

US Southeast and Gulf Stocks

v4.495 (Apr-17-2021)

Not present Present Preferred

Stock	Time Series Types			
	B/Bmsy	U/Umsy	B/Bmgt	U/Umgmt
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. BRNSHRIMPAGM [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. DSKSHARGM ATL [Dusky shark Gulf of Mexico and Atlantic]	TB SSB	ER F	TB SSB	ER F
12. FTOOTHSHARATL [Finetooth shark Atlantic]	TB SSB	ER F	TB SSB	ER F
13. GAGGM [Gag Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
14. GAGSATLC [Gag Southern Atlantic coast]	TB SSB	ER F	TB SSB	ER F
15. GLGROUPSATLCGM [Goliath grouper Southern Atlantic coast and Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
16. GRAMBERGM [Greater amberjack Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
17. GRAMBERSATLC [Greater amberjack Southern Atlantic coast]	TB SSB	ER F	TB SSB	ER F
18. GRSNAPGM [Gray snapper Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
19. GTRIGGM [Gray triggerfish Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
20. KMACKGM [King mackerel Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
21. KMACKSATLC [King mackerel Southern Atlantic coast]	TB SSB	ER F	TB SSB	ER F
22. LISQUIDATLC [Longfin inshore squid Atlantic Coast]	TB SSB	ER F	TB SSB	ER F
23. LNSNAPGM [Lane snapper Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
24. MENATGM [Gulf menhaden Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
25. MUTSNAPSATLCGM [Mutton snapper Southern Atlantic coast and Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
26. PINKSHRIMPAGM [Pink shrimp Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
27. RGROUPGM [Red grouper Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
28. RGROUPSATL [Red grouper South Atlantic]	TB SSB	ER F	TB SSB	ER F
29. RPORGYSATLC [Red porgy Southern Atlantic coast]	TB SSB	ER F	TB SSB	ER F
30. RSNAPGM [Red snapper Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
31. RSNAPSATLC [Red snapper Southern Atlantic coast]	TB SSB	ER F	TB SSB	ER F
32. SBARSHARATL [Sandbar shark Atlantic]	TB SSB	ER F	TB SSB	ER F
33. SKSNAPCARIB [Silk snapper Caribbean]	TB SSB	ER F	TB SSB	ER F
34. SNOSESHARATL [Atlantic sharpnose shark Atlantic]	TB SSB	ER F	TB SSB	ER F
35. SNOWGROUPSATLC [Snowy grouper Southern Atlantic coast]	TB SSB	ER F	TB SSB	ER F
36. SPANMACKGM [Spanish mackerel Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F

37. SPANMACKSATLC [Spanish mackerel Southern Atlantic coast]	TB SSB	ER F	TB SSB	ER F
38. TILEGM [Tilefish Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
39. TILESATLC [Tilefish Southern Atlantic coast]	TB SSB	ER F	TB SSB	ER F
40. VSNAPGM [Vermilion snapper Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
41. VSNAPSATLC [Vermilion snapper Southern Atlantic coast]	TB SSB	ER F	TB SSB	ER F
42. WSHRIMPGM [White shrimp Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
43. YEGROUPGM [Yellowedge grouper Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
44. 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

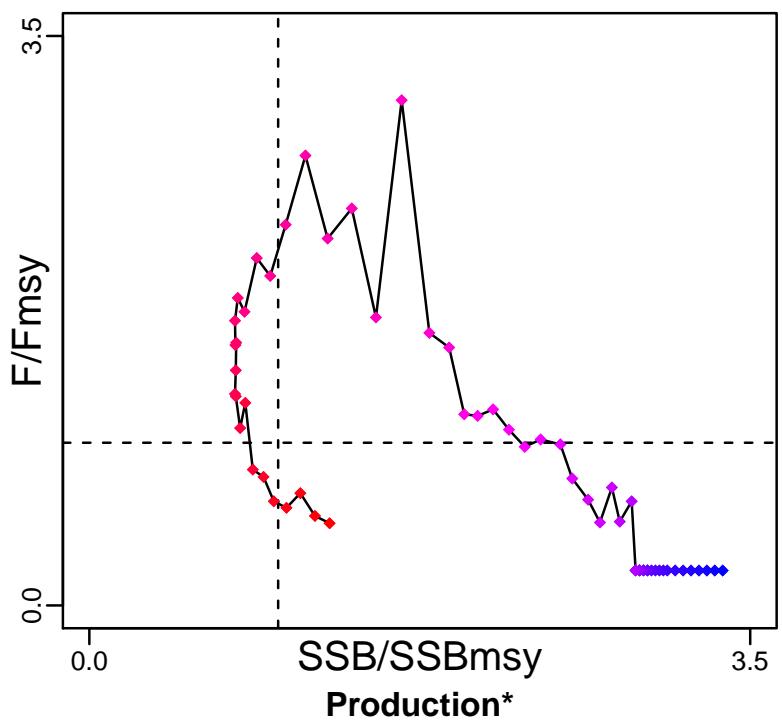
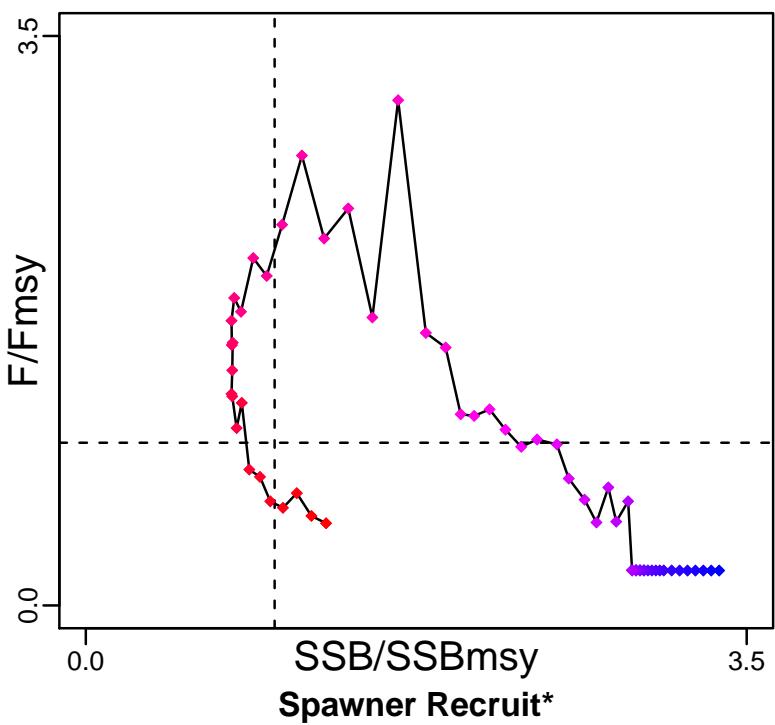
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSFmsy-E00	2011	4,770,000
Fmsy	Fmsy-1/yr	2011	0.2
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-E00	2011	589,000
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

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)

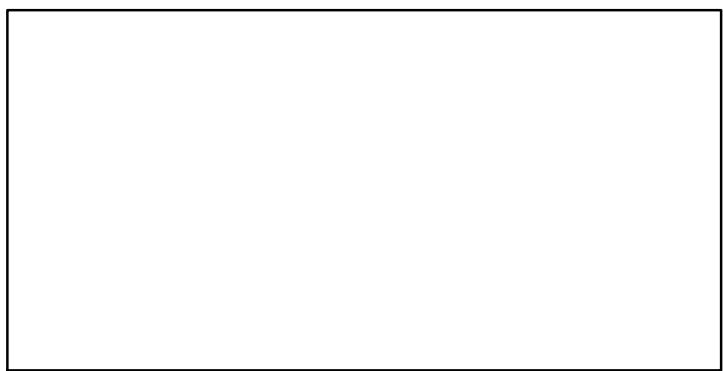
Kobe MGTPref (1950–2011–HIVELY)



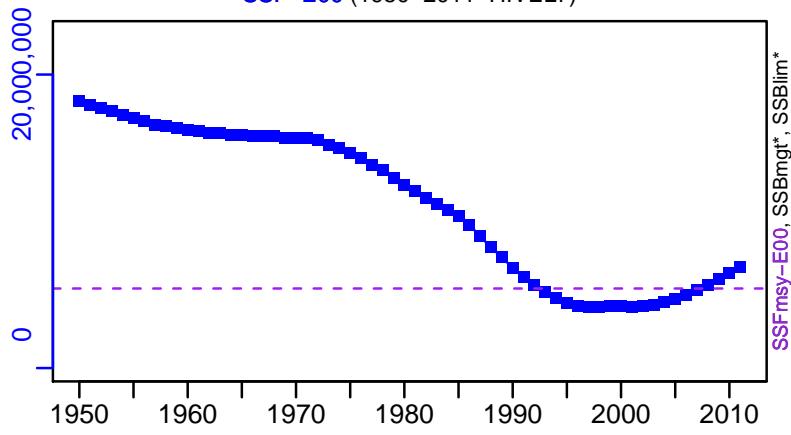
◆ Start Year ♦ End Year * No Data

Bonnethead shark Atlantic [BHEADSHARATL]

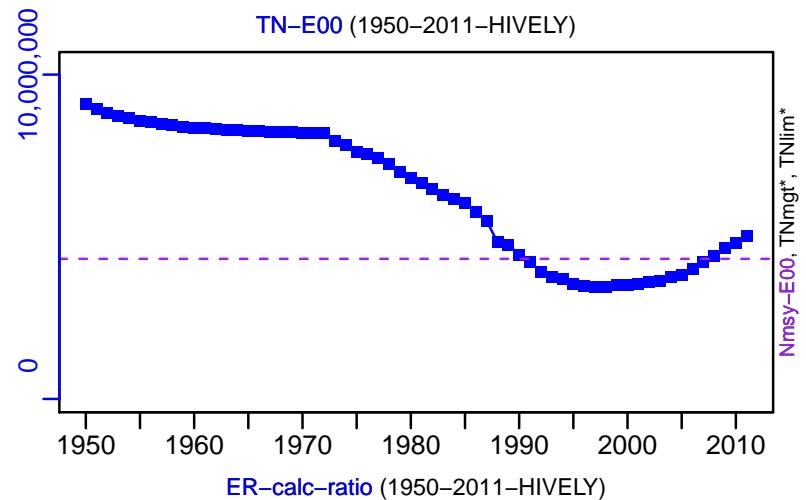
TB*



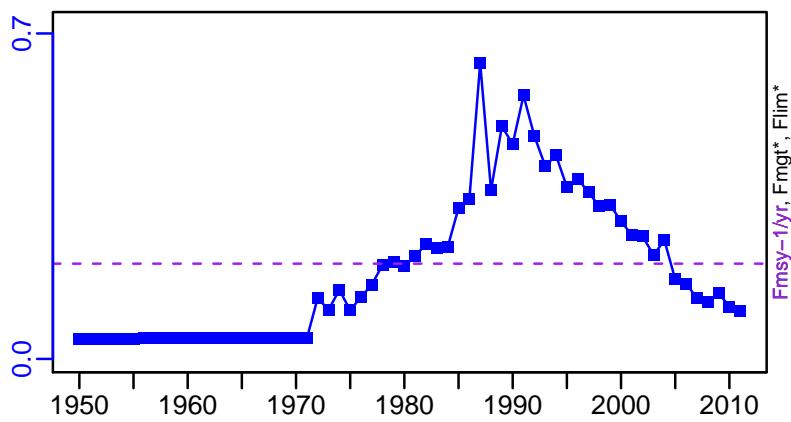
SSF-E00 (1950–2011–HIVELY)



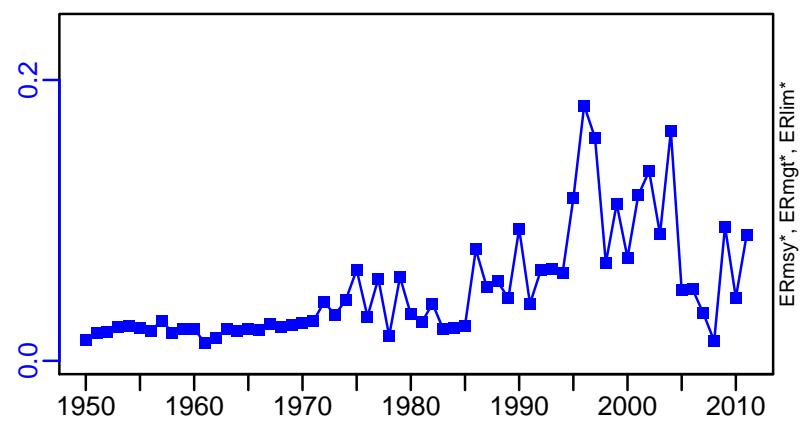
TN-E00 (1950–2011–HIVELY)



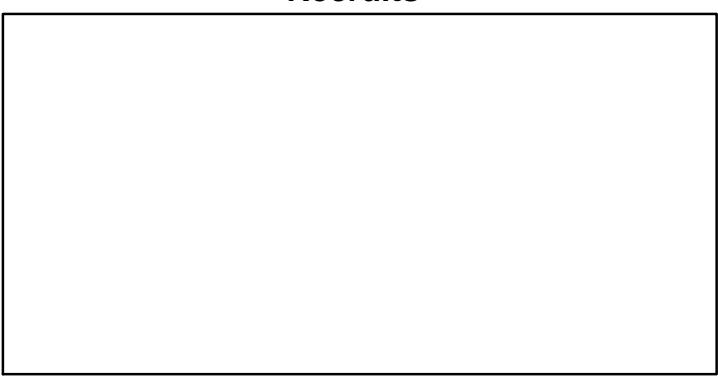
F-1/yr (1950–2011–HIVELY)



ER-calc-ratio (1950–2011–HIVELY)



Recruits*

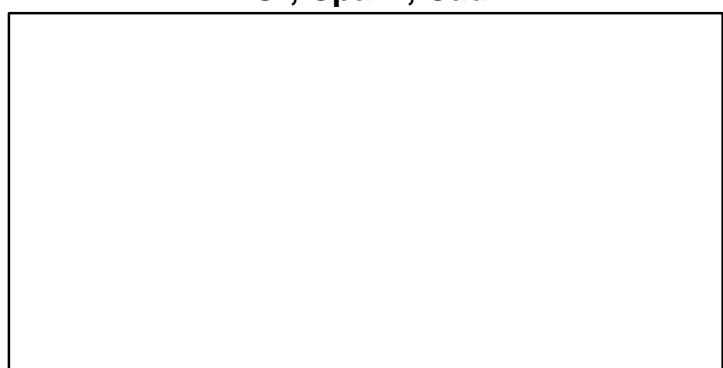
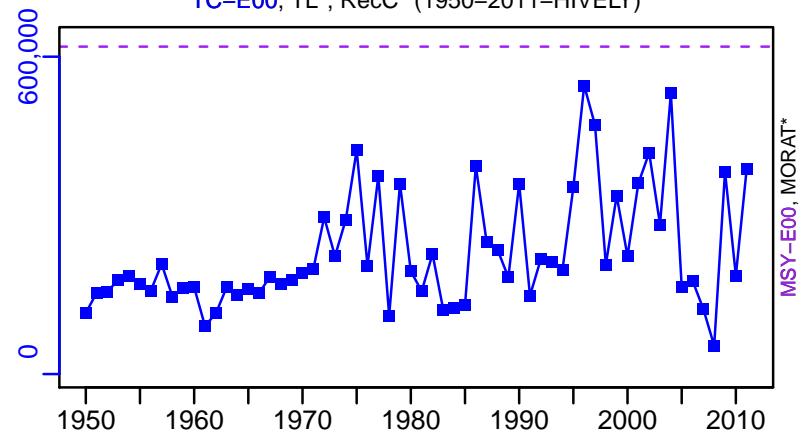


- | | | |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| — MSY-based BRP | --- Lim BRP | * No Data |

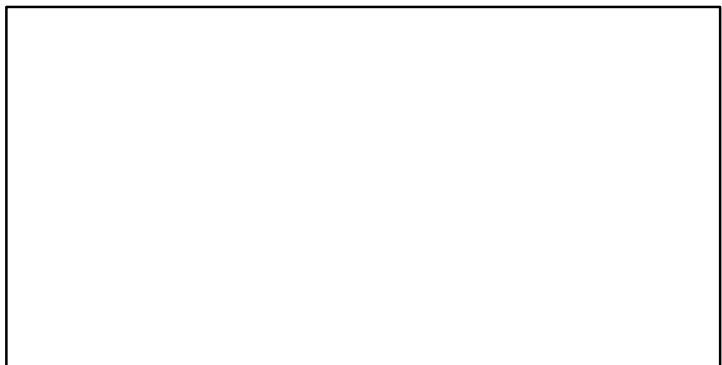
Bonnethead shark Atlantic [BHEADSHARATL]

TC-E00, TL*, RecC* (1950–2011–HIVELY)

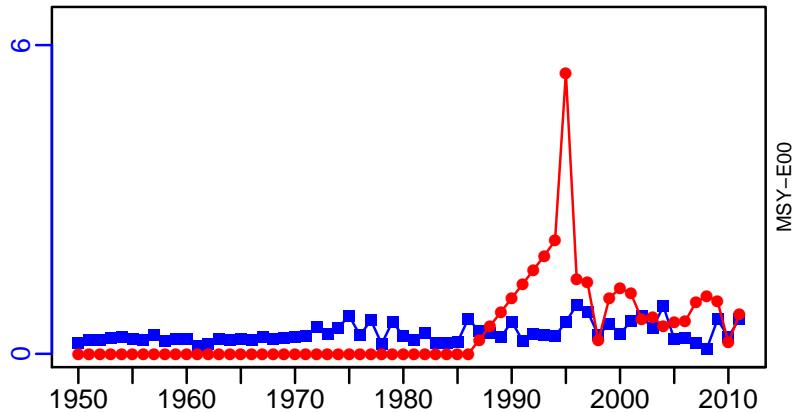
TAC*, Cpair*, Cadv*



EFFORT*



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



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

Black grouper Gulf of Mexico and South Atlantic [BLACKGROUPERGMSATL]

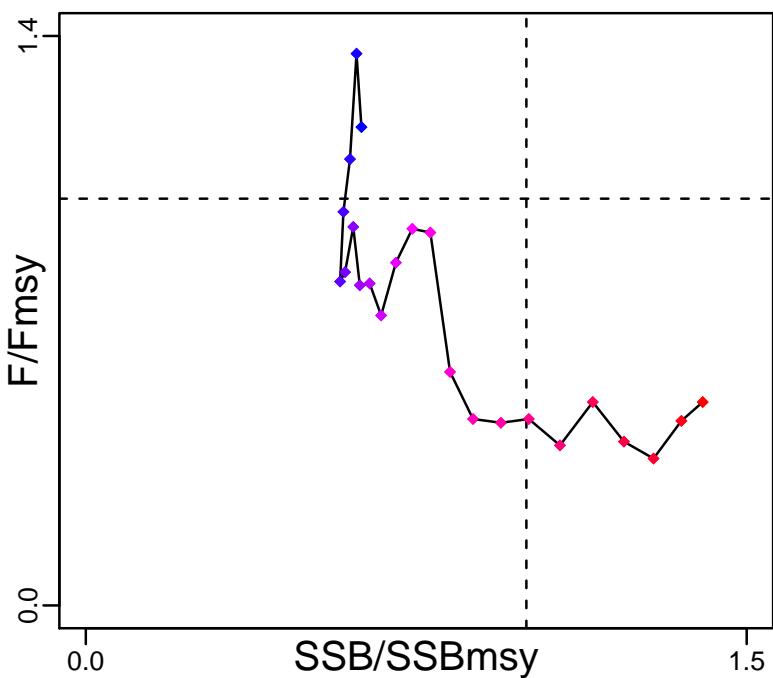
Metadata	
Scientific Name	Mycteroperca bonaci
Current Assess ID	SEFSC-BLACKGROUPERGMSATL-1986-2008-THORSON
Area	Gulf of Mexico and South Atlantic
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2008

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-pr-MT	2008	2685
Fmsy	Fmsy-pr-1/yr	2008	0.216
ERmsy	ERmsy-est-ratio	2008	0.084
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-est-MT	2008	488
M	M-1/yr	2008	0.136
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

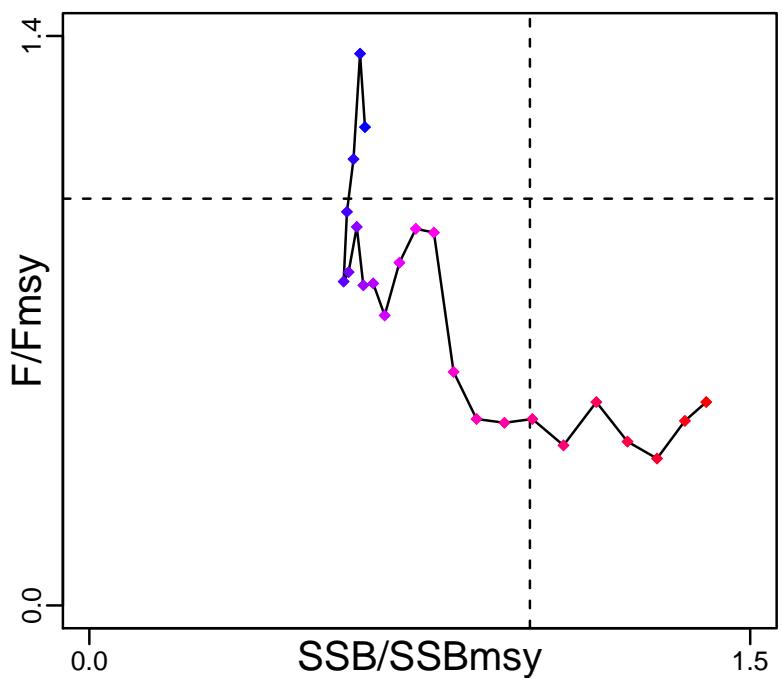
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2008	3760	Both	7+
TN	-	-	-	-	-
R	R-E00	2008	169,000	-	1
F	F-1/yr	2008	0.108	Females	5
ER	ER-calc-ratio	2008	0.017	-	-
TC	TC-MT	2008	138		
TL	TL-MT	2008	99		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-pr-MT	2008	1.4		
F/Fmsy	F-1/yr/Fmsy-pr-1/yr	2008	0.5		
ER/ERmsy	ER-calc-ratio/ERmsy-est-ratio	2008	0.202		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Black grouper Gulf of Mexico and South Atlantic [BLACKGROUPERGMSATL]

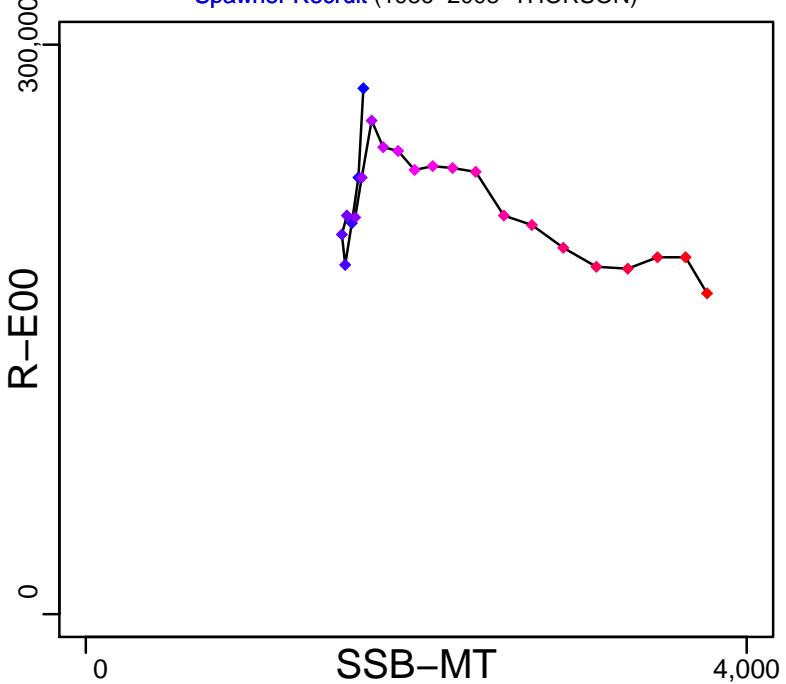
Kobe MSYpref (1986–2008–THORSON)



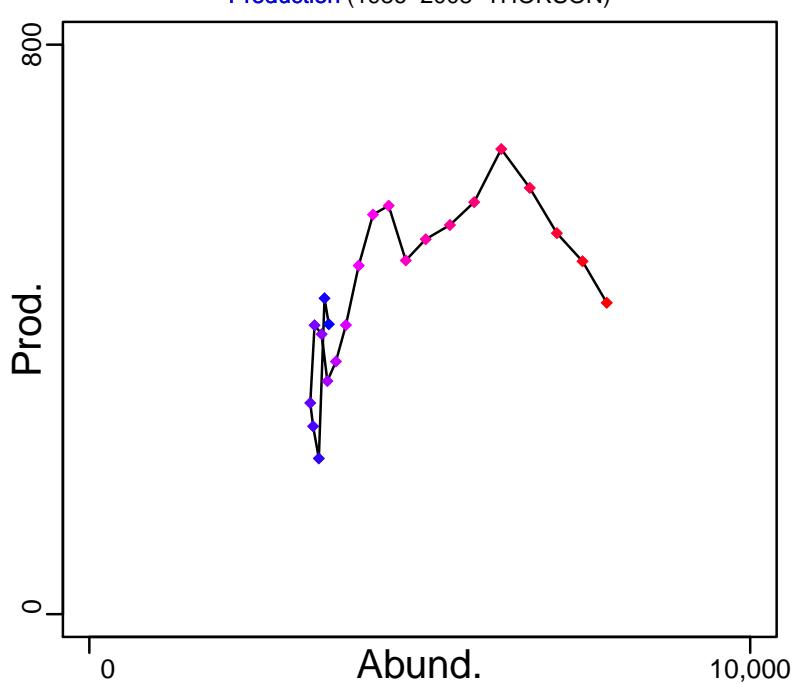
Kobe MGTpref (1986–2008–THORSON)



Spawner Recruit (1986–2008–THORSON)



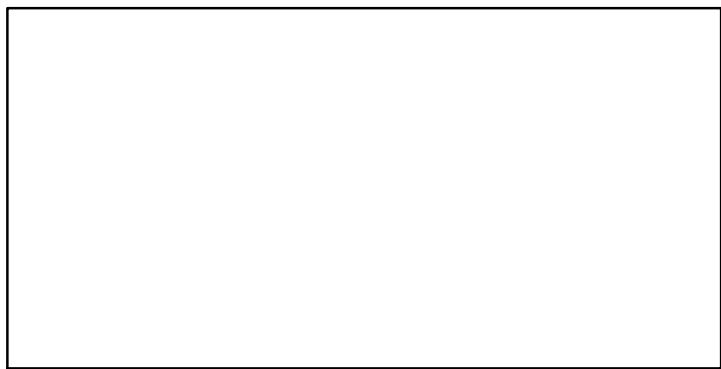
Production (1986–2008–THORSON)



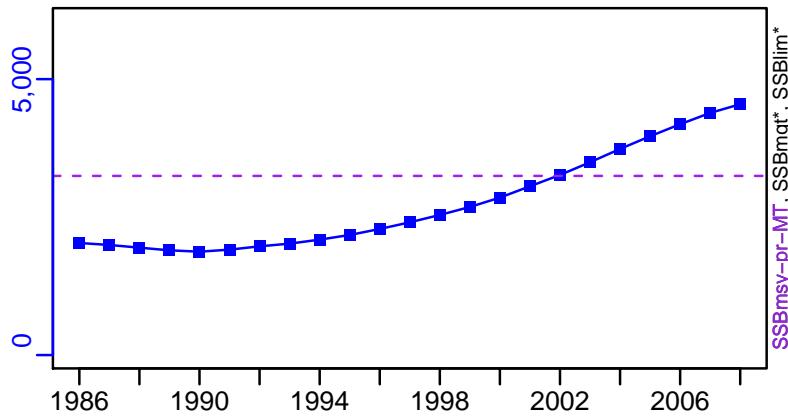
◆ Start Year ◆ End Year * No Data

Black grouper Gulf of Mexico and South Atlantic [BLACKGROUPERGMSATL]

TB*



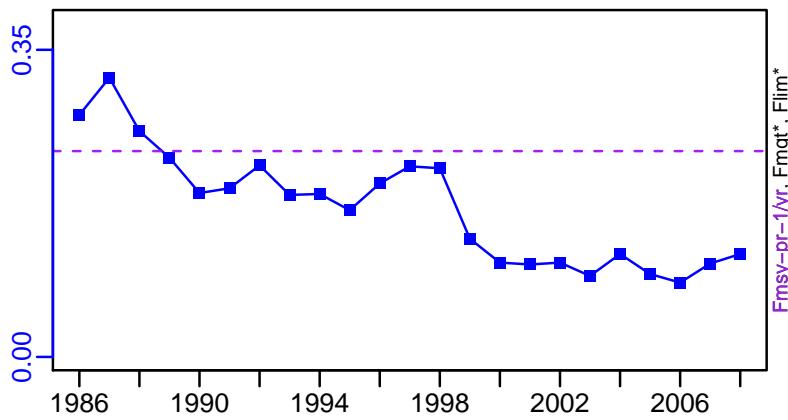
SSB-MT (1986–2008–THORSON)



TN *

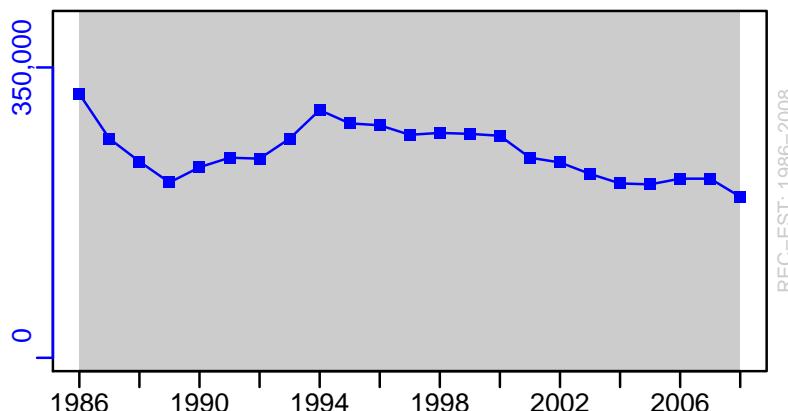
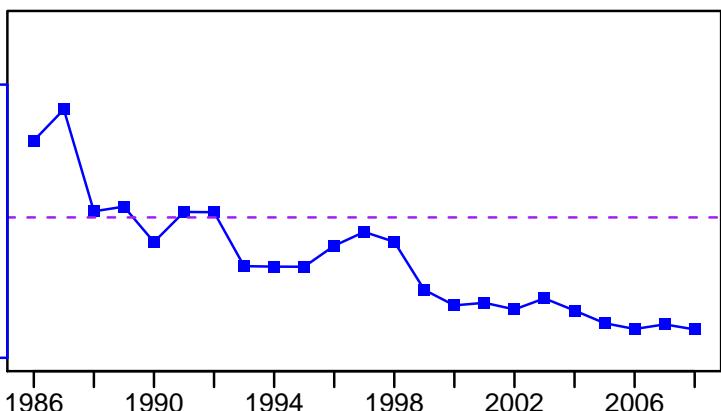


F-1/yr (1986–2008–THORSON)



ER-calc-ratio (1986–2008–THORSON)

R-E00 (1986–2008–THORSON)

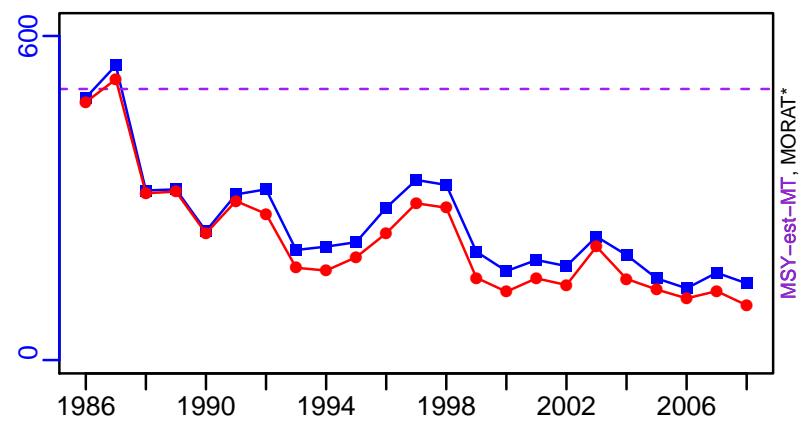


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - Lim BRP	* No Data

Black grouper Gulf of Mexico and South Atlantic [BLACKGROUPERGMSATL]

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

TAC*, Cpair*, Cadv*



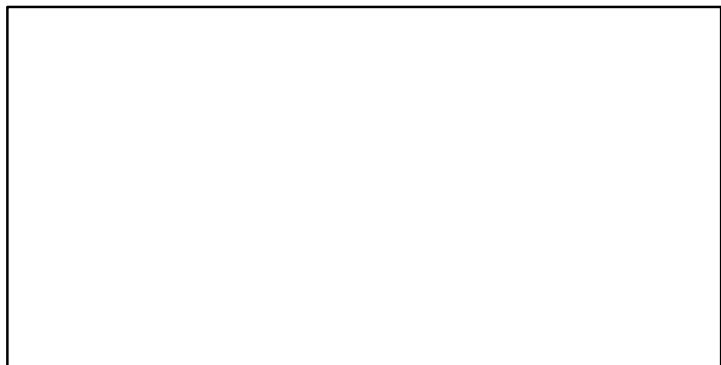
survB*



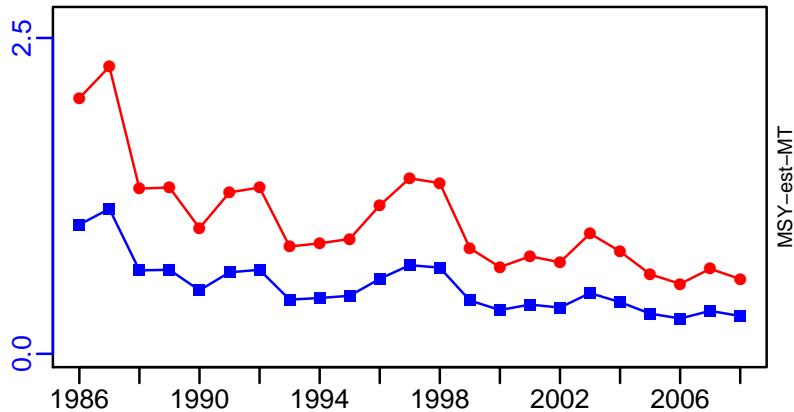
CPUE*



EFFORT*



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



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

Blueline tilefish Southern Atlantic coast [BLTILESATLC]

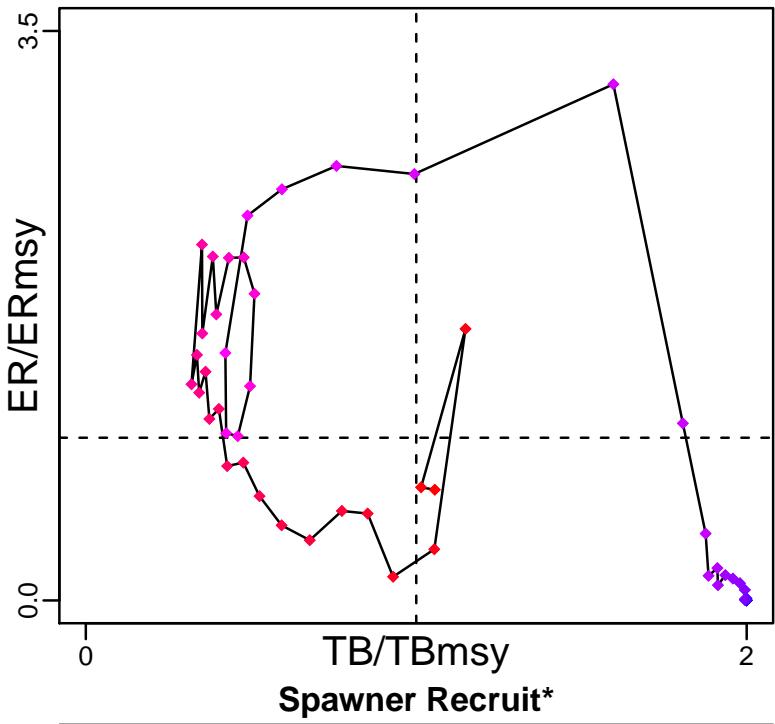
Metadata	
Scientific Name	Caulolatilus microps
Current Assess ID	SEFSC-BLTILESATLC-1958-2015-SISIMP2021
Area	Southern Atlantic coast
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2015, 2011

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	-	-	-

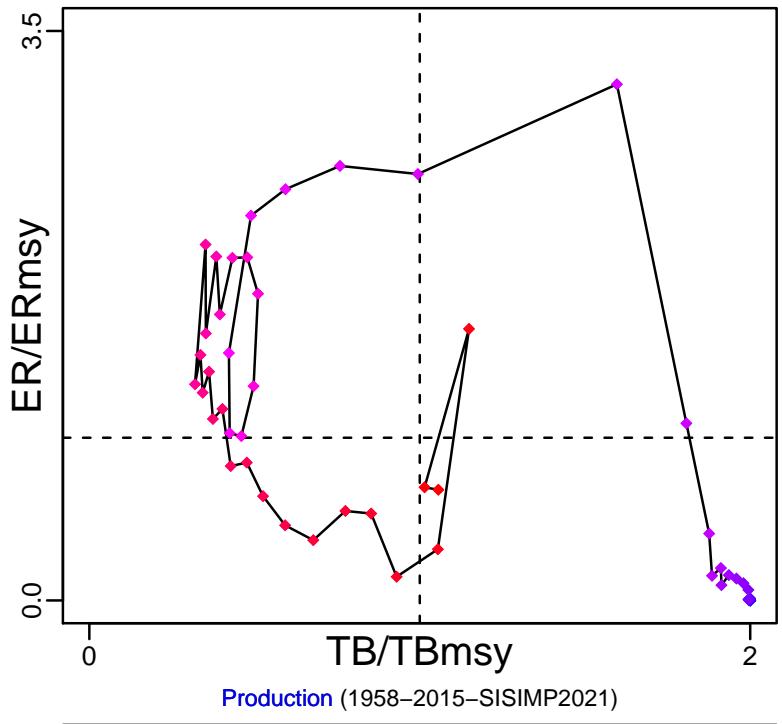
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2015	703	-	-	
SSB	SSB-MT	2011	202	Females	3+	
TN	-	-	-	-	-	
R	-	-	-	-	-	
F	F-1/yr	2015	0.134	-	-	
ER	ER-calc-ratio	2015	0.098	-	-	
TC	TC-MT	2015	69			
TL	-	-	-			
TB/TBmsy	TB-MT/TBmsy-MT	2015	1.056			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2011	0.818			
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)

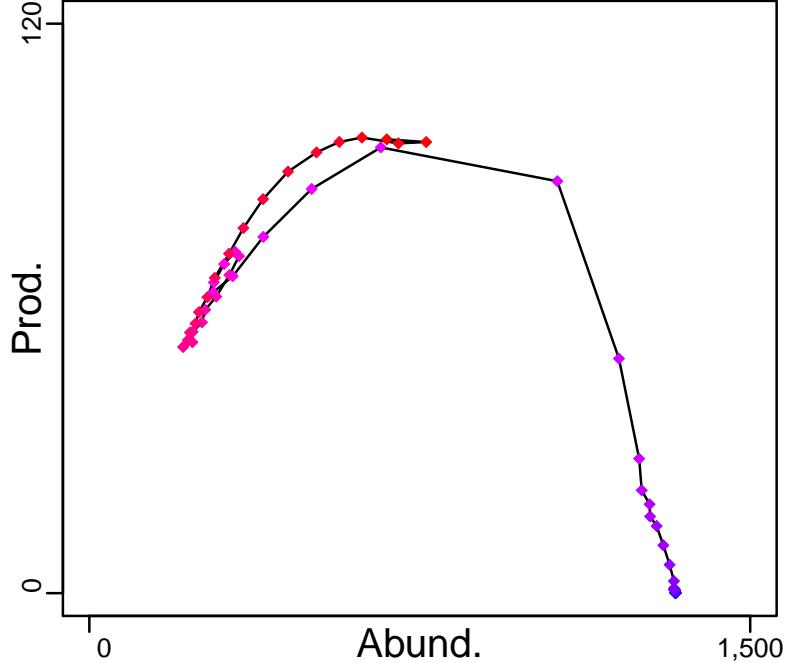
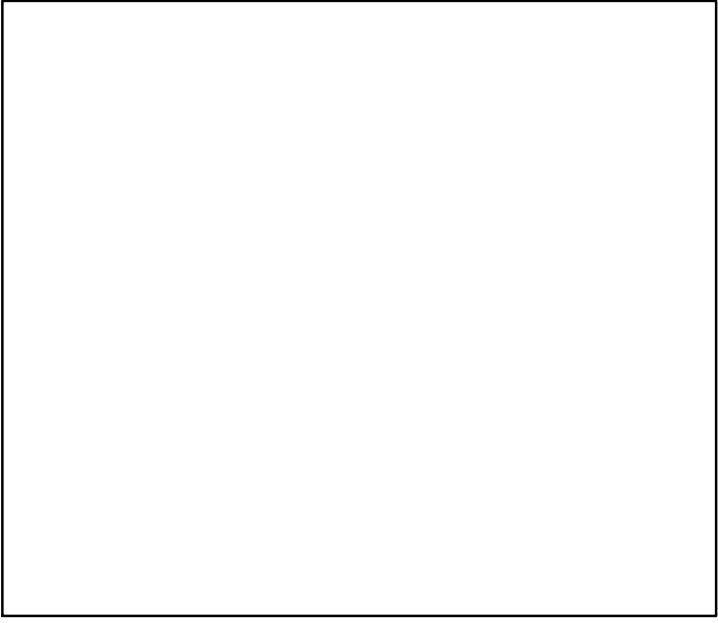


Kobe MGTpref (1958–2015–SISIMP2021)



Spawner Recruit*

Production (1958–2015–SISIMP2021)

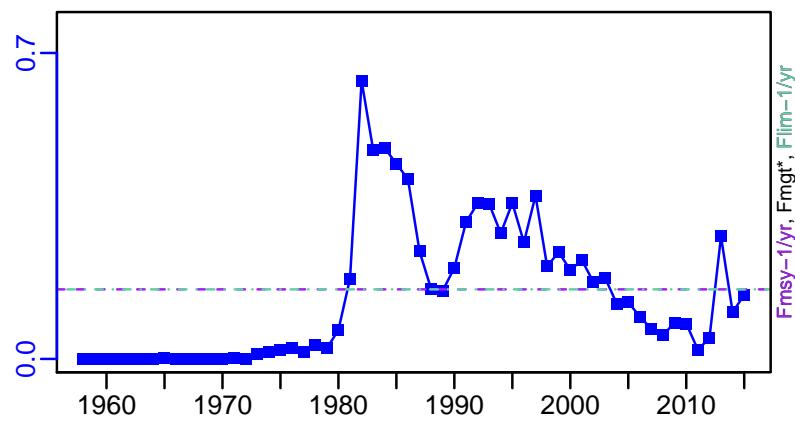
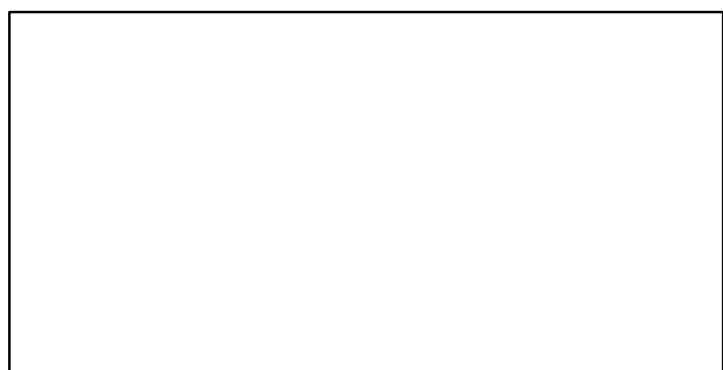
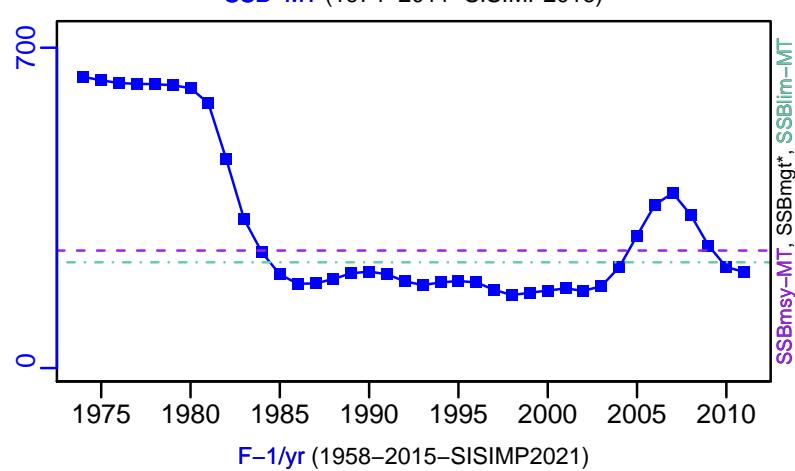
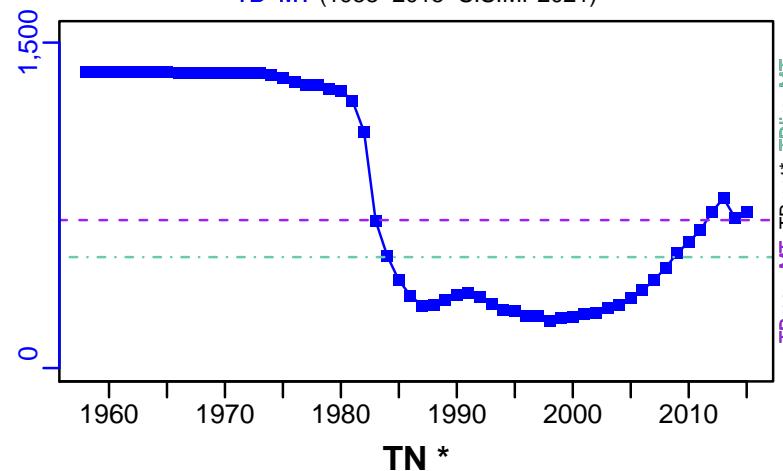


◆ Start Year ◆ End Year * No Data

Blueline tilefish Southern Atlantic coast [BLTILESATLC]

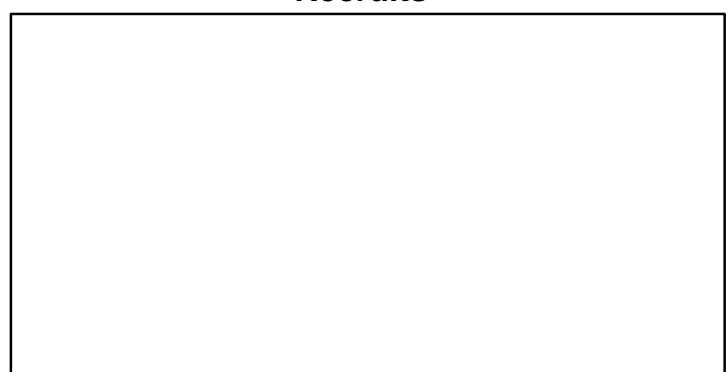
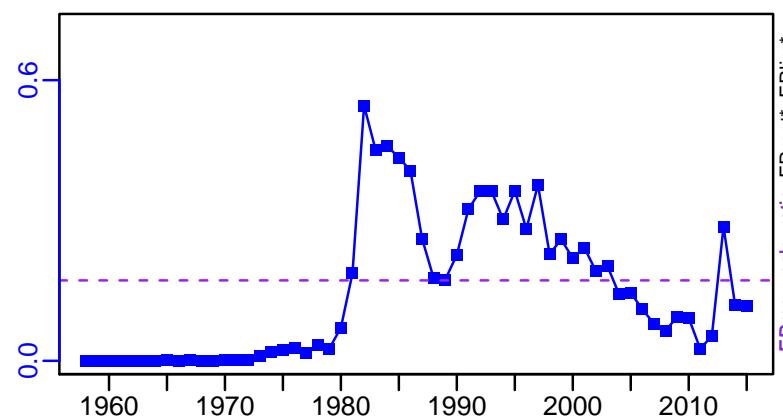
TB-MT (1958–2015–SISIMP2021)

SSB-MT (1974–2011–SISIMP2016)



ER-calc-ratio (1958–2015–SISIMP2021)

Recruits*

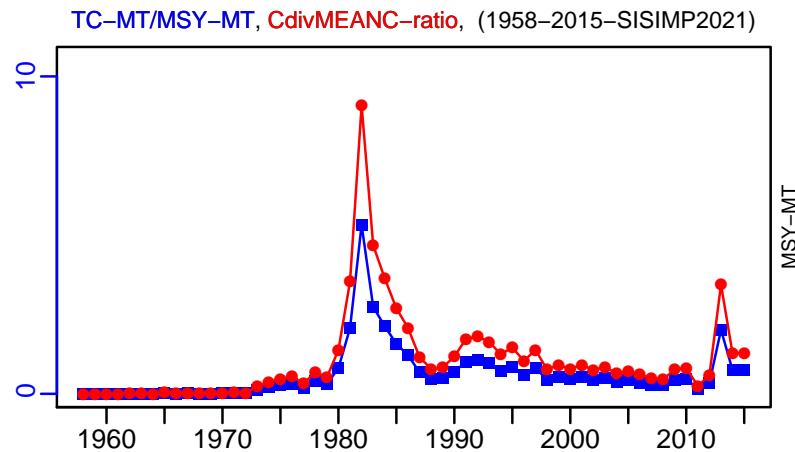
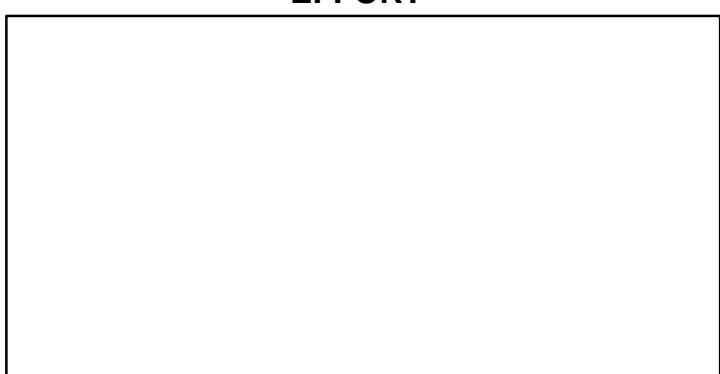
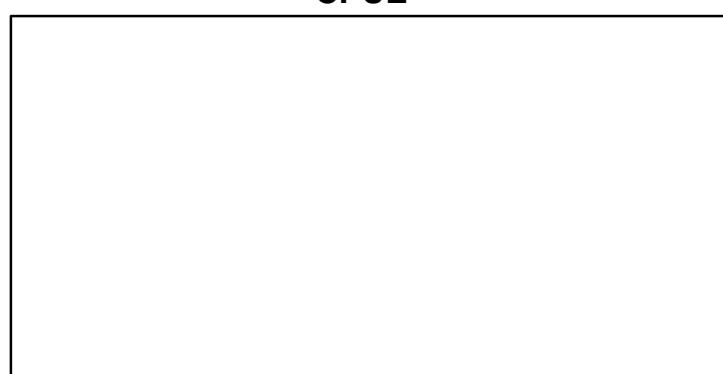
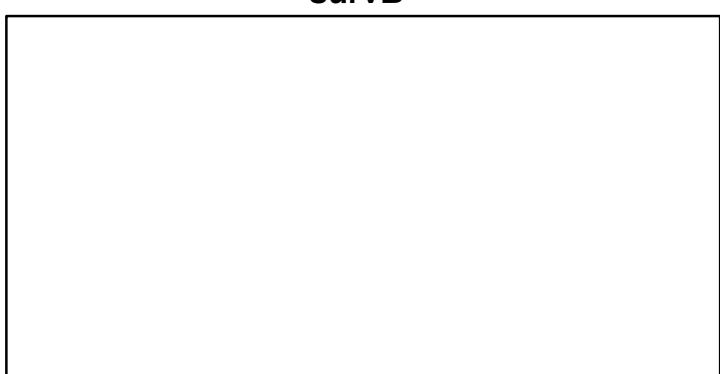
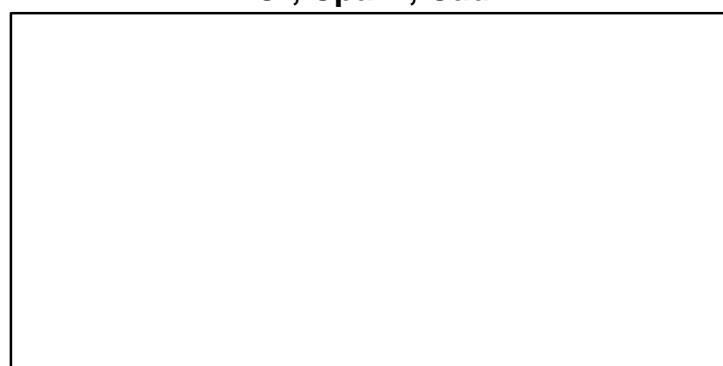
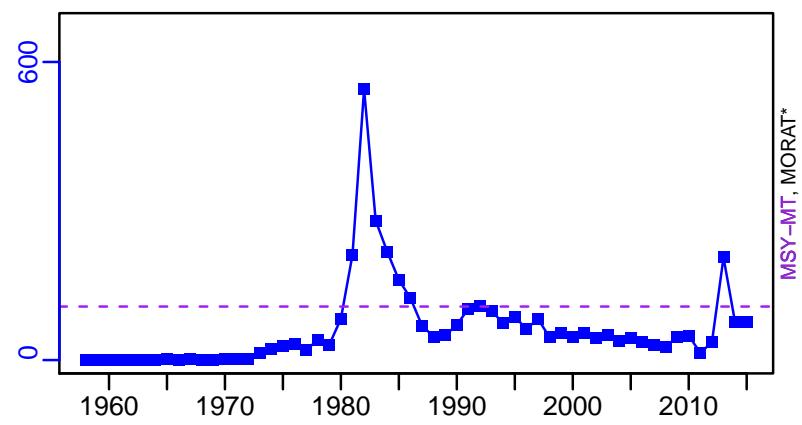


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|----------------------|---------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| - - - MSY-based BRP | - - - Lim BRP | * No Data |

Blueline tilefish Southern Atlantic coast [BLTILESATLC]

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

TAC*, Cpair*, Cadv*



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

Blacknose shark Atlantic [BNOSESHARATL]

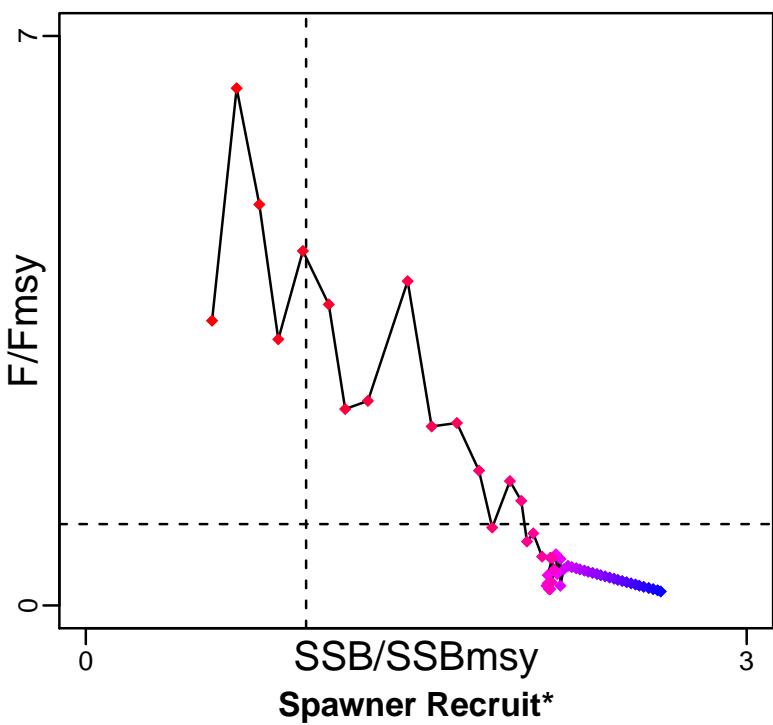
Metadata			
Scientific Name	Carcharhinus acronotus		
Current Assess ID	SEFSC-BNOSESHARATL-1950-2009-SISIMP2016		
Area	Atlantic		
Management Authority	National Marine Fisheries Service, US national management		
Assessor	Southeast Fisheries Science Center		
Asmts in RAM	2005, 2009		

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	-	-	-

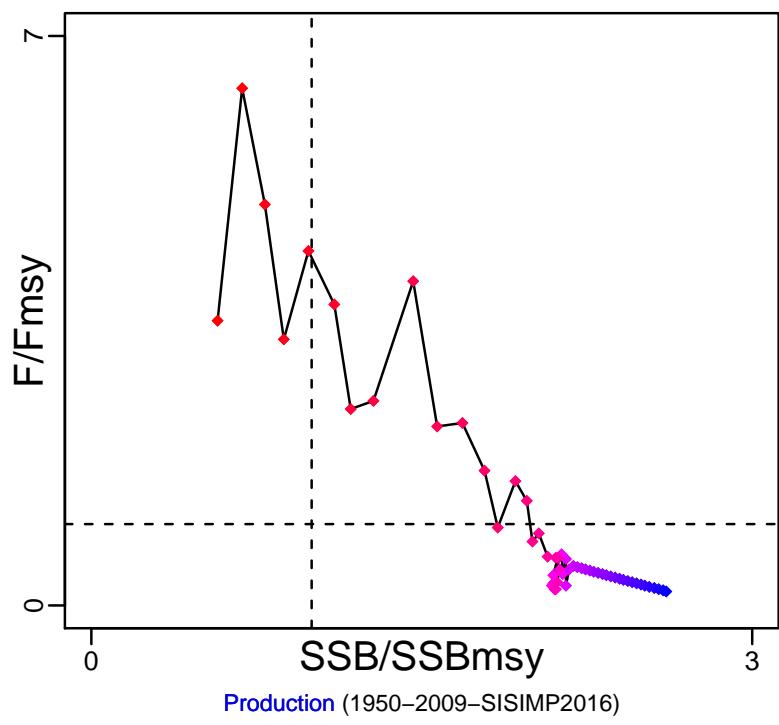
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-mwc-MT	2009	365	-	-	
SSB	SSB-E00pups	2009	58,000	-	-	
TN	TN-E00	2009	152,000	-	-	
R	-	-	-	-	-	
F	F-1/yr	2009	0.376	-	-	
ER	ER-calc-ratio	2009	0.206	-	-	
TC	TC-E00	2009	31,300			
TL	-	-	-			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSF-E00/SSFmsy-E00	2005	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)

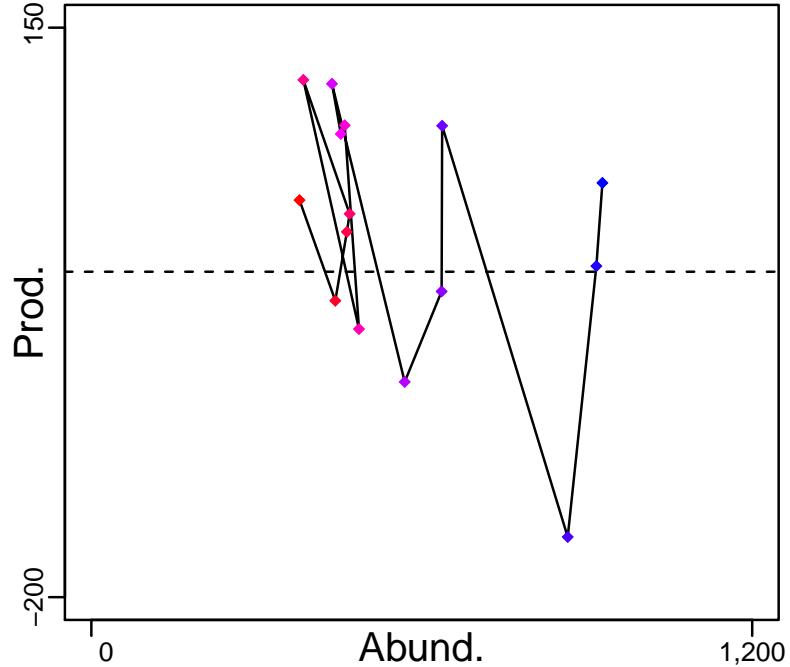
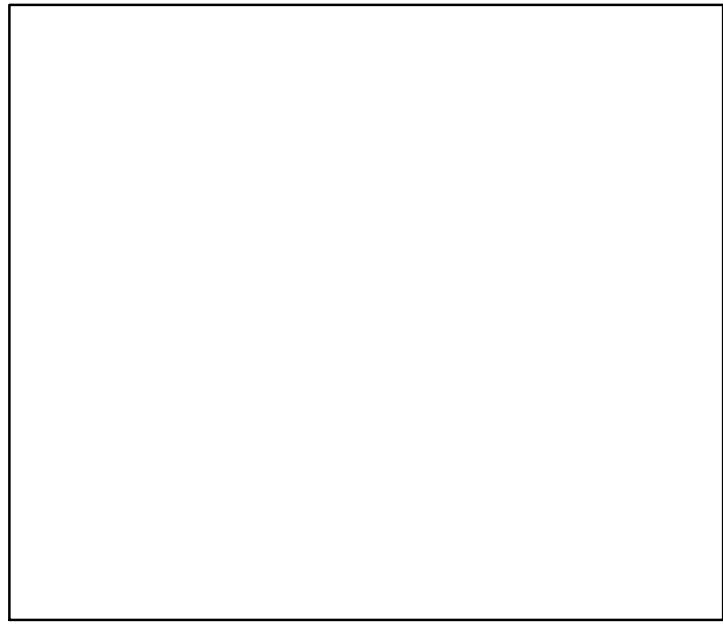


Kobe MGTpref (1950–2005–FAUCONNET)



Spawner Recruit*

Production (1950–2009–SISIMP2016)

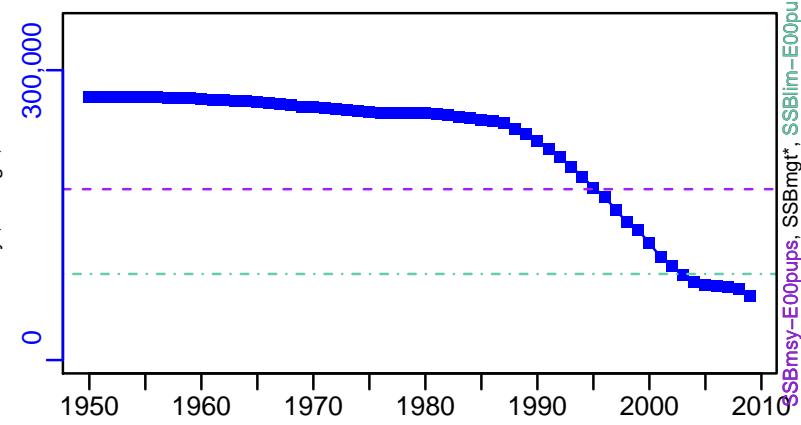
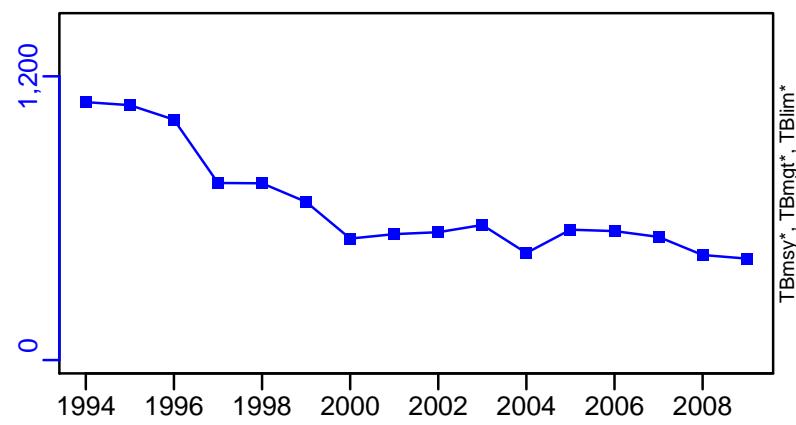


◆ Start Year ◆ End Year * No Data

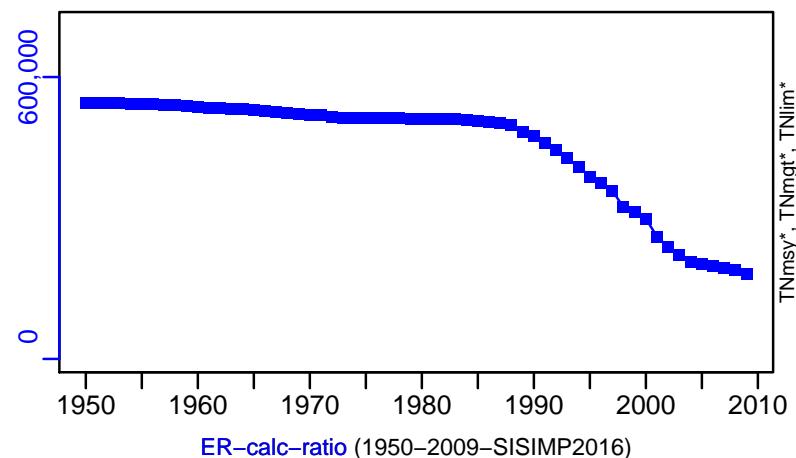
Blacknose shark Atlantic [BNOSESHARATL]

TB-mwc-MT (1950–2009–SISIMP2016)

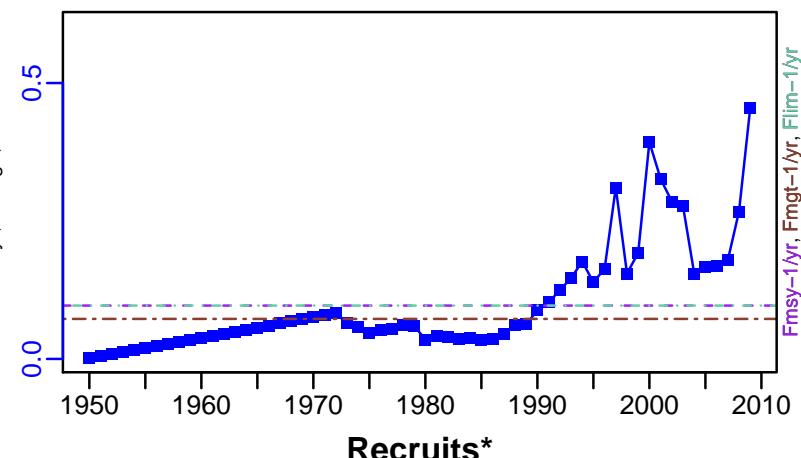
SSB-E00pups (1950–2009–SISIMP2016)



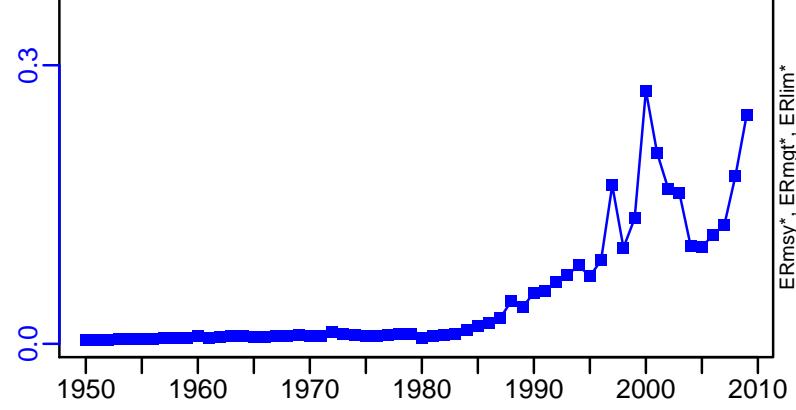
TN-E00 (1950–2009–SISIMP2016)



F-1/yr (1950–2009–SISIMP2016)



ER-calc-ratio (1950–2009–SISIMP2016)



Recruits*

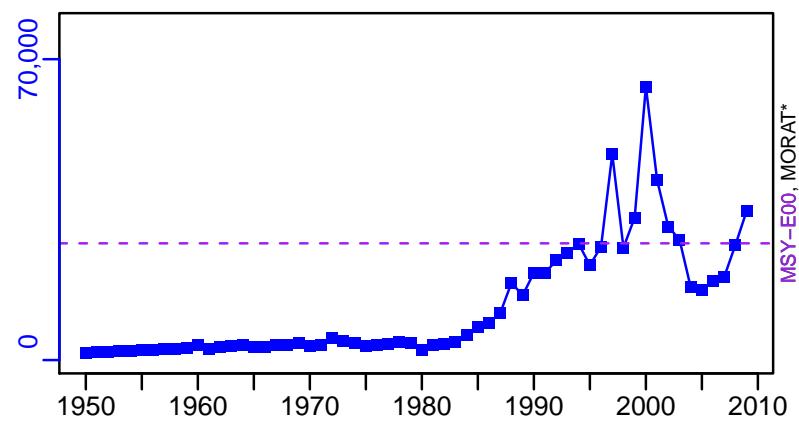


- | | | |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| — MSY-based BRP | --- Lim BRP | * No Data |

Blacknose shark Atlantic [BNOSESHARATL]

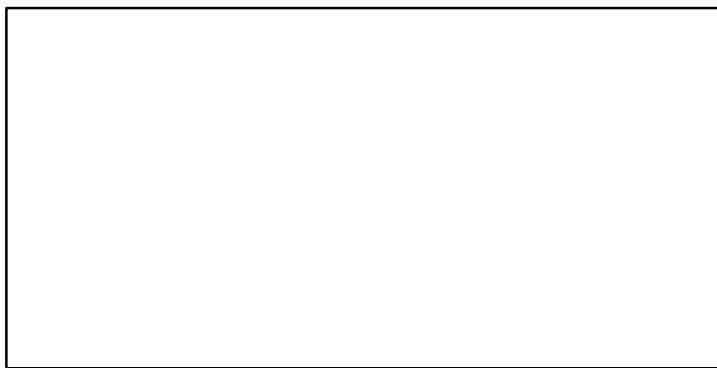
TC-E00, TL*, RecC* (1950–2009–SISIMP2016)

TAC*, Cpair*, Cadv*

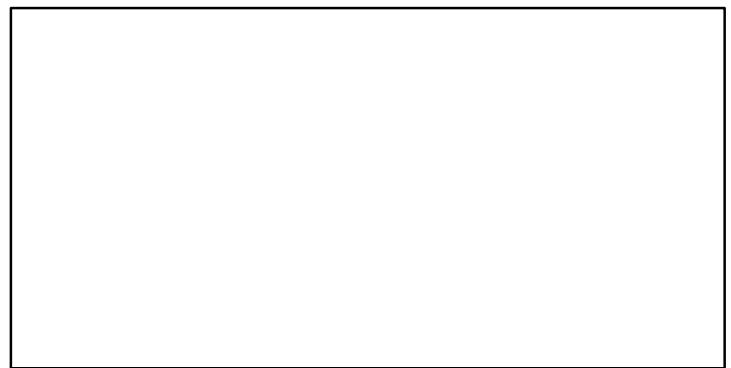


MSY-E00, MORAT*

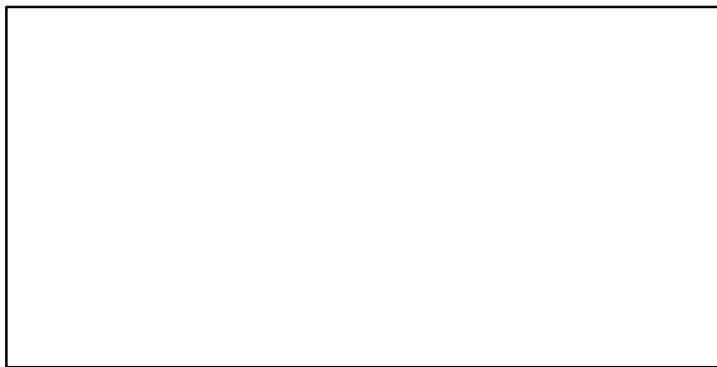
survB*



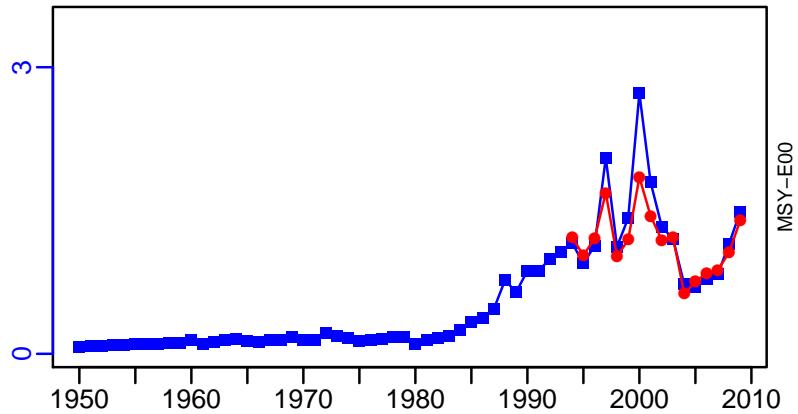
CPUE*



EFFORT*



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



MSY-E00

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

Brown shrimp Gulf of Mexico [BRNSHRIMP-GM]

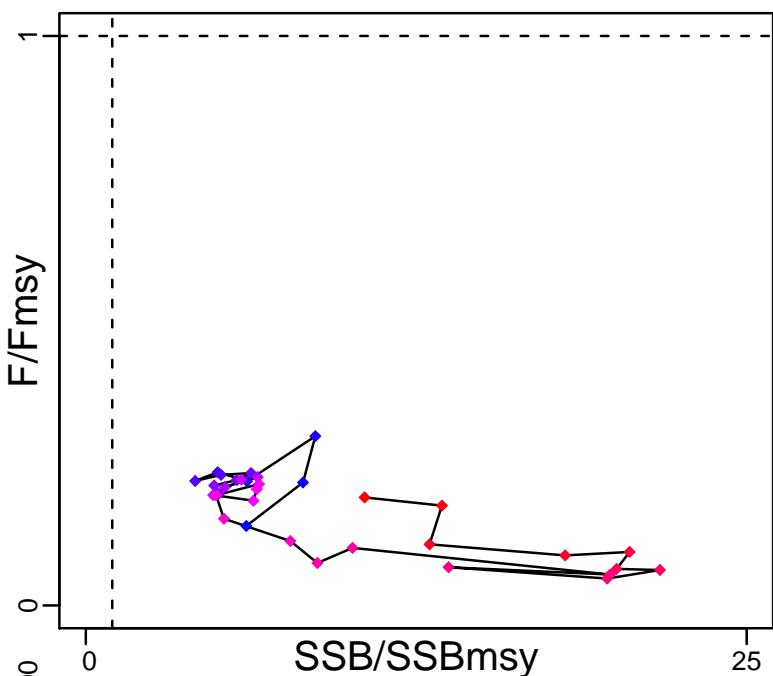
Metadata	
Scientific Name	Farfantepenaeus aztecus
Current Assess ID	SEFSC-BRNSHRIMP-GM-1984-2017-SISIMP2021
Area	Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2011, 2014, 2015, 2016, 2017

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2017	2767
Fmsy	Fmsy-1/yr	2017	9.12
ERmsy	ERmsy-est-ratio	2011	0.669
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-est-MT	2011	49,182
M	-	-	-
TBlim	-	-	-
SSBlim	SSBlim-MT	2017	2767
Flim	-	-	-
ERlim	-	-	-

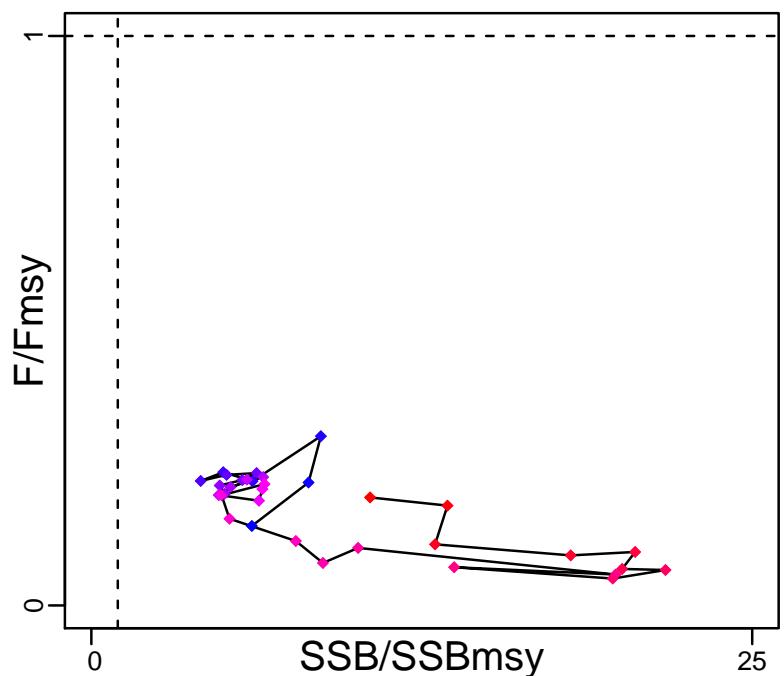
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	-	-	-	-	-	
SSB	SSB-MT	2017	12,174	-	-	
TN	-	-	-	-	-	
R	R-E00	2017	27,770,500,000	-	-	
F	F-1/yr	2017	1.73	-	-	
ER	ER-calc-ratio	2017	0.975	-	-	
TC	TC-MT	2017	28,631			
TL	-	-	-			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2017	4.4			
F/Fmsy	F-1/yr/Fmsy-1/yr	2017	0.19			
ER/ERmsy	ER-ratio/ERmsy-est-ratio	2011	0.22			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Brown shrimp Gulf of Mexico [BRNSHRIMPGM]

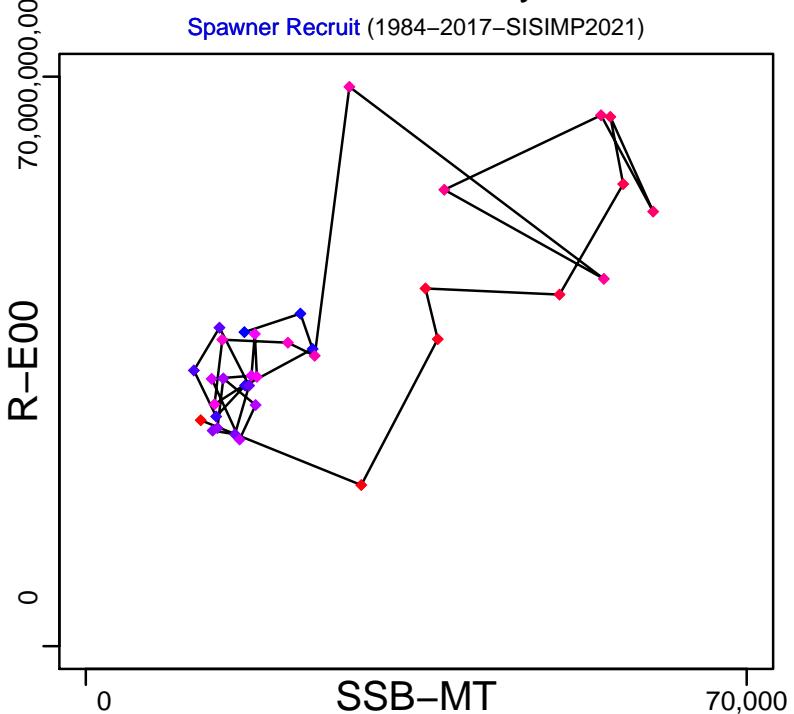
Kobe MSYpref (1984–2017–SISIMP2021)



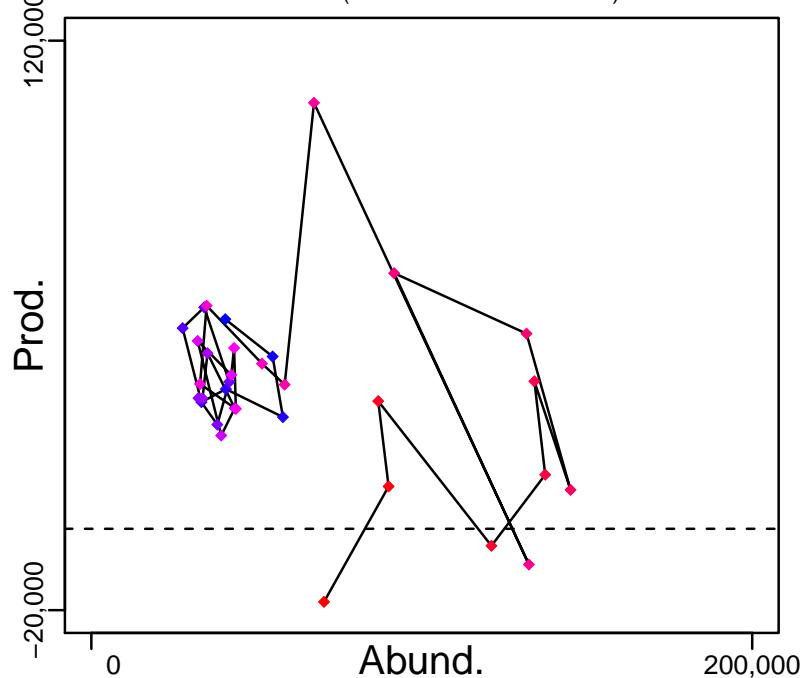
Kobe MGTpref (1984–2017–SISIMP2021)



Spawner Recruit (1984–2017–SISIMP2021)



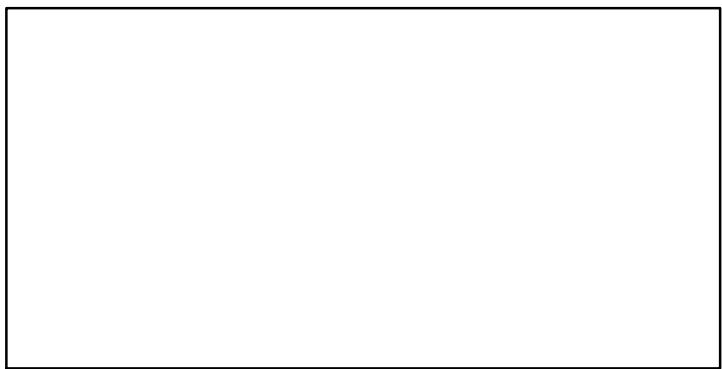
Production (1984–2017–SISIMP2021)



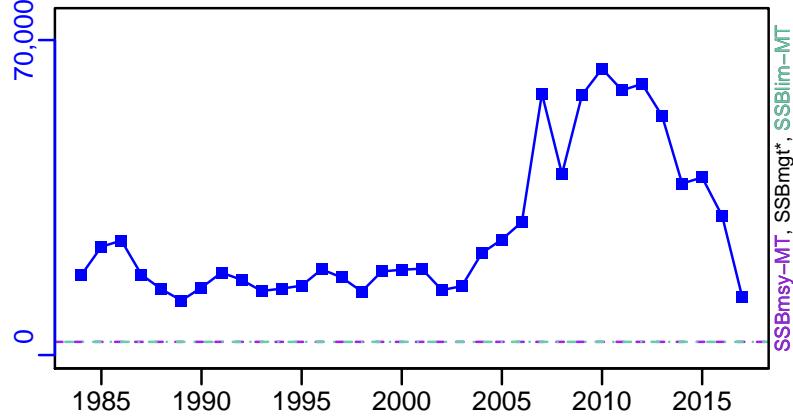
◆ Start Year ◆ End Year * No Data

Brown shrimp Gulf of Mexico [BRNSHRIMPGM]

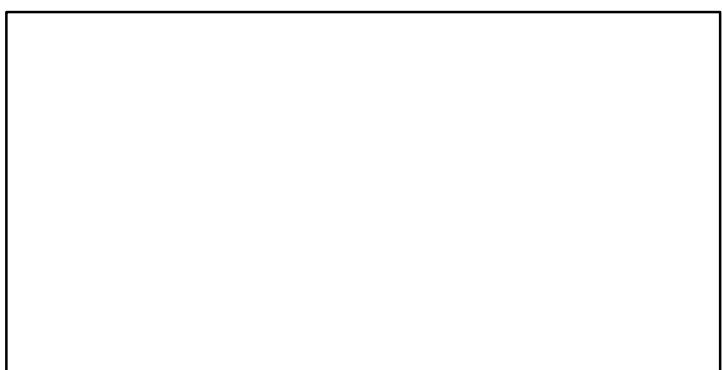
TB*



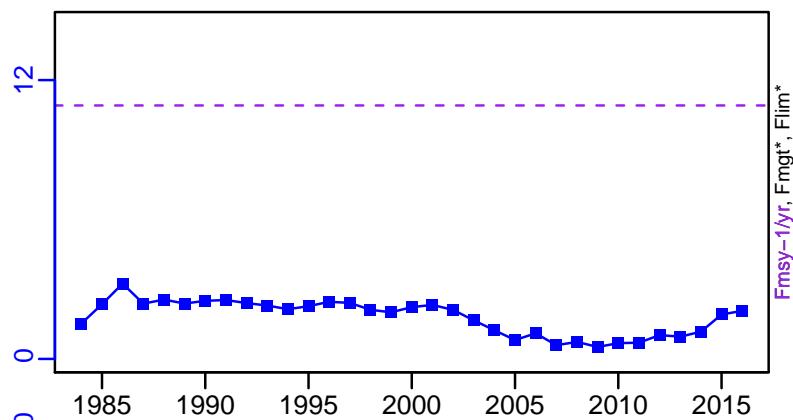
SSB-MT (1984–2017–SISIMP2021)



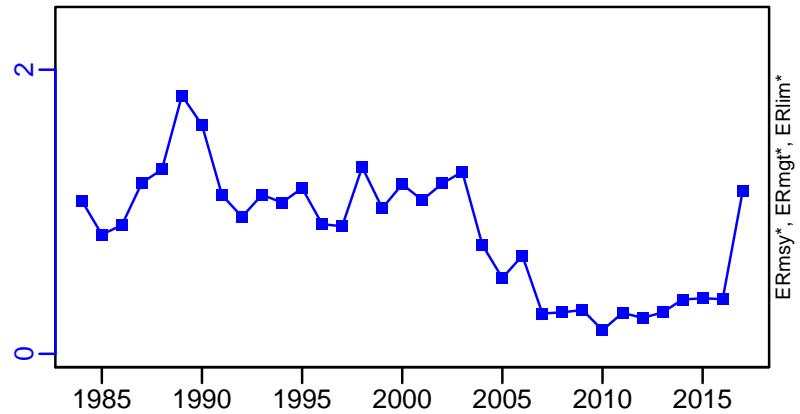
TN *



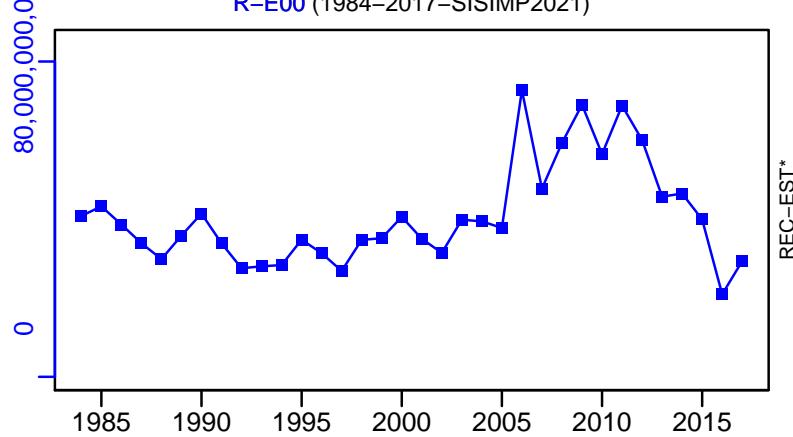
F-1/yr (1984–2017–SISIMP2021)



ER-calc-ratio (1984–2017–SISIMP2021)



R-E00 (1984–2017–SISIMP2021)

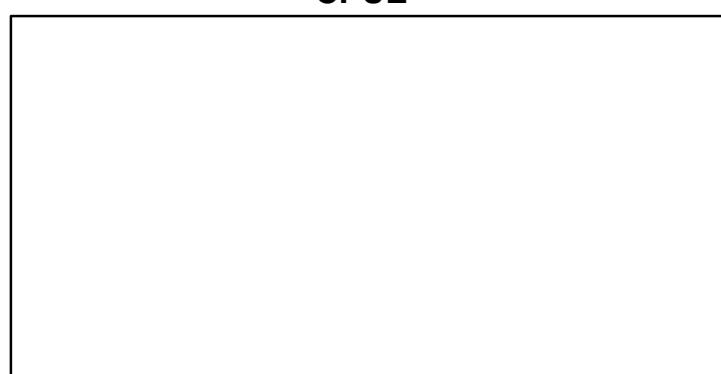
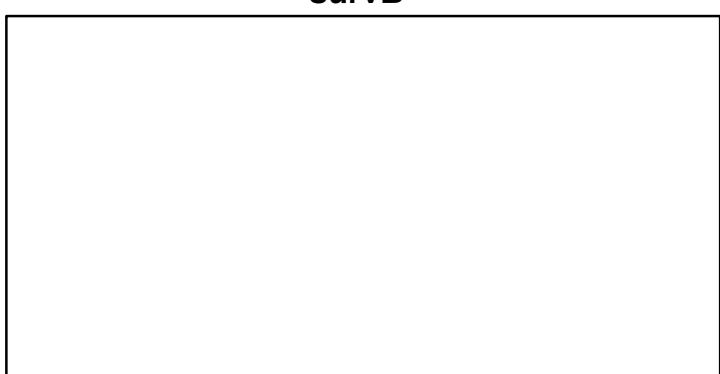
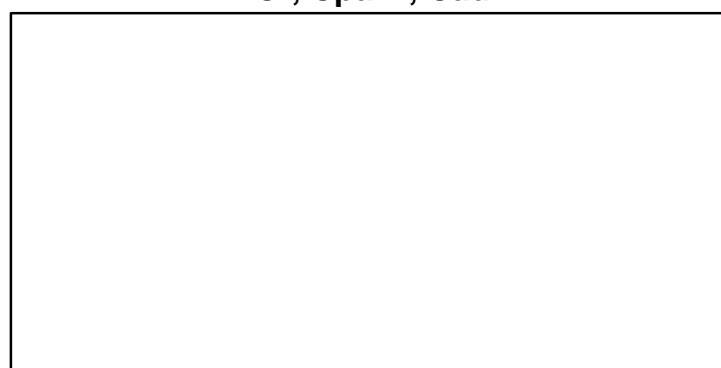
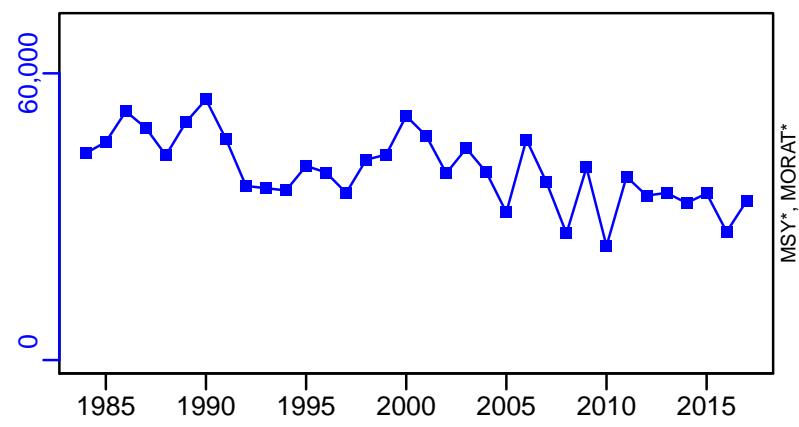


■ Listed time series	--- Target BRP	— Rec-Est
- - MSY-based BRP	- - Lim BRP	* No Data

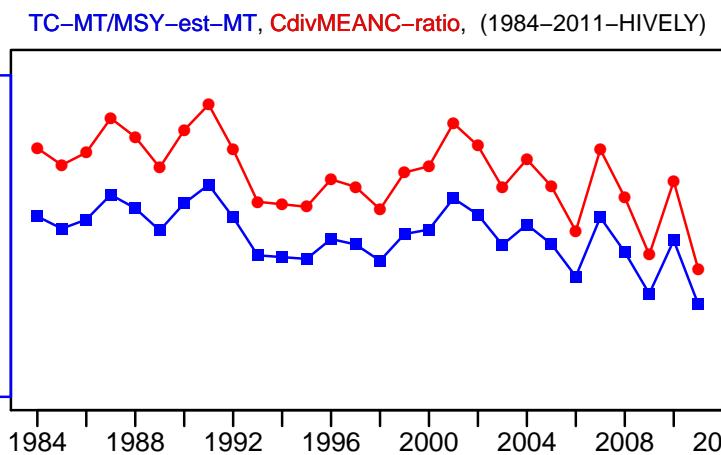
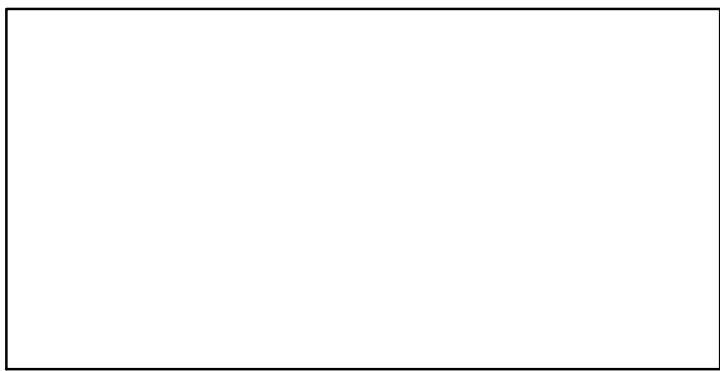
Brown shrimp Gulf of Mexico [BRNSHRIMPGM]

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

TAC*, Cpair*, Cadv*



EFFORT*



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

Black sea bass South Atlantic [BSBASSSATL]

