

other marine fish Stocks

v4.63 (Dec-07-2023)

Not present Present Preferred

Stock	Time Series Types			
	B/Bmsy	U/Umsy	B/Bmgt	U/Umgmt
1. AFLONCH [Alfonsino Chile]	TB SSB	ER F	TB SSB	ER F
2. ANGLMEDGSA15-16 [Black bellied angler Malta Island and South of Sicily (GSA 15, 16)]	TB SSB	ER F	TB SSB	ER F
3. ANGLMEDGSA5 [Black bellied angler Balearic Island]	TB SSB	ER F	TB SSB	ER F
4. ANGLMEDGSA6 [Black bellied angler Northern Spain]	TB SSB	ER F	TB SSB	ER F
5. ANGLMEDGSA7 [Black bellied angler Gulf of Lions]	TB SSB	ER F	TB SSB	ER F
6. ANGLSPPIIIa-IV-VI [Anglerfish spp ICES 3a-4-6]	TB SSB	ER F	TB SSB	ER F
7. ANGLVIIIC-IXa [Black bellied angler ICES 8c-9a]	TB SSB	ER F	TB SSB	ER F
8. ANGLVII-VIIIabd [Black bellied angler ICES 7-8abd]	TB SSB	ER F	TB SSB	ER F
9. ATOOTHFISHRS [Antarctic toothfish Ross Sea]	TB SSB	ER F	TB SSB	ER F
10. AWOLF5YZ [Atlantic wolffish Gulf of Maine / Georges Bank]	TB SSB	ER F	TB SSB	ER F
11. BERYXSPPNEATL [Beryx spp Northeast Atlantic]	TB SSB	ER F	TB SSB	ER F
12. BIGHTREDSE [Bight redfish Southeast Australia]	TB SSB	ER F	TB SSB	ER F
13. BKSFNEATL [Black scabbardfish Northeast Atlantic]	TB SSB	ER F	TB SSB	ER F
14. BLACKOREOPR [Black oreo Pukaki Rise]	TB SSB	ER F	TB SSB	ER F
15. BLACKOREOWECR [Black oreo West end of Chatham Rise]	TB SSB	ER F	TB SSB	ER F
16. BNSNZ [Bluenose New Zealand]	TB SSB	ER F	TB SSB	ER F
17. BOARVI-VIII [Boarfish ICES 6-8]	TB SSB	ER F	TB SSB	ER F
18. BSCRAPERSOJECS [Black scraper Sea of Japan and East China Sea]	TB SSB	ER F	TB SSB	ER F
19. BUTTERGOMCHATT [Atlantic butterfish Gulf of Maine / Cape Hatteras]	TB SSB	ER F	TB SSB	ER F
20. CATCWAGAB [Catfish Central West Africa Gabon]	TB SSB	ER F	TB SSB	ER F
21. CATCWAGIN-LBR [Catfish Central West Africa Guinea-Liberia]	TB SSB	ER F	TB SSB	ER F
22. CATNWASEN_GMB [Catfish North West Africa Senegal_The Gambia]	TB SSB	ER F	TB SSB	ER F
23. DVANGSASC [Devil anglerfish South Africa South coast]	TB SSB	ER F	TB SSB	ER F
24. DVANGSAWC [Devil anglerfish South Africa West coast]	TB SSB	ER F	TB SSB	ER F
25. GEMFISHNZ [Common gemfish New Zealand]	TB SSB	ER F	TB SSB	ER F
26. GEMFISHSE [Common gemfish Southeast Australia]	TB SSB	ER F	TB SSB	ER F
27. GSTRGZRSTA7 [Giant stargazer NZ Area STA7]	TB SSB	ER F	TB SSB	ER F
28. GTRIGGM [Gray triggerfish Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
29. JPUFFIMKB [Japanese pufferfish Ise and Mikawa Bay]	TB SSB	ER F	TB SSB	ER F
30. JPUFFSOJECSSI [Japanese pufferfish Sea of Japan and East China Sea and Seto Inland sea]	TB SSB	ER F	TB SSB	ER F
31. KINGKLIPSASC [Kingklip South Africa South coast]	TB SSB	ER F	TB SSB	ER F
32. KINGKLIPSAWC [Kingklip South Africa West coast]	TB SSB	ER F	TB SSB	ER F
33. LHAIRTSOJECS [Largehead hairtail Sea of Japan and East China Sea]	TB SSB	ER F	TB SSB	ER F

34. MONK3LNOPs [Monkfish NAFO Divisions 3LNOPs]	TB SSB	ER F	TB SSB	ER F
35. MONKGOMNGB [Monkfish Gulf of Maine / Northern Georges Bank]	TB SSB	ER F	TB SSB	ER F
36. MONKSGBMATL [Monkfish Southern Georges Bank / Mid-Atlantic]	TB SSB	ER F	TB SSB	ER F
37. MULLQNSW [Sea mullet Queensland and New South Wales]	TB SSB	ER F	TB SSB	ER F
38. NZLINGESE [Ling Southeast Australia]	TB SSB	ER F	TB SSB	ER F
39. NZLINGLIN3-4 [Ling New Zealand Areas LIN 3 and 4]	TB SSB	ER F	TB SSB	ER F
40. NZLINGLIN5-6 [Ling New Zealand Areas LIN 5 and 6]	TB SSB	ER F	TB SSB	ER F
41. NZLINGLIN6b [Ling New Zealand Areas LIN 6b]	TB SSB	ER F	TB SSB	ER F
42. NZLINGLIN72 [Ling New Zealand Areas LIN 72]	TB SSB	ER F	TB SSB	ER F
43. NZLINGLIN7WC [Ling New Zealand Areas LIN 7WC-WCSI]	TB SSB	ER F	TB SSB	ER F
44. NZLINGWSE [Ling Western half of Southeast Australia]	TB SSB	ER F	TB SSB	ER F
45. OPOUTNWATLC [Ocean pout Northwestern Atlantic Coast]	TB SSB	ER F	TB SSB	ER F
46. OROUGHYCASCADE [Orange roughy Cascade Plateau]	TB SSB	ER F	TB SSB	ER F
47. OROUGHYCH [Orange roughy Chile]	TB SSB	ER F	TB SSB	ER F
48. OROUHYESCR [Orange roughy East and South Chatham Rise]	TB SSB	ER F	TB SSB	ER F
49. OROUHYNEATL [Orange roughy Northeast Atlantic]	TB SSB	ER F	TB SSB	ER F
50. OROUHYNWCR [Orange roughy Northwest Chatham Rise]	TB SSB	ER F	TB SSB	ER F
51. OROUHYNZ7A [Orange roughy New Zealand Challenger Plateau]	TB SSB	ER F	TB SSB	ER F
52. OROUHYNZMEC [Orange roughy New Zealand Mid East Coast]	TB SSB	ER F	TB SSB	ER F
53. OROUHYSE [Orange roughy Southeast Australia]	TB SSB	ER F	TB SSB	ER F
54. PCEELARGS [Pink cusk eel Southern Argentina]	TB SSB	ER F	TB SSB	ER F
55. PCEELCSCH [Pink cusk eel Central-Southern Chile]	TB SSB	ER F	TB SSB	ER F
56. PCEELSCH [Pink cusk eel Southern Chile]	TB SSB	ER F	TB SSB	ER F
57. PTOOTHFISHCH [Patagonian toothfish South Chile Argentina]	TB SSB	ER F	TB SSB	ER F
58. PTOOTHFISHMI [Patagonian toothfish Macquarie Island]	TB SSB	ER F	TB SSB	ER F
59. PTOOTHFISHPEI [Patagonian toothfish South Africa Subantarctic Prince Edward Islands]	TB SSB	ER F	TB SSB	ER F
60. REDFEAUS [Redfish Eastern Australia]	TB SSB	ER F	TB SSB	ER F
61. SILVERFISHSE [Silverfish Southeast Australia]	TB SSB	ER F	TB SSB	ER F
62. SMOOTHOREOBP [Smooth oreo Bounty Plateau]	TB SSB	ER F	TB SSB	ER F
63. SMOOTHOREOCR [Smooth oreo Chatham Rise]	TB SSB	ER F	TB SSB	ER F
64. SMOOTHOREOEPR [Smooth oreo East Pukaki Rise]	TB SSB	ER F	TB SSB	ER F
65. SMOOTHOREOSLD [Smooth oreo Southland]	TB SSB	ER F	TB SSB	ER F
66. SMOOTHOREOWECR [Smooth oreo West end of Chatham Rise]	TB SSB	ER F	TB SSB	ER F
67. SSANDNSJ [Sailfin sandfish Sea of Japan North]	TB SSB	ER F	TB SSB	ER F
68. SSANDWSJ [Sailfin sandfish Sea of Japan West]	TB SSB	ER F	TB SSB	ER F
69. WANGLGSIA1-7 [White anglerfish Geographical Sub-Areas 1-7]	TB SSB	ER F	TB SSB	ER F
70. WANGLVIIc-IXa [White anglerfish ICES 8c-9a]	TB SSB	ER F	TB SSB	ER F
71. WANGLVII-VIIIabd [White anglerfish ICES 7-8abd]	TB SSB	ER F	TB SSB	ER F
72. WAREHOUESE [Blue warehou Eastern half of Southeast Australia]	TB SSB	ER F	TB SSB	ER F
73. WAREHOUWSE [Blue warehou Western half of Southeast Australia]	TB SSB	ER F	TB SSB	ER F
74. YGSFISHNPAC [Yellow goosefish North Pacific]	TB SSB	ER F	TB SSB	ER F

Alfonsino Chile [AFLONCH]

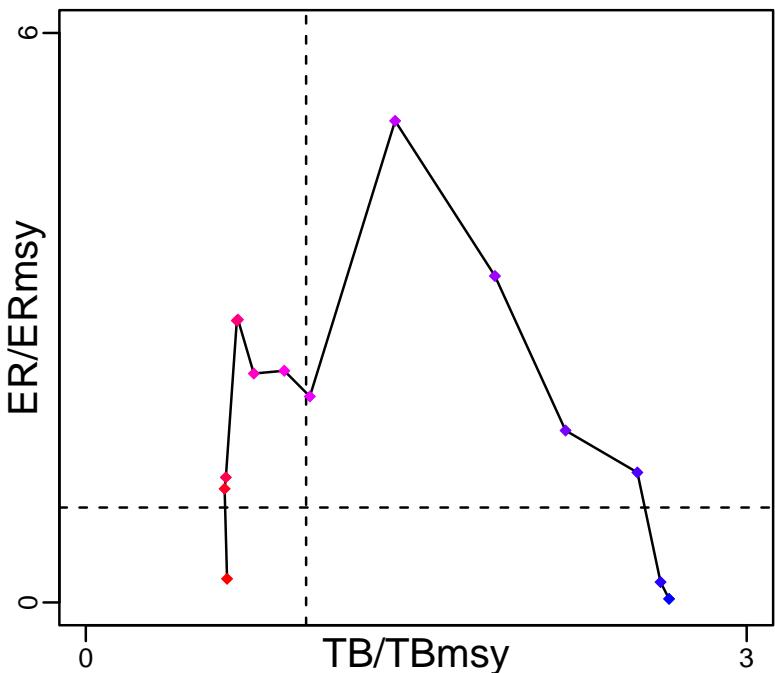
Metadata	
Scientific Name	Beryx splendens
Current Assess ID	SPRFMO-AFLONCH-1998-2011-CHING
Area	Chile
Management Authority	South Pacific Regional Fisheries Management Organization
Assessor	South Pacific Regional Fisheries Management Organization
Asmts in RAM	2011

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

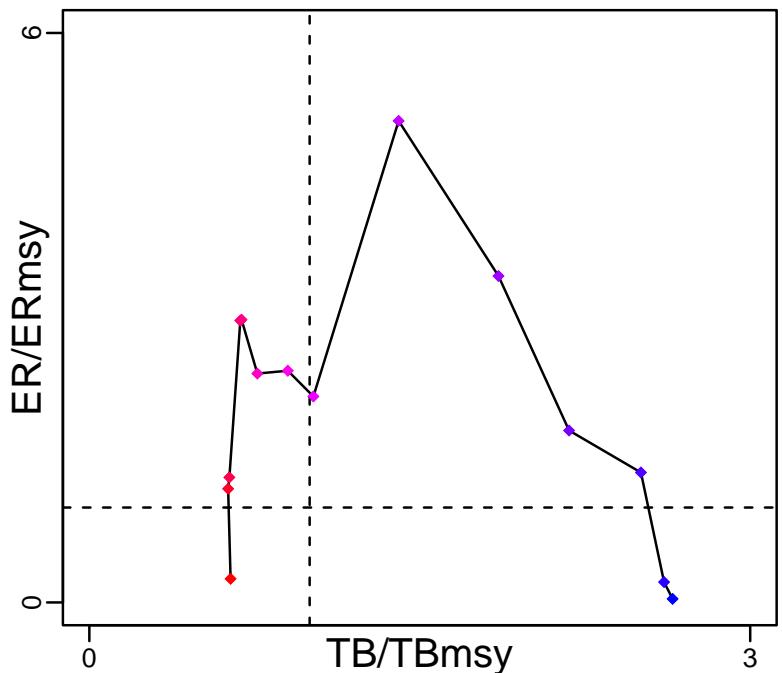
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2011	11,600	-	-	
SSB	SSB-MT	2011	944	-	-	
TN	-	-	-	-	-	
R	R-E00	2011	4370	-	-	
F	-	-	-	-	-	
ER	ER-calc-ratio	2011	0.018	-	-	
TC	-	-	-			
TL	TL-MT	2011	204			
TB/TBmsy	-	-	-			
SSB/SSBmsy	-	-	-			
F/Fmsy	-	-	-			
ER/ERrmsy	-	-	-			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Alfonsino Chile [AFLONCH]

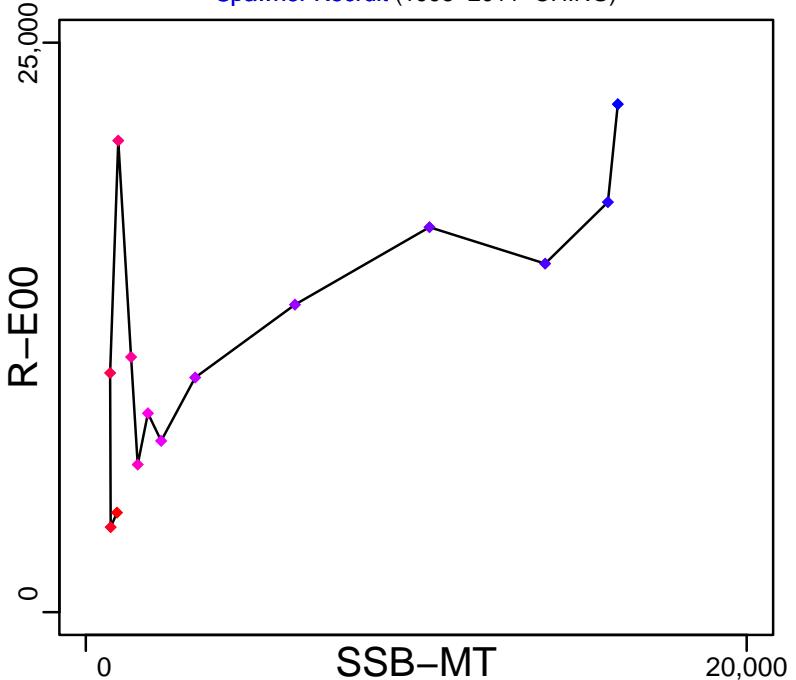
Kobe MSYpref (1998–2011–CHING)



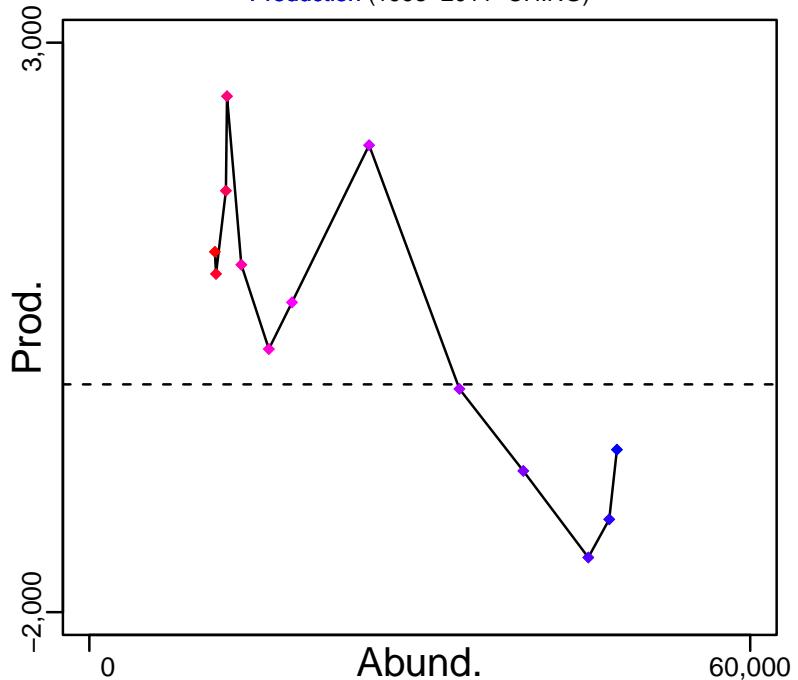
Kobe MGTPref (1998–2011–CHING)



Spawner Recruit (1998–2011–CHING)



Production (1998–2011–CHING)

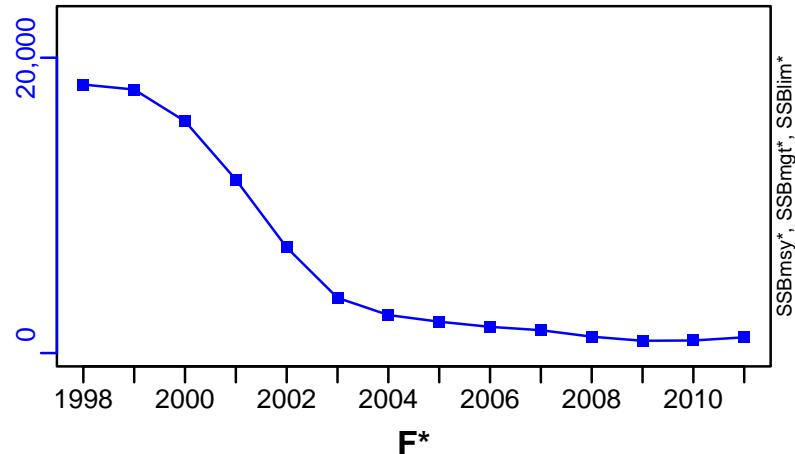
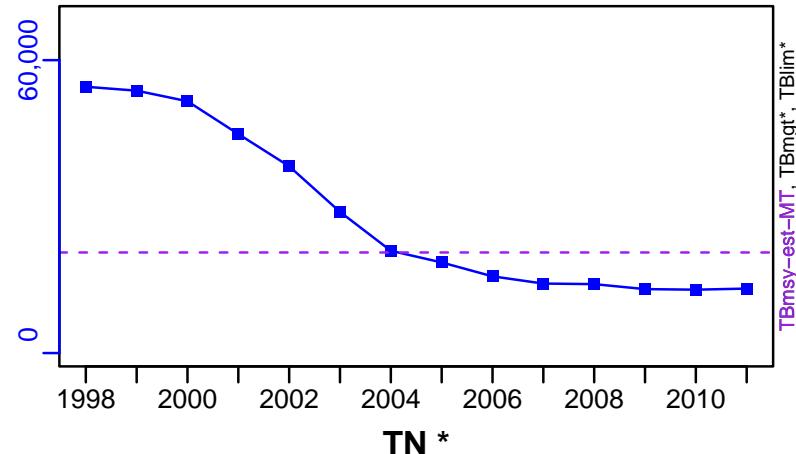


◆ Start Year ◆ End Year * No Data

Alfonsino Chile [AFLONCH]

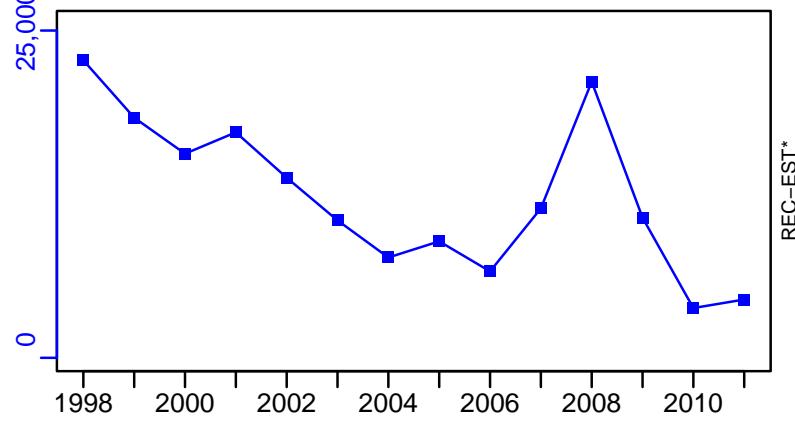
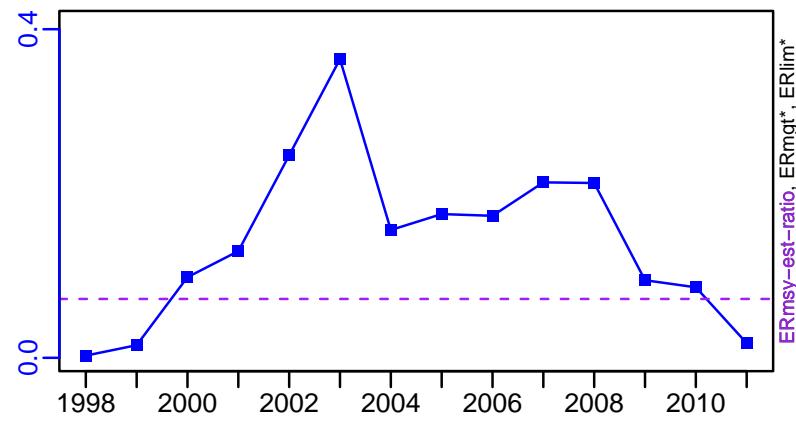
TB-MT (1998–2011-CHING)

SSB-MT (1998–2011-CHING)



ER-calc-ratio (1998–2011-CHING)

R-E00 (1998–2011-CHING)

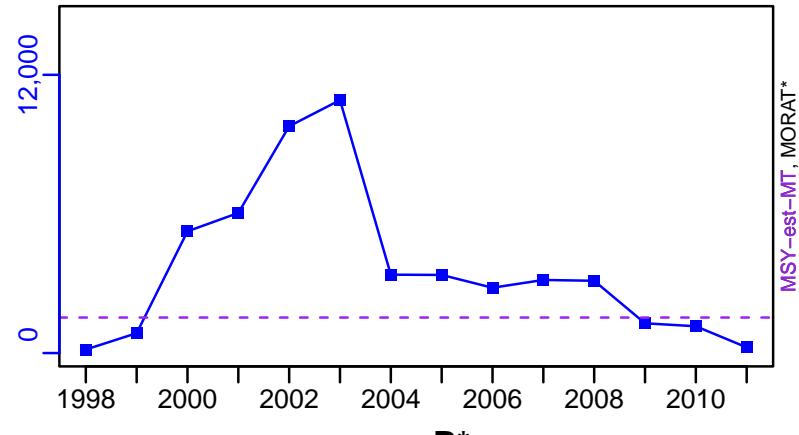


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	--- Lim BRP	* No Data

Alfonsino Chile [AFLONCH]

TL-MT, TC*, RecC* (1998–2011-CHING)

TAC*, Cpair*, Cadv*

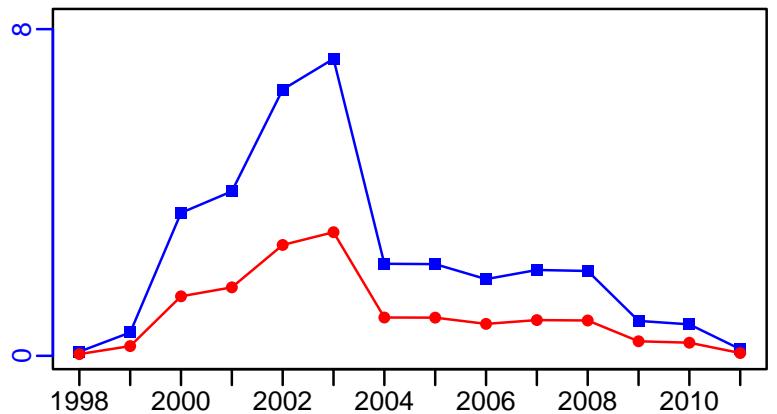


survB*

CPUE*

EFFORT*

TL-MT/MSY-est-MT, CdivMEANC-ratio, (1998–2011-CHING)



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

Black bellied angler Malta Island and South of Sicily (GSA 15, 16)
[ANGLMEDGSA15-16]

Metadata	
Scientific Name	Lophius budegassa
Current Assess ID	STECF-ANGLMEDGSA15-16-2006-2011-OSIO
Area	Malta Island and South of Sicily (GSA 15, 16)
Management Authority	General Fisheries Council for the Mediterranean, DG MARE, and national states
Assessor	Scientific, Technical and Economic Committee for Fisheries
Asmts in RAM	2010, 2011

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	Fmsy-extr-1/yr	2010	0.165
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	Fmgt-1/yr	2011	0.16
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2010	0.2
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

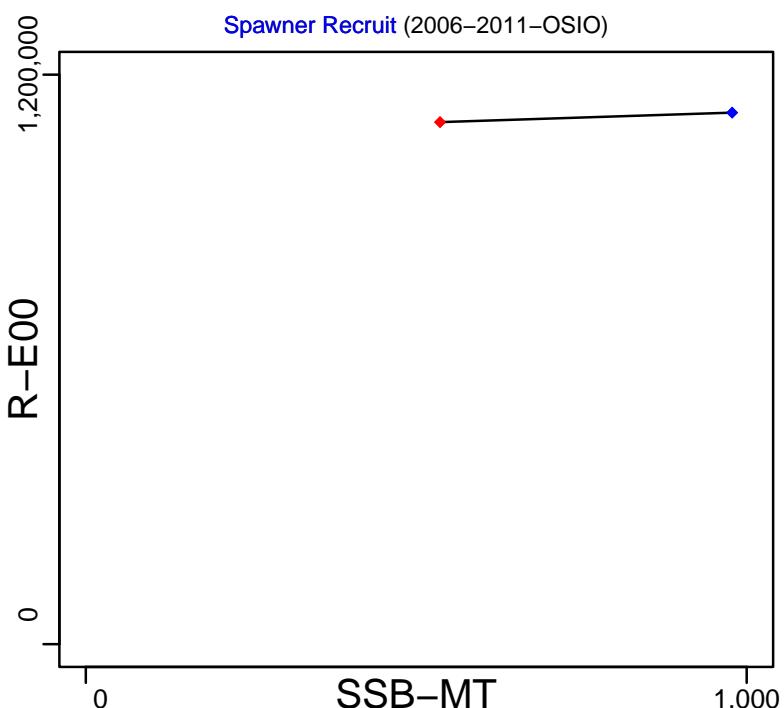
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2011	536	-	-
TN	-	-	-	-	-
R	R-E00	2011	1,100,000	-	-
F	F-1/yr	2011	0.351	-	-
ER	-	-	-	-	-
TC	TC-MT	2011	279		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	FdivFmsy-dimensionless	2010	2.07		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	F-1/yr/Fmgt-1/yr	2011	2.194		
ER/ERmgt	-	-	-		

Kobe MSY*

Kobe MGT*

Spawner Recruit (2006–2011–OSIO)

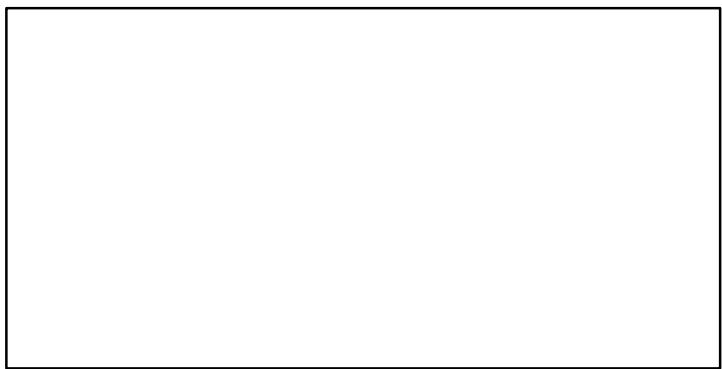
Production*



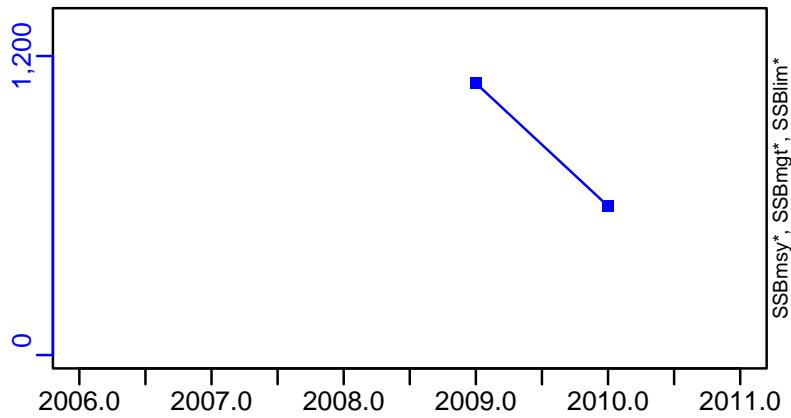
◆ Start Year ◆ End Year * No Data

Black bellied angler Malta Island and South of Sicily (GSA 15, 16) [ANGLMEDGSA15–16]

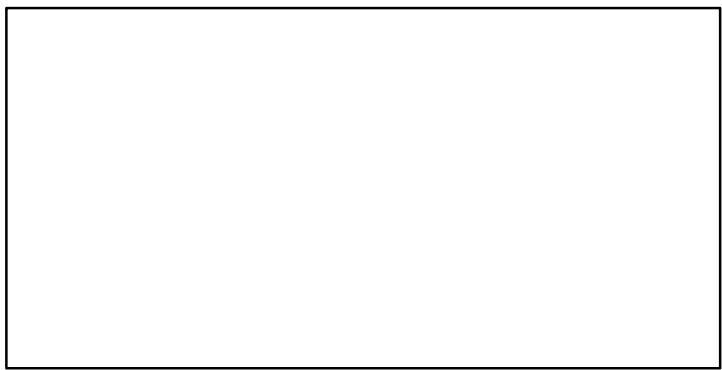
TB*



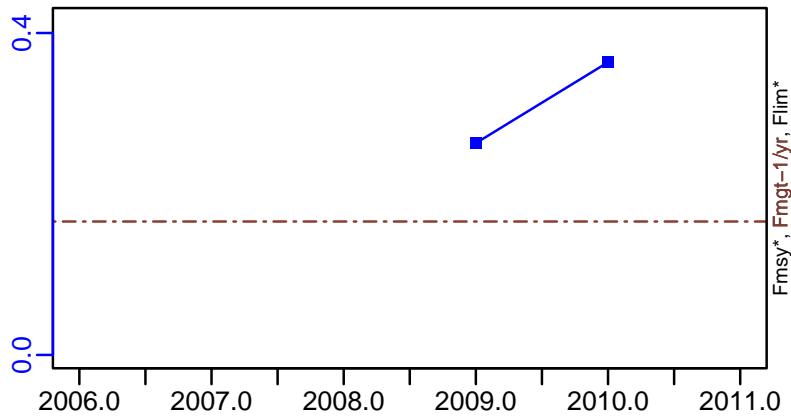
SSB-MT (2006–2011–OSIO)



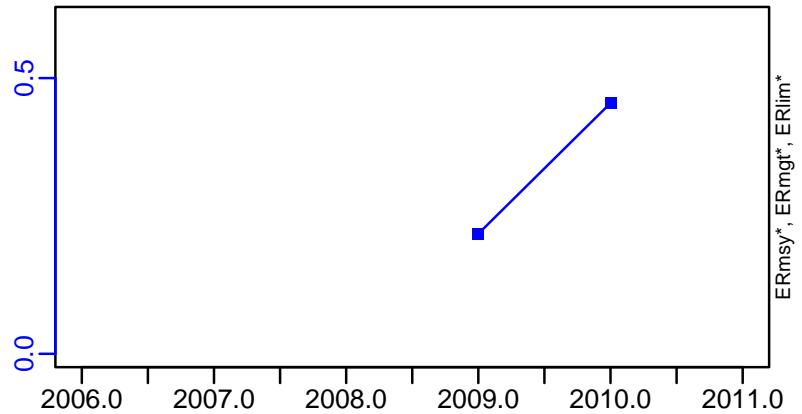
TN *



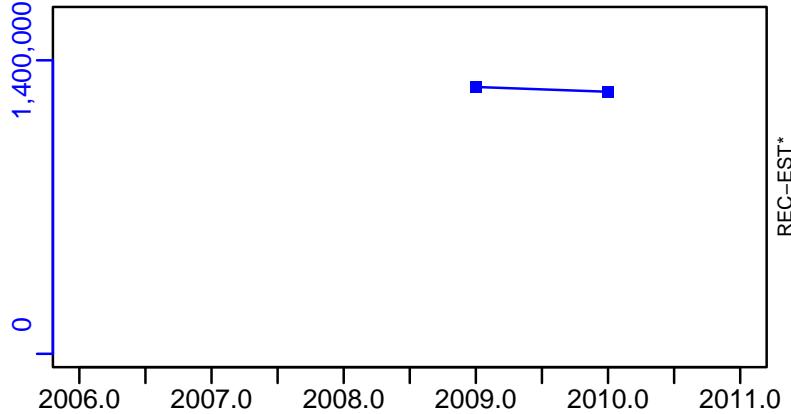
F-1/yr (2006–2011–OSIO)



ER-calc-ratio (2006–2011–OSIO)



R-E00 (2006–2011–OSIO)

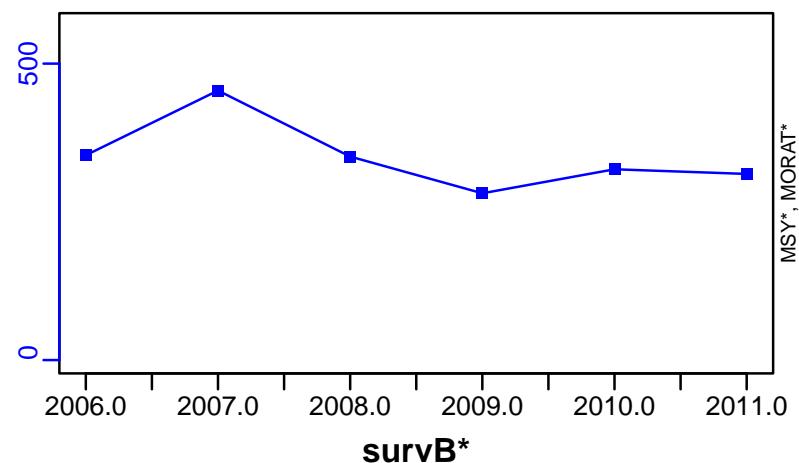


- Listed time series
- - - Target BRP
- - - MSY-based BRP
- - - Lim BRP
- Rec-Est
- * No Data

Black bellied angler Malta Island and South of Sicily (GSA 15, 16) [ANGLMEDGSA15–16]

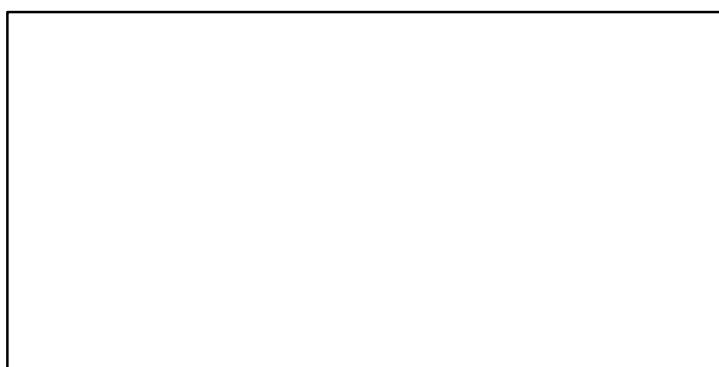
TC-MT, TL*, RecC* (2006–2011–OSIO)

TAC*, Cpair*, Cadv*

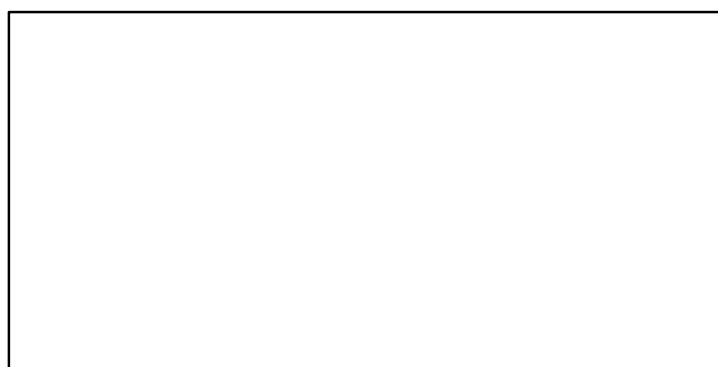


survB*

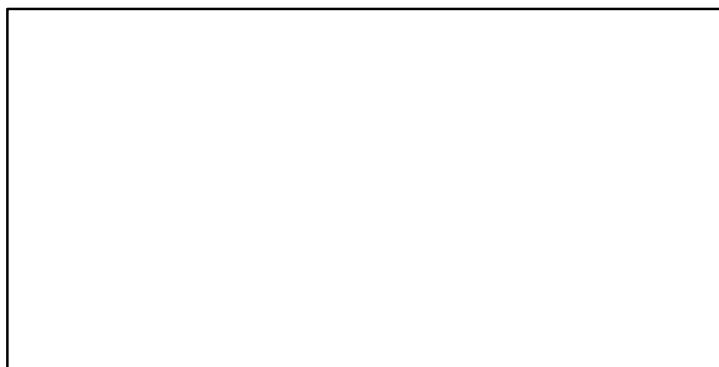
MSY*, MORAT*



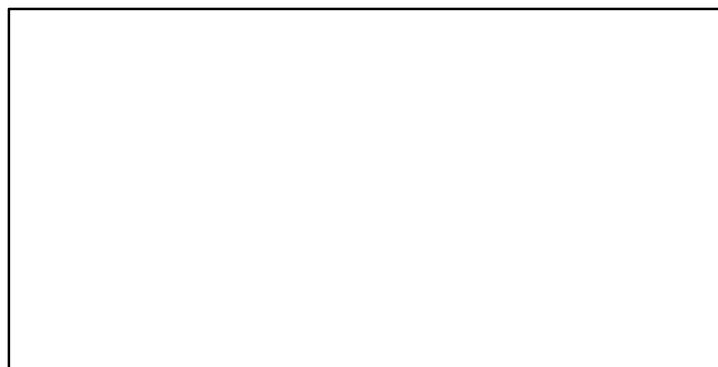
CPUE*



EFFORT*



CdivMSY*



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

Black bellied angler Balearic Island [ANGLMEDGSA5]

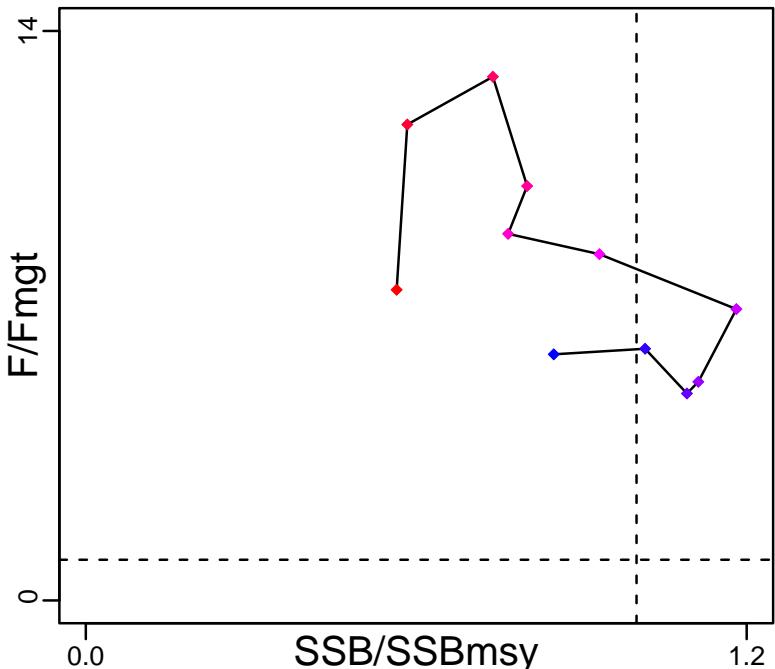
Metadata	
Scientific Name	Lophius budegassa
Current Assess ID	STECF-ANGLMEDGSA5-2003-2013-OSIO
Area	Balearic Island
Management Authority	General Fisheries Council for the Mediterranean, DG MARE, and national states
Assessor	Scientific, Technical and Economic Committee for Fisheries
Asmts in RAM	2013

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	Fmgt-1/yr	2013	0.08
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

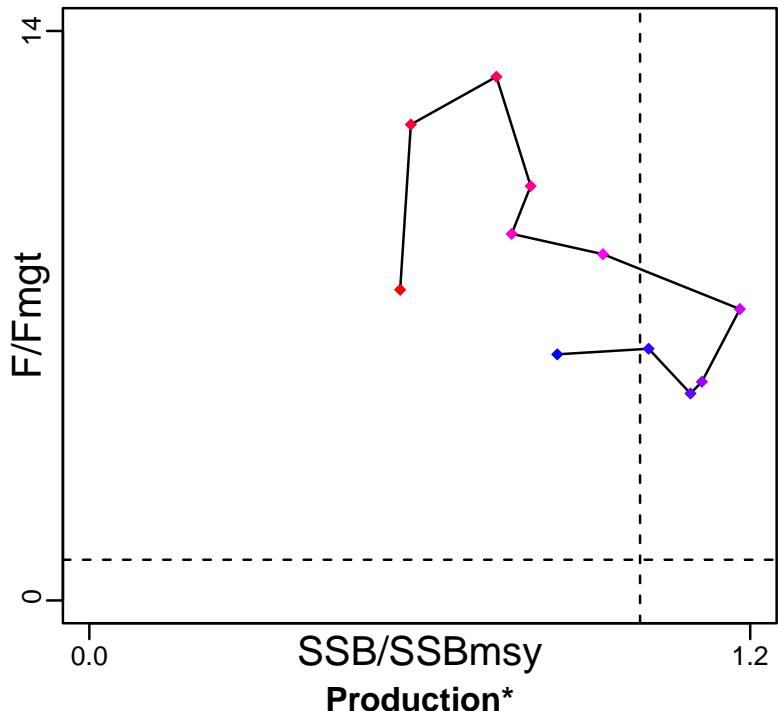
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2013	8	-	5+
TN	-	-	-	-	-
R	R-E00	2013	152,000	-	-
F	F-1/yr	2013	0.611	-	-
ER	-	-	-	-	-
TC	TC-MT	2013	11		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	F-1/yr/Fmgt-1/yr	2013	7.638		
ER/ERmgt	-	-	-		

Black bellied angler Balearic Island [ANGLMEDGSA5]

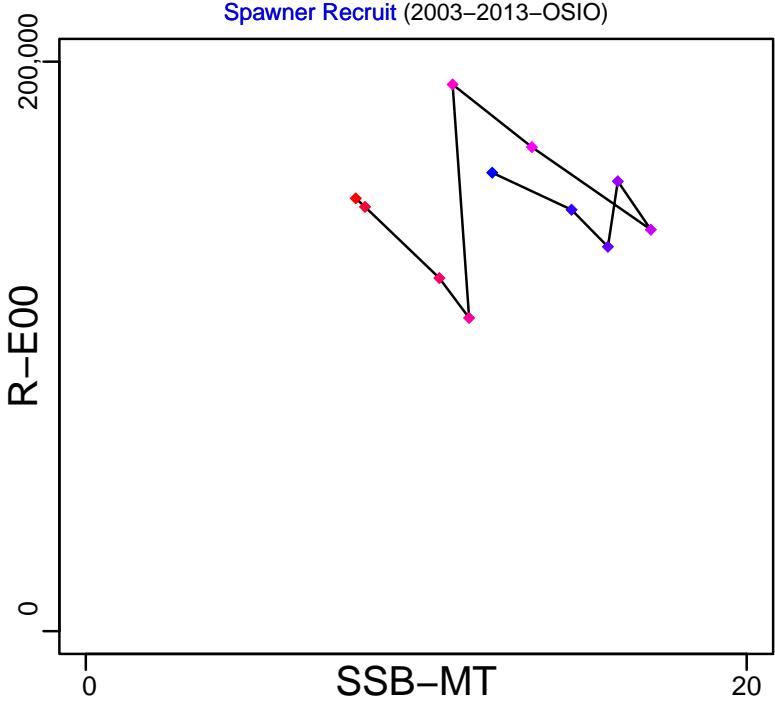
Kobe MSYpref (2003–2013–OSIO)



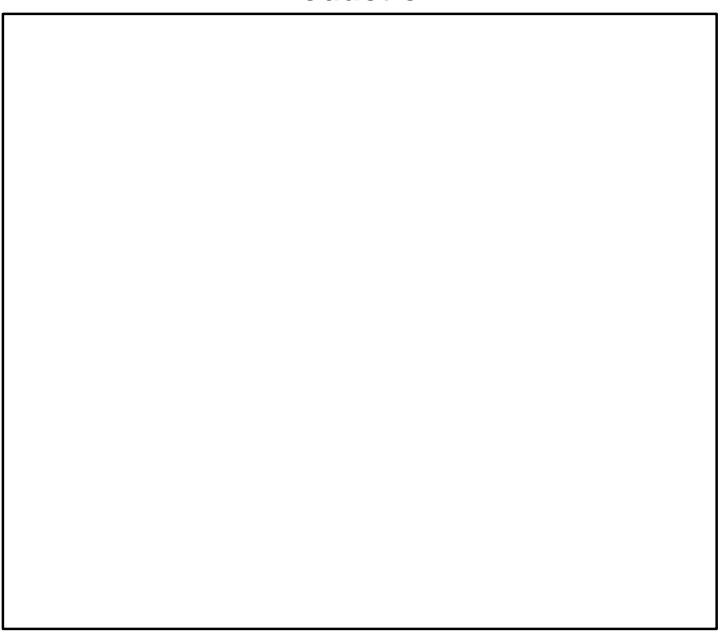
Kobe MGTpref (2003–2013–OSIO)



Spawner Recruit (2003–2013–OSIO)



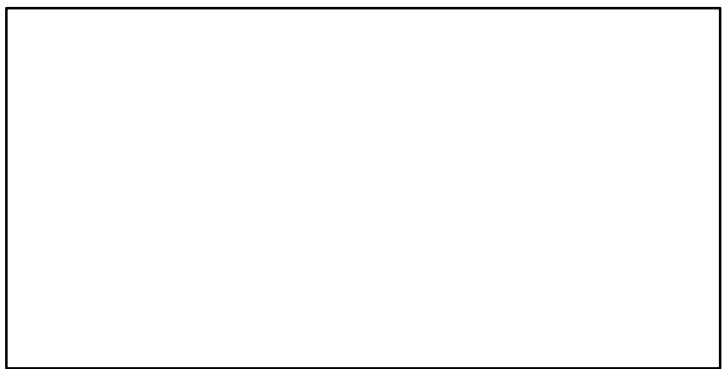
Production*



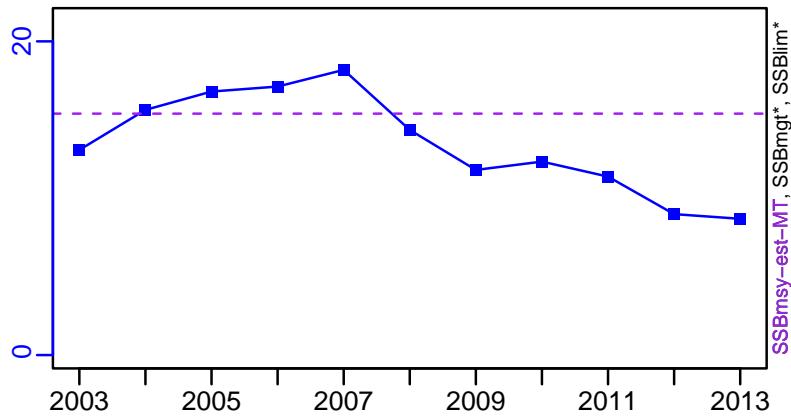
♦ Start Year ◆ End Year * No Data

Black bellied angler Balearic Island [ANGLMEDGSA5]

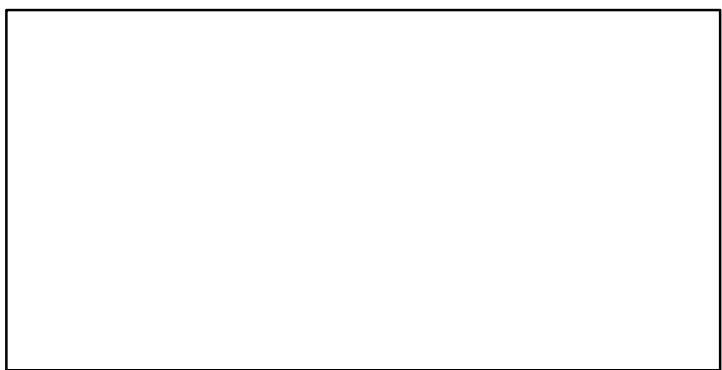
TB*



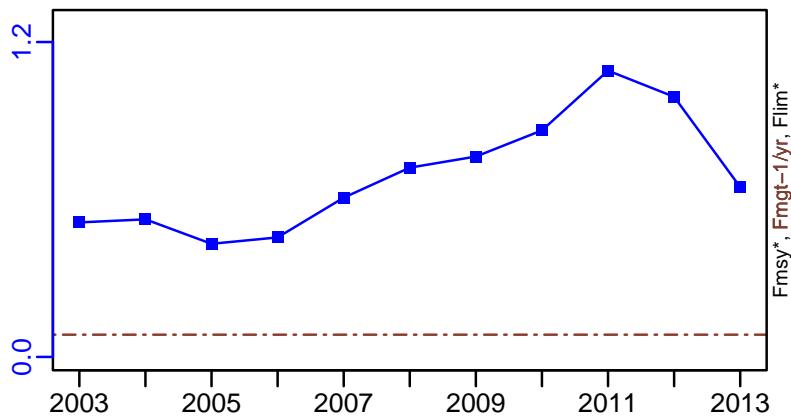
SSB-MT (2003–2013–OSIO)



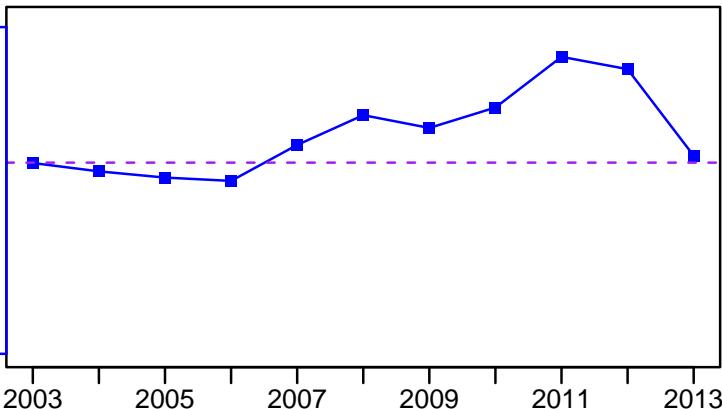
TN *



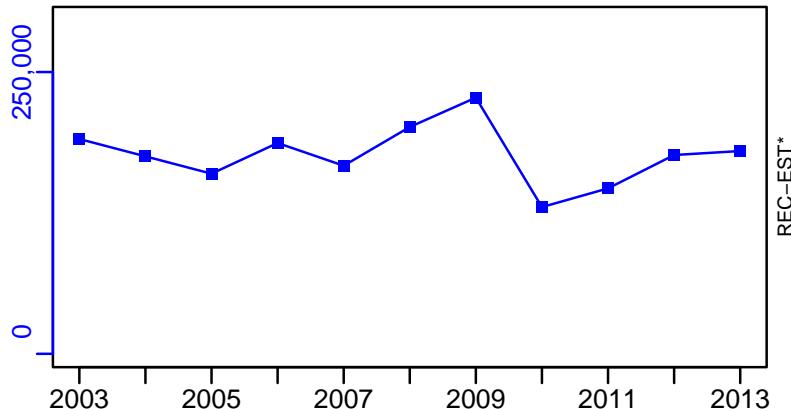
F-1/yr (2003–2013–OSIO)



ER-calc-ratio (2003–2013–OSIO)



R-E00 (2003–2013–OSIO)

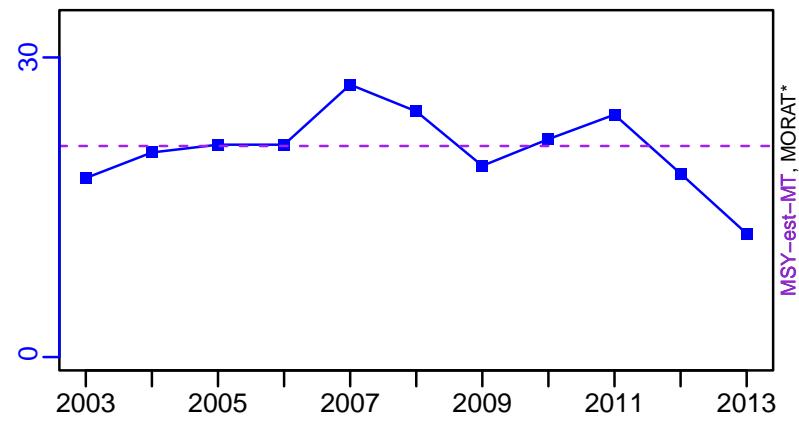


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	— Lim BRP	* No Data

Black bellied angler Balearic Island [ANGLMEDGSA5]

TC-MT, TL*, RecC* (2003–2013–OSIO)

TAC*, Cpair*, Cadv*



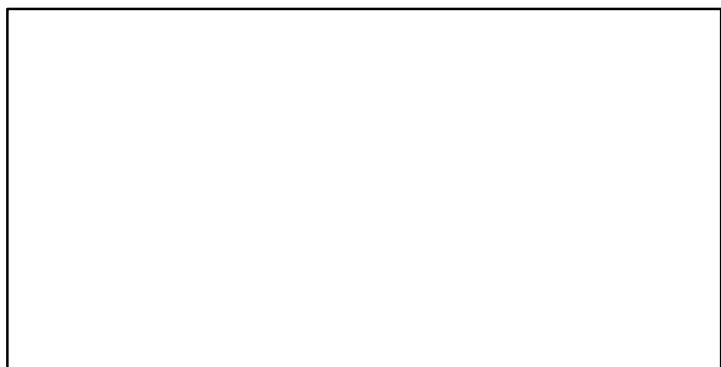
survB*



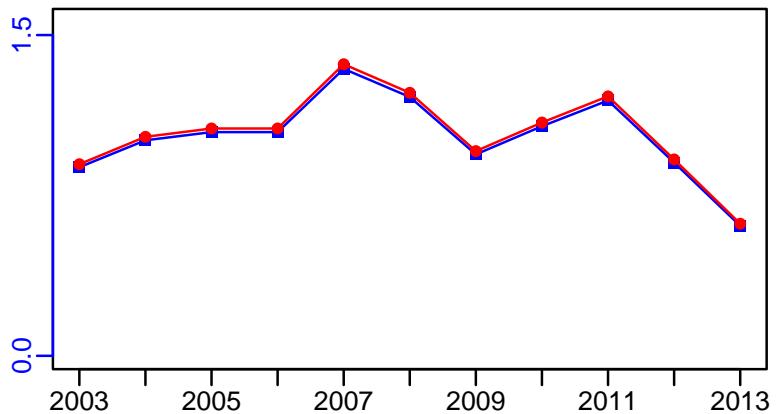
CPUE*



EFFORT*



TC-MT/MSY-est-MT, CdivMEANC-ratio, (2003–2013–OSIO)



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

Black bellied angler Northern Spain [ANGLMEDGSA6]

Metadata	
Scientific Name	Lophius budegassa
Current Assess ID	STECF-ANGLMEDGSA6-2004-2013-OSIO
Area	Northern Spain
Management Authority	General Fisheries Council for the Mediterranean, DG MARE, and national states
Assessor	Scientific, Technical and Economic Committee for Fisheries
Asmts in RAM	2013

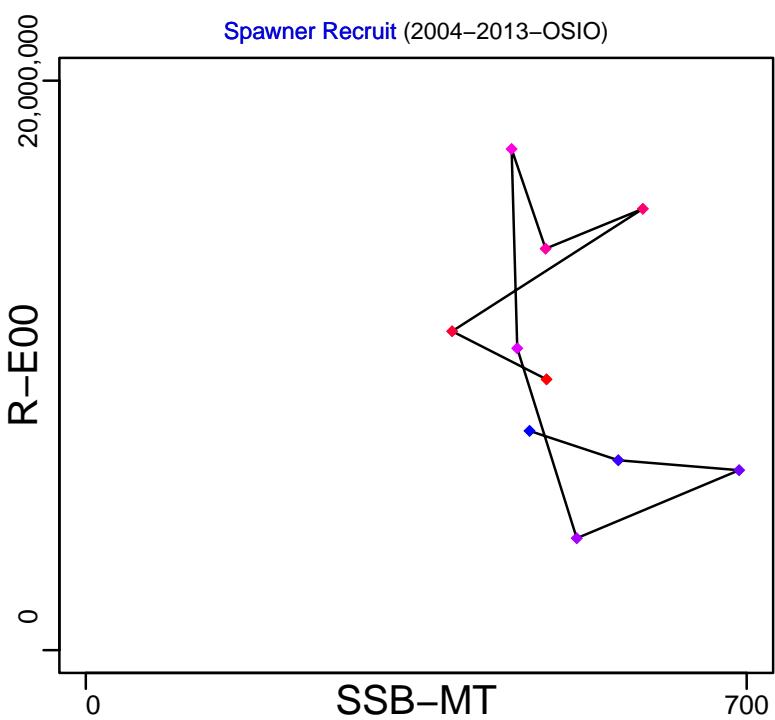
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	Fmgt-1/yr	2013	0.14
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2013	488	-	5+
TN	-	-	-	-	-
R	R-E00	2013	9,510,000	-	-
F	F-1/yr	2013	0.909	-	-
ER	-	-	-	-	-
TC	TC-MT	2013	1050		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	F-1/yr/Fmgt-1/yr	2013	6.493		
ER/ERmgt	-	-	-		

Kobe MSY*

Kobe MGT*

Spawner Recruit (2004–2013–OSIO)



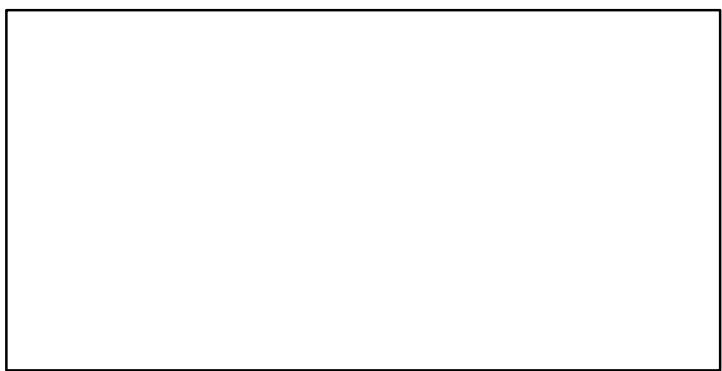
Production*



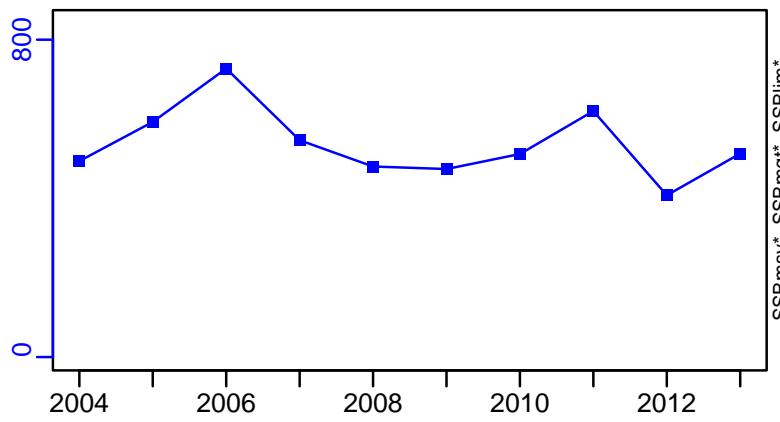
◆ Start Year ◆ End Year * No Data

Black bellied angler Northern Spain [ANGLMEDGSA6]

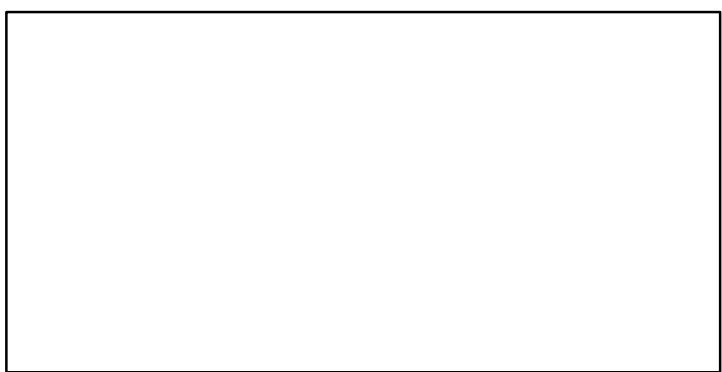
TB*



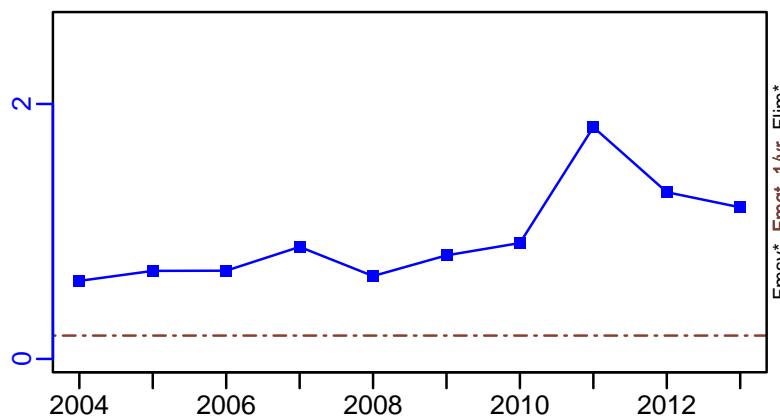
SSB-MT (2004–2013–OSIO)



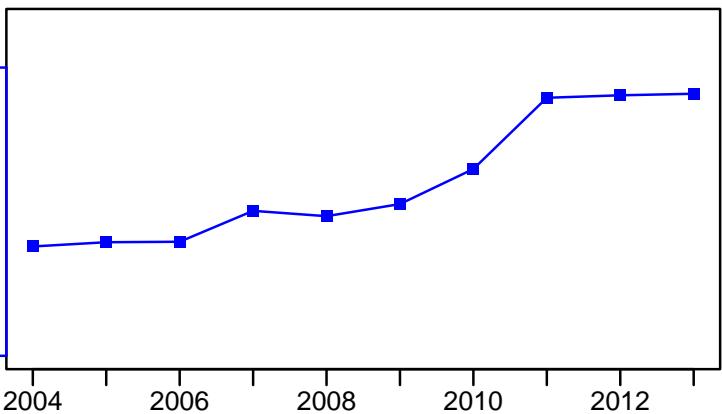
TN *



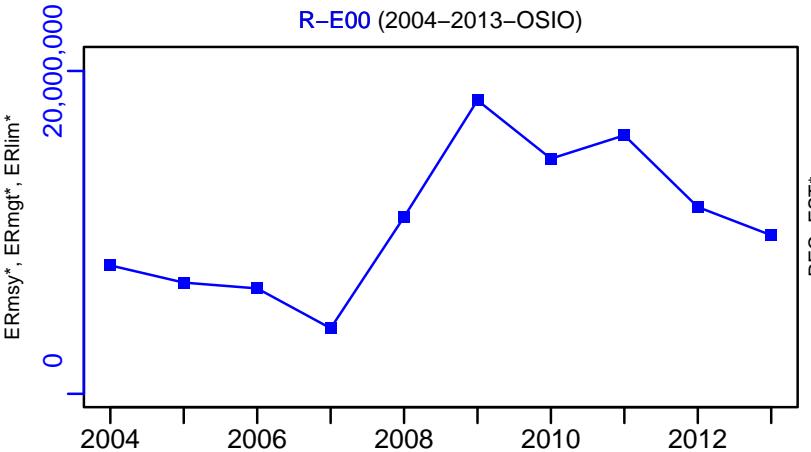
F-1/yr (2004–2013–OSIO)



ER-calc-ratio (2004–2013–OSIO)



R-E00 (2004–2013–OSIO)

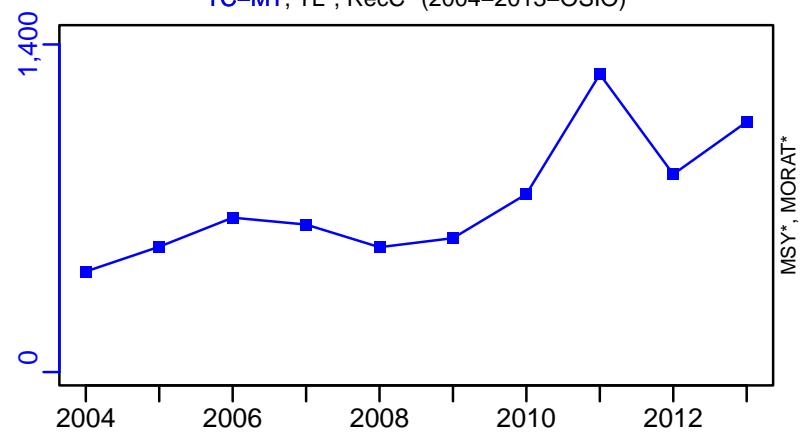


■ Listed time series	--- Target BRP	— Rec-Est
- - MSY-based BRP	··· Lim BRP	* No Data

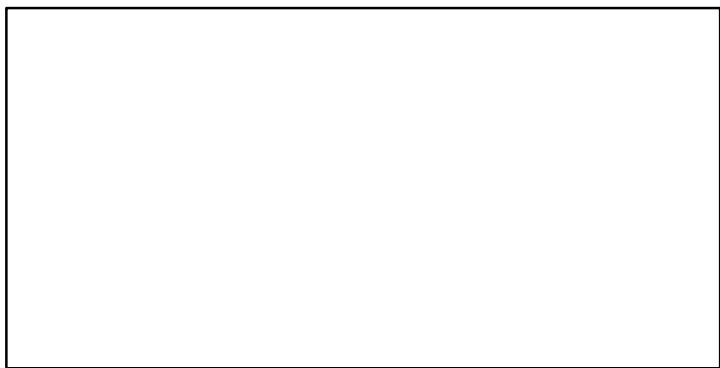
Black bellied angler Northern Spain [ANGLMEDGSA6]

TC-MT, TL*, RecC* (2004–2013–OSIO)

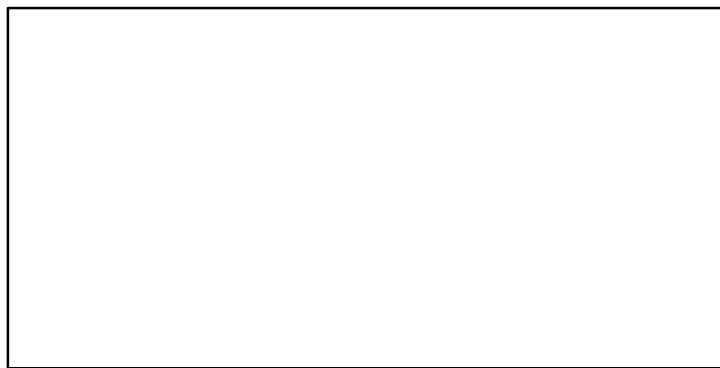
TAC*, Cpair*, Cadv*



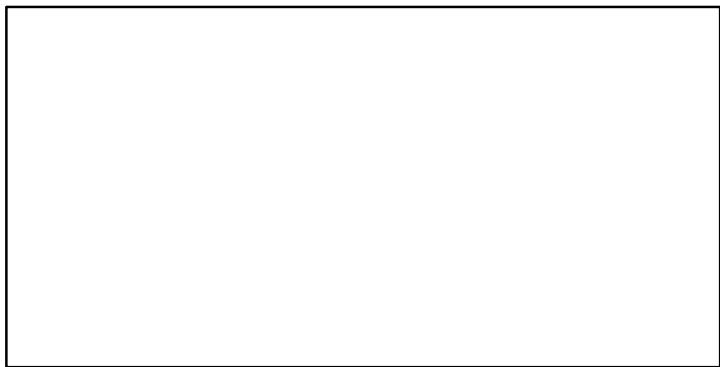
survB*



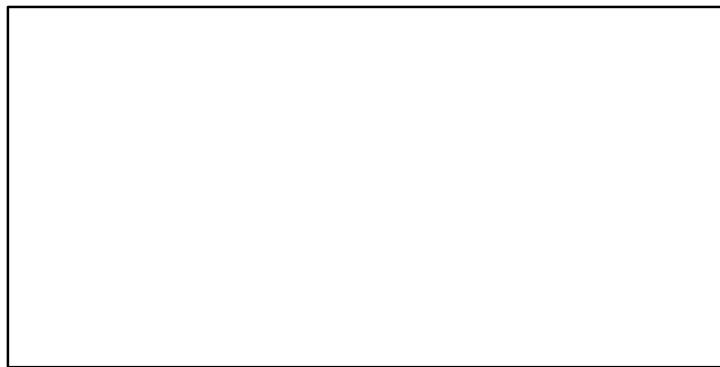
CPUE*



EFFORT*



CdivMSY*



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

Black bellied angler Gulf of Lions [ANGLMEDGSA7]

Metadata	
Scientific Name	Lophius budegassa
Current Assess ID	STECF-ANGLMEDGSA7-2005-2011-OSIO
Area	Gulf of Lions
Management Authority	General Fisheries Council for the Mediterranean, DG MARE, and national states
Assessor	Scientific, Technical and Economic Committee for Fisheries
Asmts in RAM	2011

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	Fmgt-1/yr	2011	0.29
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	2011	355		
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

Black bellied angler Gulf of Lions [ANGLMEDGSA7]

TB*



SSB*



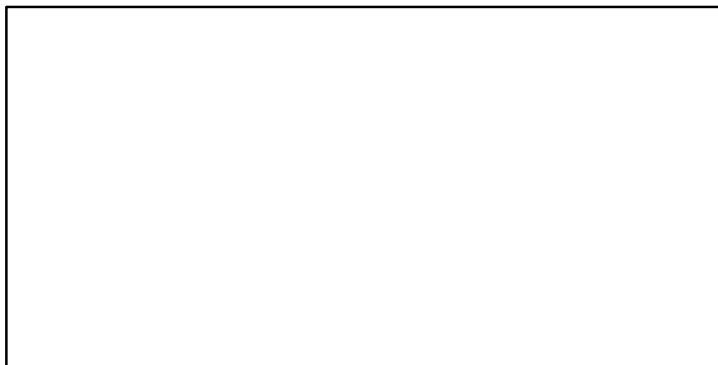
TN *



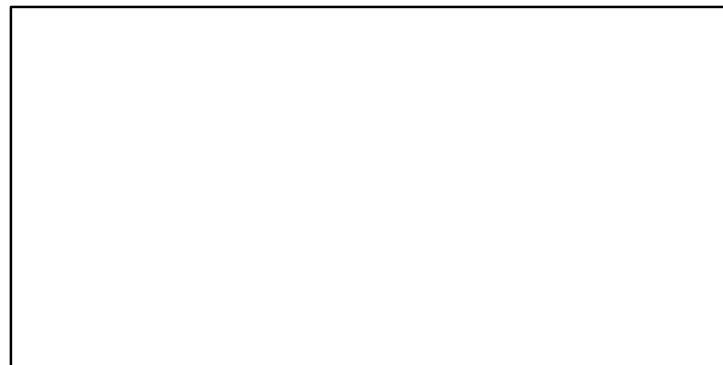
F*



ER*



Recruits*

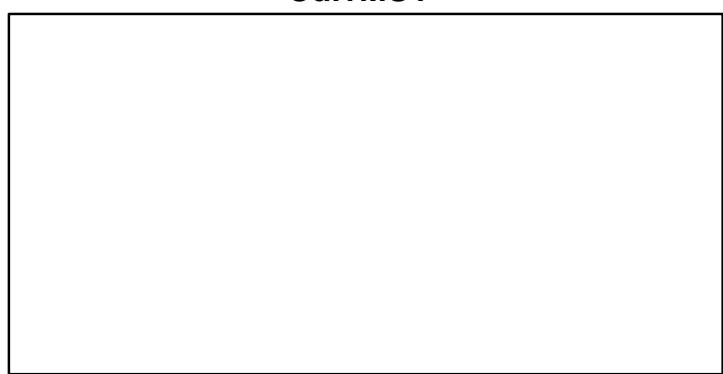
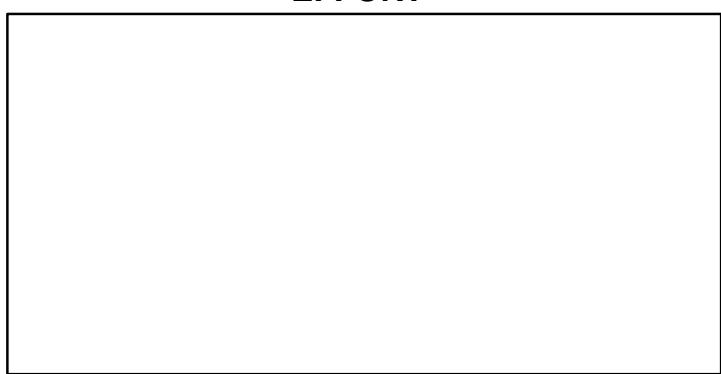
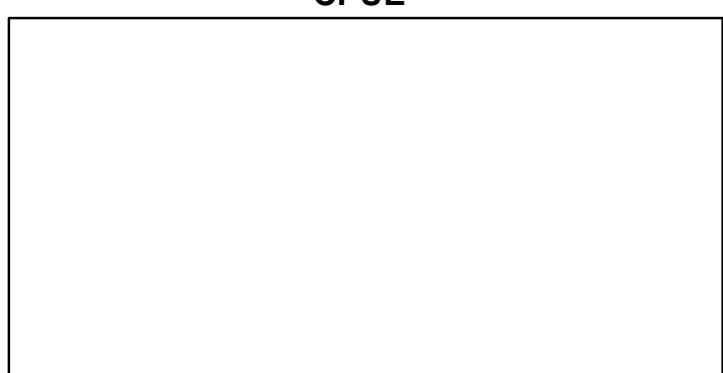
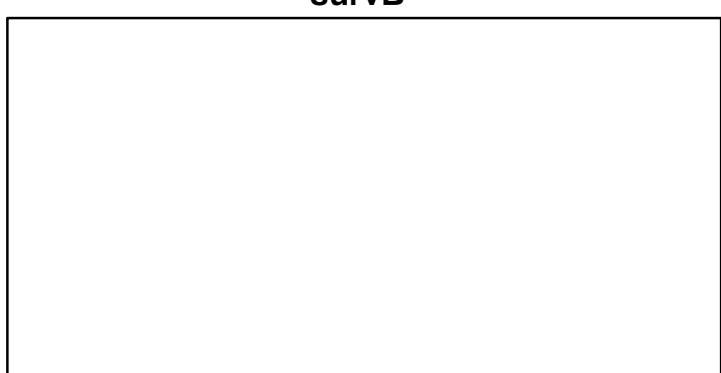
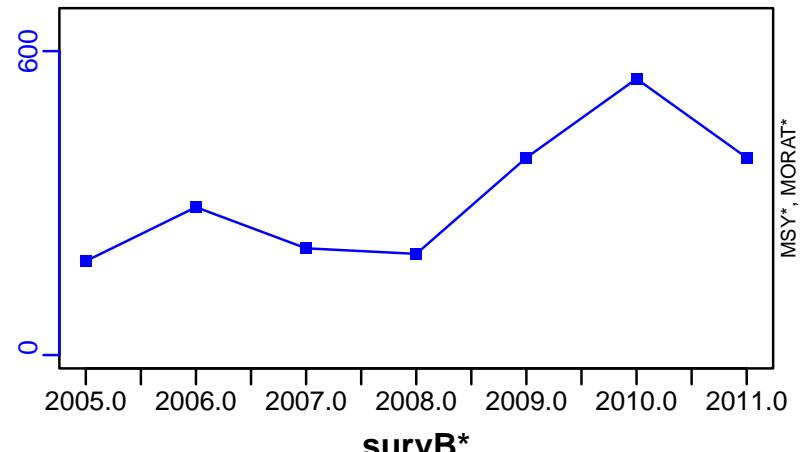


- | | | |
|----------------------|------------------|-----------|
| ■ Listed time series | - - - Target BRP | — Rec-Est |
| - - - MSY-based BRP | - - - Lim BRP | * No Data |

Black bellied angler Gulf of Lions [ANGLMEDGSA7]

TC-MT, TL*, RecC* (2005–2011–OSIO)

TAC*, Cpair*, Cadv*



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

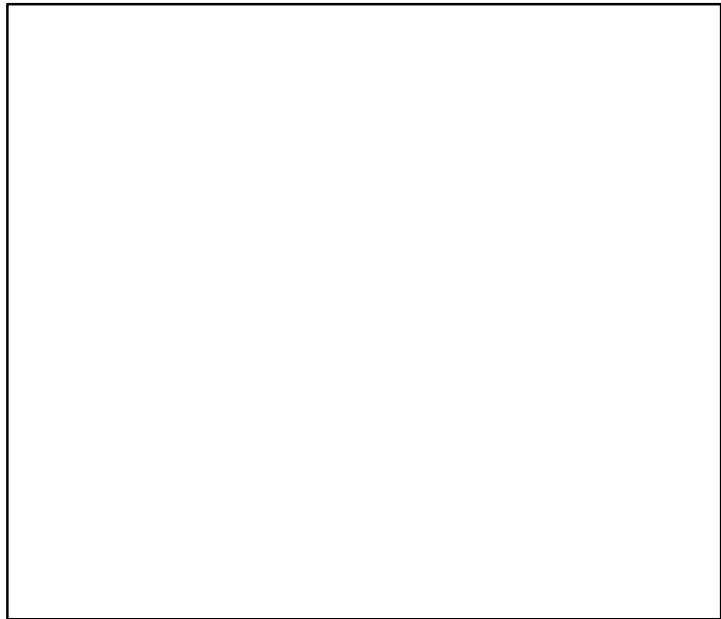
Anglerfish spp ICES 3a-4-6 [ANGLSPPIIIa-IV-VI]

Metadata	
Scientific Name	Lophius spp
Current Assess ID	WGCSE-ANGLSPPIIIa-IV-VI-1991-2019-ICESIMP2021-2
Area	ICES 3a-4-6
Management Authority	International Council for the Exploration of the Sea
Assessor	Working Group on Celtic Seas Ecosystems
Asmts in RAM	2019, 2019

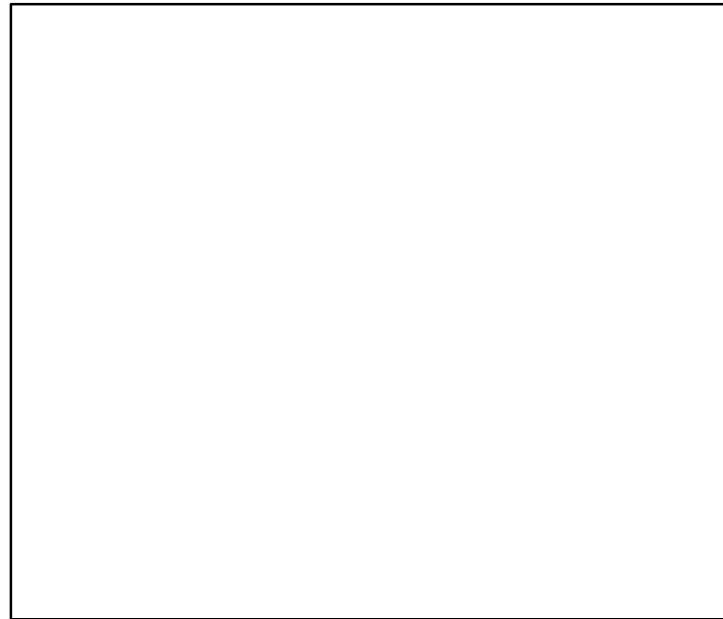
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERrmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	-	-	-	-	-	-
SSB	-	-	-	-	-	-
TN	-	-	-	-	-	-
R	-	-	-	-	-	-
F	-	-	-	-	-	-
ER	-	-	-	-	-	-
TC	TC-MT	2019	21,400			
TL	TL-MT	2019	21,600			
TB/TBmsy	-	-	-			
SSB/SSBmsy	-	-	-			
F/Fmsy	-	-	-			
ER/ERrmsy	ERdivERrmsy-dimensionless	2019	1.216			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

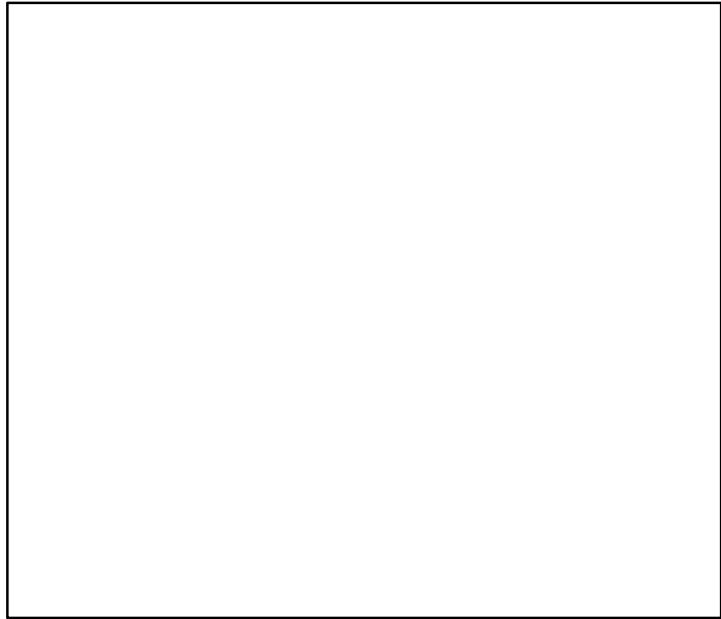
Kobe MSY*



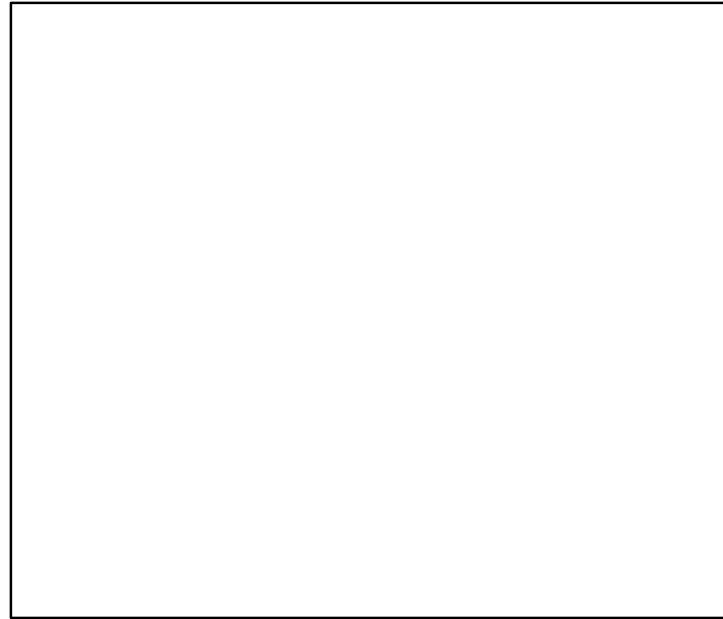
Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Anglerfish spp ICES 3a-4-6 [ANGLSPPIIIa-IV-VI]

TB*



SSB*



TN *



F*



ER*



Recruits*

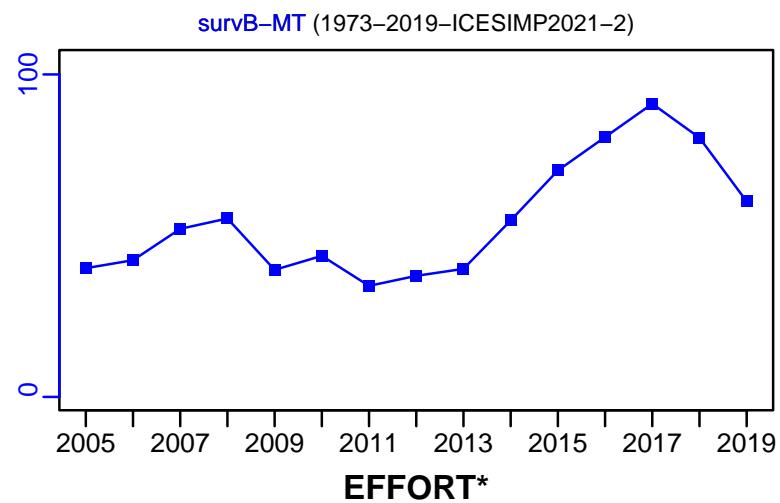
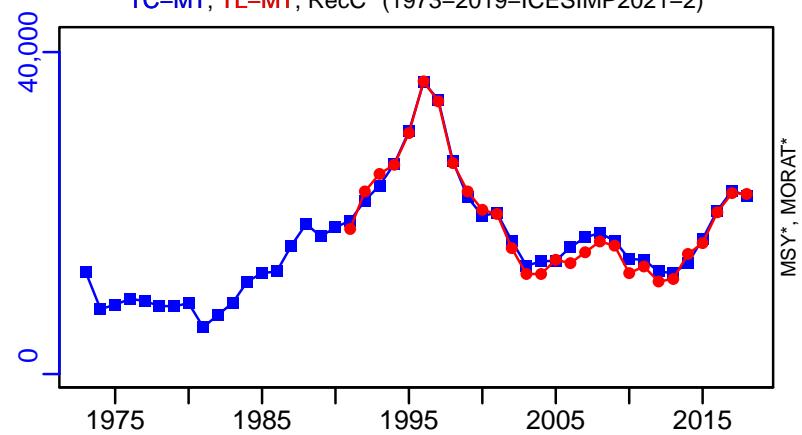


- | | | |
|----------------------|------------------|-----------|
| ■ Listed time series | - - - Target BRP | — Rec-Est |
| - - - MSY-based BRP | - - - Lim BRP | * No Data |

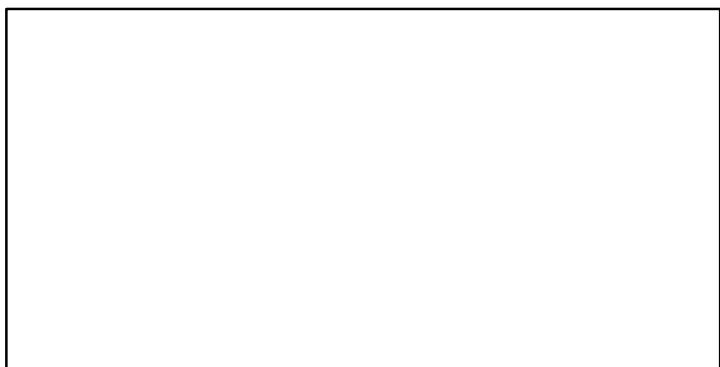
Anglerfish spp ICES 3a-4-6 [ANGLSPPIIIa-IV-VI]

TC-MT, TL-MT, RecC* (1973–2019–ICESIMP2021–2)

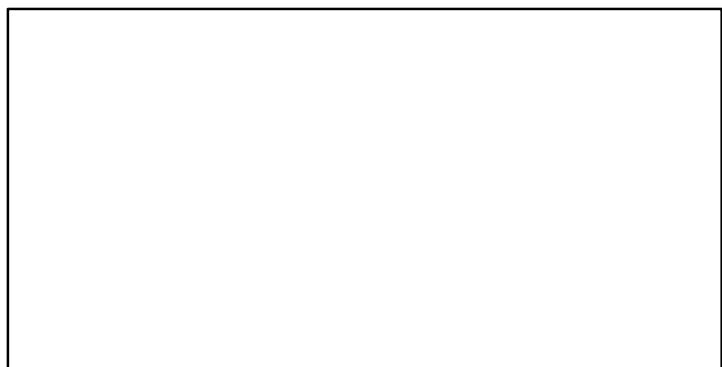
TAC*, Cpair*, Cadv*



CPUE*



CdivMSY*



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

Black bellied angler ICES 8c-9a [ANGLVIIIC-IXa]

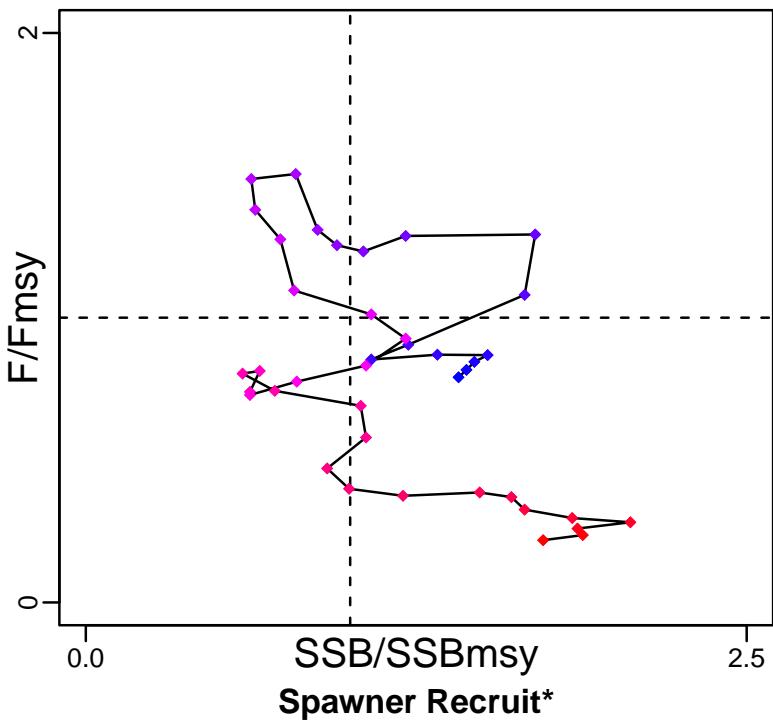
Metadata	
Scientific Name	Lophius budegassa
Current Assess ID	WGBIE-ANGLVIIIC-IXa-1980-2021-ICESIMP2021-2
Area	ICES 8c-9a
Management Authority	International Council for the Exploration of the Sea
Assessor	Working Group for the Bay of Biscay and the Iberian Waters Ecoregion
Asmts in RAM	2019, 2014, 2015, 2016, 2017, 2018, 2020, 2021, 2011, 2012, 2013

Reference Points			
Type	ID	Asmt Year	Value
TBm sy	-	-	-
SSBm sy	-	-	-
Fm sy	-	-	-
ERm sy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	SSBlim-relative	2021	0.3
Flim	Flim-relative	2021	1.7
ERlim	-	-	-

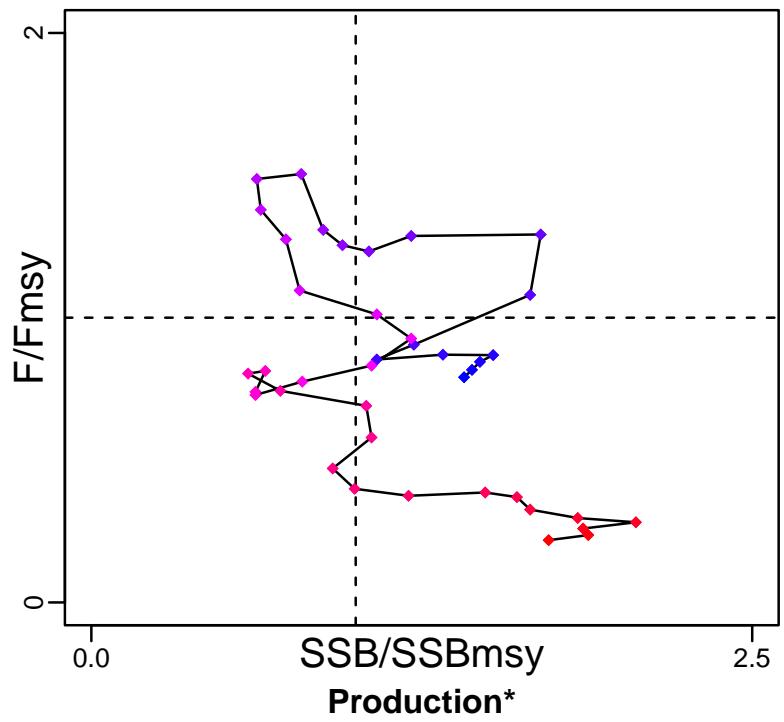
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	-	-	-	-	-	
SSB	SSB-relative	2021	1.27	-	-	
TN	-	-	-	-	-	
R	-	-	-	-	-	
F	F-relative	2021	0.394	-	-	
ER	-	-	-	-	-	
TC	-	-	-			
TL	TL-MT	2021	793			
TB/TBm sy	TBdivTBm sy-dimensionless	2017	1.2			
SSB/SSBm sy	SSBdivSSBm sy-dimensionless	2020	1.67			
F/Fm sy	FdivFm sy-dimensionless	2020	0.219			
ER/ERm sy	-	-	-			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Black bellied angler ICES 8c–9a [ANGLVIIIC–IXa]

Kobe MSYpref (1980–2020–ICESIMP2021–2)



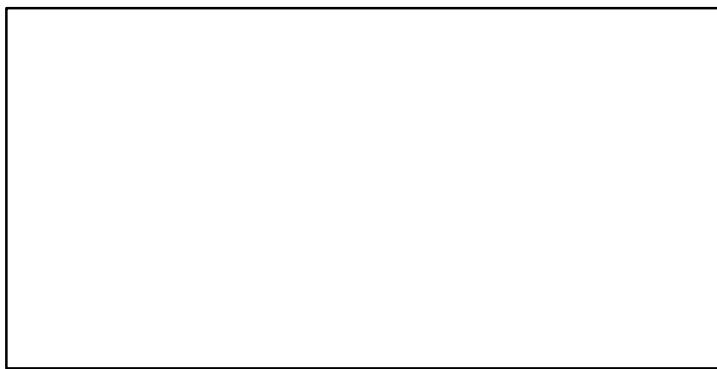
Kobe MGTpref (1980–2020–ICESIMP2021–2)



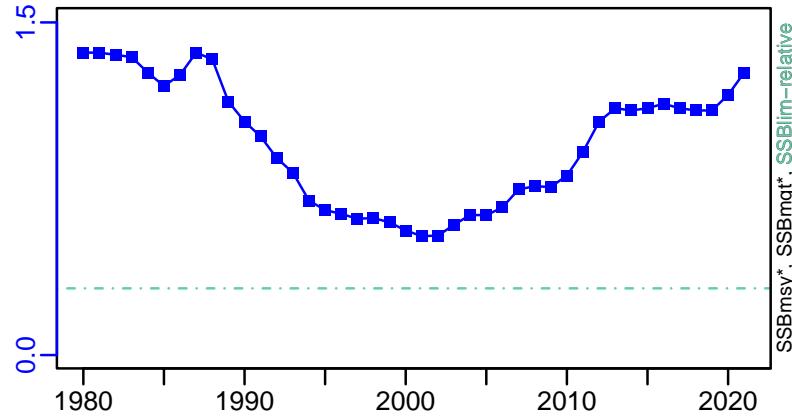
◆ Start Year ◆ End Year * No Data

Black bellied angler ICES 8c–9a [ANGLVIIIC–IXa]

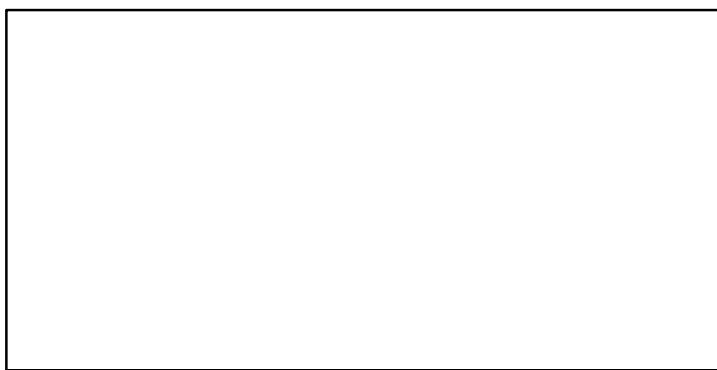
TB*



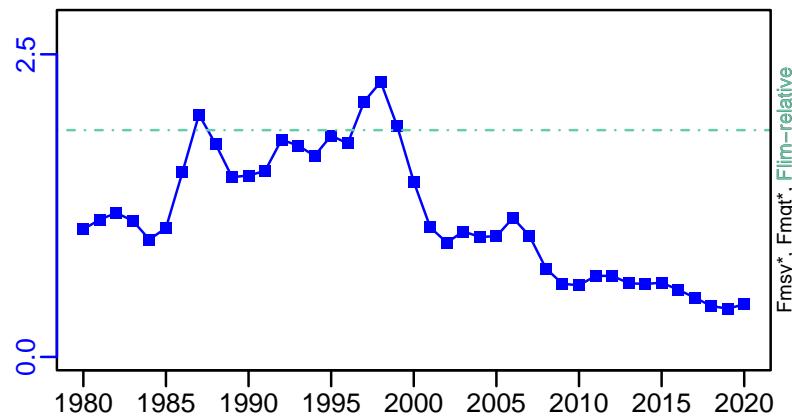
SSB-relative (1980–2021–ICESIMP2021–2)



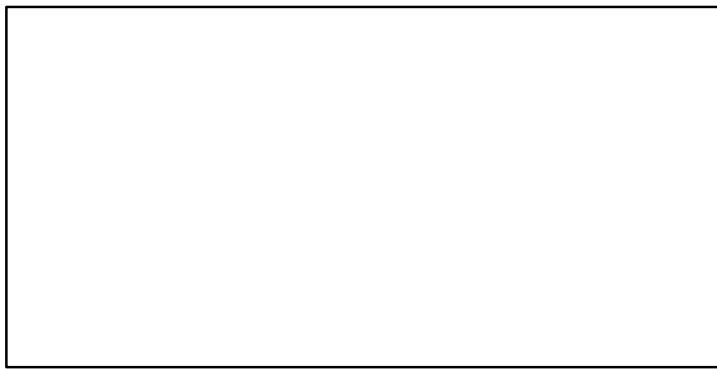
TN *



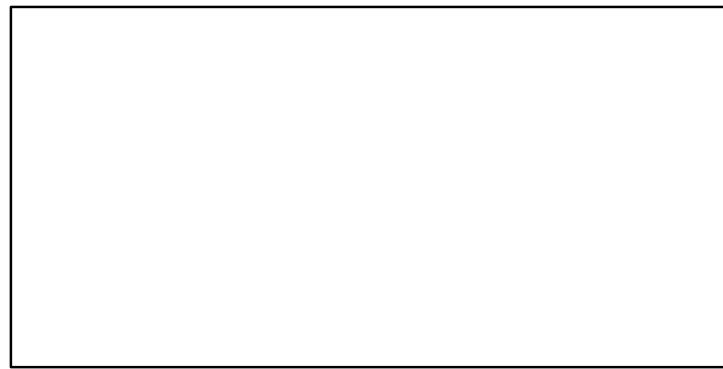
F-relative (1980–2021–ICESIMP2021–2)



ER*



Recruits*

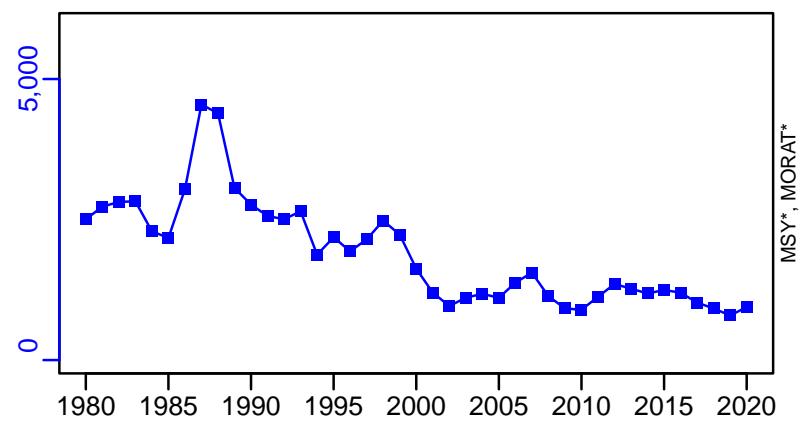


- | | | |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| — MSY-based BRP | — Lim BRP | * No Data |

Black bellied angler ICES 8c–9a [ANGLVIIIC–IXa]

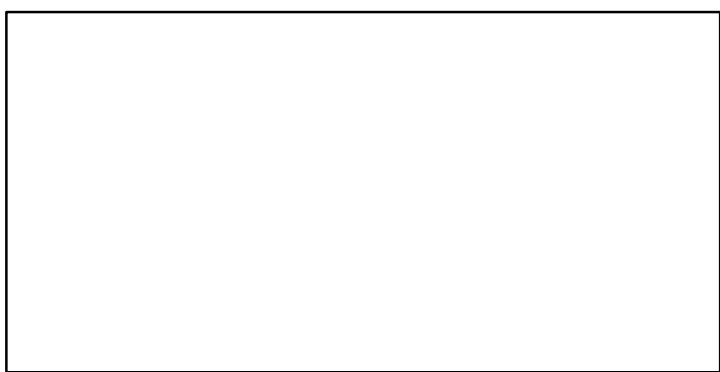
TL–MT, TC*, RecC* (1980–2021–ICESIMP2021–2)

TAC*, Cpair*, Cadv*

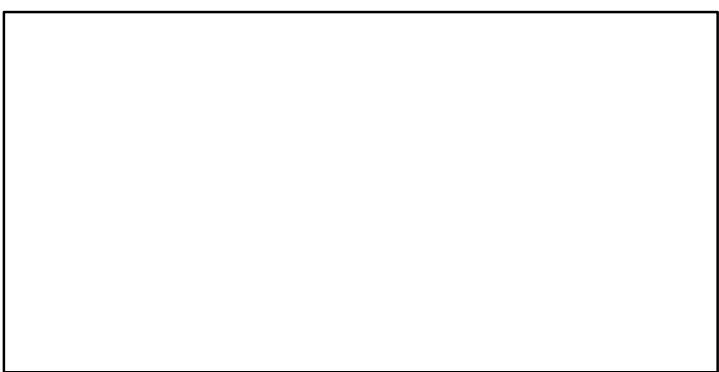


survB*

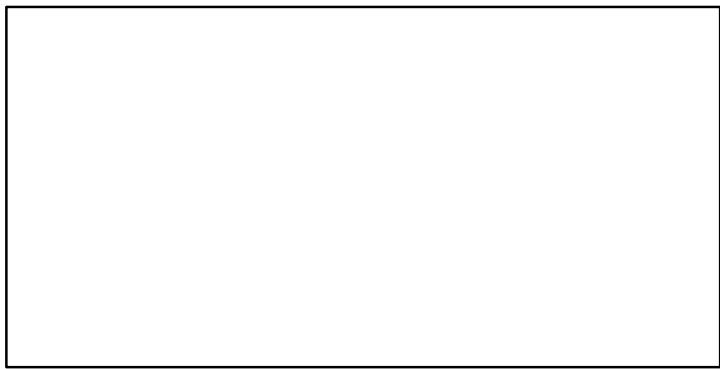
MSY*, MORAT*



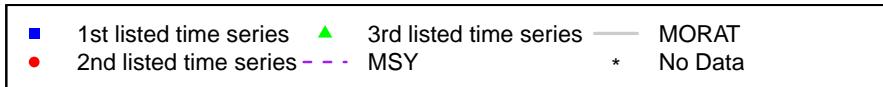
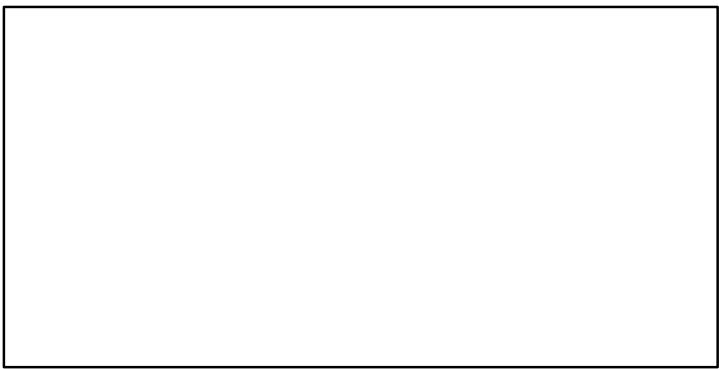
CPUE*



EFFORT*



CdivMSY*



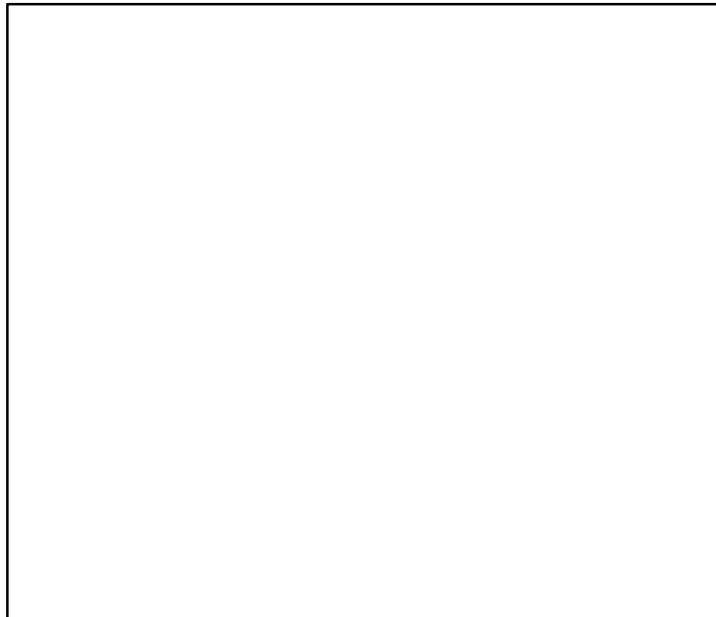
Black bellied angler ICES 7-8abd [ANGLVII-VIIIabd]

Metadata	
Scientific Name	Lophius budegassa
Current Assess ID	WGBIE-ANGLVII-VIIIabd-1986-2020-ICESIMP2021-2
Area	ICES 7-8abd
Management Authority	International Council for the Exploration of the Sea
Assessor	Working Group for the Bay of Biscay and the Iberian Waters Ecoregion
Asmts in RAM	2016, 2017, 2018, 2019, 2020

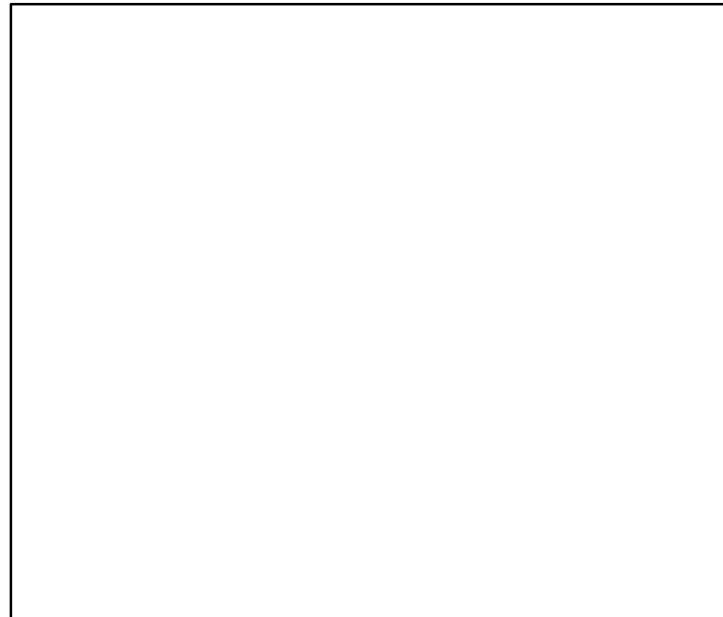
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	-	-	-	-	-	
SSB	-	-	-	-	-	
TN	-	-	-	-	-	
R	R-index	2020	7	-	-	
F	F-1/yr	2018	0.729	-	-	
ER	-	-	-	-	-	
TC	TC-MT	2020	9530			
TL	TL-MT	2020	8680			
TB/TBmsy	-	-	-			
SSB/SSBmsy	-	-	-			
F/Fmsy	FdivFmsy-dimensionless	2020	0.511			
ER/ERmsy	-	-	-			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

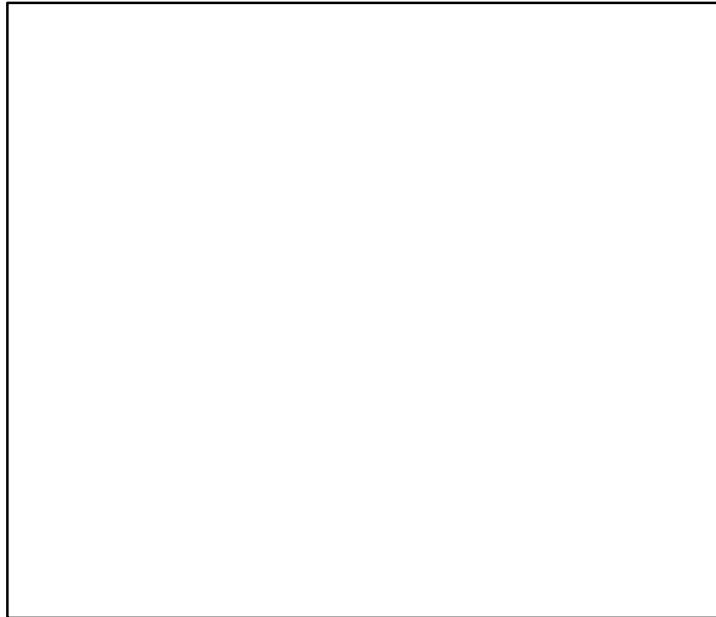
Kobe MSY*



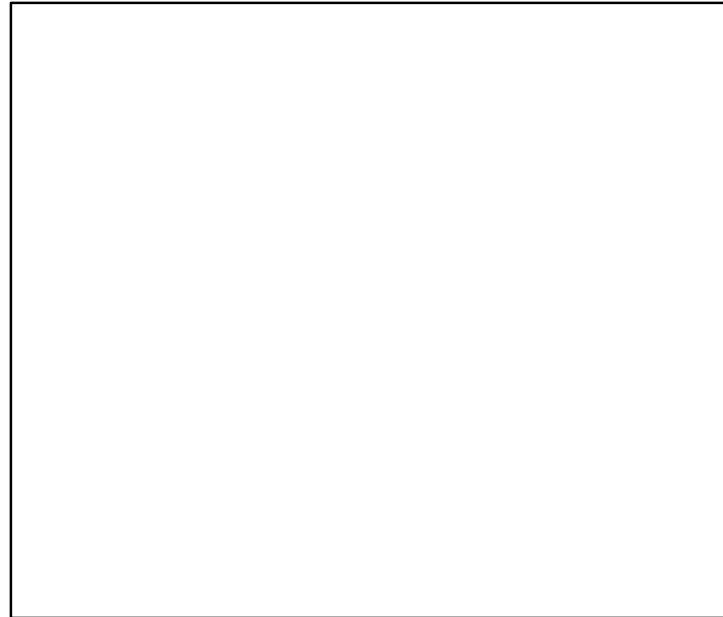
Kobe MGT*



Spawner Recruit*



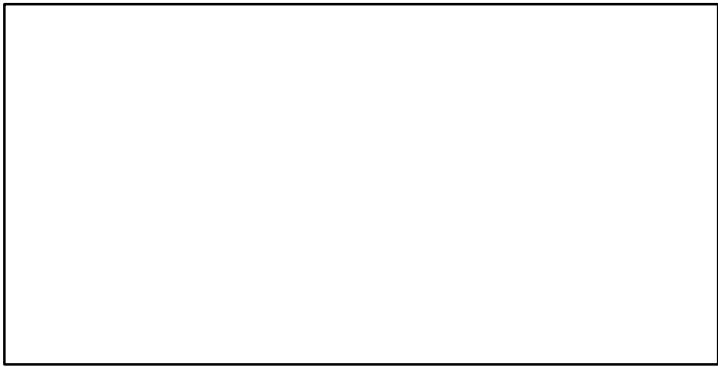
Production*



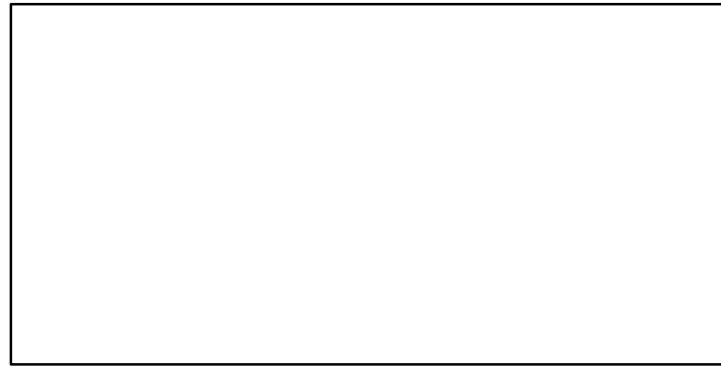
◆ Start Year ♦ End Year * No Data

Black bellied angler ICES 7–8abd [ANGLVII–VIIIab]

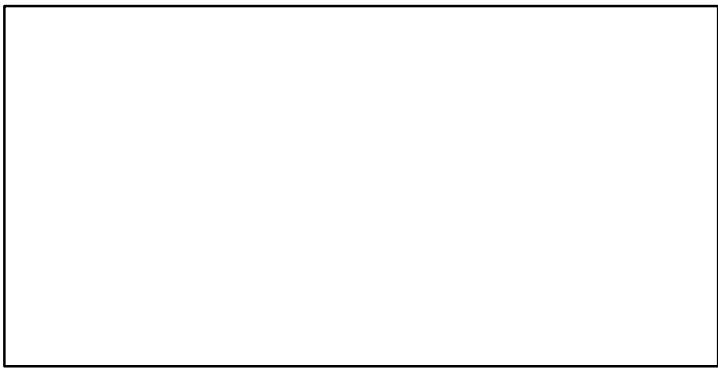
TB*



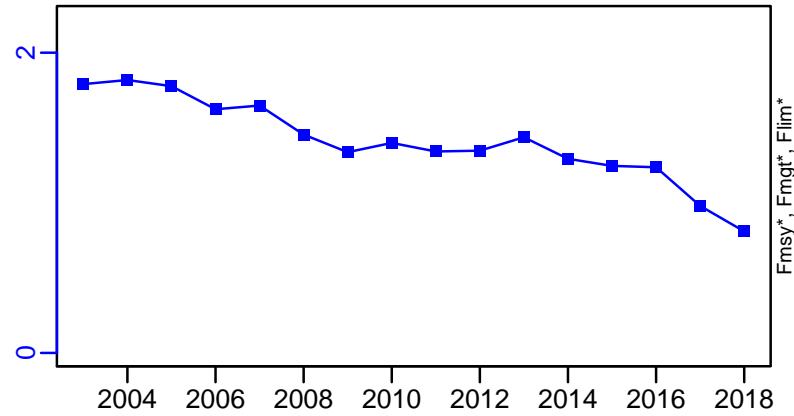
SSB*



TN *



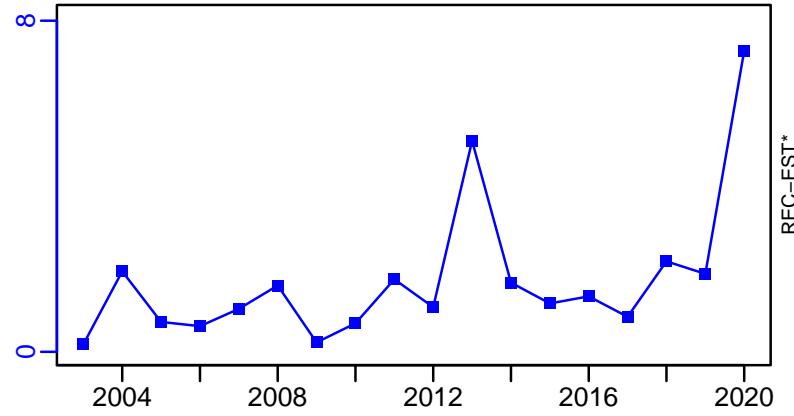
F-1/yr (1986–2018–ICESIMP2021)



ER*



R-index (1986–2020–ICESIMP2021–2)

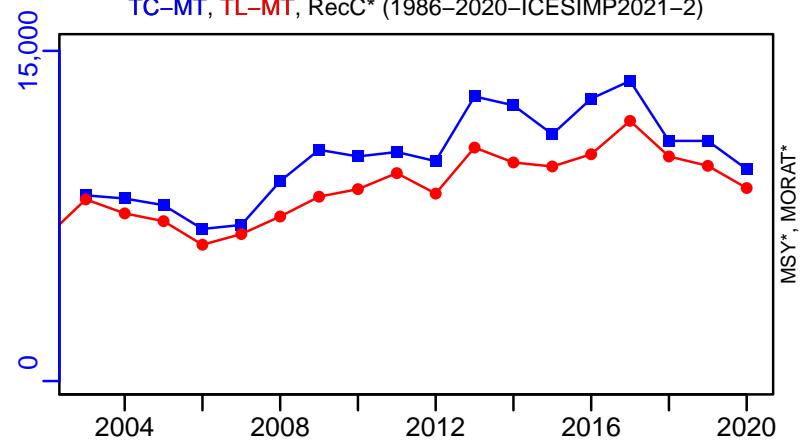


- Listed time series - - - Target BRP — Rec-Est
- - MSY-based BRP - - Lim BRP * No Data

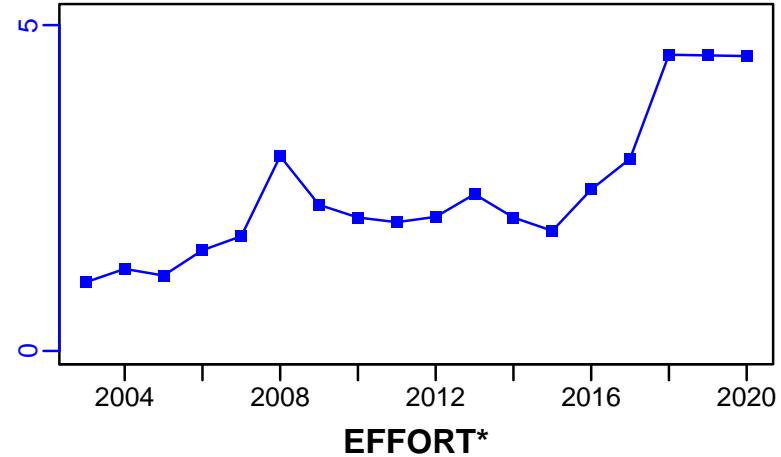
Black bellied angler ICES 7–8abd [ANGLVII–VIIIab]

TC–MT, TL–MT, RecC* (1986–2020–ICESIMP2021–2)

TAC*, Cpair*, Cadv*



survB-index (1986–2020–ICESIMP2021–2)



EFFORT*

CPUE*

CdivMSY*

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

Antarctic toothfish Ross Sea [ATOOTHFISHRS]

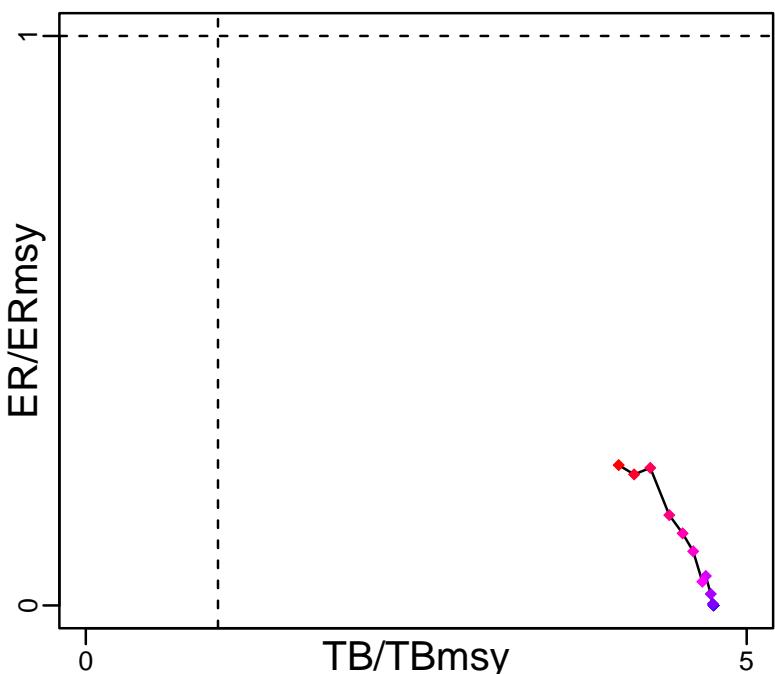
Metadata	
Scientific Name	Dissostichus mawsoni
Current Assess ID	CCAMLR-ATOOTHFISHRS-1995-2007-JENSEN
Area	Ross Sea
Management Authority	Commission for the Conservation of Antarctic Marine Living Resources
Assessor	Commission for the Conservation of Antarctic Marine Living Resources
Asmts in RAM	2007

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2007	18,802
SSBmsy	-	-	-
Fmsy	Fmsy-1/yr	2007	0.136
ERmsy	ERmsy-ratio	2007	0.165
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2007	70,738
MSY	MSY-MT	2007	3105
M	M-1/yr	2007	0.13
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

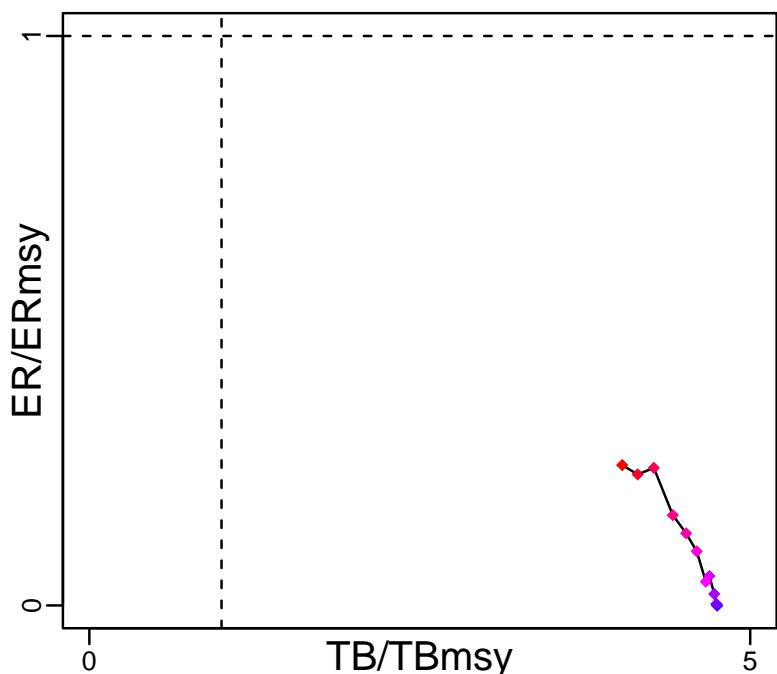
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2007	75,800	-	1	
SSB	SSB-MT	2007	57,900	-	9+	
TN	-	-	-	-	-	
R	R-E00	2007	983,000	-	1	
F	F-1/yr	2007	0.044	-	-	
ER	ER-ratio	2007	0.041	-	-	
TC	TC-MT	2007	3080			
TL	-	-	-			
TB/TBmsy	TB-MT/TBmsy-MT	2007	4.031			
SSB/SSBmsy	-	-	-			
F/Fmsy	F-1/yr/Fmsy-1/yr	2007	0.322			
ER/ERmsy	ER-ratio/ERmsy-ratio	2007	0.246			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Antarctic toothfish Ross Sea [ATOOTHFISHRS]

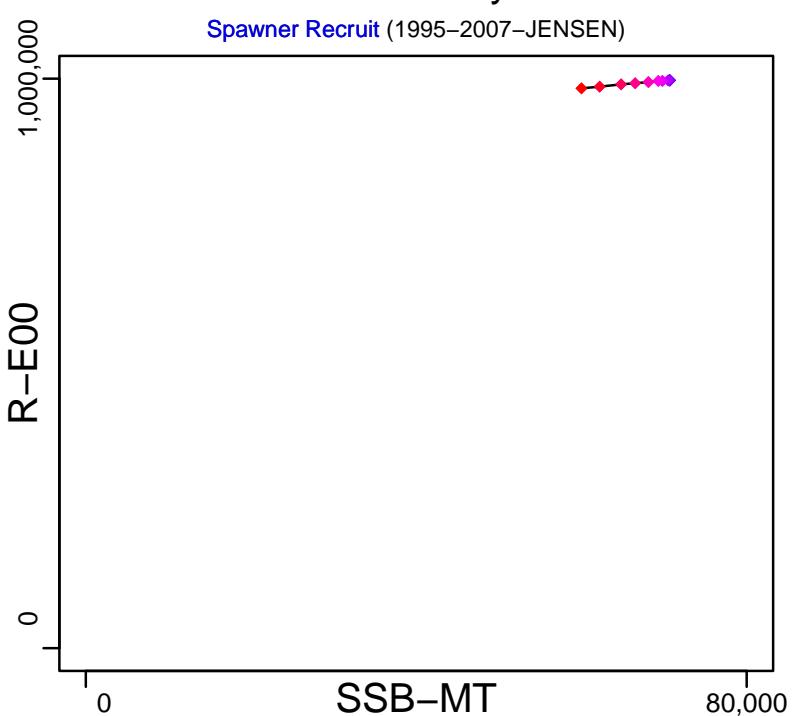
Kobe MSYpref (1995–2007–JENSEN)



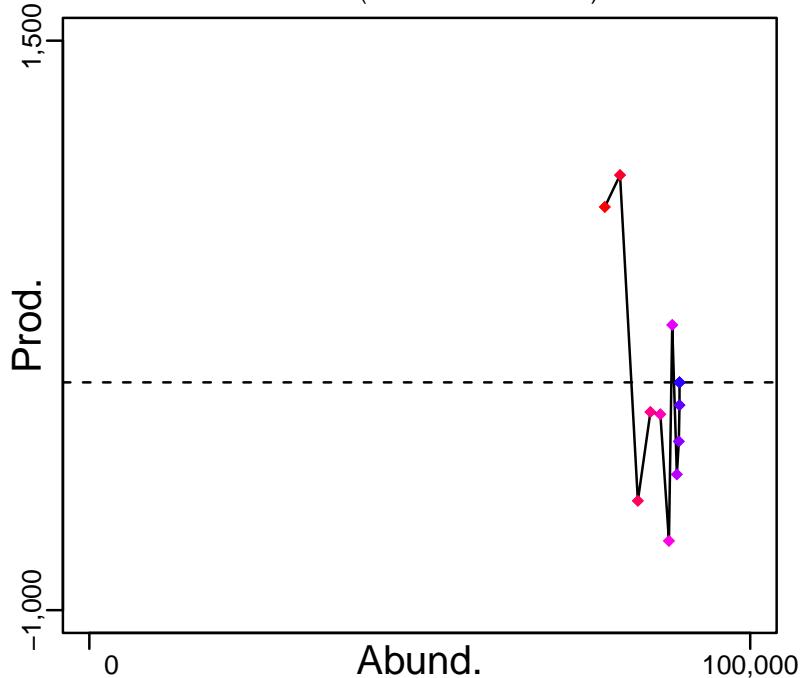
Kobe MGTpref (1995–2007–JENSEN)



Spawner Recruit (1995–2007–JENSEN)



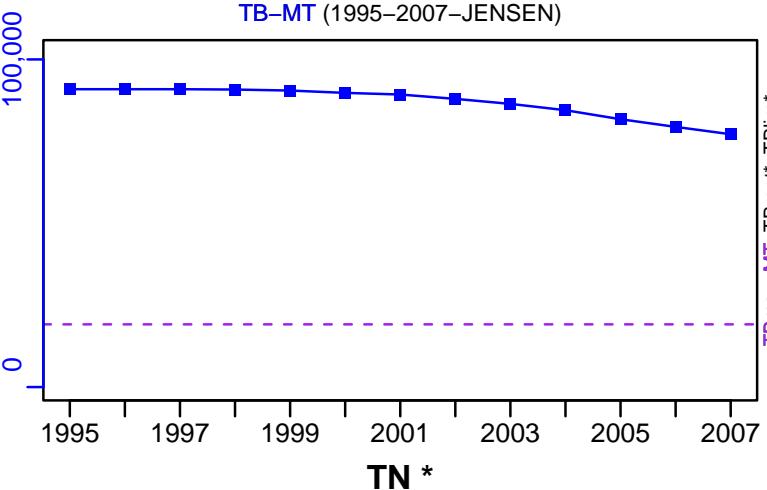
Production (1995–2007–JENSEN)



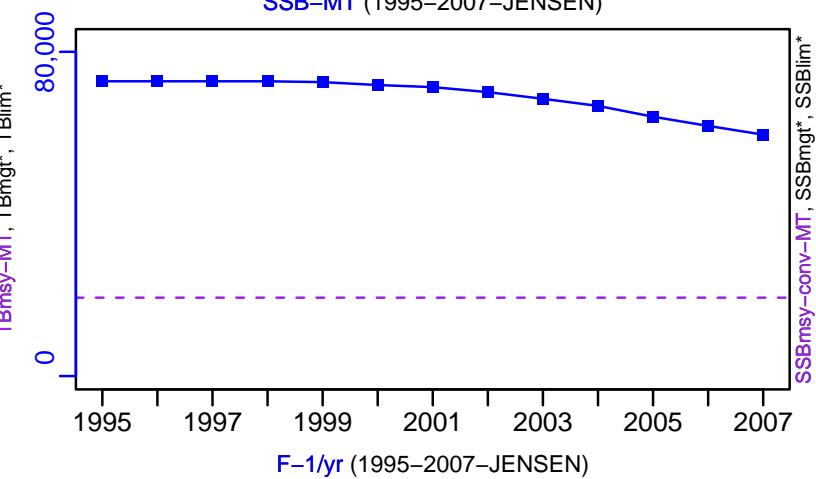
◆ Start Year ◆ End Year * No Data

Antarctic toothfish Ross Sea [ATOOTHFISHRS]

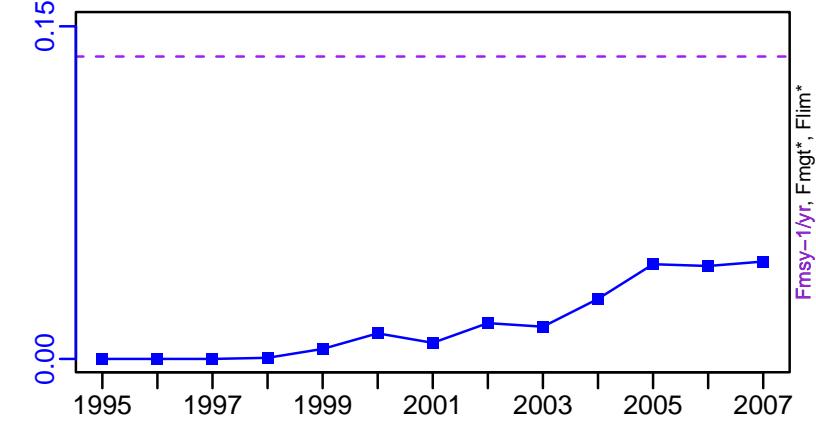
TB-MT (1995–2007–JENSEN)



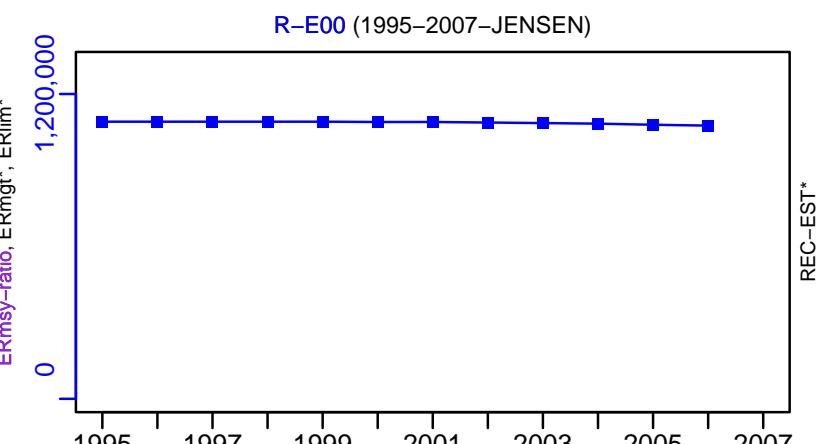
SSB-MT (1995–2007–JENSEN)



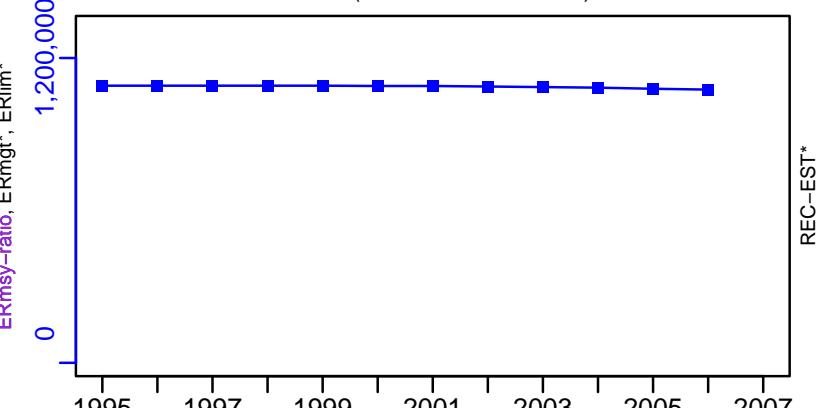
TN *



ER-ratio (1995–2007–JENSEN)



R-E00 (1995–2007–JENSEN)



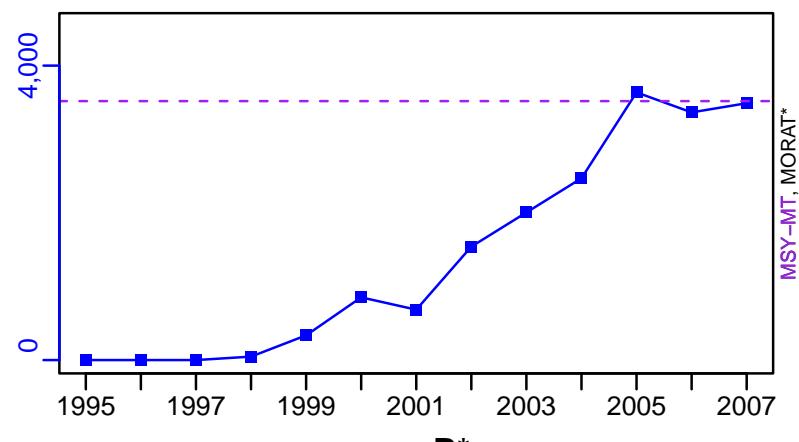
REC-EST*

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

Antarctic toothfish Ross Sea [ATOOTHFISHRS]

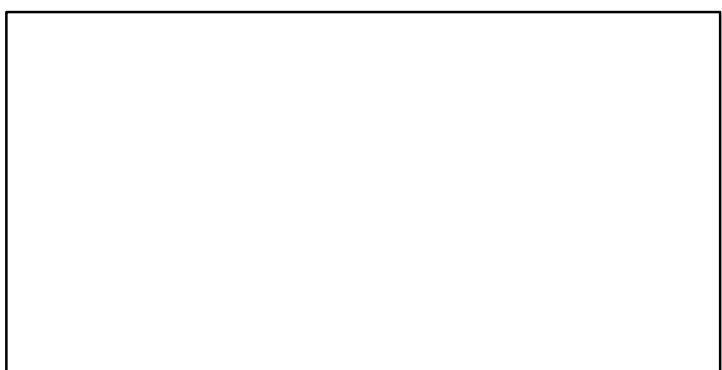
TC-MT, TL*, RecC* (1995–2007–JENSEN)

TAC*, Cpair*, Cadv*

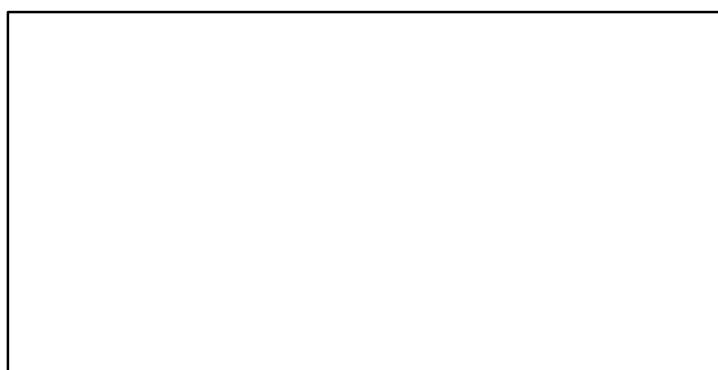


survB*

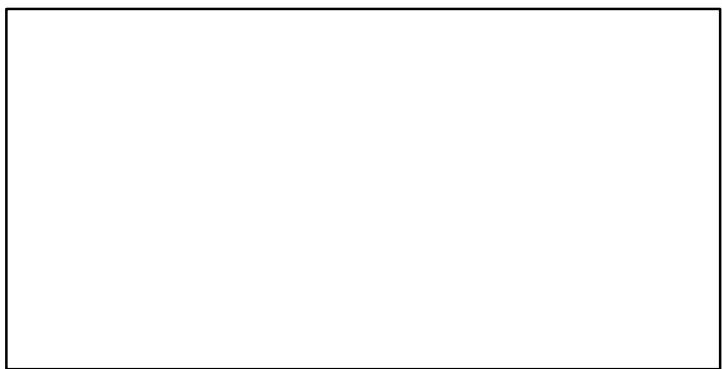
MSY-MT, MORAT*



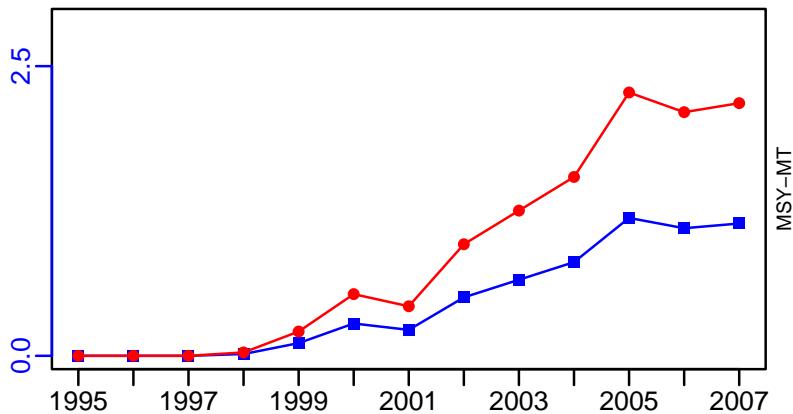
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1995–2007–JENSEN)



MSY-MT

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

Atlantic Wolffish Gulf of Maine / Georges Bank [AWOLF5YZ]

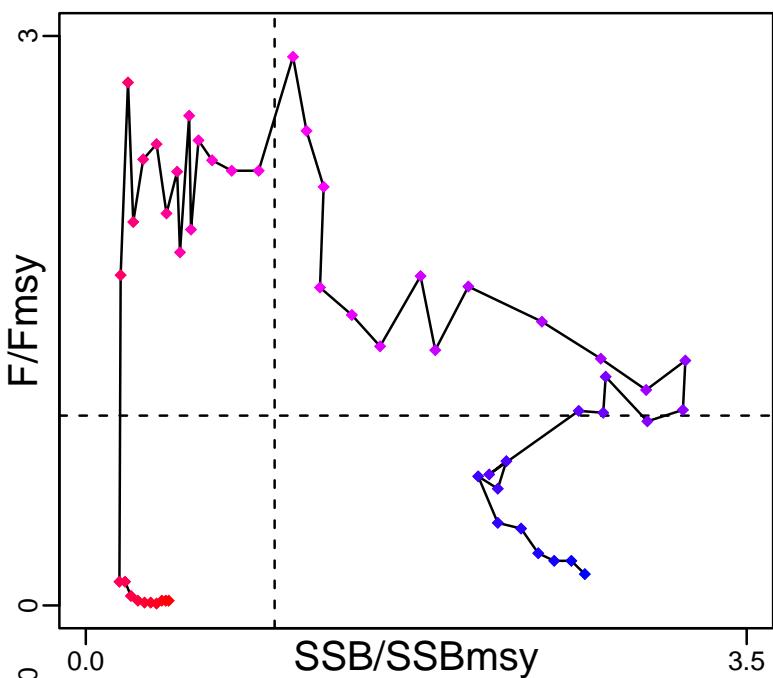
Metadata	
Scientific Name	Anarhichas lupus
Current Assess ID	NEFSC-AWOLF5YZ-1968-2019-SISIMP2021-2
Area	Gulf of Maine / Georges Bank
Management Authority	National Marine Fisheries Service, US national management
Assessor	Northeast Fisheries Science Center
Asmts in RAM	2016, 2014, 2019

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2019	1540
Fmsy	Fmsy-1/yr	2019	0.2
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2019	218
M	-	-	-
TBlim	-	-	-
SSBlim	SSBlim-MT	2019	772
Flim	Flim-1/yr	2019	0.2
ERlim	-	-	-

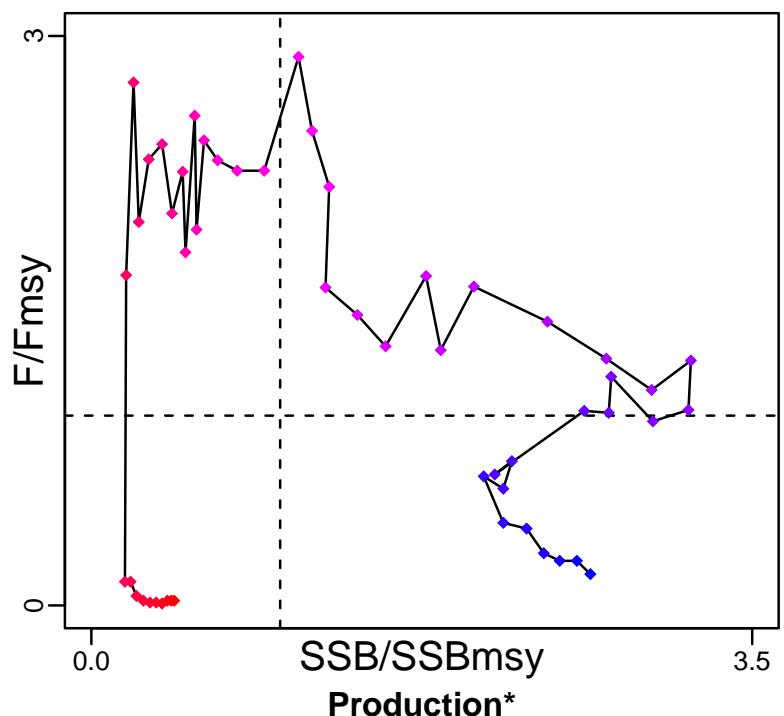
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2019	676	-	-
TN	-	-	-	-	-
R	R-E00	2019	2.8×10^8	-	0
F	F-1/yr	2019	0.005	-	-
ER	-	-	-	-	-
TC	TC-MT	2019	2.76		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2019	0.439		
F/Fmsy	F-1/yr/Fmsy-1/yr	2019	0.025		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Atlantic wolffish Gulf of Maine / Georges Bank [AWOLF5YZ]

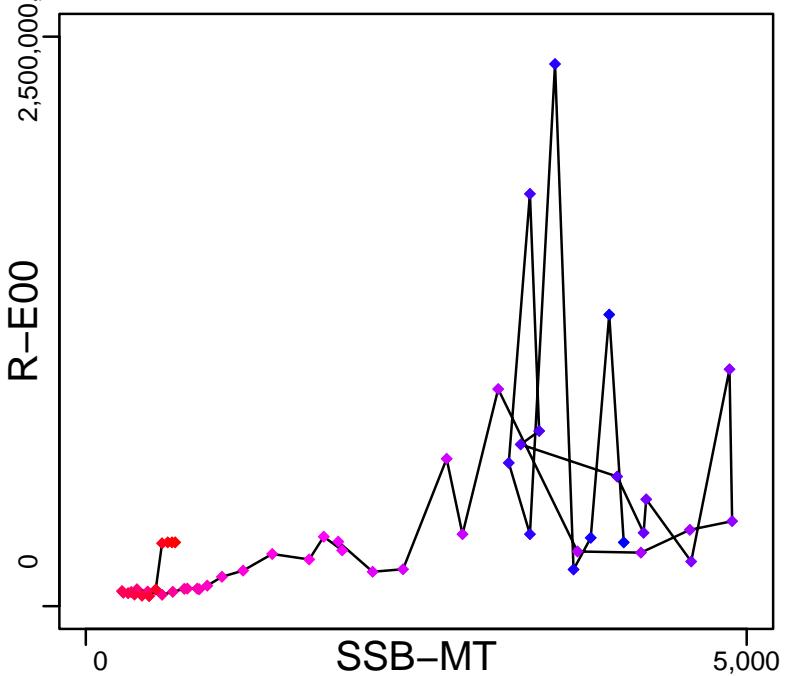
Kobe MSYpref (1968–2019–SISIMP2021–2)



Kobe MGTpref (1968–2019–SISIMP2021–2)



Spawner Recruit (1968–2019–SISIMP2021–2)



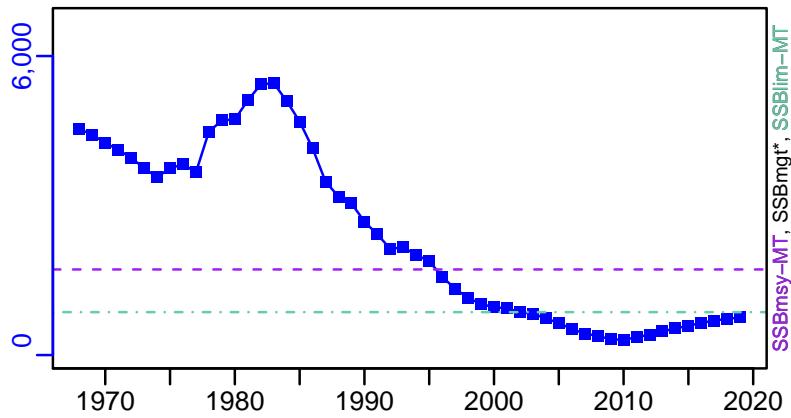
◆ Start Year ♦ End Year * No Data

Atlantic wolffish Gulf of Maine / Georges Bank [AWOLF5YZ]

TB*



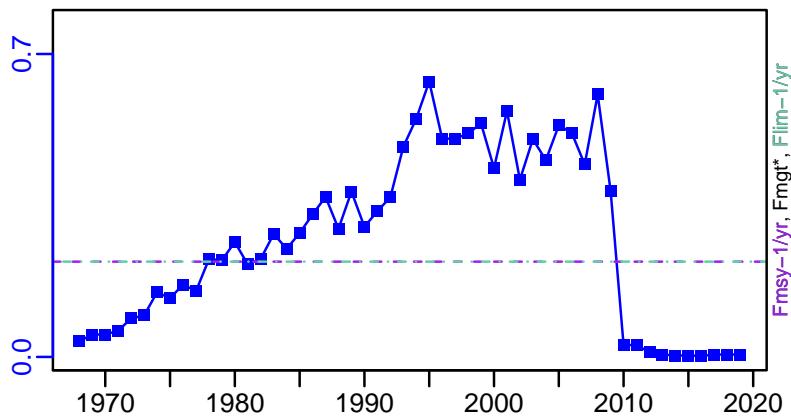
SSB-MT (1968–2019–SISIMP2021–2)



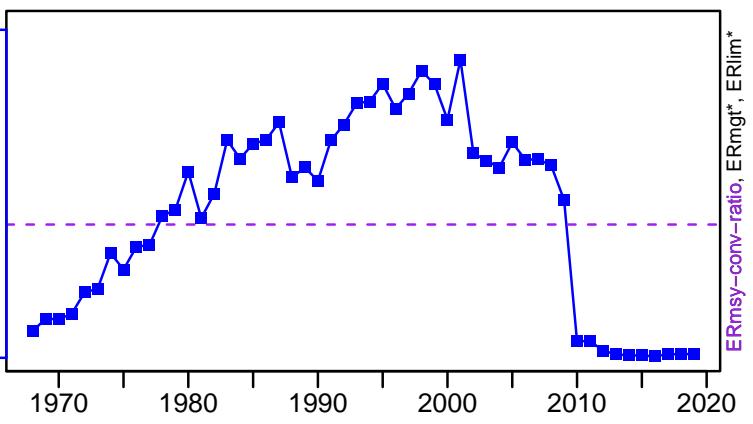
TN *



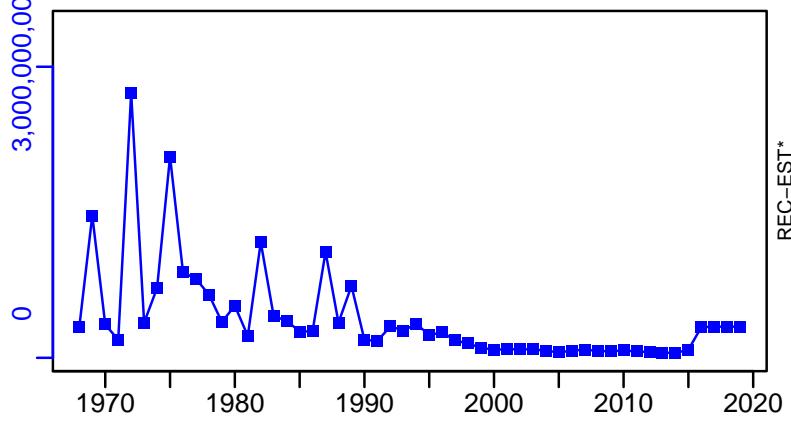
F-1/yr (1968–2019–SISIMP2021–2)



