

carangids-mackerels Stocks

v4.66 (Nov-03-2024)

Not present Present Preferred

Stock	B/Bmsy	Time Series Types			
		U/Umsy	B/Bmgt	U/Umgt	
1. ACMACKSARG [Argentine chub mackerel Southern Argentina]	TB SSB	ER F	TB SSB	ER F	
2. ASCADECS [Amberstripe scad East China Sea]	TB SSB	ER F	TB SSB	ER F	
3. BJMACKXa2 [Blue jack mackerel Azores]	TB SSB	ER F	TB SSB	ER F	
4. BMACKECS [Spotted mackerel East China Sea]	TB SSB	ER F	TB SSB	ER F	
5. BMACKPJPN [Spotted mackerel Pacific Coast of Japan]	TB SSB	ER F	TB SSB	ER F	
6. CHMACKCWAGAB-AGO [Cunene horse mackerel Central West Africa Gabon-Angola]	TB SSB	ER F	TB SSB	ER F	
7. CHMACKCWAGNB-LBR [Cunene horse mackerel Central West Africa Guinea Bissau-Liberia]	TB SSB	ER F	TB SSB	ER F	
8. CHMACKNWA [Cunene horse mackerel North West Africa]	TB SSB	ER F	TB SSB	ER F	
9. CHTRACCH [Chilean jack mackerel Chilean EEZ and offshore]	TB SSB	ER F	TB SSB	ER F	
10. CMACKNWA [Atlantic chub mackerel North West Africa]	TB SSB	ER F	TB SSB	ER F	
11. CMACKPCOAST [Pacific chub mackerel Pacific Coast]	TB SSB	ER F	TB SSB	ER F	
12. CMACKPJPN [Chub mackerel Pacific Coast of Japan]	TB SSB	ER F	TB SSB	ER F	
13. CMACKTSST [Chub mackerel Tsushima Strait]	TB SSB	ER F	TB SSB	ER F	
14. CTRACSA [Cape horse mackerel South Africa South coast]	TB SSB	ER F	TB SSB	ER F	
15. FSCADNWA [False scad North West Africa]	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. GTREVMHI [Giant trevally Main Hawaiian Islands]	TB SSB	ER F	TB SSB	ER F	
19. HMACKIIa-IVa-Vb-VIa-VII-VIII [Horse mackerel ICES 2a-4a-5b-6a-7-8]	TB SSB	ER F	TB SSB	ER F	
20. HMACKIIIa-IVbc-VIId [Horse mackerel ICES 3a-4bc-7d]	TB SSB	ER F	TB SSB	ER F	
21. HMACKIXa [Horse mackerel Portugese Waters -East]	TB SSB	ER F	TB SSB	ER F	
22. HMACKMEDGSA9-11 [Horse mackerel Geographical Sub-Areas 9-11]	TB SSB	ER F	TB SSB	ER F	
23. HMACKNWA [Horse mackerel North West Africa]	TB SSB	ER F	TB SSB	ER F	
24. JAMBERJPN [Japanese amberjack Japan]	TB SSB	ER F	TB SSB	ER F	
25. JMACKPJPN [Japanese jack mackerel Pacific Coast of Japan]	TB SSB	ER F	TB SSB	ER F	
26. JMACKTSST [Japanese jack mackerel Tsushima Strait]	TB SSB	ER F	TB SSB	ER F	
27. KMACKGM [King mackerel Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F	
28. KMACKSATLC [King mackerel Southern Atlantic coast]	TB SSB	ER F	TB SSB	ER F	
29. MACK5YCHATT [Atlantic mackerel Gulf of Maine / Cape Hatteras]	TB SSB	ER F	TB SSB	ER F	
30. MACKNEICES [Mackerel ICES Northeast Atlantic]	TB SSB	ER F	TB SSB	ER F	
31. MACKNWATLSA3-4 [Mackerel Northwest Atlantic (NAFO Subareas 3 and 4)]	TB SSB	ER F	TB SSB	ER F	
32. MHMACKMEDGSA29 [Mediterranean horse mackerel Black Sea]	TB SSB	ER F	TB SSB	ER F	
33. SCADSPPCWAGNB-LBR [Scad spp Central West Africa Guinea Bissau-Liberia]	TB SSB	ER F	TB SSB	ER F	

34. SPANMACKECS [Japanese Spanish mackerel East China Sea]	TB SSB	ER F	TB SSB	ER F
35. SPANMACKGM [Spanish mackerel Gulf of Mexico]	TB SSB	ER F	TB SSB	ER F
36. SPANMACKSATLC [Spanish mackerel Southern Atlantic coast]	TB SSB	ER F	TB SSB	ER F
37. SPANMACKSETO [Japanese Spanish mackerel Inland Sea of Japan]	TB SSB	ER F	TB SSB	ER F
38. TREVALLYTRE7 [Trevally New Zealand Areas TRE 7]	TB SSB	ER F	TB SSB	ER F

Argentine chub mackerel Southern Argentina [ACMACKSARG]

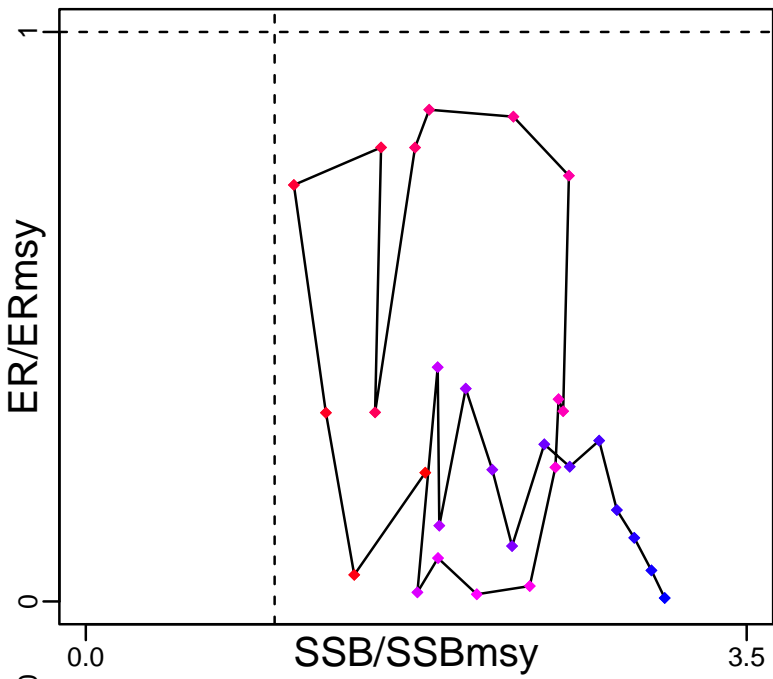
Metadata	
Scientific Name	Scomber colias
Current Assess ID	INIDEP-ACMACKSARG-1989-2020-PARMA
Area	Southern Argentina
Management Authority	Consejo Federal Pesquero, Argentina national management
Assessor	Instituto Nacional de Investigacion y Desarrollo Pesquero
Asmts in RAM	2016, 2020

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2020	72,658
SSBmsy	SSBmsy-MT	2020	57,455
Fmsy	Fmsy-1/yr	2020	0.475
ERmsy	ERmsy-calc-ratio	2020	0.209
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2020	76,800
Fmgt	Fmgt-1/yr	2020	0.31
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2020	15,200
M	M-1/yr	2020	0.38
TBlim	-	-	-
SSBlim	SSBlim-MT	2016	59,000
Flim	Flim-1/yr	2016	0.81
ERlim	-	-	-

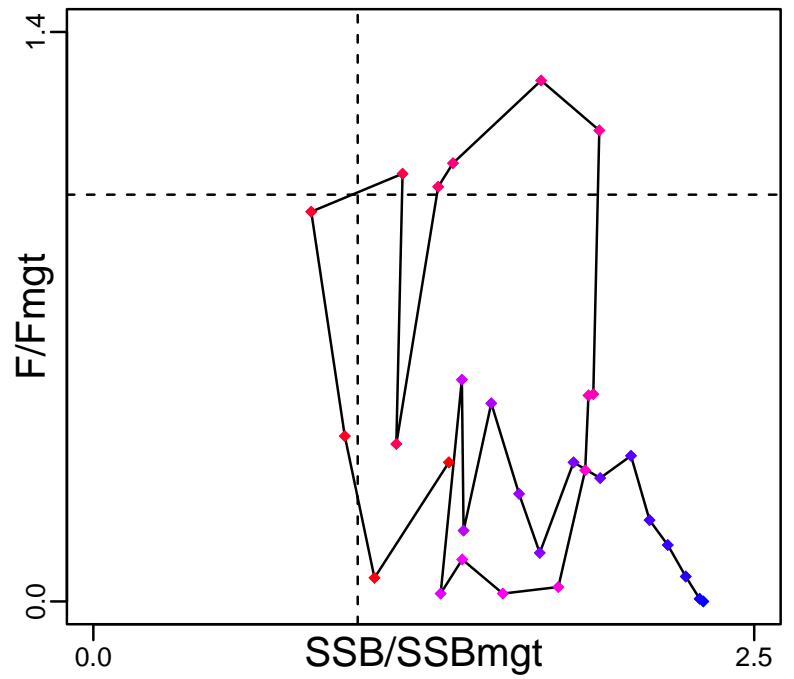
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2020	116,131	Both	10-Jan
SSB	SSB-MT	2020	103,295	Both	10-Jan
TN	TN-E00	2020	646,680,519	Both	10-Jan
R	R-E00	2020	211,084,354	Both	1
F	F-1/yr	2020	0.106	Both	10-Jul
ER	ER-calc-ratio	2020	0.047	-	-
TC	TC-MT	2020	5494		
TL	TL-MT	2020	5494		
TB/TBmsy	TB-MT/TBmsy-MT	2020	1.598		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2020	1.798		
F/Fmsy	F-1/yr/Fmsy-1/yr	2020	0.223		
ER/ERmsy	ER-calc-ratio/ERmsy-calc-ratio	2020	0.226		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2020	1.345		
F/Fmgt	F-1/yr/Fmgt-1/yr	2020	0.342		
ER/ERmgt	-	-	-		

Argentine chub mackerel Southern Argentina [ACMACKSARG]

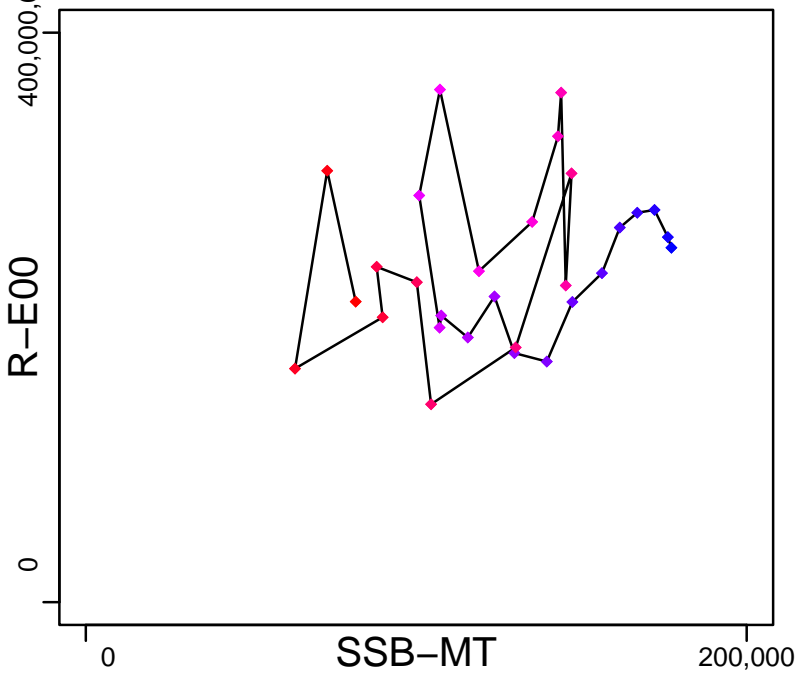
Kobe MSYpref (1989–2020–PARMA)



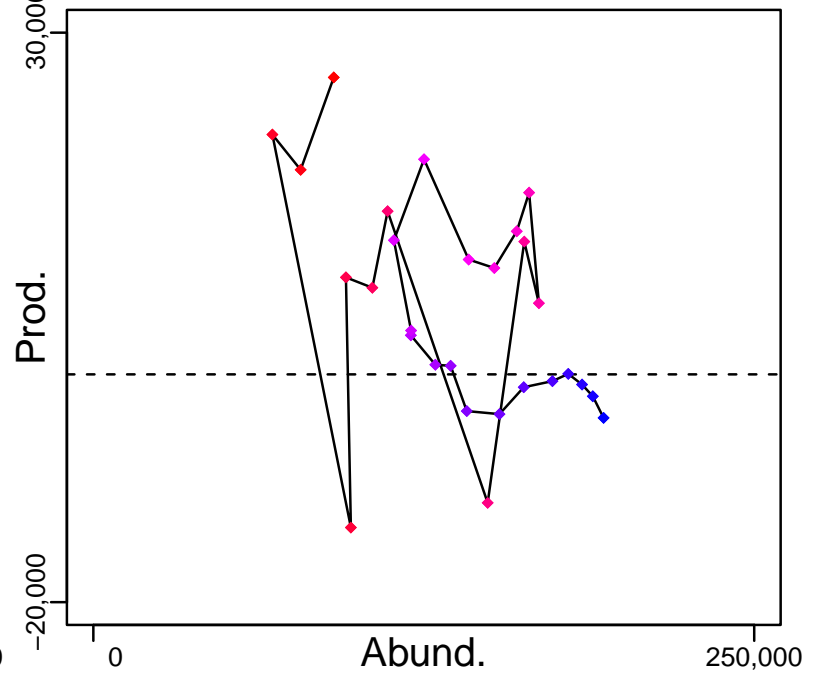
Kobe MGTpref (1989–2020–PARMA)



Spawner Recruit (1989–2020–PARMA)

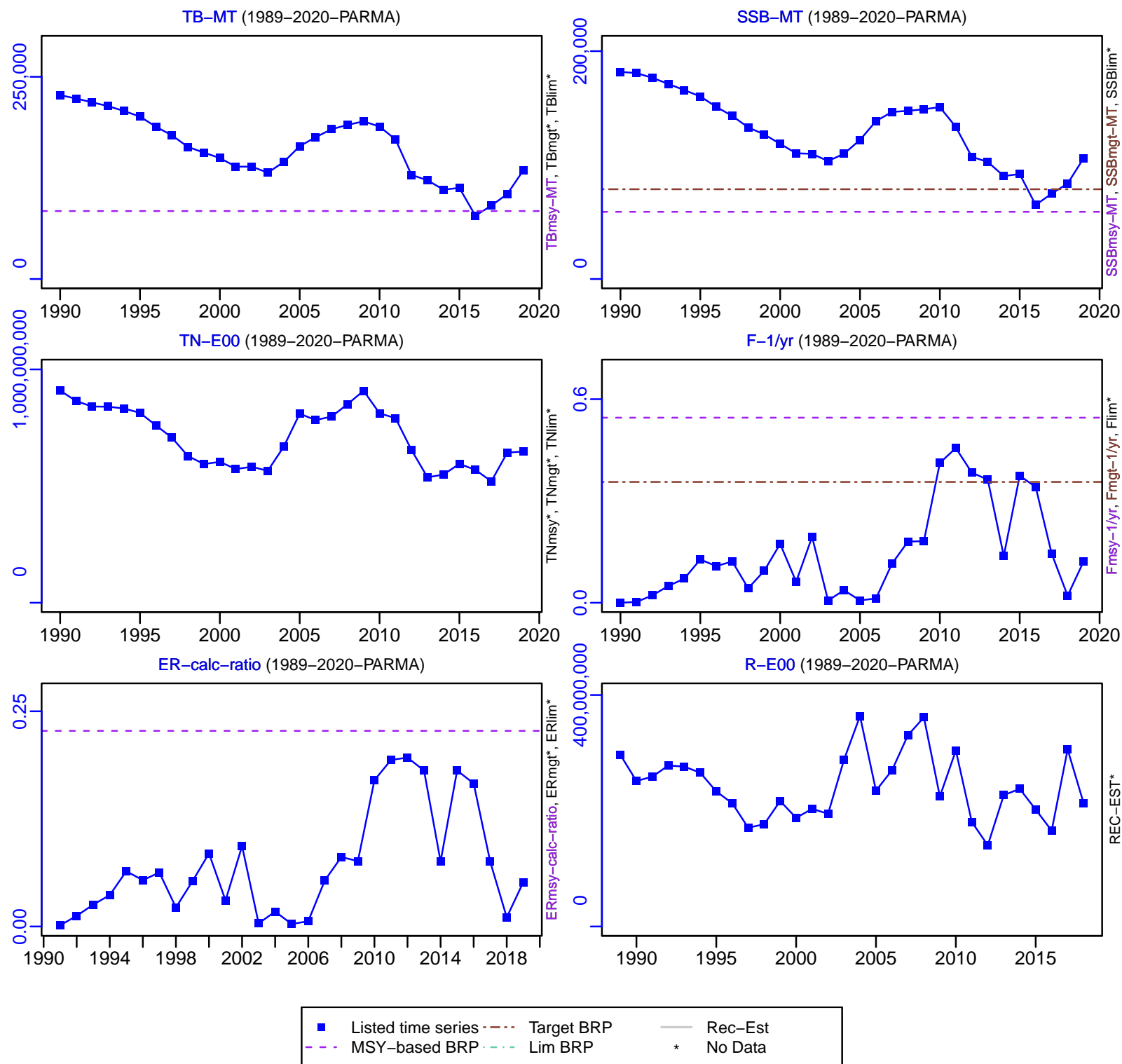


Production (1989–2020–PARMA)



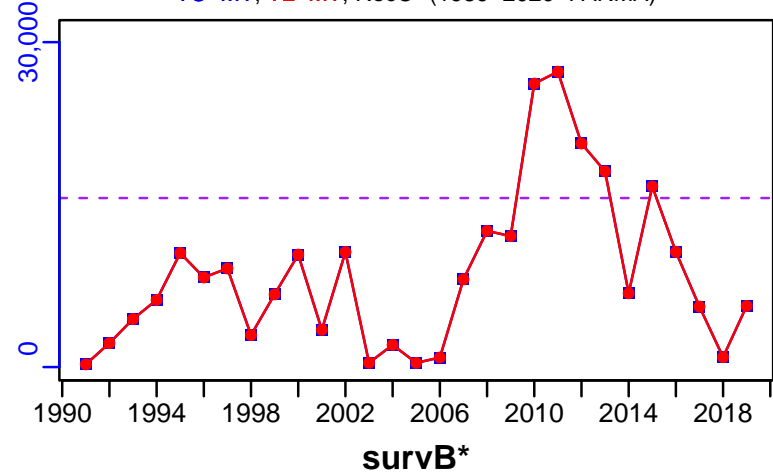
◆ Start Year ◆ End Year * No Data

Argentine chub mackerel Southern Argentina [ACMACKSARG]

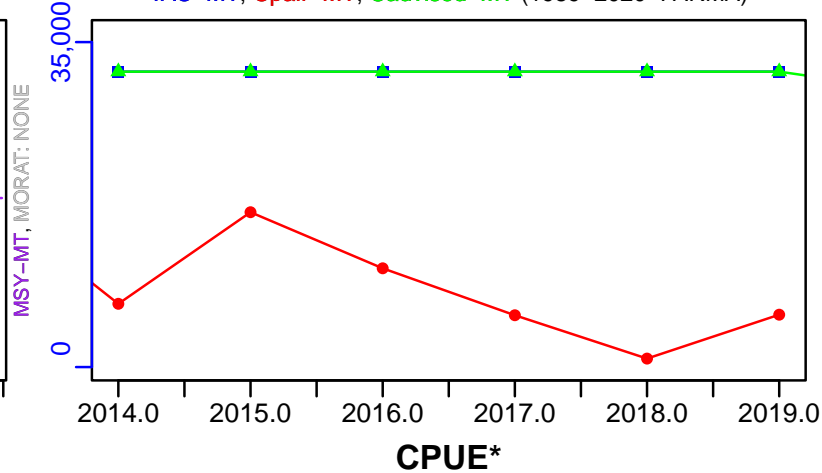


Argentine chub mackerel Southern Argentina [ACMACKSARG]

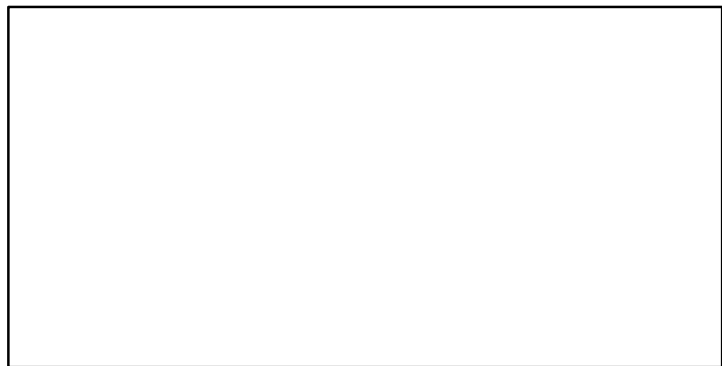
TC-MT, TL-MT, RecC* (1989–2020–PARMA)



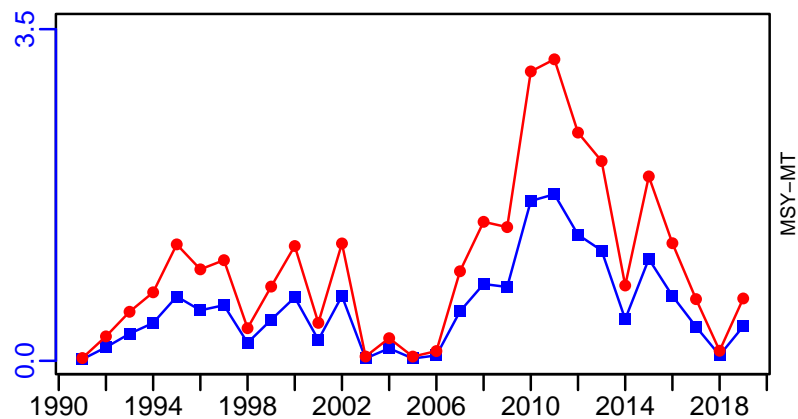
TAC-MT, Cpair-MT, Cadvised-MT (1989–2020–PARMA)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1989–2020–PARMA)



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

Amberstripe scad East China Sea [ASCADECS]

Metadata	
Scientific Name	Decapterus muroadsi
Current Assess ID	FAFRFJ-ASCADECS-1973-2018-KUROTA
Area	East China Sea
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013, 2018

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	2018	7727		
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

Amberstripe scad East China Sea [ASCADECS]

TB*



SSB*



TN *



F*



ER*

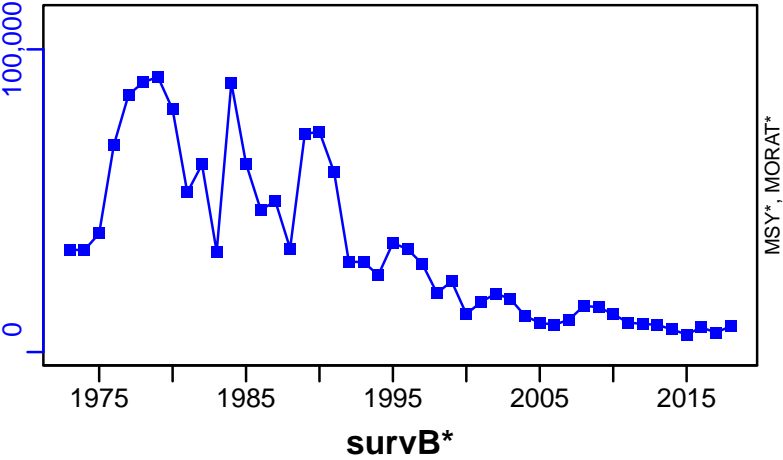


Recruits*



Amberstripe scad East China Sea [ASCADECS]

TC-MT, TL*, RecC* (1973-2018-KUROTA)



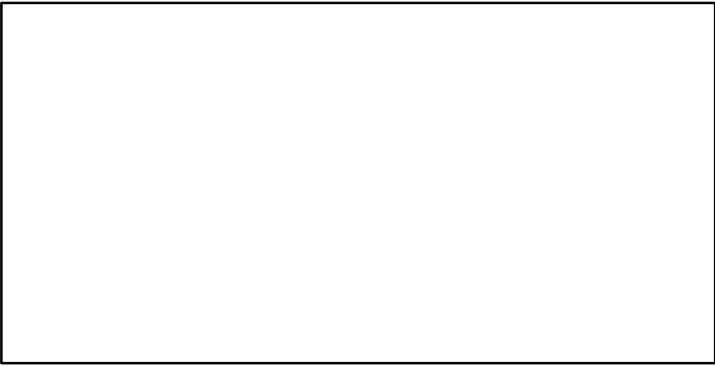
TAC*, Cpair*, Cadv*



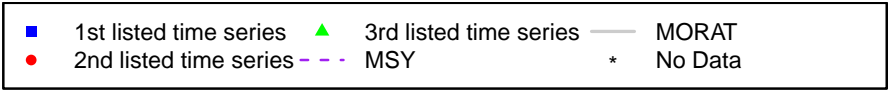
CPUE*



EFFORT*



CdivMSY*



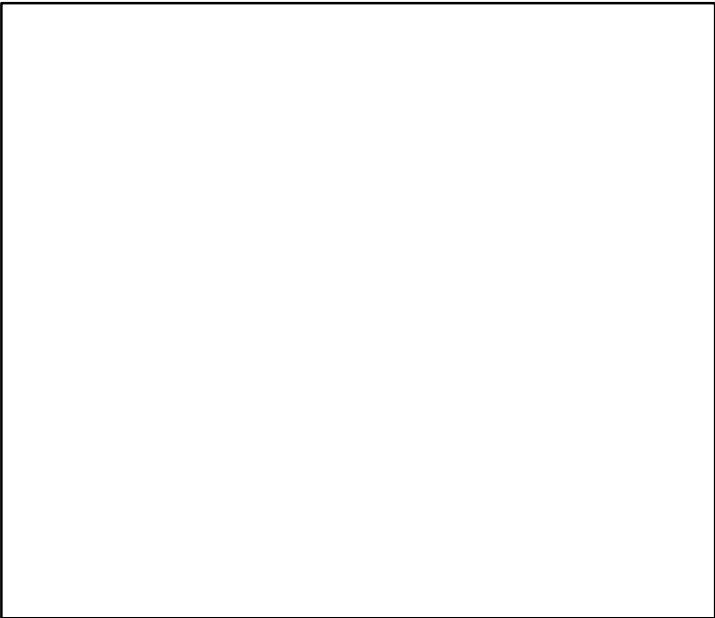
Blue jack mackerel Azores [BJMACKXa2]

Metadata	
Scientific Name	Trachurus picturatus
Current Assess ID	WGHANSA-BJMACKXa2-1978-2017-ICESIMP2018
Area	Azores
Management Authority	International Council for the Exploration of the Sea
Assessor	Working Group on Southern Horse Mackerel, Anchovy and Sardine
Asmts in RAM	2016, 2017

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2016	1140		
TL	TL-MT	2017	991		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

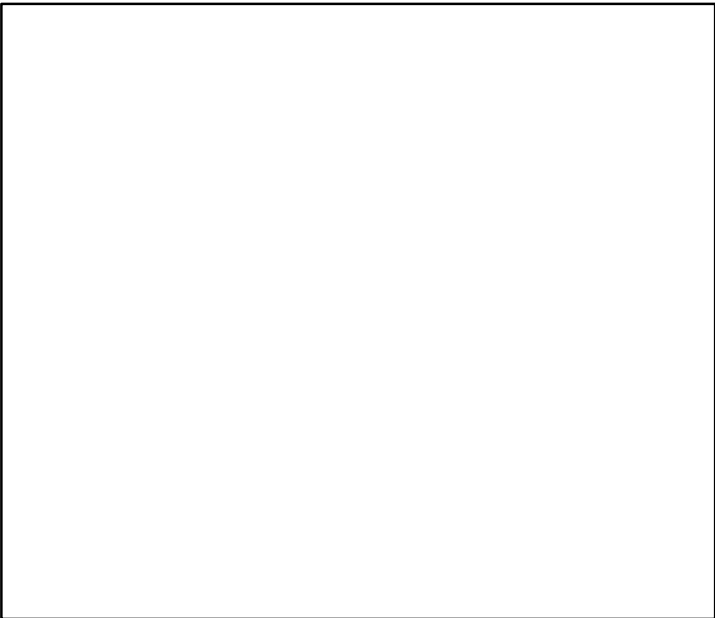
Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Blue jack mackerel Azores [BJMACKXa2]

TB*



SSB*



TN *



F*



ER*



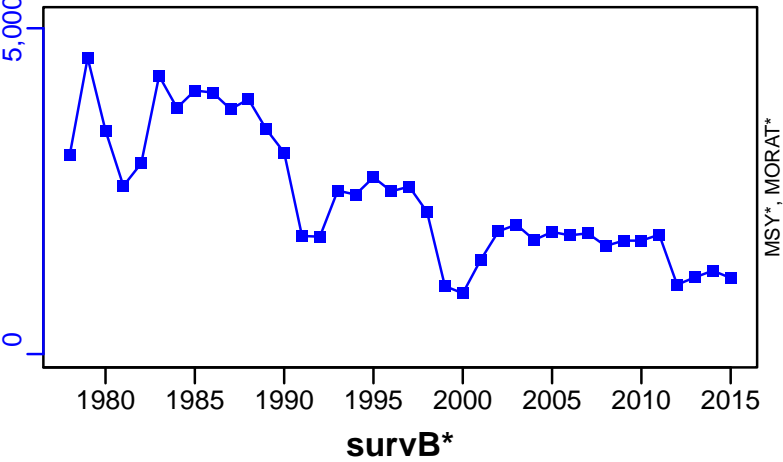
Recruits*



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

Blue jack mackerel Azores [BJMACKXa2]

TC-MT, TL*, RecC* (1978-2016-ICESIMP2016)



TAC*, Cpair*, Cadv*



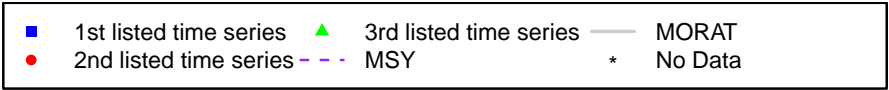
CPUE*



EFFORT*



CdivMSY*



Spotted mackerel East China Sea [BMACKECS]

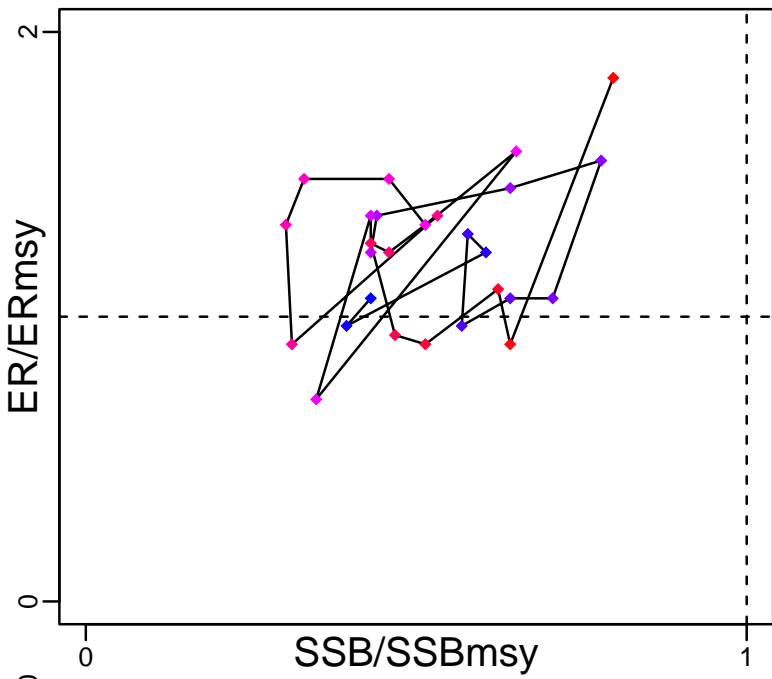
Metadata	
Scientific Name	Scomber australasicus
Current Assess ID	FAFRFJ-BMACKECS-1973-2018-KUROTA
Area	East China Sea
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2018, 2013

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2018	245,161
SSBmsy	SSBmsy-MT	2018	109,000
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2018	0.31
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2018	109,000
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2018	76,000
M	M-1/yr	2018	0.4
TBlim	-	-	-
SSBlim	SSBlim-MT	2018	51,000
Flim	-	-	-
ERlim	-	-	-

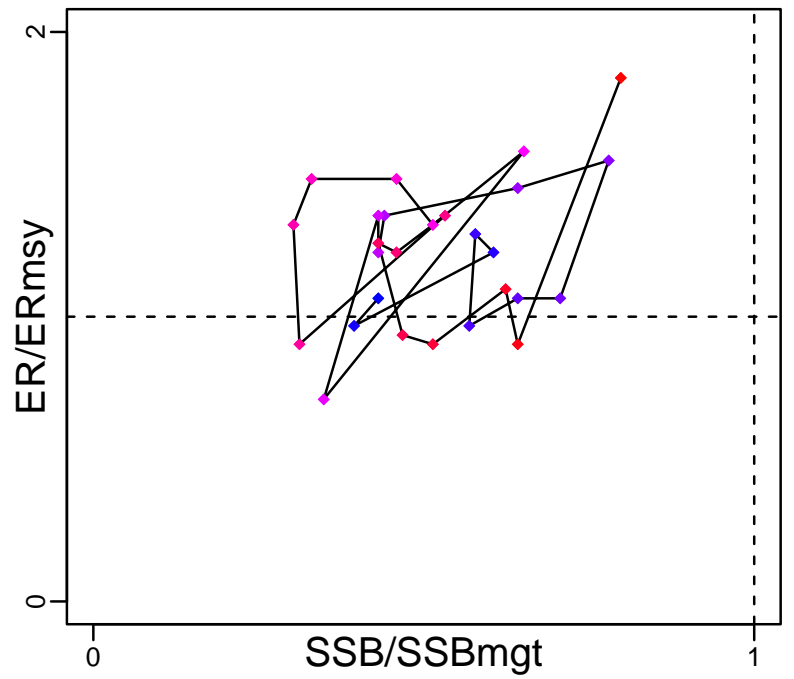
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2018	204,000	Both	0
SSB	SSB-MT	2018	87,000	Both	1
TN	-	-	-	-	-
R	R-E00	2018	3.93×10^8	Both	0
F	-	-	-	-	-
ER	ER-ratio	2018	0.57	Both	-
TC	TC-MT	2018	40,966		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2018	0.832		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2018	0.798		
F/Fmsy	-	-	-		
ER/ERmsy	ER-ratio/ERmsy-ratio	2018	1.839		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2018	0.798		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Spotted mackerel East China Sea [BMACKECS]

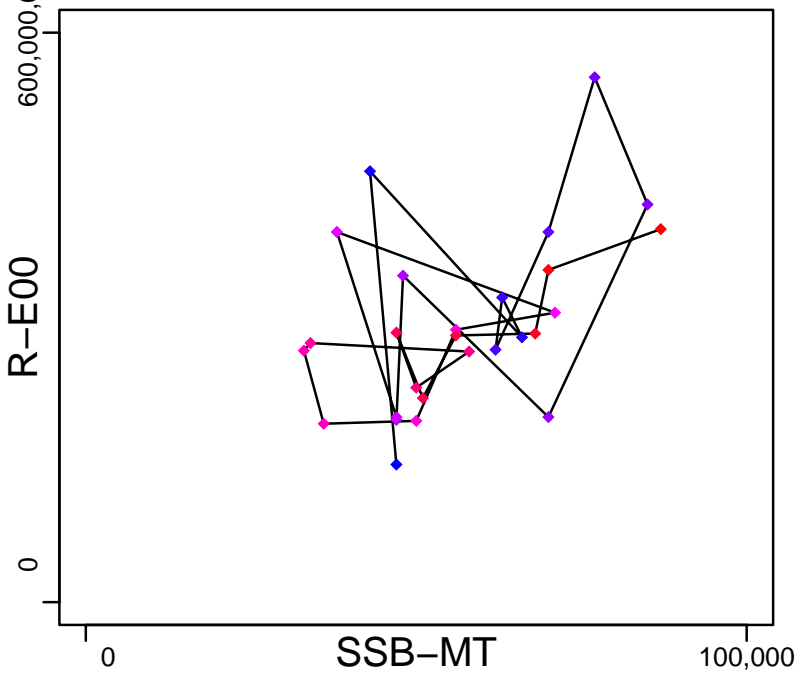
Kobe MSYpref (1973–2018–KUROTA)



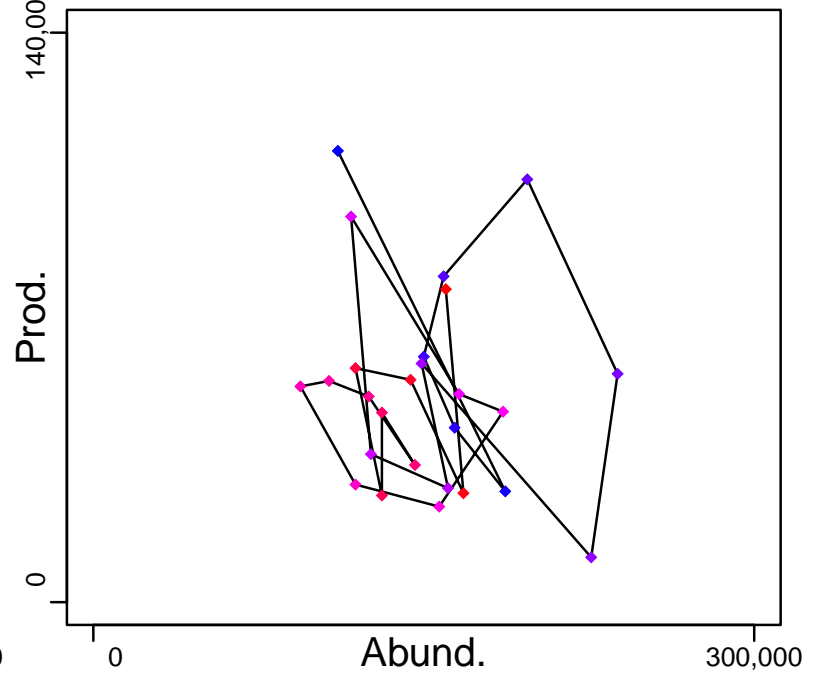
Kobe MGTpref (1973–2018–KUROTA)



Spawner Recruit (1973–2018–KUROTA)



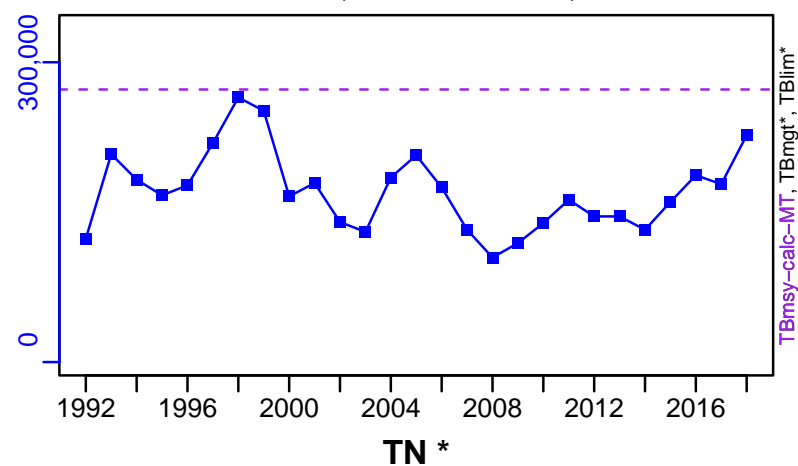
Production (1973–2018–KUROTA)



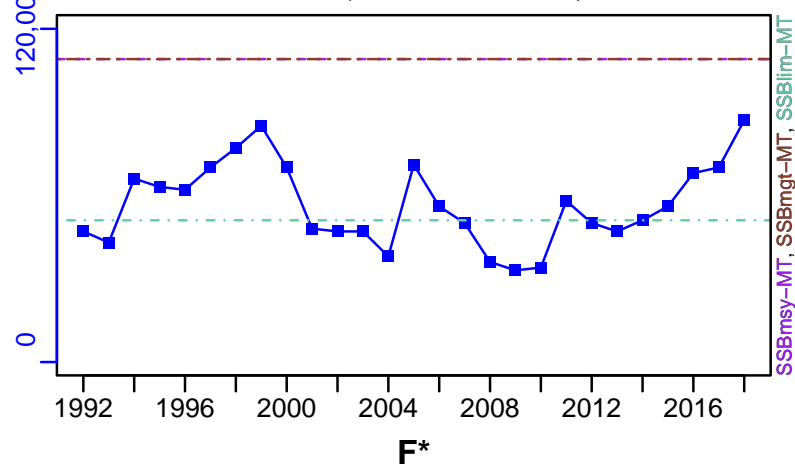
◆ Start Year ◆ End Year * No Data

Spotted mackerel East China Sea [BMACKECS]

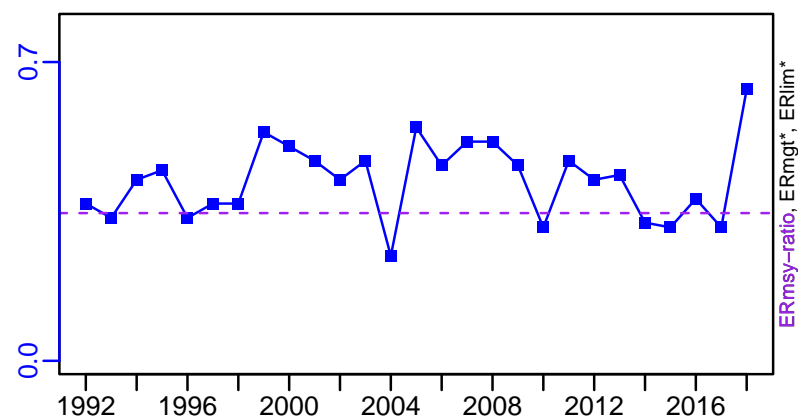
TB-MT (1973–2018–KUROTA)



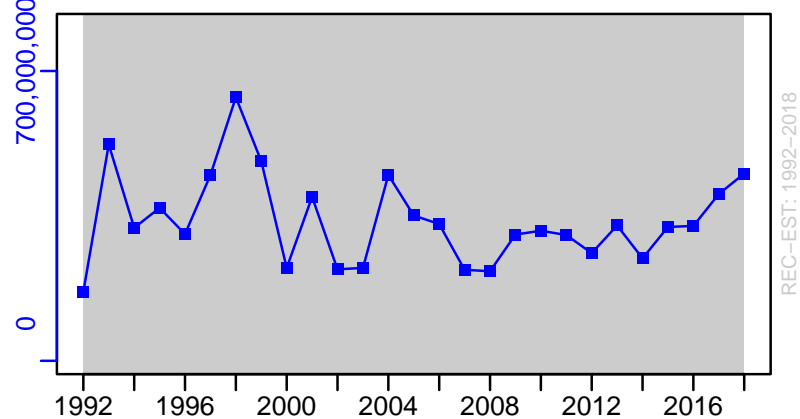
SSB-MT (1973–2018–KUROTA)



ER-ratio (1973–2018–KUROTA)

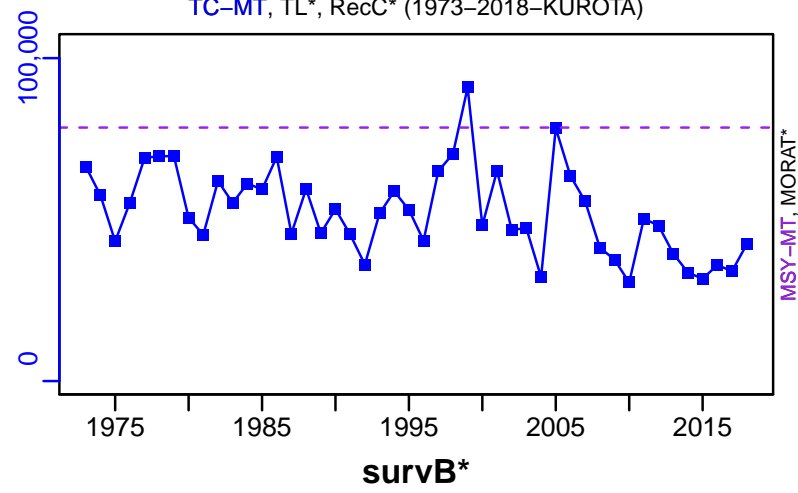


R-E00 (1973–2018–KUROTA)



Spotted mackerel East China Sea [BMACKECS]

TC-MT, TL*, RecC* (1973–2018–KUROTA)



TAC*, Cpair*, Cadv*



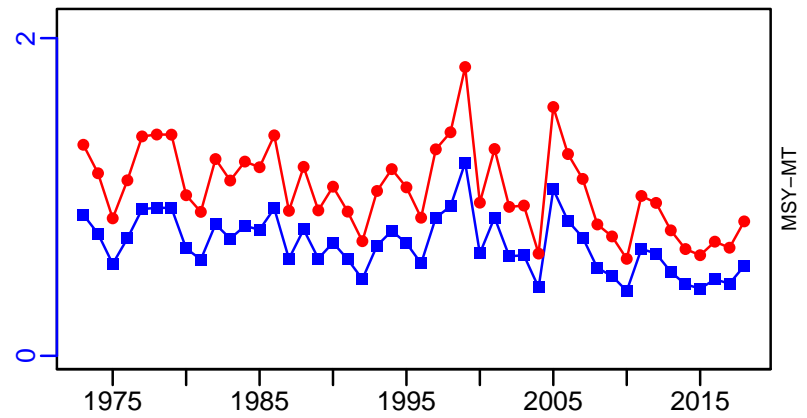
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1973–2018–KUROTA)



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

Spotted mackerel Pacific Coast of Japan [BMACKPJPN]

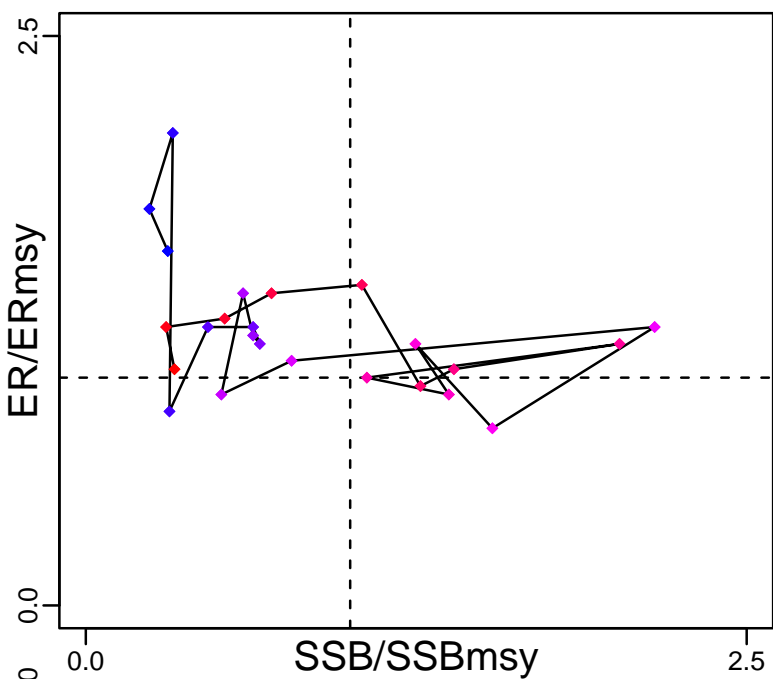
Metadata	
Scientific Name	Scomber australasicus
Current Assess ID	FAFRFJ-BMACKPJPN-1982-2018-KUROTA
Area	Pacific Coast of Japan
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013, 2018

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2018	388,889
SSBmsy	SSBmsy-MT	2018	158,000
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2018	0.27
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2018	158,000
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2018	105,000
M	M-1/yr	2018	0.4
TBlim	-	-	-
SSBlim	SSBlim-MT	2018	50,000
Flim	-	-	-
ERlim	-	-	-

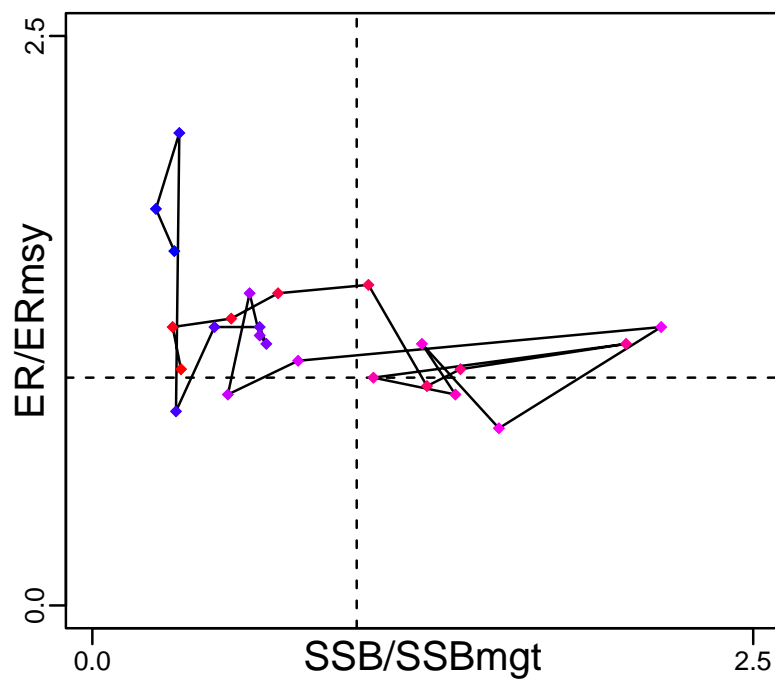
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2018	124,000	Both	0
SSB	SSB-MT	2018	53,000	Both	2
TN	-	-	-	-	-
R	R-E00	2018	2.92×10^8	Both	0
F	-	-	-	-	-
ER	ER-ratio	2018	0.28	Both	-
TC	TC-MT	2018	34,879		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2018	0.319		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2018	0.335		
F/Fmsy	-	-	-		
ER/ERmsy	ER-ratio/ERmsy-ratio	2018	1.037		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2018	0.335		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Spotted mackerel Pacific Coast of Japan [BMACKPJPN]