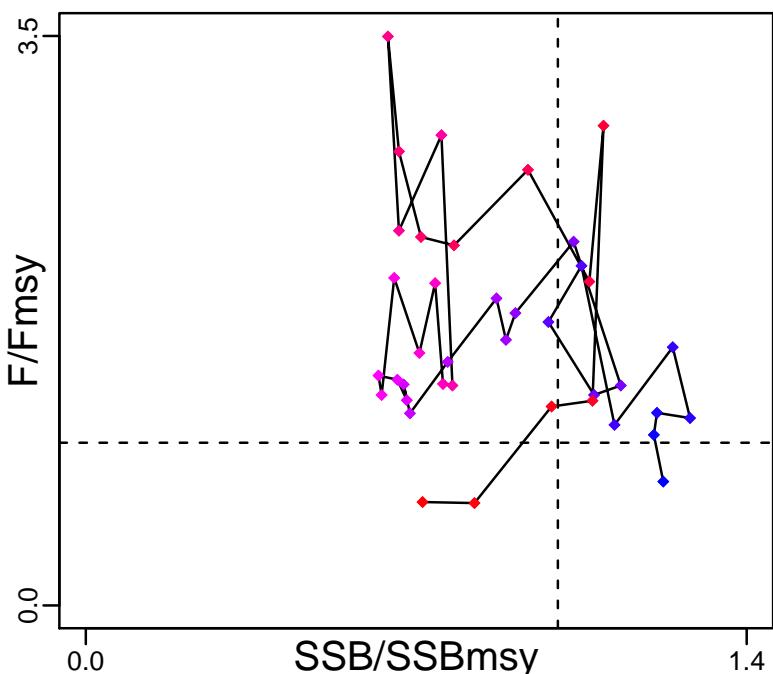
Metadata	
Scientific Name	Centropristes striata
Current Assess ID	SEFSC-BSBASSSATL-1977-2016-SISIMP2021
Area	South Atlantic
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2010, 2016, 2012

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	1.86×10^{12}
Flim	Flim-1/yr	2016	0.31
ERlim	-	-	-

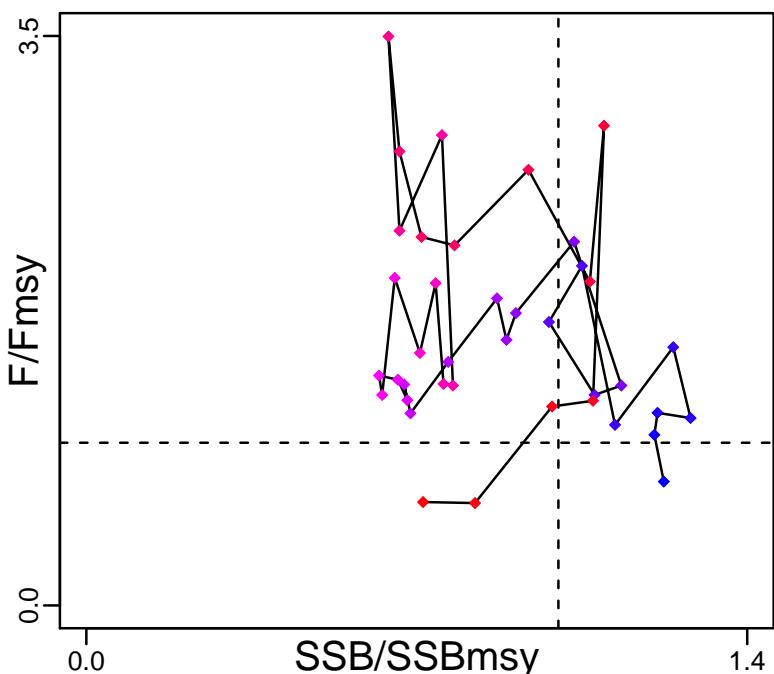
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2010	3800	-	-	
SSB	SSB-E00eggs	2016	2.14×10^{12}	-	-	
TN	-	-	-	-	-	
R	R-E00	2016	20,625,990	-	1	
F	F-1/yr	2016	0.197	-	-	
ER	ER-calc-ratio	2010	0.154	-	-	
TC	TC-MT	2016	262			
TL	TL-MT	2010	585			
TB/TBmsy	TB-MT/TBmsy-MT	2010	0.704			
SSB/SSBmsy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

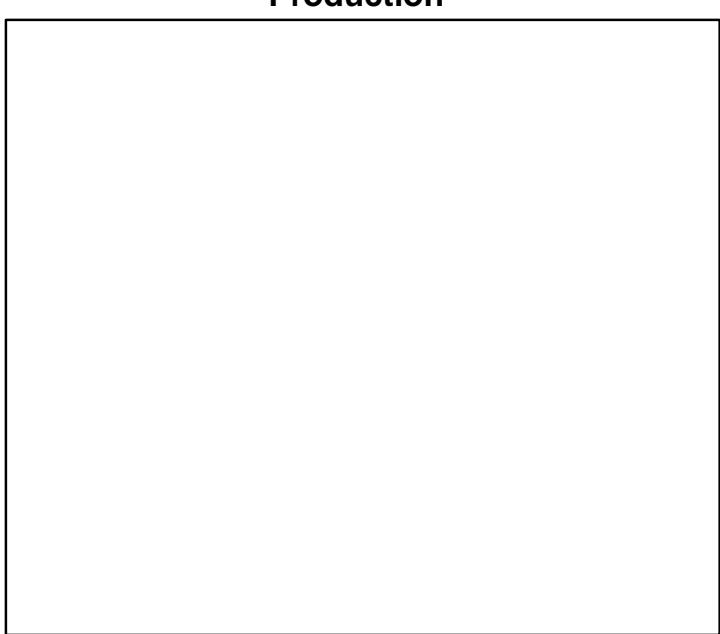
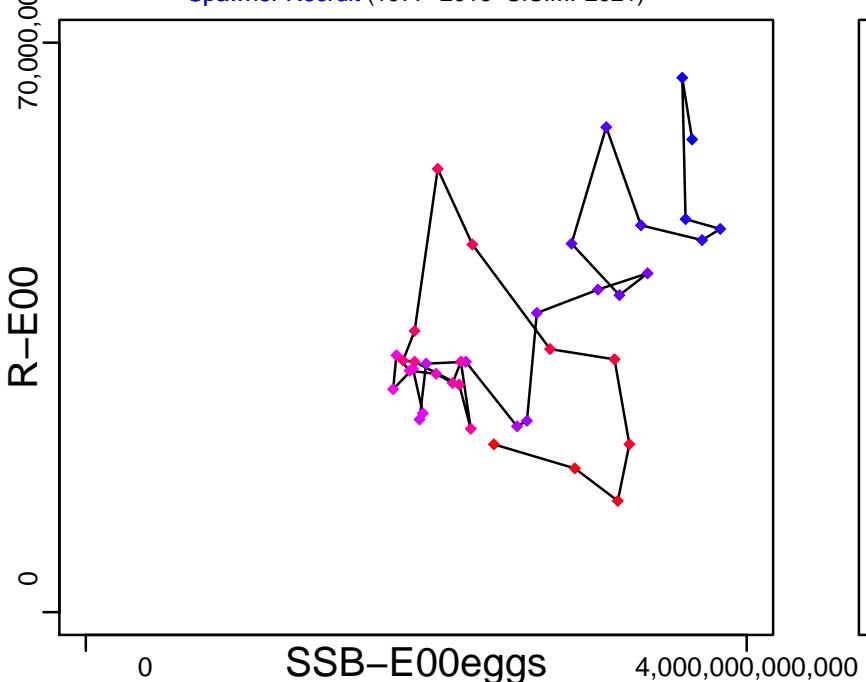
Kobe MSYpref (1977–2016–SISIMP2021)



Kobe MGTpref (1977–2016–SISIMP2021)



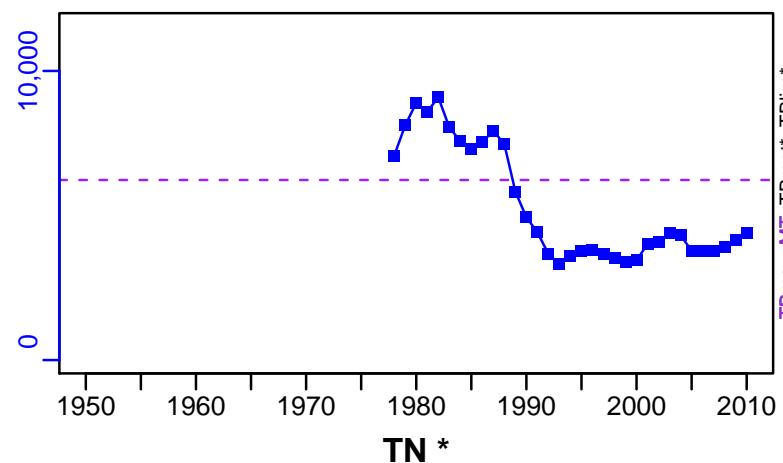
Spawner Recruit (1977–2016–SISIMP2021)



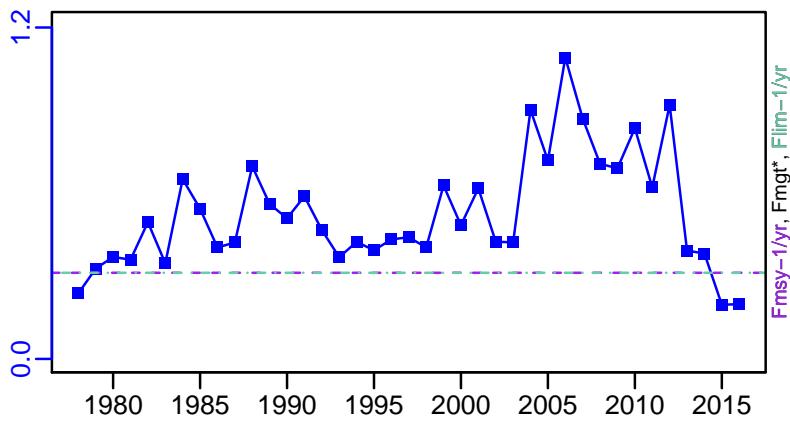
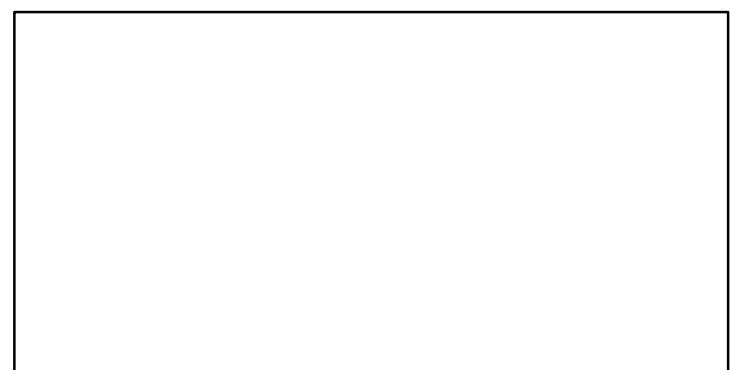
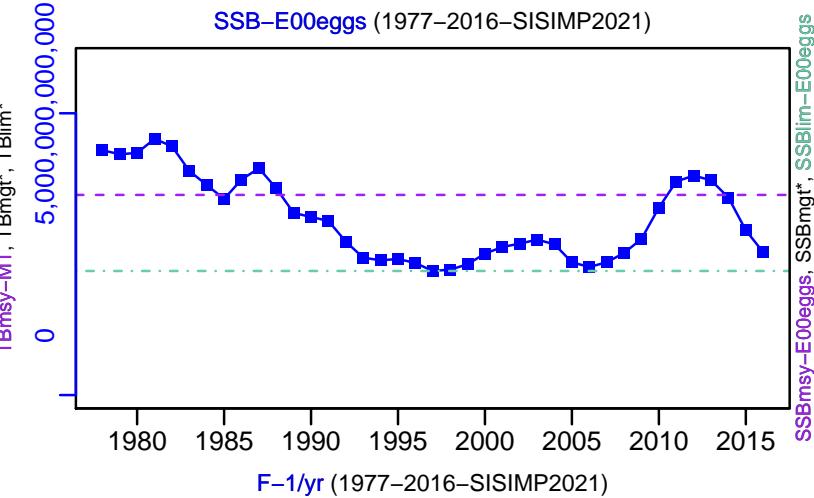
◆ Start Year ◆ End Year * No Data

Black sea bass South Atlantic [BSBASSSATL]

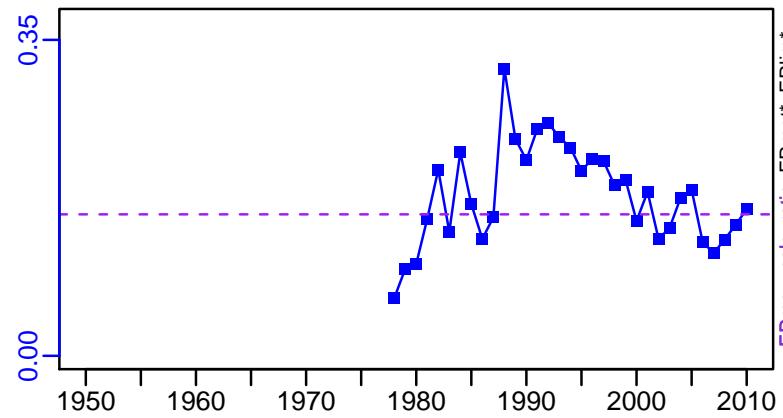
TB-MT (1950–2010–HIVELY)



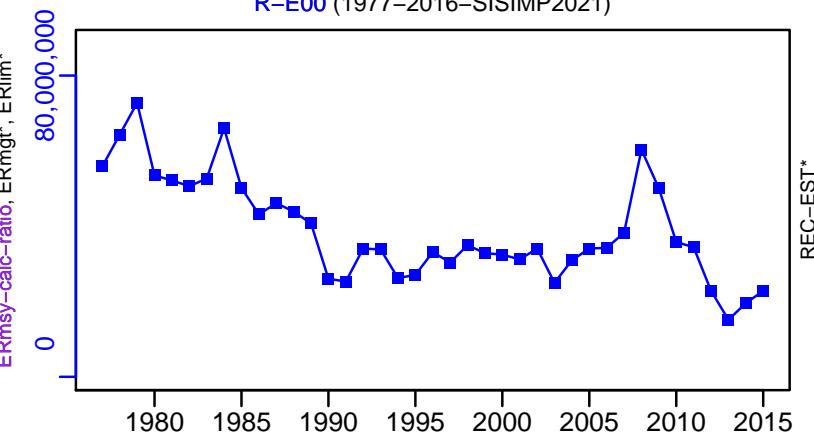
SSB-E00eggs (1977–2016–SISIMP2021)



ER-calc-ratio (1950–2010–HIVELY)



R-E00 (1977–2016–SISIMP2021)

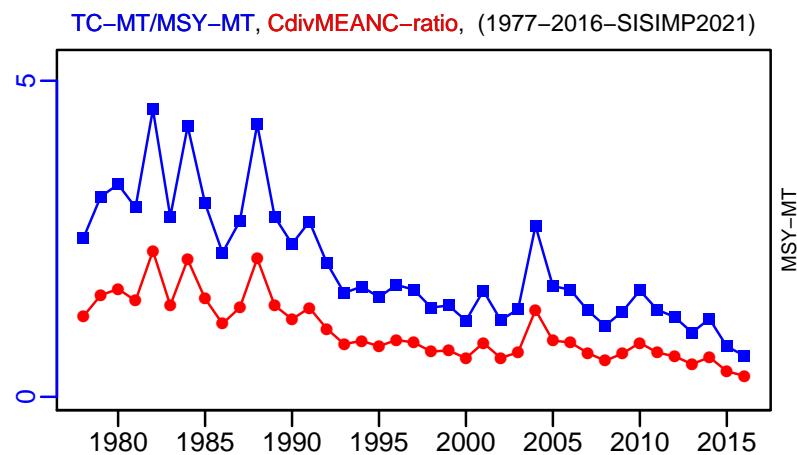
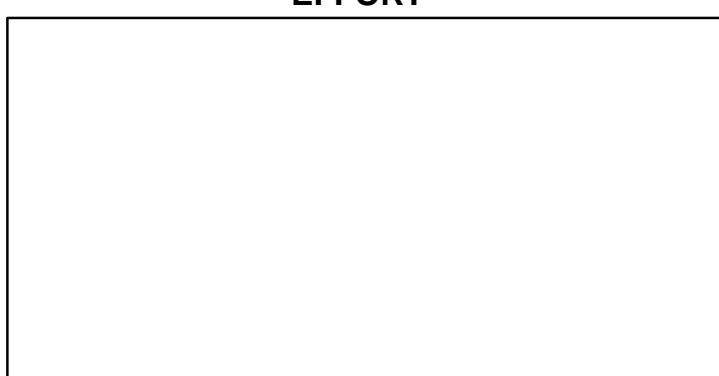
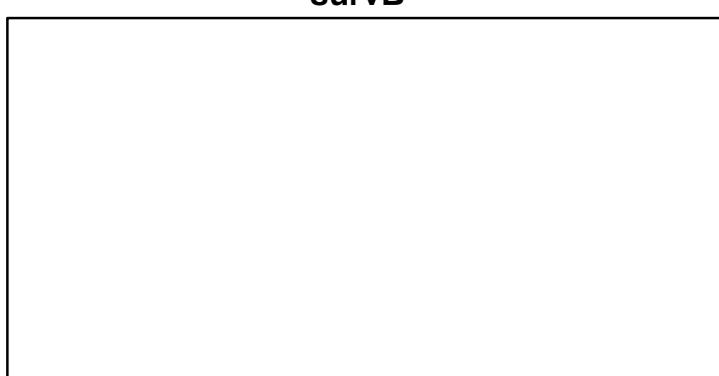
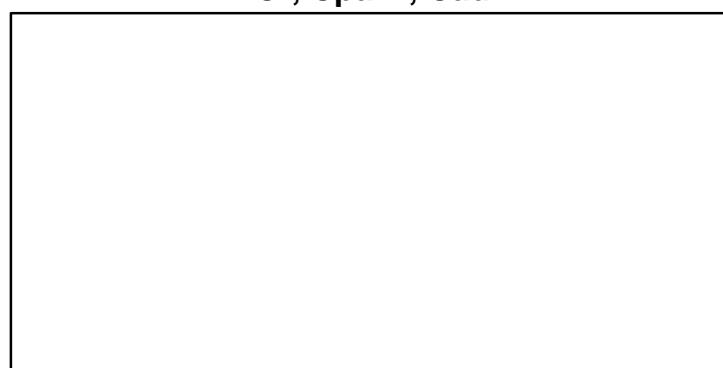
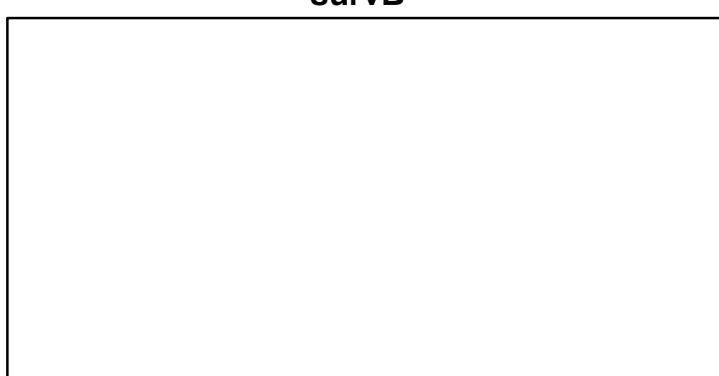
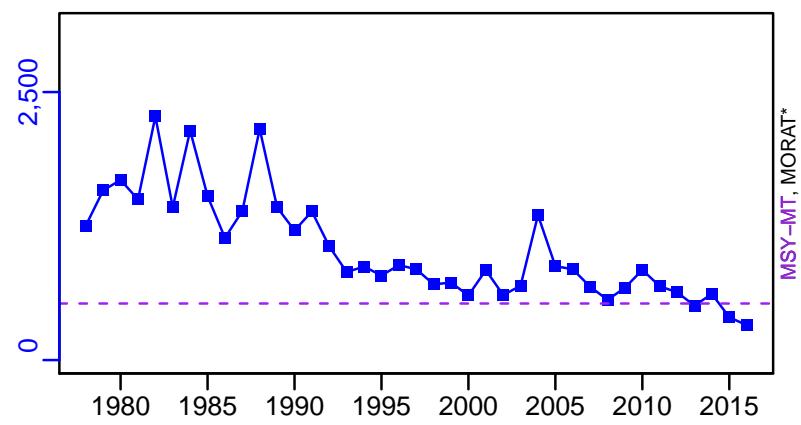


█	Listed time series	—	Target BRP	—	Rec-Est
—	MSY-based BRP	—	Lim BRP	*	No Data

Black sea bass South Atlantic [BSBASSSATL]

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

TAC*, Cpair*, Cadv*



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

Blacktip shark Atlantic [BTIPSHARATL]

Metadata	
Scientific Name	Carcharhinus limbatus
Current Assess ID	SEFSC-BTIPSHARATL-1981-2004-FAUCONNED
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*

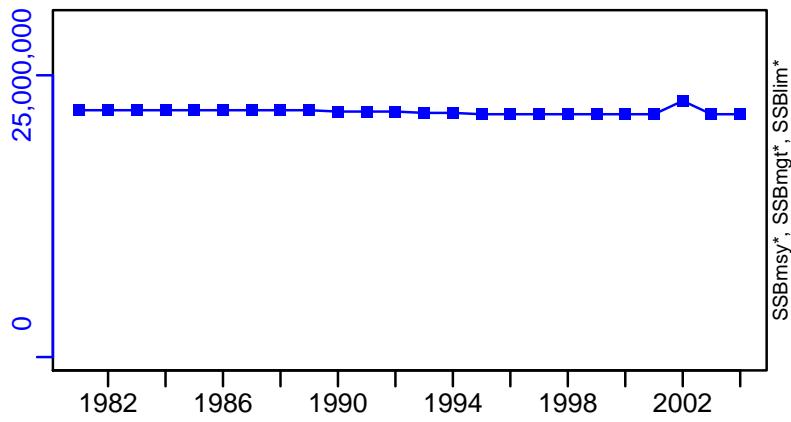
◆ Start Year ♦ End Year * No Data

Blacktip shark Atlantic [BTIPSHARATL]

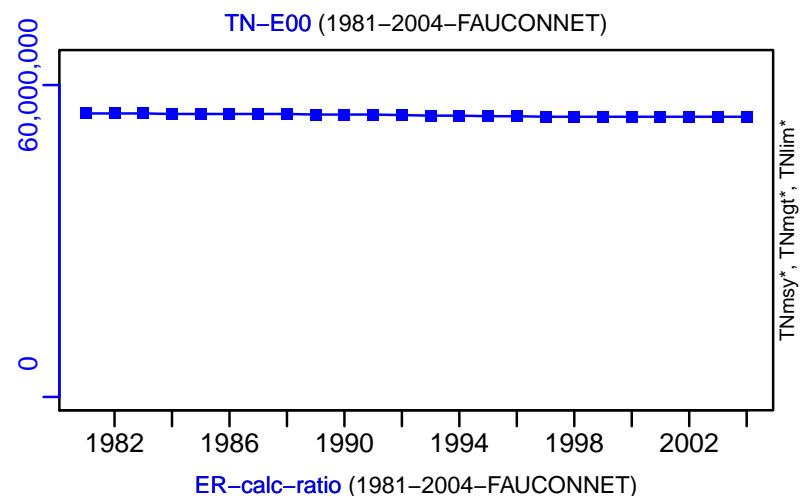
TB*



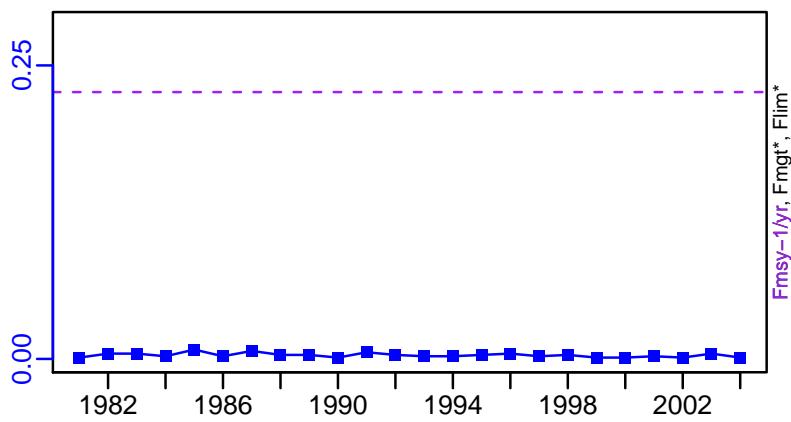
SSF-E00 (1981–2004–FAUCONNEN)



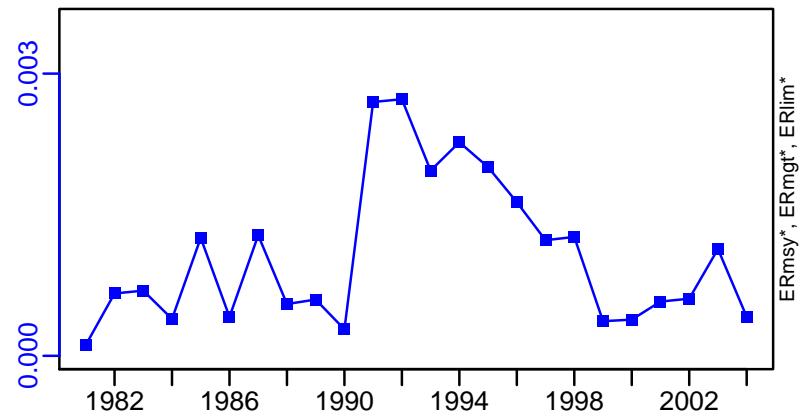
TN-E00 (1981–2004–FAUCONNEN)



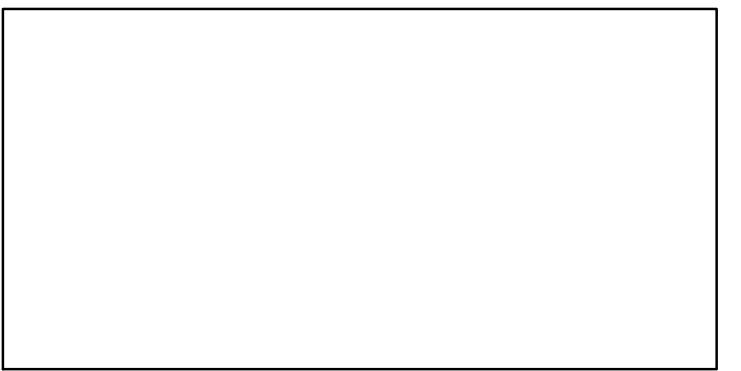
F-1/yr (1981–2004–FAUCONNEN)



ER-calc-ratio (1981–2004–FAUCONNEN)



Recruits*

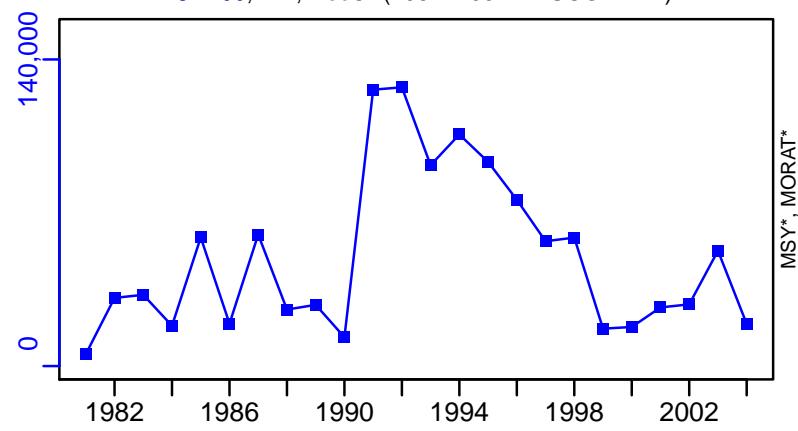


- | | | |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| - - MSY-based BRP | --- Lim BRP | * No Data |

Blacktip shark Atlantic [BTIPSHARATL]

TC-E00, TL*, RecC* (1981–2004–FAUCONNET)

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 |

Blacktip shark Gulf of Mexico [BTIPSHARGM]

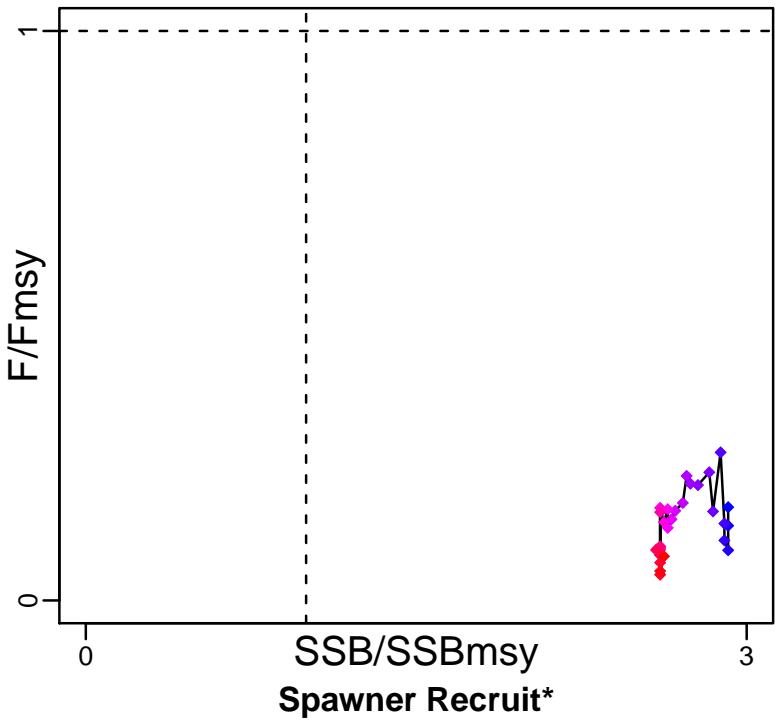
Metadata	
Scientific Name	Carcharhinus limbatus
Current Assess ID	SEFSC-BTIPSHARGM-1981-2010-HIVELY
Area	Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2010

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	-	-	-	

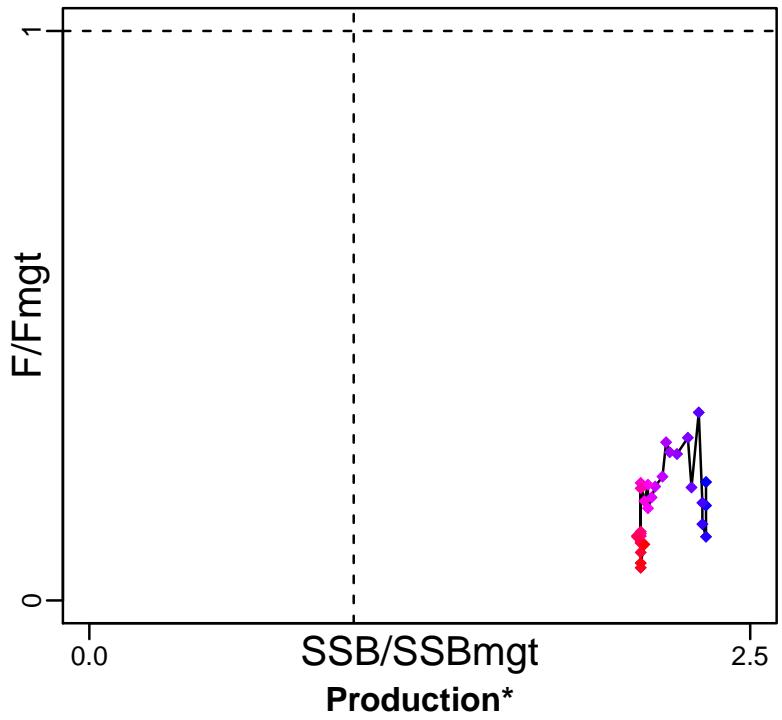
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	-	-	-	-	-	
SSB	SSF-E00	2010	15,300,000	-	-	
TN	TN-E00	2010	23,800,000	-	-	
R	-	-	-	-	-	
F	F-1/yr	2010	0.006	-	-	
ER	ER-calc-ratio	2010	0.004	-	-	
TC	TC-E00	2010	86,700			
TL	-	-	-			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSF-E00/SSFmsy-E00	2010	2.624			
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)



Kobe MGTPref (1981–2010–HIVELY)



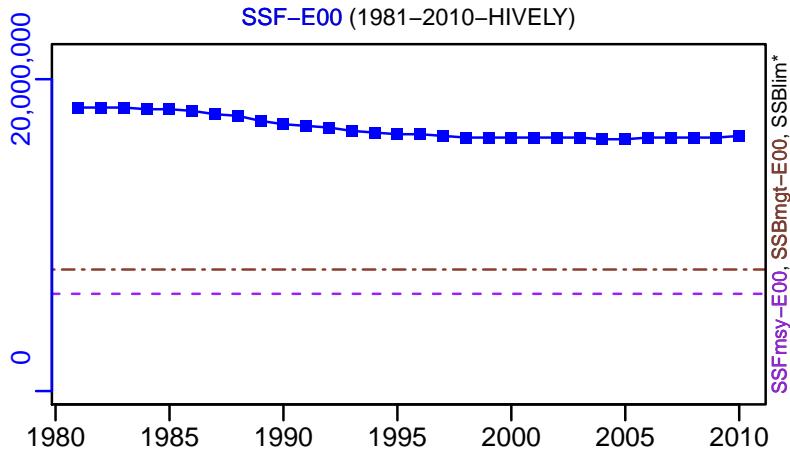
- ◆ Start Year
- ◆ End Year
- * No Data

Blacktip shark Gulf of Mexico [BTIPSHARGM]

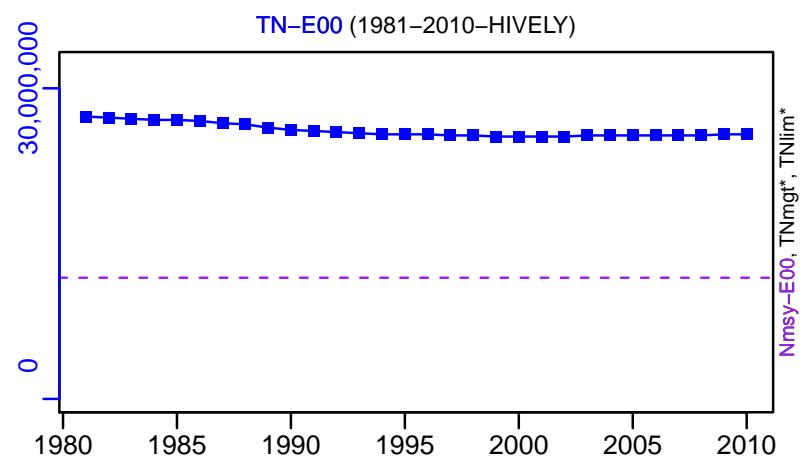
TB*



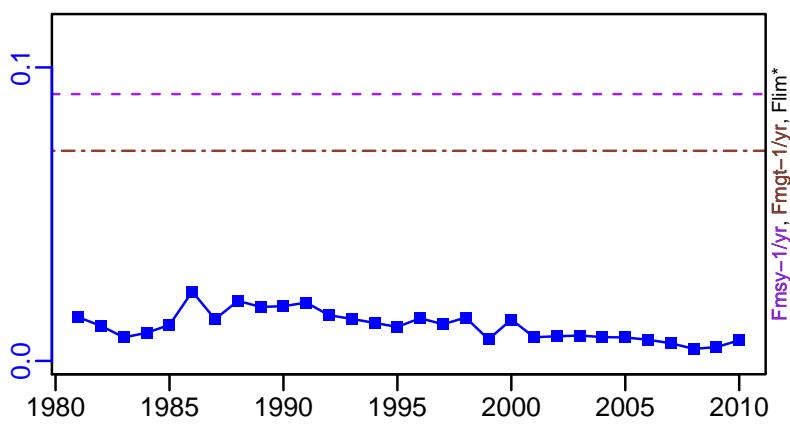
SSF-E00 (1981–2010–HIVELY)



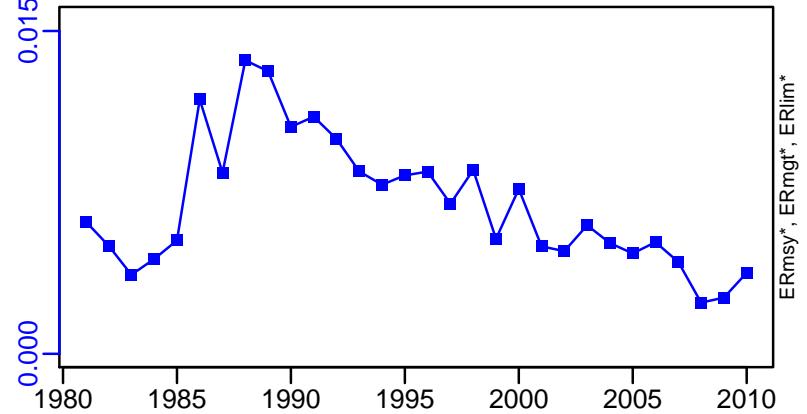
TN-E00 (1981–2010–HIVELY)



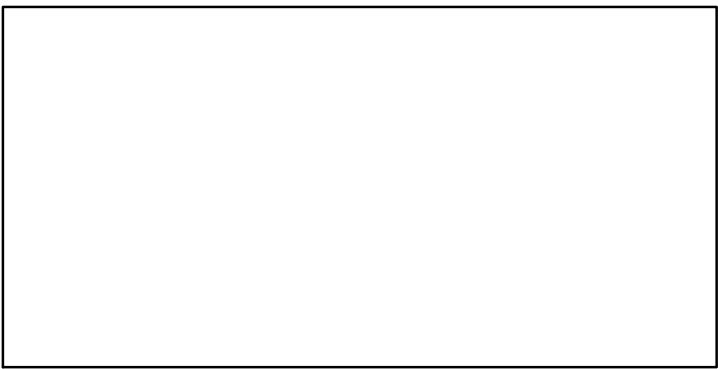
F-1/yr (1981–2010–HIVELY)



ER-calc-ratio (1981–2010–HIVELY)



Recruits*

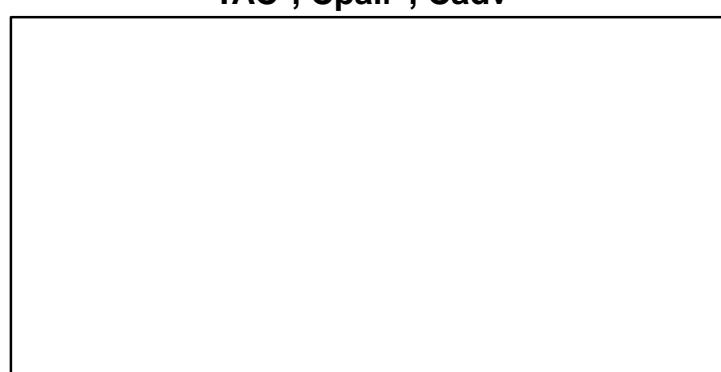
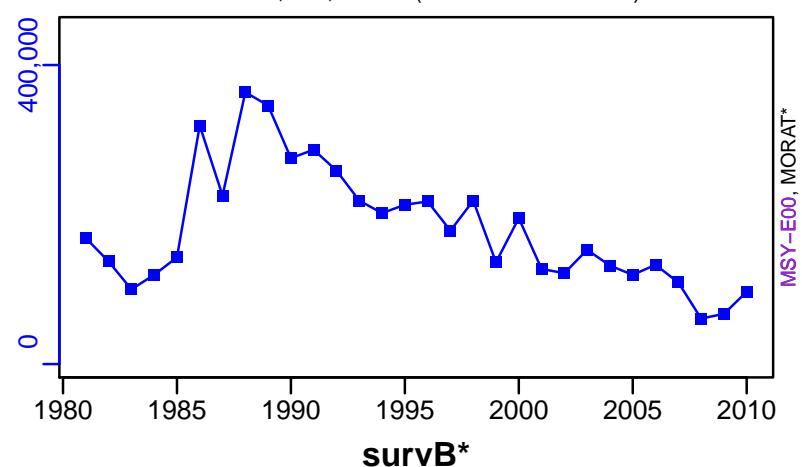


- | | | |
|----------------------|---------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| - - - MSY-based BRP | - - - Lim BRP | * No Data |

Blacktip shark Gulf of Mexico [BTIPSHARGM]

TC-E00, TL*, RecC* (1981–2010–HIVELY)

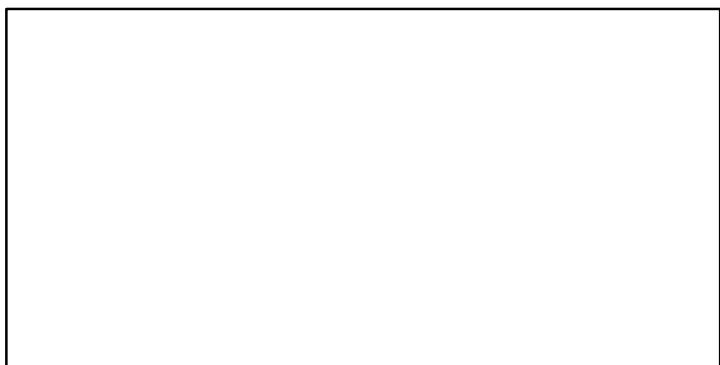
TAC*, Cpair*, Cadv*



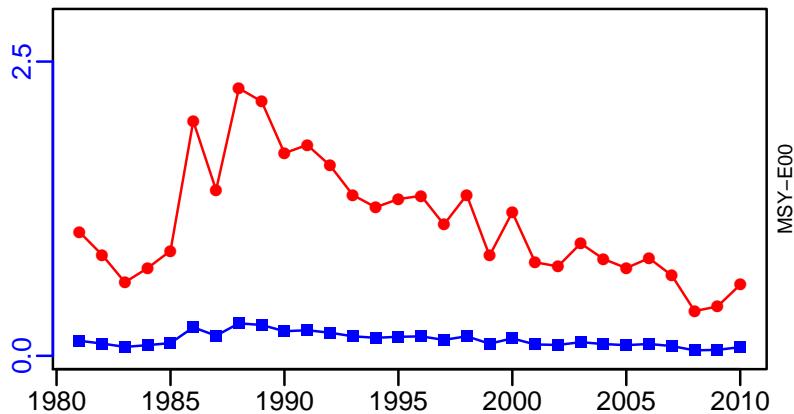
CPUE*



EFFORT*



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



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

Cobia Gulf of Mexico [COBGM]

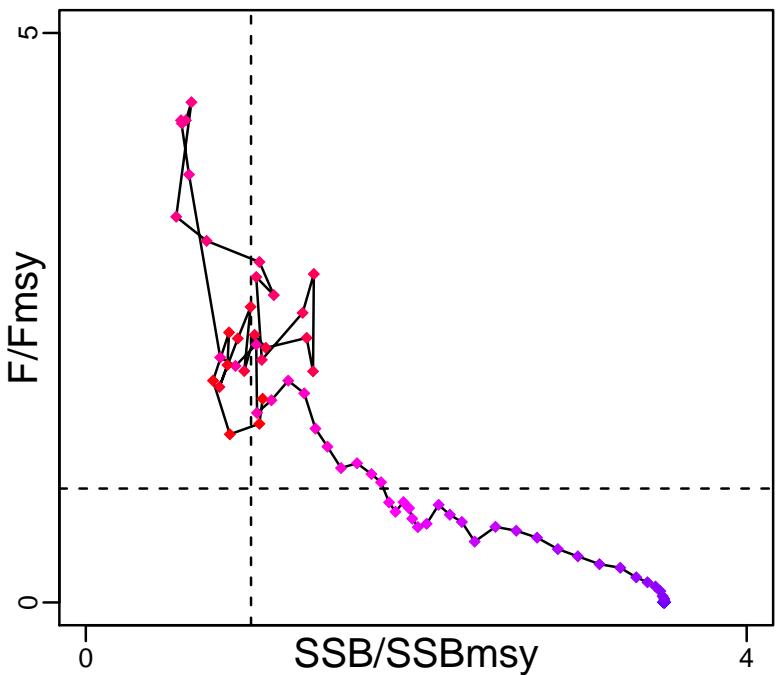
Metadata	
Scientific Name	Rachycentron canadum
Current Assess ID	SEFSC-COBGM-1927-2011-SISIMP2016
Area	Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2011

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2011	2065
Fmsy	Fmsy-1/yr	2011	0.378
ERmsy	ERmsy-conv-ratio	2011	0.304
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	Fmgt-1/yr	2011	0.378
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2011	1208
M	-	-	-
TBlim	-	-	-
SSBlim	SSBlim-MT	2011	1280
Flim	Flim-1/yr	2011	0.378
ERlim	-	-	-

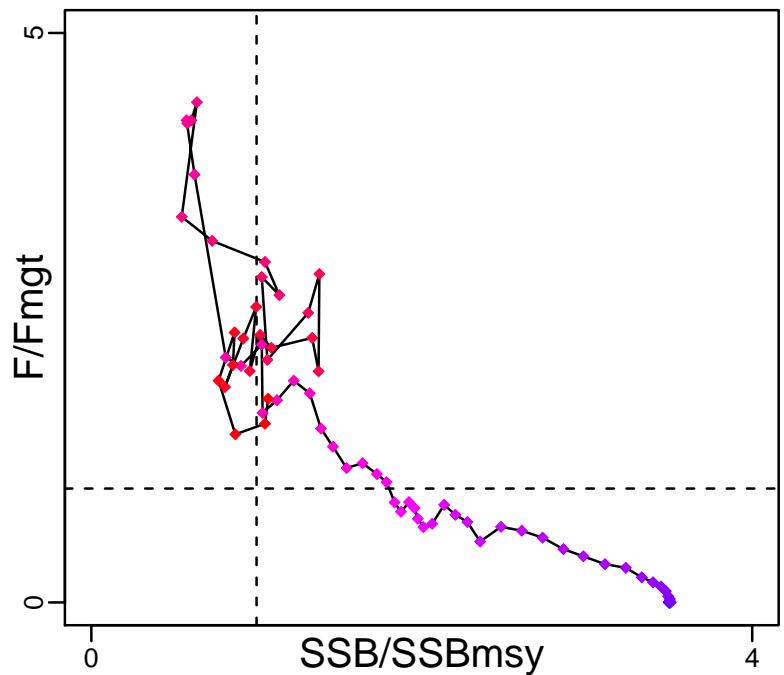
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2011	3020	-	1+	
SSB	SSB-MT	2011	2210	Females	-	
TN	-	-	-	-	-	
R	R-E00	2011	1,350,000	-	0	
F	F-1/yr	2011	0.676	-	-	
ER	ER-calc-ratio	2011	0.287	-	-	
TC	TC-MT	2011	866			
TL	-	-	-			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2011	1.07			
F/Fmsy	F-1/yr/Fmsy-1/yr	2011	1.788			
ER/ERmsy	ER-calc-ratio/ERmsy-conv-ratio	2011	0.942			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	F-1/yr/Fmgt-1/yr	2011	1.788			
ER/ERmgt	-	-	-			

Cobia Gulf of Mexico [COBGM]

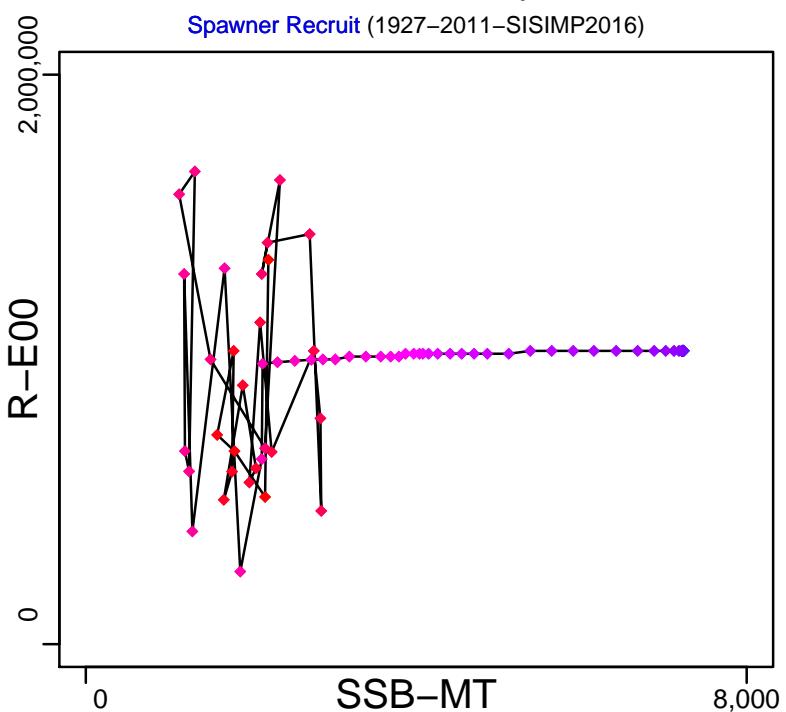
Kobe MSYpref (1927–2011–SISIMP2016)



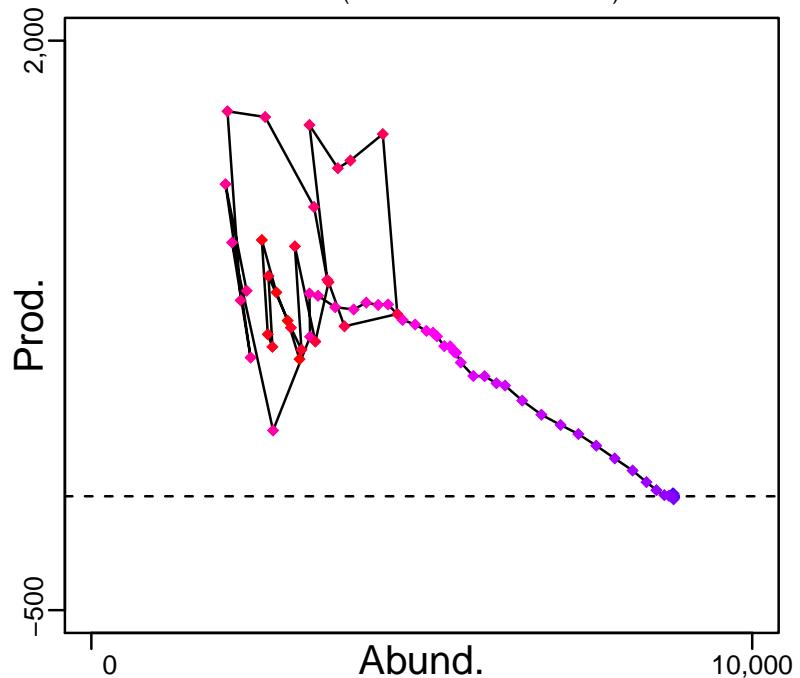
Kobe MGTpref (1927–2011–SISIMP2016)



Spawner Recruit (1927–2011–SISIMP2016)



Production (1927–2011–SISIMP2016)

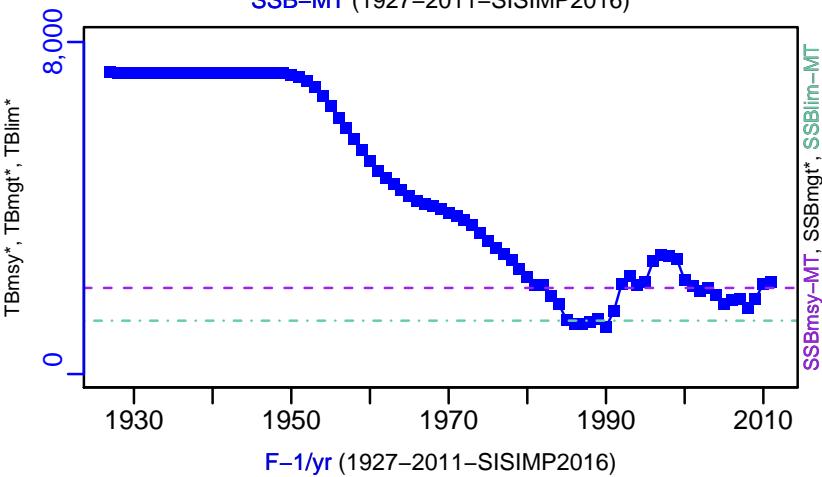
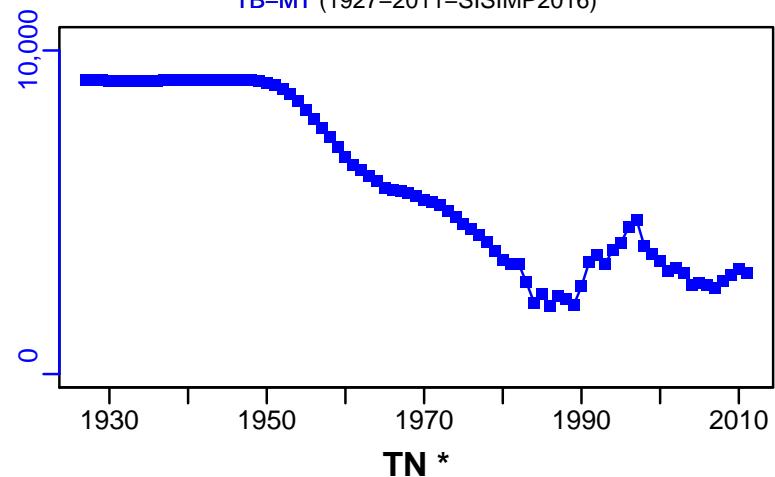


◆ Start Year	◆ End Year	*	No Data
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Cobia Gulf of Mexico [COBGM]

TB-MT (1927–2011–SISIMP2016)

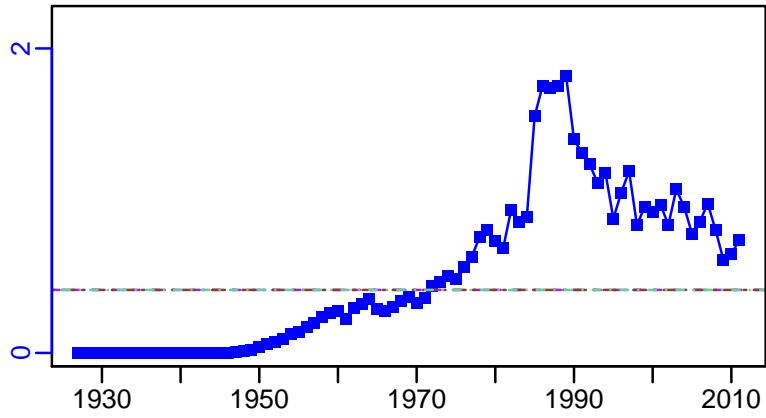
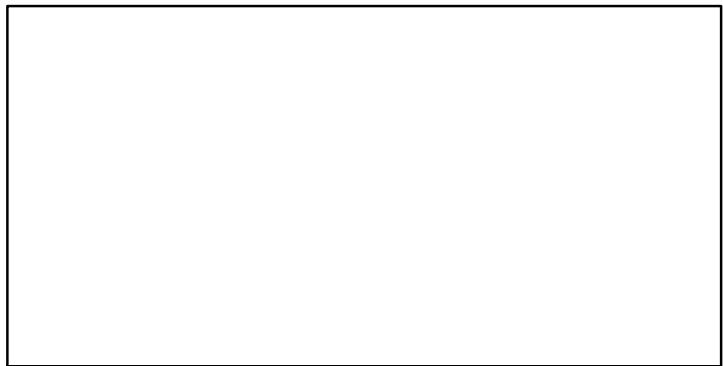
SSB-MT (1927–2011–SISIMP2016)



TN *

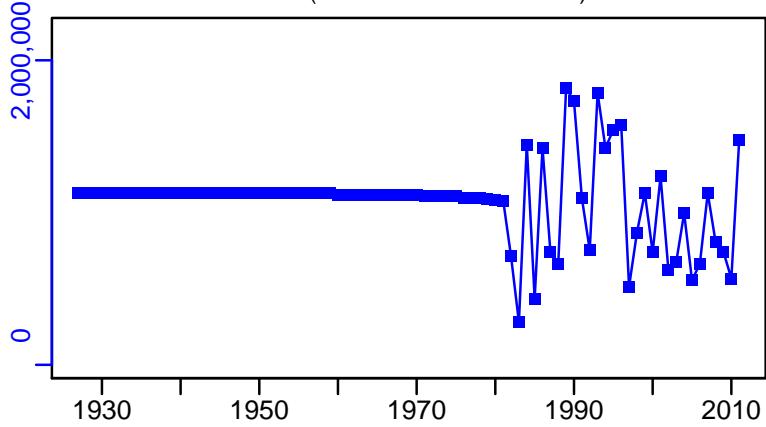
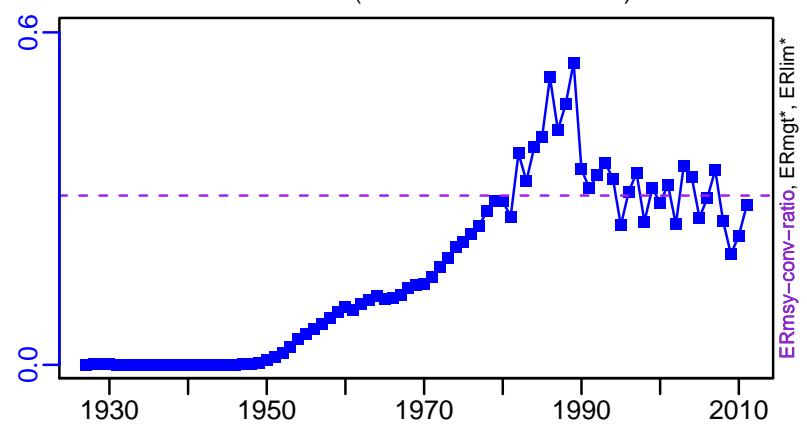
TBmgt*, TBlim*

SSBmgt*, SSBlim-MT



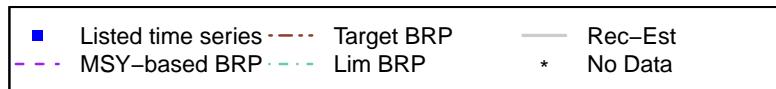
ER-calc-ratio (1927–2011–SISIMP2016)

R-E00 (1927–2011–SISIMP2016)



ERmgt*, ERlim*

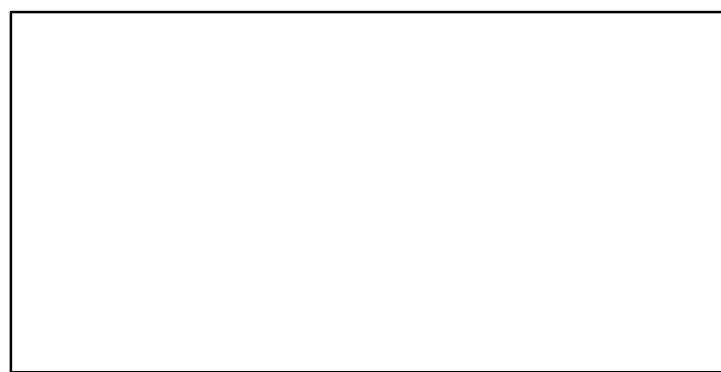
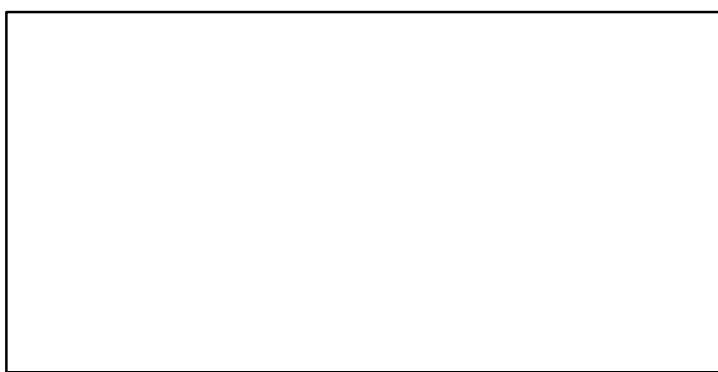
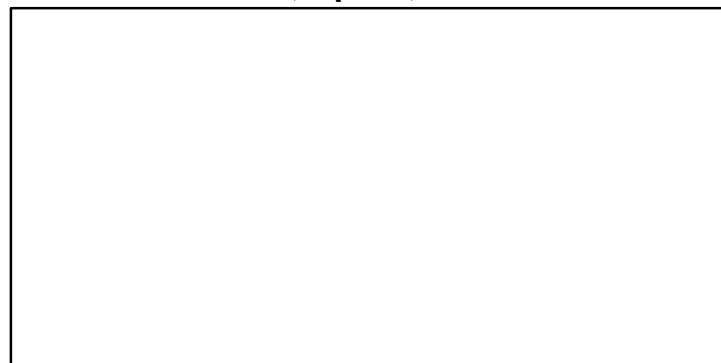
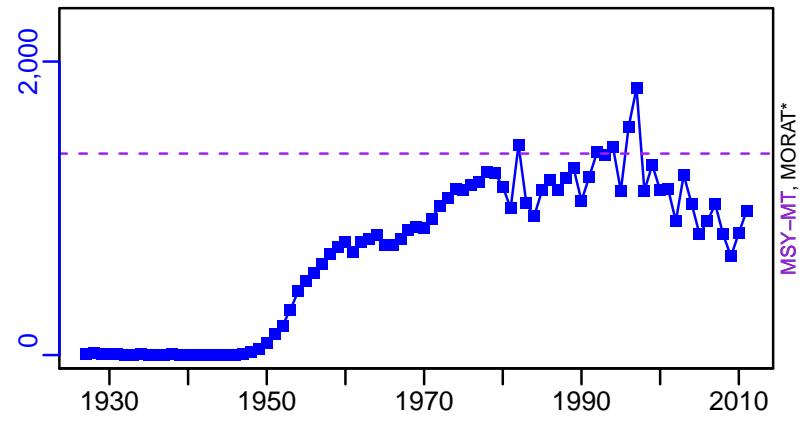
Fmgt-1/yr, Flim-1/yr



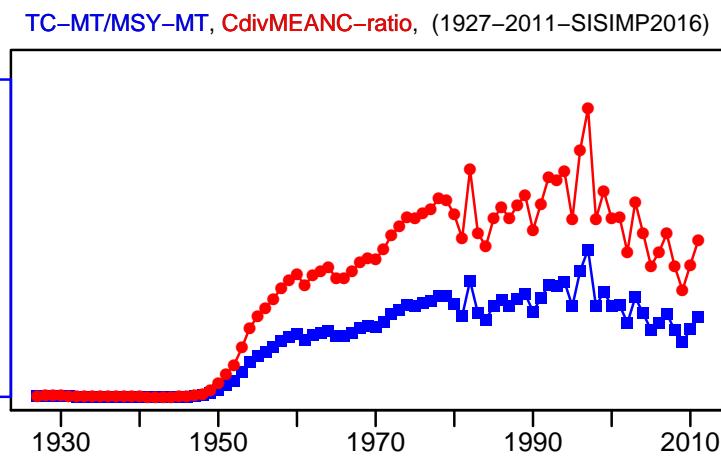
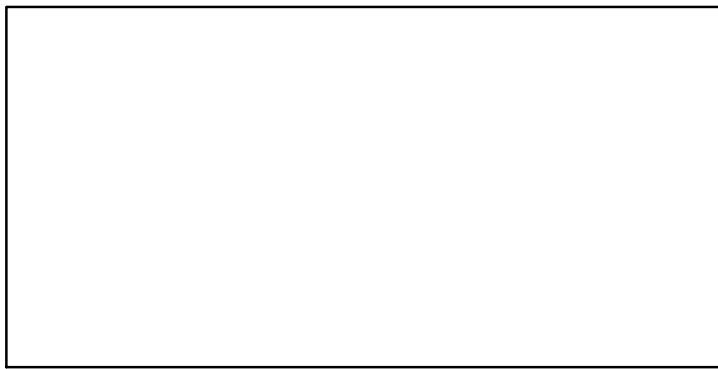
Cobia Gulf of Mexico [COBGM]

TC-MT, TL*, RecC* (1927–2011–SISIMP2016)

TAC*, Cpair*, Cadv*



EFFORT*



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

Cobia Southern Atlantic coast [COBSATLC]

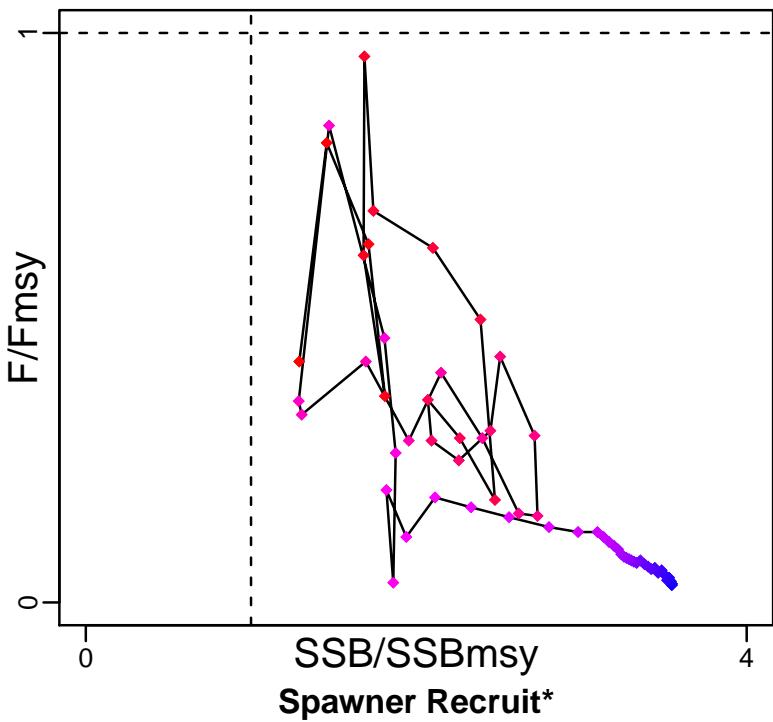
Metadata			
Scientific Name	Rachycentron canadum		
Current Assess ID	SEFSC-COBSATLC-1950-2011-SISIMP2016		
Area	Southern Atlantic coast		
Management Authority	National Marine Fisheries Service, US national management		
Assessor	Southeast Fisheries Science Center		
Asmts in RAM	2011		

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2011	537
Fmsy	Fmsy-1/yr	2011	0.461
ERmsy	ERmsy-conv-ratio	2011	0.353
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2011	367
M	-	-	-
TBlim	-	-	-
SSBlim	SSBlim-MT	2011	397
Flim	-	-	-
ERlim	-	-	-

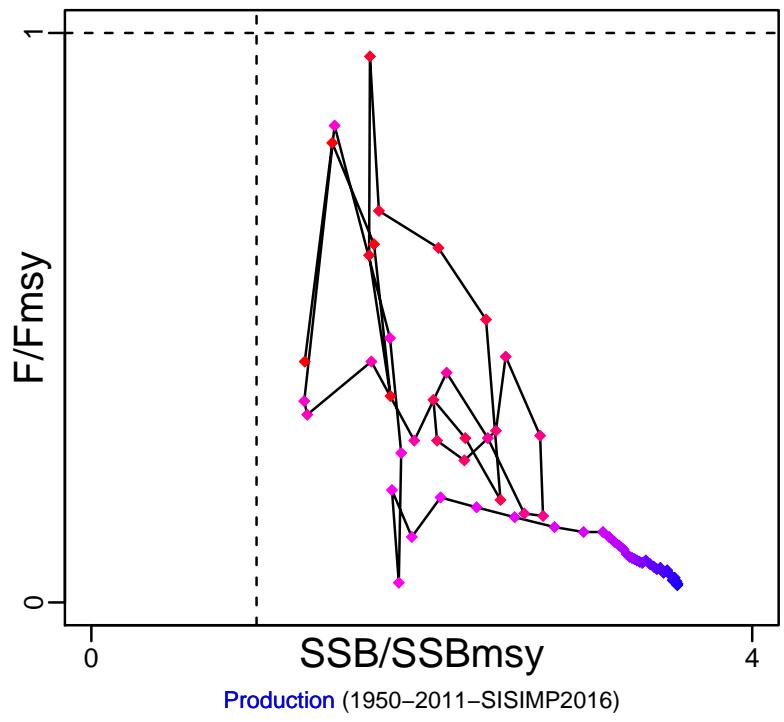
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	-	-	-	-	-	-
SSB	SSB-MT	2011	693	Females	2+	
TN	-	-	-	-	-	
R	-	-	-	-	-	
F	F-1/yr	2011	0.195	-	-	
ER	ER-calc-ratio	2011	0.011	-	-	
TC	-	-	-			
TL	TL-MT	2011	15			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2011	1.292			
F/Fmsy	F-1/yr/Fmsy-1/yr	2011	0.423			
ER/ERmsy	ER-calc-ratio/ERmsy-conv-ratio	2011	0.033			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Cobia Southern Atlantic coast [COBSATLC]

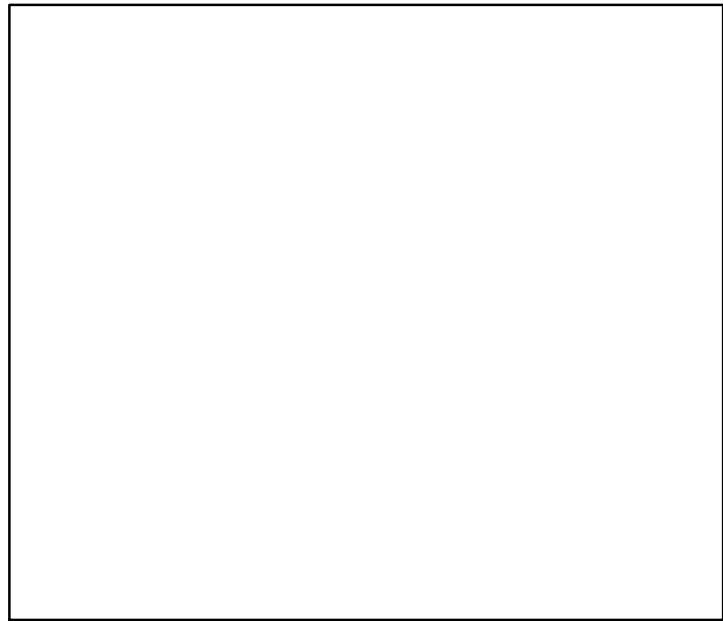
Kobe MSYpref (1950–2011–SISIMP2016)



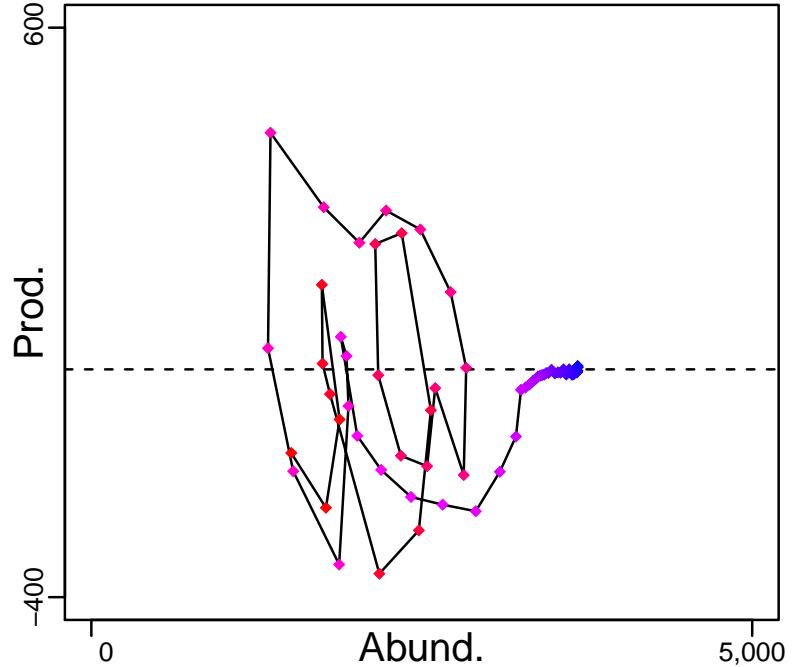
Kobe MGTpref (1950–2011–SISIMP2016)



Spawner Recruit*



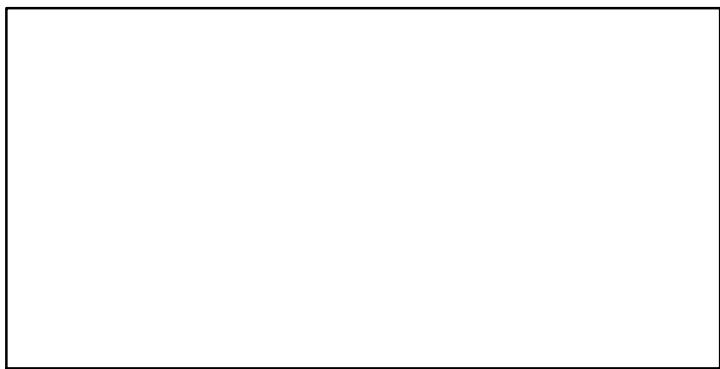
Production (1950–2011–SISIMP2016)



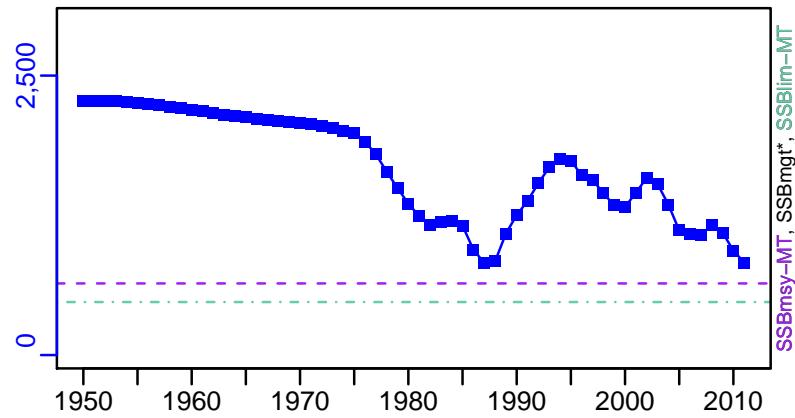
◆ Start Year ◆ End Year * No Data

Cobia Southern Atlantic coast [COBSATLC]

TB*



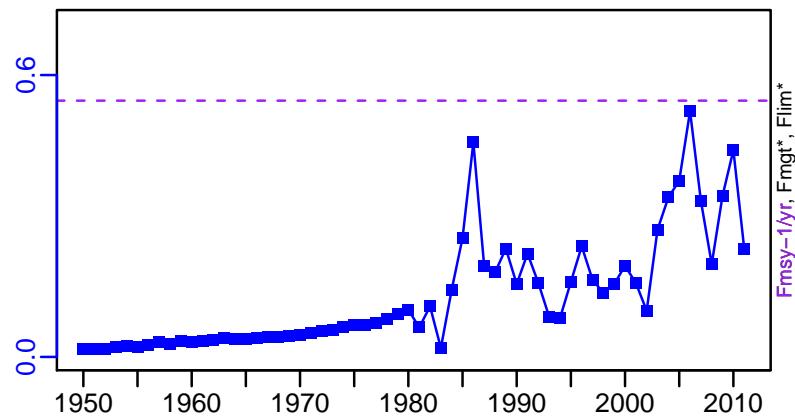
SSB-MT (1950–2011–SISIMP2016)



TN *

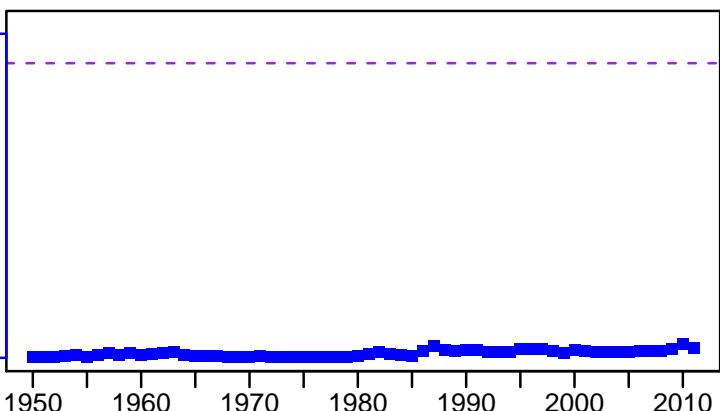


F-1/yr (1950–2011–SISIMP2016)



ER-calc-ratio (1950–2011–SISIMP2016)

ER_{mgt}-conv-ratio, ER_{mgt}, ER_{lim}*



Recruits*

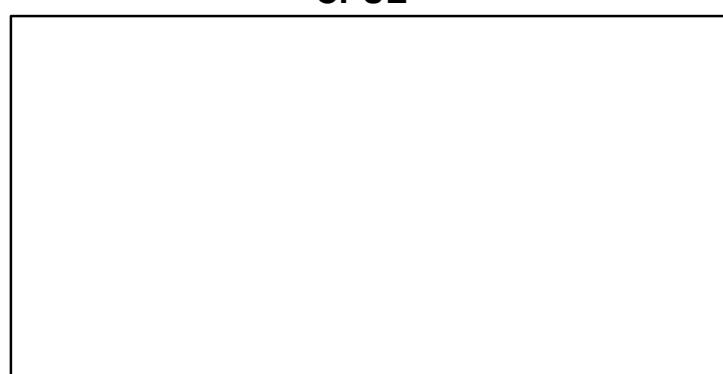
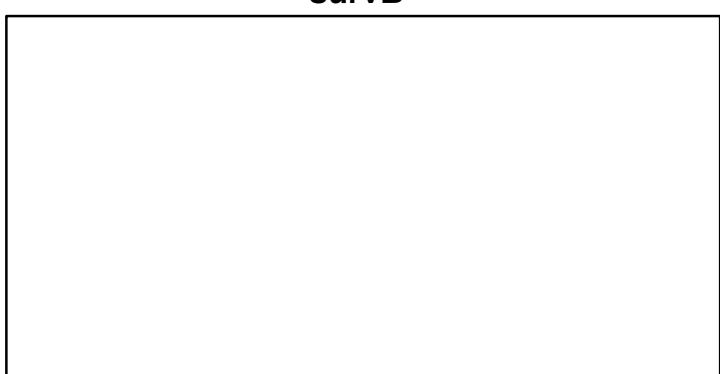
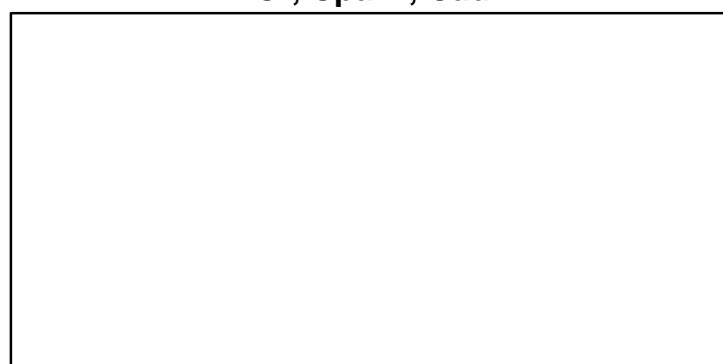
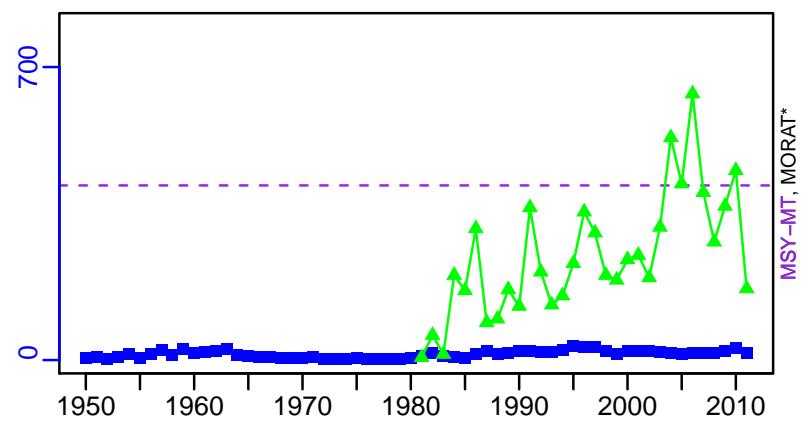


- | | | |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| — MSY-based BRP | — Lim BRP | * No Data |

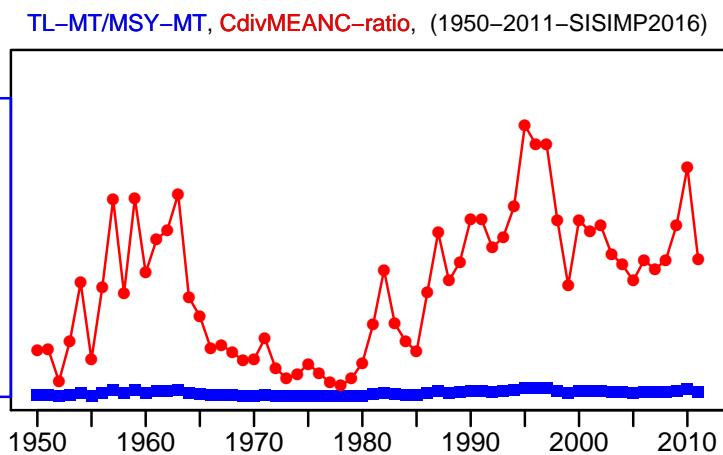
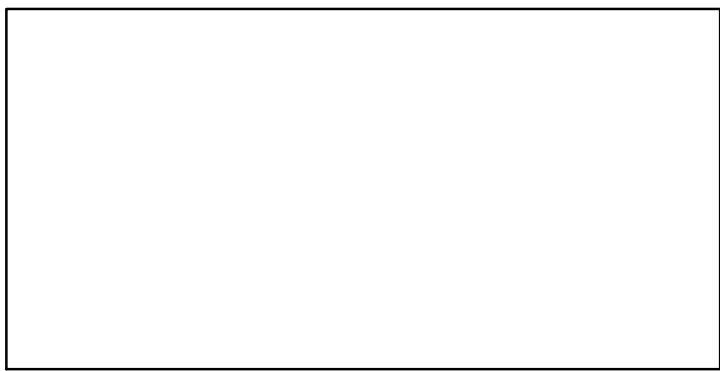
Cobia Southern Atlantic coast [COBSATLC]

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

TAC*, Cpair*, Cadv*



EFFORT*



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

Dusky shark Gulf of Mexico and Atlantic [DSKSHARGMATL]

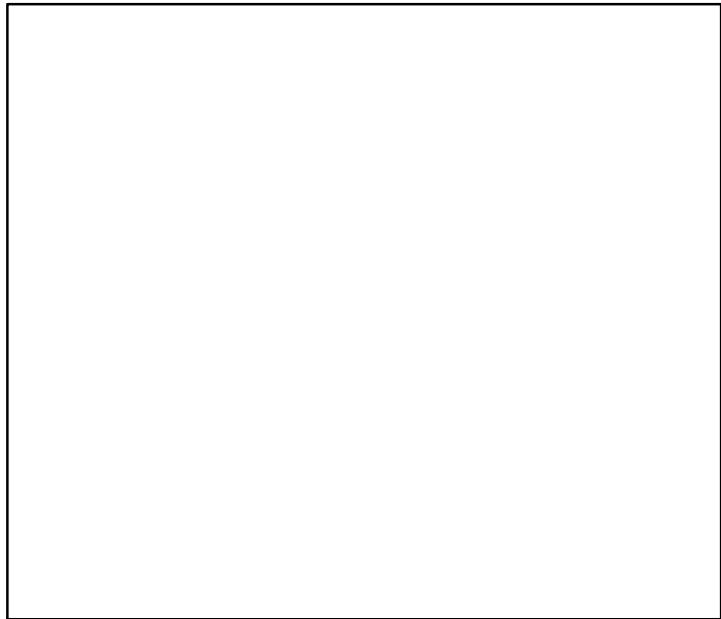
Metadata	
Scientific Name	Carcharhinus obscurus
Current Assess ID	SEFSC-DSKSHARGMATL-1960-2009-SISIMP2016
Area	Gulf of Mexico and Atlantic
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2009

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	Fmsy-extr-1/yr	2009	0.034
ERrmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

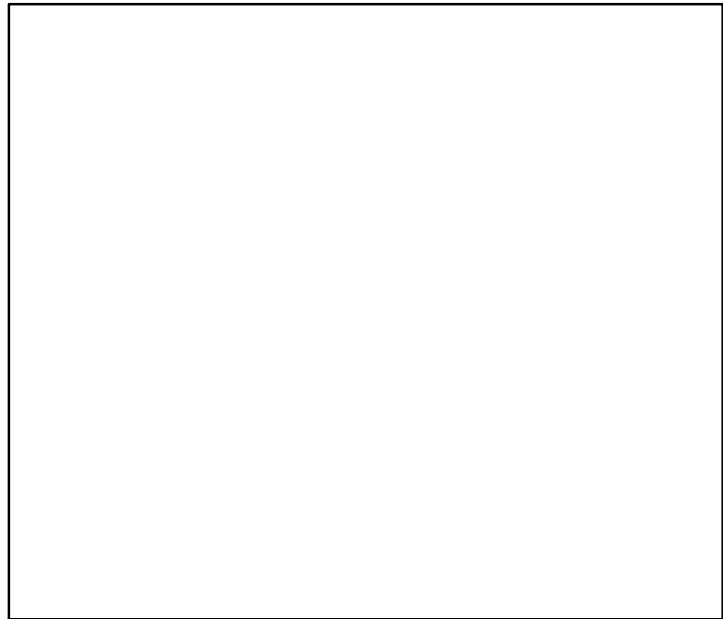
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	-	-	-	-	-	-
SSB	-	-	-	-	-	-
TN	-	-	-	-	-	-
R	-	-	-	-	-	-
F	F-1/yr	2009	0.056	-	-	
ER	-	-	-	-	-	-
TC	-	-	-			
TL	-	-	-			
TB/TBmsy	-	-	-			
SSB/SSBmsy	-	-	-			
F/Fmsy	FdivFmsy-dimensionless	2009	1.56			
ER/ERrmsy	-	-	-			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Dusky shark Gulf of Mexico and Atlantic [DSKSHARGMATL]

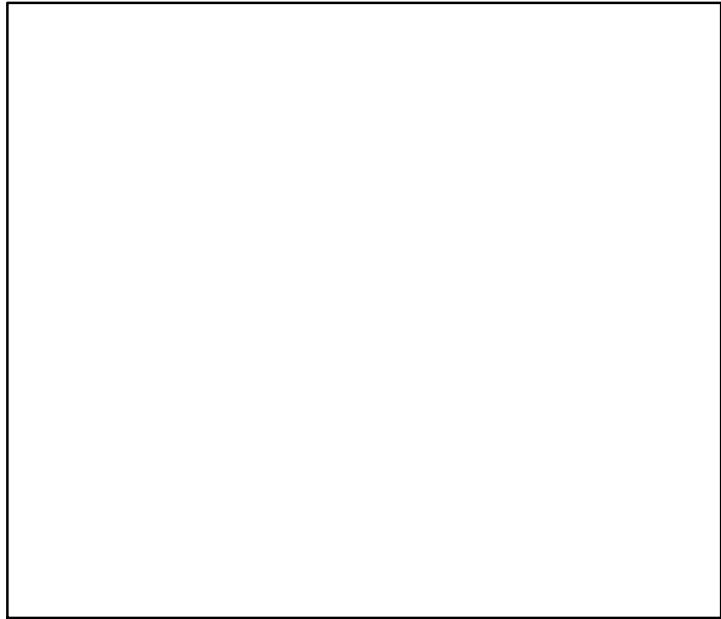
Kobe MSY*



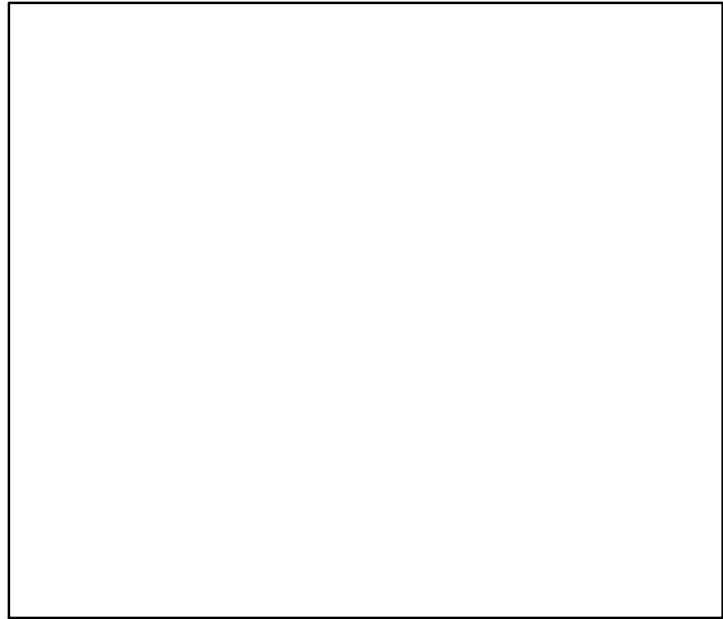
Kobe MGT*



Spawner Recruit*



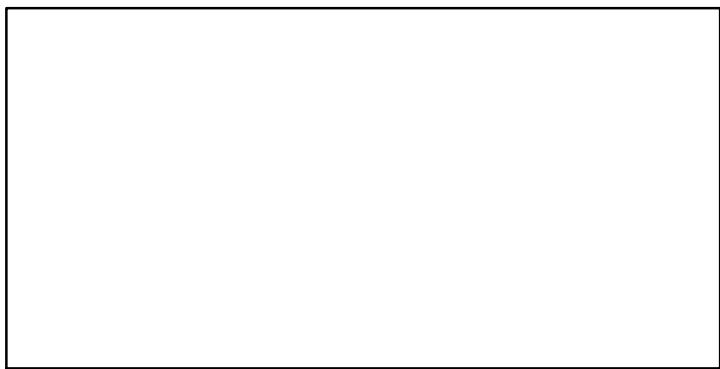
Production*



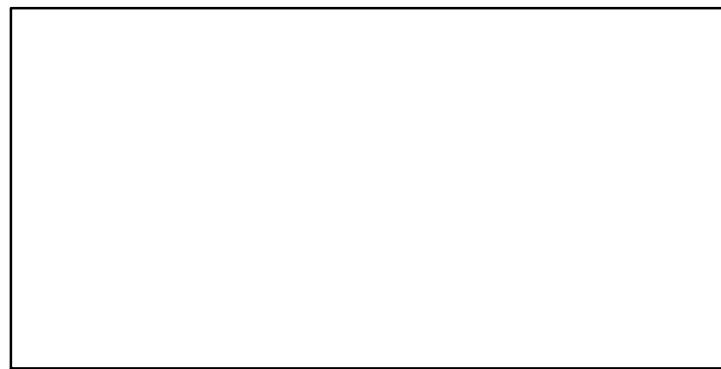
◆ Start Year ♦ End Year * No Data

Dusky shark Gulf of Mexico and Atlantic [DSKSHARGMATL]

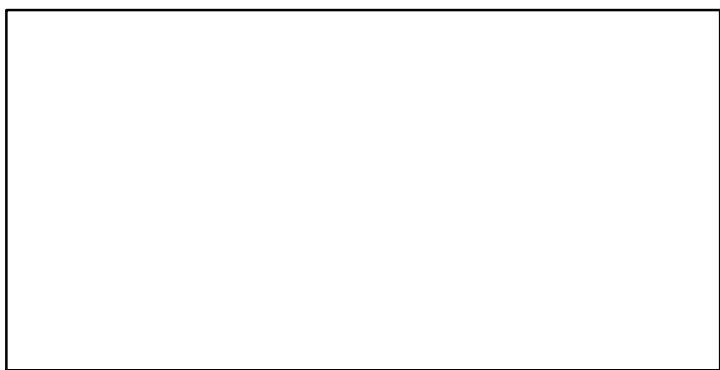
TB*



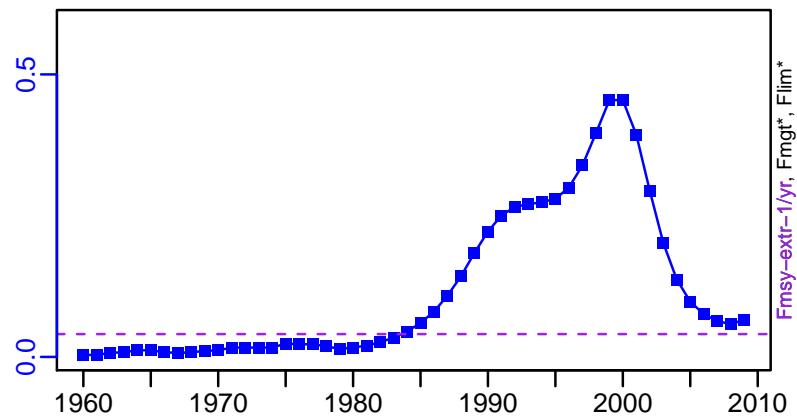
SSB*



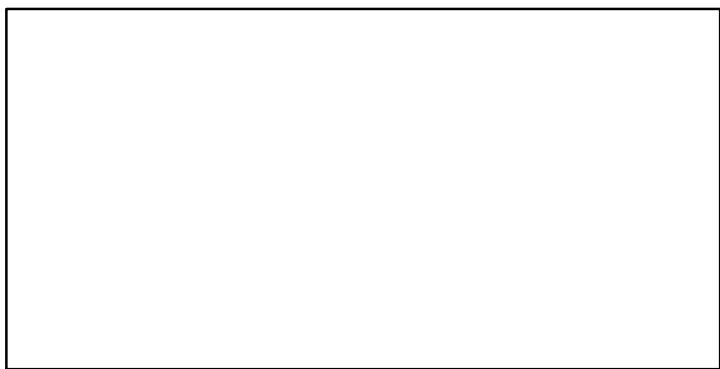
TN *



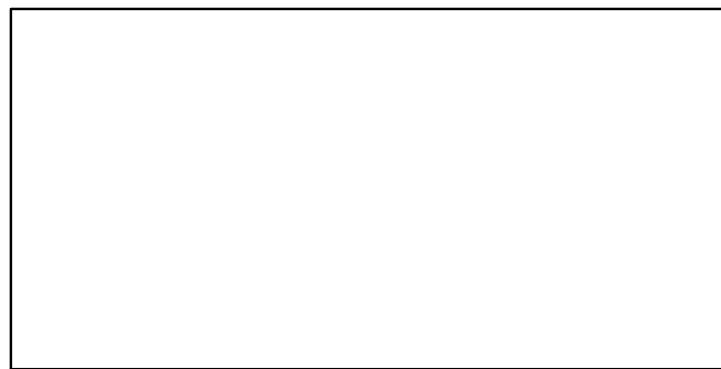
F-1/yr (1960–2009–SISIMP2016)



ER*



Recruits*



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

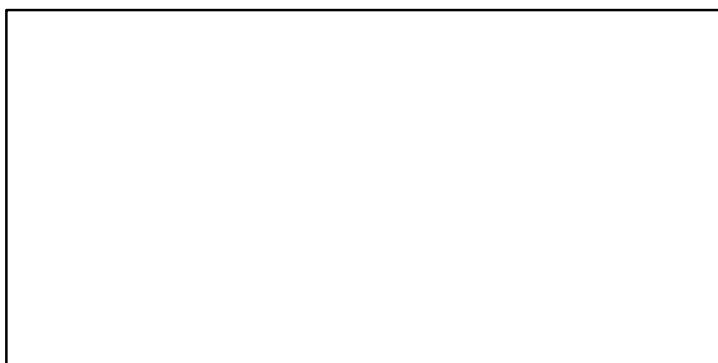
Dusky shark Gulf of Mexico and Atlantic [DSKSHARGMATL]

