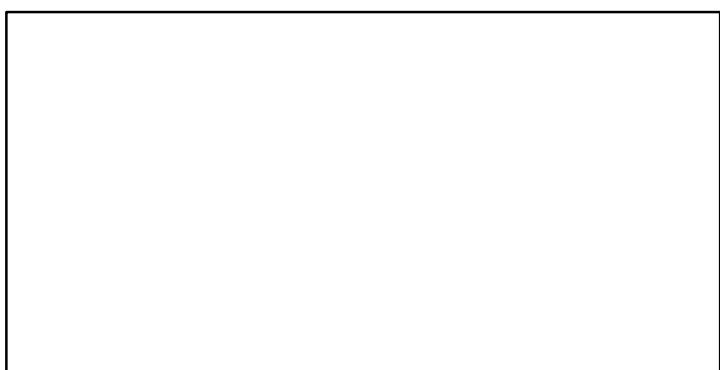
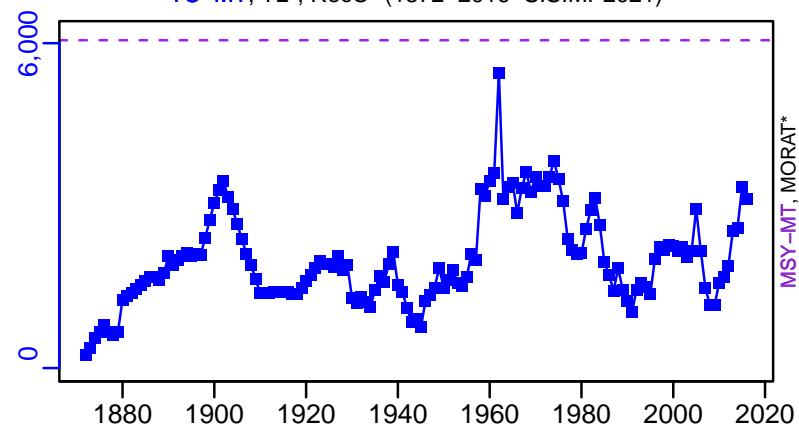


- |                      |              |           |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| — MSY-based BRP      | --- Lim BRP  | * No Data |

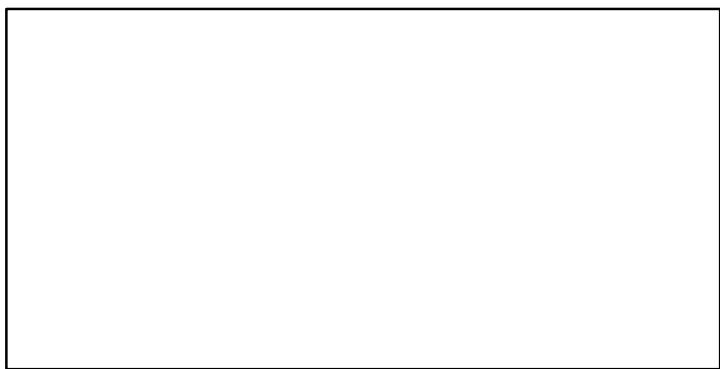
Red snapper Gulf of Mexico [RSNAPGM]

TC-MT, TL\*, RecC\* (1872–2016–SISIMP2021)

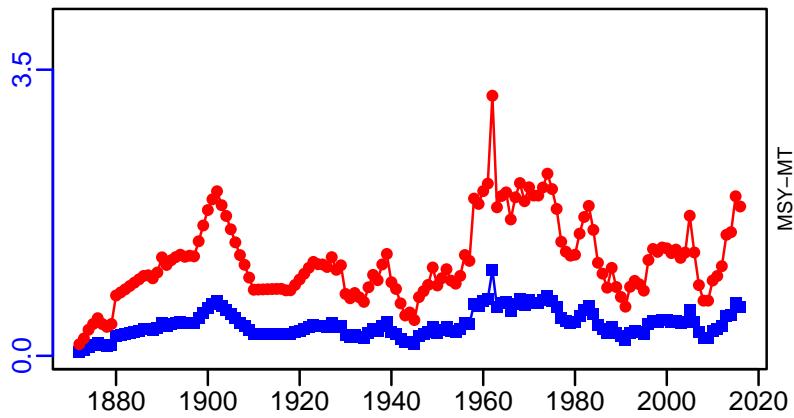
TAC\*, Cpair\*, Cadv\*



**EFFORT\***



TC-MT/MSY-MT, CdivMEANC-ratio, (1872–2016–SISIMP2021)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Red snapper Southern Atlantic coast [RSNAPSATLC]

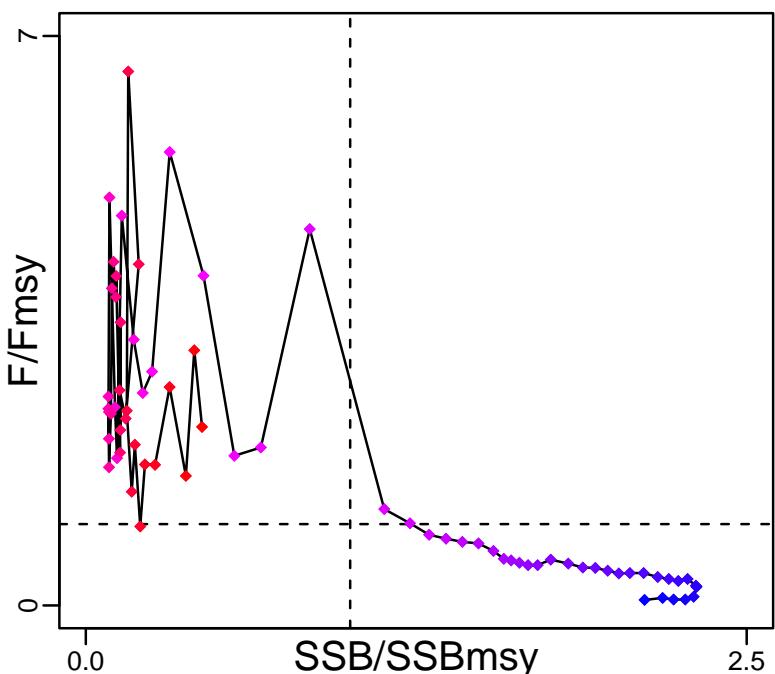
<b>Metadata</b>	
<b>Scientific Name</b>	Lutjanus campechanus
<b>Current Assess ID</b>	SEFSC-RSNAPSATLC-1949-2019-SISIMP2022
<b>Area</b>	Southern Atlantic coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southeast Fisheries Science Center
<b>Asmts in RAM</b>	2019, 2014, 2010

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	TBmsy-MT	2010	13,632
<b>SSBmsy</b>	SSBmsy-E00eggs	2019	$6.354,26 \times 10^{13}$
<b>Fmsy</b>	Fmsy-1/yr	2019	0.206
<b>ERmsy</b>	ERmsy-calc-ratio	2010	0.061
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2019	184
<b>M</b>	M-1/yr	2010	0.08
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-E00eggs	2014	$2.46 \times 10^{13}$
<b>Flim</b>	Flim-1/yr	2014	0.146
<b>ERlim</b>	-	-	-

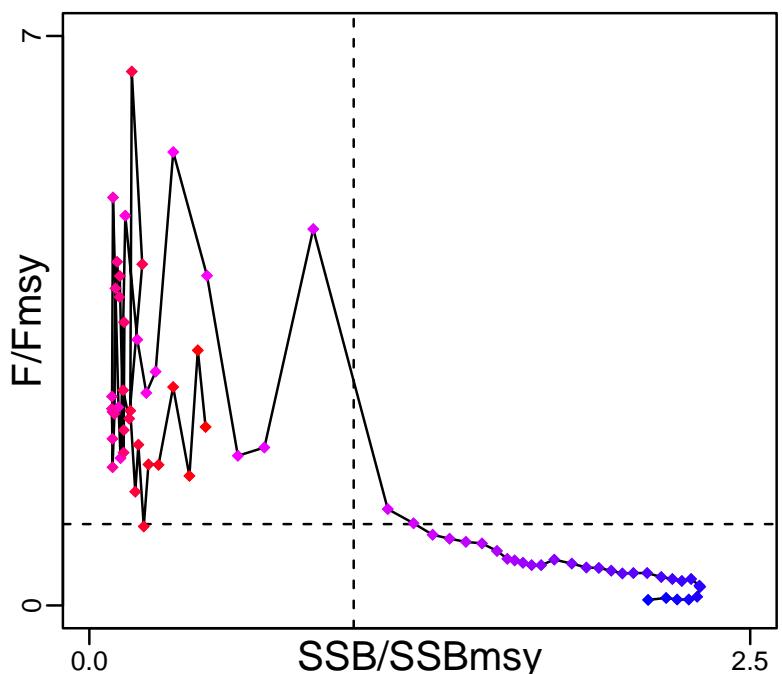
<b>Time Series</b>					
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>
<b>TB</b>	TB-MT	2010	1430	-	-
<b>SSB</b>	SSB-E00eggs	2019	$2.791,91 \times 10^{13}$	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2019	1,212,587	-	1
<b>F</b>	F-1/yr	2019	0.452	-	-
<b>ER</b>	ER-calc-ratio	2010	0.335	-	-
<b>TC</b>	TC-MT	2014	330		
<b>TL</b>	TL-MT	2010	653		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2010	0.105		
<b>SSB/SSBmsy</b>	SSB-E00eggs/SSBmsy-E00eggs	2019	0.439		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2019	2.194		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-calc-ratio	2010	5.464		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

**Red snapper Southern Atlantic coast [RSNAPSATLC]**

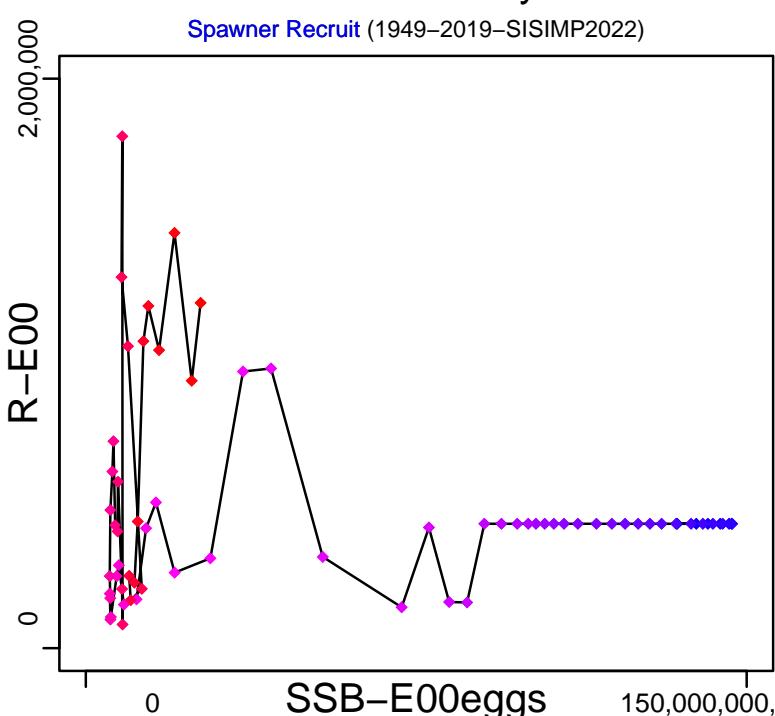
Kobe MSYpref (1949–2019–SISIMP2022)



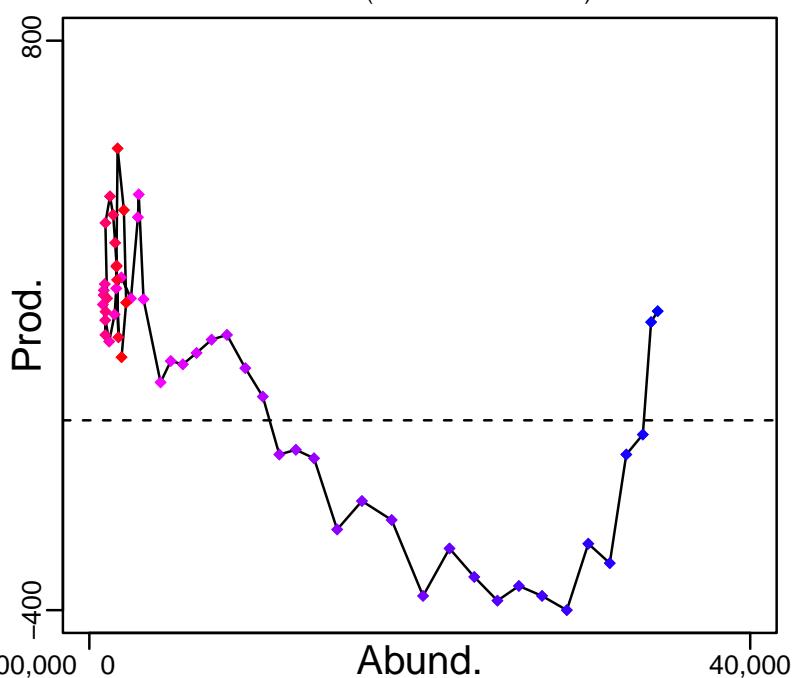
Kobe MGTpref (1949–2019–SISIMP2022)



Spawner Recruit (1949–2019–SISIMP2022)



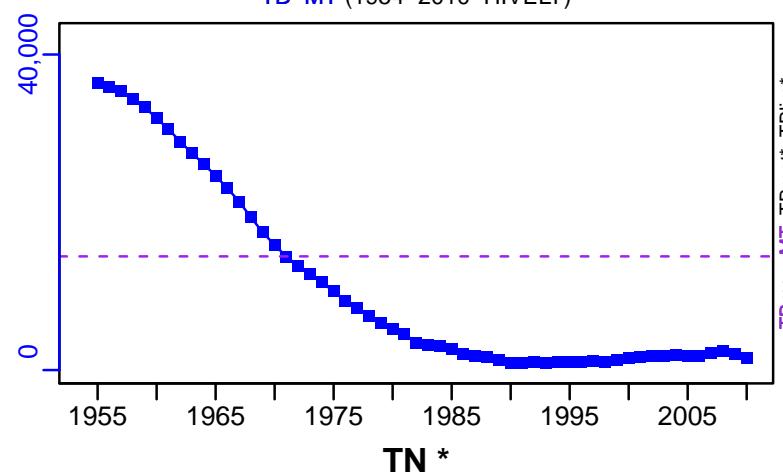
Production (1954–2010–HIVELY)



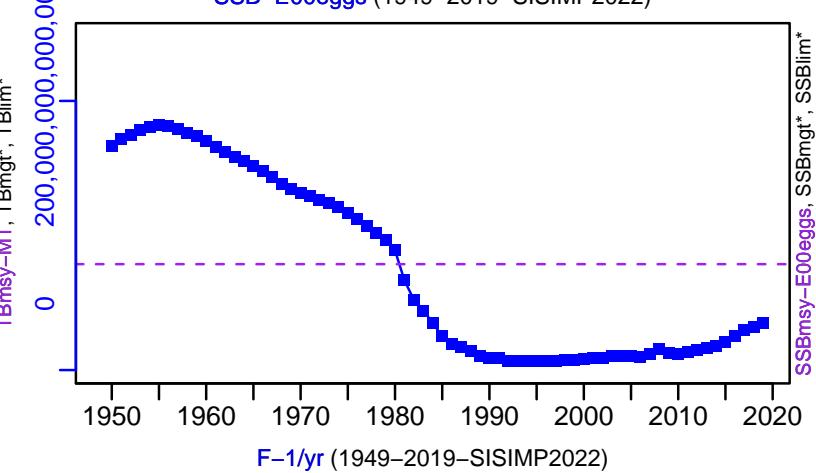
◆ Start Year   ◆ End Year   \* No Data

Red snapper Southern Atlantic coast [RSNAPSATLC]

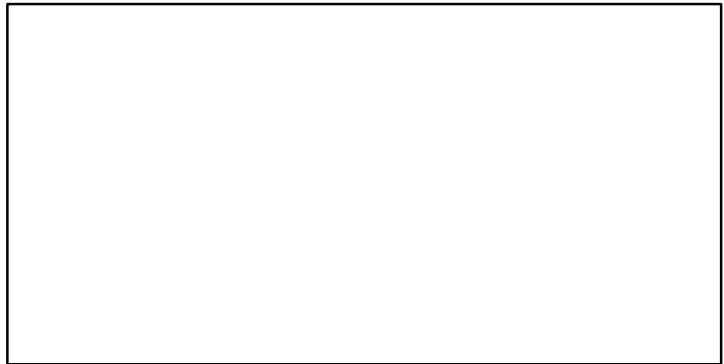
TB-MT (1954–2010–HIVELY)



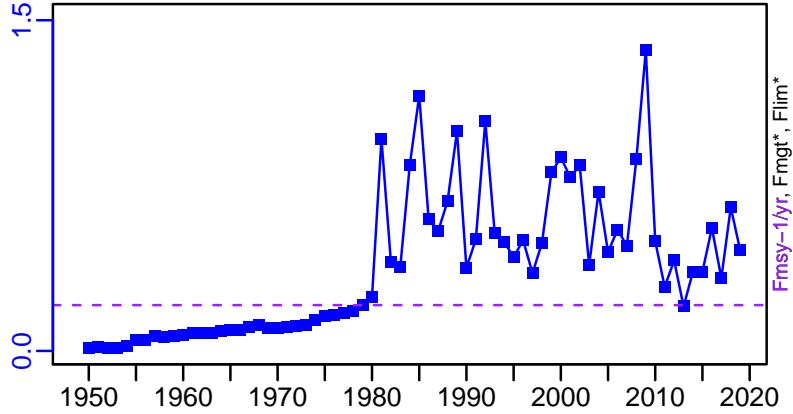
SSB-E00eggs (1949–2019–SISIMP2022)



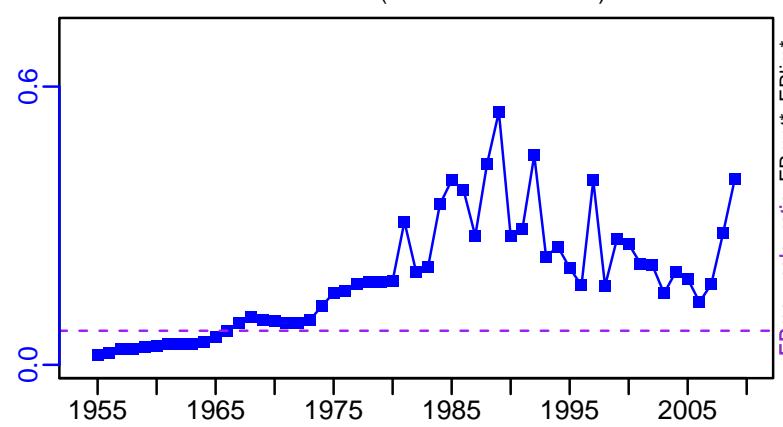
TN \*



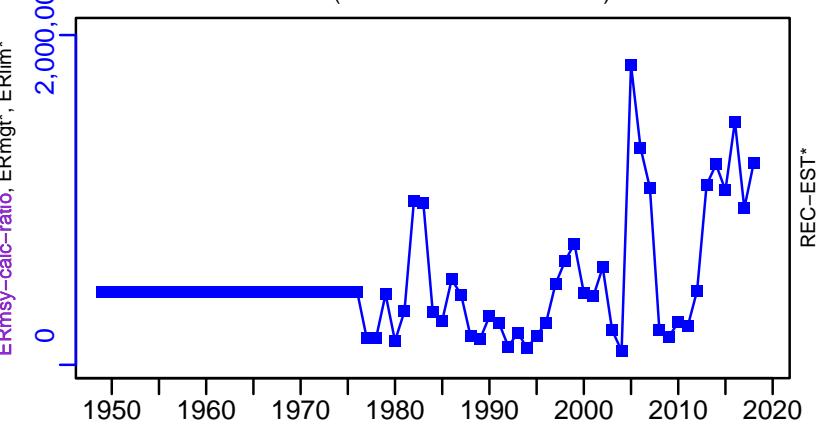
F-1/yr (1949–2019–SISIMP2022)



ER-calc-ratio (1954–2010–HIVELY)



R-E00 (1949–2019–SISIMP2022)

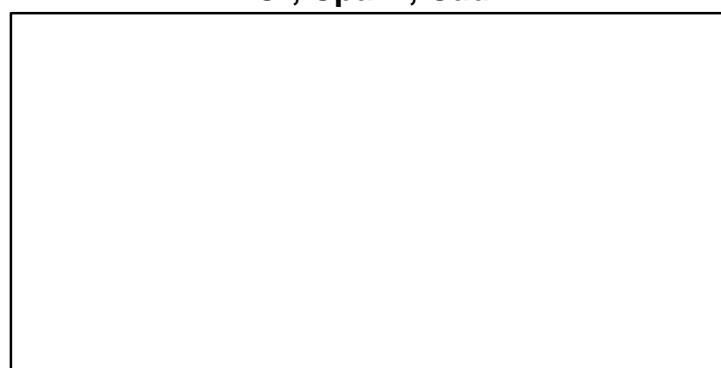
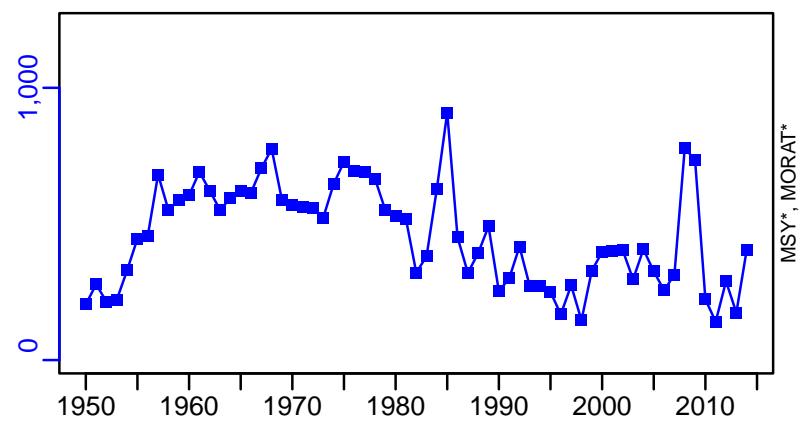


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - - Lim BRP	* No Data

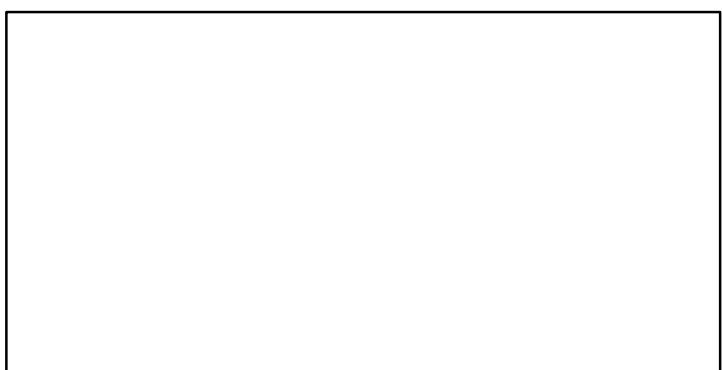
Red snapper Southern Atlantic coast [RSNAPSATLC]

TC-MT, TL\*, RecC\* (1950–2014–SISIMP2016)

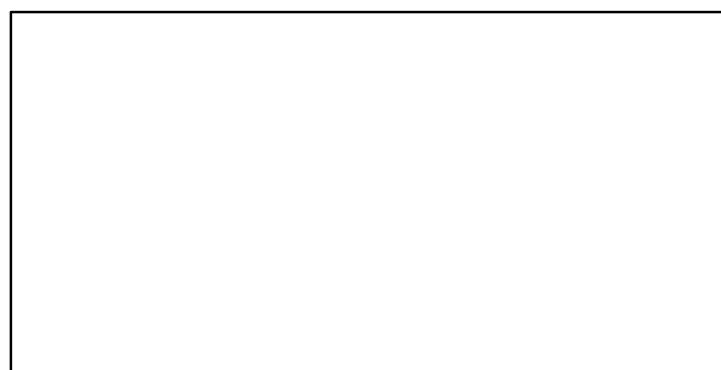
TAC\*, Cpair\*, Cadv\*



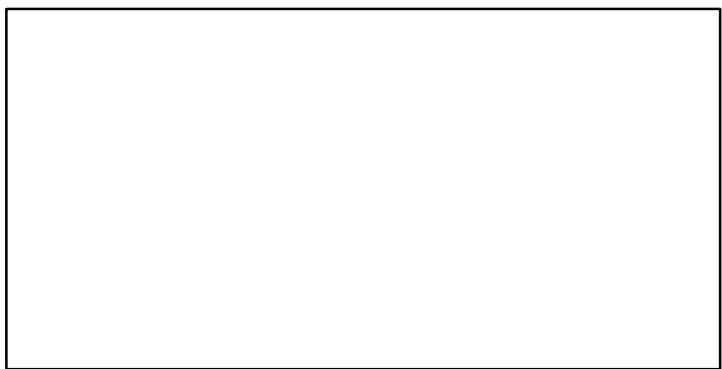
survB\*



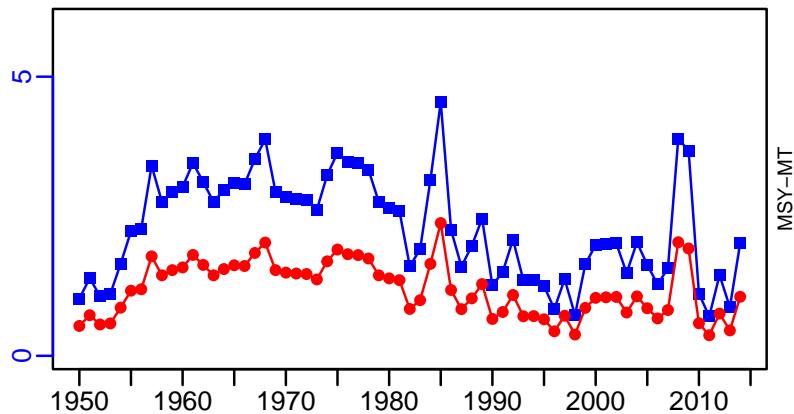
CPUE\*



EFFORT\*



TC-MT/MSY-MT, CdivMEANC-ratio, (1950–2014–SISIMP2016)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Seabreams spp North West Africa Morocco [SBMSPPNWAMAR]

<b>Metadata</b>	
<b>Scientific Name</b>	Sparus spp
<b>Current Assess ID</b>	FAO-DR-SBMSPPNWAMAR-1990-2016-ASHBROOK
<b>Area</b>	North West Africa Morocco
<b>Management Authority</b>	Food and Agriculture Organization of the United Nations
<b>Assessor</b>	FAO/CECAF Working Group on the Assessment of Demersal Resources
<b>Asmts in RAM</b>	2016

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

<b>Time Series</b>					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2016	4138		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

**Kobe MSY\***

**Kobe MGT\***

**Spawner Recruit\***

**Production\***

◆ Start Year ◆ End Year \* No Data

**Seabreams spp North West Africa Morocco [SBMSPPNWAMAR]**

**TB\***



**SSB\***



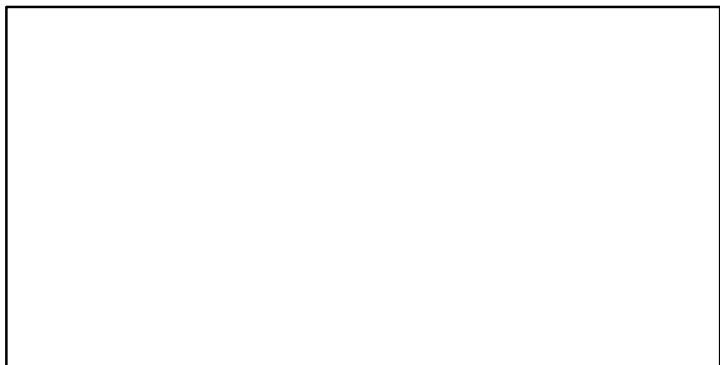
**TN \***



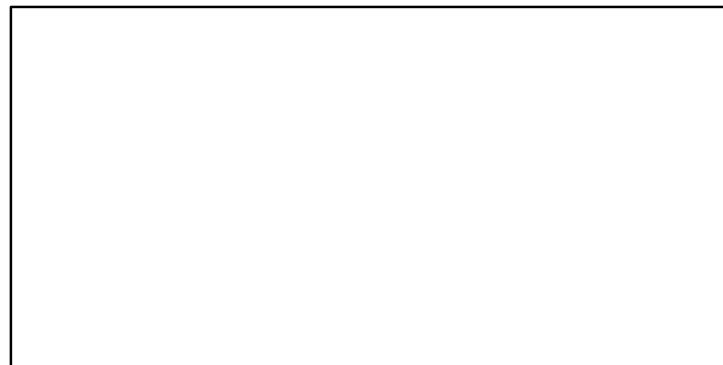
**F\***



**ER\***



**Recruits\***

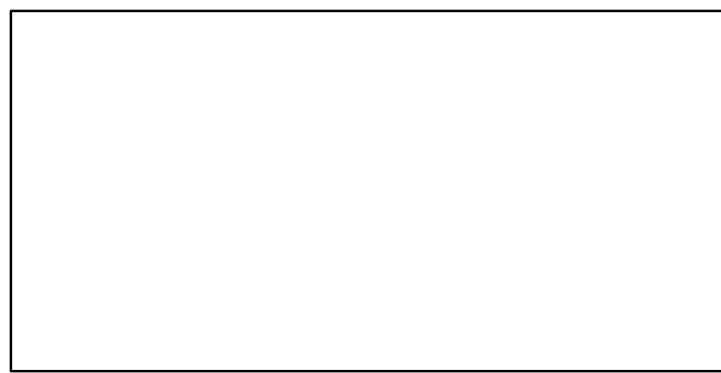
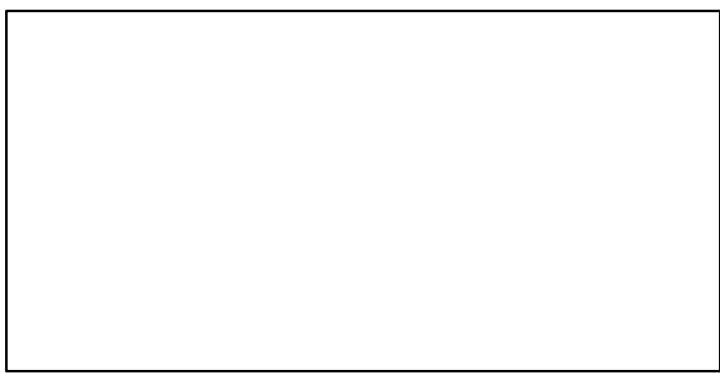
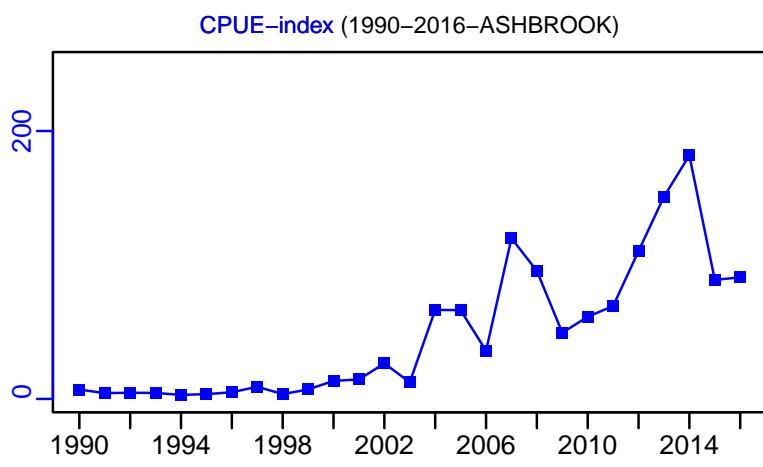
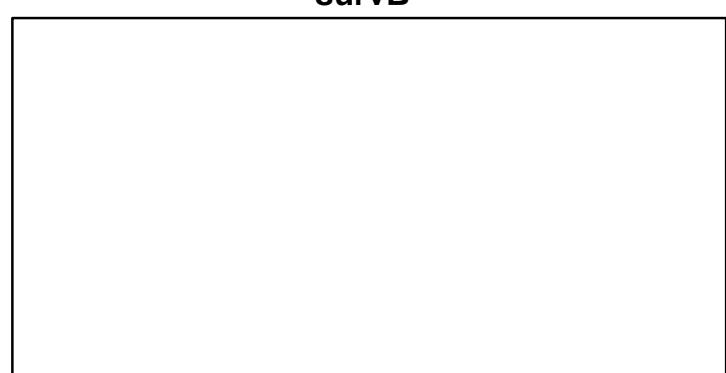
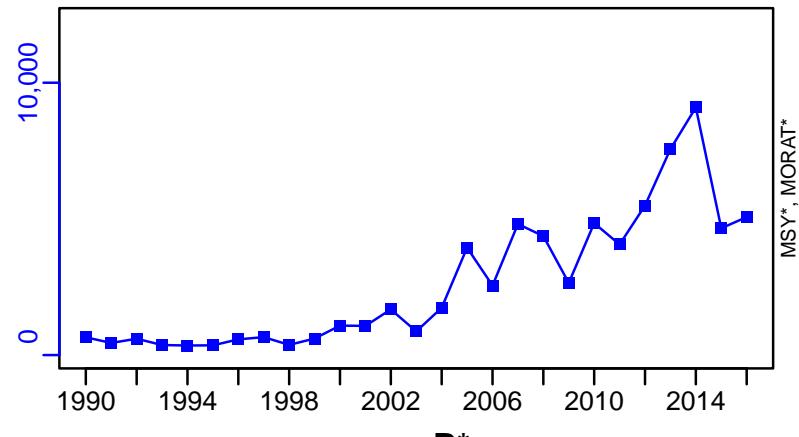


- |                      |                  |           |
|----------------------|------------------|-----------|
| ■ Listed time series | - - - Target BRP | — Rec-Est |
| - - - MSY-based BRP  | - - - Lim BRP    | * No Data |

**Seabreams spp North West Africa Morocco [SBMSPPNWAMAR]**

TC-MT, TL\*, RecC\* (1990–2016–ASHBROOK)

TAC\*, Cpair\*, Cadv\*



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - MSY	* No Data

## Deepwater cardinalfish Chile [SBREAMCH]

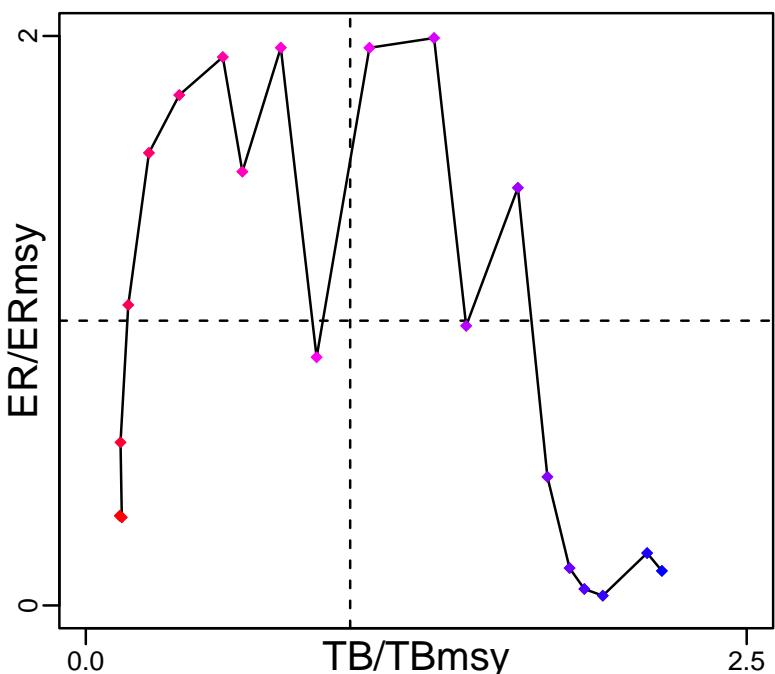
<b>Metadata</b>	
<b>Scientific Name</b>	Epigonus crassicaudus
<b>Current Assess ID</b>	SPRFMO-SBREAMCH-1989-2011-CHING
<b>Area</b>	Chile
<b>Management Authority</b>	South Pacific Regional Fisheries Management Organization
<b>Assessor</b>	South Pacific Regional Fisheries Management Organization
<b>Asmts in RAM</b>	2011

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERrmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

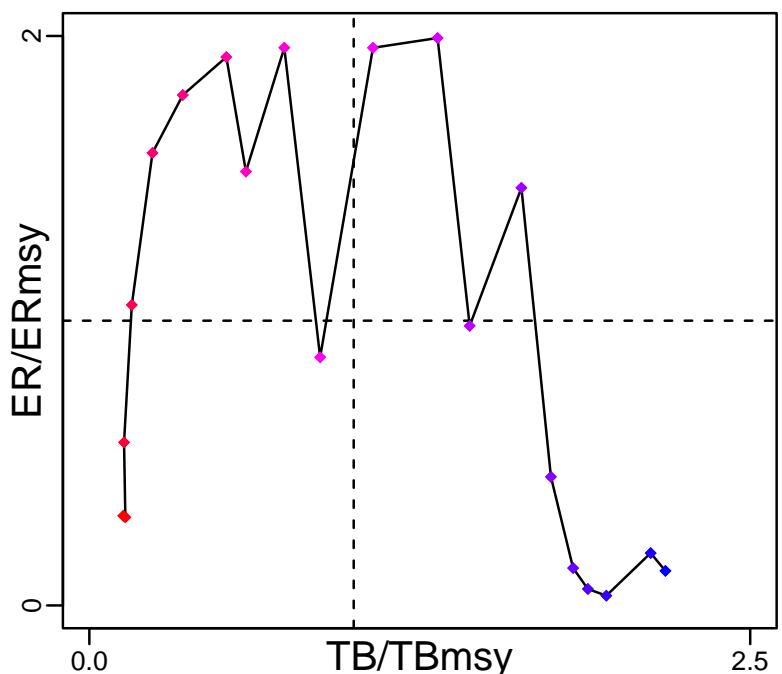
<b>Time Series</b>						
Type	ID	Asmt Year	Curr Value	Sex	Age	
<b>TB</b>	TB-MT	2011	920	-	-	
<b>SSB</b>	SSB-MT	2011	607	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2011	553,000	-	-	
<b>F</b>	F-1/yr	2011	12.2	-	-	
<b>ER</b>	ER-calc-ratio	2011	0.097	-	-	
<b>TC</b>	-	-	-			
<b>TL</b>	TL-MT	2011	89			
<b>TB/TBmsy</b>	-	-	-			
<b>SSB/SSBmsy</b>	-	-	-			
<b>F/Fmsy</b>	-	-	-			
<b>ER/ERrmsy</b>	-	-	-			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

Deepwater cardinalfish Chile [SBREAMCH]

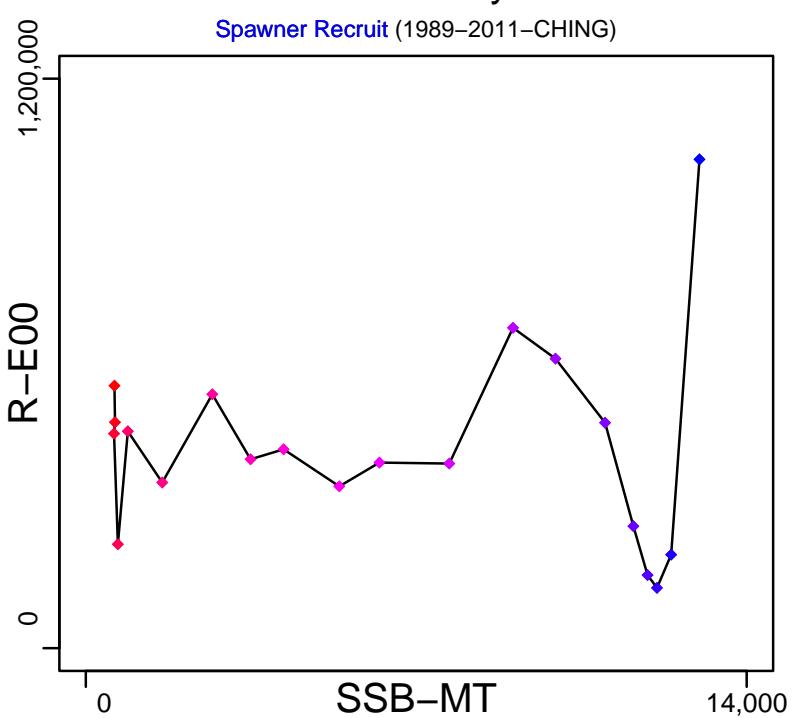
Kobe MSYpref (1989–2011–CHING)



Kobe MGTPref (1989–2011–CHING)



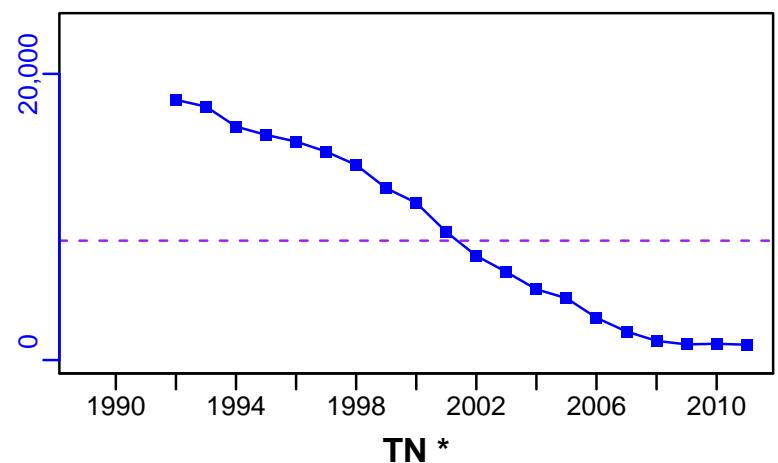
Spawner Recruit (1989–2011–CHING)



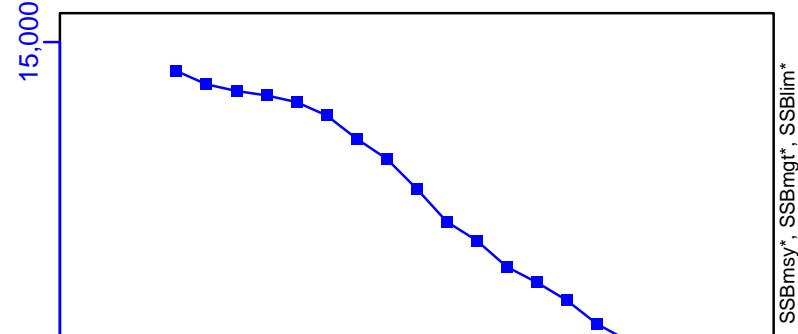
◆ Start Year   ◆ End Year   \* No Data

### Deepwater cardinalfish Chile [SBREAMCH]

TB-MT (1989–2011-CHING)



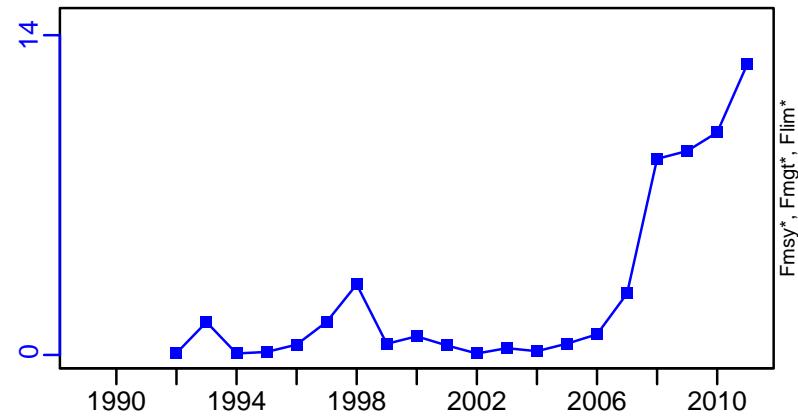
SSB-MT (1989–2011-CHING)



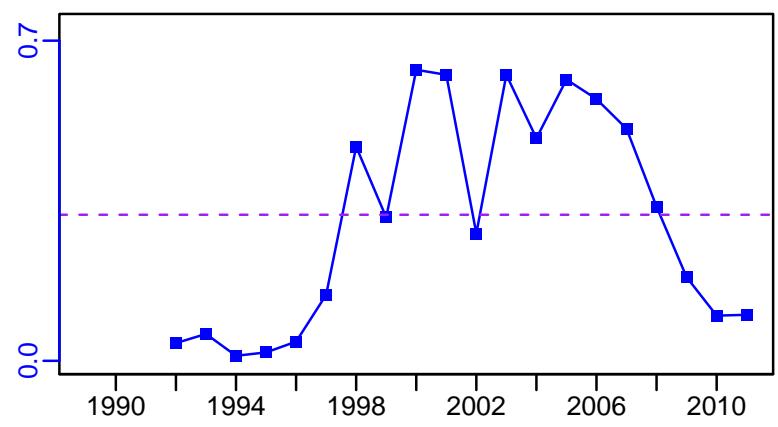
TN \*



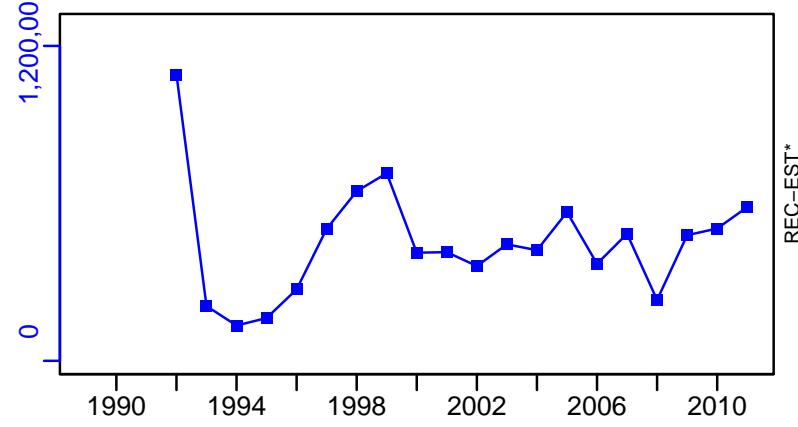
F-1/yr (1989–2011-CHING)



ER-calc-ratio (1989–2011-CHING)



R-E00 (1989–2011-CHING)

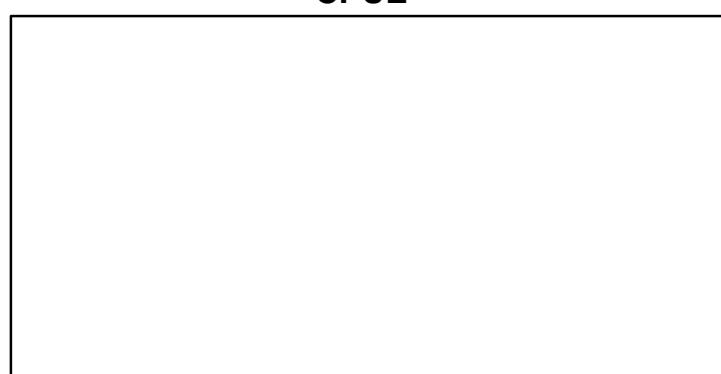
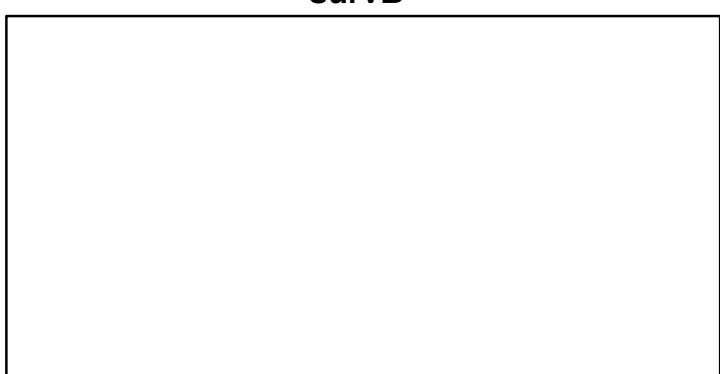
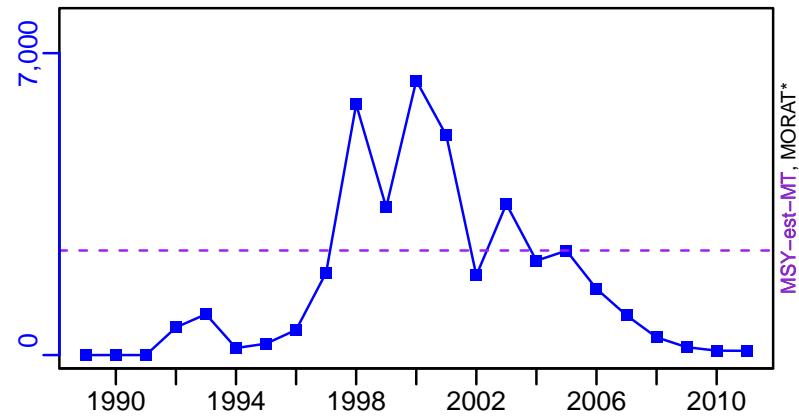


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - Lim BRP	* No Data

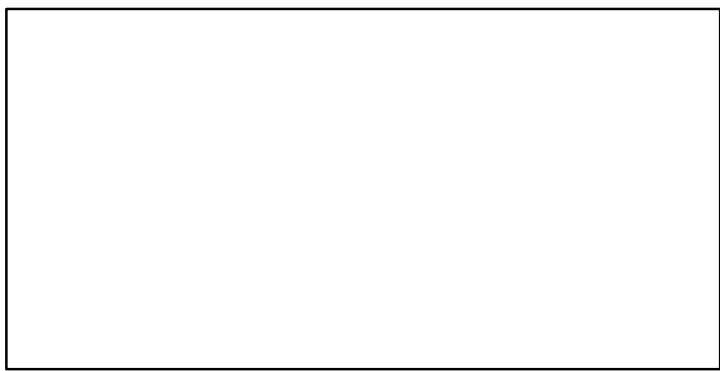
Deepwater cardinalfish Chile [SBREAMCH]

TL-MT, TC\*, RecC\* (1989–2011-CHING)

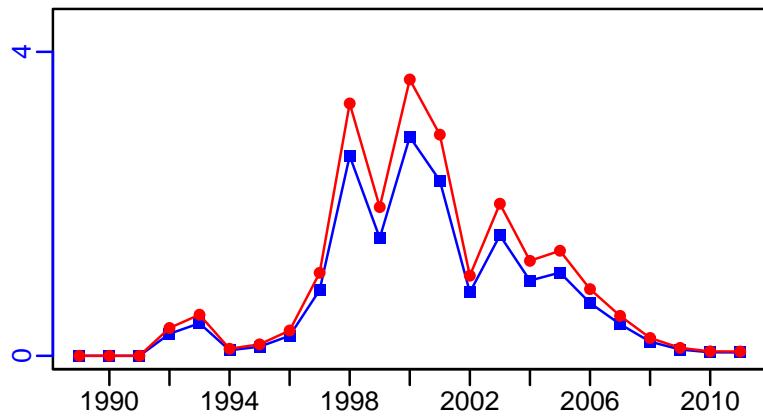
TAC\*, Cpair\*, Cadv\*



EFFORT\*



TL-MT/MSY-est-MT, CdivMEANC-ratio, (1989–2011-CHING)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	■ MSY	* No Data

## Scup Northwestern Atlantic Coast [SCUPNWATLC]

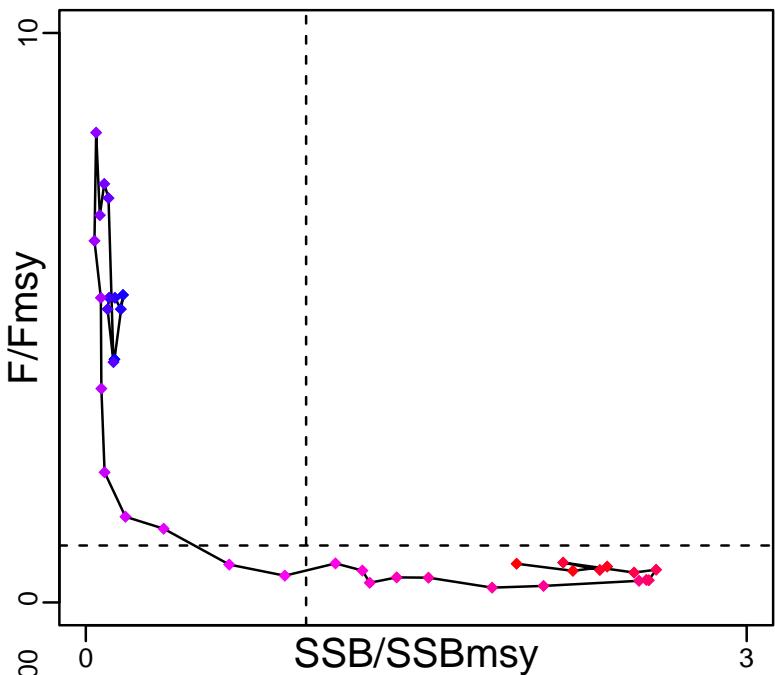
<b>Metadata</b>	
<b>Scientific Name</b>	Stenotomus chrysops
<b>Current Assess ID</b>	NEFSC-SCUPNWATLC-1981-2019-SISIMP2021-2
<b>Area</b>	Northwestern Atlantic Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northeast Fisheries Science Center
<b>Asmts in RAM</b>	2007, 2016, 2018, 2019, 2014

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2019	90,000
<b>Fmsy</b>	Fmsy-1/yr	2019	0.2
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2019	12,700
<b>M</b>	M-1/yr	2007	0.2
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2019	45,000
<b>Flim</b>	Flim-1/yr	2019	0.2
<b>ERlim</b>	-	-	-

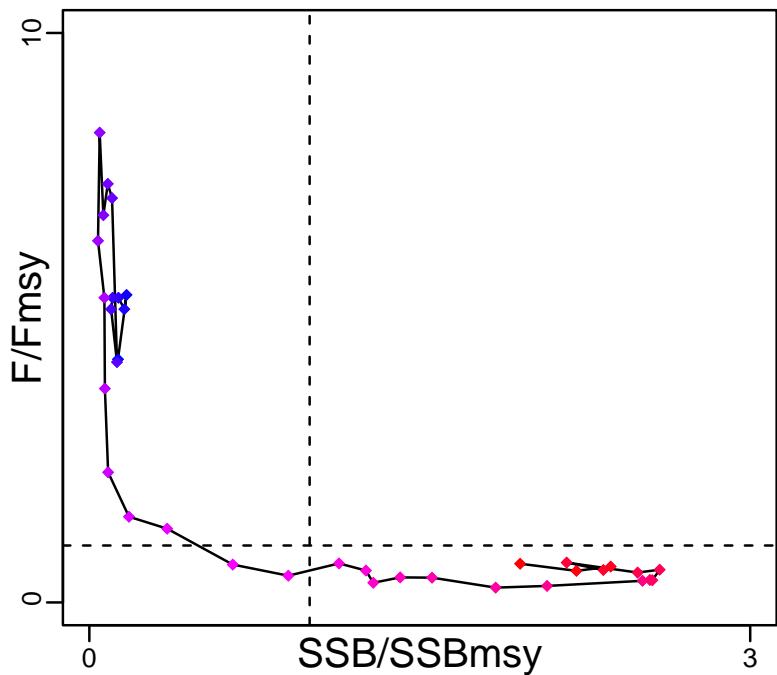
<b>Time Series</b>					
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2019	176,000	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2019	$3.41 \times 10^{10}$	-	0
<b>F</b>	F-1/yr	2019	0.136	-	-
<b>ER</b>	ER-ratio	2007	0.029	-	-
<b>TC</b>	TC-MT	2019	16,000		
<b>TL</b>	TL-MT	2007	4200		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2019	1.956		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2019	0.68		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

**Scup Northwestern Atlantic Coast [SCUPNWATLC]**

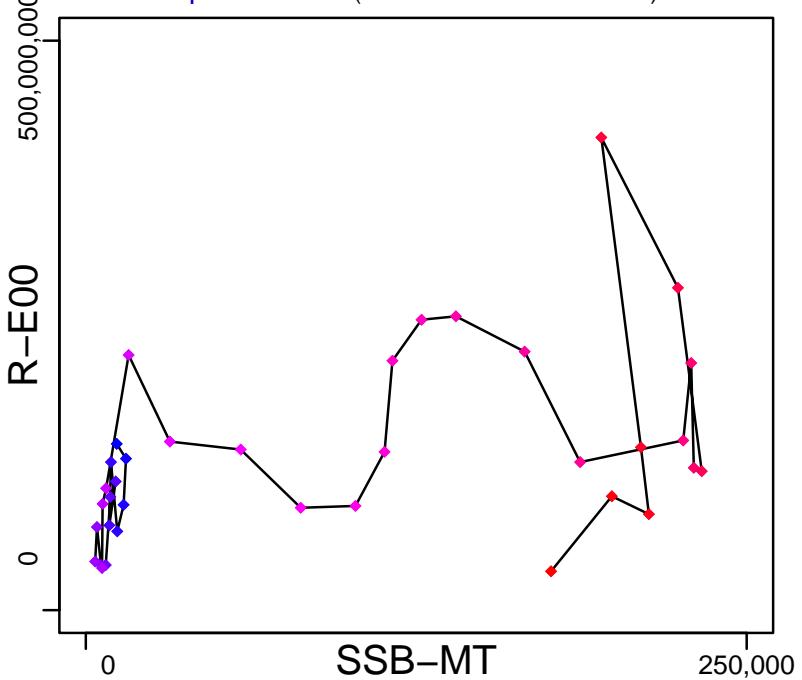
Kobe MSYpref (1981–2019–SISIMP2021–2)



Kobe MGTpref (1981–2019–SISIMP2021–2)



Spawner Recruit (1981–2019–SISIMP2021–2)



Production\*



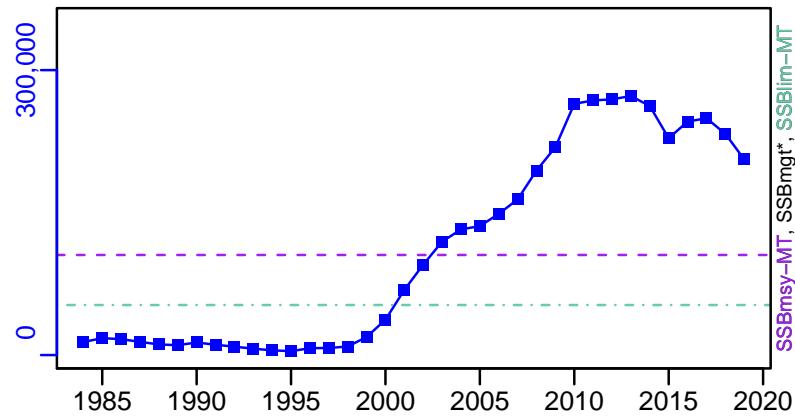
◆ Start Year   ◆ End Year   \* No Data

Scup Northwestern Atlantic Coast [SCUPNWATLC]

**TB\***



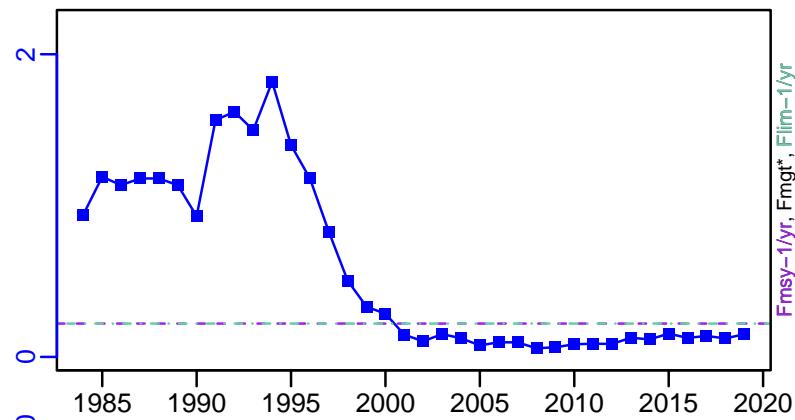
**SSB-MT (1981–2019–SISIMP2021–2)**



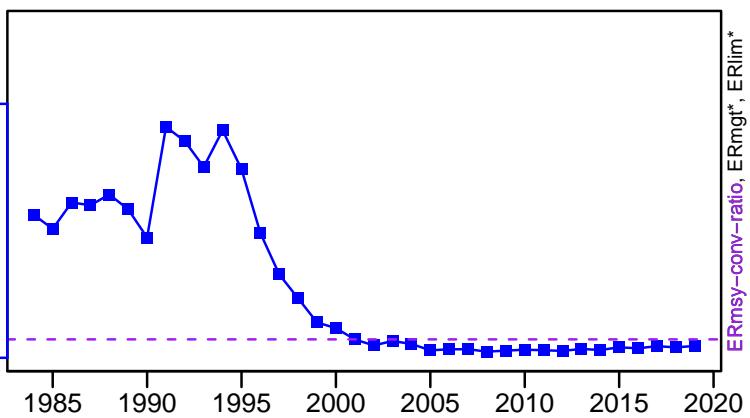
**TN \***



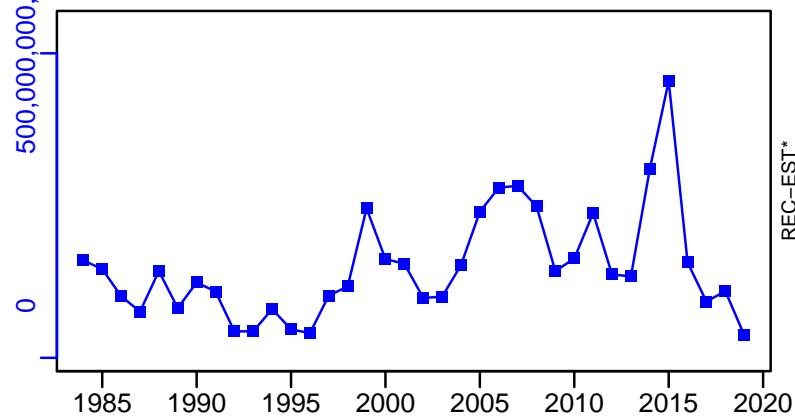
**F-1/yr (1981–2019–SISIMP2021–2)**



**ER-calc-ratio (1981–2019–SISIMP2021–2)**



**R-E00 (1981–2019–SISIMP2021–2)**

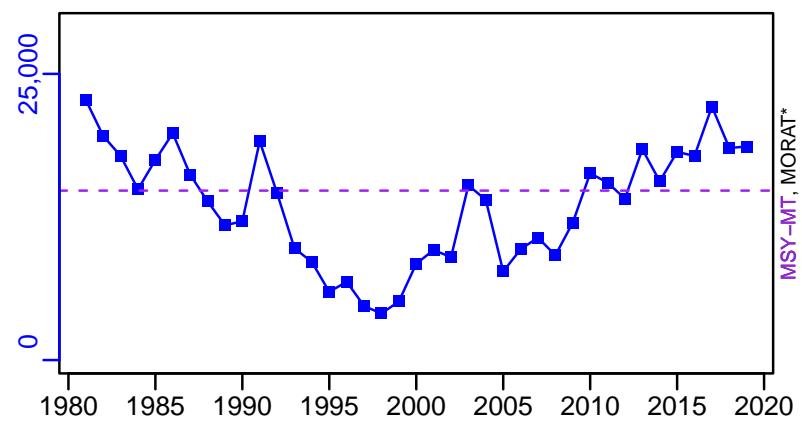


■ Listed time series	— Target BRP	— Rec-Est
- - MSY-based BRP	- - Lim BRP	* No Data

Scup Northwestern Atlantic Coast [SCUPNWATLC]

TC-MT, TL\*, RecC\* (1981–2019–SISIMP2021–2)

TAC\*, Cpair\*, Cadv\*



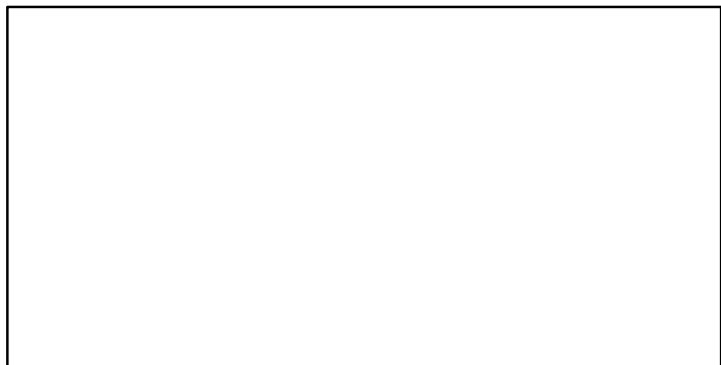
**survB\***



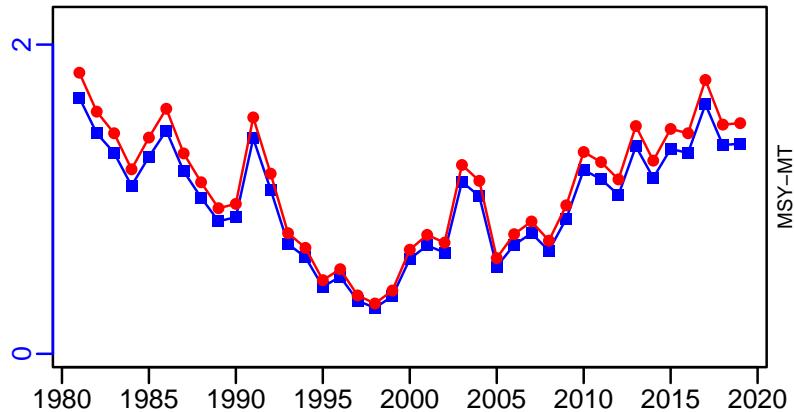
**CPUE\***



**EFFORT\***



TC-MT/MSY-MT, CdivMEANC-ratio, (1981–2019–SISIMP2021–2)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Silk snapper Caribbean [SKSNAPCARIB]

Metadata	
<b>Scientific Name</b>	Lutjanus vivanus
<b>Current Assess ID</b>	SEFSC-SKSNAPCARIB-1983-2009-SISIMP2016
<b>Area</b>	Caribbean
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southeast Fisheries Science Center
<b>Asmts in RAM</b>	2009

