US Southeast and Gulf Stocks
v4.63 (Dec-07-2023)

Not present Present Preferred

| Stock | Time Series Types | | | |
	B/Bmsy	U/Umsy	B/Bmgt	U/Umgt
1. BHEADSHARATL [Bonnethead shark Atlantic]	TB SSB	ER F	TB SSB	ER F
2. BLACKGROUPERGMSATL [Black grouper Gulf of Mexico and South Atlantic]	TB SSB	ER F	TB SSB	ER F
3. BLTILESATLC [Blueline tilefish Southern Atlantic coast]	TB SSB	ER F	TB SSB	ER F
4. BNOSESHARATL [Blacknose shark Atlantic]	TB SSB	ER F	TB SSB	ER F
5. BRNSHRIMPGM [Brown shrimp Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
6. BSBASSSATL [Black sea bass South Atlantic]	TB SSB	ER F	TB SSB	ER F
7. BTIPSHARATL [Blacktip shark Atlantic]	TB SSB	ER F	TB SSB	ER F
8. BTIPSHARGM [Blacktip shark Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
9. COBGM [Cobia Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
10. COBSATLC [Cobia Southern Atlantic coast]	TB SSB	ER F	TB SSB	ER F
11. CSLOBSTERPR [Caribbean spiny lobster Puerto Rico]	TB SSB	ER F	TB SSB	ER F
12. CSLOBSTERSTC [Caribbean spiny lobster Saint Croix]	TB SSB	ER F	TB SSB	ER F
13. CSLOBSTERSTT_STJ [Caribbean spiny lobster Saint Thomas / Saint John]	TB SSB	ER F	TB SSB	ER F
14. DSKSHARGMATL [Dusky shark Gulf of Mexico and Atlantic]	TB SSB	ER F	TB SSB	ER F
15. FTOOTHSHARATL [Finetooth shark Atlantic]	TB SSB	ER F	TB SSB	ER F
16. GAGGM [Gag Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
17. GAGSATLC [Gag Southern Atlantic coast]	TB SSB	ER F	TB SSB	ER F
18. GLGROUPSATLCGM [Goliath grouper Southern Atlantic coast and Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
19. GRAMBERGM [Greater amberjack Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
20. GRAMBERSATLC [Greater amberjack Southern Atlantic coast]	TB SSB	ER F	TB SSB	ER F
21. GRSNAPGM [Gray snapper Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
22. GTRIGGM [Gray triggerfish Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
23. KMACKGM [King mackerel Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
24. KMACKSATLC [King mackerel Southern Atlantic coast]	TB SSB	ER F	TB SSB	ER F
25. LNSNAPGM [Lane snapper Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
26. MENATGM [Gulf menhaden Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
27. MUTSNAPSATLCGM [Mutton snapper Southern Atlantic coast and Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
28. PINKSHRIMPGM [Pink shrimp Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
29. RGROUPGM [Red grouper Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
30. RGROUPSATL [Red grouper South Atlantic]	TB SSB	ER F	TB SSB	ER F
31. RPORGYSATLC [Red porgy Southern Atlantic coast]	TB SSB	ER F	TB SSB	ER F
32. RRSHRIMPGM [Royal red shrimp Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
33. RSNAPGM [Red snapper Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
34. RSNAPSATLC [Red snapper Southern Atlantic coast]	TB SSB	ER F	TB SSB	ER F
35. SBARSHARATL [Sandbar shark Atlantic]	TB SSB	ER F	TB SSB	ER F

36. SKSNAPCARIB [Silk snapper Caribbean]	TB	SSB	ER	F	TB SSB	ER F
37. SNOSESHARATL [Atlantic sharpnose shark Atlantic]	TB	SSB	ER	F	TB SSB	ER F
38. SNOWGROUPSATLC [Snowy grouper Southern Atlantic coast]	TB	SSB	ER	F	TB SSB	ER F
39. SPANMACKGM [Spanish mackerel Gulf of Mexico]	TB	SSB	ER	F	TB SSB	ER F
40. SPANMACKSATLC [Spanish mackerel Southern Atlantic coast]	TB	SSB	ER	F	TB SSB	ER F
41. TILEGM [Tilefish Gulf of Mexico]	TB	SSB	ER	F	TB SSB	ER F
42. TILESATLC [Tilefish Southern Atlantic coast]	TB	SSB	ER	F	TB SSB	ER F
43. VSNAPGM [Vermilion snapper Gulf of Mexico]	TB	SSB	ER	F	TB SSB	ER F
44. VSNAPSATLC [Vermilion snapper Southern Atlantic coast]	TB	SSB	ER	F	TB SSB	ER F
45. WSHRIMPGM [White shrimp Gulf of Mexico]	TB	SSB	ER	F	TB SSB	ER F
46. YEGROUPGM [Yellowedge grouper Gulf of Mexico]	TB	SSB	ER	F	TB SSB	ER F
47. YTSNAPSATLCGM [Yellowtail snapper Southern Atlantic coast and Gulf of Mexico]	TB	SSB	ER	F	TB SSB	ER F

Bonnethead shark Atlantic [BHEADSHARATL]

Metadata	
Scientific Name	Sphyrna tiburo
Current Assess ID	SEFSC-BHEADSHARATL-1950-2011-HIVELY
Area	Atlantic
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2011

Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	-	-	-
SSBmsy	SSFmsy-E00	2011	4,770,000
Fmsy	Fmsy-1/yr	2011	0.2
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-E00	2011	589,000
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	**ID**	**Asmt Year**	**Curr Value**	**Sex**	**Age**
TB	-	-	-	-	-
SSB	SSF-E00	2011	6,070,000	-	-
TN	TN-E00	2011	4,890,000	-	-
R	-	-	-	-	-
F	F-1/yr	2011	0.101	-	-
ER	ER-calc-ratio	2011	0.075	-	-
TC	TC-E00	2011	369,000		
TL	TL-MT	2011	19		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSF-E00/SSFmsy-E00	2011	1.273		
F/Fmsy	F-1/yr/Fmsy-1/yr	2011	0.505		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Bonnethead shark Atlantic [BHEADSHARATL]

Kobe MSYpref (1950−2011−HIVELY)

Kobe MGTpref (1950−2011−HIVELY)

Spawner Recruit*

Production*
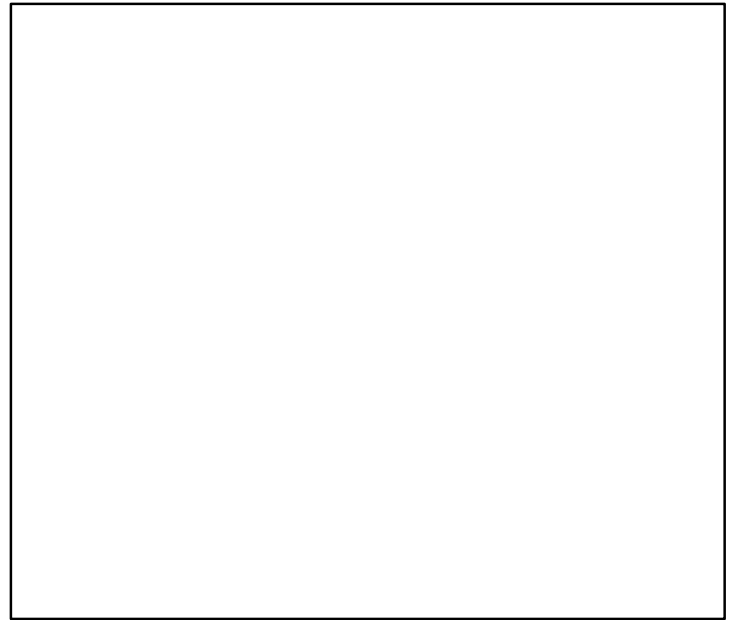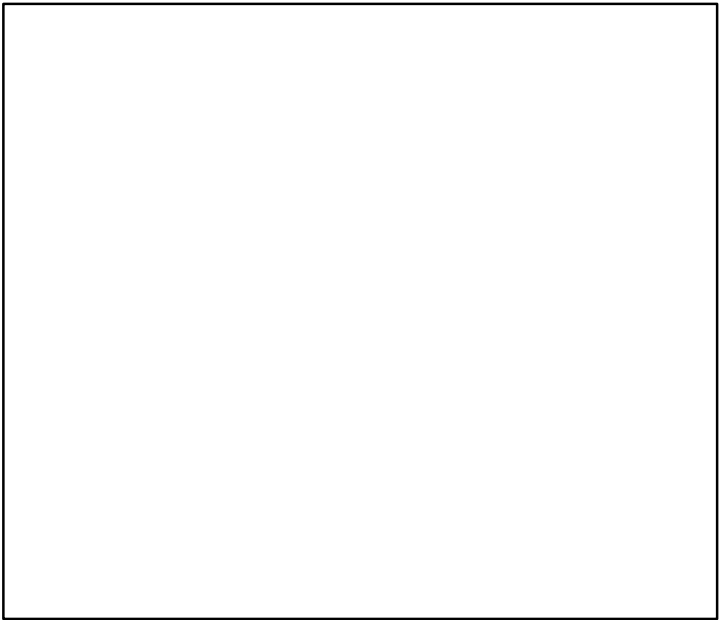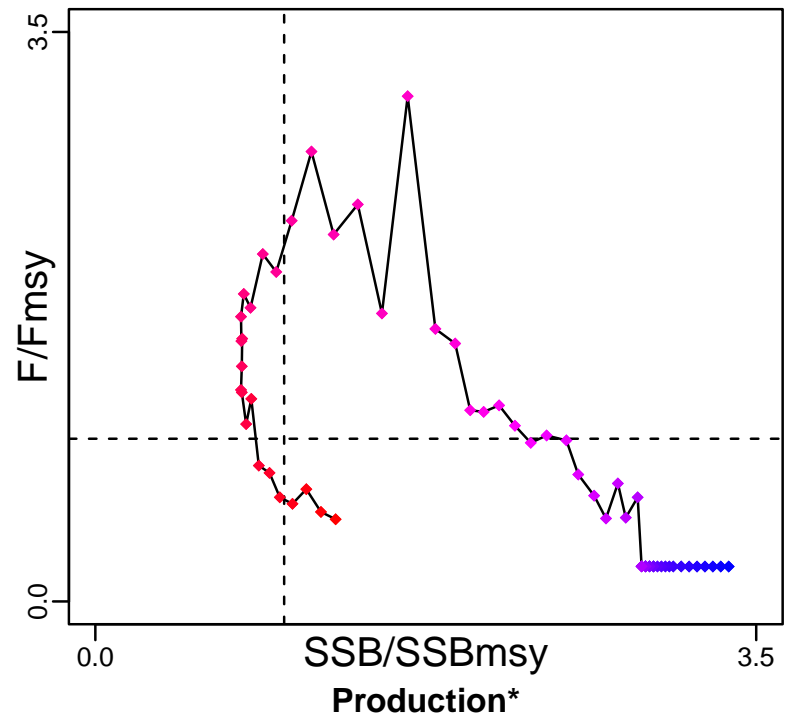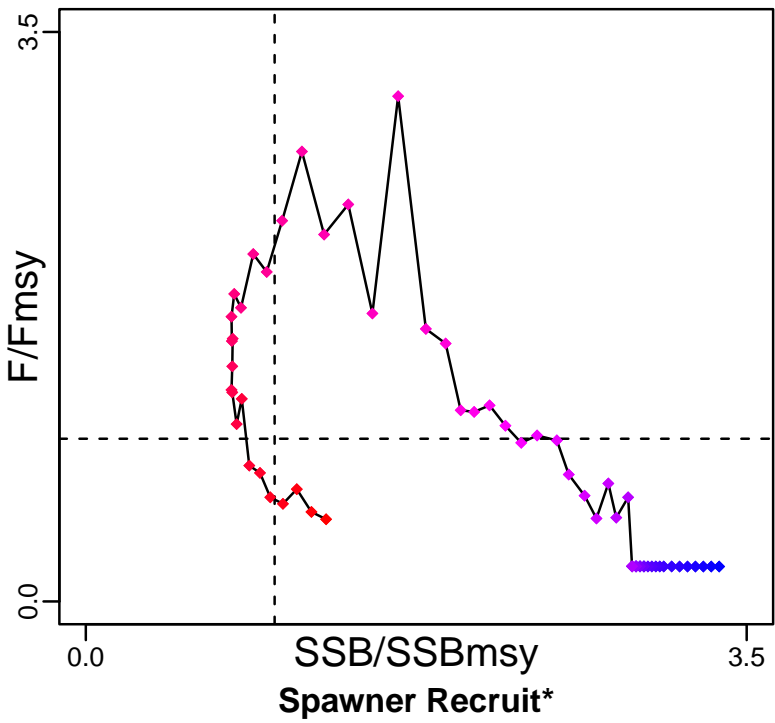
◆ Start Year   ◆ End Year   ∗ No Data

Bonnethead shark Atlantic [BHEADSHARATL]

TB*

SSF−E00 (1950−2011−HIVELY)
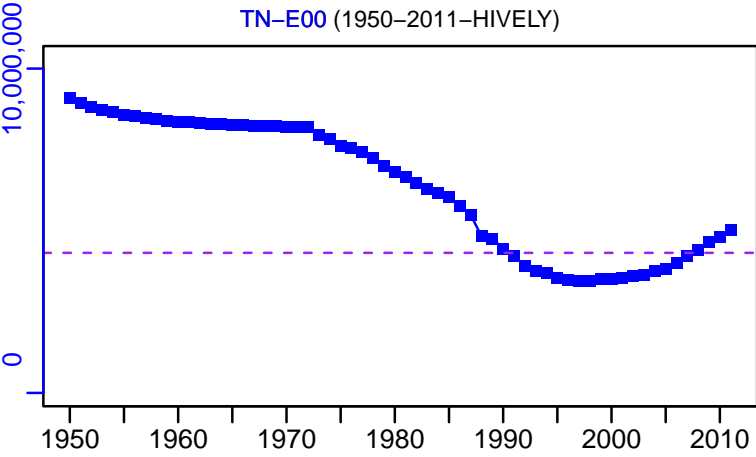
SSFmsy−E00, SSBmgt*, SSBlim*

TN−E00 (1950−2011−HIVELY)

Nmsy−E00, TNmgt*, TNlim*

F−1/yr (1950−2011−HIVELY)

Fmsy−1/yr, Fmgt*, Flim*

ER−calc−ratio (1950−2011−HIVELY)

ERmsy*, ERmgt*, ERlim*

Recruits*

Listed time series — · — Target BRP —— Rec−Est
- - - MSY−based BRP — · — Lim BRP * No Data
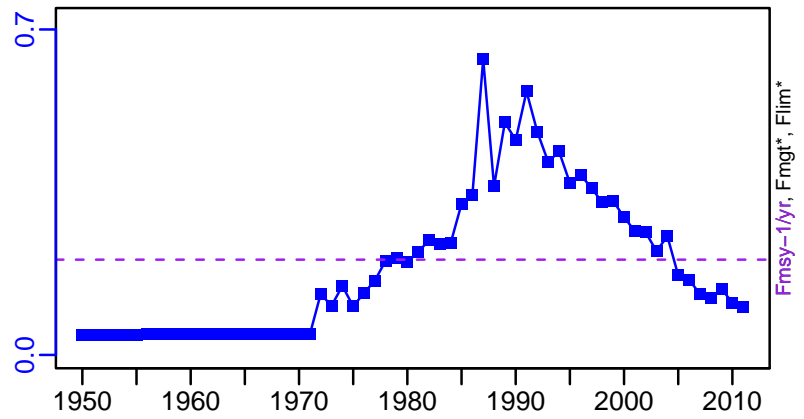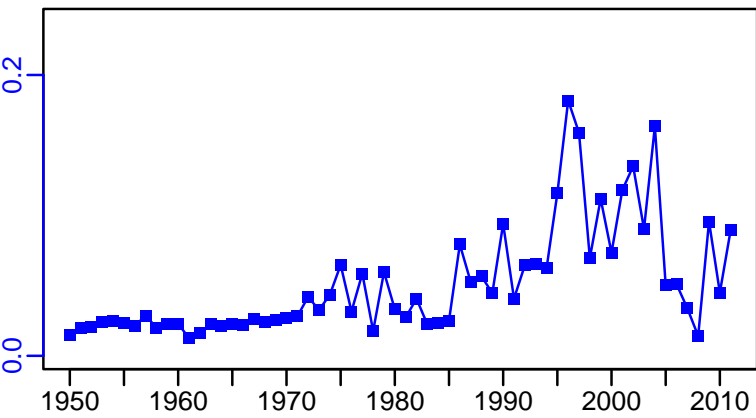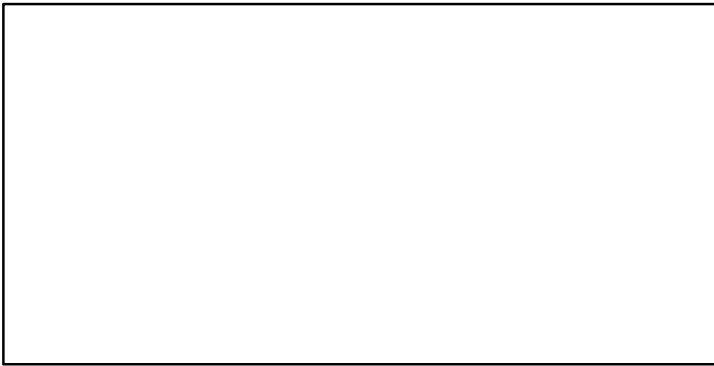
Bonnethead shark Atlantic [BHEADSHARATL]

TC–E00, TL*, RecC* (1950–2011–HIVELY)
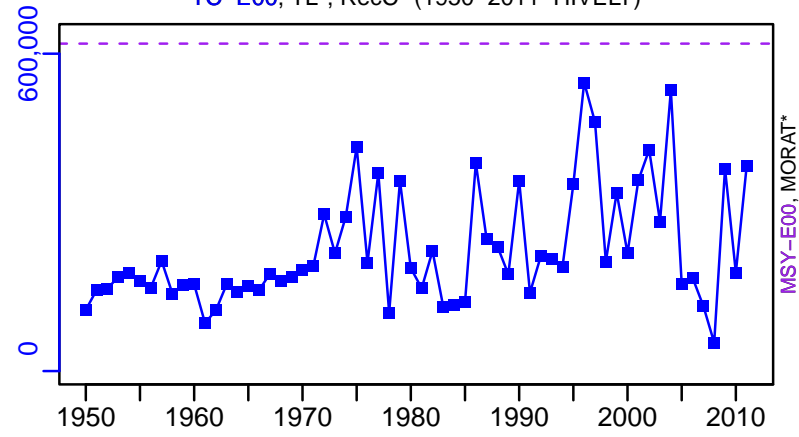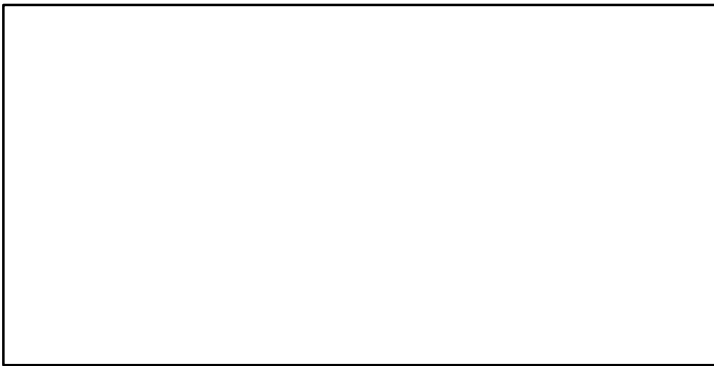
TAC*, Cpair*, Cadv*

survB*

CPUE*

EFFORT*

TC–E00/MSY–E00, CdivMEANC–ratio, (1950–2011–HIVELY)

■	1st listed time series	▲ 3rd listed time series
●	2nd listed time series	– – MSY

MORAT
* No Data

6
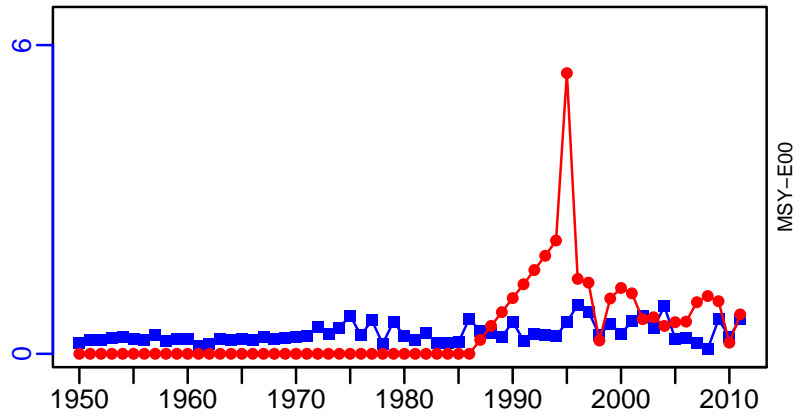
Black grouper Gulf of Mexico and South Atlantic [BLACKGROUPERGMSATL]

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

Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	-	-	-
SSBmsy	SSBmsy-pr-MT	2008	2685
Fmsy	Fmsy-pr-1/yr	2008	0.216
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2008	0.136
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	**ID**	**Asmt Year**	**Curr Value**	**Sex**	**Age**
TB	-	-	-	-	-
SSB	SSB-MT	2008	3760	Both	7+
TN	-	-	-	-	-
R	R-E00	2008	169,000	-	1
F	F-1/yr	2008	0.108	Females	5
ER	-	-	-	-	-
TC	TC-MT	2008	138		
TL	TL-MT	2008	99		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-pr-MT	2008	1.4		
F/Fmsy	F-1/yr/Fmsy-pr-1/yr	2008	0.5		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Black grouper Gulf of Mexico and South Atlantic [BLACKGROUPERGMSATL]

Kobe MSYpref (1986–2008–THORSON)
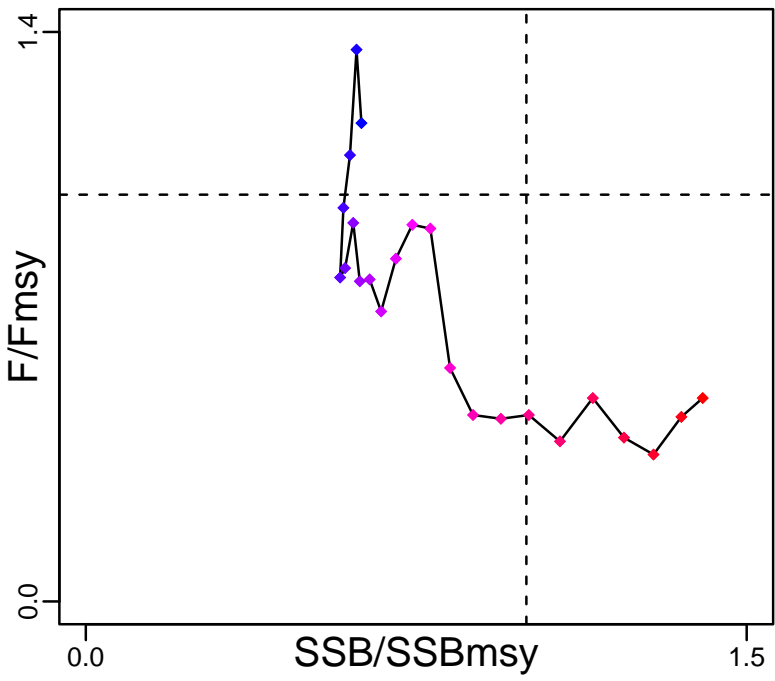
Kobe MGTpref (1986–2008–THORSON)
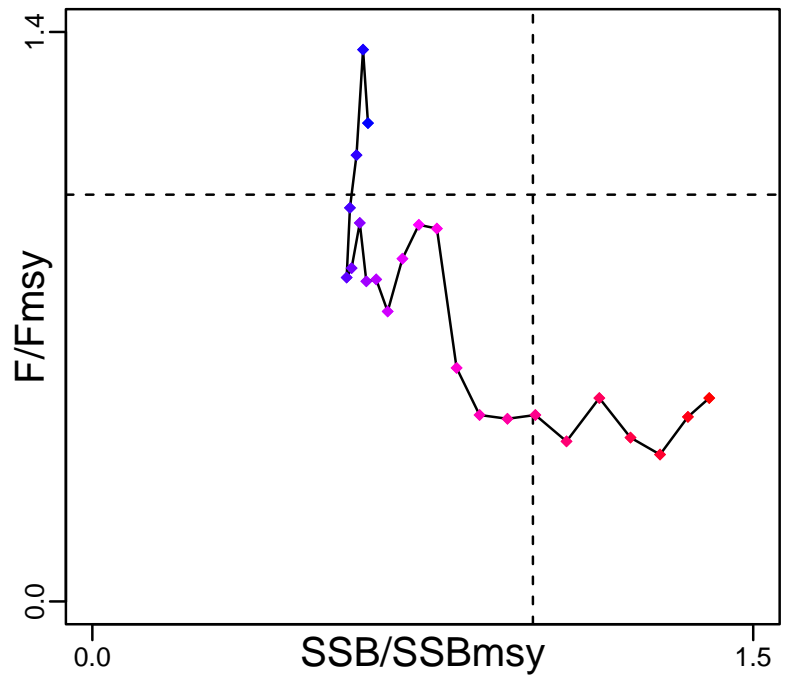
Spawner Recruit (1986–2008–THORSON)
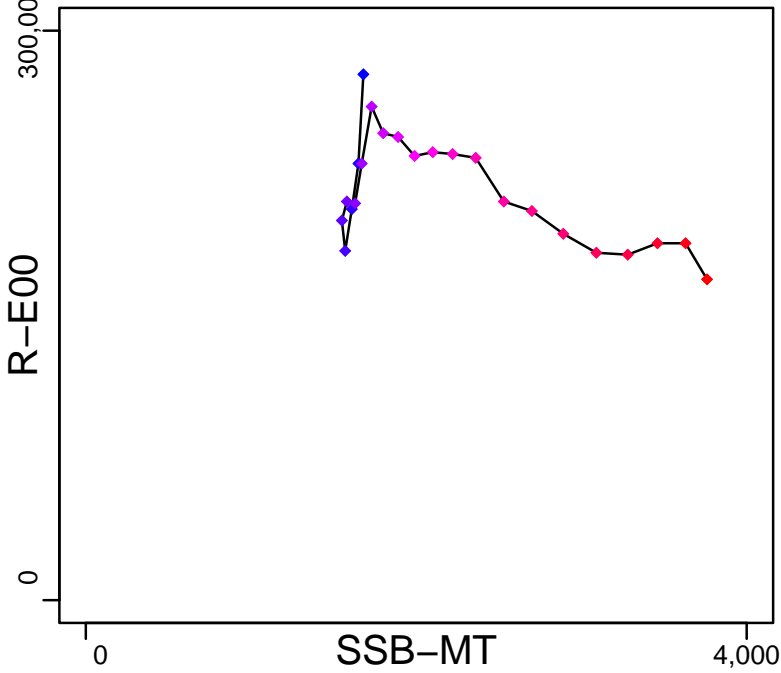
Production*
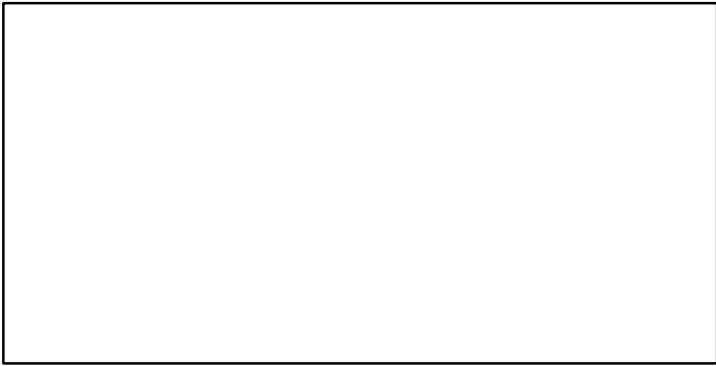
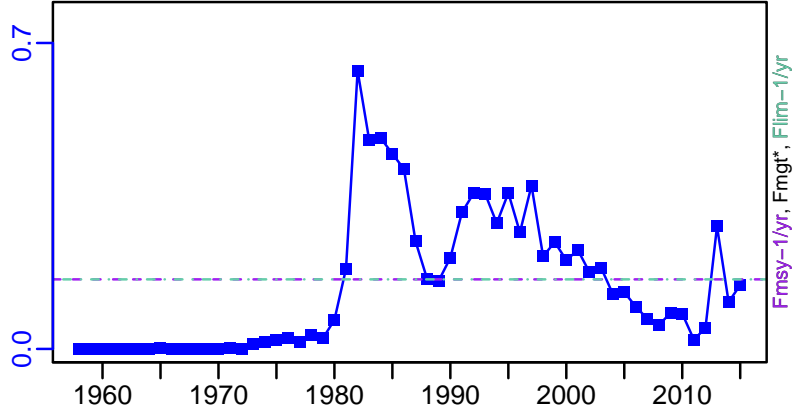Start Year ◆ End Year ∗ No Data

Black grouper Gulf of Mexico and South Atlantic [BLACKGROUPERGMSATL]

TB*

SSB-MT (1986–2008–THORSON)
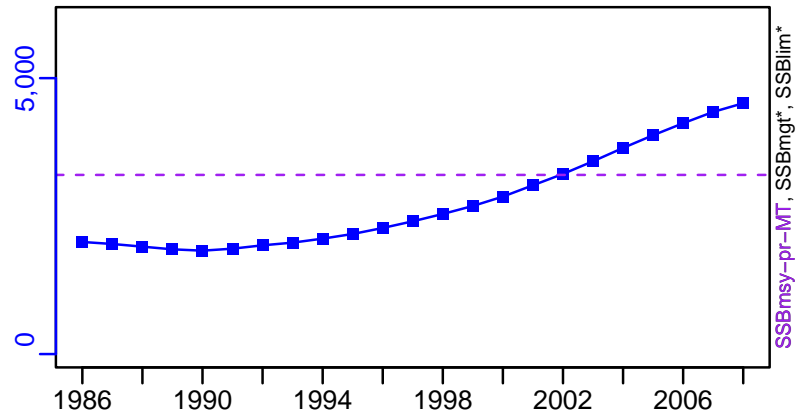
TN *
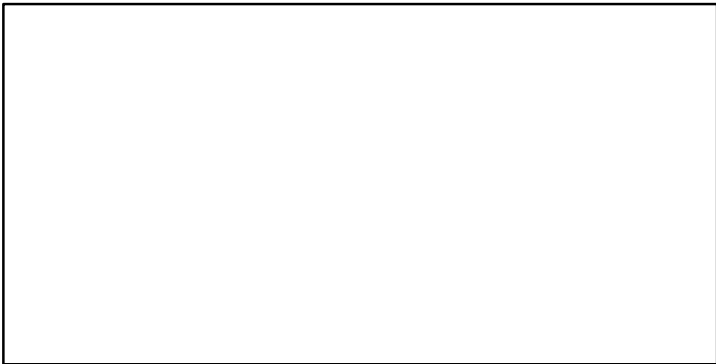
F-1/yr (1986–2008–THORSON)
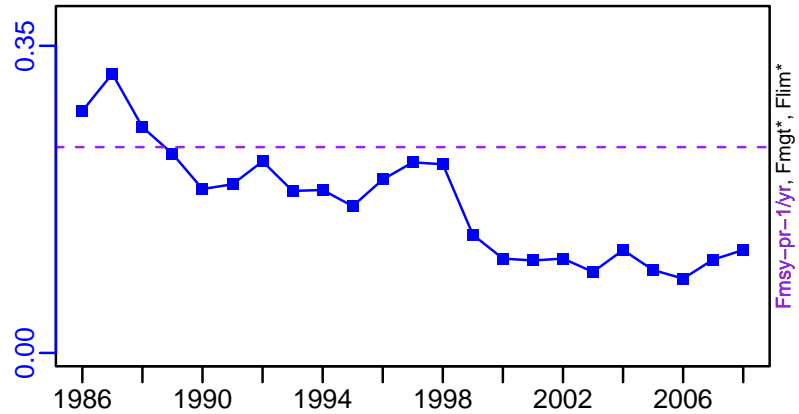
ER-calc-ratio (1986–2008–THORSON)
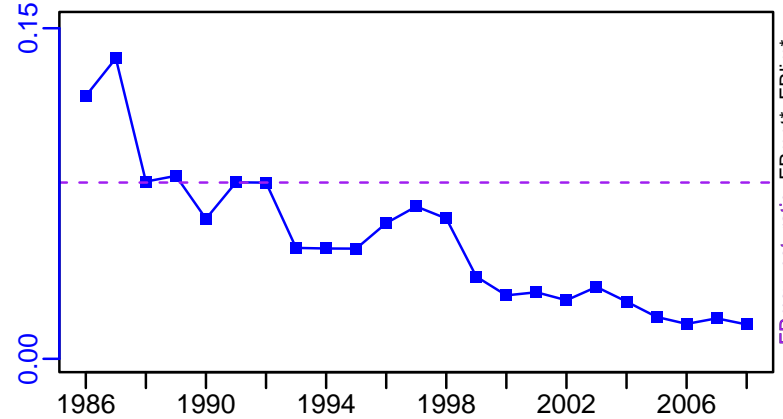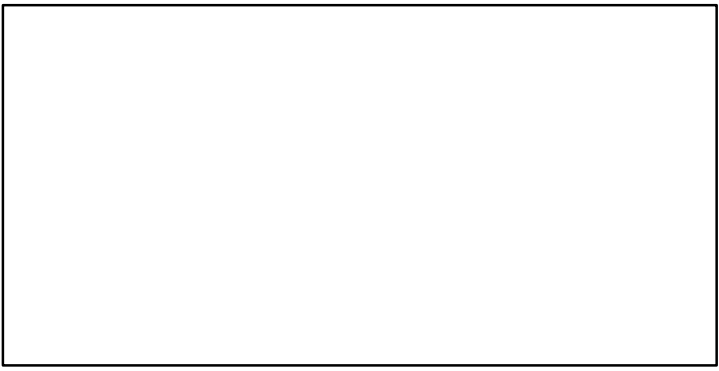
R-E00 (1986–2008–THORSON)

■ Listed time series	– · – · Target BRP	—— Rec–Est
– – – MSY–based BRP	– · – · Lim BRP	* No Data
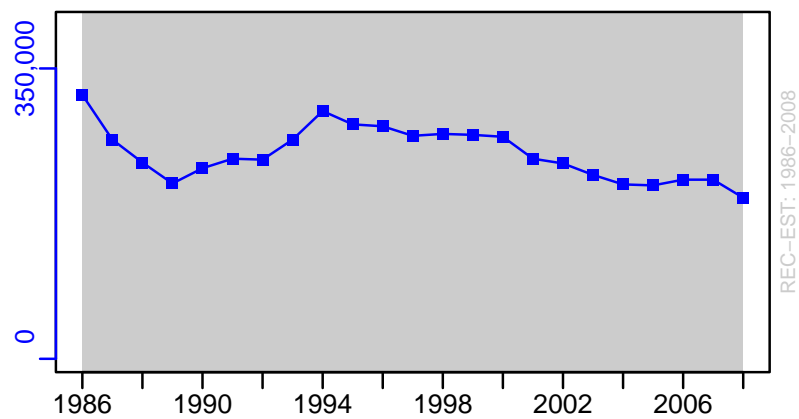
Black grouper Gulf of Mexico and South Atlantic [BLACKGROUPERGMSATL]
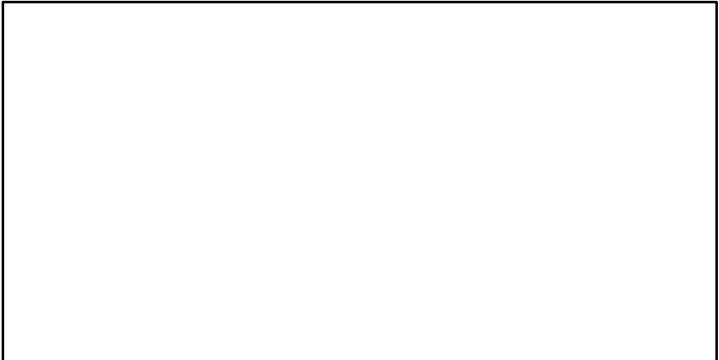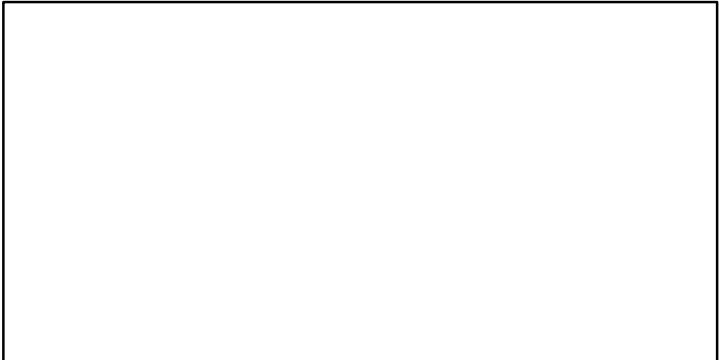
TC–MT, TL–MT, RecC* (1986–2008–THORSON)

TAC*, Cpair*, Cadv*
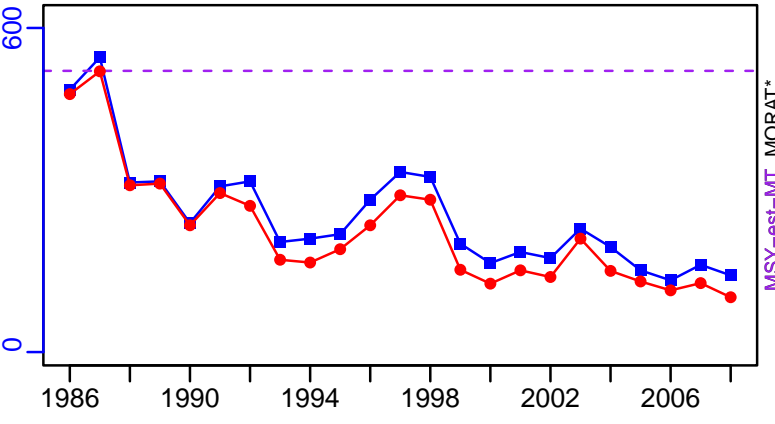
survB*
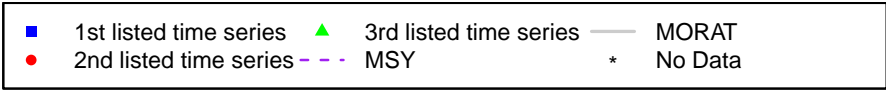
CPUE*

EFFORT*

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

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

10
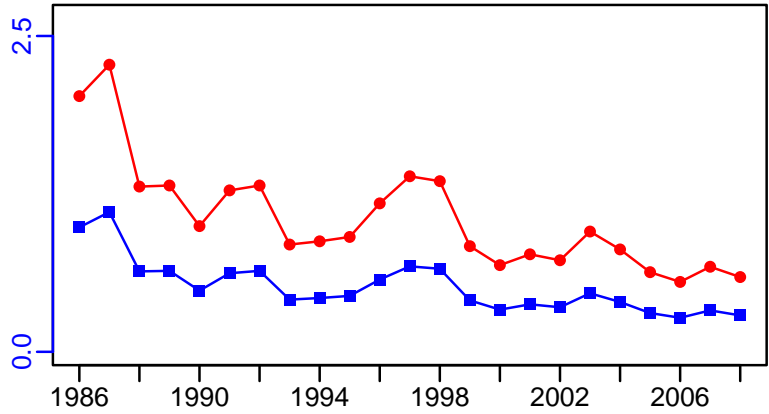
Blueline tilefish Southern Atlantic coast [BLTILESATLC]

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

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

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

Blueline tilefish Southern Atlantic coast [BLTILESATLC]

Kobe MSYpref (1958−2015−SISIMP2021)
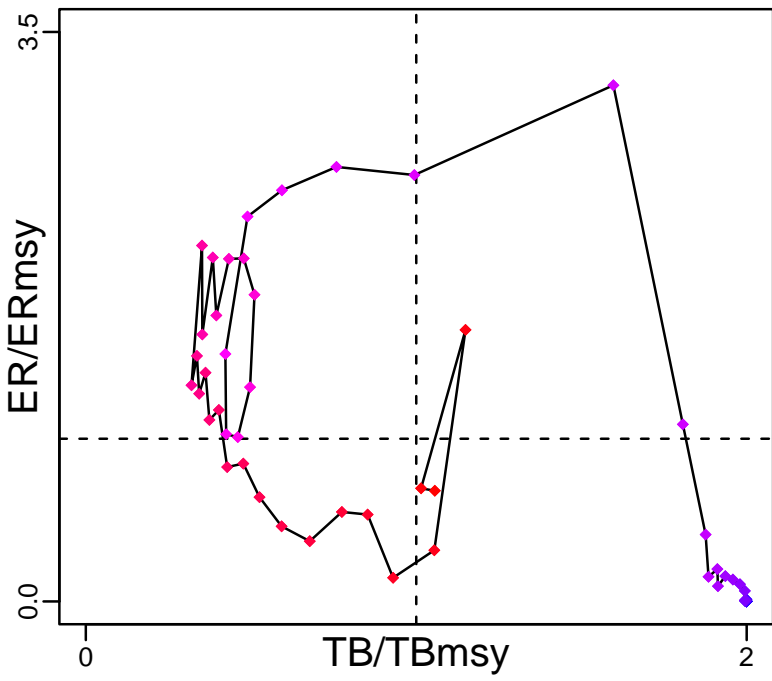
Kobe MGTpref (1958−2015−SISIMP2021)
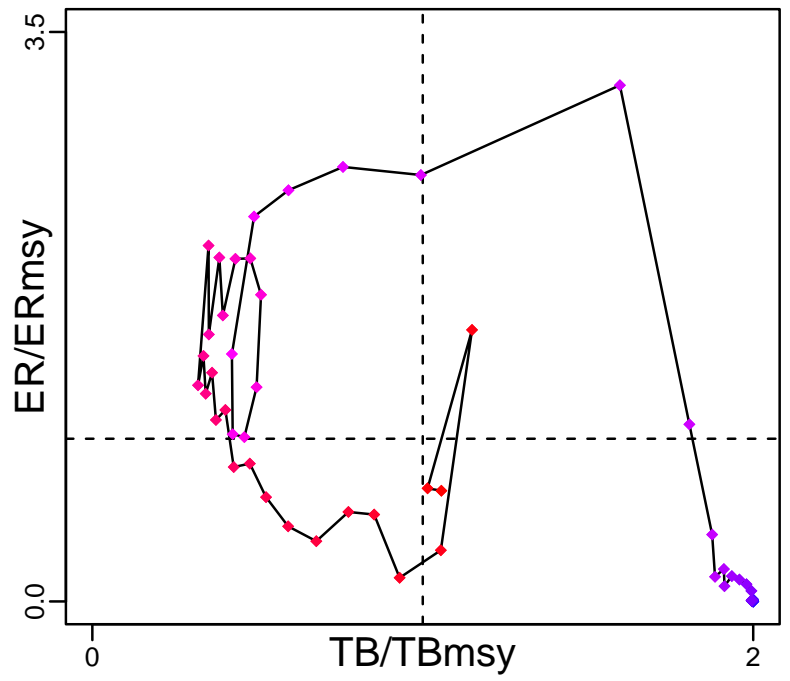
Spawner Recruit*
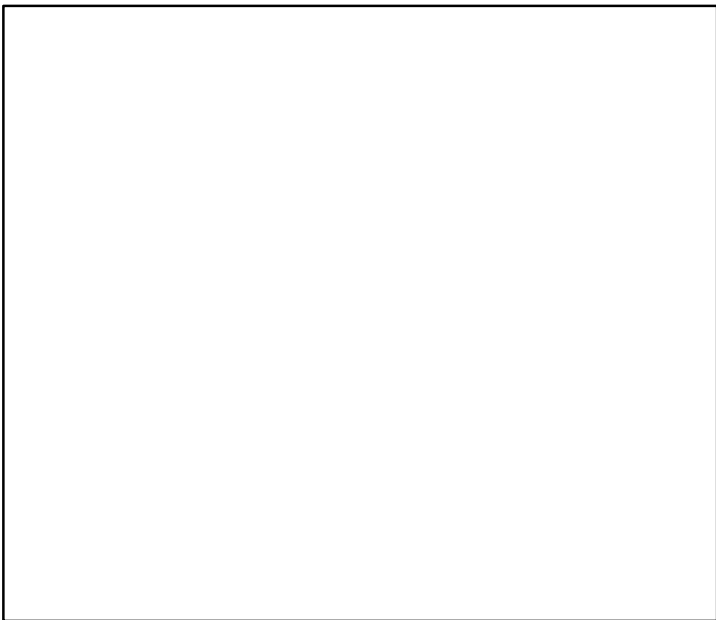
Production (1958−2015−SISIMP2021)
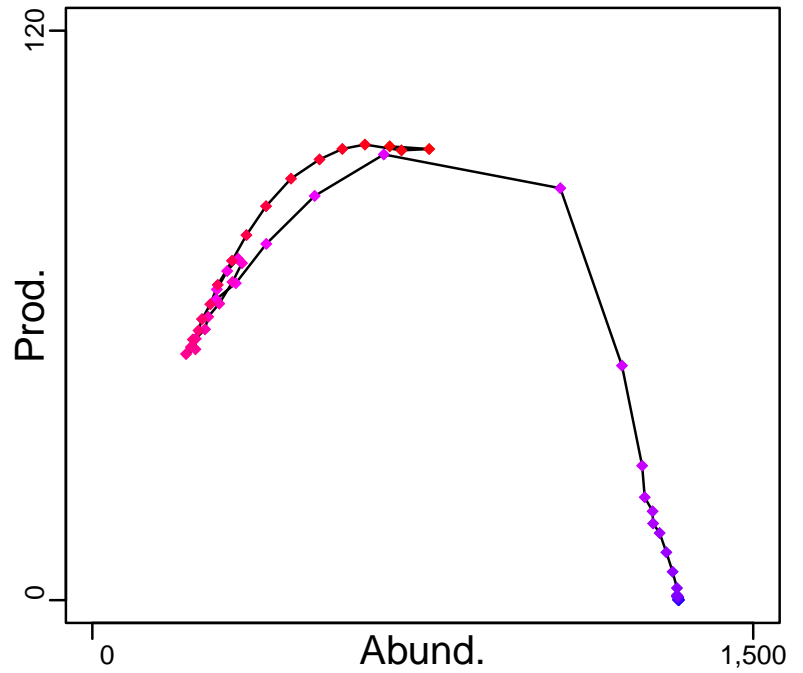
◆ Start Year   ◆ End Year   ∗ No Data

Blueline tilefish Southern Atlantic coast [BLTILESATLC]

TB−MT (1958−2015−SISIMP2021)

TBmsy−MT, TBmgt* , TBlim−MT

SSB−MT (1974−2011−SISIMP2016)

SSBmsy−MT, SSBmgt*, SSBlim−MT

TN *

F−1/yr (1958−2015−SISIMP2021)

Frmsy−1/yr, Fmgt* , Flim−1/yr

ER−calc−ratio (1958−2015−SISIMP2021)

ERmsy−calc−ratio, ERmgt*, ERlim*

Recruits*

Listed time series — · — Target BRP —— Rec−Est

– – MSY−based BRP — · — Lim BRP * No Data

13

Blueline tilefish Southern Atlantic coast [BLTILESATLC]

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

TAC*, Cpair*, Cadv*
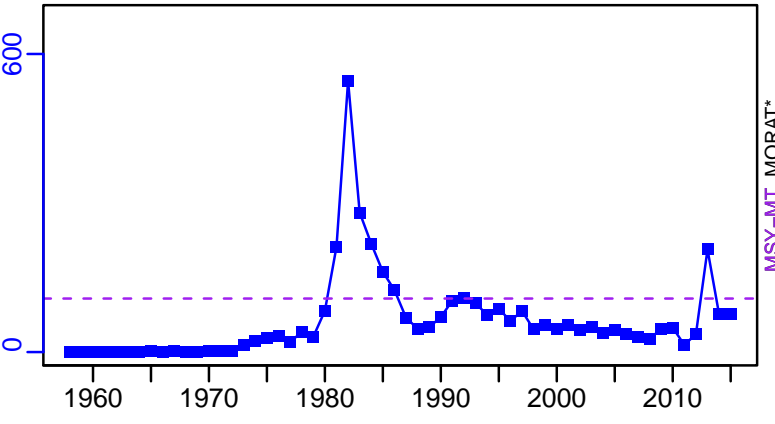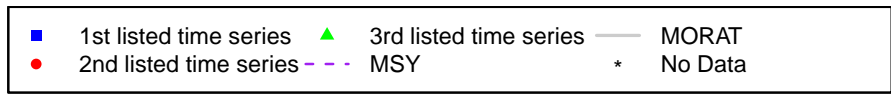
survB*

CPUE*

EFFORT*

TC–MT/MSY–MT, CdivMEANC–ratio, (1958–2015–SISIMP2021)

■ 1st listed time series	▲ 3rd listed time series	—— MORAT
● 2nd listed time series	– – – MSY	* No Data
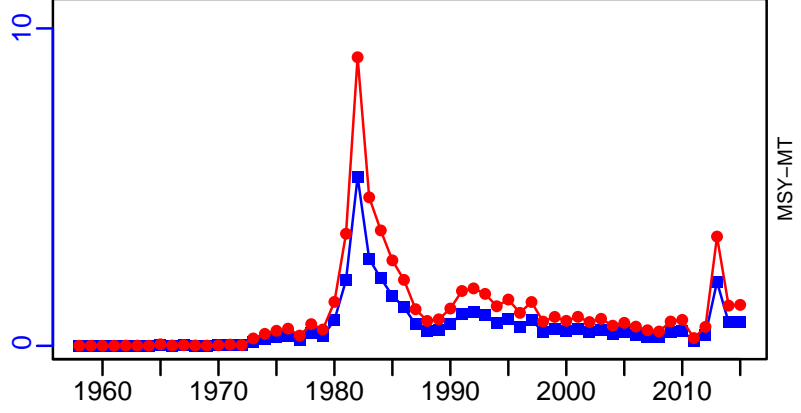
Blacknose shark Atlantic [BNOSESHARATL]

Metadata	
Scientific Name	Carcharhinus acronotus
Current Assess ID	SEFSC-BNOSESHARATL-1950-2009-SISIMP2016
Area	Atlantic
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2005, 2009

Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	-	-	-
SSBmsy	SSBmsy-E00pups	2009	153,709
Fmsy	Fmsy-1/yr	2009	0.08
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	Fmgt-1/yr	2009	0.06
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-E00	2009	24,495
M	-	-	-
TBlim	-	-	-
SSBlim	SSBlim-E00pups	2009	77,447
Flim	Flim-1/yr	2009	0.08
ERlim	-	-	-
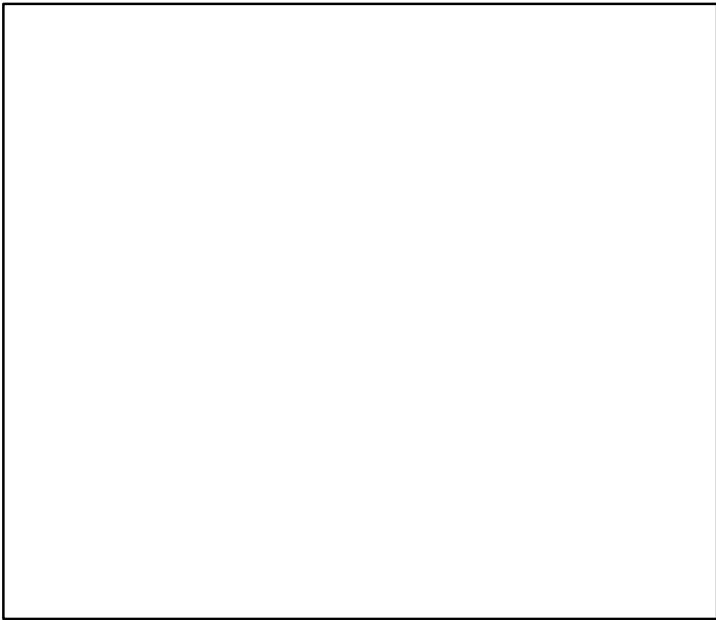
Time Series					
Type	**ID**	**Asmt Year**	**Curr Value**	**Sex**	**Age**
TB	-	-	-	-	-
SSB	SSB-E00pups	2009	58,000	-	-
TN	TN-E00	2009	152,000	-	-
R	-	-	-	-	-
F	F-1/yr	2009	0.376	-	-
ER	ER-calc-ratio	2009	0.206	-	-
TC	TC-E00	2009	31,300		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSF-E00/SSFmsy-E00	2005	0.573		
F/Fmsy	F-1/yr/Fmsy-1/yr	2009	4.7		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	F-1/yr/Fmgt-1/yr	2009	6.267		
ER/ERmgt	-	-	-		

Blacknose shark Atlantic [BNOSESHARATL]

Kobe MSYpref (1950−2005−FAUCONNET)

Kobe MGTpref (1950−2005−FAUCONNET)

F/Fmsy

7

0

0

SSB/SSBmsy

3

Spawner Recruit*

Production*
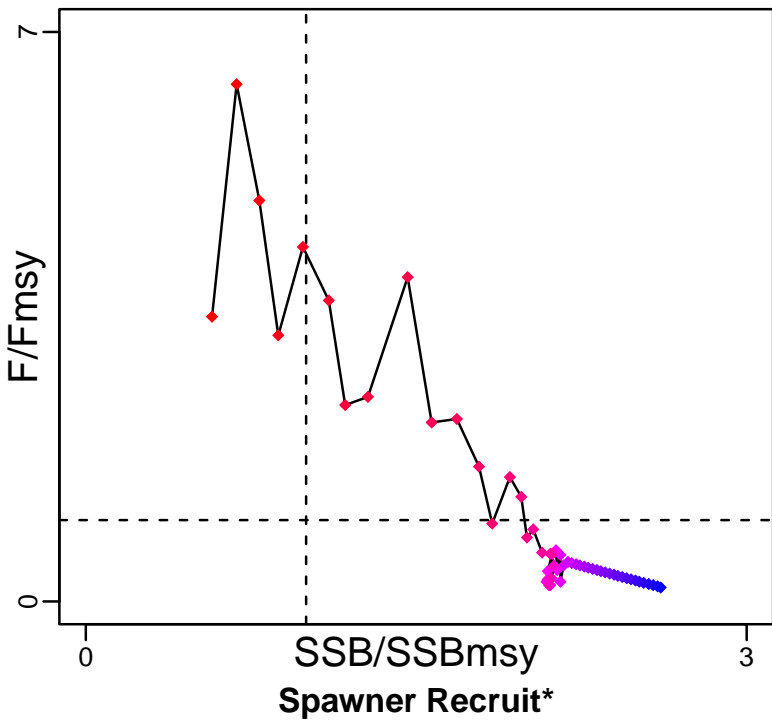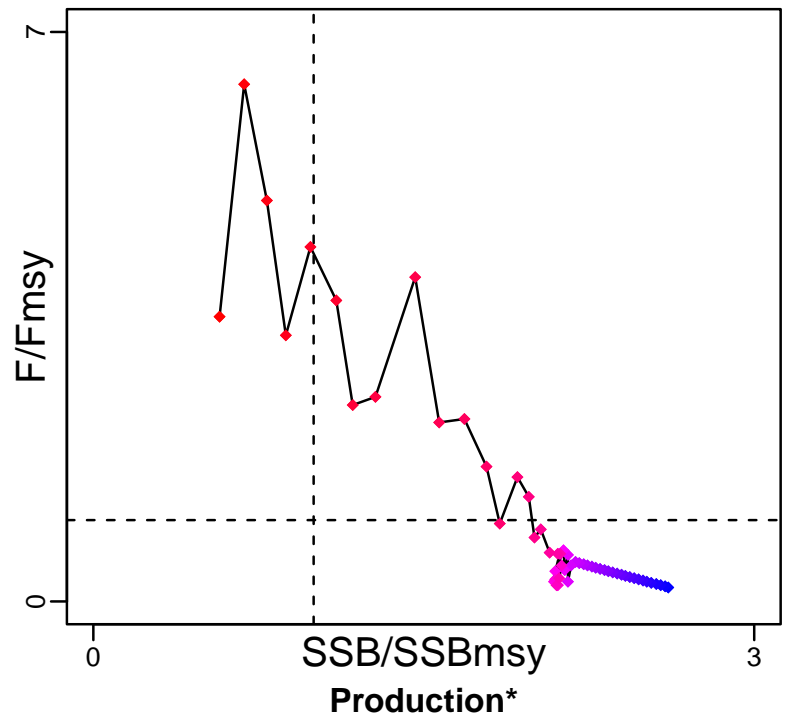
◆ Start Year ◆ End Year ∗ No Data

Blacknose shark Atlantic [BNOSESHARATL]

TB−mwc−MT (1950−2009−SISIMP2016)
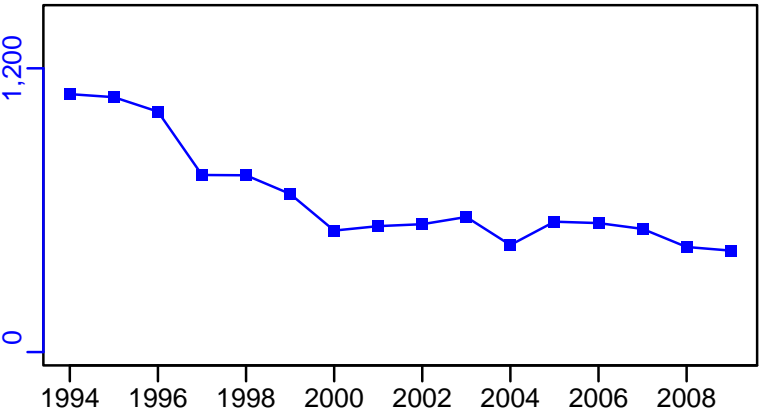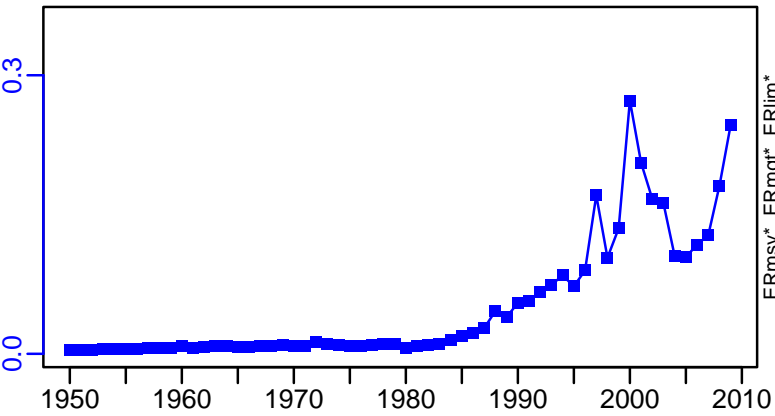
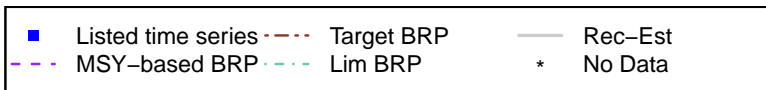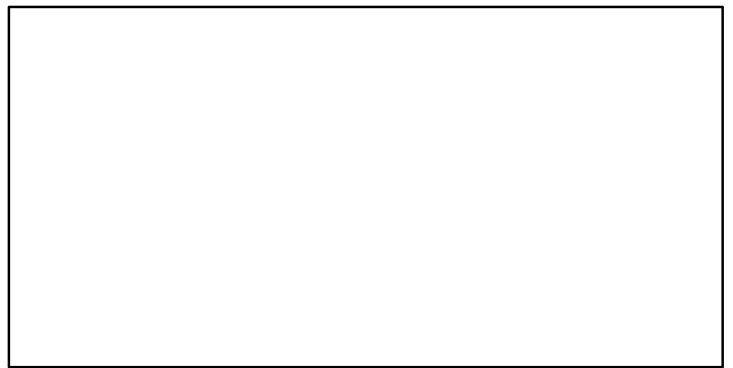SSB−E00pups (1950−2009−SISIMP2016)
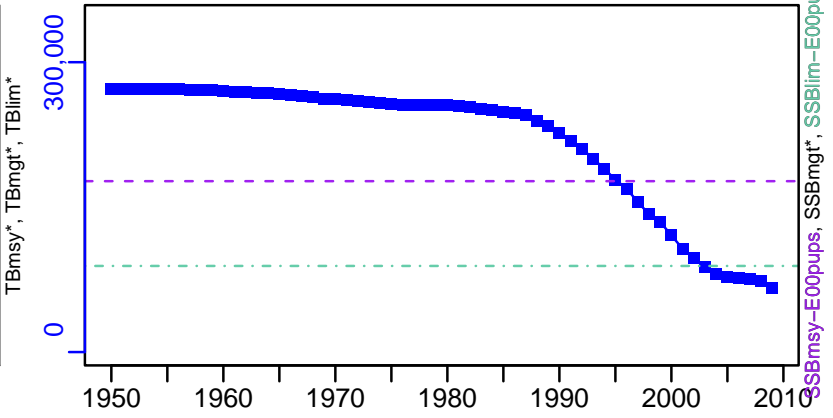
TN−E00 (1950−2009−SISIMP2016)
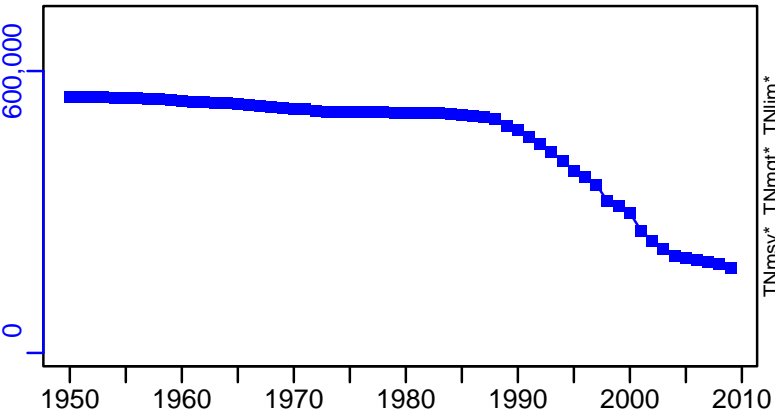
F−1/yr (1950−2009−SISIMP2016)
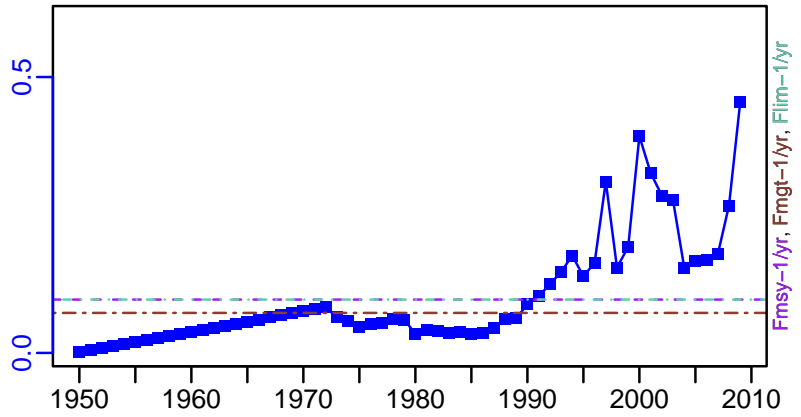
ER−calc−ratio (1950−2009−SISIMP2016)

Recruits*

Listed time series · — · Target BRP ——— Rec−Est
− − − MSY−based BRP · − · Lim BRP   *   No Data
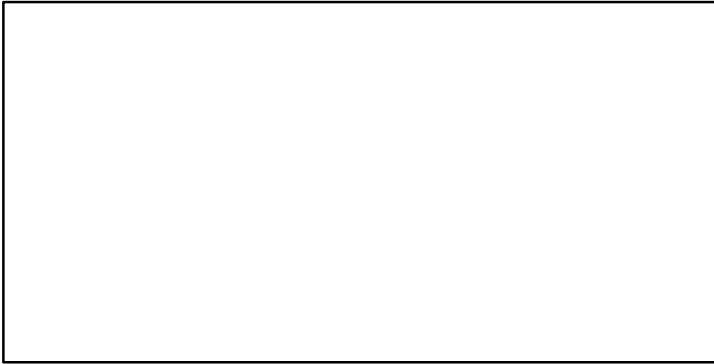
Blacknose shark Atlantic [BNOSESHARATL]

TC−E00, TL*, RecC* (1950−2009−SISIMP2016)

TAC*, Cpair*, Cadv*

survB*

CPUE*

EFFORT*

TC−E00/MSY−E00, CdivMEANC−ratio, (1950−2009−SISIMP2016)

■	1st listed time series	▲ 3rd listed time series
●	2nd listed time series	− − MSY

MORAT

* No Data
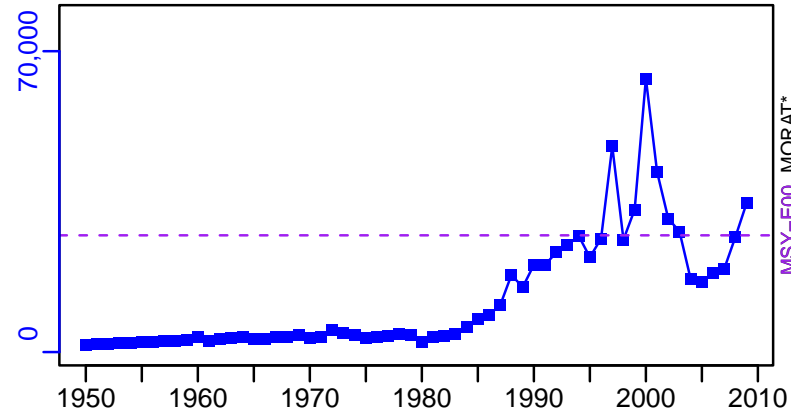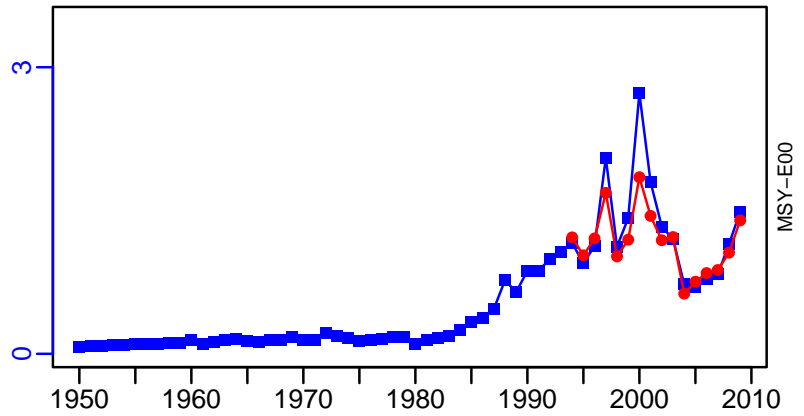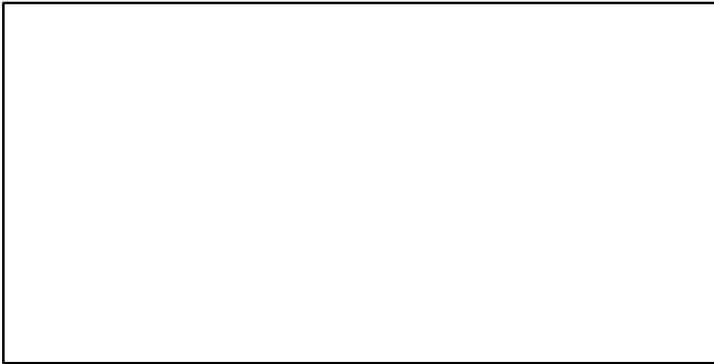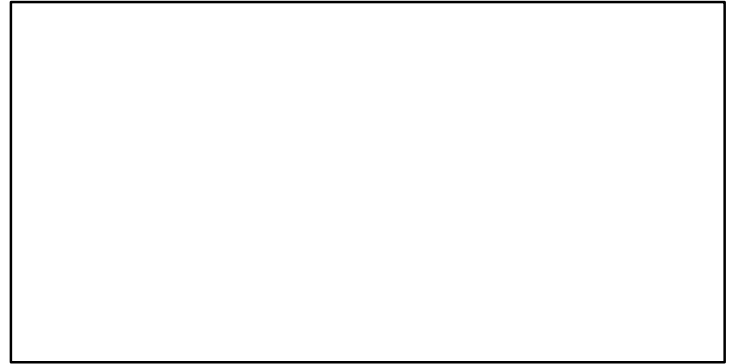
Brown shrimp Gulf of Mexico [BRNSHRIMPGM]

Metadata	
Scientific Name	Farfantepenaeus aztecus
Current Assess ID	SEFSC-BRNSHRIMPGM-1984-2017-SISIMP2021
Area	Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2011, 2014, 2015, 2016, 2017

Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2017	2767
Fmsy	Fmsy-1/yr	2017	9.12
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	SSBlim-MT	2017	2767
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	**ID**	**Asmt Year**	**Curr Value**	**Sex**	**Age**
TB	-	-	-	-	-
SSB	SSB-MT	2017	12,174	-	-
TN	-	-	-	-	-
R	R-E00	2017	27,770,500,000	-	-
F	F-1/yr	2017	1.73	-	-
ER	ER-ratio	2011	0.147	-	-
TC	TC-MT	2017	28,631		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2017	4.4		
F/Fmsy	F-1/yr/Fmsy-1/yr	2017	0.19		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Brown shrimp Gulf of Mexico [BRNSHRIMPGM]

Kobe MSYpref (1984−2017−SISIMP2021)
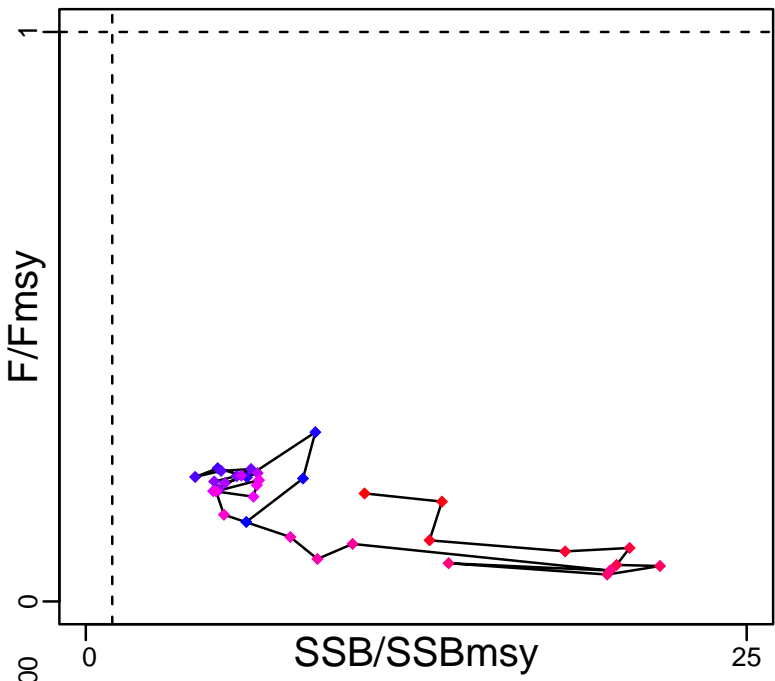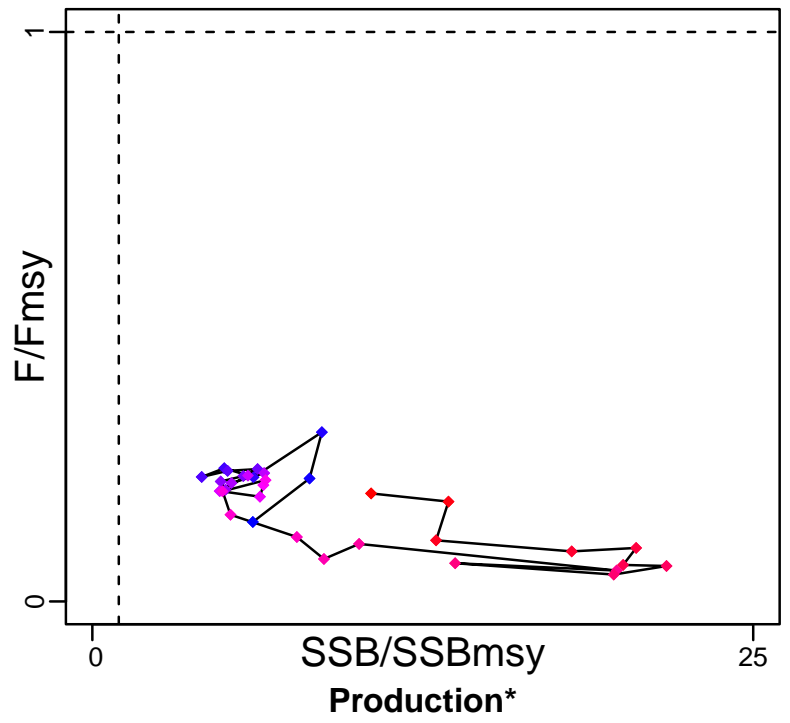
Kobe MGTpref (1984−2017−SISIMP2021)

Spawner Recruit (1984−2017−SISIMP2021)

Production*

Start Year   End Year   No Data

20
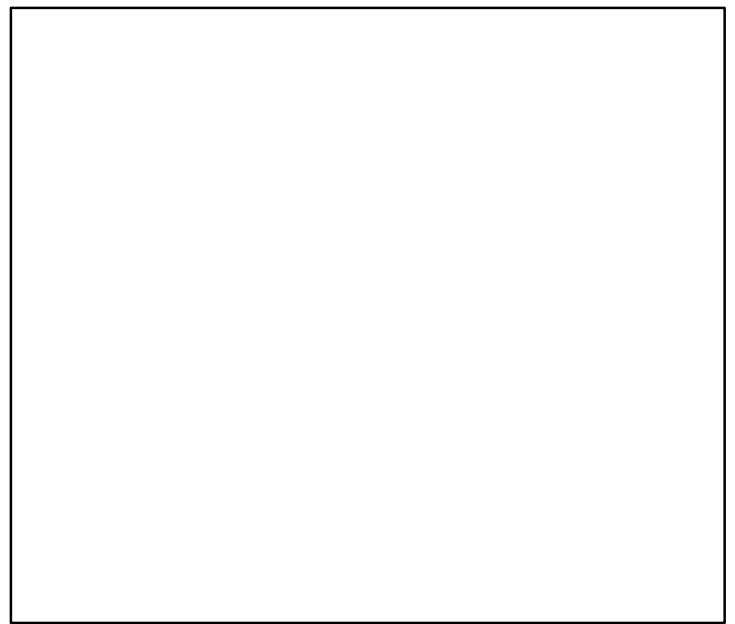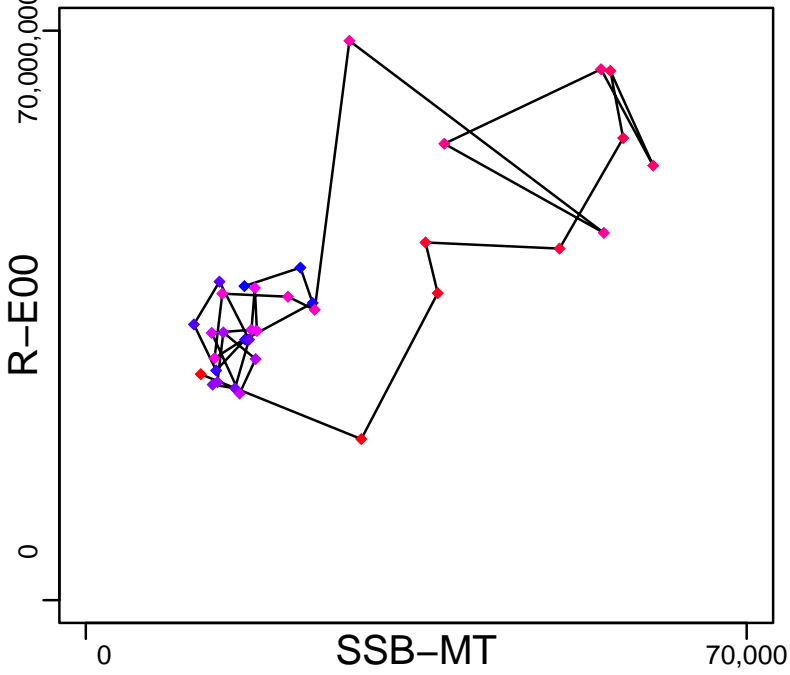
Brown shrimp Gulf of Mexico [BRNSHRIMPGM]

TB*
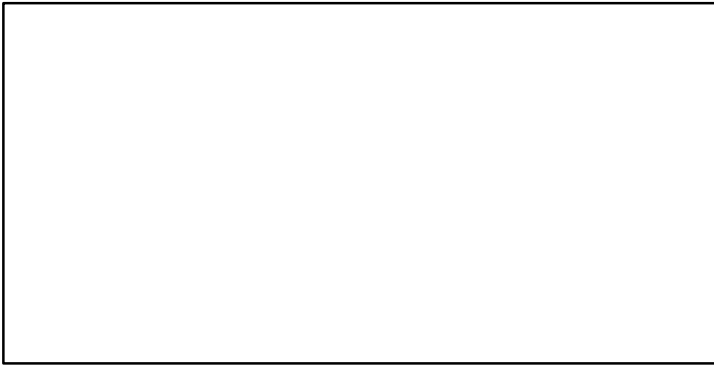
SSB−MT (1984−2017−SISIMP2021)
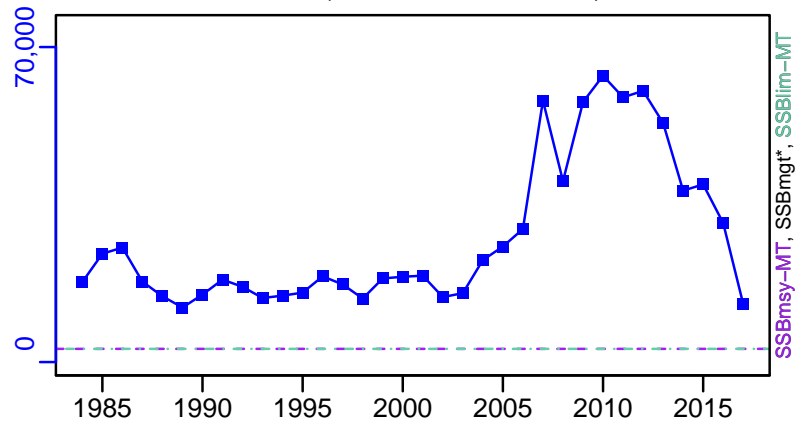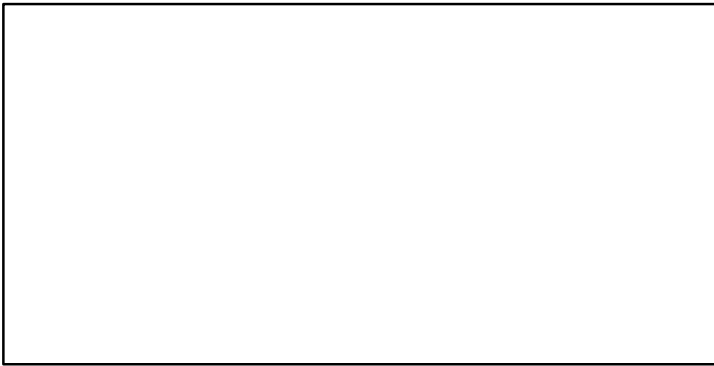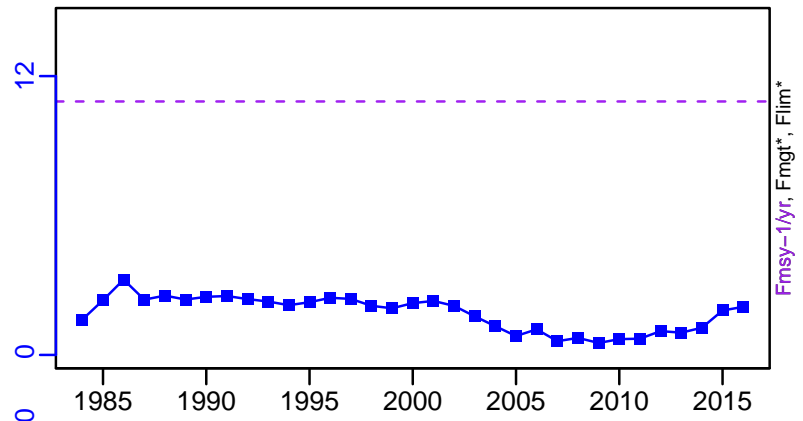
TN *

F−1/yr (1984−2017−SISIMP2021)
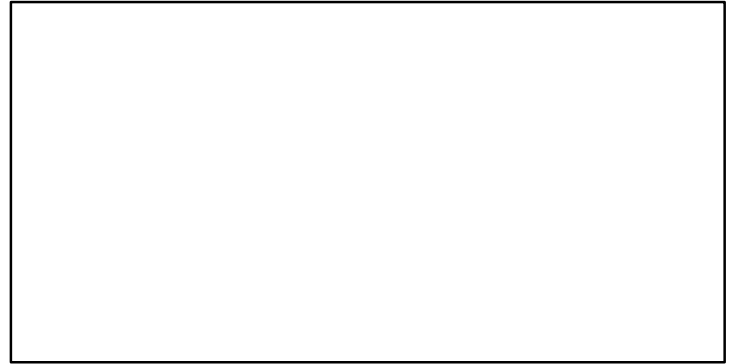
ER−calc−ratio (1984−2017−SISIMP2021)

R−E00 (1984−2017−SISIMP2021)

Legend:
- ■ Listed time series
- – · – Target BRP
- —— Rec−Est
- – – MSY−based BRP
- · – · Lim BRP
- * No Data
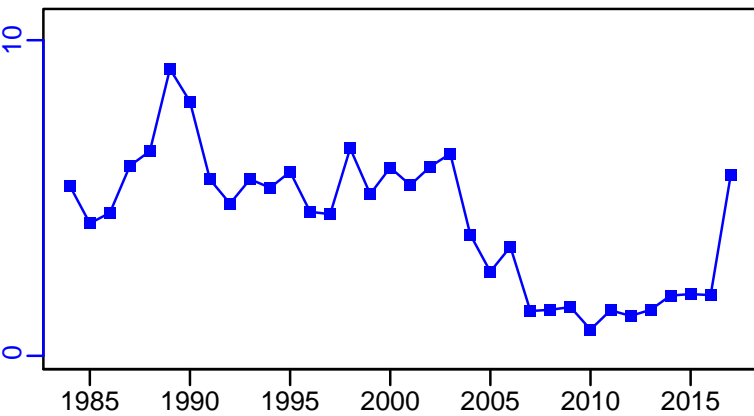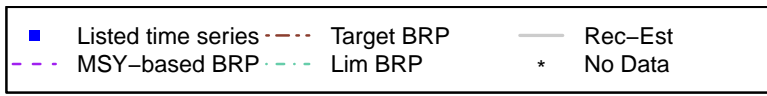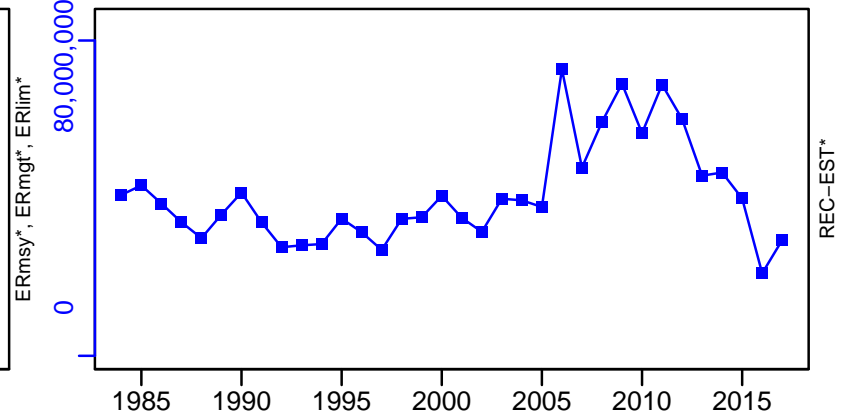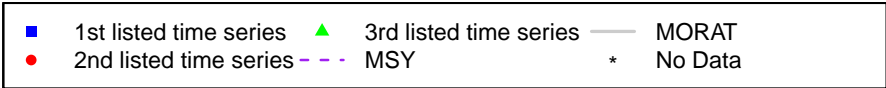
Brown shrimp Gulf of Mexico [BRNSHRIMPGM]

TC–MT, TL*, RecC* (1984–2017–SISIMP2021)

TAC*, Cpair*, Cadv*

survB*

CPUE*

EFFORT*

CdivMSY*

■	1st listed time series	▲ 3rd listed time series	—— MORAT
●	2nd listed time series	– – MSY	* No Data
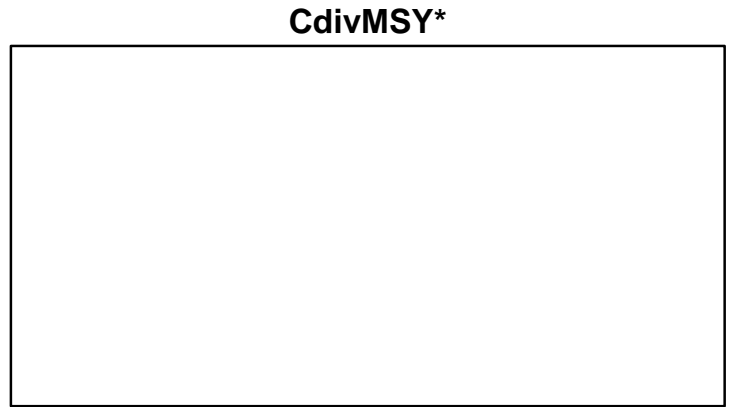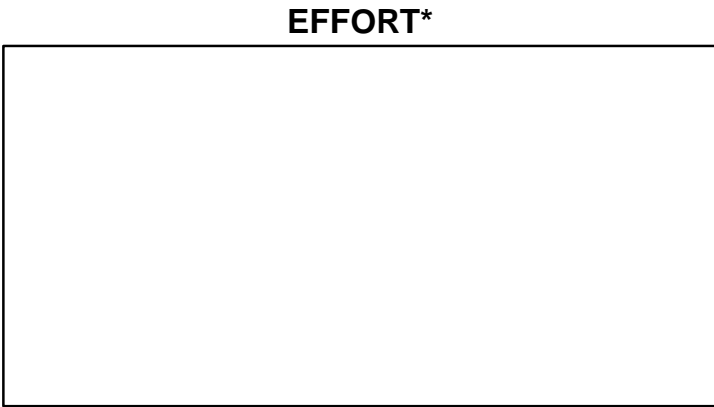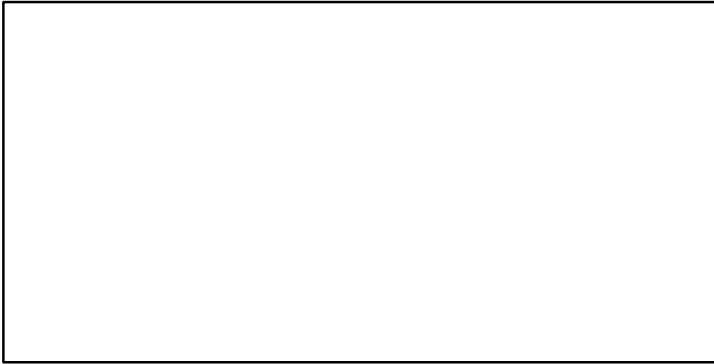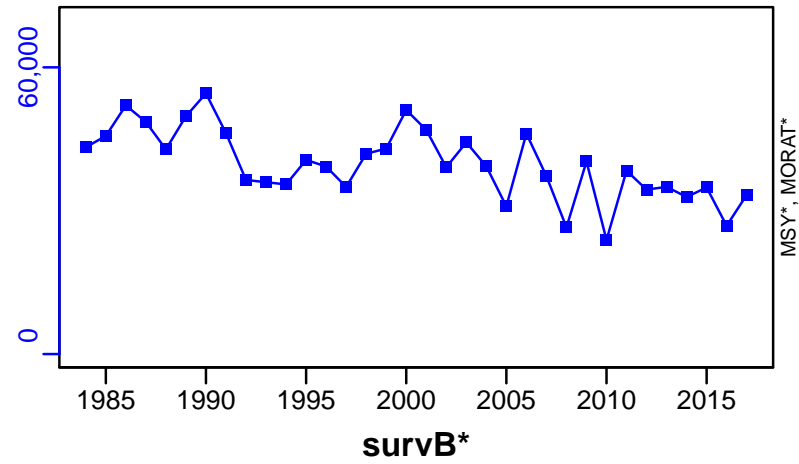
Black sea bass South Atlantic [BSBASSSATL]