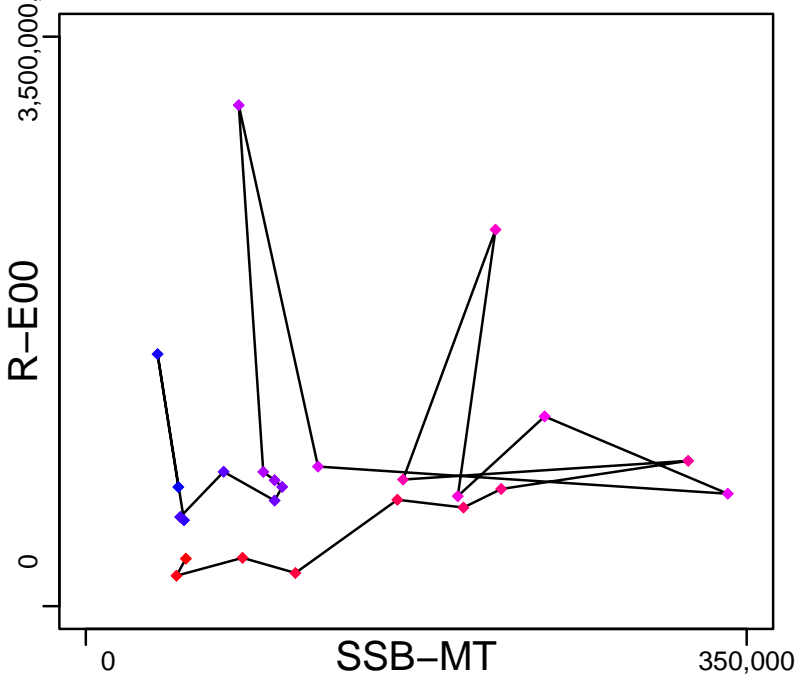
Kobe MSYpref (1982–2018–KUROTA)



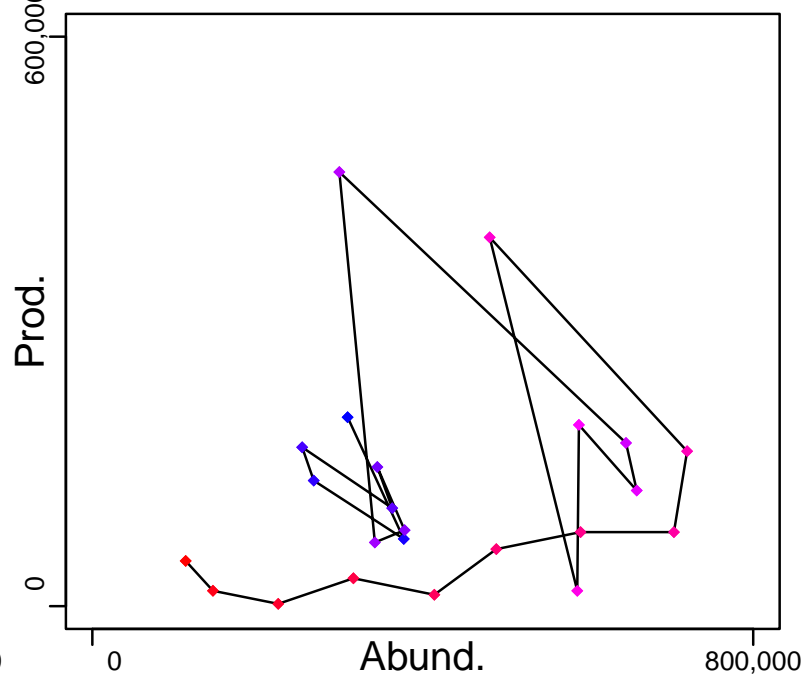
Kobe MGTpref (1982–2018–KUROTA)



Spawner Recruit (1982–2018–KUROTA)



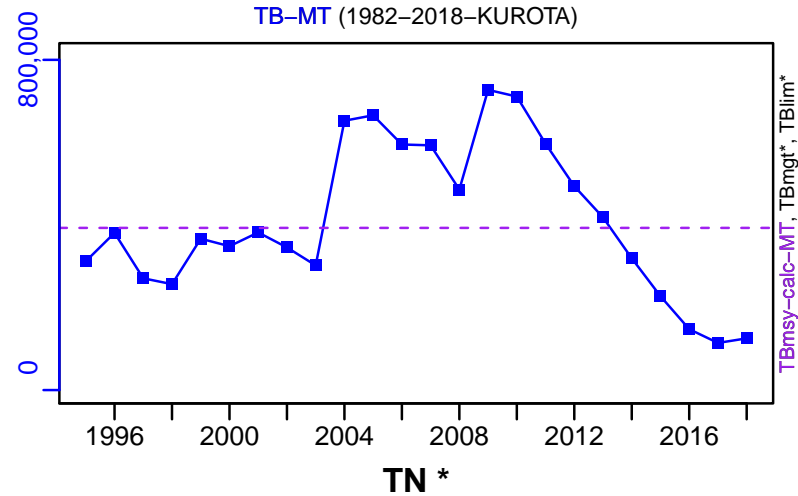
Production (1982–2018–KUROTA)



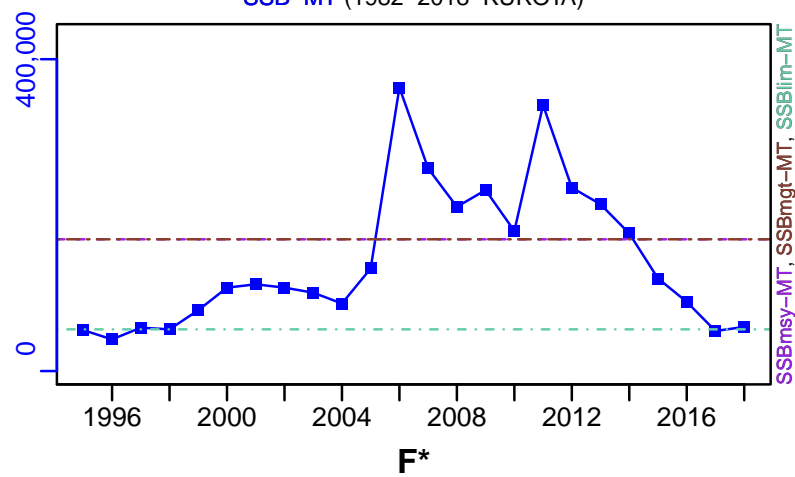
◆ Start Year ◆ End Year * No Data

Spotted mackerel Pacific Coast of Japan [BMACKPJPN]

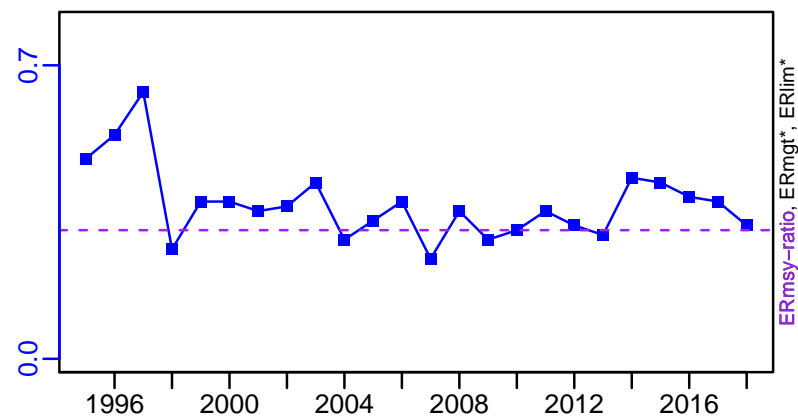
TB-MT (1982-2018-KUROTA)



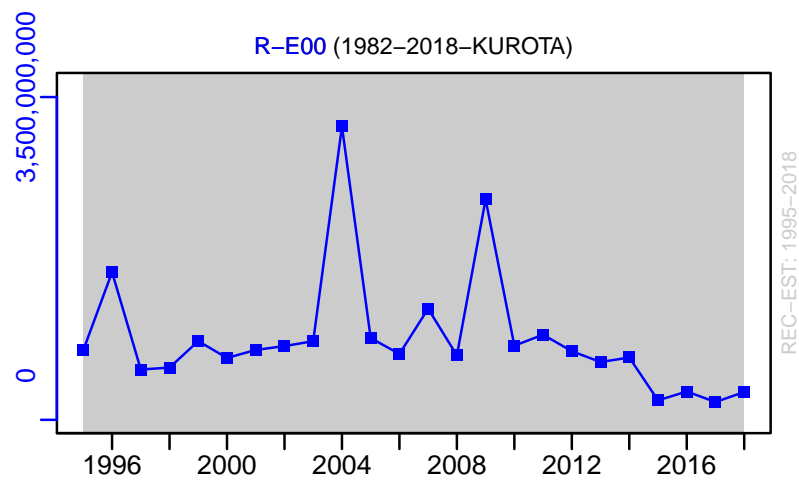
SSB-MT (1982-2018-KUROTA)



ER-ratio (1982-2018-KUROTA)

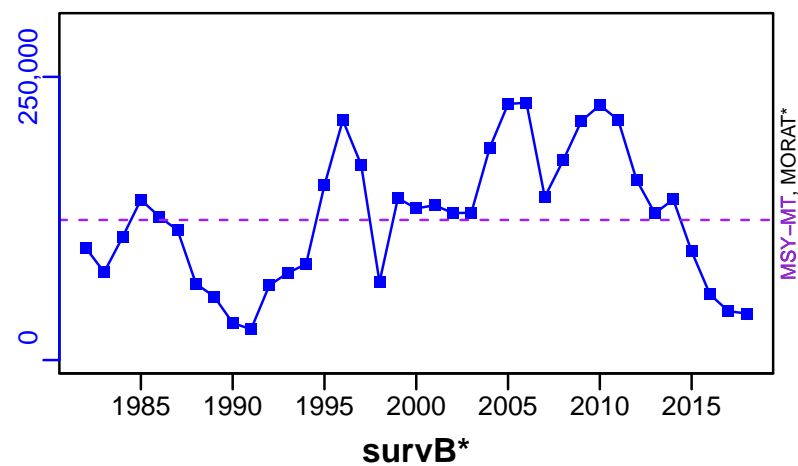


R-E00 (1982-2018-KUROTA)



Spotted mackerel Pacific Coast of Japan [BMACKPJPN]

TC-MT, TL*, RecC* (1982-2018-KUROTA)



TAC*, Cpair*, Cadv*



survB*



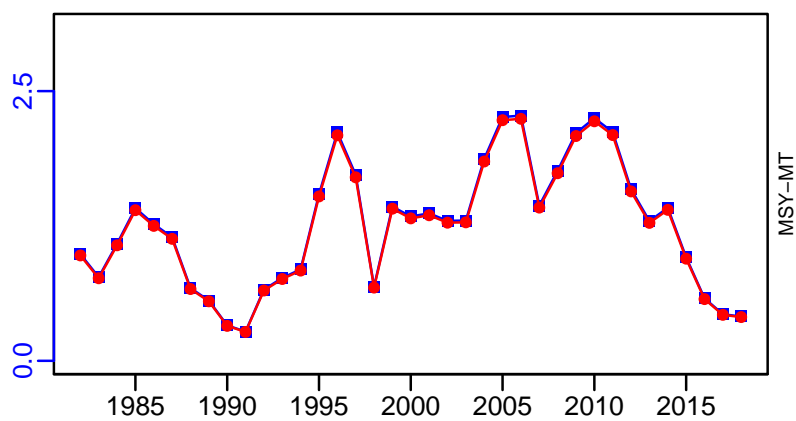
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1982-2018-KUROTA)



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

**Cunene horse mackerel Central West Africa Gabon-Angola
[CHMACKCWAGAB-AGO]**

Metadata	
Scientific Name	Trachurus trecae
Current Assess ID	FAO-SPNWA-CHMACKCWAGAB-AGO-1990-2017-ASHBROOK
Area	Central West Africa Gabon-Angola
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO Working Group on the Assessment of Small Pelagic Fish Off Northwest Africa
Asmts in RAM	2017

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2017	48,000		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

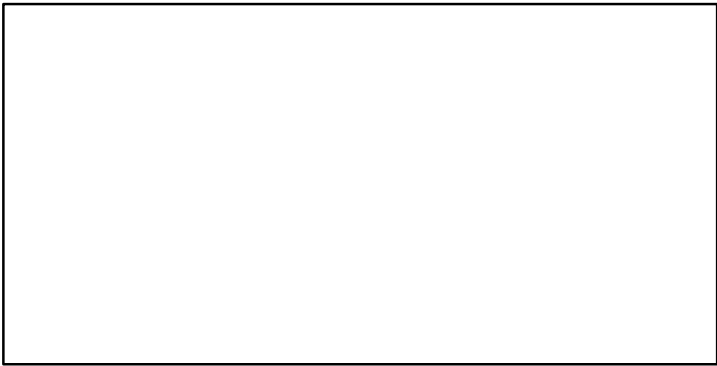
TB*



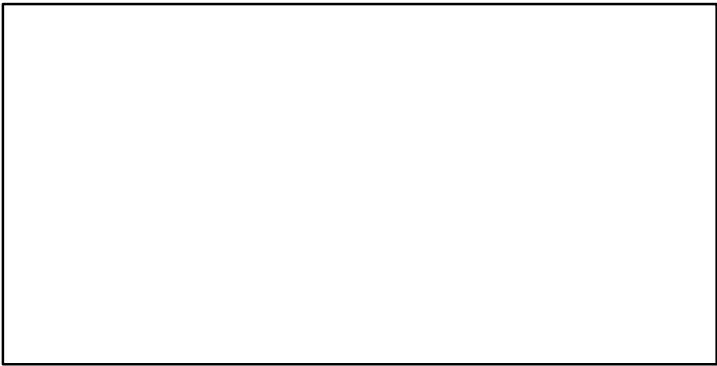
SSB*



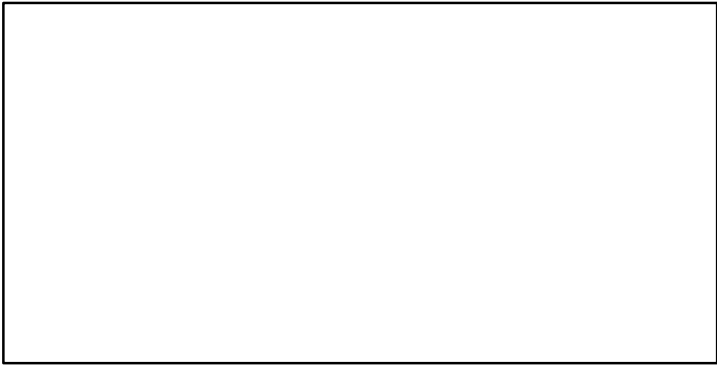
TN *



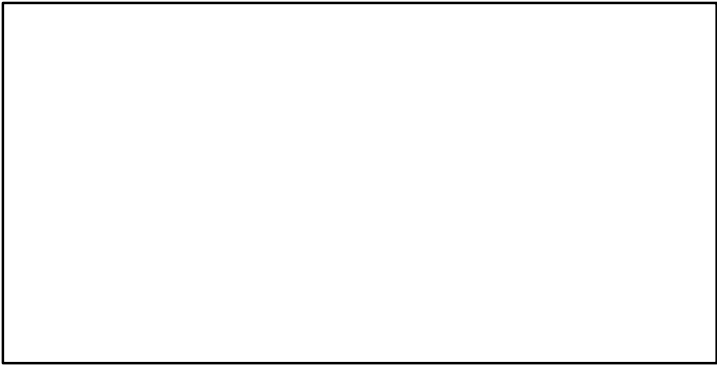
F*



ER*

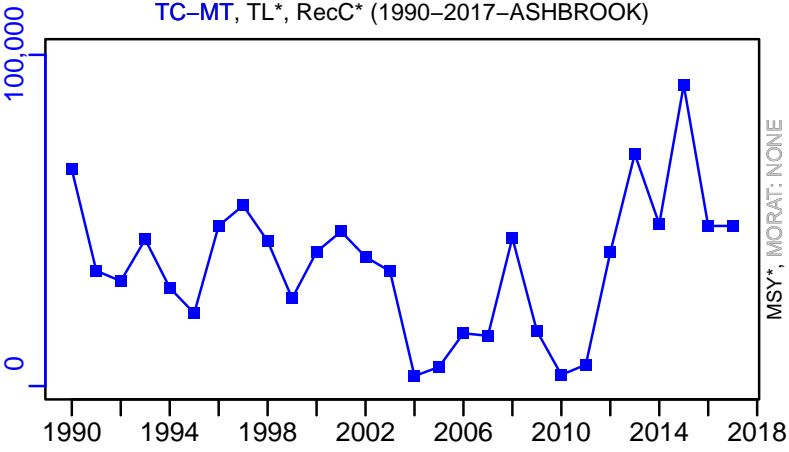


Recruits*



Cunene horse mackerel Central West Africa Gabon–Angola [CHMACKCWAGAB-AGO]

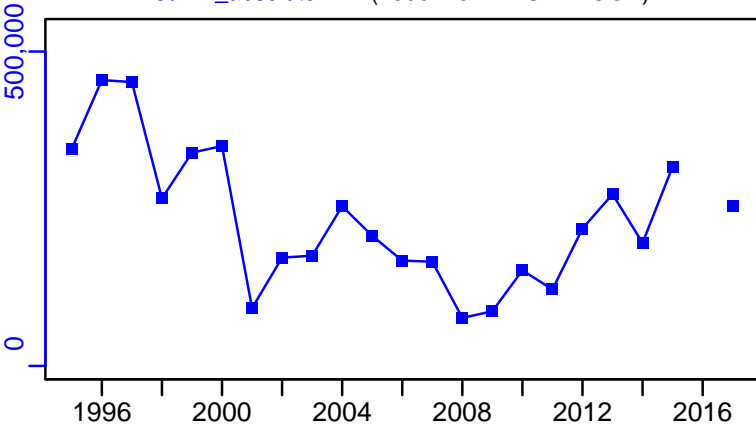
TC–MT, TL*, RecC* (1990–2017–ASHBROOK)



TAC*, Cpair*, Cadv*



survB_absolute–MT (1990–2017–ASHBROOK)



CPUE*



EFFORT*



CdivMSY*



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

**Cunene horse mackerel Central West Africa Guinea Bissau-Liberia
[CHMACKCWAGNB-LBR]**

Metadata	
Scientific Name	Trachurus trecae
Current Assess ID	FAO-SPNWA-CHMACKCWAGNB-LBR-1990-2017-ASHBROOK
Area	Central West Africa Guinea Bissau-Liberia
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO Working Group on the Assessment of Small Pelagic Fish Off Northwest Africa
Asmts in RAM	2017

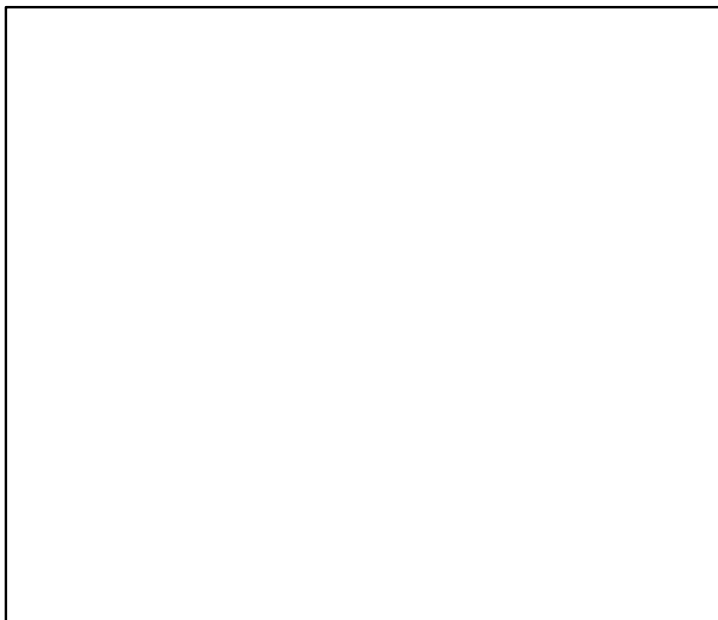
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2017	31,487		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

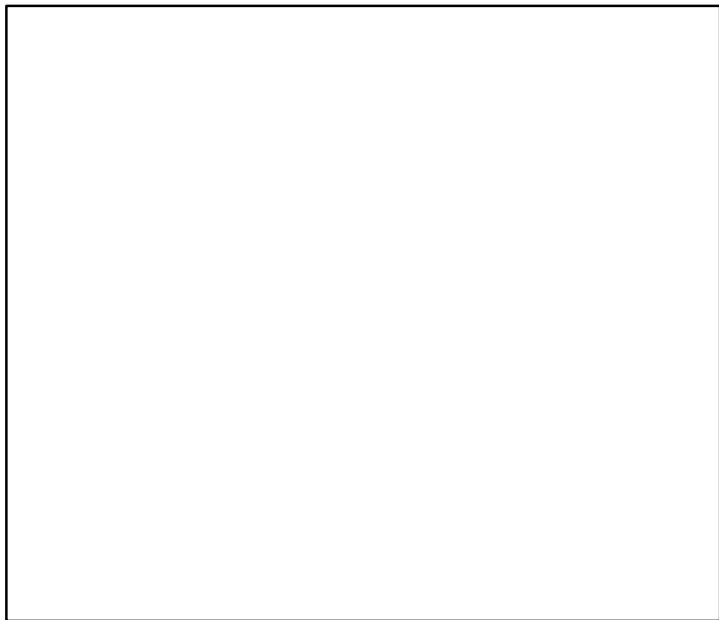
Kobe MSY*



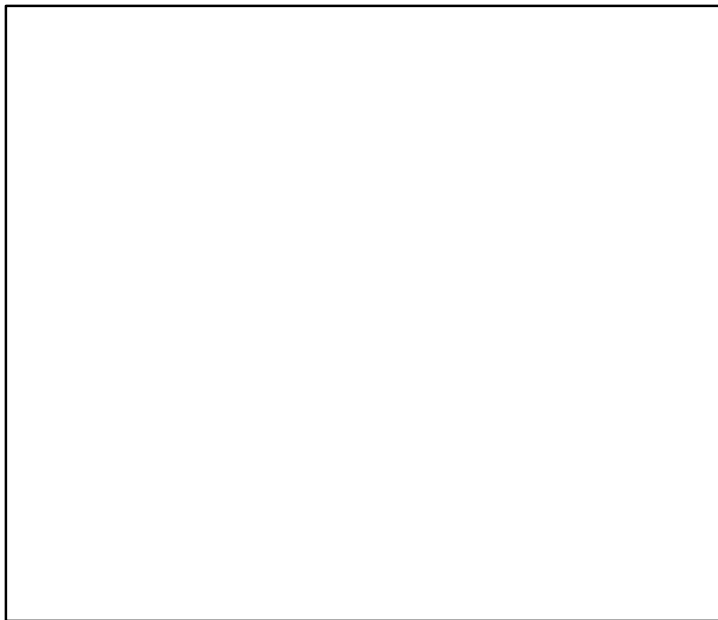
Kobe MGT*



Spawner Recruit*

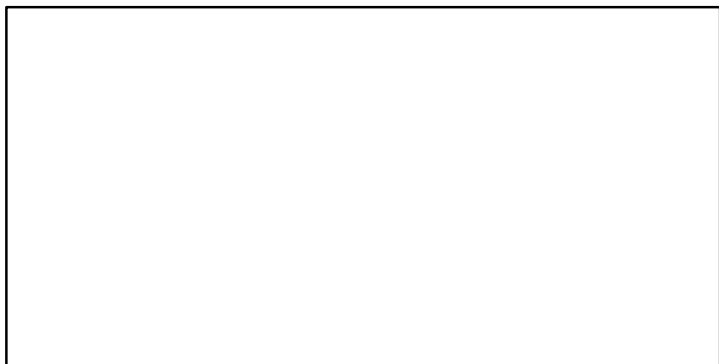


Production*

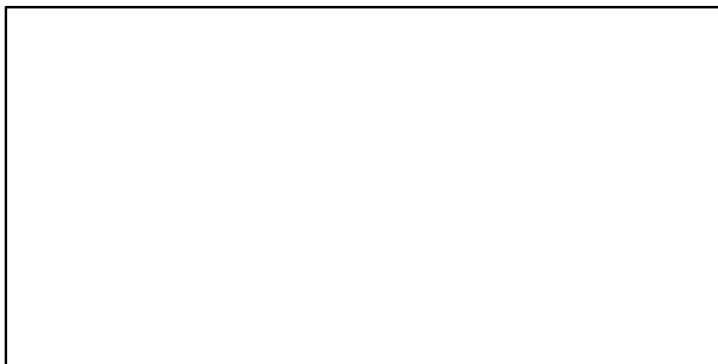


◆ Start Year ◆ End Year * No Data

TB*



SSB*



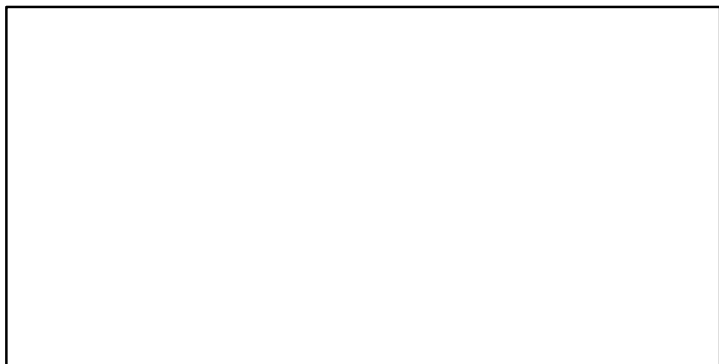
TN *



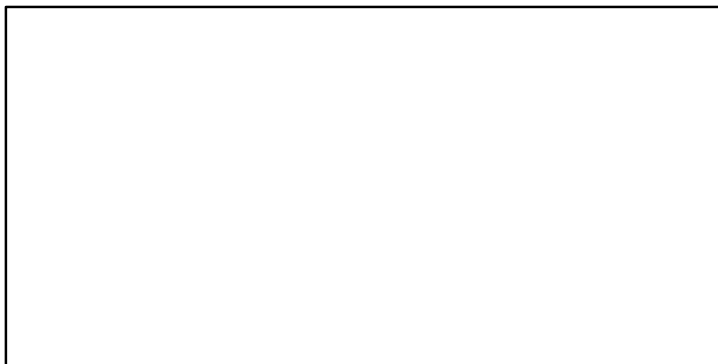
F*



ER*

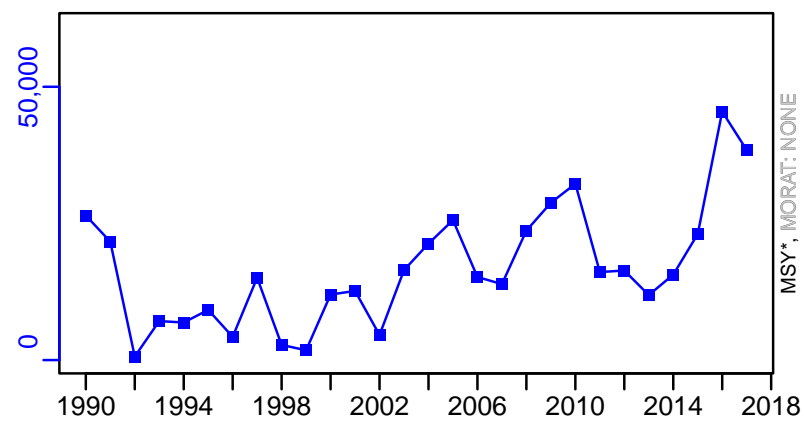


Recruits*



Cunene horse mackerel Central West Africa Guinea Bissau–Liberia [CHMACKCWAGNB–LBR]

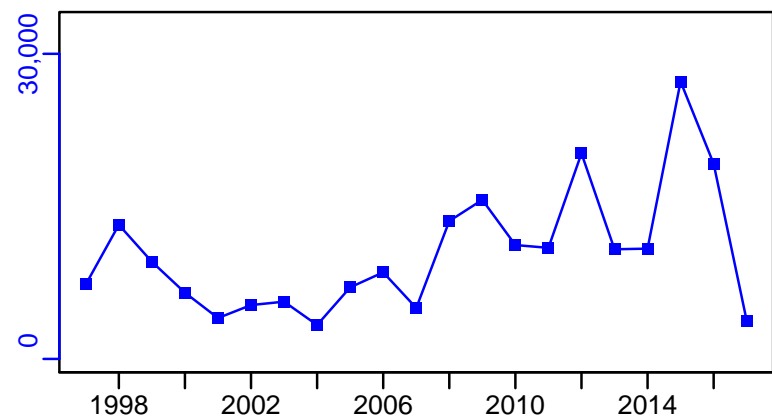
TC–MT, TL*, RecC* (1990–2017–ASHBROOK)



TAC*, Cpair*, Cadv*



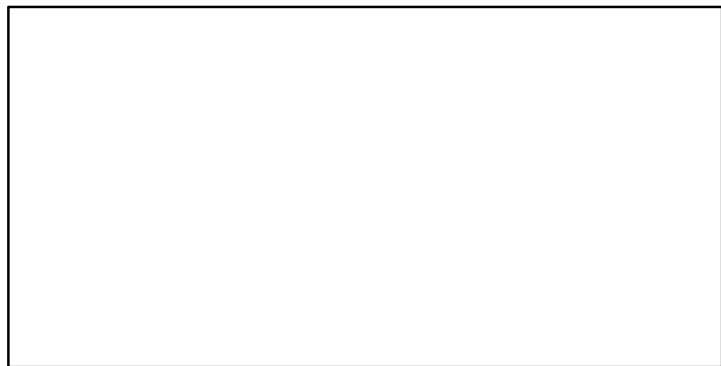
survB_index–index (1990–2017–ASHBROOK)



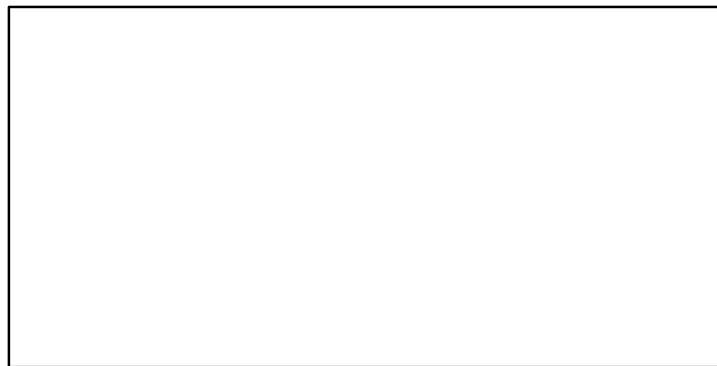
CPUE*



EFFORT*



CdivMSY*



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

Cunene horse mackerel North West Africa [CHMACKNWA]

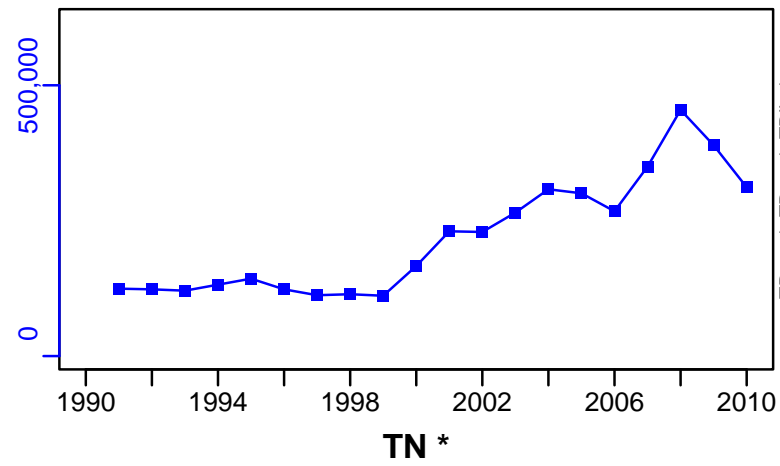
Metadata	
Scientific Name	Trachurus trecae
Current Assess ID	FAO-SPNWA-CHMACKNWA-1990-2020-HIVELY
Area	North West Africa
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO Working Group on the Assessment of Small Pelagic Fish Off Northwest Africa
Asmts in RAM	2010, 2016, 2018, 2020

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

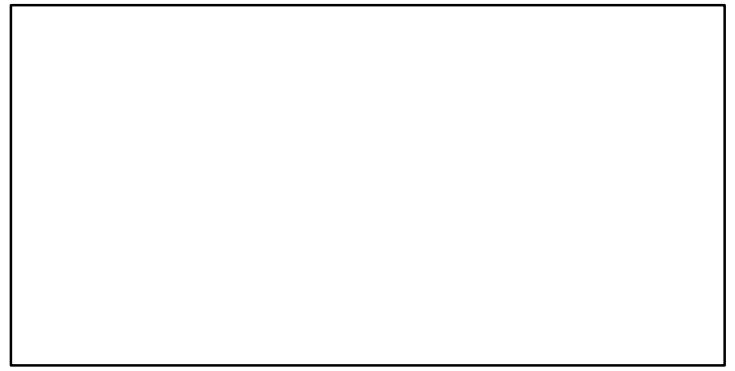
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2010	253,000	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	F-1/yr	2010	1.39	-	-
ER	ER-calc-ratio	2010	1.391	-	-
TC	TC-MT	2020	245,224		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Cunene horse mackerel North West Africa [CHMACKNWA]

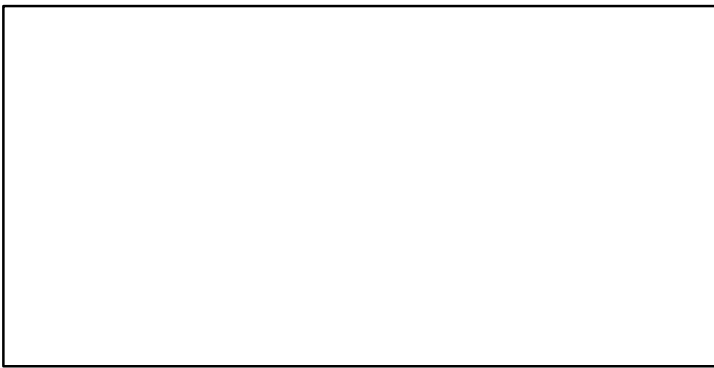
TB-MT (1990-2010-CHING)



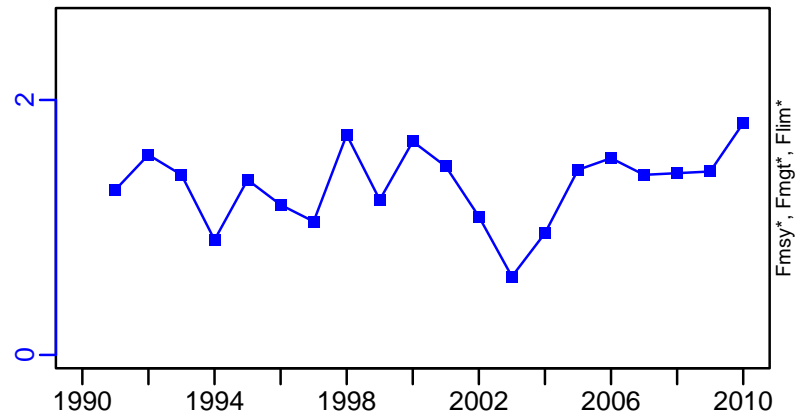
SSB*



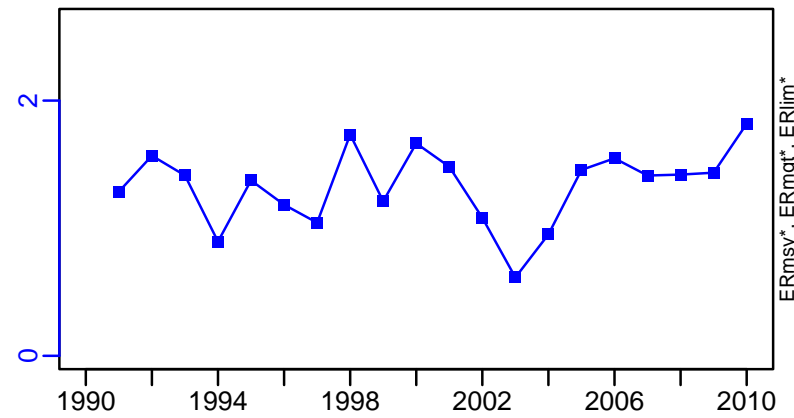
TN *



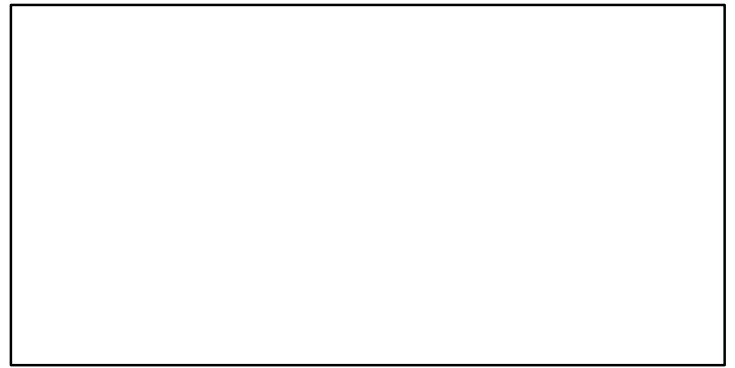
F-1/yr (1990-2010-CHING)



ER-calc-ratio (1990-2010-CHING)



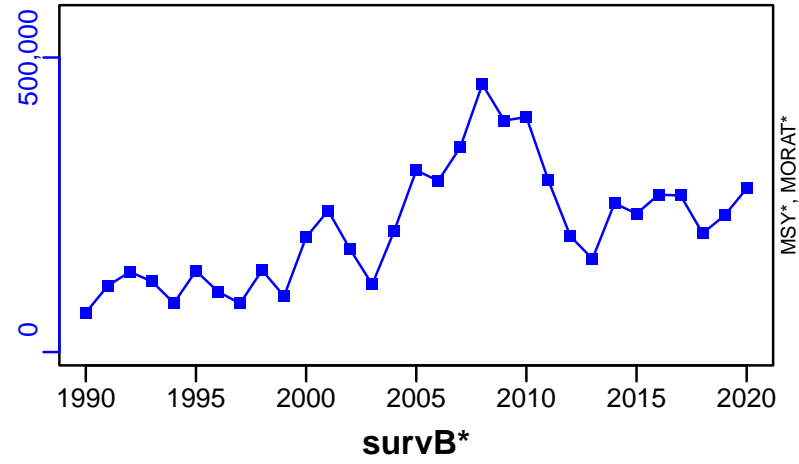
Recruits*



Cunene horse mackerel North West Africa [CHMACKNWA]

TC-MT, TL*, RecC* (1990-2020-HIVELY)

TAC*, Cpair*, Cadv*



Chilean jack mackerel Chilean EEZ and offshore [CHTRACCH]

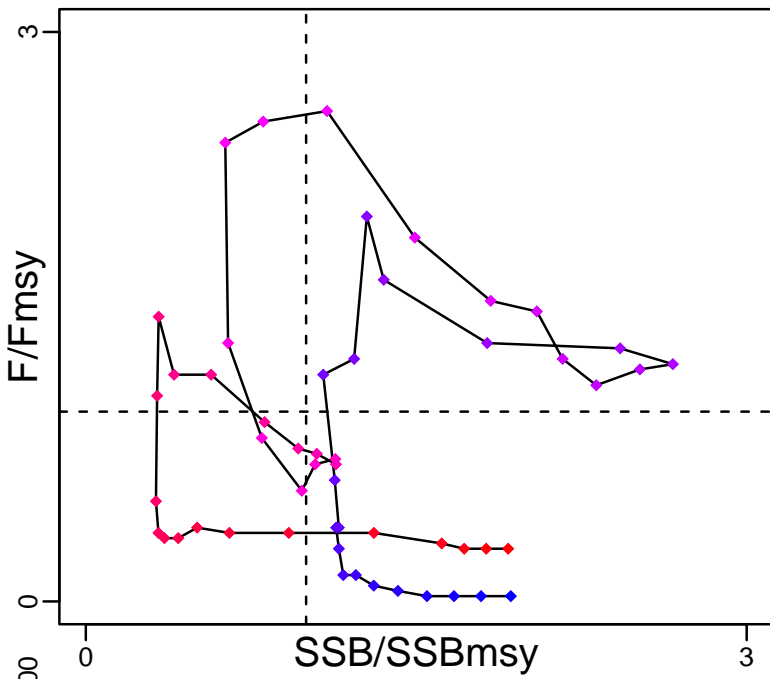
Metadata	
Scientific Name	Trachurus murphyi
Current Assess ID	SPRFMO-CHTRACCH-1969-2022-HIVELY
Area	Chilean EEZ and offshore
Management Authority	South Pacific Regional Fisheries Management Organization
Assessor	South Pacific Regional Fisheries Management Organization
Asmts in RAM	2010, 2015, 2022

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2022	7,453,000
Fmsy	Fmsy-1/yr	2022	0.36
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2022	0.28
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

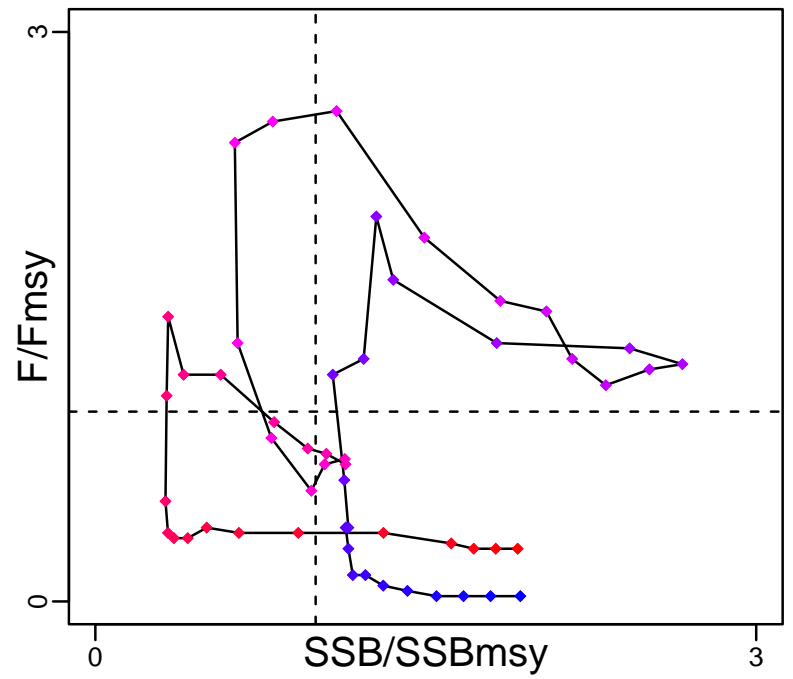
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2010	2,360,000	-	-
SSB	SSB-MT	2022	14,289,000	-	-
TN	-	-	-	-	-
R	R-E00	2022	9.71×10^9	-	1
F	F-1/yr	2022	0.1	-	12-Jan
ER	ER-ratio	2010	0.315	-	-
TC	TC-MT	2015	434,000		
TL	TL-MT	2022	929,000		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2022	1.917		
F/Fmsy	F-1/yr/Fmsy-1/yr	2022	0.278		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Chilean jack mackerel Chilean EEZ and offshore [CHTRACCH]

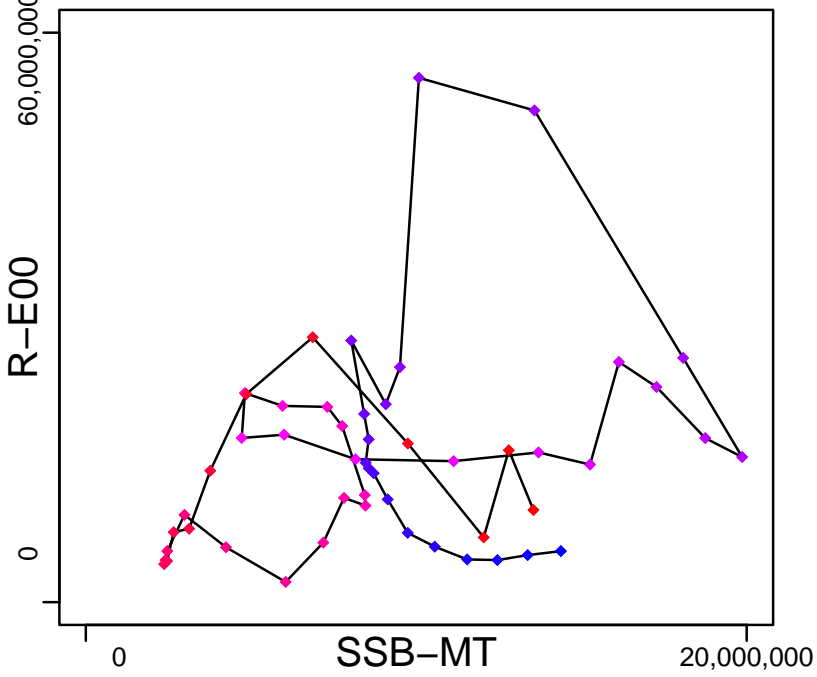
Kobe MSYpref (1969–2022–HIVELY)



Kobe MGTpref (1969–2022–HIVELY)



Spawner Recruit (1969–2022–HIVELY)



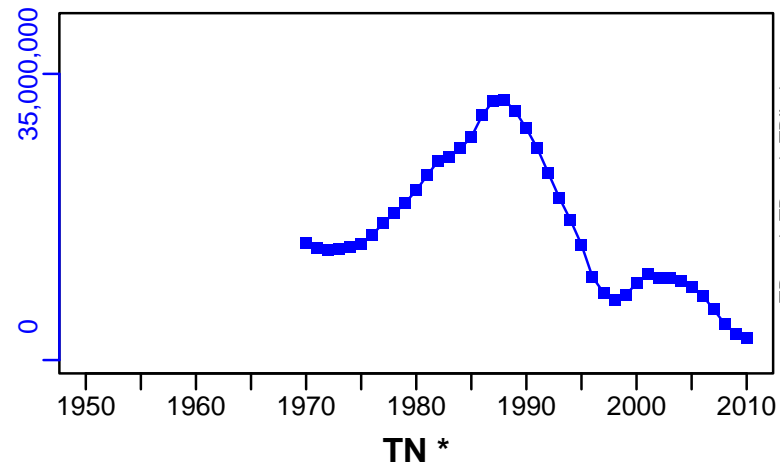
Production*



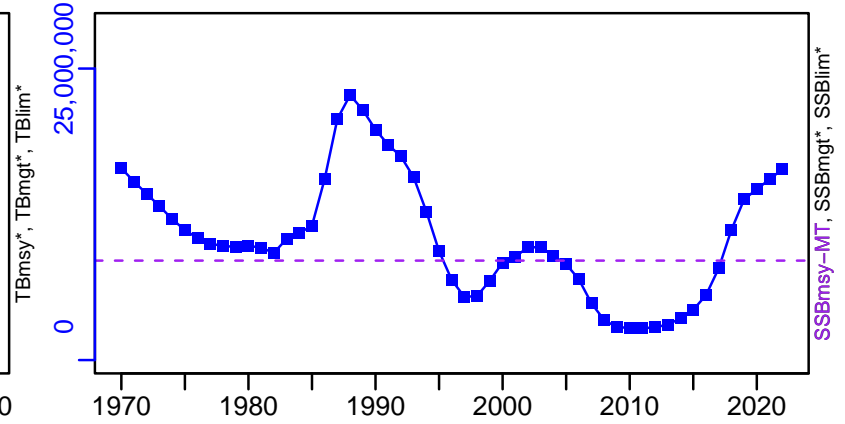
◆ Start Year ◆ End Year * No Data

Chilean jack mackerel Chilean EEZ and offshore [CHTRACCH]

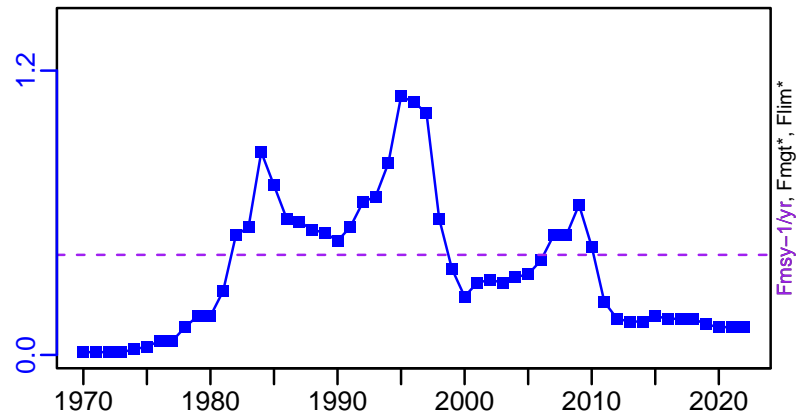
TB-MT (1950–2010–RICARD)



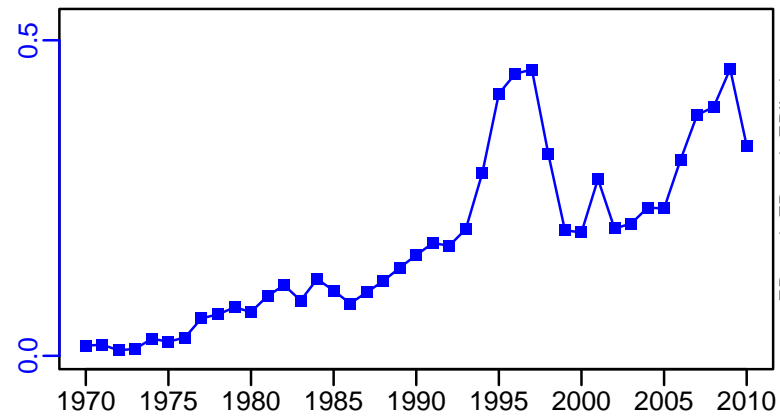
SSB-MT (1969–2022–HIVELY)



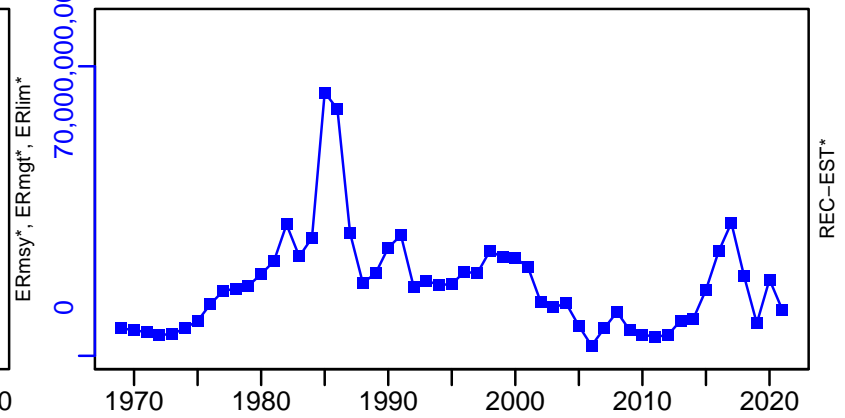
F-1/yr (1969–2022–HIVELY)



ER-ratio (1950–2010–RICARD)