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2009	38		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

**Kobe MSY\***

**Kobe MGT\***

**Spawner Recruit\***

**Production\***

◆ Start Year ♦ End Year \* No Data

Silk snapper Caribbean [SKSNAPCARIB]

**TB\***



**SSB\***



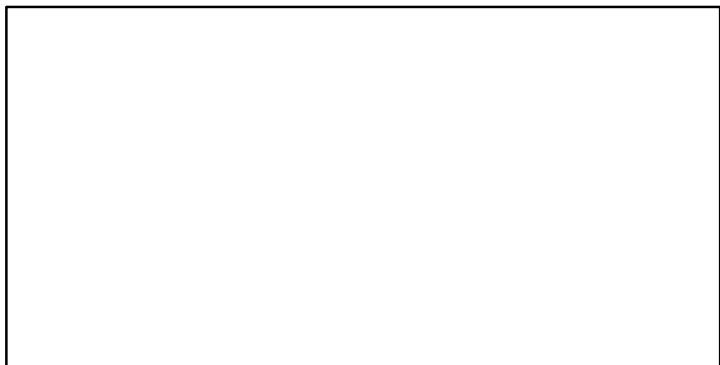
**TN \***



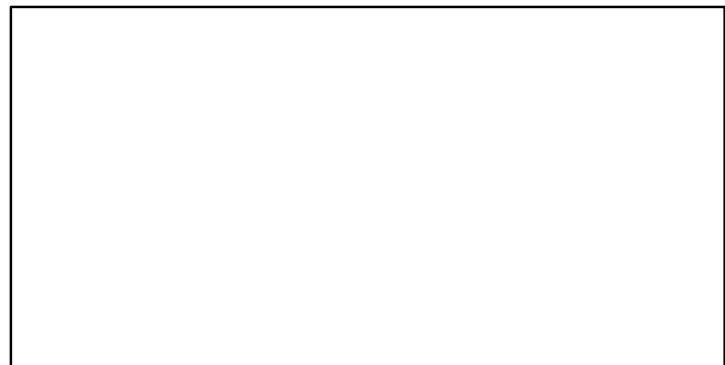
**F\***



**ER\***



**Recruits\***

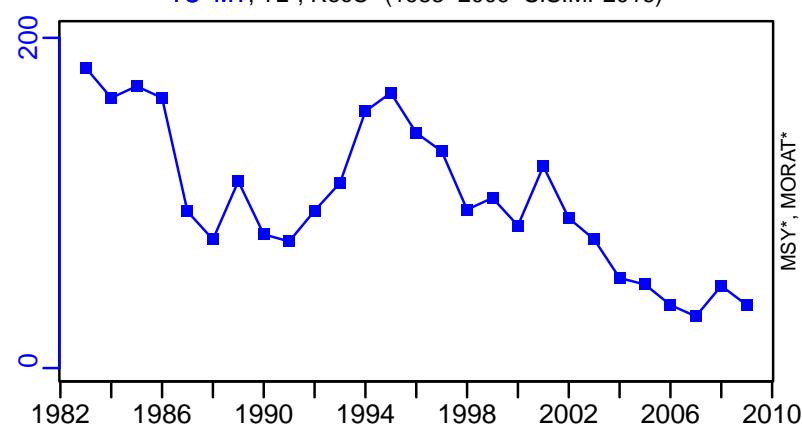


- |                      |                  |           |
|----------------------|------------------|-----------|
| ■ Listed time series | - - - Target BRP | — Rec-Est |
| - - - MSY-based BRP  | - - - Lim BRP    | * No Data |

Silk snapper Caribbean [SKSNAPCARIB]

TC-MT, TL\*, RecC\* (1983–2009–SISIMP2016)

TAC\*, Cpair\*, Cadv\*



survB\*

CPUE\*

EFFORT\*

CdivMSY\*

- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - - MSY                | * No Data |

## Surmullet Malta Island and South of Sicily (GSA 15, 16) [SMULLMEDGSA15-16]

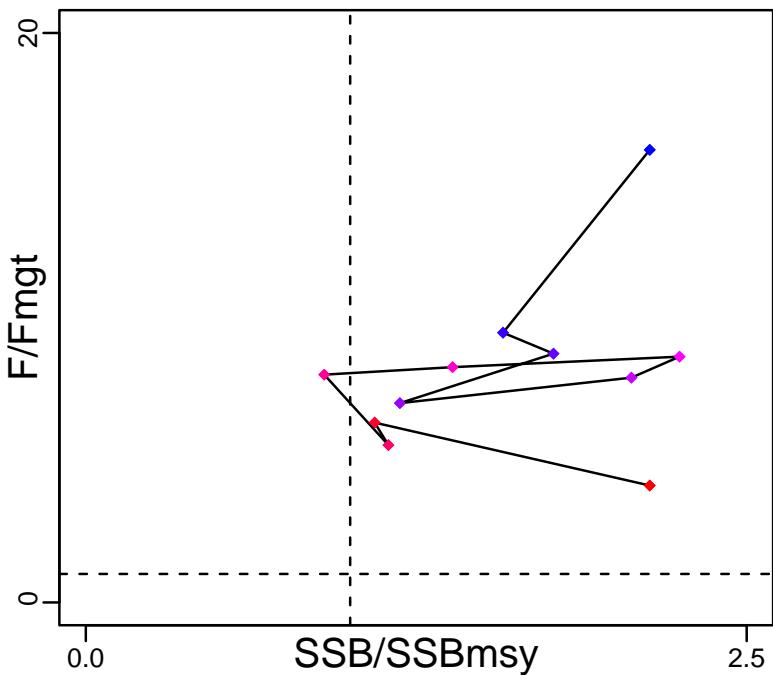
Metadata	
<b>Scientific Name</b>	Mullus surmuletus
<b>Current Assess ID</b>	STECF-SMULLMEDGSA15-16-2002-2012-OSIO
<b>Area</b>	Malta Island and South of Sicily (GSA 15, 16)
<b>Management Authority</b>	General Fisheries Council for the Mediterranean, DG MARE, and national states
<b>Assessor</b>	Scientific, Technical and Economic Committee for Fisheries
<b>Asmts in RAM</b>	2012

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	Fmgt-1/yr	2012	0.19
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

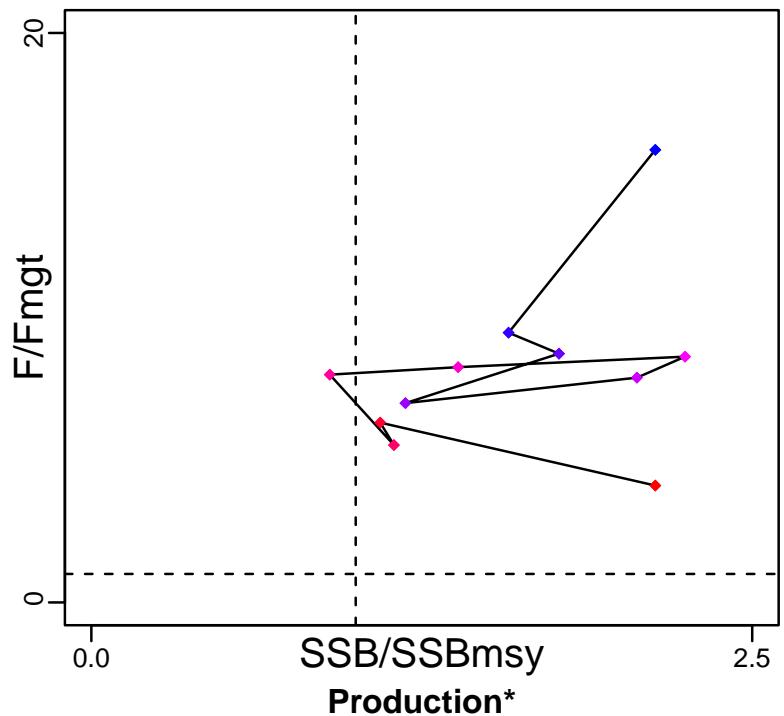
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2012	2460	-	2+
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2012	$4.2 \times 10^7$	-	-
<b>F</b>	F-1/yr	2012	0.78	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2012	753		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2012	4.105		
<b>ER/ERmgt</b>	-	-	-		

**Surmullet Malta Island and South of Sicily (GSA 15, 16) [SMULLMEDGSA15–16]**

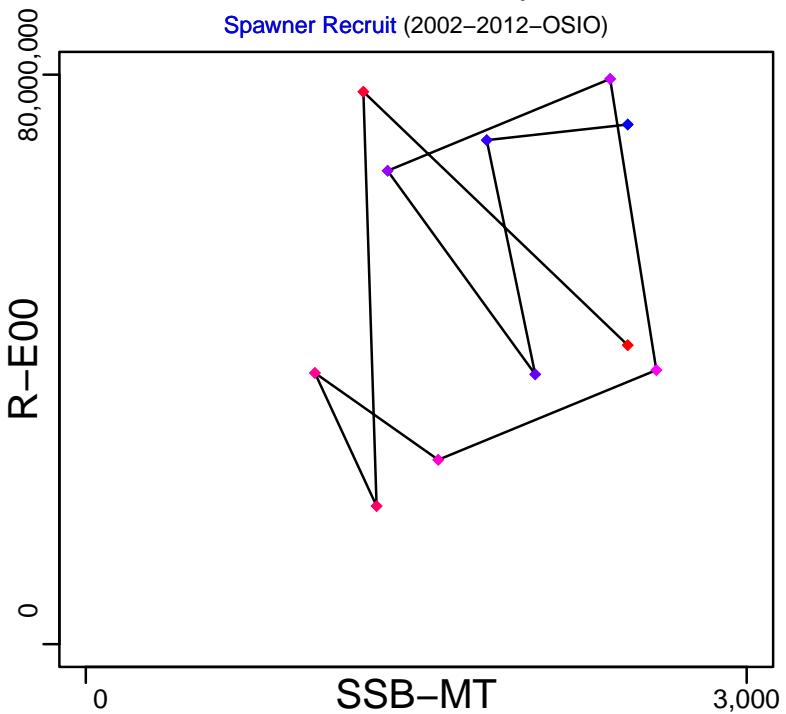
Kobe MSYpref (2002–2012–OSIO)



Kobe MGTpref (2002–2012–OSIO)



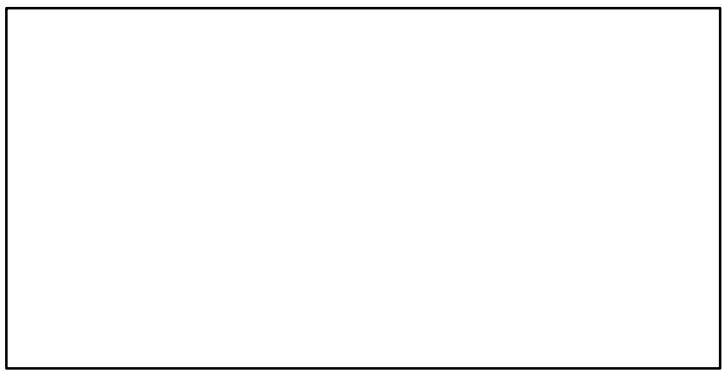
Spawner Recruit (2002–2012–OSIO)



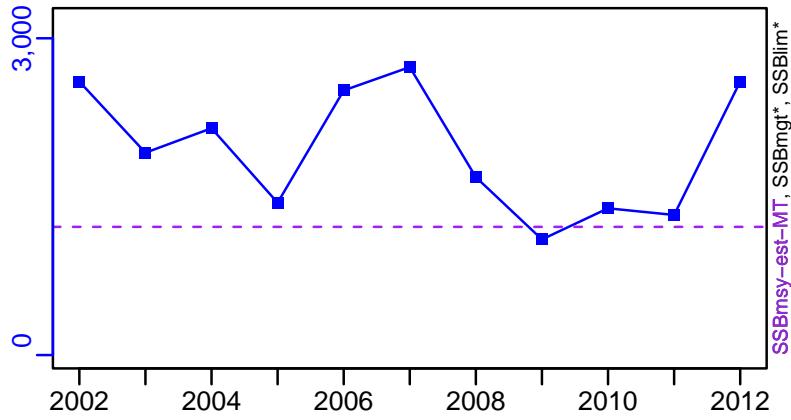
◆ Start Year   ◆ End Year   \* No Data

**Surmullet Malta Island and South of Sicily (GSA 15, 16) [SMULLMEDGSA15–16]**

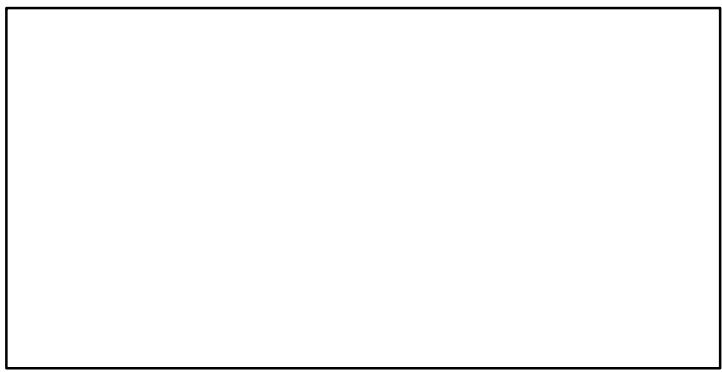
**TB\***



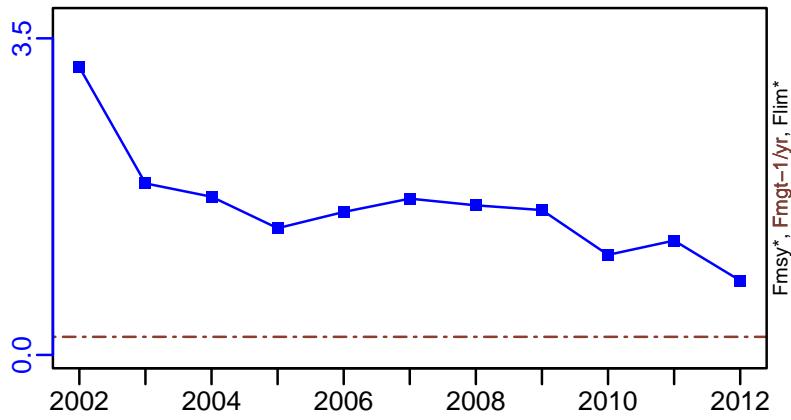
**SSB-MT (2002–2012–OSIO)**



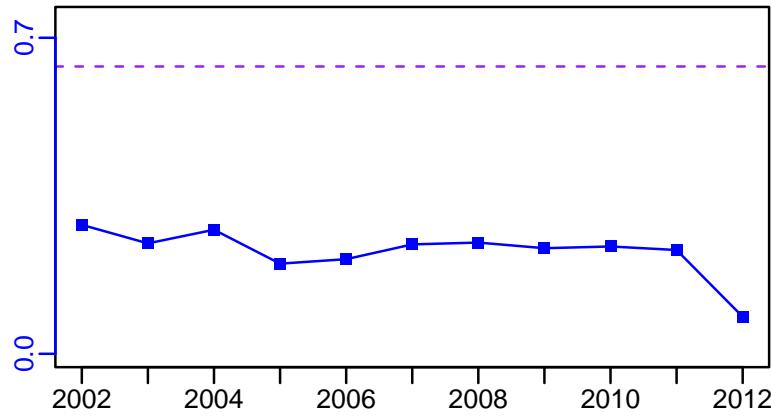
**TN \***



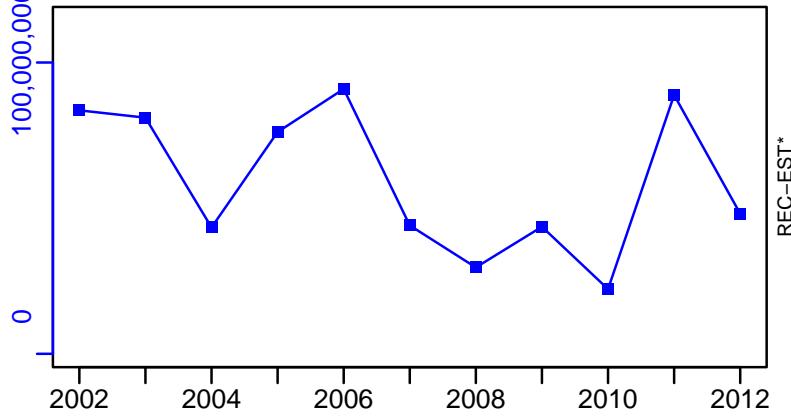
**F-1/yr (2002–2012–OSIO)**



**ER-calc-ratio (2002–2012–OSIO)**



**R-E00 (2002–2012–OSIO)**

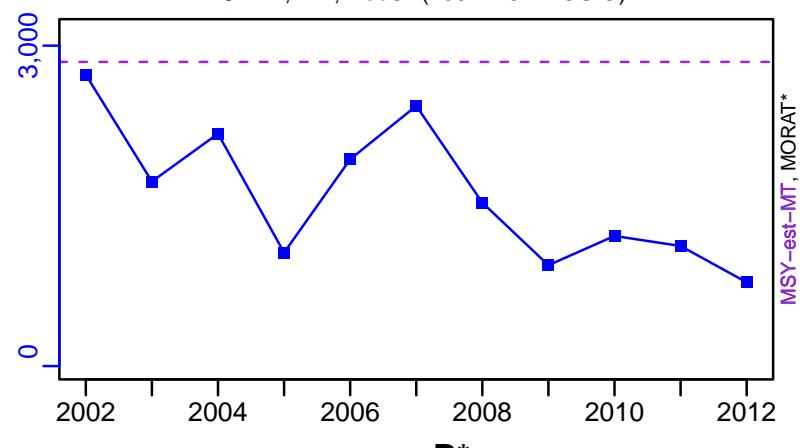


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - - Lim BRP	* No Data

**Surmullet Malta Island and South of Sicily (GSA 15, 16) [SMULLMEDGSA15–16]**

TC-MT, TL\*, RecC\* (2002–2012–OSIO)

TAC\*, Cpair\*, Cadv\*



survB\*



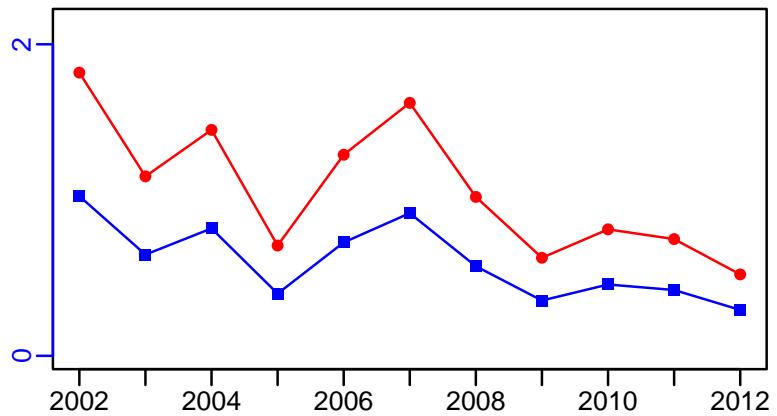
CPUE\*



EFFORT\*



TC-MT/MSY-est-MT, CdivMEANC-ratio, (2002–2012–OSIO)



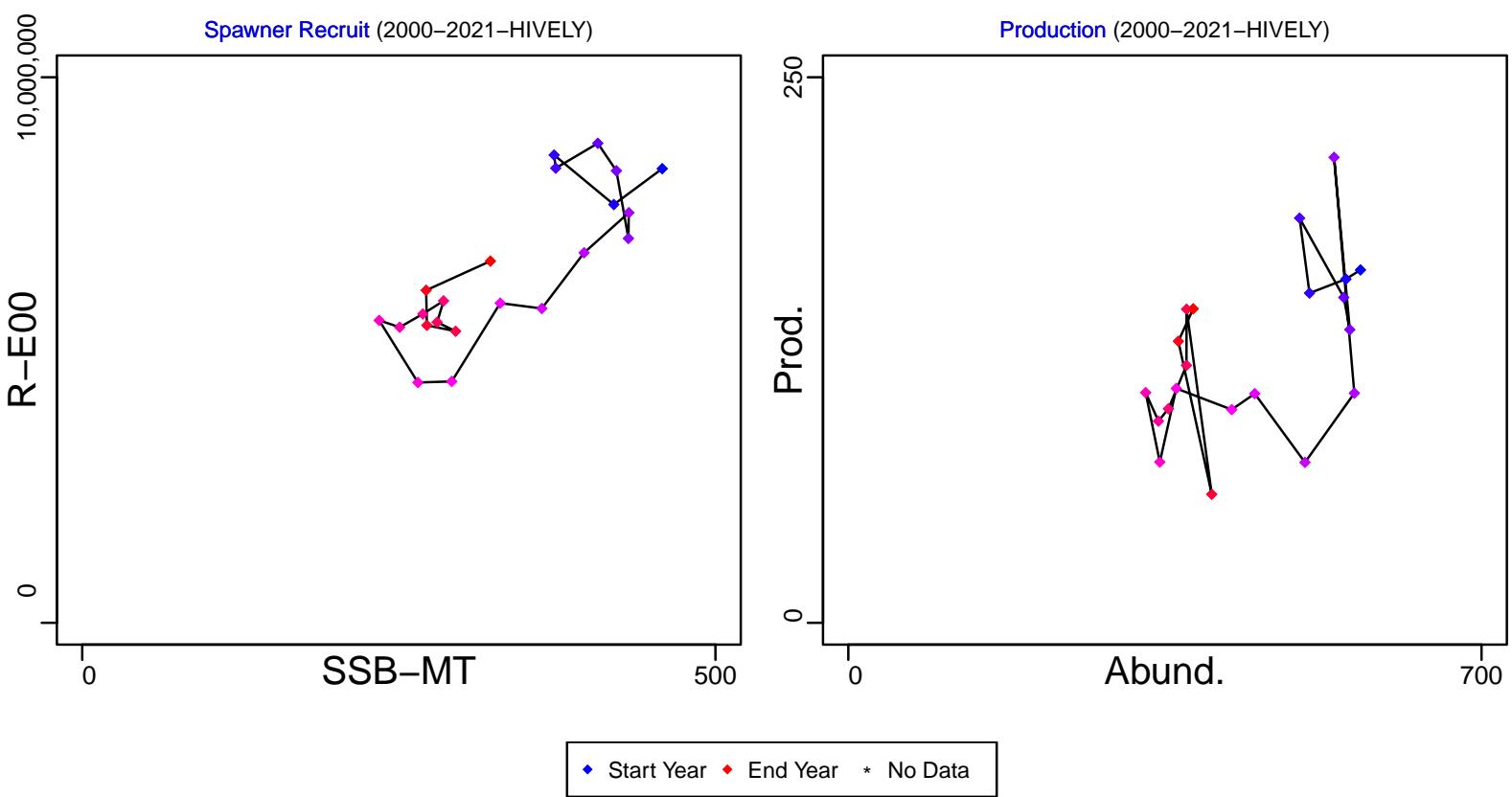
■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Surmullet Balearic Island [SMULLMEDGSA5]

<b>Metadata</b>	
<b>Scientific Name</b>	Mullus surmuletus
<b>Current Assess ID</b>	WGSAD-SMULLMEDGSA5-2000-2021-HIVELY
<b>Area</b>	Balearic Island
<b>Management Authority</b>	General Fisheries Council for the Mediterranean, DG MARE, and national states
<b>Assessor</b>	Working Group on Stock Assessment of Demersal Species
<b>Asmts in RAM</b>	2012, 2019, 2021

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	Fmgt-1/yr	2021	0.243
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

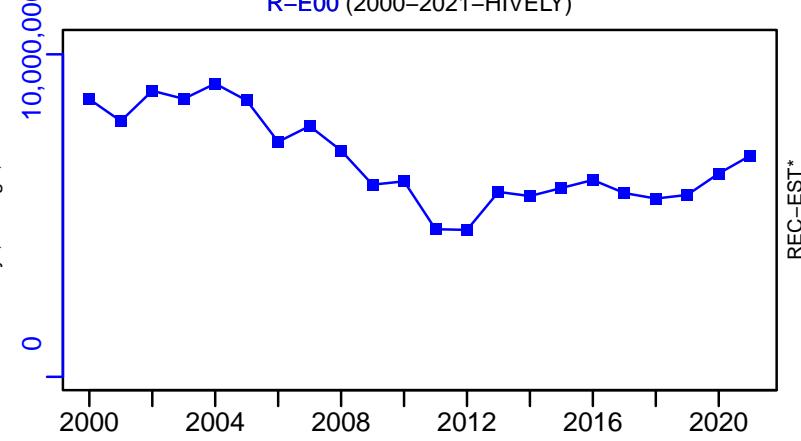
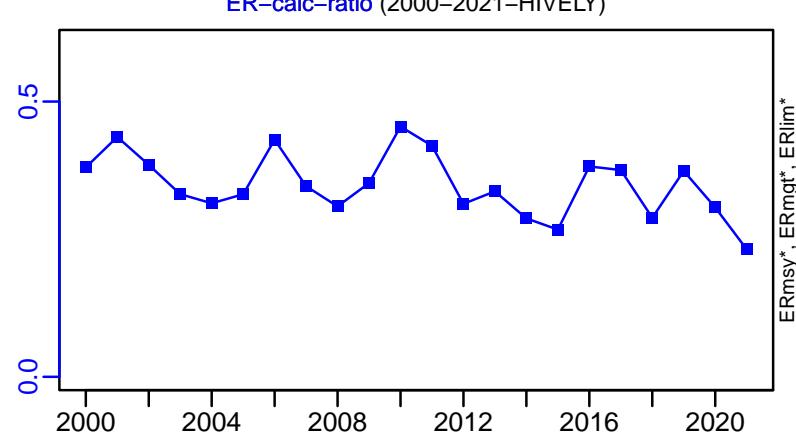
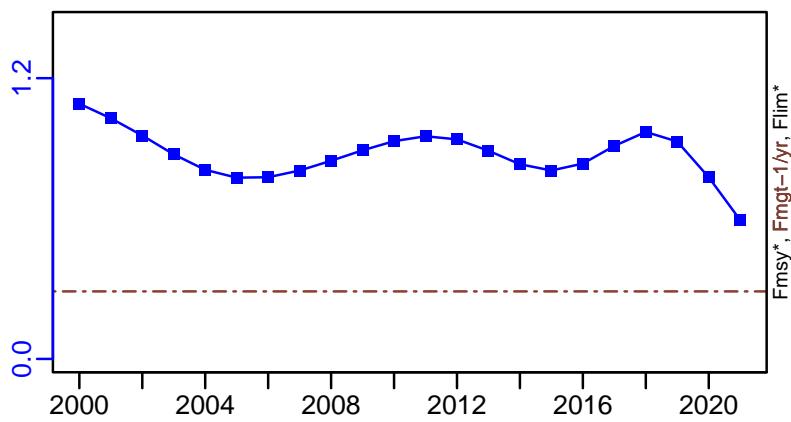
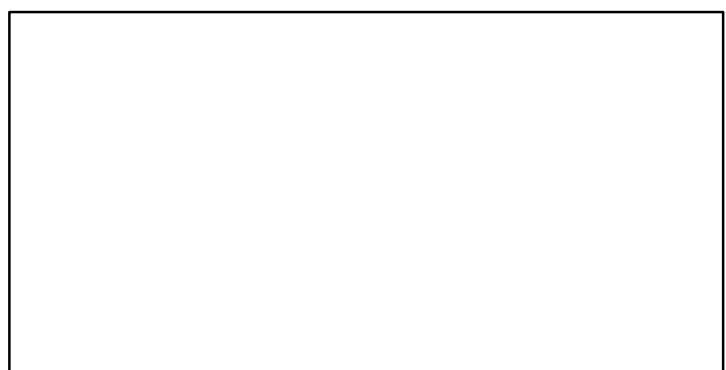
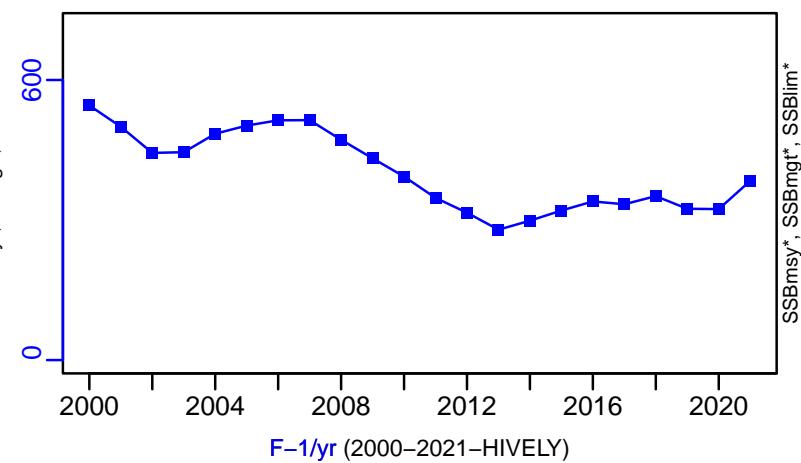
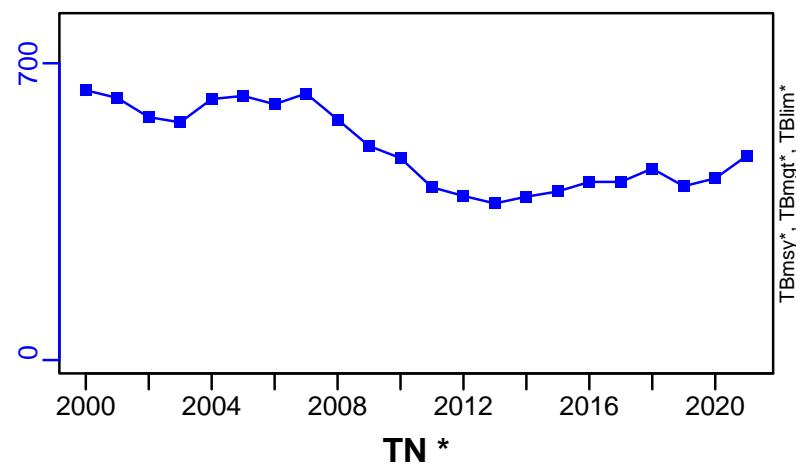
<b>Time Series</b>					
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>
<b>TB</b>	TB-MT	2021	428	-	-
<b>SSB</b>	SSB-MT	2021	322	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2021	6,630,300	-	-
<b>F</b>	F-1/yr	2021	0.5	-	-
<b>ER</b>	ER-calc-ratio	2021	0.191	-	-
<b>TC</b>	TC-MT	2021	82		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2021	2.056		
<b>ER/ERmgt</b>	-	-	-		

**Kobe MSY\*****Kobe MGT\***

**Surmullet Balearic Island [SMULLMEDGSA5]**

TB-MT (2000–2021-HIVELY)

SSB-MT (2000–2021-HIVELY)

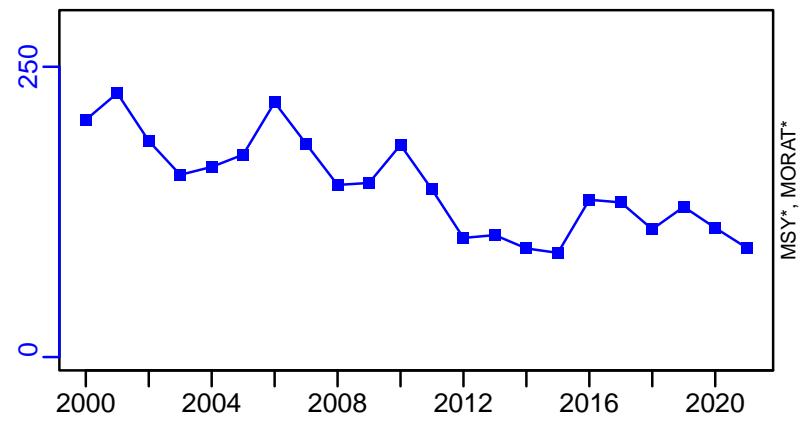


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	··· Lim BRP	* No Data

**Surmullet Balearic Island [SMULLMEDGSA5]**

TC-MT, TL\*, RecC\* (2000–2021-HIVELY)

TAC\*, Cpair\*, Cadv\*



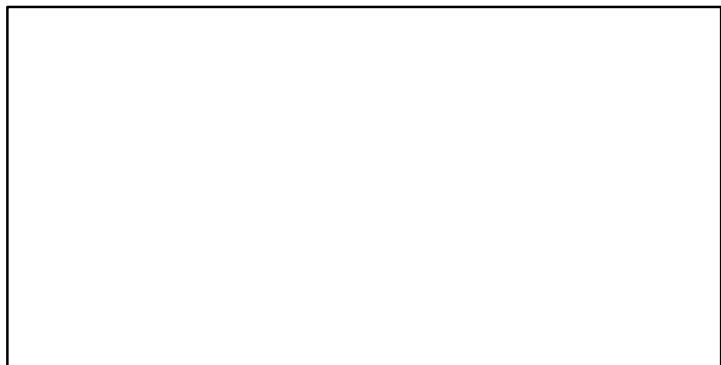
**survB\***



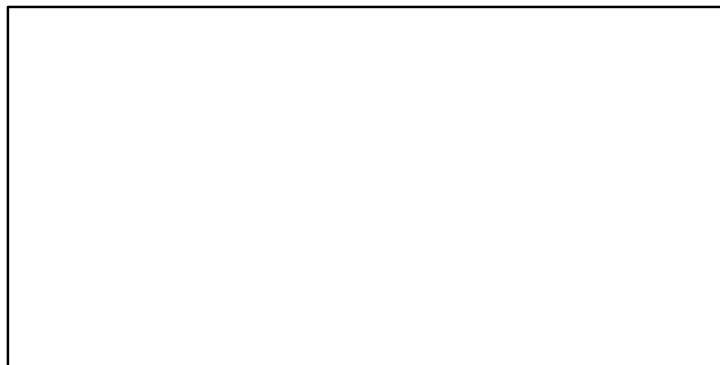
**CPUE\***



**EFFORT\***



**CdivMSY\***



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - MSY                  | * No Data |

## Surmullet Ligurian and North Tyrrhenian Sea [SMULLMEDGSA9]

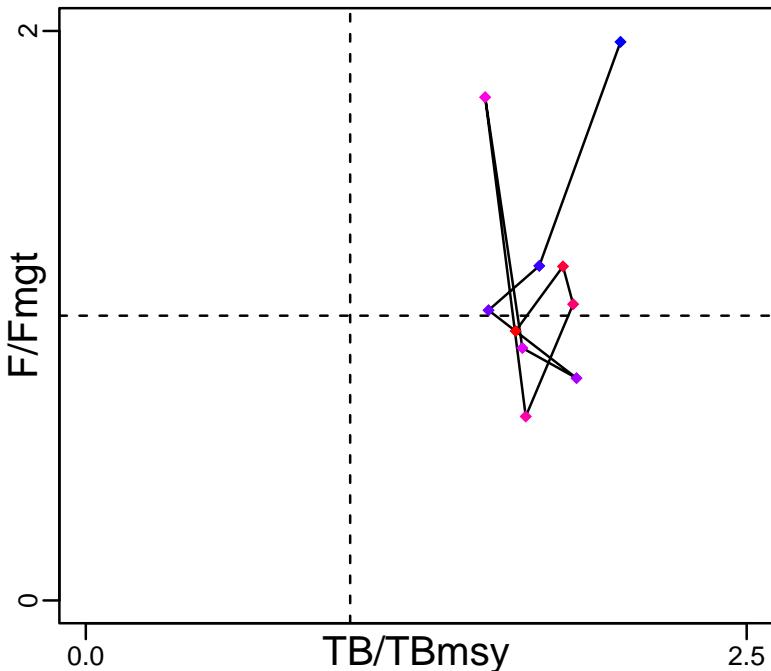
<b>Metadata</b>	
<b>Scientific Name</b>	Mullus surmuletus
<b>Current Assess ID</b>	STECF-SMULLMEDGSA9-2006-2015-OSIO
<b>Area</b>	Ligurian and North Tyrrhenian Sea
<b>Management Authority</b>	General Fisheries Council for the Mediterranean, DG MARE, and national states
<b>Assessor</b>	Scientific, Technical and Economic Committee for Fisheries
<b>Asmts in RAM</b>	2010, 2015

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	Fmgt-1/yr	2015	0.52
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

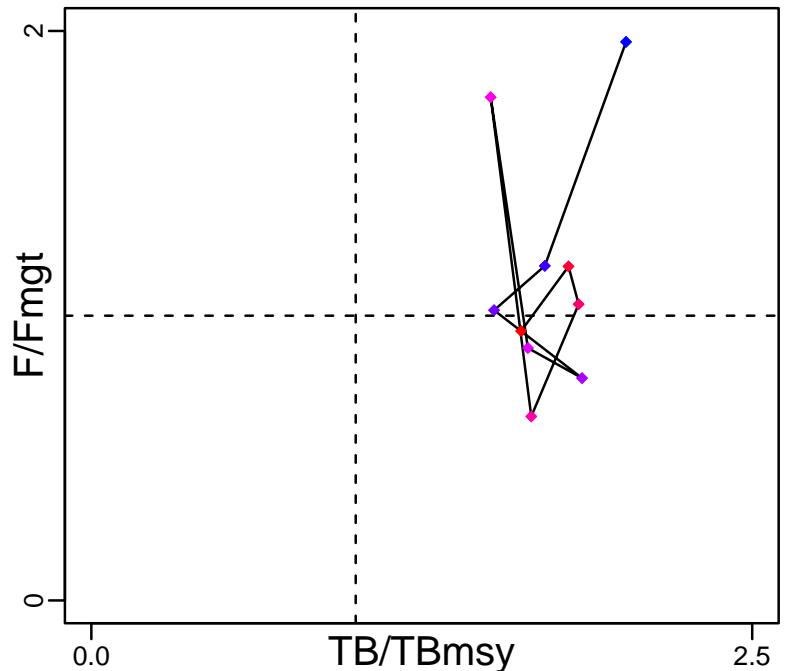
<b>Time Series</b>					
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>
<b>TB</b>	TB-MT	2015	1270	-	-
<b>SSB</b>	SSB-MT	2015	463	Both	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2015	16,600,000	-	-
<b>F</b>	F-1/yr	2015	0.492	-	-
<b>ER</b>	ER-calc-ratio	2015	0.205	-	-
<b>TC</b>	TC-MT	2015	260		
<b>TL</b>	TL-MT	2015	260		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2015	0.946		
<b>ER/ERmgt</b>	-	-	-		

**Surmullet Ligurian and North Tyrrhenian Sea [SMULLMEDGSA9]**

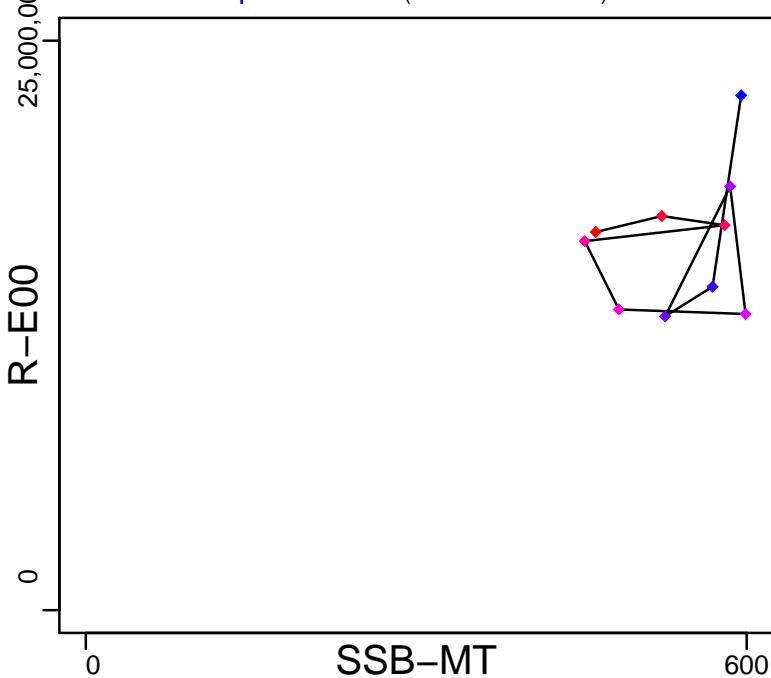
Kobe MSYpref (2006–2015–OSIO)



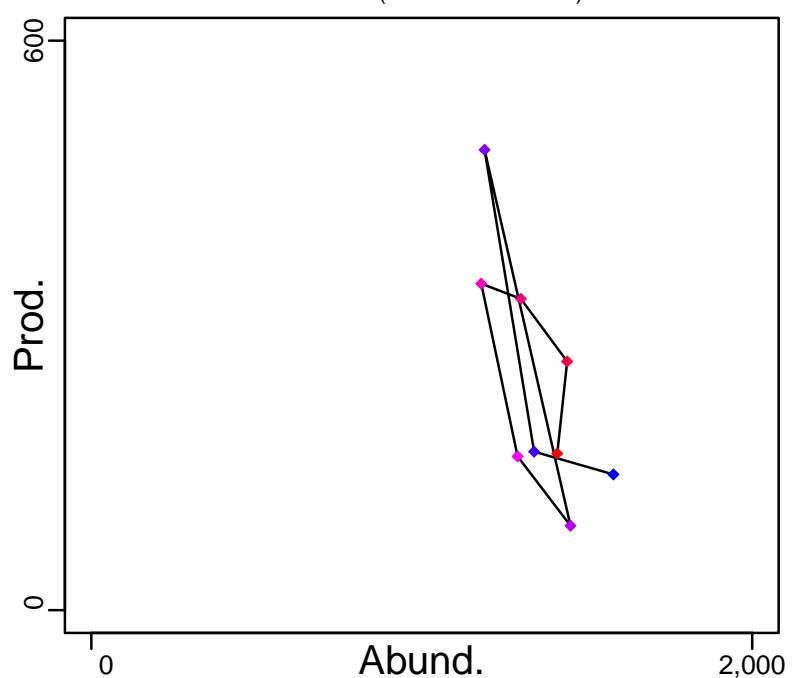
Kobe MGTPref (2006–2015–OSIO)



Spawner Recruit (2006–2015–OSIO)



Production (2006–2015–OSIO)

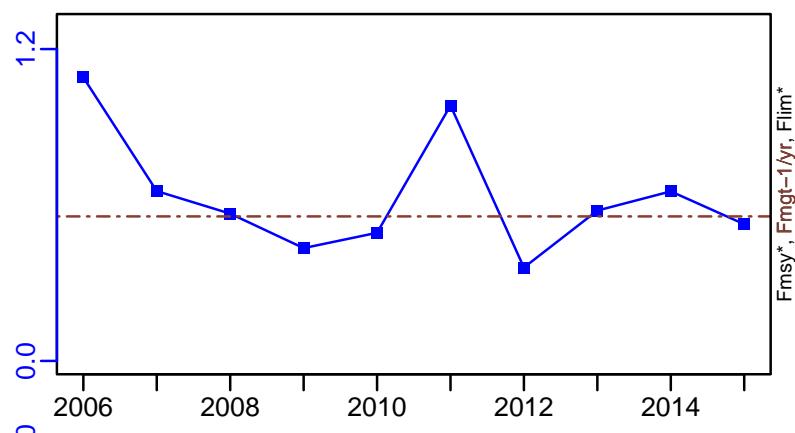
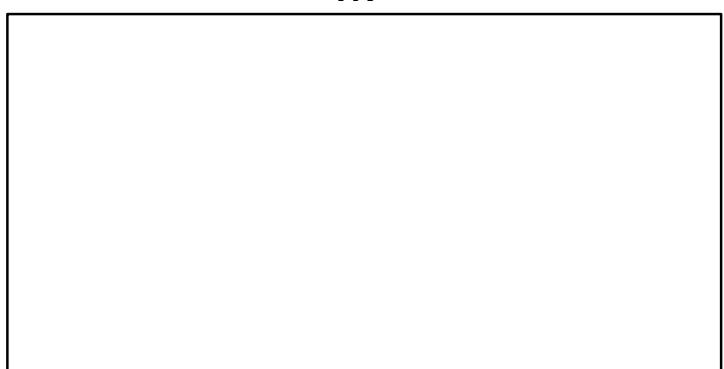
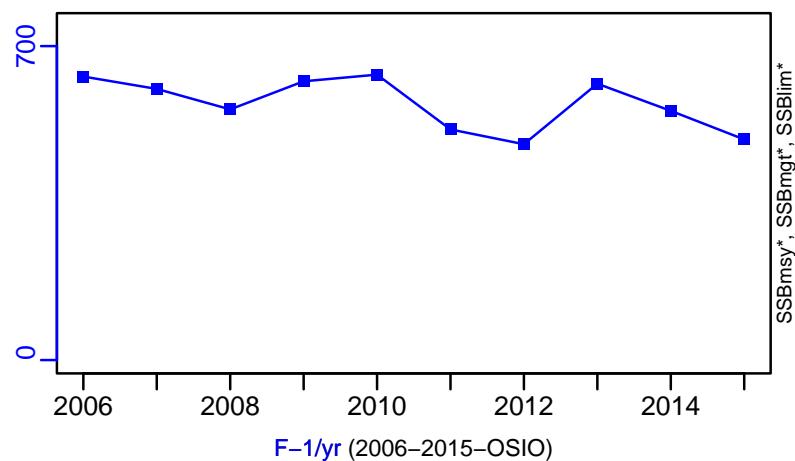
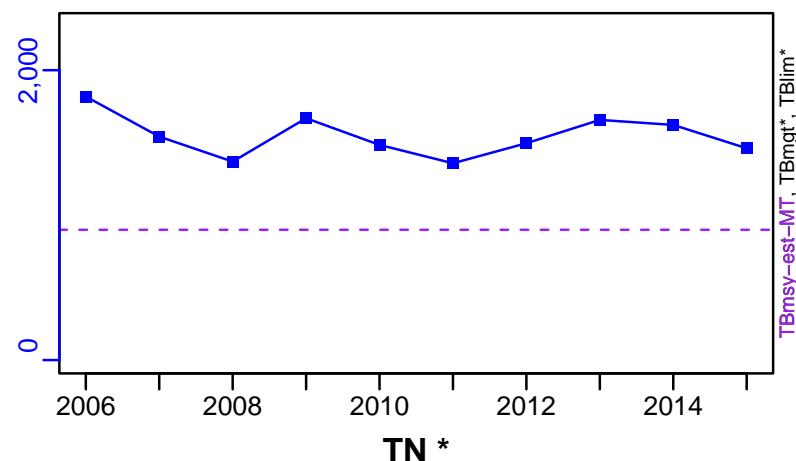


◆ Start Year   ◆ End Year   \* No Data

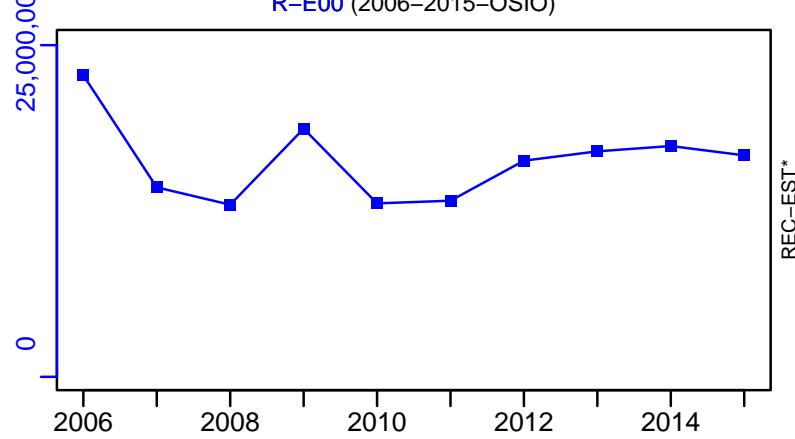
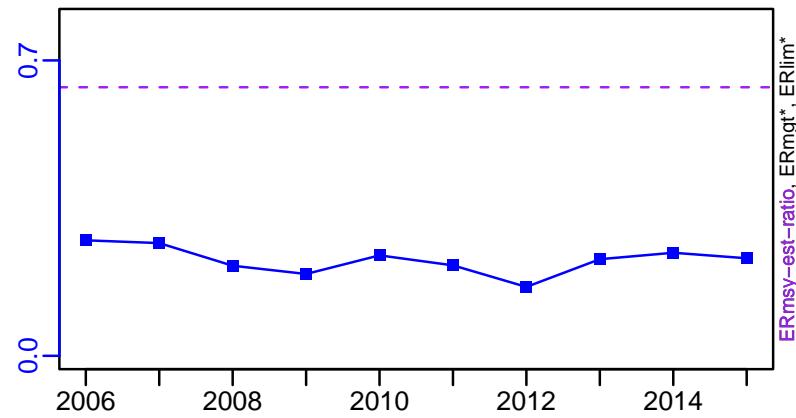
**Surmullet Ligurian and North Tyrrhenian Sea [SMULLMEDGSA9]**

TB-MT (2006–2015–OSIO)

SSB-MT (2006–2015–OSIO)



ER-calc-ratio (2006–2015–OSIO)

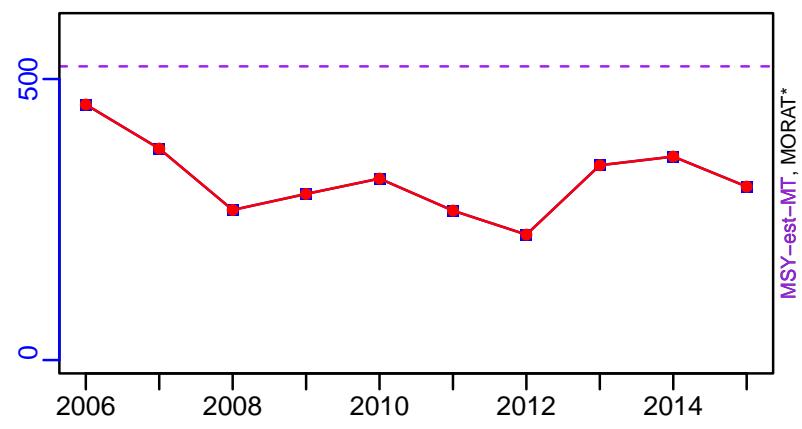


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - Lim BRP	* No Data

**Surmullet Ligurian and North Tyrrhenian Sea [SMULLMEDGSA9]**

TC-MT, TL-MT, RecC\* (2006–2015–OSIO)

TAC\*, Cpair\*, Cadv\*



**survB\***

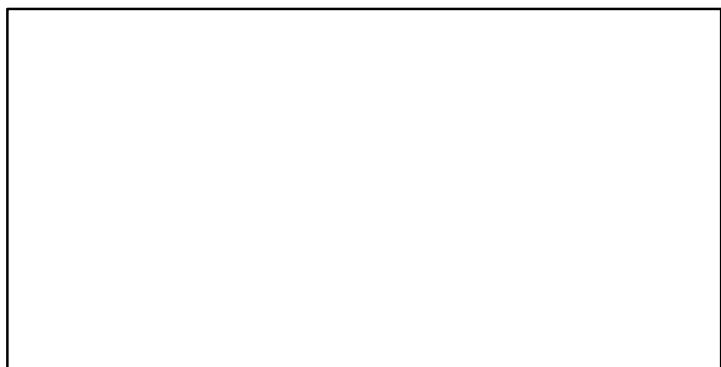
MSY-est-MT, MORAT\*



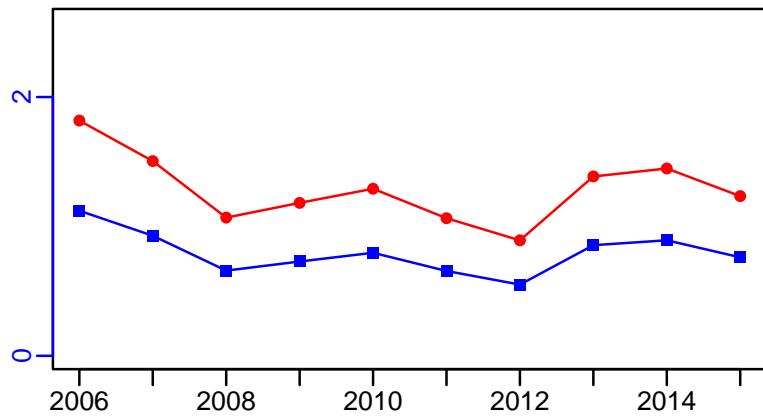
**CPUE\***



**EFFORT\***



TC-MT/MSY-est-MT, CdivMEANC-ratio, (2006–2015–OSIO)



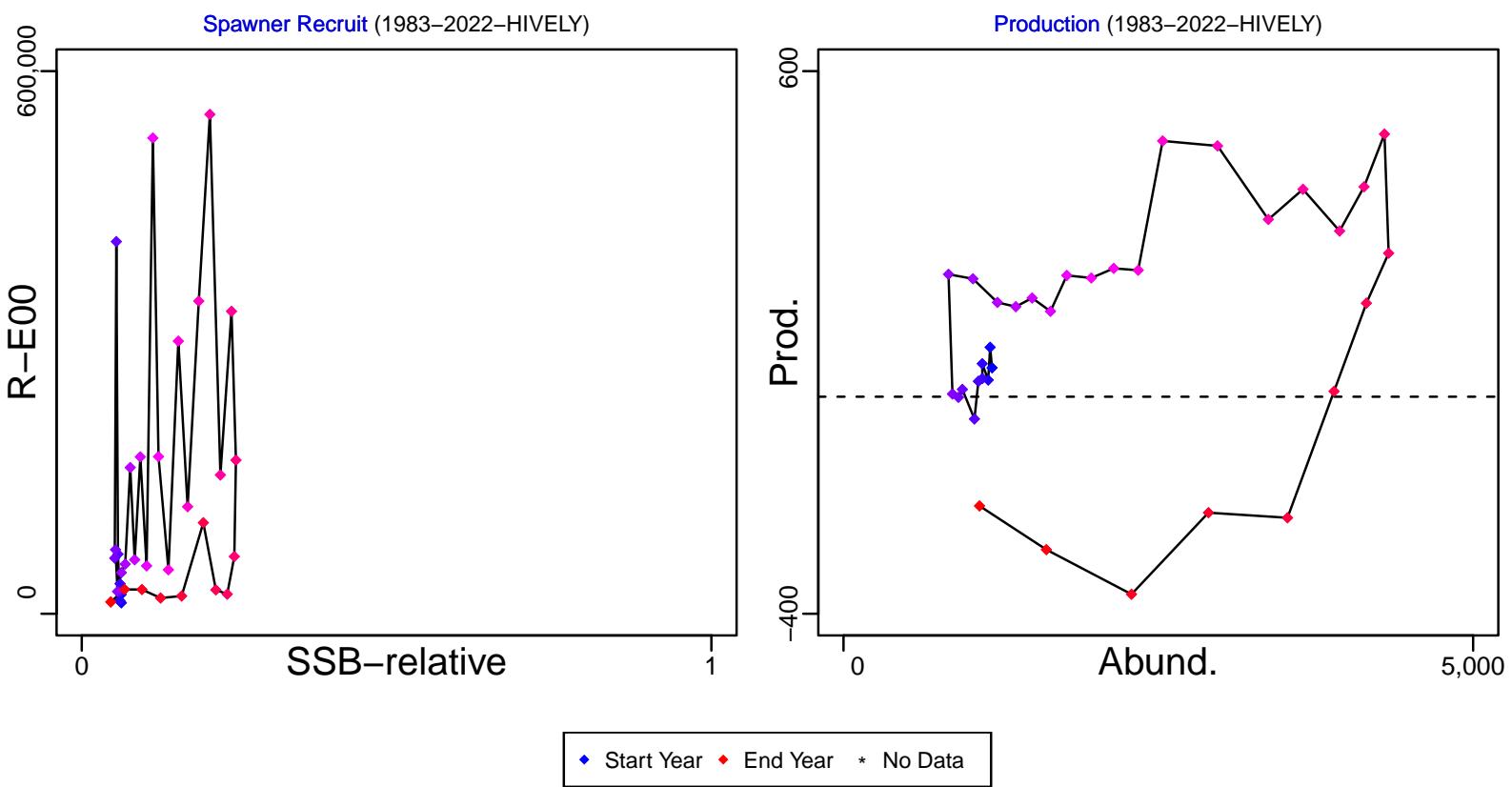
■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Snapper Gulf St. Vincent [SNAPSAUSGSV]

<b>Metadata</b>	
<b>Scientific Name</b>	Chrysophrys auratus
<b>Current Assess ID</b>	SARDI-SNAPSAUSGSV-1983-2022-HIVELY
<b>Area</b>	Gulf St. Vincent
<b>Management Authority</b>	South Australian Research and Development Institute
<b>Assessor</b>	South Australian Research and Development Institute
<b>Asmts in RAM</b>	2022

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

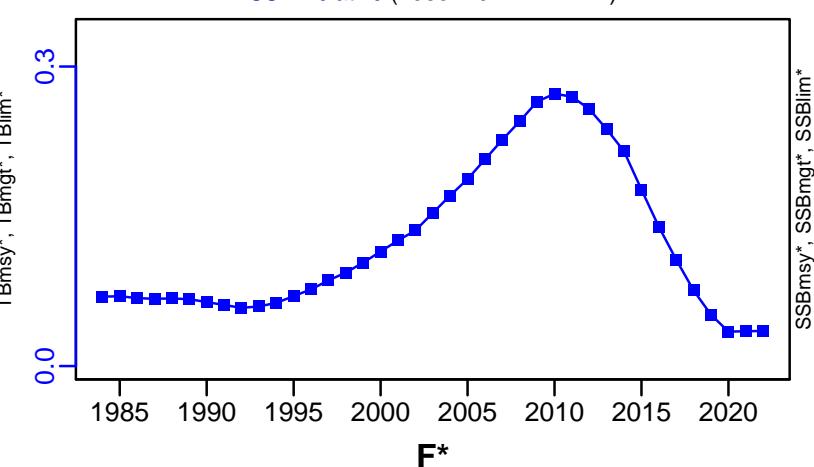
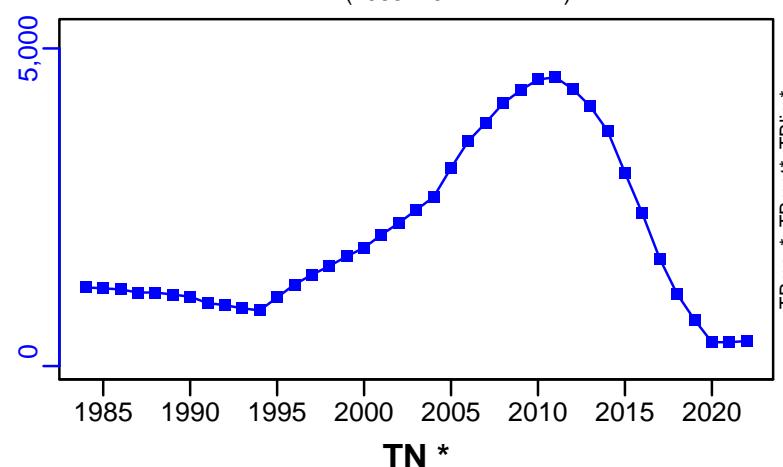
<b>Time Series</b>						
Type	ID	Asmt Year	Curr Value	Sex	Age	
<b>TB</b>	TB-MT	2022	375	-	-	
<b>SSB</b>	SSB-relative	2022	0.032	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2022	13,045	-	-	
<b>F</b>	-	-	-	-	-	
<b>ER</b>	ER-ratio	2022	0.021	-	-	
<b>TC</b>	TC-MT	2022	163			
<b>TL</b>	-	-	-			
<b>TB/TBmsy</b>	-	-	-			
<b>SSB/SSBmsy</b>	-	-	-			
<b>F/Fmsy</b>	-	-	-			
<b>ER/ERmsy</b>	-	-	-			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

**Kobe MSY\*****Kobe MGT\***

### Snapper Gulf St. Vincent [SNAPSAUSGSV]

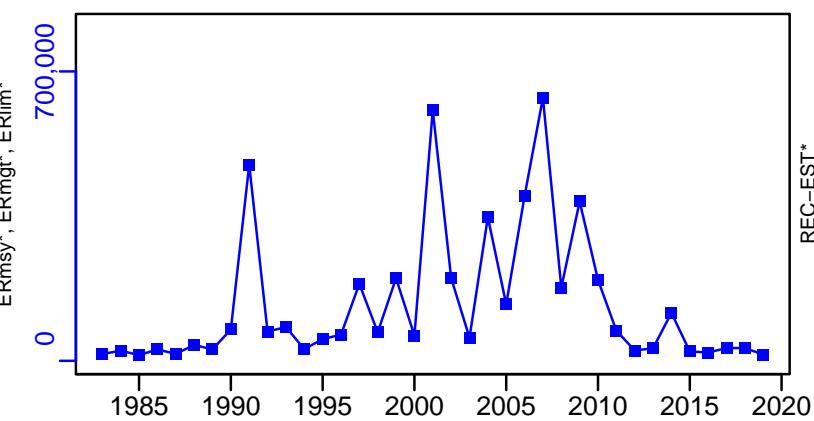
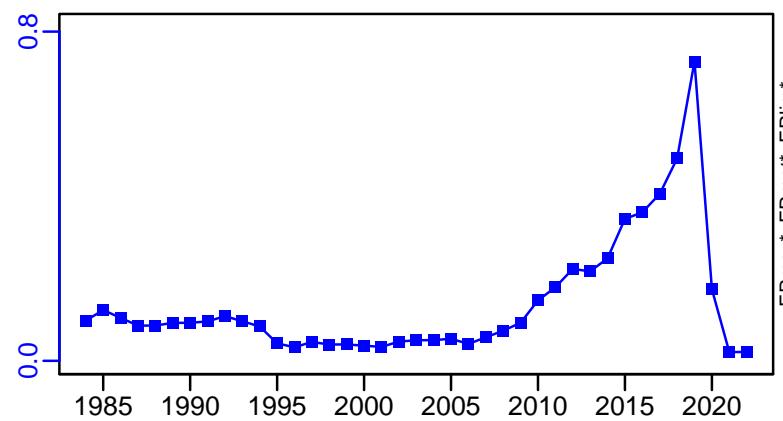
TB-MT (1983–2022–HIVELY)

SSB-relative (1983–2022–HIVELY)



ER-ratio (1983–2022–HIVELY)

R-E00 (1983–2022–HIVELY)

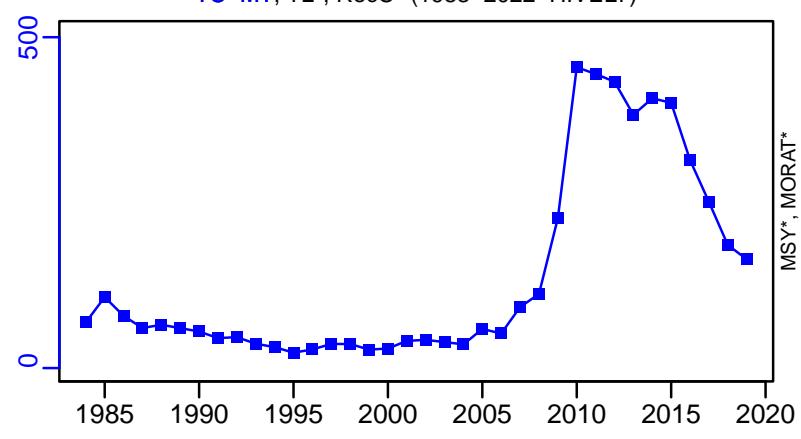


■ Listed time series	— Target BRP	— Rec-Est
- - MSY-based BRP	··· Lim BRP	* No Data

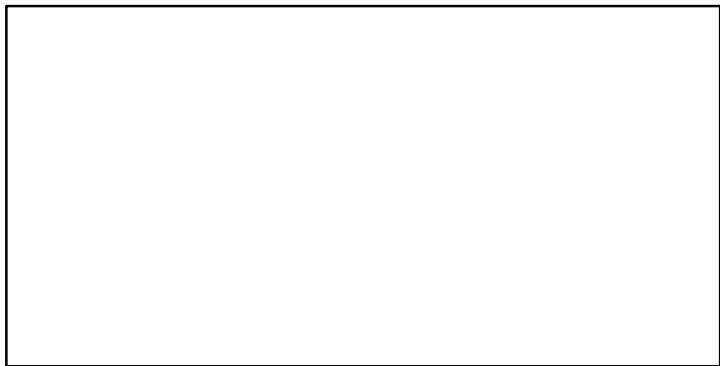
**Snapper Gulf St. Vincent [SNAPSAUSGSV]**

TC-MT, TL\*, RecC\* (1983–2022-HIVELY)

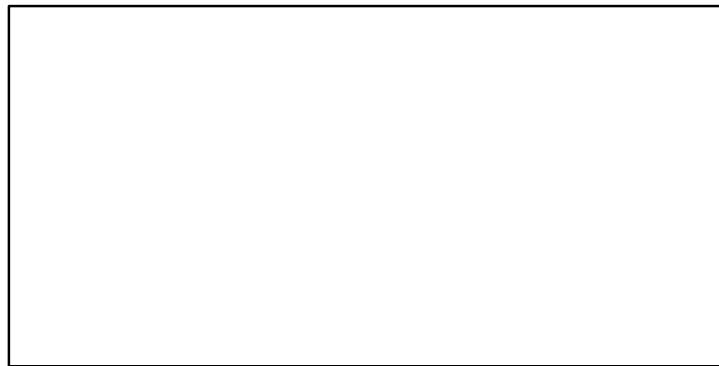
TAC\*, Cpair\*, Cadv\*



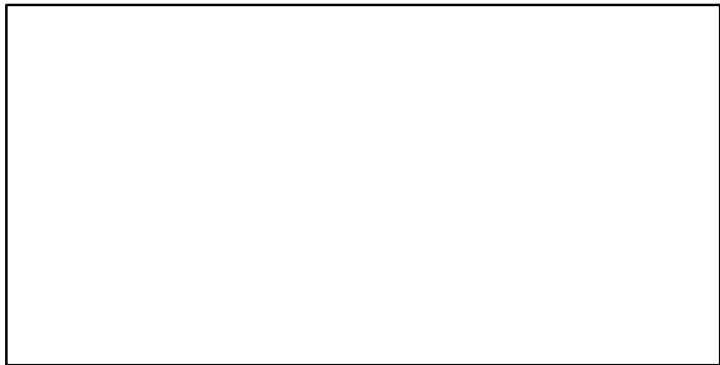
**survB\***



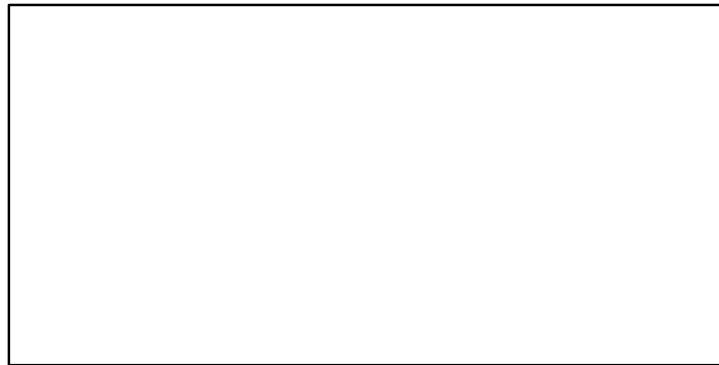
**CPUE\***



**EFFORT\***



**CdivMSY\***



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - - MSY                | * No Data |