ER-calc-ratio (1968–2019–SISIMP2021–2)



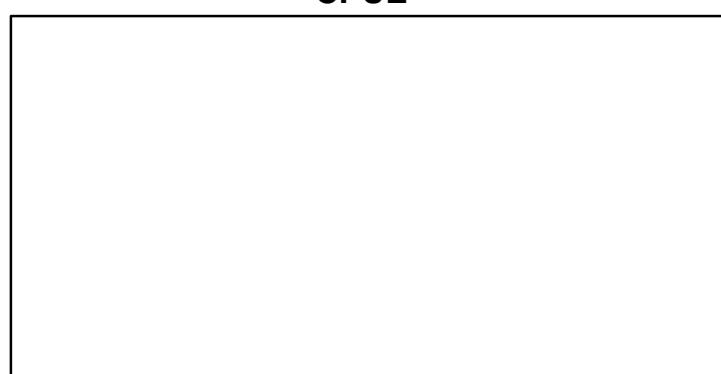
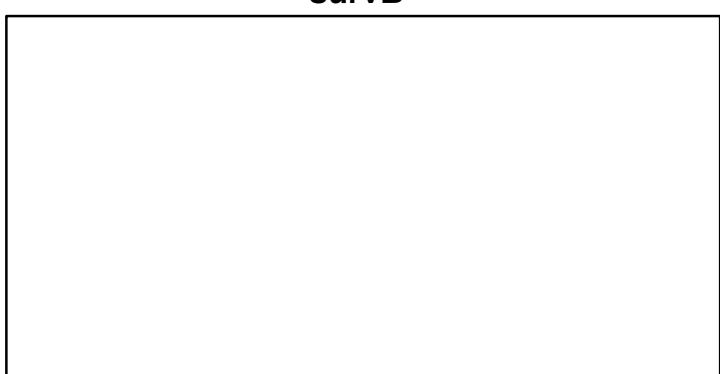
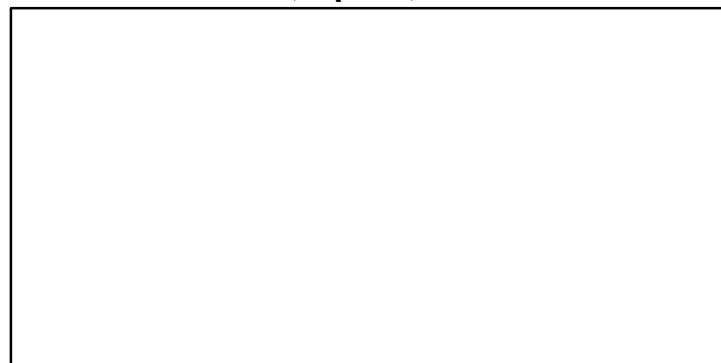
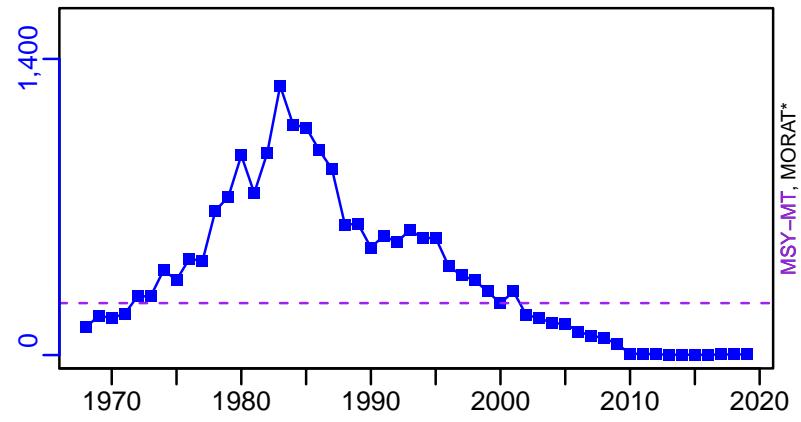
R-E00 (1968–2019–SISIMP2021–2)



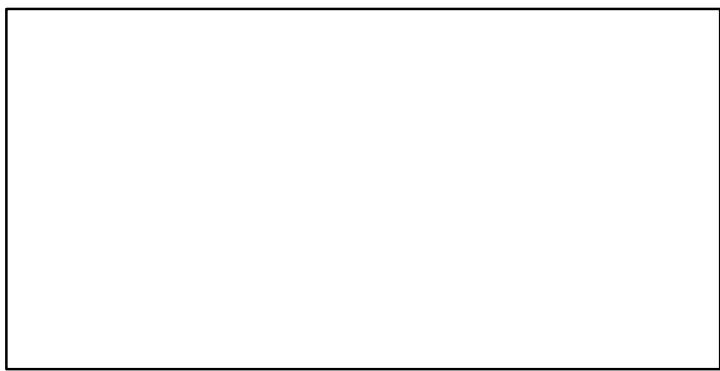
Atlantic wolffish Gulf of Maine / Georges Bank [AWOLF5YZ]

TC-MT, TL*, RecC* (1968–2019–SISIMP2021–2)

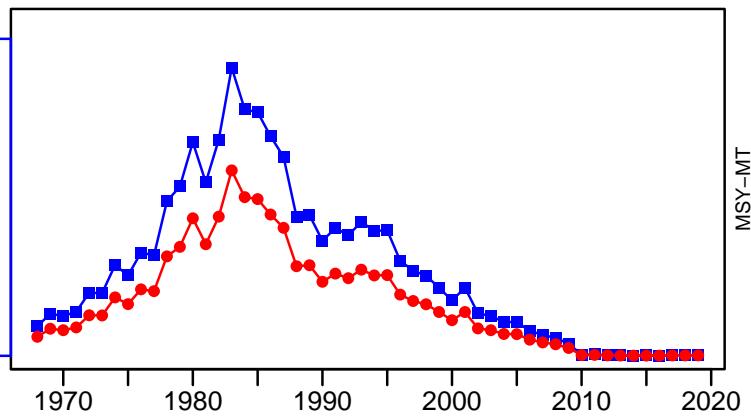
TAC*, Cpair*, Cadv*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1968–2019–SISIMP2021–2)



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

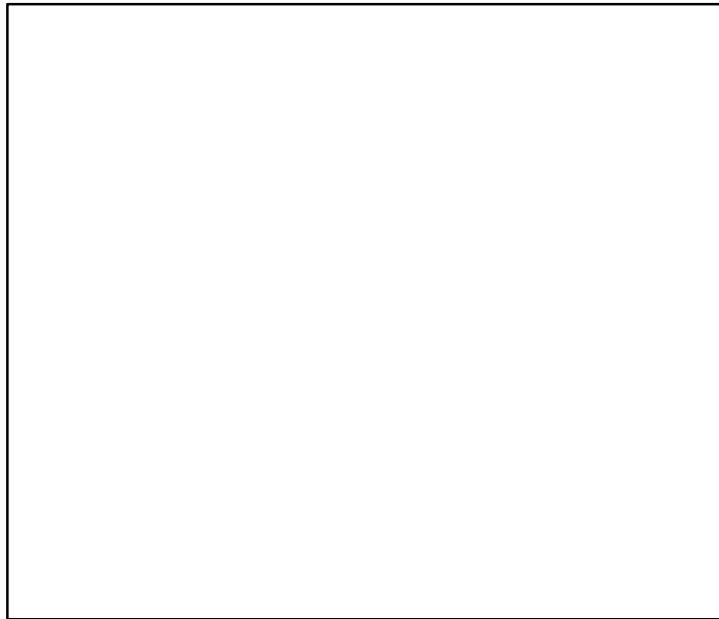
Beryx spp Northeast Atlantic [BERYXSPPNEATL]

Metadata	
Scientific Name	Beryx spp
Current Assess ID	WGDEEP-BERYXSPPNEATL-1988-2019-ICESIMP2021-2
Area	Northeast Atlantic
Management Authority	International Council for the Exploration of the Sea
Assessor	Working Group on the Biology and Assessment of Deep-Sea Fisheries Resources
Asmts in RAM	2017, 2019

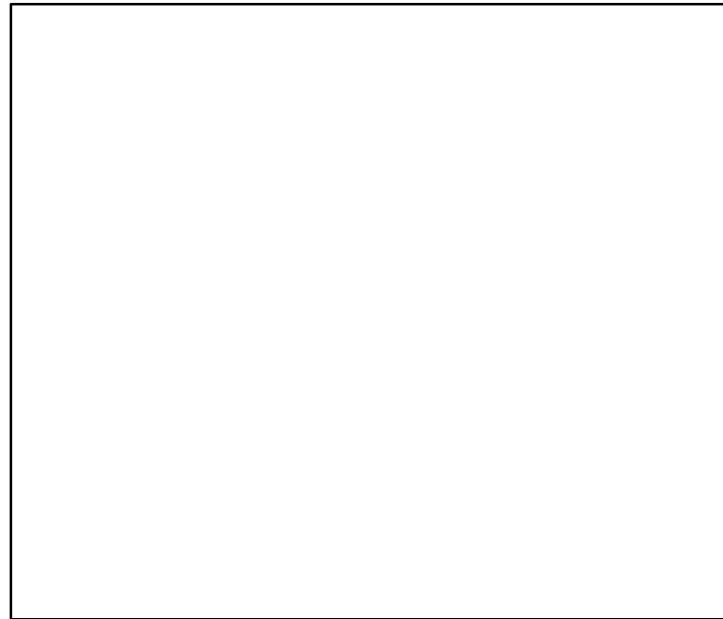
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	-	-	-		
TL	TL-MT	2019	294		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

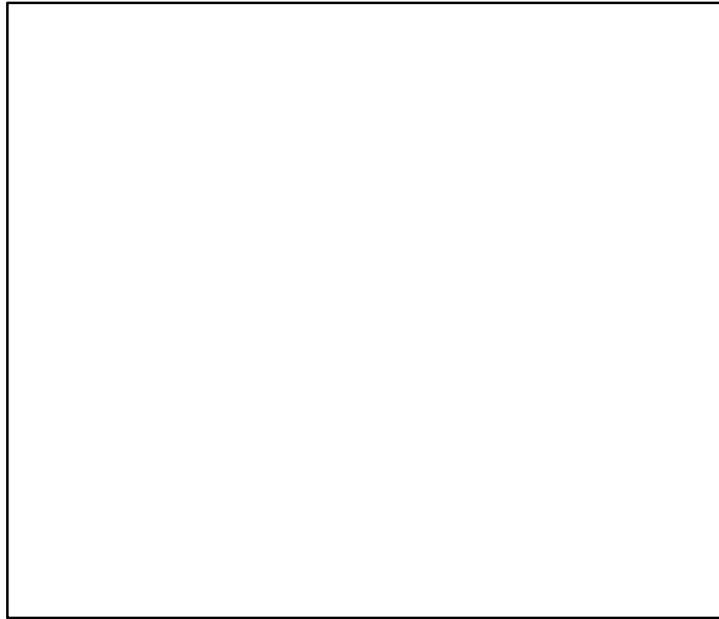
Kobe MSY*



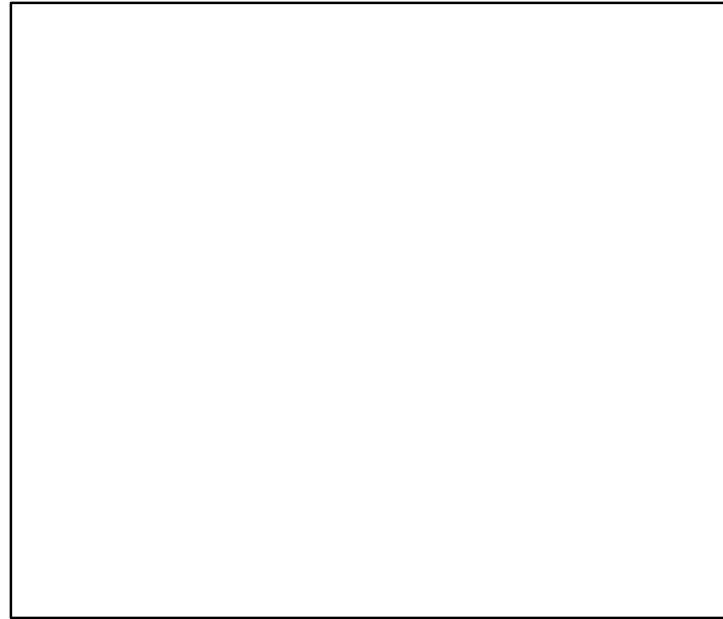
Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ♦ End Year * No Data

Beryx spp Northeast Atlantic [BERYXSPPNEATL]

TB*



SSB*



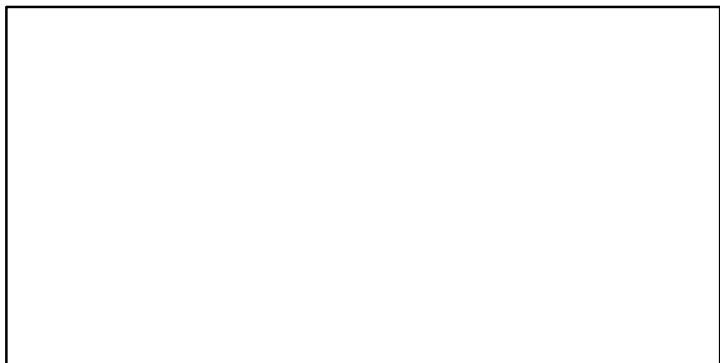
TN *



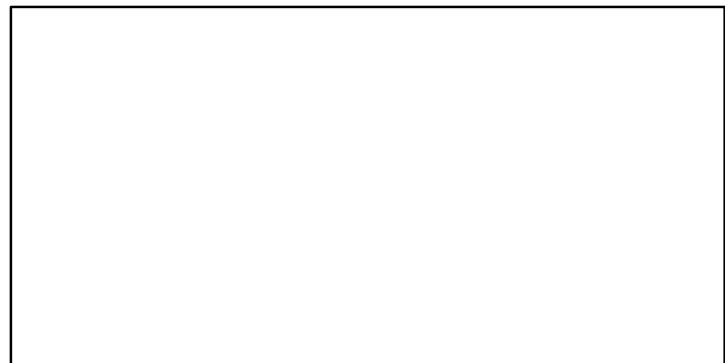
F*



ER*



Recruits*

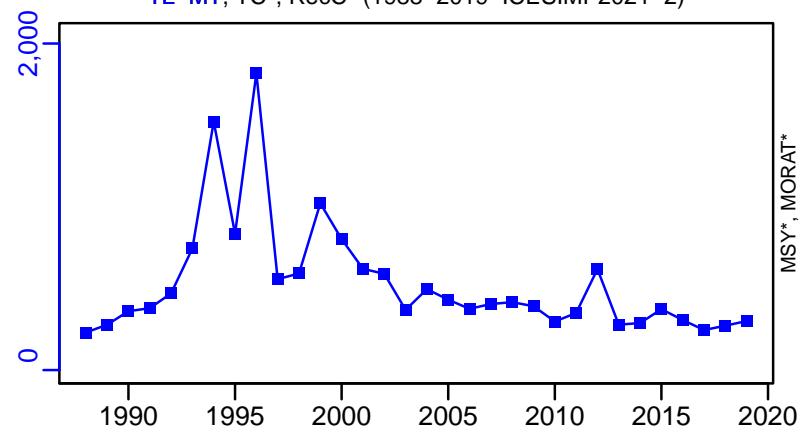


- | | | | | | |
|-------|--------------------|-------|------------|---|---------|
| ■ | Listed time series | - - - | Target BRP | — | Rec-Est |
| - - - | MSY-based BRP | - - - | Lim BRP | * | No Data |

Beryx spp Northeast Atlantic [BERYXSPPNEATL]

TL-MT, TC*, RecC* (1988–2019–ICESIMP2021–2)

TAC*, Cpair*, Cadv*

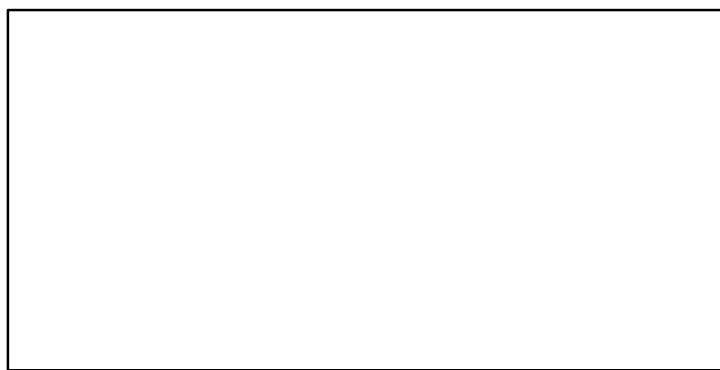


survB*

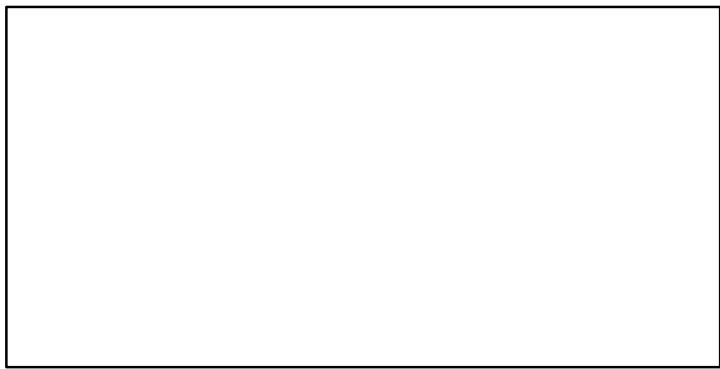
MSY*, MORAT*



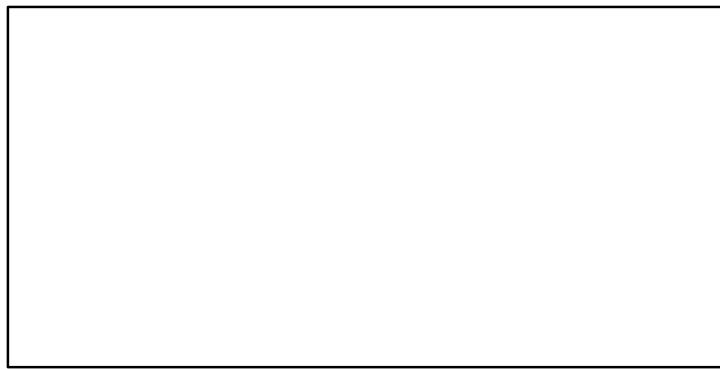
CPUE*



EFFORT*



CdivMSY*



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

Bight redfish Southeast Australia [BIGHTREDSE]

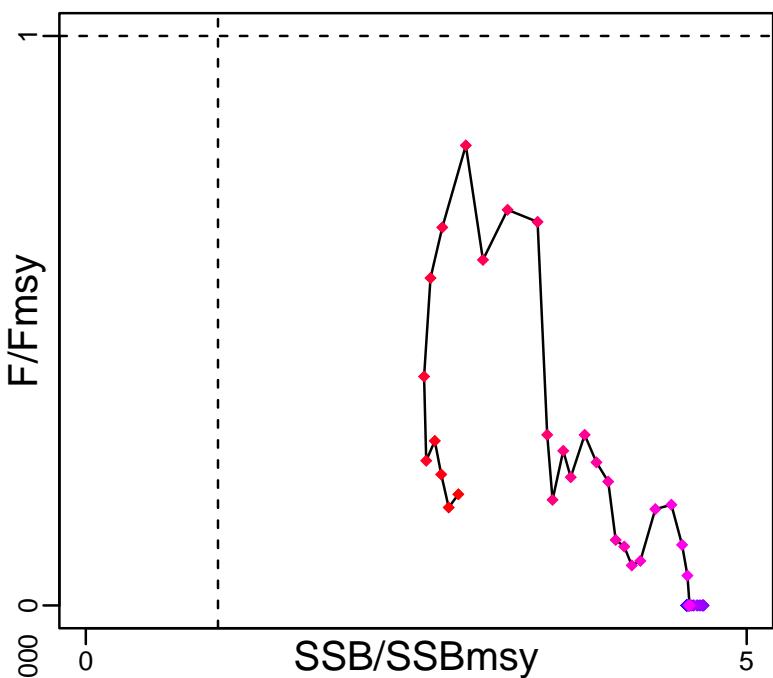
Metadata	
Scientific Name	Centroberyx gerrardi
Current Assess ID	CSIRO-BIGHTREDSE-1960-2014-MOESENEDER
Area	Southeast Australia
Management Authority	Australian Fisheries Management Authority, Australia national management
Assessor	Commonwealth Scientific and Industrial Research Organization
Asmts in RAM	2007, 2014

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2014	1235
Fmsy	Fmsy-1/yr	2014	0.103
ERmsy	ERmsy-ratio	2007	0.04
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2014	2302
Fmgt	Fmgt-1/yr	2014	0.061
ERmgt	-	-	-
TB0	TB0-MT	2014	16,426
SSB0	SSB0-MT	2014	5614
MSY	MSY-MT	2014	625
M	M-1/yr	2014	0.106
TBlim	TBlim-MT	2007	6767
SSBlim	SSBlim-MT	2014	1123
Flim	-	-	-
ERlim	-	-	-

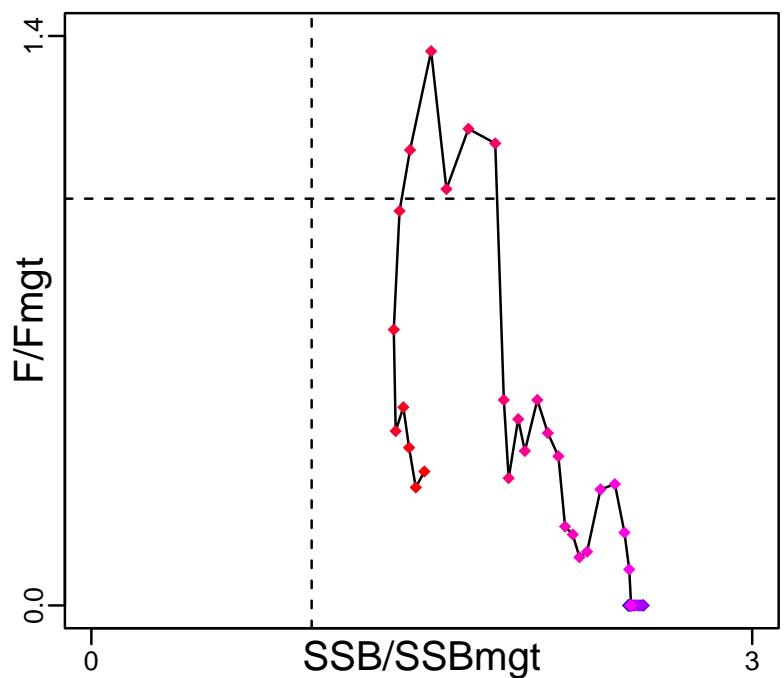
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2014	11,900	-	-	
SSB	SSB-MT	2014	3480	-	-	
TN	-	-	-	-	-	
R	R-E00	2014	4.79×10^{12}	-	-	
F	F-1/yr	2014	0.02	-	-	
ER	ER-ratio	2014	0.02	-	-	
TC	-	-	-			
TL	TL-MT	2014	238			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2014	2.819			
F/Fmsy	F-1/yr/Fmsy-1/yr	2014	0.195			
ER/ERmsy	ER-ratio/ERmsy-ratio	2007	1.07			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2014	1.512			
F/Fmgt	F-1/yr/Fmgt-1/yr	2014	0.329			
ER/ERmgt	-	-	-			

Bight redfish Southeast Australia [BIGHTREDSE]

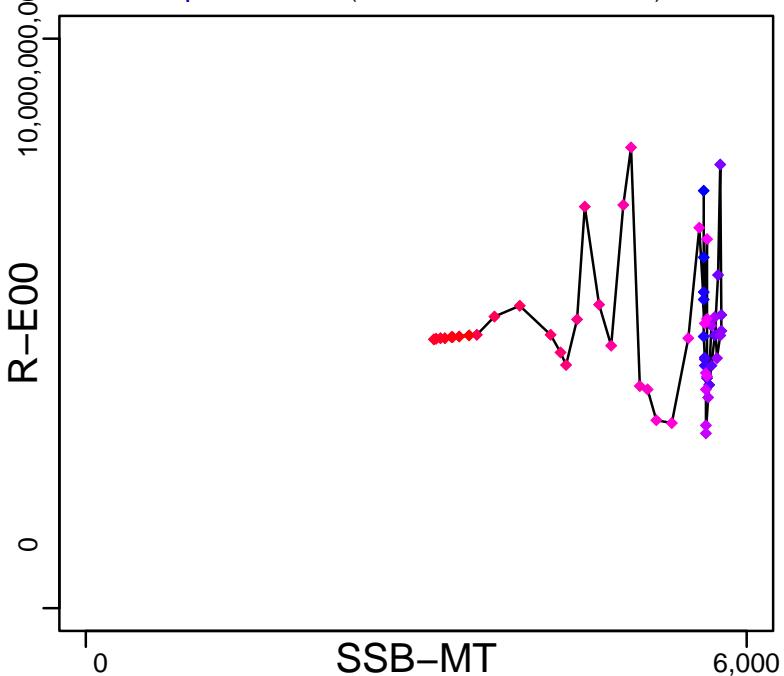
Kobe MSYpref (1960–2014–MOESENEDER)



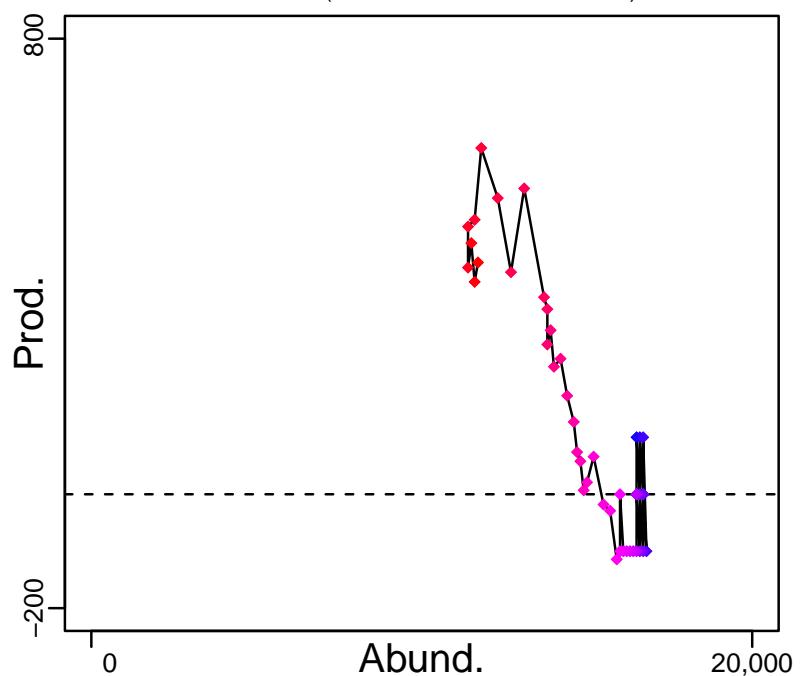
Kobe MGTpref (1960–2014–MOESENEDER)



Spawner Recruit (1960–2014–MOESENEDER)



Production (1960–2014–MOESENEDER)

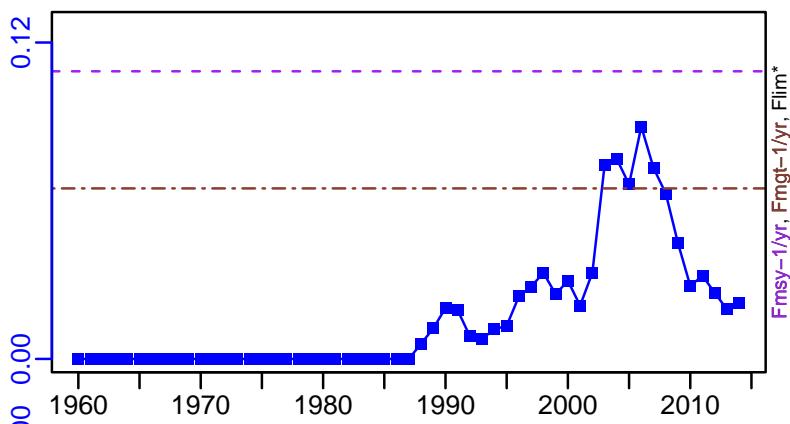
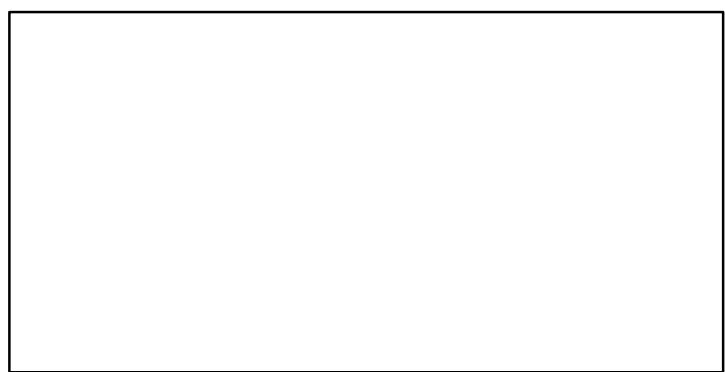
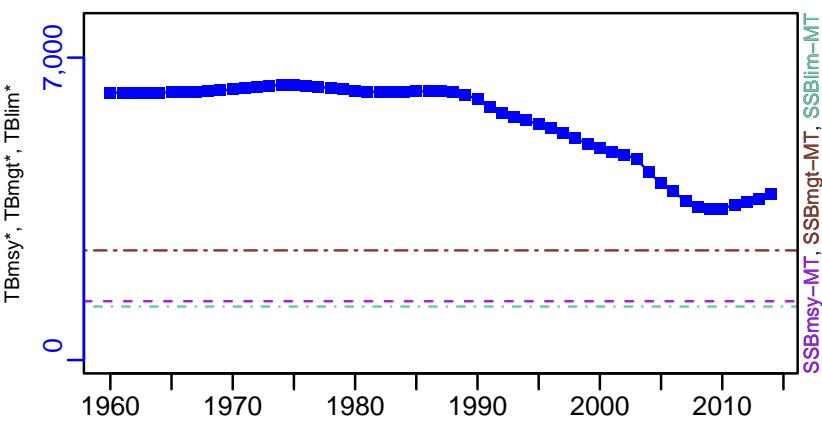
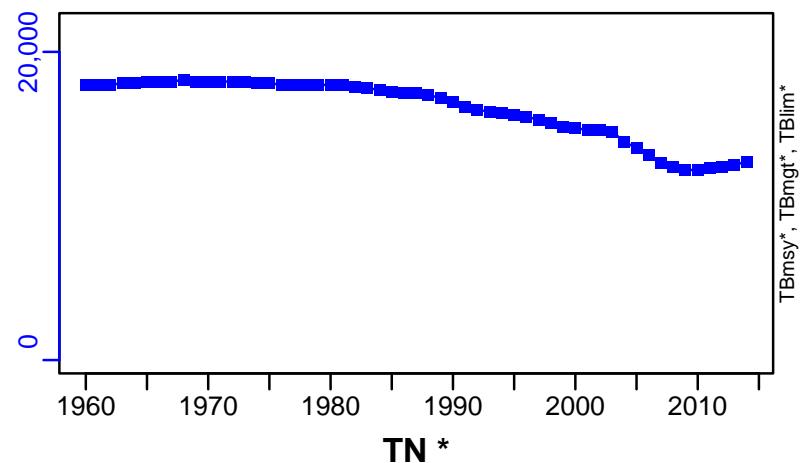


◆ Start Year ◆ End Year * No Data

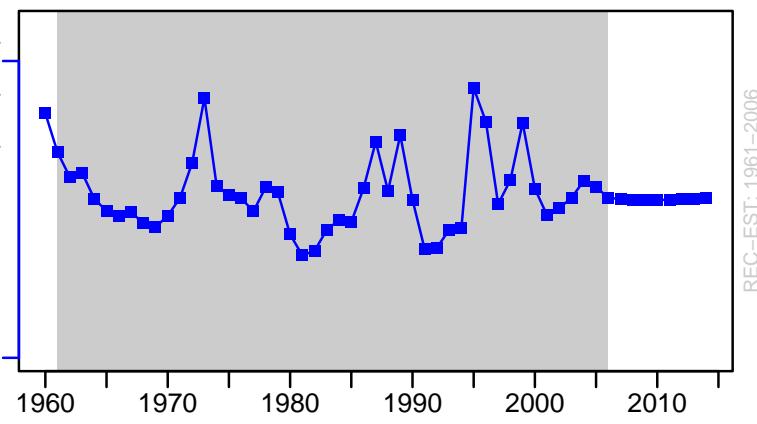
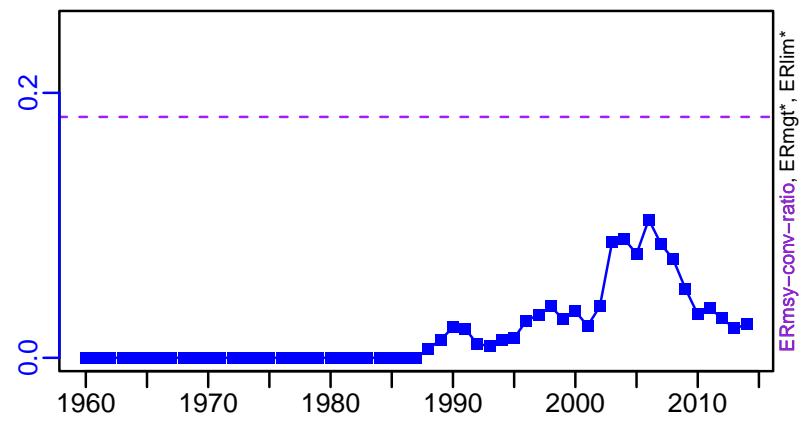
Bight redfish Southeast Australia [BIGHTREDSE]

TB-MT (1960–2014–MOESENEDER)

SSB-MT (1960–2014–MOESENEDER)



ER-ratio (1960–2014–MOESENEDER)



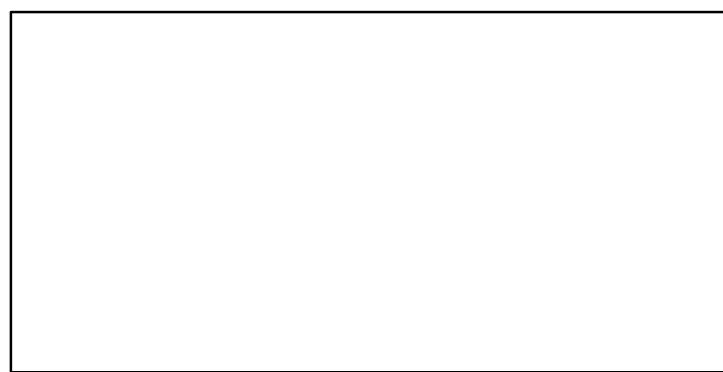
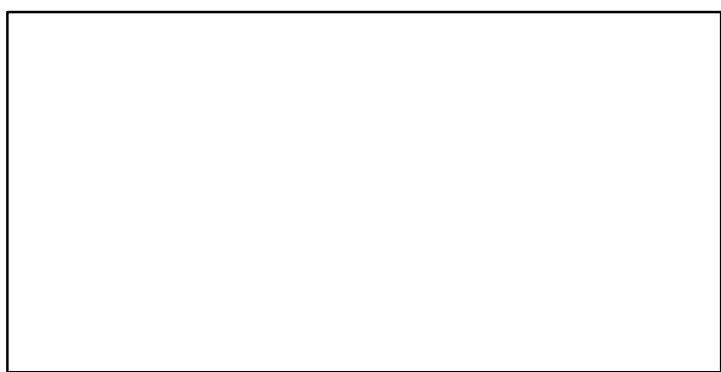
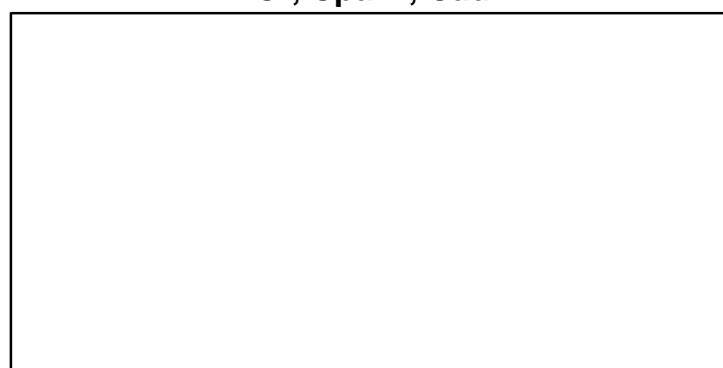
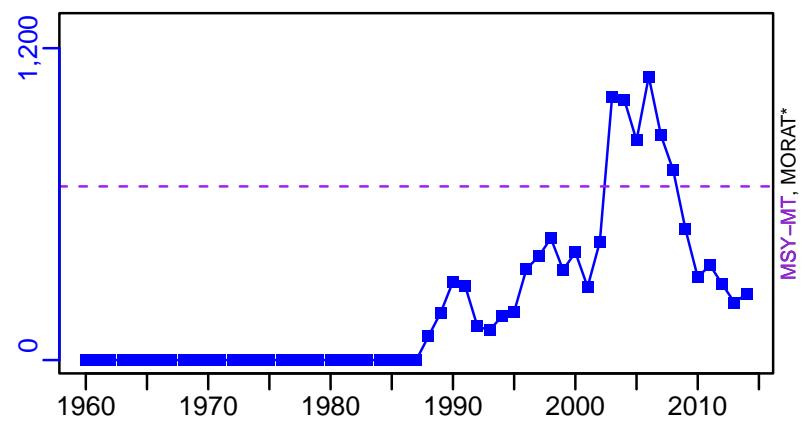
REC-EST: 1961–2006

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

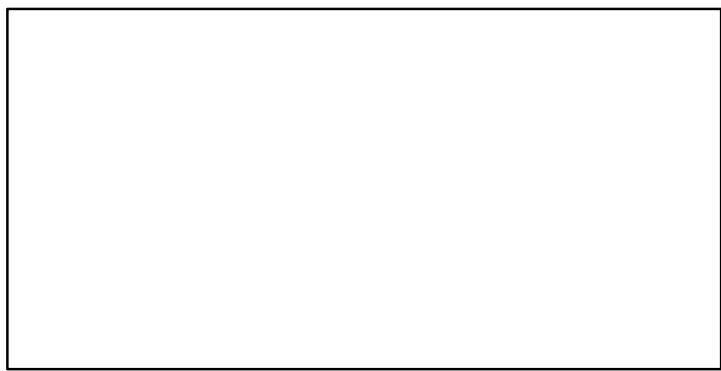
Bight redfish Southeast Australia [BIGHTREDSE]

TL-MT, TC*, RecC* (1960–2014–MOESENEDER)

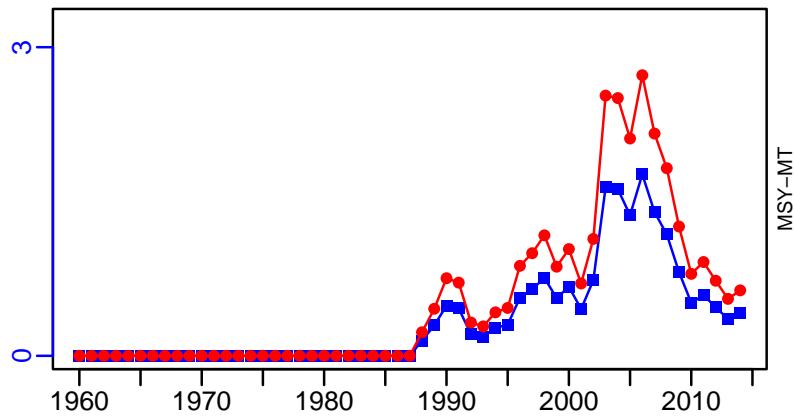
TAC*, Cpair*, Cadv*



EFFORT*



TL-MT/MSY-MT, CdivMEANC–ratio, (1960–2014–MOESENEDER)



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

Black scabbardfish Northeast Atlantic [BKSFNEATL]

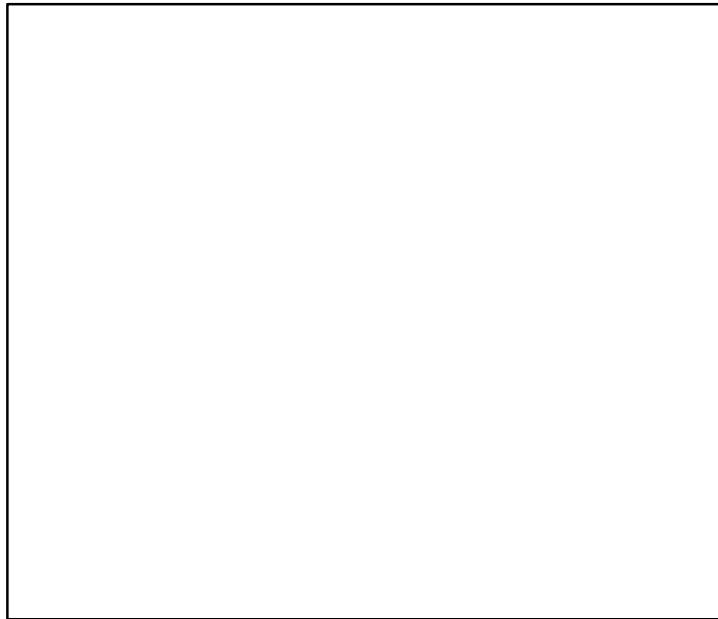
Metadata	
Scientific Name	Aphanopus carbo
Current Assess ID	WGDEEP-BKSFNEATL-1988-2019-ICESIMP2021-2
Area	Northeast Atlantic
Management Authority	International Council for the Exploration of the Sea
Assessor	Working Group on the Biology and Assessment of Deep-Sea Fisheries Resources
Asmts in RAM	2017, 2019, 2013

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

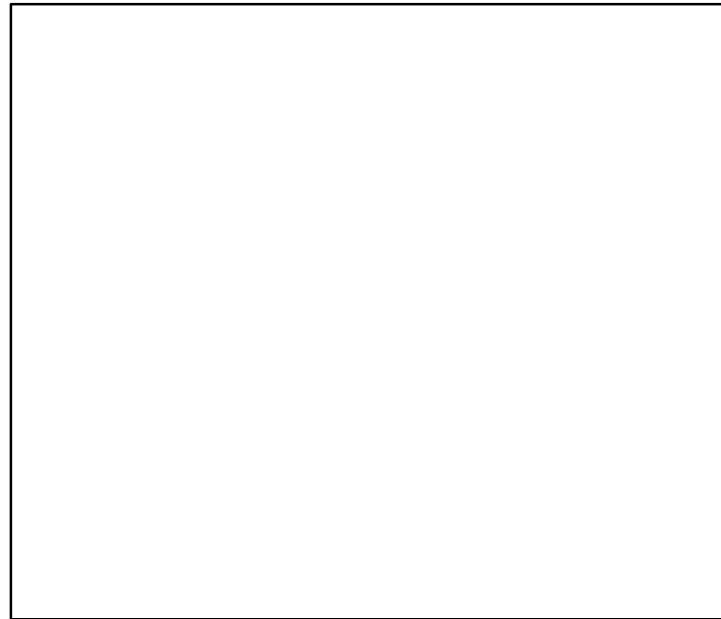
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	-	-	-	-	-	
SSB	-	-	-	-	-	
TN	-	-	-	-	-	
R	-	-	-	-	-	
F	F-1/yr	2013	0.022	-	-	
ER	ER-ratio	2019	0.061	-	-	
TC	TC-MT	2019	4320			
TL	-	-	-			
TB/TBmsy	-	-	-			
SSB/SSBmsy	-	-	-			
F/Fmsy	-	-	-			
ER/ERmsy	-	-	-			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Black scabbardfish Northeast Atlantic [BKSFNEATL]

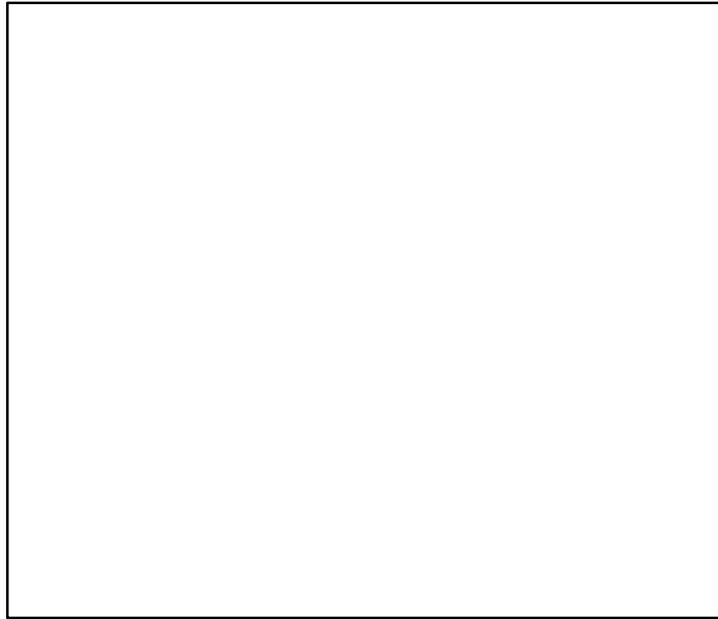
Kobe MSY*



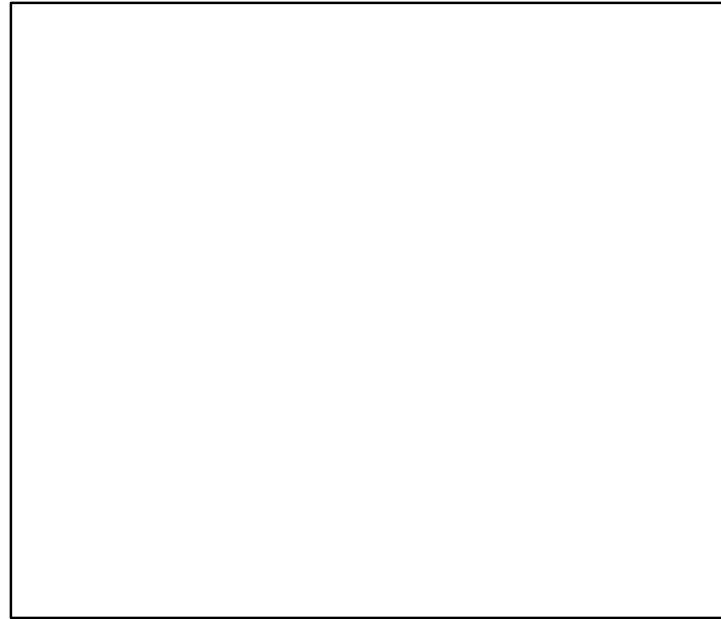
Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ♦ End Year * No Data

Black scabbardfish Northeast Atlantic [BKSFNEATL]

TB*



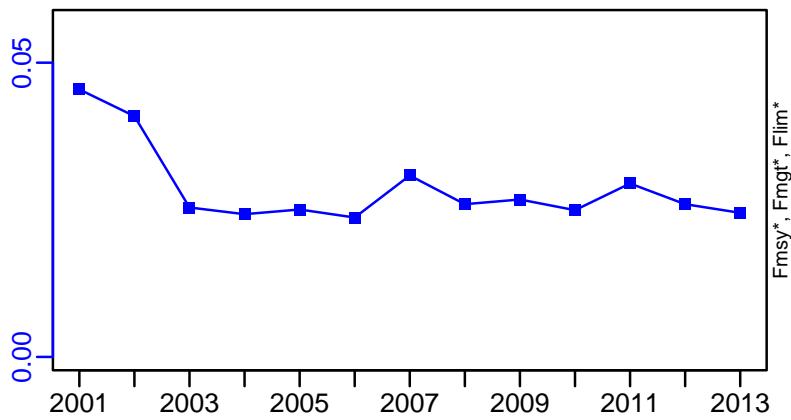
SSB*



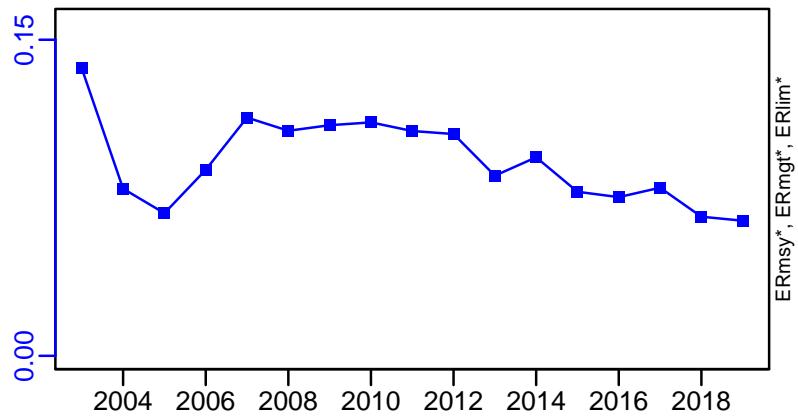
TN *



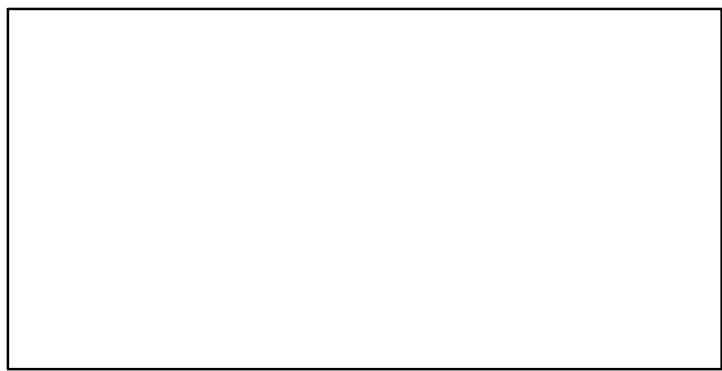
F-1/yr (2001–2013–ICESIMP2018)



ER-ratio (1988–2019–ICESIMP2021–2)



Recruits*

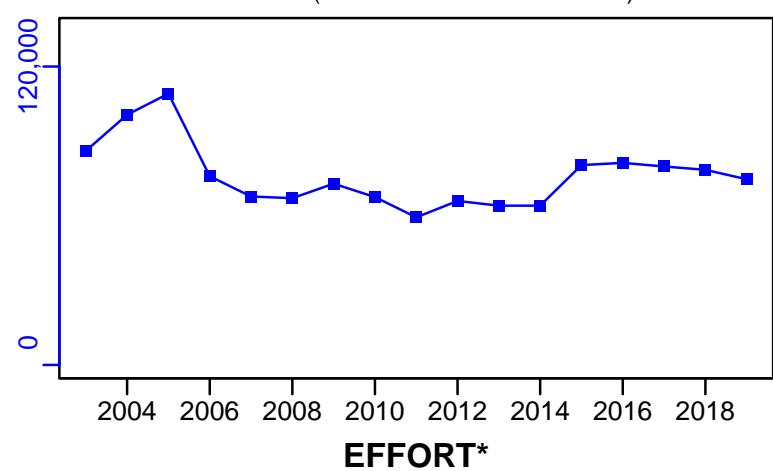
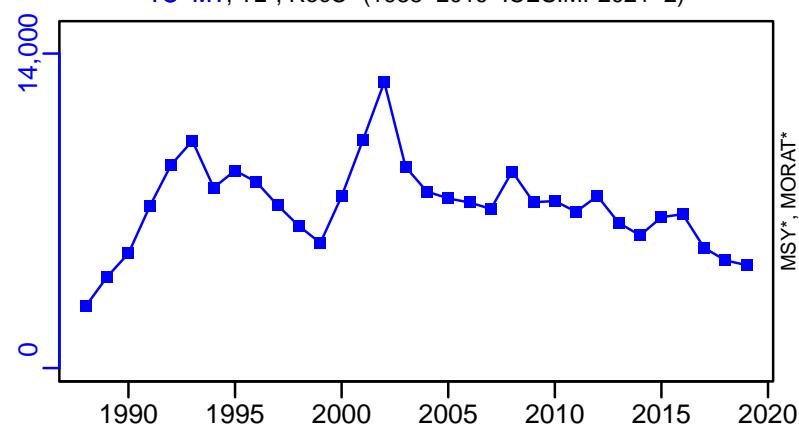


- Listed time series
- Target BRP
- MSY-based BRP
- Lim BRP
- Rec-Est
- * No Data

Black scabbardfish Northeast Atlantic [BKSFNEATL]

TC-MT, TL*, RecC* (1988–2019–ICESIMP2021–2)

TAC*, Cpair*, Cadv*



EFFORT*

CPUE*

CdivMSY*



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

Black oreo Pukaki Rise [BLACKOREOPR]

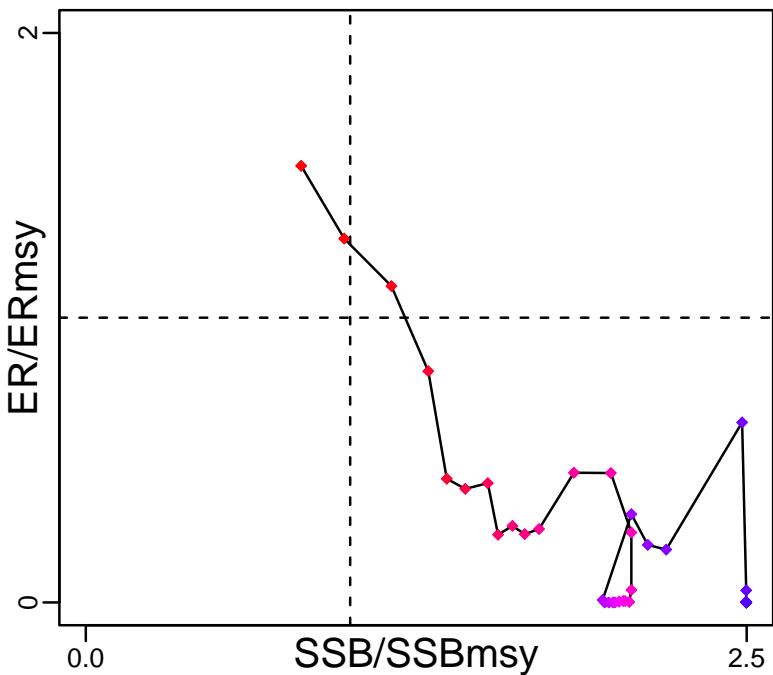
Metadata	
Scientific Name	Allocyttus niger
Current Assess ID	NIWA-BLACKOREOPR-1974-2009-CORDUE
Area	Pukaki Rise
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2009

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2009	7444
SSBmsy	SSBmsy-MT	2009	12,889
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2009	0.09
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2009	12,889
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2009	32,224
MSY	MSY-MT	2009	670
M	M-1/yr	2009	0.04
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

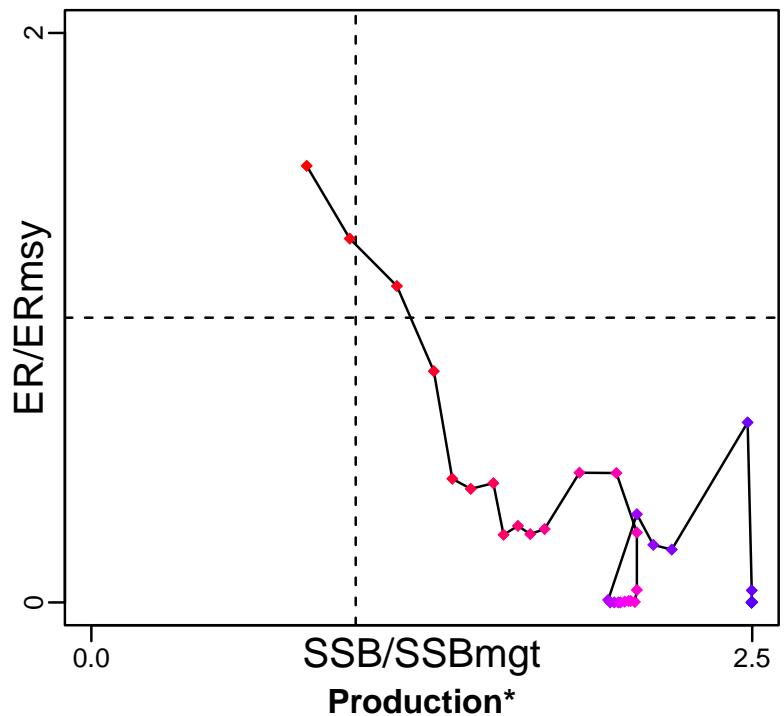
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	-	-	-	-	-	
SSB	SSB-MT	2009	10,500	Both	37.7	
TN	-	-	-	-	-	
R	R-E00	2009	6,230,000	-	5	
F	F-1/yr	2009	0.301	-	-	
ER	ER-ratio	2009	0.138	-	-	
TC	TC-MT	2009	3350			
TL	-	-	-			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2009	0.815			
F/Fmsy	FdivFmsy-dimensionless	2009	3.5			
ER/ERmsy	ER-ratio/ERmsy-ratio	2009	1.533			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2009	0.815			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Black oreo Pukaki Rise [BLACKOREOPR]

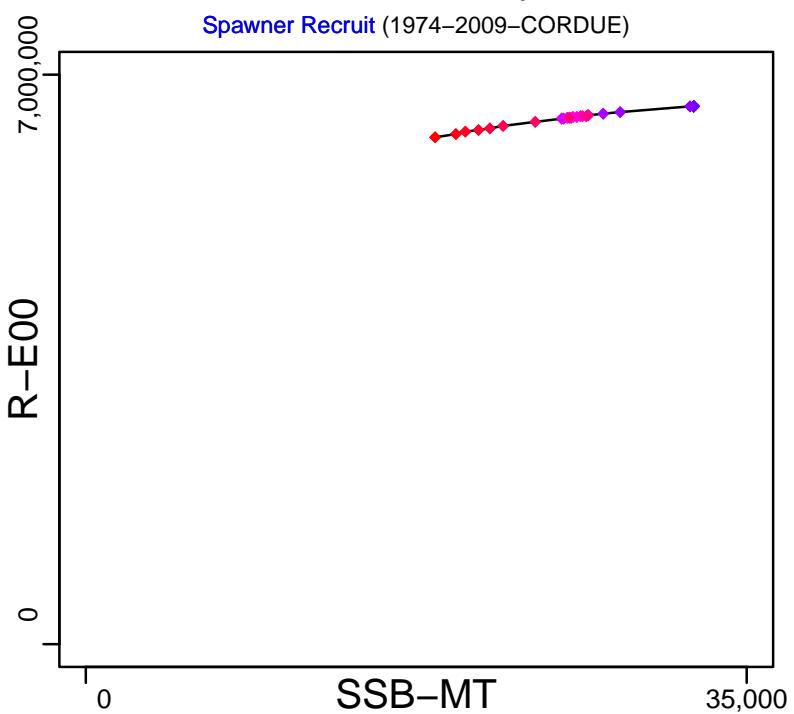
Kobe MSYpref (1974–2009–CORDUE)



Kobe MGTpref (1974–2009–CORDUE)



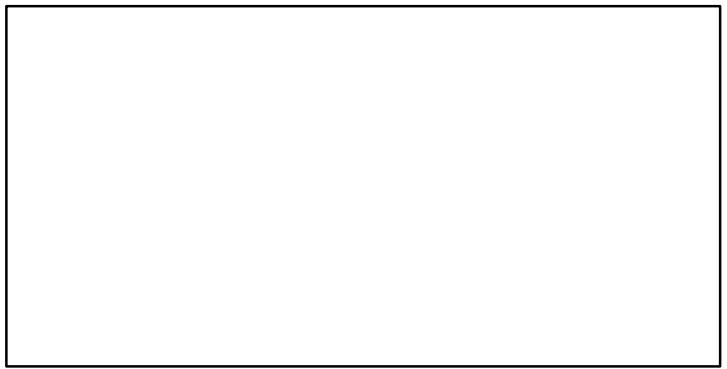
Spawner Recruit (1974–2009–CORDUE)



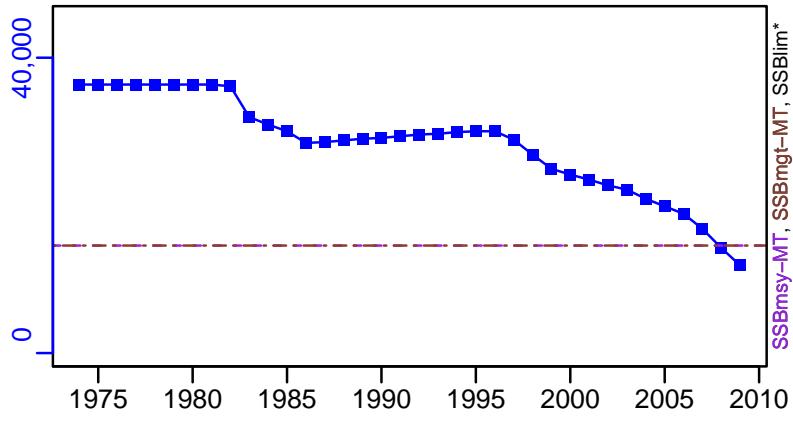
◆ Start Year ◆ End Year * No Data

Black oreo Pukaki Rise [BLACKOREOPR]

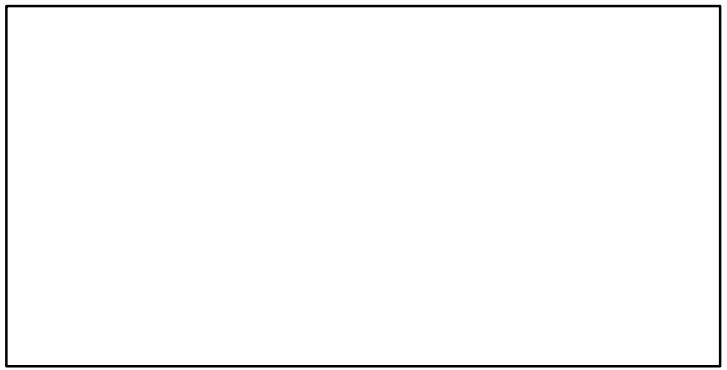
TB*



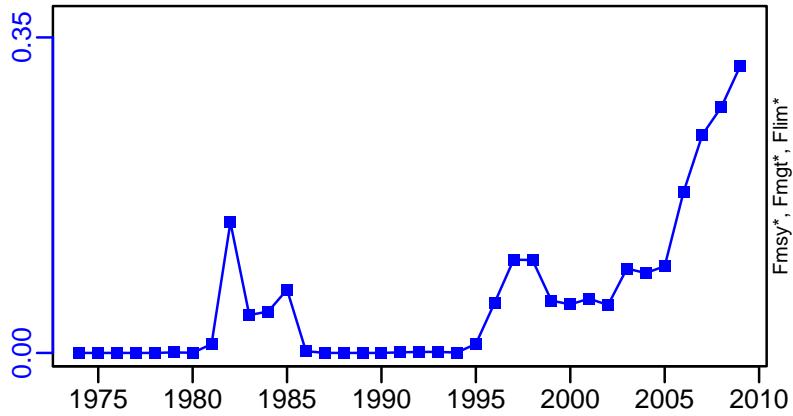
SSB-MT (1974–2009–CORDUE)



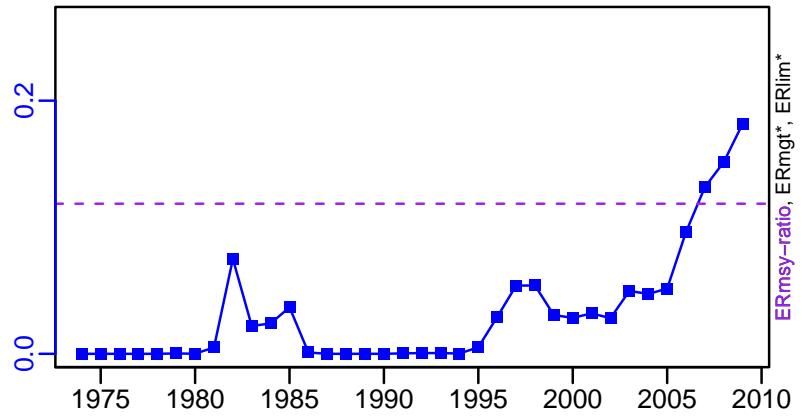
TN *



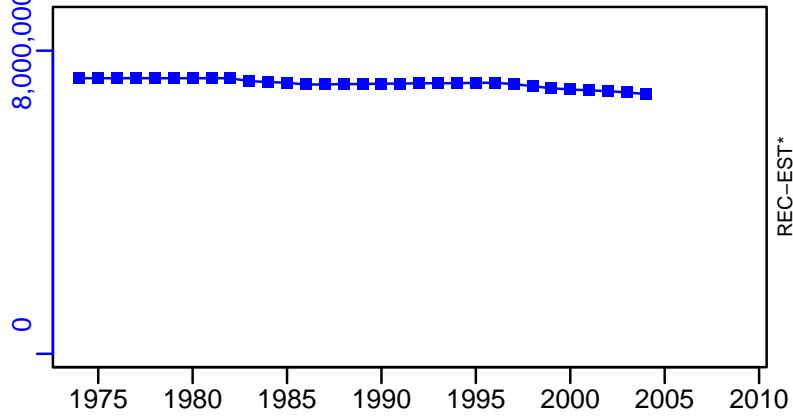
F-1/yr (1974–2009–CORDUE)



ER-ratio (1974–2009–CORDUE)



R-E00 (1974–2009–CORDUE)

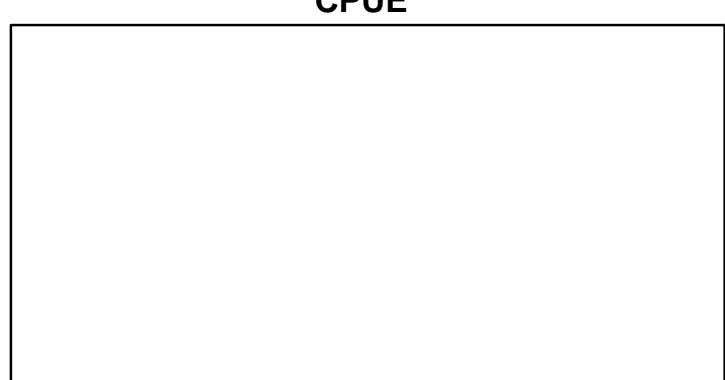
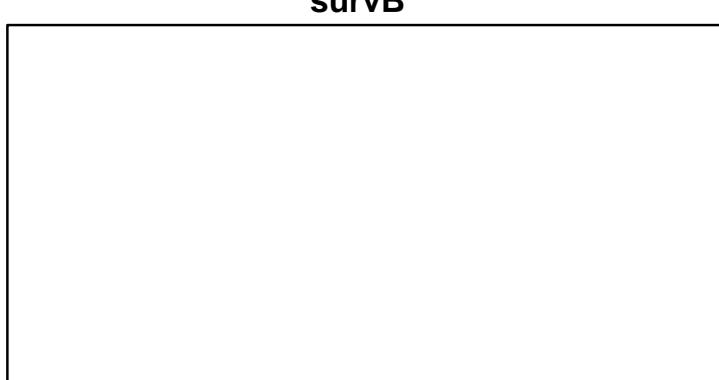
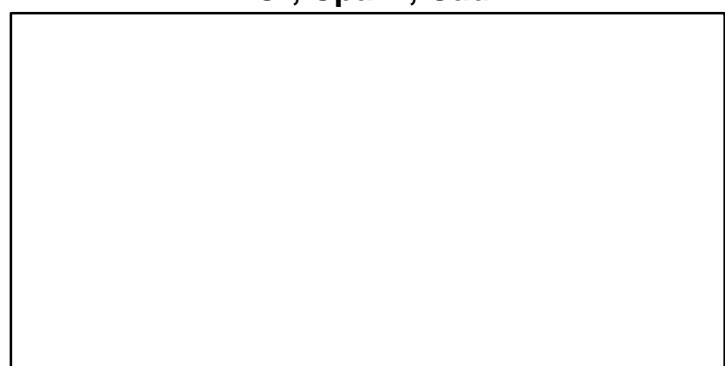
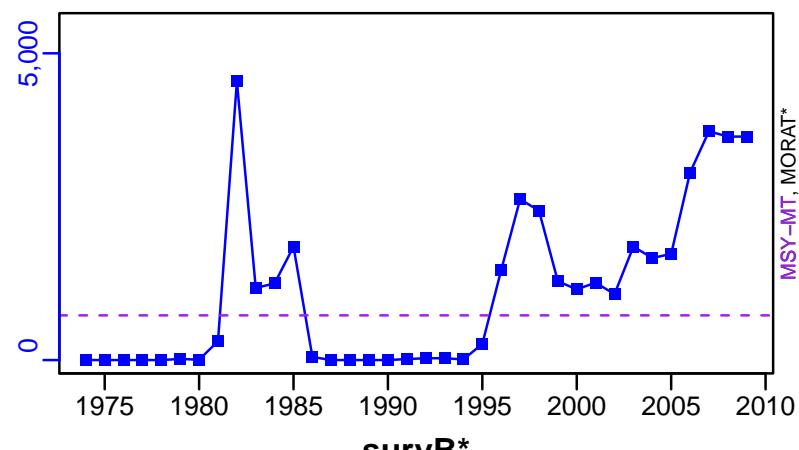


- | | | |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| - - MSY-based BRP | --- Lim BRP | * No Data |

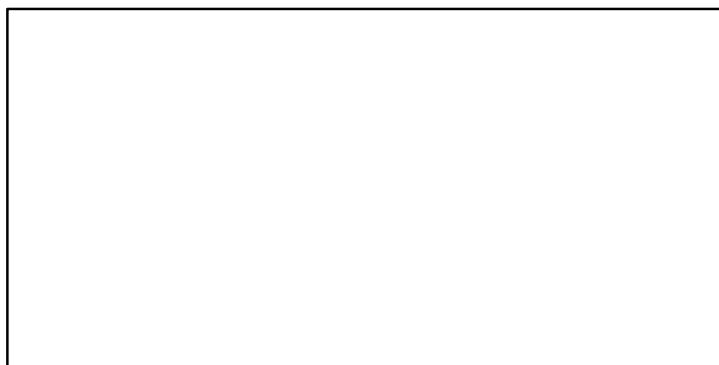
Black oreo Pukaki Rise [BLACKOREOPR]

TC-MT, TL*, RecC* (1974–2009–CORDUE)

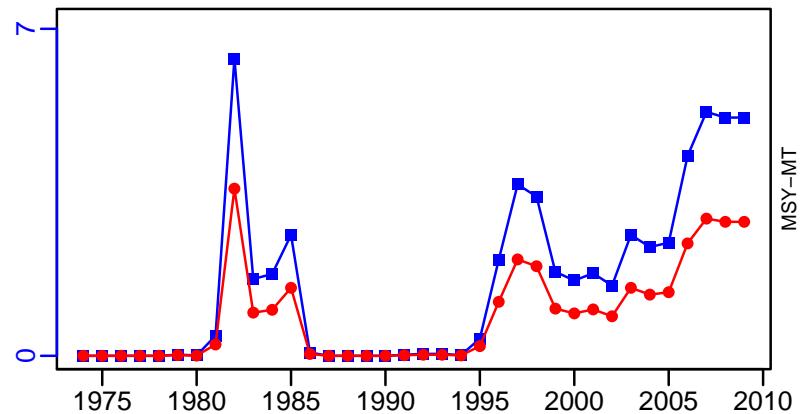
TAC*, Cpair*, Cadv*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1974–2009–CORDUE)



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

Black oreo West end of Chatham Rise [BLACKOREOWECR]

Metadata	
Scientific Name	Allocyttus niger
Current Assess ID	NZMFishDEEPWATER-BLACKOREOWECR-1973-2007-JENSEN
Area	West end of Chatham Rise
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Deepwater Working Group
Asmts in RAM	2007

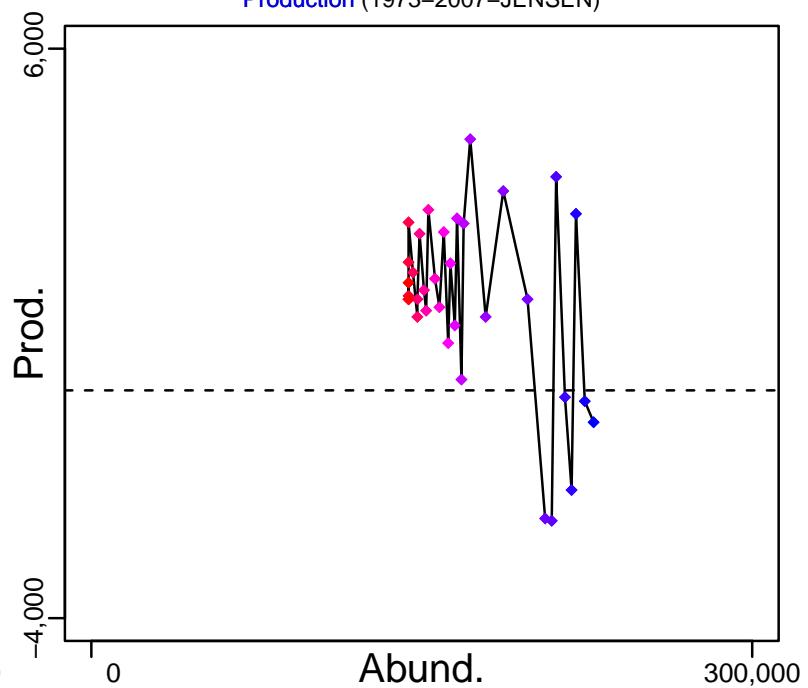
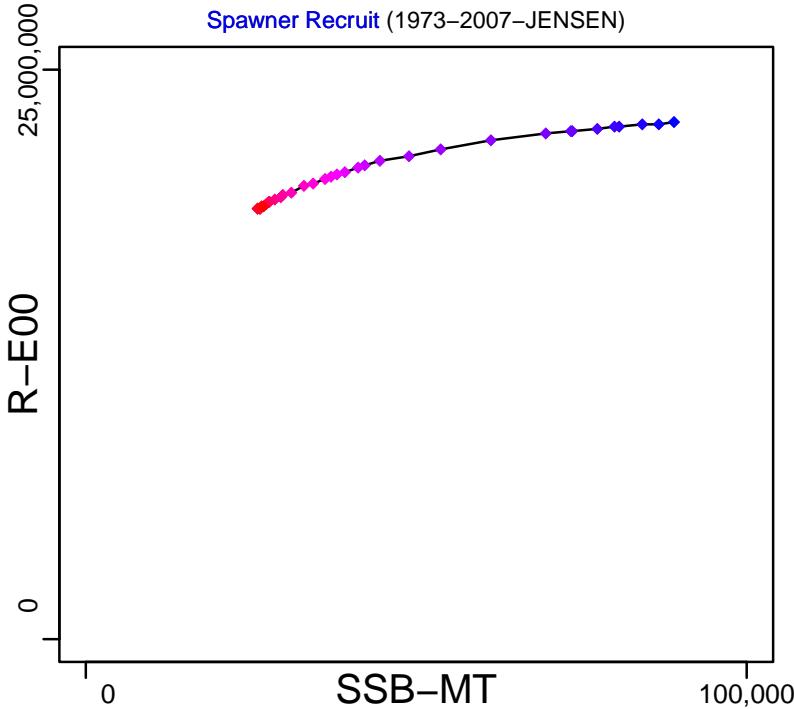
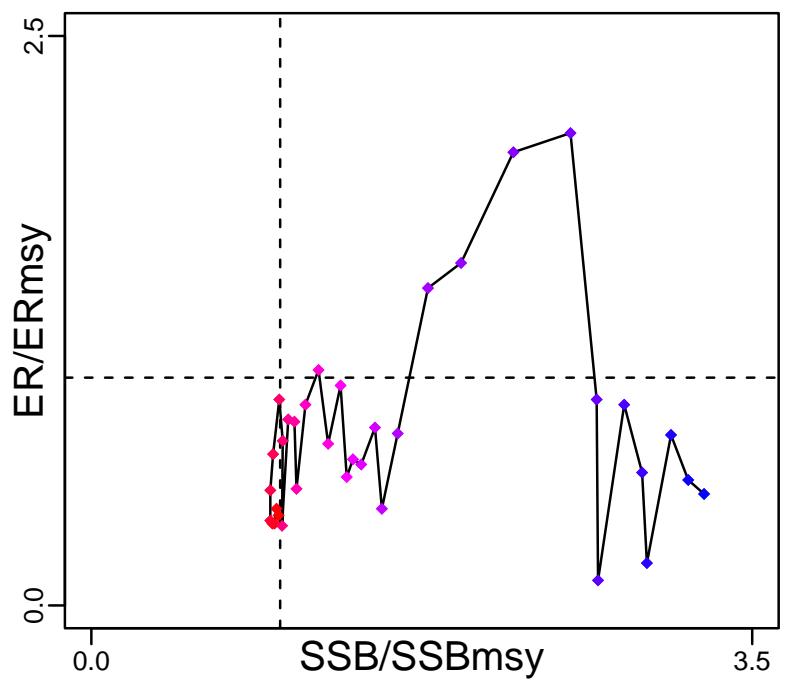
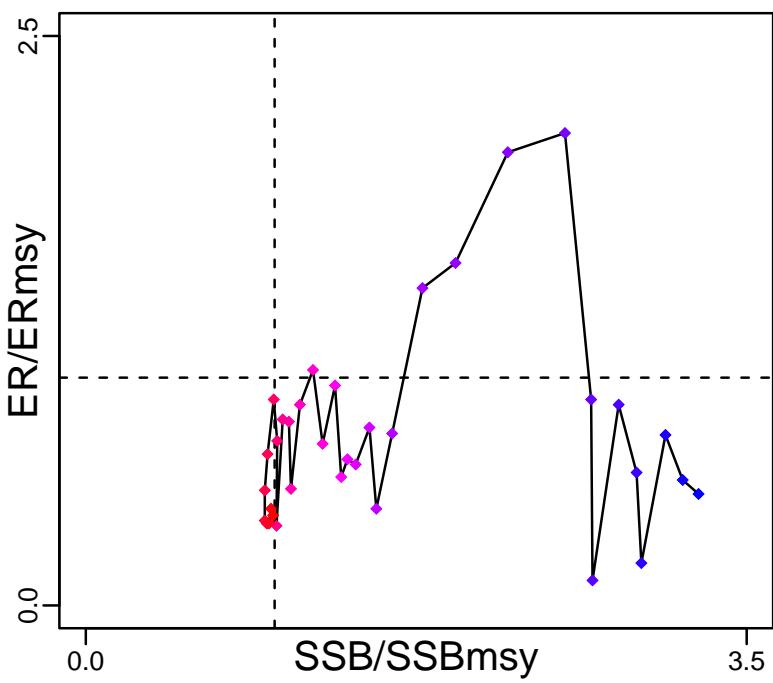
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2007	63,082
SSBmsy	SSBmsy-MT	2007	27,427
Fmsy	Fmsy-1/yr	2007	0.034
ERmsy	ERmsy-ratio	2007	0.031
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2007	88,923
MSY	MSY-MT	2007	1947
M	M-1/yr	2007	0.044
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2007	144,000	-	1	
SSB	SSB-MT	2007	27,200	Both	-	
TN	-	-	-	-	-	
R	R-E00	2007	1.9×10^7	-	1	
F	F-1/yr	2007	0.028	-	-	
ER	ER-ratio	2007	0.012	-	-	
TC	TC-MT	2007	1770			
TL	-	-	-			
TB/TBmsy	TB-MT/TBmsy-calc-MT	2007	2.283			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2007	0.992			
F/Fmsy	F-1/yr/Fmsy-1/yr	2007	0.824			
ER/ERmsy	ER-ratio/ERmsy-ratio	2007	0.395			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Black oreo West end of Chatham Rise [BLACKOREOWECR]

Kobe MSYpref (1973–2007–JENSEN)

Kobe MGTpref (1973–2007–JENSEN)

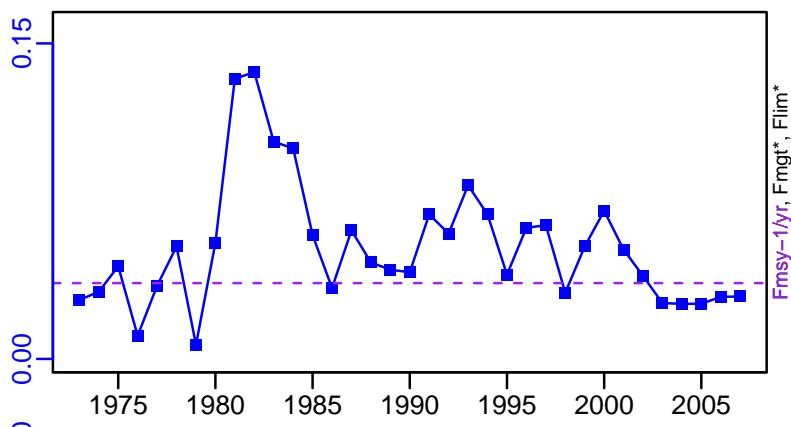
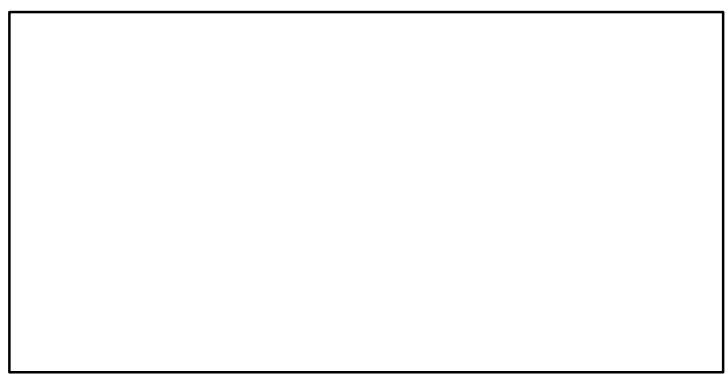
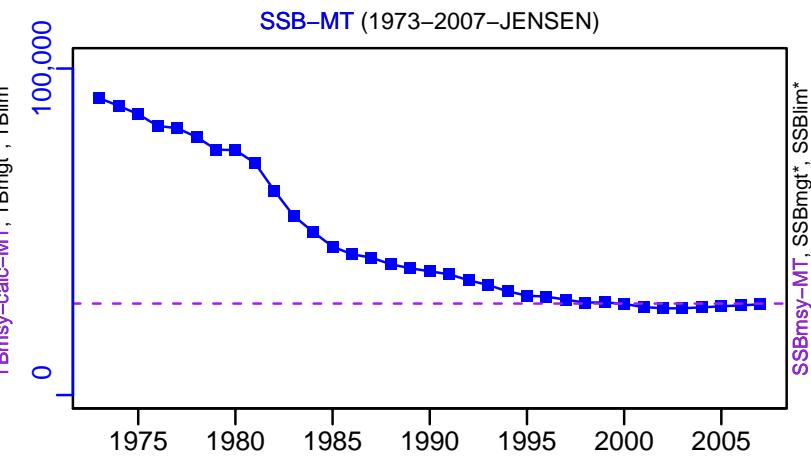
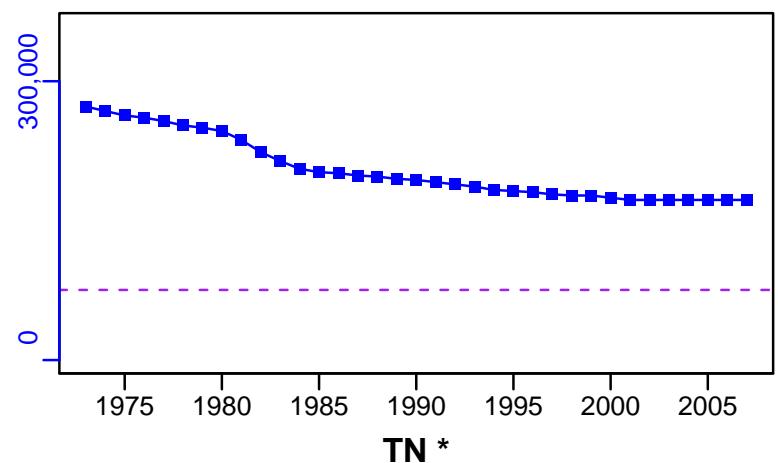


◆ Start Year ◆ End Year * No Data

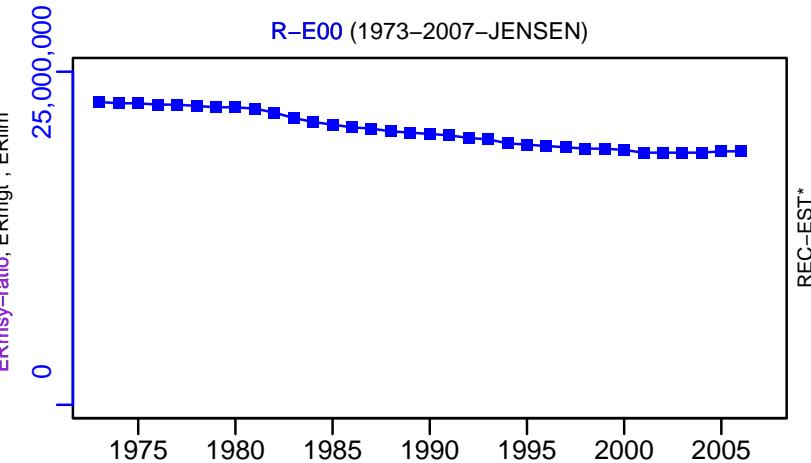
Black oreo West end of Chatham Rise [BLACKOREOWECR]

TB-MT (1973–2007–JENSEN)

SSB-MT (1973–2007–JENSEN)



ER-ratio (1973–2007–JENSEN)

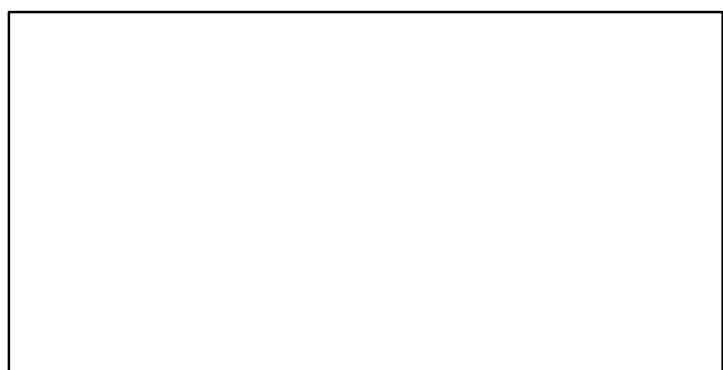
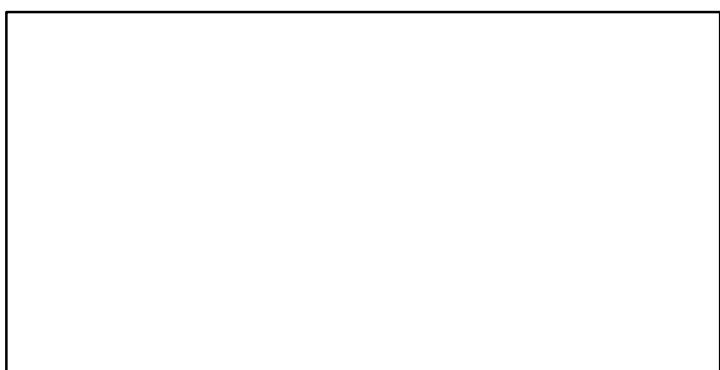
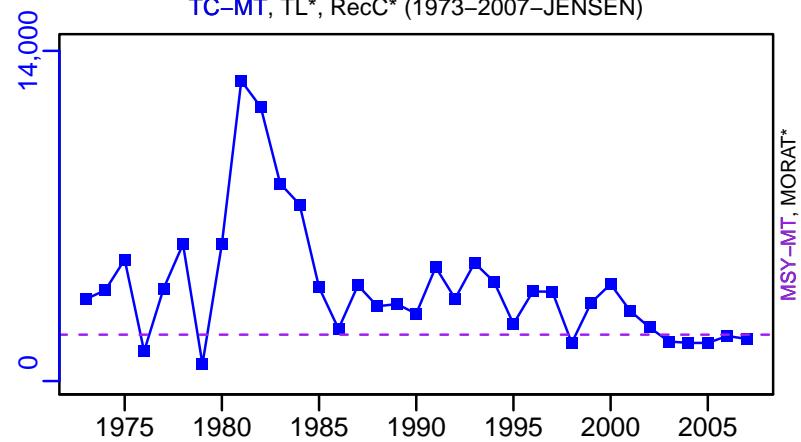


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	--- Lim BRP	* No Data

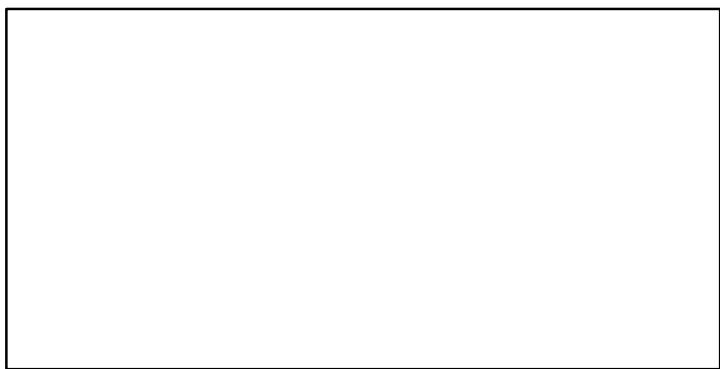
Black oreo West end of Chatham Rise [BLACKOREOWECR]

TC-MT, TL*, RecC* (1973–2007–JENSEN)

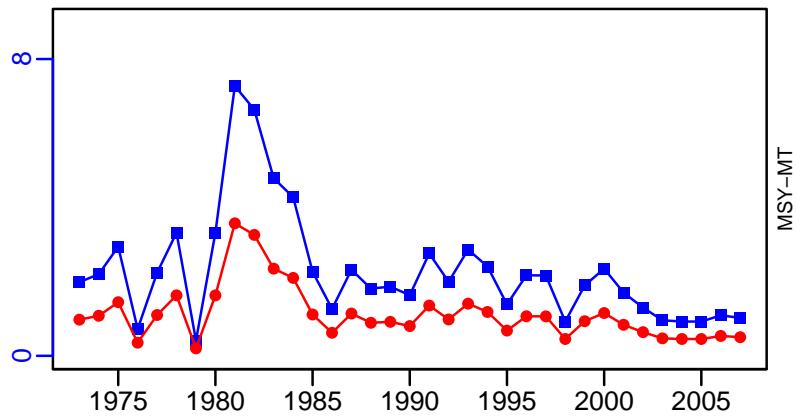
TAC*, Cpair*, Cadv*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1973–2007–JENSEN)



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

Bluenose New Zealand [BNSNZ]

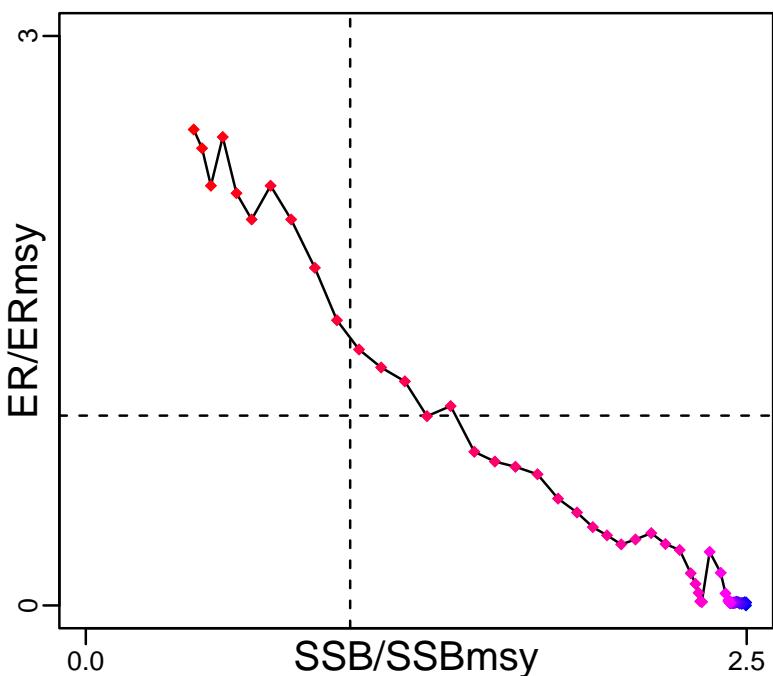
Metadata	
Scientific Name	Hyperoglyphe antarctica
Current Assess ID	NZMFishINSHOREWG-BNSNZ-1935-2011-CORDUE
Area	New Zealand
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Inshore Working Group
Asmts in RAM	2011

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2011	23,867
SSBmsy	SSBmsy-MT	2011	16,737
Fmsy	Fmsy-1/yr	2011	0.08
ERmsy	ERmsy-ratio	2011	0.051
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2011	16,737
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2011	41,843
MSY	MSY-MT	2011	1209
M	M-1/yr	2011	0.08
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

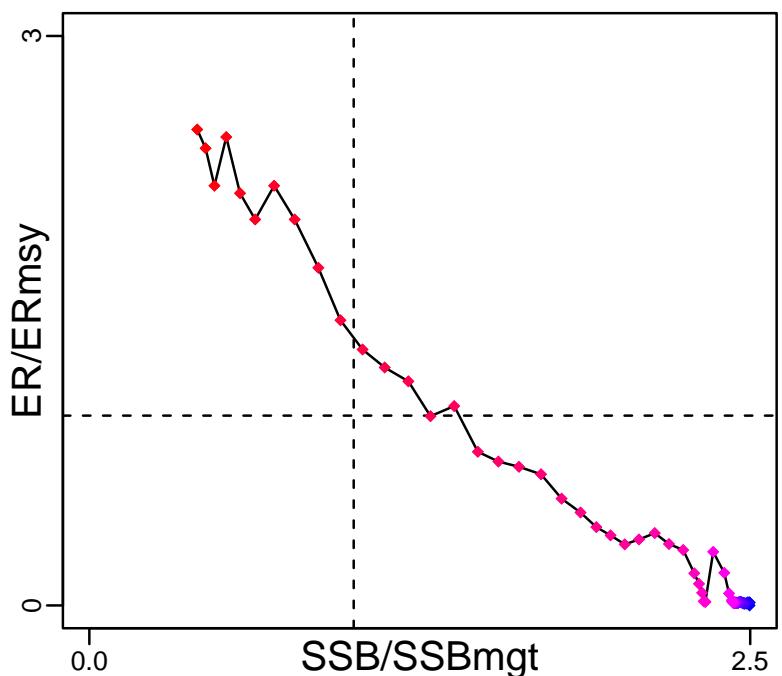
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	-	-	-	-	-	
SSB	SSB-MT	2011	6830	Both	17+	
TN	-	-	-	-	-	
R	R-E00	2011	1,010,000	-	1	
F	F-1/yr	2011	0.206	-	-	
ER	ER-ratio	2011	0.127	-	-	
TC	TC-MT	2011	2000			
TL	-	-	-			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2011	0.408			
F/Fmsy	FdivFmsy-dimensionless	2011	2.71			
ER/ERmsy	ER-ratio/ERmsy-ratio	2011	2.507			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2011	0.408			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Bluenose New Zealand [BNSNZ]

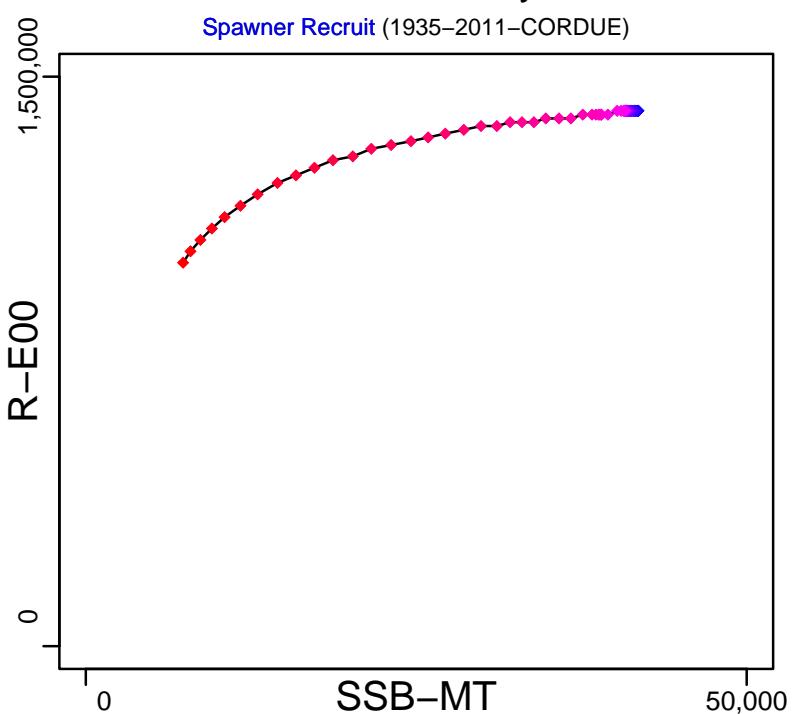
Kobe MSYpref (1935–2011–CORDUE)



Kobe MGTpref (1935–2011–CORDUE)



Spawner Recruit (1935–2011–CORDUE)



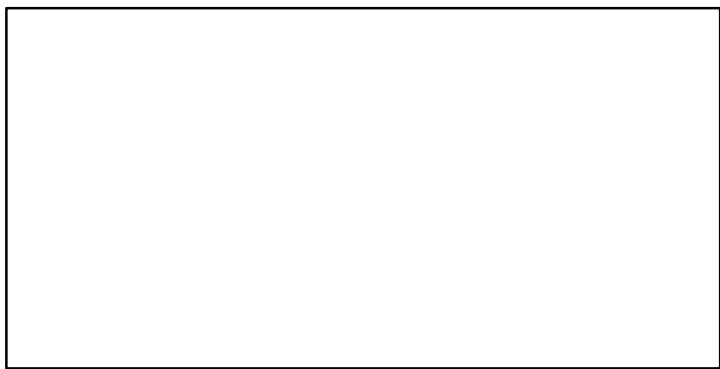
Production*



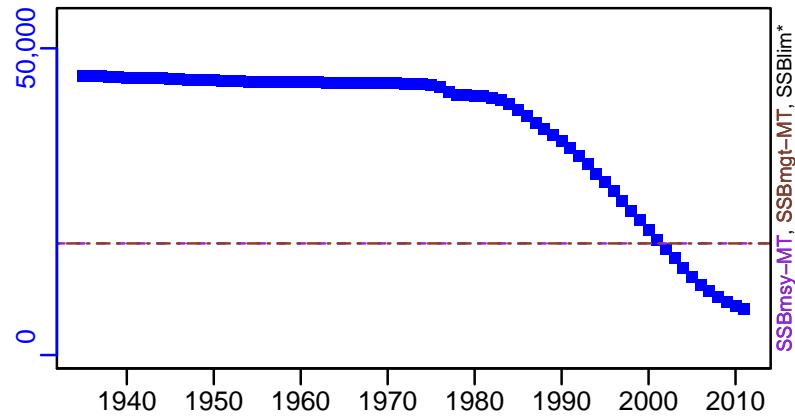
◆ Start Year ◆ End Year * No Data

Bluenose New Zealand [BNSNZ]

TB*



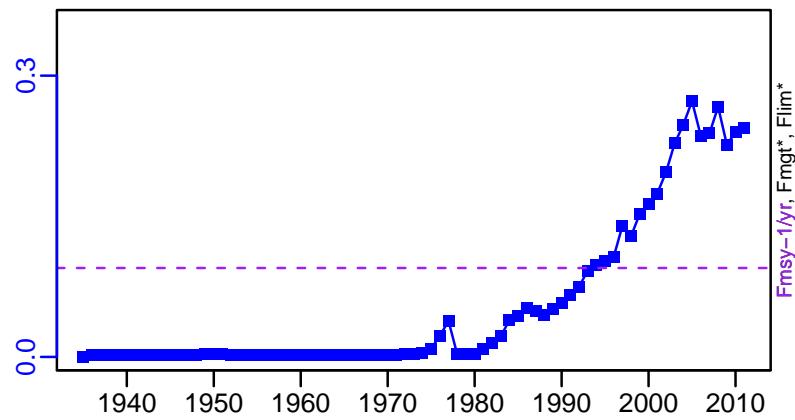
SSB-MT (1935–2011–CORDUE)



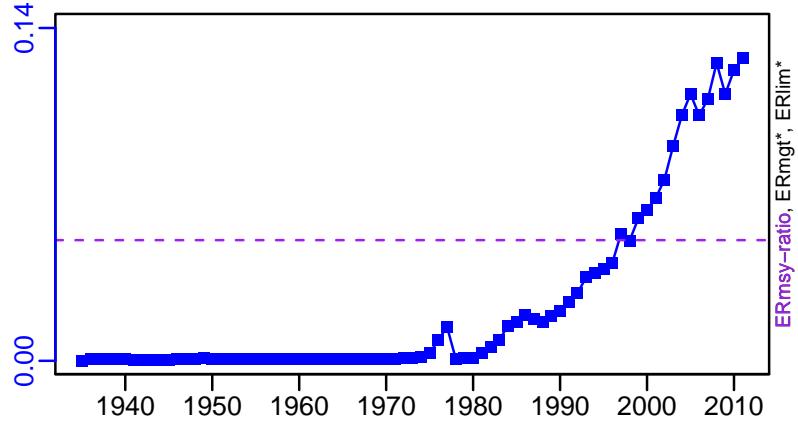
TN *



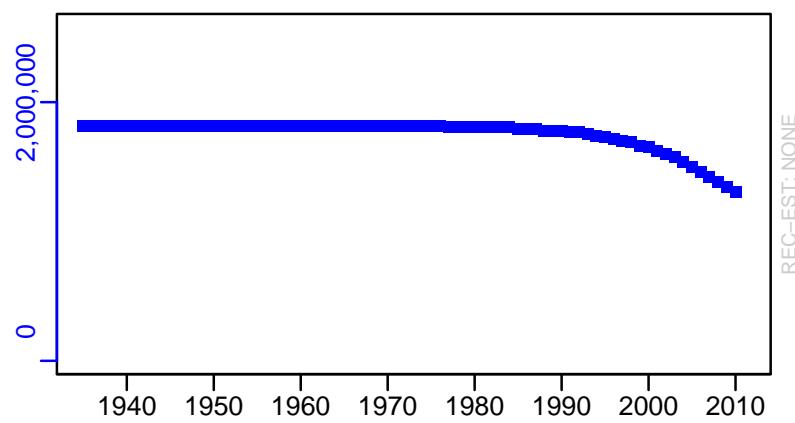
F-1/yr (1935–2011–CORDUE)



ER-ratio (1935–2011–CORDUE)



R-E00 (1935–2011–CORDUE)

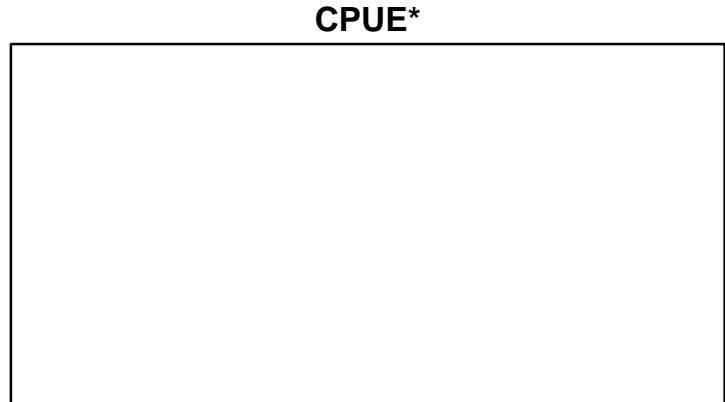
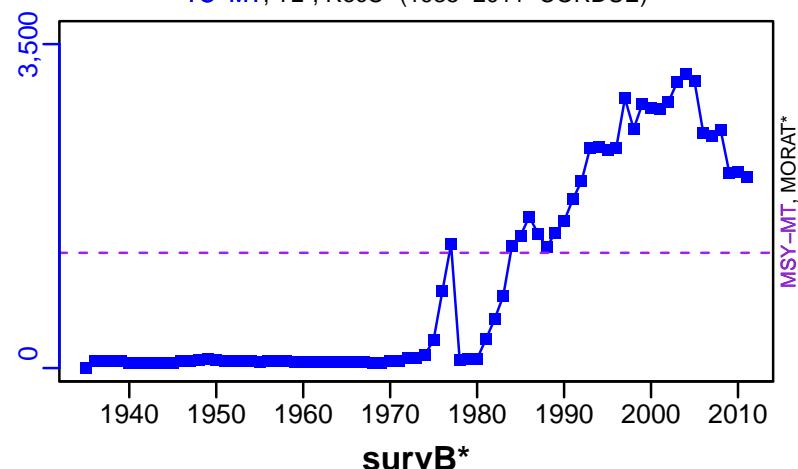


- | | | |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| - - - MSY-based BRP | --- Lim BRP | * No Data |

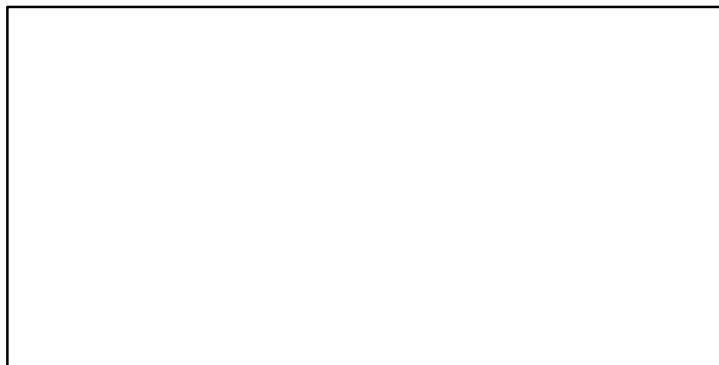
Bluenose New Zealand [BNSNZ]

TC-MT, TL*, RecC* (1935–2011–CORDUE)

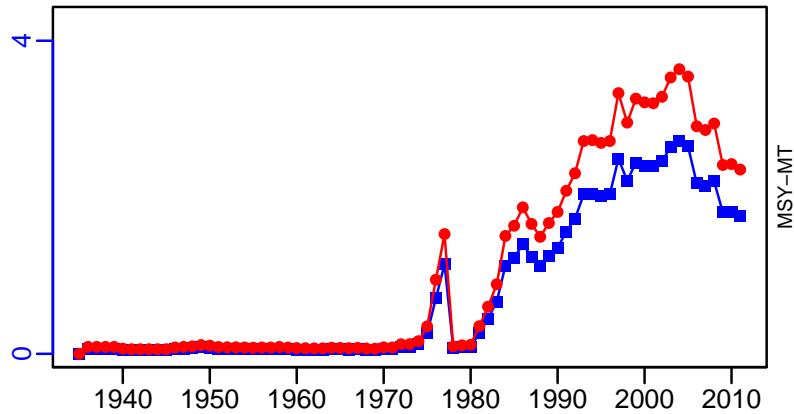
TAC*, Cpair*, Cadv*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1935–2011–CORDUE)



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

Boarfish ICES 6-8 [BOARVI-VIII]

Metadata	
Scientific Name	Capros aper
Current Assess ID	WGWISE-BOARVI-VIII-1991-2019-ICESIMP2021
Area	ICES 6-8
Management Authority	International Council for the Exploration of the Sea
Assessor	Working Group on Widely Distributed Stocks
Asmts in RAM	2013, 2014, 2016, 2017, 2019, 2015

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	TB-relative	2016	0.262	Both	-	
SSB	SSB-index	2019	270,900	-	-	
TN	-	-	-	-	-	
R	-	-	-	-	-	
F	F-relative	2016	0.581	-	-	
ER	-	-	-	-	-	
TC	TC-MT	2019	11,286			
TL	TL-MT	2019	9927			
TB/TBmsy	-	-	-			
SSB/SSBmsy	-	-	-			
F/Fmsy	FdivFmsy-dimensionless	2017	0.609			
ER/ERmsy	-	-	-			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Kobe MSY*

Kobe MGT*

Spawner Recruit*

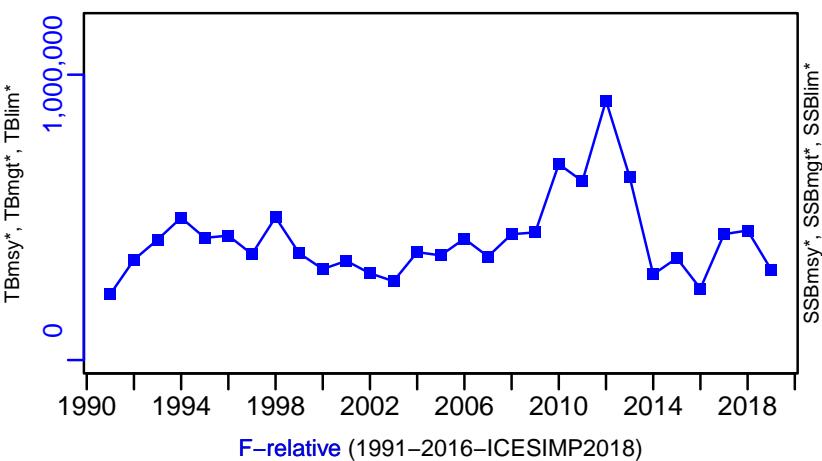
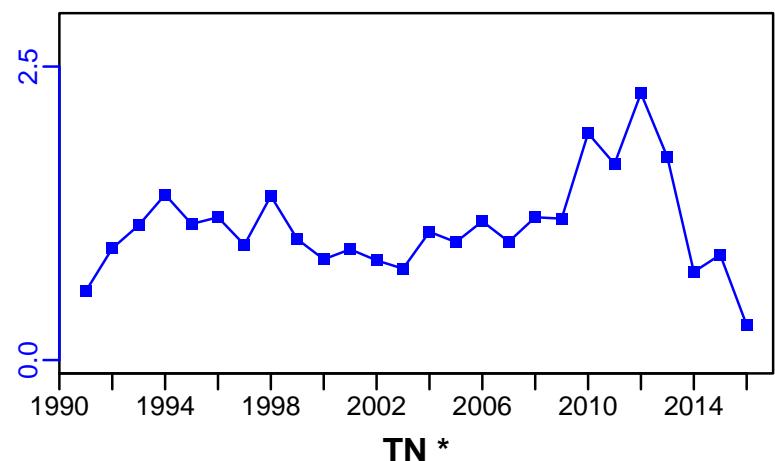
Production*

◆ Start Year ◆ End Year * No Data

Boarfish ICES 6–8 [BOARVI–VIII]

TB-relative (1991–2016–ICESIMP2018)

SSB-index (1991–2019–ICESIMP2021)



TN *

F-relative (1991–2016–ICESIMP2018)

SSB_ms^y* , SSB_mg^t* , SSB_{lim}*

ER*

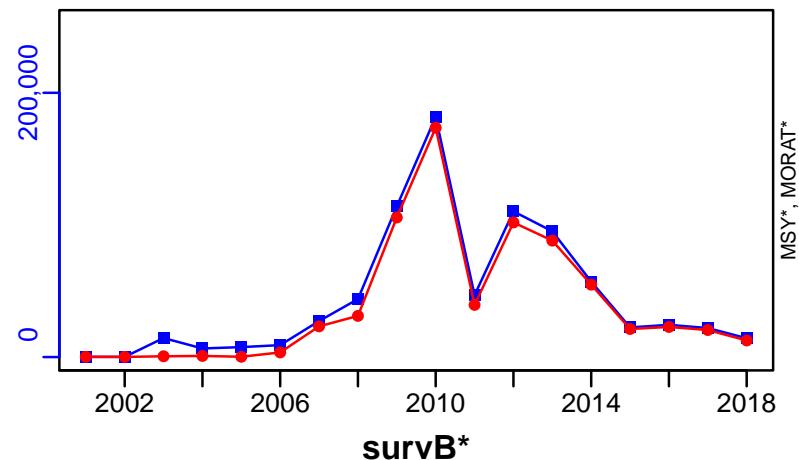
Recruits*

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

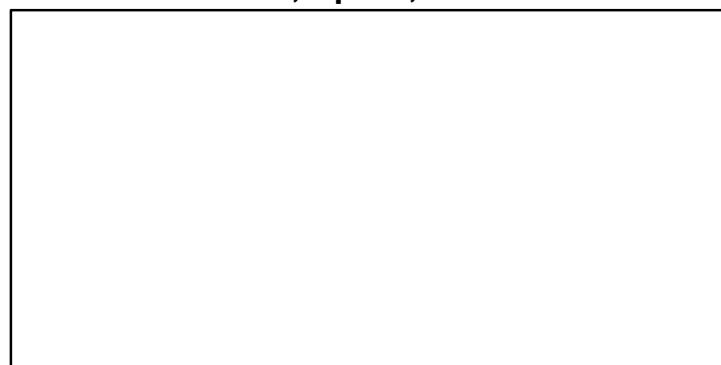
Boarfish ICES 6–8 [BOARVI–VIII]

TC–MT, TL–MT, RecC* (1991–2019–ICESIMP2021)

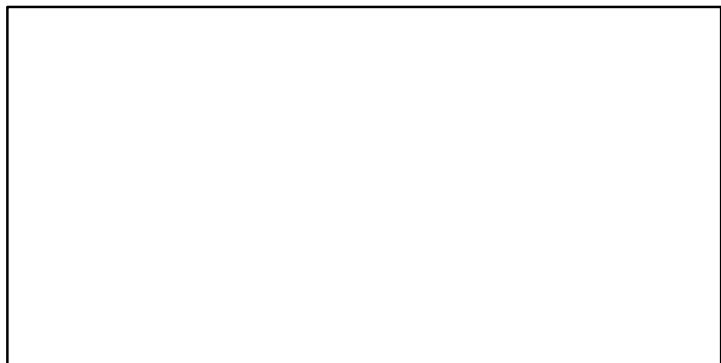
TAC*, Cpair*, Cadv*



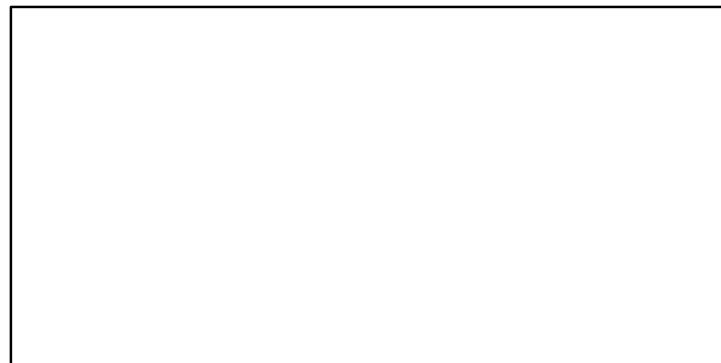
CPUE*



EFFORT*



CdivMSY*



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

Black scraper Sea of Japan and East China Sea [BSCRAPERSOJECS]

Metadata	
Scientific Name	Thamnaconus modestus
Current Assess ID	FAFRFJ-BSCRAPERSOJECS-2000-2013-JPNIMP2016
Area	Sea of Japan and East China Sea
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	5460		
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

Black scraper Sea of Japan and East China Sea [BSCRAPERSOJECS]

TB*



SSB*



TN *



F*



ER*



Recruits*

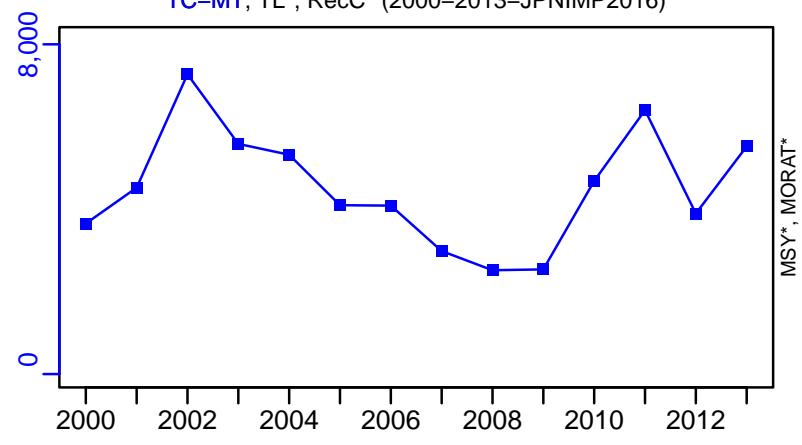


- | | | | | | |
|-------|--------------------|-------|------------|---|---------|
| ■ | Listed time series | - - - | Target BRP | — | Rec-Est |
| - - - | MSY-based BRP | - - - | Lim BRP | * | No Data |

Black scraper Sea of Japan and East China Sea [BSCRAPERSOJECS]

TC-MT, TL*, RecC* (2000–2013-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 |

Atlantic butterfish Gulf of Maine / Cape Hatteras [BUTTERGOMCHATT]

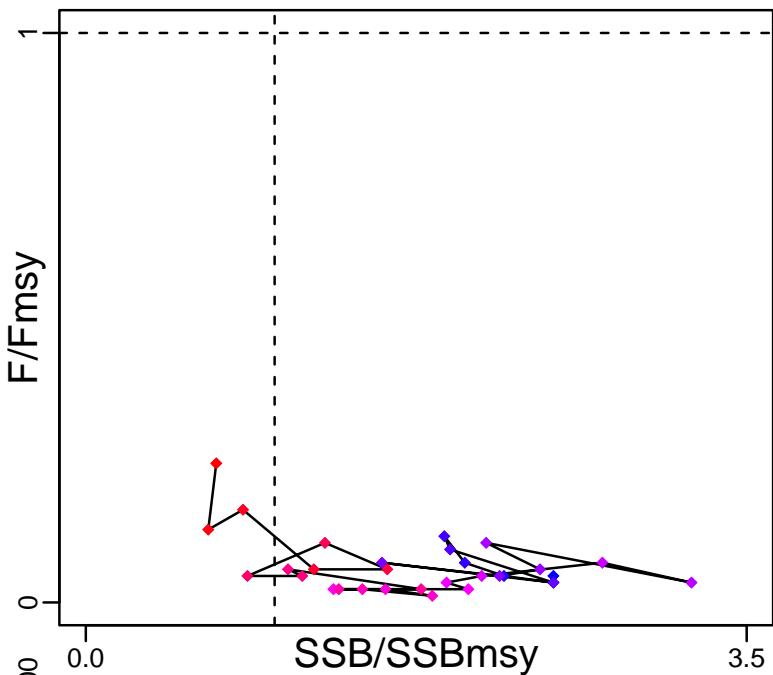
Metadata	
Scientific Name	Peprilus triacanthus
Current Assess ID	NEFSC-BUTTERGOMCHATT-1989-2019-SISIMP2021-2
Area	Gulf of Maine / Cape Hatteras
Management Authority	National Marine Fisheries Service, US national management
Assessor	Northeast Fisheries Science Center
Asmts in RAM	2012, 2016, 2019

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2019	42,400
Fmsy	Fmsy-1/yr	2019	0.86
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2016	36,199
M	-	-	-
TBlim	-	-	-
SSBlim	SSBlim-MT	2019	21,200
Flim	Flim-1/yr	2019	0.86
ERlim	-	-	-

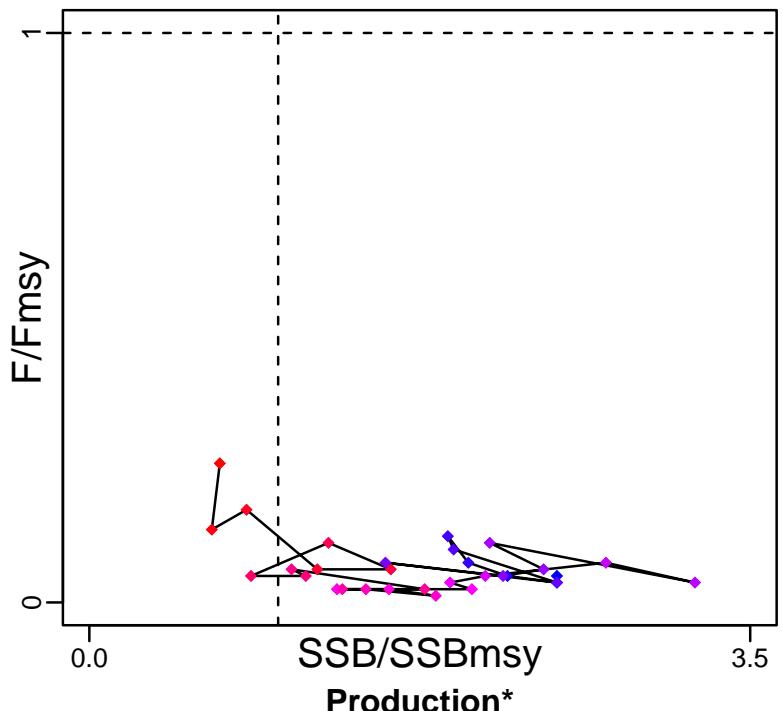
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2019	29,300	-	-
TN	-	-	-	-	-
R	R-E00	2019	2.93×10^9	-	0
F	F-1/yr	2019	0.21	-	-
ER	-	-	-	-	-
TC	TC-MT	2019	5080		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2019	0.691		
F/Fmsy	F-1/yr/Fmsy-1/yr	2019	0.244		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Atlantic butterfish Gulf of Maine / Cape Hatteras [BUTTERGOMCHATT]

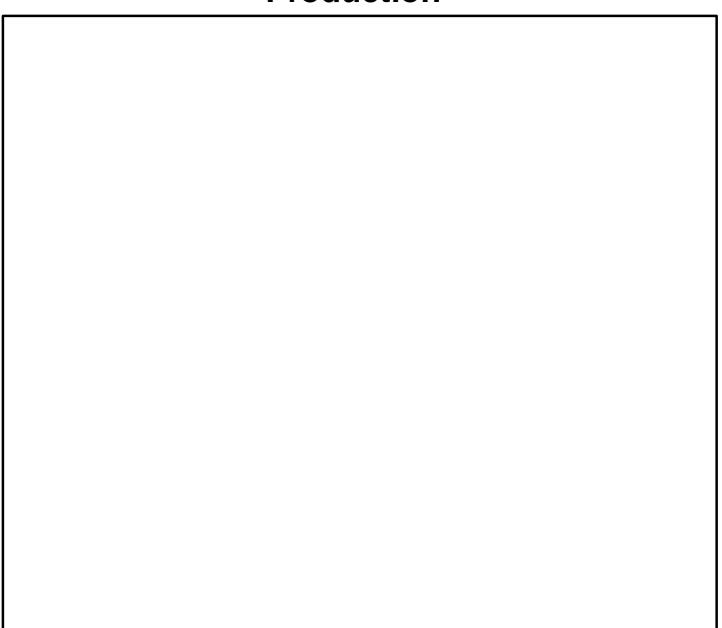
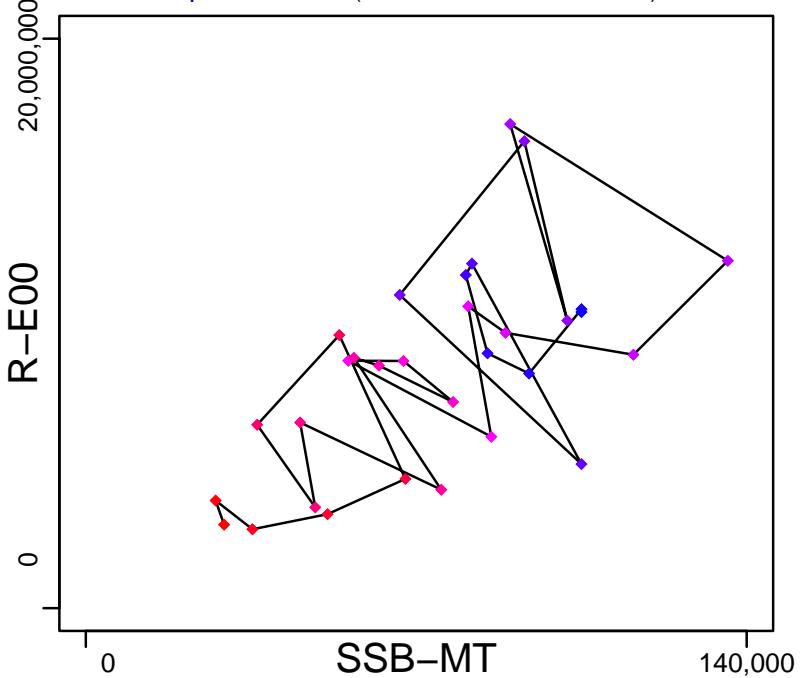
Kobe MSYpref (1989–2019–SISIMP2021–2)



Kobe MGTpref (1989–2019–SISIMP2021–2)



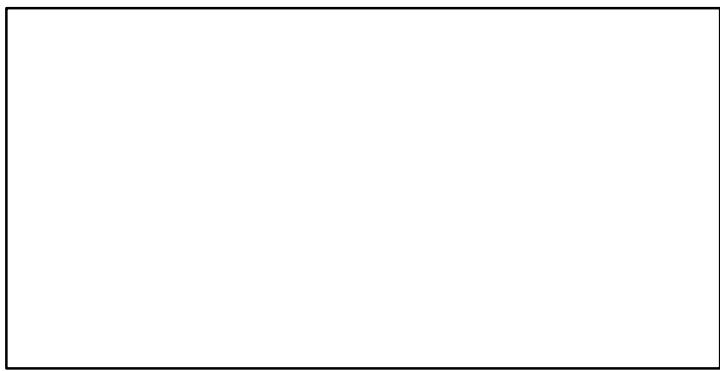
Spawner Recruit (1989–2019–SISIMP2021–2)



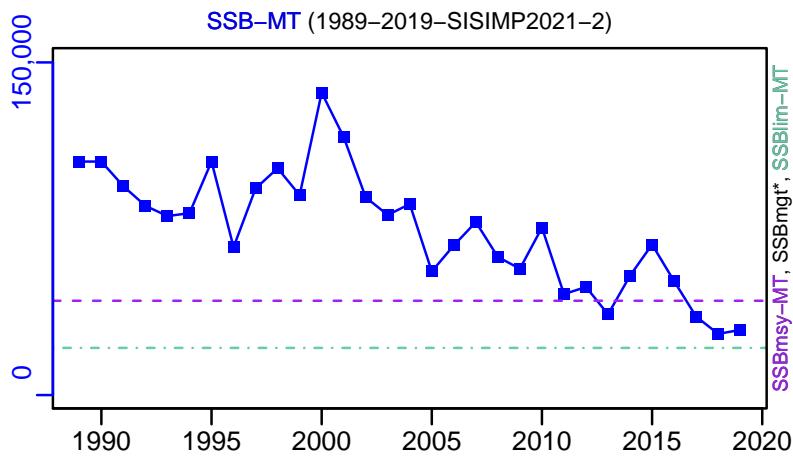
◆ Start Year ◆ End Year * No Data

Atlantic butterfish Gulf of Maine / Cape Hatteras [BUTTERGOMCHATT]

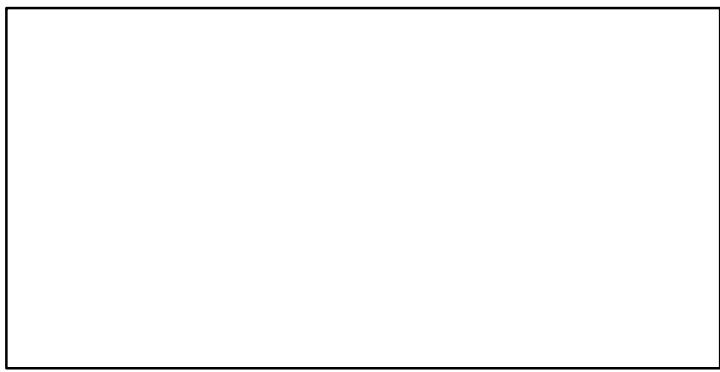
TB*



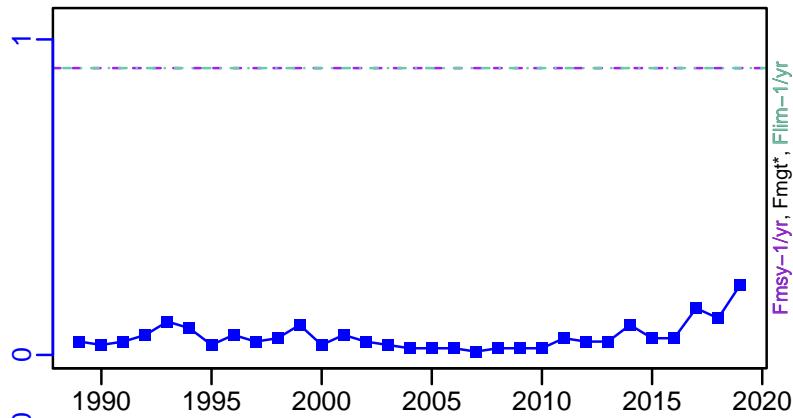
SSB-MT (1989–2019–SISIMP2021–2)



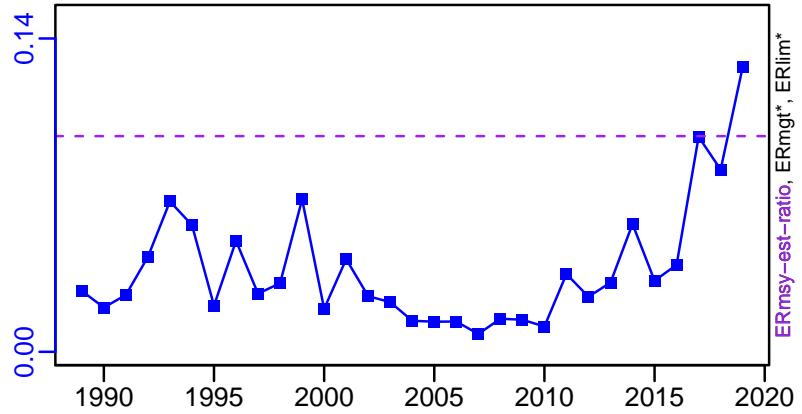
TN *



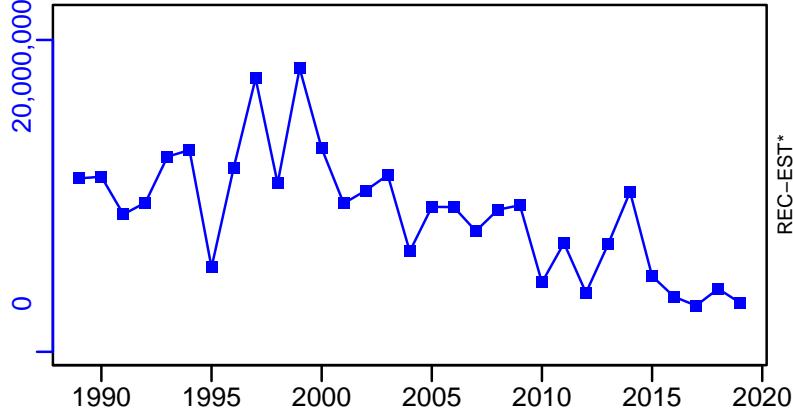
F-1/yr (1989–2019–SISIMP2021–2)



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



R-E00 (1989–2019–SISIMP2021–2)

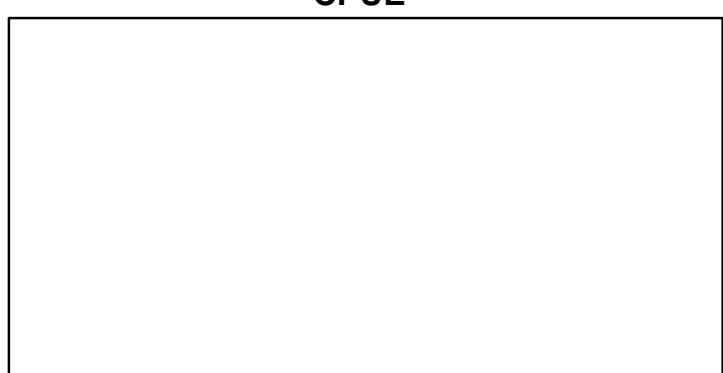
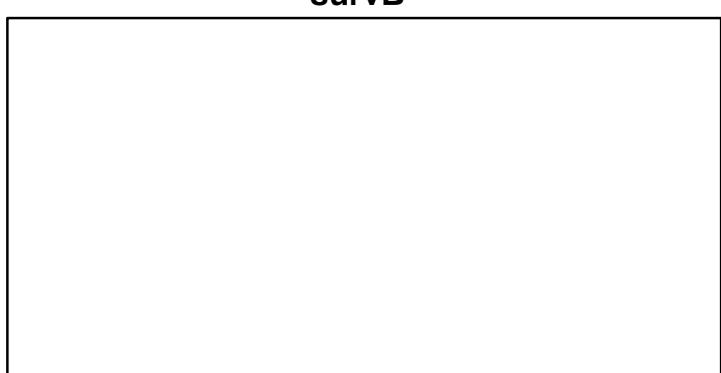
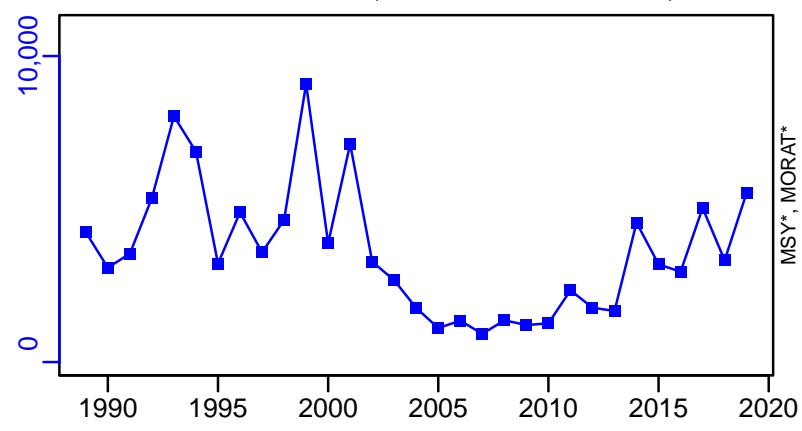


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - - Lim BRP	* No Data

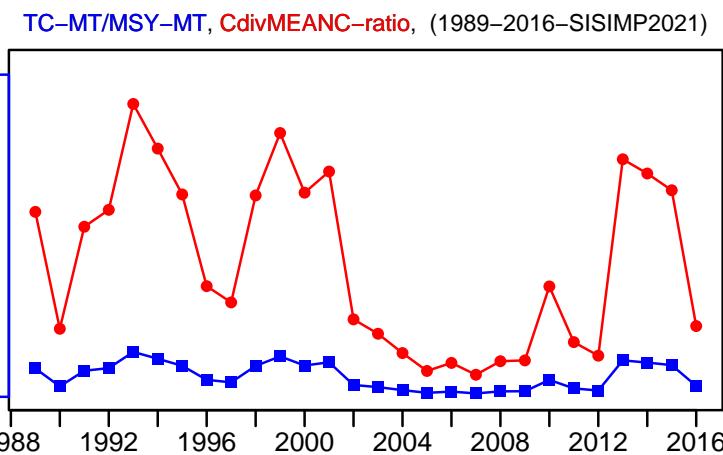
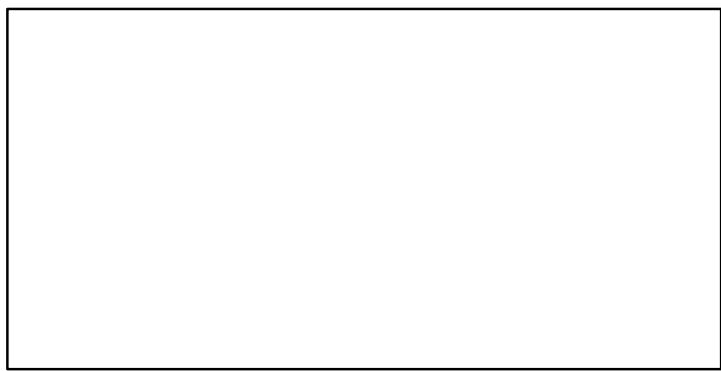
Atlantic butterfish Gulf of Maine / Cape Hatteras [BUTTERGOMCHATT]

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

TAC*, Cpair*, Cadv*



EFFORT*



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

Catfish Central West Africa Gabon [CATCWAGAB]

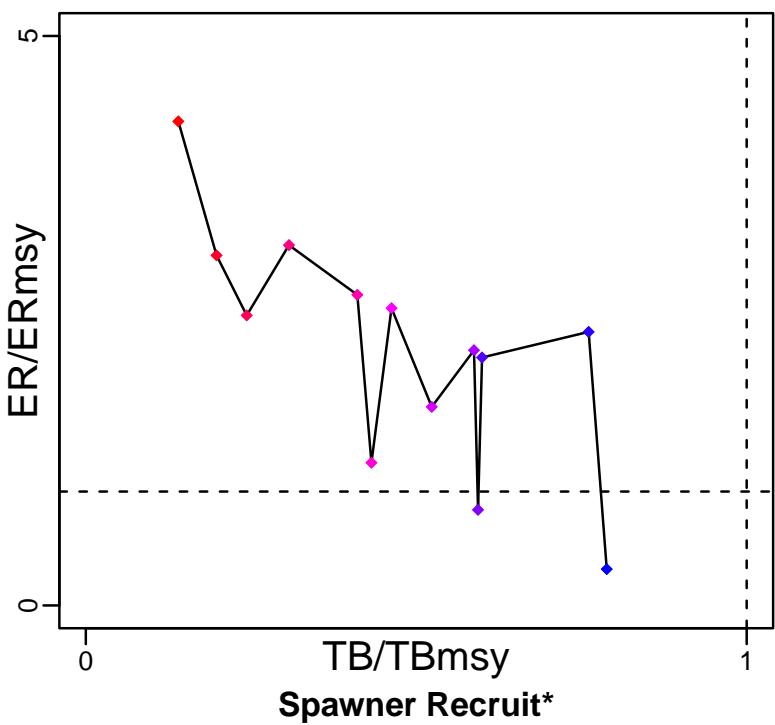
Metadata	
Scientific Name	Arius spp
Current Assess ID	FAO-DR-CATCWAGAB-1995-2007-CHING
Area	Central West Africa Gabon
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO/CECAF Working Group on the Assessment of Demersal Resources
Asmts in RAM	2007

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

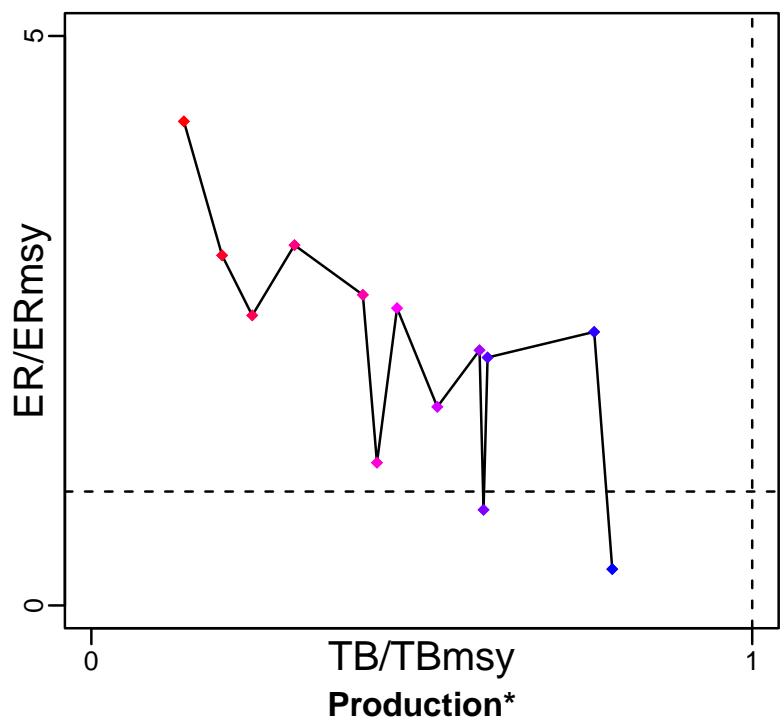
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-index	2007	11	-	-	
SSB	-	-	-	-	-	
TN	-	-	-	-	-	
R	-	-	-	-	-	
F	-	-	-	-	-	
ER	-	-	-	-	-	
TC	TC-MT	2007	547			
TL	-	-	-			
TB/TBmsy	-	-	-			
SSB/SSBmsy	-	-	-			
F/Fmsy	-	-	-			
ER/ERmsy	-	-	-			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Catfish Central West Africa Gabon [CATCWAGAB]

Kobe MSYpref (1995–2007–CHING)



Kobe MGTPref (1995–2007–CHING)



Spawner Recruit*

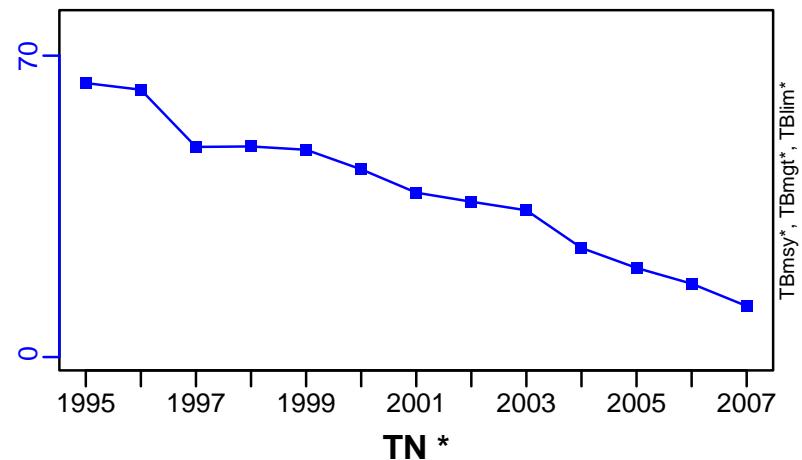
Production*

◆ Start Year ◆ End Year * No Data

Catfish Central West Africa Gabon [CATCWAGAB]

TB-index (1995–2007–CHING)

SSB*



TN *

TB_{msy}* , TB_{mgf}* , TB_{lim}*

F*

ER*

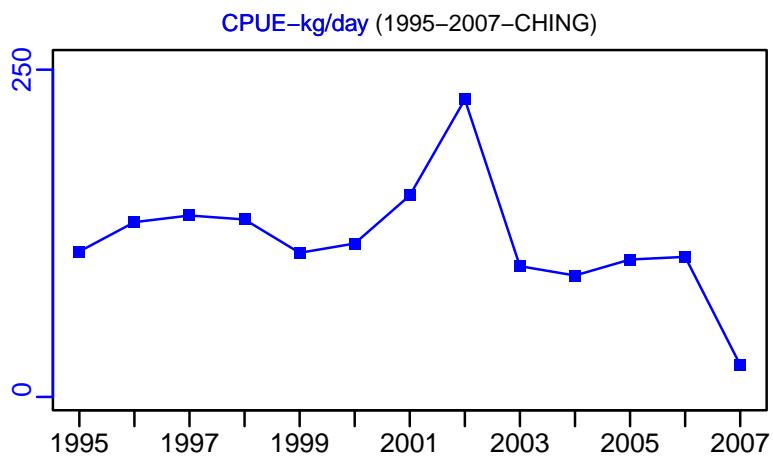
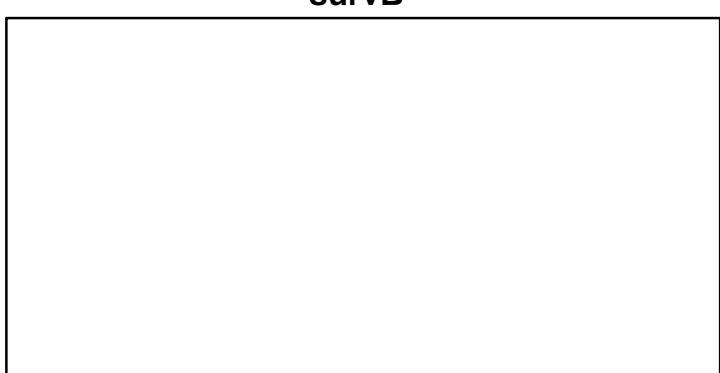
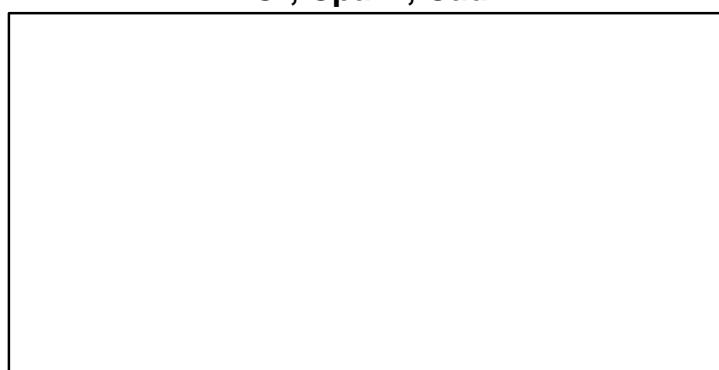
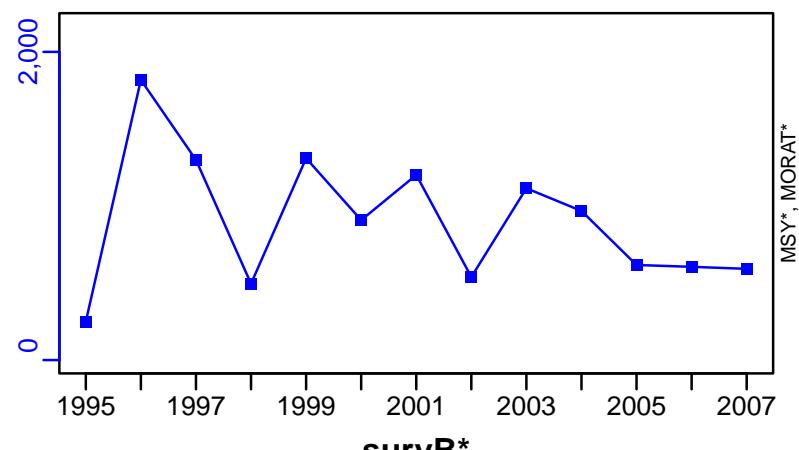
Recruits*

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

Catfish Central West Africa Gabon [CATCWAGAB]

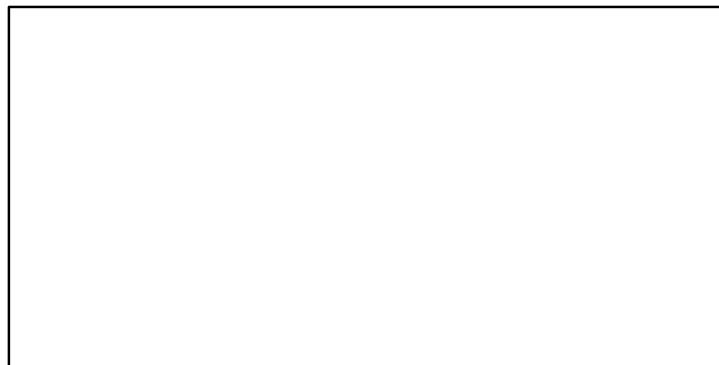
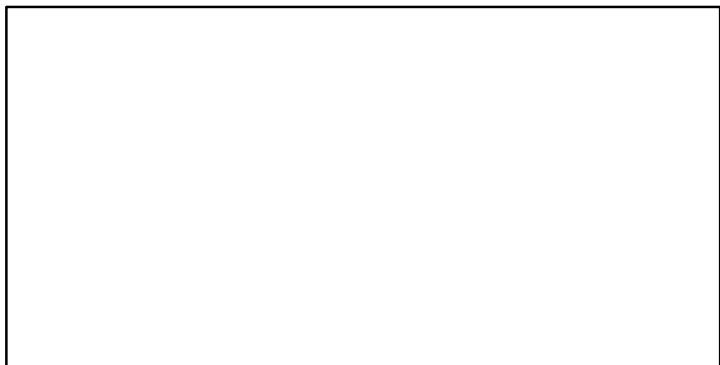
TC-MT, TL*, RecC* (1995–2007–CHING)

TAC*, Cpair*, Cadv*



EFFORT*

CdivMSY*



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

Catfish Central West Africa Guinea-Liberia [CATCWAGIN-LBR]

Metadata	
Scientific Name	Arius spp
Current Assess ID	FAO-DR-CATCWAGIN-LBR-1994-2008-CHING
Area	Central West Africa Guinea-Liberia
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO/CECAF Working Group on the Assessment of Demersal Resources
Asmts in RAM	2008

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	2008	2470		
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