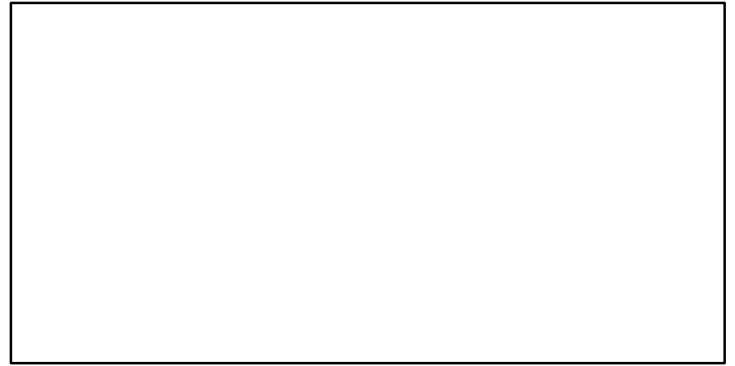
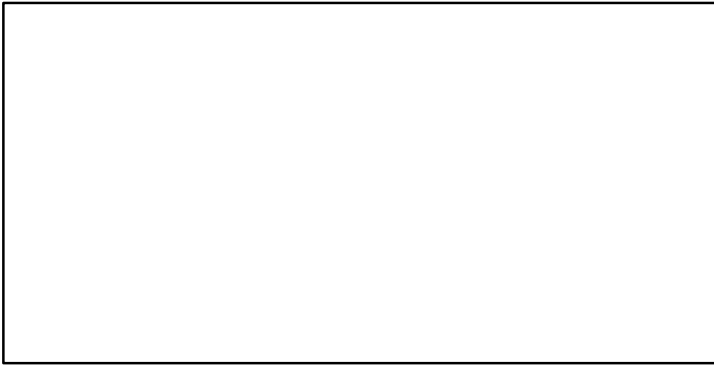
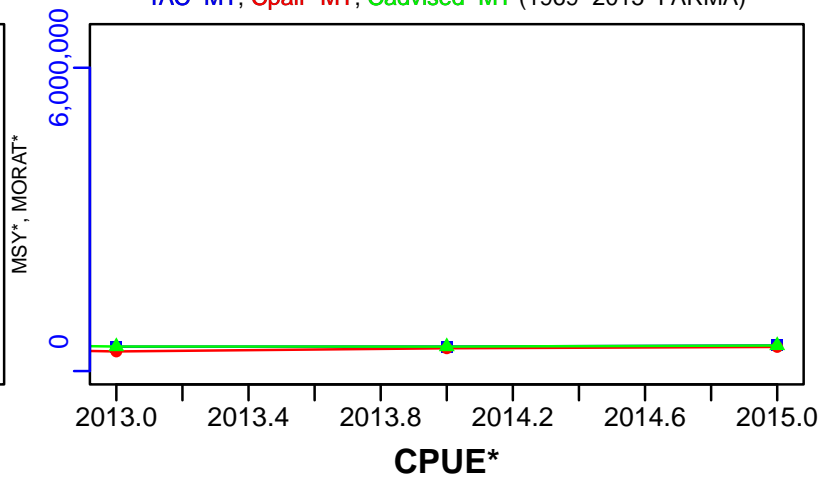
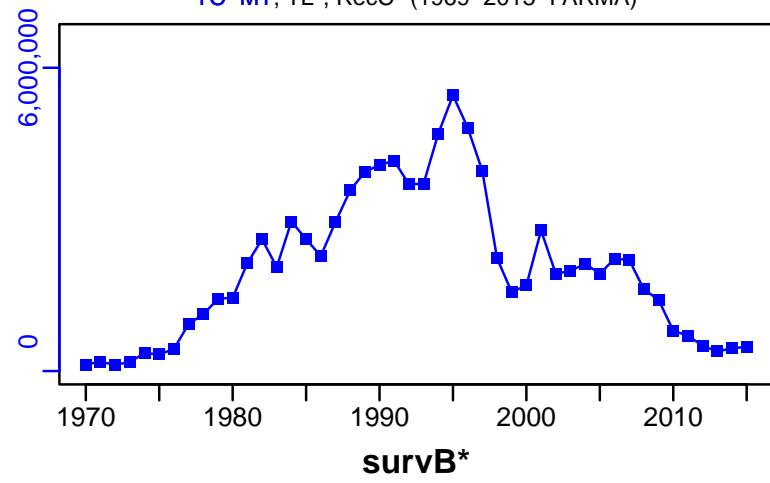
R-E00 (1969–2022–HIVELY)



Chilean jack mackerel Chilean EEZ and offshore [CHTRACCH]

TC-MT, TL*, RecC* (1969-2015-PARMA)

TAC-MT, Cpair-MT, Cadvised-MT (1969-2015-PARMA)



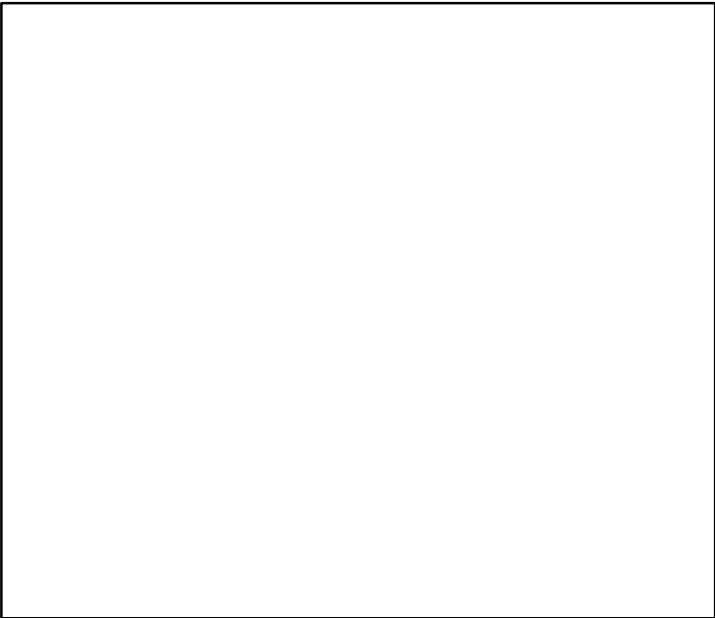
Atlantic chub mackerel North West Africa [CMACKNWA]

Metadata	
Scientific Name	Scomber colias
Current Assess ID	FAO-SPNWA-CMACKNWA-1990-2020-HIVELY
Area	North West Africa
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO Working Group on the Assessment of Small Pelagic Fish Off Northwest Africa
Asmts in RAM	2010, 2016, 2018, 2020

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2016	0.58
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2010	262,000	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	F-1/yr	2010	0.79	-	-
ER	ER-calc-ratio	2010	0.786	-	-
TC	TC-MT	2020	380,505		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

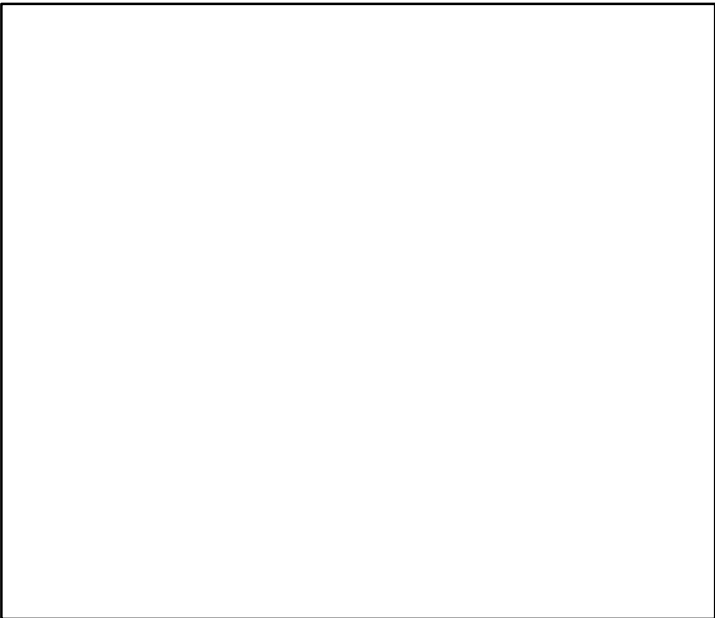
Kobe MSY*



Kobe MGT*



Spawner Recruit*

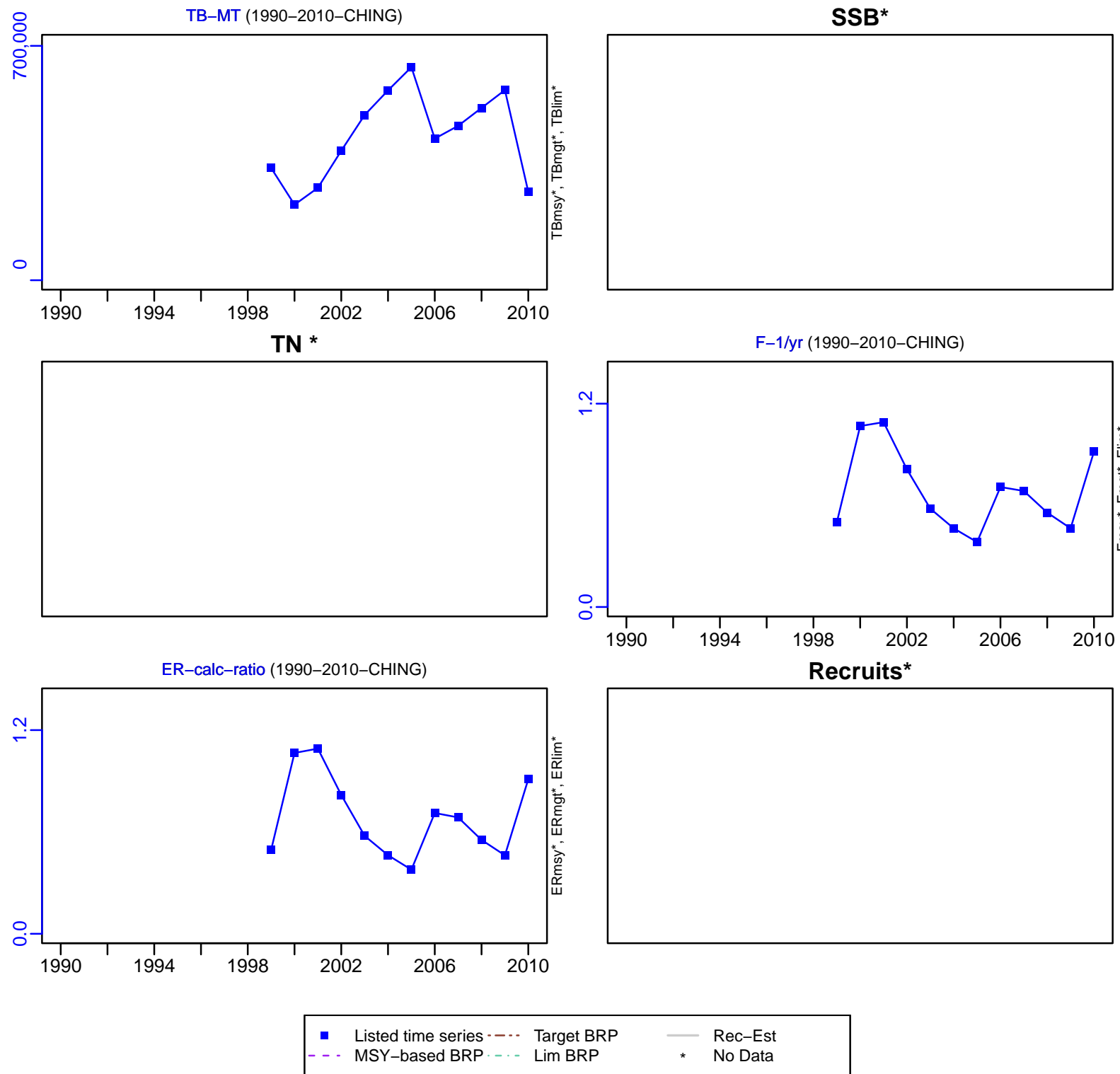


Production*



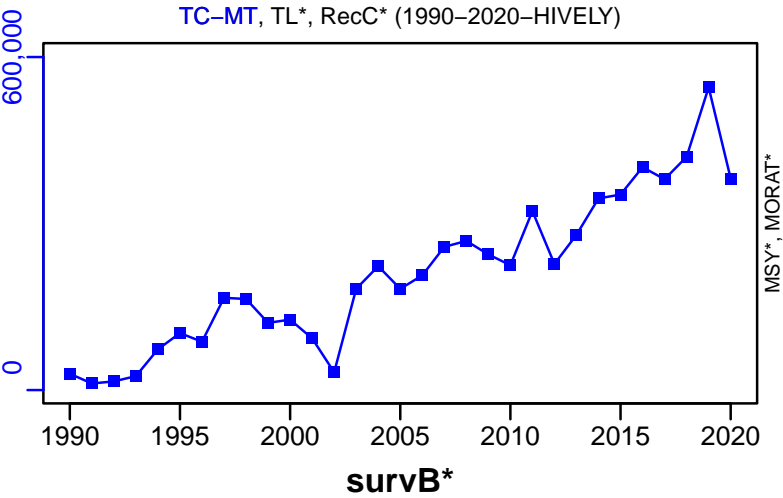
◆ Start Year ◆ End Year * No Data

Atlantic chub mackerel North West Africa [CMACKNWA]



Atlantic chub mackerel North West Africa [CMACKNWA]

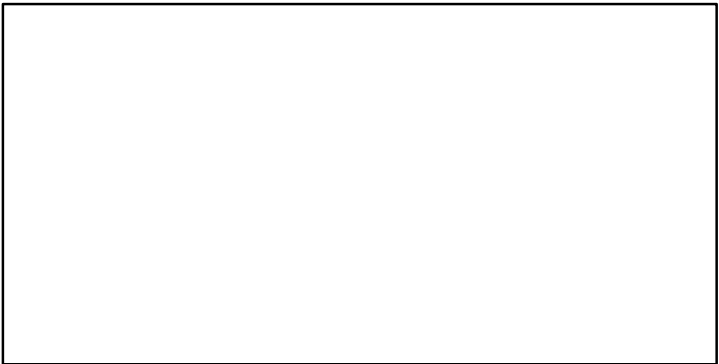
TC-MT, TL*, RecC* (1990-2020-HIVELY)



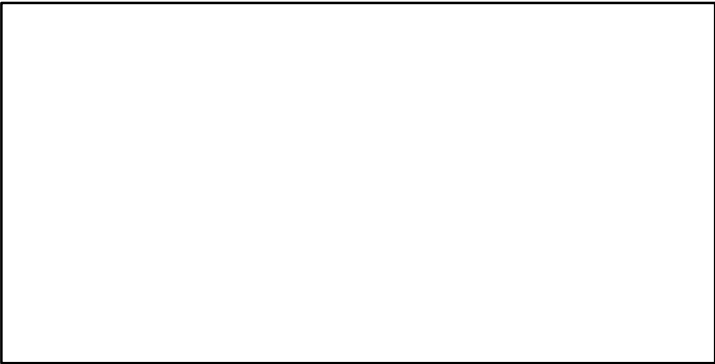
TAC*, Cpair*, Cadv*



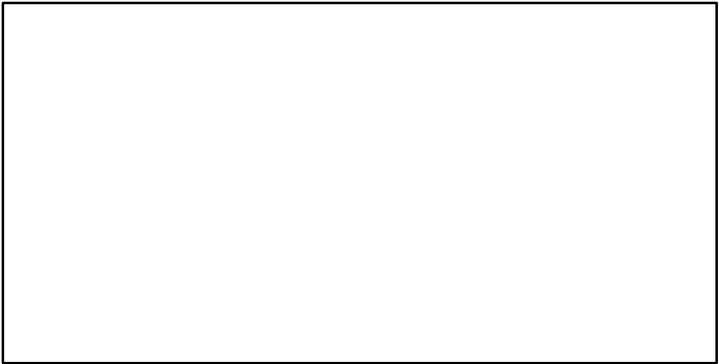
CPUE*



EFFORT*



CdivMSY*



Pacific chub mackerel Pacific Coast [CMACKPCOAST]

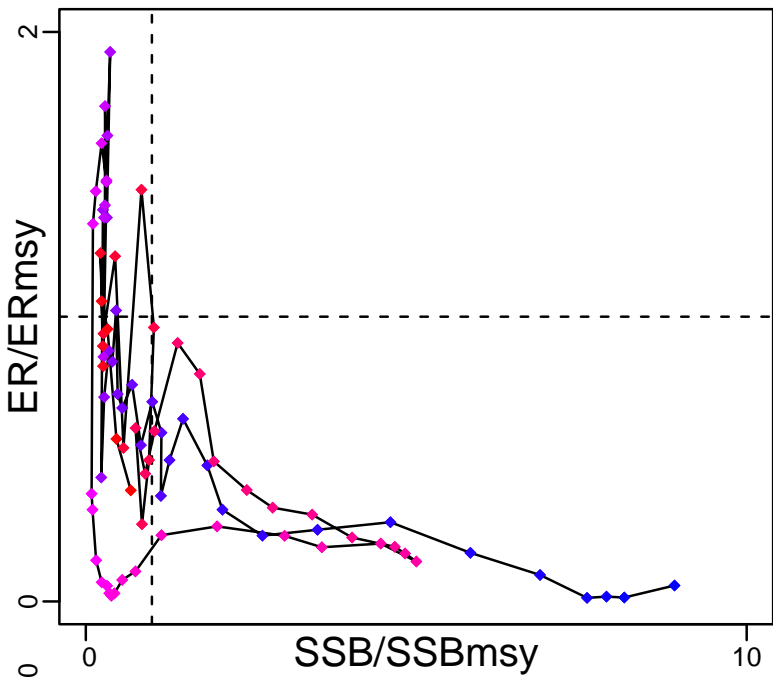
Metadata	
Scientific Name	Scomber japonicus
Current Assess ID	SWFSC-CMACKPCOAST-1983-2020-SISIMP2024
Area	Pacific Coast
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southwest Fisheries Science Center
Asmts in RAM	2008, 2015, 2016, 2019, 2020

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2008	125,285
SSBmsy	SSBmsy-MT	2008	122,357
Fmsy	Fmsy-1/yr	2008	0.138
ERmsy	ERmsy-ratio	2008	0.184
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2008	182,791
MSY	MSY-MT	2008	23,048
M	M-1/yr	2008	0.5
TBlim	TBlim-MT	2020	18,200
SSBlim	SSBlim-MT	2008	29,420
Flim	-	-	-
ERlim	-	-	-

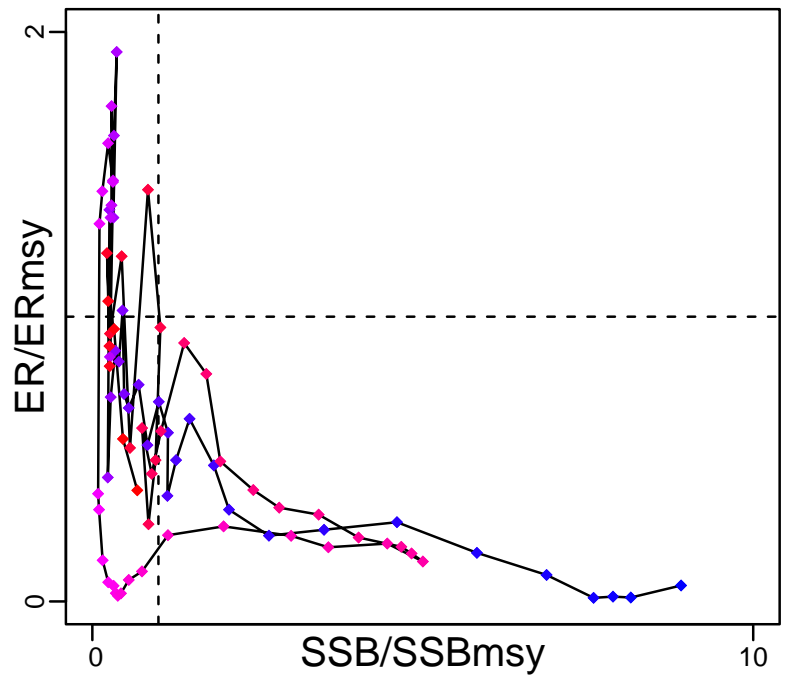
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2020	71,099	-	-
SSB	SSB-MT	2016	47,178	-	-
TN	-	-	-	-	-
R	R-E00	2020	216,893	-	0
F	F-1/yr	2008	0.087	-	-
ER	ER-calc-ratio	2020	0.088	-	-
TC	TC-MT	2020	6190		
TL	TL-MT	2008	13,700		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2008	0.68		
F/Fmsy	F-1/yr/Fmsy-1/yr	2008	0.633		
ER/ERmsy	ER-ratio/ERmsy-ratio	2008	0.39		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Pacific chub mackerel Pacific Coast [CMACKPCOAST]

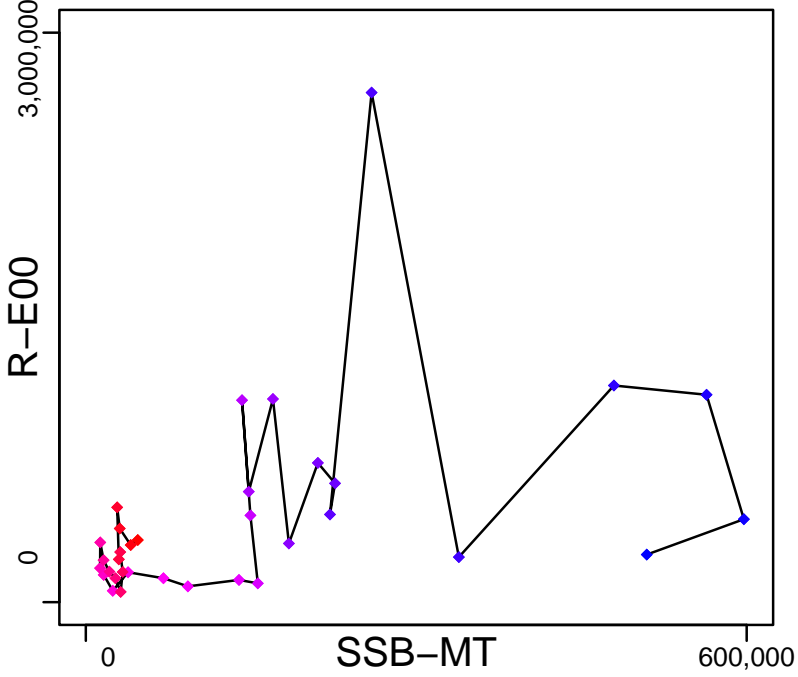
Kobe MSYpref (1929–2008–PINSKY)



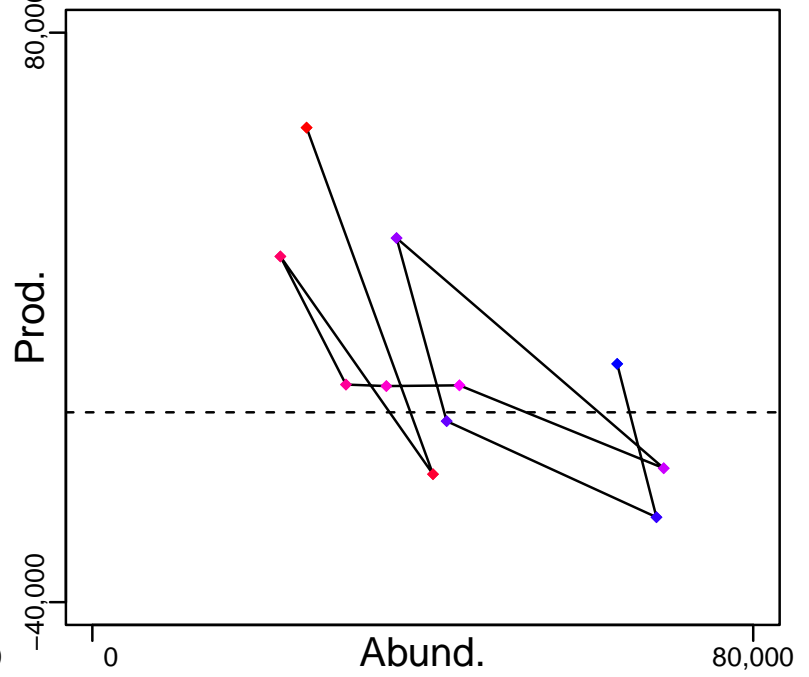
Kobe MGTpref (1929–2008–PINSKY)



Spawner Recruit (1983–2016–SISIMP2021)

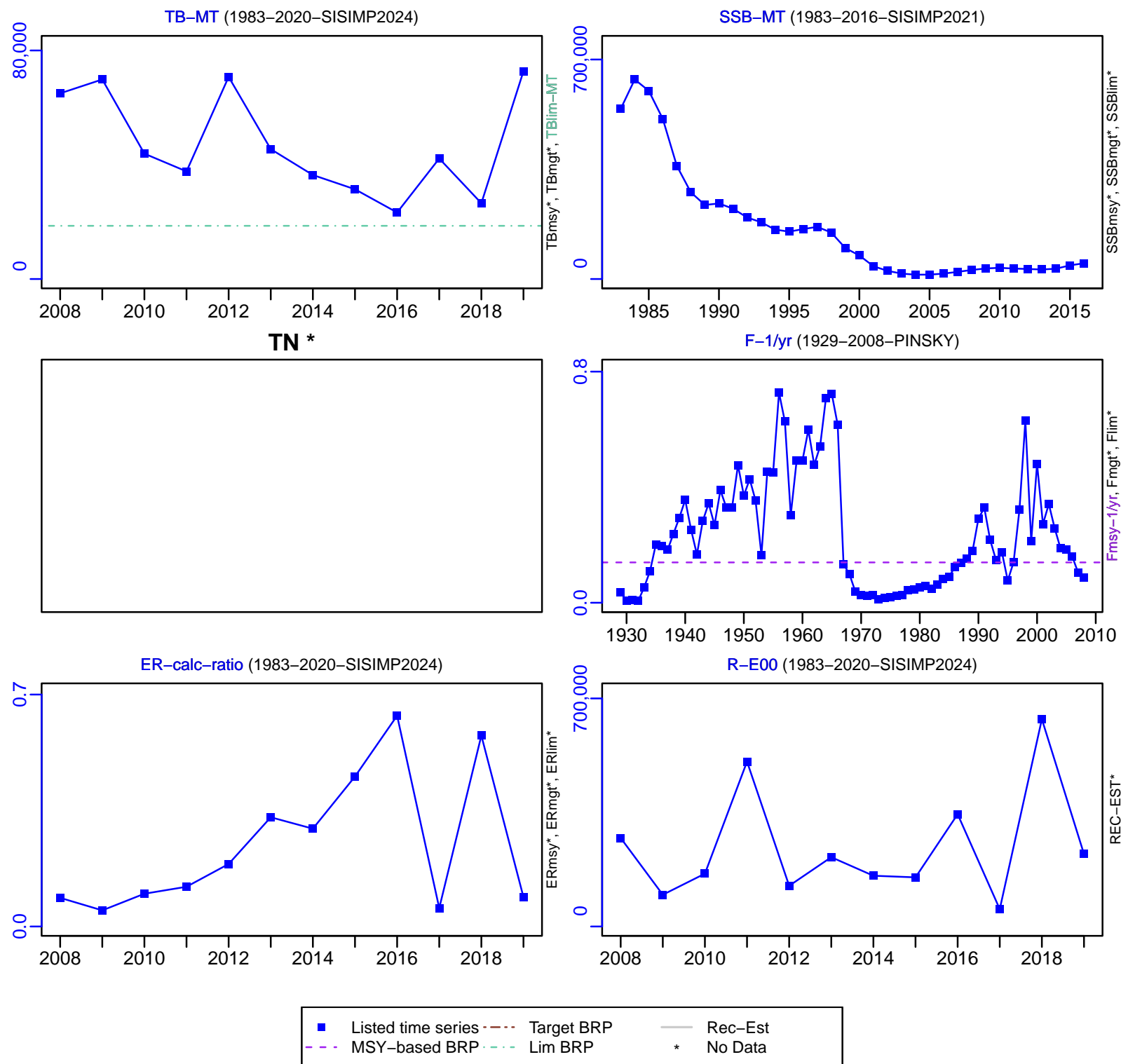


Production (1983–2020–SISIMP2024)



◆ Start Year ◆ End Year * No Data

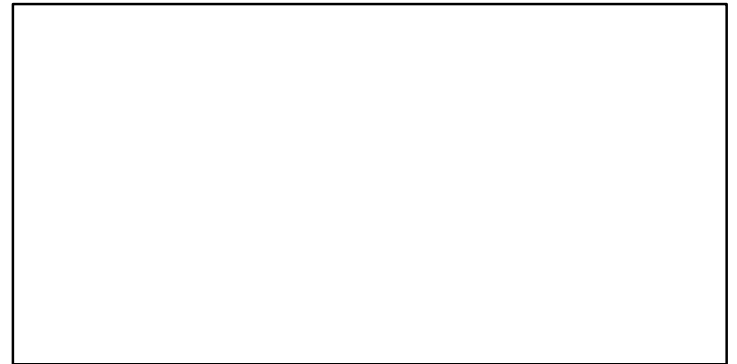
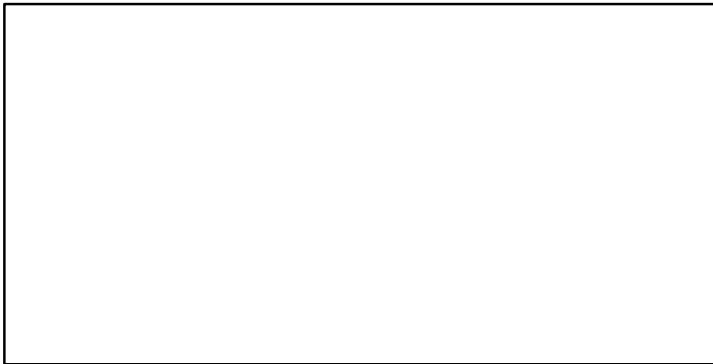
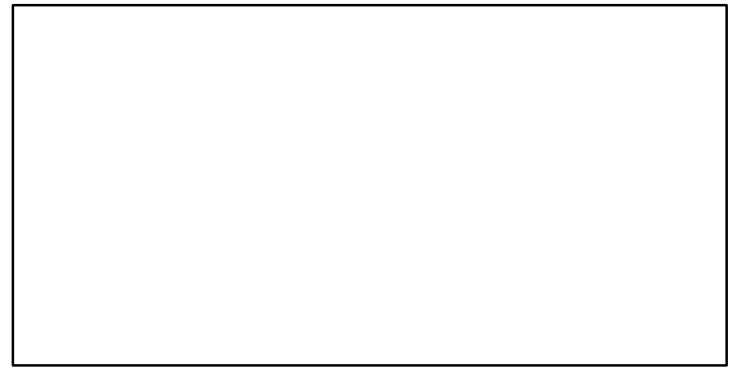
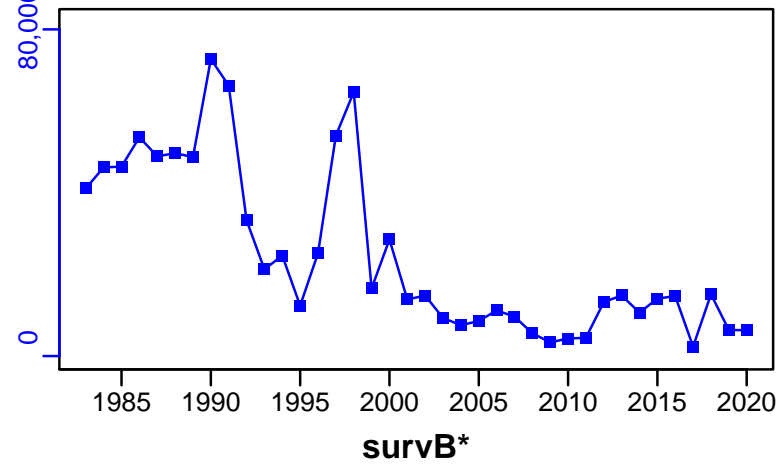
Pacific chub mackerel Pacific Coast [CMACKPCOAST]



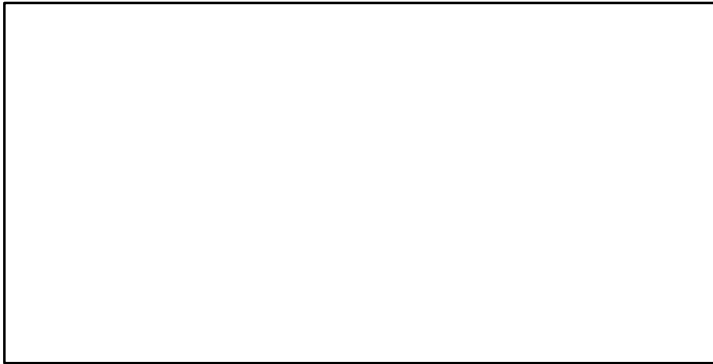
Pacific chub mackerel Pacific Coast [CMACKPCOAST]

TC-MT, TL*, RecC* (1983-2020-SISIMP2024)

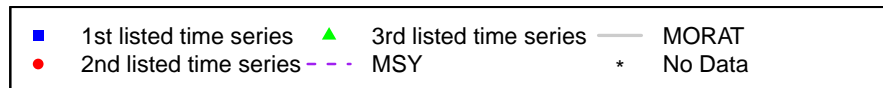
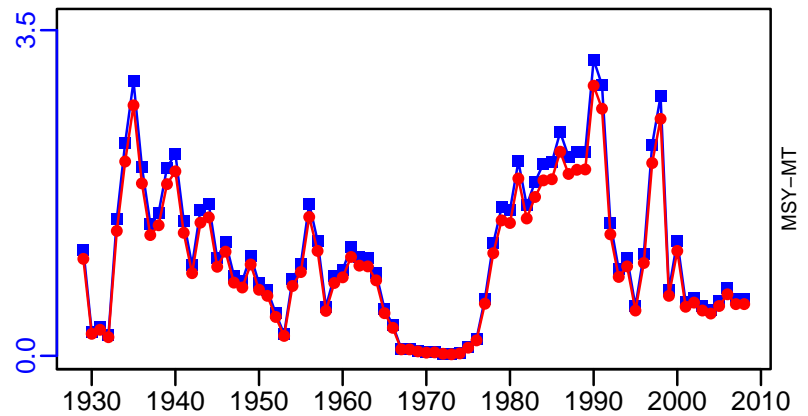
TAC*, Cpair*, Cadv*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1929-2008-PINSKY)



Chub mackerel Pacific Coast of Japan [CMACKPJPN]

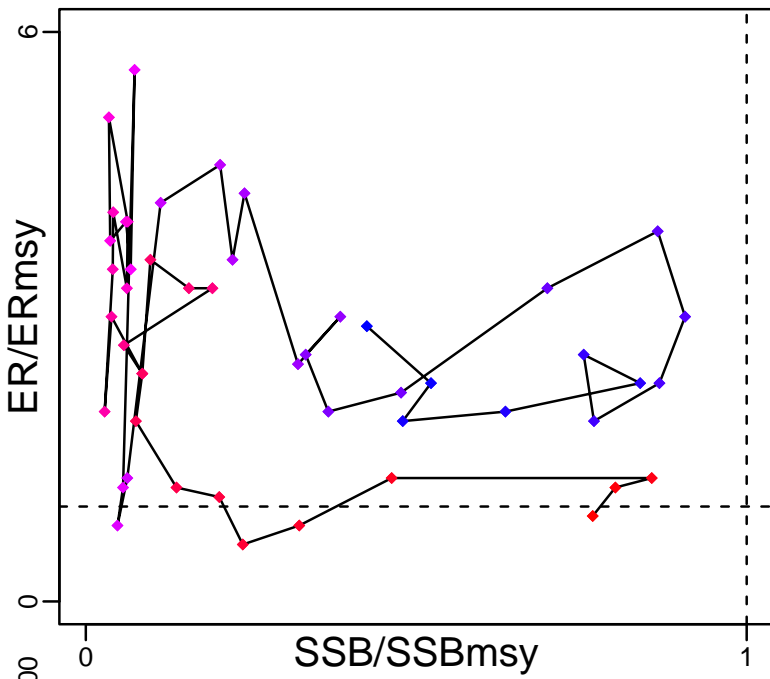
Metadata	
Scientific Name	Scomber japonicus
Current Assess ID	FAFRFJ-CMACKPJPN-1970-2018-KUROTA
Area	Pacific Coast of Japan
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2009, 2013, 2018

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2018	3,720,000
SSBmsy	SSBmsy-MT	2018	1,545,000
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2018	0.1
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2018	1,545,000
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2018	372,000
M	M-1/yr	2018	0.4
TBlim	TBlim-MT	2009	450
SSBlim	SSBlim-MT	2018	562,000
Flim	-	-	-
ERlim	-	-	-

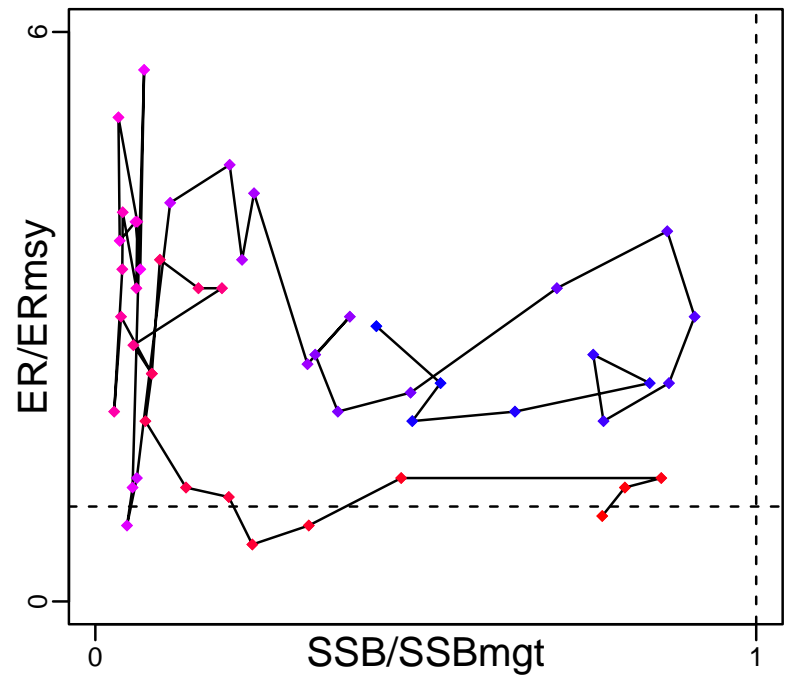
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2018	5,595,000	Both	0
SSB	SSB-MT	2018	1,185,000	Both	2
TN	-	-	-	-	-
R	R-E00	2018	2.9212×10^{10}	Both	0
F	F-1/yr	2009	0.28	Both	0 to 5
ER	ER-ratio	2018	0.09	Both	-
TC	TC-MT	2018	526,573		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2018	1.504		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2018	0.767		
F/Fmsy	-	-	-		
ER/ERmsy	ER-ratio/ERmsy-ratio	2018	0.9		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2018	0.767		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Chub mackerel Pacific Coast of Japan [CMACKPJPN]

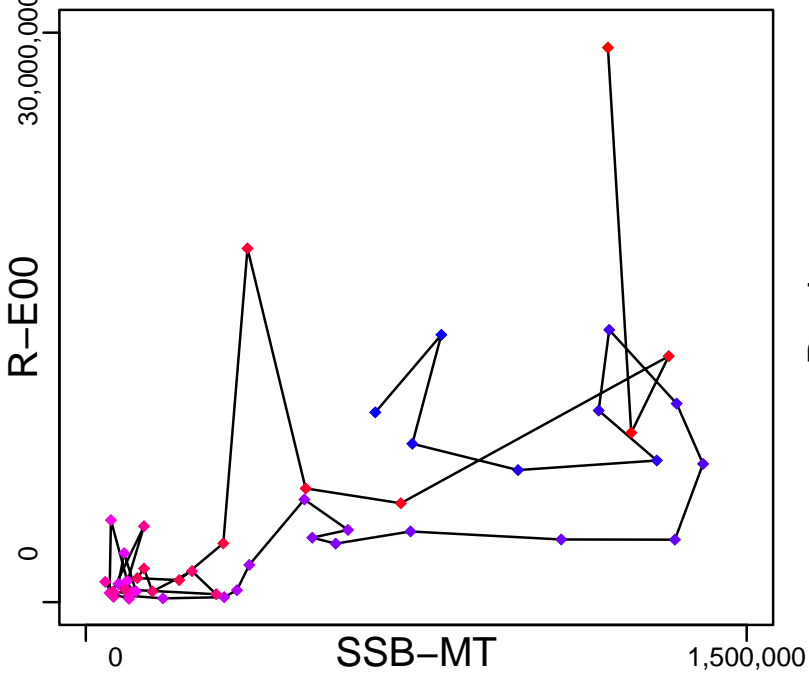
Kobe MSYpref (1970–2018–KUROTA)



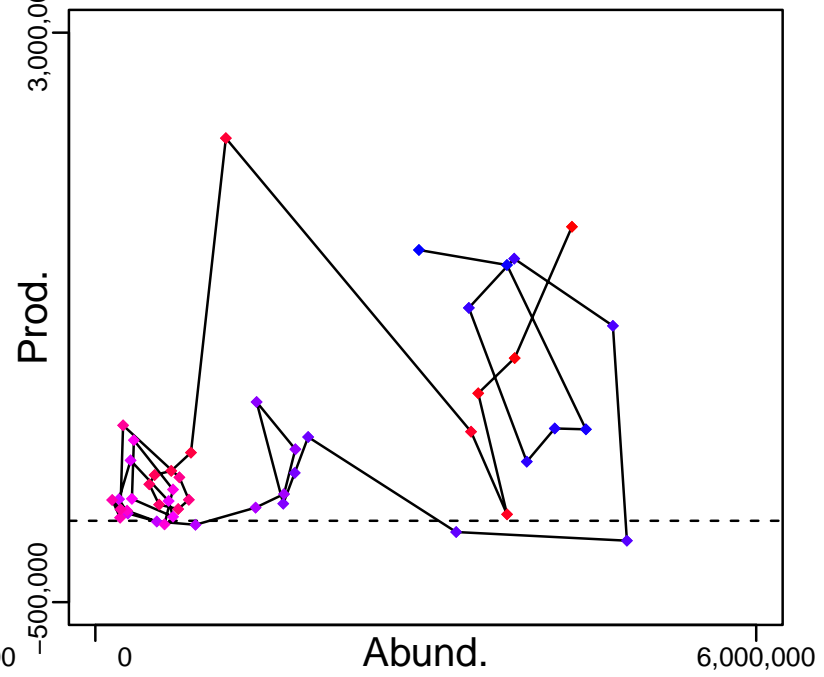
Kobe MGTpref (1970–2018–KUROTA)



Spawner Recruit (1970–2018–KUROTA)



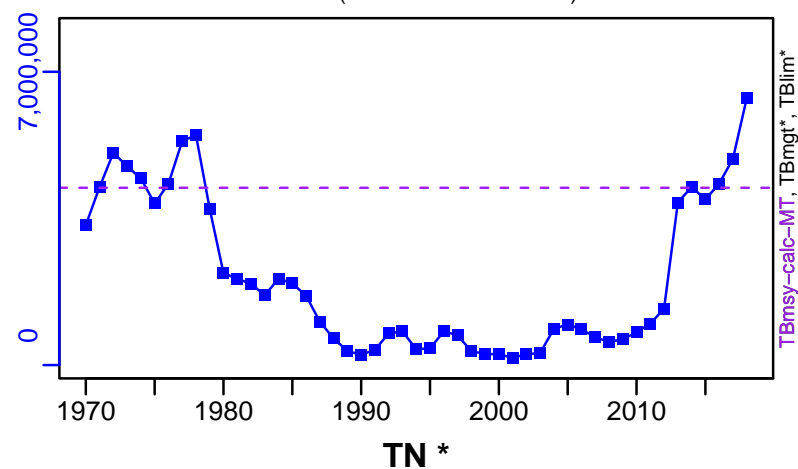
Production (1970–2018–KUROTA)



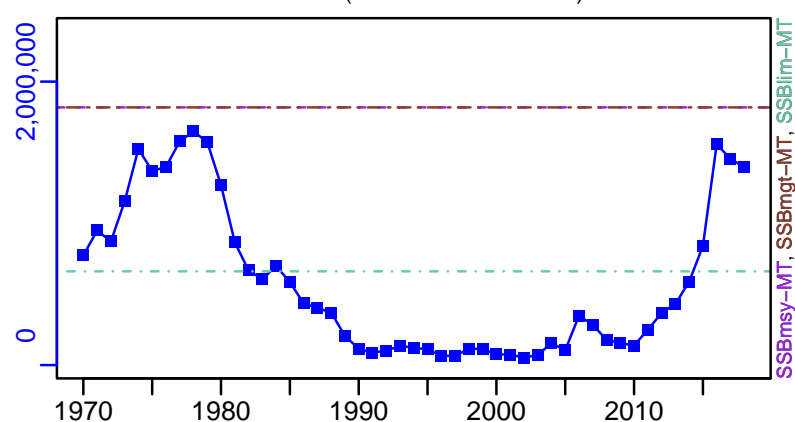
◆ Start Year ◆ End Year * No Data

Chub mackerel Pacific Coast of Japan [CMACKPJPN]

TB-MT (1970-2018-KUROTA)



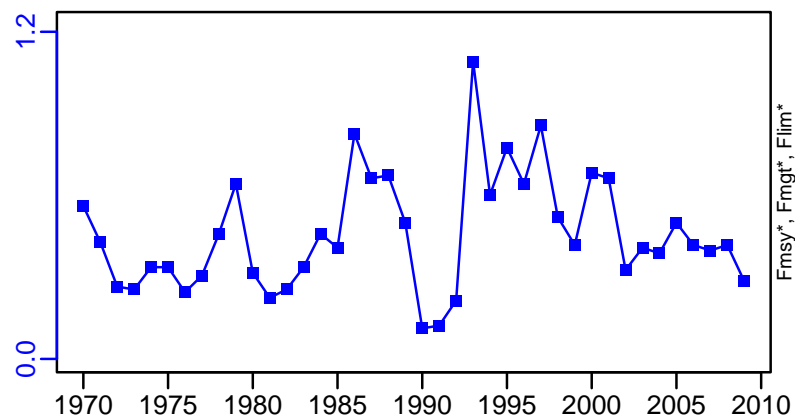
SSB-MT (1970-2018-KUROTA)



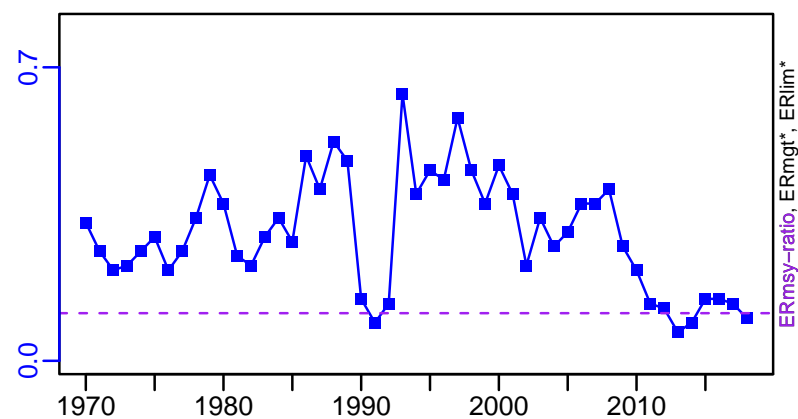
TN *



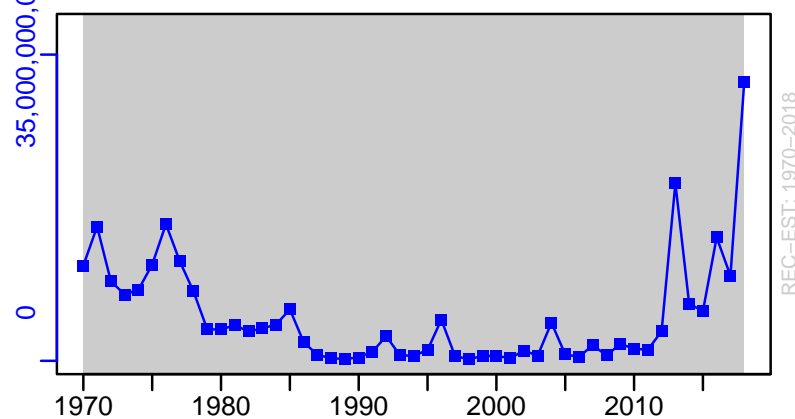
F-1/yr (1970-2009-ONO)



ER-ratio (1970-2018-KUROTA)

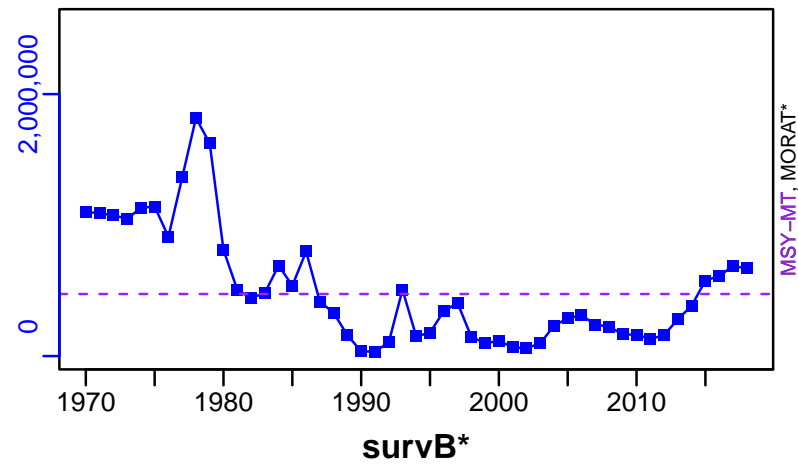


R-E00 (1970-2018-KUROTA)



Chub mackerel Pacific Coast of Japan [CMACKPJPN]

TC-MT, TL*, RecC* (1970-2018-KUROTA)



TAC*, Cpair*, Cadv*



survB*



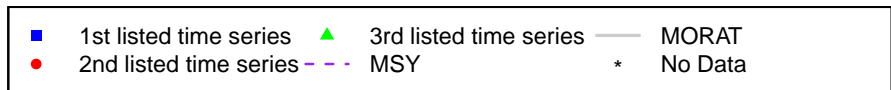
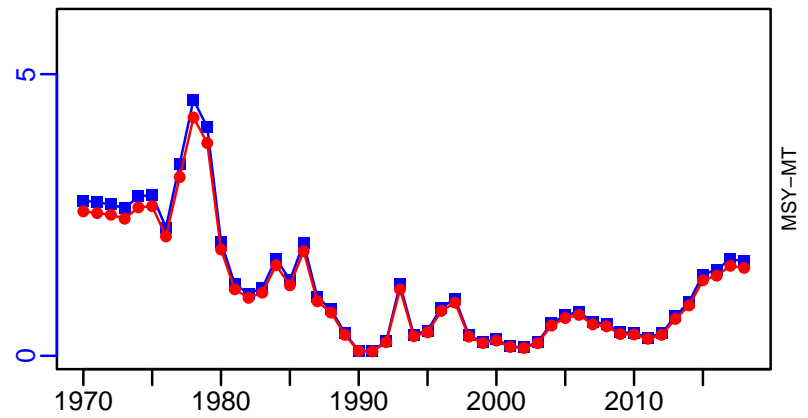
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1970-2018-KUROTA)



Chub mackerel Tsushima Strait [CMACKTSST]