## Snapper South-East Region [SNAPSAUSSER]

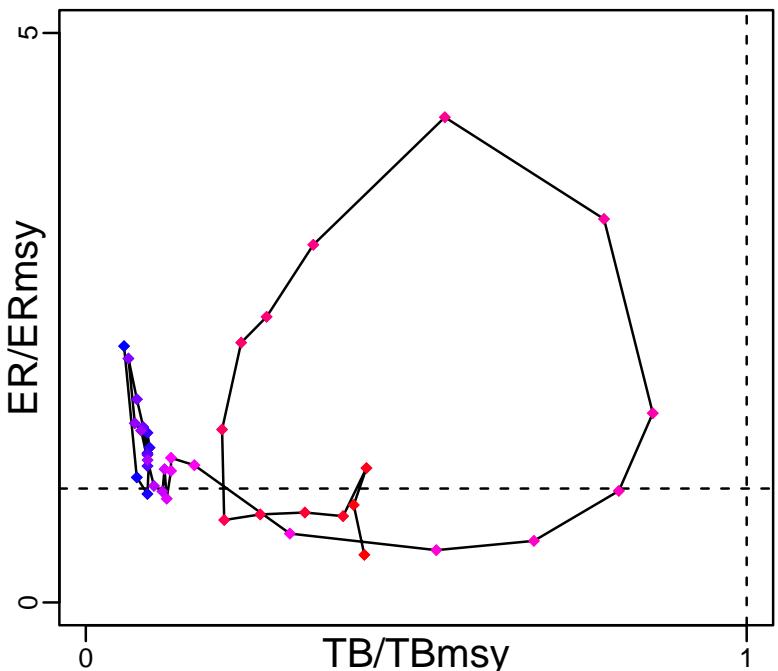
<b>Metadata</b>	
<b>Scientific Name</b>	Chrysophrys auratus
<b>Current Assess ID</b>	SARDI-SNAPSAUSSER-1983-2022-HIVELY
<b>Area</b>	South-East Region
<b>Management Authority</b>	South Australian Research and Development Institute
<b>Assessor</b>	South Australian Research and Development Institute
<b>Asmts in RAM</b>	2022

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

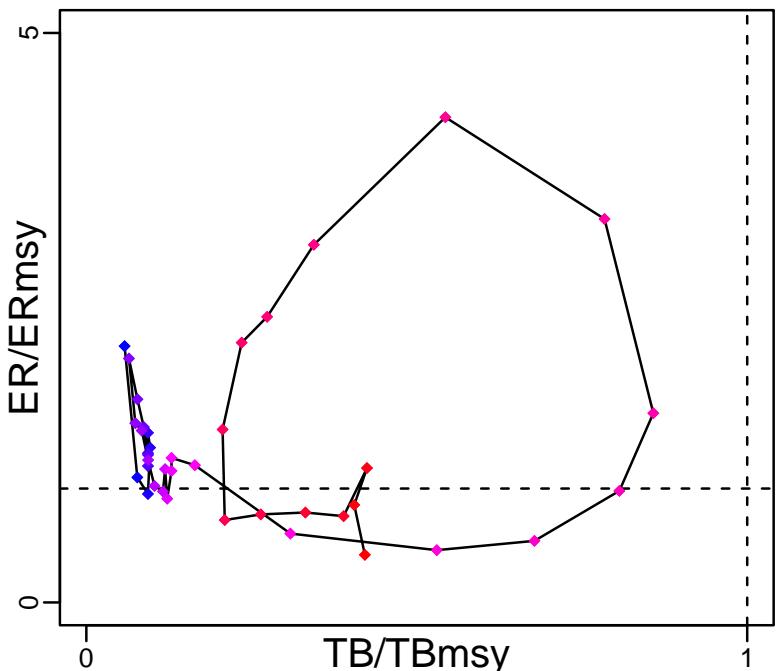
<b>Time Series</b>						
Type	ID	Asmt Year	Curr Value	Sex	Age	
<b>TB</b>	TB-MT	2022	354	-	-	
<b>SSB</b>	SSB-relative	2022	0.066	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2022	14,339	-	-	
<b>F</b>	-	-	-	-	-	
<b>ER</b>	ER-ratio	2022	0.055	-	-	
<b>TC</b>	TC-MT	2022	33			
<b>TL</b>	-	-	-			
<b>TB/TBmsy</b>	-	-	-			
<b>SSB/SSBmsy</b>	-	-	-			
<b>F/Fmsy</b>	-	-	-			
<b>ER/ERmsy</b>	-	-	-			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

**Snapper South-East Region [SNAPSAUSSER]**

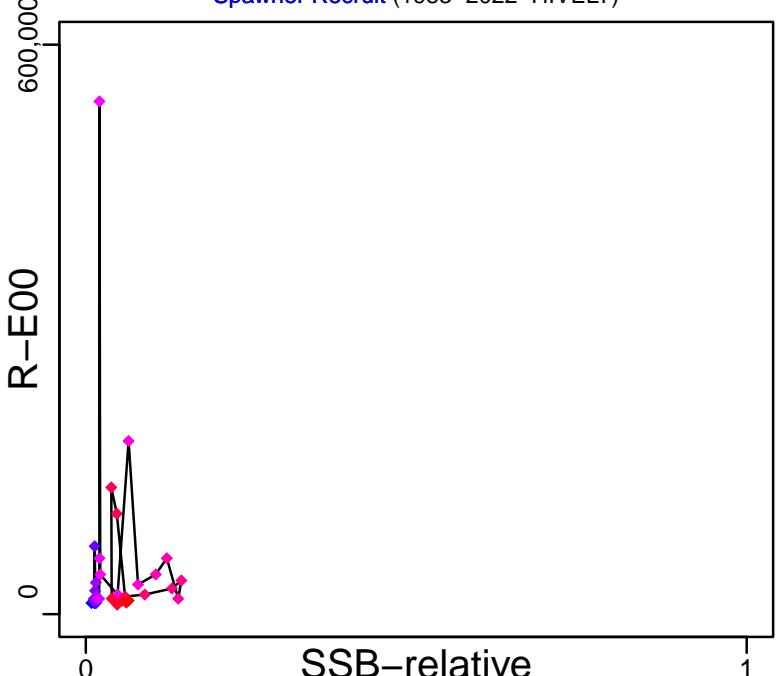
Kobe MSYpref (1983–2022–HIVELY)



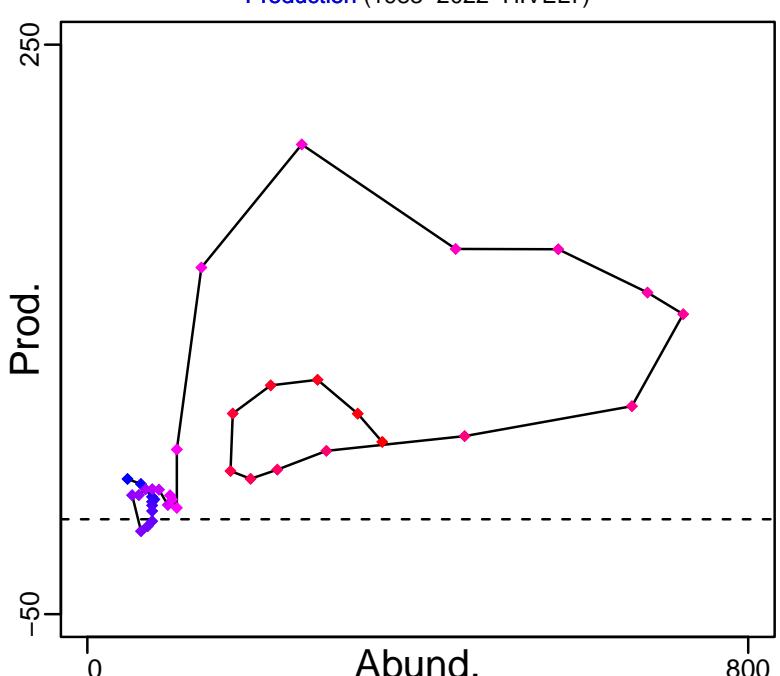
Kobe MGTPref (1983–2022–HIVELY)



Spawner Recruit (1983–2022–HIVELY)



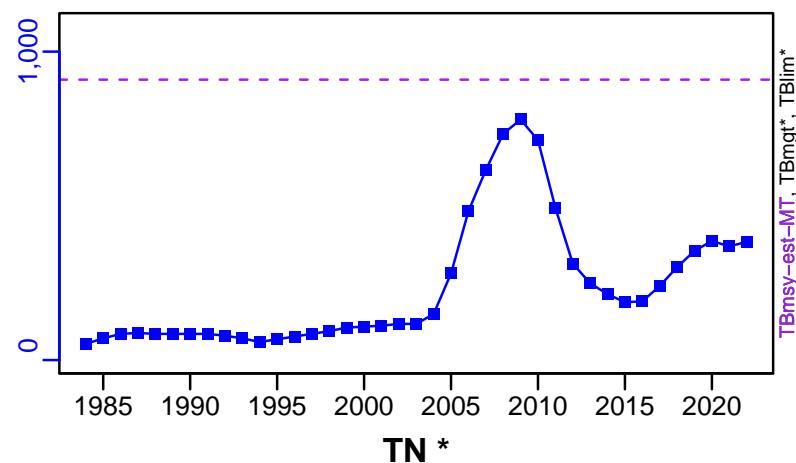
Production (1983–2022–HIVELY)



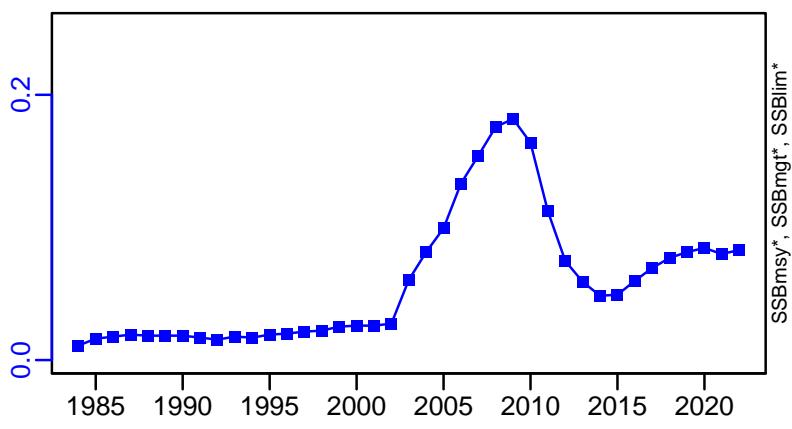
◆ Start Year ◆ End Year \* No Data

### Snapper South-East Region [SNAPSAUSSER]

TB-MT (1983–2022-HIVELY)



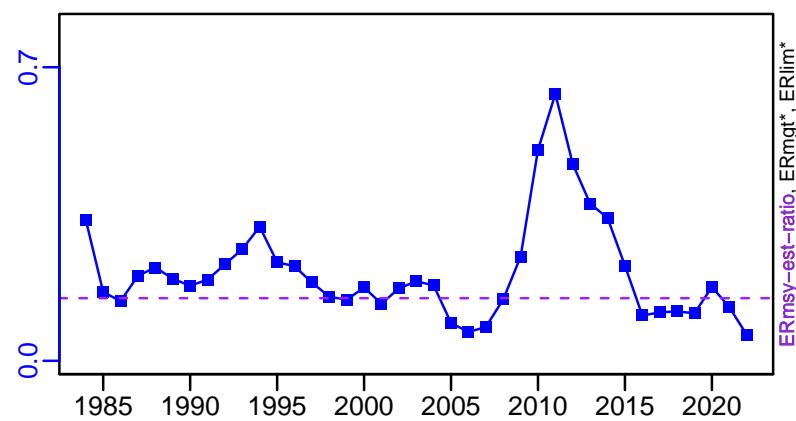
SSB-relative (1983–2022-HIVELY)



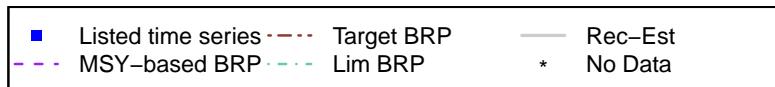
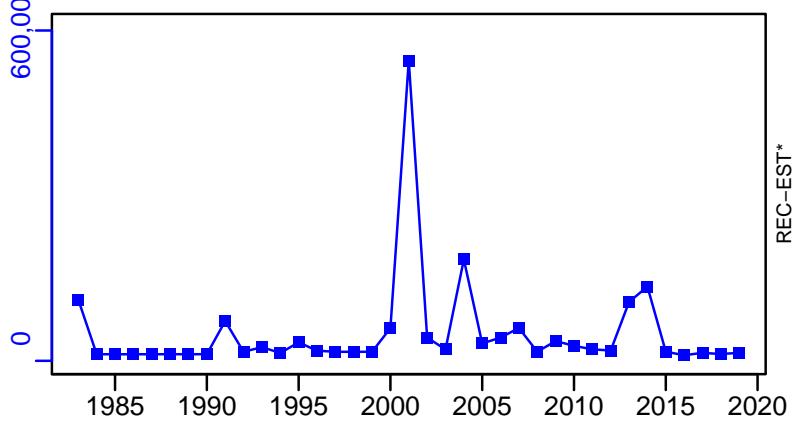
$TN^*$

$F^*$

ER-ratio (1983–2022-HIVELY)



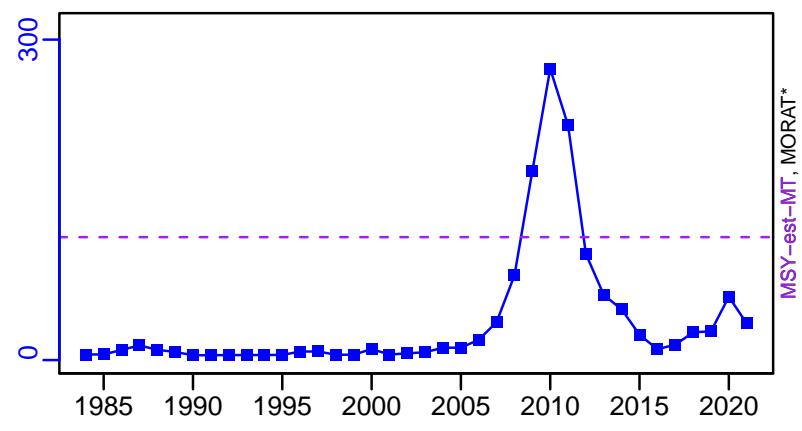
R-E00 (1983–2022-HIVELY)



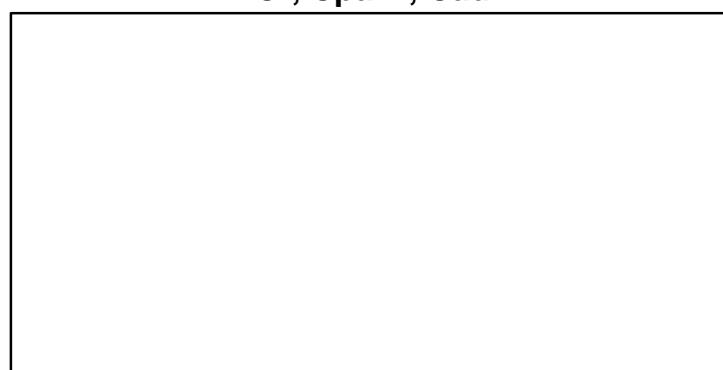
**Snapper South-East Region [SNAPSAUSSER]**

TC-MT, TL\*, RecC\* (1983–2022-HIVELY)

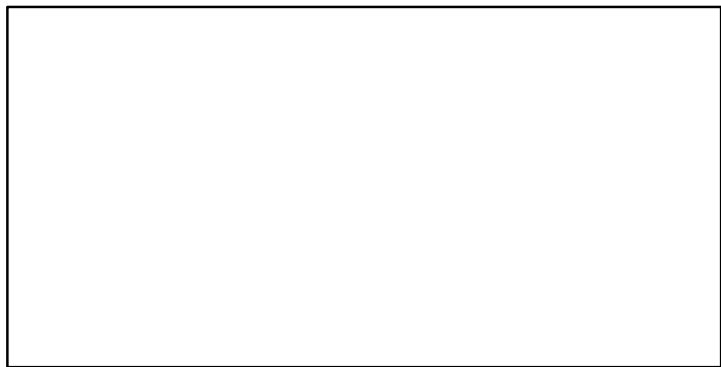
TAC\*, Cpair\*, Cadv\*



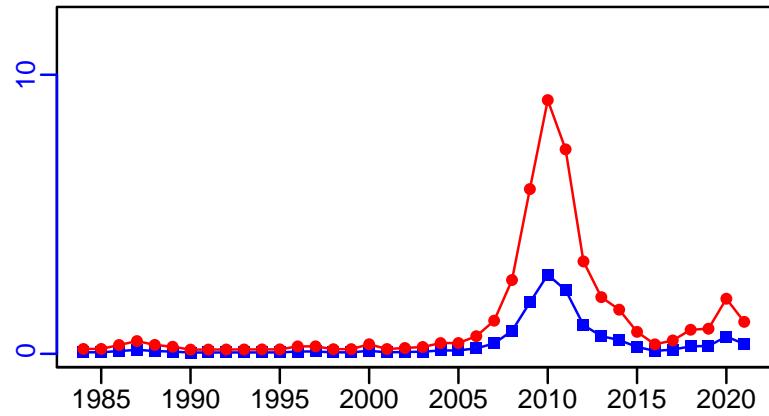
CPUE\*



EFFORT\*



TC-MT/MSY-est-MT, CdivMEANC-ratio, (1983–2022-HIVELY)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Snapper Spencer Gulf and West Coast [SNAPSAUSSGWC]

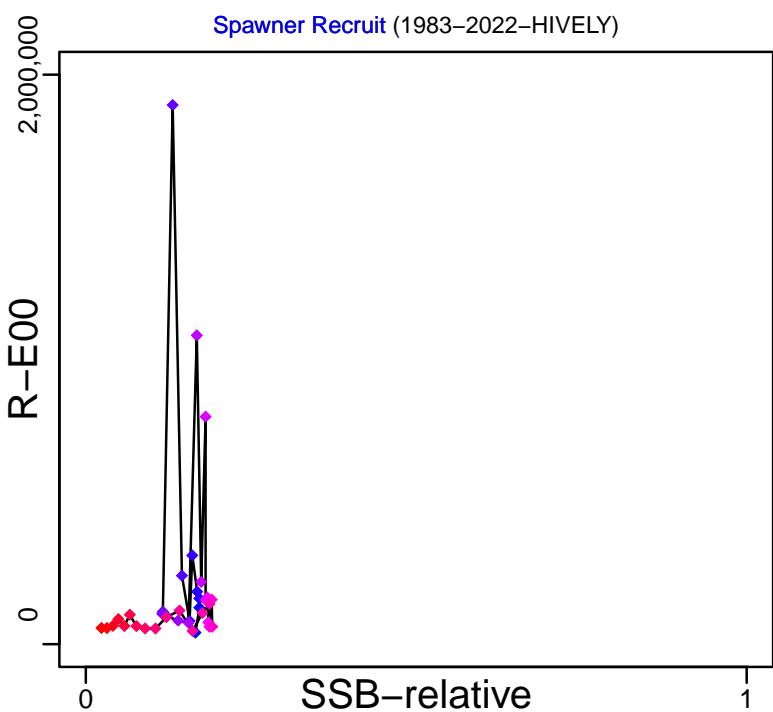
<b>Metadata</b>	
<b>Scientific Name</b>	Chrysophrys auratus
<b>Current Assess ID</b>	SARDI-SNAPSAUSSGWC-1983-2022-HIVELY
<b>Area</b>	Spencer Gulf and West Coast
<b>Management Authority</b>	South Australian Research and Development Institute
<b>Assessor</b>	South Australian Research and Development Institute
<b>Asmts in RAM</b>	2022

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

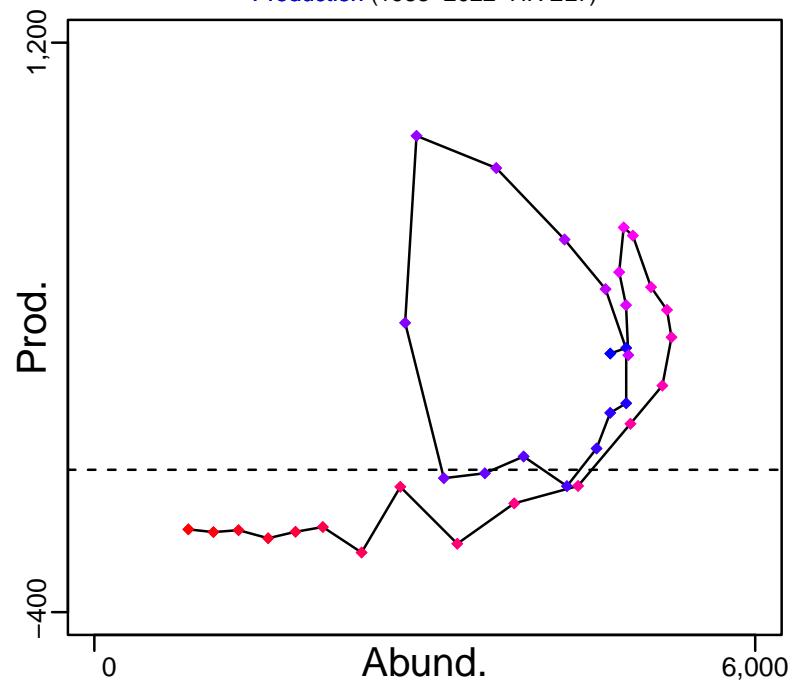
<b>Time Series</b>						
Type	ID	Asmt Year	Curr Value	Sex	Age	
<b>TB</b>	TB-MT	2022	543	-	-	
<b>SSB</b>	SSB-relative	2022	0.021	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2022	56,888	-	-	
<b>F</b>	-	-	-	-	-	
<b>ER</b>	ER-ratio	2022	0.02	-	-	
<b>TC</b>	TC-MT	2022	47			
<b>TL</b>	-	-	-			
<b>TB/TBmsy</b>	-	-	-			
<b>SSB/SSBmsy</b>	-	-	-			
<b>F/Fmsy</b>	-	-	-			
<b>ER/ERmsy</b>	-	-	-			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

**Kobe MSY\*****Kobe MGT\***

Spawner Recruit (1983–2022–HIVELY)



Production (1983–2022–HIVELY)

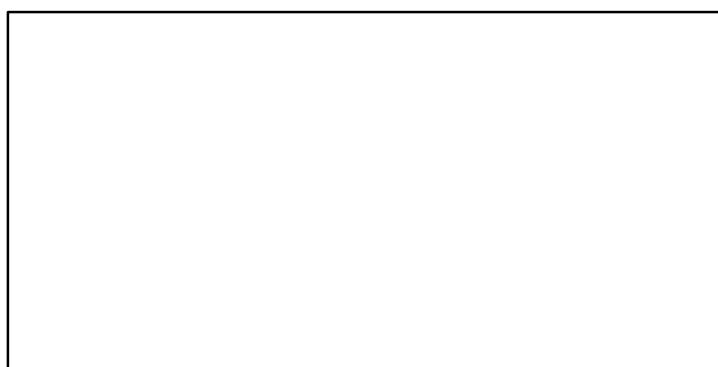
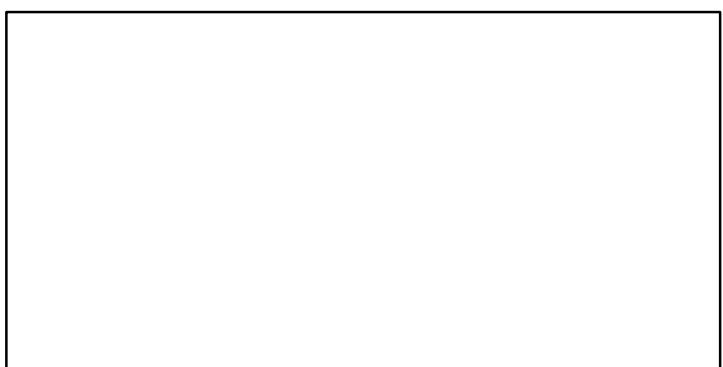
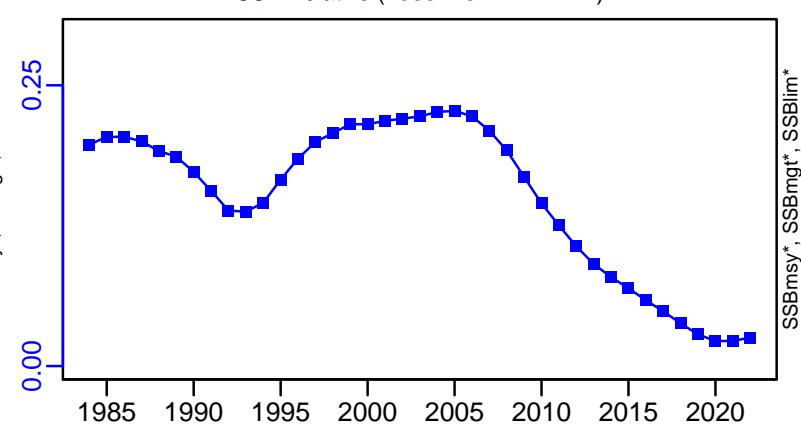
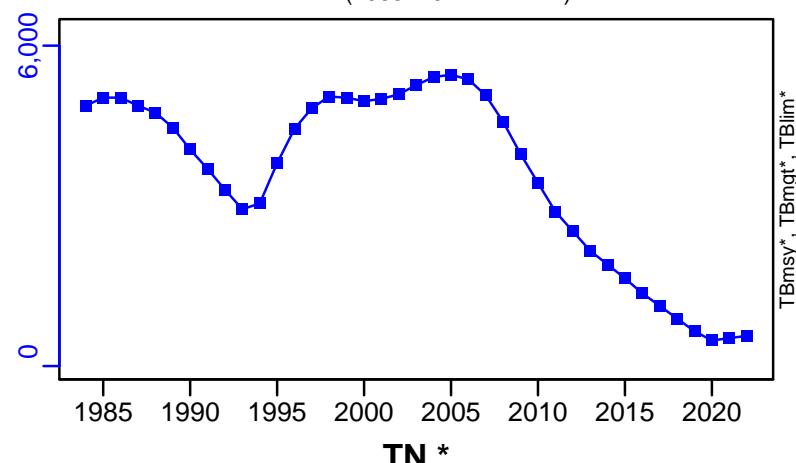


◆ Start Year   ◆ End Year   \* No Data

**Snapper Spencer Gulf and West Coast [SNAPSAUSSGWC]**

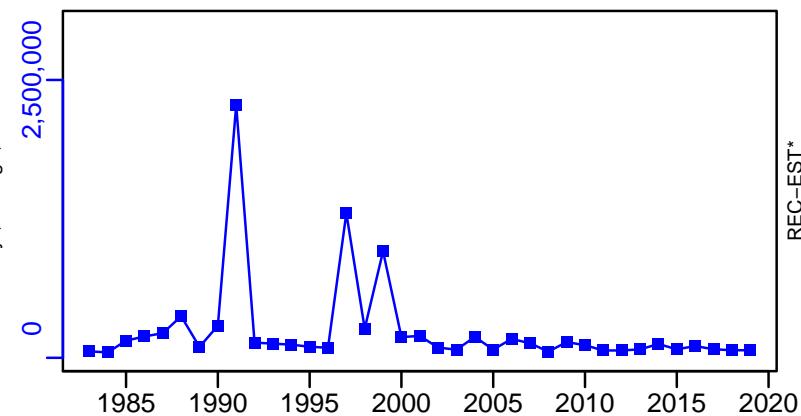
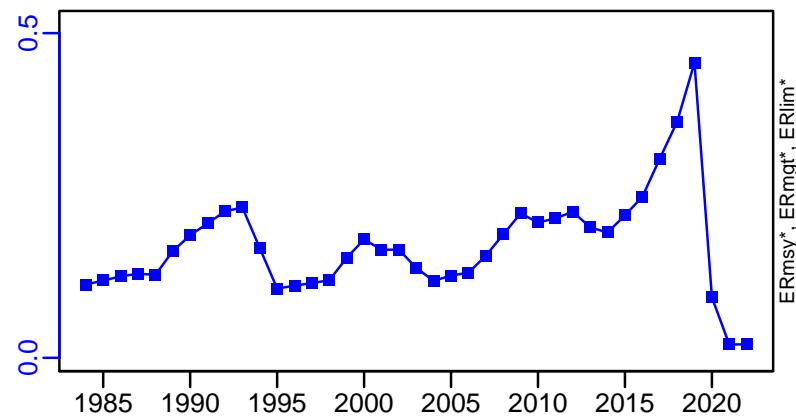
TB-MT (1983–2022–HIVELY)

SSB-relative (1983–2022–HIVELY)



ER-ratio (1983–2022–HIVELY)

R-E00 (1983–2022–HIVELY)

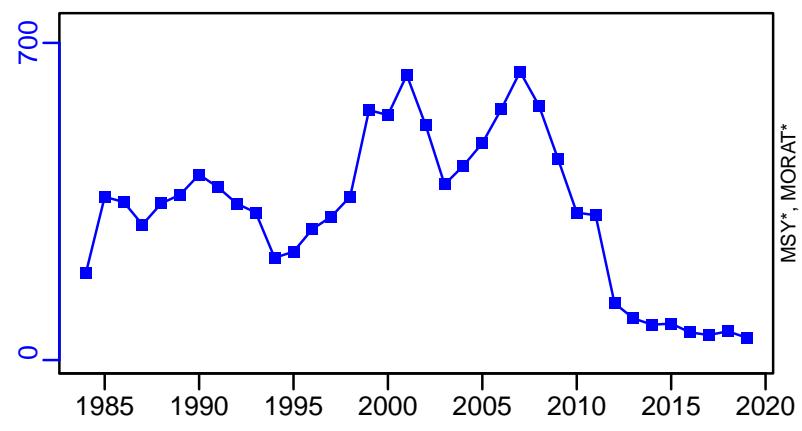


■ Listed time series	— Target BRP	— Rec-Est
- - MSY-based BRP	--- Lim BRP	* No Data

**Snapper Spencer Gulf and West Coast [SNAPSAUSSGWC]**

TC-MT, TL\*, RecC\* (1983–2022-HIVELY)

TAC\*, Cpair\*, Cadv\*



**survB\***

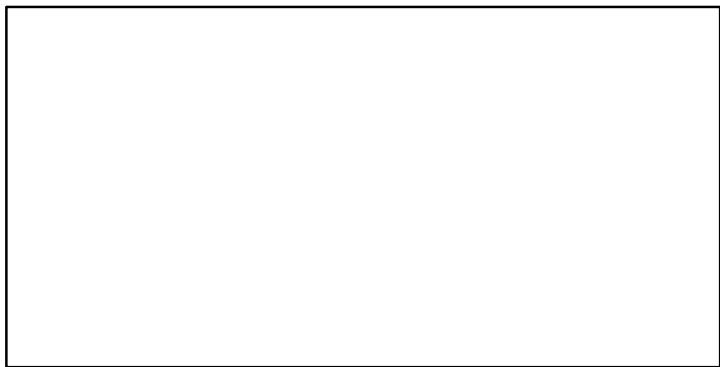
MSY\*, MORAT\*



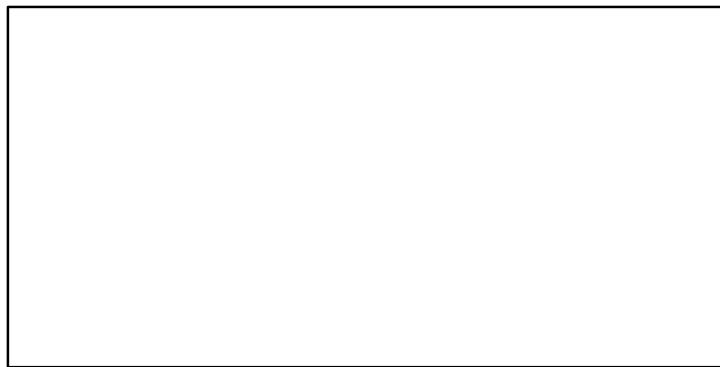
**CPUE\***



**EFFORT\***



**CdivMSY\***



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - - MSY                | * No Data |

## Snowy grouper Southern Atlantic coast [SNOWGROUPSATLC]

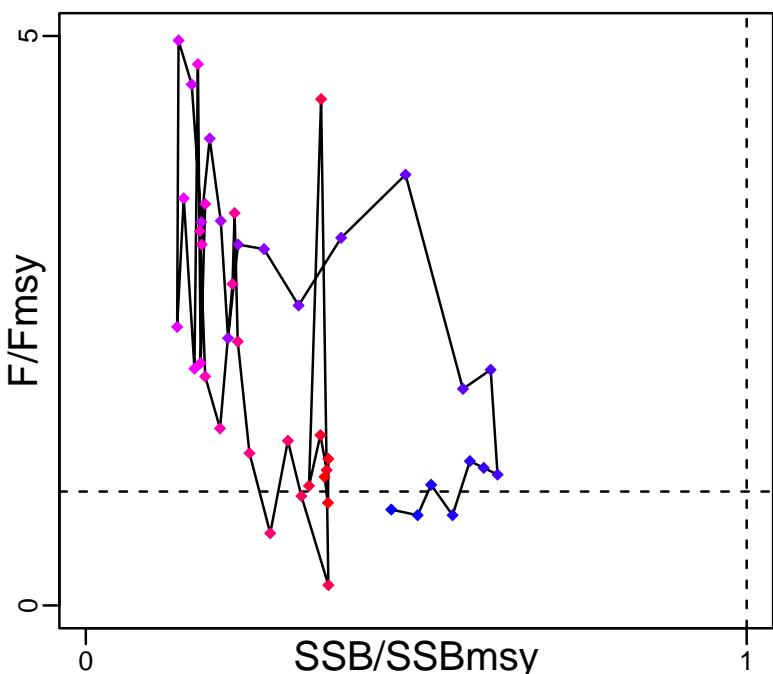
<b>Metadata</b>	
<b>Scientific Name</b>	Epinephelus niveatus
<b>Current Assess ID</b>	SEFSC-SNOWGROUPSATLC-1974-2018-SISIMP2021-2
<b>Area</b>	Southern Atlantic coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southeast Fisheries Science Center
<b>Asmts in RAM</b>	2013, 2018

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-MT	2013	2092
<b>SSBmsy</b>	SSBmsy-MT	2018	1910
<b>Fmsy</b>	Fmsy-1/yr	2018	0.101
<b>ERmsy</b>	ERmsy-calc-ratio	2013	0.091
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2018	241
<b>M</b>	M-1/yr	2013	0.15
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2018	1430
<b>Flim</b>	Flim-1/yr	2018	0.101
<b>ERlim</b>	-	-	-

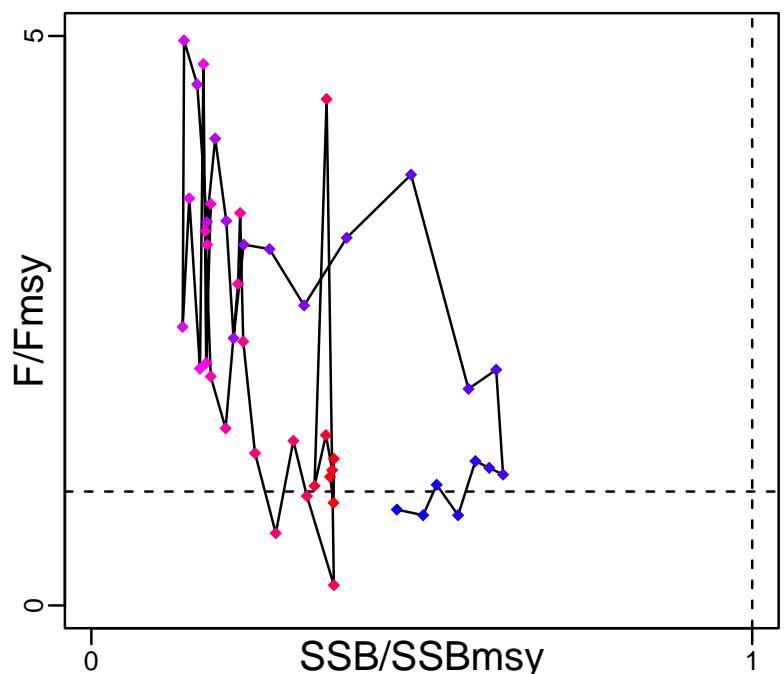
<b>Time Series</b>						
Type	ID	Asmt Year	Curr Value	Sex	Age	
<b>TB</b>	TB-MT	2013	1200	-	-	
<b>SSB</b>	SSB-MT	2018	690	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2018	197,000	-	1	
<b>F</b>	F-1/yr	2018	0.114	-	-	
<b>ER</b>	ER-calc-ratio	2013	0.097	-	-	
<b>TC</b>	TC-MT	2018	105			
<b>TL</b>	TL-MT	2013	110			
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2013	0.574			
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2018	0.361			
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2018	1.129			
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-calc-ratio	2013	1.072			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

**Snowy grouper Southern Atlantic coast [SNOWGROUPSATLC]**

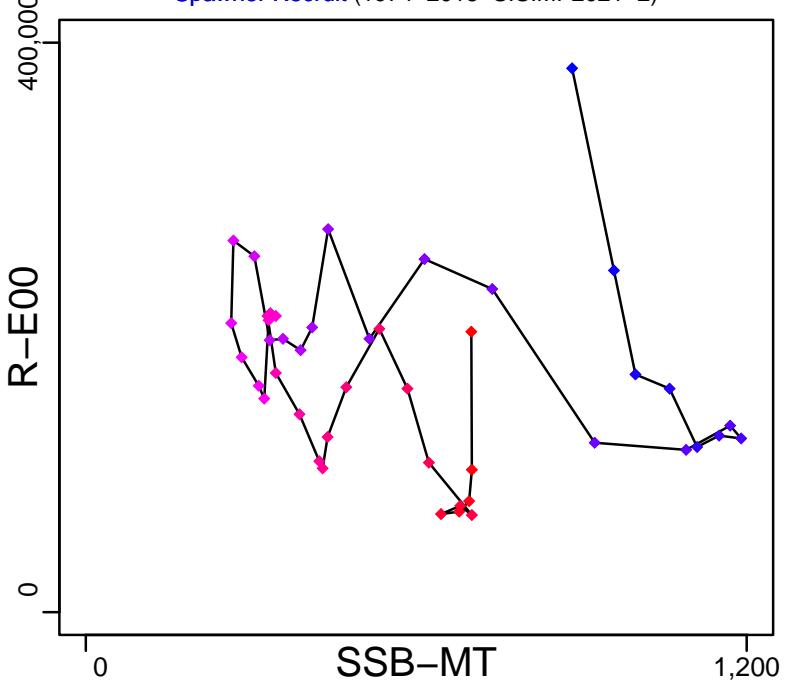
Kobe MSYpref (1974–2018–SISIMP2021–2)



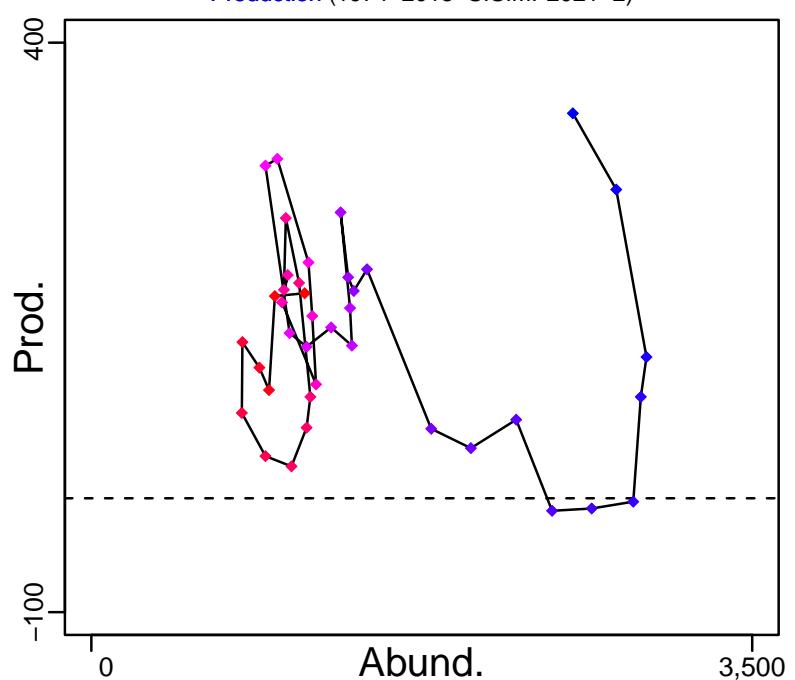
Kobe MGTpref (1974–2018–SISIMP2021–2)



Spawner Recruit (1974–2018–SISIMP2021–2)



Production (1974–2018–SISIMP2021–2)

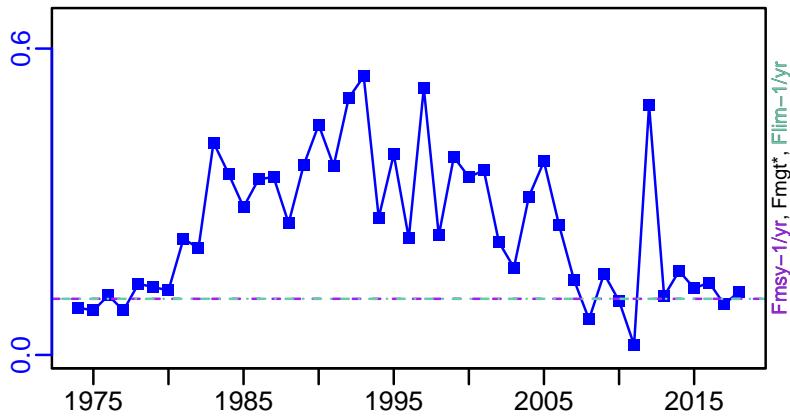
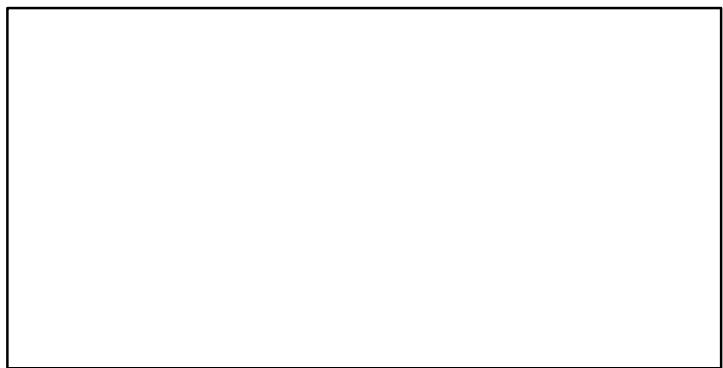
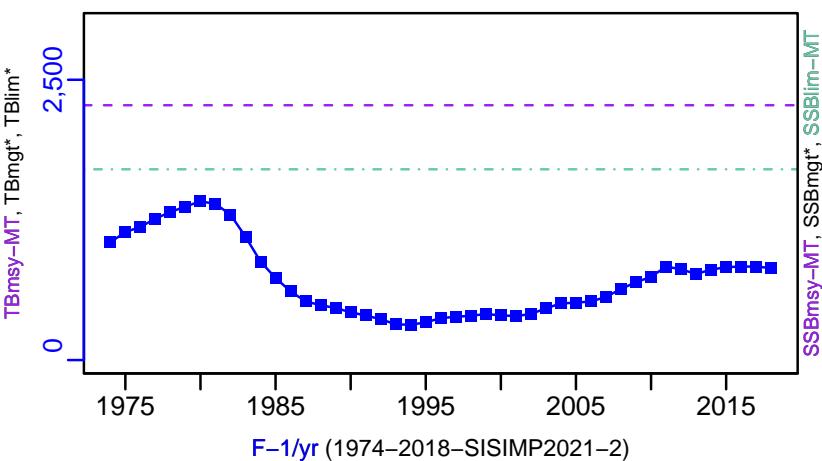
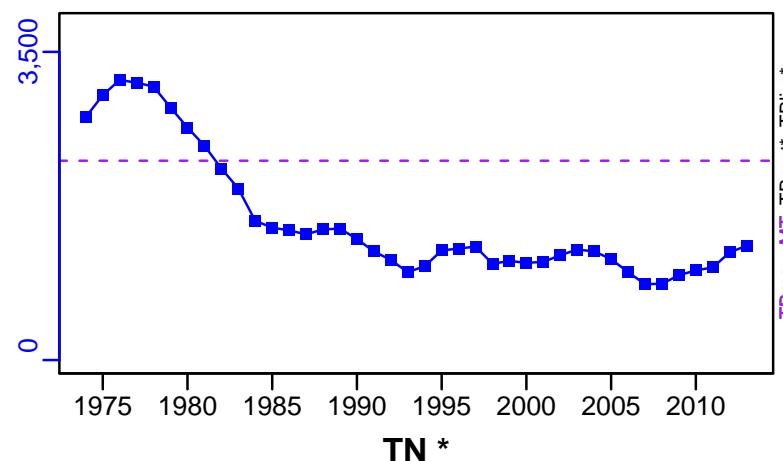


◆ Start Year	◆ End Year	*	No Data
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Snowy grouper Southern Atlantic coast [SNOWGROUPSATLC]

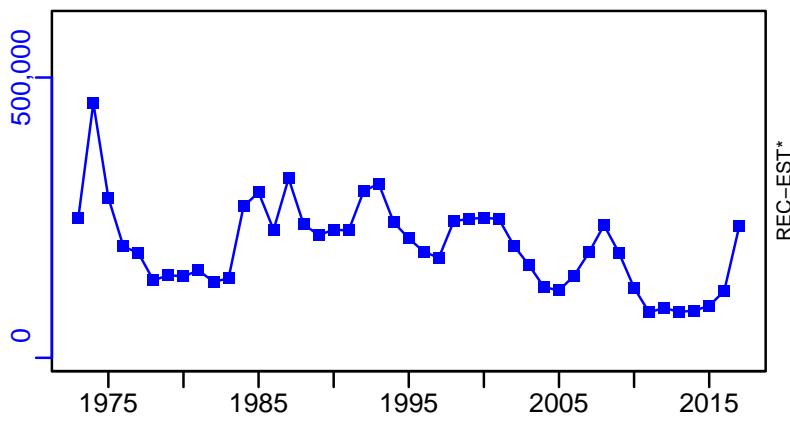
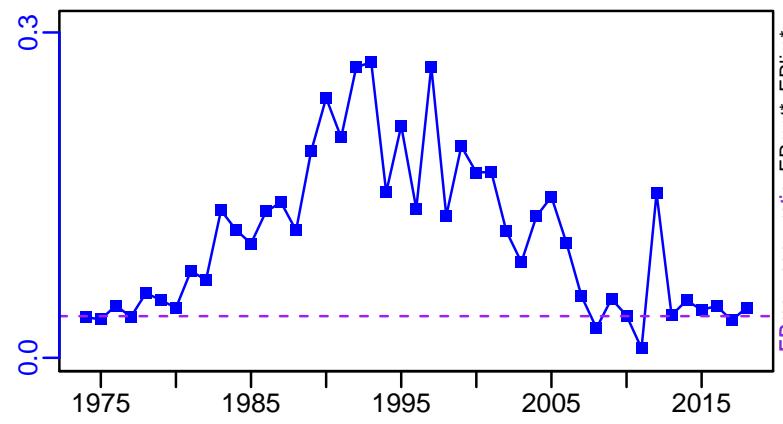
TB-MT (1974–2013-HIVELY)

SSB-MT (1974–2018-SISIMP2021-2)



ER-calc-ratio (1974–2018-SISIMP2021-2)

R-E00 (1974–2018-SISIMP2021-2)

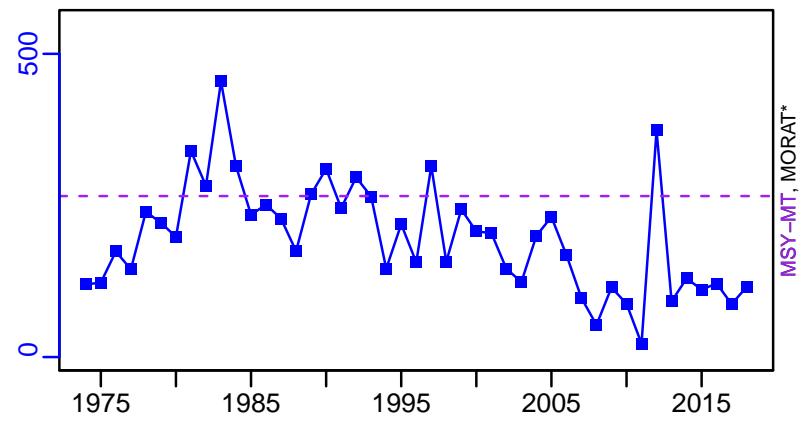


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - - Lim BRP	* No Data

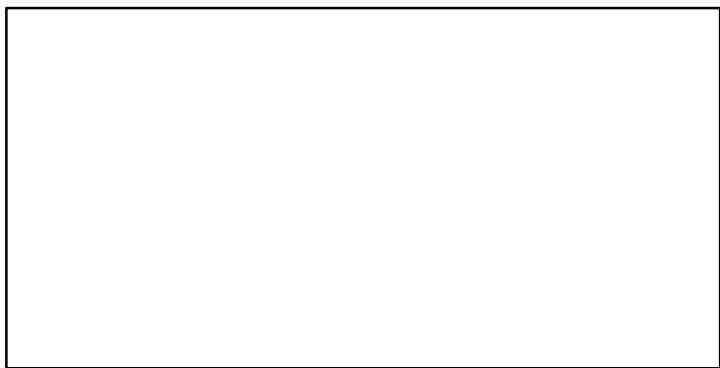
**Snowy grouper Southern Atlantic coast [SNOWGROUPSATLC]**

TC-MT, TL\*, RecC\* (1974–2018–SISIMP2021–2)

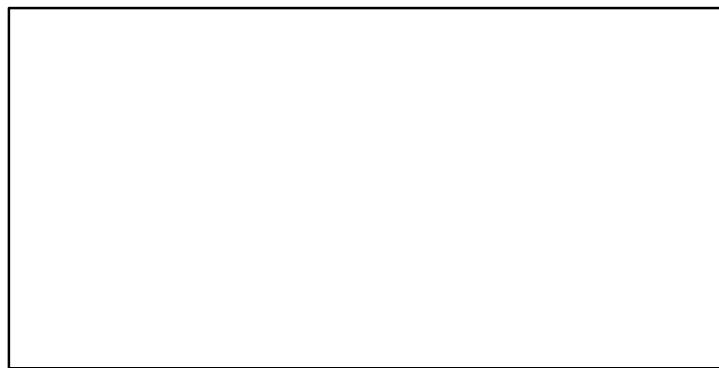
TAC\*, Cpair\*, Cadv\*



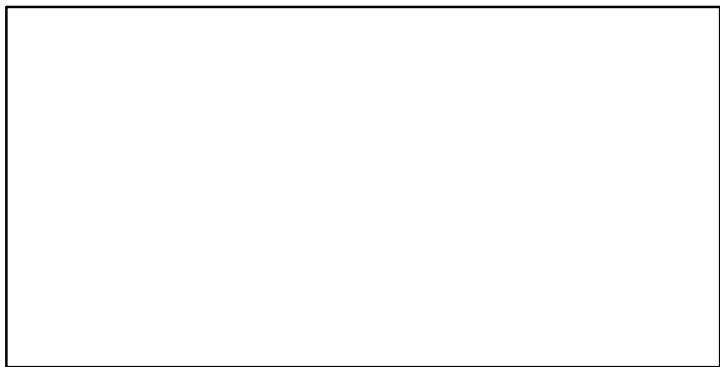
**survB\***



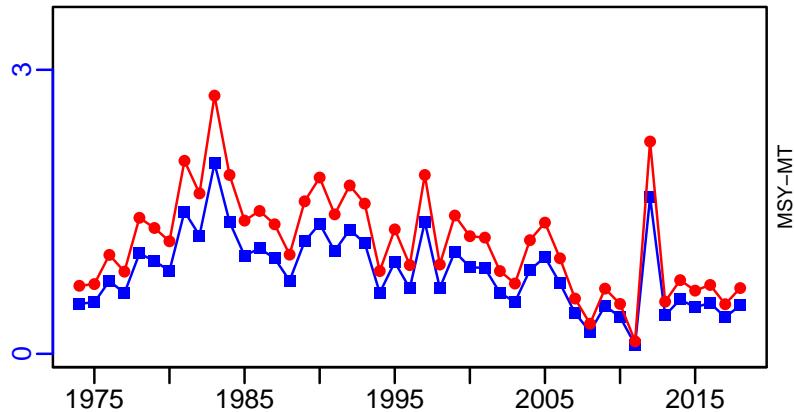
**CPUE\***



**EFFORT\***



TC-MT/MSY-MT, CdivMEANC-ratio, (1974–2018–SISIMP2021–2)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Striped bass Gulf of Maine / Cape Hatteras [STRIPEDBASSGOMCHATT]

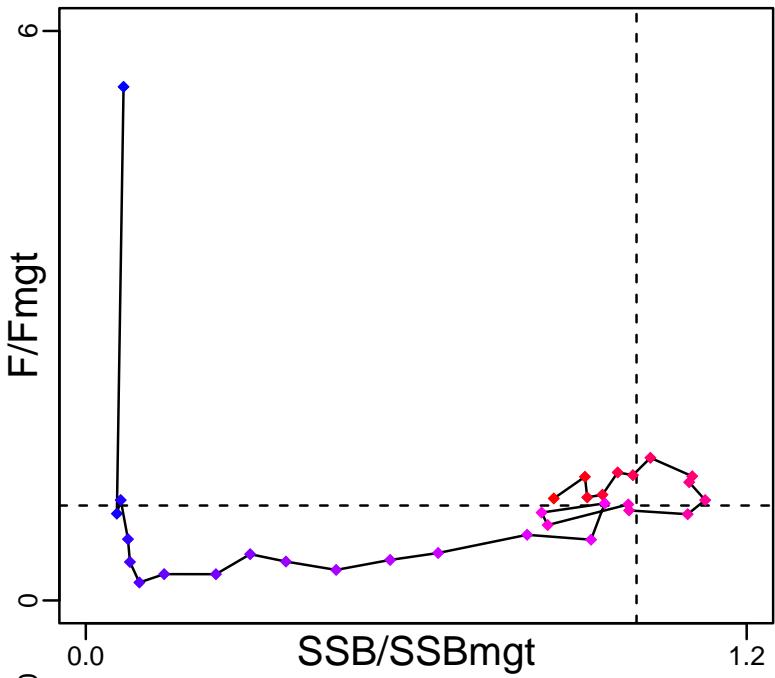
Metadata	
<b>Scientific Name</b>	Morone saxatilis
<b>Current Assess ID</b>	NEFSC-STRIPEDBASSGOMCHATT-1981-2012-HIVELY
<b>Area</b>	Gulf of Maine / Cape Hatteras
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northeast Fisheries Science Center
<b>Asmts in RAM</b>	2012

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2012	72,380
<b>Fmgt</b>	Fmgt-1/yr	2012	0.175
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

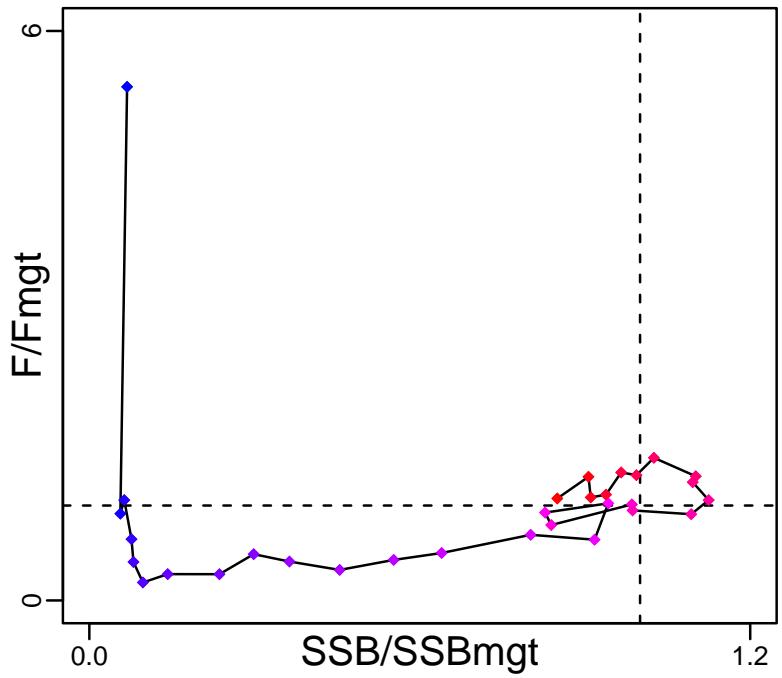
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
<b>TB</b>	-	-	-	-	-	-
<b>SSB</b>	SSB-MT	2012	61,500	Females	4+	
<b>TN</b>	TN-E00	2012	$2.15 \times 10^8$	-	-	
<b>R</b>	R-E00	2012	$1.44 \times 10^8$	-	1	
<b>F</b>	F-1/yr	2012	0.188	-	-	
<b>ER</b>	ER-calc-ratio	2012	0.017	-	-	
<b>TC</b>	TC-E00	2012	3,600,000			
<b>TL</b>	TL-MT	2012	3080			
<b>TB/TBmsy</b>	-	-	-			
<b>SSB/SSBmsy</b>	-	-	-			
<b>F/Fmsy</b>	-	-	-			
<b>ER/ERmsy</b>	-	-	-			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2012	0.85			
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2012	1.074			
<b>ER/ERmgt</b>	-	-	-			

**Striped bass Gulf of Maine / Cape Hatteras [STRIPEDBASSGOMCHATT]**

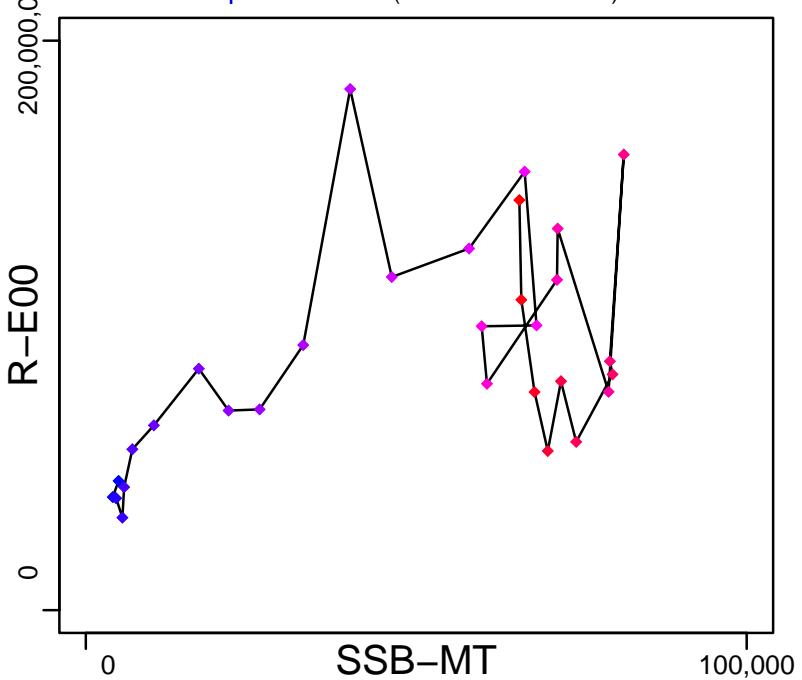
Kobe MSYpref (1981–2012–HIVELY)



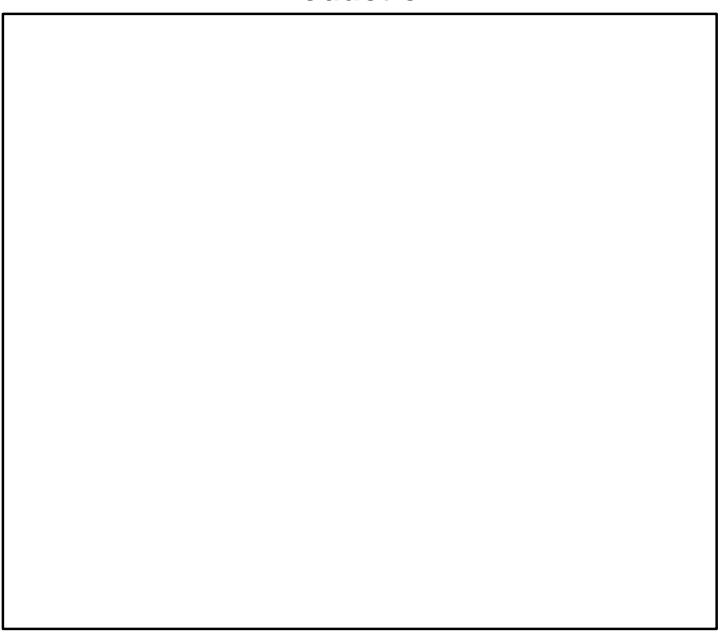
Kobe MGTPref (1981–2012–HIVELY)



Spawner Recruit (1981–2012–HIVELY)



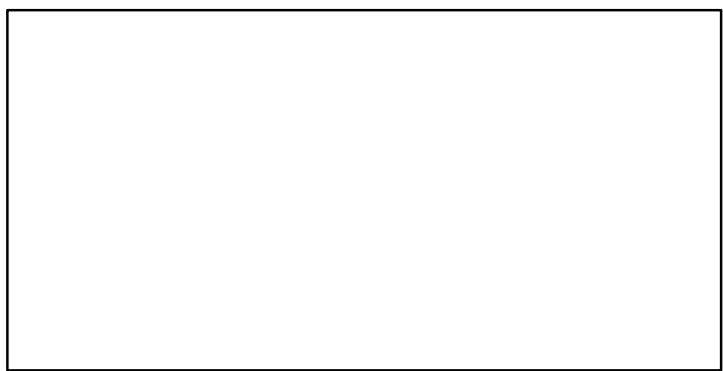
Production\*



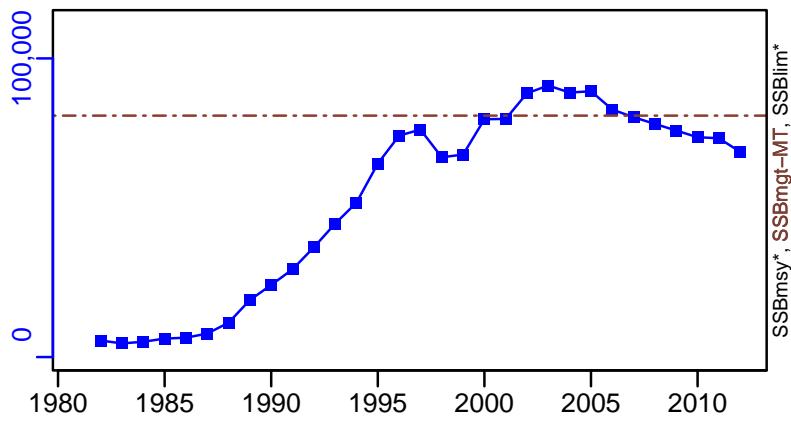
◆ Start Year   ◆ End Year   \* No Data

Striped bass Gulf of Maine / Cape Hatteras [STRIPEDBASSGOMCHATT]

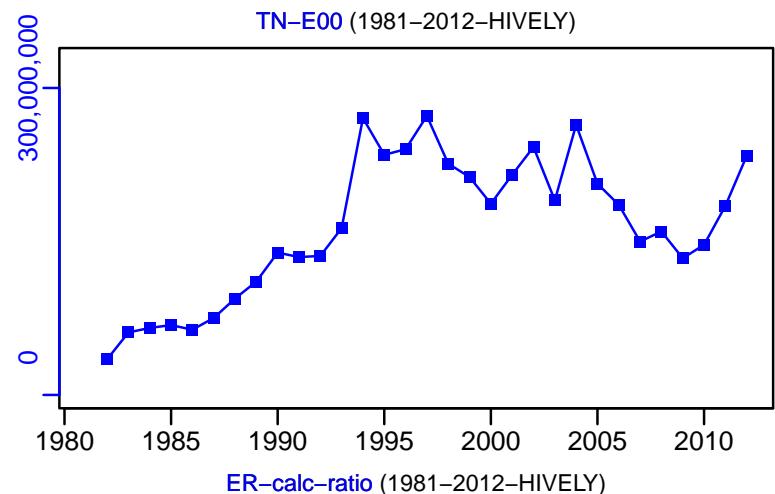
**TB\***



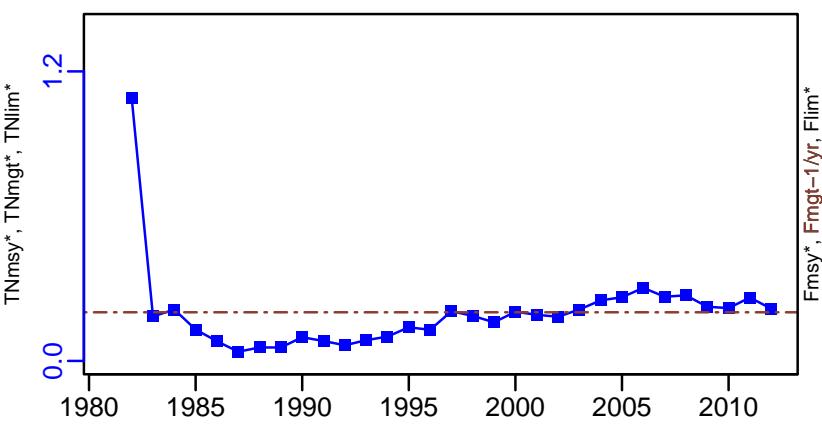
SSB-MT (1981–2012–HIVELY)