Catfish Central West Africa Guinea–Liberia [CATCWAGIN-LBR]

TB*



SSB*



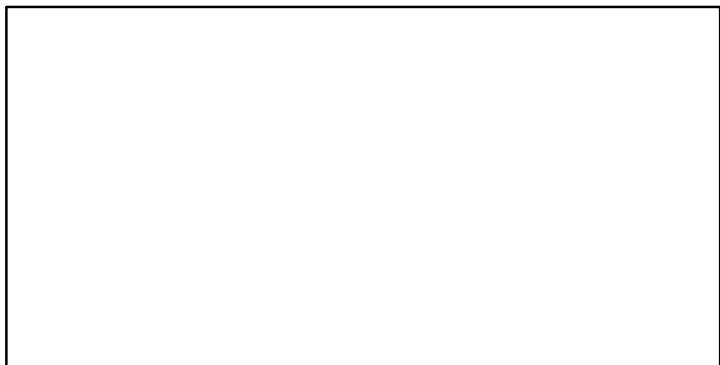
TN *



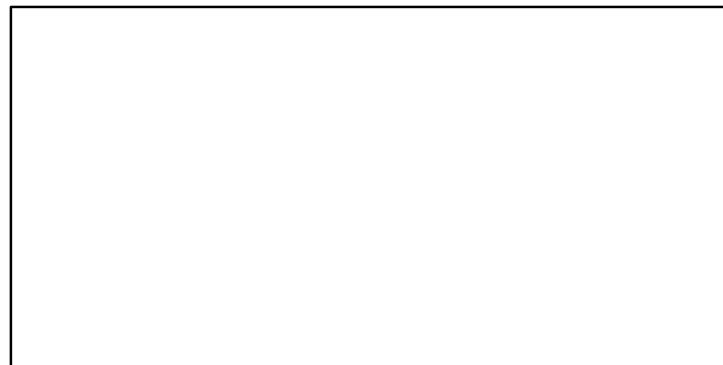
F*



ER*



Recruits*

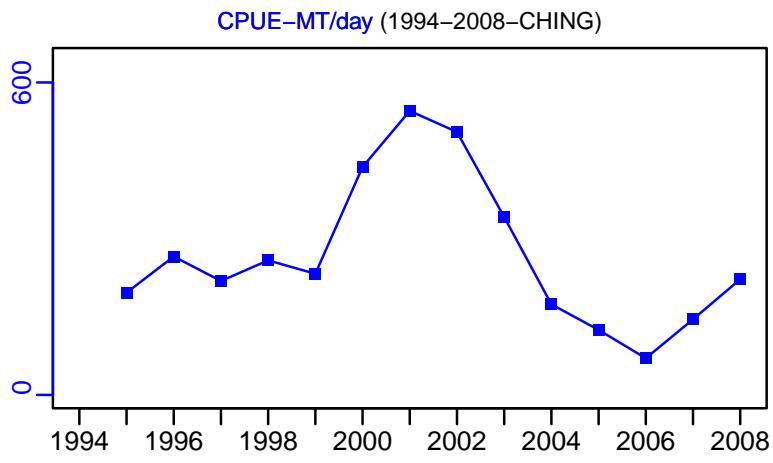
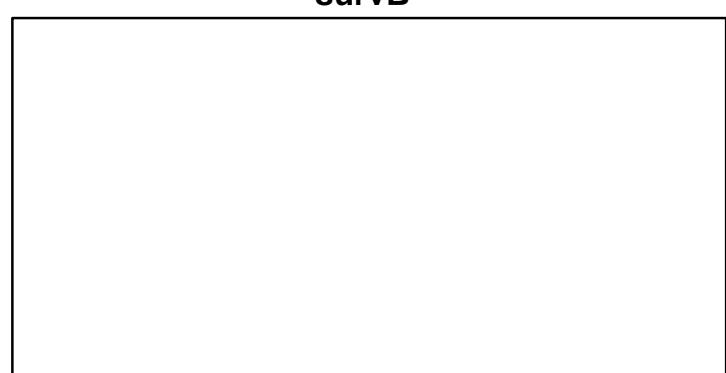
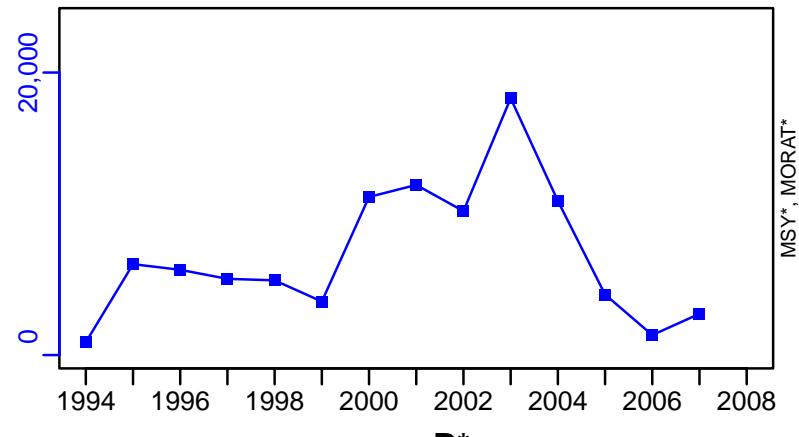


- | | | | | | |
|-------|--------------------|-------|------------|---|---------|
| ■ | Listed time series | - - - | Target BRP | — | Rec-Est |
| - - - | MSY-based BRP | - - - | Lim BRP | * | No Data |

Catfish Central West Africa Guinea–Liberia [CATCWAGIN-LBR]

TC-MT, TL*, RecC* (1994–2008–CHING)

TAC*, Cpair*, Cadv*



EFFORT*

CdivMSY*

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

Catfish North West Africa Senegal_The Gambia [CATNWASEN_GMB]

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

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	2016	8646		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*

Kobe MGT*

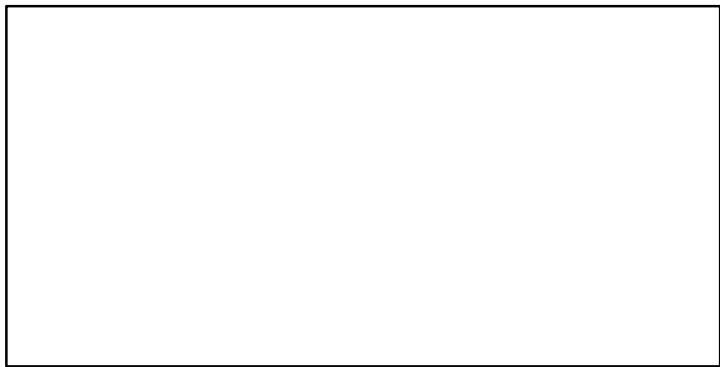
Spawner Recruit*

Production*

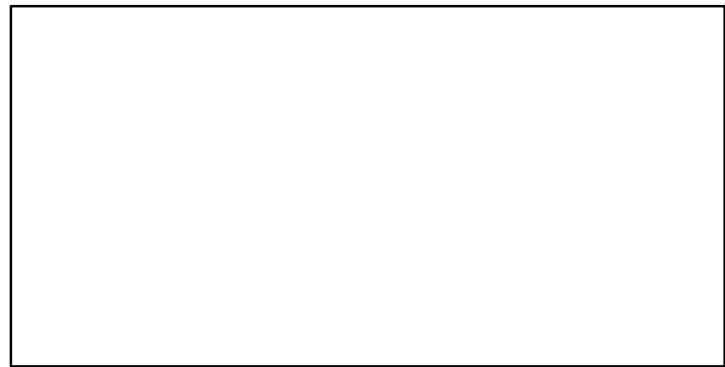
◆ Start Year ♦ End Year * No Data

Catfish North West Africa Senegal_The Gambia [CATNWASEN_GMB]

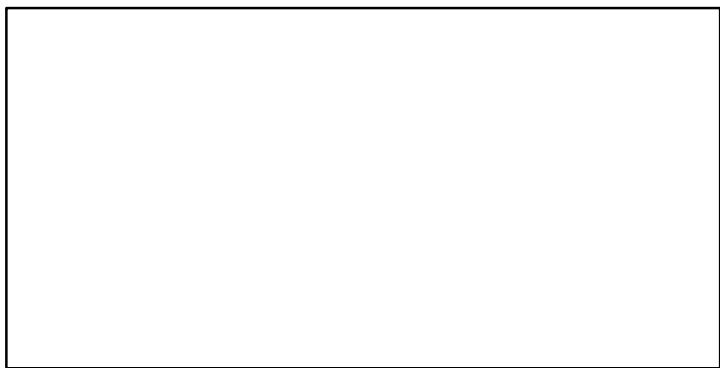
TB*



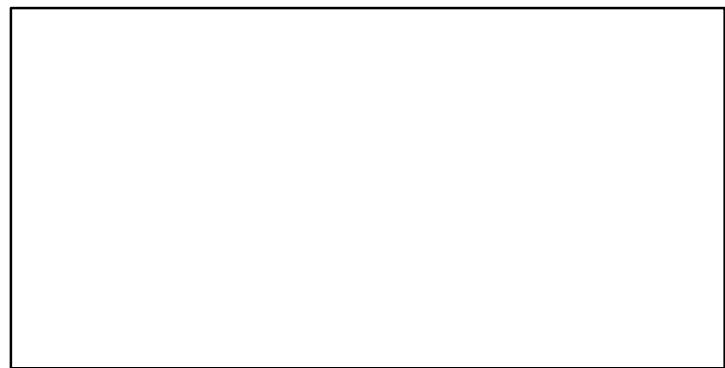
SSB*



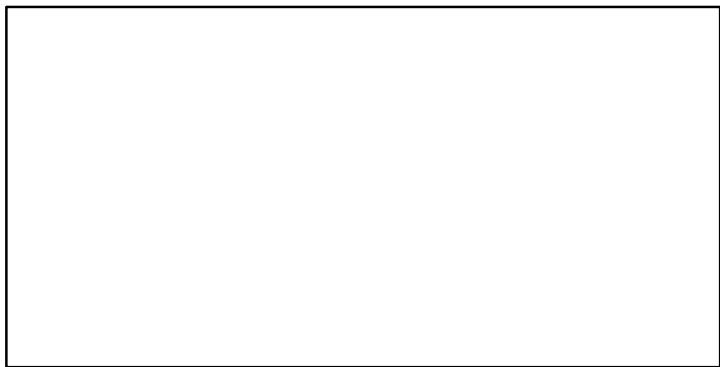
TN *



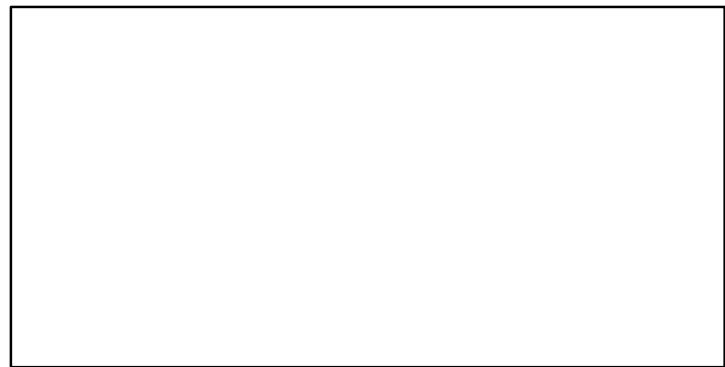
F*



ER*



Recruits*

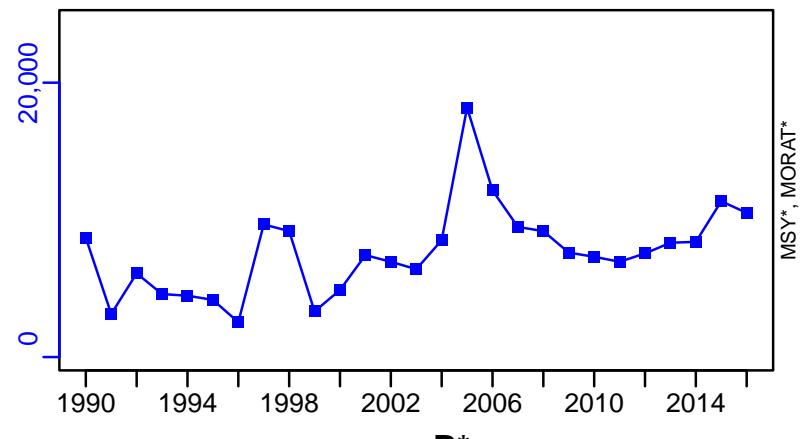


- | | | |
|----------------------|------------------|-----------|
| ■ Listed time series | - - - Target BRP | — Rec-Est |
| - - - MSY-based BRP | - - - Lim BRP | * No Data |

Catfish North West Africa Senegal_The Gambia [CATNWASEN_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 |

Devil anglerfish South Africa South coast [DVANGSASC]

Metadata	
Scientific Name	Lophius vomerinus
Current Assess ID	DEFF-DVANGSASC-1991-2019-GLAZER
Area	South Africa South coast
Management Authority	Department of Environment, Forestry and Fisheries
Assessor	Department of Environment, Forestry and Fisheries
Asmts in RAM	2019

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	TBmgt-MT	2019	9658
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

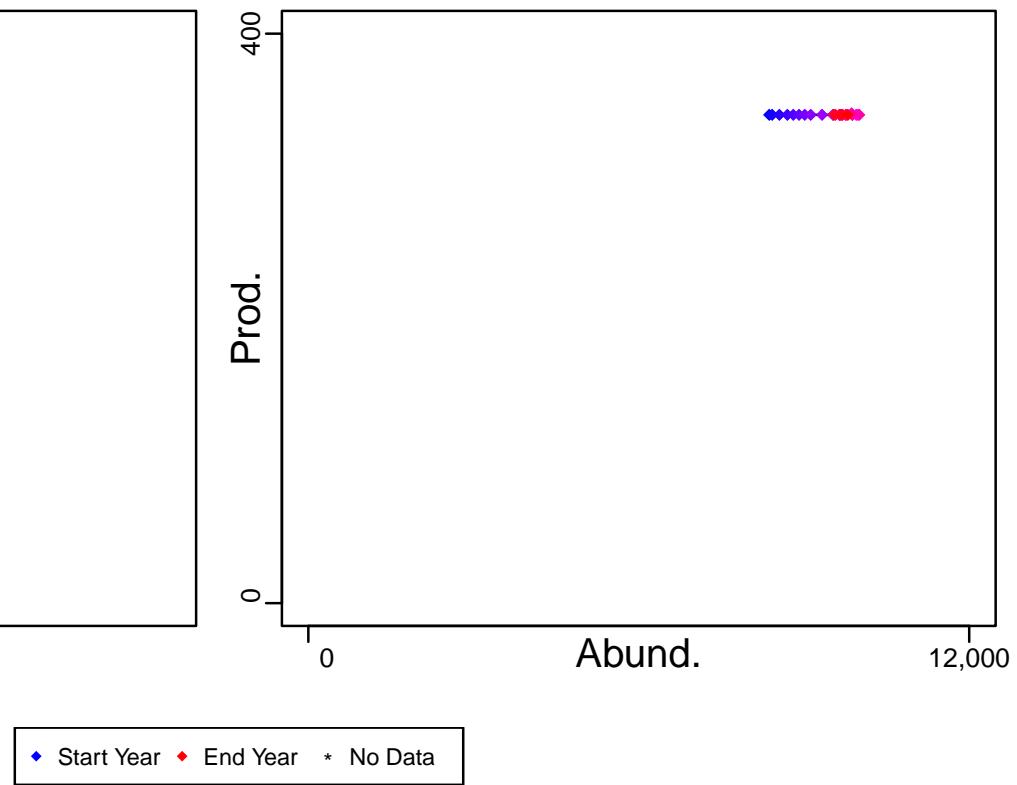
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2019	9717	-	-	
SSB	-	-	-	-	-	
TN	-	-	-	-	-	
R	-	-	-	-	-	
F	-	-	-	-	-	
ER	ER-ratio	2019	0.026	-	-	
TC	TC-MT	2019	255			
TL	TL-MT	2019	255			
TB/TBmsy	-	-	-			
SSB/SSBmsy	-	-	-			
F/Fmsy	-	-	-			
ER/ERmsy	-	-	-			
TB/TBmgt	TBdivTBmgt-dimensionless	2019	1.006			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Kobe MSY*

Kobe MGT*

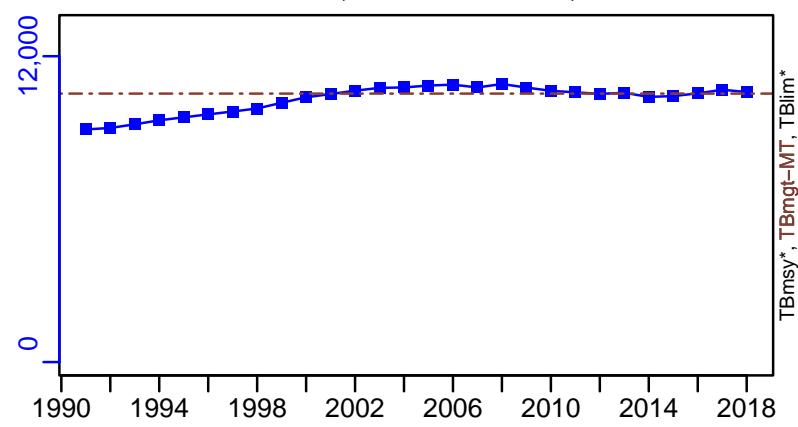
Spawner Recruit*

Production (1991–2019–GLAZER)

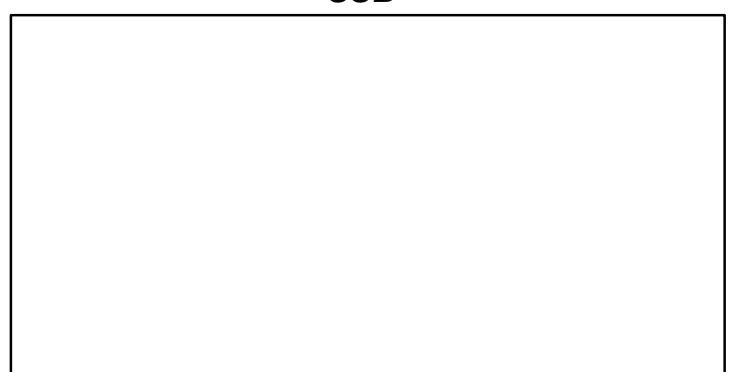


Devil anglerfish South Africa South coast [DVANGSASC]

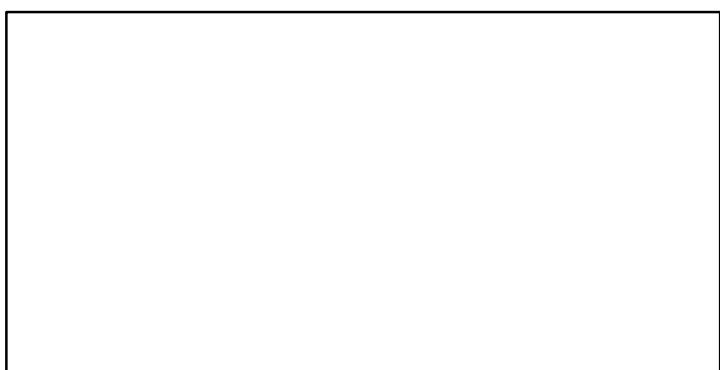
TB-MT (1991–2019–GLAZER)



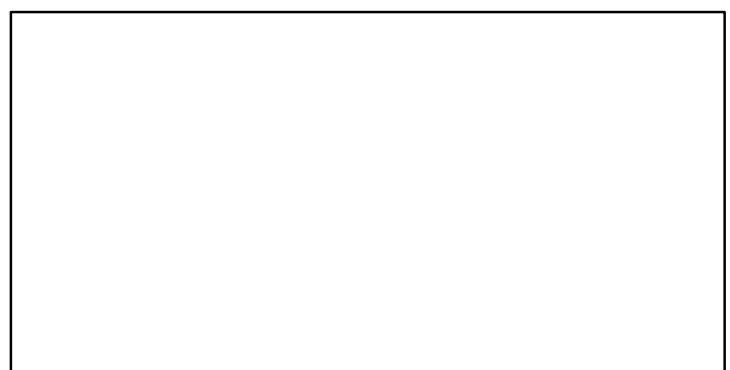
SSB*



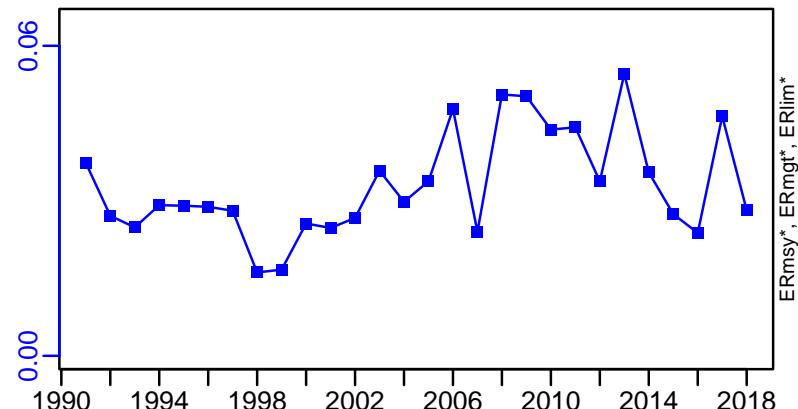
TN *



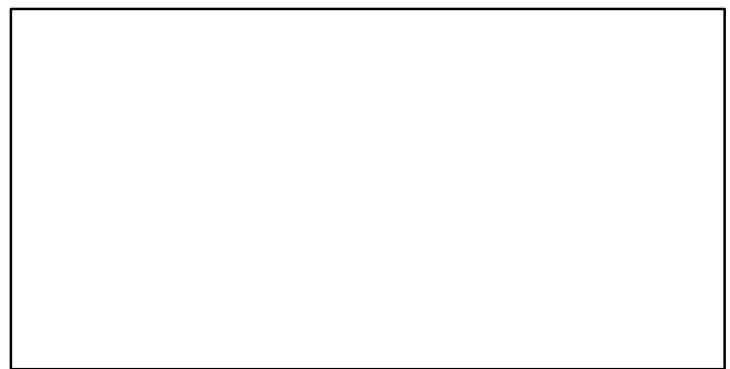
F*



ER-ratio (1991–2019–GLAZER)



Recruits*

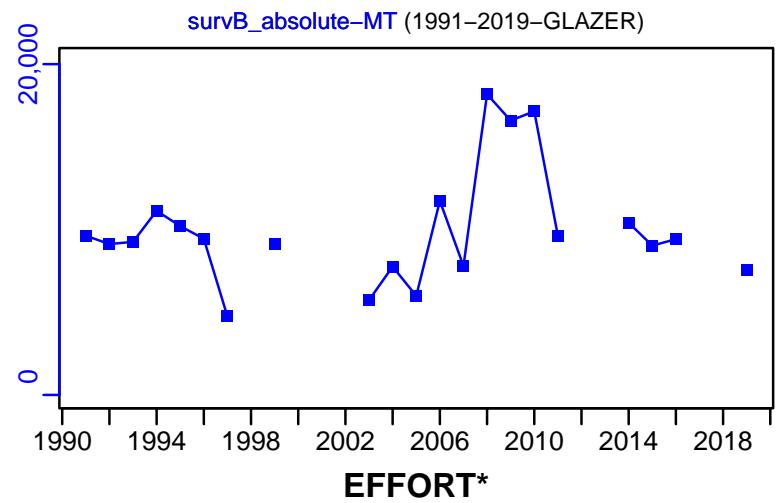
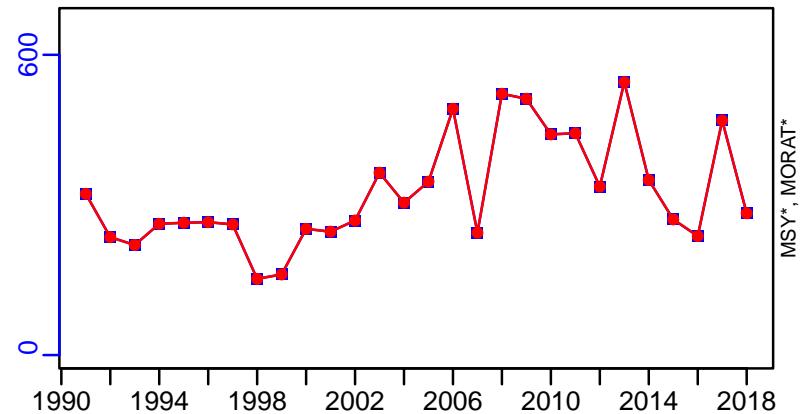


■ Listed time series	— Target BRP	— Rec-Est
- - MSY-based BRP	--- Lim BRP	* No Data

Devil anglerfish South Africa South coast [DVANGSASC]

TC-MT, TL-MT, RecC* (1991–2019–GLAZER)

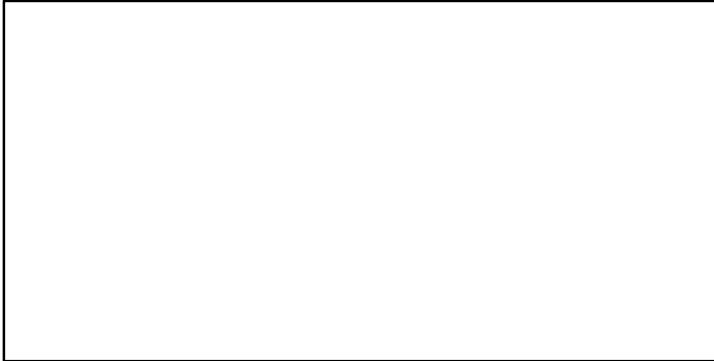
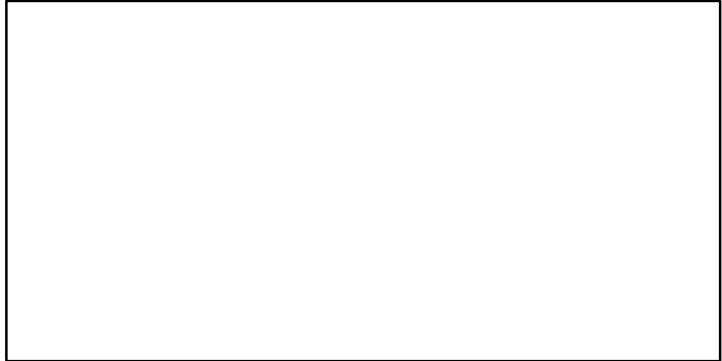
TAC*, Cpair*, Cadv*



EFFORT*

CPUE*

CdivMSY*



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

Devil anglerfish South Africa West coast [DVANGSAWC]

Metadata	
Scientific Name	Lophius vomerinus
Current Assess ID	DEFF-DVANGSAWC-1991-2019-GLAZER
Area	South Africa West coast
Management Authority	Department of Environment, Forestry and Fisheries
Assessor	Department of Environment, Forestry and Fisheries
Asmts in RAM	2019

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	TBmgt-MT	2019	31,583
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

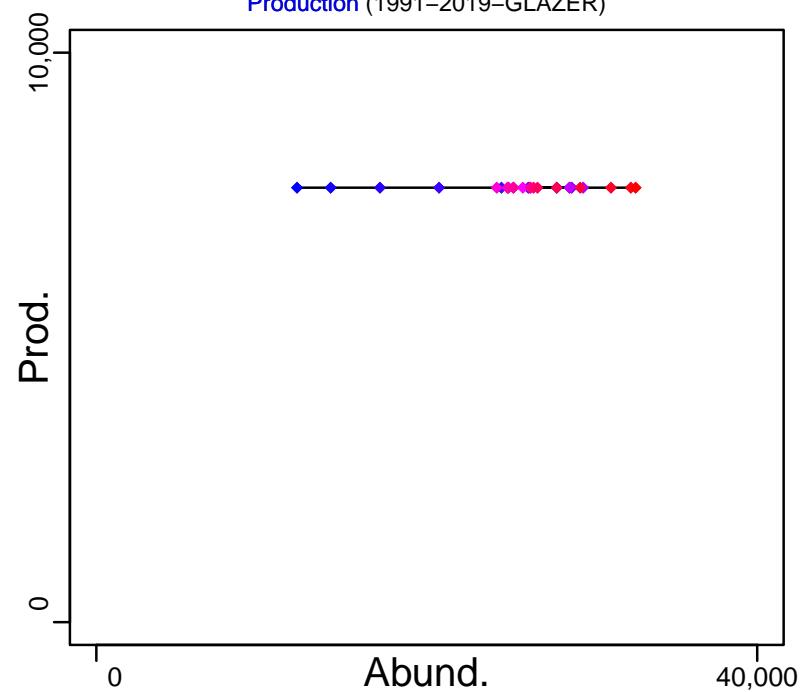
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2019	32,484	-	-	
SSB	-	-	-	-	-	
TN	-	-	-	-	-	
R	-	-	-	-	-	
F	-	-	-	-	-	
ER	ER-ratio	2019	0.223	-	-	
TC	TC-MT	2019	7253			
TL	TL-MT	2019	7253			
TB/TBmsy	-	-	-			
SSB/SSBmsy	-	-	-			
F/Fmsy	-	-	-			
ER/ERmsy	-	-	-			
TB/TBmgt	TBdivTBmgt-dimensionless	2019	1.029			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Kobe MSY*

Kobe MGT*

Spawner Recruit*

Production (1991–2019–GLAZER)

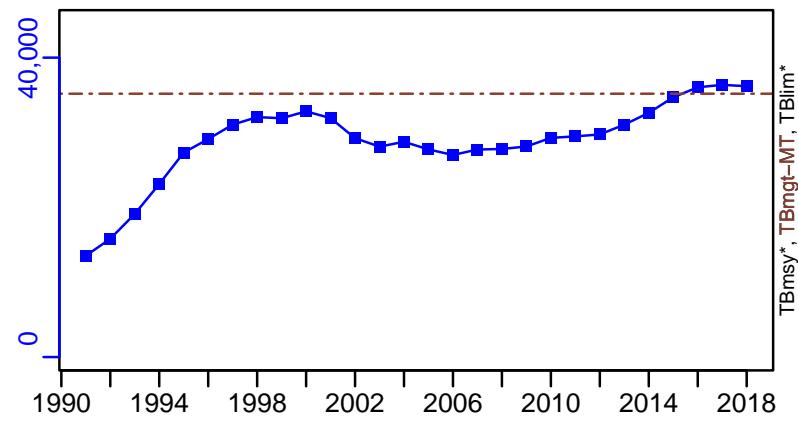


◆ Start Year ◆ End Year * No Data

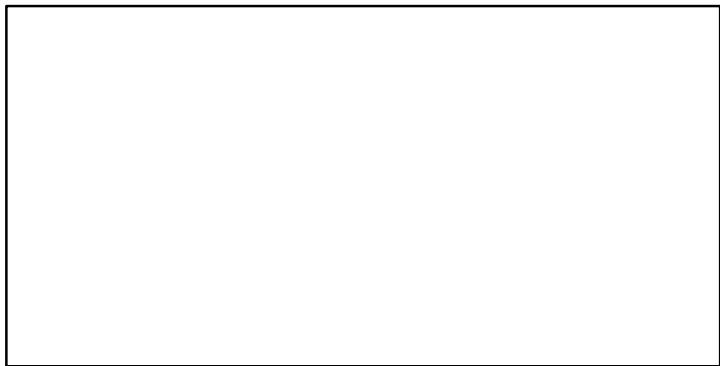
Devil anglerfish South Africa West coast [DVANGSAWC]

TB-MT (1991–2019–GLAZER)

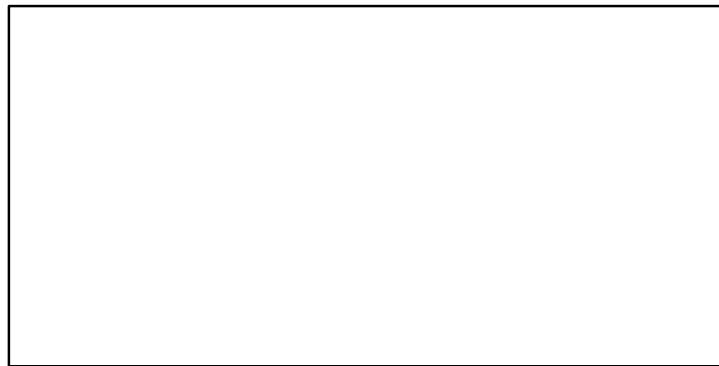
SSB*



TN *

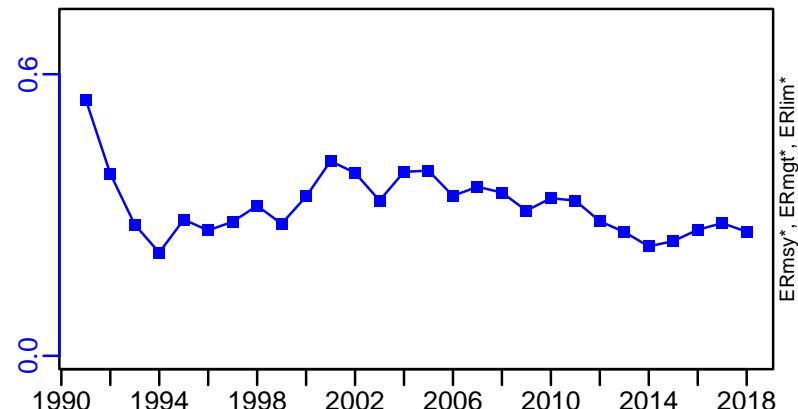


F*



ER-ratio (1991–2019–GLAZER)

Recruits*

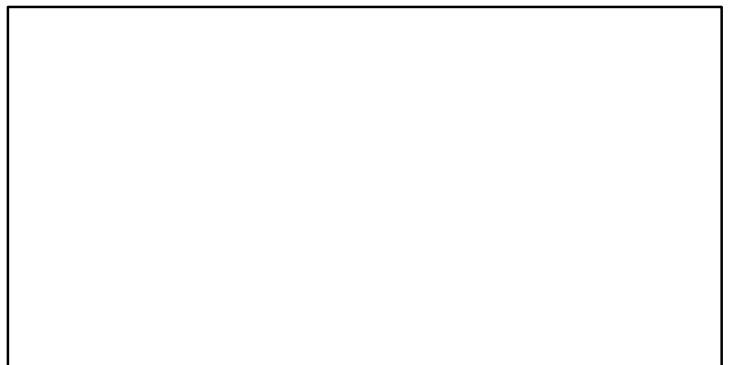
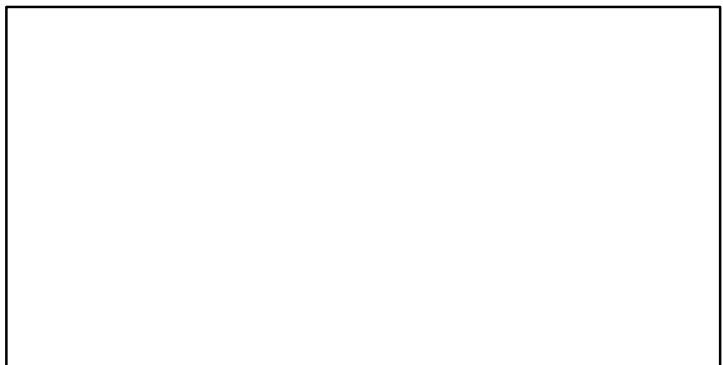
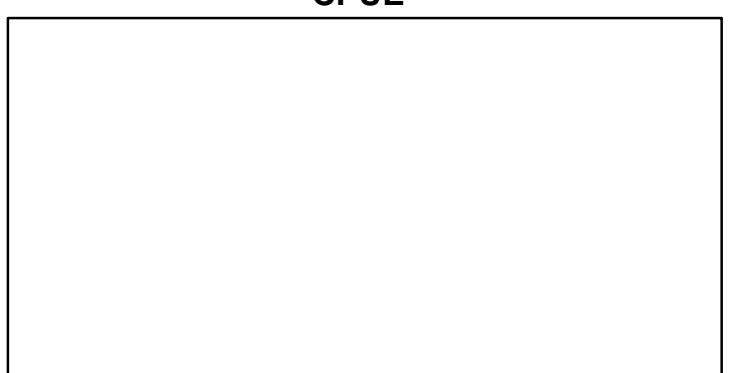
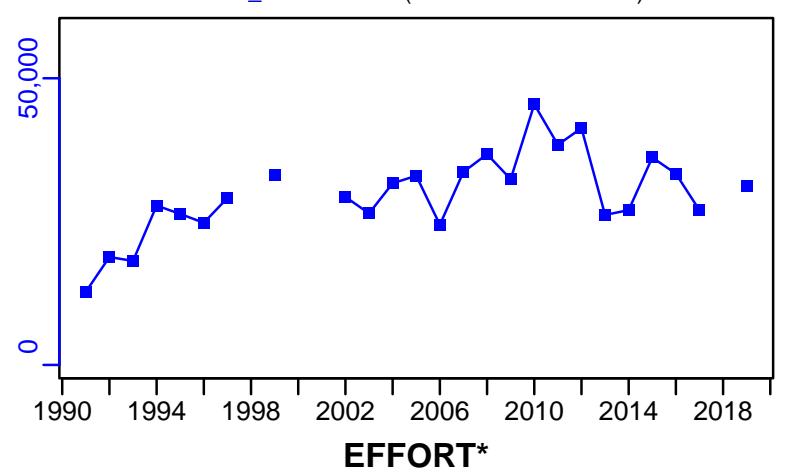
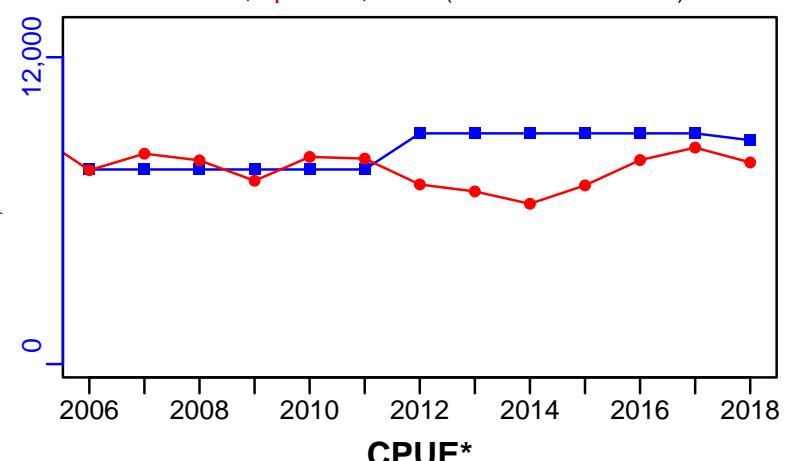
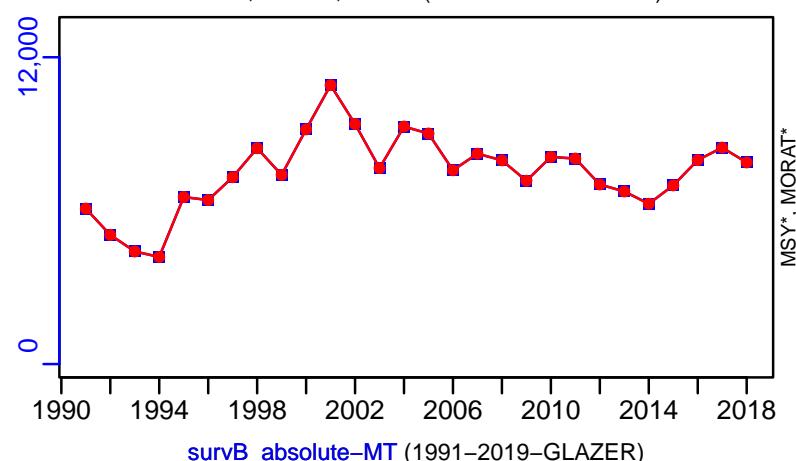


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	— Lim BRP	* No Data

Devil anglerfish South Africa West coast [DVANGSAWC]

TC-MT, TL-MT, RecC* (1991–2019–GLAZER)

TAC-MT, Cpair-MT, Cadv* (1991–2019–GLAZER)



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

Common gemfish New Zealand [GEMFISHNZ]

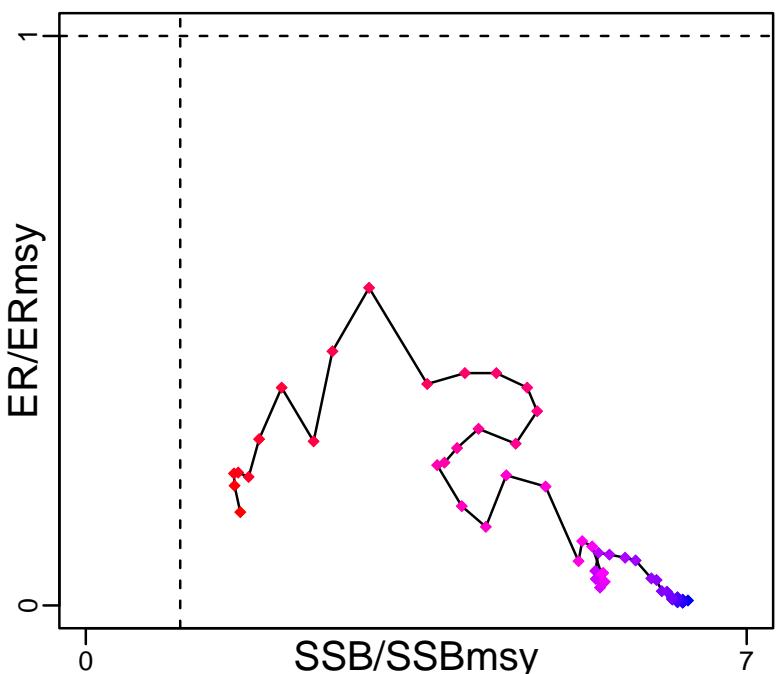
Metadata	
Scientific Name	Rexea solandri
Current Assess ID	NZMFishMIDDEPTHSWG-GEMFISHNZ-1952-2007-JENSEN
Area	New Zealand
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Middle Depths Working Group
Asmts in RAM	2007

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2007	4565
SSBmsy	SSBmsy-MT	2007	1803
Fmsy	Fmsy-1/yr	2007	0.29
ERmsy	ERmsy-ratio	2007	0.314
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2007	11,485
MSY	MSY-MT	2007	1432
M	M-1/yr	2007	0.24
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

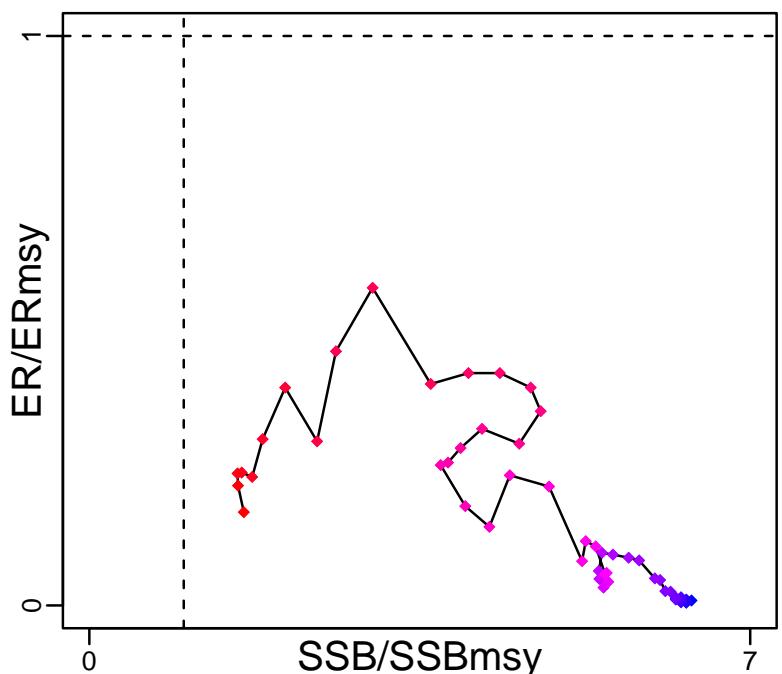
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2007	8020	-	1	
SSB	SSB-MT	2007	2950	Both	-	
TN	-	-	-	-	-	
R	R-E00	2007	1,930,000	-	1	
F	F-1/yr	2007	0.124	-	-	
ER	ER-ratio	2007	0.051	-	-	
TC	TC-MT	2007	412			
TL	-	-	-			
TB/TBmsy	TB-MT/TBmsy-calc-MT	2007	1.757			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2007	1.636			
F/Fmsy	F-1/yr/Fmsy-1/yr	2007	0.428			
ER/ERmsy	ER-ratio/ERmsy-ratio	2007	0.164			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Common gemfish New Zealand [GEMFISHNZ]

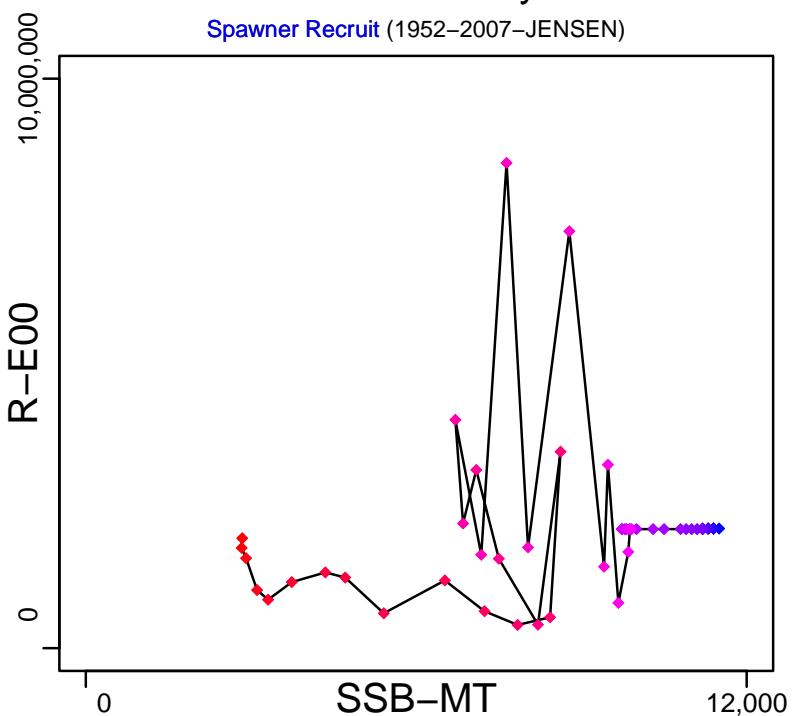
Kobe MSYpref (1952–2007–JENSEN)



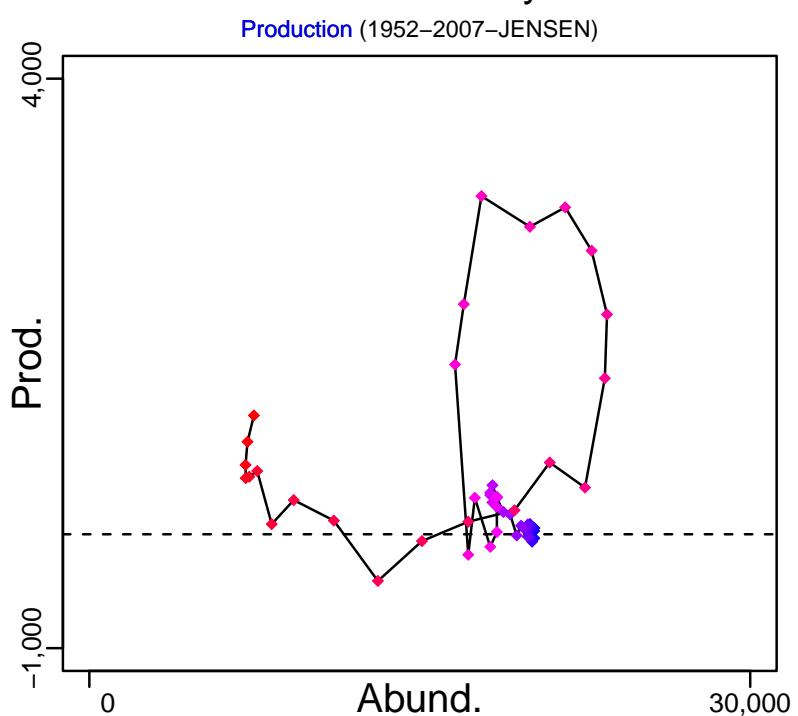
Kobe MGTpref (1952–2007–JENSEN)



Spawner Recruit (1952–2007–JENSEN)



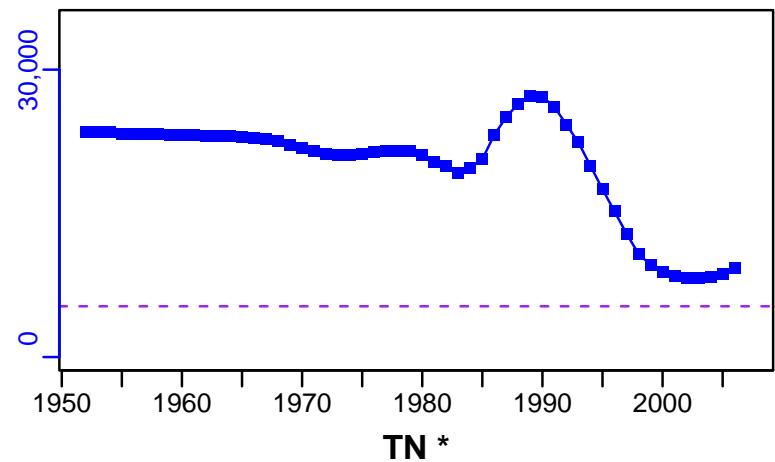
Production (1952–2007–JENSEN)



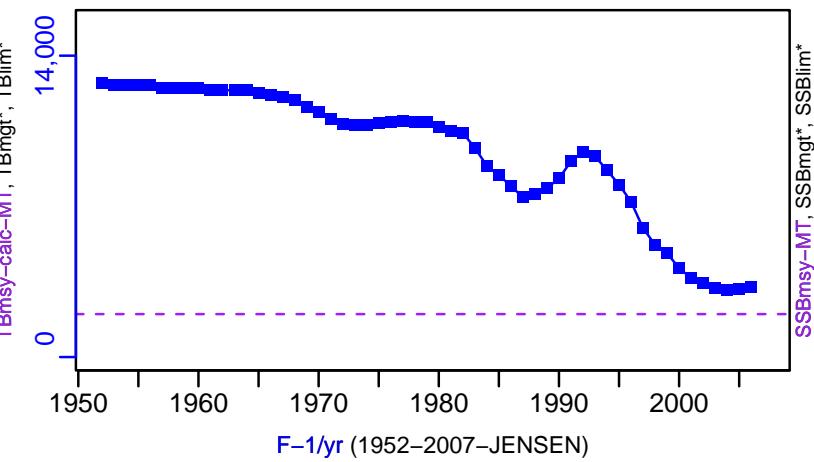
◆ Start Year ◆ End Year * No Data

Common gemfish New Zealand [GEMFISHNZ]

TB-MT (1952–2007–JENSEN)

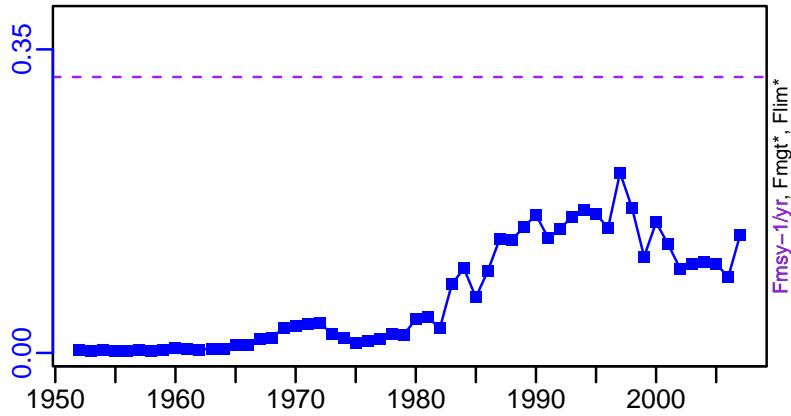
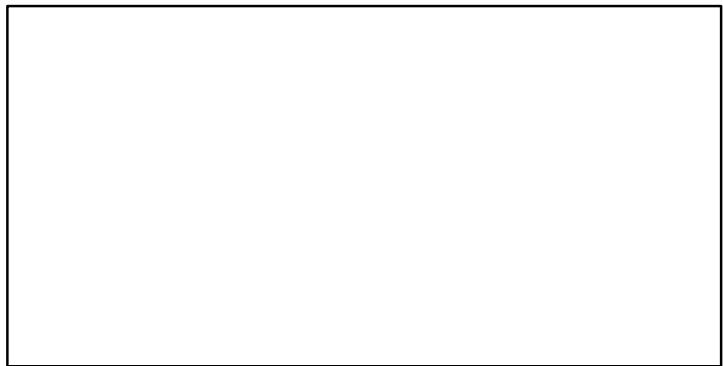


SSB-MT (1952–2007–JENSEN)

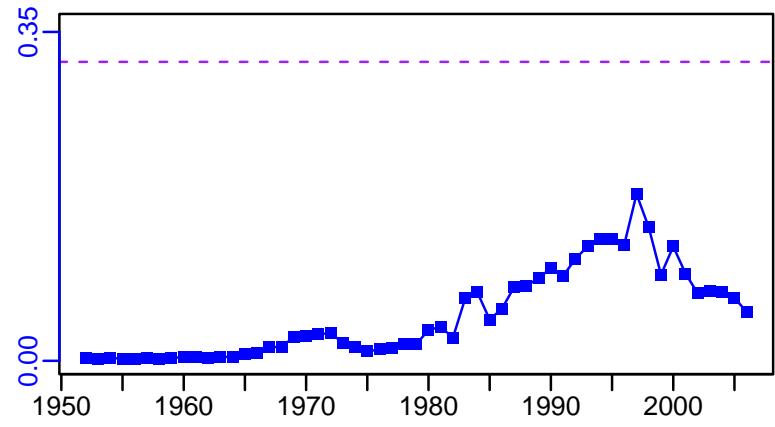


TN *

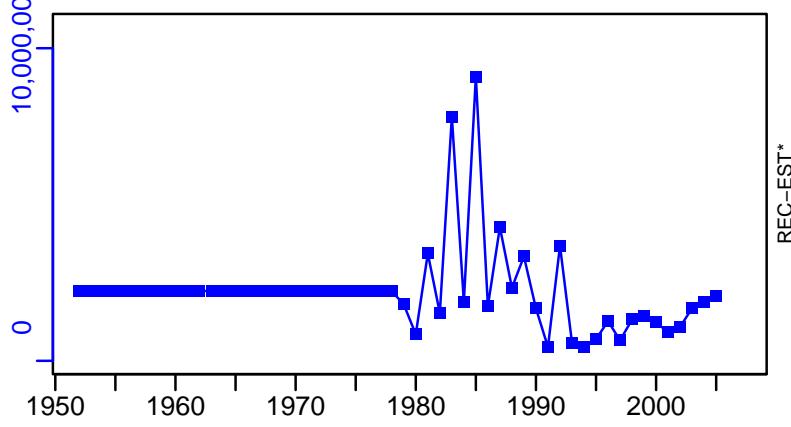
F-1/yr (1952–2007–JENSEN)



ER-ratio (1952–2007–JENSEN)



R-E00 (1952–2007–JENSEN)

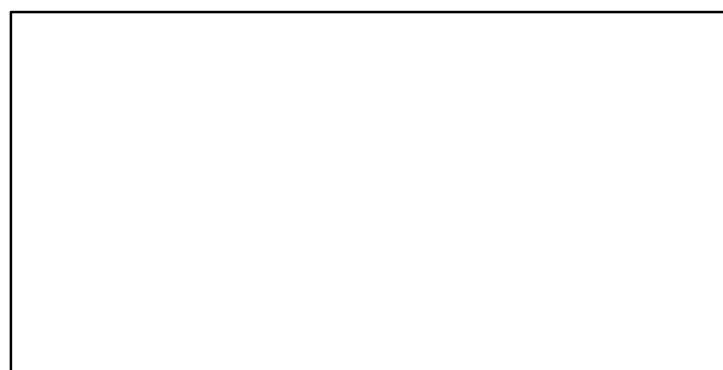
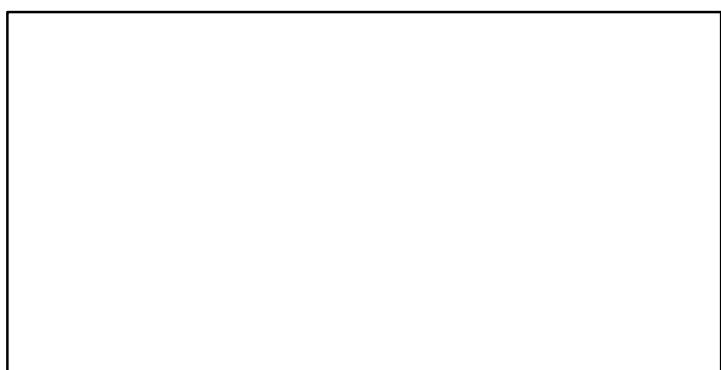
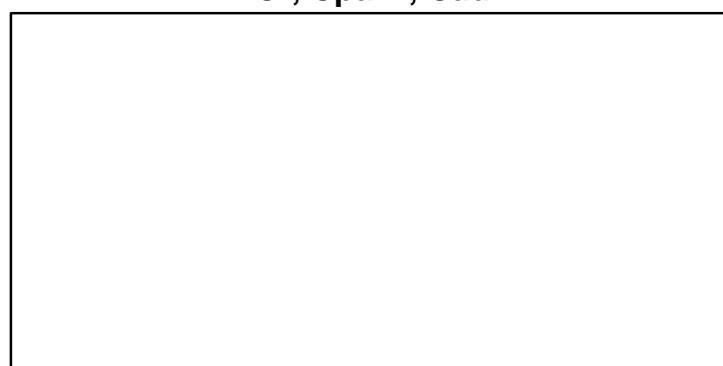
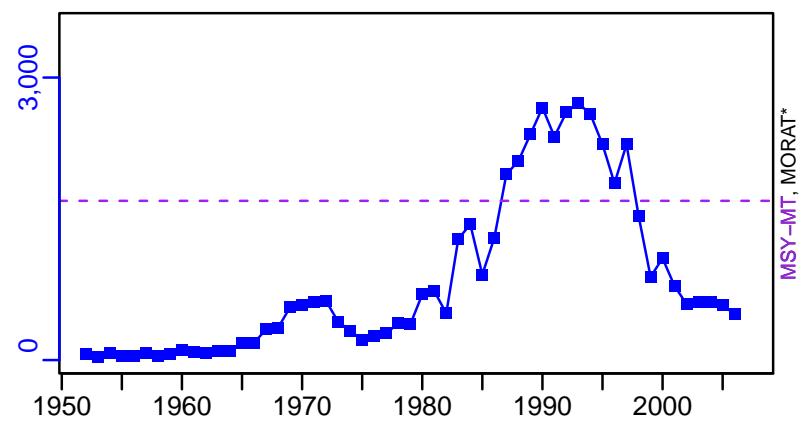


■ Listed time series	— Target BRP	— Rec-Est
- - MSY-based BRP	·· Lim BRP	* No Data

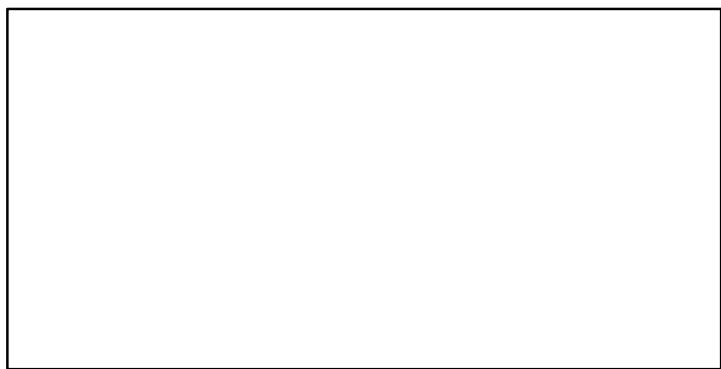
Common gemfish New Zealand [GEMFISHNZ]

TC-MT, TL*, RecC* (1952–2007–JENSEN)

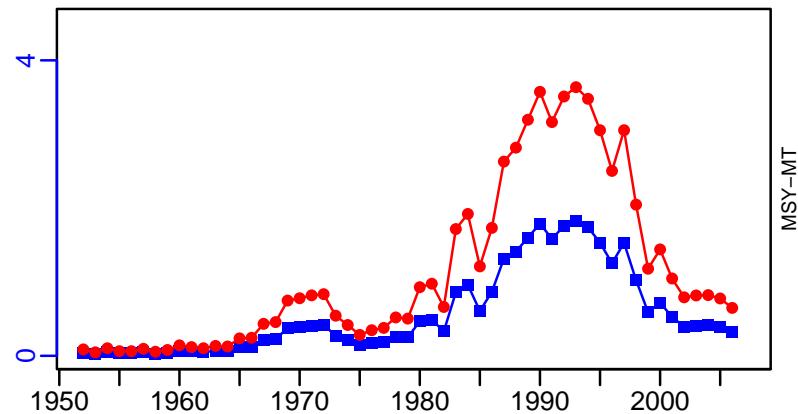
TAC*, Cpair*, Cadv*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1952–2007–JENSEN)



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

Common gemfish Southeast Australia [GEMFISHSE]

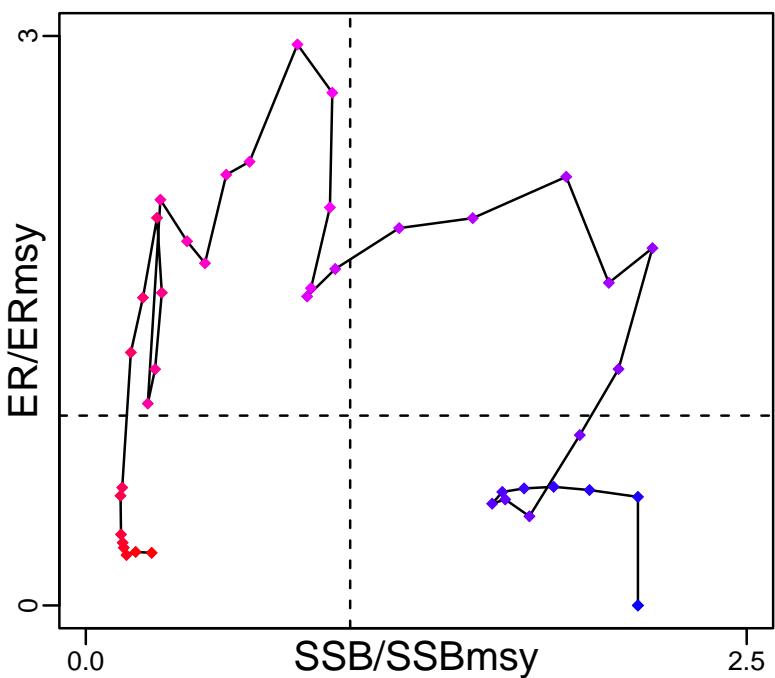
Metadata	
Scientific Name	Rexea solandri
Current Assess ID	CSIRO-GEMFISHSE-1966-2007-FULTON
Area	Southeast Australia
Management Authority	Australian Fisheries Management Authority, Australia national management
Assessor	Commonwealth Scientific and Industrial Research Organization
Asmts in RAM	2007

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2007	5458
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	TBlim-MT	2007	2274
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

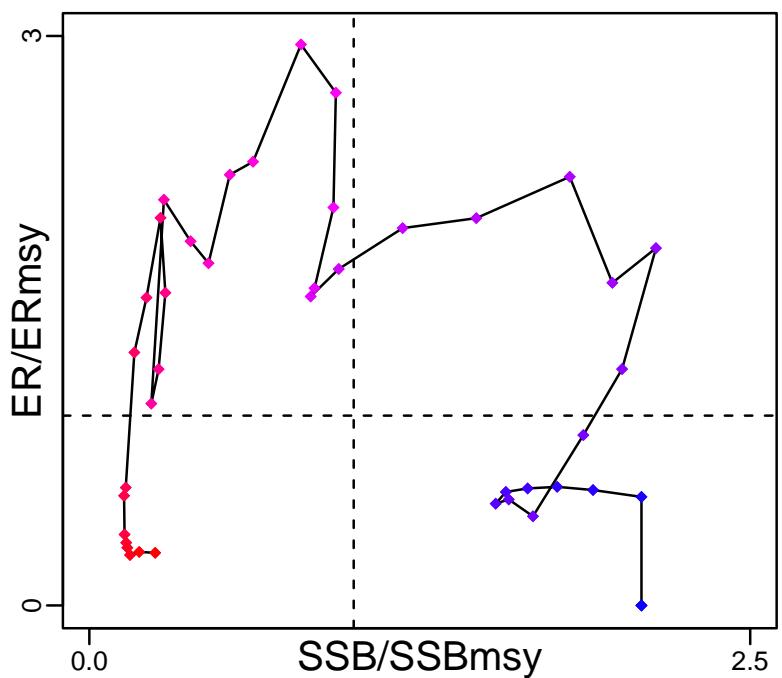
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2007	3770	-	0	
SSB	SSB-MT	2007	1360	Females	3	
TN	-	-	-	-	-	
R	R-E00	2007	4,150,000	-	-	
F	-	-	-	-	-	
ER	ER-calc-ratio	2007	0.027	-	-	
TC	-	-	-			
TL	TL-MT	2007	102			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2007	0.249			
F/Fmsy	-	-	-			
ER/ERmsy	-	-	-			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Common gemfish Southeast Australia [GEMFISHSE]

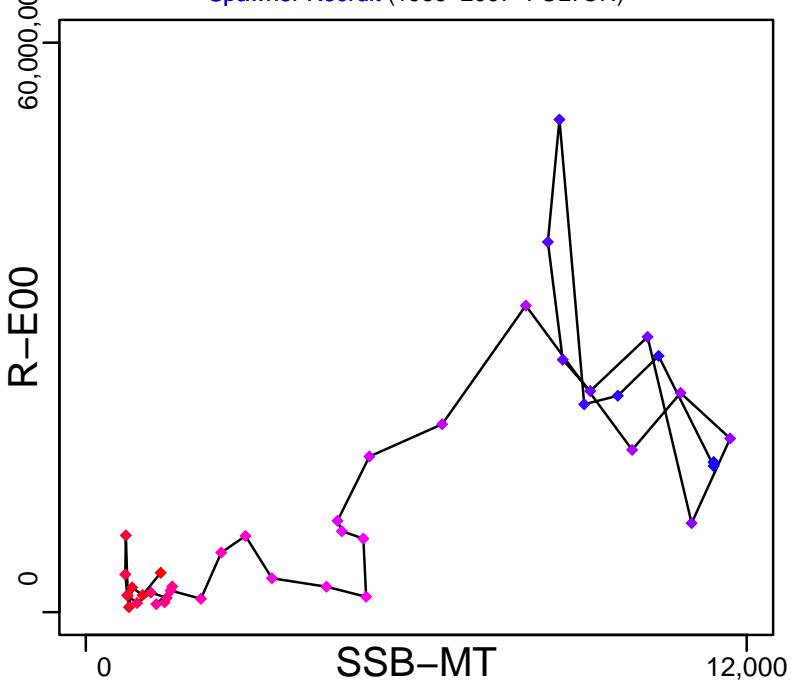
Kobe MSYpref (1966–2007–FULTON)



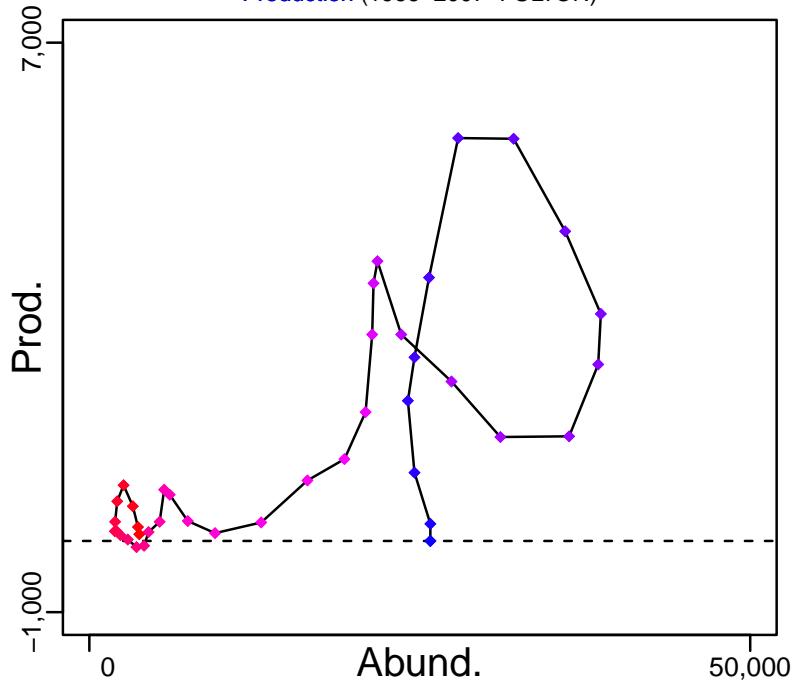
Kobe MGTpref (1966–2007–FULTON)



Spawner Recruit (1966–2007–FULTON)



Production (1966–2007–FULTON)

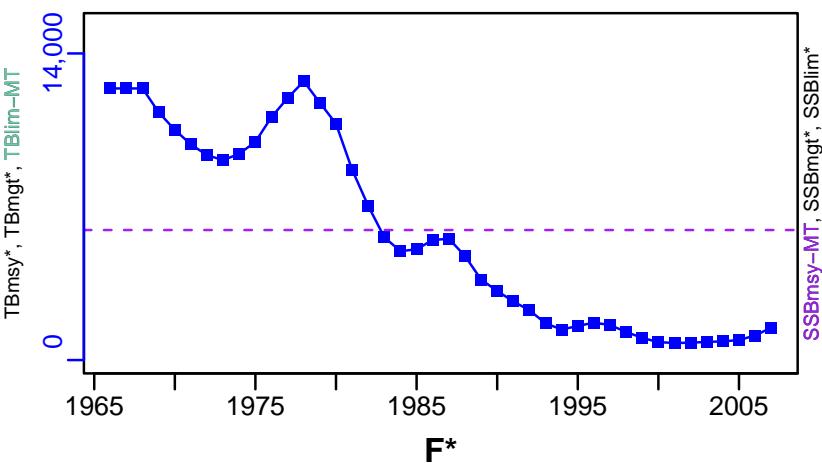
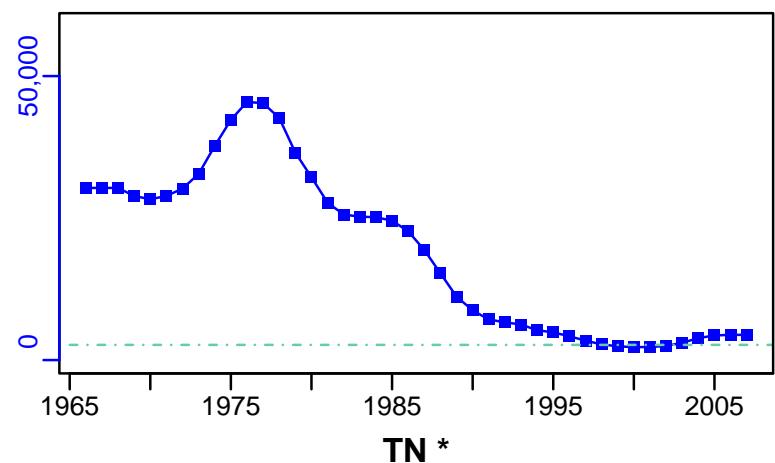


◆ Start Year ◆ End Year * No Data

Common gemfish Southeast Australia [GEMFISHSE]

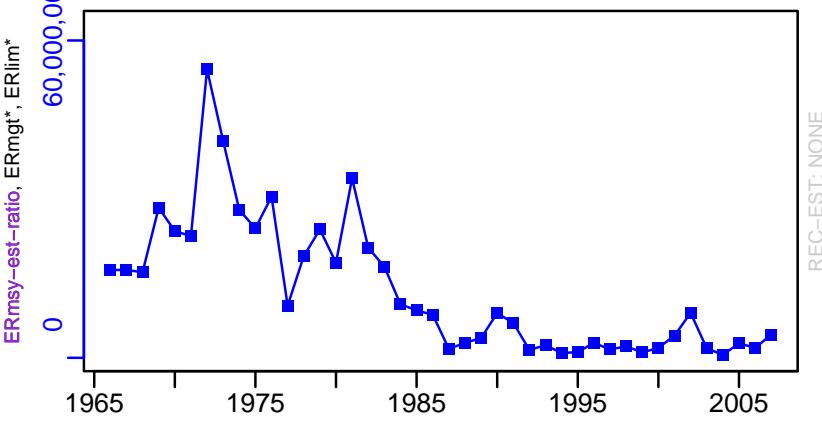
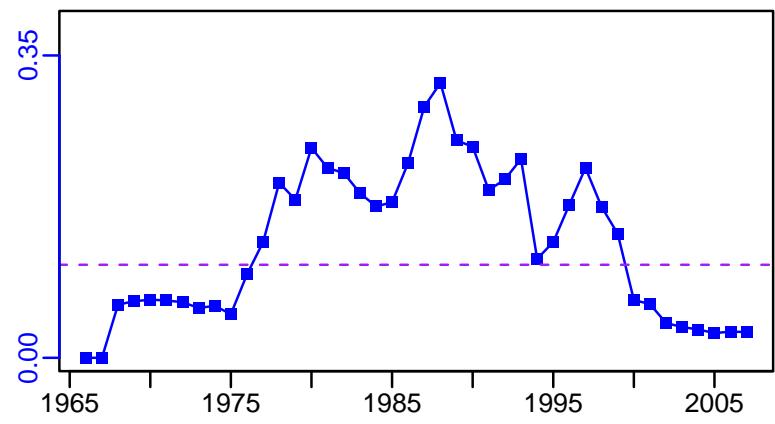
TB-MT (1966–2007–FULTON)

SSB-MT (1966–2007–FULTON)



ER-calc-ratio (1966–2007–FULTON)

R-E00 (1966–2007–FULTON)

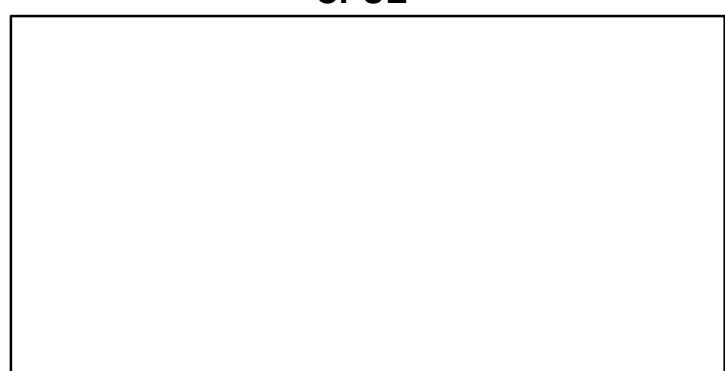
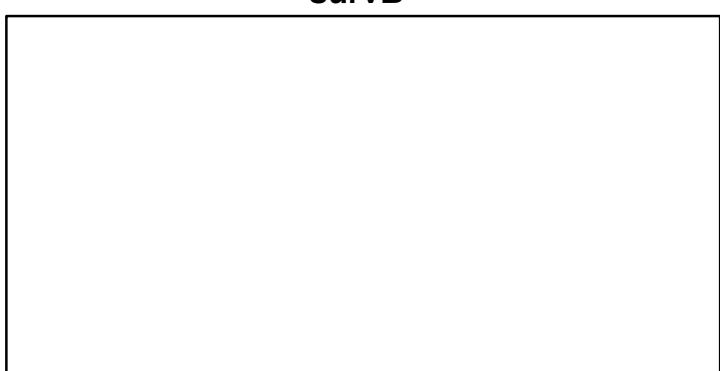
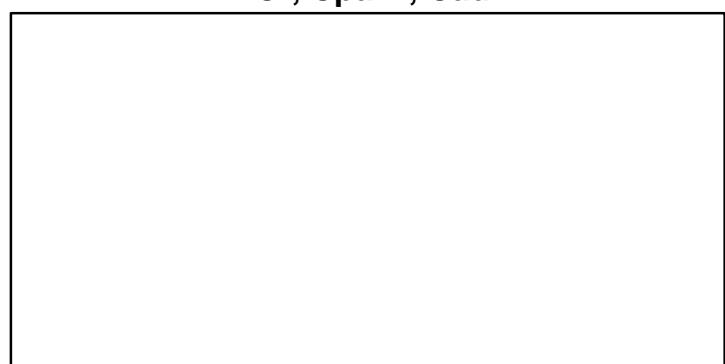
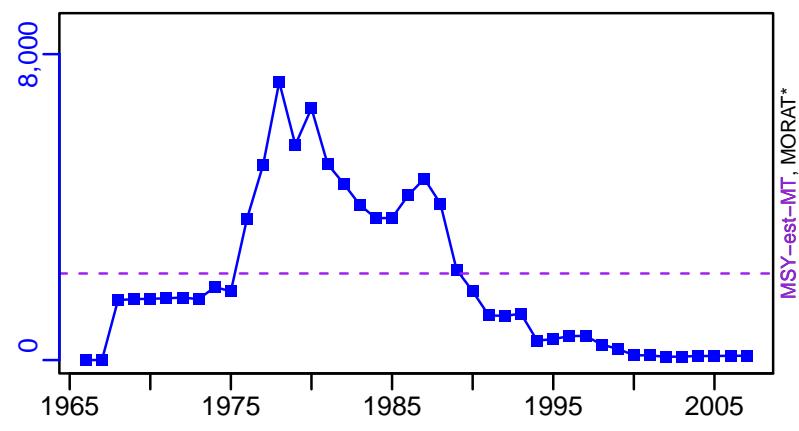


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - Lim BRP	* No Data

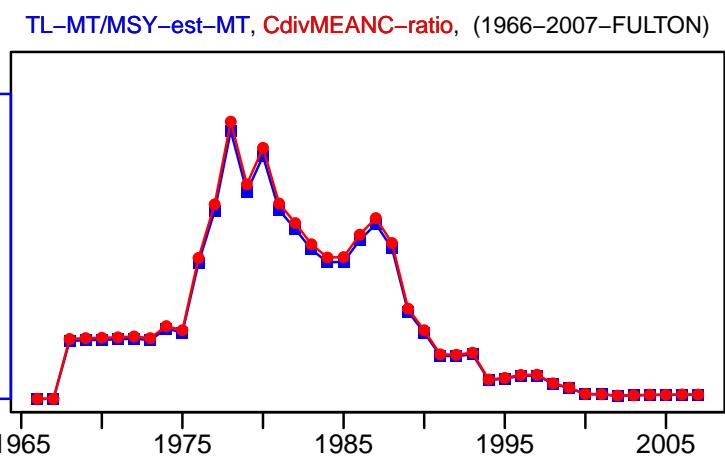
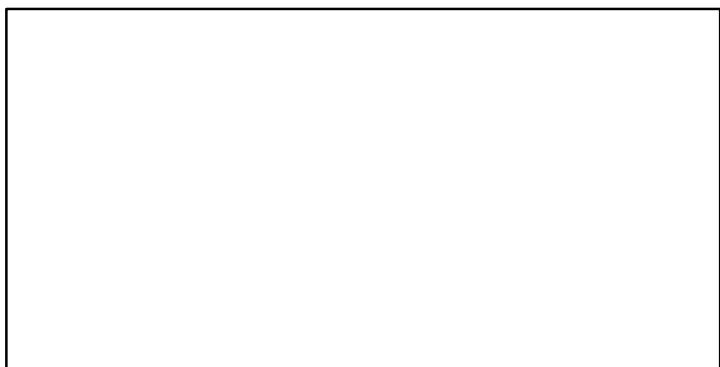
Common gemfish Southeast Australia [GEMFISHSE]

TL-MT, TC*, RecC* (1966–2007–FULTON)

TAC*, Cpair*, Cadv*



EFFORT*



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

Giant stargazer NZ Area STA7 [GSTRGZRSTA7]

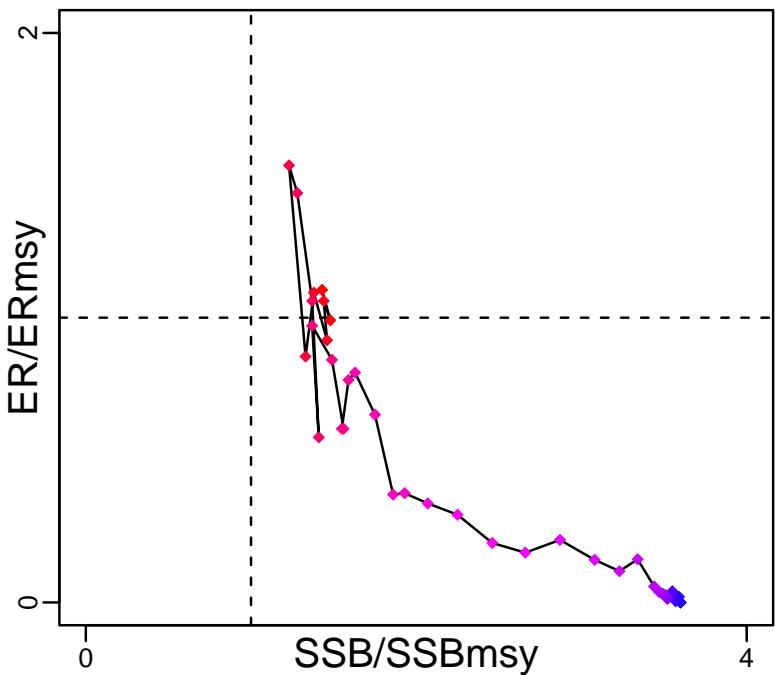
Metadata	
Scientific Name	Kathetostoma giganteum
Current Assess ID	NIWA-GSTRGZRSTA7-1964-2007-CORDUE
Area	NZ Area STA7
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2007

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2007	5906
SSBmsy	SSBmsy-MT	2007	2568
Fmsy	Fmsy-1/yr	2007	0.38
ERmsy	ERmsy-ratio	2007	0.103
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2007	9237
MSY	MSY-MT	2007	608
M	M-1/yr	2007	0.18
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

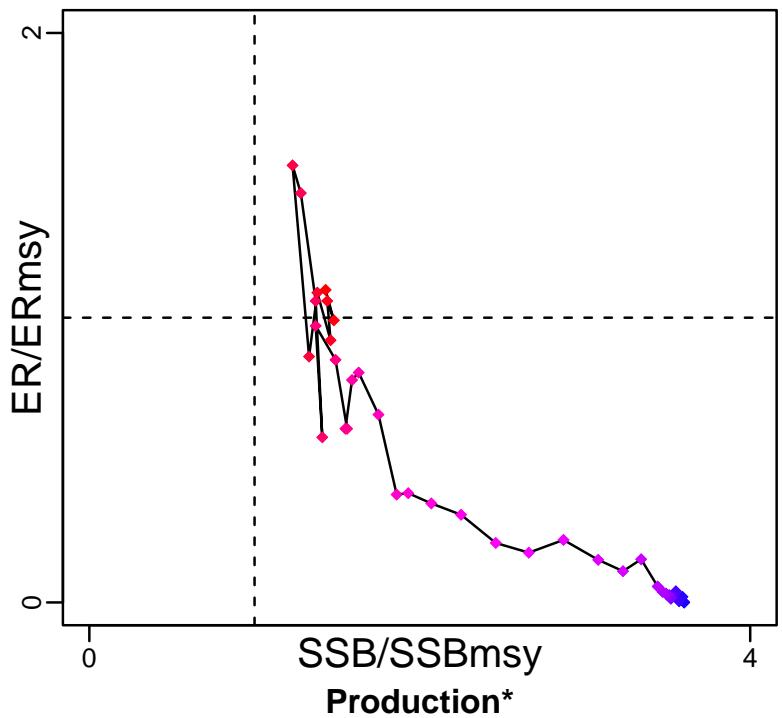
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	-	-	-	-	-	-
SSB	SSB-MT	2007	3680	Both	-	
TN	-	-	-	-	-	-
R	R-E00	2007	1,180,000	-	0	
F	F-1/yr	2007	0.486	-	-	
ER	ER-ratio	2007	0.113	-	-	
TC	TC-MT	2007	958			
TL	-	-	-			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2007	1.43			
F/Fmsy	FdivFmsy-dimensionless	2007	1.28			
ER/ERmsy	ER-ratio/ERmsy-ratio	2007	1.098			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Giant stargazer NZ Area STA7 [GSTRGZRSTA7]

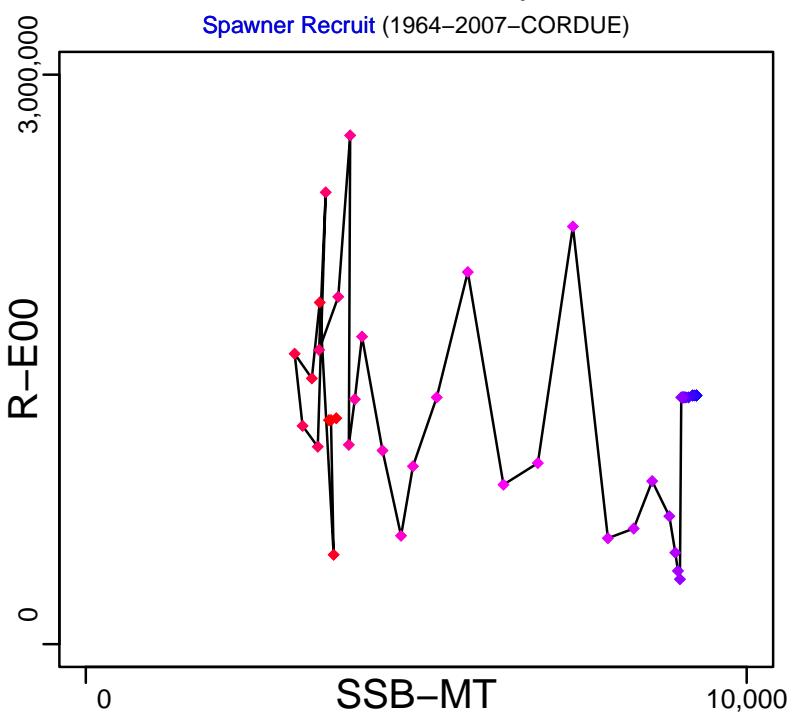
Kobe MSYpref (1964–2007–CORDUE)



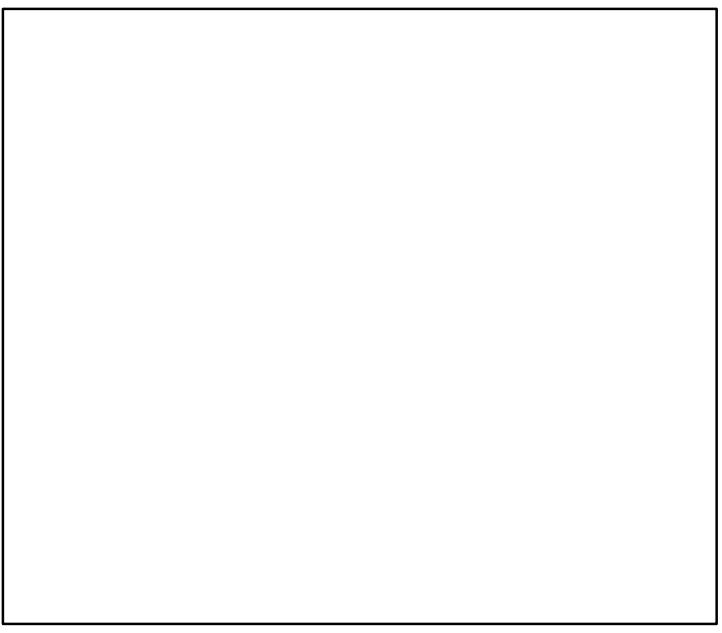
Kobe MGTpref (1964–2007–CORDUE)



Spawner Recruit (1964–2007–CORDUE)



Production*



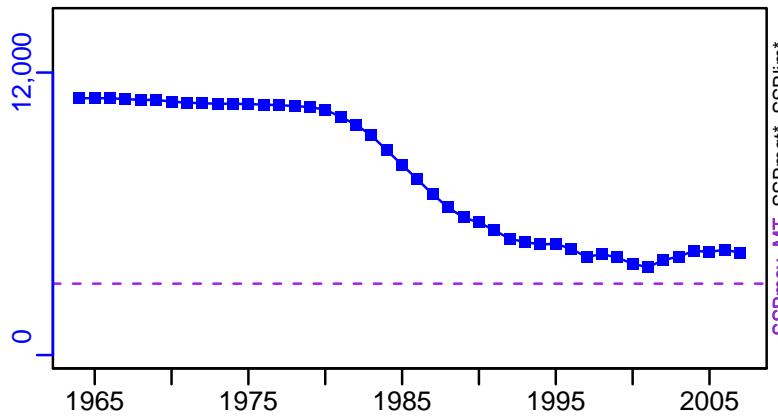
◆ Start Year ◆ End Year * No Data

Giant stargazer NZ Area STA7 [GSTRGZRSTA7]

TB*



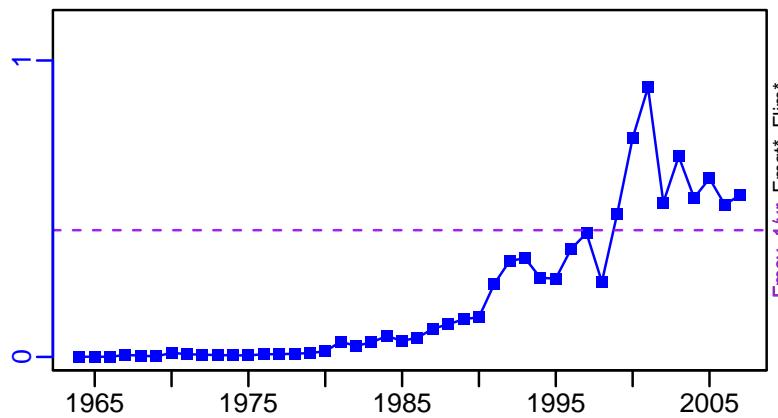
SSB-MT (1964–2007–CORDUE)



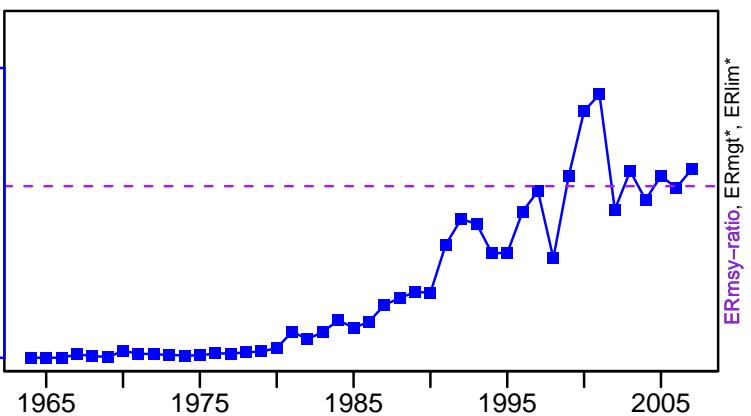
TN *



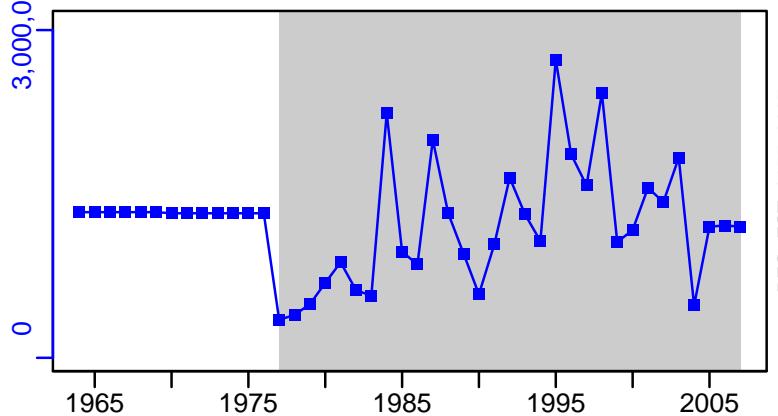
F-1/yr (1964–2007–CORDUE)



ER-ratio (1964–2007–CORDUE)



R-E00 (1964–2007–CORDUE)

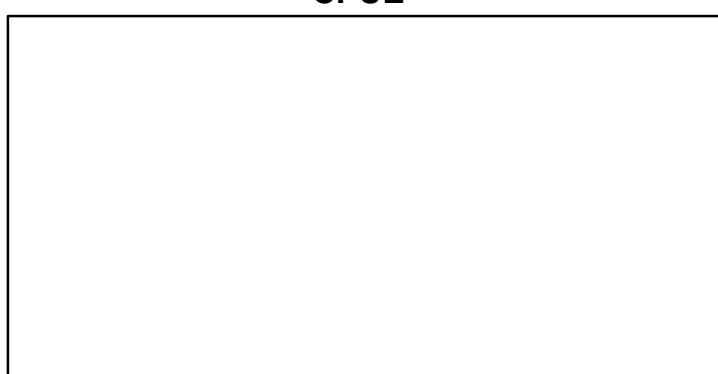
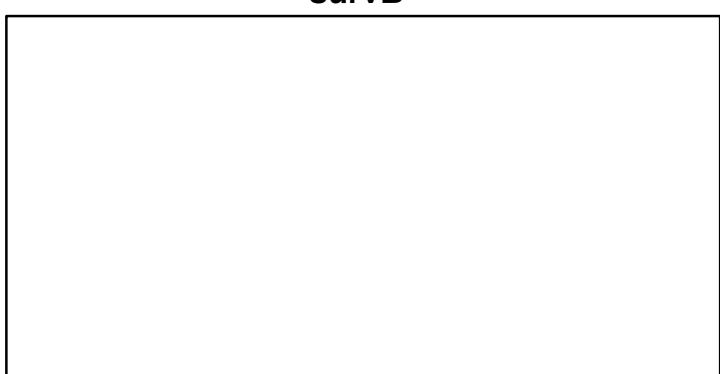
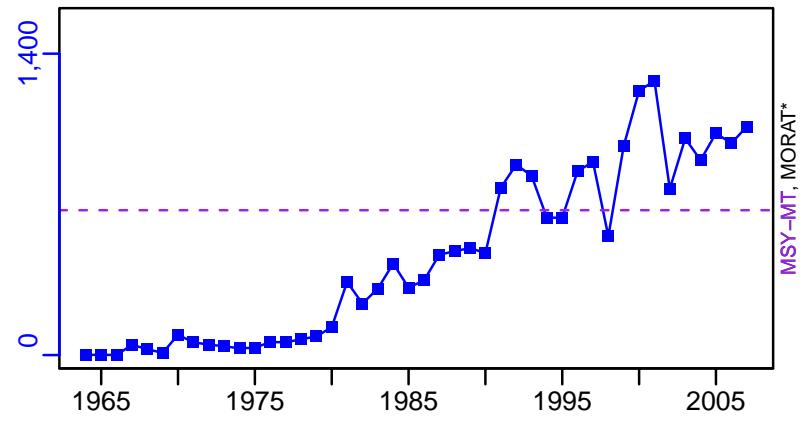


- | | | |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| — MSY-based BRP | ··· Lim BRP | * No Data |

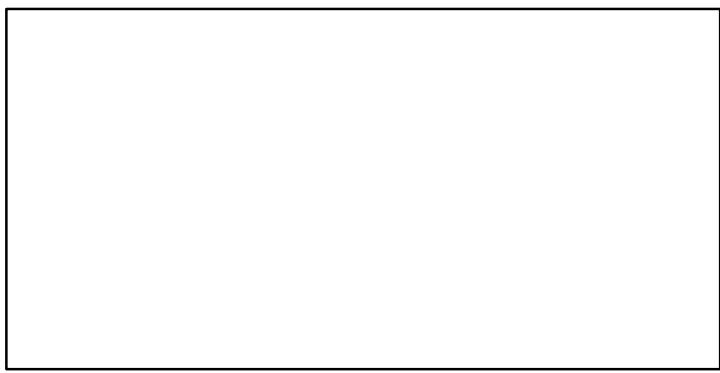
Giant stargazer NZ Area STA7 [GSTRGZRSTA7]

TC-MT, TL*, RecC* (1964–2007–CORDUE)

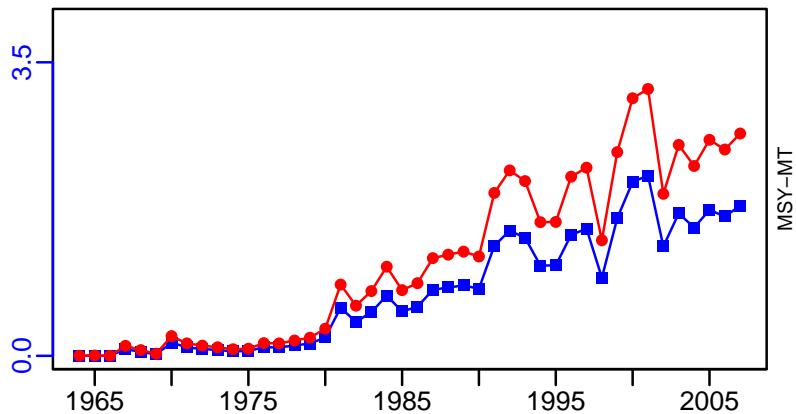
TAC*, Cpair*, Cadv*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1964–2007–CORDUE)



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

Gray triggerfish Gulf of Mexico [GTRIGGM]

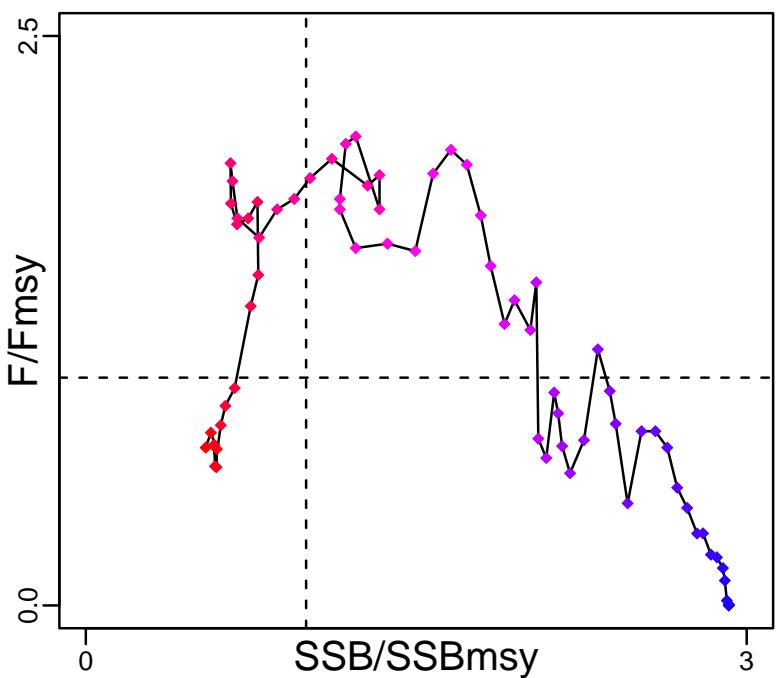
Metadata	
Scientific Name	Balistes capriscus
Current Assess ID	SEFSC-GTRIGGM-1945-2013-SISIMP2016
Area	Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2013, 2010

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-E00eggs	2013	1.11×10^{10}
Fmsy	Fmsy-1/yr	2013	0.153
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	Fmgt-1/yr	2013	0.115
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2013	447
M	M-1/yr	2010	0.27
TBlim	-	-	-
SSBlim	SSBlim-E00eggs	2013	7×10^9
Flim	Flim-1/yr	2013	0.385
ERlim	-	-	-

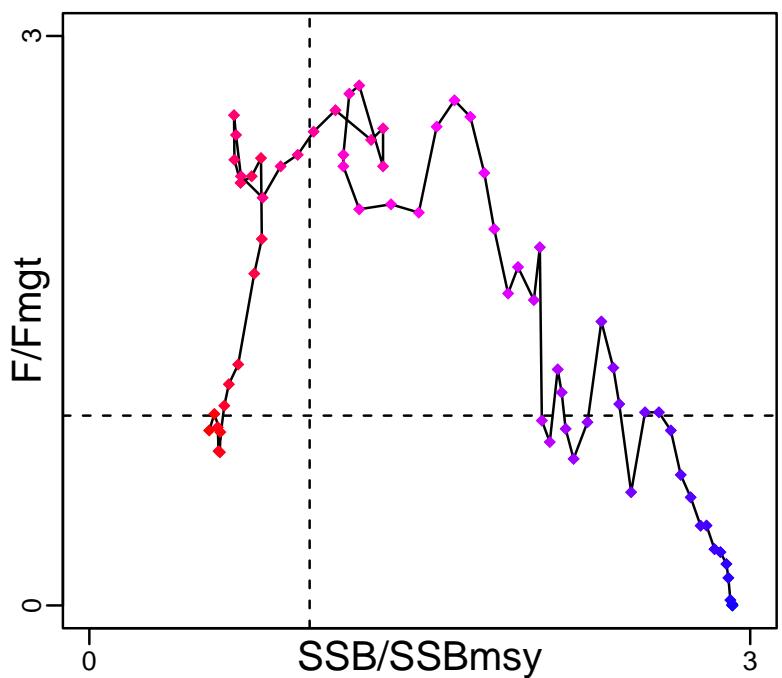
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2013	5780	-	1+	
SSB	SSB-E00eggs	2013	6.04×10^9	Females	-	
TN	TN-E00	2010	2,050,000	-	-	
R	R-E00	2013	6,710,000	-	0	
F	F-1/yr	2013	0.106	-	-	
ER	ER-calc-ratio	2013	0.131	-	-	
TC	TC-MT	2013	757			
TL	TL-E00	2010	103,000			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-E00eggs/SSBmsy-E00eggs	2013	0.544			
F/Fmsy	F-1/yr/Fmsy-1/yr	2013	0.693			
ER/ERmsy	-	-	-			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	F-1/yr/Fmgt-1/yr	2013	0.922			
ER/ERmgt	-	-	-			

Gray triggerfish Gulf of Mexico [GTRIGGM]

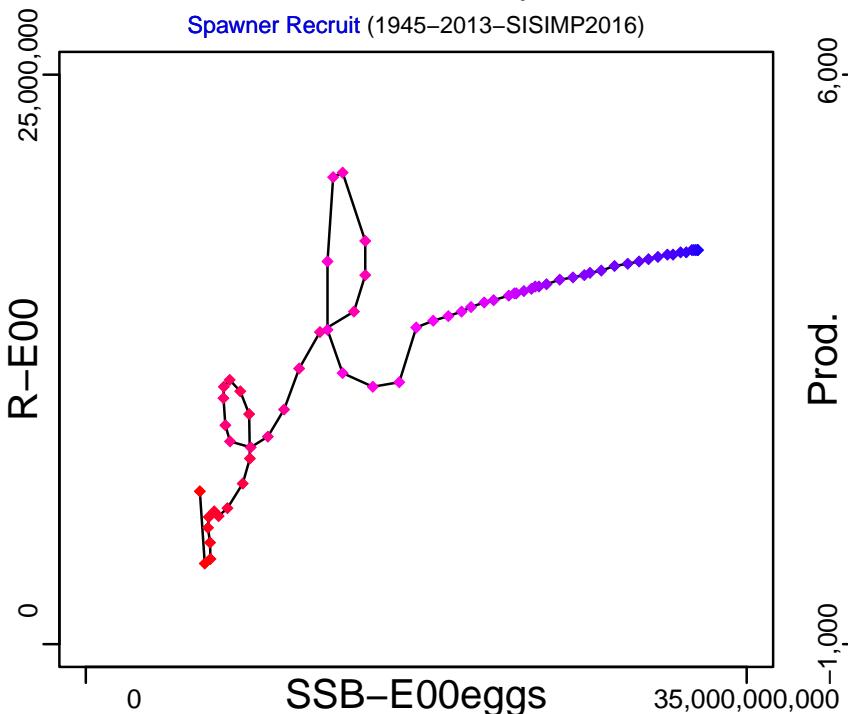
Kobe MSYpref (1945–2013–SISIMP2016)



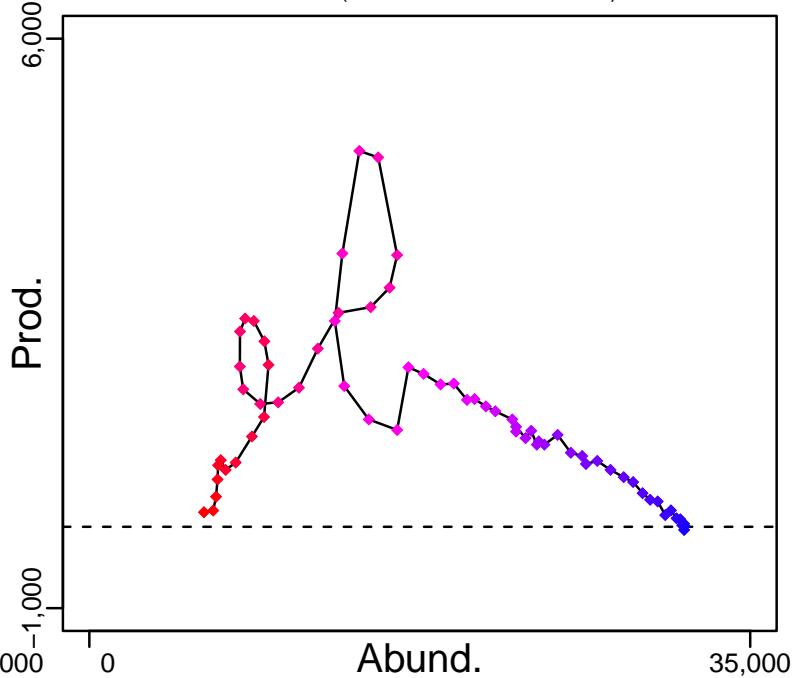
Kobe MGTpref (1945–2013–SISIMP2016)



Spawner Recruit (1945–2013–SISIMP2016)



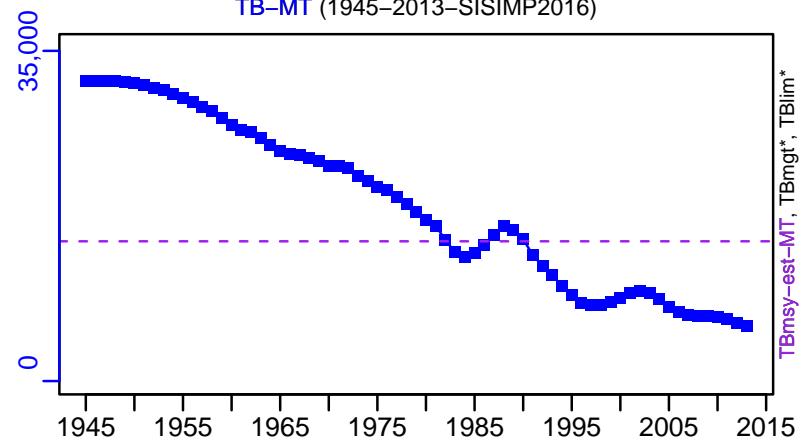
Production (1945–2013–SISIMP2016)



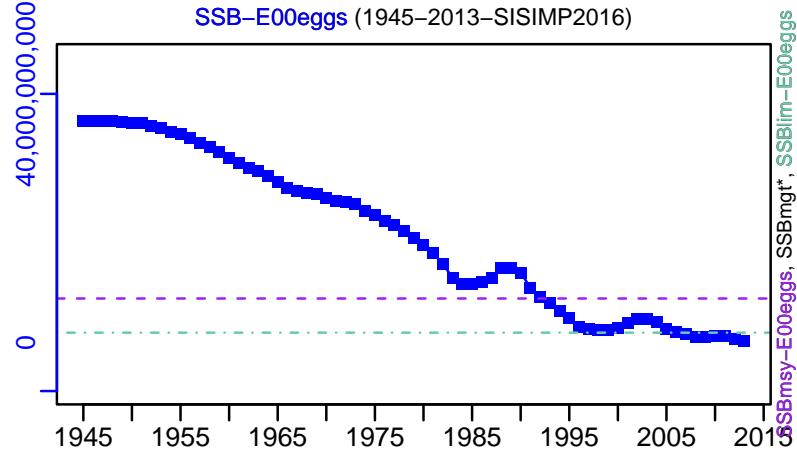
◆ Start Year	◆ End Year	*	No Data
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Gray triggerfish Gulf of Mexico [GTRIGGM]

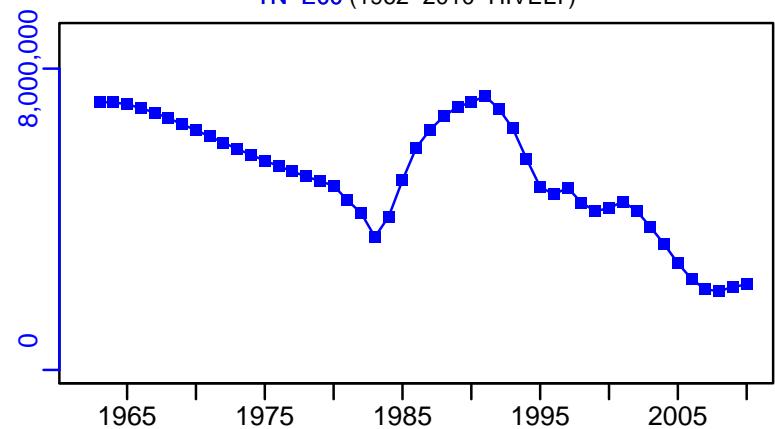
TB-MT (1945–2013–SISIMP2016)



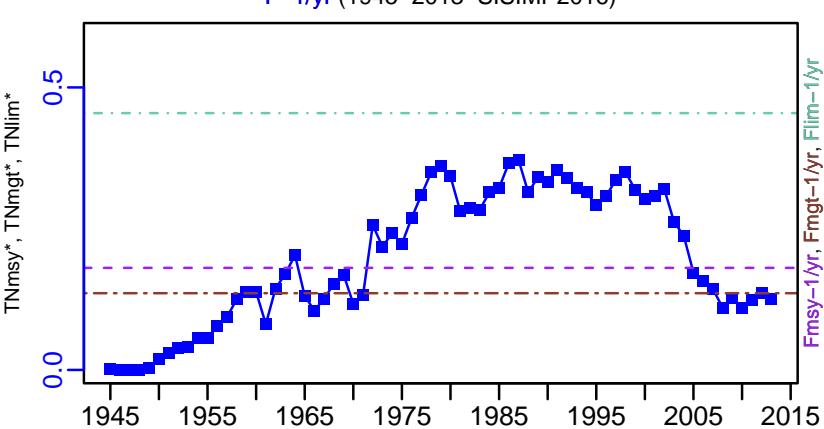
SSB-E00eggs (1945–2013–SISIMP2016)



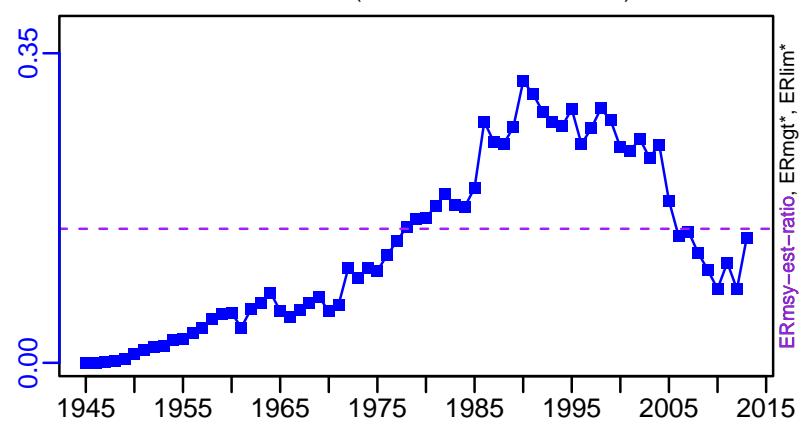
TN-E00 (1962–2010–HIVELY)



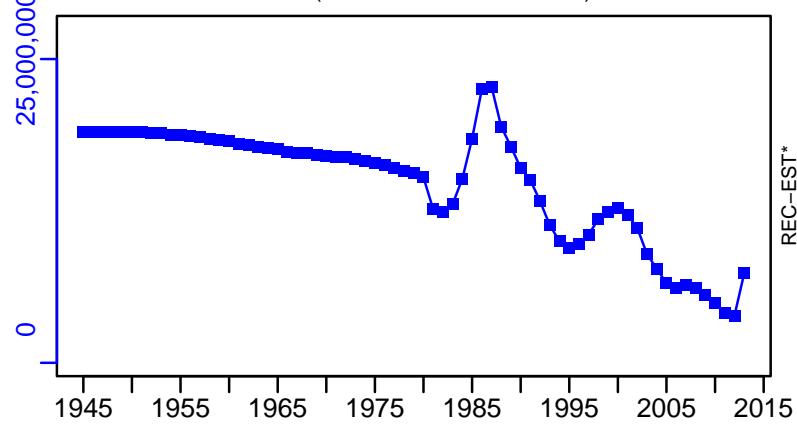
F-1/yr (1945–2013–SISIMP2016)



ER-calc-ratio (1945–2013–SISIMP2016)



R-E00 (1945–2013–SISIMP2016)

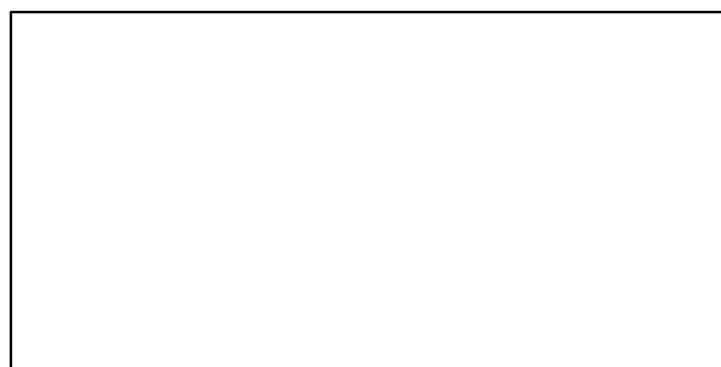
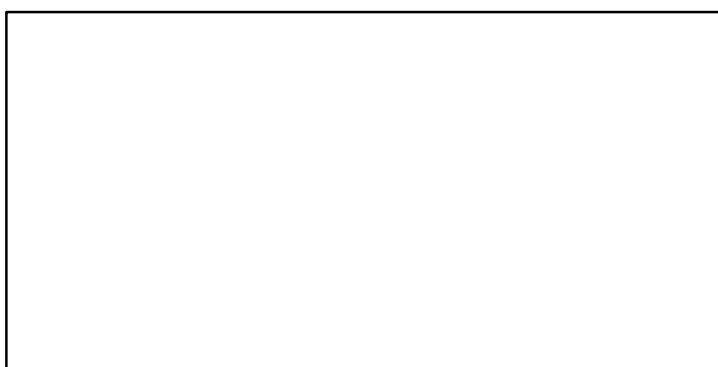
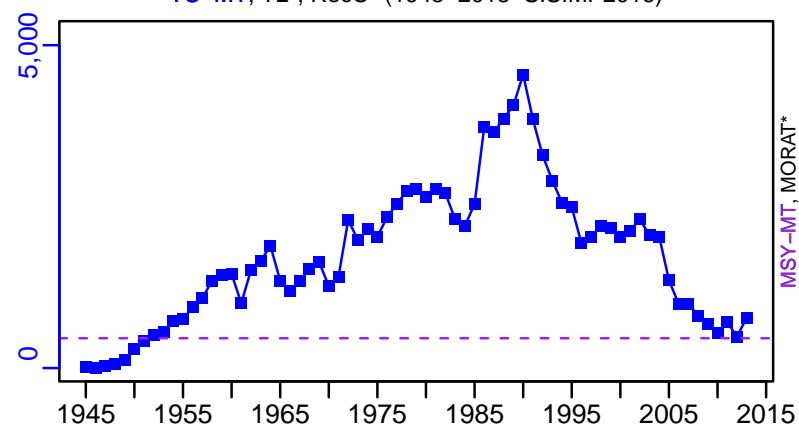


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - Lim BRP	* No Data

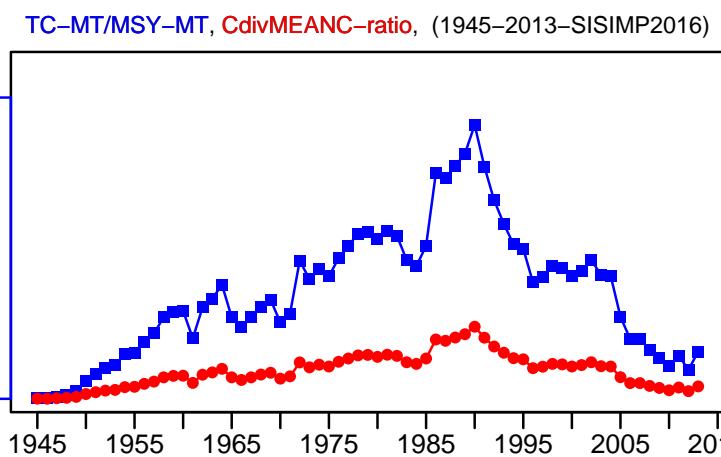
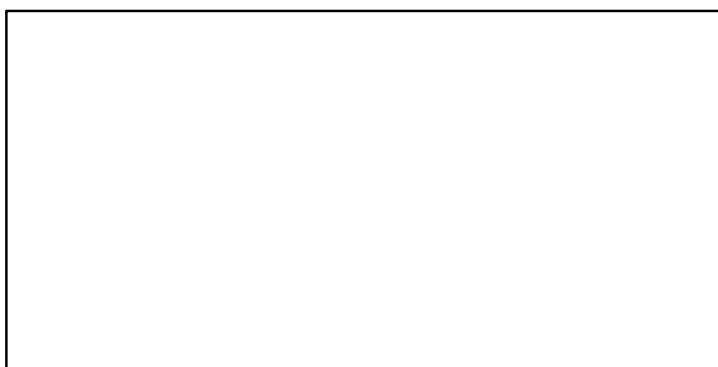
Gray triggerfish Gulf of Mexico [GTRIGGM]

TC-MT, TL*, RecC* (1945–2013–SISIMP2016)

TAC*, Cpair*, Cadv*



EFFORT*



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

Japanese pufferfish Ise and Mikawa Bay [JPUFFIMKB]

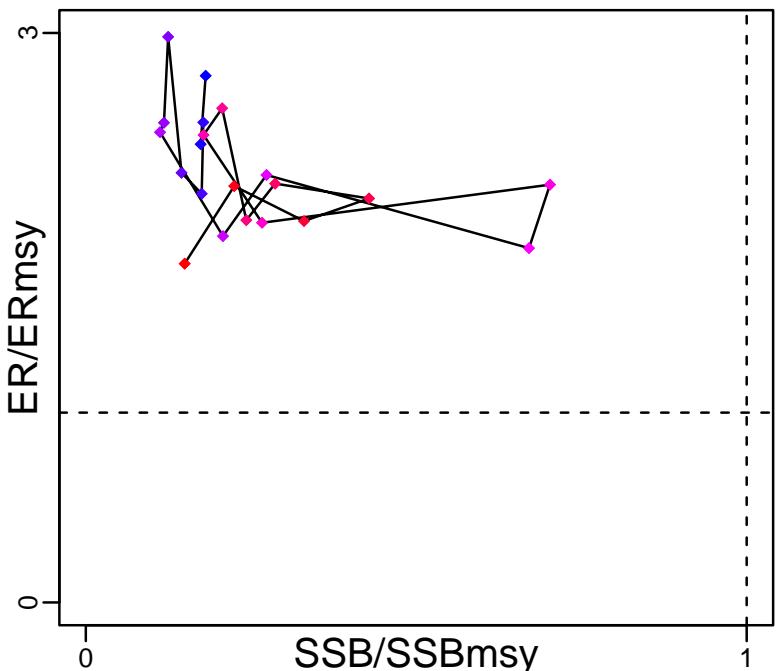
Metadata	
Scientific Name	Takifugu rubripes
Current Assess ID	FAFRFJ-JPUFFIMKB-1993-2013-JPNIMP2016
Area	Ise and Mikawa Bay
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2013	471
SSBmsy	SSBmsy-MT	2013	252
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2013	0.284
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2013	134
M	M-1/yr	2013	0.25
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

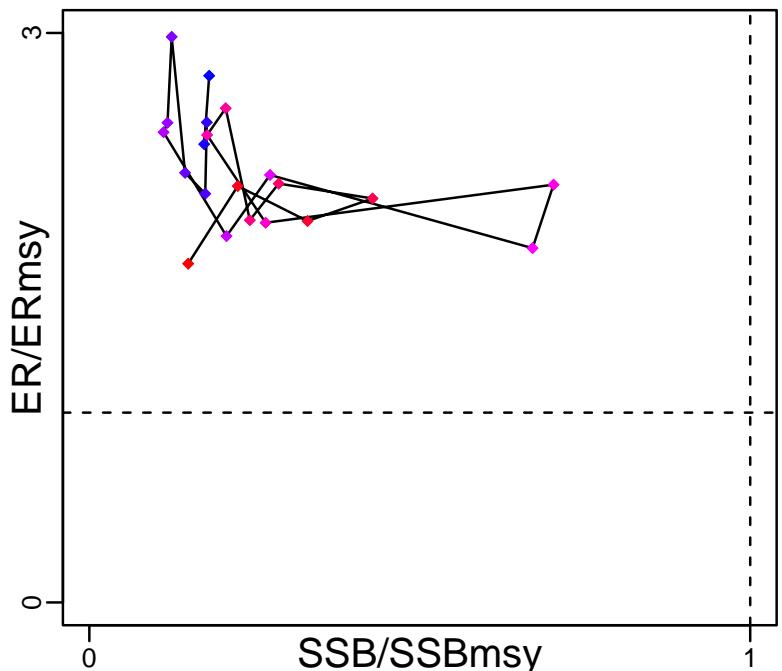
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	132	-	0
SSB	SSB-MT	2013	38	Both	2
TN	-	-	-	-	-
R	R-E00	2013	119,000	-	0
F	-	-	-	-	-
ER	ER-calc-ratio	2013	0.507	-	-
TC	TC-MT	2013	67		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2013	0.28		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013	0.15		
F/Fmsy	-	-	-		
ER/ERmsy	ER-calc-ratio/ERmsy-ratio	2013	1.785		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Japanese pufferfish Ise and Mikawa Bay [JPUFFIMKB]

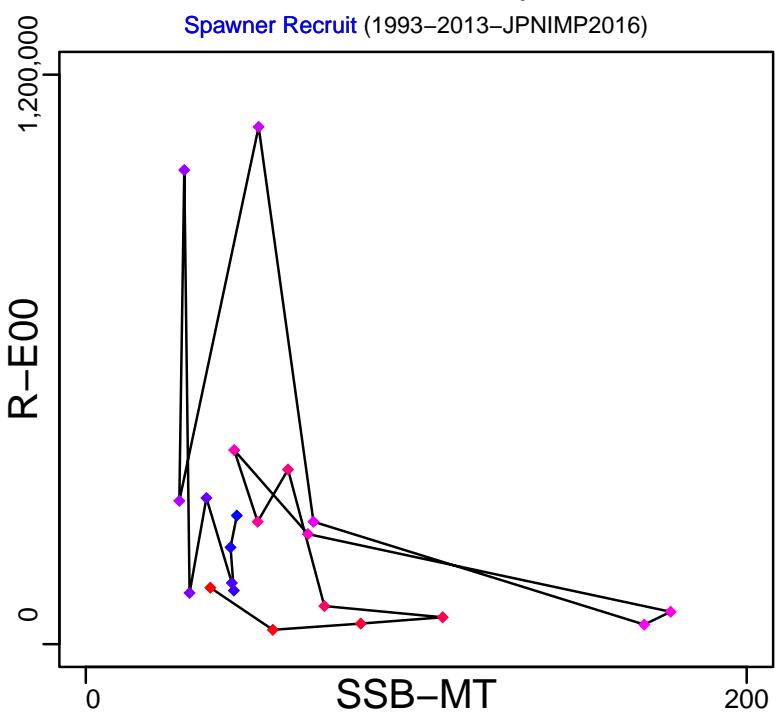
Kobe MSYpref (1993–2013–JPNIMP2016)



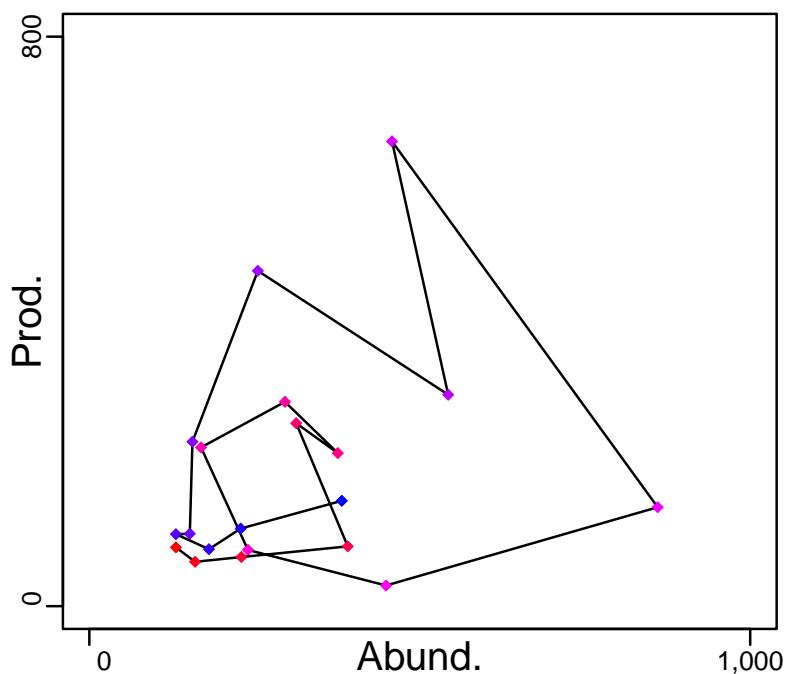
Kobe MGTpref (1993–2013–JPNIMP2016)



Spawner Recruit (1993–2013–JPNIMP2016)



Production (1993–2013–JPNIMP2016)

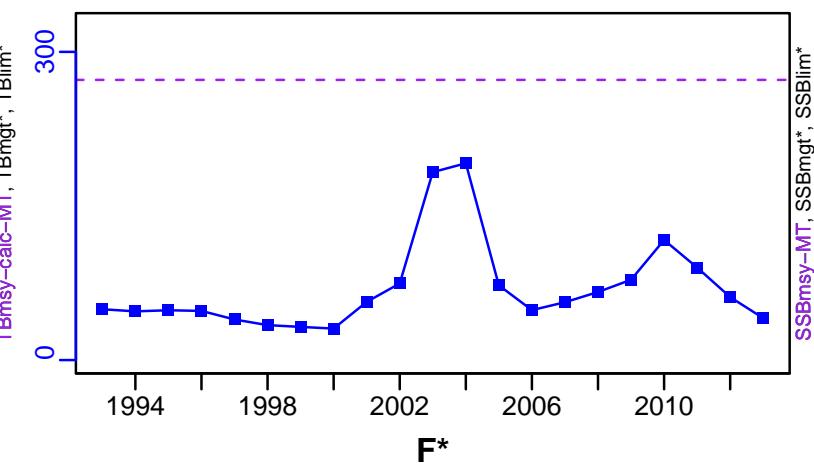
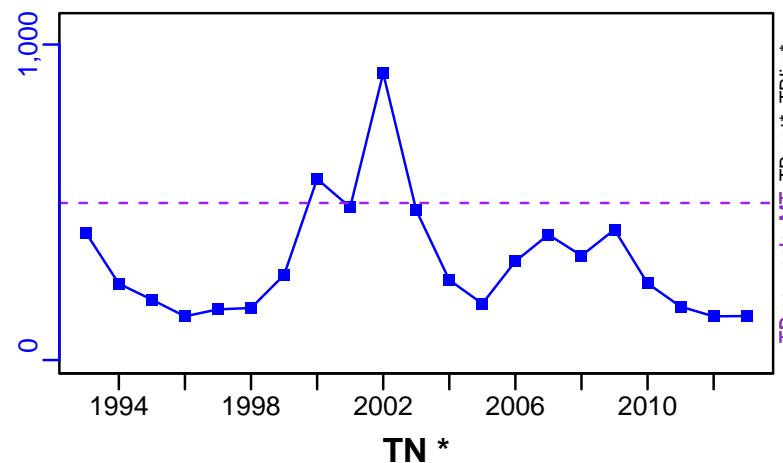


◆ Start Year ◆ End Year * No Data

Japanese pufferfish Ise and Mikawa Bay [JPUFFIMKB]

TB-MT (1993–2013–JPNIMP2016)

SSB-MT (1993–2013–JPNIMP2016)

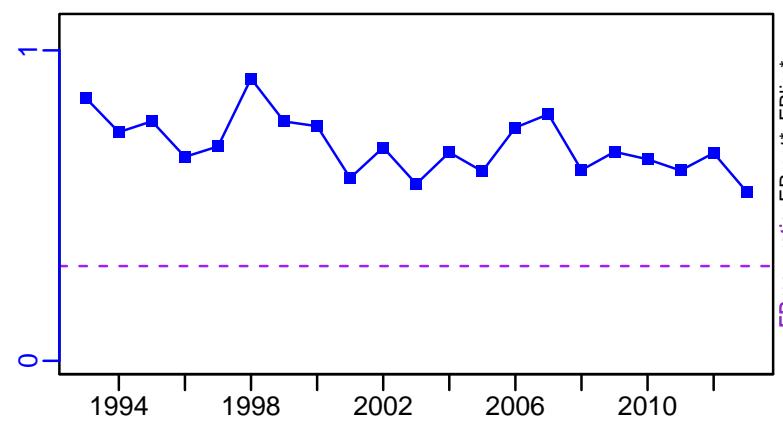


TN *

F*

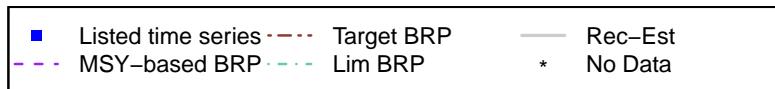
ER-calc-ratio (1993–2013–JPNIMP2016)

R-E00 (1993–2013–JPNIMP2016)



ERmyo-ratio, ERmgnt*, ERlim*

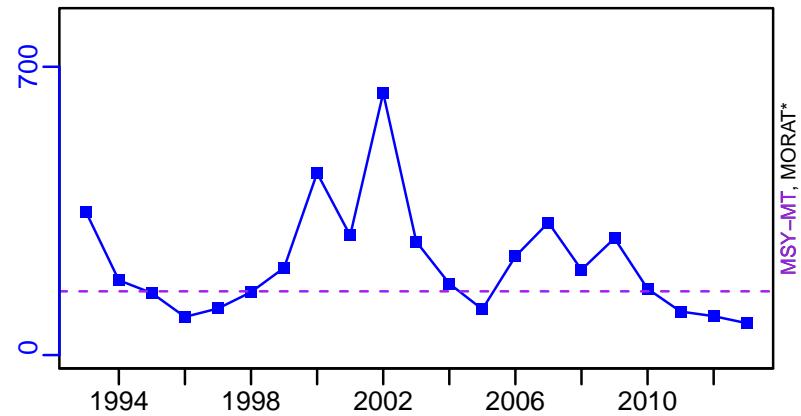
REC-EST*



Japanese pufferfish Ise and Mikawa Bay [JPUFFIMKB]

TC-MT, TL*, RecC* (1993–2013–JPNIMP2016)

TAC*, Cpair*, Cadv*



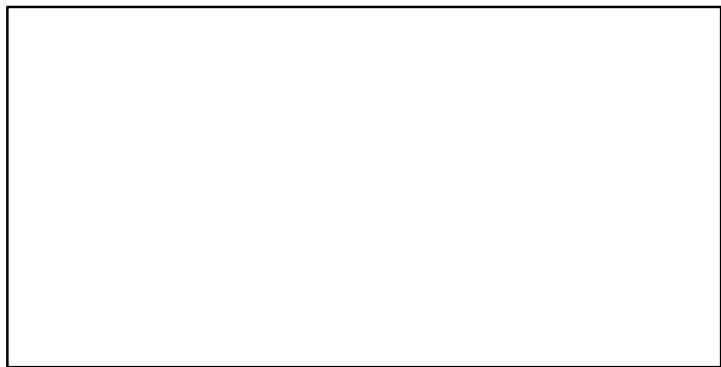
survB*



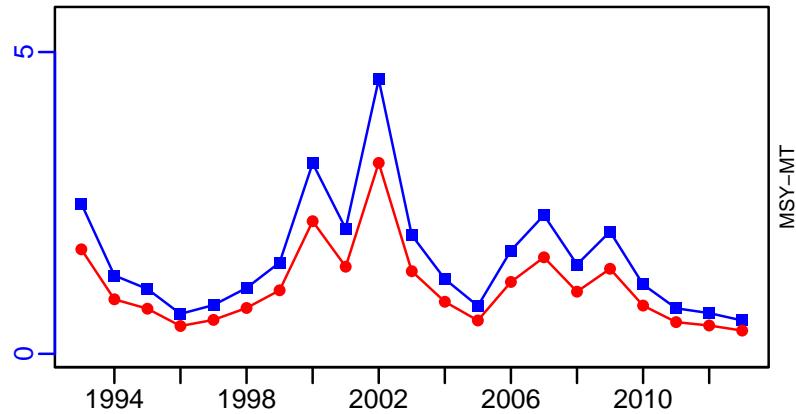
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1993–2013–JPNIMP2016)



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

**Japanese pufferfish Sea of Japan and East China Sea and Seto Inland sea
[JPUFFSOJECSSI]**

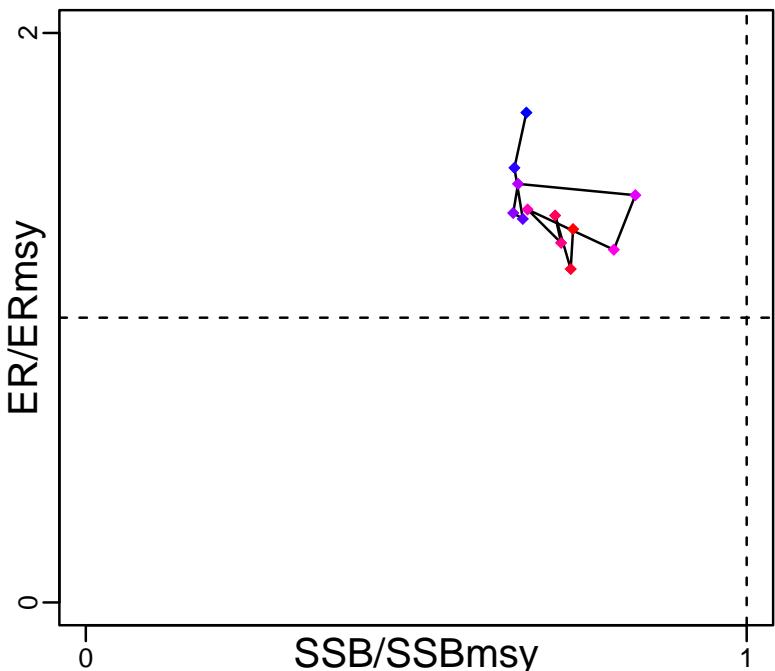
Metadata	
Scientific Name	Takifugu rubripes
Current Assess ID	FAFRFJ-JPUFFSOJECSSI-1993-2013-JPNIMP2016
Area	Sea of Japan and East China Sea and Seto Inland sea
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2013	1120
SSBmsy	SSBmsy-MT	2013	552
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2013	0.23
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2013	258
M	M-1/yr	2013	0.25
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

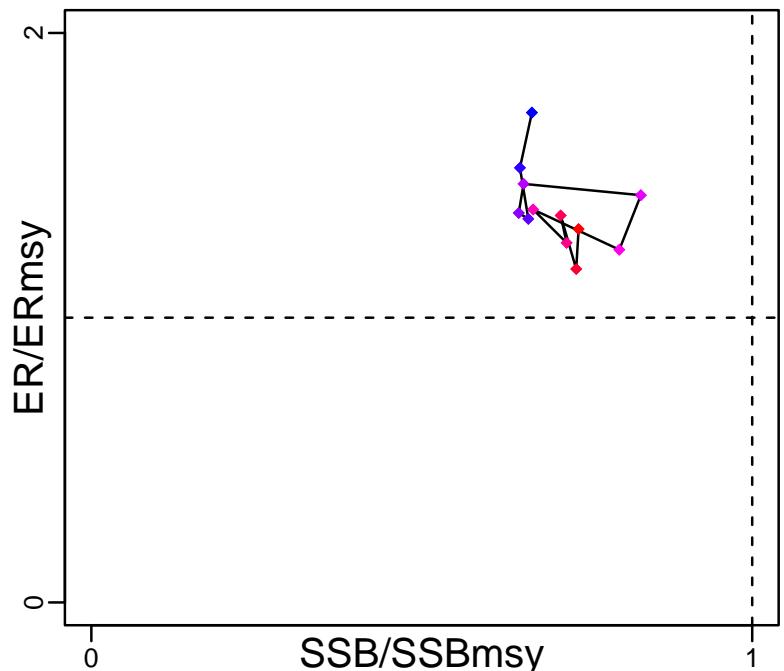
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	829	-	0
SSB	SSB-MT	2013	407	Both	3
TN	-	-	-	-	-
R	R-E00	2013	203,000	-	0
F	-	-	-	-	-
ER	ER-calc-ratio	2013	0.302	-	-
TC	TC-MT	2013	250		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2013	0.74		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013	0.737		
F/Fmsy	-	-	-		
ER/ERmsy	ER-calc-ratio/ERmsy-ratio	2013	1.311		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Japanese pufferfish Sea of Japan and East China Sea and Seto Inland sea [JPUFFSOJECSSI]

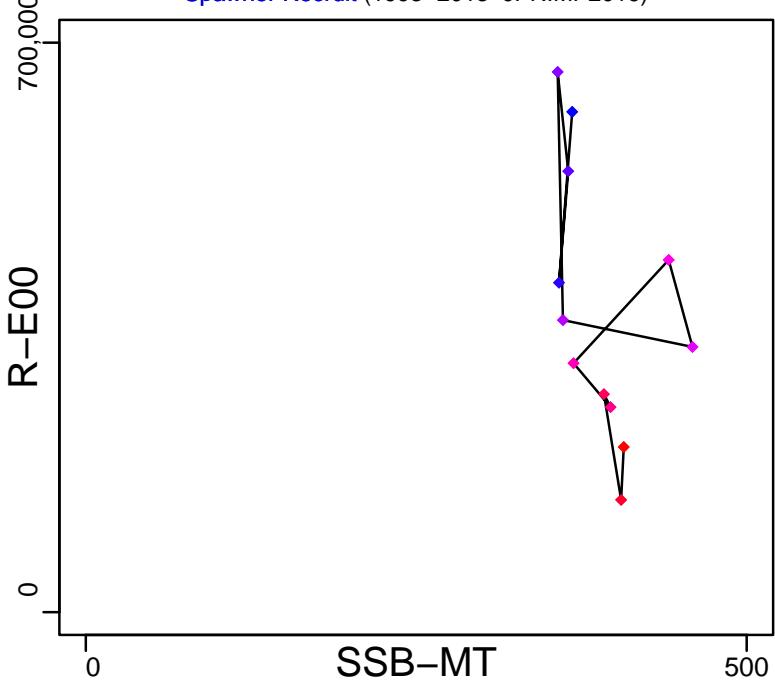
Kobe MSYpref (1993–2013–JPNIMP2016)



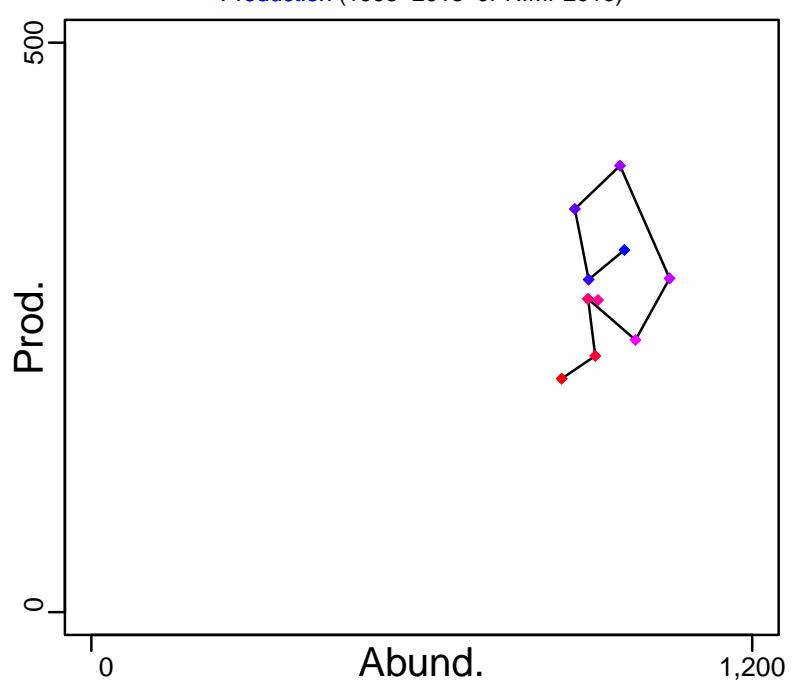
Kobe MGTpref (1993–2013–JPNIMP2016)



Spawner Recruit (1993–2013–JPNIMP2016)



Production (1993–2013–JPNIMP2016)

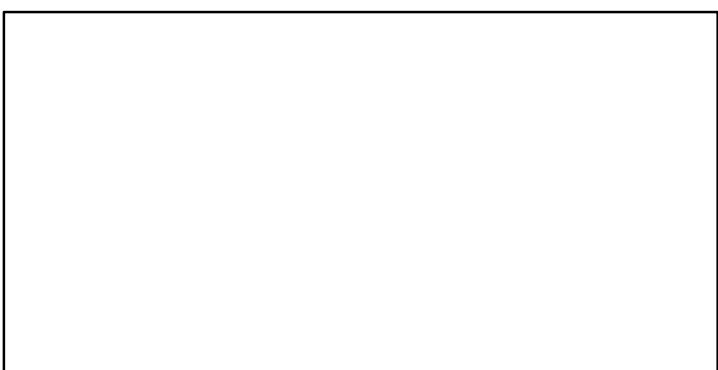
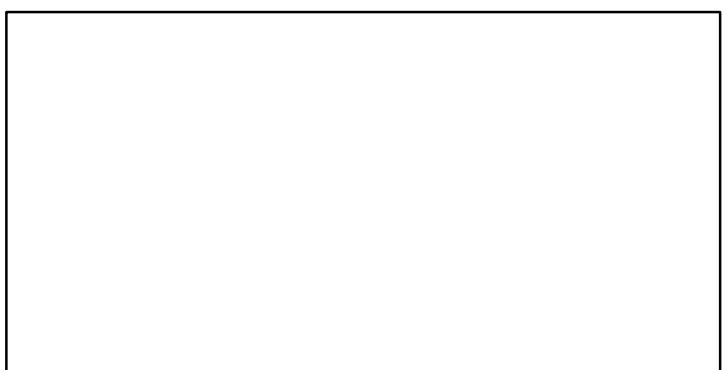
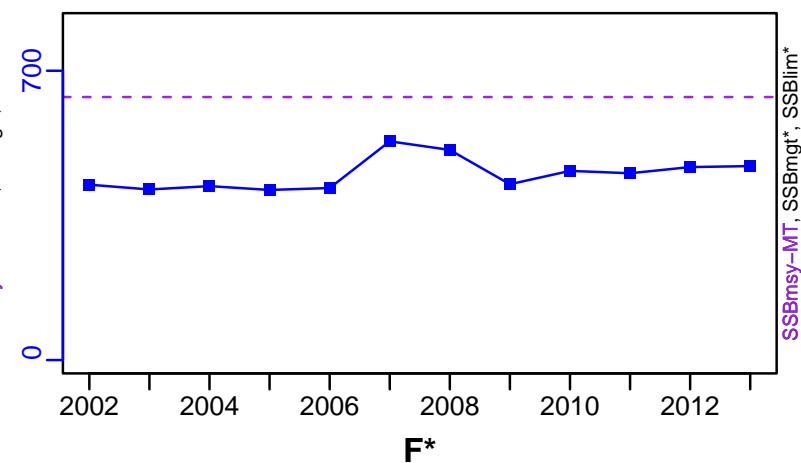
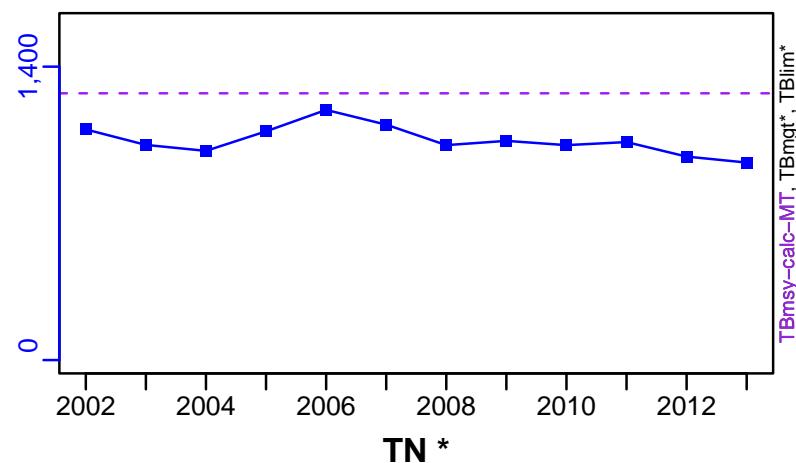


◆ Start Year ◆ End Year * No Data

Japanese pufferfish Sea of Japan and East China Sea and Seto Inland sea [JPUFFSOJECSSI]

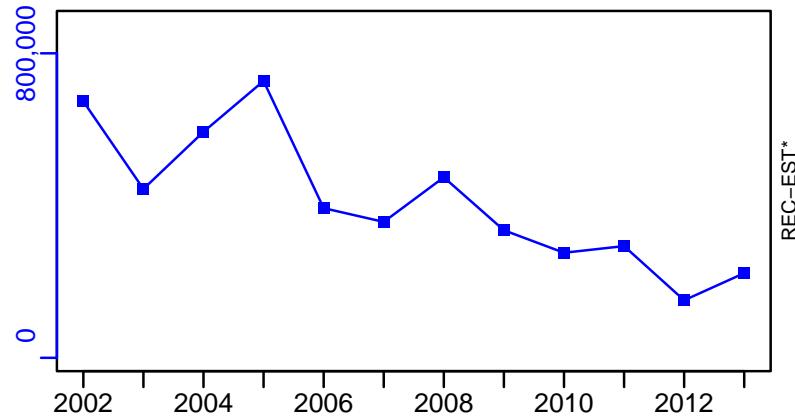
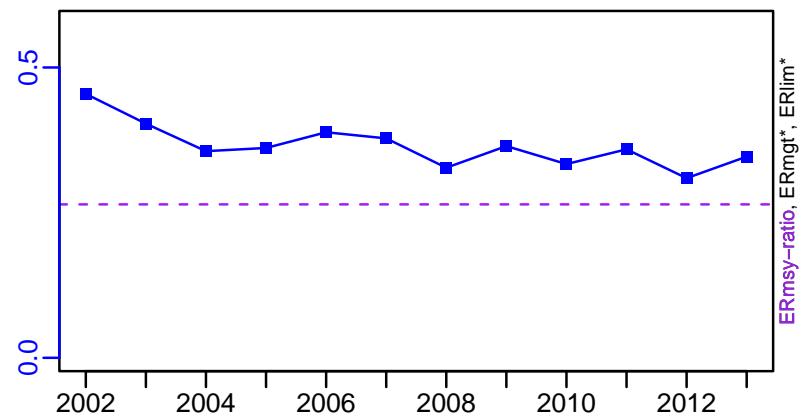
TB-MT (1993–2013–JPNIMP2016)

SSB-MT (1993–2013–JPNIMP2016)



ER-calc-ratio (1993–2013–JPNIMP2016)

R-E00 (1993–2013–JPNIMP2016)

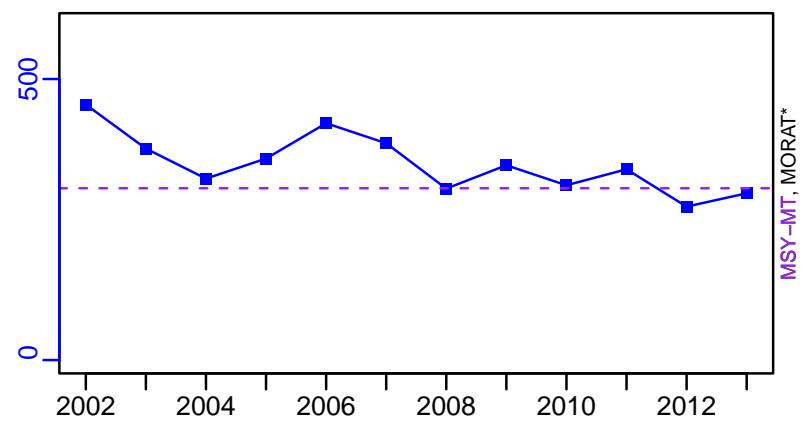


■ Listed time series	— Target BRP	— Rec-Est
- - MSY-based BRP	·· Lim BRP	* No Data