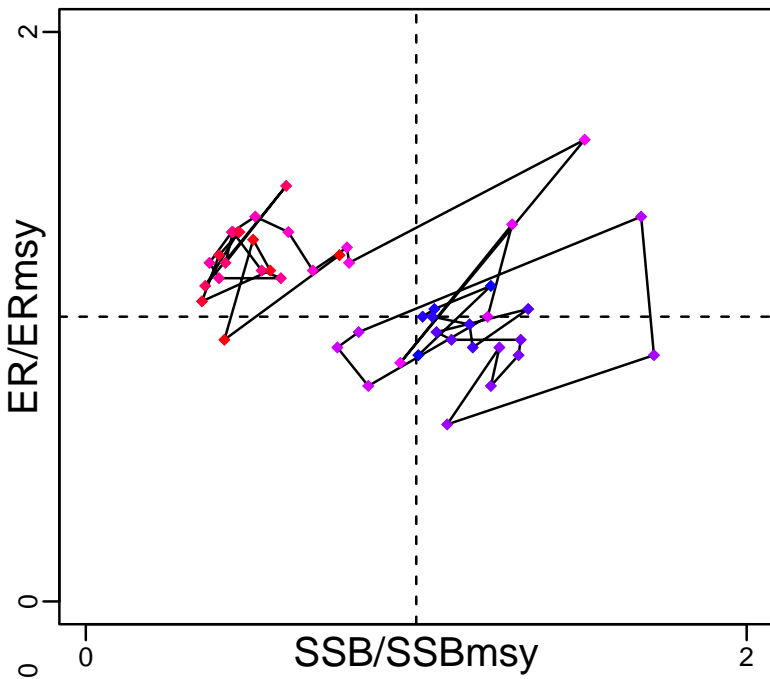
Metadata	
Scientific Name	Scomber japonicus
Current Assess ID	FAFRFJ-CMACKTSST-1973-2018-KUROTA
Area	Tsushima Strait
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013, 2018

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2018	872,973
SSBmsy	SSBmsy-MT	2018	310,000
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2018	0.37
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2018	310,000
Fmgt	-	-	-
ERMgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2018	323,000
M	M-1/yr	2018	0.4
TBlim	-	-	-
SSBlim	SSBlim-MT	2018	143,000
Flim	-	-	-
ERlim	-	-	-

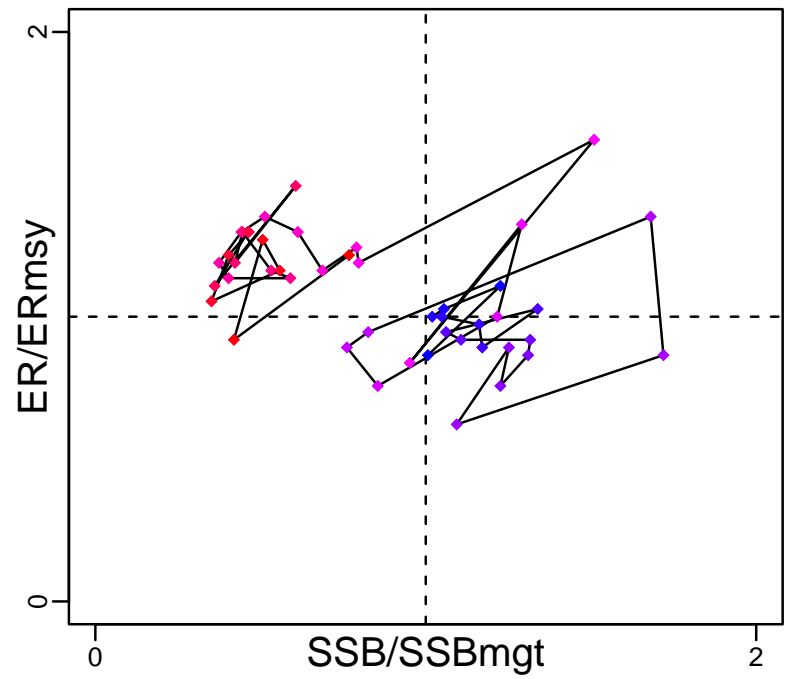
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2018	654,000	Both	0
SSB	SSB-MT	2018	238,000	Both	1
TN	-	-	-	-	-
R	R-E00	2018	1.329×10^9	Both	0
F	-	-	-	-	-
ER	ER-ratio	2018	0.45	Both	-
TC	TC-MT	2018	292,000		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2018	0.749		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2018	0.768		
F/Fmsy	-	-	-		
ER/ERmsy	ER-ratio/ERmsy-ratio	2018	1.216		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2018	0.768		
F/Fmgt	-	-	-		
ER/ERMgt	-	-	-		

Chub mackerel Tsushima Strait [CMACKTSST]

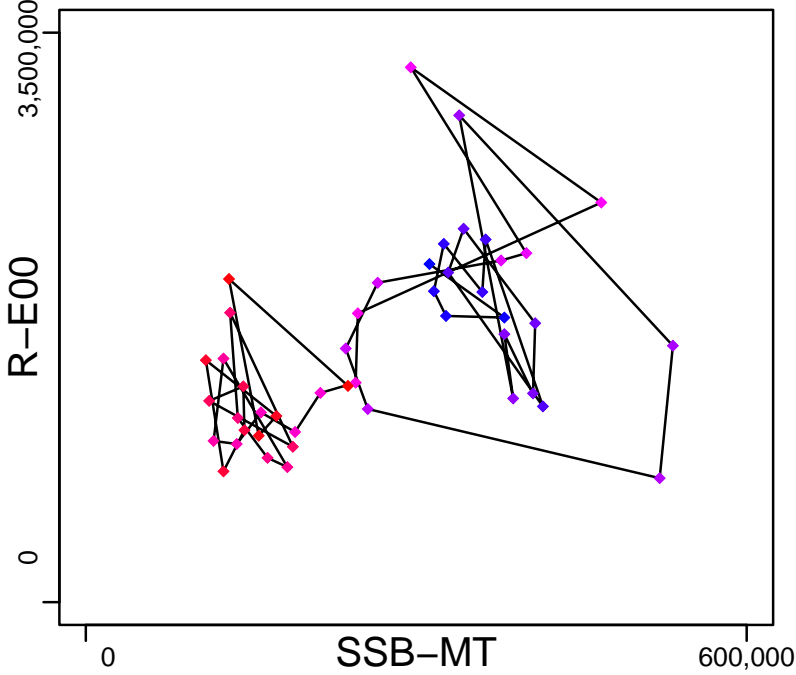
Kobe MSYpref (1973–2018–KUROTA)



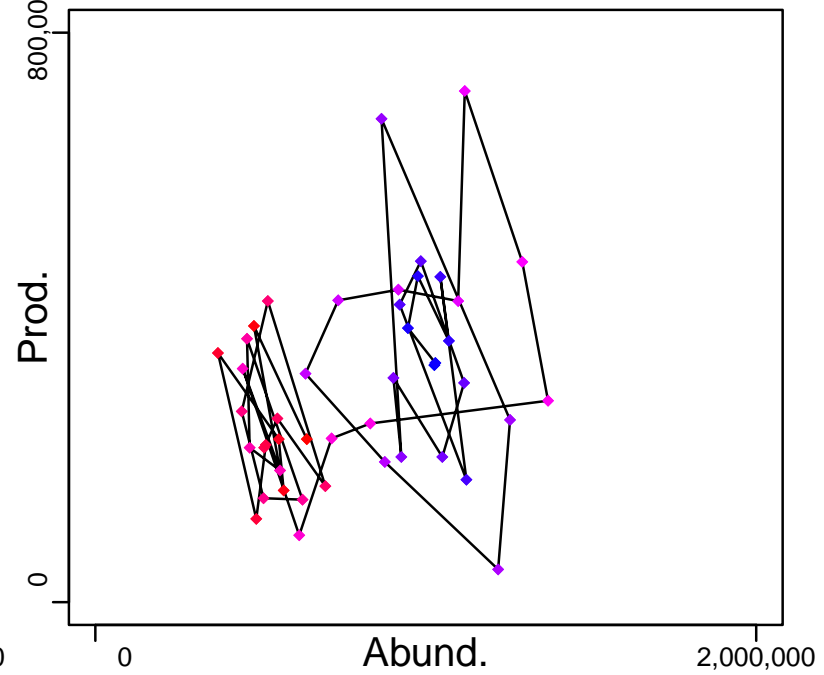
Kobe MGTpref (1973–2018–KUROTA)



Spawner Recruit (1973–2018–KUROTA)



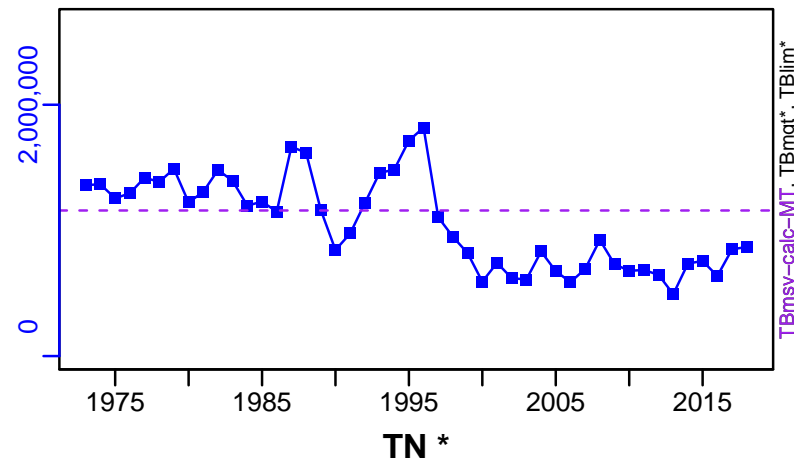
Production (1973–2018–KUROTA)



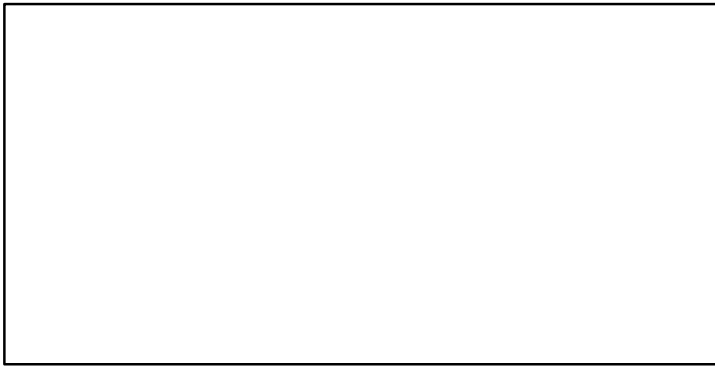
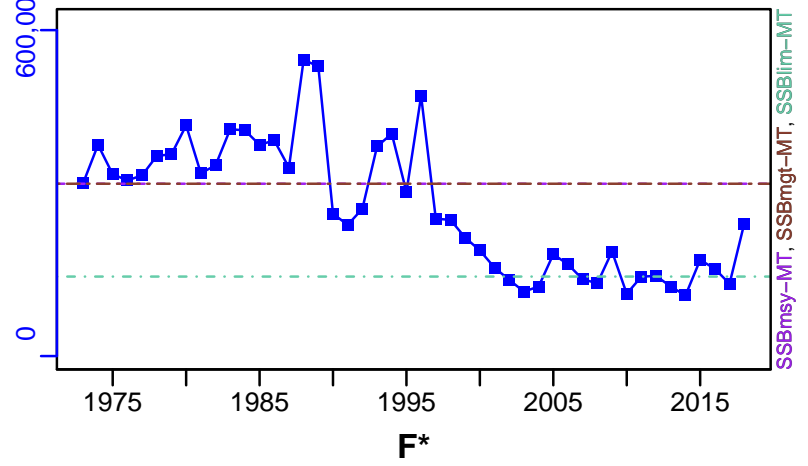
◆ Start Year ◆ End Year * No Data

Chub mackerel Tsushima Strait [CMACKTSST]

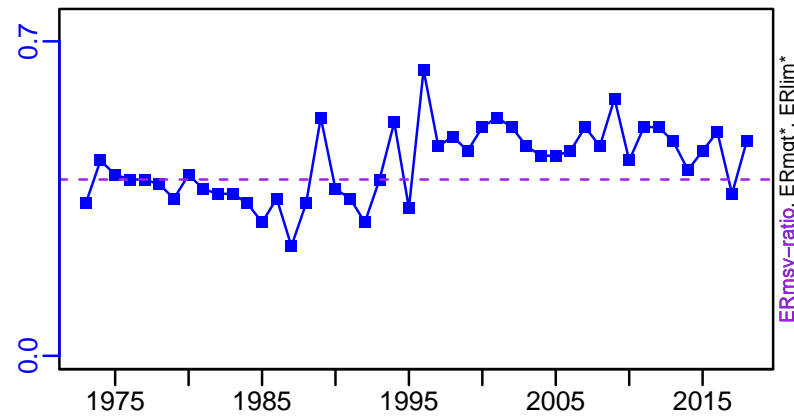
TB-MT (1973–2018–KUROTA)



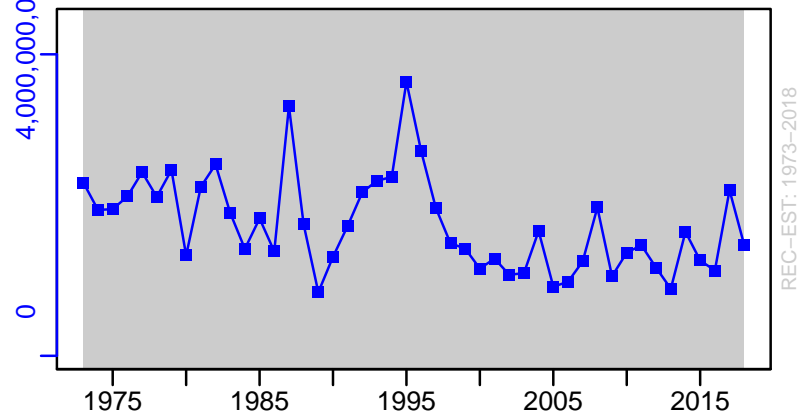
SSB-MT (1973–2018–KUROTA)



ER-ratio (1973–2018–KUROTA)

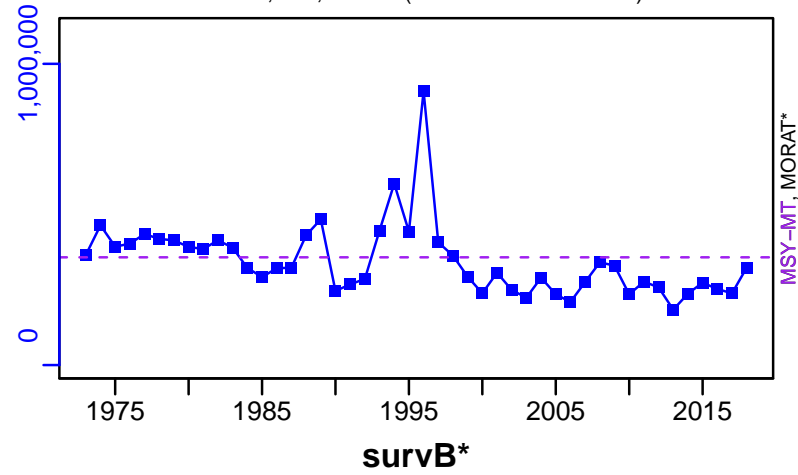


R-E00 (1973–2018–KUROTA)



Chub mackerel Tsushima Strait [CMACKTSST]

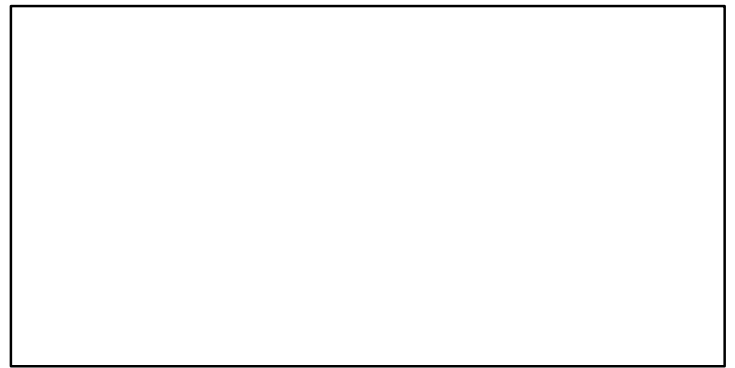
TC-MT, TL*, RecC* (1973-2018-KUROTA)



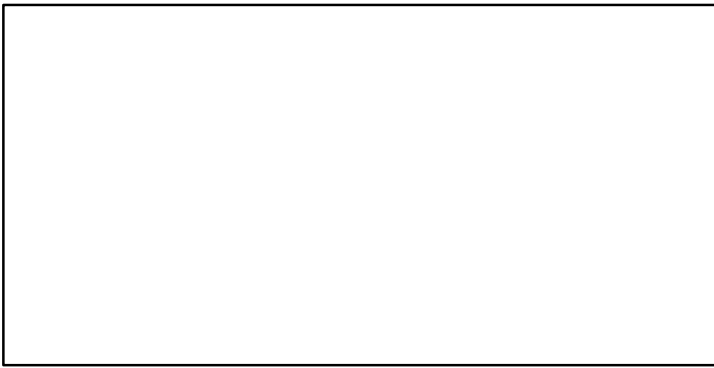
TAC*, Cpair*, Cadv*



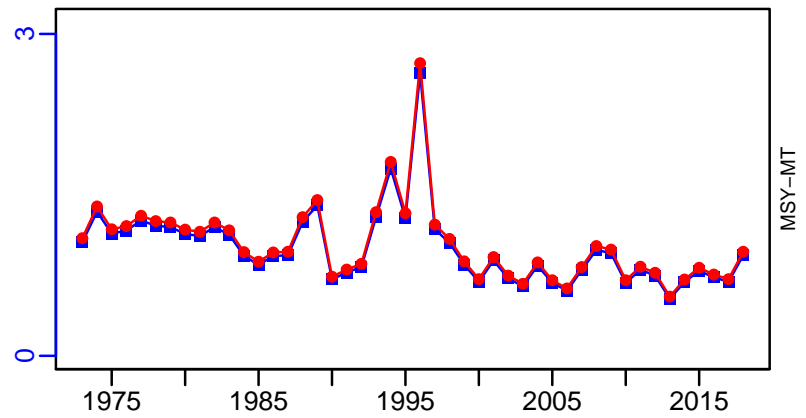
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1973-2018-KUROTA)



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

Cape horse mackerel South Africa South coast [CTRACSA]

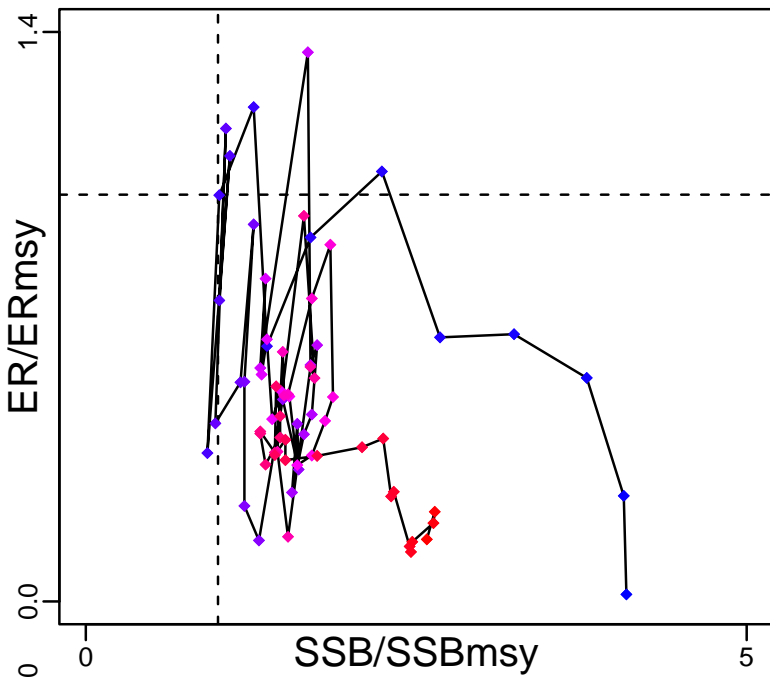
Metadata	
Scientific Name	Trachurus capensis
Current Assess ID	MARAM-CTRACSA-1949-2020-Johnston
Area	South Africa South coast
Management Authority	South African national management, Fisheries Branch of Department of Agriculture, Forestry and Fisheries
Assessor	Marine Resource Assessment and Management Group, Department of Mathematics and Applied Mathematics, University of Cape Town, Rondebosch, 7701, South Africa
Asmts in RAM	2013, 2020

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2020	247,929
SSBmsy	SSBmsy-MT	2020	189,115
Fmsy	Fmsy-1/yr	2020	0.19
ERmsy	ERmsy-ratio	2020	0.23
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	TB0-MT	2020	847,122
SSB0	SSB0-MT	2020	773,044
MSY	MSY-MT	2020	56,066
M	M-1/yr	2020	0.3
TBlim	TBlim-MT	2020	174,526
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

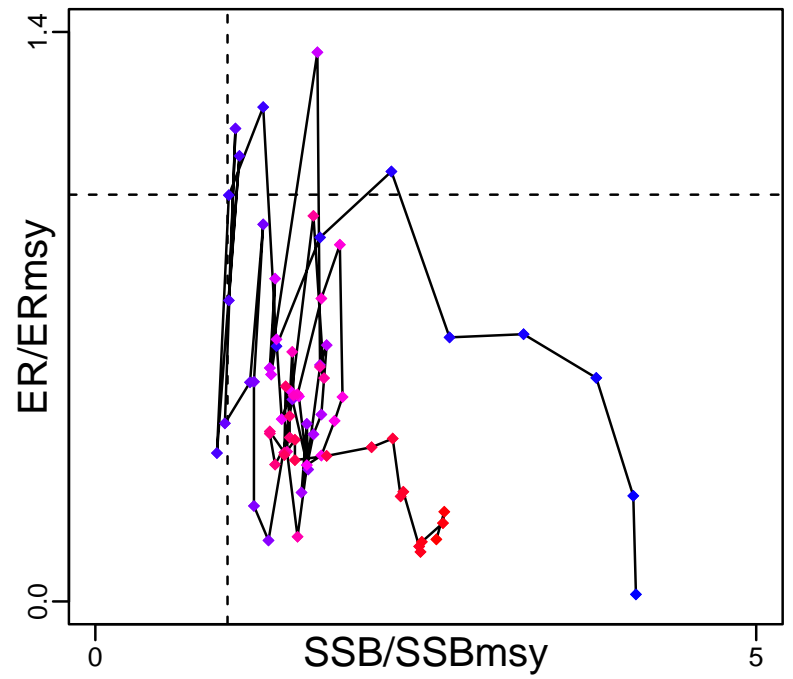
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2020	556,646	-	0+
SSB	SSB-MT	2020	488,226	-	3+
TN	-	-	-	-	-
R	R-E00	2020	1,217,793,074	-	0
F	-	-	-	-	-
ER	ER-ratio	2020	0.035	-	-
TC	TC-MT	2020	19,542		
TL	TL-MT	2020	19,542		
TB/TBmsy	TBdivTBmsy-dimensionless	2020	2.25		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2020	2.58		
F/Fmsy	-	-	-		
ER/ERmsy	ER-ratio/ERmsy-ratio	2020	0.153		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Cape horse mackerel South Africa South coast [CTRACSA]

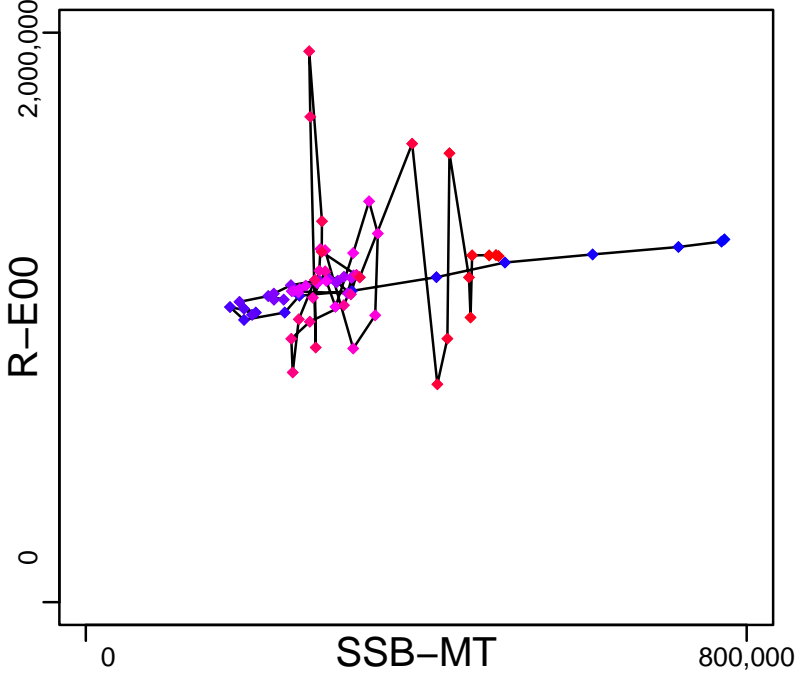
Kobe MSYpref (1949–2020–Johnston)



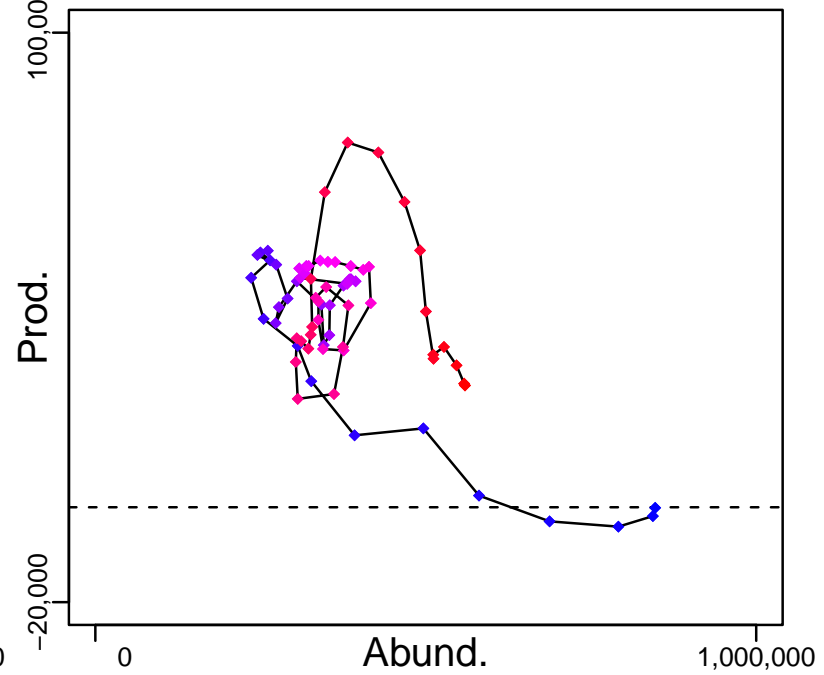
Kobe MGTpref (1949–2020–Johnston)



Spawner Recruit (1949–2020–Johnston)



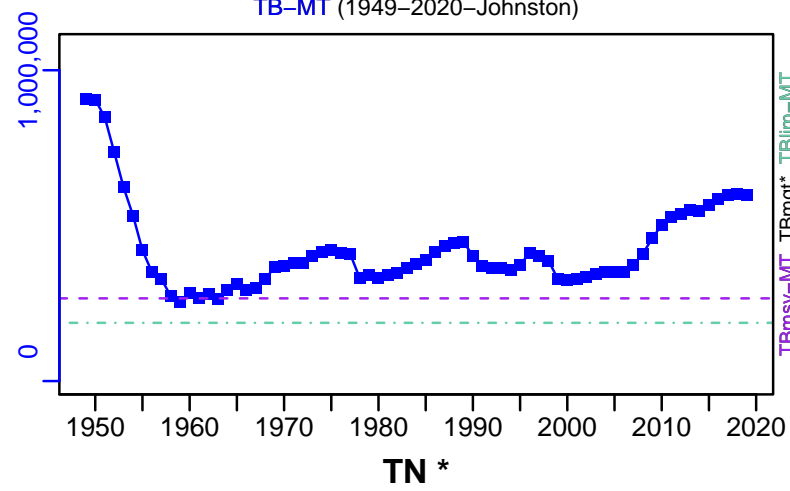
Production (1949–2020–Johnston)



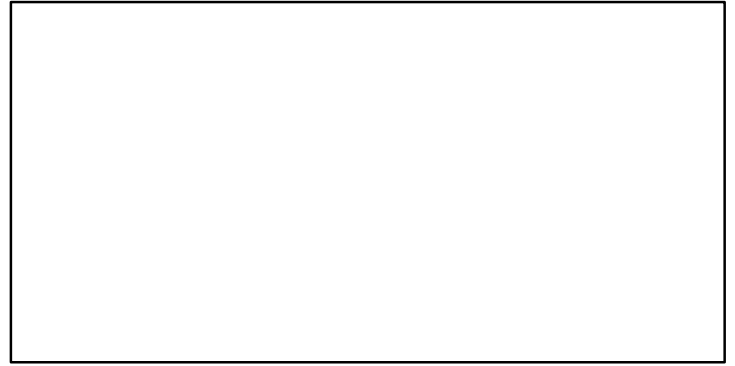
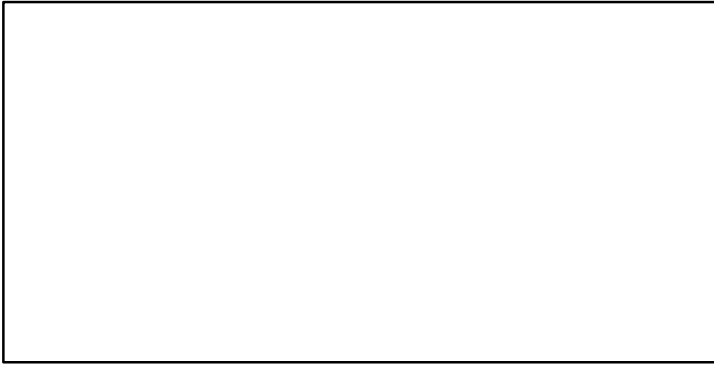
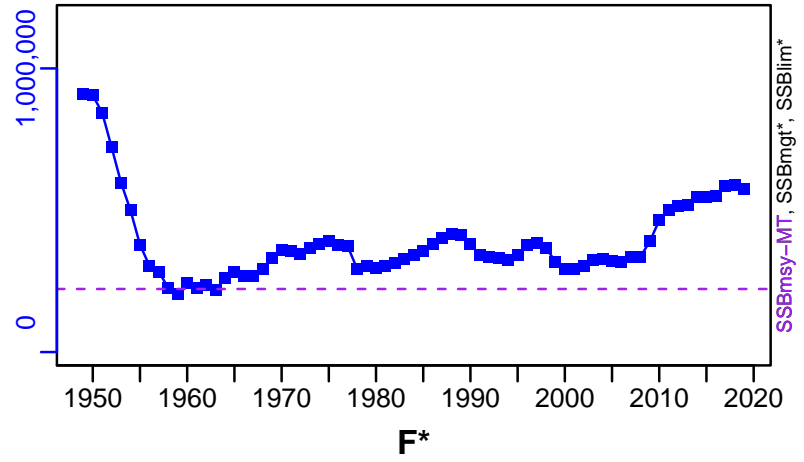
◆ Start Year ◆ End Year * No Data

Cape horse mackerel South Africa South coast [CTRACSA]

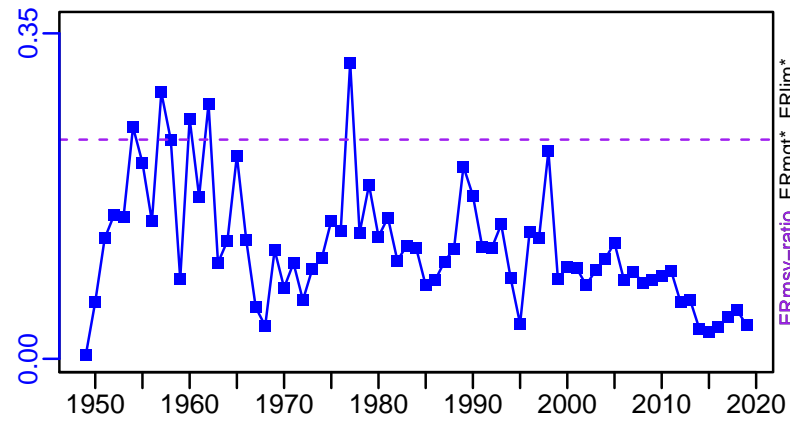
TB-MT (1949-2020-Johnston)



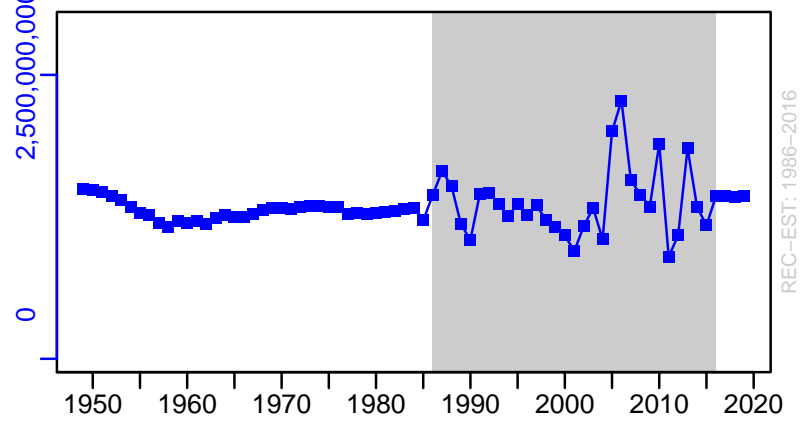
SSB-MT (1949-2020-Johnston)



ER-ratio (1949-2020-Johnston)

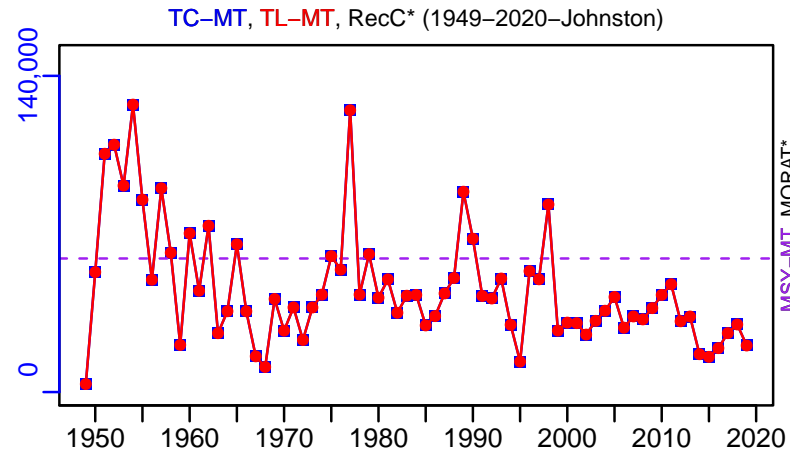


R-E00 (1949-2020-Johnston)

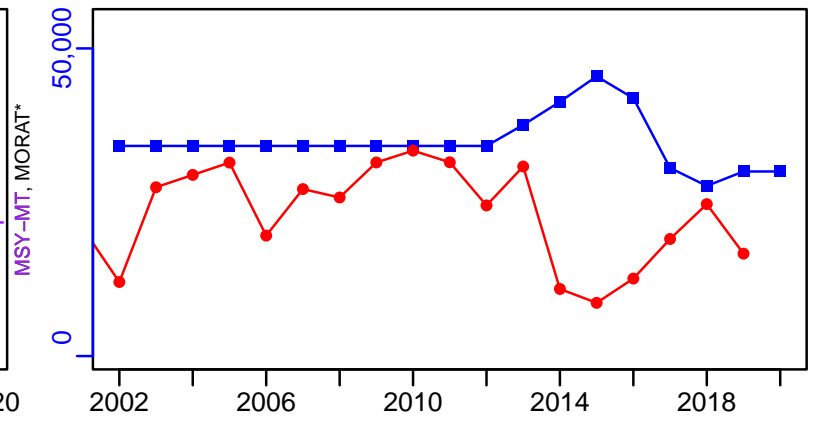


Cape horse mackerel South Africa South coast [CTRACSA]

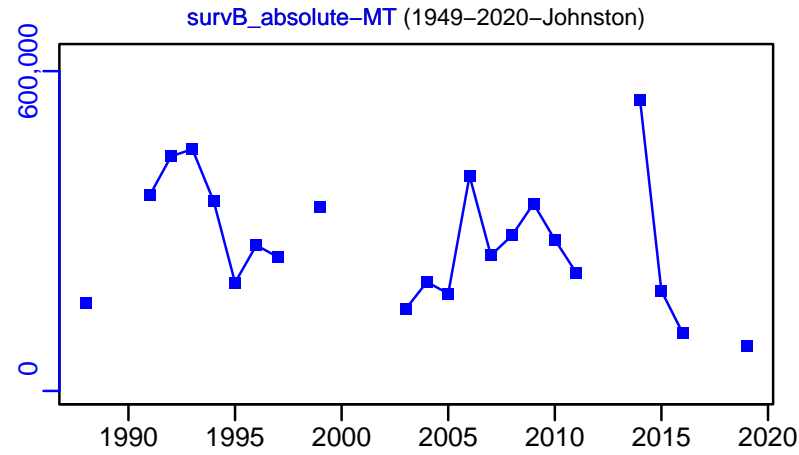
TC-MT, TL-MT, RecC* (1949–2020–Johnston)



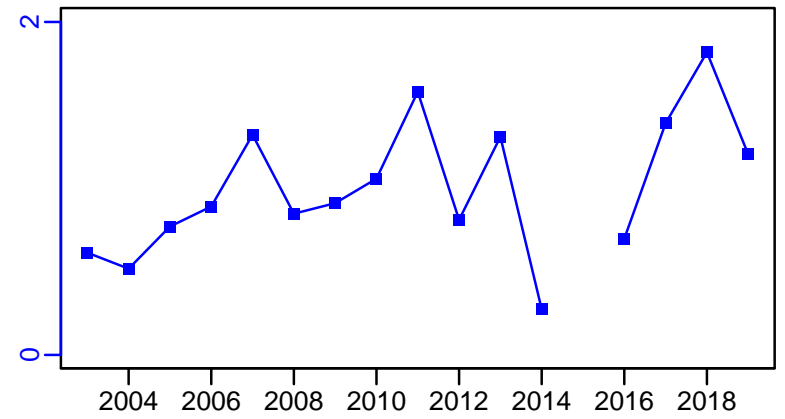
TAC-MT, Cpair-MT, Cadv* (1949–2020–Johnston)



survB_absolute-MT (1949–2020–Johnston)



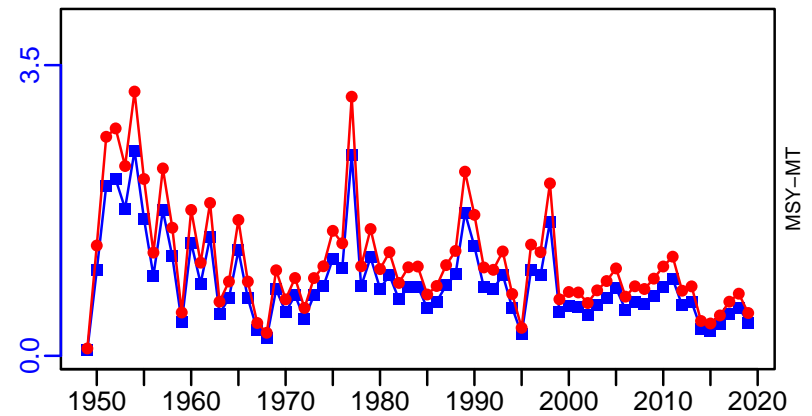
CPUE-index (1949–2020–Johnston)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1949–2020–Johnston)



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

False scad North West Africa [FSCADNWA]

Metadata	
Scientific Name	Caranx rhonchus
Current Assess ID	FAO-SPNWA-FSCADNWA-1990-2020-HIVELY
Area	North West Africa
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO Working Group on the Assessment of Small Pelagic Fish Off Northwest Africa
Asmts in RAM	2010, 2018, 2020

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2010	99,000	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	F-1/yr	2010	0.63	-	-
ER	ER-calc-ratio	2010	0.626	-	-
TC	TC-MT	2020	24,273		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



Kobe MGT*



Spawner Recruit*



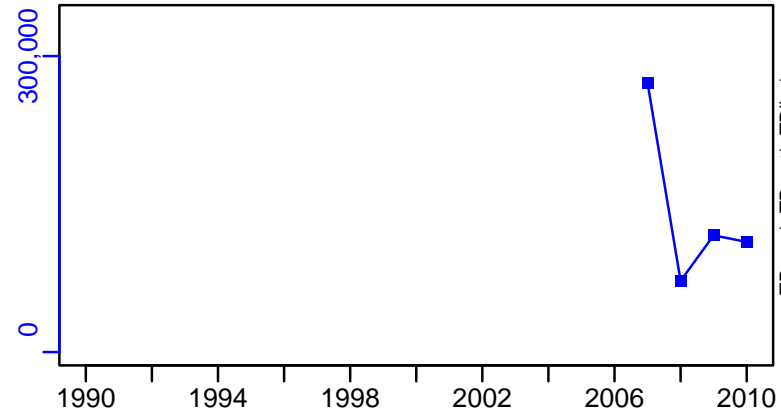
Production*



◆ Start Year ◆ End Year * No Data

False scad North West Africa [FSCADNWA]

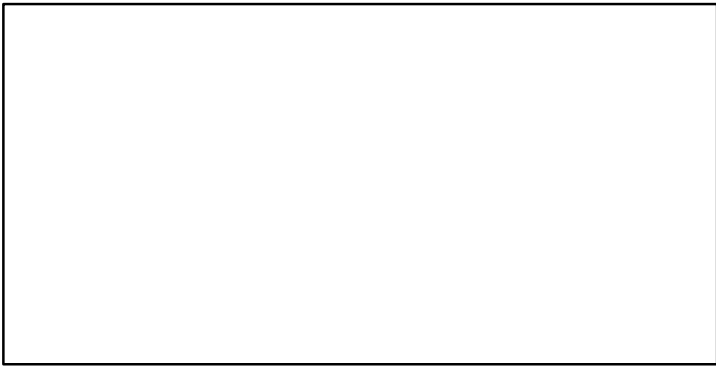
TB-MT (1990-2010-CHING)



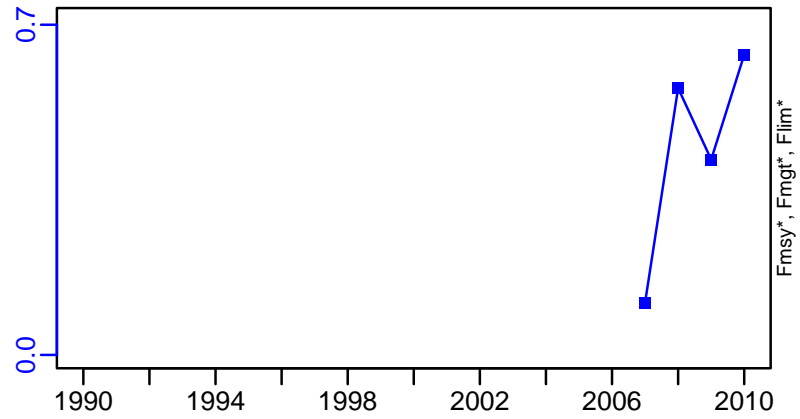
SSB*



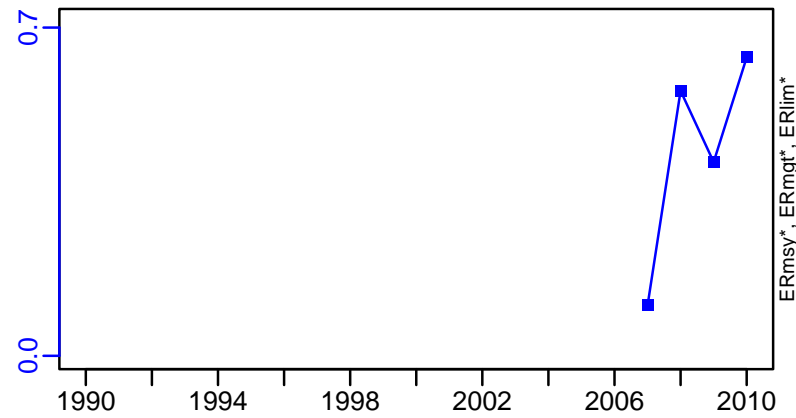
TN *



F-1/yr (1990-2010-CHING)



ER-calc-ratio (1990-2010-CHING)



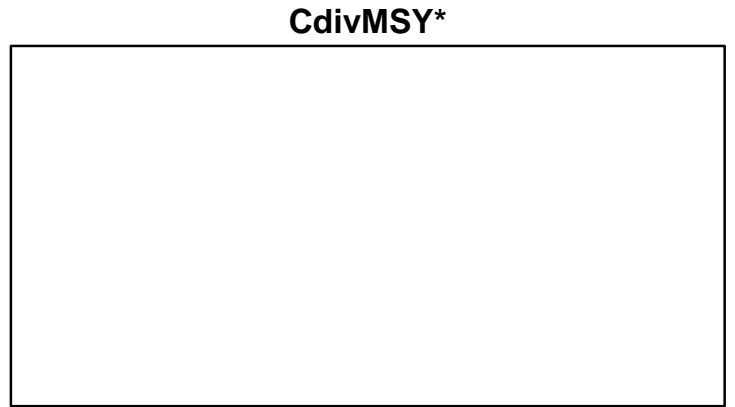
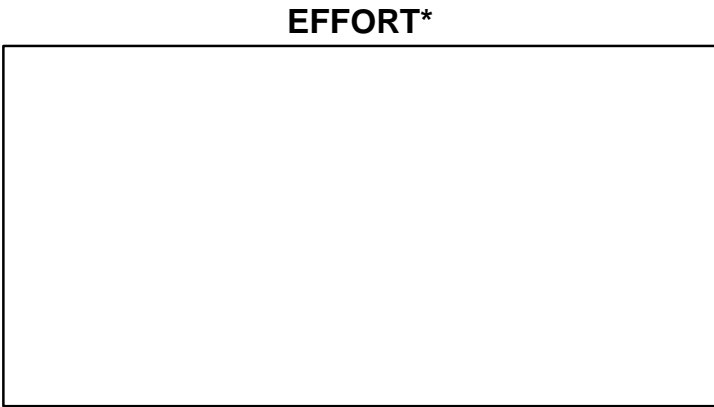
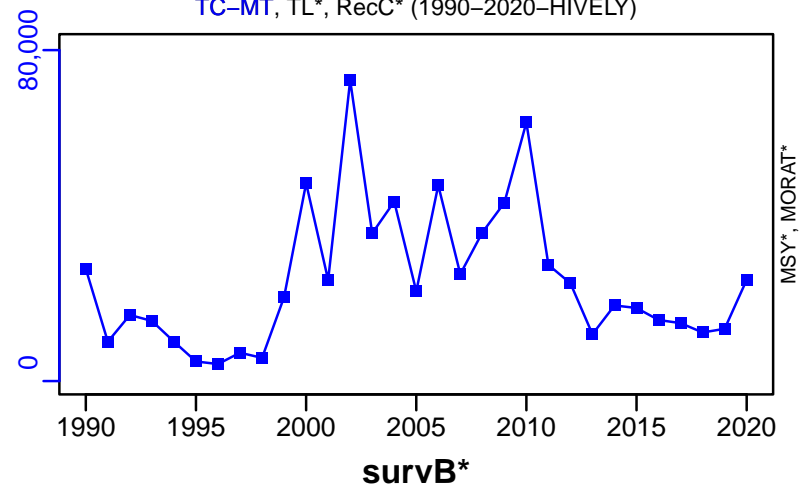
Recruits*



False scad North West Africa [FSCADNWA]

TC-MT, TL*, RecC* (1990-2020-HIVELY)

TAC*, Cpair*, Cadv*



Greater amberjack Gulf of Mexico [GRAMBERGM]

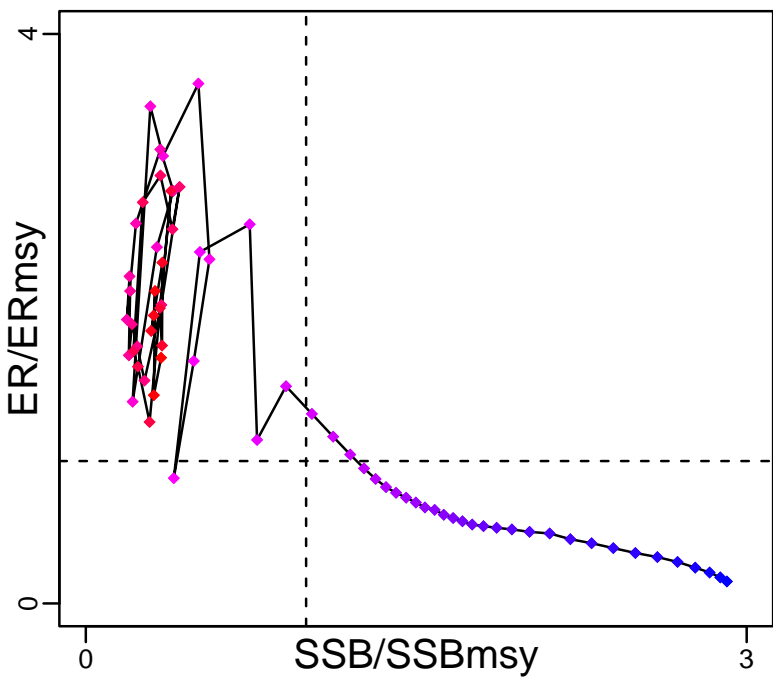
Metadata	
Scientific Name	Seriola dumerili
Current Assess ID	SEFSC-GRAMBERGM-1950-2018-SISIMP2022
Area	Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2012, 2015, 2018, 2004

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

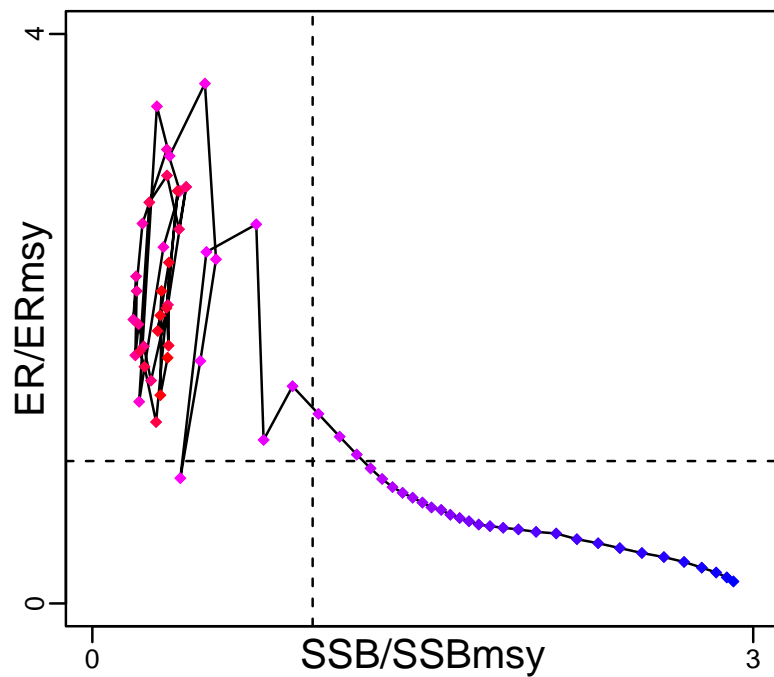
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2012	3860	-	1+
SSB	SSB-MT	2018	2432	-	-
TN	-	-	-	-	-
R	R-E00	2018	1,813,000	-	0
F	F-1/yr	2015	0.33	-	-
ER	ER-ratio	2018	0.302	-	1
TC	TC-MT	2012	983		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2012	0.52		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2018	0.342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