TC*, TL*, RecC*

TAC*, Cpair*, Cadv*



survB*



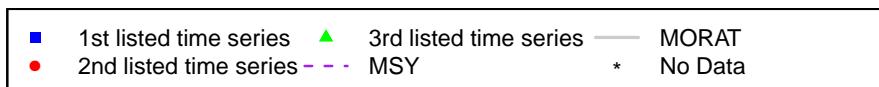
CPUE*



EFFORT*



CdivMSY*



Finetooth shark Atlantic [FTOOTHSARATL]

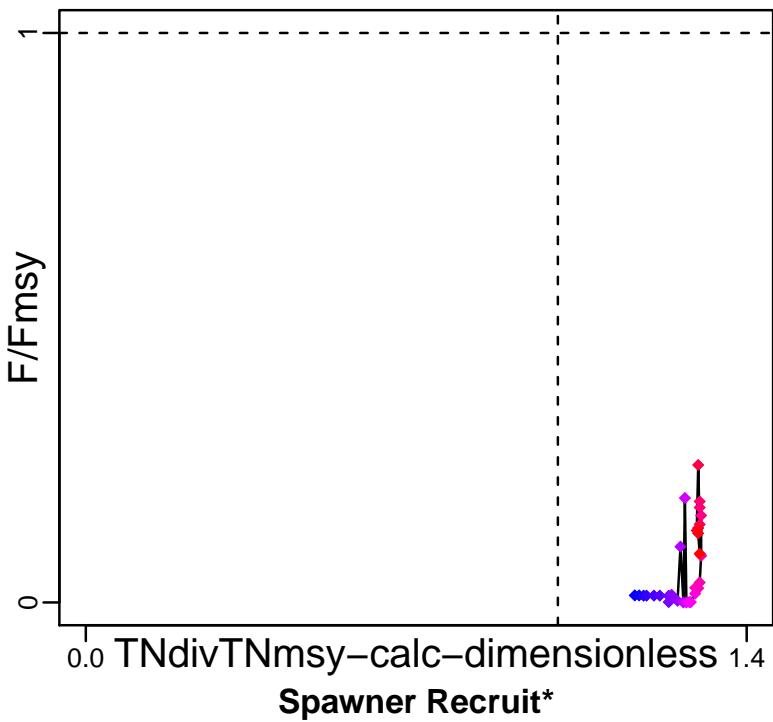
Metadata	
Scientific Name	Carcharhinus isodon
Current Assess ID	SEFSC-FTOOTHSARATL-1976-2005-FAUCONNET
Area	Atlantic
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2005

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	-	-	-

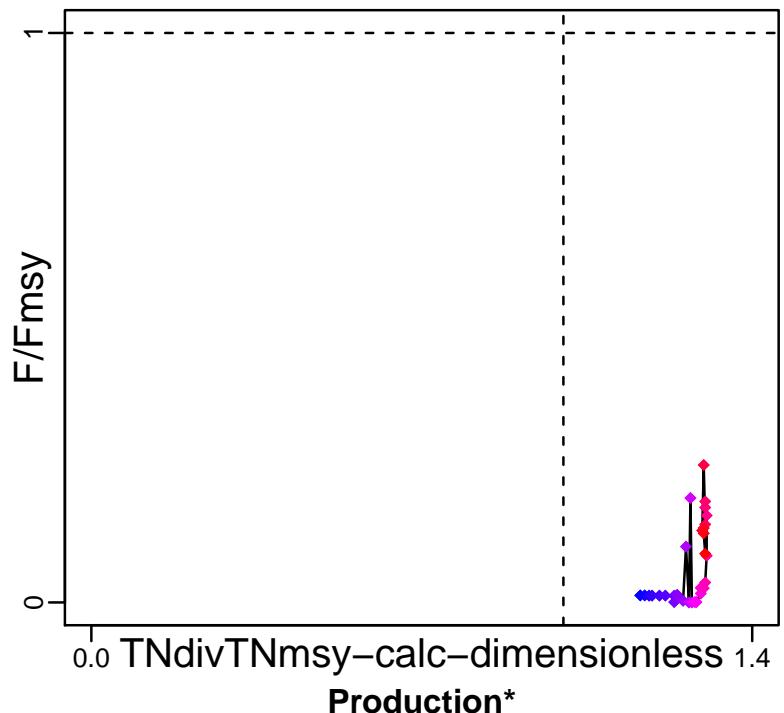
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	-	-	-	-	-	
SSB	-	-	-	-	-	
TN	TN-E00	2005	4,160,000	-	-	
R	-	-	-	-	-	
F	F-1/yr	2005	0.003	-	-	
ER	ER-calc-ratio	2005	0.003	-	-	
TC	TC-E00	2005	10,700			
TL	-	-	-			
TB/TBmsy	-	-	-			
SSB/SSBmsy	-	-	-			
F/Fmsy	F-1/yr/Fmsy-1/yr	2005	0.086			
ER/ERmsy	-	-	-			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Finetooth shark Atlantic [FTOOTHSRARATL]

Kobe MSYpref (1976–2005–FAUCONNET)



Kobe MGTpref (1976–2005–FAUCONNET)



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

Finetooth shark Atlantic [FTOOTHSRARATL]

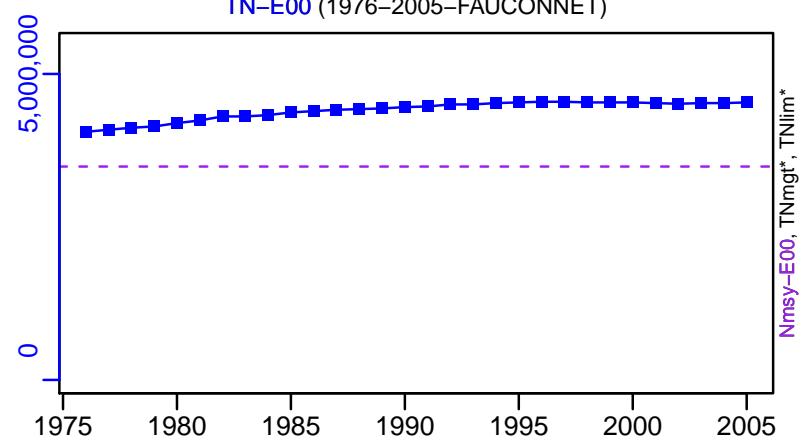
TB*



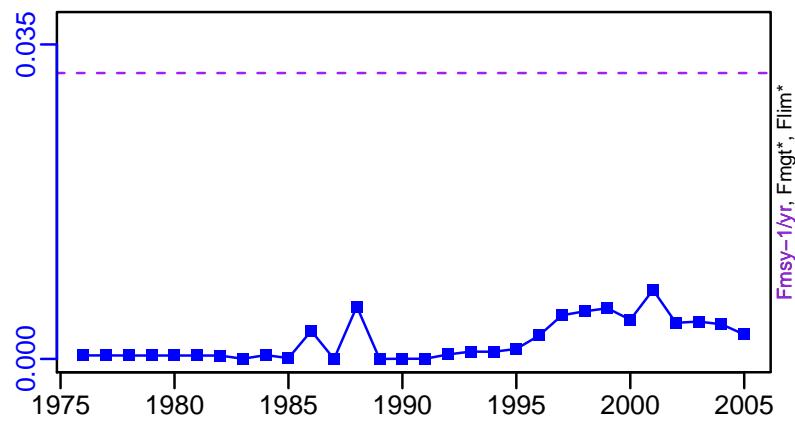
SSB*



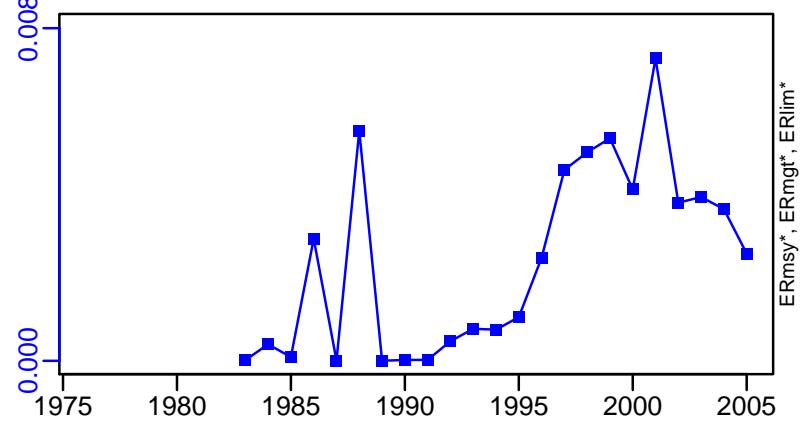
TN-E00 (1976–2005–FAUCONNET)



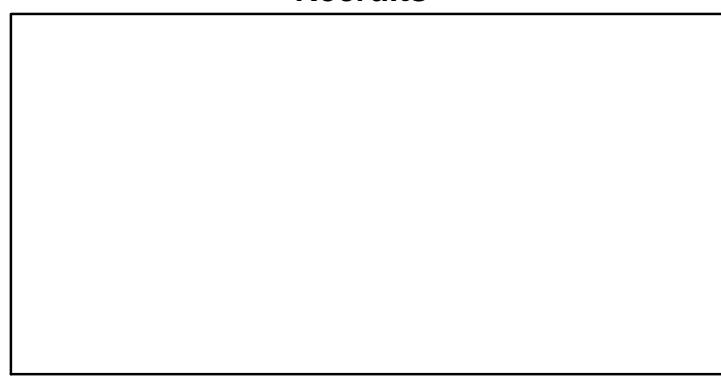
F-1/yr (1976–2005–FAUCONNET)



ER-calc-ratio (1976–2005–FAUCONNET)



Recruits*

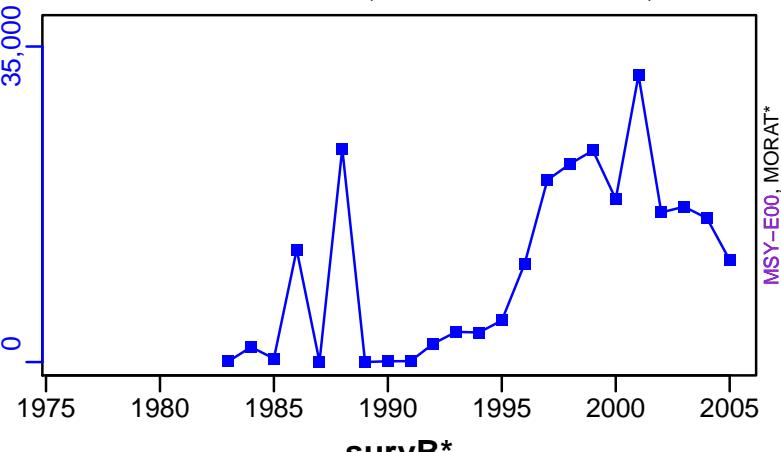


- | | | |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| - - - MSY-based BRP | --- Lim BRP | * No Data |

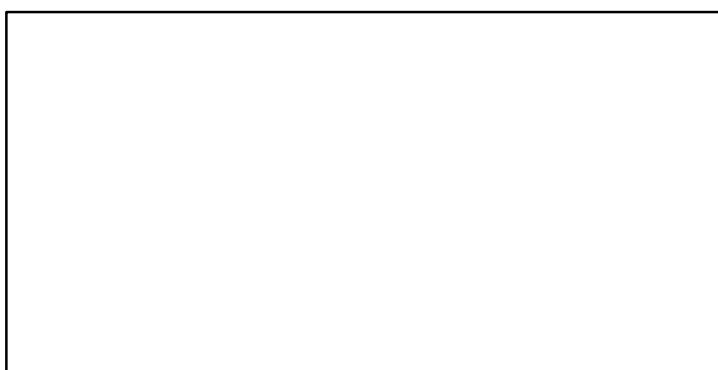
Finetooth shark Atlantic [FTOOTHSHARATL]

TC-E00, TL*, RecC* (1976–2005–FAUCONNET)

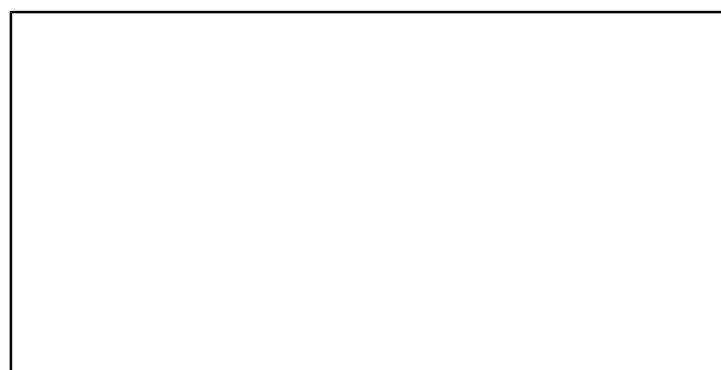
TAC*, Cpair*, Cadv*



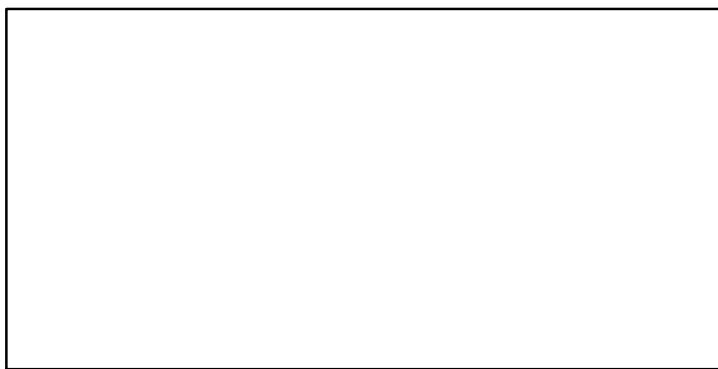
MSY-E00, MORAT*



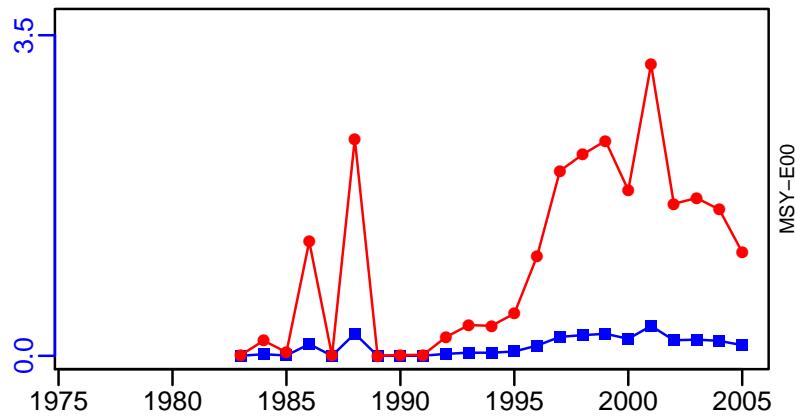
CPUE*



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]

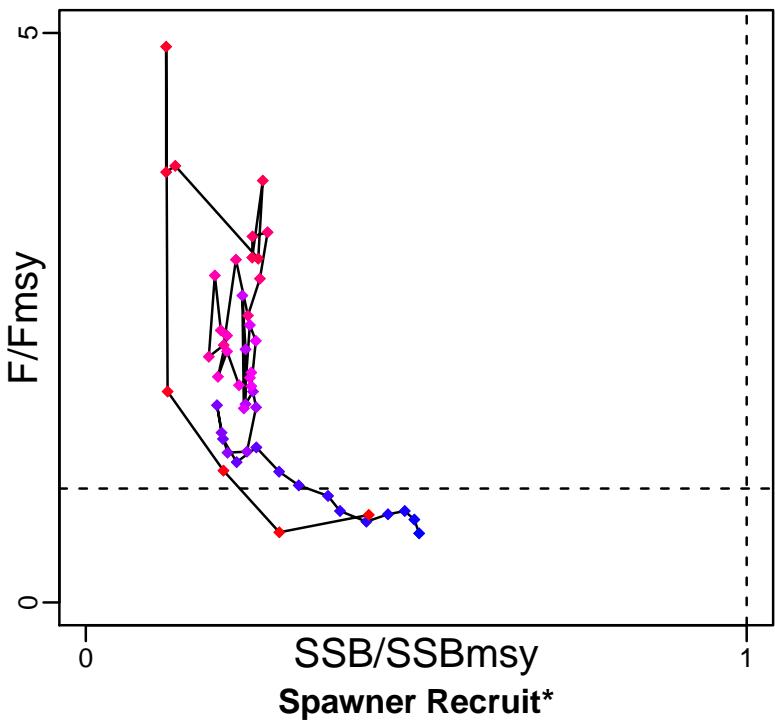
Metadata	
Scientific Name	Mycteroperca microlepis
Current Assess ID	SEFSC-GAGGM-1963-2012-HIVELY
Area	Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2012

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-pr-MT	2012	27,558
Fmsy	Fmsy-pr-1/yr	2012	0.108
ERmsy	ERmsy-est-ratio	2012	0.02
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2012	27,558
Fmgt	Fmgt-1/yr	2012	0.081
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-est-MT	2012	1025
M	M-1/yr	2012	0.134
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

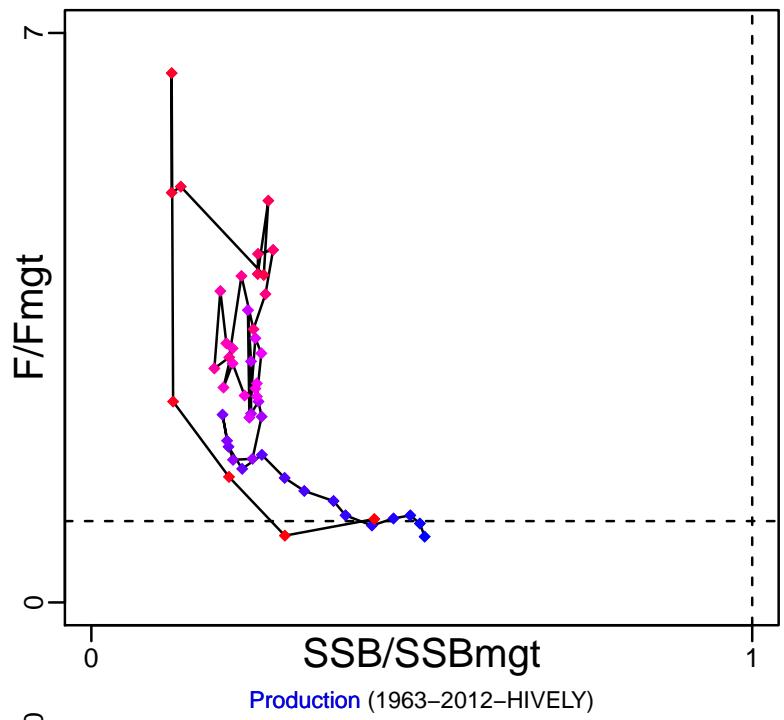
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2012	11,800	Females	3.7+
TN	-	-	-	-	-
R	-	-	-	-	-
F	F-1/yr	2012	0.083	-	-
ER	ER-calc-ratio	2012	0.011	-	-
TC	TC-MT	2012	237		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-pr-MT	2012	0.428		
F/Fmsy	F-1/yr/Fmsy-pr-1/yr	2012	0.769		
ER/ERmsy	ER-calc-ratio/ERmsy-est-ratio	2012	0.54		
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]

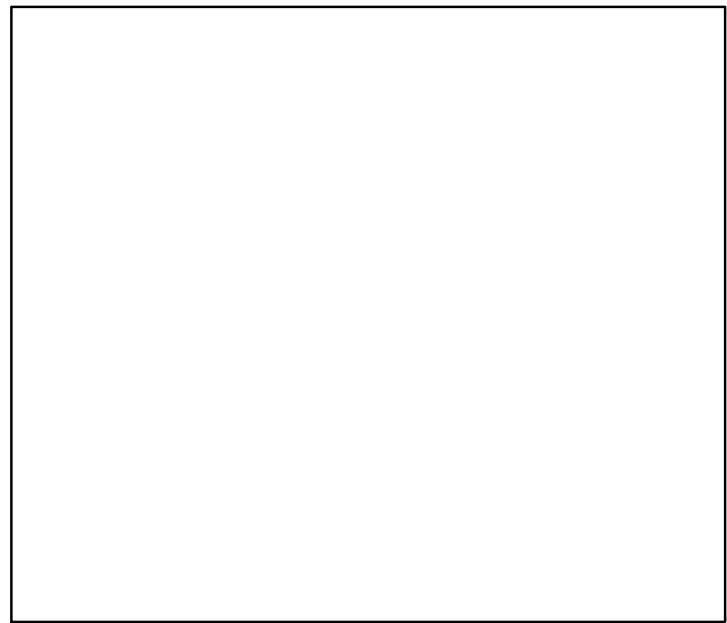
Kobe MSYpref (1963–2012–HIVELY)



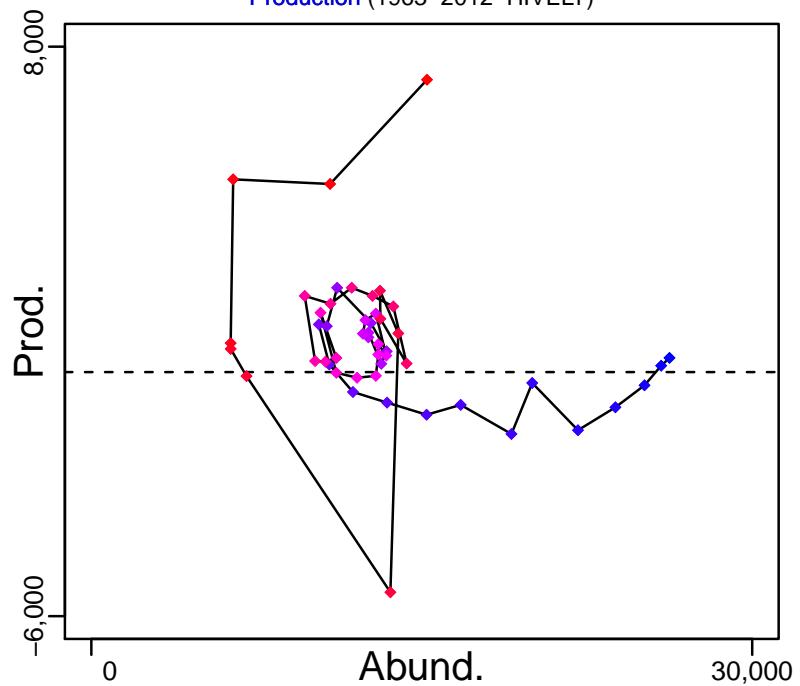
Kobe MGTPref (1963–2012–HIVELY)



Spawner Recruit*



Production (1963–2012–HIVELY)



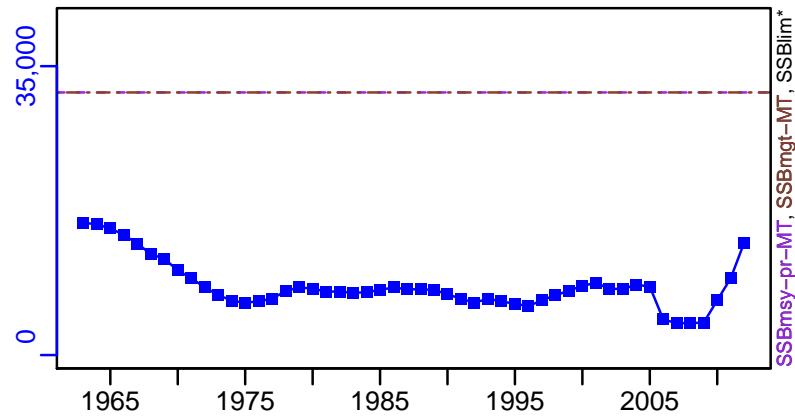
♦ Start Year ◆ End Year * No Data

Gag Gulf of Mexico [GAGGM]

TB*



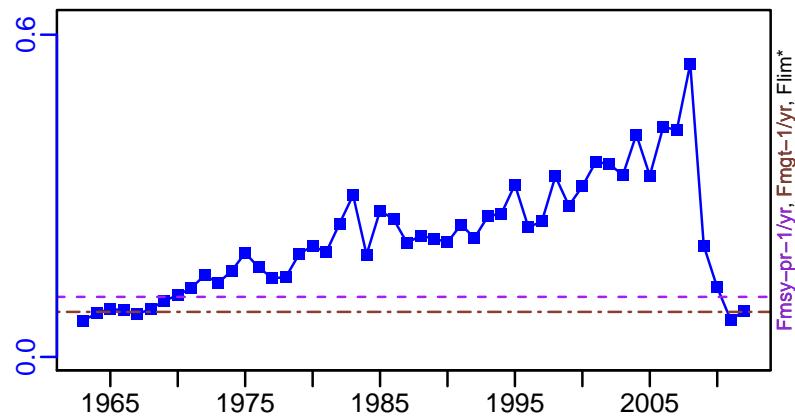
SSB-MT (1963–2012–HIVELY)



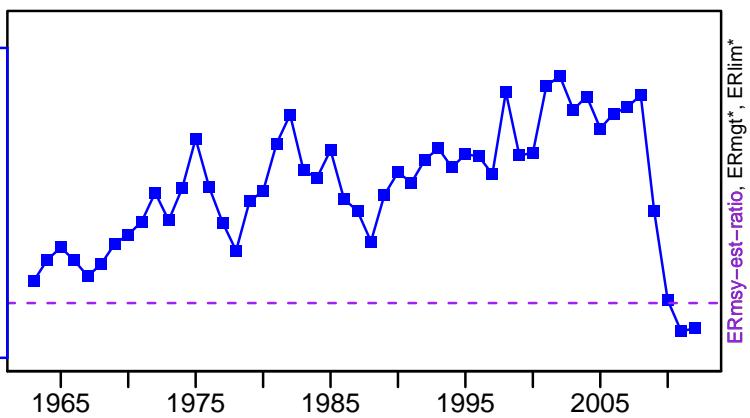
TN *



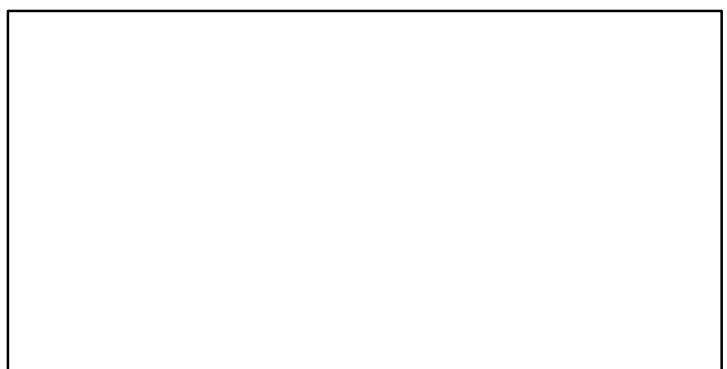
F-1/yr (1963–2012–HIVELY)



ER-calc-ratio (1963–2012–HIVELY)



Recruits*

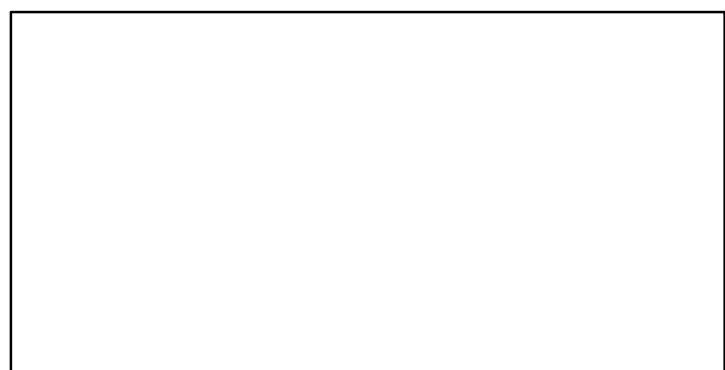
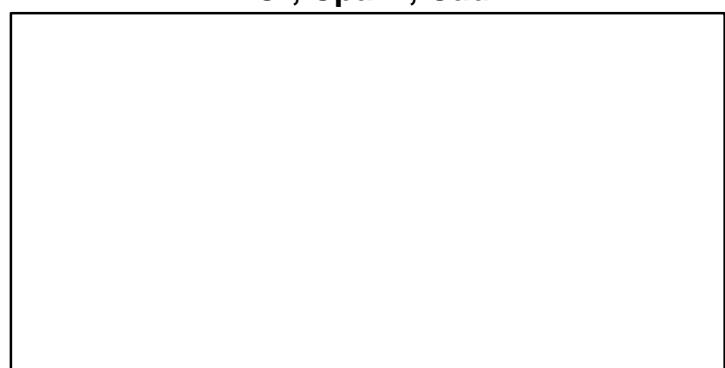
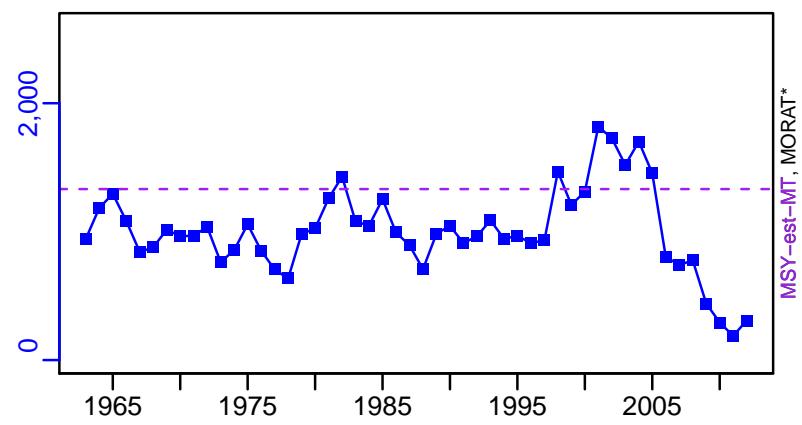


- | | | |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| - - - MSY-based BRP | --- Lim BRP | * No Data |

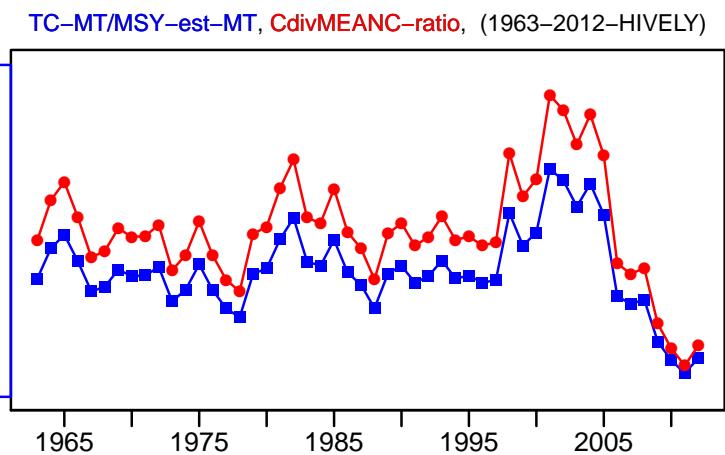
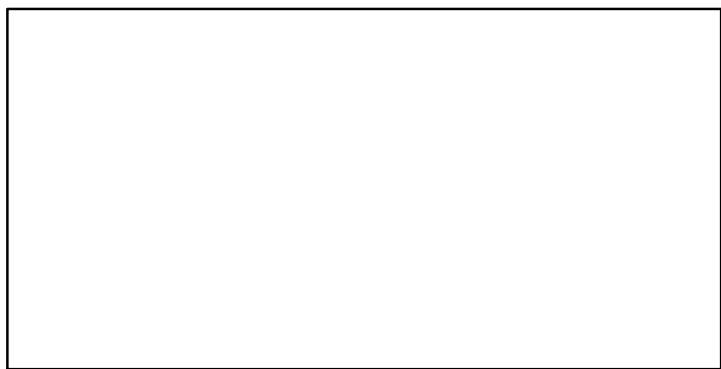
Gag Gulf of Mexico [GAGGM]

TC-MT, TL*, RecC* (1963–2012-HIVELY)

TAC*, Cpair*, Cadv*



EFFORT*



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

Gag Southern Atlantic coast [GAGSATLC]

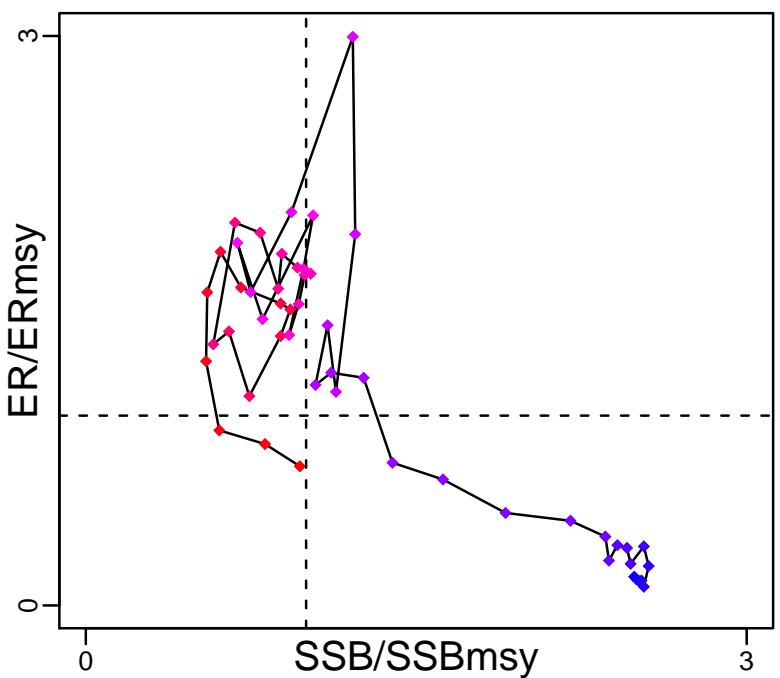
Metadata	
Scientific Name	Mycteroperca microlepis
Current Assess ID	SEFSC-GAGSATLC-1962-2012-SISIMP2016
Area	Southern Atlantic coast
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2005, 2012

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2005	6475
SSBmsy	SSBmsy-MT	2012	1832
Fmsy	Fmsy-1/yr	2005	0.295
ERmsy	ERmsy-ratio	2005	0.124
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2012	426
M	M-1/yr	2005	0.14
TBlim	-	-	-
SSBlim	SSBlim-MT	2012	1575
Flim	Flim-1/yr	2005	0.237
ERlim	-	-	-

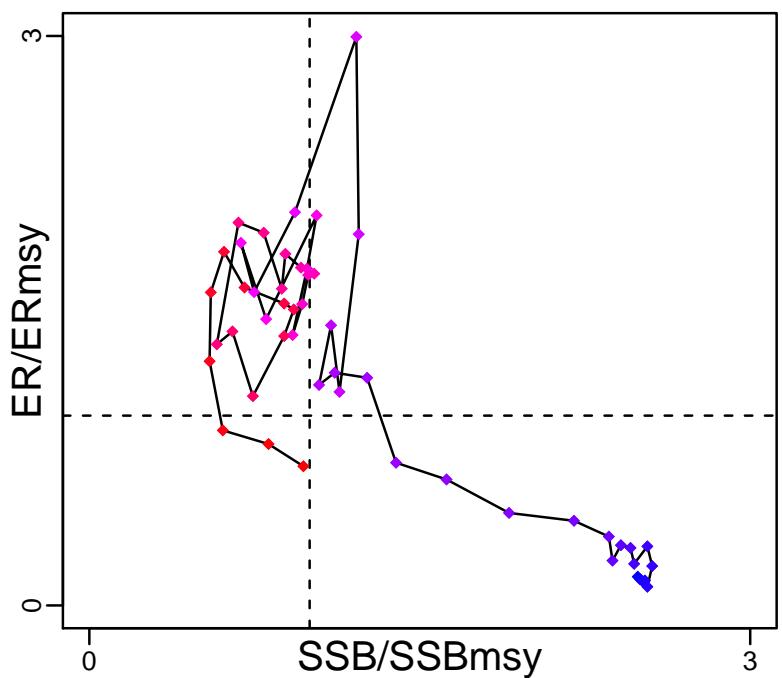
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2012	2620	-	1+	
SSB	SSB-MT	2012	1780	Females	3+	
TN	-	-	-	-	-	
R	R-E00	2005	270,000	-	-	
F	F-1/yr	2005	0.402	-	-	
ER	ER-calc-ratio	2012	0.094	-	-	
TC	TC-MT	2012	245			
TL	-	-	-			
TB/TBmsy	TB-MT/TBmsy-calc-MT	2005	0.646			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2012	0.972			
F/Fmsy	F-1/yr/Fmsy-1/yr	2005	1.363			
ER/ERmsy	ER-calc-ratio/ERmsy-conv-ratio	2012	0.733			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Gag Southern Atlantic coast [GAGSATLC]

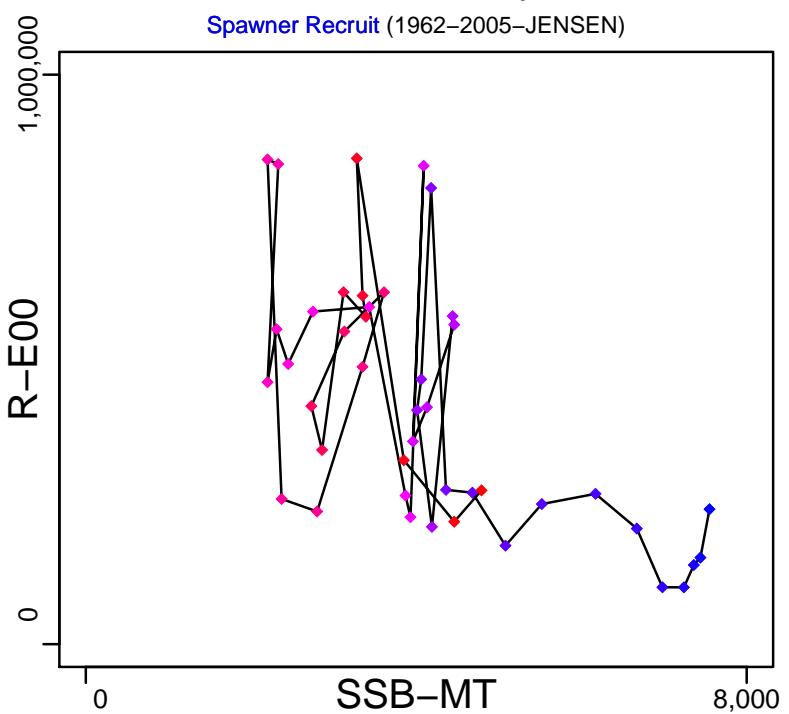
Kobe MSYpref (1962–2012–SISIMP2016)



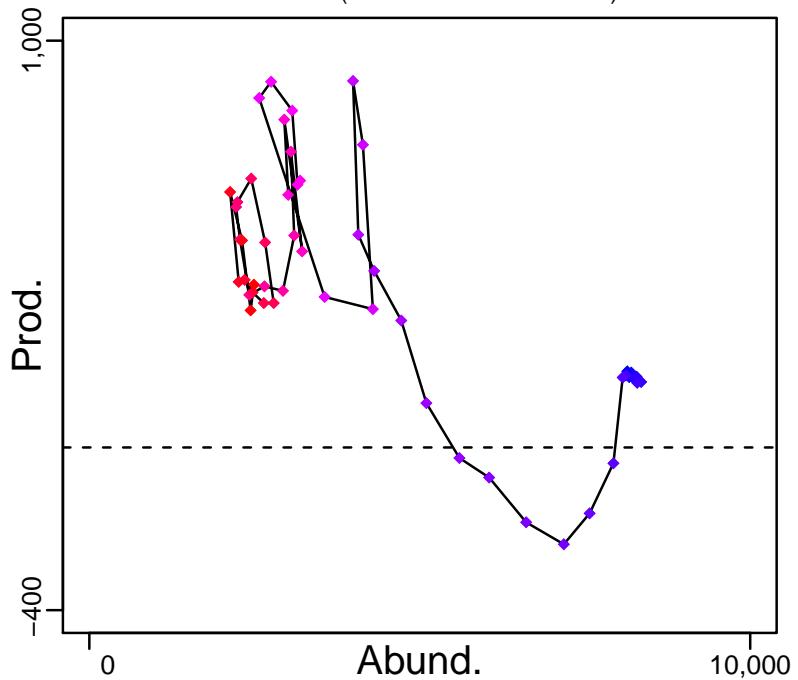
Kobe MGTpref (1962–2012–SISIMP2016)



Spawner Recruit (1962–2005–JENSEN)



Production (1962–2012–SISIMP2016)

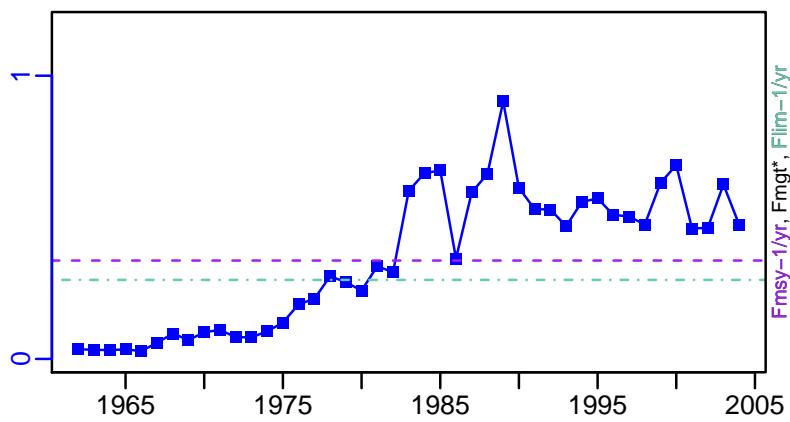
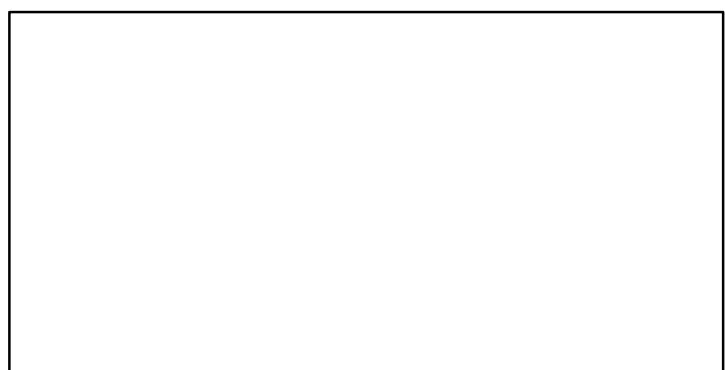
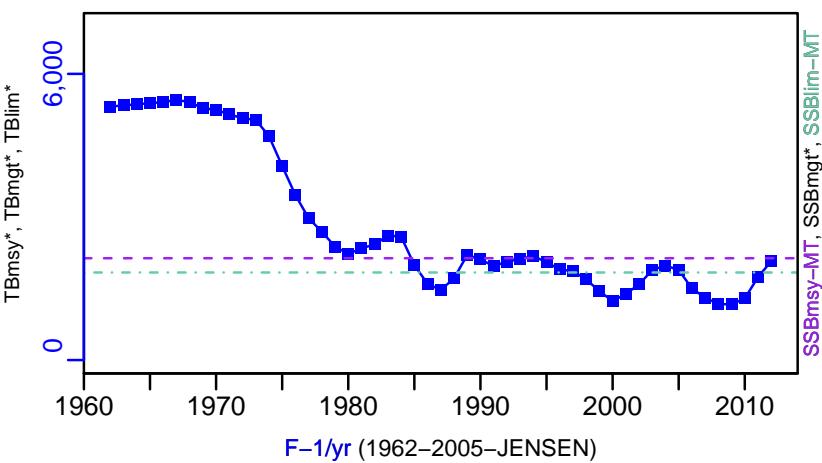
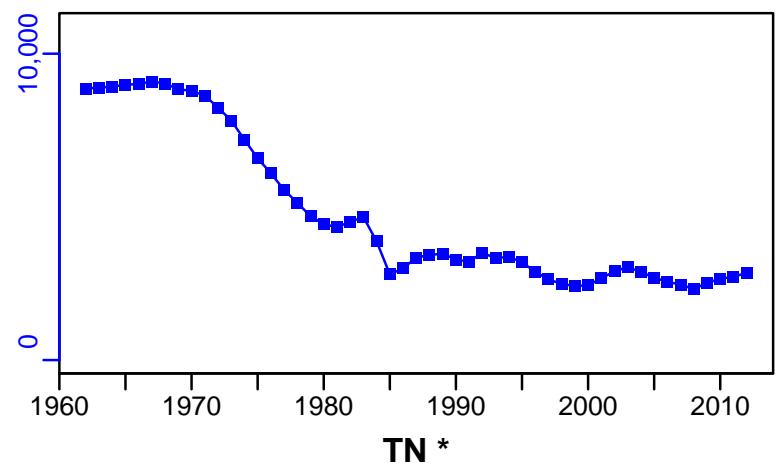


◆ Start Year ◆ End Year * No Data

Gag Southern Atlantic coast [GAGSATLC]

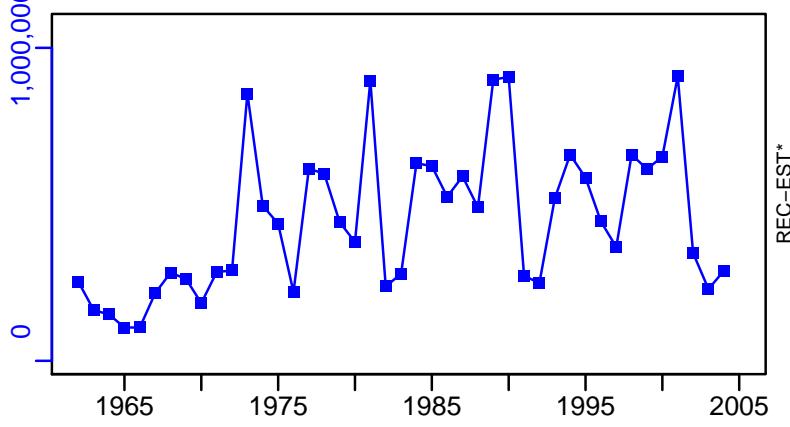
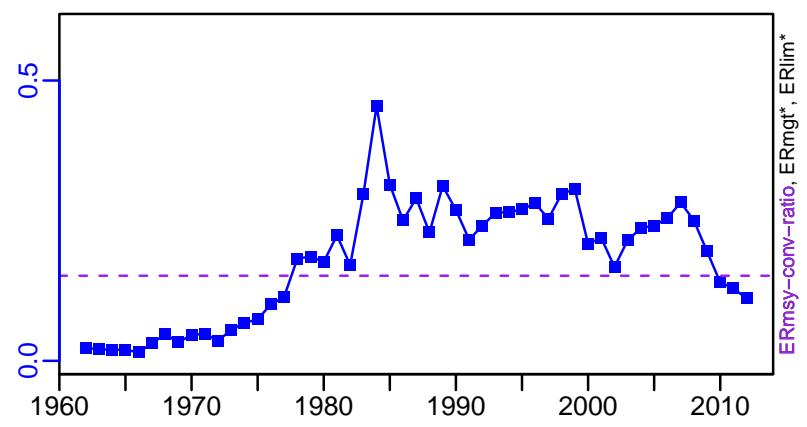
TB-MT (1962–2012–SISIMP2016)

SSB-MT (1962–2012–SISIMP2016)



ER-calc-ratio (1962–2012–SISIMP2016)

R-E00 (1962–2005–JENSEN)

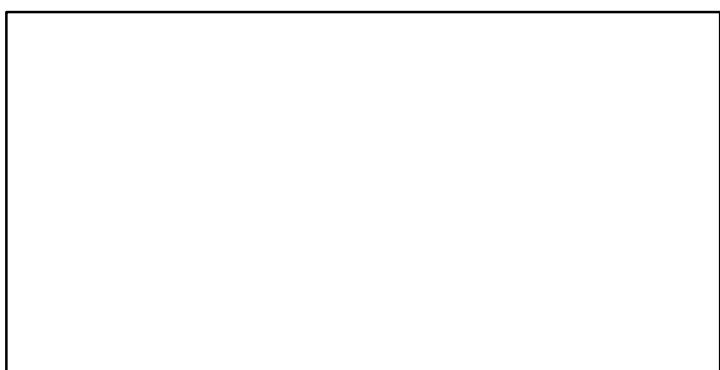
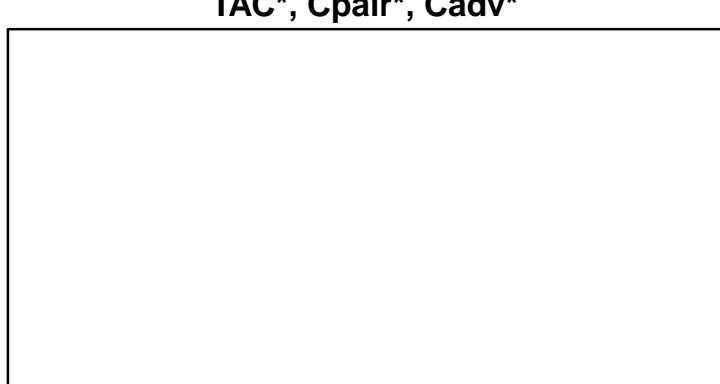
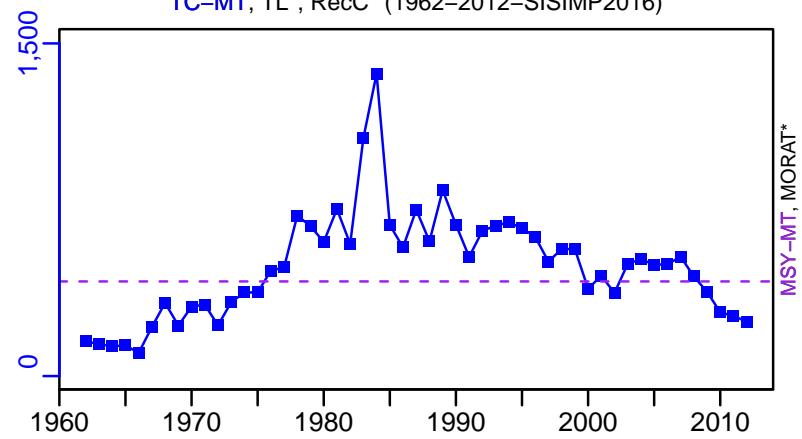


- | | | |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| — MSY-based BRP | --- Lim BRP | * No Data |

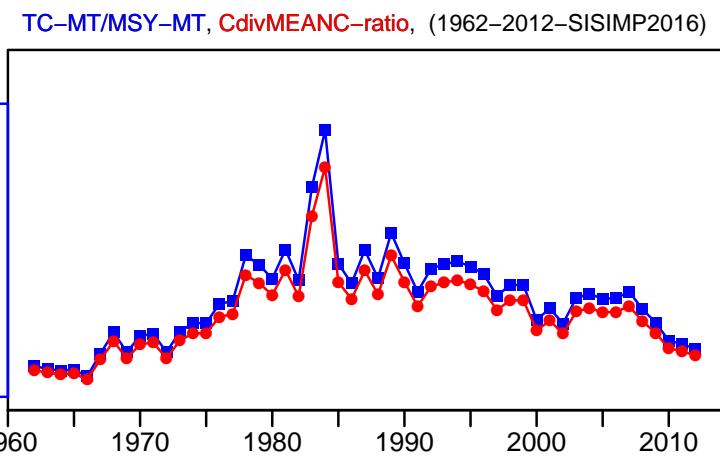
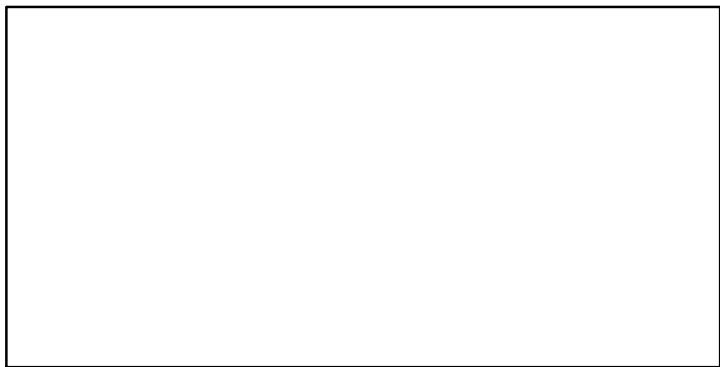
Gag Southern Atlantic coast [GAGSATLC]

TC-MT, TL*, RecC* (1962–2012–SISIMP2016)

TAC*, Cpair*, Cadv*



EFFORT*



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

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

Metadata	
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*

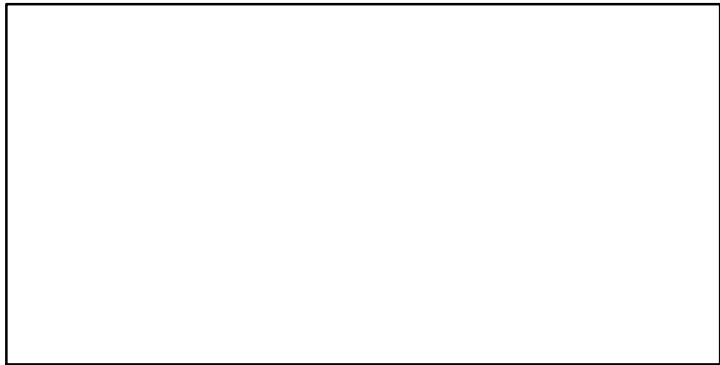
Spawner Recruit*

Production*

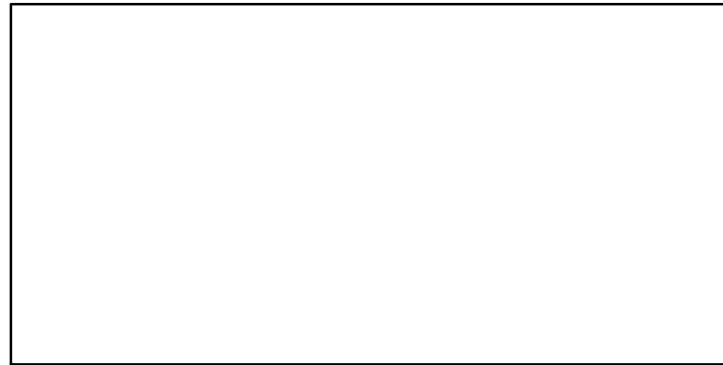
◆ Start Year ♦ End Year * No Data

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

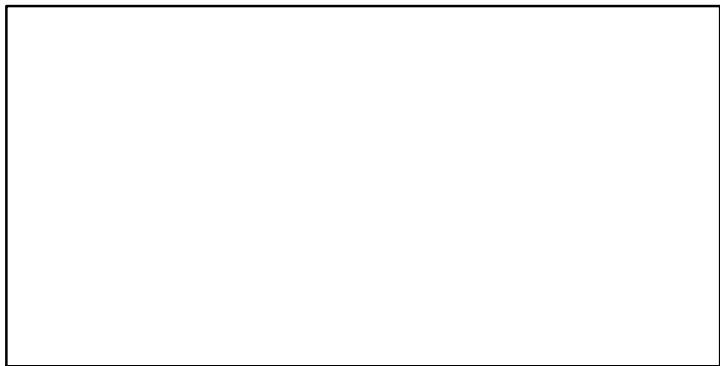
TB*



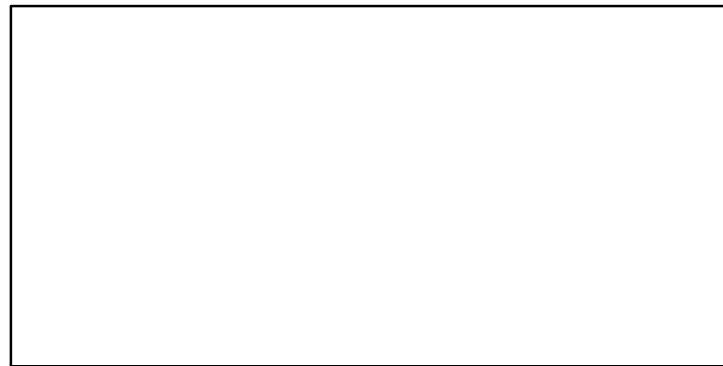
SSB*



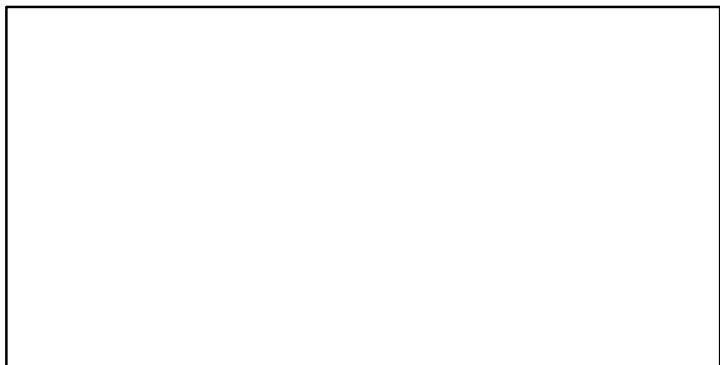
TN *



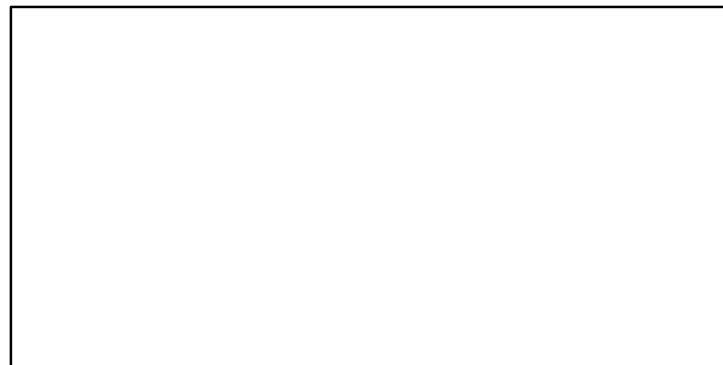
F*



ER*



Recruits*

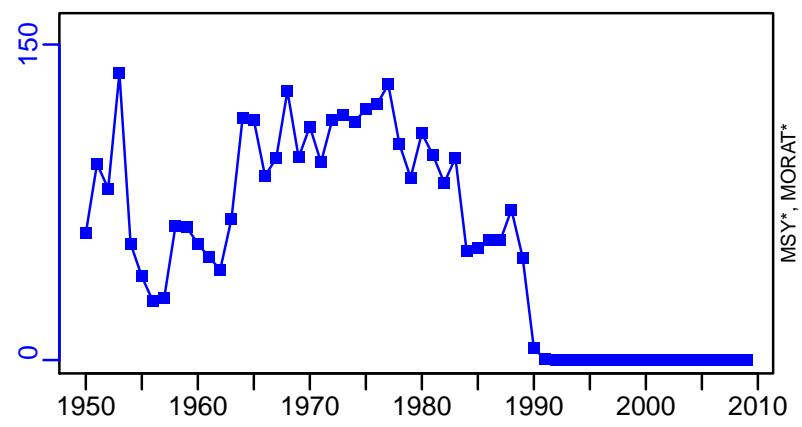


- | | | | | | |
|-------|--------------------|-------|------------|---|---------|
| ■ | Listed time series | - - - | Target BRP | — | Rec-Est |
| - - - | MSY-based BRP | - - - | Lim BRP | * | No Data |

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

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

TAC*, Cpair*, Cadv*



MSY*, MORAT*

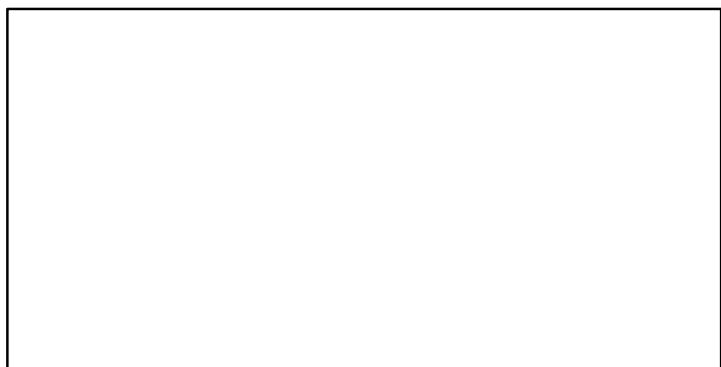
survB*



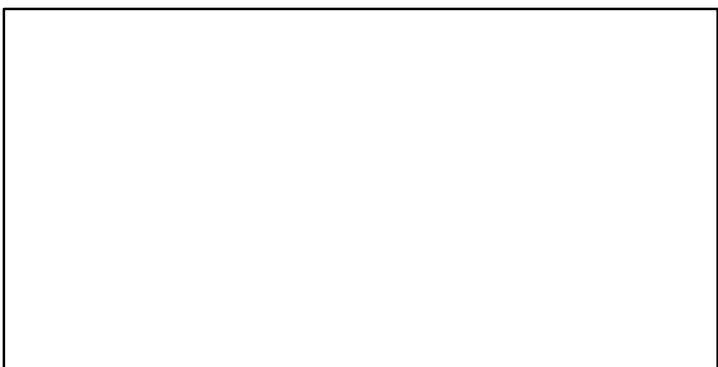
CPUE*



EFFORT*



CdivMSY*



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

Greater amberjack Gulf of Mexico [GRAMBERGM]

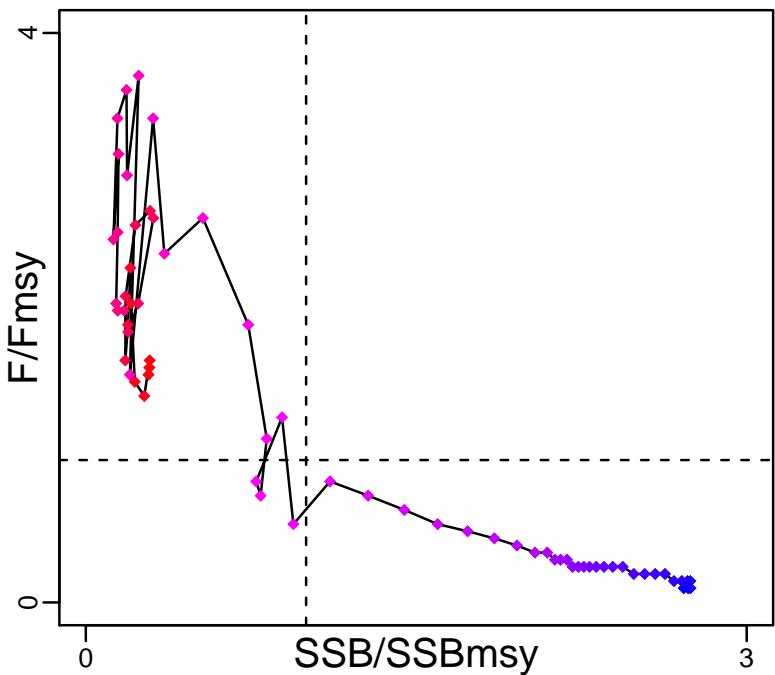
Metadata	
Scientific Name	Seriola dumerili
Current Assess ID	SEFSC-GRAMBERGM-1950-2015-SISIMP2021
Area	Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2012, 2015, 2004

Reference Points				
Type	ID	Asmt Year	Value	
TBmsy	TBmsy-calc-MT	2012	7422	
SSBmsy	SSBmsy-MT	2015	5686	
Fmsy	Fmsy-1/yr	2015	0.2	
ERmsy	ERmsy-ratio	2012	0.22	
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	

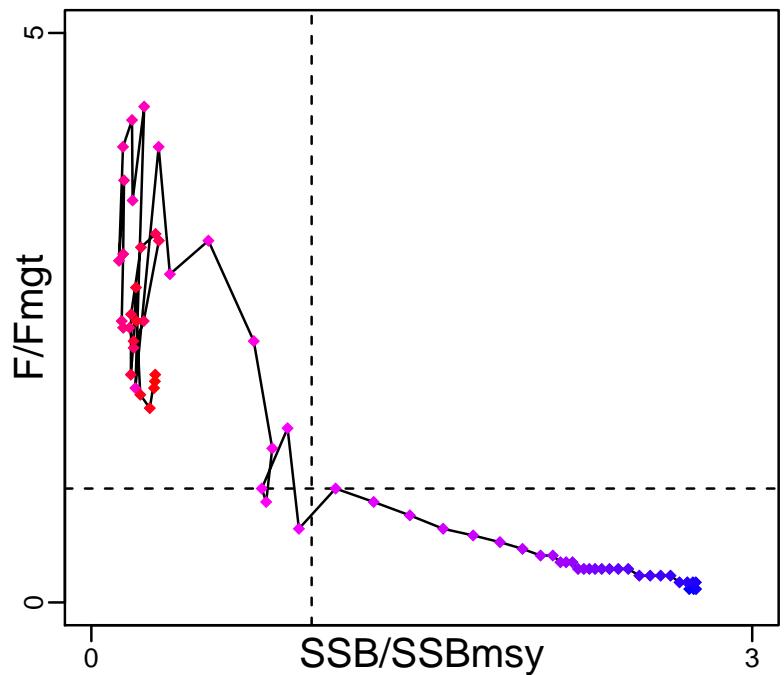
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2012	3860	-	1+	
SSB	SSB-MT	2015	1640	-	-	
TN	-	-	-	-	-	
R	R-E00	2012	3×10^6	-	0	
F	F-1/yr	2015	0.33	-	-	
ER	ER-ratio	2012	0.255	-	-	
TC	TC-MT	2012	983			
TL	-	-	-			
TB/TBmsy	TB-MT/TBmsy-calc-MT	2012	0.52			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2015	0.288			
F/Fmsy	F-1/yr/Fmsy-1/yr	2015	1.65			
ER/ERmsy	ER-ratio/ERmsy-ratio	2012	1.159			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	F-1/yr/Fmgt-1/yr	2015	1.941			
ER/ERmgt	-	-	-			

Greater amberjack Gulf of Mexico [GRAMBERGM]

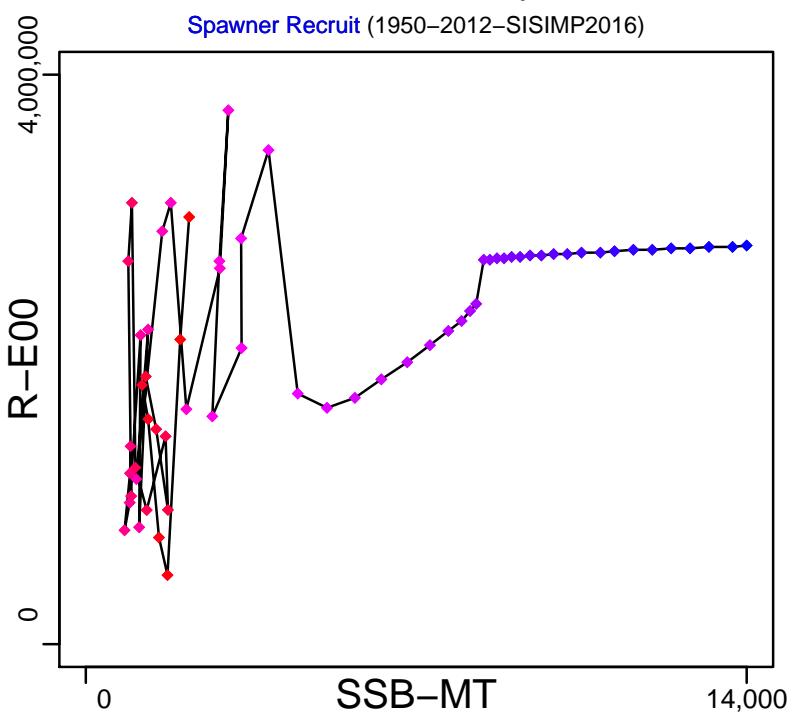
Kobe MSYpref (1950–2015–SISIMP2021)



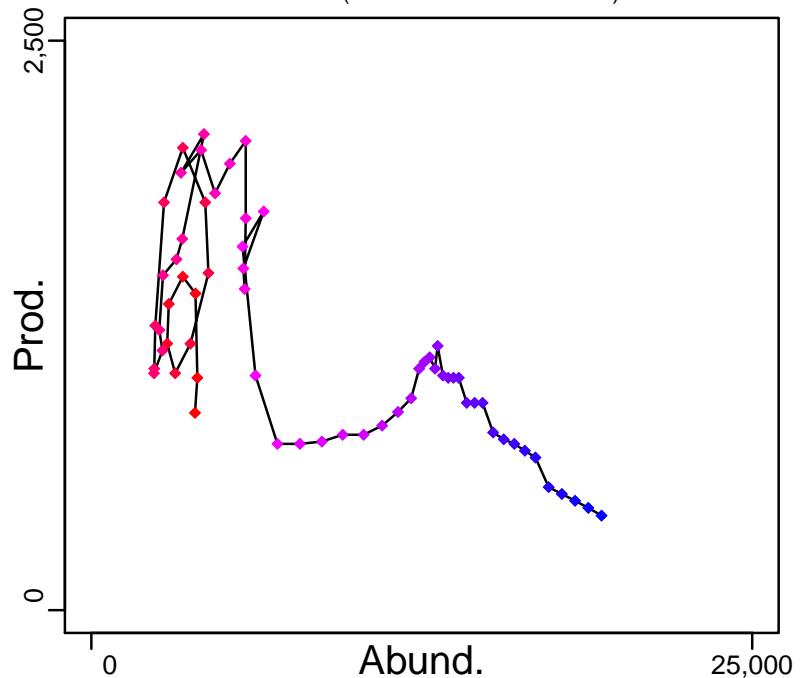
Kobe MGTpref (1950–2015–SISIMP2021)



Spawner Recruit (1950–2012–SISIMP2016)



Production (1950–2012–SISIMP2016)

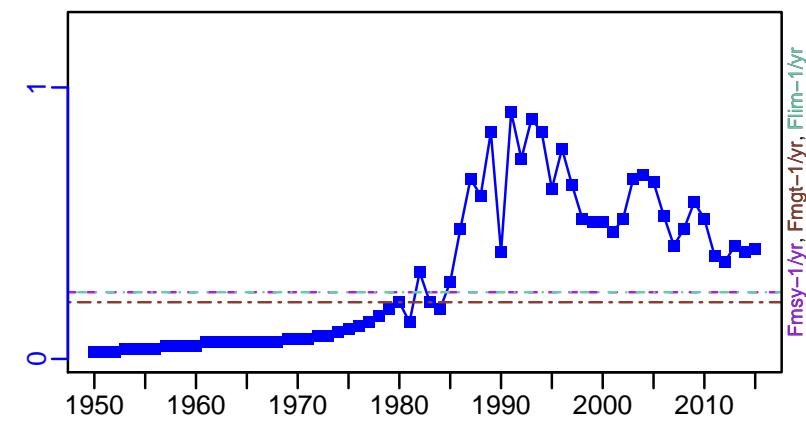
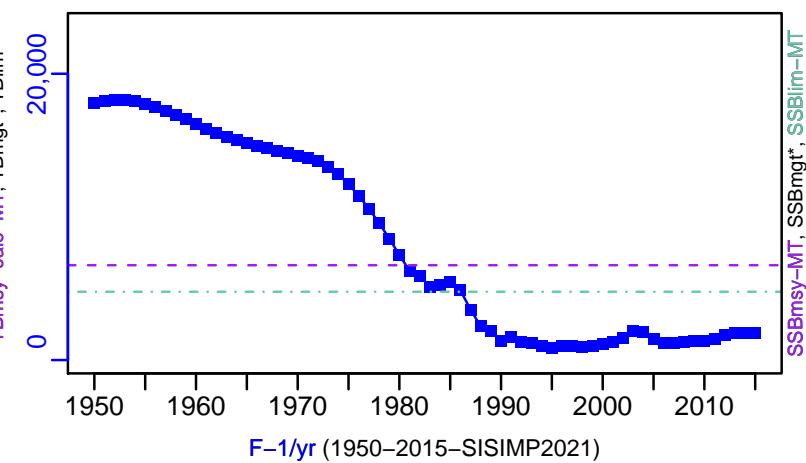
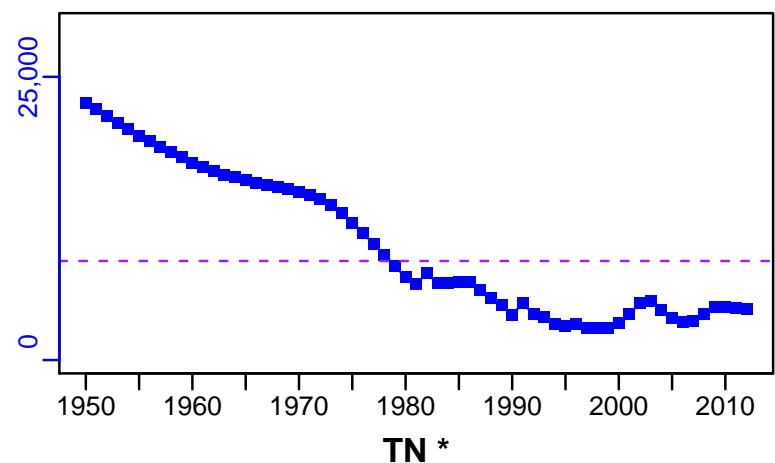


◆ Start Year	◆ End Year	*	No Data
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Greater amberjack Gulf of Mexico [GRAMBERGM]

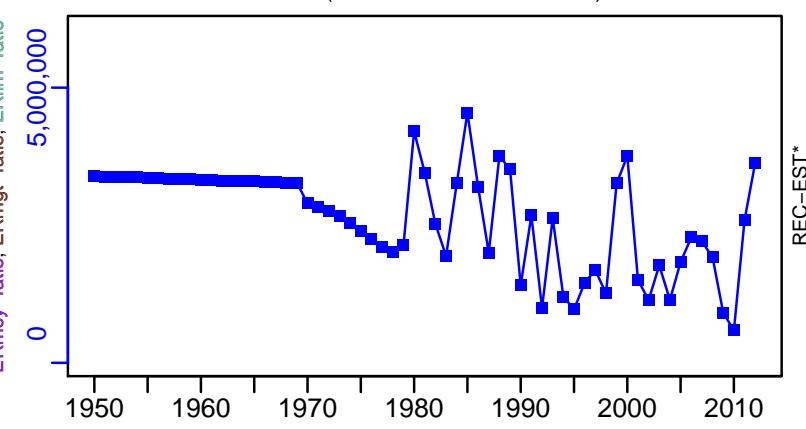
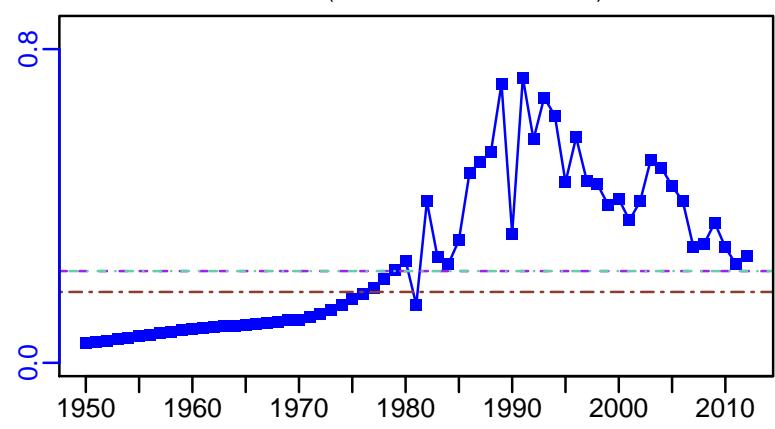
TB-MT (1950–2012–SISIMP2016)

SSB-MT (1950–2015–SISIMP2021)



ER-ratio (1950–2012–SISIMP2016)

R-E00 (1950–2012–SISIMP2016)

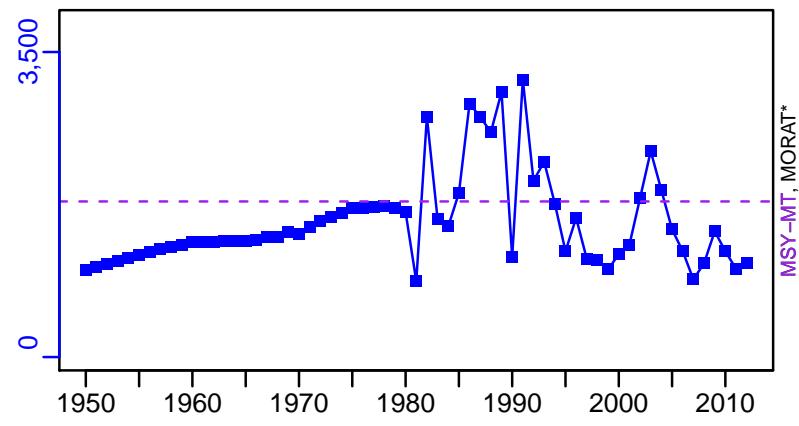


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	--- Lim BRP	* No Data

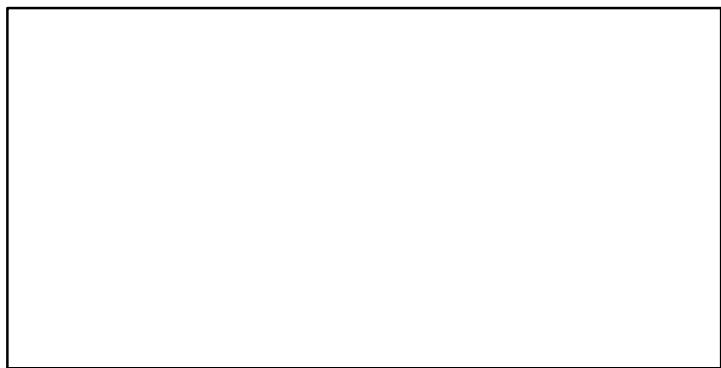
Greater amberjack Gulf of Mexico [GRAMBERGM]

TC-MT, TL*, RecC* (1950–2012–SISIMP2016)

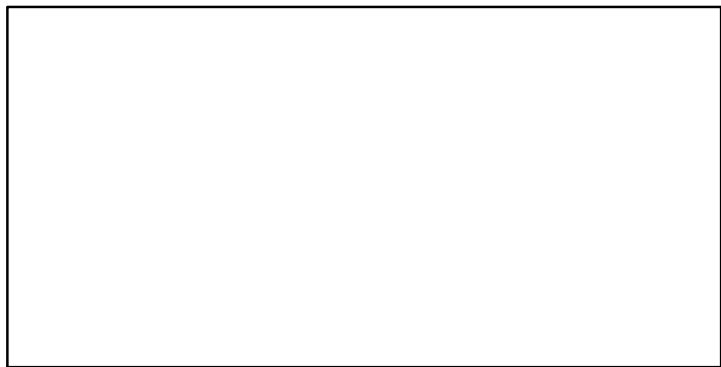
TAC*, Cpair*, Cadv*



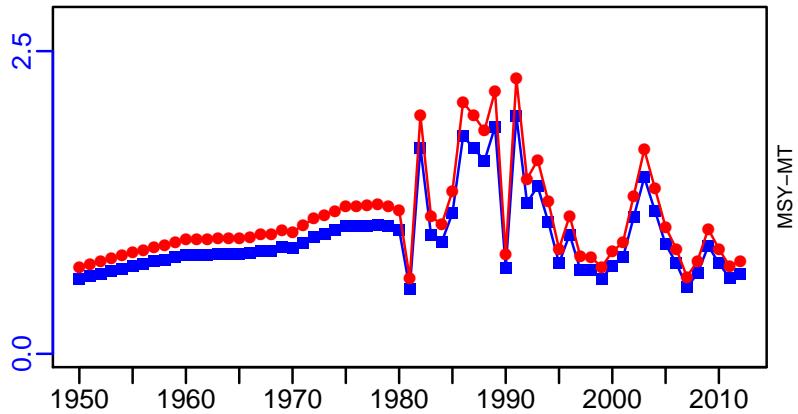
CPUE*



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]

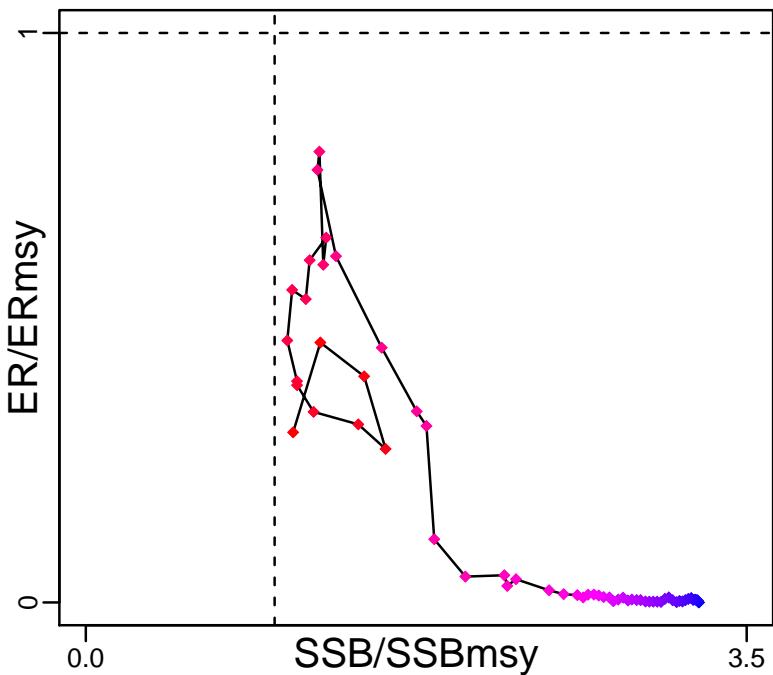
Metadata	
Scientific Name	Seriola dumerili
Current Assess ID	SEFSC-GRAMBERSATLC-1946-2006-JENSEN
Area	Southern Atlantic coast
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2006

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2006	5491
SSBmsy	SSBmsy-MT	2006	1940
Fmsy	Fmsy-1/yr	2006	0.433
ERmsy	ERmsy-ratio	2006	0.166
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2006	909
M	M-1/yr	2006	0.25
TBlim	TBlim-MT	2006	1455
SSBlim	-	-	-
Flim	Flim-1/yr	2006	0.433
ERlim	-	-	-

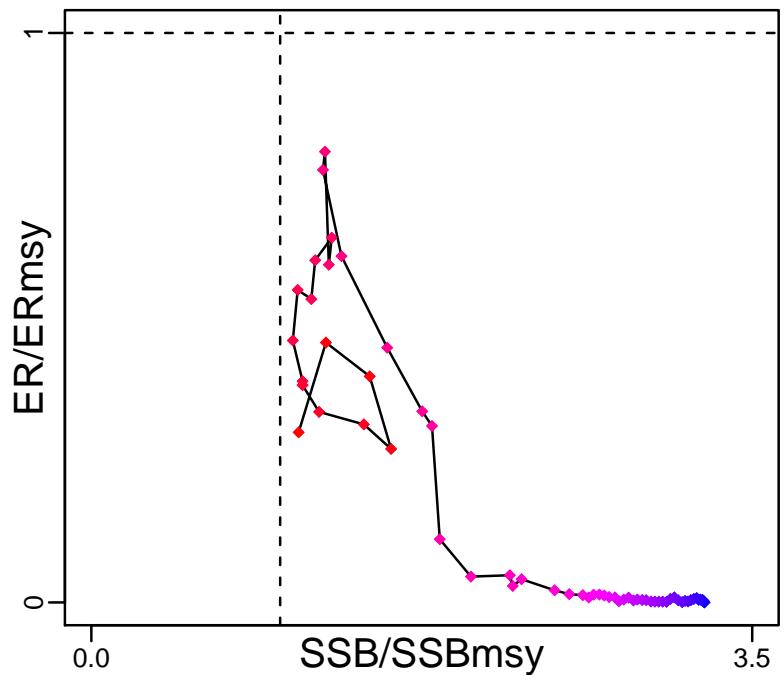
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2006	5620	-	-	
SSB	SSB-MT	2006	2130	-	1.3+	
TN	-	-	-	-	-	
R	R-E00	2006	498,000	-	-	
F	F-1/yr	2006	0.23	-	-	
ER	ER-calc-ratio	2006	0.049	-	-	
TC	-	-	-			
TL	TL-MT	2006	278			
TB/TBmsy	TB-MT/TBmsy-MT	2006	1.023			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2006	1.098			
F/Fmsy	F-1/yr/Fmsy-1/yr	2006	0.531			
ER/ERmsy	ER-calc-ratio/ERmsy-ratio	2006	0.299			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Greater amberjack Southern Atlantic coast [GRAMBERSATLC]

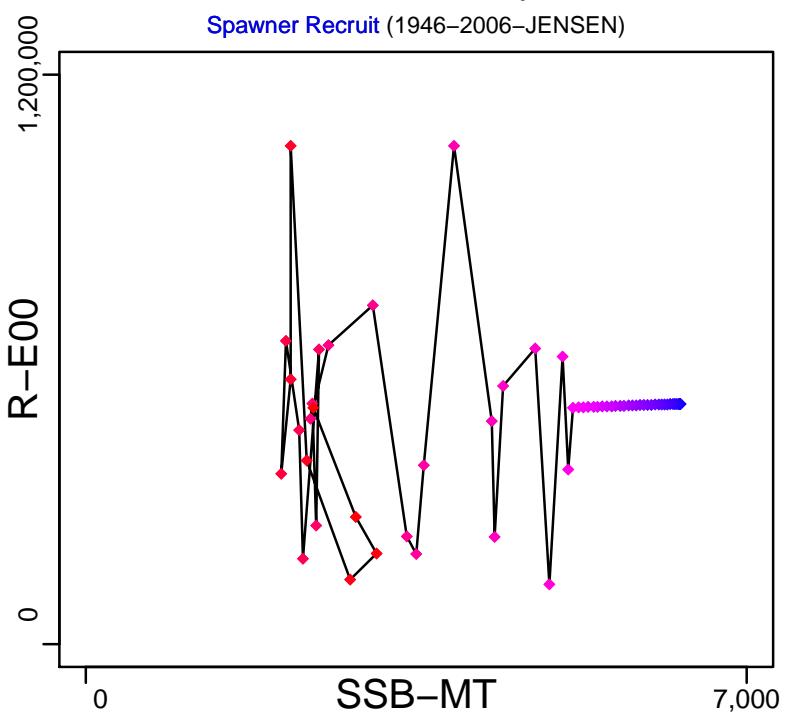
Kobe MSYpref (1946–2006–JENSEN)



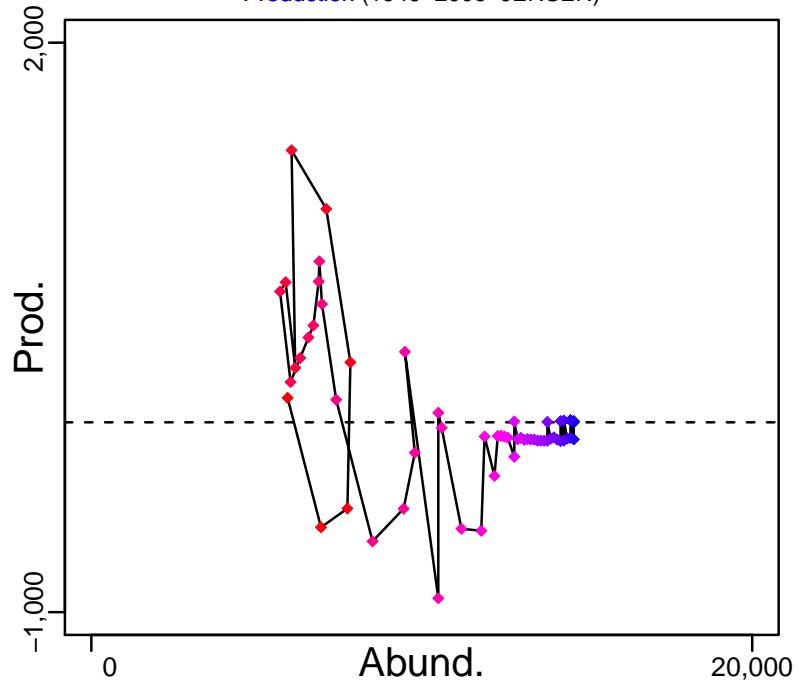
Kobe MGTpref (1946–2006–JENSEN)



Spawner Recruit (1946–2006–JENSEN)



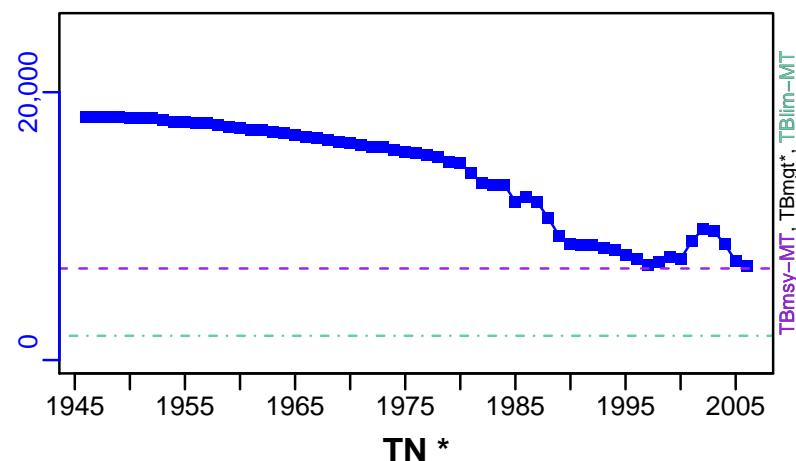
Production (1946–2006–JENSEN)



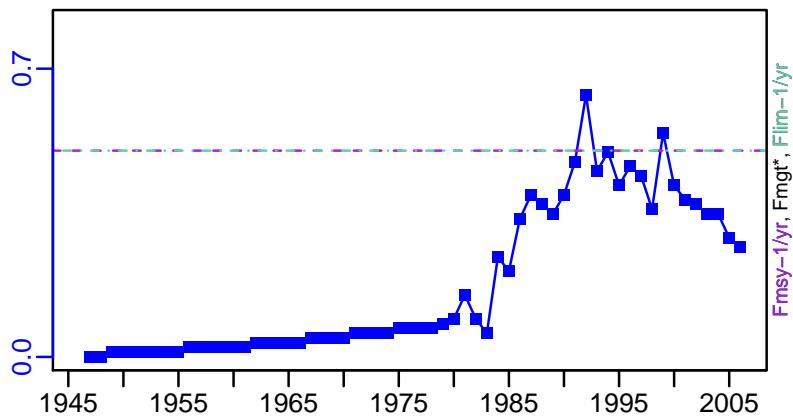
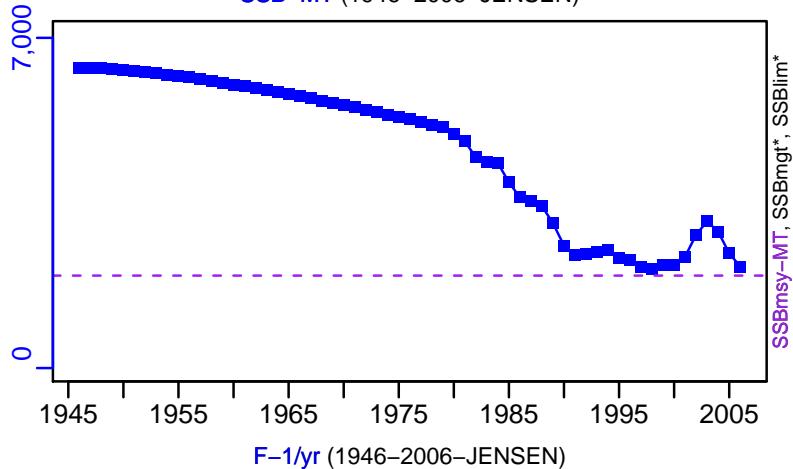
◆ Start Year	◆ End Year	*	No Data
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Greater amberjack Southern Atlantic coast [GRAMBERSATLC]

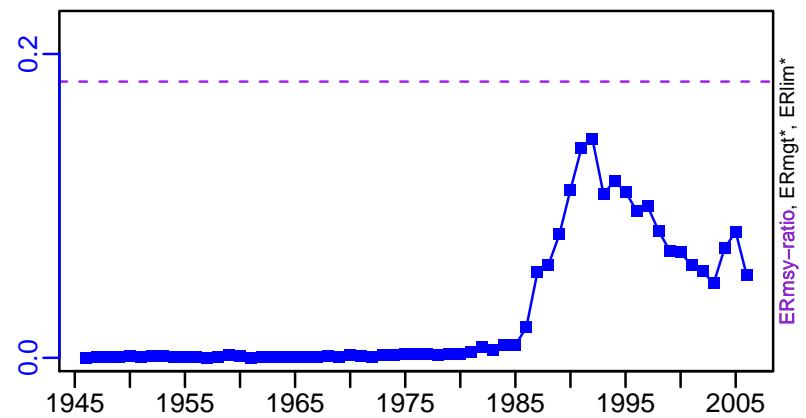
TB-MT (1946–2006–JENSEN)



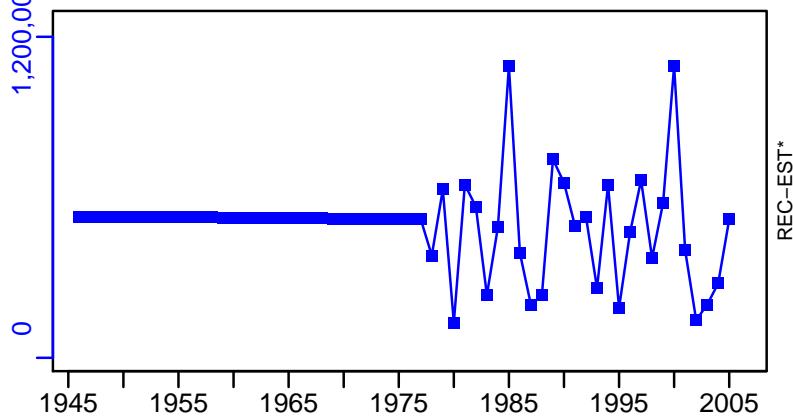
SSB-MT (1946–2006–JENSEN)



ER-calc-ratio (1946–2006–JENSEN)



R-E00 (1946–2006–JENSEN)

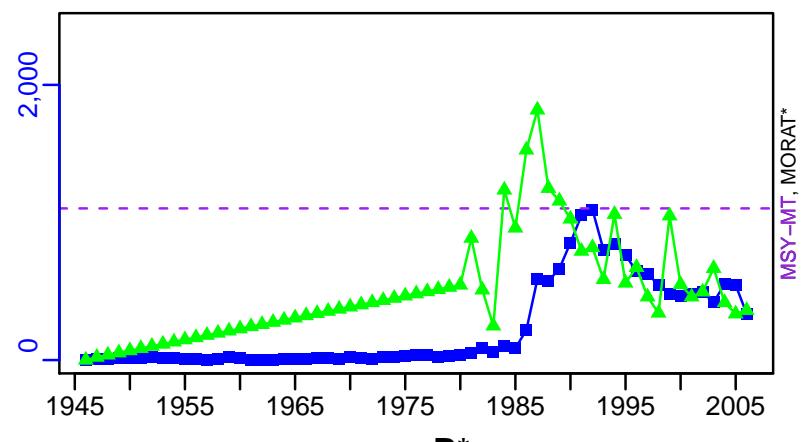


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	--- Lim BRP	* No Data

Greater amberjack Southern Atlantic coast [GRAMBERSATLC]