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

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

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

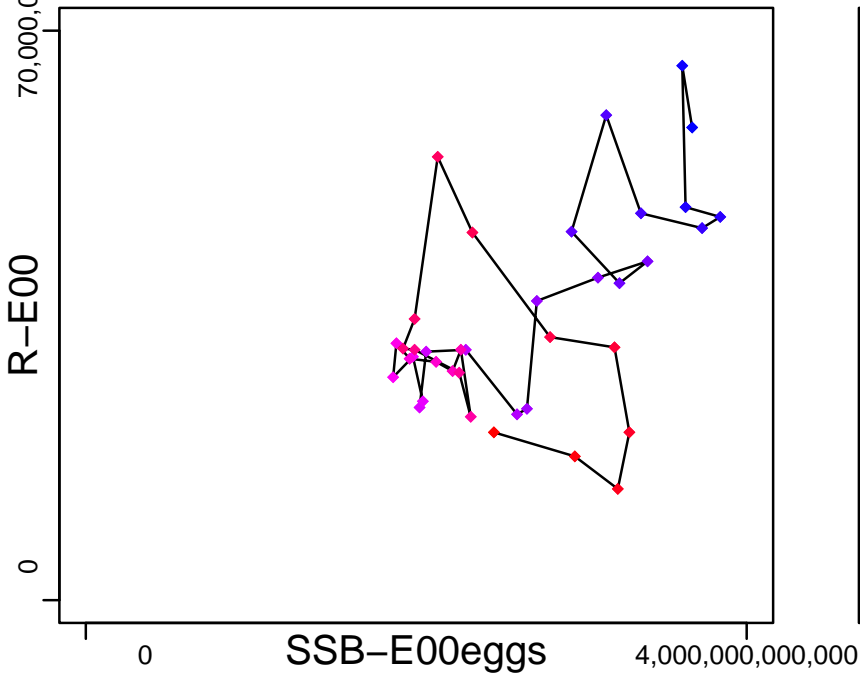**Black sea bass South Atlantic [BSBASSSATL]**

Kobe MSYpref (1977–2016–SISIMP2021)
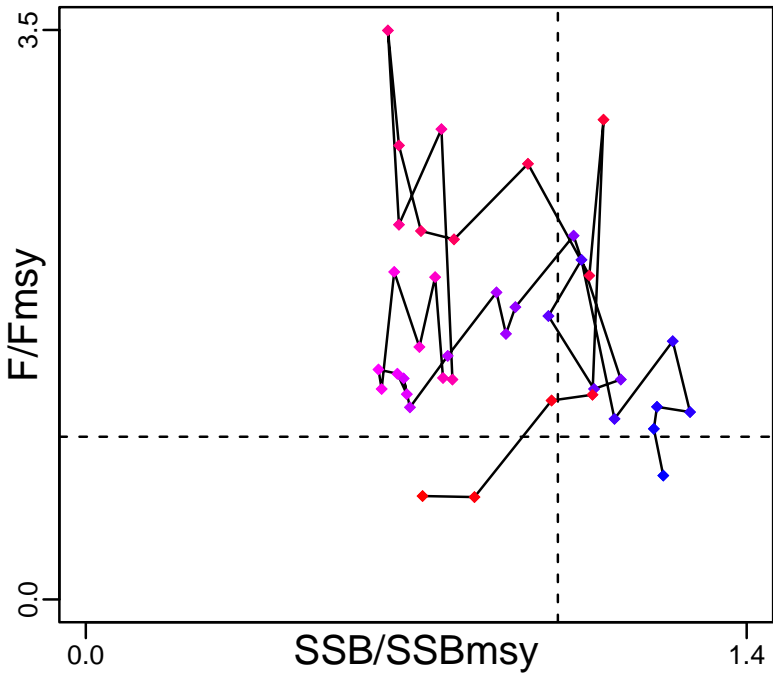
Kobe MGTpref (1977–2016–SISIMP2021)
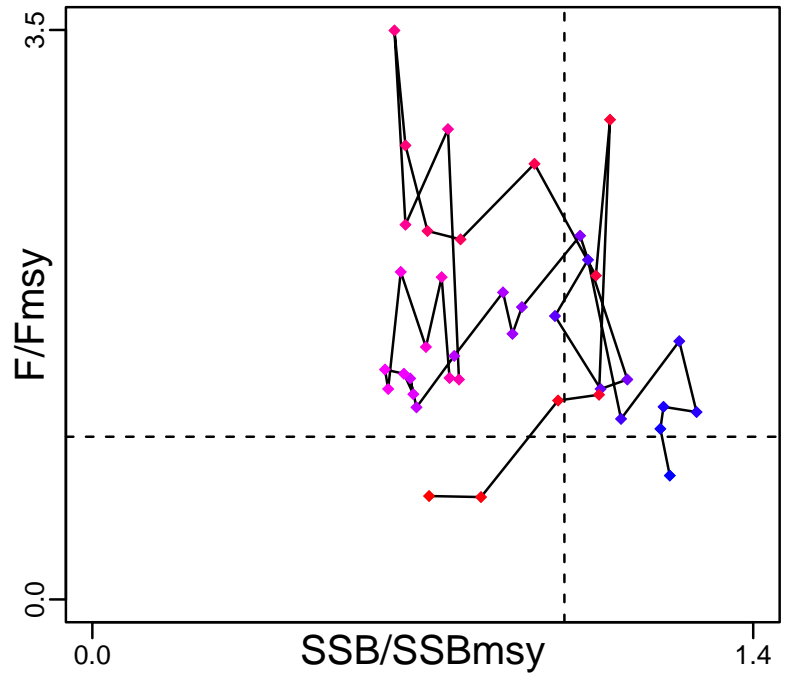
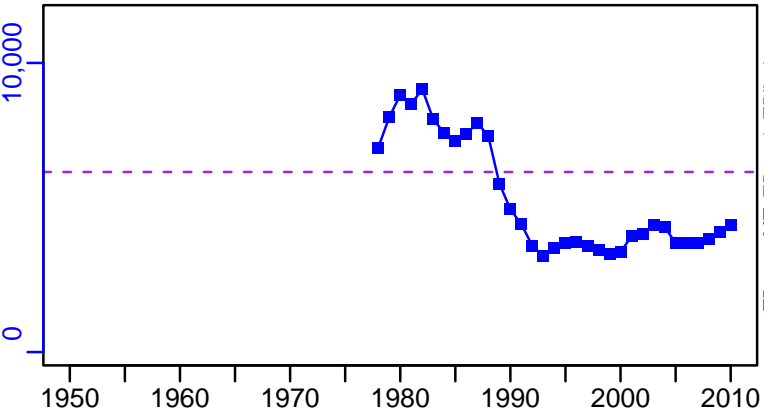Spawner Recruit (1977–2016–SISIMP2021)
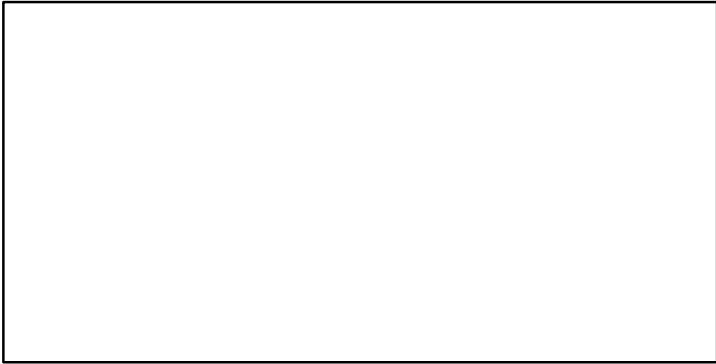
Production*

◆ Start Year ◆ End Year ∗ No Data
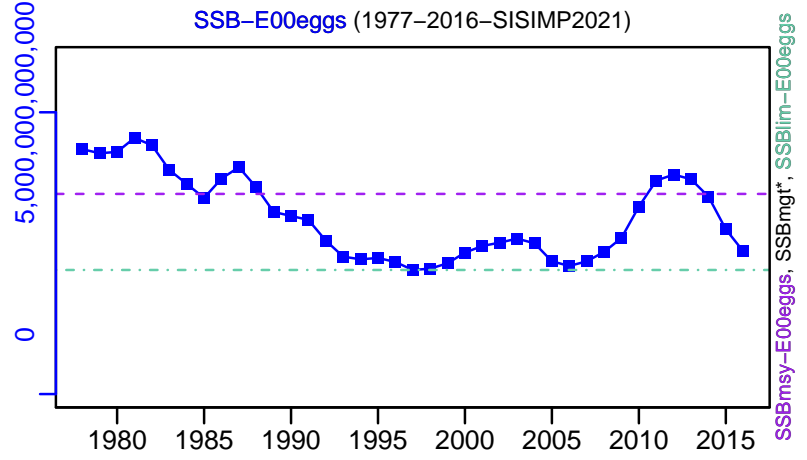
Black sea bass South Atlantic [BSBASSSATL]
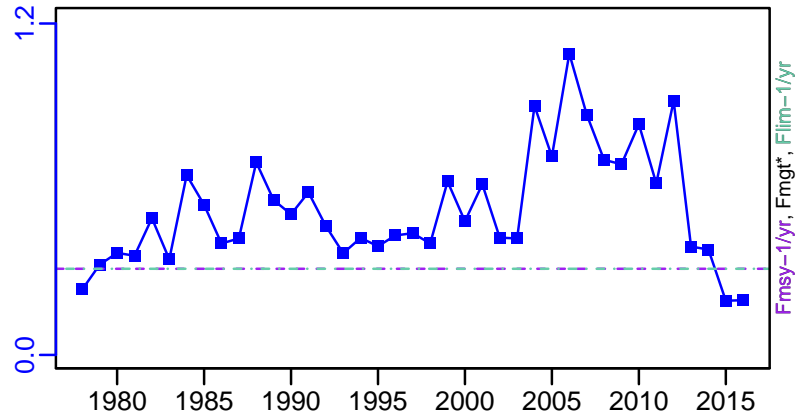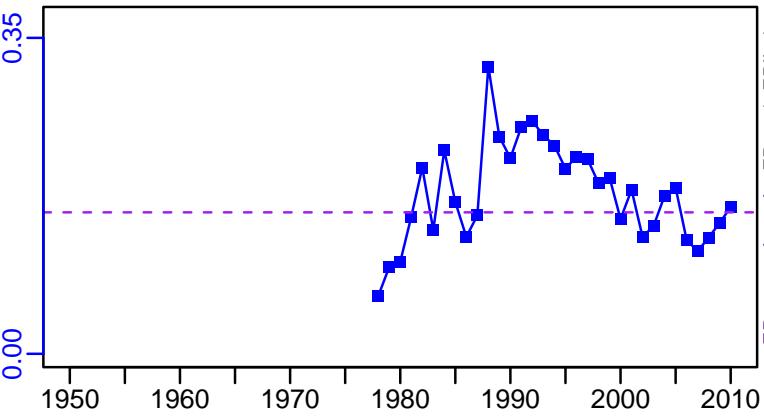

TB–MT (1950–2010–HIVELY)

SSB–E00eggs (1977–2016–SISIMP2021)

TN *

F–1/yr (1977–2016–SISIMP2021)

ER–calc–ratio (1950–2010–HIVELY)

R–E00 (1977–2016–SISIMP2021)

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

25
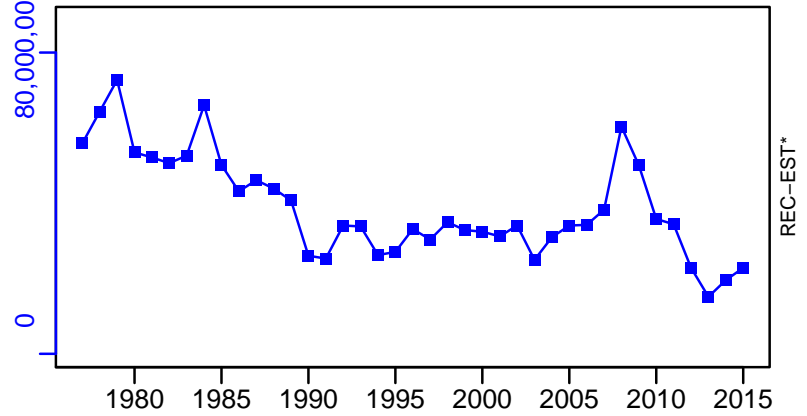
Black sea bass South Atlantic [BSBASSSATL]

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

TAC*, Cpair*, Cadv*
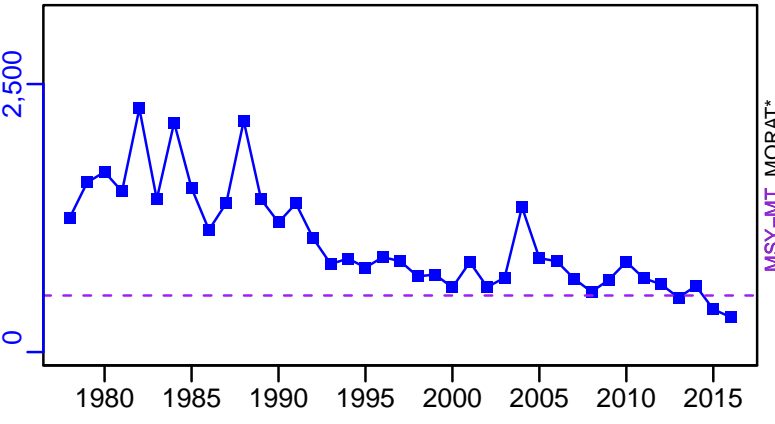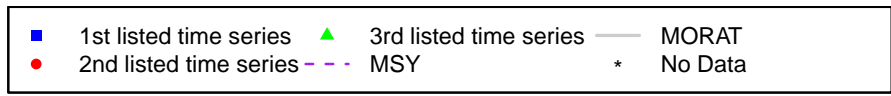
survB*

CPUE*

EFFORT*

TC–MT/MSY–MT, CdivMEANC–ratio, (1977–2016–SISIMP2021)

■ 1st listed time series	▲ 3rd listed time series	—— MORAT	
● 2nd listed time series	– – MSY	* No Data	
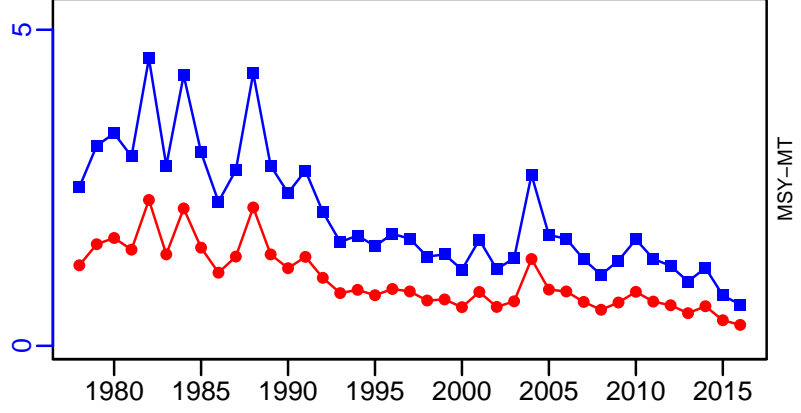
Blacktip shark Atlantic [BTIPSHARATL]

Metadata	
Scientific Name	Carcharhinus limbatus
Current Assess ID	SEFSC-BTIPSHARATL-1981-2004-FAUCONNET
Area	Atlantic
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2004

Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	Fmsy-1/yr	2004	0.2
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2004	14,900
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	**ID**	**Asmt Year**	**Curr Value**	**Sex**	**Age**
TB	-	-	-	-	-
SSB	SSF-E00	2004	18,200,000	Females	7.5
TN	TN-E00	2004	50,400,000	-	-
R	-	-	-	-	-
F	F-1/yr	2004	0.001	-	-
ER	ER-calc-ratio	2004	0	-	-
TC	TC-E00	2004	17,700		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	F-1/yr/Fmsy-1/yr	2004	0.005		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*

Kobe MGT*

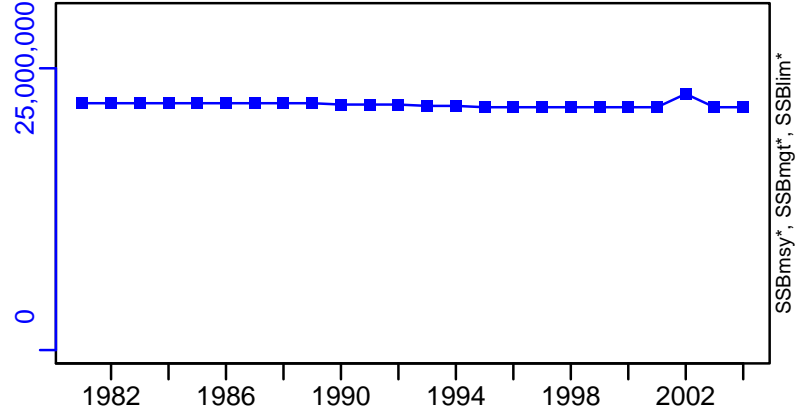## Spawner Recruit*
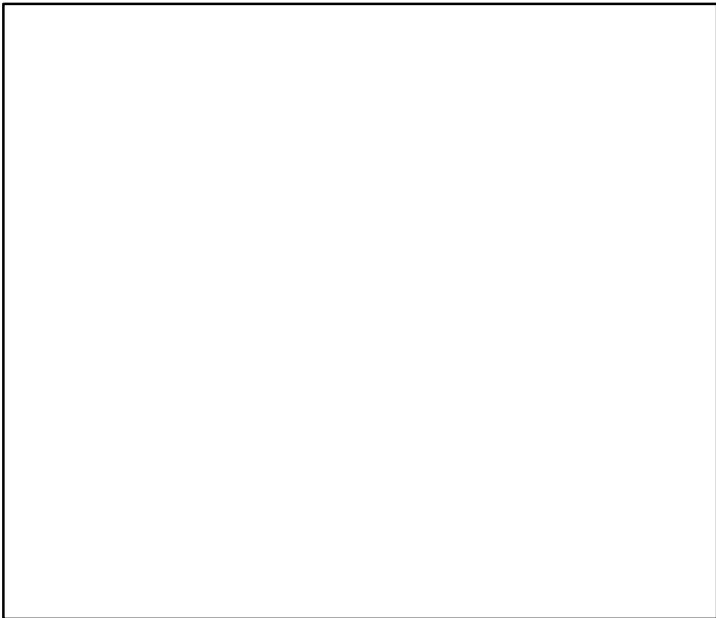
Production*

◆ Start Year ◆ End Year * No Data

Blacktip shark Atlantic [BTIPSHARATL]

TB*
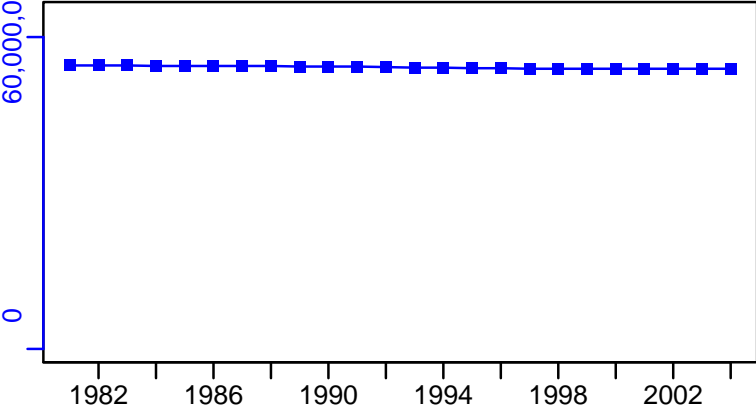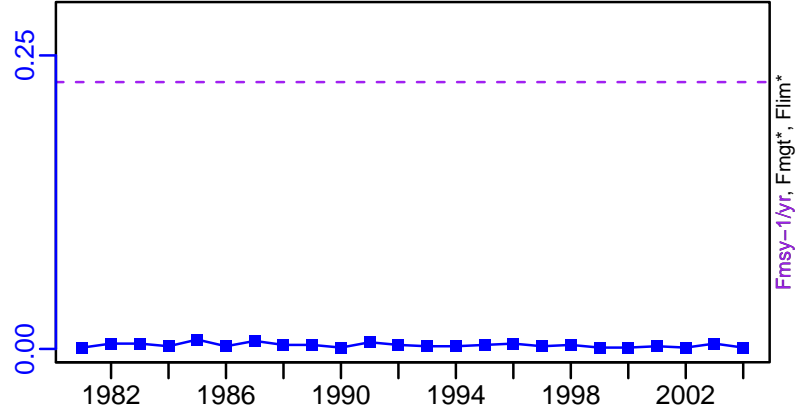
SSF−E00 (1981−2004−FAUCONNET)

TN−E00 (1981−2004−FAUCONNET)

F−1/yr (1981−2004−FAUCONNET)
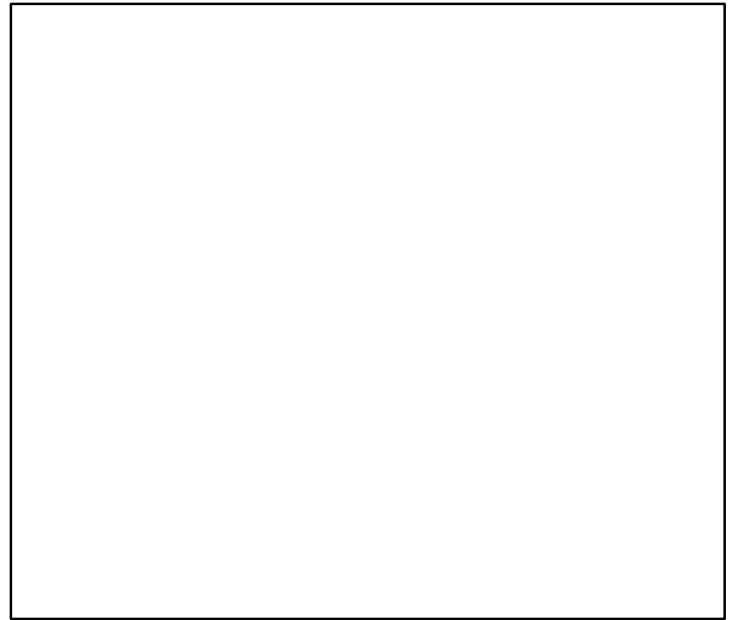
ER−calc−ratio (1981−2004−FAUCONNET)

Recruits*

| ■ | Listed time series | ·—·— | Target BRP | —— | Rec−Est |
| - - - | MSY−based BRP | ·—·— | Lim BRP | * | No Data |
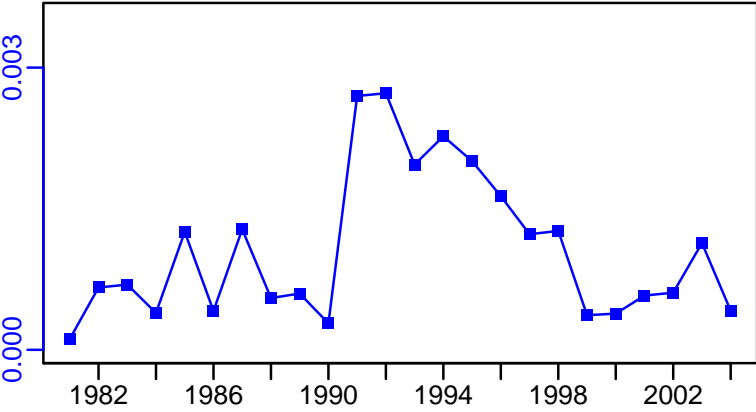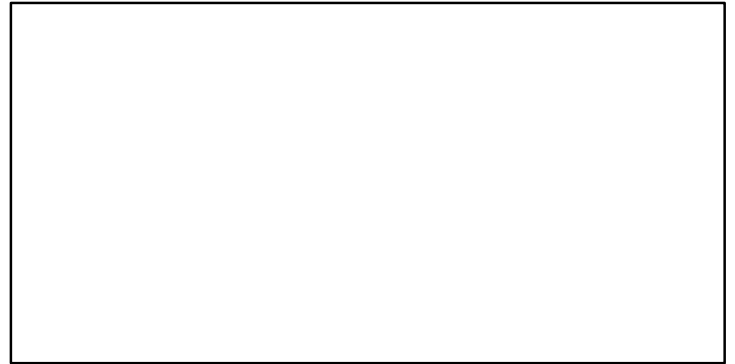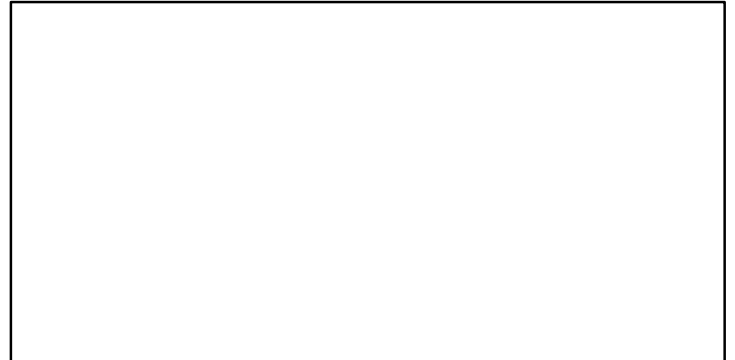
Blacktip shark Atlantic [BTIPSHARATL]

TC−E00, TL*, RecC* (1981−2004−FAUCONNET)

MSY*, MORAT*

TAC*, Cpair*, Cadv*

survB*

CPUE*

EFFORT*

CdivMSY*

■ 1st listed time series	▲ 3rd listed time series	—— MORAT
● 2nd listed time series	– – – MSY	* No Data
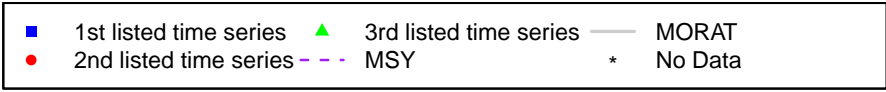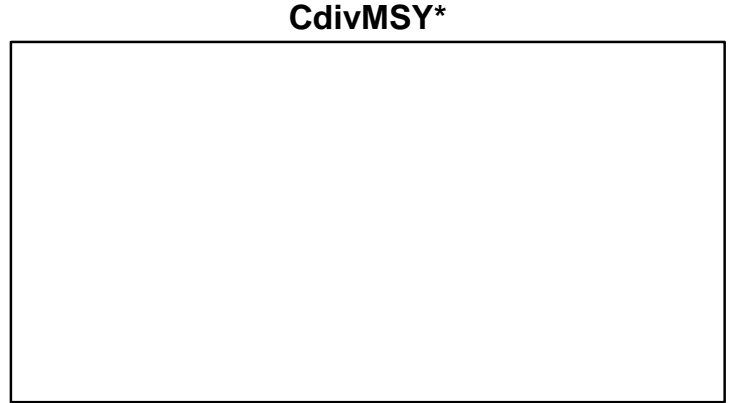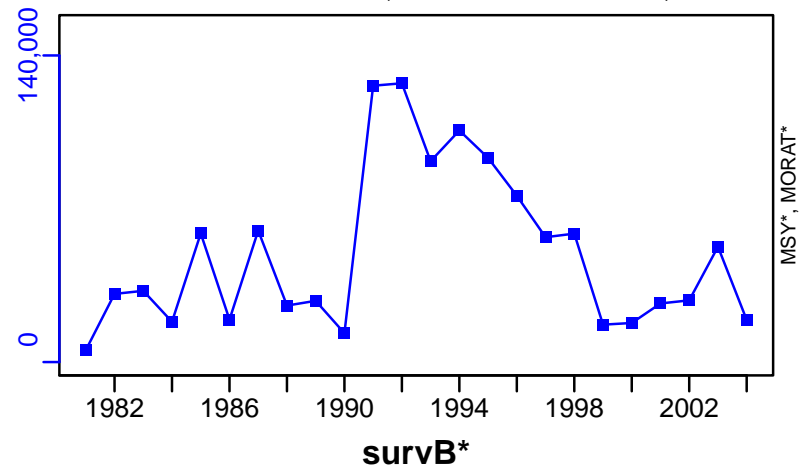
Blacktip shark Gulf of Mexico [BTIPSHARGM]

Metadata	
Scientific Name	Carcharhinus limbatus
Current Assess ID	SEFSC-BTIPSHARGM-1981-2010-HIVELY
Area	Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2010

Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	-	-	-
SSBmsy	SSFmsy-E00	2010	5,830,000
Fmsy	Fmsy-1/yr	2010	0.08
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	SSBmgt-E00	2010	7,287,500
Fmgt	Fmgt-1/yr	2010	0.063
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-E00	2010	1,340,000
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	**ID**	**Asmt Year**	**Curr Value**	**Sex**	**Age**
TB	-	-	-	-	-
SSB	SSF-E00	2010	15,300,000	-	-
TN	TN-E00	2010	23,800,000	-	-
R	-	-	-	-	-
F	F-1/yr	2010	0.006	-	-
ER	ER-calc-ratio	2010	0.004	-	-
TC	TC-E00	2010	86,700		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSF-E00/SSFmsy-E00	2010	2.624		
F/Fmsy	F-1/yr/Fmsy-1/yr	2010	0.078		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSF-E00/SSBmgt-E00	2010	2.099		
F/Fmgt	F-1/yr/Fmgt-1/yr	2010	0.098		
ER/ERmgt	-	-	-		

Blacktip shark Gulf of Mexico [BTIPSHARGM]

Kobe MSYpref (1981−2010−HIVELY)

F/Fmsy

SSB/SSBmsy

Spawner Recruit*

Kobe MGTpref (1981−2010−HIVELY)

F/Fmgt

SSB/SSBmgt

Production*
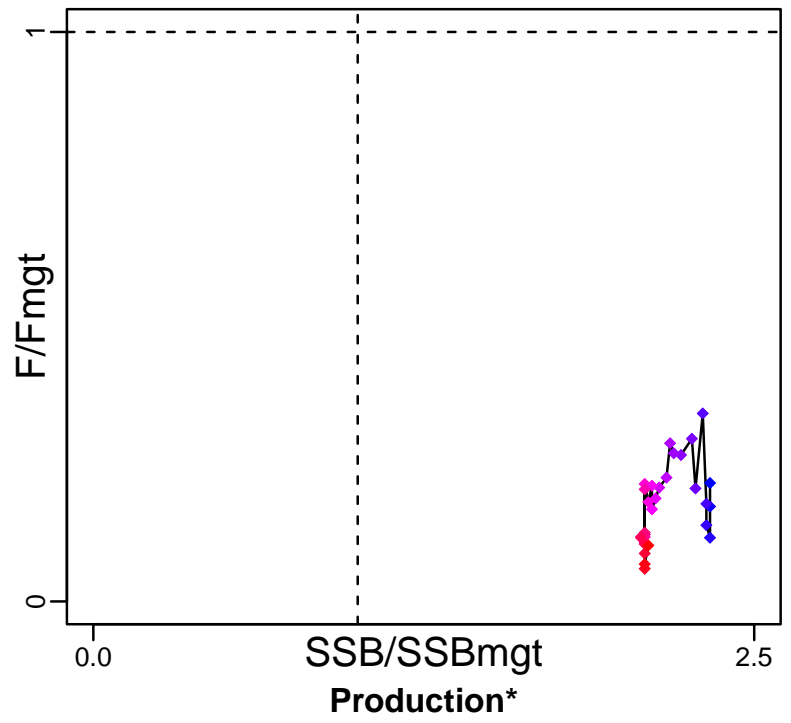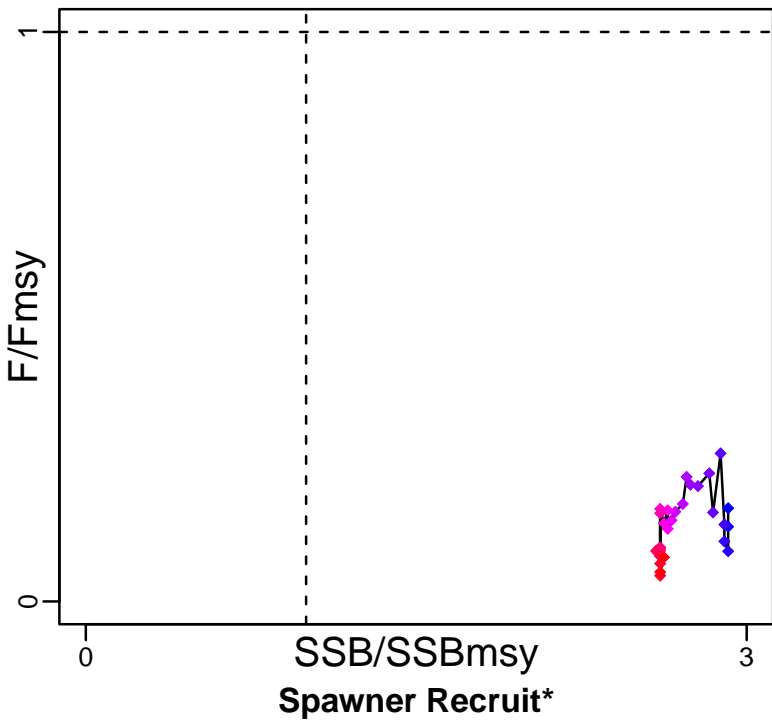
♦ Start Year   ♦ End Year   ∗ No Data

Blacktip shark Gulf of Mexico [BTIPSHARGM]

TB*

SSF–E00 (1981–2010–HIVELY)

SSFmsy–E00, SSBmgt–E00, SSBlim*

TN–E00 (1981–2010–HIVELY)

Nmsy–E00, TNmgt*, TNlim*
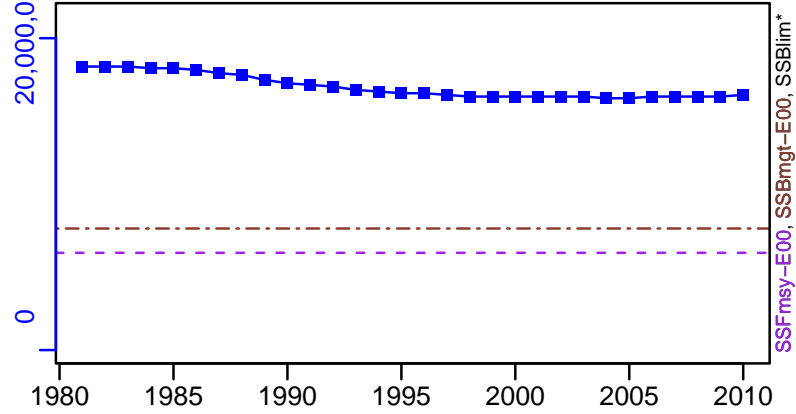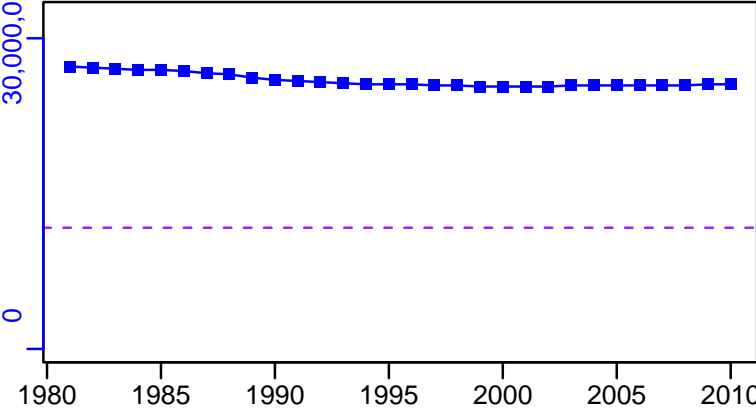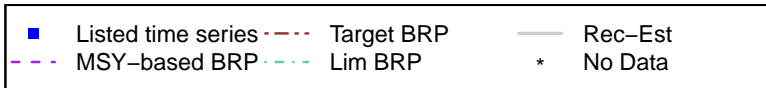
F–1/yr (1981–2010–HIVELY)

Frmsy–1/yr, Fmgt–1/yr, Flim*

ER–calc–ratio (1981–2010–HIVELY)

ERmsy*, ERmgt*, ERlim*

Recruits*

■ Listed time series	·–·– Target BRP	—— Rec–Est
– – MSY–based BRP	·–·– Lim BRP	* No Data
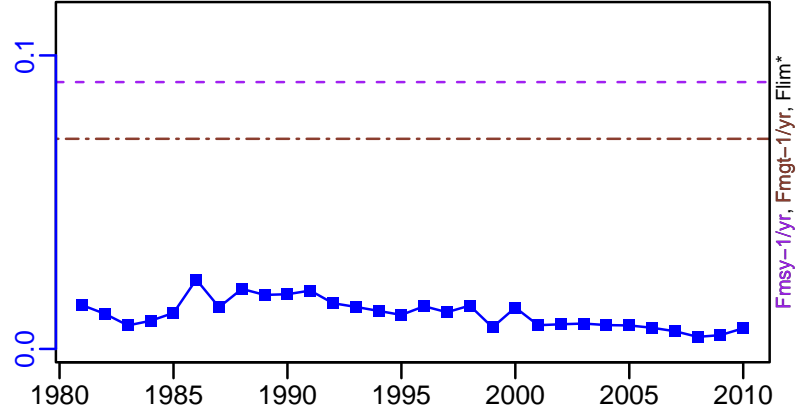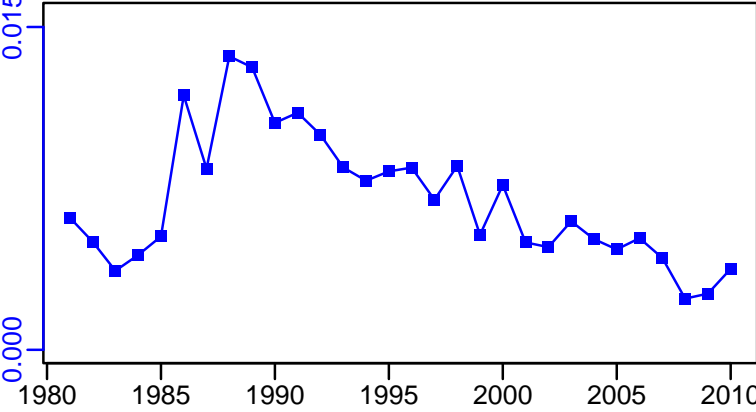
Blacktip shark Gulf of Mexico [BTIPSHARGM]

TC−E00, TL*, RecC* (1981−2010−HIVELY)

TAC*, Cpair*, Cadv*
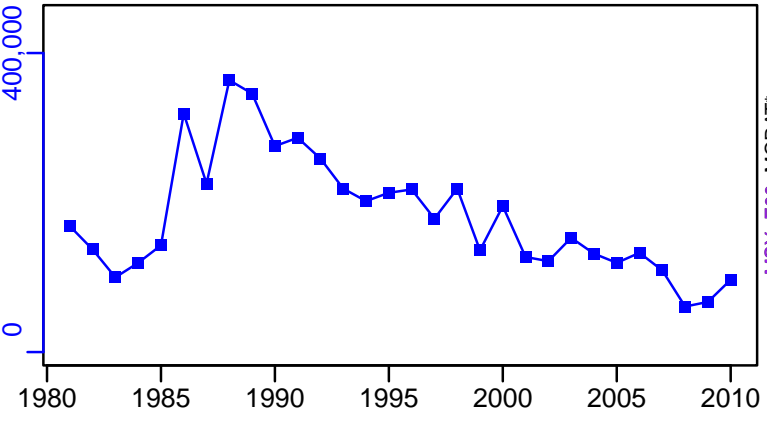
survB*

CPUE*

EFFORT*

TC−E00/MSY−E00, CdivMEANC−ratio, (1981−2010−HIVELY)

Legend:
- ■ 1st listed time series
- ● 2nd listed time series
- ▲ 3rd listed time series
- - - - MSY
- —— MORAT
- * No Data
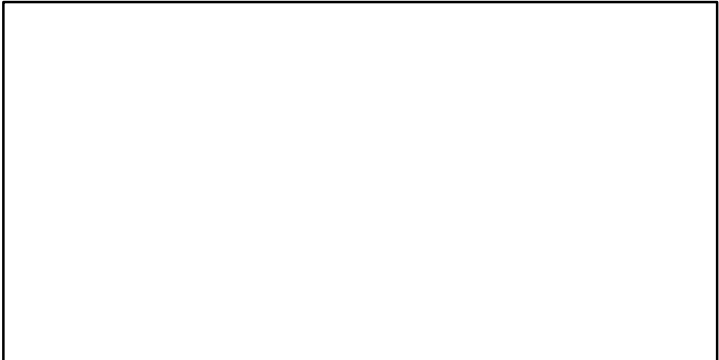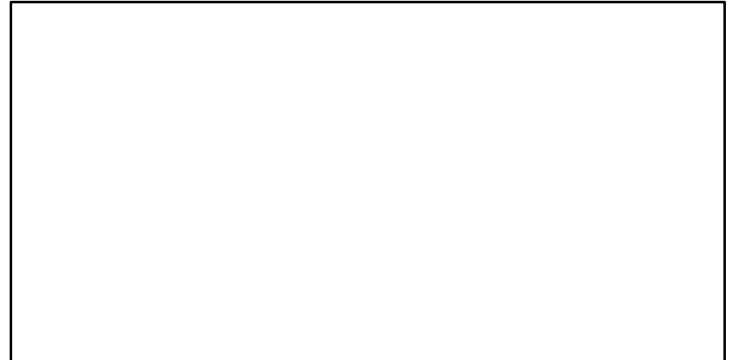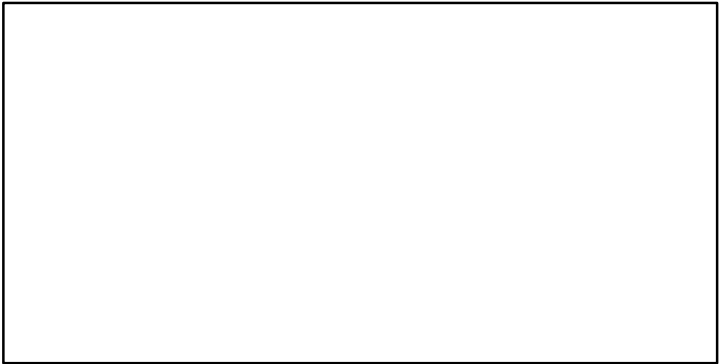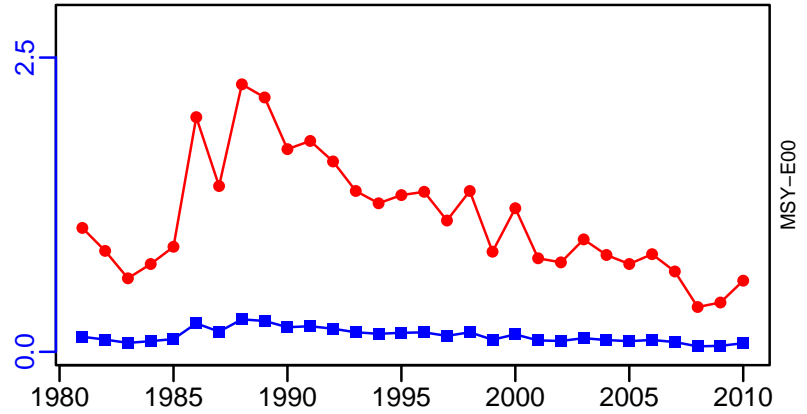
Cobia Gulf of Mexico [COBGM]

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

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

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

Cobia Gulf of Mexico [COBGM]
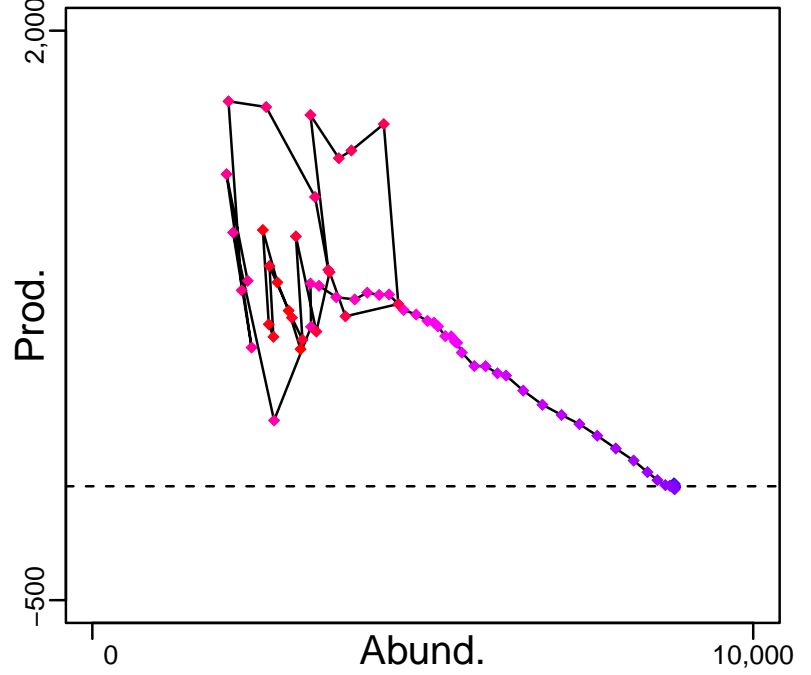

Kobe MSYpref (1927–2018–SISIMP2021–2)
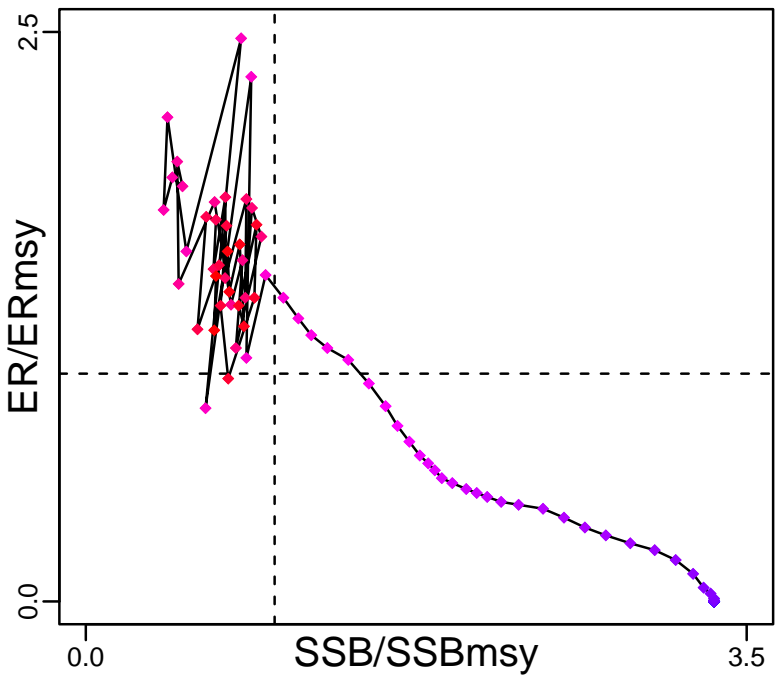
Kobe MGTpref (1927–2018–SISIMP2021–2)
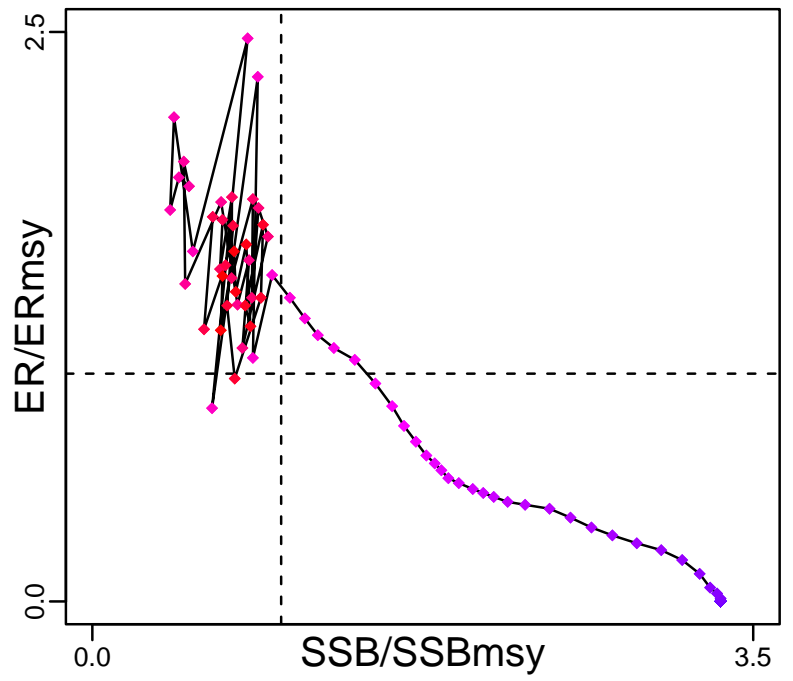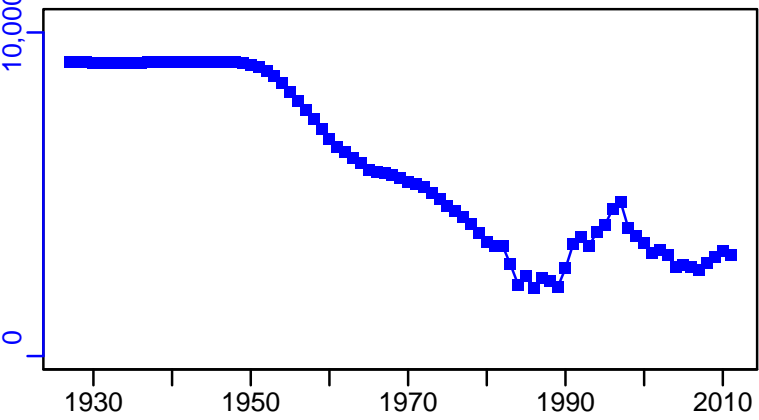
Spawner Recruit (1927–2018–SISIMP2021–2)
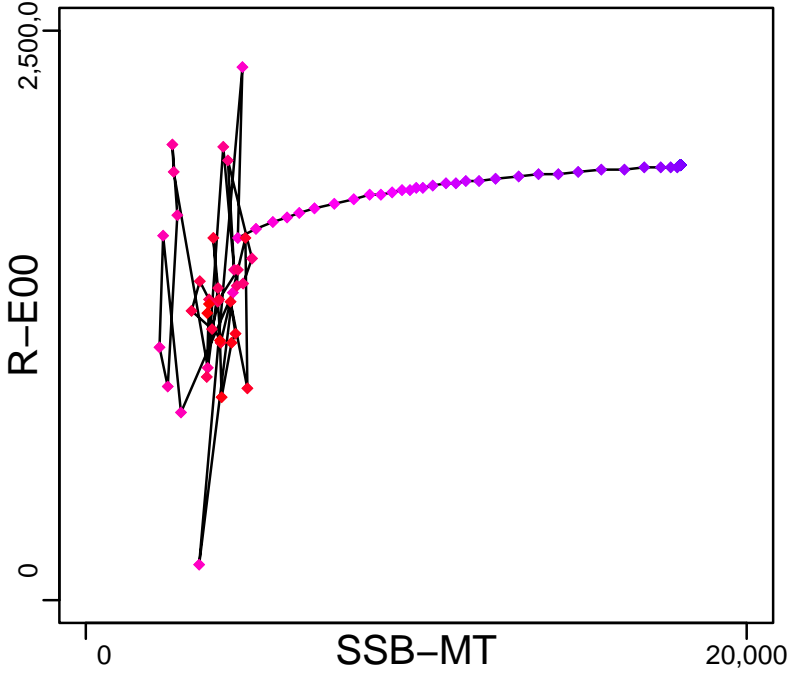
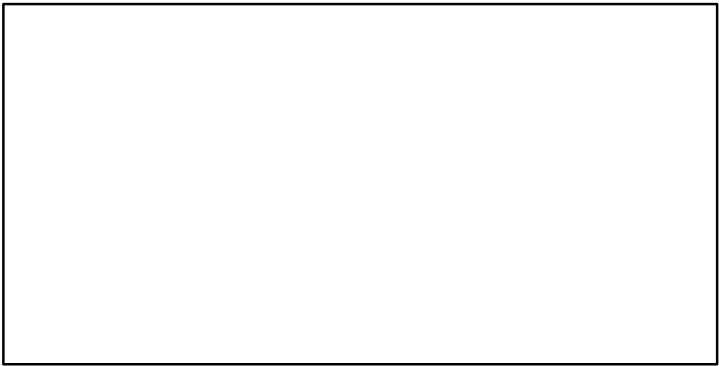Production (1927–2018–SISIMP2021–2)

◆ Start Year   ◆ End Year   ∗ No Data
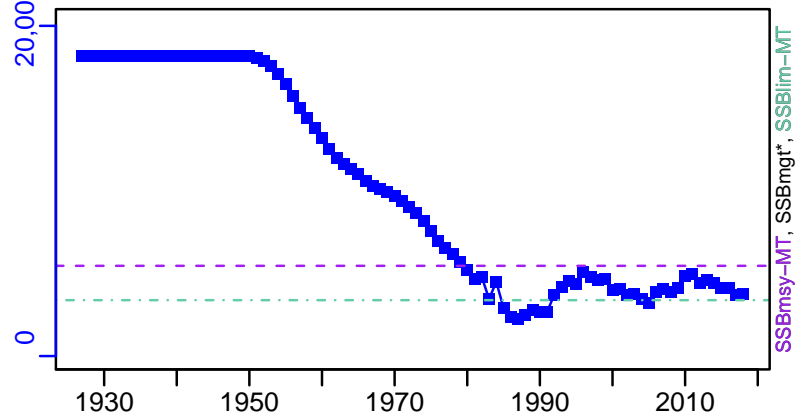
Cobia Gulf of Mexico [COBGM]

TB–MT (1927–2011–SISIMP2016)
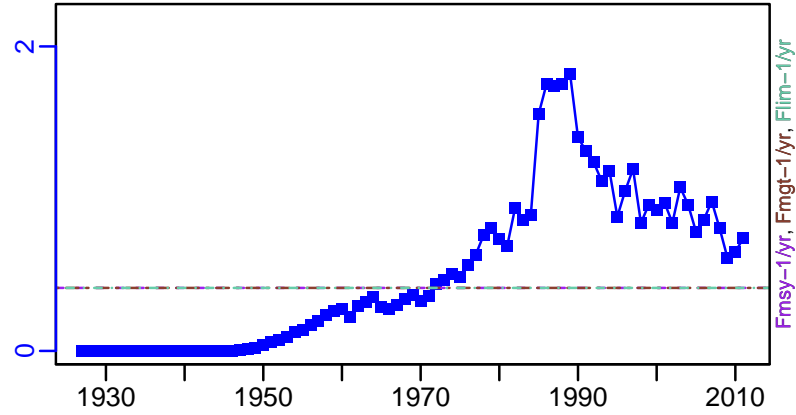
SSB–MT (1927–2018–SISIMP2021–2)

TN *

F–1/yr (1927–2011–SISIMP2016)

ER–ratio (1927–2018–SISIMP2021–2)

R–E00 (1927–2018–SISIMP2021–2)

Legend:
- ■ Listed time series
- – · – Target BRP
- —— Rec–Est
- – – – MSY–based BRP
- – · – Lim BRP
- * No Data
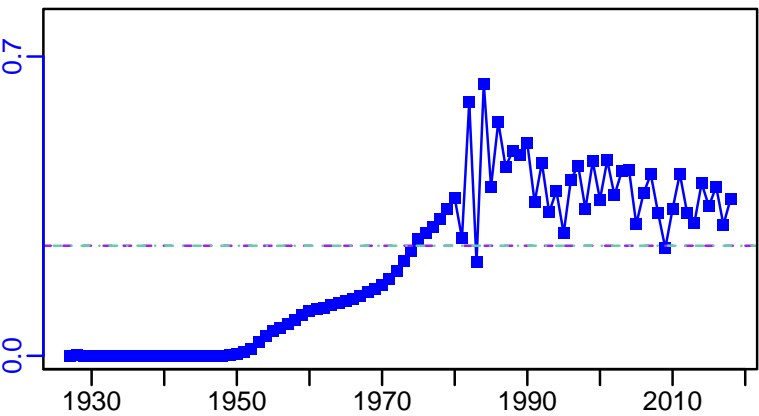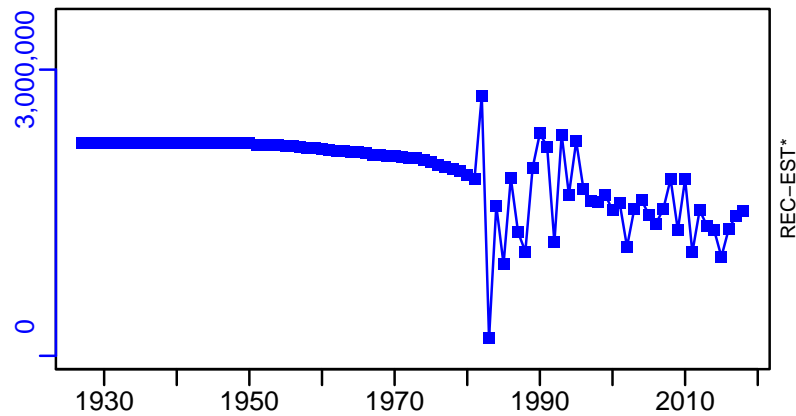
Cobia Gulf of Mexico [COBGM]

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

TAC*, Cpair*, Cadv*
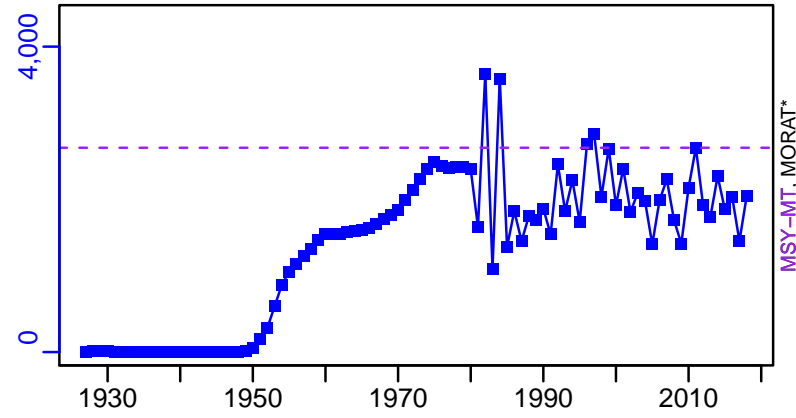
survB*

CPUE*
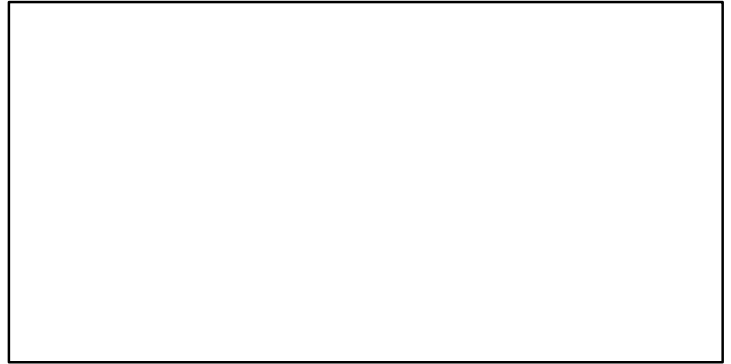
EFFORT*
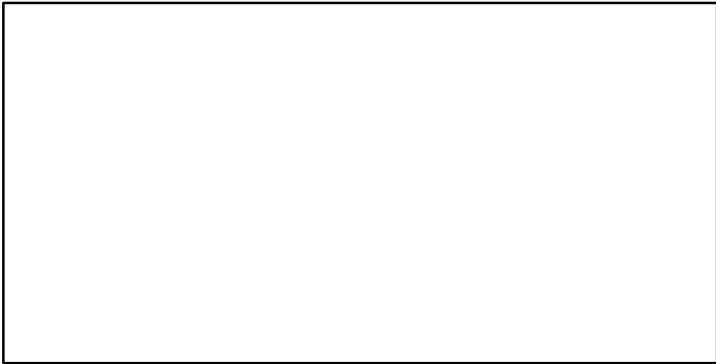
TC–MT/MSY–MT, CdivMEANC–ratio, (1927–2018–SISIMP2021–2)

Legend:
- 1st listed time series
- 2nd listed time series
- 3rd listed time series
- MSY
- MORAT
- * No Data
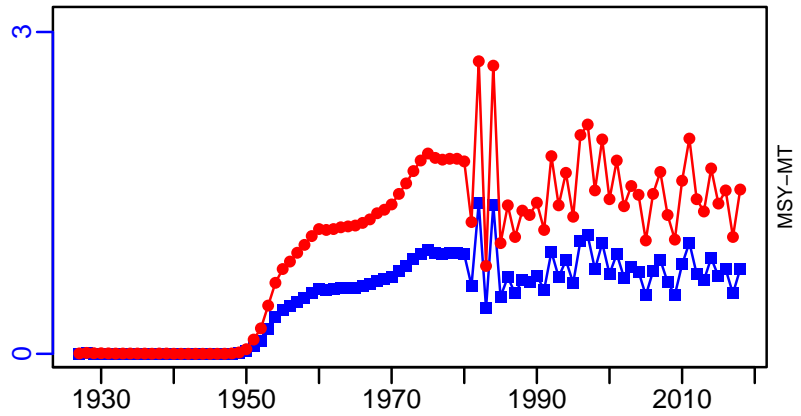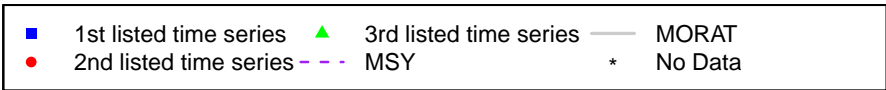
Cobia Southern Atlantic coast [COBSATLC]

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

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

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

Cobia Southern Atlantic coast [COBSATLC]

Kobe MSYpref (1950−2011−SISIMP2016)

F/Fmsy

SSB/SSBmsy

0   4

Spawner Recruit*

Kobe MGTpref (1950−2011−SISIMP2016)

F/Fmsy

SSB/SSBmsy

0   4

Production*
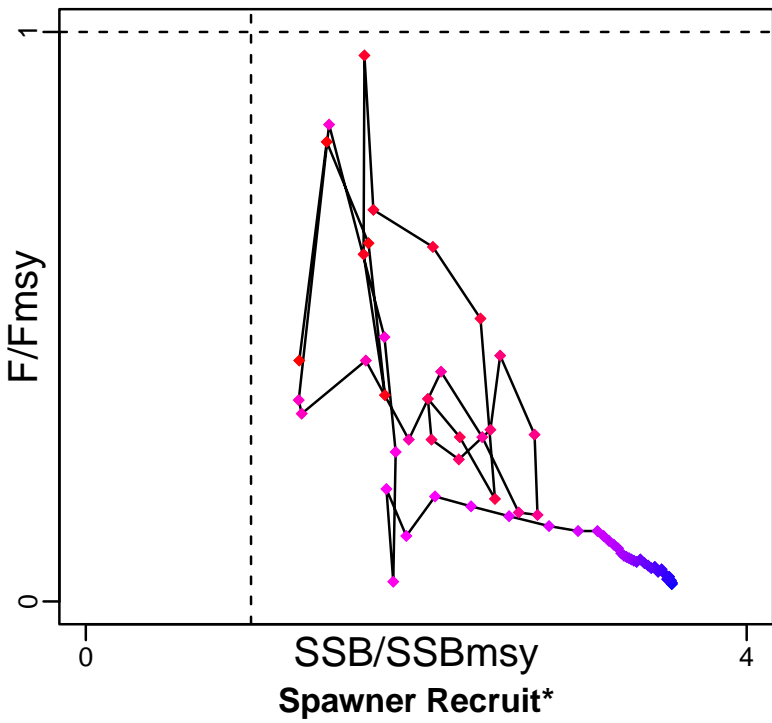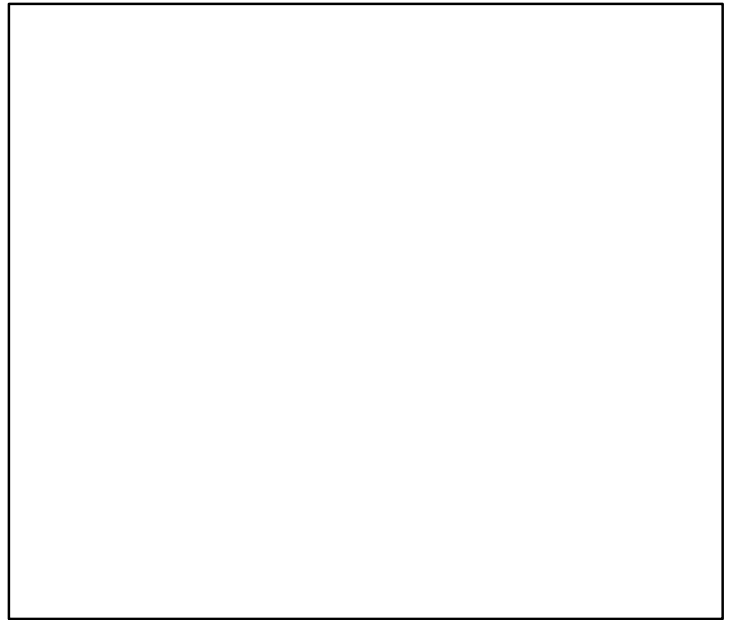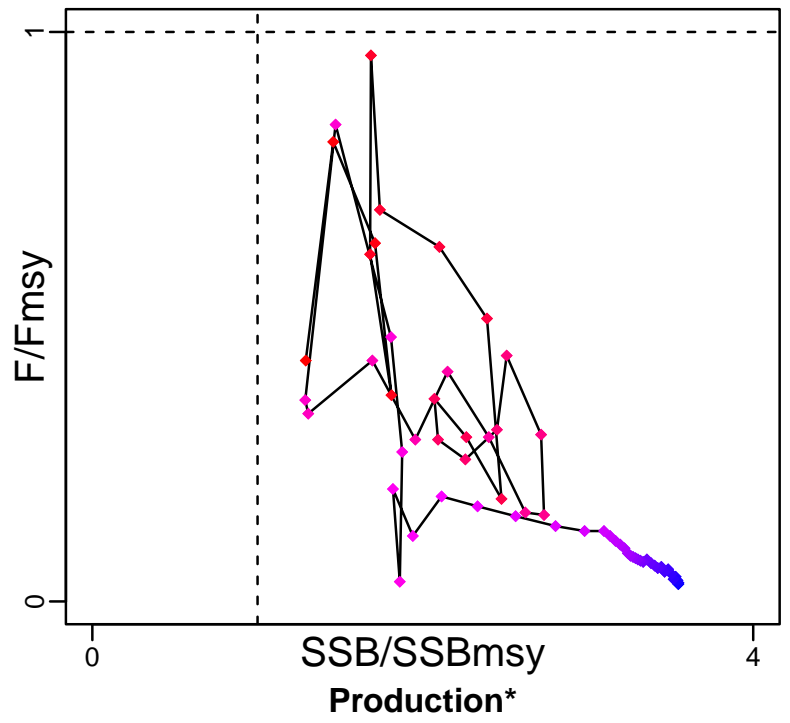
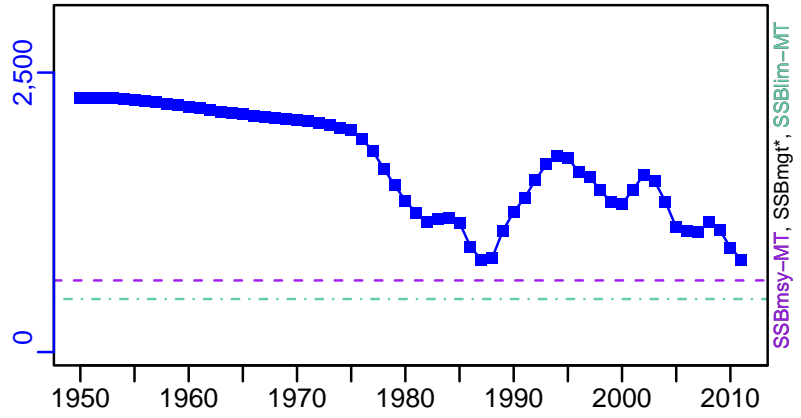♦ Start Year   ♦ End Year   * No Data

Cobia Southern Atlantic coast [COBSATLC]

TB*

SSB–MT (1950–2011–SISIMP2016)

TN *

F–1/yr (1950–2011–SISIMP2016)
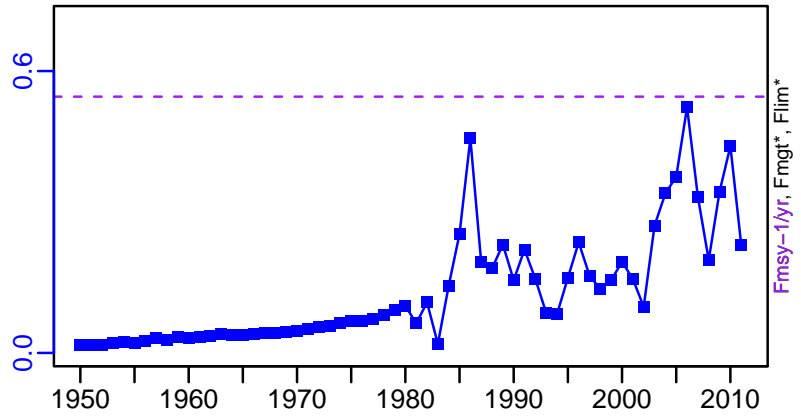
ER–calc–ratio (1950–2011–SISIMP2016)

Recruits*

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

41
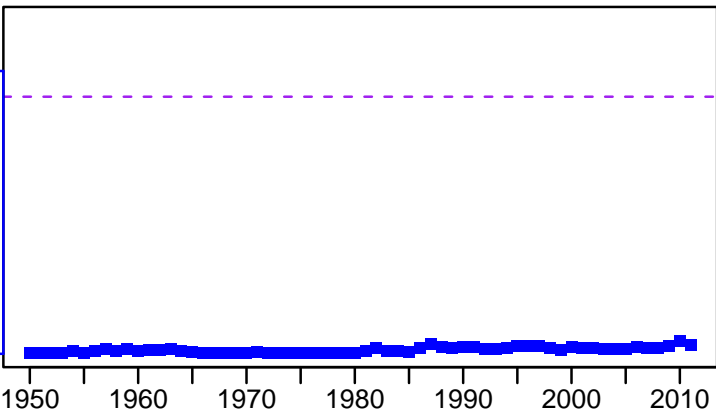
Cobia Southern Atlantic coast [COBSATLC]
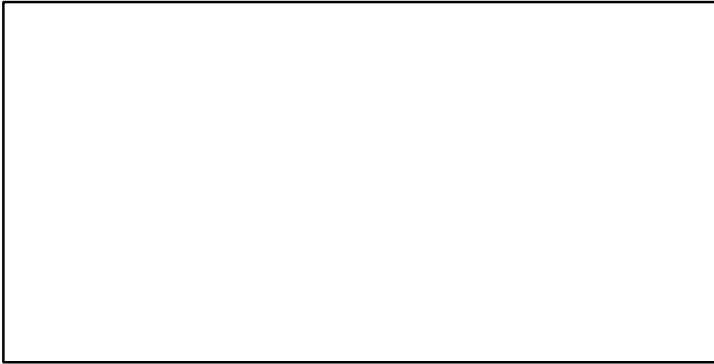
TL–MT, TC*, RecC–MT (1950–2011–SISIMP2016)

TAC*, Cpair*, Cadv*
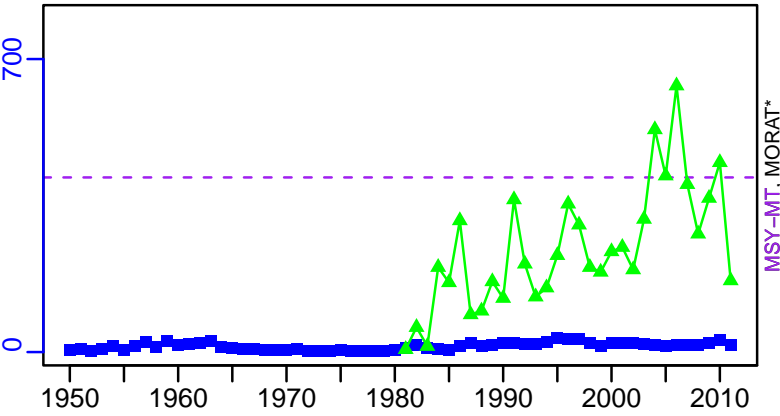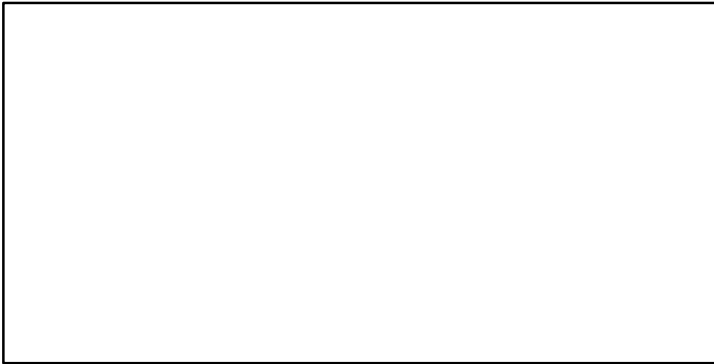
survB*

CPUE*

EFFORT*

TL–MT/MSY–MT, CdivMEANC–ratio, (1950–2011–SISIMP2016)

■	1st listed time series	▲ 3rd listed time series	—— MORAT
●	2nd listed time series	– – MSY	* No Data
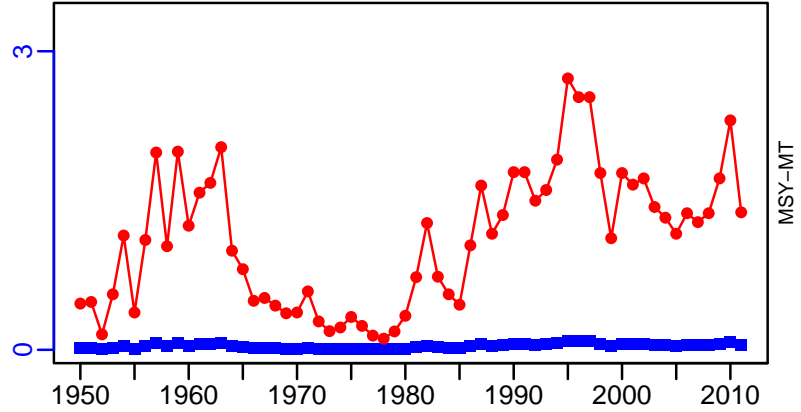
Caribbean spiny lobster Puerto Rico [CSLOBSTERPR]

Metadata	
Scientific Name	Panulirus argus
Current Assess ID	SEFSC-CSLOBSTERPR-1983-2017-SISIMP2021-2
Area	Puerto Rico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2017

Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	TBmsy-calc-MT	2017	997
SSBmsy	SSBmsy-E00eggs	2017	1.13×10^{11}
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2017	0.197
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2017	196
M	-	-	-
TBlim	-	-	-
SSBlim	SSBlim-E00eggs	2017	8.48×10^{10}
Flim	-	-	-
ERlim	ERlim-ratio	2017	0.197

Time Series					
Type	**ID**	**Asmt Year**	**Curr Value**	**Sex**	**Age**
TB	-	-	-	-	-
SSB	SSB-E00eggs	2017	1.52×10^{11}	-	-
TN	-	-	-	-	-
R	R-E00	2017	1,080,000	-	0
F	-	-	-	-	-
ER	ER-ratio	2017	0.16	-	-
TC	TC-MT	2017	235		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-E00eggs/SSBmsy-E00eggs	2017	1.345		
F/Fmsy	-	-	-		
ER/ERmsy	ER-ratio/ERmsy-ratio	2017	0.812		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Caribbean spiny lobster Puerto Rico [CSLOBSTERPR]
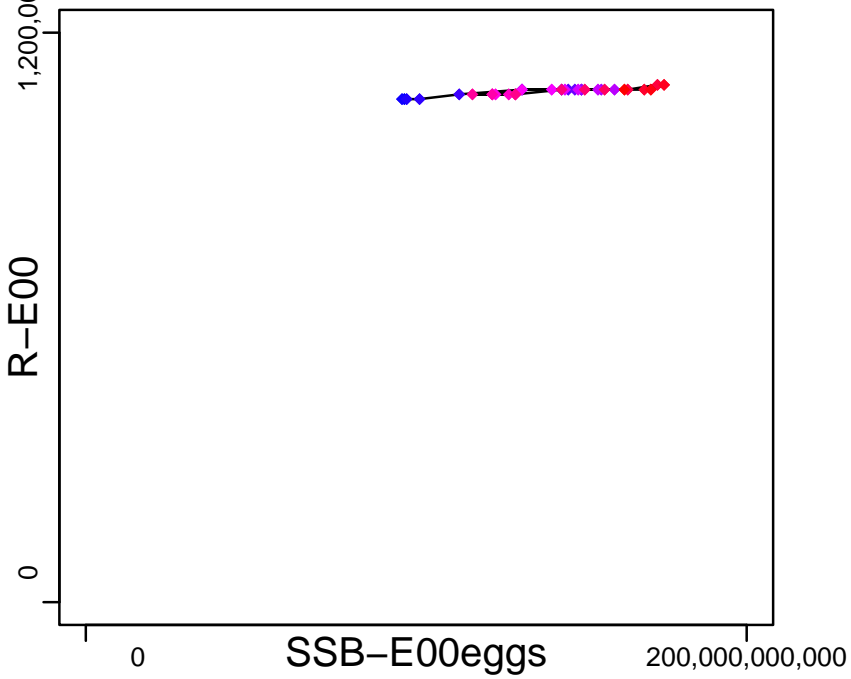
Kobe MSYpref (1983–2017–SISIMP2021–2)
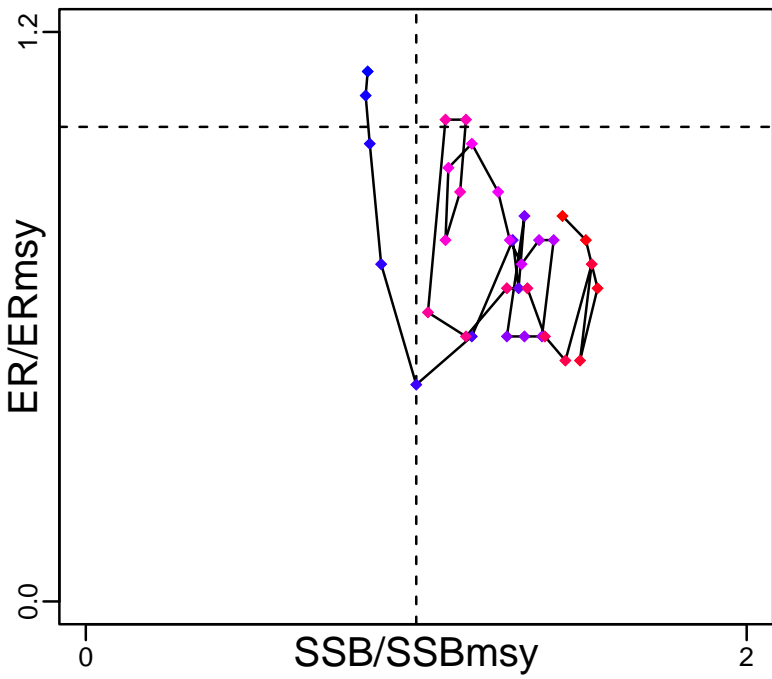
Kobe MGTpref (1983–2017–SISIMP2021–2)
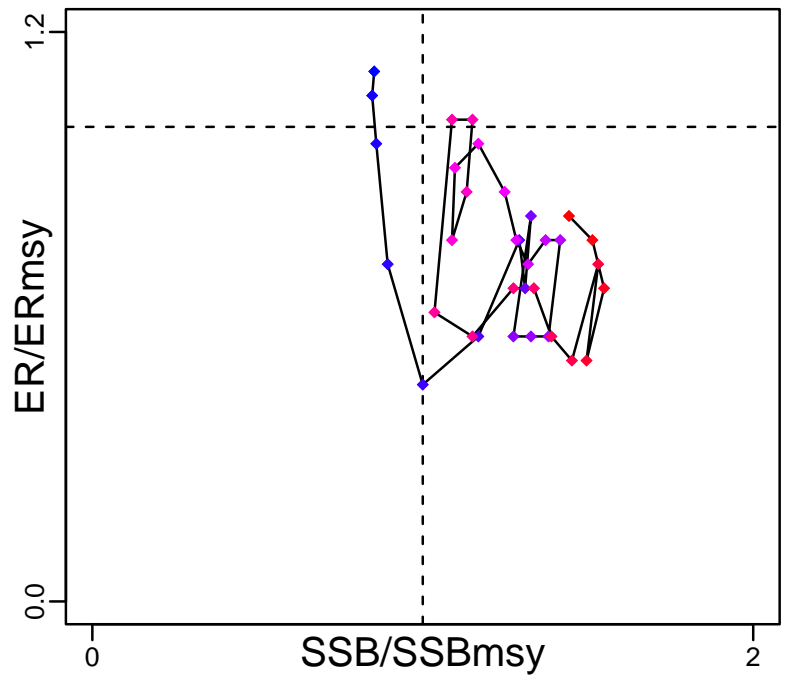
Spawner Recruit (1983–2017–SISIMP2021–2)
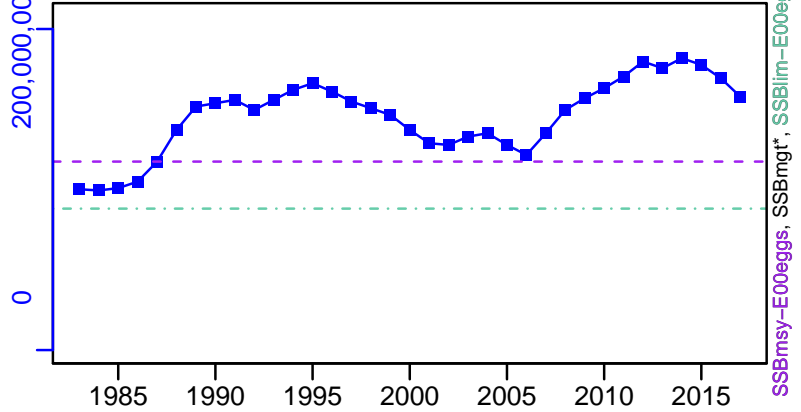

Production*

◆ Start Year ◆ End Year * No Data

44

Caribbean spiny lobster Puerto Rico [CSLOBSTERPR]
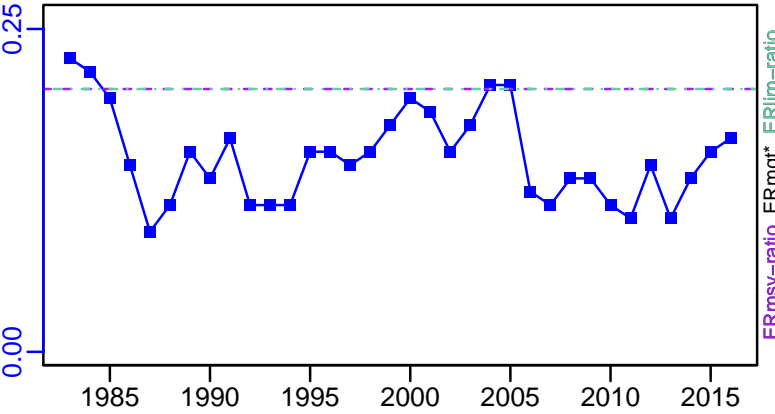
TB*

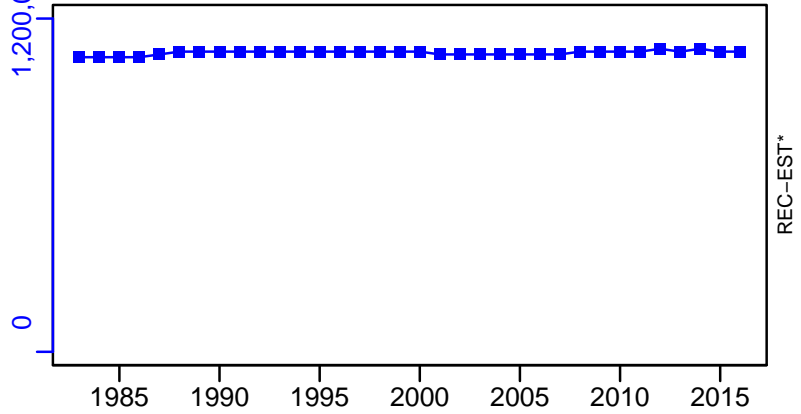## SSB−E00eggs (1983−2017−SISIMP2021−2)

SSBmsy−E00eggs, SSBmgt*, SSBlim−E00eggs

TN *

F*

ER−ratio (1983−2017−SISIMP2021−2)

ERmsy−ratio, ERmgt*, ERlim−ratio

R−E00 (1983−2017−SISIMP2021−2)

REC−EST*

■ Listed time series	·—·— Target BRP
−− MSY−based BRP	·−·− Lim BRP

—— Rec−Est

* No Data

Caribbean spiny lobster Puerto Rico [CSLOBSTERPR]

TC–MT, TL*, RecC* (1983–2017–SISIMP2021–2)

TAC*, Cpair*, Cadv*
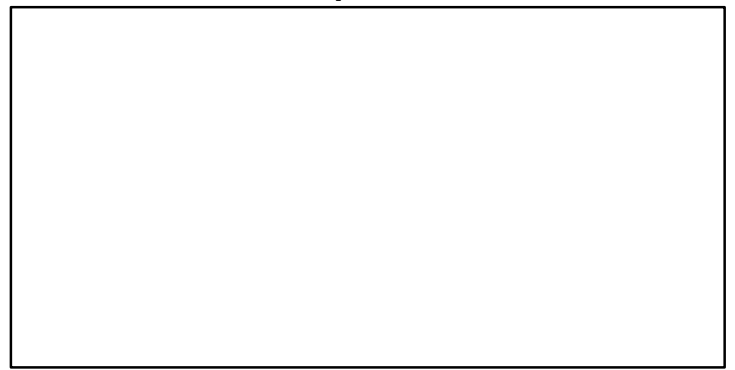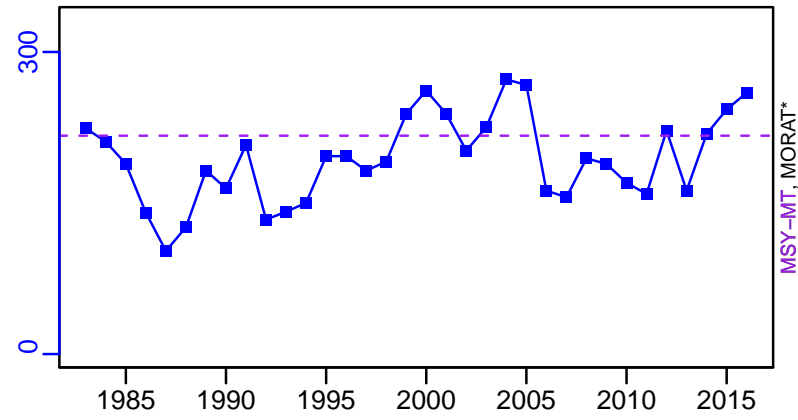
survB*