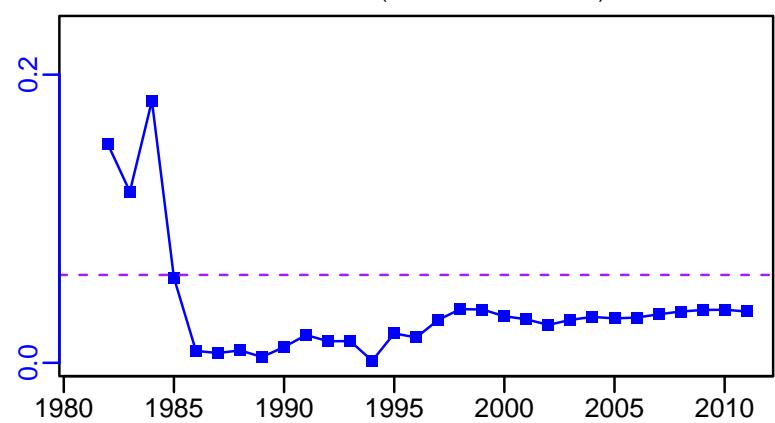
TN-E00 (1981–2012–HIVELY)



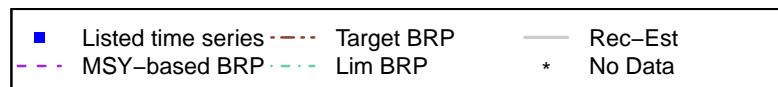
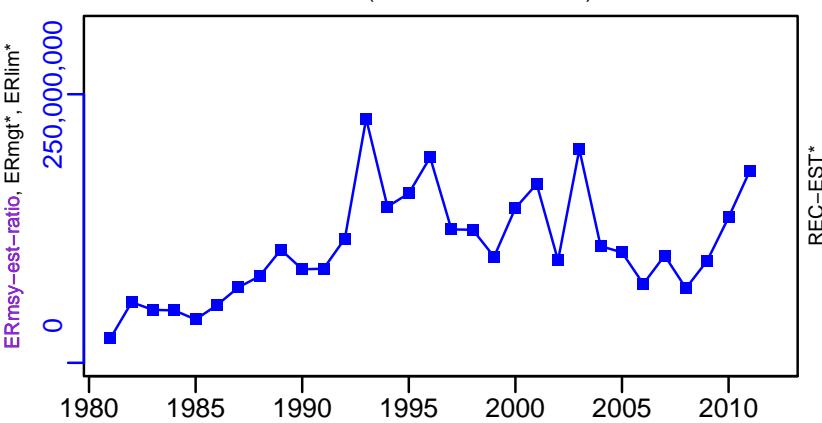
F-1/yr (1981–2012–HIVELY)



ER-calc-ratio (1981–2012–HIVELY)



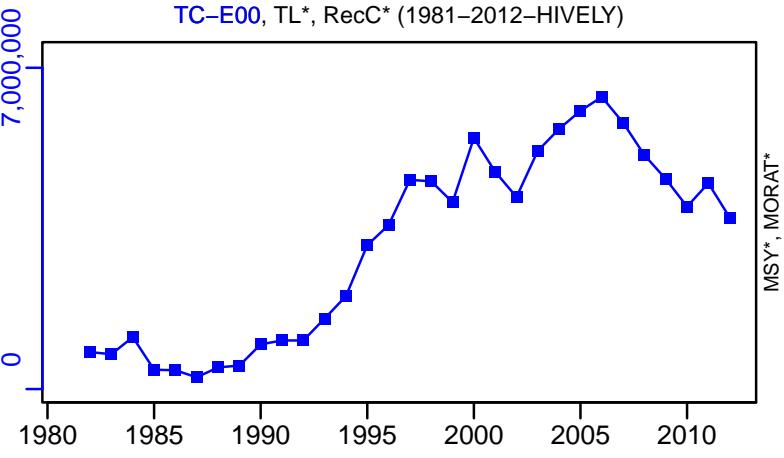
R-E00 (1981–2012–HIVELY)



Striped bass Gulf of Maine / Cape Hatteras [STRIPEDBASSGOMCHATT]

TC-E00, TL\*, RecC\* (1981–2012–HIVELY)

TAC\*, Cpair\*, Cadv\*



survB\*

CPUE\*

EFFORT\*

CdivMSY\*

- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - - MSY                | * No Data |

### Striped red mullet ICES 3a-4-7d [STRMULLIIla-IV-VIId]

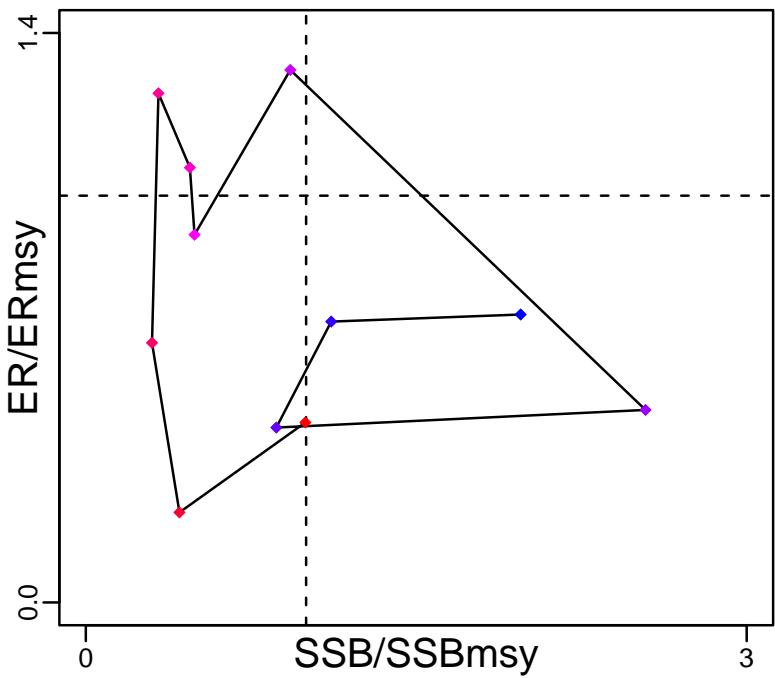
<b>Metadata</b>	
<b>Scientific Name</b>	Mullus surmuletus
<b>Current Assess ID</b>	WGNSSK-STRMULLIIla-IV-VIId-2004-2020-ICESIMP2021-2
<b>Area</b>	ICES 3a-4-7d
<b>Management Authority</b>	International Council for the Exploration of the Sea
<b>Assessor</b>	Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak
<b>Asmts in RAM</b>	2014, 2016, 2018, 2020

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

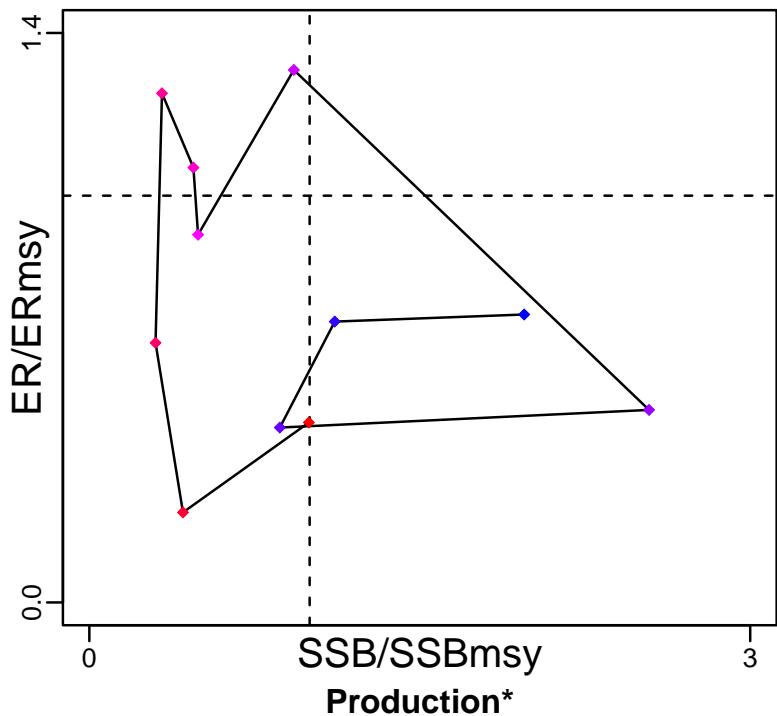
<b>Time Series</b>						
Type	ID	Asmt Year	Curr Value	Sex	Age	
<b>TB</b>	-	-	-	-	-	
<b>SSB</b>	SSB-relative	2018	0.591	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-relative	2018	7	-	-	
<b>F</b>	F-relative	2018	2.077	-	1 to 2	
<b>ER</b>	-	-	-	-	-	
<b>TC</b>	TC-MT	2018	1648			
<b>TL</b>	TL-MT	2020	3500			
<b>TB/TBmsy</b>	-	-	-			
<b>SSB/SSBmsy</b>	-	-	-			
<b>F/Fmsy</b>	-	-	-			
<b>ER/ERmsy</b>	-	-	-			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

Striped red mullet ICES 3a-4-7d [STRMULLIa-IV-VIId]

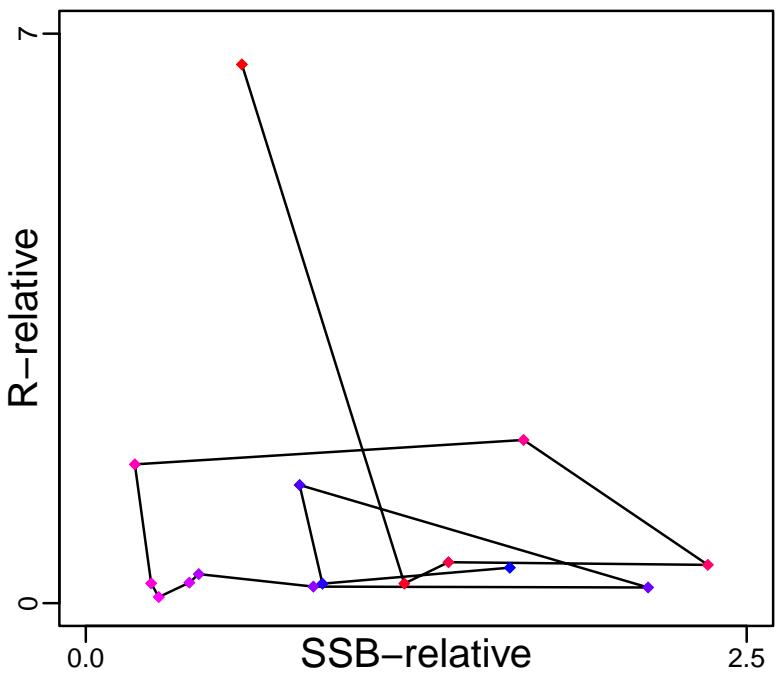
Kobe MSYpref (1975–2014–ICESIMP2018)



Kobe MGTpref (1975–2014–ICESIMP2018)



Spawner Recruit (2004–2018–ICESIMP2021)



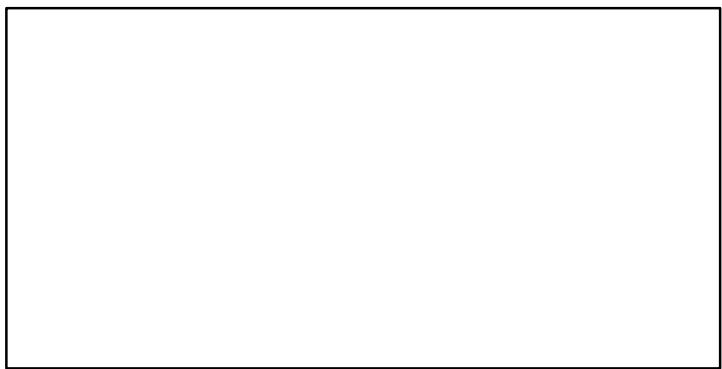
Production\*



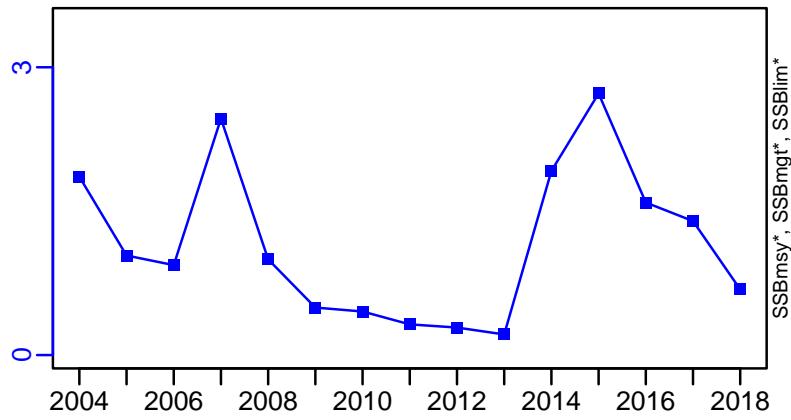
♦ Start Year   ♦ End Year   \* No Data

Striped red mullet ICES 3a-4-7d [STRMULLIa-IV-VIId]

**TB\***



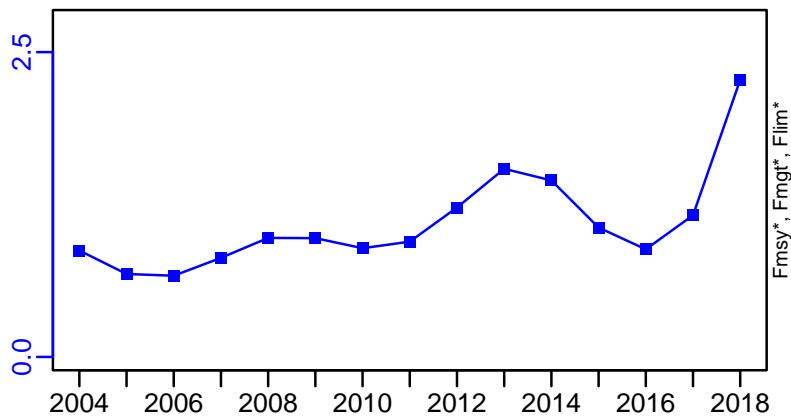
SSB-relative (2004–2018–ICESIMP2021)



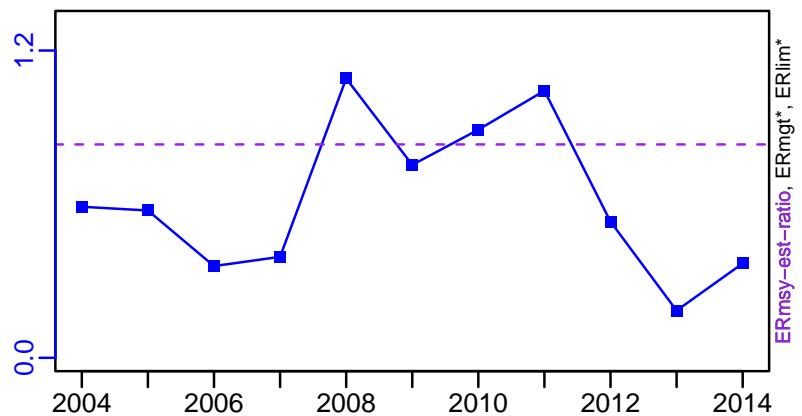
**TN \***



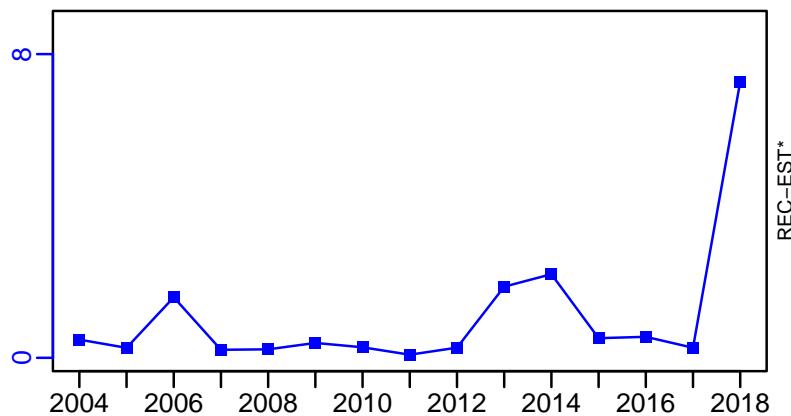
F-relative (2004–2018–ICESIMP2021)



ER-calc-ratio (1975–2014–ICESIMP2018)



R-relative (2004–2018–ICESIMP2021)

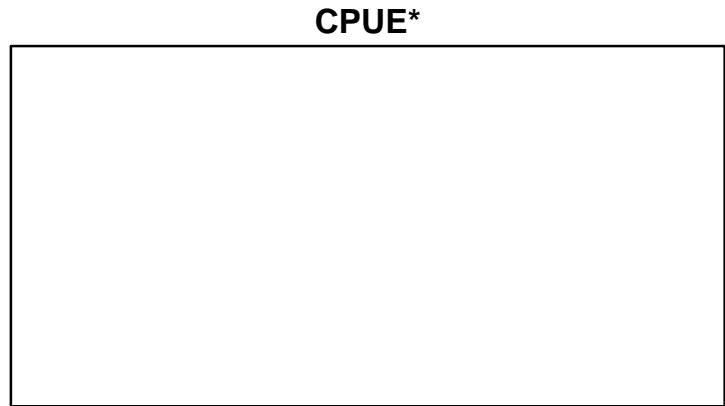
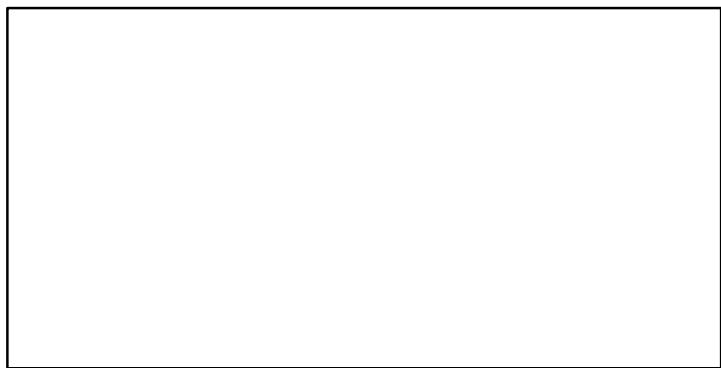
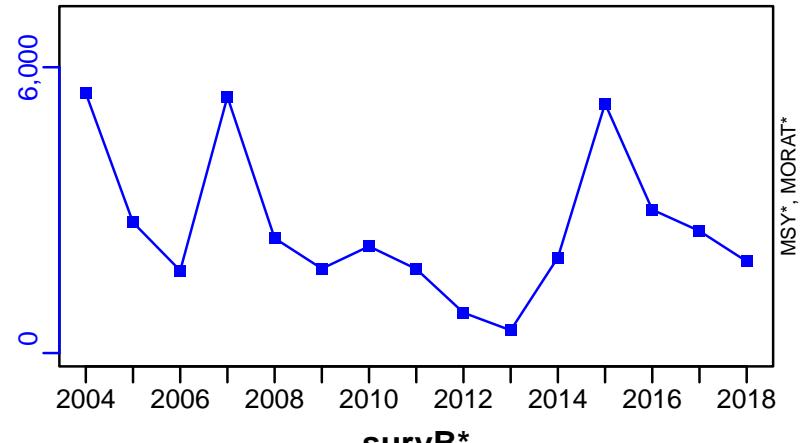


■ Listed time series	— Target BRP	— Rec-Est
- - MSY-based BRP	·· Lim BRP	* No Data

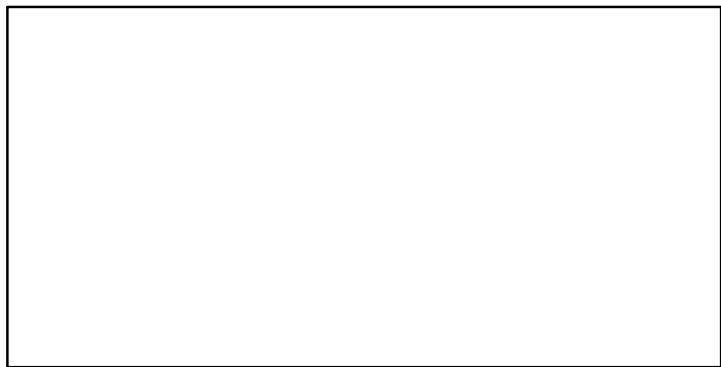
Striped red mullet ICES 3a-4-7d [STRMULLIlla-IV-VIId]

TC-MT, TL\*, RecC\* (2004–2018–ICESIMP2021)

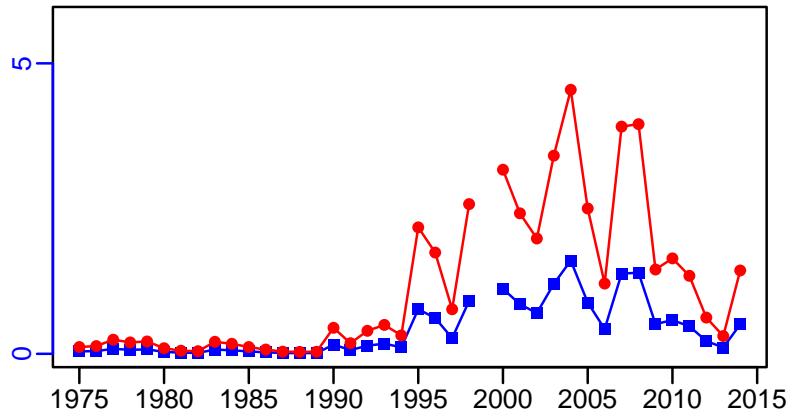
TAC\*, Cpair\*, Cadv\*



EFFORT\*



TL-MT/MSY-est-MT, CdivMEANC-ratio, (1975–2014–ICESIMP2018)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - MSY	* No Data

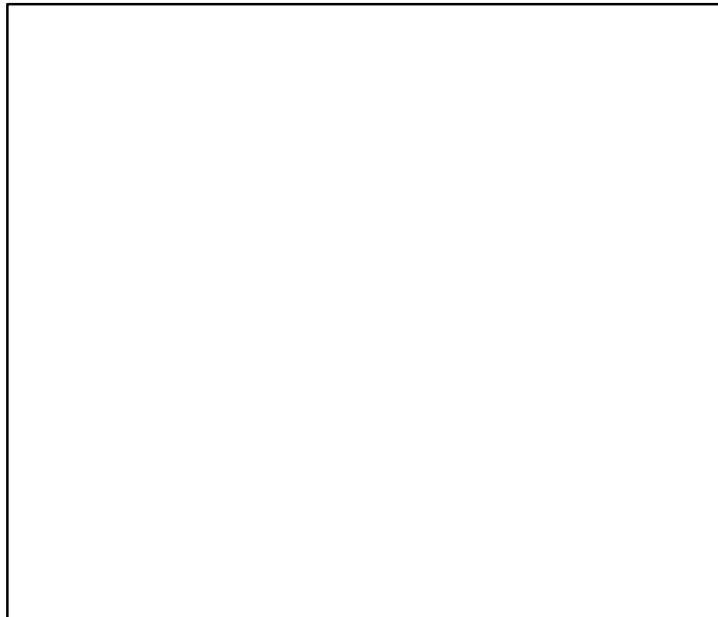
## Striped red mullet ICES 6-7abcefghijk-8-9a [STRMULLVI-VIIabcefghijk-VIII-IXa]

<b>Metadata</b>	
<b>Scientific Name</b>	Mullus surmuletus
<b>Current Assess ID</b>	WGWISE-STRMULLVI-VIIabcefghijk-VIII-IXa-1979-2019-ICESIMP2021-2
<b>Area</b>	ICES 6-7abcefghijk-8-9a
<b>Management Authority</b>	International Council for the Exploration of the Sea
<b>Assessor</b>	Working Group on Widely Distributed Stocks
<b>Asmts in RAM</b>	2014, 2016, 2019

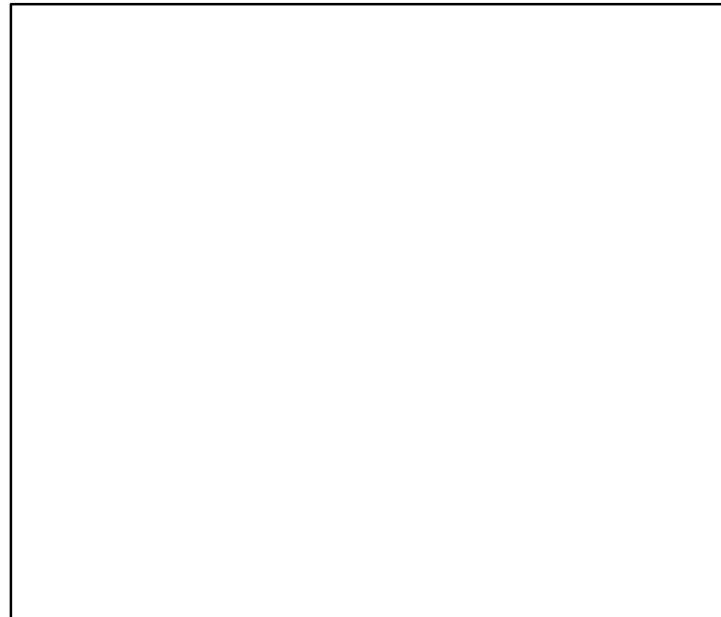
<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

<b>Time Series</b>					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	-	-	-		
<b>TL</b>	TL-MT	2019	1850		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

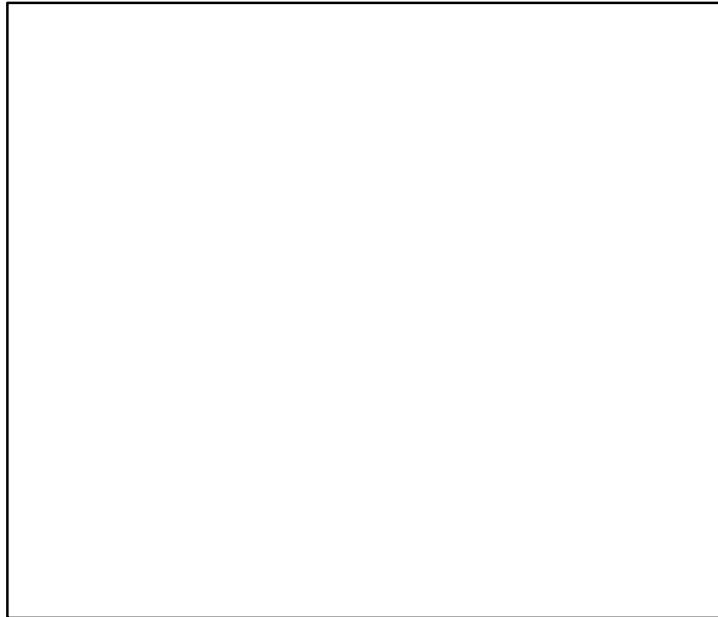
**Kobe MSY\***



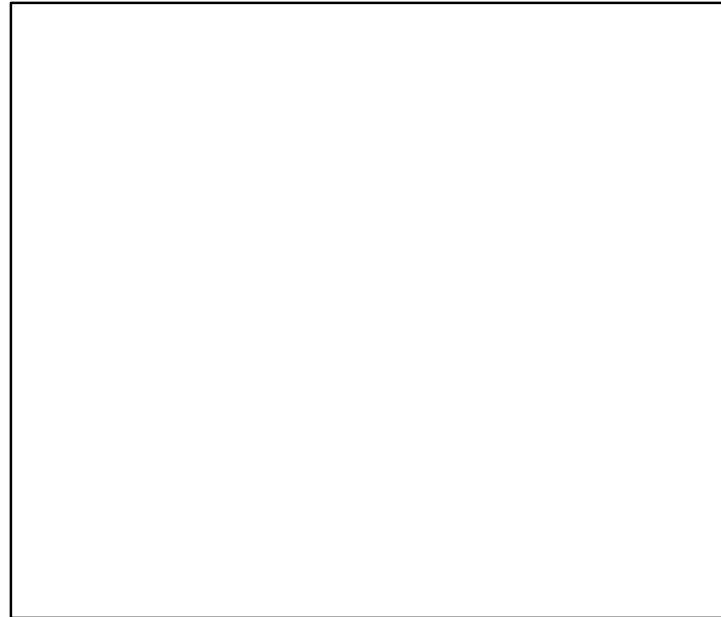
**Kobe MGT\***



**Spawner Recruit\***



**Production\***



◆ Start Year ♦ End Year \* No Data

**Striped red mullet ICES 6–7abcefghijk–8–9a [STRMULLVI–VIIabcefghijk–VIII–IXa]**

**TB\***



**SSB\***



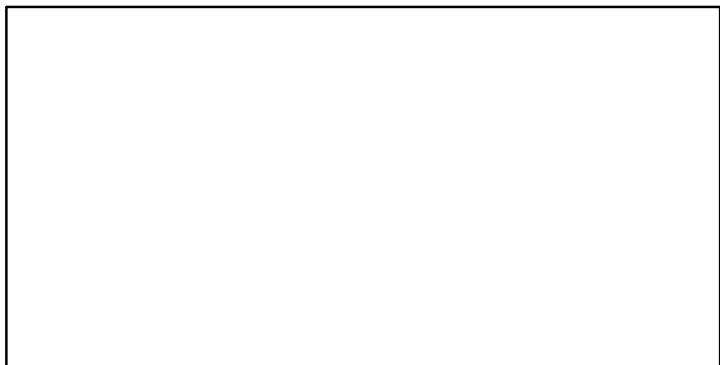
**TN \***



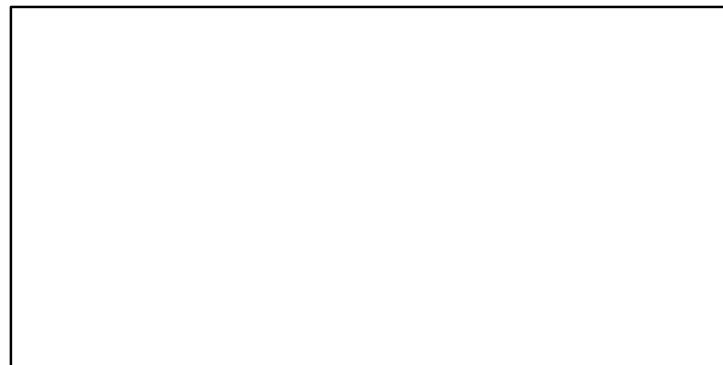
**F\***



**ER\***



**Recruits\***

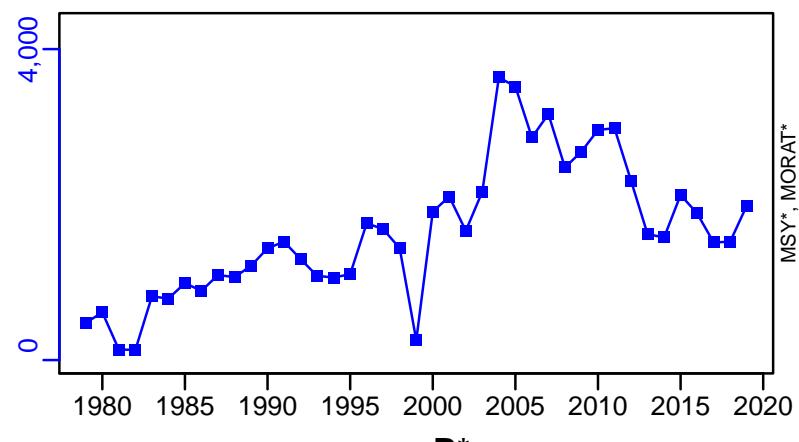


- |                      |                  |           |
|----------------------|------------------|-----------|
| ■ Listed time series | - - - Target BRP | — Rec-Est |
| - - - MSY-based BRP  | - - - Lim BRP    | * No Data |

Striped red mullet ICES 6–7abcefghijk–8–9a [STRMULLVI–VIIabcefghijk–VIII–IXa]

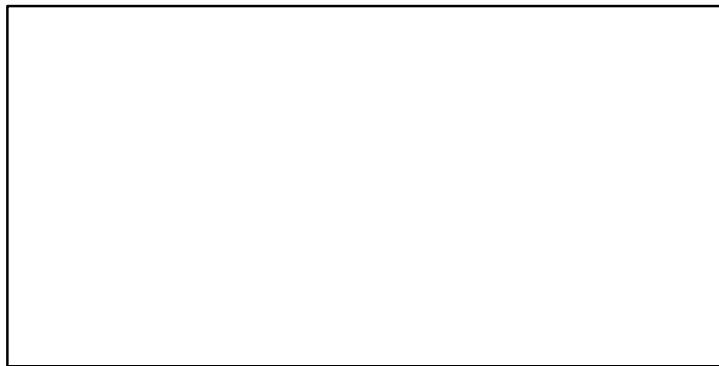
TL–MT, TC\*, RecC\* (1979–2019–ICESIMP2021–2)

TAC\*, Cpair\*, Cadv\*

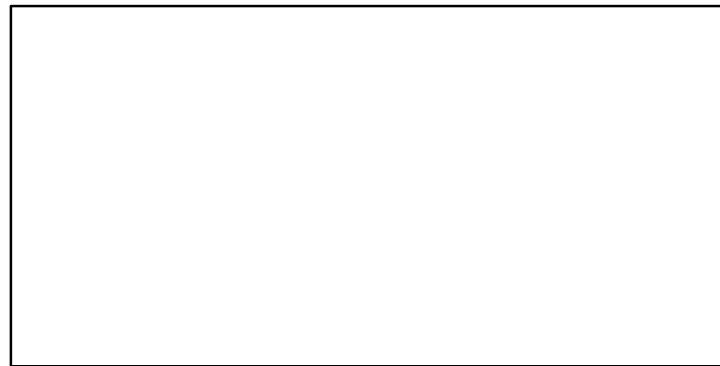


MSY\*, MORAT\*

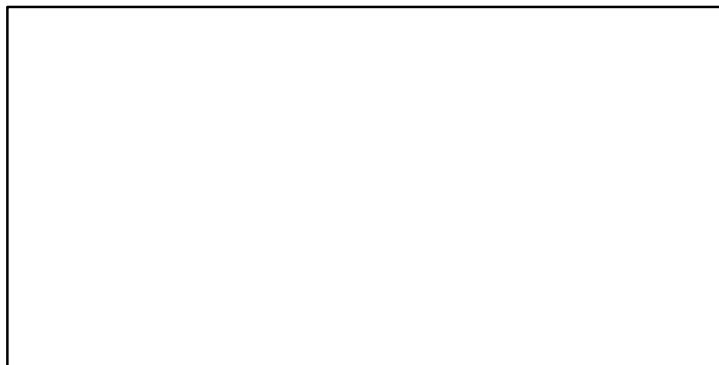
survB\*



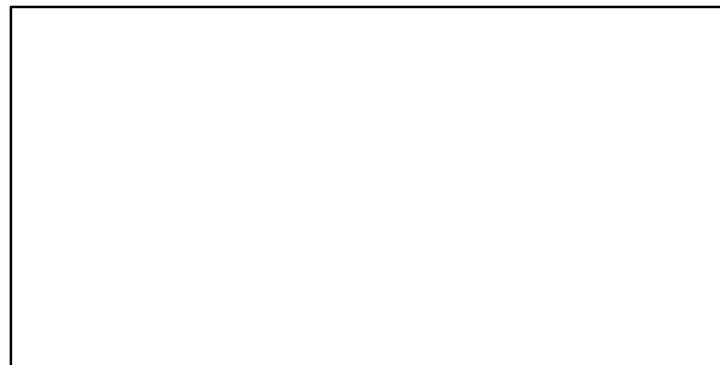
CPUE\*



EFFORT\*



CdivMSY\*



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - MSY	* No Data

## Sleek unicornfish Main Hawaiian Islands [SUNIMHI]

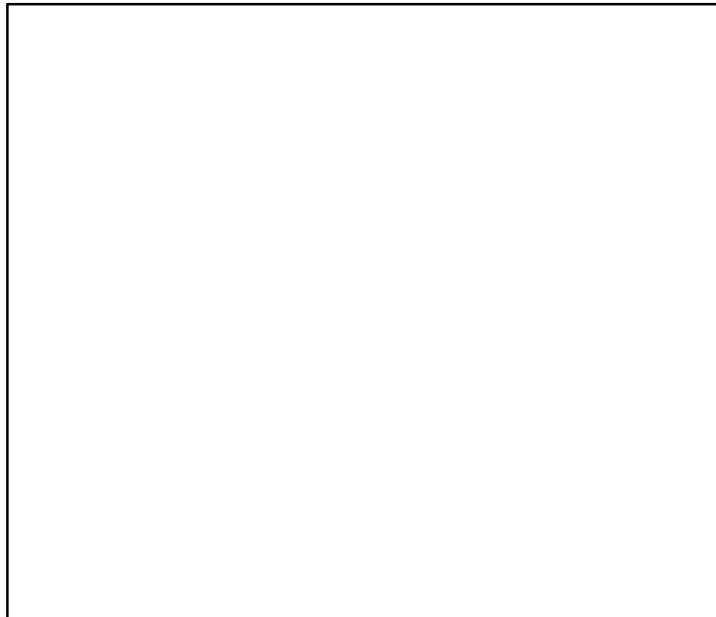
Metadata	
<b>Scientific Name</b>	Naso hexacanthus
<b>Current Assess ID</b>	PIFSC-SUNIMHI-2004-2015-SISIMP2021
<b>Area</b>	Main Hawaiian Islands
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Pacific Fisheries Science Center
<b>Asmts in RAM</b>	2015

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

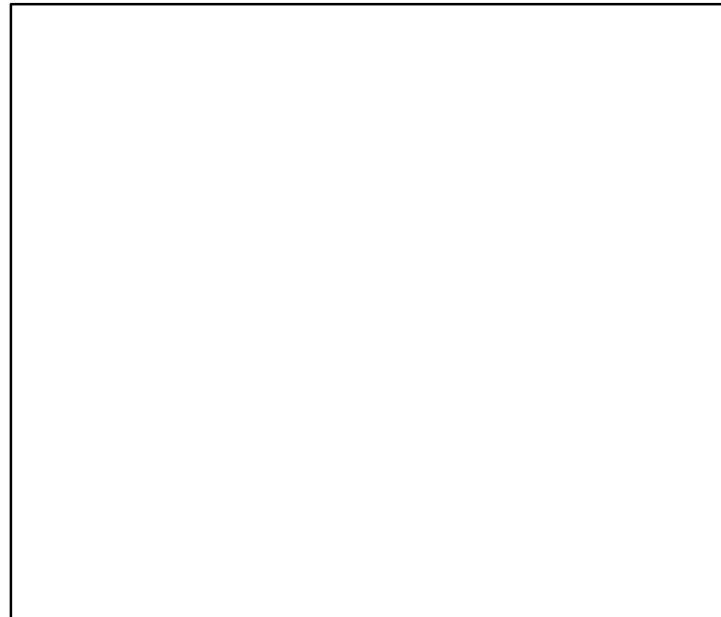
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2015	1.579		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

Sleek unicornfish Main Hawaiian Islands [SUNIMHI]

Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year ♦ End Year \* No Data

Sleek unicornfish Main Hawaiian Islands [SUNIMHI]

**TB\***



**SSB\***



**TN \***



**F\***



**ER\***



**Recruits\***

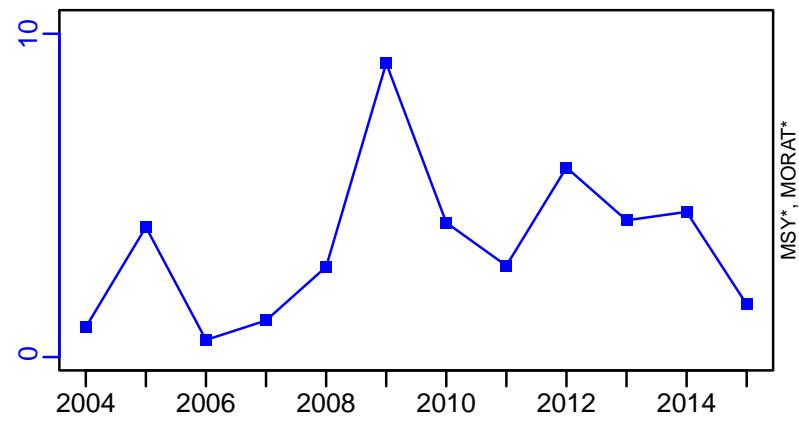


- |                      |                  |           |
|----------------------|------------------|-----------|
| ■ Listed time series | - - - Target BRP | — Rec-Est |
| - - - MSY-based BRP  | - - - Lim BRP    | * No Data |

Sleek unicornfish Main Hawaiian Islands [SUNIMHI]

TC-MT, TL\*, RecC\* (2004–2015–SISIMP2021)

TAC\*, Cpair\*, Cadv\*



survB\*

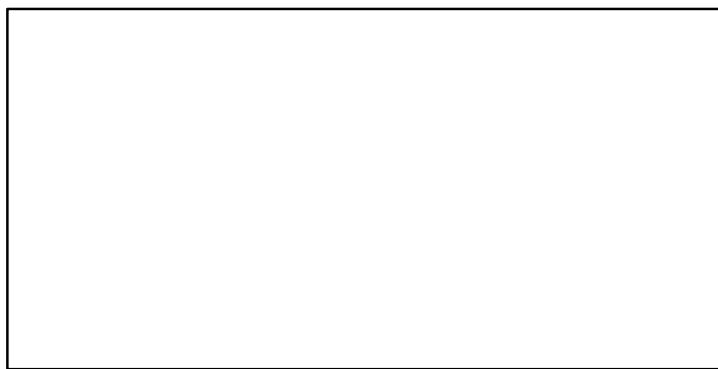
MSY\*, MORAT\*



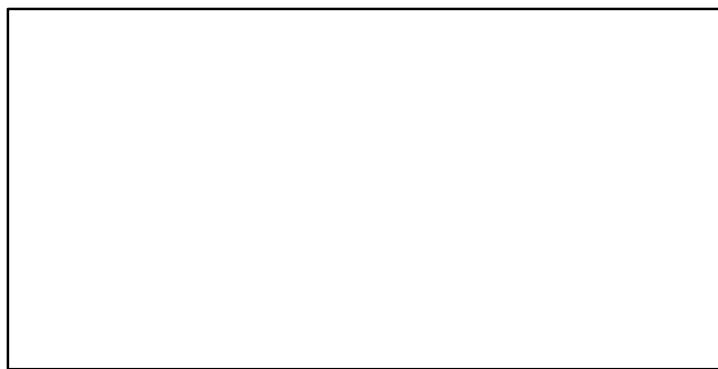
CPUE\*



EFFORT\*



CdivMSY\*



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - MSY                  | * No Data |

## School whiting Southeast Australia [SWHITSE]

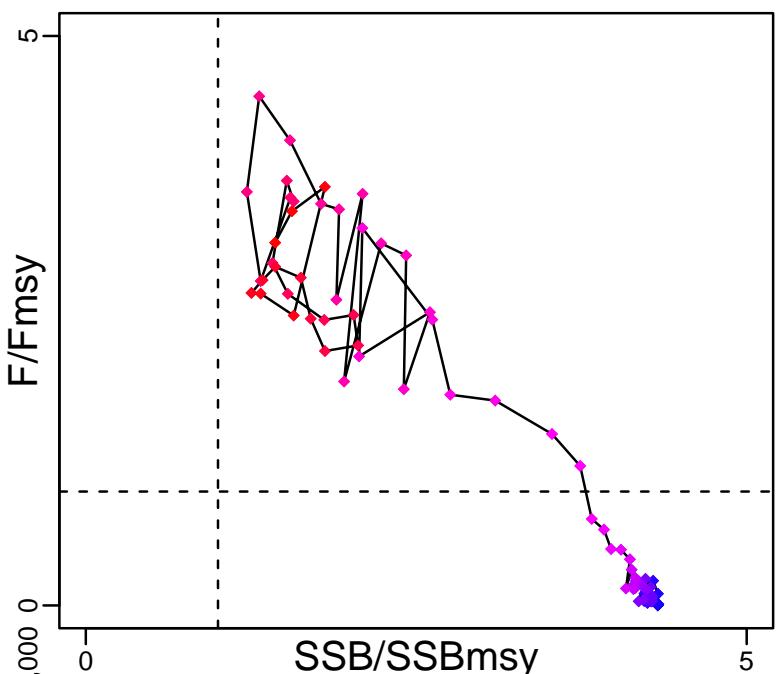
Metadata	
<b>Scientific Name</b>	Sillago flindersi
<b>Current Assess ID</b>	CSIRO-SWHITSE-1942-2019-MOESENEDER
<b>Area</b>	Southeast Australia
<b>Management Authority</b>	Australian Fisheries Management Authority, Australia national management
<b>Assessor</b>	Commonwealth Scientific and Industrial Research Organization
<b>Asmts in RAM</b>	2019, 2007, 2008, 2016

Reference Points				
Type	ID	Asmt Year	Value	
<b>TBmsy</b>	-	-	-	
<b>SSBmsy</b>	SSBmsy-MT	2019	2489	
<b>Fmsy</b>	Fmsy-1/yr	2019	0.341	
<b>ERmsy</b>	-	-	-	
<b>TBmgt</b>	-	-	-	
<b>SSBmgt</b>	SSBmgt-MT	2019	5174	
<b>Fmgt</b>	Fmgt-1/yr	2019	0.211	
<b>ERmgt</b>	-	-	-	
<b>TB0</b>	TB0-MT	2019	19,984	
<b>SSB0</b>	SSB0-MT	2019	10,780	
<b>MSY</b>	MSY-MT	2019	3036	
<b>M</b>	M-1/yr	2019	0.6	
<b>TBlim</b>	TBlim-MT	2007	1556	
<b>SSBlim</b>	SSBlim-MT	2019	2156	
<b>Flim</b>	-	-	-	
<b>ERlim</b>	-	-	-	

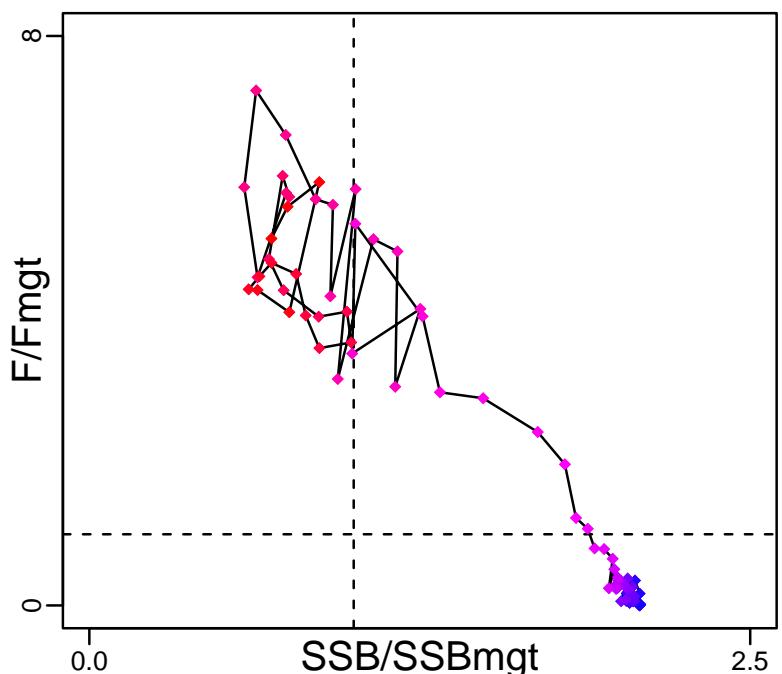
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
<b>TB</b>	TB-MT	2019	10,931	-	-	
<b>SSB</b>	SSB-MT	2019	3565	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2019	$3.27 \times 10^{14}$	-	-	
<b>F</b>	F-1/yr	2019	1.085	-	-	
<b>ER</b>	ER-ratio	2019	0.198	-	-	
<b>TC</b>	TC-MT	2019	1752			
<b>TL</b>	TL-MT	2016	1440			
<b>TB/TBmsy</b>	-	-	-			
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2019	1.432			
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2019	3.185			
<b>ER/ERmsy</b>	-	-	-			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2019	0.689			
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2019	5.154			
<b>ER/ERmgt</b>	-	-	-			

School whiting Southeast Australia [SWHITSE]

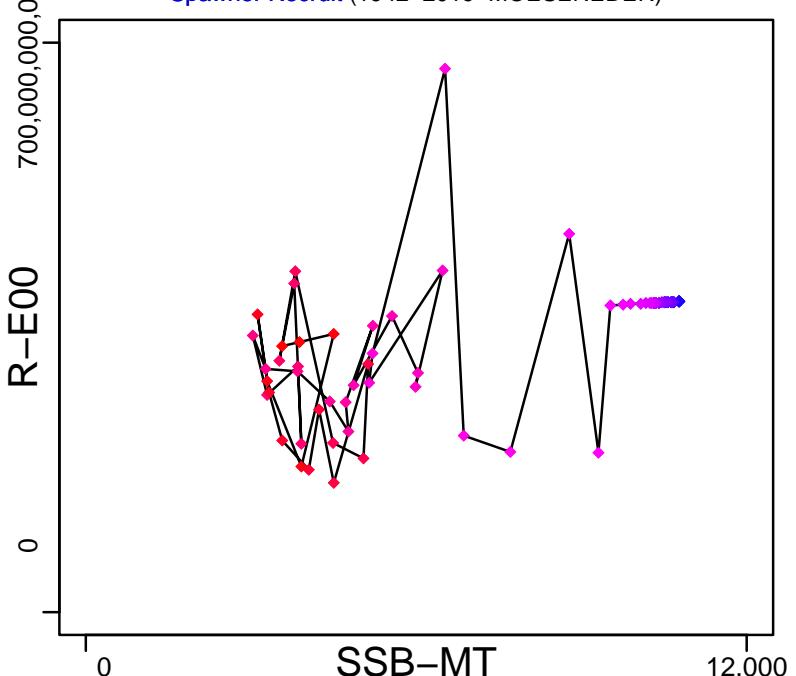
Kobe MSYpref (1942–2019–MOESENEDER)



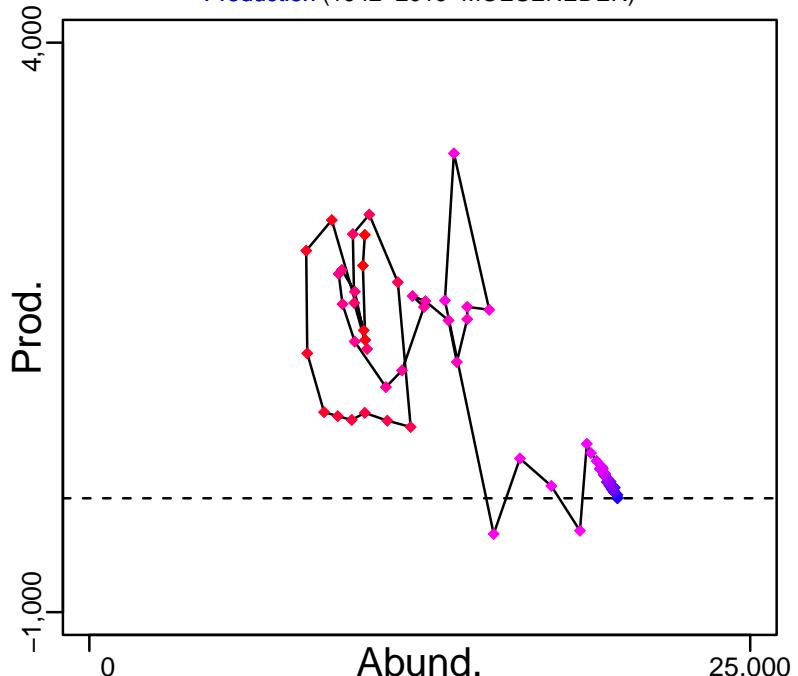
Kobe MGTpref (1942–2019–MOESENEDER)



Spawner Recruit (1942–2019–MOESENEDER)



Production (1942–2019–MOESENEDER)

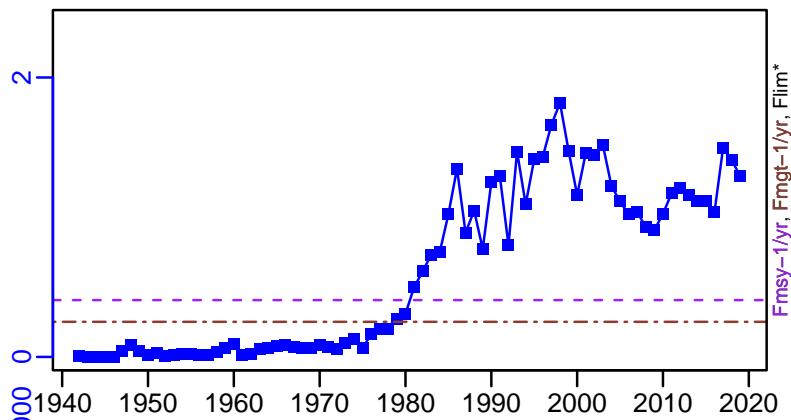
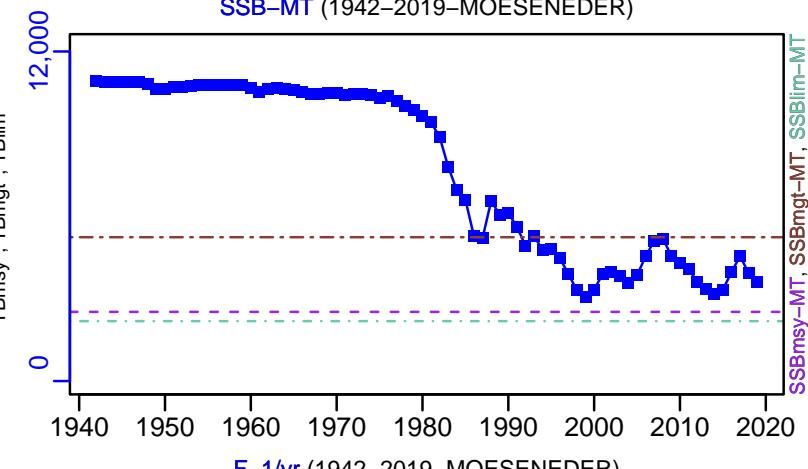
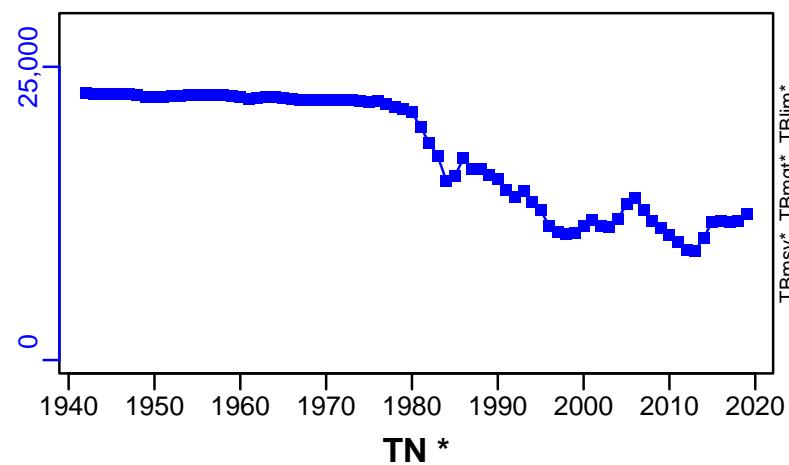


◆ Start Year	◆ End Year	*	No Data
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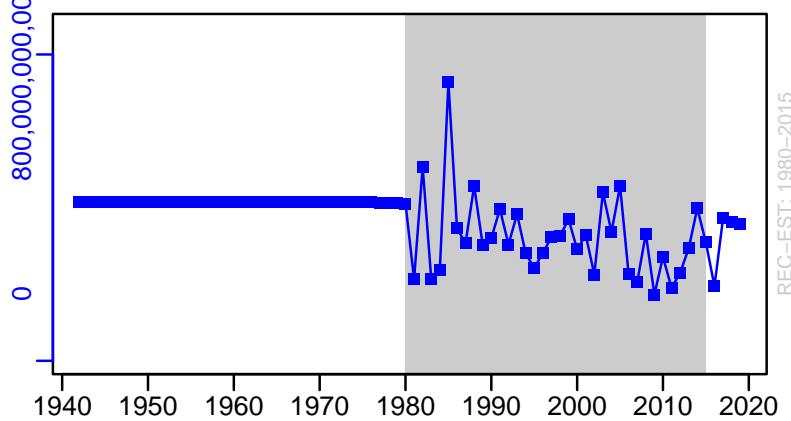
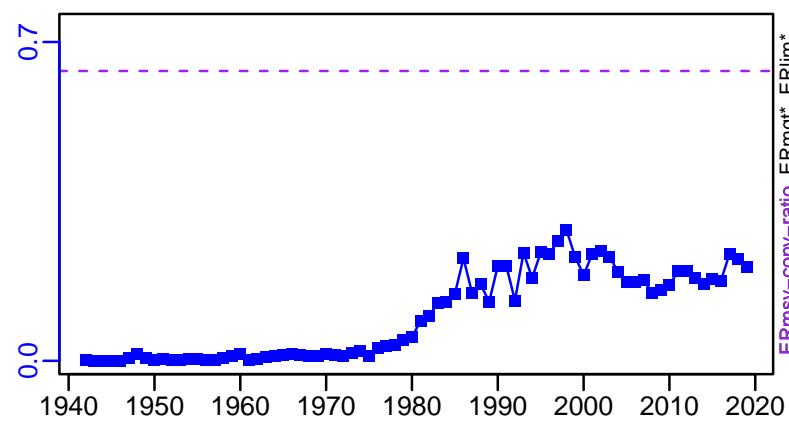
### School whiting Southeast Australia [SWHITSE]

TB-MT (1942–2019–MOESENEDER)

SSB-MT (1942–2019–MOESENEDER)



ER-ratio (1942–2019–MOESENEDER)



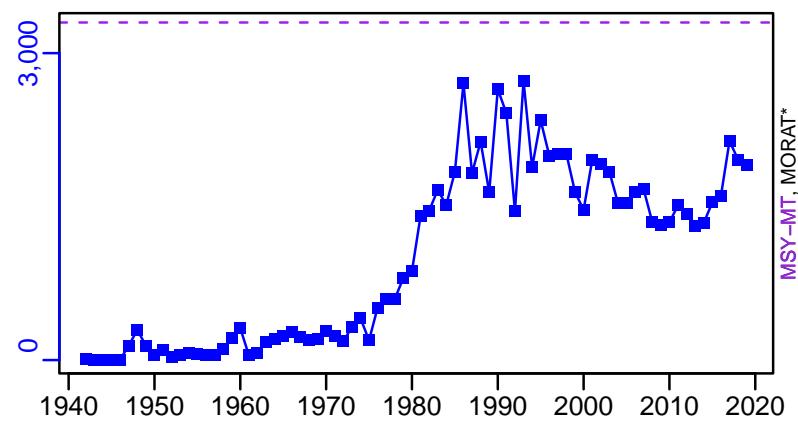
REC-EST: 1980–2015

- |                      |              |           |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| — MSY-based BRP      | --- Lim BRP  | * No Data |

School whiting Southeast Australia [SWHITSE]

TC-MT, TL\*, RecC\* (1942–2019–MOESENEDER)

TAC\*, Cpair\*, Cadv\*



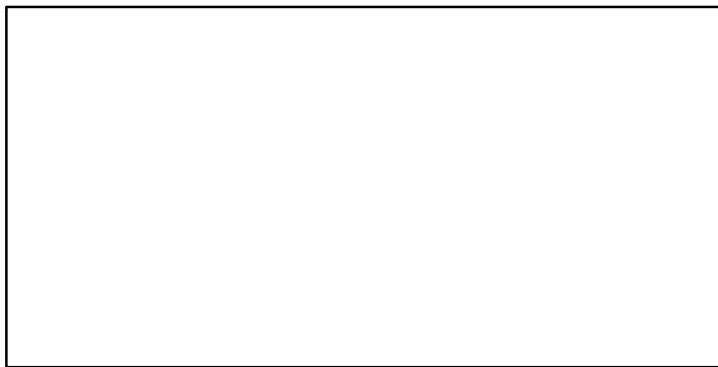
survB\*



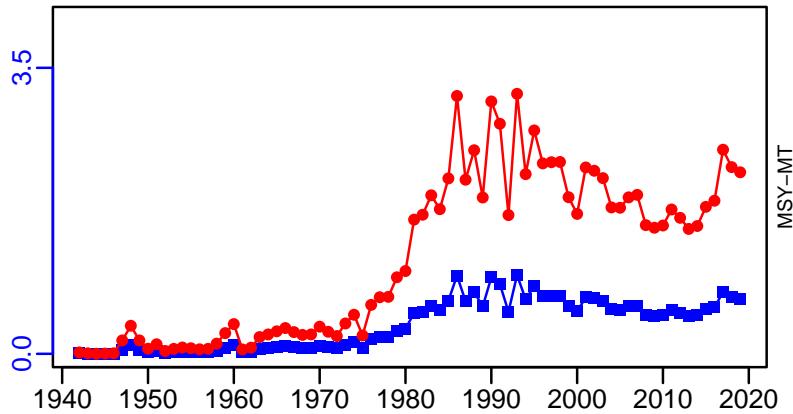
CPUE\*



EFFORT\*



TC-MT/MSY-MT, CdivMEANC-ratio, (1942–2019–MOESENEDER)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Tarakihi Sub-Antarctic [TARAKNZ]

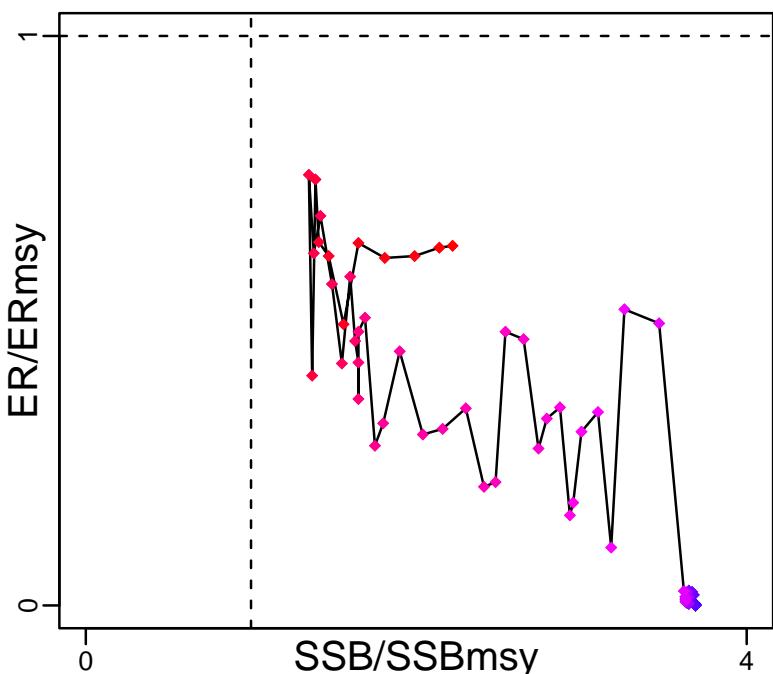
<b>Metadata</b>	
<b>Scientific Name</b>	Nemadactylus macropterus
<b>Current Assess ID</b>	NIWA-TARAKNZ-1932-2007-CORDUE
<b>Area</b>	Sub-Antarctic
<b>Management Authority</b>	Ministry of Fisheries, New Zealand national management
<b>Assessor</b>	National Institute of Water and Atmospheric Research
<b>Asmts in RAM</b>	2007

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	TBmsy-calc-MT	2007	11,187
<b>SSBmsy</b>	SSBmsy-MT	2007	4864
<b>Fmsy</b>	Fmsy-1/yr	2007	0.1
<b>ERmsy</b>	ERmsy-ratio	2007	0.061
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	SSB0-MT	2007	17,950
<b>MSY</b>	MSY-MT	2007	682
<b>M</b>	M-1/yr	2007	0.1
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

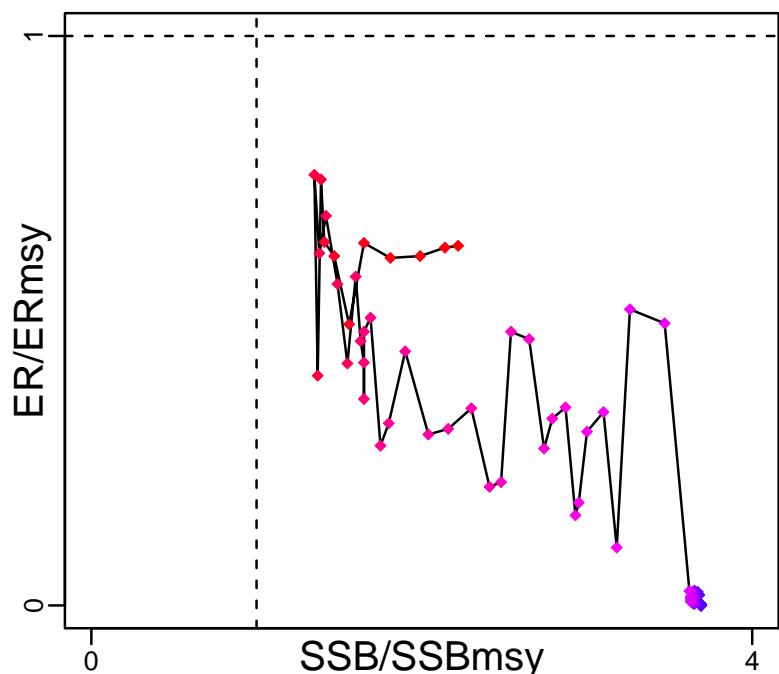
<b>Time Series</b>						
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>	
<b>TB</b>	-	-	-	-	-	
<b>SSB</b>	SSB-MT	2007	10,800	Both	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2007	2,310,000	-	0	
<b>F</b>	F-1/yr	2007	0.077	-	-	
<b>ER</b>	ER-ratio	2007	0.038	-	-	
<b>TC</b>	TC-MT	2007	957			
<b>TL</b>	-	-	-			
<b>TB/TBmsy</b>	-	-	-			
<b>SSB/SSBmsy</b>	SSBdivSSBmsy-dimensionless	2007	2.22			
<b>F/Fmsy</b>	FdivFmsy-dimensionless	2007	0.766			
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2007	0.632			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