TL-MT, TC*, RecC-MT (1946–2006–JENSEN)

TAC*, Cpair*, Cadv*



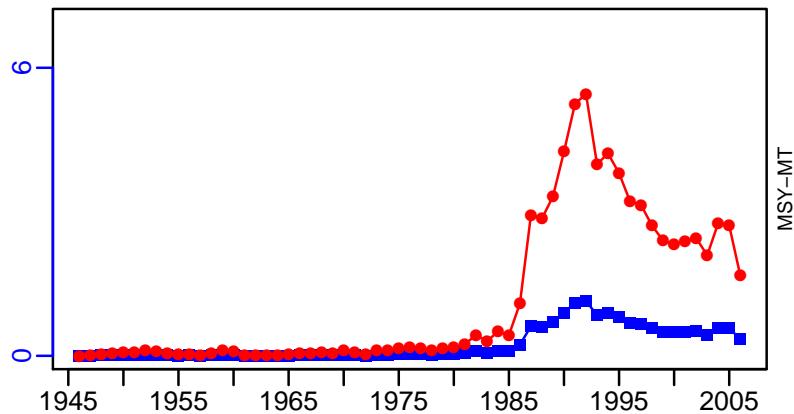
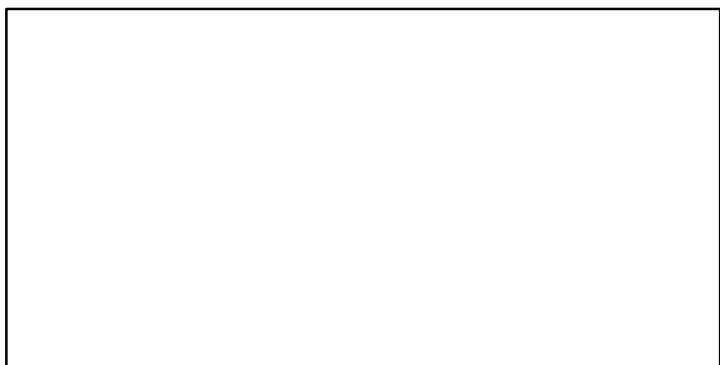
survB*

MSY-MT, MORAT*

CPUE*

EFFORT*

TL-MT/MSY-MT, CdivMEANC-ratio, (1946–2006–JENSEN)



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

Gray snapper Gulf of Mexico [GRSNAPGM]

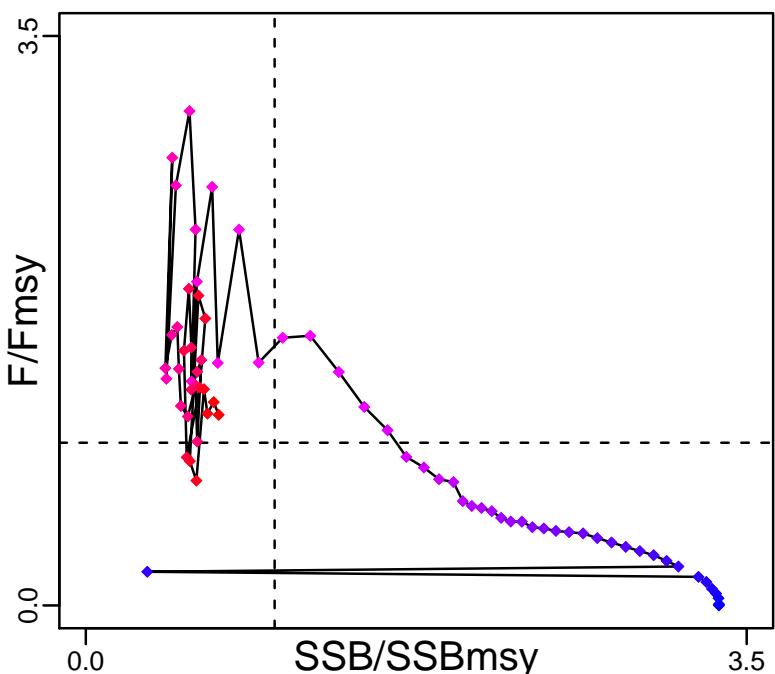
Metadata	
Scientific Name	Lutjanus griseus
Current Assess ID	SEFSC-GRSNAPGM-1945-2015-SISIMP2021
Area	Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2015

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2015	6621
Fmsy	Fmsy-1/yr	2015	0.115
ERmsy	ERmsy-conv-ratio	2015	0.123
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	-	-	-

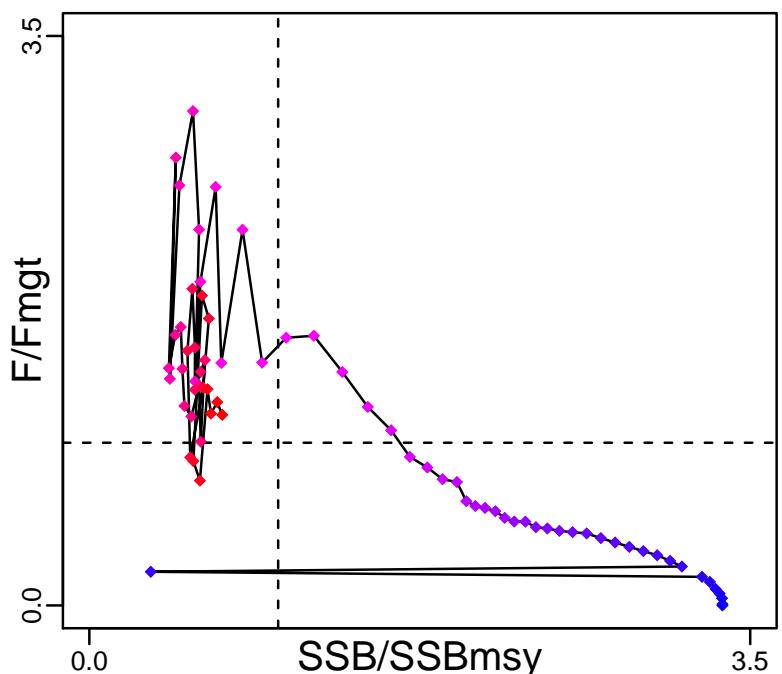
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	-	-	-	-	-	
SSB	SSB-MT	2015	4660	-	-	
TN	-	-	-	-	-	
R	R-E00	2015	10,223,200	-	0	
F	F-1/yr	2015	0.135	-	-	
ER	ER-calc-ratio	2015	0.14	-	-	
TC	TC-MT	2015	882			
TL	-	-	-			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2015	0.704			
F/Fmsy	F-1/yr/Fmsy-1/yr	2015	1.171			
ER/ERmsy	ER-calc-ratio/ERmsy-conv-ratio	2015	1.139			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	F-1/yr/Fmgt-1/yr	2015	1.171			
ER/ERmgt	-	-	-			

Gray snapper Gulf of Mexico [GRSNAPGM]

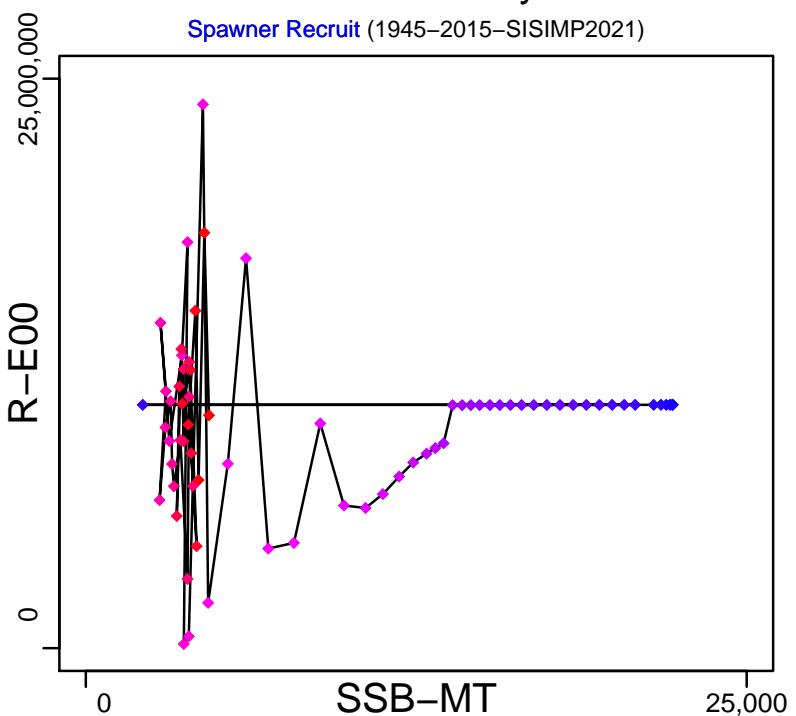
Kobe MSYpref (1945–2015–SISIMP2021)



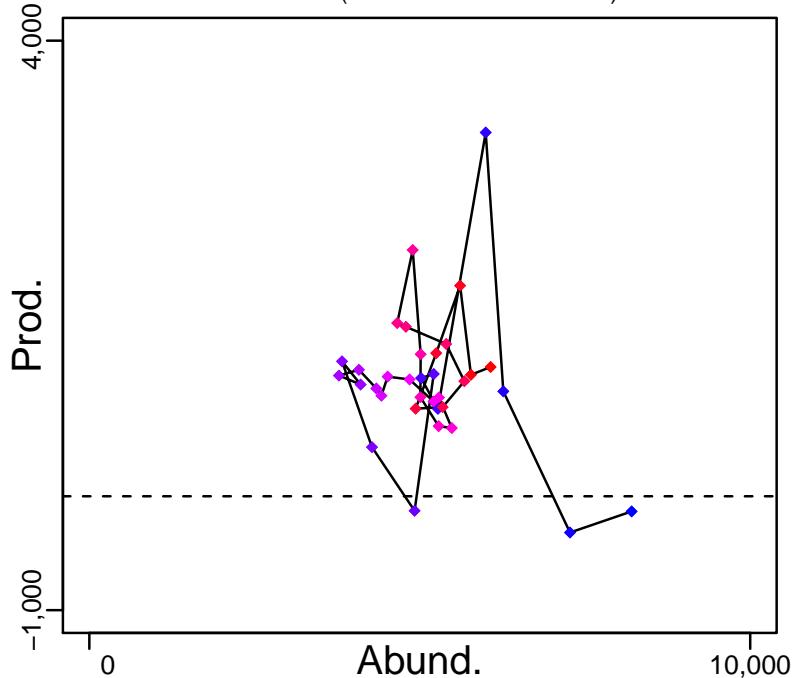
Kobe MGTpref (1945–2015–SISIMP2021)



Spawner Recruit (1945–2015–SISIMP2021)



Production (1945–2015–SISIMP2021)



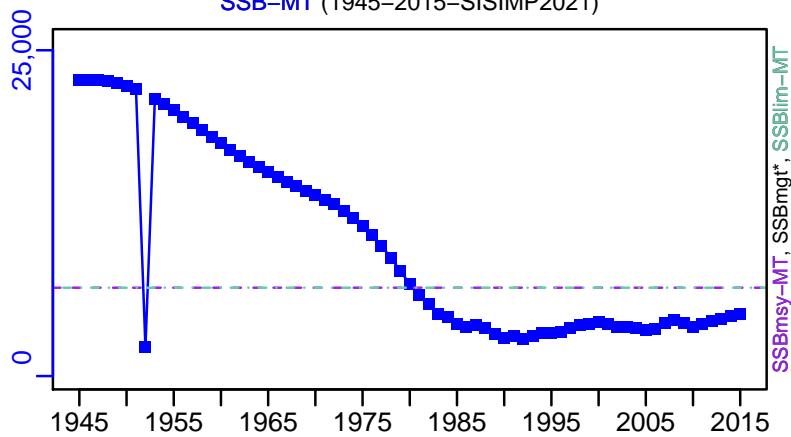
◆ Start Year ◆ End Year * No Data

Gray snapper Gulf of Mexico [GRSNAPGM]

TB*



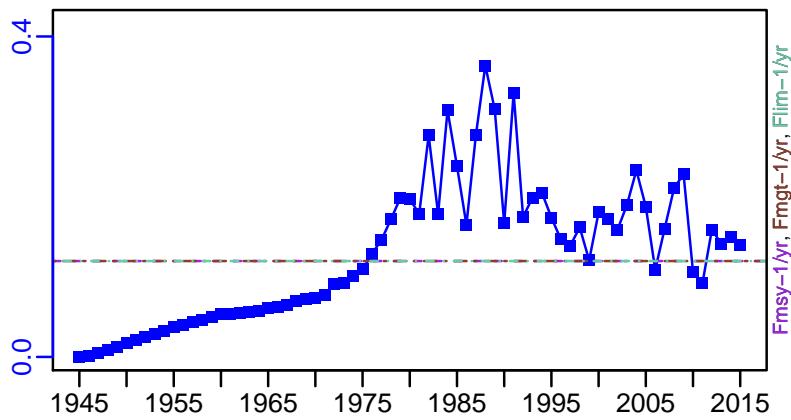
SSB-MT (1945–2015–SISIMP2021)



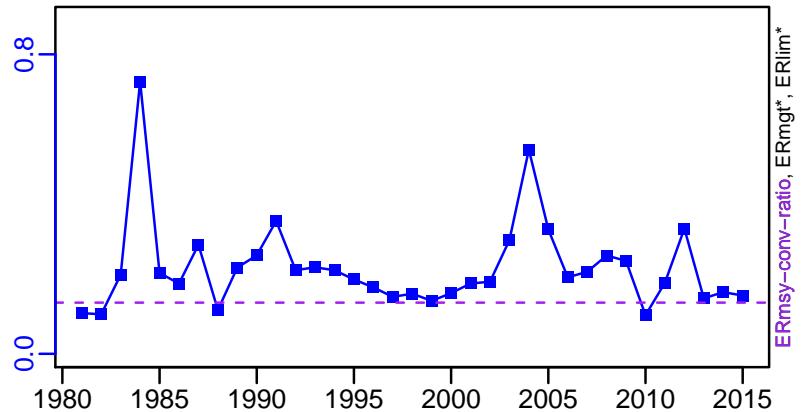
TN *



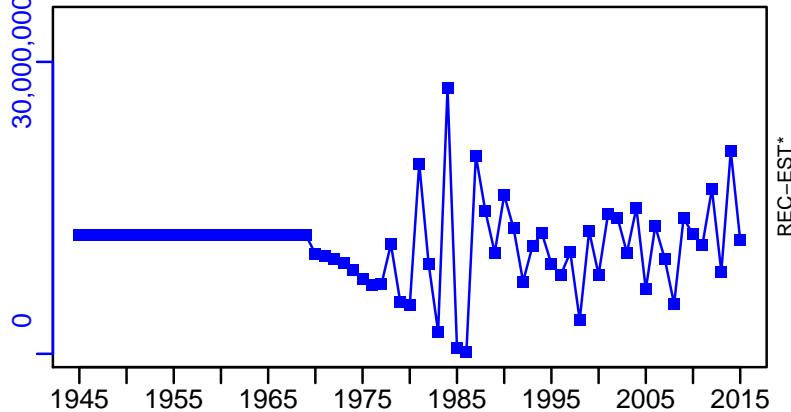
F-1/yr (1945–2015–SISIMP2021)



ER-calc-ratio (1945–2015–SISIMP2021)



R-E00 (1945–2015–SISIMP2021)

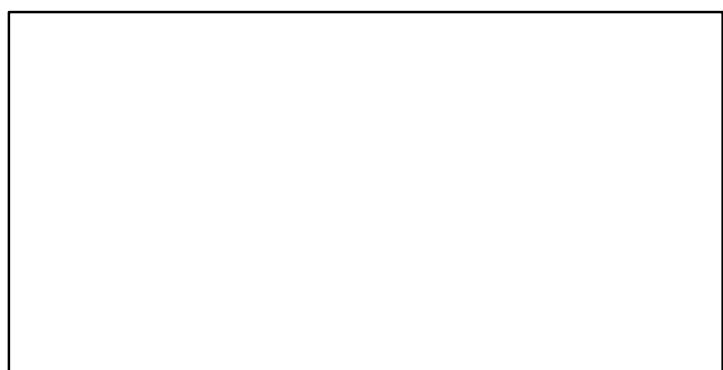
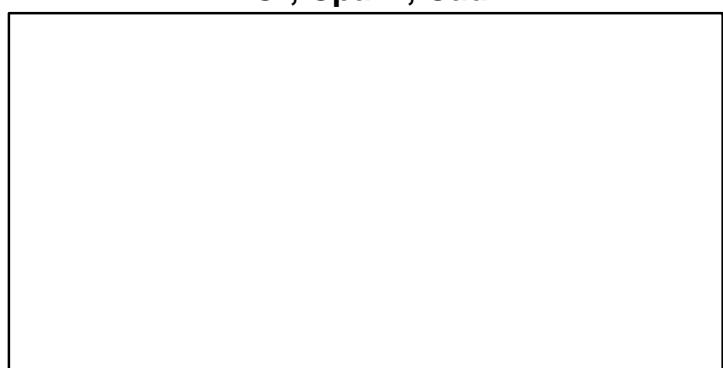
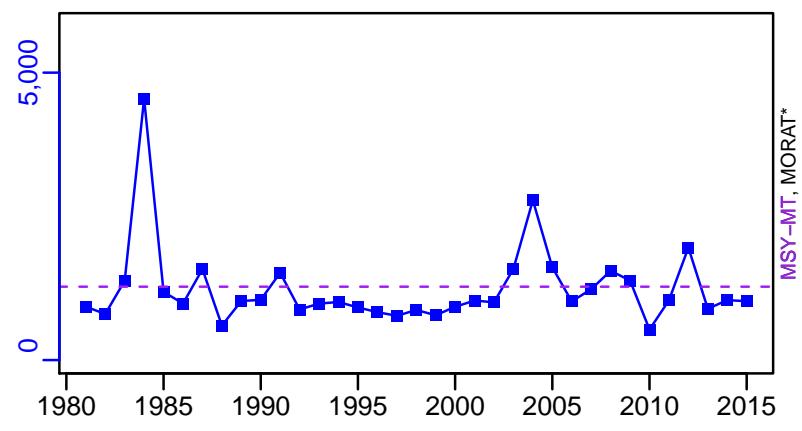


■ Listed time series	— Target BRP	— Rec-Est
- - MSY-based BRP	- - Lim BRP	* No Data

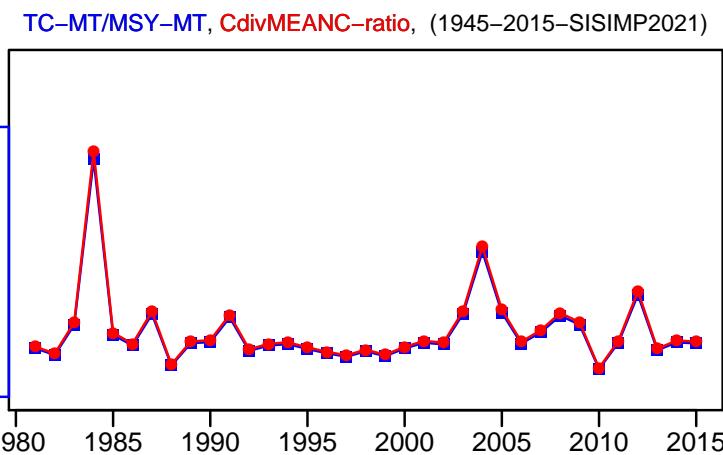
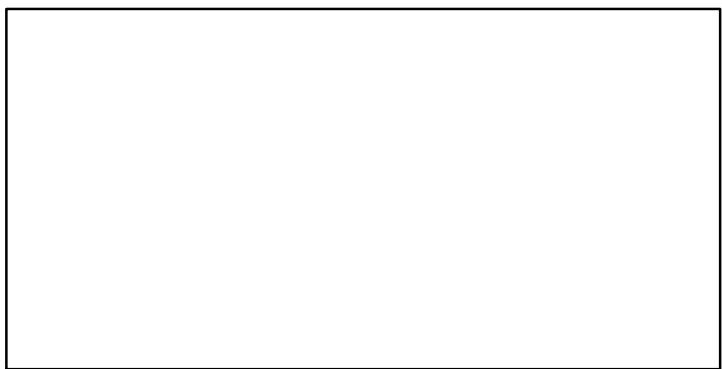
Gray snapper Gulf of Mexico [GRSNAPGM]

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

TAC*, Cpair*, Cadv*



EFFORT*



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

Gray triggerfish Gulf of Mexico [GTRIGGM]

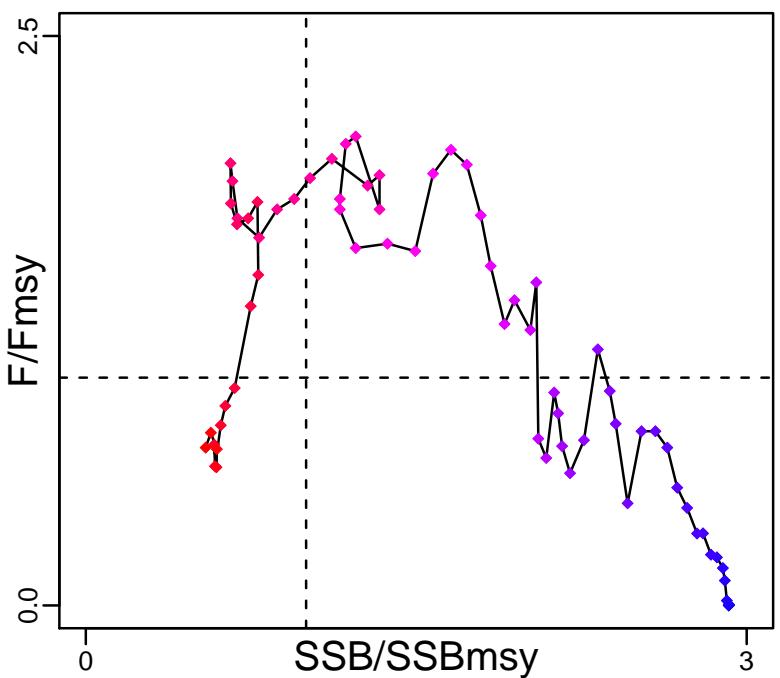
Metadata	
Scientific Name	Balistes capriscus
Current Assess ID	SEFSC-GTRIGGM-1945-2013-SISIMP2016
Area	Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2013, 2010

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-est-MT	2013	14,666
SSBmsy	SSBmsy-E00eggs	2013	1.11×10^{10}
Fmsy	Fmsy-1/yr	2013	0.153
ERmsy	ERmsy-est-ratio	2013	0.141
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	-	-	-

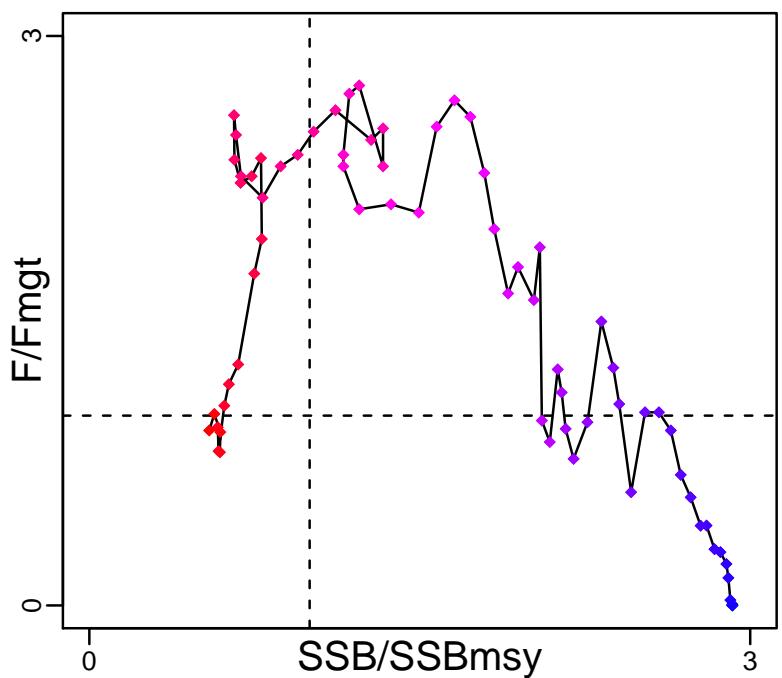
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2013	5780	-	1+	
SSB	SSB-E00eggs	2013	6.04×10^9	Females	-	
TN	TN-E00	2010	2,050,000	-	-	
R	R-E00	2013	6,710,000	-	0	
F	F-1/yr	2013	0.106	-	-	
ER	ER-calc-ratio	2013	0.131	-	-	
TC	TC-MT	2013	757			
TL	TL-E00	2010	103,000			
TB/TBmsy	TB-MT/TBmsy-est-MT	2013	0.394			
SSB/SSBmsy	SSB-E00eggs/SSBmsy-E00eggs	2013	0.544			
F/Fmsy	F-1/yr/Fmsy-1/yr	2013	0.693			
ER/ERmsy	ER-calc-ratio/ERmsy-est-ratio	2013	0.931			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	F-1/yr/Fmgt-1/yr	2013	0.922			
ER/ERmgt	-	-	-			

Gray triggerfish Gulf of Mexico [GTRIGGM]

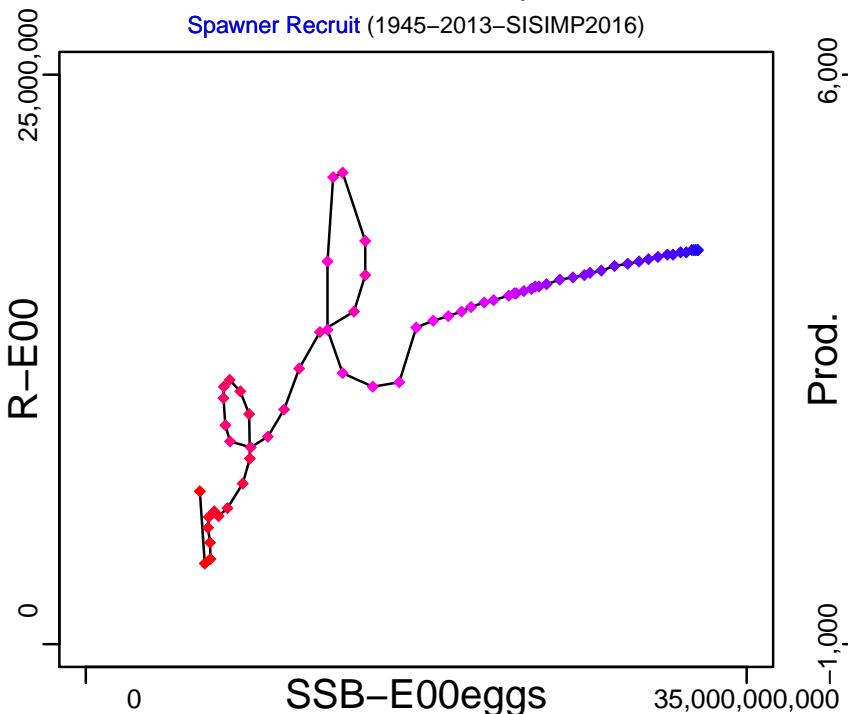
Kobe MSYpref (1945–2013–SISIMP2016)



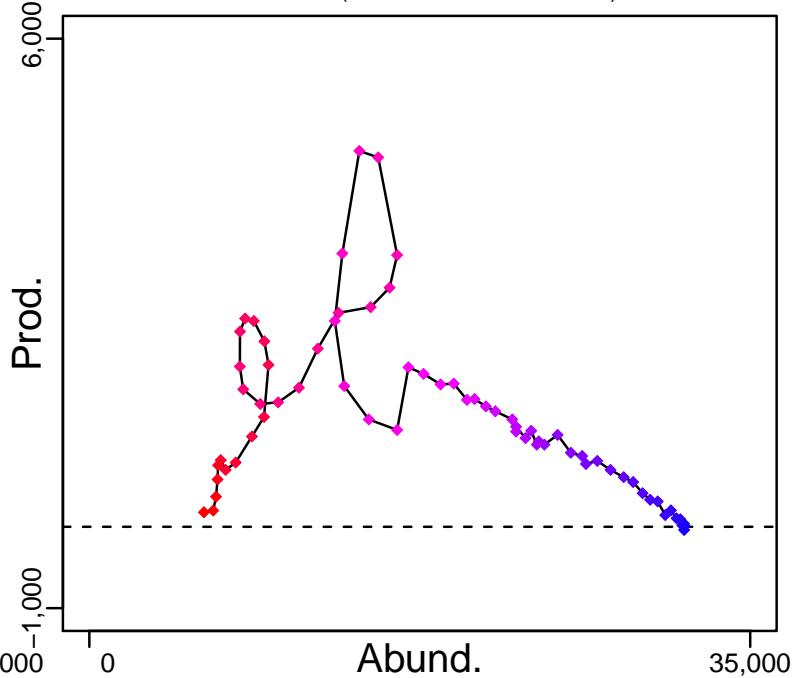
Kobe MGTpref (1945–2013–SISIMP2016)



Spawner Recruit (1945–2013–SISIMP2016)



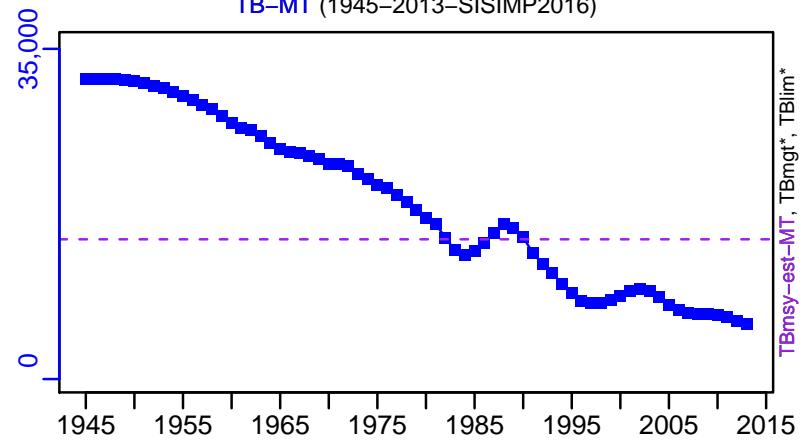
Production (1945–2013–SISIMP2016)



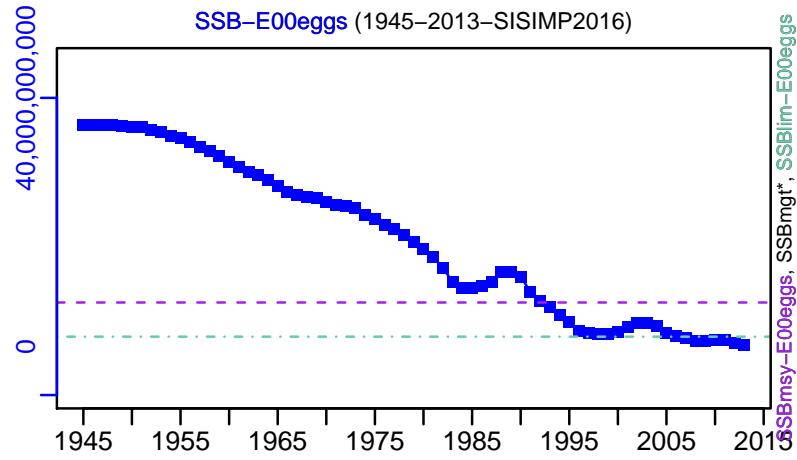
◆ Start Year	◆ End Year	*	No Data
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Gray triggerfish Gulf of Mexico [GTRIGGM]

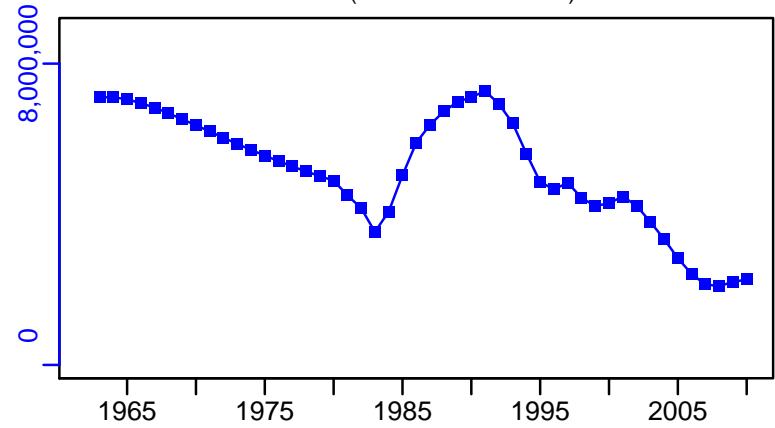
TB-MT (1945–2013–SISIMP2016)



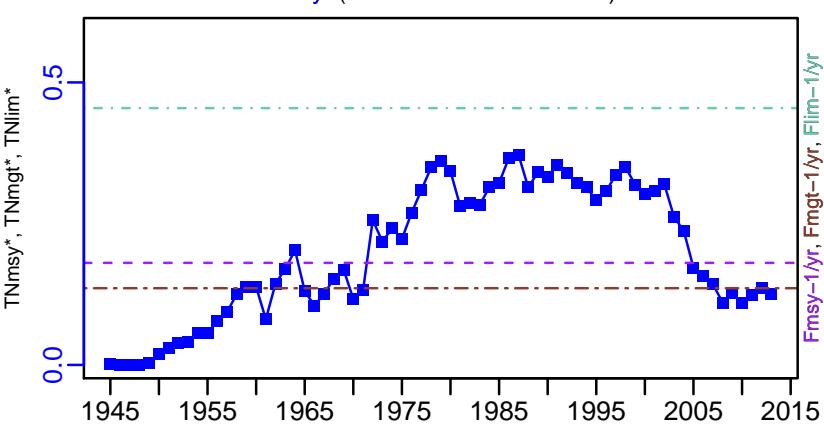
SSB-E00eggs (1945–2013–SISIMP2016)



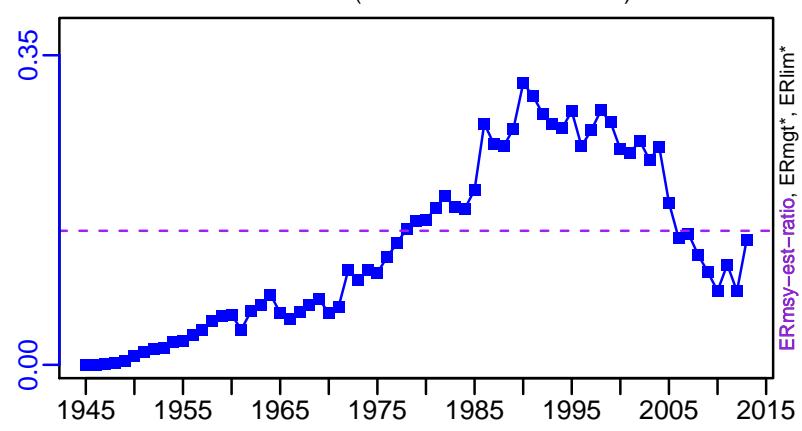
TN-E00 (1962–2010–HIVELY)



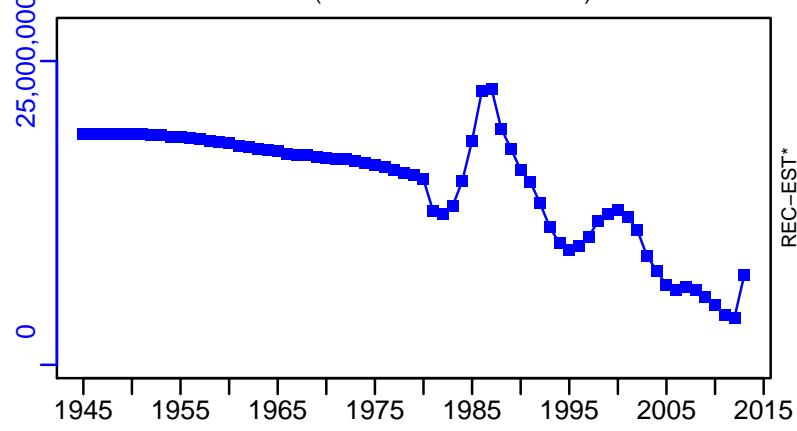
F-1/yr (1945–2013–SISIMP2016)



ER-calc-ratio (1945–2013–SISIMP2016)



R-E00 (1945–2013–SISIMP2016)

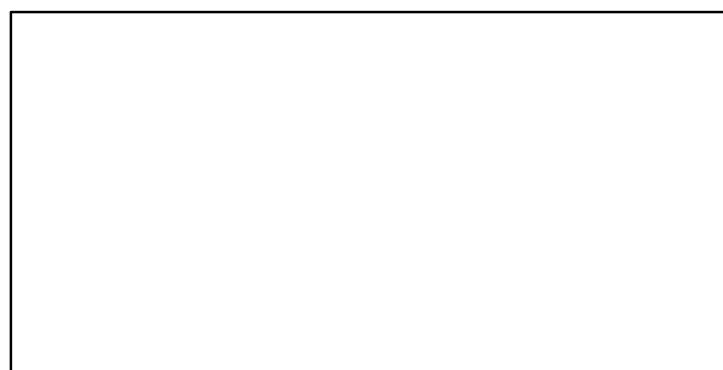
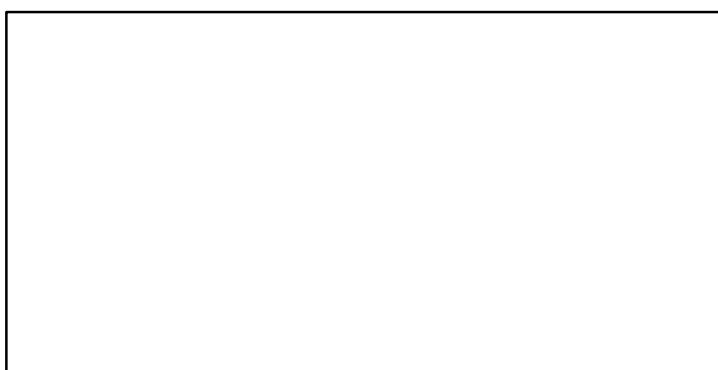
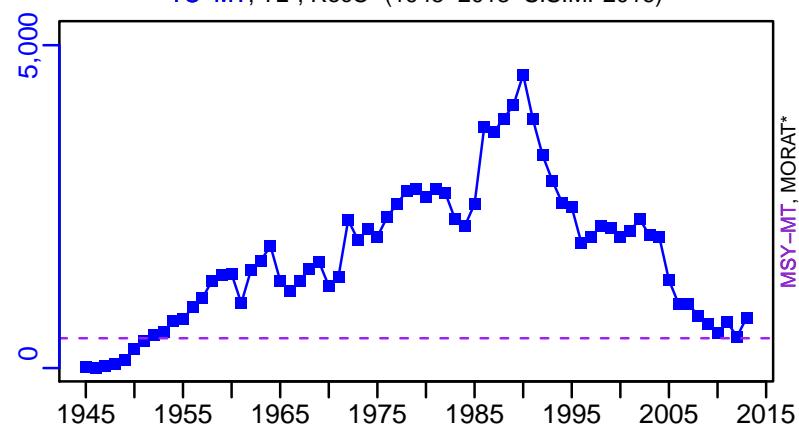


█	Listed time series	—	Target BRP	—	Rec-Est
—	MSY-based BRP	—	Lim BRP	*	No Data

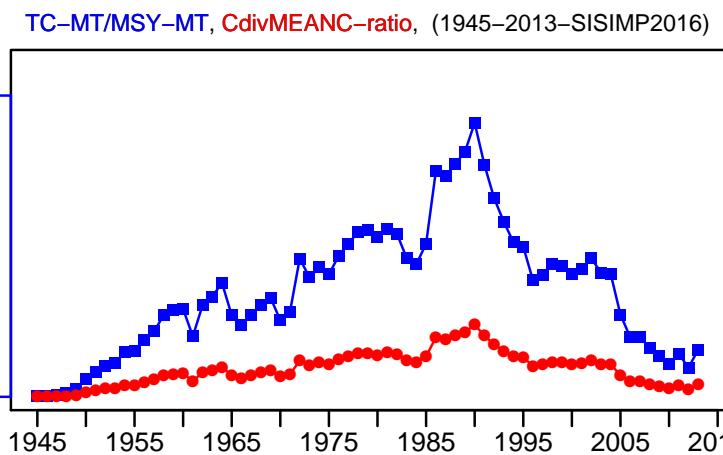
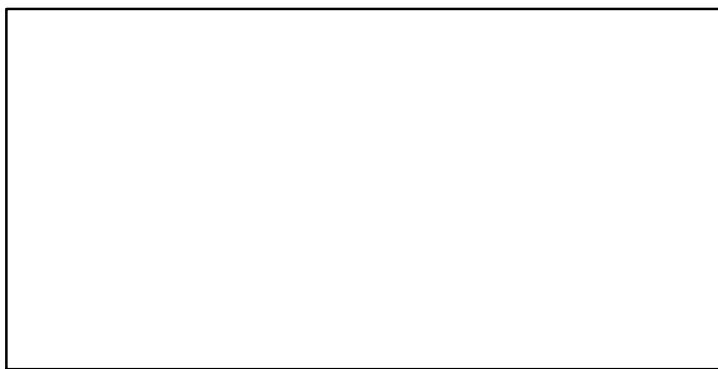
Gray triggerfish Gulf of Mexico [GTRIGGM]

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

TAC*, Cpair*, Cadv*



EFFORT*



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

King mackerel Gulf of Mexico [KMACKGM]

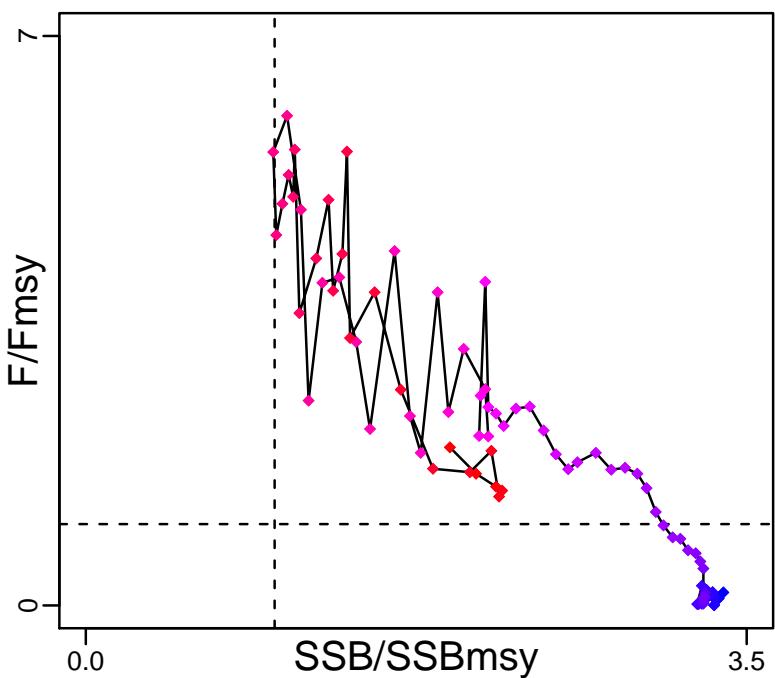
Metadata	
Scientific Name	Scomberomorus cavalla
Current Assess ID	SEFSC-KMACKGM-1929-2012-HIVELY
Area	Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2012

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-pr-E00eggs	2012	1,229,070,000
Fmsy	Fmsy-pr-1/yr	2012	0.164
ERmsy	-	-	-
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	-	-	-
Flim	-	-	-
ERlim	-	-	-

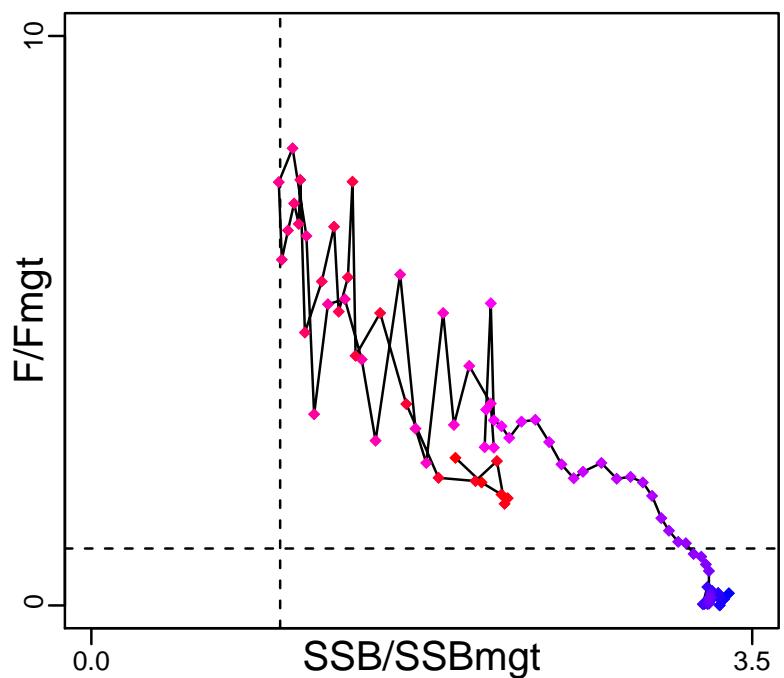
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	-	-	-	-	-	
SSB	SSB-E00eggs	2012	2.37×10^9	-	-	
TN	-	-	-	-	-	
R	R-E00	2012	3,940,000	-	0	
F	F-1/yr	2012	0.318	-	-	
ER	-	-	-	-	-	
TC	-	-	-			
TL	TL-MT	2012	863			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-E00eggs/SSBmsy-pr-E00eggs	2012	1.928			
F/Fmsy	F-1/yr/Fmsy-pr-1/yr	2012	1.943			
ER/ERmsy	-	-	-			
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]

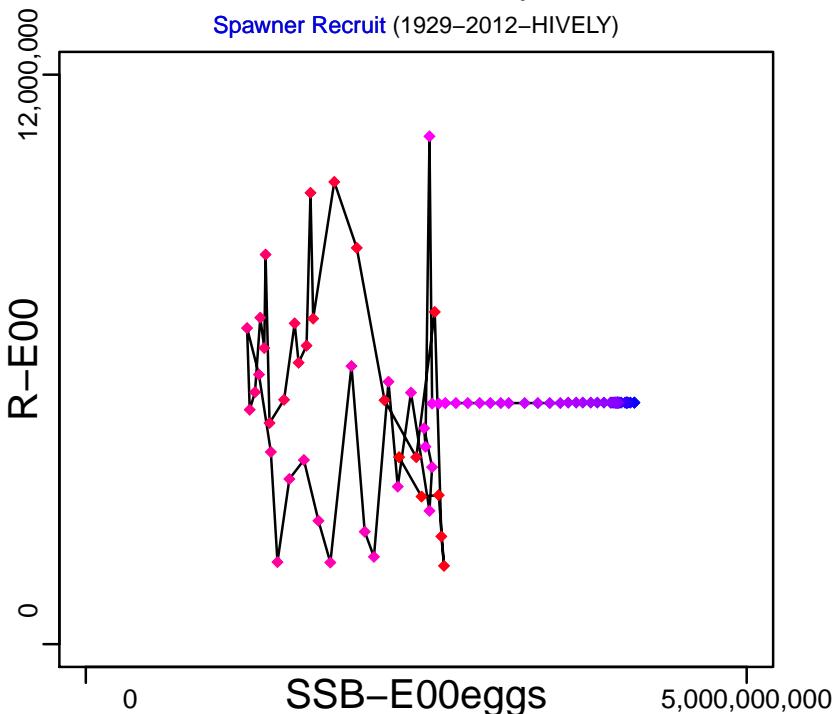
Kobe MSYpref (1929–2012–HIVELY)



Kobe MGTPref (1929–2012–HIVELY)



Spawner Recruit (1929–2012–HIVELY)

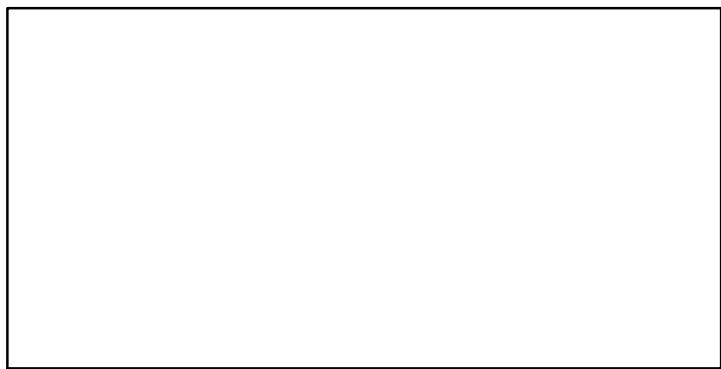


Production*

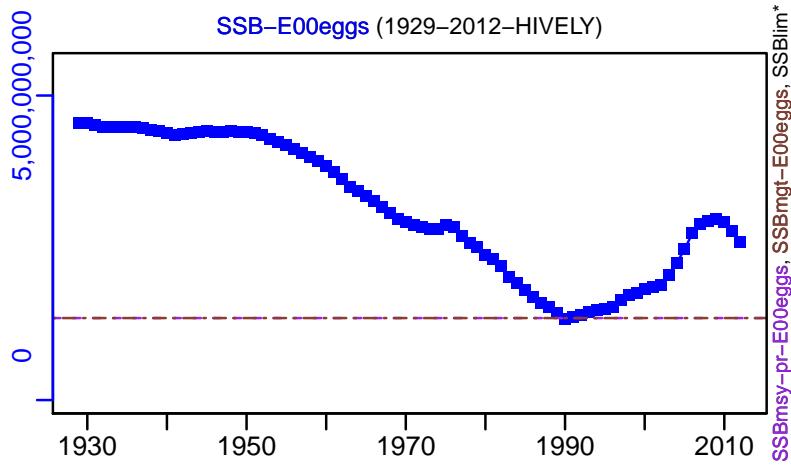
◆ Start Year ◆ End Year * No Data

King mackerel Gulf of Mexico [KMACKGM]

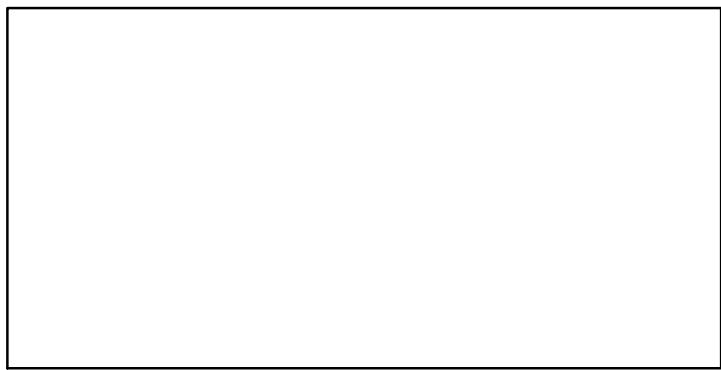
TB*



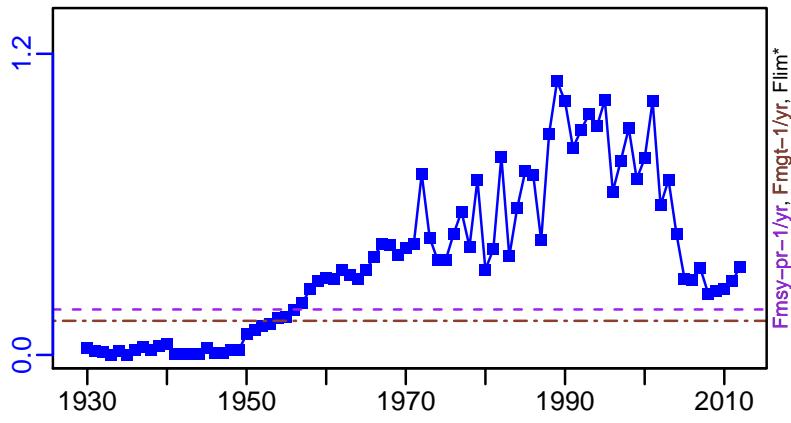
SSB-E00eggs (1929–2012–HIVELY)



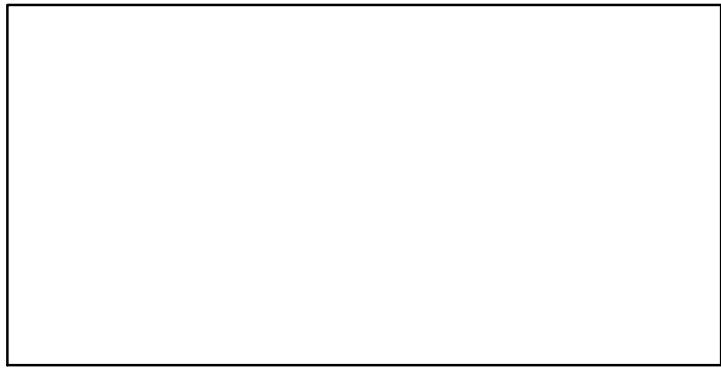
TN *



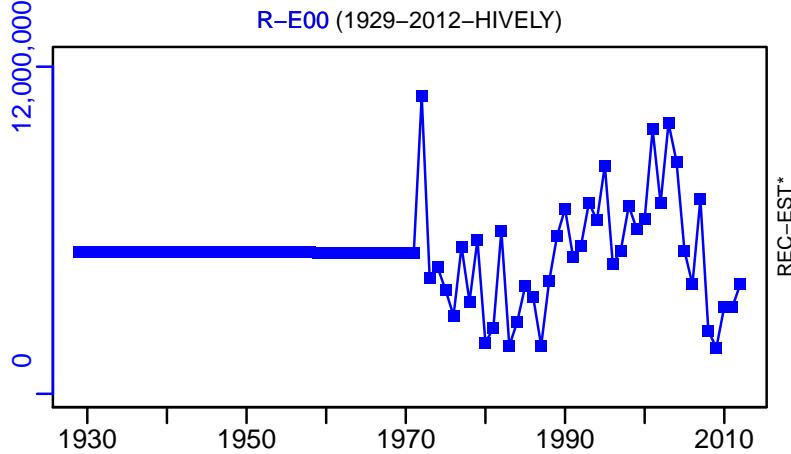
F-1/yr (1929–2012–HIVELY)



ER*



R-E00 (1929–2012–HIVELY)

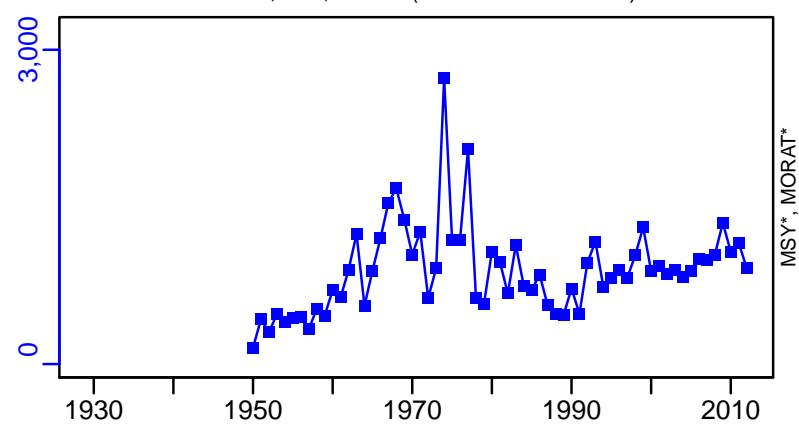


- | | | |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| - - - MSY-based BRP | --- Lim BRP | * No Data |

King mackerel Gulf of Mexico [KMACKGGM]

TL-MT, TC*, RecC* (1929–2012-HIVELY)

TAC*, Cpair*, Cadv*



MSY*, MORAT*

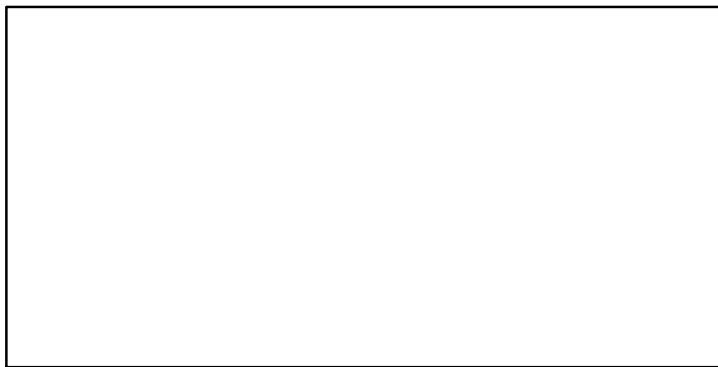
survB*



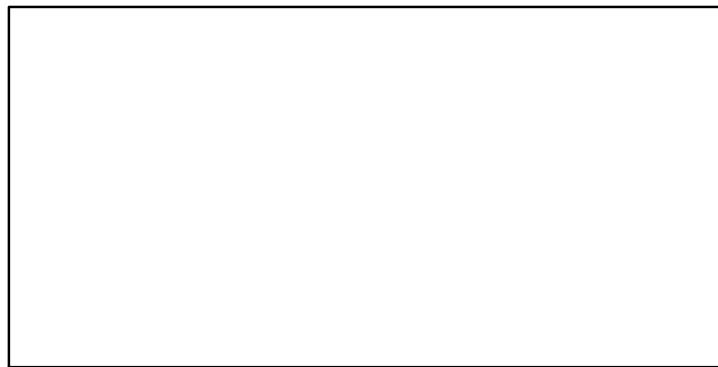
CPUE*



EFFORT*



CdivMSY*



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

King mackerel Southern Atlantic coast [KMACKSATLC]

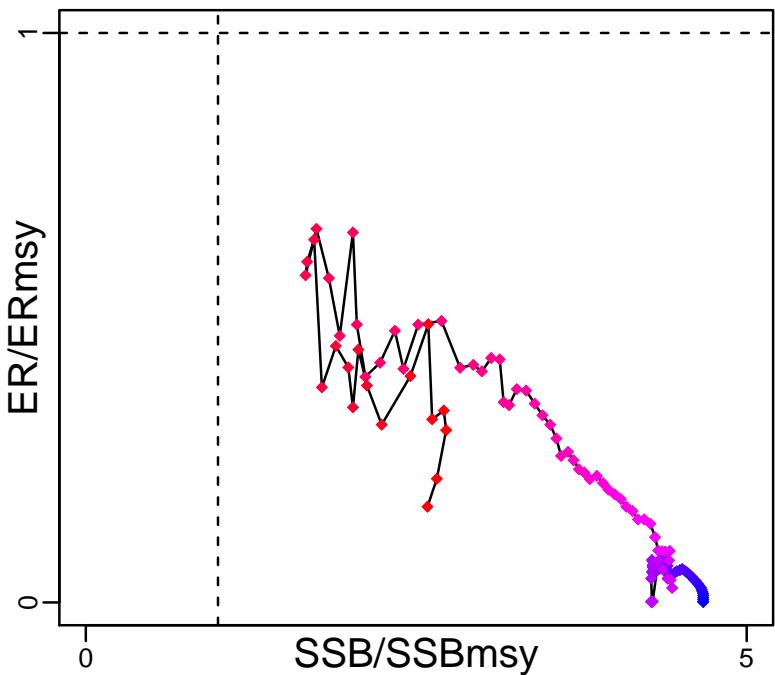
Metadata	
Scientific Name	Scomberomorus cavalla
Current Assess ID	SEFSC-KMACKSATLC-1901-2012-HIVELY
Area	Southern Atlantic coast
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2012

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	-	-	-

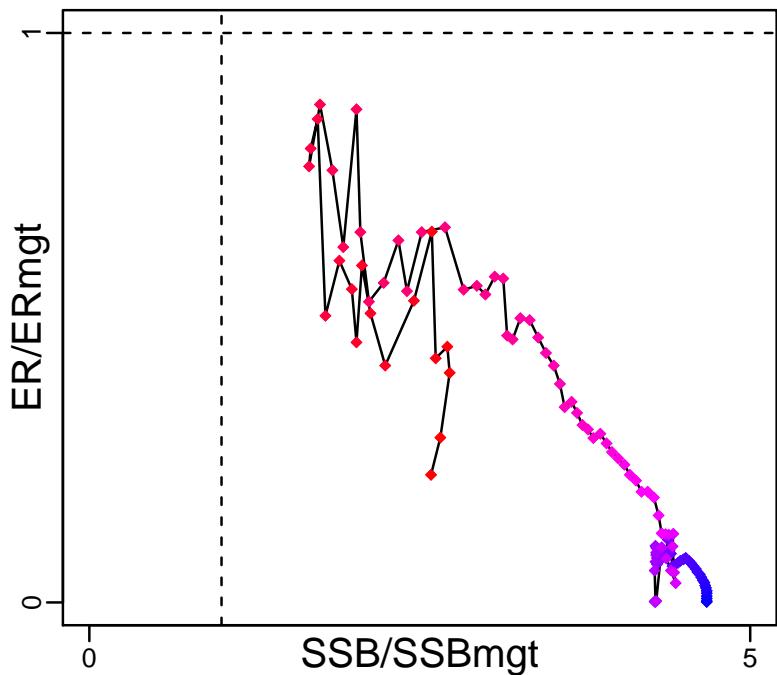
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	-	-	-	-	-	-
SSB	SSB-E00eggs	2012	4.4×10^9	-	-	
TN	-	-	-	-	-	-
R	R-E00	2012	2,510,000	-	0	
F	-	-	-	-	-	-
ER	ER-ratio	2012	0.026	-	-	
TC	-	-	-			
TL	TL-MT	2012	1110			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-E00eggs/SSBmsy-pr-E00eggs	2012	2.585			
F/Fmsy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

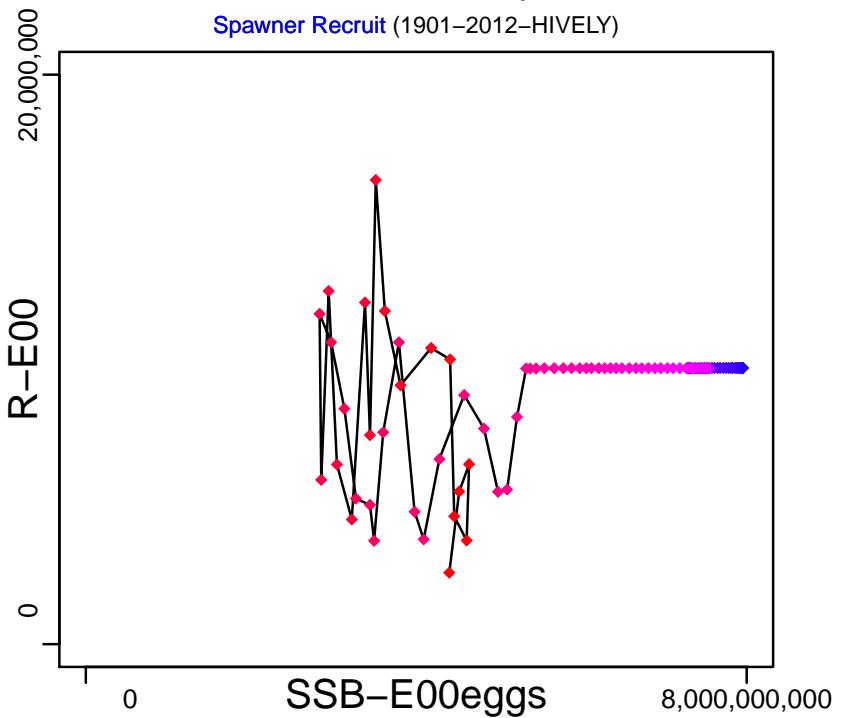
Kobe MSYpref (1901–2012–HIVELY)



Kobe MGTPref (1901–2012–HIVELY)



Spawner Recruit (1901–2012–HIVELY)



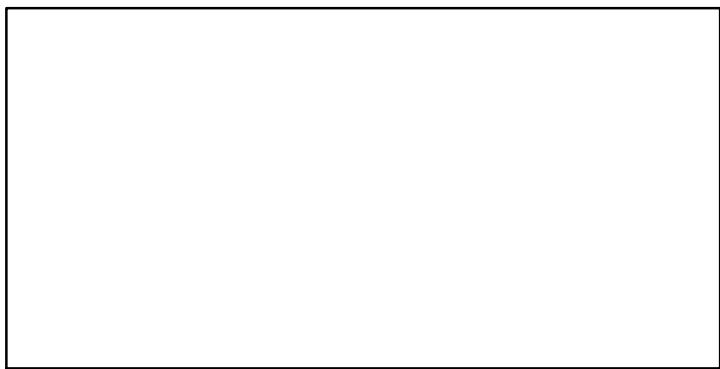
Production*



◆ Start Year	◆ End Year	*	No Data
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King mackerel Southern Atlantic coast [KMACKSATLC]

TB*



SSB-E00eggs (1901–2012–HIVELY)

10,000,000,000

1900 1920 1940 1960 1980 2000

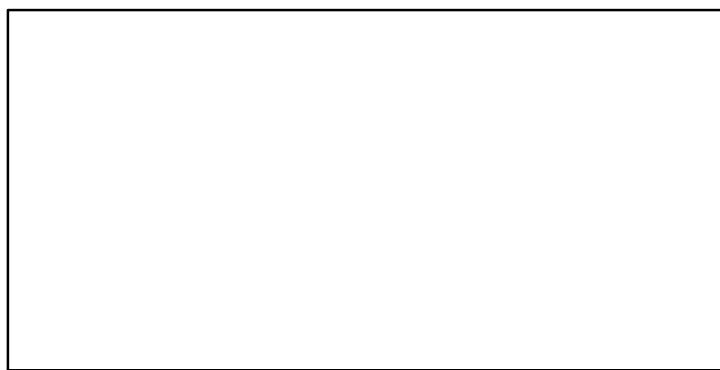
F*

ssBmgt-pr-E00eggs, ssBmgt-E00eggs, ssBlim*

TN *

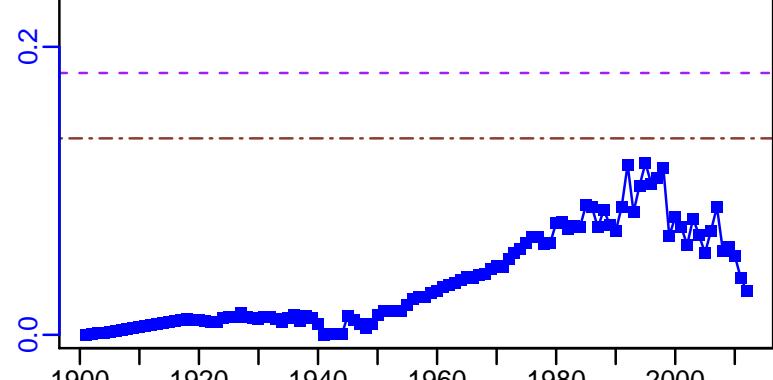


F*



ER-ratio (1901–2012–HIVELY)

ER_{mgt}-pr-ratio, ER_{mgt}-ratio, ER^{lim}*



R-E00 (1901–2012–HIVELY)

20,000,000

1900 1920 1940 1960 1980 2000 2012

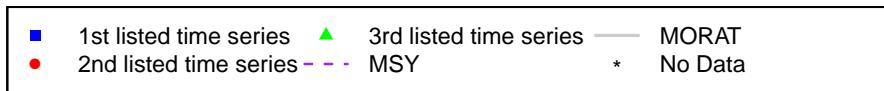
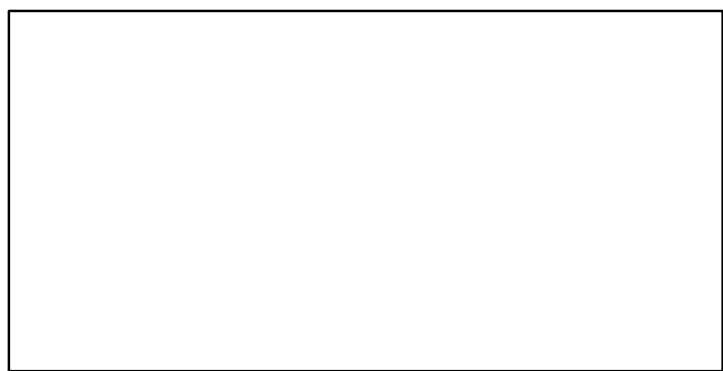
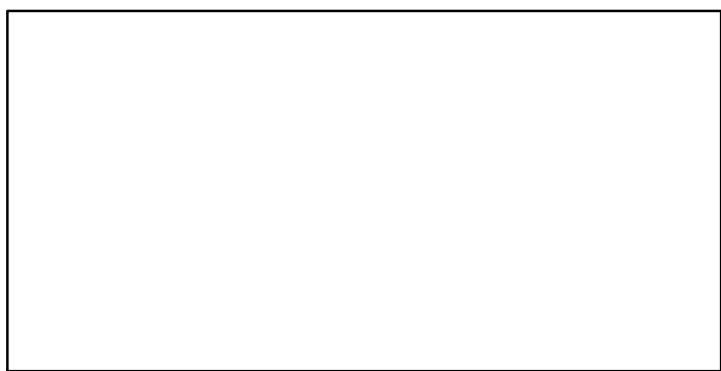
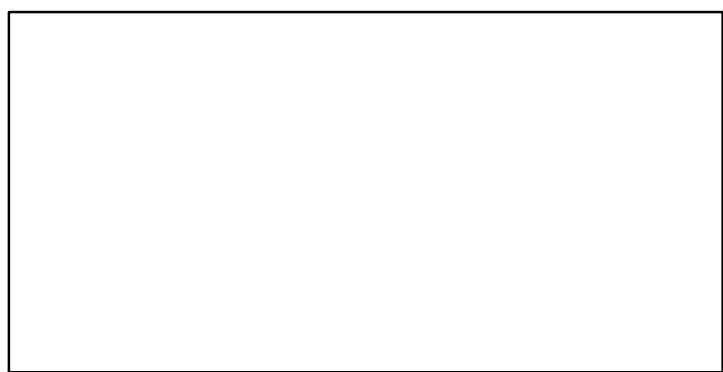
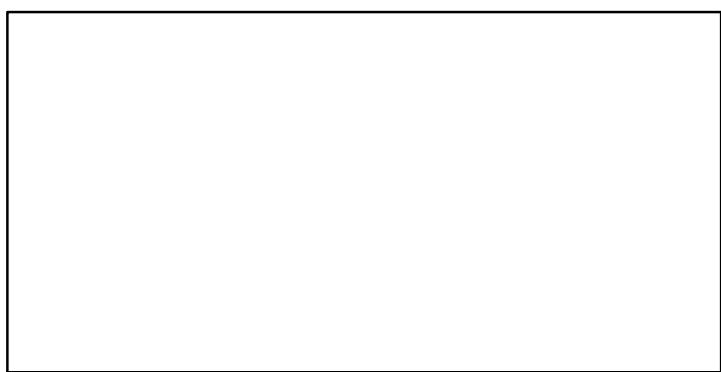
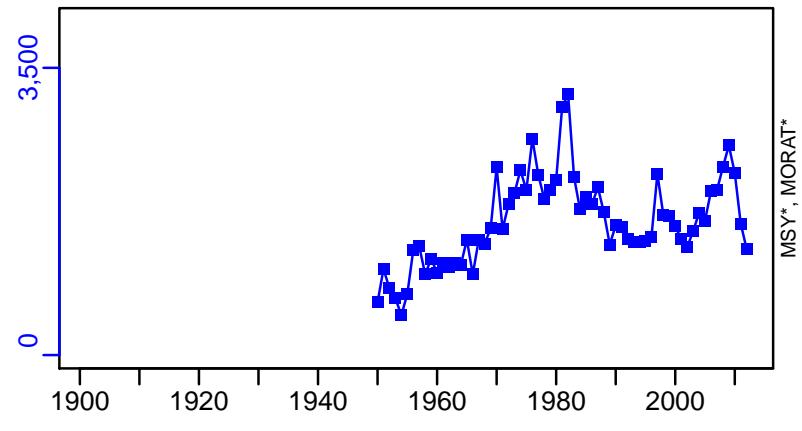
REC-EST*

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

King mackerel Southern Atlantic coast [KMACKSATLC]

TL-MT, TC*, RecC* (1901–2012-HIVELY)

TAC*, Cpair*, Cadv*



Longfin inshore squid Atlantic Coast [LISQUIDATLC]

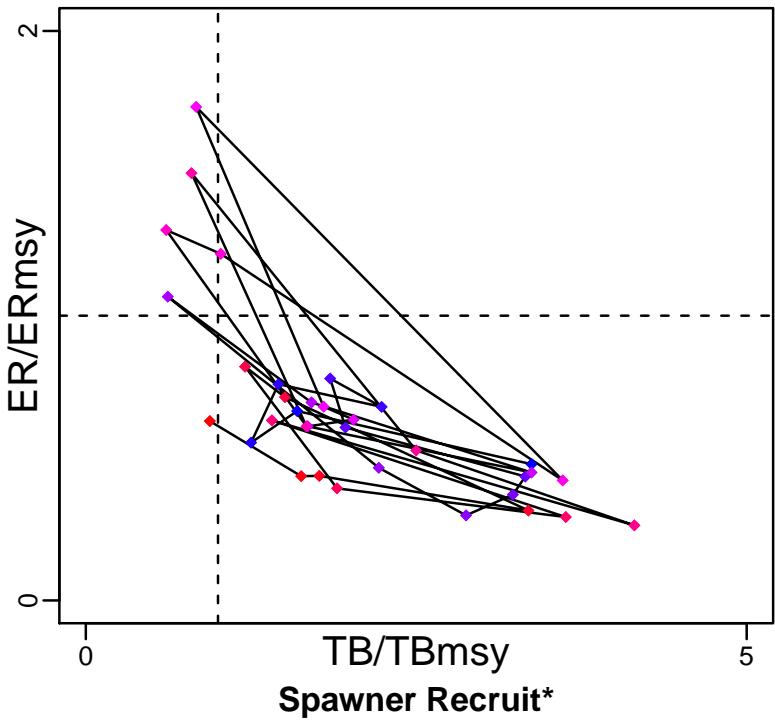
Metadata	
Scientific Name	Loligo pealeii
Current Assess ID	SEFSC-LISQUIDATLC-1963-2016-SISIMP2021
Area	Atlantic Coast
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2009, 2016

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2009	42,405
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	ERmsy-est-ratio	2009	0.381
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-est-MT	2009	16,171
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

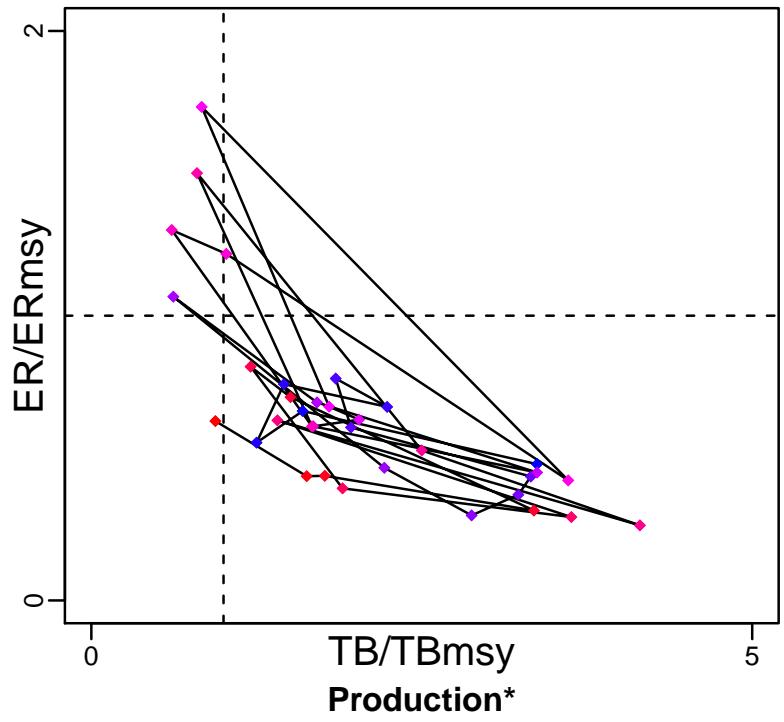
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2009	39,800	-	-	
SSB	-	-	-	-	-	
TN	-	-	-	-	-	
R	-	-	-	-	-	
F	F-1/yr	2009	0.24	-	-	
ER	ER-calc-ratio	2009	0.24	-	-	
TC	TC-MT	2016	19,044			
TL	-	-	-			
TB/TBmsy	TB-MT/TBmsy-MT	2009	0.939			
SSB/SSBmsy	-	-	-			
F/Fmsy	-	-	-			
ER/ERmsy	ER-calc-ratio/ERmsy-est-ratio	2009	0.63			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Longfin inshore squid Atlantic Coast [LISQUIDATLC]

Kobe MSYpref (1963–2009–HIVELY)



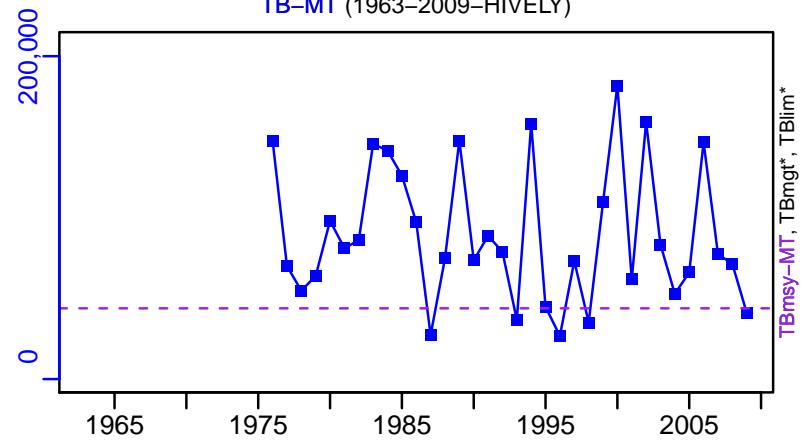
Kobe MGTPref (1963–2009–HIVELY)



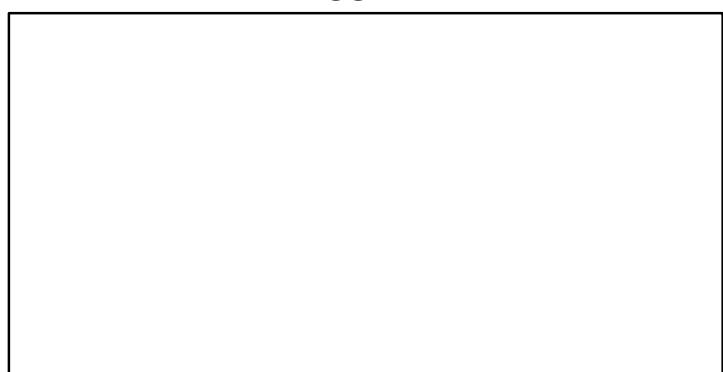
- ◆ Start Year ◆ End Year * No Data

Longfin inshore squid Atlantic Coast [LISQUIDATLC]

TB-MT (1963–2009–HIVELY)



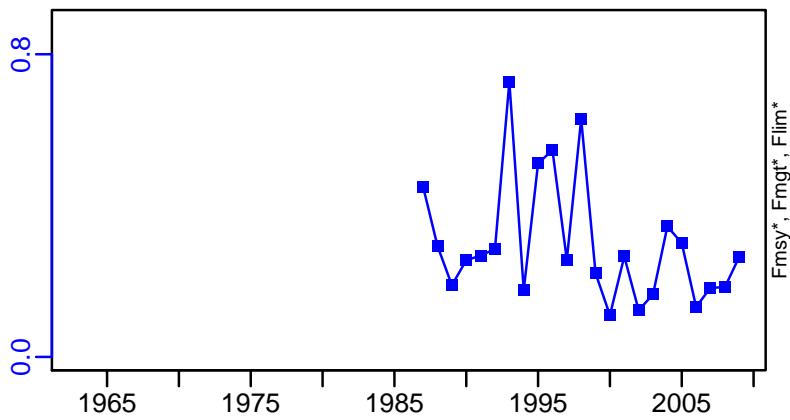
SSB*



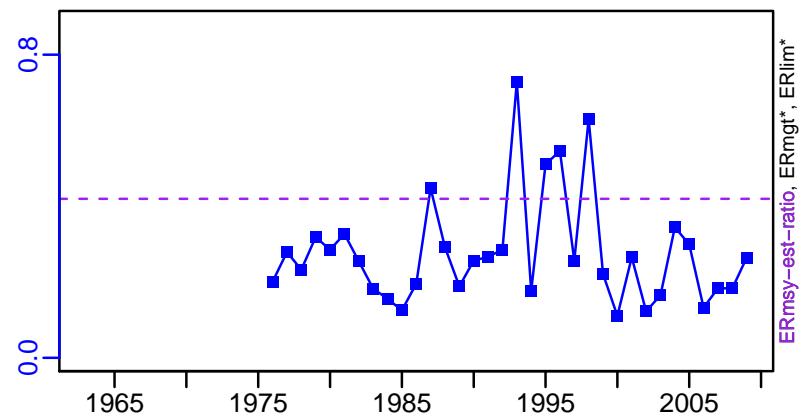
TN *



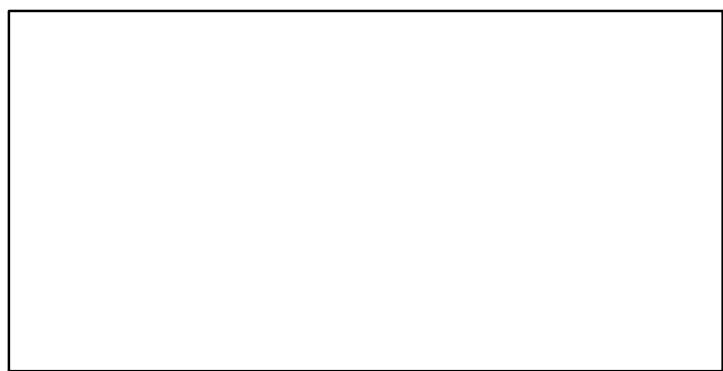
F-1/yr (1963–2009–HIVELY)



ER-calc-ratio (1963–2009–HIVELY)



Recruits*

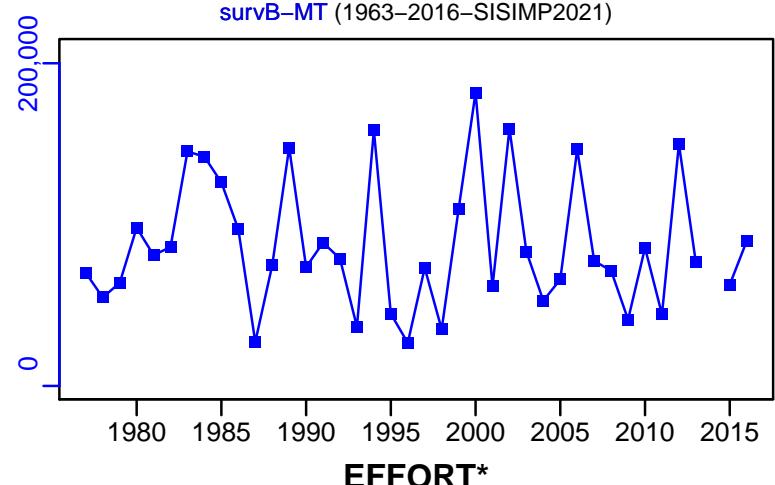
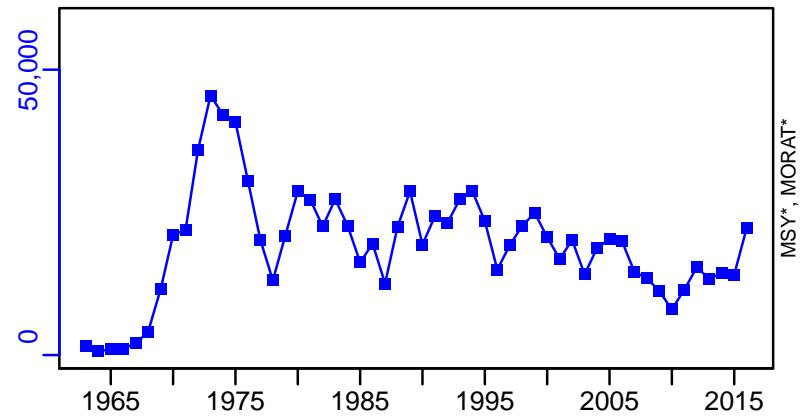


- | | | |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| - - - MSY-based BRP | - - Lim BRP | * No Data |

Longfin inshore squid Atlantic Coast [LISQUIDATLC]

TC-MT, TL*, RecC* (1963–2016–SISIMP2021)

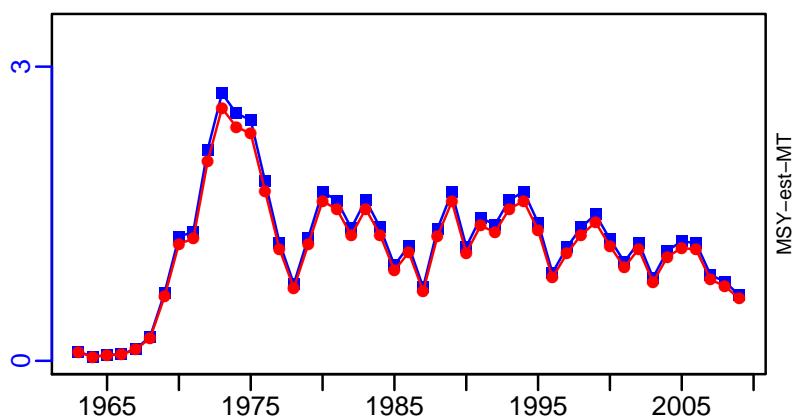
TAC*, Cpair*, Cadv*



CPUE*



TC-MT/MSY-est-MT, CdivMEANC-ratio, (1963–2009–HIVELY)



■ 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-1986-2014-SISIMP2021
Area	Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2014

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

Kobe MSY*

Kobe MGT*

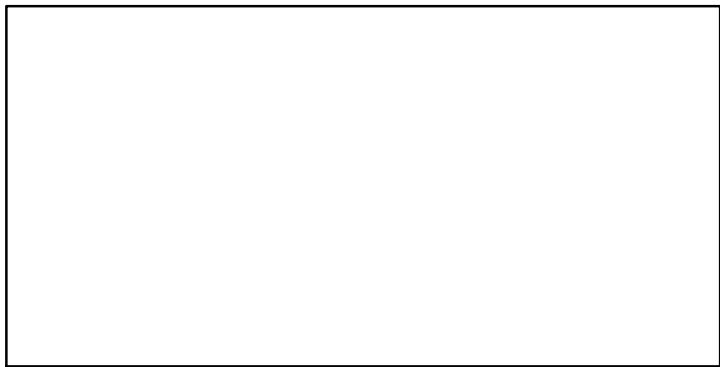
Spawner Recruit*

Production*

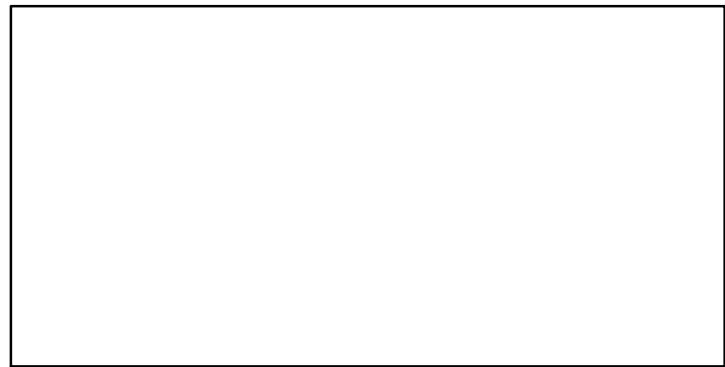
♦ Start Year ♦ End Year * No Data

Lane snapper Gulf of Mexico [LNSNAPGM]

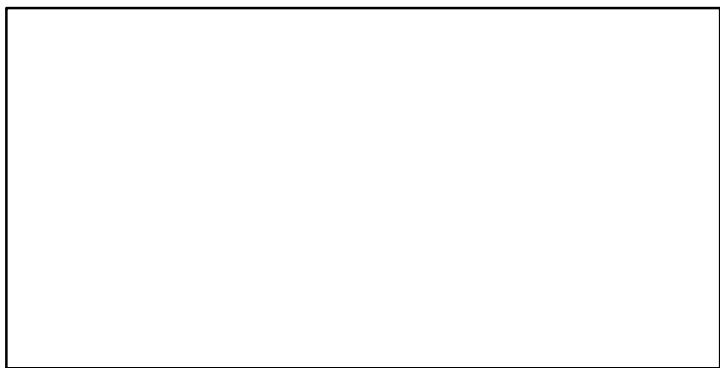
TB*



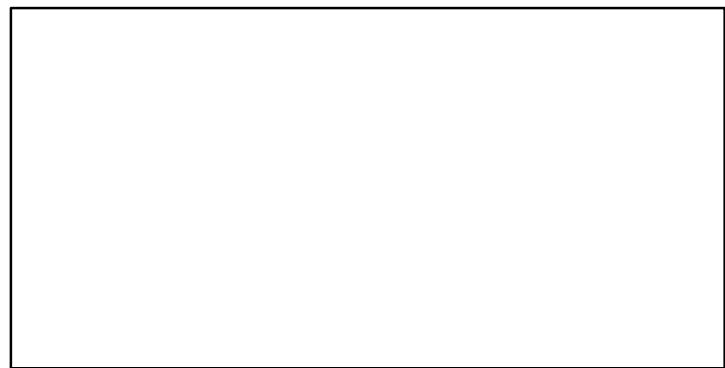
SSB*



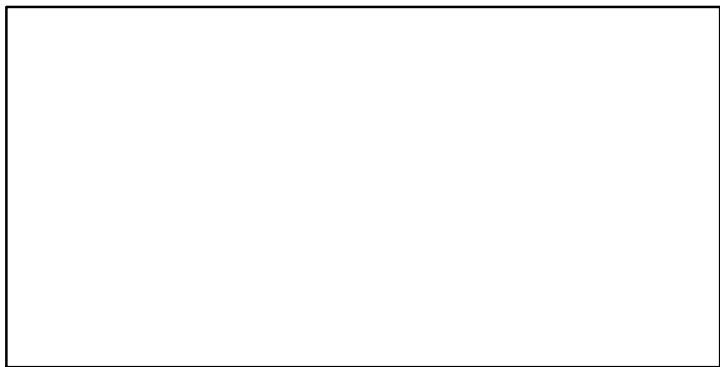
TN *



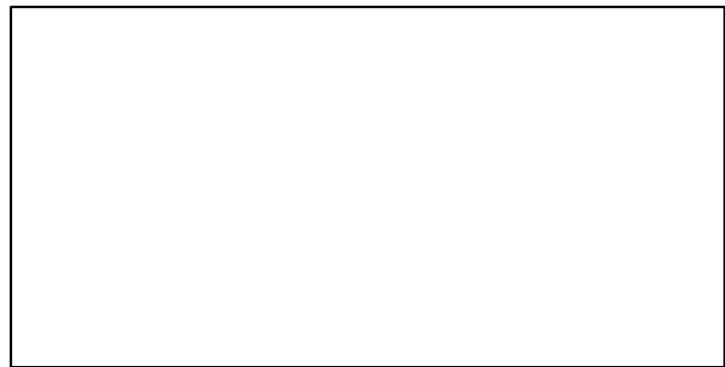
F*



ER*



Recruits*

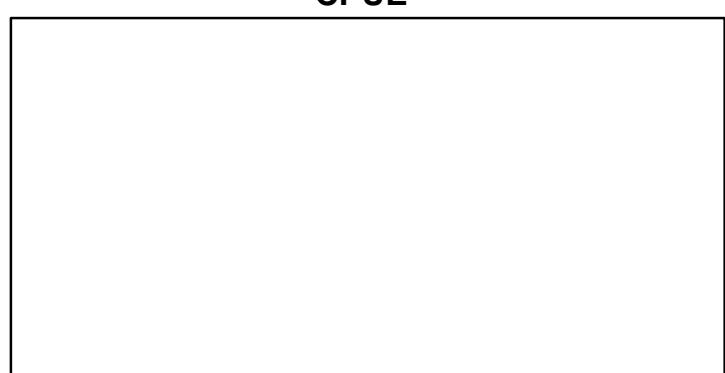
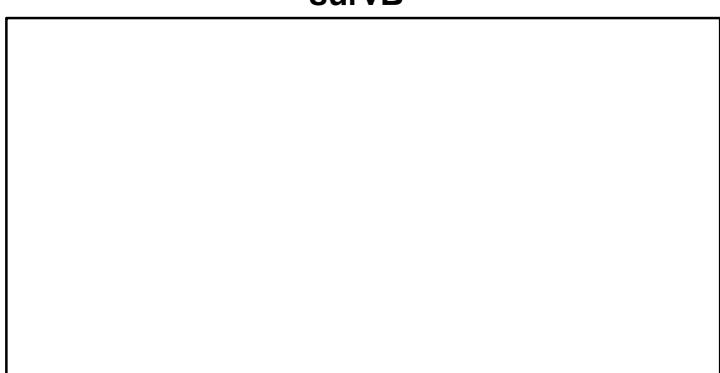
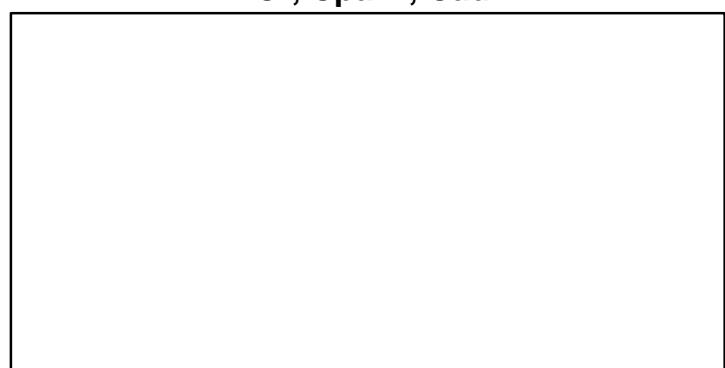
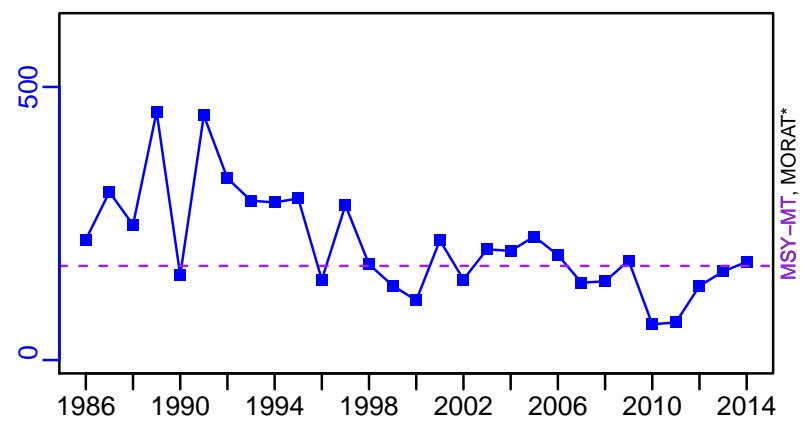