CPUE*

EFFORT*

TC–MT/MSY–MT, CdivMEANC–ratio, (1983–2017–SISIMP2021–2)

■ 1st listed time series	▲ 3rd listed time series	──	MORAT
● 2nd listed time series	– – MSY	*	No Data
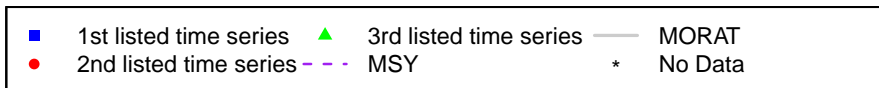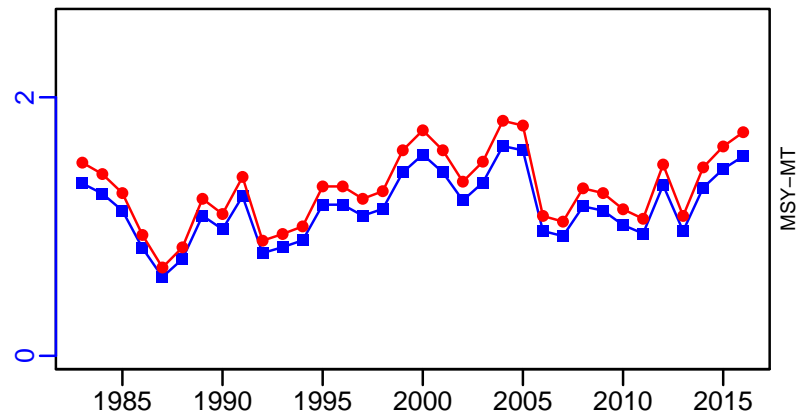
Caribbean spiny lobster Saint Croix [CSLOBSTERSTC]

Metadata	
Scientific Name	Panulirus argus
Current Assess ID	SEFSC-CSLOBSTERSTC-1976-2017-SISIMP2021-2
Area	Saint Croix
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2017

Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	TBmsy-calc-MT	2017	286
SSBmsy	SSBmsy-E00eggs	2017	3.06×10^{10}
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2017	0.203
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2017	58
M	-	-	-
TBlim	-	-	-
SSBlim	SSBlim-E00eggs	2017	2.3×10^{10}
Flim	-	-	-
ERlim	ERlim-ratio	2017	0.203

Time Series					
Type	**ID**	**Asmt Year**	**Curr Value**	**Sex**	**Age**
TB	-	-	-	-	-
SSB	SSB-E00eggs	2017	6×10^{10}	-	-
TN	-	-	-	-	-
R	R-E00	2017	295,000	-	0
F	-	-	-	-	-
ER	ER-ratio	2017	0.04	-	-
TC	TC-MT	2017	15		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-E00eggs/SSBmsy-E00eggs	2017	1.961		
F/Fmsy	-	-	-		
ER/ERmsy	ER-ratio/ERmsy-ratio	2017	0.197		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

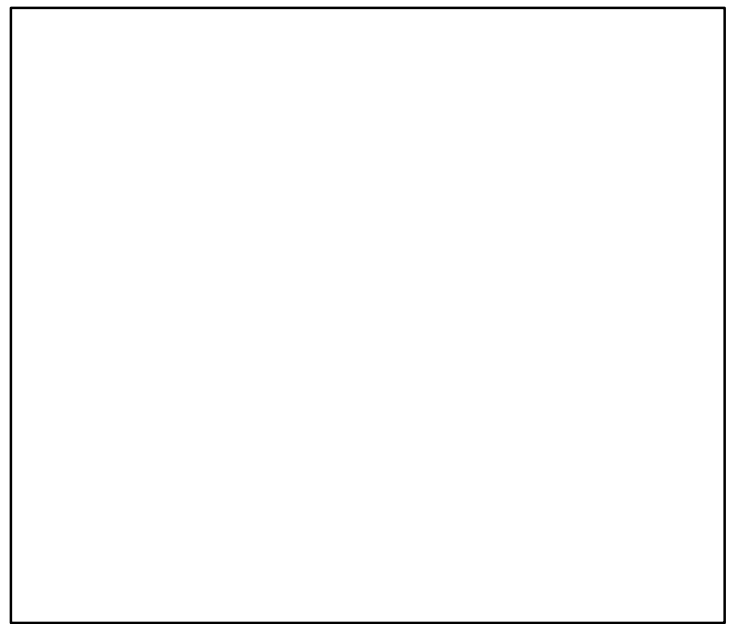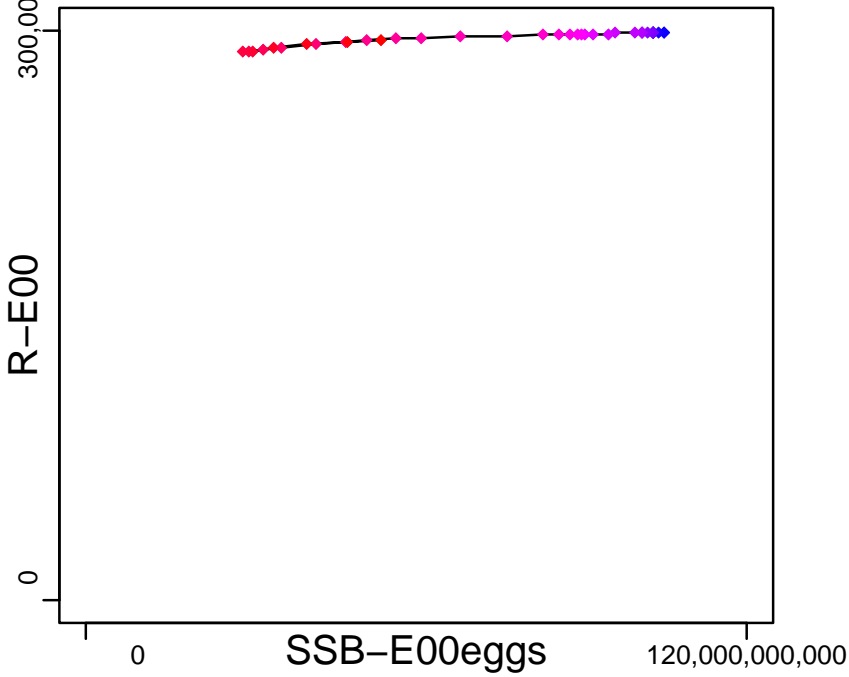**Caribbean spiny lobster Saint Croix [CSLOBSTERSTC]**

Kobe MSYpref (1976–2017–SISIMP2021–2)
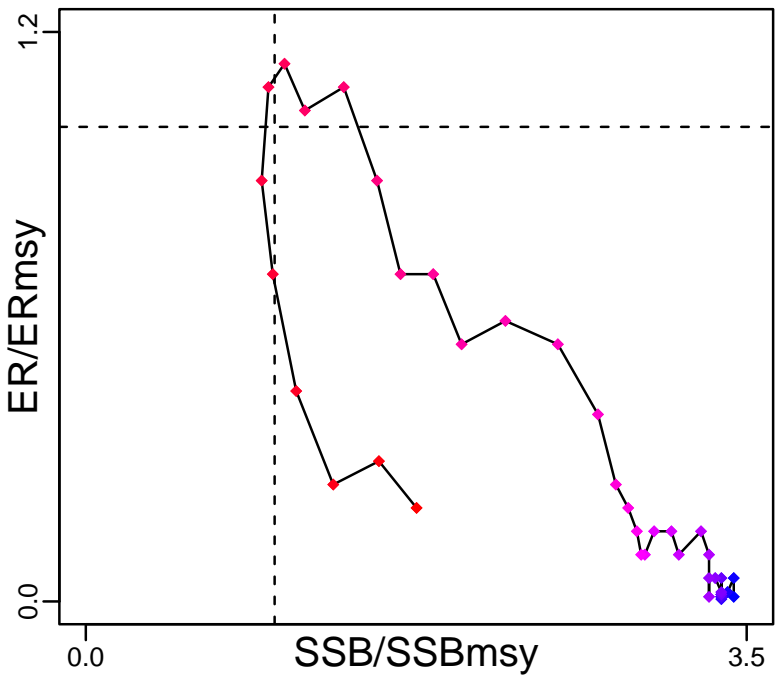
Kobe MGTpref (1976–2017–SISIMP2021–2)
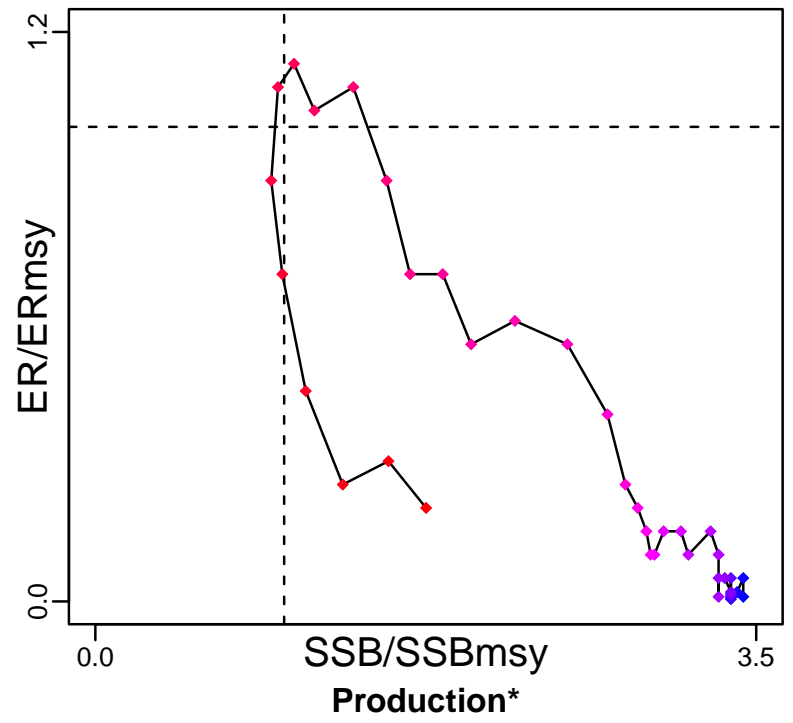
Spawner Recruit (1976–2017–SISIMP2021–2)

Production*
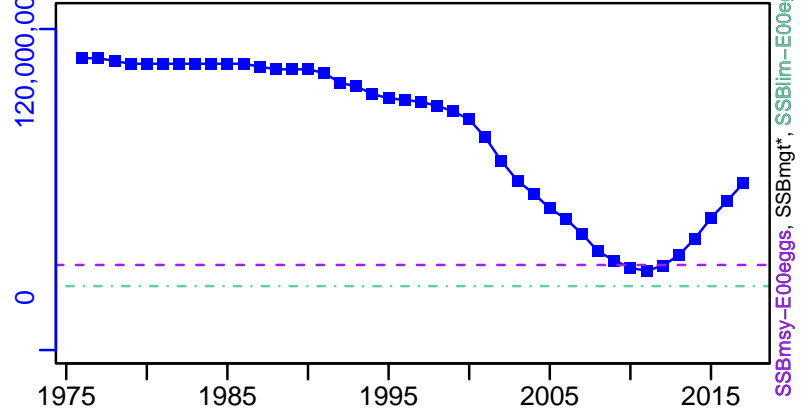
Start Year · End Year · No Data

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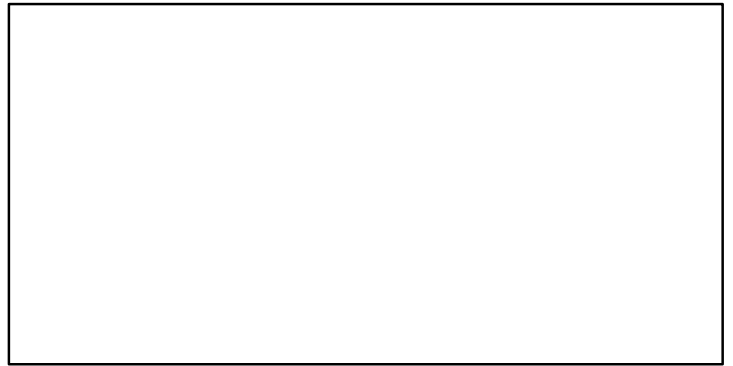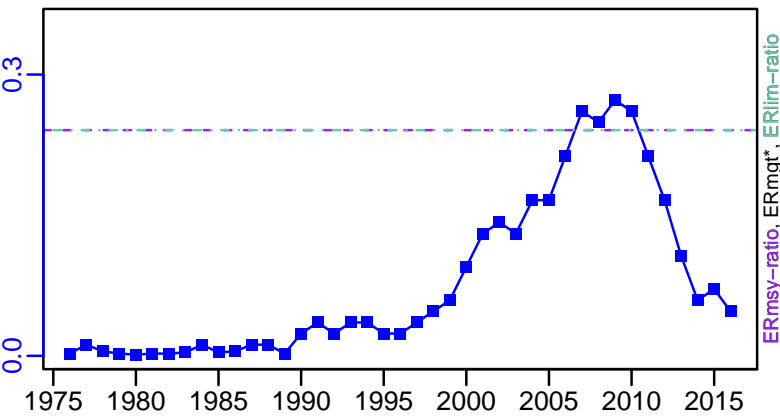**Caribbean spiny lobster Saint Croix [CSLOBSTERSTC]**

TB*

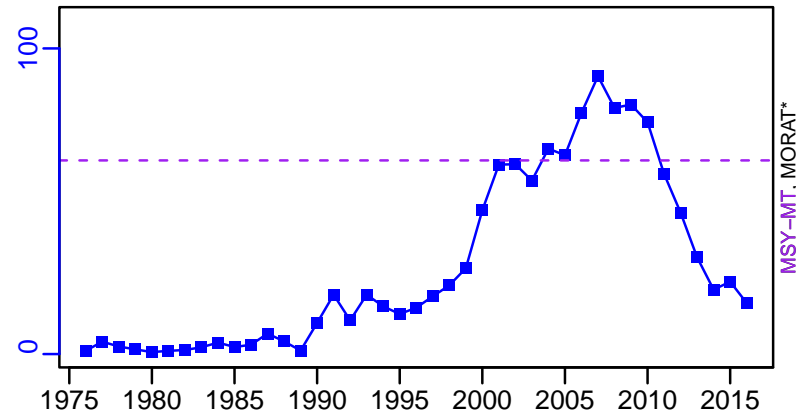SSB−E00eggs (1976−2017−SISIMP2021−2)

TN *

F*

ER−ratio (1976−2017−SISIMP2021−2)

R−E00 (1976−2017−SISIMP2021−2)

Legend: Listed time series, MSY−based BRP, Target BRP, Lim BRP, Rec−Est, * No Data
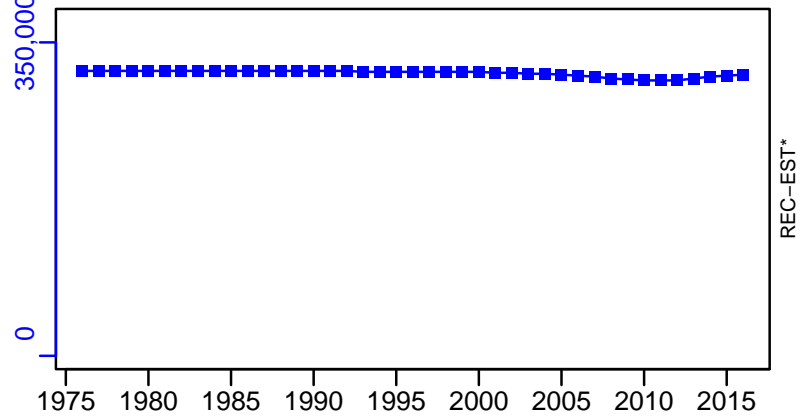
Caribbean spiny lobster Saint Croix [CSLOBSTERSTC]
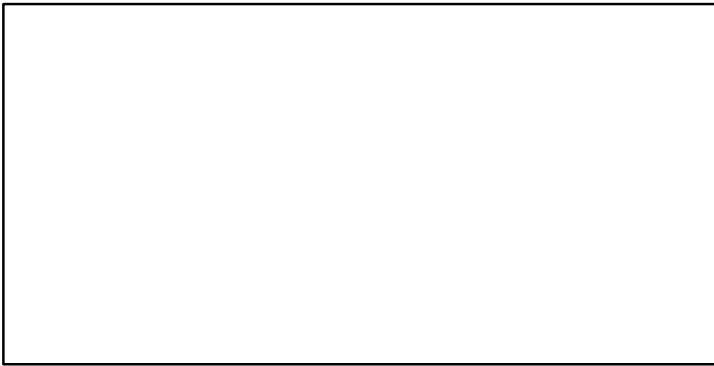
TC–MT, TL*, RecC* (1976–2017–SISIMP2021–2)

TAC*, Cpair*, Cadv*

survB*

CPUE*

EFFORT*

TC–MT/MSY–MT, CdivMEANC–ratio, (1976–2017–SISIMP2021–2)

■ 1st listed time series	▲ 3rd listed time series	— MORAT		
● 2nd listed time series	– – MSY	* No Data		
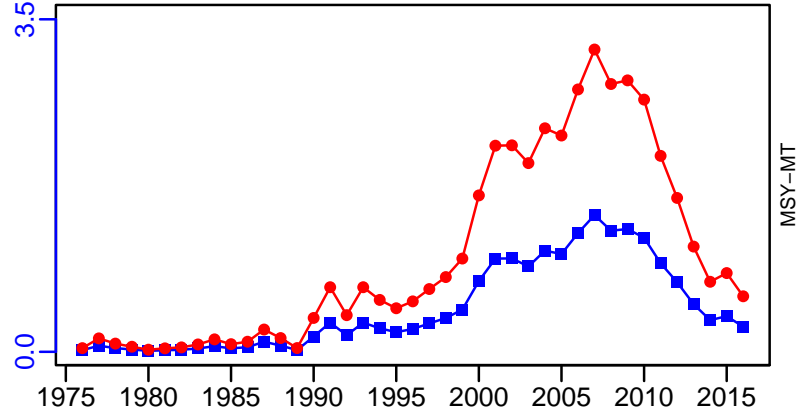
Caribbean spiny lobster Saint Thomas / Saint John [CSLOBSTERSTT_STJ]

Metadata	
Scientific Name	Panulirus argus
Current Assess ID	SEFSC-CSLOBSTERSTT_STJ-1975-2017-SISIMP2021-2
Area	Saint Thomas / Saint John
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2017

Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	TBmsy-calc-MT	2017	249
SSBmsy	SSBmsy-E00eggs	2017	2.84×10^{10}
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2017	0.244
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2017	61
M	-	-	-
TBlim	-	-	-
SSBlim	SSBlim-E00eggs	2017	2.13×10^{10}
Flim	-	-	-
ERlim	ERlim-ratio	2017	0.244

Time Series					
Type	**ID**	**Asmt Year**	**Curr Value**	**Sex**	**Age**
TB	-	-	-	-	-
SSB	SSB-E00eggs	2017	4.4×10^{10}	-	-
TN	-	-	-	-	-
R	R-E00	2017	274,000	-	0
F	-	-	-	-	-
ER	ER-ratio	2017	0.17	-	-
TC	TC-MT	2017	59		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-E00eggs/SSBmsy-E00eggs	2017	1.549		
F/Fmsy	-	-	-		
ER/ERmsy	ER-ratio/ERmsy-ratio	2017	0.697		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Caribbean spiny lobster Saint Thomas / Saint John [CSLOBSTERSTT_STJ]

Kobe MSYpref (1975–2017–SISIMP2021–2)
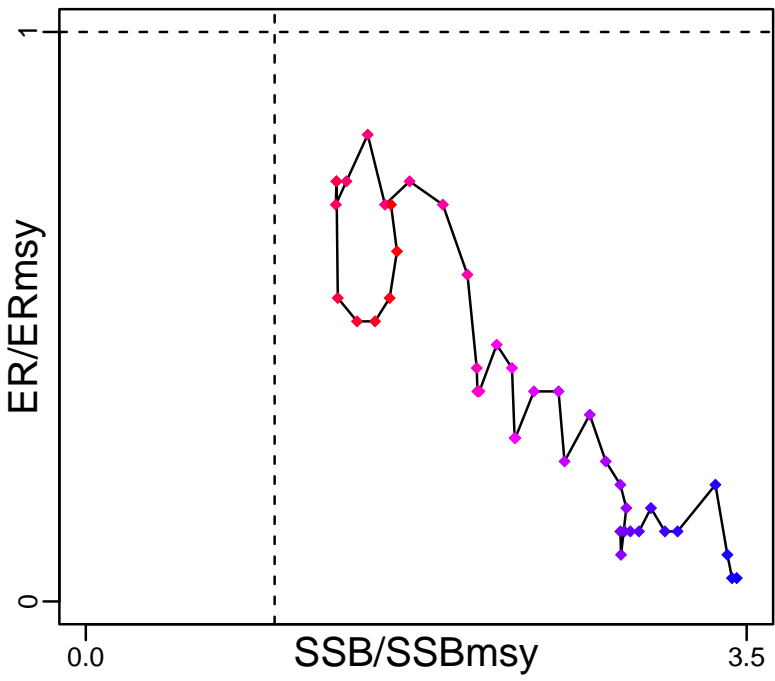
Kobe MGTpref (1975–2017–SISIMP2021–2)
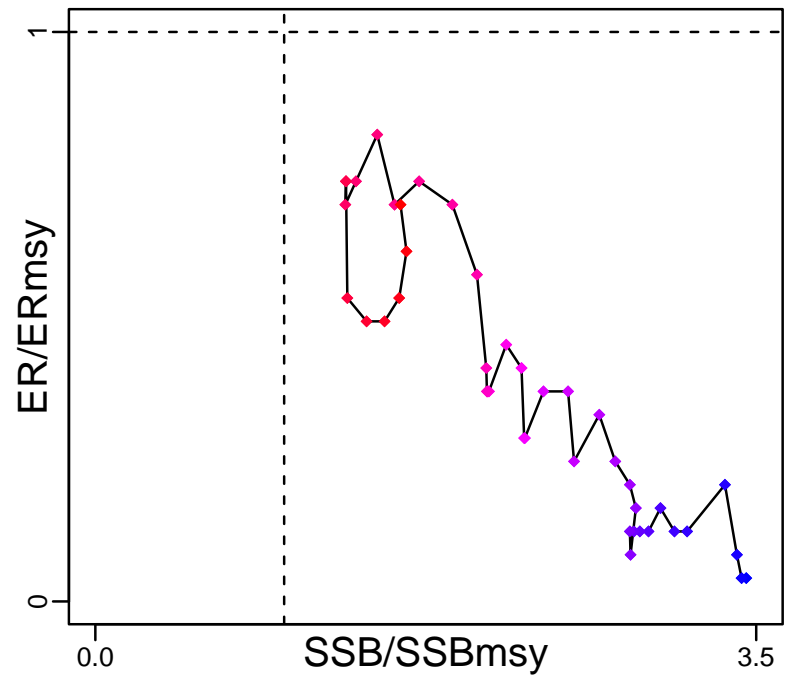
Spawner Recruit (1975–2017–SISIMP2021–2)
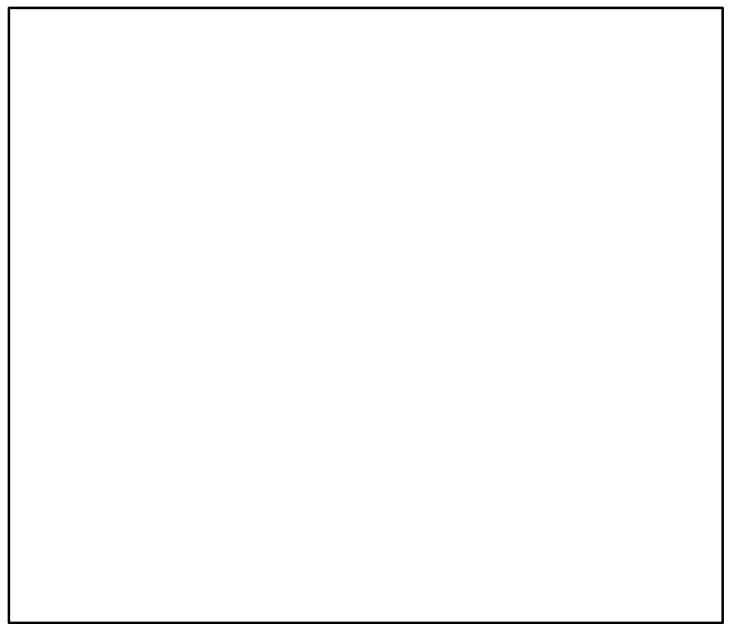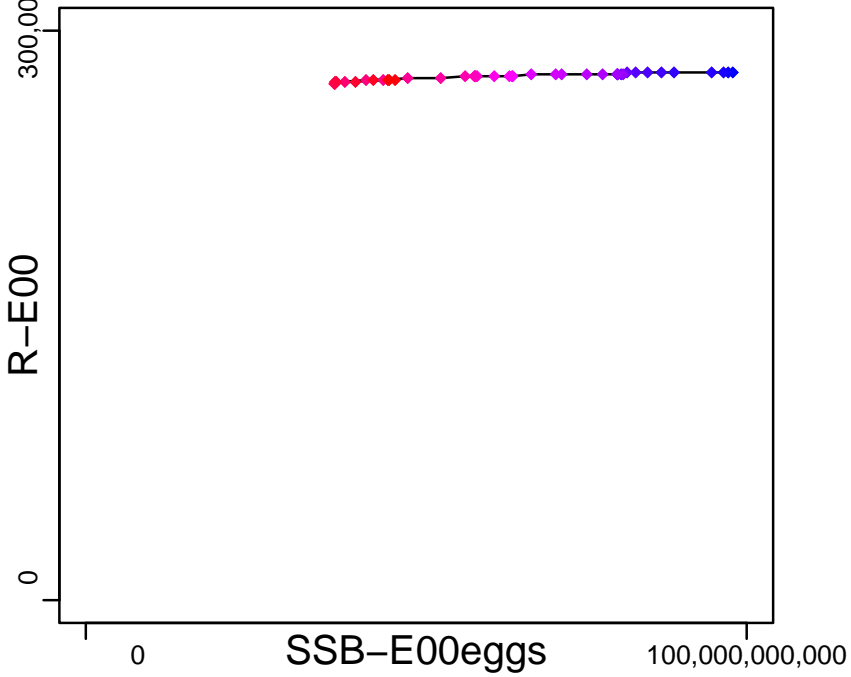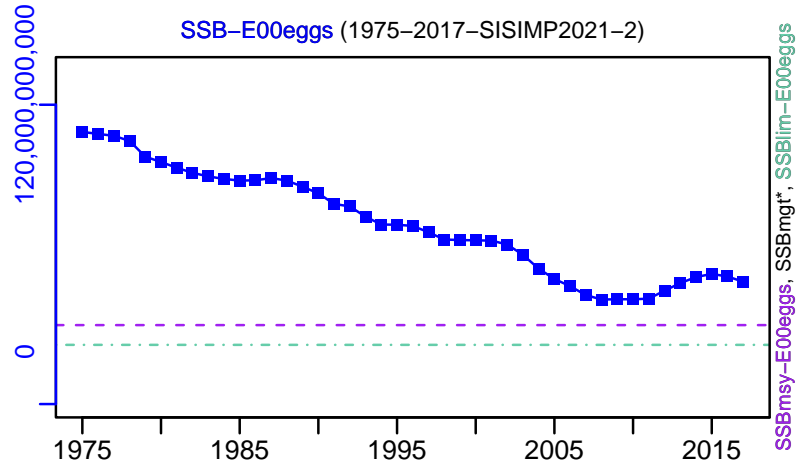
Production*

Start Year   End Year   * No Data

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Caribbean spiny lobster Saint Thomas / Saint John [CSLOBSTERSTT_STJ]

TB*

SSB−E00eggs (1975−2017−SISIMP2021−2)
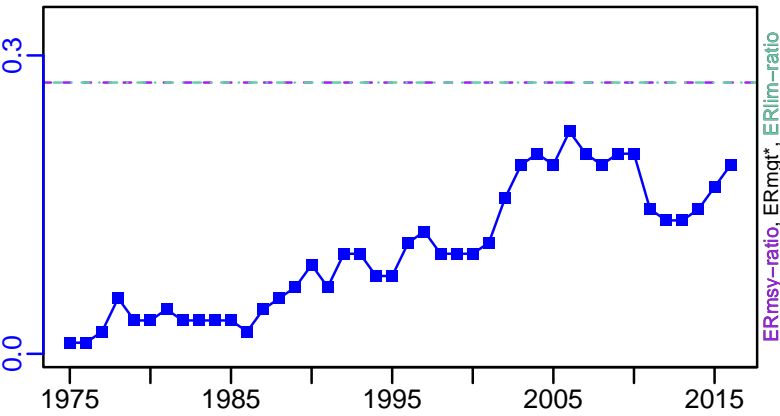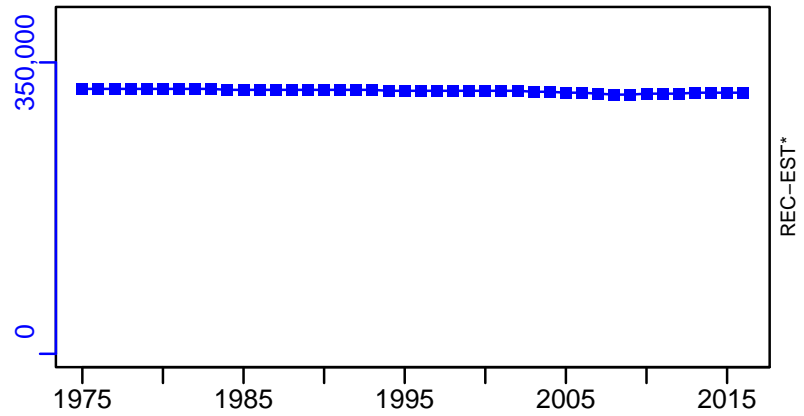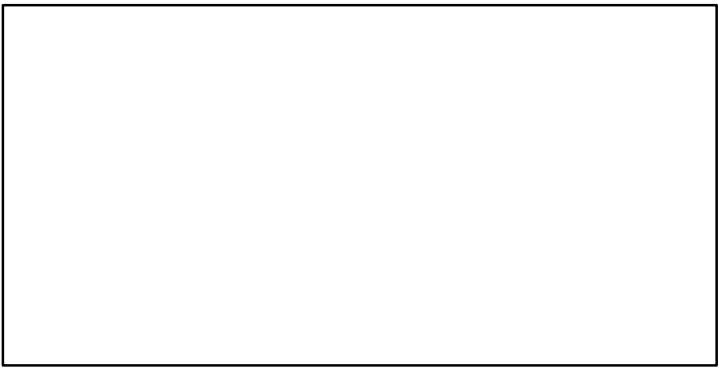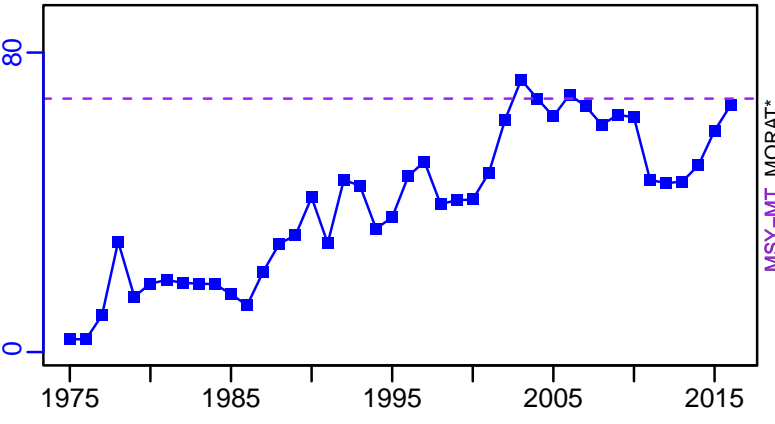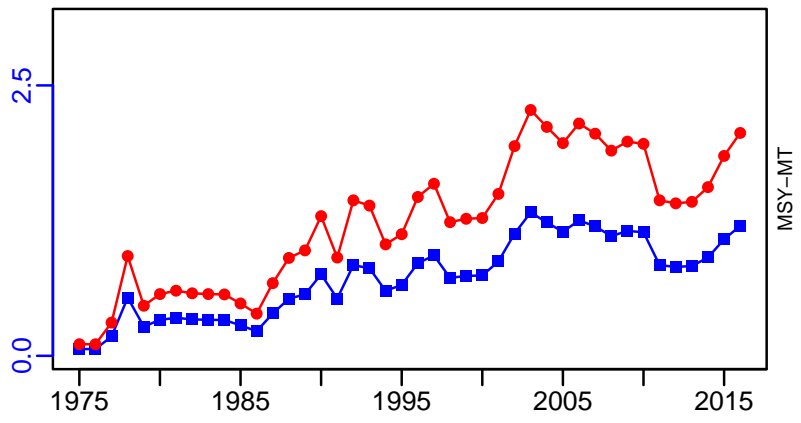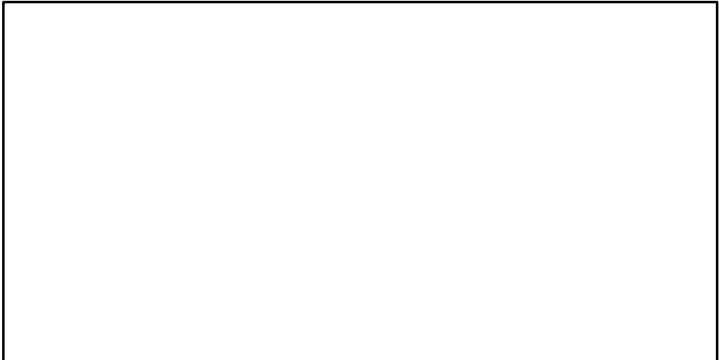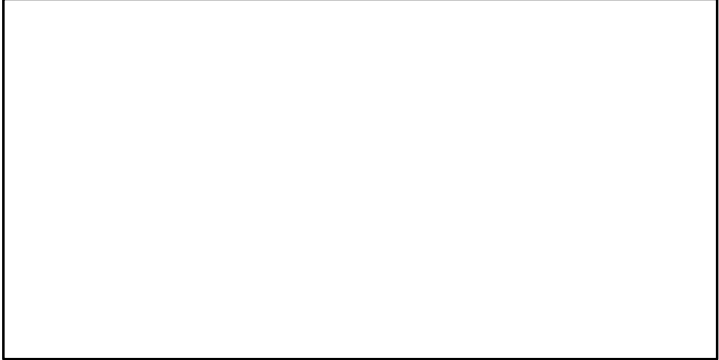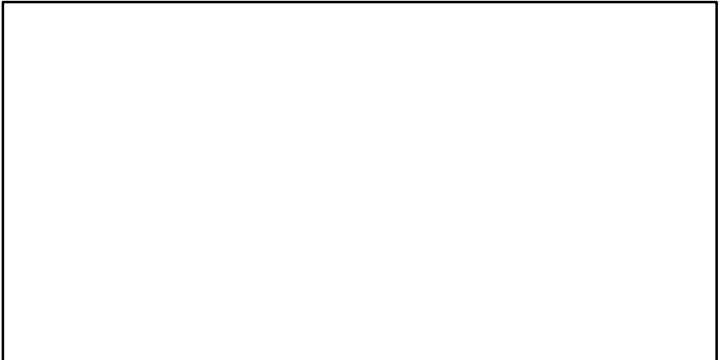
TN *

F*

ER−ratio (1975−2017−SISIMP2021−2)

R−E00 (1975−2017−SISIMP2021−2)

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

Caribbean spiny lobster Saint Thomas / Saint John [CSLOBSTERSTT_STJ]

TC–MT, TL*, RecC* (1975–2017–SISIMP2021–2)

TAC*, Cpair*, Cadv*

survB*

CPUE*

EFFORT*

TC–MT/MSY–MT, CdivMEANC–ratio, (1975–2017–SISIMP2021–2)

Legend

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

Dusky shark Gulf of Mexico and Atlantic [DSKSHARGMATL]
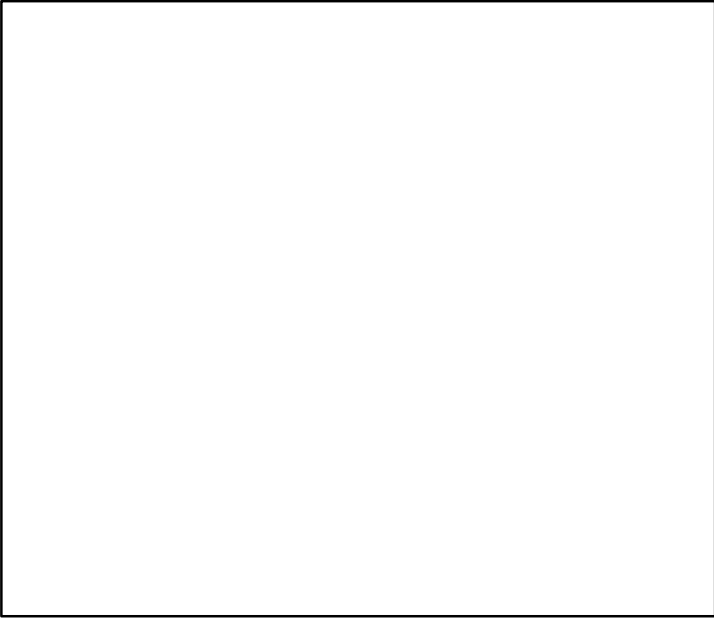
Metadata	
Scientific Name	Carcharhinus obscurus
Current Assess ID	SEFSC-DSKSHARGMATL-1960-2009-SISIMP2016
Area	Gulf of Mexico and Atlantic
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2009

Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	Fmsy-extr-1/yr	2009	0.034
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	2009	0.056	-	-
ER	-	-	-	-	-
TC	-	-	-		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	FdivFmsy-dimensionless	2009	1.56		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		
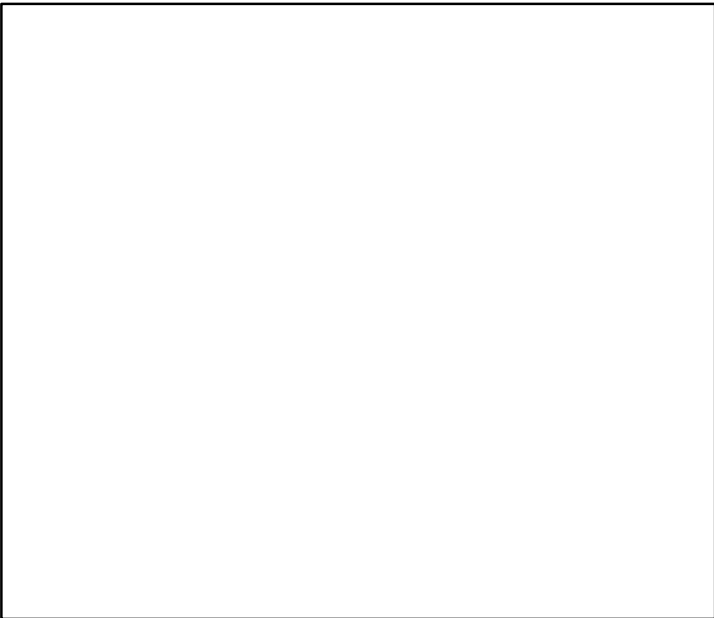
Kobe MSY*

Kobe MGT*

Spawner Recruit*

Production*

◆ Start Year ◆ End Year   * No Data

Dusky shark Gulf of Mexico and Atlantic [DSKSHARGMATL]
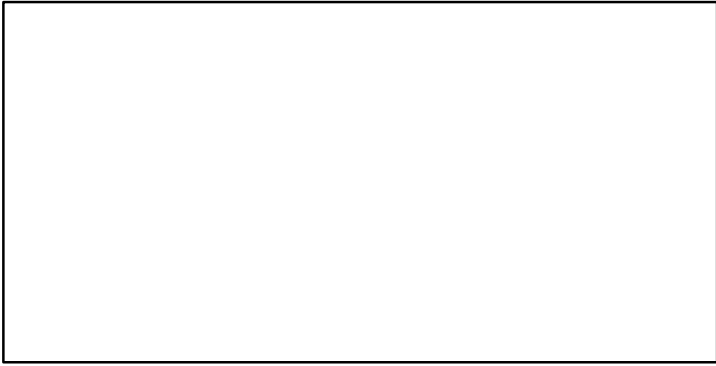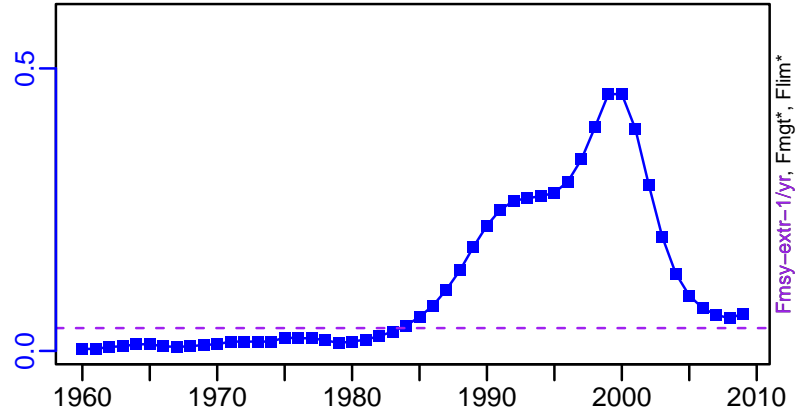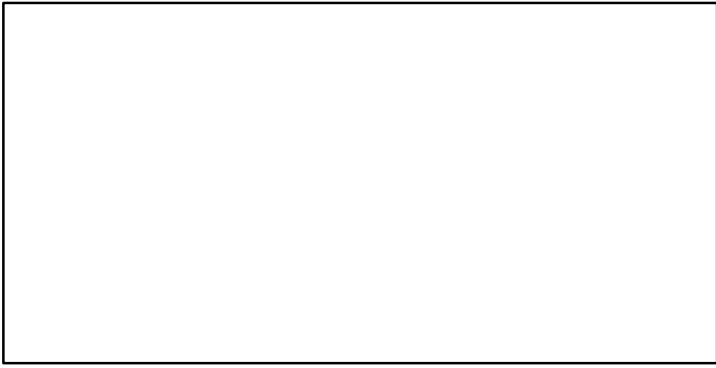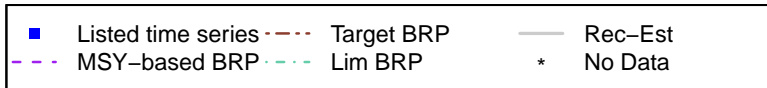
TB*

SSB*

TN *

F−1/yr (1960−2009−SISIMP2016)

Fmsy−extr−1/yr, Fmgt*, Flim*

0.5

0.0

1960　1970　1980　1990　2000　2010

ER*

Recruits*

■	Listed time series	·−·−	Target BRP	——	Rec−Est
− −	MSY−based BRP	·−·−	Lim BRP	*	No Data
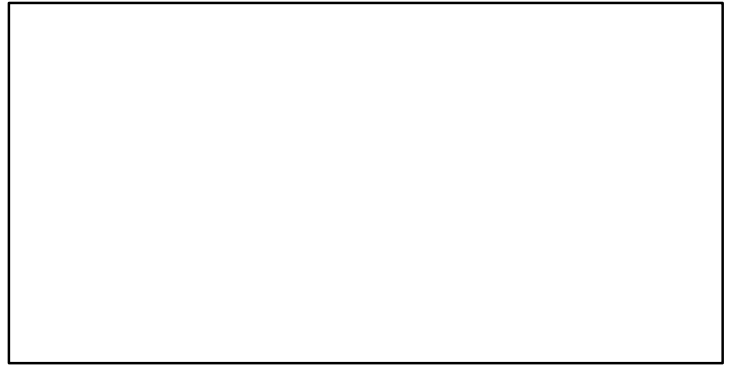
TC*, TL*, RecC*

TAC*, Cpair*, Cadv*

survB*

CPUE*

EFFORT*

CdivMSY*

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

Finetooth shark Atlantic [FTOOTHSHARATL]

Metadata	
Scientific Name	Carcharhinus isodon
Current Assess ID	SEFSC-FTOOTHSHARATL-1976-2005-FAUCONNET
Area	Atlantic
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2005

Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	Fmsy-1/yr	2005	0.03
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-E00	2005	96,000
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-
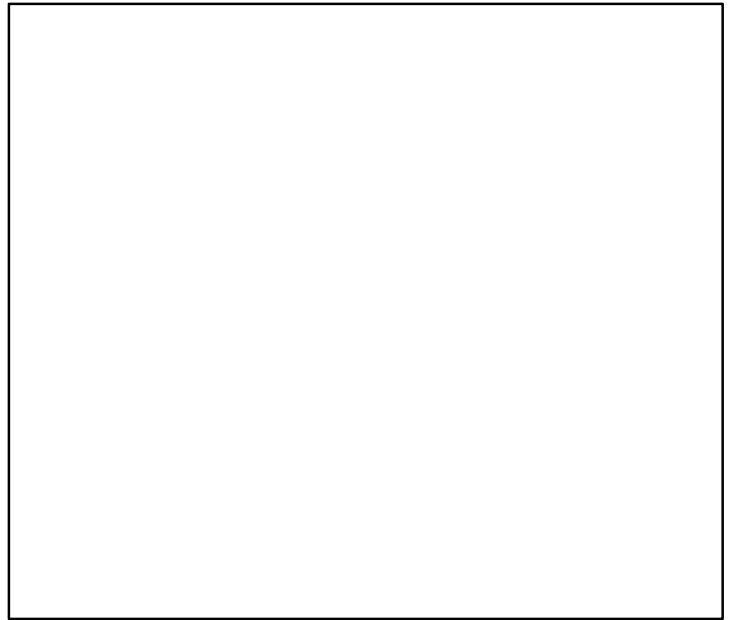
Time Series					
Type	**ID**	**Asmt Year**	**Curr Value**	**Sex**	**Age**
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	TN-E00	2005	4,160,000	-	-
R	-	-	-	-	-
F	F-1/yr	2005	0.003	-	-
ER	ER-calc-ratio	2005	0.003	-	-
TC	TC-E00	2005	10,700		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	F-1/yr/Fmsy-1/yr	2005	0.086		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Finetooth shark Atlantic [FTOOTHSHARATL]

Kobe MSYpref (1976–2005–FAUCONNET)
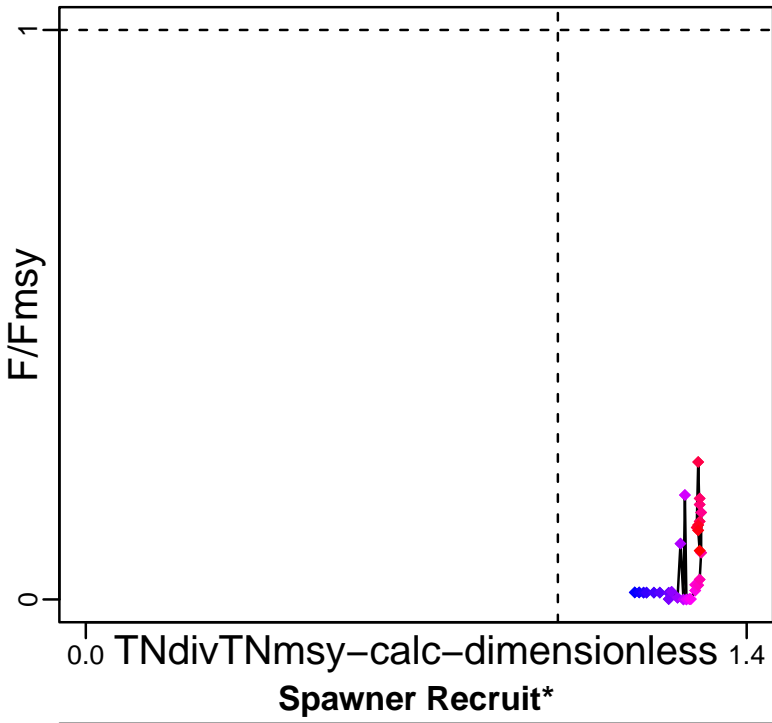
Kobe MGTpref (1976–2005–FAUCONNET)

F/Fmsy

F/Fmsy

1

1

0

0

0.0 TNdivTNmsy−calc−dimensionless 1.4

0.0 TNdivTNmsy−calc−dimensionless 1.4

Spawner Recruit*

Production*

◆ Start Year   ◆ End Year   ∗ No Data

60
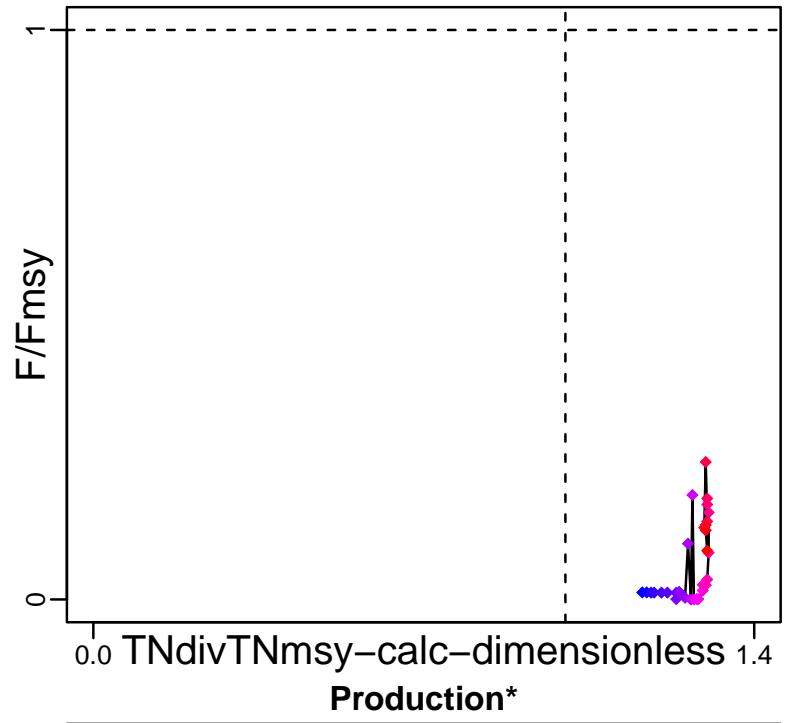
Finetooth shark Atlantic [FTOOTHSHARATL]

TB*

SSB*

TN–E00 (1976–2005–FAUCONNET)
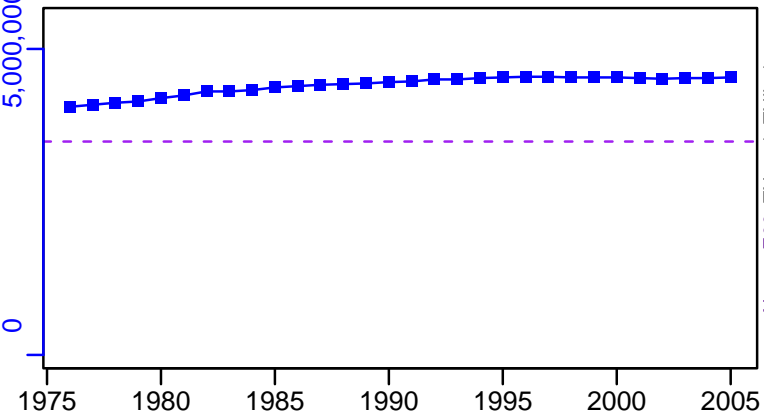
F–1/yr (1976–2005–FAUCONNET)
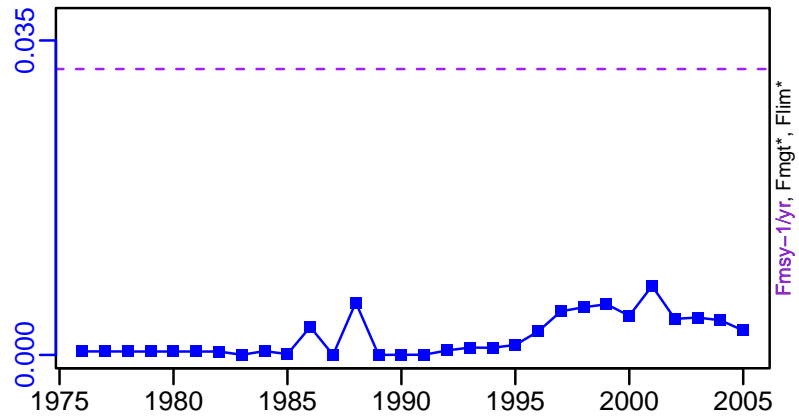
ER–calc–ratio (1976–2005–FAUCONNET)

Recruits*

■ Listed time series	– · – Target BRP	——— Rec–Est
– – – MSY–based BRP	– · – Lim BRP	* No Data
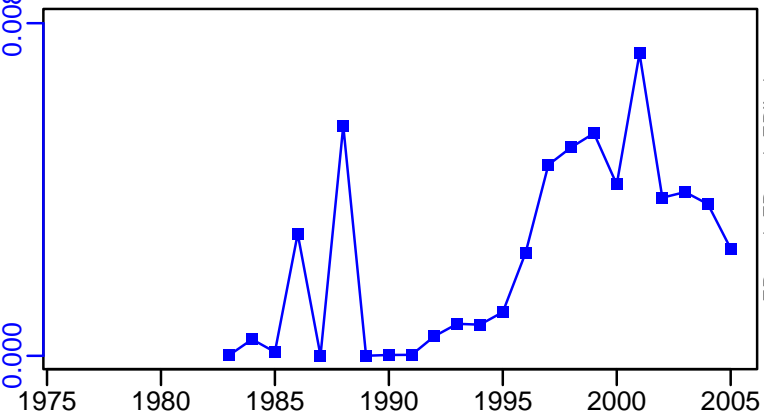
Finetooth shark Atlantic [FTOOTHSHARATL]

TC−E00, TL*, RecC* (1976−2005−FAUCONNET)

TAC*, Cpair*, Cadv*
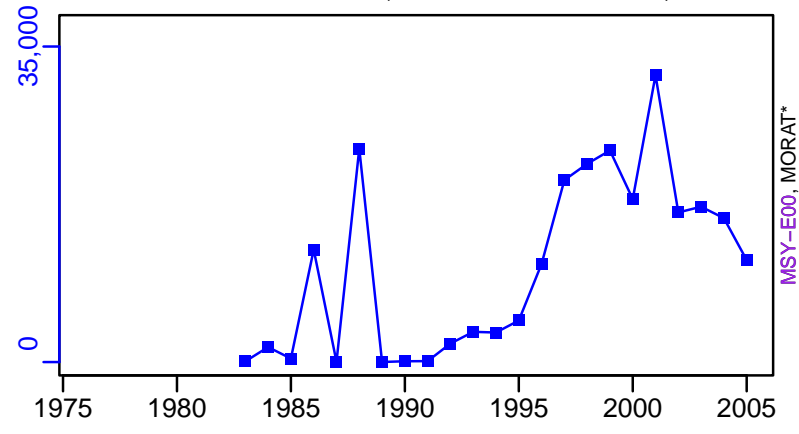
survB*

CPUE*

EFFORT*

TC−E00/MSY−E00, CdivMEANC−ratio, (1976−2005−FAUCONNET)

■	1st listed time series	▲	3rd listed time series	── MORAT
●	2nd listed time series	− − −	MSY	* No Data
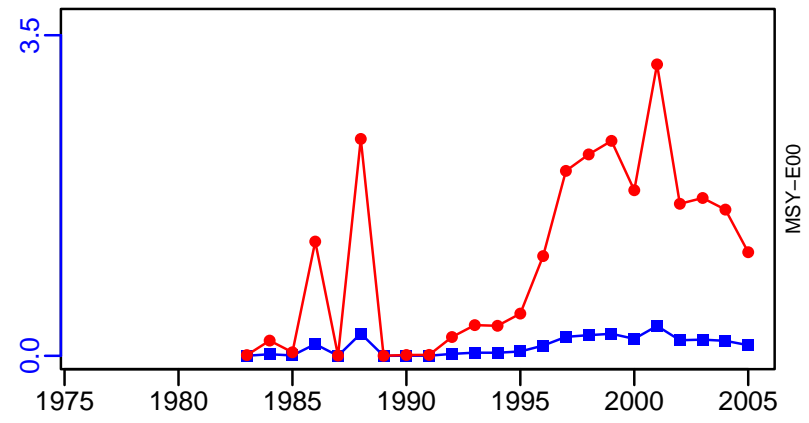
Gag Gulf of Mexico [GAGGM]

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

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

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

Gag Gulf of Mexico [GAGGM]

Kobe MSYpref (1963–2019–SISIMP2022)
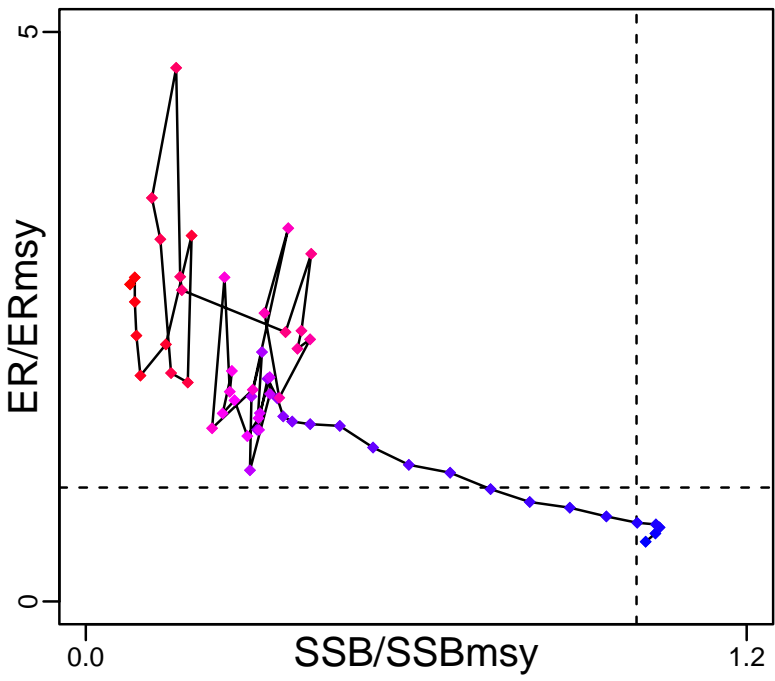
Kobe MGTpref (1963–2019–SISIMP2022)
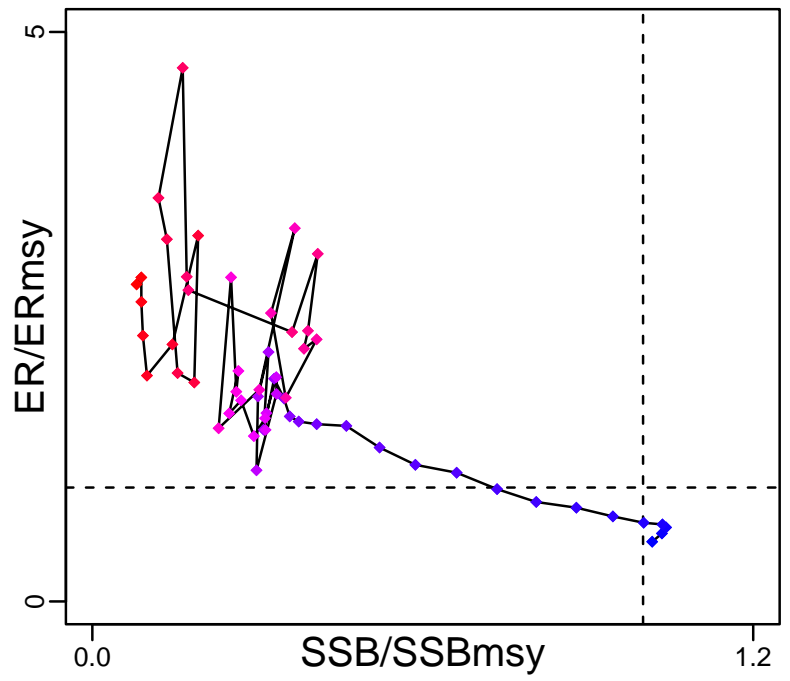
Spawner Recruit (1963–2019–SISIMP2022)

Production*

◆ Start Year   ◆ End Year   * No Data

64
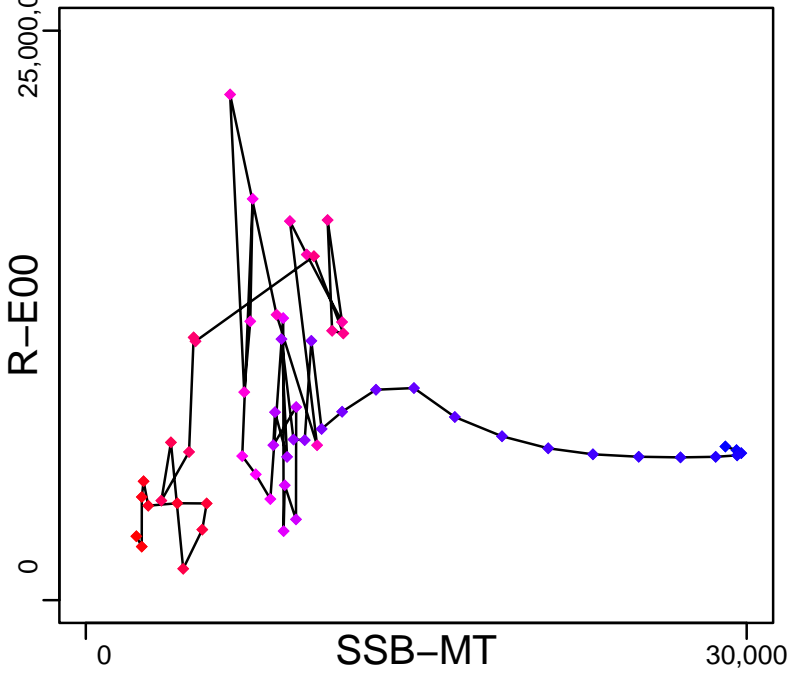
Gag Gulf of Mexico [GAGGM]

TB*
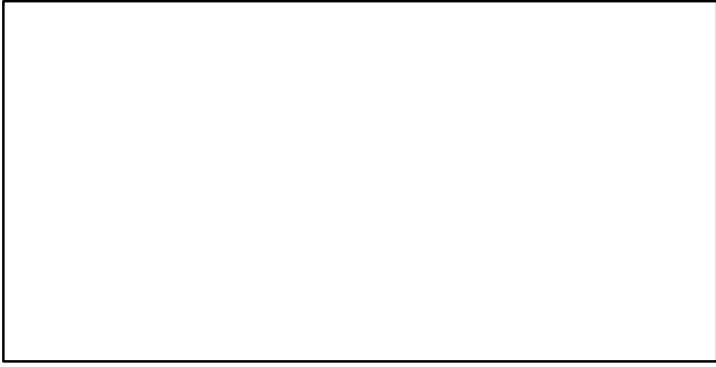
SSB−MT (1963−2019−SISIMP2022)
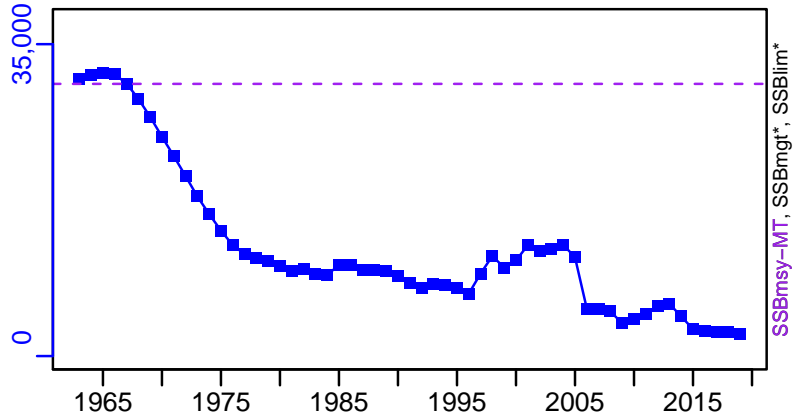
TN *

F−1/yr (1963−2012−HIVELY)
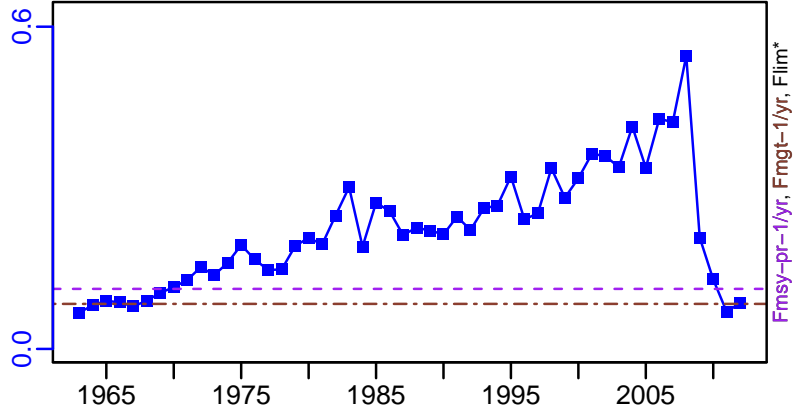
ER−ratio (1963−2019−SISIMP2022)

R−E00 (1963−2019−SISIMP2022)

Legend:
- ■ Listed time series
- − · − Target BRP
- ─── Rec−Est
- − − MSY−based BRP
- − · − Lim BRP
- * No Data
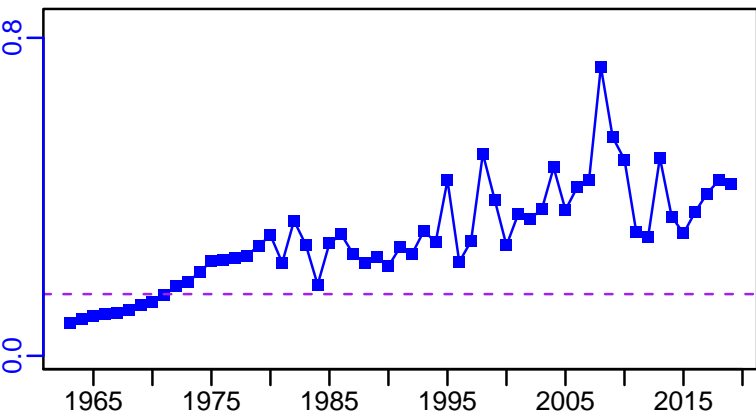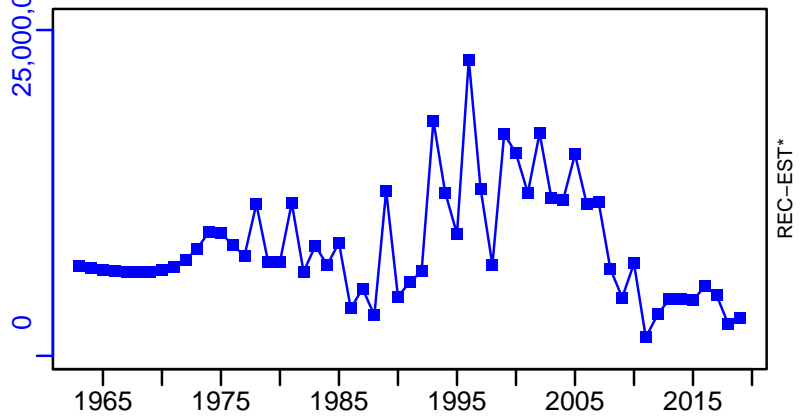
Gag Gulf of Mexico [GAGGM]

TC–MT, TL*, RecC* (1963–2019–SISIMP2022)
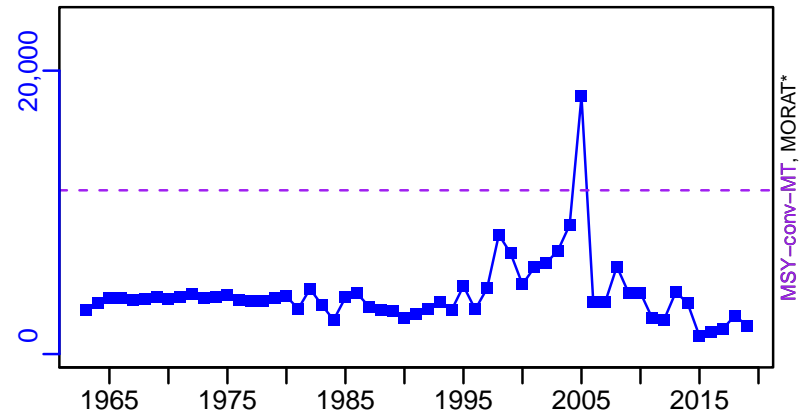
TAC*, Cpair*, Cadv*

survB*
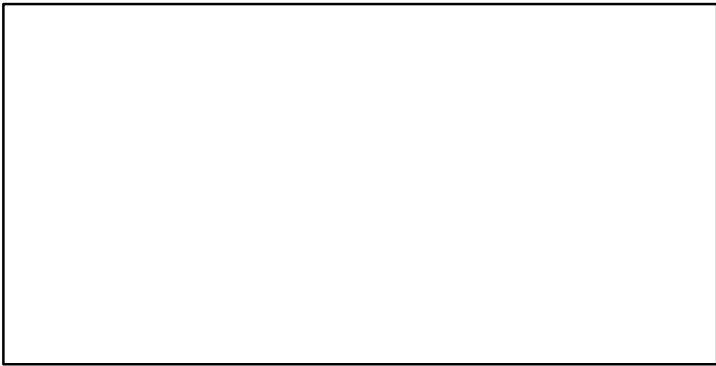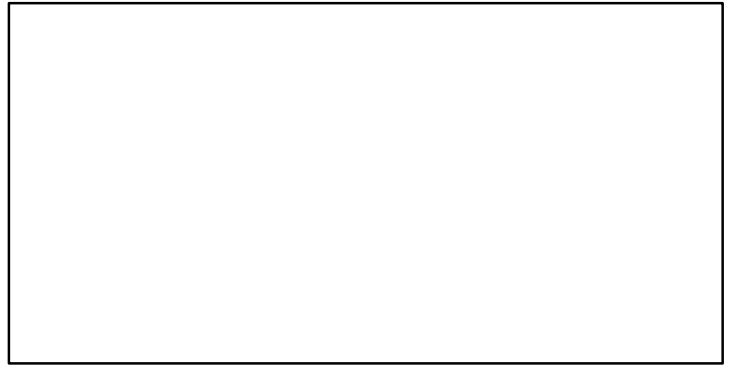
CPUE*

EFFORT*

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

■	1st listed time series	▲ 3rd listed time series	—— MORAT
●	2nd listed time series	– – MSY	* No Data
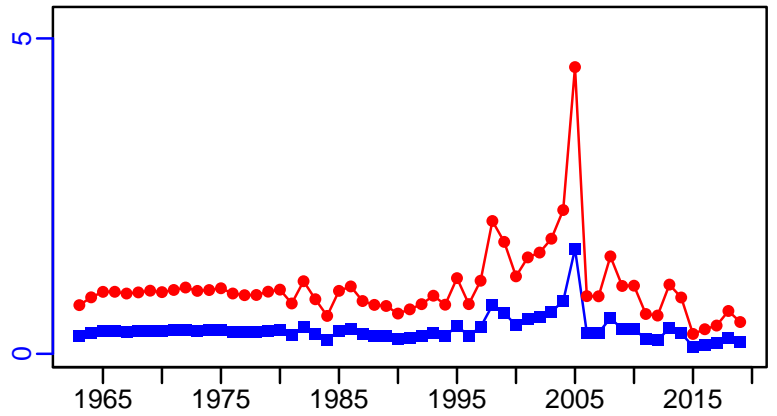
Gag Southern Atlantic coast [GAGSATLC]

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

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

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

Gag Southern Atlantic coast [GAGSATLC]

Kobe MSYpref (1962–2019–SISIMP2021–2)
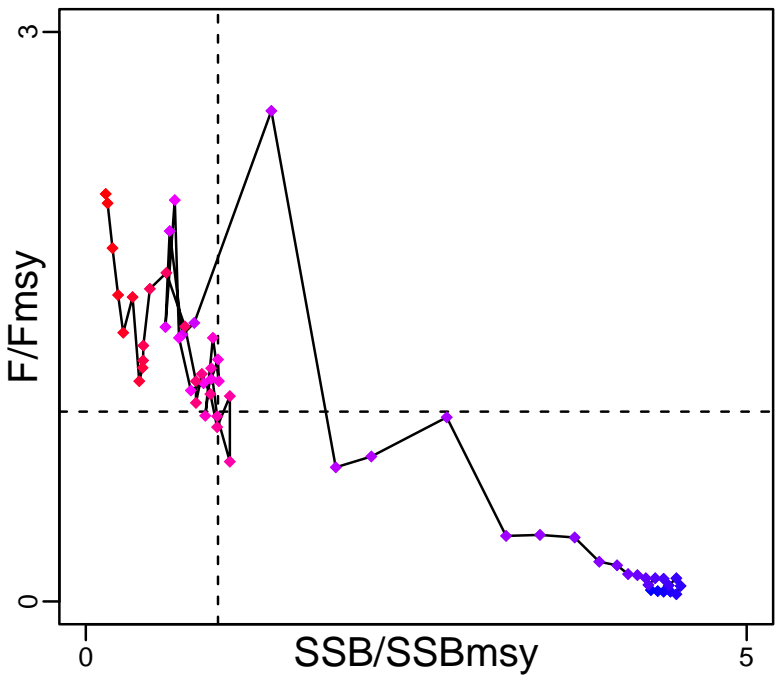
Kobe MGTpref (1962–2019–SISIMP2021–2)
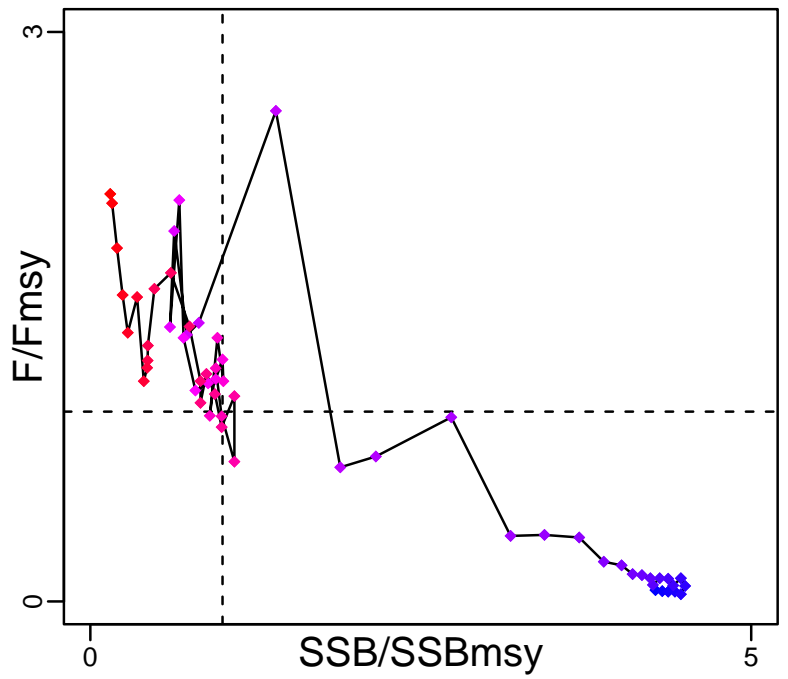
Spawner Recruit (1962–2019–SISIMP2021–2)
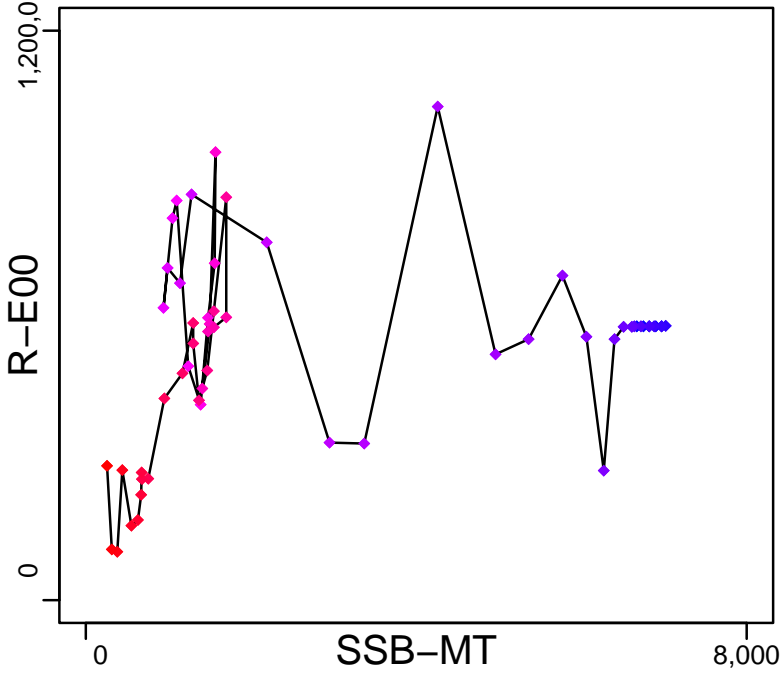
Production (1962–2019–SISIMP2021–2)
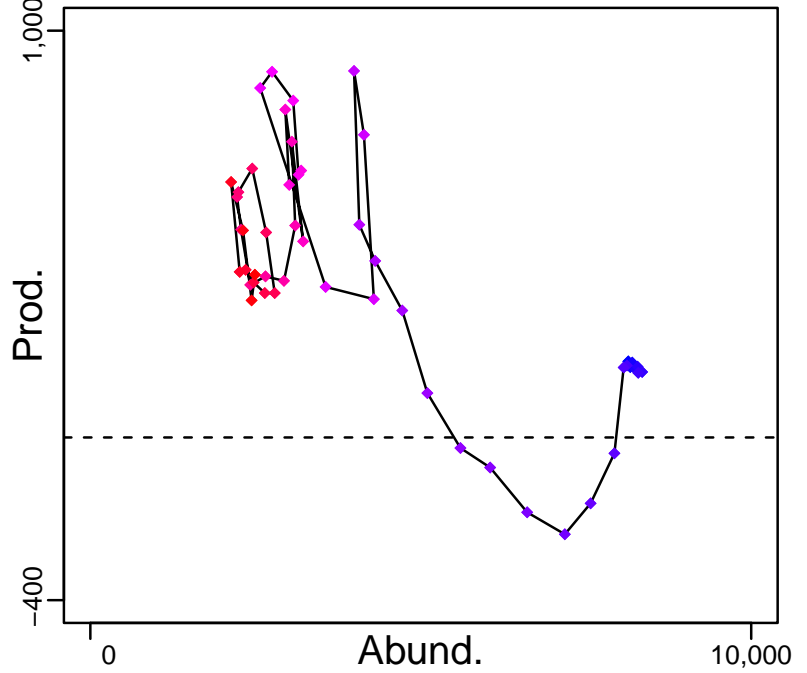
◆ Start Year   ◆ End Year   * No Data

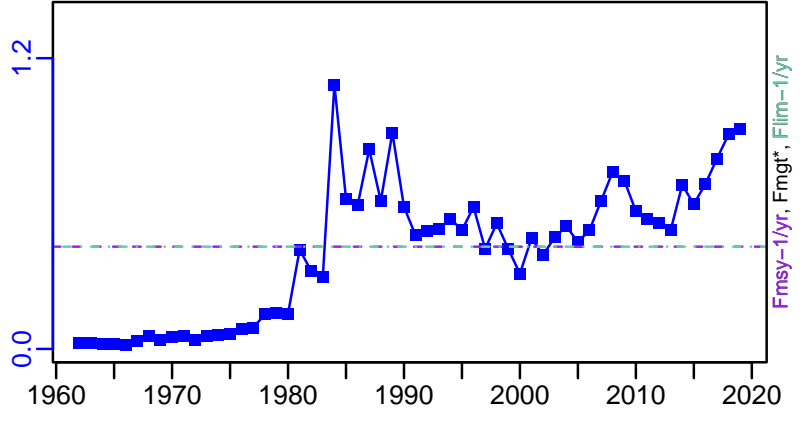# Gag Southern Atlantic coast [GAGSATLC]

TB–MT (1962–2012–SISIMP2016)
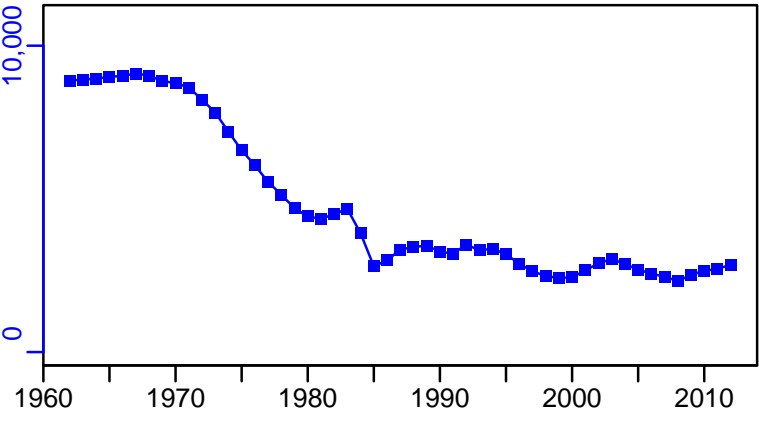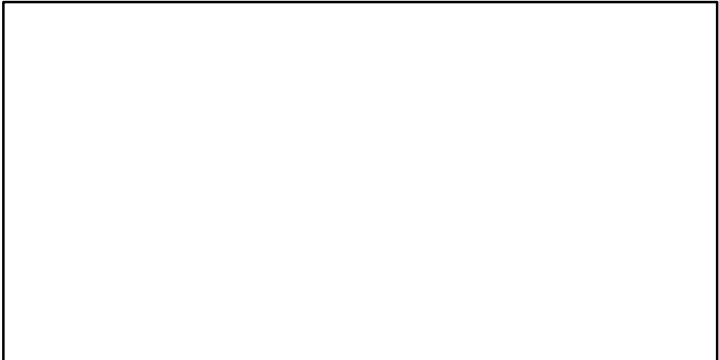
SSB–MT (1962–2019–SISIMP2021–2)

TN *
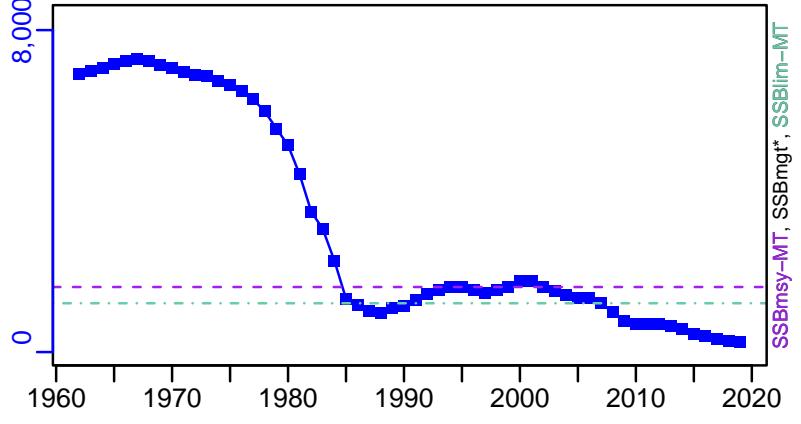
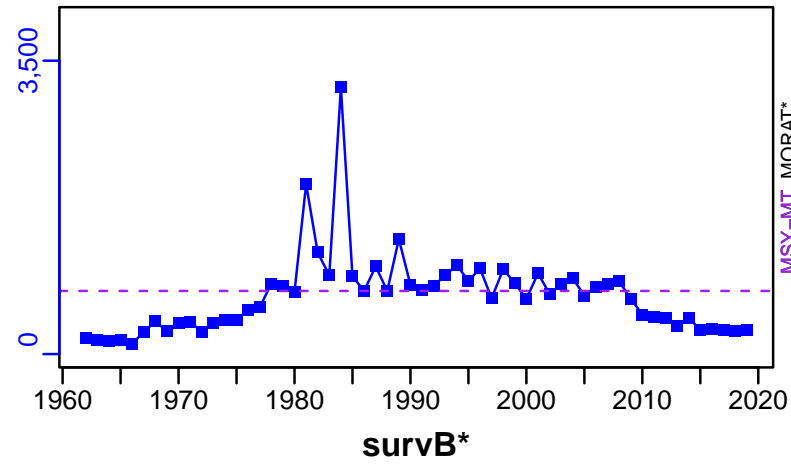F–1/yr (1962–2019–SISIMP2021–2)

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

R–E00 (1962–2019–SISIMP2021–2)

Listed time series · — · Target BRP — Rec–Est
— — MSY–based BRP · — · Lim BRP * No Data
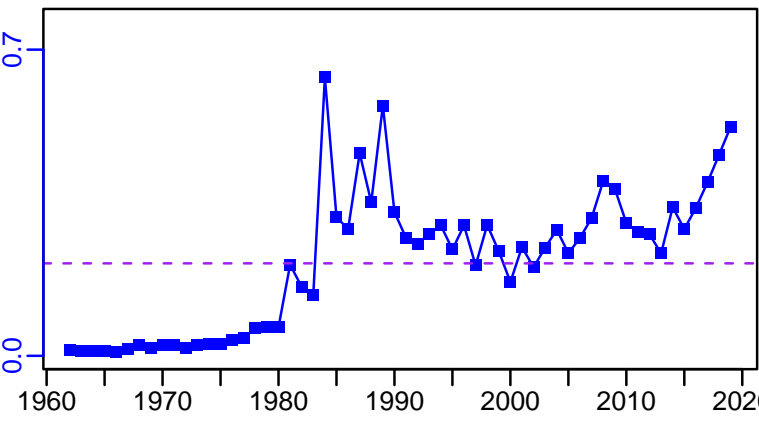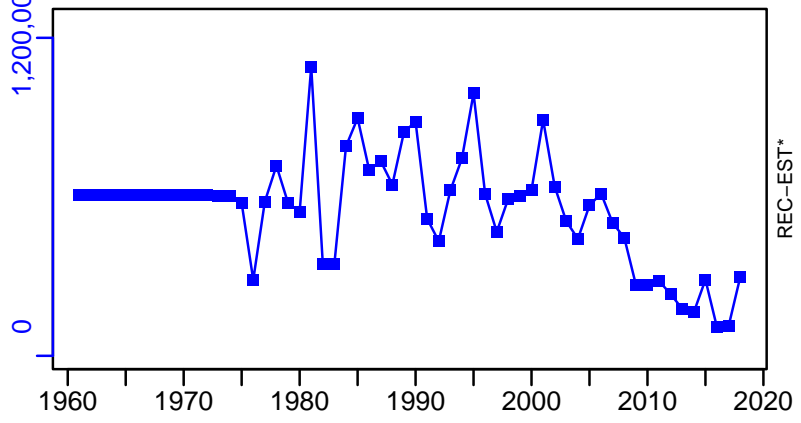
Gag Southern Atlantic coast [GAGSATLC]

TC−MT, TL*, RecC* (1962−2019−SISIMP2021−2)