Greater amberjack Gulf of Mexico [GRAMBERGM]

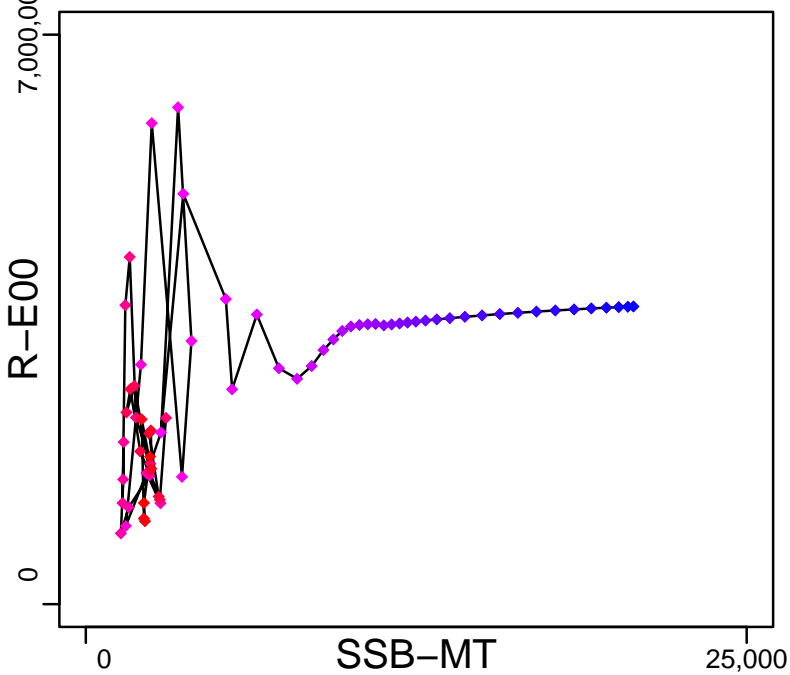
Kobe MSYpref (1950–2018–SISIMP2022)



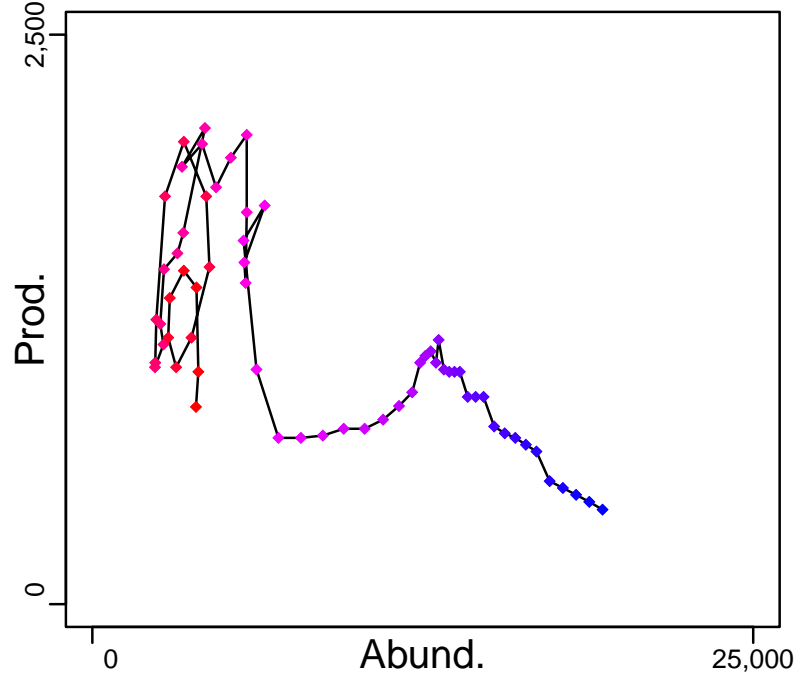
Kobe MGTpref (1950–2018–SISIMP2022)



Spawner Recruit (1950–2018–SISIMP2022)



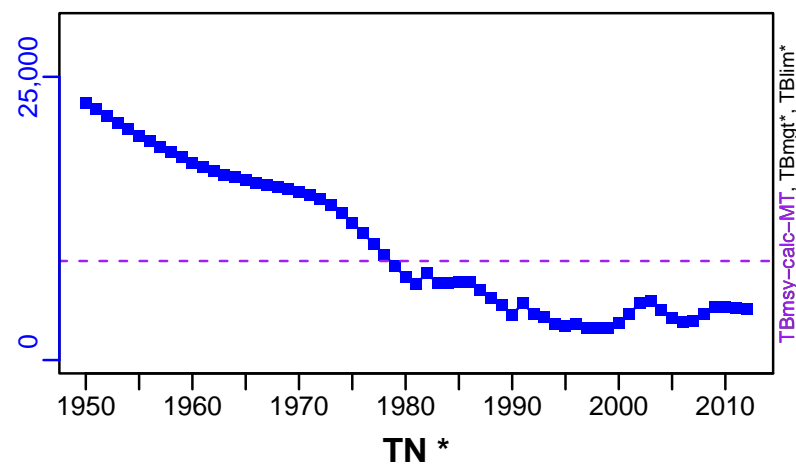
Production (1950–2012–SISIMP2016)



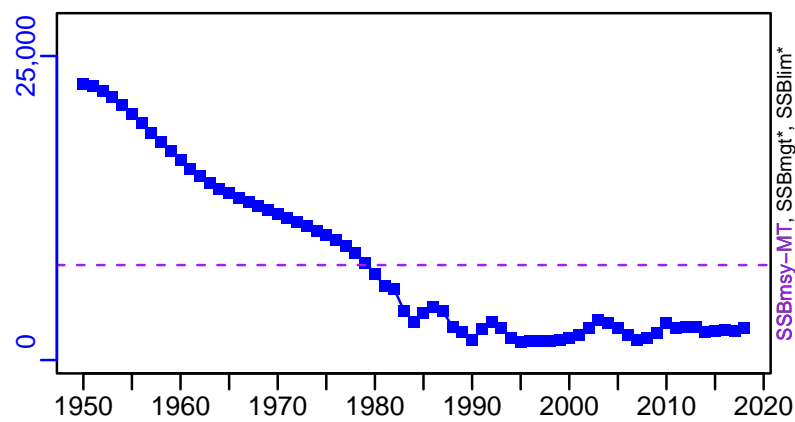
◆ Start Year ◆ End Year * No Data

Greater amberjack Gulf of Mexico [GRAMBERGM]

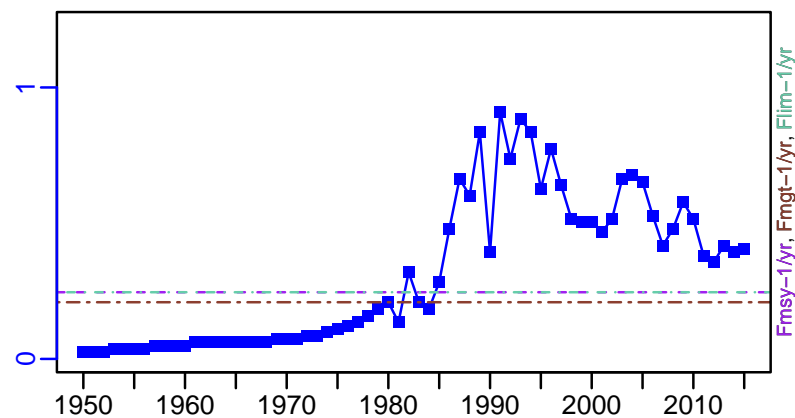
TB-MT (1950–2012–SISIMP2016)



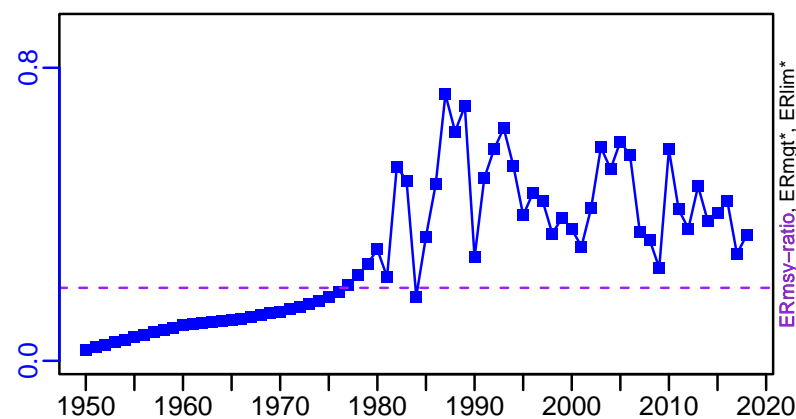
SSB-MT (1950–2018–SISIMP2022)



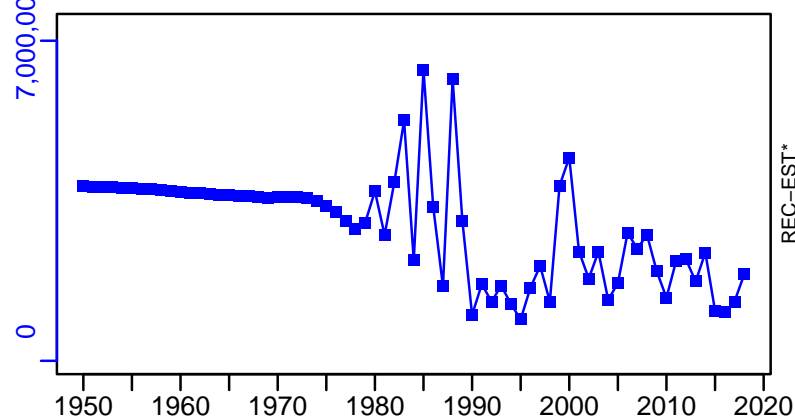
F-1/yr (1950–2015–SISIMP2021)



ER-ratio (1950–2018–SISIMP2022)

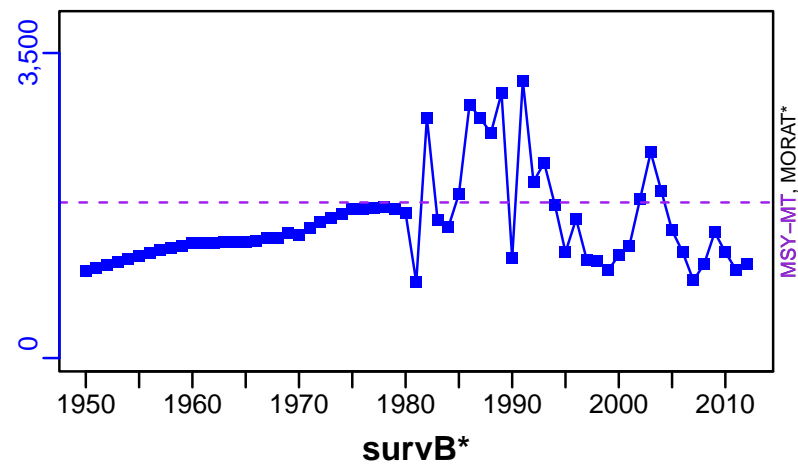


R-E00 (1950–2018–SISIMP2022)



Greater amberjack Gulf of Mexico [GRAMBERGM]

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



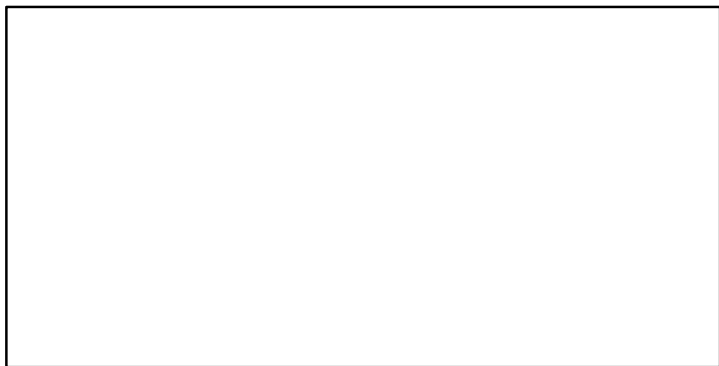
TAC*, Cpair*, Cadv*



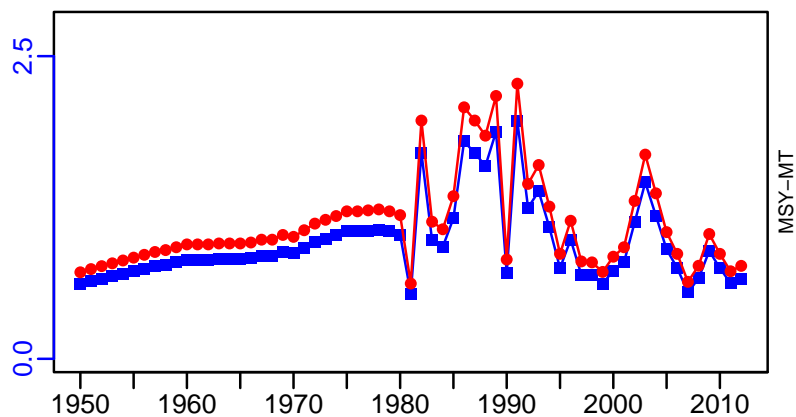
CPUE*



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]

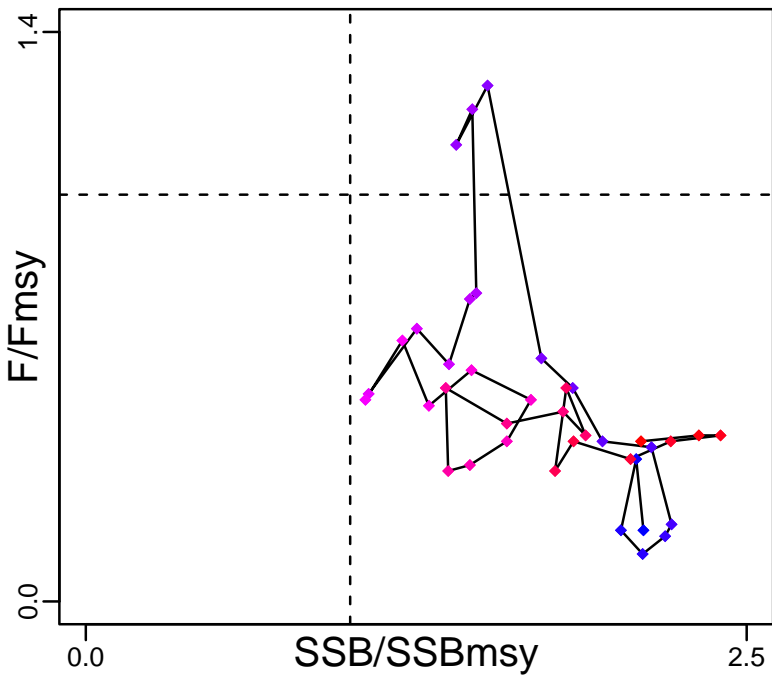
Metadata	
Scientific Name	Seriola dumerili
Current Assess ID	SEFSC-GRAMBERSATLC-1980-2017-SISIMP2021-2
Area	Southern Atlantic coast
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2006, 2017

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

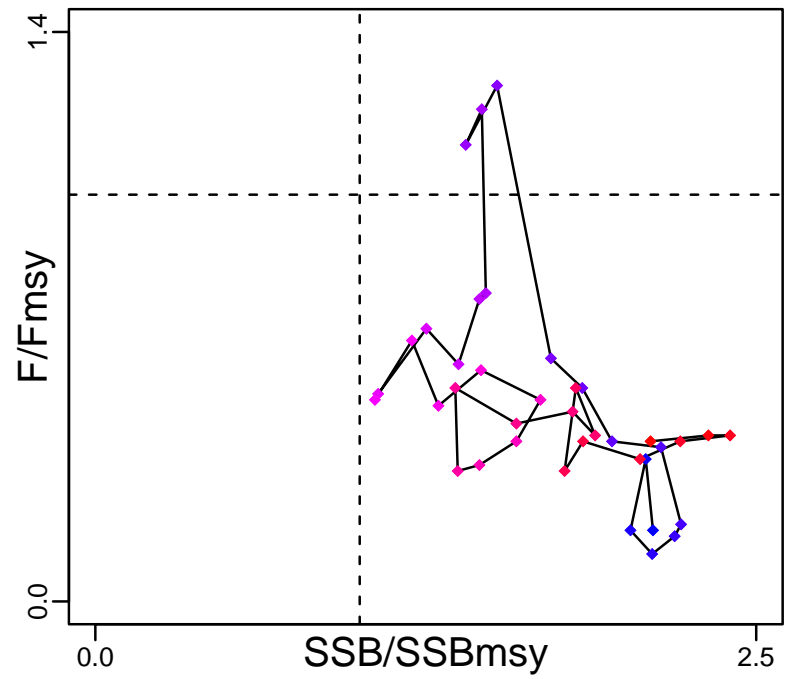
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2006	5620	-	-
SSB	SSB-MT	2017	6910	-	-
TN	-	-	-	-	-
R	R-E00	2017	1,140,000	-	1
F	F-1/yr	2017	0.27	-	-
ER	ER-calc-ratio	2006	0.049	-	-
TC	TC-MT	2017	1120		
TL	TL-MT	2006	278		
TB/TBmsy	TB-MT/TBmsy-MT	2006	1.023		
SSB/SSBmsy	SSB-MT/SSBmsy-MT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

Greater amberjack Southern Atlantic coast [GRAMBERSATLC]

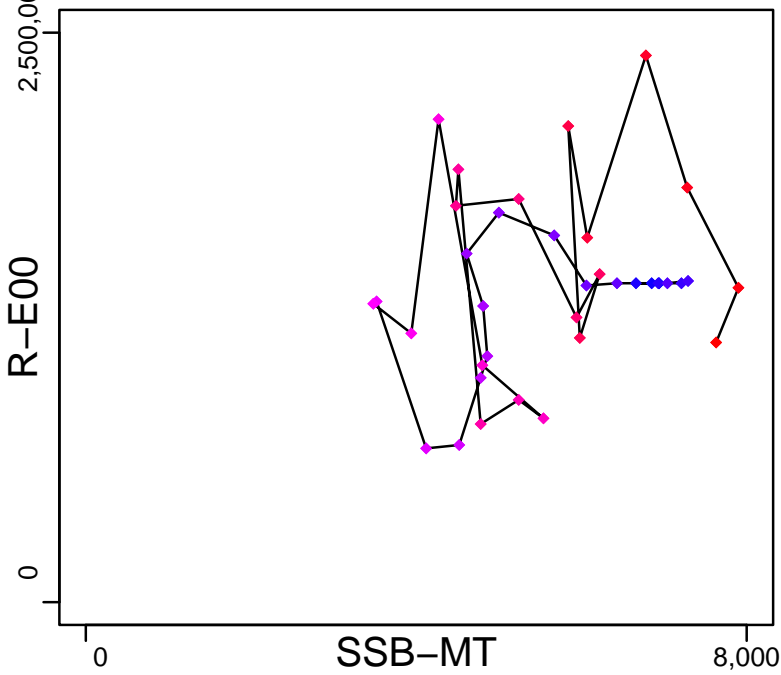
Kobe MSYpref (1980–2017–SISIMP2021–2)



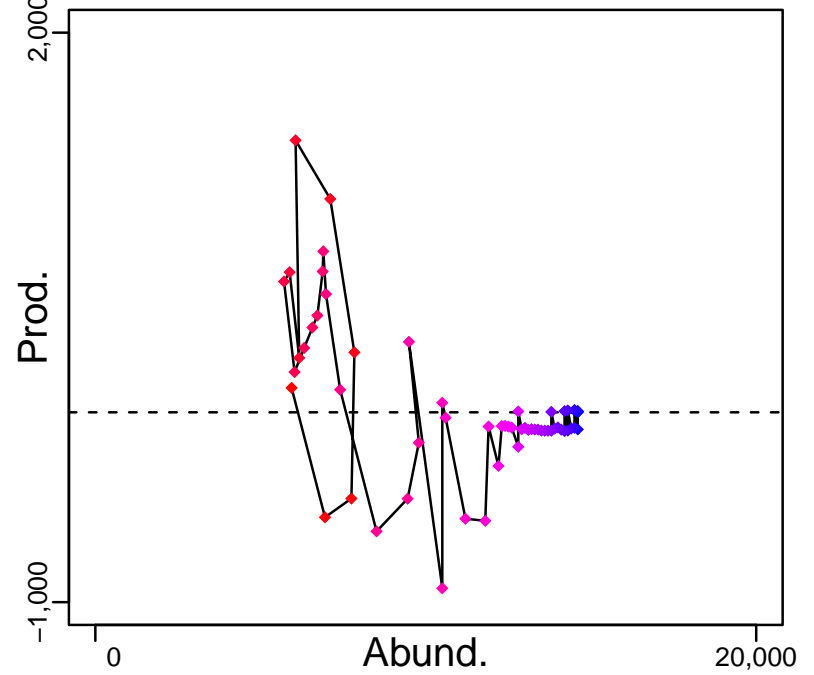
Kobe MGTpref (1980–2017–SISIMP2021–2)



Spawner Recruit (1980–2017–SISIMP2021–2)



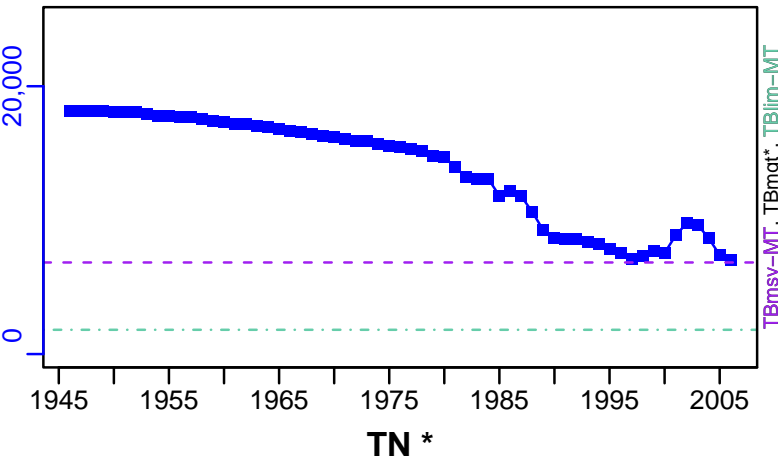
Production (1946–2006–JENSEN)



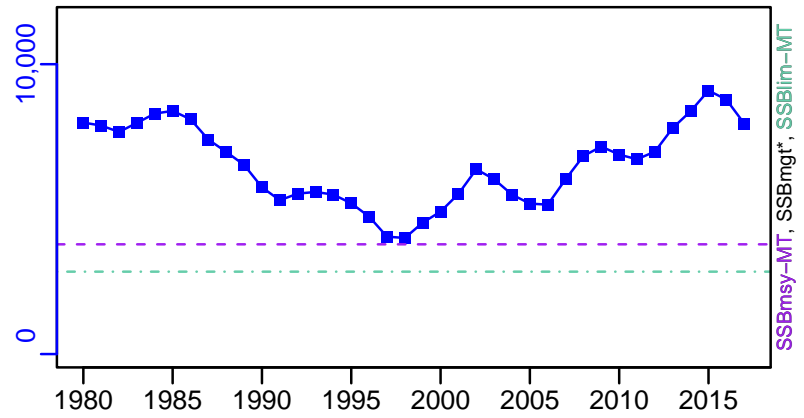
◆ Start Year ◆ End Year * No Data

Greater amberjack Southern Atlantic coast [GRAMBERSATLC]

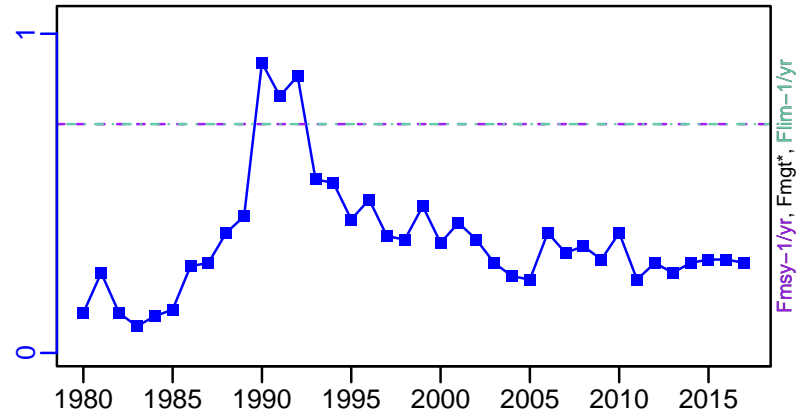
TB-MT (1946-2006-JENSEN)



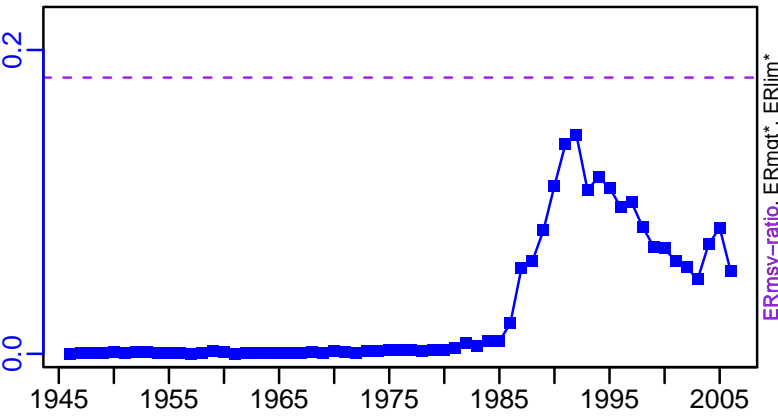
SSB-MT (1980-2017-SISIMP2021-2)



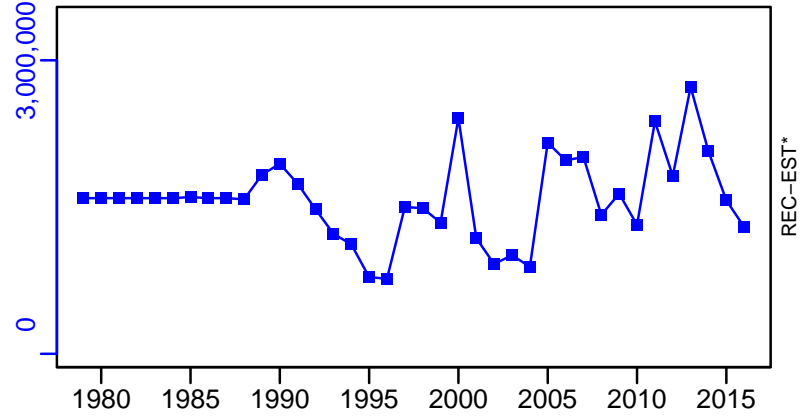
F-1/yr (1980-2017-SISIMP2021-2)



ER-calc-ratio (1946-2006-JENSEN)

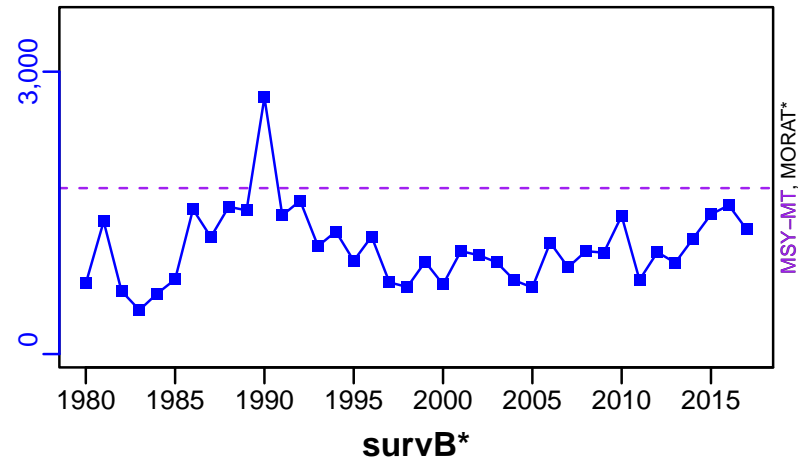


R-E00 (1980-2017-SISIMP2021-2)



Greater amberjack Southern Atlantic coast [GRAMBERSATLC]

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



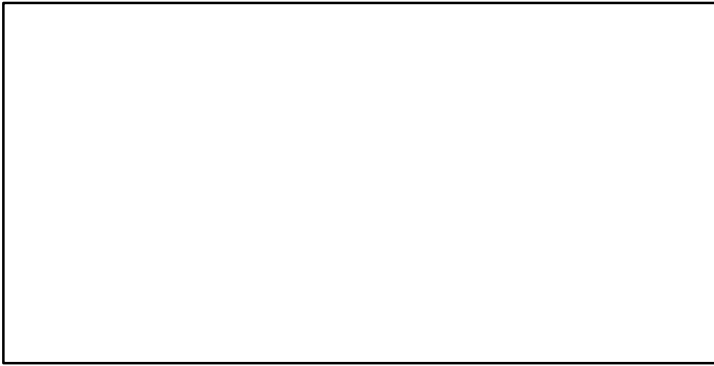
TAC*, Cpair*, Cadv*



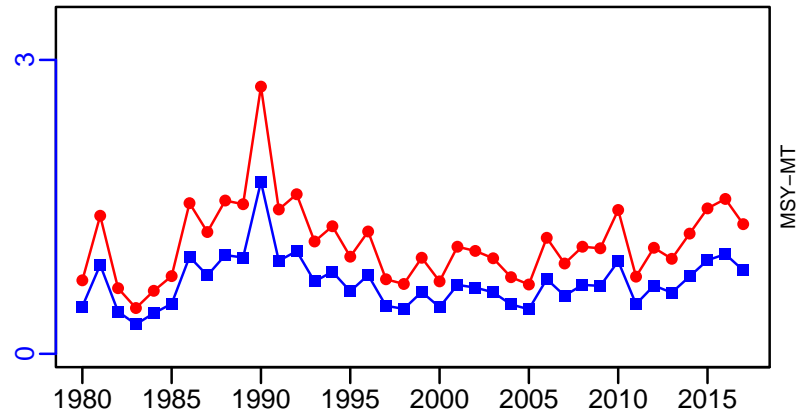
CPUE*



EFFORT*



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



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

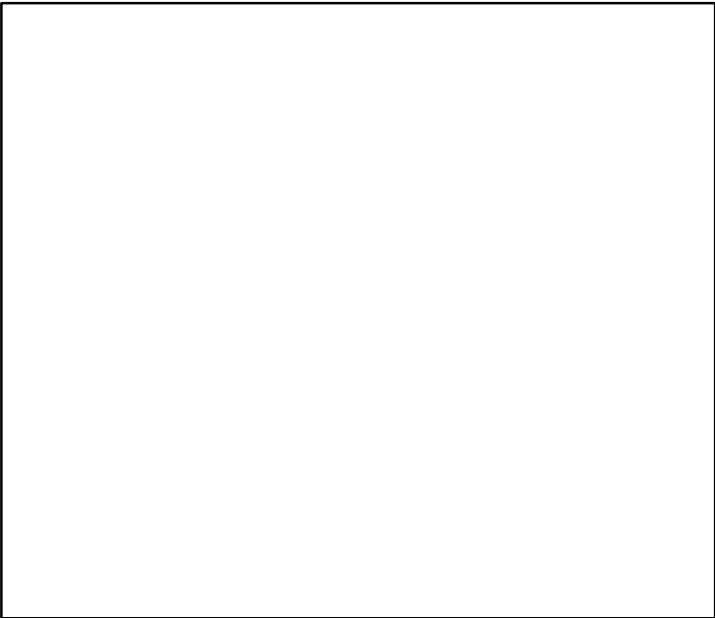
Giant trevally Main Hawaiian Islands [GTREVMHI]

Metadata	
Scientific Name	Caranx ignobilis
Current Assess ID	PIFSC-GTREVMHI-2004-2015-SISIMP2021
Area	Main Hawaiian Islands
Management Authority	National Marine Fisheries Service, US national management
Assessor	Pacific Fisheries Science Center
Asmts in RAM	2015

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2015	309		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

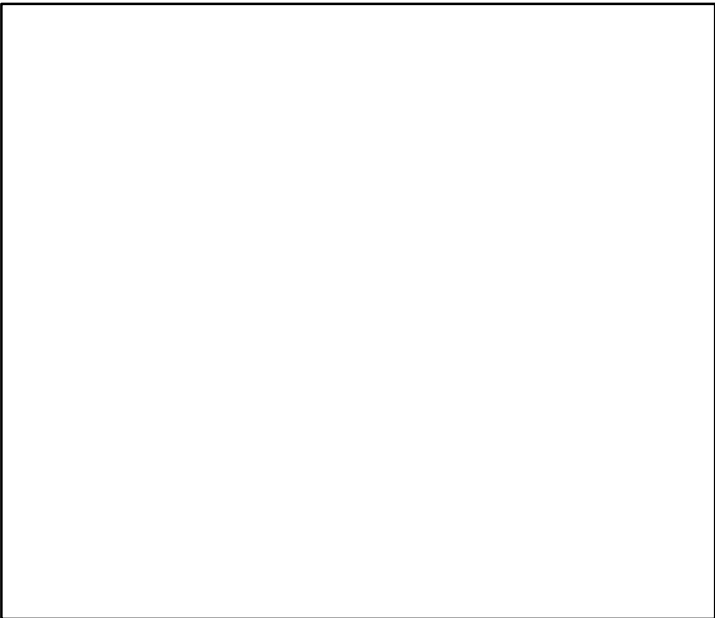
Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Giant trevally Main Hawaiian Islands [GTREVMHI]

TB*



SSB*



TN *



F*



ER*



Recruits*

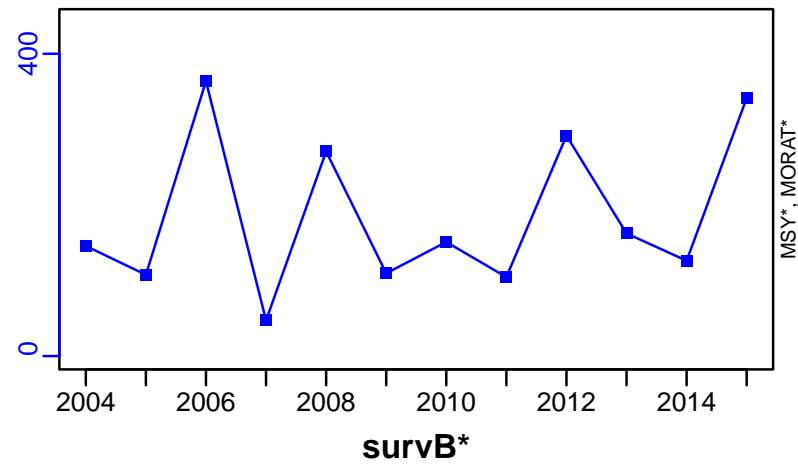


■ Listed time series	- - - Target BRP	— Rec-Est
- - - MSY-based BRP	- · - Lim BRP	* No Data

Giant trevally Main Hawaiian Islands [GTREVMHI]

TC-MT, TL*, RecC* (2004–2015–SISIMP2021)

TAC*, Cpair*, Cadv*



Horse mackerel ICES 2a-4a-5b-6a-7-8 [HMACKIIa-IVa-Vb-VIa-VII-VIII]

Metadata	
Scientific Name	Trachurus trachurus
Current Assess ID	WGWIDE-HMACKIIa-IVa-Vb-VIa-VII-VIII-1982-2020-ICESIMP2021-2
Area	ICES 2a-4a-5b-6a-7-8
Management Authority	International Council for the Exploration of the Sea
Assessor	Working Group on Widely Distributed Stocks
Asmts in RAM	2013, 2014, 2015, 2016, 2017, 2019, 2020

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	Fmsy-1/yr	2020	0.074
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	Fmgt-1/yr	2020	0.074
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	SSBlim-MT	2020	834,000
Flim	Flim-1/yr	2020	0.103
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2017	1,070,000	Both	-
SSB	SSB-MT	2020	853,000	-	-
TN	-	-	-	-	-
R	R-E00	2020	2.58×10^9	-	0
F	F-1/yr	2020	0.109	-	-
ER	ER-calc-ratio	2017	0.098	-	-
TC	TC-MT	2020	125,000		
TL	TL-MT	2019	99,072		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	F-1/yr/Fmsy-1/yr	2020	1.473		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	F-1/yr/Fmgt-1/yr	2020	1.473		
ER/ERmgt	-	-	-		

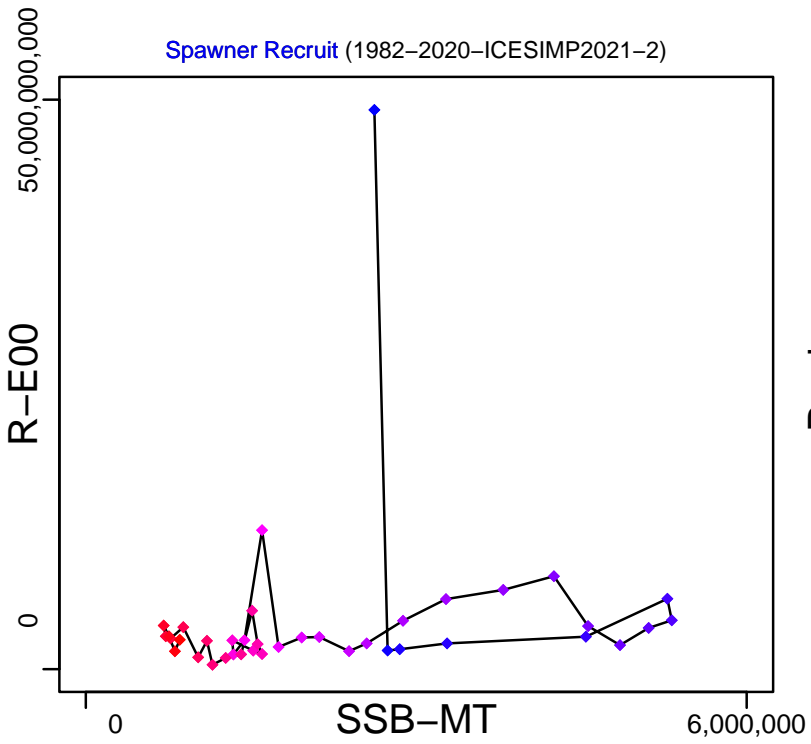
Kobe MSY*



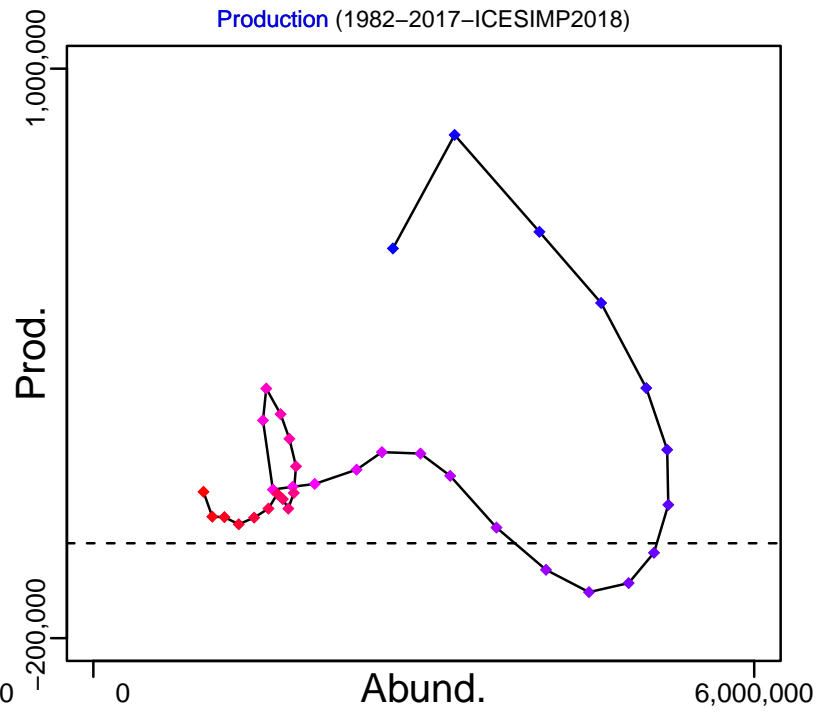
Kobe MGT*



Spawner Recruit (1982-2020-ICESIMP2021-2)



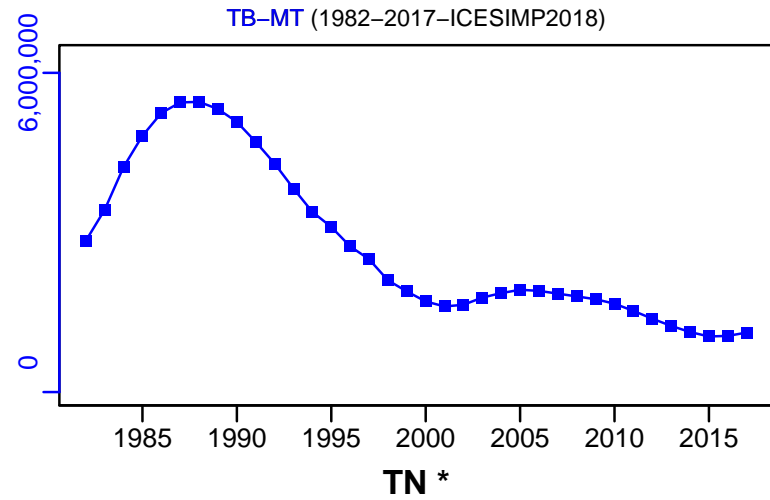
Production (1982-2017-ICESIMP2018)



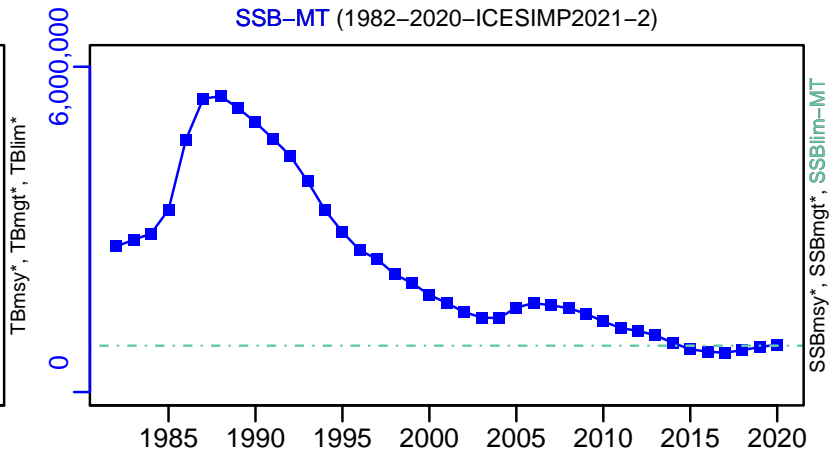
◆ Start Year ◆ End Year * No Data

Horse mackerel ICES 2a-4a-5b-6a-7-8 [HMAcKIIa-IVa-Vb-VIa-VII-VIII]

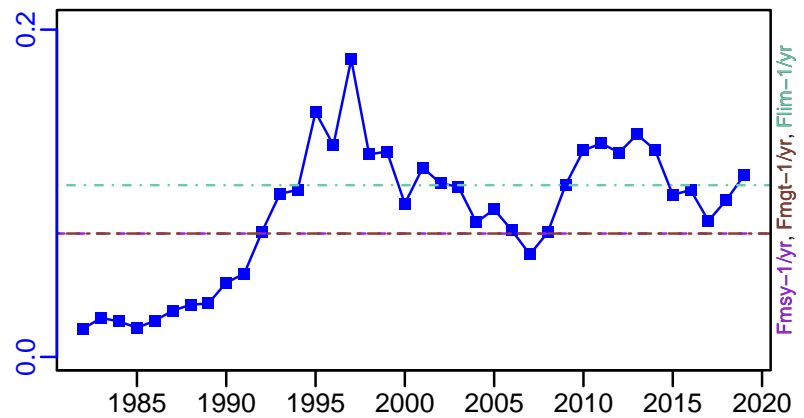
TB-MT (1982-2017-ICESIMP2018)



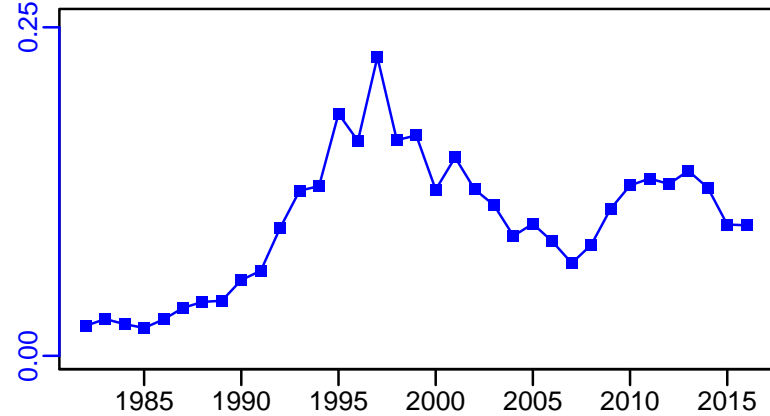
SSB-MT (1982-2020-ICESIMP2021-2)



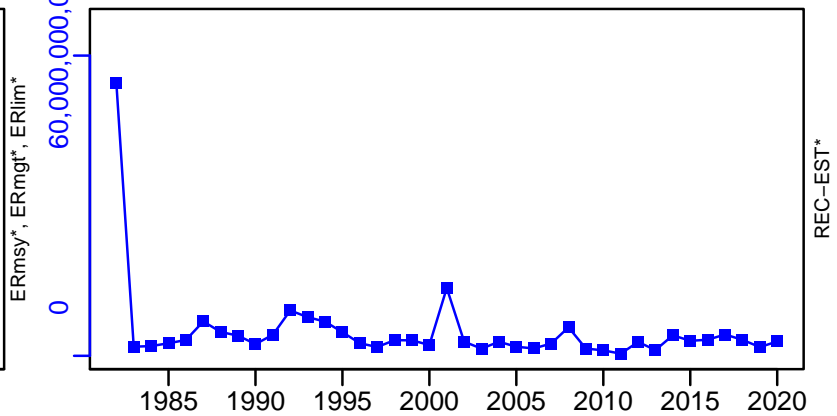
F-1/yr (1982-2020-ICESIMP2021-2)



ER-calc-ratio (1982-2017-ICESIMP2018)

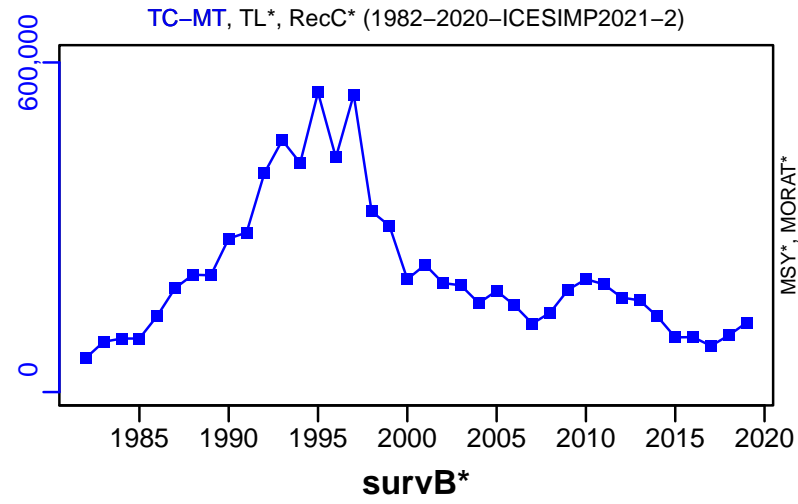


R-E00 (1982-2020-ICESIMP2021-2)



Horse mackerel ICES 2a-4a-5b-6a-7-8 [HMACKIla-IVa-Vb-VIa-VII-VIII]

TC-MT, TL*, RecC* (1982-2020-ICESIMP2021-2)



TAC*, Cpair*, Cadv*



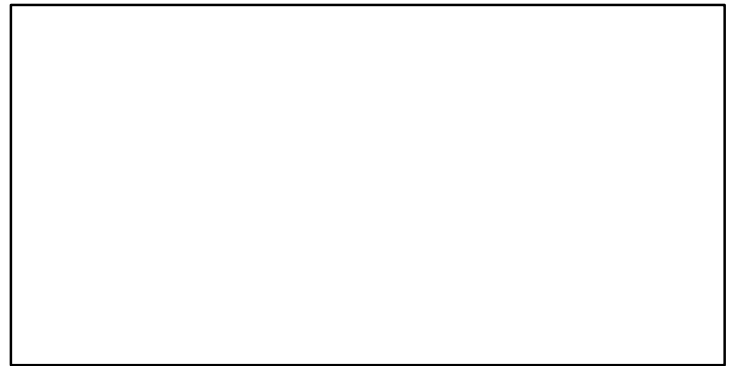
CPUE*



EFFORT*



CdivMSY*



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

Horse mackerel ICES 3a-4bc-7d [HMACKIIIa-IVbc-VIId]

Metadata	
Scientific Name	Trachurus trachurus
Current Assess ID	WGWISE-HMACKIIIa-IVbc-VIId-1982-2020-ICESIMP2021-2
Area	ICES 3a-4bc-7d
Management Authority	International Council for the Exploration of the Sea
Assessor	Working Group on Widely Distributed Stocks
Asmts in RAM	2015, 2015, 2016, 2018, 2020

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2020	12,600		
TL	TL-MT	2020	12,400		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



Kobe MGT*



Spawner Recruit*

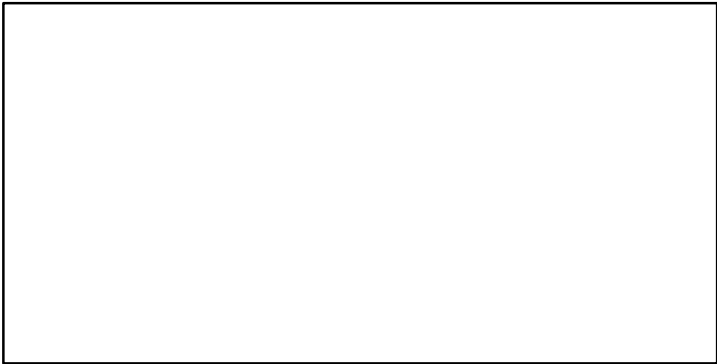


Production*

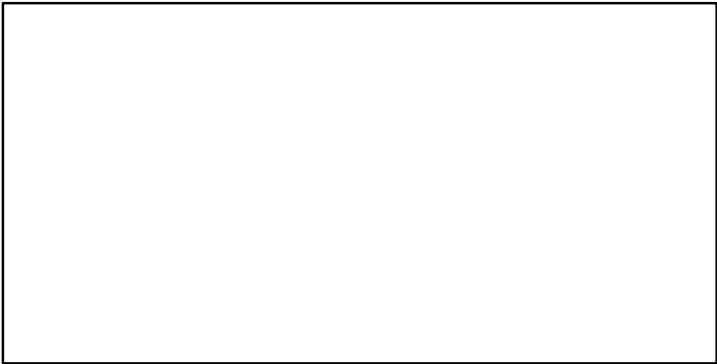


◆ Start Year ◆ End Year * No Data

TB*



SSB*



TN *



F*



ER*

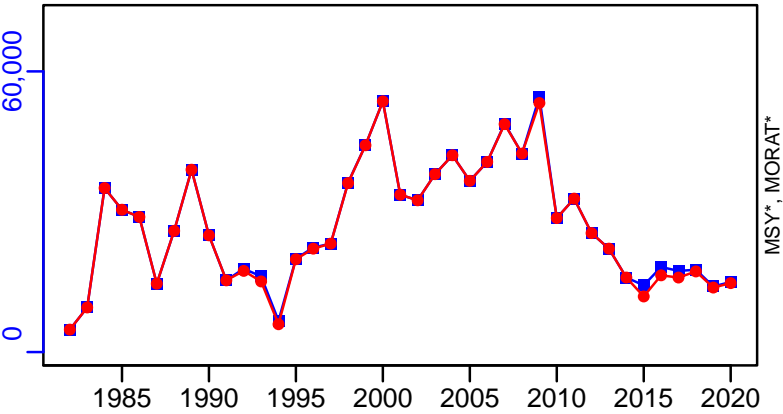


Recruits*



Horse mackerel ICES 3a-4bc-7d [HMACKIIIa-IVbc-VIId]