- | | | |
|----------------------|------------------|-----------|
| ■ Listed time series | - - - Target BRP | — Rec-Est |
| - - - MSY-based BRP | - - - Lim BRP | * No Data |

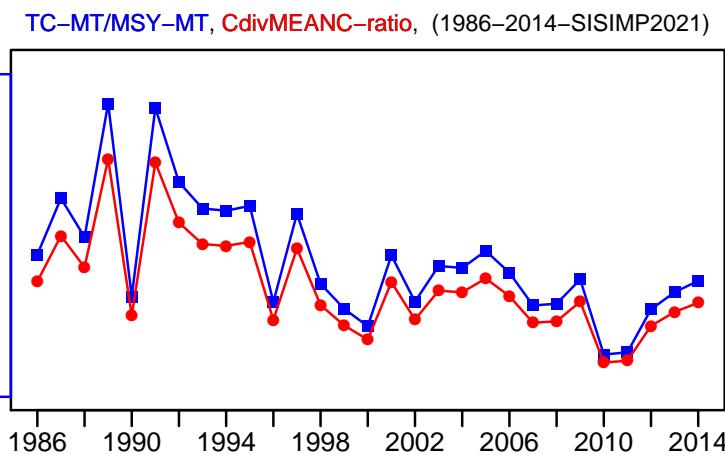
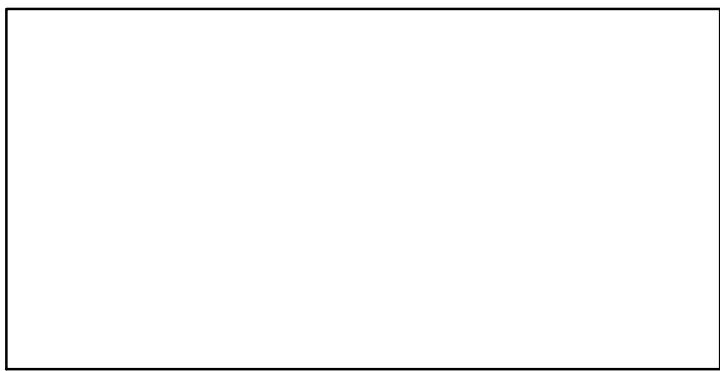
Lane snapper Gulf of Mexico [LNSNAPGM]

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

TAC*, Cpair*, Cadv*



EFFORT*



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

Gulf menhaden Gulf of Mexico [MENATGM]

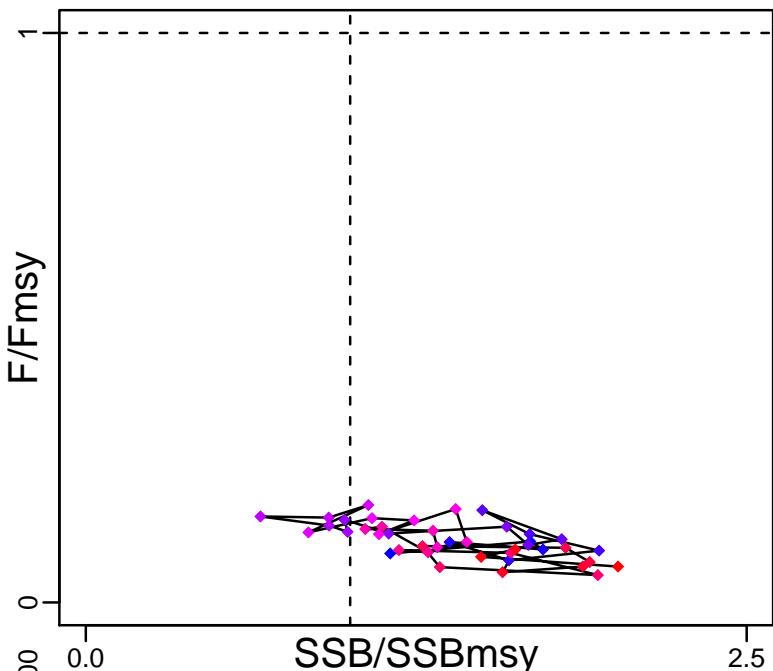
Metadata	
Scientific Name	Brevoortia patronus
Current Assess ID	SEFSC-MENATGM-1948-2017-ASHBROOK
Area	Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2011, 2017

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-est-MT	2011	1,048,973
SSBmsy	SSBmsy-pr-E00eggs	2017	$2.074,99 \times 10^{15}$
Fmsy	Fmsy-pr-1/yr	2017	10
ERmsy	ERmsy-est-ratio	2011	0.805
TBmgt	-	-	-
SSBmgt	SSBmgt-E00eggs	2011	4.98×10^{13}
Fmgt	Fmgt-1/yr	2011	3.66
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-est-MT	2011	844,067
M	M-1/yr	2011	1.22
TBlim	-	-	-
SSBlim	SSBlim-E00eggs	2011	2.26×10^{13}
Flim	Flim-1/yr	2011	4.88
ERlim	-	-	-

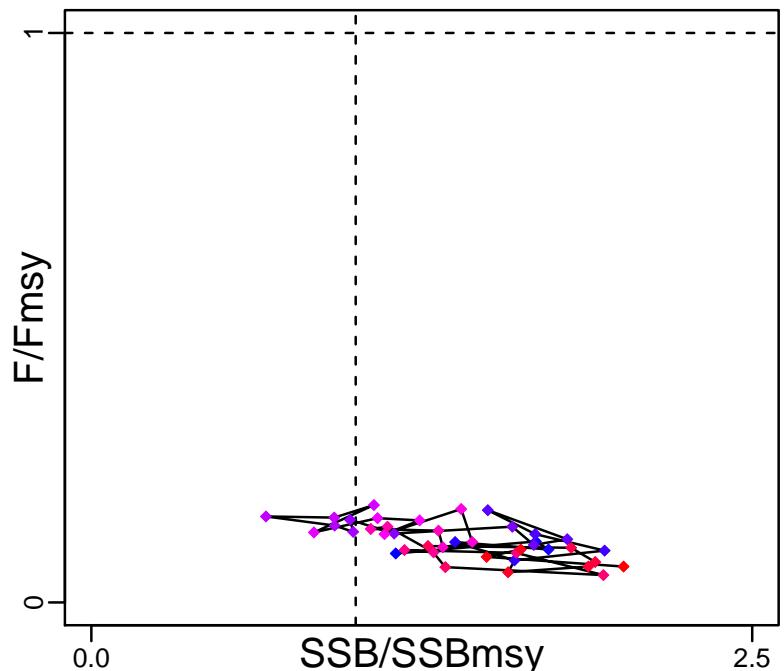
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2011	3,400,000	Both	1+	
SSB	SSB-E00eggs	2017	$4.177,79 \times 10^{15}$	Both	1-4+	
TN	TN-E00	2017	1.24×10^{11}	Both	0-4+	
R	R-E00	2017	7.77×10^{10}	Both	0	
F	F-1/yr	2017	0.63	Both	0-4+	
ER	ER-calc-ratio	2011	0.181	-	-	
TC	TC-MT	2017	462,460			
TL	TL-MT	2017	460,702			
TB/TBmsy	TB-MT/TBmsy-est-MT	2011	3.241			
SSB/SSBmsy	SSB-E00eggs/SSBmsy-pr-E00eggs	2017	2.013			
F/Fmsy	F-1/yr/Fmsy-pr-1/yr	2017	0.063			
ER/ERmsy	ER-calc-ratio/ERmsy-est-ratio	2011	0.224			
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]

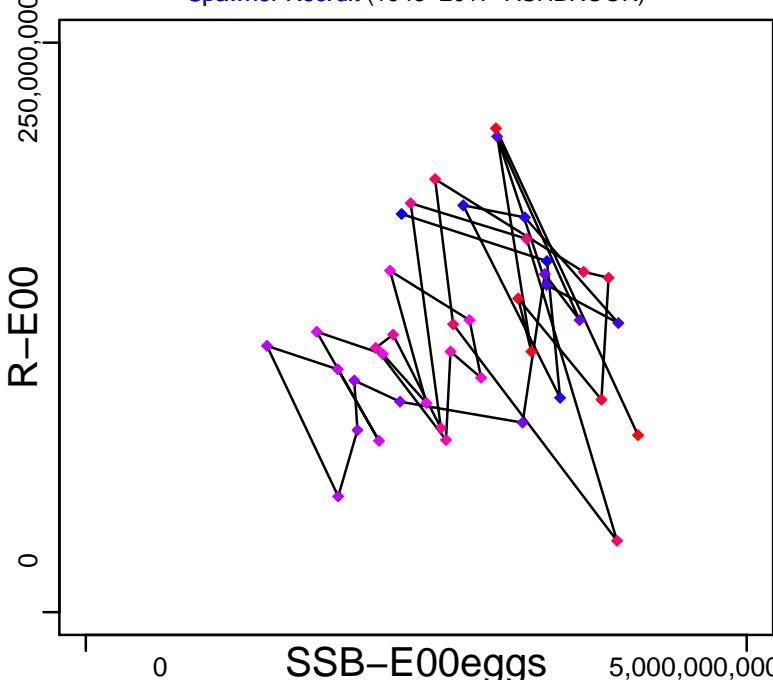
Kobe MSYpref (1948–2017–ASHBROOK)



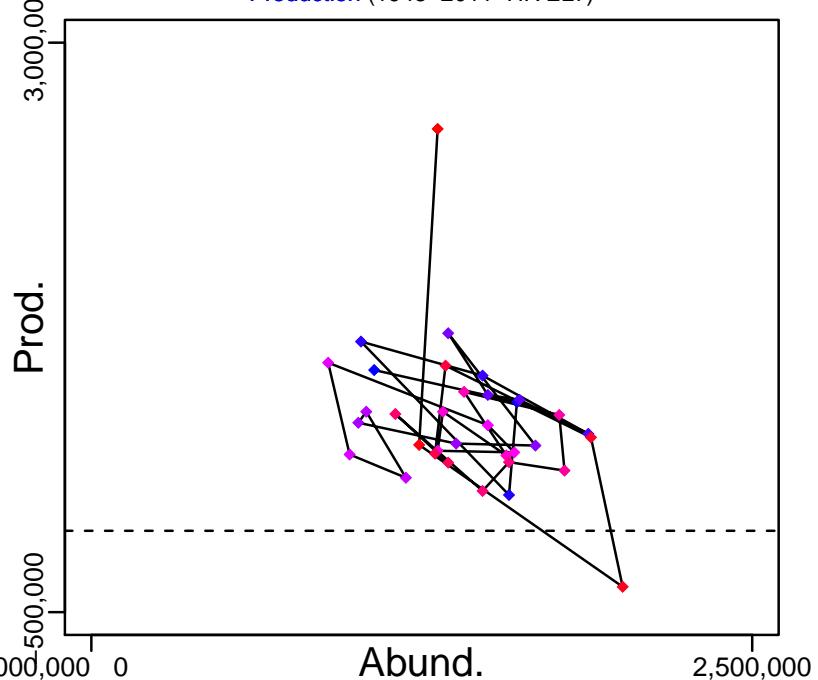
Kobe MGTpref (1948–2017–ASHBROOK)



Spawner Recruit (1948–2017–ASHBROOK)



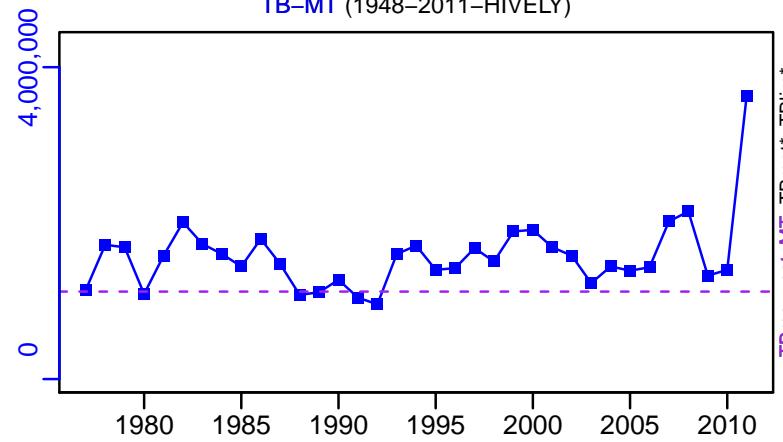
Production (1948–2011–HIVELY)



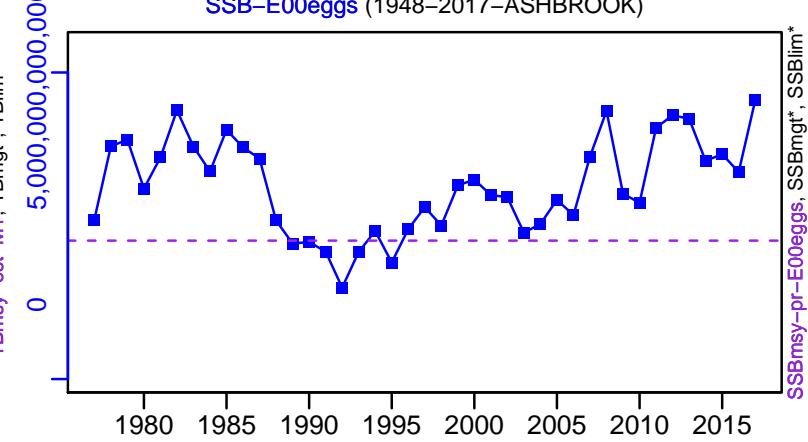
◆ Start Year ◆ End Year * No Data

Gulf menhaden Gulf of Mexico [MENATGM]

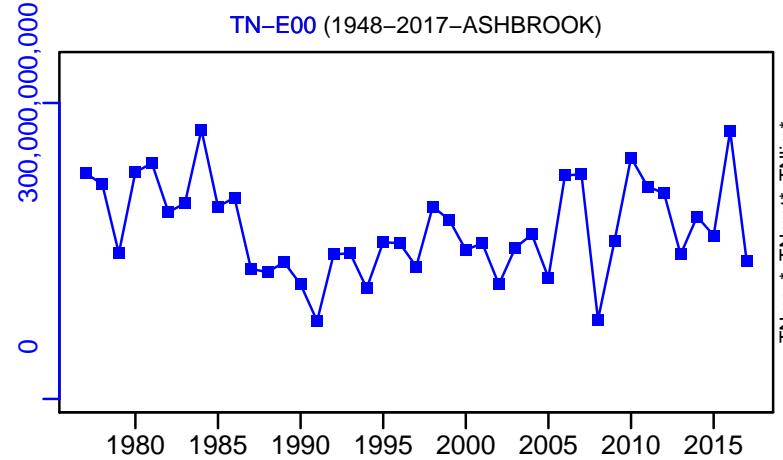
TB-MT (1948–2011-HIVELY)



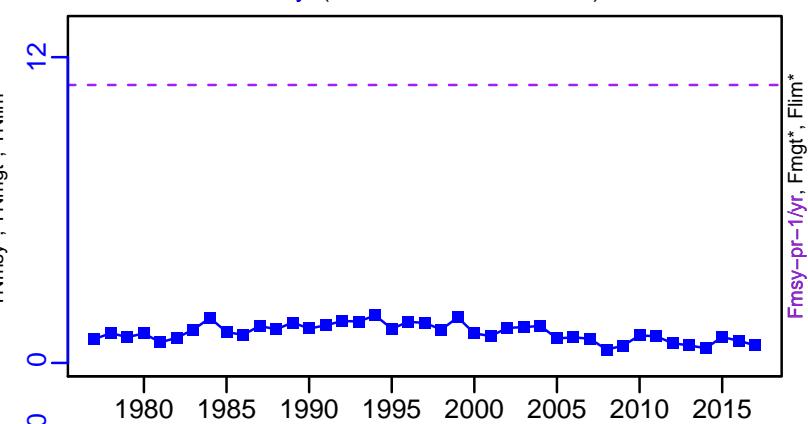
SSB-E00eggs (1948–2017-ASHBROOK)



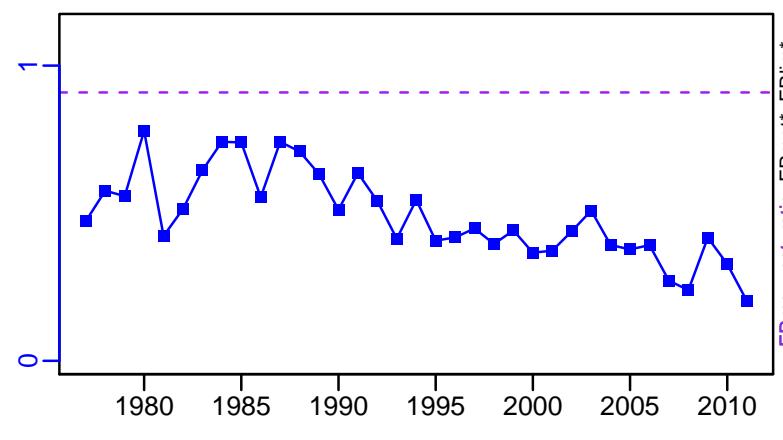
TN-E00 (1948–2017-ASHBROOK)



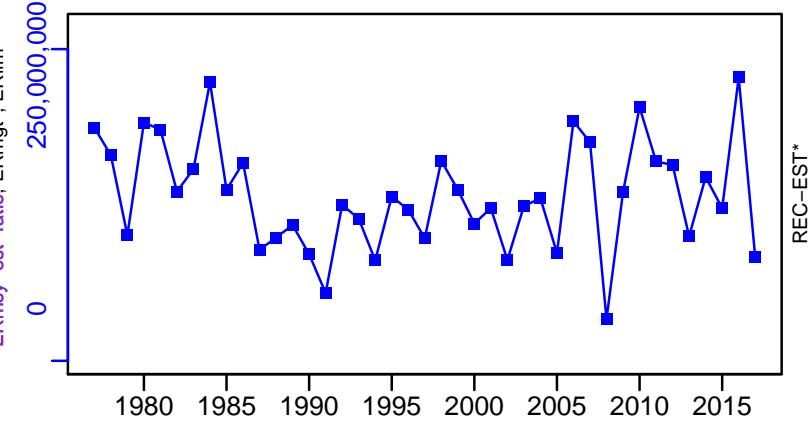
F-1/yr (1948–2017-ASHBROOK)



ER-calc-ratio (1948–2011-HIVELY)



R-E00 (1948–2017-ASHBROOK)

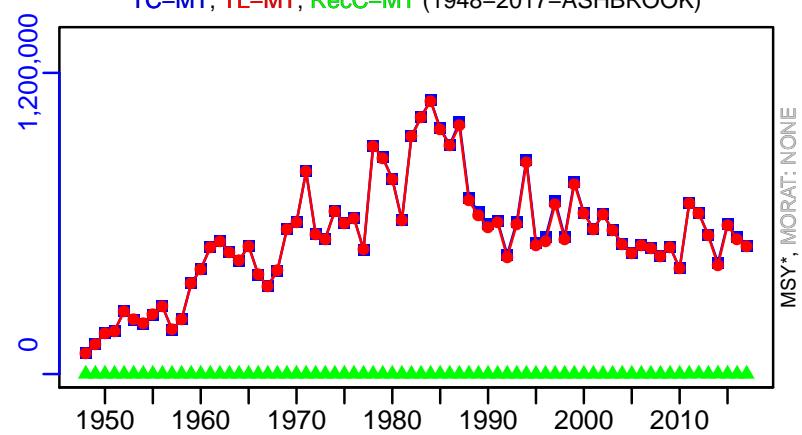


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - - Lim BRP	* No Data

Gulf menhaden Gulf of Mexico [MENATGM]

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

TAC*, Cpair*, Cadv*



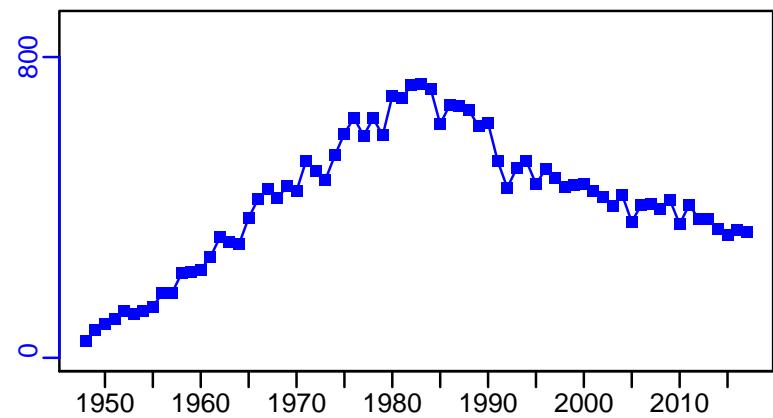
survB*



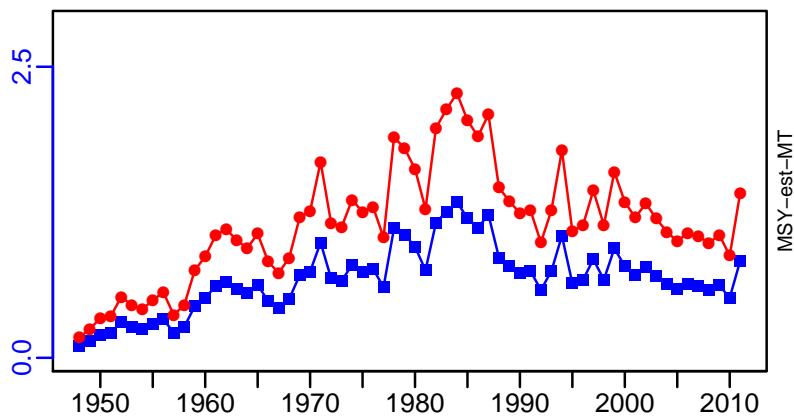
CPUE*



EFFORT-vtw (1948–2017–ASHBROOK)



TL-MT/MSY-est-MT, CdivMEANC-ratio, (1948–2011–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]

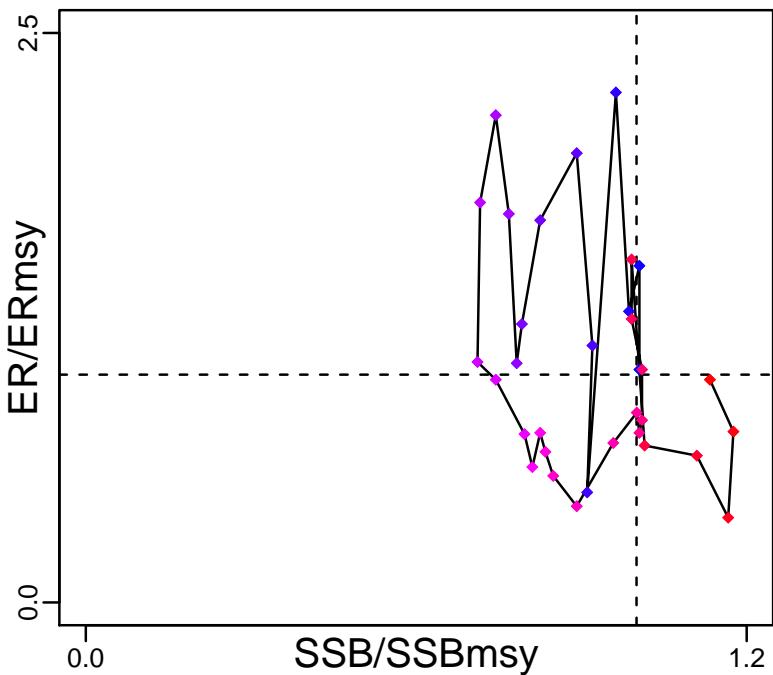
Metadata	
Scientific Name	Lutjanus analis
Current Assess ID	SEFSC-MUTSNAPSATLCGM-1981-2013-SISIMP2016
Area	Southern Atlantic coast and Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2006, 2013

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

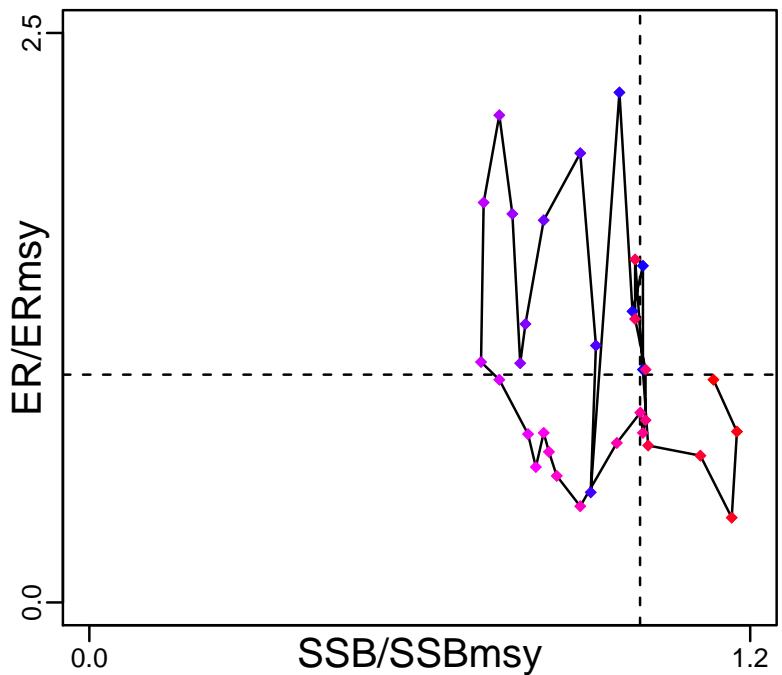
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	5210	-	-
SSB	SSB-MT	2013	2390	Females	4+
TN	-	-	-	-	-
R	R-E00	2006	1,580,000	-	-
F	F-1/yr	2006	0.18	-	-
ER	ER-ratio	2013	0.176	-	3
TC	TC-MT	2013	404		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2013	2.266		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013	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]

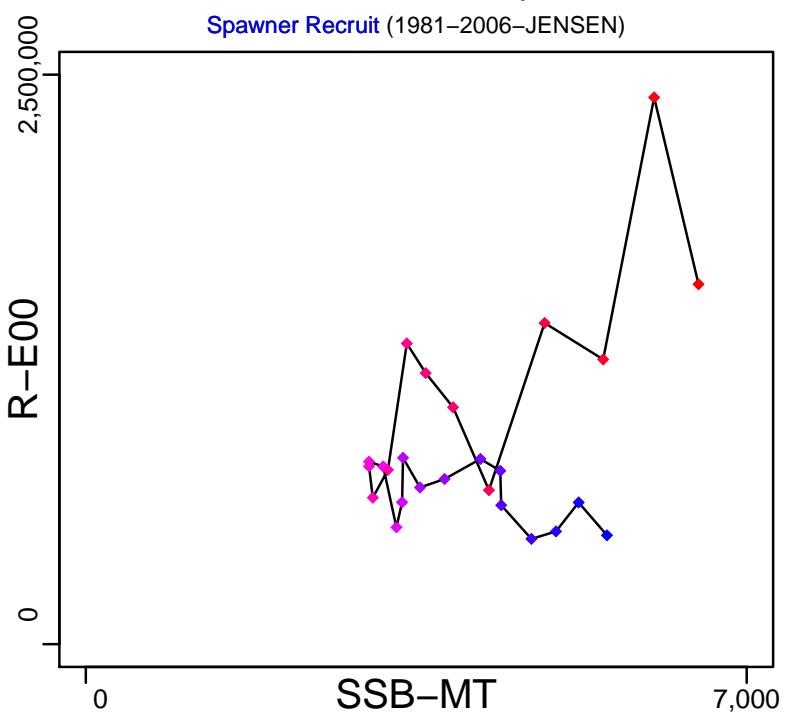
Kobe MSYpref (1981–2013–SISIMP2016)



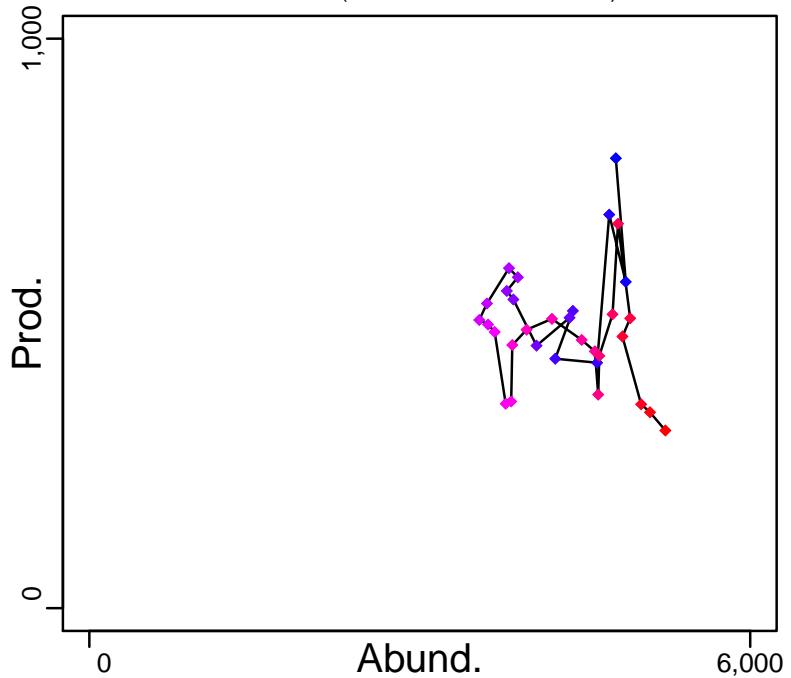
Kobe MGTpref (1981–2013–SISIMP2016)



Spawner Recruit (1981–2006–JENSEN)



Production (1981–2013–SISIMP2016)

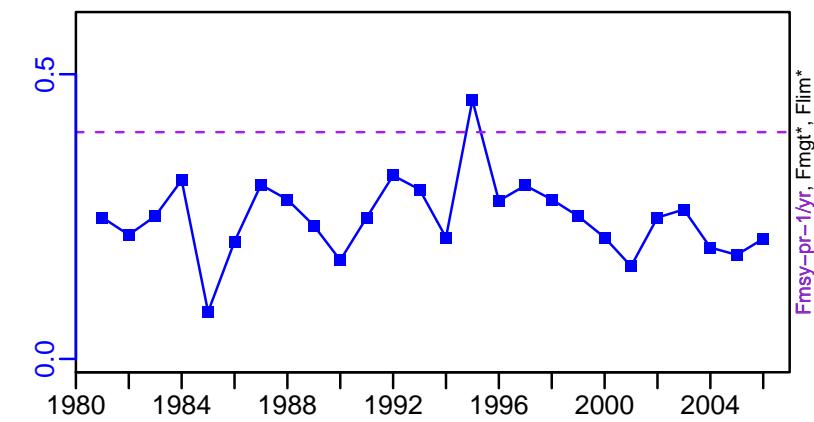
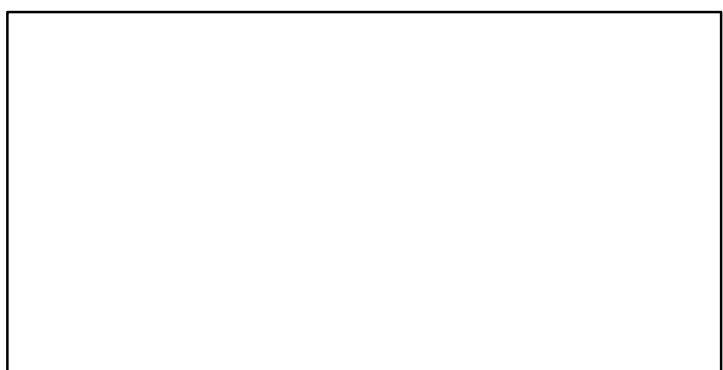
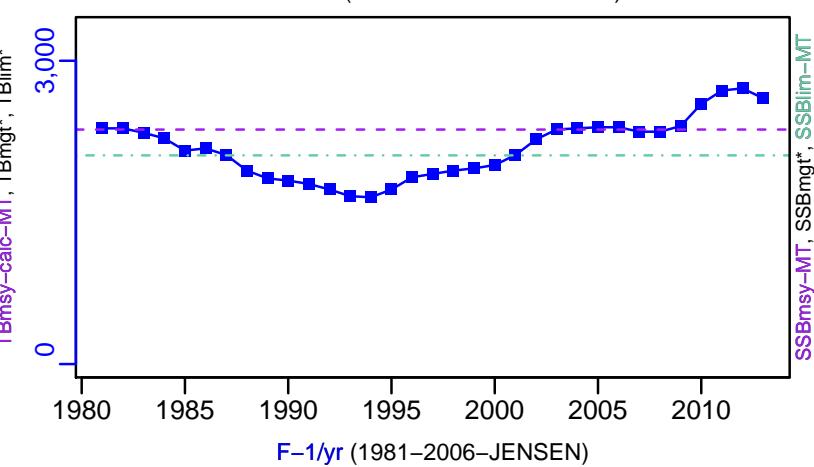
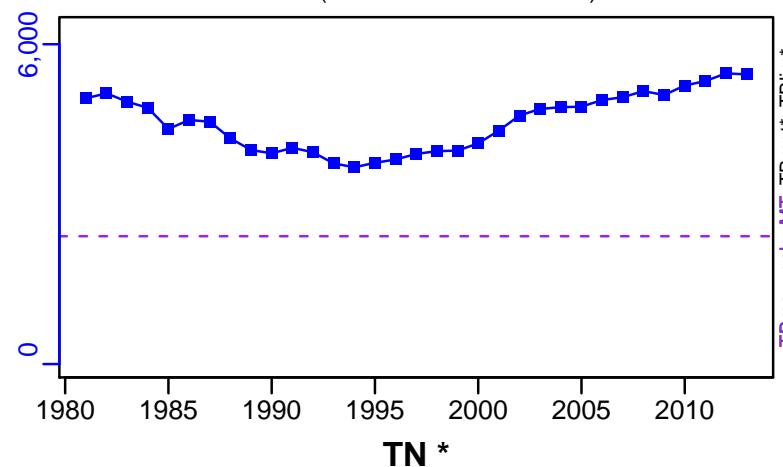


◆ Start Year ◆ End Year * No Data

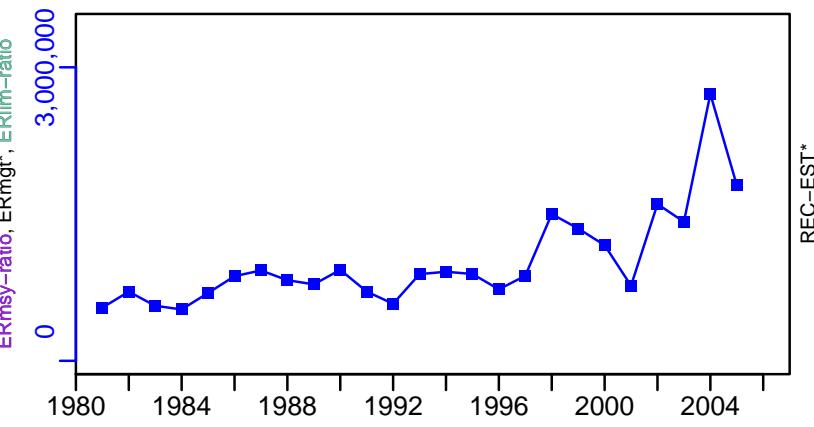
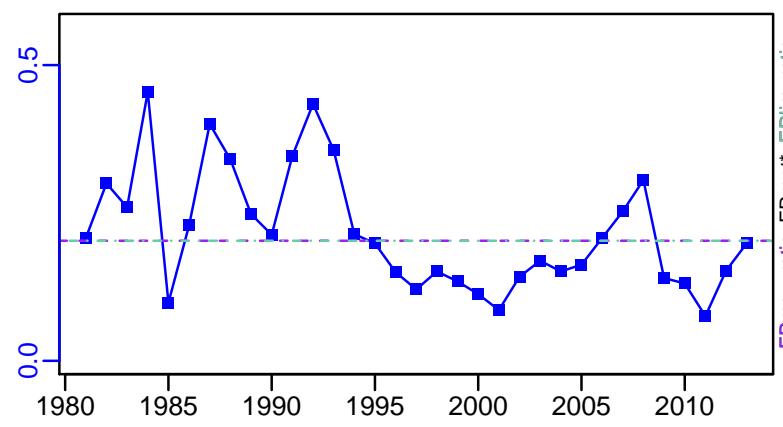
Mutton snapper Southern Atlantic coast and Gulf of Mexico [MUTSNAPSATLCGM]

TB-MT (1981–2013–SISIMP2016)

SSB-MT (1981–2013–SISIMP2016)



ER-ratio (1981–2013–SISIMP2016)

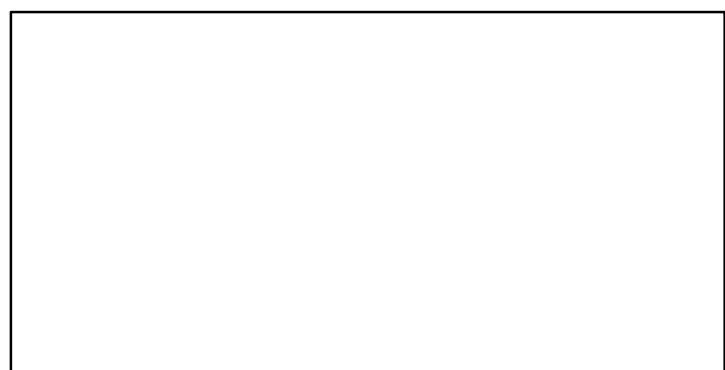
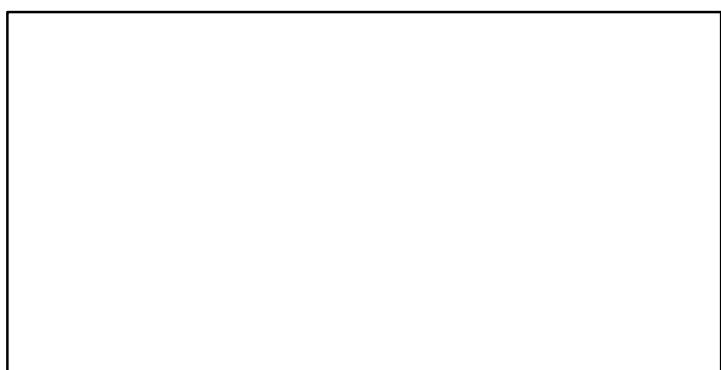
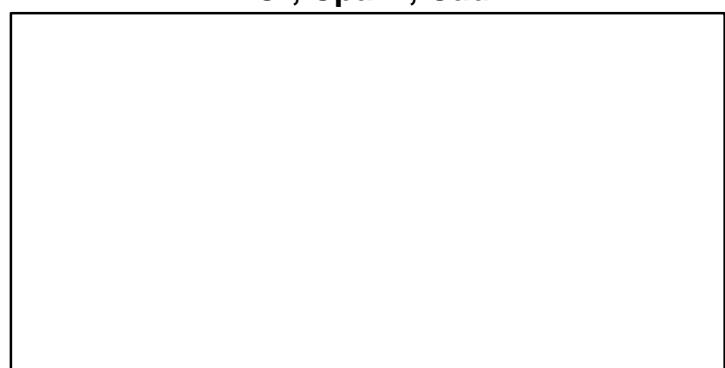
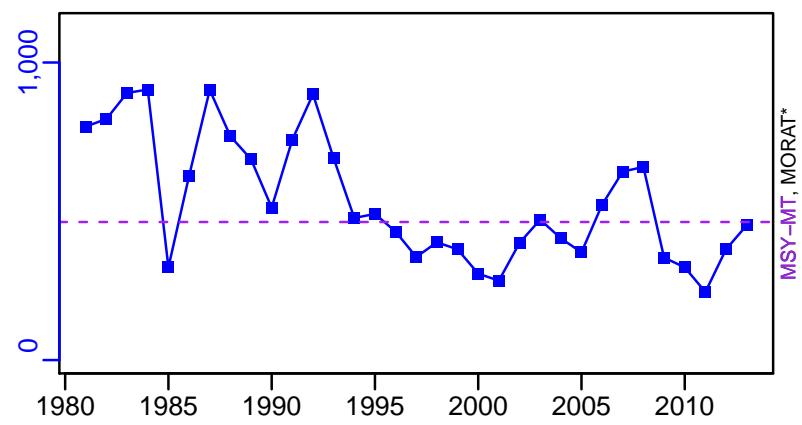


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	--- Lim BRP	* No Data

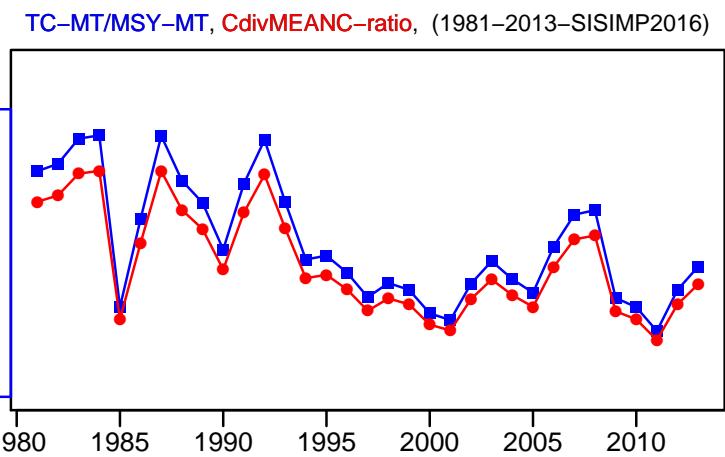
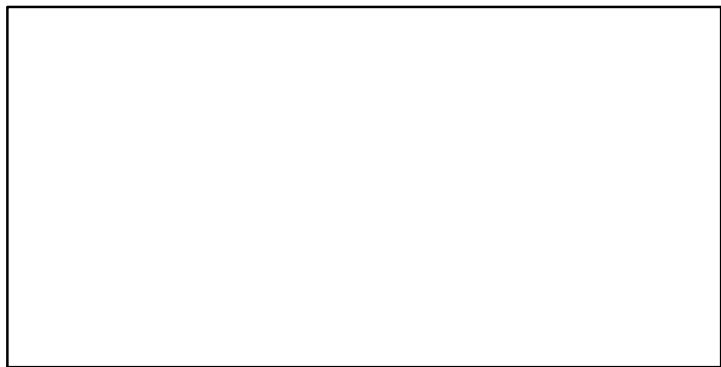
Mutton snapper Southern Atlantic coast and Gulf of Mexico [MUTSNAPSATLCGM]

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

TAC*, Cpair*, Cadv*



EFFORT*



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

Pink shrimp Gulf of Mexico [PINKSHRIMPGM]

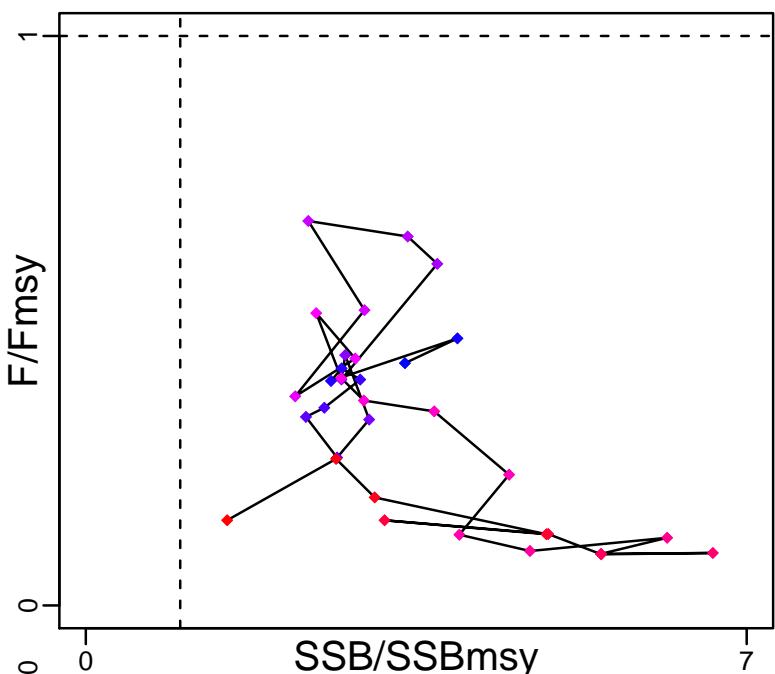
Metadata	
Scientific Name	Farfantepenaeus duorarum
Current Assess ID	SEFSC-PINKSHRIMPGM-1984-2017-SISIMP2021
Area	Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2011, 2013, 2014, 2015, 2017

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2017	10,750
Fmsy	Fmsy-1/yr	2017	1.34
ERmsy	ERmsy-est-ratio	2017	0.051
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-est-MT	2017	1000
M	-	-	-
TBlim	-	-	-
SSBlim	SSBlim-MT	2015	10,750
Flim	-	-	-
ERlim	-	-	-

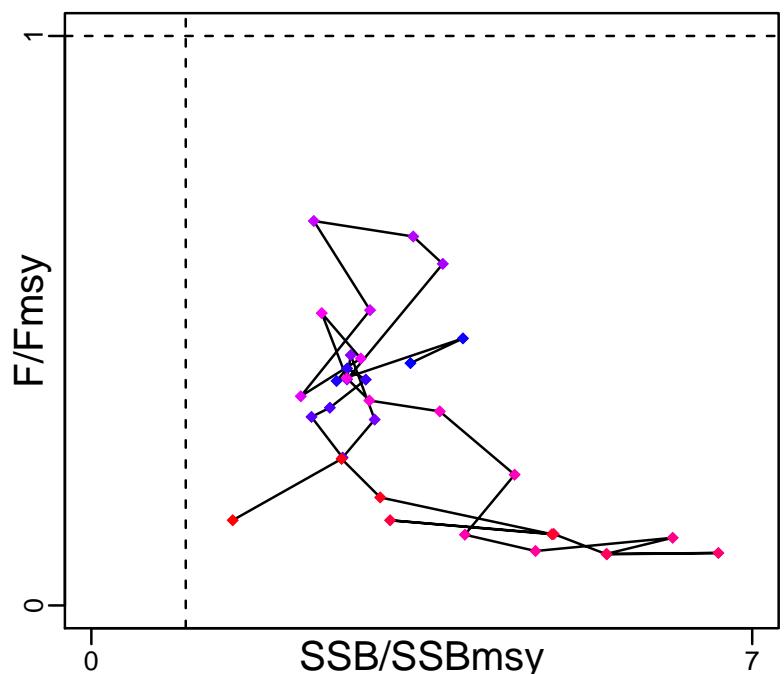
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2017	16,097	-	-
TN	-	-	-	-	-
R	R-E00	2017	3,017,759,000	-	-
F	F-1/yr	2017	0.2	-	-
ER	ER-calc-ratio	2017	0.152	-	-
TC	TC-MT	2017	4503		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2017	1.497		
F/Fmsy	F-1/yr/Fmsy-1/yr	2017	0.15		
ER/ERmsy	ER-calc-ratio/ERmsy-est-ratio	2017	3.007		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Pink shrimp Gulf of Mexico [PINKSHRIMP GM]

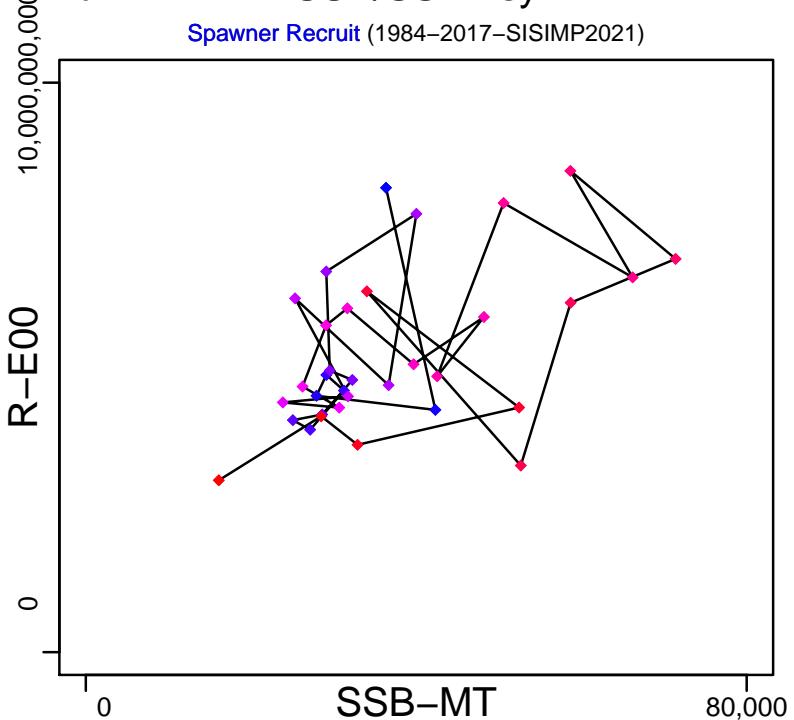
Kobe MSYpref (1984–2017–SISIMP2021)



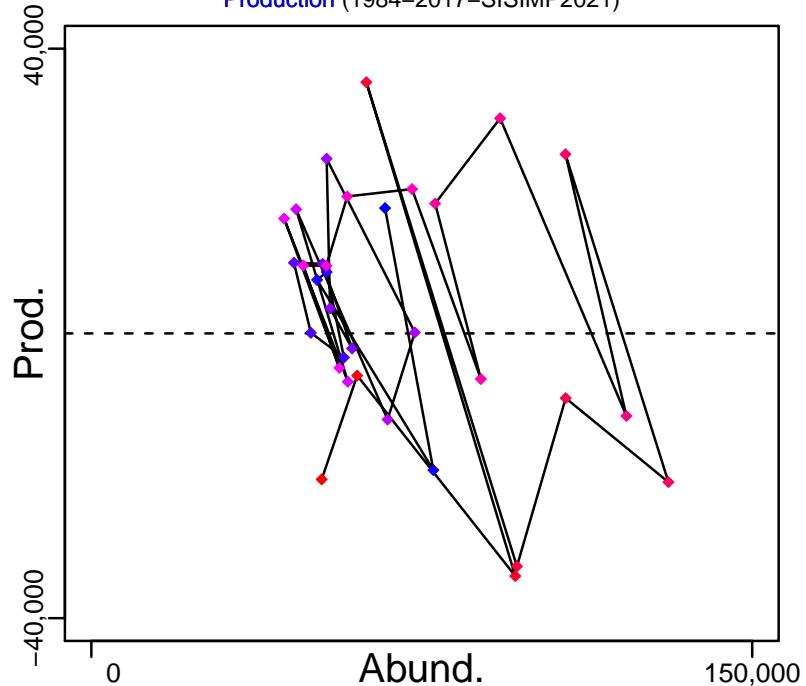
Kobe MGTpref (1984–2017–SISIMP2021)



Spawner Recruit (1984–2017–SISIMP2021)



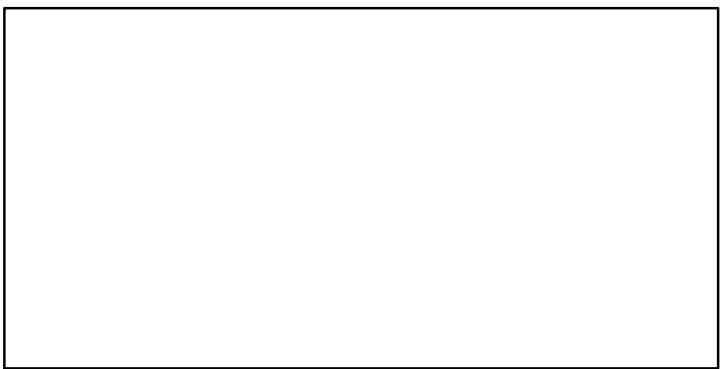
Production (1984–2017–SISIMP2021)



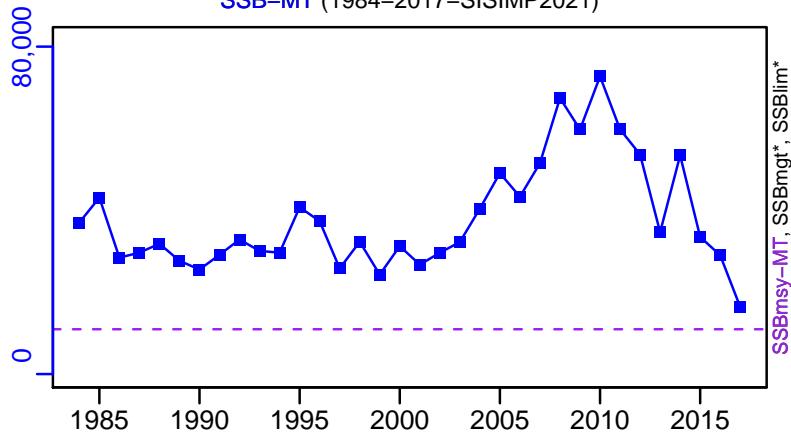
◆ Start Year ◆ End Year * No Data

Pink shrimp Gulf of Mexico [PINKSHRIMPGM]

TB*



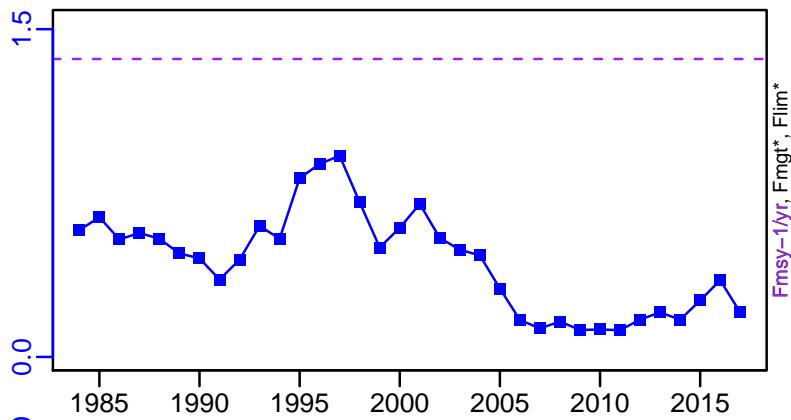
SSB-MT (1984–2017–SISIMP2021)



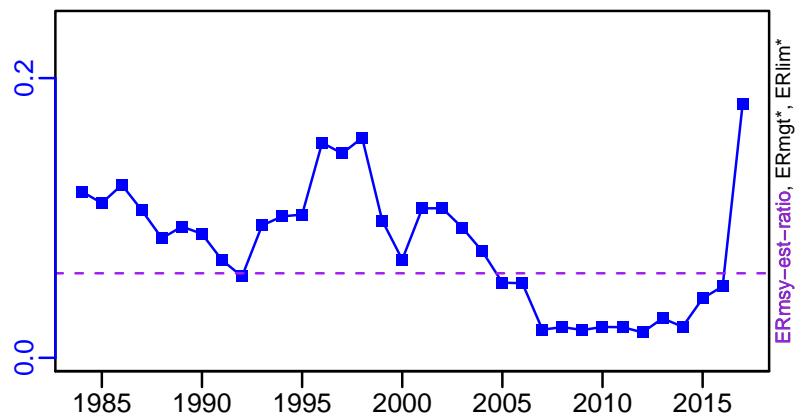
TN *



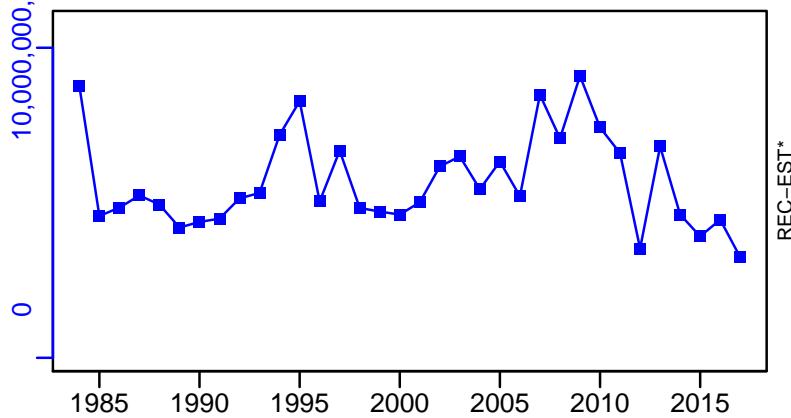
F-1/yr (1984–2017–SISIMP2021)



ER-calc-ratio (1984–2017–SISIMP2021)



R-E00 (1984–2017–SISIMP2021)

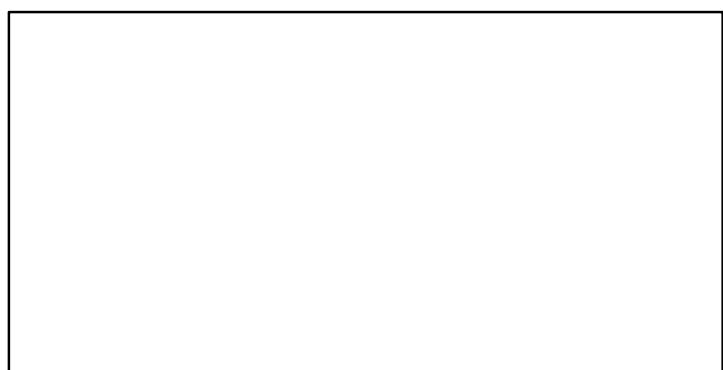
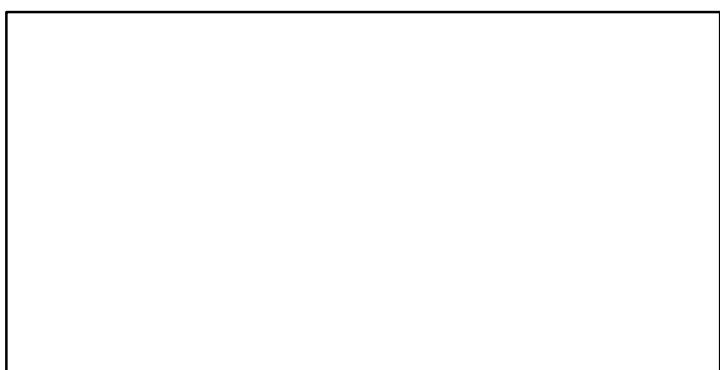
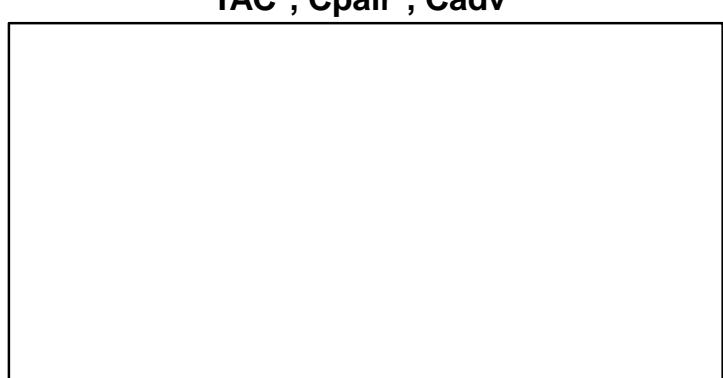
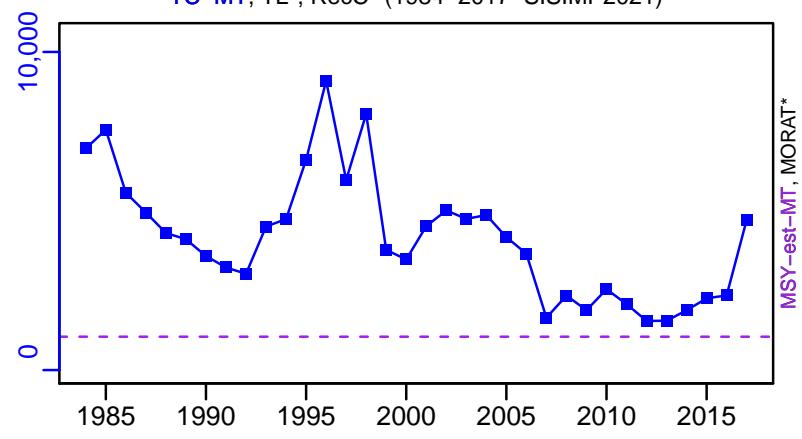


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	--- Lim BRP	* No Data

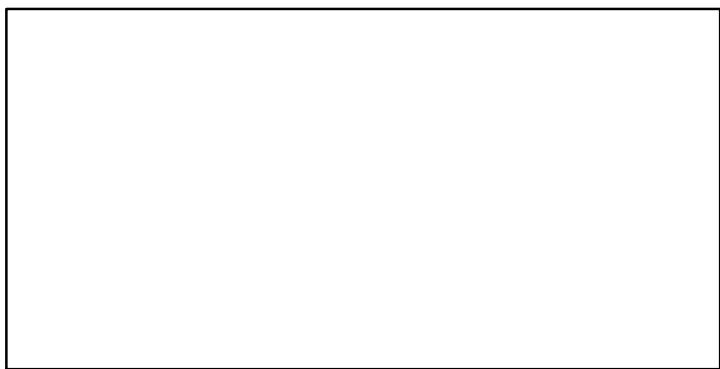
Pink shrimp Gulf of Mexico [PINKSHRIMPGM]

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

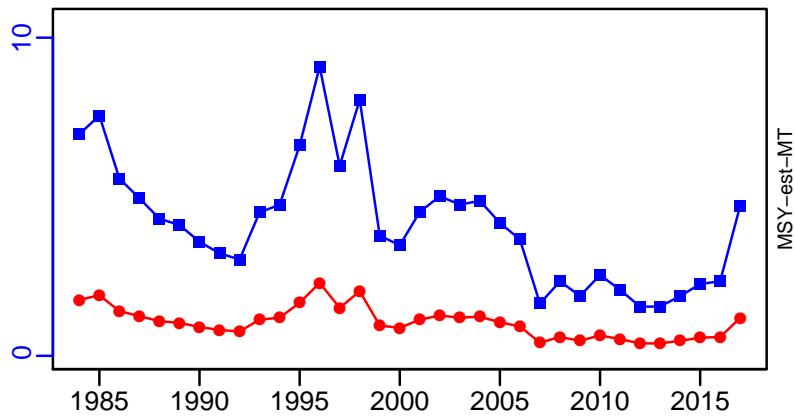
TAC*, Cpair*, Cadv*



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

Red grouper Gulf of Mexico [RGROUPGM]

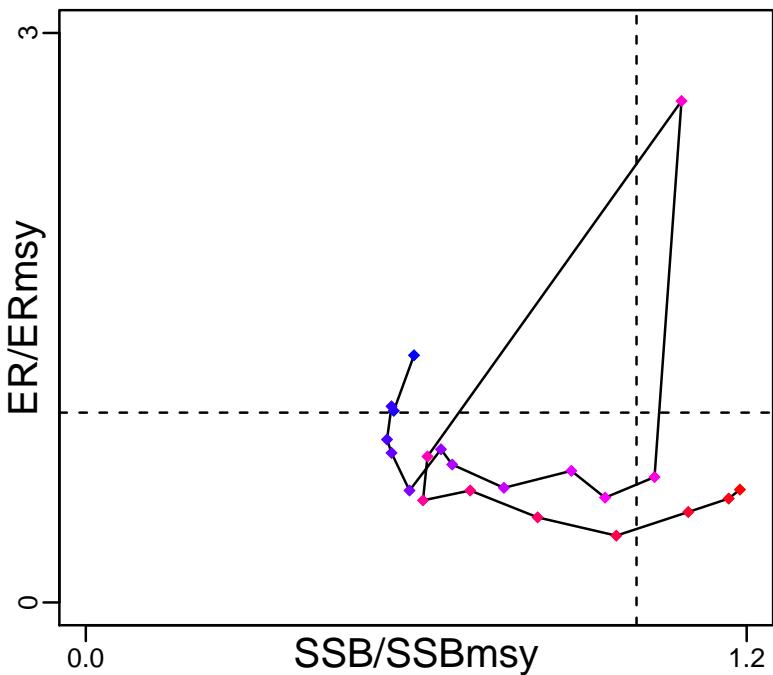
Metadata	
Scientific Name	Epinephelus morio
Current Assess ID	SEFSC-RGROUPGM-1993-2013-SISIMP2016
Area	Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2005, 2013

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2013	30,798
SSBmsy	SSBmsy-E00eggs	2013	2,450,000
Fmsy	Fmsy-1/yr	2005	0.22
ERrmsy	ERrmsy-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	2013	2,100,000
Flim	Flim-1/yr	2005	0.22
ERlim	ERlim-ratio	2013	0.212

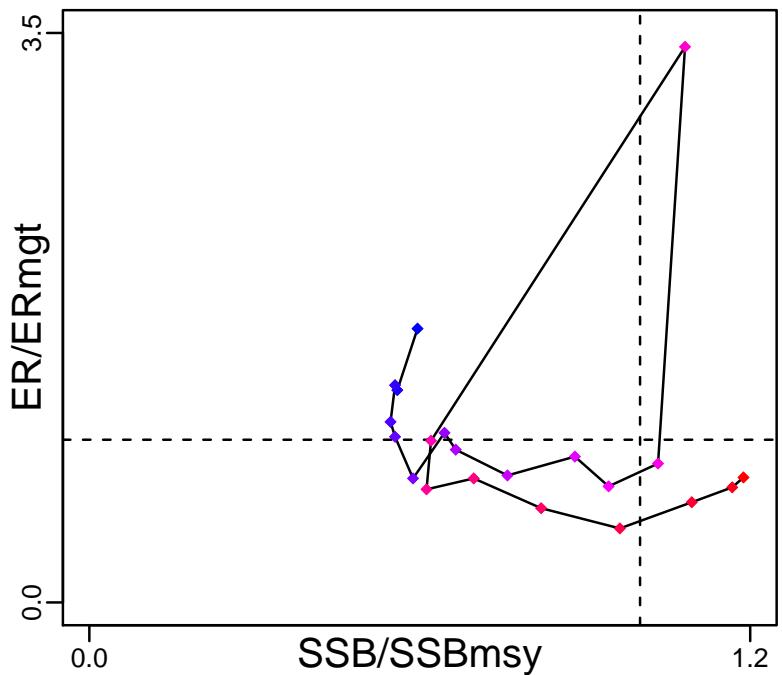
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2013	46,500	-	0+	
SSB	SSB-E00eggs	2013	2,910,000	Females	-	
TN	-	-	-	-	-	
R	R-E00	2013	13,100,000	-	0	
F	F-1/yr	2005	0.16	-	-	
ER	ER-ratio	2013	0.126	-	-	
TC	TC-MT	2013	5840			
TL	-	-	-			
TB/TBmsy	TB-MT/TBmsy-calc-MT	2013	1.51			
SSB/SSBmsy	SSB-E00eggs/SSBmsy-E00eggs	2013	1.188			
F/Fmsy	F-1/yr/Fmsy-1/yr	2005	0.727			
ER/ERrmsy	ER-ratio/ERrmsy-ratio	2013	0.594			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Red grouper Gulf of Mexico [RGROUPGM]

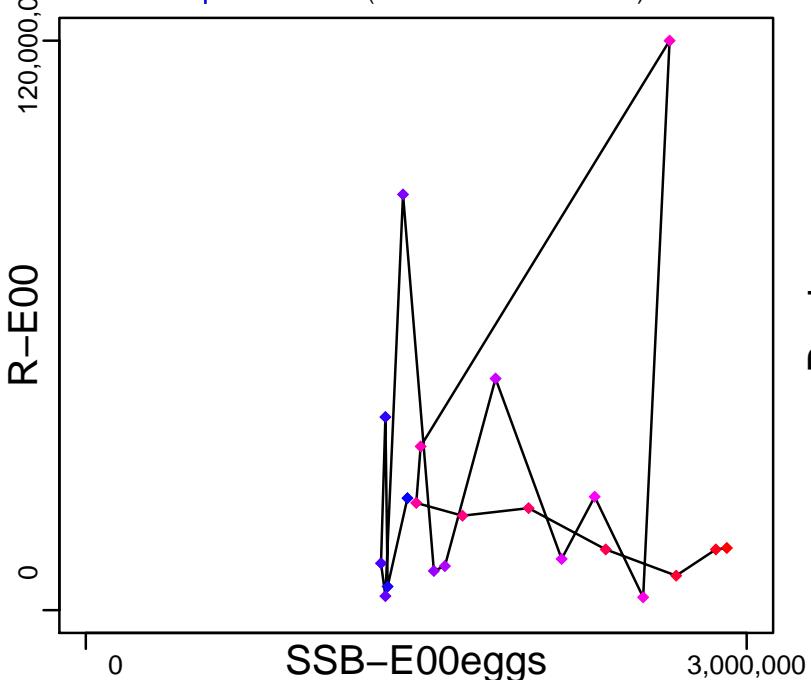
Kobe MSYpref (1993–2013–SISIMP2016)



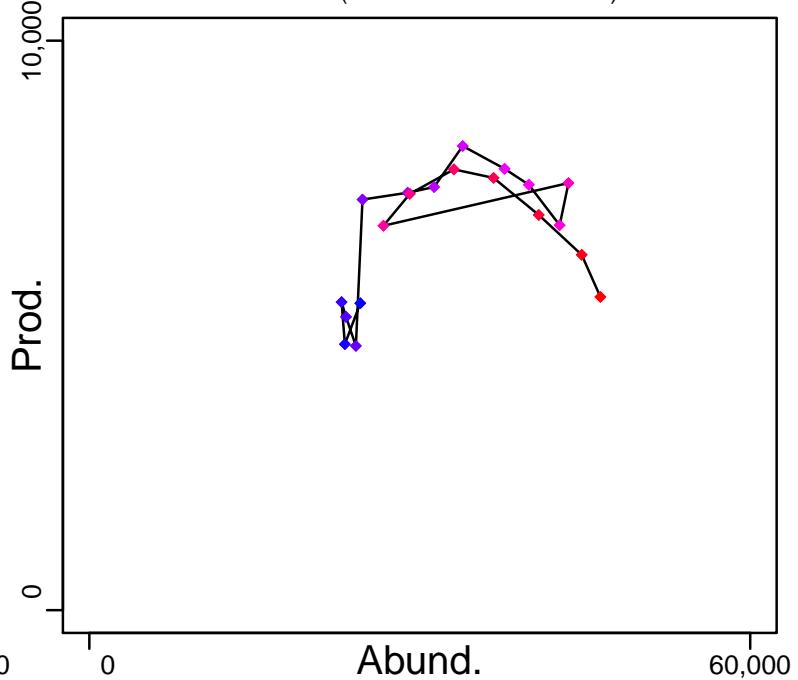
Kobe MGTpref (1993–2013–SISIMP2016)



Spawner Recruit (1993–2013–SISIMP2016)



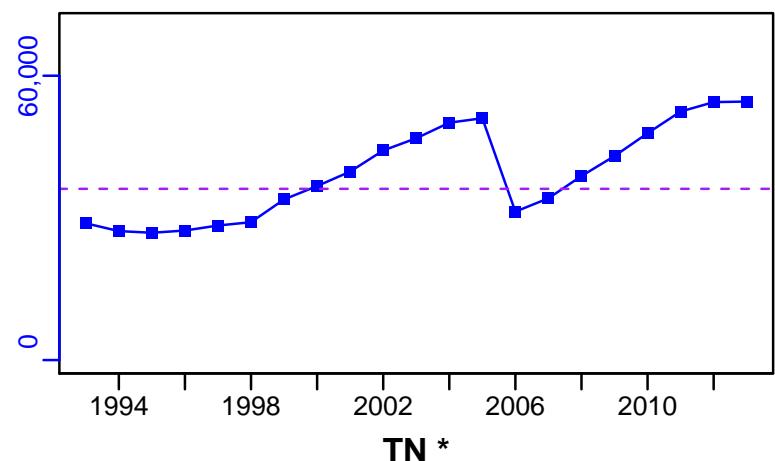
Production (1993–2013–SISIMP2016)



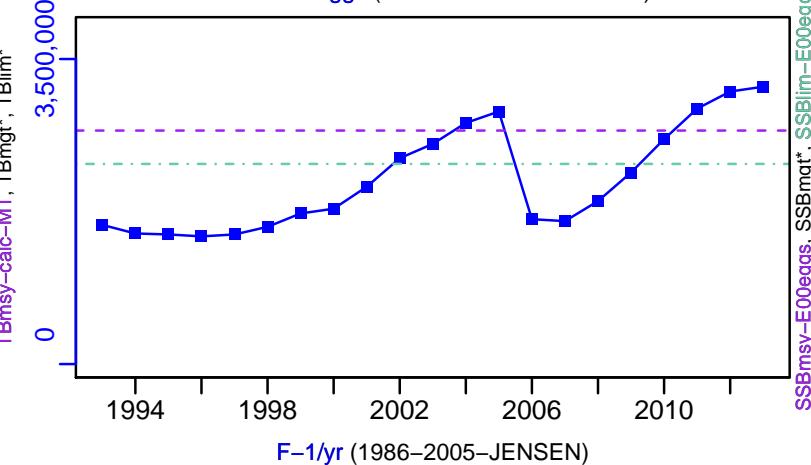
◆ Start Year ◆ End Year * No Data

Red grouper Gulf of Mexico [RGROUPGM]

TB-MT (1993–2013–SISIMP2016)

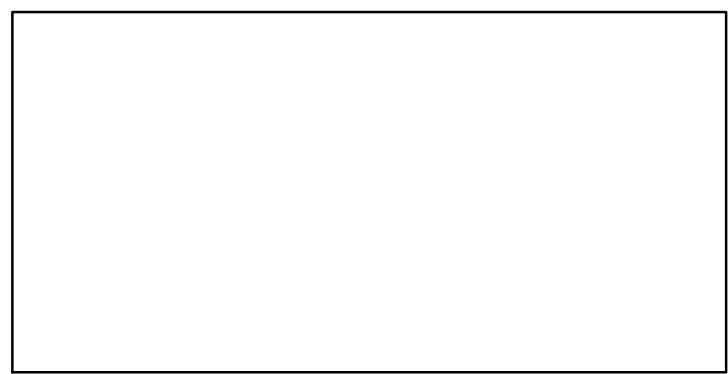


SSB-E00eggs (1993–2013–SISIMP2016)

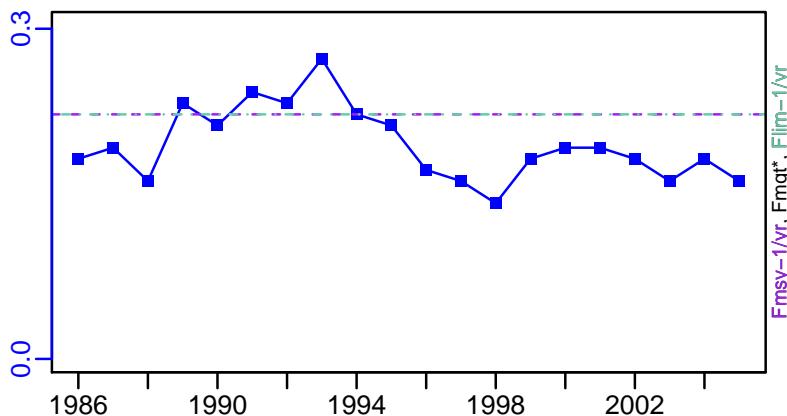


TN *

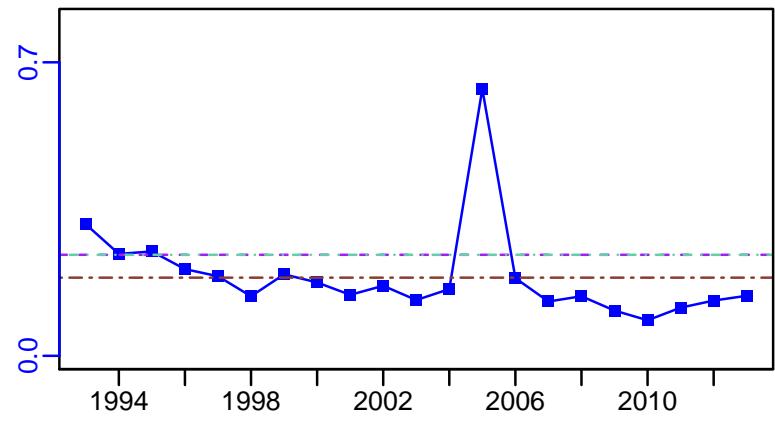
Fmsy-1/yr, Fmg*, Flim-1/yr
SSBmgt*, SSBmgt, SSBlim, SSBlim-E00eggs



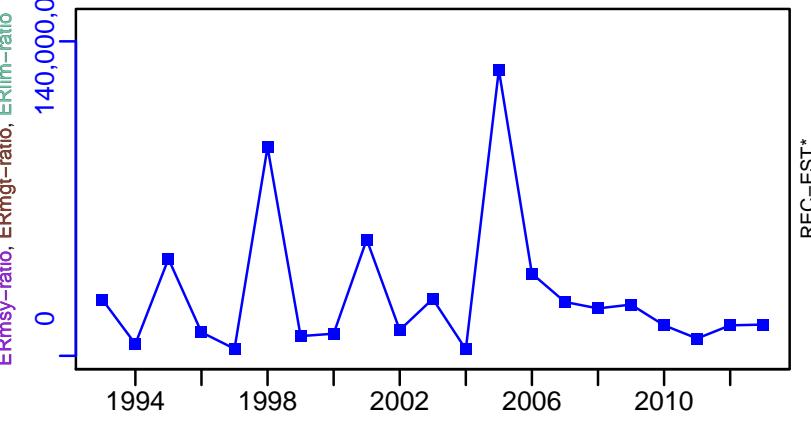
F-1/yr (1986–2005–JENSEN)



ER-ratio (1993–2013–SISIMP2016)



R-E00 (1993–2013–SISIMP2016)



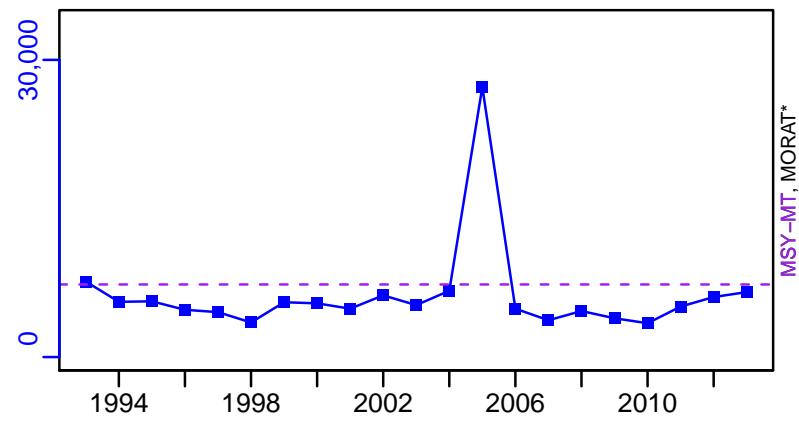
REC-EST*

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

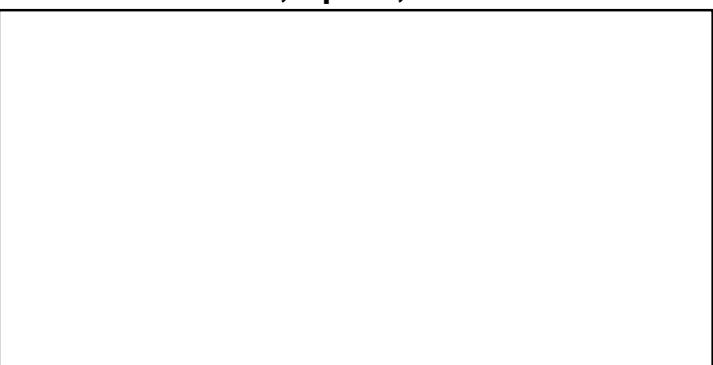
Red grouper Gulf of Mexico [RGROUPGM]

TC-MT, TL*, RecC* (1993–2013–SISIMP2016)

TAC*, Cpair*, Cadv*



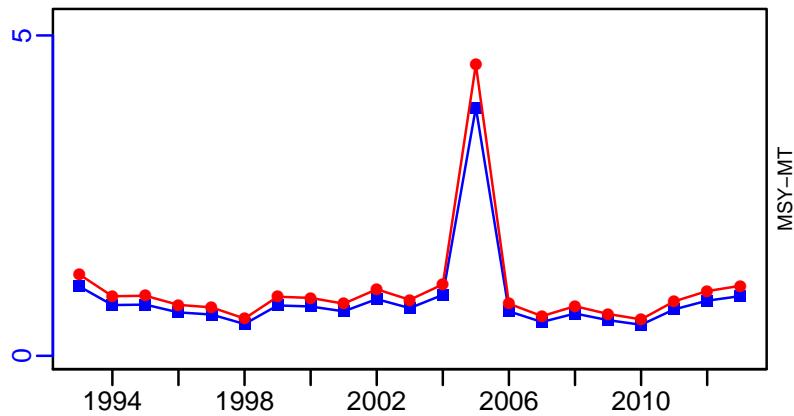
CPUE*



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]

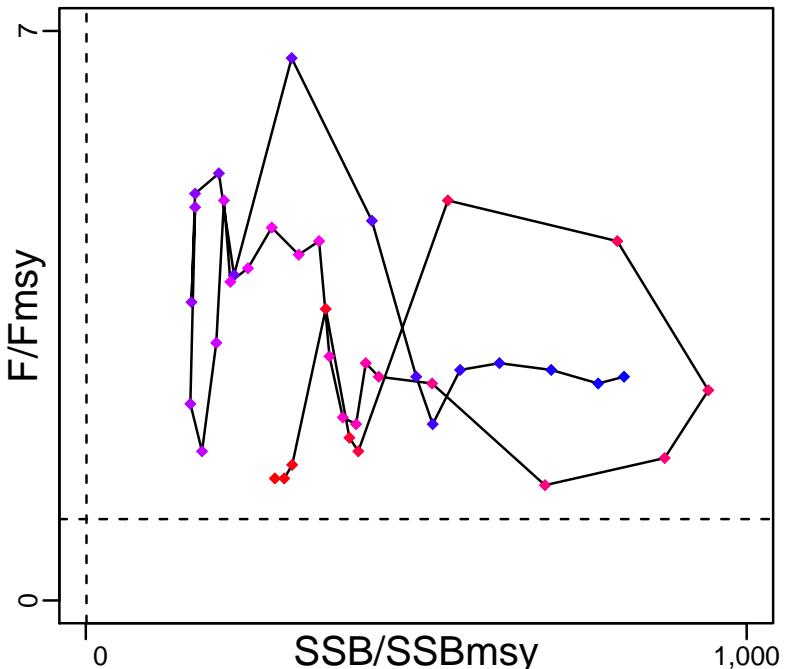
Metadata	
Scientific Name	Epinephelus morio
Current Assess ID	SEFSC-RGROUPSATL-1975-2015-SISIMP2021
Area	South Atlantic
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2015, 2009

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	-	-	-

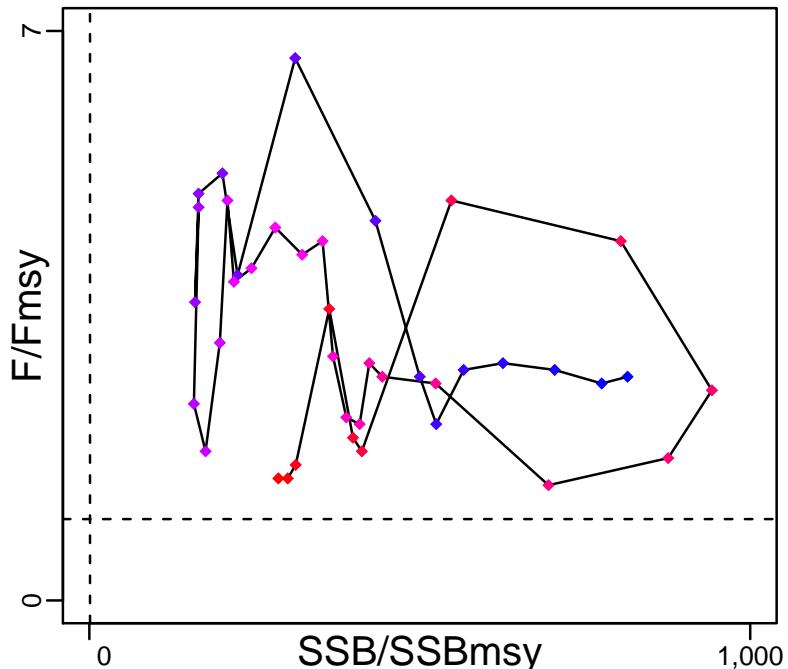
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2009	2760	-	-	
SSB	SSB-MT	2015	910,525	-	-	
TN	-	-	-	-	-	
R	R-E00	2015	151,485	-	1	
F	F-1/yr	2015	0.18	-	-	
ER	ER-calc-ratio	2009	0.222	-	-	
TC	TC-MT	2009	665			
TL	TL-MT	2009	647			
TB/TBmsy	TB-MT/TBmsy-MT	2009	0.75			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2015	286.059			
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]

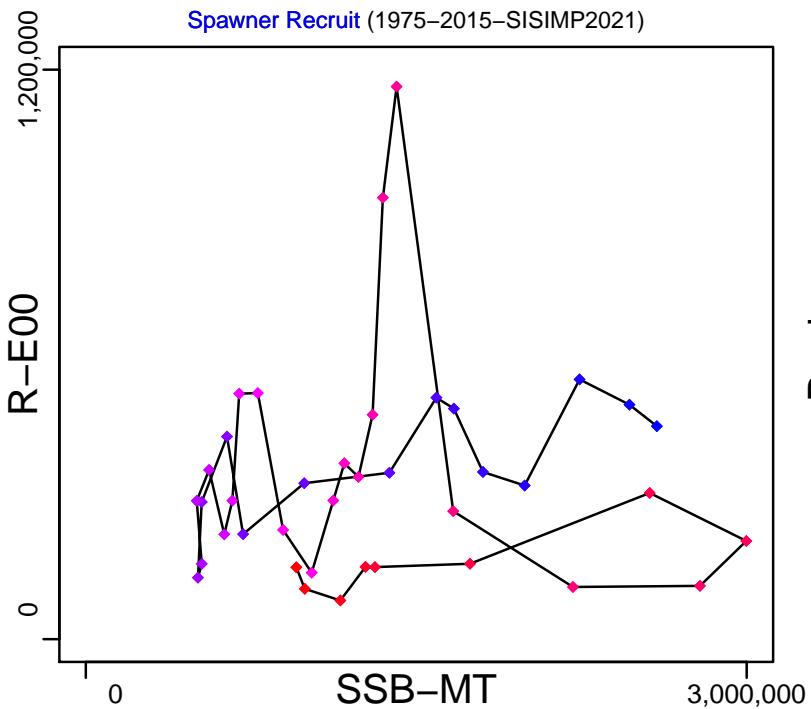
Kobe MSYpref (1975–2015–SISIMP2021)



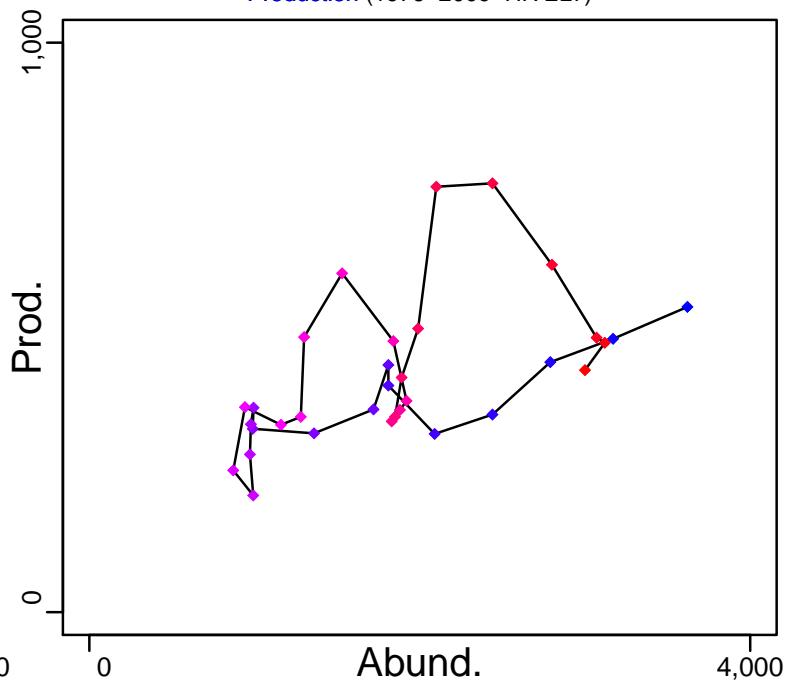
Kobe MGTpref (1975–2015–SISIMP2021)



Spawner Recruit (1975–2015–SISIMP2021)



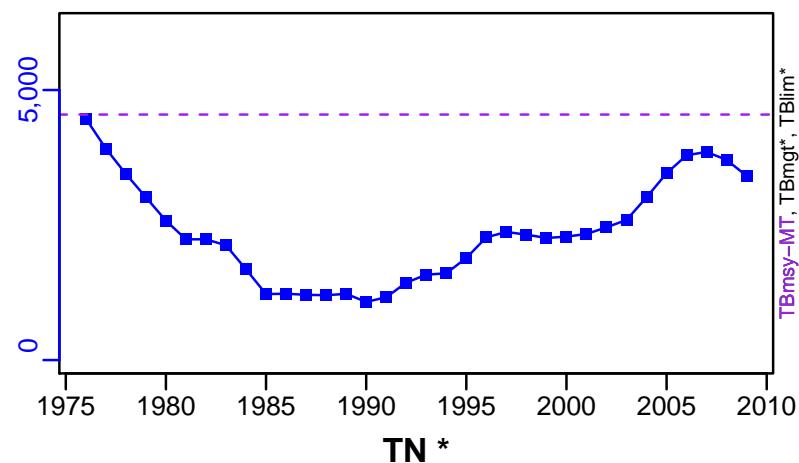
Production (1976–2009–HIVELY)



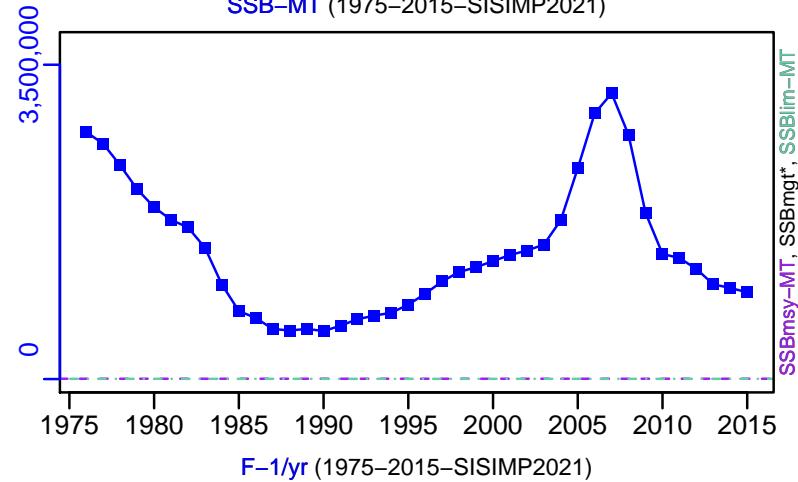
◆ Start Year ◆ End Year * No Data

Red grouper South Atlantic [RGROUPSATL]

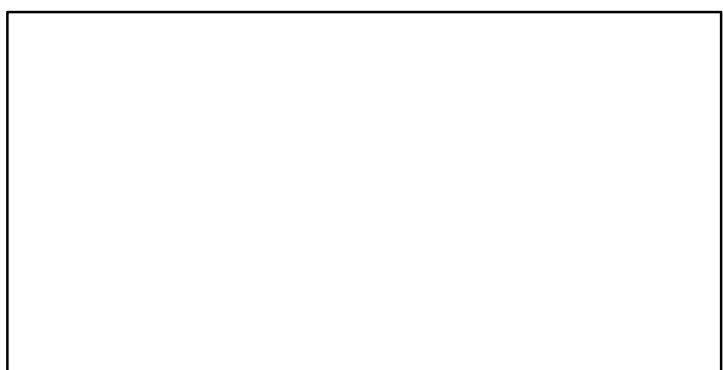
TB-MT (1976–2009–HIVELY)



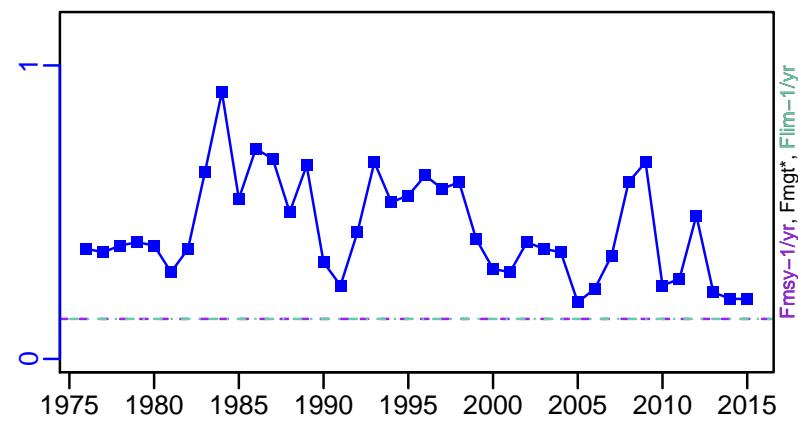
SSB-MT (1975–2015–SISIMP2021)