Tarakihi Sub-Antarctic [TARAKNZ]

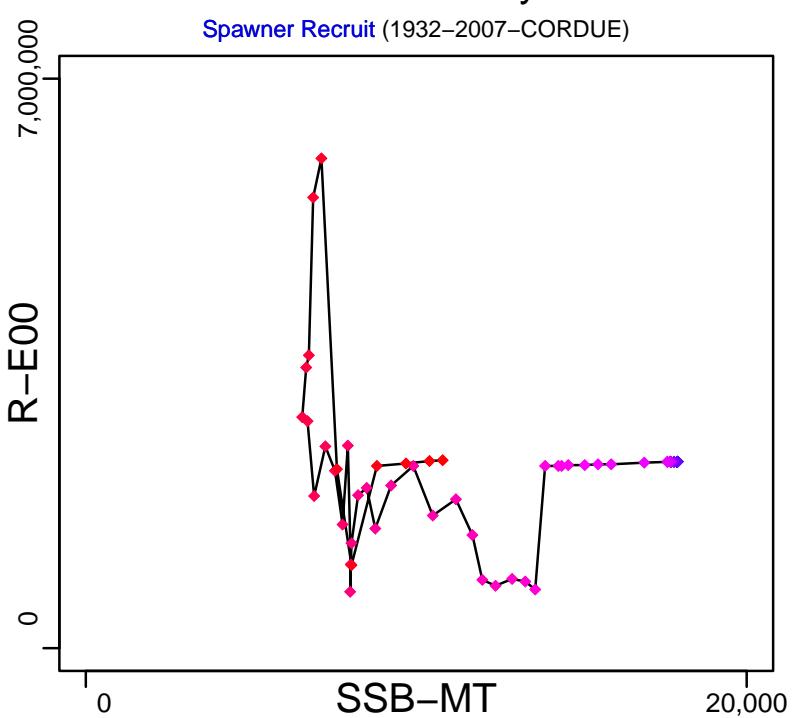
Kobe MSYpref (1932–2007–CORDUE)



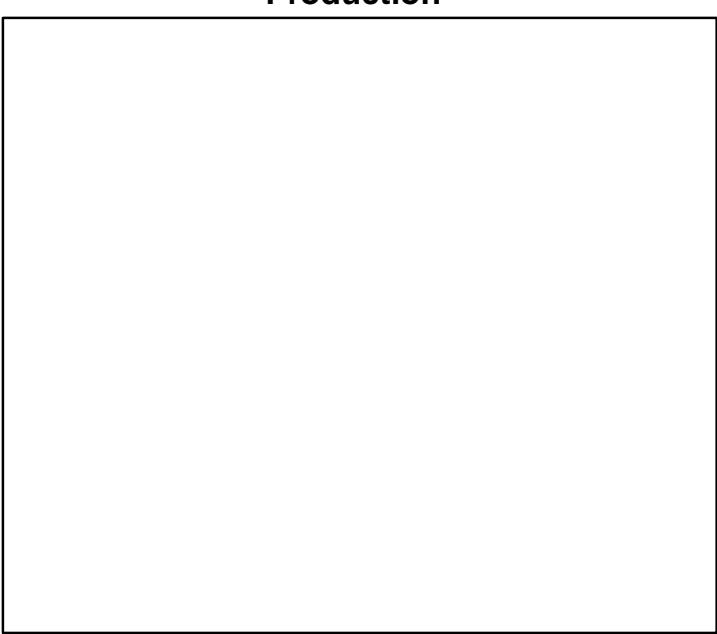
Kobe MGTPref (1932–2007–CORDUE)



Spawner Recruit (1932–2007–CORDUE)



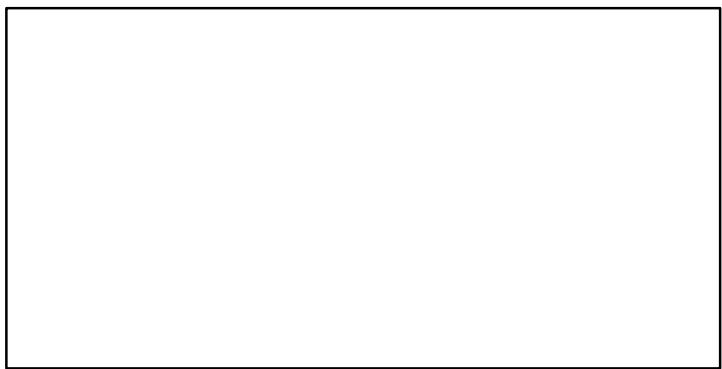
Production\*



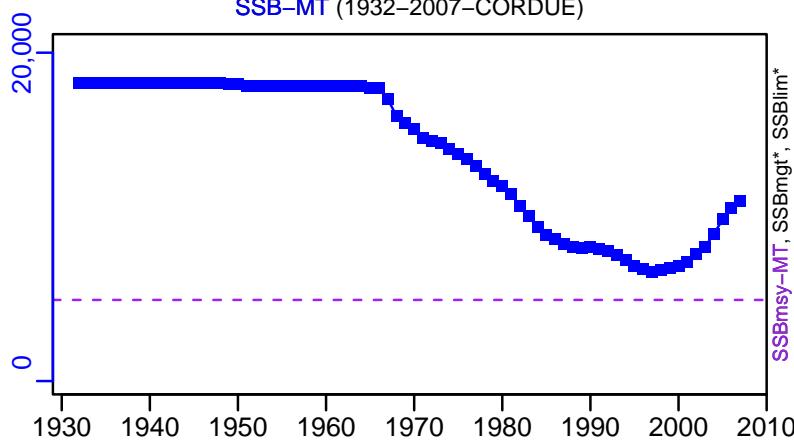
◆ Start Year   ◆ End Year   \* No Data

Tarakihi Sub-Antarctic [TARAKNZ]

**TB\***



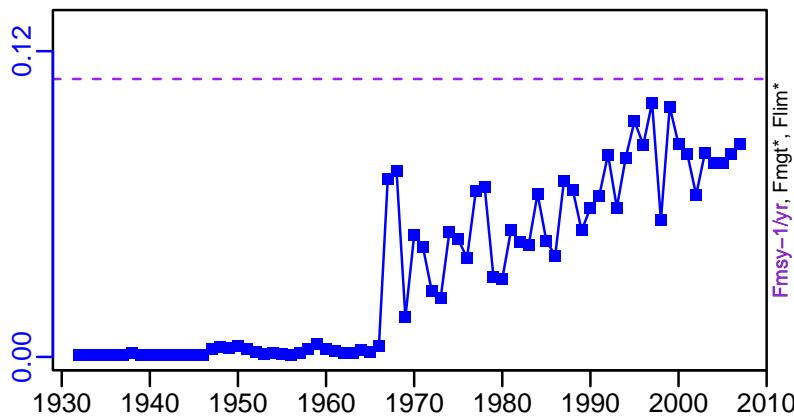
**SSB-MT (1932–2007–CORDUE)**



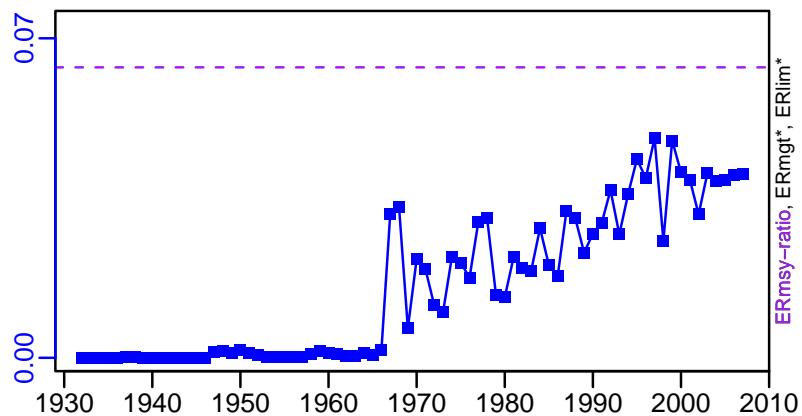
**TN \***



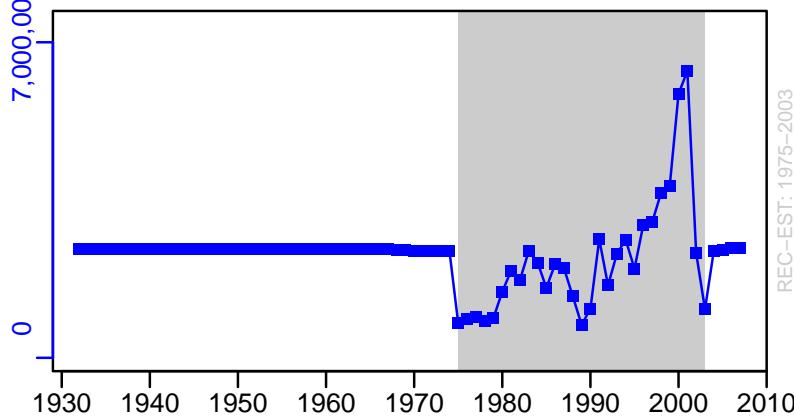
**F-1/yr (1932–2007–CORDUE)**



**ER-ratio (1932–2007–CORDUE)**



**R-E00 (1932–2007–CORDUE)**



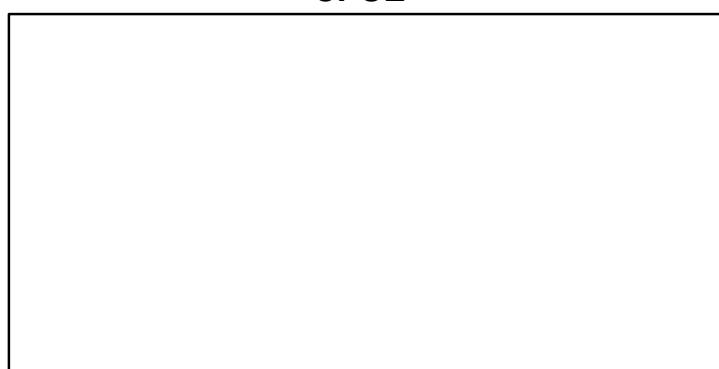
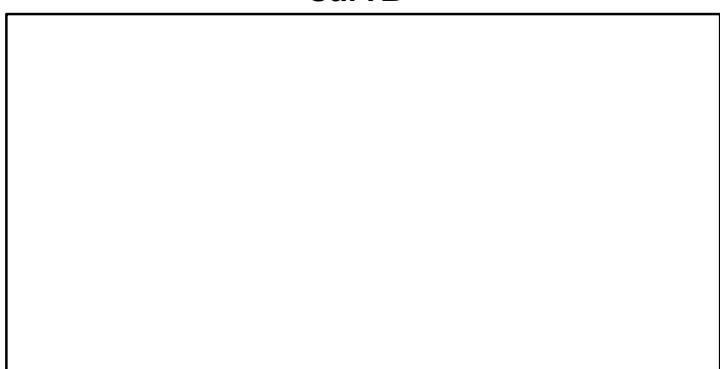
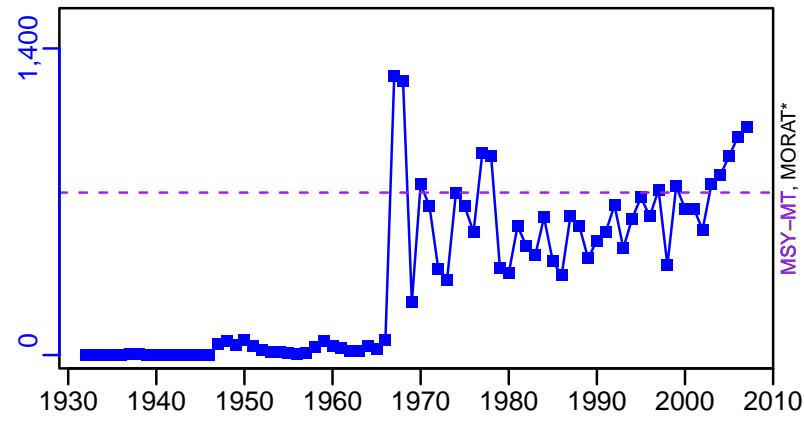
REC-EST: 1975–2003

- |                      |              |           |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| - - - MSY-based BRP  | --- Lim BRP  | * No Data |

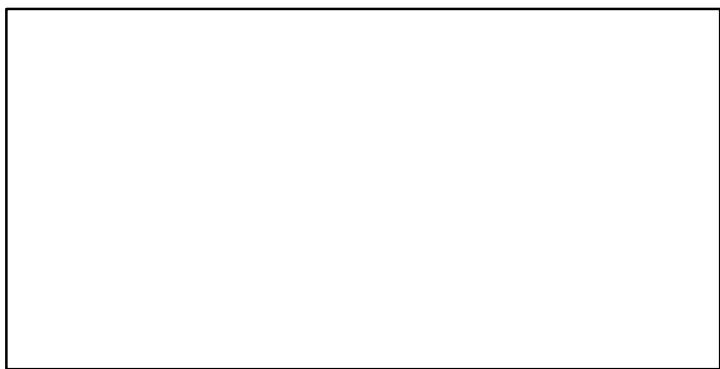
Tarakihi Sub-Antarctic [TARAKNZ]

TC-MT, TL\*, RecC\* (1932–2007–CORDUE)

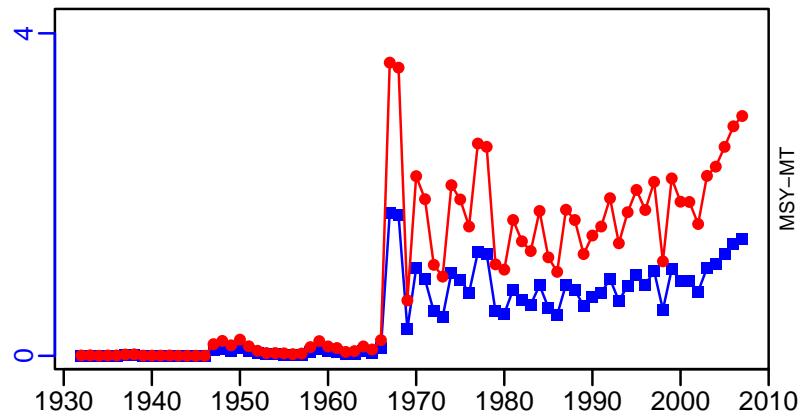
TAC\*, Cpair\*, Cadv\*



**EFFORT\***



TC-MT/MSY-MT, CdivMEANC-ratio, (1932–2007–CORDUE)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Threadfin Central West Africa Cote Divoire-Benin [THREADCWACIV-BEN]

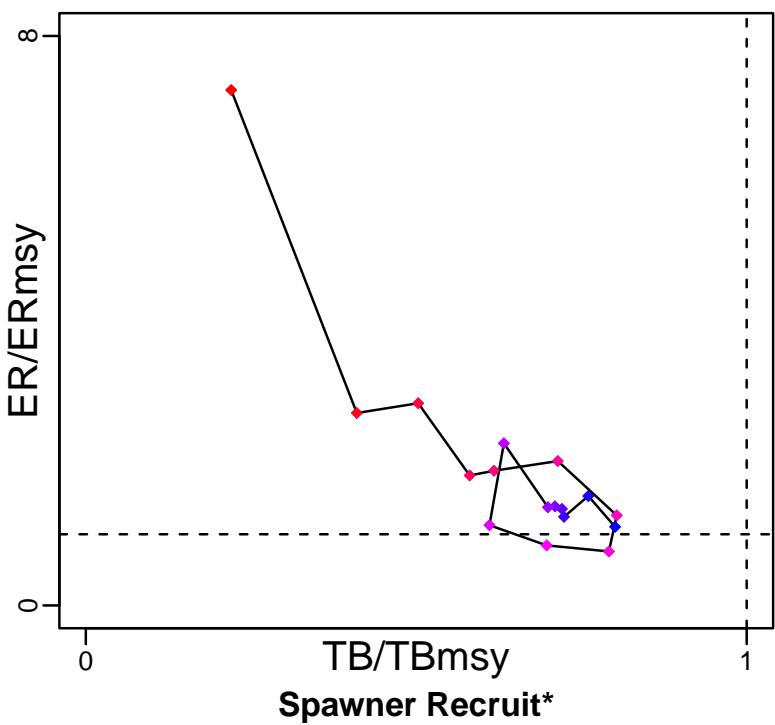
<b>Metadata</b>	
<b>Scientific Name</b>	Galeoides decadactylus
<b>Current Assess ID</b>	FAO-DR-THREADCWACIV-BEN-1990-2006-CHING
<b>Area</b>	Central West Africa Cote Divoire-Benin
<b>Management Authority</b>	Food and Agriculture Organization of the United Nations
<b>Assessor</b>	FAO/CECAF Working Group on the Assessment of Demersal Resources
<b>Asmts in RAM</b>	2006

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

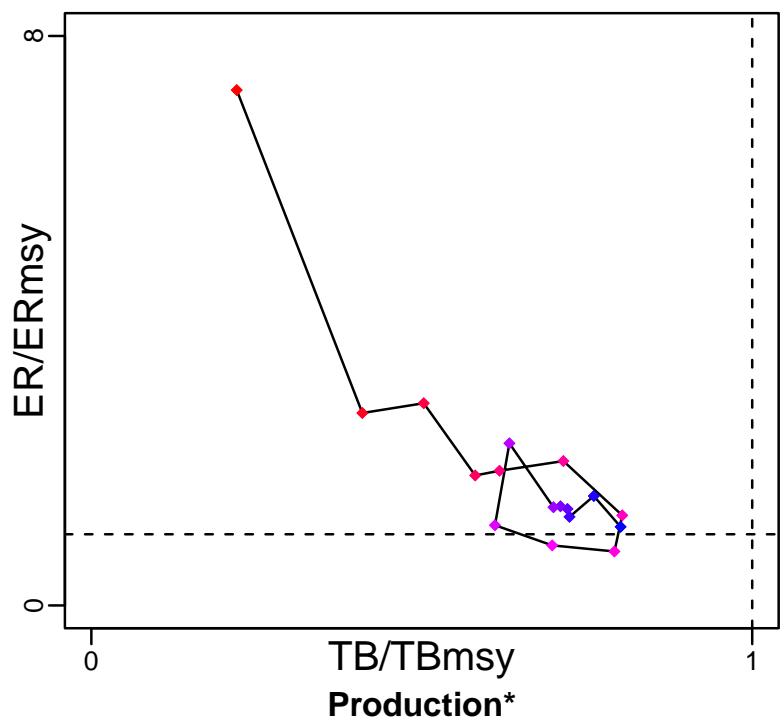
<b>Time Series</b>						
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>	
<b>TB</b>	TB-index	2006	15	-	-	
<b>SSB</b>	-	-	-	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	-	-	-	-	-	
<b>F</b>	-	-	-	-	-	
<b>ER</b>	-	-	-	-	-	
<b>TC</b>	TC-MT	2006	3980			
<b>TL</b>	-	-	-			
<b>TB/TBmsy</b>	-	-	-			
<b>SSB/SSBmsy</b>	-	-	-			
<b>F/Fmsy</b>	-	-	-			
<b>ER/ERmsy</b>	-	-	-			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

Threadfin Central West Africa Cote Divoire–Benin [THREADCWACIV–BEN]

Kobe MSYpref (1990–2006–CHING)



Kobe MGTPref (1990–2006–CHING)



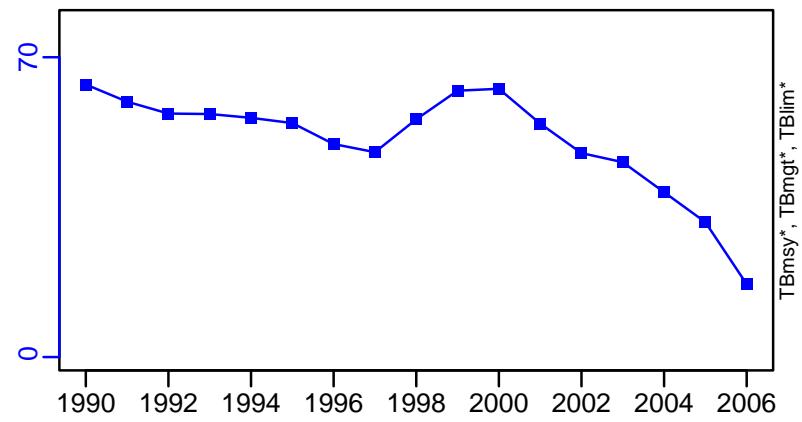
Spawner Recruit\*

Production\*

◆ Start Year ◆ End Year \* No Data

Threadfin Central West Africa Cote Divoire–Benin [THREADCWACIV–BEN]

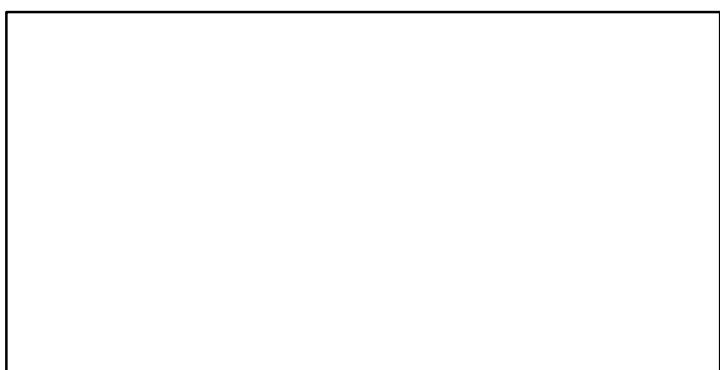
TB-index (1990–2006–CHING)



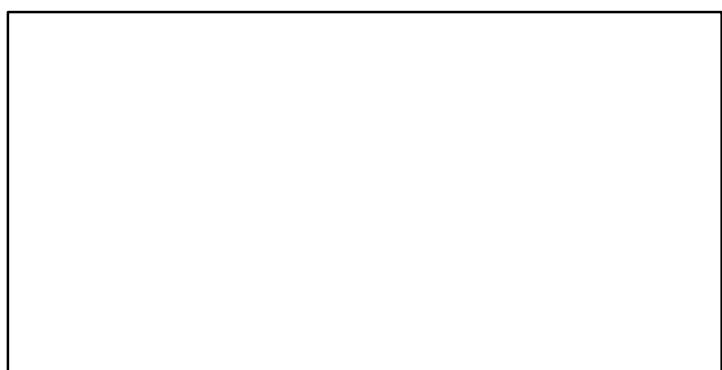
SSB\*



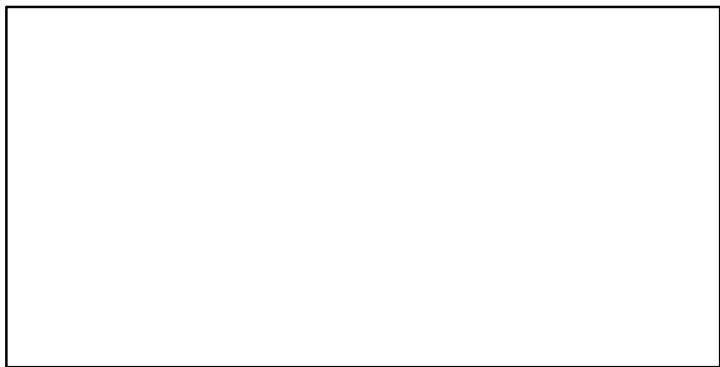
TN \*



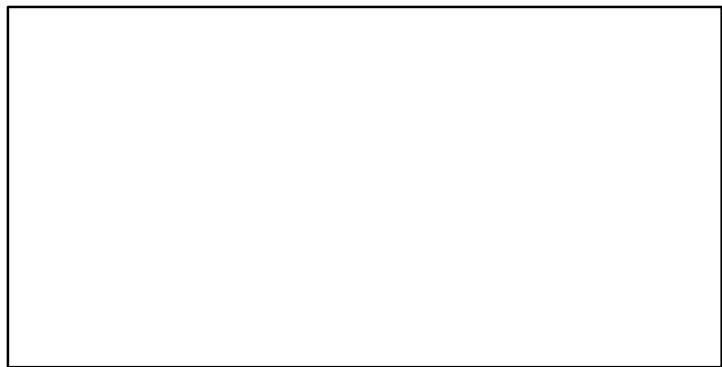
F\*



ER\*



Recruits\*

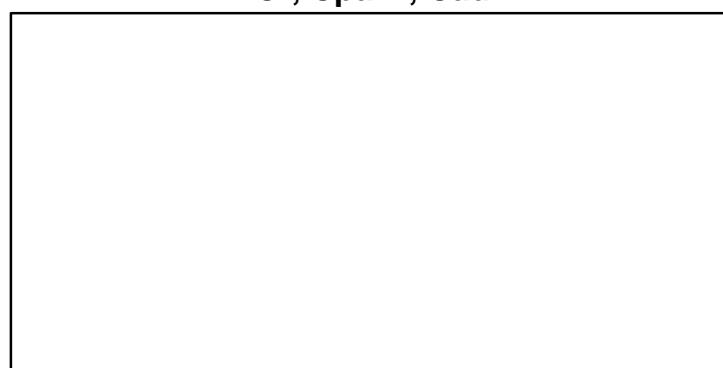
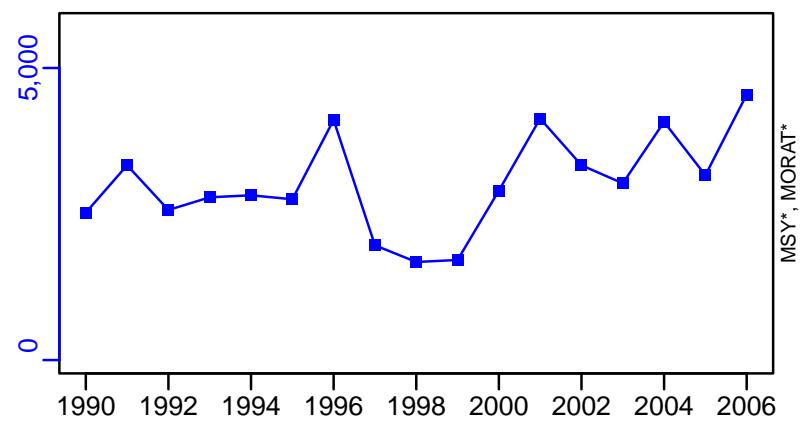


- Listed time series
- Target BRP
- MSY-based BRP
- Lim BRP
- Rec-Est
- \* No Data

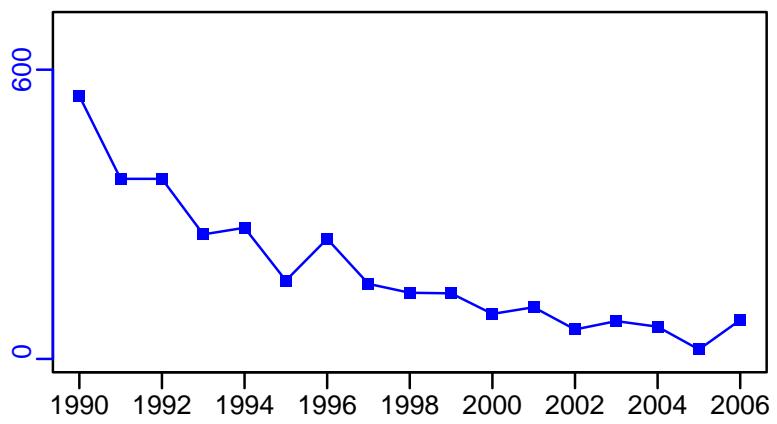
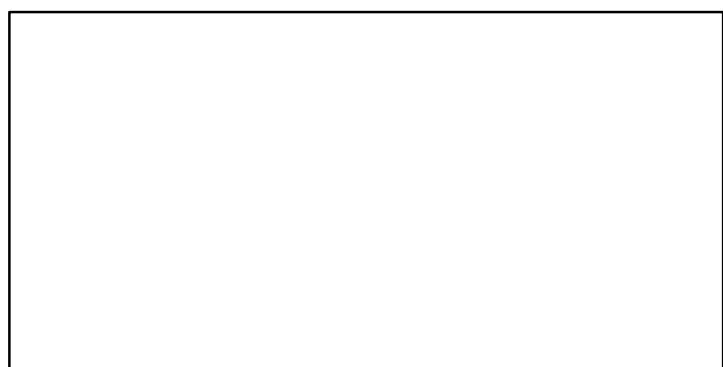
Threadfin Central West Africa Cote Divoire–Benin [THREADCWACIV–BEN]

TC-MT, TL\*, RecC\* (1990–2006–CHING)

TAC\*, Cpair\*, Cadv\*



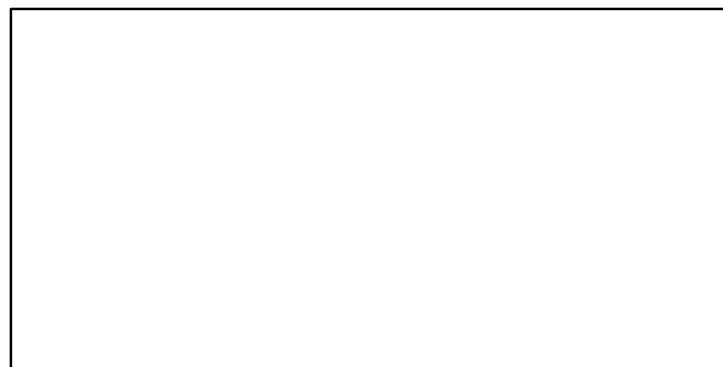
**CPUE–kg/day (1990–2006–CHING)**



**EFFORT\***



**CdivMSY\***



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - MSY	* No Data

## Threadfin Central West Africa Gabon-Angola [THREADCWAGAB-AGO]

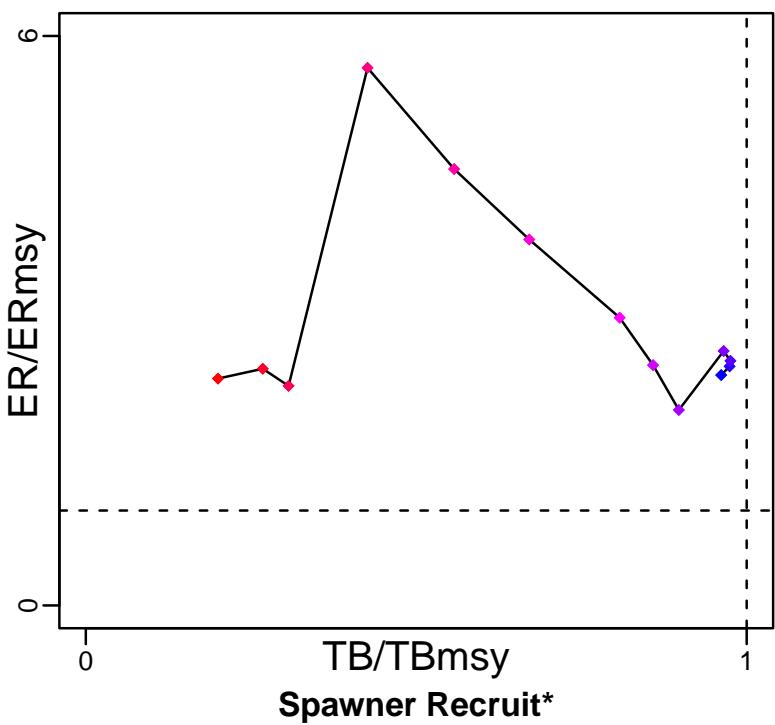
<b>Metadata</b>	
<b>Scientific Name</b>	Galeoides decadactylus
<b>Current Assess ID</b>	FAO-DR-THREADCWAGAB-AGO-1990-2007-CHING
<b>Area</b>	Central West Africa Gabon-Angola
<b>Management Authority</b>	Food and Agriculture Organization of the United Nations
<b>Assessor</b>	FAO/CECAF Working Group on the Assessment of Demersal Resources
<b>Asmts in RAM</b>	2007

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

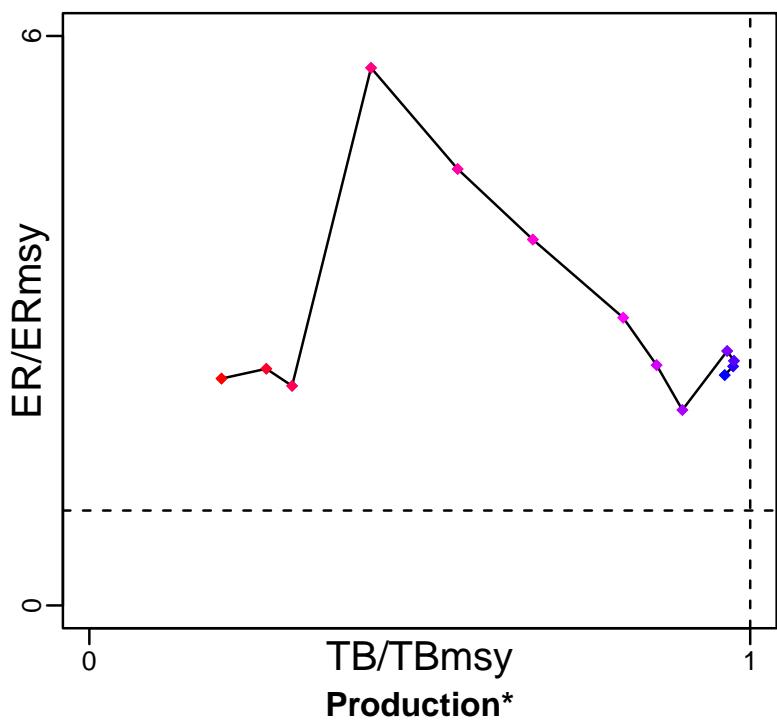
<b>Time Series</b>						
Type	ID	Asmt Year	Curr Value	Sex	Age	
<b>TB</b>	TB-index	2007	54	-	-	
<b>SSB</b>	-	-	-	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	-	-	-	-	-	
<b>F</b>	-	-	-	-	-	
<b>ER</b>	-	-	-	-	-	
<b>TC</b>	TC-MT	2007	1940			
<b>TL</b>	-	-	-			
<b>TB/TBmsy</b>	-	-	-			
<b>SSB/SSBmsy</b>	-	-	-			
<b>F/Fmsy</b>	-	-	-			
<b>ER/ERmsy</b>	-	-	-			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

Threadfin Central West Africa Gabon–Angola [THREADCWAGAB–AGO]

Kobe MSYpref (1990–2007–CHING)



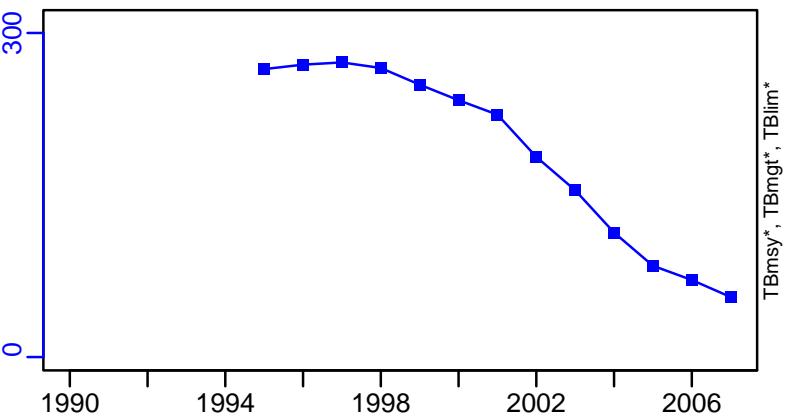
Kobe MGTPref (1990–2007–CHING)



◆ Start Year ◆ End Year \* No Data

Threadfin Central West Africa Gabon–Angola [THREADCWAGAB–AGO]

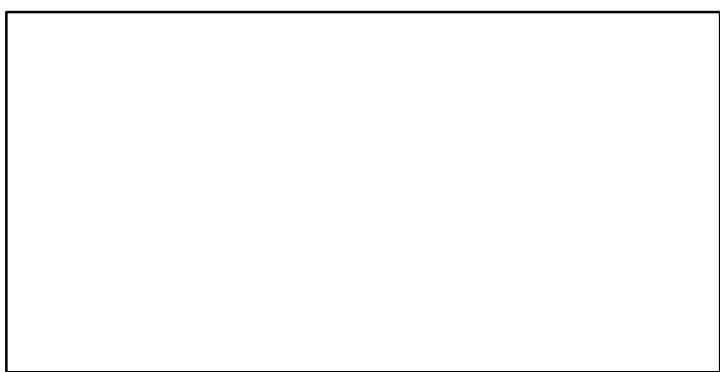
TB-index (1990–2007–CHING)



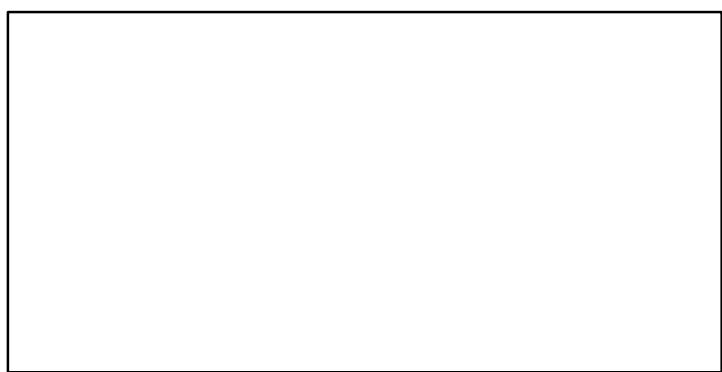
SSB\*



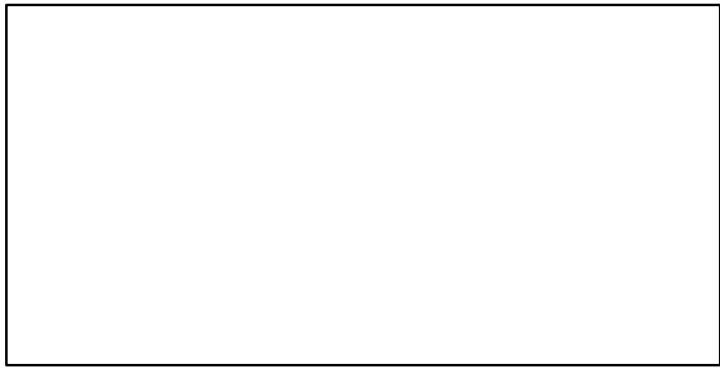
TN \*



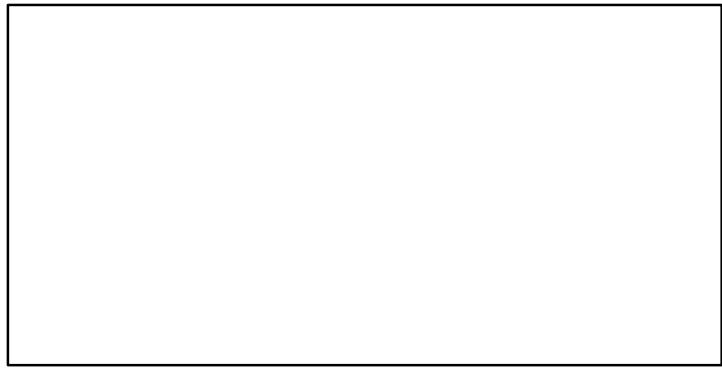
F\*



ER\*



Recruits\*

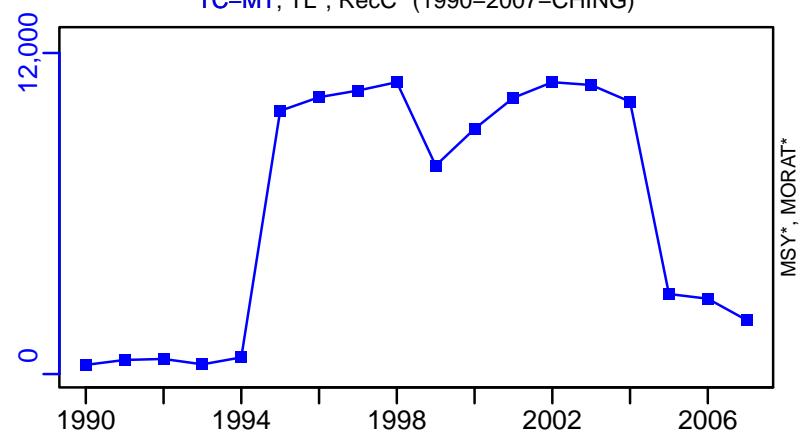


- Listed time series    - - - Target BRP    — Rec-Est
- - MSY-based BRP    - - Lim BRP    \* No Data

Threadfin Central West Africa Gabon–Angola [THREADCWAGAB–AGO]

TC-MT, TL\*, RecC\* (1990–2007–CHING)

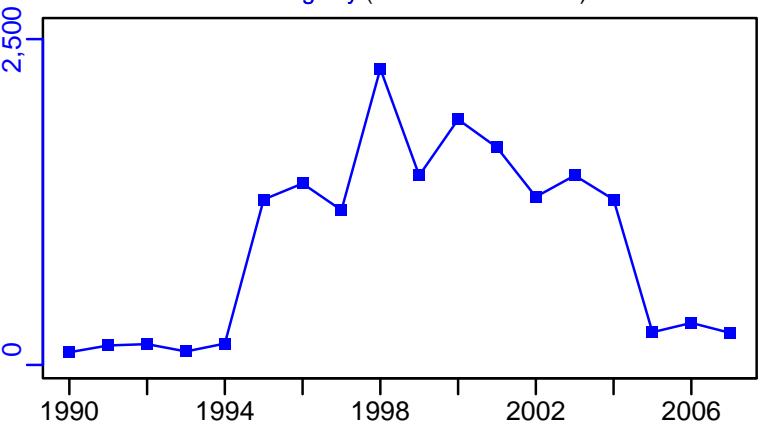
TAC\*, Cpair\*, Cadv\*



survB\*



CPUE–kg/day (1990–2007–CHING)



EFFORT\*



CdivMSY\*



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - MSY                  | * No Data |

## Threadfin Central West Africa Guinea-Liberia [THREADCWAGIN-LBR]

<b>Metadata</b>	
<b>Scientific Name</b>	Galeoides decadactylus
<b>Current Assess ID</b>	FAO-DR-THREADCWAGIN-LBR-1994-2007-CHING
<b>Area</b>	Central West Africa Guinea-Liberia
<b>Management Authority</b>	Food and Agriculture Organization of the United Nations
<b>Assessor</b>	FAO/CECAF Working Group on the Assessment of Demersal Resources
<b>Asmts in RAM</b>	2007

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

<b>Time Series</b>					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2007	4200		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

**Kobe MSY\***

**Kobe MGT\***

**Spawner Recruit\***

**Production\***

◆ Start Year ♦ End Year \* No Data

Threadfin Central West Africa Guinea–Liberia [THREADCWAGIN-LBR]

**TB\***



**SSB\***



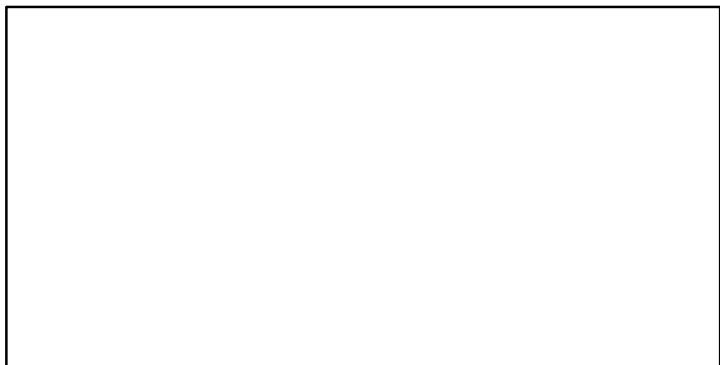
**TN \***



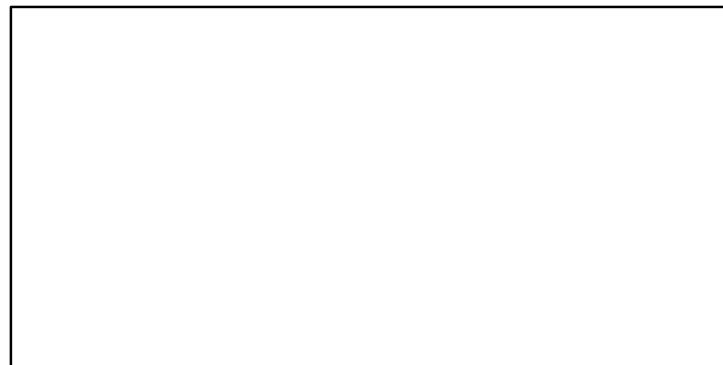
**F\***



**ER\***



**Recruits\***

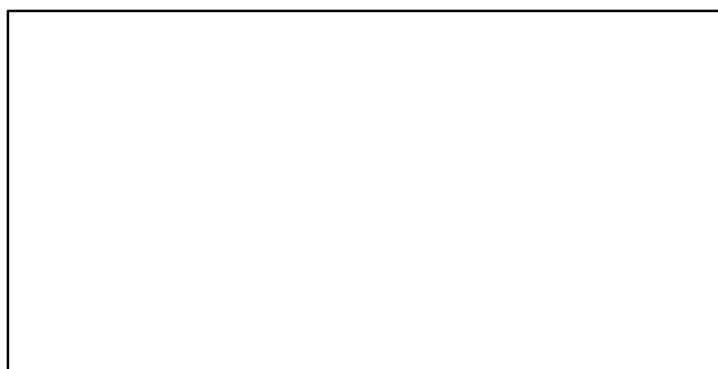
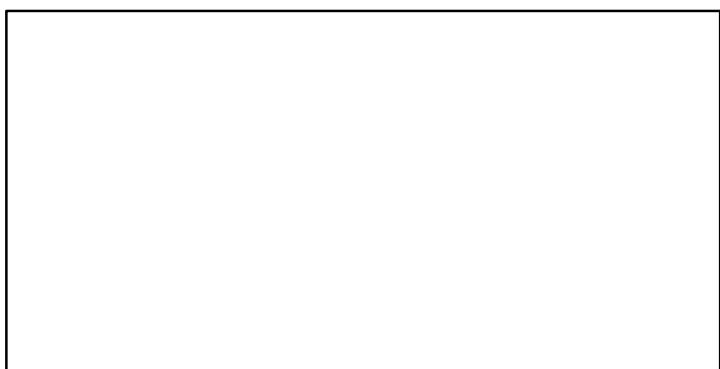
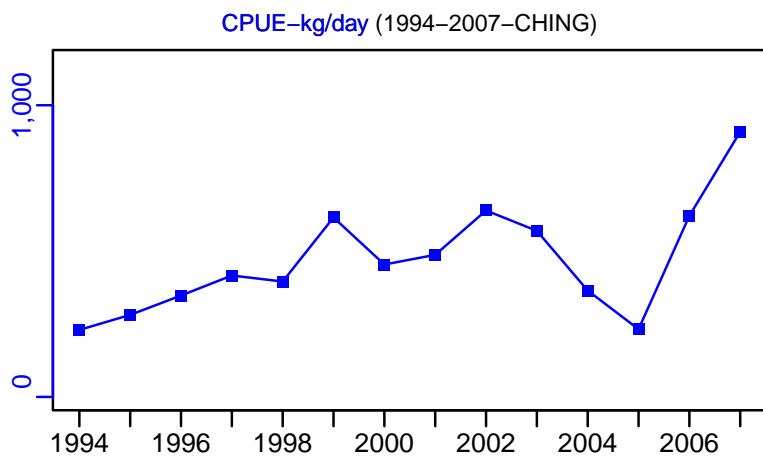
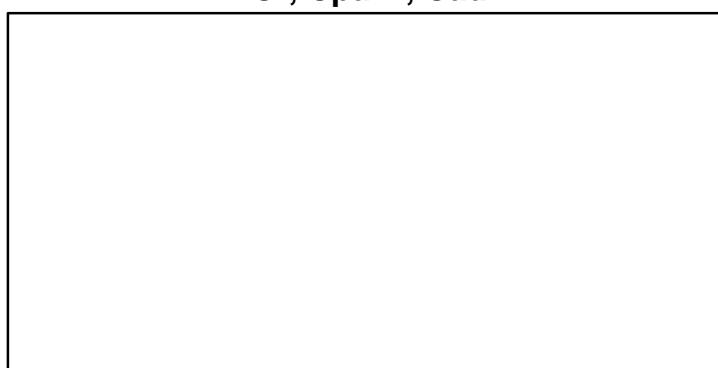
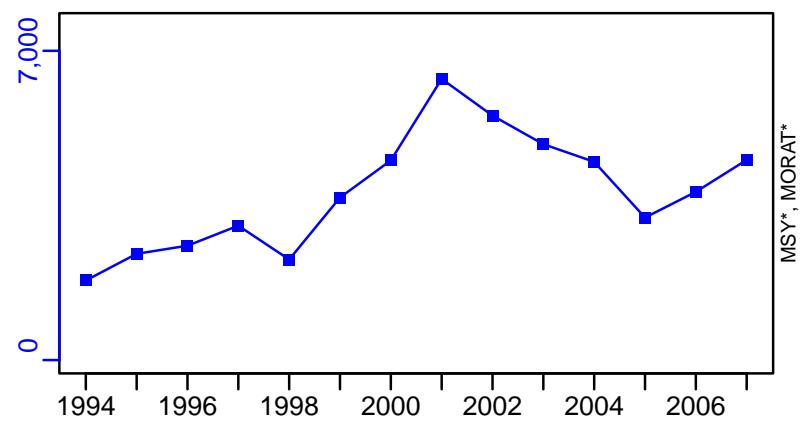


- |       |                    |       |            |   |         |
|-------|--------------------|-------|------------|---|---------|
| ■     | Listed time series | - - - | Target BRP | — | Rec-Est |
| - - - | MSY-based BRP      | - - - | Lim BRP    | * | No Data |

Threadfin Central West Africa Guinea–Liberia [THREADCWAGIN-LBR]

TC-MT, TL\*, RecC\* (1994–2007–CHING)

TAC\*, Cpair\*, Cadv\*



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - MSY	* No Data

## Tilefish Gulf of Mexico [TILEGM]

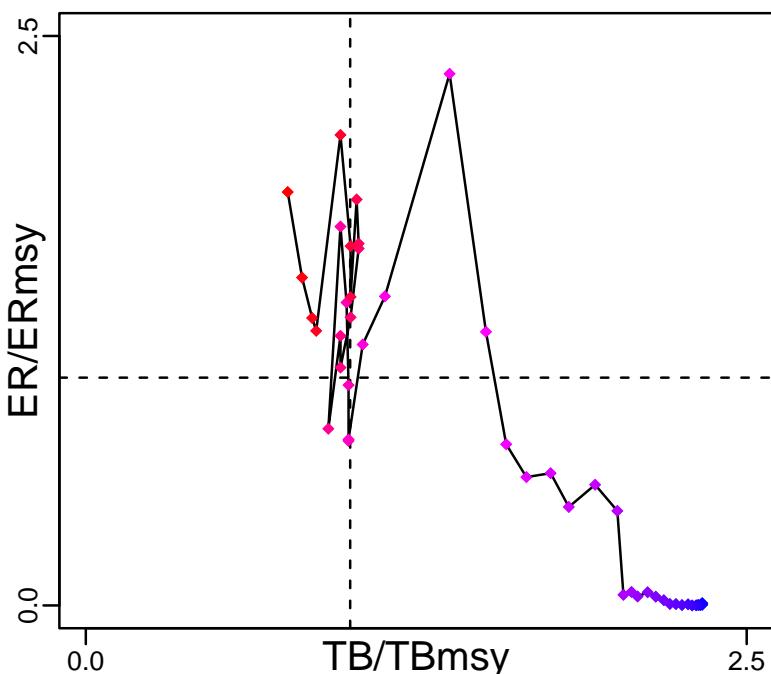
<b>Metadata</b>	
<b>Scientific Name</b>	Lopholatilus chamaeleonticeps
<b>Current Assess ID</b>	SEFSC-TILEGM-1965-2009-HIVELY
<b>Area</b>	Gulf of Mexico
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southeast Fisheries Science Center
<b>Asmts in RAM</b>	2009

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	M-1/yr	2009	0.13
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

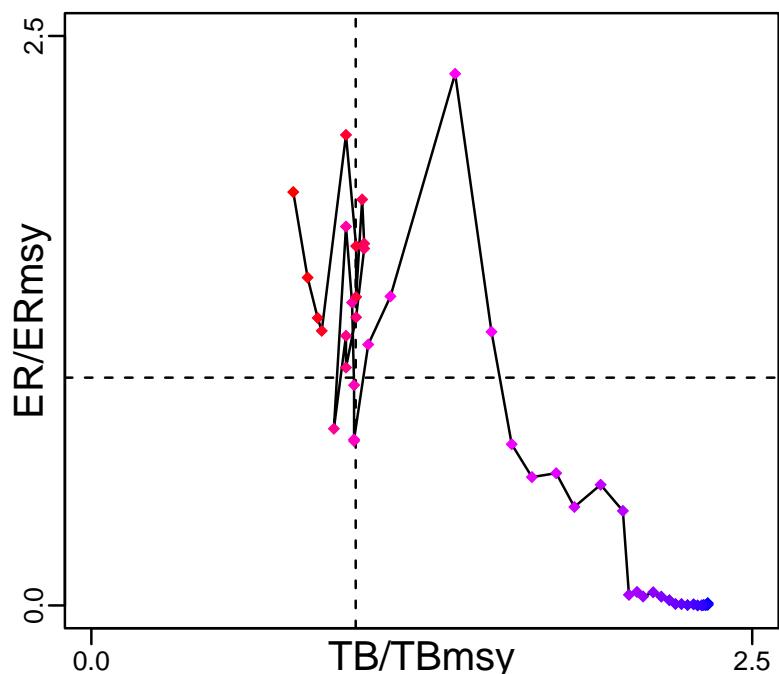
<b>Time Series</b>						
Type	ID	Asmt Year	Curr Value	Sex	Age	
<b>TB</b>	TB-MT	2009	999	-	-	
<b>SSB</b>	SSB-FemaleGonadMT	2009	17	Females	2+	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2009	204,000	-	-	
<b>F</b>	F-1/yr	2009	0.17	-	-	
<b>ER</b>	ER-calc-ratio	2009	0.186	-	-	
<b>TC</b>	-	-	-			
<b>TL</b>	TL-MT	2009	186			
<b>TB/TBmsy</b>	-	-	-			
<b>SSB/SSBmsy</b>	-	-	-			
<b>F/Fmsy</b>	-	-	-			
<b>ER/ERmsy</b>	-	-	-			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

Tilefish Gulf of Mexico [TILEGM]

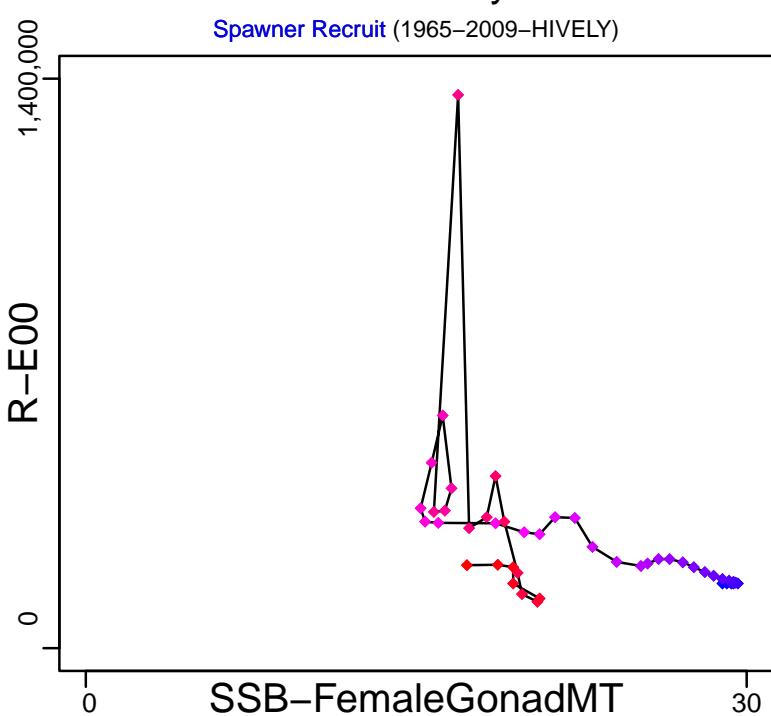
Kobe MSYpref (1965–2009–HIVELY)



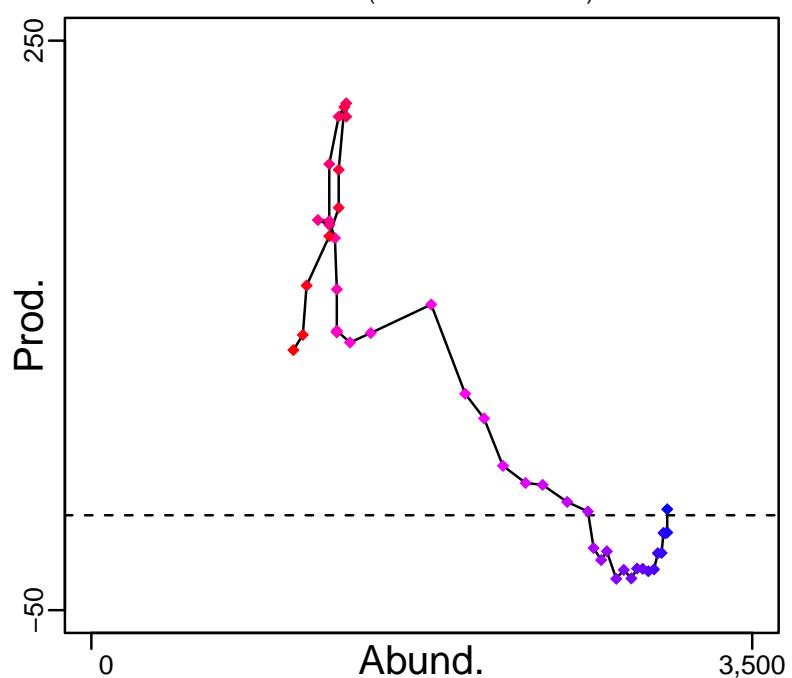
Kobe MGTPref (1965–2009–HIVELY)



Spawner Recruit (1965–2009–HIVELY)



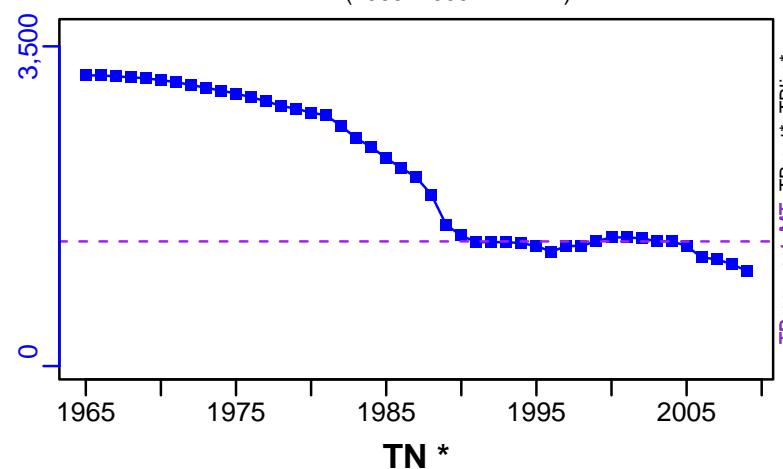
Production (1965–2009–HIVELY)



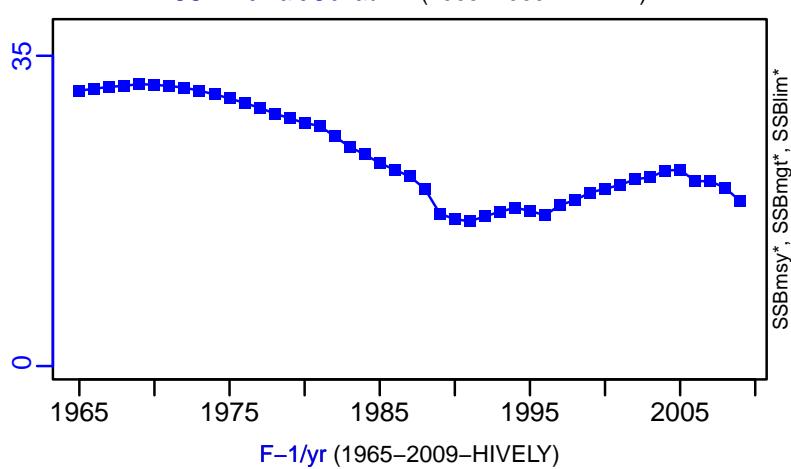
◆ Start Year	◆ End Year	*	No Data
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**Tilefish Gulf of Mexico [TILEGM]**

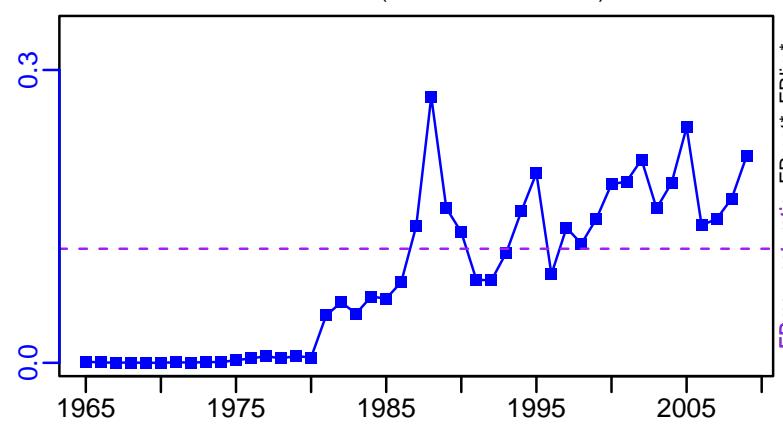
TB-MT (1965–2009–HIVELY)



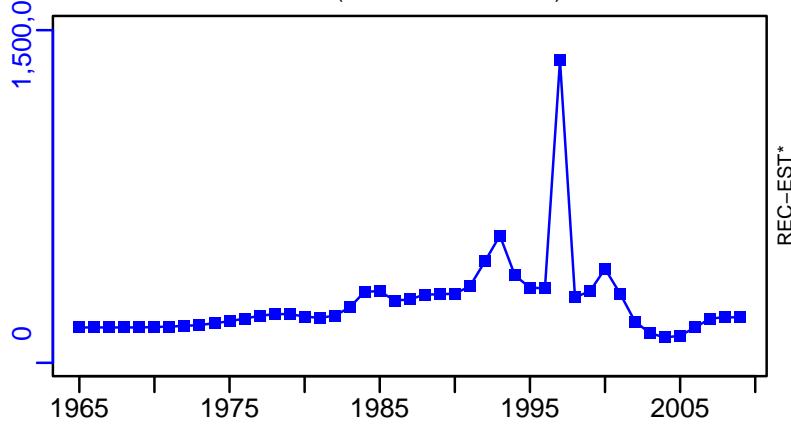
SSB-FemaleGonadMT (1965–2009–HIVELY)



ER-calc-ratio (1965–2009–HIVELY)



R-E00 (1965–2009–HIVELY)

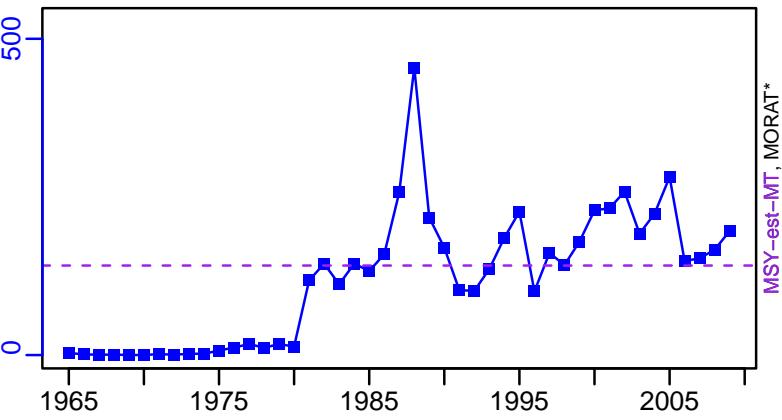


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	--- Lim BRP	* No Data

**Tilefish Gulf of Mexico [TILEGM]**

TL-MT, TC\*, RecC\* (1965–2009–HIVELY)

TAC\*, Cpair\*, Cadv\*



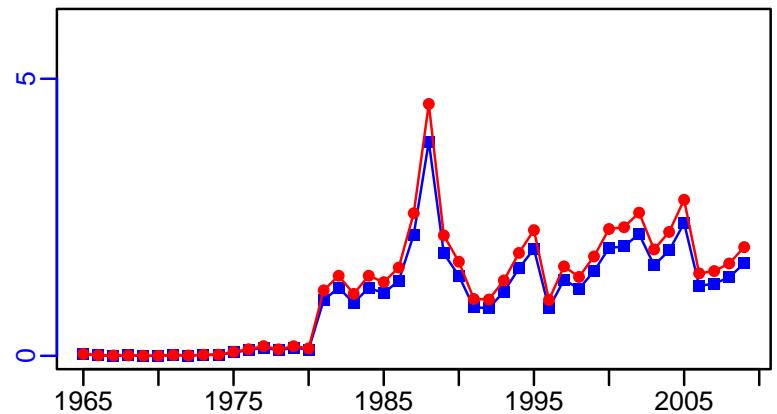
**CPUE\***



**EFFORT\***



TL-MT/MSY-est-MT, CdivMEANC-ratio, (1965–2009–HIVELY)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Tilefish Mid-Atlantic Coast [TILEMATLC]