TAC*, Cpair*, Cadv*

survB*

CPUE*

EFFORT*
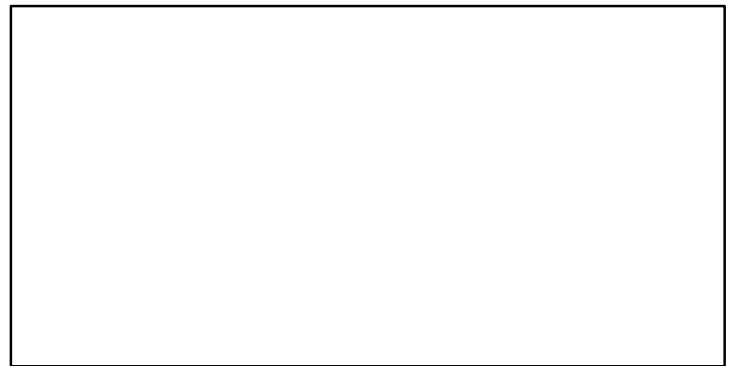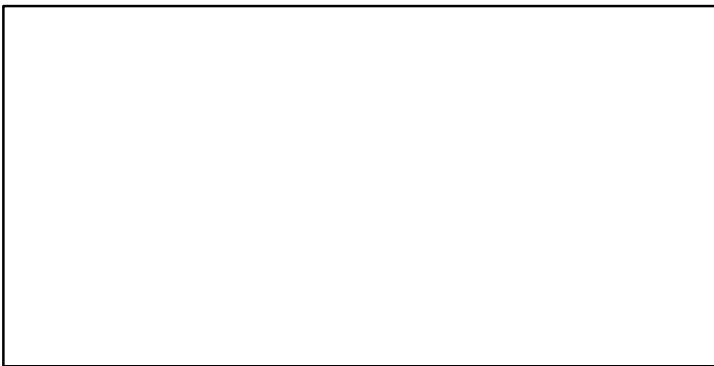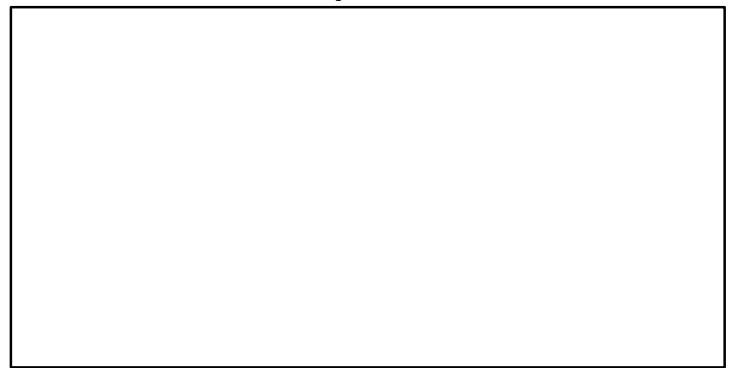
TC−MT/MSY−MT, CdivMEANC−ratio, (1962−2019−SISIMP2021−2)

Legend:
- ■ 1st listed time series
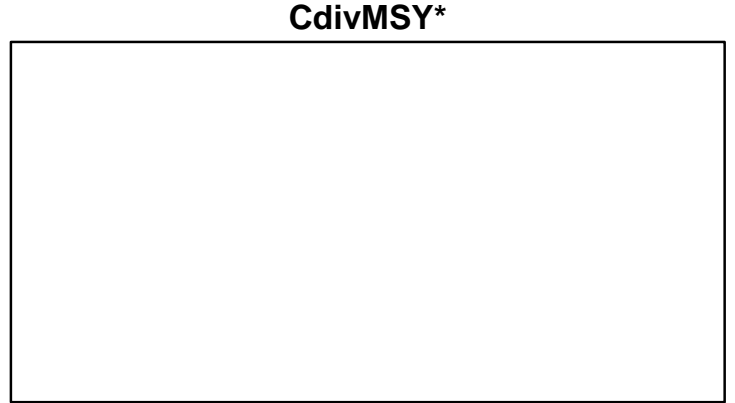- ● 2nd listed time series
- ▲ 3rd listed time series
- – – MSY
- —— MORAT
- * No Data
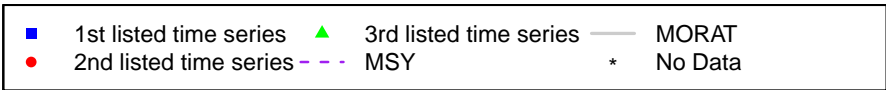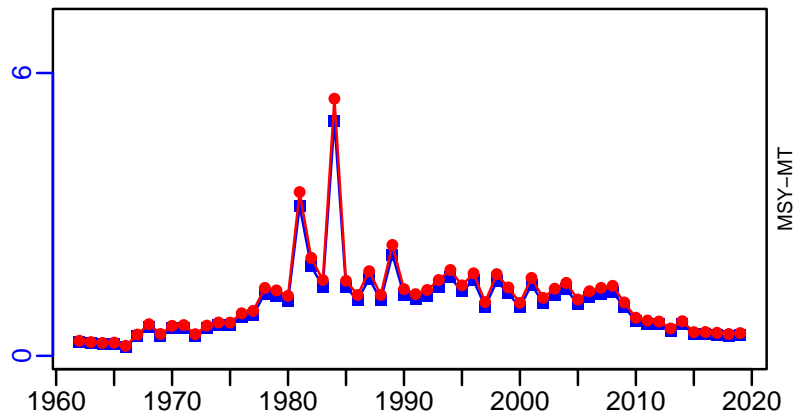
Goliath grouper Southern Atlantic coast and Gulf of Mexico [GLGROUPSATLCGM]

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

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	2009	0		
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
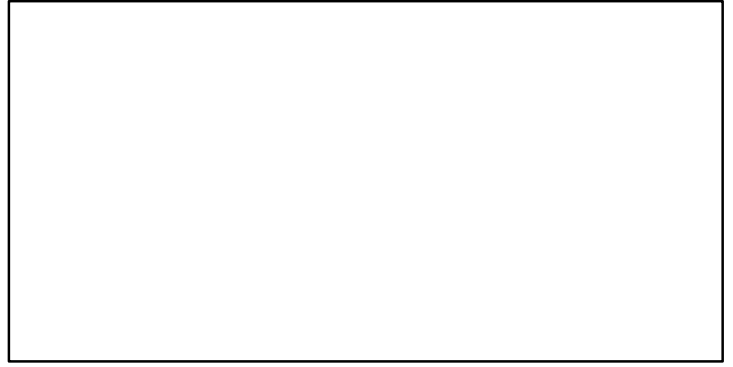
Goliath grouper Southern Atlantic coast and Gulf of Mexico [GLGROUPSATLCGM]

TB*

SSB*

TN *

F*

ER*

Recruits*

■	Listed time series	-·-·-	Target BRP	——	Rec–Est
- - -	MSY–based BRP	-·-·-	Lim BRP	*	No Data
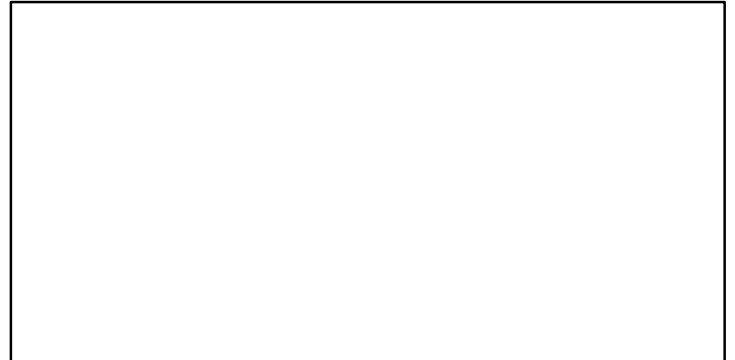
Goliath grouper Southern Atlantic coast and Gulf of Mexico [GLGROUPSATLCGM]

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

TAC*, Cpair*, Cadv*

MSY*, MORAT*

survB*

CPUE*

EFFORT*

CdivMSY*

■	1st listed time series	▲ 3rd listed time series	—— MORAT
●	2nd listed time series	– – MSY	* No Data
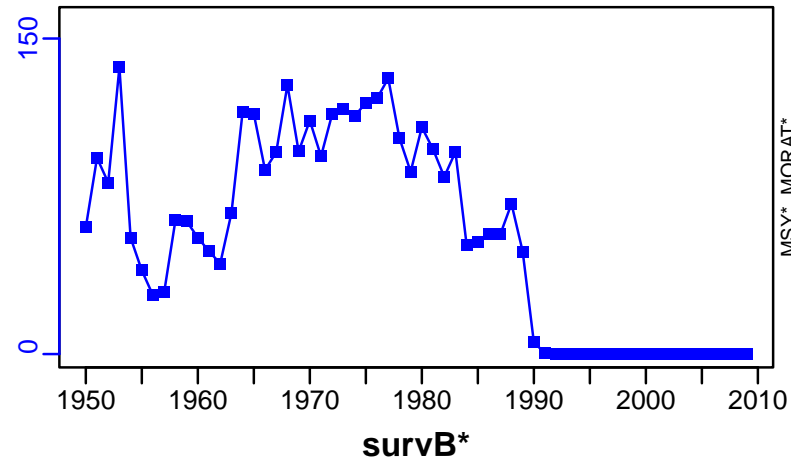
Greater amberjack Gulf of Mexico [GRAMBERGM]

Metadata	
Scientific Name	Seriola dumerili
Current Assess ID	SEFSC-GRAMBERGM-1950-2018-SISIMP2022
Area	Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2012, 2015, 2018, 2004

Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	TBmsy-calc-MT	2012	7422
SSBmsy	SSBmsy-MT	2018	7119
Fmsy	Fmsy-1/yr	2015	0.2
ERmsy	ERmsy-ratio	2018	0.175
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	Fmgt-1/yr	2015	0.17
ERmgt	ERmgt-ratio	2012	0.17
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2012	1633
M	-	-	-
TBlim	-	-	-
SSBlim	SSBlim-MT	2015	4094
Flim	Flim-1/yr	2015	0.2
ERlim	ERlim-ratio	2012	0.22

| Time Series					
Type	**ID**	**Asmt Year**	**Curr Value**	**Sex**	**Age**
TB	TB-MT	2012	3860	-	1+
SSB	SSB-MT	2018	2432	-	-
TN	-	-	-	-	-
R	R-E00	2018	1,813,000	-	0
F	F-1/yr	2015	0.33	-	-
ER	ER-ratio	2018	0.302	-	1
TC	TC-MT	2012	983		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2012	0.52		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2018	0.342		
F/Fmsy	F-1/yr/Fmsy-1/yr	2015	1.65		
ER/ERmsy	ER-ratio/ERmsy-ratio	2018	1.726		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	F-1/yr/Fmgt-1/yr	2015	1.941		
ER/ERmgt	-	-	-		

Greater amberjack Gulf of Mexico [GRAMBERGM]

Kobe MSYpref (1950–2018–SISIMP2022)
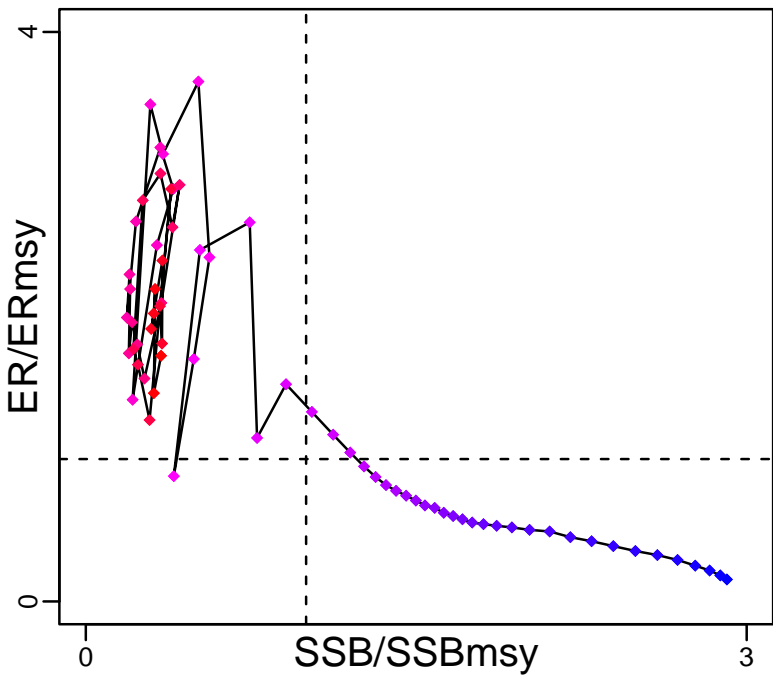
Kobe MGTpref (1950–2018–SISIMP2022)
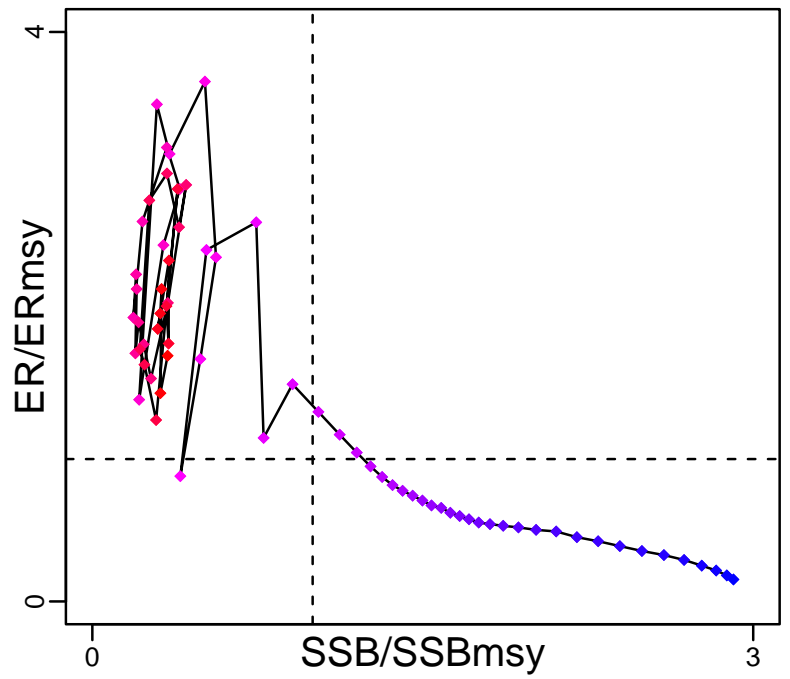
Spawner Recruit (1950–2018–SISIMP2022)
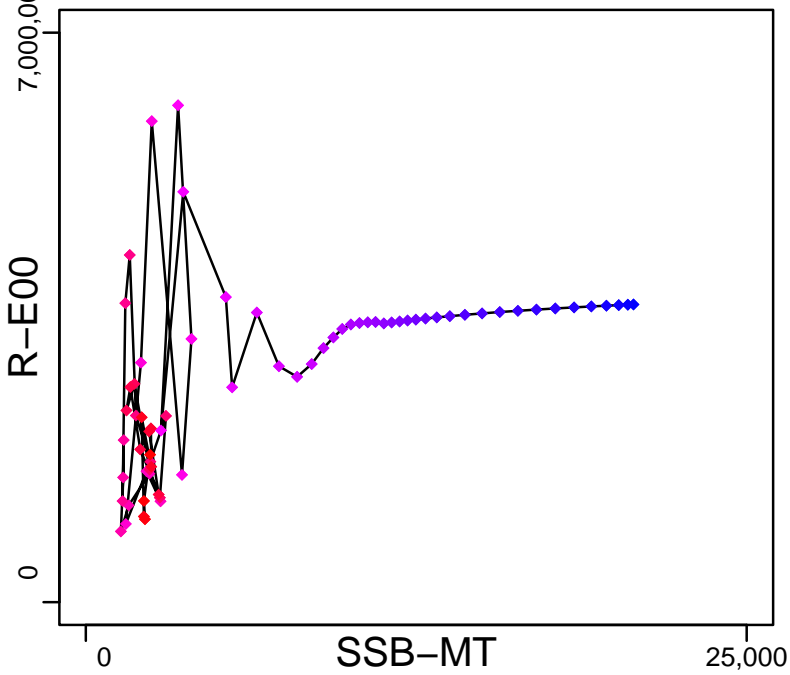
Production (1950–2012–SISIMP2016)
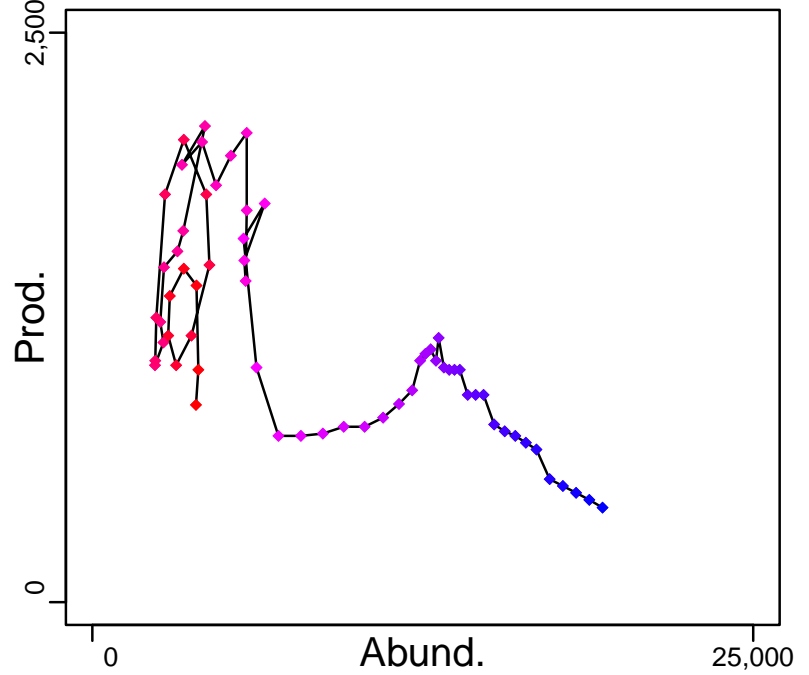
Legend: ◆ Start Year ◆ End Year * No Data

Greater amberjack Gulf of Mexico [GRAMBERGM]

TB–MT (1950–2012–SISIMP2016)

SSB–MT (1950–2018–SISIMP2022)

TN *

F–1/yr (1950–2015–SISIMP2021)
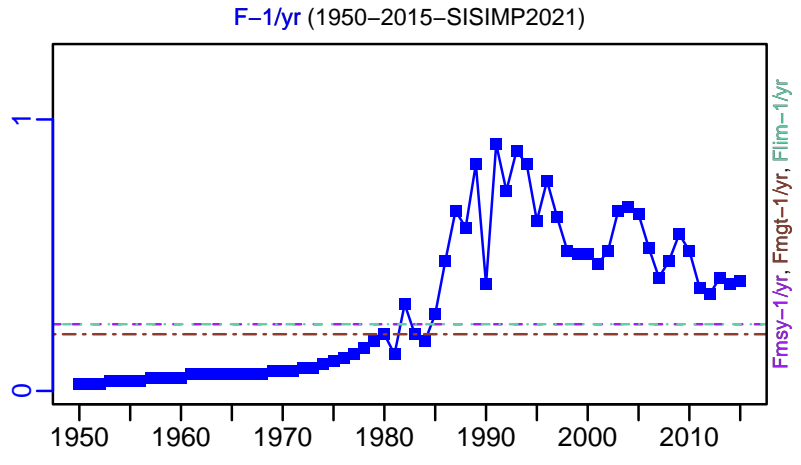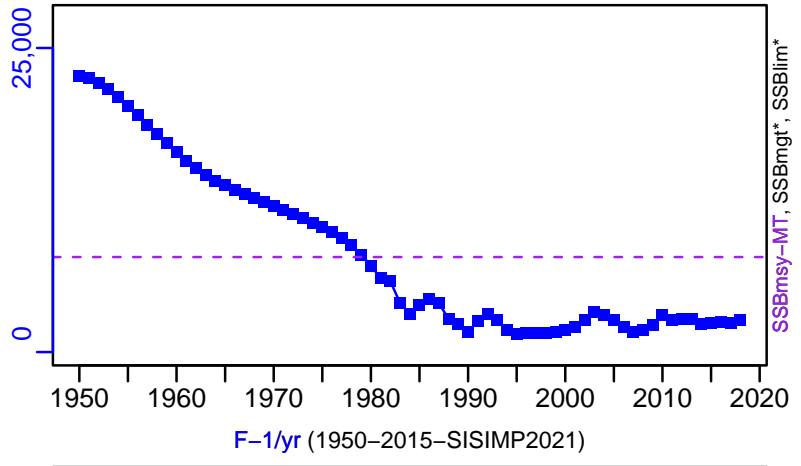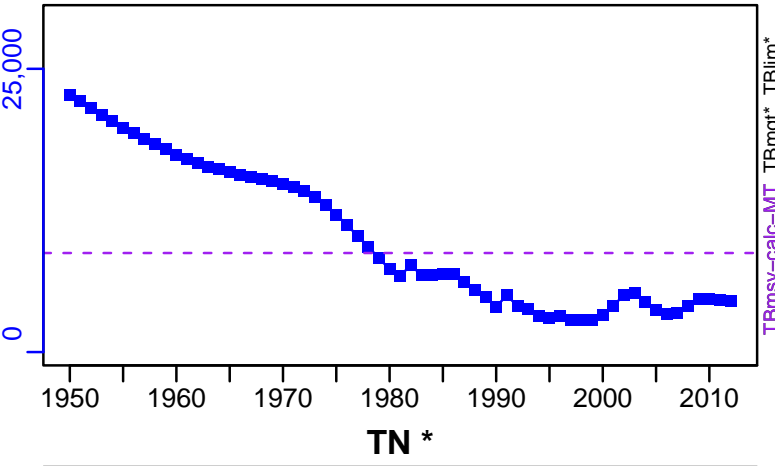
ER–ratio (1950–2018–SISIMP2022)

R–E00 (1950–2018–SISIMP2022)

Listed time series
MSY–based BRP
Target BRP
Lim BRP
Rec–Est
* No Data
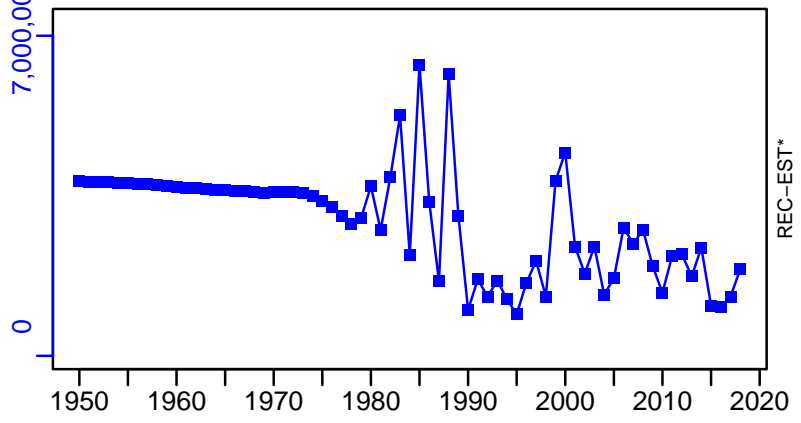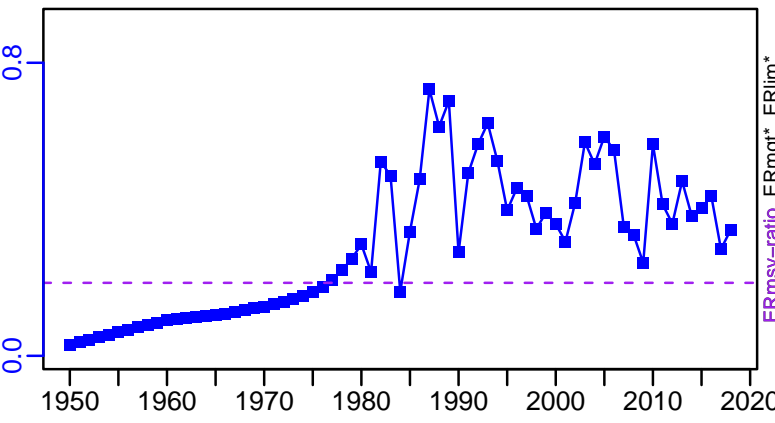
Greater amberjack Gulf of Mexico [GRAMBERGM]

TC–MT, TL*, RecC* (1950–2012–SISIMP2016)
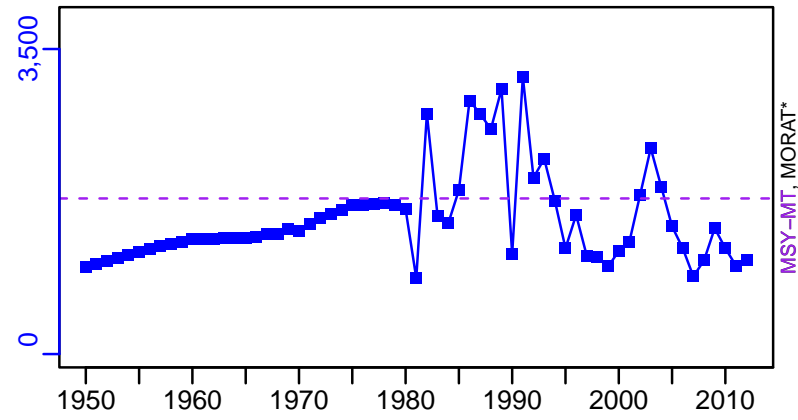
TAC*, Cpair*, Cadv*

survB*
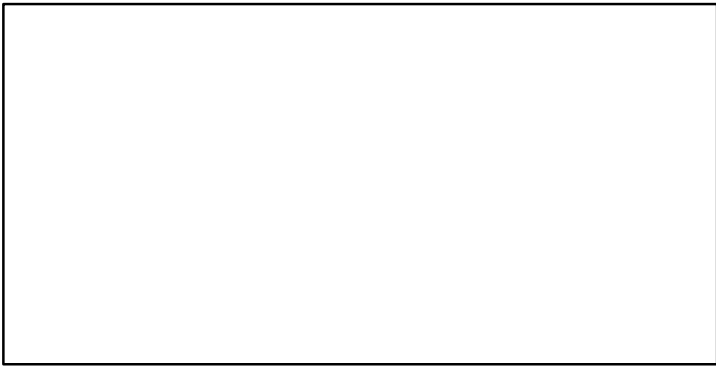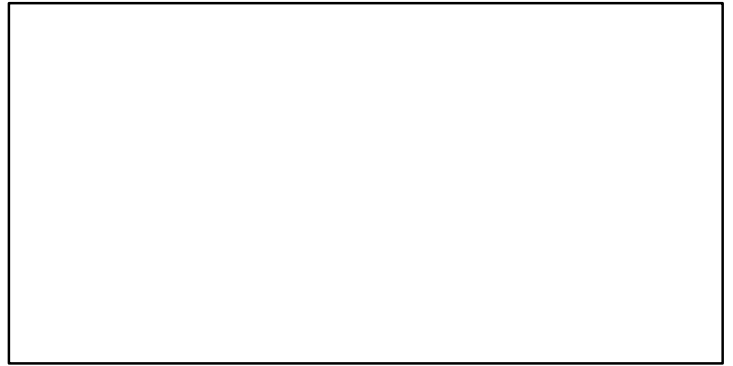
CPUE*

EFFORT*

TC–MT/MSY–MT, CdivMEANC–ratio, (1950–2012–SISIMP2016)

■	1st listed time series	▲ 3rd listed time series	—— MORAT
●	2nd listed time series	– – MSY	* No Data
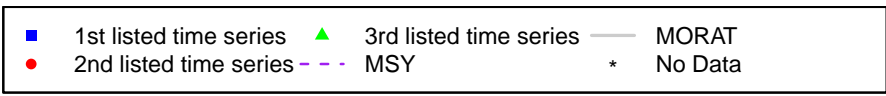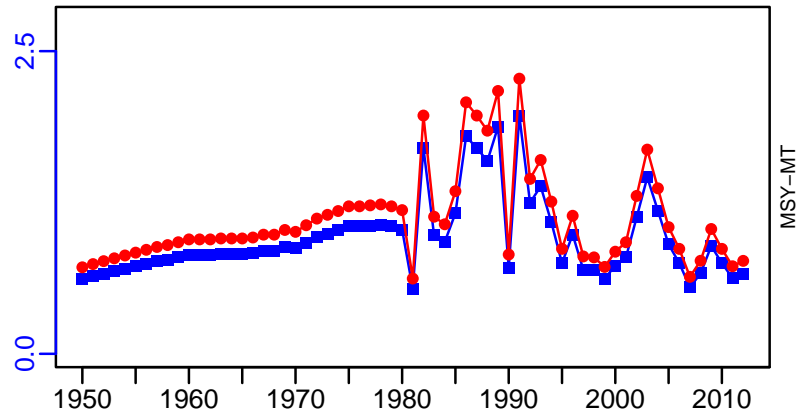
Greater amberjack Southern Atlantic coast [GRAMBERSATLC]

Metadata	
Scientific Name	Seriola dumerili
Current Assess ID	SEFSC-GRAMBERSATLC-1980-2017-SISIMP2021-2
Area	Southern Atlantic coast
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2006, 2017

Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	TBmsy-MT	2006	5491
SSBmsy	SSBmsy-MT	2017	3290
Fmsy	Fmsy-1/yr	2017	0.686
ERmsy	ERmsy-ratio	2006	0.166
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2017	1492
M	M-1/yr	2006	0.25
TBlim	TBlim-MT	2006	1455
SSBlim	SSBlim-MT	2017	2470
Flim	Flim-1/yr	2017	0.686
ERlim	-	-	-

Time Series					
Type	**ID**	**Asmt Year**	**Curr Value**	**Sex**	**Age**
TB	TB-MT	2006	5620	-	-
SSB	SSB-MT	2017	6910	-	-
TN	-	-	-	-	-
R	R-E00	2017	1,140,000	-	1
F	F-1/yr	2017	0.27	-	-
ER	ER-calc-ratio	2006	0.049	-	-
TC	TC-MT	2017	1120		
TL	TL-MT	2006	278		
TB/TBmsy	TB-MT/TBmsy-MT	2006	1.023		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2017	2.1		
F/Fmsy	F-1/yr/Fmsy-1/yr	2017	0.394		
ER/ERmsy	ER-calc-ratio/ERmsy-ratio	2006	0.299		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Greater amberjack Southern Atlantic coast [GRAMBERSATLC]

Kobe MSYpref (1980−2017−SISIMP2021−2)
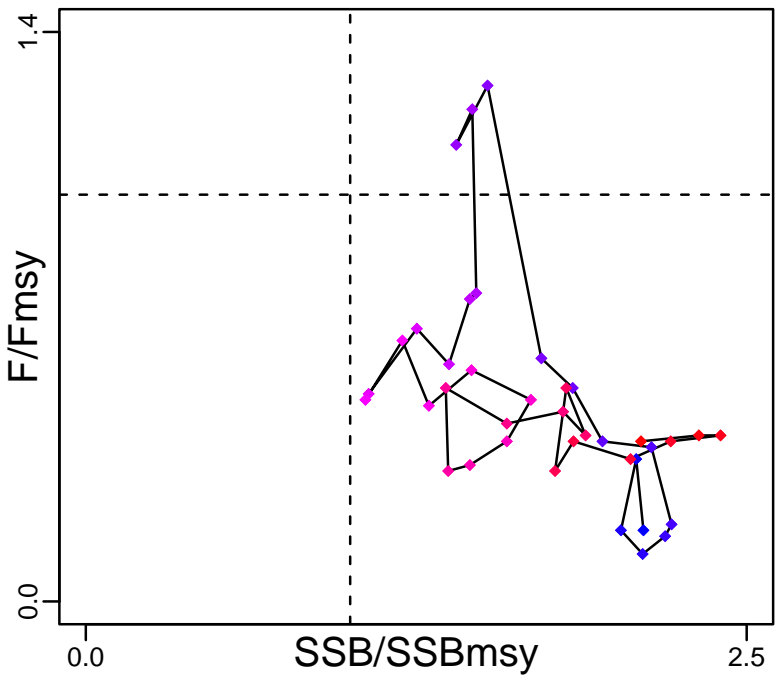
Kobe MGTpref (1980−2017−SISIMP2021−2)
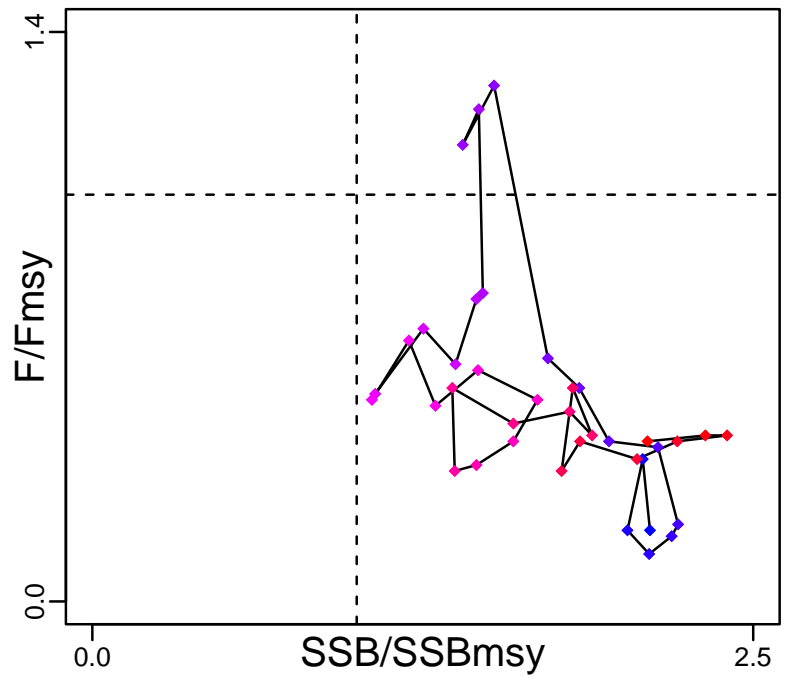
Spawner Recruit (1980−2017−SISIMP2021−2)
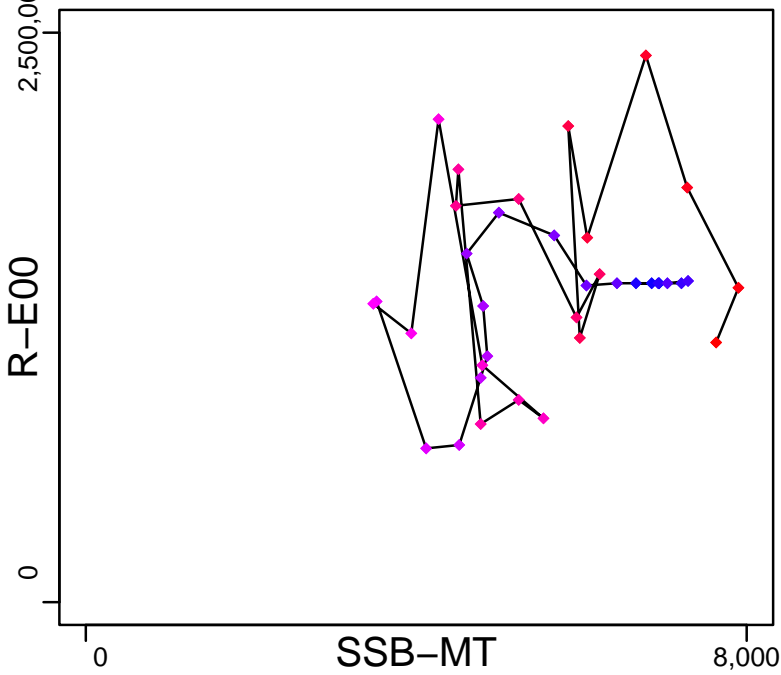
Production (1980−2017−SISIMP2021−2)
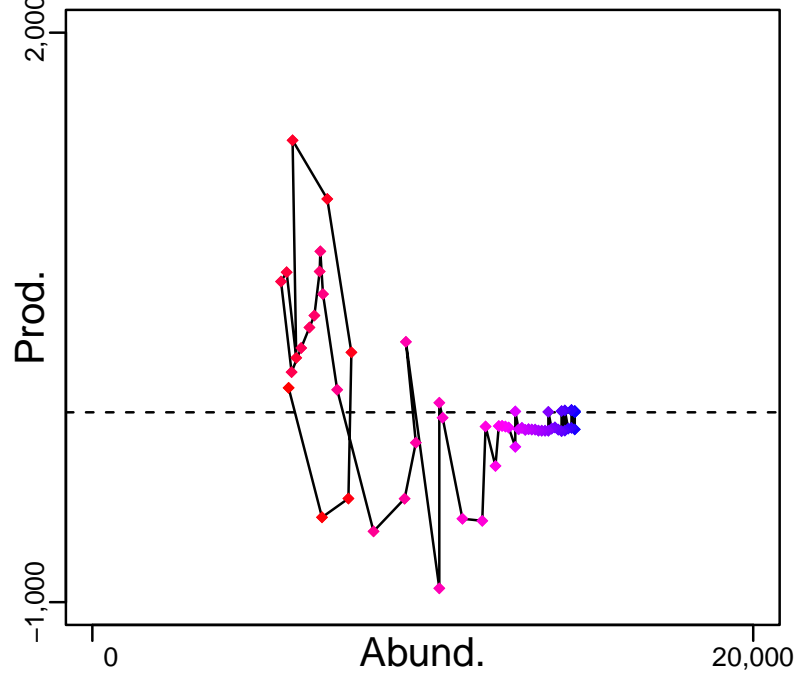
◆ Start Year ◆ End Year ∗ No Data

Greater amberjack Southern Atlantic coast [GRAMBERSATLC]

TB–MT (1946–2006–JENSEN)

SSB–MT (1980–2017–SISIMP2021–2)
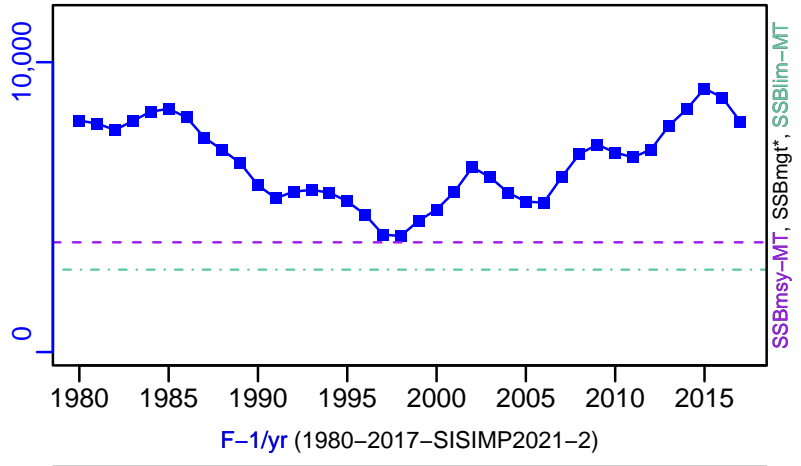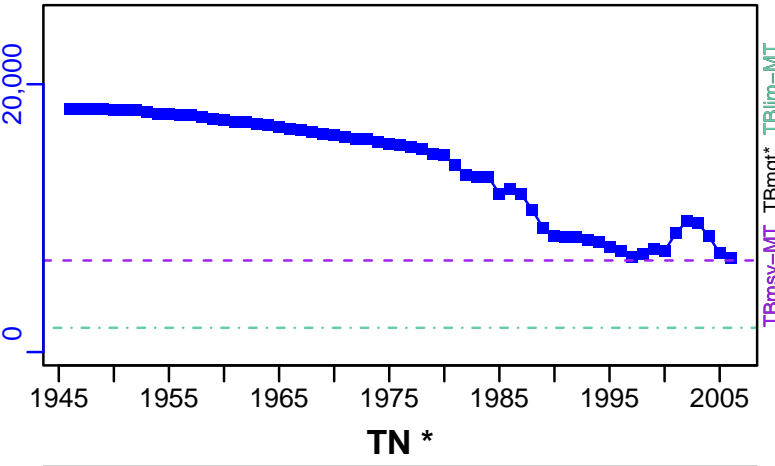
TN *
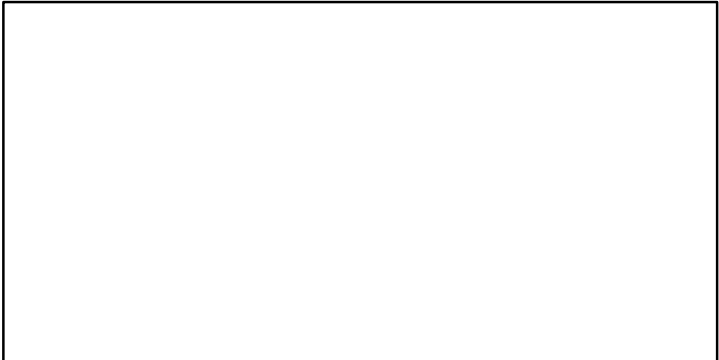
F–1/yr (1980–2017–SISIMP2021–2)
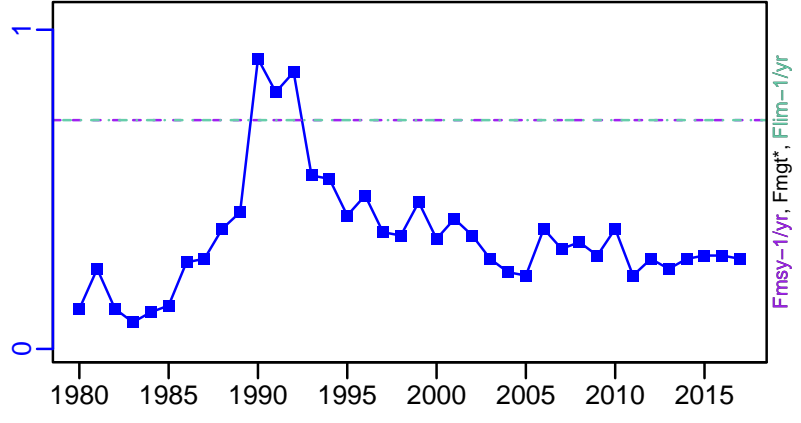
ER–calc–ratio (1980–2017–SISIMP2021–2)

R–E00 (1980–2017–SISIMP2021–2)

Legend:
- Listed time series
- MSY–based BRP
- Target BRP
- Lim BRP
- Rec–Est
- * No Data
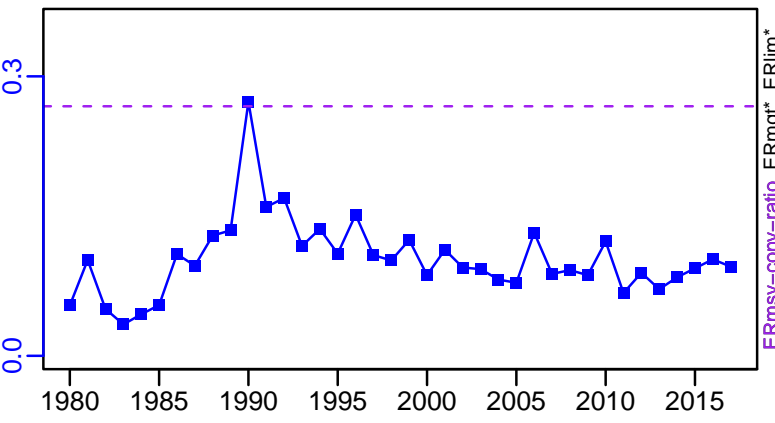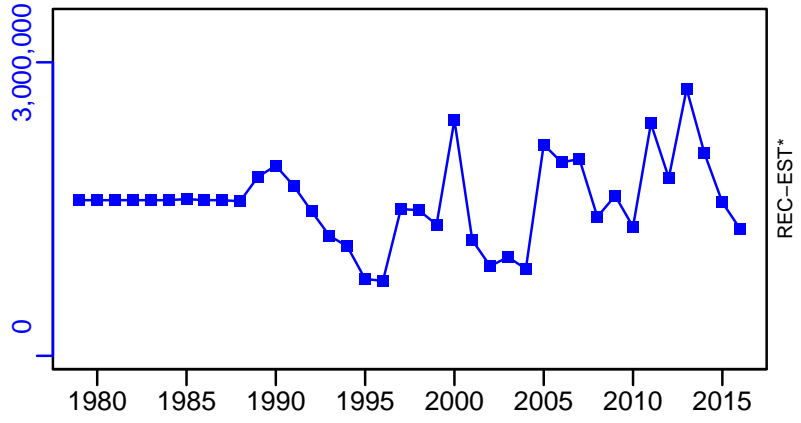
Greater amberjack Southern Atlantic coast [GRAMBERSATLC]

TC–MT, TL*, RecC* (1980–2017–SISIMP2021–2)

TAC*, Cpair*, Cadv*
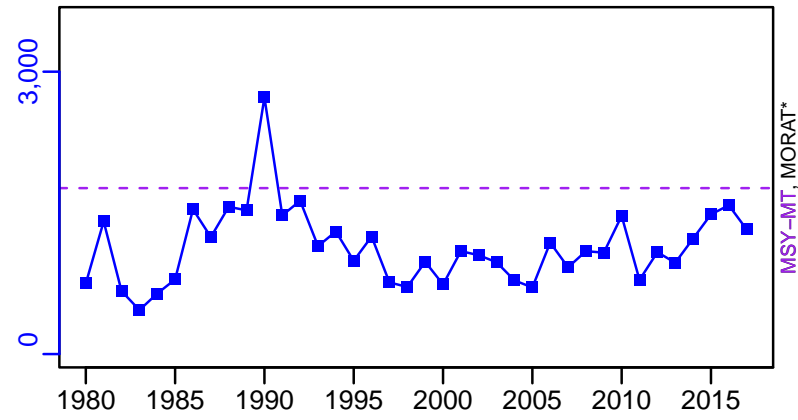
survB*

CPUE*

EFFORT*

TC–MT/MSY–MT, CdivMEANC–ratio, (1980–2017–SISIMP2021–2)

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

82
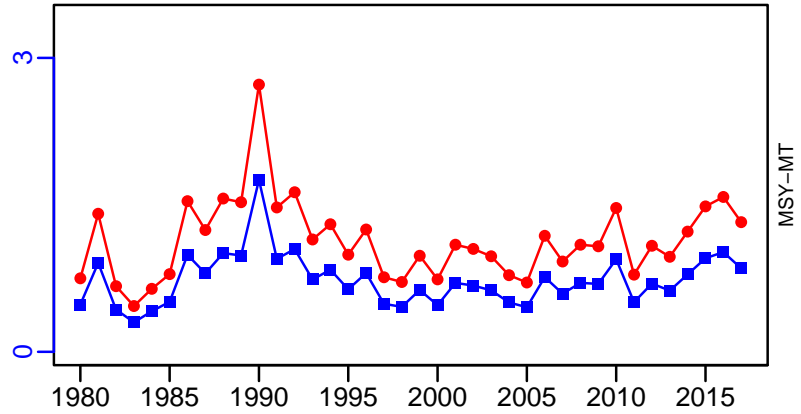
Gray snapper Gulf of Mexico [GRSNAPGM]

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

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

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

Gray snapper Gulf of Mexico [GRSNAPGM]

Kobe MSYpref (1945–2015–SISIMP2021)
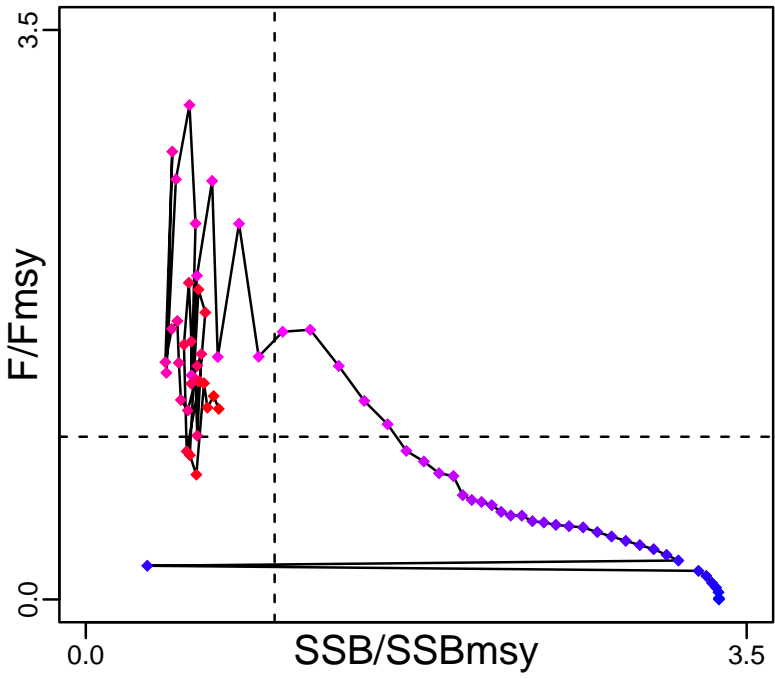
Kobe MGTpref (1945–2015–SISIMP2021)
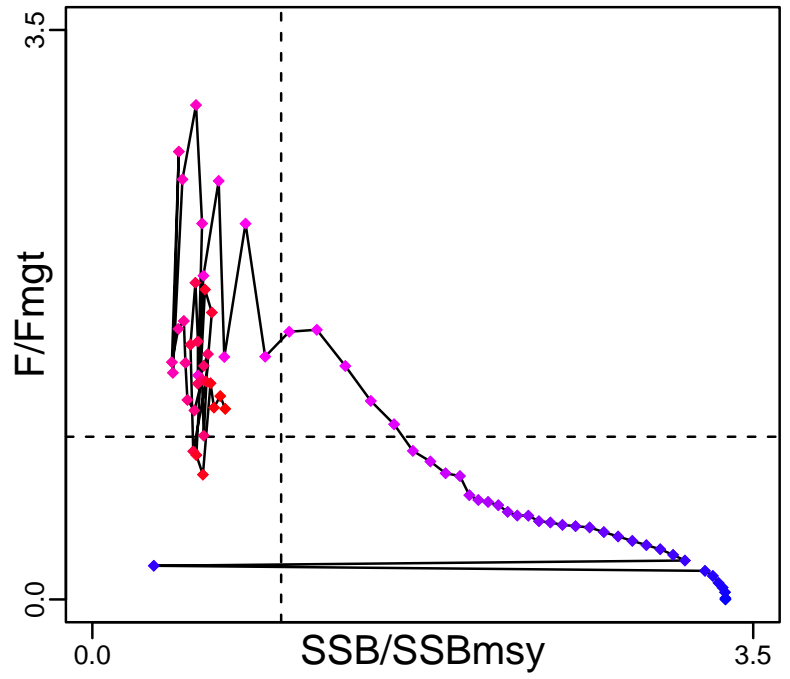
Spawner Recruit (1945–2015–SISIMP2021)
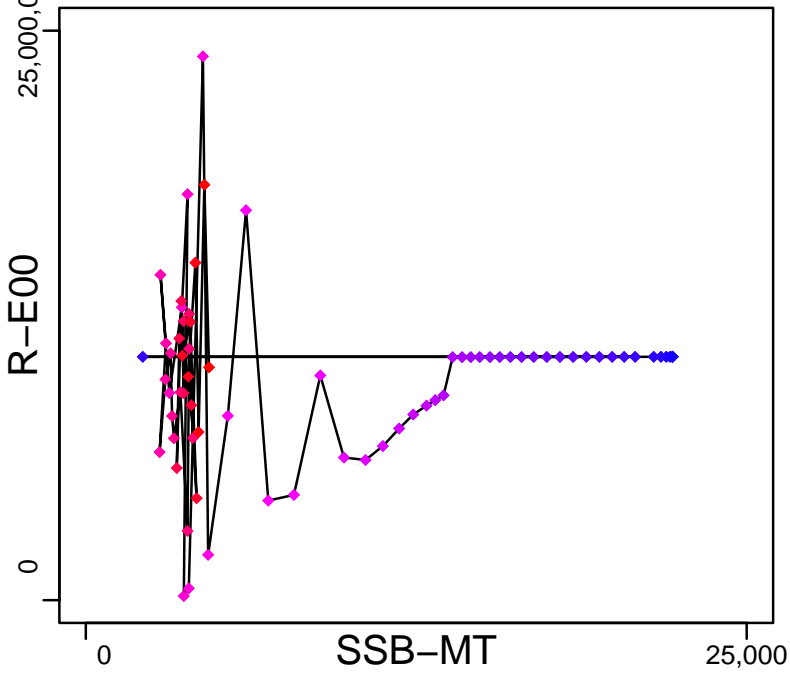
Production*

◆ Start Year ◆ End Year * No Data

Gray snapper Gulf of Mexico [GRSNAPGM]

TB*
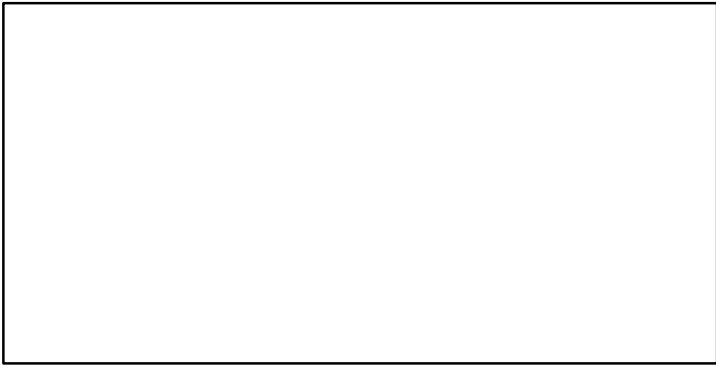
SSB−MT (1945−2015−SISIMP2021)
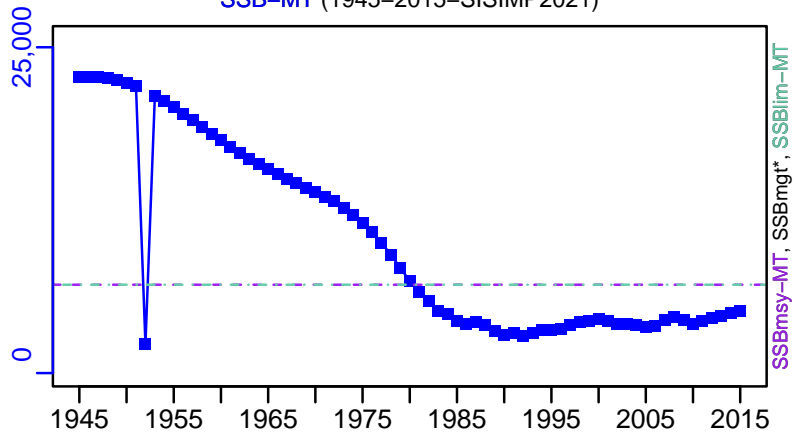
TN *

F−1/yr (1945−2015−SISIMP2021)
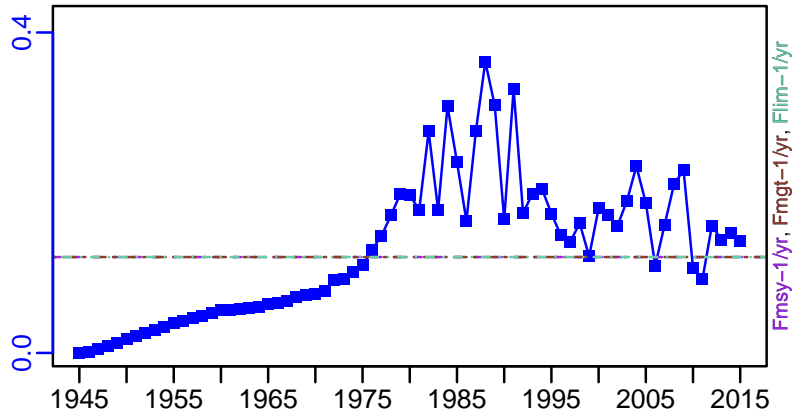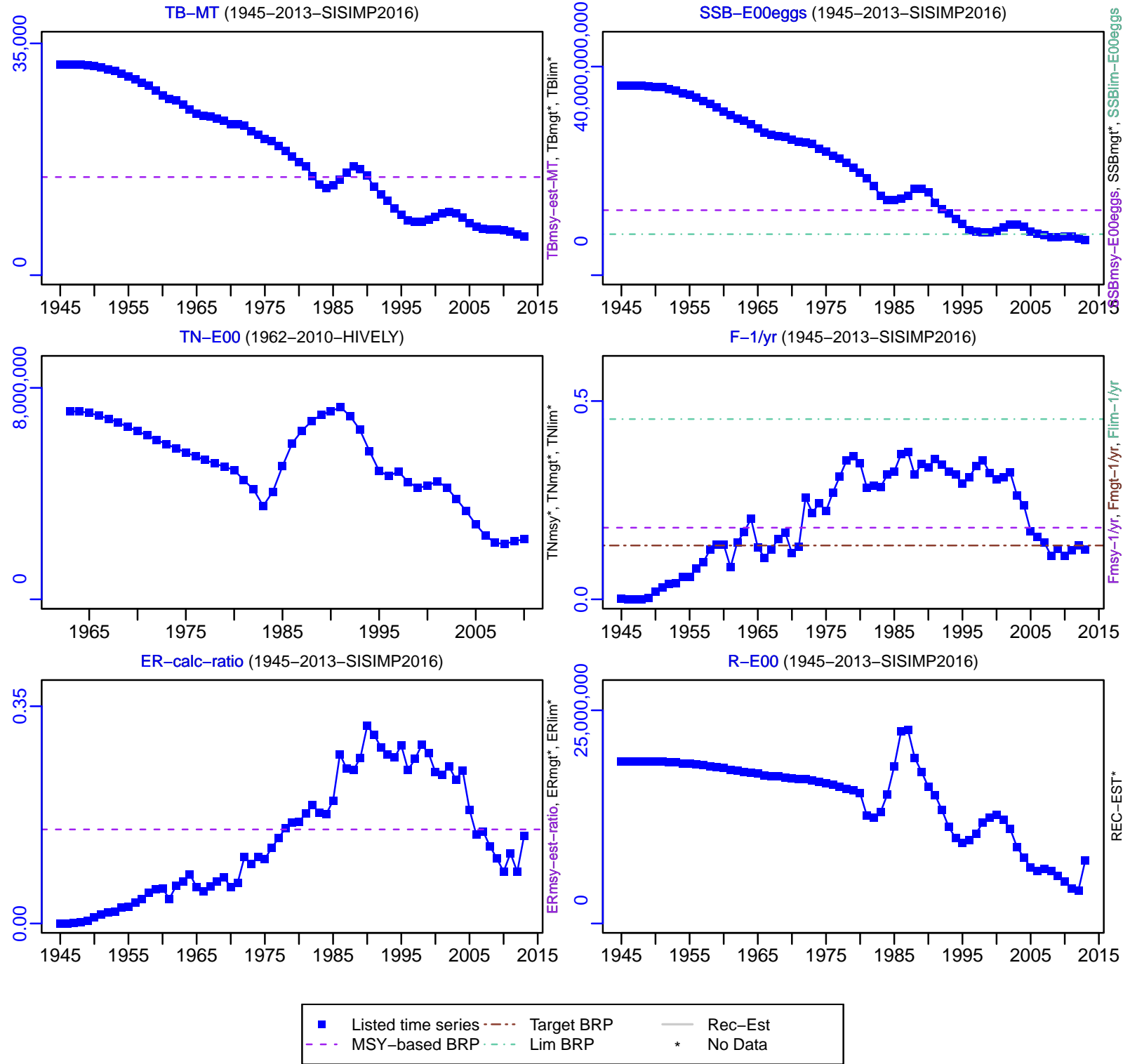
ER−calc−ratio (1945−2015−SISIMP2021)

R−E00 (1945−2015−SISIMP2021)

Legend:
- ■ Listed time series
- – – MSY−based BRP
- –·– Target BRP
- –·– Lim BRP
- —— Rec−Est
- * No Data
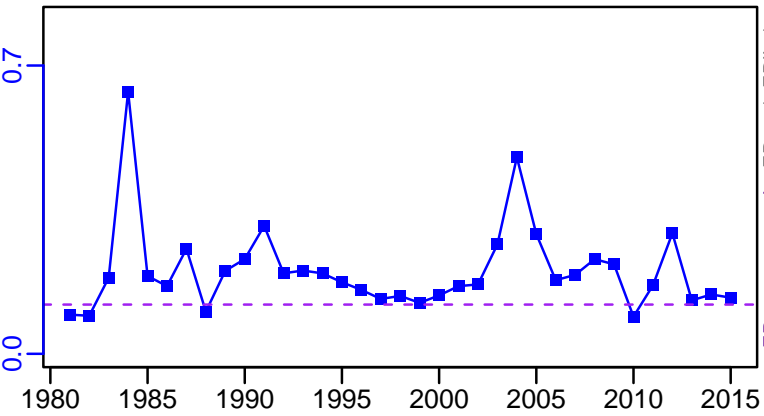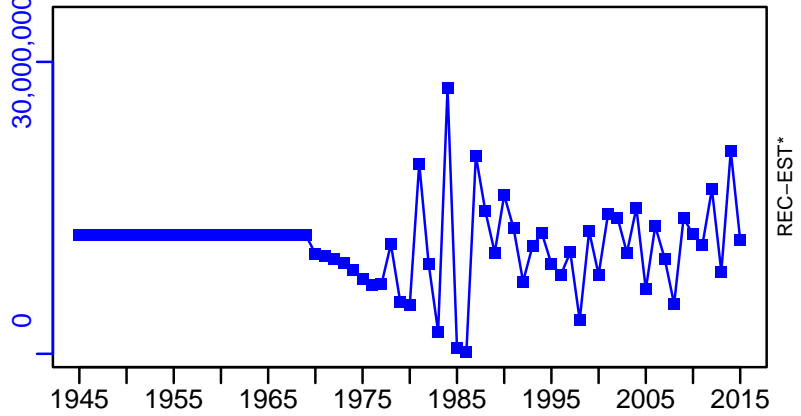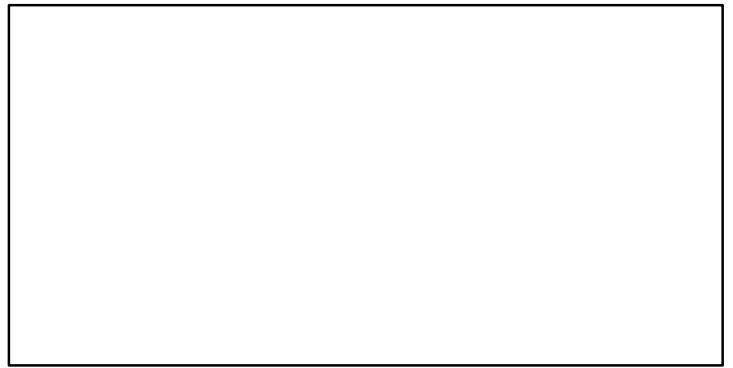
Gray snapper Gulf of Mexico [GRSNAPGM]

TC–MT, TL*, RecC* (1945–2015–SISIMP2021)
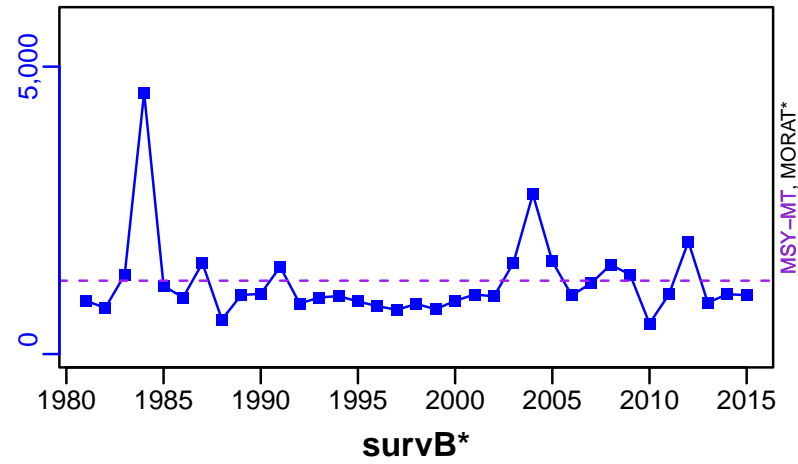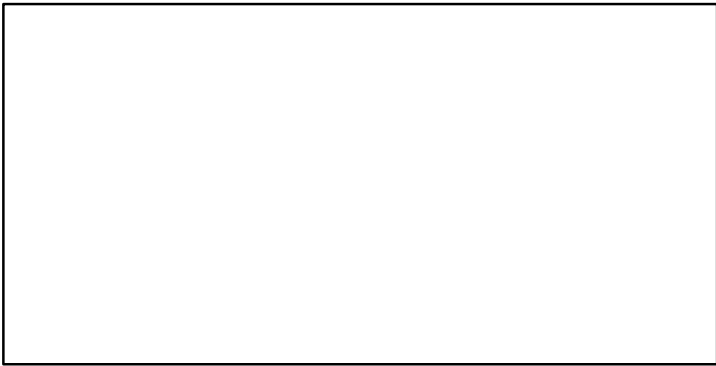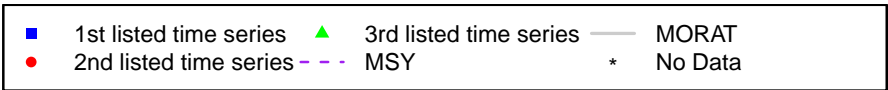
TAC*, Cpair*, Cadv*

survB*

CPUE*

EFFORT*

TC–MT/MSY–MT, CdivMEANC–ratio, (1945–2015–SISIMP2021)

■ 1st listed time series	▲ 3rd listed time series	—— MORAT	
● 2nd listed time series	– – MSY	* No Data	
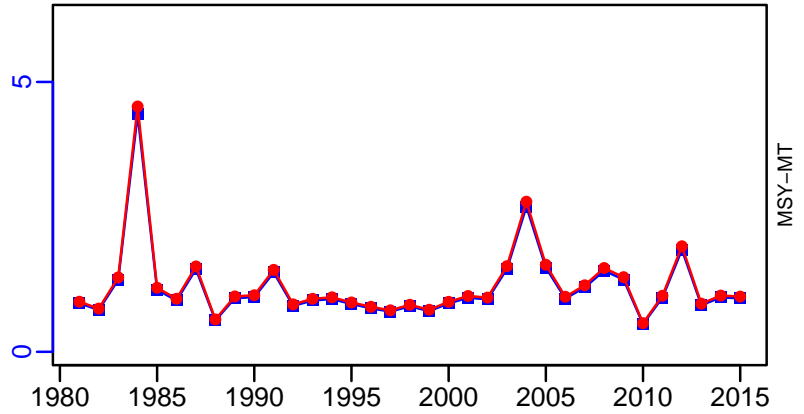
Gray triggerfish Gulf of Mexico [GTRIGGM]

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)
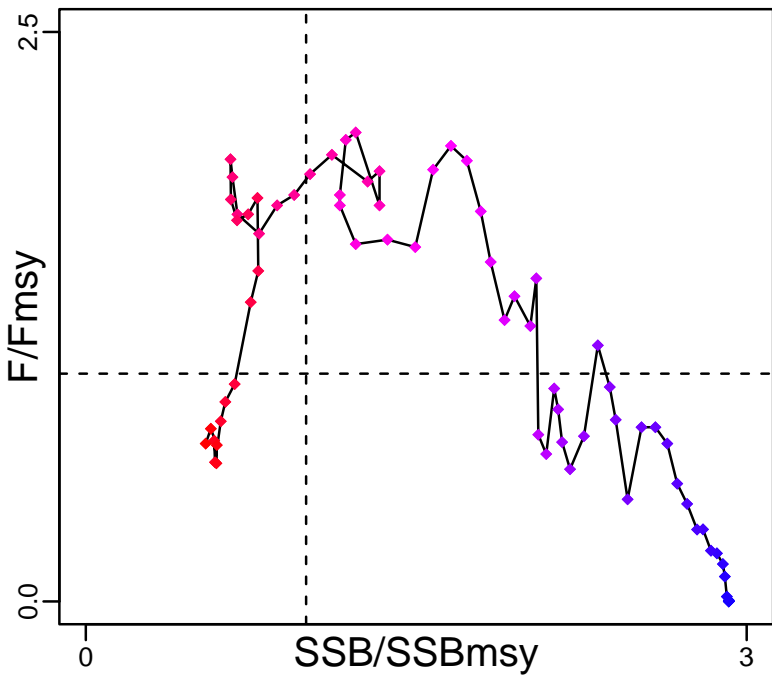
Kobe MGTpref (1945–2013–SISIMP2016)
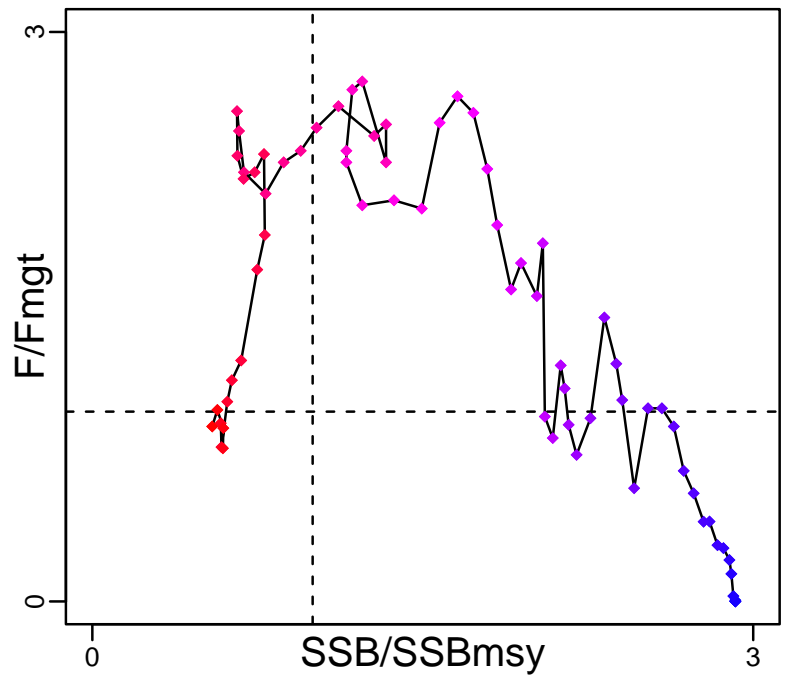
Spawner Recruit (1945–2013–SISIMP2016)
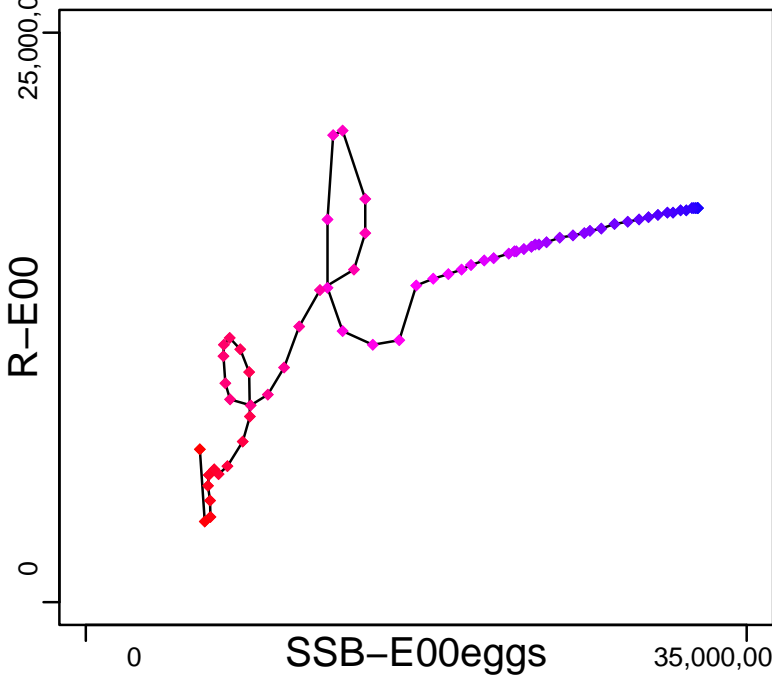
Production (1945–2013–SISIMP2016)
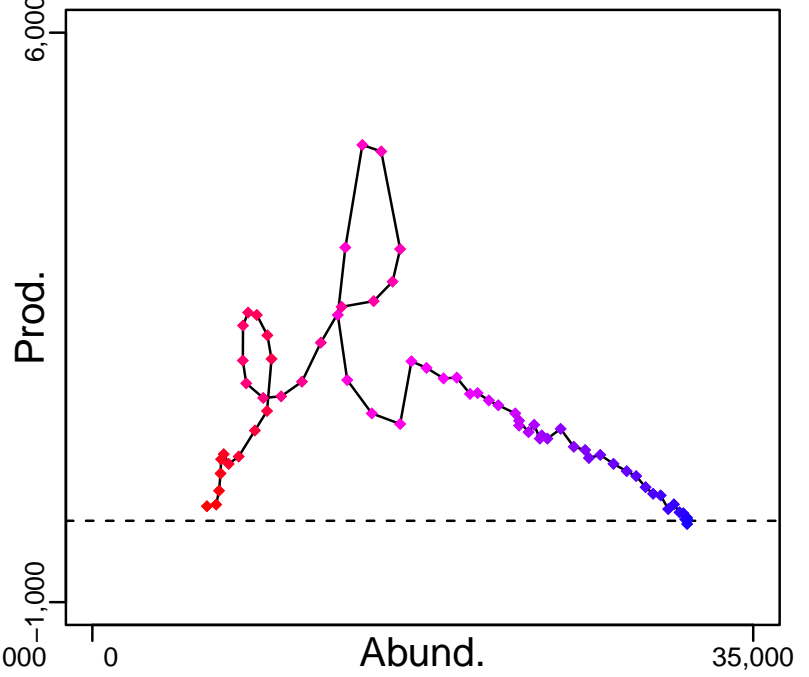
◆ Start Year   ◆ End Year   * No Data

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)

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

Gray triggerfish Gulf of Mexico [GTRIGGM]

TC–MT, TL*, RecC* (1945–2013–SISIMP2016)
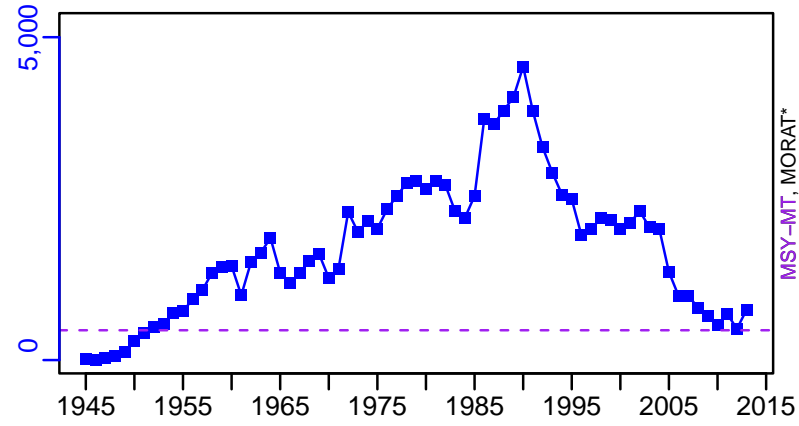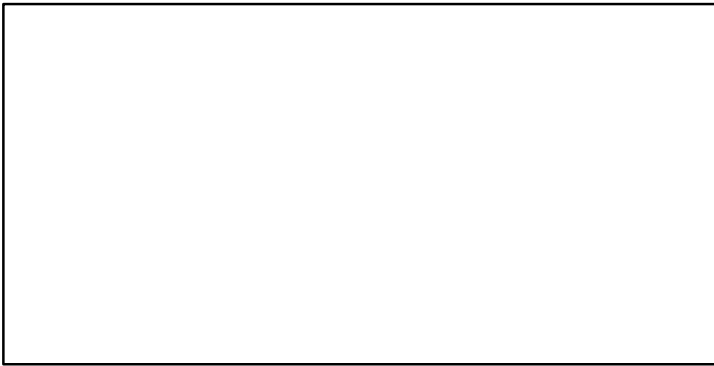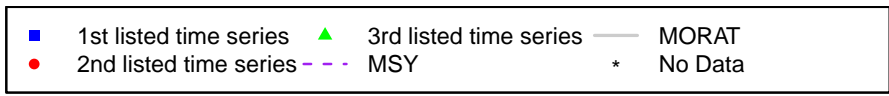
TAC*, Cpair*, Cadv*

survB*

CPUE*

EFFORT*

TC–MT/MSY–MT, CdivMEANC–ratio, (1945–2013–SISIMP2016)

Legend:
- ■ 1st listed time series
- ● 2nd listed time series
- ▲ 3rd listed time series
- – – MSY
- —— MORAT
- * No Data
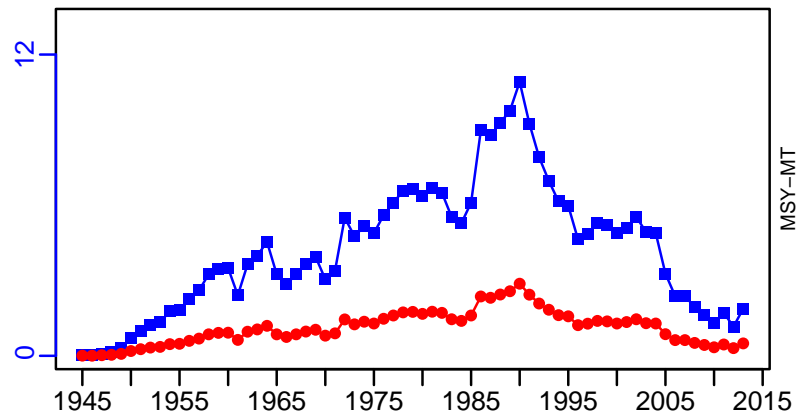
King mackerel Gulf of Mexico [KMACKGM]

Metadata	
Scientific Name	Scomberomorus cavalla
Current Assess ID	SEFSC-KMACKGM-1930-2017-SISIMP2021-2
Area	Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2012, 2017

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-E00eggs	2017	1.71×10^{12}
Fmsy	Fmsy-pr-1/yr	2012	0.164
ERmsy	ERmsy-ratio	2017	0.17
TBmgt	-	-	-
SSBmgt	SSBmgt-E00eggs	2012	1,229,070,000
Fmgt	Fmgt-1/yr	2012	0.123
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2012	0.16
TBlim	-	-	-
SSBlim	SSBlim-E00eggs	2017	1.42×10^{12}
Flim	-	-	-
ERlim	ERlim-ratio	2017	0.17

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-E00eggs	2017	1.58×10^{12}	-	-
TN	-	-	-	-	-
R	R-E00	2017	7,940,000	-	0
F	F-1/yr	2012	0.318	-	-
ER	ER-ratio	2017	0.139	-	-
TC	-	-	-		
TL	TL-MT	2017	3710		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-E00eggs/SSBmsy-E00eggs	2017	0.924		
F/Fmsy	F-1/yr/Fmsy-pr-1/yr	2012	1.943		
ER/ERmsy	ER-ratio/ERmsy-ratio	2017	0.818		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-E00eggs/SSBmgt-E00eggs	2012	1.928		
F/Fmgt	F-1/yr/Fmgt-1/yr	2012	2.592		
ER/ERmgt	-	-	-		

King mackerel Gulf of Mexico [KMACKGM]

Kobe MSYpref (1930–2017–SISIMP2021–2)
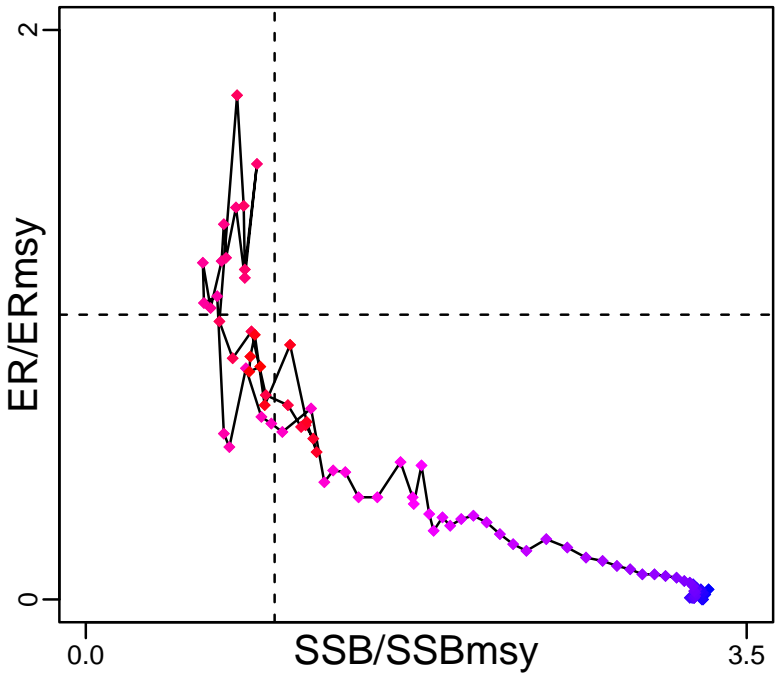
Kobe MGTpref (1930–2017–SISIMP2021–2)
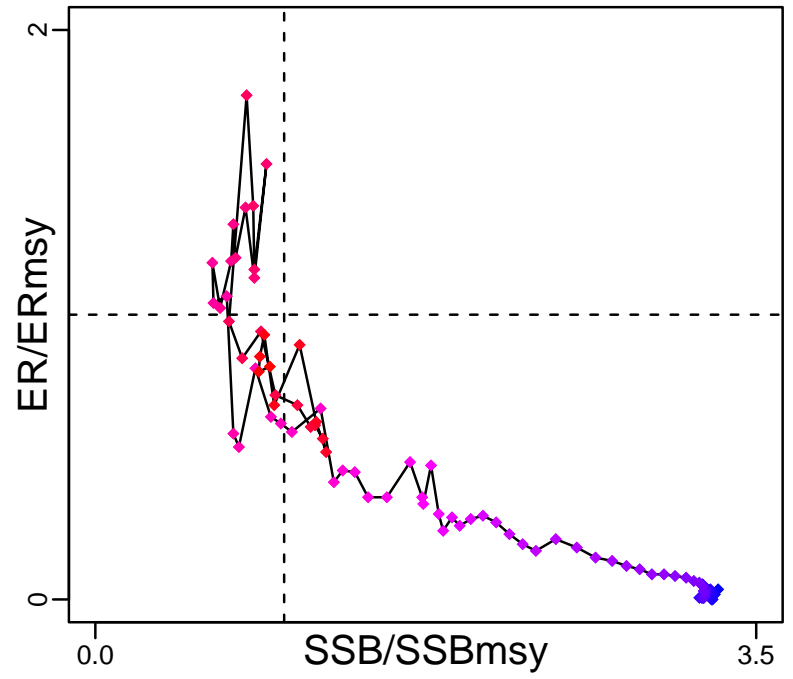
Spawner Recruit (1930–2017–SISIMP2021–2)
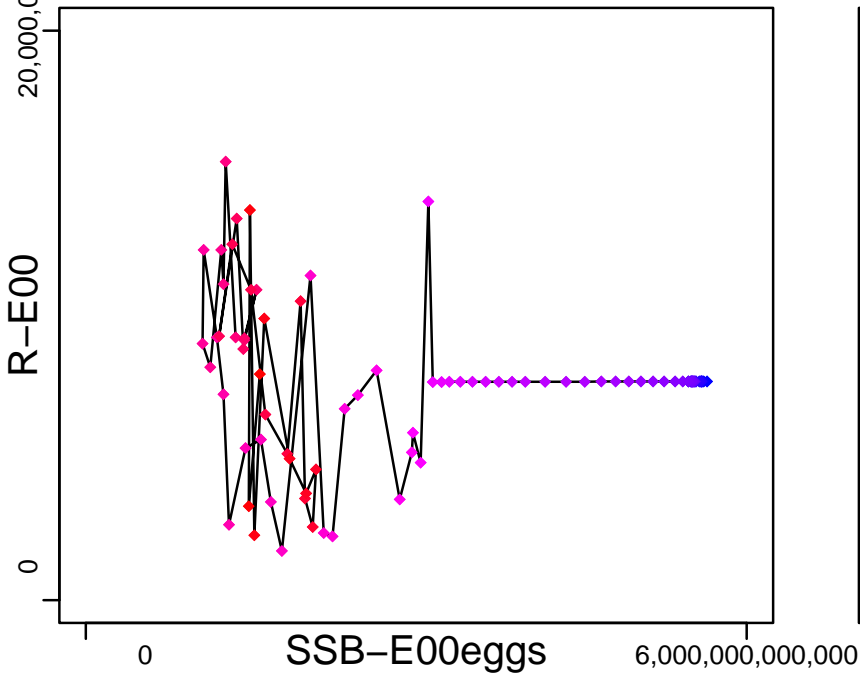
Production*

• Start Year   • End Year   * No Data

King mackerel Gulf of Mexico [KMACKGM]

TB*

SSB−E00eggs (1930−2017−SISIMP2021−2)
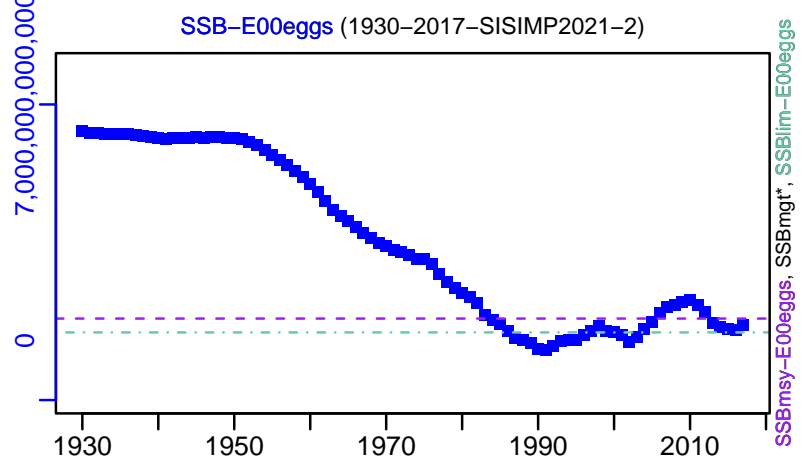
TN *

F−1/yr (1929−2012−HIVELY)
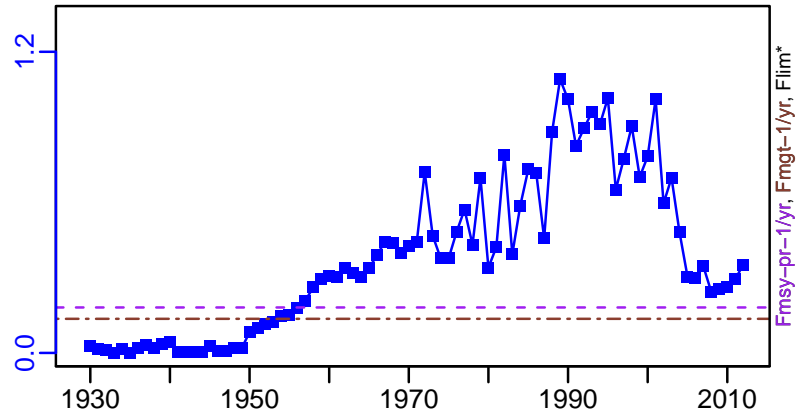
ER−ratio (1930−2017−SISIMP2021−2)

R−E00 (1930−2017−SISIMP2021−2)