Japanese pufferfish Sea of Japan and East China Sea and Seto Inland sea [JPUFFSOJECSSI]

TC-MT, TL*, RecC* (1993–2013–JPNIMP2016)

TAC*, Cpair*, Cadv*



survB*

MSY-MT, MORAT*



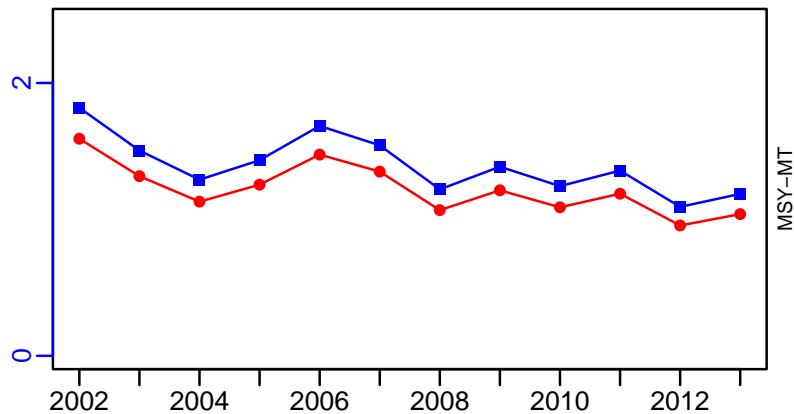
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1993–2013–JPNIMP2016)



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

Kingklip South Africa South coast [KINGKLIPSASC]

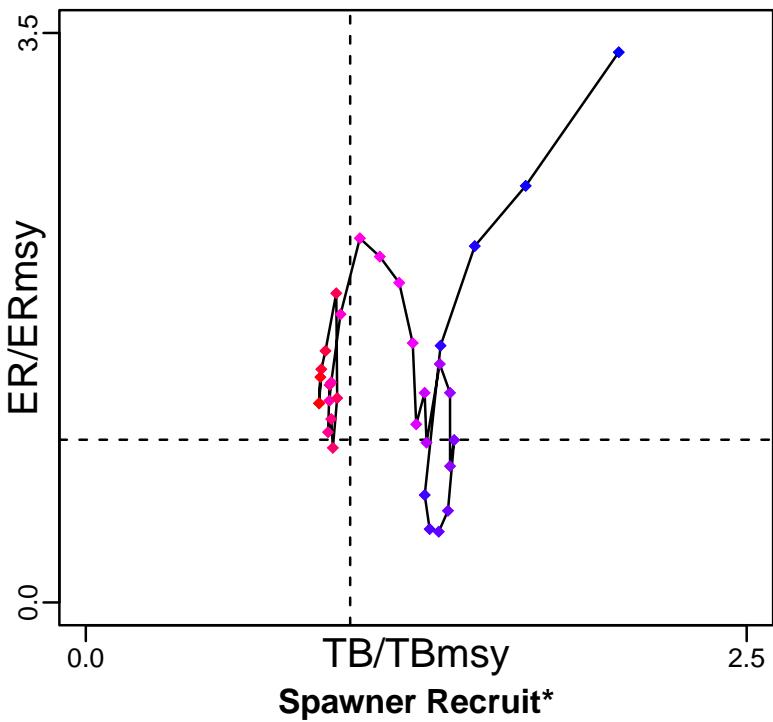
Metadata	
Scientific Name	Genypterus capensis
Current Assess ID	MARAM-KINGKLIPSASC-1932-2019-Brandao
Area	South Africa South coast
Management Authority	South African national management, Fisheries Branch of Department of Agriculture, Forestry and Fisheries
Assessor	Marine Resource Assessment and Management Group, Department of Mathematics and Applied Mathematics, University of Cape Town, Rondebosch, 7701, South Africa
Asmts in RAM	2019

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	TB0-MT	2019	50,408
SSB0	-	-	-
MSY	MSY-MT	2019	1152
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

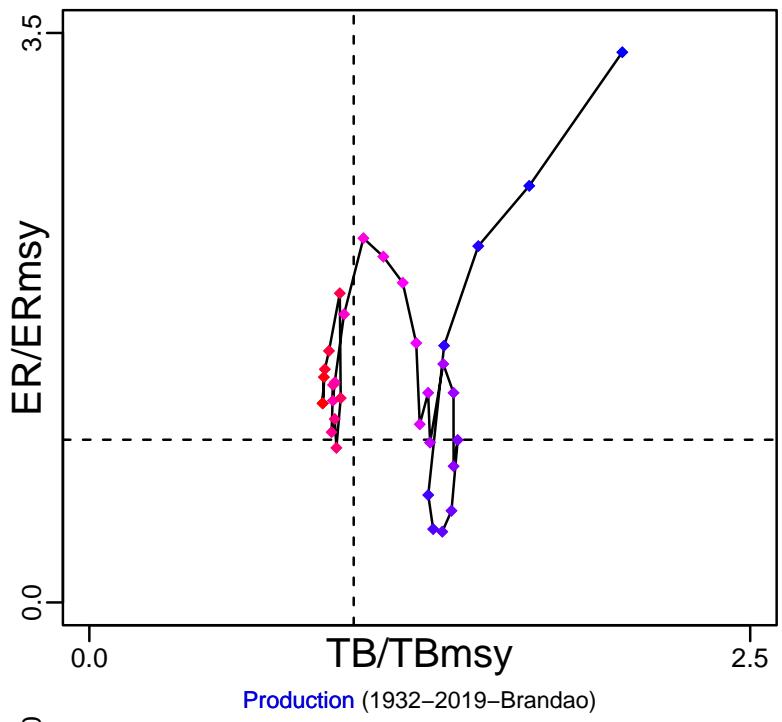
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2019	16,445	-	0+
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-ratio	2019	0.076	-	-
TC	TC-MT	2019	1241		
TL	TL-MT	2019	1241		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kingklip South Africa South coast [KINGKLIPSASC]

Kobe MSYpref (1932–2019–Brandao)

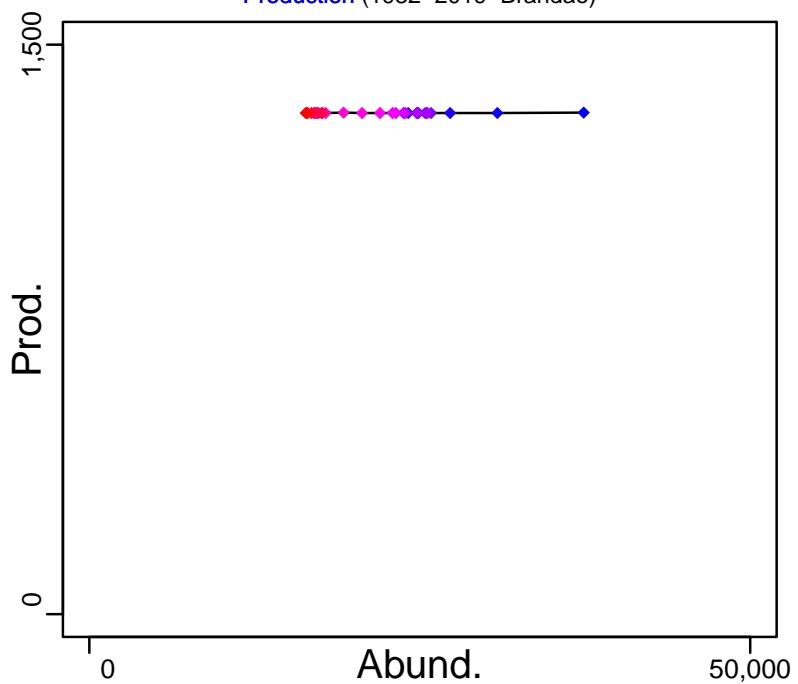
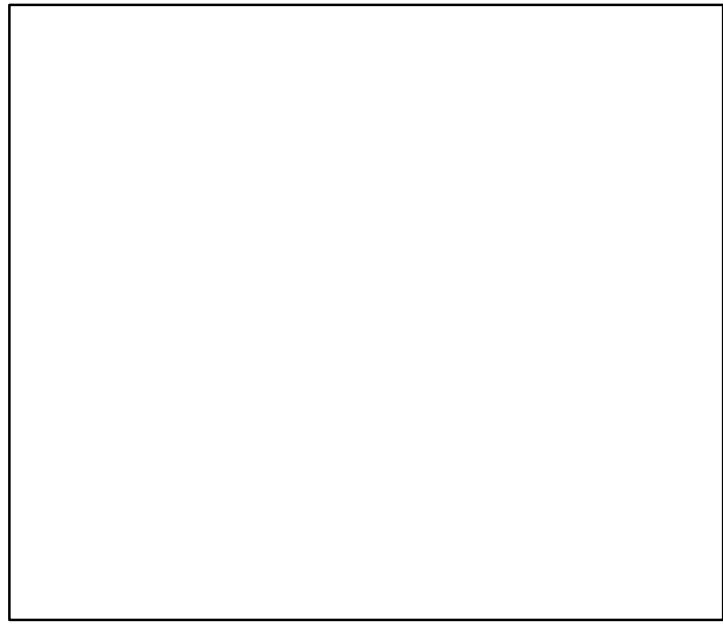


Kobe MGTpref (1932–2019–Brandao)



Spawner Recruit*

Production (1932–2019–Brandao)

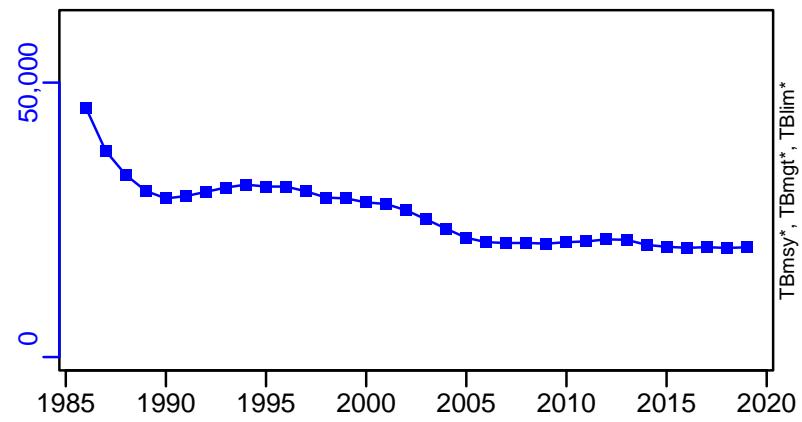


◆ Start Year ◆ End Year * No Data

Kingklip South Africa South coast [KINGKLIPSASC]

TB-MT (1932–2019–Brandao)

SSB*



TN *

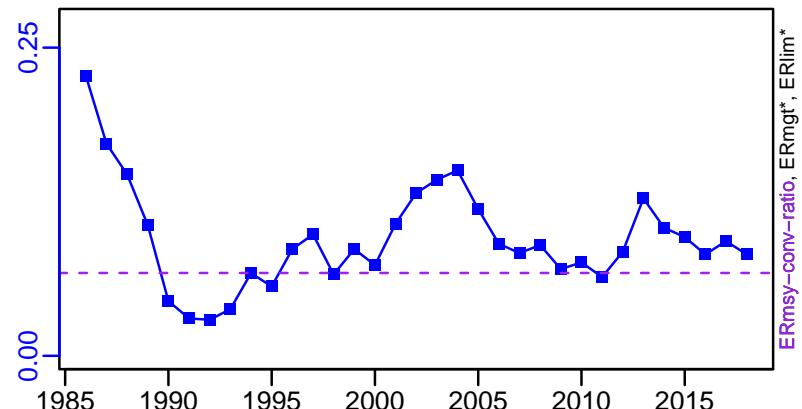


F*



ER-ratio (1932–2019–Brandao)

Recruits*

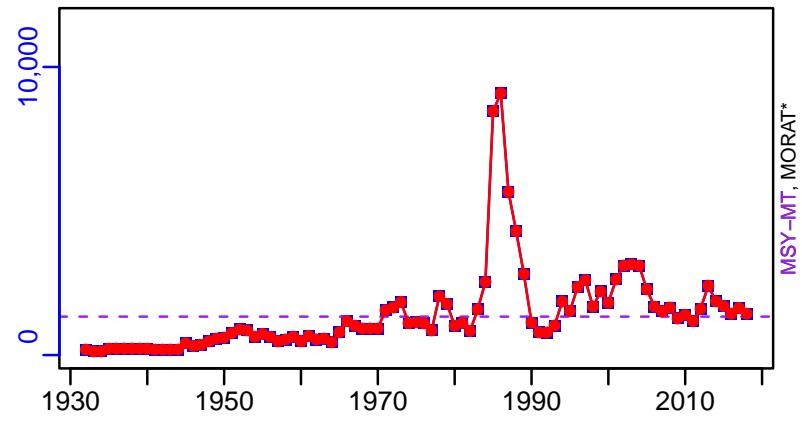


- | | | |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| - - MSY-based BRP | ··· Lim BRP | * No Data |

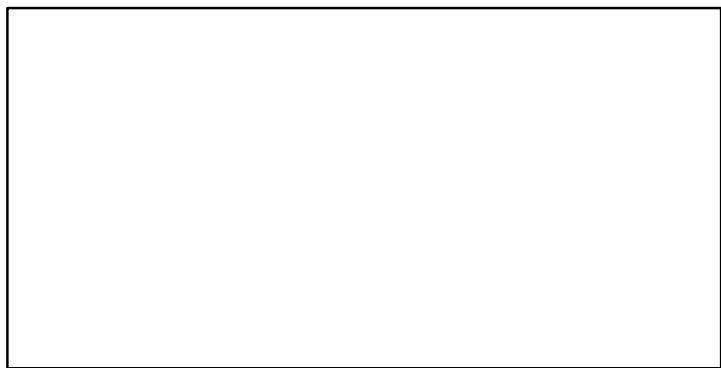
Kingklip South Africa South coast [KINGKLIPSASC]

TC-MT, TL-MT, RecC* (1932–2019–Brandao)

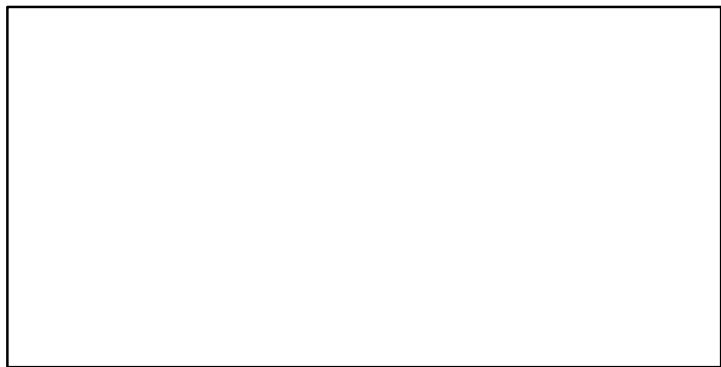
TAC*, Cpair*, Cadv*



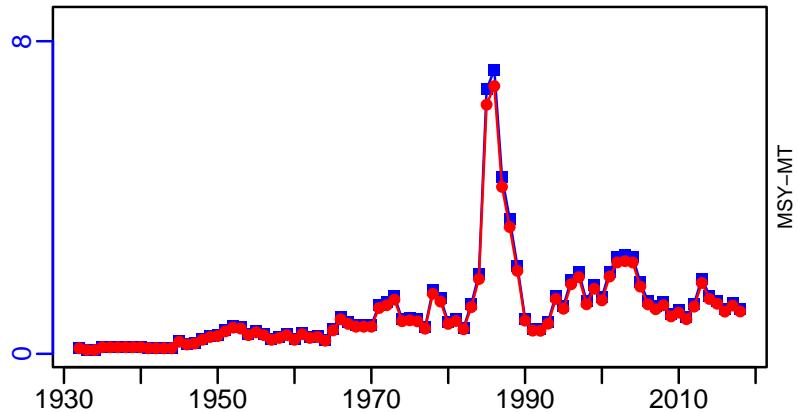
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1932–2019–Brandao)



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

Kingklip South Africa West coast [KINGKLIPSAWC]

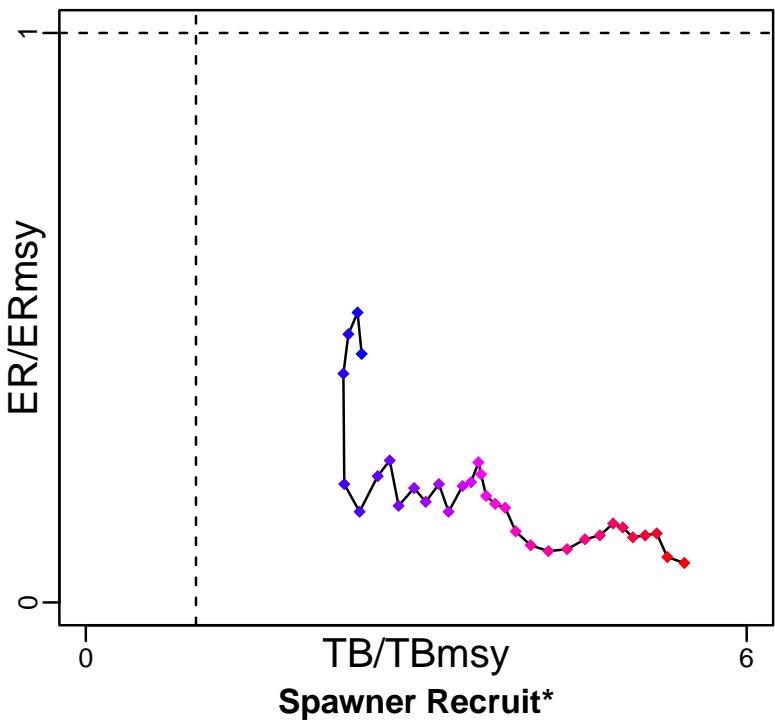
Metadata	
Scientific Name	Genypterus capensis
Current Assess ID	MARAM-KINGKLIPSAWC-1932-2020-Brandao
Area	South Africa West coast
Management Authority	South African national management, Fisheries Branch of Department of Agriculture, Forestry and Fisheries
Assessor	Marine Resource Assessment and Management Group, Department of Mathematics and Applied Mathematics, University of Cape Town, Rondebosch, 7701, South Africa
Asmts in RAM	2020

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	TB0-MT	2020	30,286
SSB0	-	-	-
MSY	MSY-MT	2020	3218
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

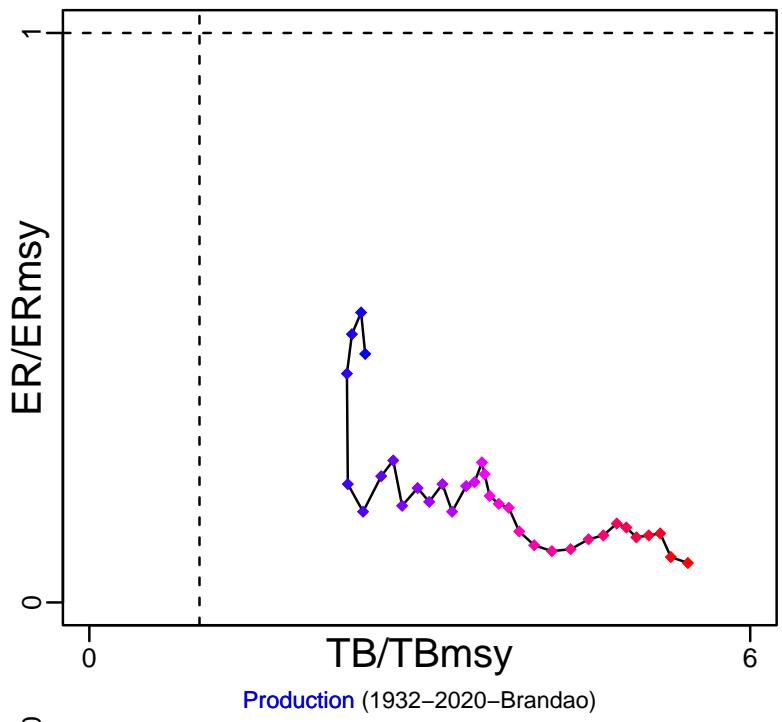
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2020	62,463	-	0+
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-ratio	2020	0.02	-	-
TC	TC-MT	2020	1206		
TL	TL-MT	2020	1206		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kingklip South Africa West coast [KINGKLIPSAWC]

Kobe MSYpref (1932–2020–Brandao)

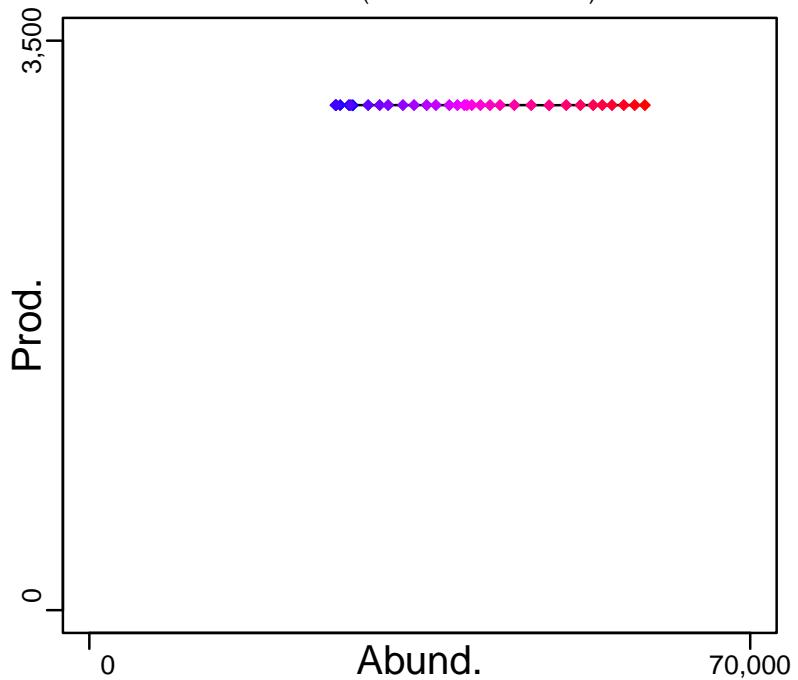
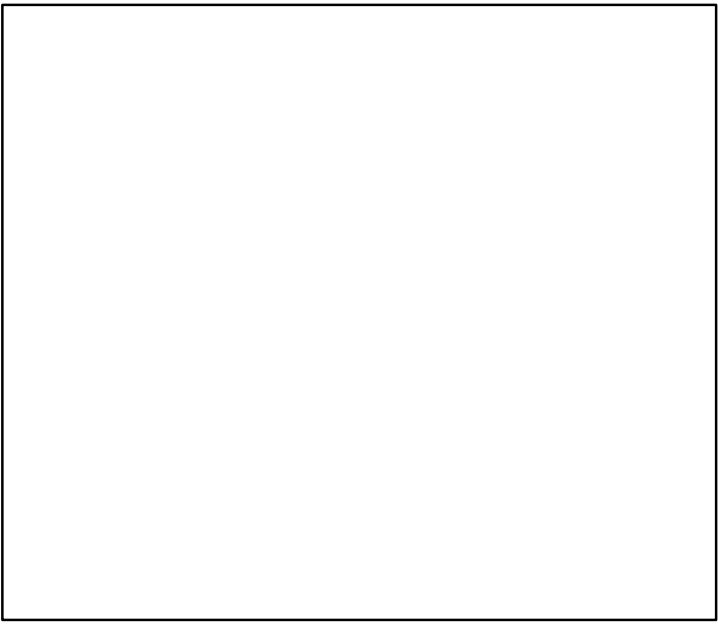


Kobe MGTpref (1932–2020–Brandao)



Spawner Recruit*

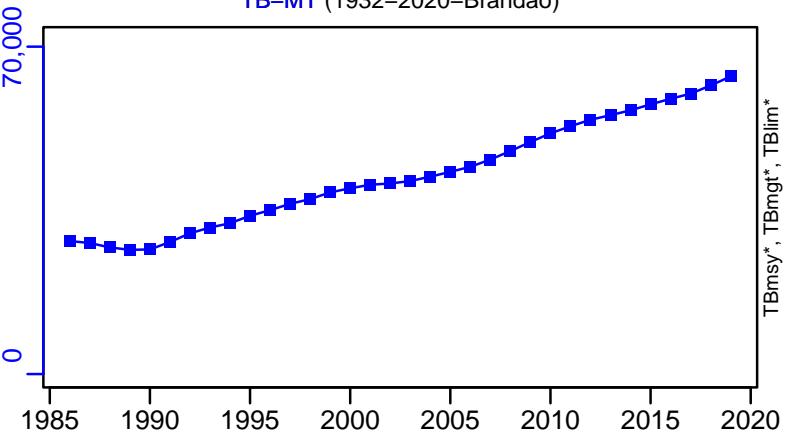
Production (1932–2020–Brandao)



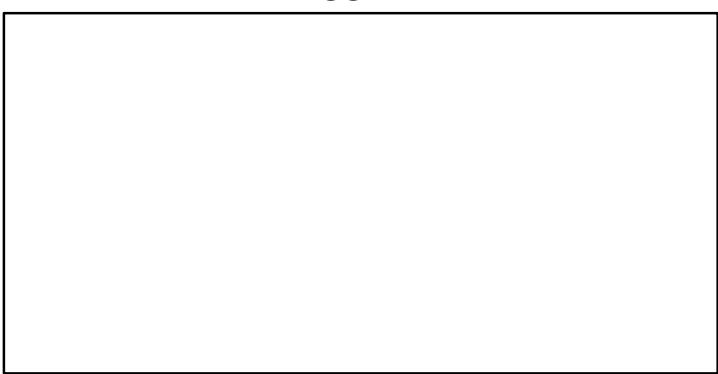
◆ Start Year ◆ End Year * No Data

Kingklip South Africa West coast [KINGKLIPSAWC]

TB-MT (1932–2020–Brandao)



SSB*



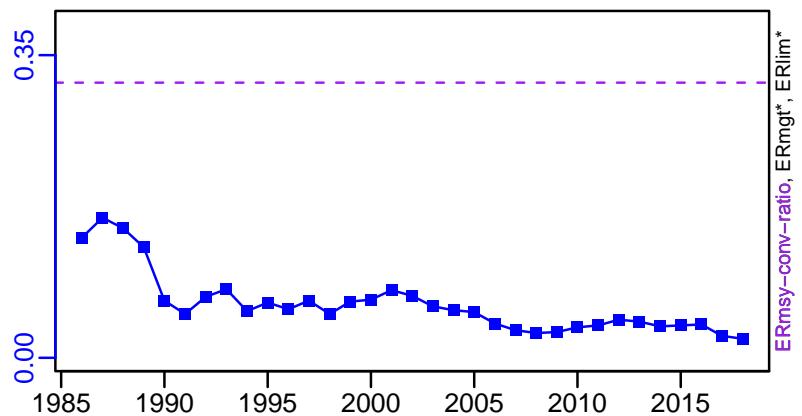
TN *



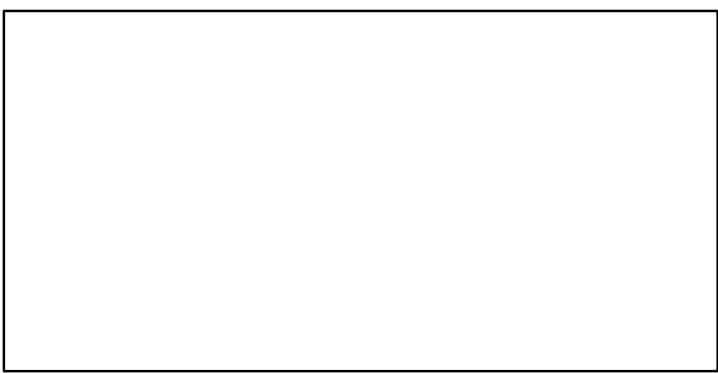
F*



ER-ratio (1932–2020–Brandao)



Recruits*

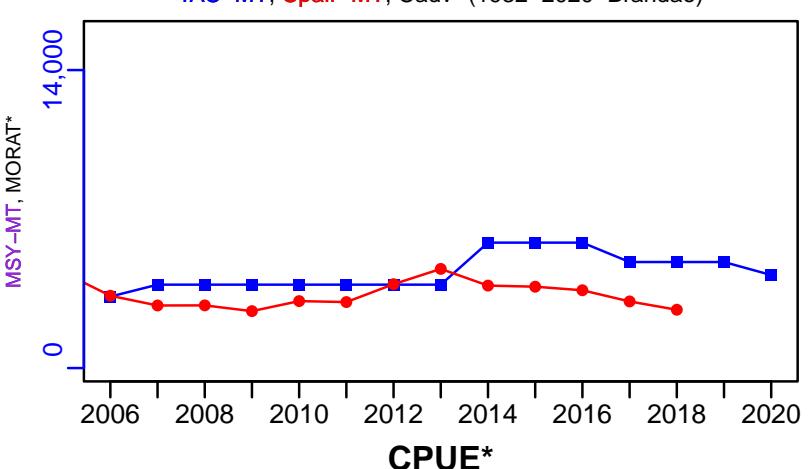
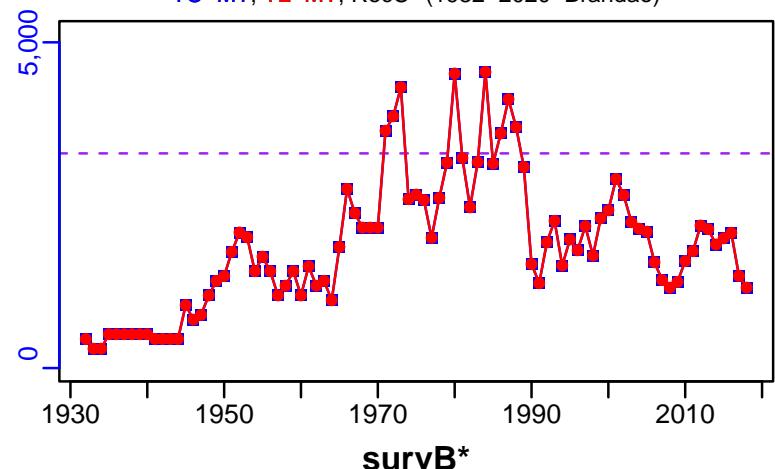


■ Listed time series	— Target BRP	— Rec-Est
- - MSY-based BRP	··· Lim BRP	* No Data

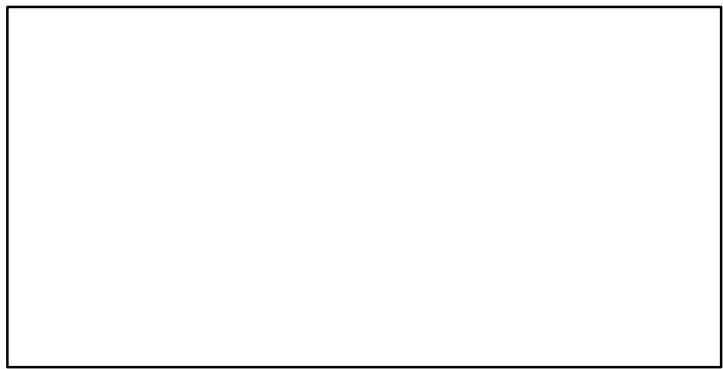
Kingklip South Africa West coast [KINGKLIPSAWC]

TC-MT, TL-MT, RecC* (1932–2020–Brandao)

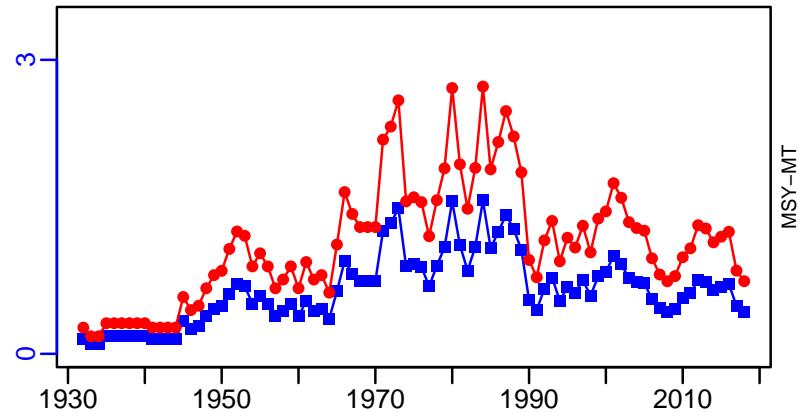
TAC-MT, Cpair-MT, Cadv* (1932–2020–Brandao)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1932–2020–Brandao)



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

Largehead hairtail Sea of Japan and East China Sea [LHAIRTSOJECS]

Metadata	
Scientific Name	Trichiurus lepturus
Current Assess ID	FAFRFJ-LHAIRTSOJECS-1981-2013-JPNIMP2016
Area	Sea of Japan and East China Sea
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	2070		
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

Largehead hairtail Sea of Japan and East China Sea [LHAIRTSOJECS]

TB*



SSB*



TN *



F*



ER*



Recruits*

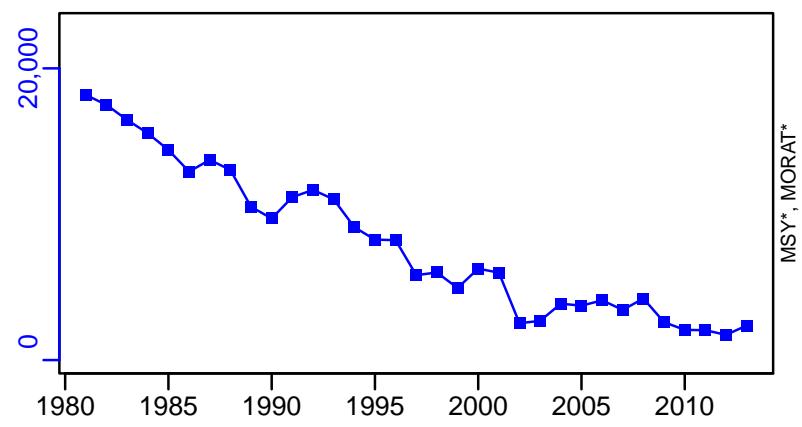


- | | | |
|----------------------|------------------|-----------|
| ■ Listed time series | - - - Target BRP | — Rec-Est |
| - - - MSY-based BRP | - - - Lim BRP | * No Data |

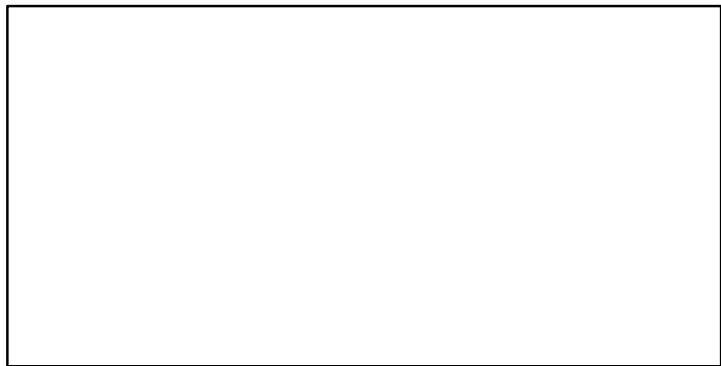
Largehead hairtail Sea of Japan and East China Sea [LHAIRTSOJECS]

TC-MT, TL*, RecC* (1981–2013–JPNIMP2016)

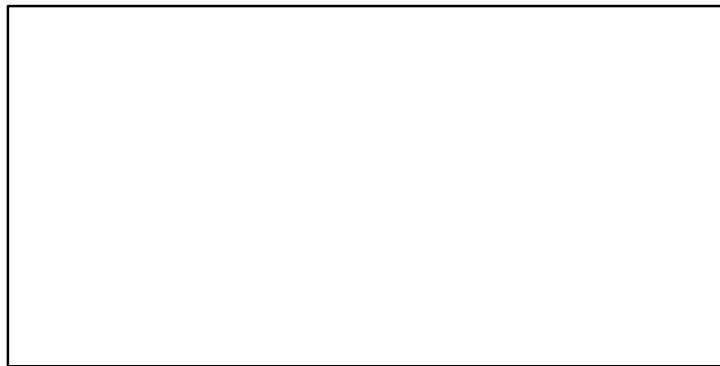
TAC*, Cpair*, Cadv*



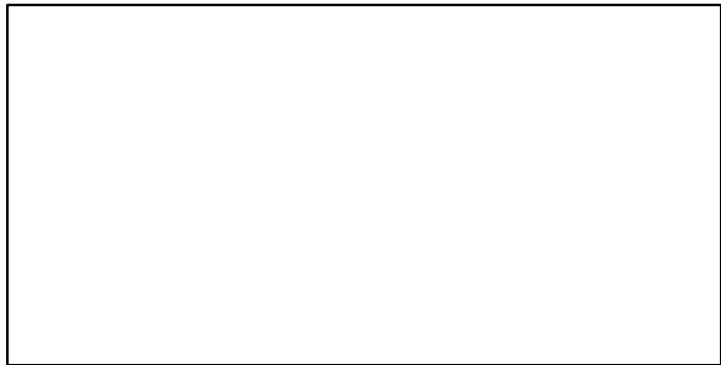
survB*



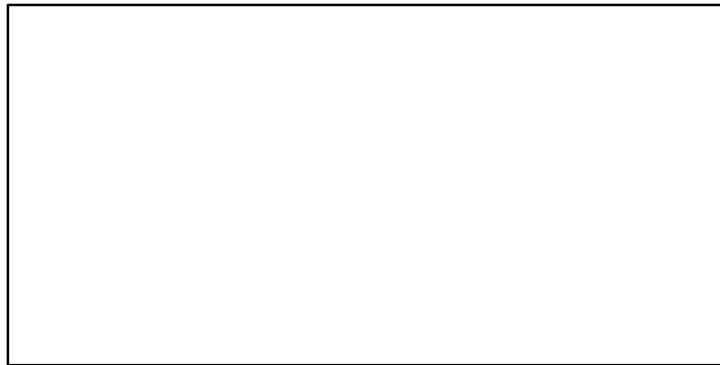
CPUE*



EFFORT*



CdivMSY*



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

Monkfish NAFO Divisions 3LNOPs [MONK3LNOPs]

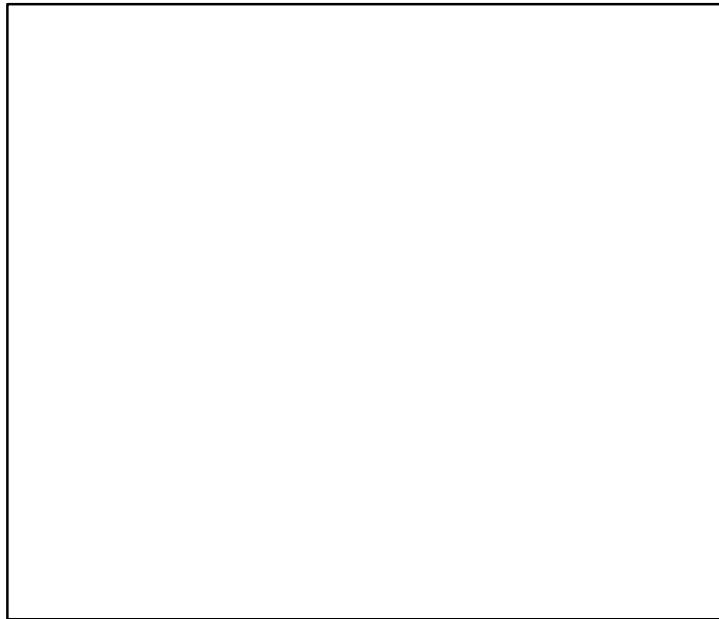
Metadata	
Scientific Name	Lophius americanus
Current Assess ID	DFO-NFLD-MONK3LNOPs-1960-2017-ASHBROOK
Area	NAFO Divisions 3LNOPs
Management Authority	Department of Fisheries and Oceans, Canada national management
Assessor	Department of Fisheries and Oceans - Newfoundland Region
Asmts in RAM	2017

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

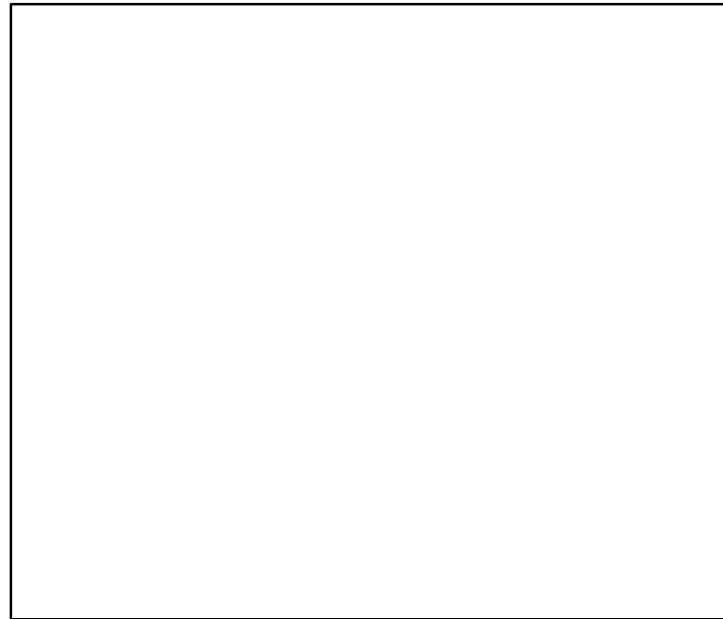
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	-	-	-		
TL	TL-MT	2017	360		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Monkfish NAFO Divisions 3LNOPs [MONK3LNOPs]

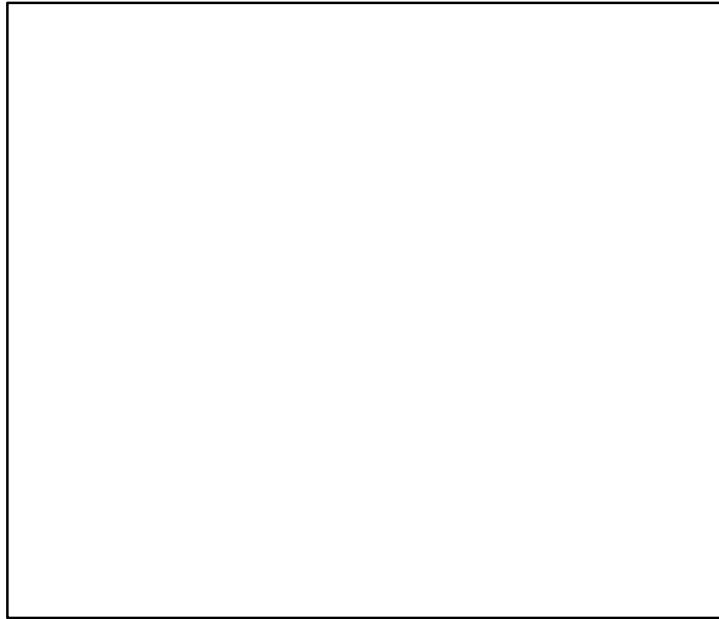
Kobe MSY*



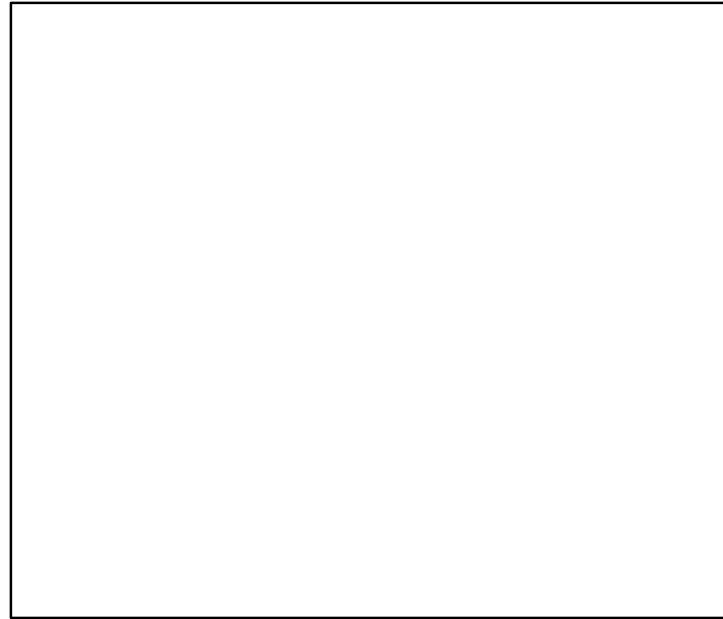
Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ♦ End Year * No Data

Monkfish NAFO Divisions 3LNOPs [MONK3LNOPs]

TB*



SSB*



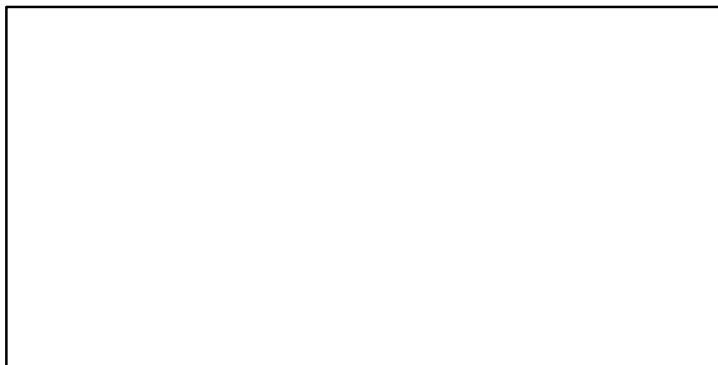
TN *



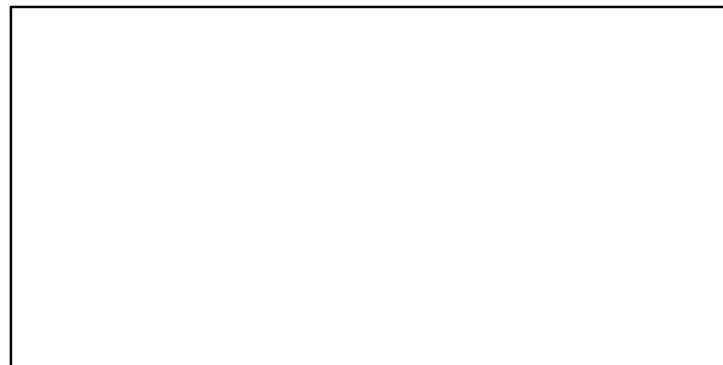
F*



ER*



Recruits*

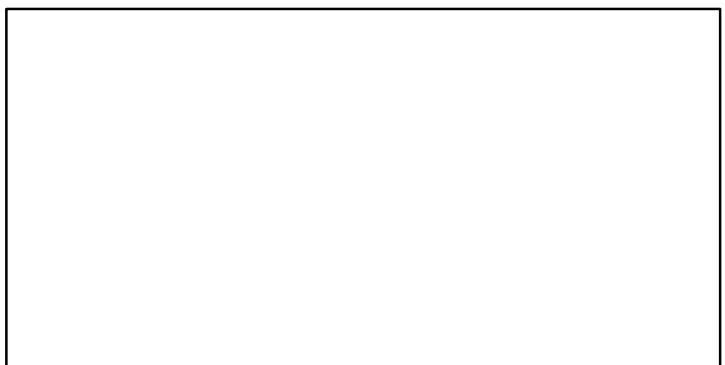
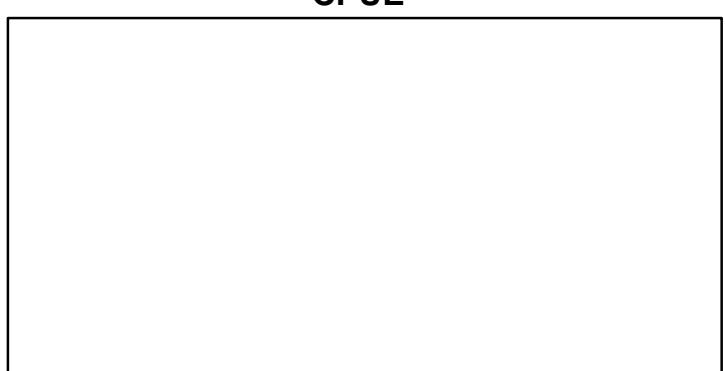
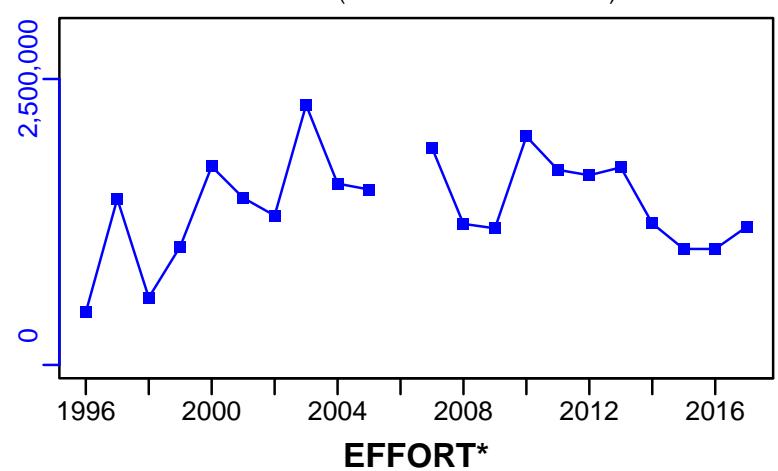
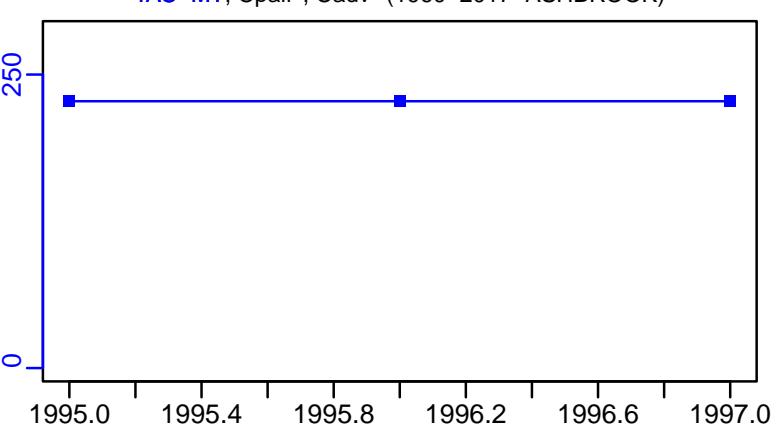
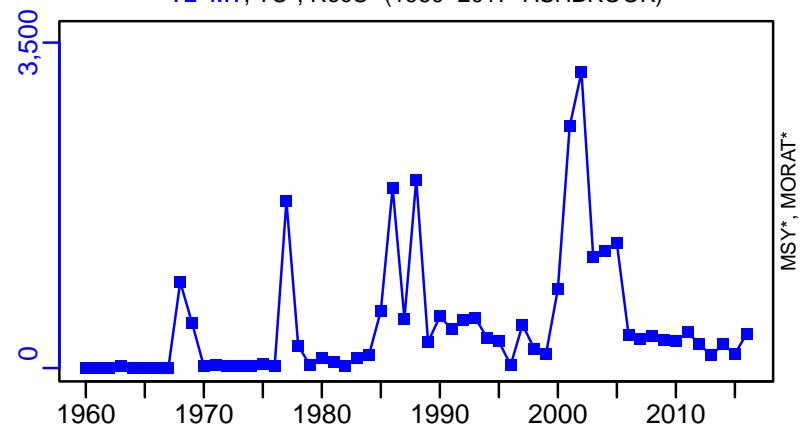


- | | | |
|----------------------|------------------|-----------|
| ■ Listed time series | - - - Target BRP | — Rec-Est |
| - - - MSY-based BRP | - - - Lim BRP | * No Data |

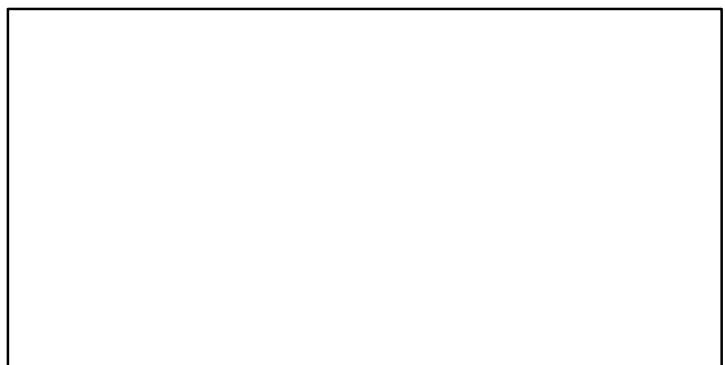
Monkfish NAFO Divisions 3LNOPs [MONK3LNOPs]

TL-MT, TC*, RecC* (1960–2017-ASHBROOK)

TAC-MT, Cpair*, Cadv* (1960–2017-ASHBROOK)



CdivMSY*



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

Monkfish Gulf of Maine / Northern Georges Bank [MONKGOMNGB]

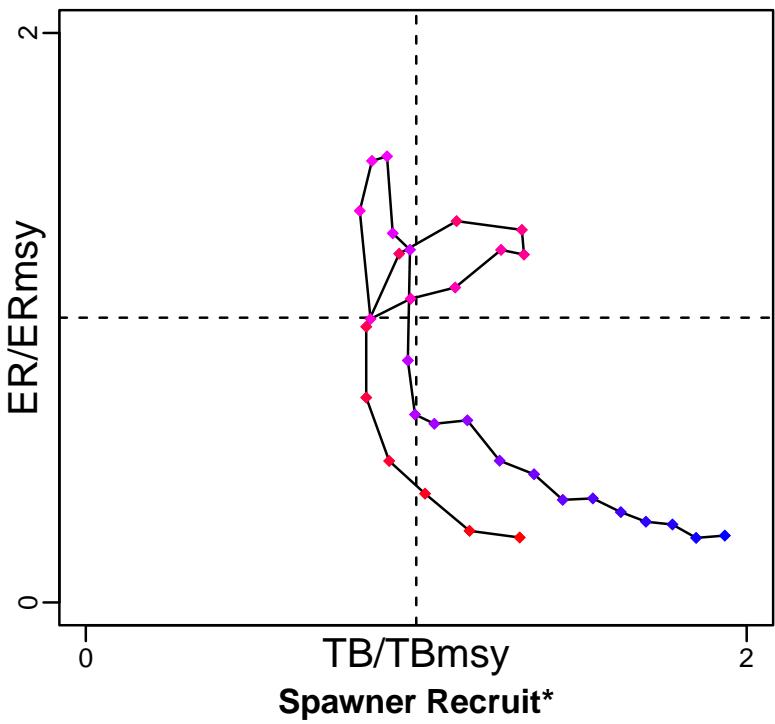
Metadata	
Scientific Name	Lophius americanus
Current Assess ID	NEFSC-MONKGOMNGB-1980-2018-SISIMP2021-2
Area	Gulf of Maine / Northern Georges Bank
Management Authority	National Marine Fisheries Service, US national management
Assessor	Northeast Fisheries Science Center
Asmts in RAM	2010, 2009, 2018

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2010	46,074
SSBmsy	-	-	-
Fmsy	Fmsy-1/yr	2010	0.44
ERmsy	ERmsy-calc-ratio	2010	0.204
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2010	9383
M	M-1/yr	2009	0.3
TBlim	TBlim-MT	2010	23,037
SSBlim	-	-	-
Flim	Flim-1/yr	2010	0.44
ERlim	-	-	-

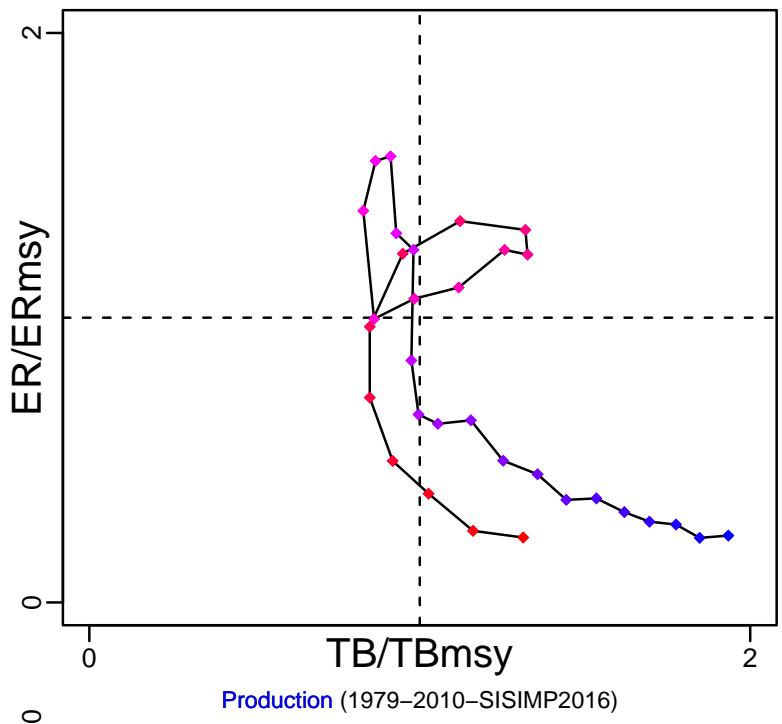
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2010	60,500	-	-	
SSB	-	-	-	-	-	
TN	-	-	-	-	-	
R	R-E00	2010	11,700,000	-	1	
F	F-1/yr	2010	0.08	-	-	
ER	ER-calc-ratio	2010	0.046	-	-	
TC	TC-MT	2018	8120			
TL	TL-MT	2009	3260			
TB/TBmsy	TB-MT/TBmsy-MT	2010	1.313			
SSB/SSBmsy	-	-	-			
F/Fmsy	F-1/yr/Fmsy-1/yr	2010	0.182			
ER/ERmsy	ER-calc-ratio/ERmsy-calc-ratio	2010	0.228			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Monkfish Gulf of Maine / Northern Georges Bank [MONKGOMNGB]

Kobe MSYpref (1979–2010–SISIMP2016)

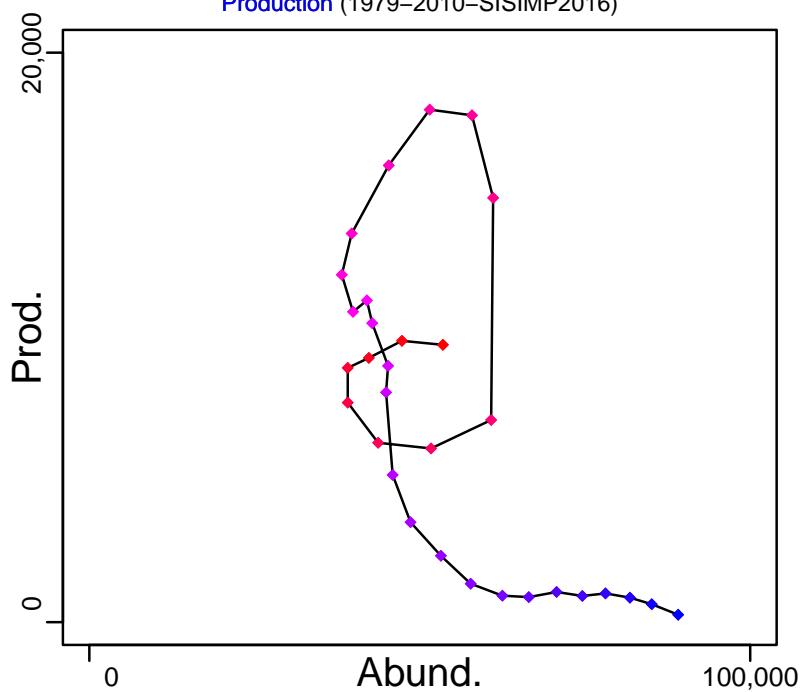
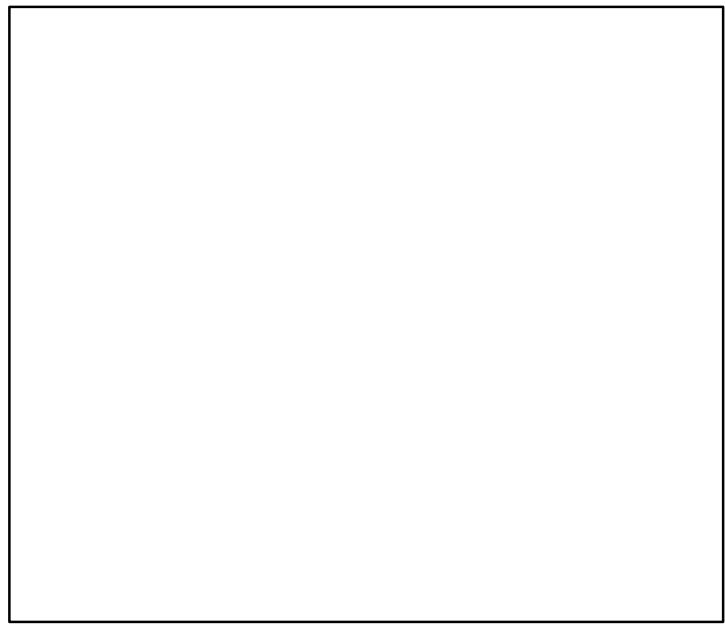


Kobe MGTpref (1979–2010–SISIMP2016)



Spawner Recruit*

Production (1979–2010–SISIMP2016)

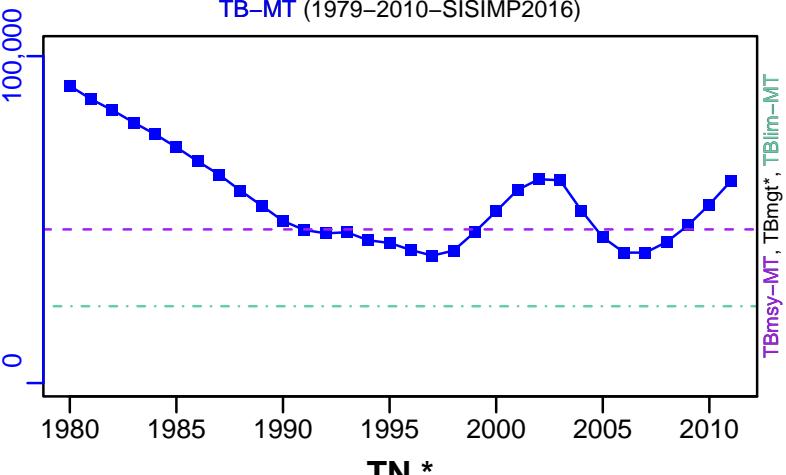


◆ Start Year ◆ End Year * No Data

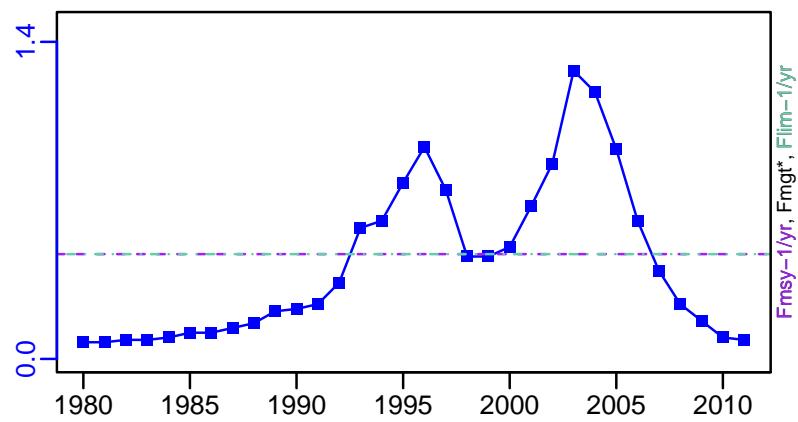
Monkfish Gulf of Maine / Northern Georges Bank [MONKGOMNGB]

TB-MT (1979–2010–SISIMP2016)

SSB*

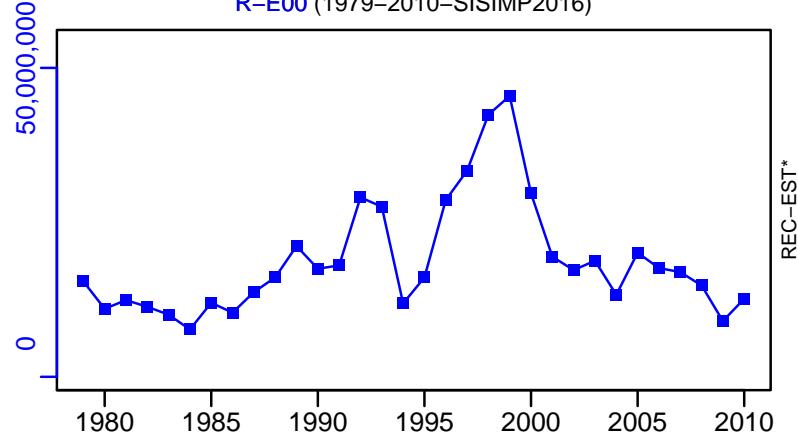
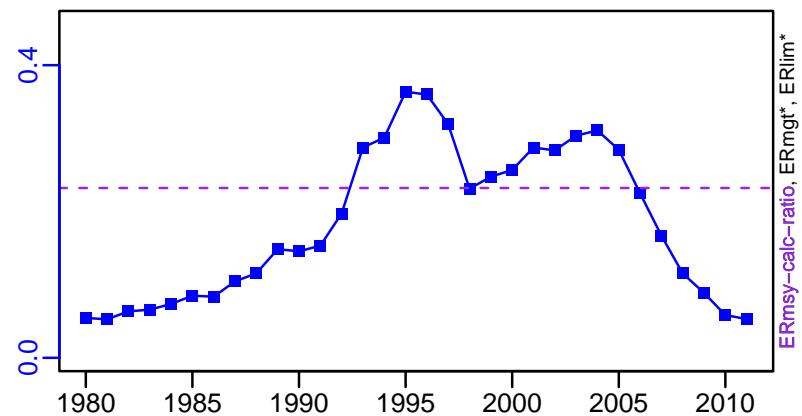


F-1/yr (1979–2010–SISIMP2016)



ER-calc-ratio (1979–2010–SISIMP2016)

R-E00 (1979–2010–SISIMP2016)

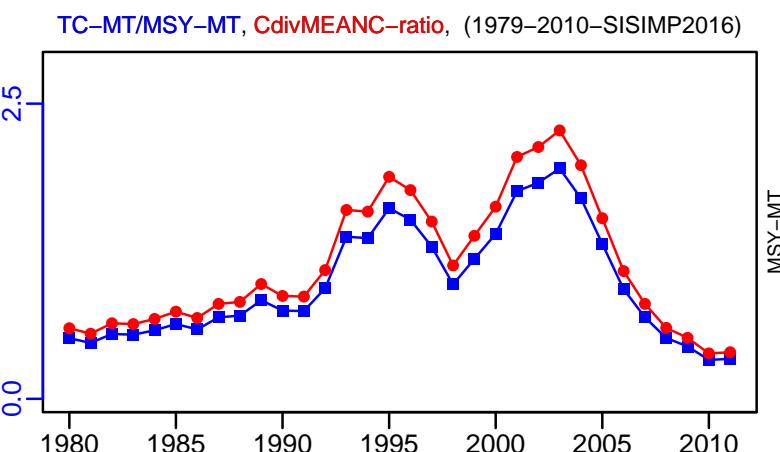
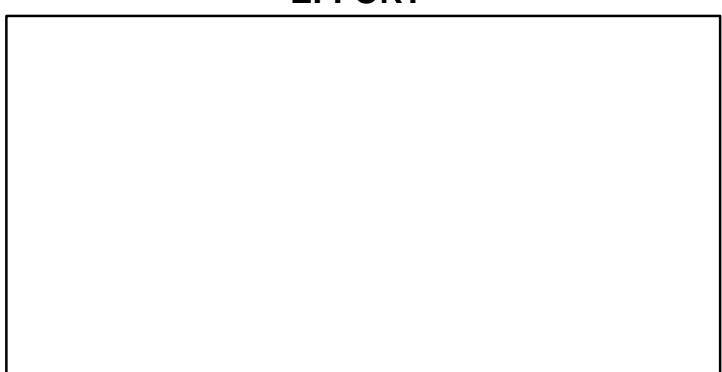
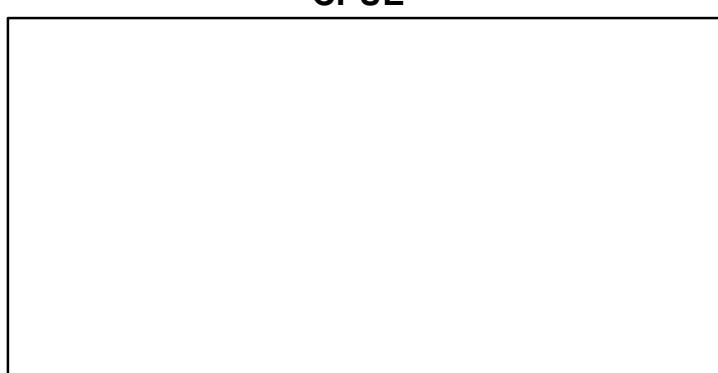
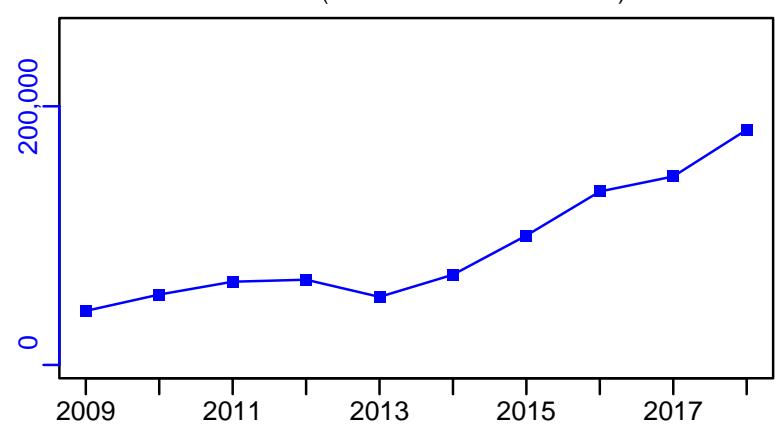
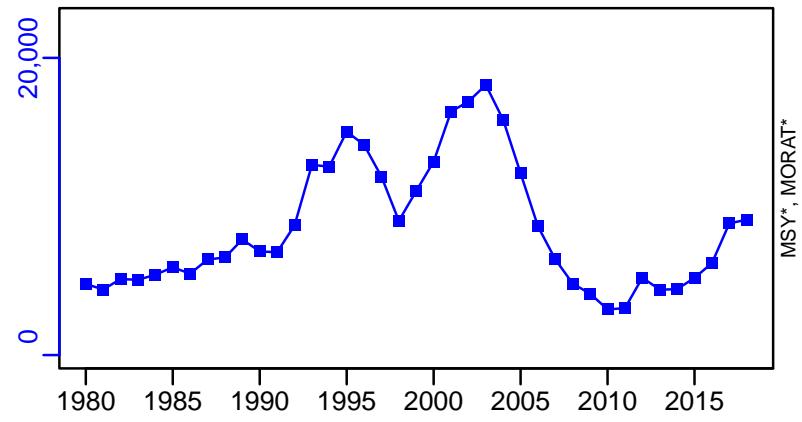


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	--- Lim BRP	* No Data

Monkfish Gulf of Maine / Northern Georges Bank [MONKGOMNGB]

TC-MT, TL*, RecC* (1980–2018–SISIMP2021–2)

TAC*, Cpair*, Cadv*



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

Monkfish Southern Georges Bank / Mid-Atlantic [MONKSGBMATL]

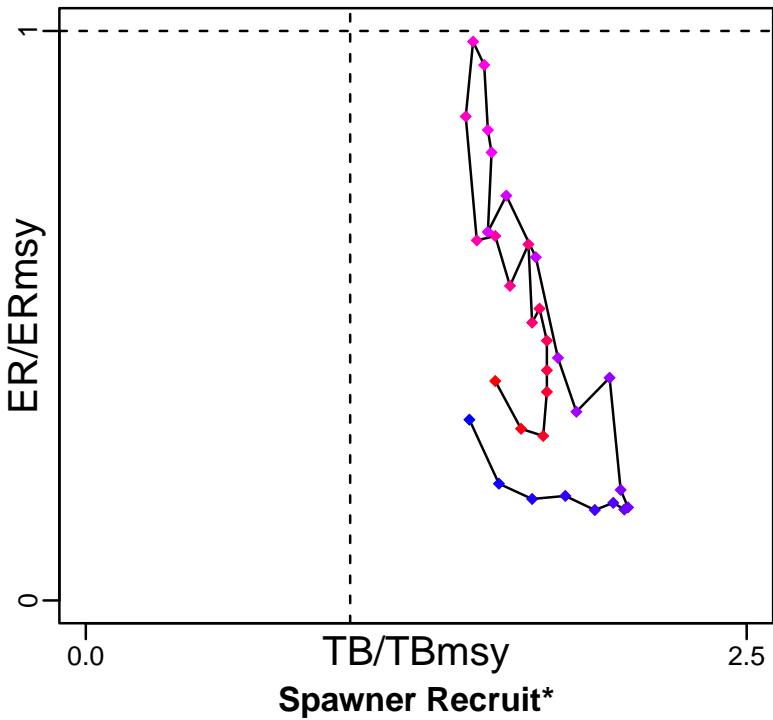
Metadata	
Scientific Name	Lophius americanus
Current Assess ID	NEFSC-MONKSGBMATL-1980-2018-SISIMP2021-2
Area	Southern Georges Bank / Mid-Atlantic
Management Authority	National Marine Fisheries Service, US national management
Assessor	Northeast Fisheries Science Center
Asmts in RAM	2010, 2009, 2018

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2010	71,667
SSBmsy	-	-	-
Fmsy	Fmsy-1/yr	2010	0.37
ERmsy	ERmsy-calc-ratio	2010	0.2
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2010	14,328
M	M-1/yr	2009	0.3
TBlim	TBlim-MT	2010	35,834
SSBlim	-	-	-
Flim	Flim-1/yr	2010	0.37
ERlim	-	-	-

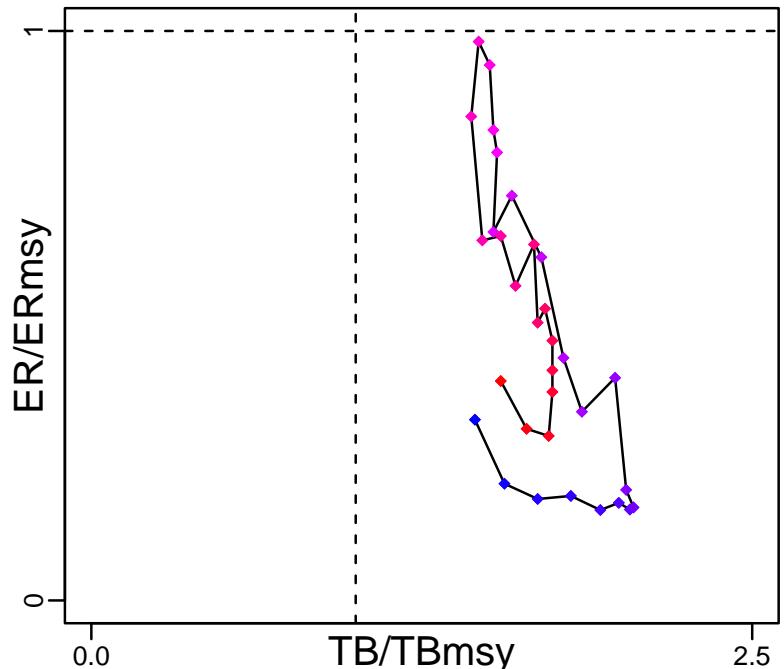
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2010	111,000	-	-	
SSB	-	-	-	-	-	
TN	-	-	-	-	-	
R	R-E00	2010	23,300,000	-	1	
F	F-1/yr	2010	0.11	-	-	
ER	ER-calc-ratio	2010	0.077	-	-	
TC	TC-MT	2018	9620			
TL	TL-MT	2009	5300			
TB/TBmsy	TB-MT/TBmsy-MT	2010	1.549			
SSB/SSBmsy	-	-	-			
F/Fmsy	F-1/yr/Fmsy-1/yr	2010	0.297			
ER/ERmsy	ER-calc-ratio/ERmsy-calc-ratio	2010	0.385			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Monkfish Southern Georges Bank / Mid-Atlantic [MONKSGBMATL]

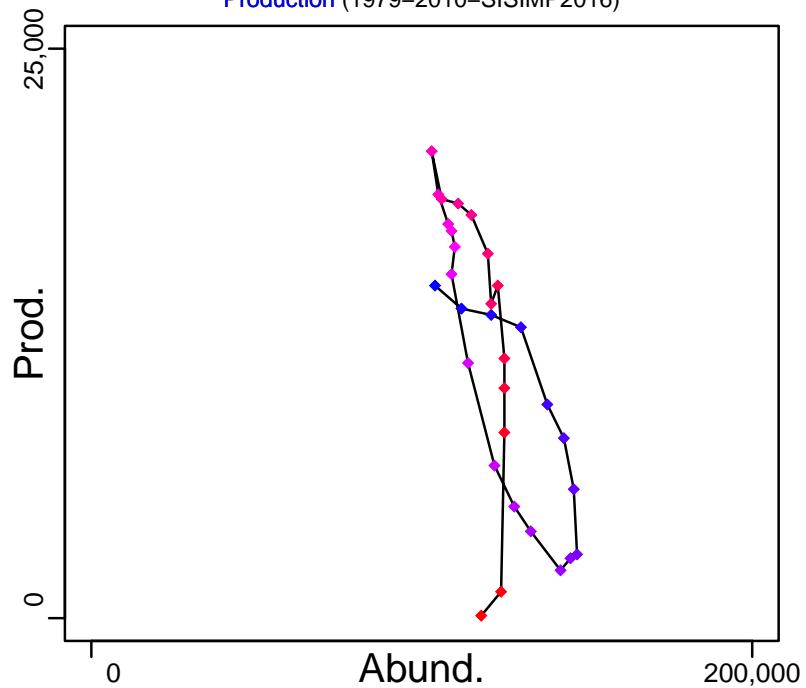
Kobe MSYpref (1979–2010–SISIMP2016)



Kobe MGTpref (1979–2010–SISIMP2016)



Production (1979–2010–SISIMP2016)

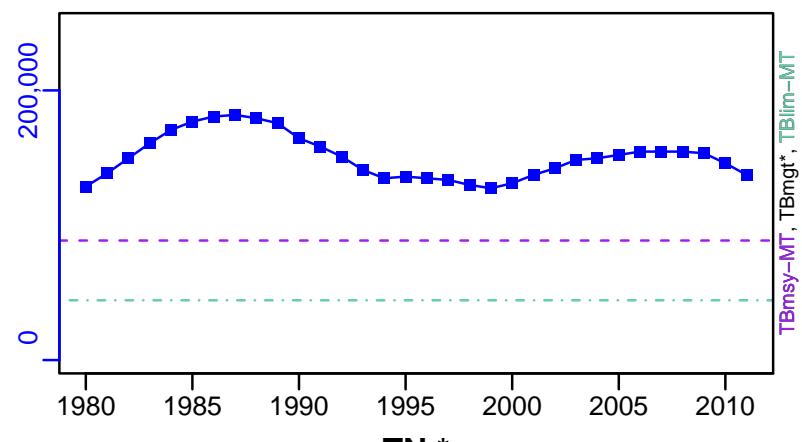


◆ Start Year ◆ End Year * No Data

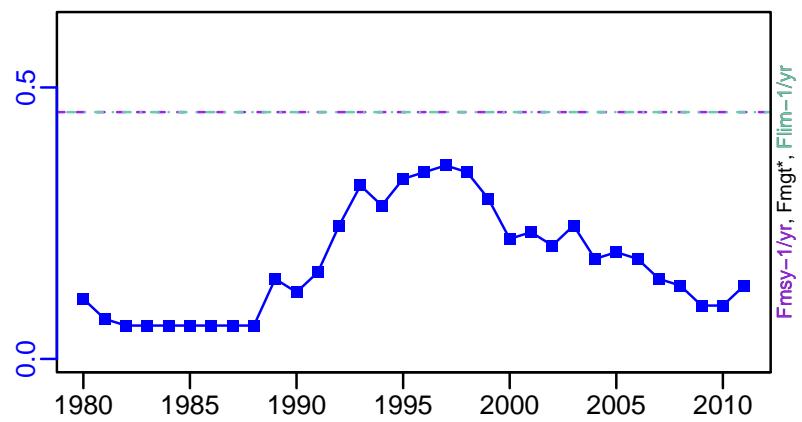
Monkfish Southern Georges Bank / Mid-Atlantic [MONKSGBMATL]

TB-MT (1979–2010–SISIMP2016)

SSB*

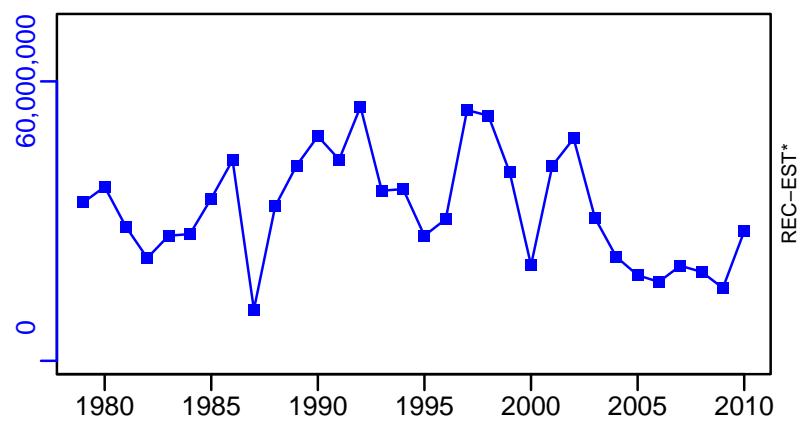
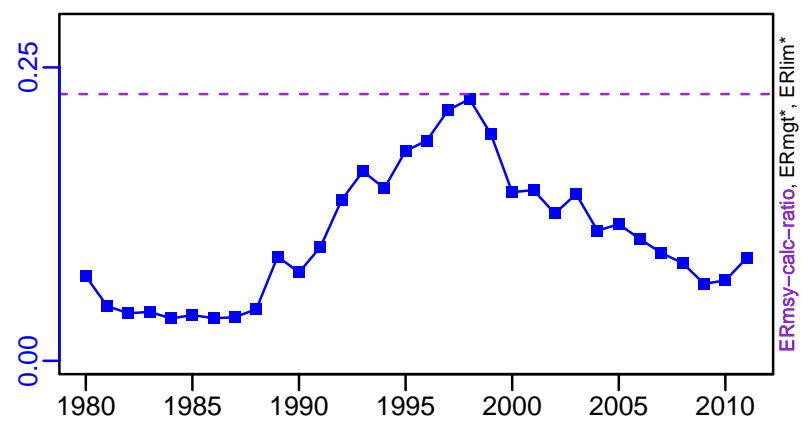


F-1/yr (1979–2010–SISIMP2016)



ER-calc-ratio (1979–2010–SISIMP2016)

R-E00 (1979–2010–SISIMP2016)

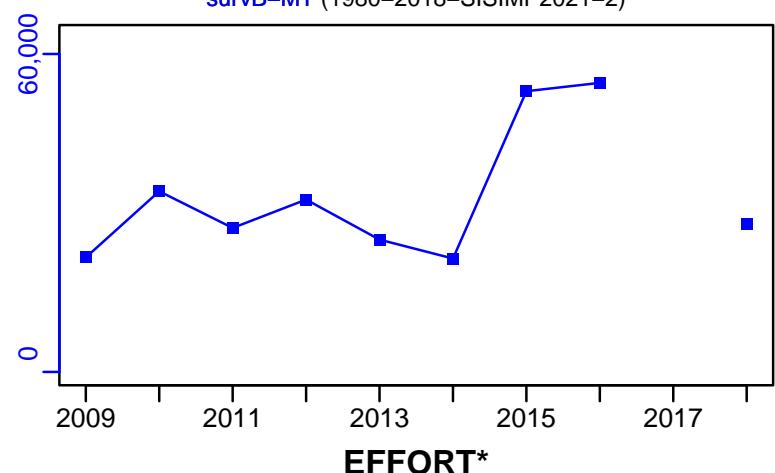
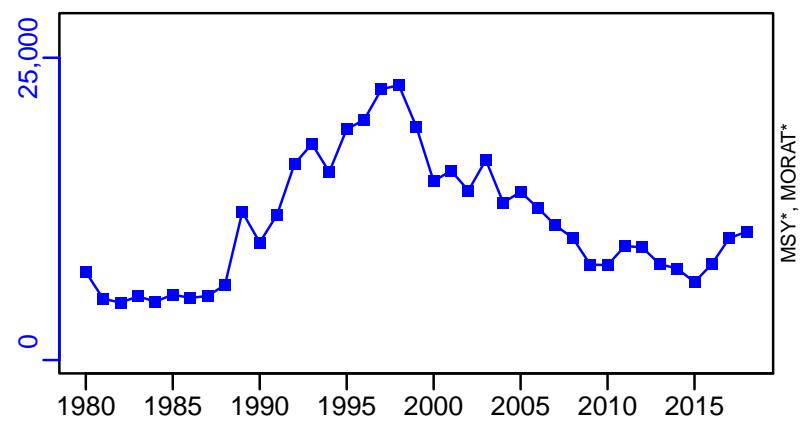


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	--- Lim BRP	* No Data

Monkfish Southern Georges Bank / Mid-Atlantic [MONKSGBMATL]

TC-MT, TL*, RecC* (1980–2018–SISIMP2021–2)

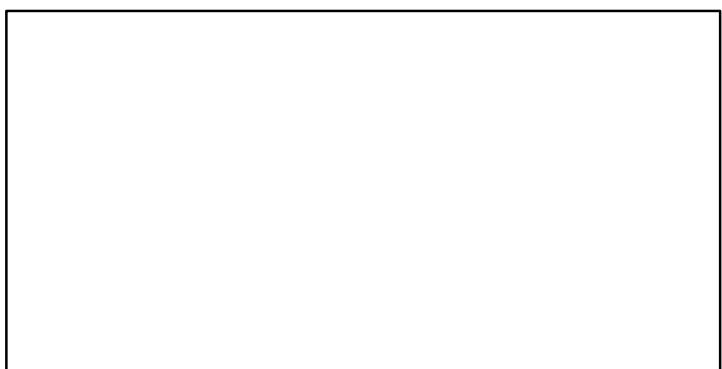
TAC*, Cpair*, Cadv*



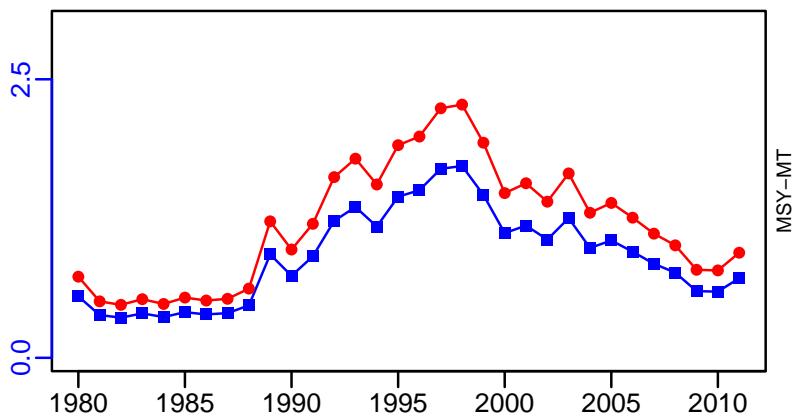
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1979–2010–SISIMP2016)



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

Sea mullet Queensland and New South Wales [MULLQNSW]

Metadata	
Scientific Name	Mugil cephalus
Current Assess ID	DPIF-MULLQNSW-1945-2003-BANOBI
Area	Queensland and New South Wales
Management Authority	Department of Primary Industries and Fisheries
Assessor	Department of Primary Industries and Fisheries
Asmts in RAM	2003

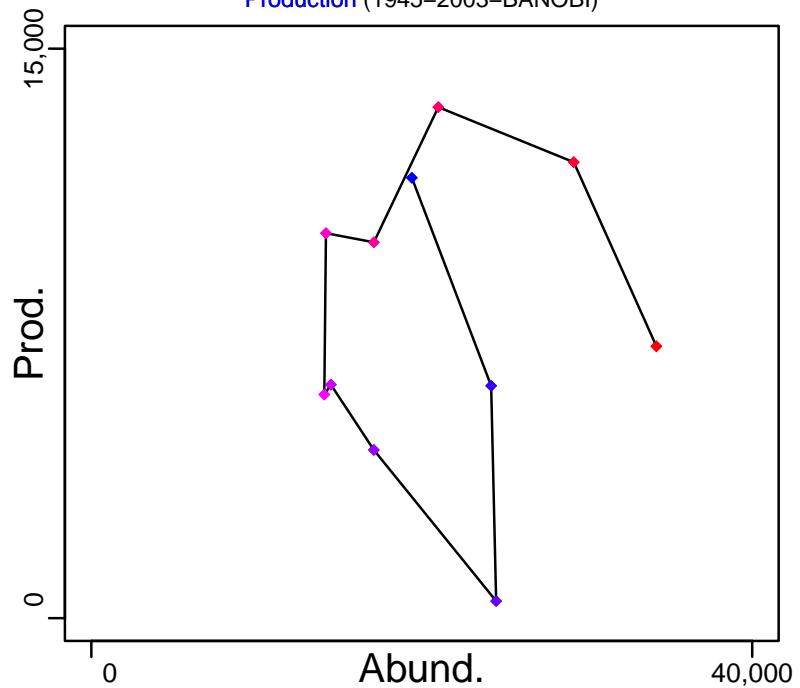
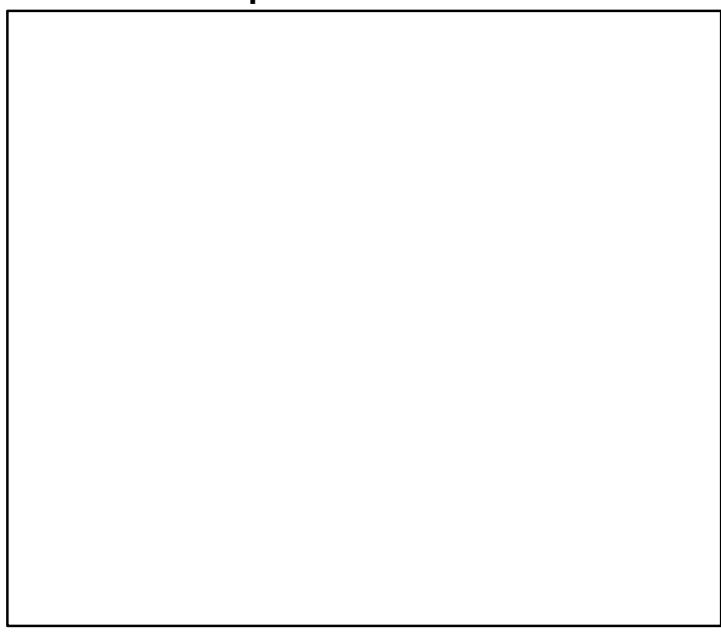
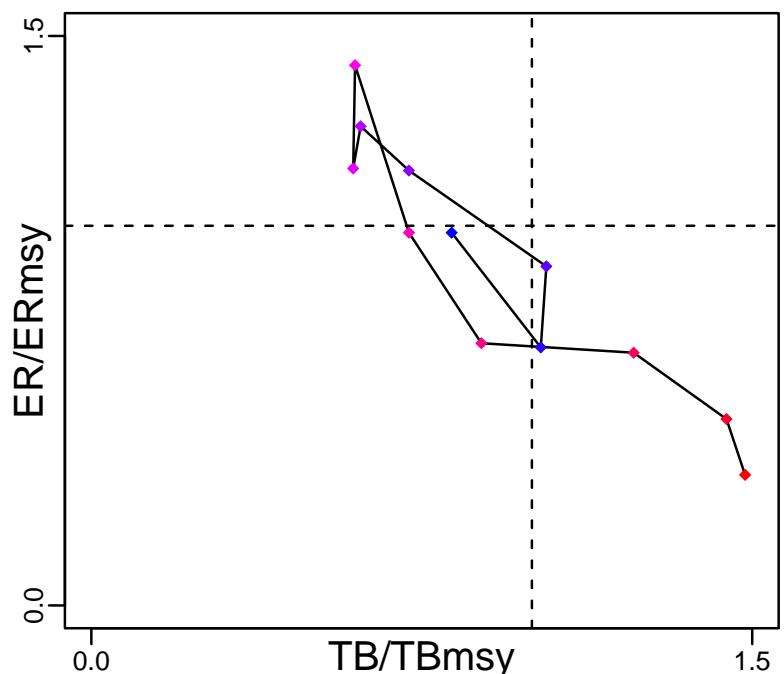
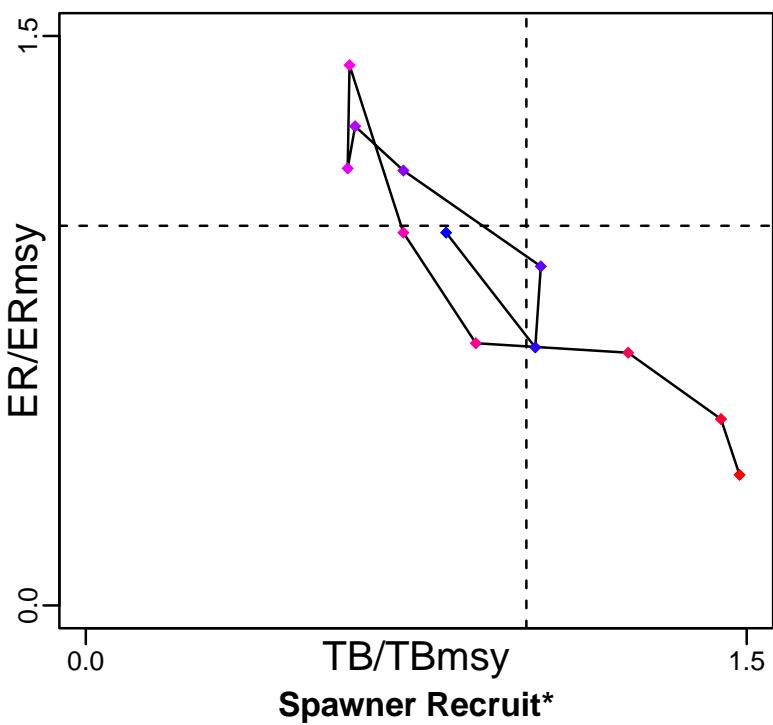
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2003	0.33
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2003	35,200	-	-	
SSB	-	-	-	-	-	
TN	-	-	-	-	-	
R	R-E00	2003	41,800,000	-	-	
F	-	-	-	-	-	
ER	ER-ratio	2003	0.124	-	-	
TC	-	-	-			
TL	TL-MT	2003	4220			
TB/TBmsy	-	-	-			
SSB/SSBmsy	-	-	-			
F/Fmsy	-	-	-			
ER/ERmsy	-	-	-			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Sea mullet Queensland and New South Wales [MULLQNSW]

Kobe MSYpref (1945–2003–BANOBI)

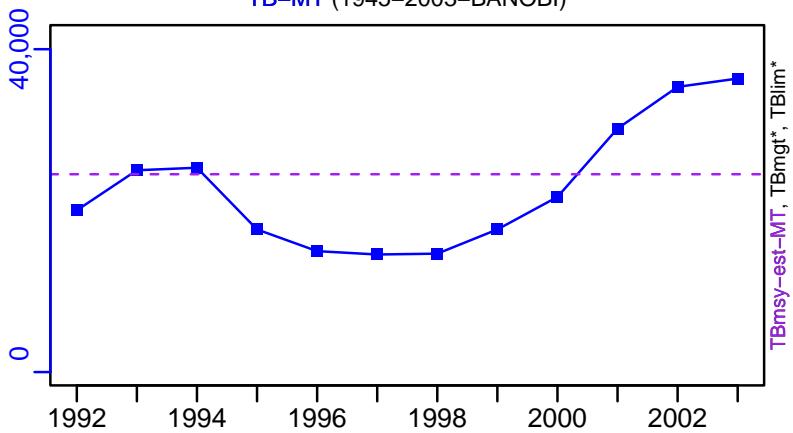
Kobe MGTpref (1945–2003–BANOBI)



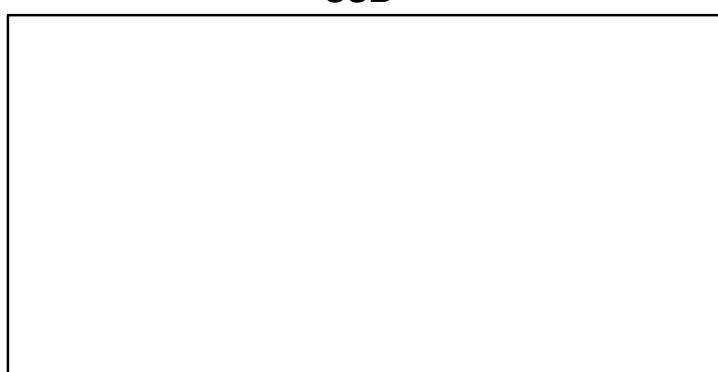
◆ Start Year ◆ End Year * No Data

Sea mullet Queensland and New South Wales [MULLQNSW]

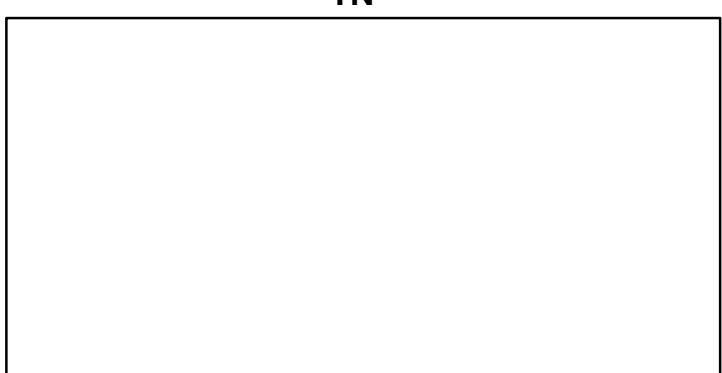
TB-MT (1945–2003–BANOBI)



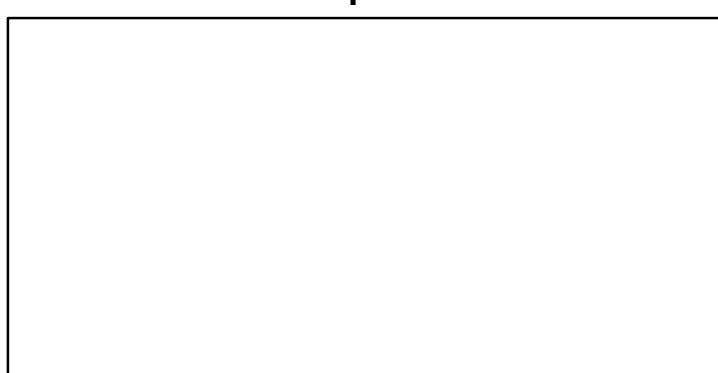
SSB*



TN *

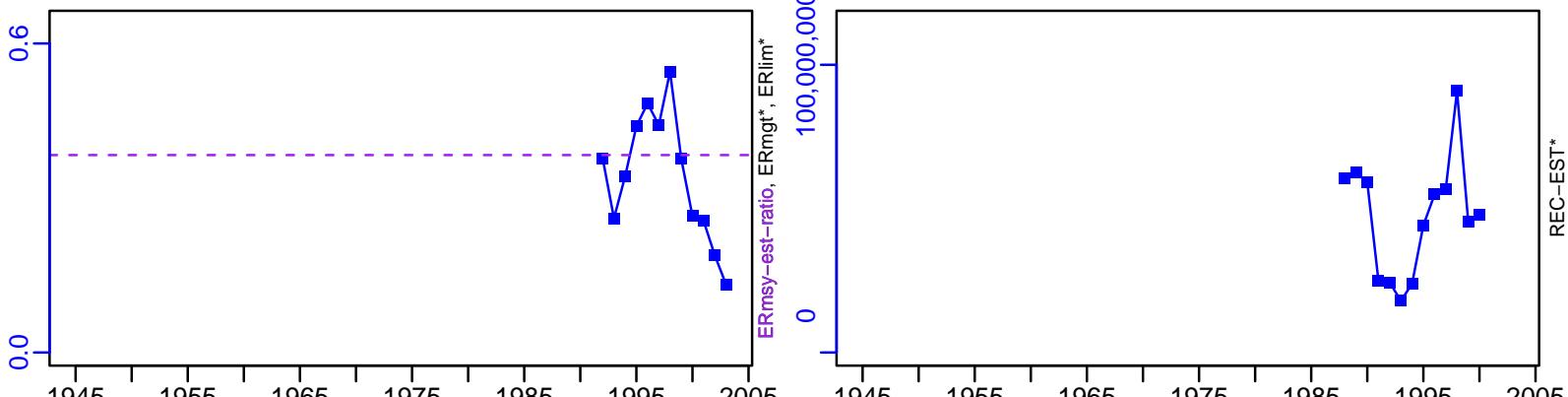


F*



ER-ratio (1945–2003–BANOBI)

R-E00 (1945–2003–BANOBI)

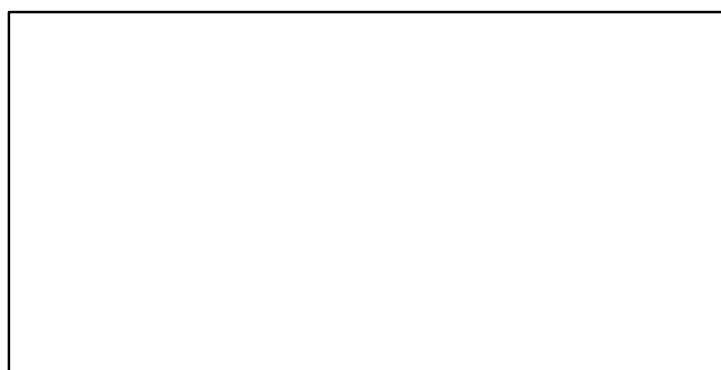
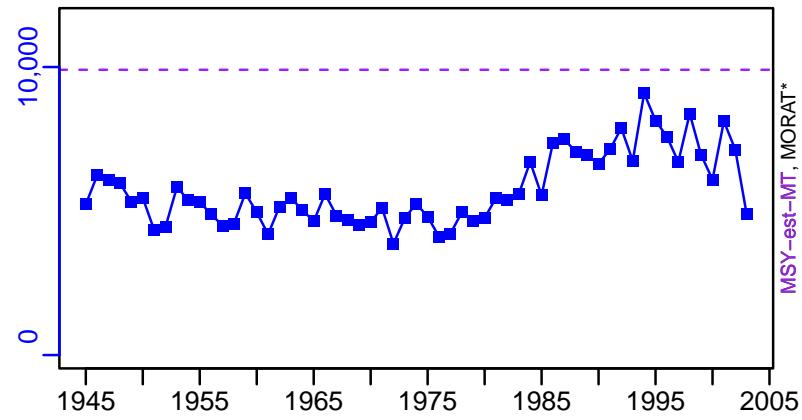


■ Listed time series	— Target BRP	— Rec-Est
- - MSY-based BRP	·· Lim BRP	* No Data

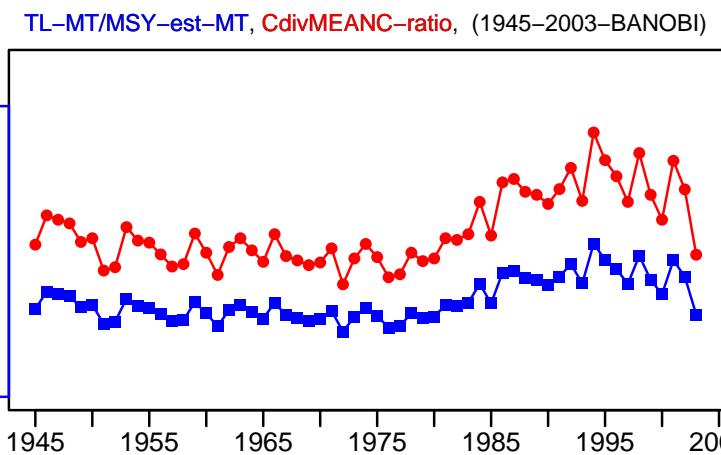
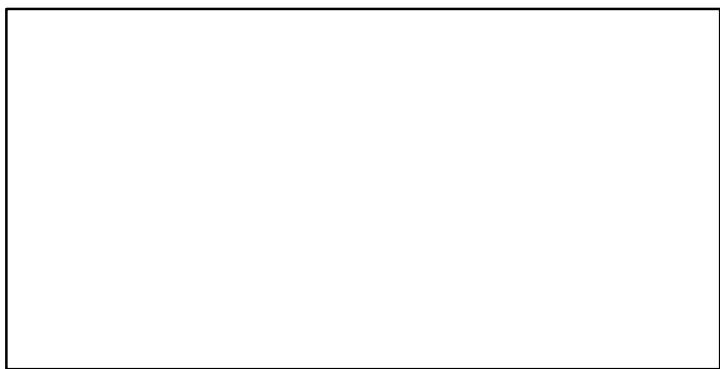
Sea mullet Queensland and New South Wales [MULLQNSW]

TL-MT, TC*, RecC* (1945–2003–BANOBI)

TAC*, Cpair*, Cadv*



EFFORT*



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

Ling Southeast Australia [NZLINGESE]

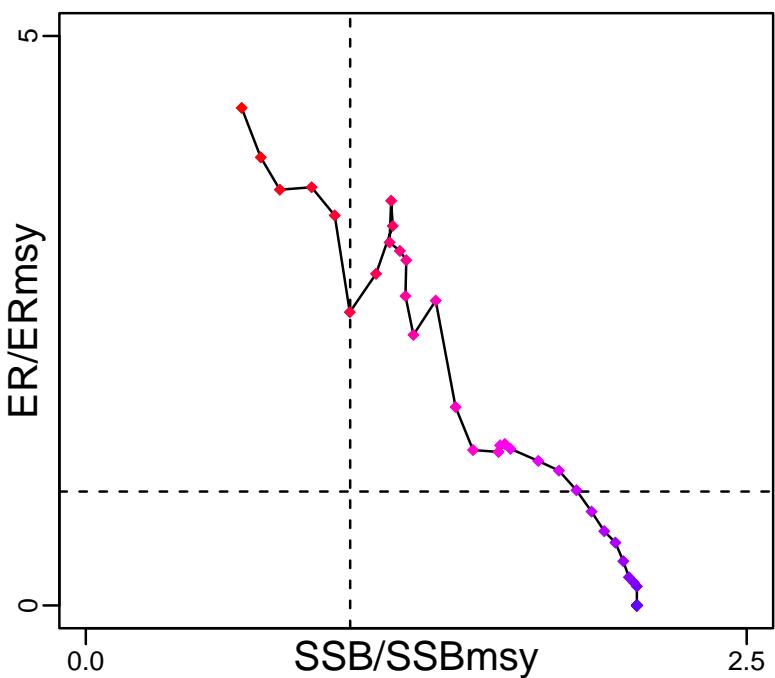
Metadata	
Scientific Name	Genypterus blacodes
Current Assess ID	CSIRO-NZLINGESE-1968-2007-FULTON
Area	Southeast Australia
Management Authority	Australian Fisheries Management Authority, Australia national management
Assessor	Commonwealth Scientific and Industrial Research Organization
Asmts in RAM	2007

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2007	3324
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2007	0.2
TBlim	TBlim-MT	2007	1385
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

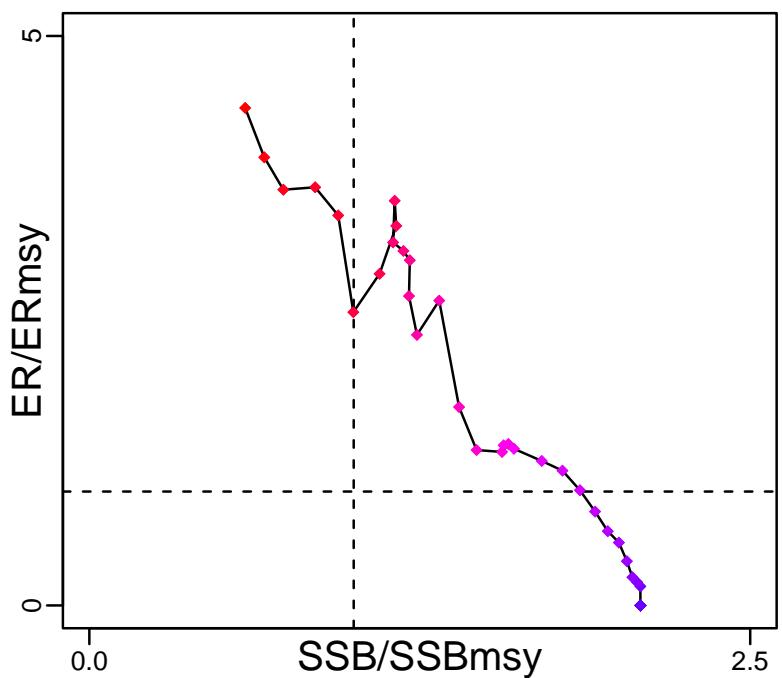
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2007	4260	-	0	
SSB	SSB-MT	2007	1960	Females	-	
TN	-	-	-	-	-	
R	R-E00	2007	1,930,000	-	0	
F	-	-	-	-	-	
ER	ER-calc-ratio	2007	0.173	-	-	
TC	-	-	-			
TL	TL-MT	2007	736			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2007	0.59			
F/Fmsy	-	-	-			
ER/ERmsy	-	-	-			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Ling Southeast Australia [NZLINGESE]

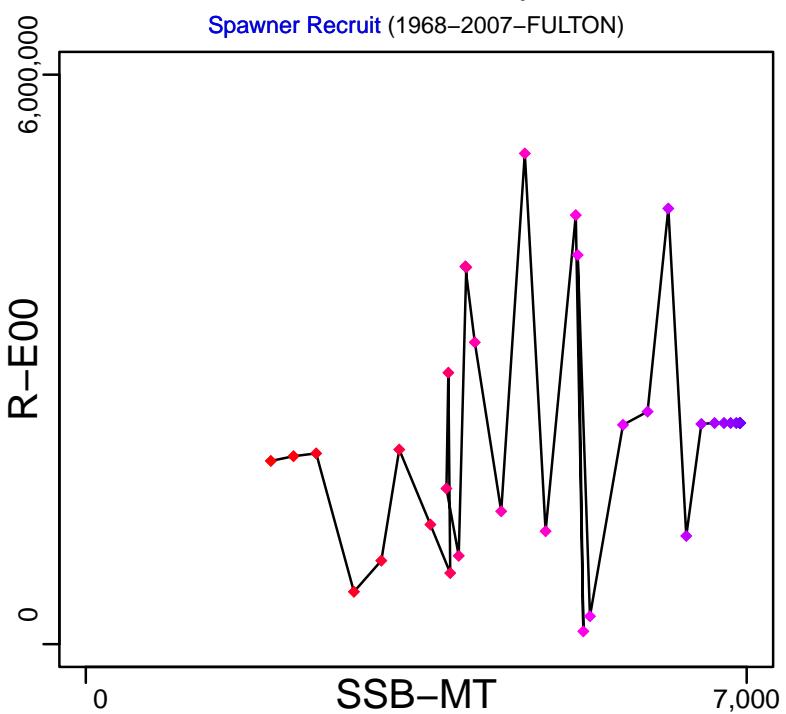
Kobe MSYpref (1968–2007–FULTON)



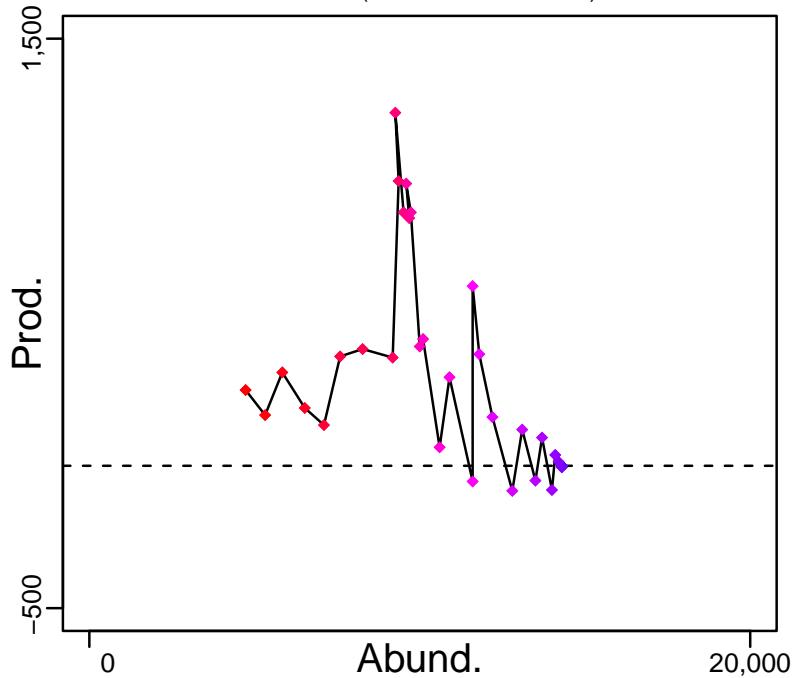
Kobe MGTpref (1968–2007–FULTON)



Spawner Recruit (1968–2007–FULTON)



Production (1968–2007–FULTON)

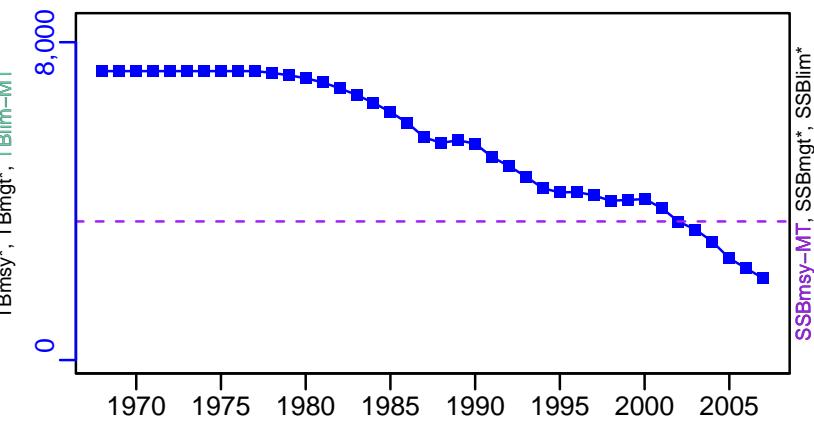
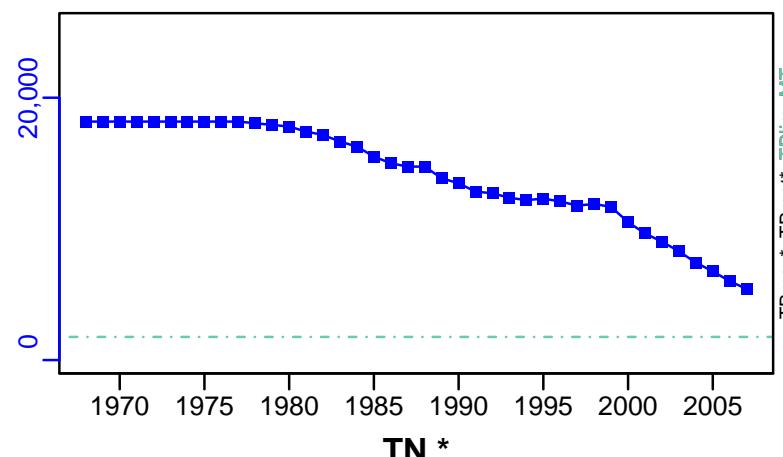


◆ Start Year ◆ End Year * No Data

Ling Southeast Australia [NZLINGESE]

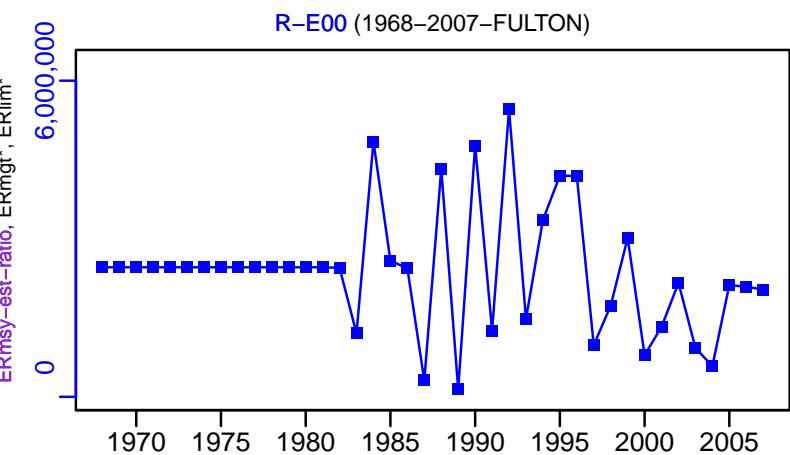
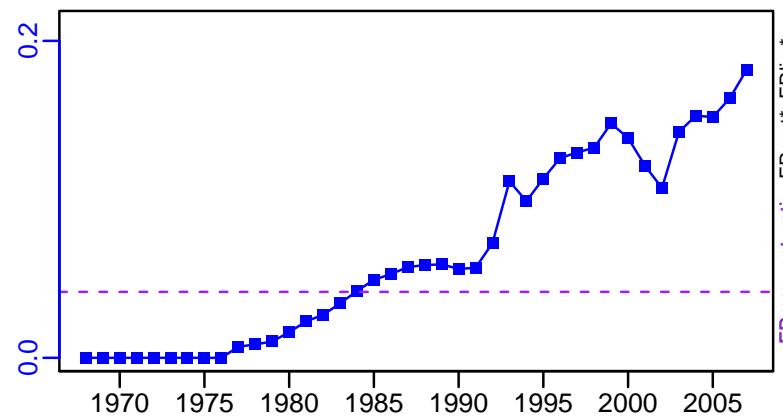
TB-MT (1968–2007–FULTON)

SSB-MT (1968–2007–FULTON)



ER-calc-ratio (1968–2007–FULTON)

R-E00 (1968–2007–FULTON)

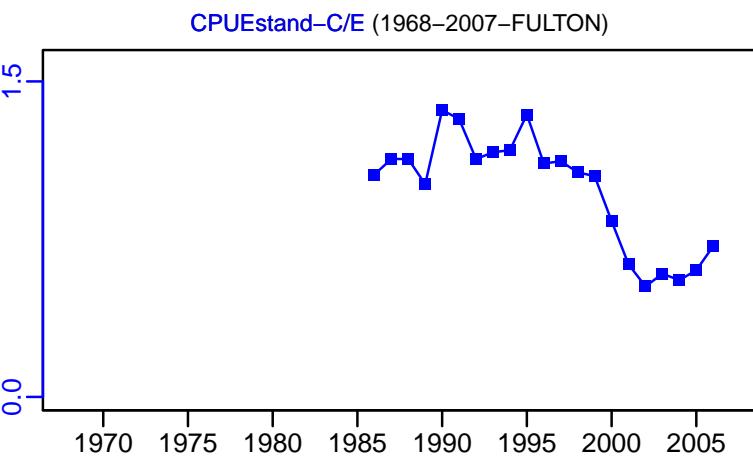
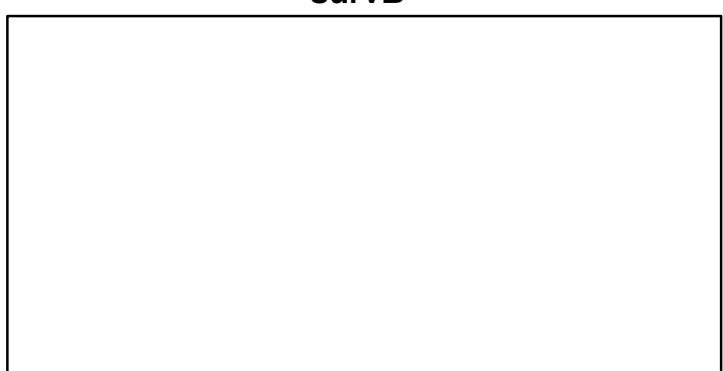
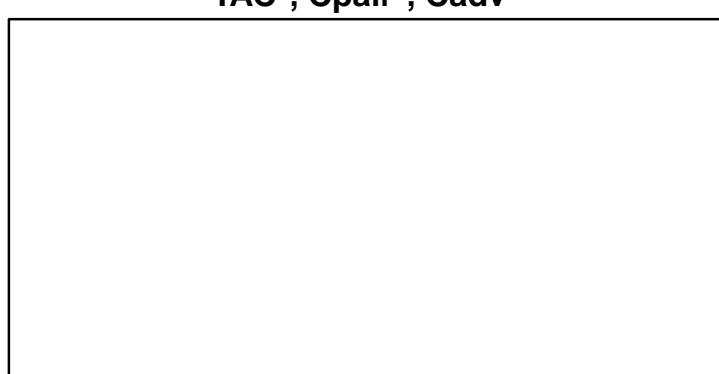
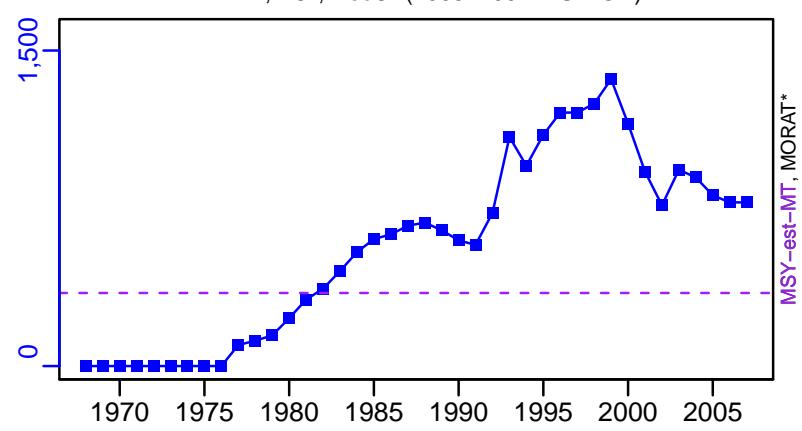


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - - Lim BRP	* No Data

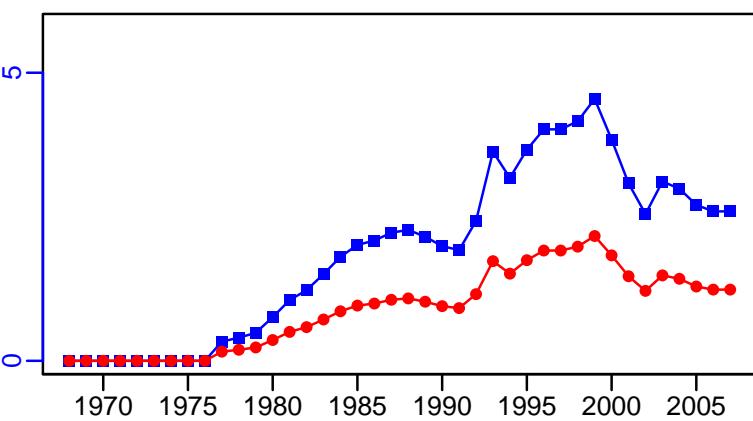
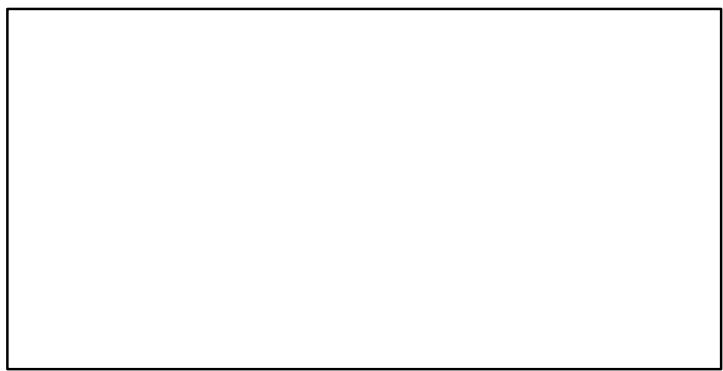
Ling Southeast Australia [NZLINGESE]

TL-MT, TC*, RecC* (1968–2007–FULTON)

TAC*, Cpair*, Cadv*



EFFORT*



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

Ling New Zealand Areas LIN 3 and 4 [NZLINGLIN3-4]

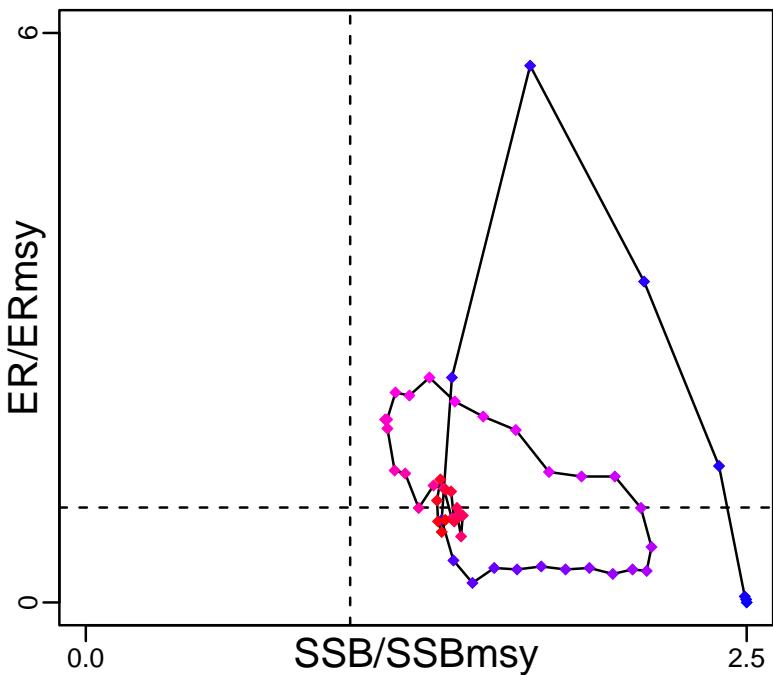
Metadata	
Scientific Name	Genypterus blacodes
Current Assess ID	NIWA-NZLINGLIN3-4-1969-2022-MORMEDE
Area	New Zealand Areas LIN 3 and 4
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2011, 2014, 2022, 2019

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2014	17,362
SSBmsy	SSBmsy-MT	2022	43,290
Fmsy	Fmsy-1/yr	2011	0.19
ERmsy	ERmsy-ratio	2014	0.37
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2022	43,290
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2022	108,224
MSY	MSY-MT	2014	6424
M	M-1/yr	2022	0.156
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

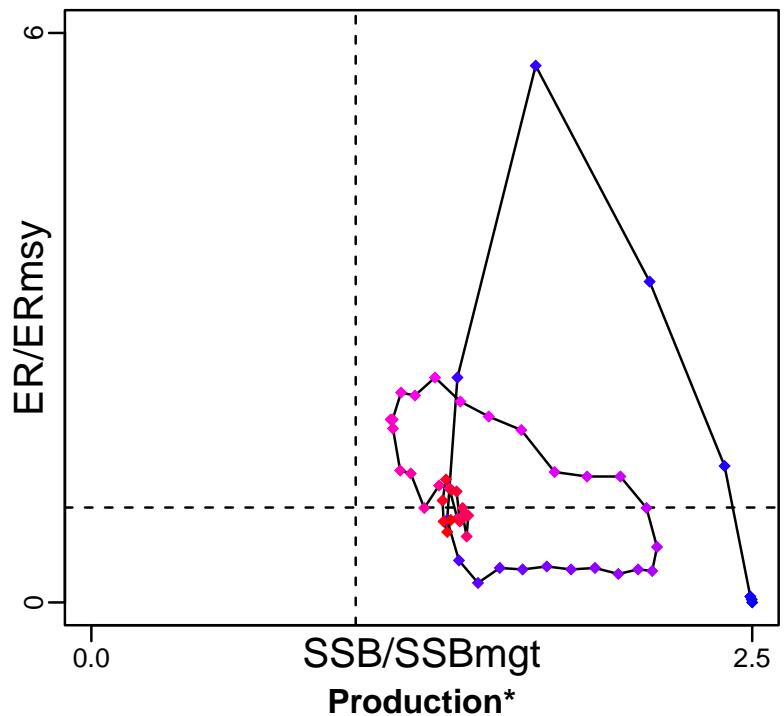
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	-	-	-	-	-	
SSB	SSB-MT	2022	58,865	Both	-	
TN	-	-	-	-	-	
R	R-E00	2022	7,208,380	Both	3	
F	F-1/yr	2011	0.023	-	-	
ER	ER-ratio	2022	0.055	Both	-	
TC	TC-MT	2022	2723			
TL	TL-MT	2022	2723			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2022	1.36			
F/Fmsy	FdivFmsy-dimensionless	2011	0.123			
ER/ERmsy	ER-ratio/ERmsy-ratio	2011	0.117			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2022	1.36			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Ling New Zealand Areas LIN 3 and 4 [NZLINGLIN3-4]

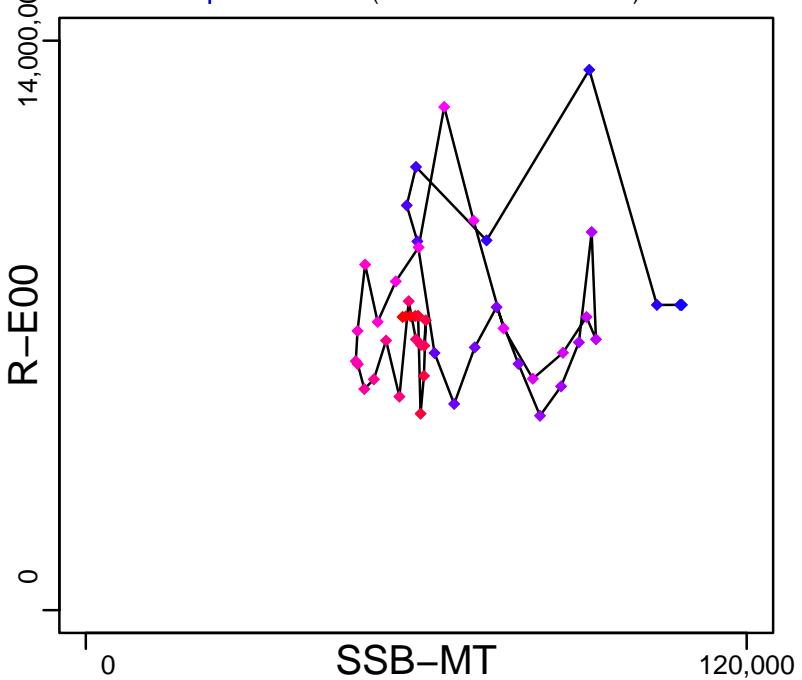
Kobe MSYpref (1969–2022–MORMEDE)



Kobe MGTpref (1969–2022–MORMEDE)



Spawner Recruit (1969–2022–MORMEDE)



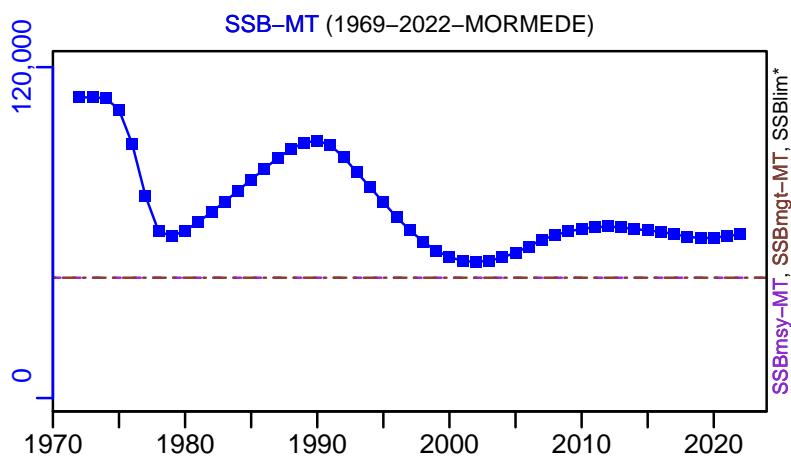
◆ Start Year ◆ End Year * No Data

Ling New Zealand Areas LIN 3 and 4 [NZLINGLIN3-4]

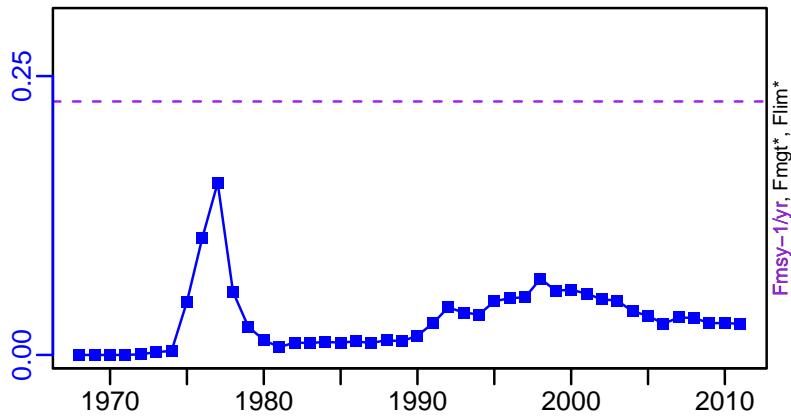
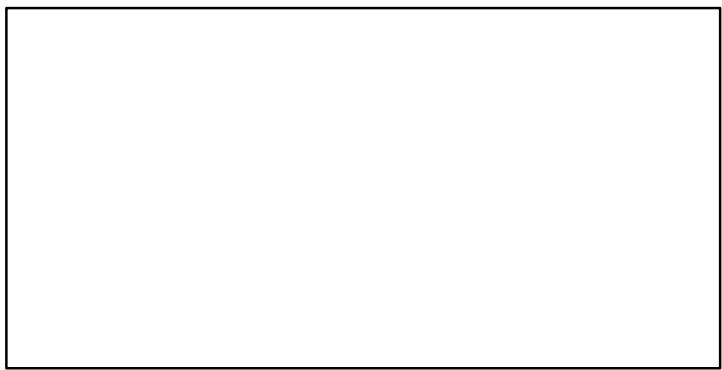
TB*



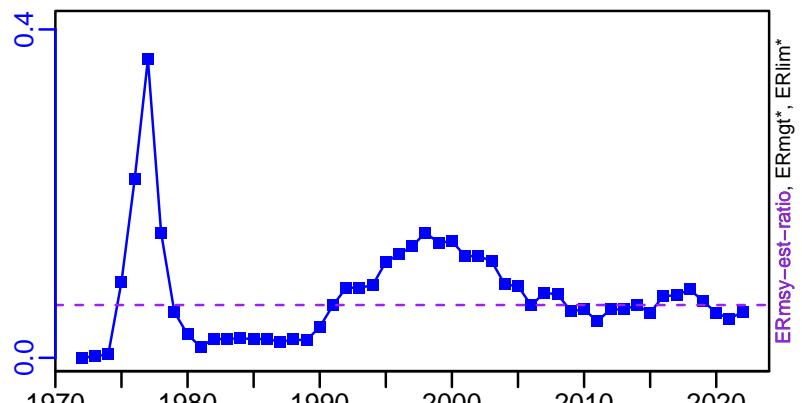
SSB-MT (1969–2022–MORMEDE)



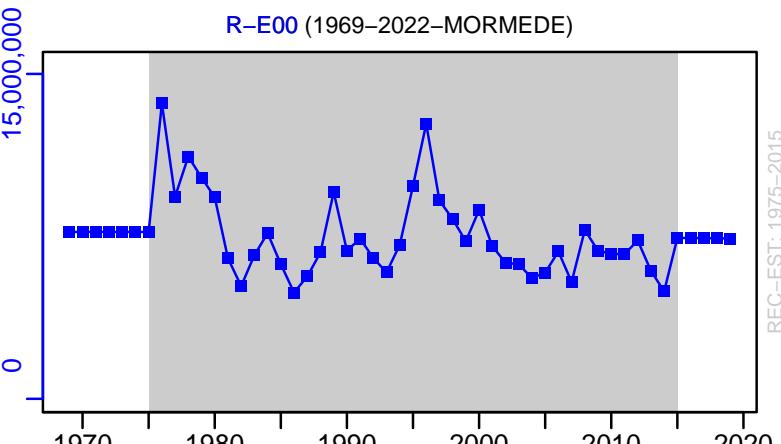
TN *



ER-ratio (1969–2022–MORMEDE)



R-E00 (1969–2022–MORMEDE)



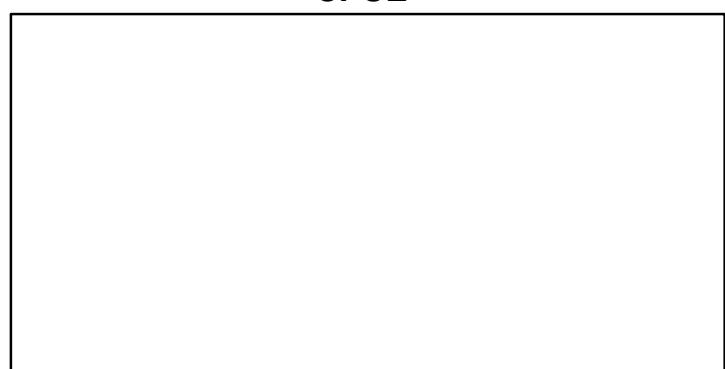
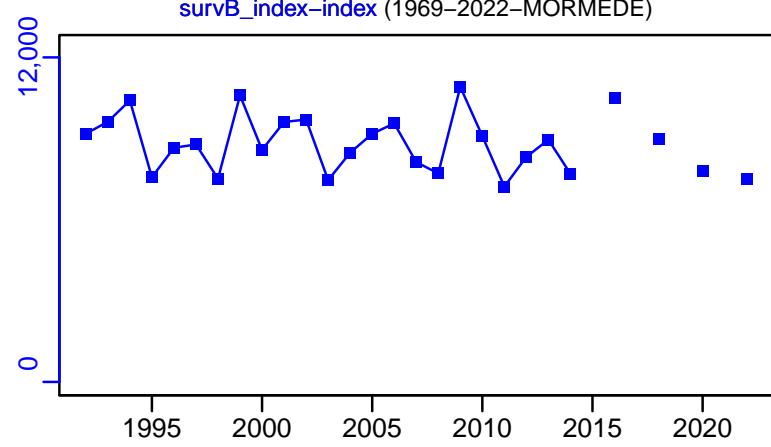
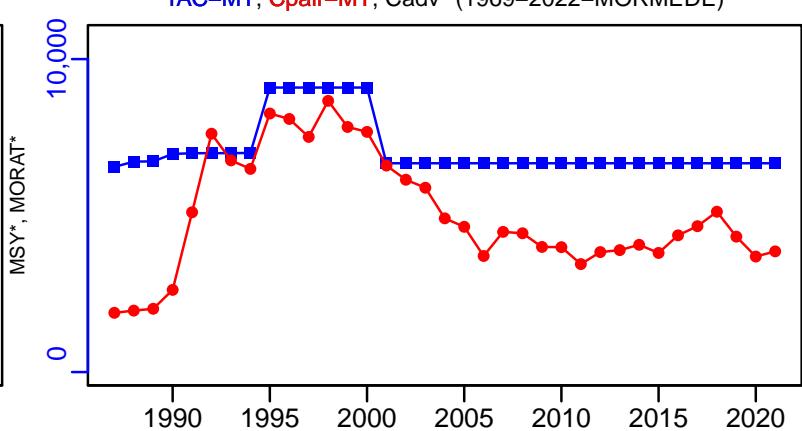
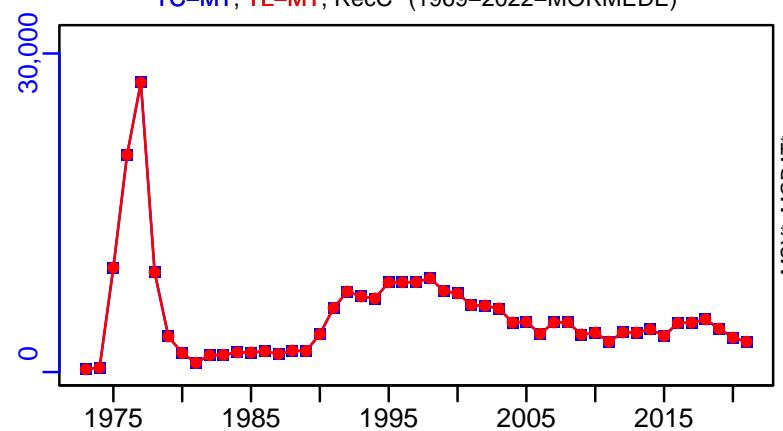
REC-EST: 1975–2015

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

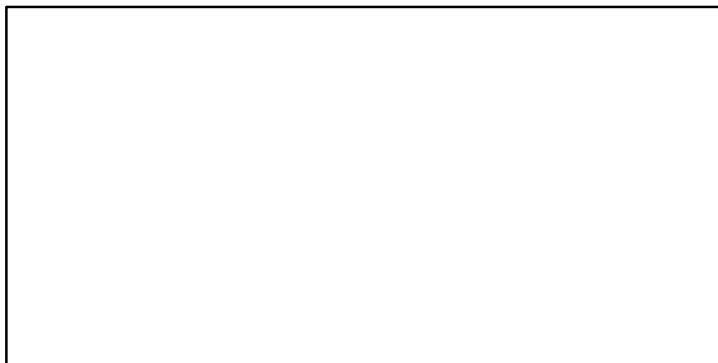
Ling New Zealand Areas LIN 3 and 4 [NZLINGLIN3-4]

TC-MT, TL-MT, RecC* (1969–2022–MORMEDE)

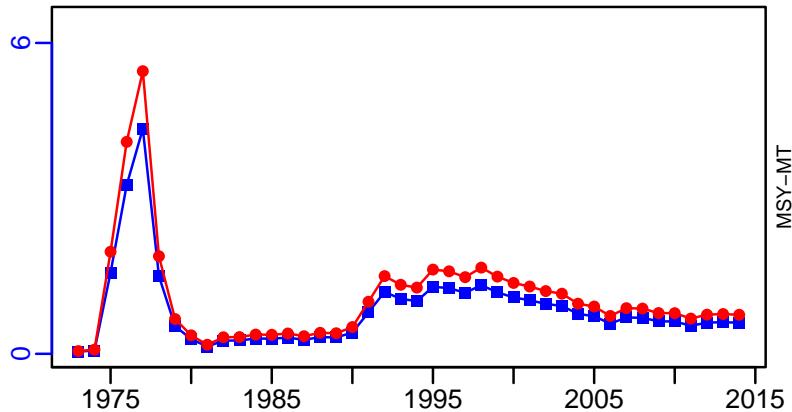
TAC-MT, Cpair-MT, Cadv* (1969–2022–MORMEDE)



EFFORT*



TC-MT/MSY-MT, CdiveMEANC-ratio, (1968–2014–FU)



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

Ling New Zealand Areas LIN 5 and 6 [NZLINGLIN5-6]

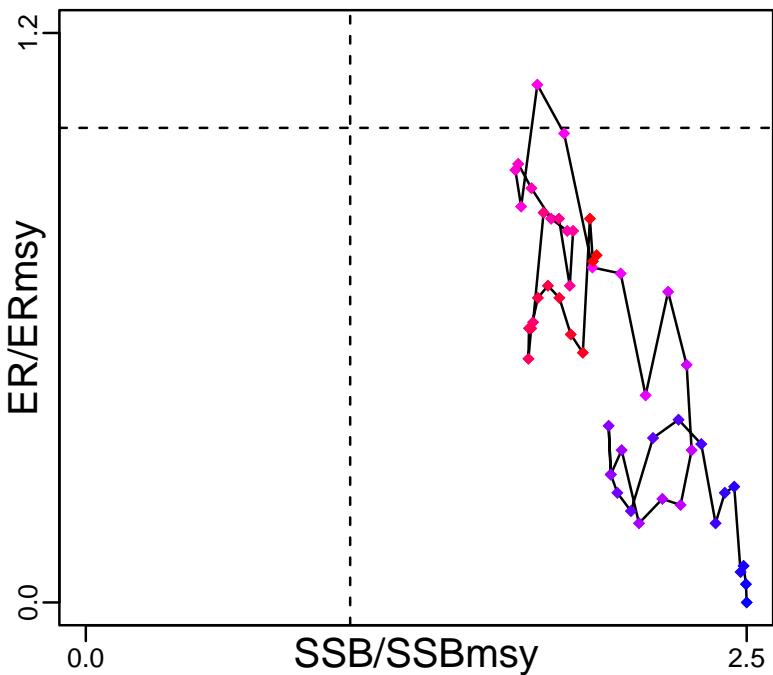
Metadata	
Scientific Name	Genypterus blacodes
Current Assess ID	NIWA-NZLINGLIN5-6-1969-2021-MORMEDE
Area	New Zealand Areas LIN 5 and 6
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2011, 2014, 2021, 2019

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2011	159,694
SSBmsy	SSBmsy-MT	2021	77,624
Fmsy	Fmsy-1/yr	2011	0.49
ERmsy	ERmsy-ratio	2011	0.162
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2021	77,624
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2021	194,059
MSY	MSY-MT	2014	23,827
M	M-1/yr	2021	0.18
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

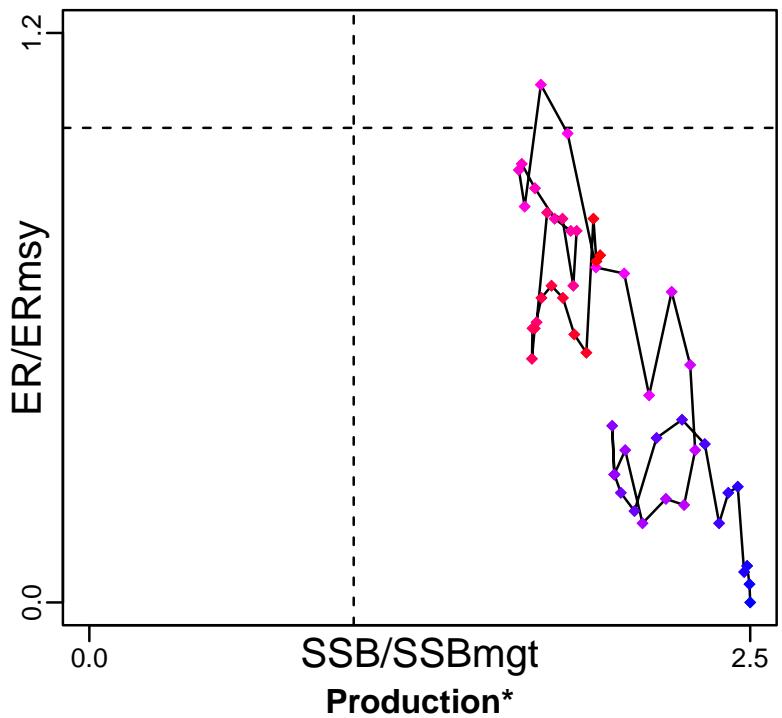
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	-	-	-	-	-	
SSB	SSB-MT	2021	150,177	-	3-25+	
TN	-	-	-	-	-	
R	R-E00	2021	150,177	-	3	
F	F-1/yr	2011	0.02	-	-	
ER	ER-ratio	2021	0.057	-	3-25+	
TC	TC-MT	2021	8553			
TL	TL-MT	2021	8553			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2021	1.935			
F/Fmsy	FdivFmsy-dimensionless	2011	0.041			
ER/ERmsy	ER-ratio/ERmsy-ratio	2011	0.048			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2021	1.935			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Ling New Zealand Areas LIN 5 and 6 [NZLINGLIN5-6]

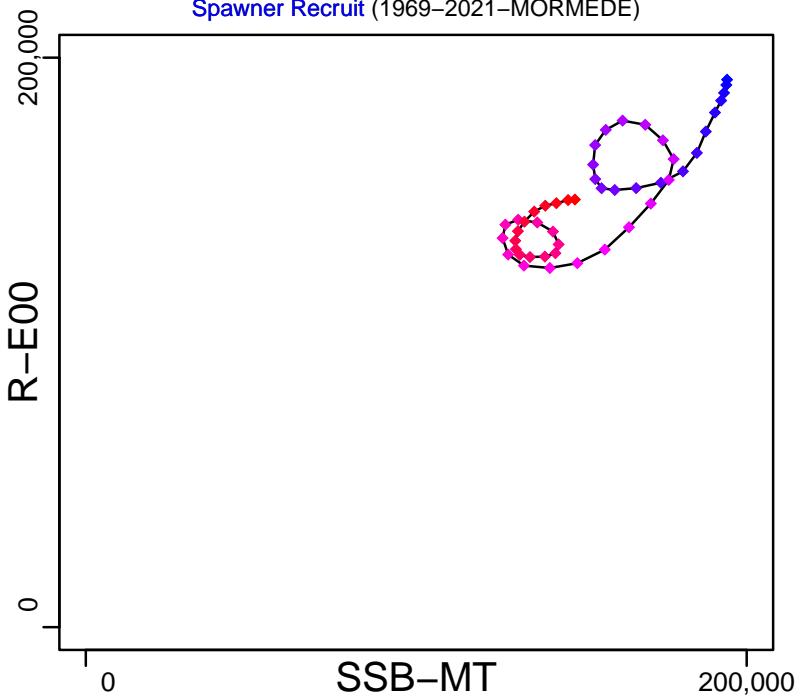
Kobe MSYpref (1969–2021–MORMEDE)



Kobe MGTpref (1969–2021–MORMEDE)



Spawner Recruit (1969–2021–MORMEDE)