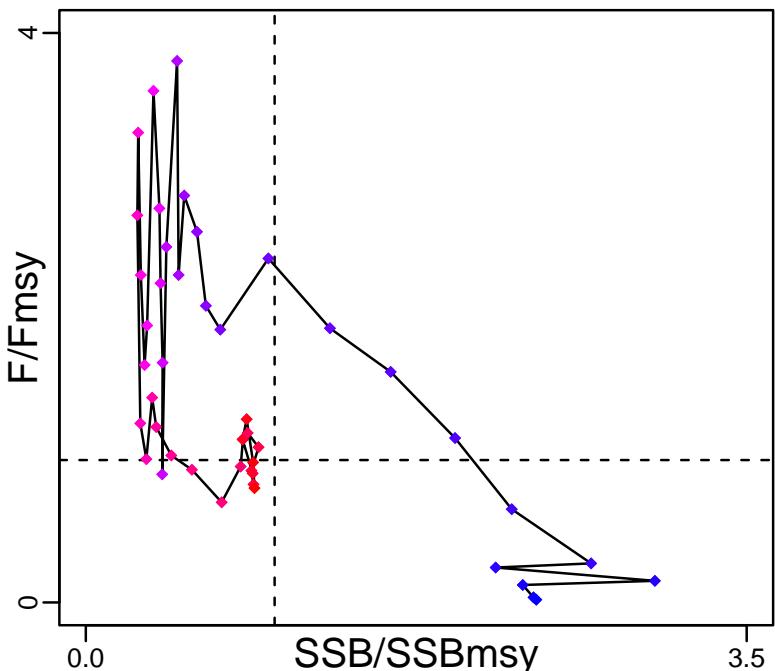
<b>Metadata</b>	
<b>Scientific Name</b>	Lopholatilus chamaeleonticeps
<b>Current Assess ID</b>	NEFSC-TILEMATLC-1970-2016-SISIMP2021
<b>Area</b>	Mid-Atlantic Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northeast Fisheries Science Center
<b>Asmts in RAM</b>	2012, 2016

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2016	9492
<b>Fmsy</b>	Fmsy-1/yr	2016	0.31
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2012	1029
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2016	4746
<b>Flim</b>	Flim-1/yr	2016	0.31
<b>ERlim</b>	-	-	-

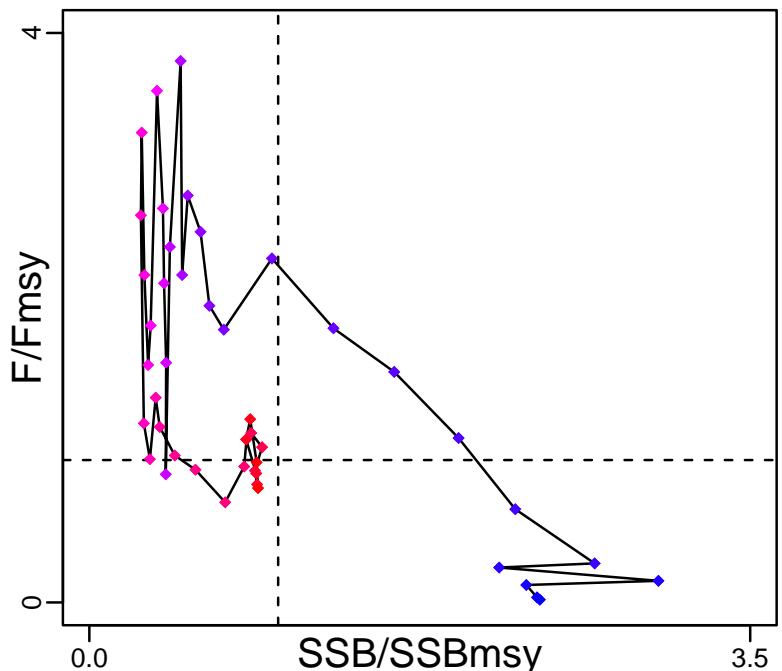
<b>Time Series</b>					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2016	8479	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2016	1,184,000	-	1
<b>F</b>	F-1/yr	2016	0.249	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2016	502		
<b>TL</b>	TL-MT	2012	834		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2016	0.893		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2016	0.803		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

**Tilefish Mid-Atlantic Coast [TILEMATLC]**

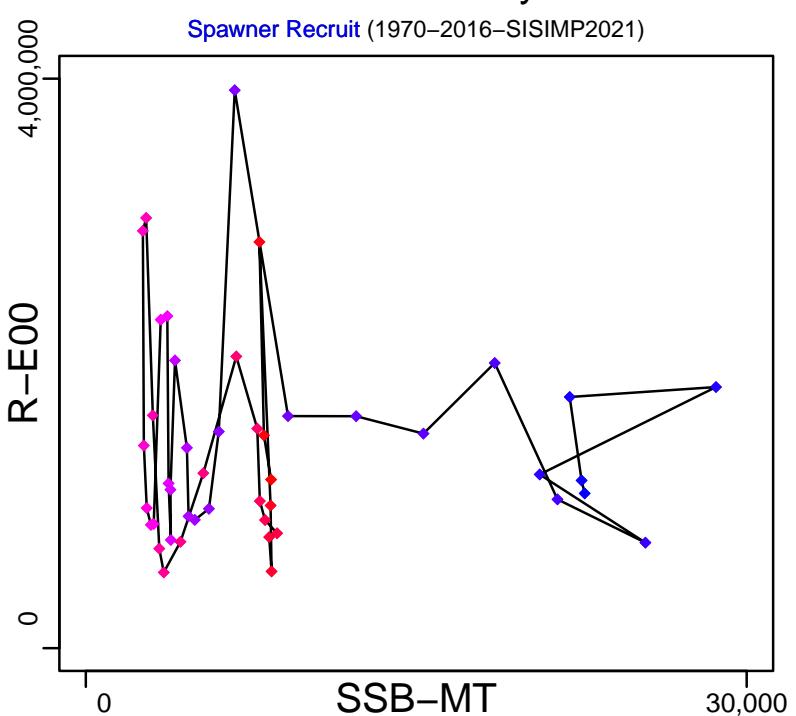
Kobe MSYpref (1970–2016–SISIMP2021)



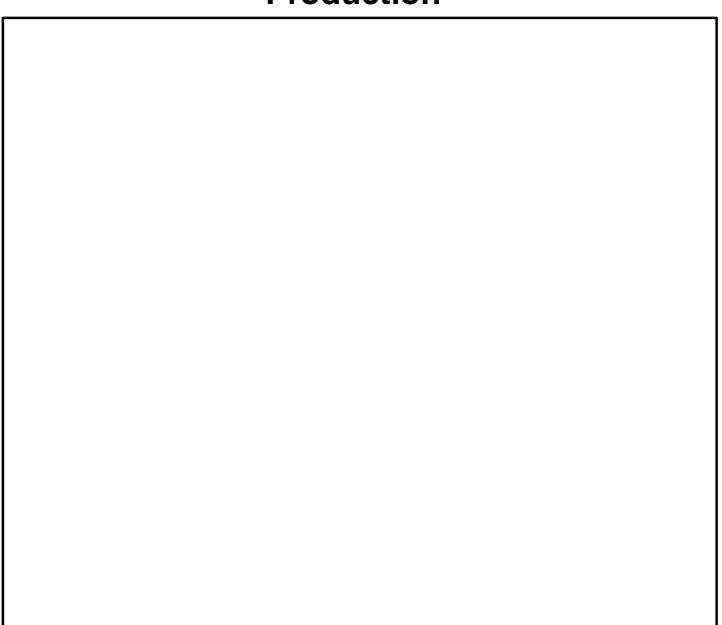
Kobe MGTpref (1970–2016–SISIMP2021)



Spawner Recruit (1970–2016–SISIMP2021)



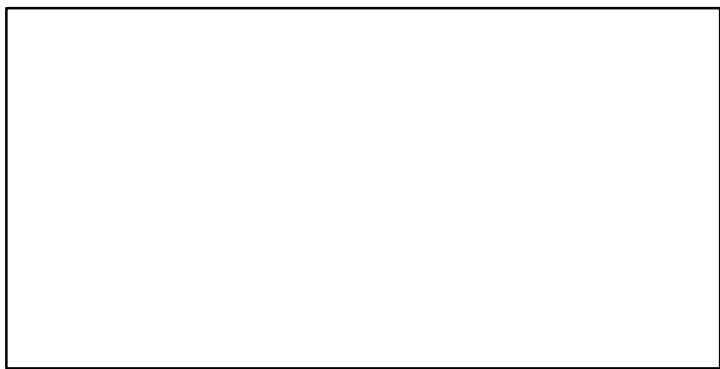
**Production\***



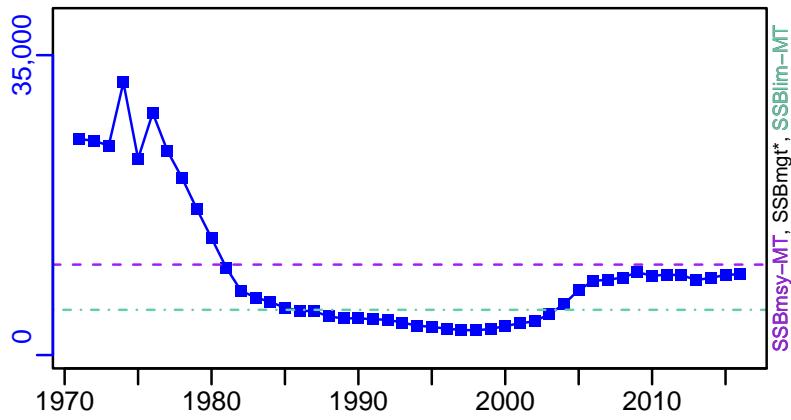
◆ Start Year	◆ End Year	* No Data
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Tilefish Mid-Atlantic Coast [TILEMATLC]

**TB\***



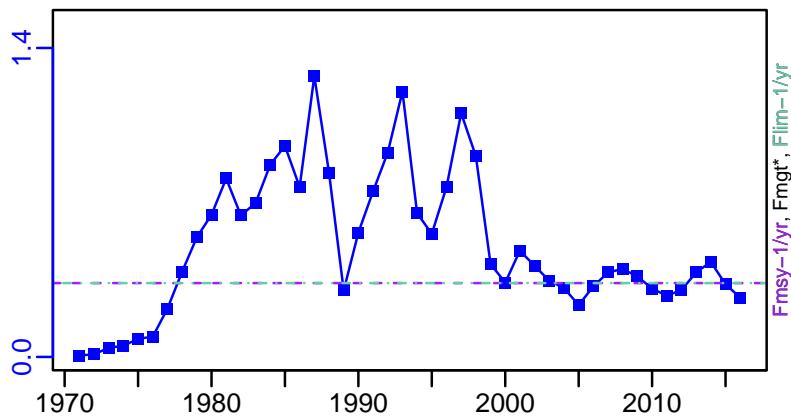
SSB-MT (1970–2016–SISIMP2021)



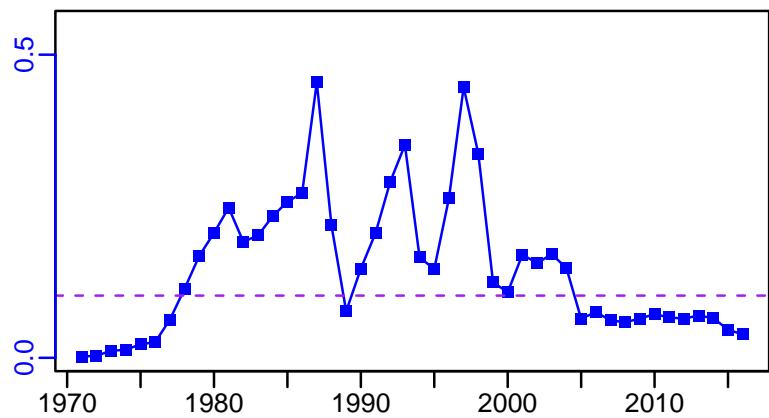
**TN \***



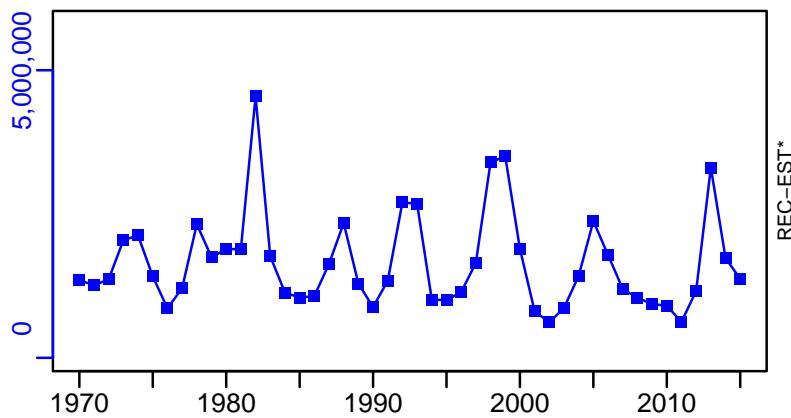
F-1/yr (1970–2016–SISIMP2021)



ER-calc-ratio (1970–2016–SISIMP2021)



R-E00 (1970–2016–SISIMP2021)

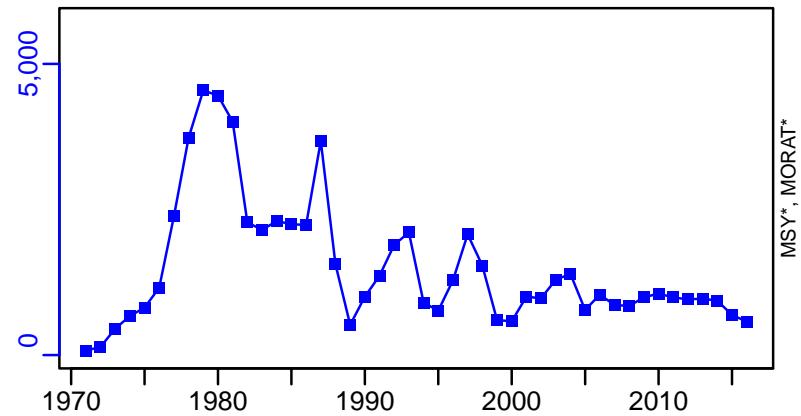


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - - Lim BRP	* No Data

Tilefish Mid-Atlantic Coast [TILEMATLC]

TC-MT, TL\*, RecC\* (1970–2016–SISIMP2021)

TAC\*, Cpair\*, Cadv\*



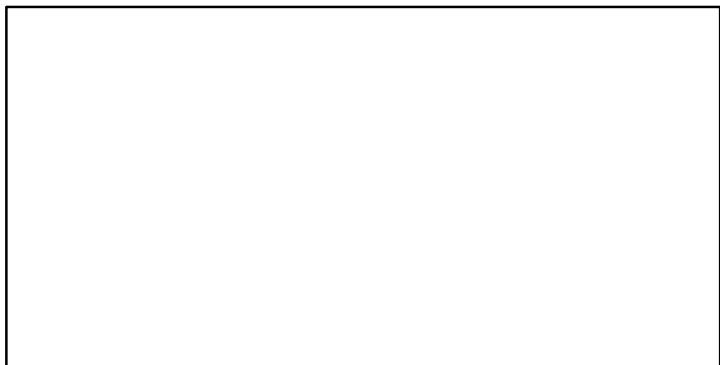
survB\*



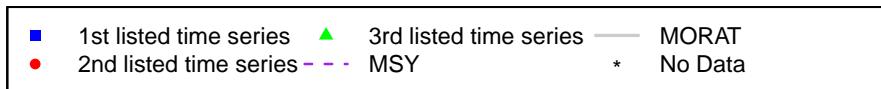
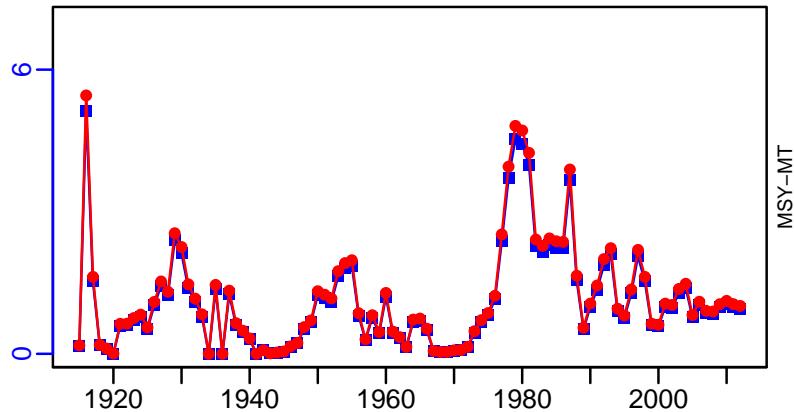
CPUE\*



EFFORT\*



TL-MT/MSY-MT, CdivMEANC-ratio, (1915–2012–HIVELY)



## Tilefish Southern Atlantic coast [TILESATLC]

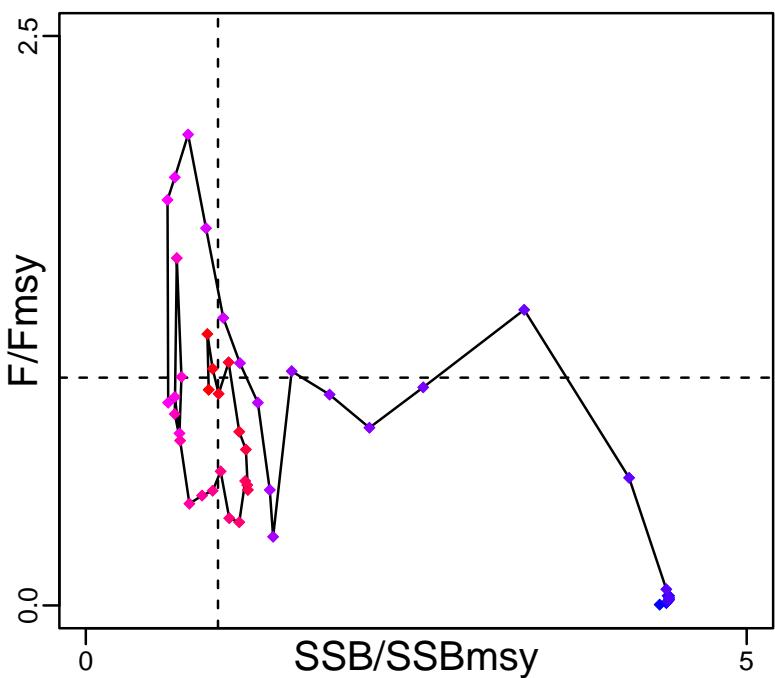
<b>Metadata</b>	
<b>Scientific Name</b>	Lopholatilus chamaeleonticeps
<b>Current Assess ID</b>	SEFSC-TILESATLC-1972-2018-SISIMP2021-2
<b>Area</b>	Southern Atlantic coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southeast Fisheries Science Center
<b>Asmts in RAM</b>	2011, 2014, 2018

<b>Reference Points</b>				
Type	ID	Asmt Year	Value	
<b>TBmsy</b>	TBmsy-MT	2011	2918	
<b>SSBmsy</b>	SSBmsy-FemaleGonadMT	2018	20	
<b>Fmsy</b>	Fmsy-1/yr	2018	0.282	
<b>ERmsy</b>	ERmsy-calc-ratio	2011	0.099	
<b>TBmgt</b>	-	-	-	
<b>SSBmgt</b>	-	-	-	
<b>Fmgt</b>	-	-	-	
<b>ERmgt</b>	-	-	-	
<b>TB0</b>	-	-	-	
<b>SSB0</b>	-	-	-	
<b>MSY</b>	MSY-MT	2018	246	
<b>M</b>	M-1/yr	2011	0.1	
<b>TBlim</b>	-	-	-	
<b>SSBlim</b>	SSBlim-FemaleGonadMT	2018	15	
<b>Flim</b>	Flim-1/yr	2018	0.282	
<b>ERlim</b>	-	-	-	

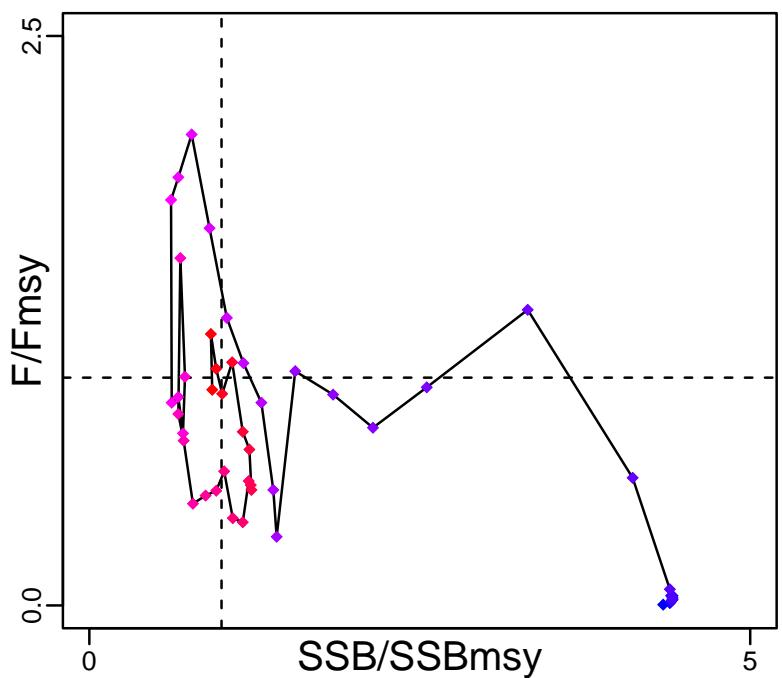
<b>Time Series</b>						
Type	ID	Asmt Year	Curr Value	Sex	Age	
<b>TB</b>	TB-MT	2011	5240	-	-	
<b>SSB</b>	SSB-FemaleGonadMT	2018	18	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2018	308,000	-	1	
<b>F</b>	F-1/yr	2018	0.267	-	-	
<b>ER</b>	ER-calc-ratio	2011	0.052	-	-	
<b>TC</b>	TC-MT	2018	153			
<b>TL</b>	TL-MT	2011	275			
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2011	1.796			
<b>SSB/SSBmsy</b>	SSB-FemaleGonadMT/SSBmsy-FemaleGonadMT	2018	0.93			
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2018	0.947			
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-calc-ratio	2011	0.526			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

Tilefish Southern Atlantic coast [TILESATLC]

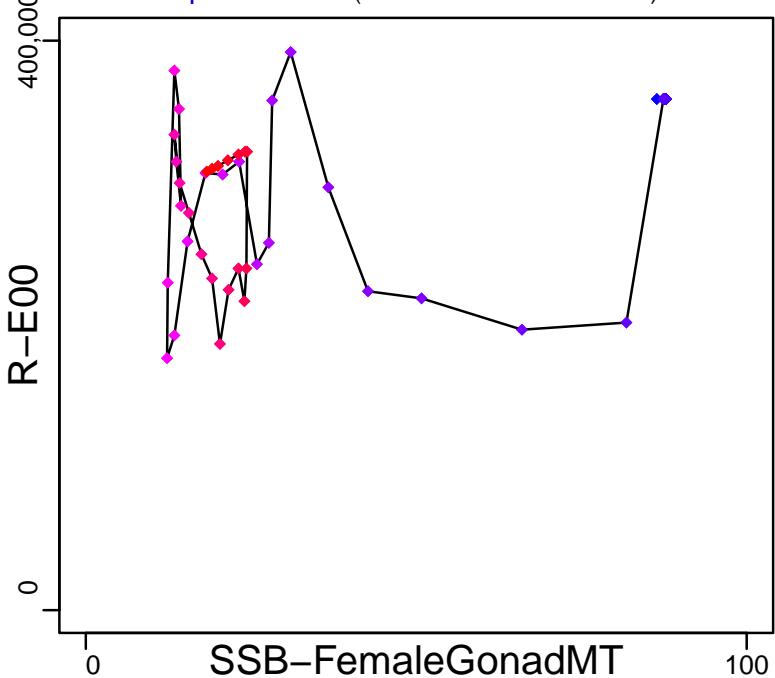
Kobe MSYpref (1972–2018–SISIMP2021–2)



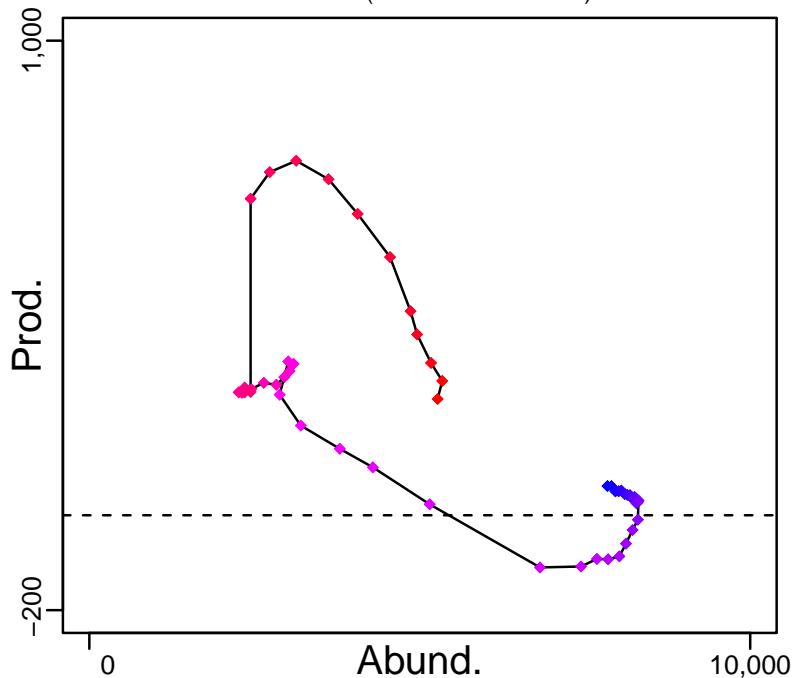
Kobe MGTpref (1972–2018–SISIMP2021–2)



Spawner Recruit (1972–2018–SISIMP2021–2)



Production (1961–2011–HIVELY)

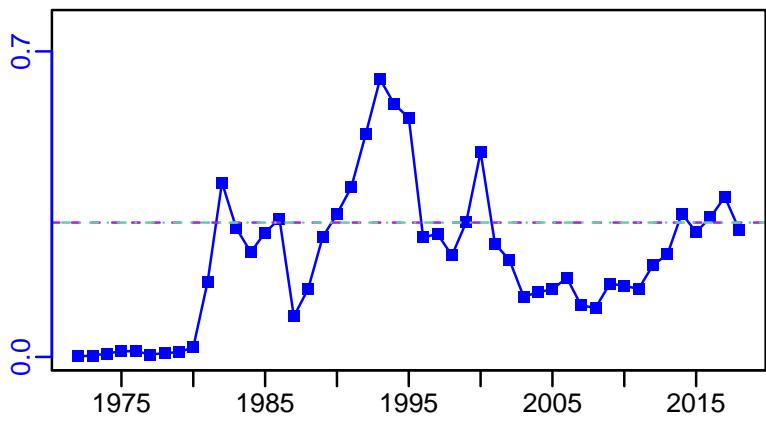
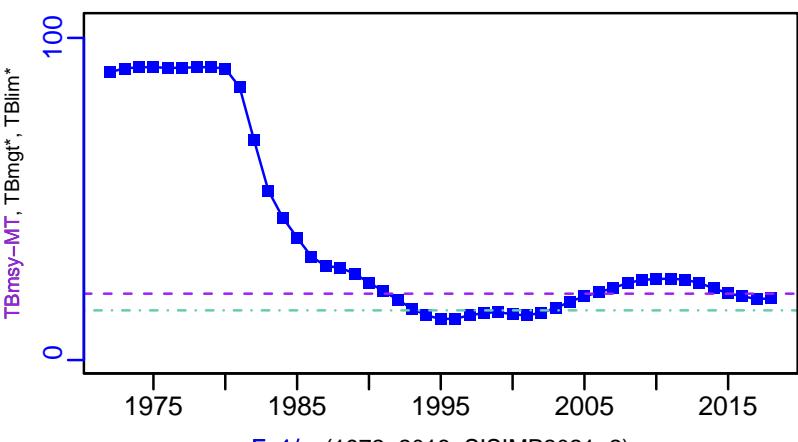
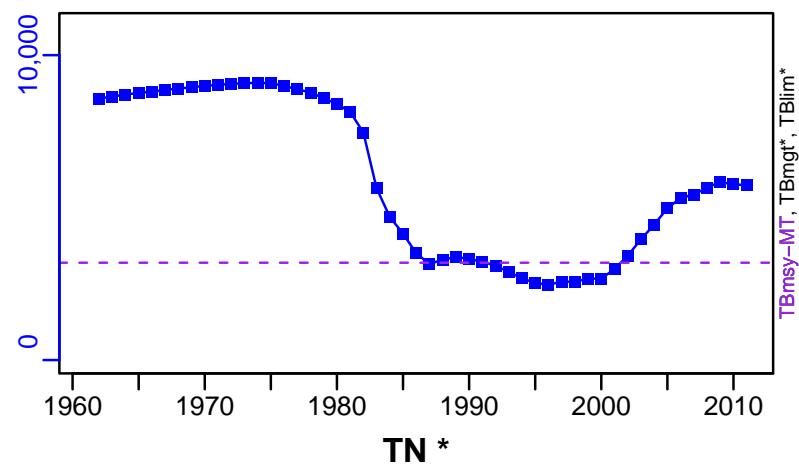


◆ Start Year   ◆ End Year   \* No Data

Tilefish Southern Atlantic coast [TILESATLC]

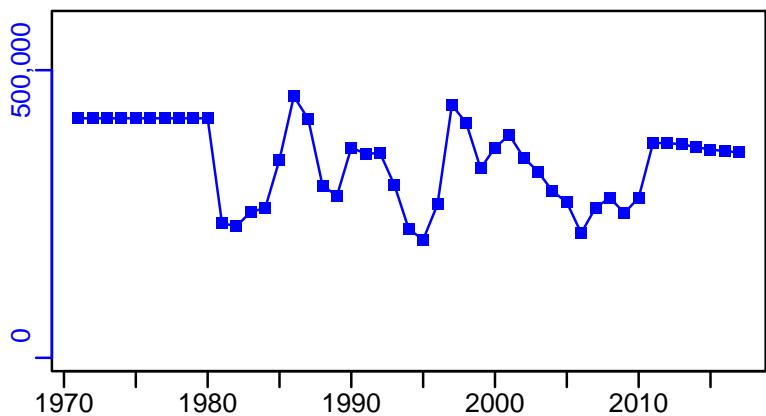
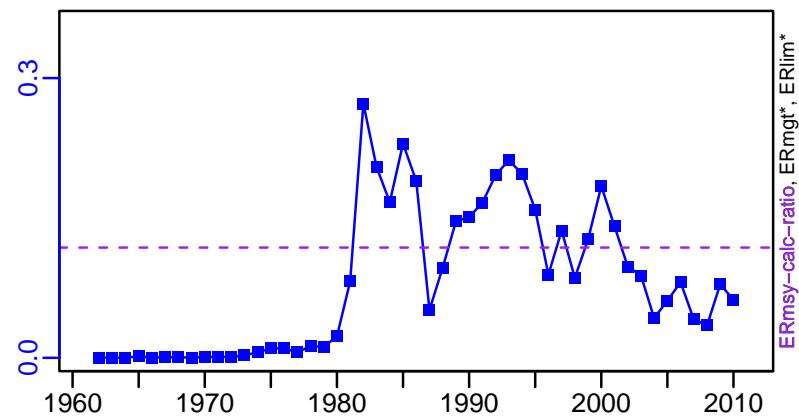
TB-MT (1961–2011-HIVELY)

SSB-FemaleGonadMT (1972–2018-SISIMP2021-2)



ER-calc-ratio (1961–2011-HIVELY)

R-E00 (1972–2018-SISIMP2021-2)

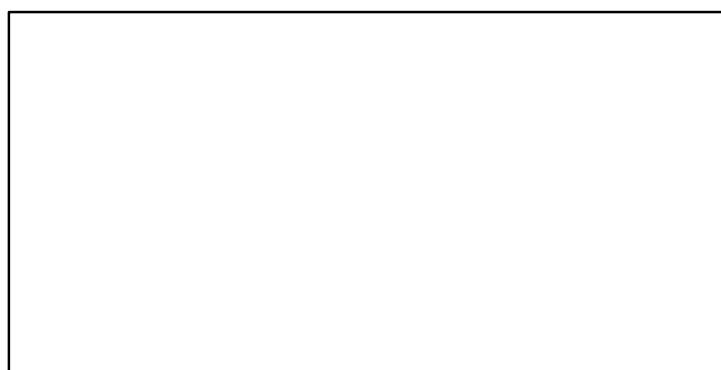
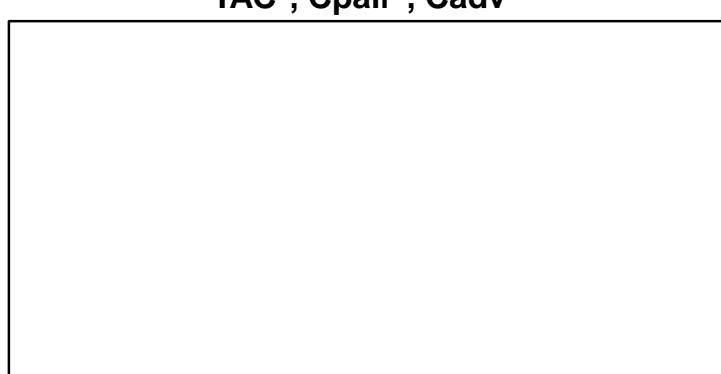
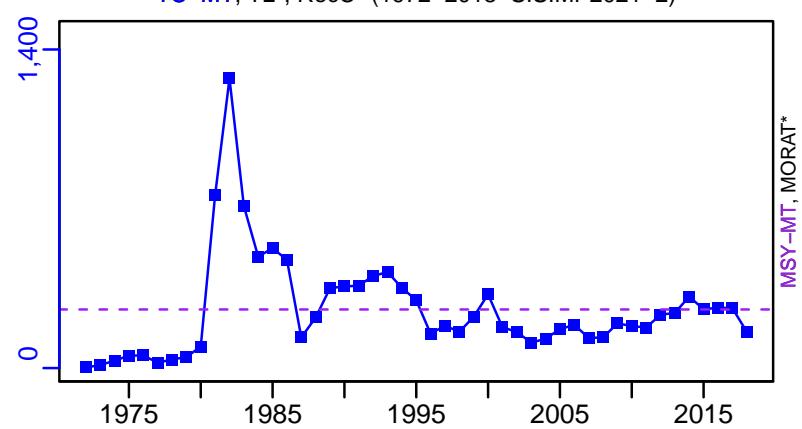


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	- - - Lim BRP	* No Data

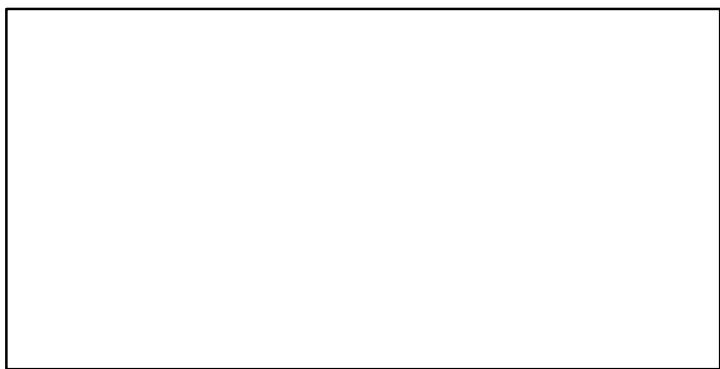
Tilefish Southern Atlantic coast [TILESATLC]

TC-MT, TL\*, RecC\* (1972–2018–SISIMP2021–2)

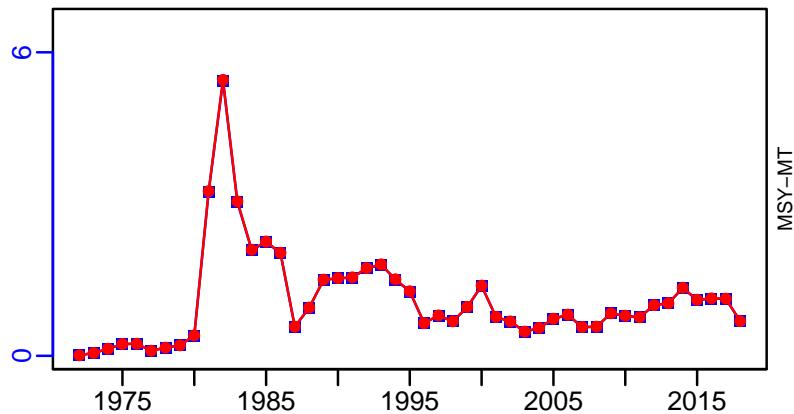
TAC\*, Cpair\*, Cadv\*



**EFFORT\***



TC-MT/MSY-MT, CdivMEANC-ratio, (1972–2018–SISIMP2021–2)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Twosaddle goatfish Main Hawaiian Islands [TSGTFMHI]

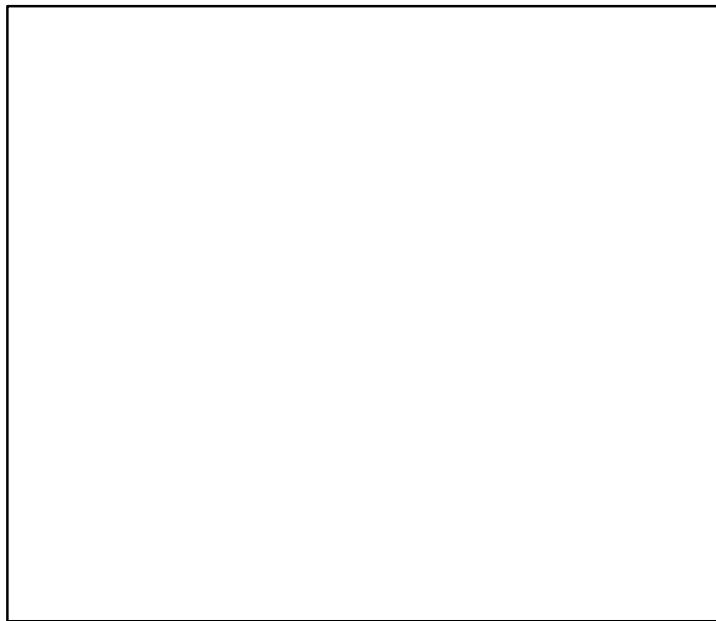
<b>Metadata</b>	
<b>Scientific Name</b>	Parupeneus bifasciatus
<b>Current Assess ID</b>	PIFSC-TSGTFMHI-2004-2015-SISIMP2021
<b>Area</b>	Main Hawaiian Islands
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Pacific Fisheries Science Center
<b>Asmts in RAM</b>	2015

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

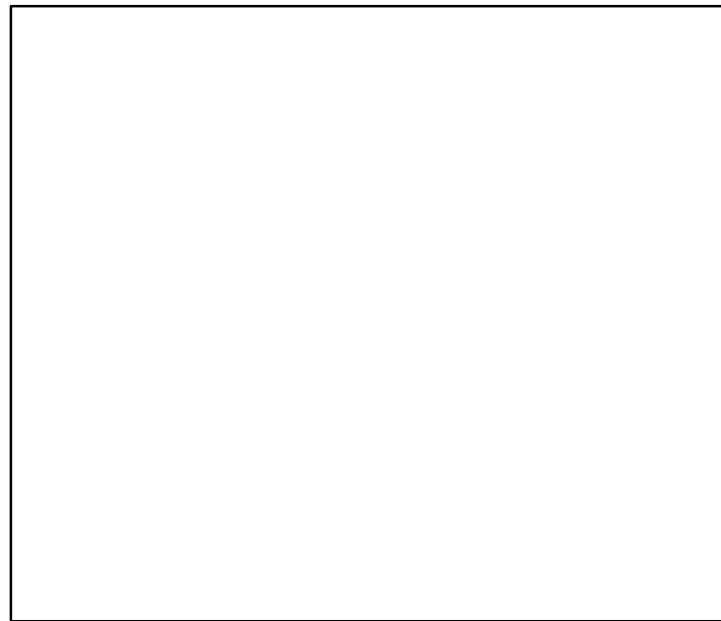
<b>Time Series</b>					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2015	0.518		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

Twosaddle goatfish Main Hawaiian Islands [TSGTFMHI]

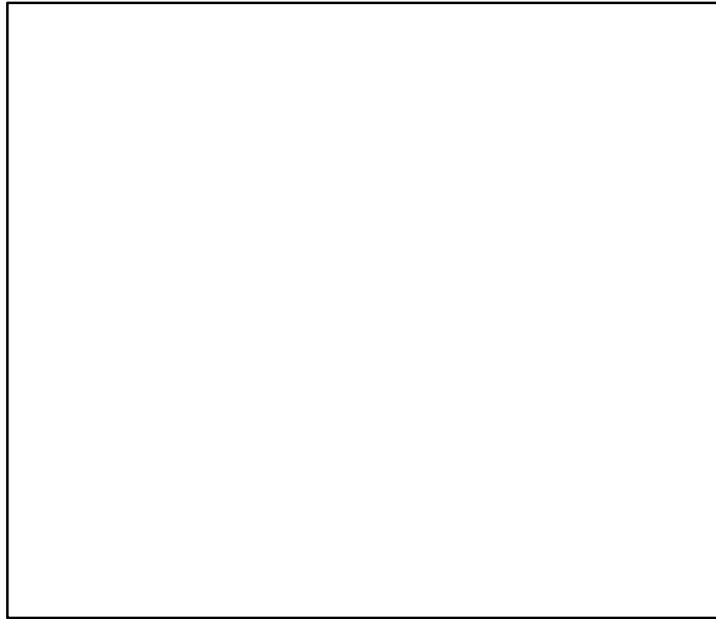
**Kobe MSY\***



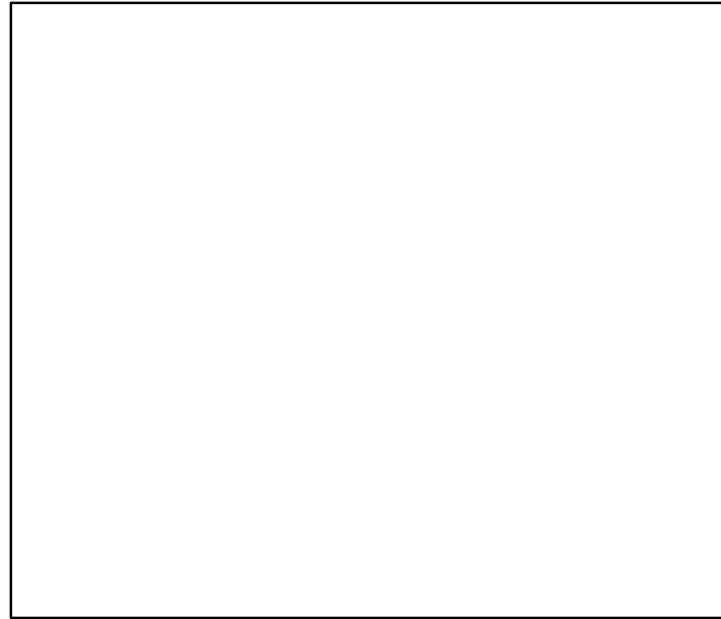
**Kobe MGT\***



**Spawner Recruit\***



**Production\***



◆ Start Year ♦ End Year \* No Data

Twosaddle goatfish Main Hawaiian Islands [TSGTFMHI]

**TB\***



**SSB\***



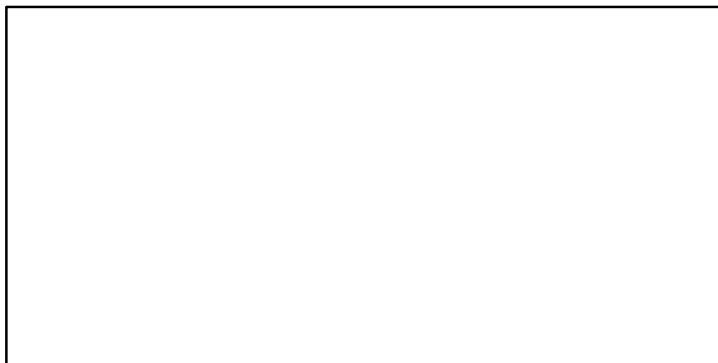
**TN \***



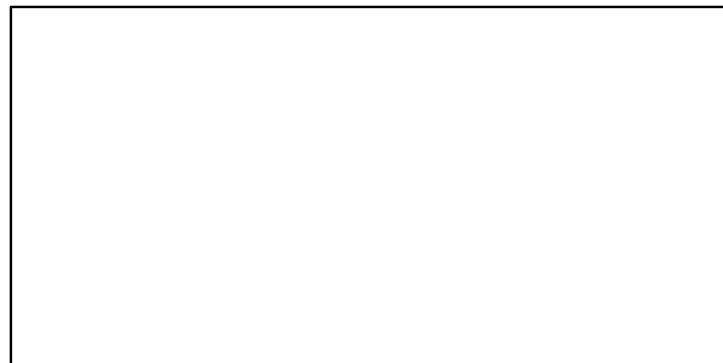
**F\***



**ER\***



**Recruits\***

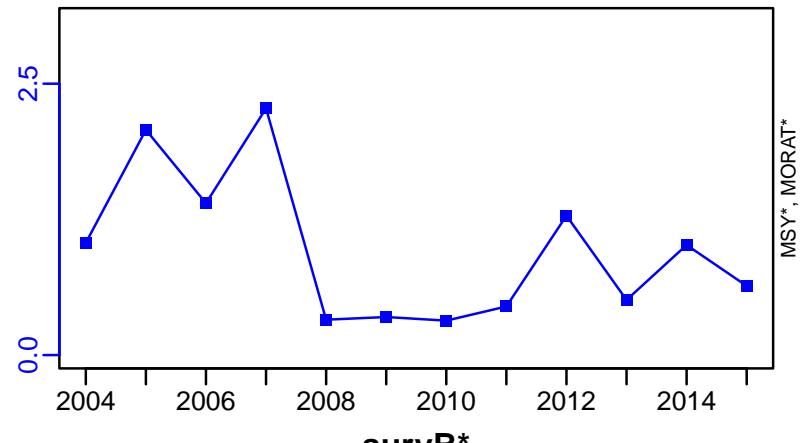


- |       |                    |       |            |   |         |
|-------|--------------------|-------|------------|---|---------|
| ■     | Listed time series | - - - | Target BRP | — | Rec-Est |
| - - - | MSY-based BRP      | - - - | Lim BRP    | * | No Data |

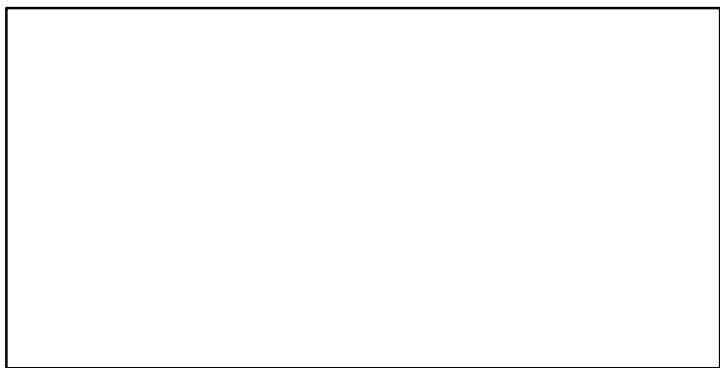
Twosaddle goatfish Main Hawaiian Islands [TSGTFMHI]

TC-MT, TL\*, RecC\* (2004–2015–SISIMP2021)

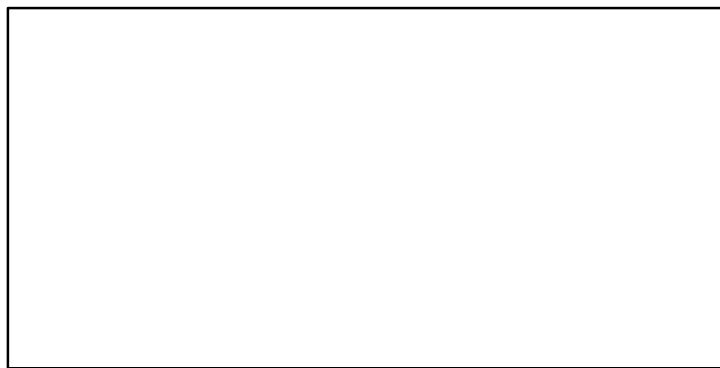
TAC\*, Cpair\*, Cadv\*



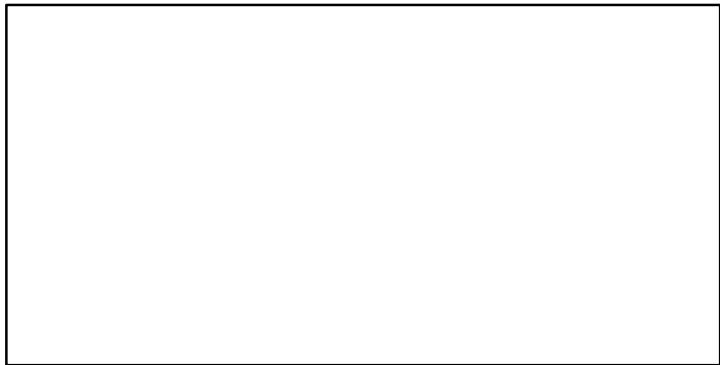
survB\*



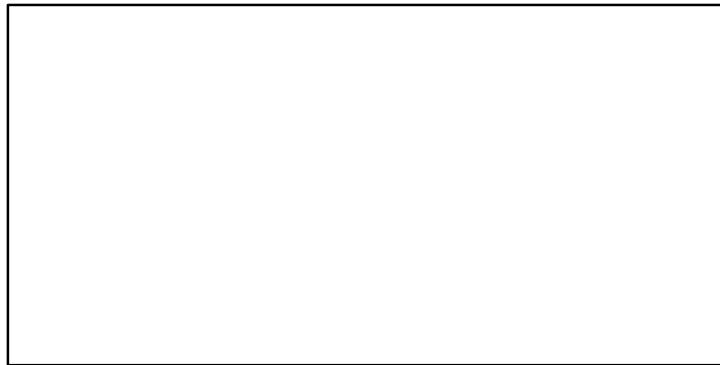
CPUE\*



EFFORT\*



CdivMSY\*



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - - MSY                | * No Data |

## Vermilion snapper Gulf of Mexico [VSNAPGM]

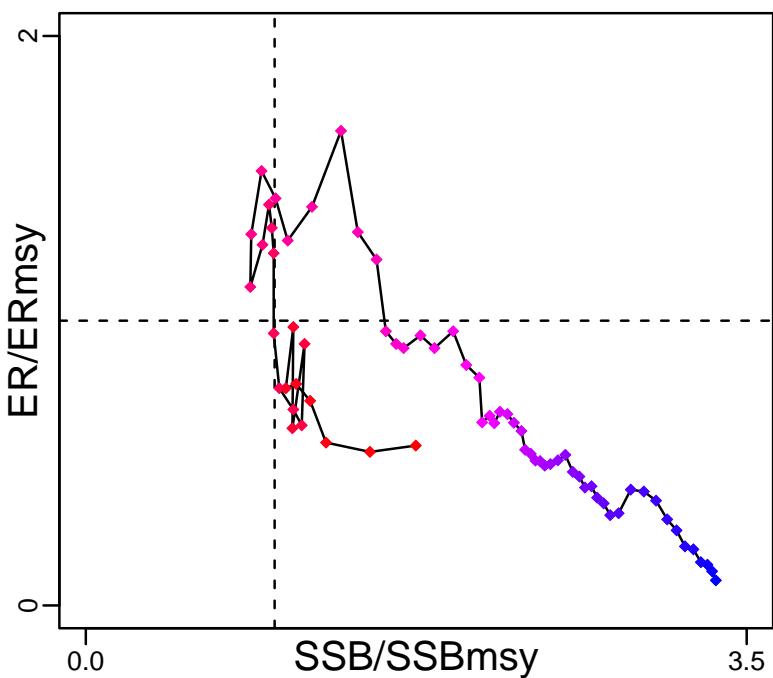
Metadata	
<b>Scientific Name</b>	Rhomboplites aurorubens
<b>Current Assess ID</b>	SEFSC-VSNAPGM-1950-2017-SISIMP2021-2
<b>Area</b>	Gulf of Mexico
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southeast Fisheries Science Center
<b>Asmts in RAM</b>	2014, 2017, 2004

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-E00eggs	2017	$2.02 \times 10^{14}$
<b>Fmsy</b>	Fmsy-1/yr	2014	0.103
<b>ERmsy</b>	ERmsy-ratio	2017	0.135
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	Fmgt-1/yr	2014	0.087
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2014	1529
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-E00eggs	2017	$1.01 \times 10^{14}$
<b>Flim</b>	Flim-1/yr	2014	0.103
<b>ERlim</b>	ERlim-ratio	2017	0.135

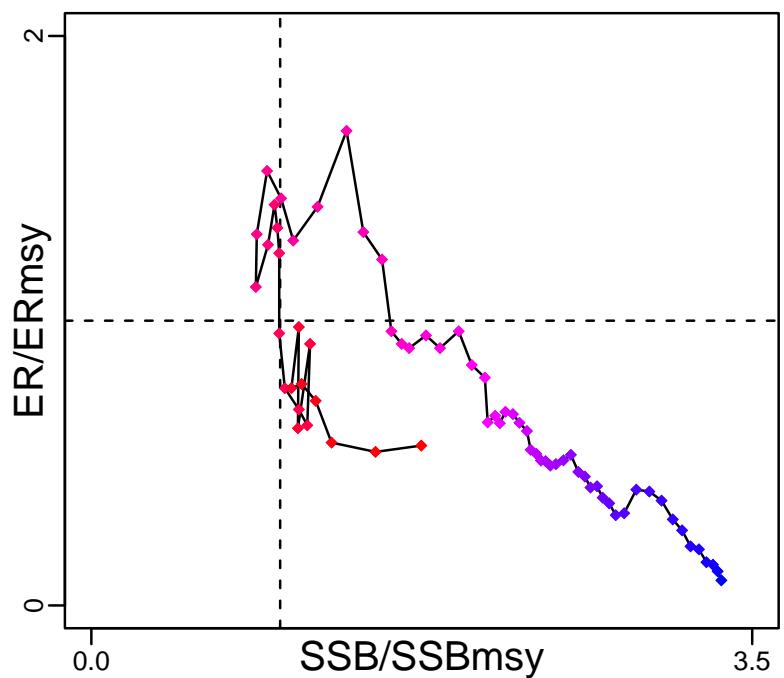
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
<b>TB</b>	TB-MT	2014	11,500	-	1+	
<b>SSB</b>	SSB-E00eggs	2017	$3.53 \times 10^{14}$	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2017	21,200,000	-	0	
<b>F</b>	F-1/yr	2014	0.239	-	-	
<b>ER</b>	ER-ratio	2017	0.076	-	-	
<b>TC</b>	TC-MT	2017	2810			
<b>TL</b>	-	-	-			
<b>TB/TBmsy</b>	-	-	-			
<b>SSB/SSBmsy</b>	SSB-E00eggs/SSBmsy-E00eggs	2017	1.748			
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2014	2.32			
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2017	0.561			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2014	2.747			
<b>ER/ERmgt</b>	-	-	-			

Vermilion snapper Gulf of Mexico [VSNAPGM]

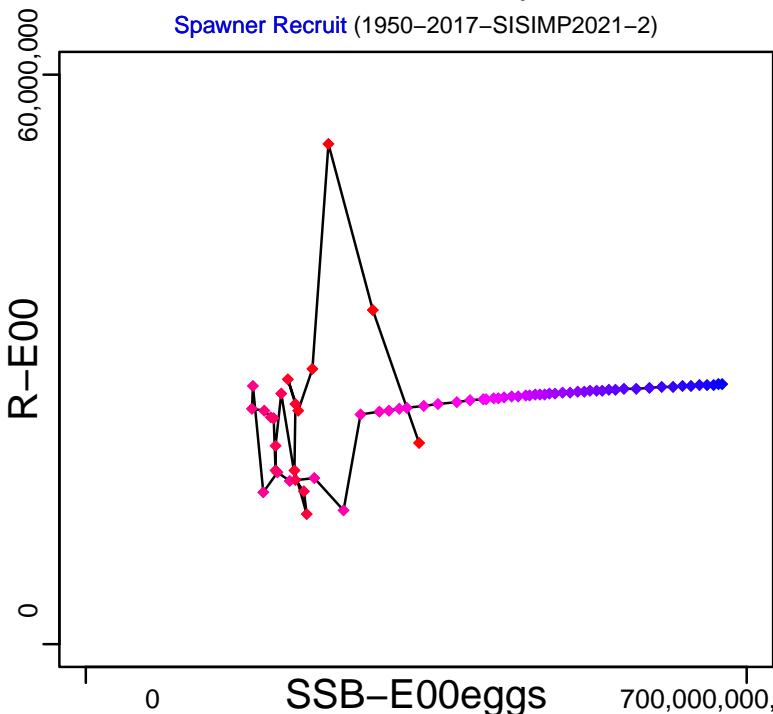
Kobe MSYpref (1950–2017–SISIMP2021–2)



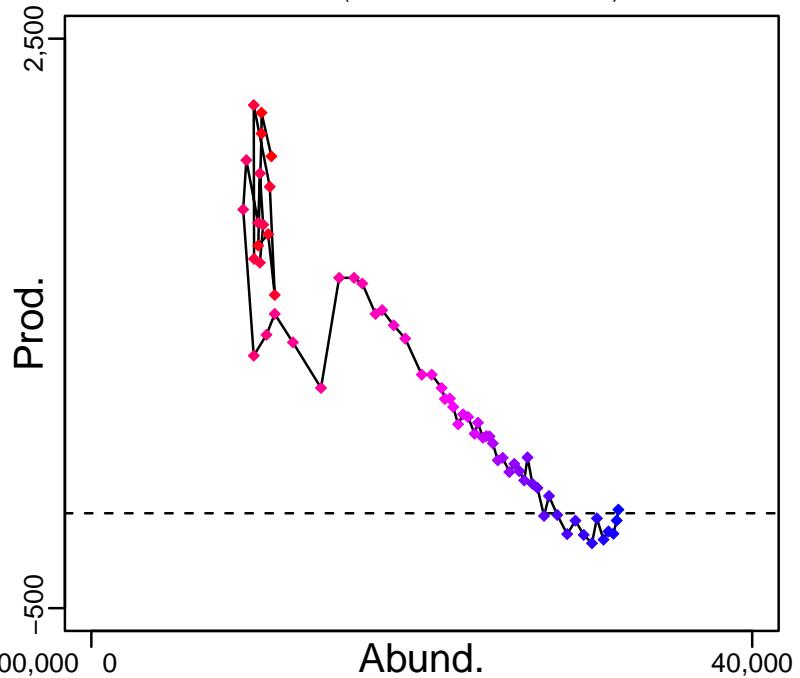
Kobe MGTpref (1950–2017–SISIMP2021–2)



Spawner Recruit (1950–2017–SISIMP2021–2)



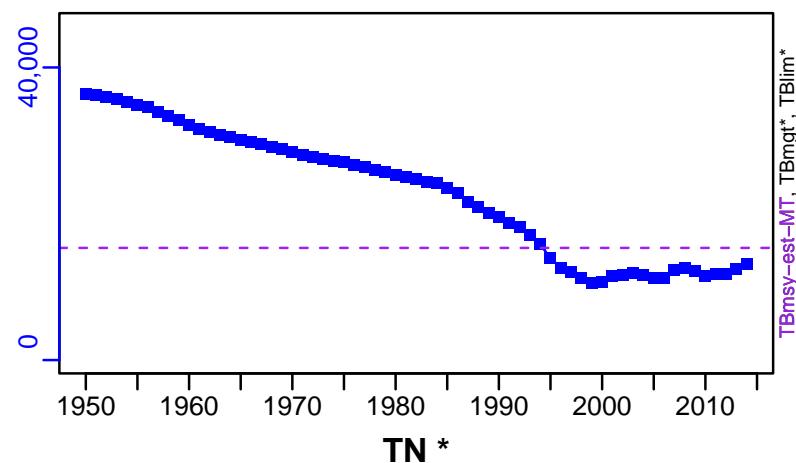
Production (1950–2014–SISIMP2016)



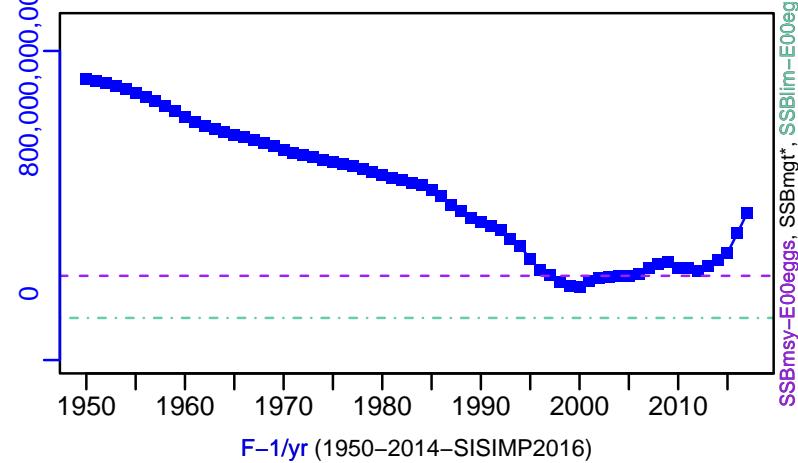
◆ Start Year   ◆ End Year   \* No Data

### Vermilion snapper Gulf of Mexico [VSNAPGM]

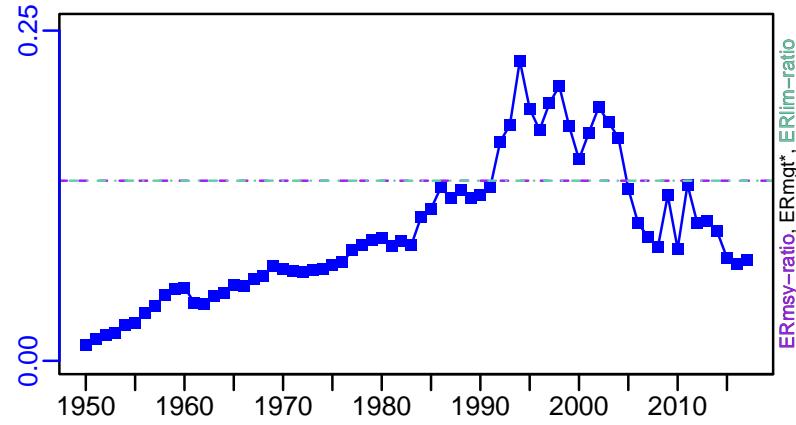
TB-MT (1950–2014–SISIMP2016)



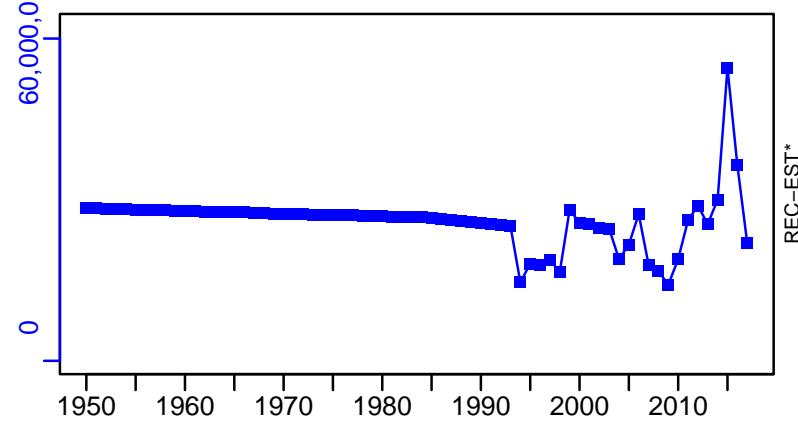
SSB-E00eggs (1950–2017–SISIMP2021–2)



ER-ratio (1950–2017–SISIMP2021–2)



R-E00 (1950–2017–SISIMP2021–2)

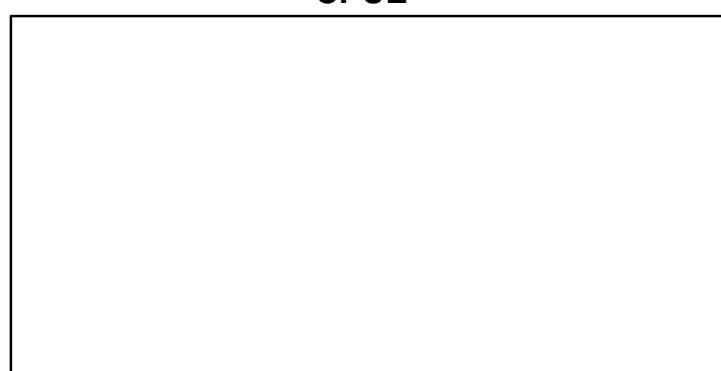
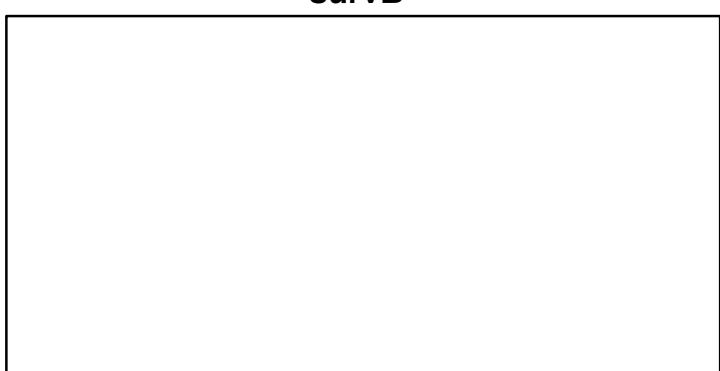
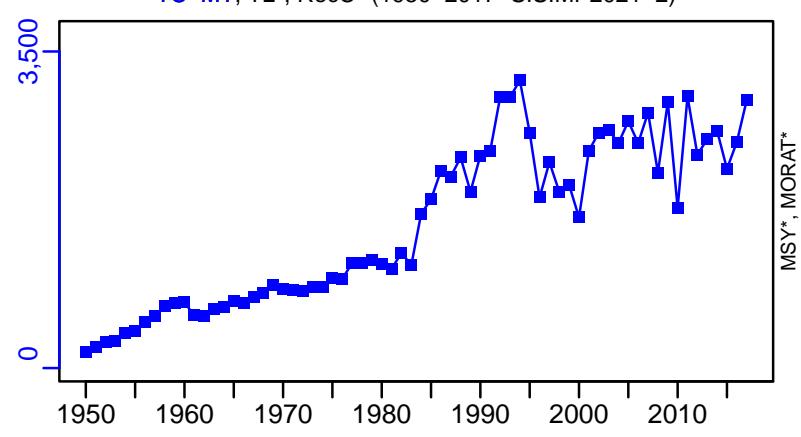