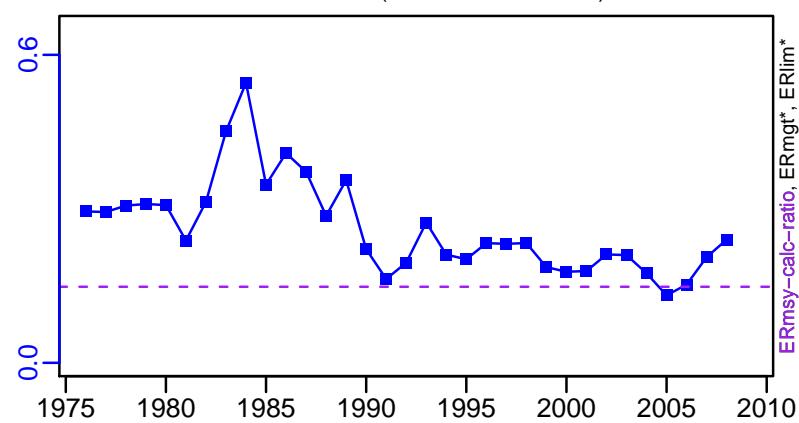
TN *



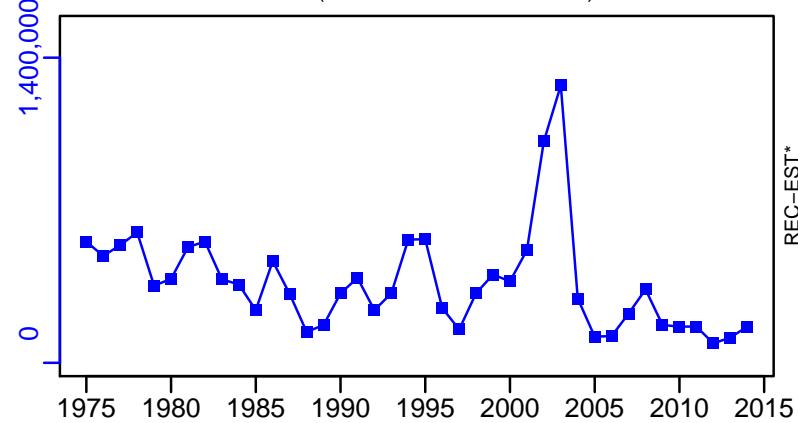
F-1/yr (1975–2015–SISIMP2021)



ER-calc-ratio (1976–2009–HIVELY)



R-E00 (1975–2015–SISIMP2021)

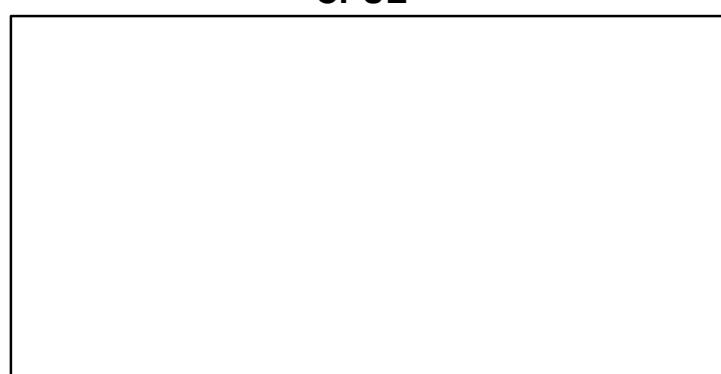
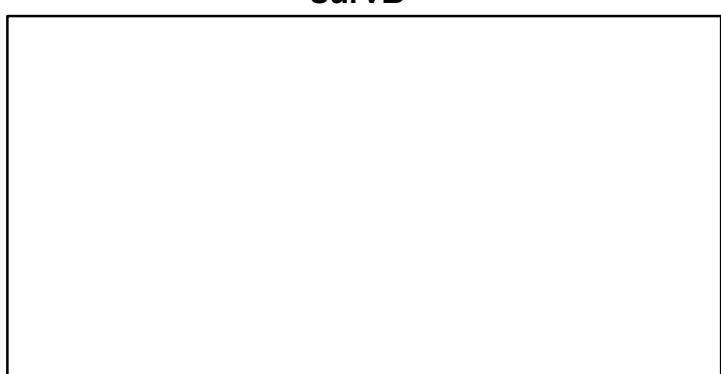
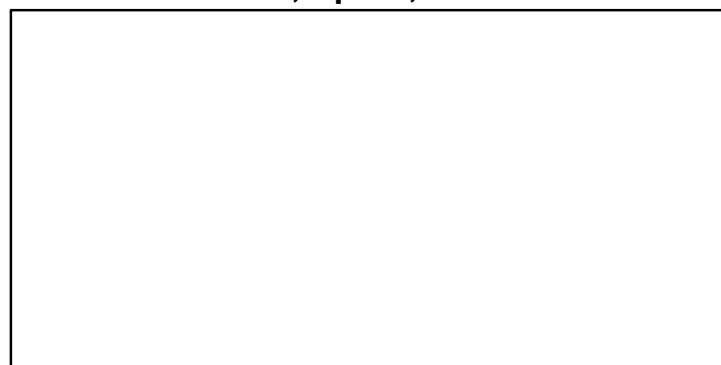
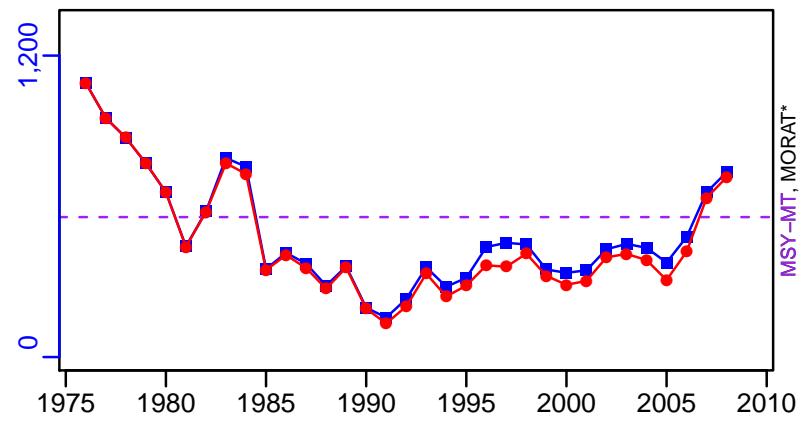


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	--- Lim BRP	* No Data

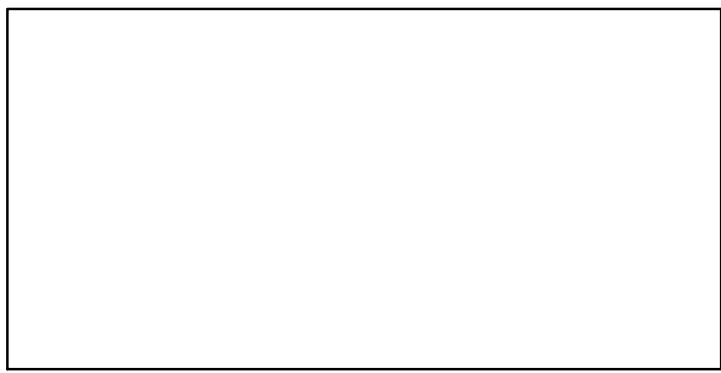
Red grouper South Atlantic [RGROUPSATL]

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

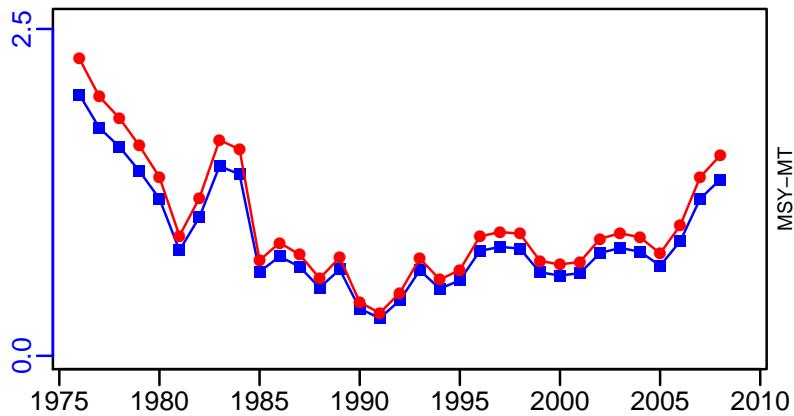
TAC*, Cpair*, Cadv*



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]

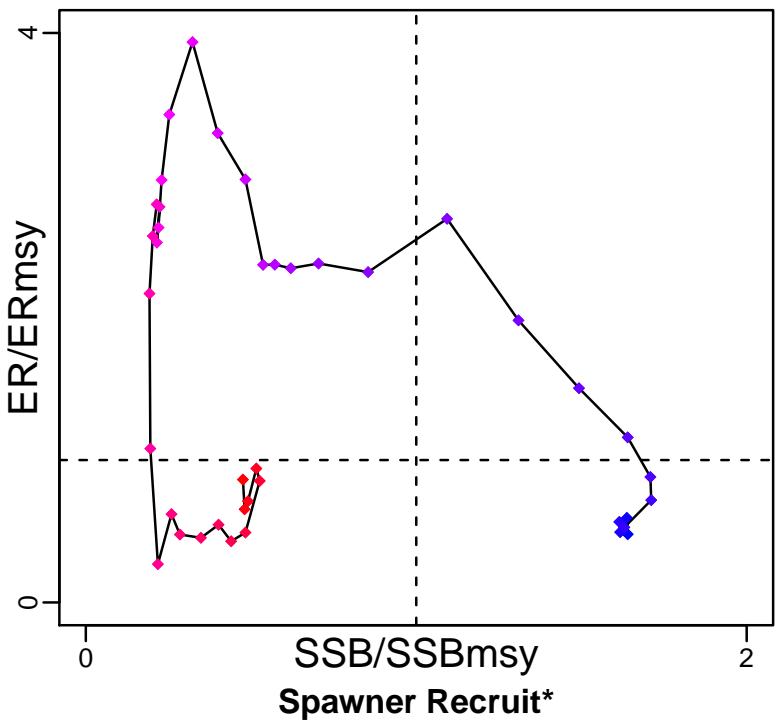
Metadata	
Scientific Name	Pagrus pagrus
Current Assess ID	SEFSC-RPORGYSATLC-1972-2012-HIVELY
Area	Southern Atlantic coast
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2012

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2012	4254
SSBmsy	SSBmsy-MT	2012	3933
Fmsy	Fmsy-1/yr	2012	0.17
ERmsy	ERmsy-calc-ratio	2012	0.089
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2012	378
M	M-1/yr	2012	0.23
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

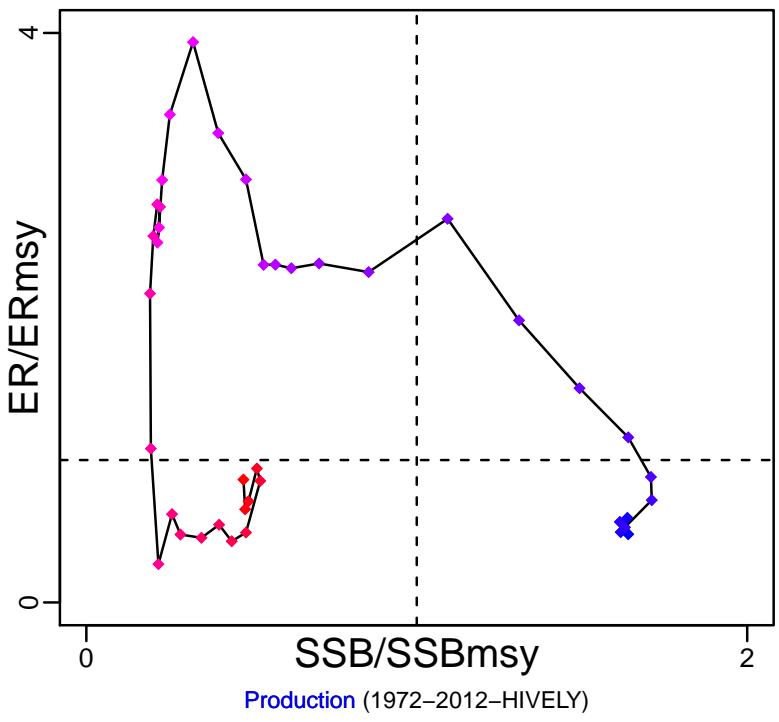
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2012	2020	-	-	
SSB	SSB-MT	2012	1850	Both	3+	
TN	-	-	-	-	-	
R	-	-	-	-	-	
F	F-1/yr	2012	0.132	-	-	
ER	ER-calc-ratio	2012	0.077	-	-	
TC	-	-	-			
TL	TL-MT	2012	155			
TB/TBmsy	TB-MT/TBmsy-MT	2012	0.475			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2012	0.47			
F/Fmsy	F-1/yr/Fmsy-1/yr	2012	0.776			
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 MSYref (1972–2012–HIVELY)

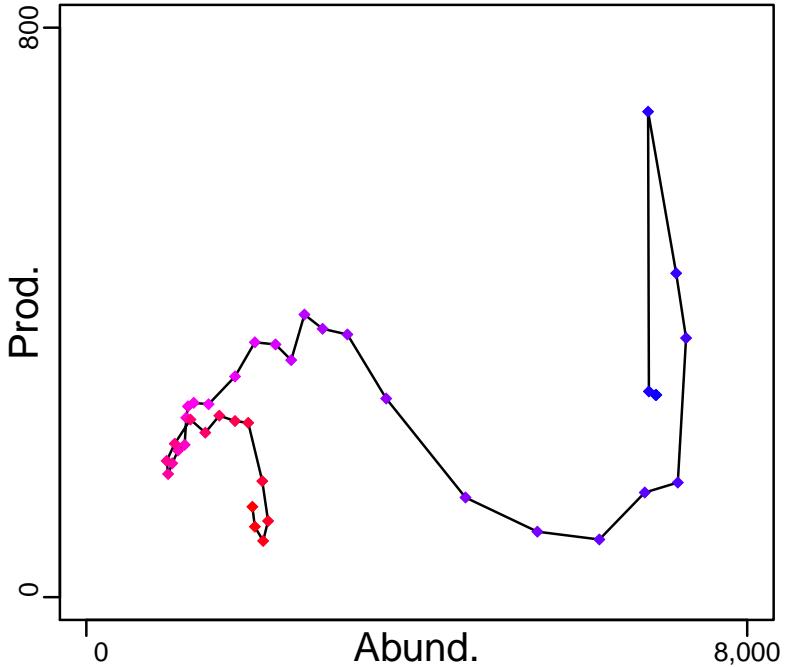


Kobe MGTPref (1972–2012–HIVELY)



Spawner Recruit*

Production (1972–2012–HIVELY)

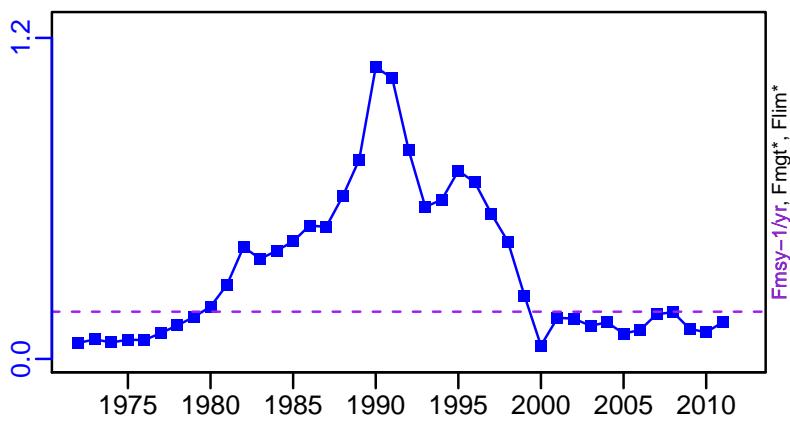
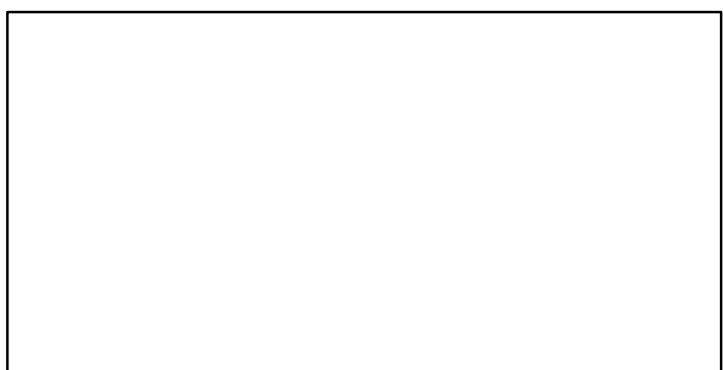
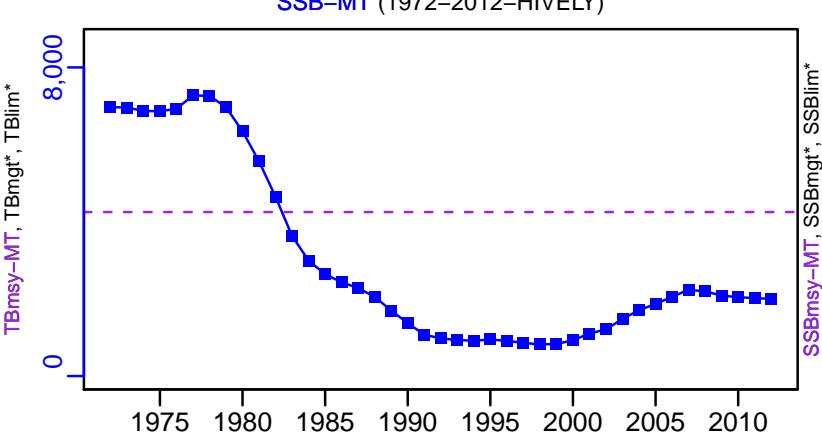
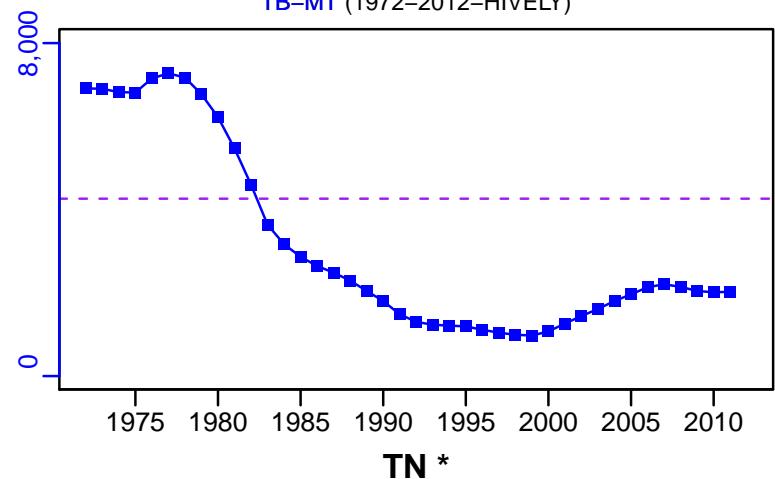


◆ Start Year ◆ End Year * No Data

Red porgy Southern Atlantic coast [RPORGYSATLC]

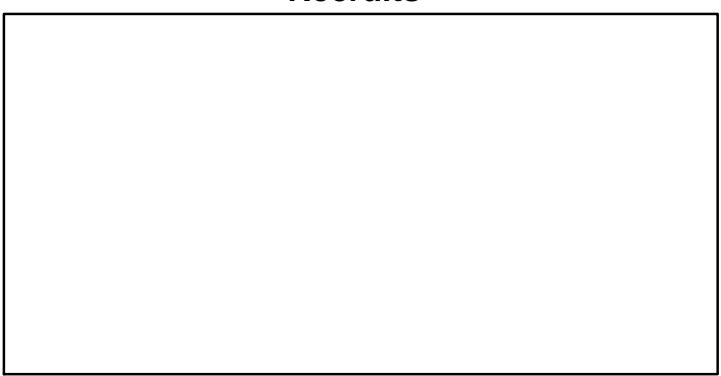
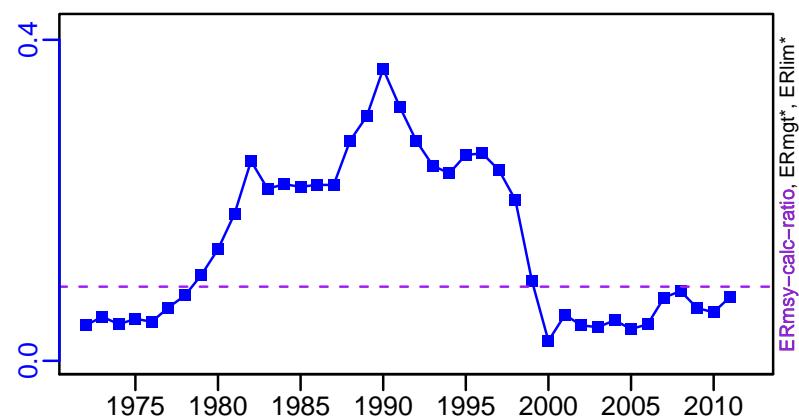
TB-MT (1972–2012–HIVELY)

SSB-MT (1972–2012–HIVELY)



ER-calc-ratio (1972–2012–HIVELY)

Recruits*

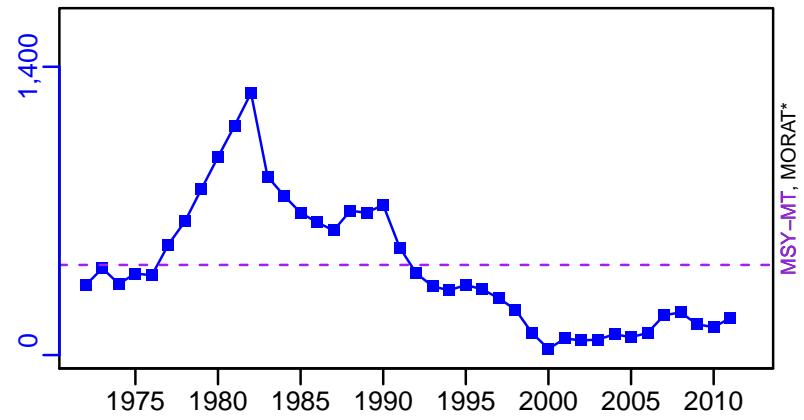


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - Lim BRP	* No Data

Red porgy Southern Atlantic coast [RPORGYSATLC]

TL-MT, TC*, RecC* (1972–2012-HIVELY)

TAC*, Cpair*, Cadv*



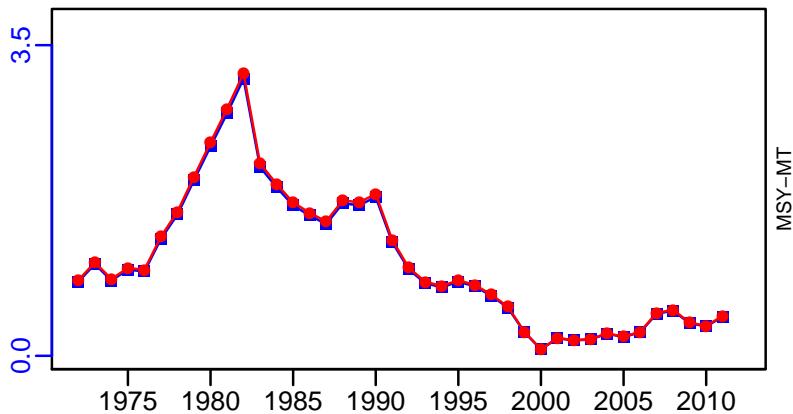
CPUE*



EFFORT*



TL-MT/MSY-MT, CdivMEANC-ratio, (1972–2012-HIVELY)



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

Red snapper Gulf of Mexico [RSNAPGM]

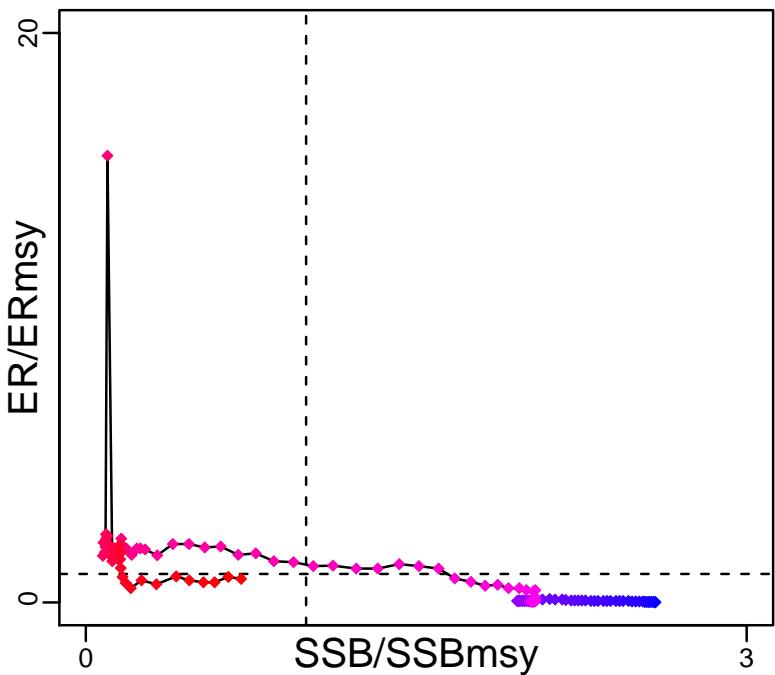
Metadata	
Scientific Name	Lutjanus campechanus
Current Assess ID	SEFSC-RSNAPGM-1872-2016-SISIMP2021
Area	Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2011, 2013, 2016

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

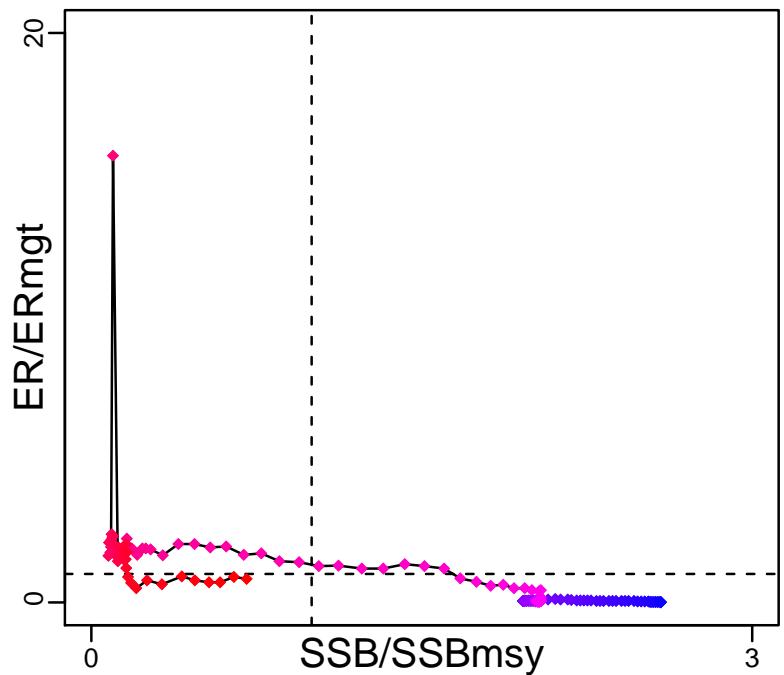
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2013	64,100	-	0+	
SSB	SSB-E00eggs	2016	8.67×10^{14}	-	-	
TN	-	-	-	-	-	
R	R-E00	2016	138,792,000	-	0	
F	F-1/yr	2011	0.062	-	-	
ER	ER-ratio	2016	0.048	-	-	
TC	TC-MT	2016	3050			
TL	TL-MT	2011	1630			
TB/TBmsy	TB-MT/TBmsy-calc-MT	2013	0.536			
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]

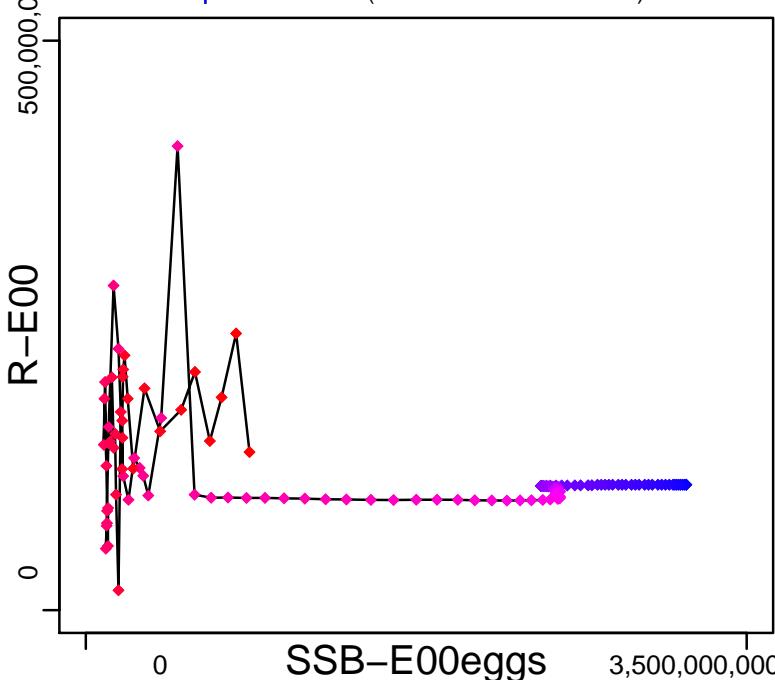
Kobe MSYpref (1872–2016–SISIMP2021)



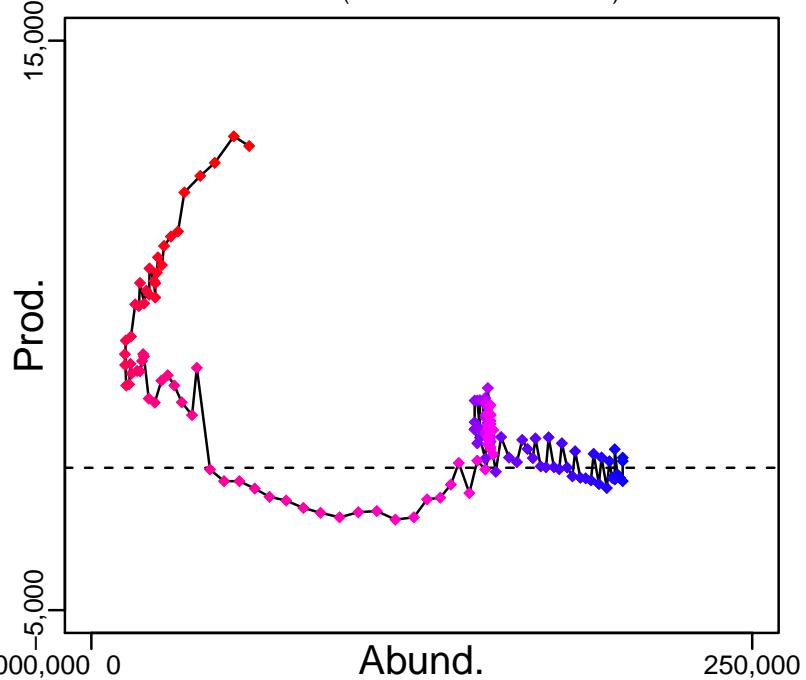
Kobe MGTpref (1872–2016–SISIMP2021)



Spawner Recruit (1872–2016–SISIMP2021)



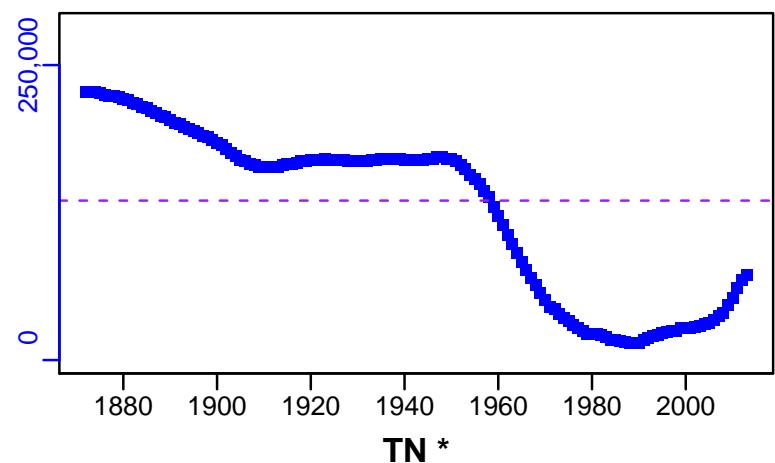
Production (1872–2013–SISIMP2016)



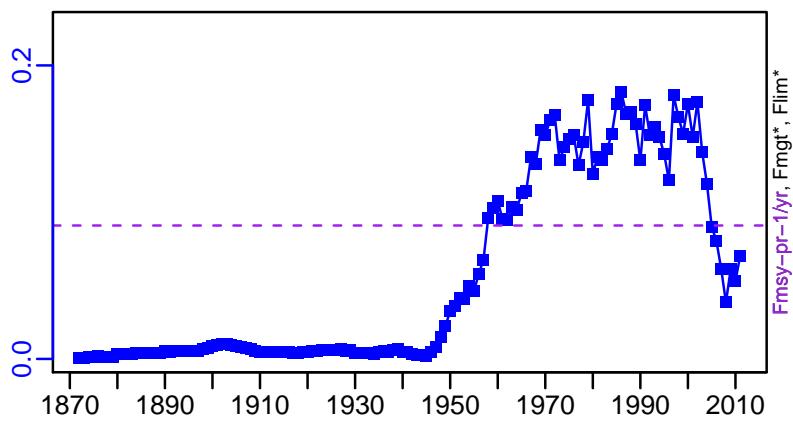
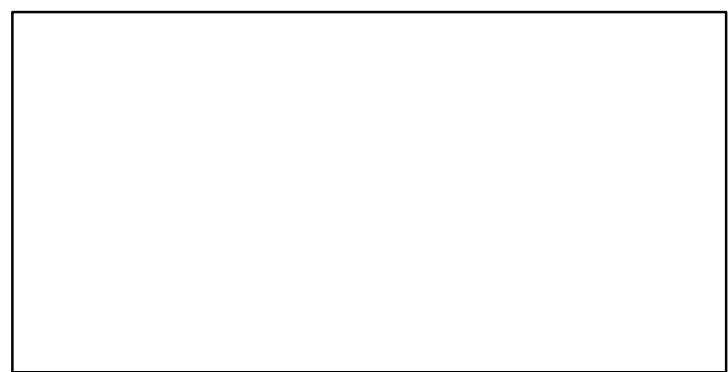
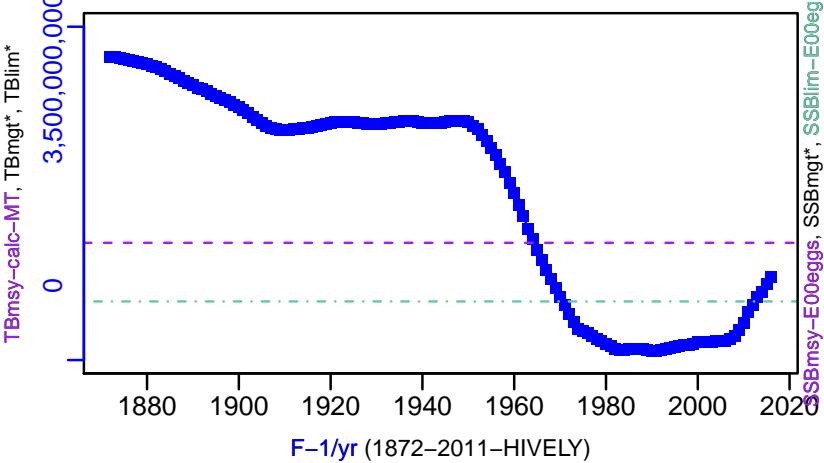
◆ Start Year	◆ End Year	*	No Data
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Red snapper Gulf of Mexico [RSNAPGM]

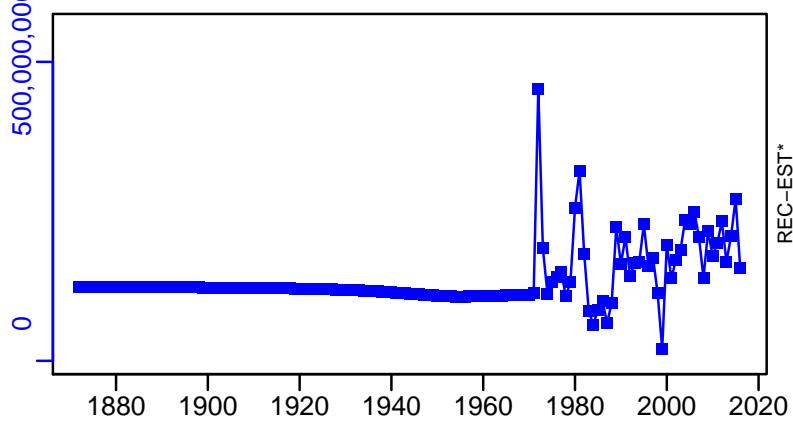
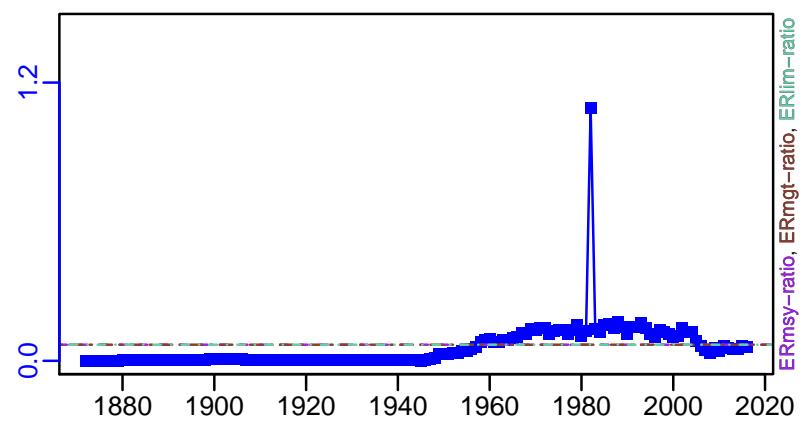
TB-MT (1872–2013–SISIMP2016)



SSB-E00eggs (1872–2016–SISIMP2021)



F_{mgt*}-pr-1/yr, F_{mgt*}, F_{lim*}

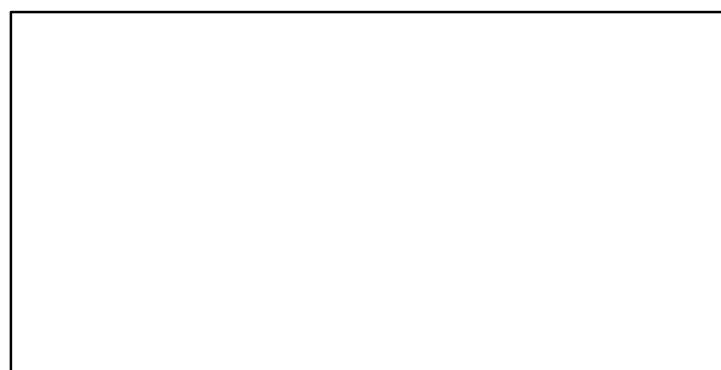
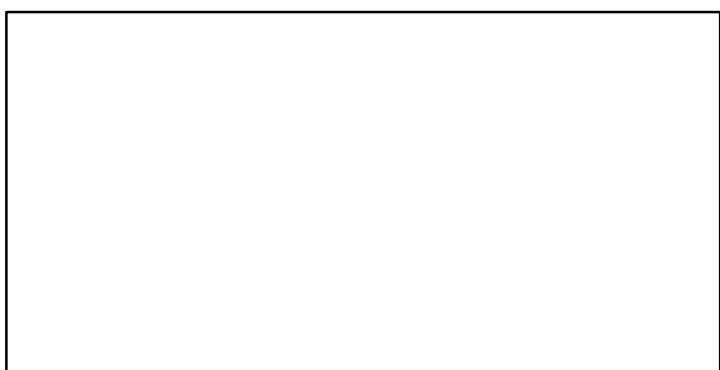
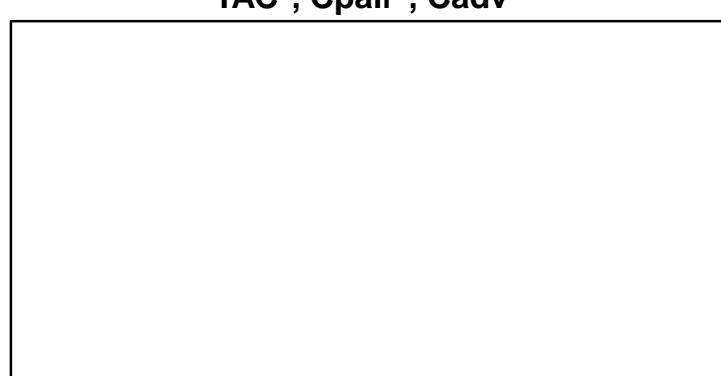
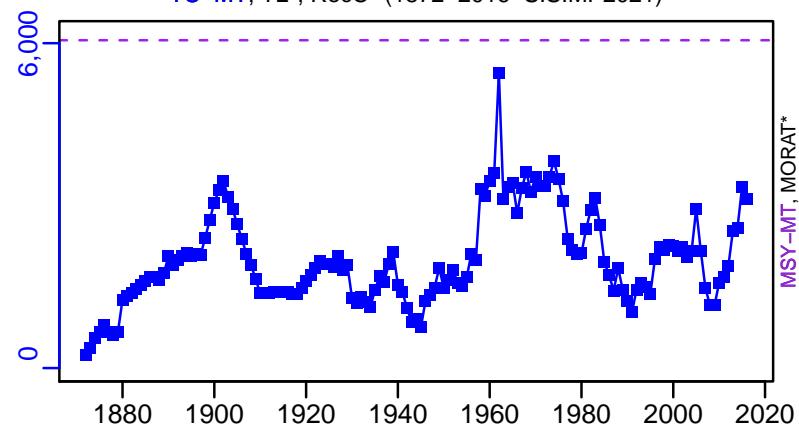


- | | | |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| — MSY-based BRP | --- Lim BRP | * No Data |

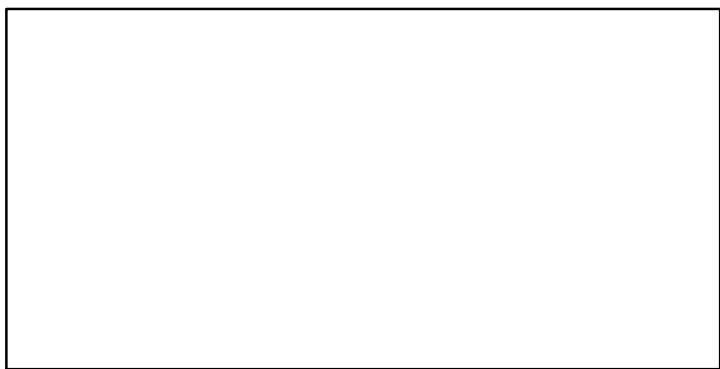
Red snapper Gulf of Mexico [RSNAPGM]

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

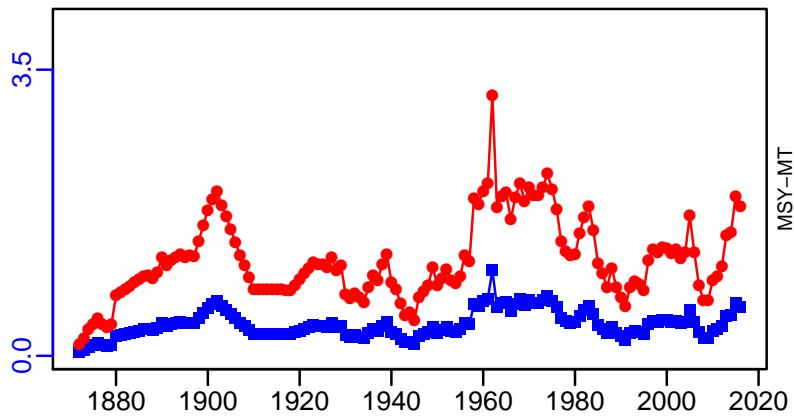
TAC*, Cpair*, Cadv*



EFFORT*



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



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

Red snapper Southern Atlantic coast [RSNAPSATLC]

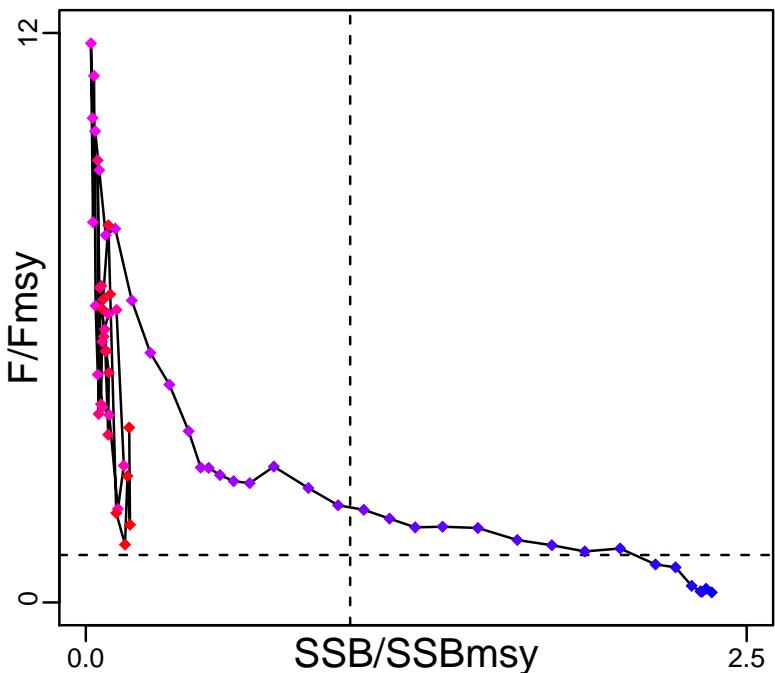
Metadata	
Scientific Name	Lutjanus campechanus
Current Assess ID	SEFSC-RSNAPSATLC-1950-2014-SISIMP2016
Area	Southern Atlantic coast
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2014, 2010

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2010	13,632
SSBmsy	SSBmsy-E00eggs	2014	3.29×10^{13}
Fmsy	Fmsy-1/yr	2014	0.146
ERmsy	ERmsy-calc-ratio	2010	0.061
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2014	195
M	M-1/yr	2010	0.08
TBlim	-	-	-
SSBlim	SSBlim-E00eggs	2014	2.46×10^{13}
Flim	Flim-1/yr	2014	0.146
ERlim	-	-	-

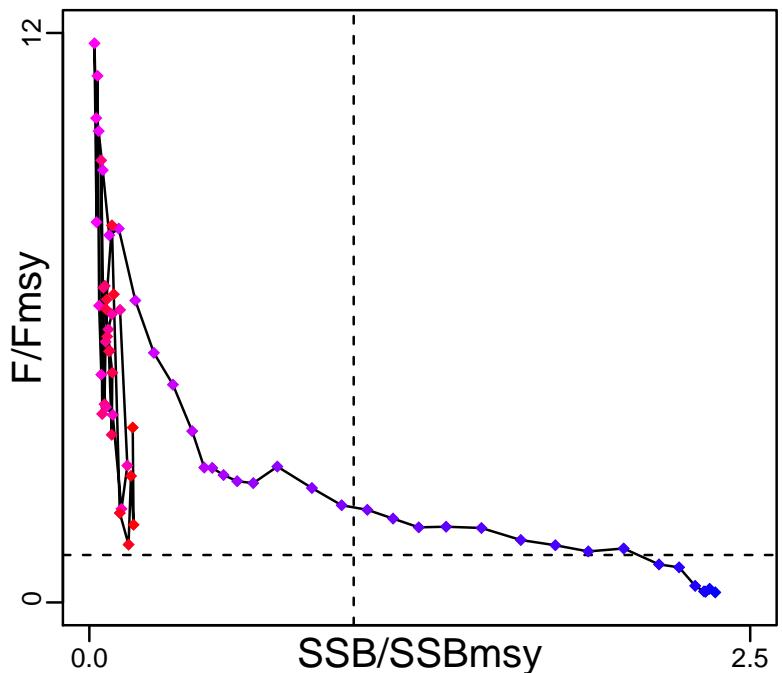
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2010	1430	-	-	
SSB	SSB-E00eggs	2014	5.4×10^{12}	Females	-	
TN	-	-	-	-	-	
R	R-E00	2014	942,000	-	1	
F	F-1/yr	2014	0.538	-	-	
ER	ER-calc-ratio	2010	0.335	-	-	
TC	TC-MT	2014	330			
TL	TL-MT	2010	653			
TB/TBmsy	TB-MT/TBmsy-MT	2010	0.105			
SSB/SSBmsy	SSB-E00eggs/SSBmsy-E00eggs	2014	0.164			
F/Fmsy	F-1/yr/Fmsy-1/yr	2014	3.685			
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]

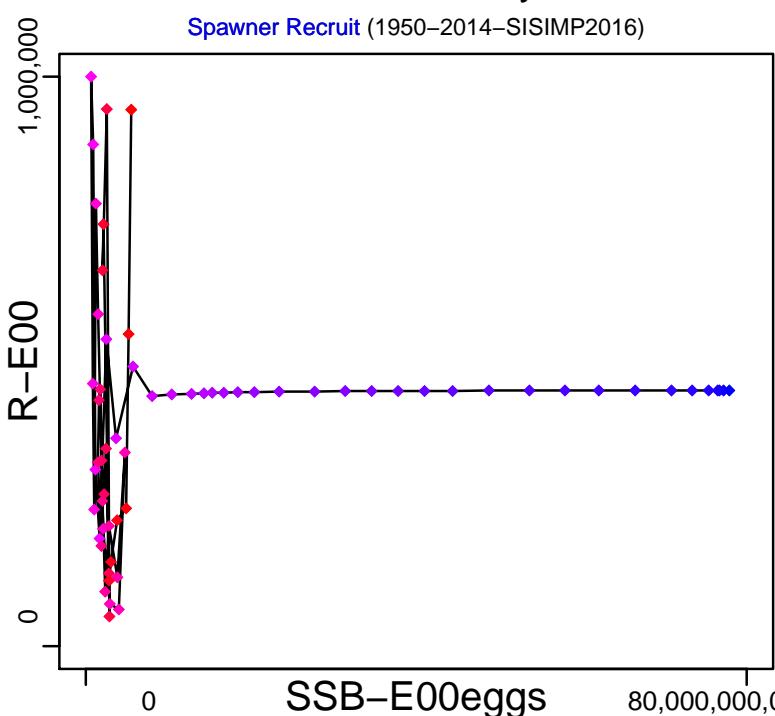
Kobe MSYpref (1950–2014–SISIMP2016)



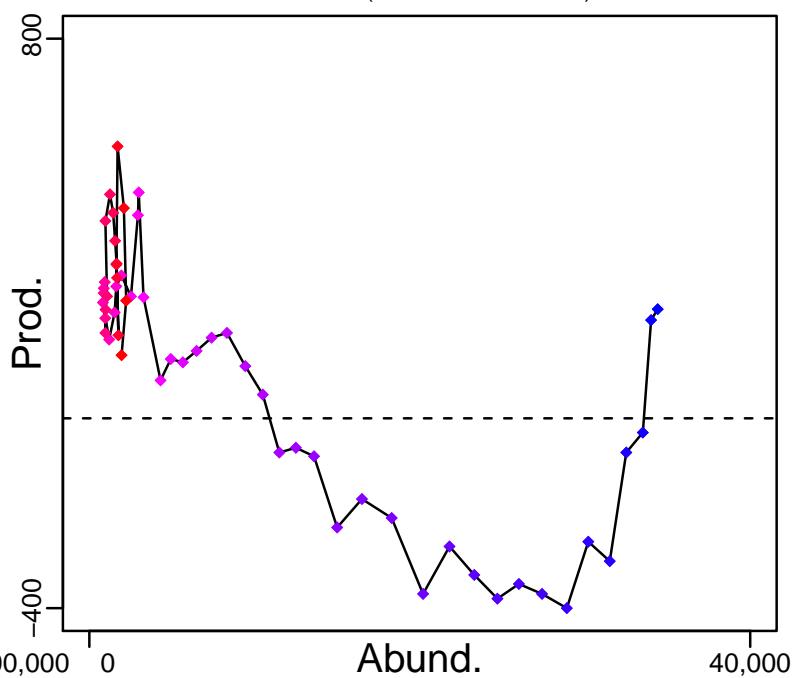
Kobe MGTpref (1950–2014–SISIMP2016)



Spawner Recruit (1950–2014–SISIMP2016)



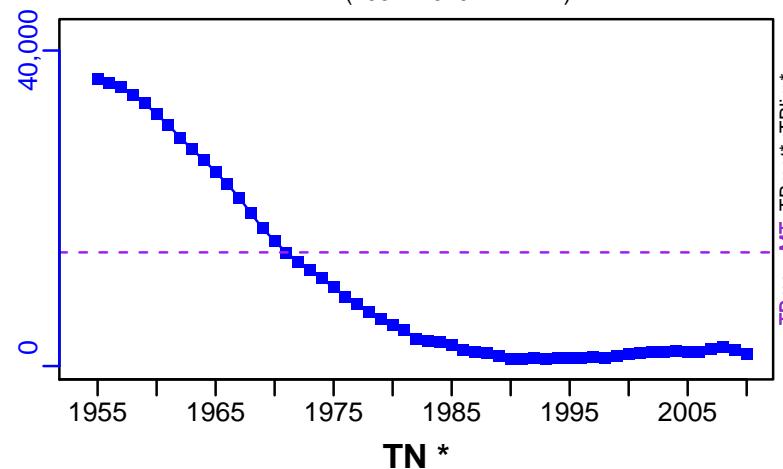
Production (1954–2010–HIVELY)



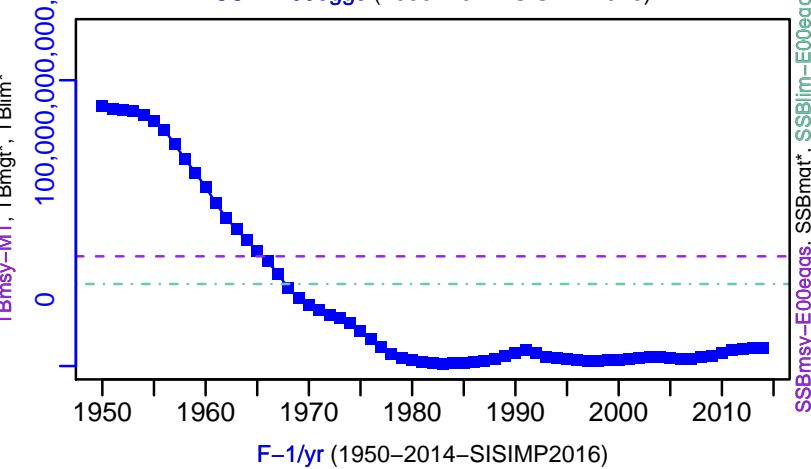
◆ Start Year	◆ End Year	*	No Data
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Red snapper Southern Atlantic coast [RSNAPSATLC]

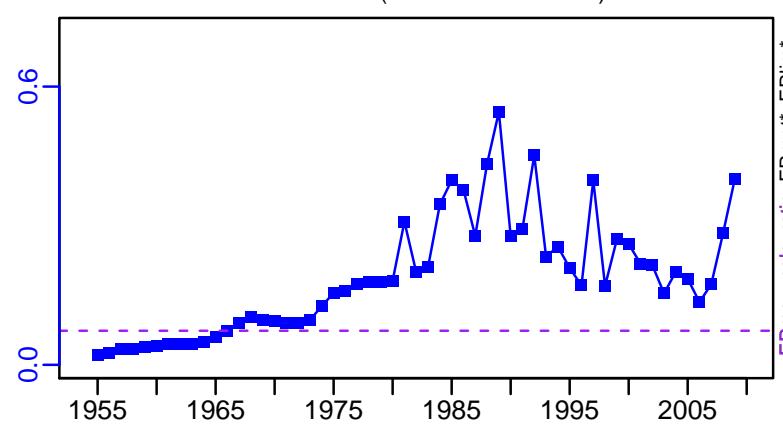
TB-MT (1954–2010–HIVELY)



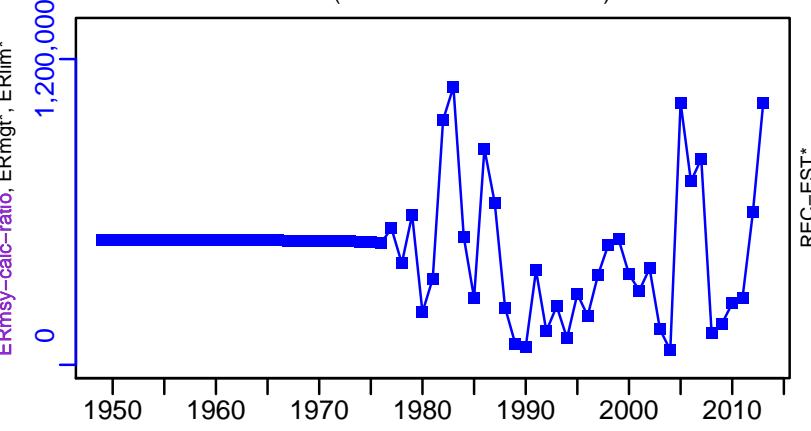
SSB-E00eggs (1950–2014–SISIMP2016)



ER-calc-ratio (1954–2010–HIVELY)



R-E00 (1950–2014–SISIMP2016)

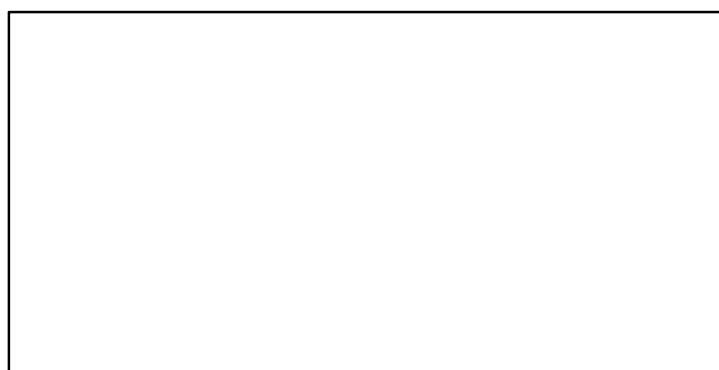
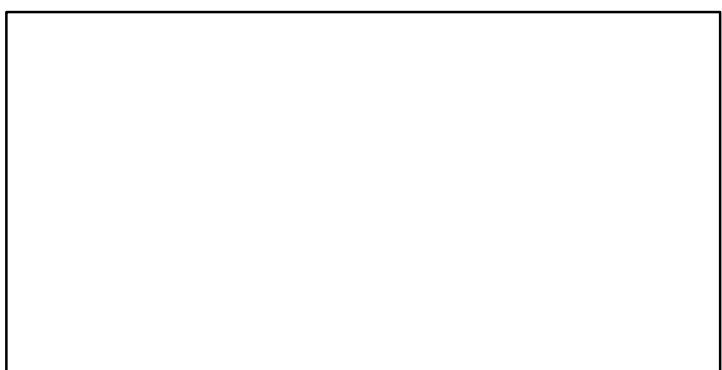
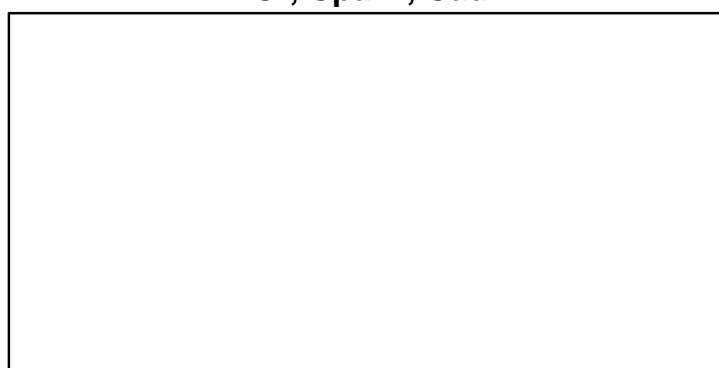
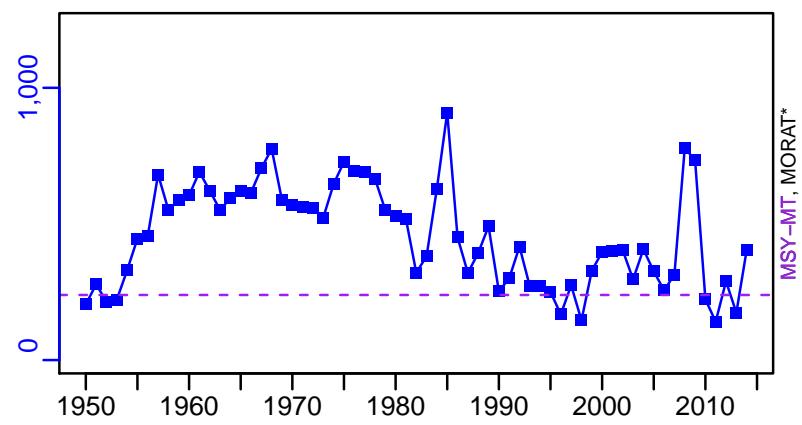


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - Lim BRP	* No Data

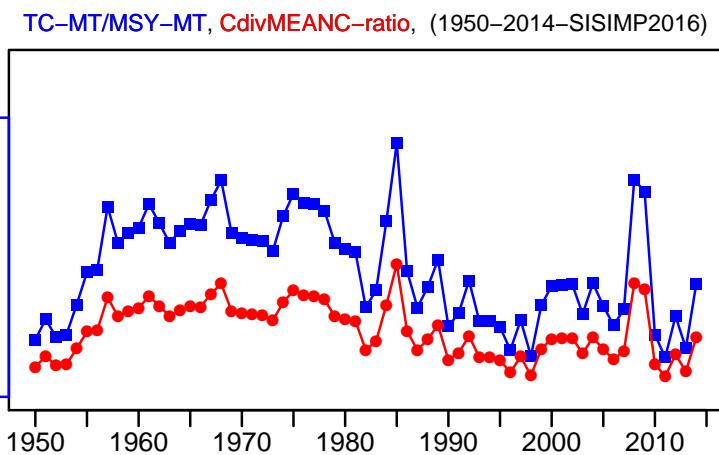
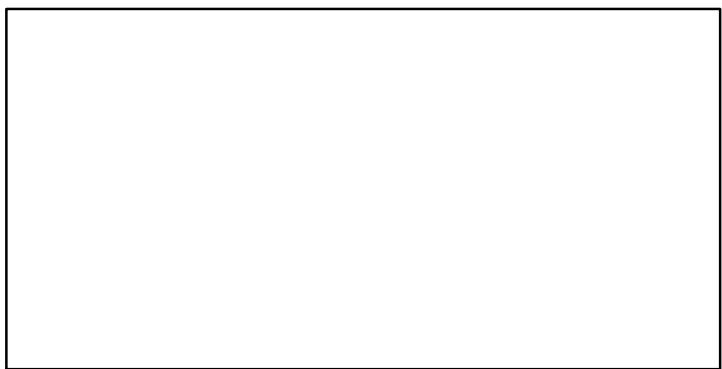
Red snapper Southern Atlantic coast [RSNAPSATLC]

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

TAC*, Cpair*, Cadv*



EFFORT*



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

Sandbar shark Atlantic [SBARSHARATL]

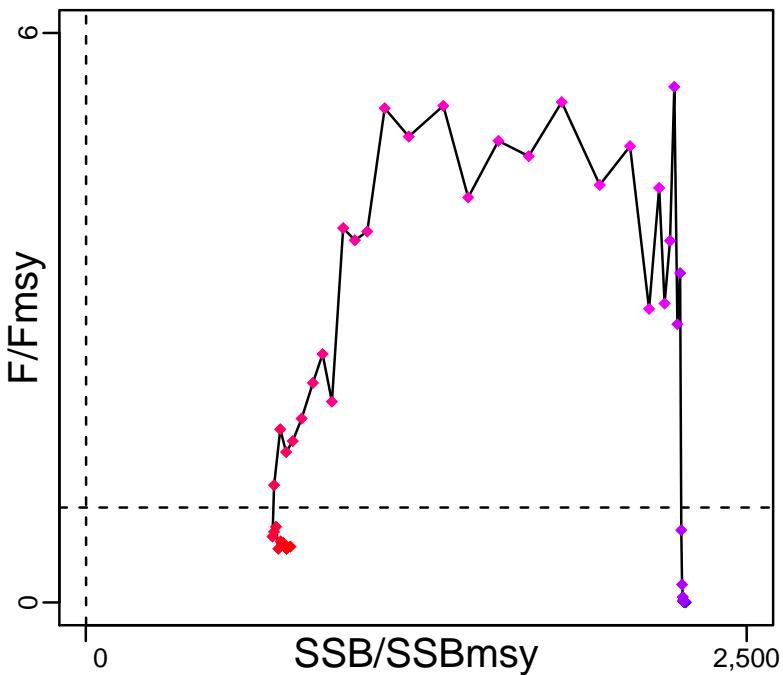
Metadata	
Scientific Name	Carcharhinus plumbeus
Current Assess ID	SEFSC-SBARSHARATL-1960-2015-SISIMP2021
Area	Atlantic
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2009, 2015, 2004

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-est-MT	2015	25,614
SSBmsy	SSBmsy-E00	2015	681
Fmsy	Fmsy-1/yr	2015	0.07
ERmsy	ERmsy-est-ratio	2015	0.009
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2004	403
M	M-1/yr	2004	0.224
TBlim	-	-	-
SSBlim	SSBlim-E00	2015	595
Flim	Flim-1/yr	2015	0.07
ERlim	-	-	-

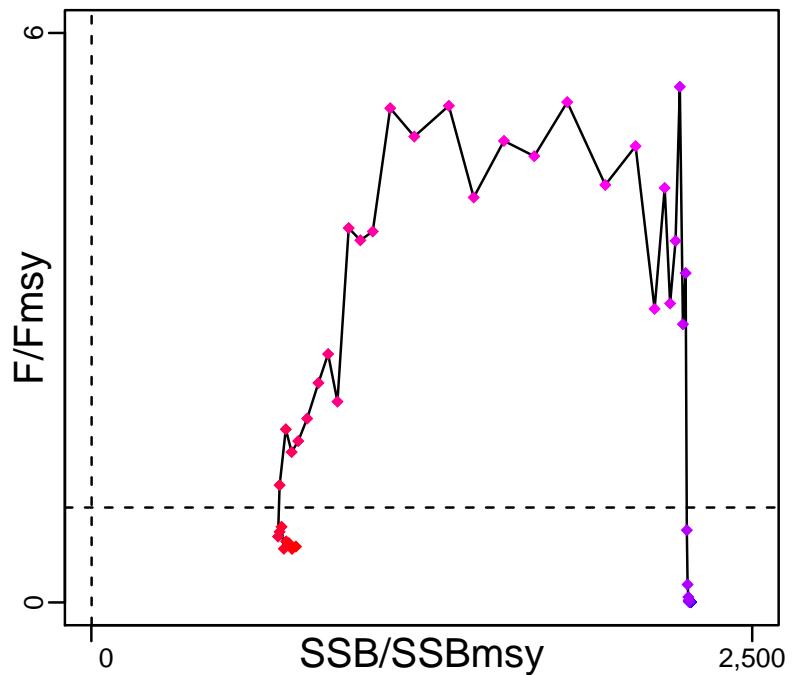
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2015	37,620	-	-	
SSB	SSB-E00	2015	527,000	-	-	
TN	TN-E00	2009	1,540,000	-	-	
R	R-E00	2015	233,000	-	0	
F	F-1/yr	2015	0.041	-	-	
ER	ER-calc-ratio	2015	0.005	-	-	
TC	TC-MT	2015	203			
TL	-	-	-			
TB/TBmsy	TB-MT/TBmsy-est-MT	2015	1.469			
SSB/SSBmsy	SSB-E00/SSBmsy-E00	2015	773.862			
F/Fmsy	F-1/yr/Fmsy-1/yr	2015	0.589			
ER/ERmsy	ER-calc-ratio/ERmsy-est-ratio	2015	0.574			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Sandbar shark Atlantic [SBARSHARATL]

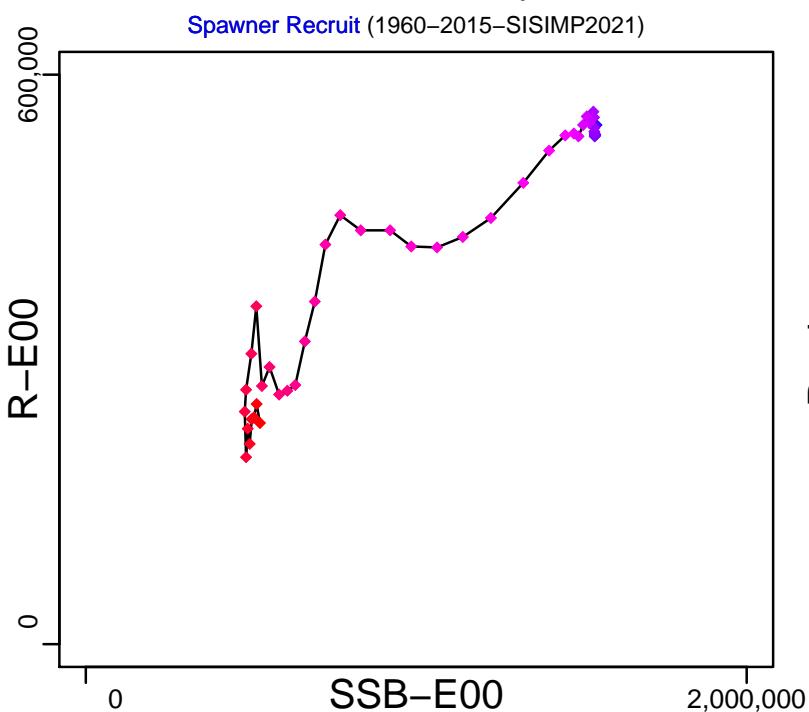
Kobe MSYpref (1960–2015–SISIMP2021)



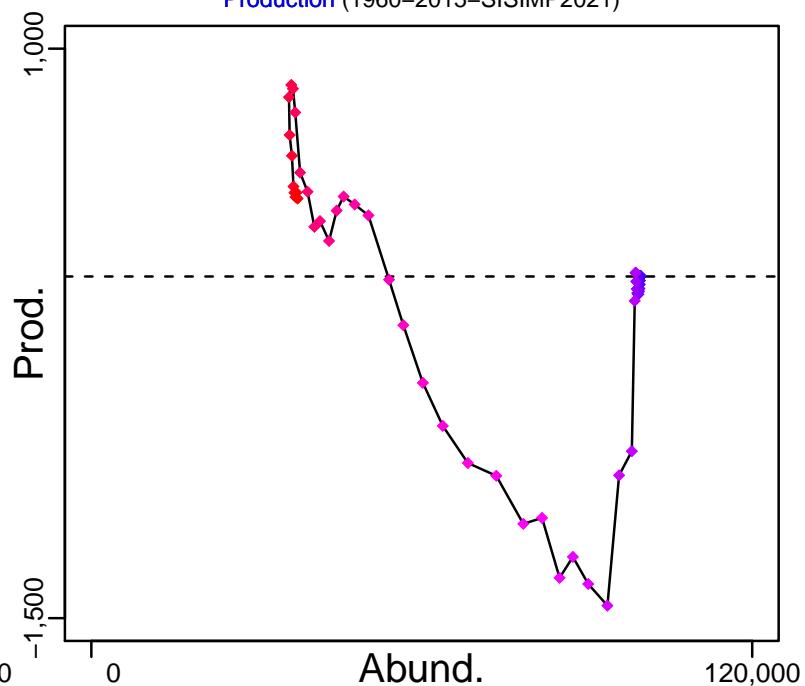
Kobe MGTpref (1960–2015–SISIMP2021)



Spawner Recruit (1960–2015–SISIMP2021)



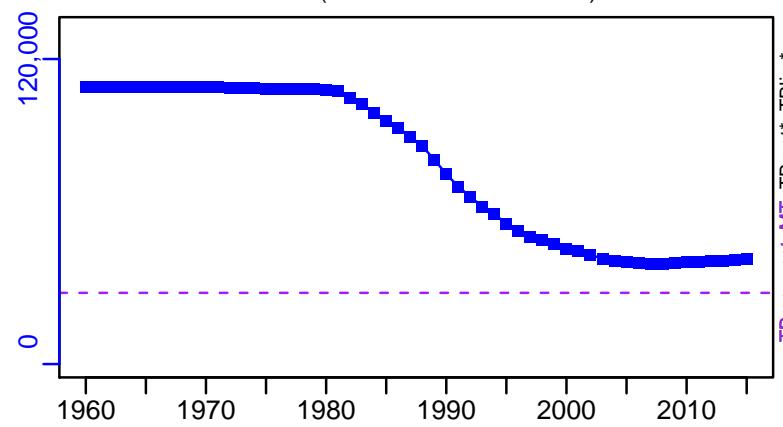
Production (1960–2015–SISIMP2021)



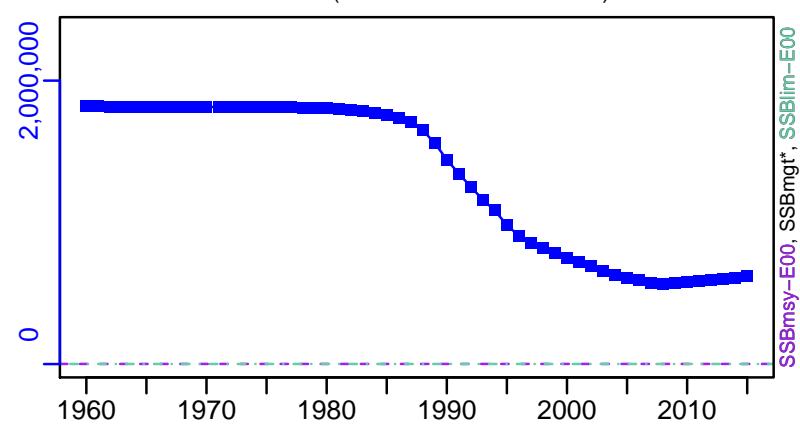
◆ Start Year ◆ End Year * No Data

Sandbar shark Atlantic [SBARSHARATL]

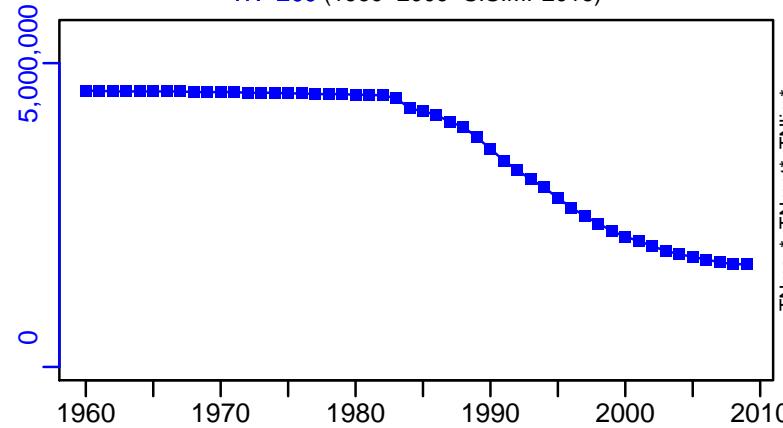
TB-MT (1960–2015–SISIMP2021)



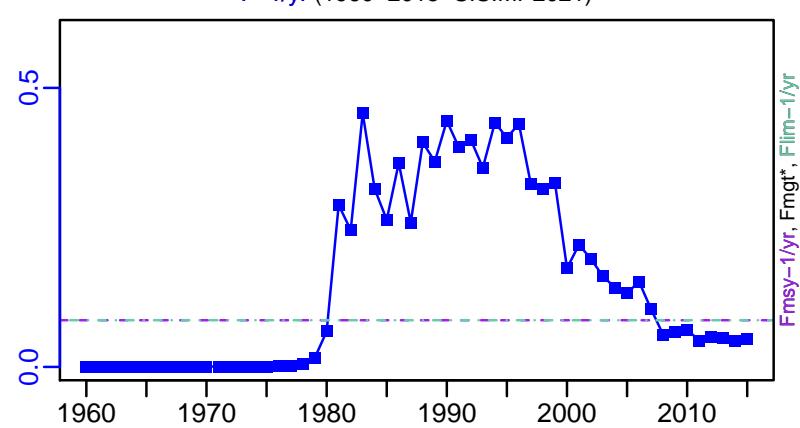
SSB-E00 (1960–2015–SISIMP2021)



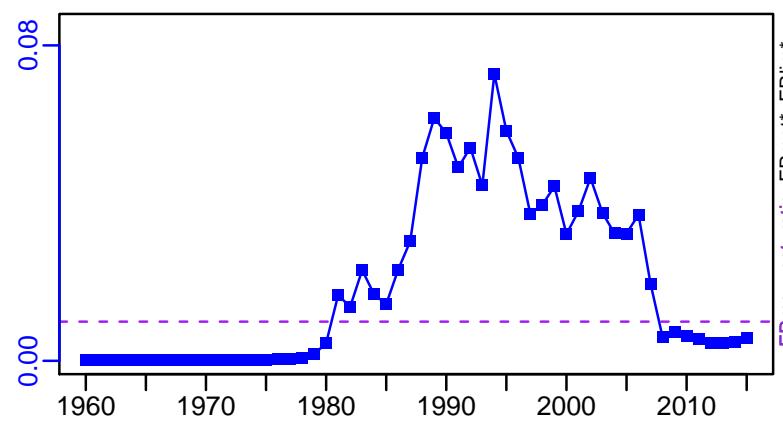
TN-E00 (1960–2009–SISIMP2016)



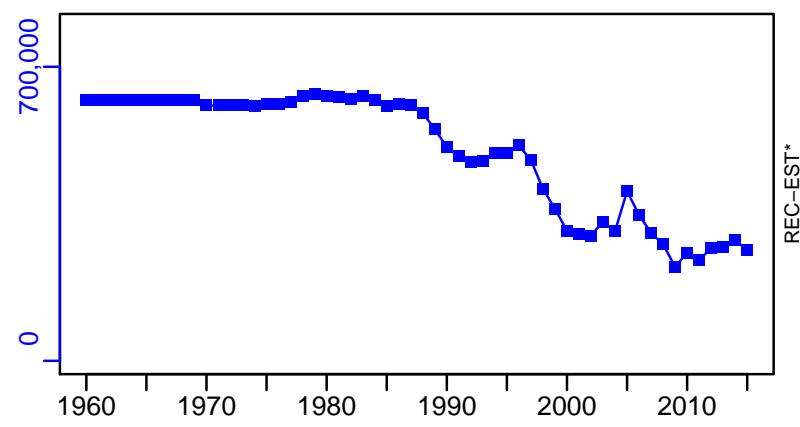
F-1/yr (1960–2015–SISIMP2021)



ER-calc-ratio (1960–2015–SISIMP2021)



R-E00 (1960–2015–SISIMP2021)

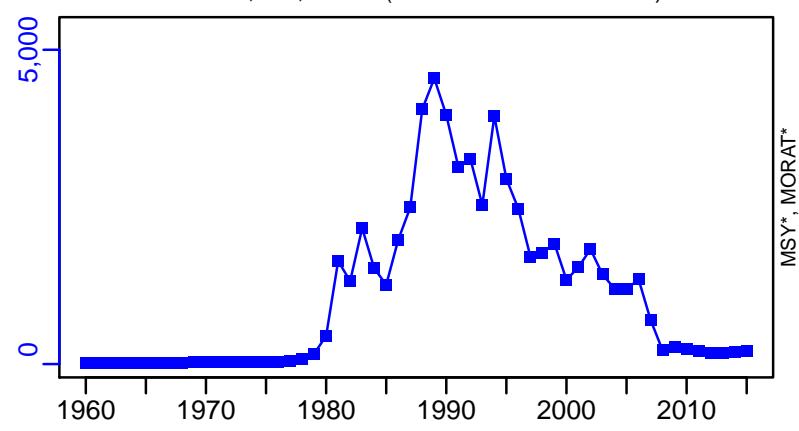


- | | | |
|--|--|---|
| █ Listed time series | — Target BRP | — Rec-Est |
| — MSY-based BRP | — Lim BRP | * No Data |

Sandbar shark Atlantic [SBARSHARATL]

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

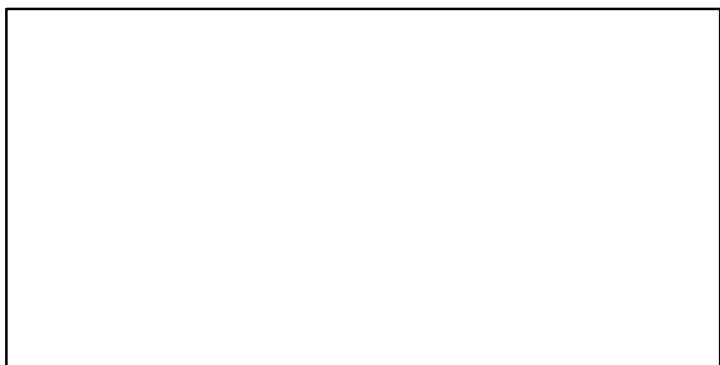
TAC*, Cpair*, Cadv*



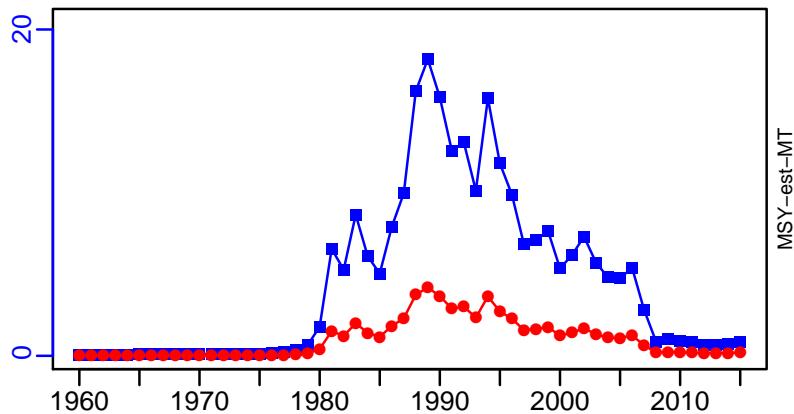
CPUE*



EFFORT*



TC-MT/MSY-est-MT, CdiveMEANC-ratio, (1960–2015–SISIMP2021)



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

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*

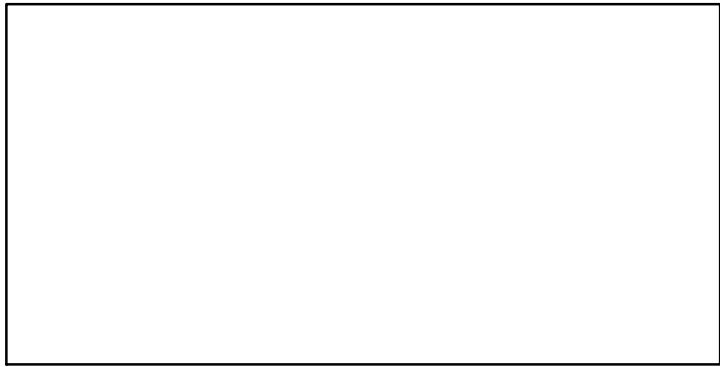
Spawner Recruit*

Production*

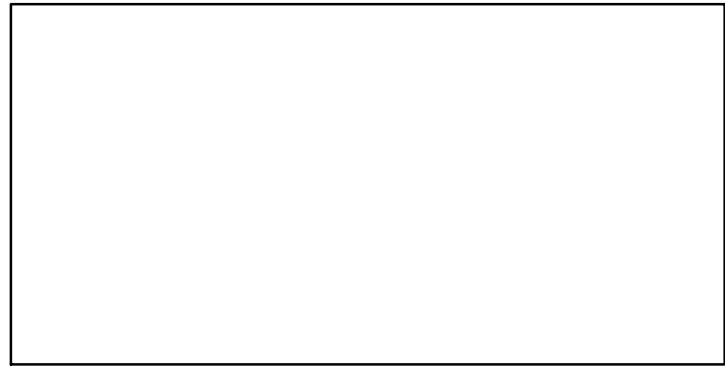
◆ Start Year ♦ End Year * No Data

Silk snapper Caribbean [SKSNAPCARIB]

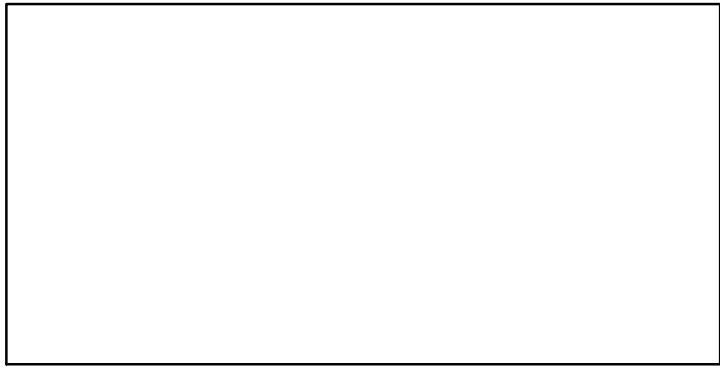
TB*



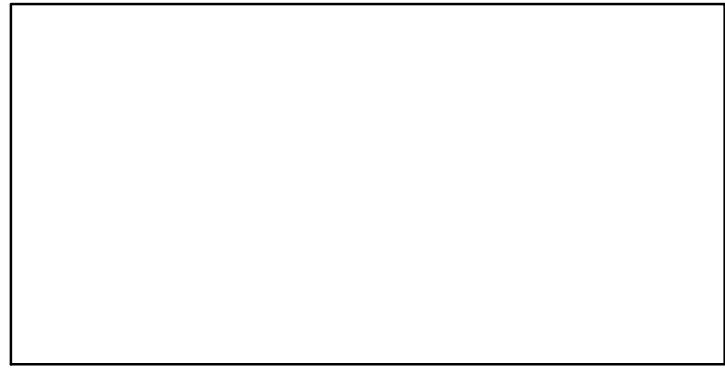
SSB*



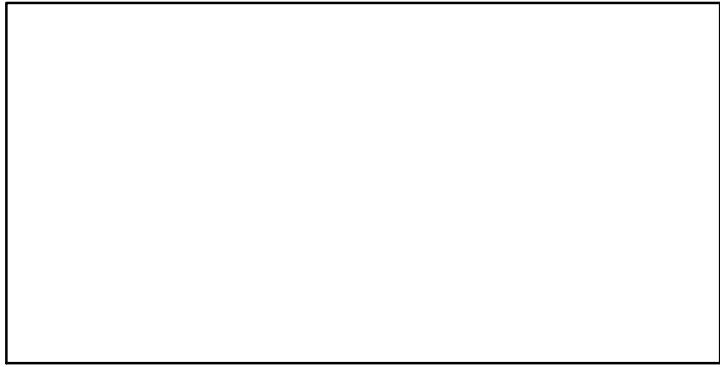
TN *



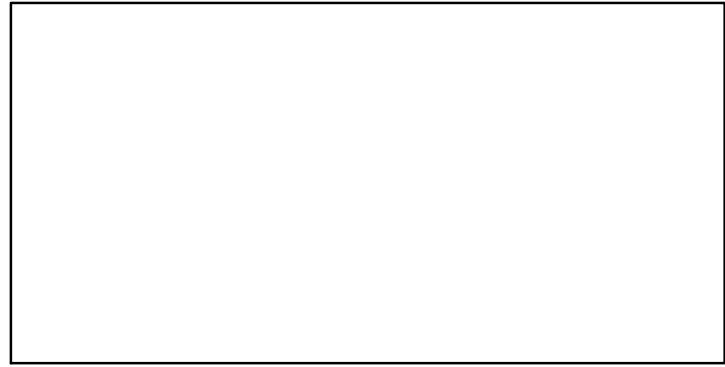
F*



ER*



Recruits*

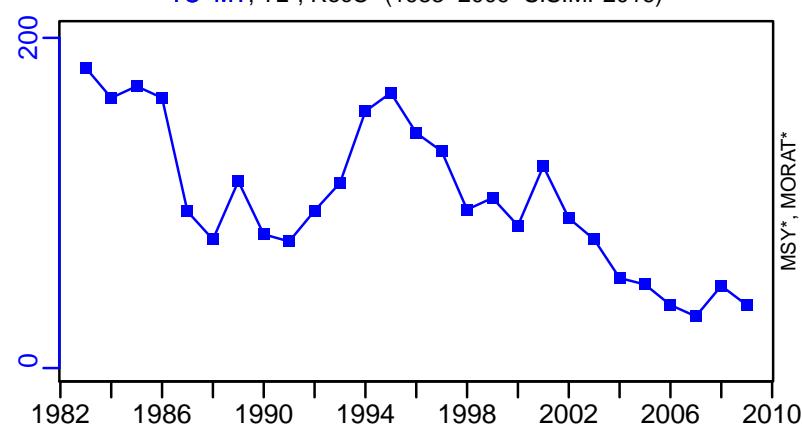


- | | | |
|----------------------|------------------|-----------|
| ■ Listed time series | - - - Target BRP | — Rec-Est |
| - - - MSY-based BRP | - - - Lim BRP | * No Data |

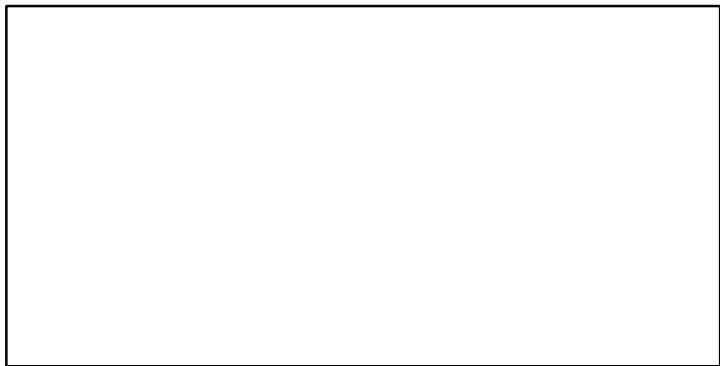
Silk snapper Caribbean [SKSNAPCARIB]

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

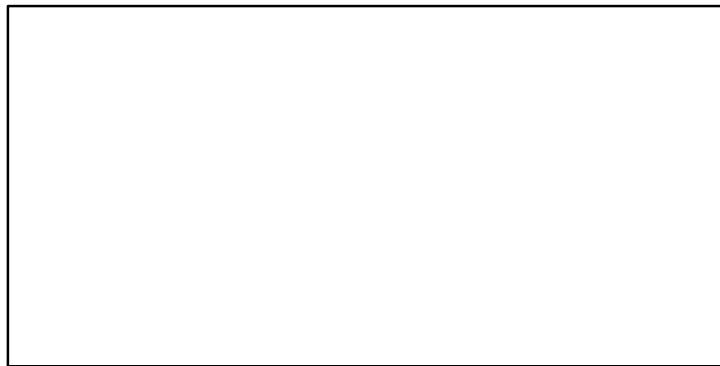
TAC*, Cpair*, Cadv*



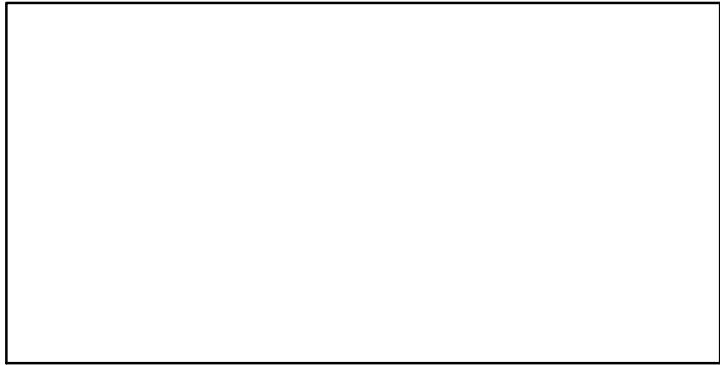
survB*



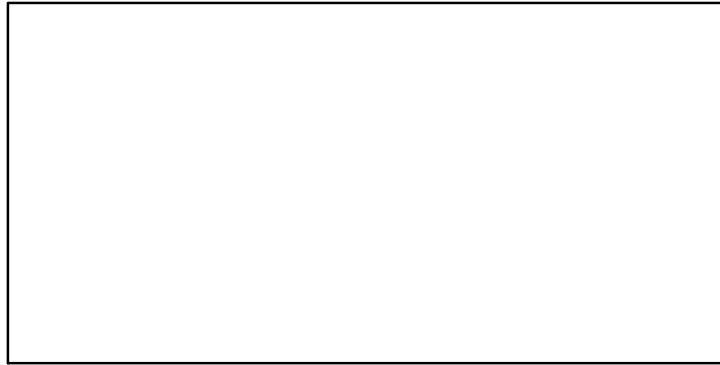
CPUE*



EFFORT*



CdivMSY*



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

Atlantic sharpnose shark Atlantic [SNOSESHARATL]

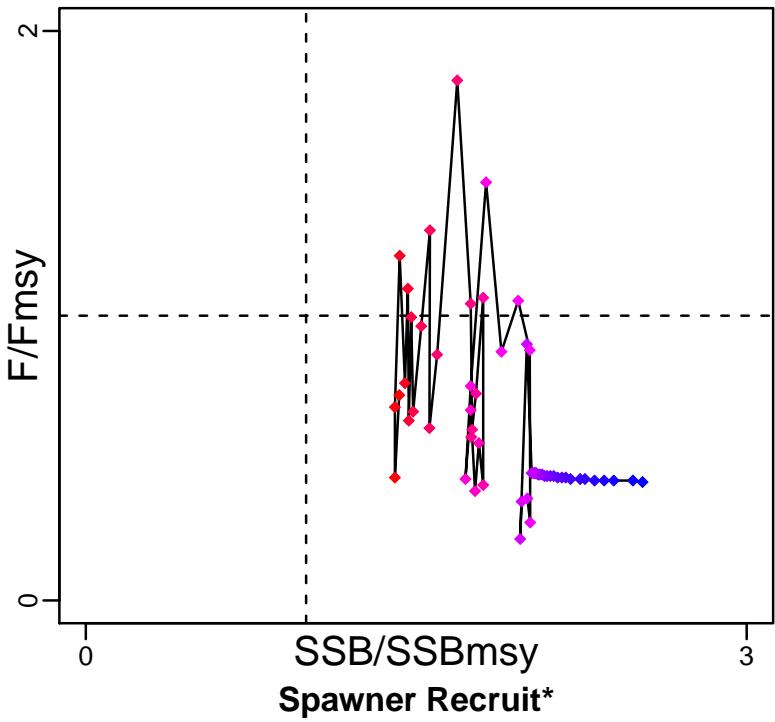
Metadata	
Scientific Name	Rhizoprionodon terraenovae
Current Assess ID	SEFSC-SNOSESHARATL-1950-2005-FAUCONNET
Area	Atlantic
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2005