Legend:
- ■ Listed time series
- − · − Target BRP
- ──── Rec−Est
- − − − MSY−based BRP
- − · − Lim BRP
- * No Data
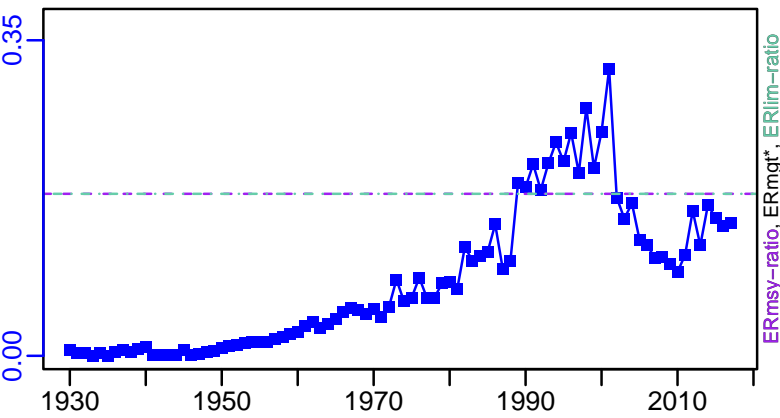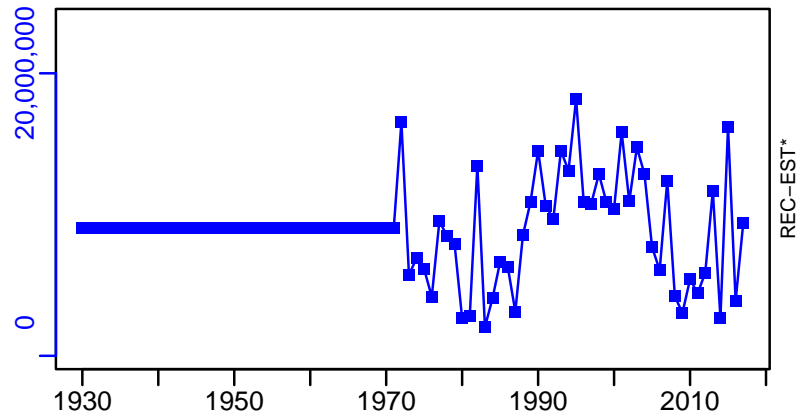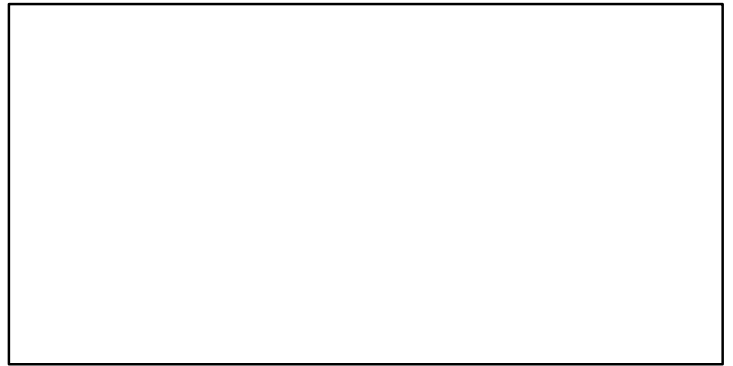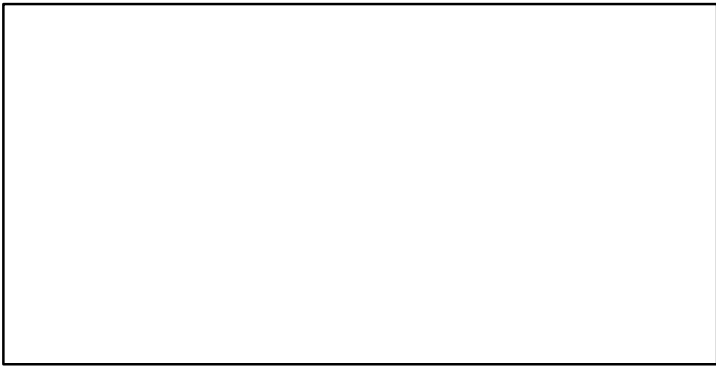
King mackerel Gulf of Mexico [KMACKGM]

TL–MT, TC*, RecC* (1930–2017–SISIMP2021–2)

MSY*, MORAT*

10,000

0

1930 1950 1970 1990 2010

TAC*, Cpair*, Cadv*

survB*

CPUE*

EFFORT*

CdivMSY*

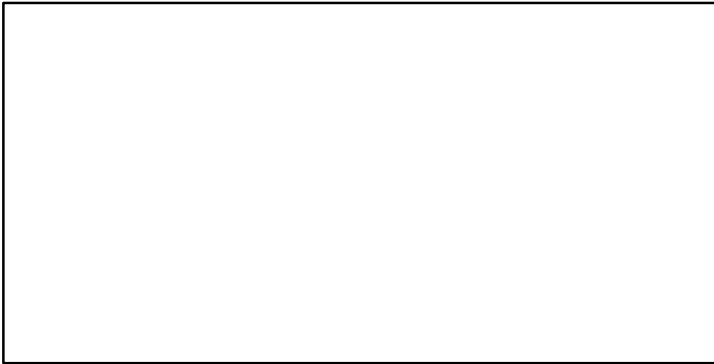|		
■ 1st listed time series	▲ 3rd listed time series	—— MORAT
● 2nd listed time series	– – – MSY	* No Data
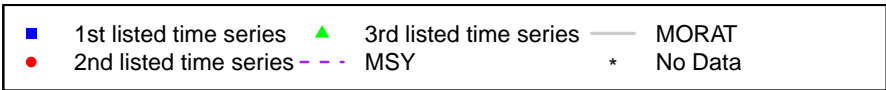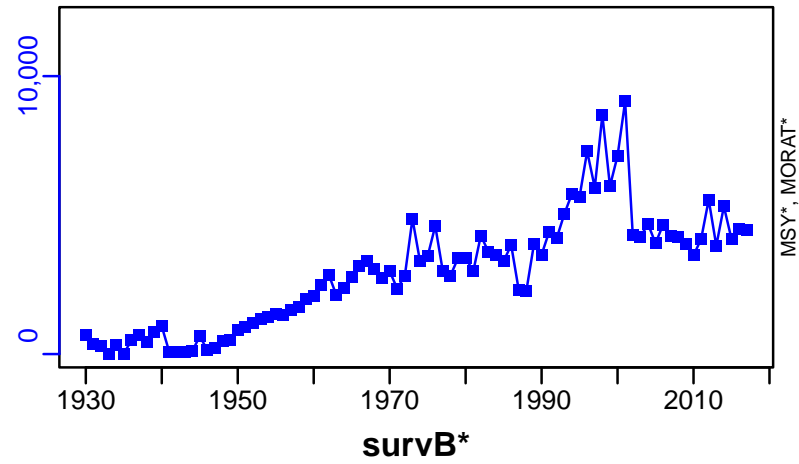
King mackerel Southern Atlantic coast [KMACKSATLC]

Metadata	
Scientific Name	Scomberomorus cavalla
Current Assess ID	SEFSC-KMACKSATLC-1901-2012-HIVELY
Area	Southern Atlantic coast
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2012

Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	-	-	-
SSBmsy	SSBmsy-pr-E00eggs	2012	1.702×10^9
Fmsy	-	-	-
ERmsy	ERmsy-pr-ratio	2012	0.157
TBmgt	-	-	-
SSBmgt	SSBmgt-E00eggs	2012	1.702×10^9
Fmgt	-	-	-
ERmgt	ERmgt-ratio	2012	0.118
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

| Time Series					
Type	**ID**	**Asmt Year**	**Curr Value**	**Sex**	**Age**
TB	-	-	-	-	-
SSB	SSB-E00eggs	2012	4.4×10^9	-	-
TN	-	-	-	-	-
R	R-E00	2012	2,510,000	-	0
F	-	-	-	-	-
ER	ER-ratio	2012	0.026	-	-
TC	-	-	-		
TL	TL-MT	2012	1110		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-E00eggs/SSBmsy-pr-E00eggs	2012	2.585		
F/Fmsy	-	-	-		
ER/ERmsy	ER-ratio/ERmsy-pr-ratio	2012	0.168		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-E00eggs/SSBmgt-E00eggs	2012	2.585		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

King mackerel Southern Atlantic coast [KMACKSATLC]

Kobe MSYpref (1901–2012–HIVELY)
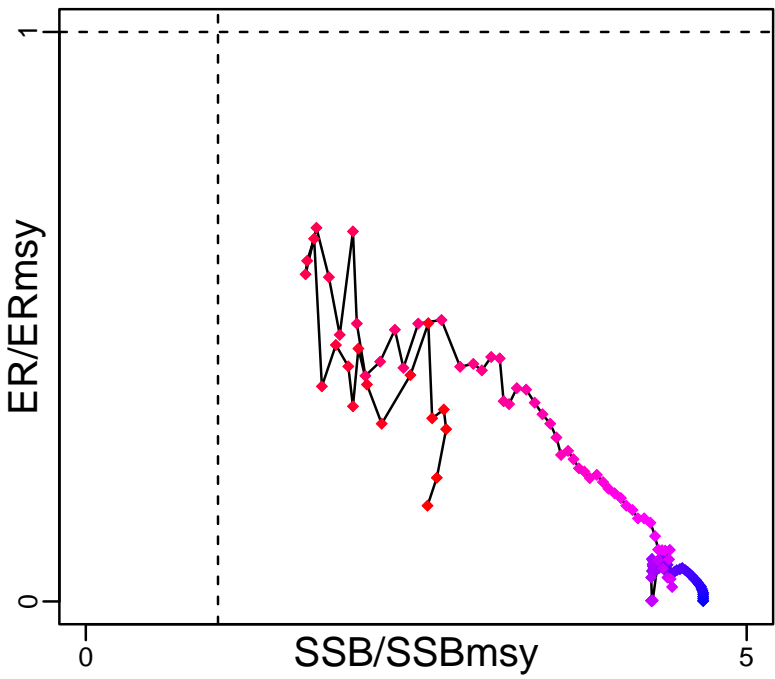
Kobe MGTpref (1901–2012–HIVELY)
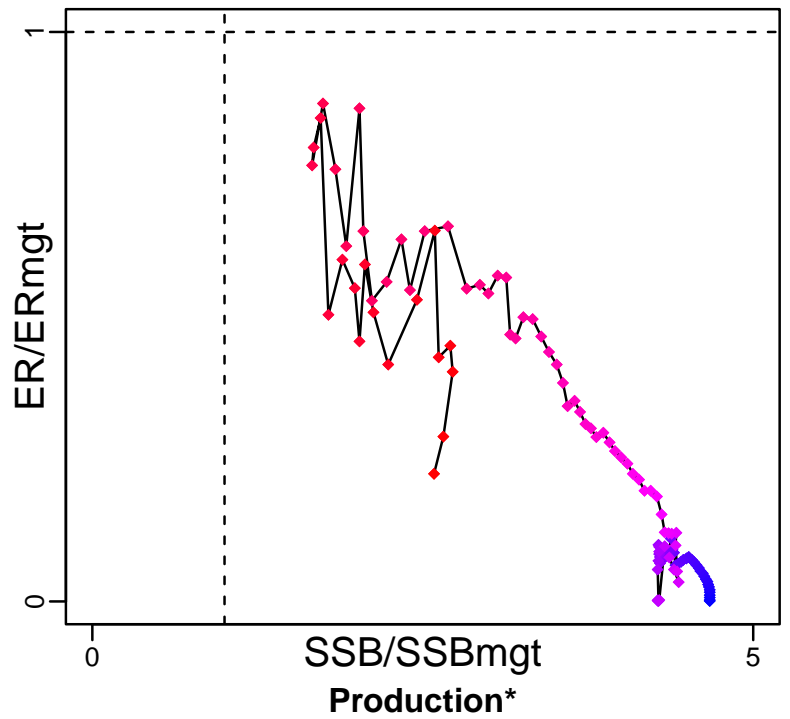
Spawner Recruit (1901–2012–HIVELY)

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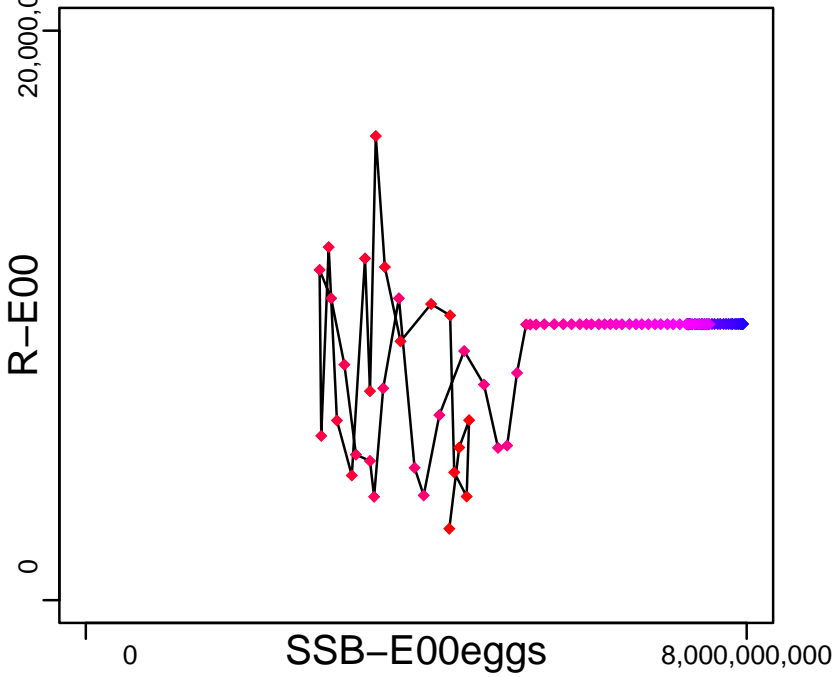
- ◆ Start Year ◆ End Year * No Data

King mackerel Southern Atlantic coast [KMACKSATLC]

TB*

TN *

SSB−E00eggs (1901−2012−HIVELY)
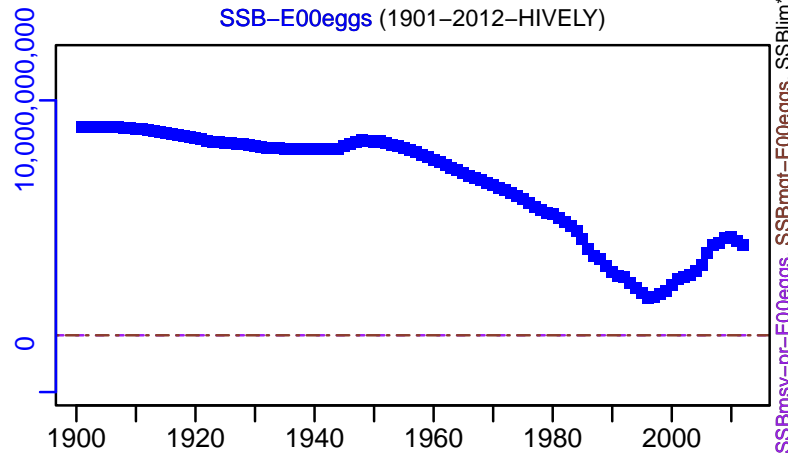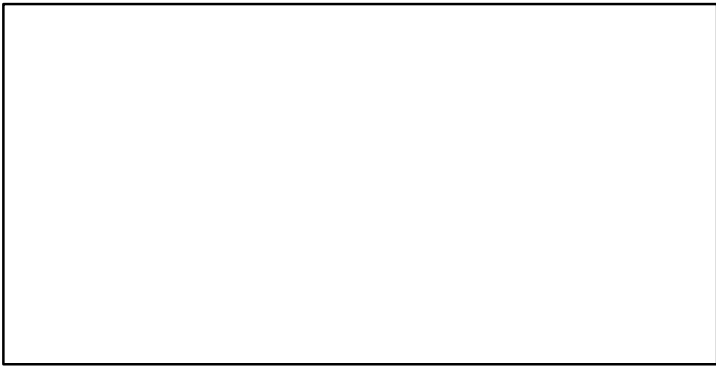
F*
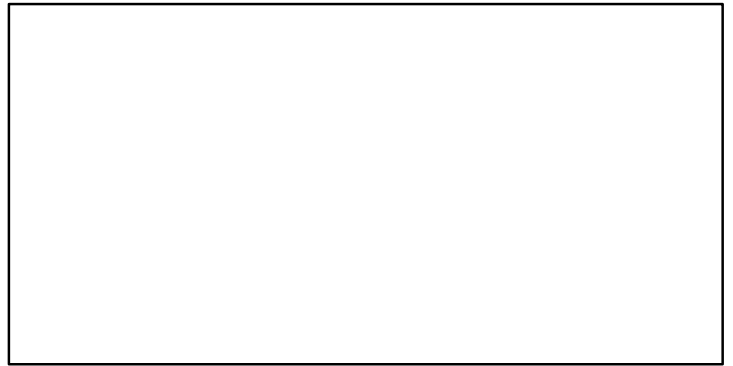
ER−ratio (1901−2012−HIVELY)
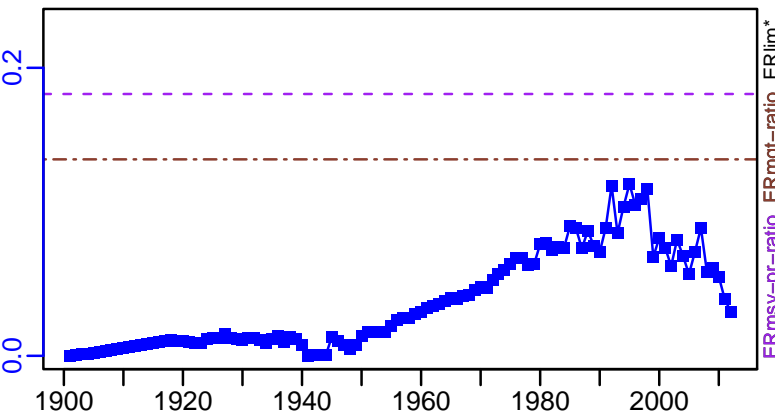
R−E00 (1901−2012−HIVELY)

Listed time series ⋯ Target BRP ─── Rec−Est
MSY−based BRP ⋯ Lim BRP * No Data

97
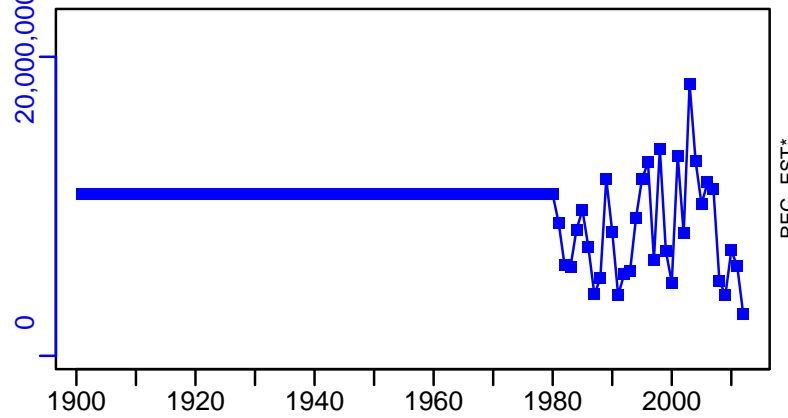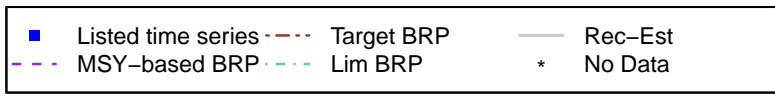
King mackerel Southern Atlantic coast [KMACKSATLC]

TL–MT, TC*, RecC* (1901–2012–HIVELY)

TAC*, Cpair*, Cadv*

survB*

CPUE*

EFFORT*

CdivMSY*

■ 1st listed time series	▲ 3rd listed time series	—— MORAT	
● 2nd listed time series	– – MSY	* No Data	
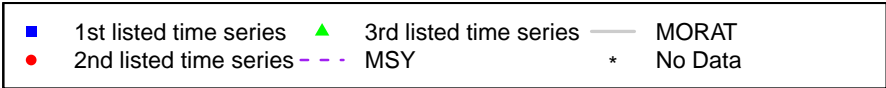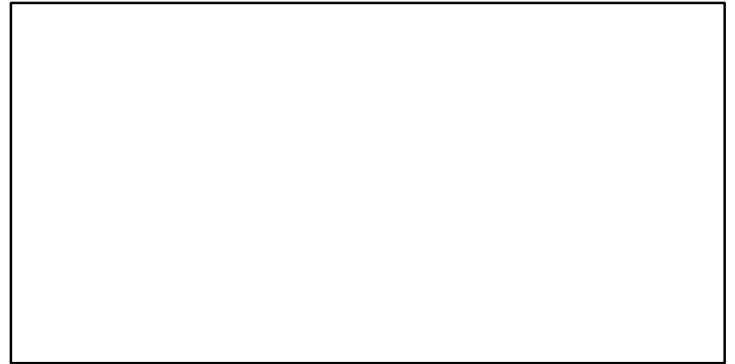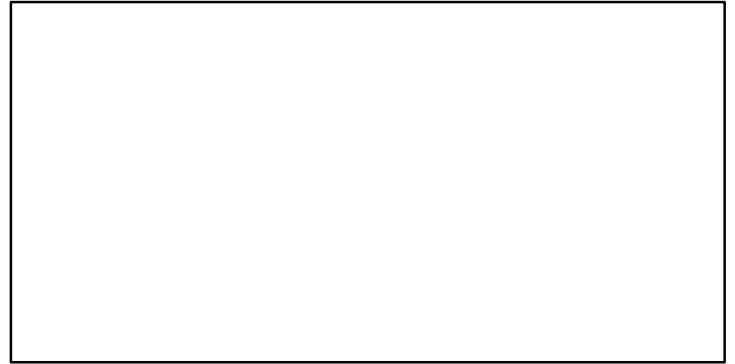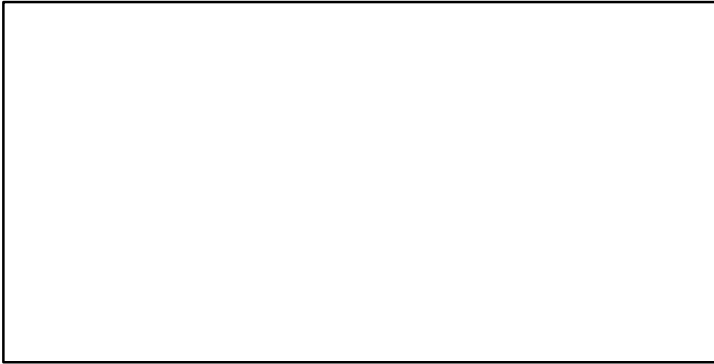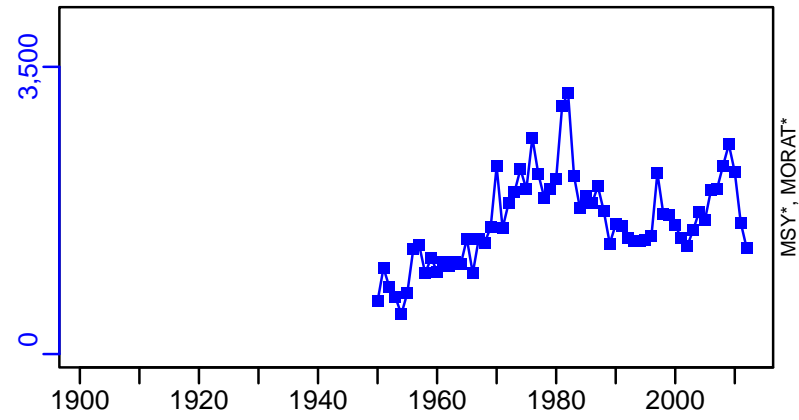
Lane snapper Gulf of Mexico [LNSNAPGM]

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

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

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

Kobe MSY*
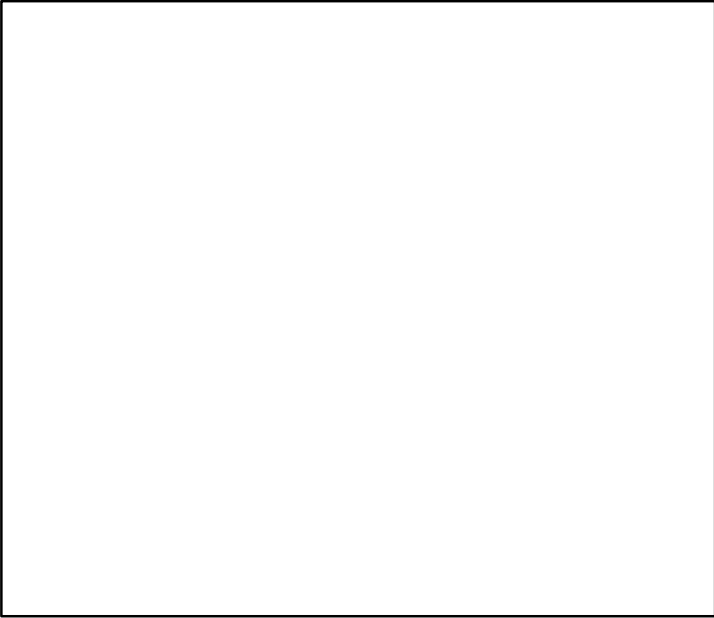
Kobe MGT*
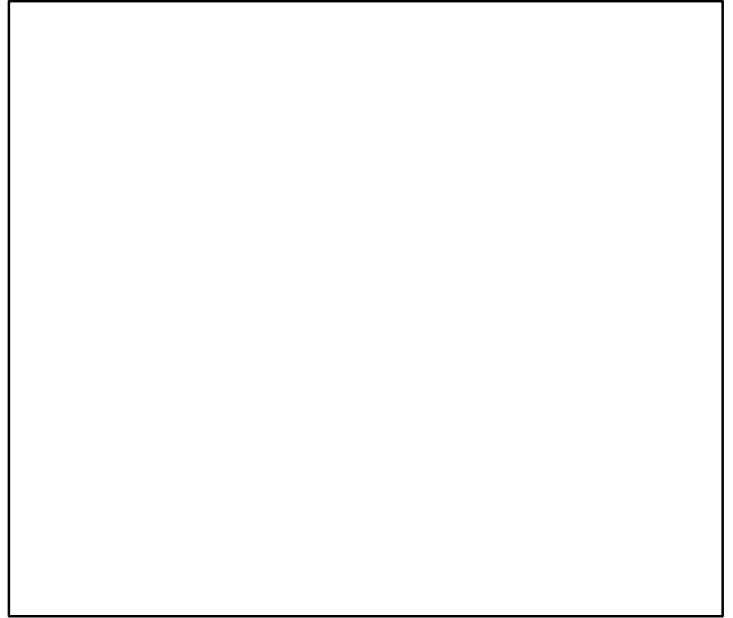
Spawner Recruit*
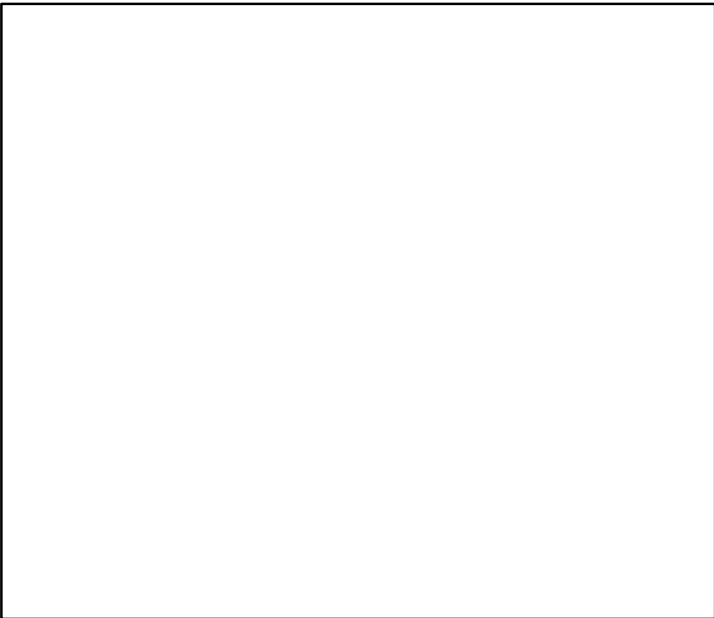
Production*

◆ Start Year ◆ End Year * No Data

Lane snapper Gulf of Mexico [LNSNAPGM]

TB*

SSB*

TN *

F*

ER*

Recruits*

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

Lane snapper Gulf of Mexico [LNSNAPGM]

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

TAC*, Cpair*, Cadv*
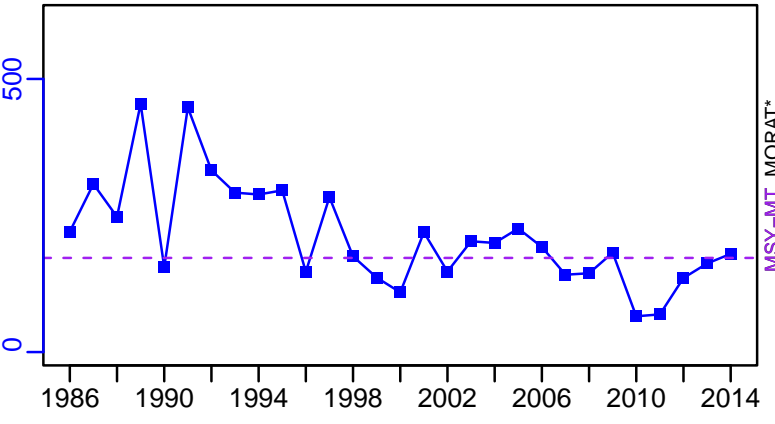
survB*

CPUE*

EFFORT*

TC–MT/MSY–MT, CdivMEANC–ratio, (1986–2014–SISIMP2021)

■ 1st listed time series	▲ 3rd listed time series	—— MORAT
● 2nd listed time series	– – MSY	* No Data
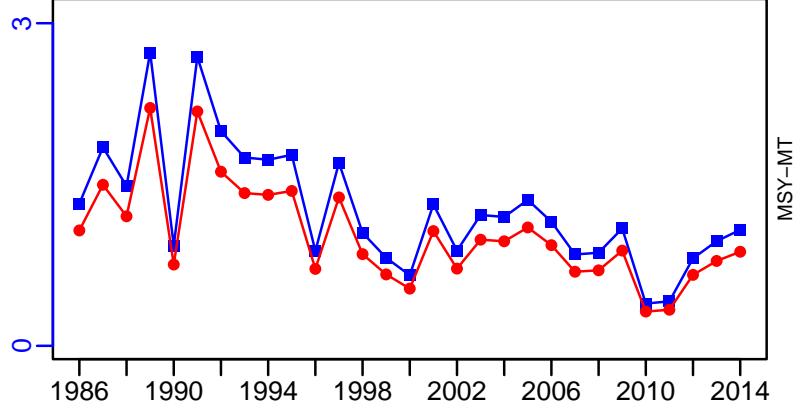
Gulf menhaden Gulf of Mexico [MENATGM]

Metadata	
Scientific Name	Brevoortia patronus
Current Assess ID	SEFSC-MENATGM-1977-2022-HIVELY
Area	Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2011, 2017, 2022

Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	-	-	-
SSBmsy	SSBmsy-pr-E00eggs	2022	2.55×10^{15}
Fmsy	Fmsy-pr-1/yr	2022	0.99
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	SSBmgt-E00eggs	2011	4.98×10^{13}
Fmgt	Fmgt-1/yr	2011	3.66
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2011	1.22
TBlim	-	-	-
SSBlim	SSBlim-E00eggs	2011	2.26×10^{13}
Flim	Flim-1/yr	2011	4.88
ERlim	-	-	-

Time Series					
Type	**ID**	**Asmt Year**	**Curr Value**	**Sex**	**Age**
TB	TB-MT	2022	2,395,973	-	-
SSB	SSB-E00eggs	2022	3.57×10^{15}	-	-
TN	TN-E00	2022	1.84×10^{11}	-	-
R	R-E00	2022	1.45×10^{11}	-	-
F	F-1/yr	2017	0.63	Both	0-4+
ER	ER-calc-ratio	2022	0.226	-	-
TC	TC-MT	2017	462,460		
TL	TL-MT	2022	414,730		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-E00eggs/SSBmsy-pr-E00eggs	2022	1.4		
F/Fmsy	F-1/yr/Fmsy-pr-1/yr	2017	0.063		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-E00eggs/SSBmgt-E00eggs	2011	1.014		
F/Fmgt	F-1/yr/Fmgt-1/yr	2011	0.645		
ER/ERmgt	-	-	-		

Gulf menhaden Gulf of Mexico [MENATGM]

Kobe MSYpref (1977–2022–HIVELY)
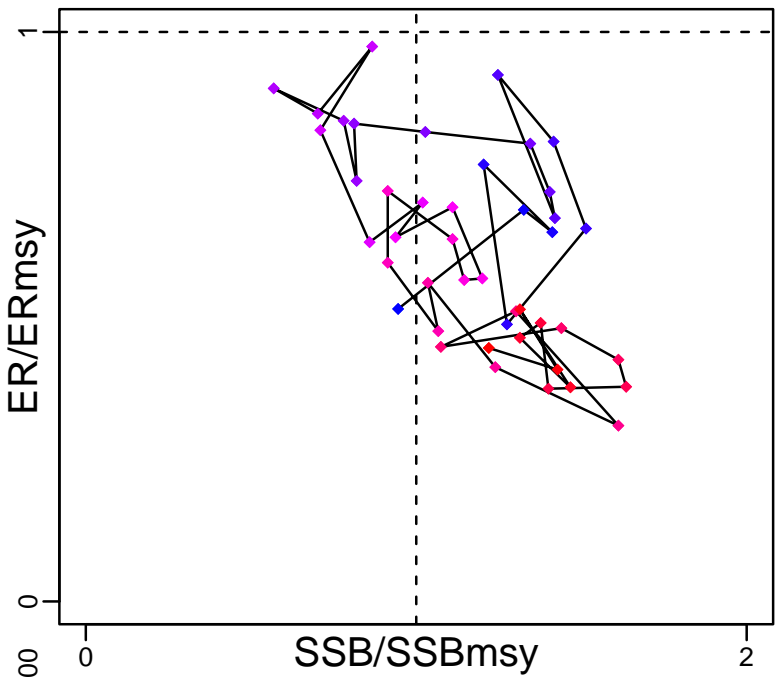
Kobe MGTpref (1977–2022–HIVELY)
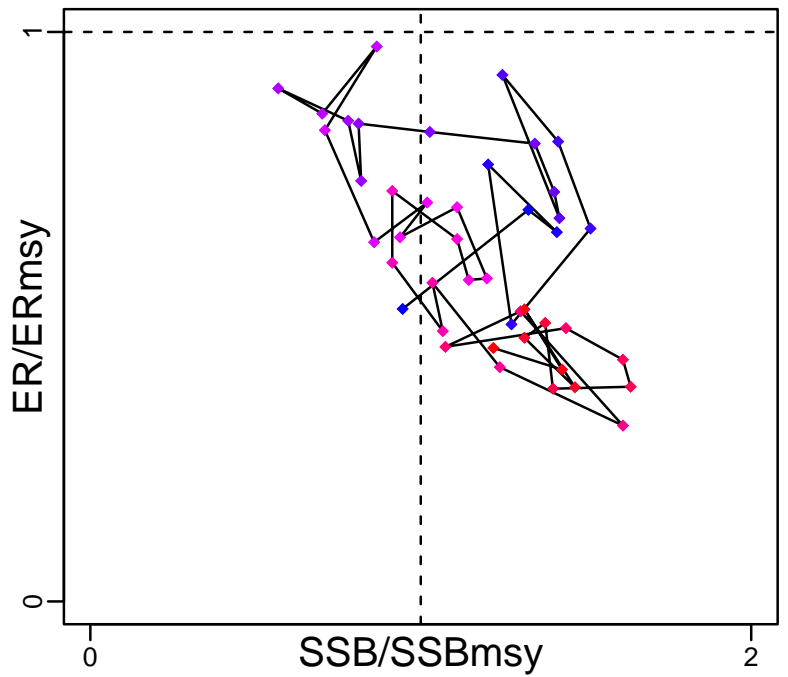
Spawner Recruit (1977–2022–HIVELY)
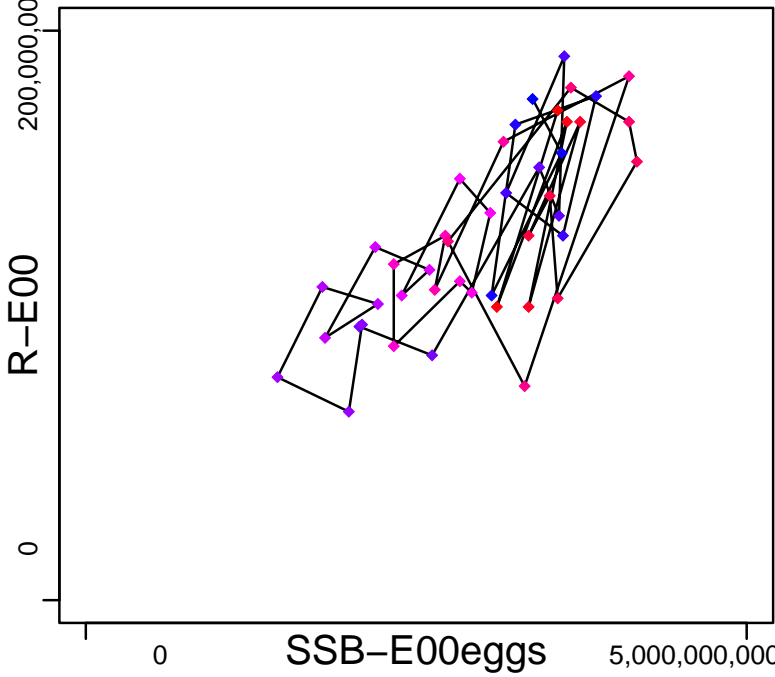
Production (1977–2022–HIVELY)
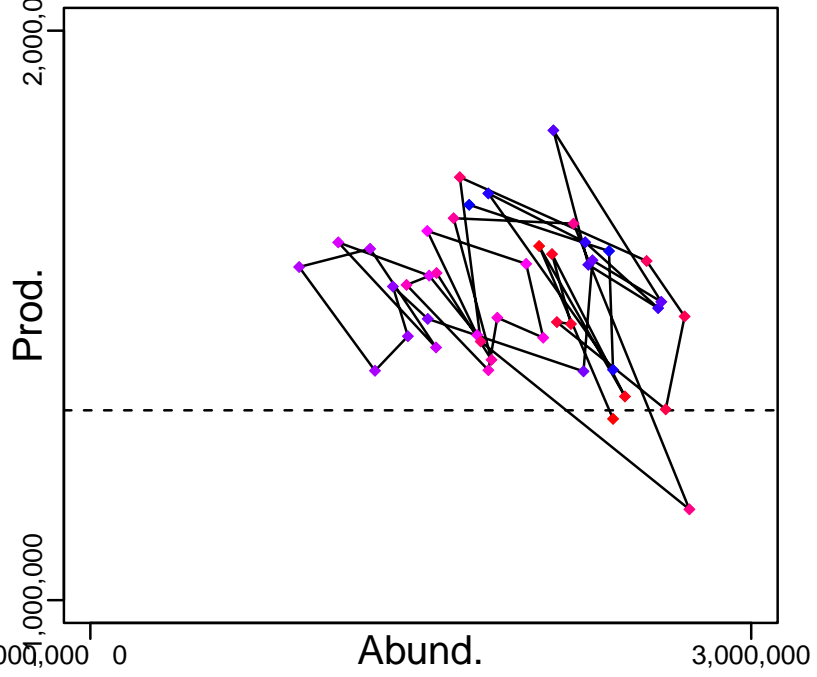
◆ Start Year ◆ End Year ∗ No Data

Gulf menhaden Gulf of Mexico [MENATGM]

TB–MT (1977–2022–HIVELY)
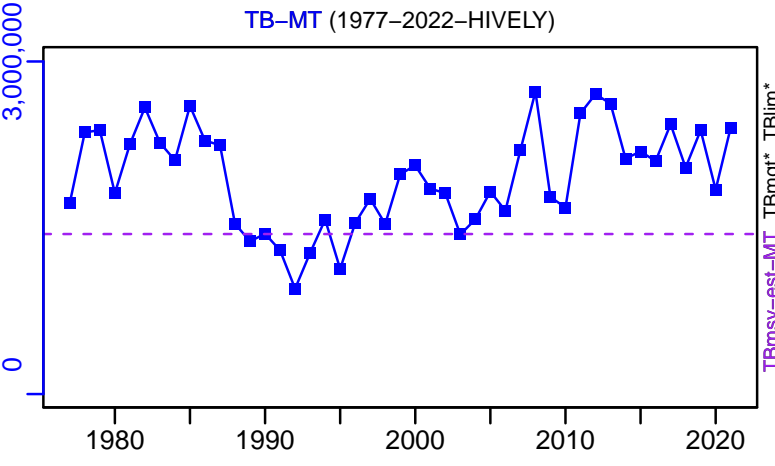
SSB–E00eggs (1977–2022–HIVELY)
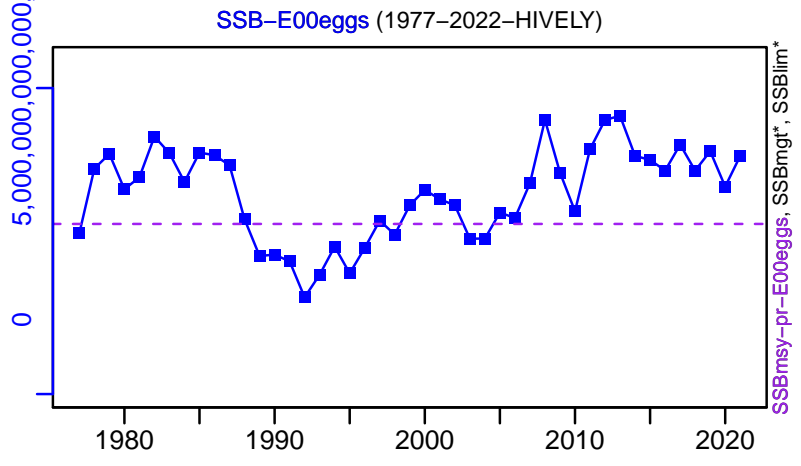
TN–E00 (1977–2022–HIVELY)
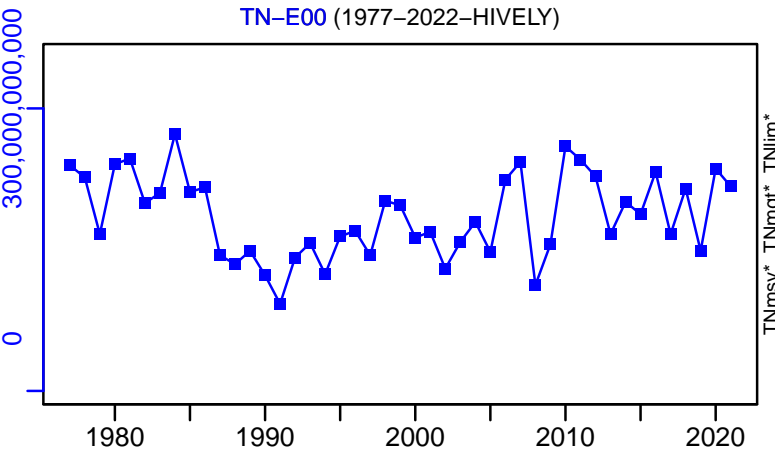
F–1/yr (1948–2017–ASHBROOK)
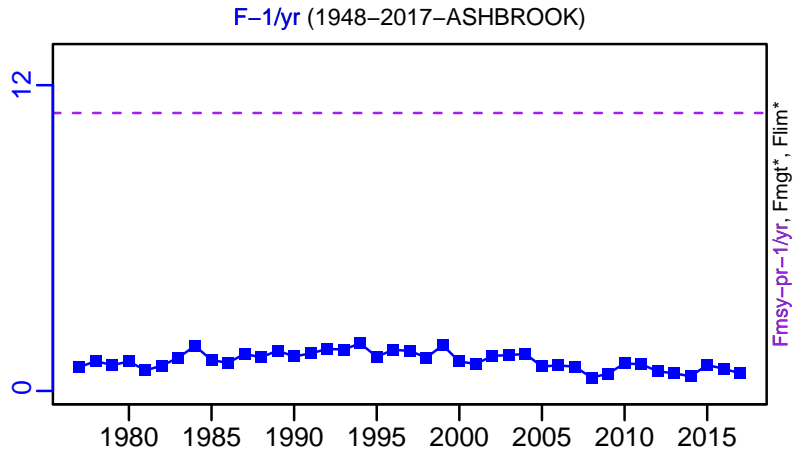
ER–calc–ratio (1977–2022–HIVELY)

R–E00 (1977–2022–HIVELY)

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

105
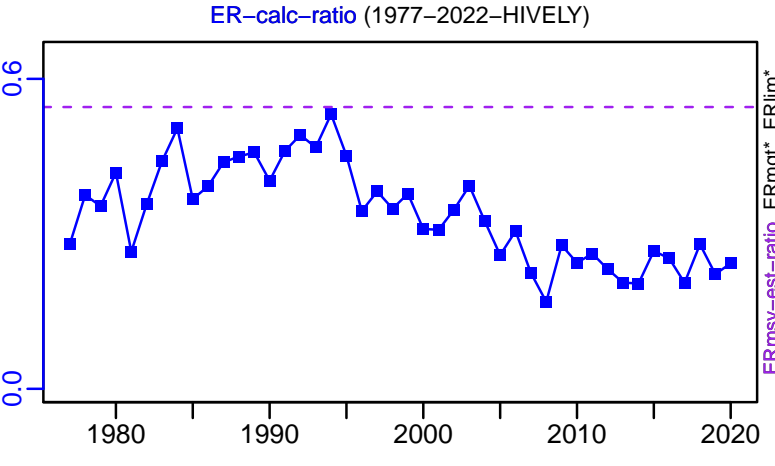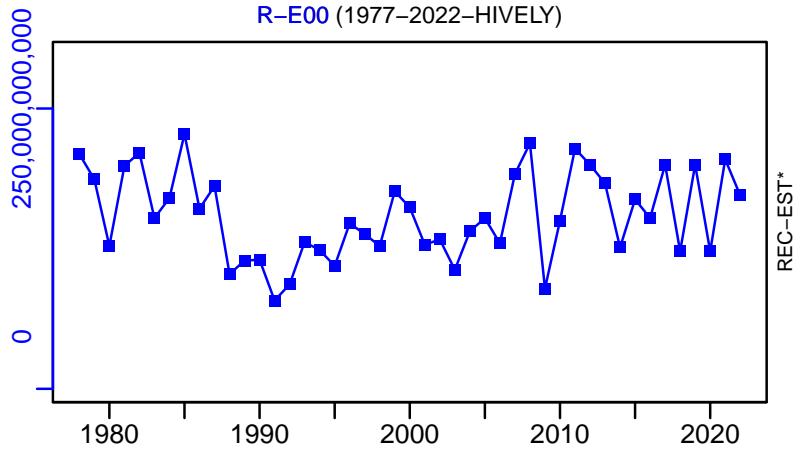
Gulf menhaden Gulf of Mexico [MENATGM]

TC–MT, TL*, RecC–MT (1948–2017–ASHBROOK)

TAC*, Cpair*, Cadv*

MSY*, MORAT: NONE
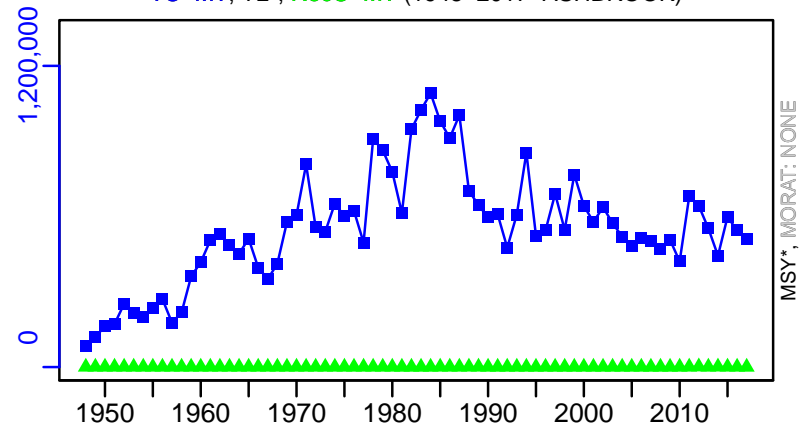
survB*

CPUE*

EFFORT–vtw (1948–2017–ASHBROOK)
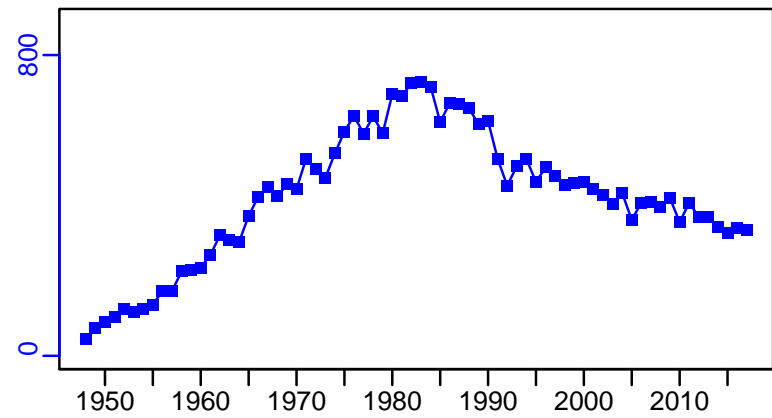
TL–MT/MSY–est–MT, CdivMEANC–ratio, (1977–2022–HIVELY)

■ 1st listed time series	▲ 3rd listed time series	—— MORAT
● 2nd listed time series	– – – MSY	* No Data
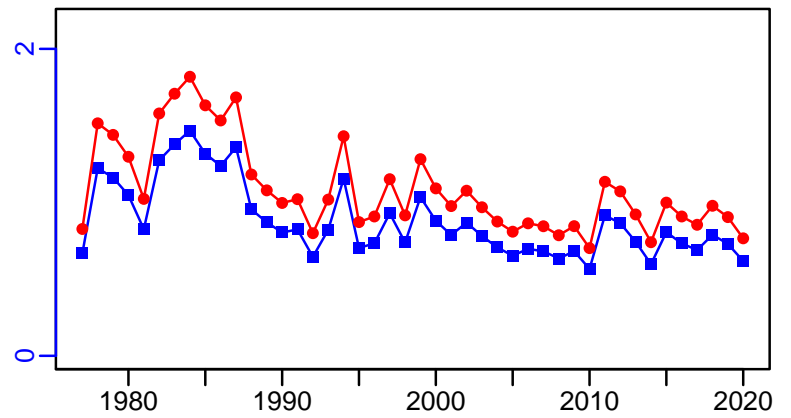
Mutton snapper Southern Atlantic coast and Gulf of Mexico [MUTSNAPSATLCGM]

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

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

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

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

Kobe MSYpref (1981–2013–SISIMP2016)
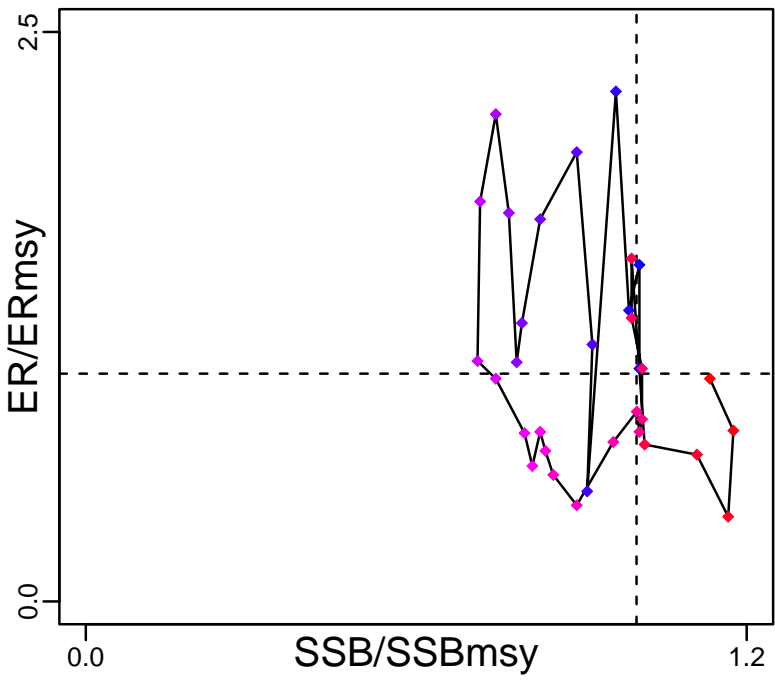
Kobe MGTpref (1981–2013–SISIMP2016)
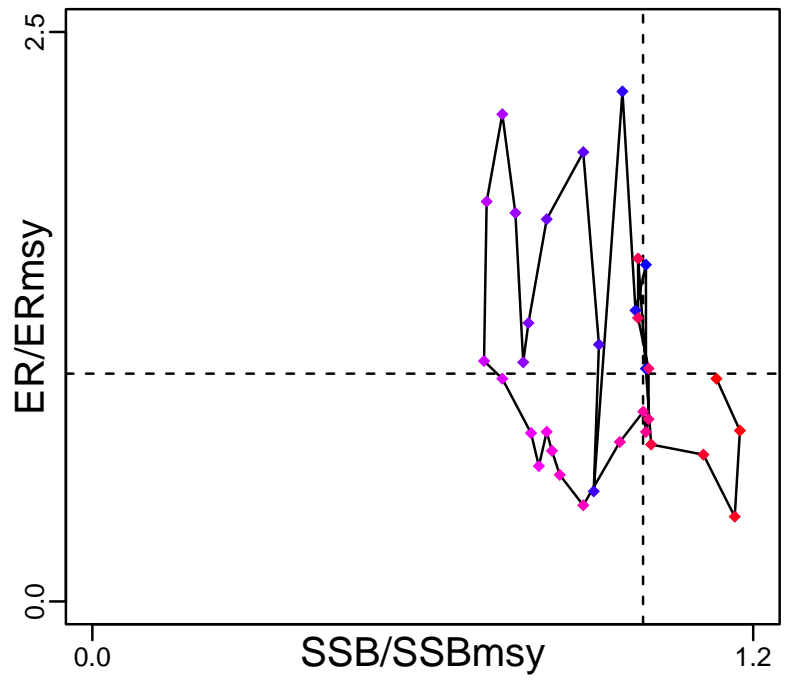
Spawner Recruit (1981–2006–JENSEN)
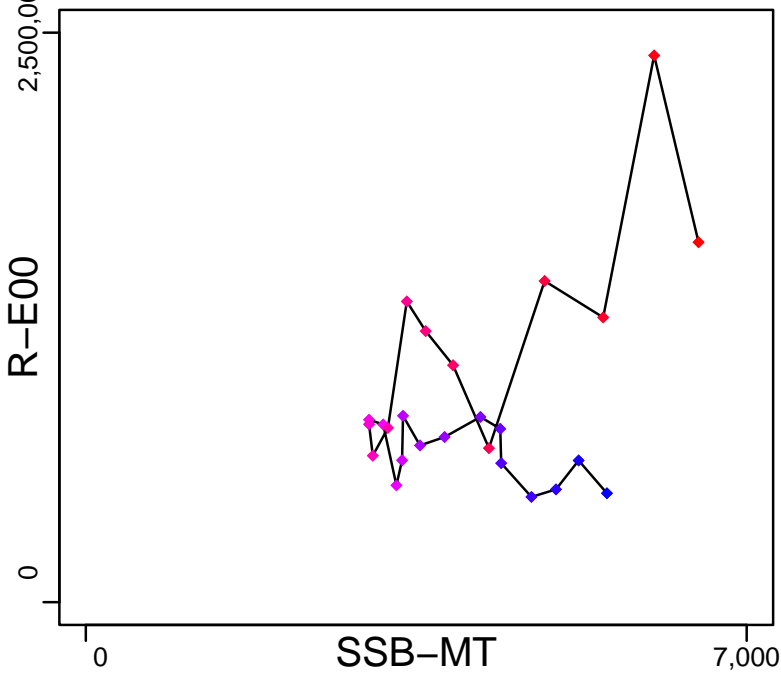
Production (1981–2013–SISIMP2016)

Start Year   End Year   No Data

108

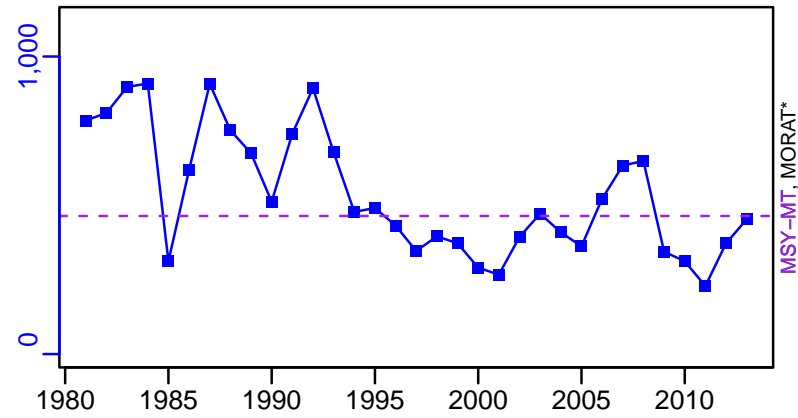# Mutton snapper Southern Atlantic coast and Gulf of Mexico [MUTSNAPSATLCGM]

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

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

TAC*, Cpair*, Cadv*

survB*

CPUE*

EFFORT*
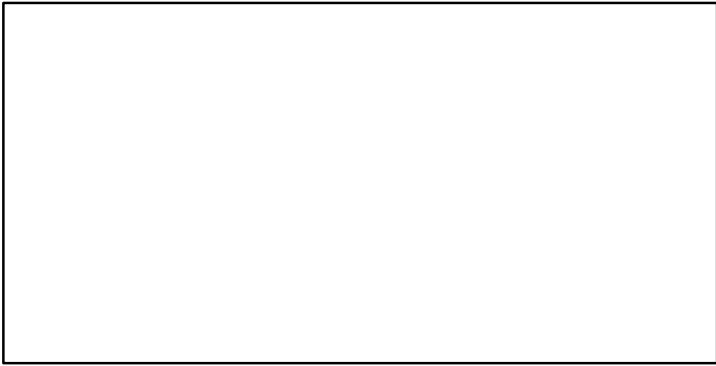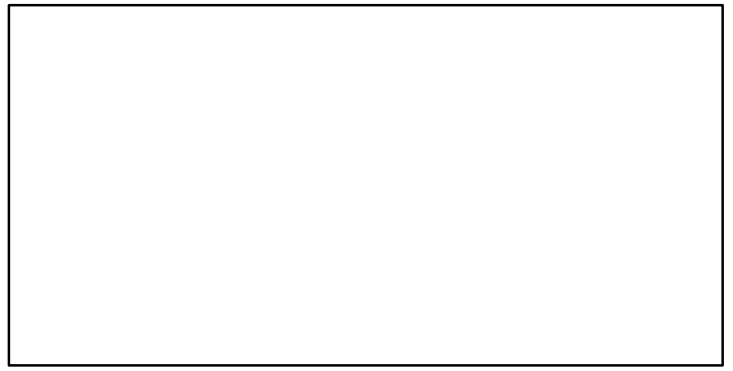
TC–MT/MSY–MT, CdivMEANC–ratio, (1981–2013–SISIMP2016)

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

110
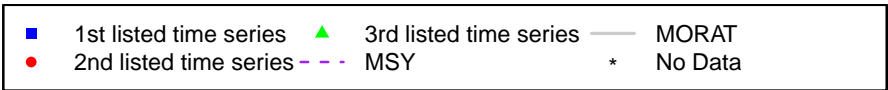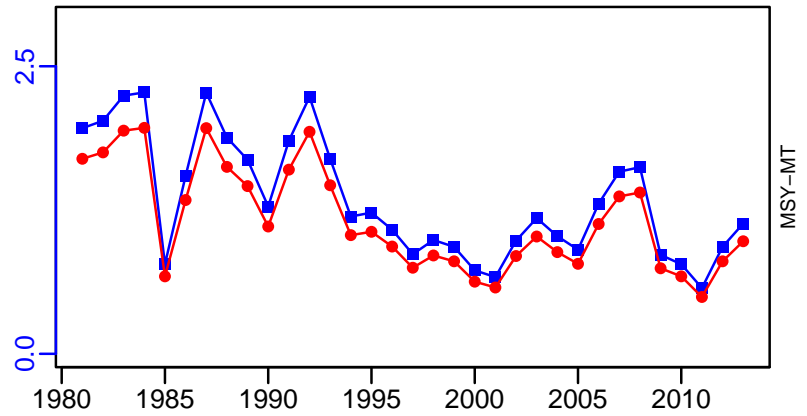
Pink shrimp Gulf of Mexico [PINKSHRIMPGM]

Metadata	
Scientific Name	Farfantepenaeus duorarum
Current Assess ID	SEFSC-PINKSHRIMPGM-1984-2017-SISIMP2021
Area	Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2011, 2013, 2014, 2015, 2017

Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2017	10,750
Fmsy	Fmsy-1/yr	2017	1.34
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	SSBlim-MT	2015	10,750
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	**ID**	**Asmt Year**	**Curr Value**	**Sex**	**Age**
TB	-	-	-	-	-
SSB	SSB-MT	2017	16,097	-	-
TN	-	-	-	-	-
R	R-E00	2017	3,017,759,000	-	-
F	F-1/yr	2017	0.2	-	-
ER	ER-ratio	2011	0.034	-	-
TC	TC-MT	2017	4503		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2017	1.497		
F/Fmsy	F-1/yr/Fmsy-1/yr	2017	0.15		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Pink shrimp Gulf of Mexico [PINKSHRIMPGM]

Kobe MSYpref (1984−2017−SISIMP2021)
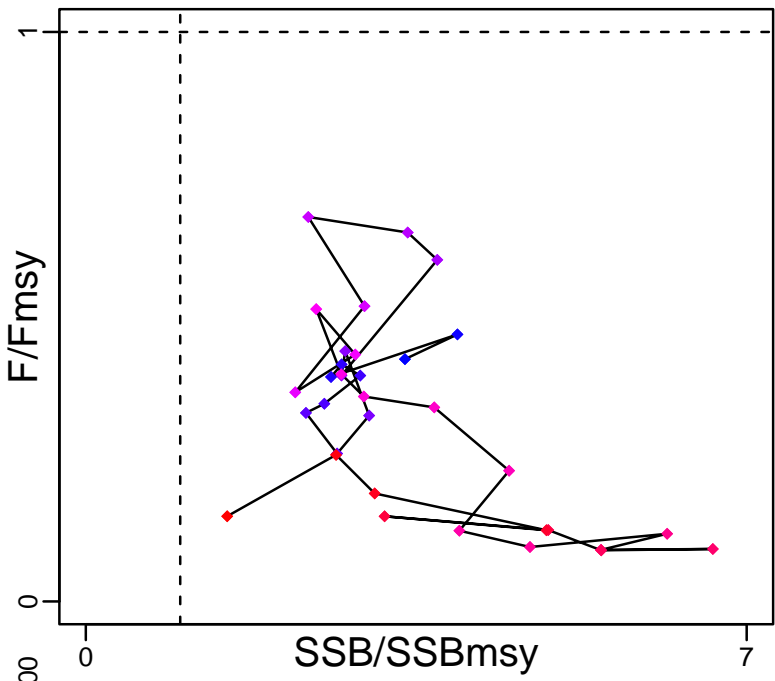
Kobe MGTpref (1984−2017−SISIMP2021)

F/Fmsy

F/Fmsy

SSB/SSBmsy

SSB/SSBmsy

Spawner Recruit (1984−2017−SISIMP2021)

Production*
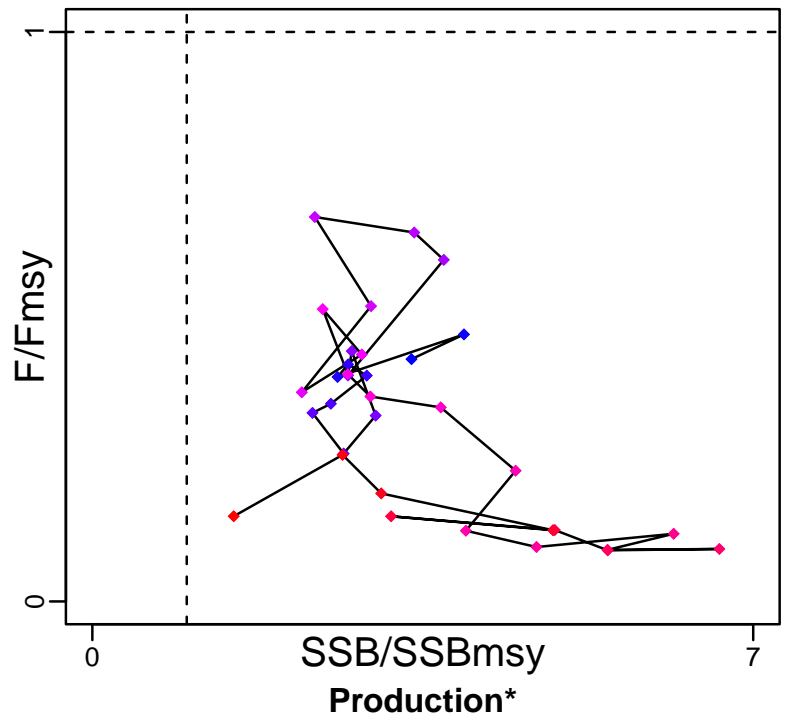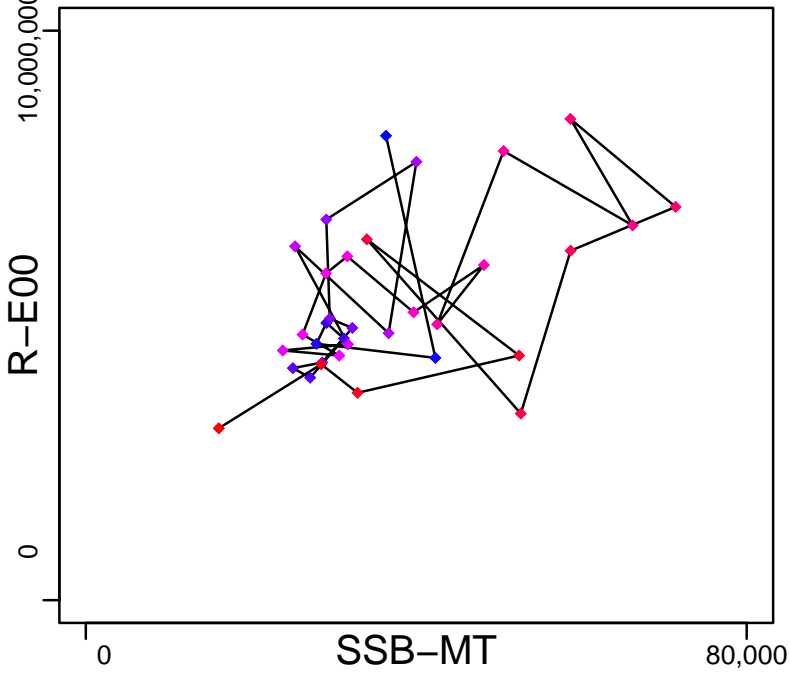
R−E00

SSB−MT

◆ Start Year ◆ End Year ∗ No Data

Pink shrimp Gulf of Mexico [PINKSHRIMPGM]

TB*

SSB–MT (1984–2017–SISIMP2021)
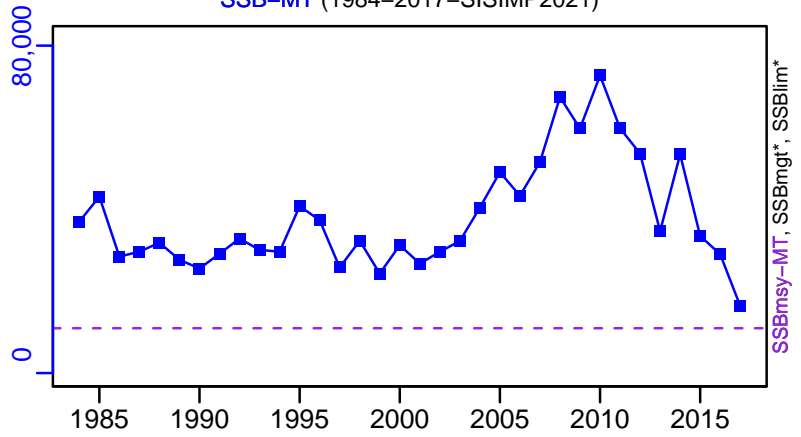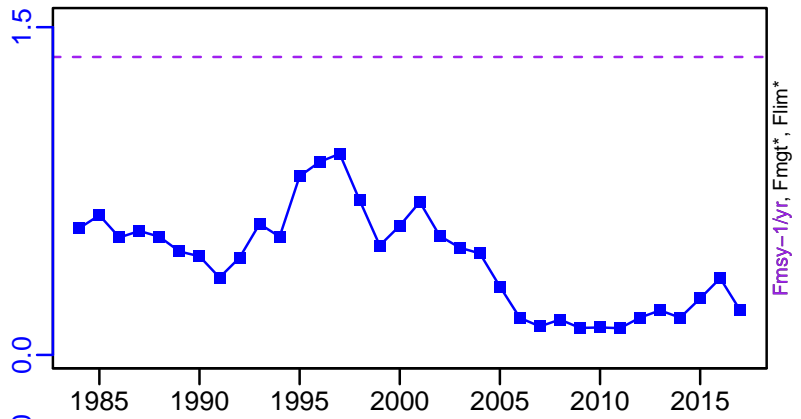
TN *

F–1/yr (1984–2017–SISIMP2021)

ER–calc–ratio (1984–2017–SISIMP2021)

R–E00 (1984–2017–SISIMP2021)

Legend:
- Listed time series
- MSY–based BRP
- Target BRP
- Lim BRP
- Rec–Est
- * No Data
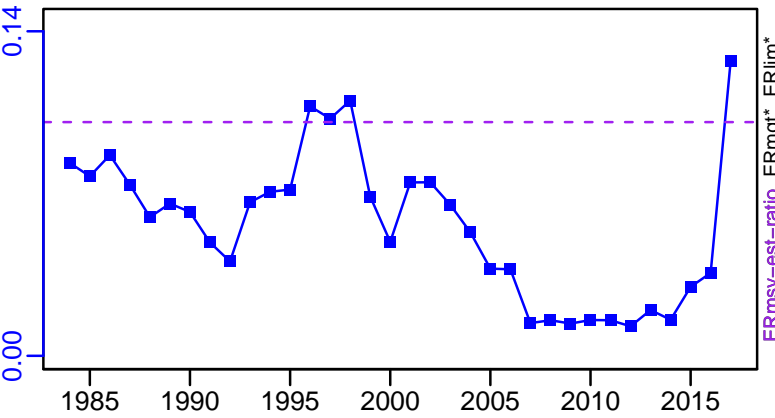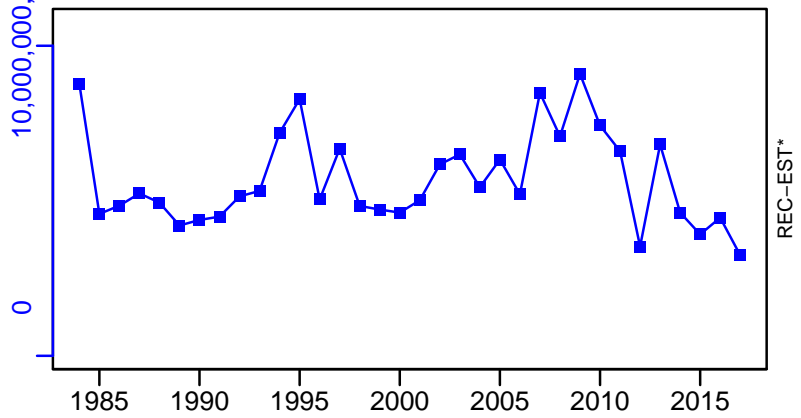
Pink shrimp Gulf of Mexico [PINKSHRIMPGM]

TC–MT, TL*, RecC* (1984–2017–SISIMP2021)
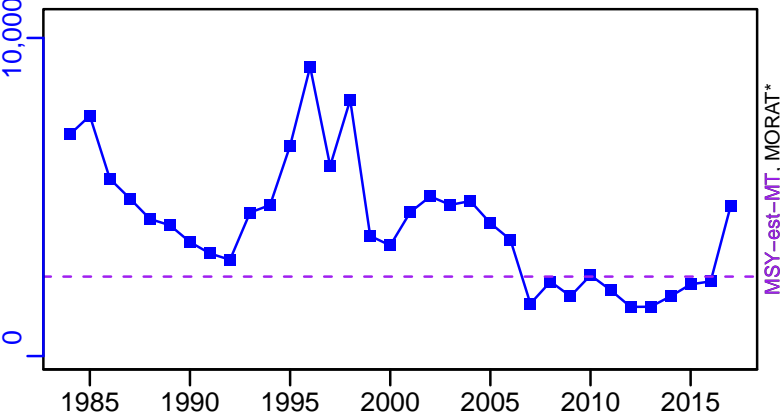
TAC*, Cpair*, Cadv*

survB*

CPUE*

EFFORT*

TC–MT/MSY–est–MT, CdivMEANC–ratio, (1984–2017–SISIMP2021)

Legend:
- ■ 1st listed time series
- ● 2nd listed time series
- ▲ 3rd listed time series
- – – MSY
- —— MORAT
- * No Data
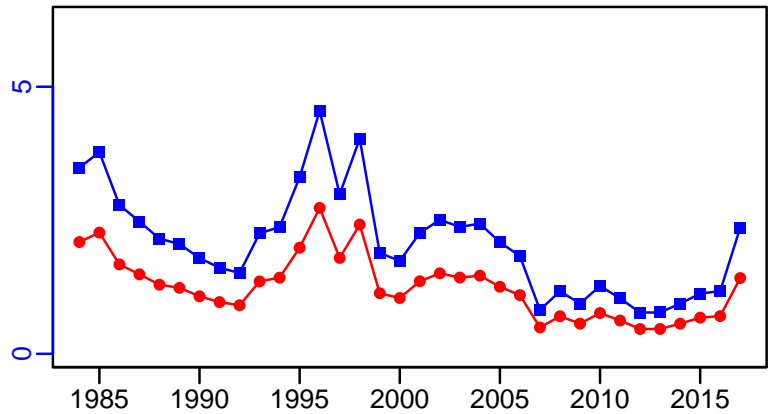
Red grouper Gulf of Mexico [RGROUPGM]

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

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

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

Red grouper Gulf of Mexico [RGROUPGM]

Kobe MSYpref (1963–2017–SISIMP2021–2)
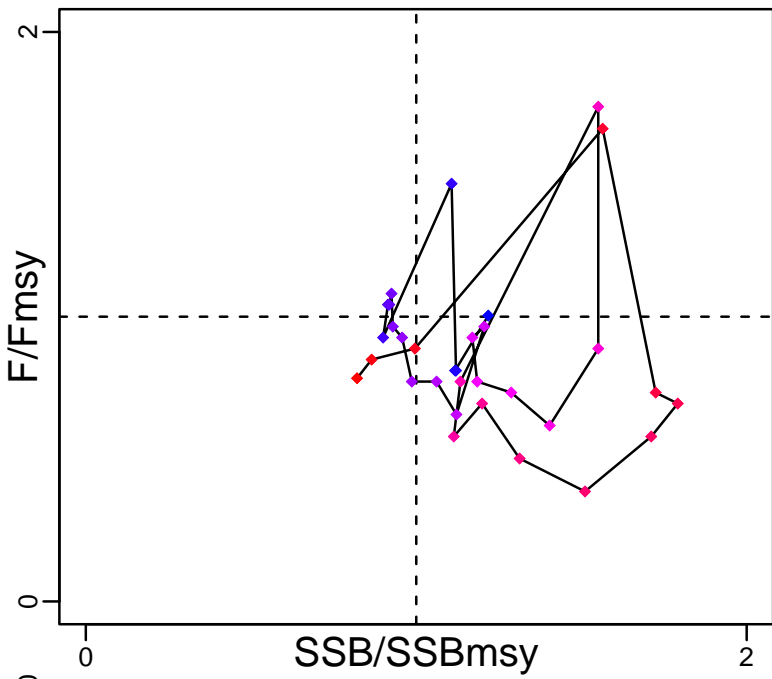
Kobe MGTpref (1963–2017–SISIMP2021–2)
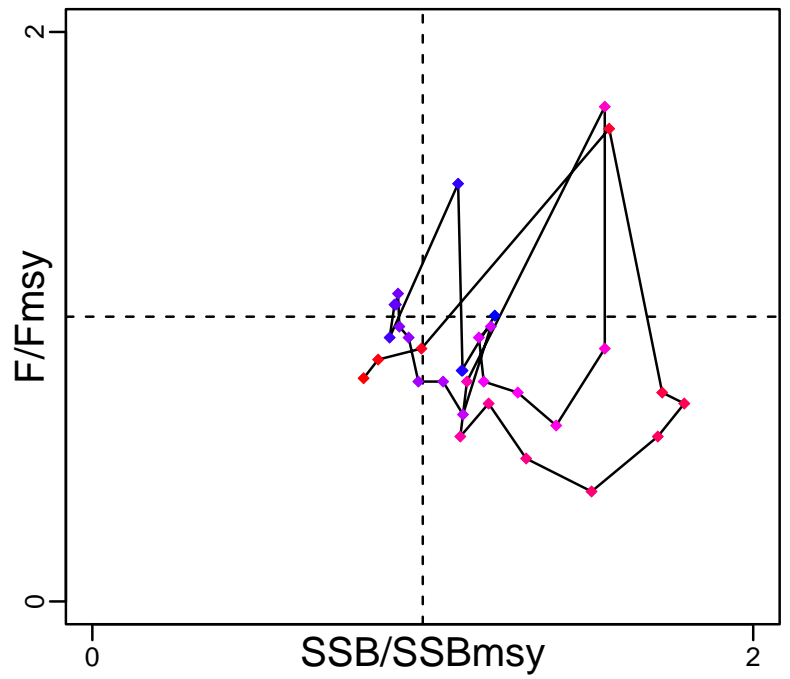
Spawner Recruit (1963–2017–SISIMP2021–2)
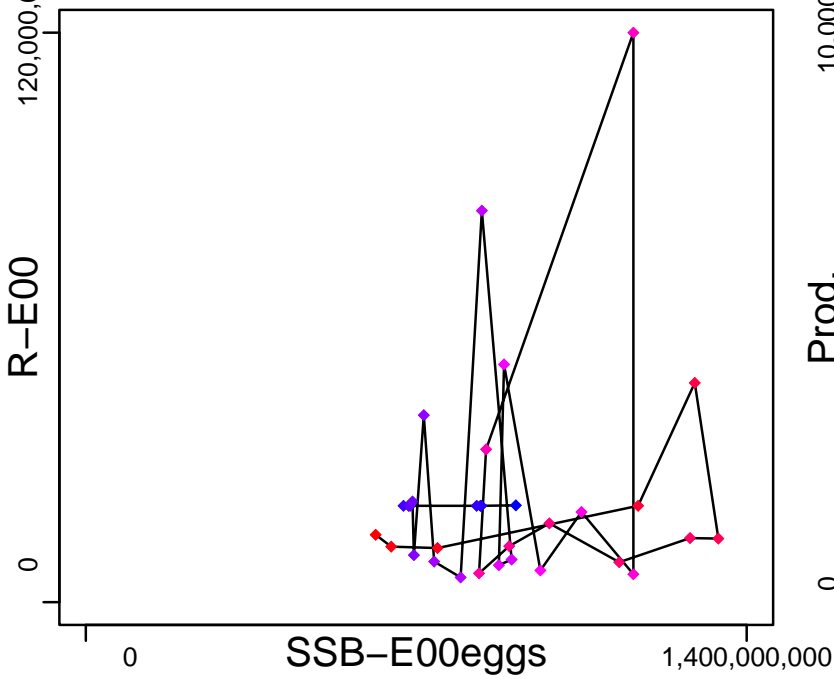
Production (1993–2013–SISIMP2016)

◆ Start Year   ◆ End Year   ∗ No Data

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Red grouper Gulf of Mexico [RGROUPGM]

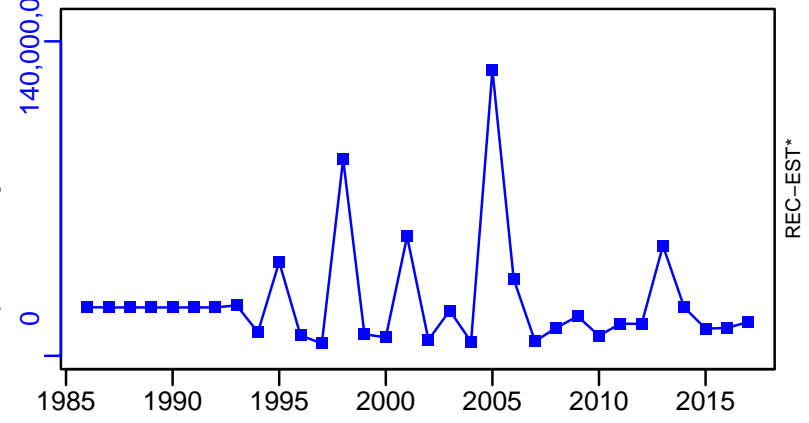TB−MT (1993−2013−SISIMP2016)
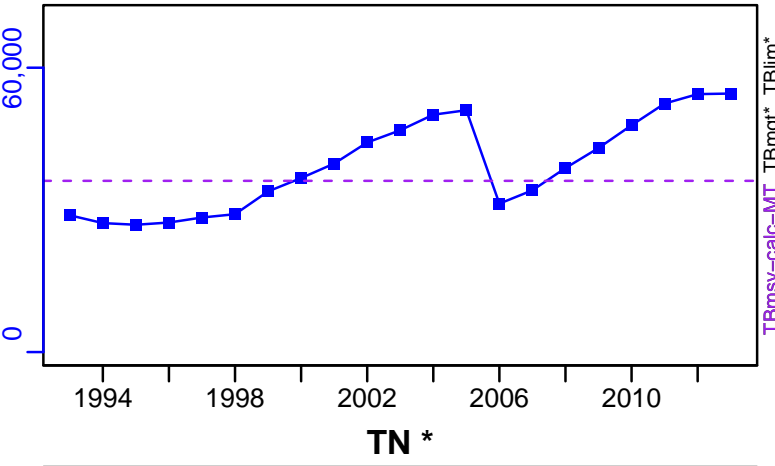
SSB−E00eggs (1963−2017−SISIMP2021−2)
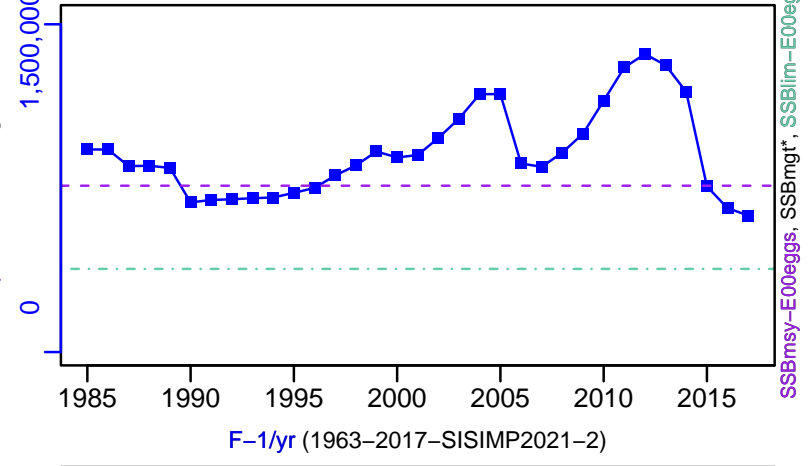
TN *

F−1/yr (1963−2017−SISIMP2021−2)
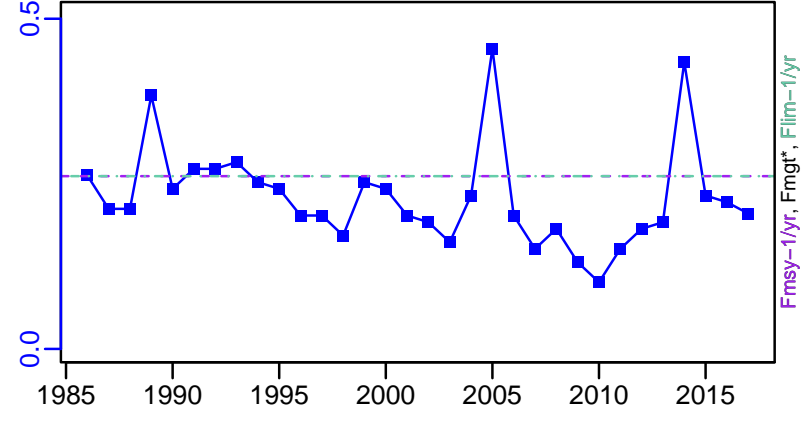
ER−ratio (1993−2013−SISIMP2016)

R−E00 (1963−2017−SISIMP2021−2)

Listed time series — · — Target BRP ——— Rec−Est
MSY−based BRP — · — Lim BRP * No Data
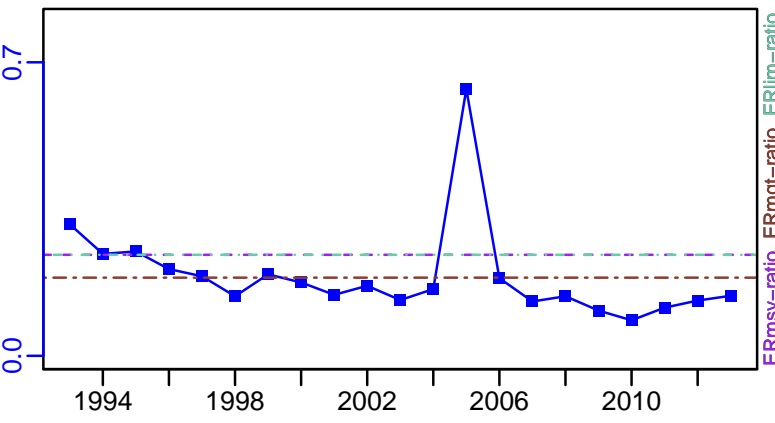
Red grouper Gulf of Mexico [RGROUPGM]

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

TAC*, Cpair*, Cadv*
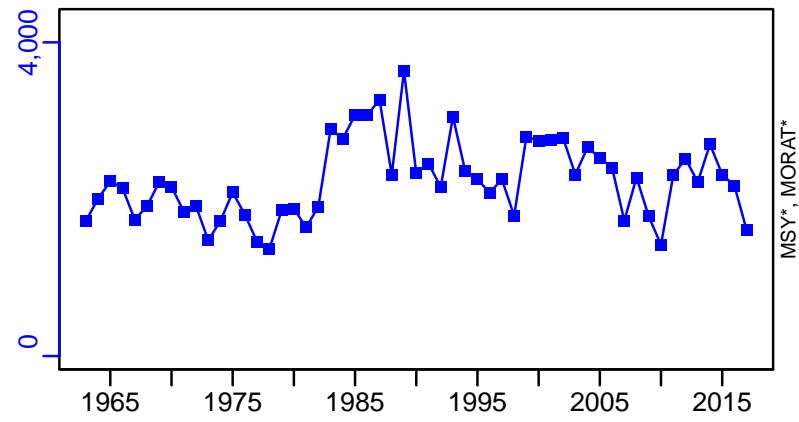
survB*

CPUE*

EFFORT*

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

■	1st listed time series	▲	3rd listed time series	— MORAT
●	2nd listed time series	– – MSY	*	No Data
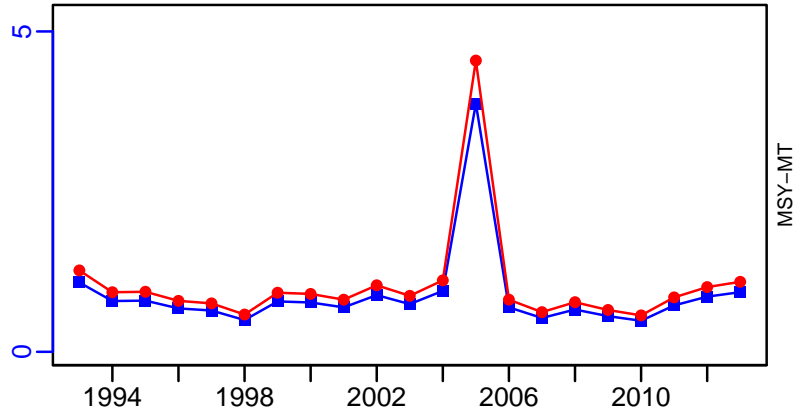
Red grouper South Atlantic [RGROUPSATL]