- |                      |              |           |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| — MSY-based BRP      | --- Lim BRP  | * No Data |

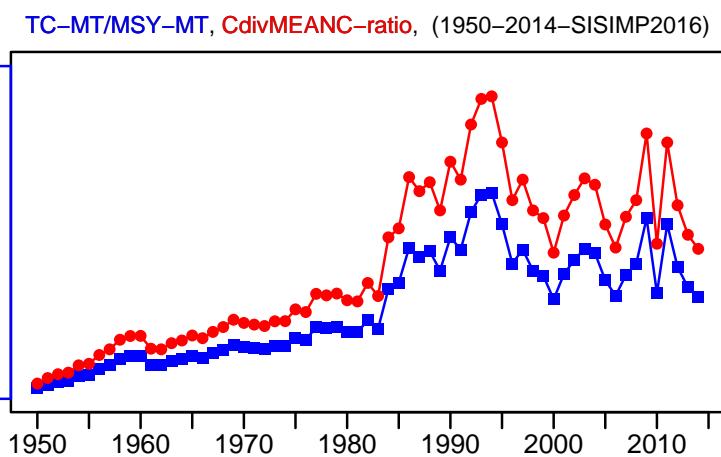
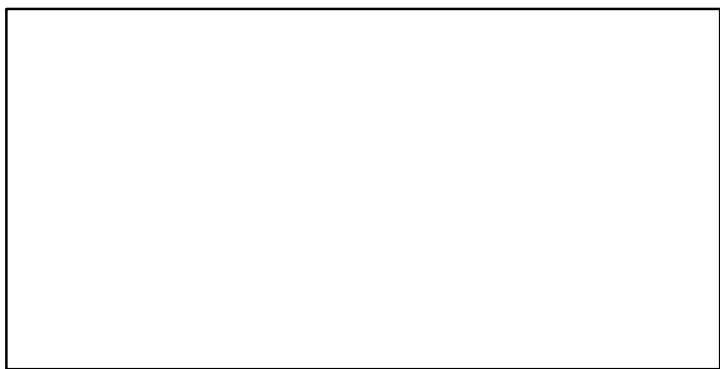
Vermilion snapper Gulf of Mexico [VSNAPGM]

TC-MT, TL\*, RecC\* (1950–2017–SISIMP2021–2)

TAC\*, Cpair\*, Cadv\*



**EFFORT\***



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Vermilion snapper Southern Atlantic coast [VSNAPSATLC]

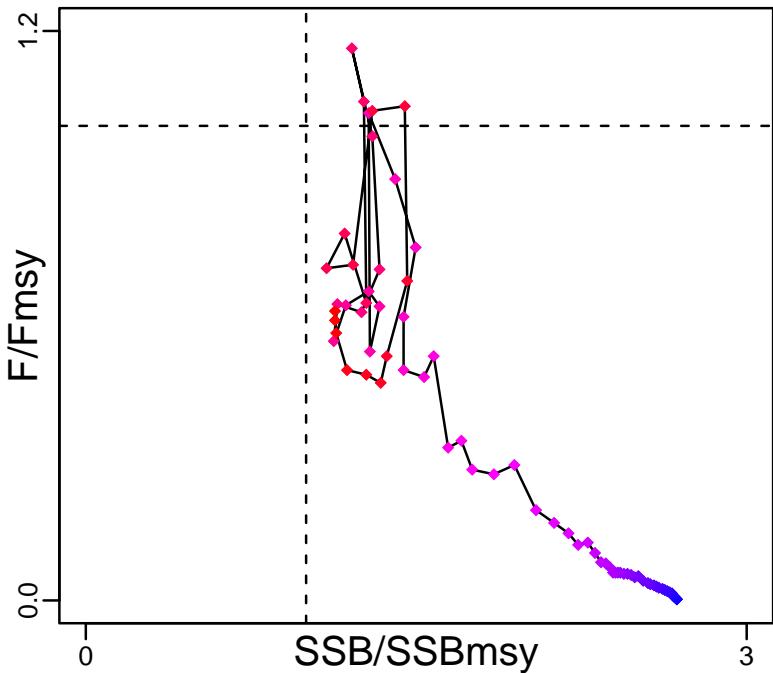
Metadata	
<b>Scientific Name</b>	Rhomboplites aurorubens
<b>Current Assess ID</b>	SEFSC-VSNAPSATLC-1945-2016-SISIMP2021
<b>Area</b>	Southern Atlantic coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southeast Fisheries Science Center
<b>Asmts in RAM</b>	2012, 2016

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-MT	2012	2252
<b>SSBmsy</b>	SSBmsy-E00eggs	2016	$1.83 \times 10^{13}$
<b>Fmsy</b>	Fmsy-1/yr	2016	0.41
<b>ERmsy</b>	ERmsy-calc-ratio	2012	0.309
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2016	592
<b>M</b>	M-1/yr	2012	0.22
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-E00eggs	2016	$1.37 \times 10^{13}$
<b>Flim</b>	Flim-1/yr	2016	0.41
<b>ERlim</b>	-	-	-

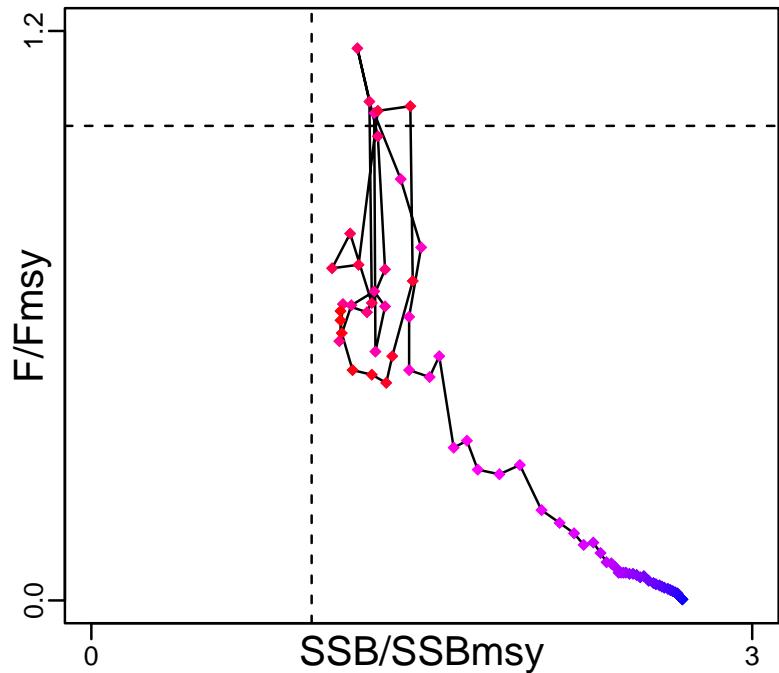
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
<b>TB</b>	TB-MT	2012	2120	-	-	
<b>SSB</b>	SSB-E00eggs	2016	$2.07 \times 10^{13}$	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2016	5,501,271	-	1	
<b>F</b>	F-1/yr	2016	0.25	-	-	
<b>ER</b>	ER-calc-ratio	2012	0.296	-	-	
<b>TC</b>	TC-MT	2016	573			
<b>TL</b>	TL-MT	2012	649			
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2012	0.941			
<b>SSB/SSBmsy</b>	SSB-E00eggs/SSBmsy-E00eggs	2016	1.131			
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2016	0.61			
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-calc-ratio	2012	0.958			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

Vermilion snapper Southern Atlantic coast [VSNAPSATLC]

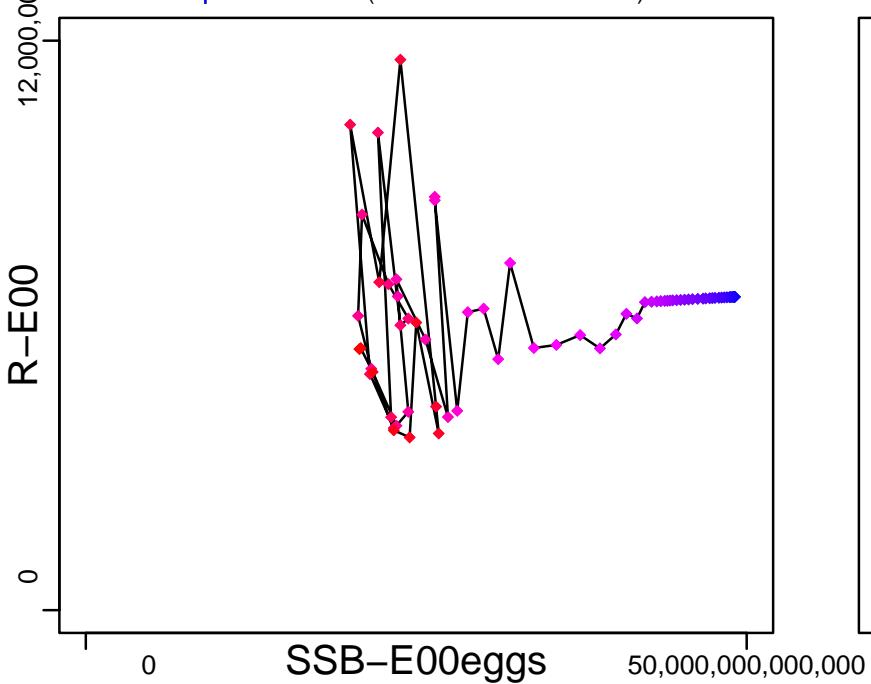
Kobe MSYpref (1945–2016–SISIMP2021)



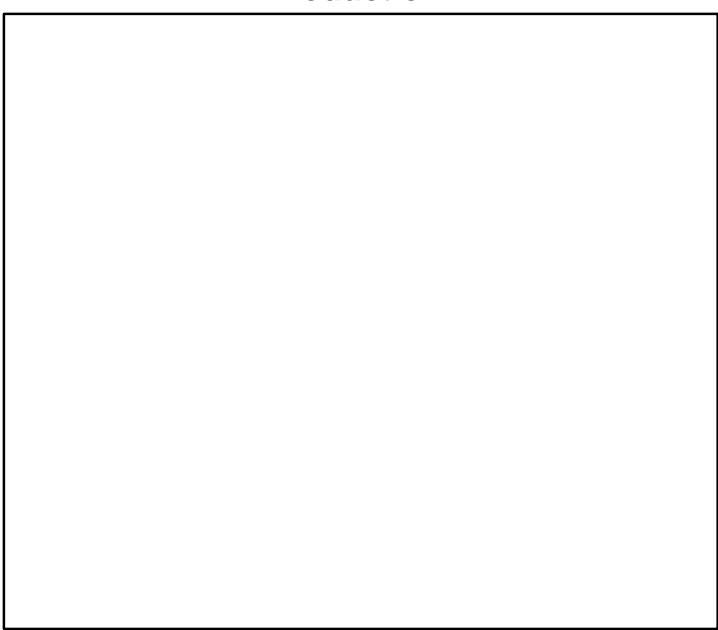
Kobe MGTpref (1945–2016–SISIMP2021)



Spawner Recruit (1945–2016–SISIMP2021)



Production\*

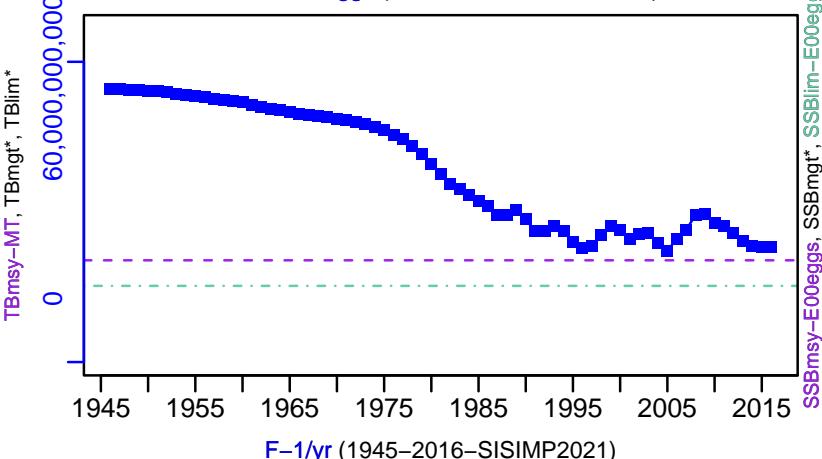
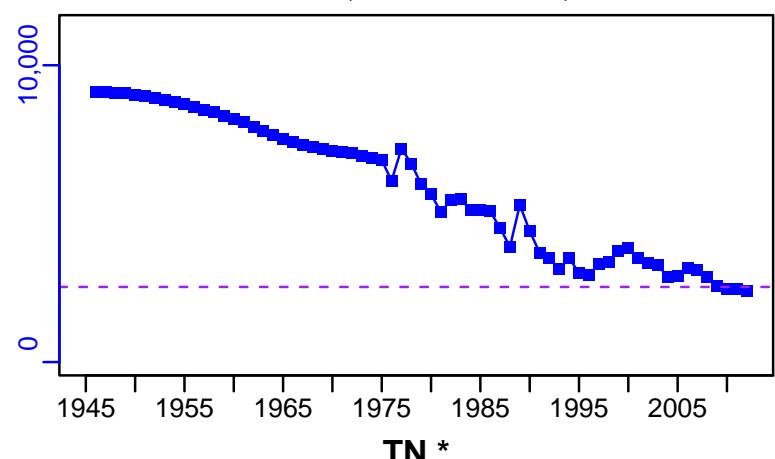


◆ Start Year ◆ End Year \* No Data

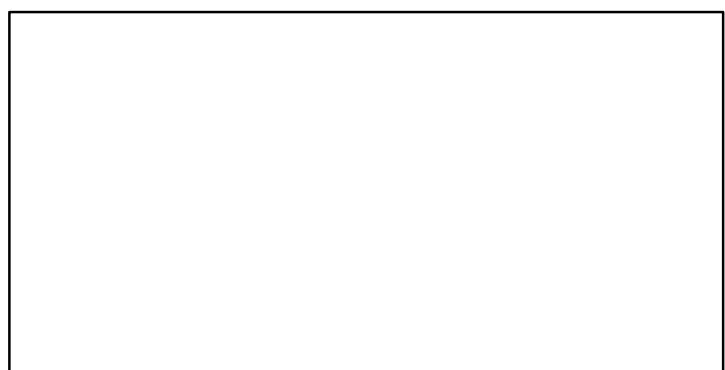
Vermilion snapper Southern Atlantic coast [VSNAPSATLC]

TB-MT (1945–2012-HIVELY)

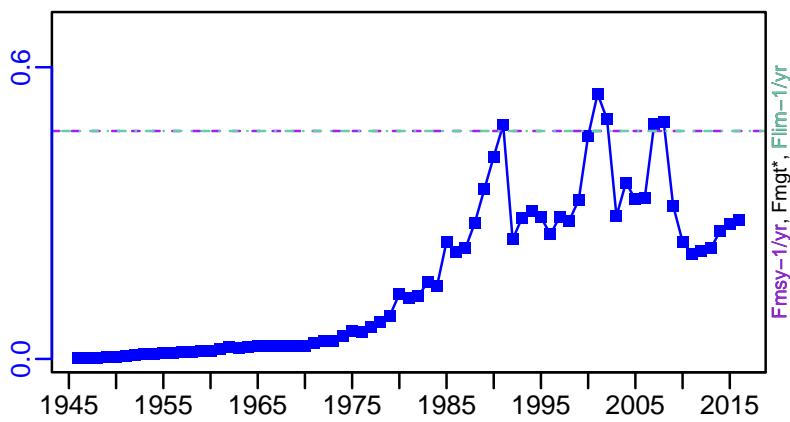
SSB-E00eggs (1945–2016-SISIMP2021)



TN \*

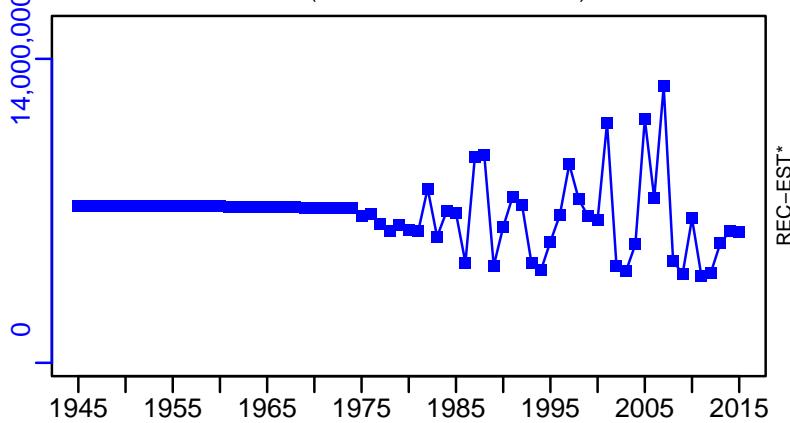
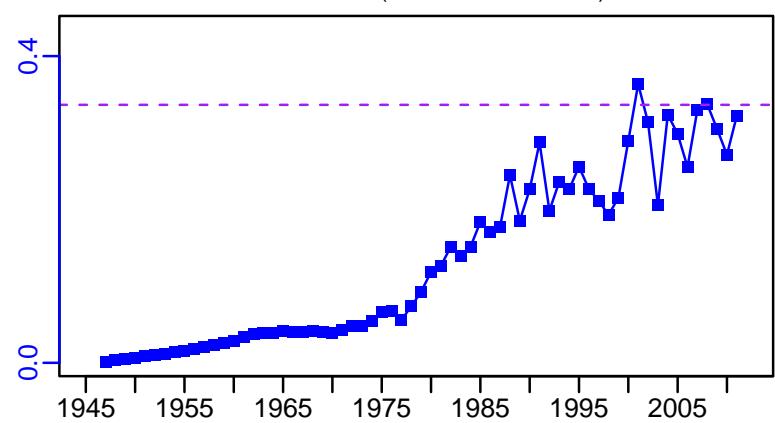


F-1/yr (1945–2016-SISIMP2021)



ER-calc-ratio (1945–2012-HIVELY)

R-E00 (1945–2016-SISIMP2021)

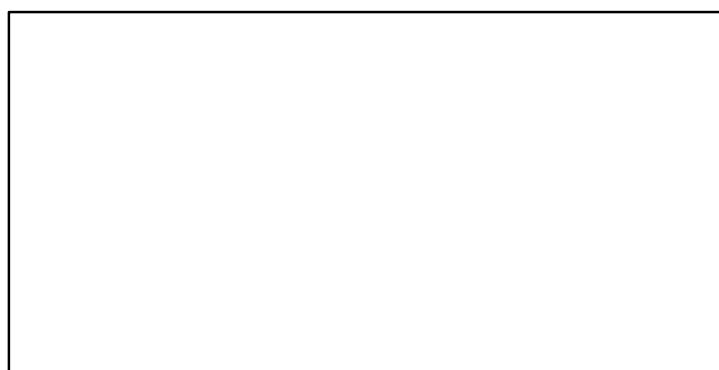
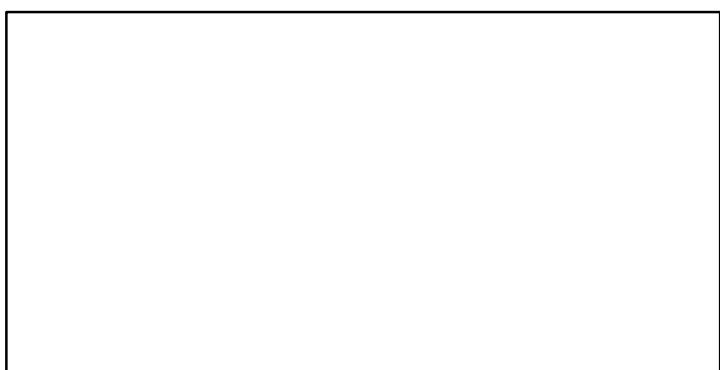
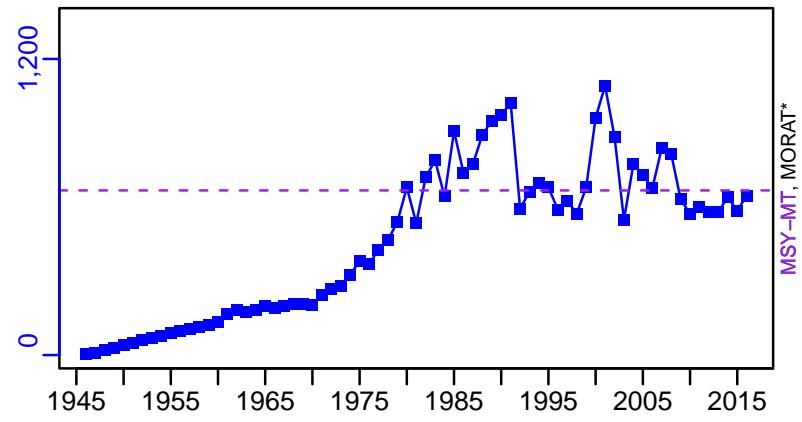


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - - Lim BRP	* No Data

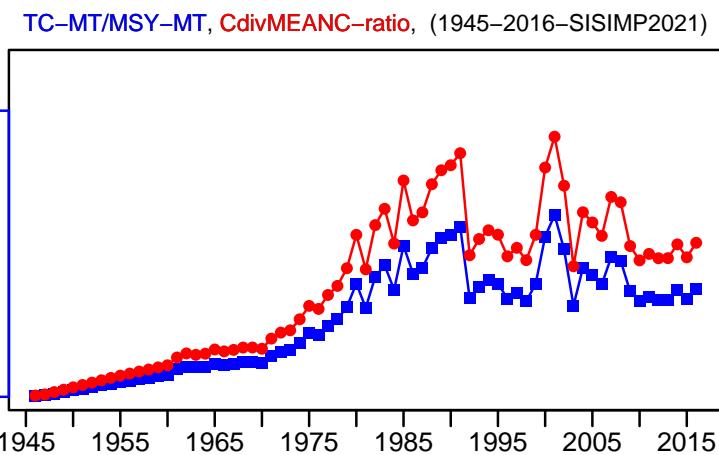
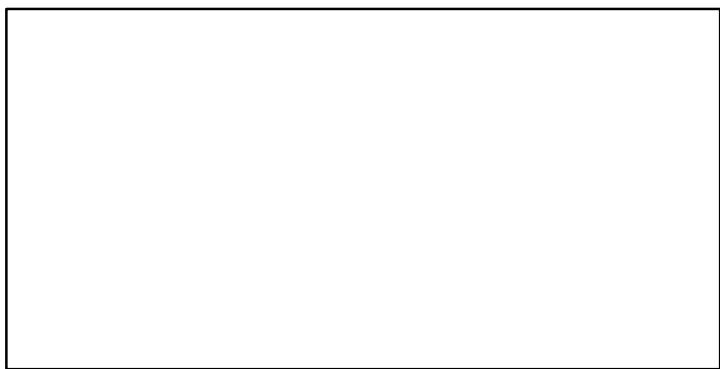
Vermilion snapper Southern Atlantic coast [VSNAPSATLC]

TC-MT, TL\*, RecC\* (1945–2016–SISIMP2021)

TAC\*, Cpair\*, Cadv\*



**EFFORT\***



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Weakfish Atlantic Coast [WEAKFISHATLC]

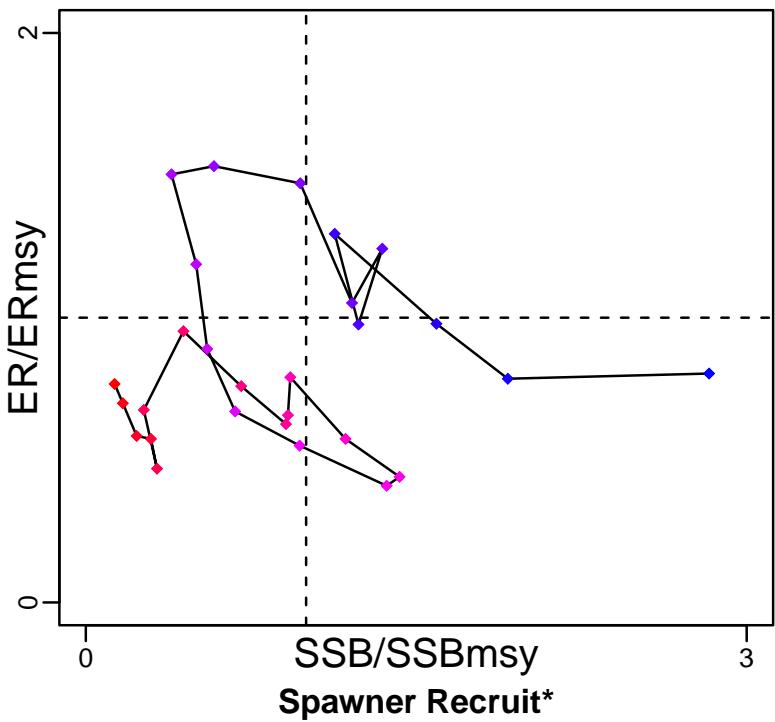
<b>Metadata</b>	
<b>Scientific Name</b>	Cynoscion regalis
<b>Current Assess ID</b>	NEFSC-WEAKFISHATLC-1981-2008-STANTON
<b>Area</b>	Atlantic Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northeast Fisheries Science Center
<b>Asmts in RAM</b>	2008

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-pr-MT	2008	10,179
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	M-1/yr	2008	0.25
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

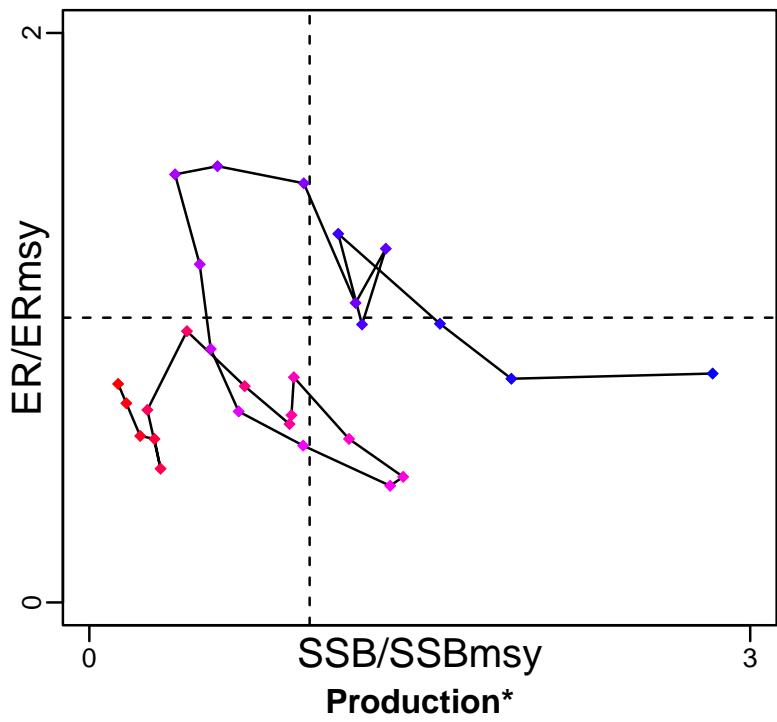
<b>Time Series</b>						
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>	
<b>TB</b>	-	-	-	-	-	
<b>SSB</b>	SSB-MT	2008	1330	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	-	-	-	-	-	
<b>F</b>	-	-	-	-	-	
<b>ER</b>	ER-ratio	2008	0.294	-	-	
<b>TC</b>	TC-MT	2008	899			
<b>TL</b>	-	-	-			
<b>TB/TBmsy</b>	-	-	-			
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-pr-MT	2008	0.131			
<b>F/Fmsy</b>	-	-	-			
<b>ER/ERmsy</b>	-	-	-			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

**Weakfish Atlantic Coast [WEAKFISHATLC]**

Kobe MSYpref (1981–2008-STANTON)



Kobe MGTPref (1981–2008-STANTON)



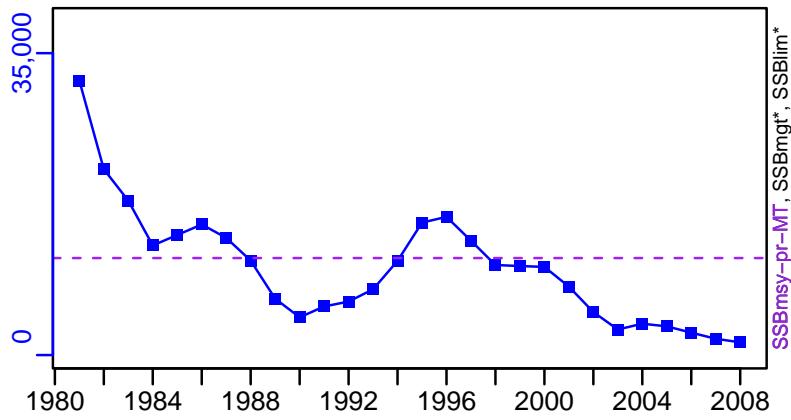
◆ Start Year    ♦ End Year    \* No Data

**Weakfish Atlantic Coast [WEAKFISHATLC]**

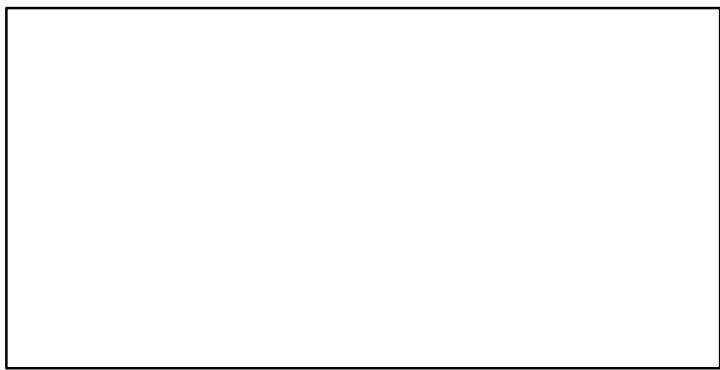
**TB\***



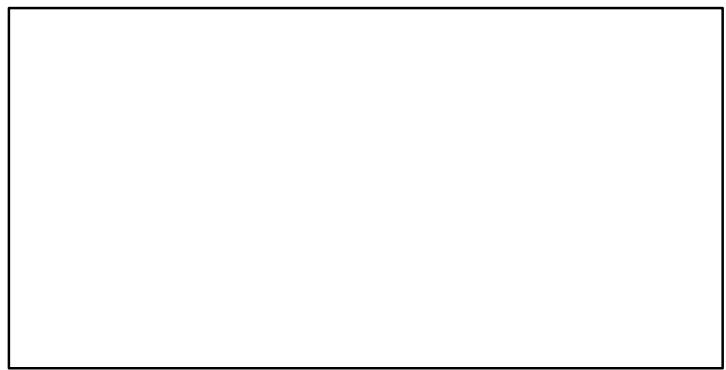
**SSB-MT (1981–2008–STANTON)**



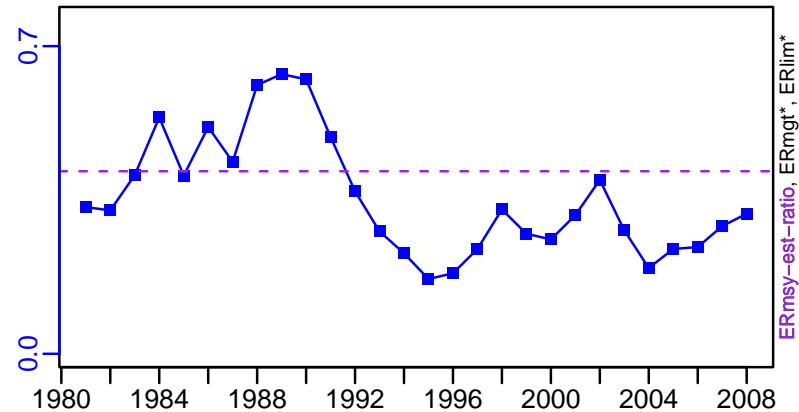
**TN \***



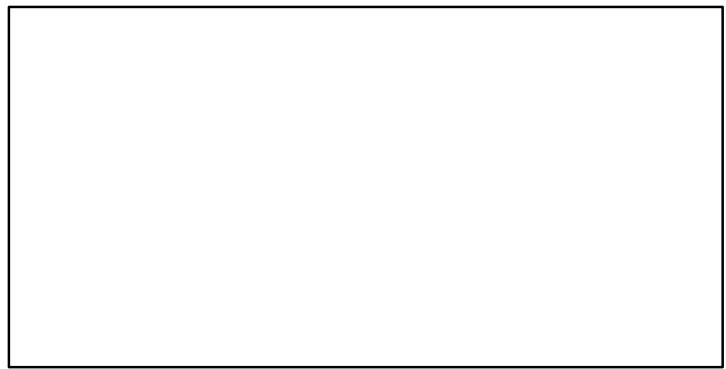
**F\***



**ER-ratio (1981–2008–STANTON)**



**Recruits\***

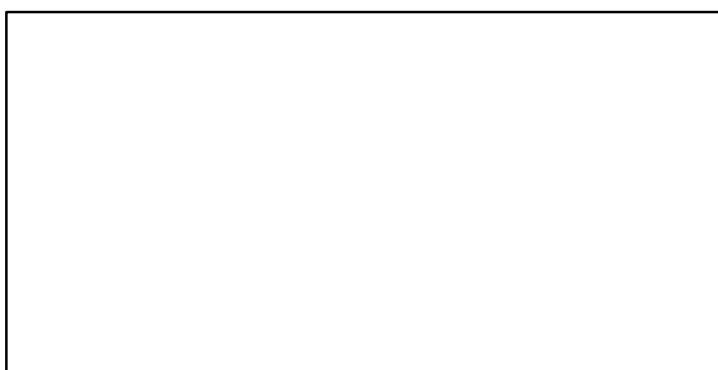
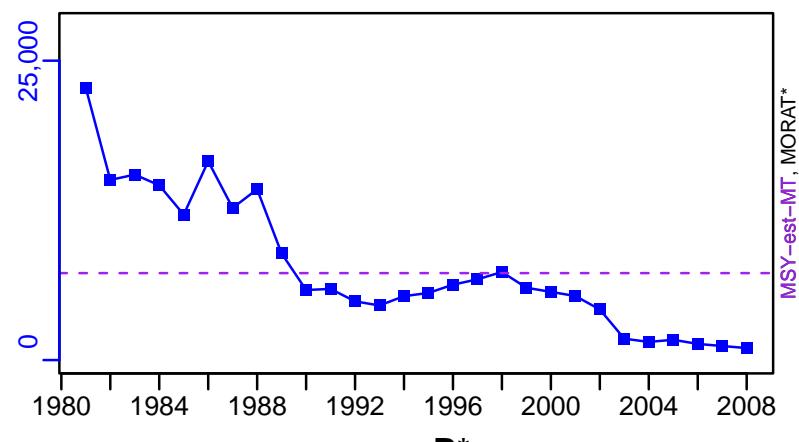


- |                      |              |           |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| — MSY-based BRP      | — Lim BRP    | * No Data |

**Weakfish Atlantic Coast [WEAKFISHATLC]**

TC-MT, TL\*, RecC\* (1981–2008-STANTON)

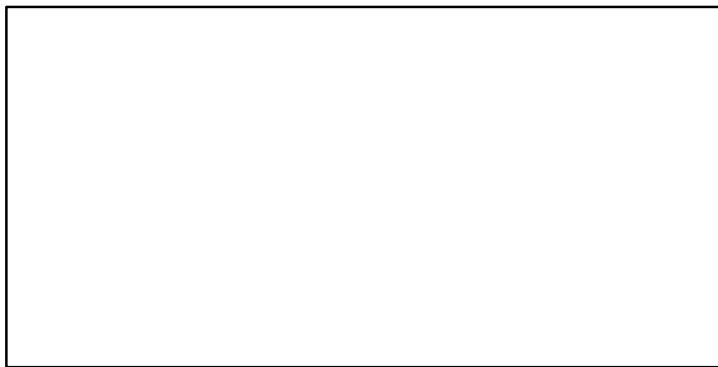
TAC\*, Cpair\*, Cadv\*



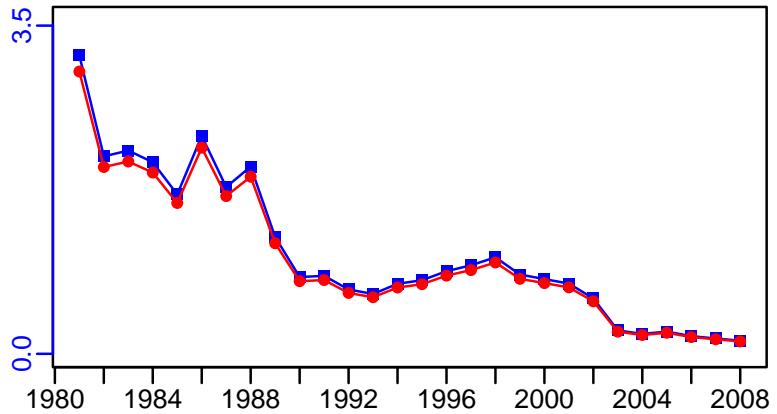
CPUE\*



EFFORT\*



TC-MT/MSY-est-MT, CdivMEANC-ratio, (1981–2008-STANTON)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - MSY	* No Data

## White grouper North West Africa Mauritania-Senegal [WGROUPNWAMRT-SEN]

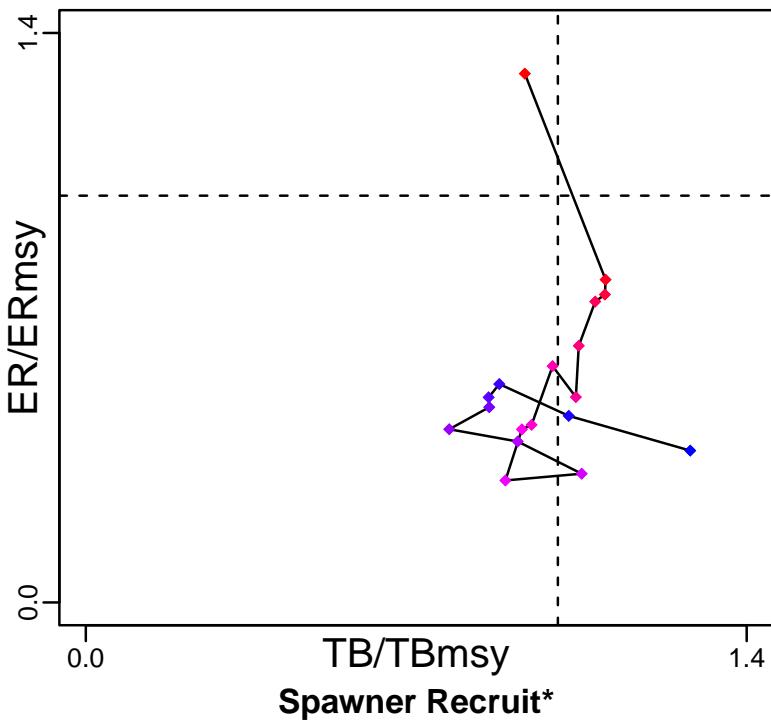
<b>Metadata</b>	
<b>Scientific Name</b>	Epinephelus aeneus
<b>Current Assess ID</b>	FAO-DR-WGROUPNWAMRT-SEN-1990-2016-ASHBROOK
<b>Area</b>	North West Africa Mauritania-Senegal
<b>Management Authority</b>	Food and Agriculture Organization of the United Nations
<b>Assessor</b>	FAO/CECAF Working Group on the Assessment of Demersal Resources
<b>Asmts in RAM</b>	2016

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

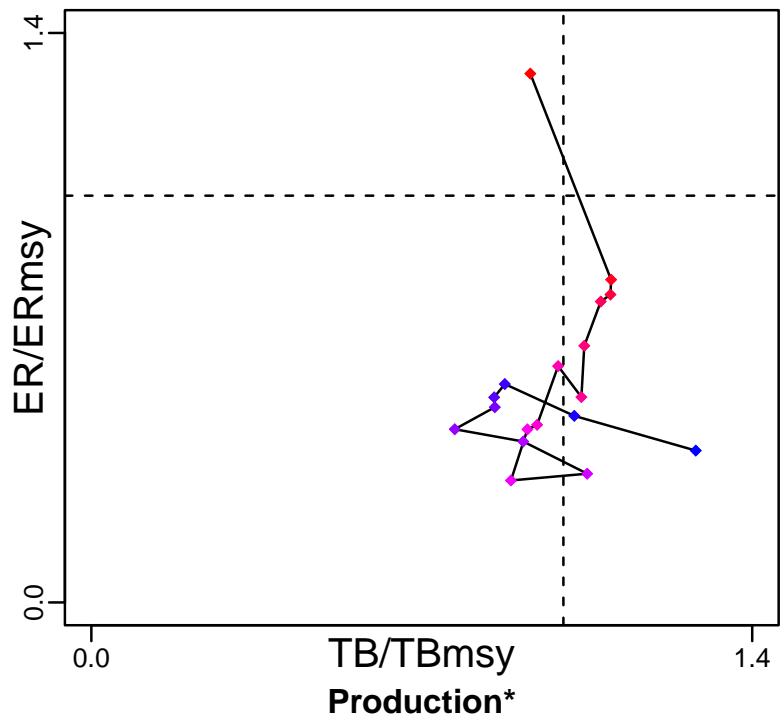
<b>Time Series</b>					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2016	6263		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

**White grouper North West Africa Mauritania–Senegal [WGROUPNWAMRT–SEN]**

Kobe MSYpref (1990–2016–ASHBROOK)



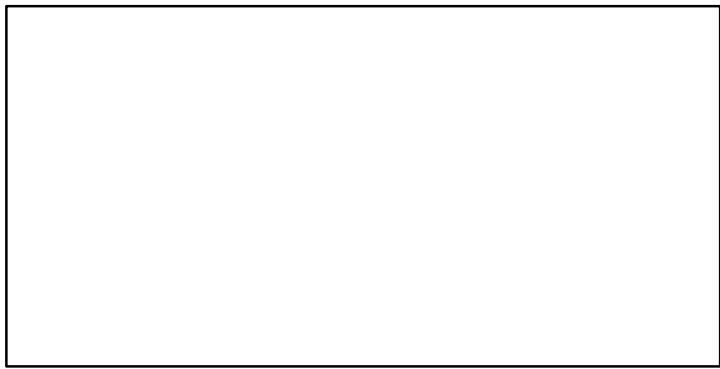
Kobe MGTpref (1990–2016–ASHBROOK)



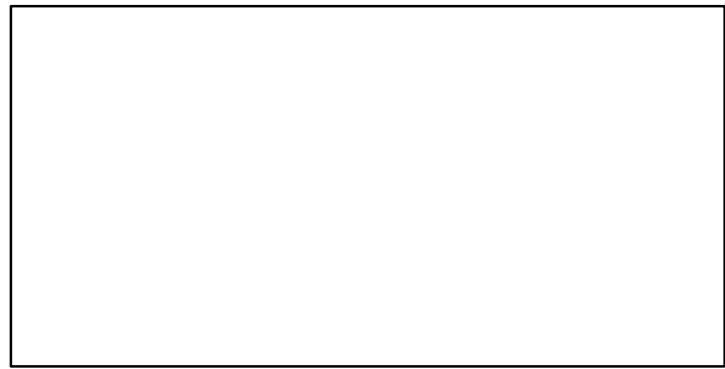
◆ Start Year ◆ End Year \* No Data

**White grouper North West Africa Mauritania–Senegal [WGROUPNWAMRT–SEN]**

**TB\***



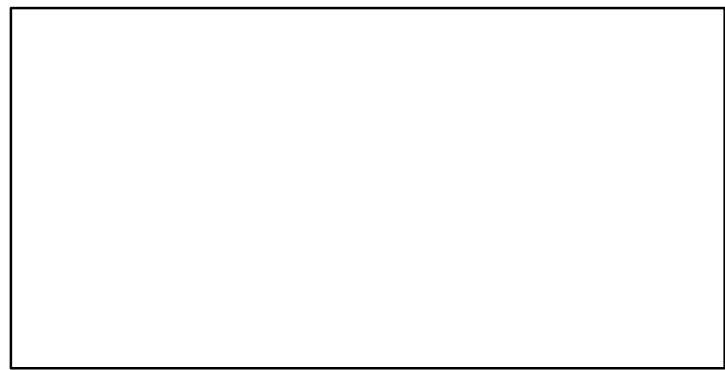
**SSB\***



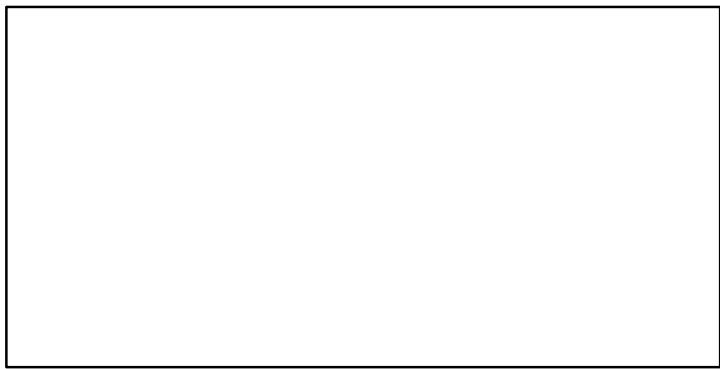
**TN \***



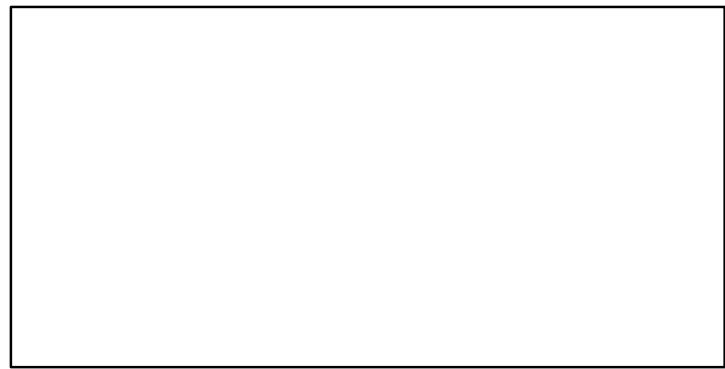
**F\***



**ER\***



**Recruits\***

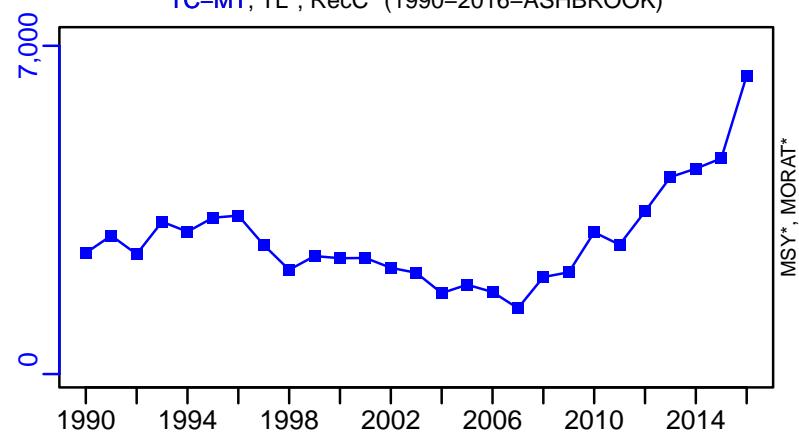


- |                      |                  |           |
|----------------------|------------------|-----------|
| ■ Listed time series | - - - Target BRP | — Rec-Est |
| - - - MSY-based BRP  | - - - Lim BRP    | * No Data |

**White grouper North West Africa Mauritania–Senegal [WGROUPNWAMRT–SEN]**

TC–MT, TL\*, RecC\* (1990–2016–ASHBROOK)

TAC\*, Cpair\*, Cadv\*



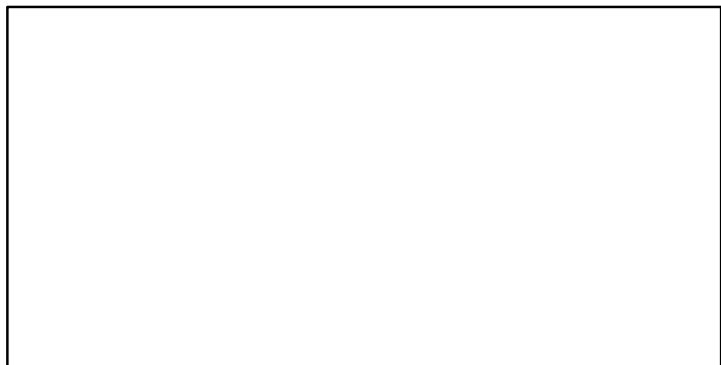
survB\*



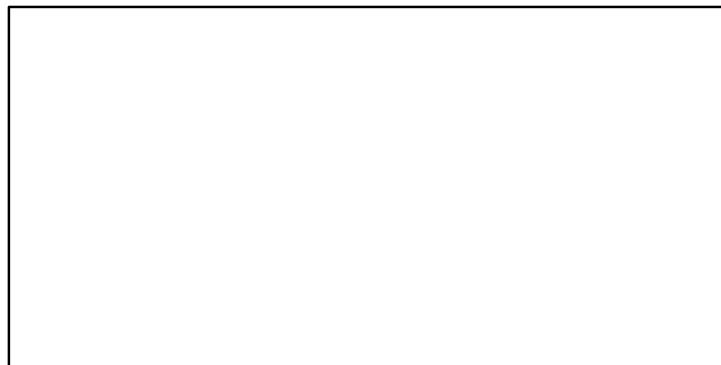
CPUE\*



EFFORT\*



CdivMSY\*



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - - MSY                | * No Data |

## Whitesaddle goatfish Main Hawaiian Islands [WSGTFMHI]

Metadata	
<b>Scientific Name</b>	Parupeneus porphyreus
<b>Current Assess ID</b>	PIFSC-WSGTFMHI-2004-2015-SISIMP2021
<b>Area</b>	Main Hawaiian Islands
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Pacific Fisheries Science Center
<b>Asmts in RAM</b>	2015

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2015	4.069		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

**Whitesaddle goatfish Main Hawaiian Islands [WSGTFMHI]**

**Kobe MSY\***

**Kobe MGT\***

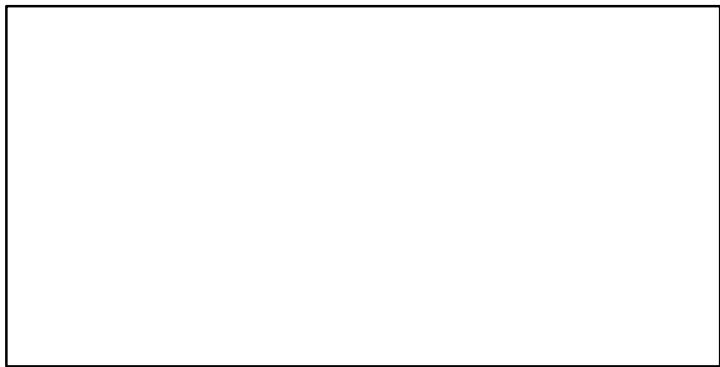
**Spawner Recruit\***

**Production\***

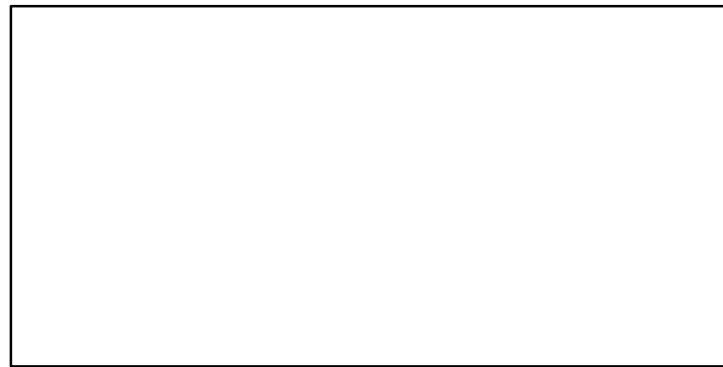
◆ Start Year ♦ End Year \* No Data

**Whitesaddle goatfish Main Hawaiian Islands [WSGTFMHI]**

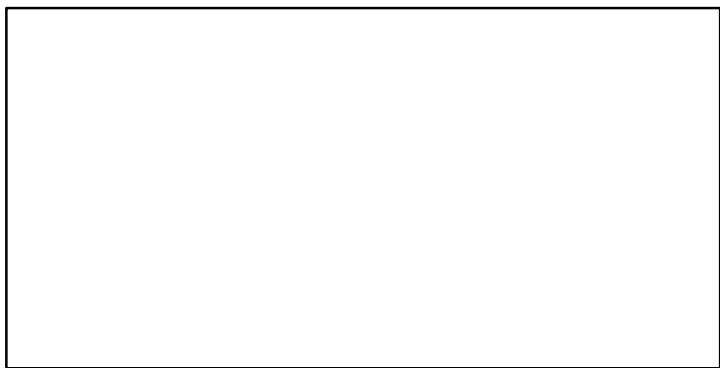
**TB\***



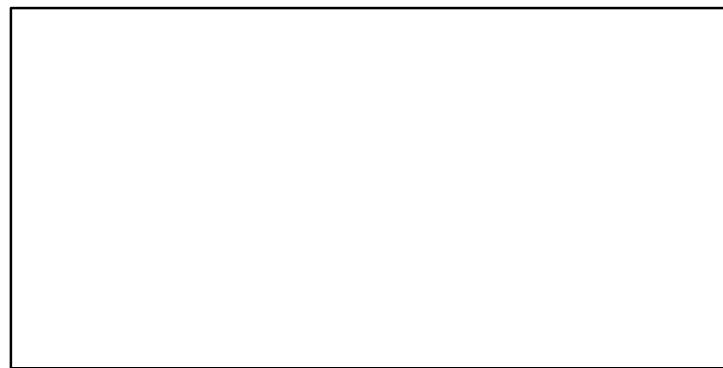
**SSB\***



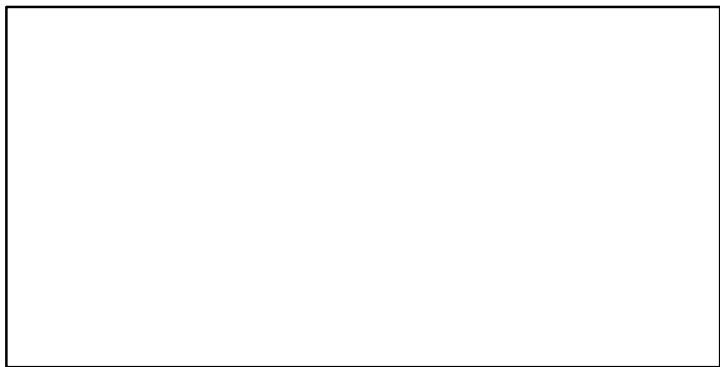
**TN \***



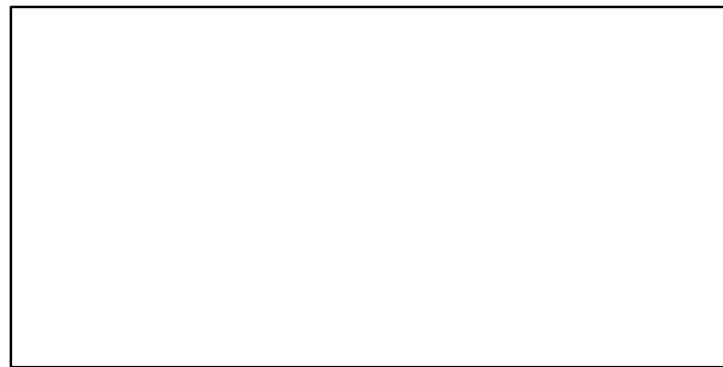
**F\***



**ER\***



**Recruits\***

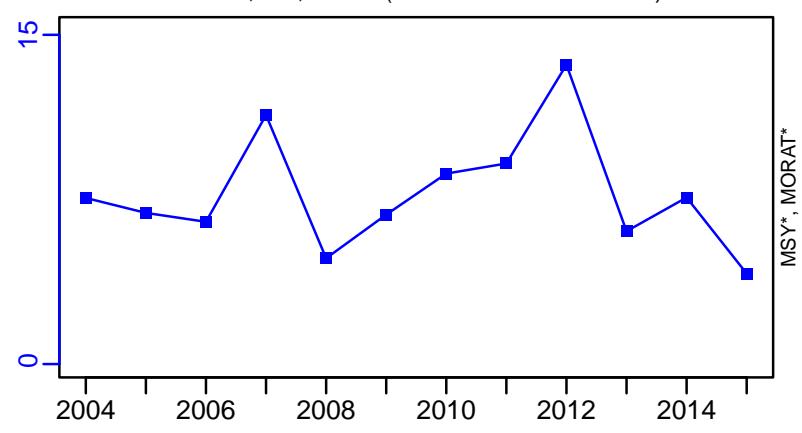


- |       |                    |       |            |   |         |
|-------|--------------------|-------|------------|---|---------|
| ■     | Listed time series | - - - | Target BRP | — | Rec-Est |
| - - - | MSY-based BRP      | - - - | Lim BRP    | * | No Data |

**Whitesaddle goatfish Main Hawaiian Islands [WSGTFMHI]**

TC-MT, TL\*, RecC\* (2004–2015–SISIMP2021)

TAC\*, Cpair\*, Cadv\*



**survB\***

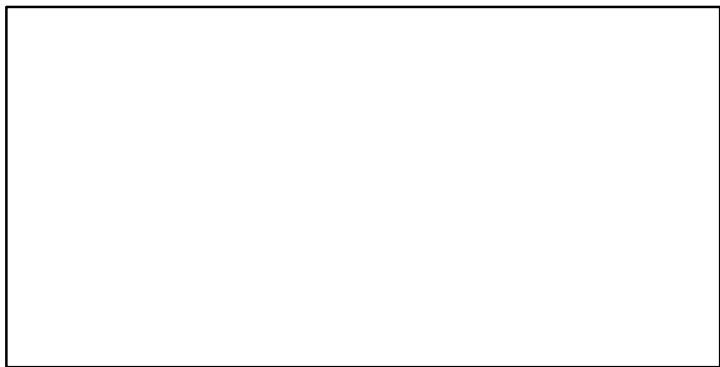
MSY\*, MORAT\*



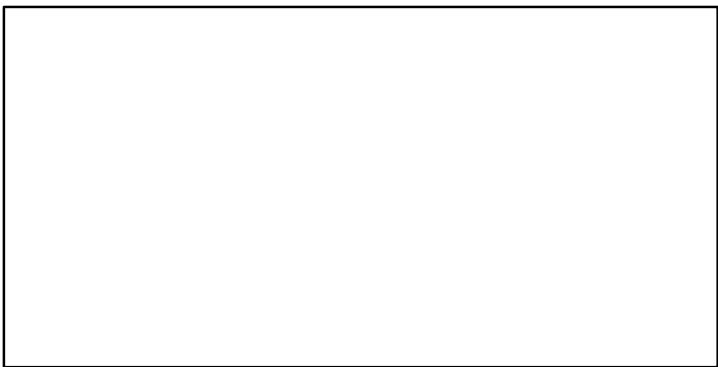
**CPUE\***



**EFFORT\***



**CdivMSY\***



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - MSY                  | * No Data |

## Yellowedge grouper Gulf of Mexico [YEGROUPGM]

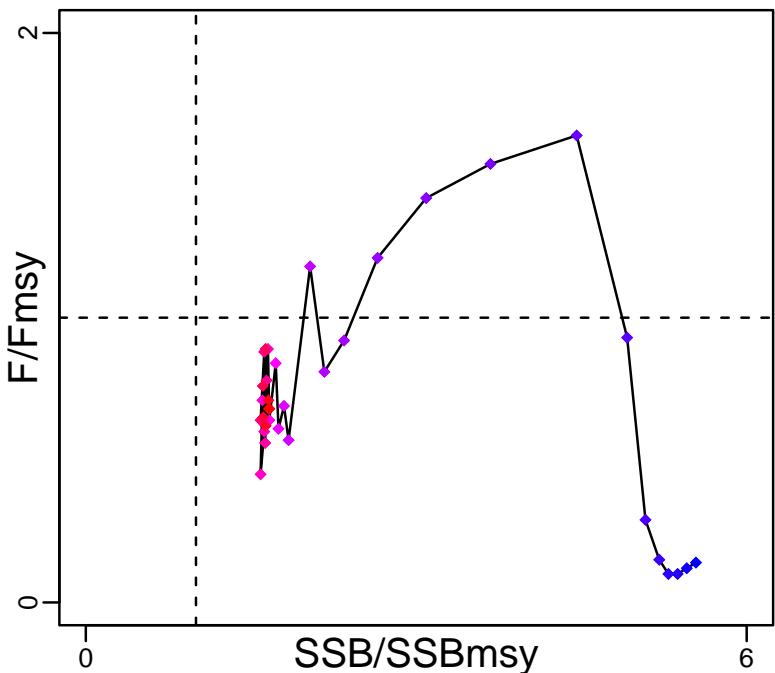
<b>Metadata</b>	
<b>Scientific Name</b>	Epinephelus flavolimbatus
<b>Current Assess ID</b>	SEFSC-YEGROUPGM-1975-2009-HIVELY
<b>Area</b>	Gulf of Mexico
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southeast Fisheries Science Center
<b>Asmts in RAM</b>	2009

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2009	2401
<b>Fmsy</b>	Fmsy-1/yr	2009	0.1
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2009	375
<b>M</b>	M-1/yr	2009	0.07
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

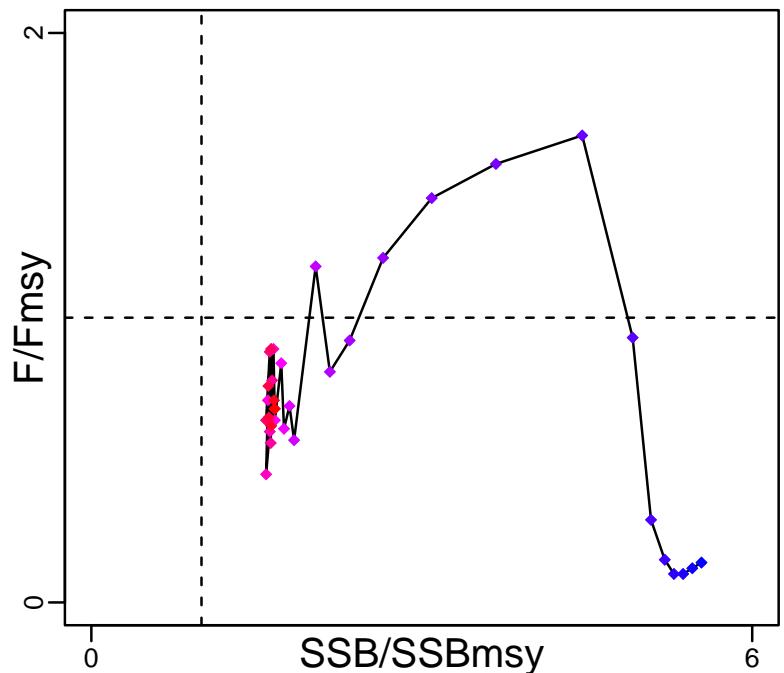
<b>Time Series</b>						
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>	
<b>TB</b>	TB-MT	2009	5530	-	-	
<b>SSB</b>	SSB-MT	2009	4000	Both	8+	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2009	801,000	-	-	
<b>F</b>	F-1/yr	2009	0.068	-	-	
<b>ER</b>	ER-calc-ratio	2009	0.068	-	-	
<b>TC</b>	-	-	-			
<b>TL</b>	TL-MT	2009	376			
<b>TB/TBmsy</b>	-	-	-			
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2009	1.666			
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2009	0.68			
<b>ER/ERmsy</b>	-	-	-			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

Yellowedge grouper Gulf of Mexico [YEGROUPGM]

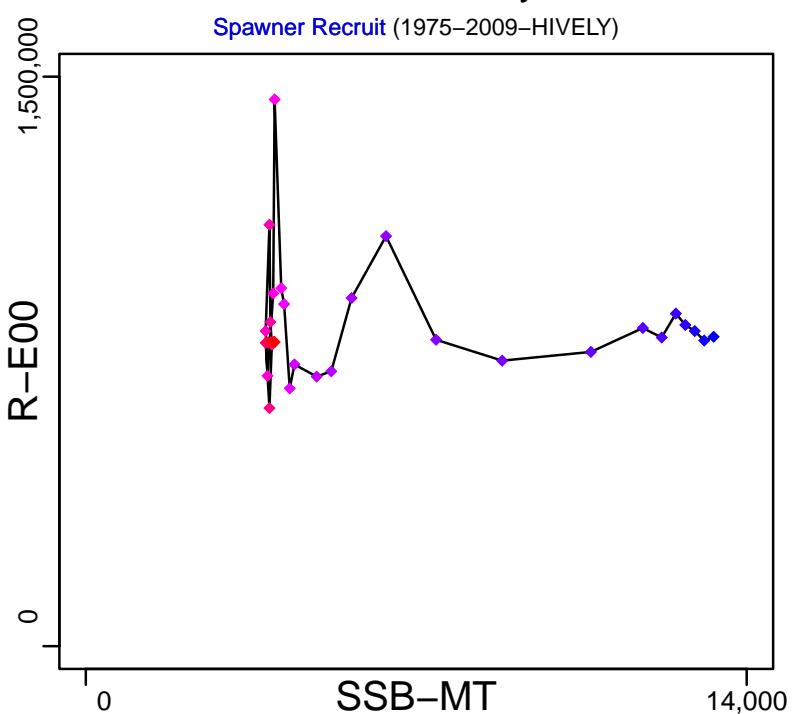
Kobe MSYpref (1975–2009–HIVELY)