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	-	-	-

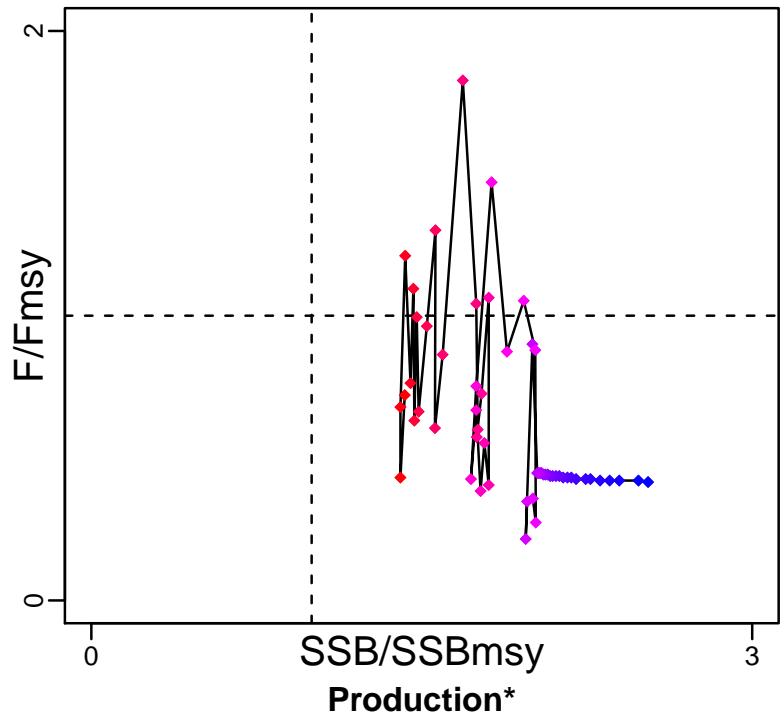
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	-	-	-	-	-	-
SSB	SSF-E00	2005	6,530,000	Females	2.5	
TN	-	-	-	-	-	-
R	-	-	-	-	-	-
F	F-1/yr	2005	0.137	-	-	
ER	-	-	-	-	-	
TC	TC-E00	2005	534,000			
TL	-	-	-			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSF-E00/SSFmsy-E00	2005	1.423			
F/Fmsy	F-1/yr/Fmsy-1/yr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

Atlantic sharpnose shark Atlantic [SNOSESHARATL]

Kobe MSYpref (1950–2005–FAUCONNET)



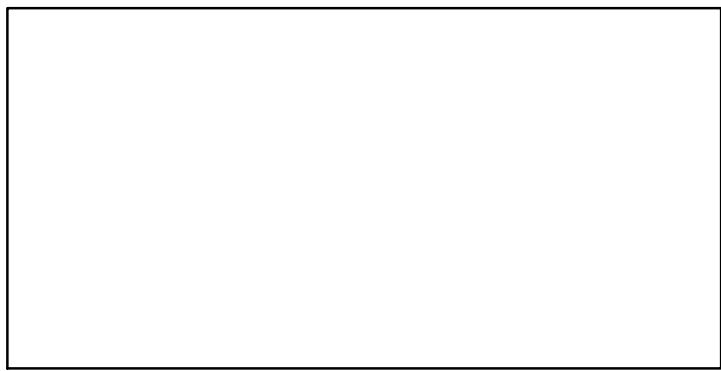
Kobe MGTpref (1950–2005–FAUCONNET)



◆ Start Year	◆ End Year	*	No Data
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Atlantic sharpnose shark Atlantic [SNOSESHARATL]

TB*



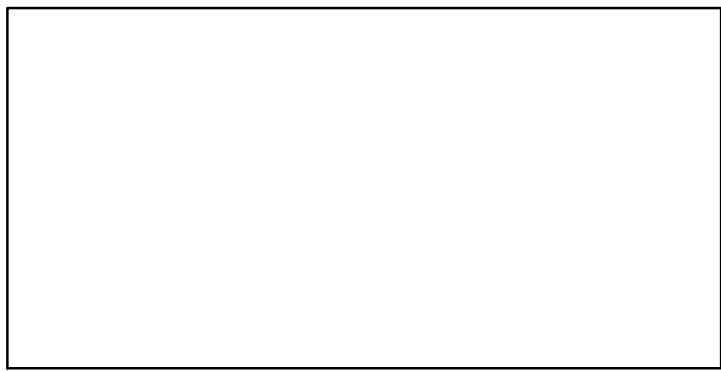
SSF-E00 (1950–2005–FAUCONNET)

14,000,000
0

1950 1960 1970 1980 1990 2000

SSFmsy-E00, SSFBmgt*, SSBlim*

TN *



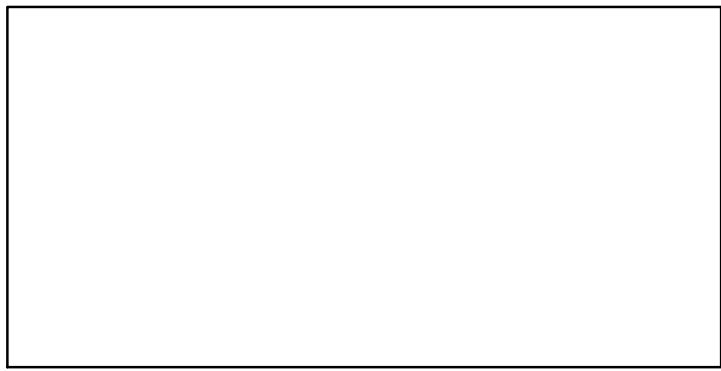
F-1/yr (1950–2005–FAUCONNET)

0.4
0.0

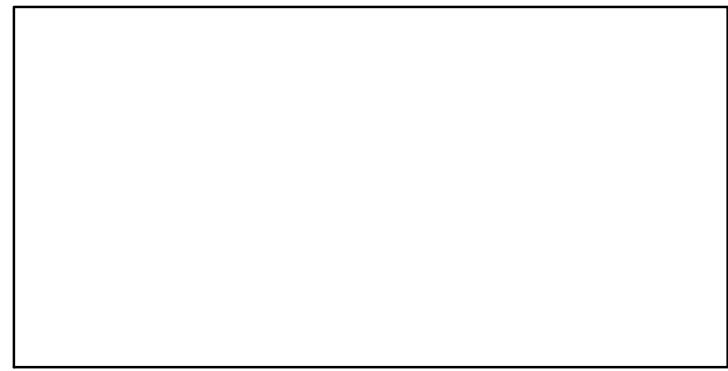
1950 1960 1970 1980 1990 2000

Fmsy-1/yr, Fmgt*, Flim*

ER*



Recruits*

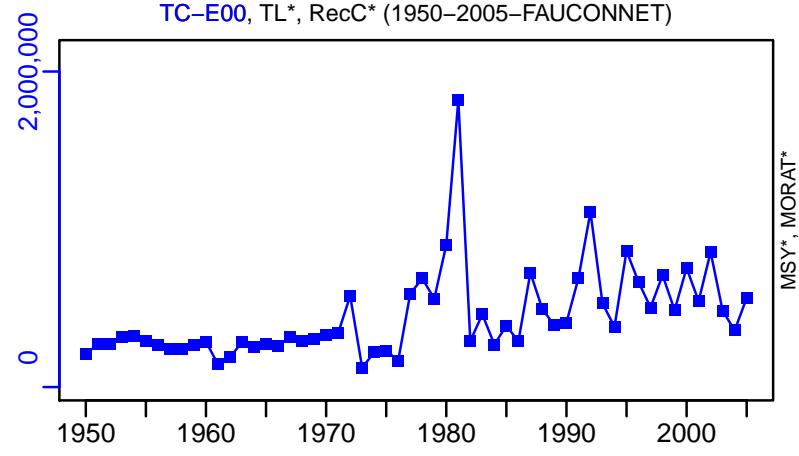


- | | | |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| - - - MSY-based BRP | --- Lim BRP | * No Data |

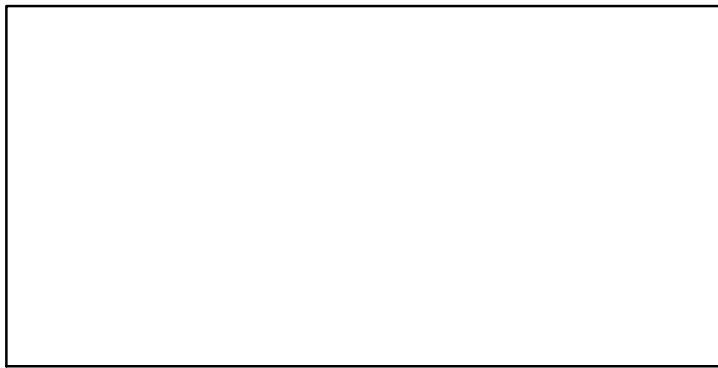
Atlantic sharpnose shark Atlantic [SNOSESHARATL]

TC-E00, TL*, RecC* (1950–2005–FAUCONNET)

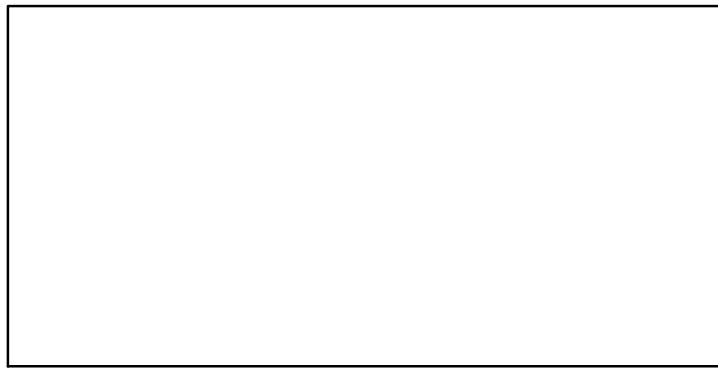
TAC*, Cpair*, Cadv*



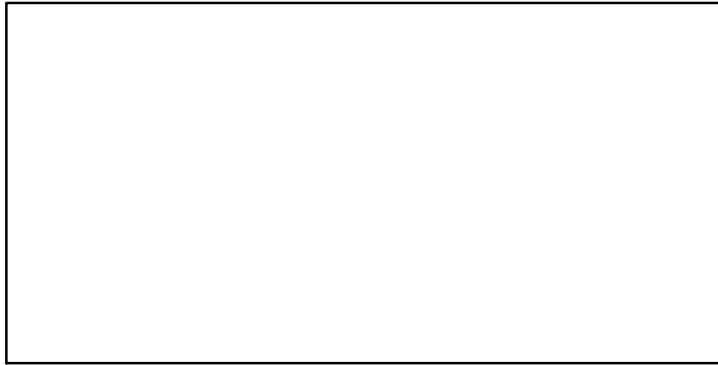
survB*



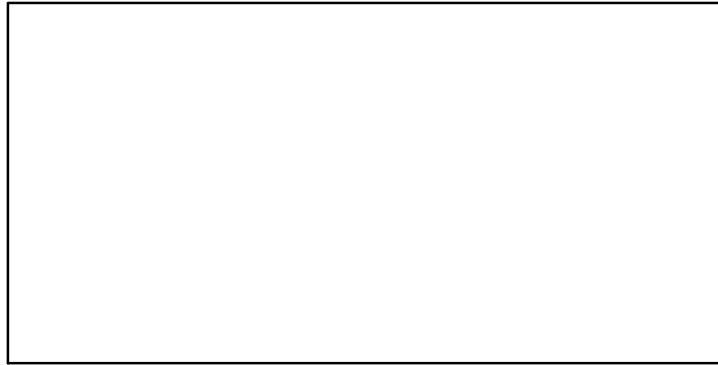
CPUE*



EFFORT*



CdivMSY*



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

Snowy grouper Southern Atlantic coast [SNOWGROUPSATLC]

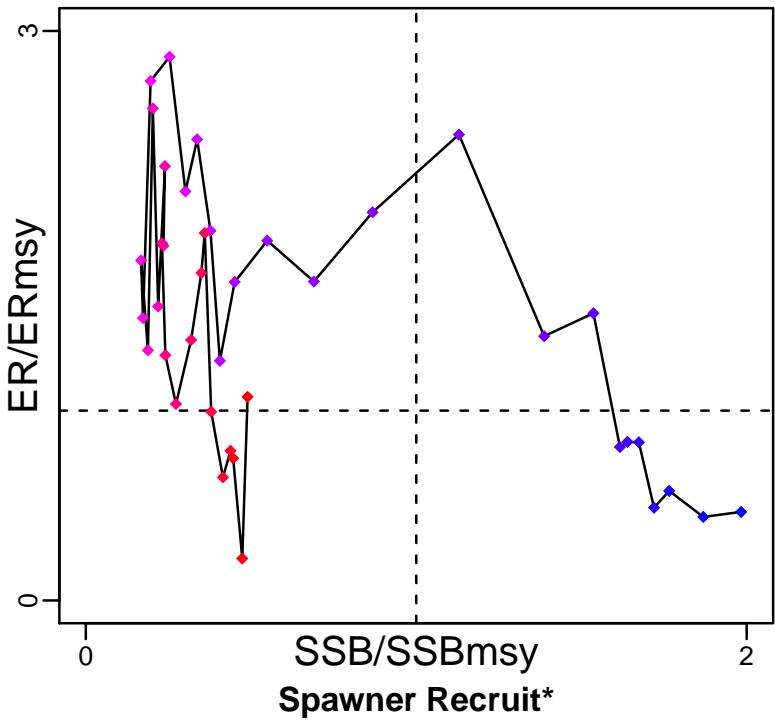
Metadata	
Scientific Name	Epinephelus niveatus
Current Assess ID	SEFSC-SNOWGROUPSATLC-1974-2013-HIVELY
Area	Southern Atlantic coast
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2013

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2013	2092
SSBmsy	SSBmsy-MT	2013	872
Fmsy	Fmsy-1/yr	2013	0.14
ERmsy	ERmsy-calc-ratio	2013	0.091
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2013	190
M	M-1/yr	2013	0.15
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

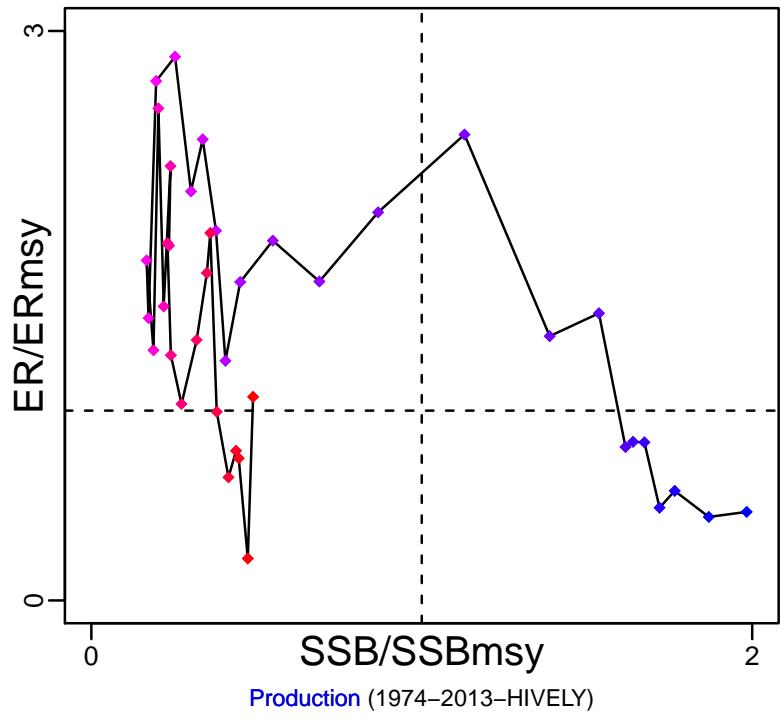
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2013	1200	-	-	
SSB	SSB-MT	2013	427	Both	-	
TN	-	-	-	-	-	
R	-	-	-	-	-	
F	F-1/yr	2013	0.18	-	-	
ER	ER-calc-ratio	2013	0.097	-	-	
TC	-	-	-			
TL	TL-MT	2013	110			
TB/TBmsy	TB-MT/TBmsy-MT	2013	0.574			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013	0.49			
F/Fmsy	F-1/yr/Fmsy-1/yr	2013	1.286			
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 (1974–2013–HIVELY)

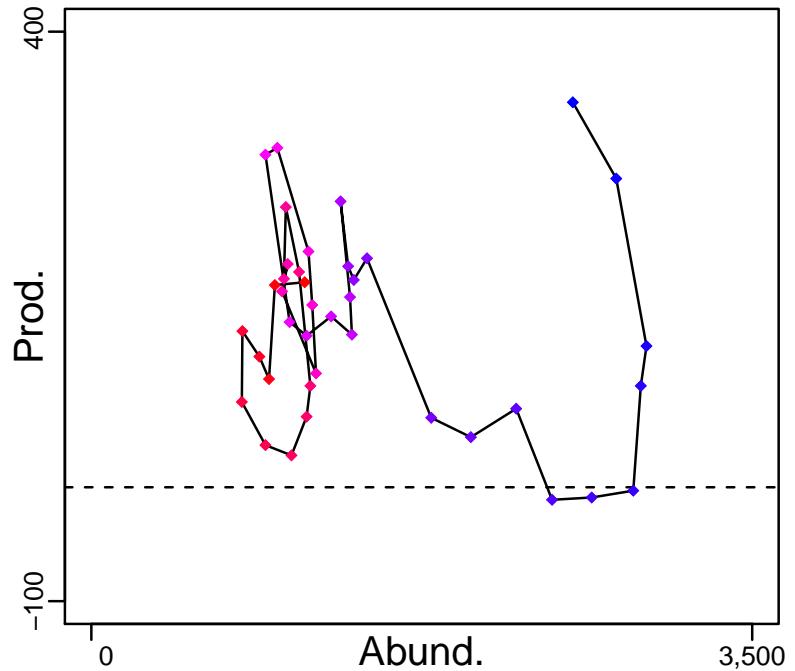


Kobe MGTPref (1974–2013–HIVELY)



Spawner Recruit*

Production (1974–2013–HIVELY)

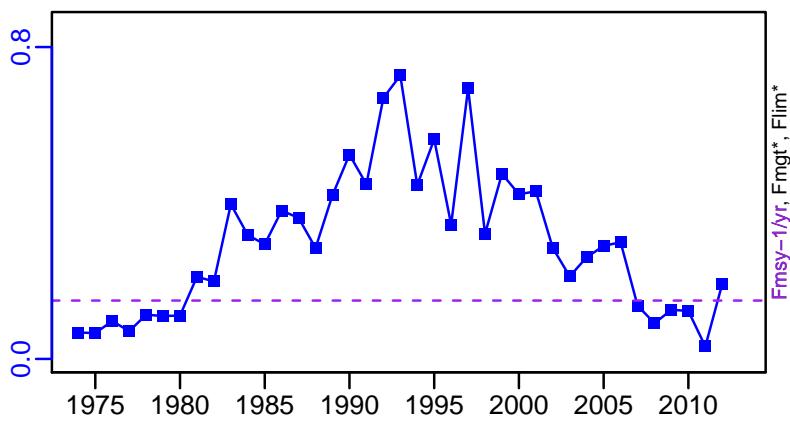
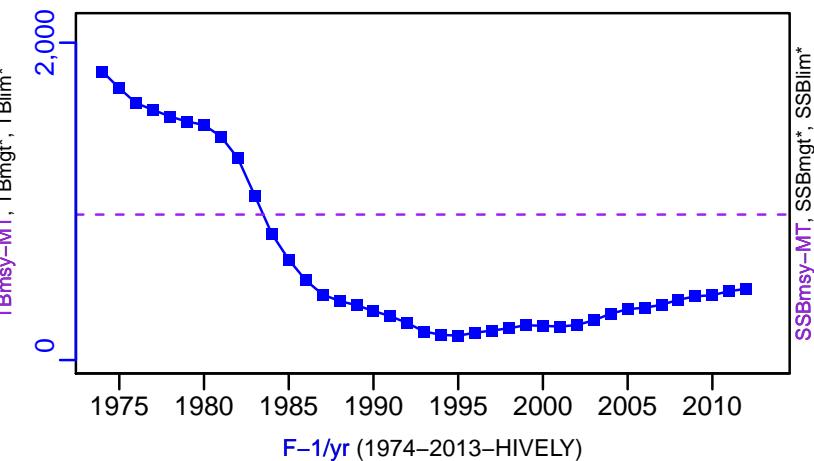
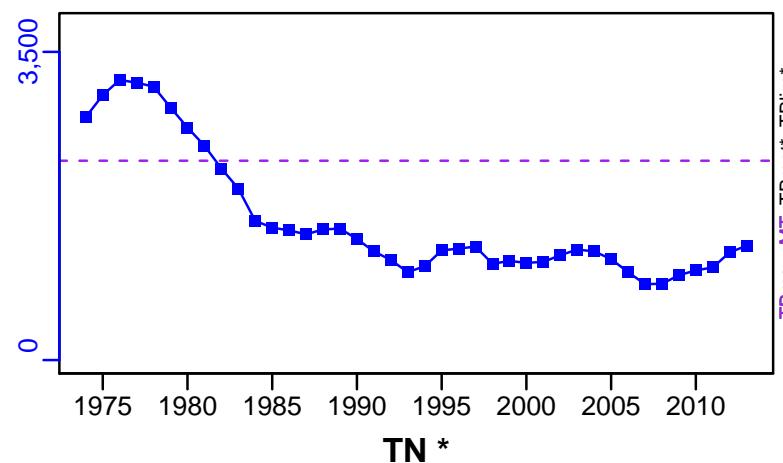


◆ Start Year ◆ End Year * No Data

Snowy grouper Southern Atlantic coast [SNOWGROUPSATLC]

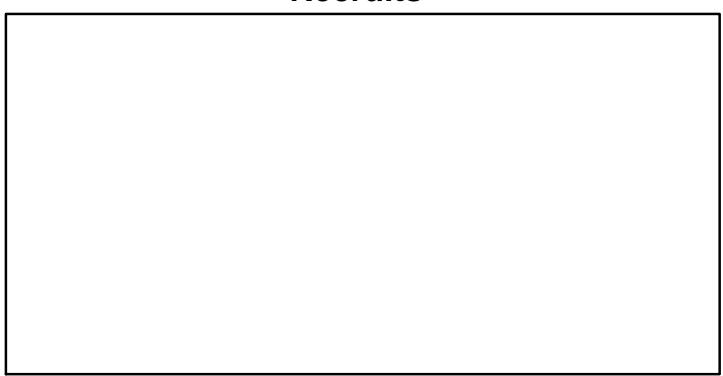
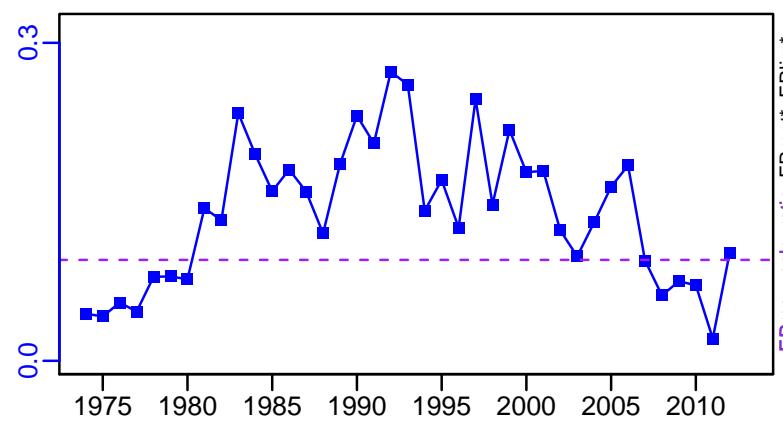
TB-MT (1974–2013-HIVELY)

SSB-MT (1974–2013-HIVELY)



ER-calc-ratio (1974–2013-HIVELY)

Recruits*

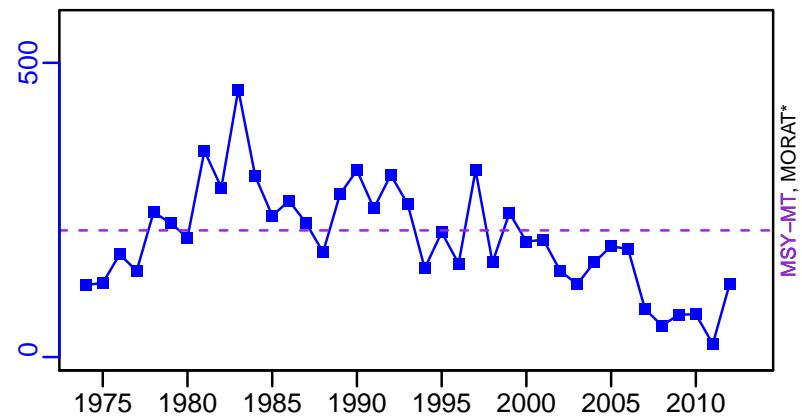


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - Lim BRP	* No Data

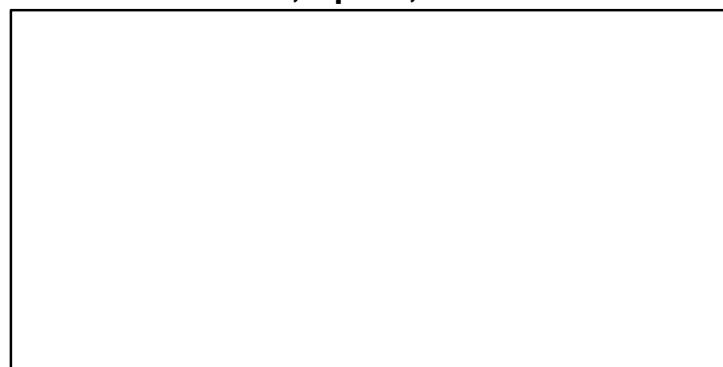
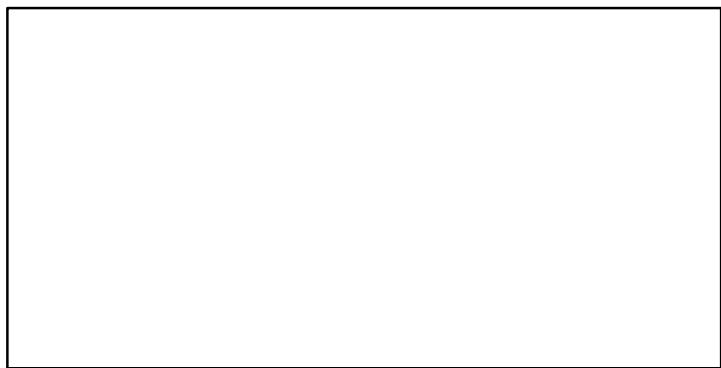
Snowy grouper Southern Atlantic coast [SNOWGROUPSATLC]

TL-MT, TC*, RecC* (1974–2013-HIVELY)

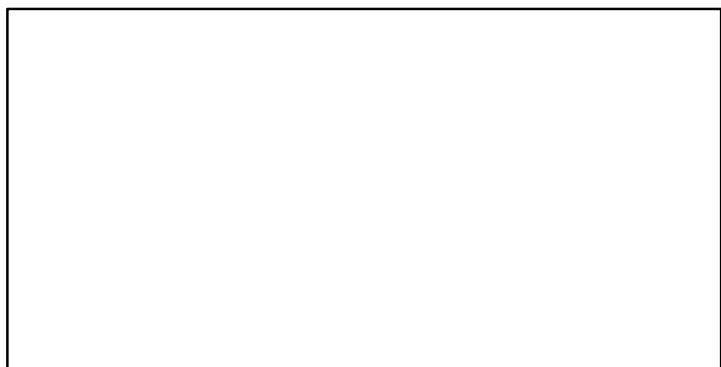
TAC*, Cpair*, Cadv*



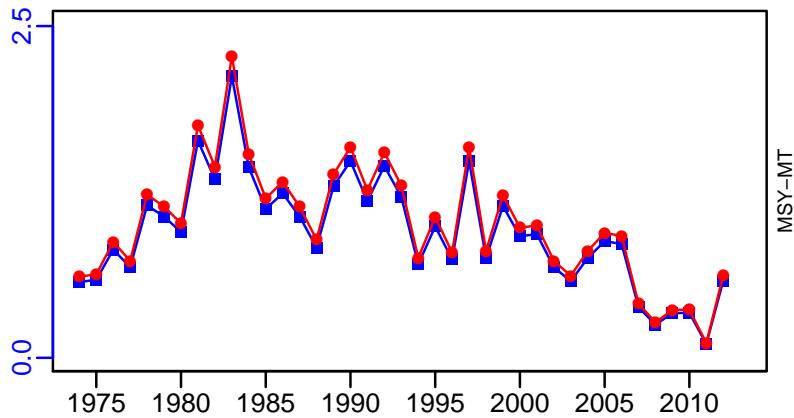
CPUE*



EFFORT*



TL-MT/MSY-MT, CdivMEANC-ratio, (1974–2013-HIVELY)



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

Spanish mackerel Gulf of Mexico [SPANMACKGM]

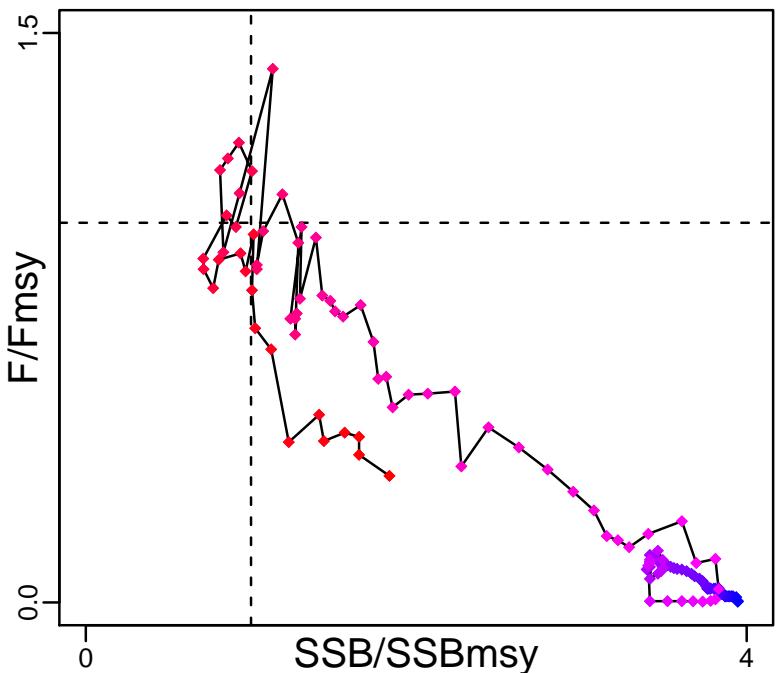
Metadata	
Scientific Name	Scomberomorus maculatus
Current Assess ID	SEFSC-SPANMACKGM-1886-2011-HIVELY
Area	Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2011

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-pr-MT	2011	10,339
Fmsy	Fmsy-pr-1/yr	2011	0.36
ERmsy	ERmsy-est-ratio	2011	0.065
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-est-MT	2011	1462
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

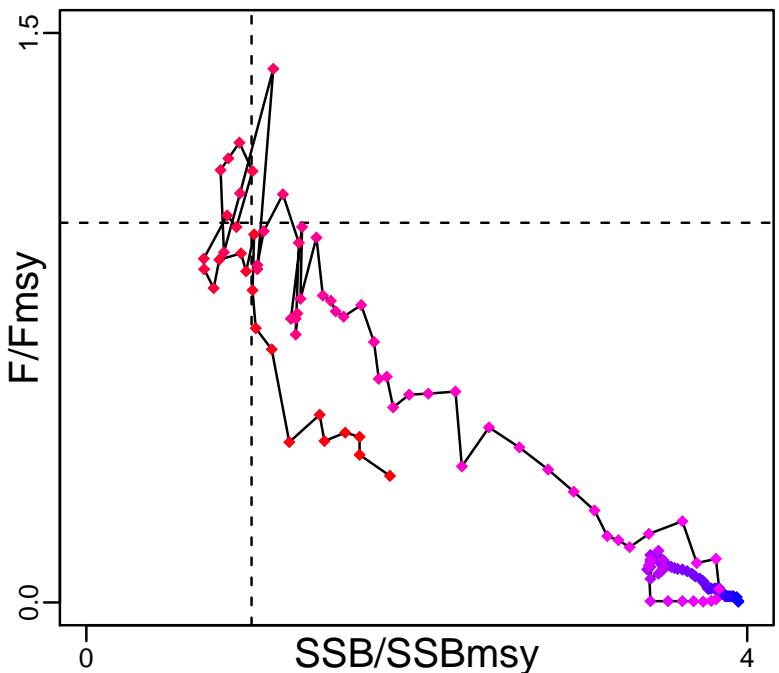
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2011	28,400	-	-	
SSB	SSB-MT	2011	19,000	-	0.2+	
TN	-	-	-	-	-	
R	R-E00	2011	31,500,000	-	-	
F	F-1/yr	2011	0.12	-	-	
ER	ER-calc-ratio	2011	0.023	-	-	
TC	-	-	-			
TL	TL-MT	2011	567			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/SSBmsy-pr-MT	2011	1.838			
F/Fmsy	F-1/yr/Fmsy-pr-1/yr	2011	0.333			
ER/ERmsy	ER-calc-ratio/ERmsy-est-ratio	2011	0.349			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Spanish mackerel Gulf of Mexico [SPANMACKGM]

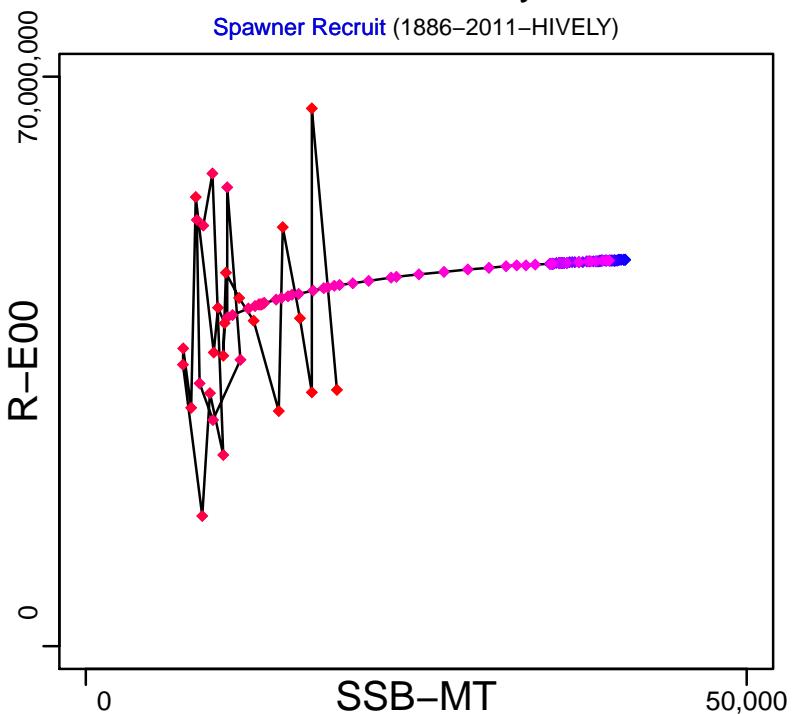
Kobe MSYpref (1886–2011–HIVELY)



Kobe MGTPref (1886–2011–HIVELY)



Spawner Recruit (1886–2011–HIVELY)



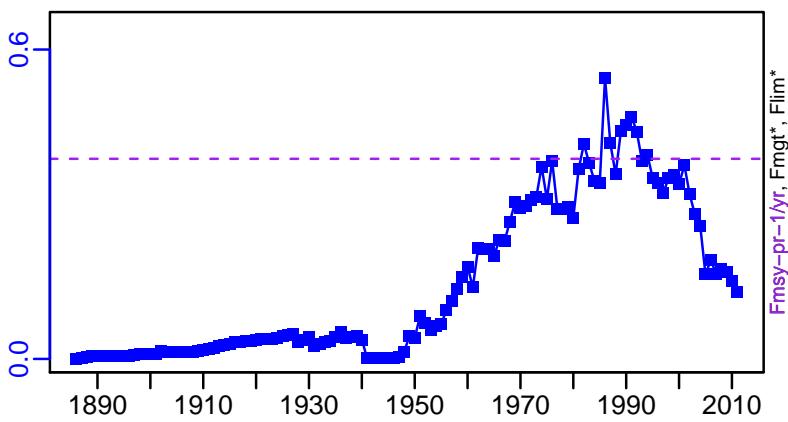
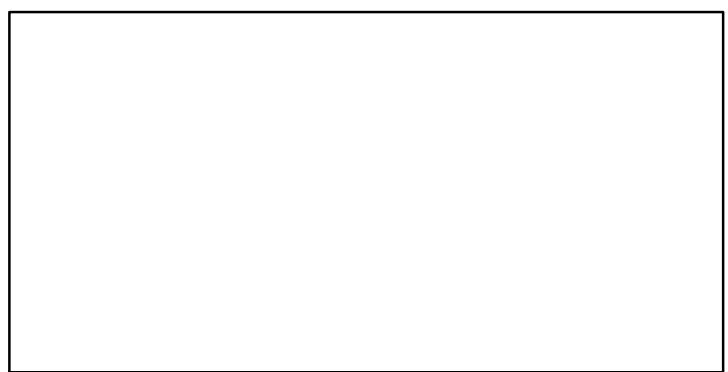
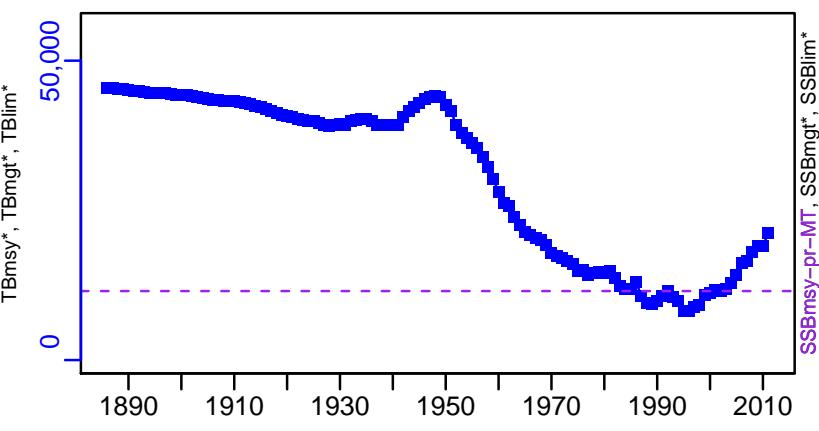
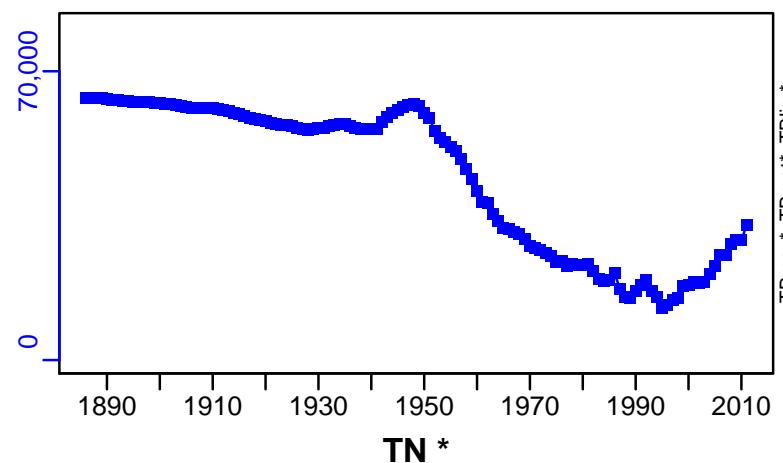
Production*

◆ Start Year ♦ End Year * No Data

Spanish mackerel Gulf of Mexico [SPANMACKGM]

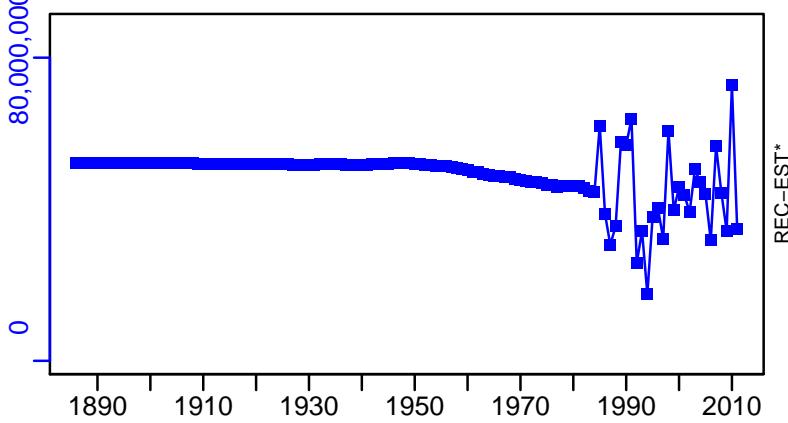
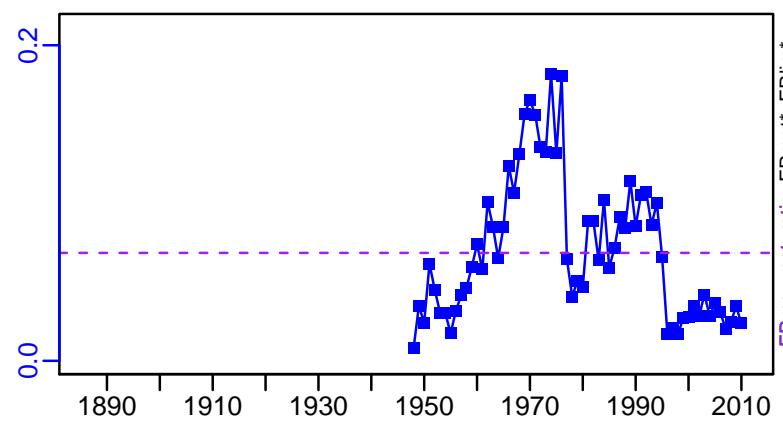
TB-MT (1886–2011–HIVELY)

SSB-MT (1886–2011–HIVELY)



ER-calc-ratio (1886–2011–HIVELY)

R-E00 (1886–2011–HIVELY)

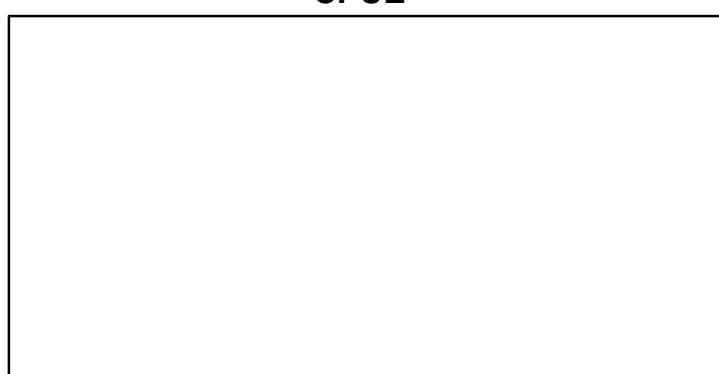
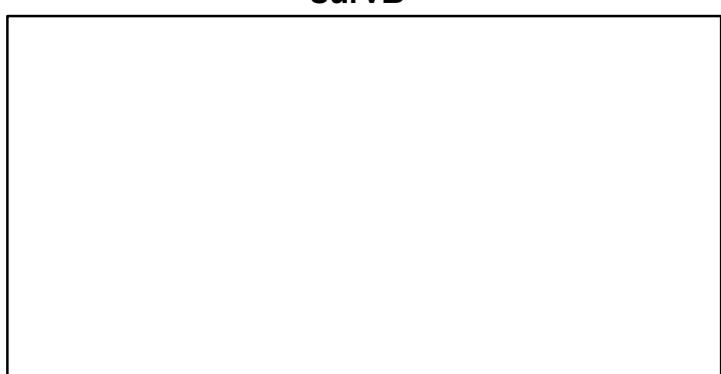
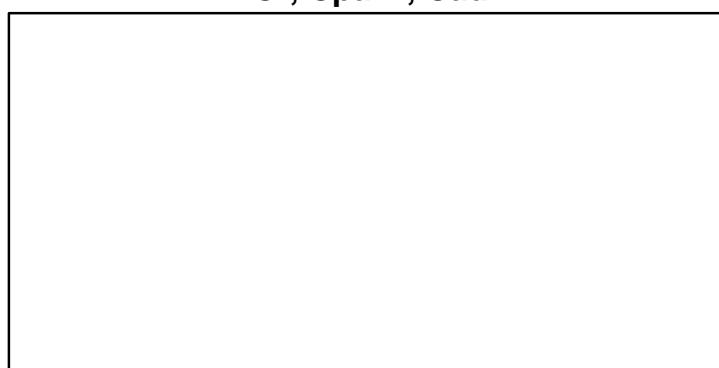
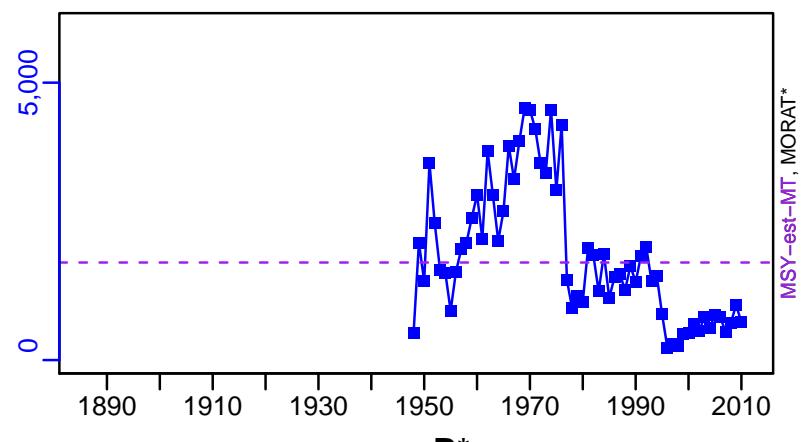


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - Lim BRP	* No Data

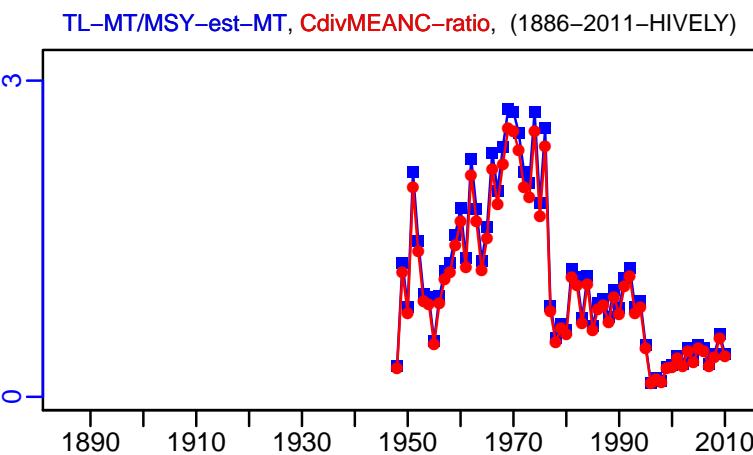
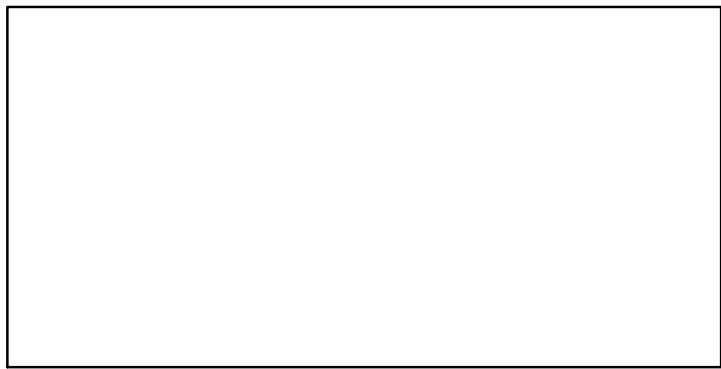
Spanish mackerel Gulf of Mexico [SPANMACKGM]

TL-MT, TC*, RecC* (1886–2011-HIVELY)

TAC*, Cpair*, Cadv*



EFFORT*



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

Spanish mackerel Southern Atlantic coast [SPANMACKSATLC]

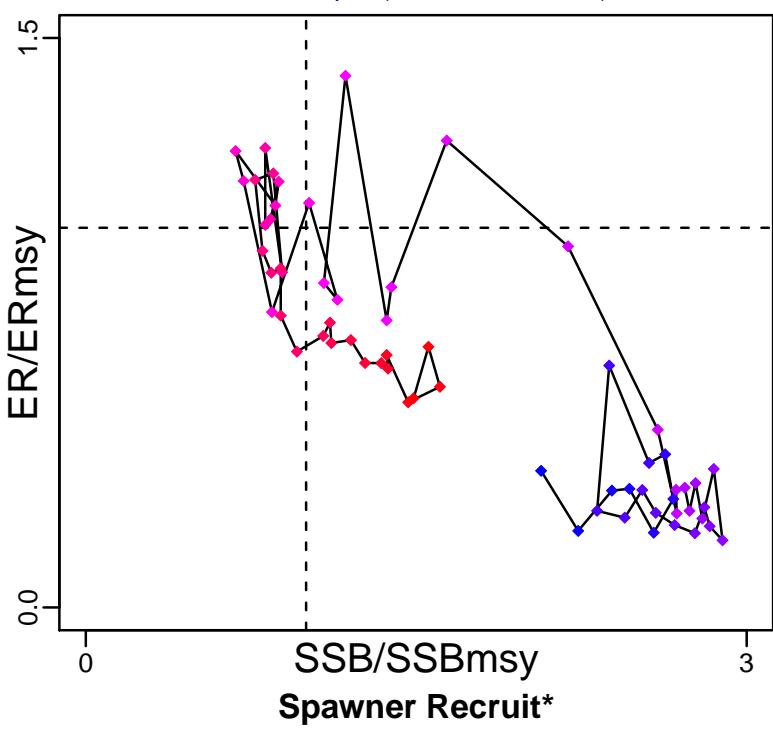
Metadata	
Scientific Name	Scomberomorus maculatus
Current Assess ID	SEFSC-SPANMACKSATLC-1950-2012-HIVELY
Area	Southern Atlantic coast
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2012

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	0.518
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2012	2750
M	M-1/yr	2012	0.35
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

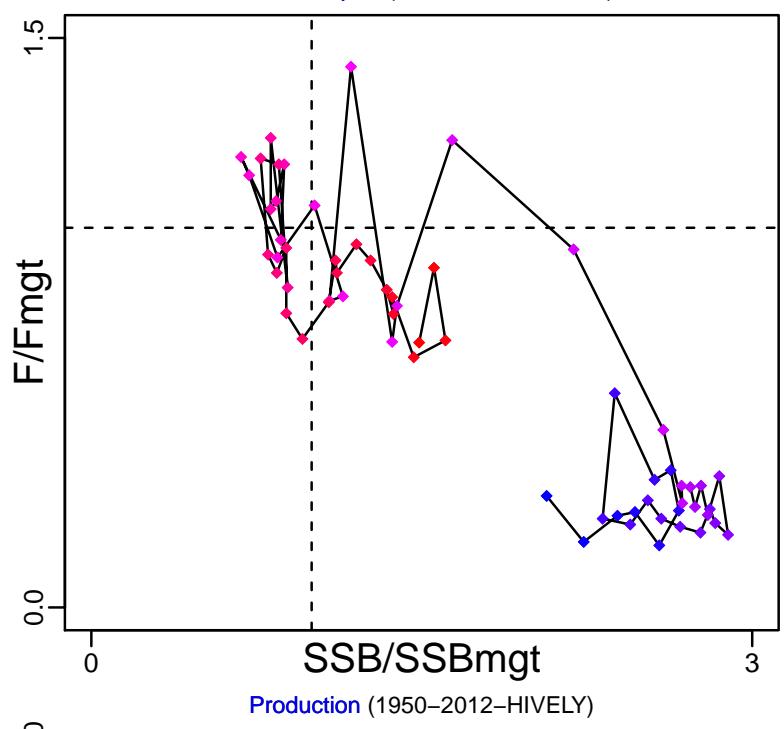
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2012	11,400	-	-	
SSB	SSB-MT	2012	4860	Females	0.7+	
TN	-	-	-	-	-	
R	-	-	-	-	-	
F	F-1/yr	2012	0.361	-	-	
ER	ER-calc-ratio	2012	0.159	-	-	
TC	-	-	-			
TL	TL-MT	2012	1920			
TB/TBmsy	TB-MT/TBmsy-MT	2012	1.194			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	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]

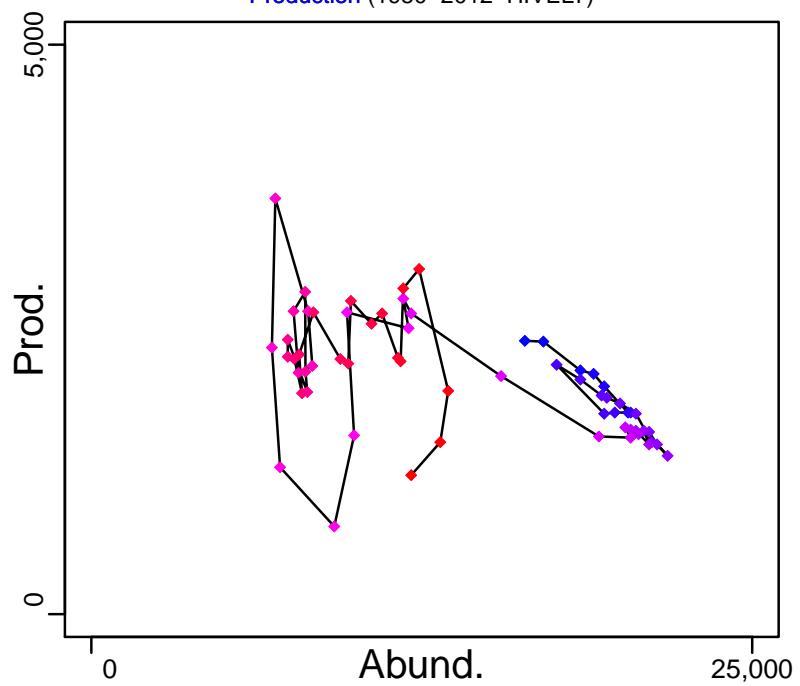
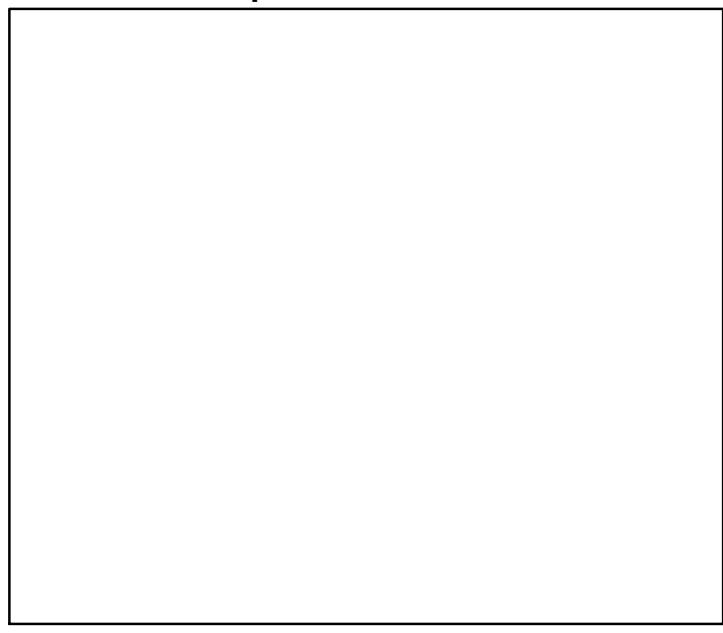
Kobe MSYpref (1950–2012–HIVELY)



Kobe MGTPref (1950–2012–HIVELY)



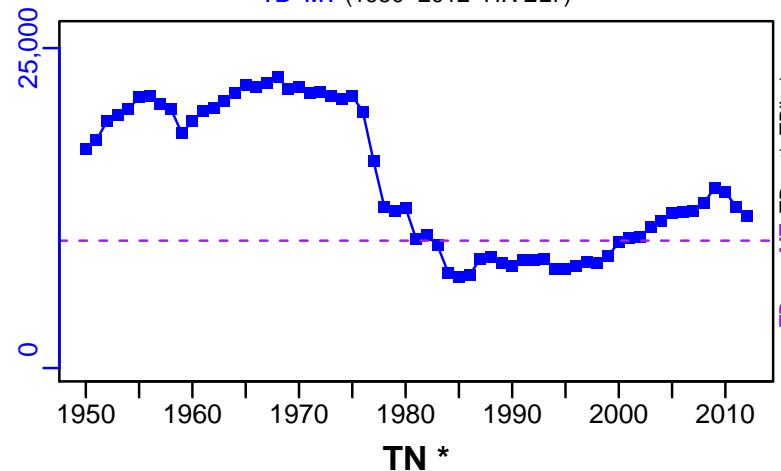
Production (1950–2012–HIVELY)



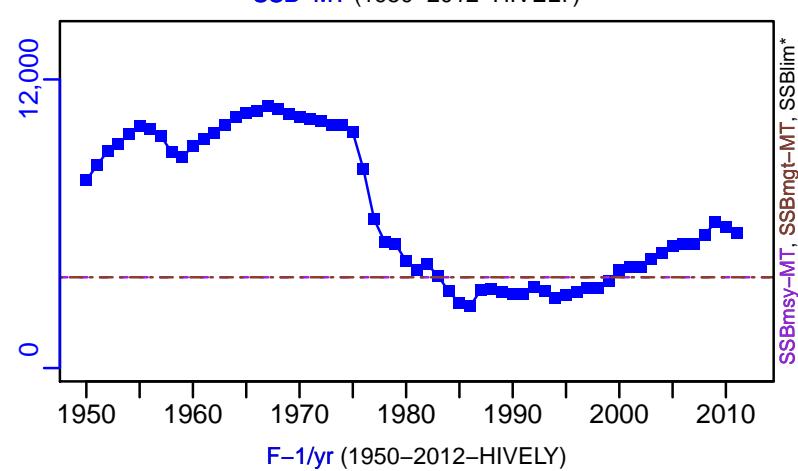
◆ Start Year ◆ End Year * No Data

Spanish mackerel Southern Atlantic coast [SPANMACKSATLC]

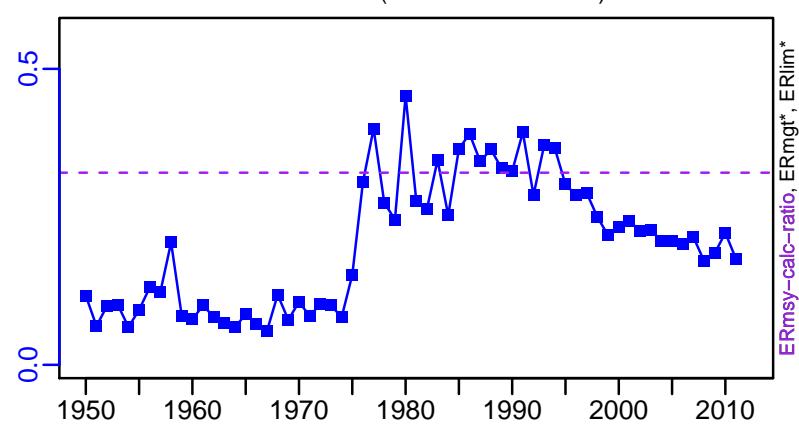
TB-MT (1950–2012-HIVELY)



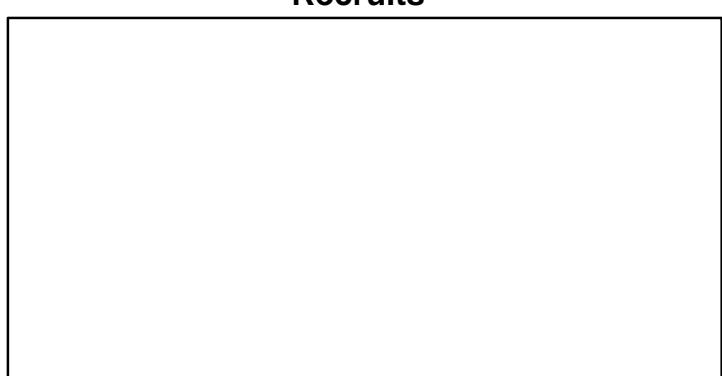
SSB-MT (1950–2012-HIVELY)



ER-calc-ratio (1950–2012-HIVELY)



Recruits*

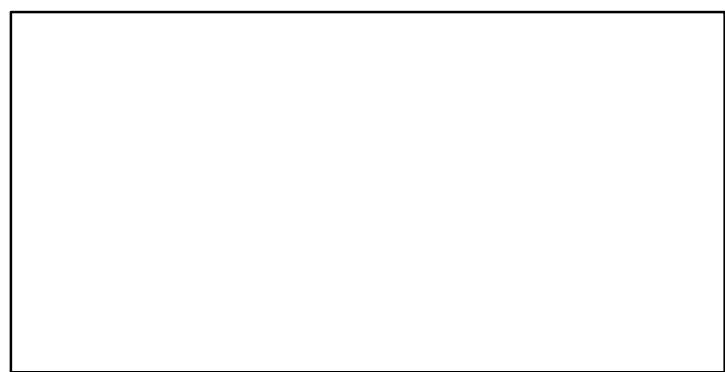
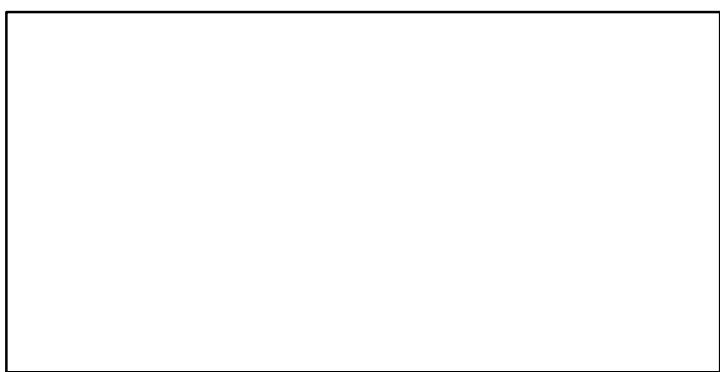
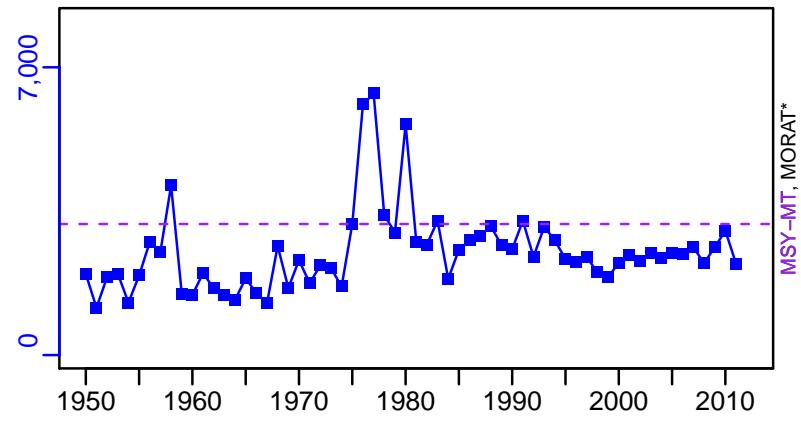


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - Lim BRP	* No Data

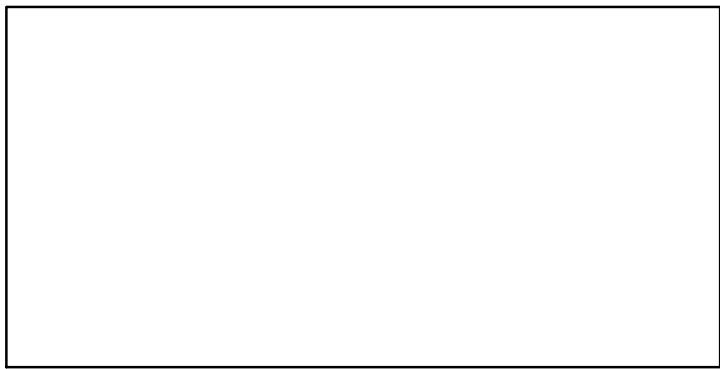
Spanish mackerel Southern Atlantic coast [SPANMACKSATLC]

TL-MT, TC*, RecC* (1950–2012–HIVELY)

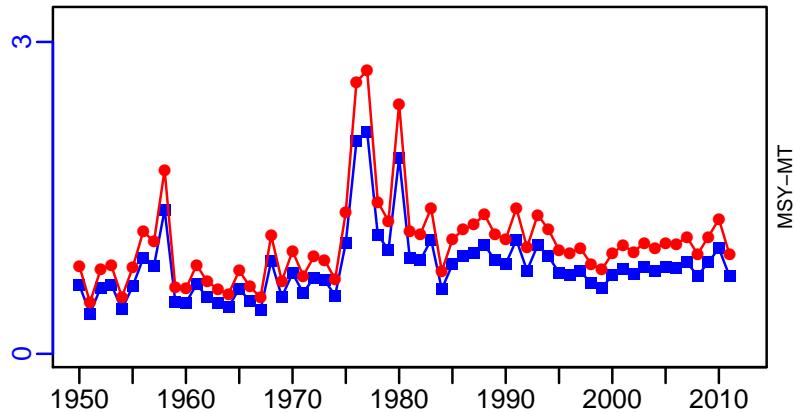
TAC*, Cpair*, Cadv*



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

Tilefish Gulf of Mexico [TILEGM]

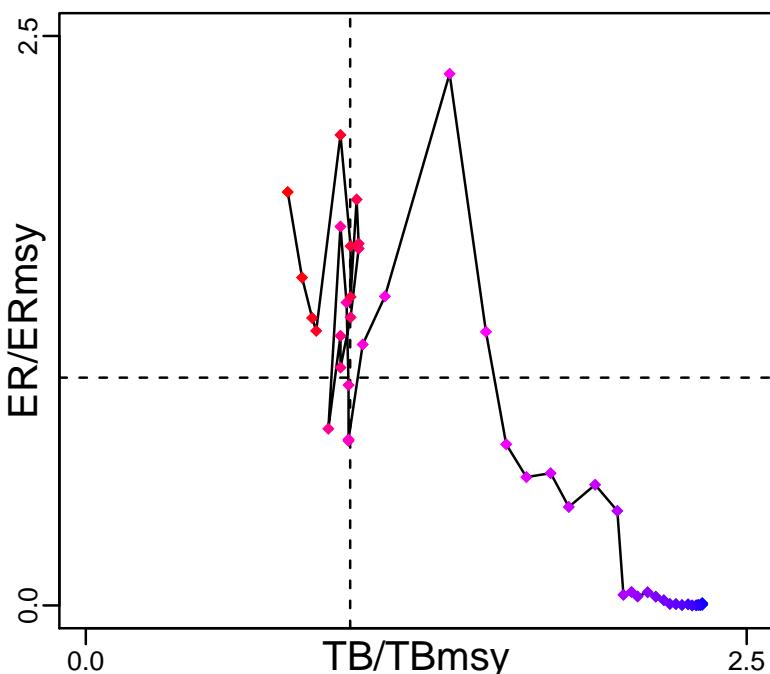
Metadata	
Scientific Name	Lopholatilus chamaeleonticeps
Current Assess ID	SEFSC-TILEGM-1965-2009-HIVELY
Area	Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2009

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-est-MT	2009	1308
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	ERmsy-est-ratio	2009	0.103
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-est-MT	2009	134
M	M-1/yr	2009	0.13
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

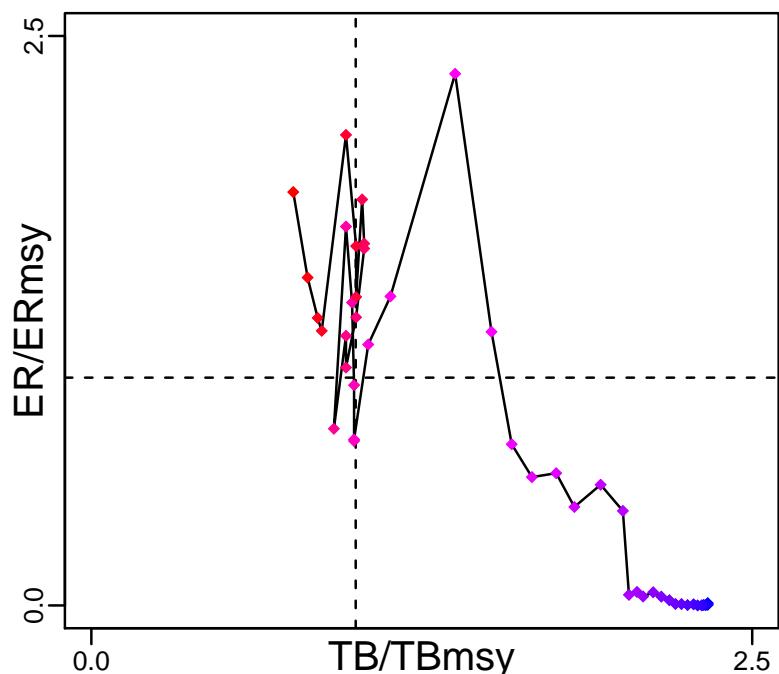
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2009	999	-	-	
SSB	SSB-FemaleGonadMT	2009	17	Females	2+	
TN	-	-	-	-	-	
R	R-E00	2009	204,000	-	-	
F	F-1/yr	2009	0.17	-	-	
ER	ER-calc-ratio	2009	0.186	-	-	
TC	-	-	-			
TL	TL-MT	2009	186			
TB/TBmsy	TB-MT/TBmsy-est-MT	2009	0.764			
SSB/SSBmsy	-	-	-			
F/Fmsy	-	-	-			
ER/ERmsy	ER-calc-ratio/ERmsy-est-ratio	2009	1.815			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Tilefish Gulf of Mexico [TILEGM]

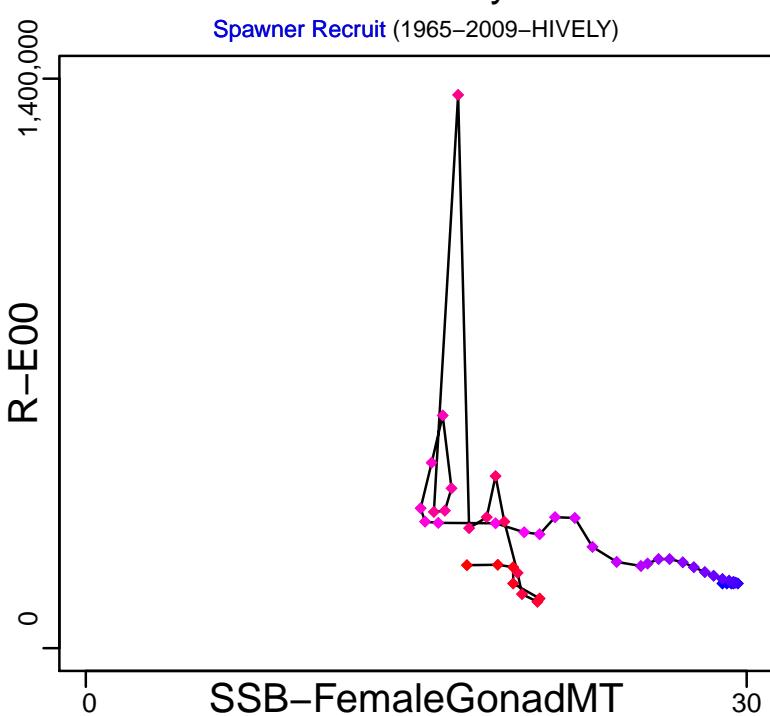
Kobe MSYpref (1965–2009–HIVELY)



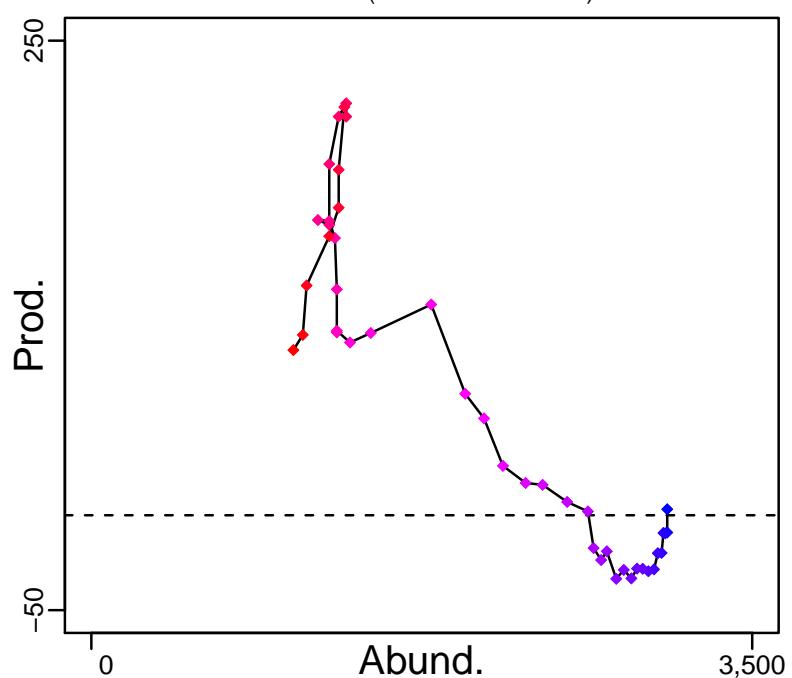
Kobe MGTPref (1965–2009–HIVELY)



Spawner Recruit (1965–2009–HIVELY)



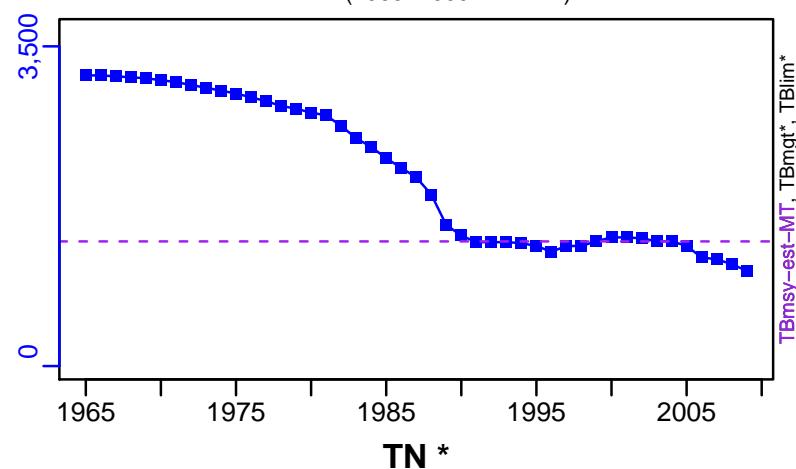
Production (1965–2009–HIVELY)



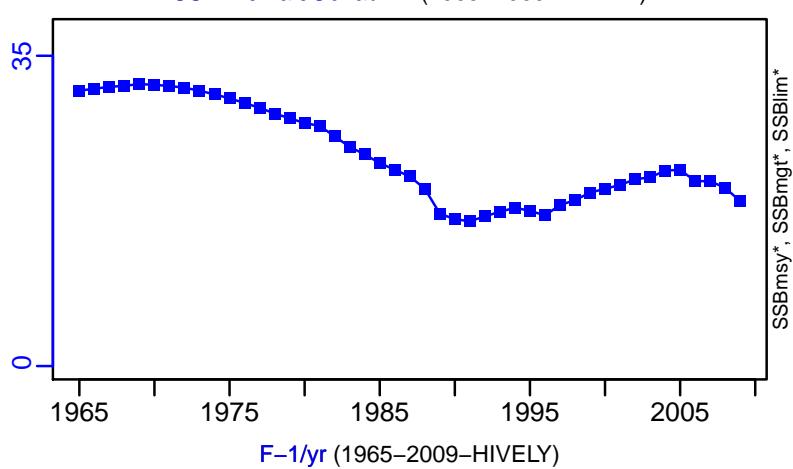
◆ Start Year ◆ End Year * No Data

Tilefish Gulf of Mexico [TILEGM]

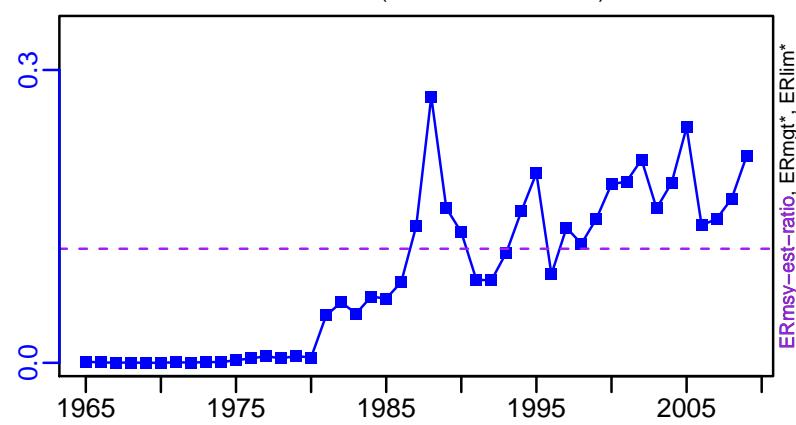
TB-MT (1965–2009–HIVELY)



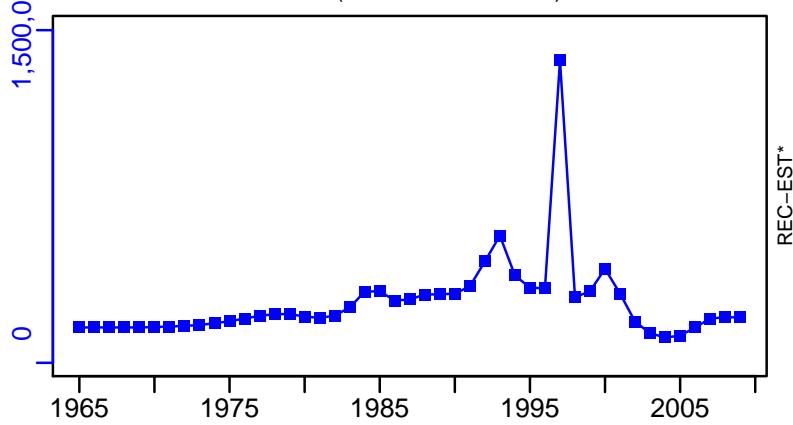
SSB-FemaleGonadMT (1965–2009–HIVELY)



ER-calc-ratio (1965–2009–HIVELY)



R-E00 (1965–2009–HIVELY)

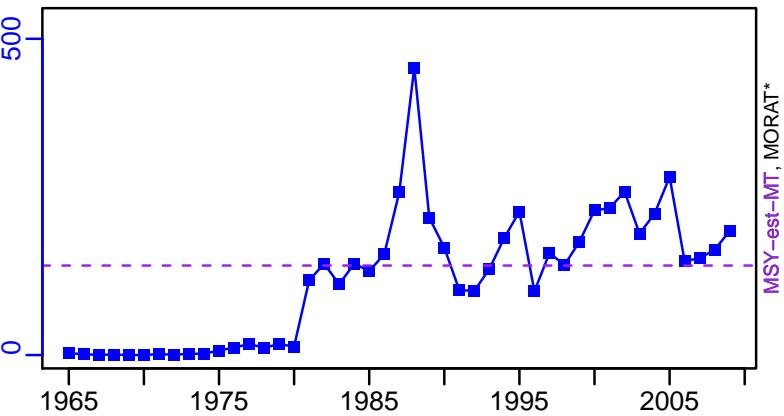


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - Lim BRP	* No Data

Tilefish Gulf of Mexico [TILEGM]

TL-MT, TC*, RecC* (1965–2009–HIVELY)

TAC*, Cpair*, Cadv*



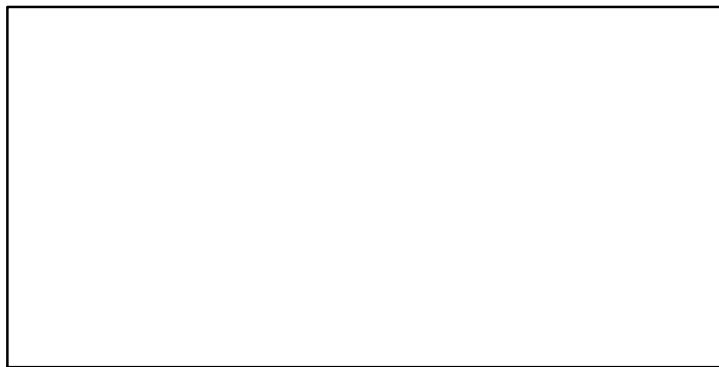
survB*



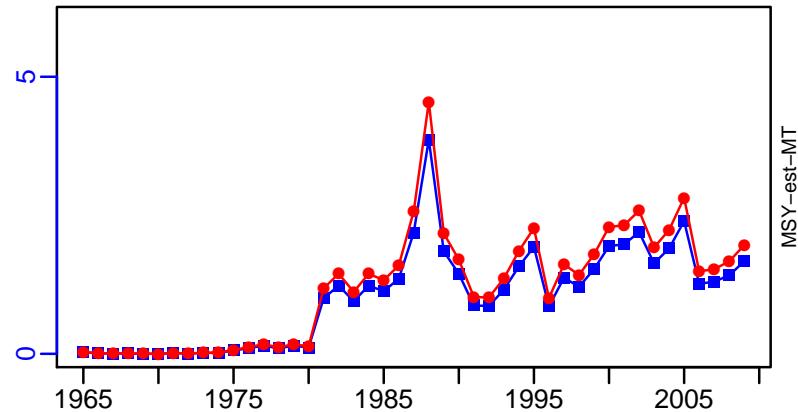
CPUE*



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

Tilefish Southern Atlantic coast [TILESATLC]

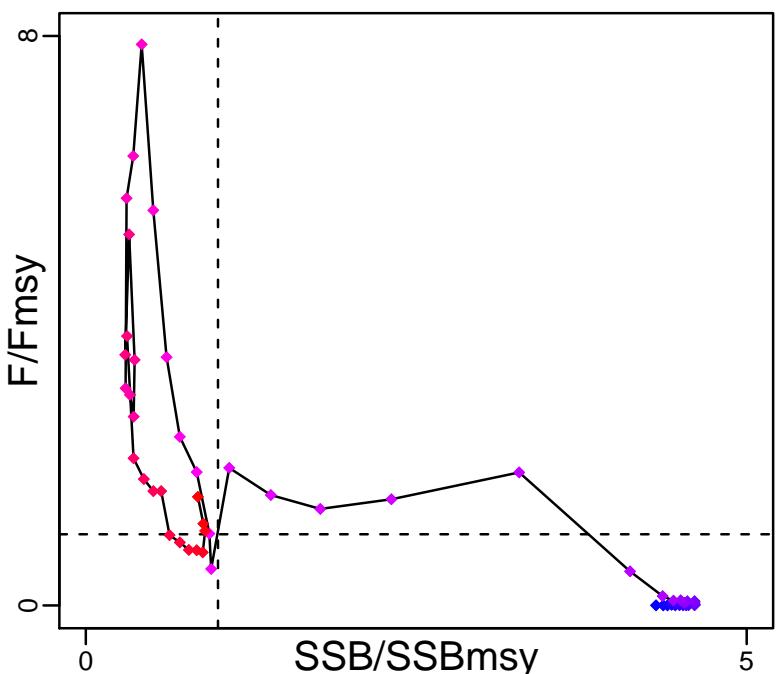
Metadata	
Scientific Name	Lopholatilus chamaeleonticeps
Current Assess ID	SEFSC-TILESATLC-1962-2014-SISIMP2016
Area	Southern Atlantic coast
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2011, 2014

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2011	2918
SSBmsy	SSBmsy-FemaleGonadMT	2014	21,929
Fmsy	Fmsy-1/yr	2014	0.236
ERmsy	ERmsy-calc-ratio	2011	0.099
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2014	254
M	M-1/yr	2011	0.1
TBlim	-	-	-
SSBlim	SSBlim-FemaleGonadMT	2014	16,447
Flim	Flim-1/yr	2014	0.236
ERlim	-	-	-

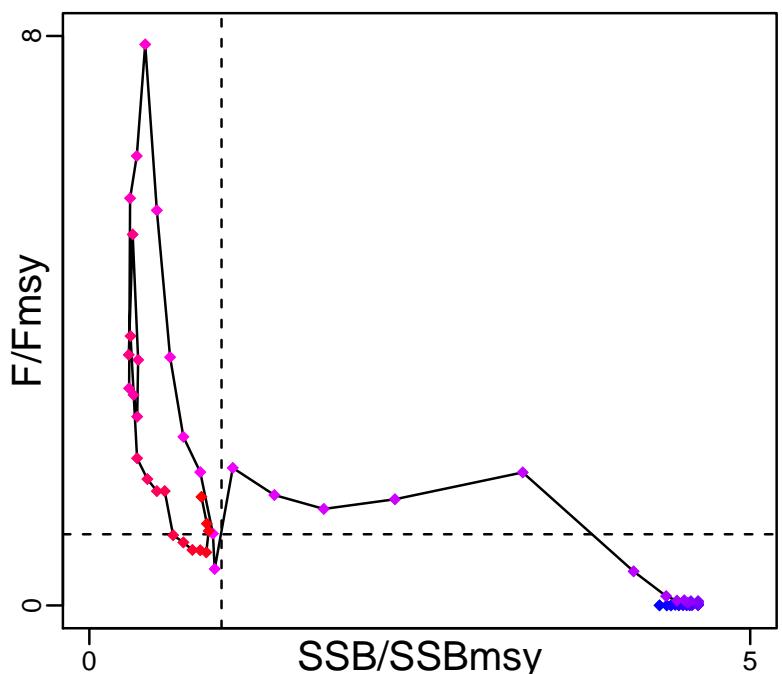
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2011	5240	-	-
SSB	SSB-FemaleGonadMT	2014	18,600	-	-
TN	-	-	-	-	-
R	R-E00	2014	319,000	-	1
F	F-1/yr	2014	0.36	-	-
ER	ER-calc-ratio	2011	0.052	-	-
TC	TC-MT	2014	320		
TL	TL-MT	2011	275		
TB/TBmsy	TB-MT/TBmsy-MT	2011	1.796		
SSB/SSBmsy	SSB-FemaleGonadMT/SSBmsy-FemaleGonadMT	2014	0.848		
F/Fmsy	F-1/yr/Fmsy-1/yr	2014	1.525		
ER/ERmsy	ER-calc-ratio/ERmsy-calc-ratio	2011	0.526		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Tilefish Southern Atlantic coast [TILESATLC]

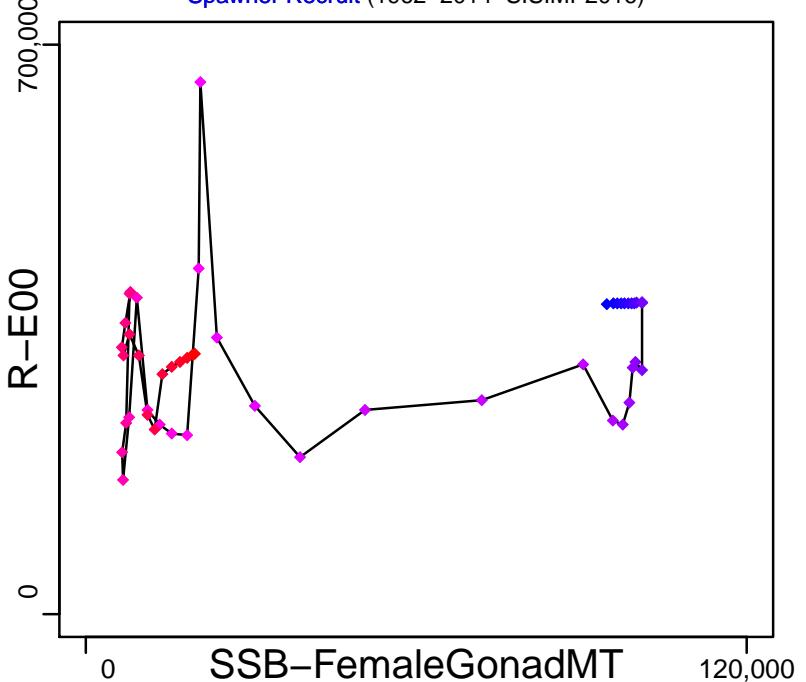
Kobe MSYpref (1962–2014–SISIMP2016)



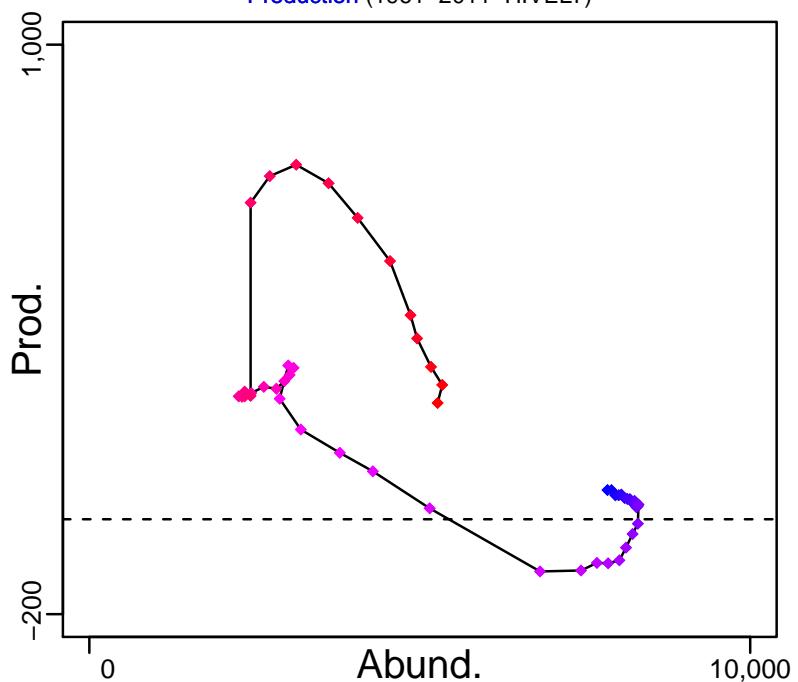
Kobe MGTpref (1962–2014–SISIMP2016)



Spawner Recruit (1962–2014–SISIMP2016)



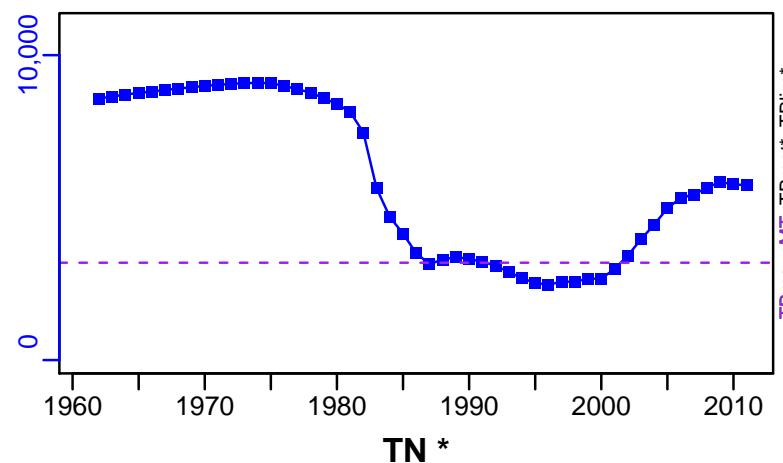
Production (1961–2011–HIVELY)



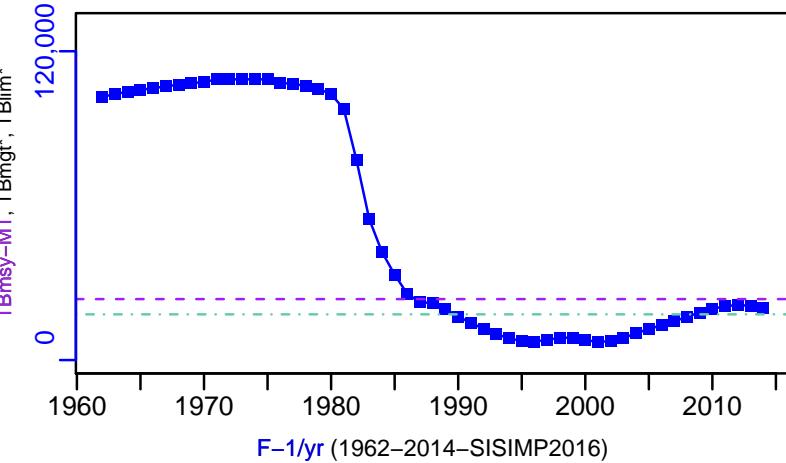
◆ Start Year ◆ End Year * No Data

Tilefish Southern Atlantic coast [TILESATLC]

TB-MT (1961–2011-HIVELY)



SSB-FemaleGonadMT (1962–2014–SISIMP2016)

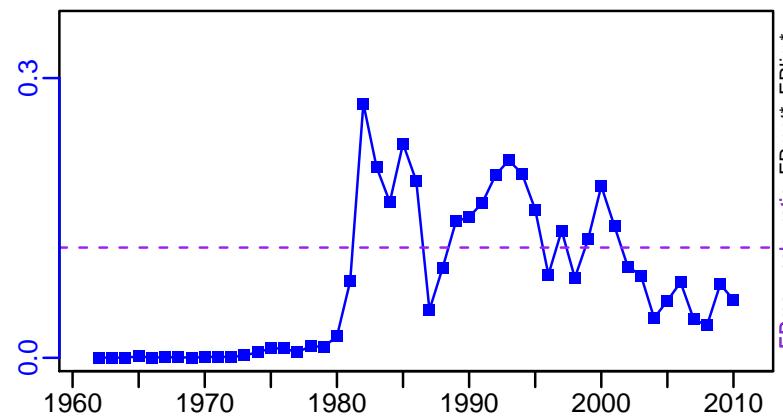


SSB_{msy}-FemaleGonadMT, SSB_{mgf}, SSB_{lim}, SSB_{msy}

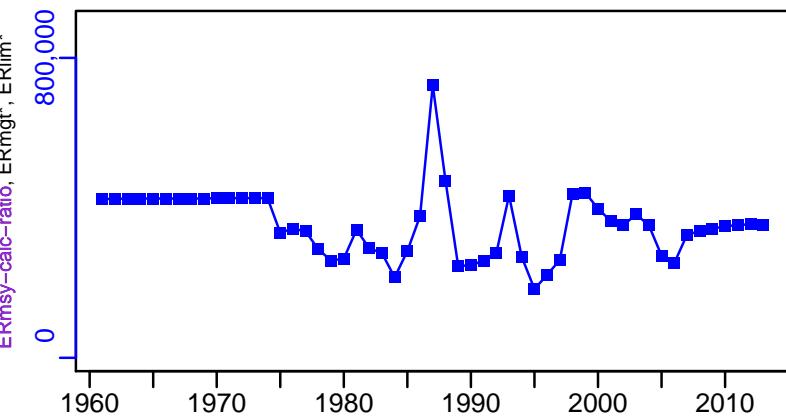
F_{msy}-1/yr, F_{mgf}, F_{lim}-1/yr

REC-EST*

ER-calc-ratio (1961–2011–HIVELY)



R-E00 (1962–2014–SISIMP2016)