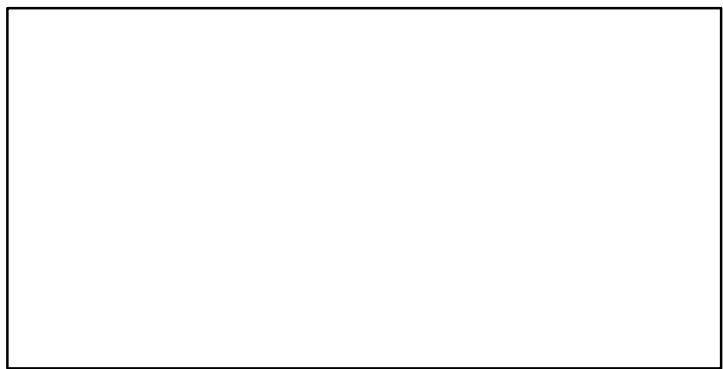
Production*



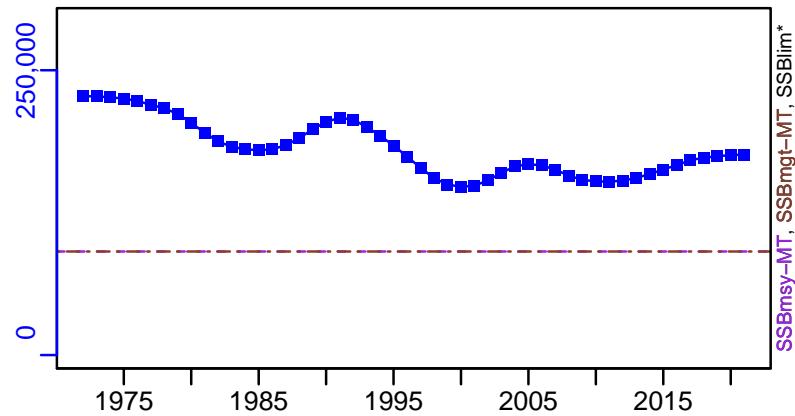
◆ Start Year ◆ End Year * No Data

Ling New Zealand Areas LIN 5 and 6 [NZLINGLIN5-6]

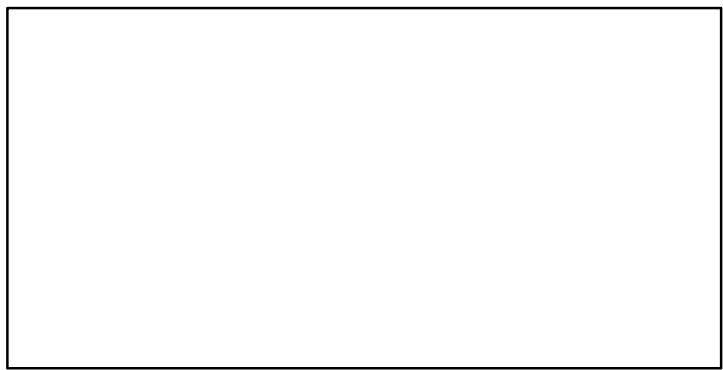
TB*



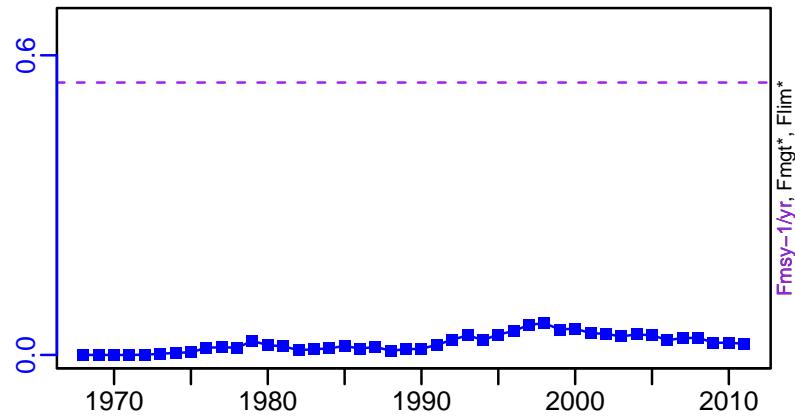
SSB-MT (1969–2021–MORMEDE)



TN *

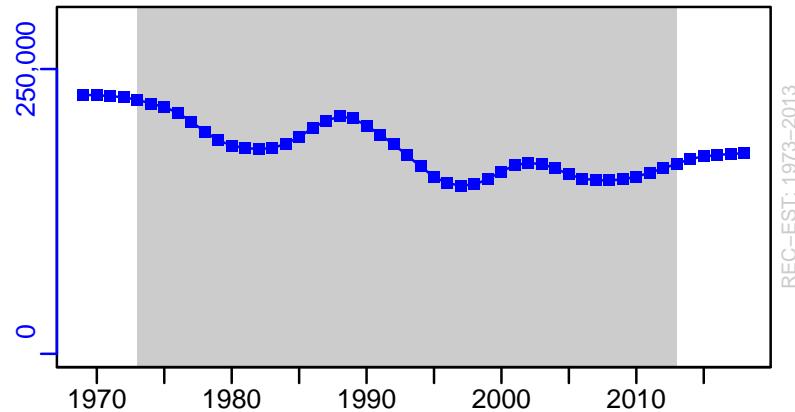
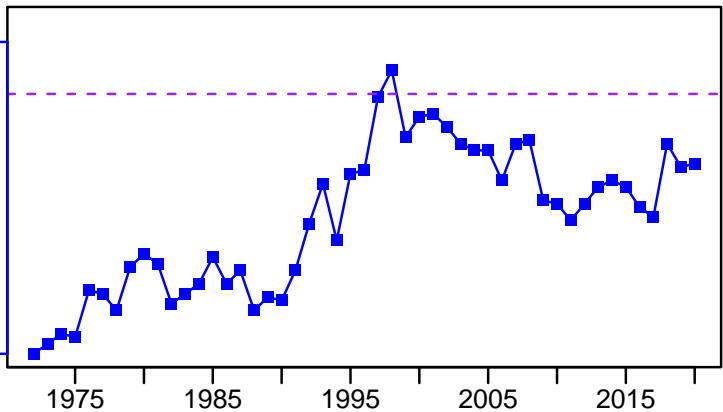


F-1/yr (1968–2011–CORDUE)



ER-ratio (1969–2021–MORMEDE)

R-E00 (1969–2021–MORMEDE)



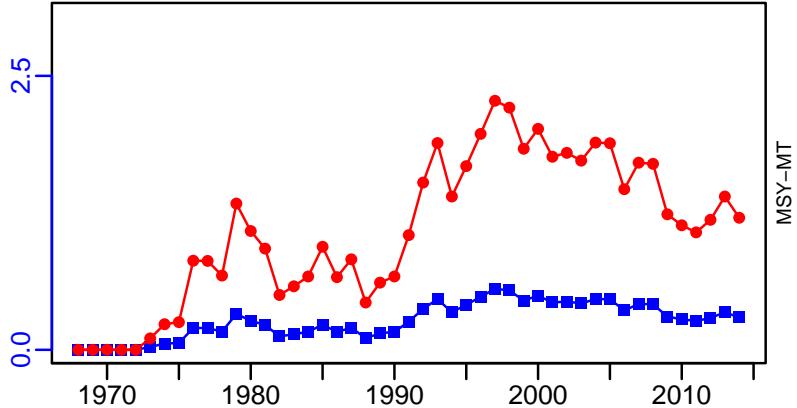
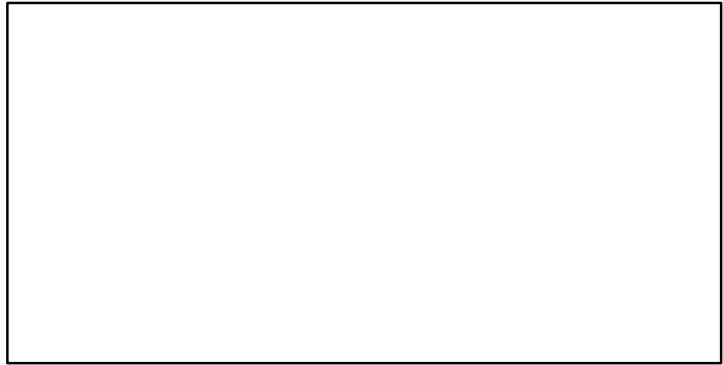
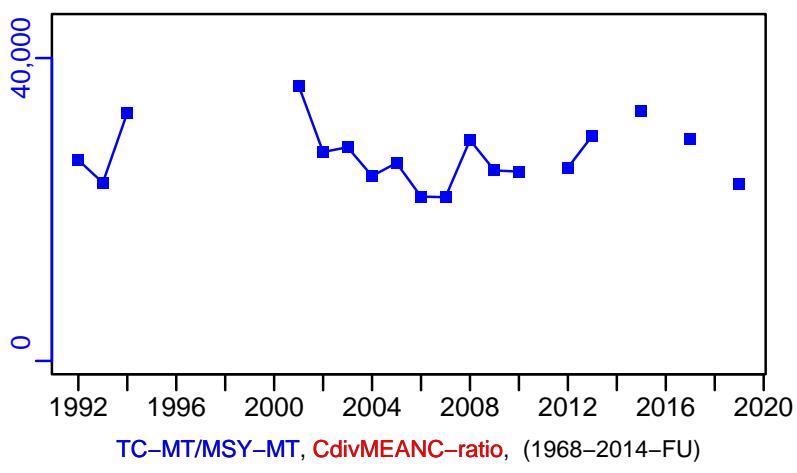
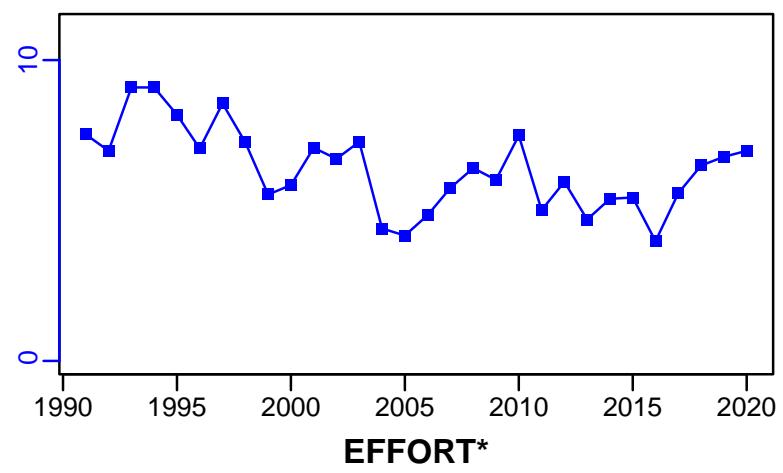
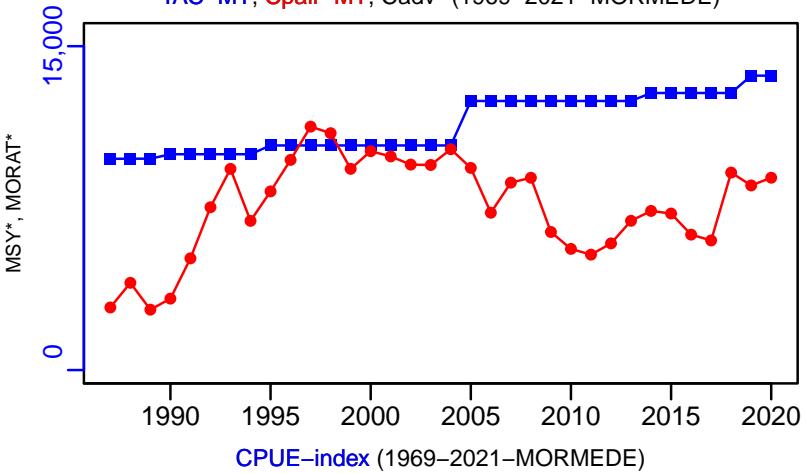
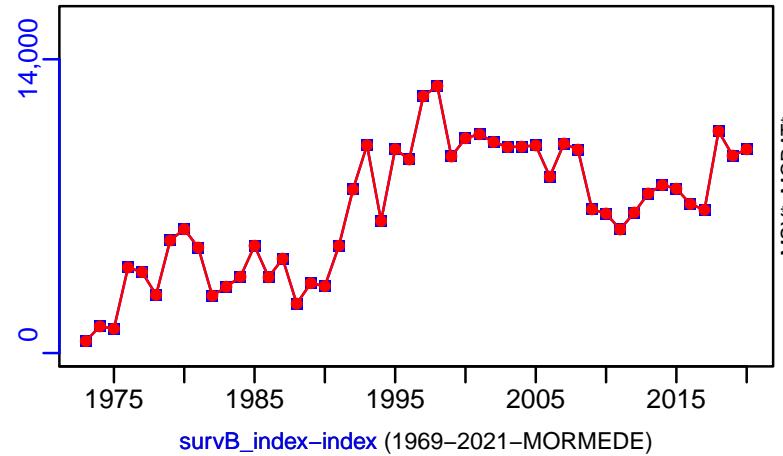
- | | | |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| - - - MSY-based BRP | --- Lim BRP | * No Data |

REC-EST: 1973–2013

Ling New Zealand Areas LIN 5 and 6 [NZLINGLIN5-6]

TC-MT, TL-MT, RecC* (1969–2021–MORMEDE)

TAC-MT, Cpair-MT, Cadv* (1969–2021–MORMEDE)



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

Ling New Zealand Areas LIN 6b [NZLINGLIN6b]

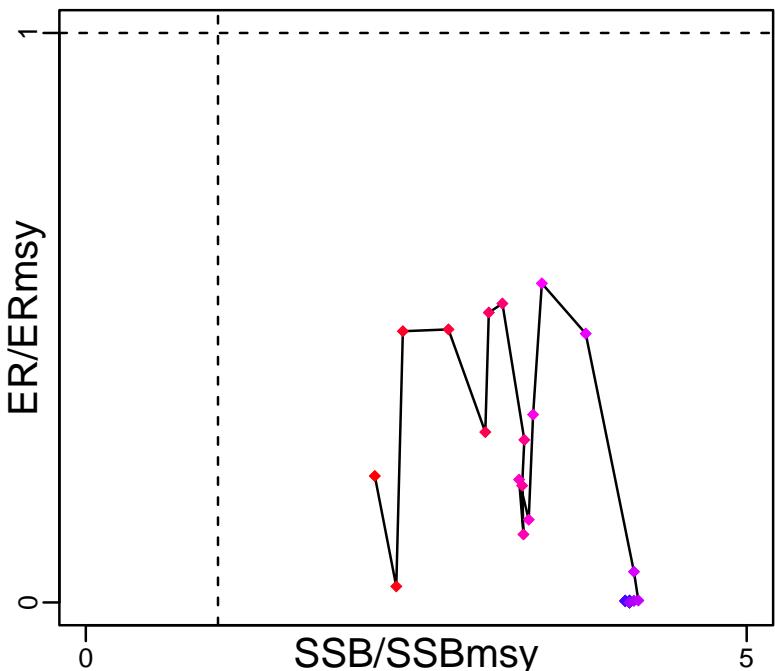
Metadata	
Scientific Name	Genypterus blacodes
Current Assess ID	NZMFishMIDDEPTHSWG-NZLINGLIN6b-1980-2006-JENSEN
Area	New Zealand Areas LIN 6b
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Middle Depths Working Group
Asmts in RAM	2006

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2006	4725
SSBmsy	SSBmsy-MT	2006	3014
Fmsy	Fmsy-1/yr	2006	0.308
ERmsy	ERmsy-ratio	2006	0.189
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2006	12,363
MSY	MSY-MT	2006	894
M	M-1/yr	2006	0.18
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

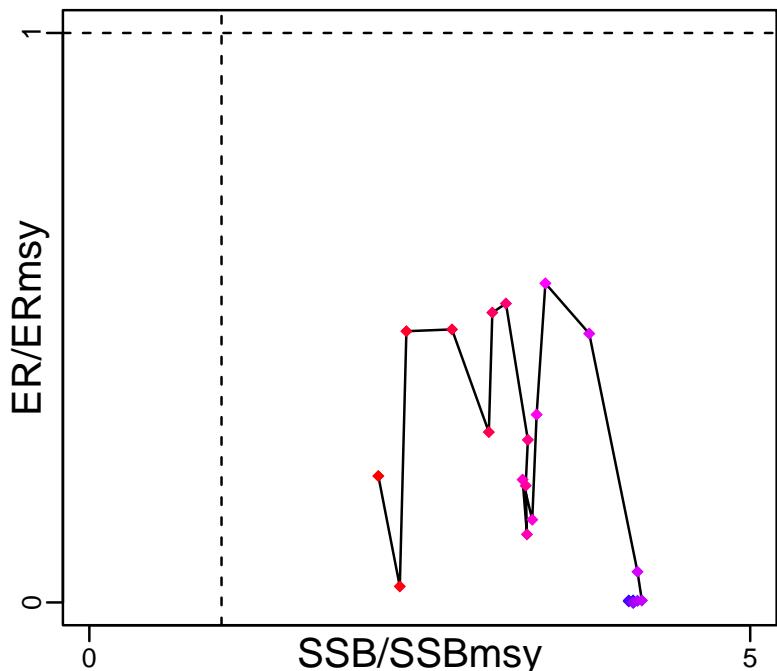
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2006	9520	-	3	
SSB	SSB-MT	2006	6590	Both	-	
TN	-	-	-	-	-	
R	R-E00	2006	888,000	-	3	
F	F-1/yr	2006	0.035	-	-	
ER	ER-ratio	2006	0.042	-	-	
TC	TC-MT	2006	400			
TL	-	-	-			
TB/TBmsy	TB-MT/TBmsy-calc-MT	2006	2.015			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2006	2.186			
F/Fmsy	F-1/yr/Fmsy-1/yr	2006	0.113			
ER/ERmsy	ER-ratio/ERmsy-ratio	2006	0.222			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Ling New Zealand Areas LIN 6b [NZLINGLIN6b]

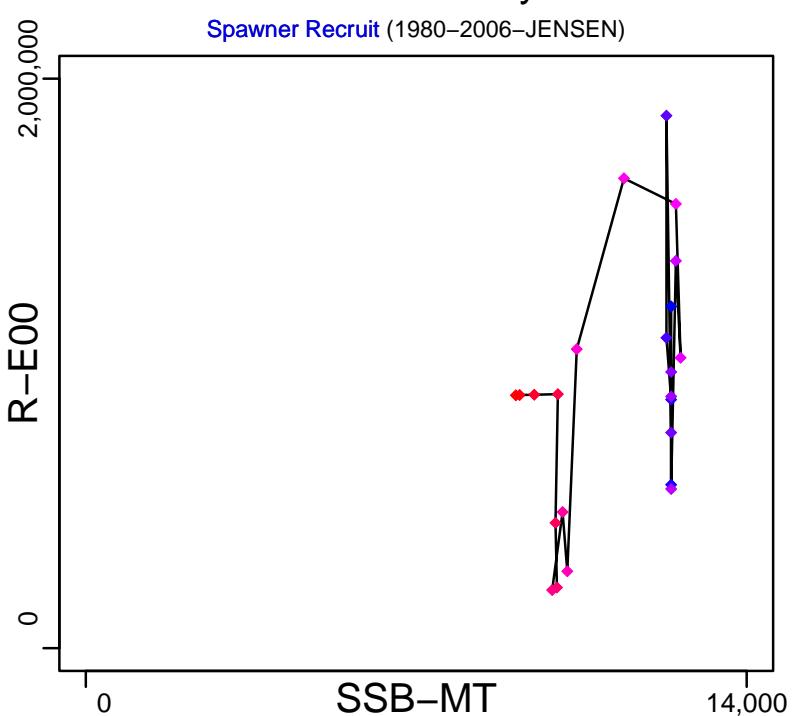
Kobe MSYpref (1980–2006–JENSEN)



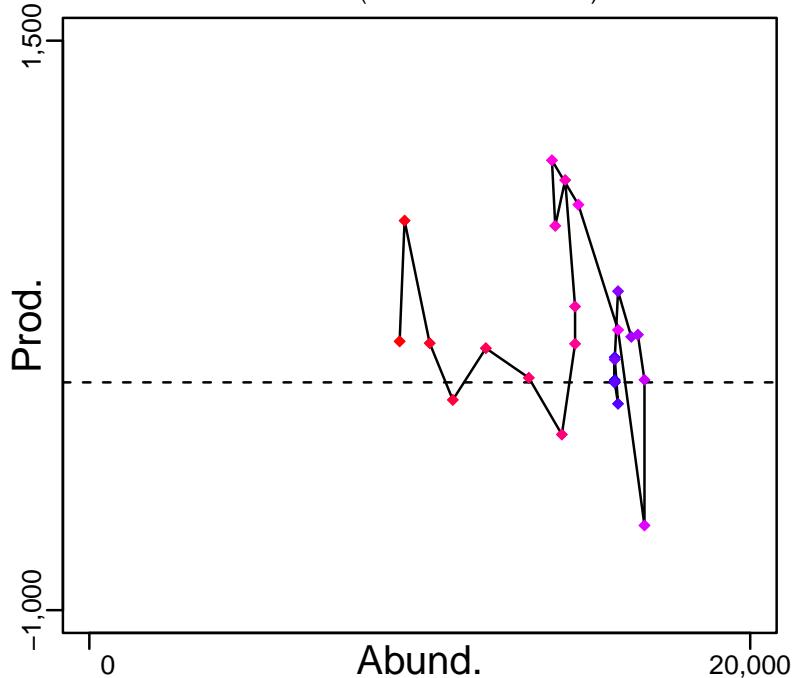
Kobe MGTpref (1980–2006–JENSEN)



Spawner Recruit (1980–2006–JENSEN)



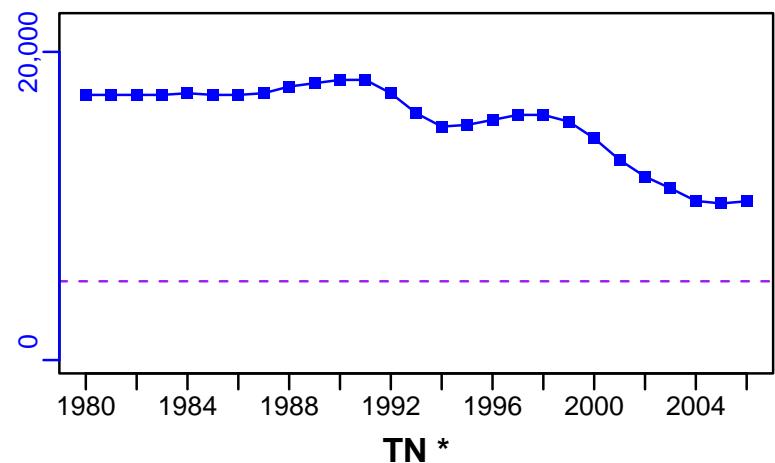
Production (1980–2006–JENSEN)



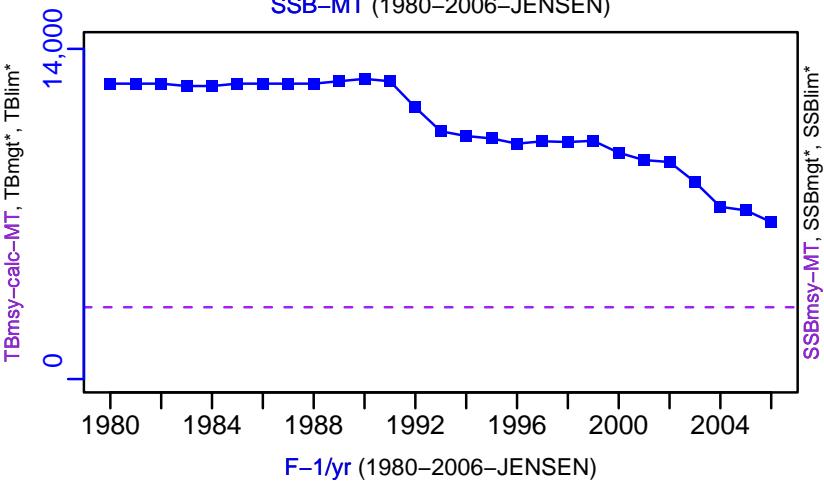
◆ Start Year ◆ End Year * No Data

Ling New Zealand Areas LIN 6b [NZLINGLIN6b]

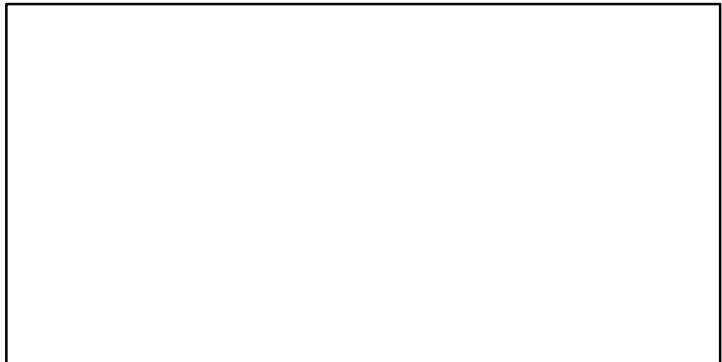
TB-MT (1980–2006–JENSEN)



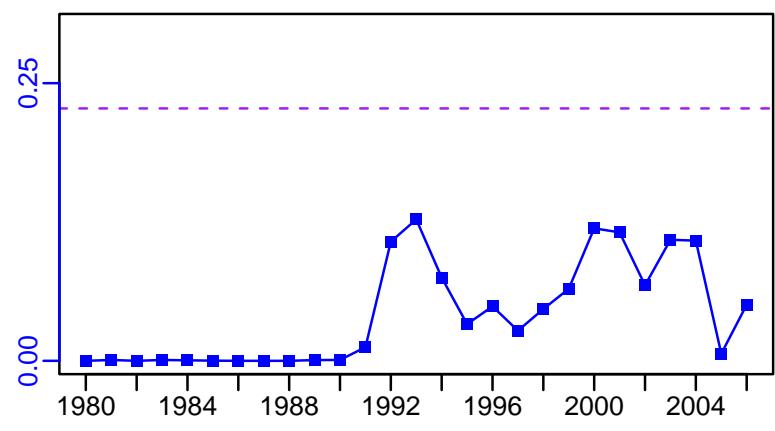
SSB-MT (1980–2006–JENSEN)



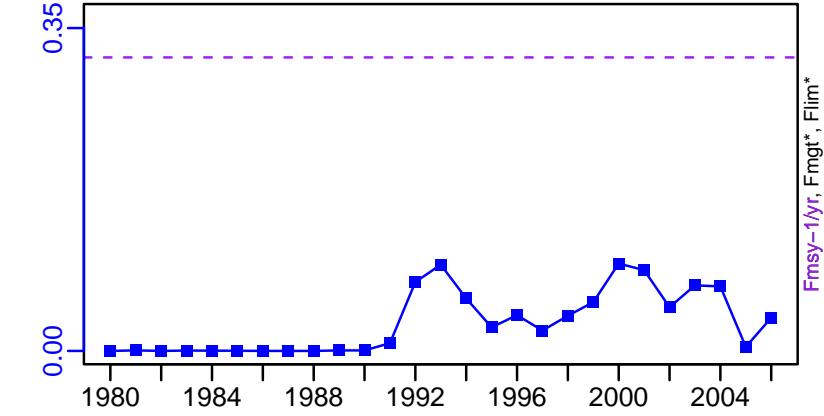
TN *



ER-ratio (1980–2006–JENSEN)



R-E00 (1980–2006–JENSEN)



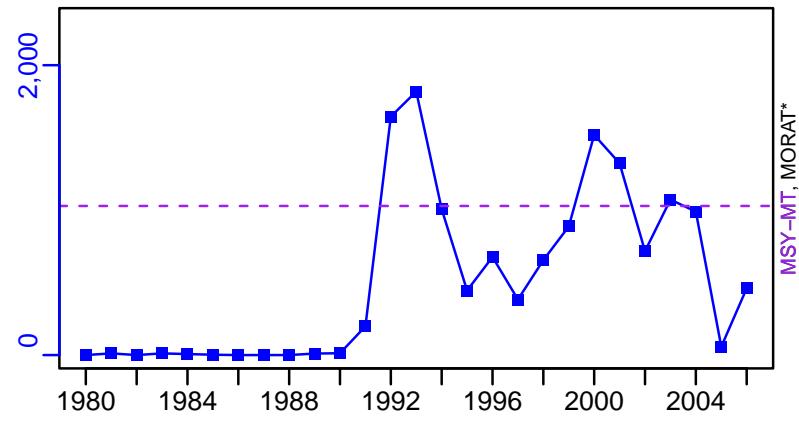
Fmsy-1/yr, Fmgt*, Flim*

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

Ling New Zealand Areas LIN 6b [NZLINGLIN6b]

TC-MT, TL*, RecC* (1980–2006–JENSEN)

TAC*, Cpair*, Cadv*



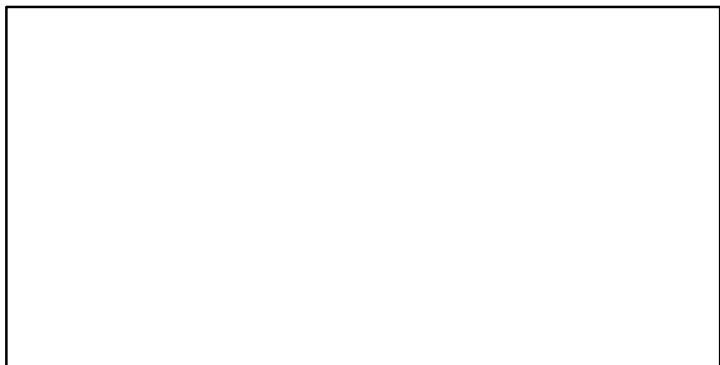
survB*



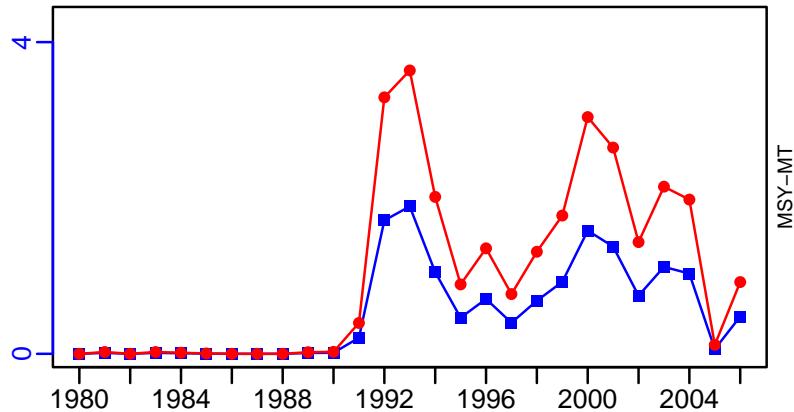
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1980–2006–JENSEN)



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

Ling New Zealand Areas LIN 72 [NZLINGLIN72]

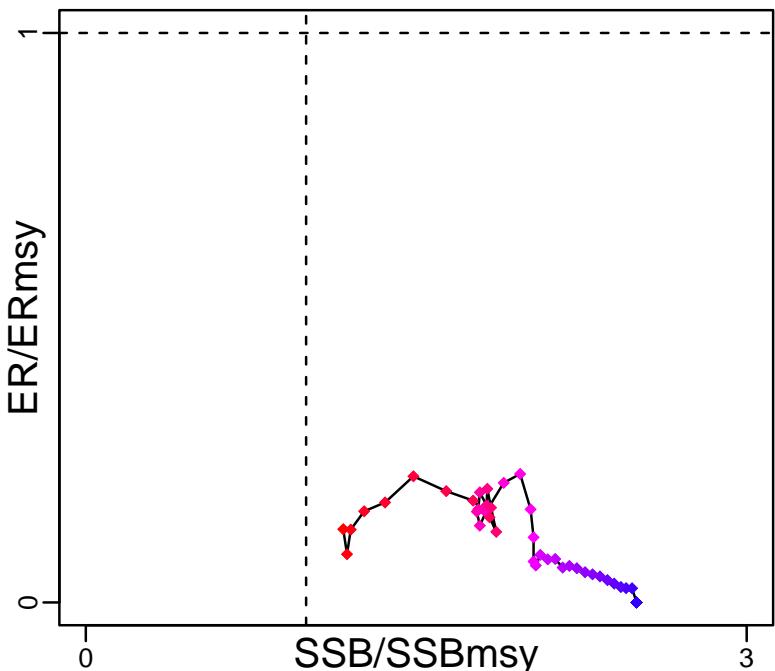
Metadata	
Scientific Name	Genypterus blacodes
Current Assess ID	NZMFishMIDDEPTHSWG-NZLINGLIN72-1968-2010-FU
Area	New Zealand Areas LIN 72
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Middle Depths Working Group
Asmts in RAM	2010, 2007

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2010	1877
SSBmsy	SSBmsy-MT	2010	2952
Fmsy	Fmsy-1/yr	2007	0.246
ERmsy	ERmsy-ratio	2010	0.29
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2010	2952
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2010	7380
MSY	MSY-MT	2010	544
M	M-1/yr	2010	0.204
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

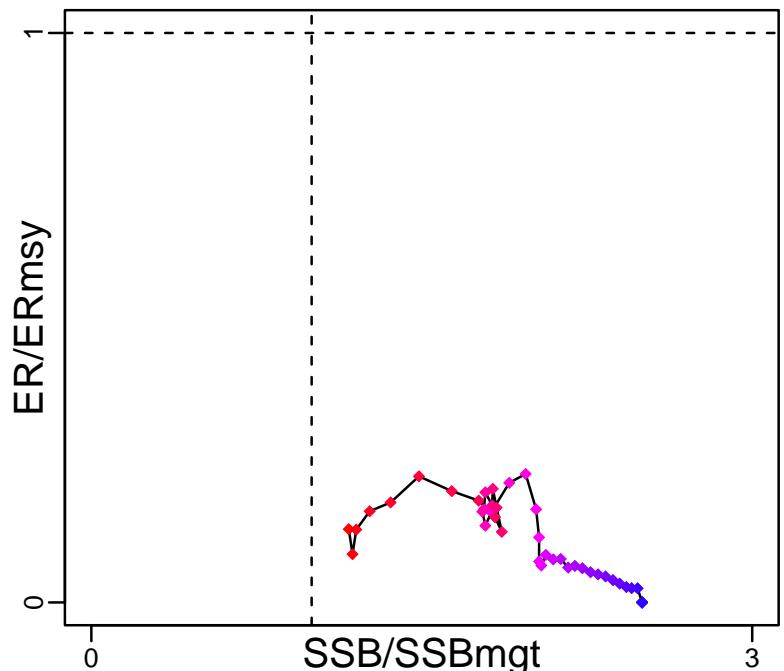
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2007	5590	-	3	
SSB	SSB-MT	2010	3450	Both	3 to 25	
TN	-	-	-	-	-	
R	R-E00	2010	197,000	Both	-	
F	F-1/yr	2007	0.08	-	-	
ER	ER-ratio	2007	0.08	-	-	
TC	TC-MT	2010	220			
TL	-	-	-			
TB/TBmsy	TB-MT/TBmsy-calc-MT	2007	2.098			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2010	1.169			
F/Fmsy	F-1/yr/Fmsy-1/yr	2007	0.323			
ER/ERmsy	ER-ratio/ERmsy-ratio	2007	0.416			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2010	1.169			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Ling New Zealand Areas LIN 72 [NZLINGLIN72]

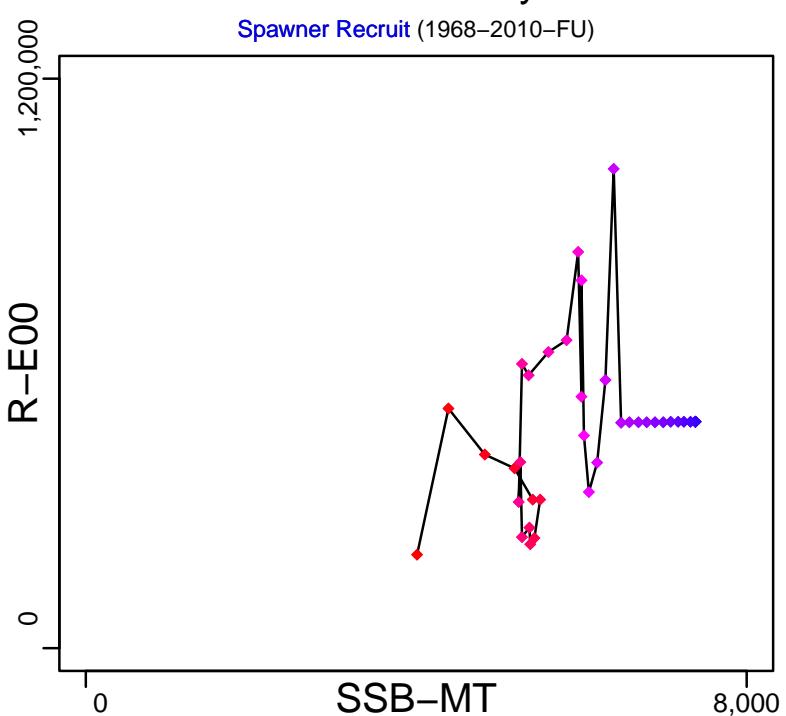
Kobe MSYpref (1968–2010–FU)



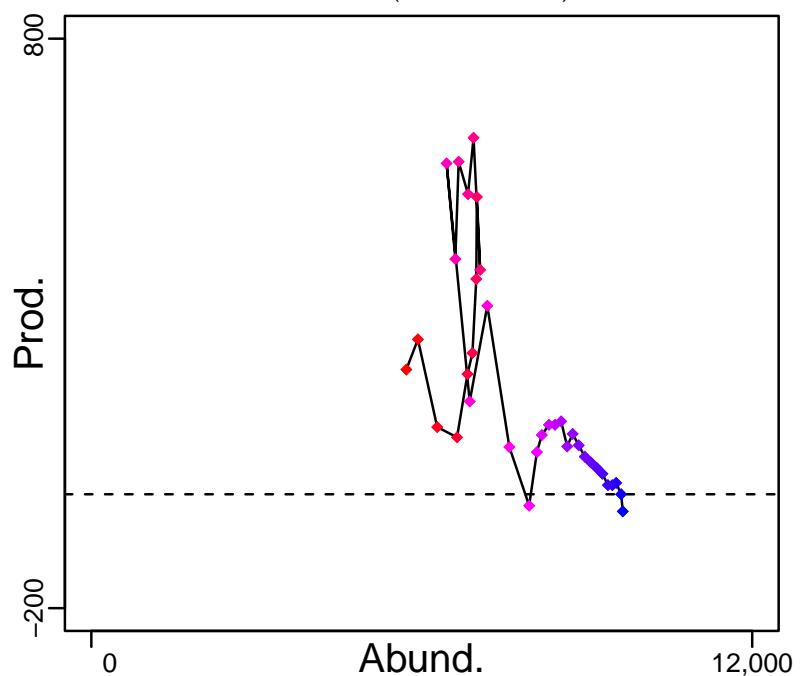
Kobe MGTpref (1968–2010–FU)



Spawner Recruit (1968–2010–FU)



Production (1968–2010–FU)

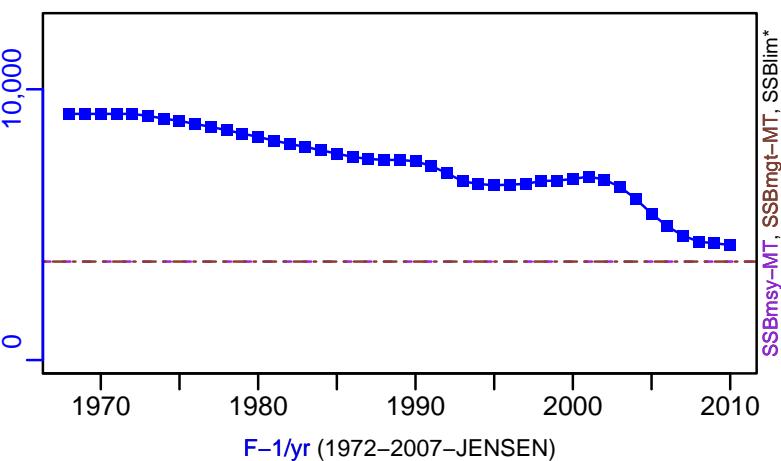
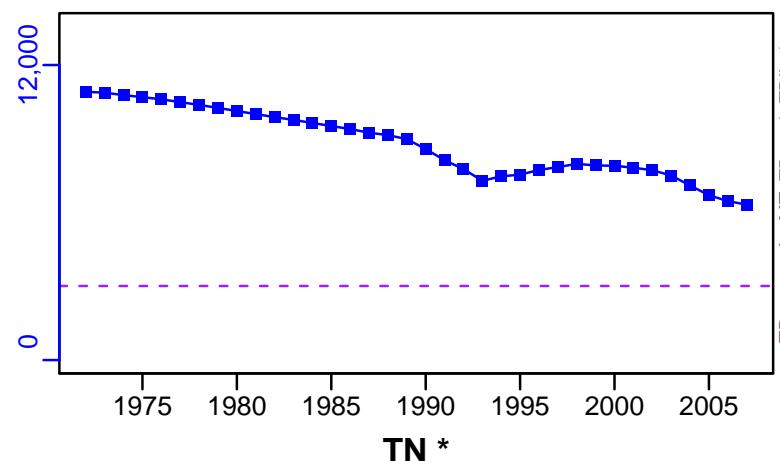


◆ Start Year ♦ End Year * No Data

Ling New Zealand Areas LIN 72 [NZLINGLIN72]

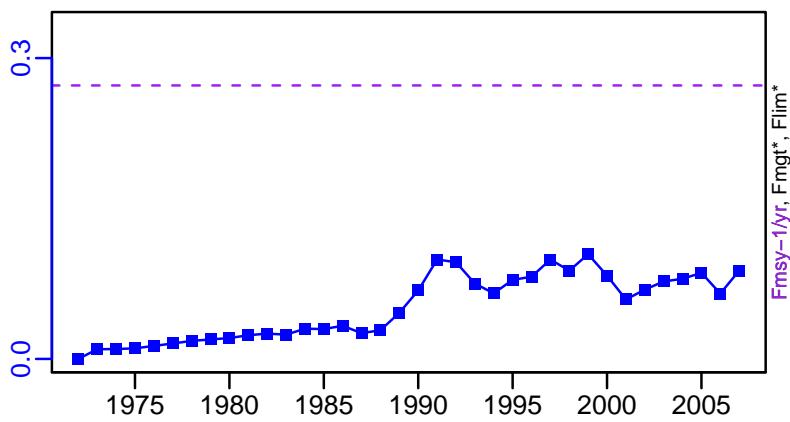
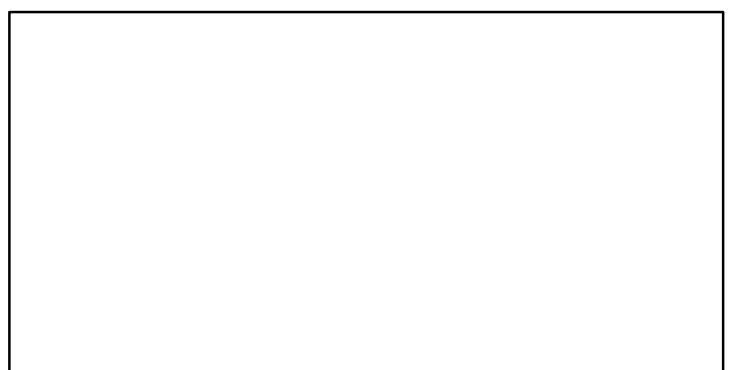
TB-MT (1972–2007–JENSEN)

SSB-MT (1968–2010–FU)



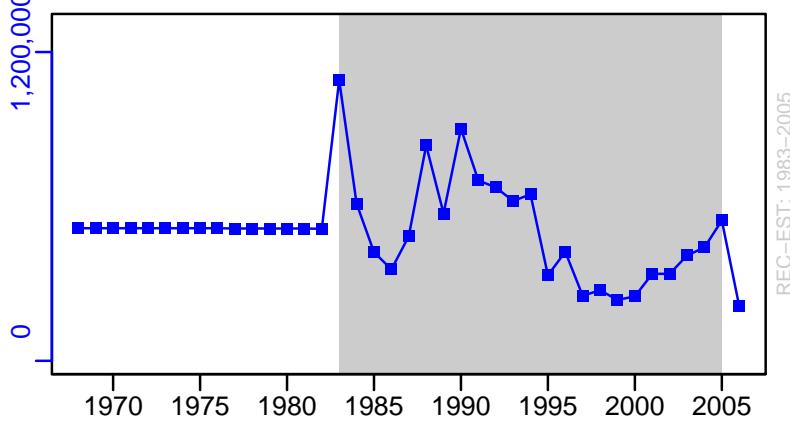
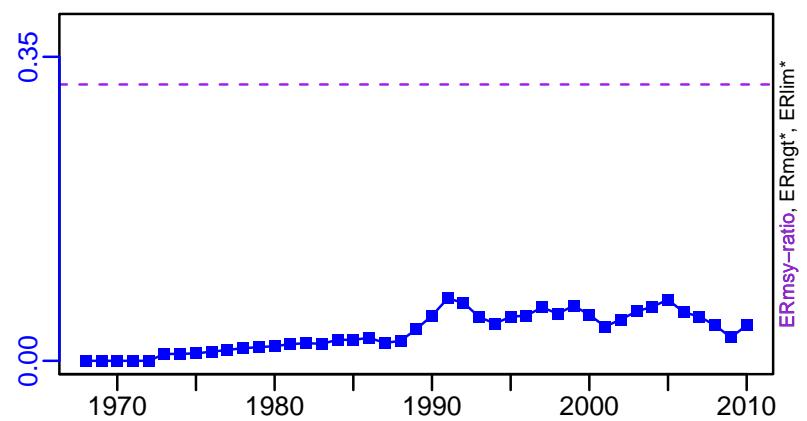
TN *

F-1/yr (1972–2007–JENSEN)



ER-calc-ratio (1968–2010–FU)

R-E00 (1968–2010–FU)



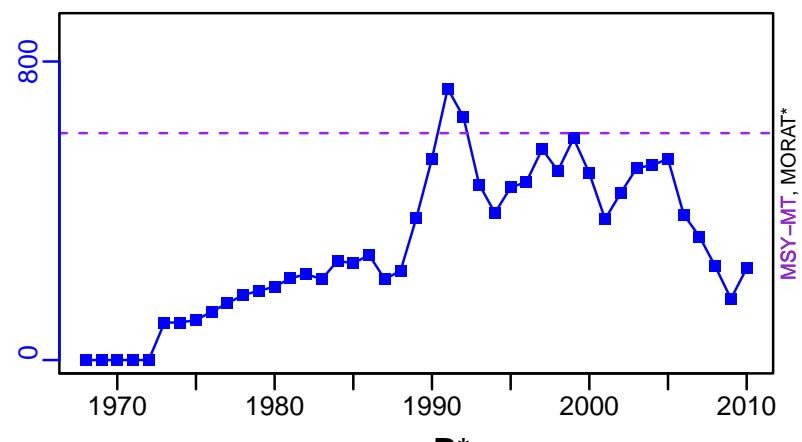
REC-EST: 1983–2005

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

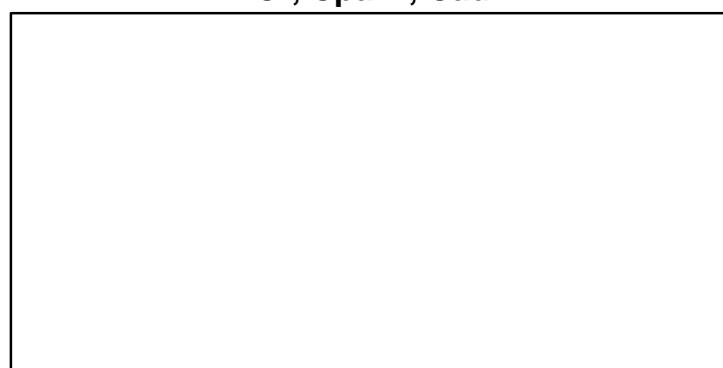
Ling New Zealand Areas LIN 72 [NZLINGLIN72]

TC-MT, TL*, RecC* (1968–2010-FU)

TAC*, Cpair*, Cadv*



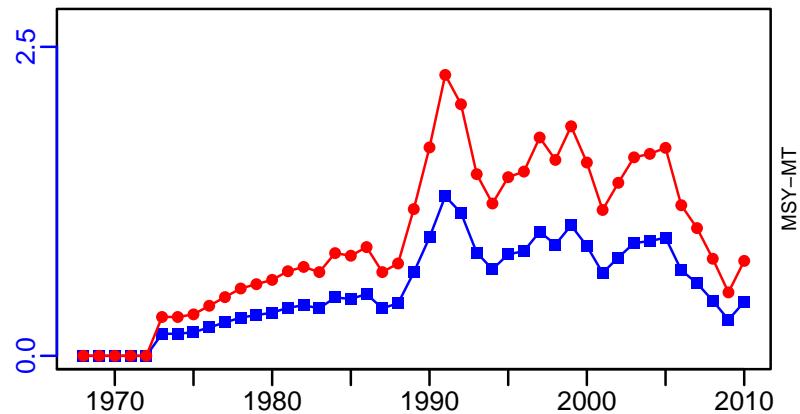
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1968–2010-FU)



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

Ling New Zealand Areas LIN 7WC-WCSI [NZLINGLIN7WC]

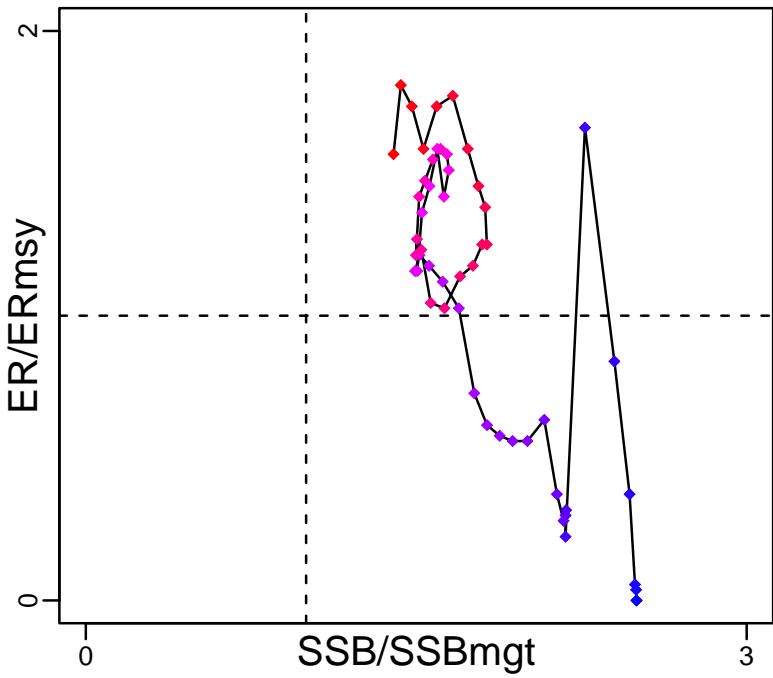
Metadata	
Scientific Name	Genypterus blacodes
Current Assess ID	NZMFishMIDDEPTHSWG-NZLINGLIN7WC-1970-2022-MORMEDE
Area	New Zealand Areas LIN 7WC-WCSI
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Middle Depths Working Group
Asmts in RAM	2012, 2022, 2008, 2020

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2008	43,937
SSBmsy	SSBmsy-MT	2020	21,818
Fmsy	Fmsy-1/yr	2008	0.202
ERmsy	ERmsy-ratio	2008	0.138
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2022	24,867
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2022	62,168
MSY	MSY-MT	2012	5150
M	M-1/yr	2022	0.18
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

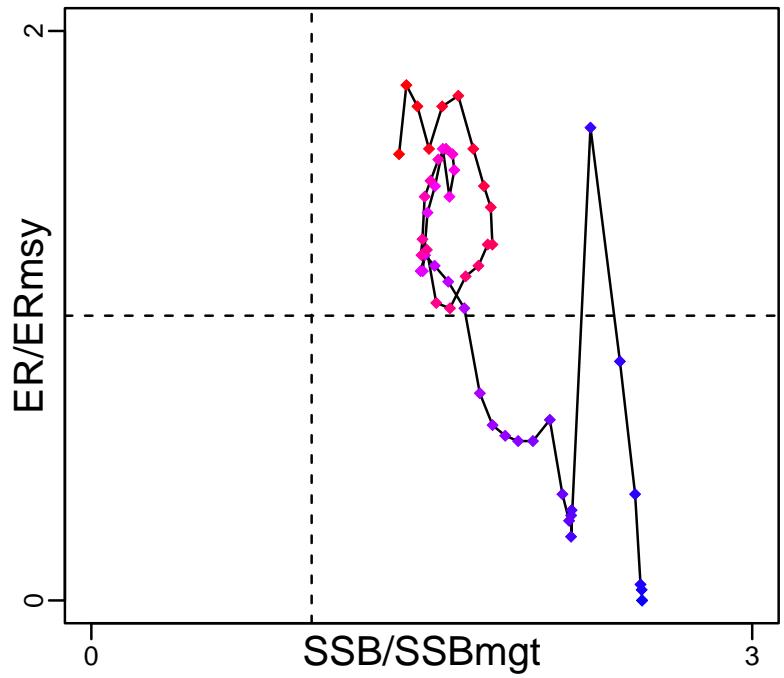
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2008	96,400	-	3	
SSB	SSB-MT	2022	34,737	Both	-	
TN	-	-	-	-	-	
R	R-E00	2022	5,839,625	Both	1	
F	F-1/yr	2008	0.027	-	-	
ER	ER-ratio	2022	0.084	Both	-	
TC	TC-MT	2022	2904			
TL	TL-MT	2022	2904			
TB/TBmsy	TB-MT/TBmsy-calc-MT	2008	2.194			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2020	1.171			
F/Fmsy	F-1/yr/Fmsy-1/yr	2008	0.134			
ER/ERmsy	ER-ratio/ERmsy-ratio	2008	0.18			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2022	1.397			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Ling New Zealand Areas LIN 7WC–WCSI [NZLINGLIN7WC]

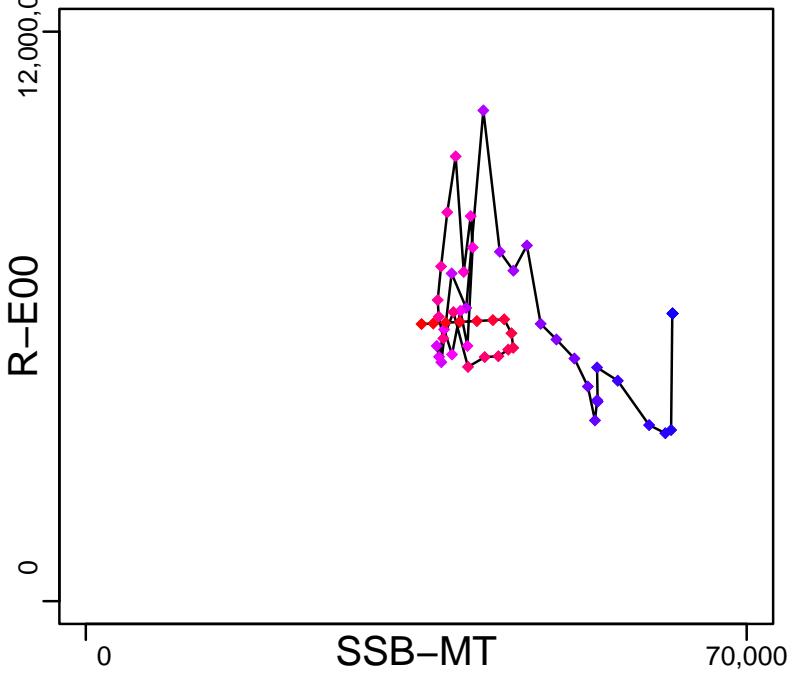
Kobe MSYpref (1970–2022–MORMEDE)



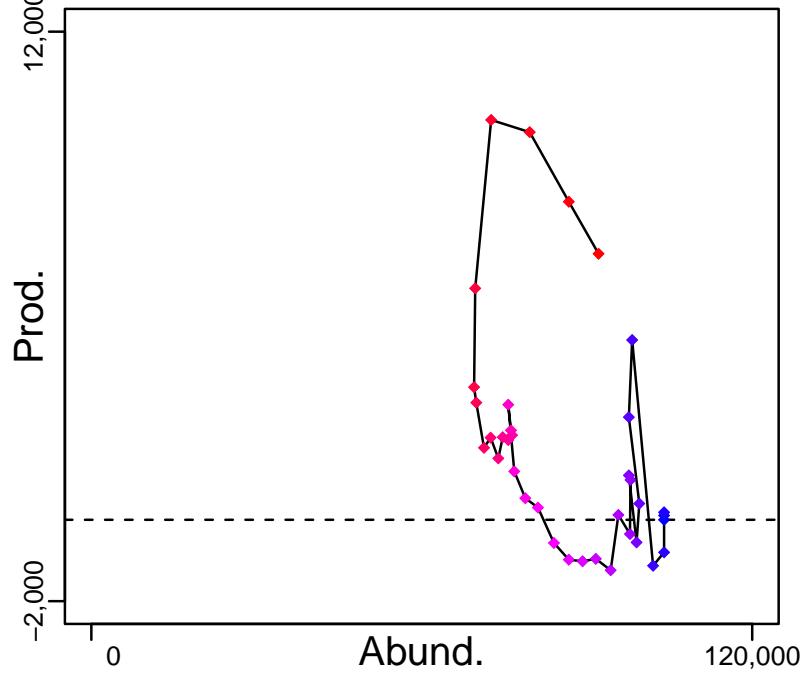
Kobe MGTpref (1970–2022–MORMEDE)



Spawner Recruit (1970–2022–MORMEDE)



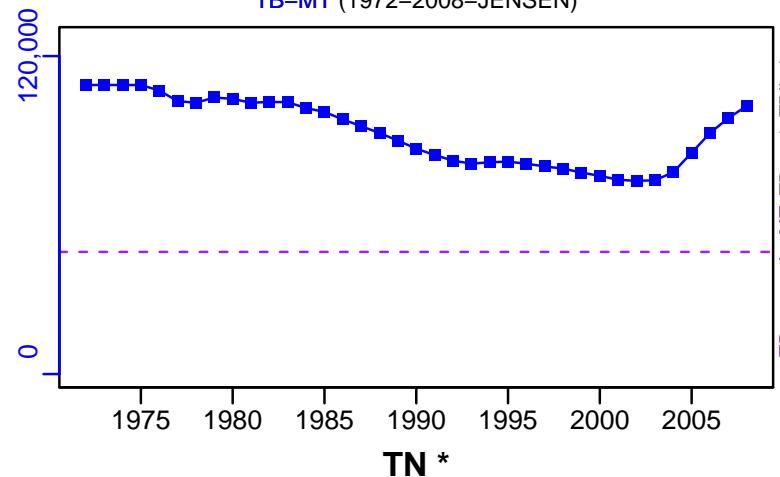
Production (1970–2022–MORMEDE)



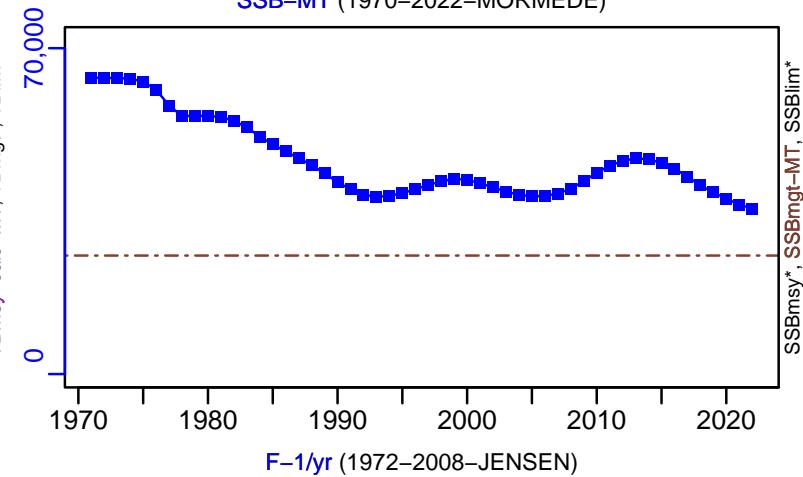
◆ Start Year ◆ End Year * No Data

Ling New Zealand Areas LIN 7WC–WCSI [NZLINGLIN7WC]

TB-MT (1972–2008–JENSEN)

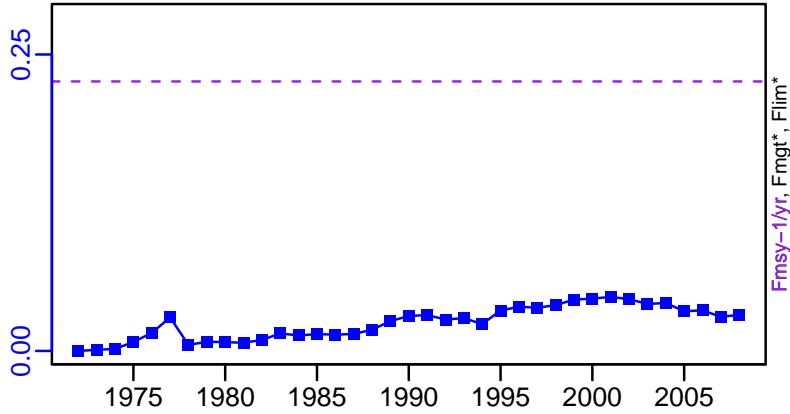
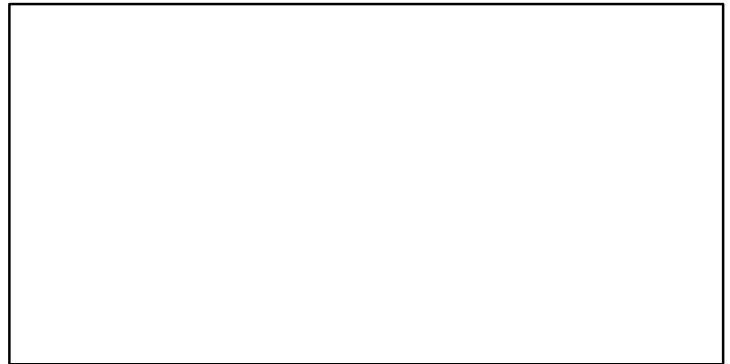


SSB-MT (1970–2022–MORMEDE)



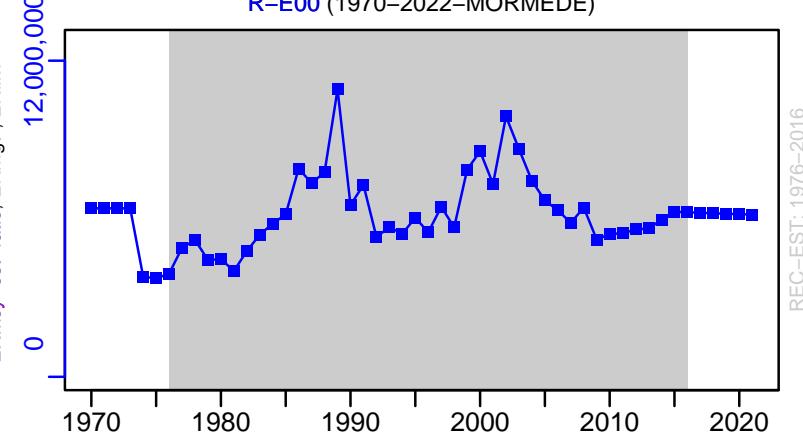
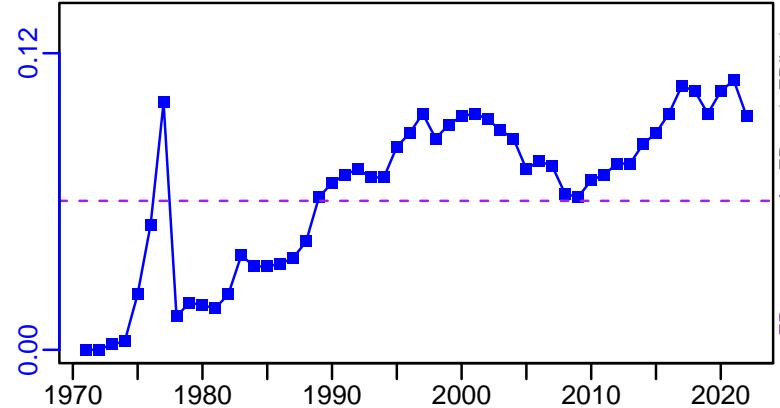
TN *

F-1/yr (1972–2008–JENSEN)



ER-ratio (1970–2022–MORMEDE)

R-E00 (1970–2022–MORMEDE)



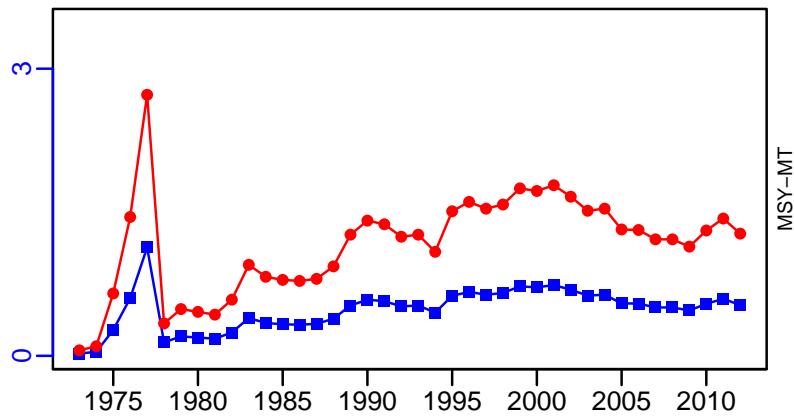
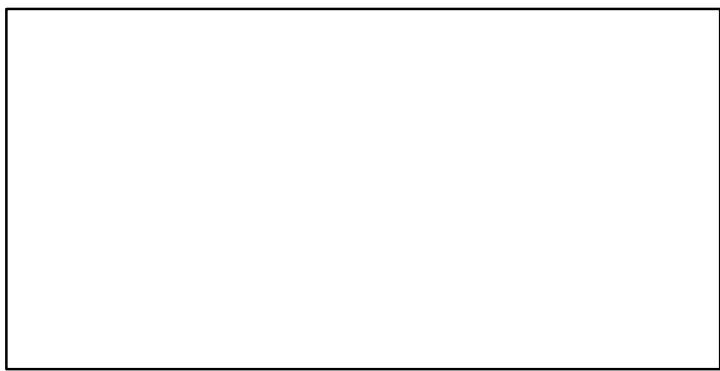
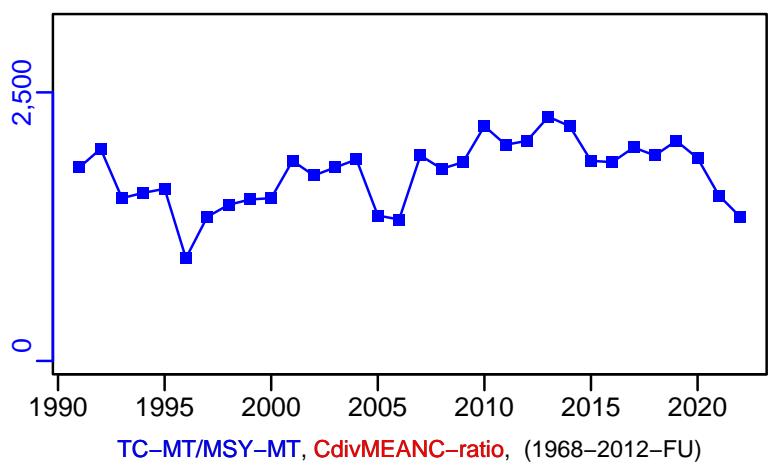
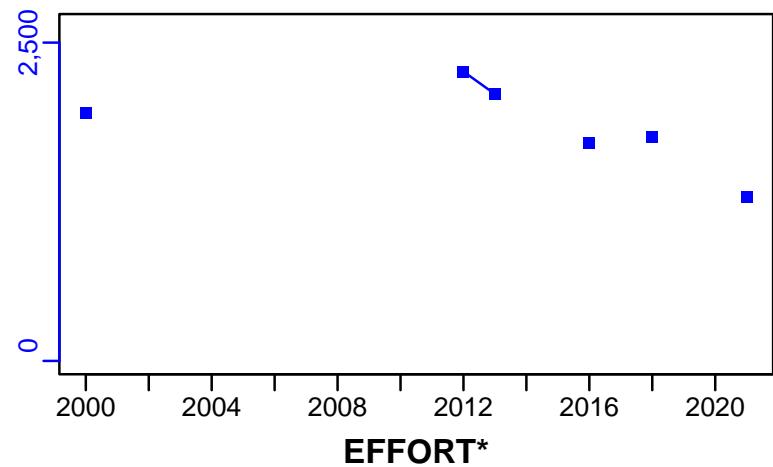
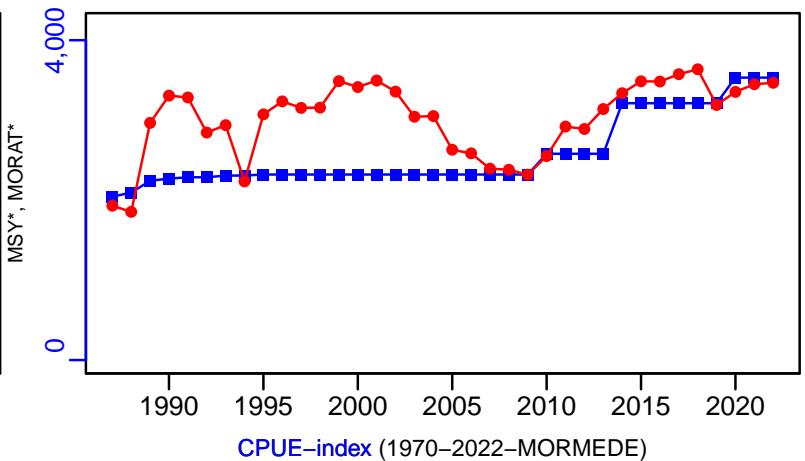
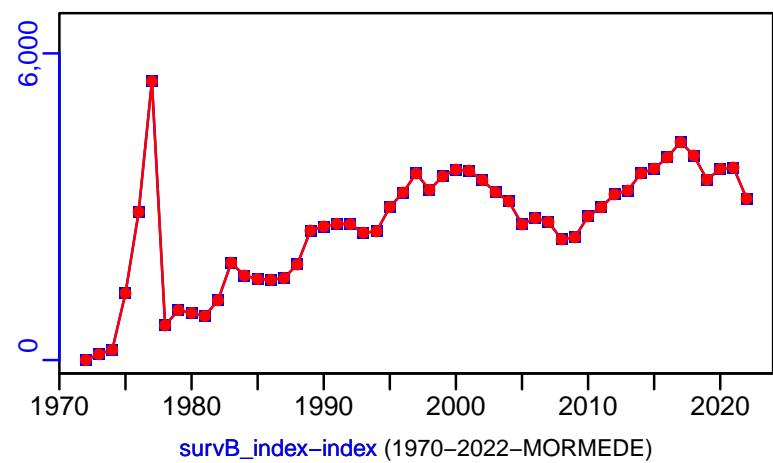
REC-EST: 1976–2016

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

Ling New Zealand Areas LIN 7WC–WCSI [NZLINGLIN7WC]

TC–MT, TL–MT, RecC* (1970–2022–MORMEDE)

TAC–MT, Cpair–MT, Cadv* (1970–2022–MORMEDE)



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

Ling Western half of Southeast Australia [NZLINGWSE]

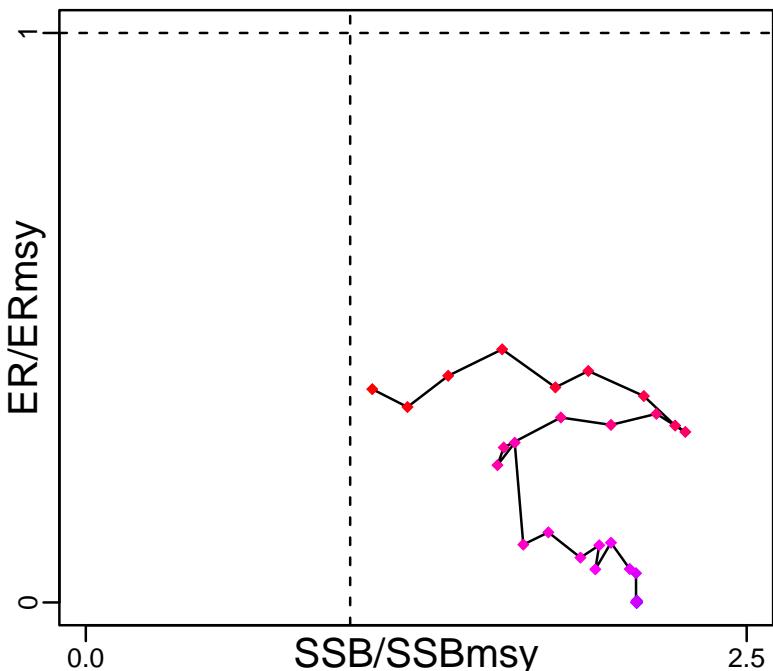
Metadata	
Scientific Name	Genypterus blacodes
Current Assess ID	CSIRO-NZLINGWSE-1968-2007-FULTON
Area	Western half of Southeast Australia
Management Authority	Australian Fisheries Management Authority, Australia national management
Assessor	Commonwealth Scientific and Industrial Research Organization
Asmts in RAM	2007

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2007	3378
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2007	0.16
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2007	0.2
TBlim	TBlim-MT	2007	1407
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

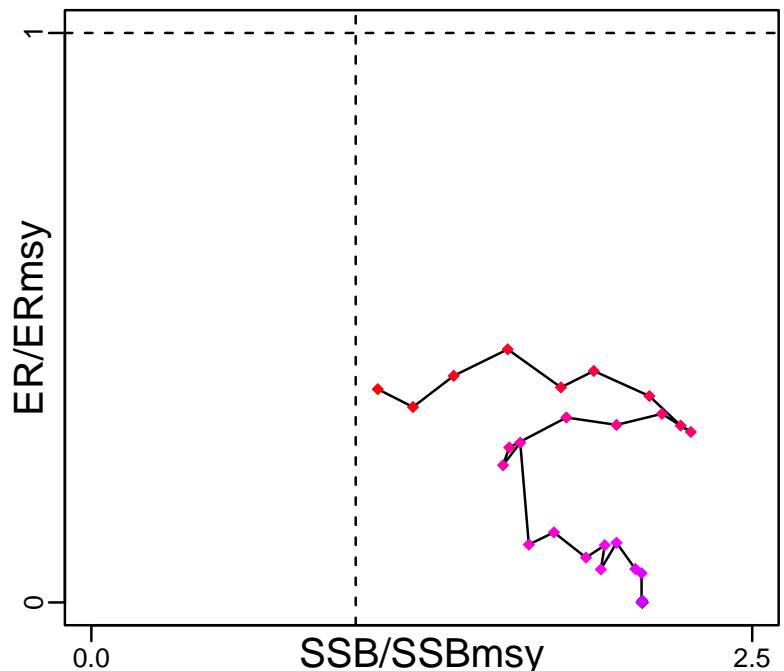
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2007	7760	-	0	
SSB	SSB-MT	2007	3660	Females	-	
TN	-	-	-	-	-	
R	R-E00	2007	2,290,000	-	0	
F	-	-	-	-	-	
ER	ER-calc-ratio	2007	0.06	-	-	
TC	-	-	-			
TL	TL-MT	2007	465			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2007	1.084			
F/Fmsy	-	-	-			
ER/ERmsy	ER-calc-ratio/ERmsy-ratio	2007	0.375			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Ling Western half of Southeast Australia [NZLINGWSE]

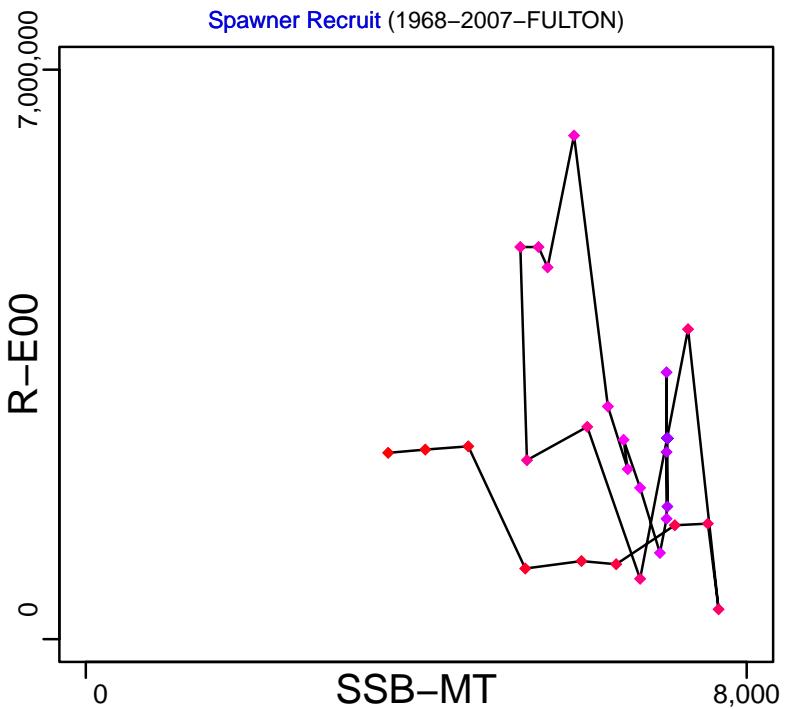
Kobe MSYpref (1968–2007–FULTON)



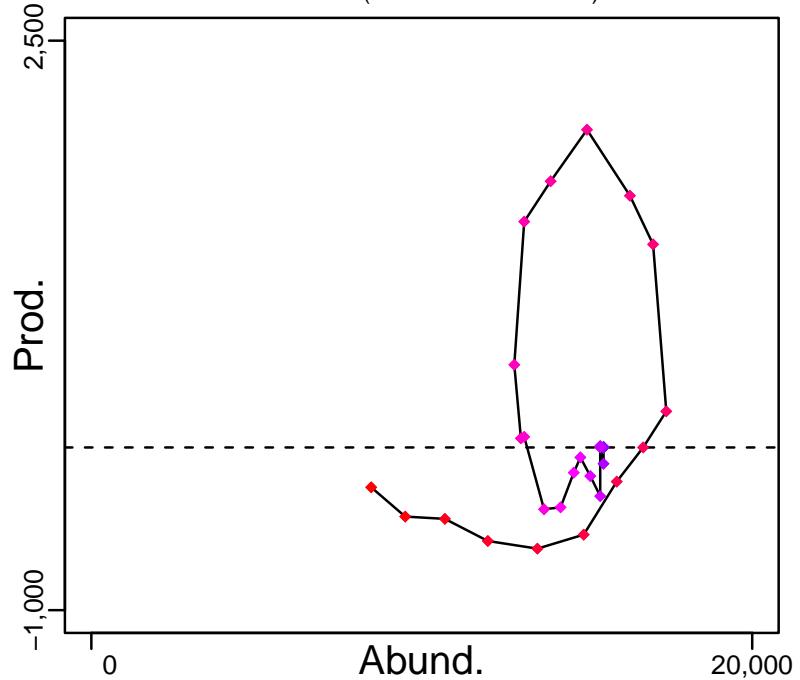
Kobe MGTpref (1968–2007–FULTON)



Spawner Recruit (1968–2007–FULTON)



Production (1968–2007–FULTON)

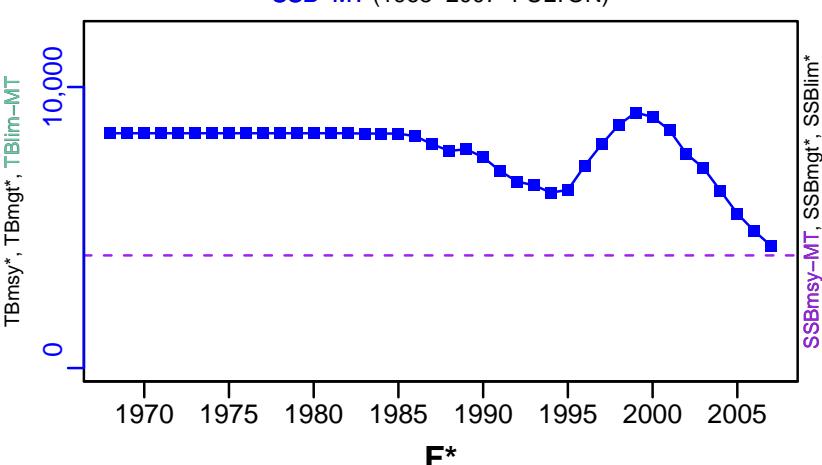
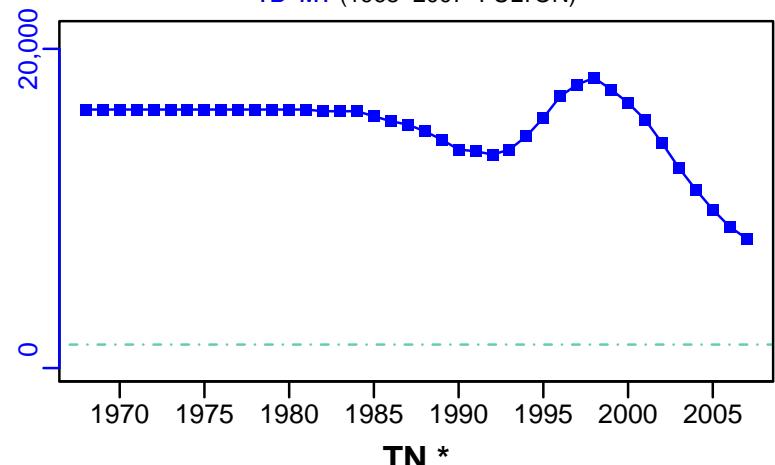


◆ Start Year ◆ End Year * No Data

Ling Western half of Southeast Australia [NZLINGWSE]

TB-MT (1968–2007–FULTON)

SSB-MT (1968–2007–FULTON)



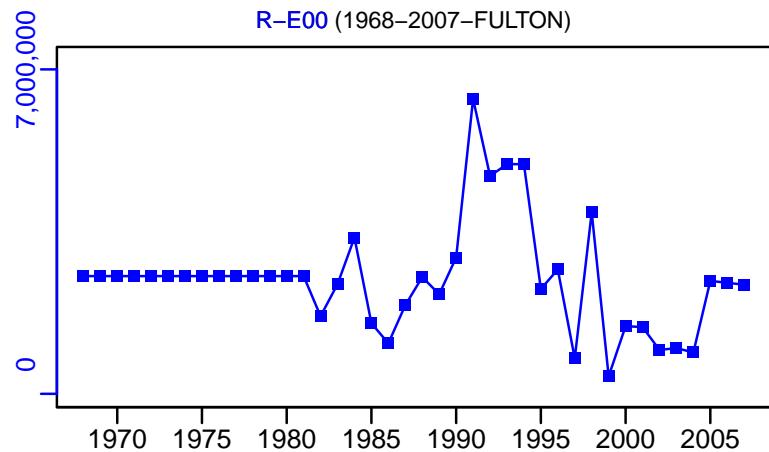
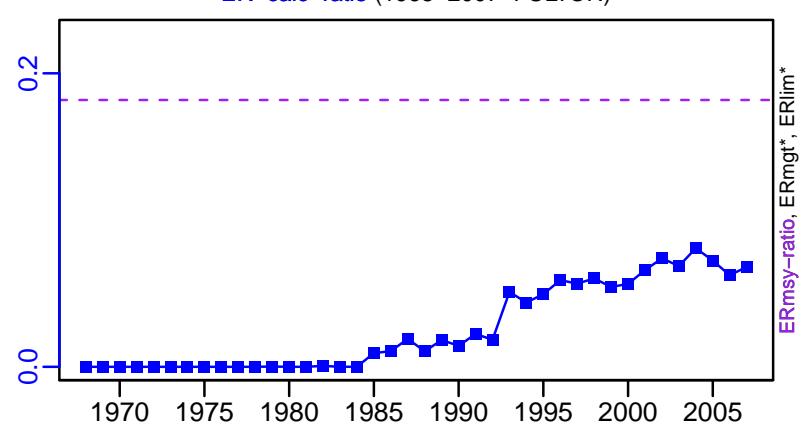
TN *

F*

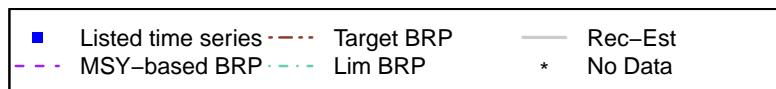


ER-calc-ratio (1968–2007–FULTON)

R-E00 (1968–2007–FULTON)



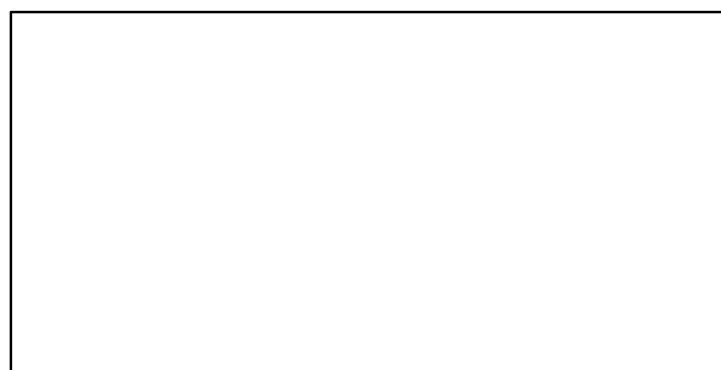
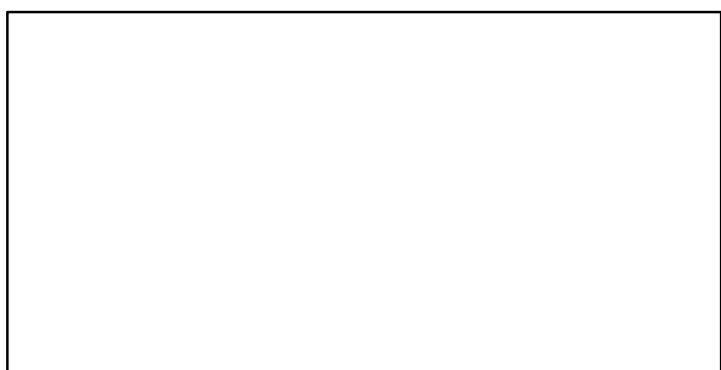
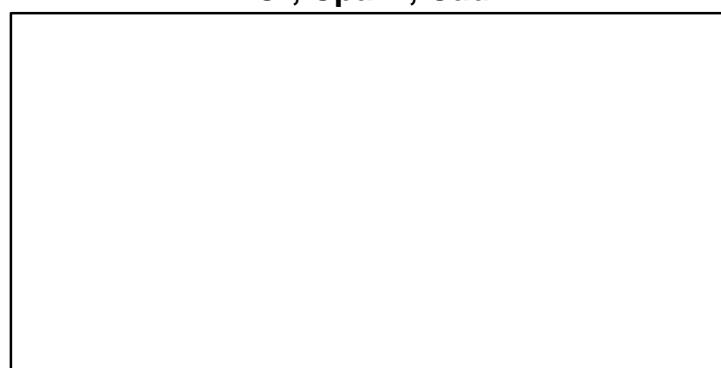
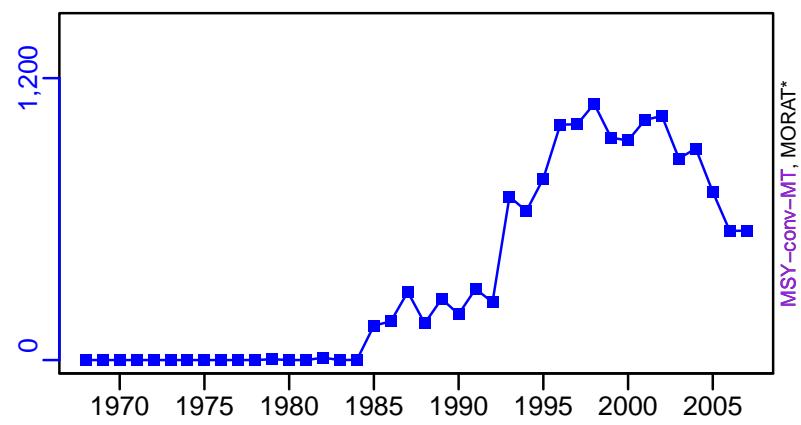
REC-EST: NONE



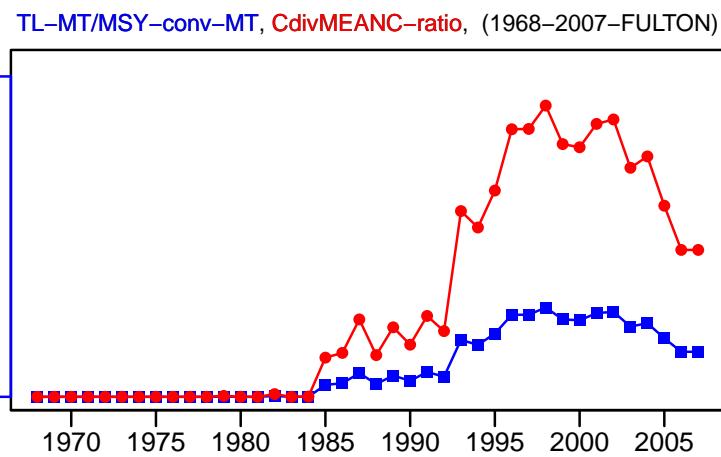
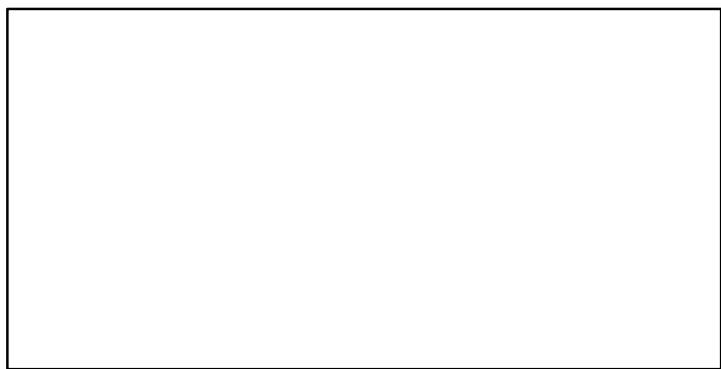
Ling Western half of Southeast Australia [NZLINGWSE]

TL-MT, TC*, RecC* (1968–2007–FULTON)

TAC*, Cpair*, Cadv*



EFFORT*



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

Ocean pout Northwestern Atlantic Coast [OPOUTNWATLC]

Metadata	
Scientific Name	Zoarces americanus
Current Assess ID	NEFSC-OPOUTNWATLC-1968-2019-SISIMP2021-2
Area	Northwestern Atlantic Coast
Management Authority	National Marine Fisheries Service, US national management
Assessor	Northeast Fisheries Science Center
Asmts in RAM	2008, 2014, 2016, 2019

Reference Points			
Type	ID	Asmt Year	Value
TB_ms_y	TB _m s _y -calc-MT	2019	4934
SSB_ms_y	-	-	-
F_ms_y	F _m s _y -1/yr	2008	0.76
ER_ms_y	ER _m s _y -ratio	2019	0.76
TB_mgt	-	-	-
SSB_mgt	-	-	-
F_mgt	-	-	-
ER_mgt	-	-	-
TB₀	-	-	-
SSB₀	-	-	-
MSY	MSY-MT	2019	3750
M	M-1/yr	2008	0.2
TB_{lim}	-	-	-
SSB_{lim}	-	-	-
F_{lim}	-	-	-
ER_{lim}	ER _{lim} -ratio	2019	0.76

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-ratio	2019	0.485	-	-
TC	TC-MT	2019	79		
TL	-	-	-		
TB/TB_ms_y	-	-	-		
SSB/SSB_ms_y	-	-	-		
F/F_ms_y	-	-	-		
ER/ER_ms_y	ER-ratio/ER _m s _y -ratio	2019	0.638		
TB/TB_mgt	-	-	-		
SSB/SSB_mgt	-	-	-		
F/F_mgt	-	-	-		
ER/ER_mgt	-	-	-		

Kobe MSY*

Kobe MGT*

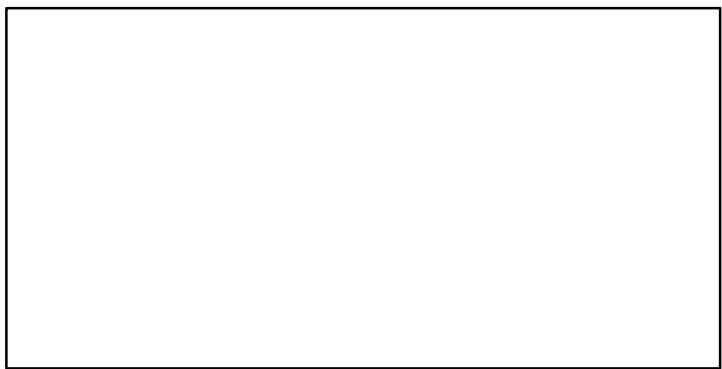
Spawner Recruit*

Production*

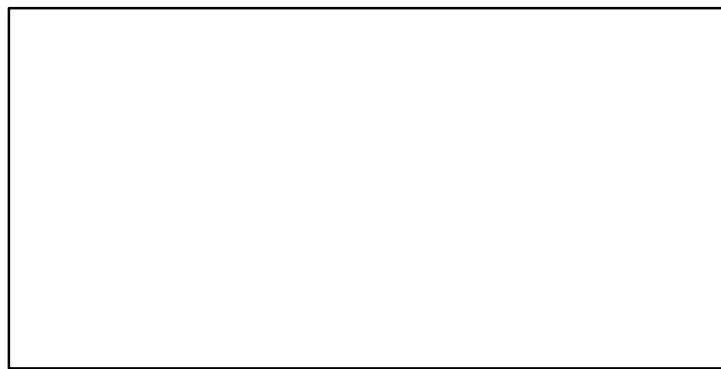
◆ Start Year ♦ End Year * No Data

Ocean pout Northwestern Atlantic Coast [OPOUTNWATLC]

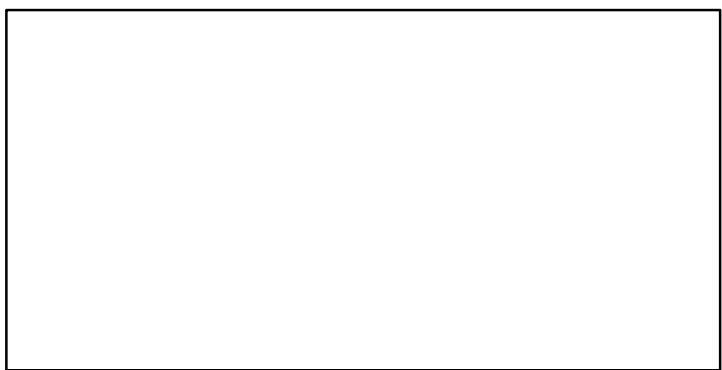
TB*



SSB*



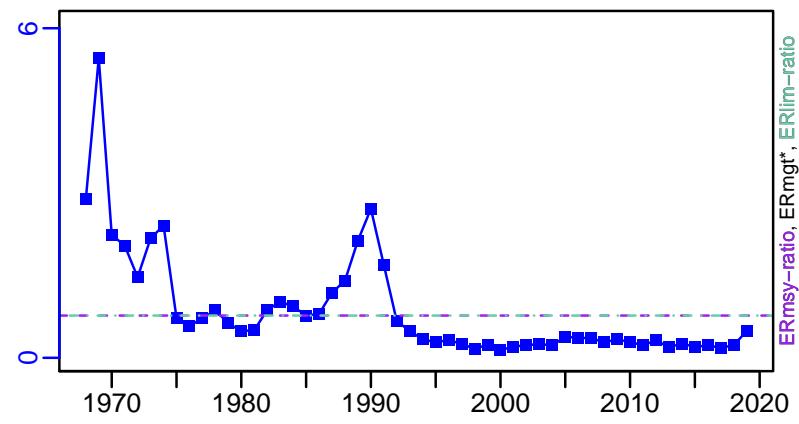
TN *



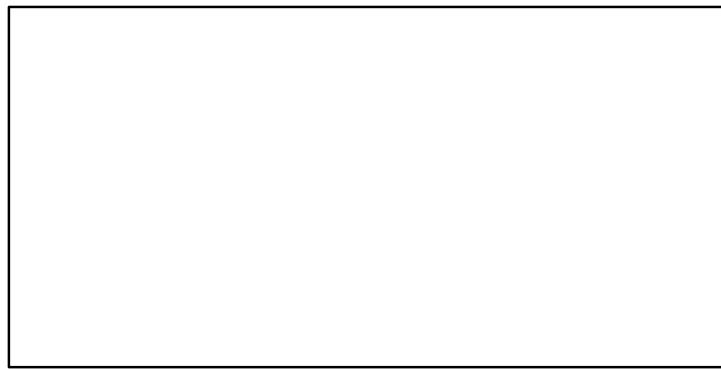
F*



ER-ratio (1968–2019–SISIMP2021–2)



Recruits*

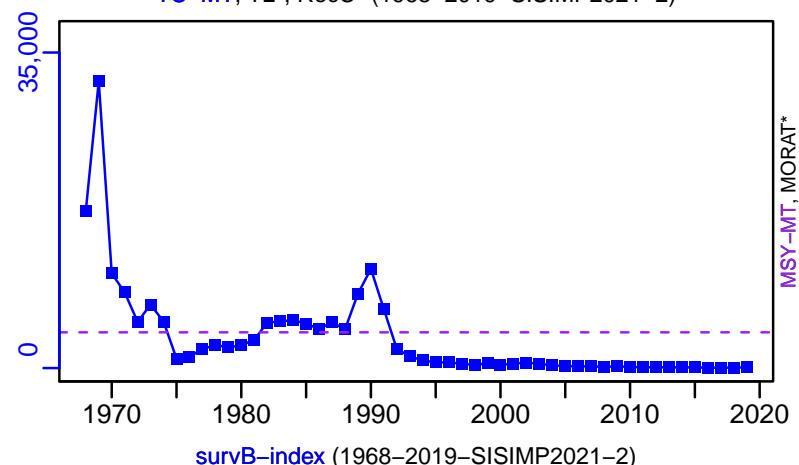


■ Listed time series	— Target BRP	— Rec-Est
- - MSY-based BRP	- - Lim BRP	* No Data

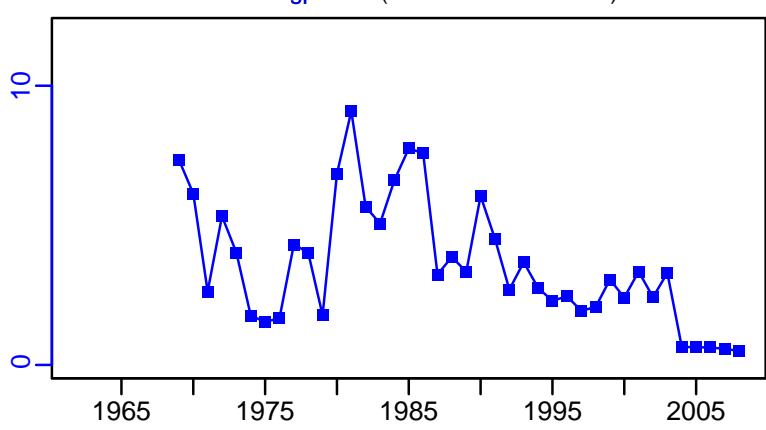
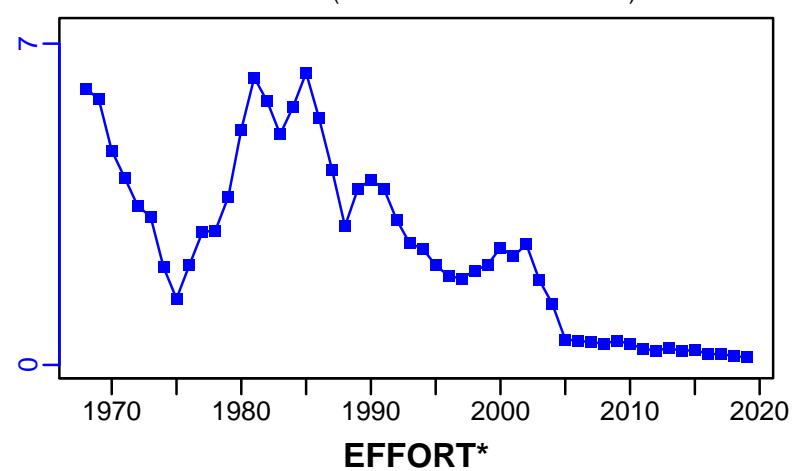
Ocean pout Northwestern Atlantic Coast [OPOUTNWATLC]

TC-MT, TL*, RecC* (1968–2019–SISIMP2021–2)

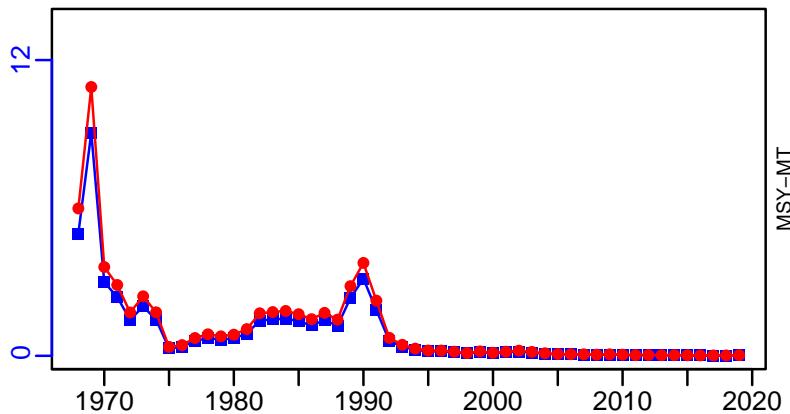
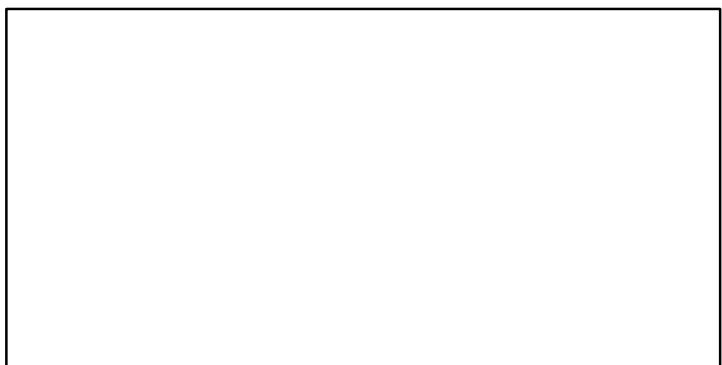
TAC*, Cpair*, Cadv*



CPUE-kgpertow (1962–2008–WIGLEY)



TC-MT/MSY-MT, CdivMEANC-ratio, (1968–2019–SISIMP2021–2)



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

Orange roughy Cascade Plateau [OROUGHYCASCADE]

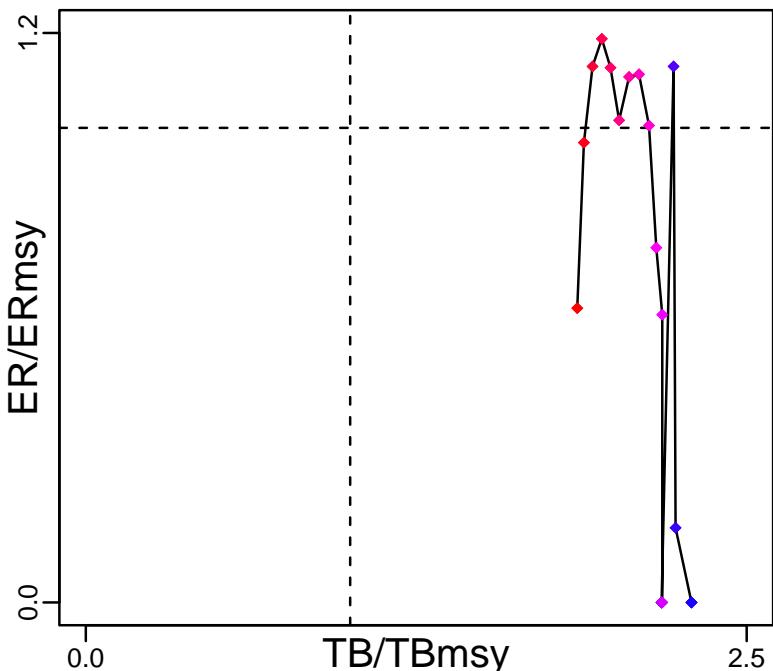
Metadata	
Scientific Name	Hoplostethus atlanticus
Current Assess ID	CSIRO-OROUGHYCASCADE-1987-2006-FULTON
Area	Cascade Plateau
Management Authority	Australian Fisheries Management Authority, Australia national management
Assessor	Commonwealth Scientific and Industrial Research Organization
Asmts in RAM	2006

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	SSBlim-MT	2006	5716
Flim	-	-	-
ERlim	-	-	-

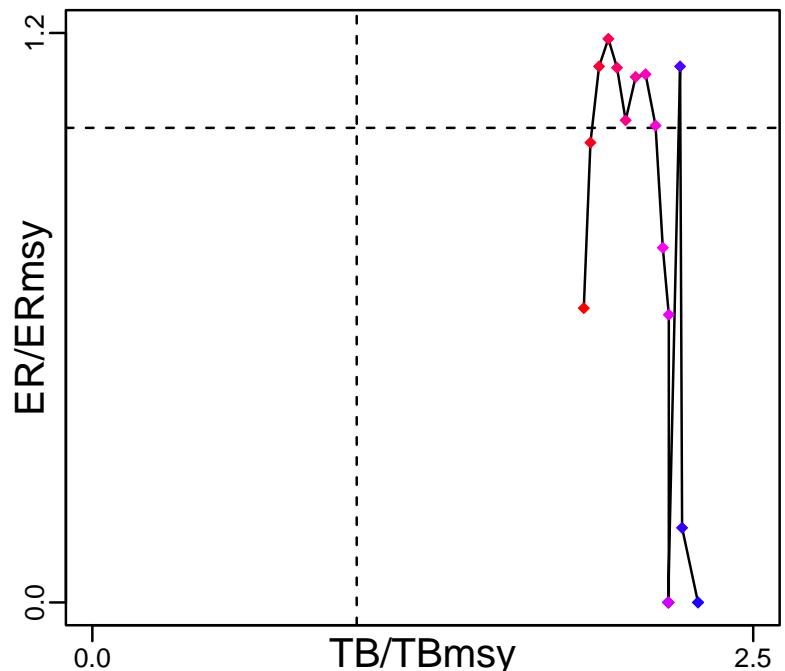
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2006	74,000	Both	0
SSB	SSB-MT	2006	21,200	Females	-
TN	-	-	-	-	-
R	R-E00	2006	1,030,000	-	-
F	-	-	-	-	-
ER	ER-ratio	2006	0.022	-	-
TC	-	-	-		
TL	TL-MT	2006	800		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Orange roughy Cascade Plateau [OROUGHYCASCADE]

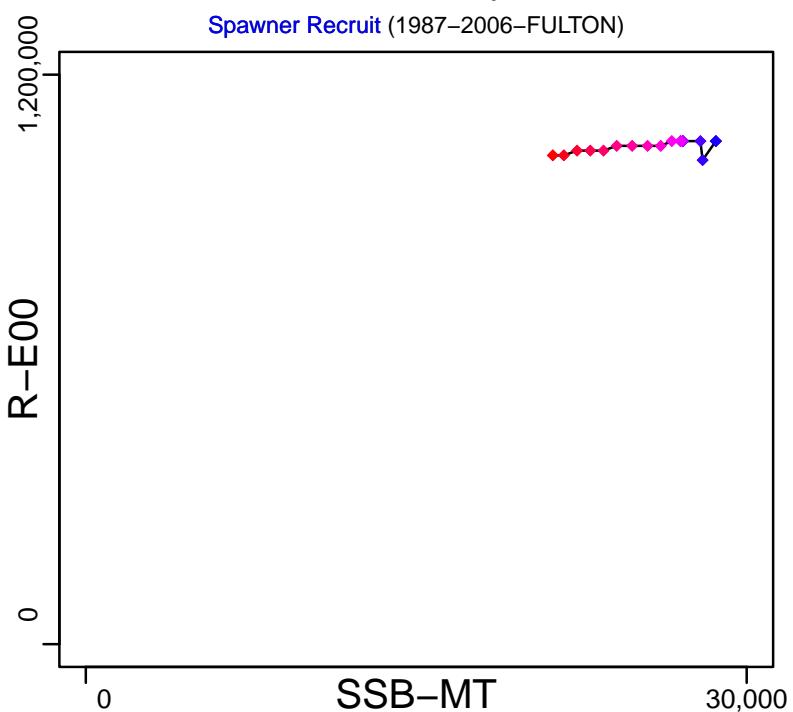
Kobe MSYpref (1987–2006–FULTON)



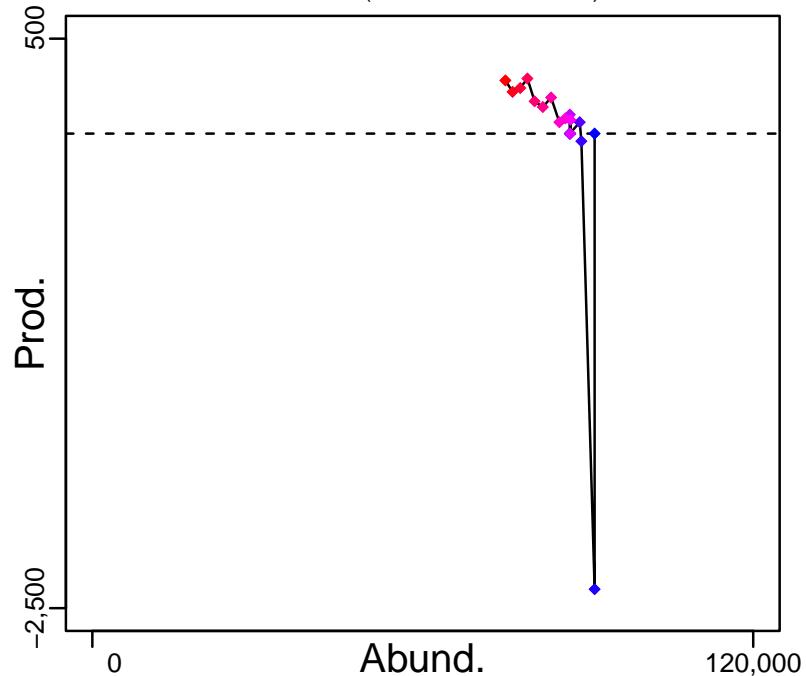
Kobe MGTpref (1987–2006–FULTON)



Spawner Recruit (1987–2006–FULTON)



Production (1987–2006–FULTON)

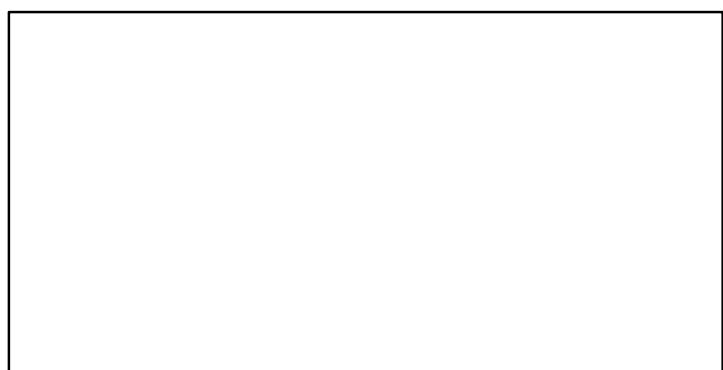
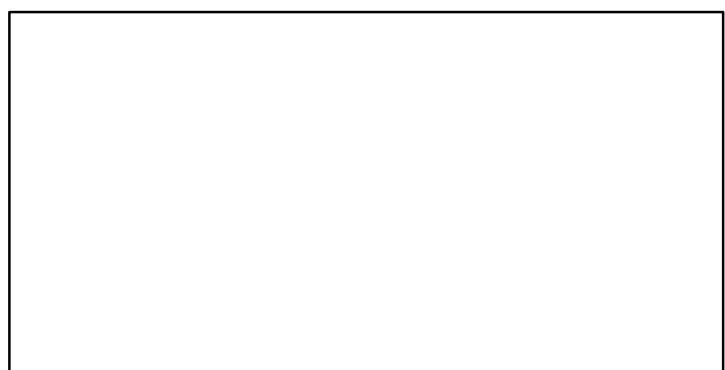
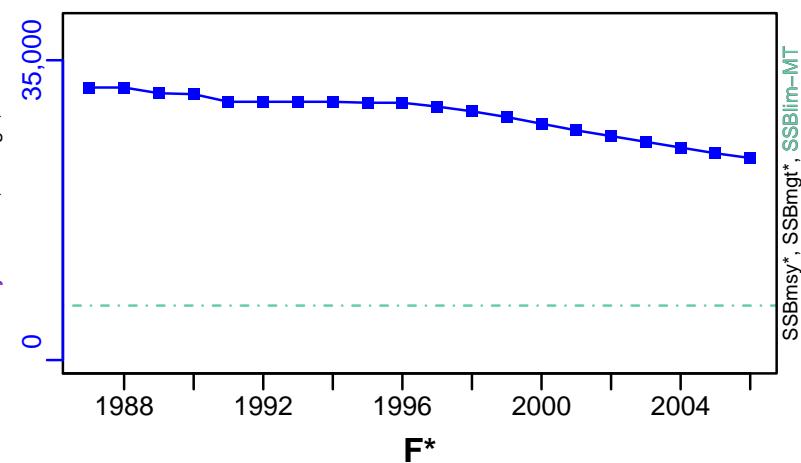
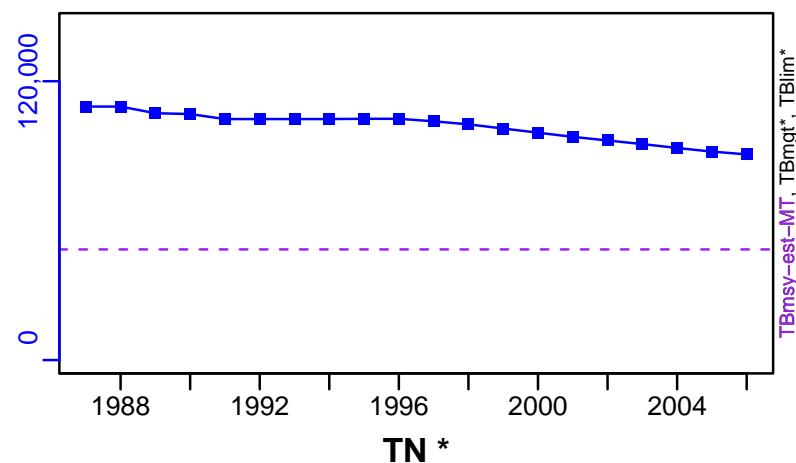


◆ Start Year ◆ End Year * No Data

Orange roughy Cascade Plateau [OROUGHYCASCADE]

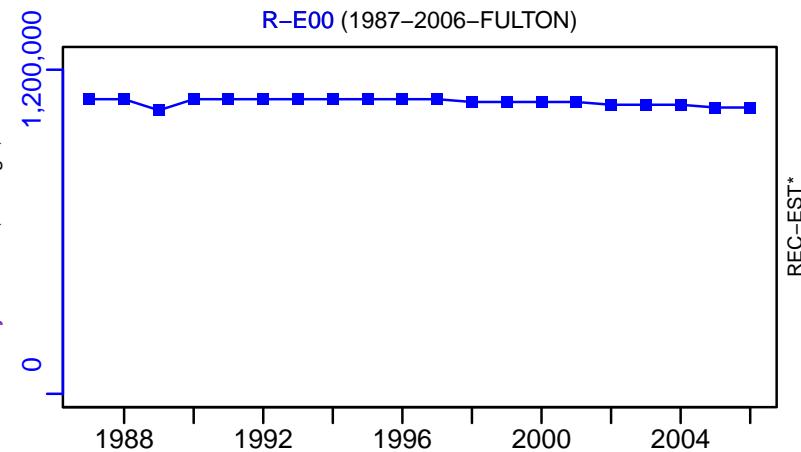
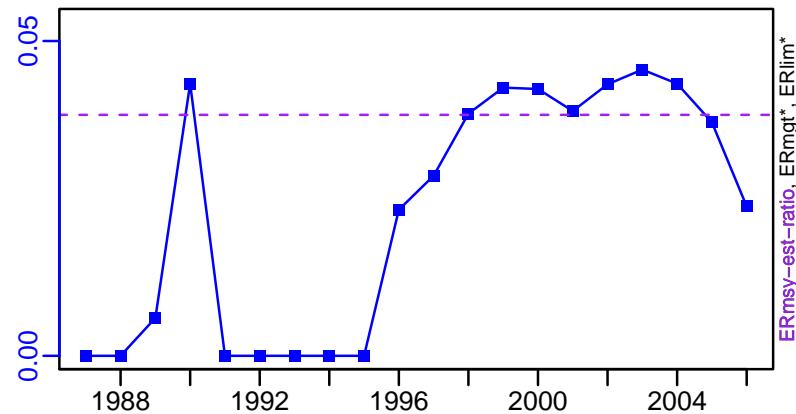
TB-MT (1987–2006–FULTON)

SSB-MT (1987–2006–FULTON)



ER-ratio (1987–2006–FULTON)

R-E00 (1987–2006–FULTON)

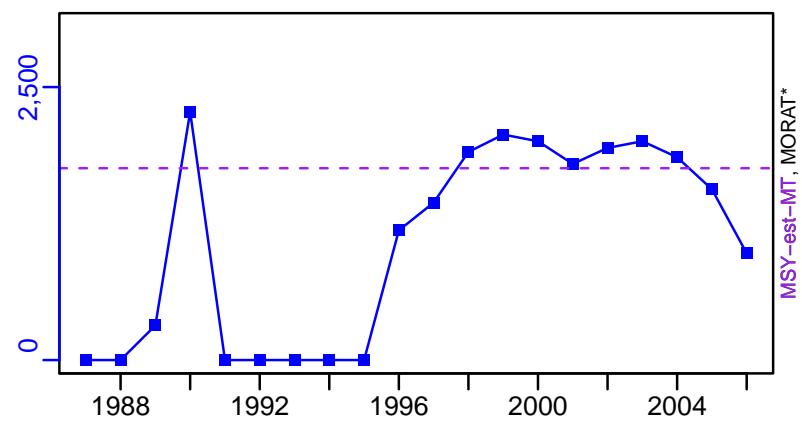


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	— Lim BRP	* No Data

Orange roughy Cascade Plateau [OROUGHYCASCADE]

TL-MT, TC*, RecC* (1987–2006–FULTON)

TAC*, Cpair*, Cadv*



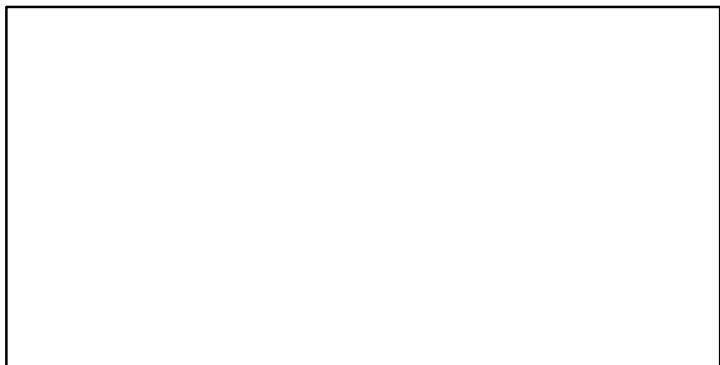
survB*



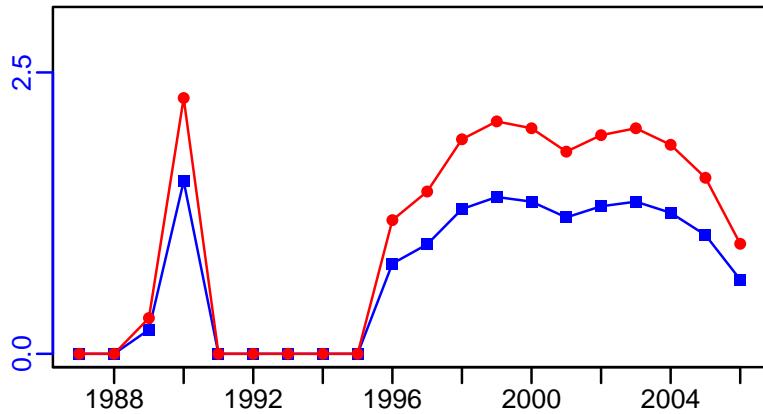
CPUE*



EFFORT*



TL-MT/MSY-est-MT, CdivMEANC-ratio, (1987–2006–FULTON)



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

Orange roughy Chile [OROUGHYCH]

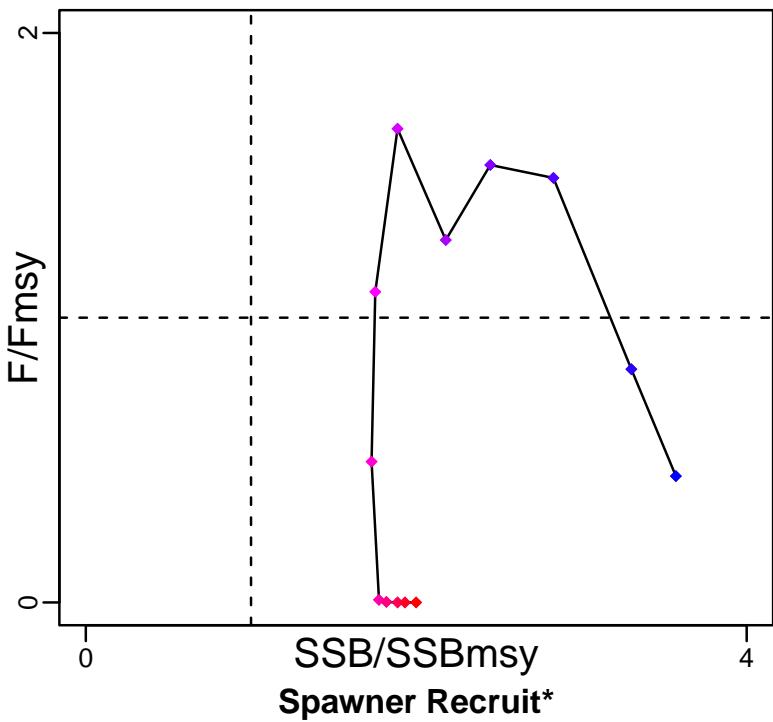
Metadata	
Scientific Name	Hoplostethus atlanticus
Current Assess ID	SPRFMO-OROUGHYCH-1999-2011-PARMA
Area	Chile
Management Authority	South Pacific Regional Fisheries Management Organization
Assessor	South Pacific Regional Fisheries Management Organization
Asmts in RAM	2011

Reference Points			
Type	ID	Asmt Year	Value
TBm sy	-	-	-
SSBm sy	SSBm sy-pr-MT	2011	4452
Fm sy	Fm sy-1/yr	2011	0.11
ERm sy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2011	0.045
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

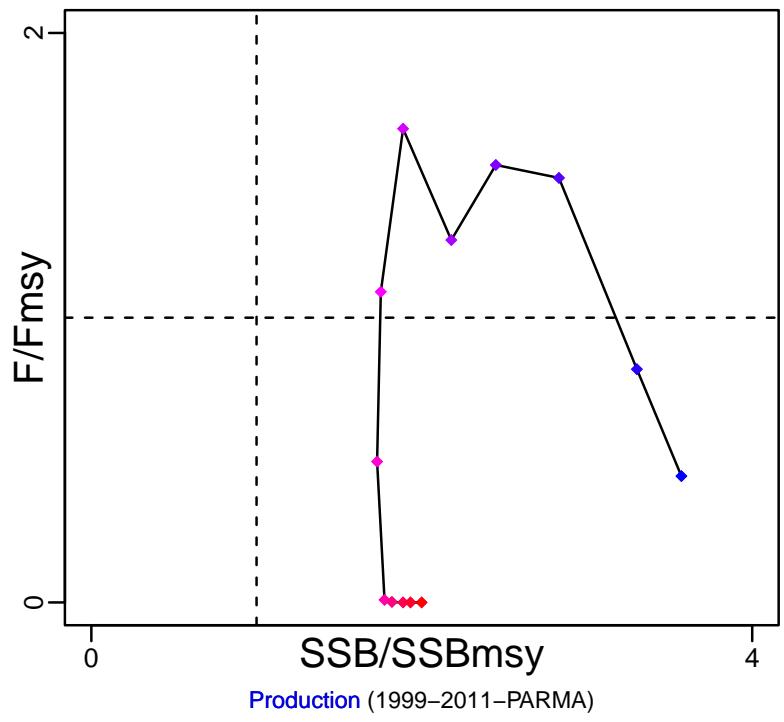
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2011	23,600	-	-	
SSB	SSB-MT	2011	8900	-	-	
TN	-	-	-	-	-	
R	-	-	-	-	-	
F	F-1/yr	2011	0	-	-	
ER	ER-calc-ratio	2011	0	-	-	
TC	TC-MT	2011	0			
TL	-	-	-			
TB/TBm sy	-	-	-			
SSB/SSBm sy	SSB-MT/SSBm sy-pr-MT	2011	1.999			
F/Fm sy	F-1/yr/Fm sy-1/yr	2011	0			
ER/ERm sy	-	-	-			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Orange roughy Chile [OROUGHYCH]

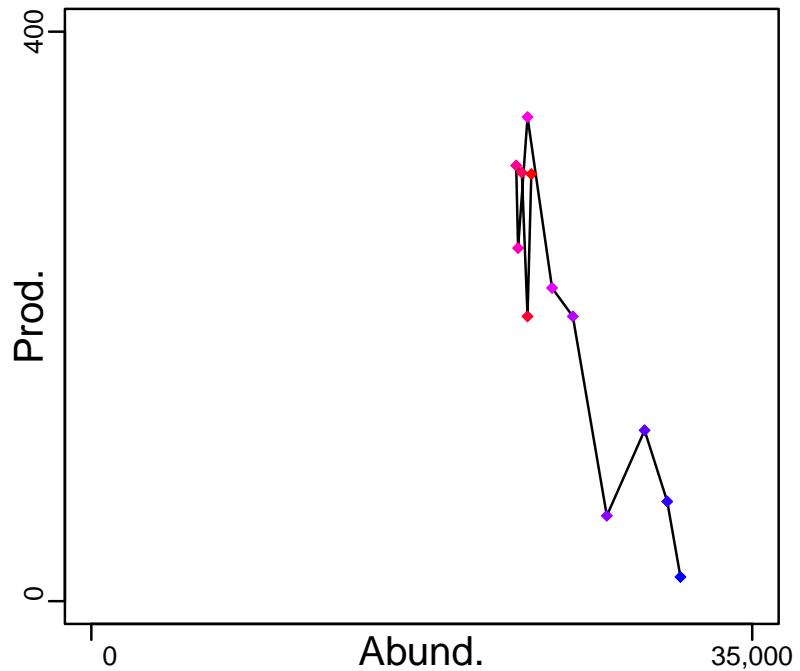
Kobe MSYpref (1999–2011–PARMA)



Kobe MGTPref (1999–2011–PARMA)



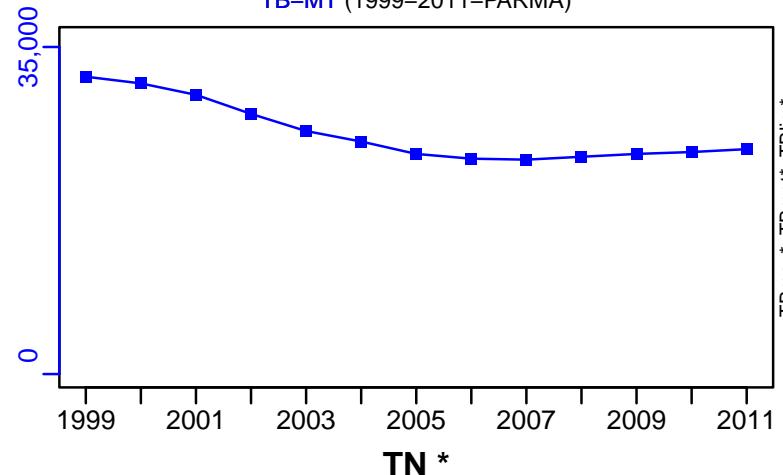
Production (1999–2011–PARMA)



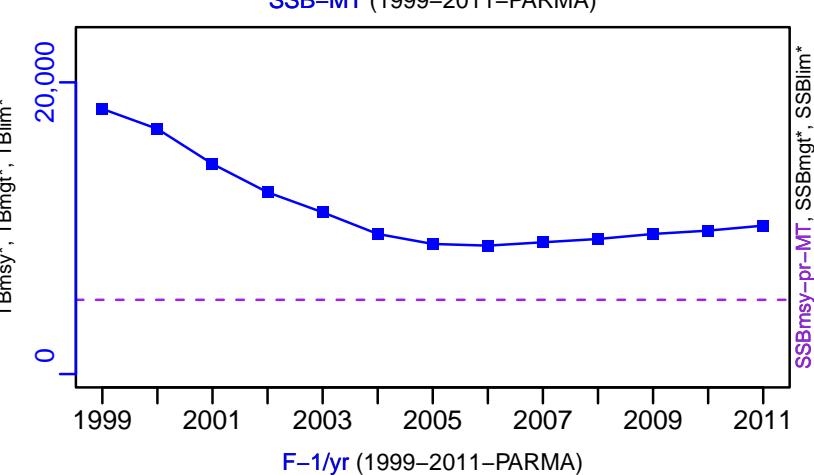
◆ Start Year ◆ End Year * No Data

Orange roughy Chile [OROUGHYCH]

TB-MT (1999–2011-PARMA)



SSB-MT (1999–2011-PARMA)



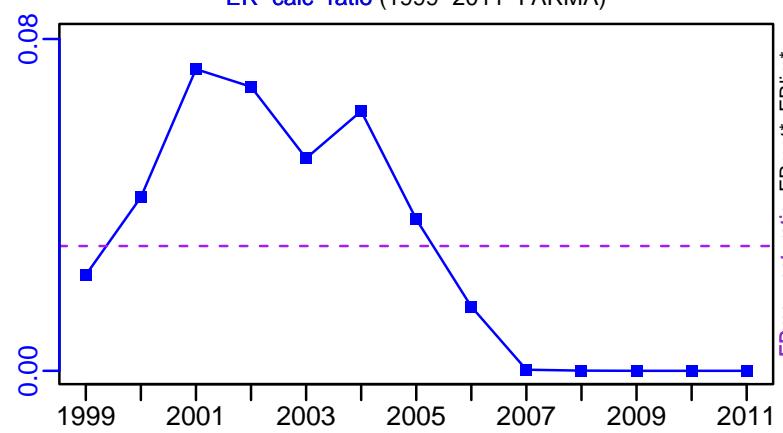
TN *

TB_ms_y* , TB_mgt*, TB_{lim}*

SSB_ms_y-pr-MT, SSB_mgt*, SSB_{lim}*

F_ms_y-1/yr, F_mgt*, F_{lim}*

ER-calc-ratio (1999–2011-PARMA)



Recruits*

ER_ms_y-est-ratio, ER_mgt*, ER_{lim}*

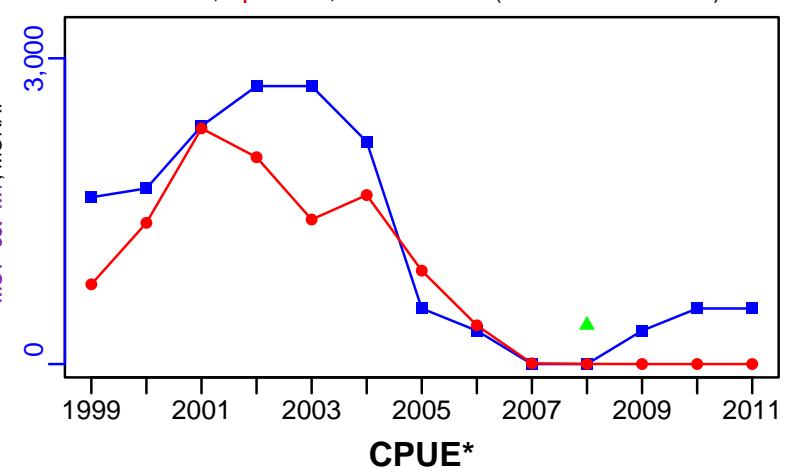
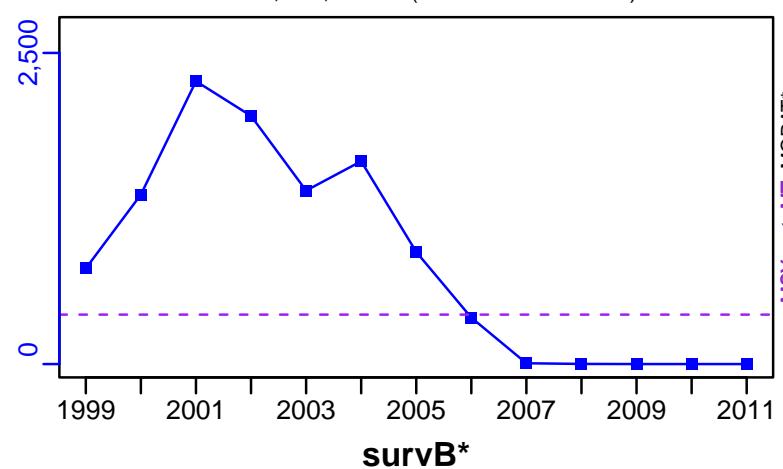
F_ms_y-1/yr, F_mgt*, F_{lim}*

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

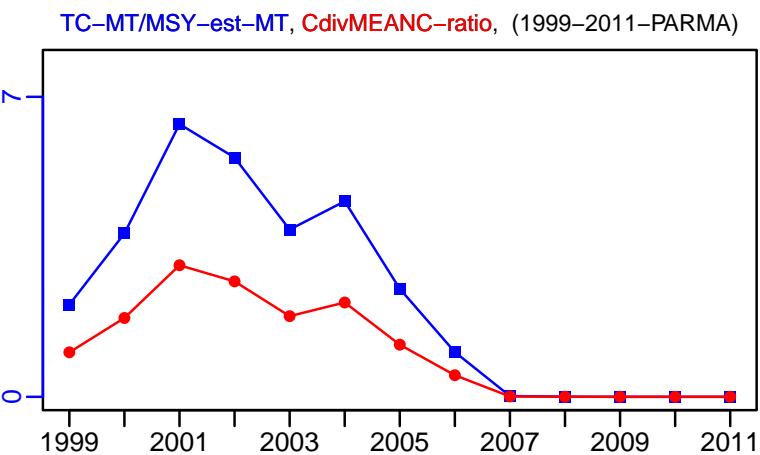
Orange roughy Chile [OROUGHYCH]

TC-MT, TL*, RecC* (1999–2011-PARMA)

TAC-MT, Cpair-MT, Cadvised-MT (1999–2011-PARMA)



EFFORT*



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

Orange roughy East and South Chatham Rise [OROUGHYESCR]

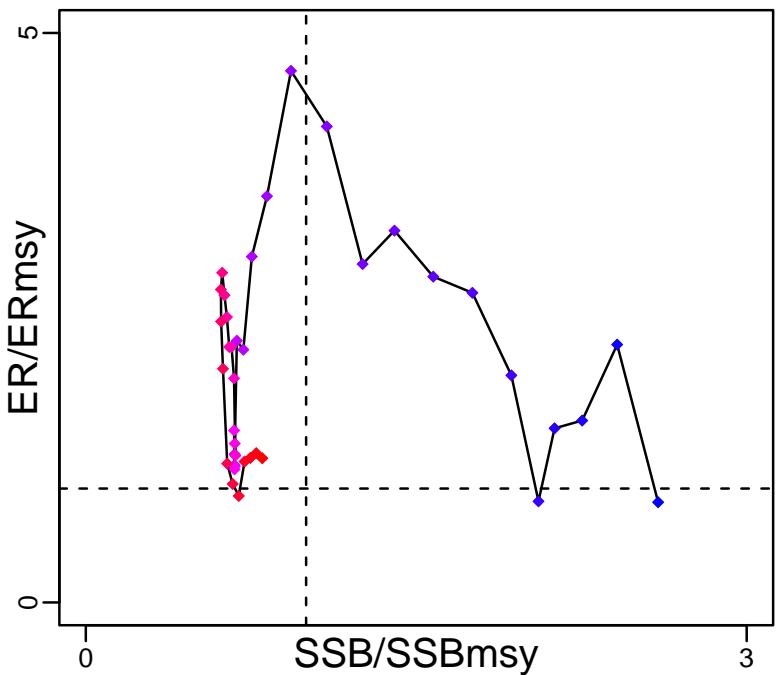
Metadata	
Scientific Name	Hoplostethus atlanticus
Current Assess ID	NIWA-OROUGHYESCR-1911-2017-DEVINE
Area	East and South Chatham Rise
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2014, 2017

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2017	124,507
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2017	124,507
Fmgt	-	-	-
ERmgt	ERmgt-ratio	2014	0.053
TB0	-	-	-
SSB0	SSB0-MT	2017	311,268
MSY	MSY-MT	2014	8640
M	M-1/yr	2017	0.045
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

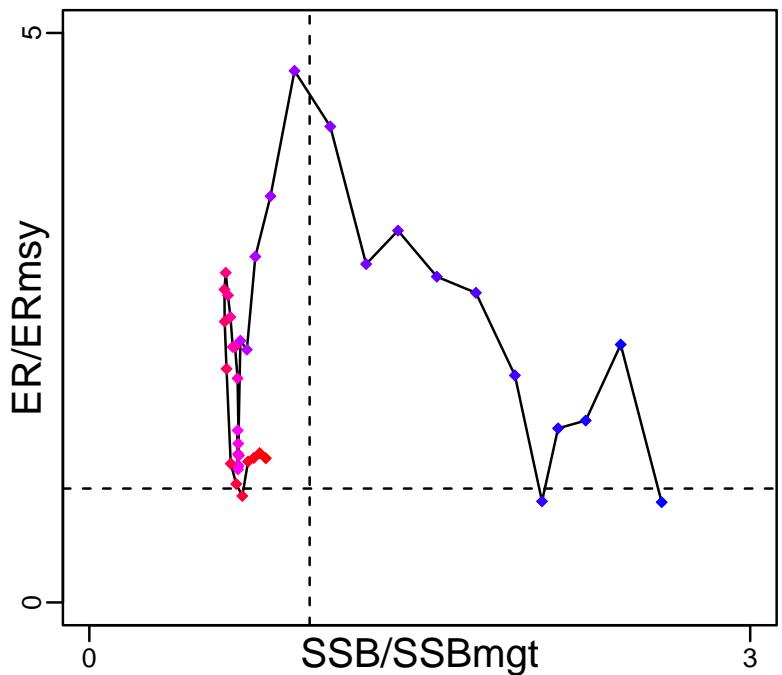
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	-	-	-	-	-	-
SSB	SSB-MT	2017	99,746	Both	28-100	
TN	-	-	-	-	-	-
R	R-E00	2017	45,828,090	Both	28	
F	-	-	-	-	-	-
ER	ER-ratio	2017	0.048	Both	28-100	
TC	TC-MT	2017	3503			
TL	TL-MT	2017	3336			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2017	0.801			
F/Fmsy	-	-	-			
ER/ERmsy	-	-	-			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2017	0.801			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Orange roughy East and South Chatham Rise [OROUGHYESCR]

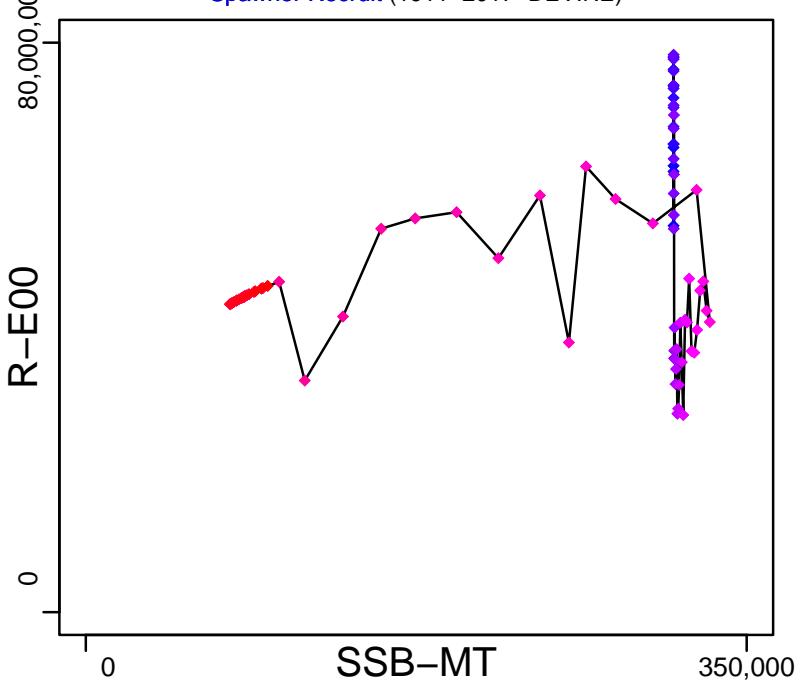
Kobe MSYpref (1911–2017–DEVINE)



Kobe MGTpref (1911–2017–DEVINE)



Spawner Recruit (1911–2017–DEVINE)



Production*

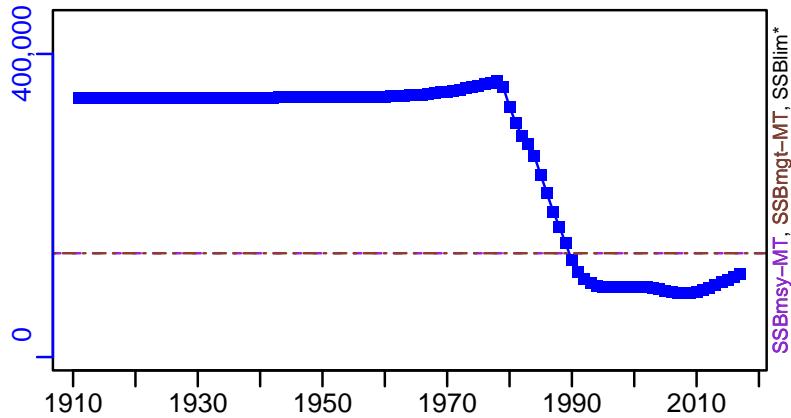
◆ Start Year ◆ End Year * No Data

Orange roughy East and South Chatham Rise [OROUGHYESCR]

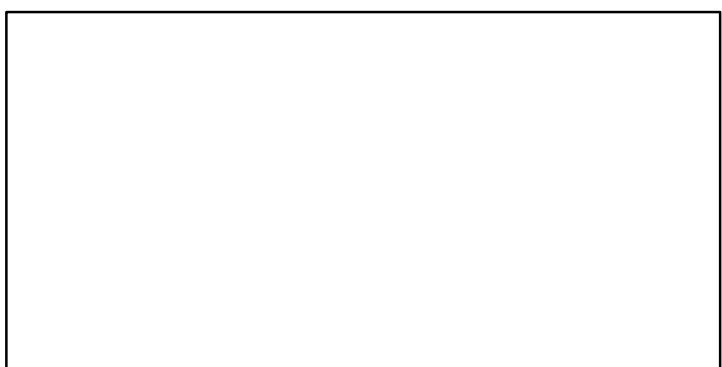
TB*



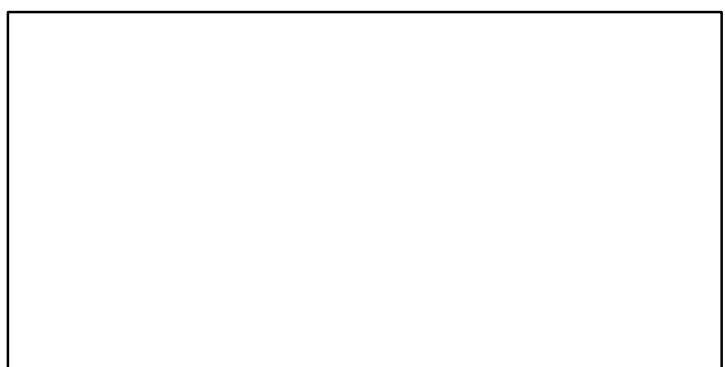
SSB-MT (1911–2017–DEVINE)



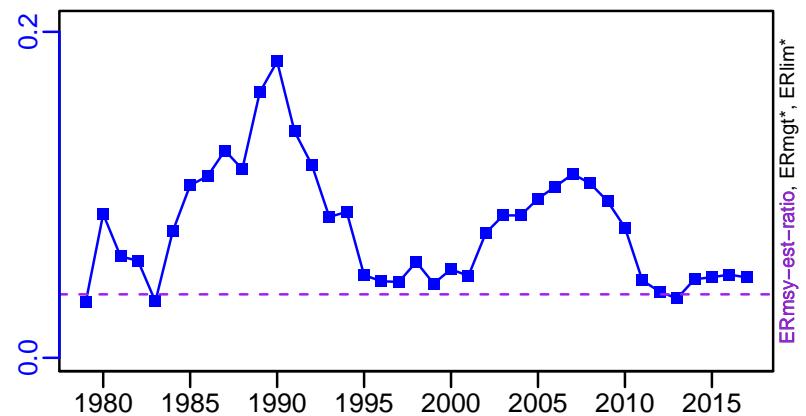
TN *



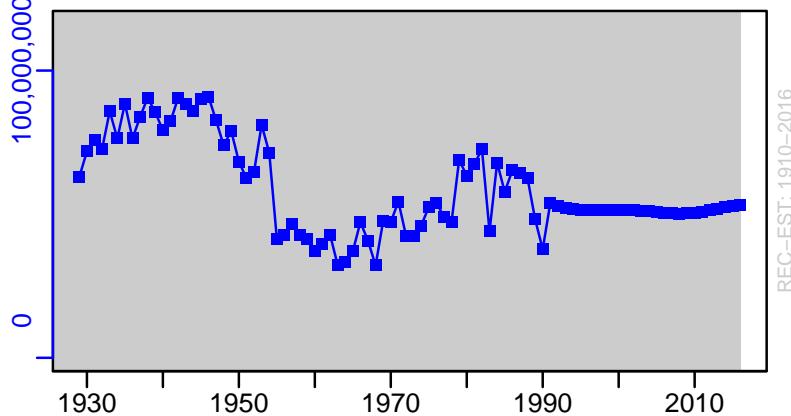
F*



ER-ratio (1911–2017–DEVINE)



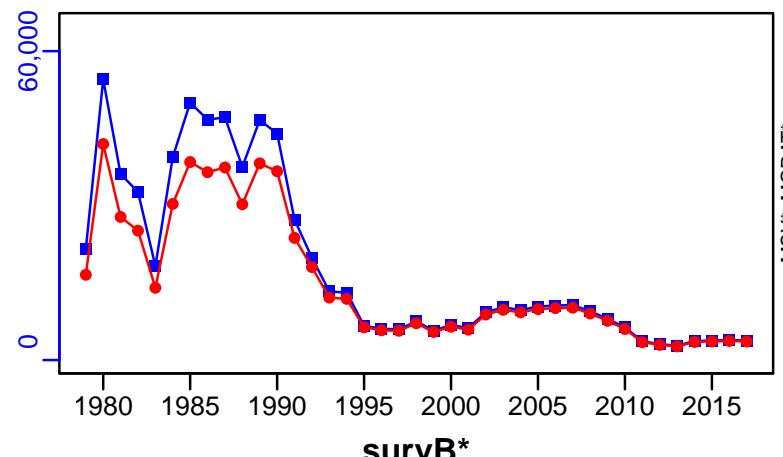
R-E00 (1911–2017–DEVINE)



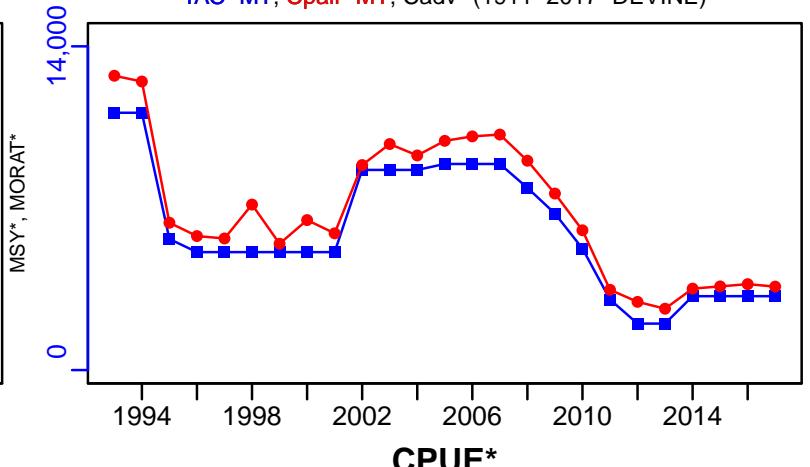
- | | | |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| — MSY-based BRP | — Lim BRP | * No Data |

Orange roughy East and South Chatham Rise [OROUGHYESCR]