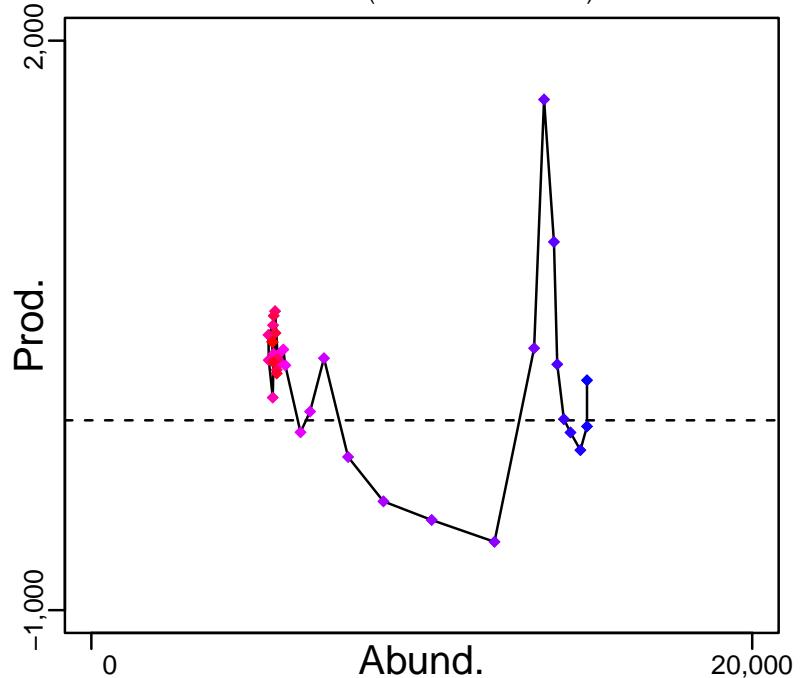
Kobe MGTPref (1975–2009–HIVELY)



Spawner Recruit (1975–2009–HIVELY)



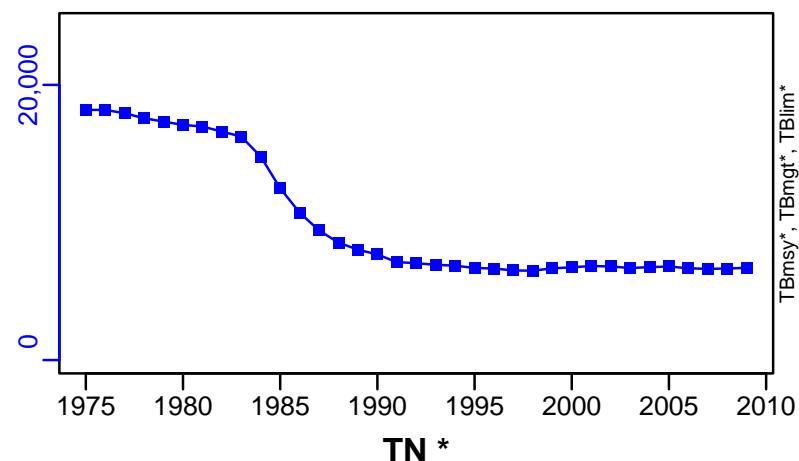
Production (1975–2009–HIVELY)



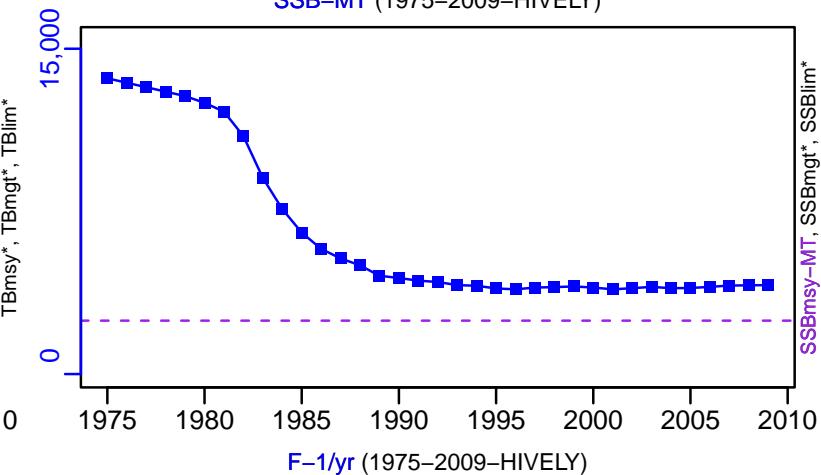
◆ Start Year   ◆ End Year   \* No Data

**Yellowedge grouper Gulf of Mexico [YEGROUPGM]**

**TB-MT (1975–2009–HIVELY)**



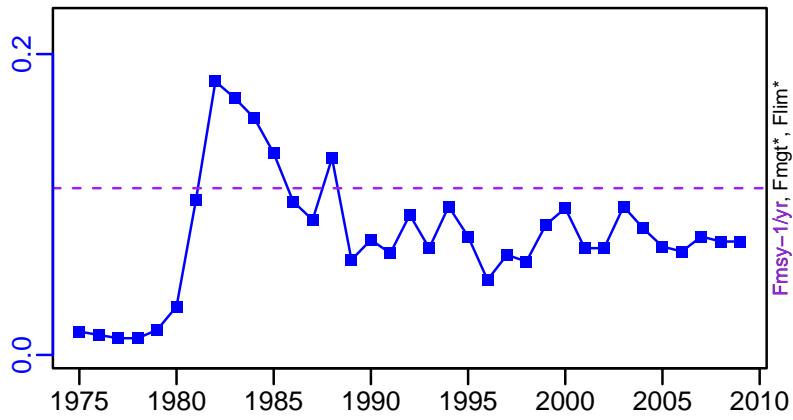
**SSB-MT (1975–2009–HIVELY)**



**TN \***

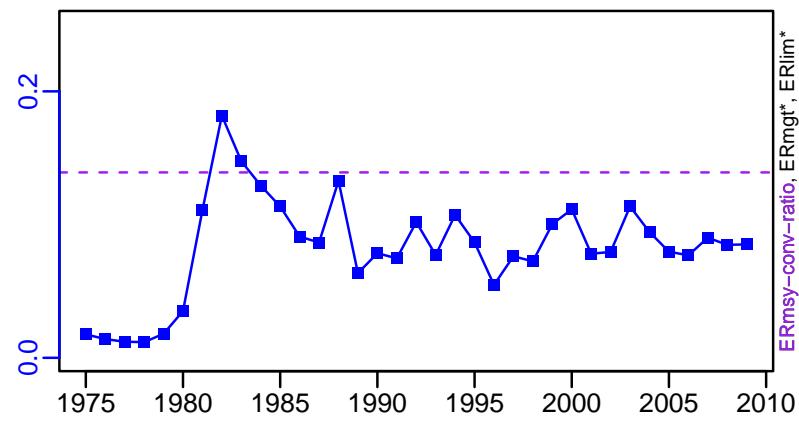


**F-1/yr (1975–2009–HIVELY)**



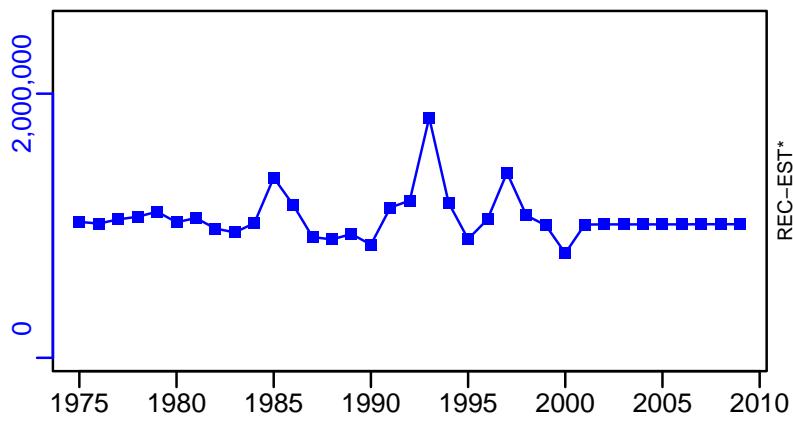
F<sub>msy</sub>-1/yr, F<sub>mgt</sub>, F<sub>lim</sub>\*

**ER-calc-ratio (1975–2009–HIVELY)**



E<sub>msy</sub>-conv-ratio, E<sub>p</sub><sub>mgt</sub>, E<sub>r</sub><sub>lim</sub>\*

**R-E00 (1975–2009–HIVELY)**



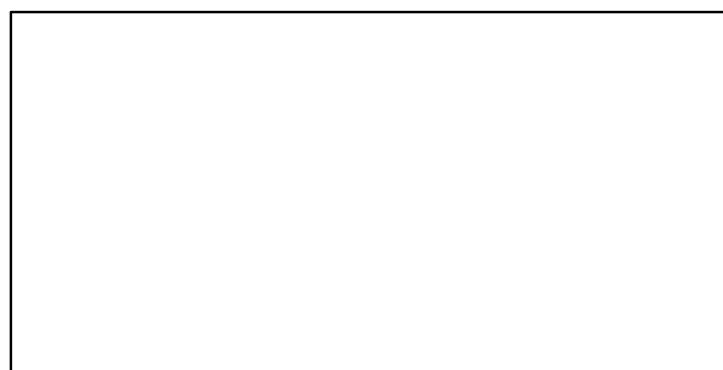
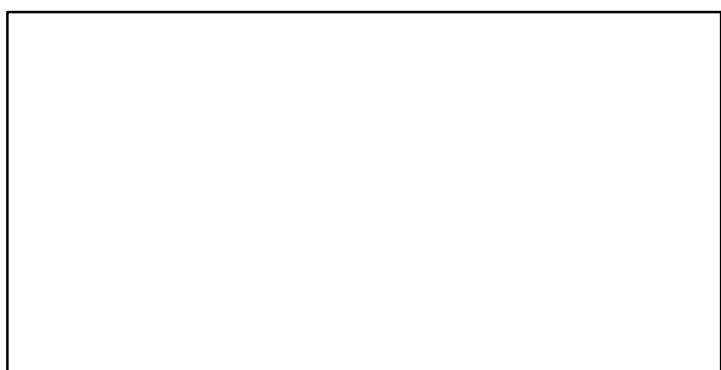
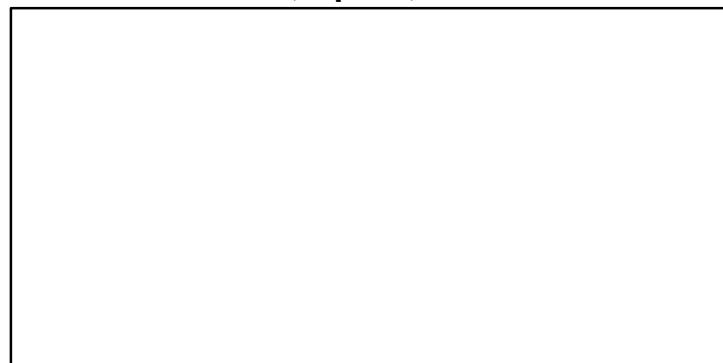
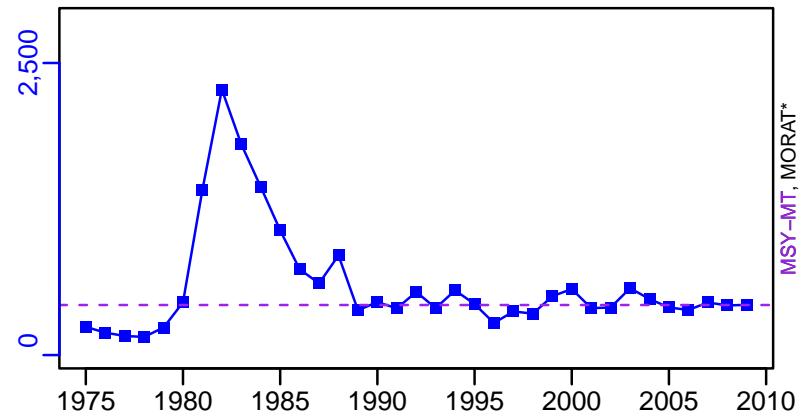
REC-EST\*

- |                                                        |                                                    |                                              |
|--------------------------------------------------------|----------------------------------------------------|----------------------------------------------|
| <span style="color: blue;">■</span> Listed time series | <span style="color: purple;">---</span> Target BRP | <span style="color: black;">—</span> Rec-Est |
| <span style="color: purple;">-</span> MSY-based BRP    | <span style="color: cyan;">----</span> Lim BRP     | * No Data                                    |

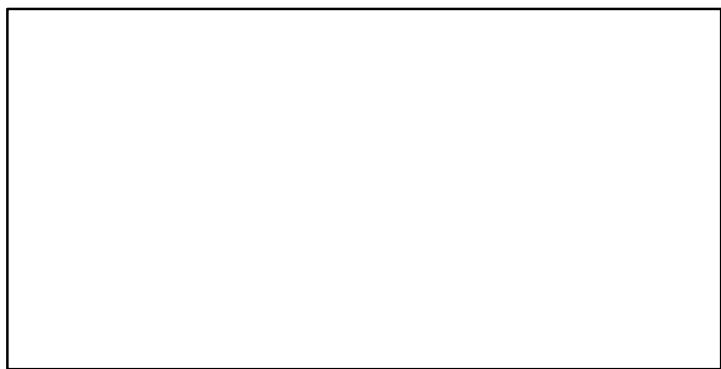
Yellowedge grouper Gulf of Mexico [YEGROUPGM]

TL-MT, TC\*, RecC\* (1975–2009–HIVELY)

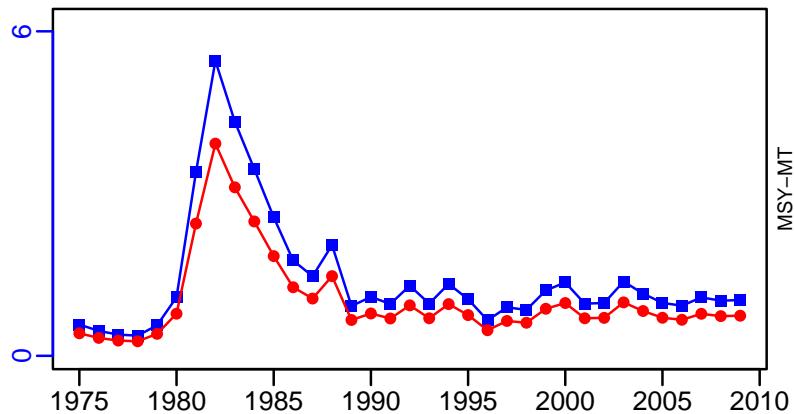
TAC\*, Cpair\*, Cadv\*



EFFORT\*



TL-MT/MSY-MT, CdivMEANC-ratio, (1975–2009–HIVELY)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data

## Yellowfin goatfish Main Hawaiian Islands [YFGTFMHI]

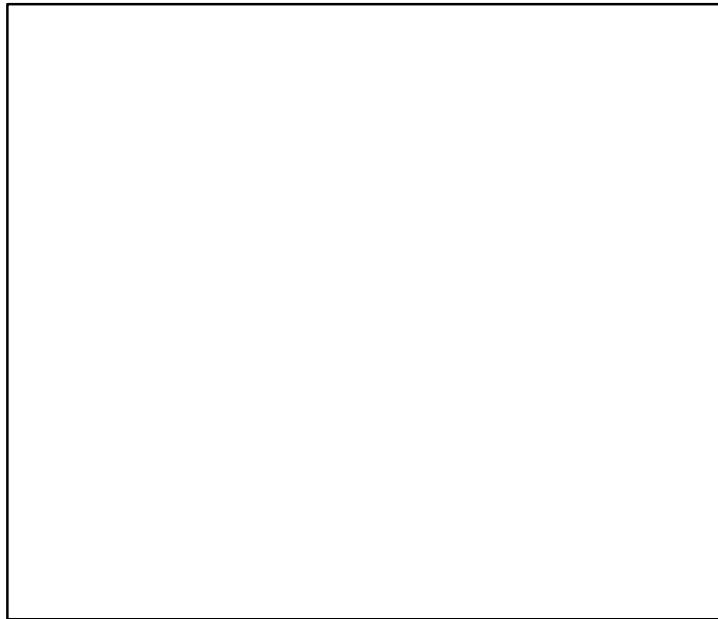
<b>Metadata</b>	
<b>Scientific Name</b>	Mulloidess vanicolensis
<b>Current Assess ID</b>	PIFSC-YFGTFMHI-2004-2015-SISIMP2021
<b>Area</b>	Main Hawaiian Islands
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Pacific Fisheries Science Center
<b>Asmts in RAM</b>	2015

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

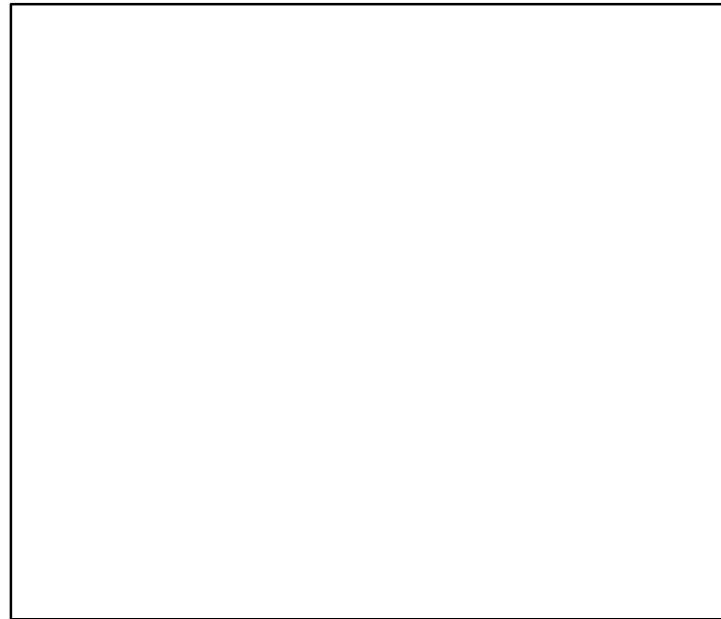
<b>Time Series</b>					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2015	182		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

**Yellowfin goatfish Main Hawaiian Islands [YFGTFMHI]**

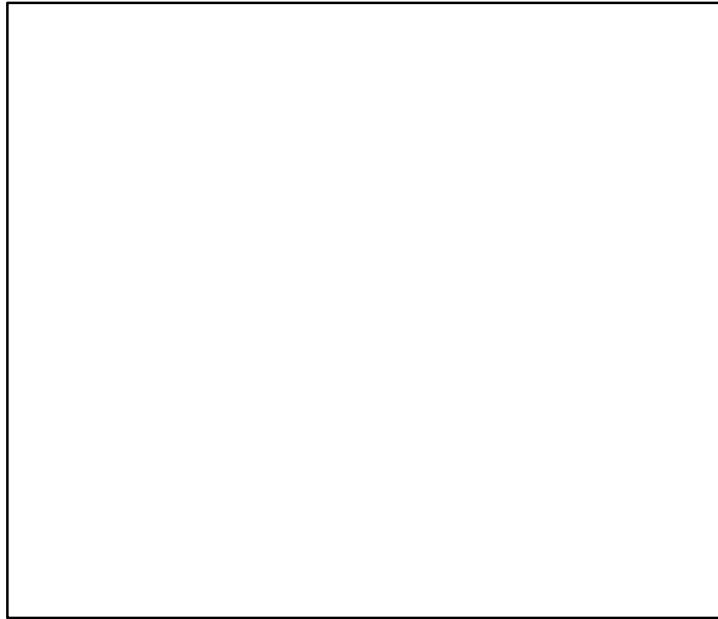
**Kobe MSY\***



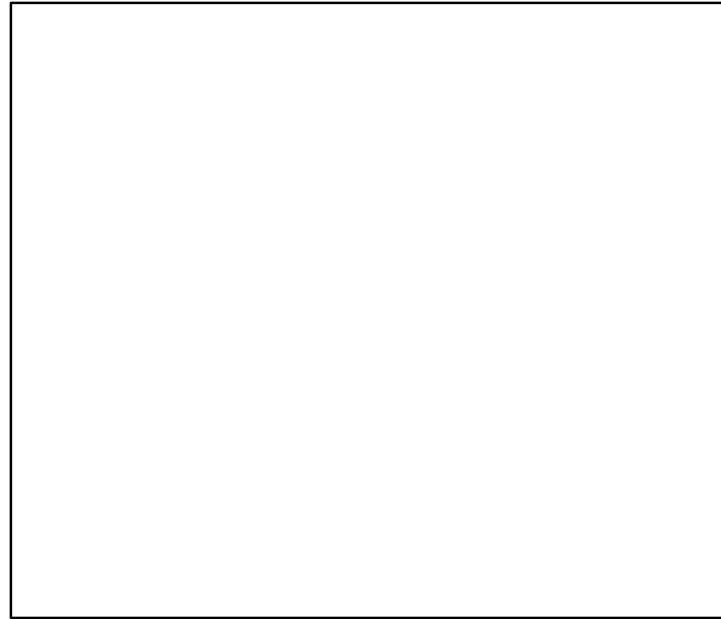
**Kobe MGT\***



**Spawner Recruit\***



**Production\***



◆ Start Year ♦ End Year \* No Data

**Yellowfin goatfish Main Hawaiian Islands [YFGTFMHI]**

**TB\***



**SSB\***



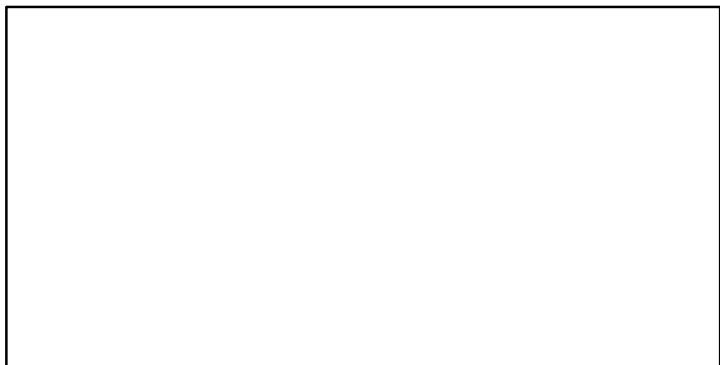
**TN \***



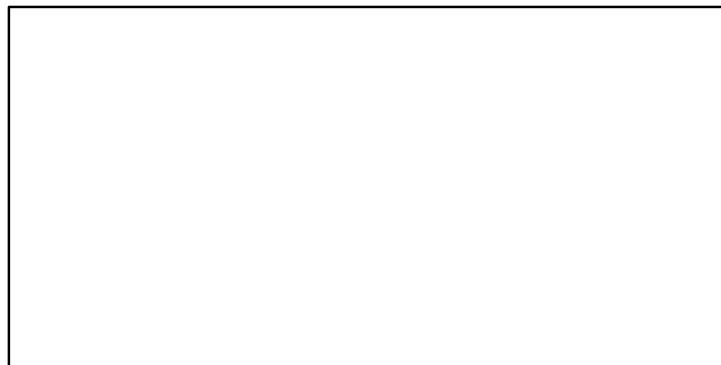
**F\***



**ER\***



**Recruits\***

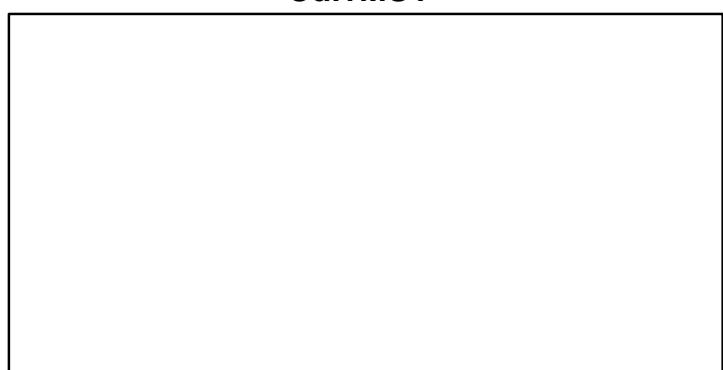
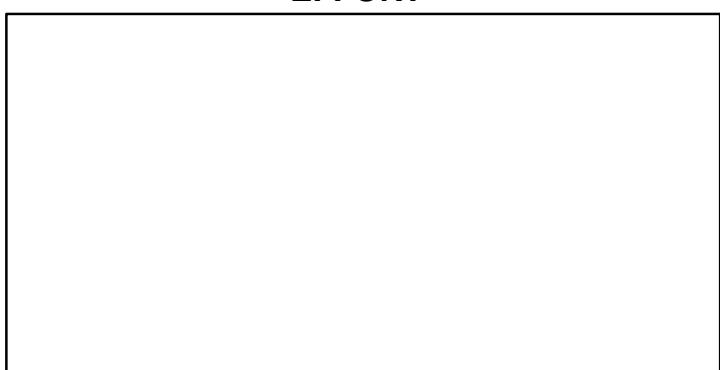
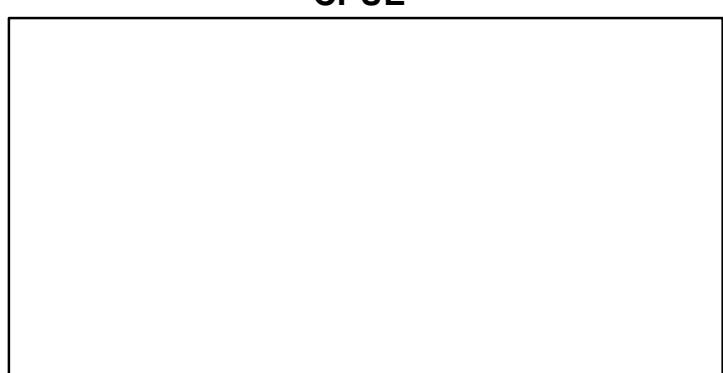
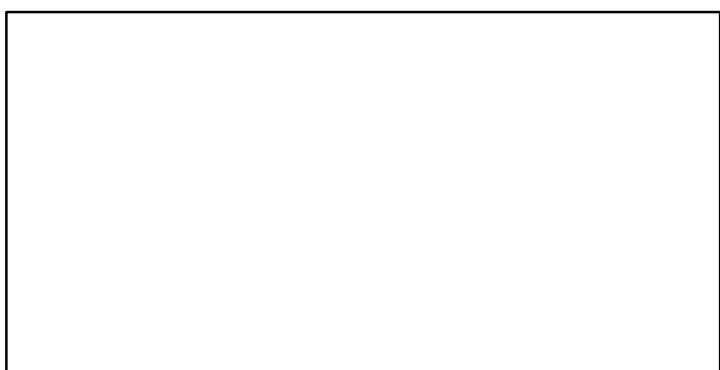
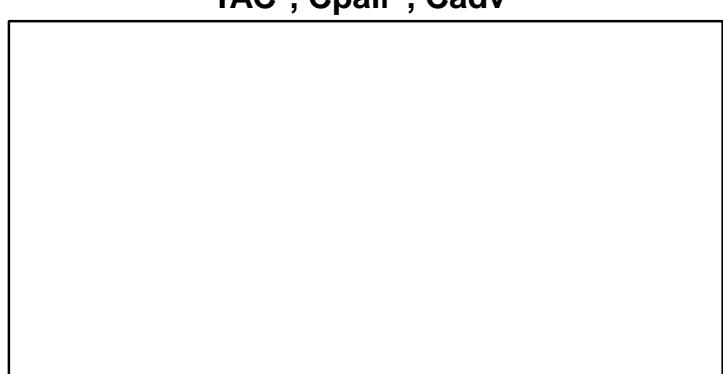
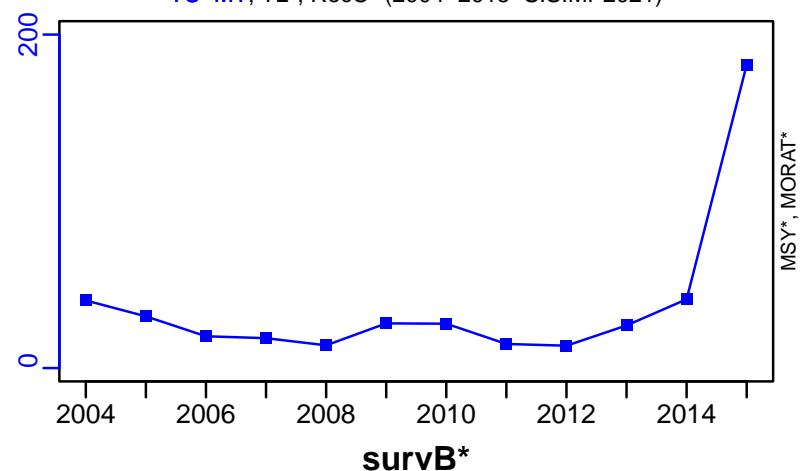


- |                      |                  |           |
|----------------------|------------------|-----------|
| ■ Listed time series | - - - Target BRP | — Rec-Est |
| - - - MSY-based BRP  | - - - Lim BRP    | * No Data |

**Yellowfin goatfish Main Hawaiian Islands [YFGTFMHI]**

TC-MT, TL\*, RecC\* (2004–2015–SISIMP2021)

TAC\*, Cpair\*, Cadv\*



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - MSY                  | * No Data |

## Yellowstripe goatfish Main Hawaiian Islands [YSGTFMHI]

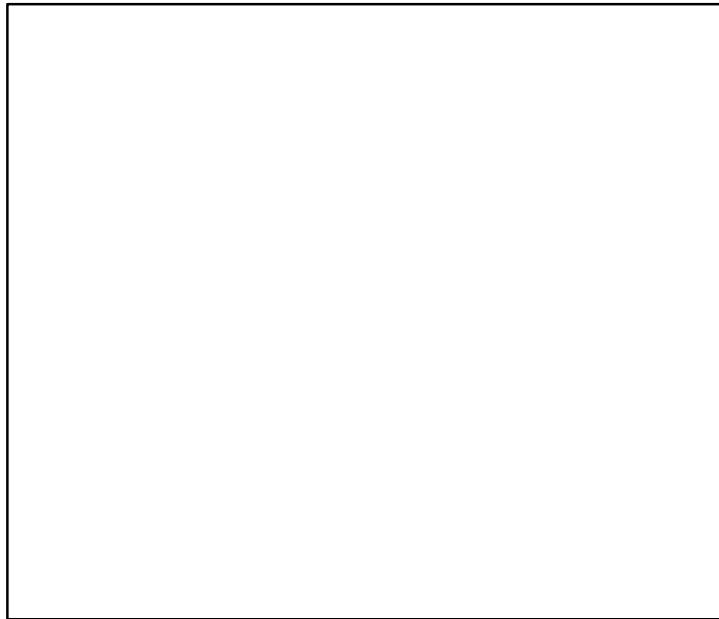
<b>Metadata</b>	
<b>Scientific Name</b>	Mulloidichthys flavolineatus
<b>Current Assess ID</b>	PIFSC-YSGTFMHI-2004-2015-SISIMP2021
<b>Area</b>	Main Hawaiian Islands
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Pacific Fisheries Science Center
<b>Asmts in RAM</b>	2015

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

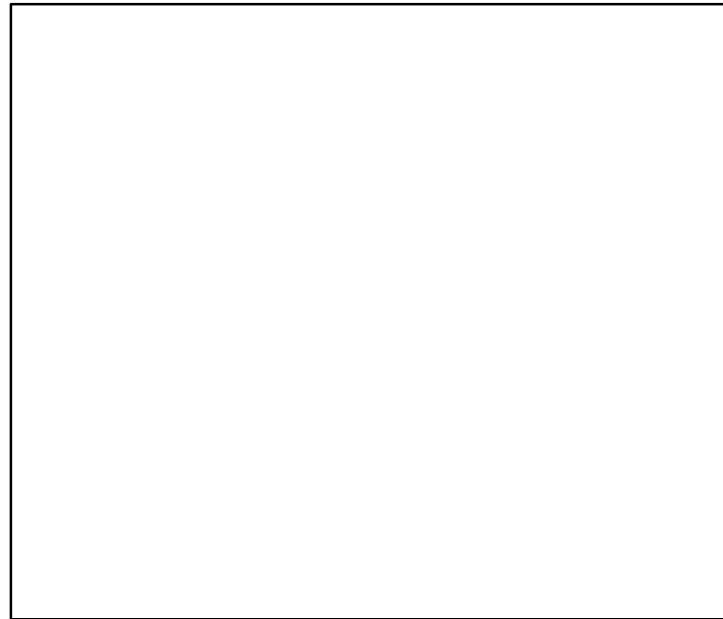
<b>Time Series</b>					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2015	129		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

**Yellowstripe goatfish Main Hawaiian Islands [YSGTFMH]**

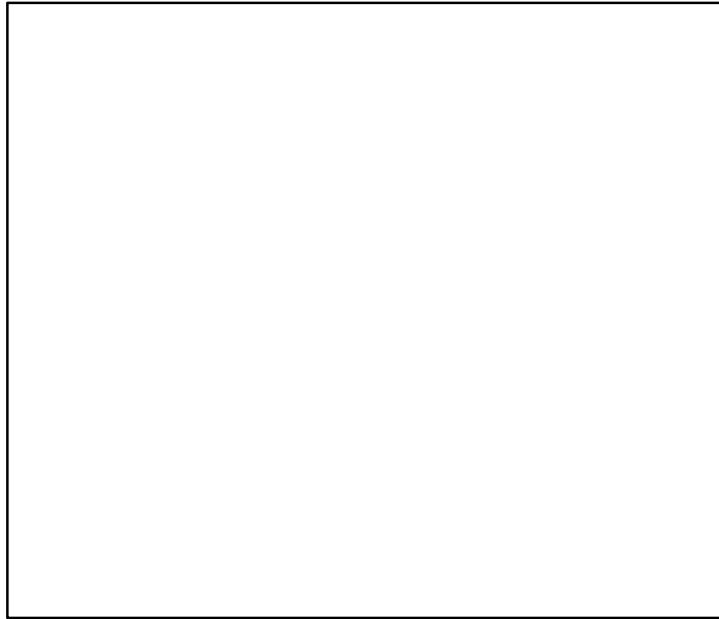
**Kobe MSY\***



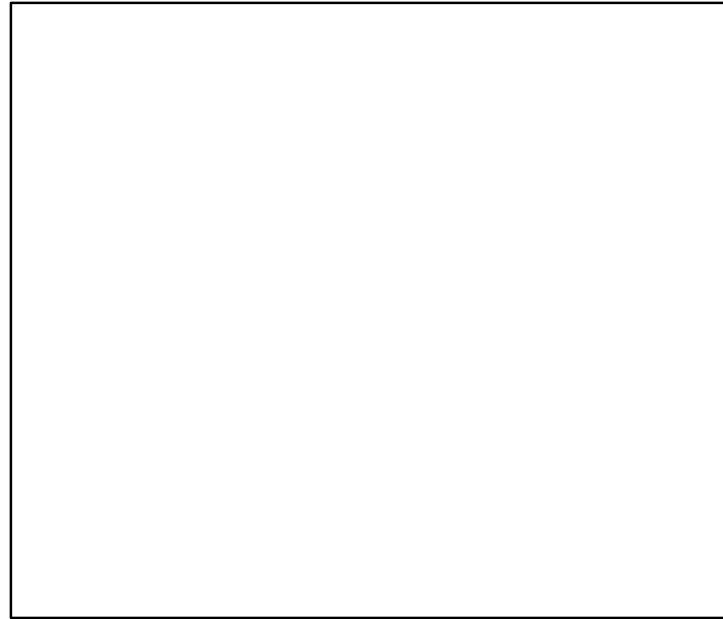
**Kobe MGT\***



**Spawner Recruit\***



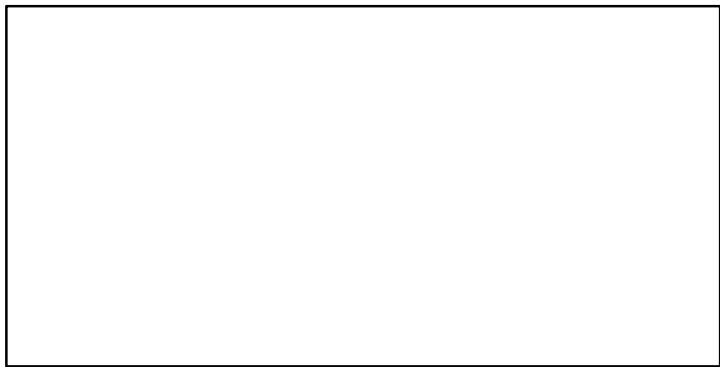
**Production\***



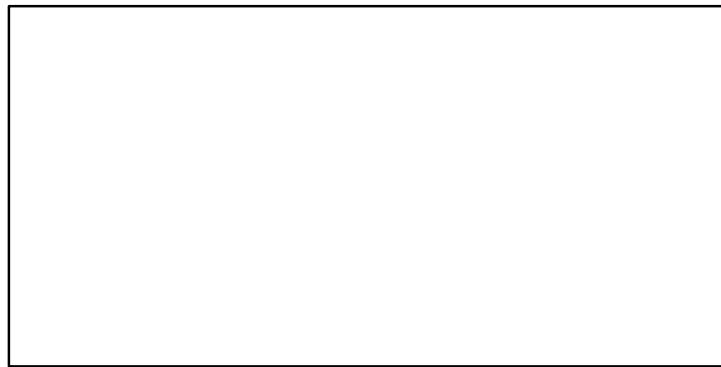
◆ Start Year ♦ End Year \* No Data

**Yellowstripe goatfish Main Hawaiian Islands [YSGTFMHI]**

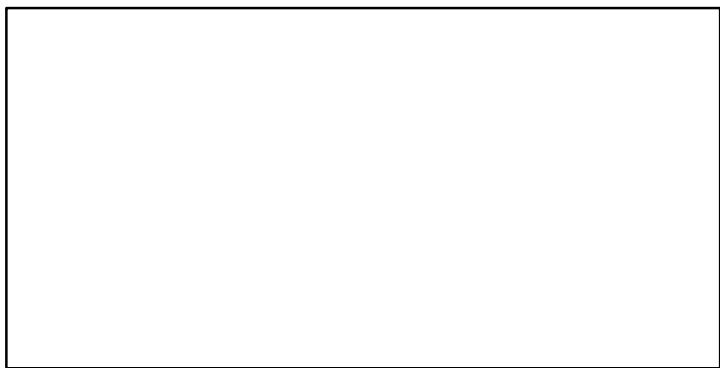
**TB\***



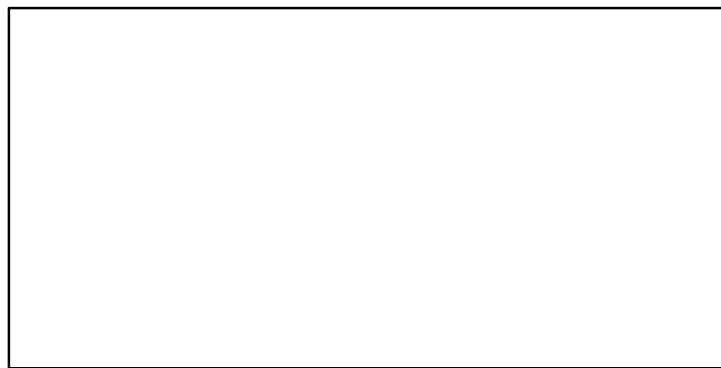
**SSB\***



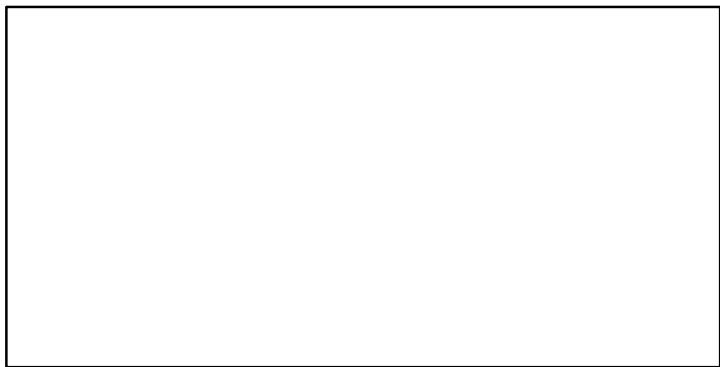
**TN \***



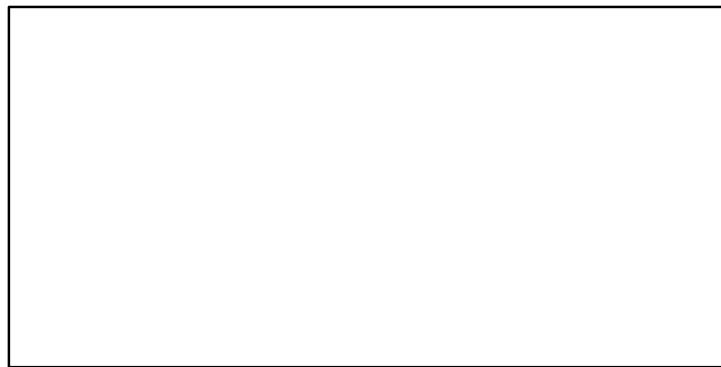
**F\***



**ER\***



**Recruits\***

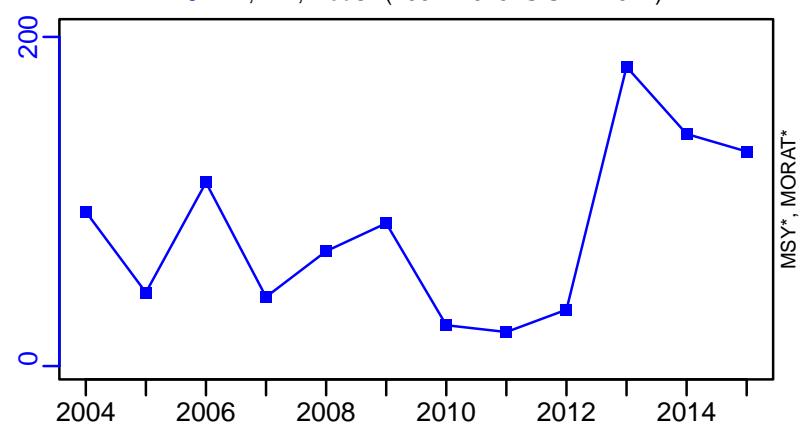


- |       |                    |       |            |   |         |
|-------|--------------------|-------|------------|---|---------|
| ■     | Listed time series | - - - | Target BRP | — | Rec-Est |
| - - - | MSY-based BRP      | - - - | Lim BRP    | * | No Data |

Yellowstripe goatfish Main Hawaiian Islands [YSGTFMH]

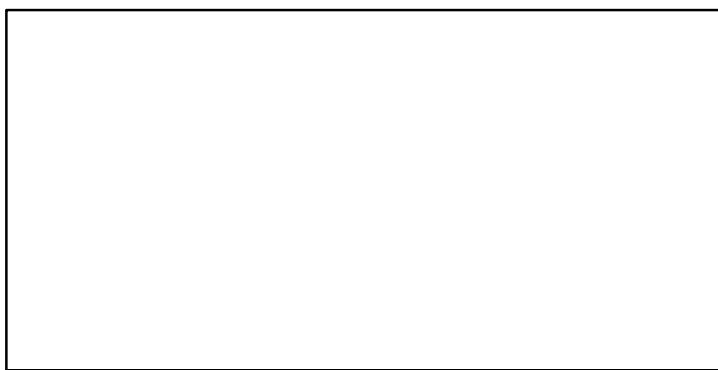
TC-MT, TL\*, RecC\* (2004–2015–SISIMP2021)

TAC\*, Cpair\*, Cadv\*

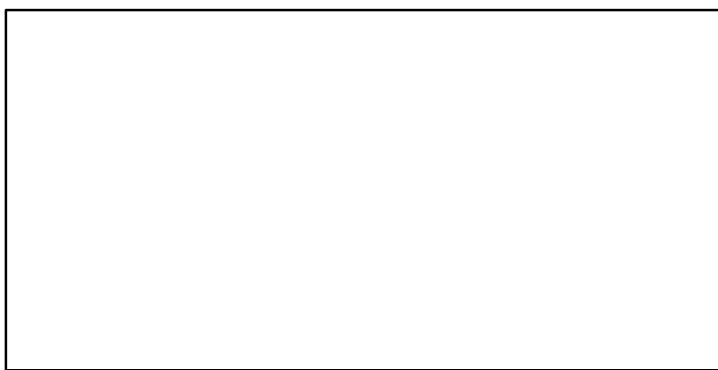


survB\*

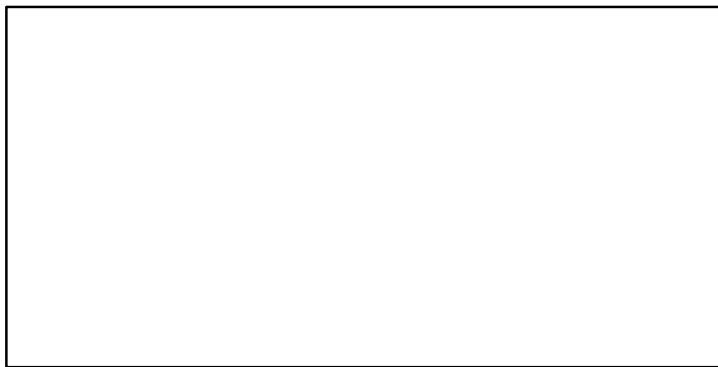
MSY\*, MORAT\*



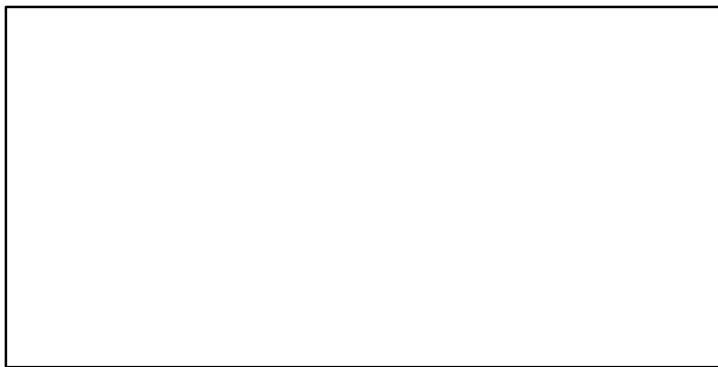
CPUE\*



EFFORT\*



CdivMSY\*



- |                          |                          |           |
|--------------------------|--------------------------|-----------|
| ■ 1st listed time series | ▲ 3rd listed time series | — MORAT   |
| ● 2nd listed time series | - - MSY                  | * No Data |

## Yellowtail snapper Southern Atlantic coast and Gulf of Mexico [YTSNAPSATLCGM]

Metadata	
<b>Scientific Name</b>	Ocyurus chrysurus
<b>Current Assess ID</b>	SEFSC-YTSNAPSATLCGM-1950-2011-HIVELY
<b>Area</b>	Southern Atlantic coast and Gulf of Mexico
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southeast Fisheries Science Center
<b>Asmts in RAM</b>	2011

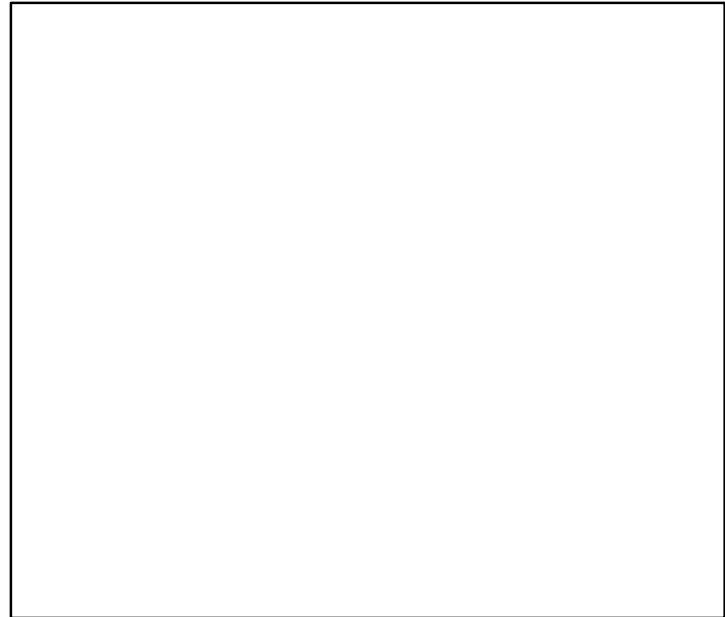
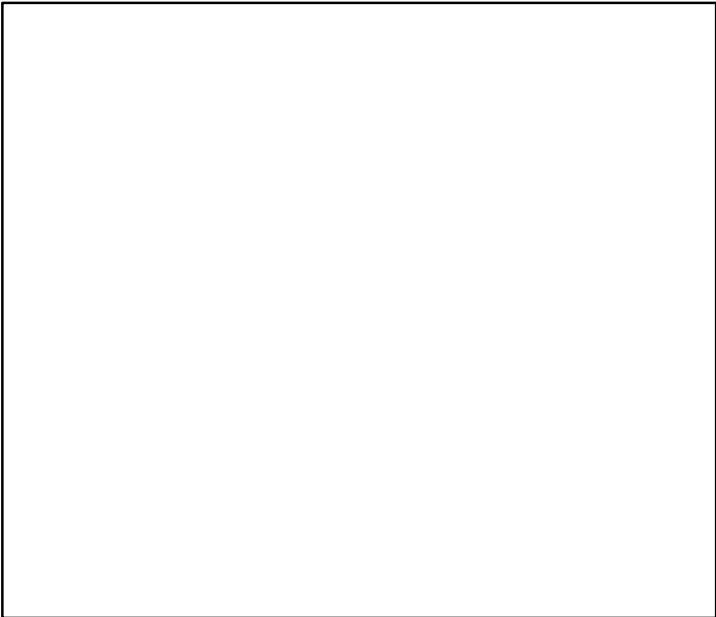
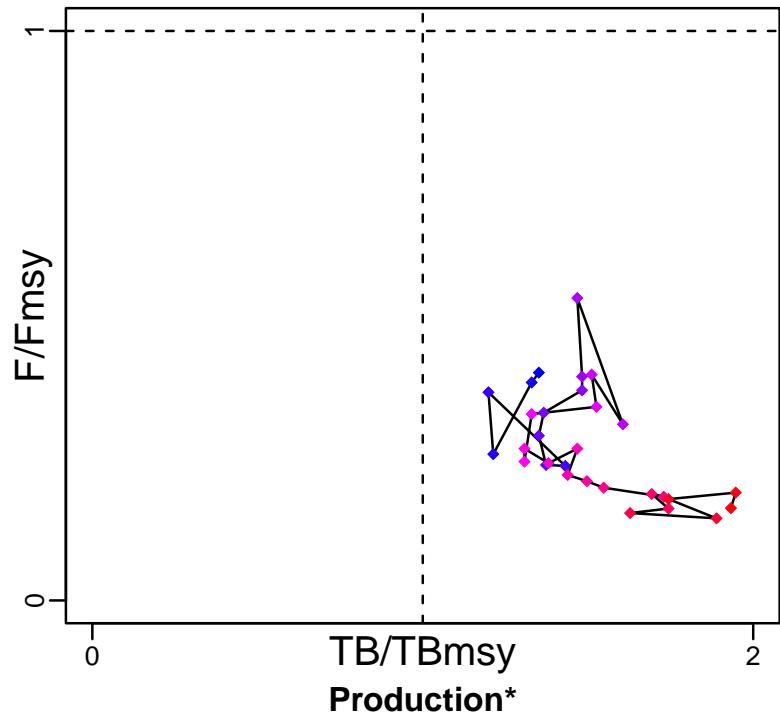
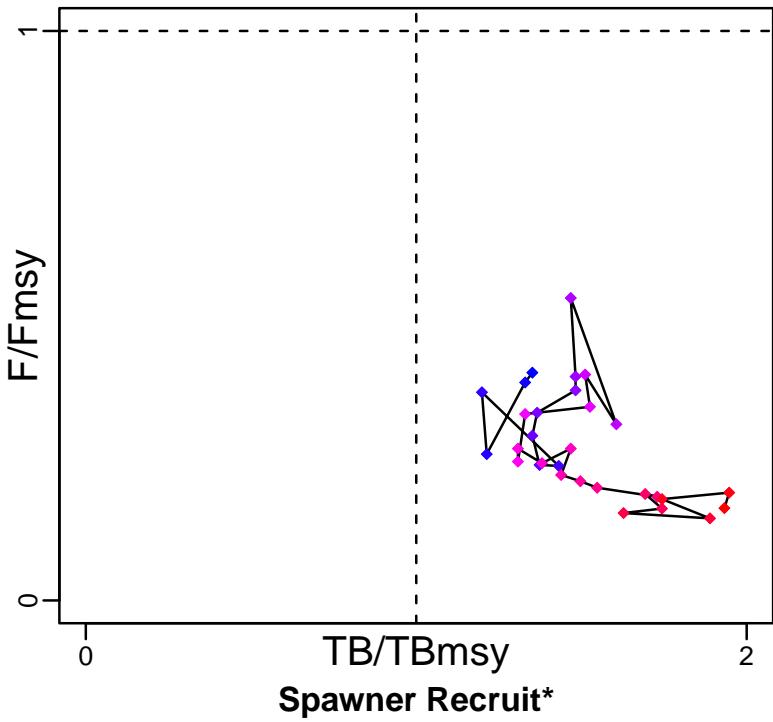
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	Fmsy-pr-1/yr	2011	0.29
<b>ERrmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2011	1700
<b>M</b>	M-1/yr	2011	0.19
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
<b>TB</b>	TB-MT	2011	26,600	-	-	
<b>SSB</b>	-	-	-	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	-	-	-	-	-	
<b>F</b>	F-1/yr	2011	0.047	-	-	
<b>ER</b>	ER-calc-ratio	2011	0.029	-	-	
<b>TC</b>	-	-	-			
<b>TL</b>	TL-MT	2011	858			
<b>TB/TBmsy</b>	-	-	-			
<b>SSB/SSBmsy</b>	-	-	-			
<b>F/Fmsy</b>	F-1/yr/Fmsy-pr-1/yr	2011	0.162			
<b>ER/ERrmsy</b>	-	-	-			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

Yellowtail snapper Southern Atlantic coast and Gulf of Mexico [YTSNAPSATLCGM]

Kobe MSYpref (1950–2011–HIVELY)

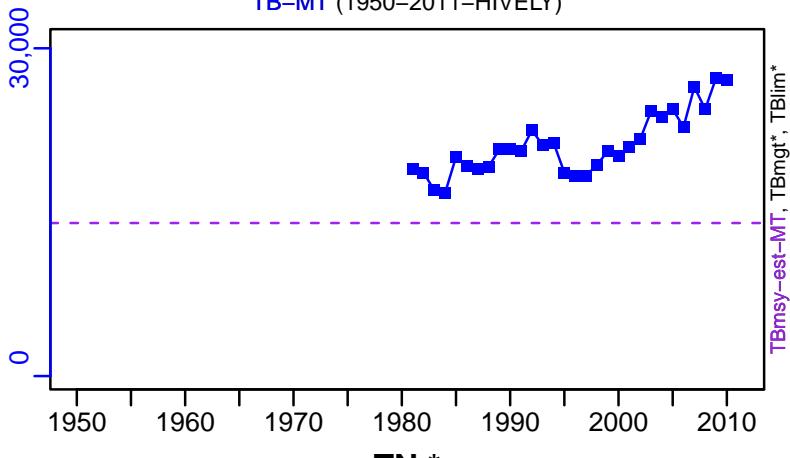
Kobe MGTPref (1950–2011–HIVELY)



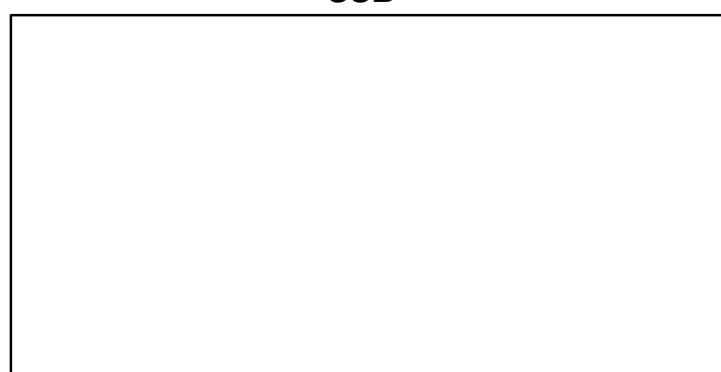
◆ Start Year   ◆ End Year   \* No Data

Yellowtail snapper Southern Atlantic coast and Gulf of Mexico [YTSNAPSATLCGM]

TB-MT (1950–2011-HIVELY)



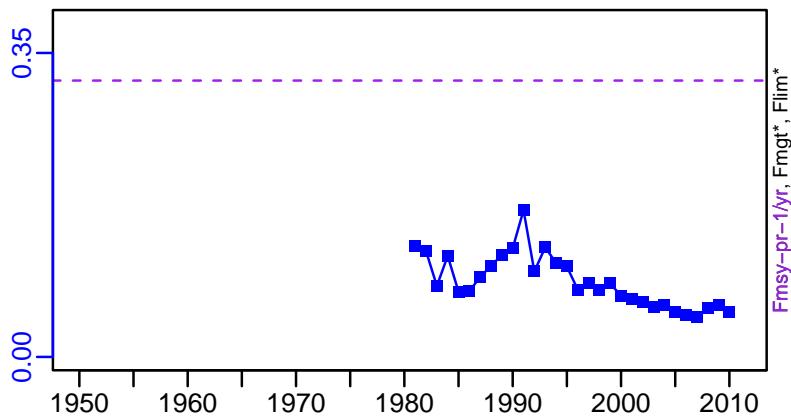
SSB\*



TN \*

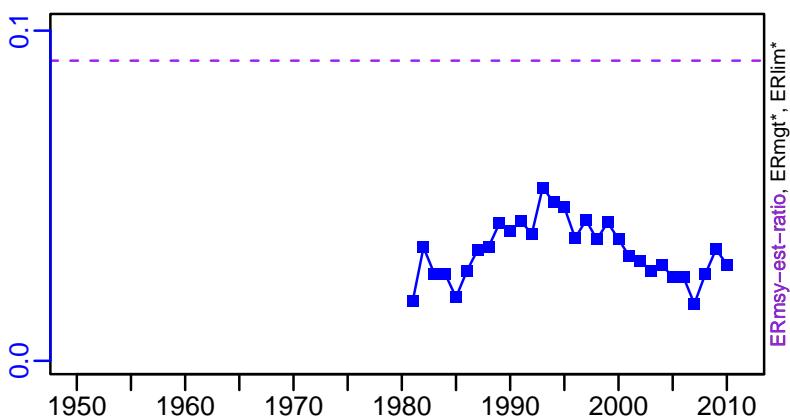


F-1/yr (1950–2011-HIVELY)

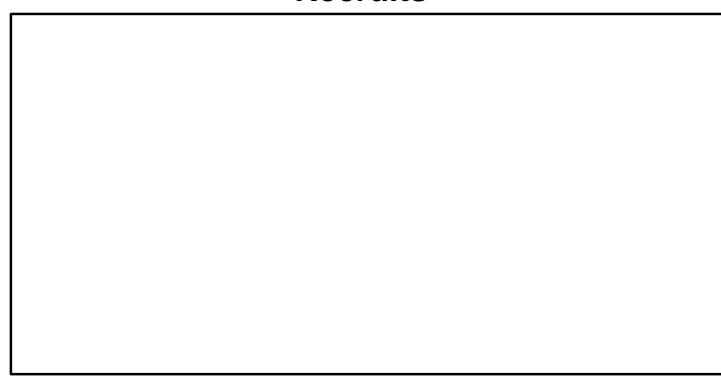


F<sub>msy-pr-1/yr, Fmgt\*, Flim\*</sub>

ER-calc-ratio (1950–2011-HIVELY)



Recruits\*

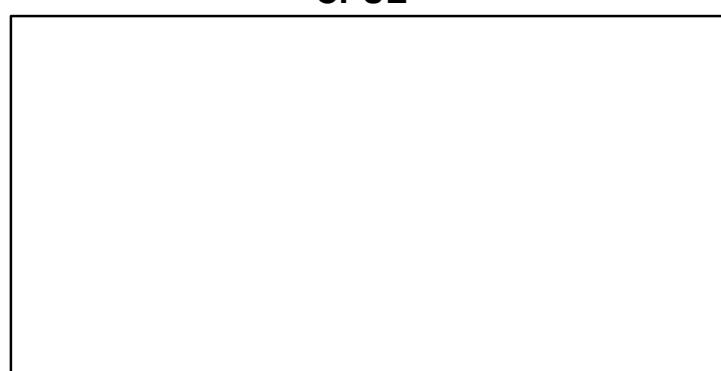
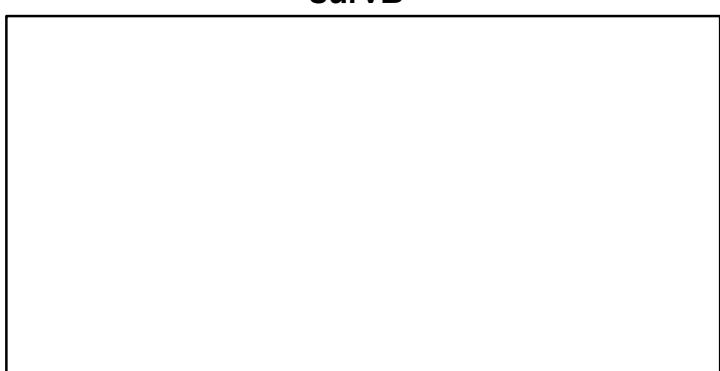
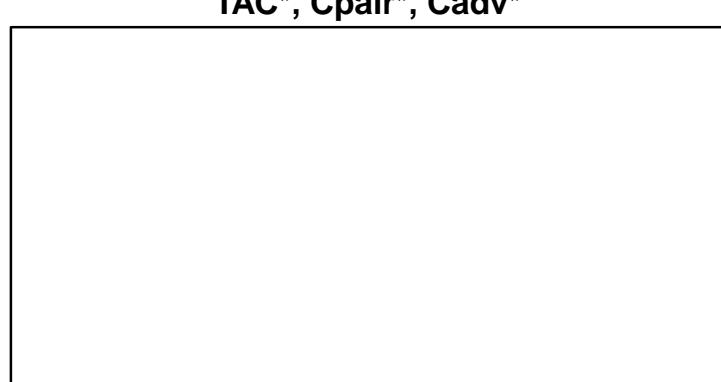
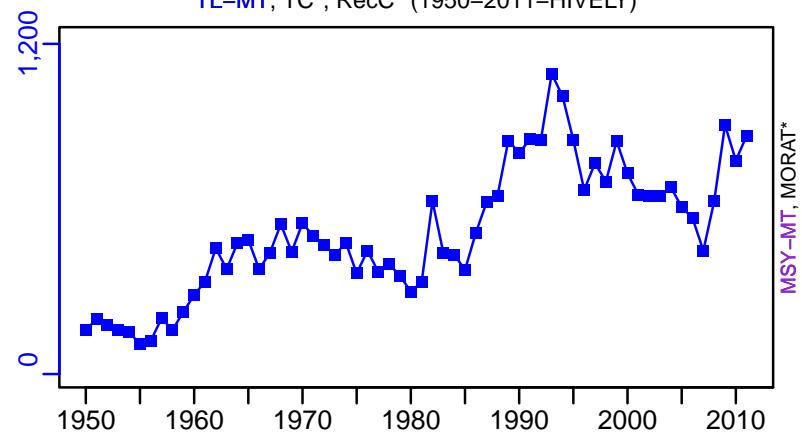


■ Listed time series	— Target BRP	— Rec-Est
- - MSY-based BRP	·· Lim BRP	* No Data

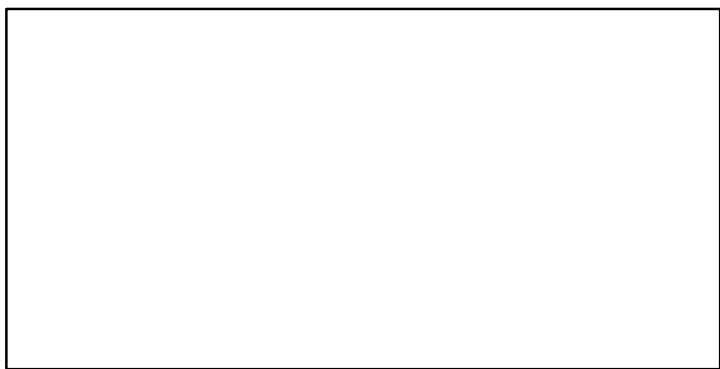
Yellowtail snapper Southern Atlantic coast and Gulf of Mexico [YTSNAPSATLCGM]

TL-MT, TC\*, RecC\* (1950–2011-HIVELY)

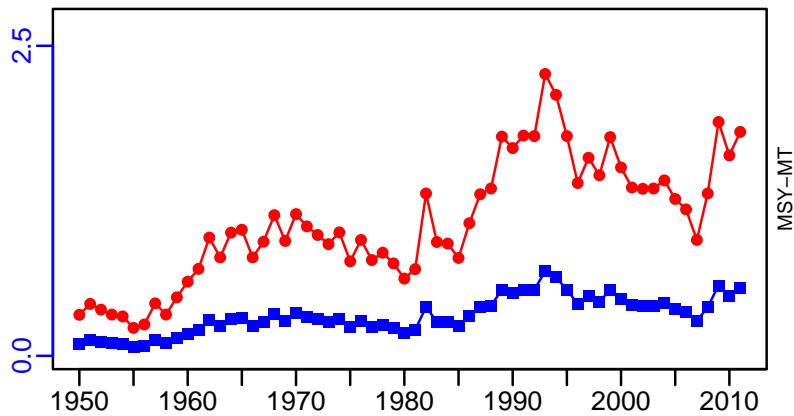
TAC\*, Cpair\*, Cadv\*



**EFFORT\***



TL-MT/MSY-MT, CdivMEANC-ratio, (1950–2011-HIVELY)



■ 1st listed time series	▲ 3rd listed time series	— MORAT
● 2nd listed time series	- - - MSY	* No Data