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

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

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

Red grouper South Atlantic [RGROUPSATL]

Kobe MSYpref (1975–2015–SISIMP2021)
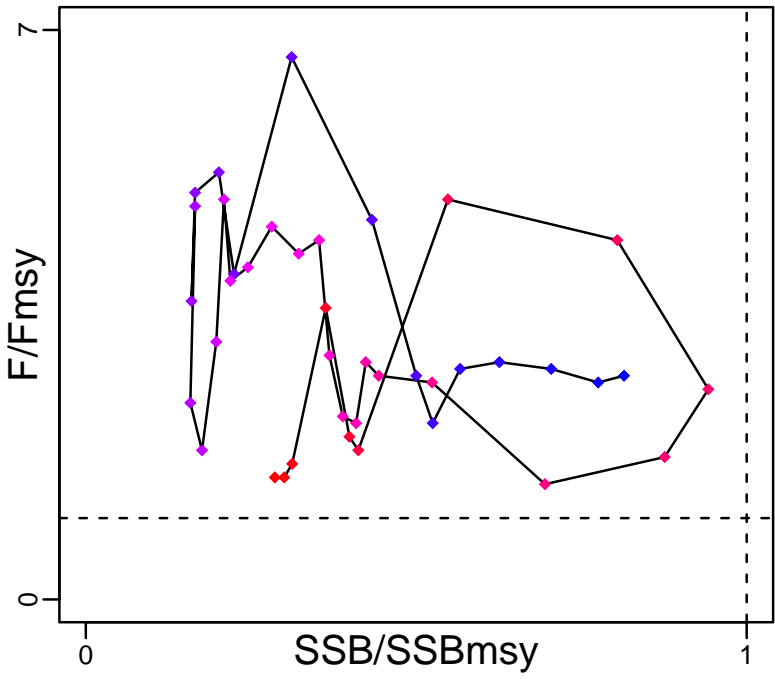
Kobe MGTpref (1975–2015–SISIMP2021)
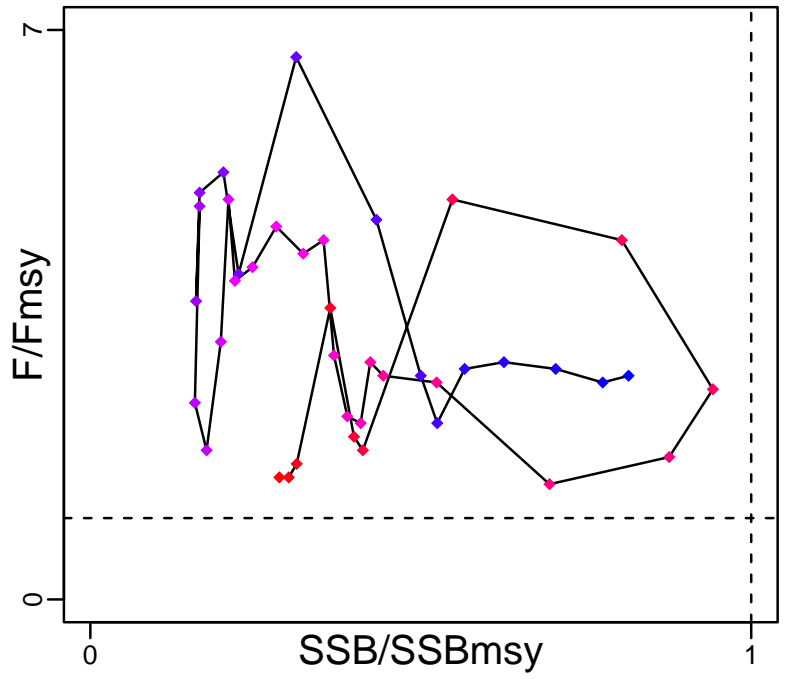
Spawner Recruit (1975–2015–SISIMP2021)
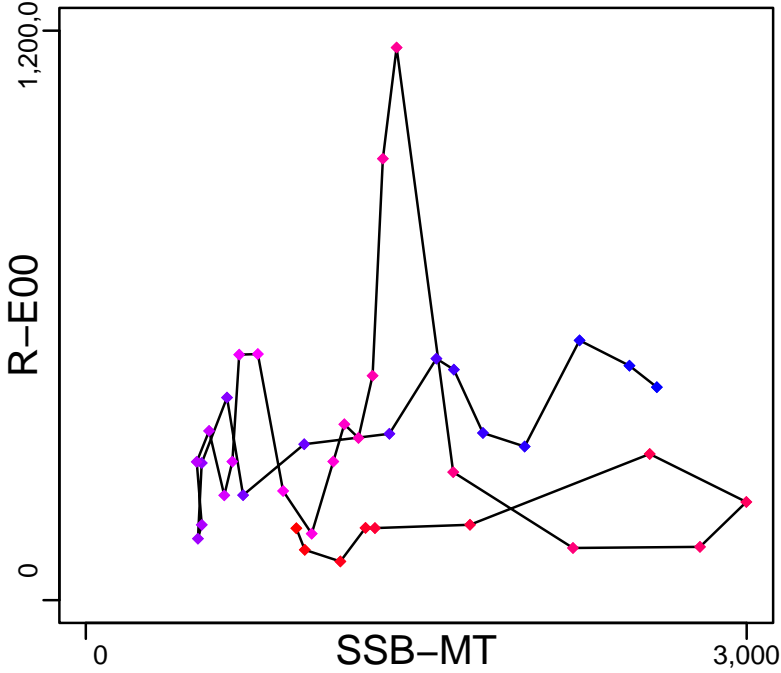
Production (1976–2009–HIVELY)
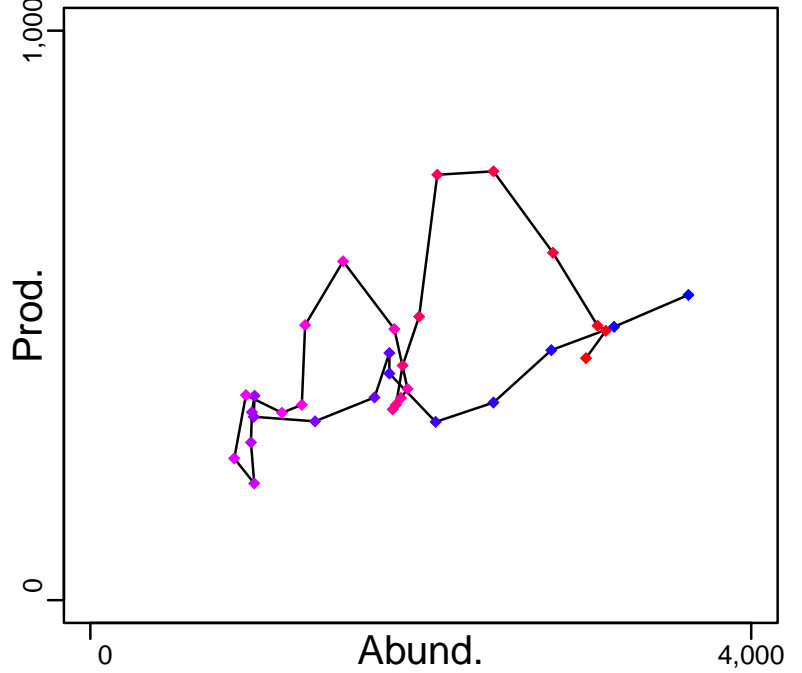
Start Year   End Year   No Data

Red grouper South Atlantic [RGROUPSATL]

TB–MT (1976–2009–HIVELY)

SSB–MT (1975–2015–SISIMP2021)
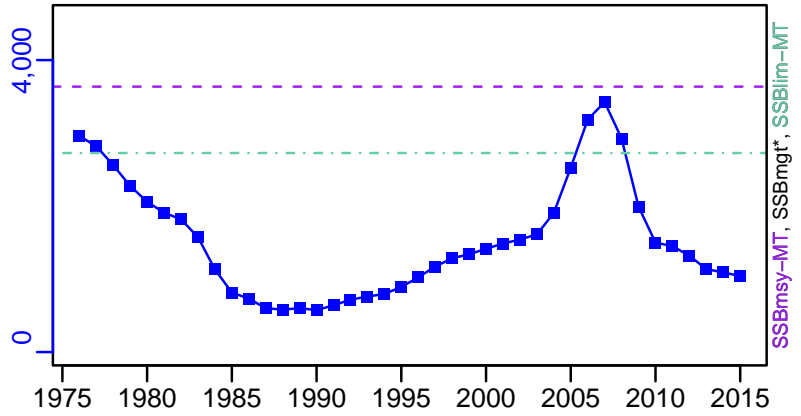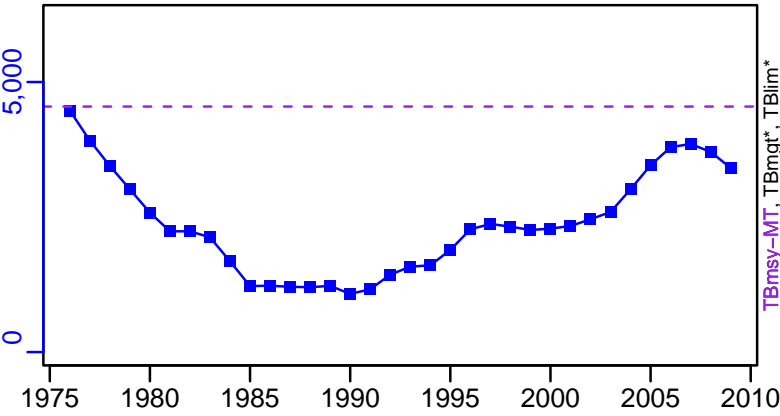
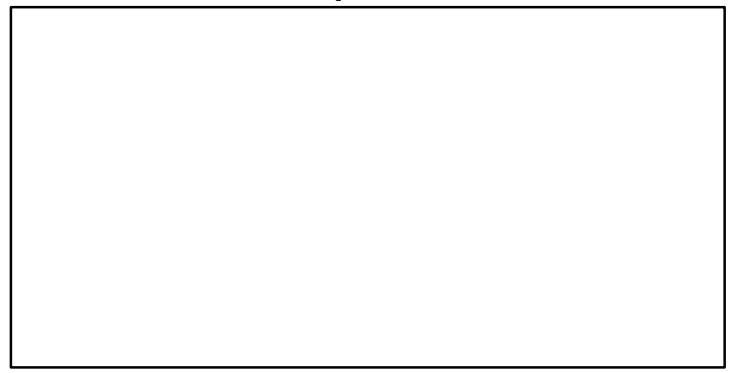## TN *

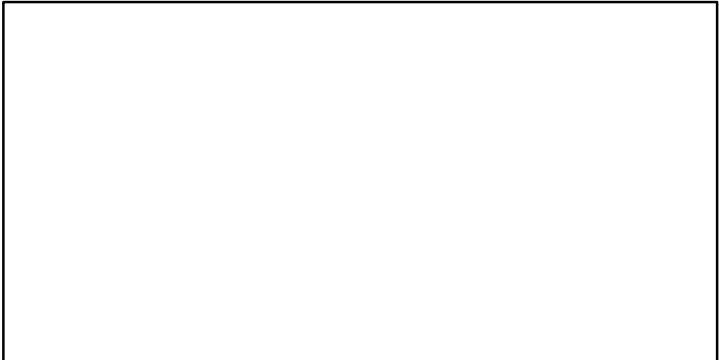## F–1/yr (1975–2015–SISIMP2021)
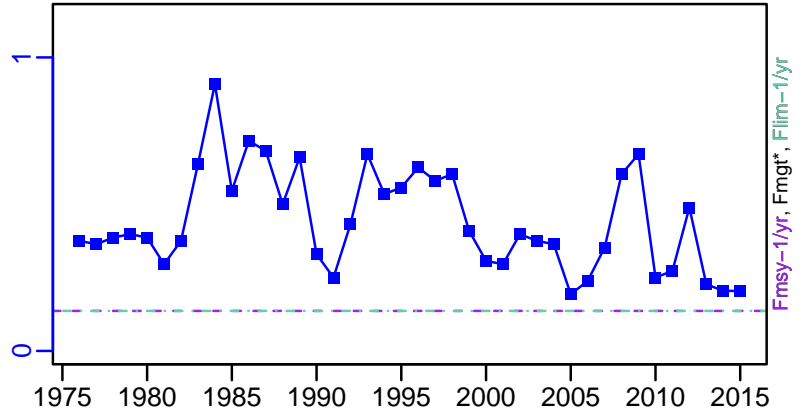
ER–calc–ratio (1976–2009–HIVELY)

R–E00 (1975–2015–SISIMP2021)

■ Listed time series	·–·– Target BRP	—— Rec–Est
– – – MSY–based BRP	·–·– Lim BRP	* No Data
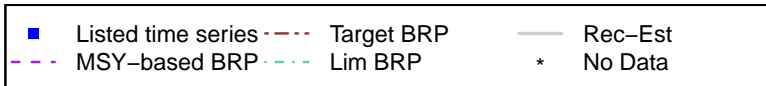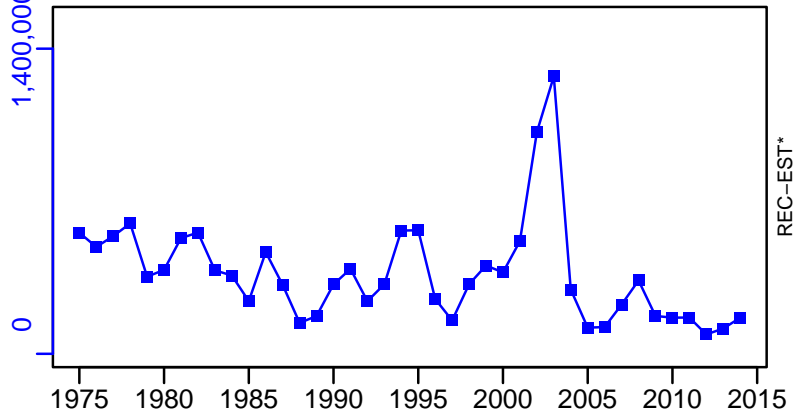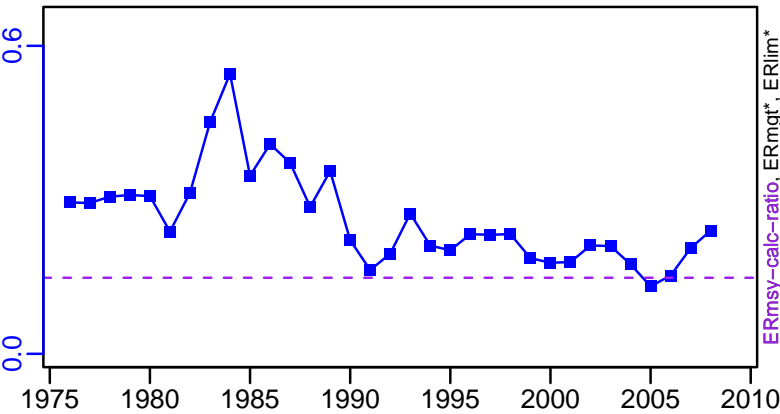
Red grouper South Atlantic [RGROUPSATL]

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

TAC*, Cpair*, Cadv*
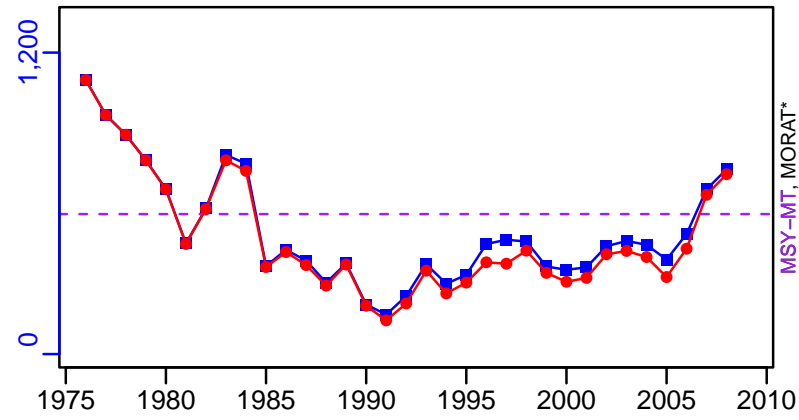
survB*

CPUE*

EFFORT*

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

■ 1st listed time series	▲ 3rd listed time series	——	MORAT
● 2nd listed time series	– – MSY	*	No Data
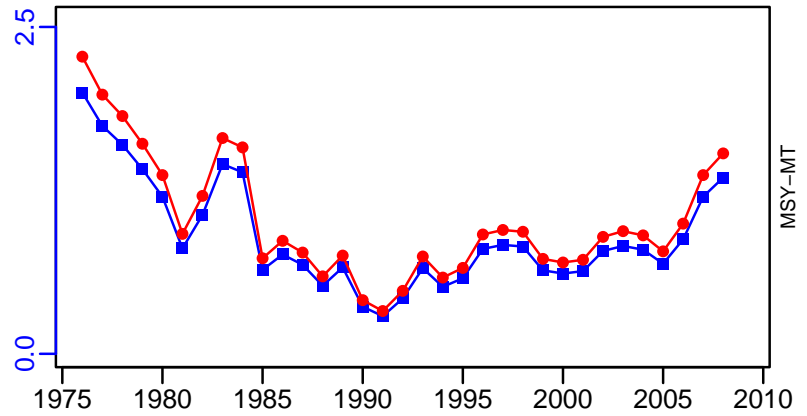
Red porgy Southern Atlantic coast [RPORGYSATLC]

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

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

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

Red porgy Southern Atlantic coast [RPORGYSATLC]

Kobe MSYpref (1972−2017−SISIMP2021−2)
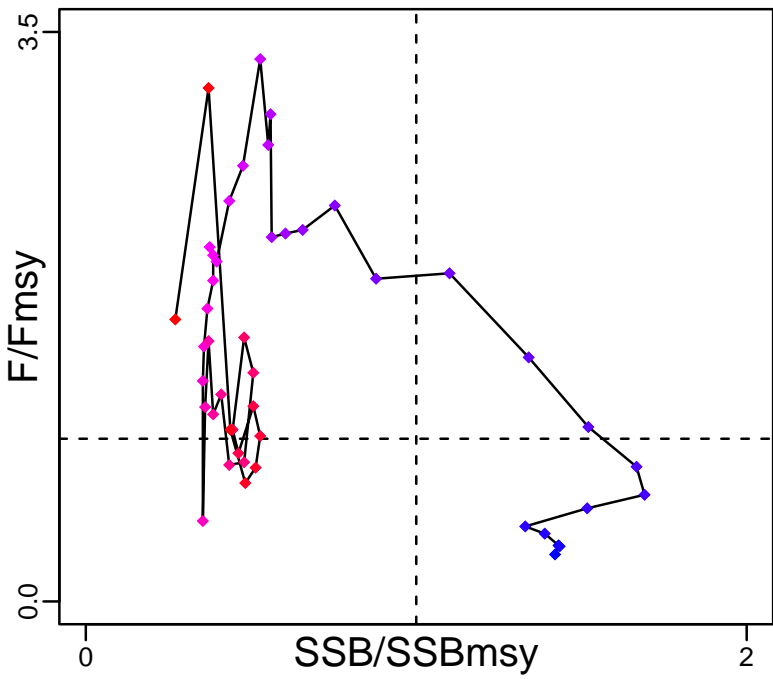
Kobe MGTpref (1972−2017−SISIMP2021−2)
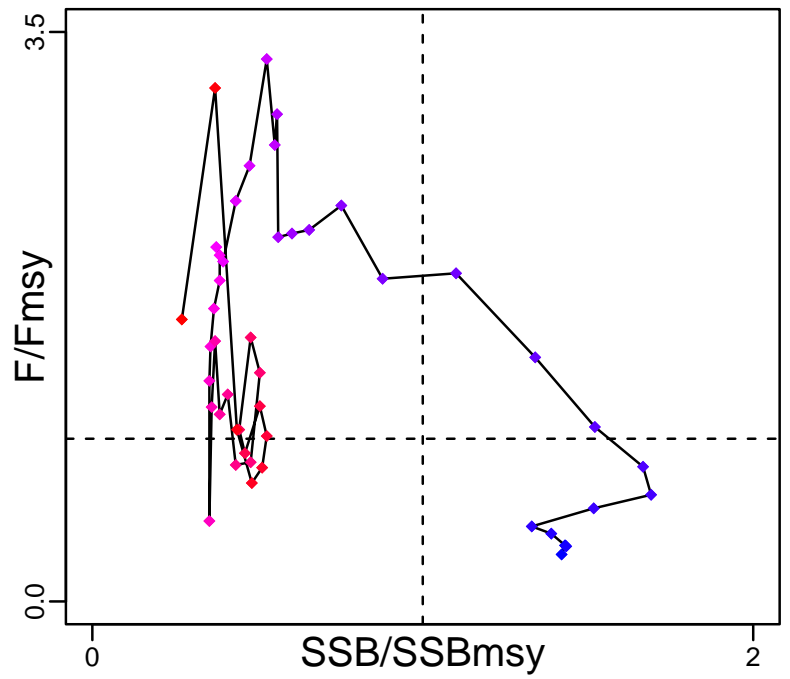
Spawner Recruit (1972−2017−SISIMP2021−2)
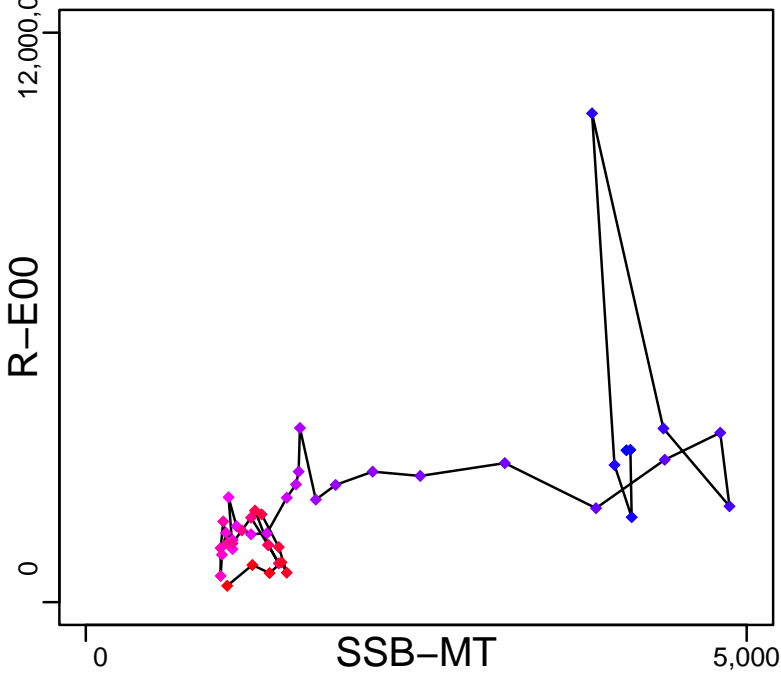
Production (1972−2017−SISIMP2021−2)

◆ Start Year   ◆ End Year   * No Data

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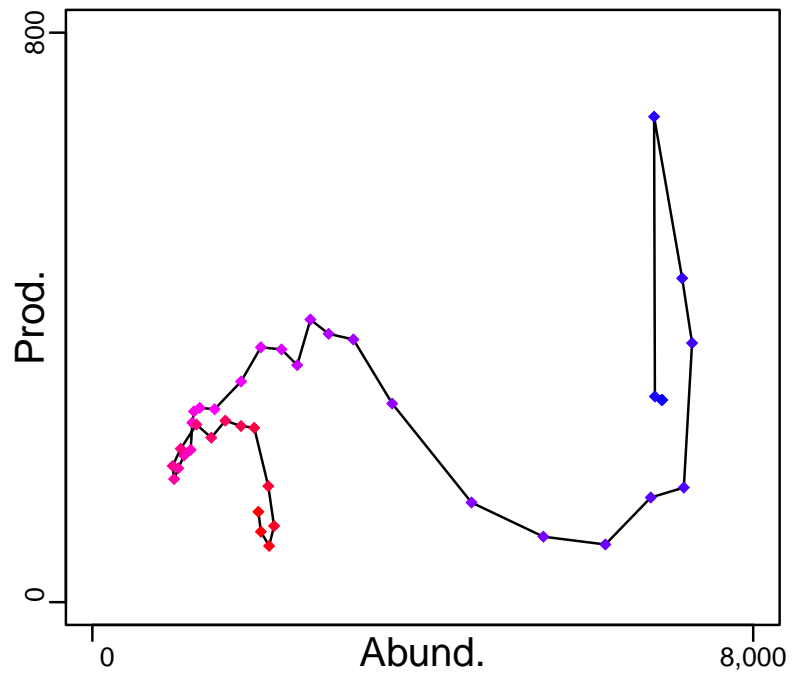
Red porgy Southern Atlantic coast [RPORGYSATLC]

TB–MT (1972–2012–HIVELY)

SSB–MT (1972–2017–SISIMP2021–2)
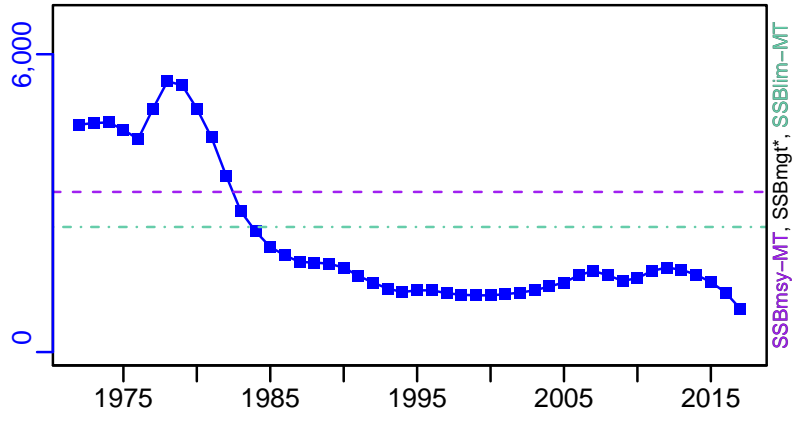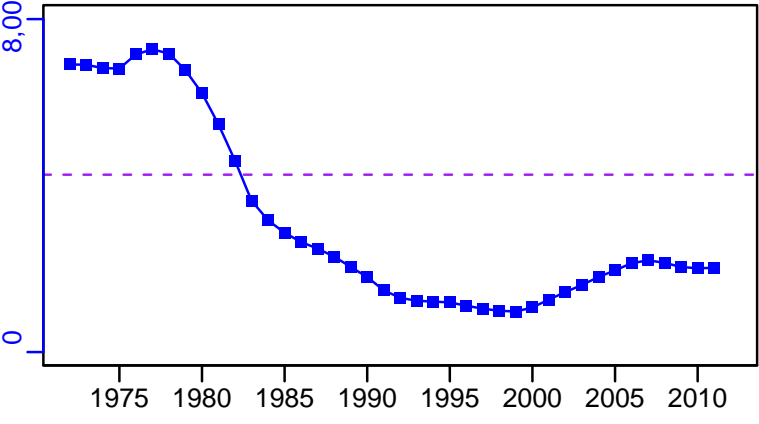
TN *

F–1/yr (1972–2017–SISIMP2021–2)
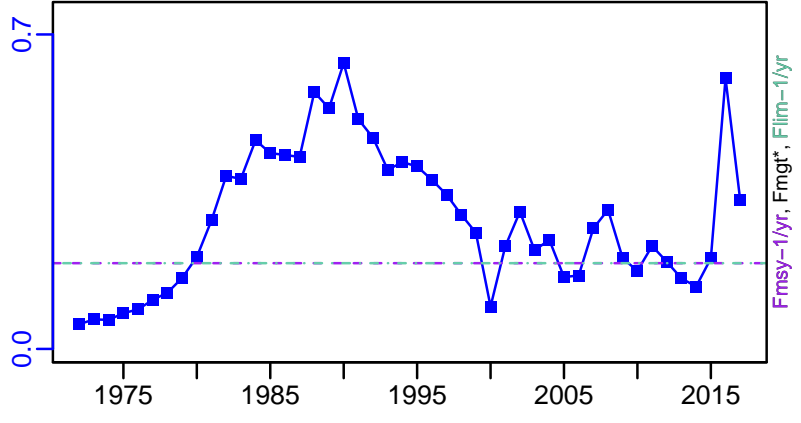
ER–calc–ratio (1972–2017–SISIMP2021–2)

R–E00 (1972–2017–SISIMP2021–2)

■ Listed time series	–·– Target BRP	— Rec–Est
–– MSY–based BRP	–·– Lim BRP	* No Data
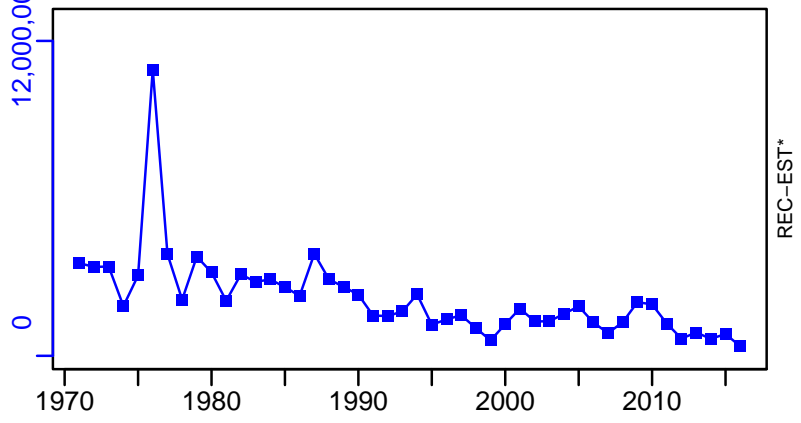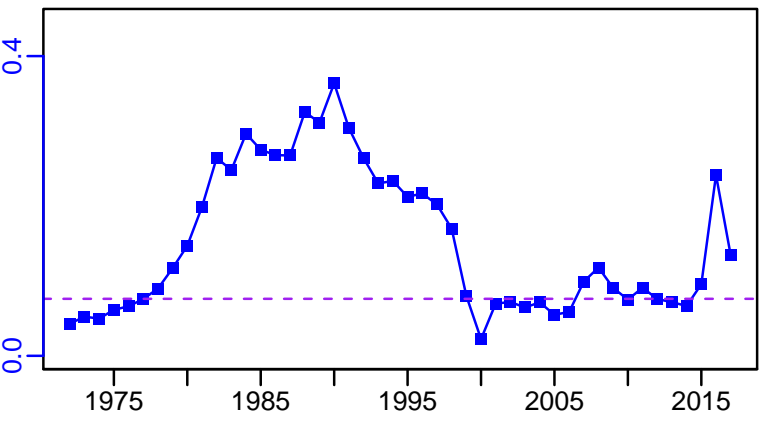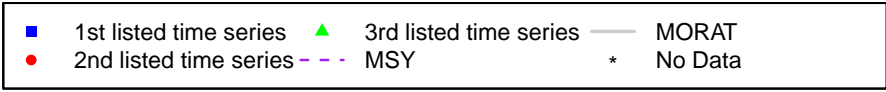
Red porgy Southern Atlantic coast [RPORGYSATLC]

TC–MT, TL*, RecC* (1972–2017–SISIMP2021–2)
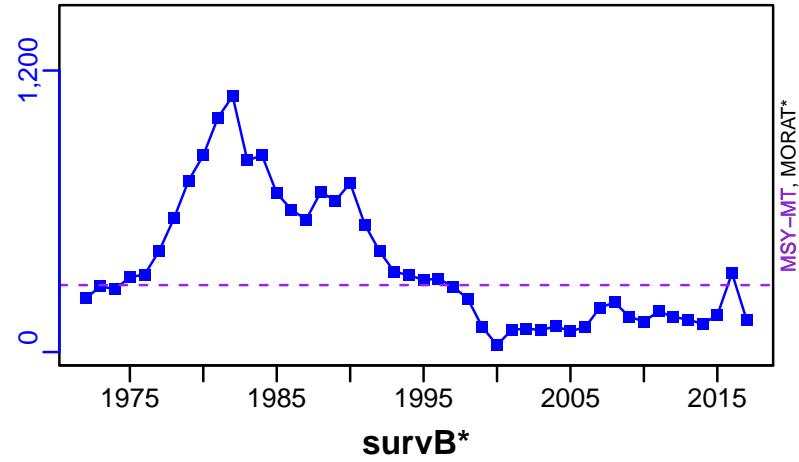
MSY–MT, MORAT*

MSY–MT

TAC*, Cpair*, Cadv*

survB*

CPUE*

EFFORT*

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

MSY–MT

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

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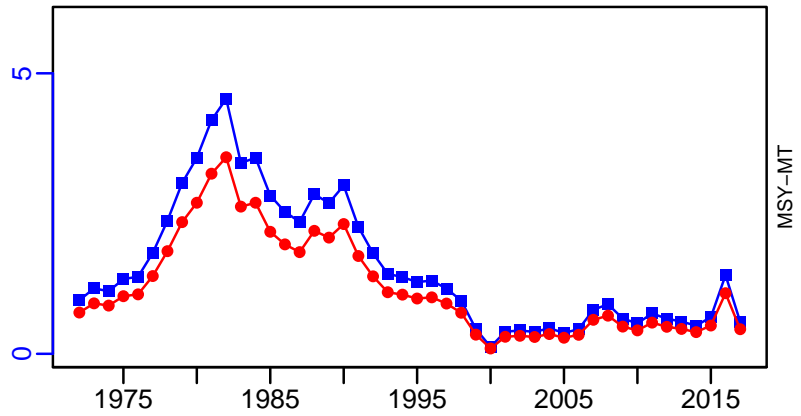
Royal red shrimp Gulf of Mexico [RRSHRIMPGM]

Metadata	
Scientific Name	Pleoticus robustus
Current Assess ID	SEFSC-RRSHRIMPGM-1994-2019-SISIMP2021-2
Area	Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	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	TC-MT	2019	54		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*
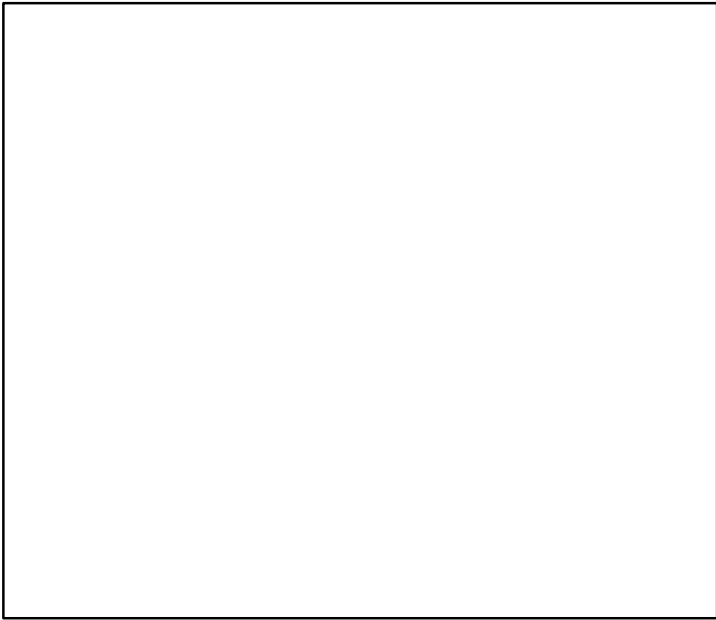
Kobe MGT*
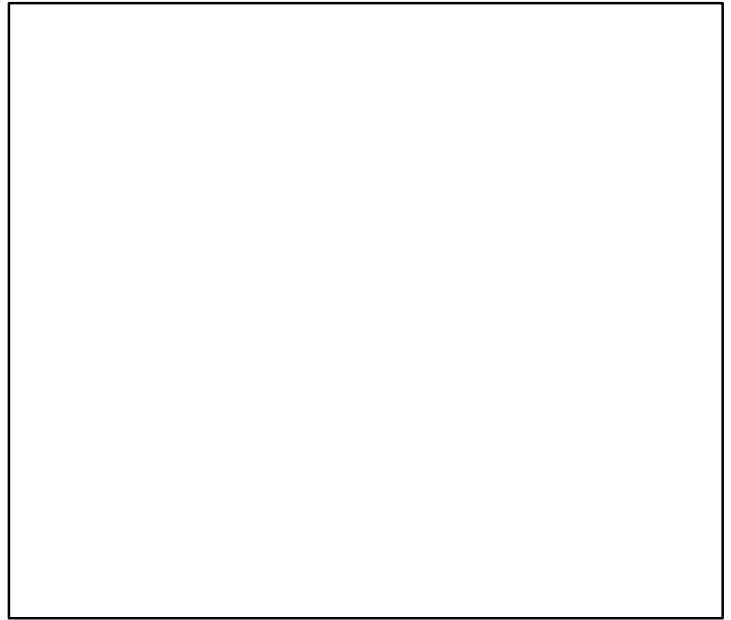
Spawner Recruit*
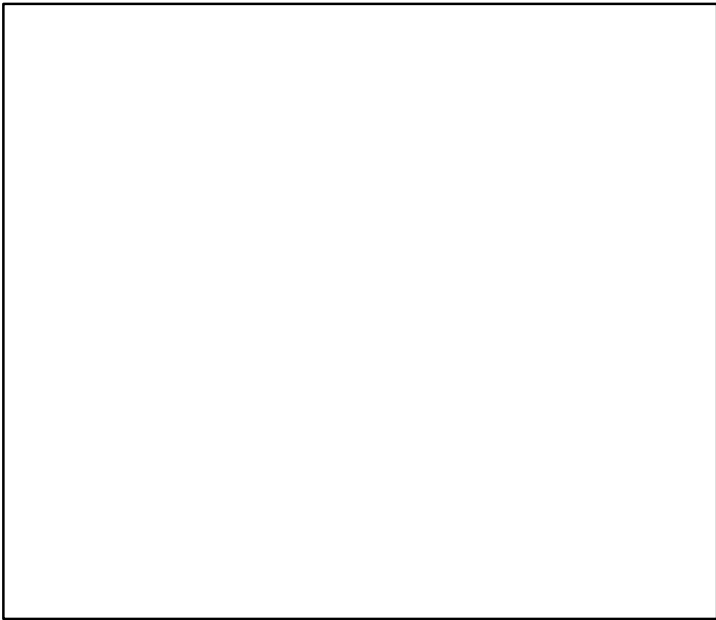
Production*

◆ Start Year ◆ End Year * No Data

Royal red shrimp Gulf of Mexico [RRSHRIMPGM]

TB*

SSB*

TN *

F*

ER*

Recruits*

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

Royal red shrimp Gulf of Mexico [RRSHRIMPGM]

TC–MT, TL*, RecC* (1994–2019–SISIMP2021–2)

MSY*, MORAT*

TAC*, Cpair*, Cadv*

survB*

CPUE*

EFFORT*

CdivMSY*

■	1st listed time series	▲ 3rd listed time series	—— MORAT
●	2nd listed time series	– – MSY	* No Data
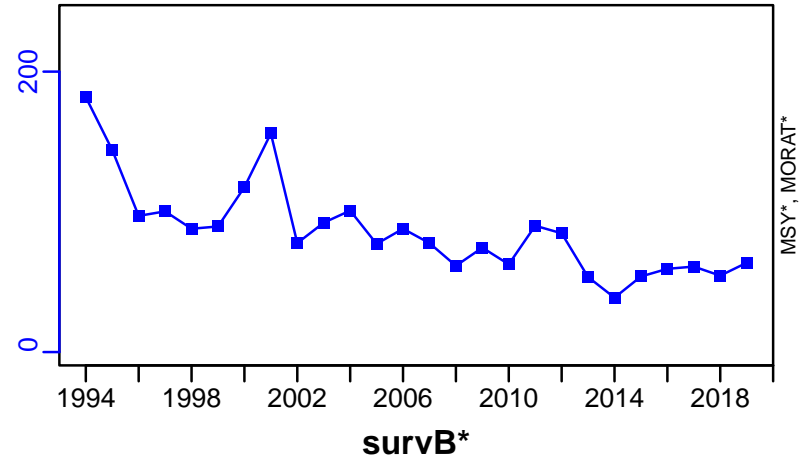
Red snapper Gulf of Mexico [RSNAPGM]

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

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

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

Red snapper Gulf of Mexico [RSNAPGM]

Kobe MSYpref (1872–2016–SISIMP2021)
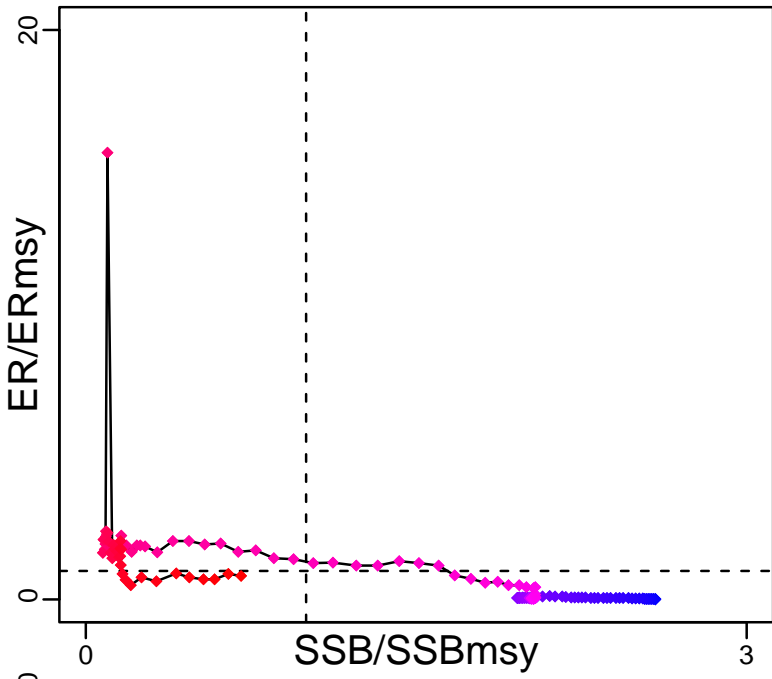
Kobe MGTpref (1872–2016–SISIMP2021)
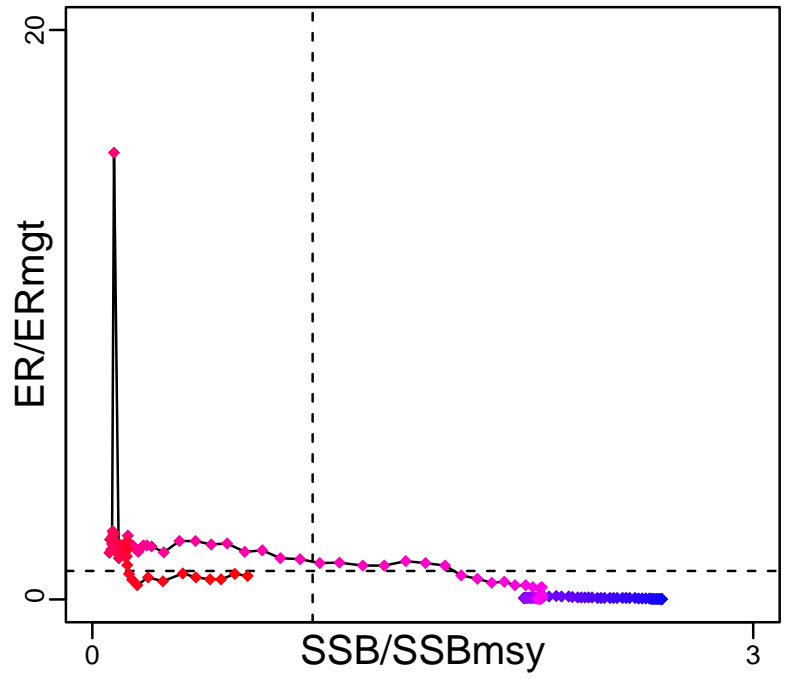
Spawner Recruit (1872–2016–SISIMP2021)
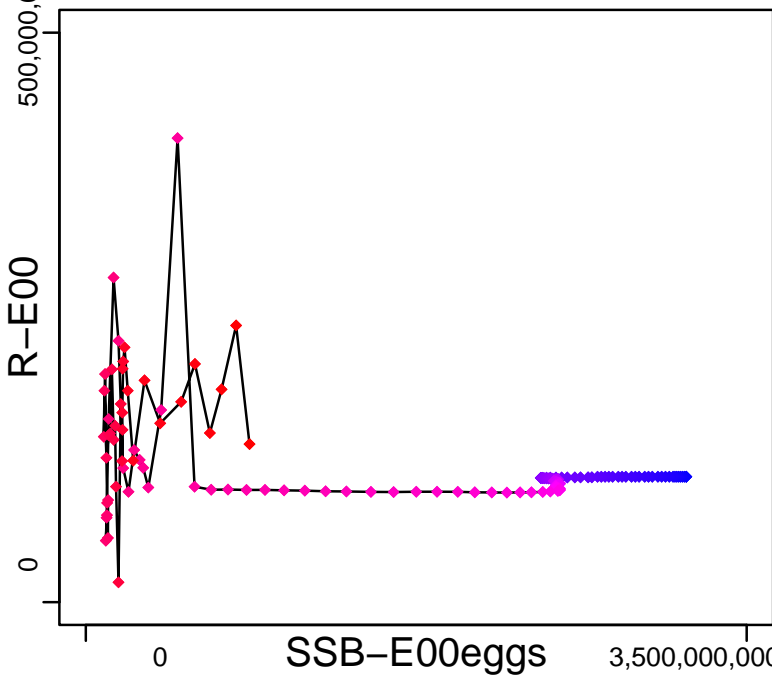
Production (1872–2013–SISIMP2016)
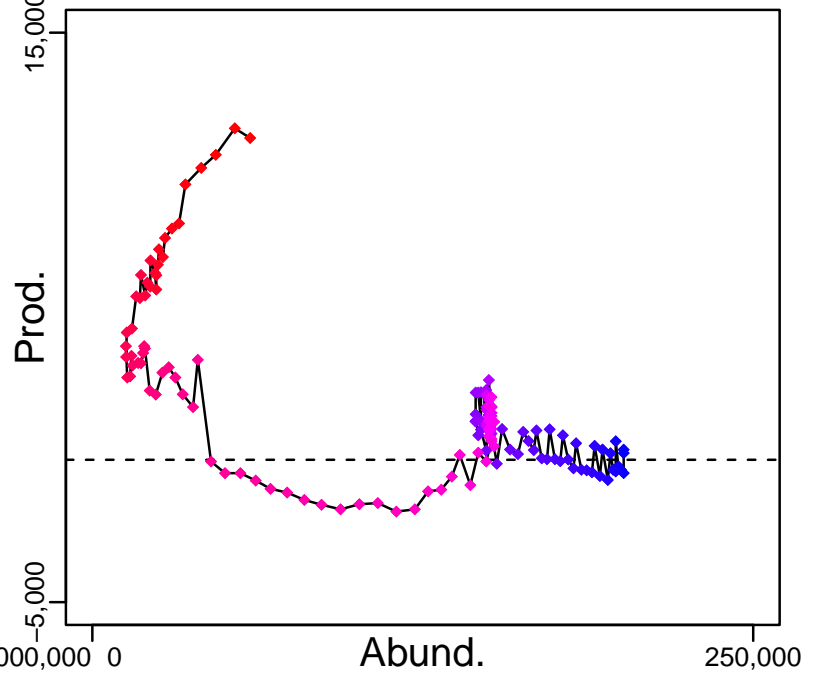
◆ Start Year ◆ End Year * No Data

Red snapper Gulf of Mexico [RSNAPGM]

TB−MT (1872−2013−SISIMP2016)
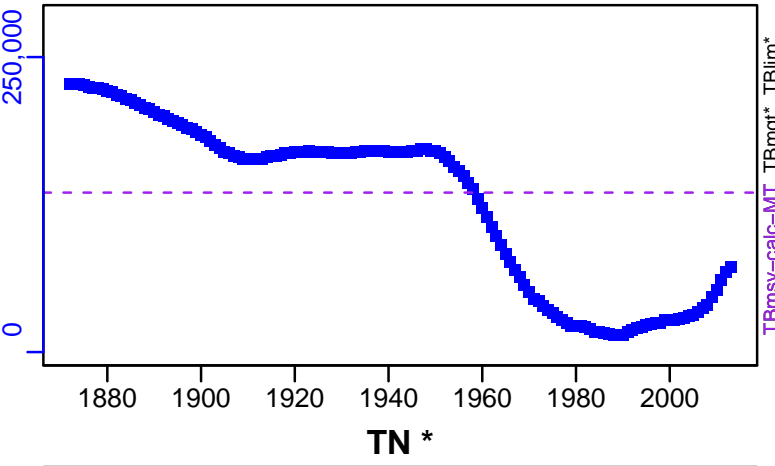
SSB−E00eggs (1872−2016−SISIMP2021)

TN *
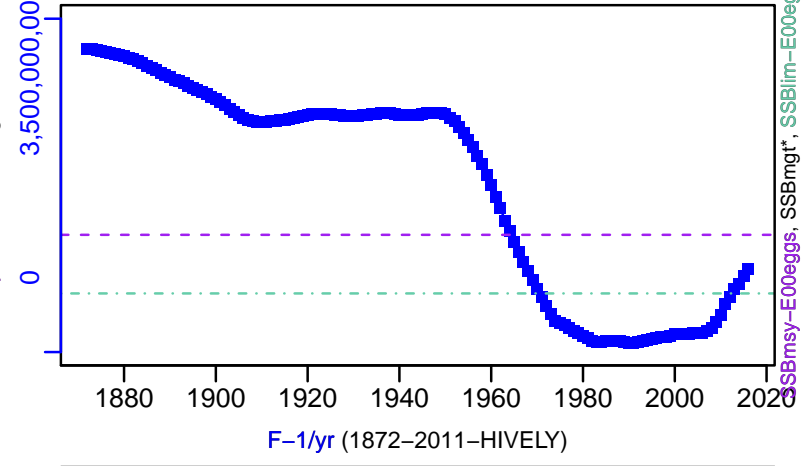
F−1/yr (1872−2011−HIVELY)
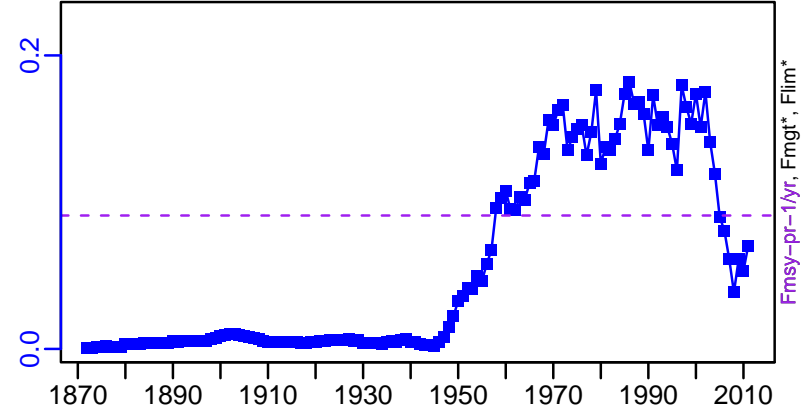
ER−ratio (1872−2016−SISIMP2021)

R−E00 (1872−2016−SISIMP2021)

■ Listed time series	·−·− Target BRP	—— Rec−Est
− − − MSY−based BRP	·−·− Lim BRP	* No Data
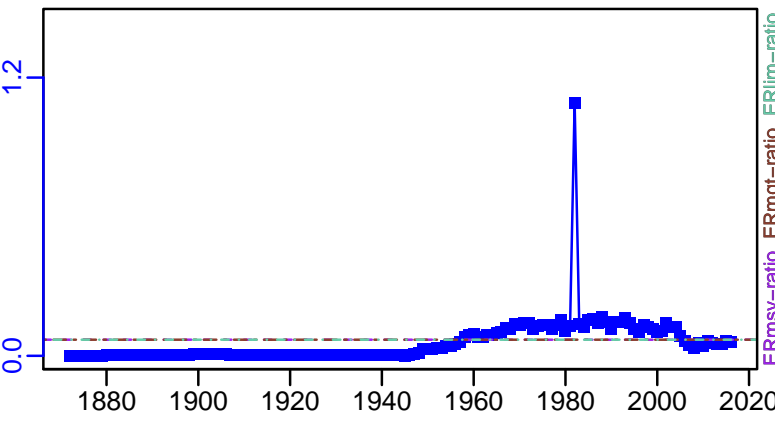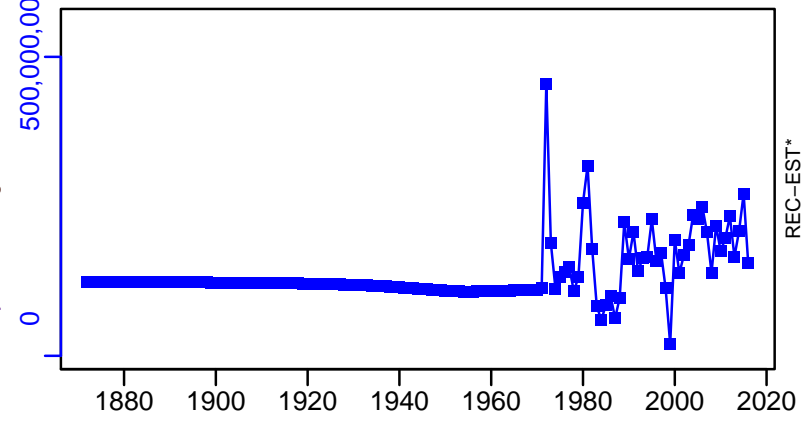
Red snapper Gulf of Mexico [RSNAPGM]

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

TAC*, Cpair*, Cadv*
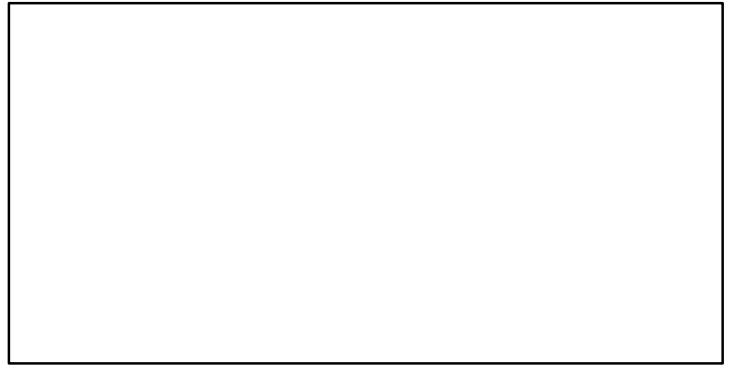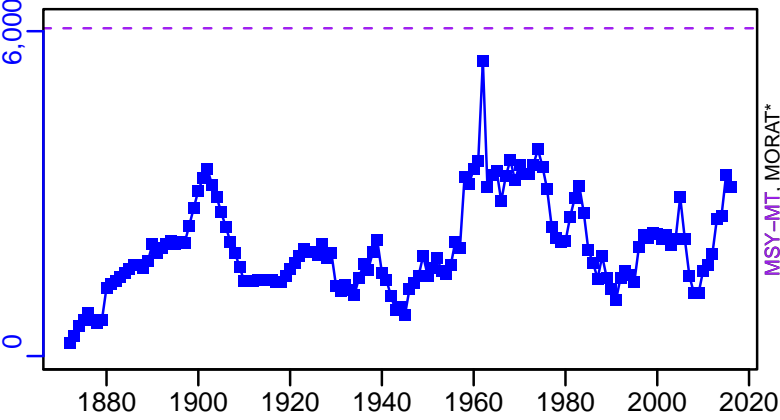
survB*

CPUE*

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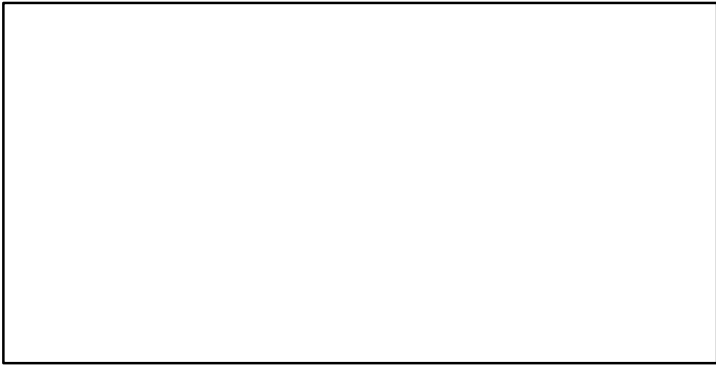
TC–MT/MSY–MT, CdivMEANC–ratio, (1872–2016–SISIMP2021)

Legend:
- ■ 1st listed time series
- ● 2nd listed time series
- ▲ 3rd listed time series
- – – MSY
- —— MORAT
- * No Data
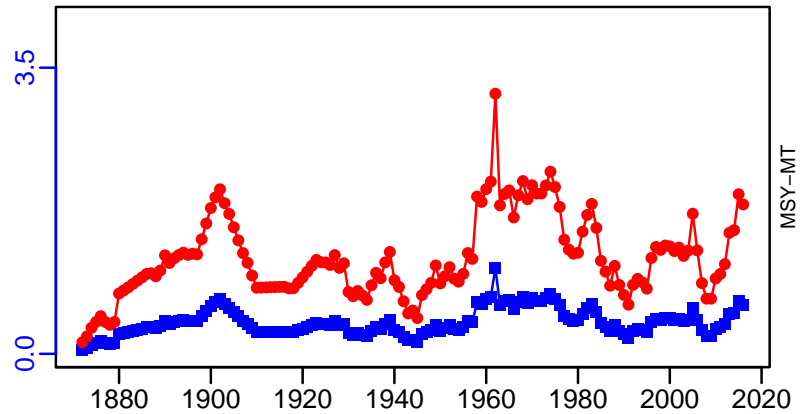
Red snapper Southern Atlantic coast [RSNAPSATLC]

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

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

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

Red snapper Southern Atlantic coast [RSNAPSATLC]

Kobe MSYpref (1949–2019–SISIMP2022)
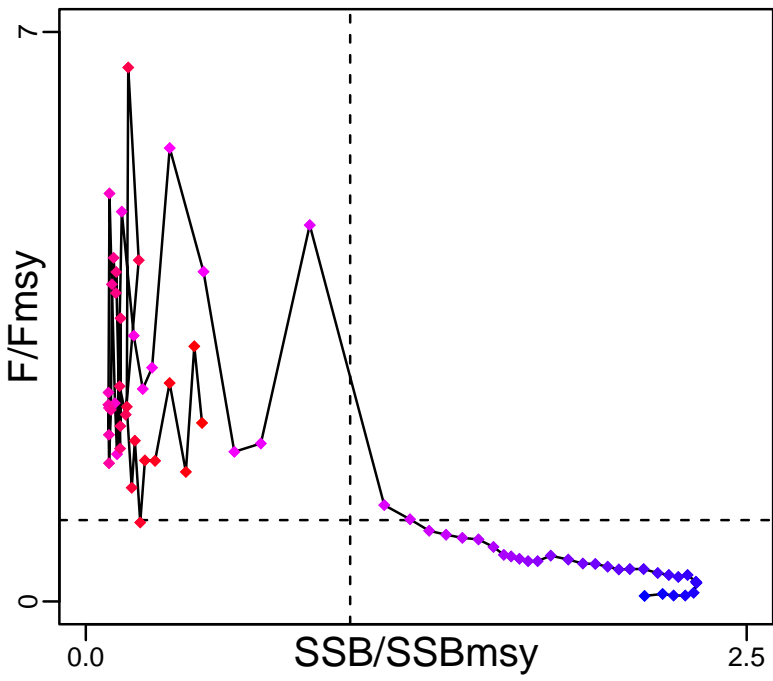
Kobe MGTpref (1949–2019–SISIMP2022)
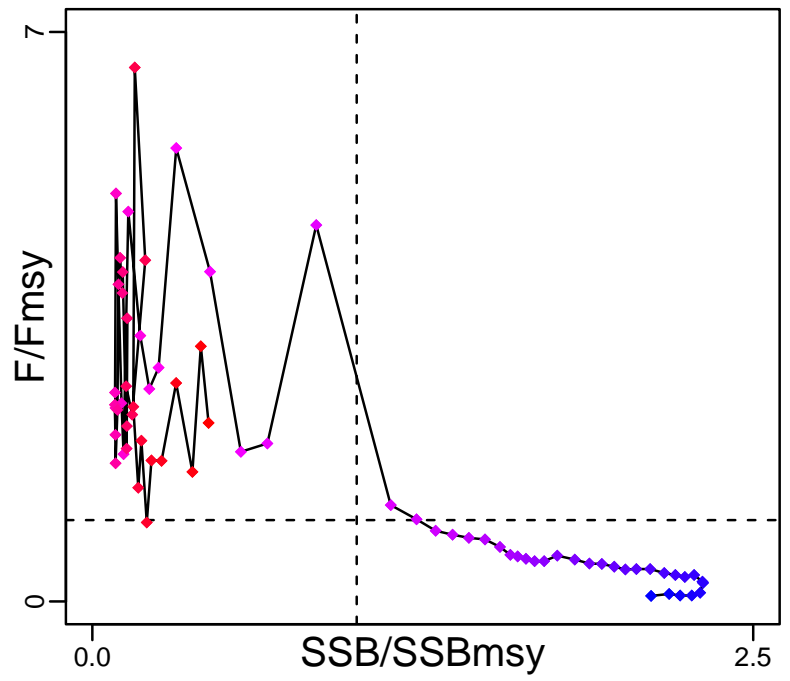
Spawner Recruit (1949–2019–SISIMP2022)
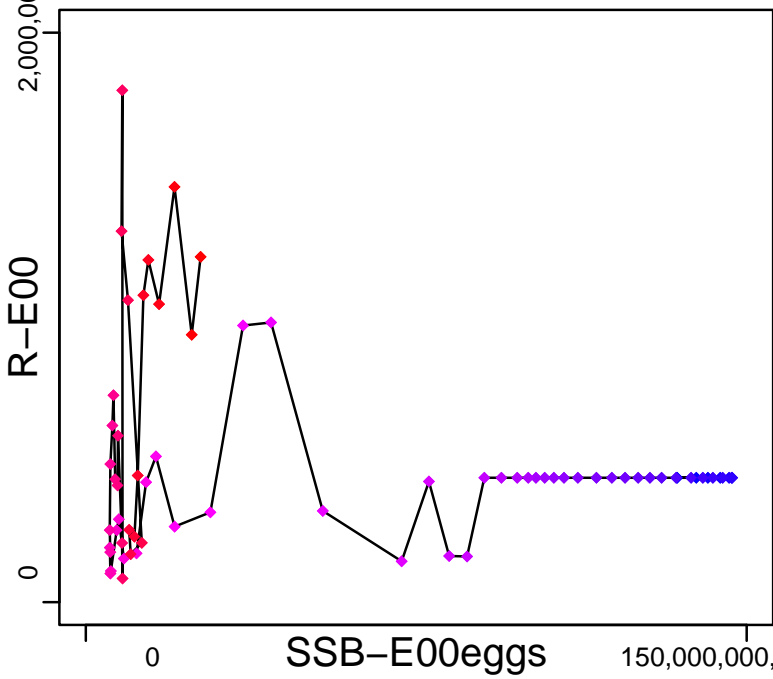
Production (1954–2010–HIVELY)

- Start Year
- End Year
- * No Data

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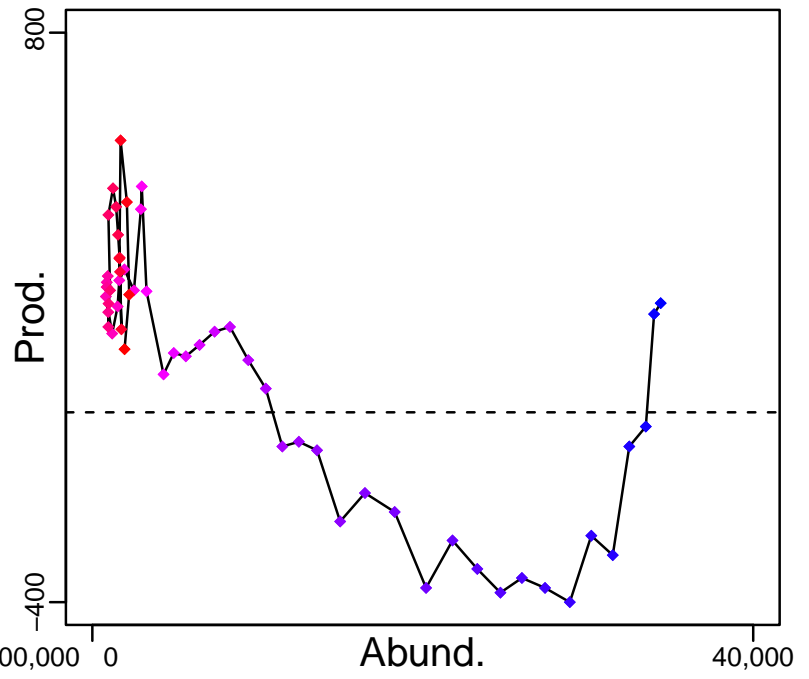
Red snapper Southern Atlantic coast [RSNAPSATLC]

TB–MT (1954–2010–HIVELY)
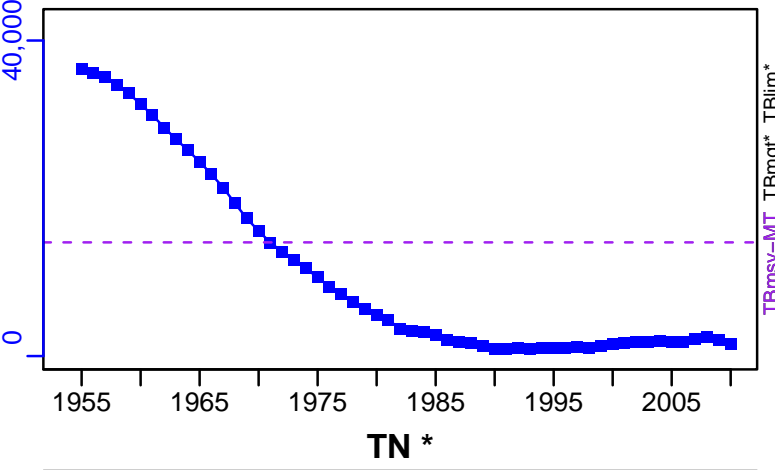
SSB–E00eggs (1949–2019–SISIMP2022)

TN *

F–1/yr (1949–2019–SISIMP2022)
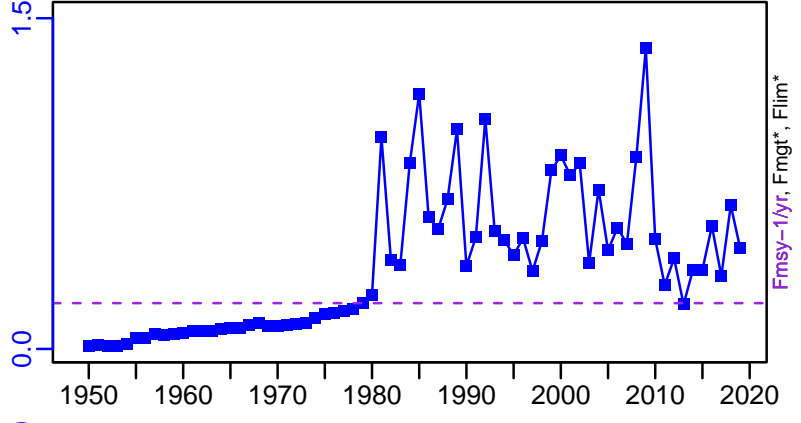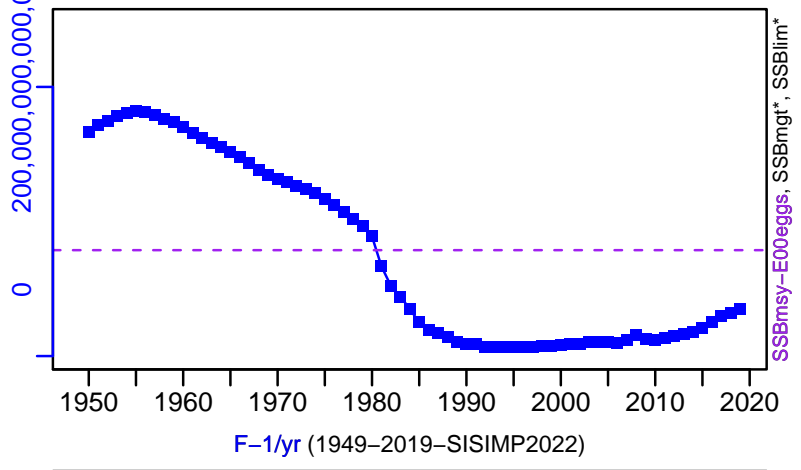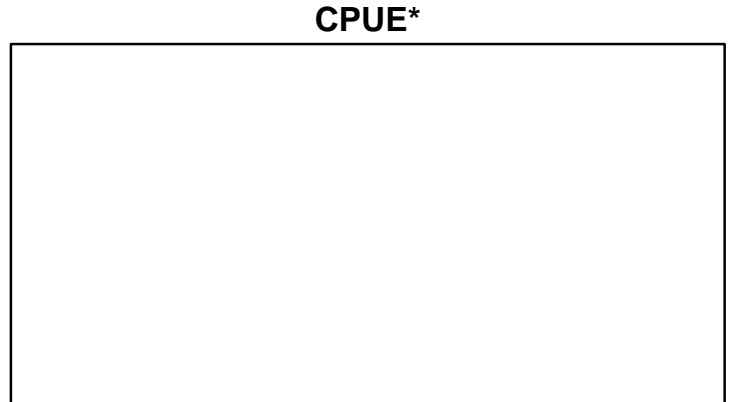
ER–calc–ratio (1954–2010–HIVELY)
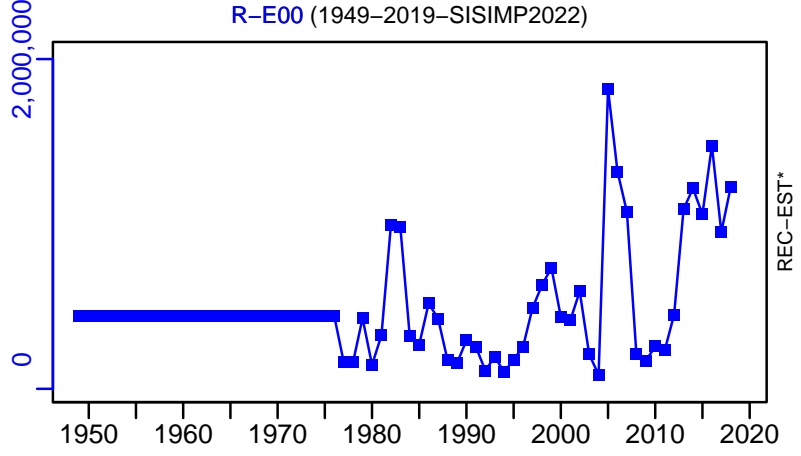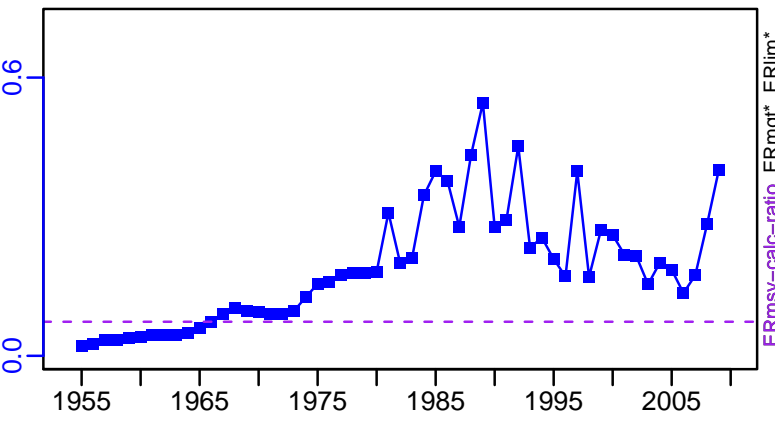
R–E00 (1949–2019–SISIMP2022)

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

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Red snapper Southern Atlantic coast [RSNAPSATLC]

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

TAC*, Cpair*, Cadv*
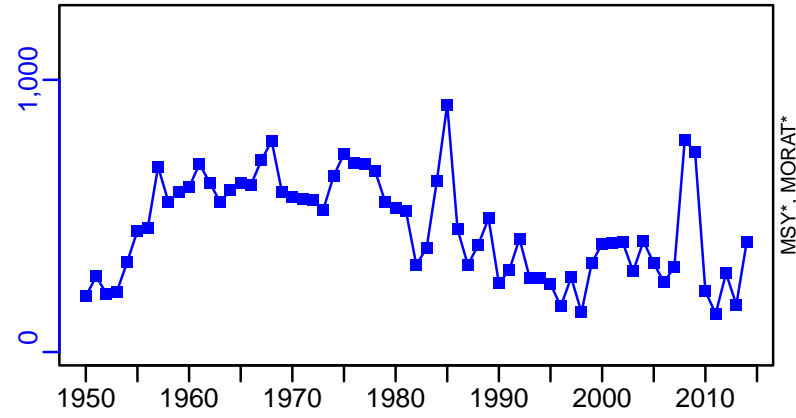
MSY*, MORAT*

survB*

CPUE*

EFFORT*

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

MSY–MT

■ 1st listed time series	▲ 3rd listed time series	—— MORAT
● 2nd listed time series	– – – MSY	* No Data
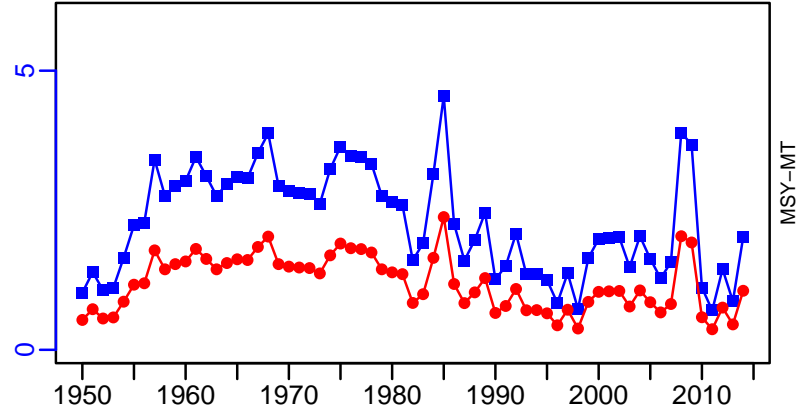
Sandbar shark Atlantic [SBARSHARATL]

Metadata	
Scientific Name	Carcharhinus plumbeus
Current Assess ID	SEFSC-SBARSHARATL-1960-2015-SISIMP2021
Area	Atlantic
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2009, 2015, 2004

Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	-	-	-
SSBmsy	SSBmsy-E00	2015	681,000
Fmsy	Fmsy-1/yr	2015	0.07
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2004	403
M	M-1/yr	2004	0.224
TBlim	-	-	-
SSBlim	SSBlim-E00	2015	595,000
Flim	Flim-1/yr	2015	0.07
ERlim	-	-	-

Time Series					
Type	**ID**	**Asmt Year**	**Curr Value**	**Sex**	**Age**
TB	TB-MT	2015	37,620	-	-
SSB	SSB-E00	2015	527,000	-	-
TN	TN-E00	2009	1,540,000	-	-
R	R-E00	2015	233,000	-	0
F	F-1/yr	2015	0.041	-	-
ER	ER-calc-ratio	2015	0.005	-	-
TC	TC-MT	2015	203		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-E00/SSBmsy-E00	2015	0.774		
F/Fmsy	F-1/yr/Fmsy-1/yr	2015	0.589		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Sandbar shark Atlantic [SBARSHARATL]

Kobe MSYpref (1960–2015–SISIMP2021)
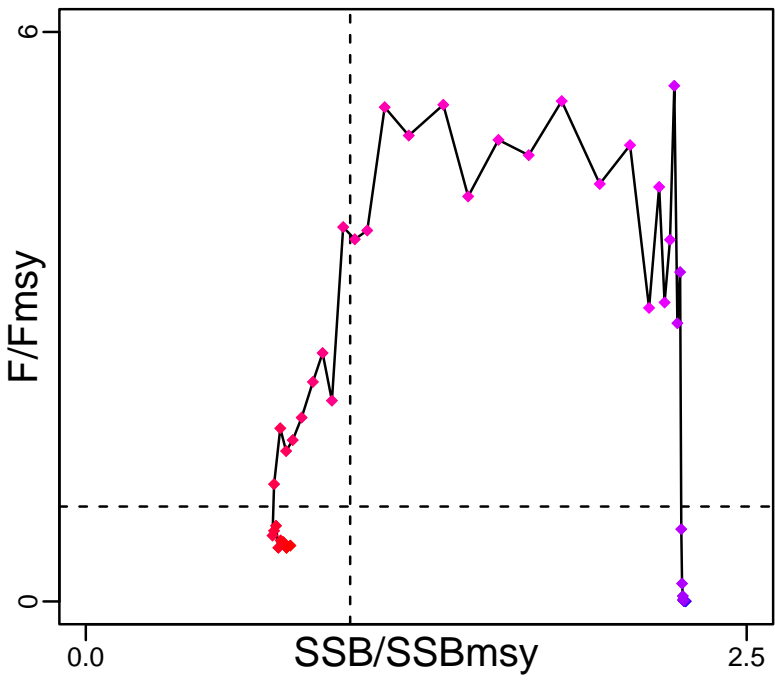
Kobe MGTpref (1960–2015–SISIMP2021)
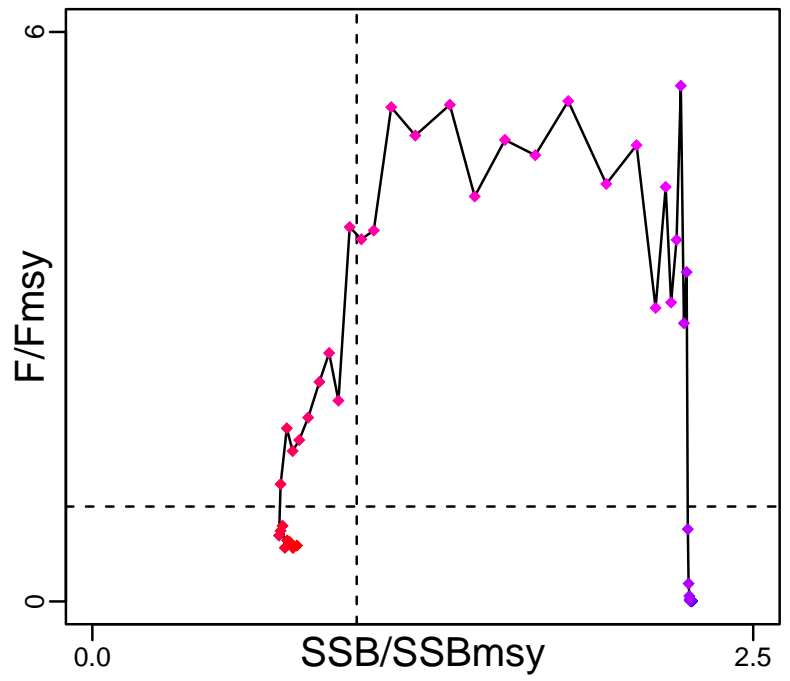
Spawner Recruit (1960–2015–SISIMP2021)
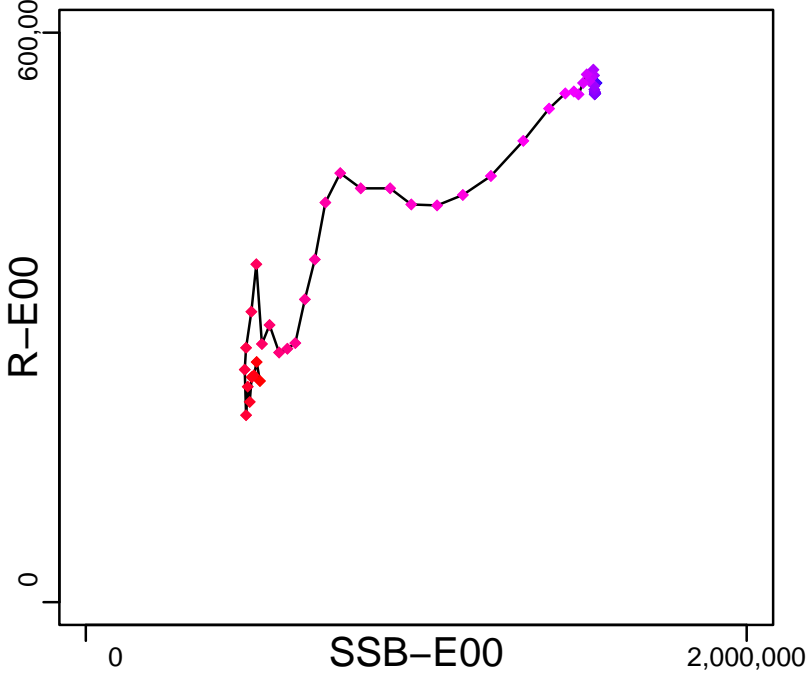
Production (1960–2015–SISIMP2021)
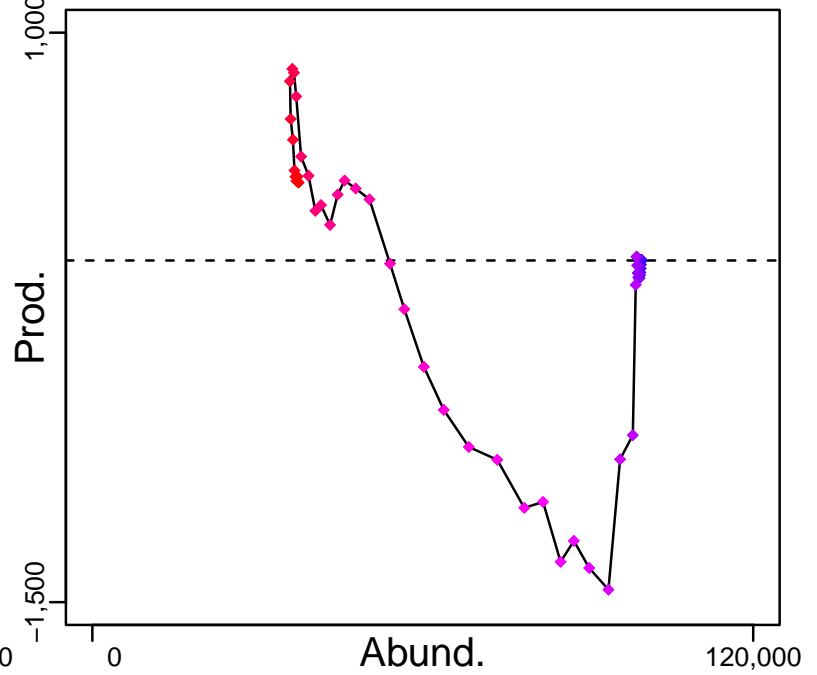
◆ Start Year   ◆ End Year   ∗ No Data

Sandbar shark Atlantic [SBARSHARATL]

Sandbar shark Atlantic [SBARSHARATL]

TC–MT, TL*, RecC* (1960–2015–SISIMP2021)

TAC*, Cpair*, Cadv*

MSY*, MORAT*

survB*

CPUE*

EFFORT*
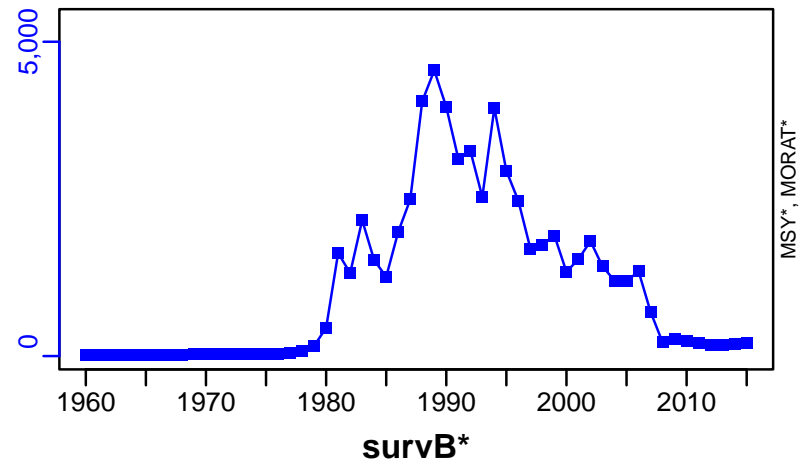
TC–MT/MSY–est–MT, CdivMEANC–ratio, (1960–2015–SISIMP2021)

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

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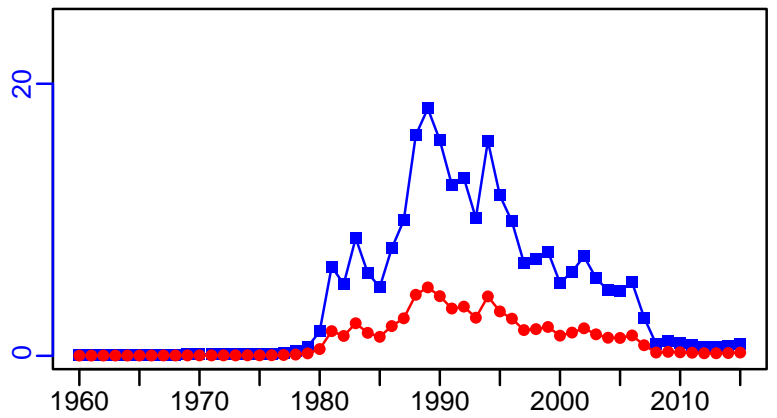
Silk snapper Caribbean [SKSNAPCARIB]

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

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	2009	38		
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

TB*

SSB*

TN *

F*

ER*

Recruits*

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

Silk snapper Caribbean [SKSNAPCARIB]
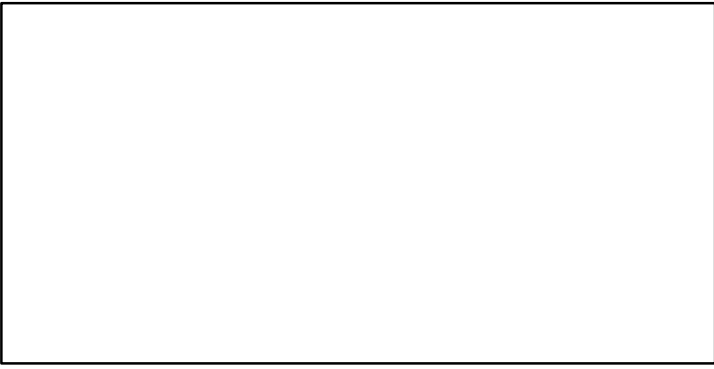
TC–MT, TL*, RecC* (1983–2009–SISIMP2016)