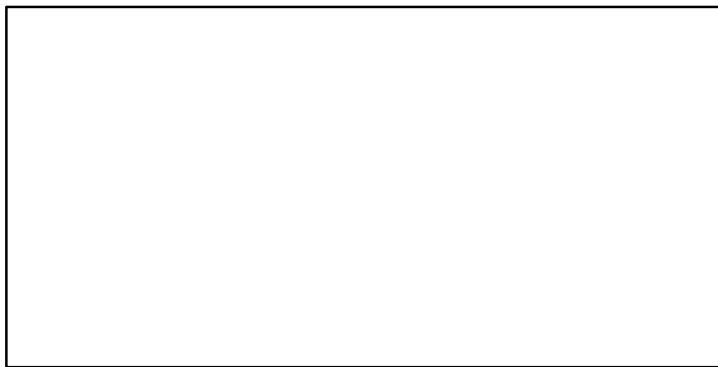
TC-MT, TL-MT, RecC* (1911–2017–DEVINE)



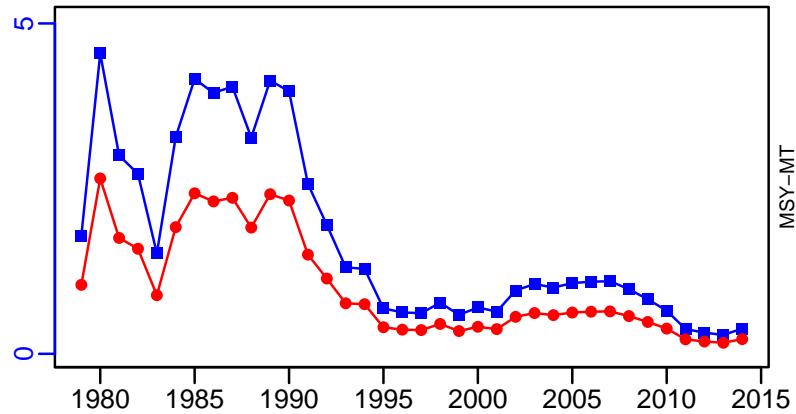
TAC-MT, Cpair-MT, Cadv* (1911–2017–DEVINE)



EFFORT*



TC-MT/MSY-MT, CdiveMEANC-ratio, (1910–2014–FU)



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

Orange roughy Northeast Atlantic [OROUGHYNEATL]

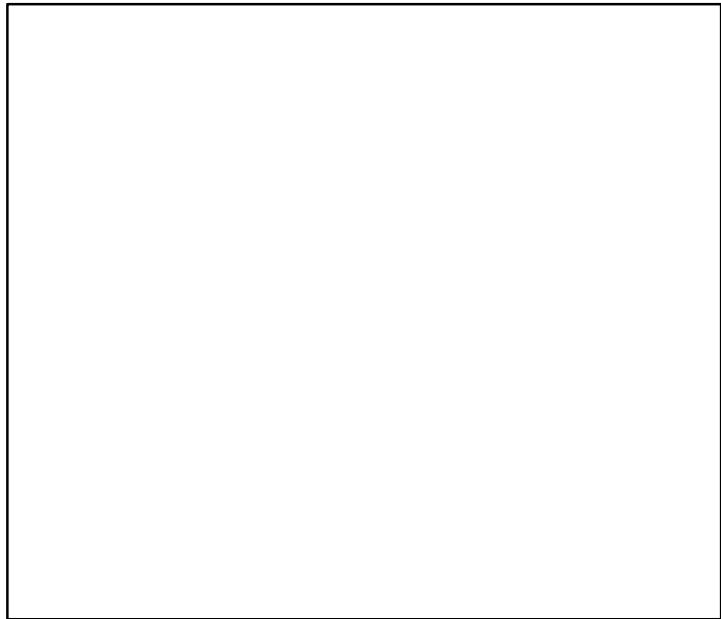
Metadata	
Scientific Name	Hoplostethus atlanticus
Current Assess ID	WGDEEP-OROUGHYNEATL-1988-2019-ICESIMP2021-2
Area	Northeast Atlantic
Management Authority	International Council for the Exploration of the Sea
Assessor	Working Group on the Biology and Assessment of Deep-Sea Fisheries Resources
Asmts in RAM	2016, 2019

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

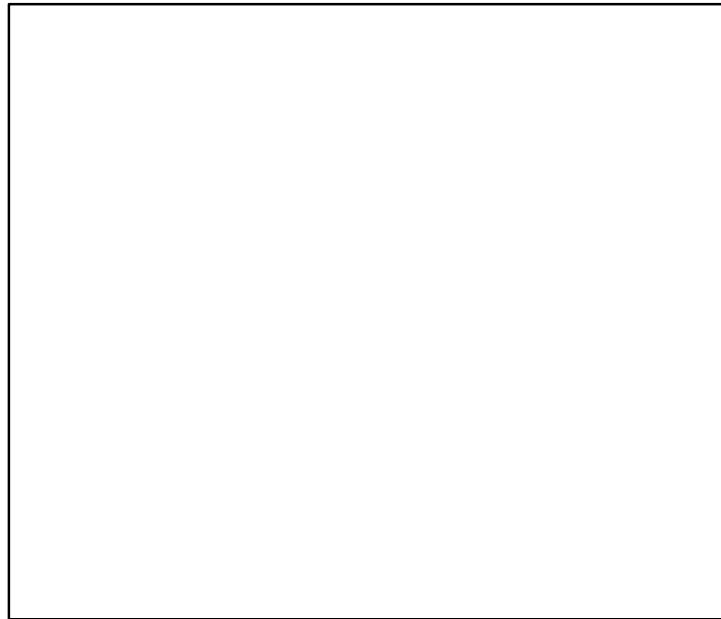
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	-	-	-		
TL	TL-MT	2019	60		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Orange roughy Northeast Atlantic [OROUGHYNEATL]

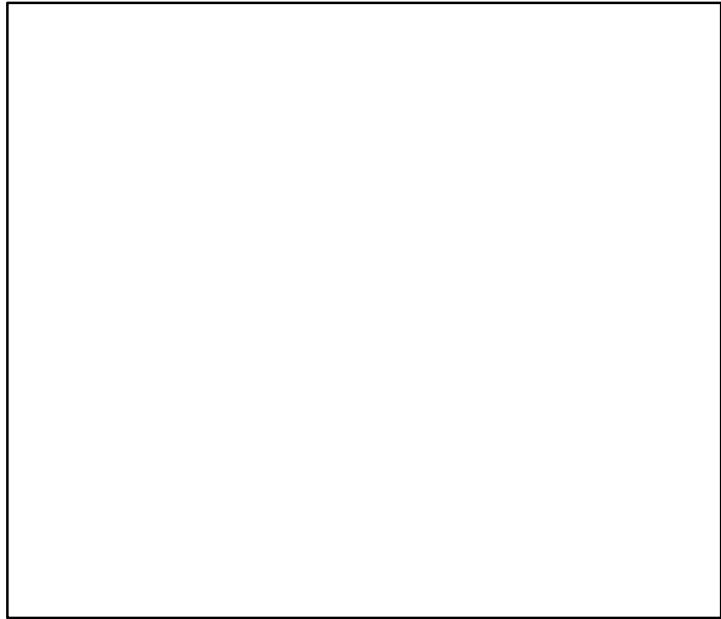
Kobe MSY*



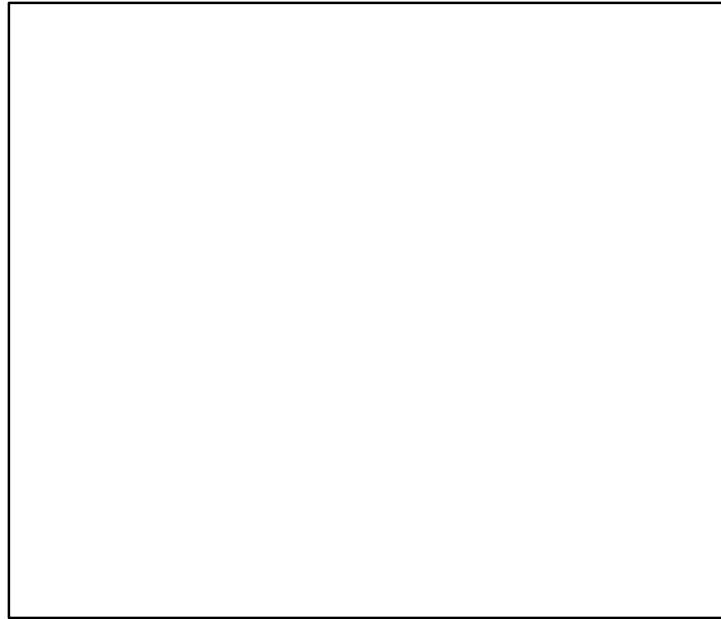
Kobe MGT*



Spawner Recruit*



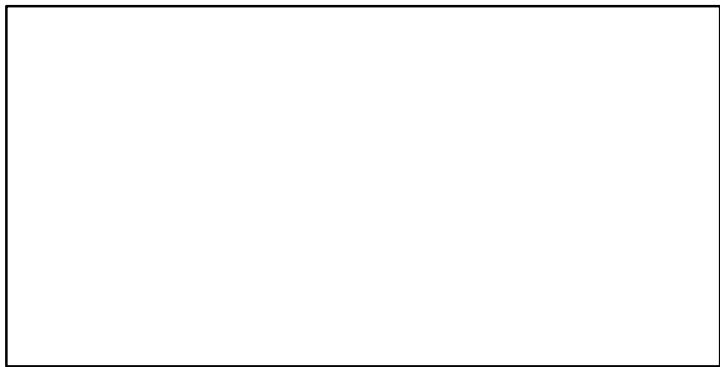
Production*



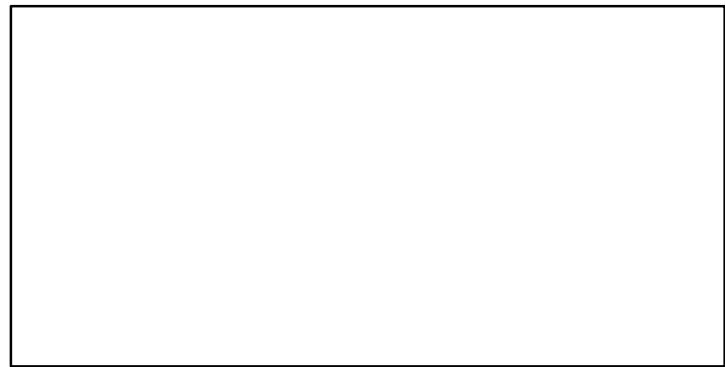
♦ Start Year ♦ End Year * No Data

Orange roughy Northeast Atlantic [OROUGHYNEATL]

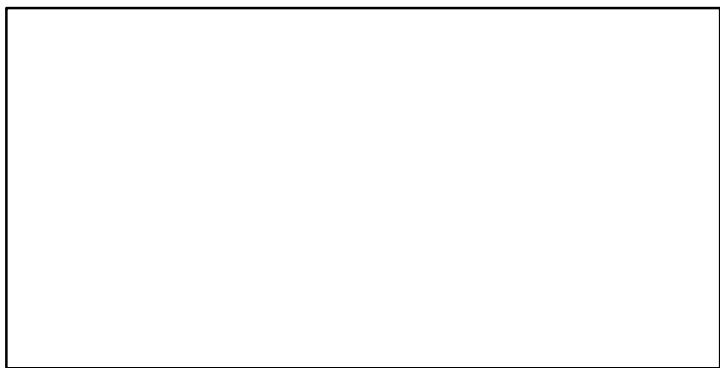
TB*



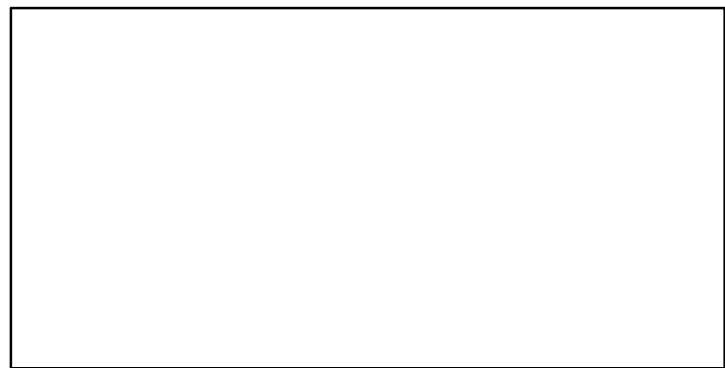
SSB*



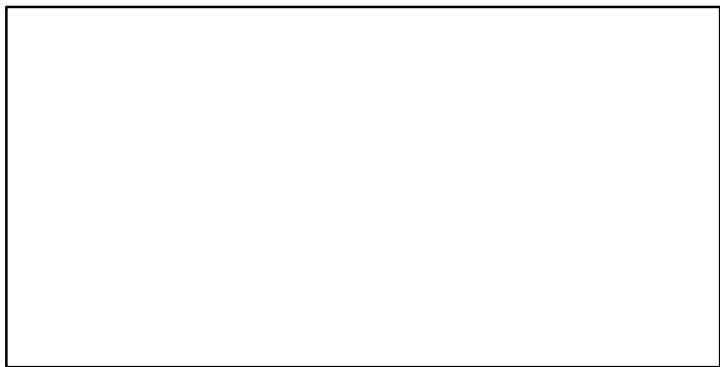
TN *



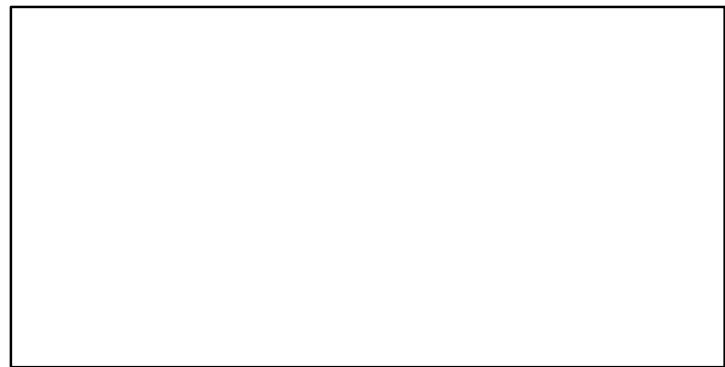
F*



ER*



Recruits*

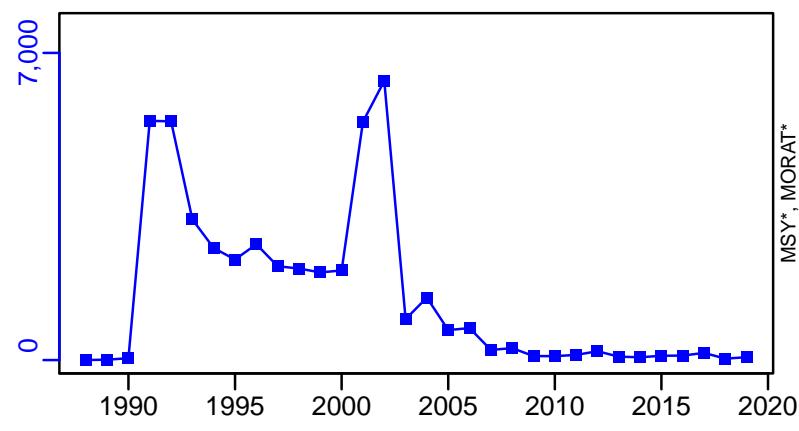


- | | | | | | |
|-------|--------------------|-------|------------|---|---------|
| ■ | Listed time series | - - - | Target BRP | — | Rec-Est |
| - - - | MSY-based BRP | - - - | Lim BRP | * | No Data |

Orange roughy Northeast Atlantic [OROUGHYNEATL]

TL-MT, TC*, RecC* (1988–2019–ICESIMP2021–2)

TAC*, Cpair*, Cadv*



survB*

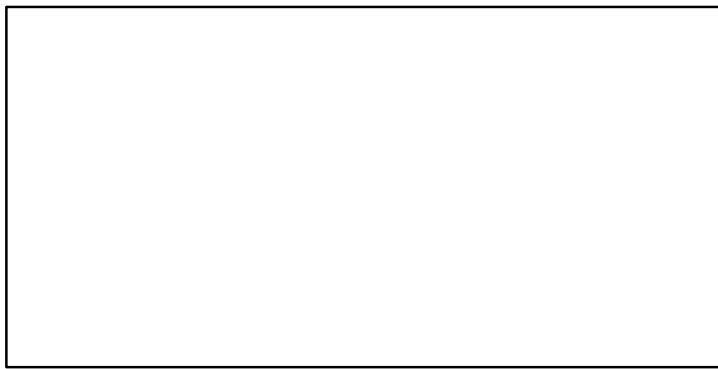
MSY*, MORAT*



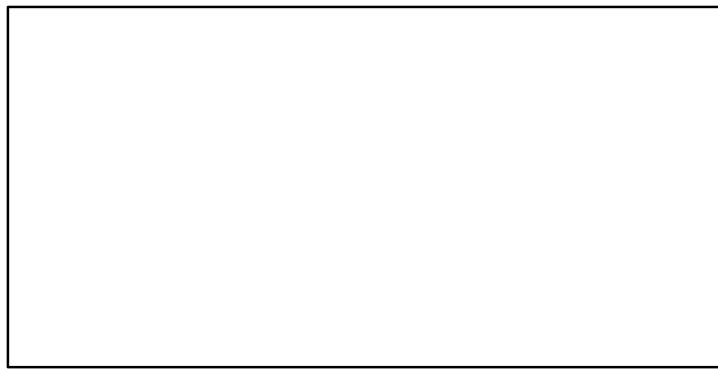
CPUE*



EFFORT*



CdivMSY*



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

Orange roughy Northwest Chatham Rise [OROUGHYNWCR]

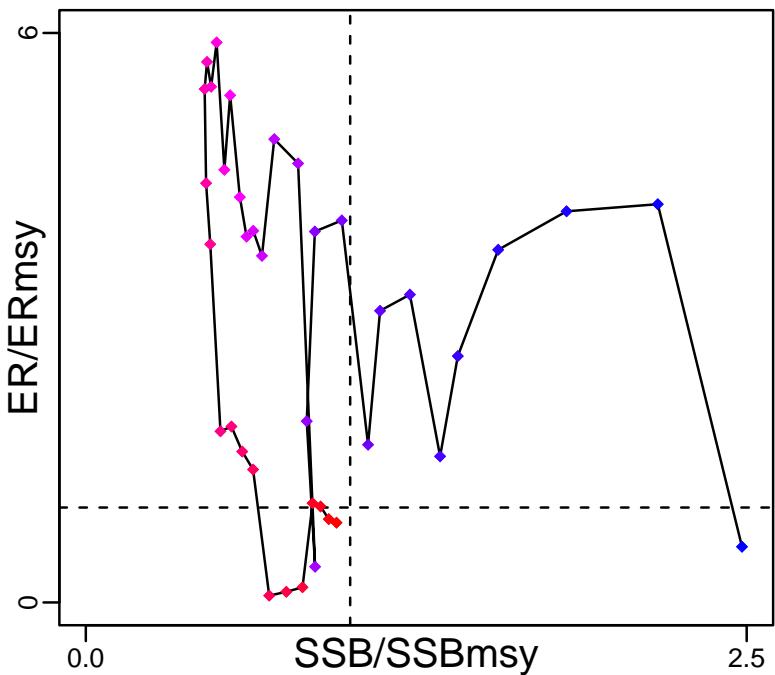
Metadata	
Scientific Name	Hoplostethus atlanticus
Current Assess ID	NIWA-OROUGHYNWCR-1911-2017-DEVINE
Area	Northwest Chatham Rise
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2014, 2017

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2014	16,052
SSBmsy	SSBmsy-MT	2017	26,054
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2014	0.086
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2017	26,054
Fmgt	-	-	-
ERmgt	ERmgt-ratio	2014	0.053
TB0	-	-	-
SSB0	SSB0-MT	2017	65,134
MSY	MSY-MT	2014	1386
M	M-1/yr	2017	0.045
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

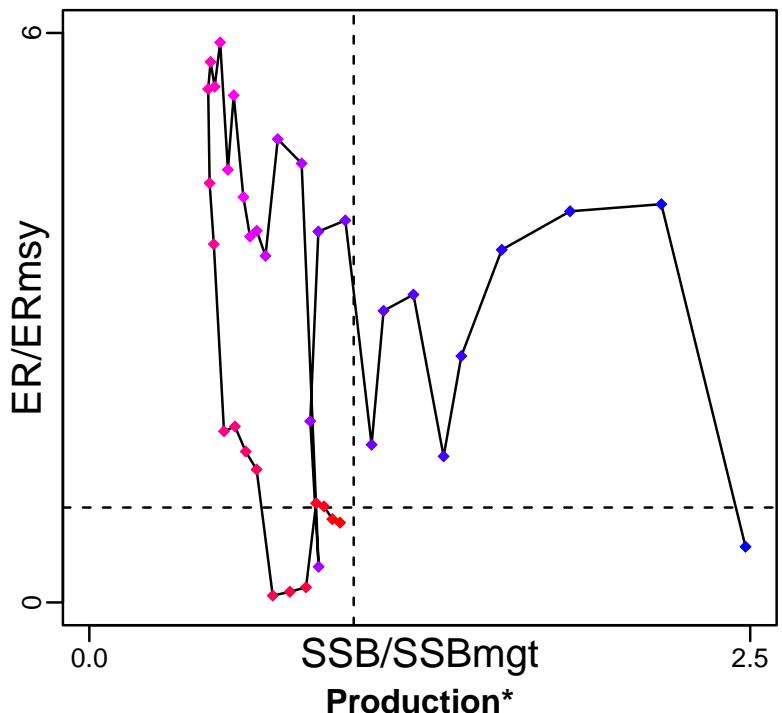
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	-	-	-	-	-	
SSB	SSB-MT	2017	24,712	Both	28-100	
TN	-	-	-	-	-	
R	R-E00	2017	8,363,698	Both	28	
F	-	-	-	-	-	
ER	ER-ratio	2017	0.032	Both	28-100	
TC	TC-MT	2017	799			
TL	TL-MT	2017	761			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2017	0.948			
F/Fmsy	-	-	-			
ER/ERmsy	ERdivERmsy-dimensionless	2014	0.06			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2017	0.948			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Orange roughy Northwest Chatham Rise [OROUGHYNWCR]

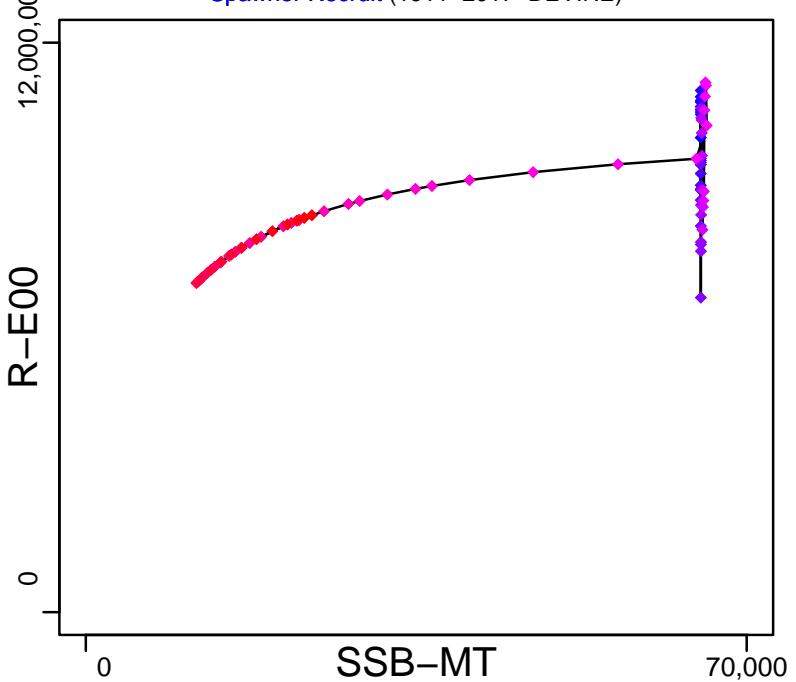
Kobe MSYpref (1911–2017–DEVINE)



Kobe MGTpref (1911–2017–DEVINE)



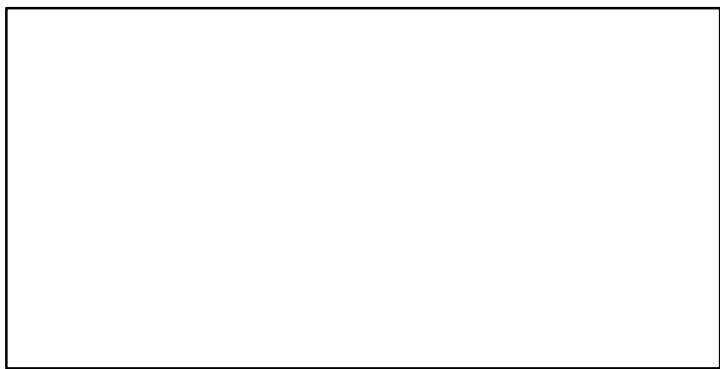
Spawner Recruit (1911–2017–DEVINE)



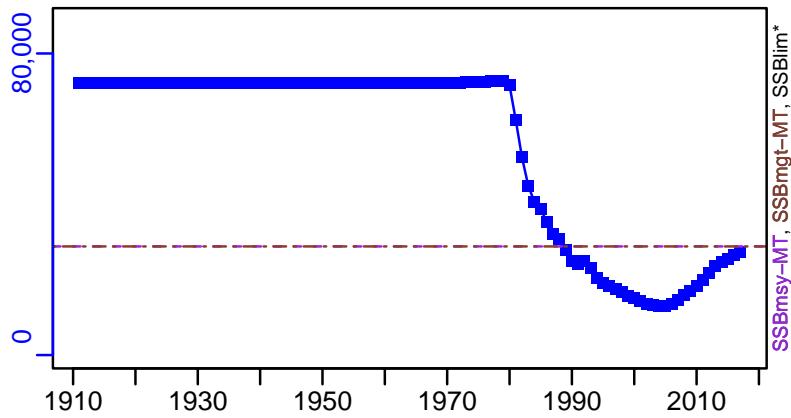
◆ Start Year ◆ End Year * No Data

Orange roughy Northwest Chatham Rise [OROUGHYNWCR]

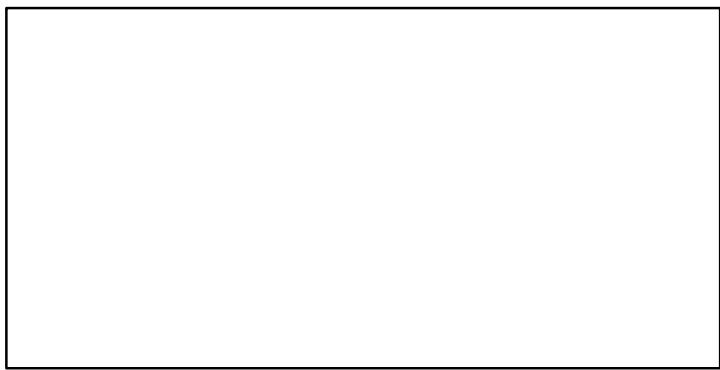
TB*



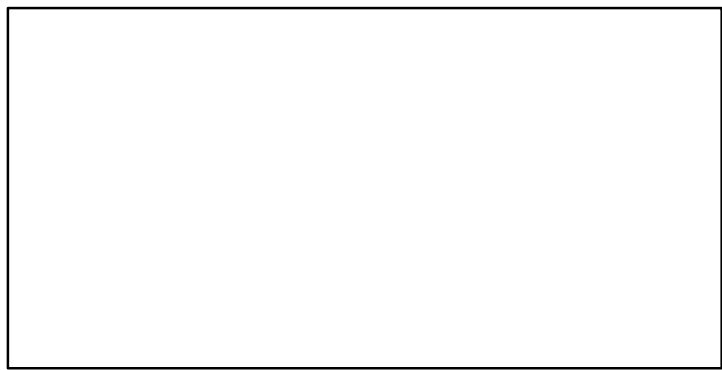
SSB-MT (1911–2017–DEVINE)



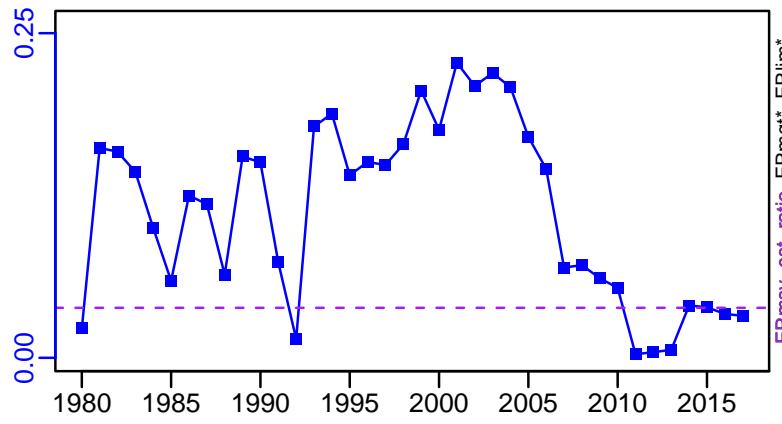
TN *



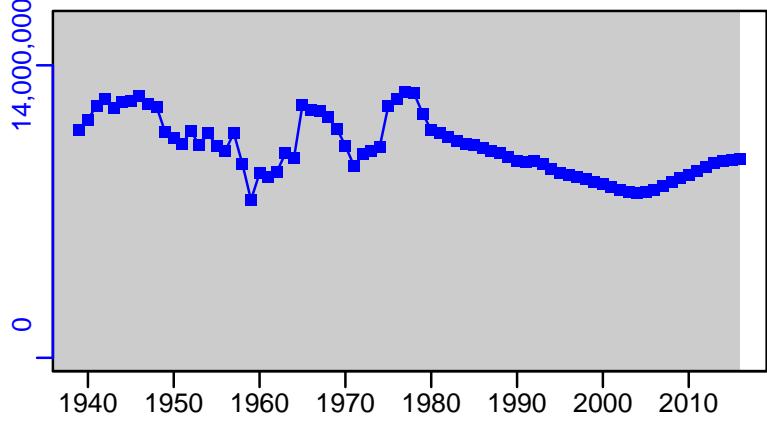
F*



ER-ratio (1911–2017–DEVINE)



R-E00 (1911–2017–DEVINE)



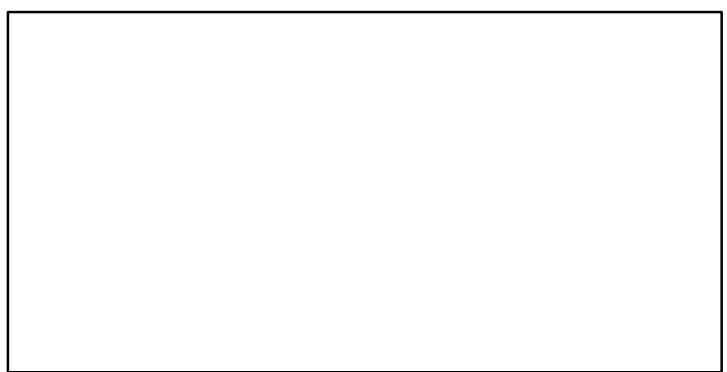
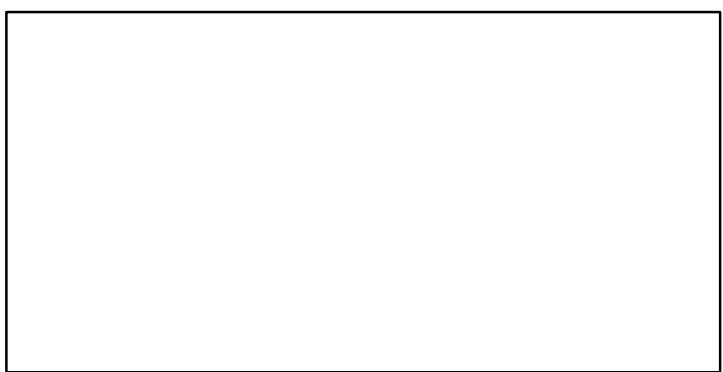
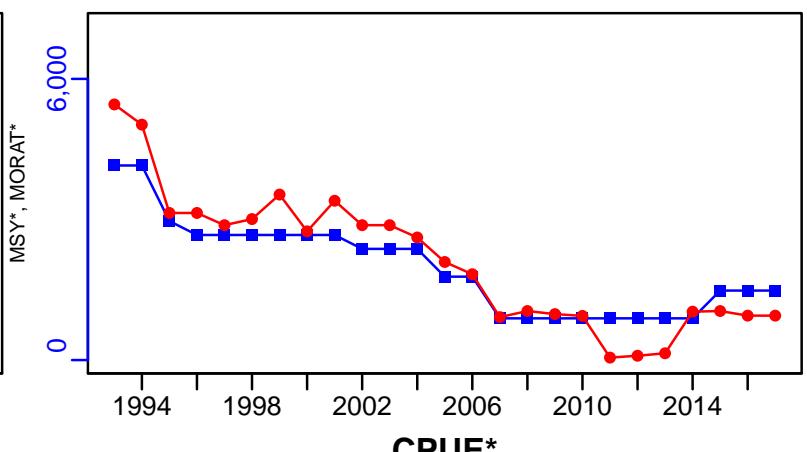
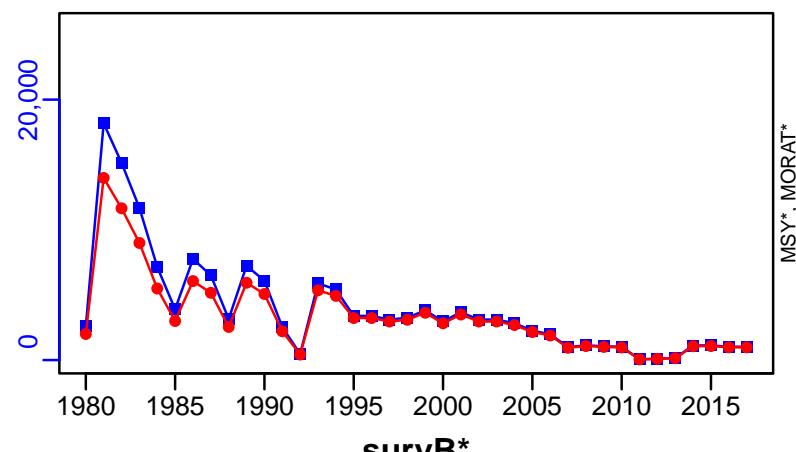
REC-EST: 1910–2016

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

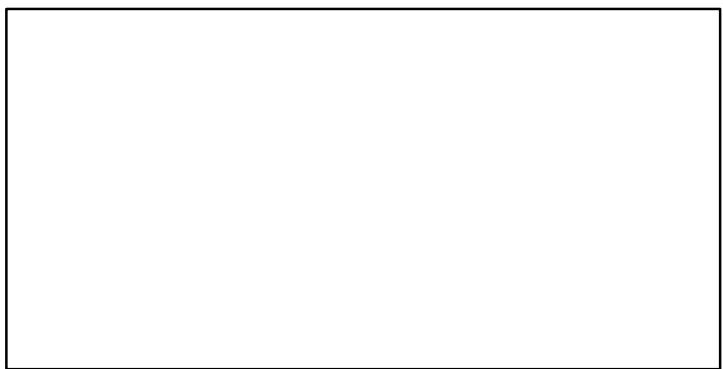
Orange roughy Northwest Chatham Rise [OROUGHYNWCR]

TC-MT, TL-MT, RecC* (1911–2017–DEVINE)

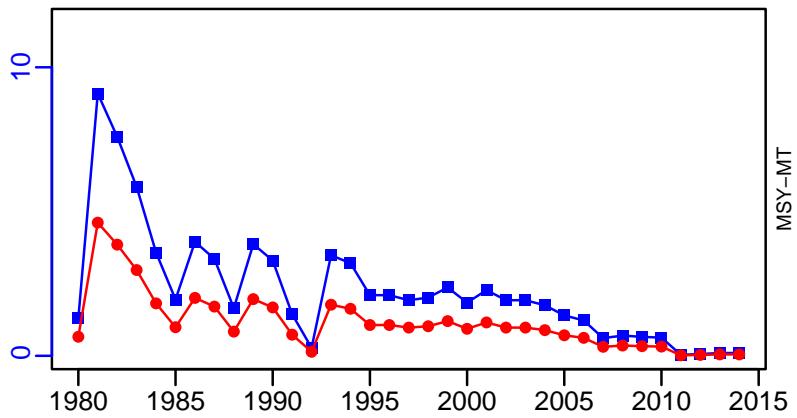
TAC-MT, Cpair-MT, Cadv* (1911–2017–DEVINE)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1910–2014–FU)



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

Orange roughy New Zealand Challenger Plateau [OROUGHYNZ7A]

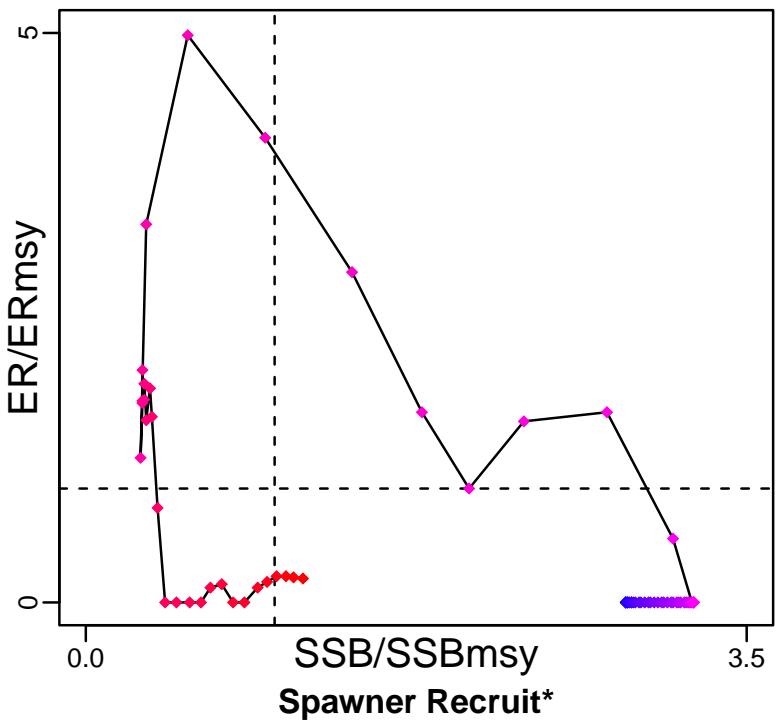
Metadata	
Scientific Name	Hoplostethus atlanticus
Current Assess ID	NIWA-OROUGHYNZ7A-1910-2014-FU
Area	New Zealand Challenger Plateau
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2014

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2014	20,764
SSBmsy	SSBmsy-MT	2014	30,800
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2014	0.089
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2014	30,800
Fmgt	-	-	-
ERmgt	ERmgt-ratio	2014	0.054
TB0	-	-	-
SSB0	SSB0-MT	2014	88,000
MSY	MSY-MT	2014	1848
M	M-1/yr	2014	0.045
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

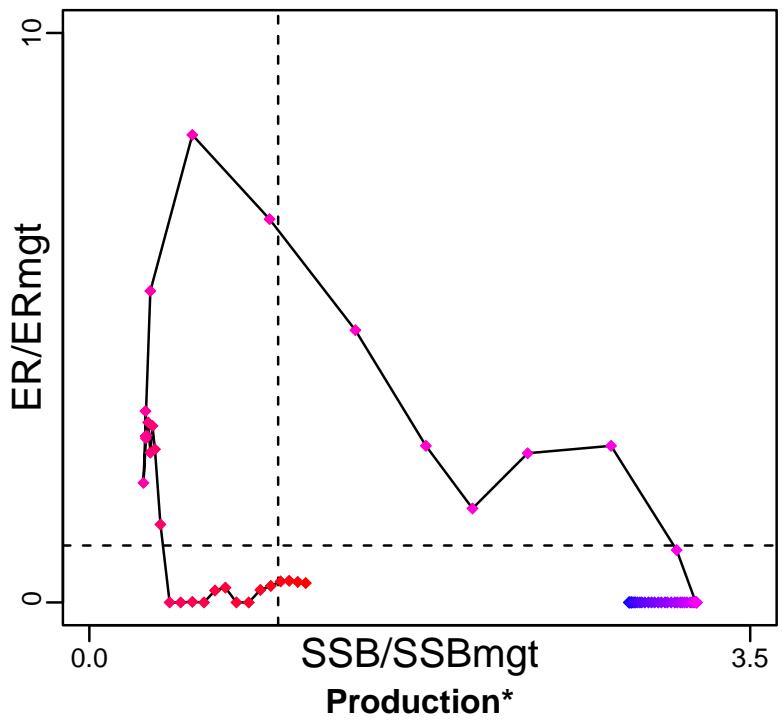
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	-	-	-	-	-	
SSB	SSB-MT	2014	35,300	-	40+	
TN	-	-	-	-	-	
R	-	-	-	-	-	
F	-	-	-	-	-	
ER	ER-ratio	2014	0.02	Both	-	
TC	TC-MT	2014	539			
TL	-	-	-			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2014	1.15			
F/Fmsy	-	-	-			
ER/ERmsy	ERdivERmsy-dimensionless	2014	0.21			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2014	1.146			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Orange roughy New Zealand Challenger Plateau [OROUGHYNZ7A]

Kobe MSYpref (1910–2014–FU)



Kobe MGTpref (1910–2014–FU)



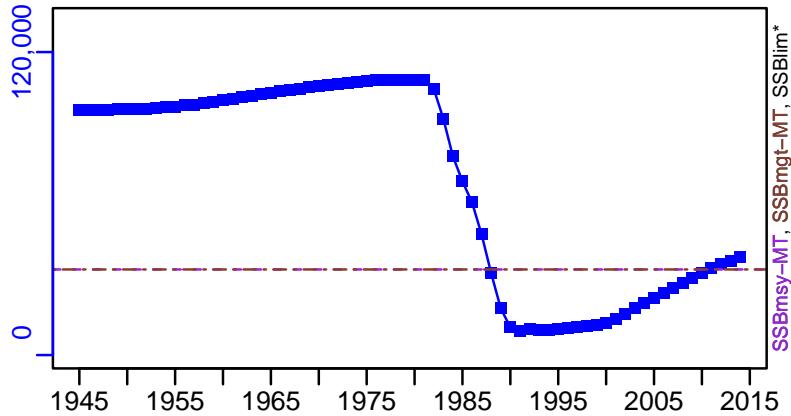
◆ Start Year ◆ End Year * No Data

Orange roughy New Zealand Challenger Plateau [OROUGHYNZ7A]

TB*



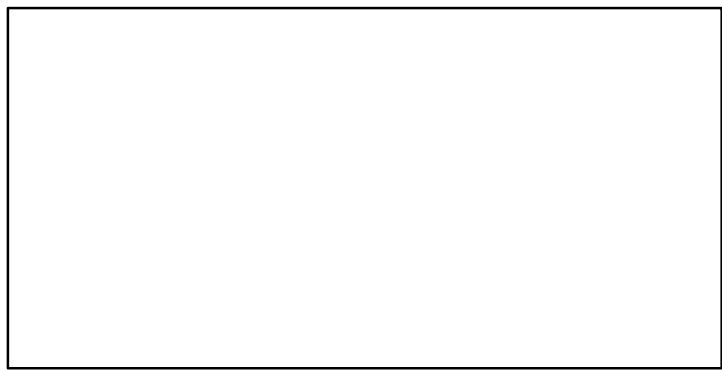
SSB-MT (1910–2014–FU)



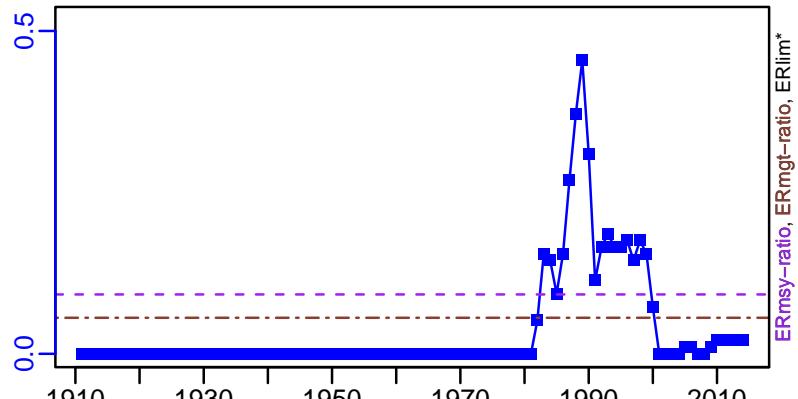
TN *



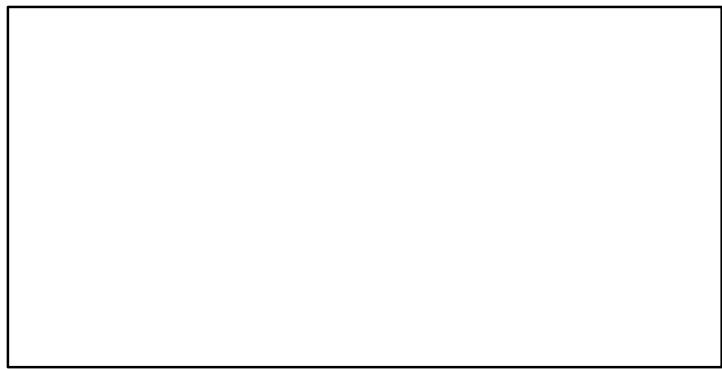
F*



ER-ratio (1910–2014–FU)



Recruits*

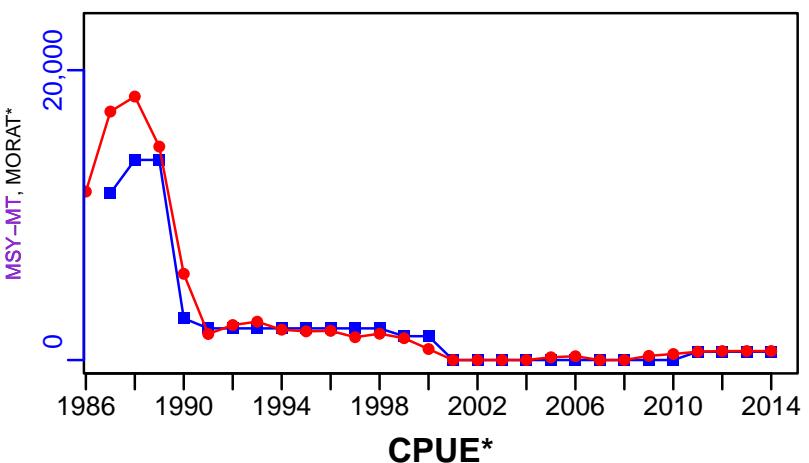
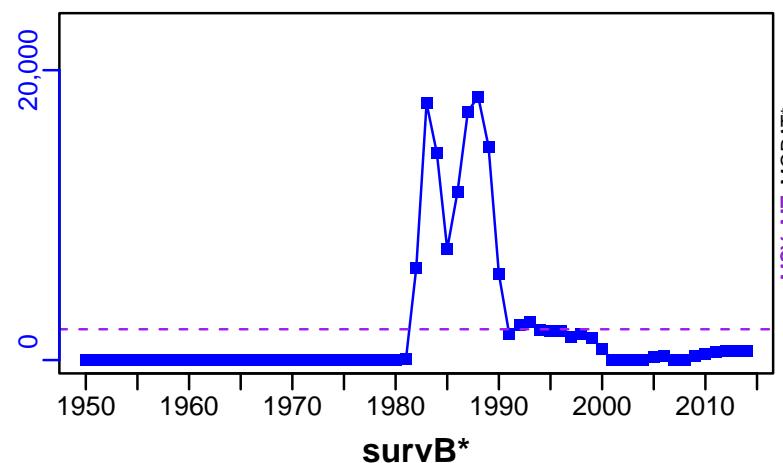


- | | | |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| — MSY-based BRP | ··· Lim BRP | * No Data |

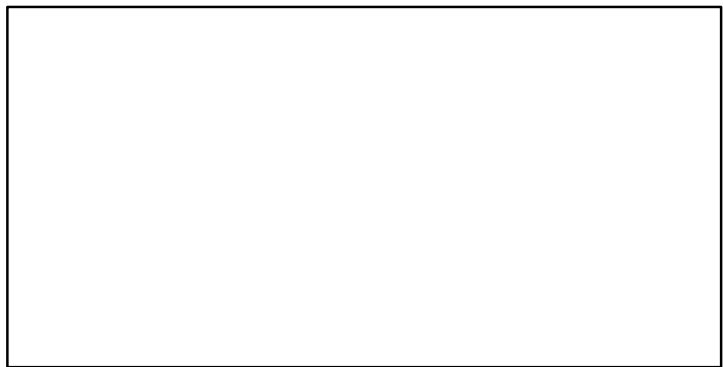
Orange roughy New Zealand Challenger Plateau [OROUGHYNZ7A]

TC-MT, TL*, RecC* (1910–2014–FU)

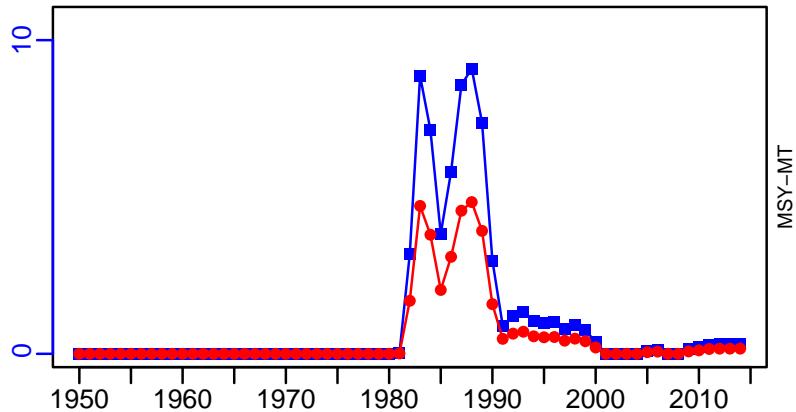
TAC-MT, Cpair-MT, Cadv* (1910–2014–FU)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1910–2014–FU)



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

Orange roughy New Zealand Mid East Coast [OROUGHYNZMEC]

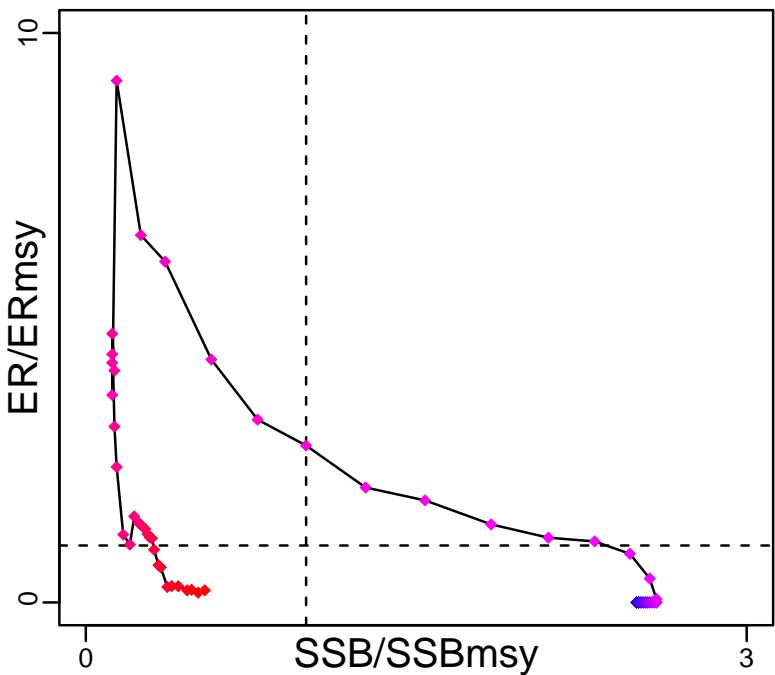
Metadata	
Scientific Name	Hoplostethus atlanticus
Current Assess ID	NIWA-OROUGHYNZMEC-1950-2021-DUNN
Area	New Zealand Mid East Coast
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2014, 2011, 2021

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2011	55,297
SSBmsy	SSBmsy-pr-MT	2021	21,340
Fmsy	Fmsy-1/yr	2011	0.04
ERmsy	ERmsy-ratio	2011	0.029
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2021	21,340
Fmgt	-	-	-
ERmgt	ERmgt-ratio	2014	0.051
TB0	-	-	-
SSB0	SSB0-MT	2021	53,350
MSY	MSY-MT	2014	2214
M	M-1/yr	2021	0.045
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

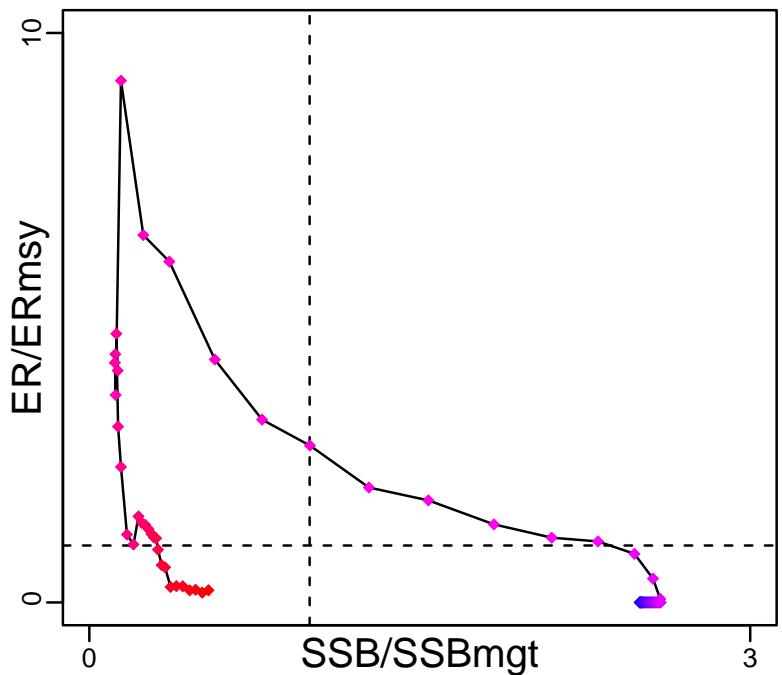
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	-	-	-	-	-	-
SSB	SSB-MT	2021	11,538	Both	60+	
TN	-	-	-	-	-	-
R	R-E00	2011	2,530,000	-	1	
F	F-1/yr	2011	0.1	-	-	
ER	ER-ratio	2011	0.074	-	-	
TC	TC-MT	2021	526			
TL	-	-	-			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2021	0.54			
F/Fmsy	FdivFmsy-dimensionless	2011	2.5			
ER/ERmsy	ER-ratio/ERmsy-ratio	2011	2.555			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2021	0.541			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Orange roughy New Zealand Mid East Coast [OROUGHYNZMEC]

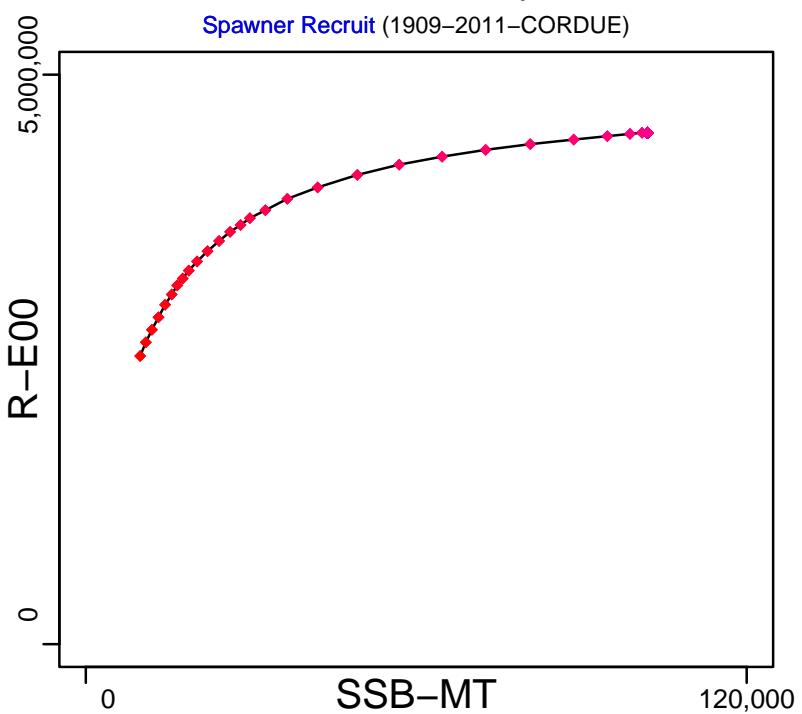
Kobe MSYpref (1950–2021–DUNN)



Kobe MGTPref (1950–2021–DUNN)



Spawner Recruit (1909–2011–CORDUE)



Production*



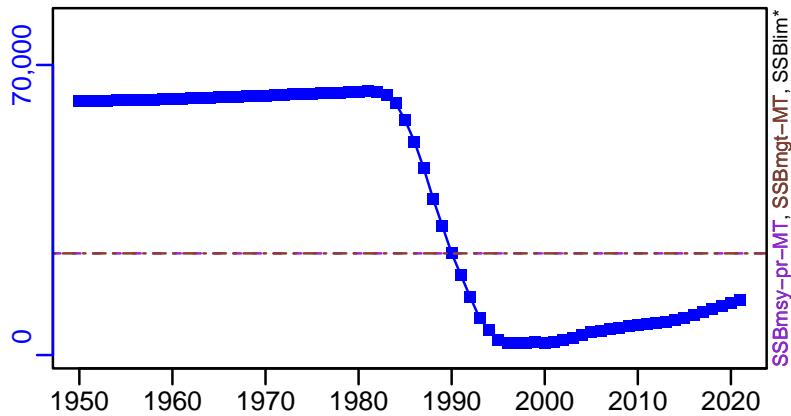
◆ Start Year ◆ End Year * No Data

Orange roughy New Zealand Mid East Coast [OROUGHYNZMEC]

TB*



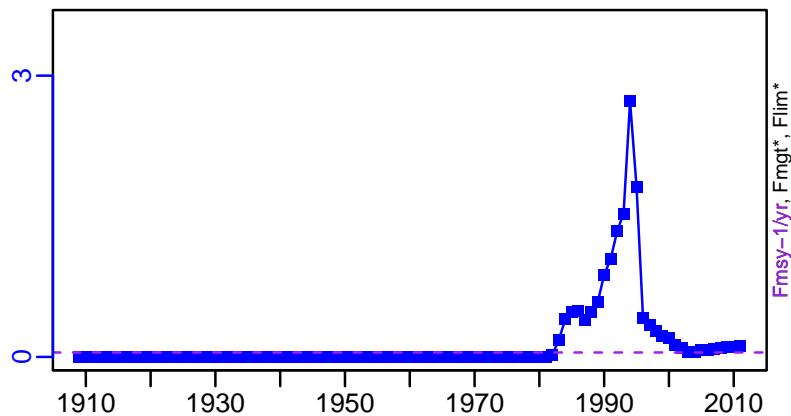
SSB-MT (1950–2021–DUNN)



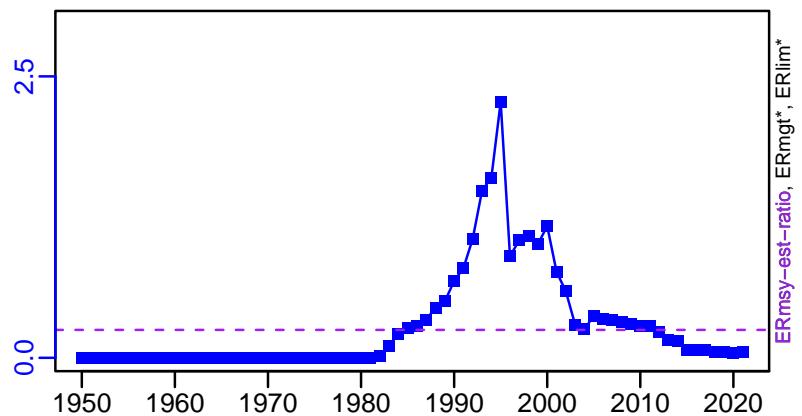
TN *



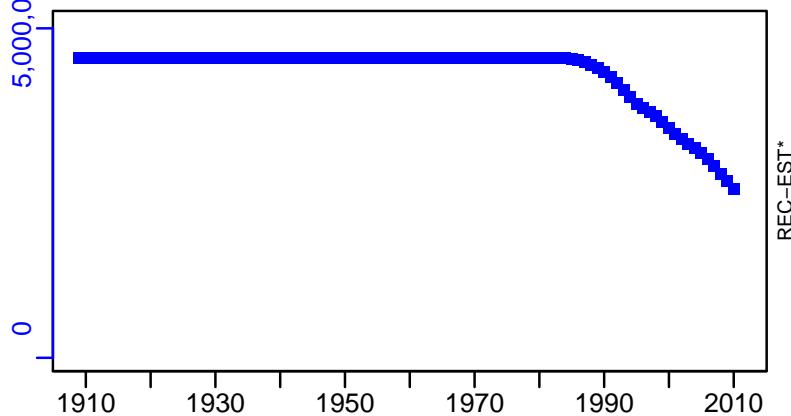
F-1/yr (1909–2011–CORDUE)



ER-calc-ratio (1950–2021–DUNN)



R-E00 (1909–2011–CORDUE)

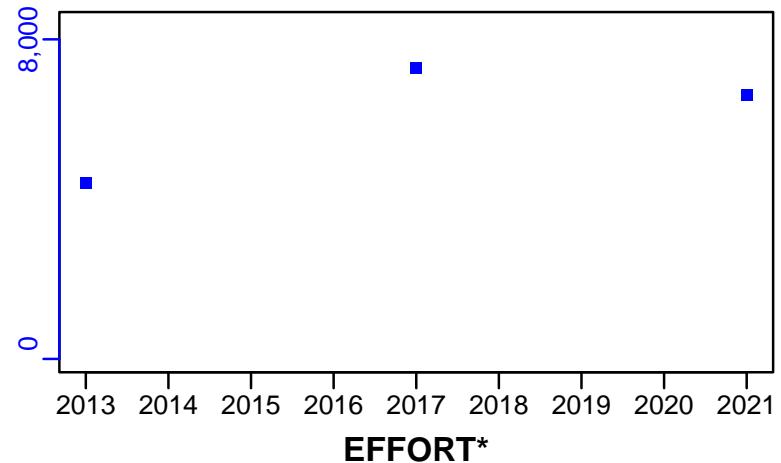
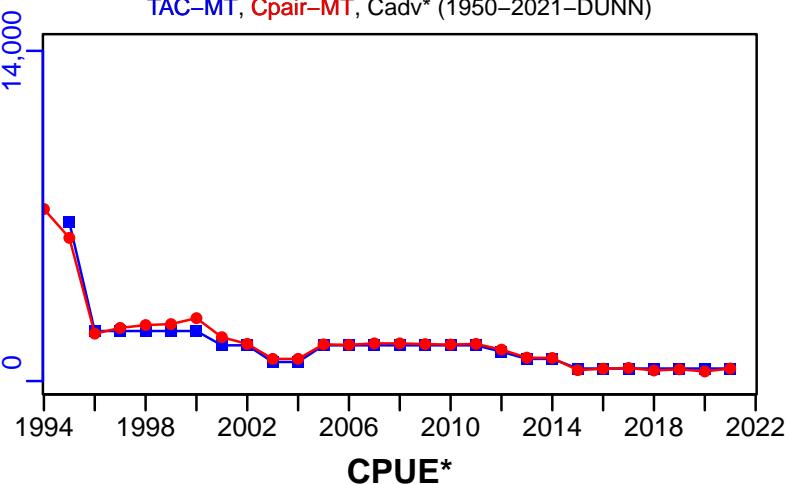
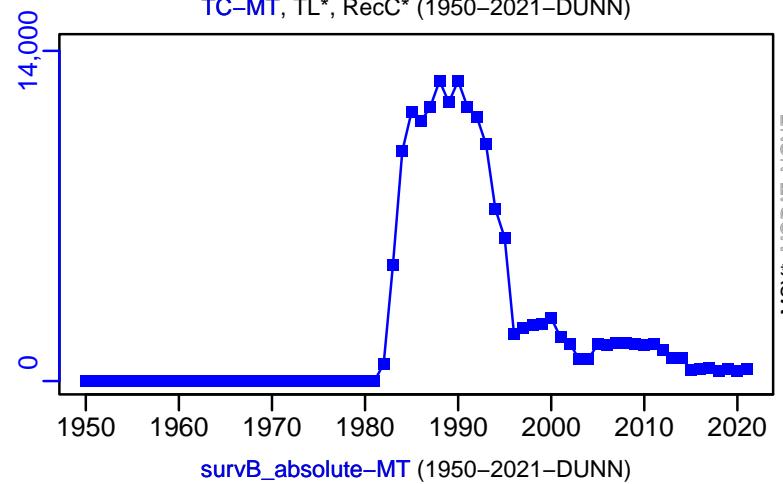


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	--- Lim BRP	* No Data

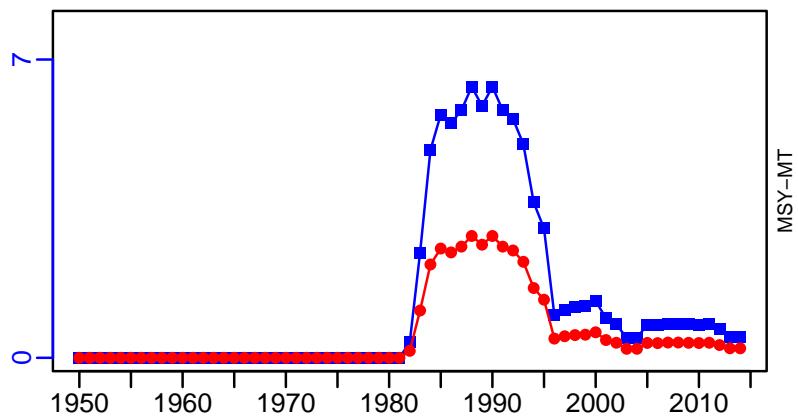
Orange roughy New Zealand Mid East Coast [OROUGHYNZMEC]

TC-MT, TL*, RecC* (1950–2021–DUNN)

TAC-MT, Cpair-MT, Cadv* (1950–2021–DUNN)



TC-MT/MSY-MT, CdivMEANC-ratio, (1882–2014–FU)



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

Orange roughy Southeast Australia [OROUGHYSE]

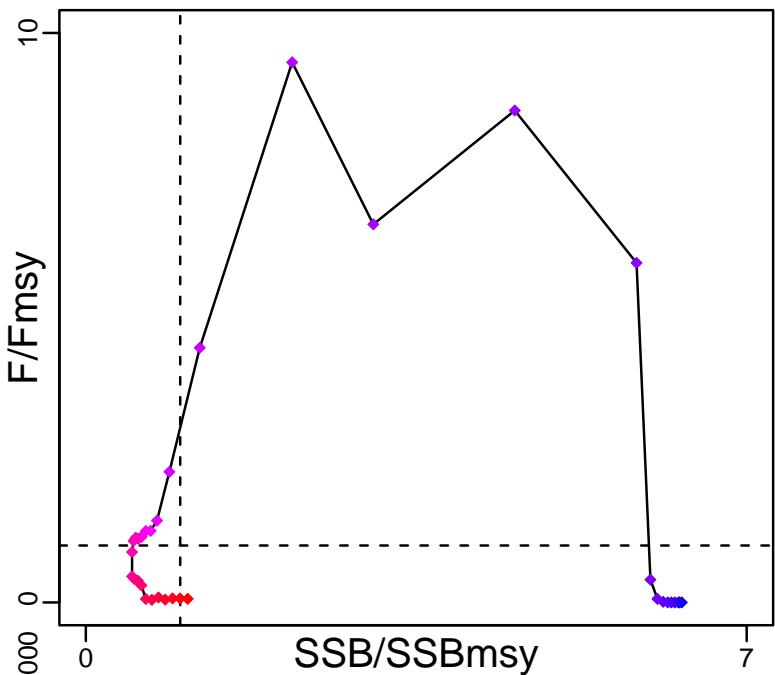
Metadata	
Scientific Name	Hoplostethus atlanticus
Current Assess ID	CSIRO-OROUGHYSE-1980-2013-MOESENEDER
Area	Southeast Australia
Management Authority	Australian Fisheries Management Authority, Australia national management
Assessor	Commonwealth Scientific and Industrial Research Organization
Asmts in RAM	2007, 2013

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2013	8143
Fmsy	Fmsy-1/yr	2013	0.03
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2013	18,687
Fmgt	Fmgt-1/yr	2013	0.015
ERmgt	-	-	-
TB0	TB0-MT	2013	169,697
SSB0	SSB0-MT	2013	38,931
MSY	MSY-MT	2013	2192
M	M-1/yr	2013	0.04
TBlim	-	-	-
SSBlim	SSBlim-MT	2013	7786
Flim	-	-	-
ERlim	-	-	-

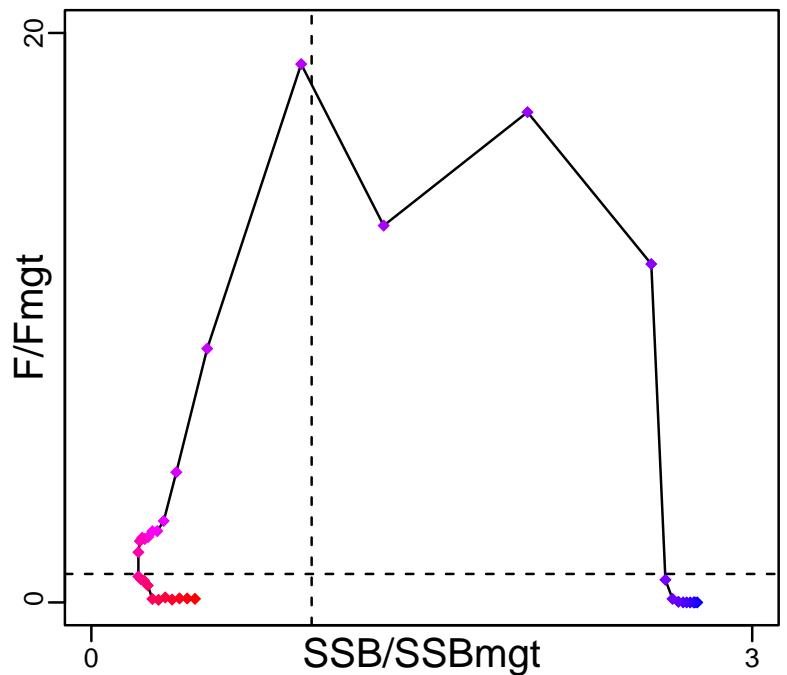
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2013	80,500	-	-	
SSB	SSB-MT	2013	8790	-	-	
TN	-	-	-	-	-	
R	R-E00	2013	6.63×10^{12}	-	-	
F	F-1/yr	2013	0.002	-	-	
ER	ER-ratio	2013	0.002	-	-	
TC	-	-	-			
TL	TL-MT	2013	150			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013	1.079			
F/Fmsy	F-1/yr/Fmsy-1/yr	2013	0.063			
ER/ERmsy	-	-	-			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2013	0.47			
F/Fmgt	F-1/yr/Fmgt-1/yr	2013	0.126			
ER/ERmgt	-	-	-			

Orange roughy Southeast Australia [OROUGHYSE]

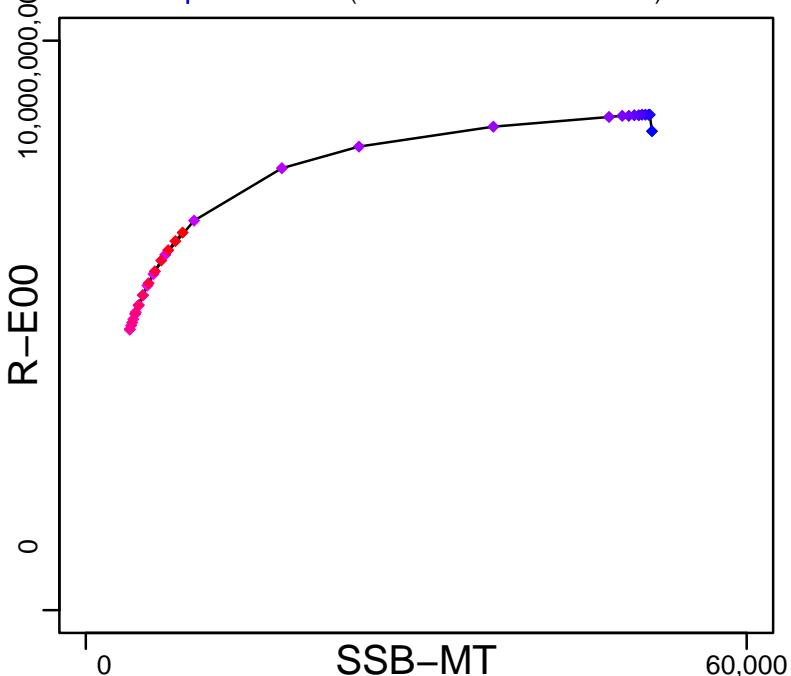
Kobe MSYpref (1980–2013–MOESENEDER)



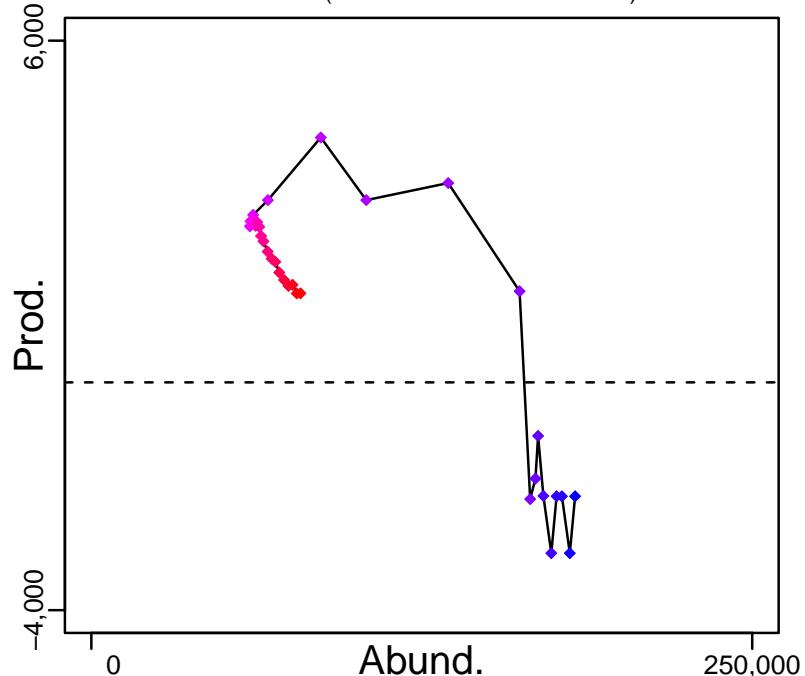
Kobe MGTpref (1980–2013–MOESENEDER)



Spawner Recruit (1980–2013–MOESENEDER)



Production (1980–2013–MOESENEDER)

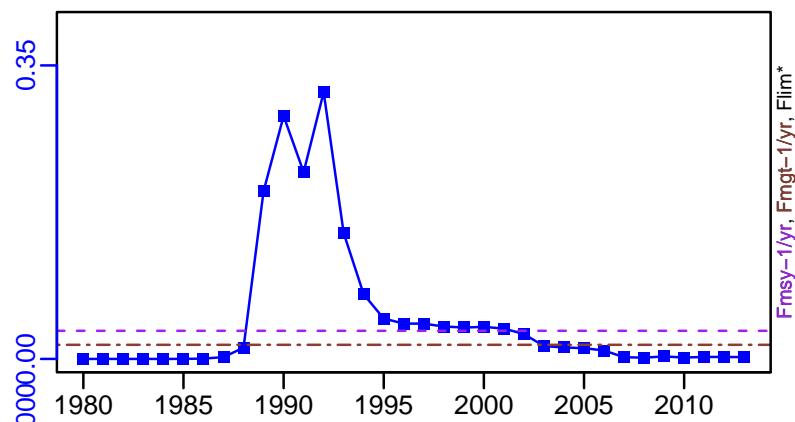
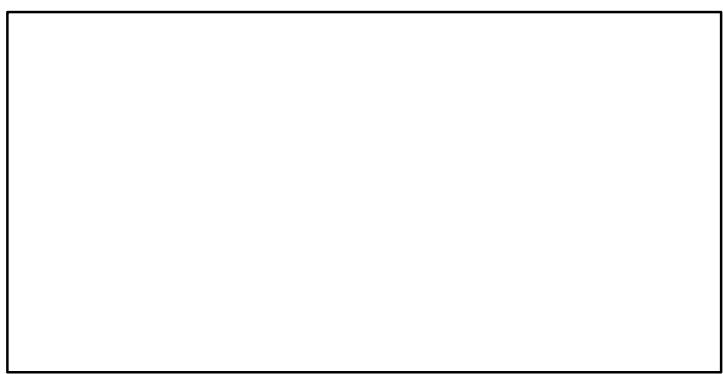
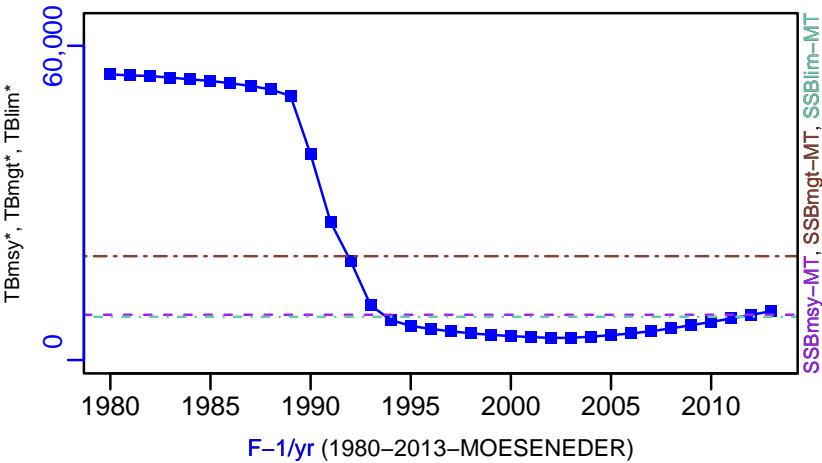
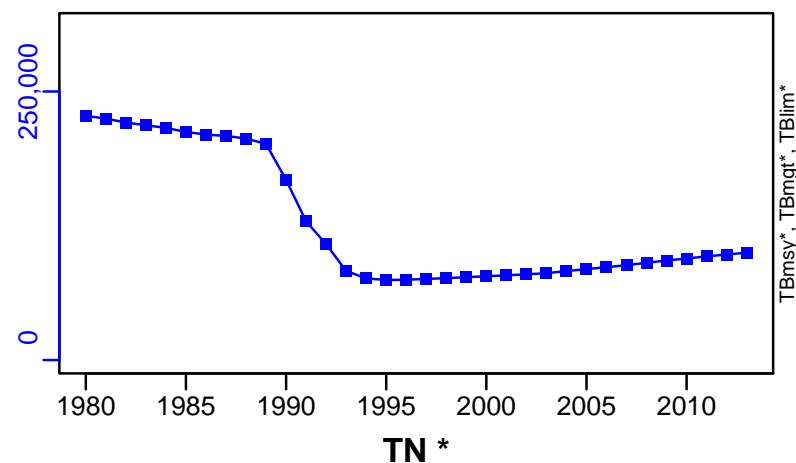


◆ Start Year
 ◆ End Year
 * No Data

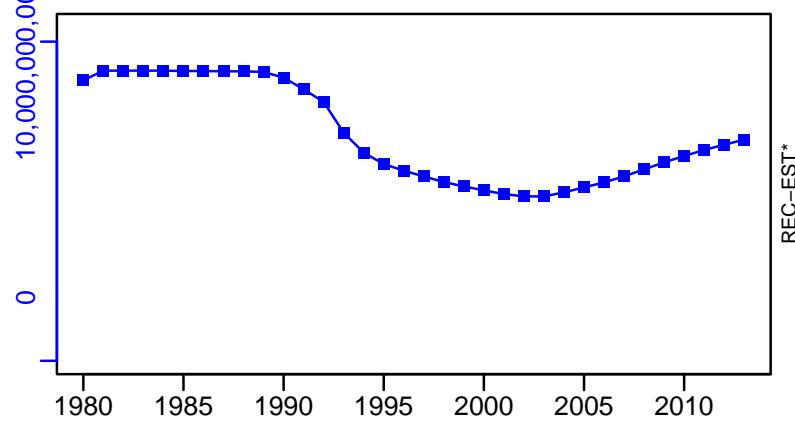
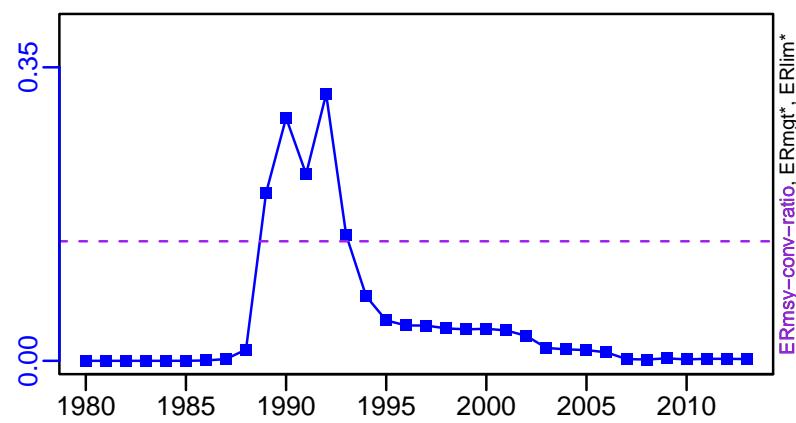
Orange roughy Southeast Australia [OROUGHYSE]

TB-MT (1980–2013–MOESENEDER)

SSB-MT (1980–2013–MOESENEDER)



ER-ratio (1980–2013–MOESENEDER)

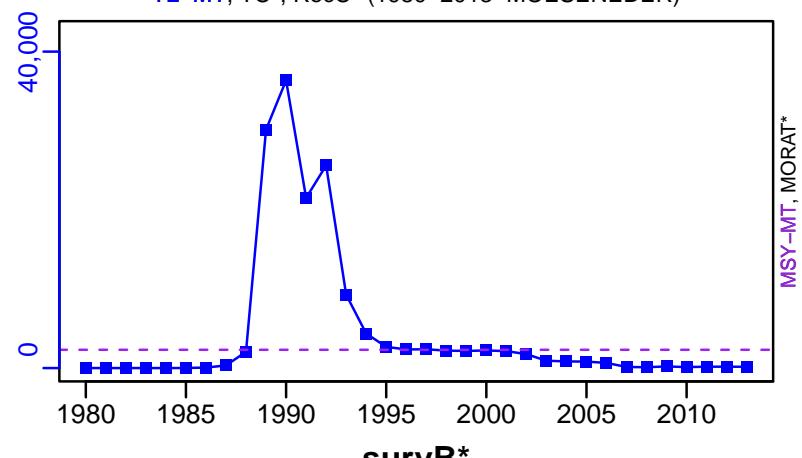


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	--- Lim BRP	* No Data

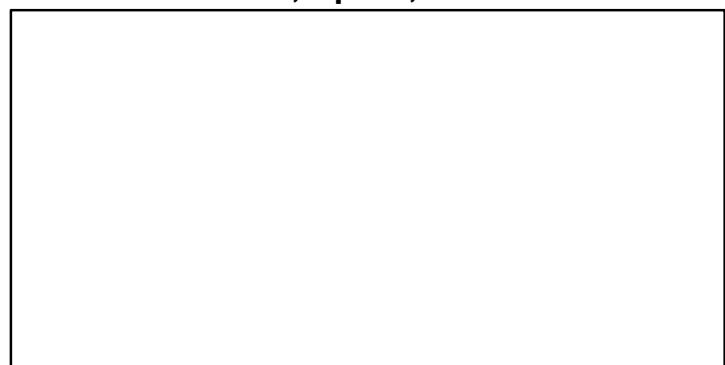
Orange roughy Southeast Australia [OROUGHSE]

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

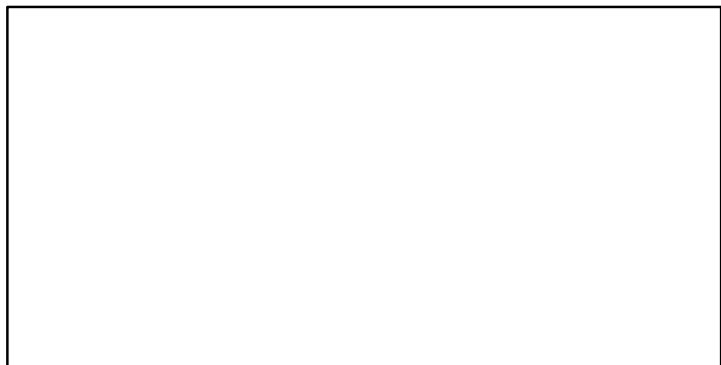
TAC*, Cpair*, Cadv*



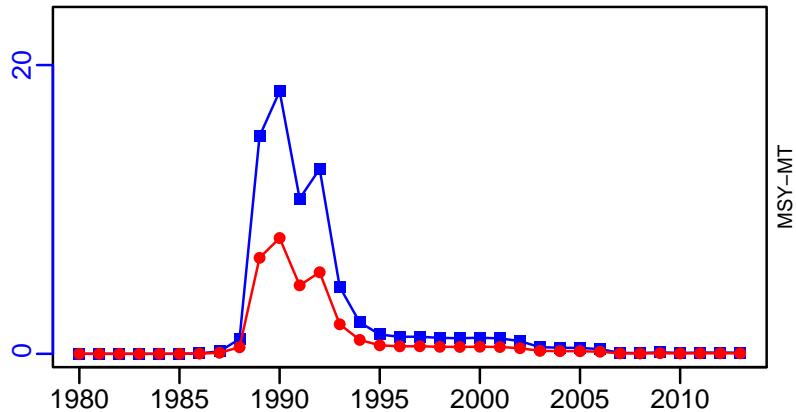
CPUE*



EFFORT*



TL-MT/MSY-MT, CdivMEANC–ratio, (1980–2013–MOESENEDER)



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

Pink cusk eel Southern Argentina [PCEELARGS]

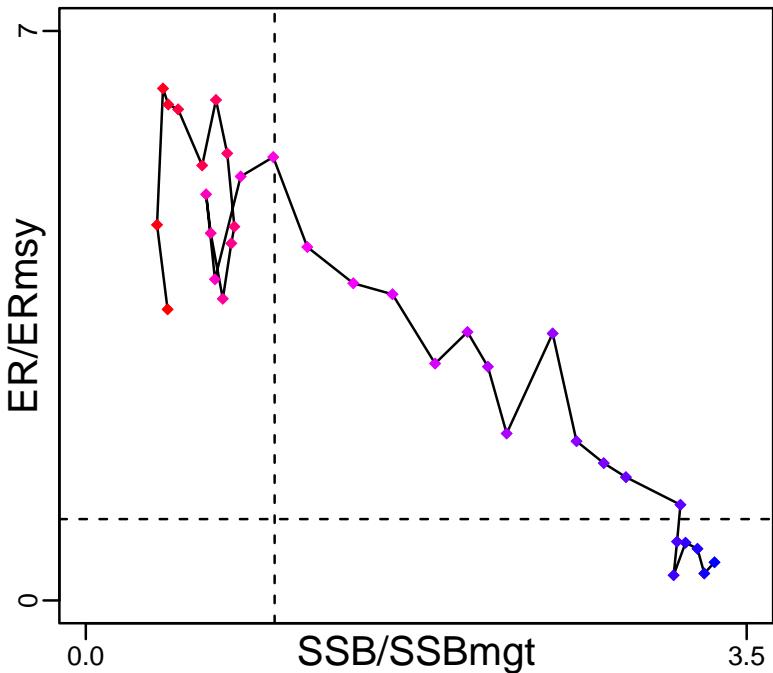
Metadata	
Scientific Name	Genypterus blacodes
Current Assess ID	INIDEP-PCEELARGS-1979-2014-CORDO
Area	Southern Argentina
Management Authority	Consejo Federal Pesquero, Argentina national management
Assessor	Instituto Nacional de Investigacion y Desarrollo Pesquero
Asmts in RAM	2014

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2014	110,823
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2014	11,700
M	M-1/yr	2014	0.2
TBlim	-	-	-
SSBlim	SSBlim-MT	2014	73,882
Flim	-	-	-
ERlim	-	-	-

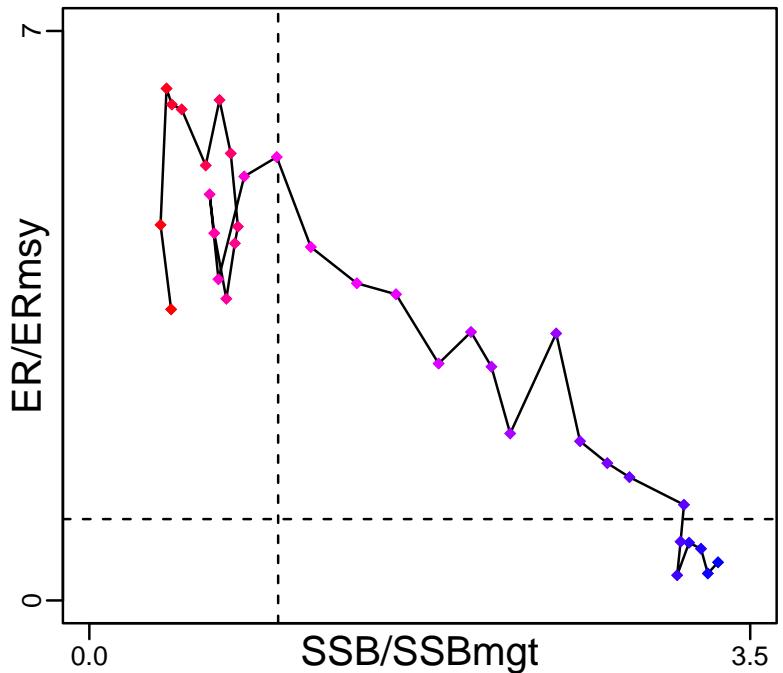
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2014	91,600	-	-
SSB	SSB-MT	2014	48,000	Both	-
TN	-	-	-	-	-
R	R-E00	2014	24,000	Both	1
F	F-1/yr	2014	0.139	-	-
ER	ER-calc-ratio	2014	0.117	-	-
TC	TC-MT	2014	9480		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2014	0.433		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Pink cusk eel Southern Argentina [PCEELARGS]

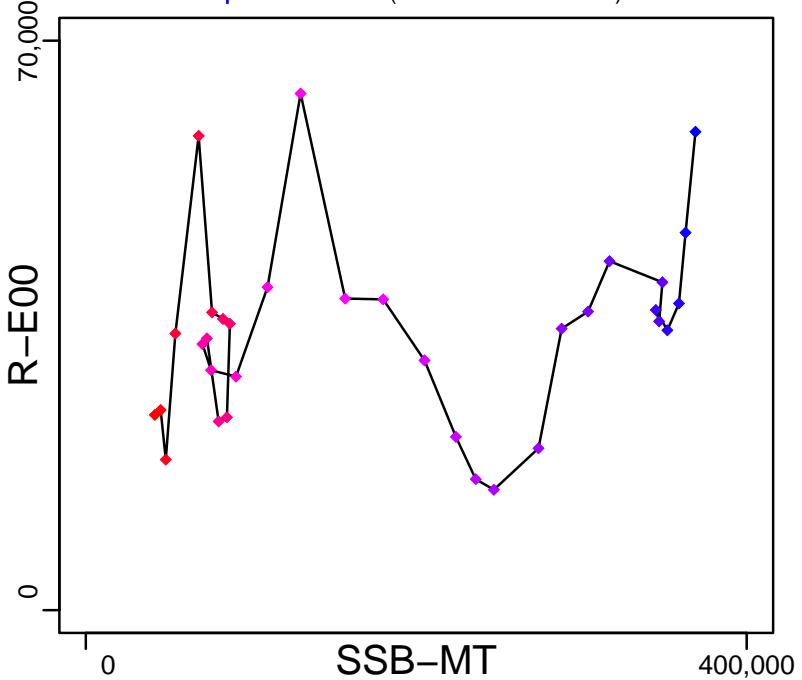
Kobe MSYpref (1979–2014–CORDO)



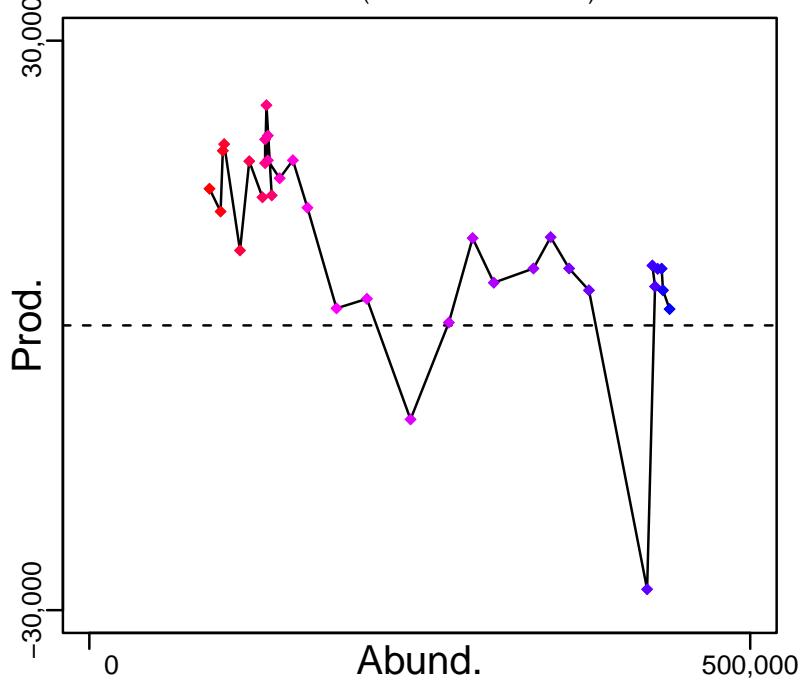
Kobe MGTpref (1979–2014–CORDO)



Spawner Recruit (1979–2014–CORDO)



Production (1979–2014–CORDO)

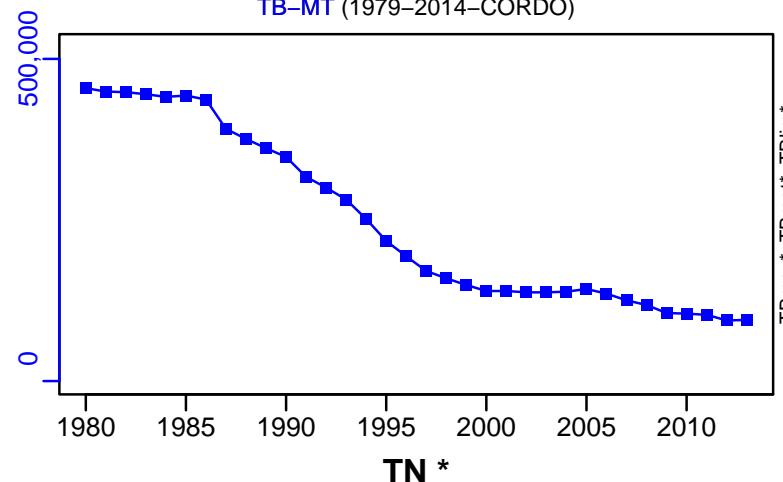


◆ Start Year ♦ End Year * No Data

Pink cusk eel Southern Argentina [PCEELARGS]

TB-MT (1979–2014–CORDO)

SSB-MT (1979–2014–CORDO)

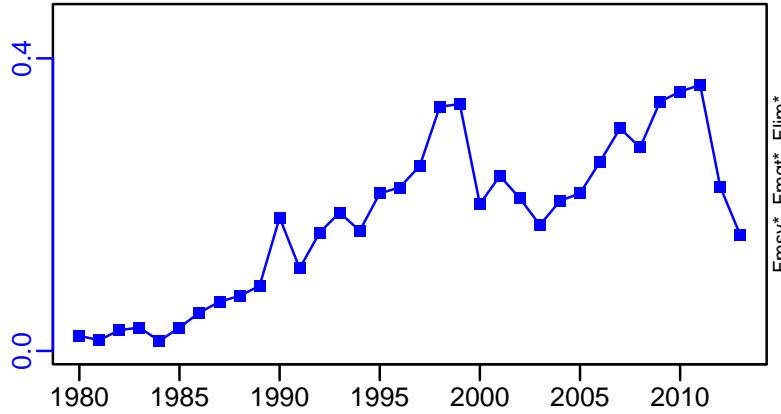


TB_{msy*}, TB_{mgt*}, TB_{lim*}

1980 1985 1990 1995 2000 2005 2010

TN *

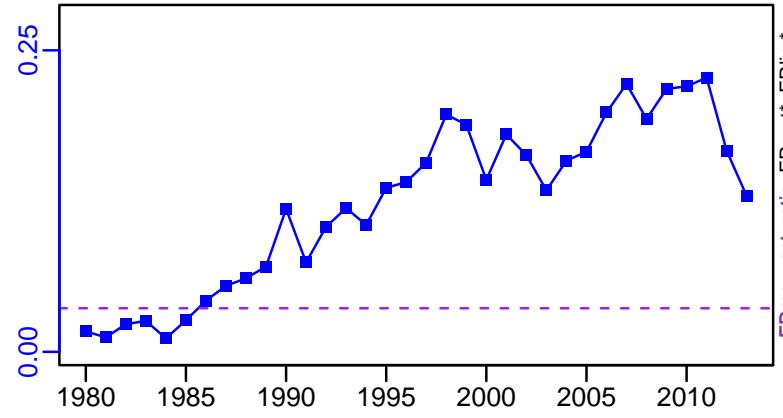
F-1/yr (1979–2014–CORDO)



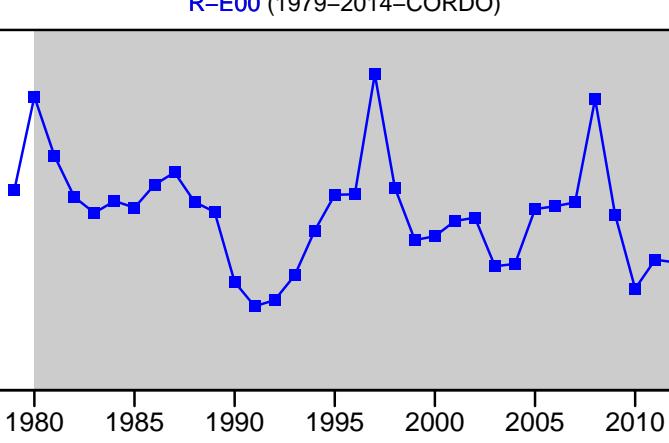
F_{msy*}, F_{mgt*}, F_{lim*}

ER-calc-ratio (1979–2014–CORDO)

R-E00 (1979–2014–CORDO)



ER_{msy-est-ratio}, ER_{mgt*}, ER_{lim*}



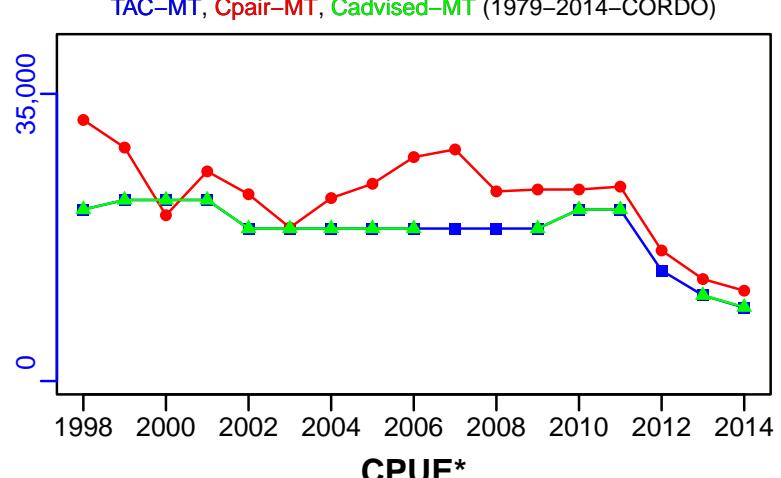
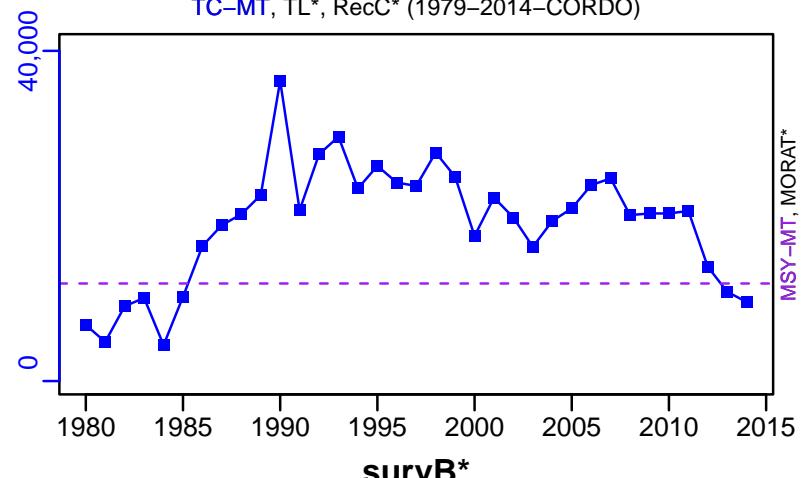
REC-EST: 1980–2013



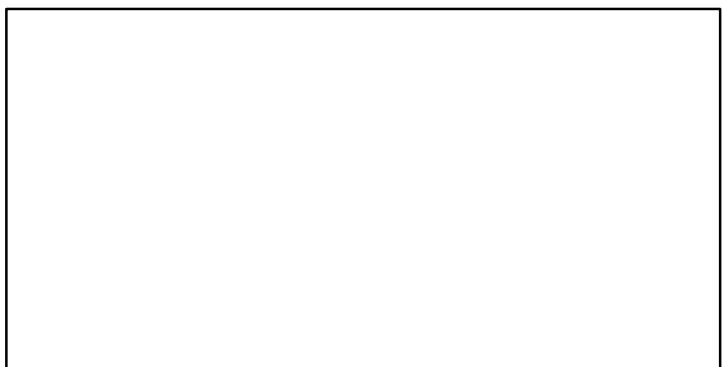
Pink cusk eel Southern Argentina [PCEELARGS]

TC-MT, TL*, RecC* (1979–2014–CORDO)

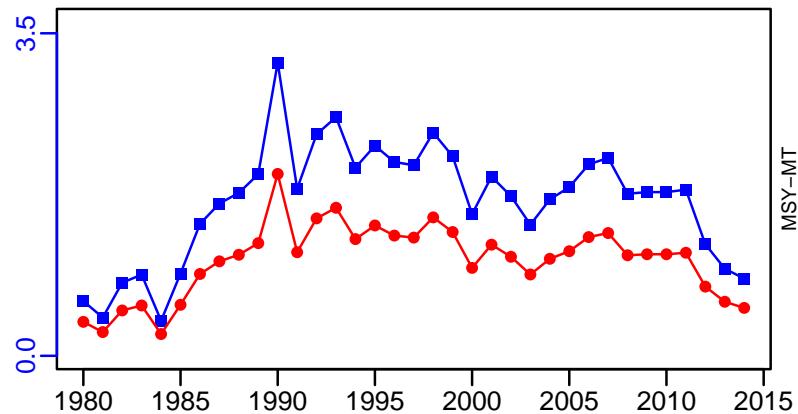
TAC-MT, Cpair-MT, Cadvised-MT (1979–2014–CORDO)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1979–2014–CORDO)



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

Pink cusk eel Central-Southern Chile [PCEELCSCH]

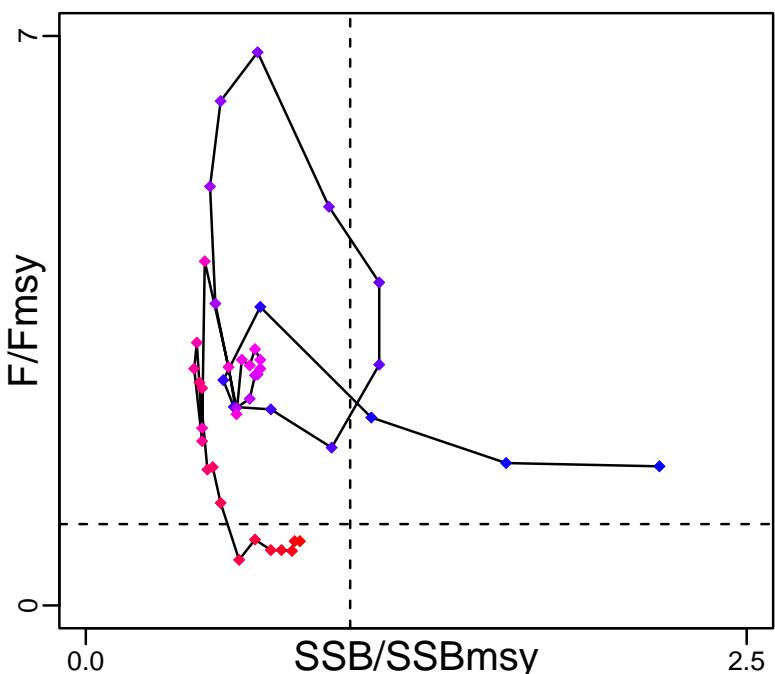
Metadata	
Scientific Name	Genypterus blacodes
Current Assess ID	IFOPCH-PCEELCSCH-1978-2020-Quiroz
Area	Central-Southern Chile
Management Authority	Subsecretaria de Pesca
Assessor	Instituto de Fomento Pesquero - Chilean Fisheries Development Institute
Asmts in RAM	2015, 2020

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-pr-MT	2020	8066
Fmsy	Fmsy-extr-1/yr	2020	0.157
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2020	8067
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2020	20,167
MSY	-	-	-
M	M-1/yr	2015	0.27
TBlim	-	-	-
SSBlim	SSBlim-MT	2015	3746
Flim	-	-	-
ERlim	-	-	-

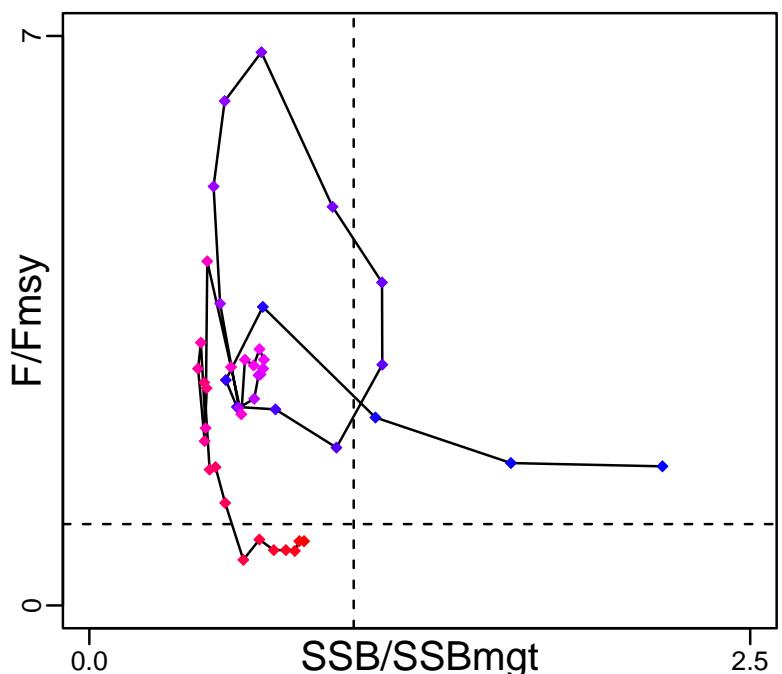
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2020	23,267	Both	-	
SSB	SSB-MT	2020	6552	Both	-	
TN	-	-	-	-	-	
R	R-E00	2020	5544	Both	-	
F	F-1/yr	2020	0.13	Both	-	
ER	ER-calc-ratio	2020	0.043	-	-	
TC	-	-	-			
TL	TL-MT	2020	989			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2020	0.81			
F/Fmsy	FdivFmsy-dimensionless	2020	0.79			
ER/ERmsy	-	-	-			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2020	0.812			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Pink cusk eel Central–Southern Chile [PCEELCSCH]

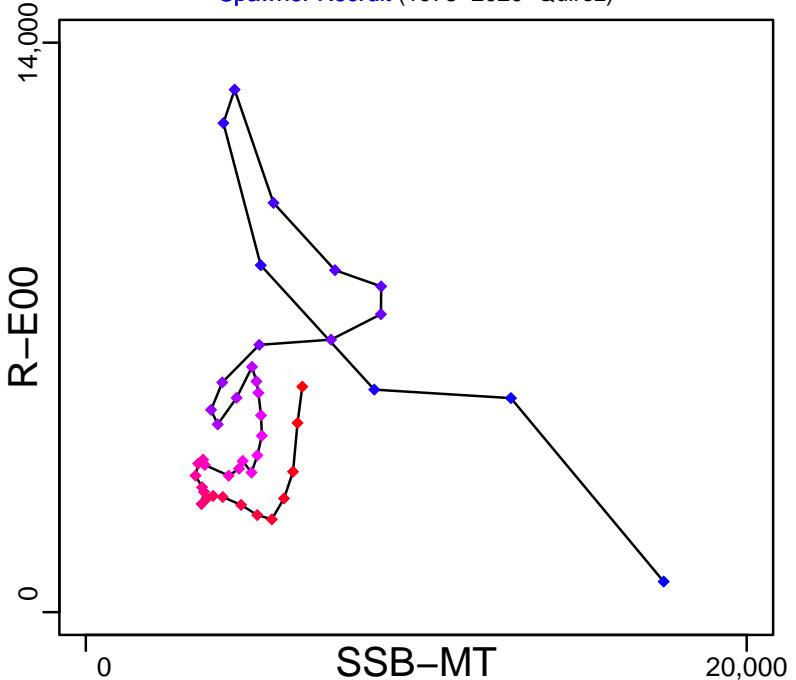
Kobe MSYpref (1978–2020–Quiroz)



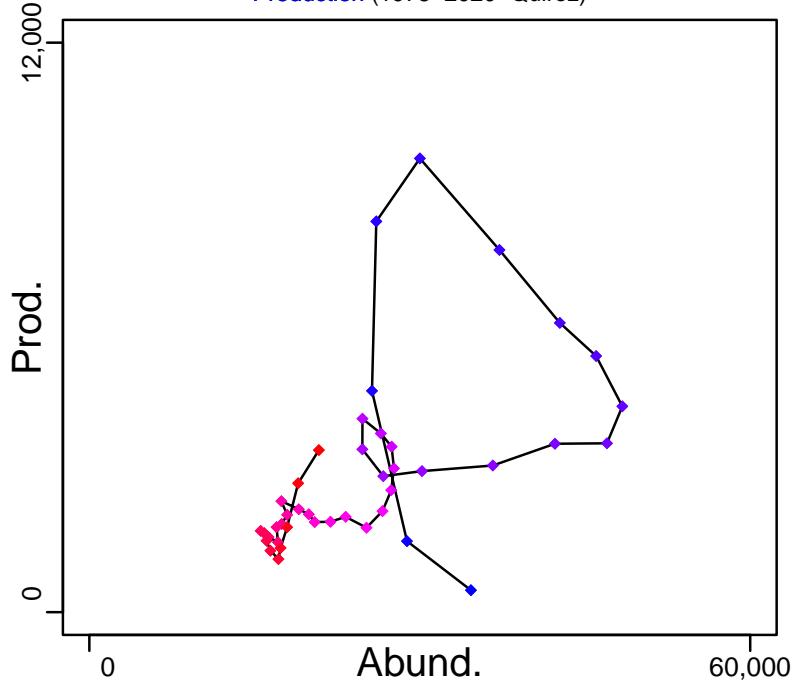
Kobe MGTPref (1978–2020–Quiroz)



Spawner Recruit (1978–2020–Quiroz)



Production (1978–2020–Quiroz)

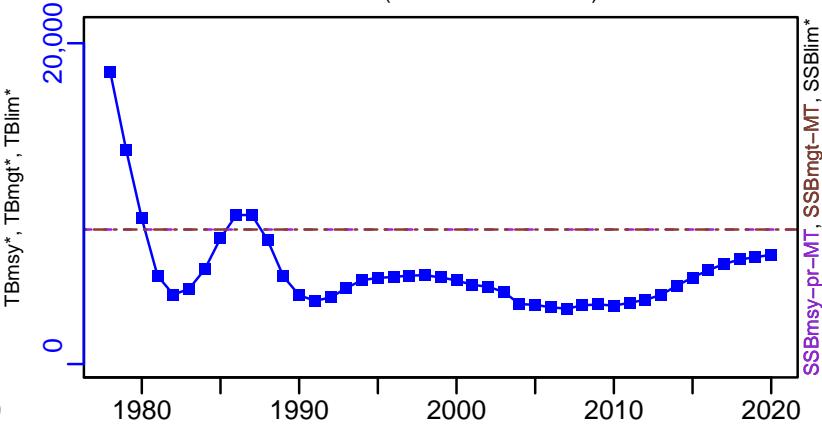
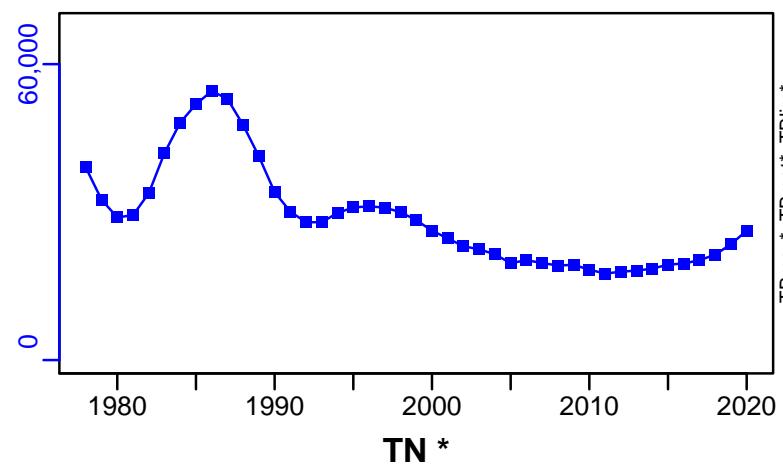


◆ Start Year ◆ End Year * No Data

Pink cusk eel Central–Southern Chile [PCEELCSCH]

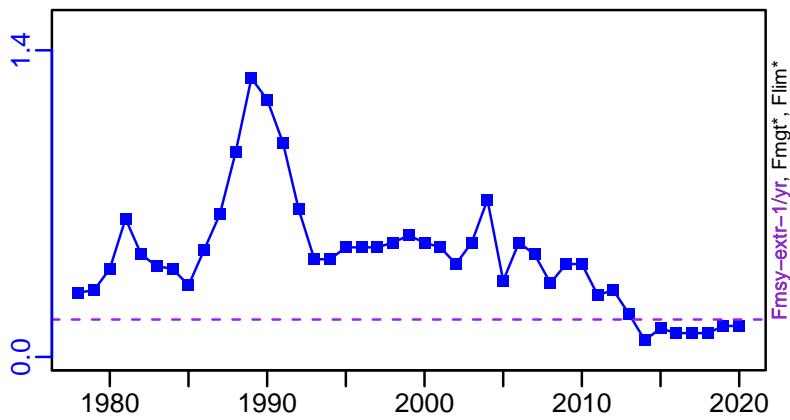
TB-MT (1978–2020–Quiroz)

SSB-MT (1978–2020–Quiroz)



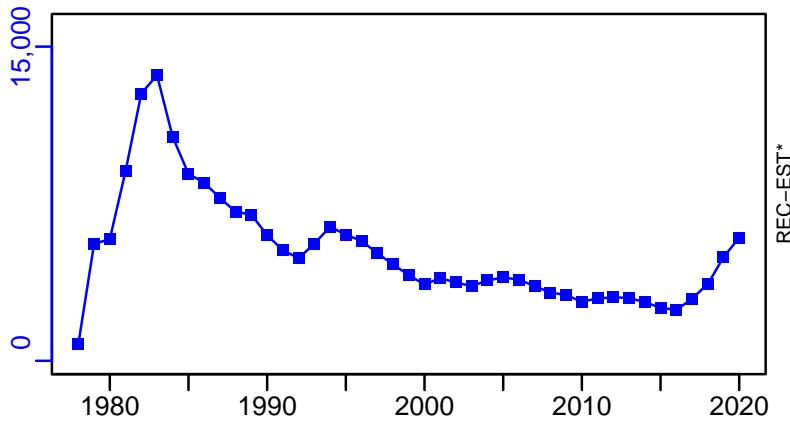
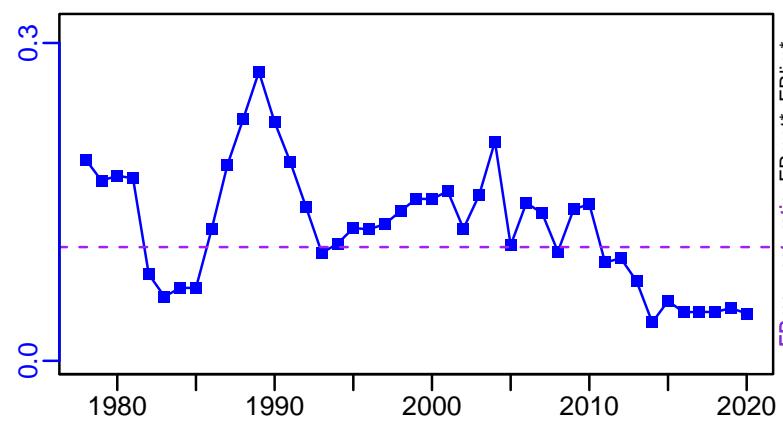
TN *

F-1/yr (1978–2020–Quiroz)



ER-calc-ratio (1978–2020–Quiroz)

R-E00 (1978–2020–Quiroz)

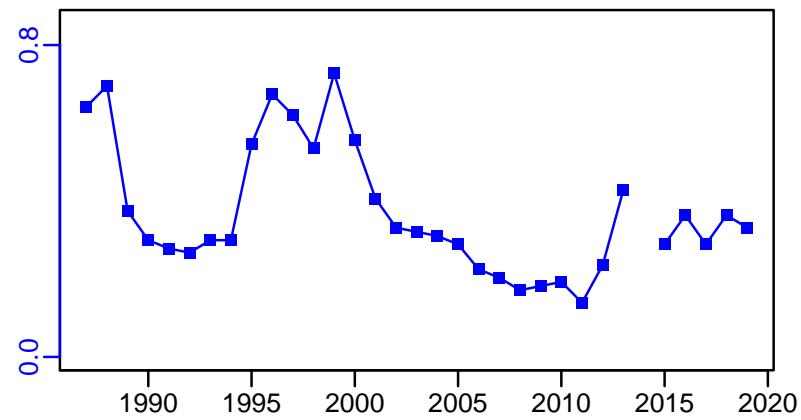
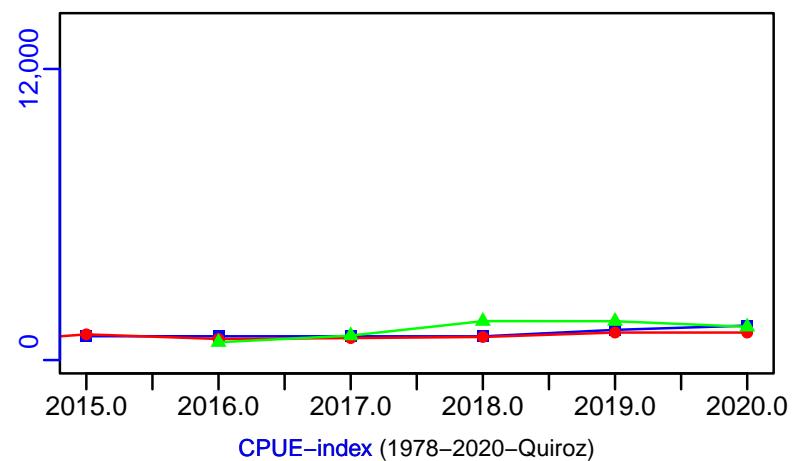
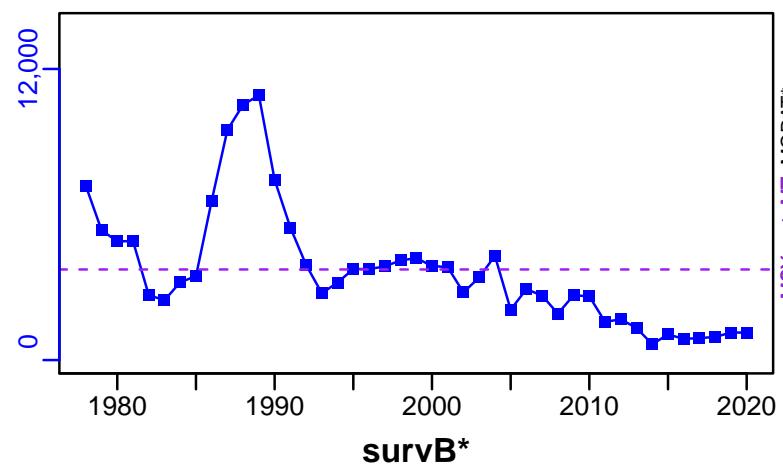


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - - Lim BRP	* No Data

Pink cusk eel Central–Southern Chile [PCEELCSCH]

TL–MT, TC*, RecC* (1978–2020–Quiroz)

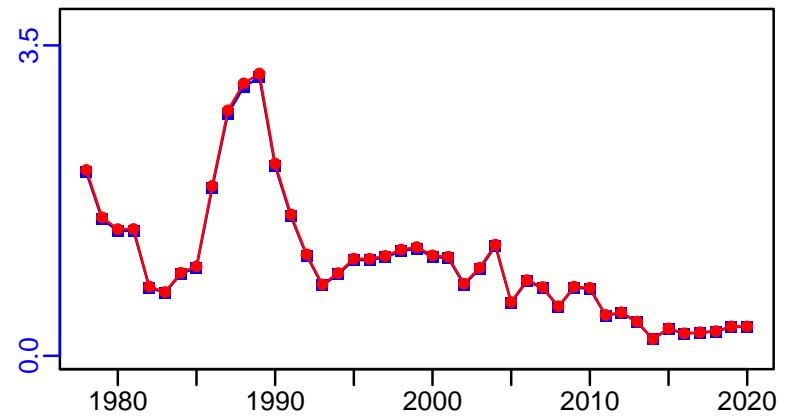
TAC–MT, Cpair–MT, Cadvised–MT (1978–2020–Quiroz)



EFFORT*



TL–MT/MSY–est–MT, CdivMEANC–ratio, (1978–2020–Quiroz)



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

Pink cusk eel Southern Chile [PCEELSCH]

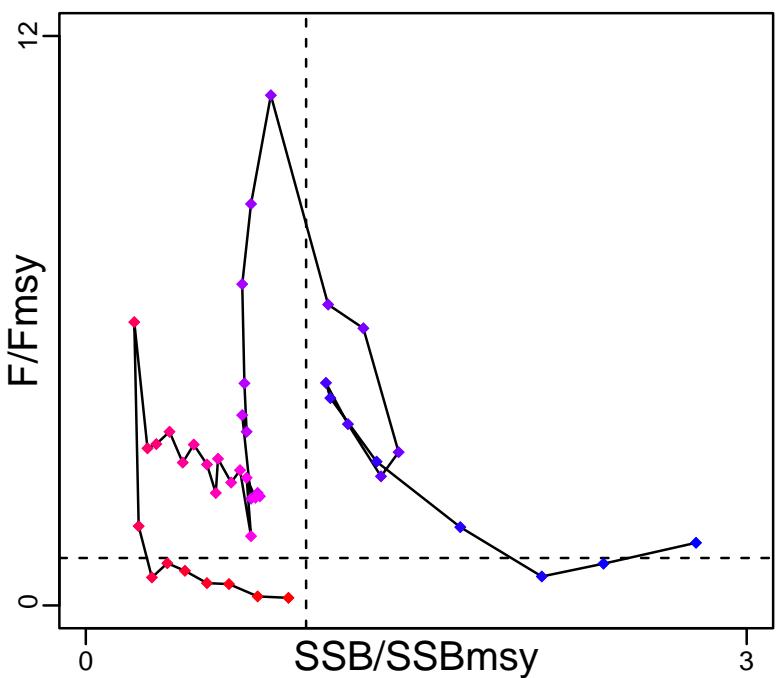
Metadata	
Scientific Name	Genypterus blacodes
Current Assess ID	IFOPCH-PCEELSCH-1978-2020-Quiroz
Area	Southern Chile
Management Authority	Subsecretaria de Pesca
Assessor	Instituto de Fomento Pesquero - Chilean Fisheries Development Institute
Asmts in RAM	2015, 2020

Reference Points				
Type	ID	Asmt Year	Value	
TBm sy	-	-	-	
SSBm sy	SSBm sy-pr-MT	2020	4450	
Fm sy	Fm sy-extr-1/yr	2020	0.174	
ERm sy	-	-	-	
TBm gt	-	-	-	
SSBm gt	SSBm gt-MT	2020	4450	
Fm gt	-	-	-	
ERm gt	-	-	-	
TB0	-	-	-	
SSB0	SSB0-MT	2020	11,125	
MSY	-	-	-	
M	M-1/yr	2015	0.23	
TBl im	-	-	-	
SSBlim	SSBlim-MT	2015	1825	
Flim	-	-	-	
ERlim	-	-	-	

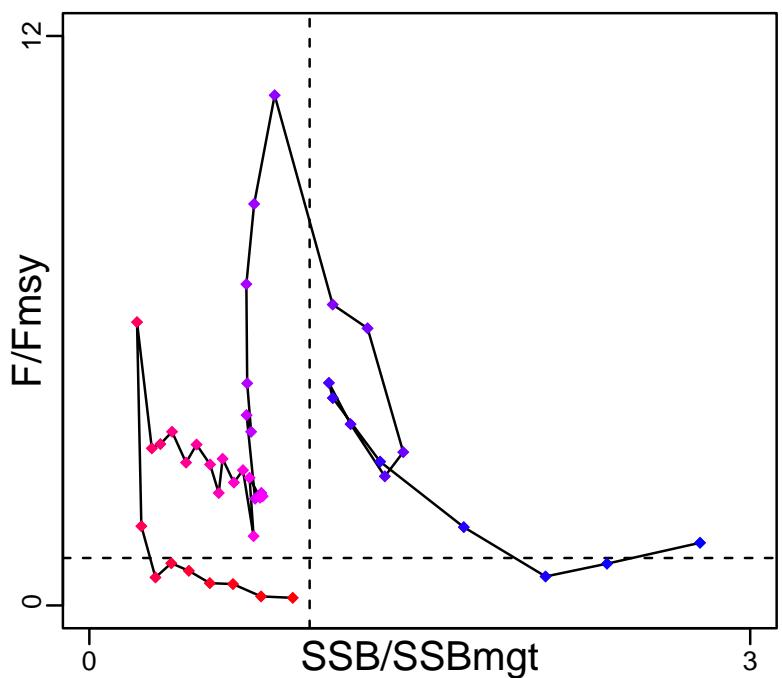
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2020	11,983	Both	-	
SSB	SSB-MT	2020	4109	Both	-	
TN	-	-	-	-	-	
R	R-E00	2020	1860	Both	-	
F	F-1/yr	2020	0.03	Both	-	
ER	ER-calc-ratio	2020	0.01	-	-	
TC	-	-	-			
TL	TL-MT	2020	117			
TB/TBm sy	-	-	-			
SSB/SSBm sy	SSBdivSSBm sy-dimensionless	2020	0.92			
F/Fm sy	FdivFm sy-dimensionless	2020	0.16			
ER/ERm sy	-	-	-			
TB/TBm gt	-	-	-			
SSB/SSBm gt	SSB-MT/SSBm gt-MT	2020	0.923			
F/Fm gt	-	-	-			
ER/ERm gt	-	-	-			

Pink cusk eel Southern Chile [PCEELSCH]

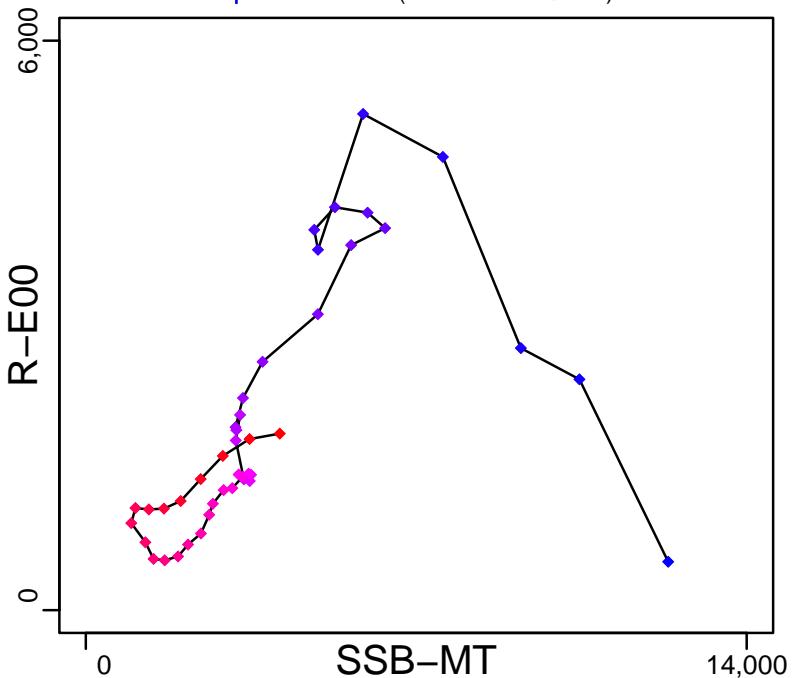
Kobe MSYpref (1978–2020–Quiroz)



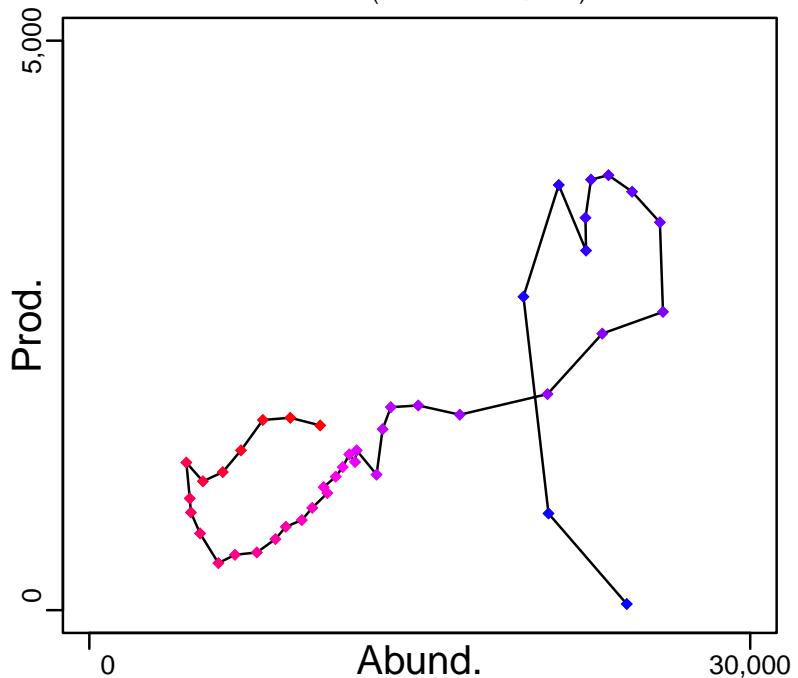
Kobe MGTPref (1978–2020–Quiroz)



Spawner Recruit (1978–2020–Quiroz)



Production (1978–2020–Quiroz)

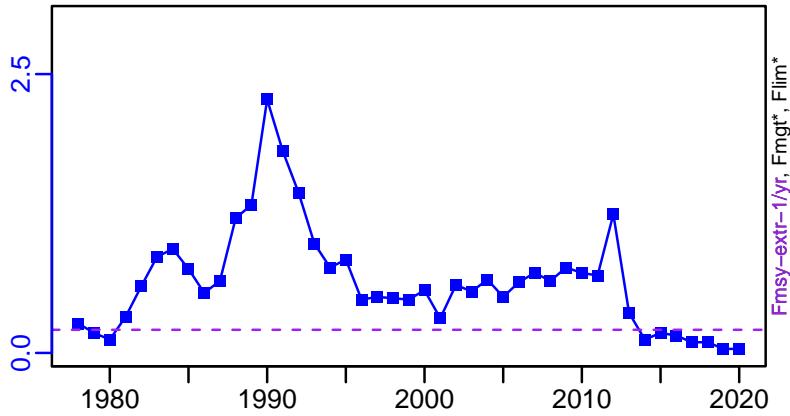
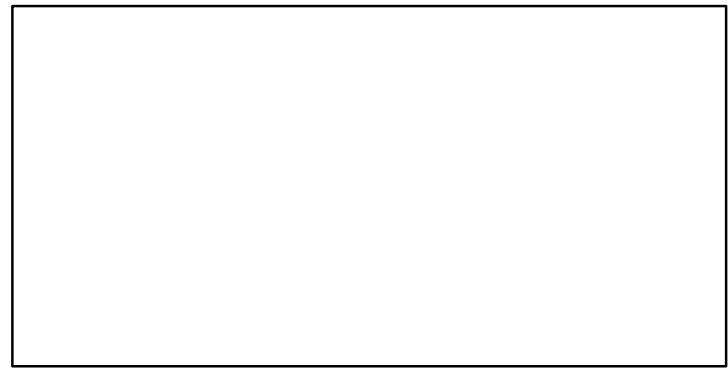
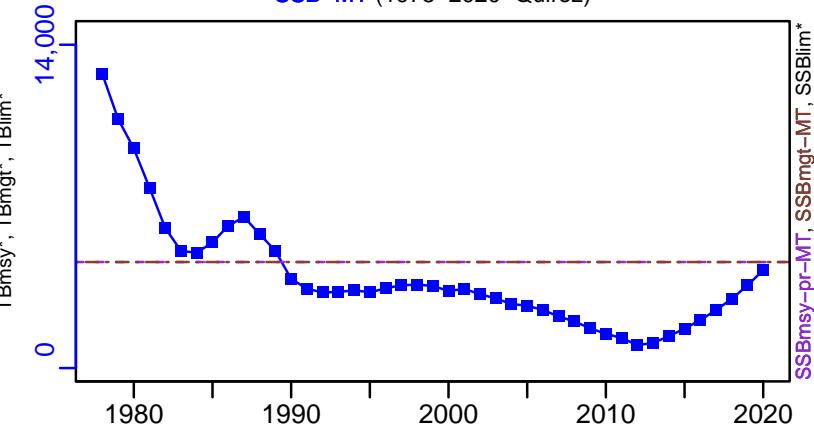
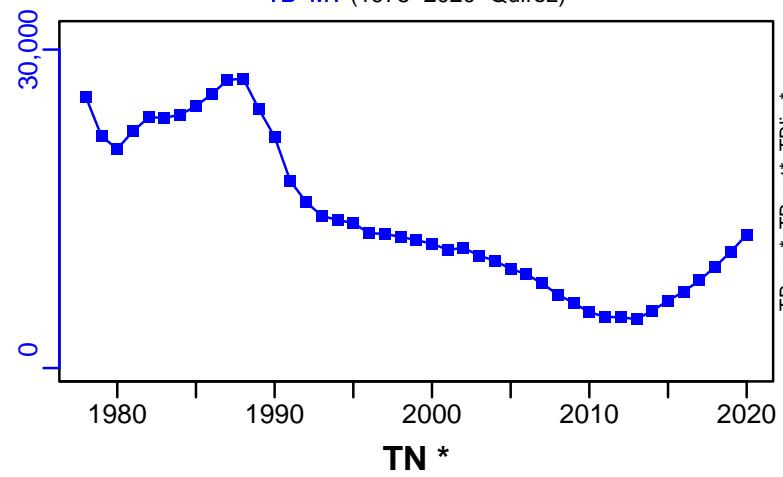


◆ Start Year ◆ End Year * No Data

Pink cusk eel Southern Chile [PCEELSCH]

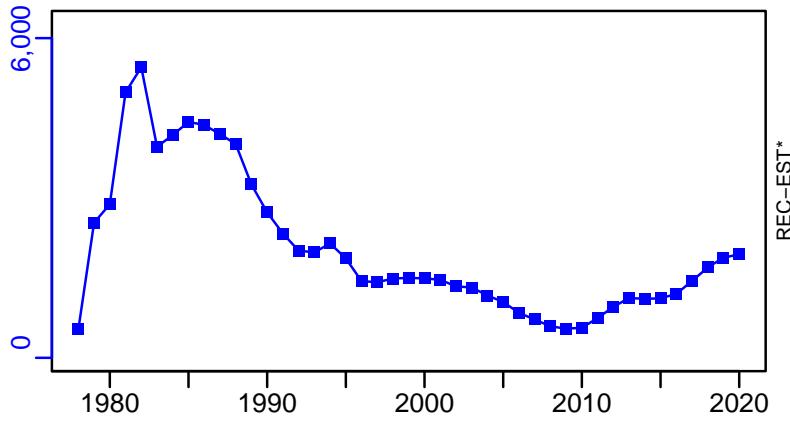
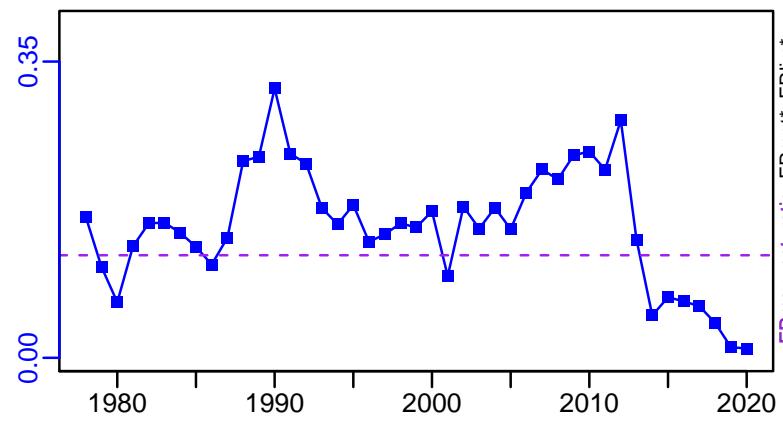
TB-MT (1978–2020–Quiroz)

SSB-MT (1978–2020–Quiroz)



ER-calc-ratio (1978–2020–Quiroz)

R-E00 (1978–2020–Quiroz)

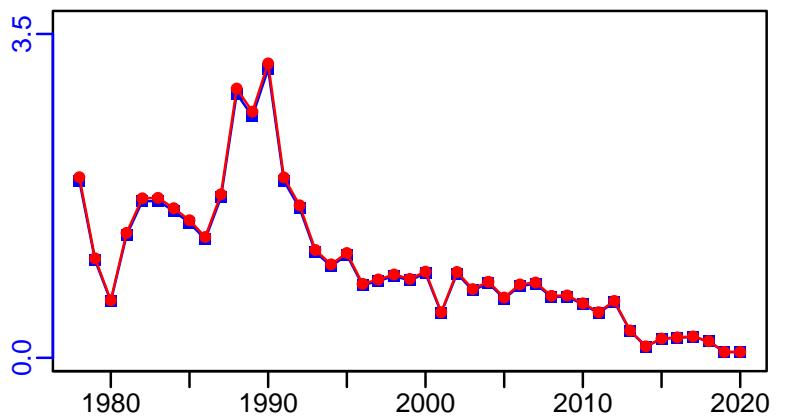
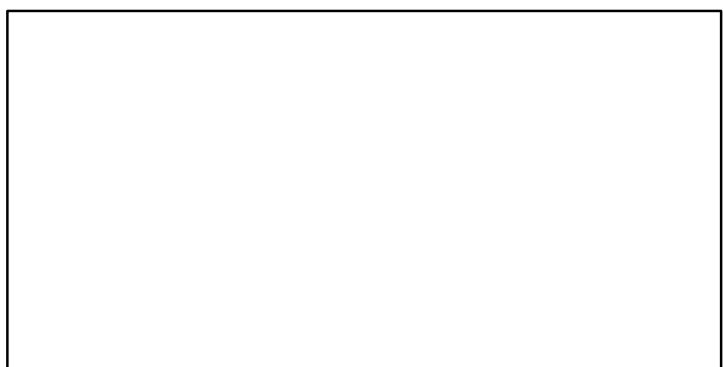
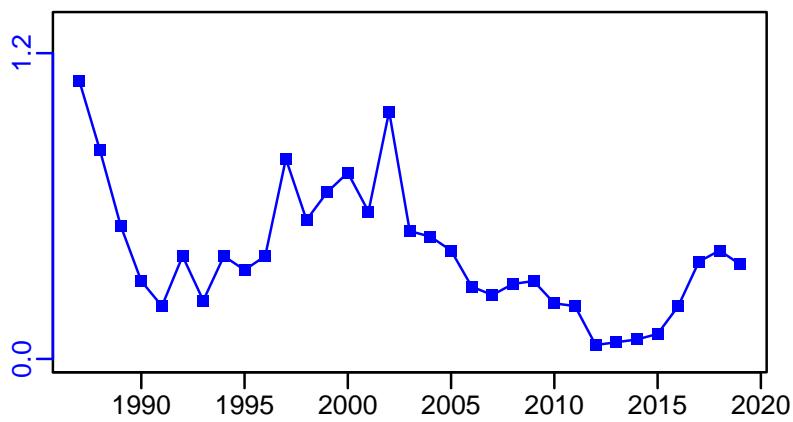
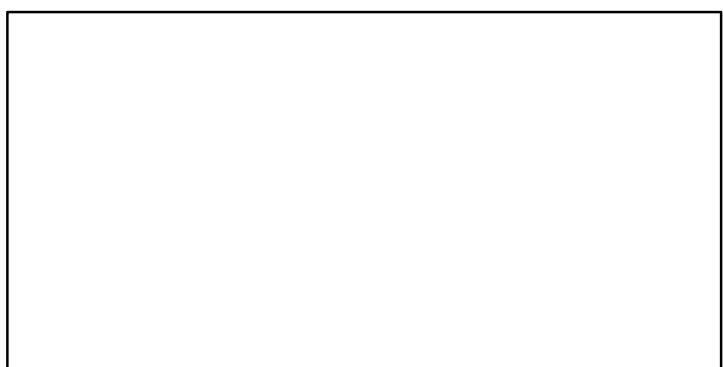
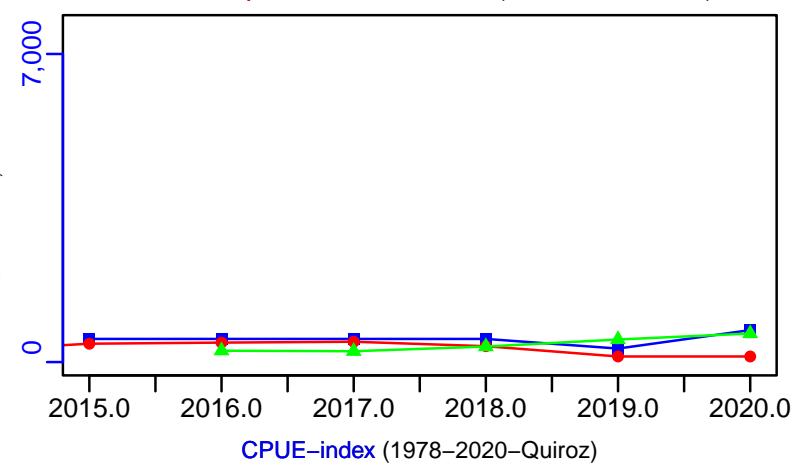
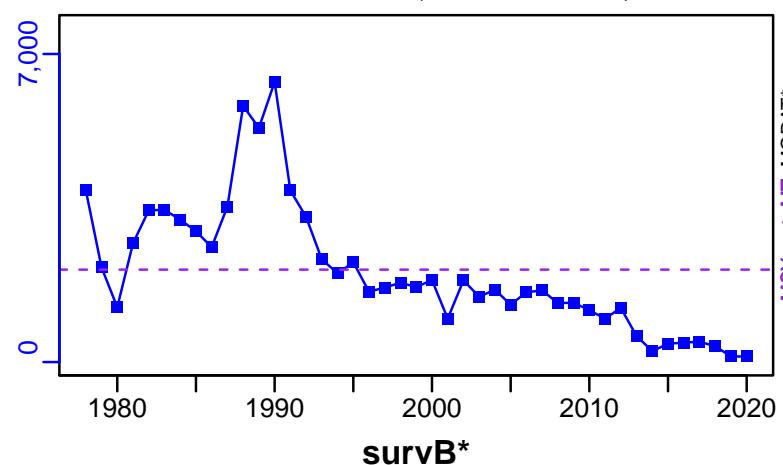


■ Listed time series	— Target BRP	— Rec-Est
- - MSY-based BRP	- - Lim BRP	* No Data

Pink cusk eel Southern Chile [PCEELSCH]

TL-MT, TC*, RecC* (1978–2020–Quiroz)

TAC-MT, Cpair-MT, Cadvised-MT (1978–2020–Quiroz)



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

Patagonian toothfish South Chile Argentina [PTOOTHFISHCH]

Metadata	
Scientific Name	Dissostichus eleginoides
Current Assess ID	IFP-PTOOTHFISHCH-1978-2019-Quiroz
Area	South Chile Argentina
Management Authority	Separate management by Chile (SUBPESCA) and Argentina (CFP)
Assessor	Instituto de Fomento Pesquero - Chilean Fisheries Development Institute
Asmts in RAM	2014, 2019, 2011

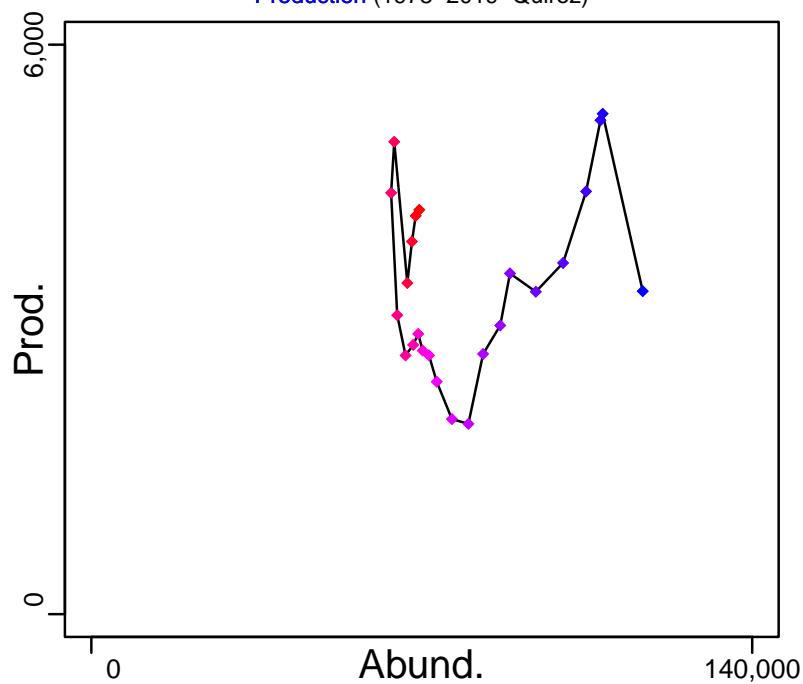
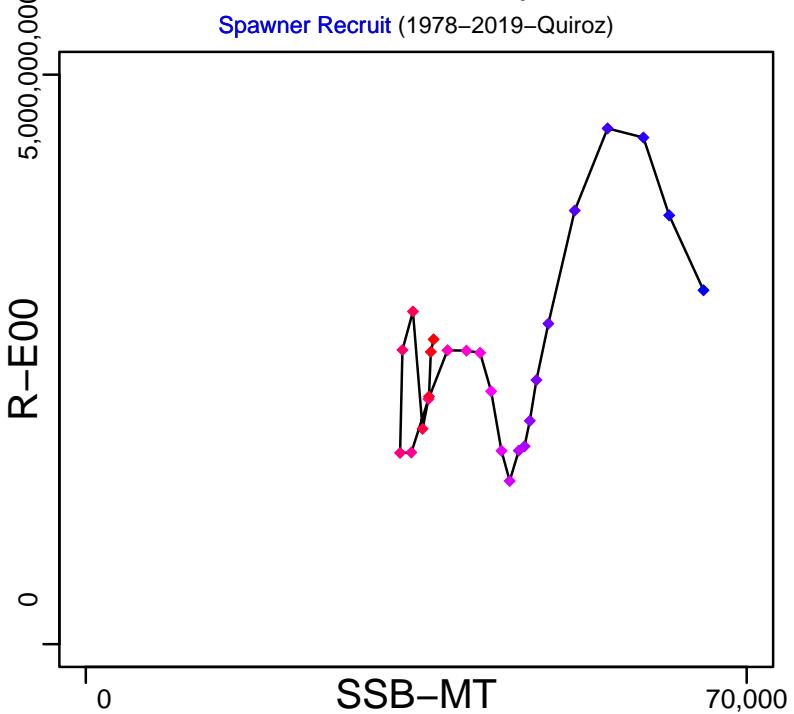
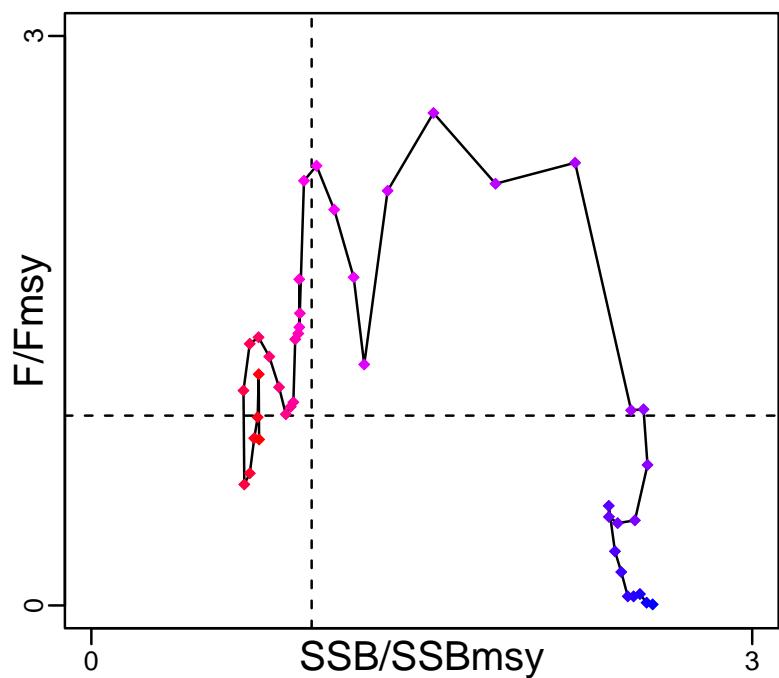
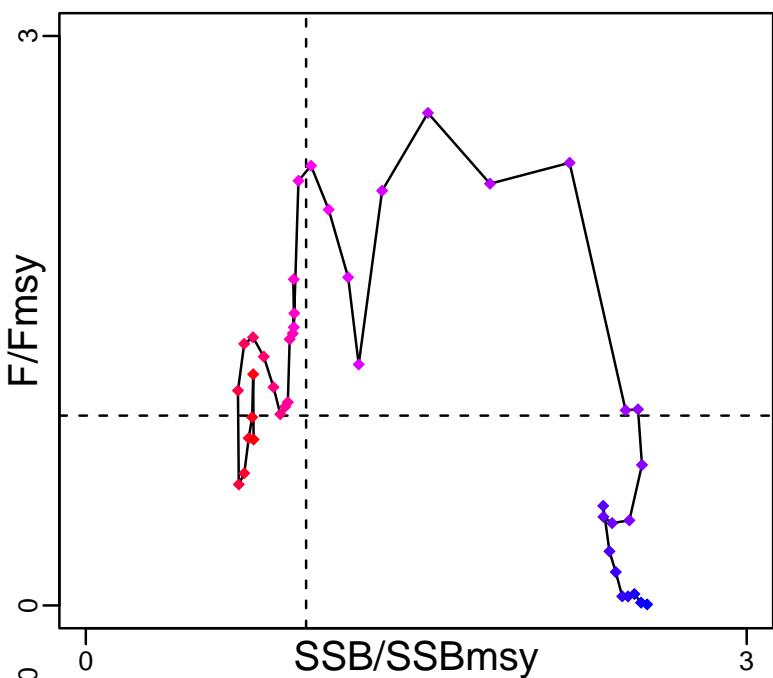
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-extr-MT	2019	48,689
Fmsy	Fmsy-extr-1/yr	2019	0.061
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2014	0.15
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2019	69,644	Both	-	
SSB	SSB-MT	2019	36,836	Both	-	
TN	-	-	-	-	-	
R	R-E00	2019	2.676×10^9	Both	-	
F	F-1/yr	2019	0.07	-	-	
ER	ER-calc-ratio	2019	0.043	-	-	
TC	TC-MT	2019	3024			
TL	TL-MT	2019	3024			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2019	0.761			
F/Fmsy	FdivFmsy-dimensionless	2019	0.874			
ER/ERmsy	-	-	-			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Patagonian toothfish South Chile Argentina [PTOOTHFISHCH]