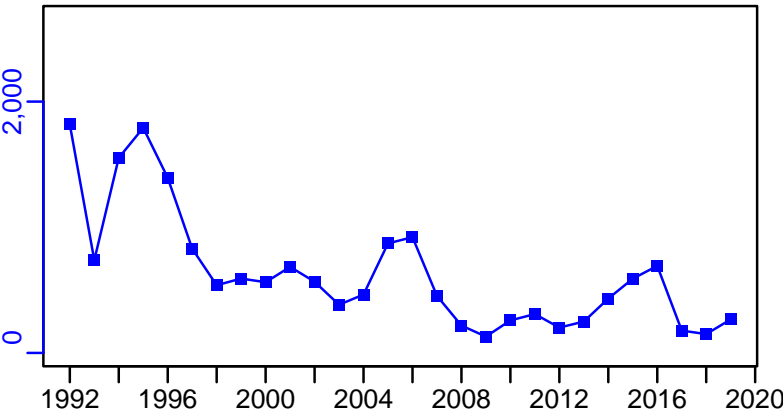
TC-MT, TL-MT, RecC* (1982-2020-ICESIMP2021-2)



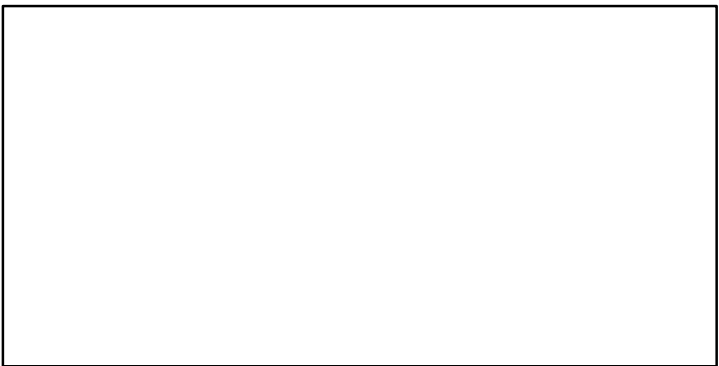
TAC*, Cpair*, Cadv*



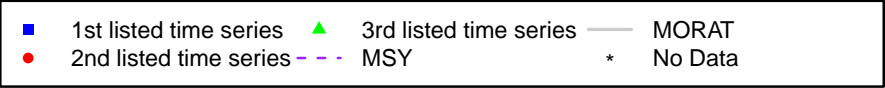
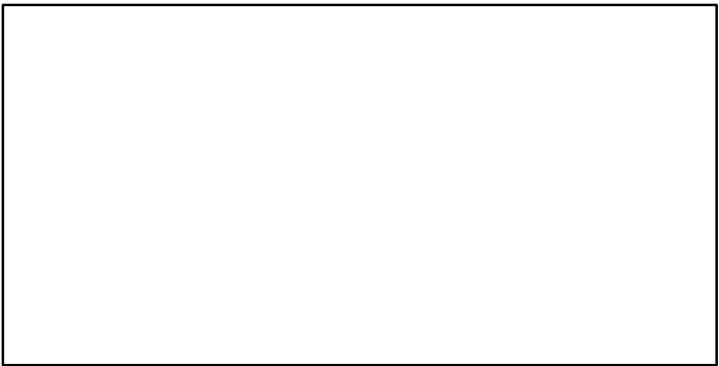
survB-E00 (1982-2020-ICESIMP2021-2)



CPUE*



CdivMSY*

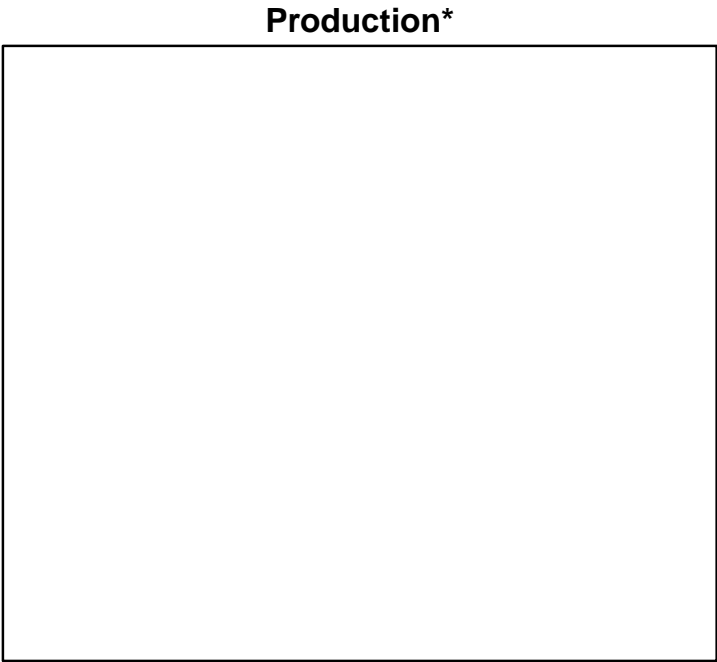
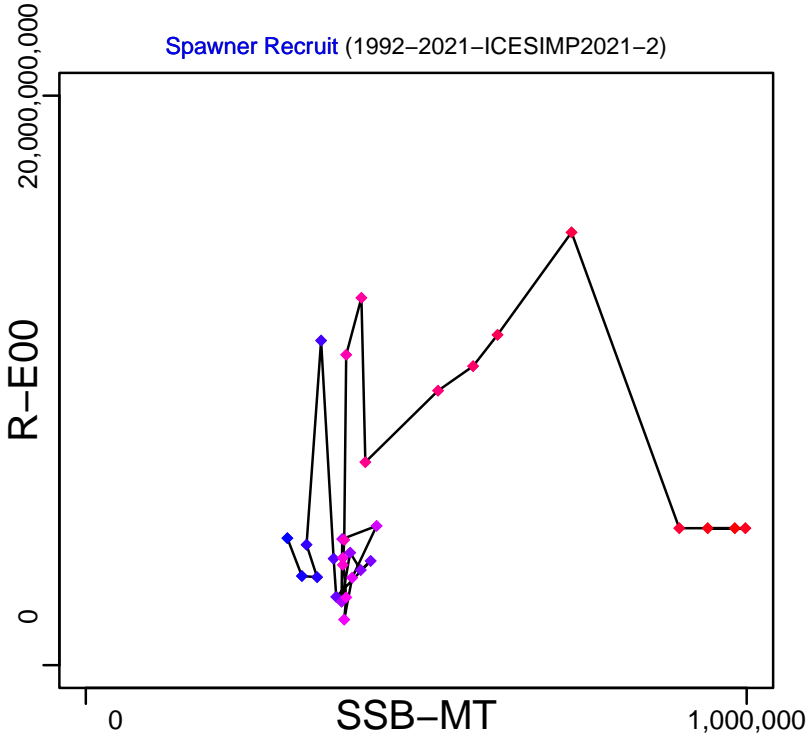
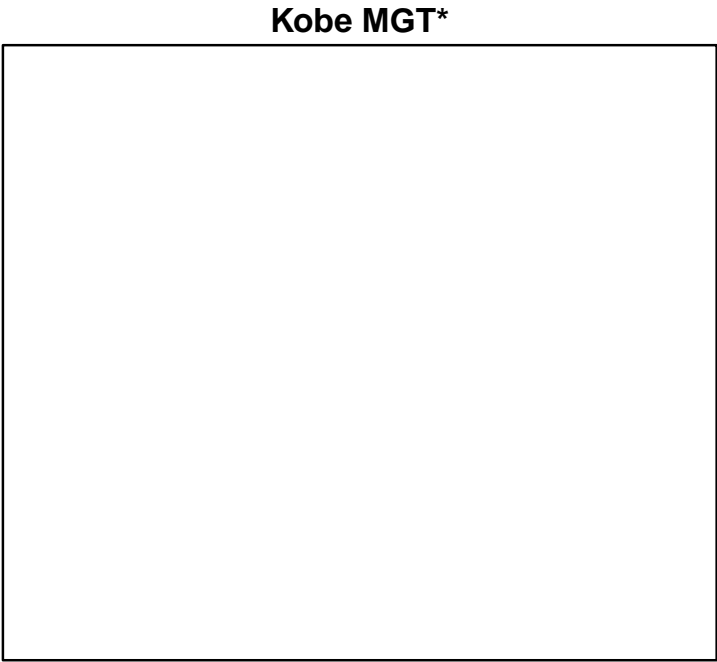
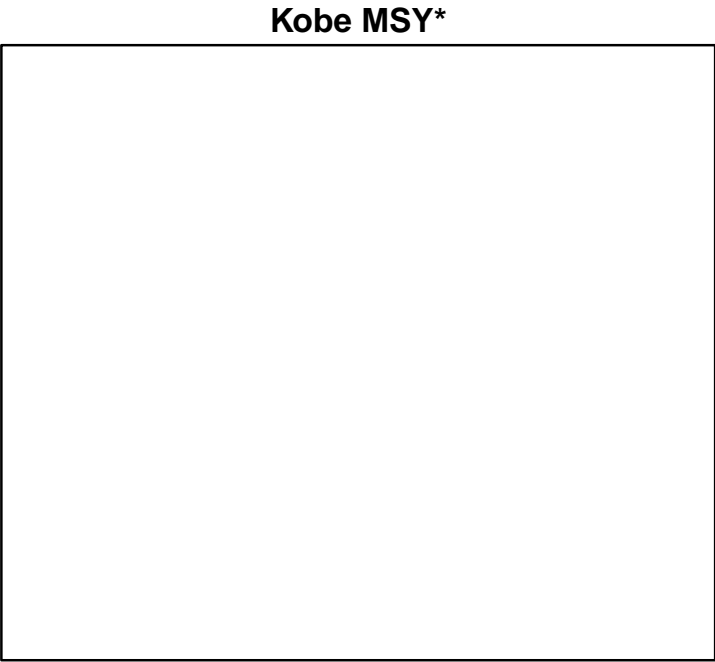


Horse mackerel Portuguese Waters -East [HMACKIXa]

Metadata	
Scientific Name	Trachurus trachurus
Current Assess ID	WGHANSA-HMACKIXa-1992-2021-ICESIMP2021-2
Area	Portuguese Waters -East
Management Authority	International Council for the Exploration of the Sea
Assessor	Working Group on Southern Horse Mackerel, Anchovy and Sardine
Asmts in RAM	2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020, 2021

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	Fmsy-1/yr	2021	0.15
ERmsy	ERmsy-ratio	2019	0.11
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	Fmgt-1/yr	2021	0.15
ERmgt	ERmgt-ratio	2019	0.11
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	SSBlim-MT	2021	103,000
Flim	Flim-1/yr	2021	0.19
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2021	982,000	-	-
TN	-	-	-	-	-
R	R-E00	2021	4.81×10^9	-	0
F	F-1/yr	2021	0.024	-	-
ER	ER-ratio	2019	0.029	-	2 to 10
TC	TC-MT	2021	30,200		
TL	TL-MT	2021	30,200		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	F-1/yr/Fmsy-1/yr	2021	0.162		
ER/ERmsy	ER-ratio/ERmsy-ratio	2019	0.264		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	F-1/yr/Fmgt-1/yr	2021	0.162		
ER/ERmgt	-	-	-		



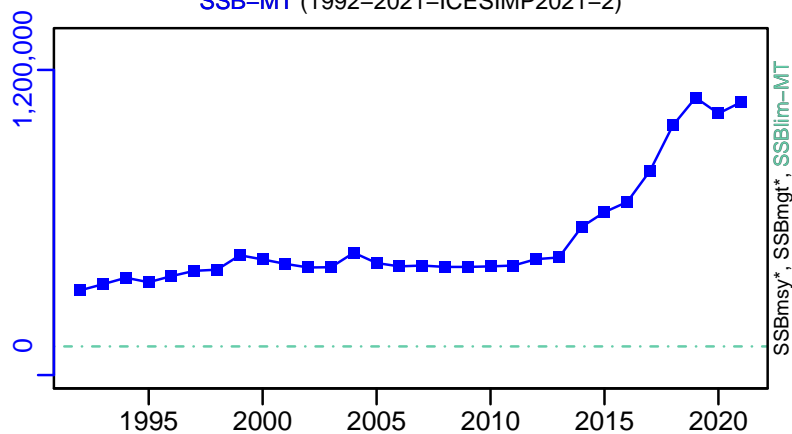
◆ Start Year ◆ End Year * No Data

Horse mackerel Portuguese Waters –East [HMACKIXa]

TB*



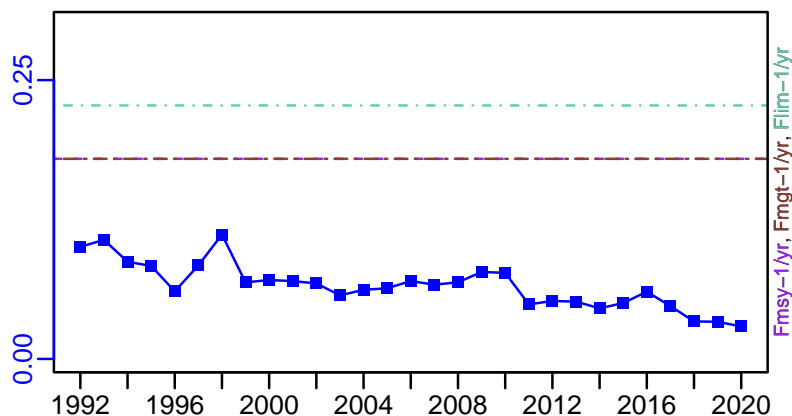
SSB-MT (1992–2021–ICESIMP2021–2)



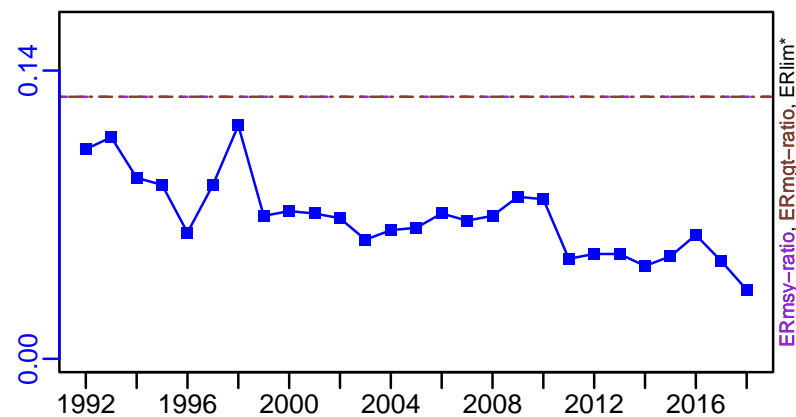
TN *



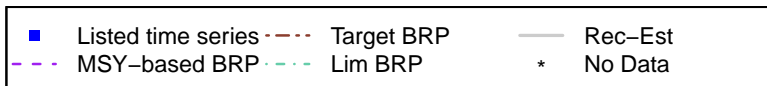
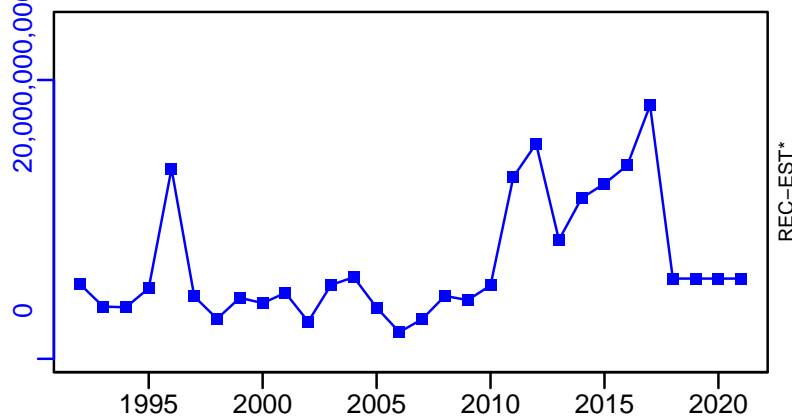
F-1/yr (1992–2021–ICESIMP2021–2)



ER-ratio (1992–2019–ICESIMP2021)

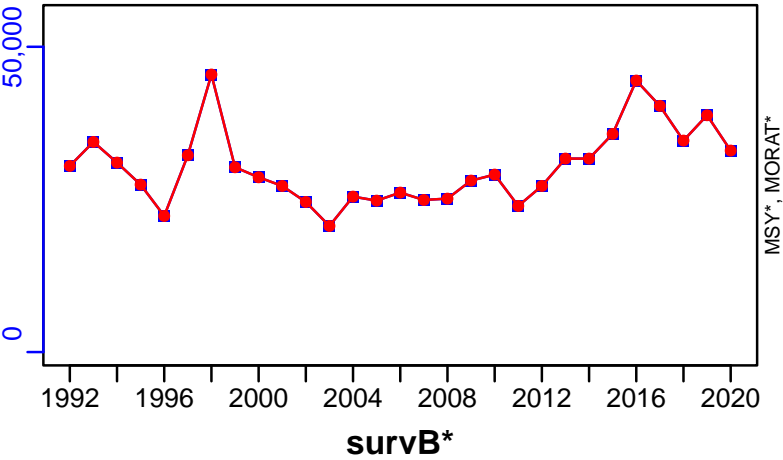


R-E00 (1992–2021–ICESIMP2021–2)



Horse mackerel Portuguese Waters –East [HMACKIXa]

TC–MT, TL–MT, RecC* (1992–2021–ICESIMP2021–2)



TAC*, Cpair*, Cadv*



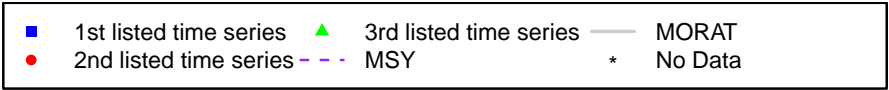
CPUE*



EFFORT*



CdivMSY*



Horse mackerel Geographical Sub-Areas 9-11 [HMACKMEDGSA9-11]

Metadata	
Scientific Name	Trachurus trachurus
Current Assess ID	STECF-HMACKMEDGSA9-11-2009-2016-MEDIMP2021-2
Area	Geographical Sub-Areas 9-11
Management Authority	General Fisheries Council for the Mediterranean, DG MARE, and national states
Assessor	Scientific, Technical and Economic Committee for Fisheries
Asmts in RAM	2016

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	Fmsy-1/yr	2016	0.23
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	Fmgt-1/yr	2016	0.23
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2016	970	-	-
TN	-	-	-	-	-
R	R-E00	2016	430,635,000	-	-
F	F-1/yr	2016	0.56	-	-
ER	-	-	-	-	-
TC	TC-MT	2016	3769		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	F-1/yr/Fmsy-1/yr	2016	2.435		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	F-1/yr/Fmgt-1/yr	2016	2.435		
ER/ERmgt	-	-	-		

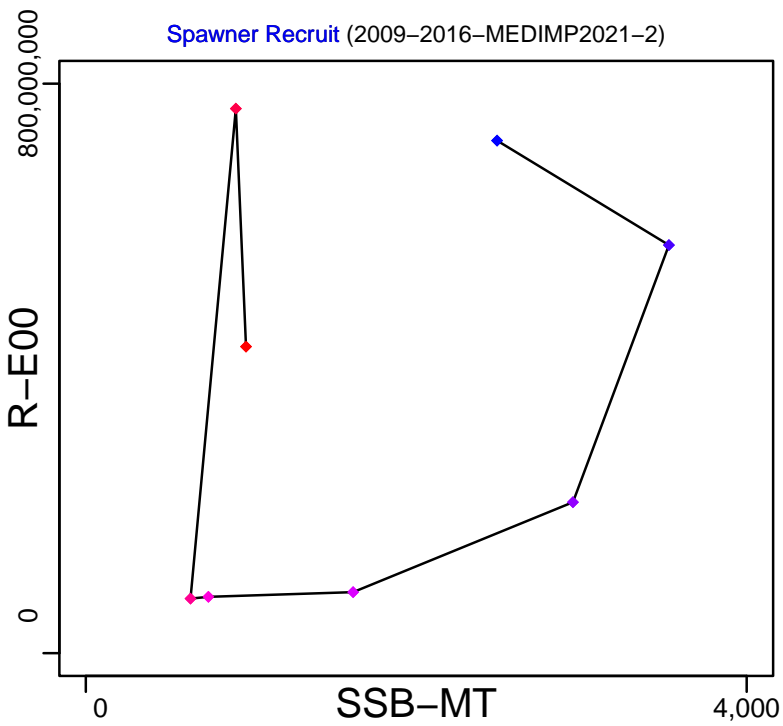
Kobe MSY*



Kobe MGT*



Spawner Recruit (2009–2016–MEDIMP2021–2)



Production*



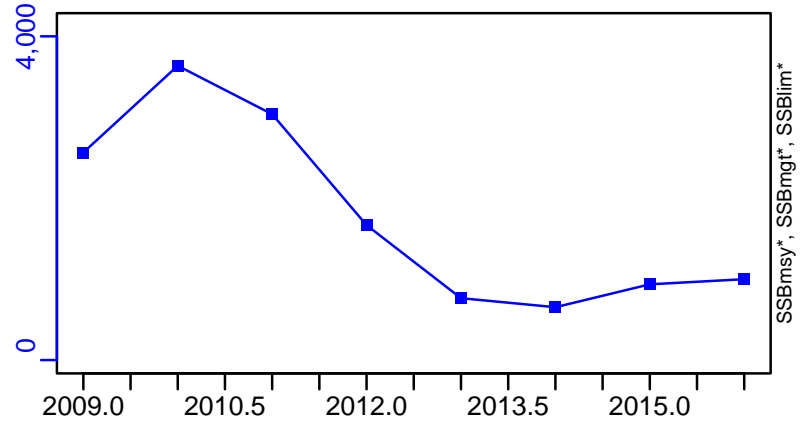
◆ Start Year ◆ End Year * No Data

Horse mackerel Geographical Sub-Areas 9-11 [HMACKMEDGSA9-11]

TB*



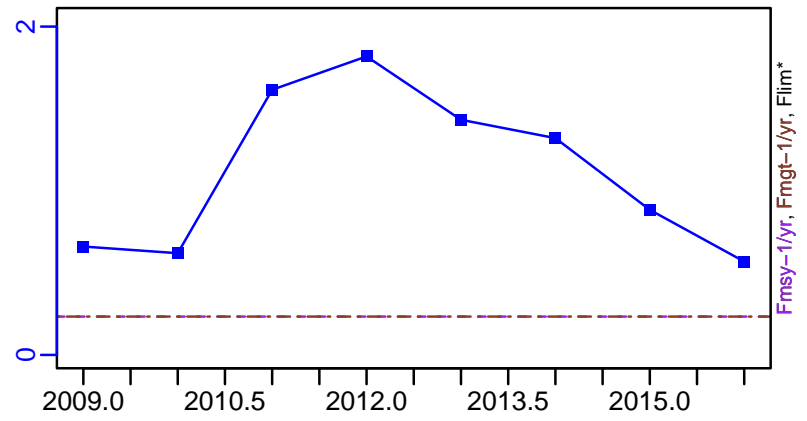
SSB-MT (2009-2016-MEDIMP2021-2)



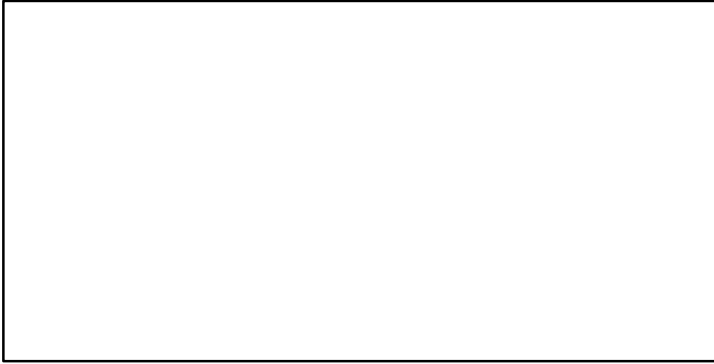
TN *



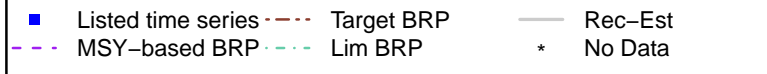
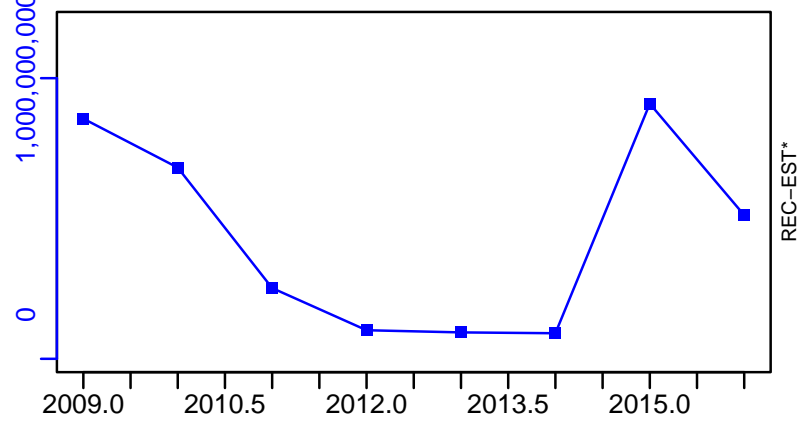
F-1/yr (2009-2016-MEDIMP2021-2)



ER*



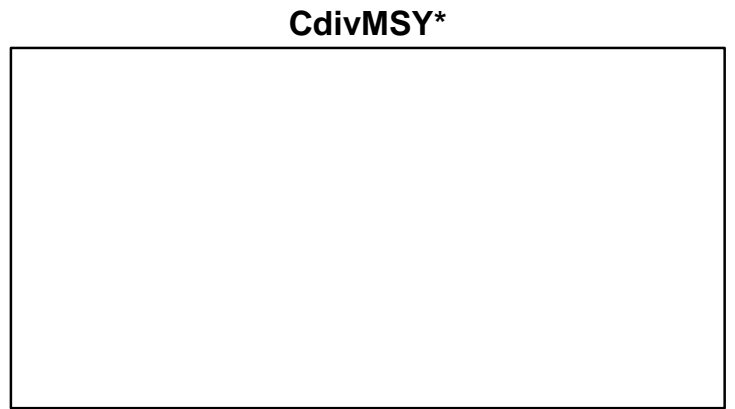
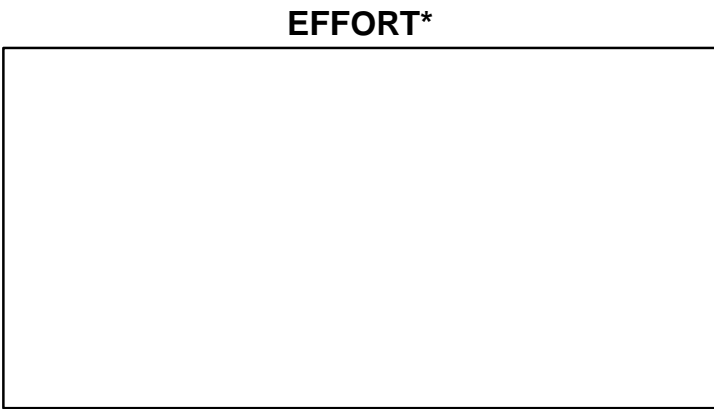
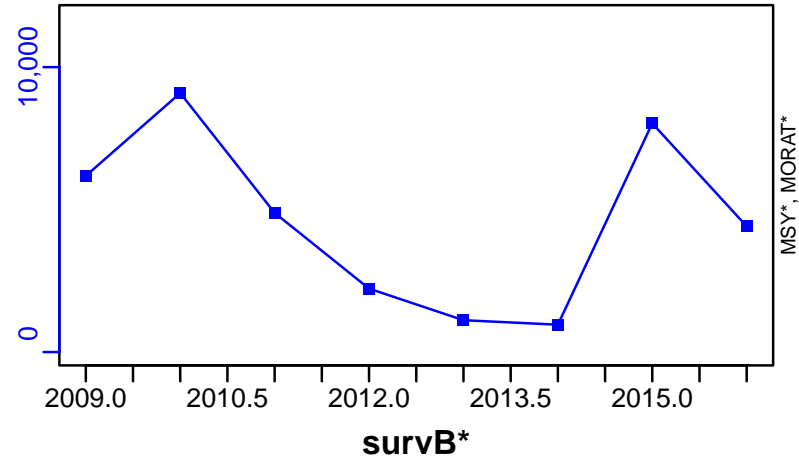
R-E00 (2009-2016-MEDIMP2021-2)



Horse mackerel Geographical Sub-Areas 9-11 [HMACKMEDGSA9-11]

TC-MT, TL*, RecC* (2009-2016-MEDIMP2021-2)

TAC*, Cpair*, Cadv*



Horse mackerel North West Africa [HMACKNWA]

Metadata	
Scientific Name	Trachurus trachurus
Current Assess ID	FAO-SPNWA-HMACKNWA-1990-2020-HIVELY
Area	North West Africa
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO Working Group on the Assessment of Small Pelagic Fish Off Northwest Africa
Asmts in RAM	2010, 2016, 2018, 2020

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2010	153,000	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	F-1/yr	2010	0.72	-	-
ER	ER-calc-ratio	2010	0.719	-	-
TC	TC-MT	2020	81,709		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Horse mackerel North West Africa [HMACKNWA]

Kobe MSY*



Kobe MGT*



Spawner Recruit*



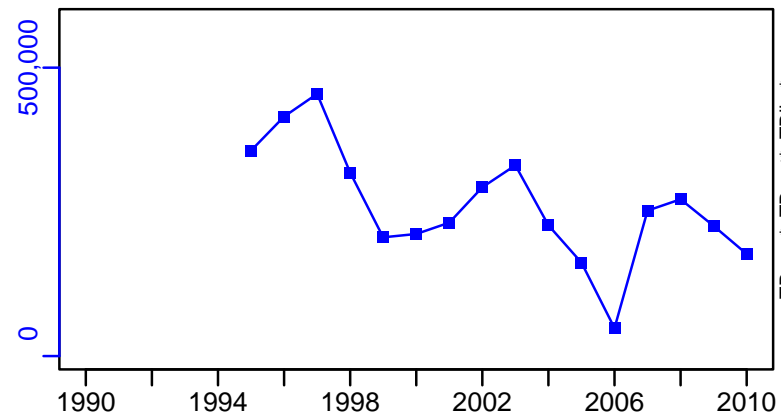
Production*



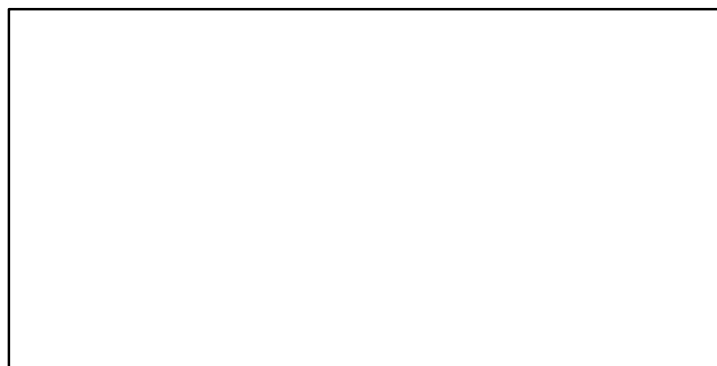
◆ Start Year ◆ End Year * No Data

Horse mackerel North West Africa [HMACKNWA]

TB-MT (1990-2010-CHING)



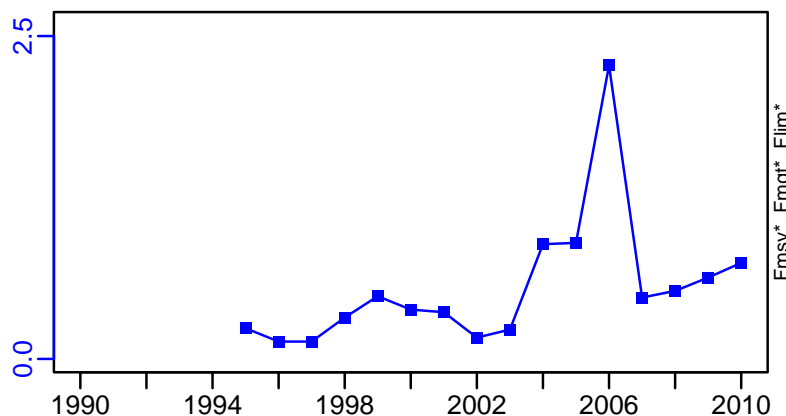
SSB*



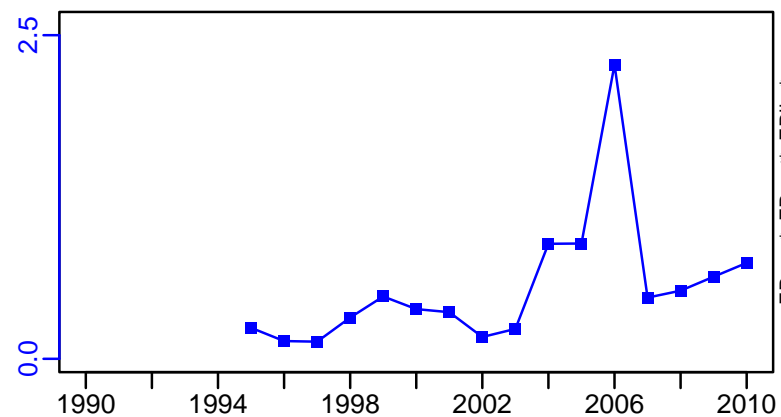
TN *



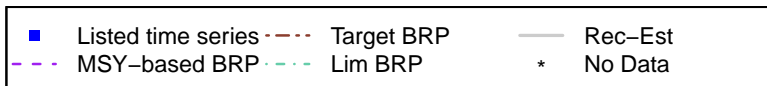
F-1/yr (1990-2010-CHING)



ER-calc-ratio (1990-2010-CHING)

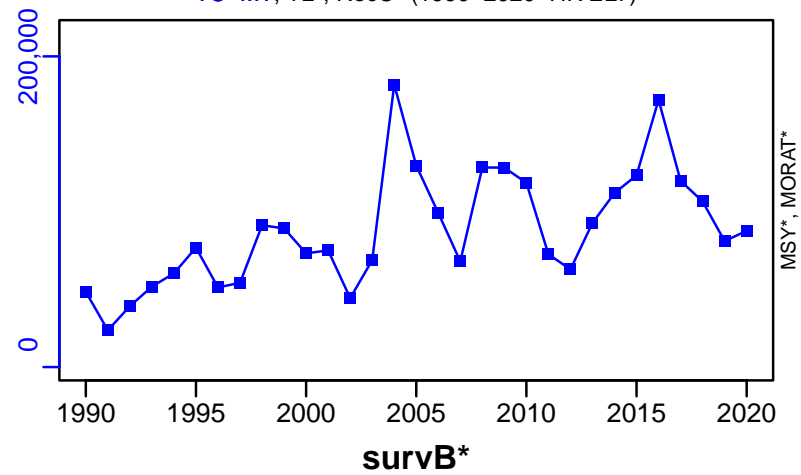


Recruits*



Horse mackerel North West Africa [HMACKNWA]

TC-MT, TL*, RecC* (1990-2020-HIVELY)



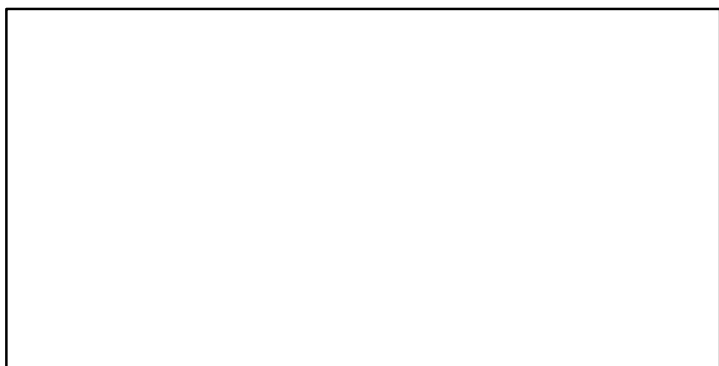
TAC*, Cpair*, Cadv*



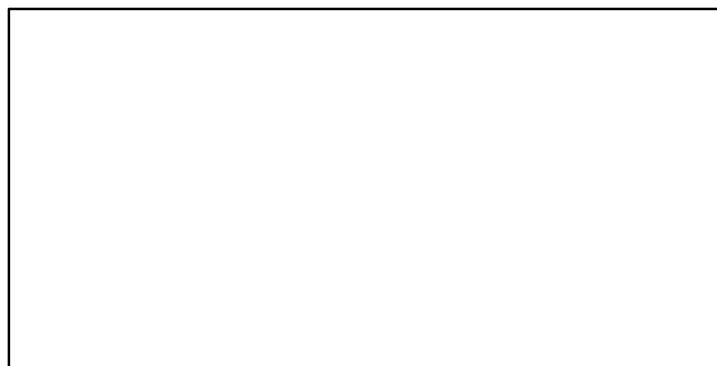
CPUE*



EFFORT*



CdivMSY*



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

Japanese amberjack Japan [JAMBERJPN]

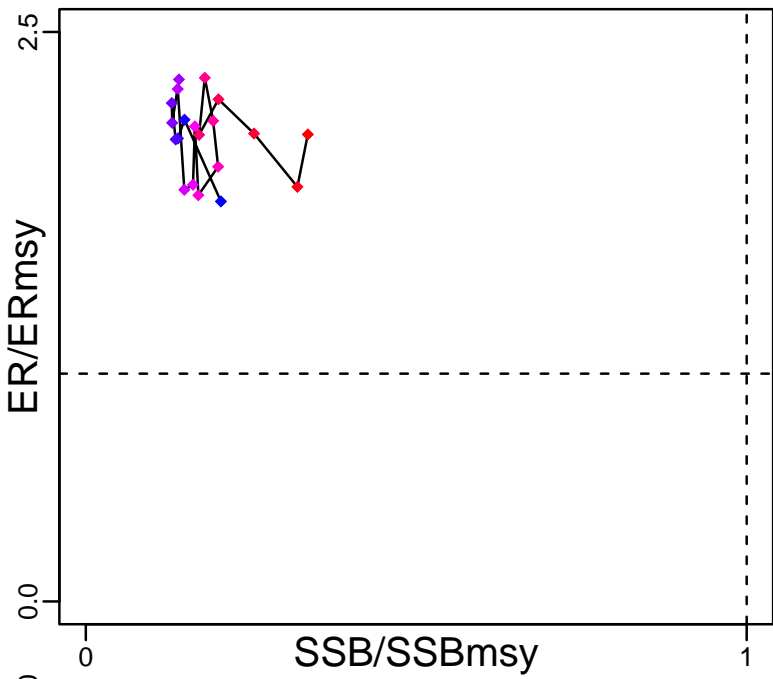
Metadata	
Scientific Name	Seriola quinqueradiata
Current Assess ID	FAFRFJ-JAMBERJPN-1952-2013-JPNIMP2016
Area	Japan
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2013	615,892
SSBmsy	SSBmsy-MT	2013	381,043
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2013	0.219
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2013	134,880
M	M-1/yr	2013	0.3
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

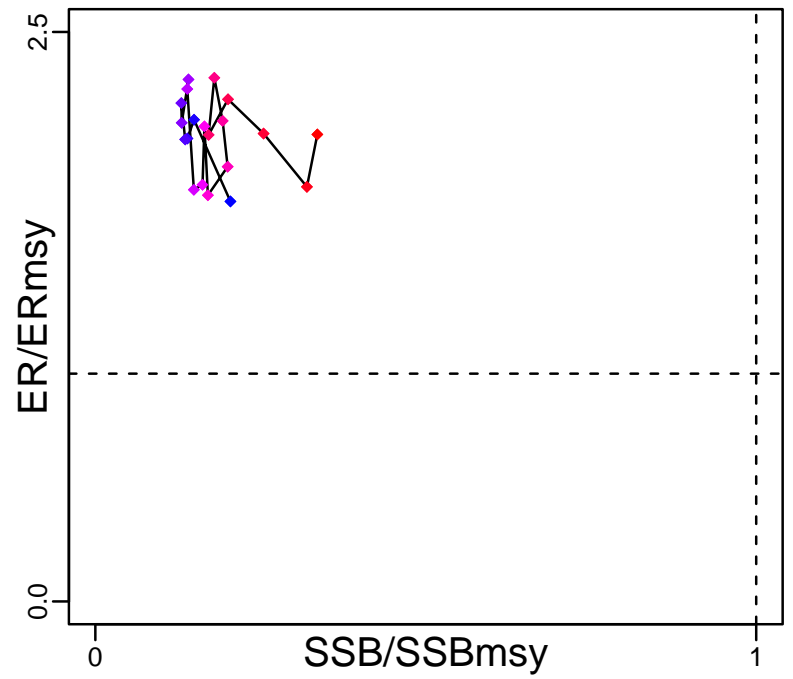
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	294,000	-	0
SSB	SSB-MT	2013	128,000	Both	2
TN	-	-	-	-	-
R	R-E00	2013	1.39×10^8	-	0
F	-	-	-	-	-
ER	ER-calc-ratio	2013	0.449	-	-
TC	TC-MT	2013	132,000		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2013	0.477		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013	0.336		
F/Fmsy	-	-	-		
ER/ERmsy	ER-calc-ratio/ERmsy-ratio	2013	2.05		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Japanese amberjack Japan [JAMBERJPN]

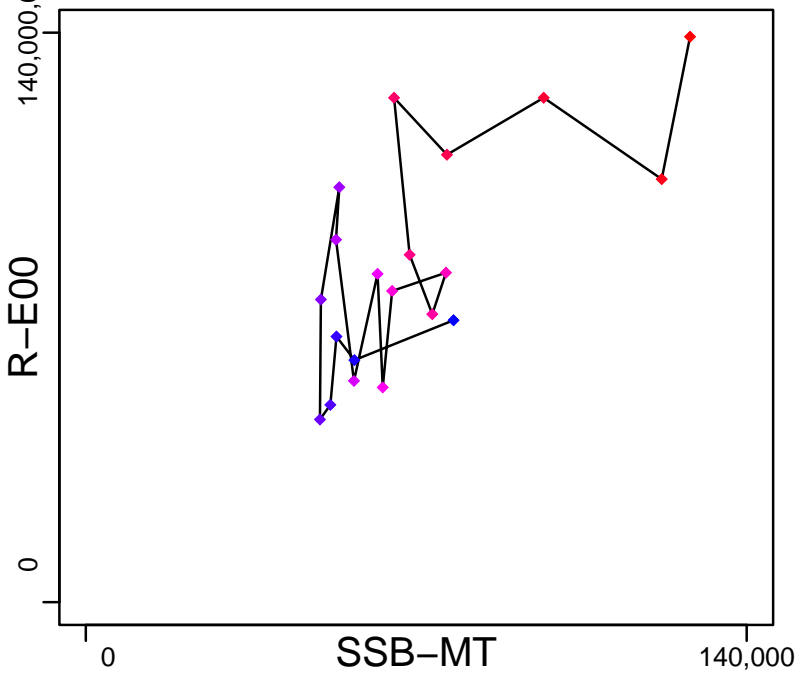
Kobe MSYpref (1952–2013–JPNIMP2016)



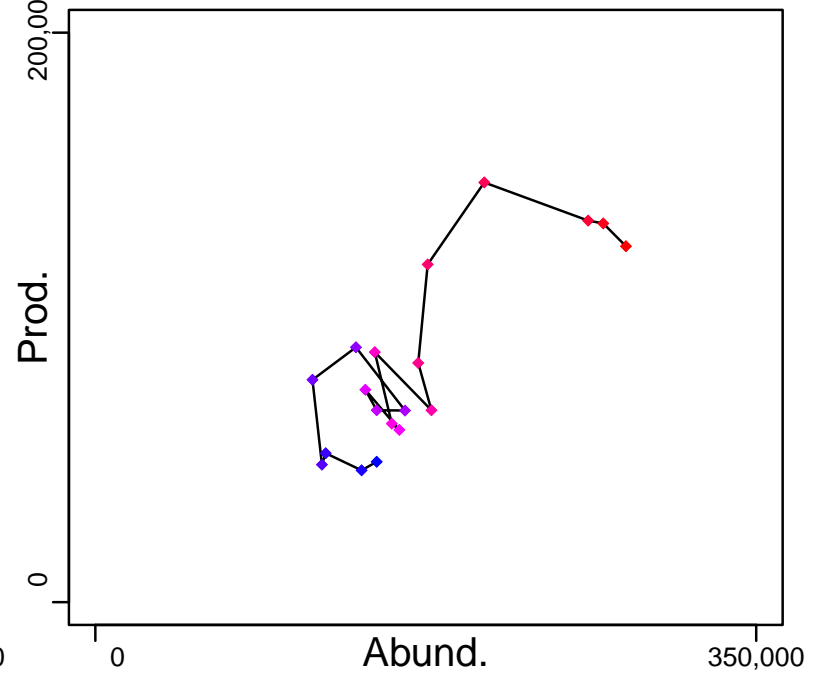
Kobe MGTpref (1952–2013–JPNIMP2016)



Spawner Recruit (1952–2013–JPNIMP2016)



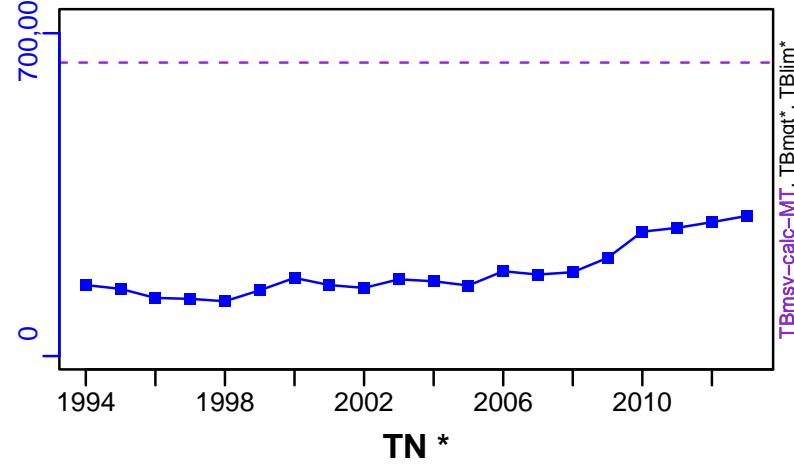
Production (1952–2013–JPNIMP2016)



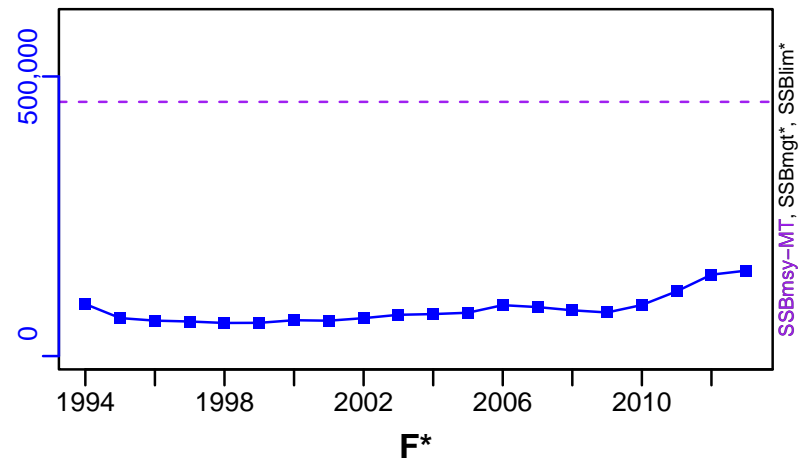
◆ Start Year ◆ End Year * No Data

Japanese amberjack Japan [JAMBERJPN]

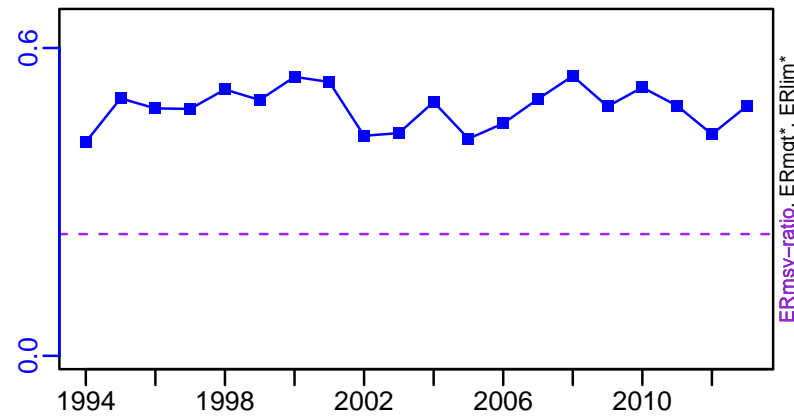
TB-MT (1952-2013-JPNIMP2016)



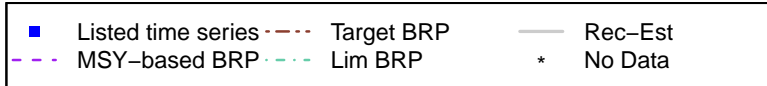
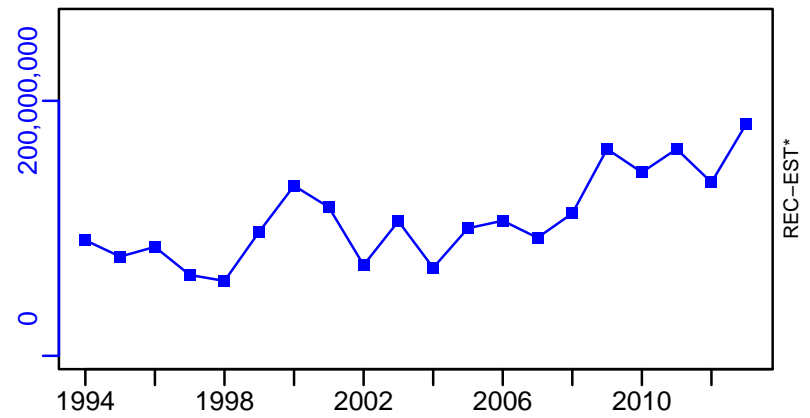
SSB-MT (1952-2013-JPNIMP2016)



ER-calc-ratio (1952-2013-JPNIMP2016)