TAC*, Cpair*, Cadv*

survB*

CPUE*

EFFORT*

CdivMSY*

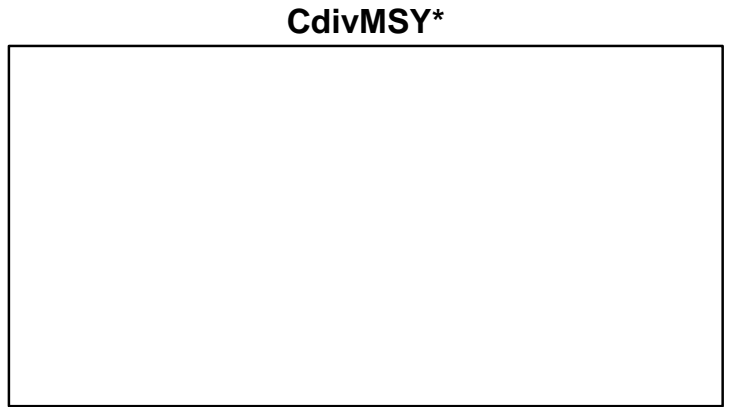|			
■ 1st listed time series	▲ 3rd listed time series	—— MORAT	
● 2nd listed time series	– – – MSY	* No Data	

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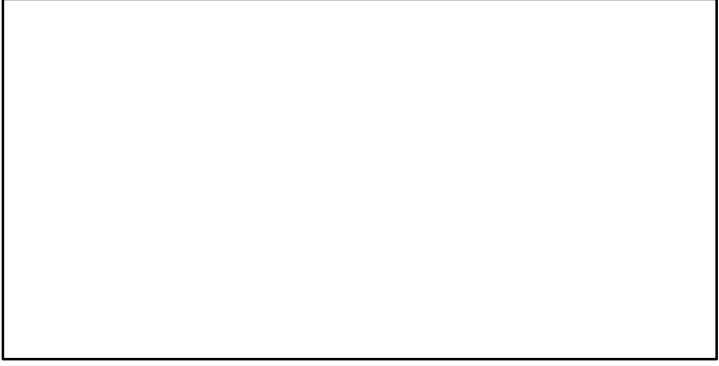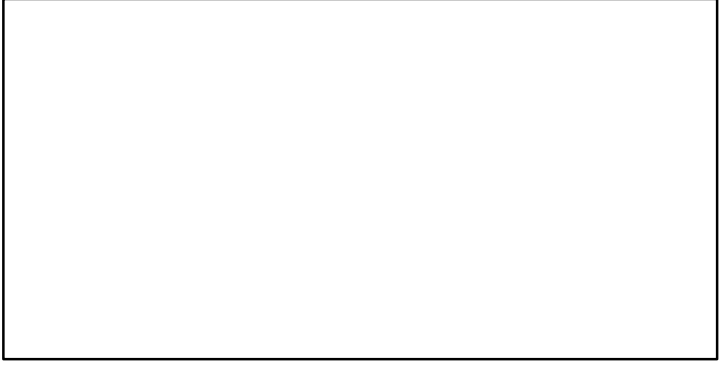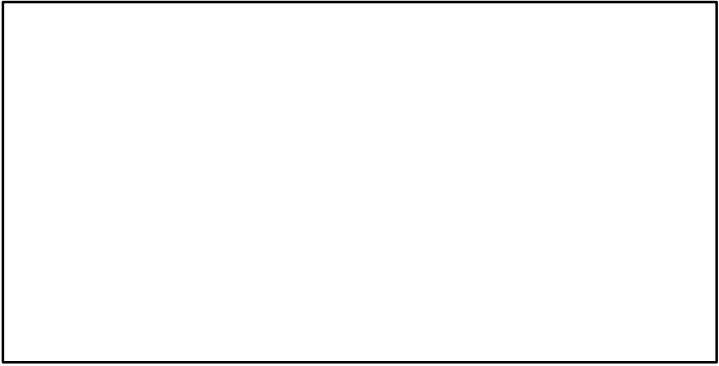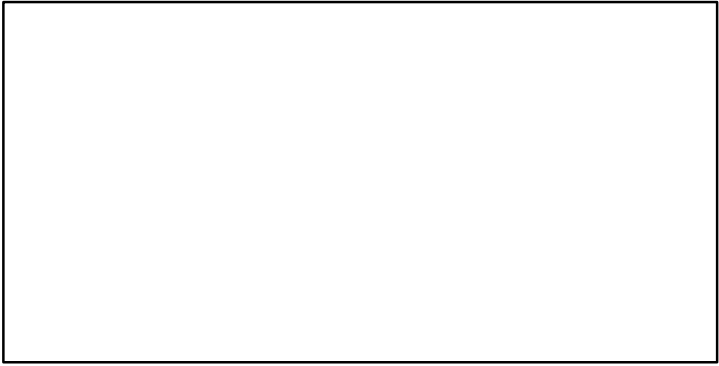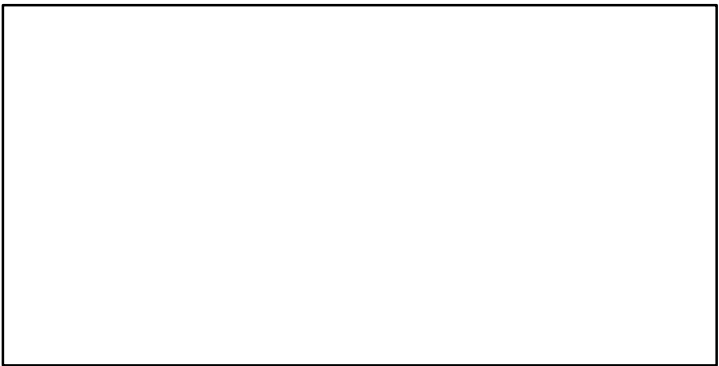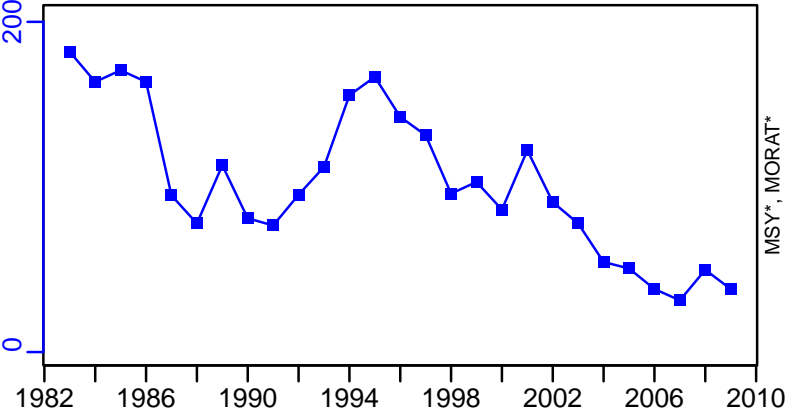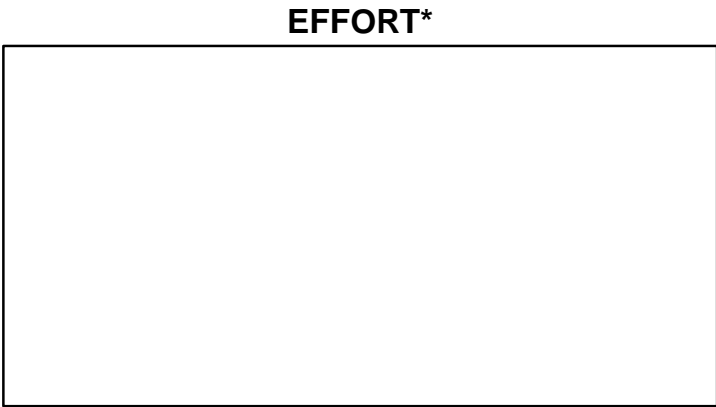
Atlantic sharpnose shark Atlantic [SNOSESHARATL]

Metadata	
Scientific Name	Rhizoprionodon terraenovae
Current Assess ID	SEFSC-SNOSESHARATL-1950-2005-FAUCONNET
Area	Atlantic
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2005

Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	-	-	-
SSBmsy	SSFmsy-E00	2005	4,590,000
Fmsy	Fmsy-1/yr	2005	0.19
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2005	1270
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	**ID**	**Asmt Year**	**Curr Value**	**Sex**	**Age**
TB	-	-	-	-	-
SSB	SSF-E00	2005	6,530,000	Females	2.5
TN	-	-	-	-	-
R	-	-	-	-	-
F	F-1/yr	2005	0.137	-	-
ER	-	-	-	-	-
TC	TC-E00	2005	534,000		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSF-E00/SSFmsy-E00	2005	1.423		
F/Fmsy	F-1/yr/Fmsy-1/yr	2005	0.721		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Atlantic sharpnose shark Atlantic [SNOSESHARATL]

Spawner Recruit*

Production*
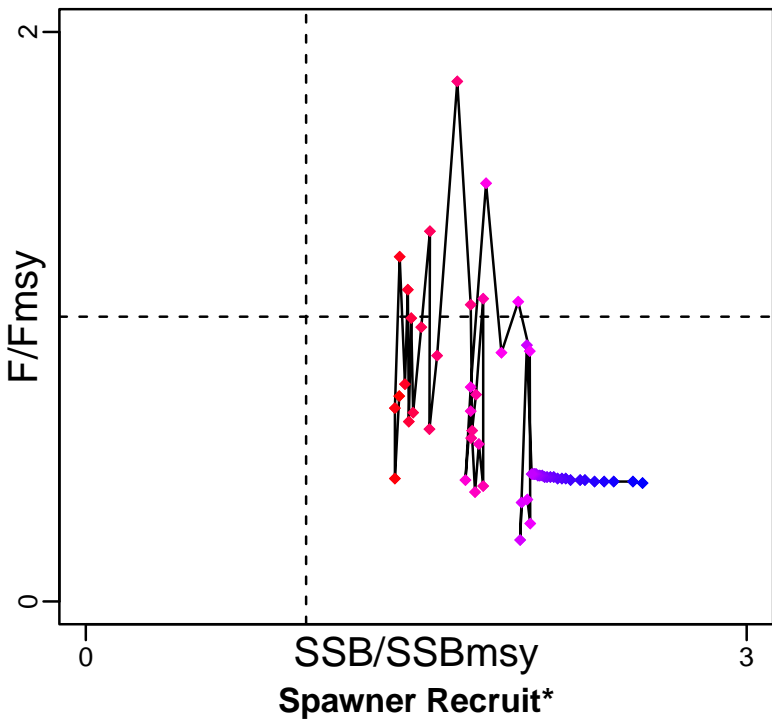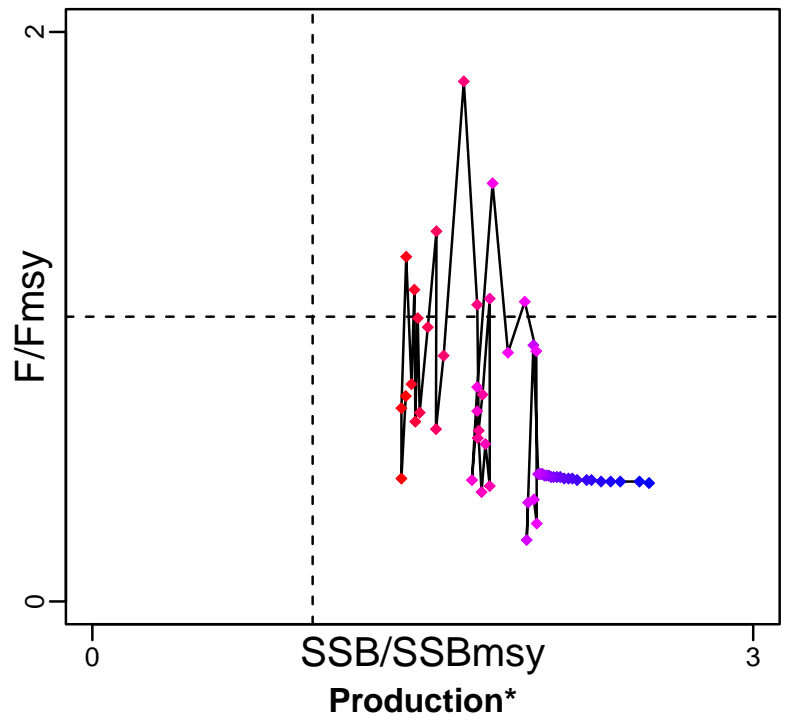
◆ Start Year ◆ End Year ∗ No Data

Atlantic sharpnose shark Atlantic [SNOSESHARATL]

TB*

SSF−E00 (1950−2005−FAUCONNET)

TN *

F−1/yr (1950−2005−FAUCONNET)

ER*

Recruits*

Legend:
- Listed time series
- MSY−based BRP
- Target BRP
- Lim BRP
- Rec−Est
- * No Data
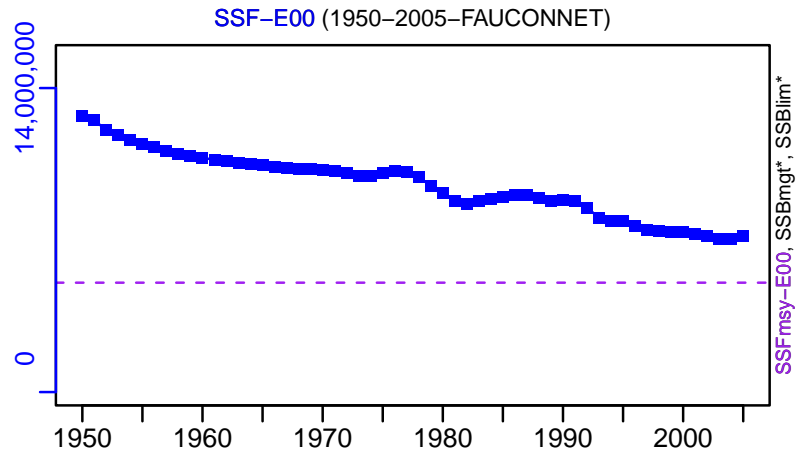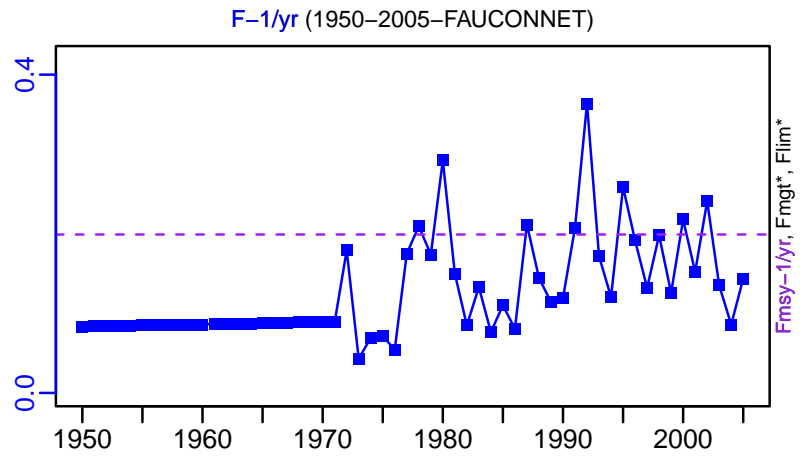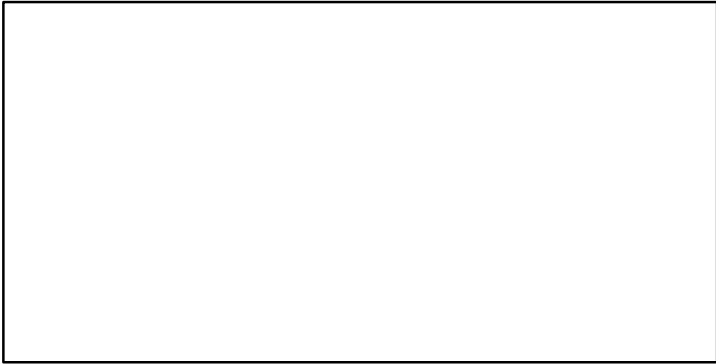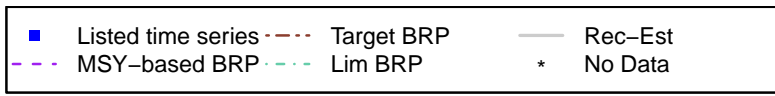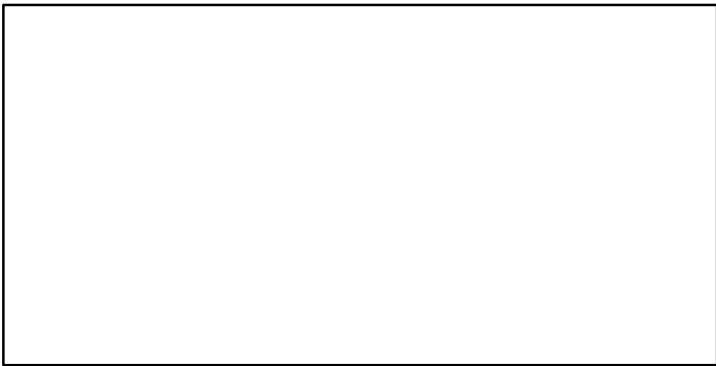
Atlantic sharpnose shark Atlantic [SNOSESHARATL]

TC−E00, TL*, RecC* (1950−2005−FAUCONNET)

MSY*, MORAT*

TAC*, Cpair*, Cadv*

survB*

CPUE*

EFFORT*

CdivMSY*

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

Snowy grouper Southern Atlantic coast [SNOWGROUPSATLC]

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

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

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

Snowy grouper Southern Atlantic coast [SNOWGROUPSATLC]

Kobe MSYpref (1974–2018–SISIMP2021–2)
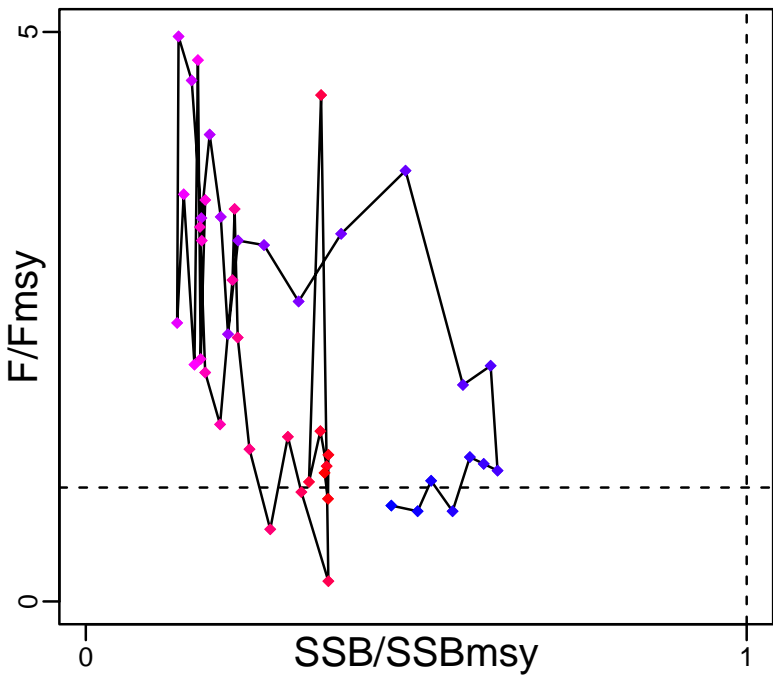
Kobe MGTpref (1974–2018–SISIMP2021–2)
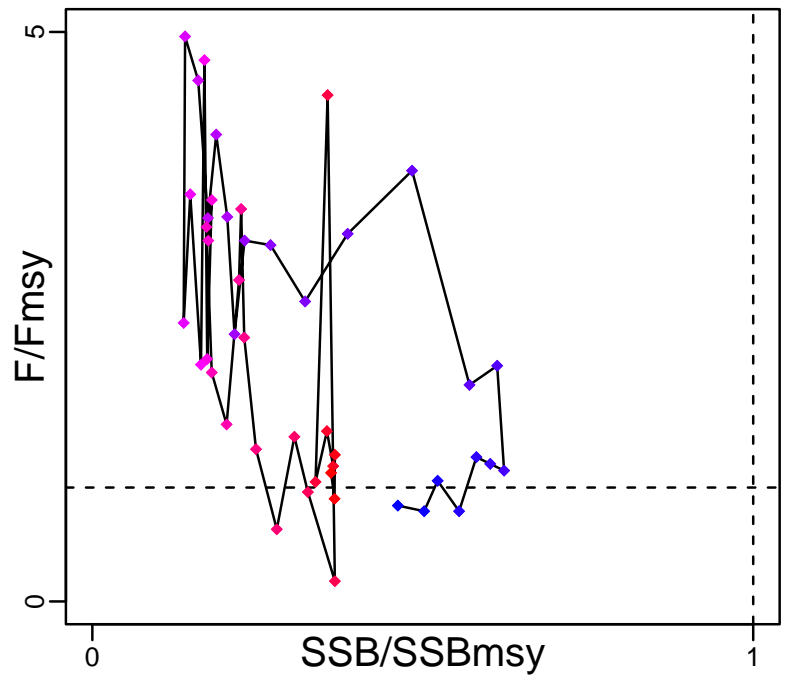
Spawner Recruit (1974–2018–SISIMP2021–2)
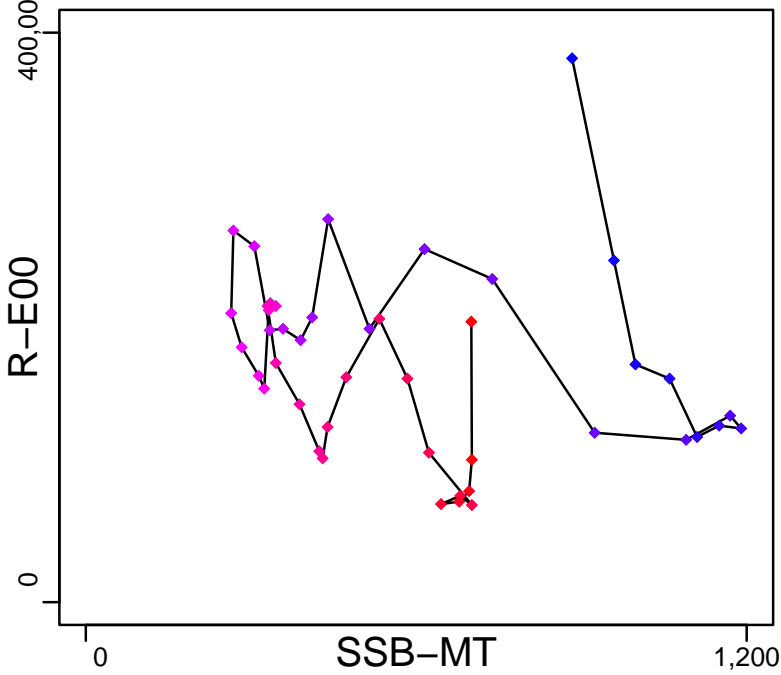
Production (1974–2018–SISIMP2021–2)

◆ Start Year ◆ End Year ＊ No Data

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Snowy grouper Southern Atlantic coast [SNOWGROUPSATLC]

Snowy grouper Southern Atlantic coast [SNOWGROUPSATLC]

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

TAC*, Cpair*, Cadv*
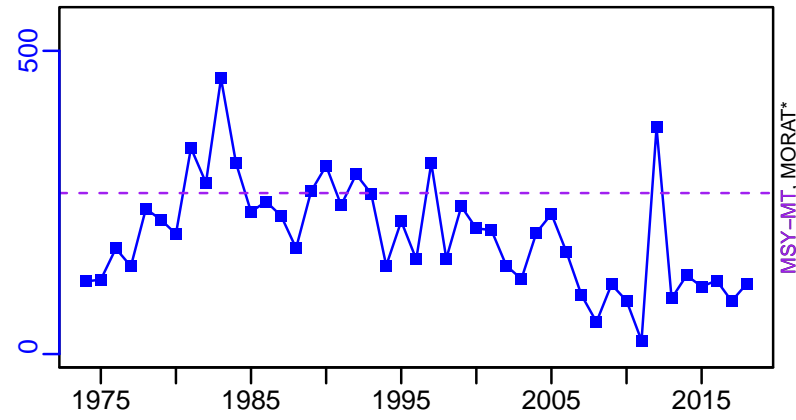
survB*

CPUE*
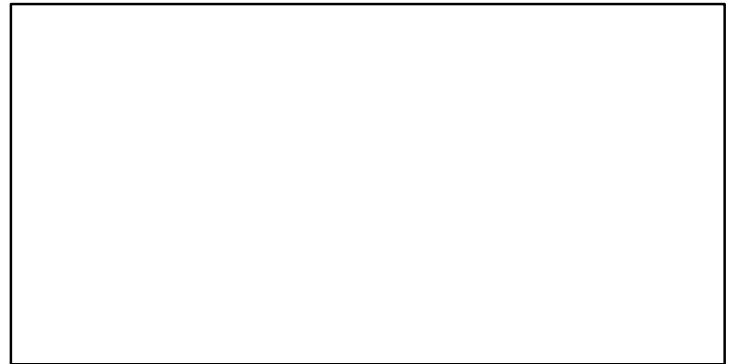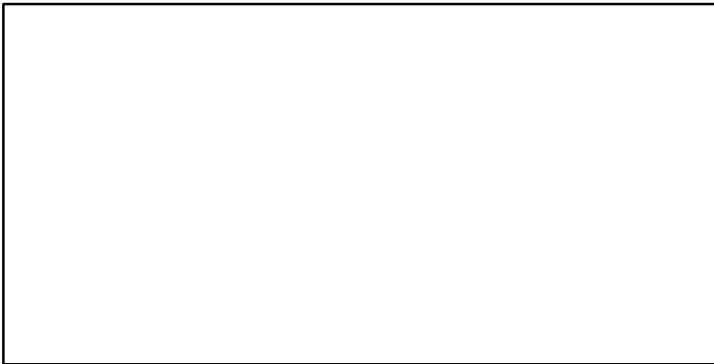
EFFORT*

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

■ 1st listed time series	▲ 3rd listed time series	—— MORAT	
● 2nd listed time series	– – MSY	* No Data	
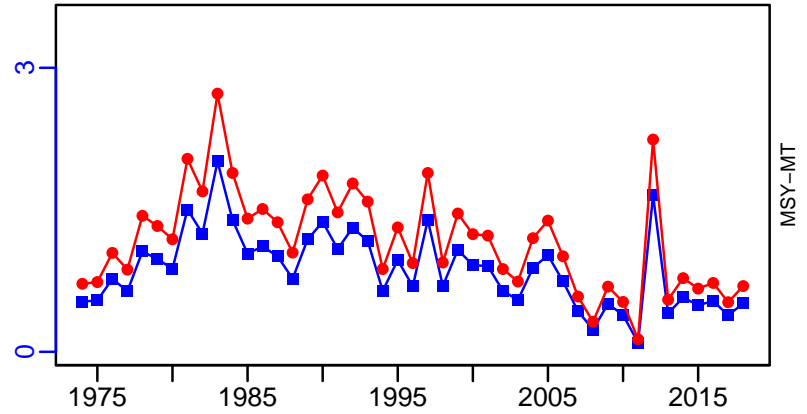
Spanish mackerel Gulf of Mexico [SPANMACKGM]

Metadata	
Scientific Name	Scomberomorus maculatus
Current Assess ID	SEFSC-SPANMACKGM-1886-2011-HIVELY
Area	Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2011

Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	-	-	-
SSBmsy	SSBmsy-pr-MT	2011	10,339
Fmsy	Fmsy-pr-1/yr	2011	0.36
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-MT	2011	28,400	-	-
SSB	SSB-MT	2011	19,000	-	0.2+
TN	-	-	-	-	-
R	R-E00	2011	31,500,000	-	-
F	F-1/yr	2011	0.12	-	-
ER	ER-calc-ratio	2011	0.023	-	-
TC	-	-	-		
TL	TL-MT	2011	567		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-pr-MT	2011	1.838		
F/Fmsy	F-1/yr/Fmsy-pr-1/yr	2011	0.333		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Spanish mackerel Gulf of Mexico [SPANMACKGM]

Kobe MSYpref (1886–2011–HIVELY)
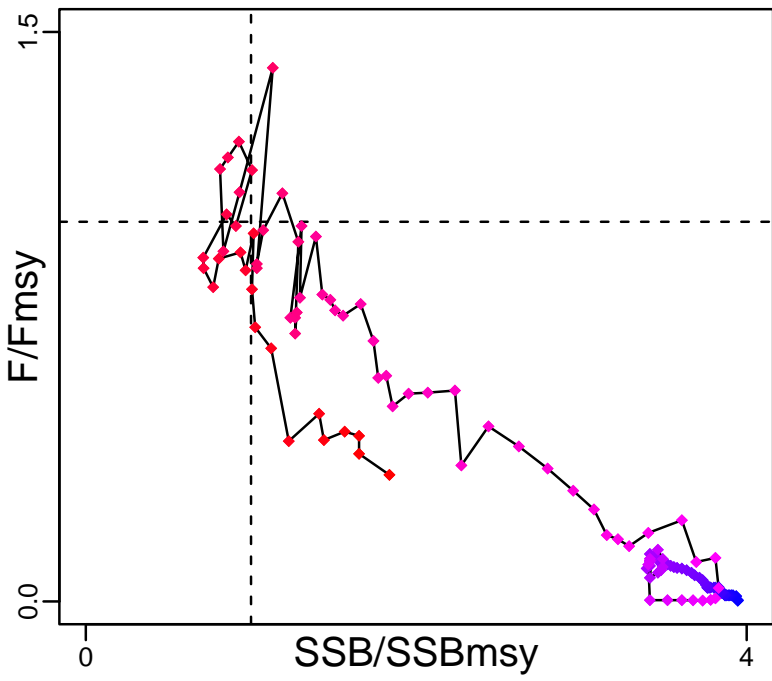
Kobe MGTpref (1886–2011–HIVELY)
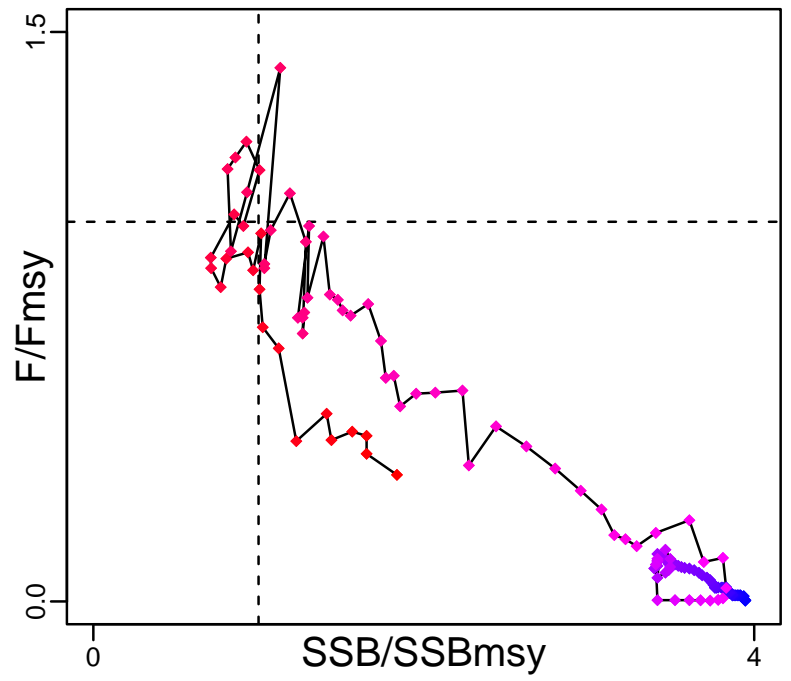
Spawner Recruit (1886–2011–HIVELY)
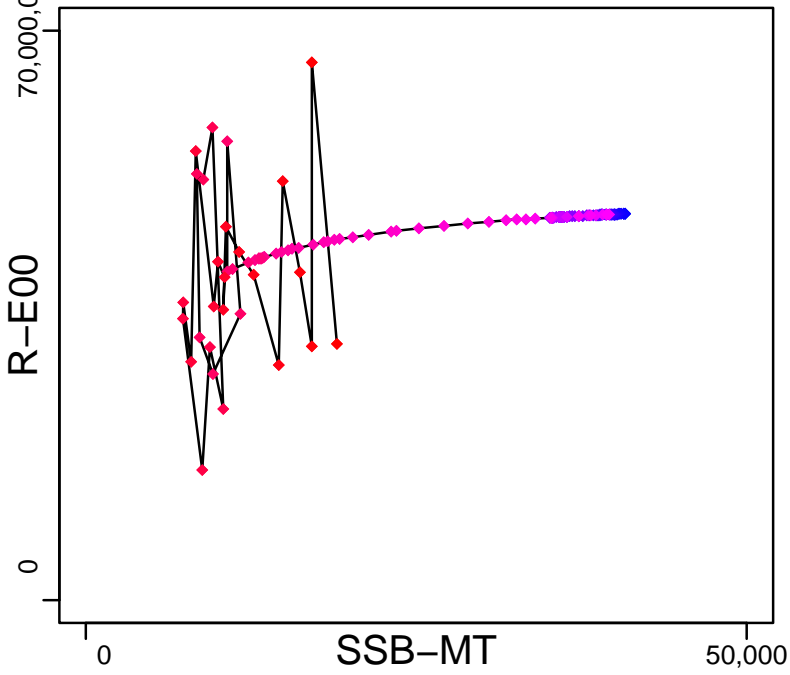
Production*
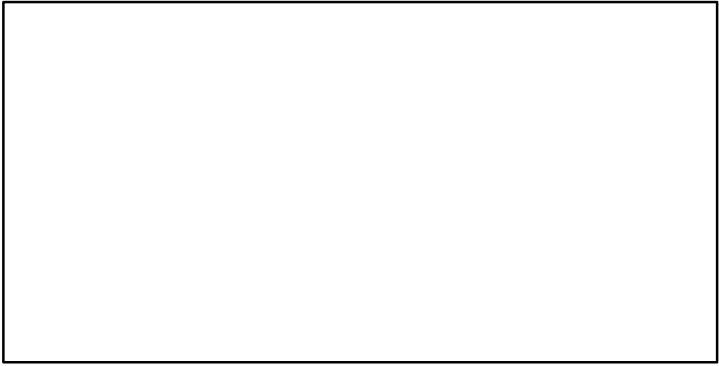
◆ Start Year ◆ End Year ∗ No Data
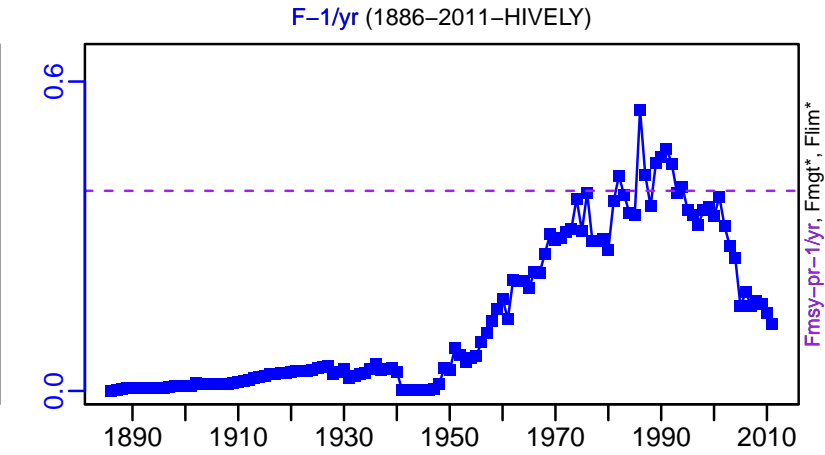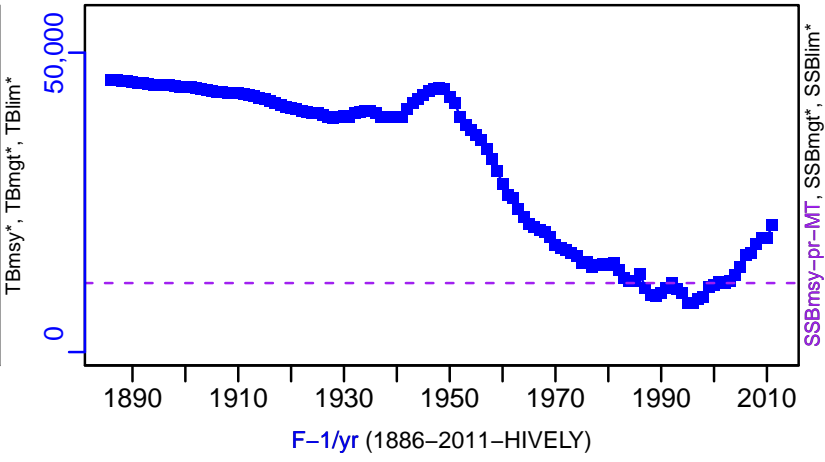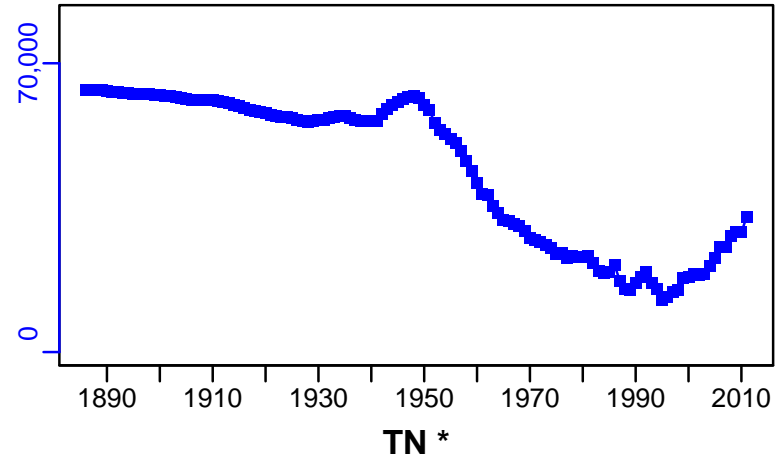
Spanish mackerel Gulf of Mexico [SPANMACKGM]
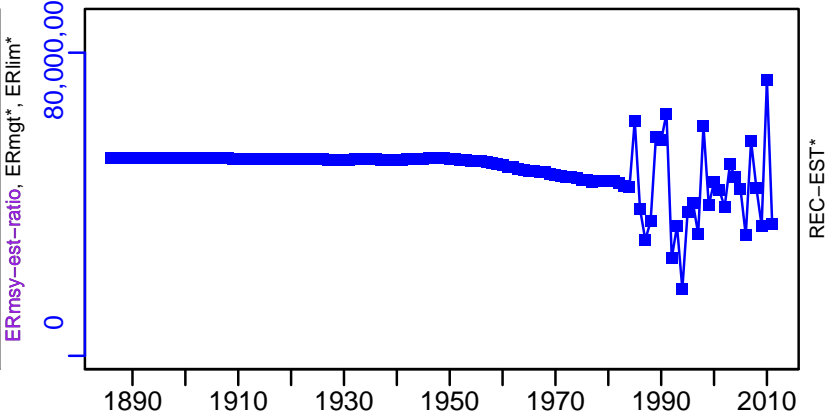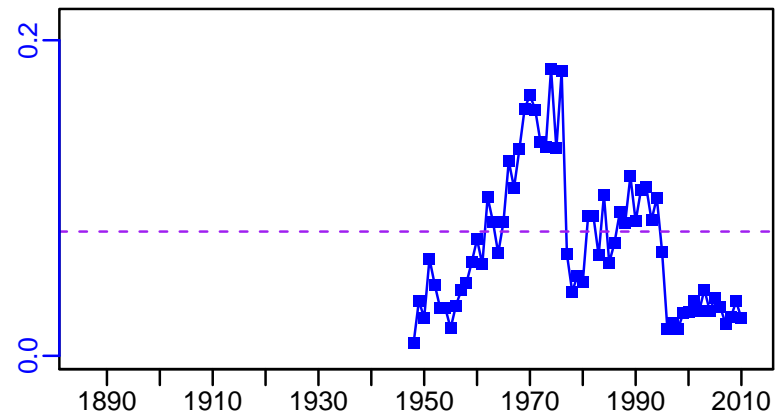
Spanish mackerel Gulf of Mexico [SPANMACKGM]

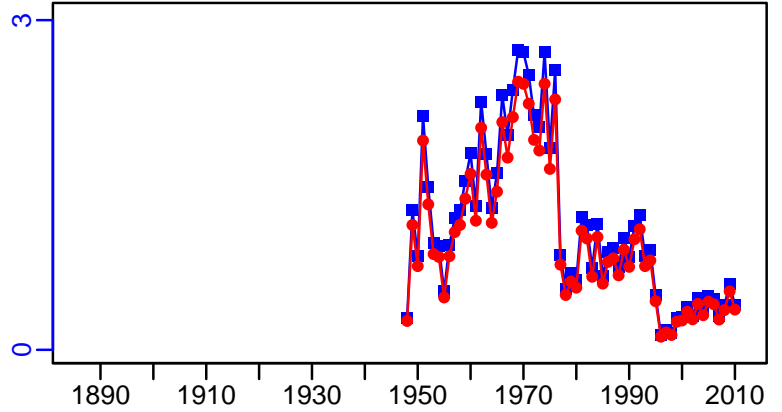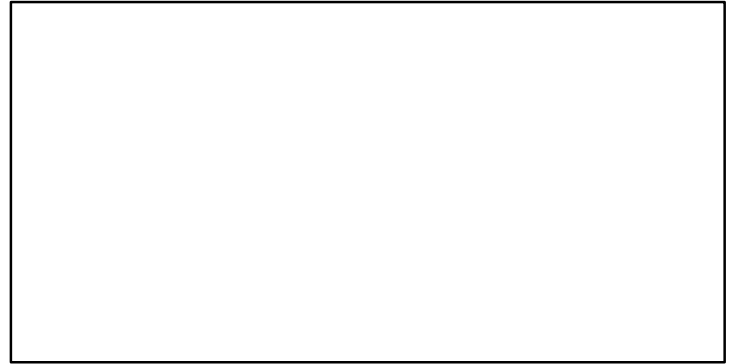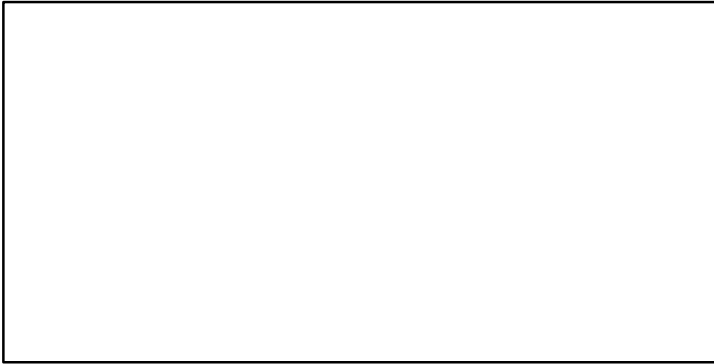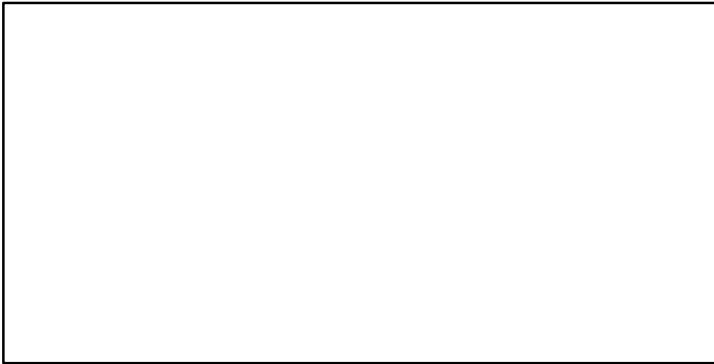## TL–MT, TC*, RecC* (1886–2011–HIVELY)

TAC*, Cpair*, Cadv*
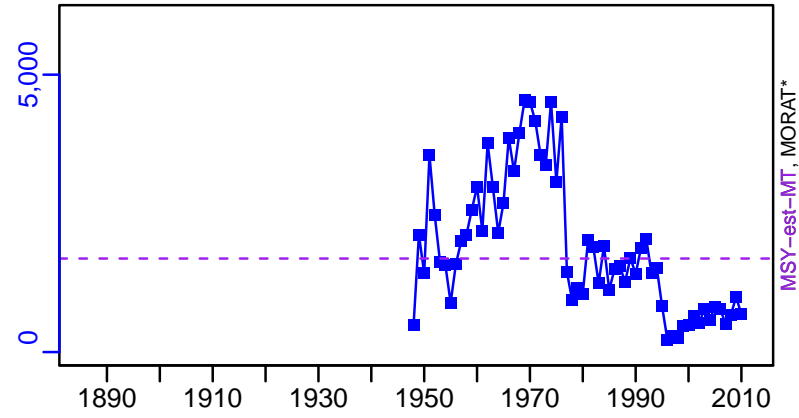
survB*

CPUE*

EFFORT*

TL–MT/MSY–est–MT, CdivMEANC–ratio, (1886–2011–HIVELY)

■ 1st listed time series	▲ 3rd listed time series	—— MORAT	
● 2nd listed time series	– – MSY	* No Data	
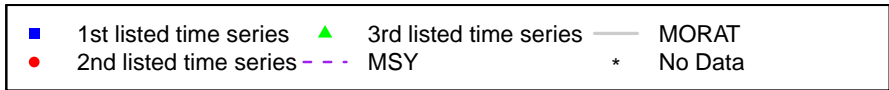
Spanish mackerel Southern Atlantic coast [SPANMACKSATLC]

Metadata	
Scientific Name	Scomberomorus maculatus
Current Assess ID	SEFSC-SPANMACKSATLC-1950-2012-HIVELY
Area	Southern Atlantic coast
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2012

Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	TBmsy-MT	2012	9548
SSBmsy	SSBmsy-MT	2012	3266
Fmsy	Fmsy-pr-1/yr	2012	0.69
ERmsy	ERmsy-calc-ratio	2012	0.288
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2012	3266
Fmgt	Fmgt-1/yr	2012	0.517
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2012	2750
M	M-1/yr	2012	0.35
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	**ID**	**Asmt Year**	**Curr Value**	**Sex**	**Age**
TB	TB-MT	2012	11,400	-	-
SSB	SSB-MT	2012	4860	Females	0.7+
TN	-	-	-	-	-
R	-	-	-	-	-
F	F-1/yr	2012	0.361	-	-
ER	ER-calc-ratio	2012	0.159	-	-
TC	-	-	-		
TL	TL-MT	2012	1920		
TB/TBmsy	TB-MT/TBmsy-MT	2012	1.194		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2012	1.488		
F/Fmsy	F-1/yr/Fmsy-pr-1/yr	2012	0.523		
ER/ERmsy	ER-calc-ratio/ERmsy-calc-ratio	2012	0.551		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2012	1.488		
F/Fmgt	F-1/yr/Fmgt-1/yr	2012	0.698		
ER/ERmgt	-	-	-		

Spanish mackerel Southern Atlantic coast [SPANMACKSATLC]

Kobe MSYpref (1950–2012–HIVELY)
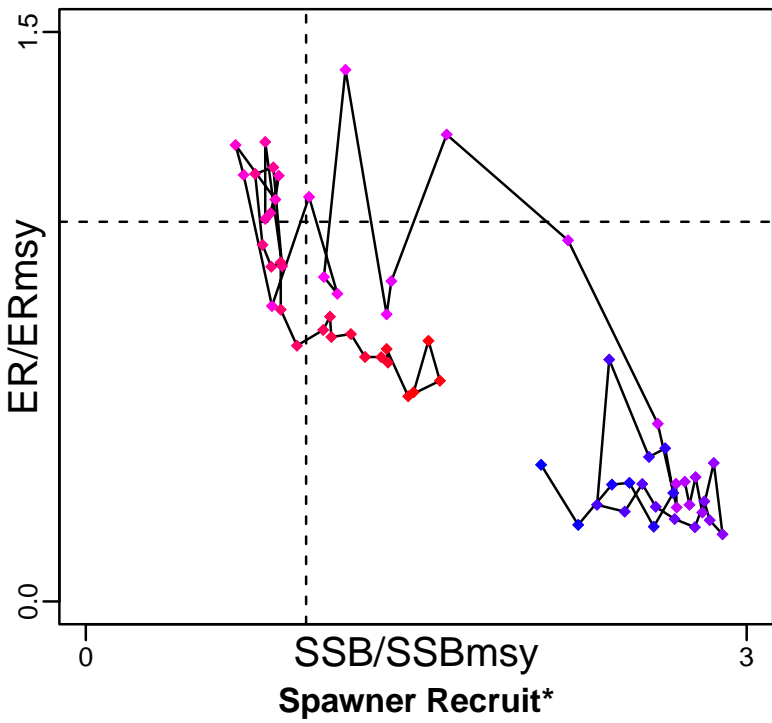
Kobe MGTpref (1950–2012–HIVELY)

Spawner Recruit*
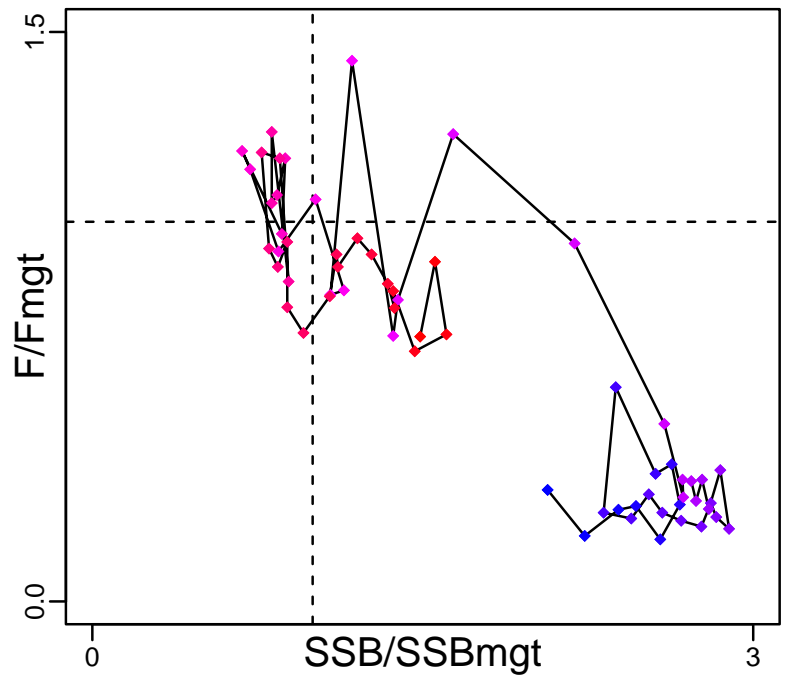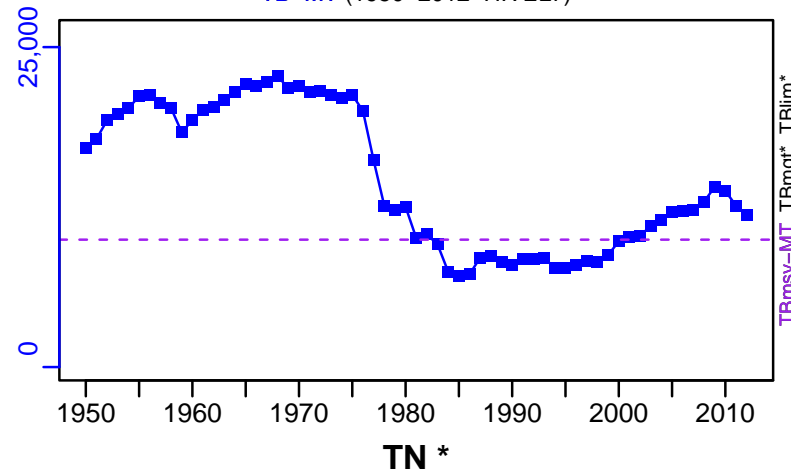
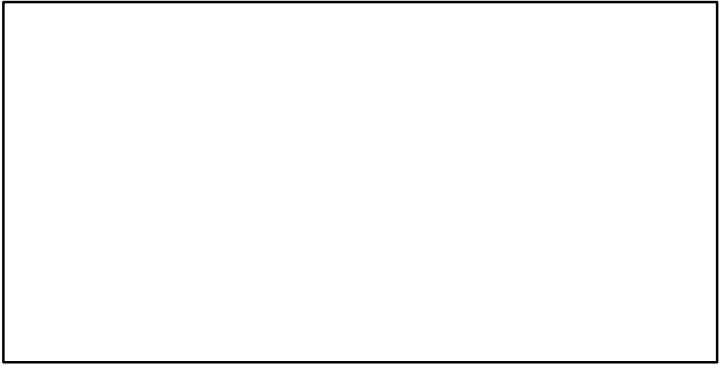Production (1950–2012–HIVELY)
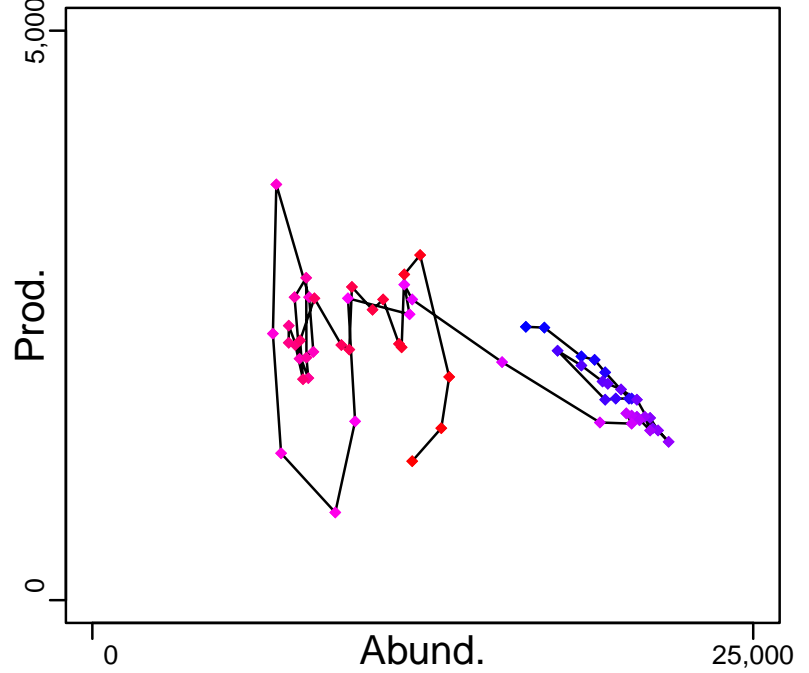
- ◆ Start Year ◆ End Year * No Data

Spanish mackerel Southern Atlantic coast [SPANMACKSATLC]

TB–MT (1950–2012–HIVELY)

SSB–MT (1950–2012–HIVELY)
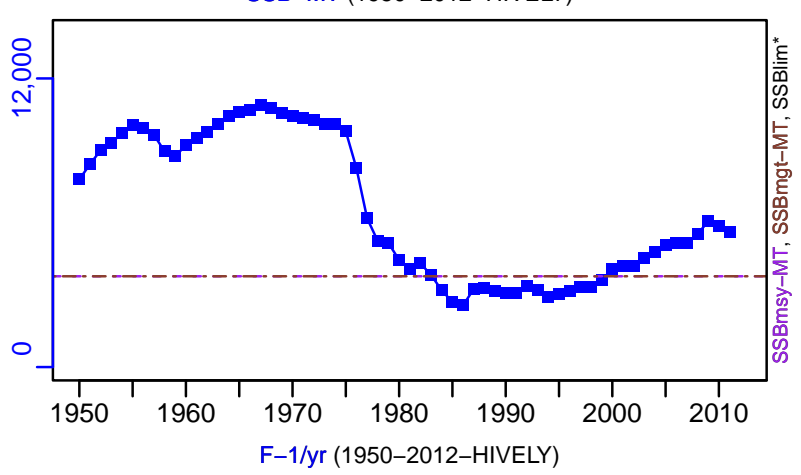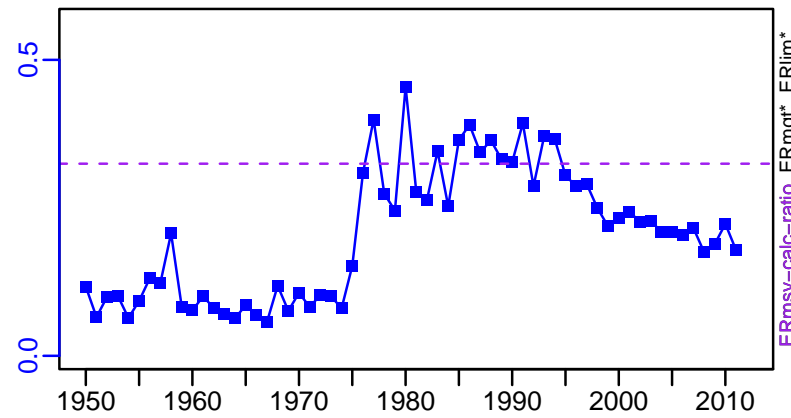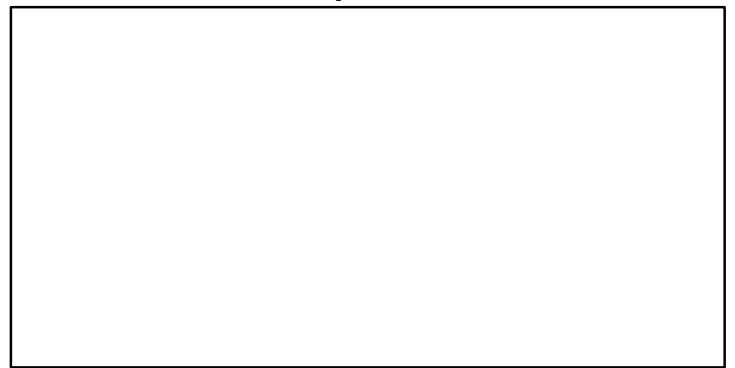
TN *

F–1/yr (1950–2012–HIVELY)
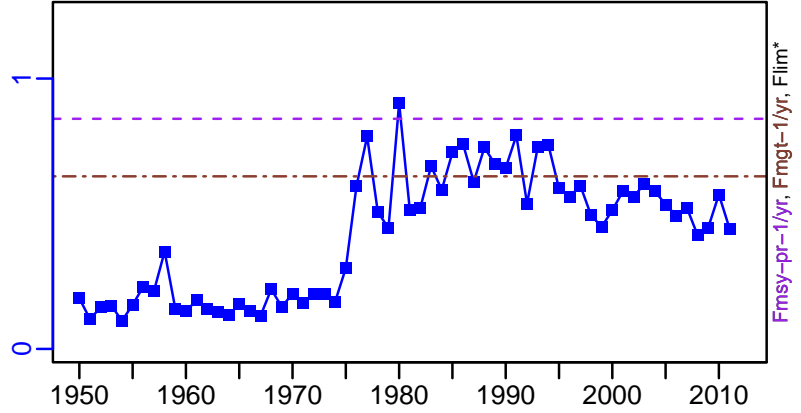
ER–calc–ratio (1950–2012–HIVELY)

Recruits*

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

Spanish mackerel Southern Atlantic coast [SPANMACKSATLC]

TL–MT, TC*, RecC* (1950–2012–HIVELY)

TAC*, Cpair*, Cadv*
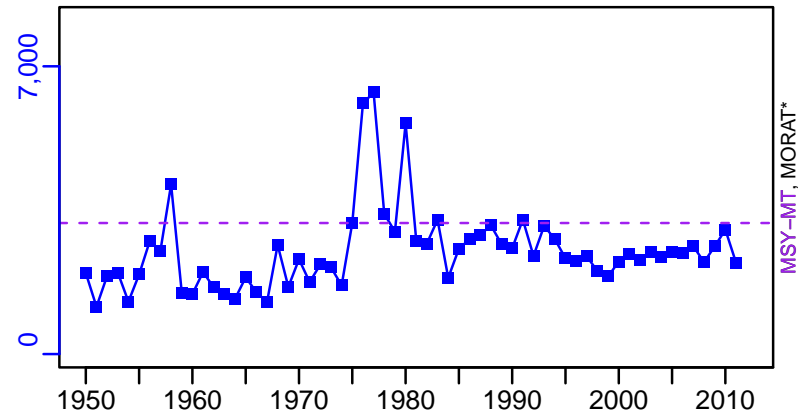
survB*

CPUE*

EFFORT*

TL–MT/MSY–MT, CdivMEANC–ratio, (1950–2012–HIVELY)

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

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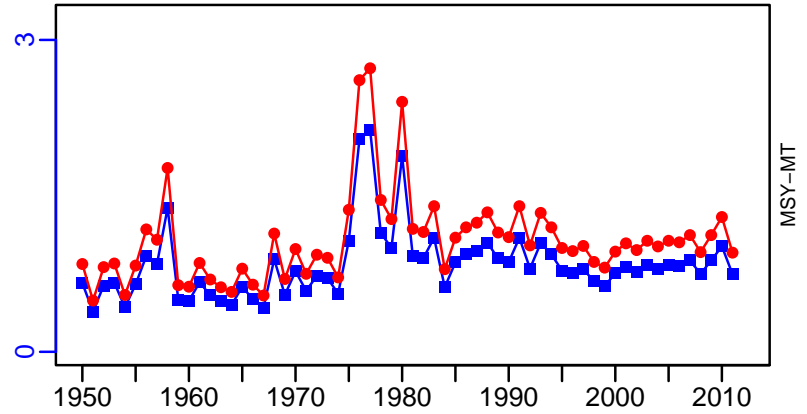
Tilefish Gulf of Mexico [TILEGM]

Metadata	
Scientific Name	Lopholatilus chamaeleonticeps
Current Assess ID	SEFSC-TILEGM-1965-2009-HIVELY
Area	Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2009

Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2009	0.13
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	**ID**	**Asmt Year**	**Curr Value**	**Sex**	**Age**
TB	TB-MT	2009	999	-	-
SSB	SSB-FemaleGonadMT	2009	17	Females	2+
TN	-	-	-	-	-
R	R-E00	2009	204,000	-	-
F	F-1/yr	2009	0.17	-	-
ER	ER-calc-ratio	2009	0.186	-	-
TC	-	-	-		
TL	TL-MT	2009	186		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Tilefish Gulf of Mexico [TILEGM]

Kobe MSYpref (1965–2009–HIVELY)
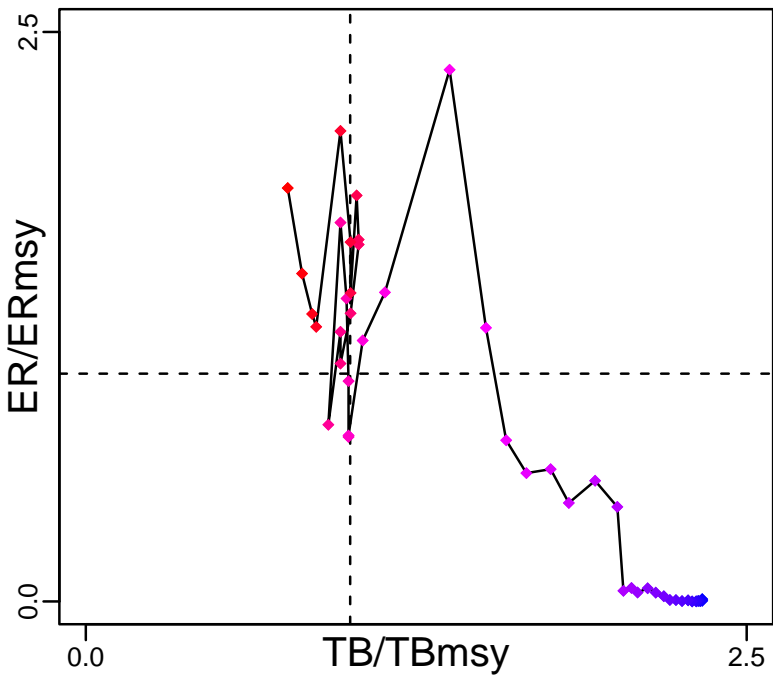
Kobe MGTpref (1965–2009–HIVELY)
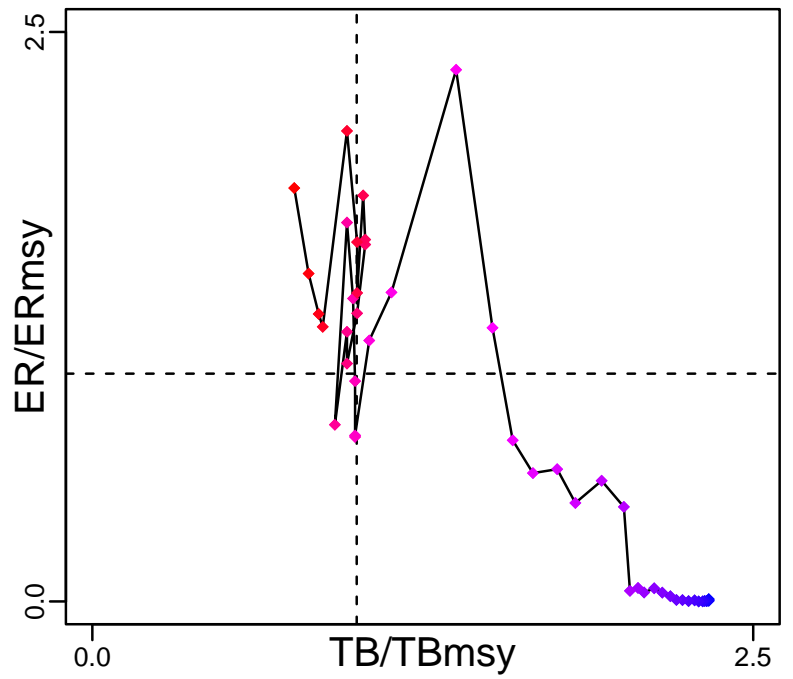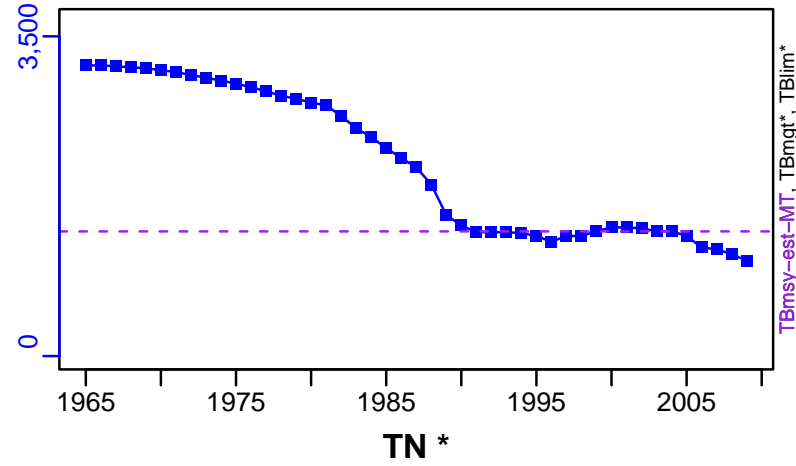
Spawner Recruit (1965–2009–HIVELY)
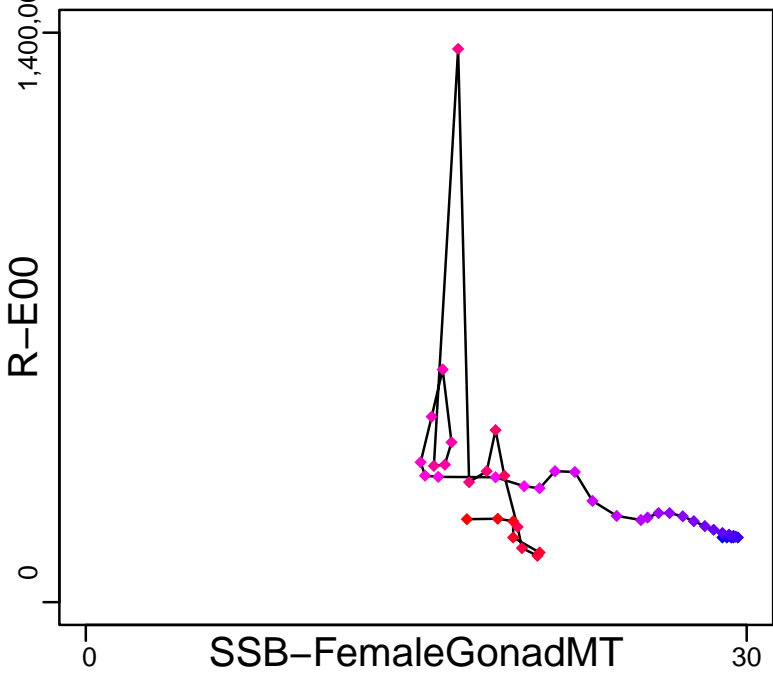
Production (1965–2009–HIVELY)
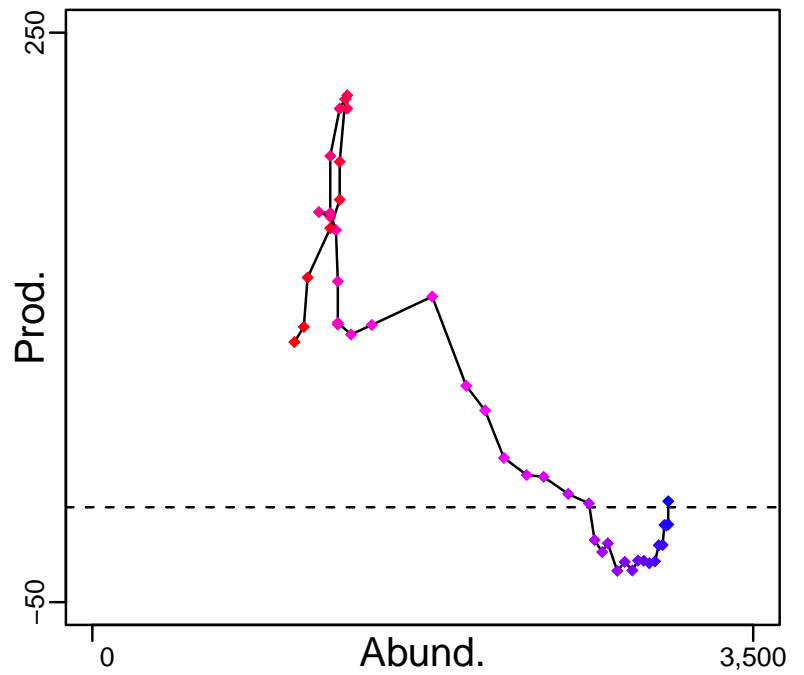
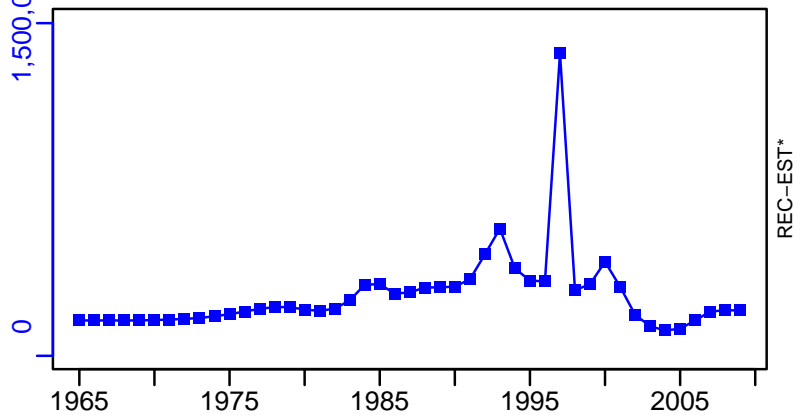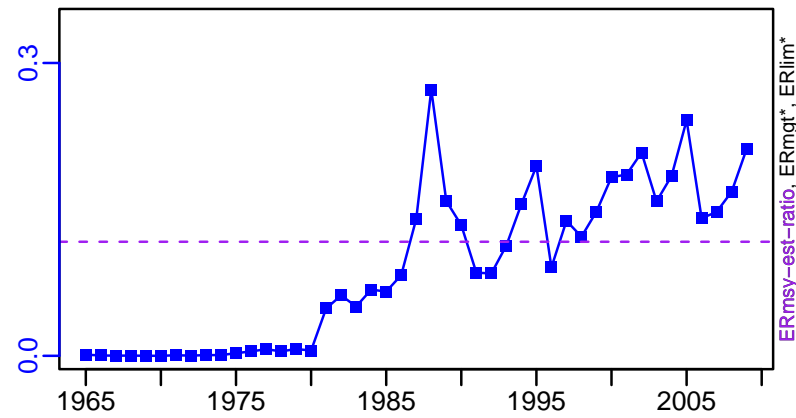♦ Start Year   ♦ End Year   * No Data

Tilefish Gulf of Mexico [TILEGM]

TB−MT (1965−2009−HIVELY)

SSB−FemaleGonadMT (1965−2009−HIVELY)

TN *

F−1/yr (1965−2009−HIVELY)
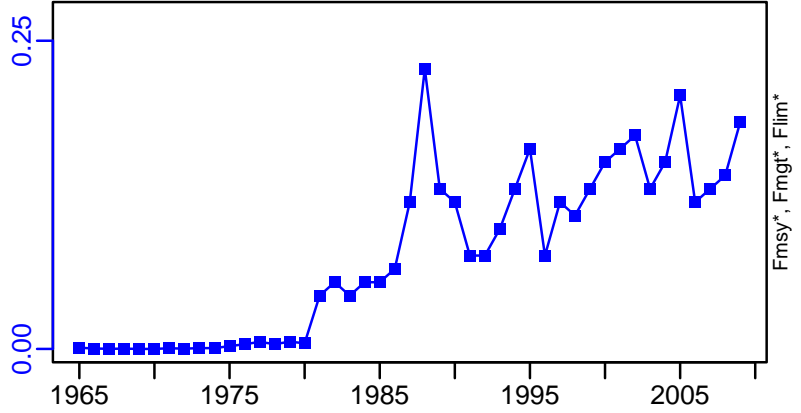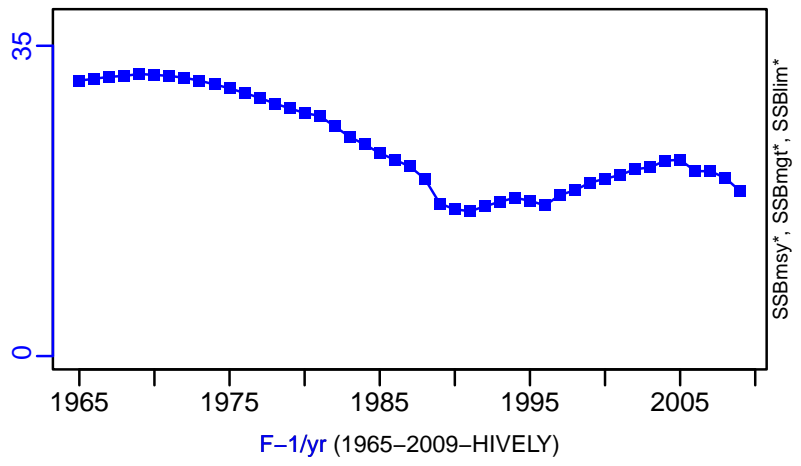
ER−calc−ratio (1965−2009−HIVELY)

R−E00 (1965−2009−HIVELY)

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

Tilefish Gulf of Mexico [TILEGM]

TL−MT, TC*, RecC* (1965−2009−HIVELY)

TAC*, Cpair*, Cadv*
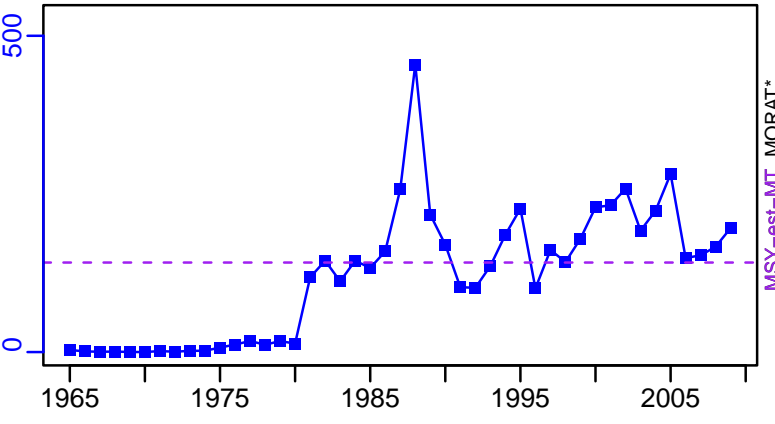
survB*
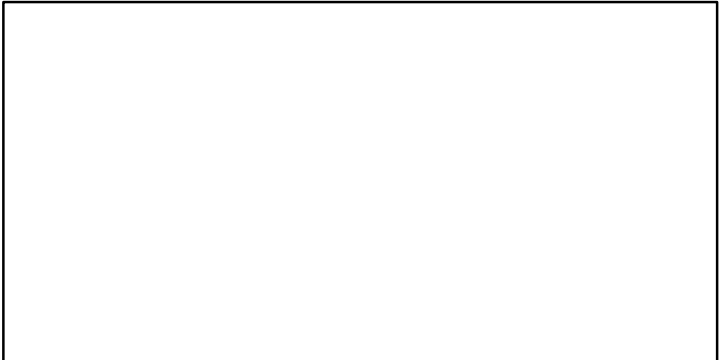
CPUE*

EFFORT*

TL−MT/MSY−est−MT, CdivMEANC−ratio, (1965−2009−HIVELY)

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

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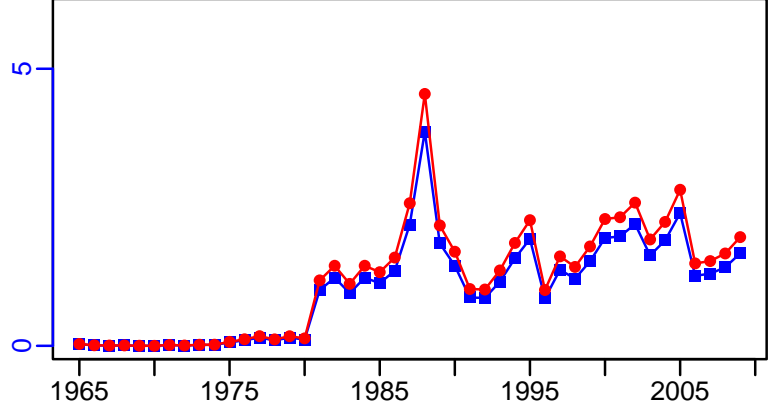
Tilefish Southern Atlantic coast [TILESATLC]

Metadata	
Scientific Name	Lopholatilus chamaeleonticeps
Current Assess ID	SEFSC-TILESATLC-1972-2018-SISIMP2021-2
Area	Southern Atlantic coast
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2011, 2014, 2018

Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	TBmsy-MT	2011	2918
SSBmsy	SSBmsy-FemaleGonadMT	2018	20
Fmsy	Fmsy-1/yr	2018	0.282
ERmsy	ERmsy-calc-ratio	2011	0.099
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2018	246
M	M-1/yr	2011	0.1
TBlim	-	-	-
SSBlim	SSBlim-FemaleGonadMT	2018	15
Flim	Flim-1/yr	2018	0.282
ERlim	-	-	-

Time Series					
Type	**ID**	**Asmt Year**	**Curr Value**	**Sex**	**Age**
TB	TB-MT	2011	5240	-	-
SSB	SSB-FemaleGonadMT	2018	18	-	-
TN	-	-	-	-	-
R	R-E00	2018	308,000	-	1
F	F-1/yr	2018	0.267	-	-
ER	ER-calc-ratio	2011	0.052	-	-
TC	TC-MT	2018	153		
TL	TL-MT	2011	275		
TB/TBmsy	TB-MT/TBmsy-MT	2011	1.796		
SSB/SSBmsy	SSB-FemaleGonadMT/SSBmsy-FemaleGonadMT	2018	0.93		
F/Fmsy	F-1/yr/Fmsy-1/yr	2018	0.947		
ER/ERmsy	ER-calc-ratio/ERmsy-calc-ratio	2011	0.526		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Tilefish Southern Atlantic coast [TILESATLC]

Kobe MSYpref (1972–2018–SISIMP2021–2)
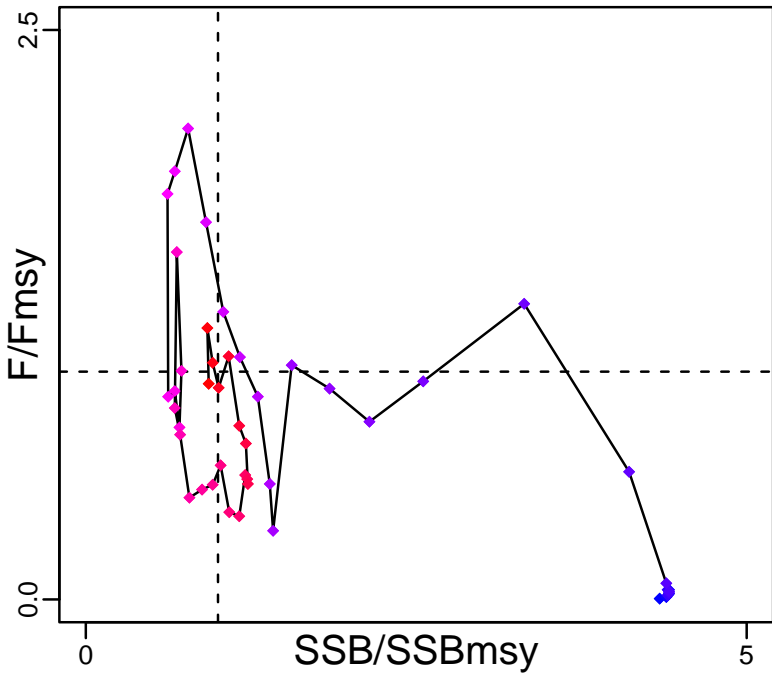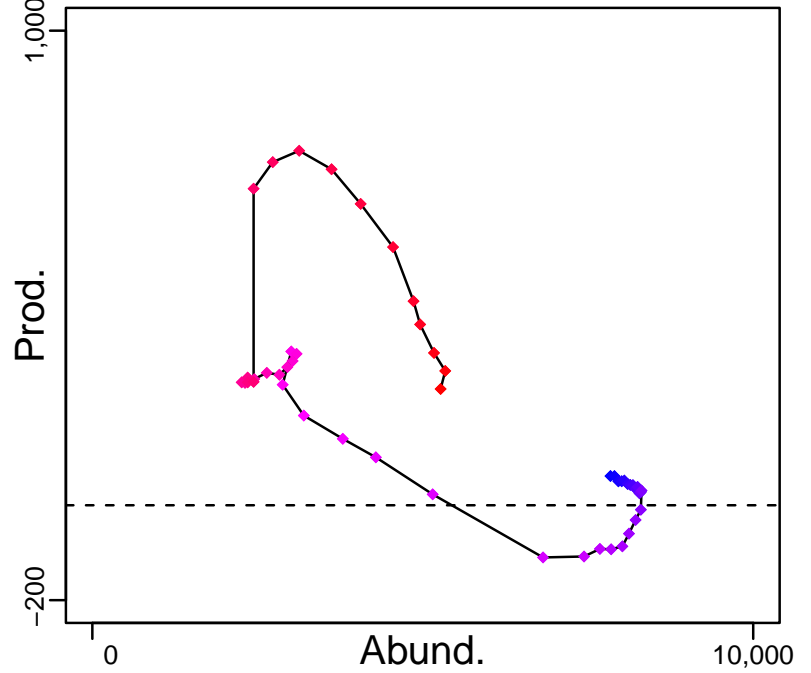

Kobe MGTpref (1972–2018–SISIMP2021–2)
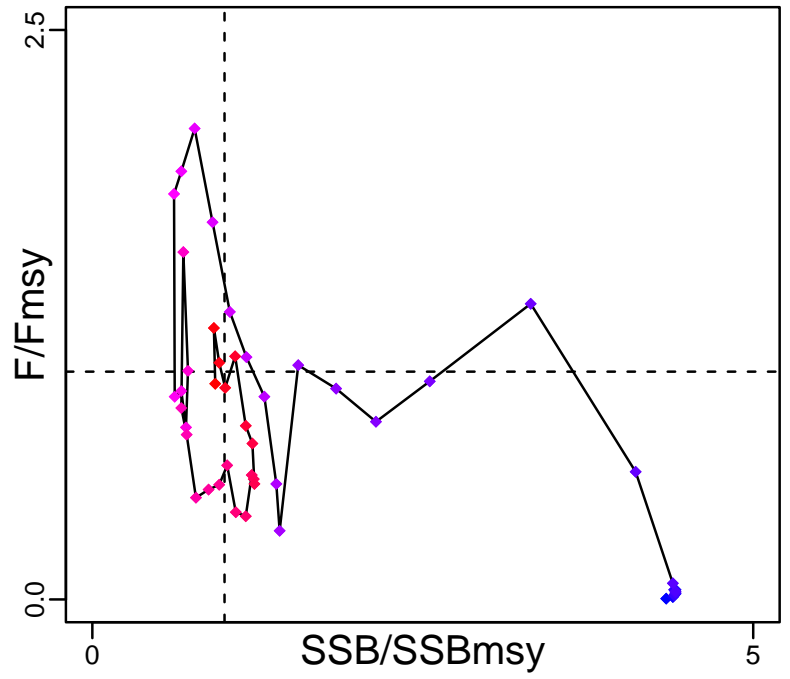
Spawner Recruit (1972–2018–SISIMP2021–2)
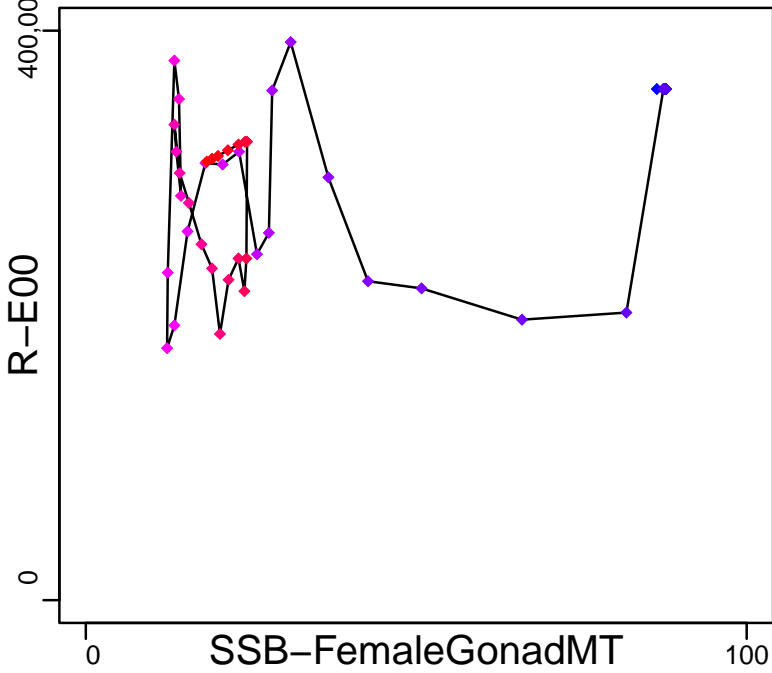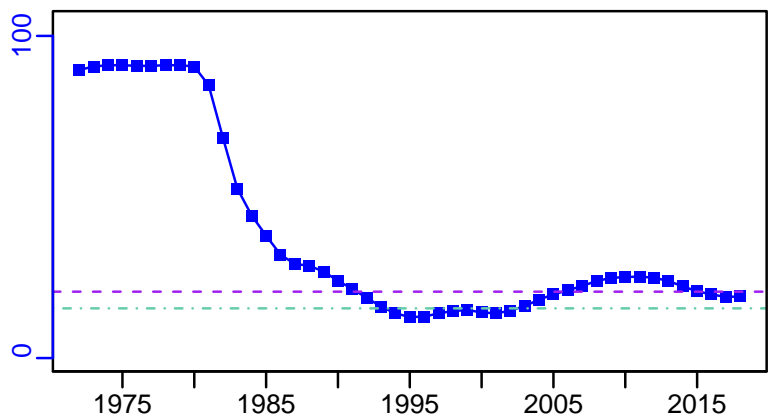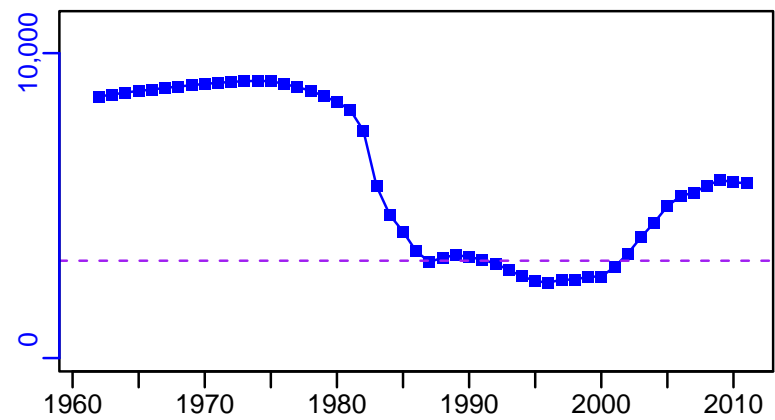