Kobe MSYpref (1978–2019–Quiroz)

Kobe MGTPref (1978–2019–Quiroz)

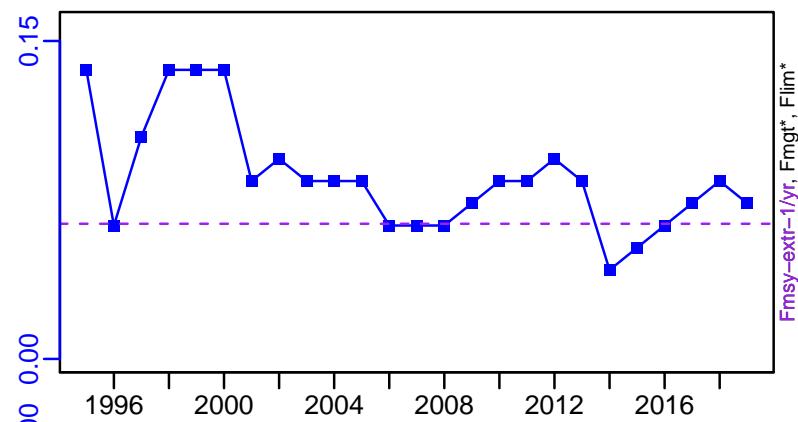
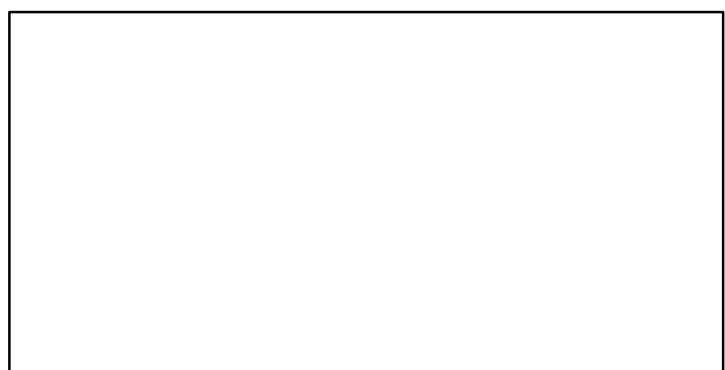
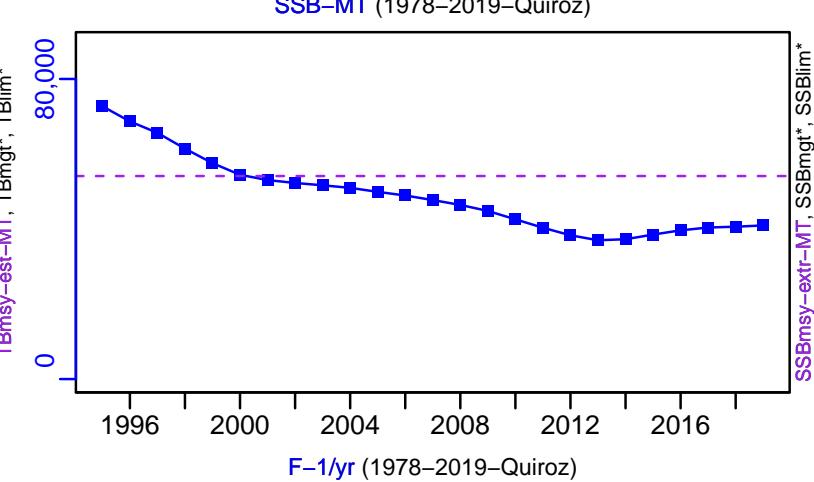
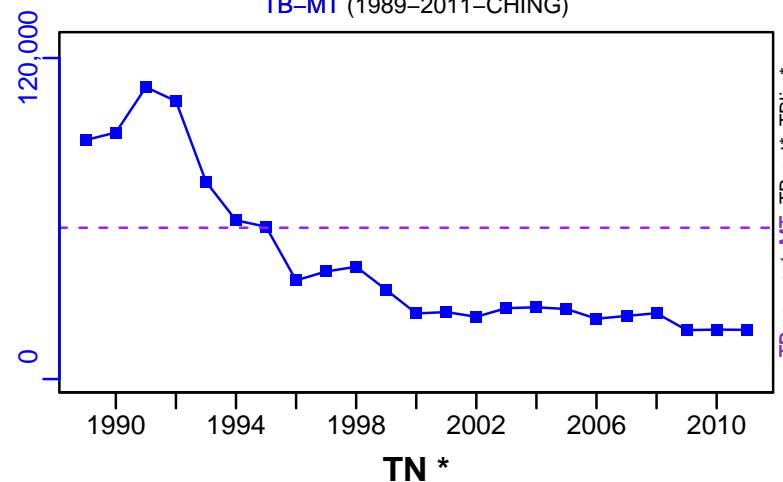


◆ Start Year ◆ End Year * No Data

Patagonian toothfish South Chile Argentina [PTOOTHFISHCH]

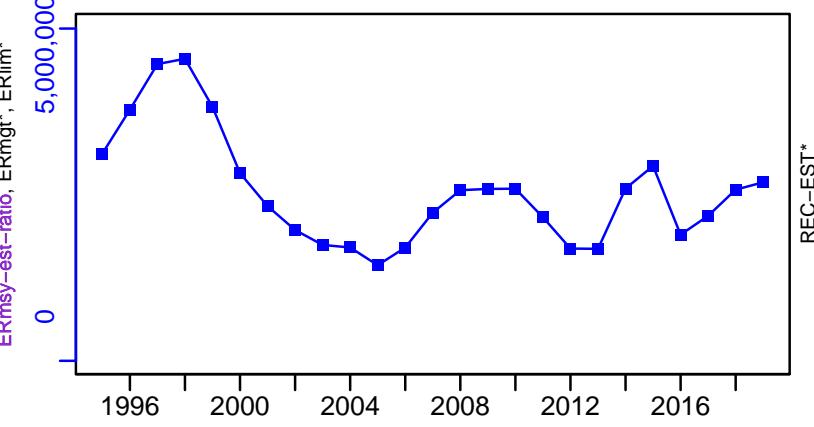
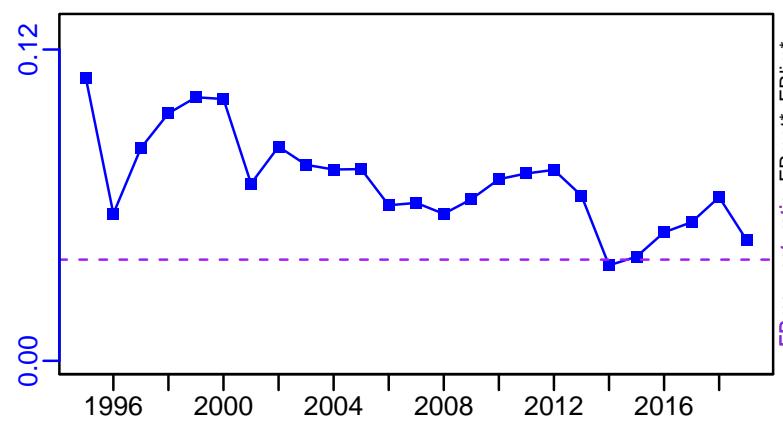
TB-MT (1989–2011–CHING)

SSB-MT (1978–2019–Quiroz)



ER-calc-ratio (1978–2019–Quiroz)

R-E00 (1978–2019–Quiroz)

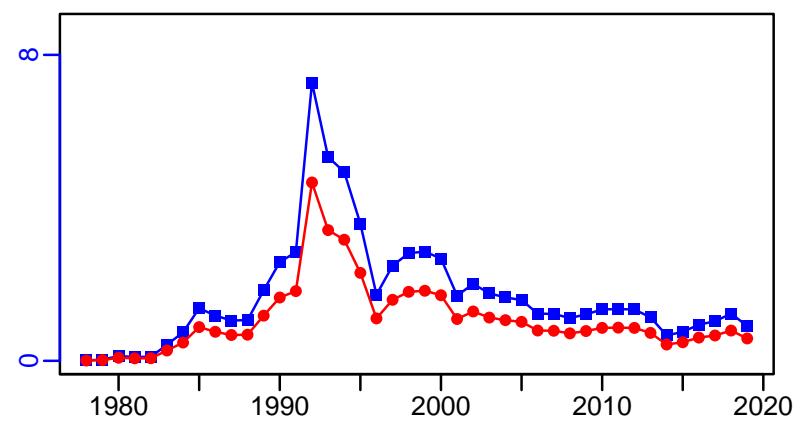
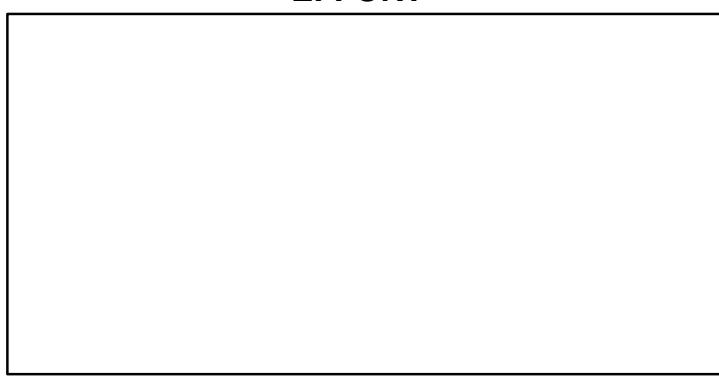
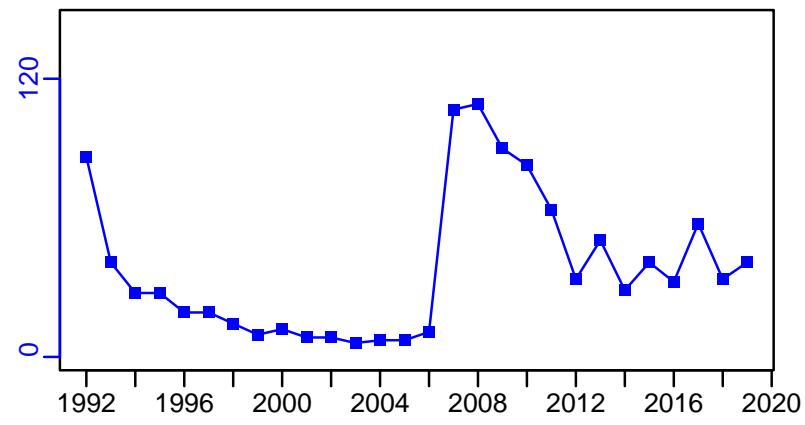
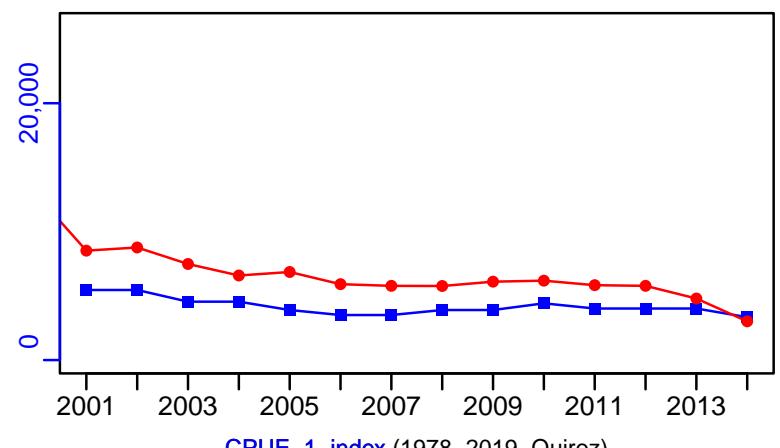
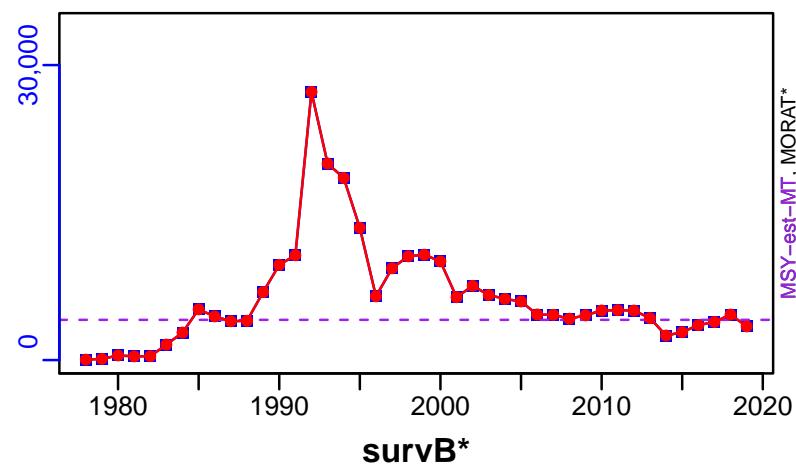


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	--- Lim BRP	* No Data

Patagonian toothfish South Chile Argentina [PTOOTHFISHCH]

TC-MT, TL-MT, RecC* (1978–2019–Quiroz)

TAC-MT, Cpair-MT, Cadv* (1975–2014–TASCHERI)



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

Patagonian toothfish Macquarie Island [PTOOTHFISHMI]

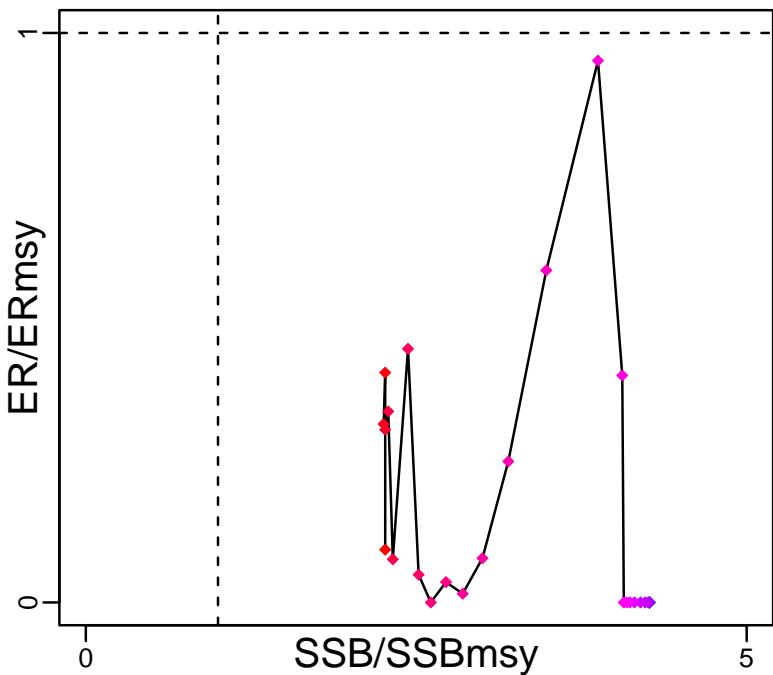
Metadata	
Scientific Name	Dissostichus eleginoides
Current Assess ID	CSIRO-PTOOTHFISHMI-1975-2010-FAY
Area	Macquarie Island
Management Authority	Australian Fisheries Management Authority, Australia national management
Assessor	Commonwealth Scientific and Industrial Research Organization
Asmts in RAM	2010

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2010	1512
SSBmsy	SSBmsy-MT	2010	870
Fmsy	Fmsy-1/yr	2010	0.058
ERmsy	ERmsy-ratio	2010	0.122
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2010	184
M	M-1/yr	2010	0.13
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

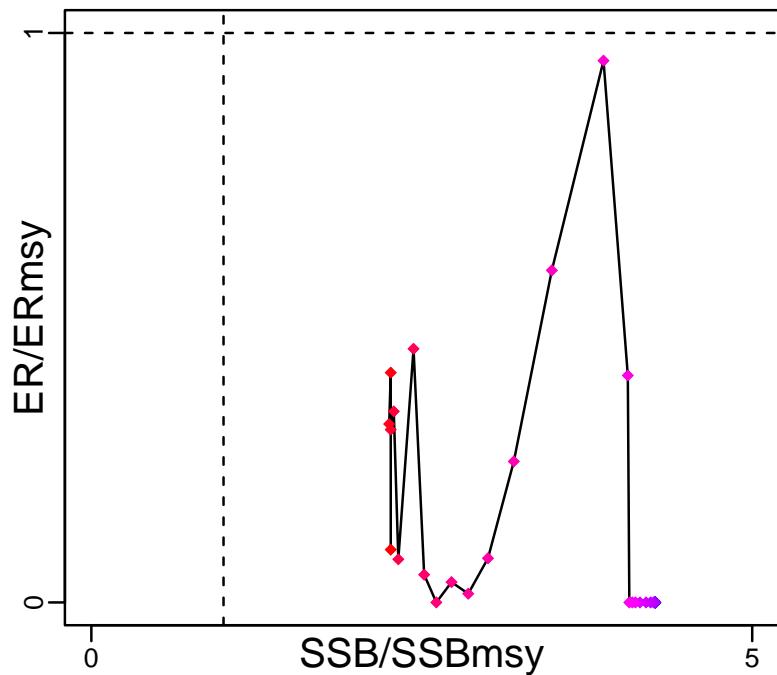
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2010	6170	-	1+	
SSB	SSB-MT	2010	2000	Females	14	
TN	-	-	-	-	-	
R	R-E00	2010	430,000	-	0	
F	F-1/yr	2010	0.011	Both	-	
ER	ER-ratio	2010	0.011	-	-	
TC	TC-MT	2010	69			
TL	TL-MT	2010	69			
TB/TBmsy	TB-MT/TBmsy-calc-MT	2010	4.08			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2010	2.3			
F/Fmsy	F-1/yr/Fmsy-1/yr	2010	0.194			
ER/ERmsy	ER-ratio/ERmsy-ratio	2010	0.093			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Patagonian toothfish Macquarie Island [PTOOTHFISHMI]

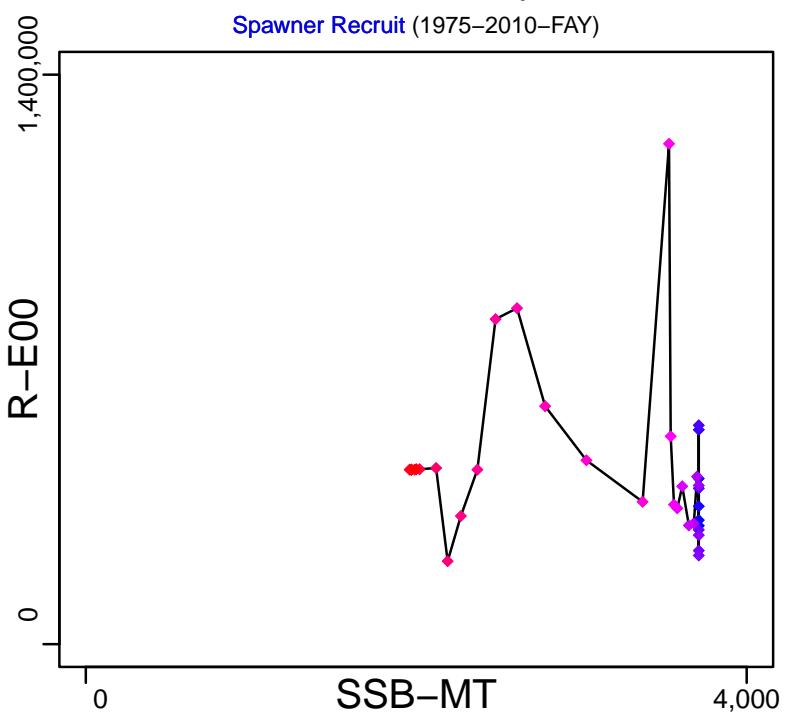
Kobe MSYpref (1975–2010–FAY)



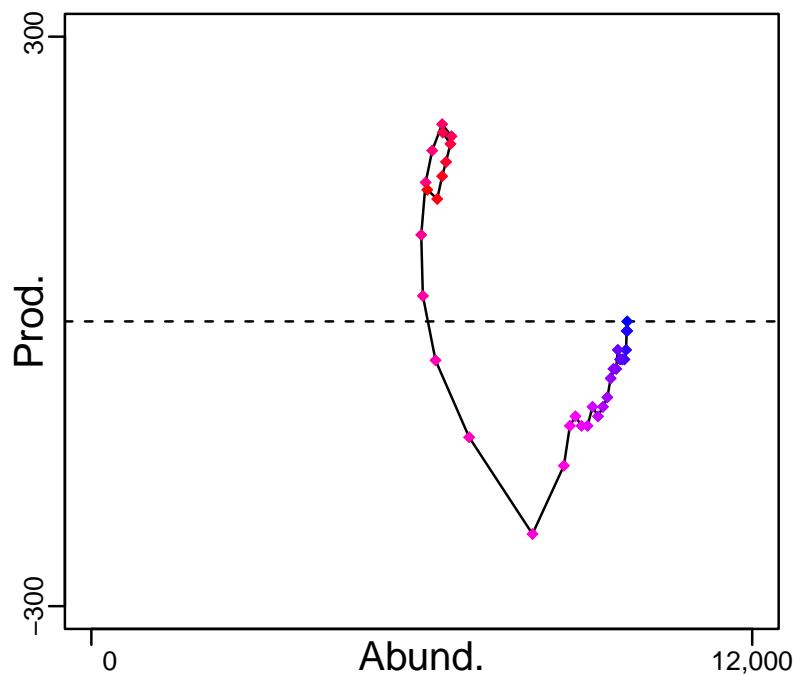
Kobe MGTpref (1975–2010–FAY)



Spawner Recruit (1975–2010–FAY)



Production (1975–2010–FAY)

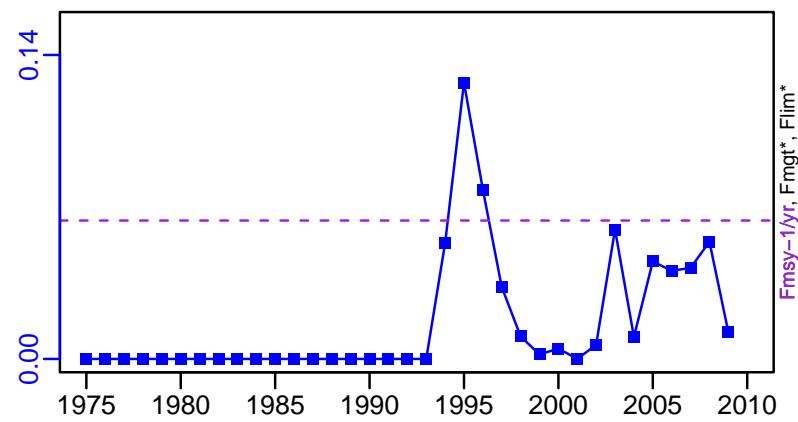
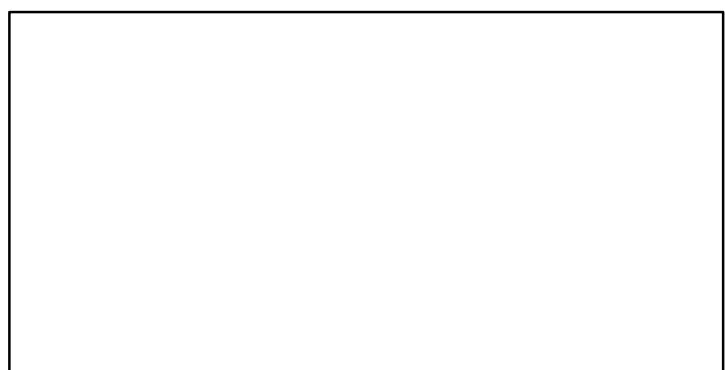
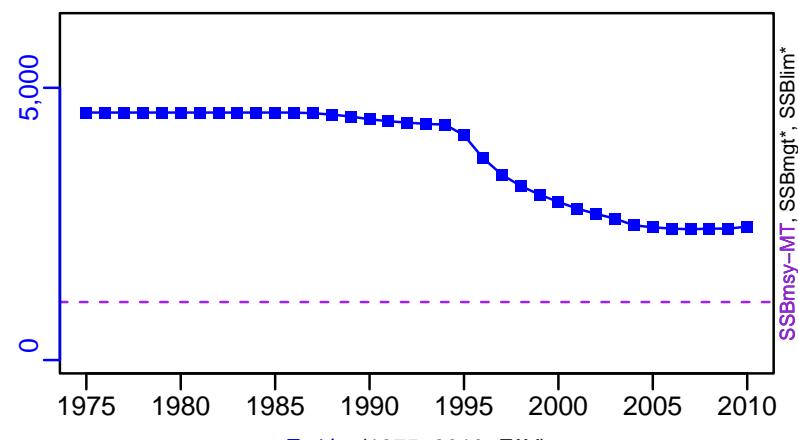
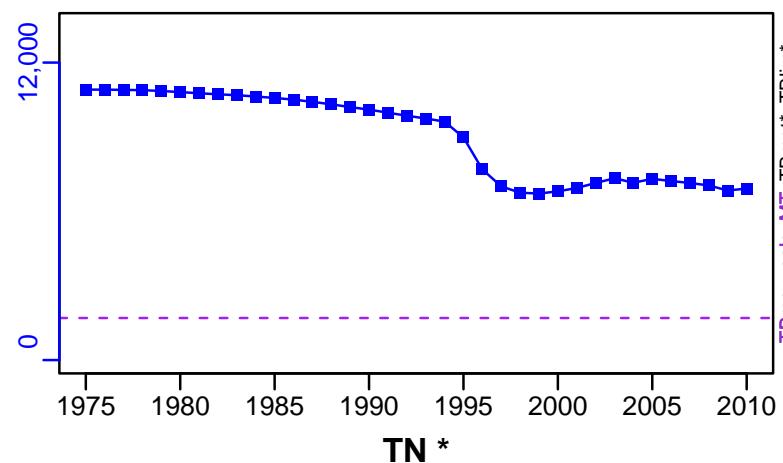


◆ Start Year ◆ End Year * No Data

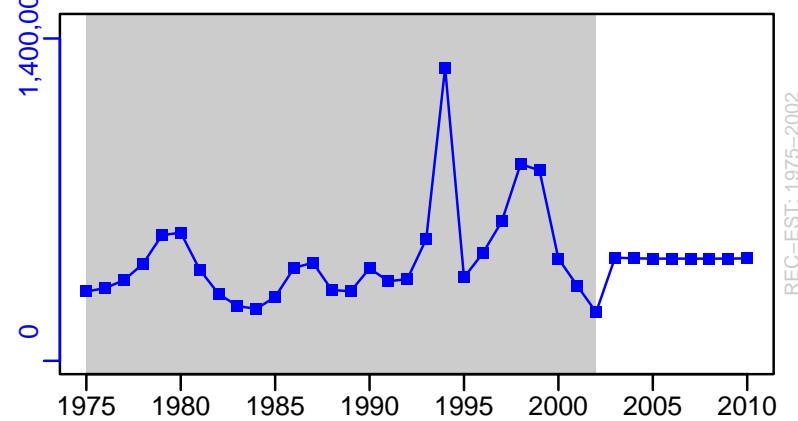
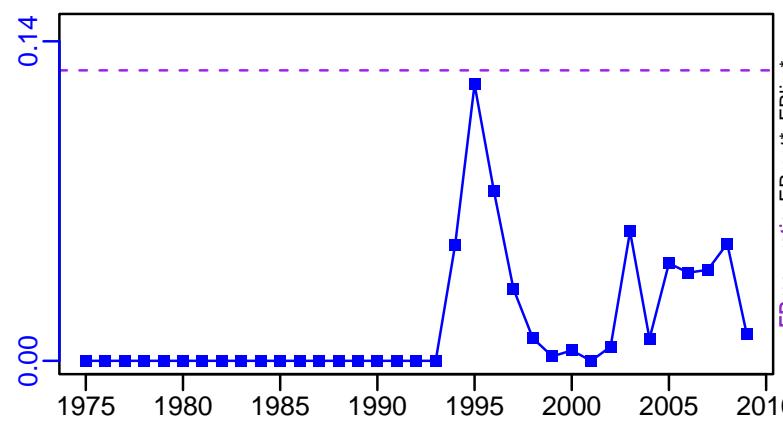
Patagonian toothfish Macquarie Island [PTOOTHFISHMI]

TB-MT (1975–2010–FAY)

SSB-MT (1975–2010–FAY)



ER-ratio (1975–2010–FAY)

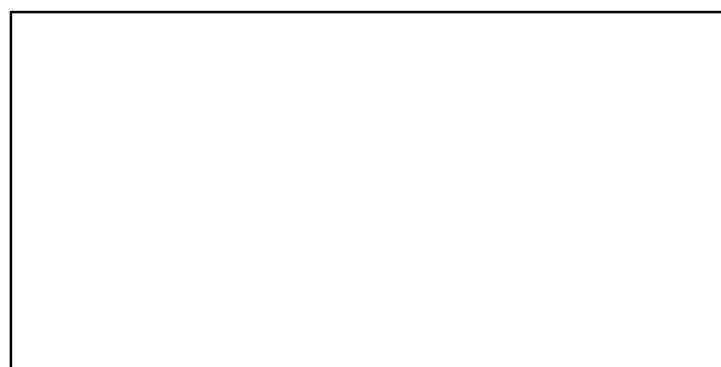
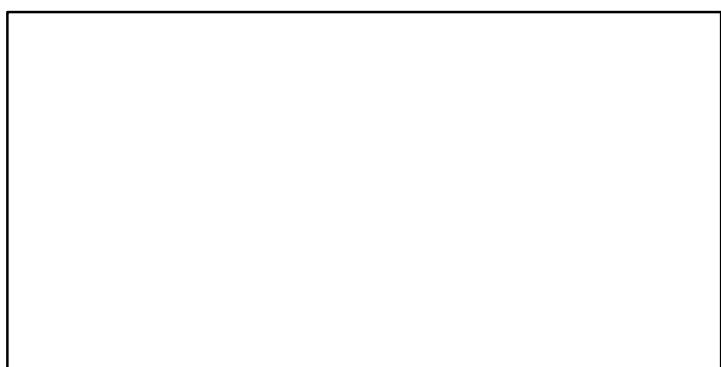
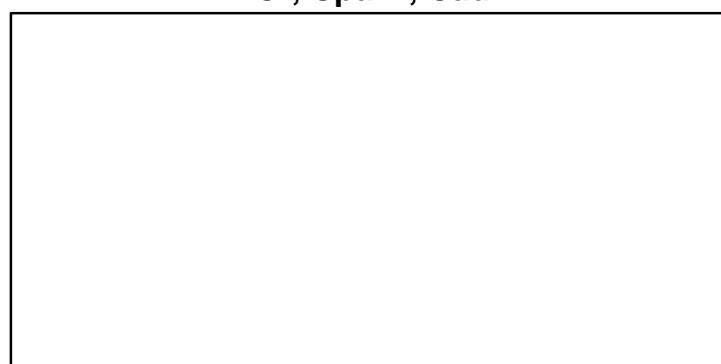
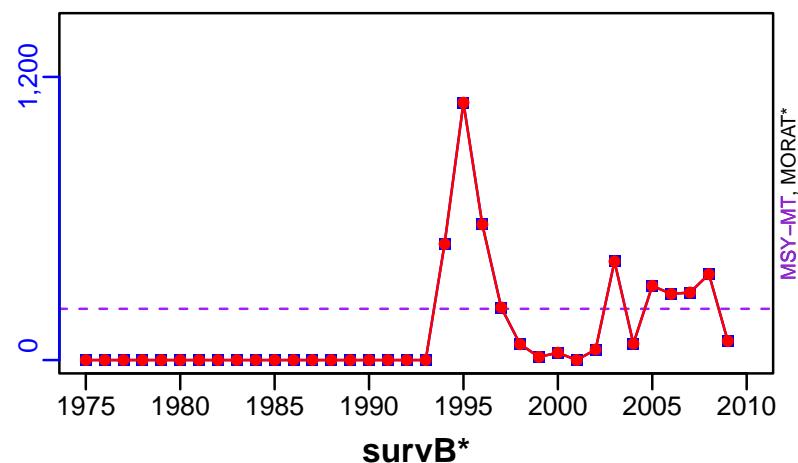


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	--- Lim BRP	* No Data

Patagonian toothfish Macquarie Island [PTOOTHFISHMI]

TC-MT, TL-MT, RecC* (1975–2010–FAY)

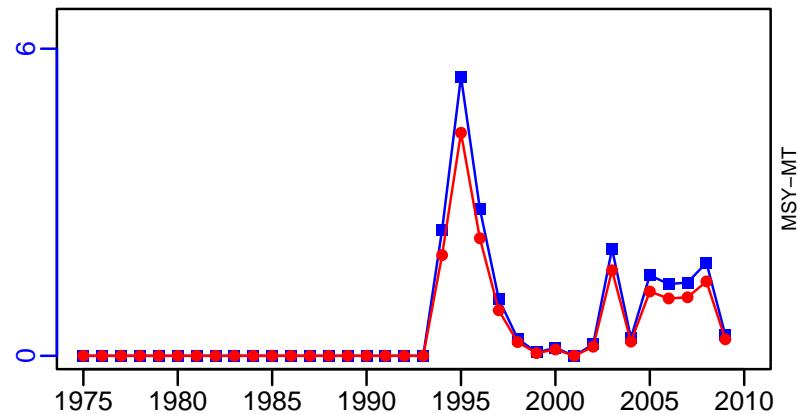
TAC*, Cpair*, Cadv*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1975–2010–FAY)



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

**Patagonian toothfish South Africa Subantarctic Prince Edward Islands
[PTOOTHFISHPEI]**

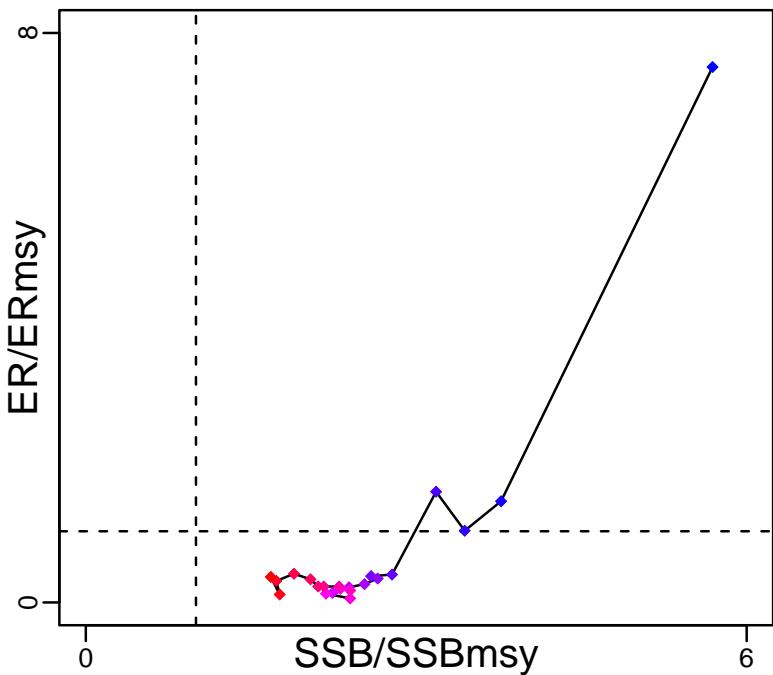
Metadata	
Scientific Name	Dissostichus eleginoides
Current Assess ID	MARAM-PTOOTHFISHPEI-1960-2020-Brandao
Area	South Africa Subantarctic Prince Edward Islands
Management Authority	South African national management, Fisheries Branch of Department of Agriculture, Forestry and Fisheries
Assessor	Marine Resource Assessment and Management Group, Department of Mathematics and Applied Mathematics, University of Cape Town, Rondebosch, 7701, South Africa
Asmts in RAM	2013, 2015, 2020

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2020	6302
Fmsy	Fmsy-1/yr	2015	0.12
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	TB0-MT	2020	40,188
SSB0	SSB0-MT	2020	25,582
MSY	MSY-MT	2020	1077
M	M-1/yr	2020	0.13
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

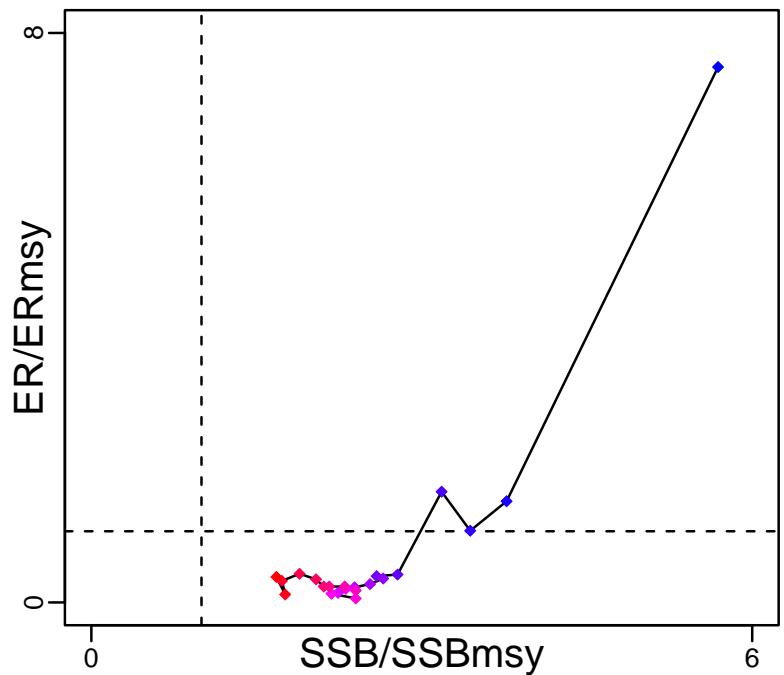
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2020	18,219	-	0+	
SSB	SSB-MT	2020	10,158	Both	13+	
TN	-	-	-	-	-	
R	R-E00	2020	902,273	-	6	
F	-	-	-	-	-	
ER	ER-ratio	2020	0.032	-	-	
TC	TC-MT	2020	343			
TL	TL-MT	2020	343			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2020	1.61			
F/Fmsy	FdivFmsy-dimensionless	2013	0.006			
ER/ERmsy	-	-	-			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Patagonian toothfish South Africa Subantarctic Prince Edward Islands [PTOOTHFISHPEI]

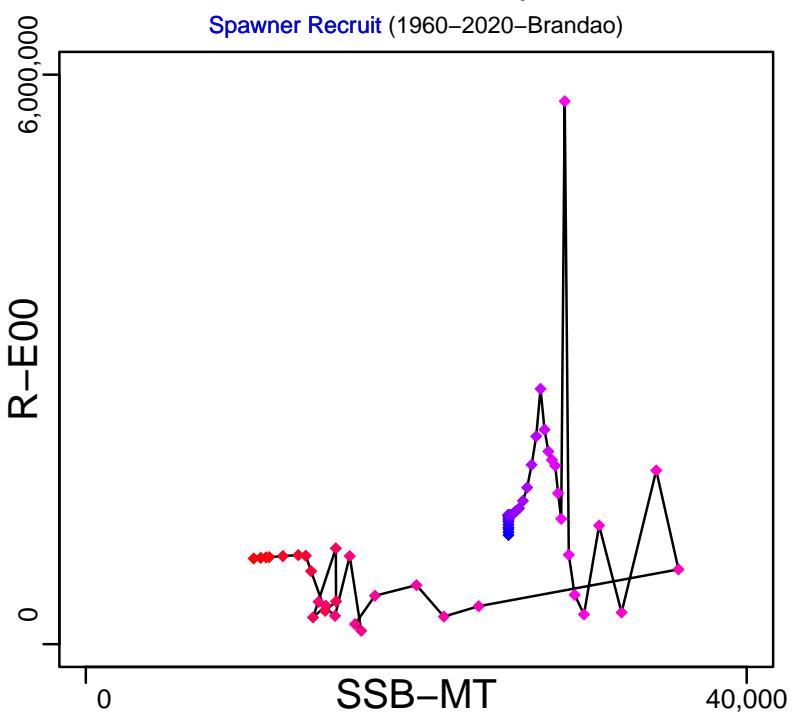
Kobe MSYpref (1960–2020–Brandao)



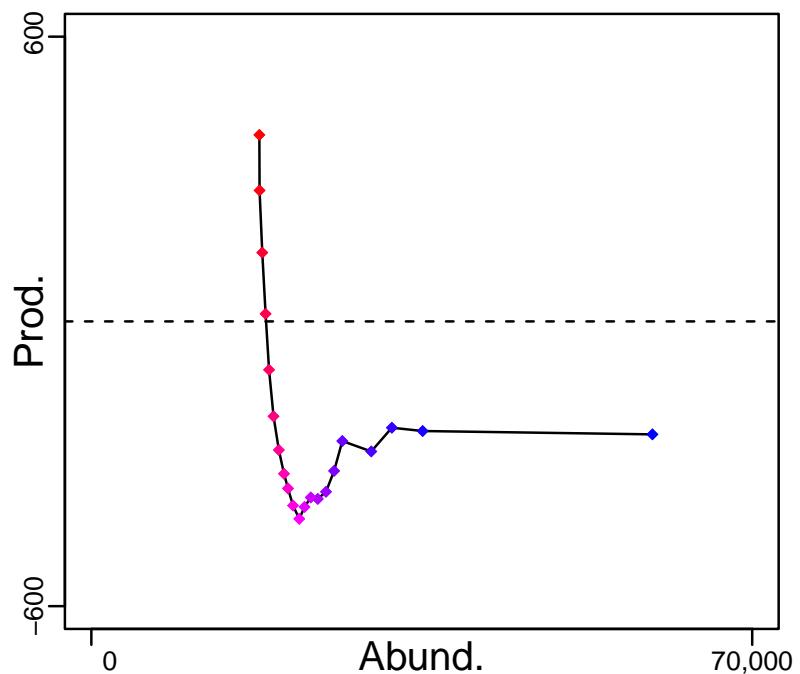
Kobe MGTpref (1960–2020–Brandao)



Spawner Recruit (1960–2020–Brandao)



Production (1960–2020–Brandao)

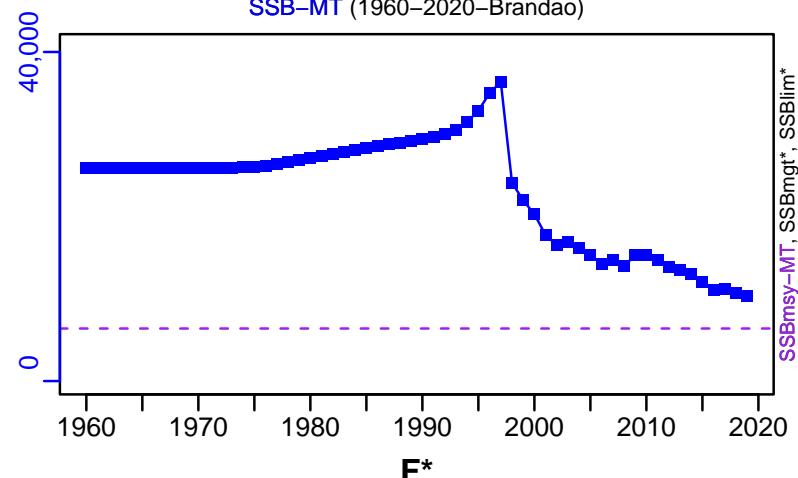
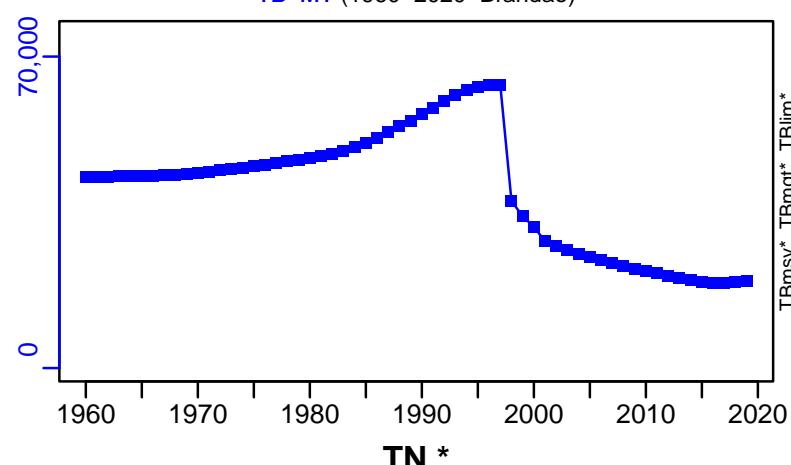


◆ Start Year ◆ End Year * No Data

Patagonian toothfish South Africa Subantarctic Prince Edward Islands [PTOOTHFISHPEI]

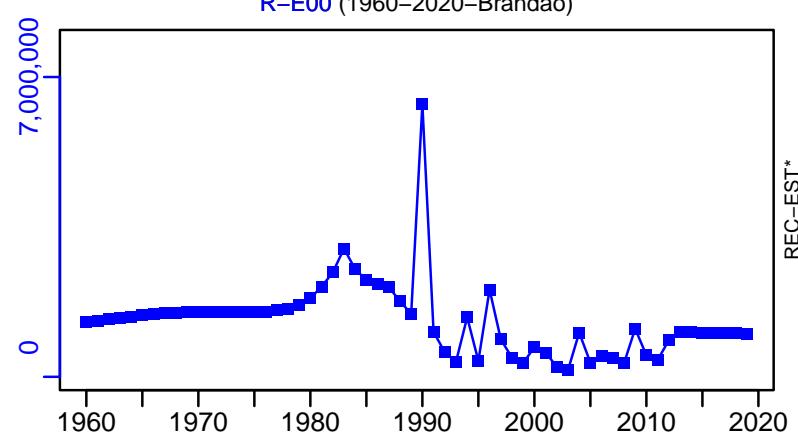
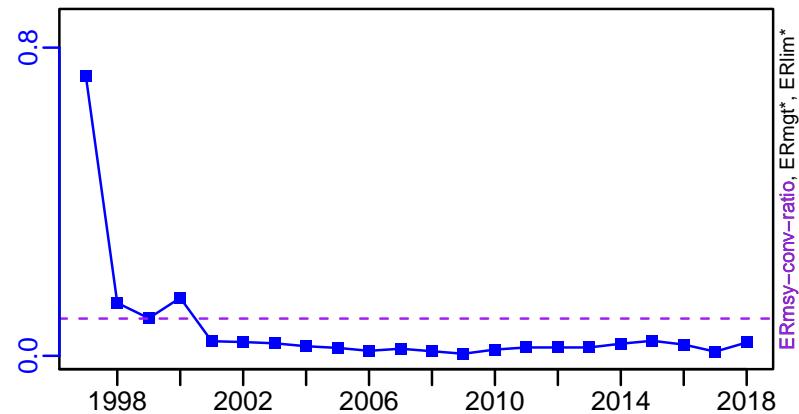
TB-MT (1960–2020–Brandao)

SSB-MT (1960–2020–Brandao)



ER-ratio (1960–2020–Brandao)

R-E00 (1960–2020–Brandao)

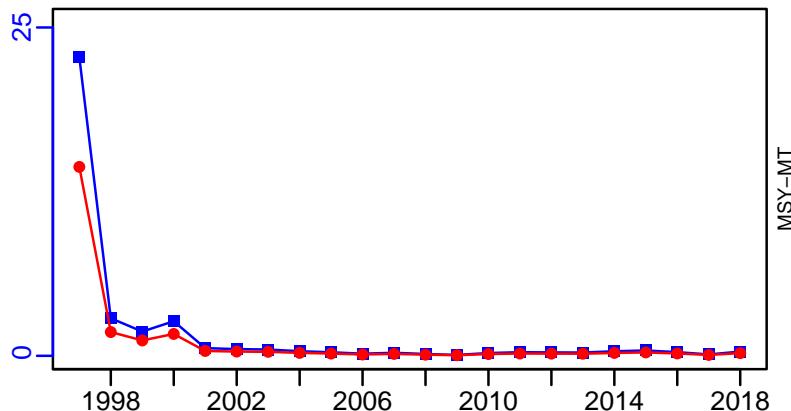
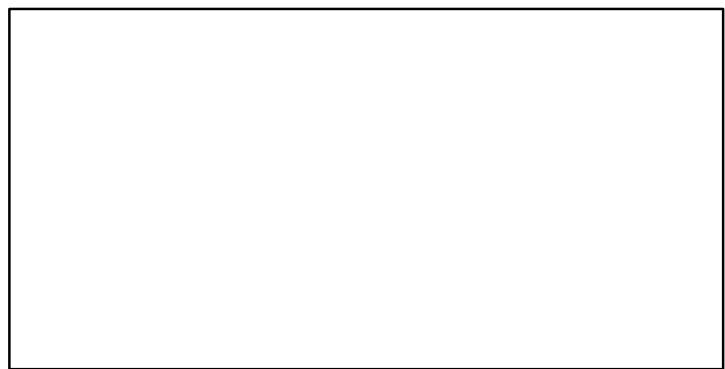
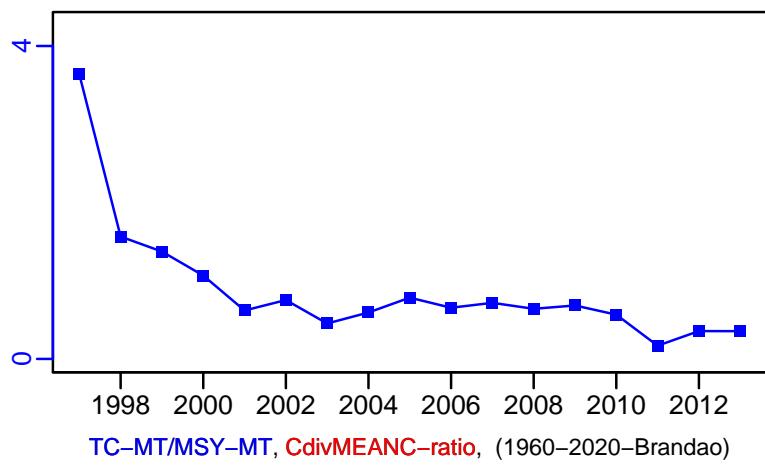
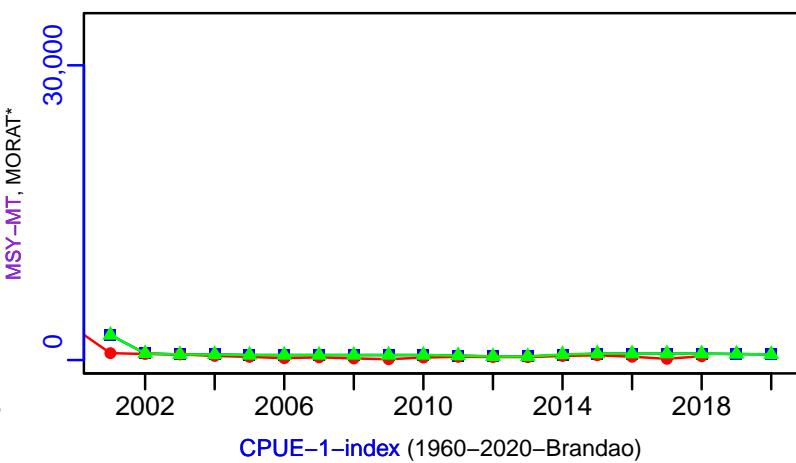
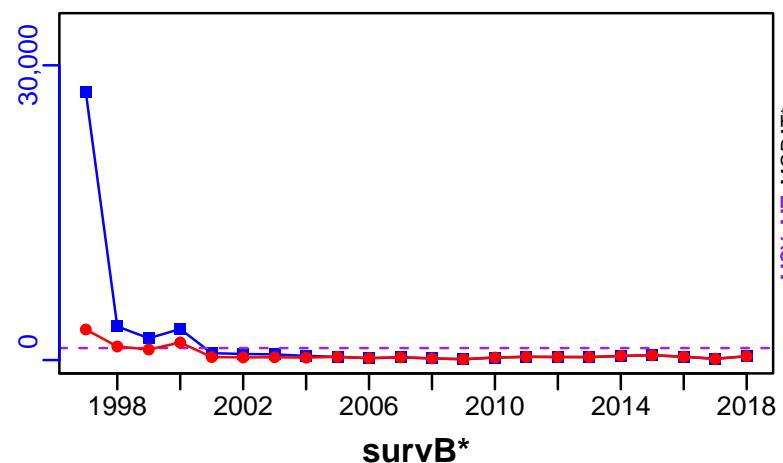


■ Listed time series	— Target BRP	— Rec-Est
- - MSY-based BRP	·· Lim BRP	* No Data

Patagonian toothfish South Africa Subantarctic Prince Edward Islands [PTOOTHFISHPEI]

TC-MT, TL-MT, RecC* (1960–2020–Brandao)

TAC-MT, Cpair-MT, Cadvised-MT (1960–2020–Brandao)



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

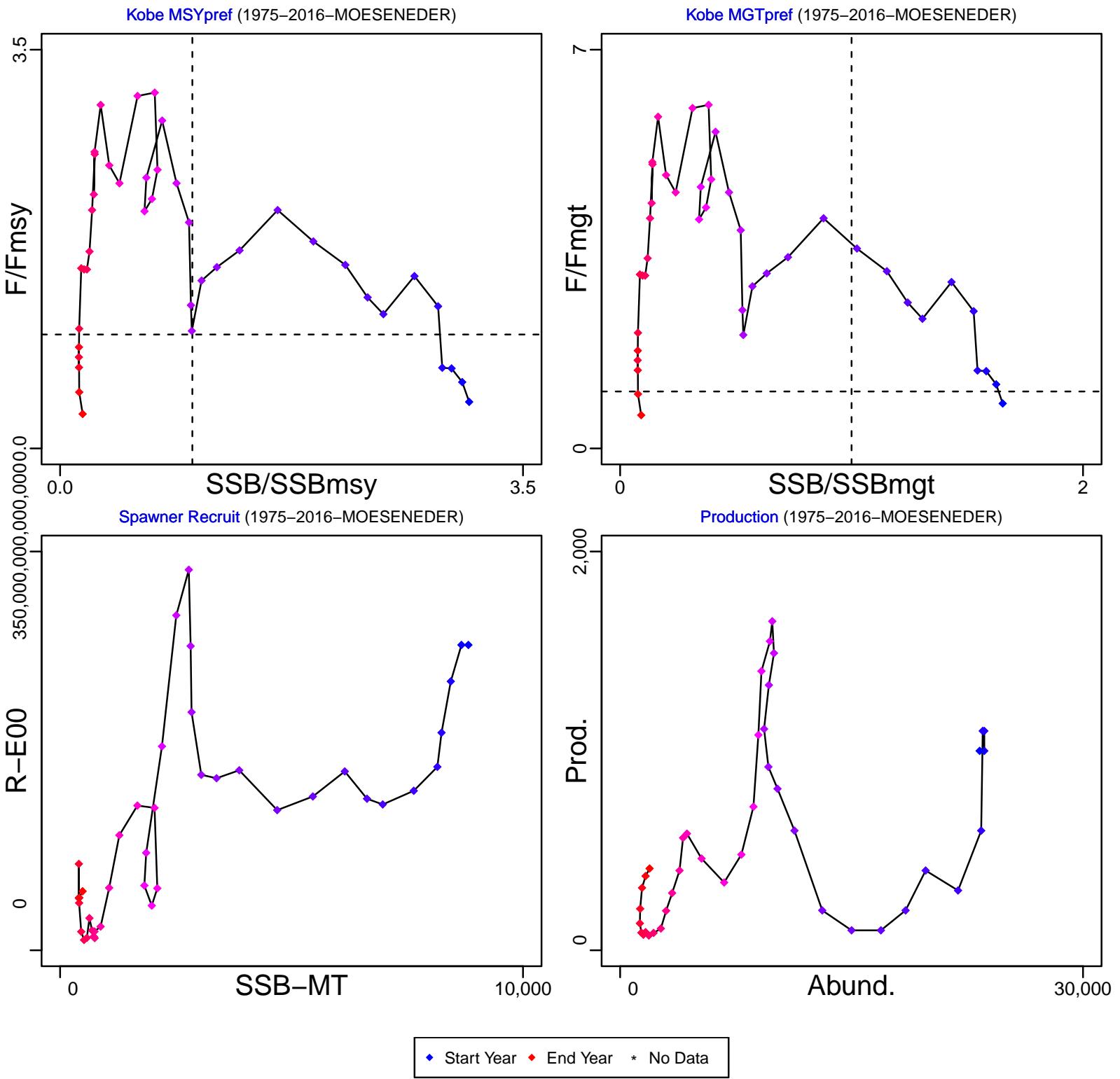
Redfish Eastern Australia [REDFEAUS]

Metadata	
Scientific Name	Centroberyx affinis
Current Assess ID	CSIRO-REDFEAUS-1975-2016-MOESENEDER
Area	Eastern Australia
Management Authority	Australian Fisheries Management Authority, Australia national management
Assessor	Commonwealth Scientific and Industrial Research Organization
Asmts in RAM	2013, 2016

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2016	2852
Fmsy	Fmsy-1/yr	2016	0.102
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2016	5336
Fmgt	Fmgt-1/yr	2016	0.053
ERmgt	-	-	-
TB0	TB0-MT	2016	26,740
SSB0	SSB0-MT	2016	11,116
MSY	MSY-MT	2016	913
M	M-1/yr	2016	0.1
TBlim	-	-	-
SSBlim	SSBlim-MT	2016	2223
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2016	2250	-	-
SSB	SSB-MT	2016	486	Both	-
TN	-	-	-	-	-
R	R-E00	2016	5.18×10^{13}	-	-
F	F-1/yr	2016	0.031	-	-
ER	ER-ratio	2016	0.03	-	-
TC	-	-	-		
TL	TL-MT	2016	52		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2016	0.17		
F/Fmsy	F-1/yr/Fmsy-1/yr	2016	0.302		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2016	0.091		
F/Fmgt	F-1/yr/Fmgt-1/yr	2016	0.584		
ER/ERmgt	-	-	-		

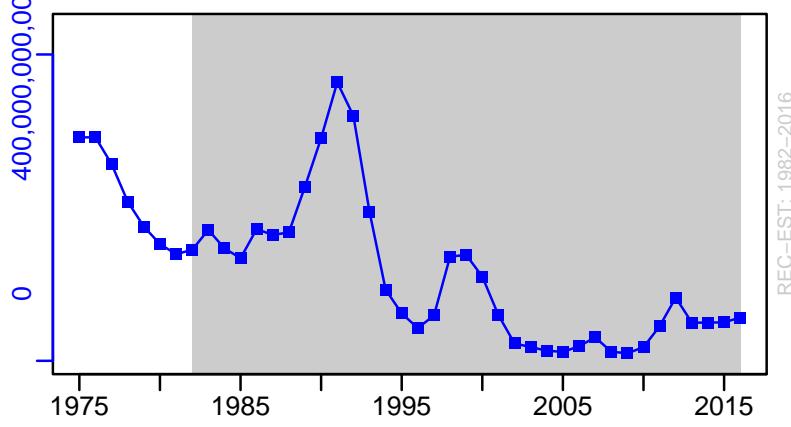
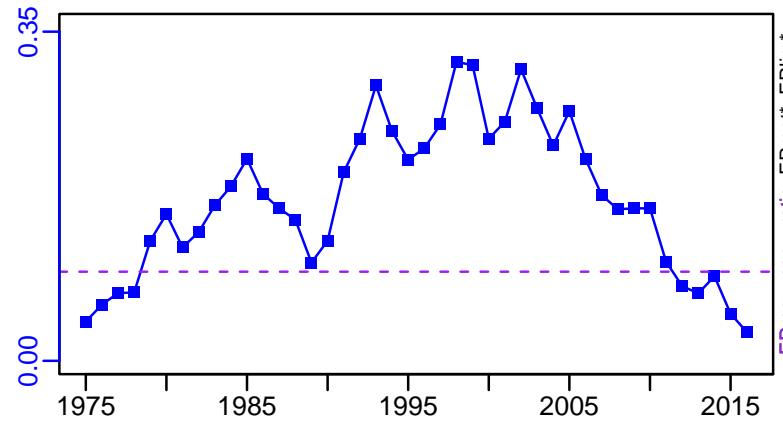
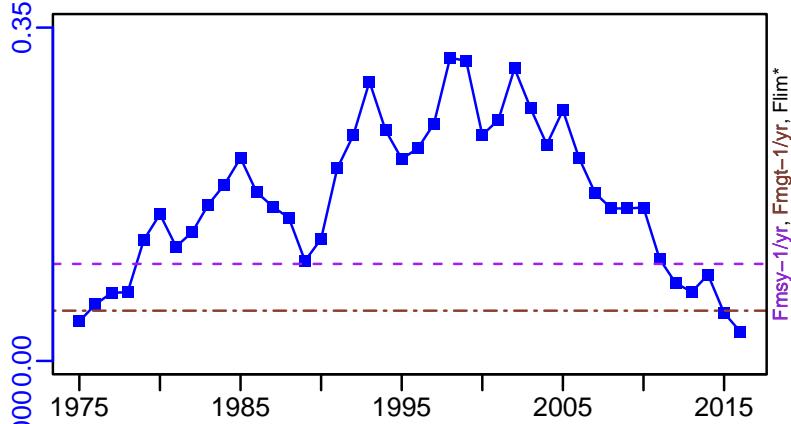
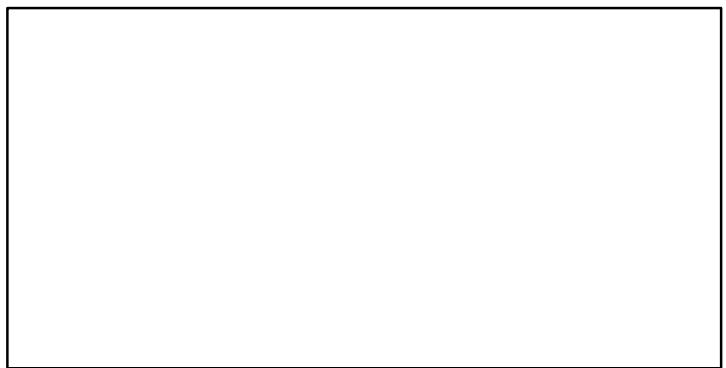
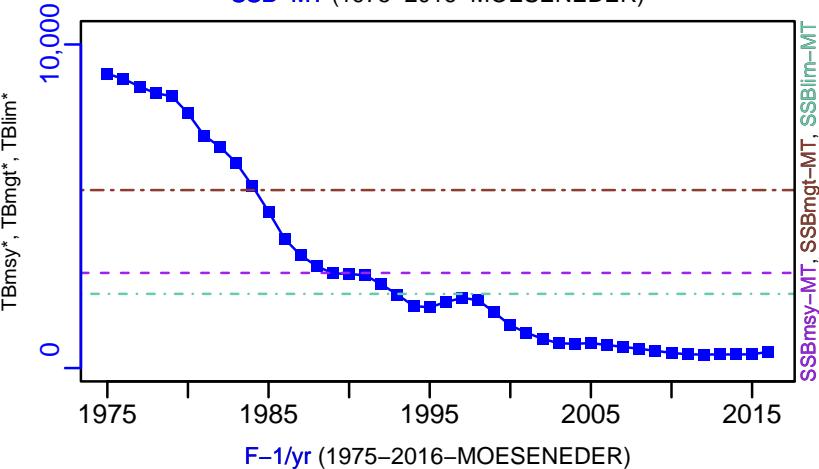
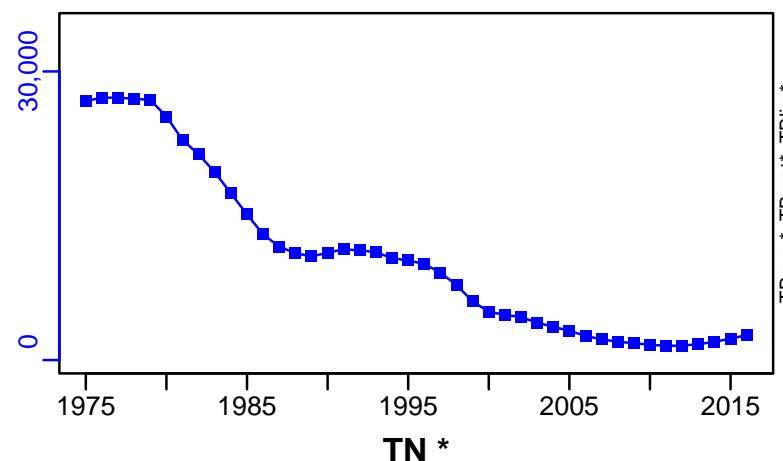
Redfish Eastern Australia [REDFEAUS]



Redfish Eastern Australia [REDFEAUS]

TB-MT (1975–2016–MOESENEDER)

SSB-MT (1975–2016–MOESENEDER)



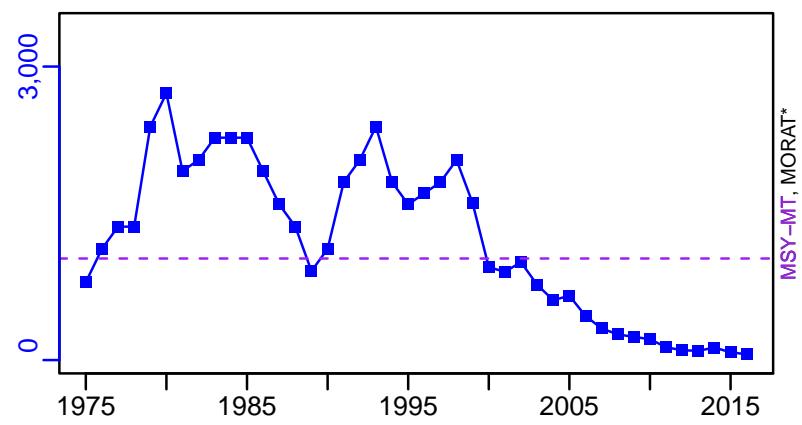
■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	--- Lim BRP	* No Data

REC-EST: 1982–2016

Redfish Eastern Australia [REDFEAUS]

TL-MT, TC*, RecC* (1975–2016–MOESENEDER)

TAC*, Cpair*, Cadv*



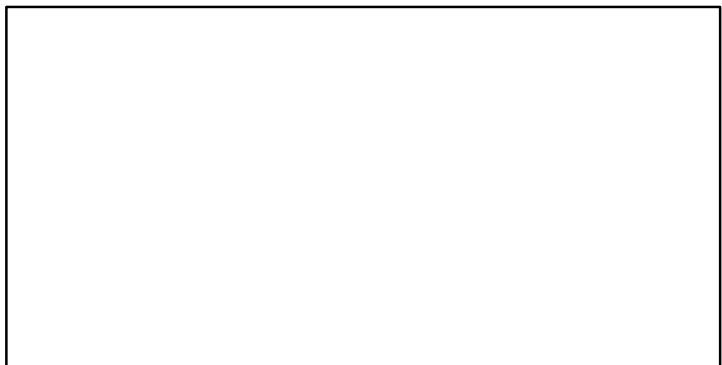
survB*



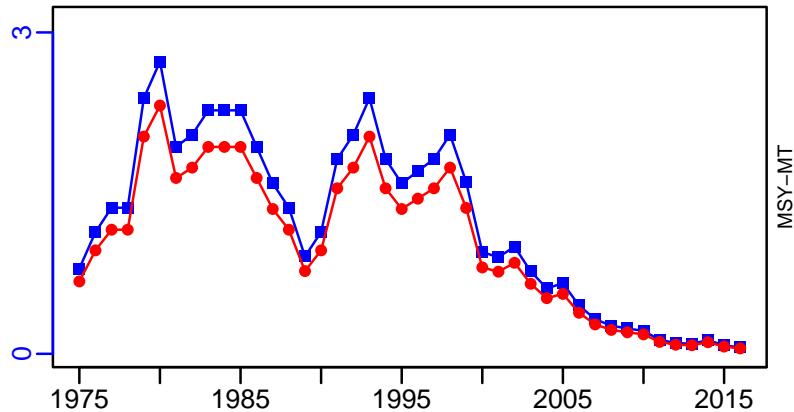
CPUE*



EFFORT*



TL-MT/MSY-MT, CdivMEANC–ratio, (1975–2016–MOESENEDER)



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

Silverfish Southeast Australia [SILVERFISHSE]

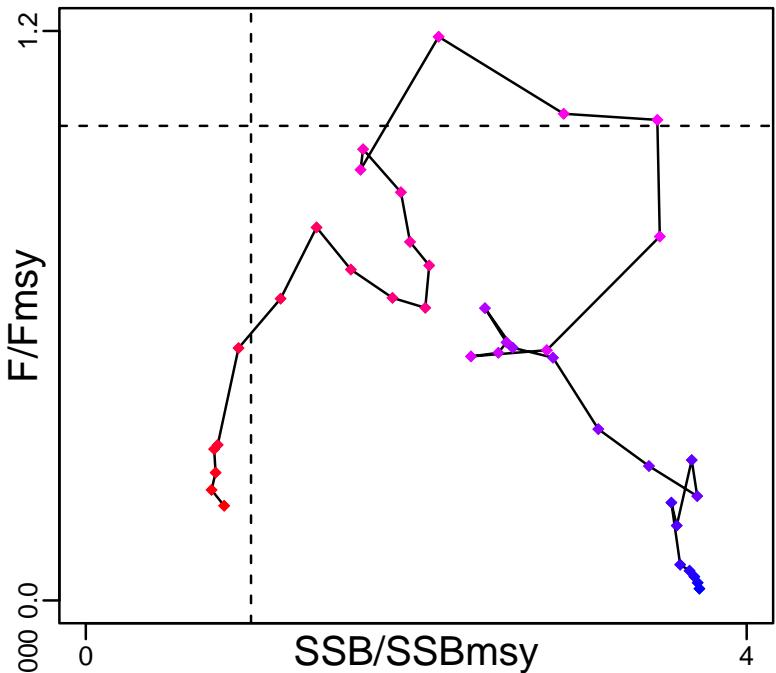
Metadata	
Scientific Name	Seriola punctata
Current Assess ID	CSIRO-SILVERFISHSE-1980-2017-MOESENEDER
Area	Southeast Australia
Management Authority	Australian Fisheries Management Authority, Australia national management
Assessor	Commonwealth Scientific and Industrial Research Organization
Asmts in RAM	2006, 2014, 2017

Reference Points				
Type	ID	Asmt Year	Value	
TBmsy	-	-	-	
SSBmsy	SSBmsy-MT	2017	5102	
Fmsy	Fmsy-1/yr	2017	0.215	
ERmsy	-	-	-	
TBmgt	-	-	-	
SSBmgt	SSBmgt-MT	2017	9096	
Fmgt	Fmgt-1/yr	2017	0.124	
ERmgt	-	-	-	
TB0	TB0-MT	2017	25,224	
SSB0	SSB0-MT	2017	18,949	
MSY	MSY-MT	2017	2064	
M	M-1/yr	2017	0.3	
TBlim	TBlim-MT	2006	4136	
SSBlim	SSBlim-MT	2017	3790	
Flim	-	-	-	
ERlim	-	-	-	

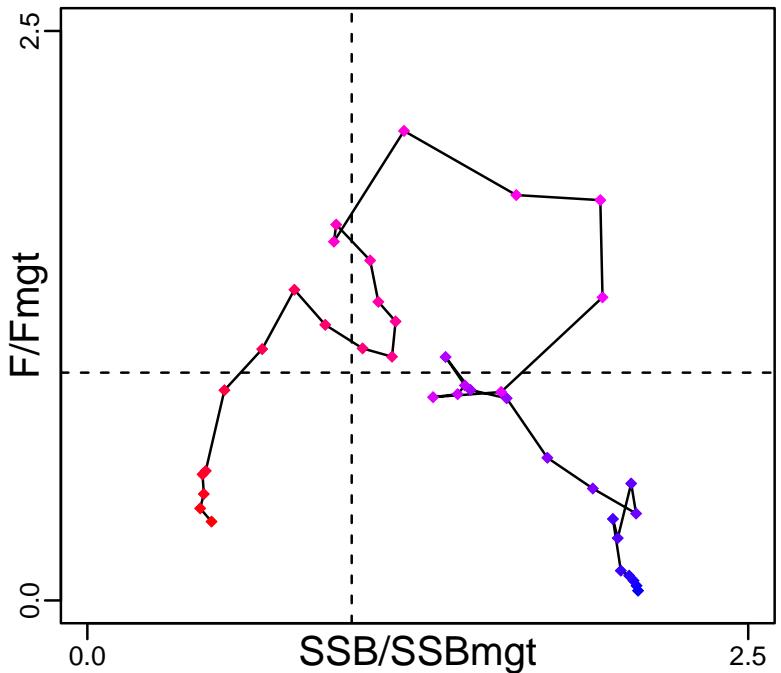
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2017	7866	-	-	
SSB	SSB-MT	2017	4273	-	-	
TN	-	-	-	-	-	
R	R-E00	2017	9.2×10^{12}	-	-	
F	F-1/yr	2017	0.043	-	-	
ER	ER-ratio	2017	0.049	-	-	
TC	-	-	-			
TL	TL-MT	2017	348			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2017	0.837			
F/Fmsy	F-1/yr/Fmsy-1/yr	2017	0.2			
ER/ERmsy	-	-	-			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2017	0.47			
F/Fmgt	F-1/yr/Fmgt-1/yr	2017	0.346			
ER/ERmgt	-	-	-			

Silverfish Southeast Australia [SILVERFISHSE]

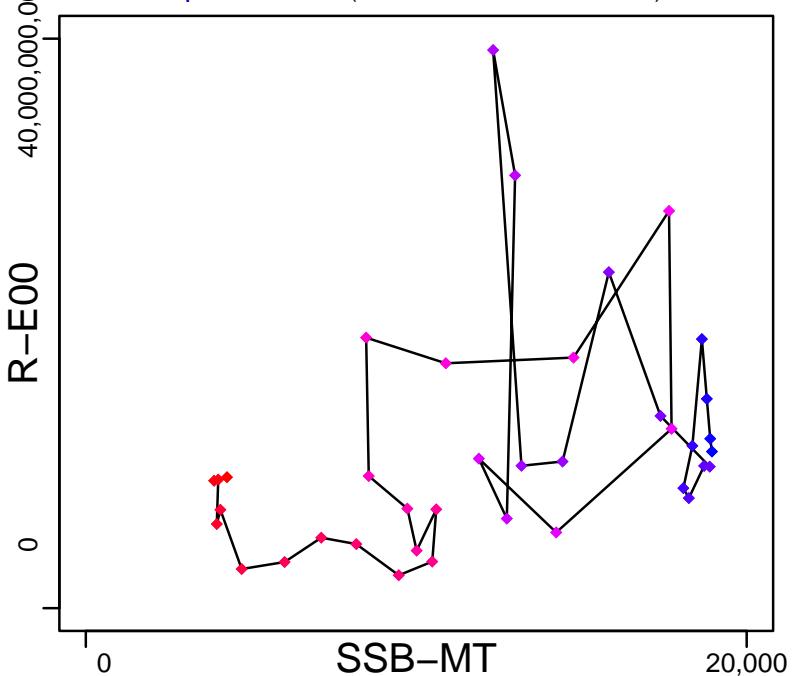
Kobe MSYpref (1980–2017–MOESENEDER)



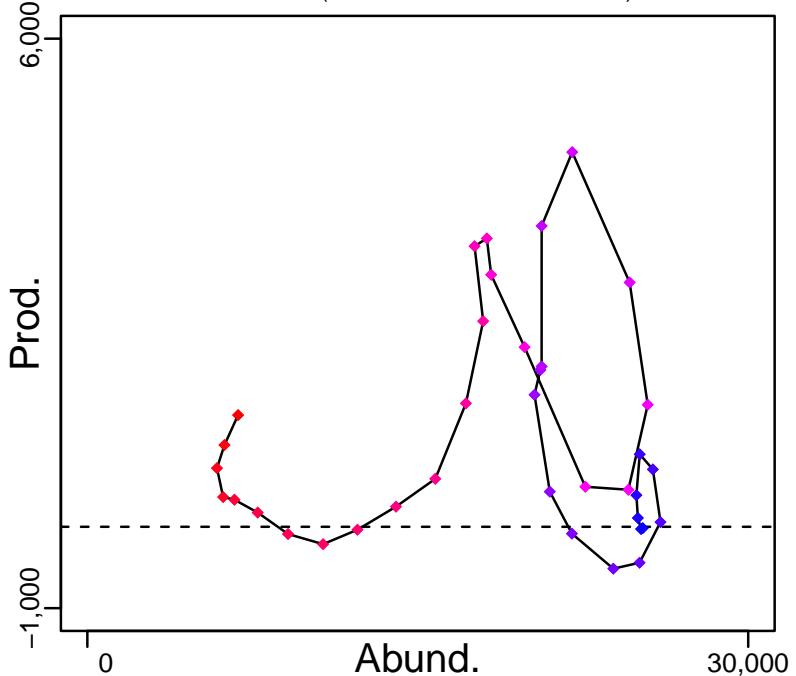
Kobe MGTpref (1980–2017–MOESENEDER)



Spawner Recruit (1980–2017–MOESENEDER)



Production (1980–2017–MOESENEDER)

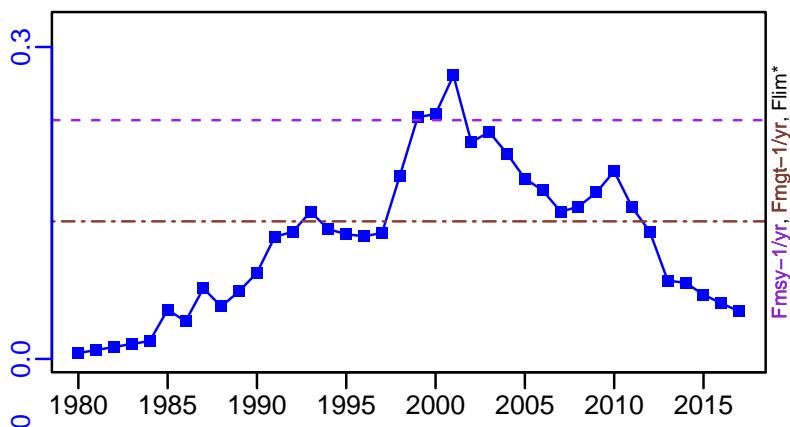
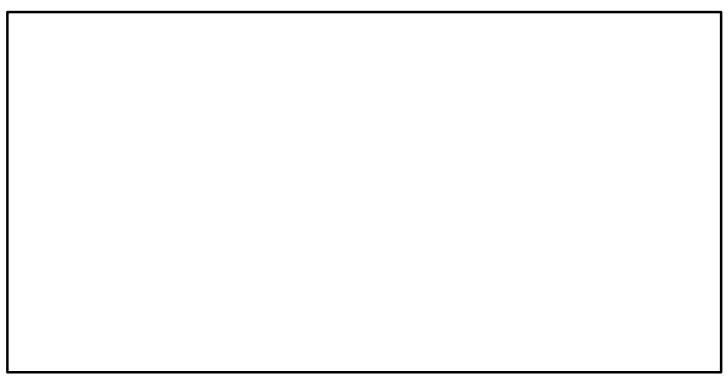
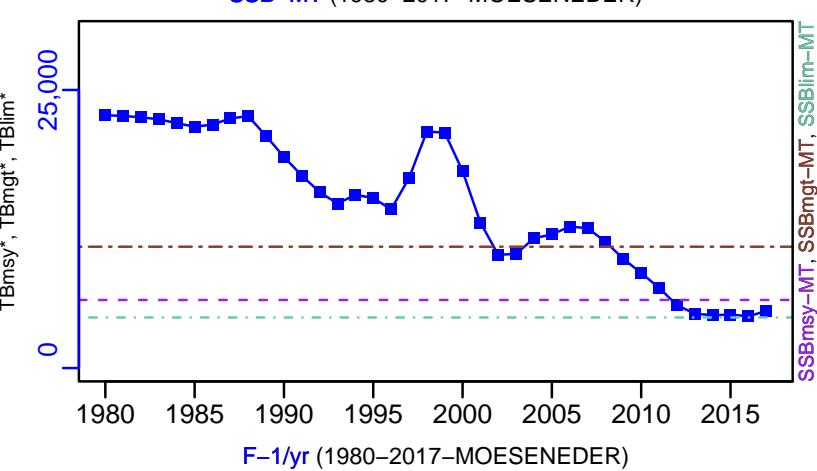
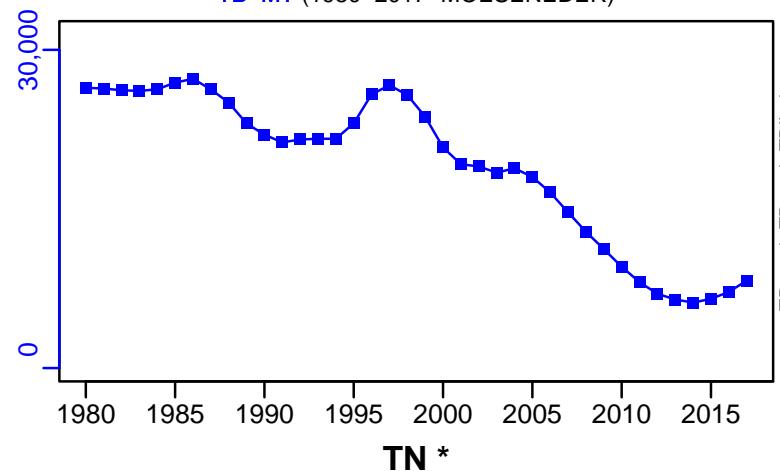


◆ Start Year ◆ End Year * No Data

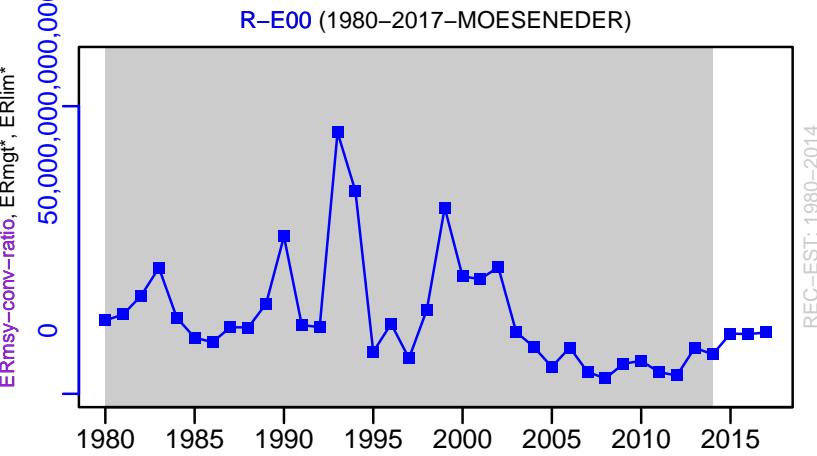
Silverfish Southeast Australia [SILVERFISHSE]

TB-MT (1980–2017–MOESENEDER)

SSB-MT (1980–2017–MOESENEDER)



ER-ratio (1980–2017–MOESENEDER)



R-E00 (1980–2017–MOESENEDER)

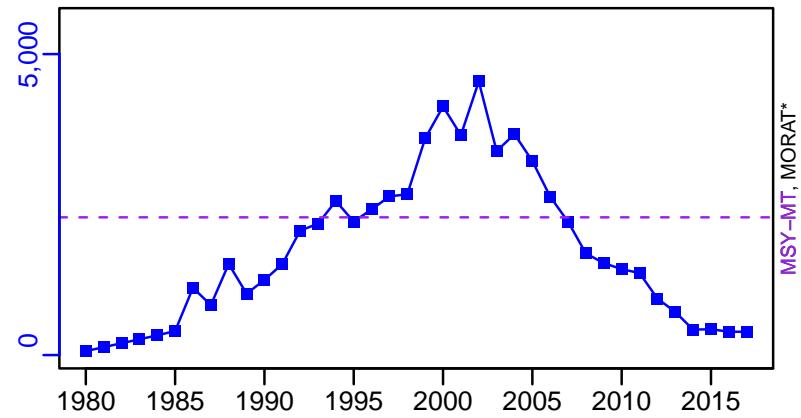
REC-EST: 1980–2014

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

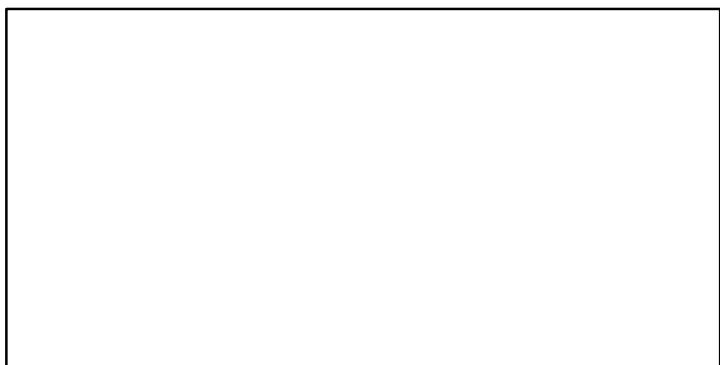
Silverfish Southeast Australia [SILVERFISHSE]

TL-MT, TC*, RecC* (1980–2017–MOESENEDER)

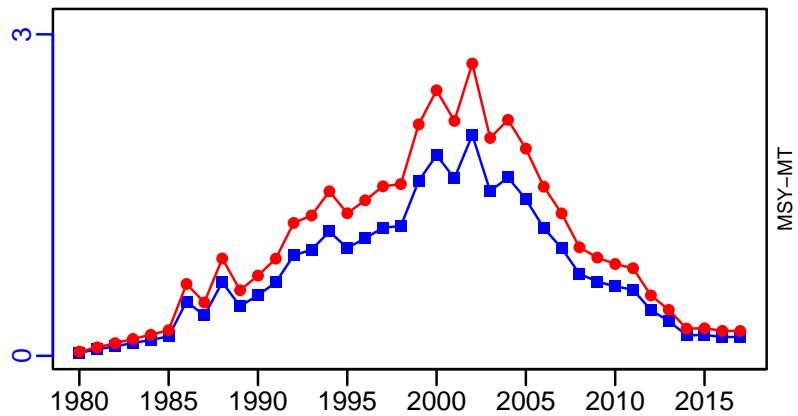
TAC*, Cpair*, Cadv*



EFFORT*



TL-MT/MSY-MT, CdivMEANC-ratio, (1980–2017–MOESENEDER)



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

Smooth oreo Bounty Plateau [SMOOTHOREOBP]

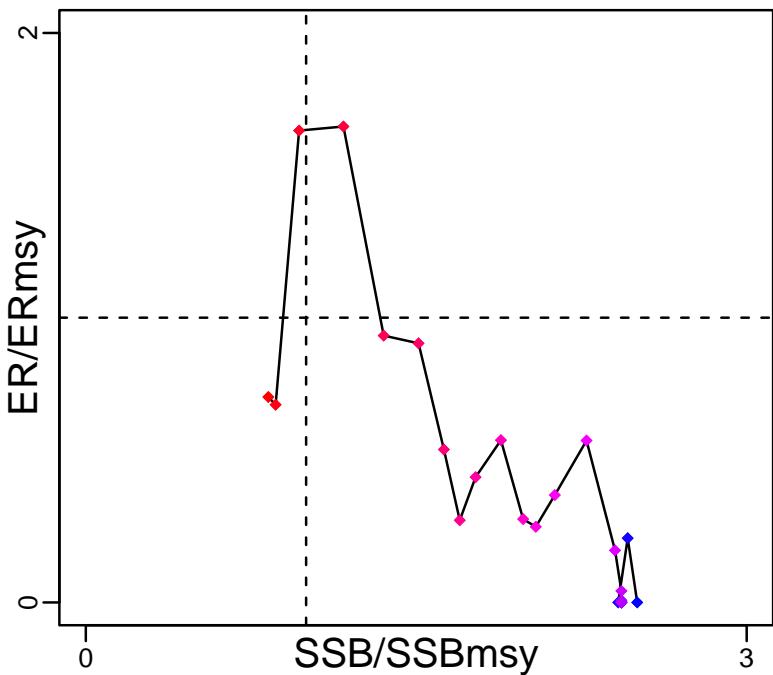
Metadata	
Scientific Name	Pseudocyttus maculatus
Current Assess ID	NIWA-SMOOTHOREOBP-1983-2008-CORDUE
Area	Bounty Plateau
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2008

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2008	6386
SSBmsy	SSBmsy-MT	2008	6951
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2008	0.07
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2008	6951
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2008	17,378
MSY	MSY-MT	2008	447
M	M-1/yr	2008	0.06
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

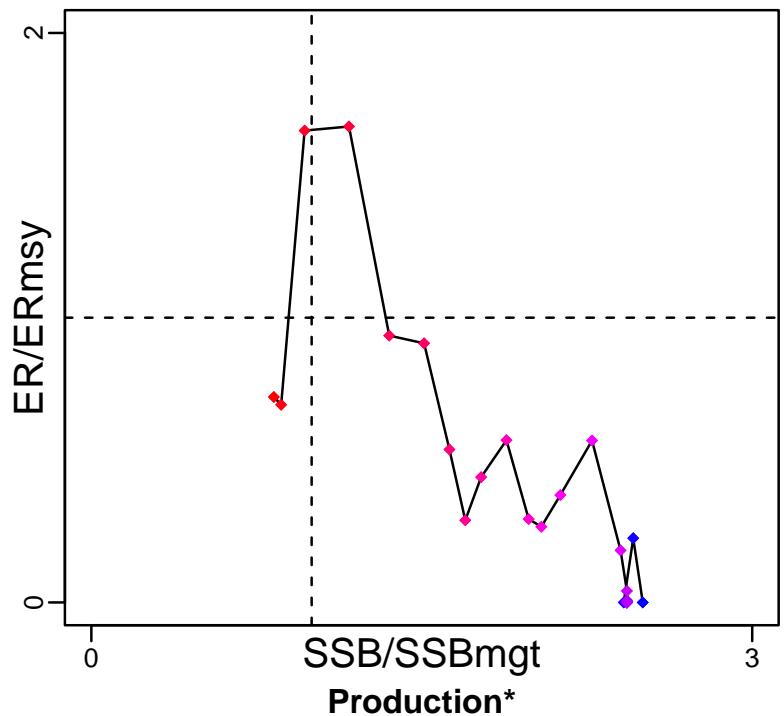
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	-	-	-	-	-	
SSB	SSB-MT	2008	5760	Both	25+	
TN	-	-	-	-	-	
R	R-E00	2008	2,620,000	-	1	
F	F-1/yr	2008	0.102	-	-	
ER	ER-ratio	2008	0.051	-	-	
TC	TC-MT	2008	670			
TL	-	-	-			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2008	0.829			
F/Fmsy	FdivFmsy-dimensionless	2008	1.42			
ER/ERmsy	ER-ratio/ERmsy-ratio	2008	0.721			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2008	0.829			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Smooth oreo Bounty Plateau [SMOOTHOREOBP]

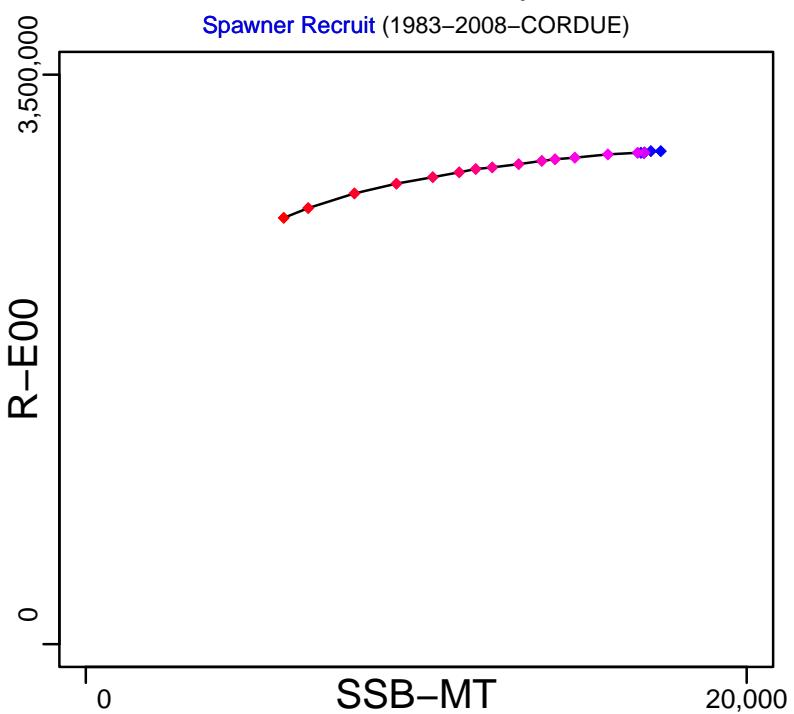
Kobe MSYpref (1983–2008–CORDUE)



Kobe MGTpref (1983–2008–CORDUE)



Spawner Recruit (1983–2008–CORDUE)



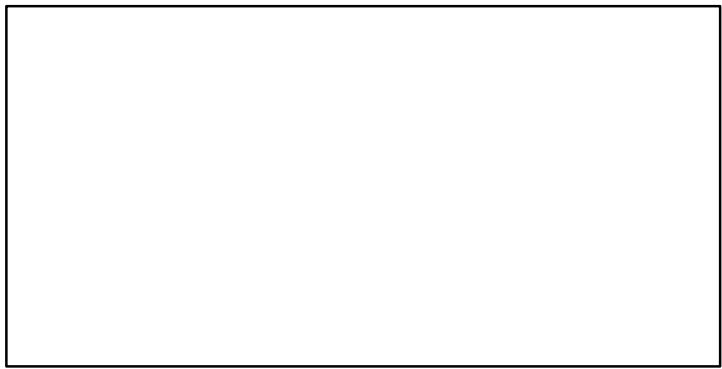
Production*



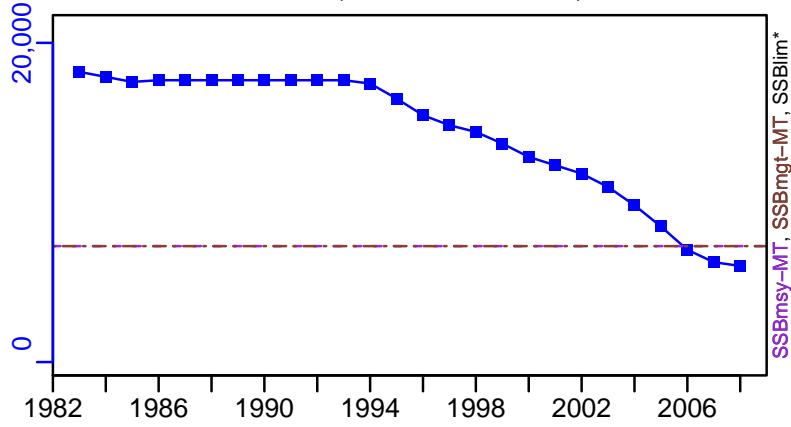
◆ Start Year ◆ End Year * No Data

Smooth oreo Bounty Plateau [SMOOTHOREOBP]

TB*



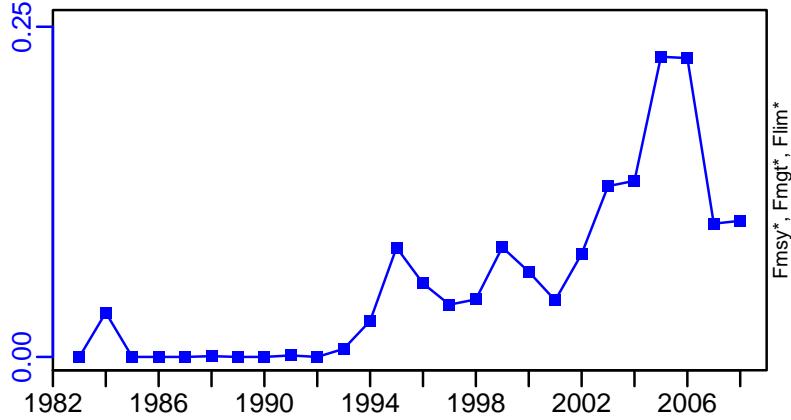
SSB-MT (1983–2008–CORDUE)



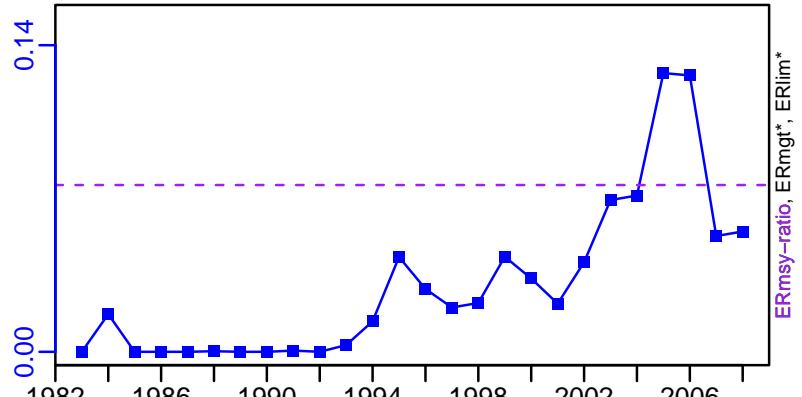
TN *



F-1/yr (1983–2008–CORDUE)

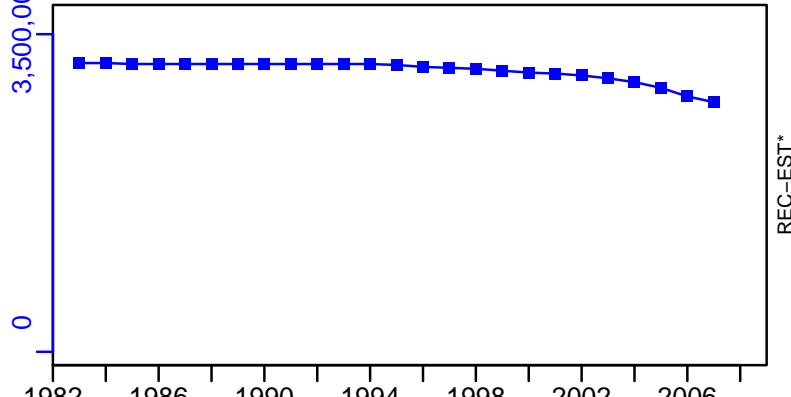


ER-ratio (1983–2008–CORDUE)



ER_{MSY}-ratio, ER_{Mgt}, ER_{lim}*

R-E00 (1983–2008–CORDUE)



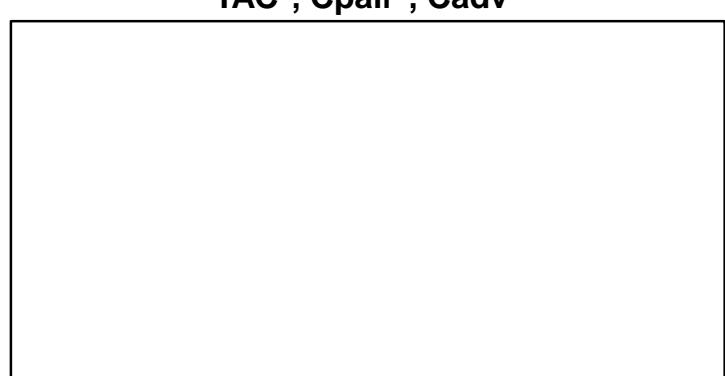
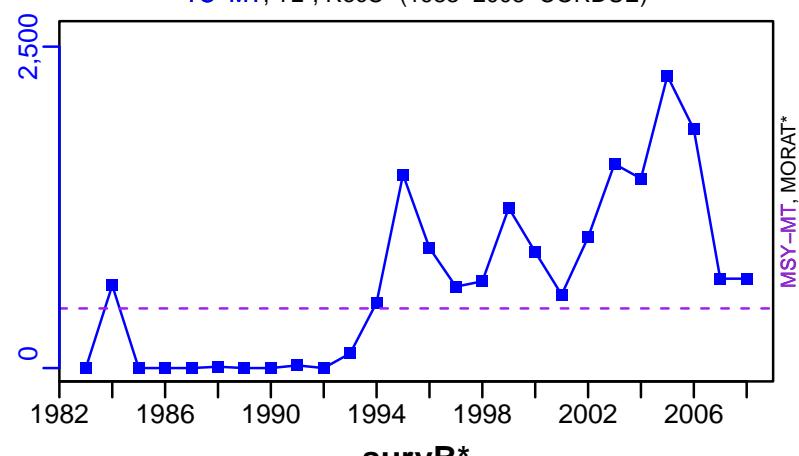
REC-EST*

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

Smooth oreo Bounty Plateau [SMOOTHOREOBP]

TC-MT, TL*, RecC* (1983–2008–CORDUE)

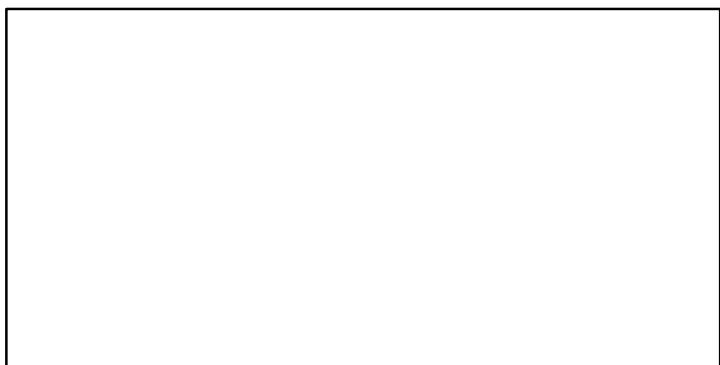
TAC*, Cpair*, Cadv*



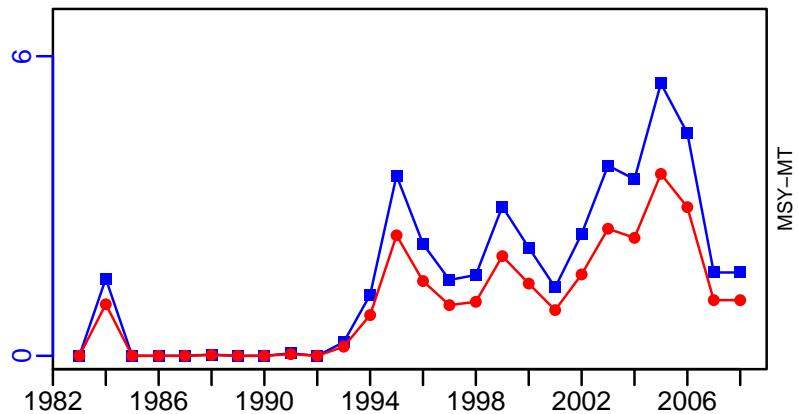
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1983–2008–CORDUE)



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

Smooth oreo Chatham Rise [SMOOTHOREOCR]

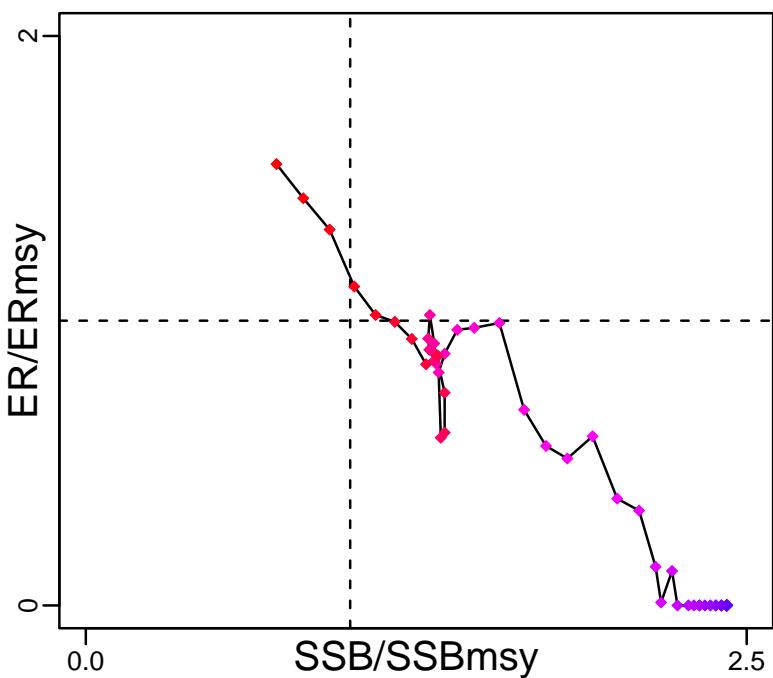
Metadata	
Scientific Name	Pseudocyttus maculatus
Current Assess ID	NIWA-SMOOTHOREOCR-1955-2013-FU
Area	Chatham Rise
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2013, 2010

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2013	15,768
SSBmsy	SSBmsy-MT	2013	48,252
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2013	0.19
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2013	48,252
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2013	120,629
MSY	MSY-MT	2013	2996
M	M-1/yr	2013	0.06
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

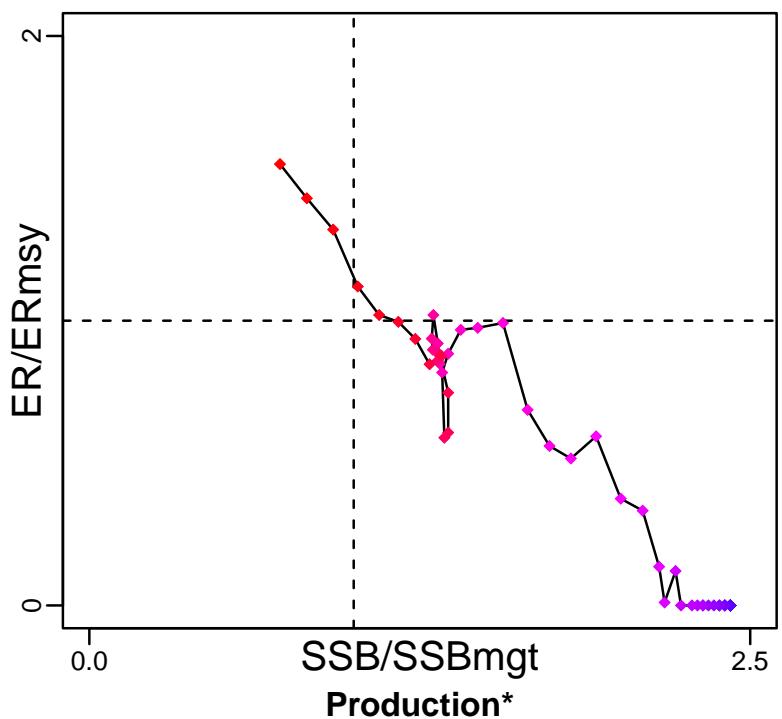
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	-	-	-	-	-	
SSB	SSB-MT	2013	34,800	-	1 to 70	
TN	-	-	-	-	-	
R	R-E00	2013	17,400,000	Both	1 to 70	
F	F-1/yr	2010	0.095	-	-	
ER	ER-ratio	2013	0.155	Both	1 to 70	
TC	TC-MT	2013	5960			
TL	-	-	-			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013	0.721			
F/Fmsy	FdivFmsy-dimensionless	2010	1.03			
ER/ERmsy	ERdivERmsy-dimensionless	2013	1.55			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2013	0.721			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Smooth oreo Chatham Rise [SMOOTHOREOCR]

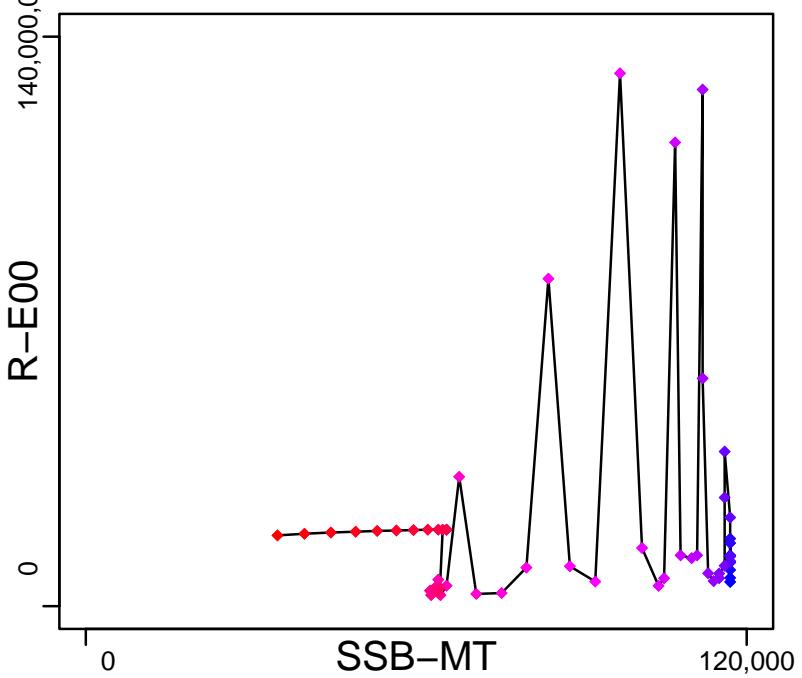
Kobe MSYpref (1955–2013–FU)



Kobe MGTpref (1955–2013–FU)



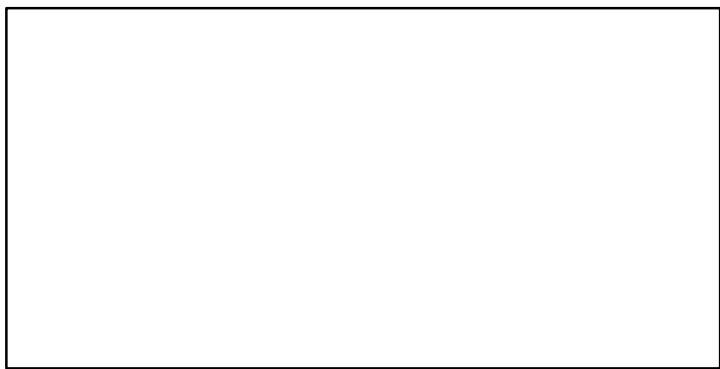
Spawner Recruit (1955–2013–FU)



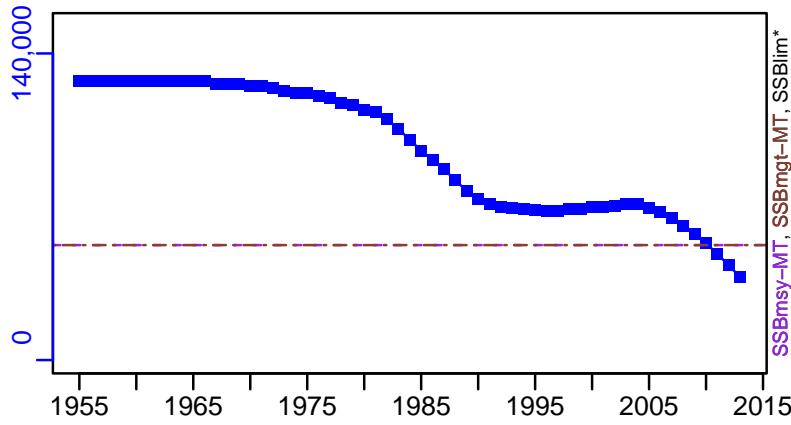
◆ Start Year ◆ End Year * No Data

Smooth oreo Chatham Rise [SMOOTHOREOCR]

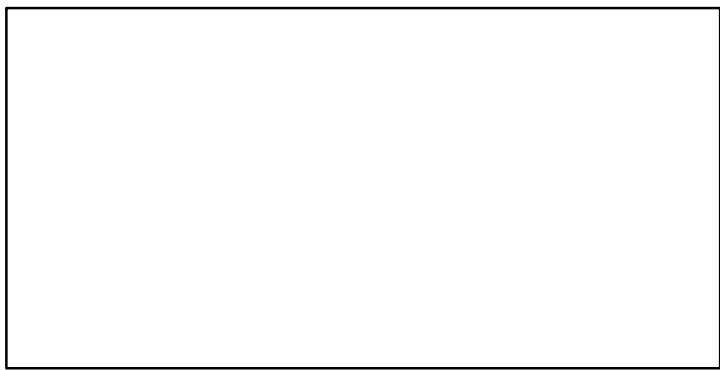
TB*



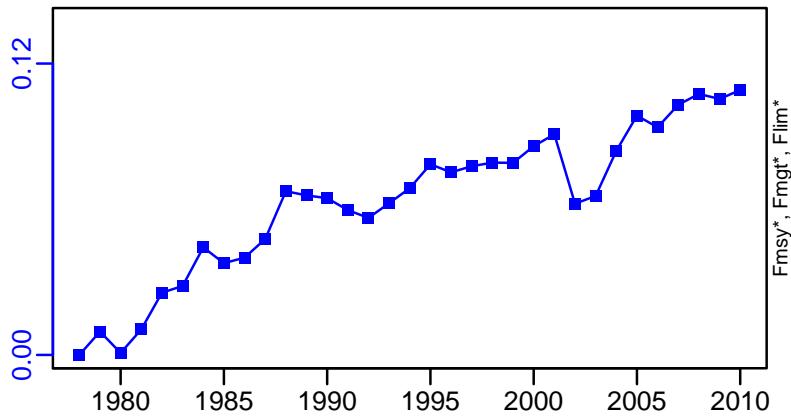
SSB-MT (1955–2013–FU)



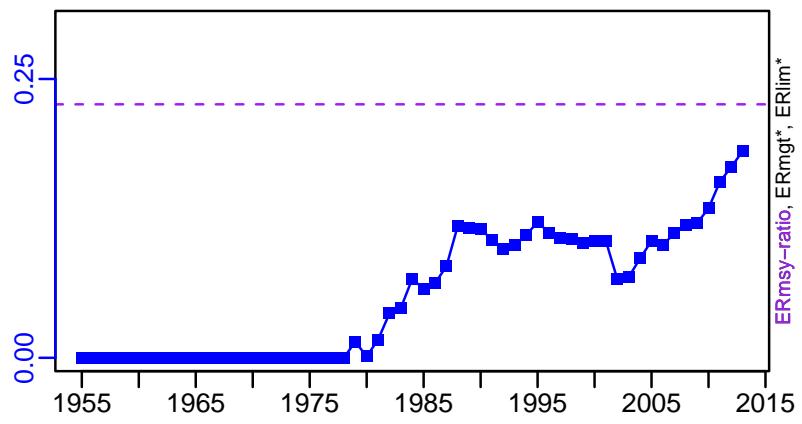
TN *



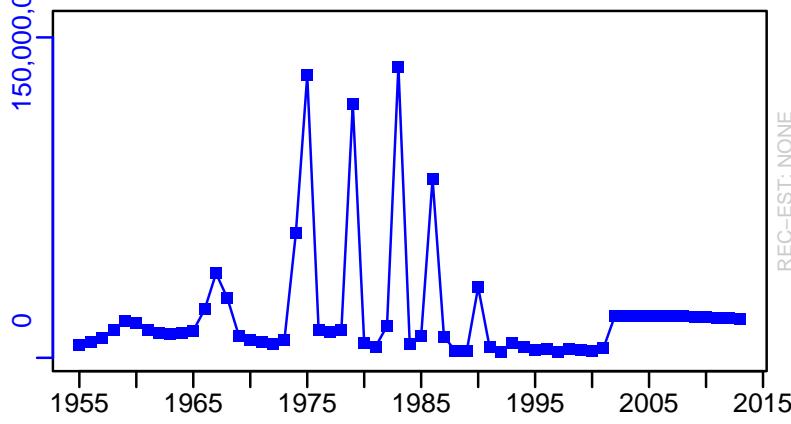
F-1/yr (1978–2010–CORDUE)



ER-ratio (1955–2013–FU)



R-E00 (1955–2013–FU)

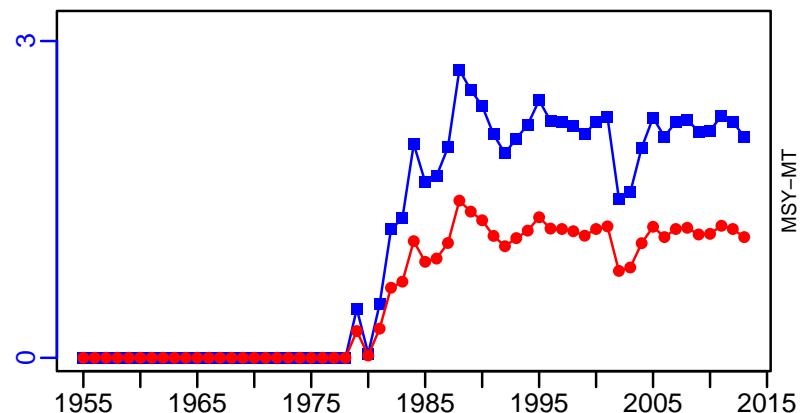
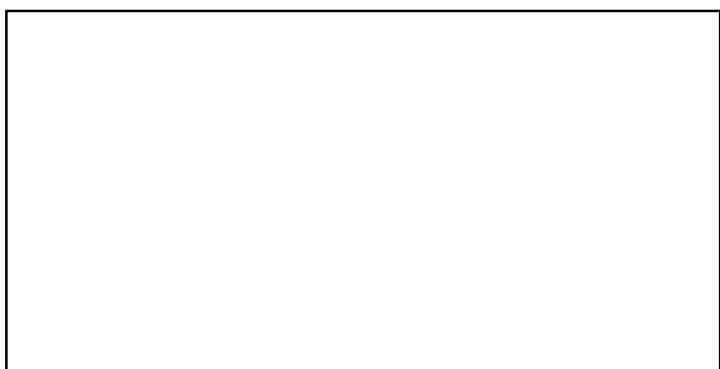
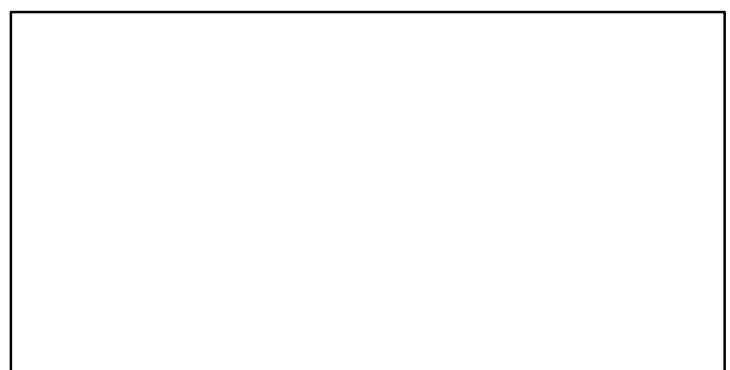
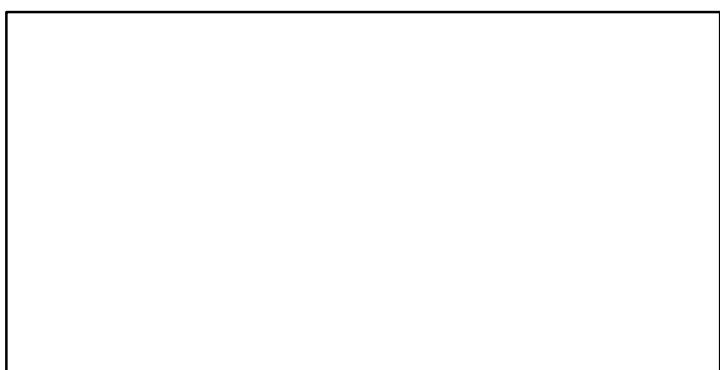
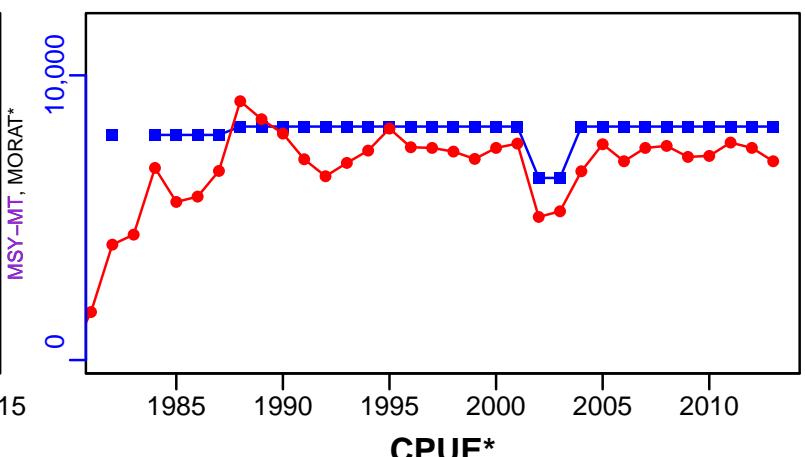
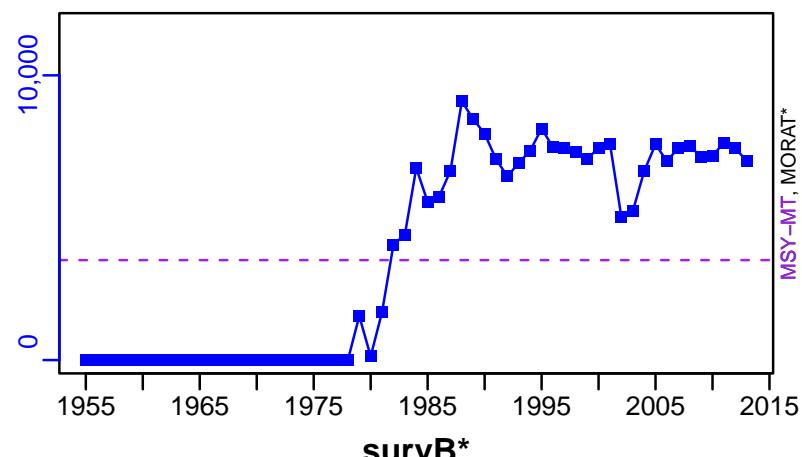


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	--- Lim BRP	* No Data

Smooth oreo Chatham Rise [SMOOTHOREOCR]

TC-MT, TL*, RecC* (1955–2013–FU)

TAC-MT, Cpair-MT, Cadv* (1955–2013–FU)



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

Smooth oreo East Pukaki Rise [SMOOTHOREOEPR]

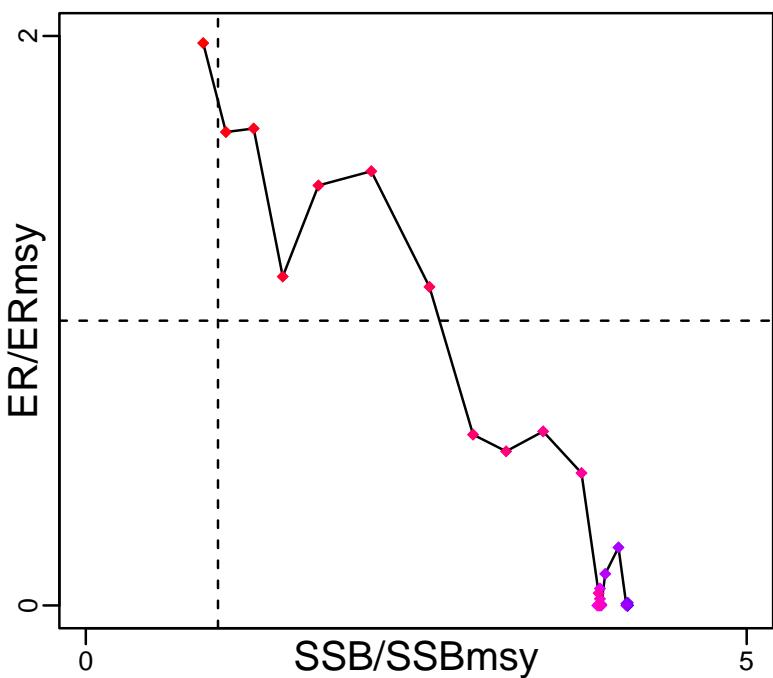
Metadata	
Scientific Name	Pseudocyttus maculatus
Current Assess ID	NIWA-SMOOTHOREOEPR-1973-2006-CORDUE
Area	East Pukaki Rise
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2006

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2006	5538
SSBmsy	SSBmsy-MT	2006	4239
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2006	0.08
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2006	17,372
MSY	MSY-MT	2006	443
M	M-1/yr	2006	0.06
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

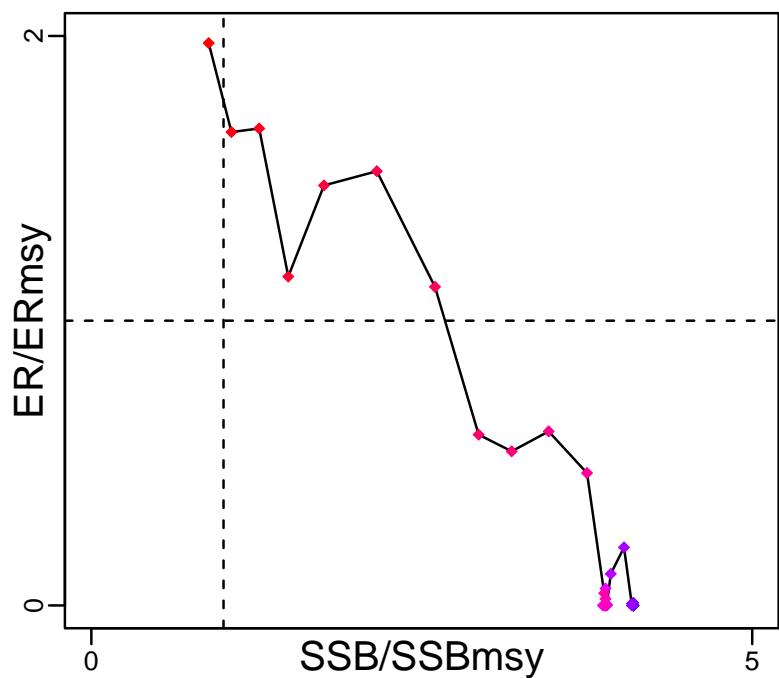
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	-	-	-	-	-	
SSB	SSB-MT	2006	3760	Both	-	
TN	-	-	-	-	-	
R	R-E00	2006	2,180,000	-	5	
F	F-1/yr	2006	0.268	-	-	
ER	ER-ratio	2006	0.158	-	-	
TC	TC-MT	2006	1370			
TL	-	-	-			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2006	0.888			
F/Fmsy	FdivFmsy-dimensionless	2006	3.35			
ER/ERmsy	ER-ratio/ERmsy-ratio	2006	1.975			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Smooth oreo East Pukaki Rise [SMOOTHOREOEPR]

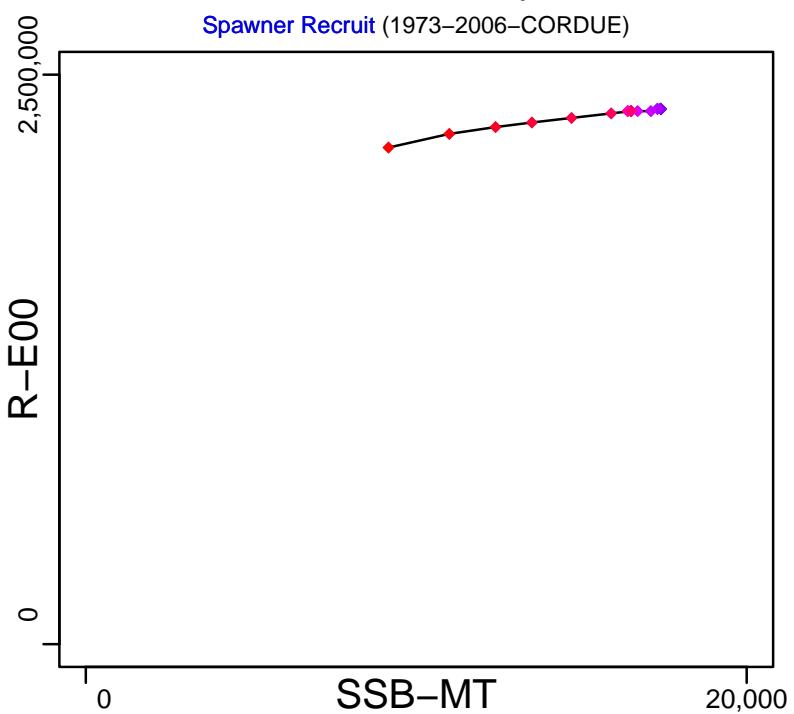
Kobe MSYpref (1973–2006–CORDUE)



Kobe MGTpref (1973–2006–CORDUE)



Spawner Recruit (1973–2006–CORDUE)



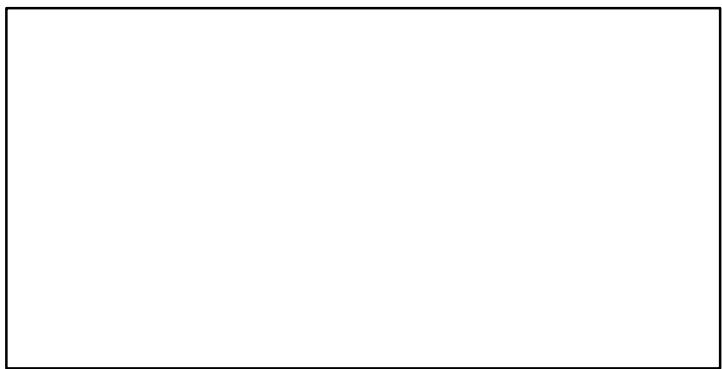
Production*



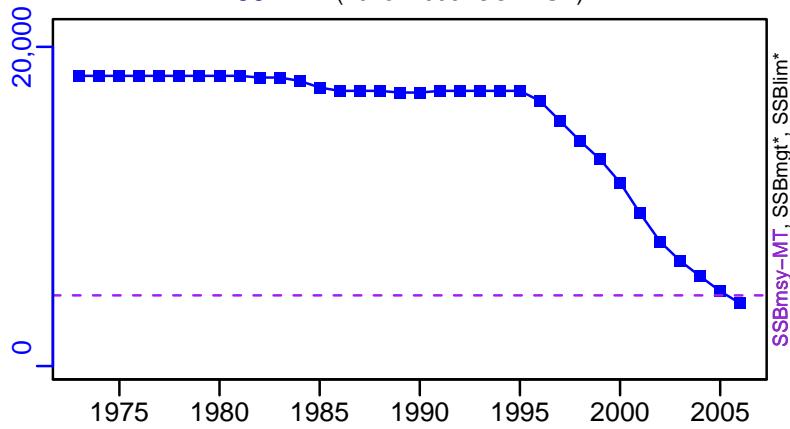
◆ Start Year ◆ End Year * No Data

Smooth oreo East Pukaki Rise [SMOOTHOREOEPR]

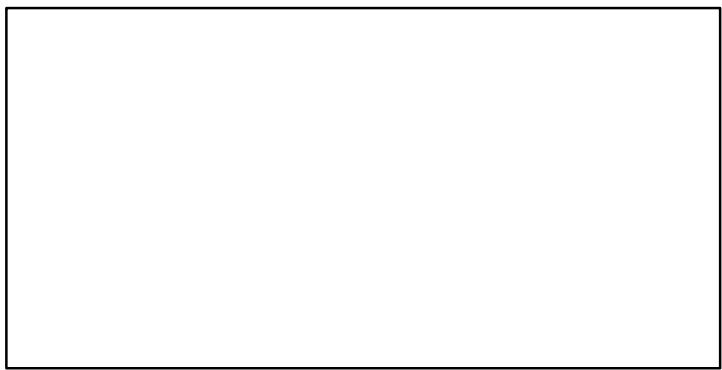
TB*



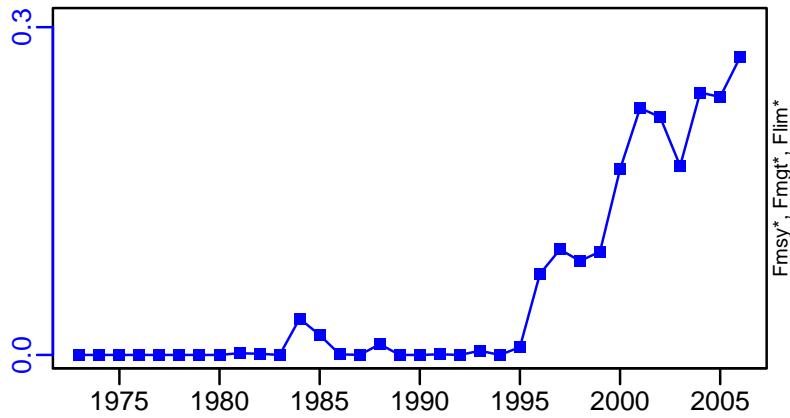
SSB-MT (1973–2006–CORDUE)



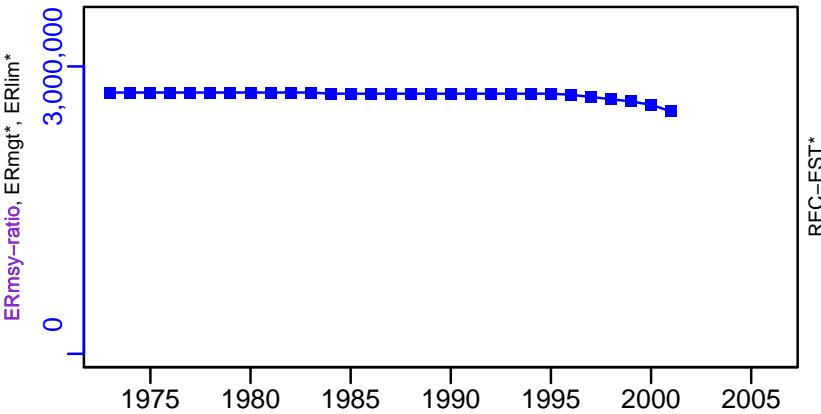
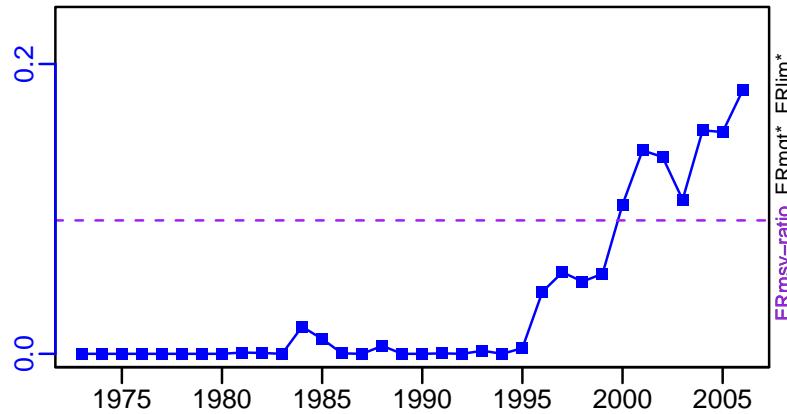
TN *



F-1/yr (1973–2006–CORDUE)



ER-ratio (1973–2006–CORDUE)

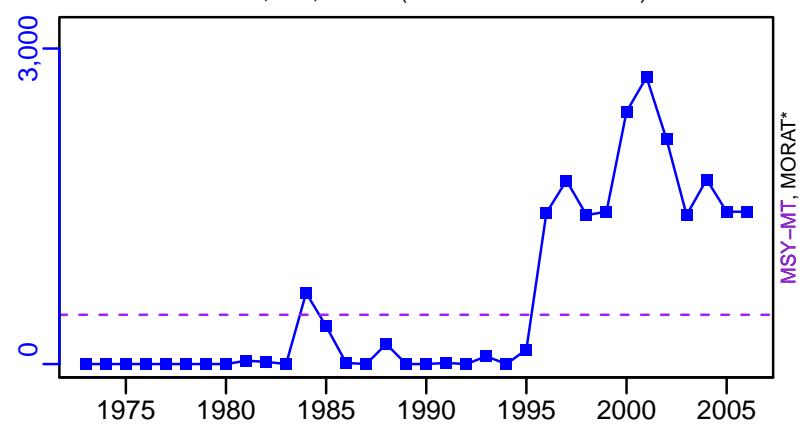


■ Listed time series	— Target BRP	— Rec-Est
- - MSY-based BRP	··· Lim BRP	* No Data

Smooth oreo East Pukaki Rise [SMOOTHOREOEPR]

TC-MT, TL*, RecC* (1973–2006–CORDUE)

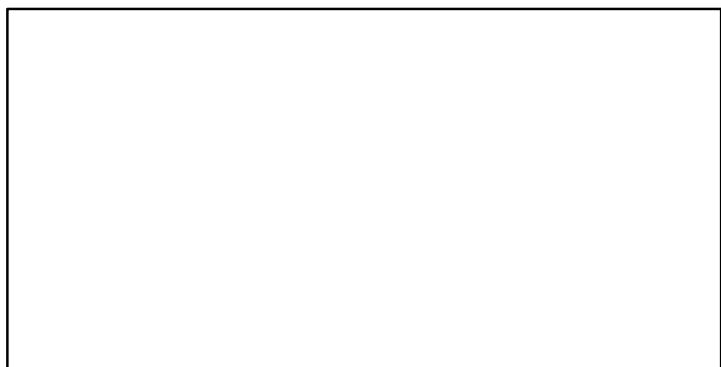
TAC*, Cpair*, Cadv*



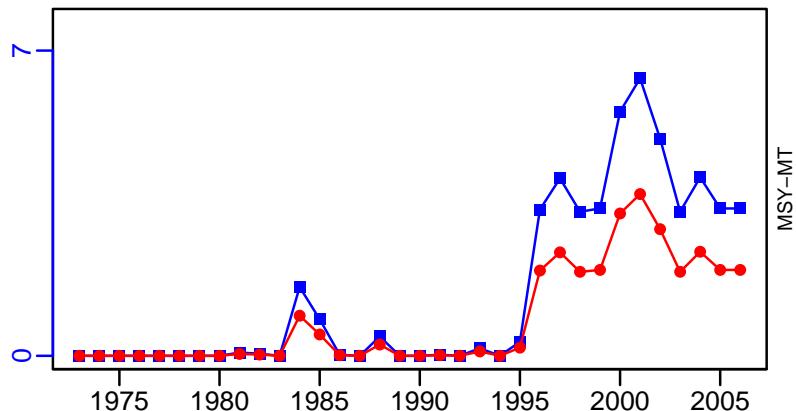
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1973–2006–CORDUE)



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

Smooth oreo Southland [SMOOTHOREOSLD]

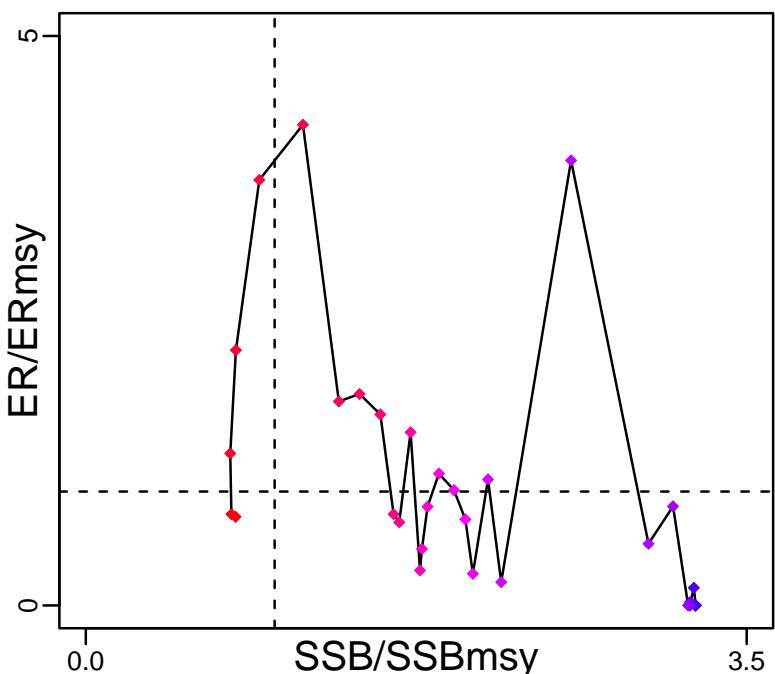
Metadata	
Scientific Name	Pseudocyttus maculatus
Current Assess ID	NIWA-SMOOTHOREOSLD-1973-2007-CORDUE
Area	Southland
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2007

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2007	11,999
SSBmsy	SSBmsy-MT	2007	5217
Fmsy	Fmsy-1/yr	2007	0.08
ERmsy	ERmsy-ratio	2007	0.035
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2007	16,829
MSY	MSY-MT	2007	421
M	M-1/yr	2007	0.06
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

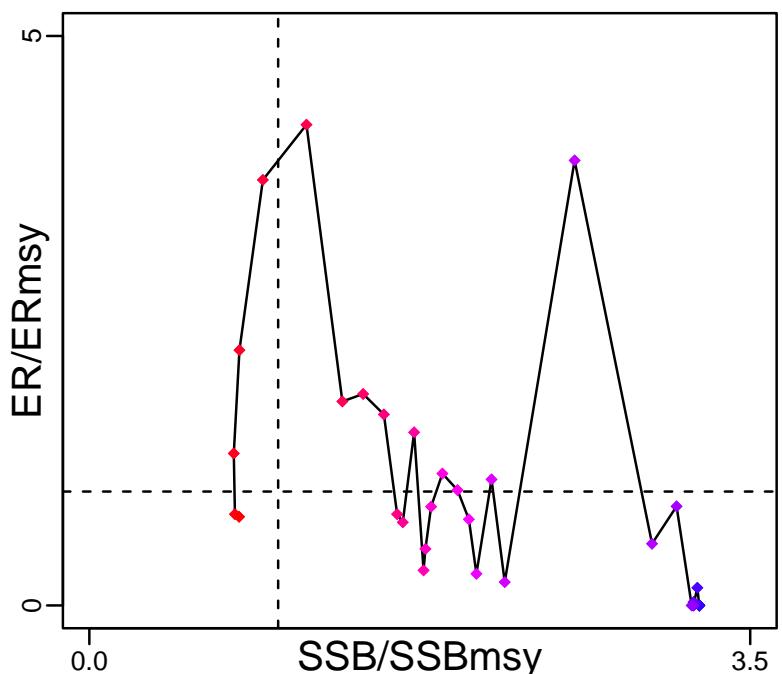
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	-	-	-	-	-	
SSB	SSB-MT	2007	4140	Both	25+	
TN	-	-	-	-	-	
R	R-E00	2007	1,980,000	-	5	
F	F-1/yr	2007	0.056	-	-	
ER	ER-ratio	2007	0.027	-	-	
TC	TC-MT	2007	260			
TL	-	-	-			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2007	0.793			
F/Fmsy	FdivFmsy-dimensionless	2007	0.718			
ER/ERmsy	ER-ratio/ERmsy-ratio	2007	0.779			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Smooth oreo Southland [SMOOTHOREOSLD]

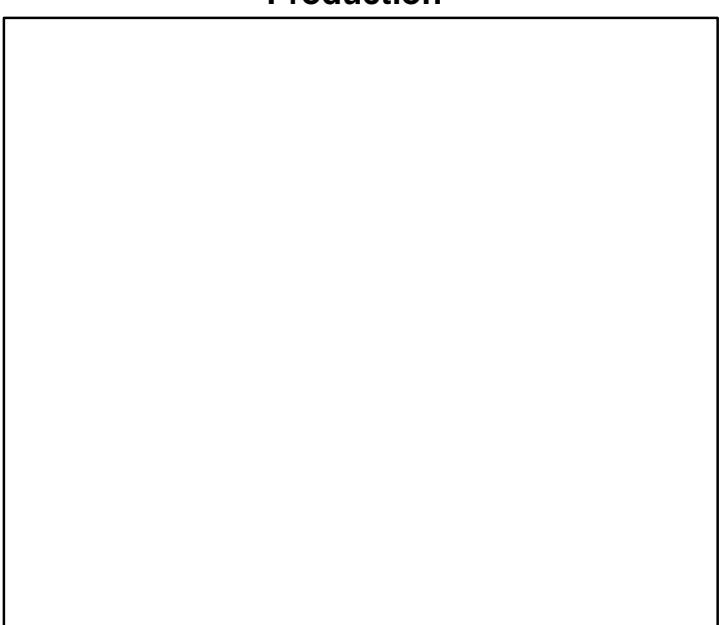
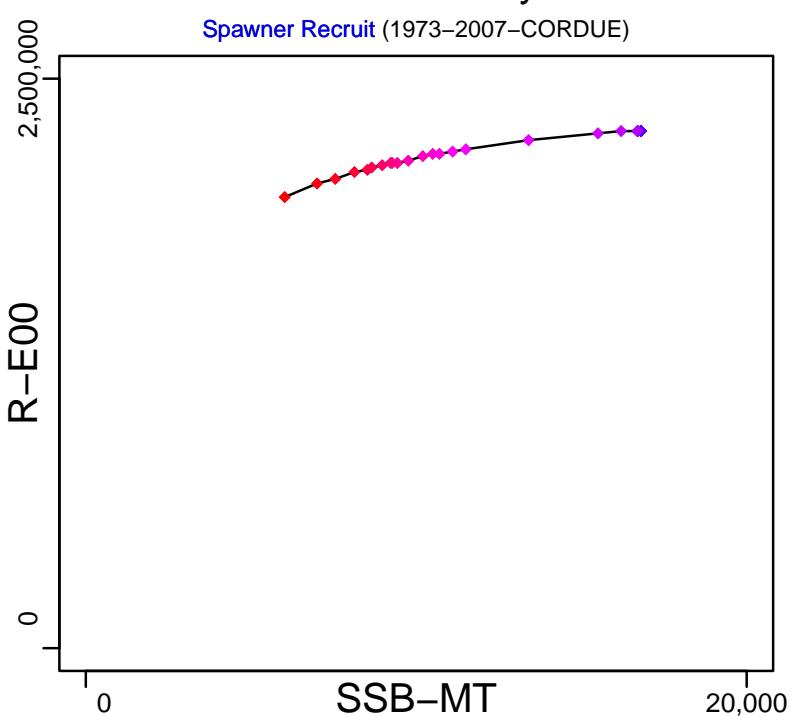
Kobe MSYpref (1973–2007–CORDUE)



Kobe MGTPref (1973–2007–CORDUE)



Spawner Recruit (1973–2007–CORDUE)