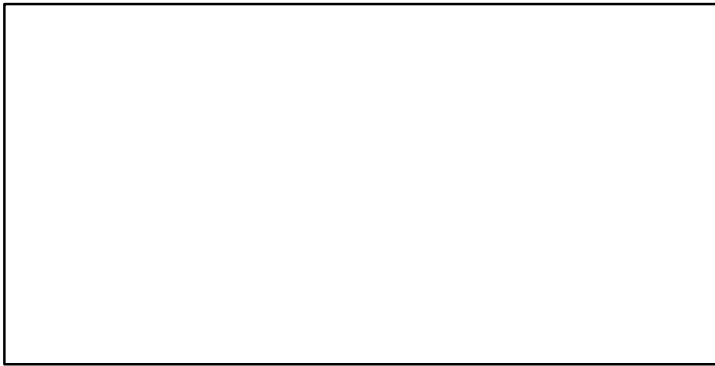
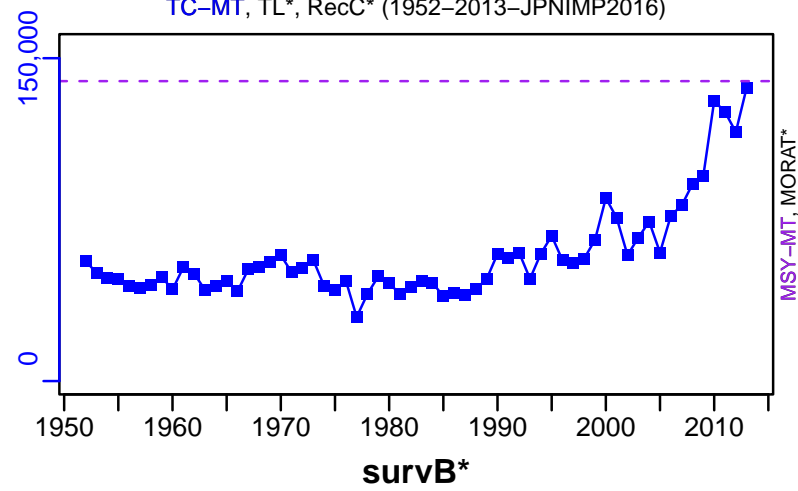
R-E00 (1952-2013-JPNIMP2016)



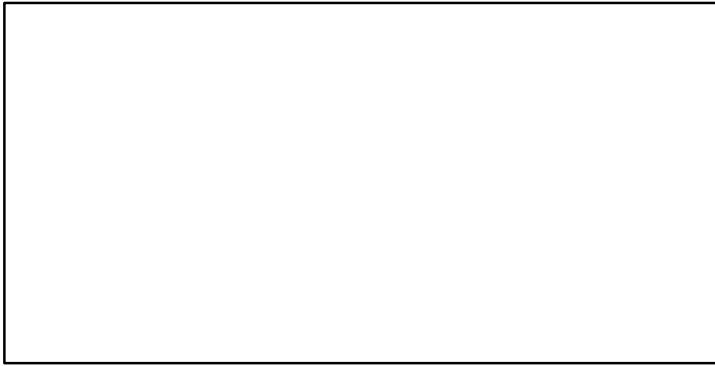
Japanese amberjack Japan [JAMBERJPN]

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

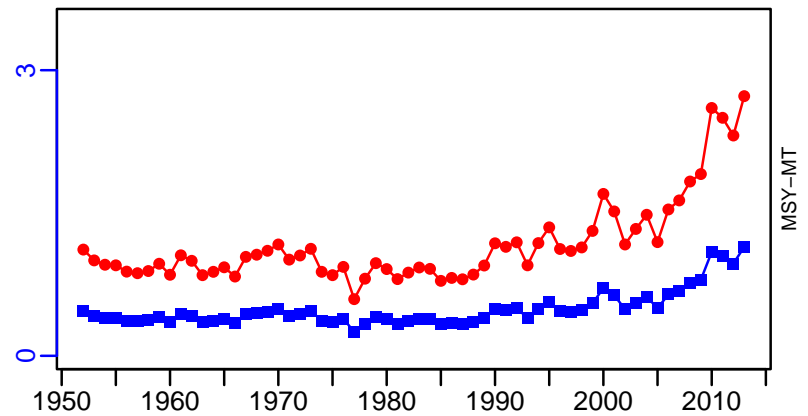
TAC*, Cpair*, Cadv*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1952-2013-JPNIMP2016)



Japanese jack mackerel Pacific Coast of Japan [JMACKPJPN]

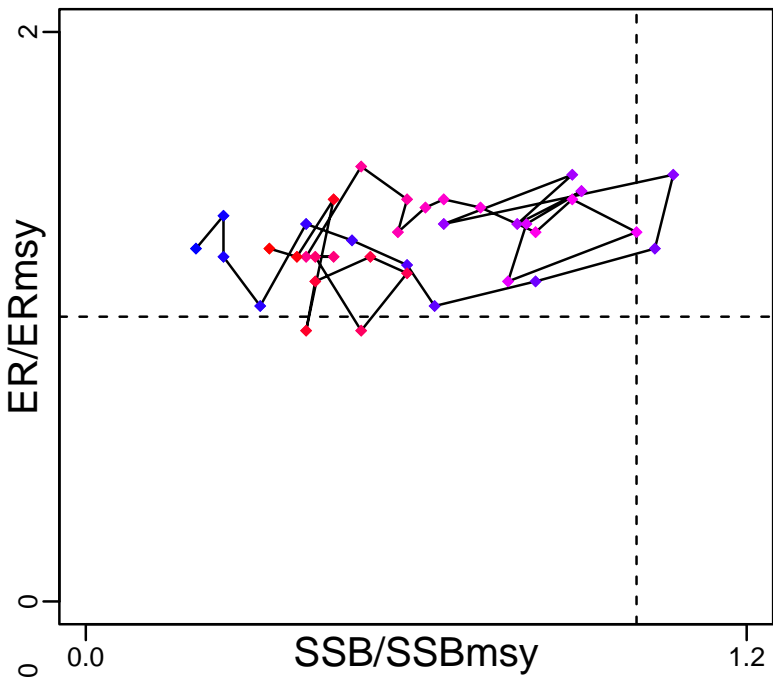
Metadata	
Scientific Name	Trachurus japonicus
Current Assess ID	FAFRFJ-JMACKPJPN-1982-2019-KUROTA
Area	Pacific Coast of Japan
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2009, 2013, 2019

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2019	109,510
SSBmsy	SSBmsy-MT	2019	60,000
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2019	0.347
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2019	60,000
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2019	38,000
M	M-1/yr	2019	0.5
TBlim	TBlim-MT	2009	24
SSBlim	SSBlim-MT	2019	15,000
Flim	-	-	-
ERlim	-	-	-

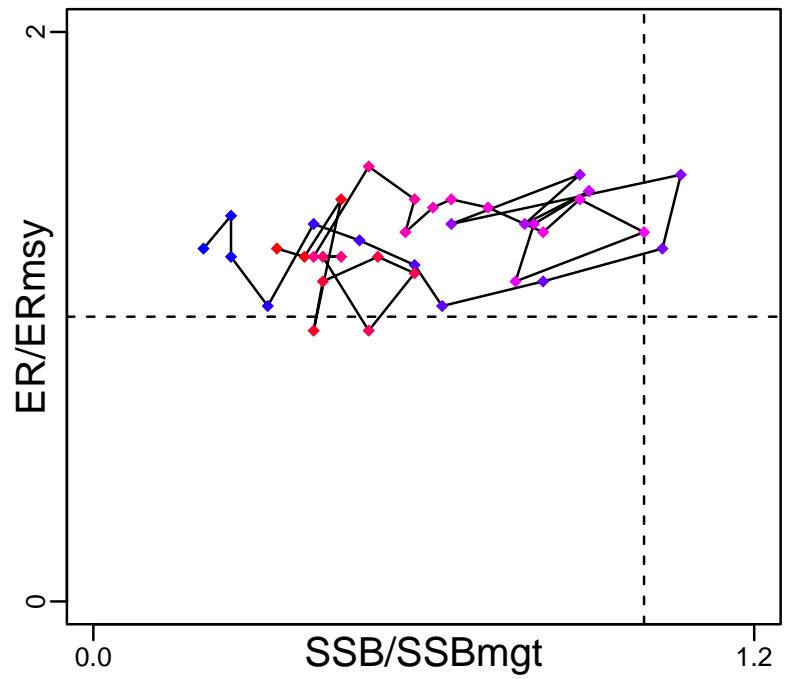
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2019	38,000	Both	0
SSB	SSB-MT	2019	20,000	Both	1
TN	-	-	-	-	-
R	R-E00	2019	3.43×10^8	Both	0
F	F-1/yr	2009	1.26	Both	0 to 2
ER	ER-ratio	2019	0.43	Both	-
TC	TC-MT	2019	16,000		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2019	0.347		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2019	0.333		
F/Fmsy	-	-	-		
ER/ERmsy	ER-ratio/ERmsy-ratio	2019	1.239		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2019	0.333		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Japanese jack mackerel Pacific Coast of Japan [JMACKPJPN]

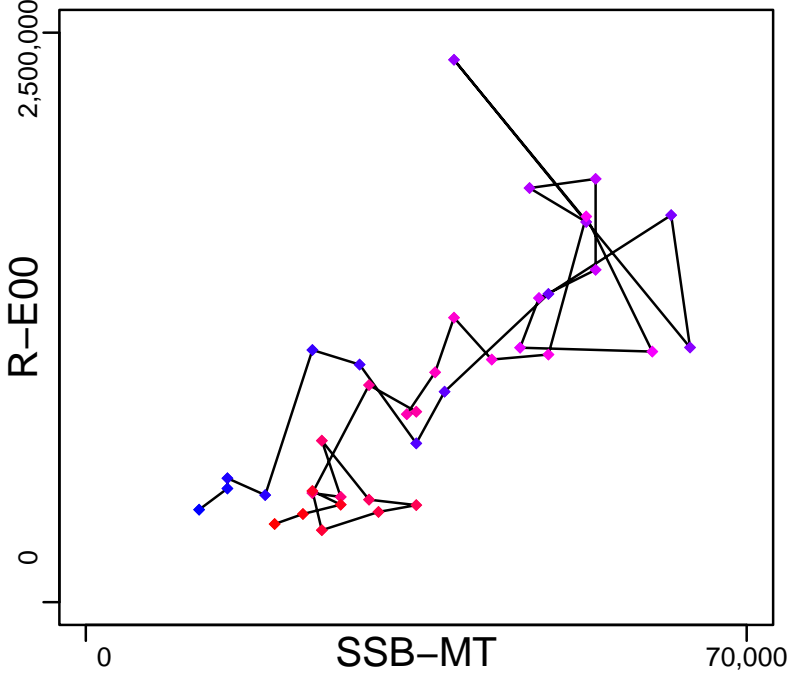
Kobe MSYpref (1982–2019–KUROTA)



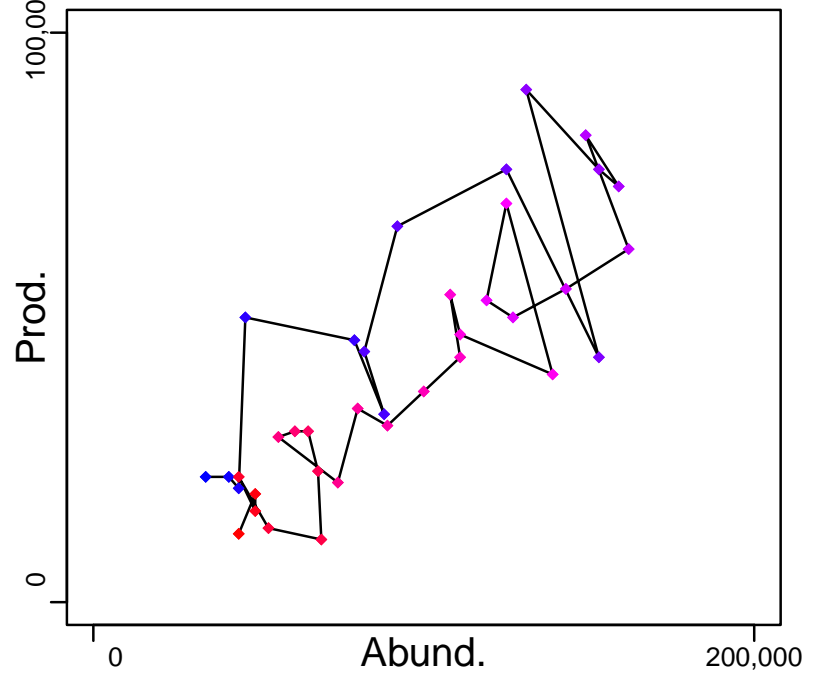
Kobe MGTpref (1982–2019–KUROTA)



Spawner Recruit (1982–2019–KUROTA)



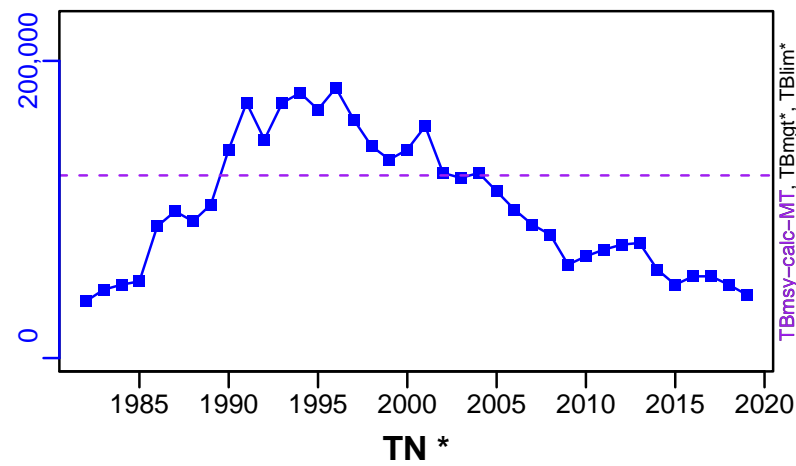
Production (1982–2019–KUROTA)



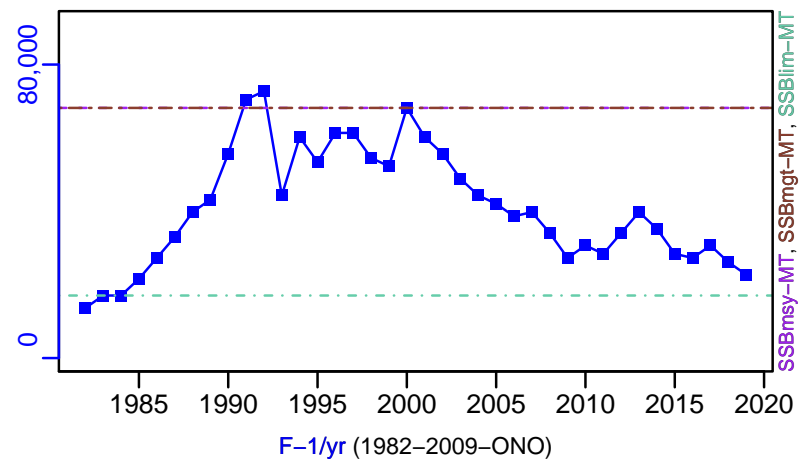
◆ Start Year ◆ End Year * No Data

Japanese jack mackerel Pacific Coast of Japan [JMACKPJPN]

TB-MT (1982-2019-KUROTA)



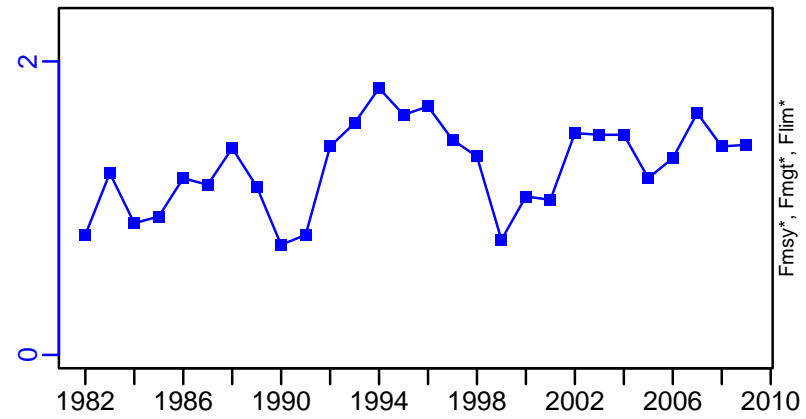
SSB-MT (1982-2019-KUROTA)



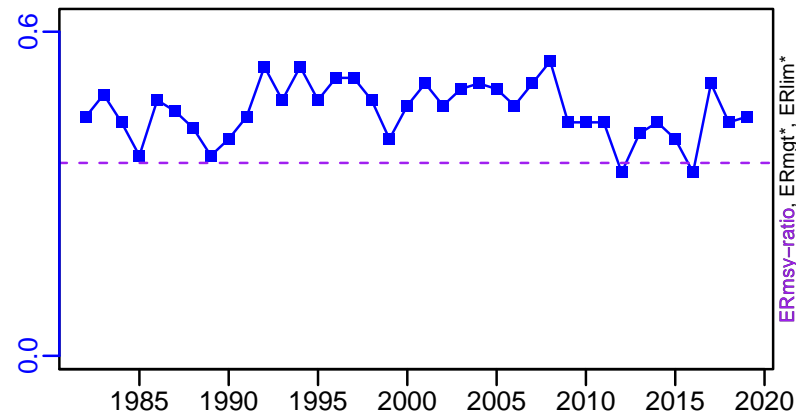
TN *



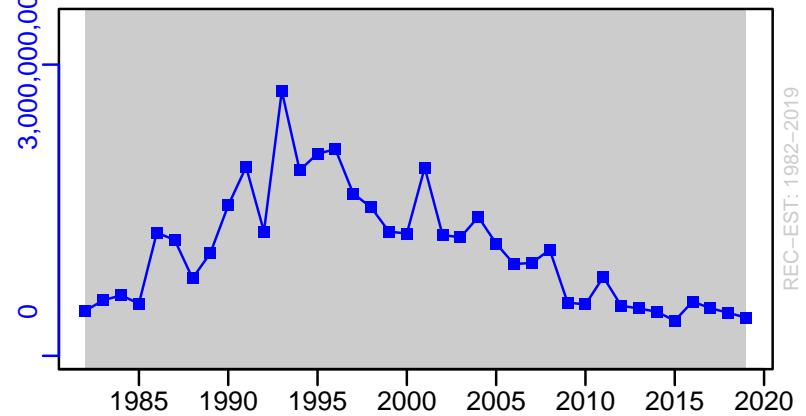
F-1/yr (1982-2009-ONO)



ER-ratio (1982-2019-KUROTA)

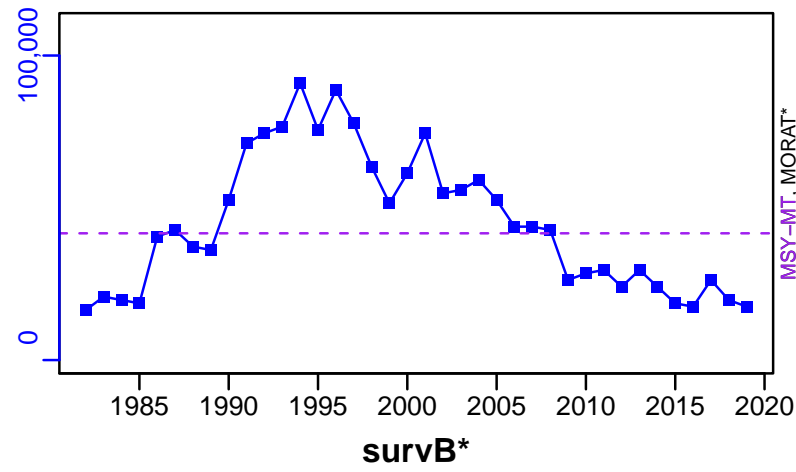


R-E00 (1982-2019-KUROTA)



Japanese jack mackerel Pacific Coast of Japan [JMACKPJPN]

TC-MT, TL*, RecC* (1982-2019-KUROTA)



TAC*, Cpair*, Cadv*



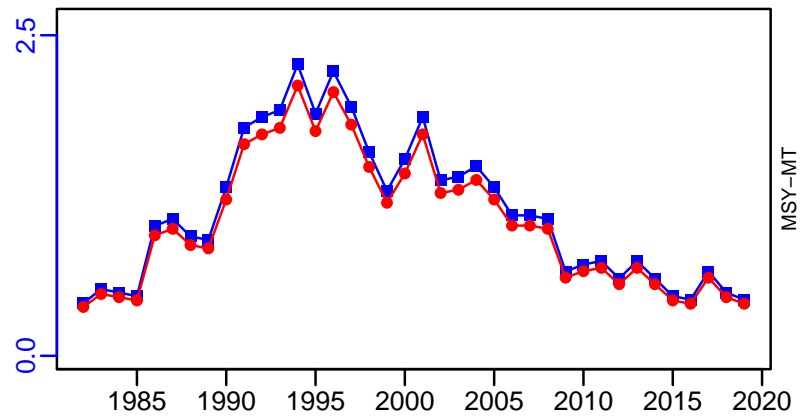
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1982-2019-KUROTA)



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

Japanese jack mackerel Tsushima Strait [JMACKTSST]

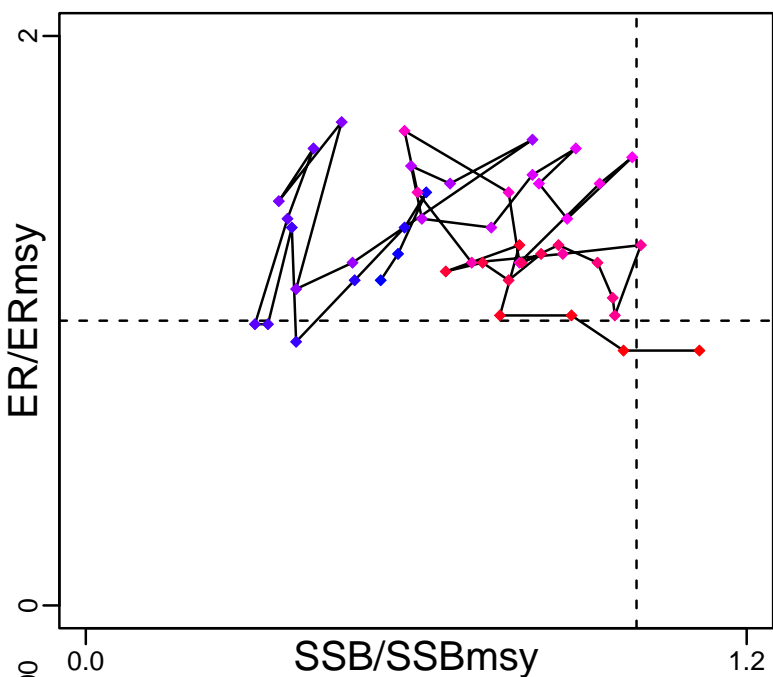
Metadata	
Scientific Name	Trachurus japonicus
Current Assess ID	FAFRFJ-JMACKTSST-1973-2019-KUROTA
Area	Tsushima Strait
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2010, 2013, 2019

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2019	487,654
SSBmsy	SSBmsy-MT	2019	254,000
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2019	0.324
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2019	254,000
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2019	158,000
M	M-1/yr	2019	0.5
TBlim	-	-	-
SSBlim	SSBlim-MT	2019	107,000
Flim	-	-	-
ERlim	-	-	-

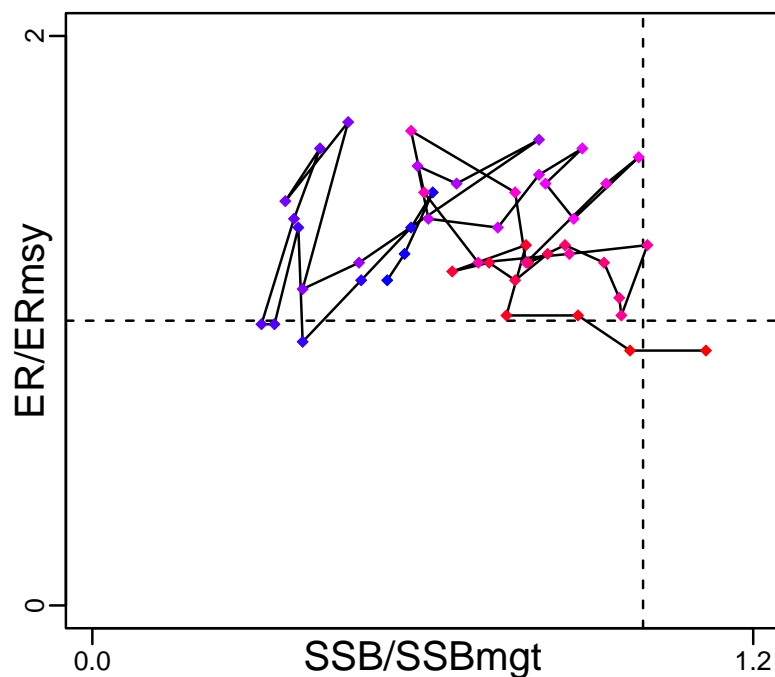
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2019	418,000	Both	0
SSB	SSB-MT	2019	283,000	Both	1
TN	-	-	-	-	-
R	R-E00	2019	3.035×10^9	Both	0
F	F-1/yr	2010	0.736	-	0 to 3
ER	ER-ratio	2019	0.29	Both	-
TC	TC-MT	2019	121,000		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2019	0.857		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2019	1.114		
F/Fmsy	-	-	-		
ER/ERmsy	ER-ratio/ERmsy-ratio	2019	0.895		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2019	1.114		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Japanese jack mackerel Tsushima Strait [JMACKTSST]

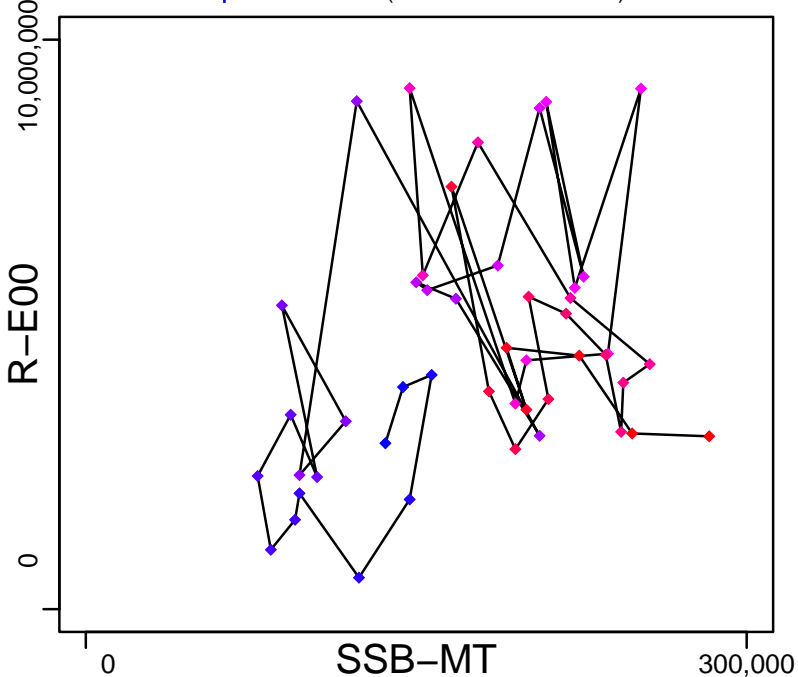
Kobe MSYpref (1973–2019–KUROTA)



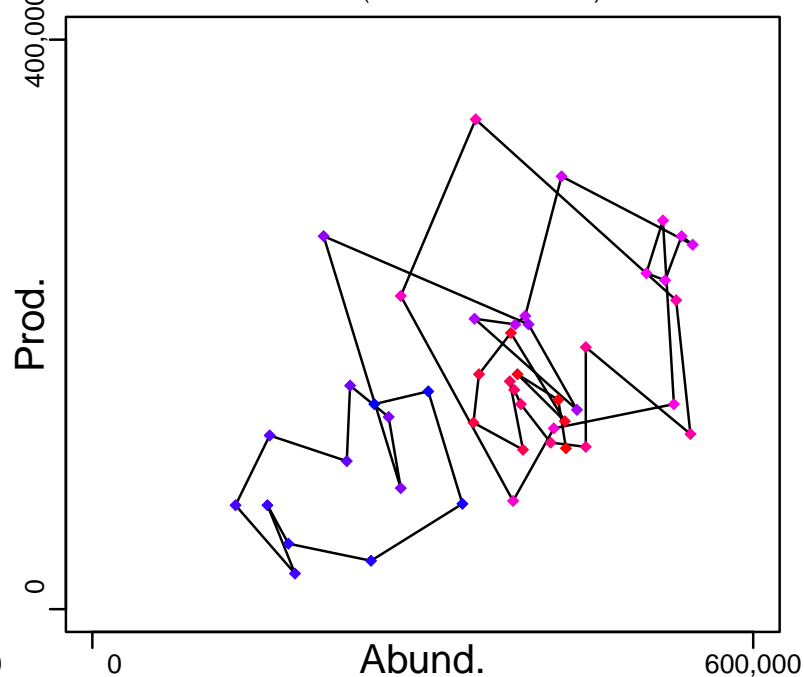
Kobe MGTpref (1973–2019–KUROTA)



Spawner Recruit (1973–2019–KUROTA)

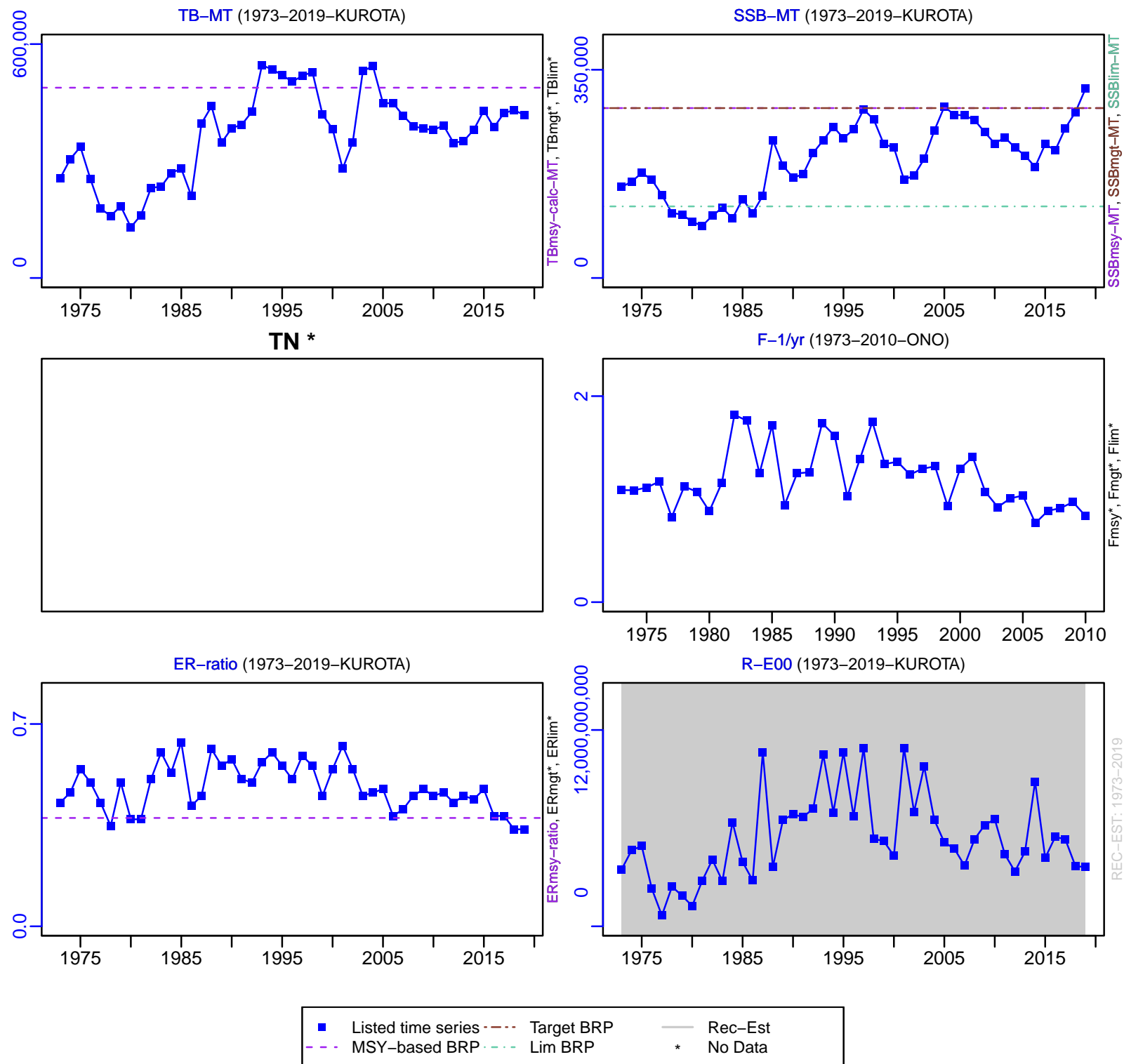


Production (1973–2019–KUROTA)



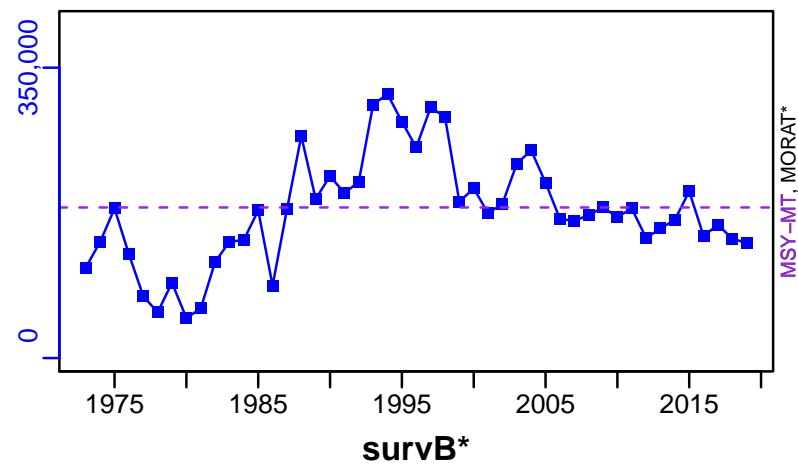
◆ Start Year ◆ End Year * No Data

Japanese jack mackerel Tsushima Strait [JMACKTSST]



Japanese jack mackerel Tsushima Strait [JMACKTSST]

TC-MT, TL*, RecC* (1973-2019-KUROTA)



TAC*, Cpair*, Cadv*



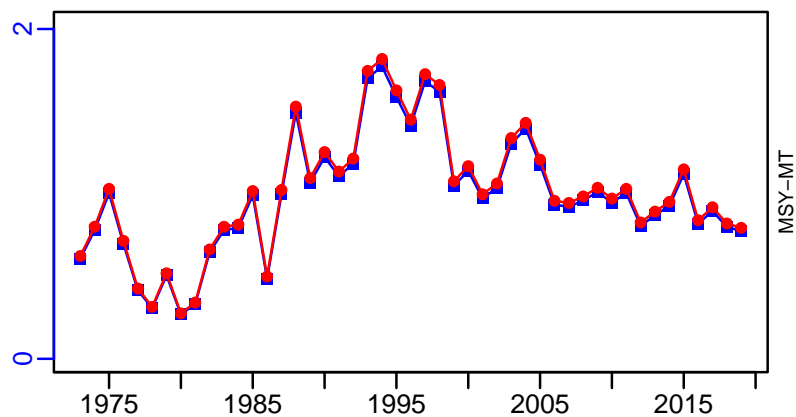
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1973-2019-KUROTA)



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

King mackerel Gulf of Mexico [KMACKGM]

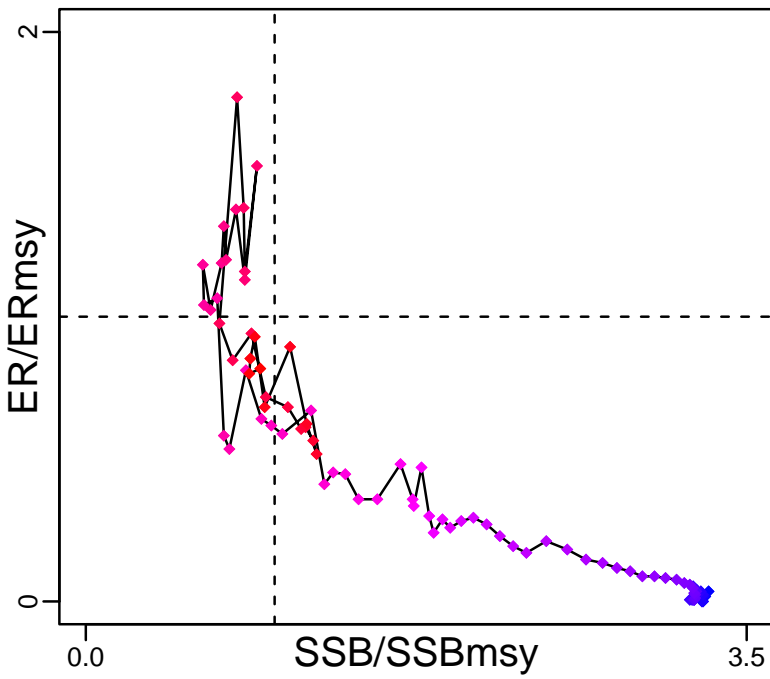
Metadata	
Scientific Name	Scomberomorus cavalla
Current Assess ID	SEFSC-KMACKGM-1930-2017-SISIMP2021-2
Area	Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2012, 2017

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

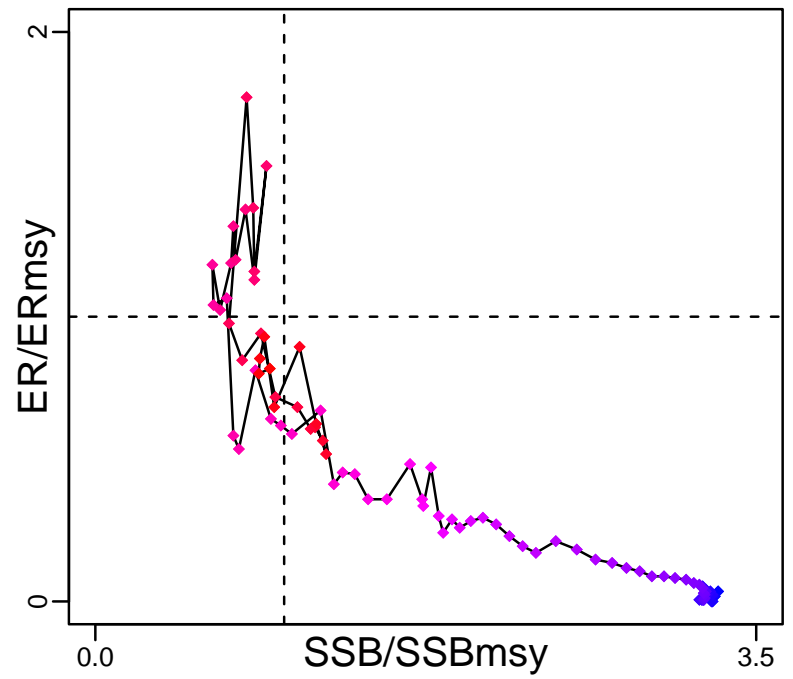
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-E00eggs	2017	1.58×10^{12}	-	-
TN	-	-	-	-	-
R	R-E00	2017	7,940,000	-	0
F	F-1/yr	2012	0.318	-	-
ER	ER-ratio	2017	0.139	-	-
TC	-	-	-		
TL	TL-MT	2017	3710		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-E00eggs/SSBmsy-E00eggs	2017	0.924		
F/Fmsy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

King mackerel Gulf of Mexico [KMACKGM]

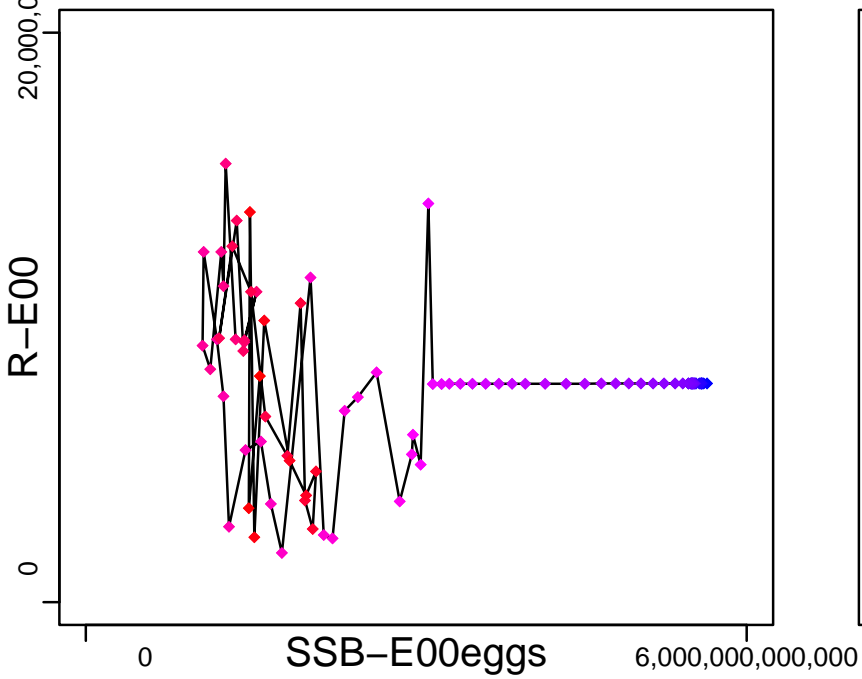
Kobe MSYpref (1930–2017–SISIMP2021–2)



Kobe MGTpref (1930–2017–SISIMP2021–2)



Spawner Recruit (1930–2017–SISIMP2021–2)



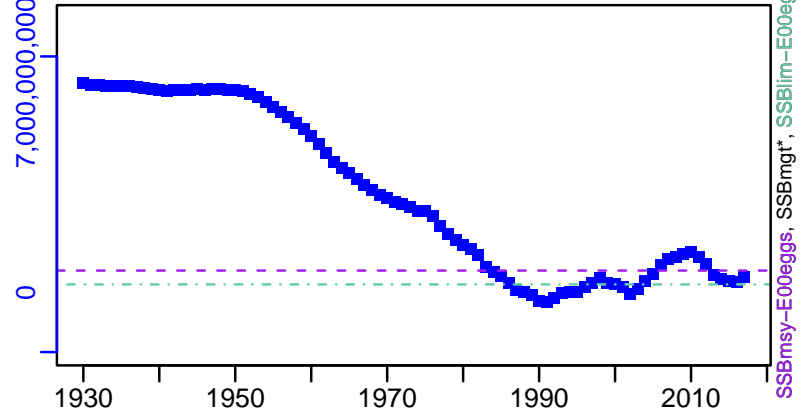
◆ Start Year ◆ End Year * No Data

King mackerel Gulf of Mexico [KMACKGM]

TB*



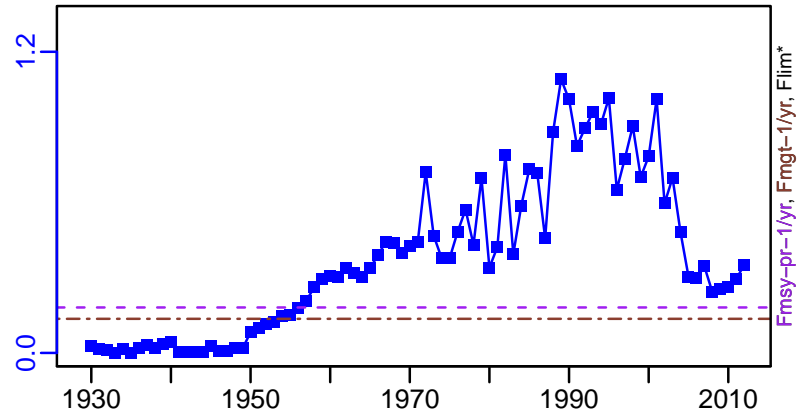
SSB-E00eggs (1930-2017-SISIMP2021-2)



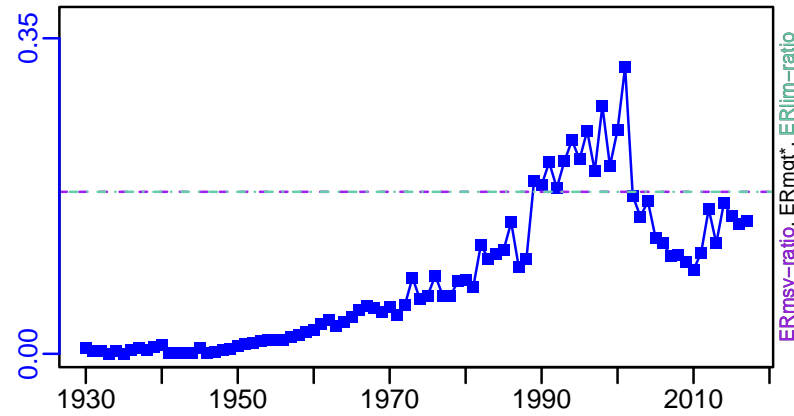
TN *



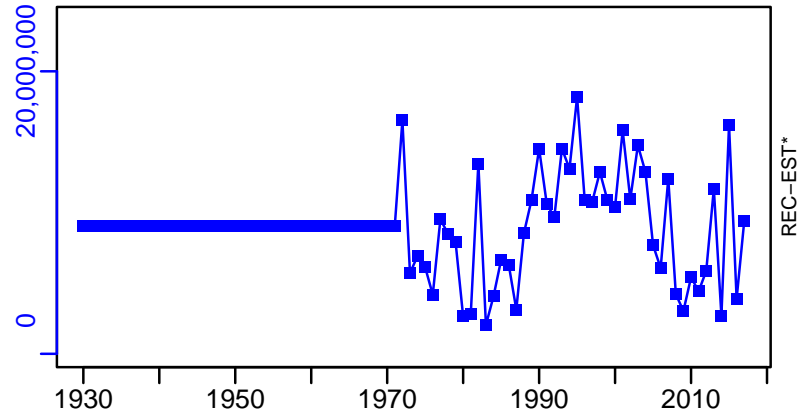
F-1/yr (1929-2012-HIVELY)



ER-ratio (1930-2017-SISIMP2021-2)



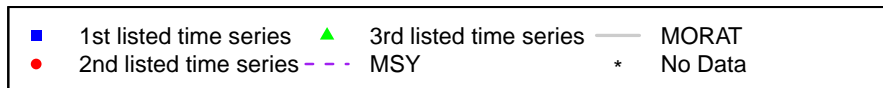
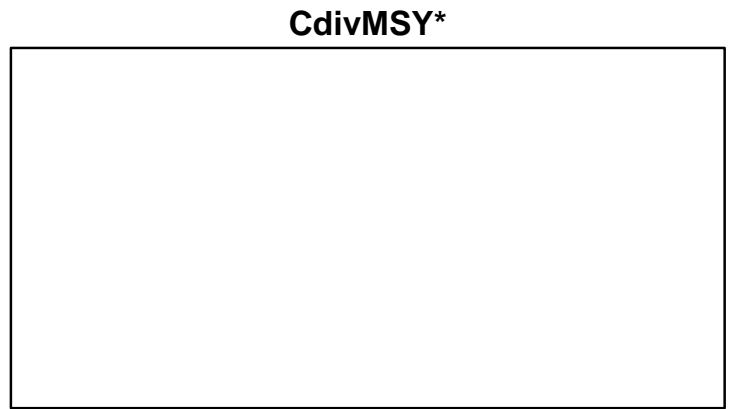
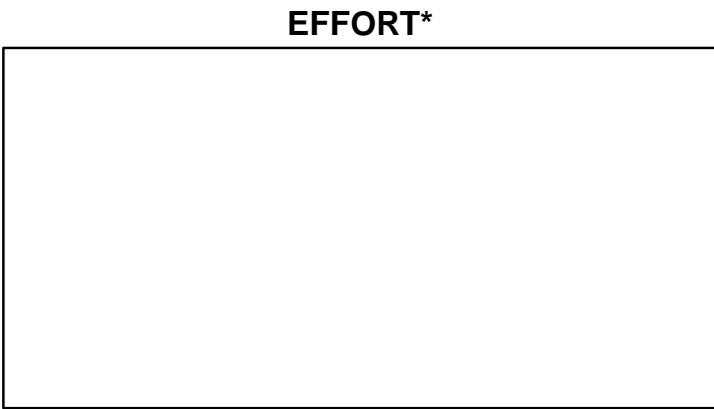
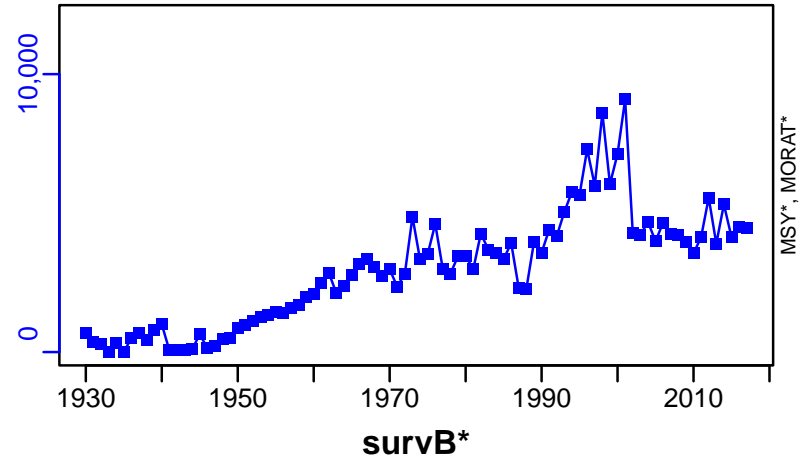
R-E00 (1930-2017-SISIMP2021-2)



King mackerel Gulf of Mexico [KMACKGM]

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

TAC*, Cpair*, Cadv*



King mackerel Southern Atlantic coast [KMACKSATLC]

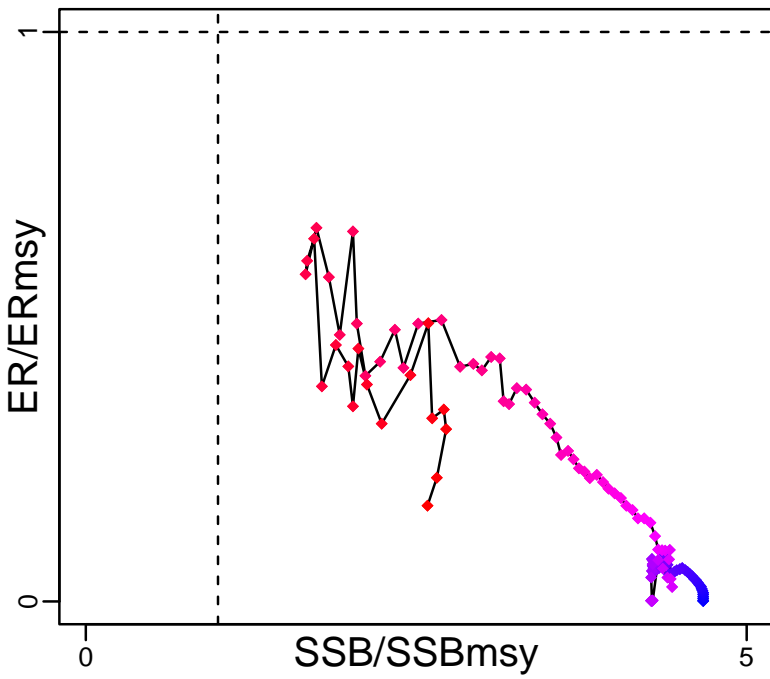
Metadata	
Scientific Name	Scomberomorus cavalla
Current Assess ID	SEFSC-KMACKSATLC-1901-2012-HIVELY
Area	Southern Atlantic coast
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2012