Production (1961–2011–HIVELY)

◆ Start Year   ◆ End Year   * No Data
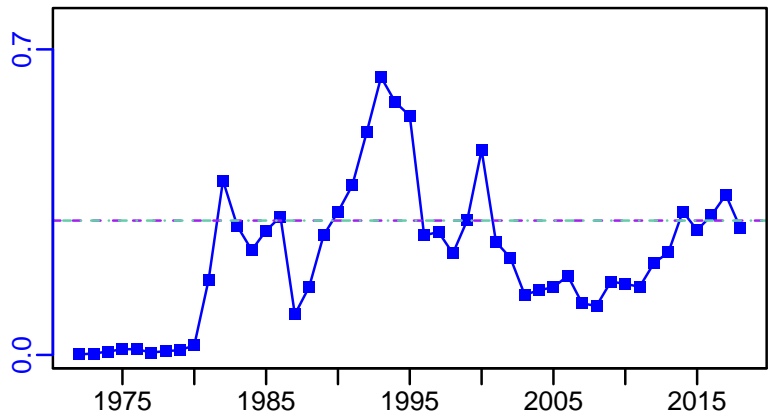
Tilefish Southern Atlantic coast [TILESATLC]
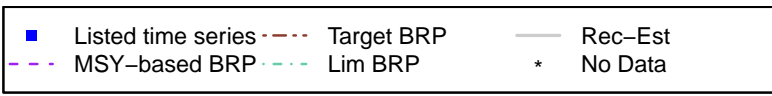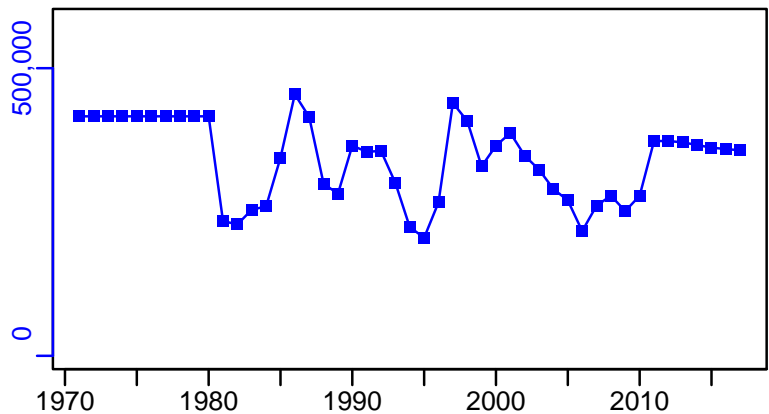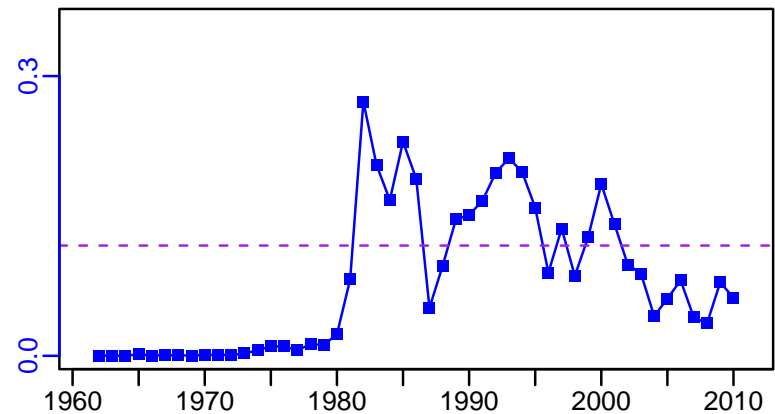
Tilefish Southern Atlantic coast [TILESATLC]

TC–MT, TL*, RecC* (1972–2018–SISIMP2021–2)

TAC*, Cpair*, Cadv*

survB*

CPUE*

EFFORT*

TC–MT/MSY–MT, CdivMEANC–ratio, (1972–2018–SISIMP2021–2)

■	1st listed time series	▲ 3rd listed time series	—— MORAT
●	2nd listed time series	– – MSY	* No Data
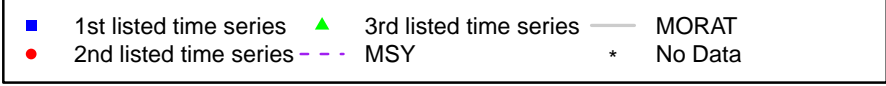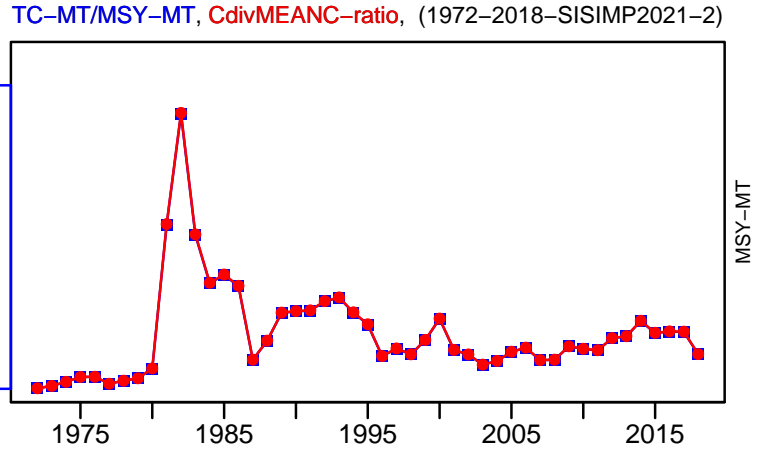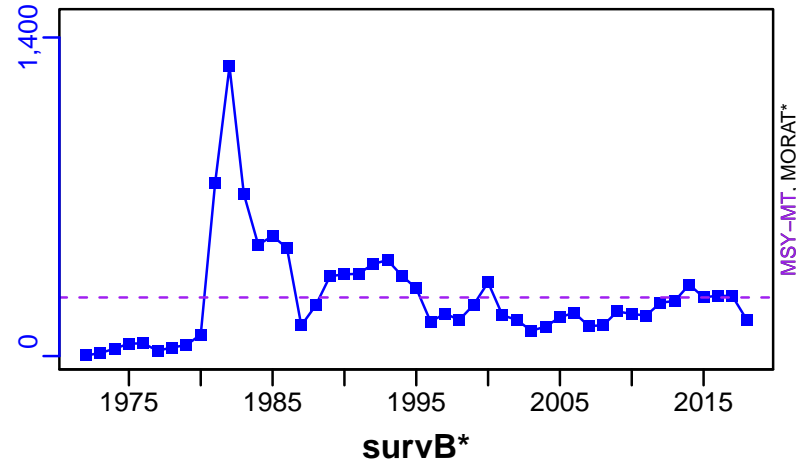
Vermilion snapper Gulf of Mexico [VSNAPGM]

Metadata	
Scientific Name	Rhomboplites aurorubens
Current Assess ID	SEFSC-VSNAPGM-1950-2017-SISIMP2021-2
Area	Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2014, 2017, 2004

Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	-	-	-
SSBmsy	SSBmsy-E00eggs	2017	2.02×10^{14}
Fmsy	Fmsy-1/yr	2014	0.103
ERmsy	ERmsy-ratio	2017	0.135
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	Fmgt-1/yr	2014	0.087
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2014	1529
M	-	-	-
TBlim	-	-	-
SSBlim	SSBlim-E00eggs	2017	1.01×10^{14}
Flim	Flim-1/yr	2014	0.103
ERlim	ERlim-ratio	2017	0.135

Time Series					
Type	**ID**	**Asmt Year**	**Curr Value**	**Sex**	**Age**
TB	TB-MT	2014	11,500	-	1+
SSB	SSB-E00eggs	2017	3.53×10^{14}	-	-
TN	-	-	-	-	-
R	R-E00	2017	21,200,000	-	0
F	F-1/yr	2014	0.239	-	-
ER	ER-ratio	2017	0.076	-	-
TC	TC-MT	2017	2810		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-E00eggs/SSBmsy-E00eggs	2017	1.748		
F/Fmsy	F-1/yr/Fmsy-1/yr	2014	2.32		
ER/ERmsy	ER-ratio/ERmsy-ratio	2017	0.561		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	F-1/yr/Fmgt-1/yr	2014	2.747		
ER/ERmgt	-	-	-		

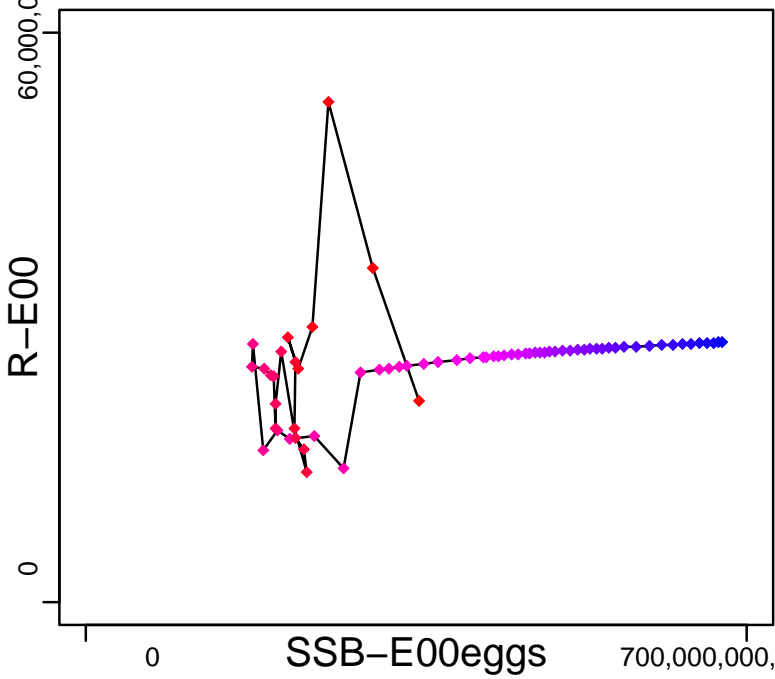**Vermilion snapper Gulf of Mexico [VSNAPGM]**
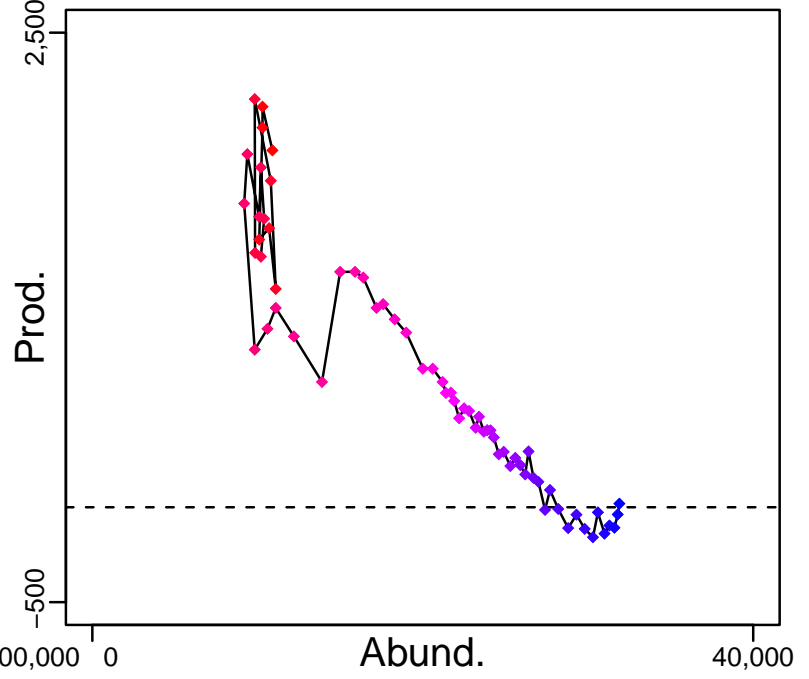
Kobe MSYpref (1950–2017–SISIMP2021–2)
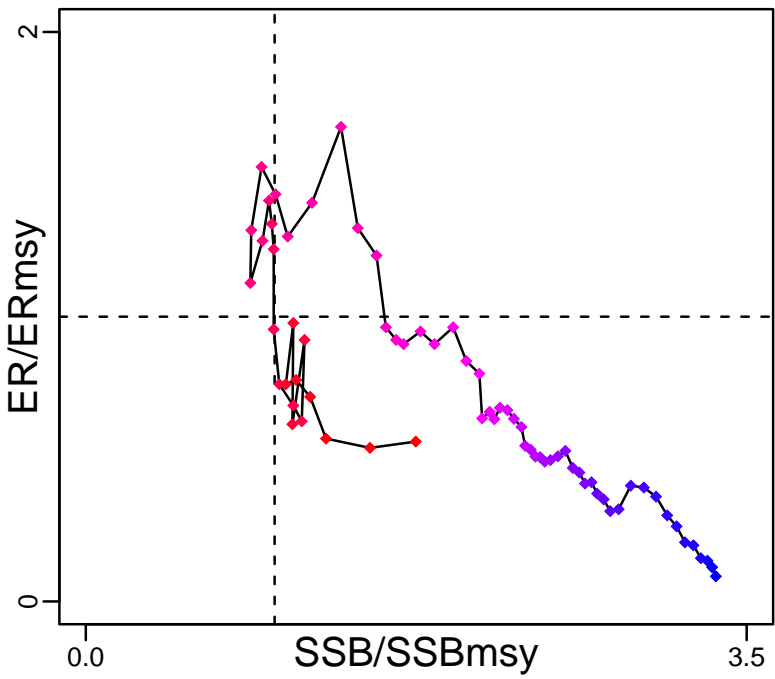
Kobe MGTpref (1950–2017–SISIMP2021–2)
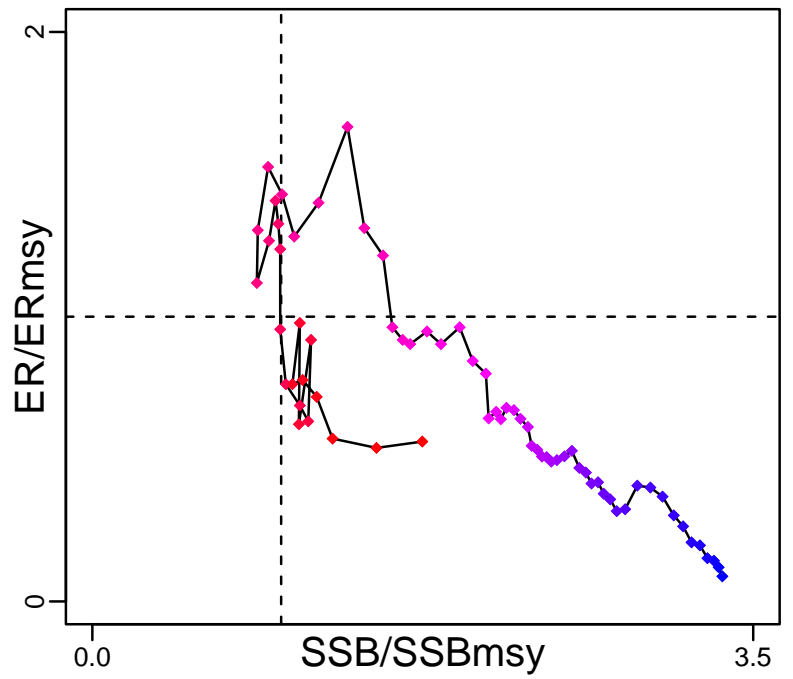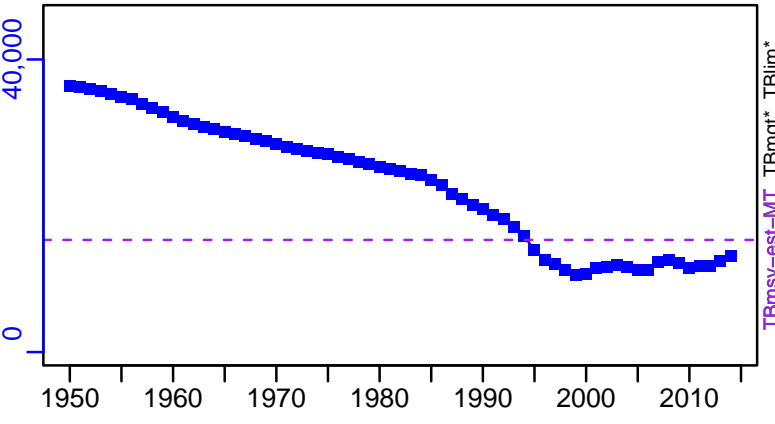
Spawner Recruit (1950–2017–SISIMP2021–2)
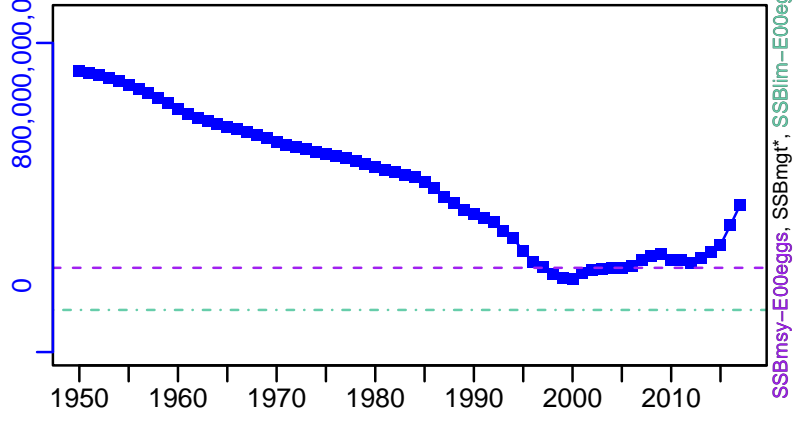
Production (1950–2014–SISIMP2016)

◆ Start Year   ◆ End Year   * No Data

Vermilion snapper Gulf of Mexico [VSNAPGM]
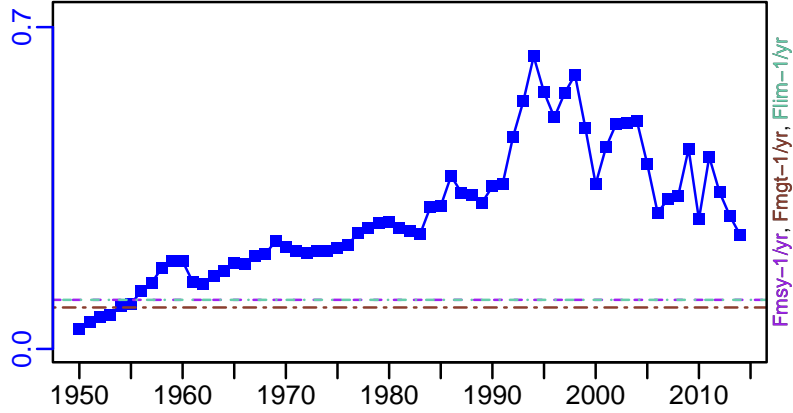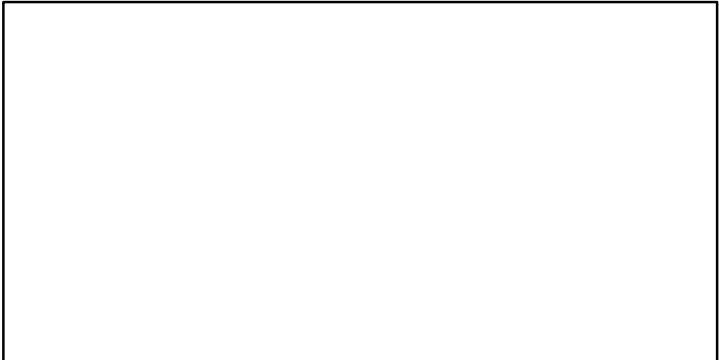
TB–MT (1950–2014–SISIMP2016)

SSB–E00eggs (1950–2017–SISIMP2021–2)
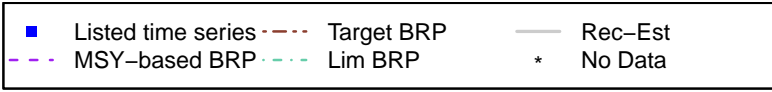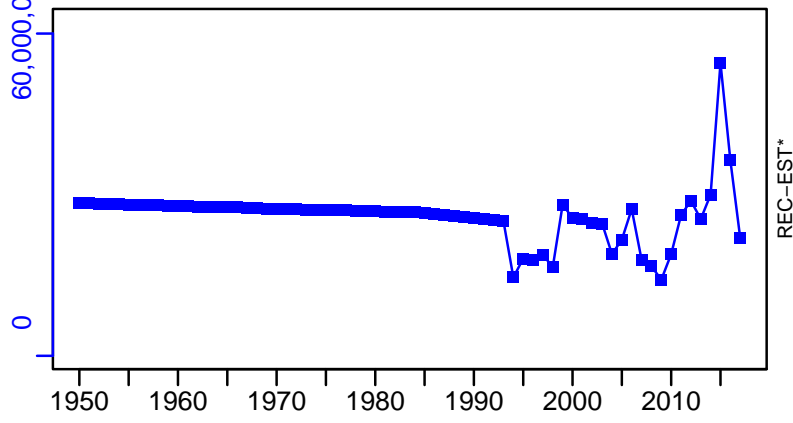
TN *

F–1/yr (1950–2014–SISIMP2016)

ER–ratio (1950–2017–SISIMP2021–2)

R–E00 (1950–2017–SISIMP2021–2)

■	Listed time series	–·–	Target BRP	——	Rec–Est
– –	MSY–based BRP	–·–	Lim BRP	*	No Data
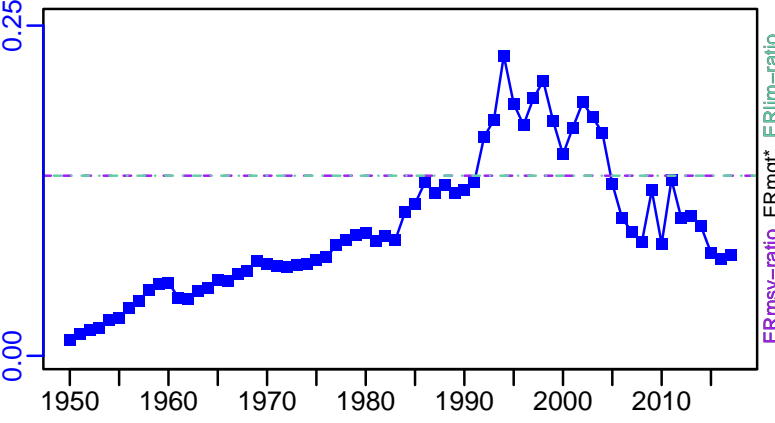
Vermilion snapper Gulf of Mexico [VSNAPGM]

TC–MT, TL*, RecC* (1950–2017–SISIMP2021–2)
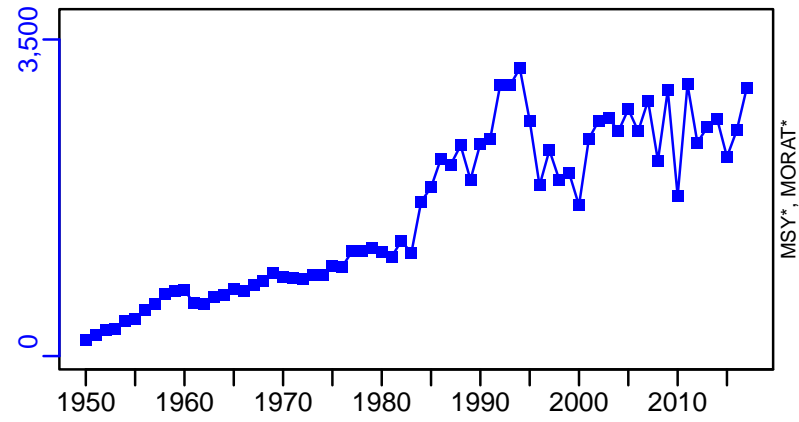
TAC*, Cpair*, Cadv*

survB*

CPUE*

EFFORT*

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

■ 1st listed time series	▲ 3rd listed time series	—— MORAT
● 2nd listed time series	– – MSY	* No Data
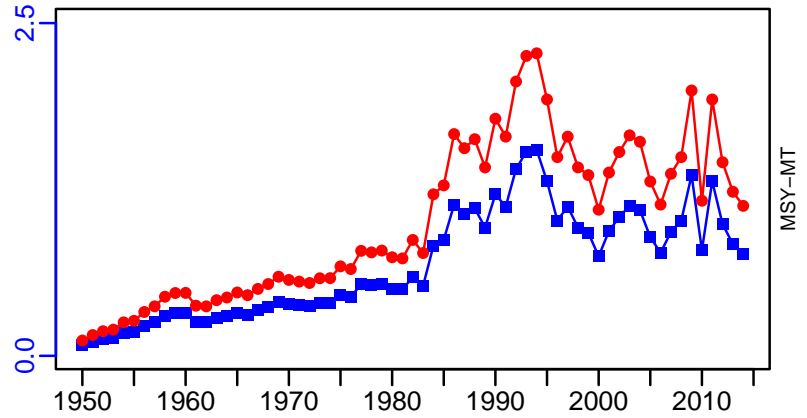
Vermilion snapper Southern Atlantic coast [VSNAPSATLC]

Metadata	
Scientific Name	Rhomboplites aurorubens
Current Assess ID	SEFSC-VSNAPSATLC-1945-2016-SISIMP2021
Area	Southern Atlantic coast
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2012, 2016

Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	TBmsy-MT	2012	2252
SSBmsy	SSBmsy-E00eggs	2016	1.83×10^{13}
Fmsy	Fmsy-1/yr	2016	0.41
ERmsy	ERmsy-calc-ratio	2012	0.309
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2016	592
M	M-1/yr	2012	0.22
TBlim	-	-	-
SSBlim	SSBlim-E00eggs	2016	1.37×10^{13}
Flim	Flim-1/yr	2016	0.41
ERlim	-	-	-

Time Series					
Type	**ID**	**Asmt Year**	**Curr Value**	**Sex**	**Age**
TB	TB-MT	2012	2120	-	-
SSB	SSB-E00eggs	2016	2.07×10^{13}	-	-
TN	-	-	-	-	-
R	R-E00	2016	5,501,271	-	1
F	F-1/yr	2016	0.25	-	-
ER	ER-calc-ratio	2012	0.296	-	-
TC	TC-MT	2016	573		
TL	TL-MT	2012	649		
TB/TBmsy	TB-MT/TBmsy-MT	2012	0.941		
SSB/SSBmsy	SSB-E00eggs/SSBmsy-E00eggs	2016	1.131		
F/Fmsy	F-1/yr/Fmsy-1/yr	2016	0.61		
ER/ERmsy	ER-calc-ratio/ERmsy-calc-ratio	2012	0.958		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

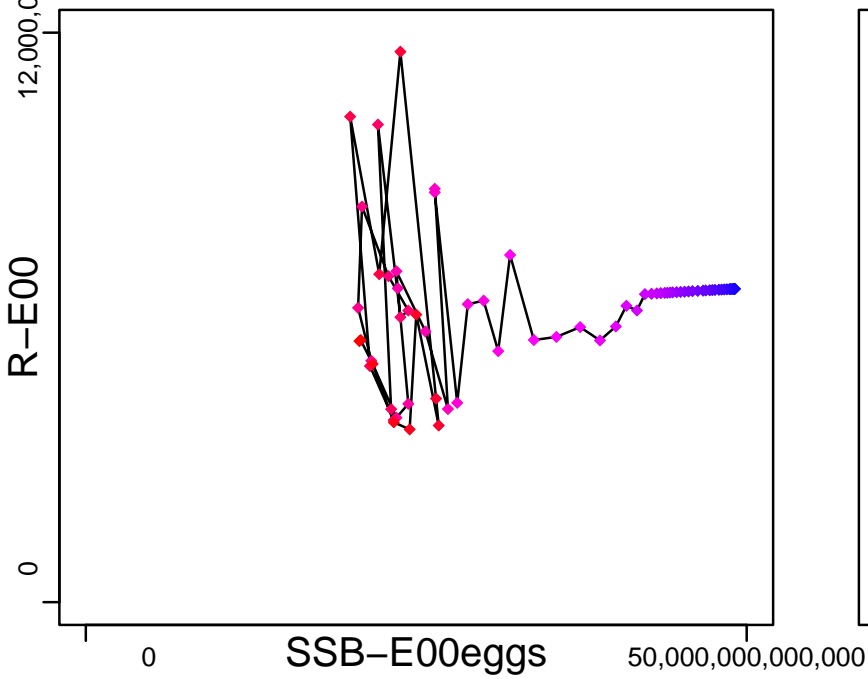**Vermilion snapper Southern Atlantic coast [VSNAPSATLC]**

Kobe MSYpref (1945–2016–SISIMP2021)
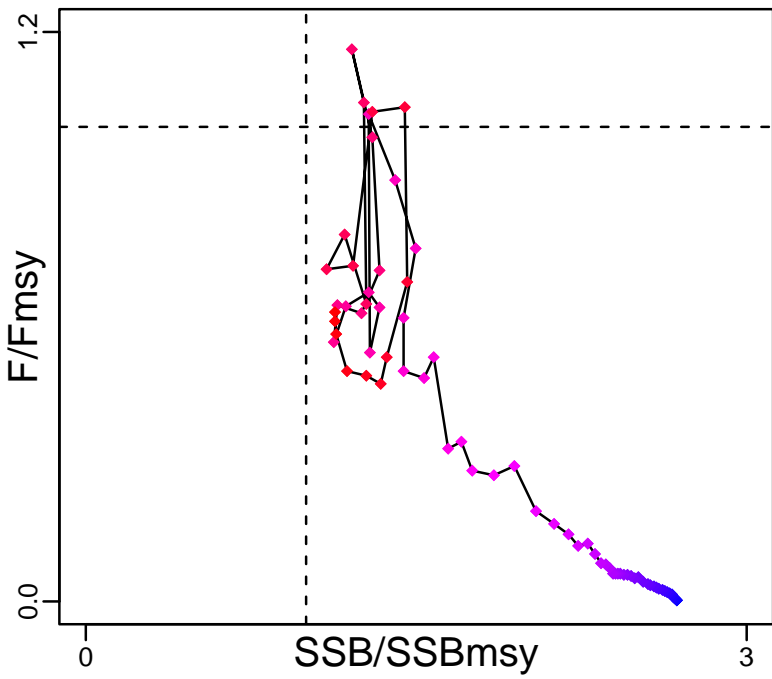
Kobe MGTpref (1945–2016–SISIMP2021)
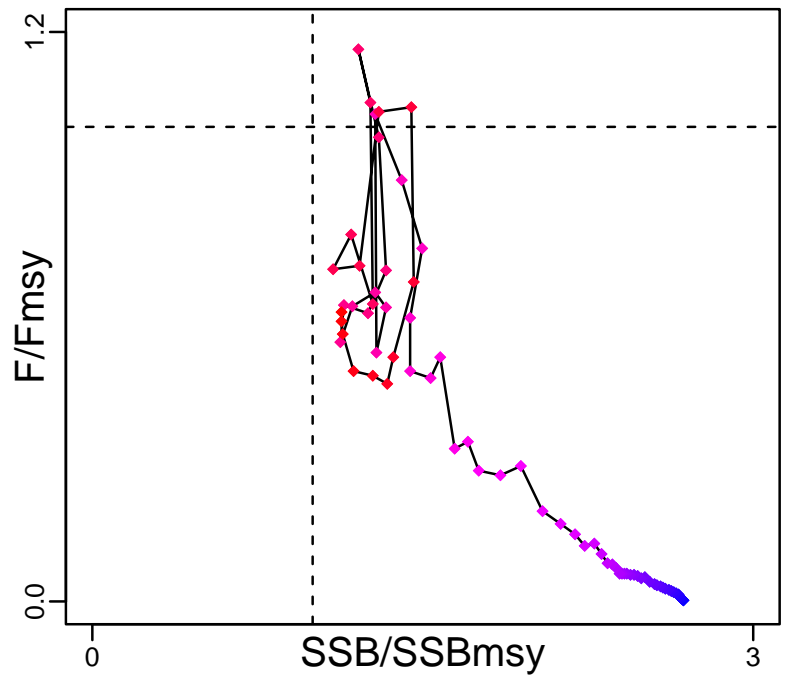
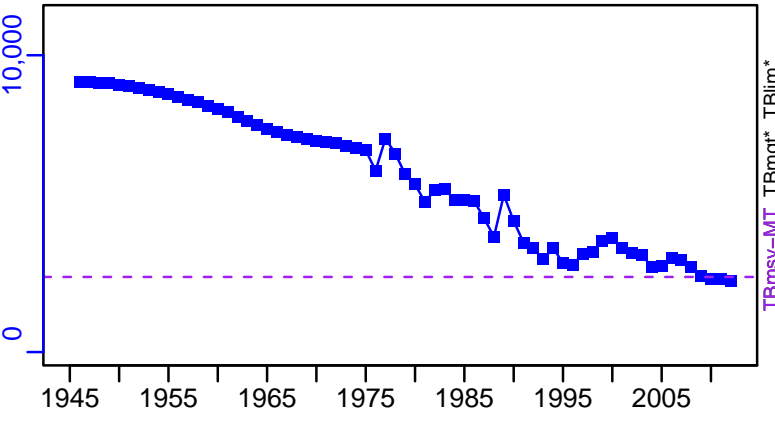Spawner Recruit (1945–2016–SISIMP2021)
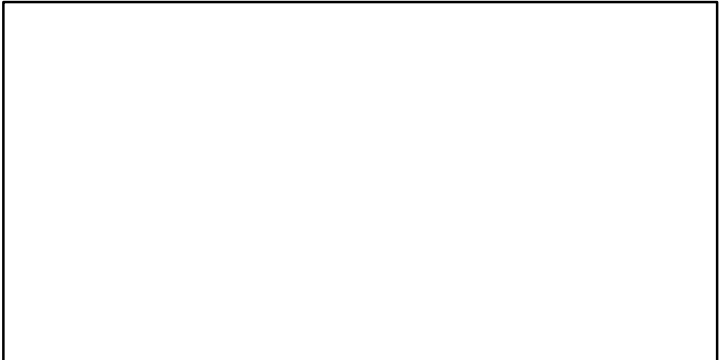
Production*

- ◆ Start Year ◆ End Year ∗ No Data

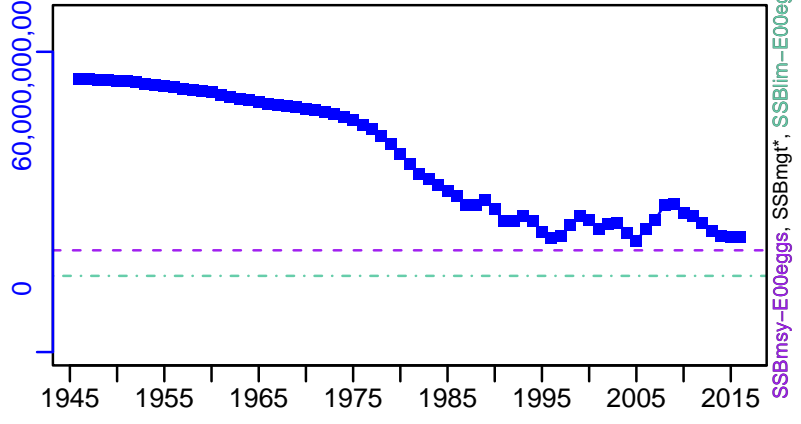# Vermilion snapper Southern Atlantic coast [VSNAPSATLC]

TB–MT (1945–2012–HIVELY)

SSB–E00eggs (1945–2016–SISIMP2021)

TN *

F–1/yr (1945–2016–SISIMP2021)
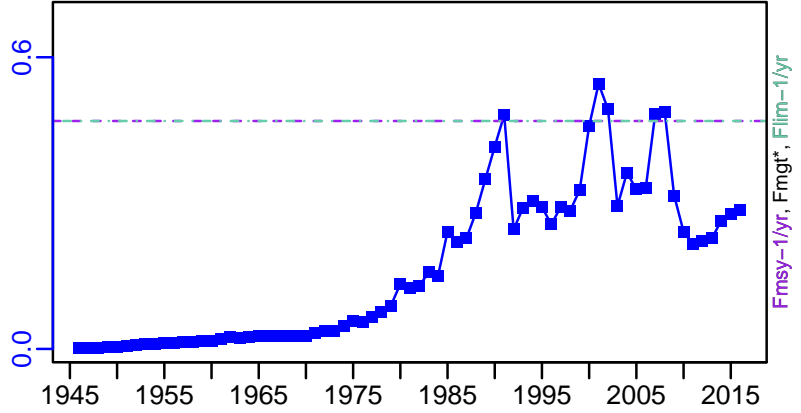
ER–calc–ratio (1945–2012–HIVELY)

R–E00 (1945–2016–SISIMP2021)

Legend:
- ■ Listed time series
- – – MSY–based BRP
- –·– Target BRP
- –·– Lim BRP
- —— Rec–Est
- * No Data
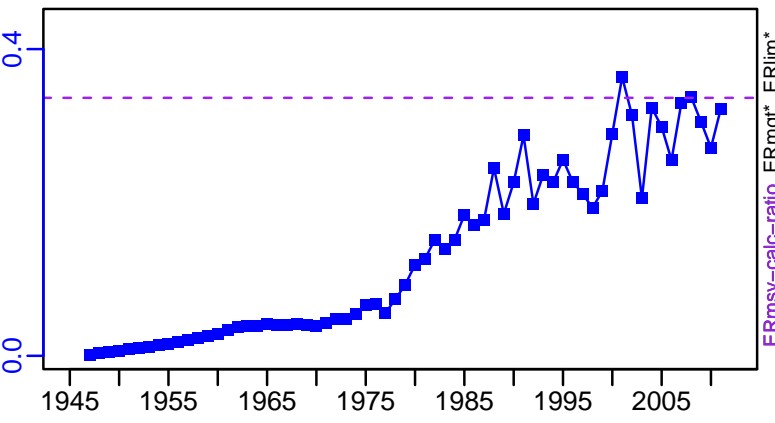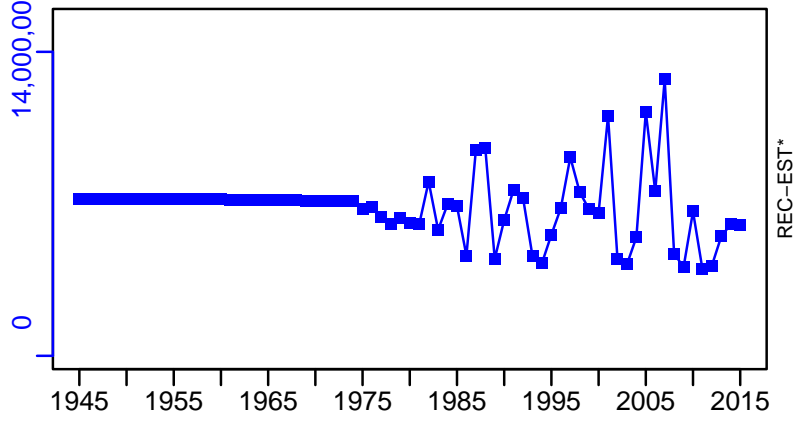
Vermilion snapper Southern Atlantic coast [VSNAPSATLC]

TC–MT, TL*, RecC* (1945–2016–SISIMP2021)

TAC*, Cpair*, Cadv*
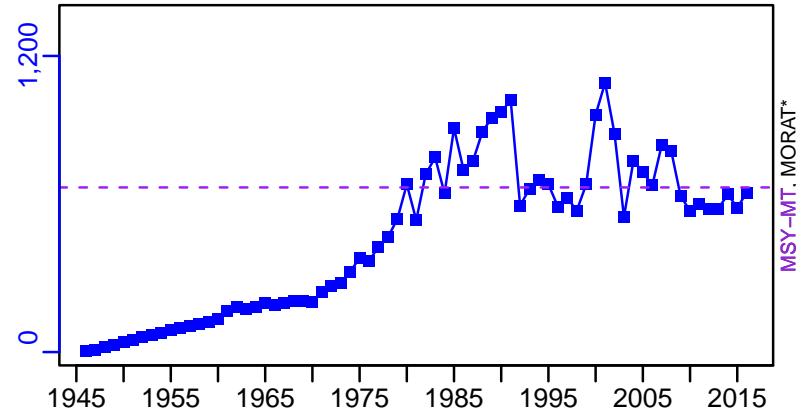
survB*

CPUE*

EFFORT*

TC–MT/MSY–MT, CdivMEANC–ratio, (1945–2016–SISIMP2021)

■	1st listed time series	▲ 3rd listed time series	—— MORAT
●	2nd listed time series	– – MSY	* No Data
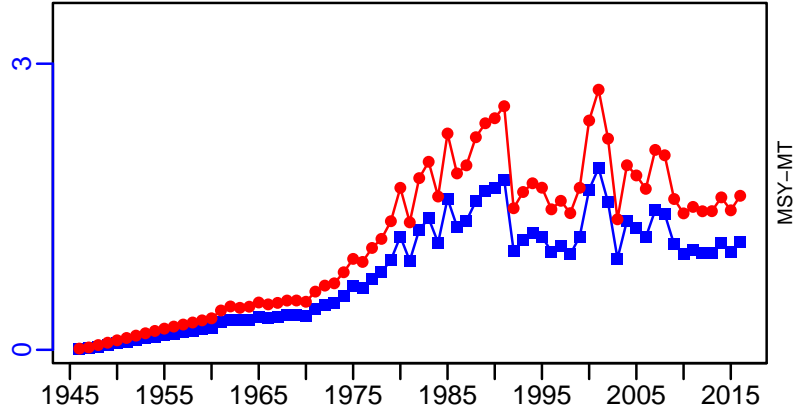
White shrimp Gulf of Mexico [WSHRIMPGM]

Metadata	
Scientific Name	Litopenaeus setiferus
Current Assess ID	SEFSC-WSHRIMPGM-1984-2017-SISIMP2021
Area	Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2011, 2014, 2015, 2017

Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2017	165,879
Fmsy	Fmsy-1/yr	2017	3.48
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	SSBlim-MT	2015	165,879
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	**ID**	**Asmt Year**	**Curr Value**	**Sex**	**Age**
TB	-	-	-	-	-
SSB	SSB-MT	2017	291,827	-	-
TN	-	-	-	-	-
R	R-E00	2017	16,275,764,420	-	-
F	F-1/yr	2017	1.574	-	-
ER	-	-	-	-	-
TC	TC-MT	2017	32,046		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2017	1.759		
F/Fmsy	F-1/yr/Fmsy-1/yr	2017	0.452		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

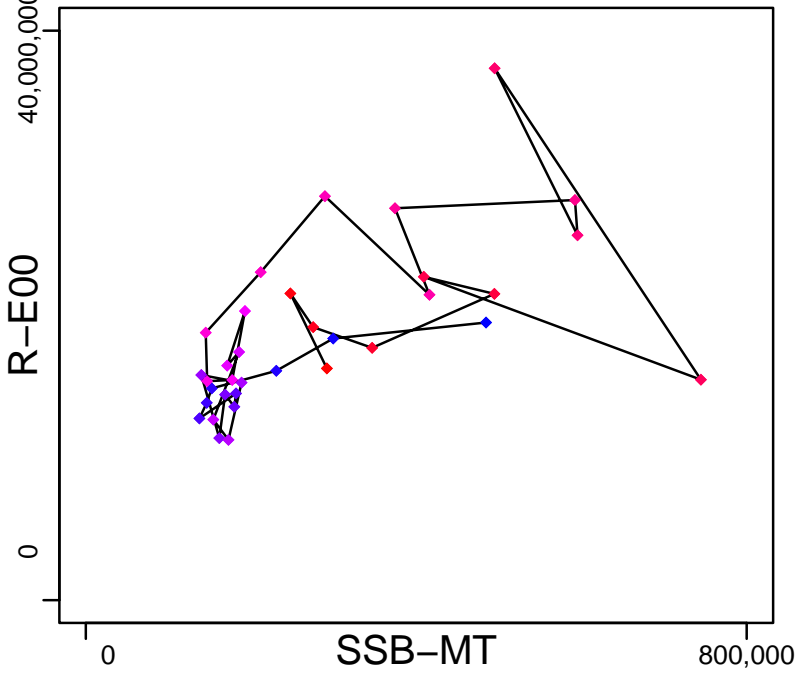**White shrimp Gulf of Mexico [WSHRIMPGM]**

Kobe MSYpref (1984–2017–SISIMP2021)
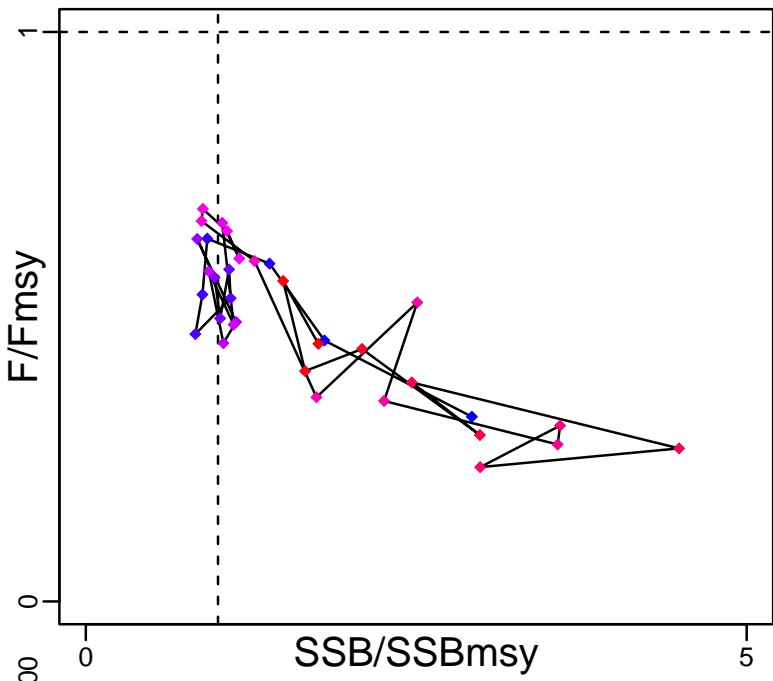
Kobe MGTpref (1984–2017–SISIMP2021)
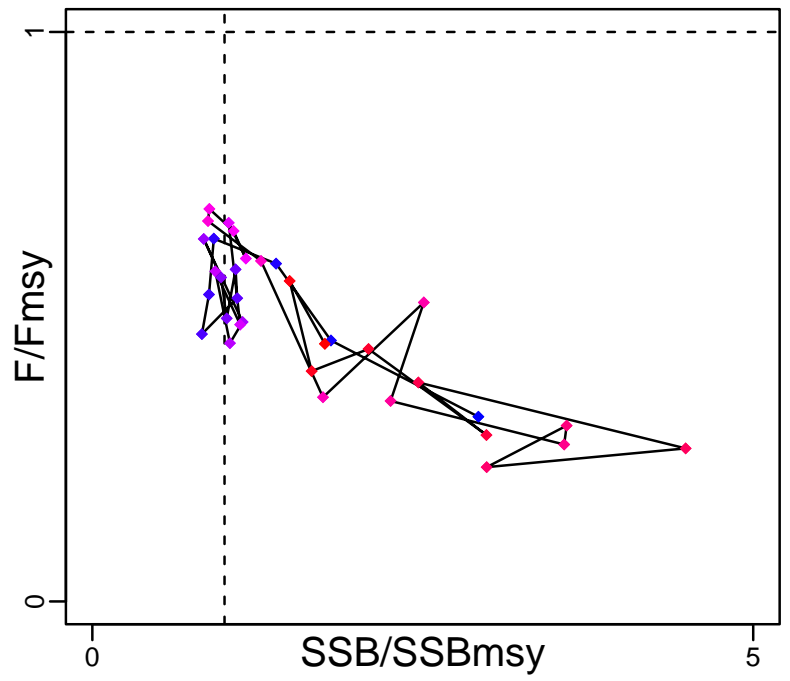
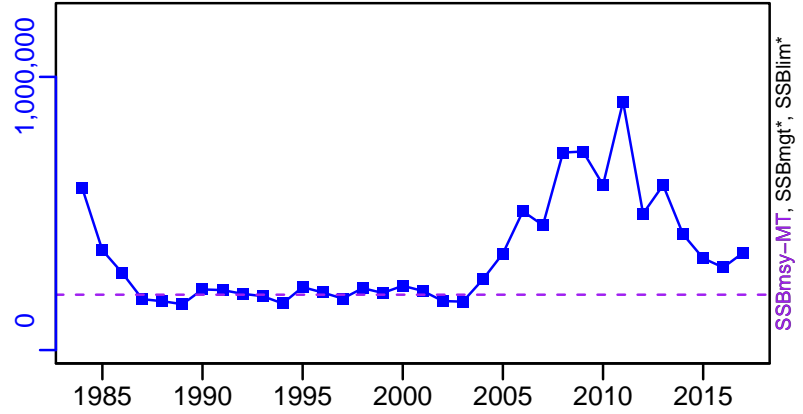Spawner Recruit (1984–2017–SISIMP2021)

Production*

◆ Start Year ◆ End Year ∗ No Data

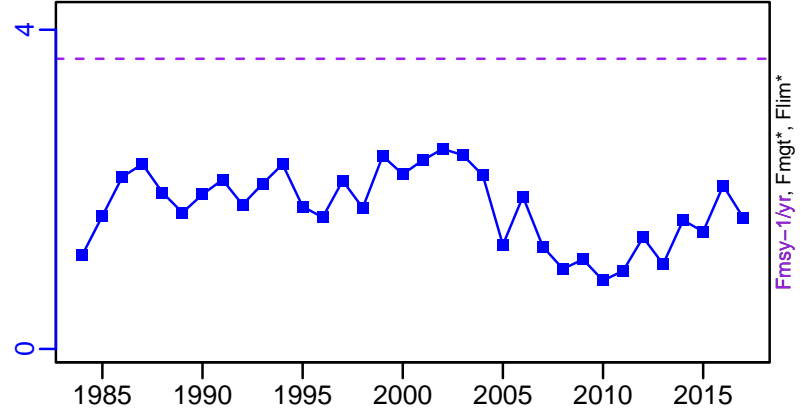# White shrimp Gulf of Mexico [WSHRIMPGM]
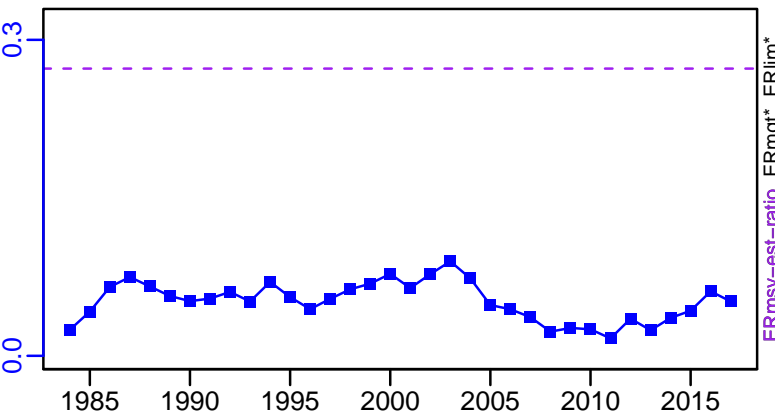
TB*

SSB−MT (1984−2017−SISIMP2021)

TN *

F−1/yr (1984−2017−SISIMP2021)
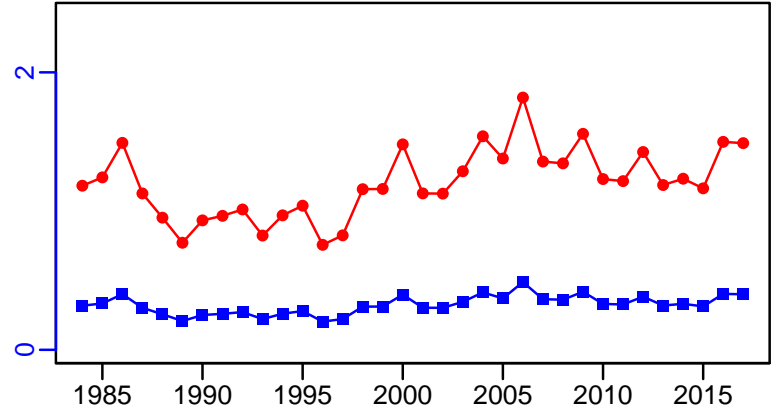
ER−calc−ratio (1984−2017−SISIMP2021)

R−E00 (1984−2017−SISIMP2021)

■ Listed time series	·—·— Target BRP	—— Rec−Est
− − MSY−based BRP	·−·−· Lim BRP	* No Data
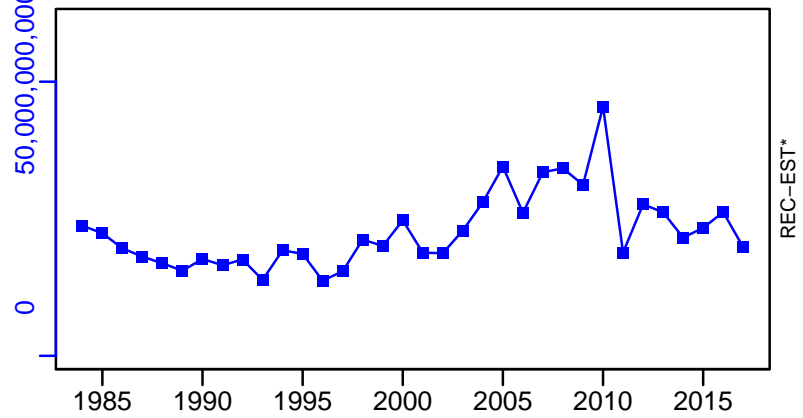
White shrimp Gulf of Mexico [WSHRIMPGM]
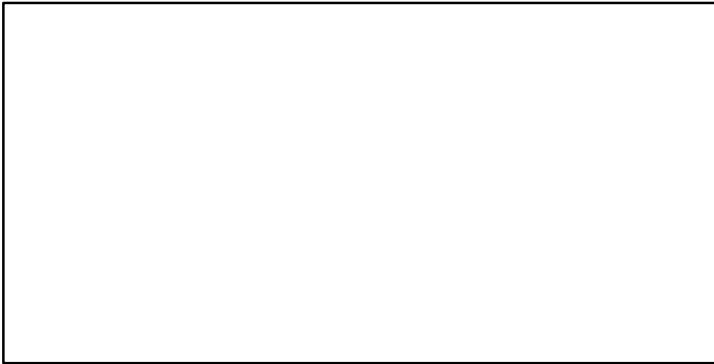
TC–MT, TL*, RecC* (1984–2017–SISIMP2021)
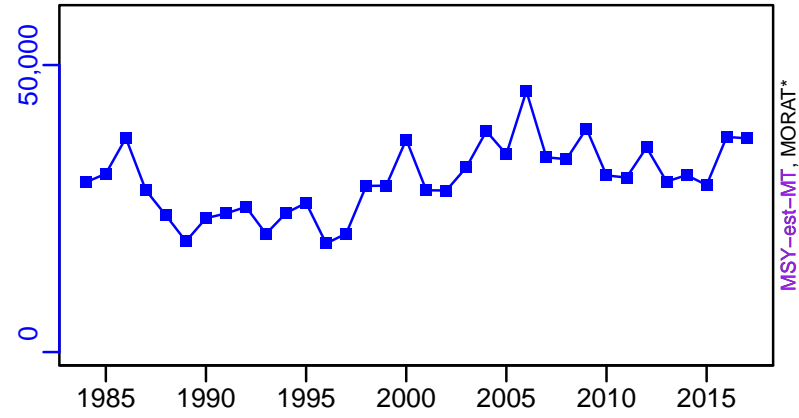
TAC*, Cpair*, Cadv*

survB*

CPUE*

EFFORT*

TC–MT/MSY–est–MT, CdivMEANC–ratio, (1984–2017–SISIMP2021)

■ 1st listed time series	▲ 3rd listed time series	—— MORAT	
● 2nd listed time series	– – MSY	* No Data	
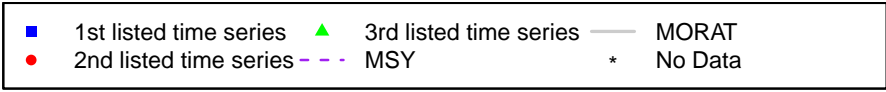
Yellowedge grouper Gulf of Mexico [YEGROUPGM]

Metadata	
Scientific Name	Epinephelus flavolimbatus
Current Assess ID	SEFSC-YEGROUPGM-1975-2009-HIVELY
Area	Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2009

Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2009	2401
Fmsy	Fmsy-1/yr	2009	0.1
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2009	375
M	M-1/yr	2009	0.07
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	**ID**	**Asmt Year**	**Curr Value**	**Sex**	**Age**
TB	TB-MT	2009	5530	-	-
SSB	SSB-MT	2009	4000	Both	8+
TN	-	-	-	-	-
R	R-E00	2009	801,000	-	-
F	F-1/yr	2009	0.068	-	-
ER	ER-calc-ratio	2009	0.068	-	-
TC	-	-	-		
TL	TL-MT	2009	376		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2009	1.666		
F/Fmsy	F-1/yr/Fmsy-1/yr	2009	0.68		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

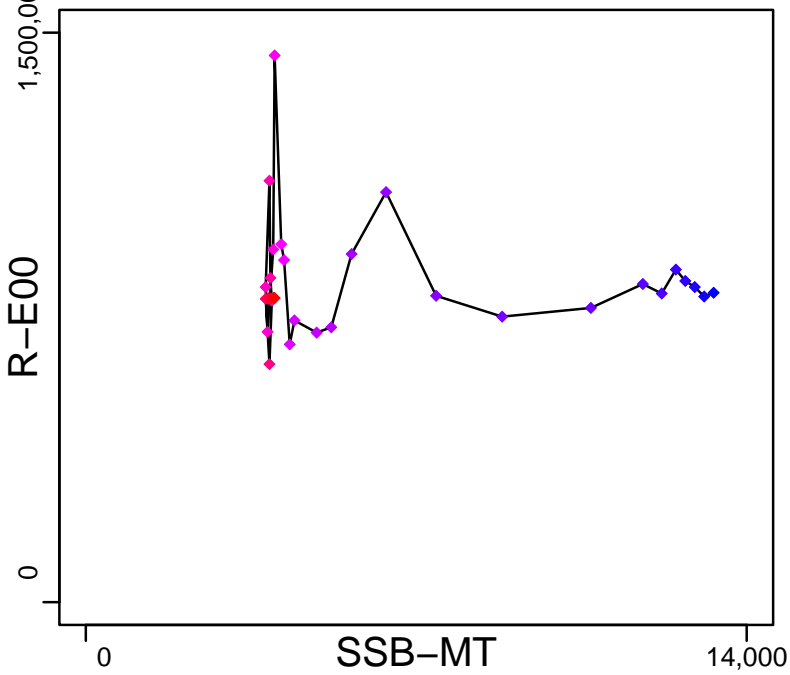# Yellowedge grouper Gulf of Mexico [YEGROUPGM]
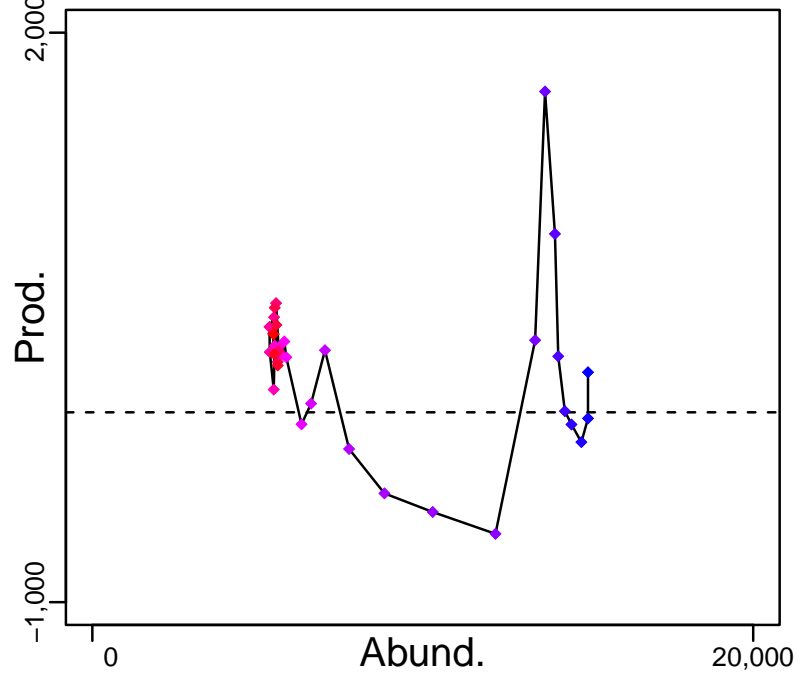

Kobe MSYpref (1975–2009–HIVELY)
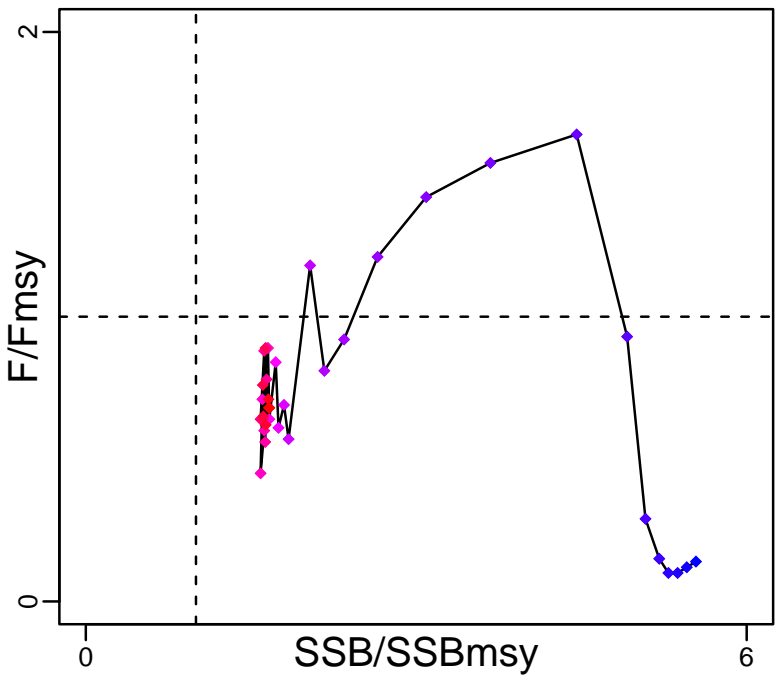
Kobe MGTpref (1975–2009–HIVELY)
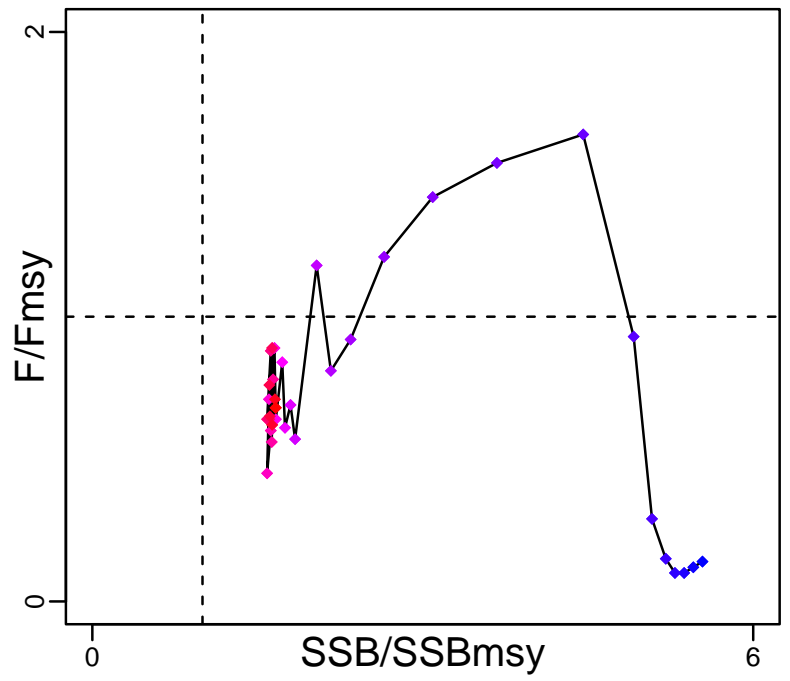
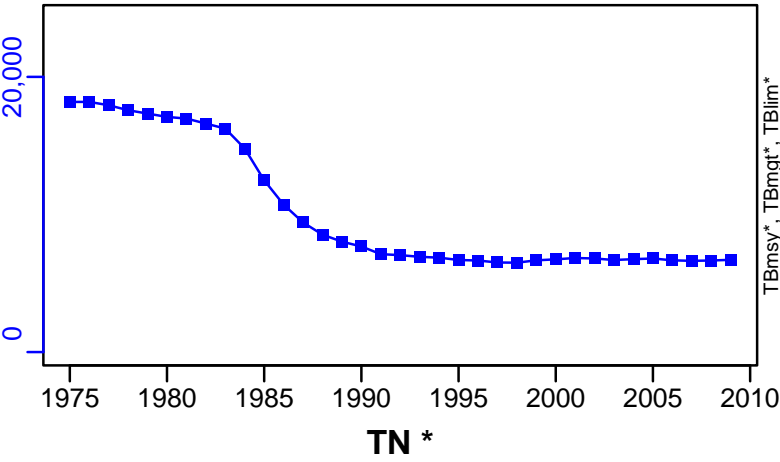Spawner Recruit (1975–2009–HIVELY)

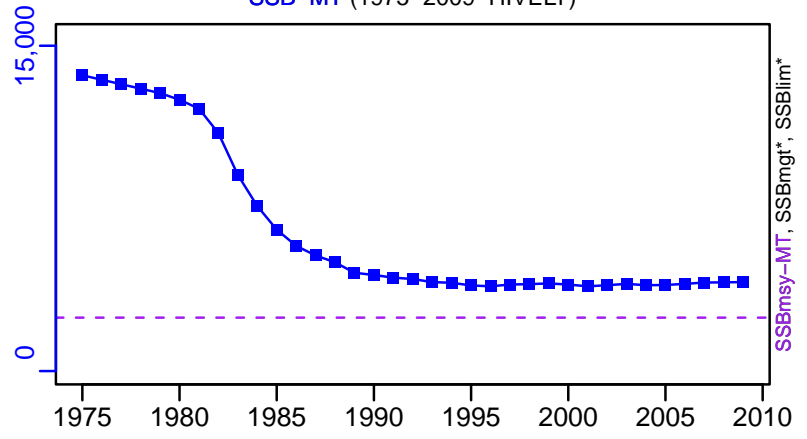Production (1975–2009–HIVELY)

◆ Start Year   ◆ End Year   * No Data
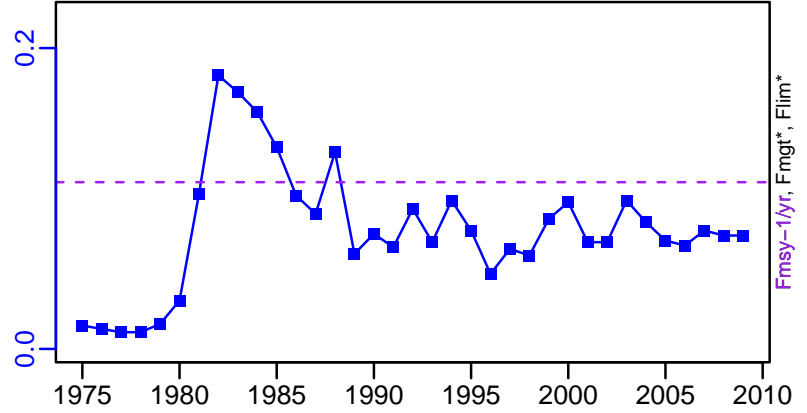
Yellowedge grouper Gulf of Mexico [YEGROUPGM]

Yellowedge grouper Gulf of Mexico [YEGROUPGM]

TL–MT, TC*, RecC* (1975–2009–HIVELY)

TAC*, Cpair*, Cadv*

survB*

CPUE*

EFFORT*
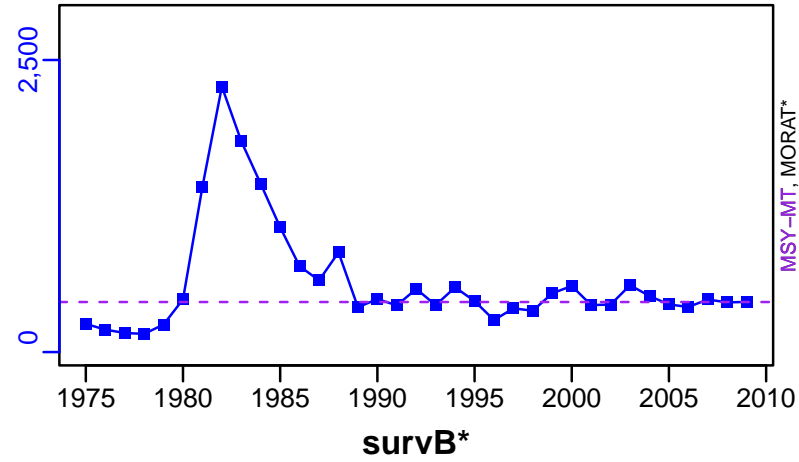
TL–MT/MSY–MT, CdivMEANC–ratio, (1975–2009–HIVELY)

Legend:
- ■ 1st listed time series
- ● 2nd listed time series
- ▲ 3rd listed time series
- – – MSY
- —— MORAT
- * No Data
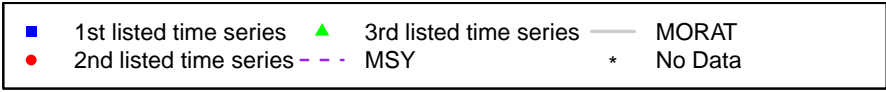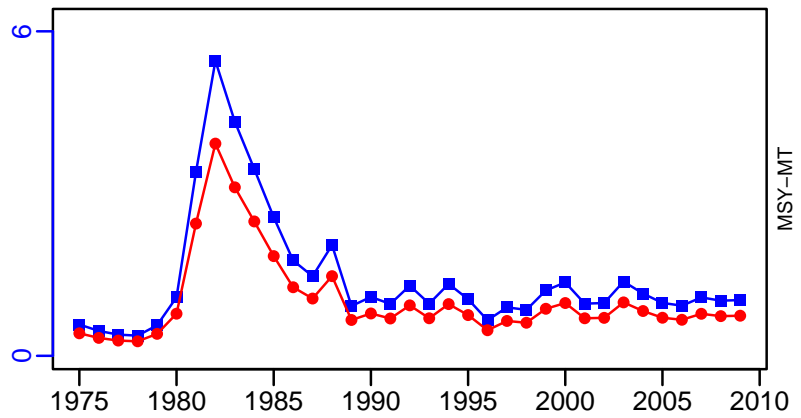
Yellowtail snapper Southern Atlantic coast and Gulf of Mexico [YTSNAPSATLCGM]

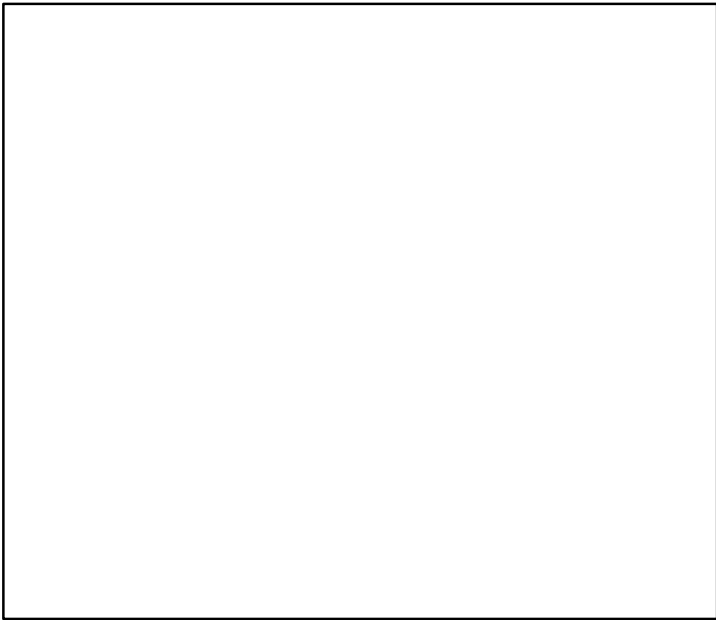| Metadata	
Scientific Name	Ocyurus chrysurus
Current Assess ID	SEFSC-YTSNAPSATLCGM-1950-2011-HIVELY
Area	Southern Atlantic coast and Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2011

Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	Fmsy-pr-1/yr	2011	0.29
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2011	1700
M	M-1/yr	2011	0.19
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	**ID**	**Asmt Year**	**Curr Value**	**Sex**	**Age**
TB	TB-MT	2011	26,600	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	F-1/yr	2011	0.047	-	-
ER	ER-calc-ratio	2011	0.029	-	-
TC	-	-	-		
TL	TL-MT	2011	858		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	F-1/yr/Fmsy-pr-1/yr	2011	0.162		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Yellowtail snapper Southern Atlantic coast and Gulf of Mexico [YTSNAPSATLCGM]

Kobe MSYpref (1950–2011–HIVELY)
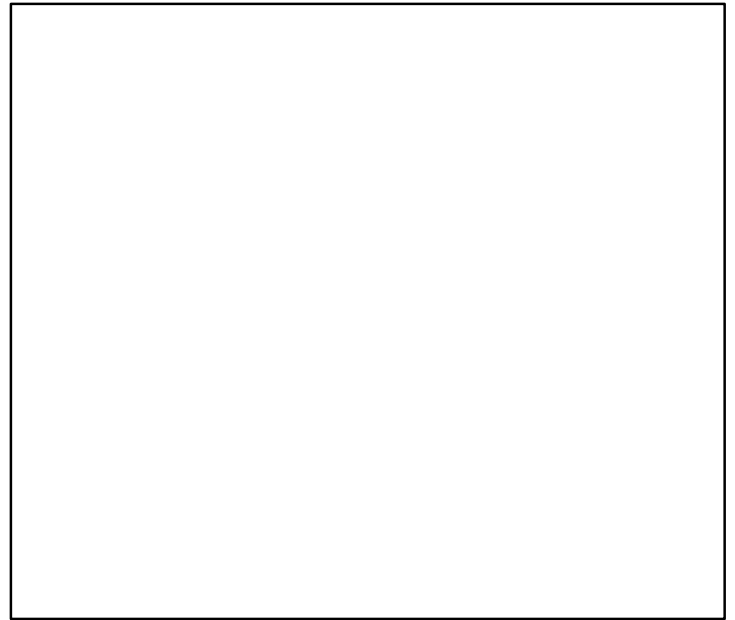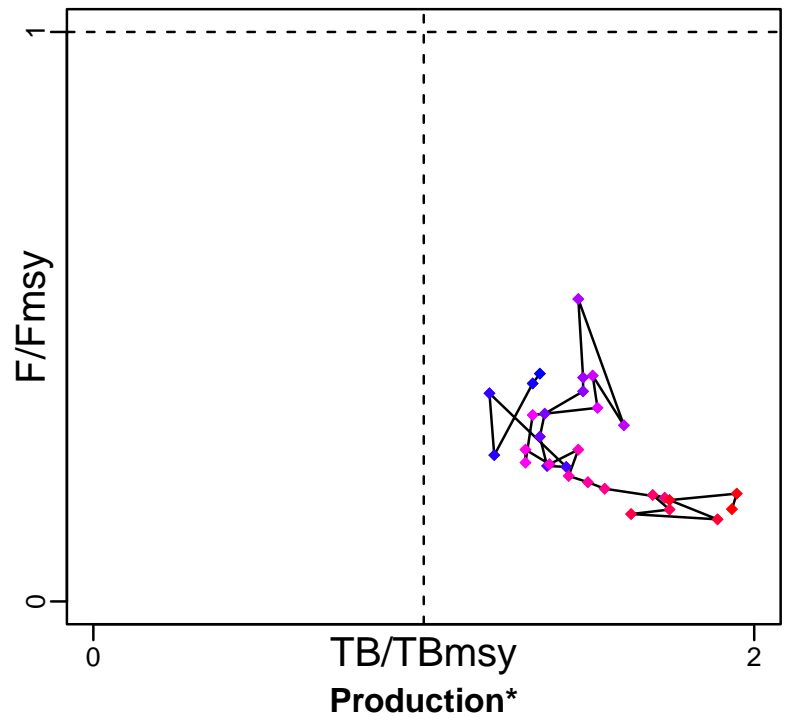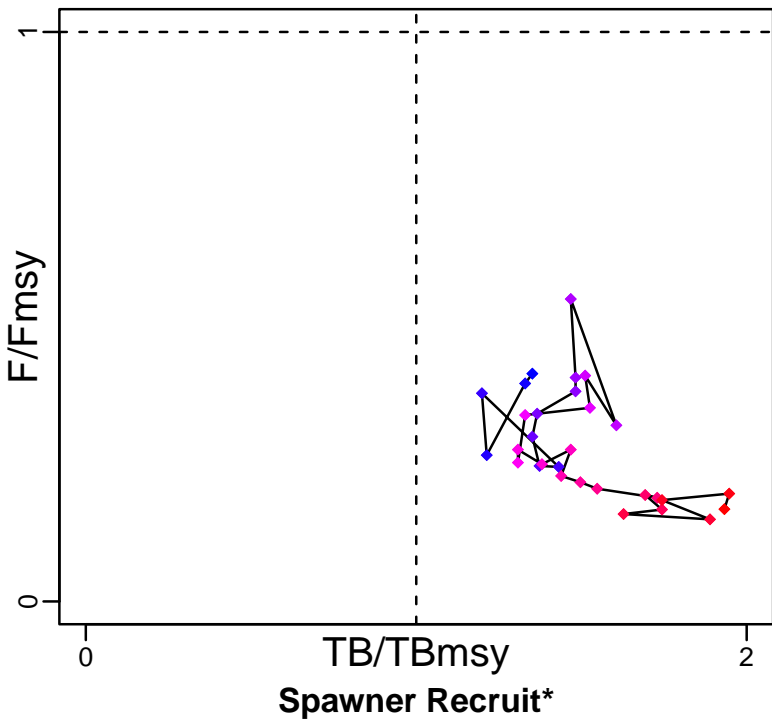
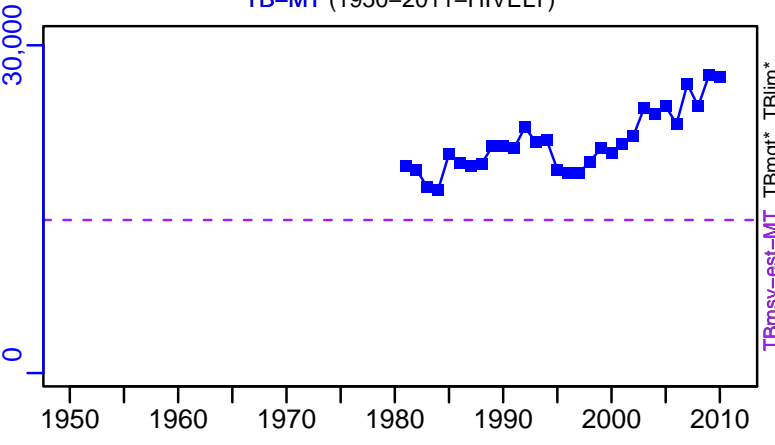Kobe MGTpref (1950–2011–HIVELY)

Spawner Recruit*

Production*

◆ Start Year ◆ End Year * No Data
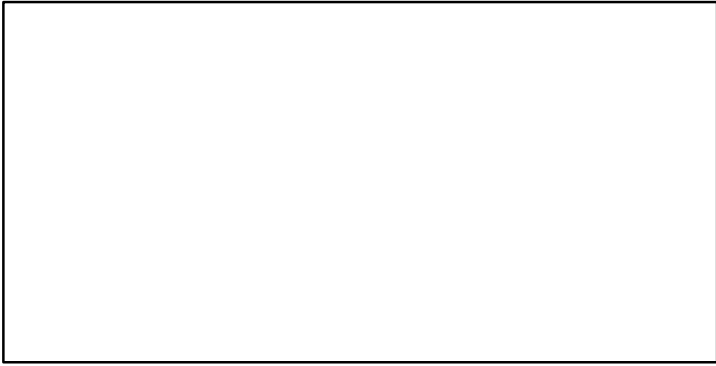
Yellowtail snapper Southern Atlantic coast and Gulf of Mexico [YTSNAPSATLCGM]

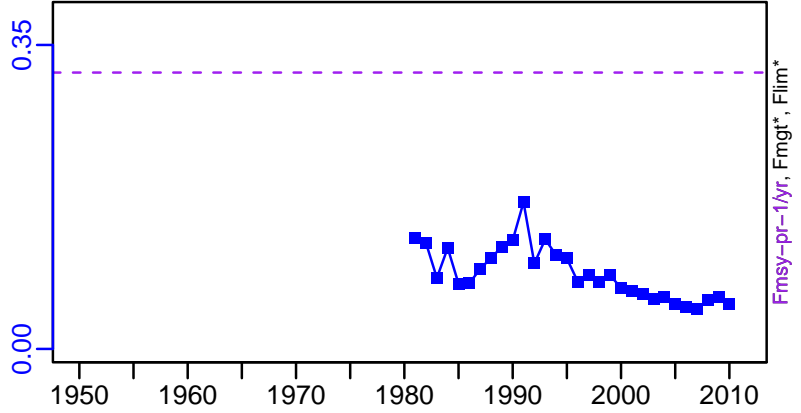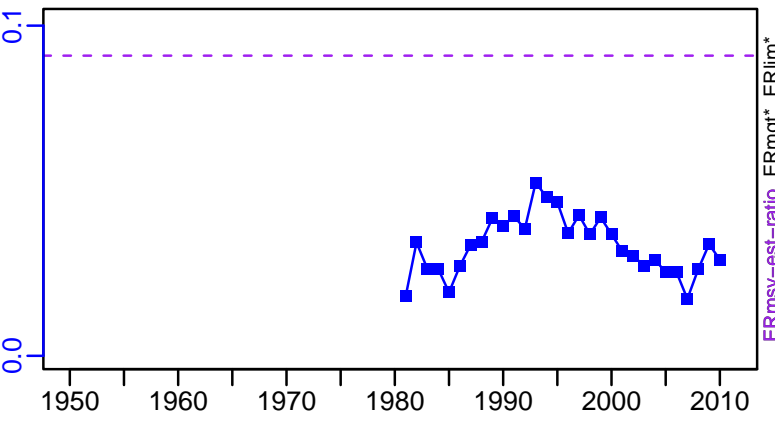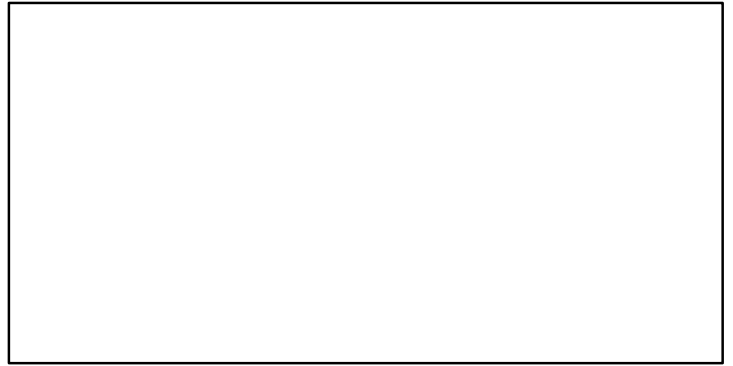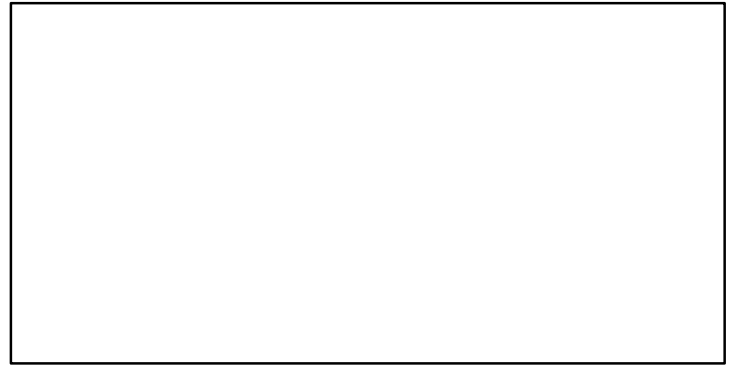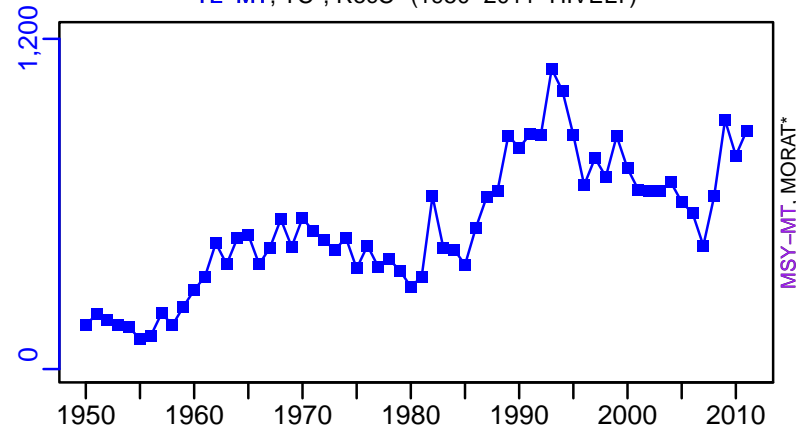# Yellowtail snapper Southern Atlantic coast and Gulf of Mexico [YTSNAPSATLCGM]
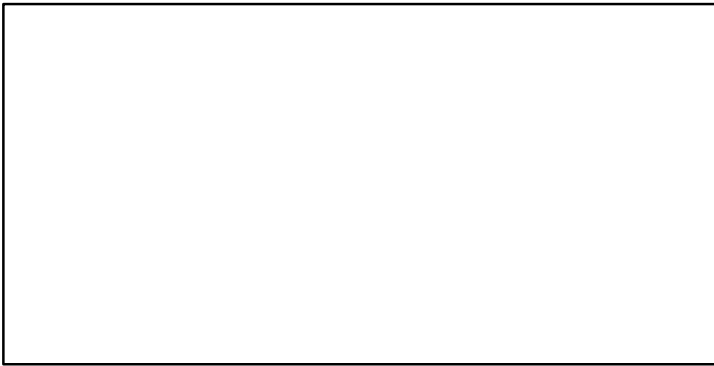

TL–MT, TC*, RecC* (1950–2011–HIVELY)

TAC*, Cpair*, Cadv*

survB*

CPUE*

EFFORT*

TL–MT/MSY–MT, CdivMEANC–ratio, (1950–2011–HIVELY)

Legend: 1st listed time series, 2nd listed time series, 3rd listed time series, MSY, MORAT, No Data

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