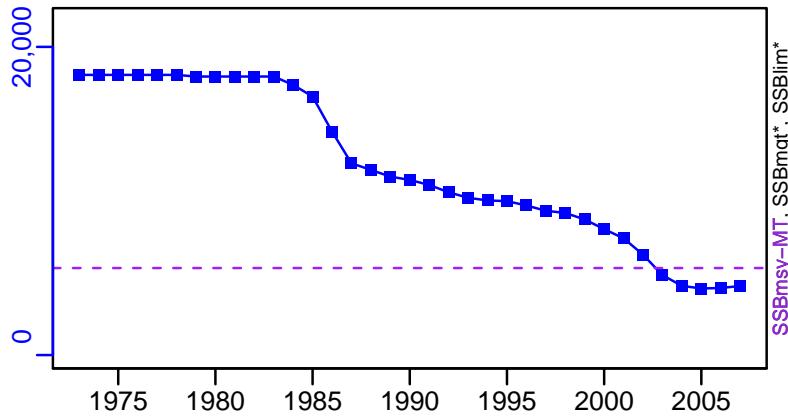
◆ Start Year ◆ End Year * No Data

Smooth oreo Southland [SMOOTHOREOSLD]

TB*



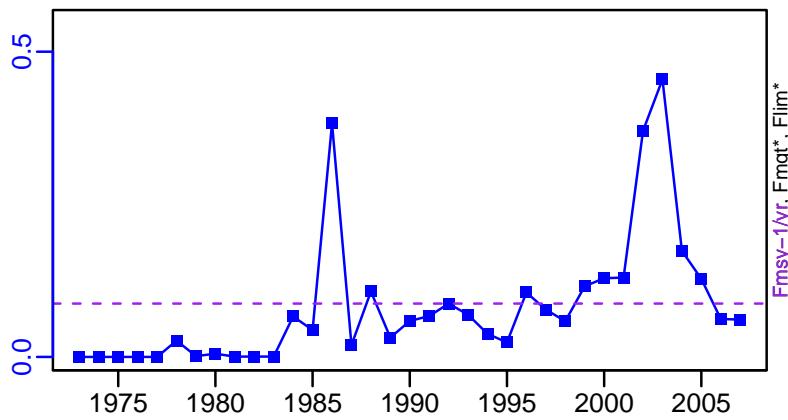
SSB-MT (1973–2007–CORDUE)



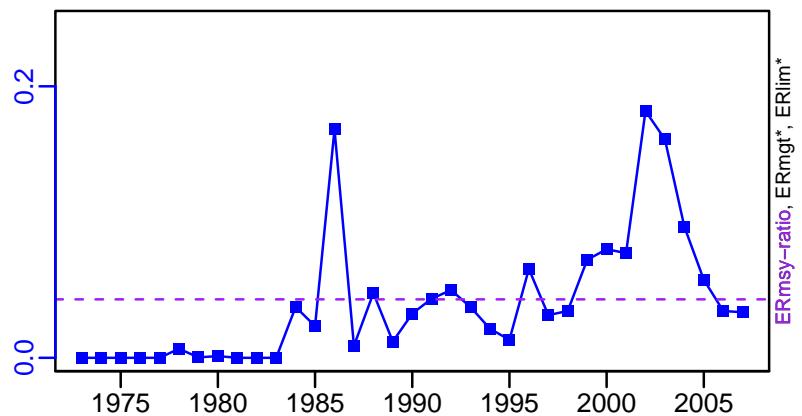
TN *



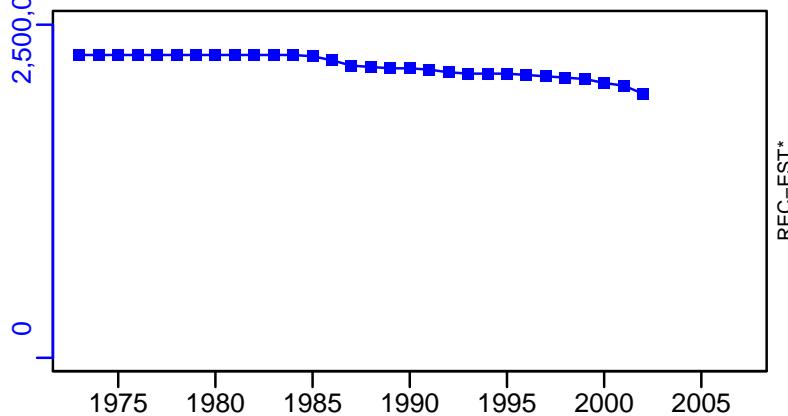
F-1/yr (1973–2007–CORDUE)



ER-ratio (1973–2007–CORDUE)



R-E00 (1973–2007–CORDUE)

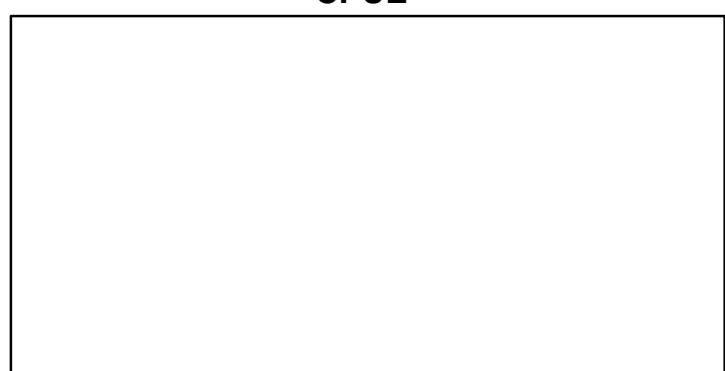
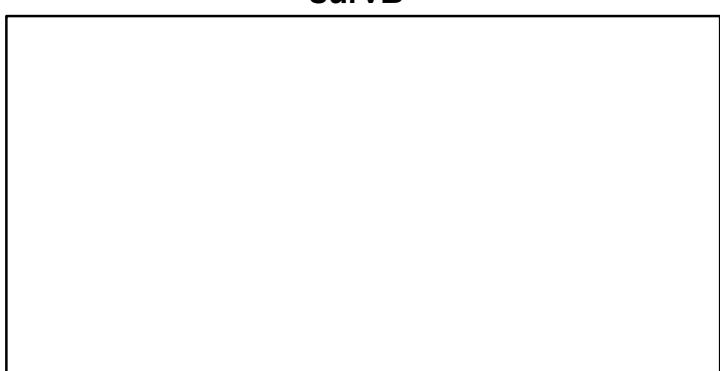
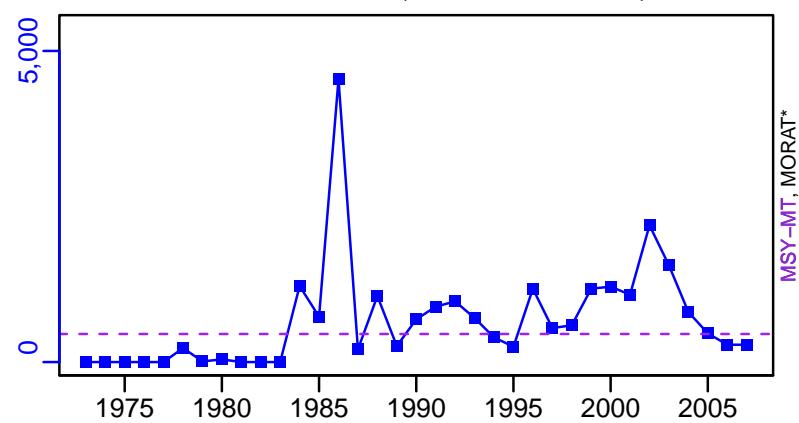


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	--- Lim BRP	* No Data

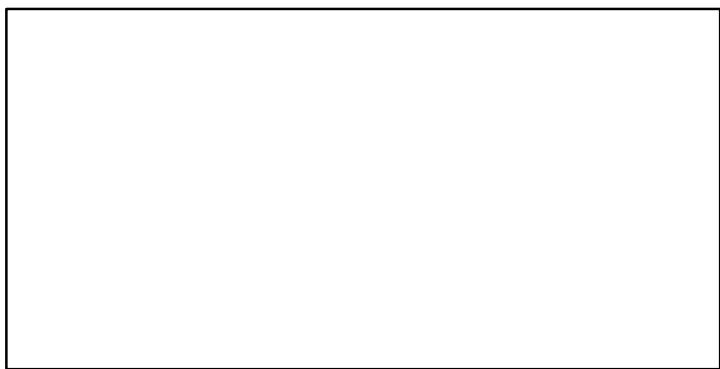
Smooth oreo Southland [SMOOTHOREOSLD]

TC-MT, TL*, RecC* (1973–2007–CORDUE)

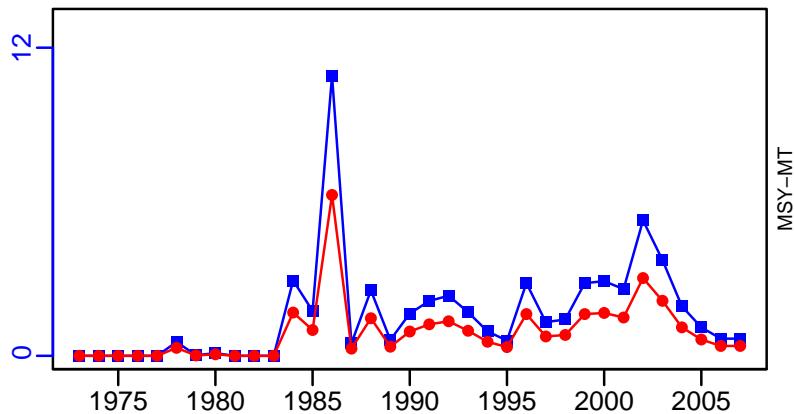
TAC*, Cpair*, Cadv*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1973–2007–CORDUE)



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

Smooth oreo West end of Chatham Rise [SMOOTHOREOWECR]

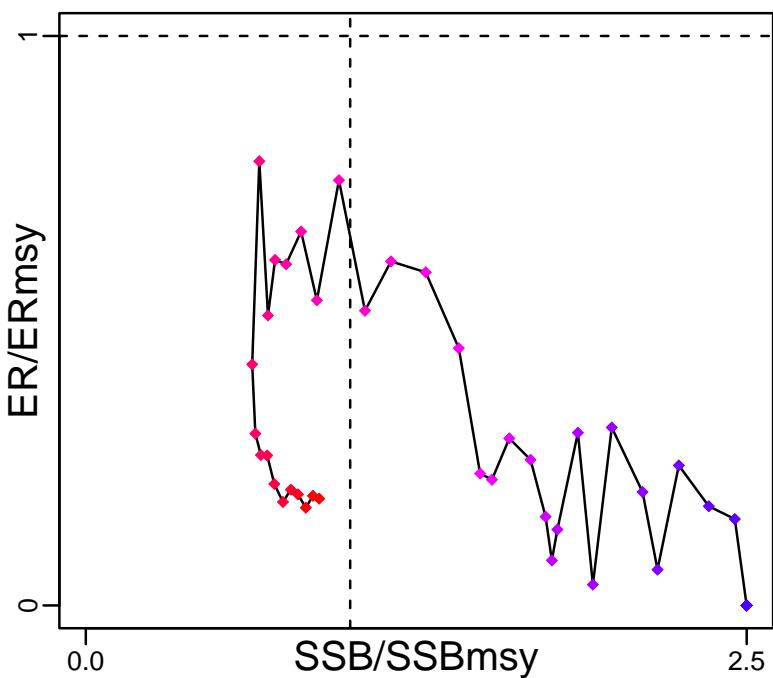
Metadata	
Scientific Name	Pseudocyttus maculatus
Current Assess ID	NIWA-SMOOTHOREOWECR-1965-2009-CORDUE
Area	West end of Chatham Rise
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2009

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2009	18,158
SSBmsy	SSBmsy-MT	2009	33,522
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2009	0.12
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2009	33,522
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2009	83,805
MSY	MSY-MT	2009	2179
M	M-1/yr	2009	0.06
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

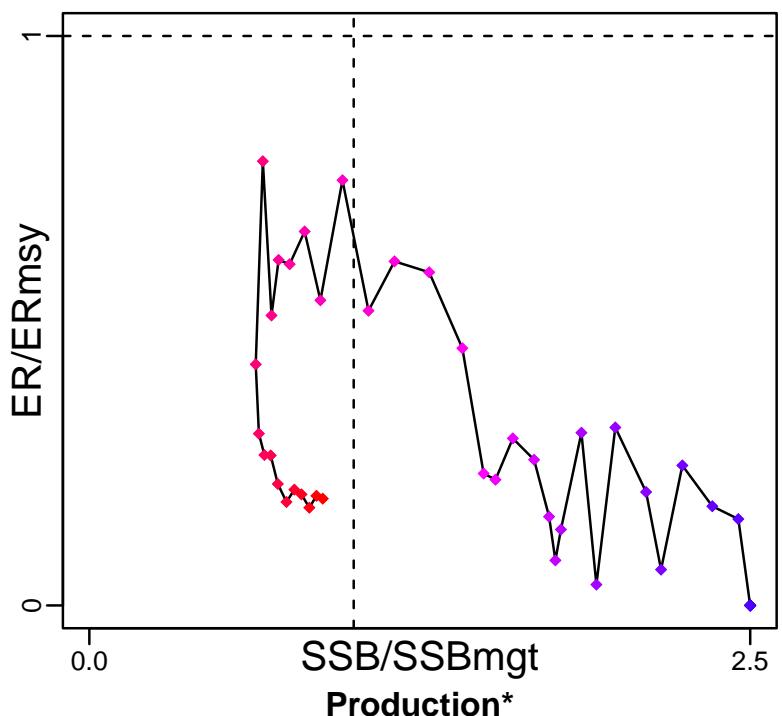
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	-	-	-	-	-	
SSB	SSB-MT	2009	29,600	Both	25+	
TN	-	-	-	-	-	
R	R-E00	2009	9,930,000	-	5	
F	F-1/yr	2009	0.059	-	-	
ER	ER-ratio	2009	0.022	-	-	
TC	TC-MT	2009	1530			
TL	-	-	-			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2009	0.883			
F/Fmsy	FdivFmsy-dimensionless	2009	0.494			
ER/ERmsy	ER-ratio/ERmsy-ratio	2009	0.188			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2009	0.883			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Smooth oreo West end of Chatham Rise [SMOOTHOREOWECR]

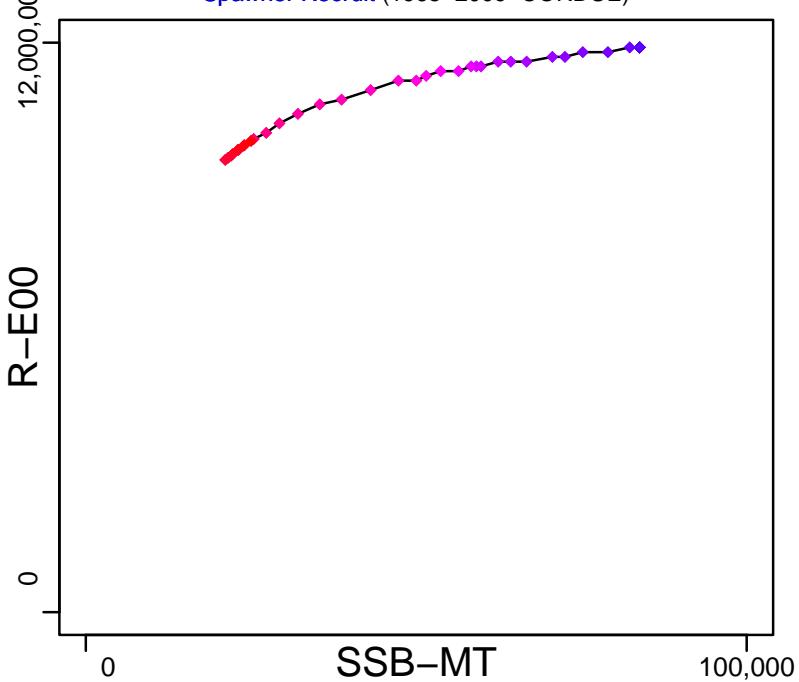
Kobe MSYpref (1965–2009–CORDUE)



Kobe MGTpref (1965–2009–CORDUE)



Spawner Recruit (1965–2009–CORDUE)



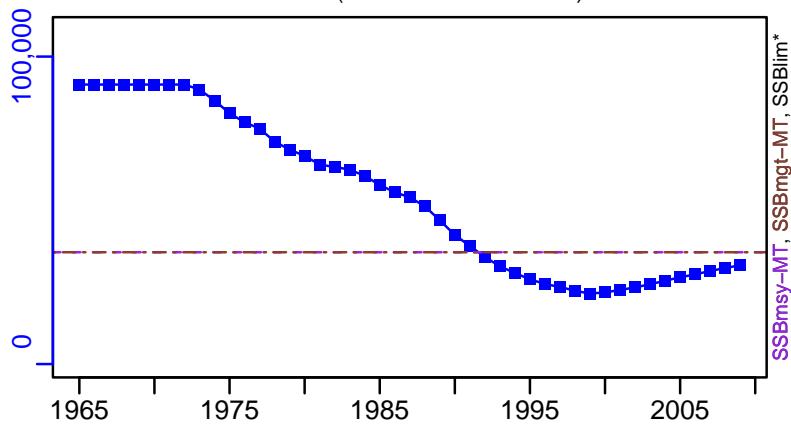
◆ Start Year ◆ End Year * No Data

Smooth oreo West end of Chatham Rise [SMOOTHOREOWECR]

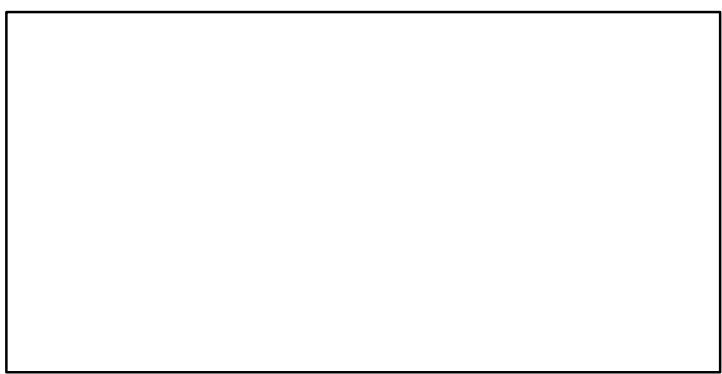
TB*



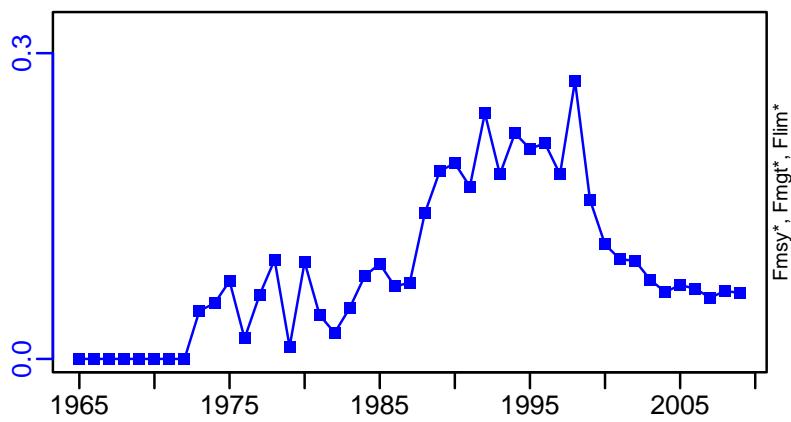
SSB-MT (1965–2009–CORDUE)



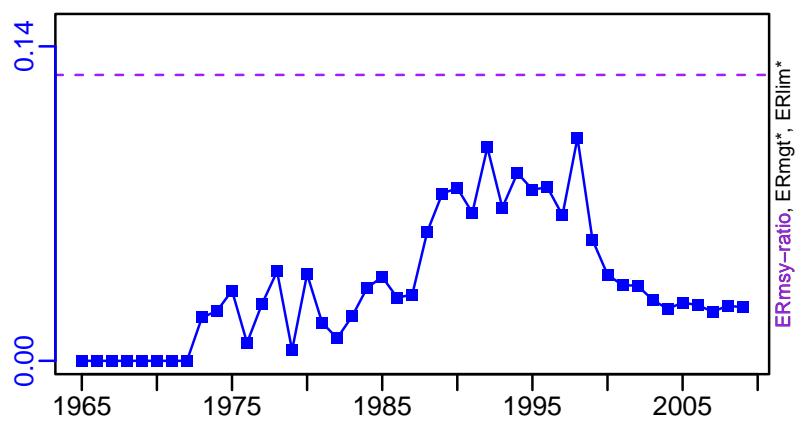
TN *



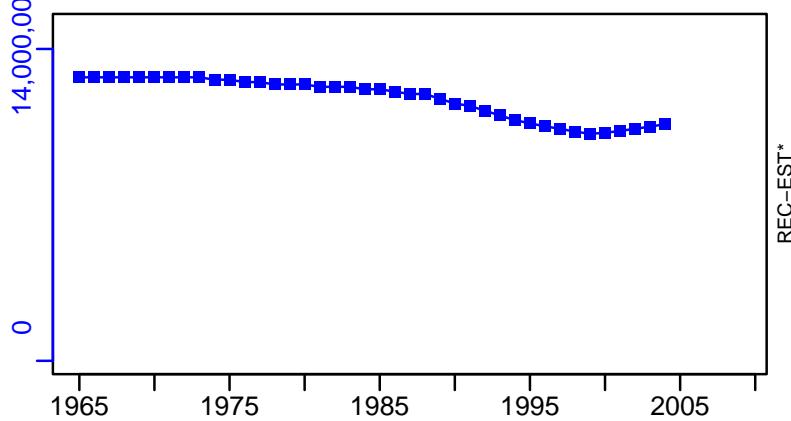
F-1/yr (1965–2009–CORDUE)



ER-ratio (1965–2009–CORDUE)



R-E00 (1965–2009–CORDUE)

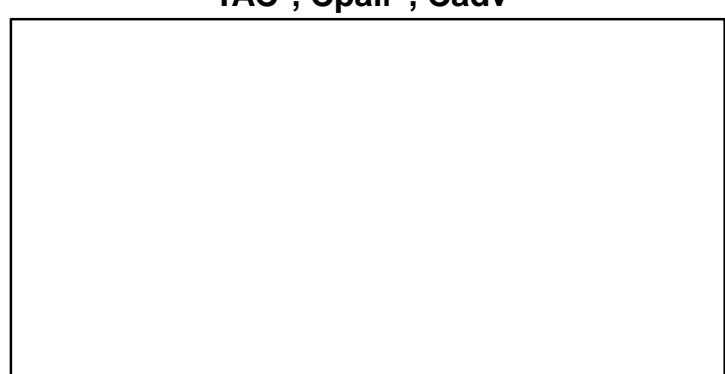
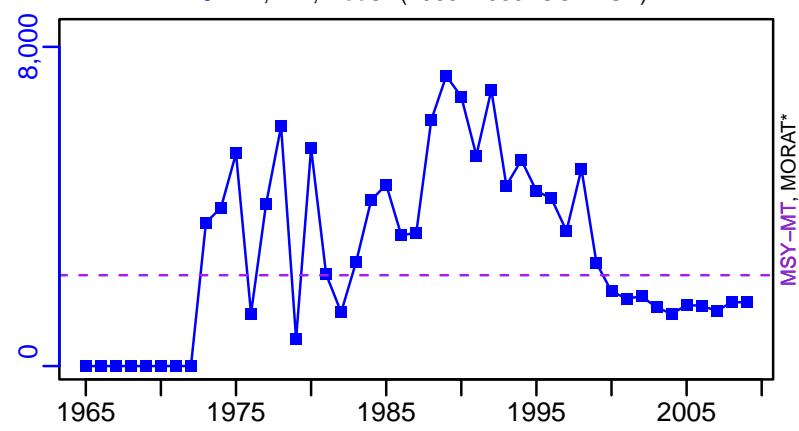


- | | | |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| - - - MSY-based BRP | --- Lim BRP | * No Data |

Smooth oreo West end of Chatham Rise [SMOOTHOREOWECR]

TC-MT, TL*, RecC* (1965–2009–CORDUE)

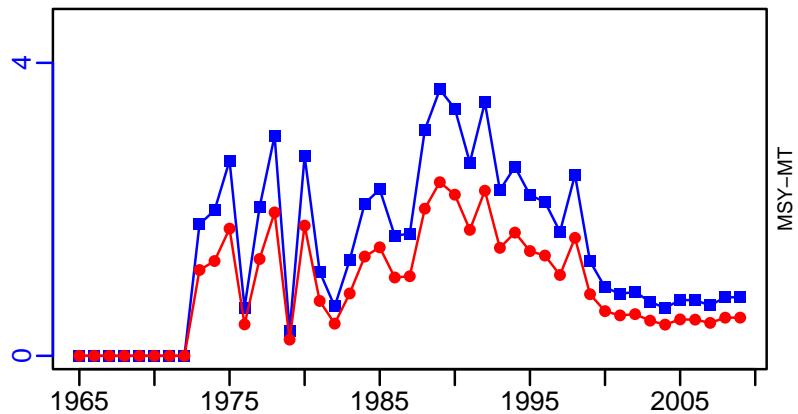
TAC*, Cpair*, Cadv*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1965–2009–CORDUE)



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

Sailfin sandfish Sea of Japan North [SSANDNSJ]

Metadata	
Scientific Name	Arctoscopus japonicus
Current Assess ID	FAFRFJ-SSANDNSJ-1952-2013-JPNIMP2016
Area	Sea of Japan North
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	M-1/yr	2013	0.5
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2013	2740		
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

Sailfin sandfish Sea of Japan North [SSANDNSJ]

TB*



SSB*



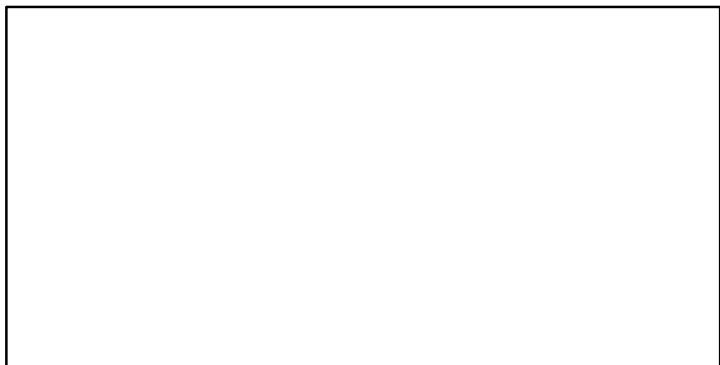
TN *



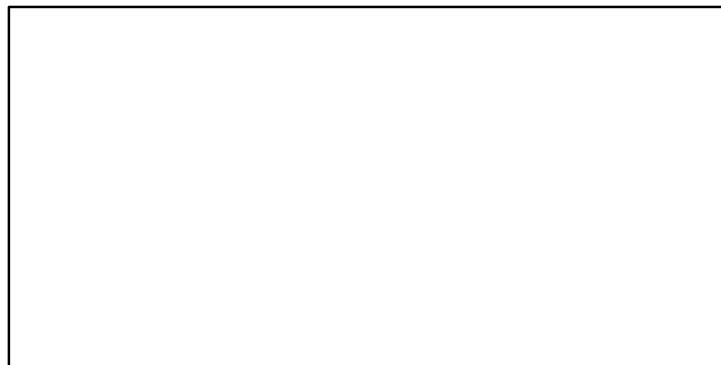
F*



ER*



Recruits*

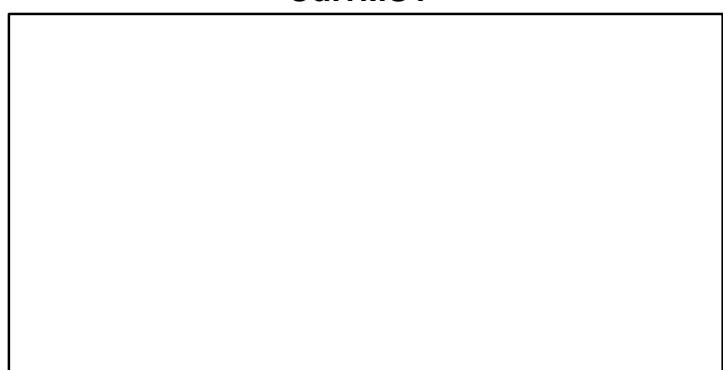
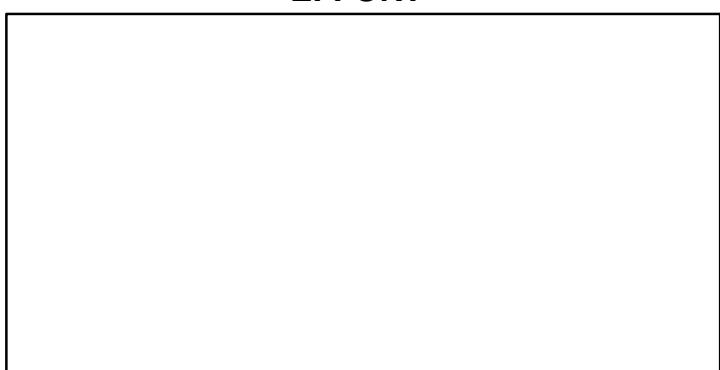
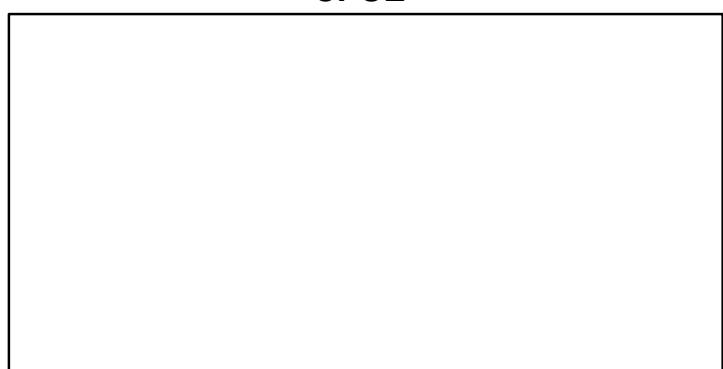
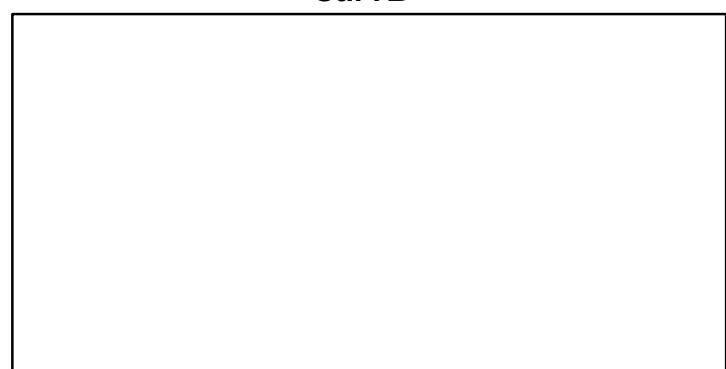
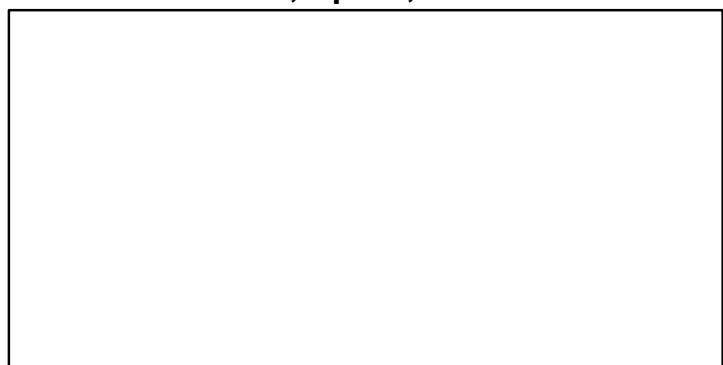
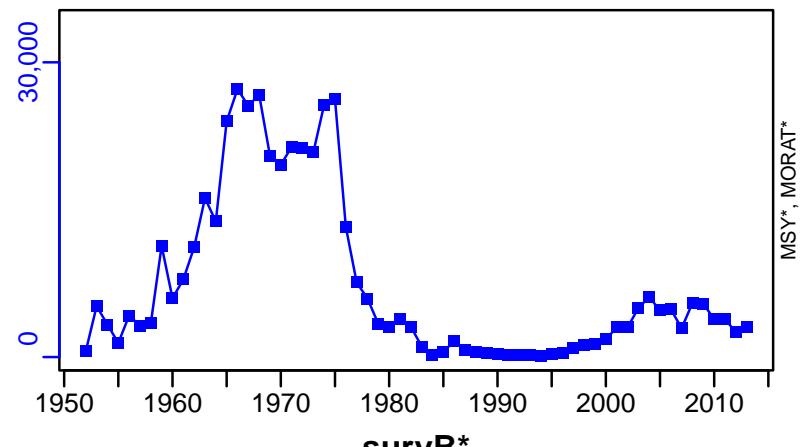


- | | | |
|----------------------|------------------|-----------|
| ■ Listed time series | - - - Target BRP | — Rec-Est |
| - - - MSY-based BRP | - - - Lim BRP | * No Data |

Sailfin sandfish Sea of Japan North [SSANDNSJ]

TC-MT, TL*, RecC* (1952–2013–JPNIMP2016)

TAC*, Cpair*, Cadv*



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

Sailfin sandfish Sea of Japan West [SSANDWSJ]

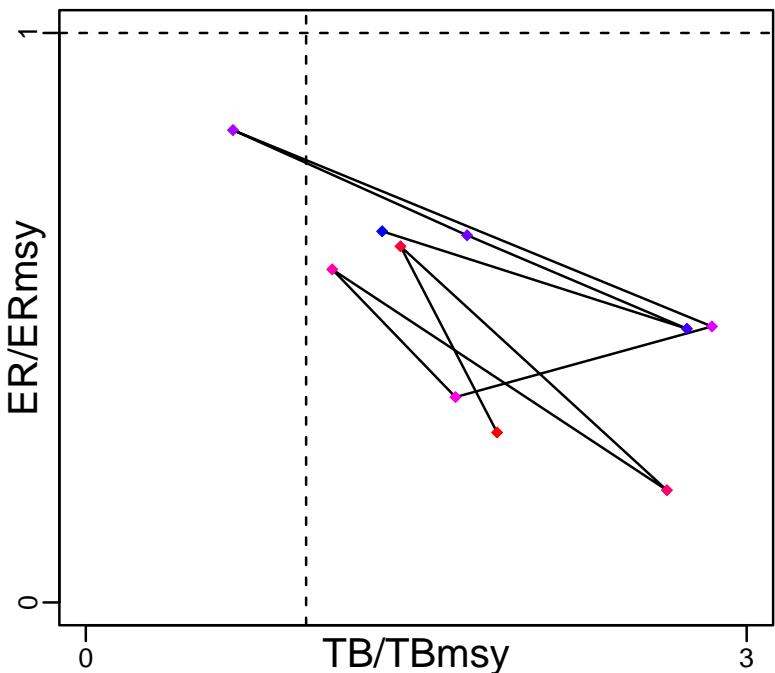
Metadata	
Scientific Name	Arctoscopus japonicus
Current Assess ID	FAFRFJ-SSANDWSJ-1970-2013-JPNIMP2016
Area	Sea of Japan West
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2013	13,230
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2013	0.506
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-calc-MT	2013	6694
M	M-1/yr	2013	0.5
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

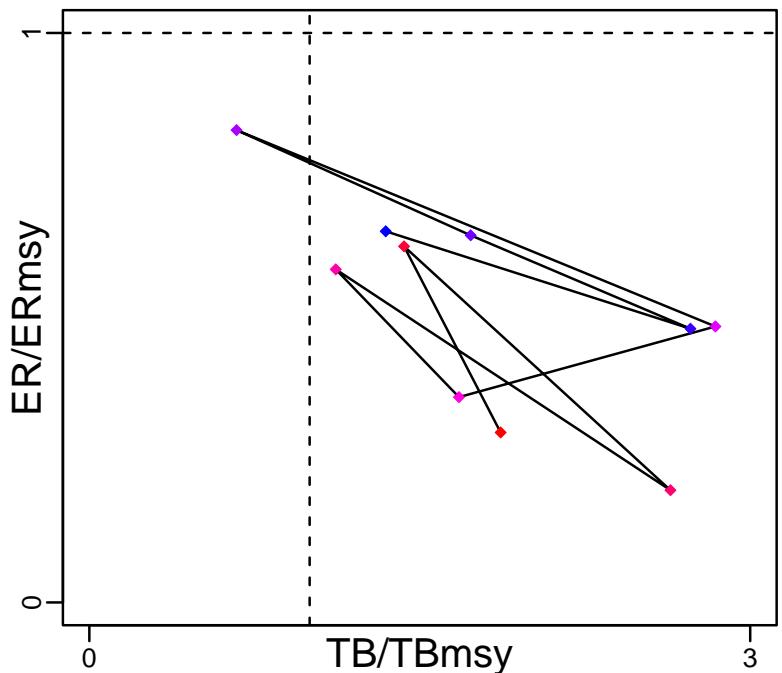
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2013	24,700	-	1	
SSB	SSB-MT	2013	7850	Both	2	
TN	-	-	-	-	-	
R	R-E00	2013	5.76×10^8	-	1	
F	-	-	-	-	-	
ER	ER-calc-ratio	2013	0.151	-	-	
TC	TC-MT	2013	3730			
TL	-	-	-			
TB/TBmsy	TB-MT/TBmsy-MT	2013	1.867			
SSB/SSBmsy	-	-	-			
F/Fmsy	-	-	-			
ER/ERmsy	ER-calc-ratio/ERmsy-ratio	2013	0.298			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Sailfin sandfish Sea of Japan West [SSANDWSJ]

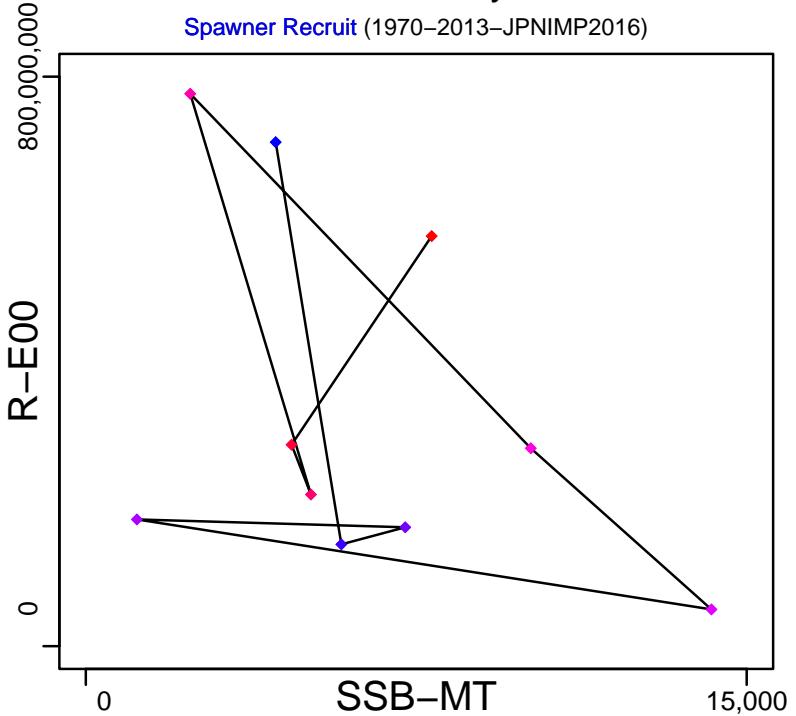
Kobe MSYpref (1970–2013–JPNIMP2016)



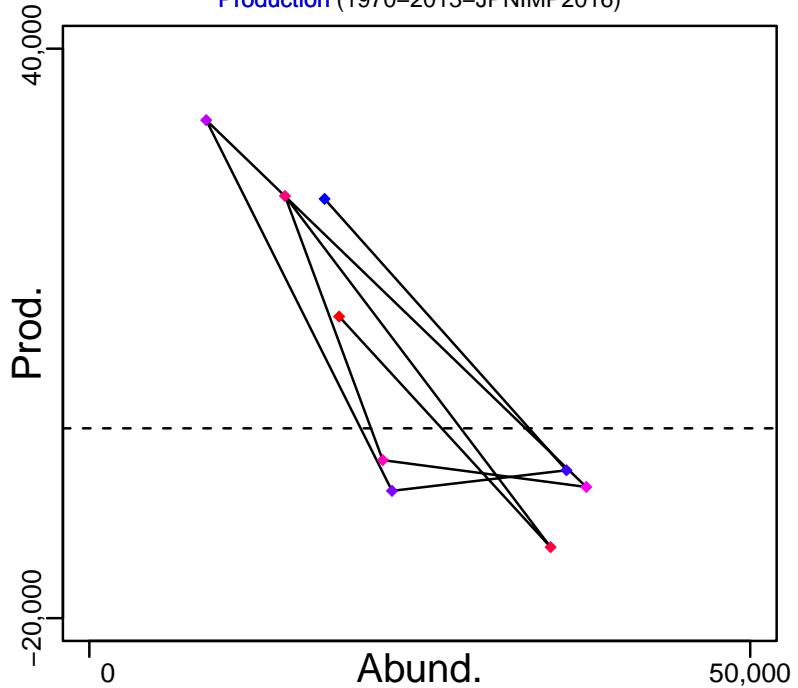
Kobe MGTpref (1970–2013–JPNIMP2016)



Spawner Recruit (1970–2013–JPNIMP2016)



Production (1970–2013–JPNIMP2016)

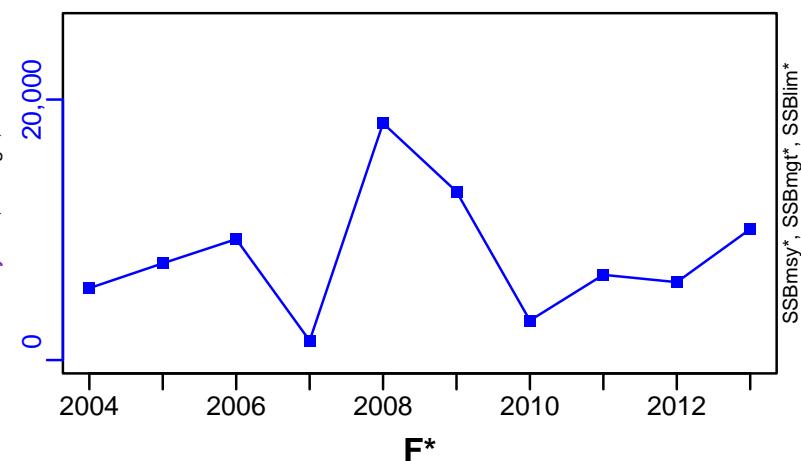
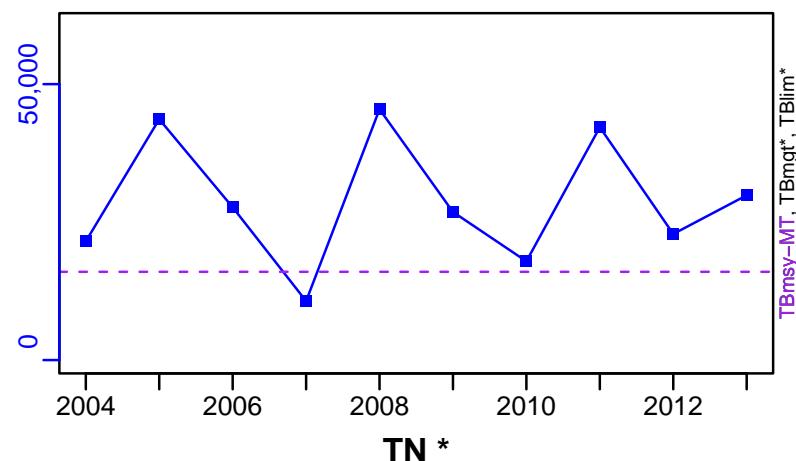


◆ Start Year ◆ End Year * No Data

Sailfin sandfish Sea of Japan West [SSANDWSJ]

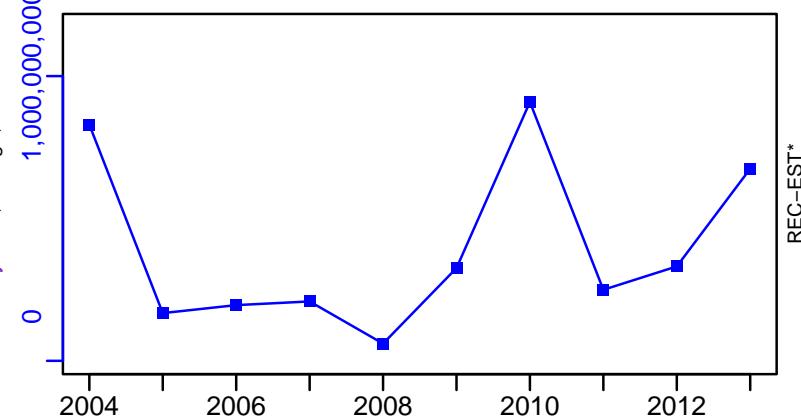
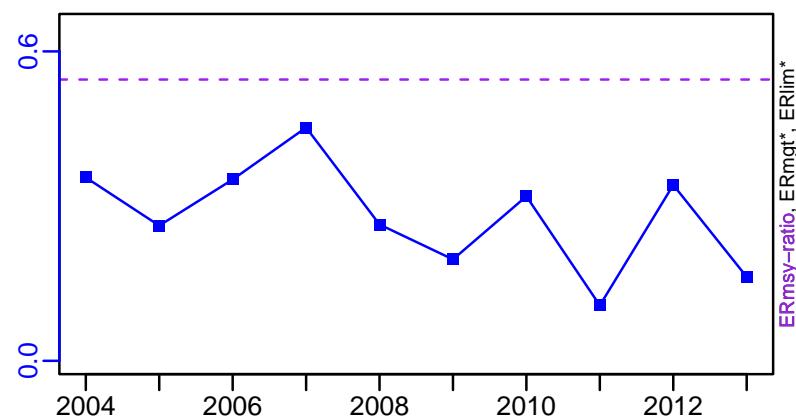
TB-MT (1970–2013–JPNIMP2016)

SSB-MT (1970–2013–JPNIMP2016)



ER-calc-ratio (1970–2013–JPNIMP2016)

R-E00 (1970–2013–JPNIMP2016)

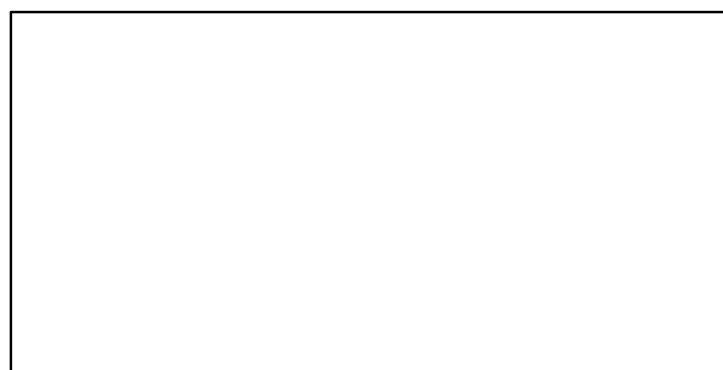
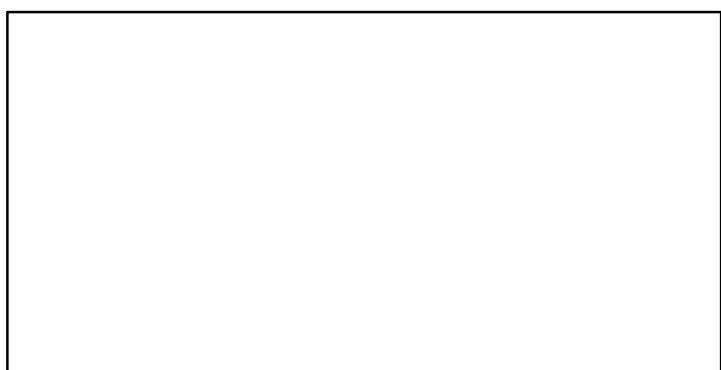
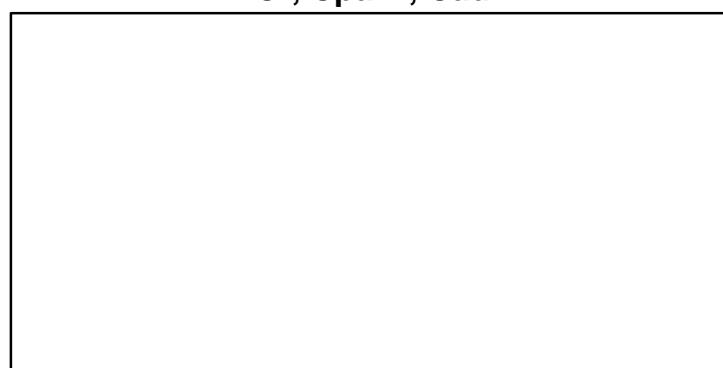
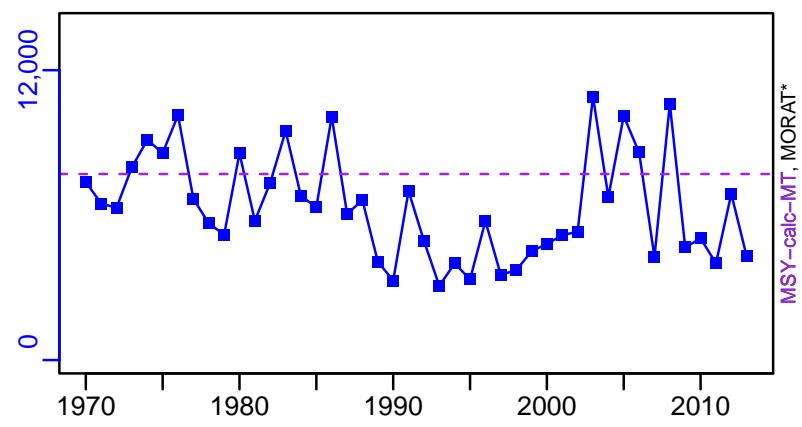


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	--- Lim BRP	* No Data

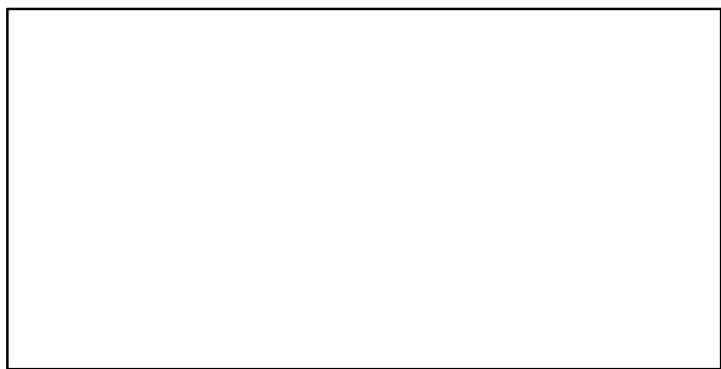
Sailfin sandfish Sea of Japan West [SSANDWSJ]

TC-MT, TL*, RecC* (1970–2013–JPNIMP2016)

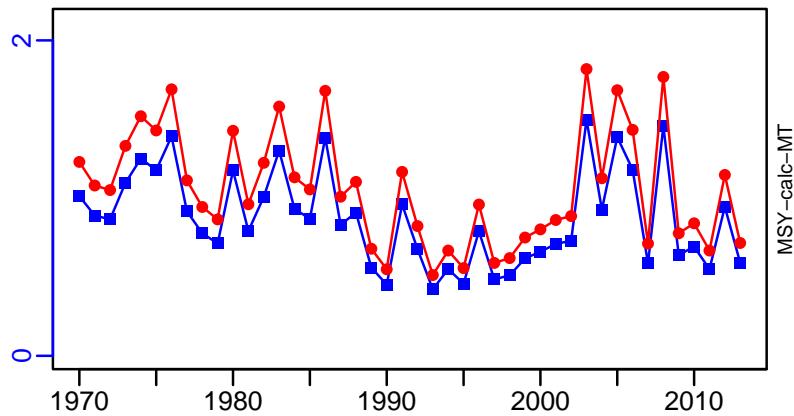
TAC*, Cpair*, Cadv*



EFFORT*



TC-MT/MSY-calc-MT, CdivMEANC-ratio, (1970–2013–JPNIMP2016)



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

White anglerfish Geographical Sub-Areas 1-7 [WANGLGSA1-7]

Metadata	
Scientific Name	Lophius piscatorius
Current Assess ID	STECF-WANGLGSA1-7-2013-2015-OSIO
Area	Geographical Sub-Areas 1-7
Management Authority	General Fisheries Council for the Mediterranean, DG MARE, and national states
Assessor	Scientific, Technical and Economic Committee for Fisheries
Asmts in RAM	2015

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	Fmgt-1/yr	2015	0.22
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

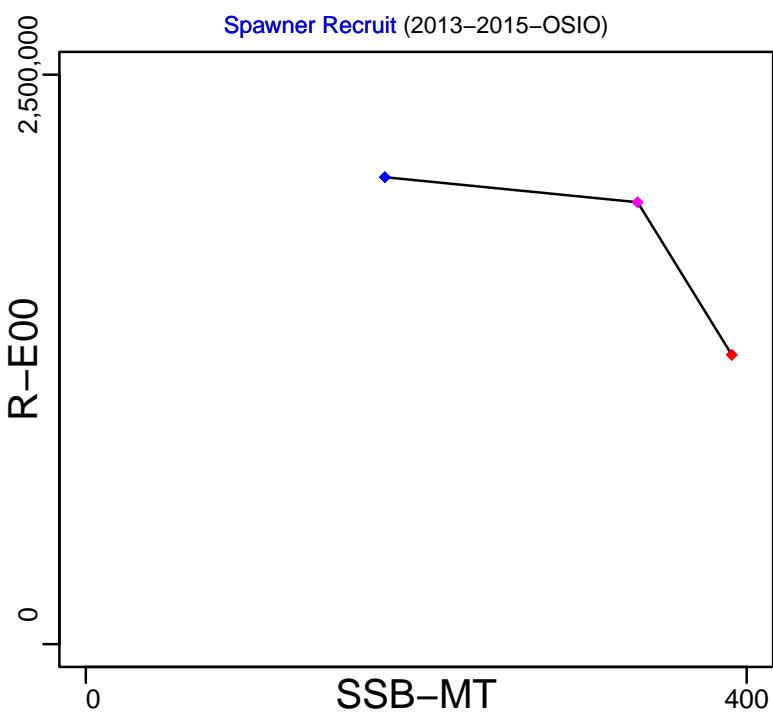
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2015	391	-	-
TN	-	-	-	-	-
R	R-E00	2015	1,270,000	-	-
F	F-1/yr	2015	0.45	-	-
ER	-	-	-	-	-
TC	-	-	-		
TL	TL-MT	2015	3520		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	F-1/yr/Fmgt-1/yr	2015	2.045		
ER/ERmgt	-	-	-		

Kobe MSY*

Kobe MGT*

Spawner Recruit (2013–2015–OSIO)

Production*



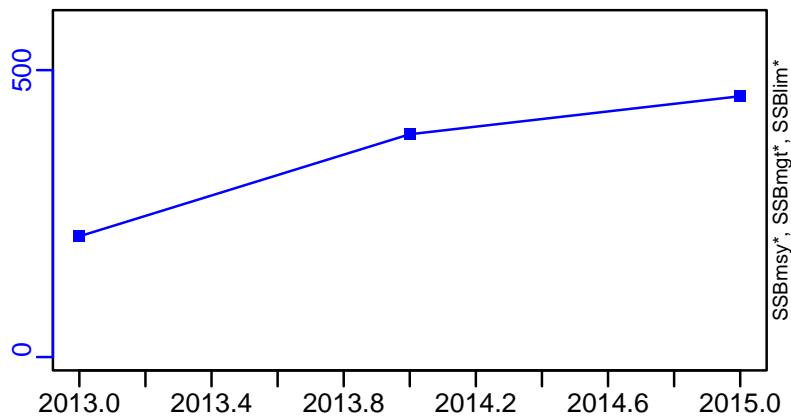
◆ Start Year ◆ End Year * No Data

White anglerfish Geographical Sub-Areas 1–7 [WANGLGSA1–7]

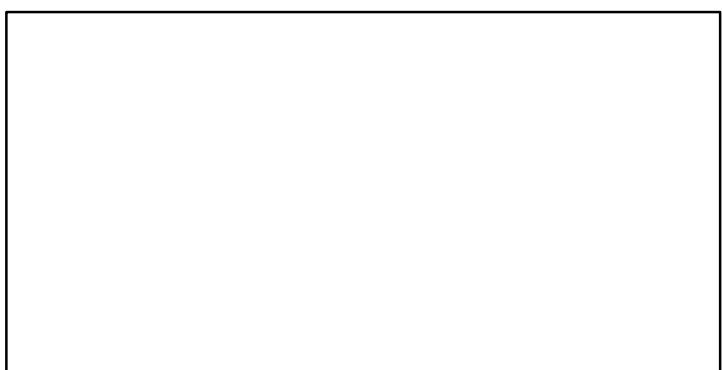
TB*



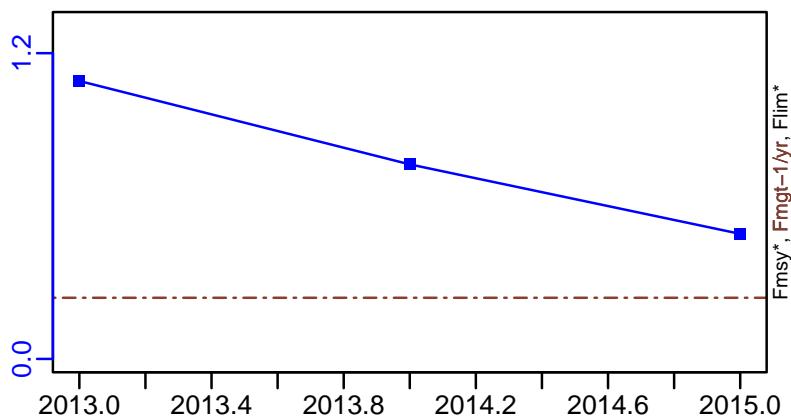
SSB-MT (2013–2015–OSIO)



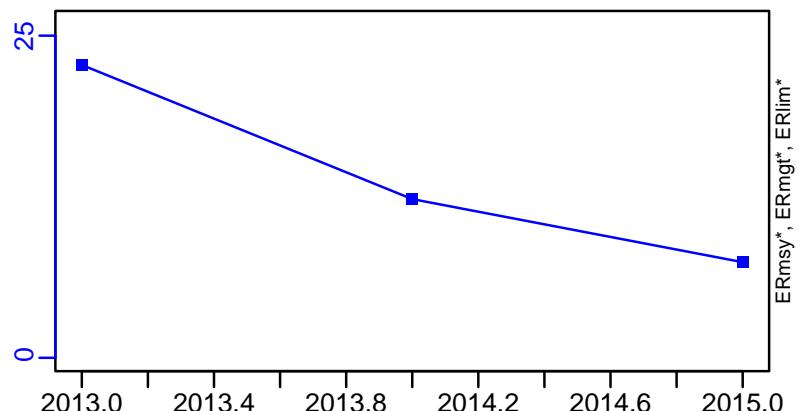
TN *



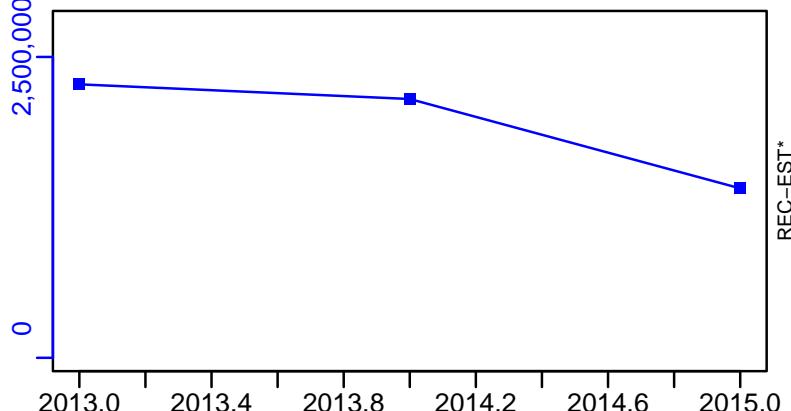
F-1/yr (2013–2015–OSIO)



ER-calc-ratio (2013–2015–OSIO)



R-E00 (2013–2015–OSIO)

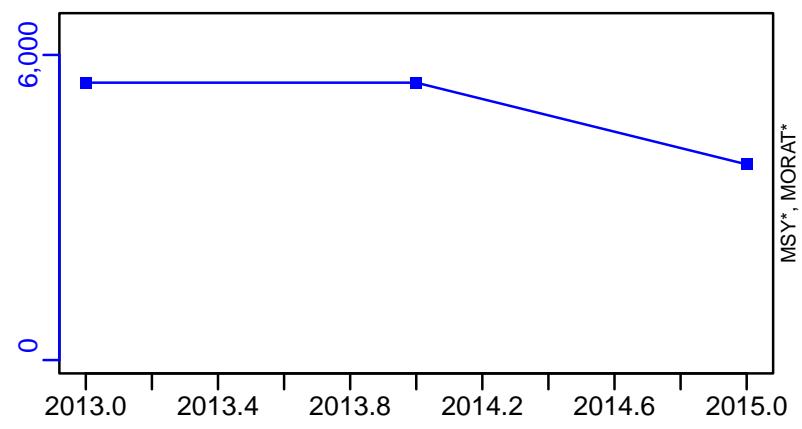


- Listed time series
- - - Target BRP
- - - MSY-based BRP
- - - Lim BRP
- Rec-Est
- * No Data

White anglerfish Geographical Sub-Areas 1–7 [WANGLGSA1–7]

TL-MT, TC*, RecC* (2013–2015–OSIO)

TAC*, Cpair*, Cadv*



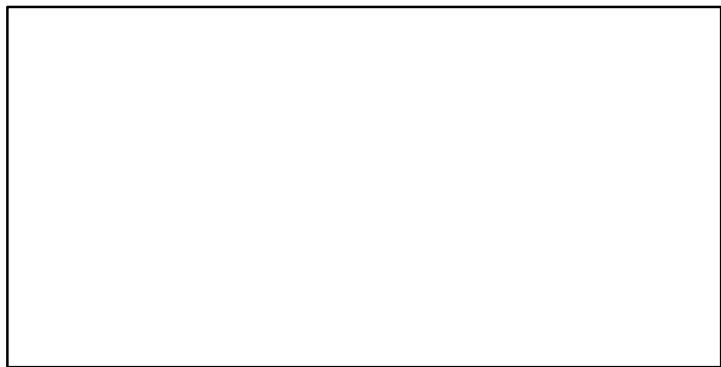
survB*



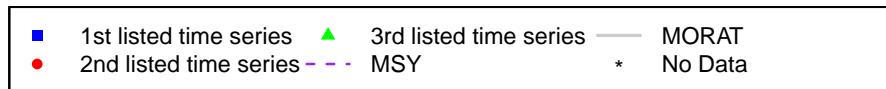
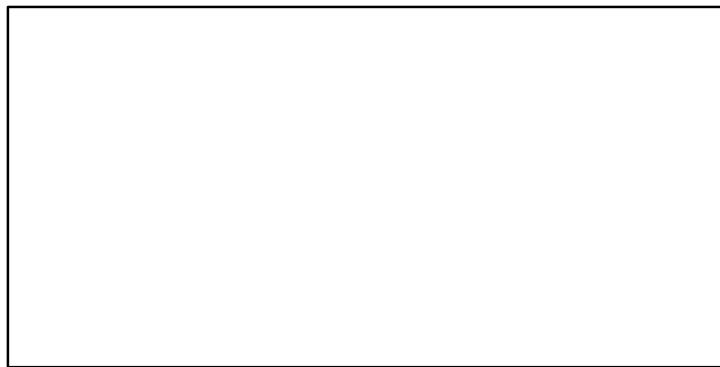
CPUE*



EFFORT*



CdivMSY*



White anglerfish ICES 8c-9a [WANGLVIIIC-IXa]

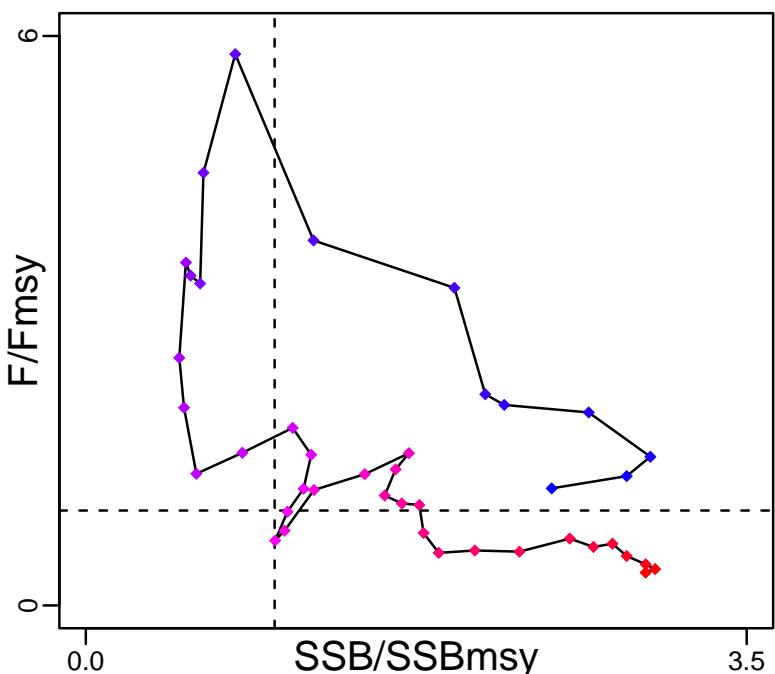
Metadata	
Scientific Name	Lophius piscatorius
Current Assess ID	WGBIE-WANGLVIIIC-IXa-1980-2021-ICESIMP2021-2
Area	ICES 8c-9a
Management Authority	International Council for the Exploration of the Sea
Assessor	Working Group for the Bay of Biscay and the Iberian Waters Ecoregion
Asmts in RAM	2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2013

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	Fmsy-1/yr	2021	0.24
ERrmsy	-	-	-
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2020	6283
Fmgt	Fmgt-1/yr	2021	0.24
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	SSBlim-MT	2021	1990
Flim	Flim-1/yr	2020	0.56
ERlim	-	-	-

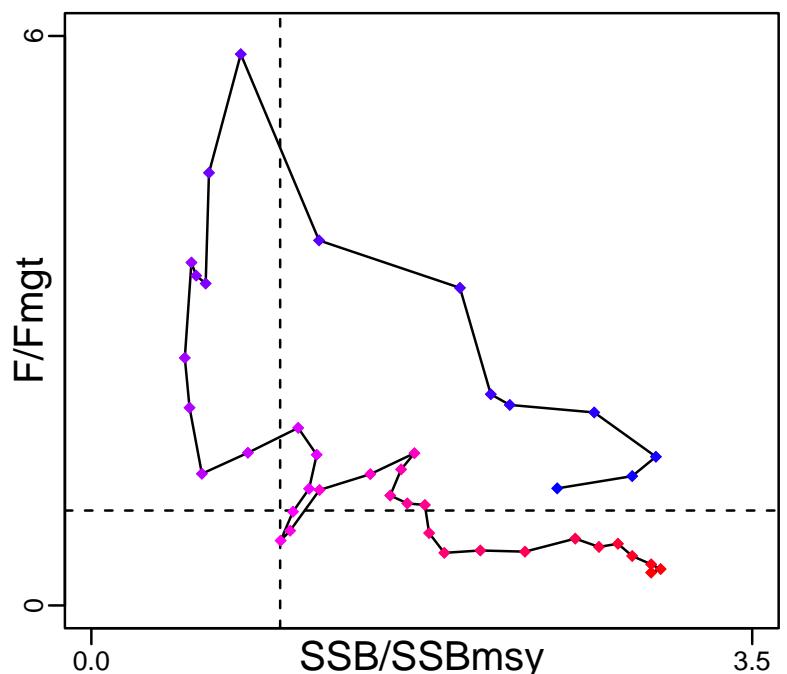
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2019	14,645	-	-
SSB	SSB-MT	2021	11,600	-	-
TN	-	-	-	-	-
R	R-E00	2021	706,000	-	0
F	F-1/yr	2021	0.083	-	-
ER	ER-calc-ratio	2019	0.078	-	-
TC	-	-	-		
TL	TL-MT	2021	722		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	F-1/yr/Fmsy-1/yr	2021	0.346		
ER/ERrmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2020	1.989		
F/Fmgt	F-1/yr/Fmgt-1/yr	2021	0.346		
ER/ERmgt	-	-	-		

White anglerfish ICES 8c–9a [WANGLVIIIC–IXa]

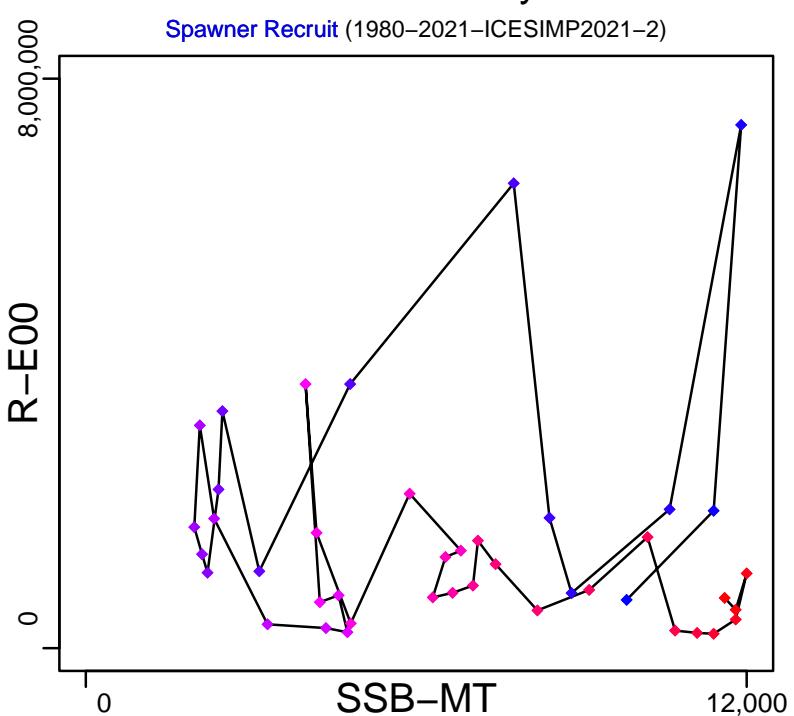
Kobe MSYpref (1980–2021–ICESIMP2021–2)



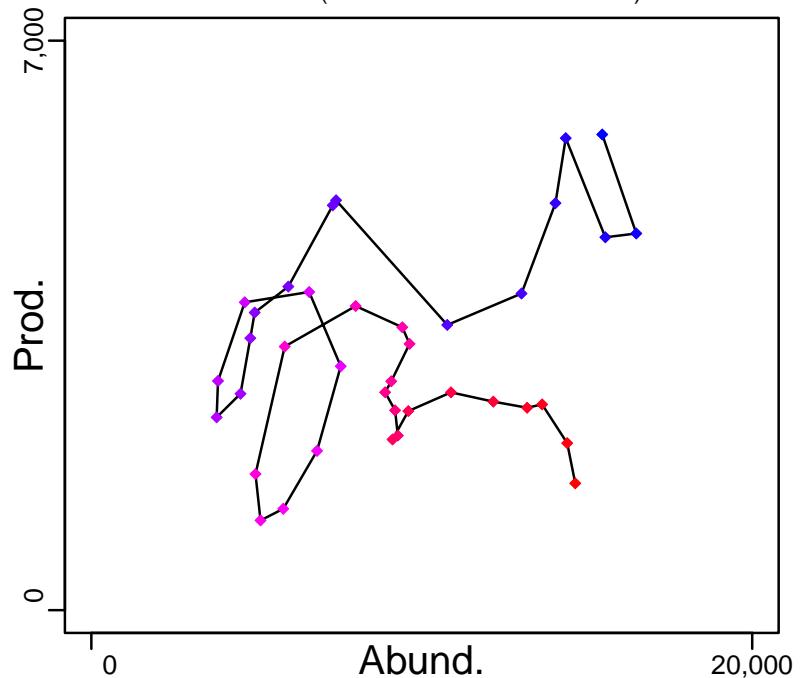
Kobe MGTpref (1980–2021–ICESIMP2021–2)



Spawner Recruit (1980–2021–ICESIMP2021–2)



Production (1980–2021–ICESIMP2021–2)

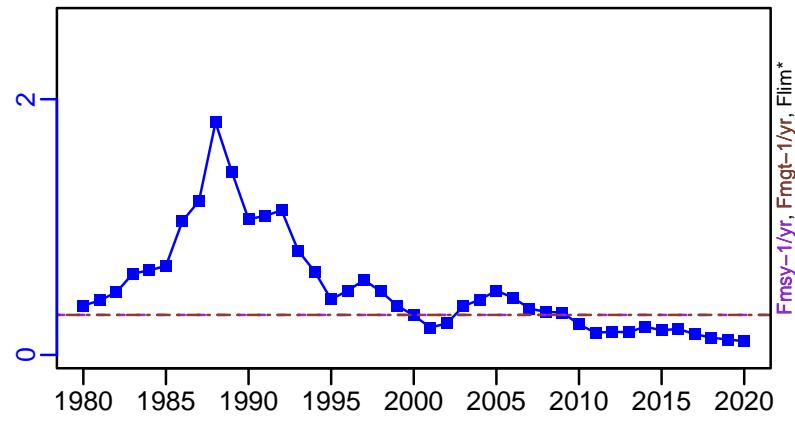
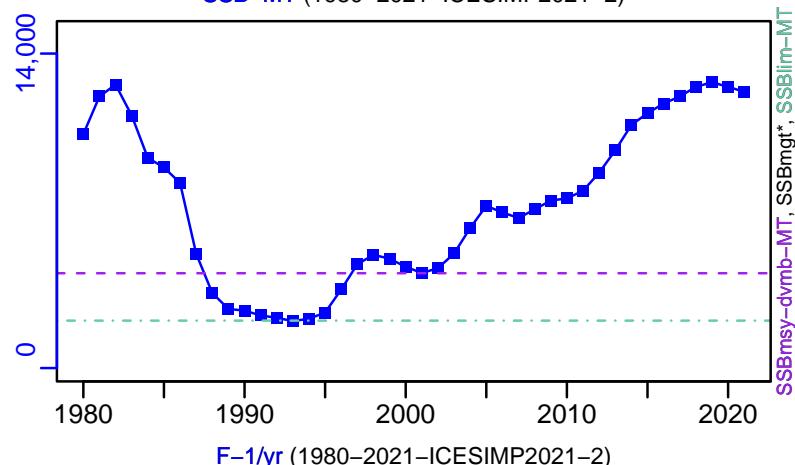
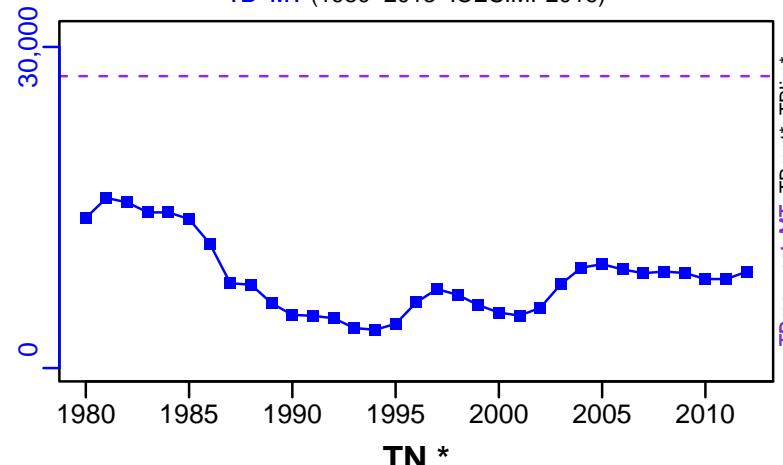


◆ Start Year ◆ End Year * No Data

White anglerfish ICES 8c–9a [WANGLVIIIC–IXa]

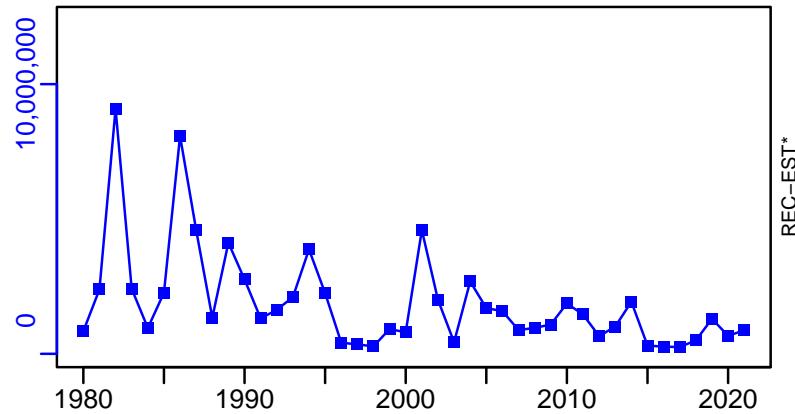
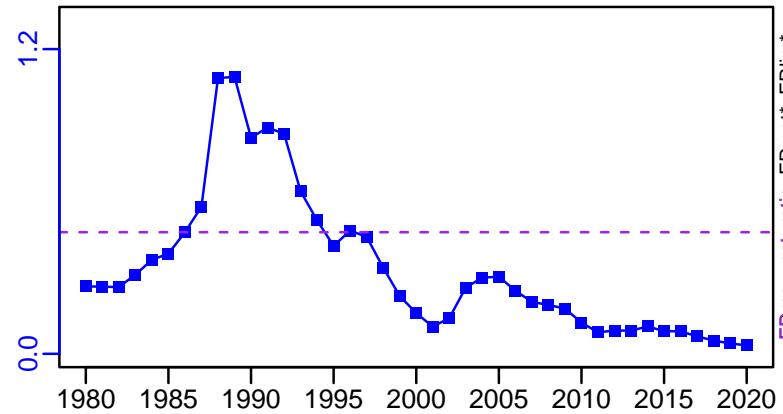
TB-MT (1980–2013–ICESIMP2016)

SSB-MT (1980–2021–ICESIMP2021–2)



ER-calc-ratio (1980–2021–ICESIMP2021–2)

R-E00 (1980–2021–ICESIMP2021–2)

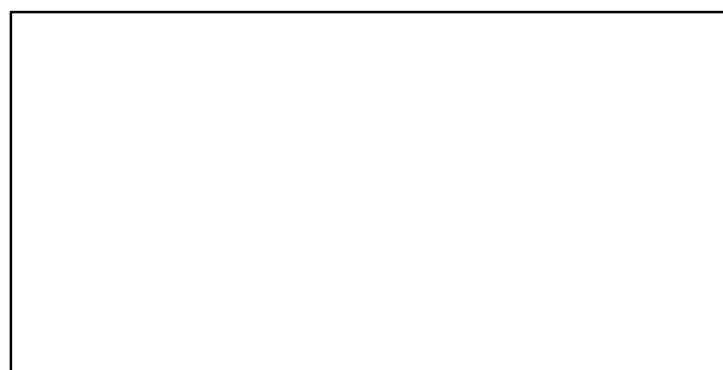
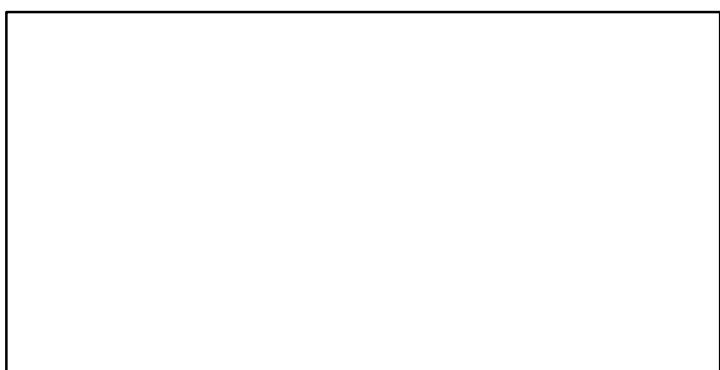
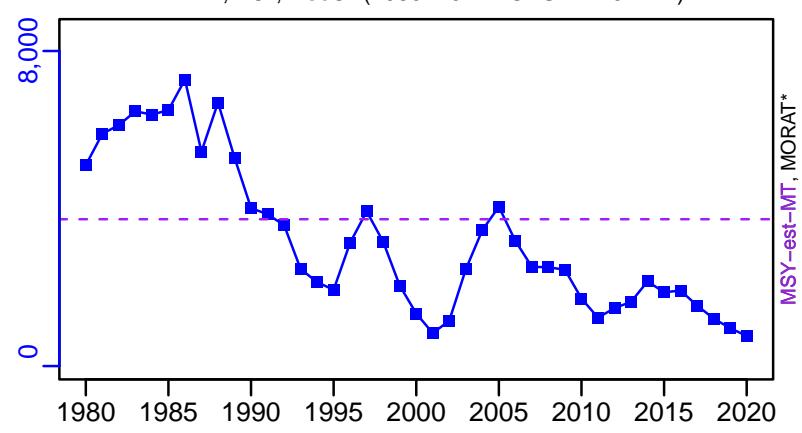


■ Listed time series	— Target BRP	— Rec-Est
- - MSY-based BRP	- - Lim BRP	* No Data

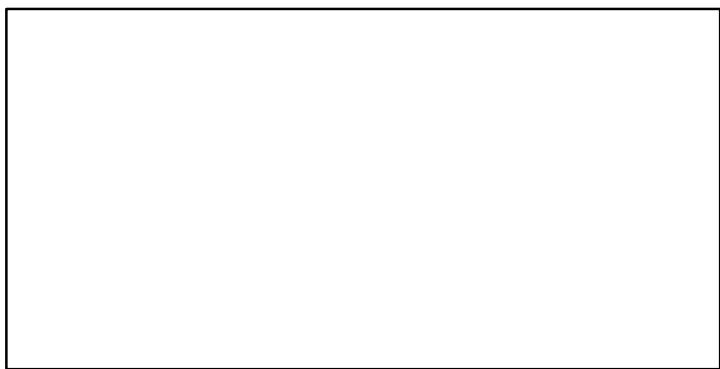
White anglerfish ICES 8c–9a [WANGLVIIIC–IXa]

TL–MT, TC*, RecC* (1980–2021–ICESIMP2021–2)

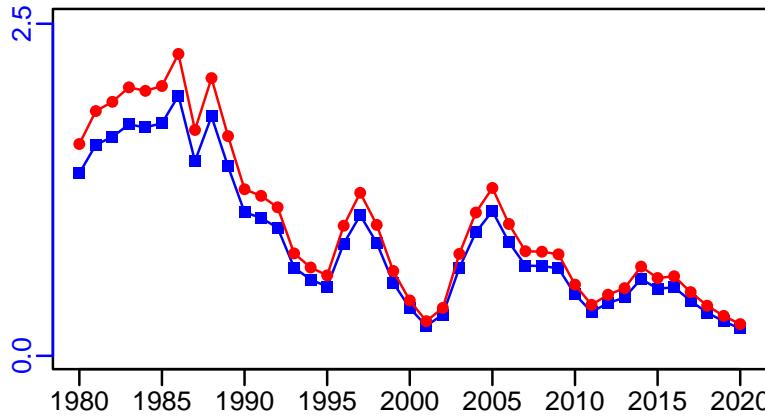
TAC*, Cpair*, Cadv*



EFFORT*



TL–MT/MSY-est-MT, CdivMEANC–ratio, (1980–2021–ICESIMP2021–2)



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

White anglerfish ICES 7-8abd [WANGLVII-VIIIabd]

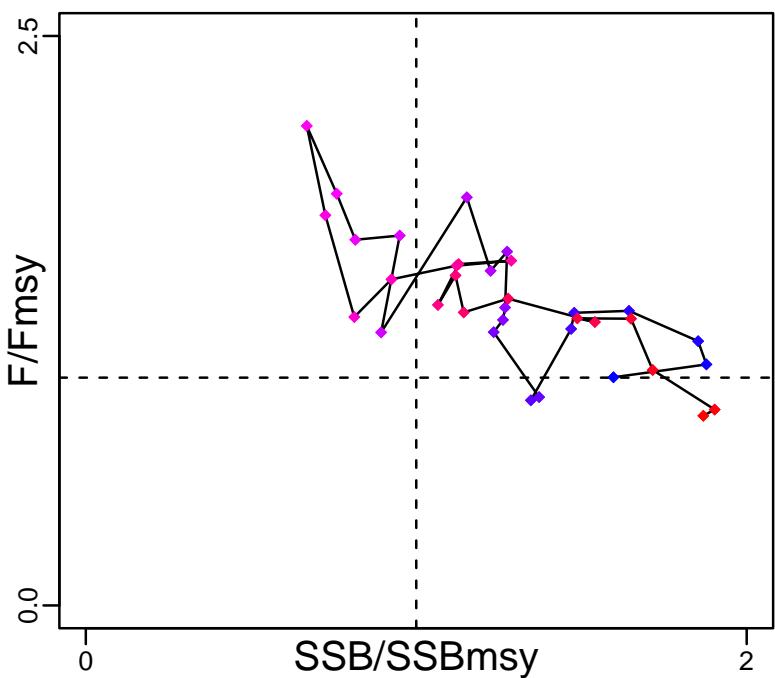
Metadata	
Scientific Name	Lophius piscatorius
Current Assess ID	WGBIE-WANGLVII-VIIIabd-1986-2021-ICESIMP2021-2
Area	ICES 7-8abd
Management Authority	International Council for the Exploration of the Sea
Assessor	Working Group for the Bay of Biscay and the Iberian Waters Ecoregion
Asmts in RAM	2016, 2018, 2019, 2020, 2021

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	Fmsy-1/yr	2021	0.28
ERrmsy	-	-	-
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2019	22,278
Fmgt	Fmgt-1/yr	2021	0.28
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	SSBlim-MT	2021	16,000
Flim	Flim-1/yr	2021	0.53
ERlim	-	-	-

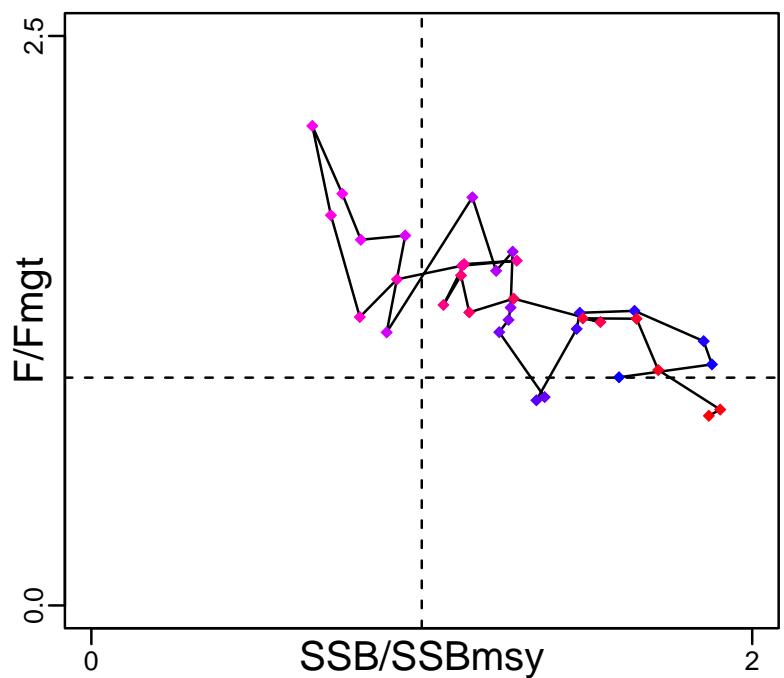
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2019	115,872	-	-
SSB	SSB-MT	2021	64,200	-	-
TN	-	-	-	-	-
R	R-E00	2021	32,700	-	0
F	F-1/yr	2021	0.233	-	-
ER	ER-calc-ratio	2019	0.205	-	-
TC	TC-MT	2021	21,500		
TL	TL-MT	2021	20,200		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	F-1/yr/Fmsy-1/yr	2021	0.833		
ER/ERrmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2019	3.27		
F/Fmgt	F-1/yr/Fmgt-1/yr	2021	0.833		
ER/ERmgt	-	-	-		

White anglerfish ICES 7–8abd [WANGLVII–VIIIabd]

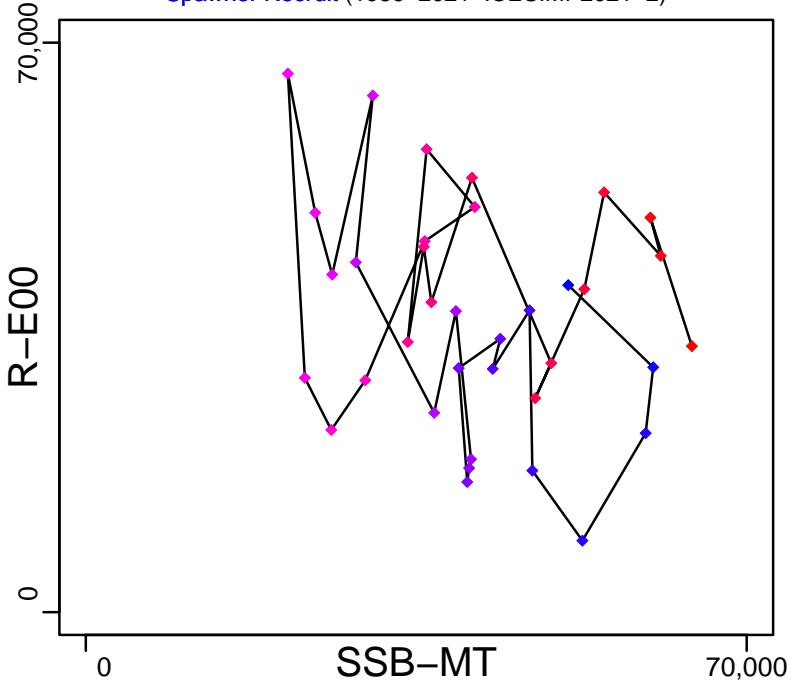
Kobe MSYpref (1986–2021–ICESIMP2021–2)



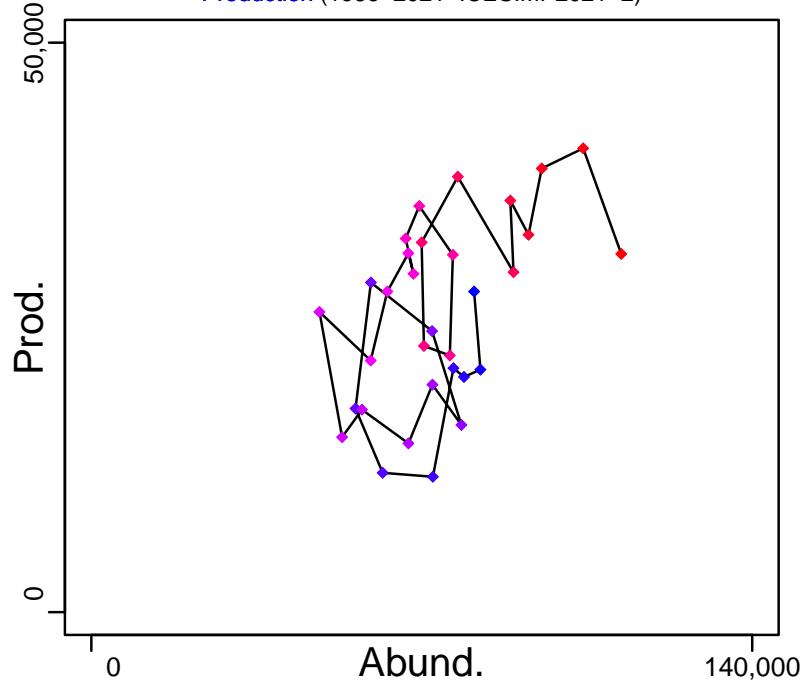
Kobe MGTpref (1986–2021–ICESIMP2021–2)



Spawner Recruit (1986–2021–ICESIMP2021–2)



Production (1986–2021–ICESIMP2021–2)

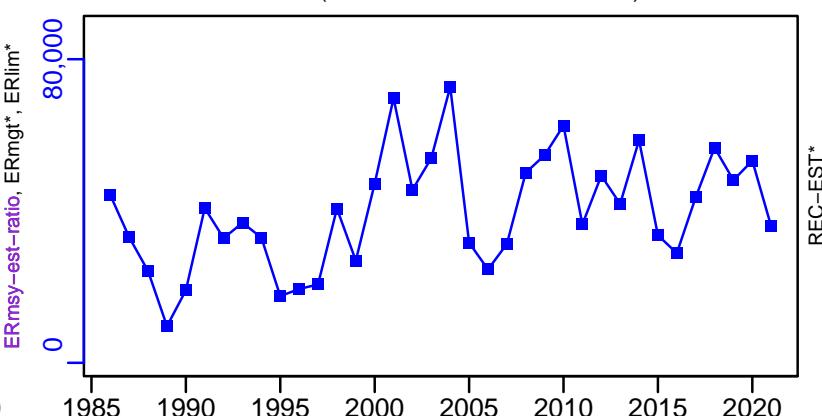
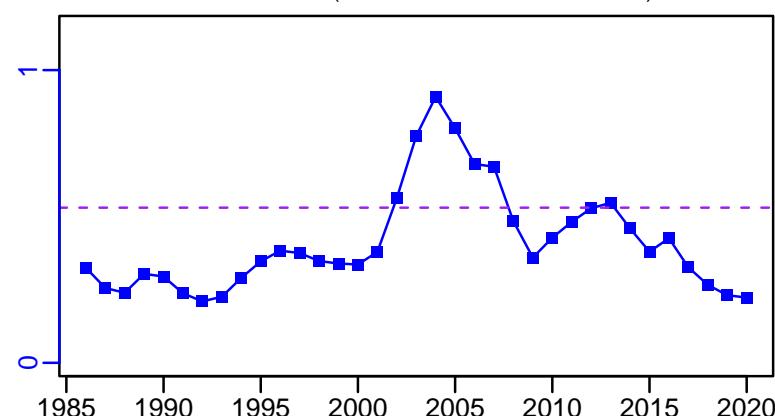
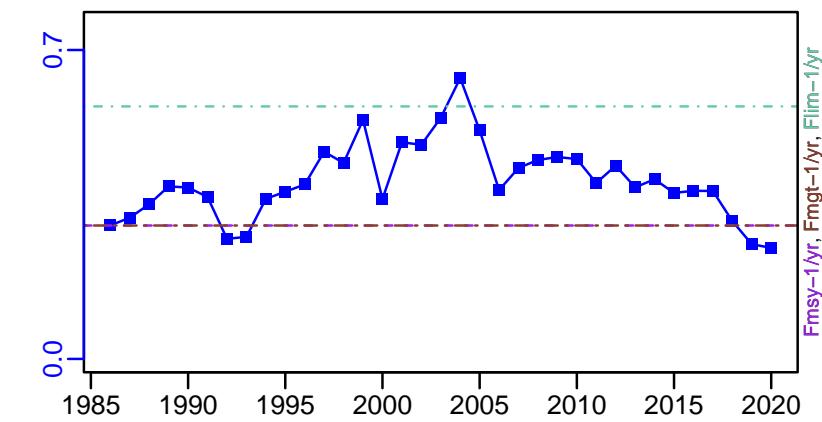
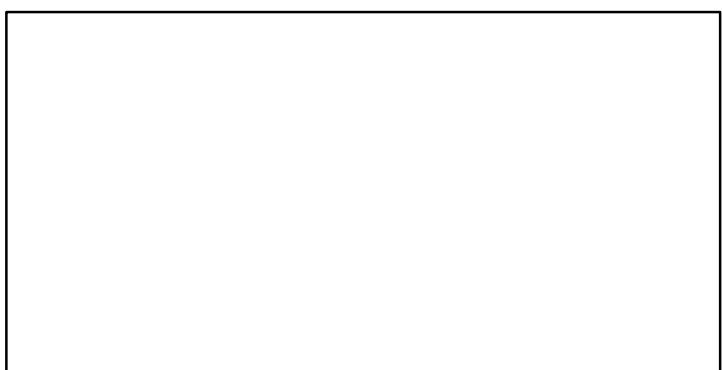
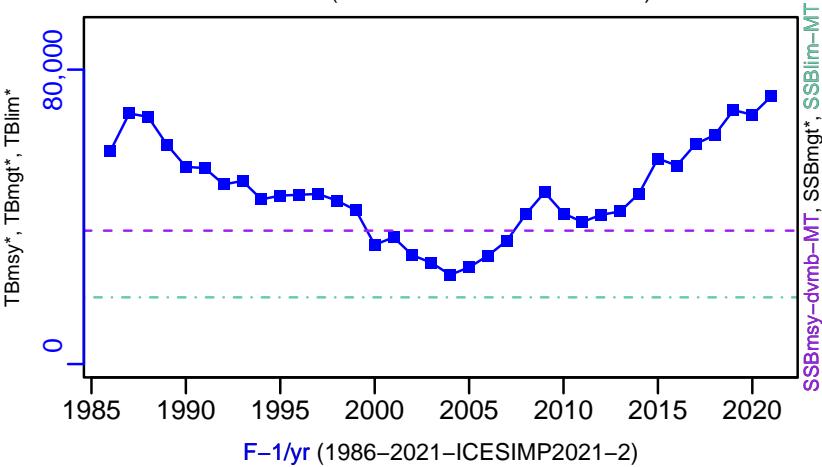
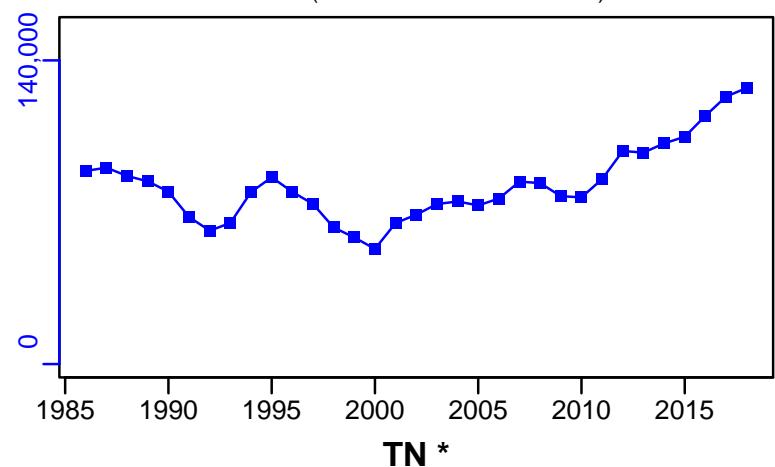


◆ Start Year ◆ End Year * No Data

White anglerfish ICES 7–8abd [WANGLVII–VIIIabd]

TB-MT (1986–2019–ICESIMP2021)

SSB-MT (1986–2021–ICESIMP2021–2)

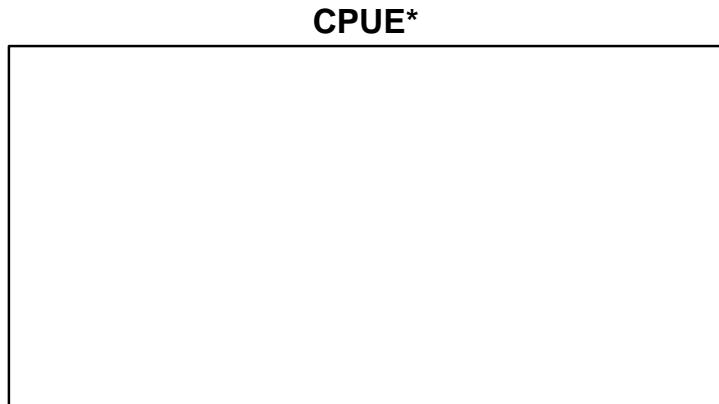
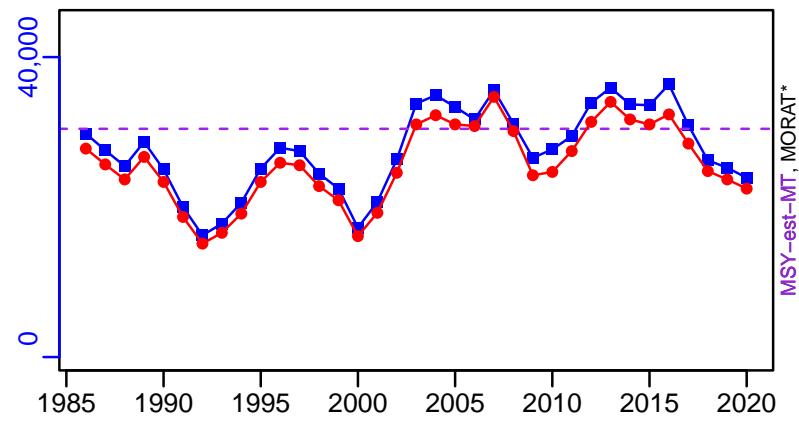


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - - Lim BRP	* No Data

White anglerfish ICES 7–8abd [WANGLVII–VIIIabd]

TC–MT, TL–MT, RecC* (1986–2021–ICESIMP2021–2)

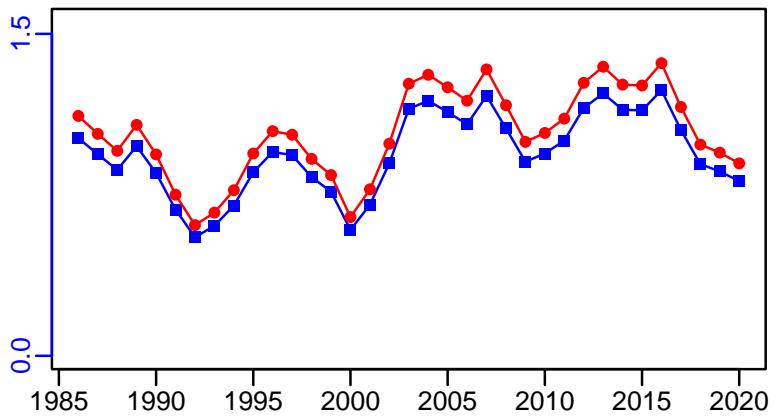
TAC*, Cpair*, Cadv*



EFFORT*



TC–MT/MSY–est–MT, CdivMEANC–ratio, (1986–2021–ICESIMP2021–2)



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

Blue warehou Eastern half of Southeast Australia [WAREHOUSE]

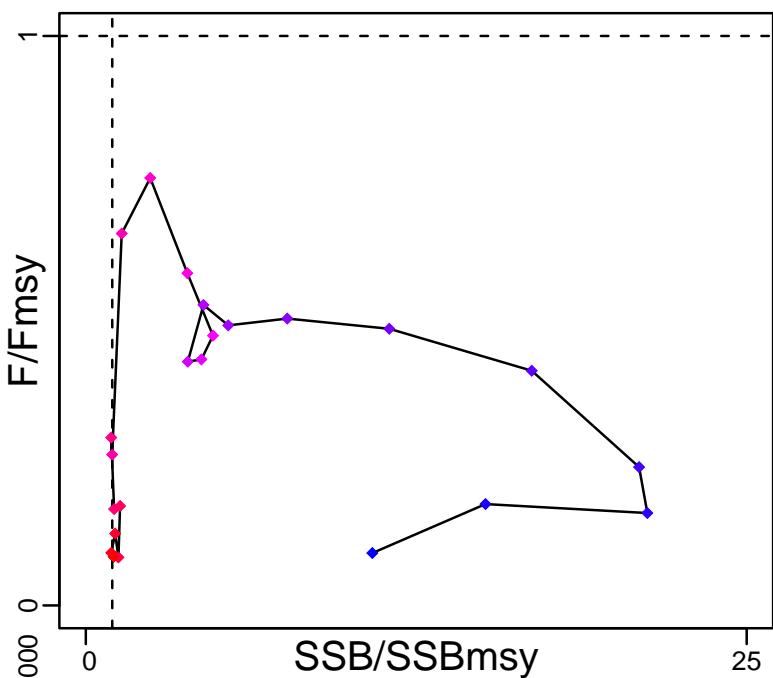
Metadata	
Scientific Name	Seriolaella brama
Current Assess ID	CSIRO-WAREHOUSE-1986-2008-MOESENEDER
Area	Eastern half of Southeast Australia
Management Authority	Australian Fisheries Management Authority, Australia national management
Assessor	Commonwealth Scientific and Industrial Research Organization
Asmts in RAM	2006, 2008

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2008	640
Fmsy	Fmsy-1/yr	2008	0.502
ERmsy	ERmsy-ratio	2006	0.17
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2008	2135
Fmgt	Fmgt-1/yr	2008	0.206
ERmgt	-	-	-
TB0	TB0-MT	2008	6058
SSB0	SSB0-MT	2008	4447
MSY	MSY-MT	2008	967
M	M-1/yr	2008	0.45
TBlim	TBlim-MT	2006	653
SSBlim	SSBlim-MT	2008	889
Flim	-	-	-
ERlim	-	-	-

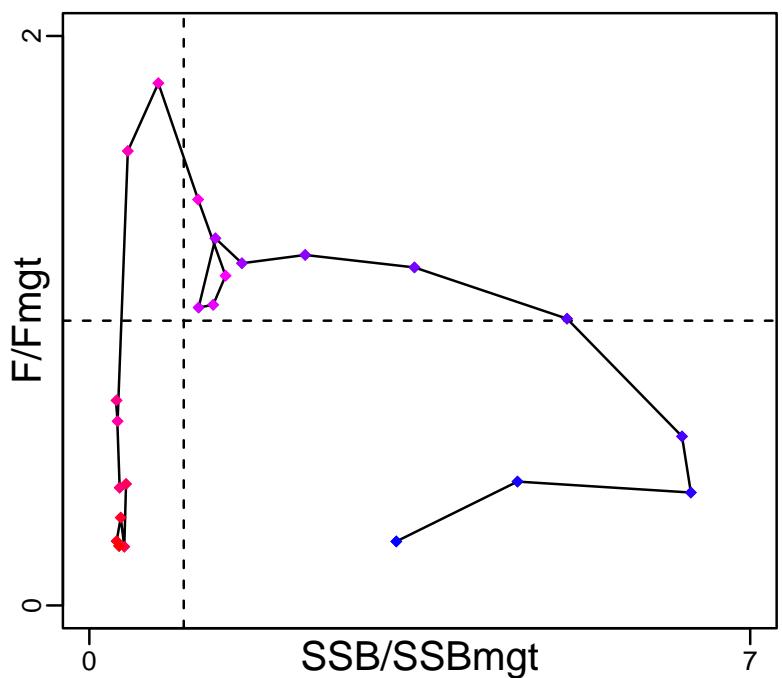
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2008	1680	-	-	
SSB	SSB-MT	2008	673	-	-	
TN	-	-	-	-	-	
R	R-E00	2008	5.11×10^{12}	-	-	
F	F-1/yr	2008	0.043	-	-	
ER	ER-ratio	2008	0.036	-	-	
TC	-	-	-			
TL	TL-MT	2008	59			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2008	1.051			
F/Fmsy	F-1/yr/Fmsy-1/yr	2008	0.085			
ER/ERmsy	ER-calc-ratio/ERmsy-ratio	2006	0.653			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2008	0.315			
F/Fmgt	F-1/yr/Fmgt-1/yr	2008	0.209			
ER/ERmgt	-	-	-			

Blue warehou Eastern half of Southeast Australia [WAREHOUSE]

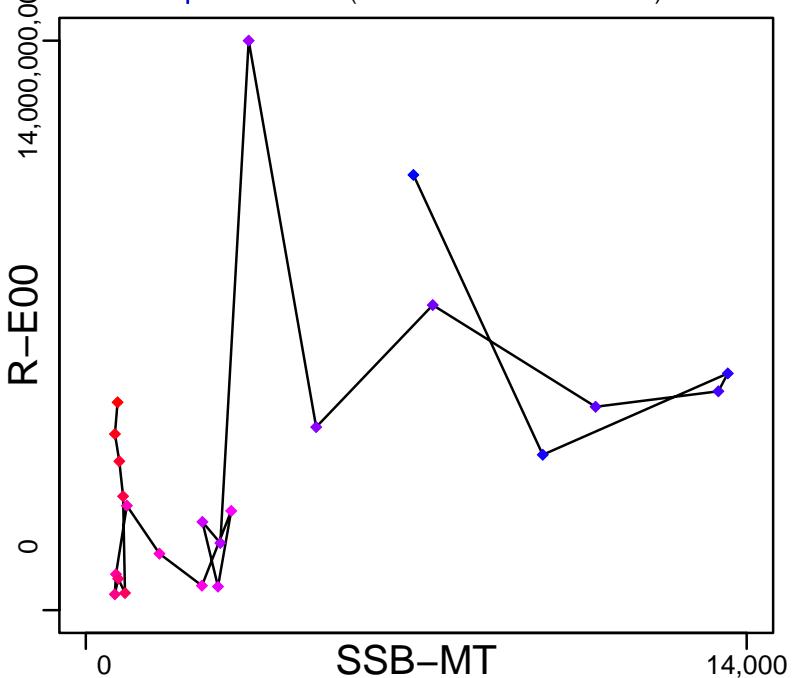
Kobe MSYpref (1986–2008–MOESENER)



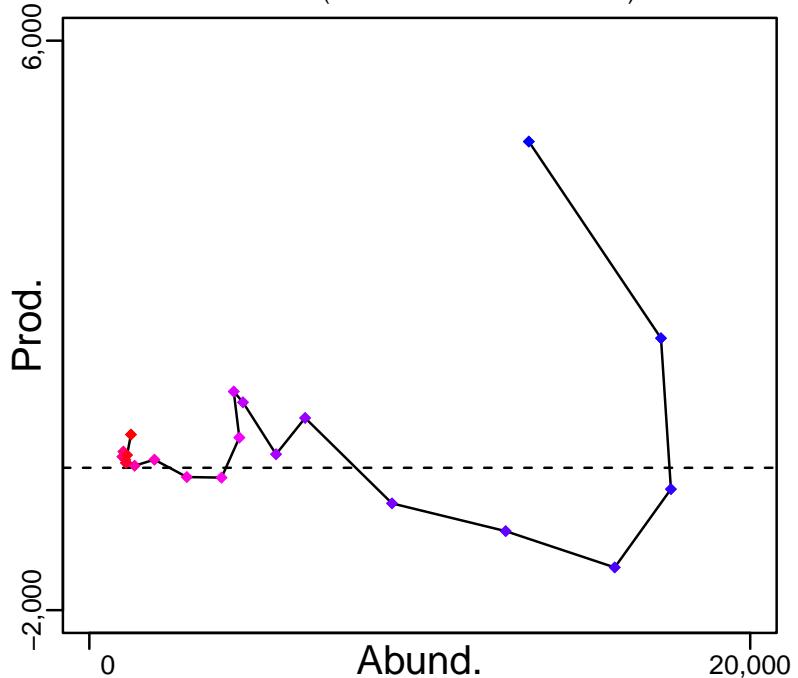
Kobe MGTpref (1986–2008–MOESENER)



Spawner Recruit (1986–2008–MOESENER)



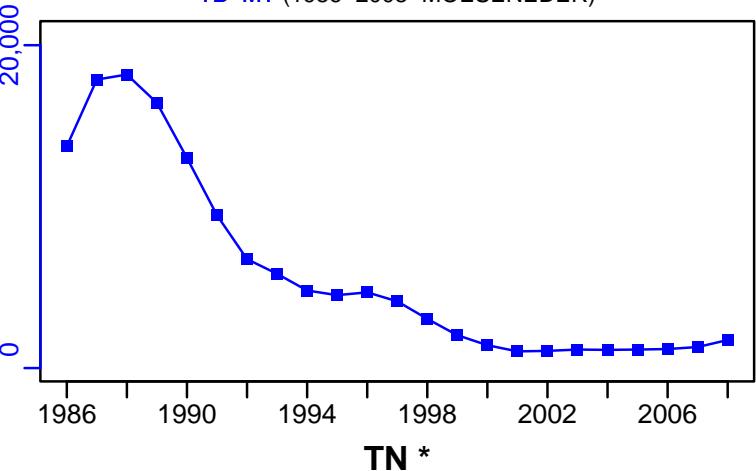
Production (1986–2008–MOESENER)



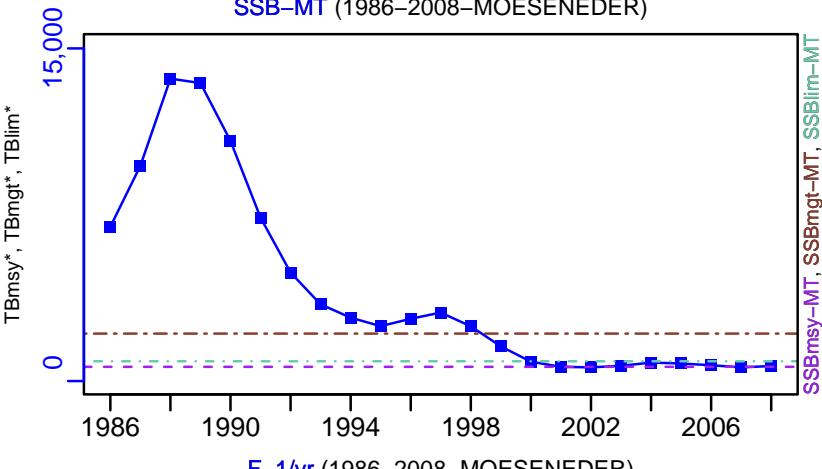
◆ Start Year ◆ End Year * No Data

Blue warehou Eastern half of Southeast Australia [WAREHOUSE]

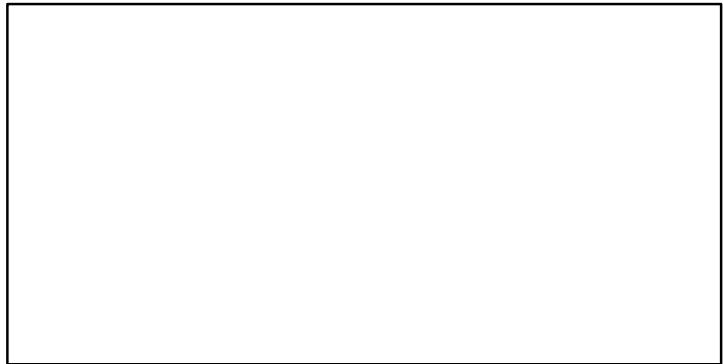
TB-MT (1986–2008–MOESENEDER)



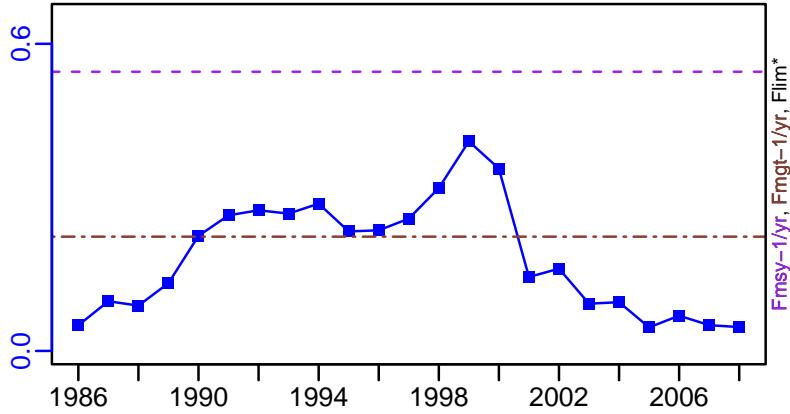
SSB-MT (1986–2008–MOESENEDER)



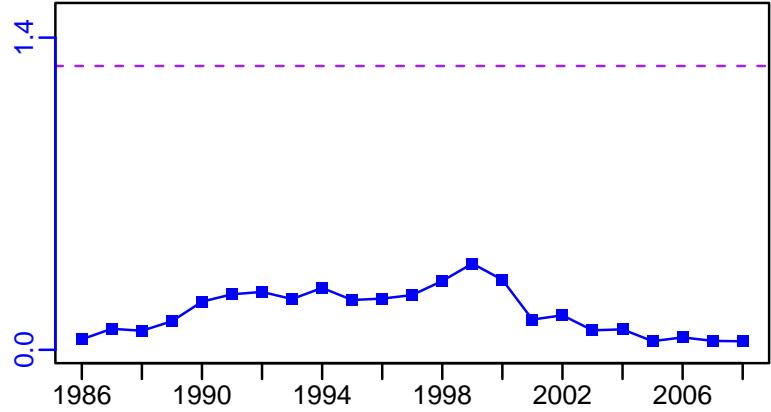
TN *



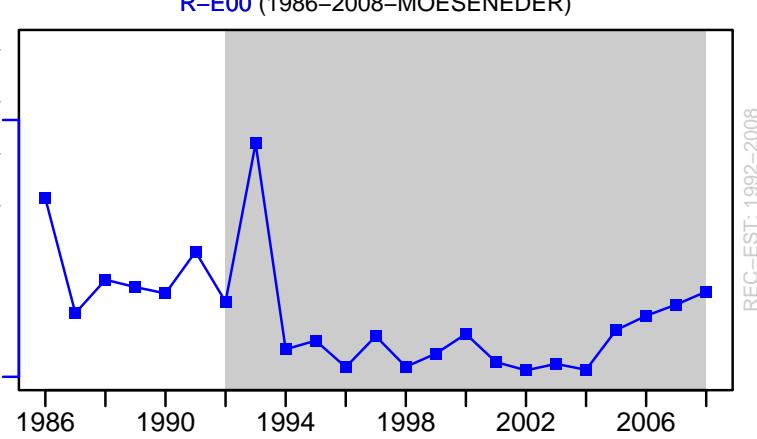
F-1/yr (1986–2008–MOESENEDER)



ER-ratio (1986–2008–MOESENEDER)



ERmsy-conv-ratio, ERmggt*, ERlim*



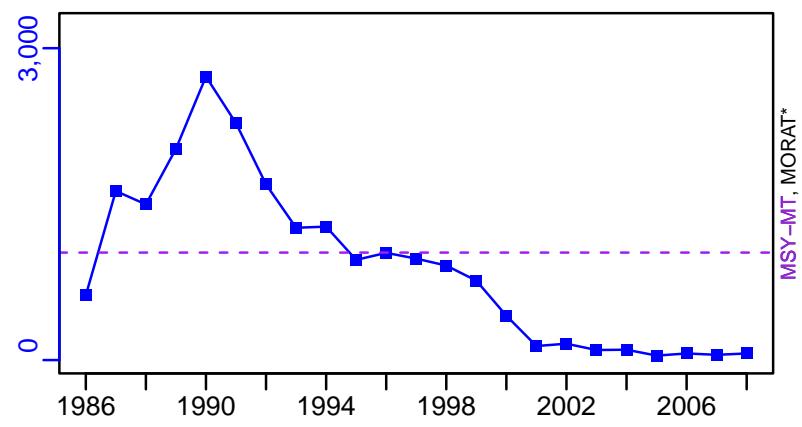
REC-EST: 1992–2008

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

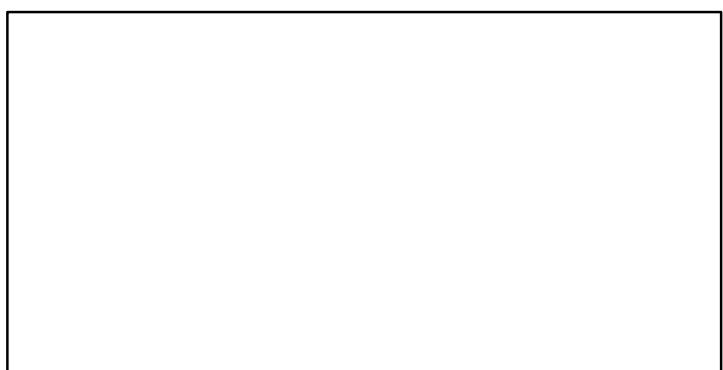
Blue warehou Eastern half of Southeast Australia [WAREHOUSE]

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

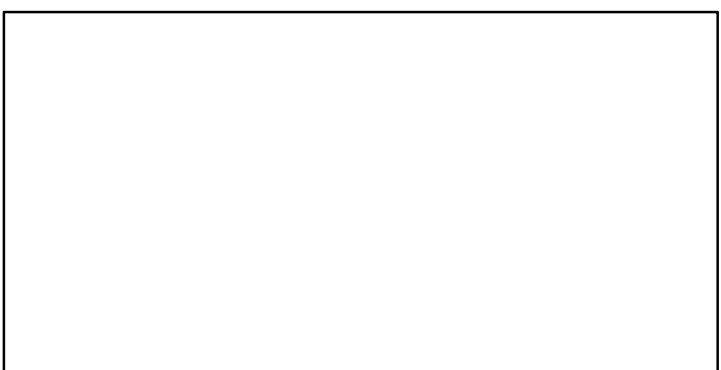
TAC*, Cpair*, Cadv*



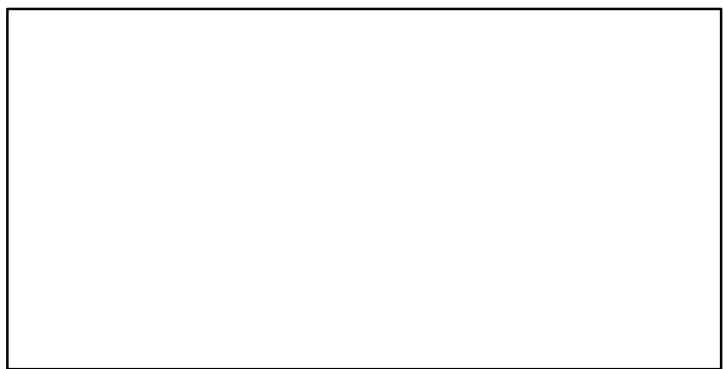
survB*



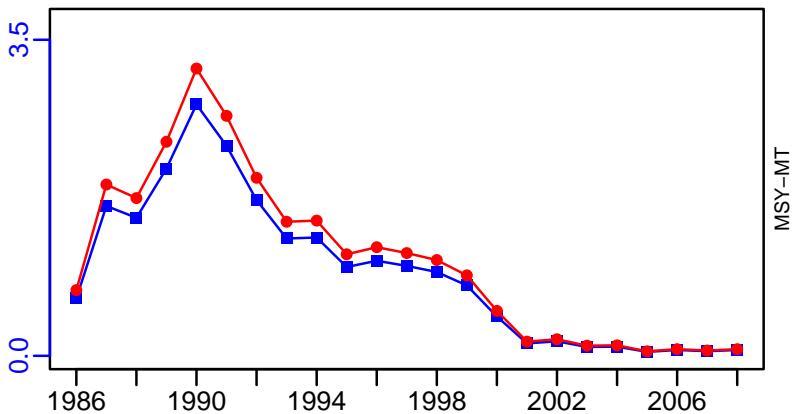
CPUE*



EFFORT*



TL-MT/MSY-MT, CdivMEANC-ratio, (1986–2008–MOESENEDER)



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

Blue warehou Western half of Southeast Australia [WAREHOUWSE]

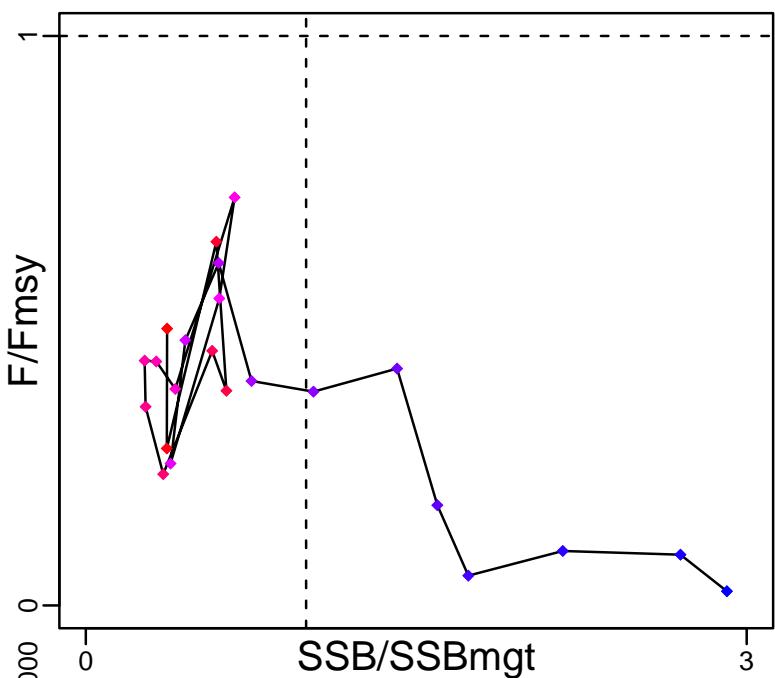
Metadata	
Scientific Name	Seriolaella brama
Current Assess ID	CSIRO-WAREHOUWSE-1986-2008-MOESENEDER
Area	Western half of Southeast Australia
Management Authority	Australian Fisheries Management Authority, Australia national management
Assessor	Commonwealth Scientific and Industrial Research Organization
Asmts in RAM	2006, 2008

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2006	1568
Fmsy	Fmsy-1/yr	2008	0.642
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2008	1423
Fmgt	Fmgt-1/yr	2008	0.197
ERmgt	-	-	-
TB0	TB0-MT	2008	4423
SSB0	SSB0-MT	2008	2964
MSY	MSY-MT	2008	867
M	M-1/yr	2008	0.45
TBlim	TBlim-MT	2006	653
SSBlim	SSBlim-MT	2008	593
Flim	-	-	-
ERlim	-	-	-

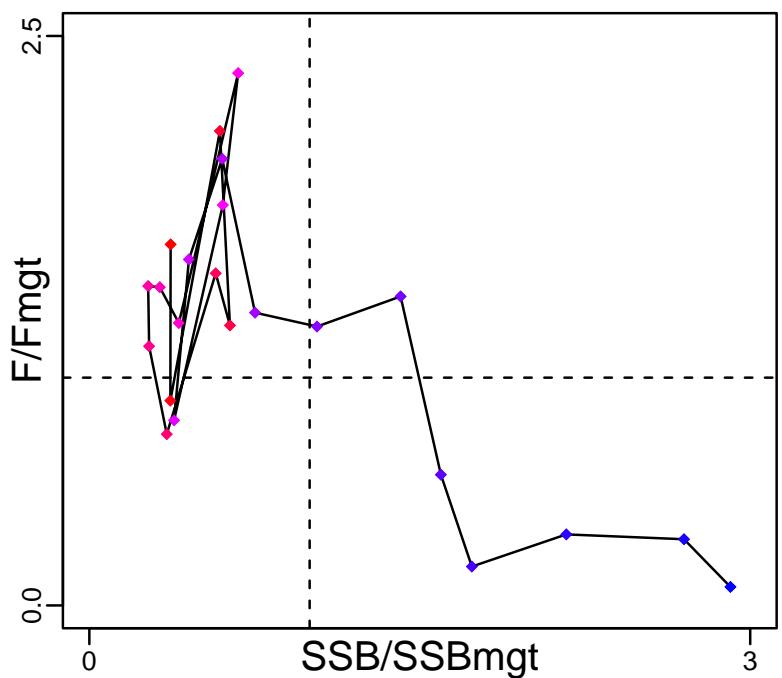
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2008	1430	-	-	
SSB	SSB-MT	2008	525	-	-	
TN	-	-	-	-	-	
R	R-E00	2008	4.15×10^{12}	-	-	
F	F-1/yr	2008	0.312	-	-	
ER	ER-ratio	2008	0.265	-	-	
TC	-	-	-			
TL	TL-MT	2008	379			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2006	0.413			
F/Fmsy	F-1/yr/Fmsy-1/yr	2008	0.486			
ER/ERmsy	-	-	-			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2008	0.369			
F/Fmgt	F-1/yr/Fmgt-1/yr	2008	1.585			
ER/ERmgt	-	-	-			

Blue warehou Western half of Southeast Australia [WAREHOUWSE]

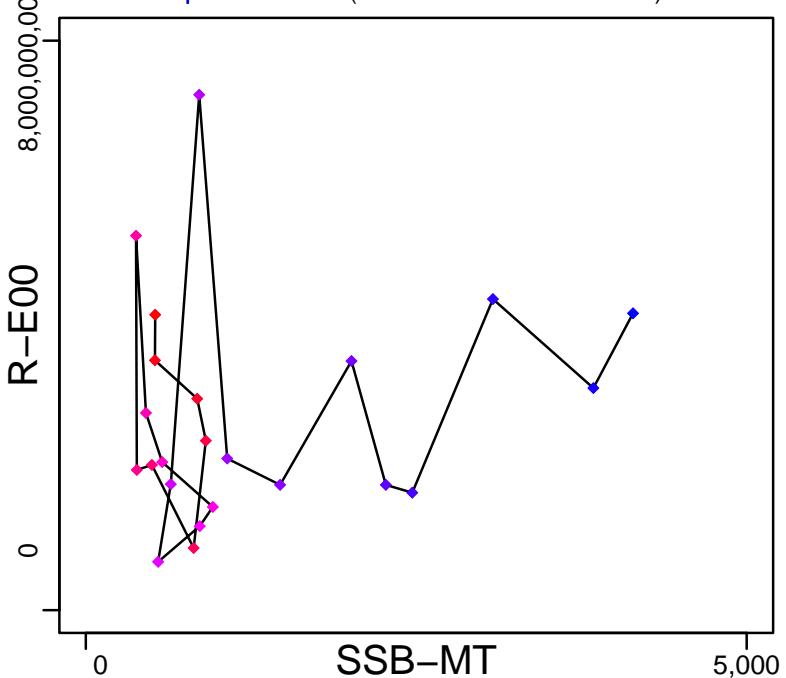
Kobe MSYpref (1986–2008–MOESENEDER)



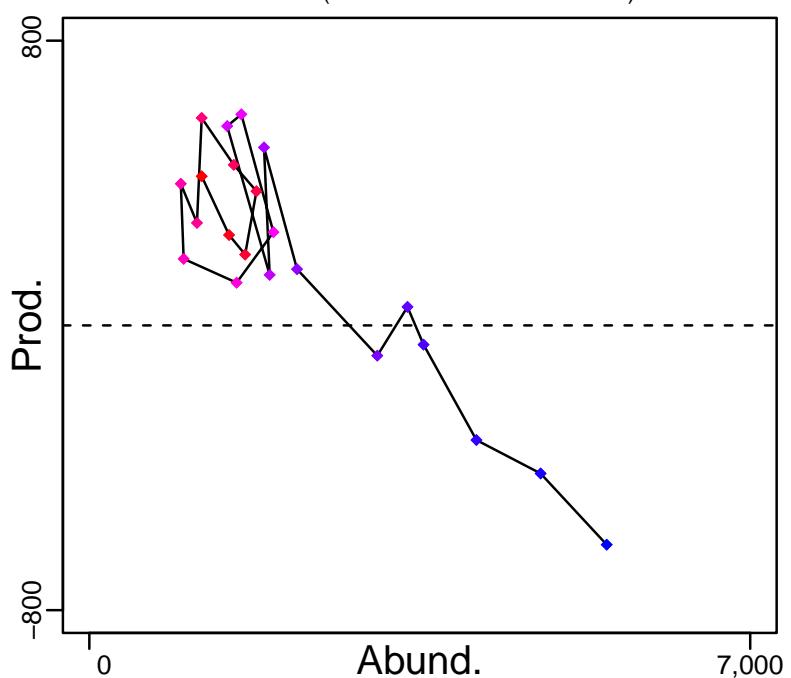
Kobe MGTpref (1986–2008–MOESENEDER)



Spawner Recruit (1986–2008–MOESENEDER)



Production (1986–2008–MOESENEDER)

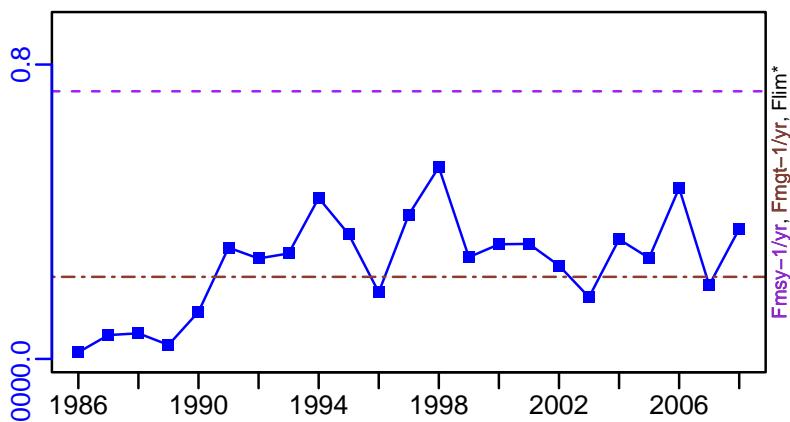
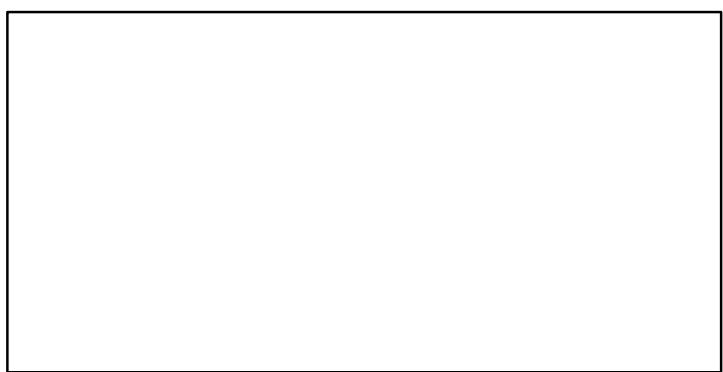
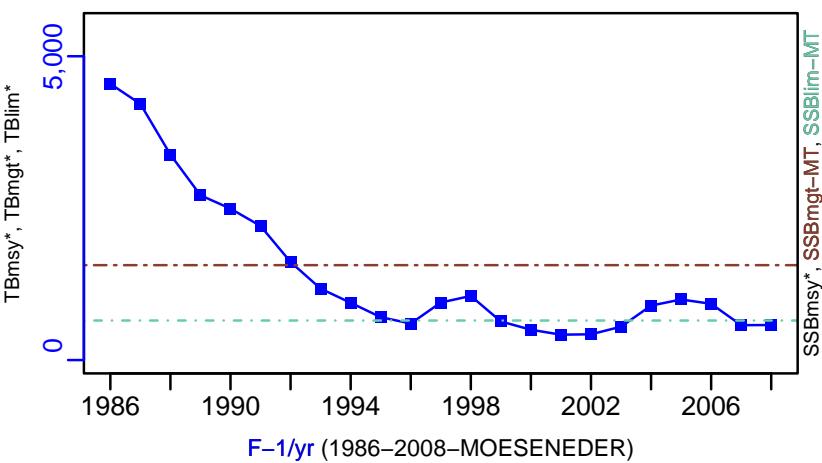
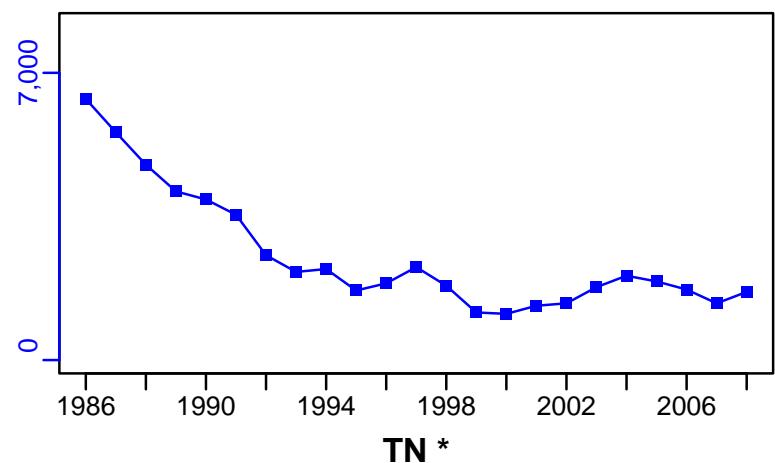


◆ Start Year ◆ End Year * No Data

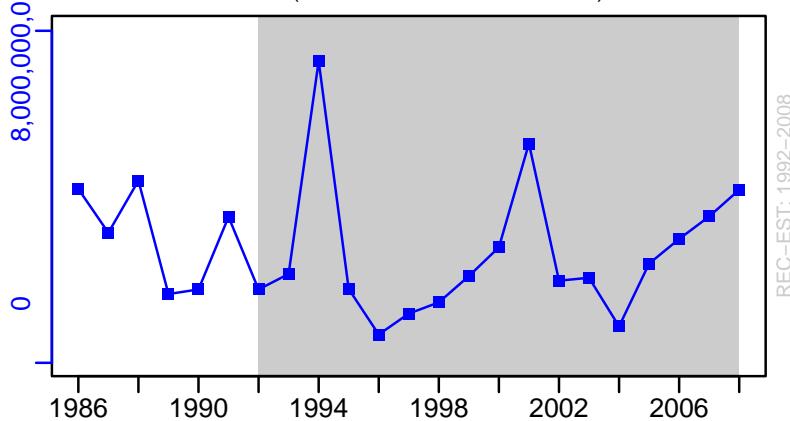
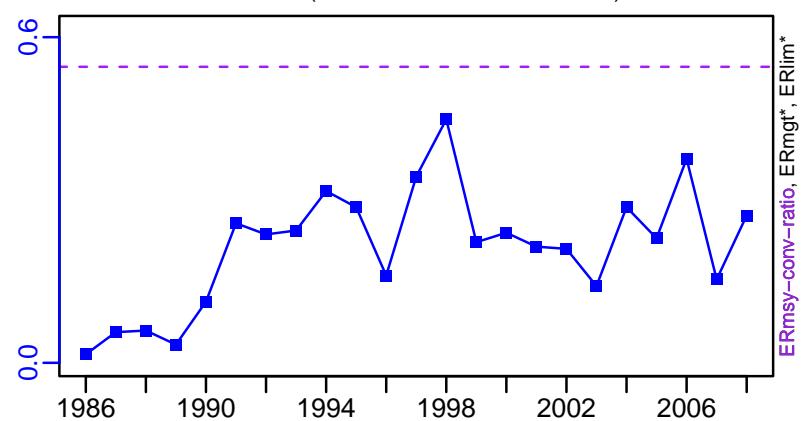
Blue warehou Western half of Southeast Australia [WAREHOUWSE]

TB-MT (1986–2008–MOESENEDER)

SSB-MT (1986–2008–MOESENEDER)



ER-ratio (1986–2008–MOESENEDER)



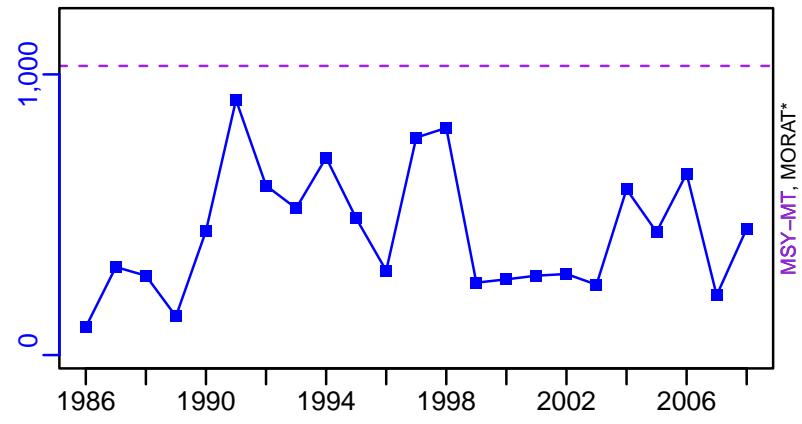
REC-EST: 1992–2008

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

Blue warehou Western half of Southeast Australia [WAREHOUWSE]

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

TAC*, Cpair*, Cadv*



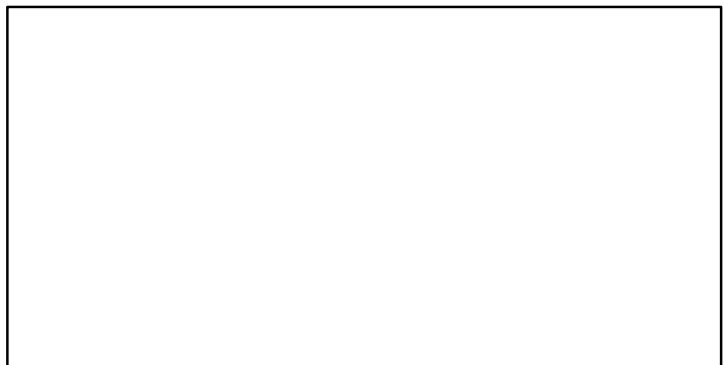
survB*



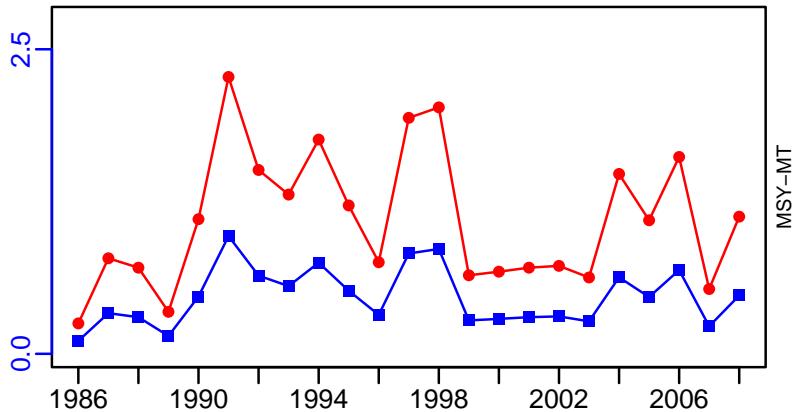
CPUE*



EFFORT*



TL-MT/MSY-MT, CdivMEANC–ratio, (1986–2008–MOESENEDER)



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

Yellow goosefish North Pacific [YGSFISHNPAC]

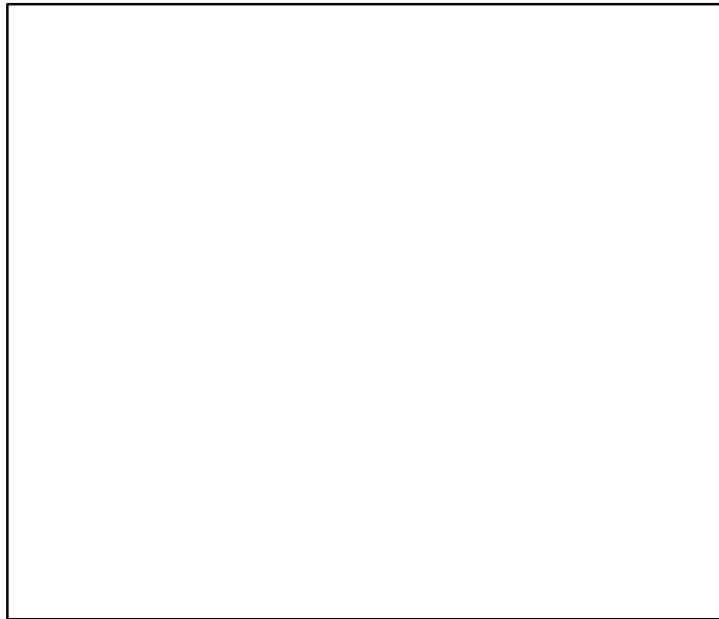
Metadata	
Scientific Name	Lophius litulon
Current Assess ID	FAFRFJ-YGSFISHNPAC-1973-2013-JPNIMP2016
Area	North Pacific
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013

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

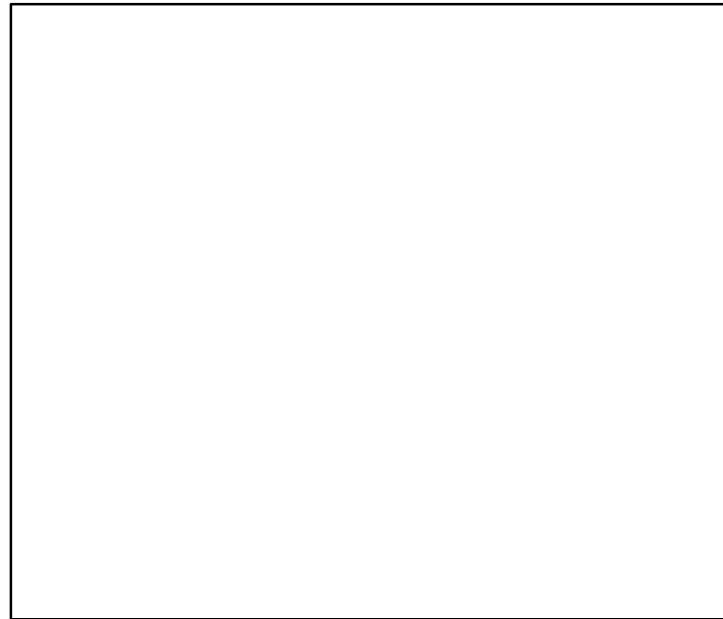
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2013	183		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Yellow goosefish North Pacific [YGSFISHNPAC]

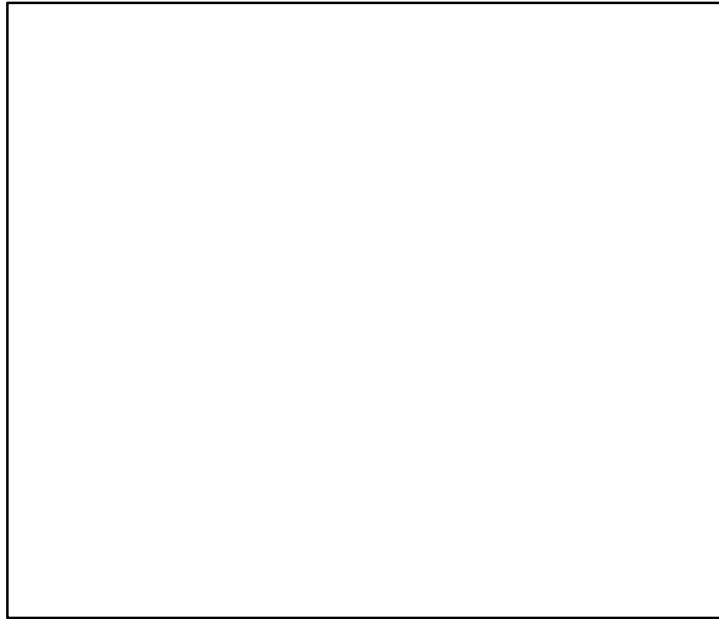
Kobe MSY*



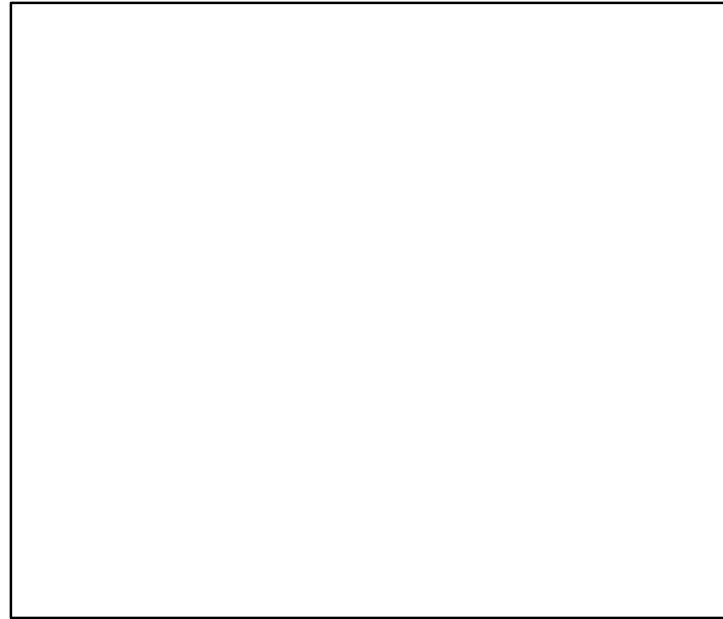
Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ♦ End Year * No Data

Yellow goosefish North Pacific [YGSFISHNPAC]

TB*



SSB*



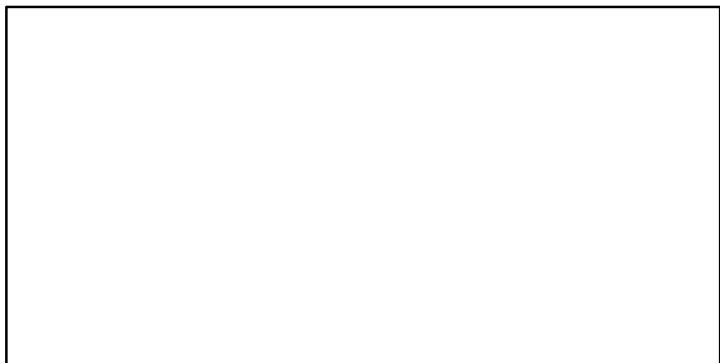
TN *



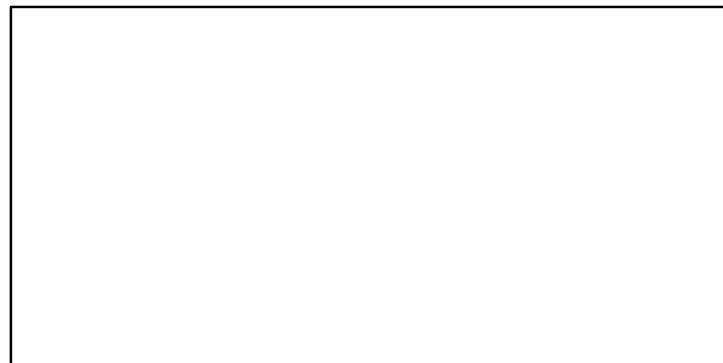
F*



ER*



Recruits*



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

Yellow goosefish North Pacific [YGSFISHNPAC]

TC-MT, TL*, RecC* (1973–2013-JPNIMP2016)

TAC*, Cpair*, Cadv*