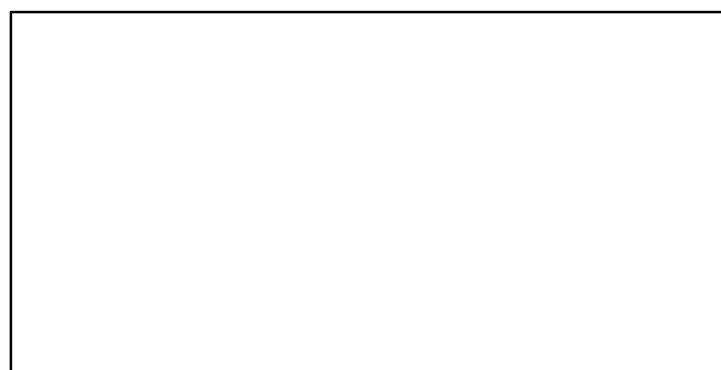
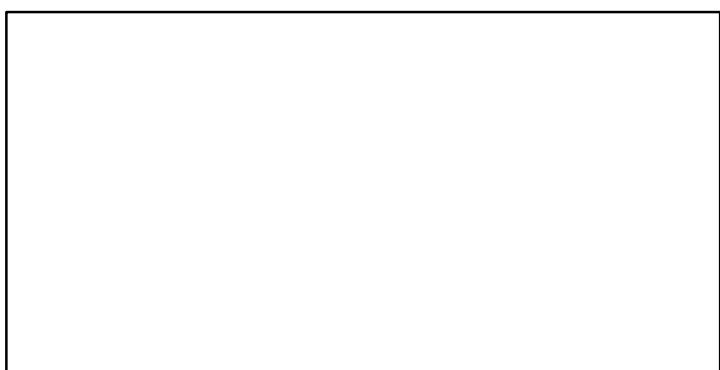
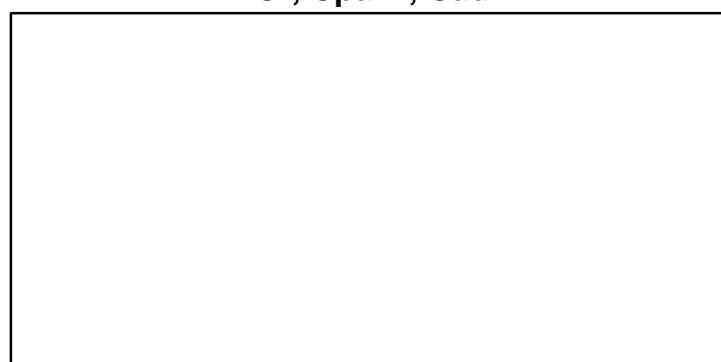
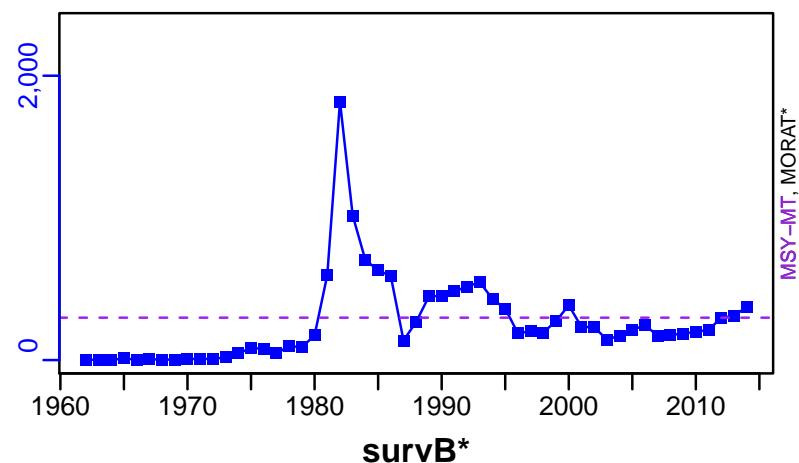


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	--- Lim BRP	* No Data

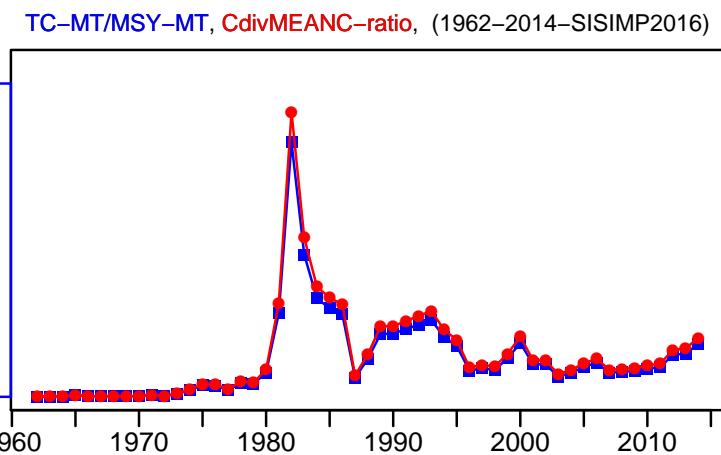
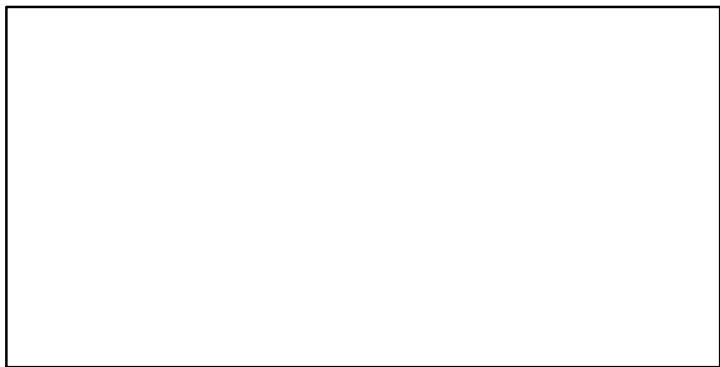
Tilefish Southern Atlantic coast [TILESATLC]

TC-MT, TL*, RecC* (1962–2014–SISIMP2016)

TAC*, Cpair*, Cadv*



EFFORT*



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

Vermilion snapper Gulf of Mexico [VSNAPGM]

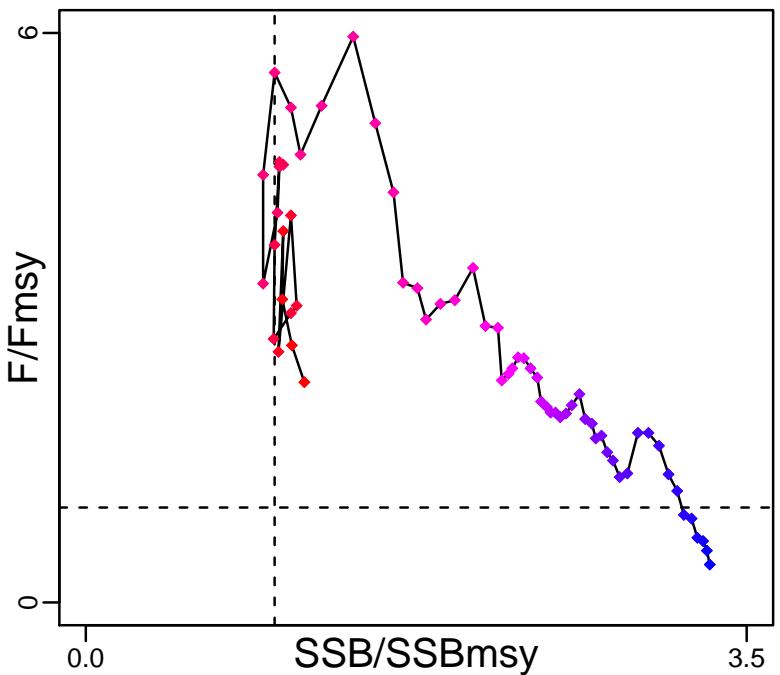
Metadata	
Scientific Name	Rhomboplites aurorubens
Current Assess ID	SEFSC-VSNAPGM-1950-2014-SISIMP2016
Area	Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2014, 2004

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-est-MT	2014	13,449
SSBmsy	SSBmsy-E00eggs	2014	1.97×10^{14}
Fmsy	Fmsy-1/yr	2014	0.103
ERmsy	ERmsy-est-ratio	2014	0.094
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	Fmgt-1/yr	2014	0.087
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2014	1529
M	-	-	-
TBlim	-	-	-
SSBlim	SSBlim-E00eggs	2014	1.48×10^{14}
Flim	Flim-1/yr	2014	0.103
ERlim	-	-	-

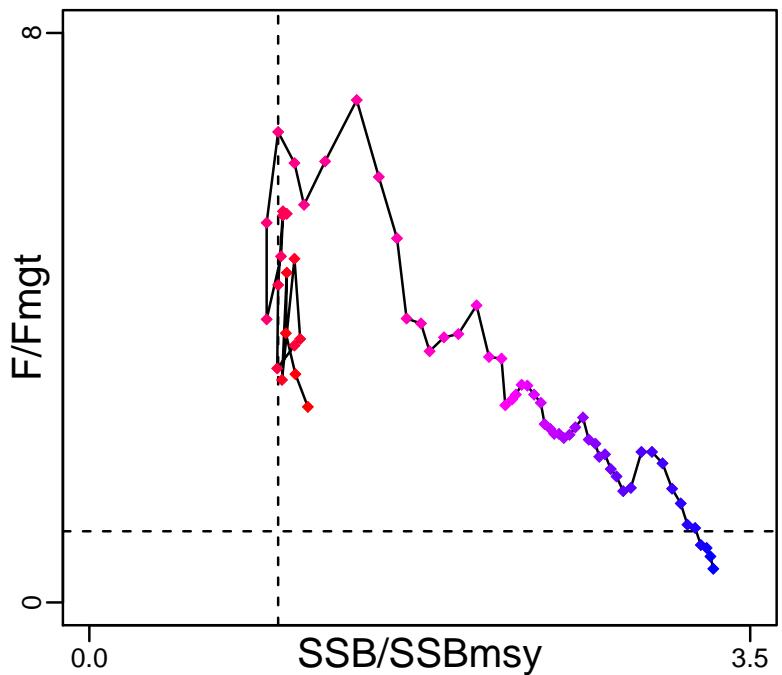
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2014	11,500	-	1+	
SSB	SSB-E00eggs	2014	2.28×10^{14}	Females	-	
TN	-	-	-	-	-	
R	R-E00	2014	27,200,000	-	0	
F	F-1/yr	2014	0.239	-	-	
ER	ER-calc-ratio	2014	0.102	-	-	
TC	TC-MT	2014	1170			
TL	-	-	-			
TB/TBmsy	TB-MT/TBmsy-est-MT	2014	0.855			
SSB/SSBmsy	SSB-E00eggs/SSBmsy-E00eggs	2014	1.157			
F/Fmsy	F-1/yr/Fmsy-1/yr	2014	2.32			
ER/ERmsy	ER-calc-ratio/ERmsy-est-ratio	2014	1.081			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	F-1/yr/Fmgt-1/yr	2014	2.747			
ER/ERmgt	-	-	-			

Vermilion snapper Gulf of Mexico [VSNAPGM]

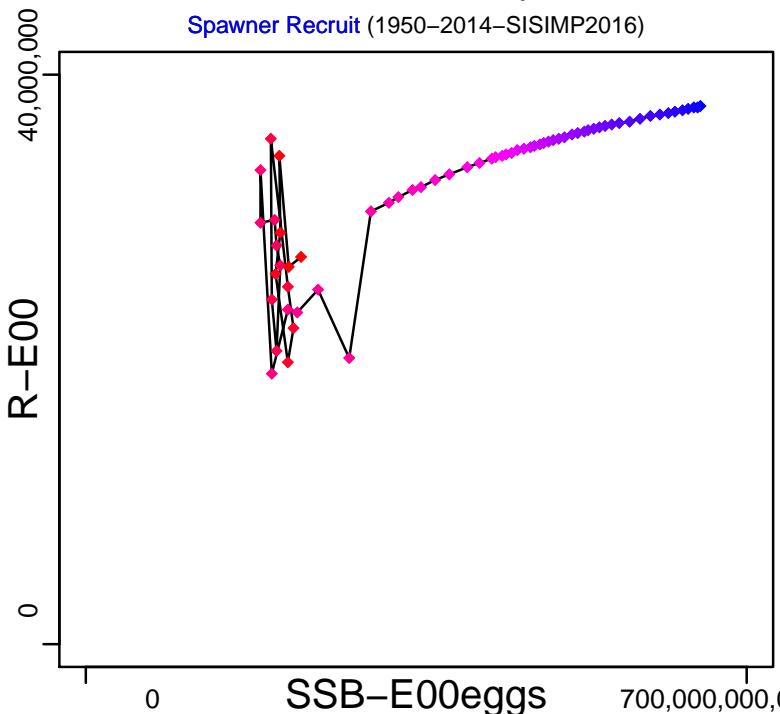
Kobe MSYpref (1950–2014–SISIMP2016)



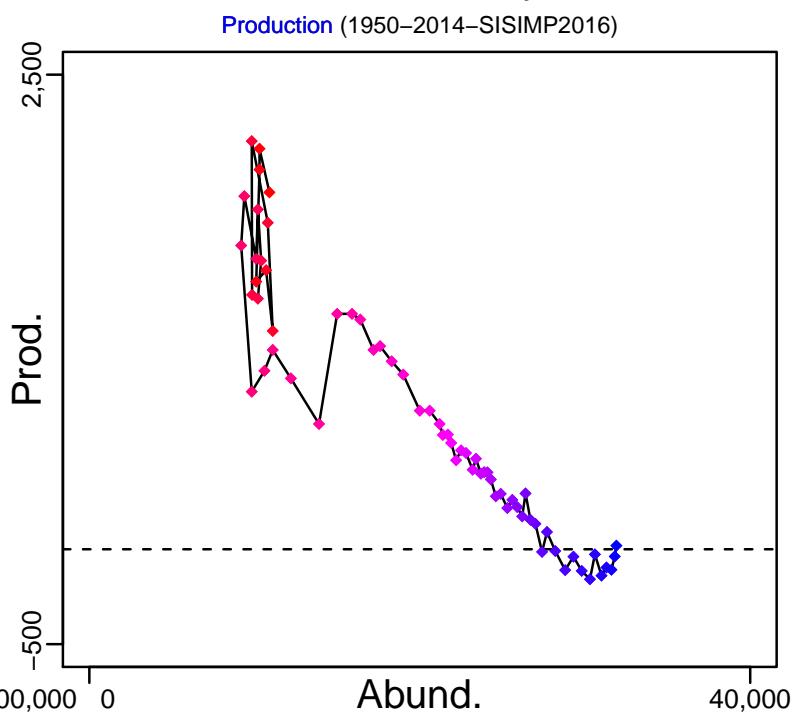
Kobe MGTpref (1950–2014–SISIMP2016)



Spawner Recruit (1950–2014–SISIMP2016)



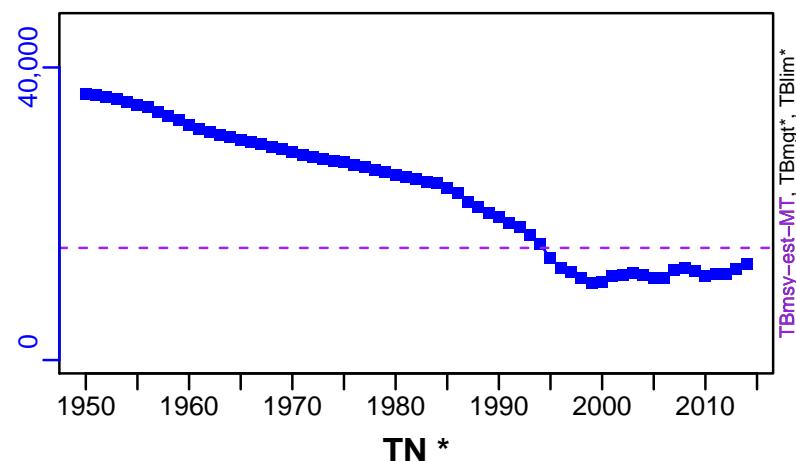
Production (1950–2014–SISIMP2016)



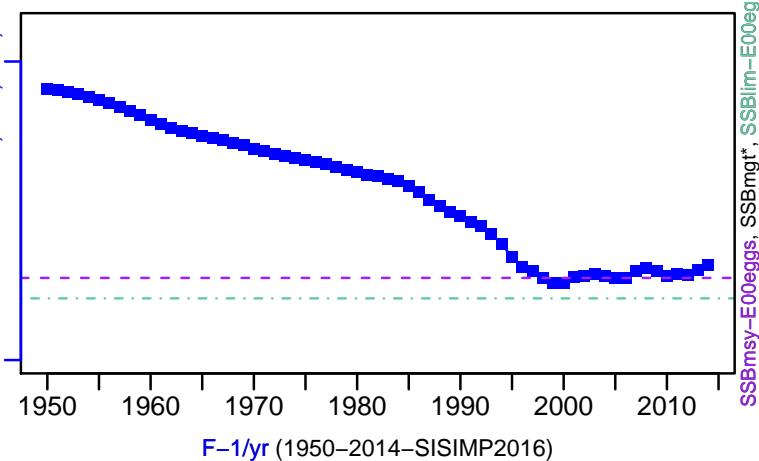
◆ Start Year ◆ End Year * No Data

Vermilion snapper Gulf of Mexico [VSNAPGM]

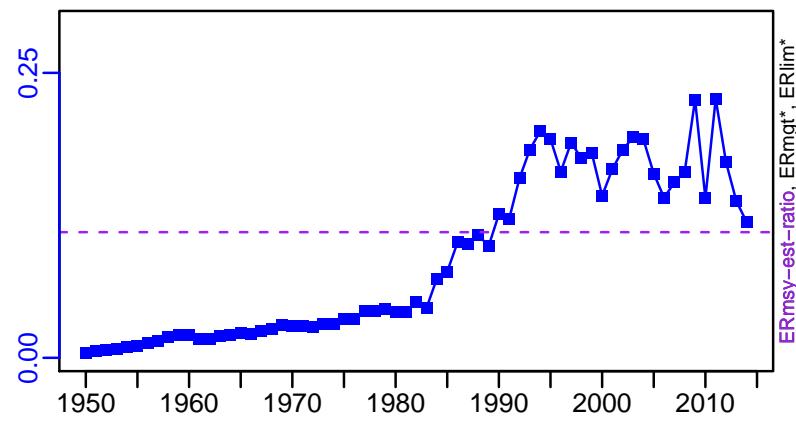
TB-MT (1950–2014–SISIMP2016)



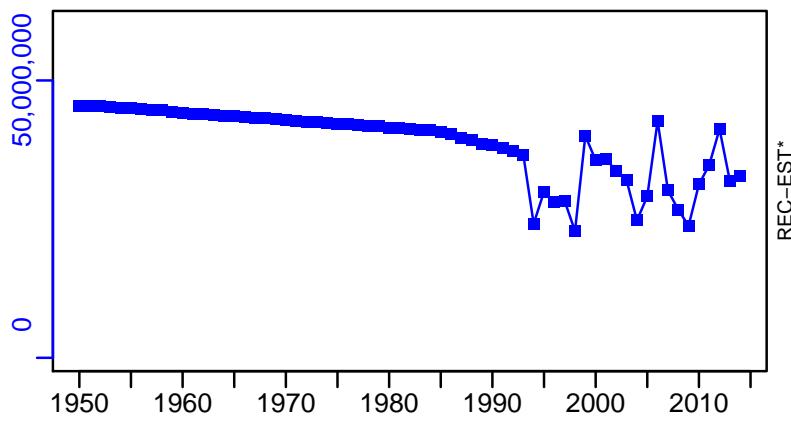
SSB-E00eggs (1950–2014–SISIMP2016)



ER-calc-ratio (1950–2014–SISIMP2016)



R-E00 (1950–2014–SISIMP2016)

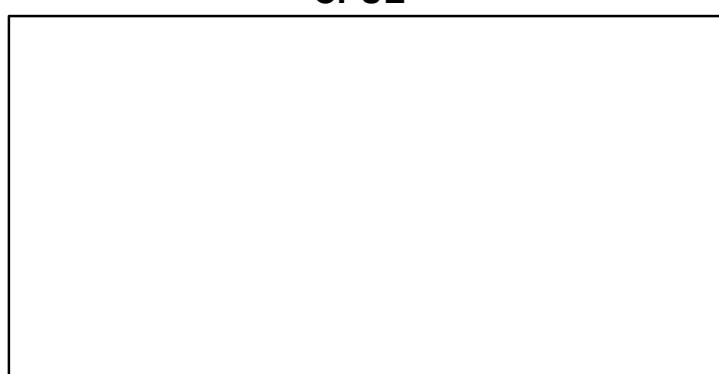
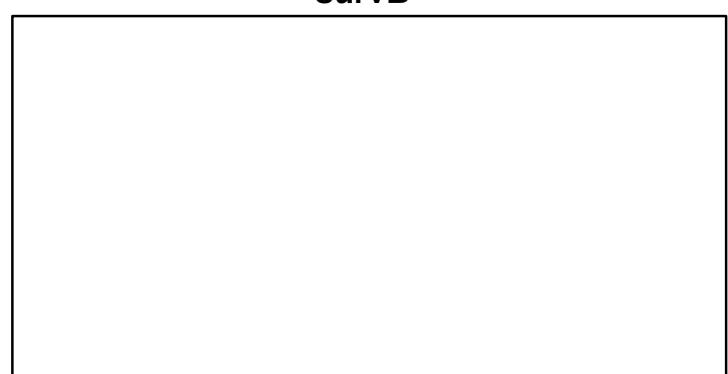
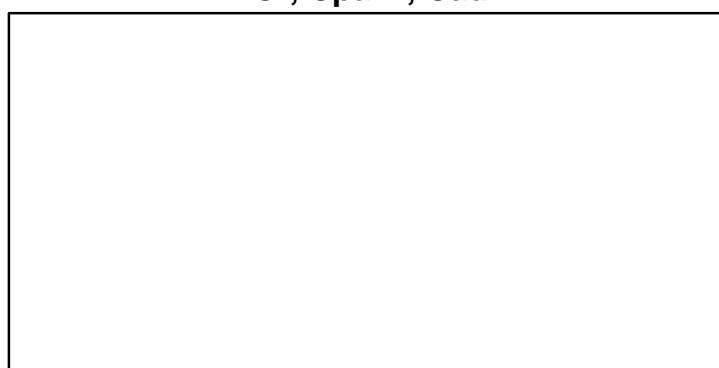
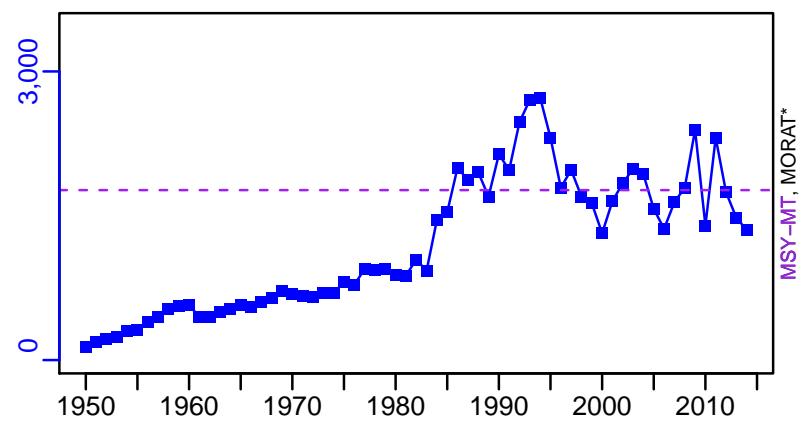


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	--- Lim BRP	* No Data

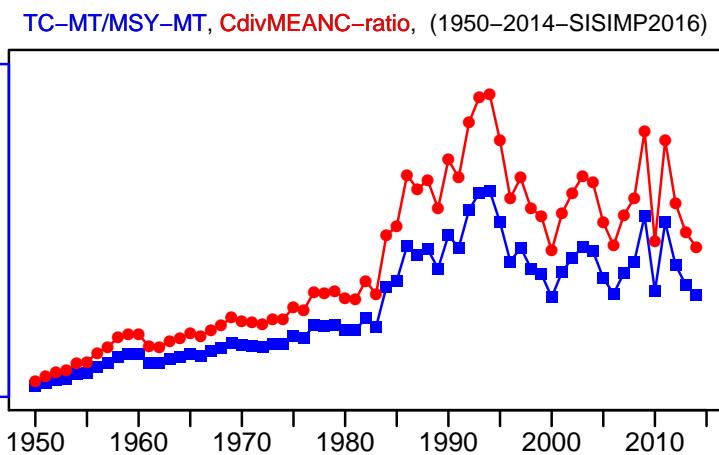
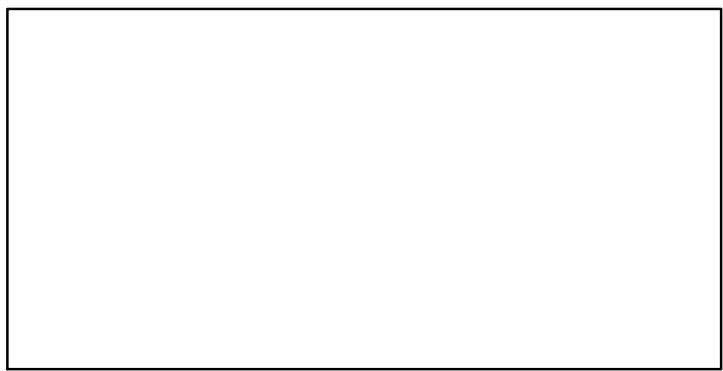
Vermilion snapper Gulf of Mexico [VSNAPGM]

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

TAC*, Cpair*, Cadv*



EFFORT*



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

Vermilion snapper Southern Atlantic coast [VSNAPSATLC]

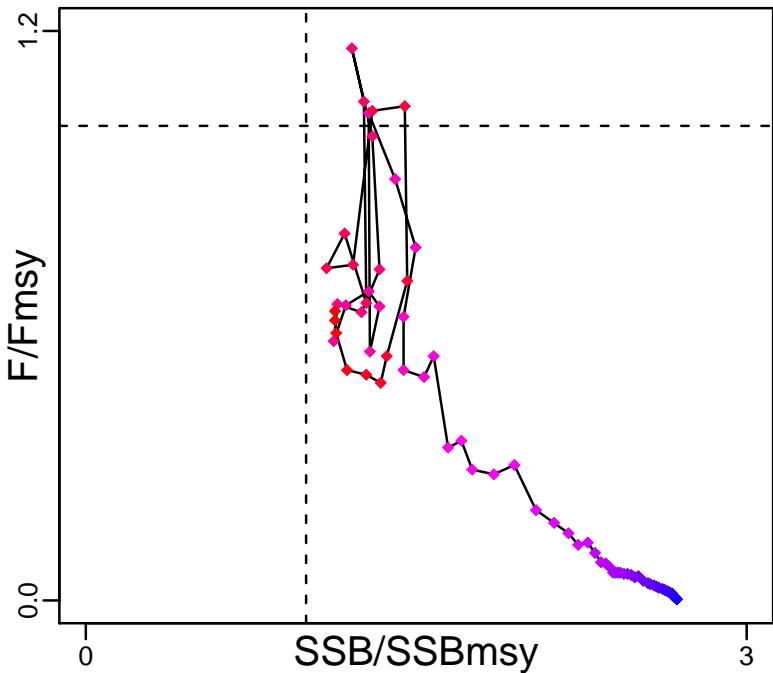
Metadata	
Scientific Name	Rhomboplites aurorubens
Current Assess ID	SEFSC-VSNAPSATLC-1945-2016-SISIMP2021
Area	Southern Atlantic coast
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2012, 2016

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	-	-	-

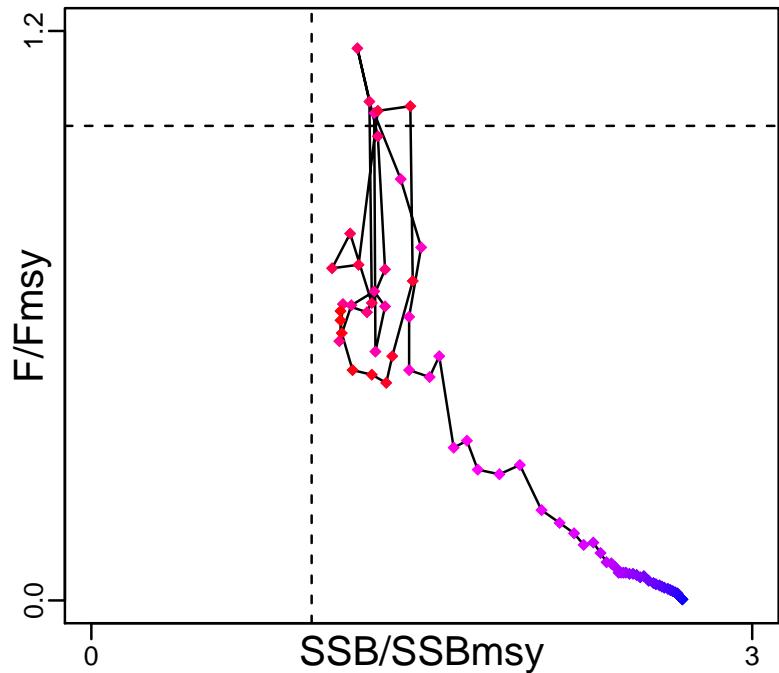
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2012	2120	-	-	
SSB	SSB-E00eggs	2016	2.07×10^{13}	-	-	
TN	-	-	-	-	-	
R	R-E00	2016	5,501,271	-	1	
F	F-1/yr	2016	0.25	-	-	
ER	ER-calc-ratio	2012	0.296	-	-	
TC	TC-MT	2016	573			
TL	TL-MT	2012	649			
TB/TBmsy	TB-MT/TBmsy-MT	2012	0.941			
SSB/SSBmsy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

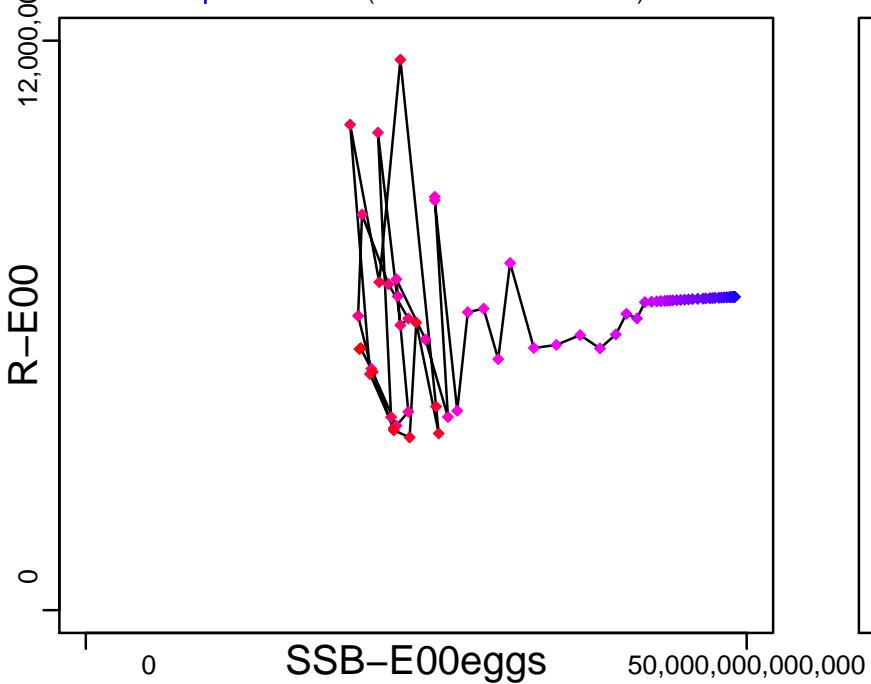
Kobe MSYpref (1945–2016–SISIMP2021)



Kobe MGTpref (1945–2016–SISIMP2021)



Spawner Recruit (1945–2016–SISIMP2021)



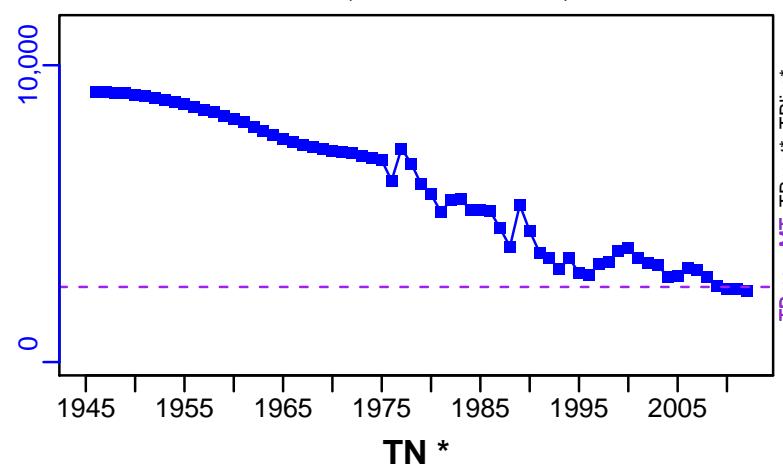
Production*



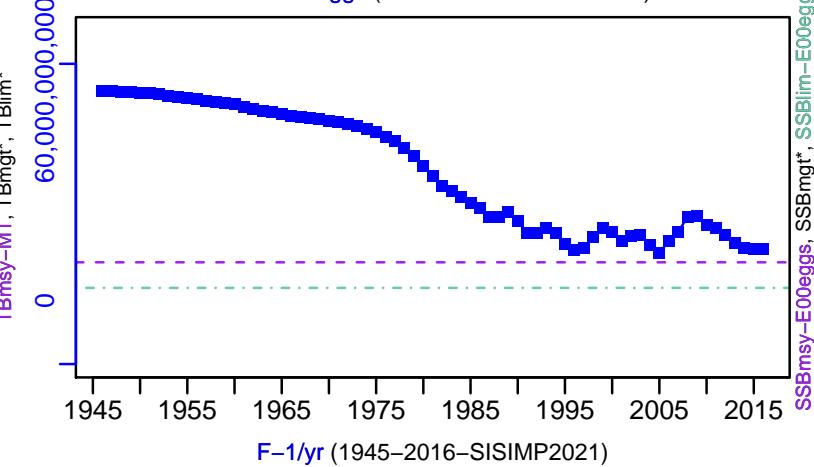
◆ Start Year	◆ End Year	*	No Data
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Vermilion snapper Southern Atlantic coast [VSNAPSATLC]

TB-MT (1945–2012-HIVELY)



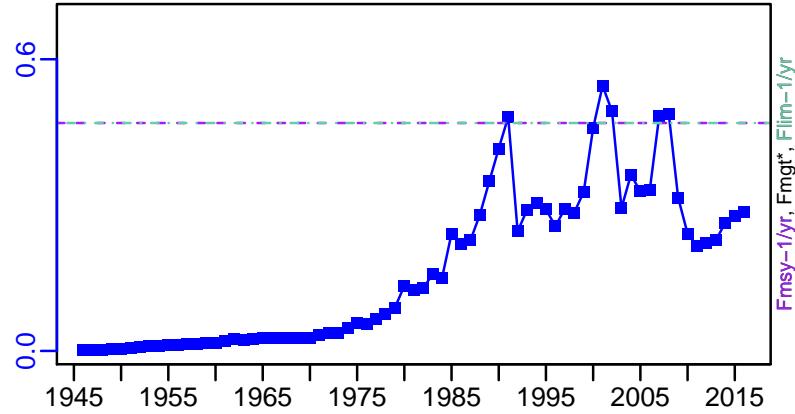
SSB-E00eggs (1945–2016-SISIMP2021)



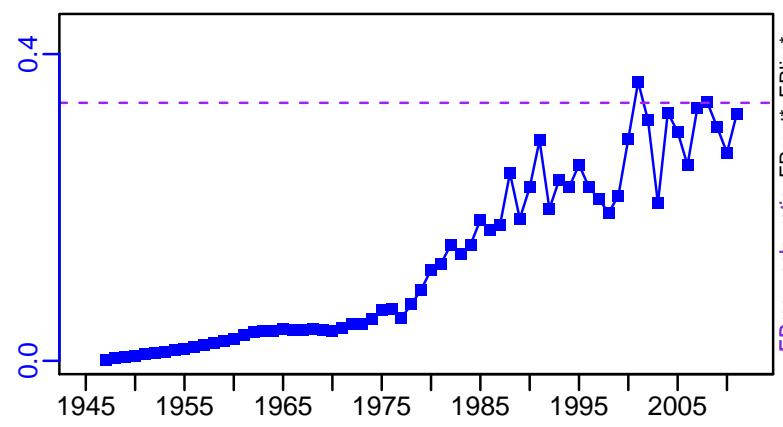
TN *



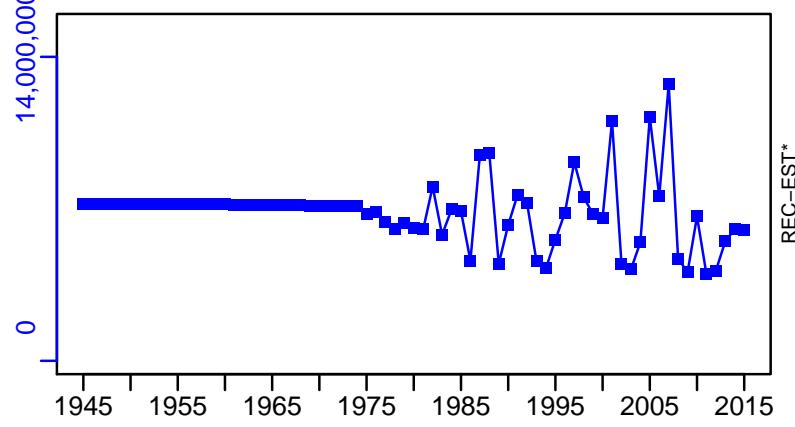
F-1/yr (1945–2016-SISIMP2021)



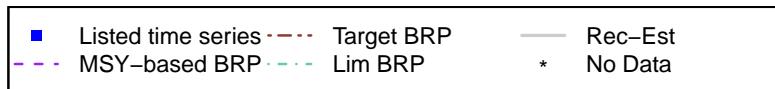
ER-calc-ratio (1945–2012-HIVELY)



R-E00 (1945–2016-SISIMP2021)



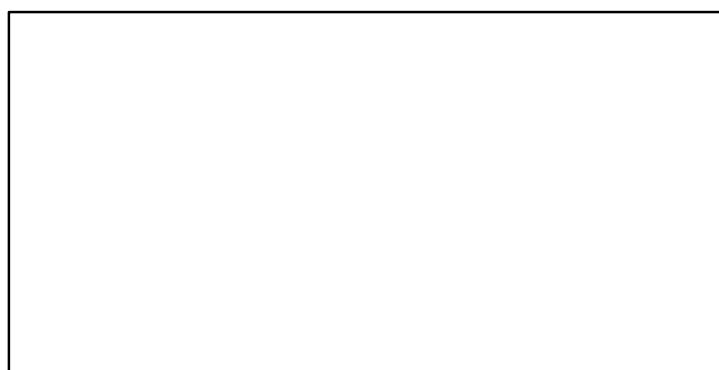
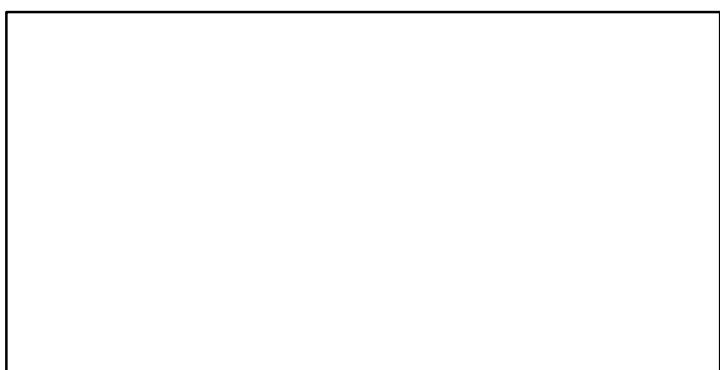
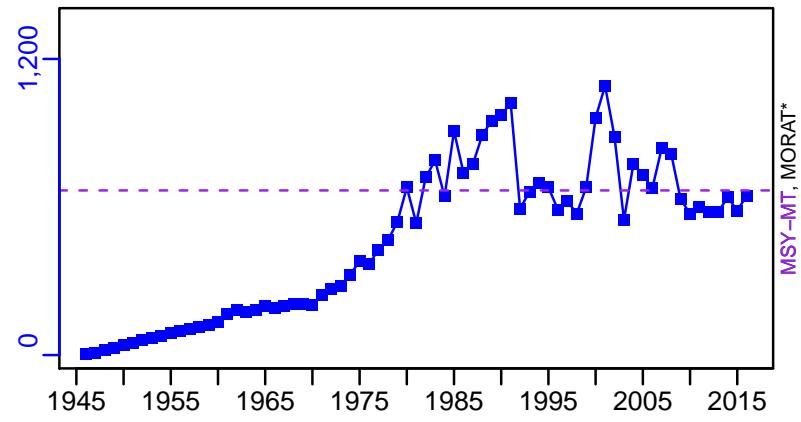
REC-EST*



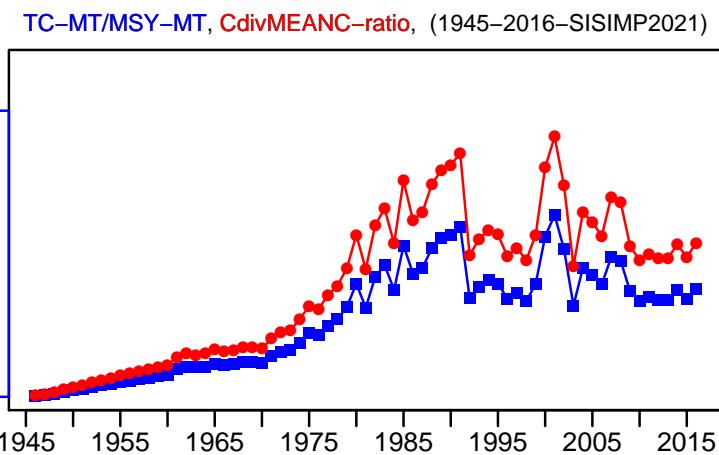
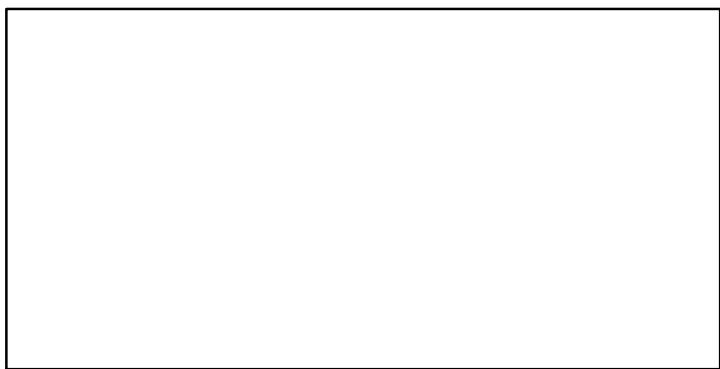
Vermilion snapper Southern Atlantic coast [VSNAPSATLC]

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

TAC*, Cpair*, Cadv*



EFFORT*



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

White shrimp Gulf of Mexico [WSHRIMPGM]

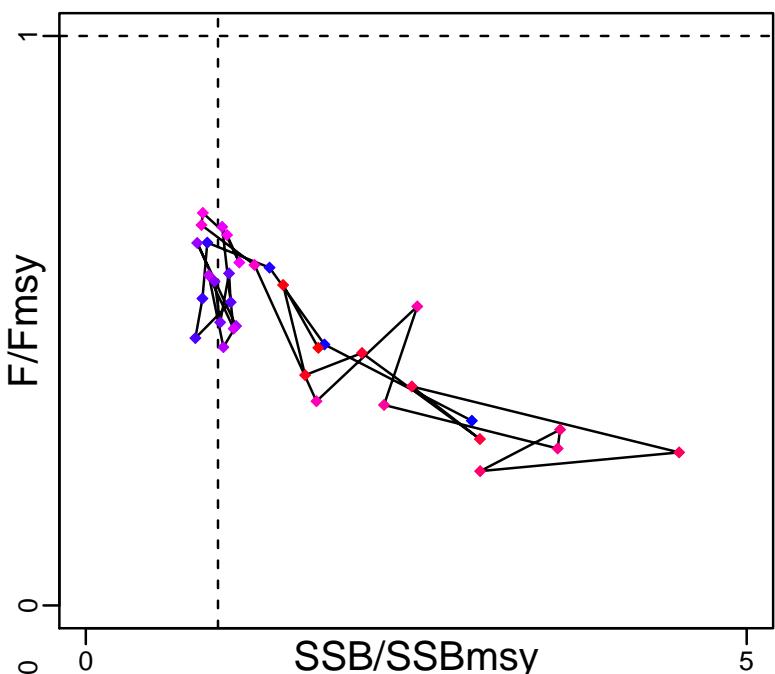
Metadata	
Scientific Name	Litopenaeus setiferus
Current Assess ID	SEFSC-WSHRIMPGM-1984-2017-SISIMP2021
Area	Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2011, 2014, 2015, 2017

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2017	165,879
Fmsy	Fmsy-1/yr	2017	3.48
ERmsy	ERmsy-est-ratio	2017	0.246
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-est-MT	2017	98,142
M	-	-	-
TBlim	-	-	-
SSBlim	SSBlim-MT	2015	165,879
Flim	-	-	-
ERlim	-	-	-

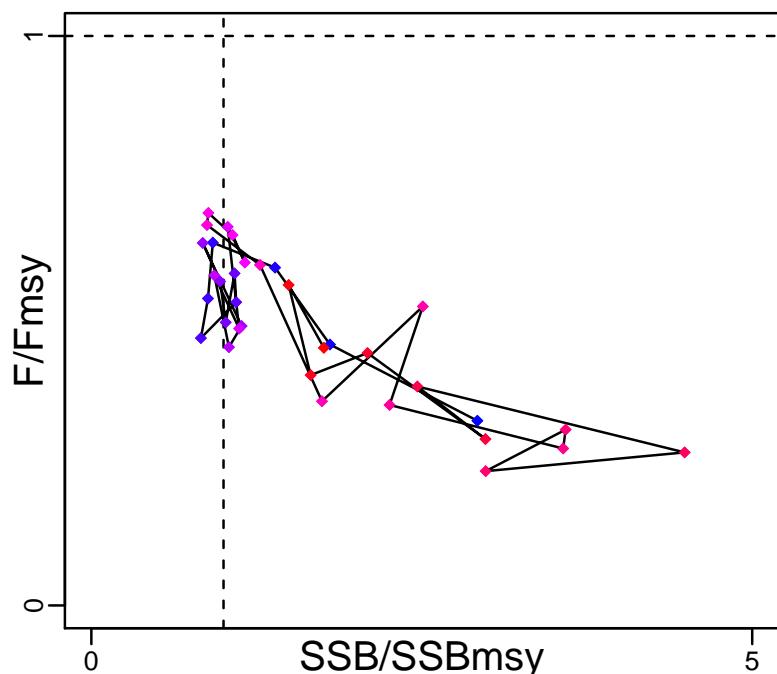
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	-	-	-	-	-	
SSB	SSB-MT	2017	291,827	-	-	
TN	-	-	-	-	-	
R	R-E00	2017	16,275,764,420	-	-	
F	F-1/yr	2017	1.574	-	-	
ER	ER-calc-ratio	2017	0.046	-	-	
TC	TC-MT	2017	32,046			
TL	-	-	-			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2017	1.759			
F/Fmsy	F-1/yr/Fmsy-1/yr	2017	0.452			
ER/ERmsy	ER-calc-ratio/ERmsy-est-ratio	2017	0.186			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

White shrimp Gulf of Mexico [WSHRIMPGM]

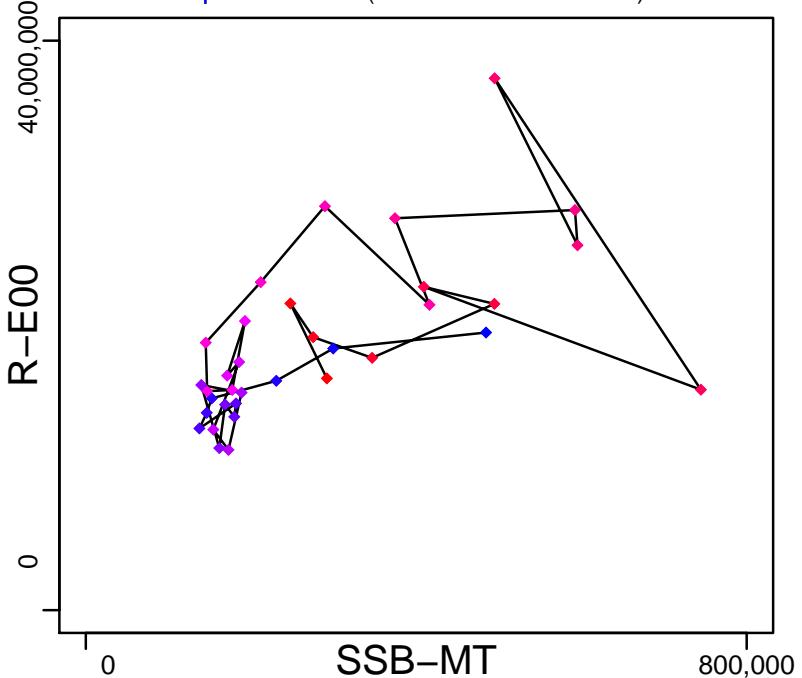
Kobe MSYpref (1984–2017–SISIMP2021)



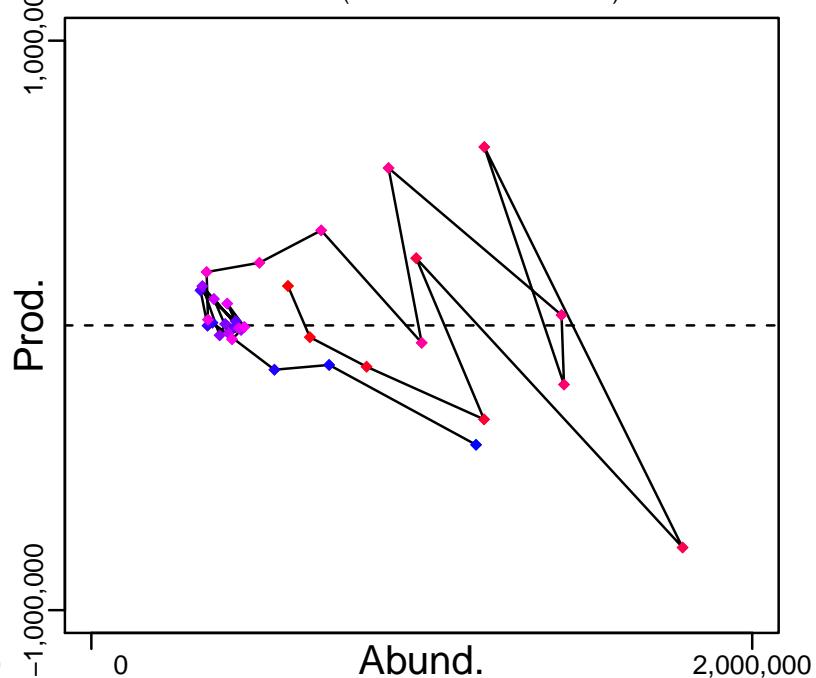
Kobe MGTpref (1984–2017–SISIMP2021)



Spawner Recruit (1984–2017–SISIMP2021)



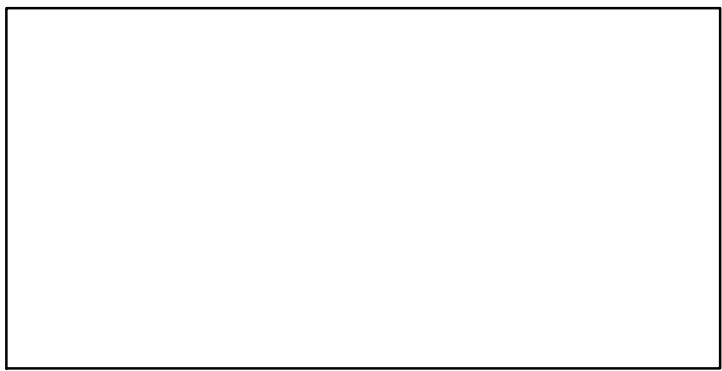
Production (1984–2017–SISIMP2021)



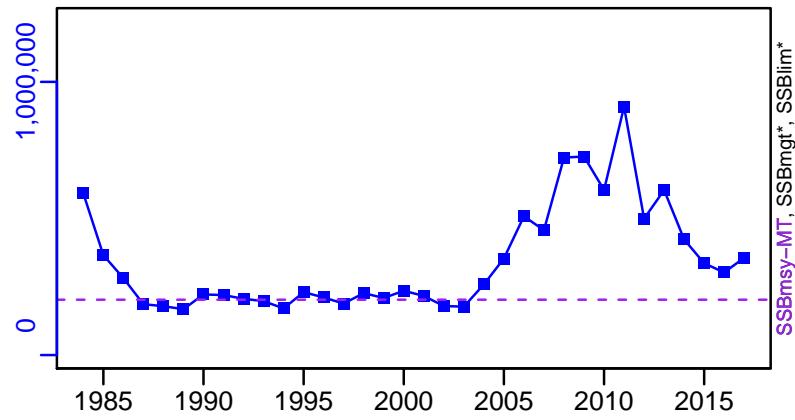
◆ Start Year ◆ End Year * No Data

White shrimp Gulf of Mexico [WSHRIMPGM]

TB*



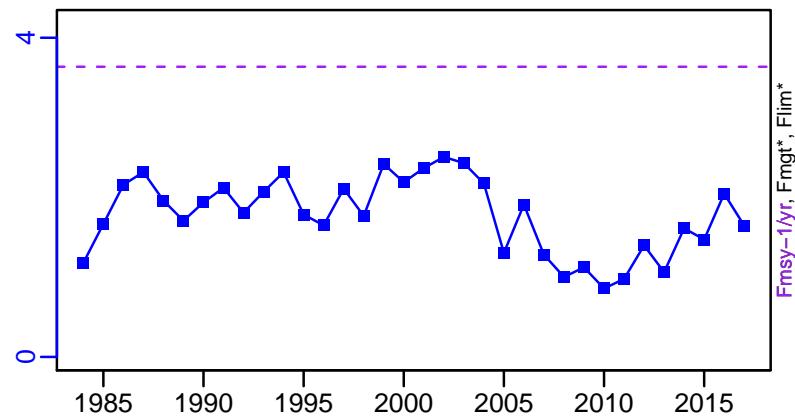
SSB-MT (1984–2017–SISIMP2021)



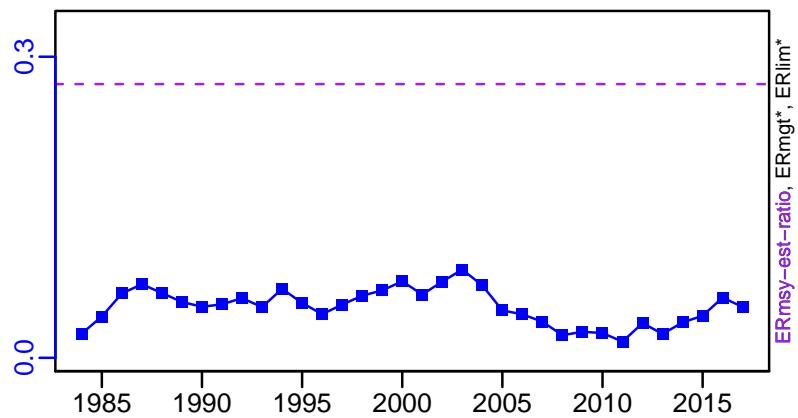
TN *



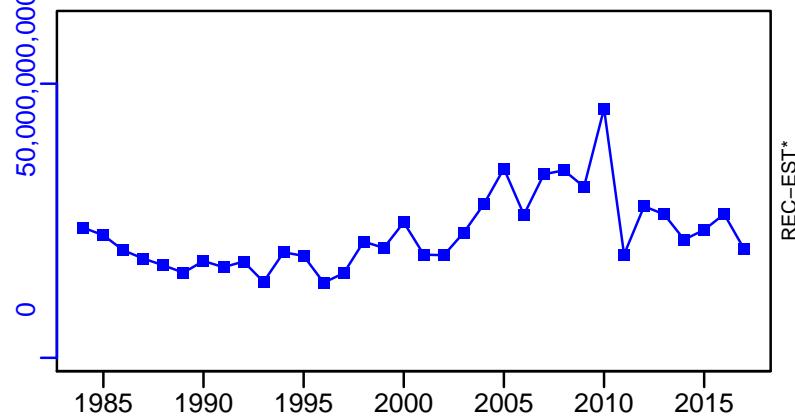
F-1/yr (1984–2017–SISIMP2021)



ER-calc-ratio (1984–2017–SISIMP2021)



R-E00 (1984–2017–SISIMP2021)

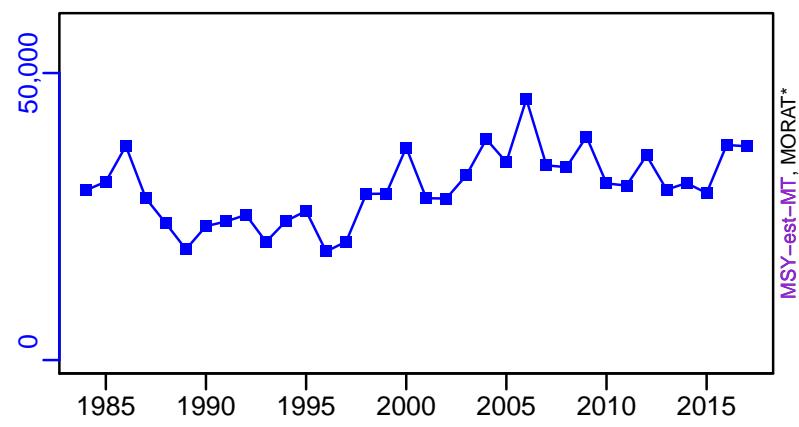


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	--- Lim BRP	* No Data

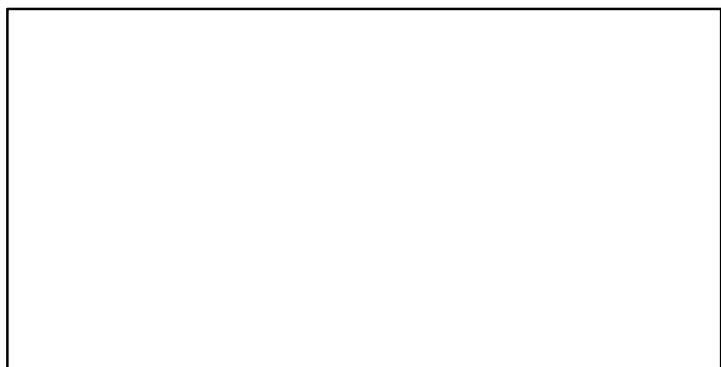
White shrimp Gulf of Mexico [WSHRIMPGM]

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

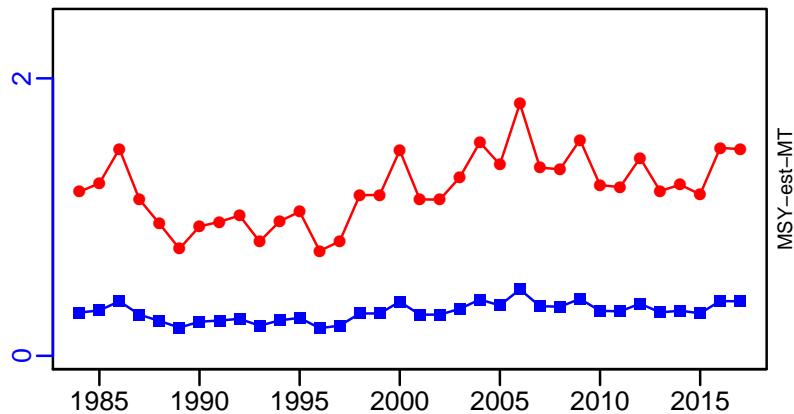
TAC*, Cpair*, Cadv*



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]

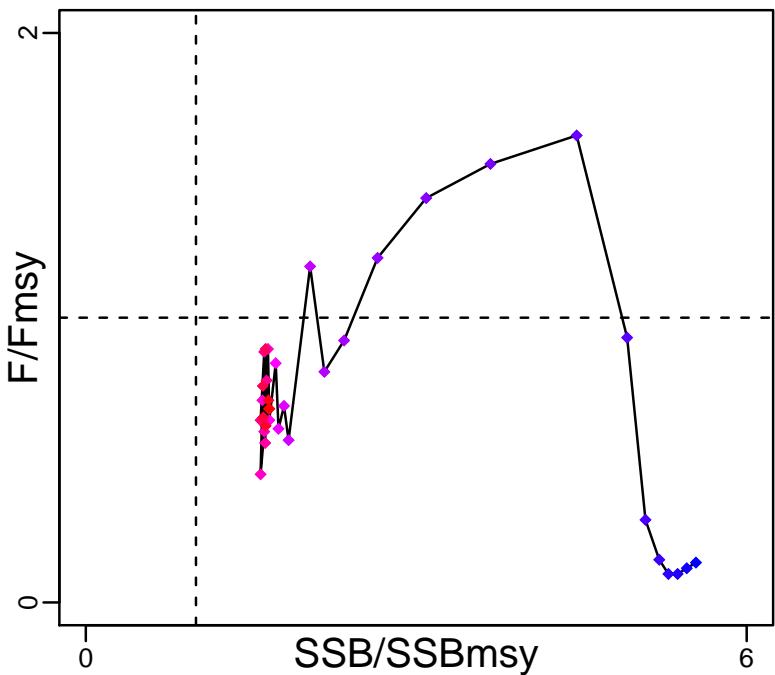
Metadata	
Scientific Name	Epinephelus flavolimbatus
Current Assess ID	SEFSC-YEGROUPGM-1975-2009-HIVELY
Area	Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2009

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2009	2401
Fmsy	Fmsy-1/yr	2009	0.1
ERmsy	ERmsy-conv-ratio	2009	0.111
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2009	375
M	M-1/yr	2009	0.07
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

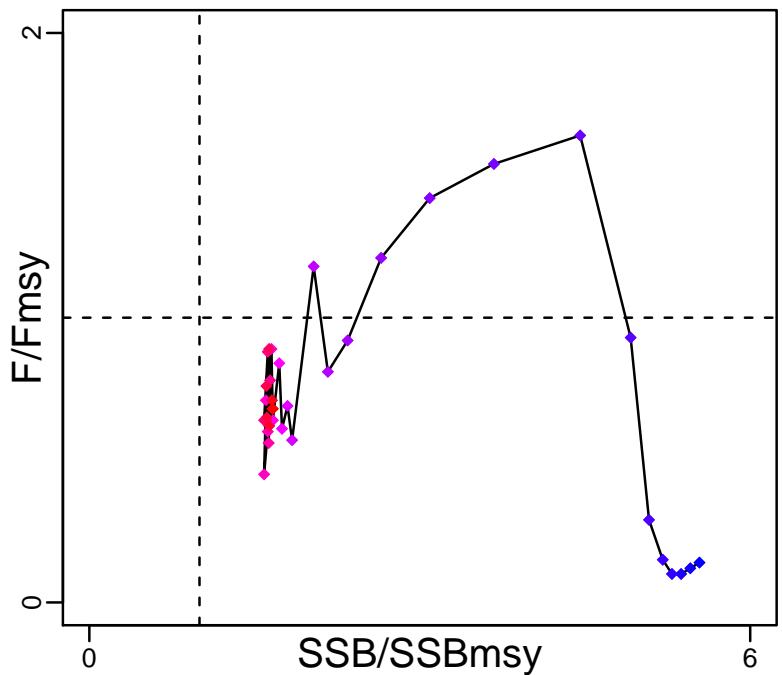
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2009	5530	-	-	
SSB	SSB-MT	2009	4000	Both	8+	
TN	-	-	-	-	-	
R	R-E00	2009	801,000	-	-	
F	F-1/yr	2009	0.068	-	-	
ER	ER-calc-ratio	2009	0.068	-	-	
TC	-	-	-			
TL	TL-MT	2009	376			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2009	1.666			
F/Fmsy	F-1/yr/Fmsy-1/yr	2009	0.68			
ER/ERmsy	ER-calc-ratio/ERmsy-conv-ratio	2009	0.614			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Yellowedge grouper Gulf of Mexico [YEGROUPGM]

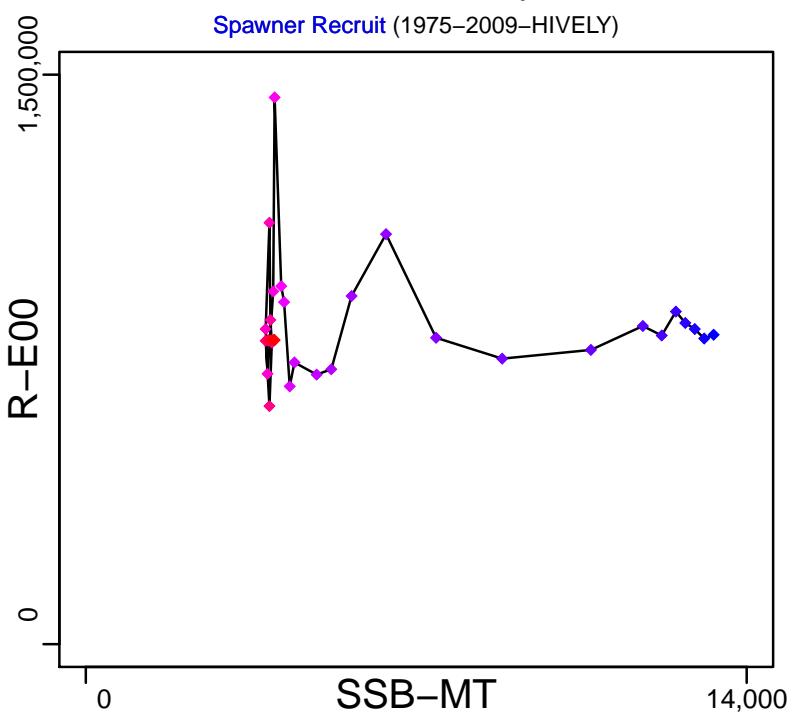
Kobe MSYpref (1975–2009–HIVELY)



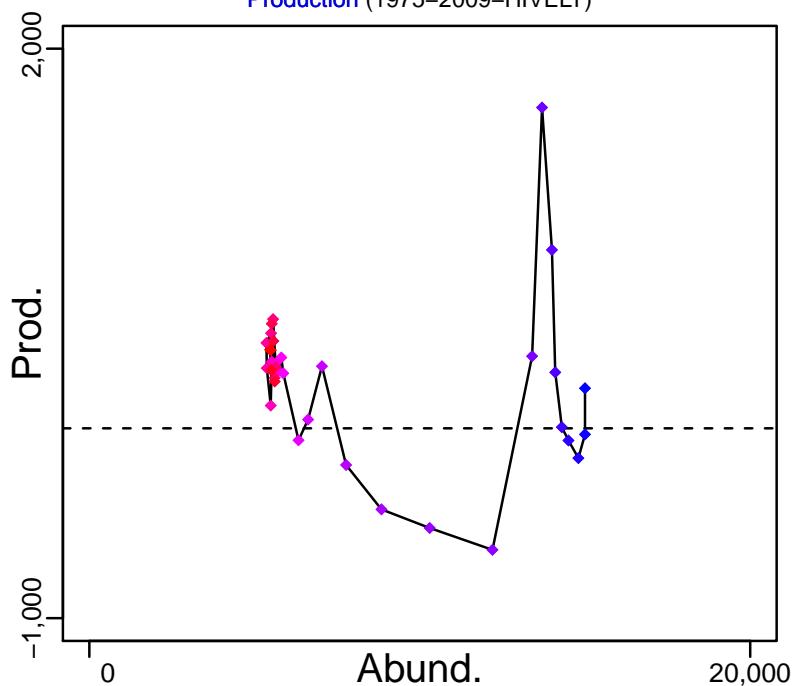
Kobe MGTPref (1975–2009–HIVELY)



Spawner Recruit (1975–2009–HIVELY)



Production (1975–2009–HIVELY)

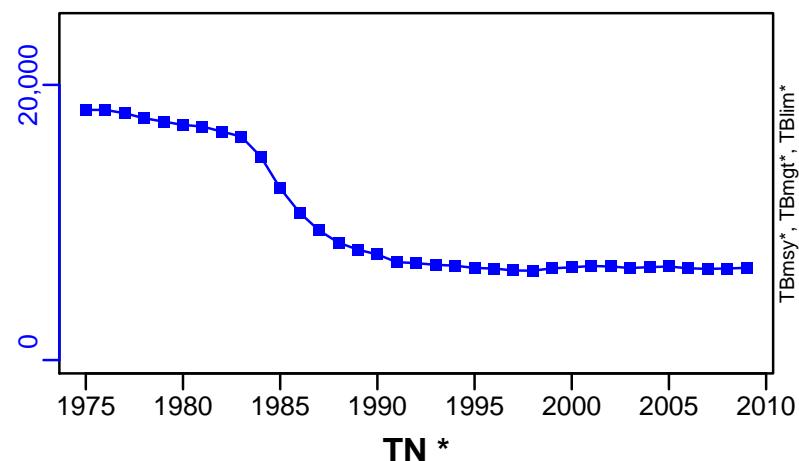


◆ Start Year	◆ End Year	*	No Data
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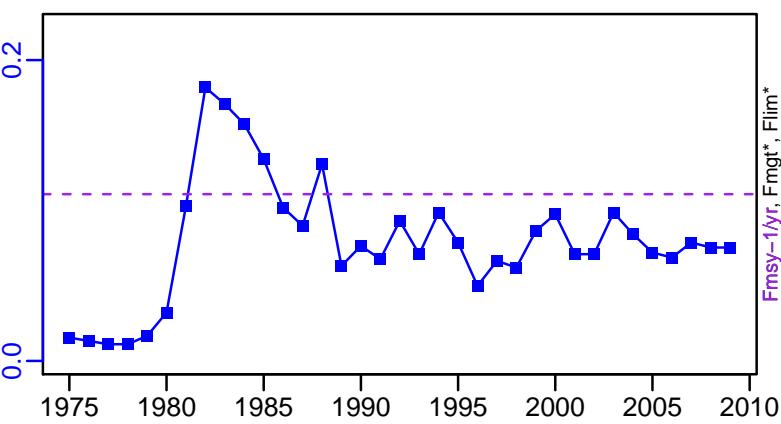
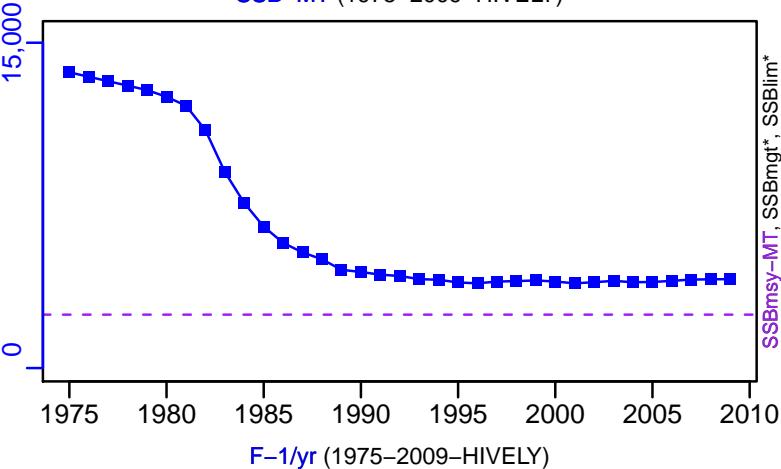
Yellowedge grouper Gulf of Mexico [YEGROUPGM]

TB-MT (1975–2009–HIVELY)

SSB-MT (1975–2009–HIVELY)

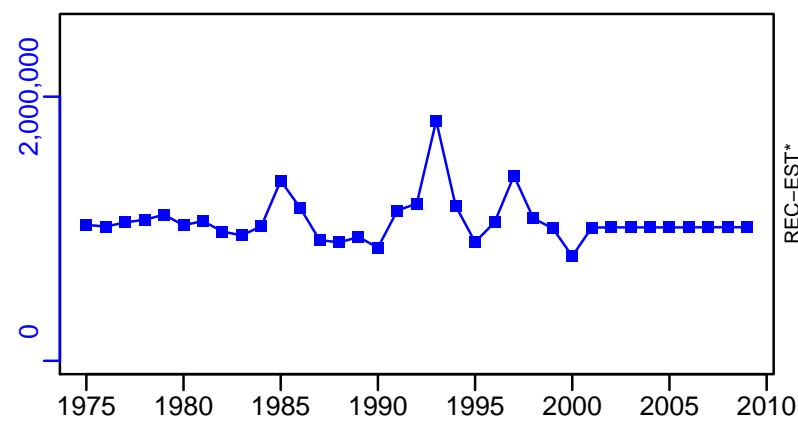
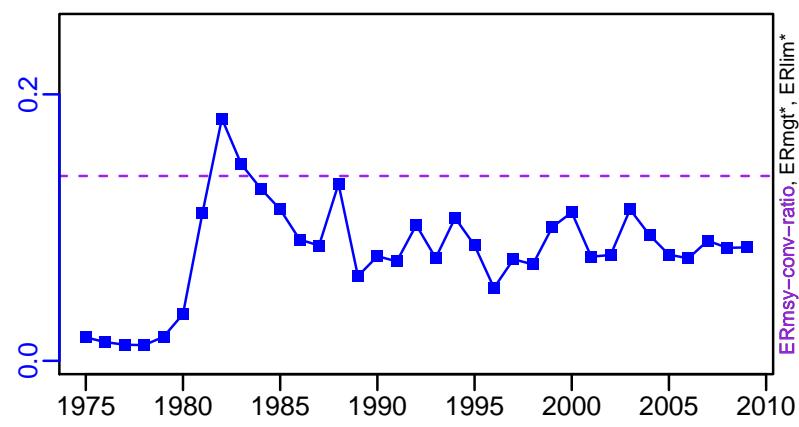


TB_{msy*}, TB_{mgt*}, TB_{lim*}



ER-calc-ratio (1975–2009–HIVELY)

R-E00 (1975–2009–HIVELY)

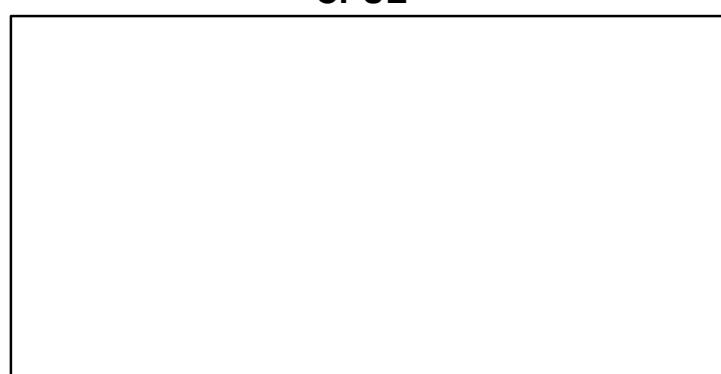
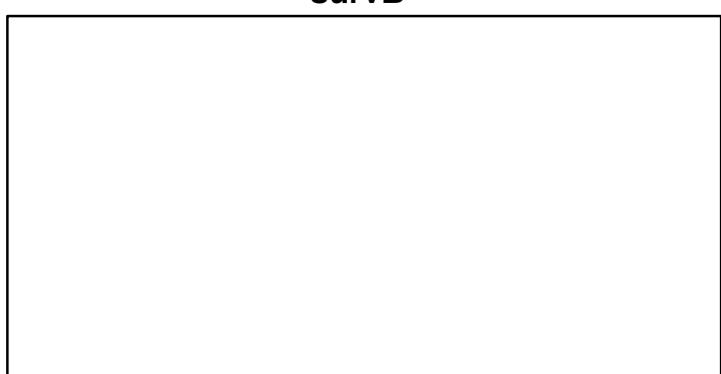
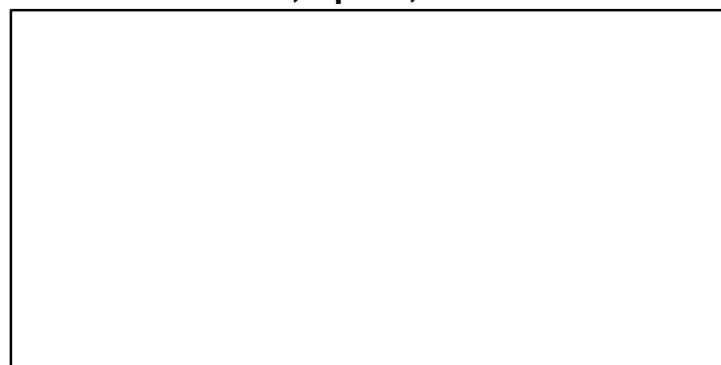
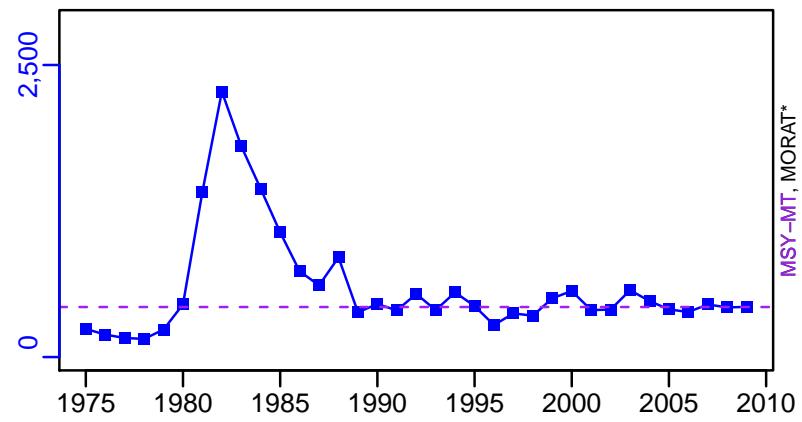


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	--- Lim BRP	* No Data

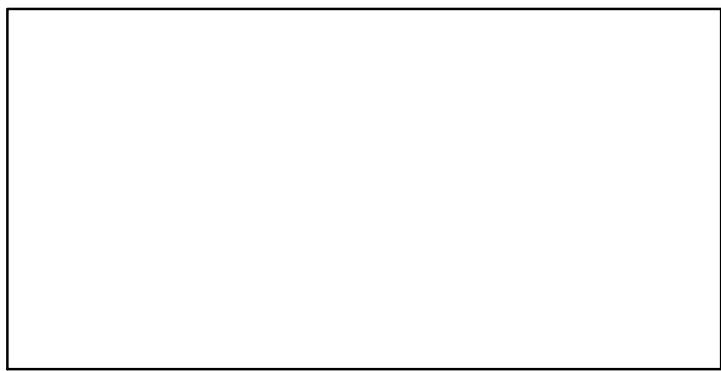
Yellowedge grouper Gulf of Mexico [YEGROUPGM]

TL-MT, TC*, RecC* (1975–2009–HIVELY)

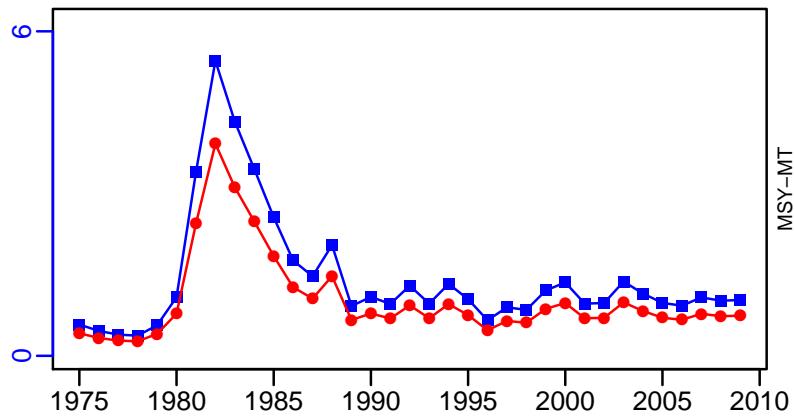
TAC*, Cpair*, Cadv*



EFFORT*



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



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

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

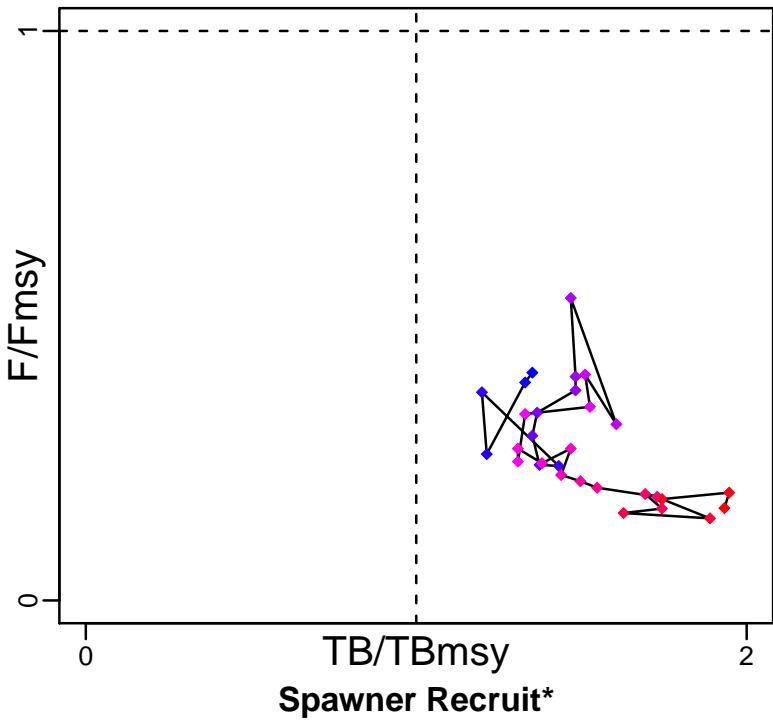
Metadata	
Scientific Name	Ocyurus chrysurus
Current Assess ID	SEFSC-YTSNAPSATLCGM-1950-2011-HIVELY
Area	Southern Atlantic coast and Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2011

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-est-MT	2011	13,764
SSBmsy	-	-	-
Fmsy	Fmsy-pr-1/yr	2011	0.29
ERrmsy	ERrmsy-est-ratio	2011	0.09
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2011	1700
M	M-1/yr	2011	0.19
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

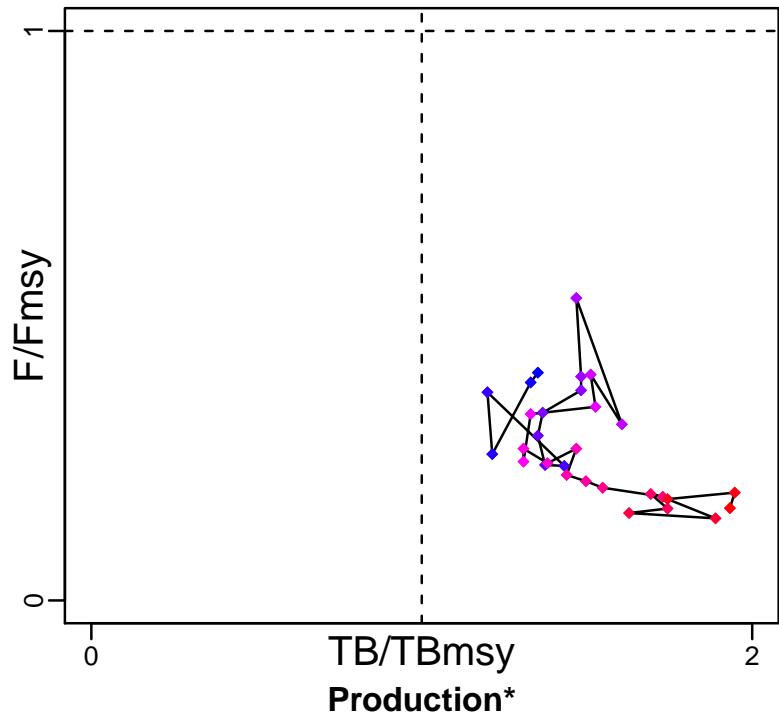
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2011	26,600	-	-	
SSB	-	-	-	-	-	
TN	-	-	-	-	-	
R	-	-	-	-	-	
F	F-1/yr	2011	0.047	-	-	
ER	ER-calc-ratio	2011	0.029	-	-	
TC	-	-	-			
TL	TL-MT	2011	858			
TB/TBmsy	TB-MT/TBmsy-est-MT	2011	1.933			
SSB/SSBmsy	-	-	-			
F/Fmsy	F-1/yr/Fmsy-pr-1/yr	2011	0.162			
ER/ERrmsy	ER-calc-ratio/ERrmsy-est-ratio	2011	0.321			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

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

Kobe MSYpref (1950–2011–HIVELY)



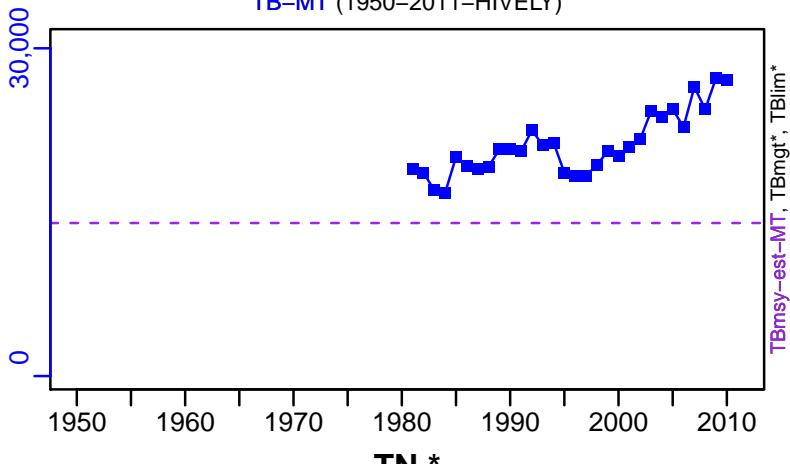
Kobe MGTPref (1950–2011–HIVELY)



◆ Start Year ◆ End Year * No Data

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

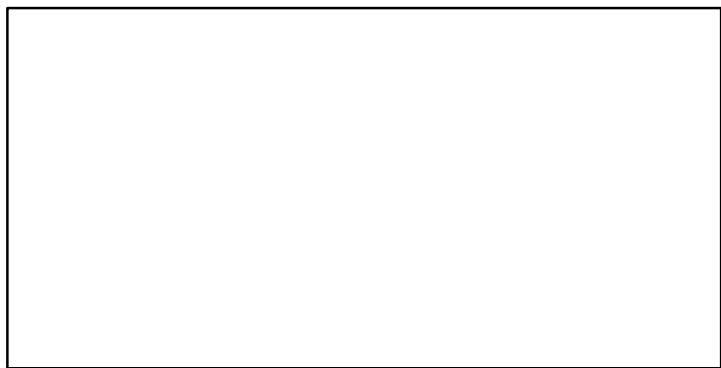
TB-MT (1950–2011-HIVELY)



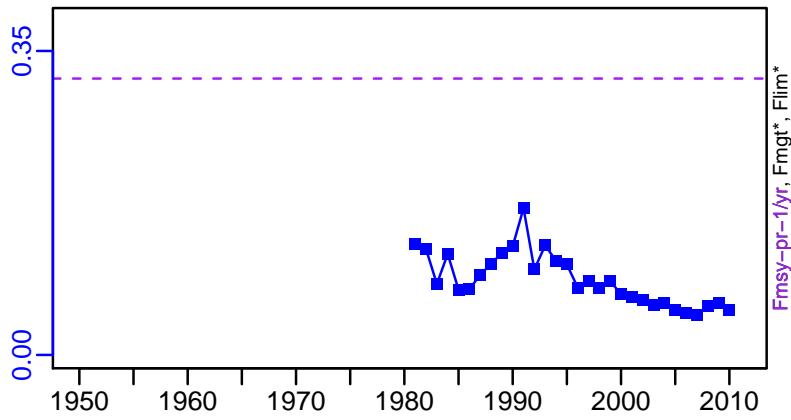
SSB*



TN *

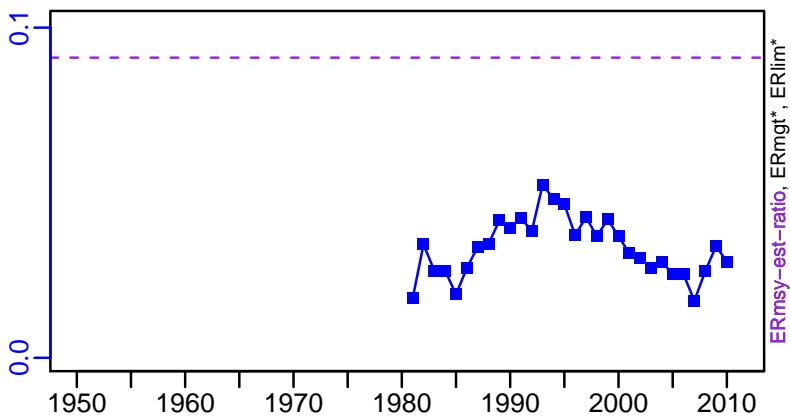


F-1/yr (1950–2011-HIVELY)

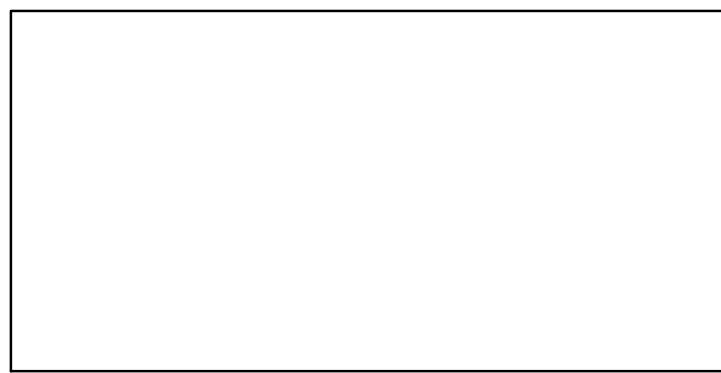


F_{msy-pr-1/yr, Fmgt*, Flim*}

ER-calc-ratio (1950–2011-HIVELY)



Recruits*

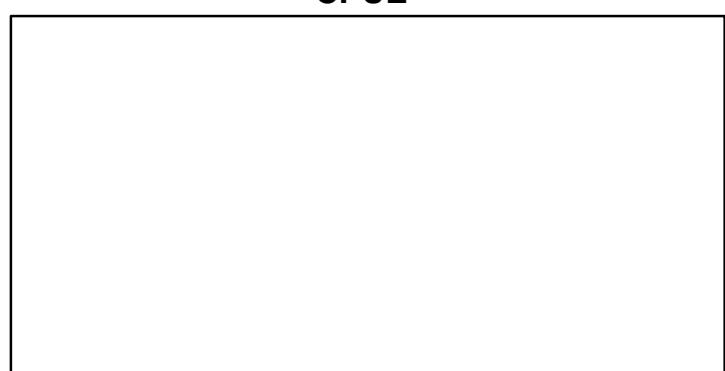
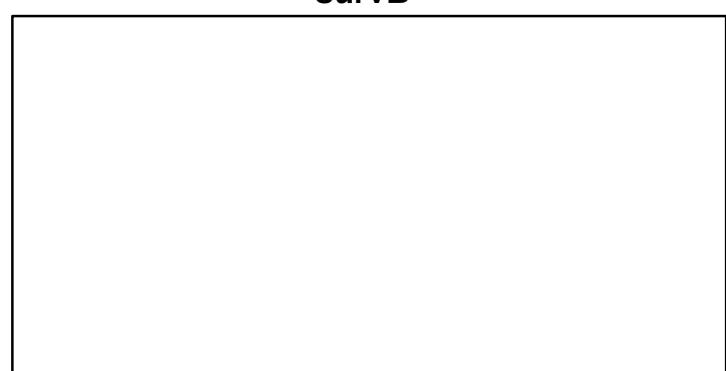
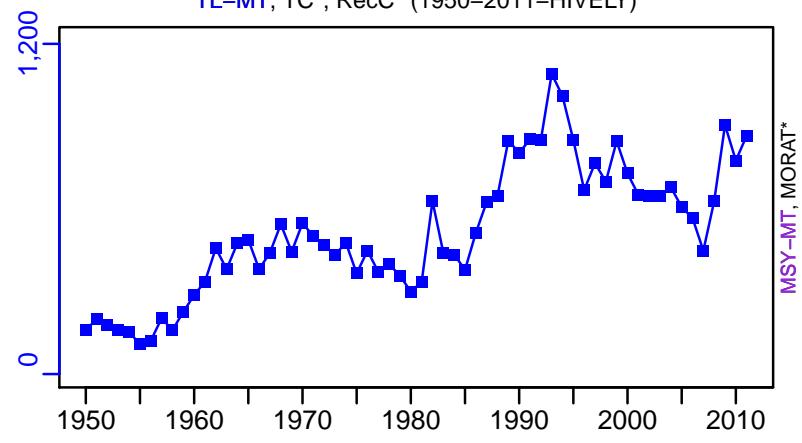


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	--- Lim BRP	* No Data

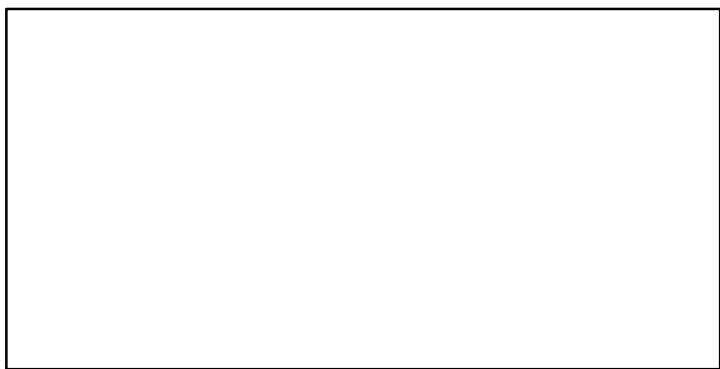
Yellowtail snapper Southern Atlantic coast and Gulf of Mexico [YTSNAPSATLCGM]

TL-MT, TC*, RecC* (1950–2011-HIVELY)

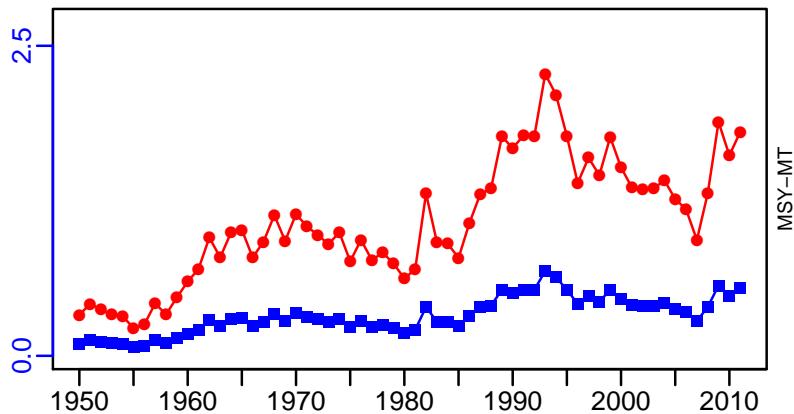
TAC*, Cpair*, Cadv*



EFFORT*



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



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