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

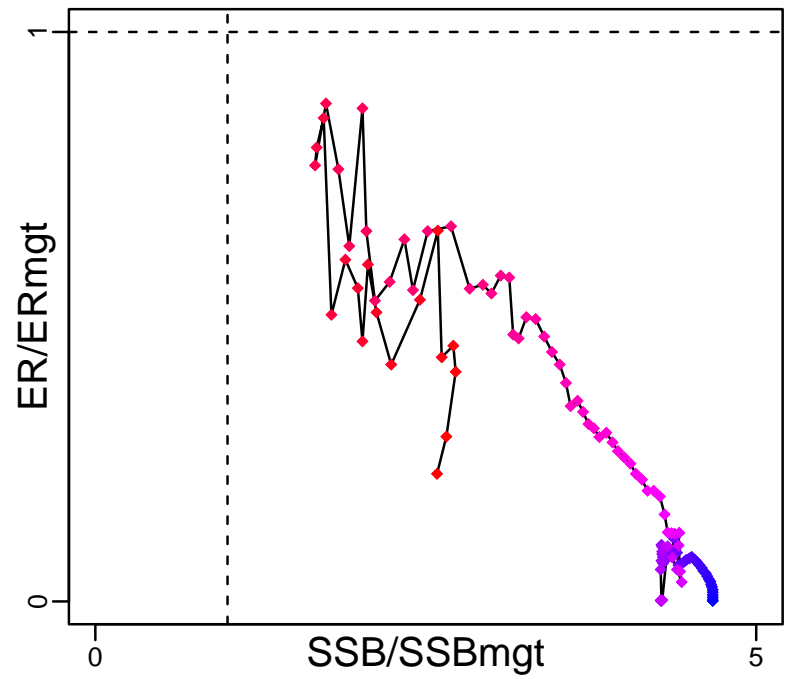
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-E00eggs	2012	4.4×10^9	-	-
TN	-	-	-	-	-
R	R-E00	2012	2,510,000	-	0
F	-	-	-	-	-
ER	ER-ratio	2012	0.026	-	-
TC	-	-	-		
TL	TL-MT	2012	1110		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-E00eggs/SSBmsy-pr-E00eggs	2012	2.585		
F/Fmsy	-	-	-		
ER/ERmsy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

King mackerel Southern Atlantic coast [KMACKSATLC]

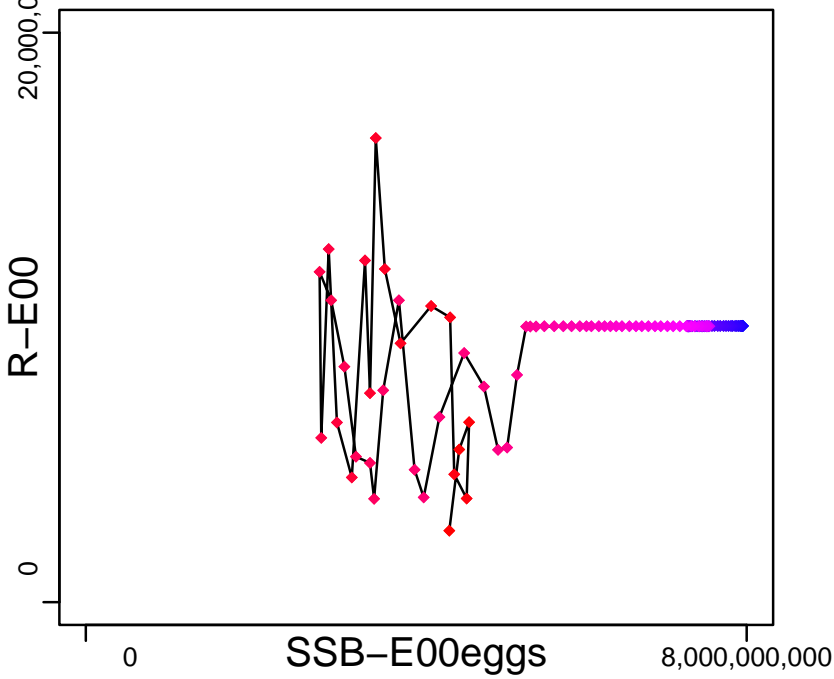
Kobe MSYpref (1901–2012–HIVELY)



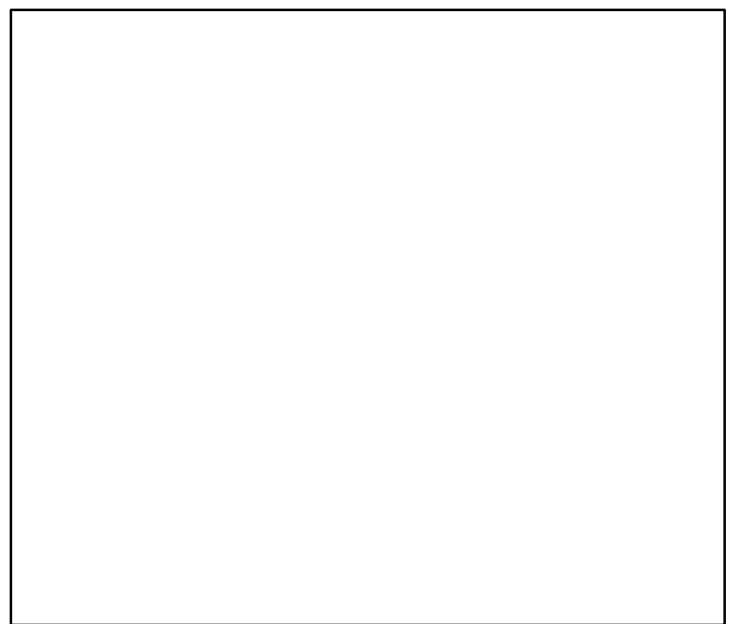
Kobe MGTpref (1901–2012–HIVELY)



Spawner Recruit (1901–2012–HIVELY)



Production*



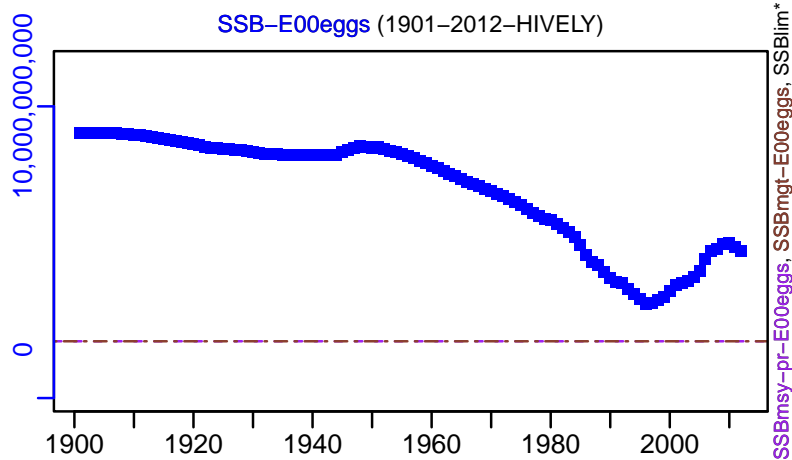
◆ Start Year ◆ End Year * No Data

King mackerel Southern Atlantic coast [KMACKSATLC]

TB*



SSB-E00eggs (1901-2012-HIVELY)



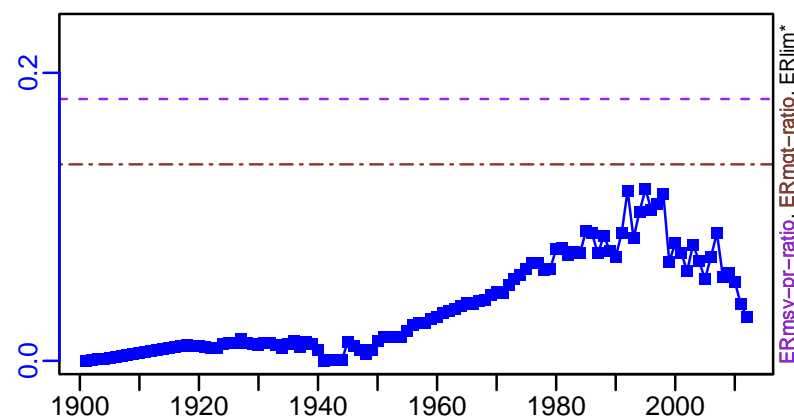
TN *



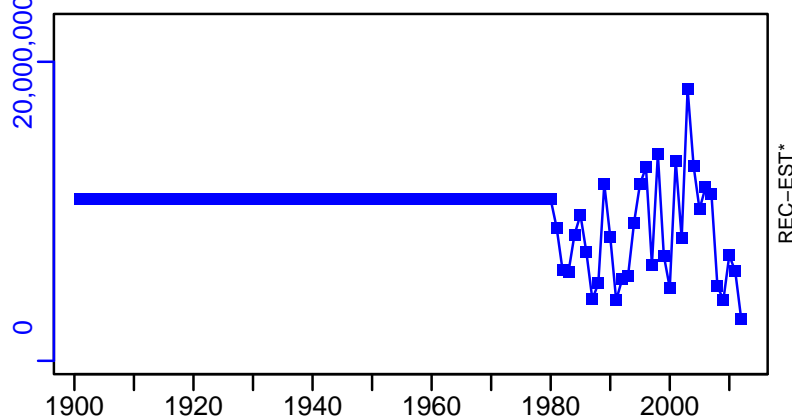
F*



ER-ratio (1901-2012-HIVELY)



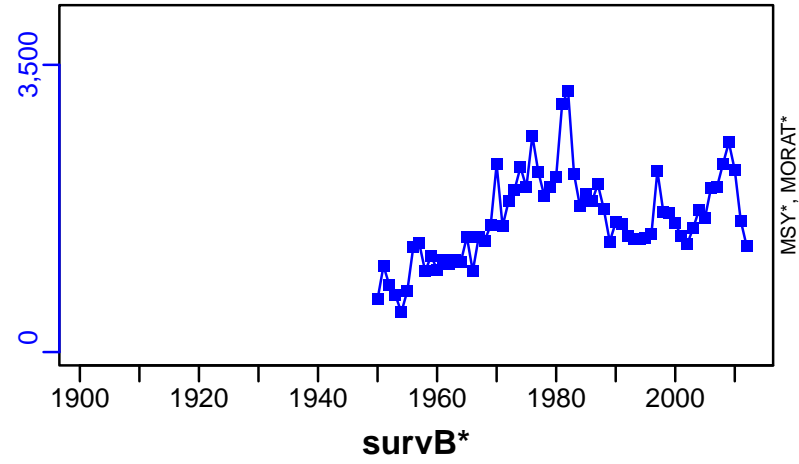
R-E00 (1901-2012-HIVELY)



King mackerel Southern Atlantic coast [KMACKSATLC]

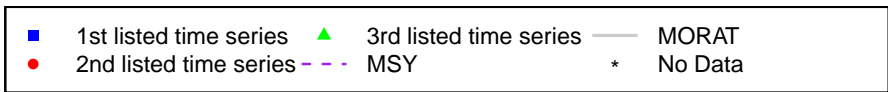
TL-MT, TC*, RecC* (1901-2012-HIVELY)

TAC*, Cpair*, Cadv*



EFFORT*

CdivMSY*



Atlantic mackerel Gulf of Maine / Cape Hatteras [MACK5YCHATT]

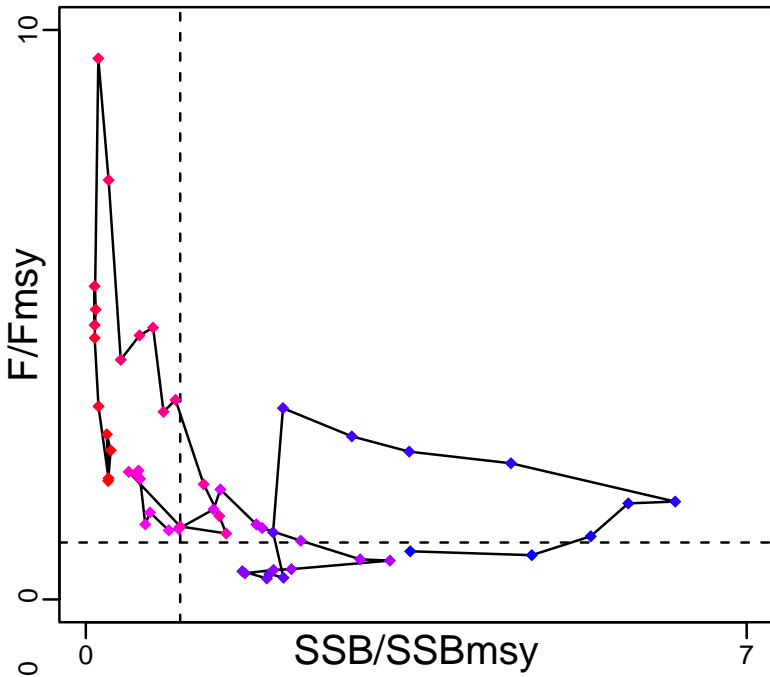
Metadata	
Scientific Name	Scomber scombrus
Current Assess ID	NEFSC-MACK5YCHATT-1960-2019-SISIMP2021-2
Area	Gulf of Maine / Cape Hatteras
Management Authority	National Marine Fisheries Service, US national management
Assessor	Northeast Fisheries Science Center
Asmts in RAM	2016, 2019

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2019	181,000
Fmsy	Fmsy-1/yr	2019	0.22
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	SSBlim-MT	2019	90,500
Flim	-	-	-
ERlim	-	-	-

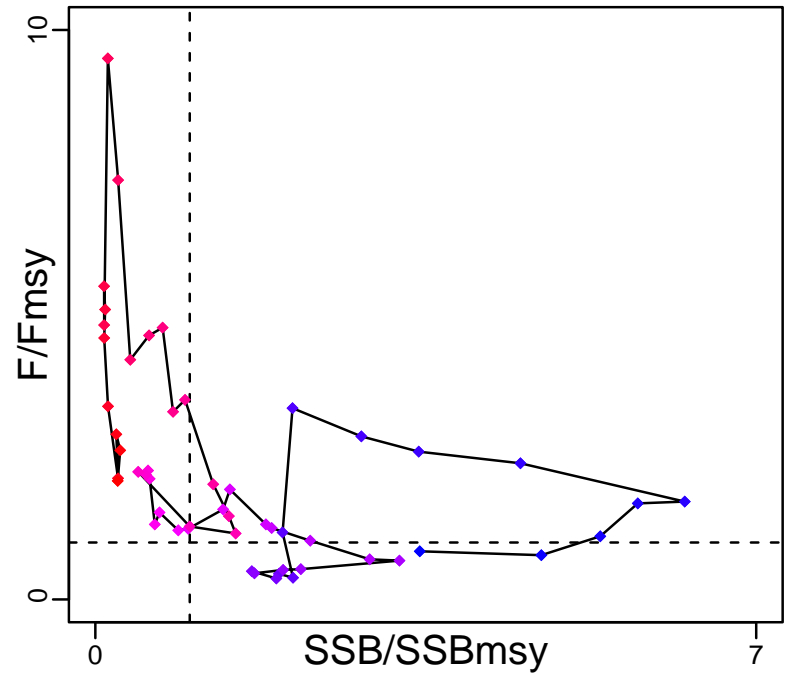
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2019	42,900	-	-
TN	-	-	-	-	-
R	R-E00	2019	1.36×10^8	-	1
F	F-1/yr	2019	0.458	-	-
ER	-	-	-	-	-
TC	TC-MT	2019	16,300		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2019	0.237		
F/Fmsy	F-1/yr/Fmsy-1/yr	2019	2.082		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Atlantic mackerel Gulf of Maine / Cape Hatteras [MACK5YCHATT]

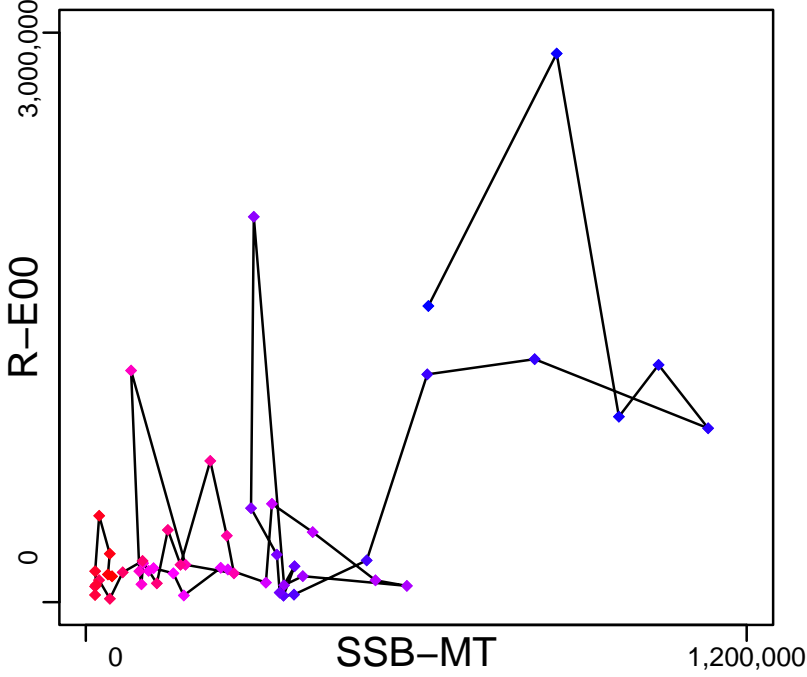
Kobe MSYpref (1960–2019–SISIMP2021–2)



Kobe MGTpref (1960–2019–SISIMP2021–2)



Spawner Recruit (1960–2019–SISIMP2021–2)



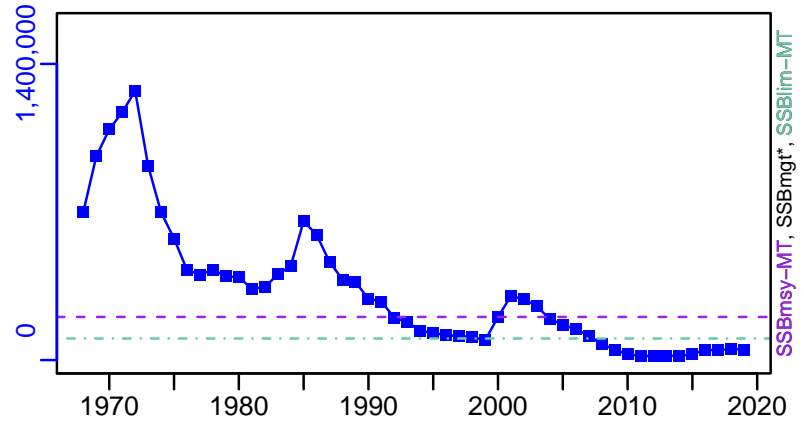
◆ Start Year ◆ End Year * No Data

Atlantic mackerel Gulf of Maine / Cape Hatteras [MACK5YCHATT]

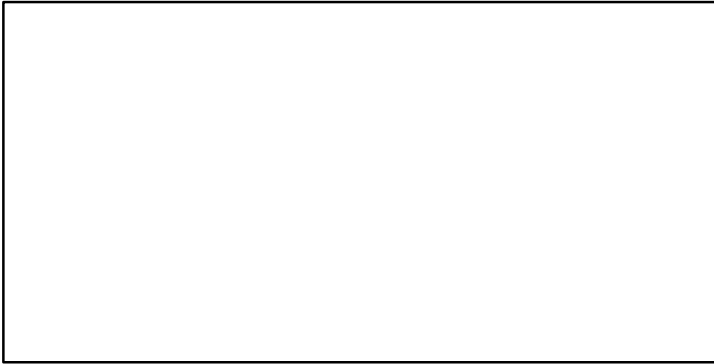
TB*



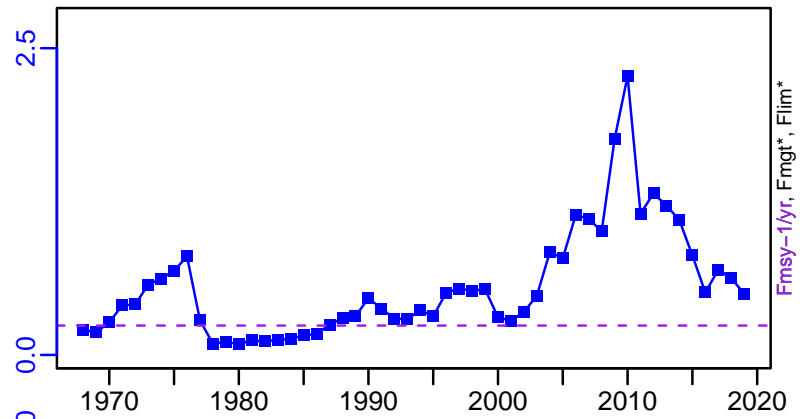
SSB-MT (1960–2019–SISIMP2021–2)



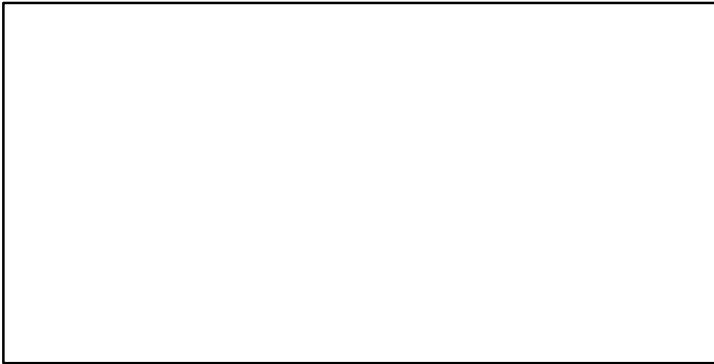
TN *



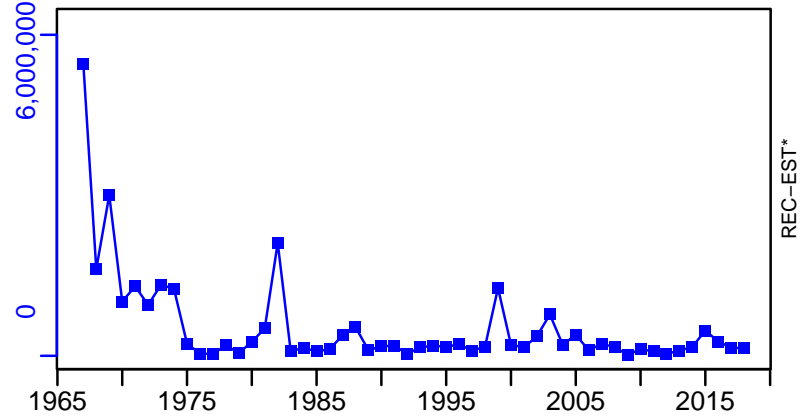
F-1/yr (1960–2019–SISIMP2021–2)



ER*

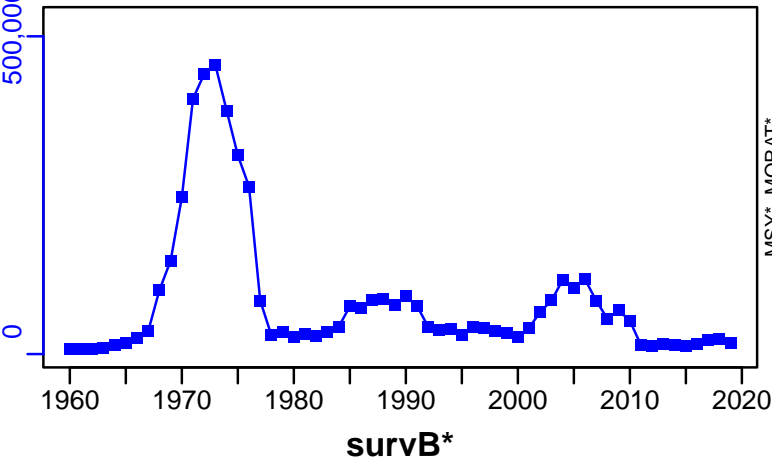


R-E00 (1960–2019–SISIMP2021–2)



Atlantic mackerel Gulf of Maine / Cape Hatteras [MACK5YCHATT]

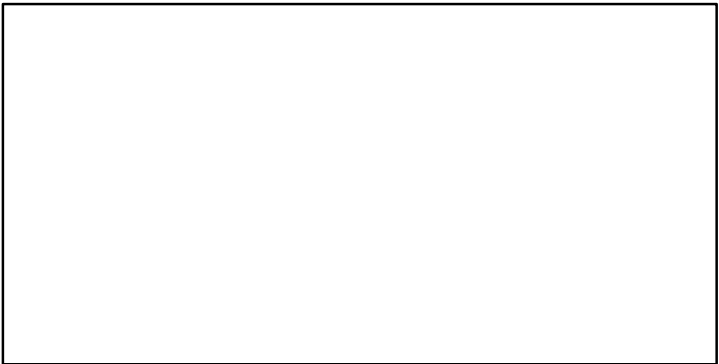
TC-MT, TL*, RecC* (1960-2019-SISIMP2021-2)



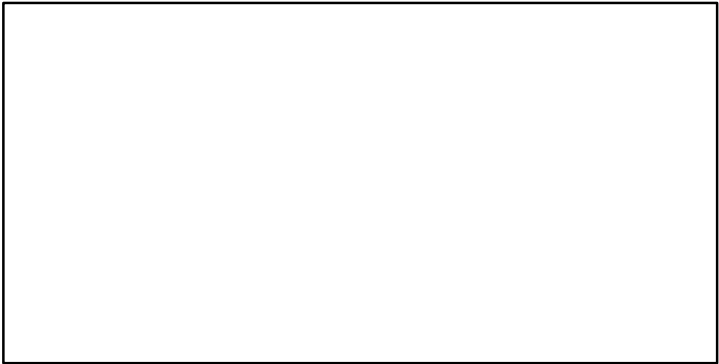
TAC*, Cpair*, Cadv*



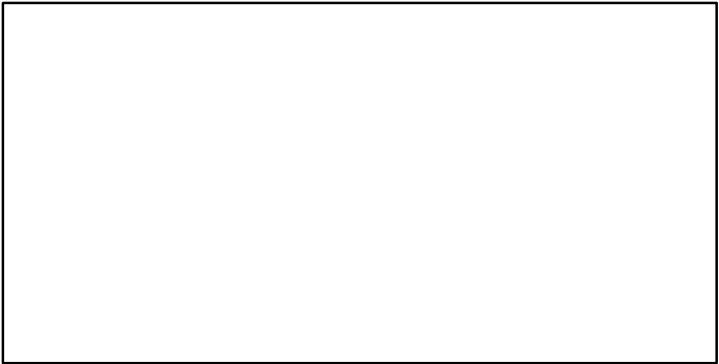
CPUE*



EFFORT*



CdivMSY*



Mackerel ICES Northeast Atlantic [MACKNEICES]

Metadata	
Scientific Name	Scomber scombrus
Current Assess ID	WGWIDE-MACKNEICES-1978-2023-ICESIMP2024
Area	ICES Northeast Atlantic
Management Authority	International Council for the Exploration of the Sea
Assessor	Working Group on Widely Distributed Stocks
Asmts in RAM	2007, 2023, 2013, 2014, 2015, 2016, 2017, 2019, 2020, 2021

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	Fmsy-1/yr	2023	0.26
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	Fmgt-1/yr	2023	0.26
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2007	0.15
TBlim	-	-	-
SSBlim	SSBlim-MT	2023	2×10^6
Flim	Flim-1/yr	2023	0.46
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2019	5,684,879	-	-
SSB	SSB-MT	2023	3,681,064	-	-
TN	-	-	-	-	-
R	R-E00	2023	3,269,823	-	2
F	F-1/yr	2023	0.304	-	4 to 8
ER	ER-calc-ratio	2019	0.181	-	-
TC	TC-MT	2023	1,046,720		
TL	TL-MT	2016	1,200,000		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	F-1/yr/Fmsy-1/yr	2023	1.169		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	F-1/yr/Fmgt-1/yr	2023	1.169		
ER/ERmgt	-	-	-		

Mackerel ICES Northeast Atlantic [MACKNEICES]

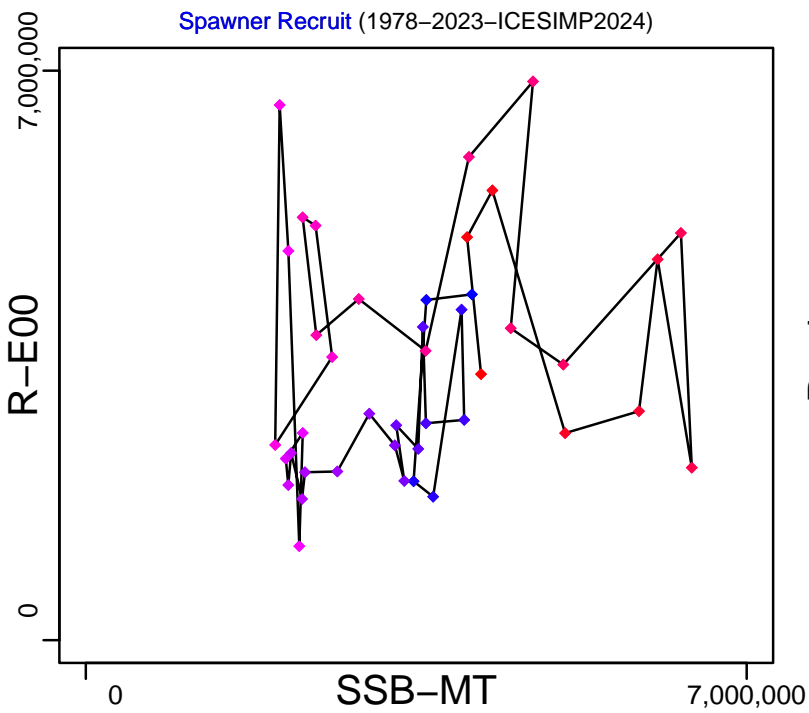
Kobe MSY*



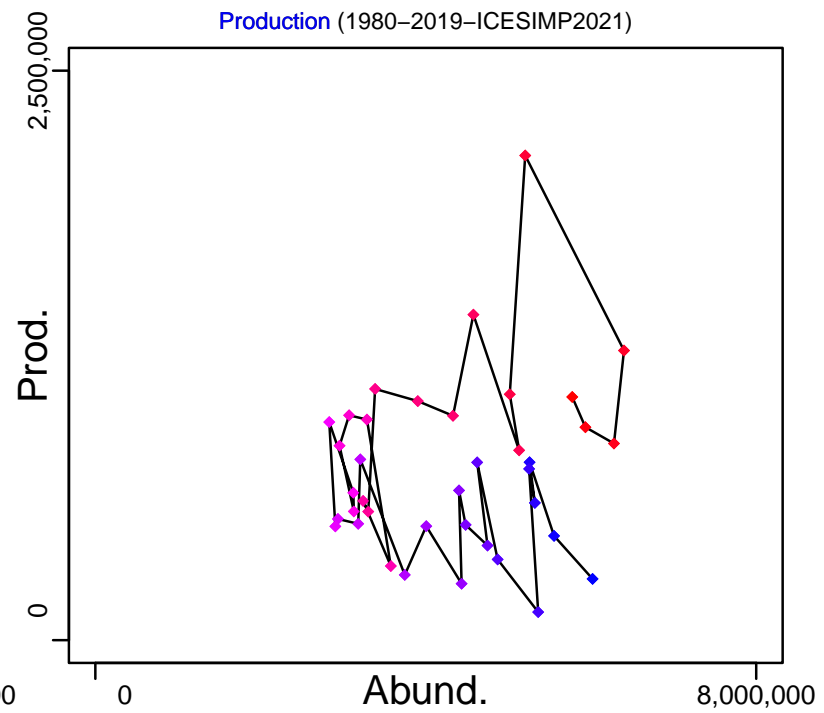
Kobe MGT*



Spawner Recruit (1978–2023–ICESIMP2024)



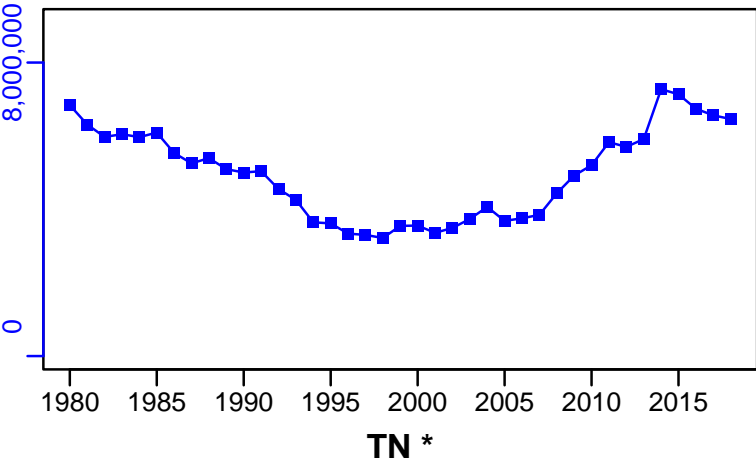
Production (1980–2019–ICESIMP2021)



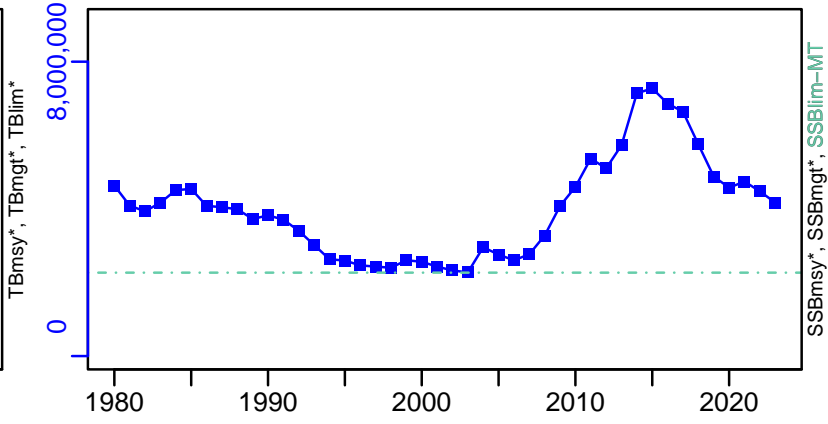
◆ Start Year ◆ End Year * No Data

Mackerel ICES Northeast Atlantic [MACKNEICES]

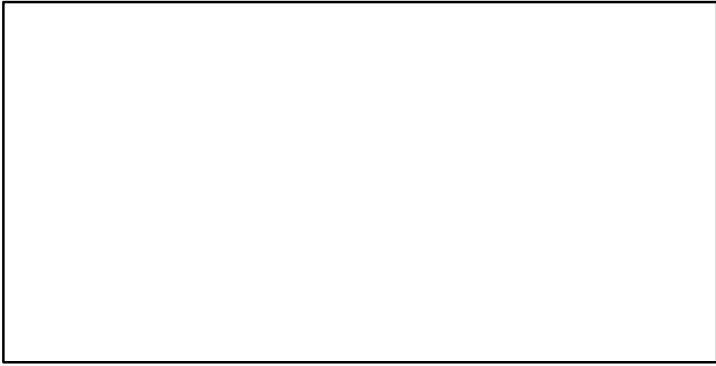
TB-MT (1980–2019–ICESIMP2021)



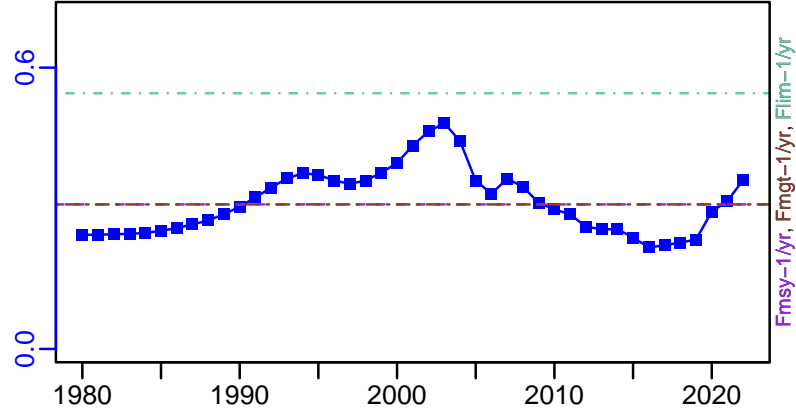
SSB-MT (1978–2023–ICESIMP2024)



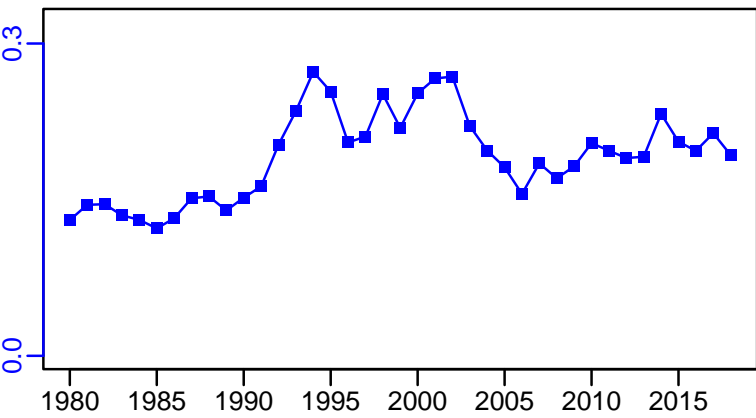
TN *



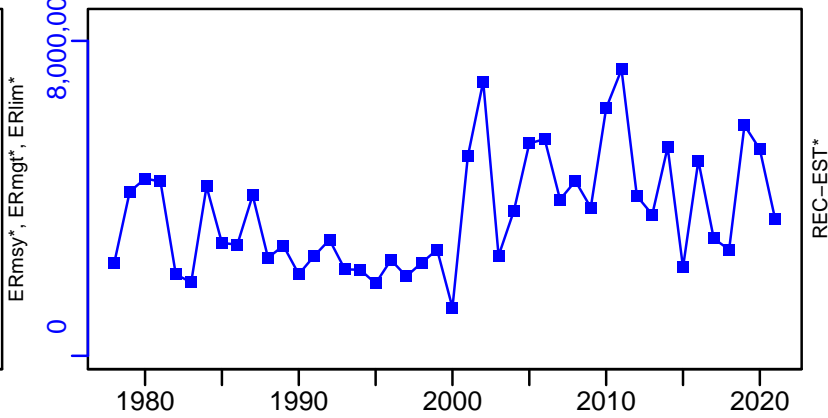
F-1/yr (1978–2023–ICESIMP2024)



ER-calc-ratio (1980–2019–ICESIMP2021)

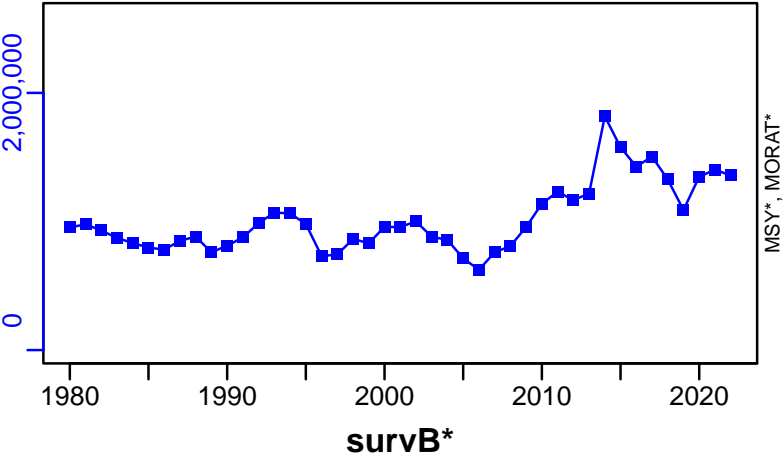


R-E00 (1978–2023–ICESIMP2024)

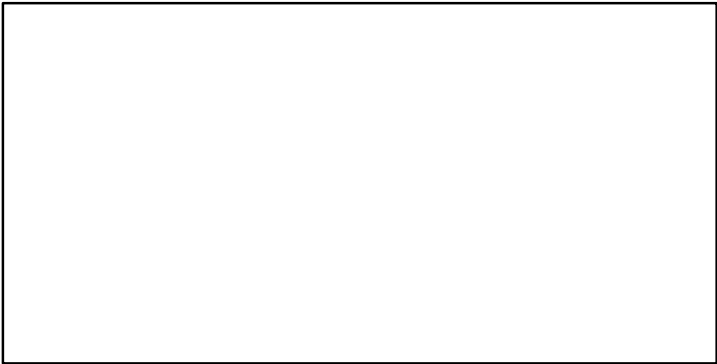


Mackerel ICES Northeast Atlantic [MACKNEICES]

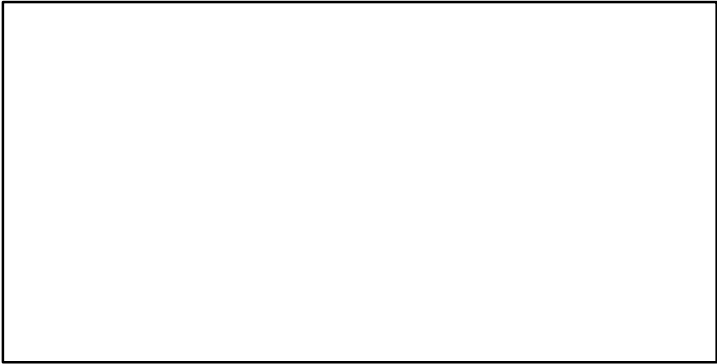
TC-MT, TL*, RecC* (1978-2023-ICESIMP2024)



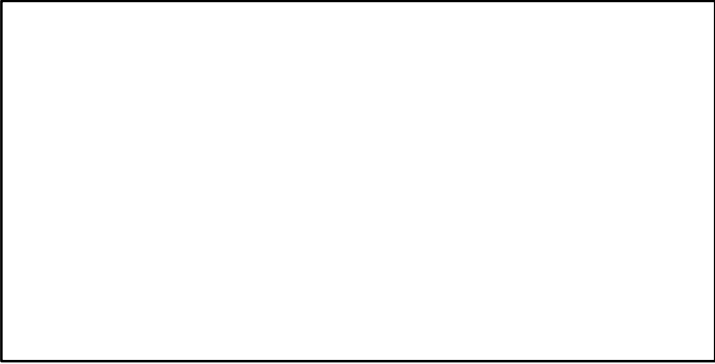
TAC*, Cpair*, Cadv*



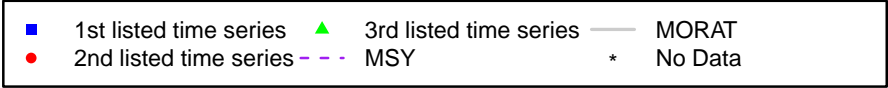
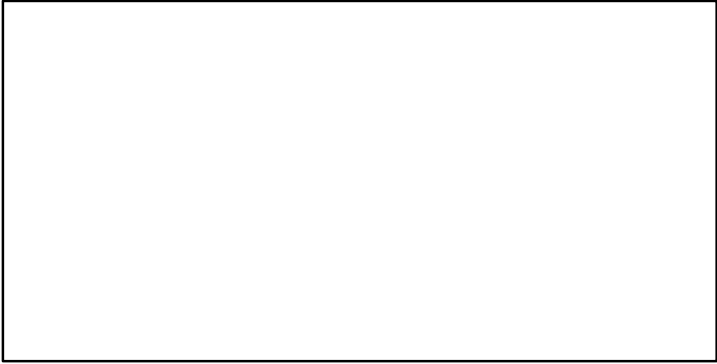
CPUE*



EFFORT*



CdivMSY*



Mackerel Northwest Atlantic (NAFO Subareas 3 and 4) [MACKNWATLSA3-4]

Metadata	
Scientific Name	Scomber scombrus
Current Assess ID	DFO-QUE-MACKNWATLSA3-4-1960-2018-ASHBROOK
Area	Northwest Atlantic (NAFO Subareas 3 and 4)
Management Authority	Department of Fisheries and Oceans, Canada national management
Assessor	Department of Fisheries and Oceans - Quebec Region
Asmts in RAM	2014, 2018, 2011

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-pr-MT	2018	113,292
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2018	90,943
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	SSBlim-MT	2018	45,041
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2014	13,400	-	-
SSB	SSB-MT	2018	30,468	-	10-May
TN	-	-	-	-	-
R	R-E00	2018	58,824	-	1
F	F-1/yr	2011	0.468	-	8+
ER	ER-calc-ratio	2014	0.554	-	-
TC	-	-	-		
TL	TL-MT	2018	10,499		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-pr-MT	2018	0.269		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2018	0.335		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Mackerel Northwest Atlantic (NAFO Subareas 3 and 4) [MACKNWATLSA3-4]

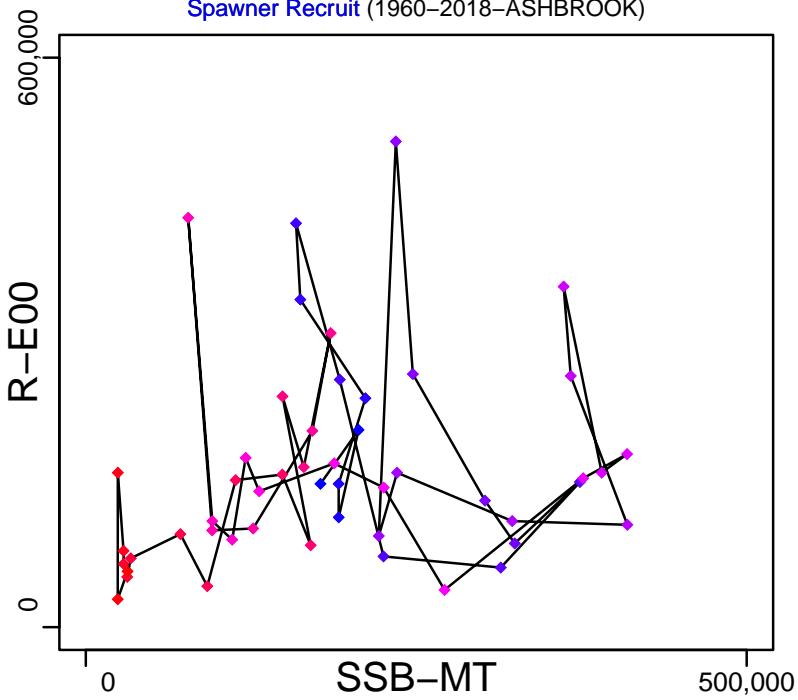
Kobe MSY*



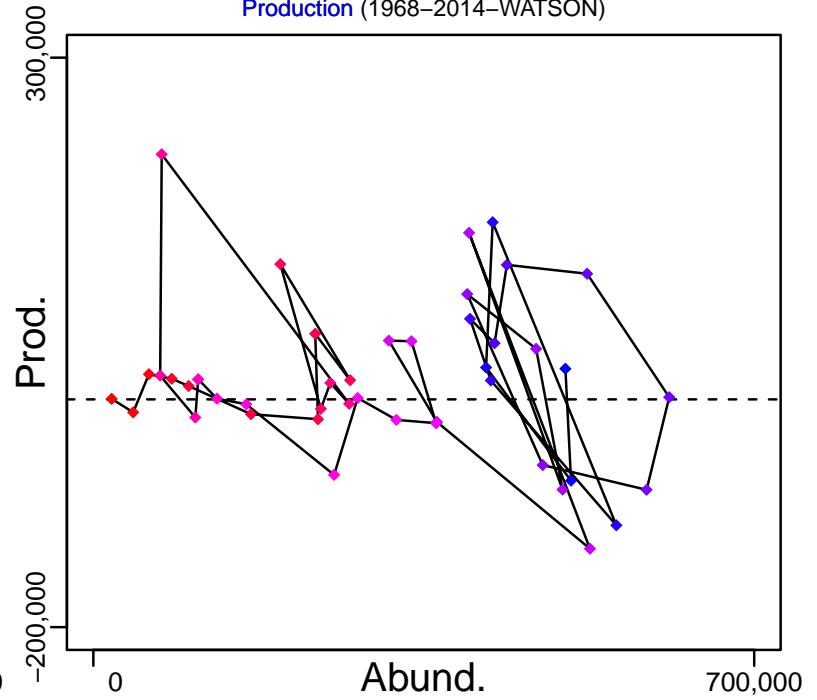
Kobe MGT*



Spawner Recruit (1960–2018–ASHBROOK)



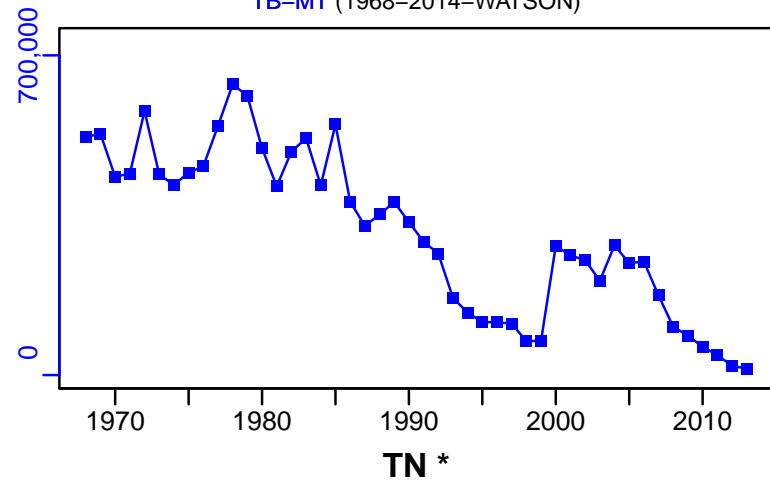
Production (1968–2014–WATSON)



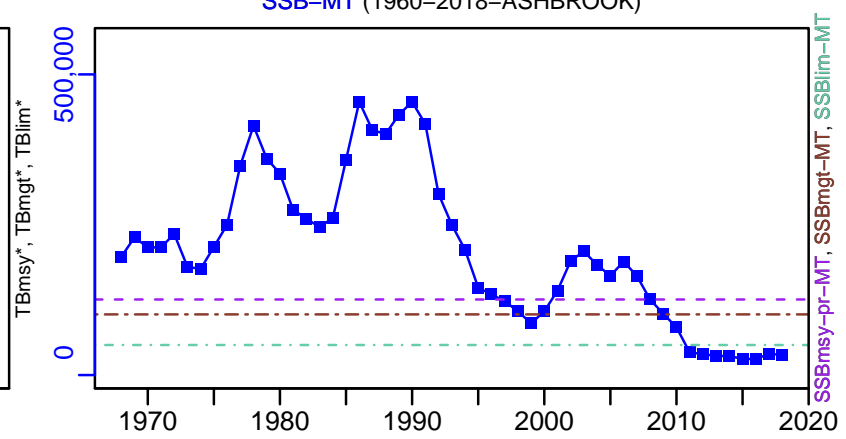
◆ Start Year ◆ End Year * No Data

Mackerel Northwest Atlantic (NAFO Subareas 3 and 4) [MACKNWATLSA3-4]

TB-MT (1968–2014–WATSON)

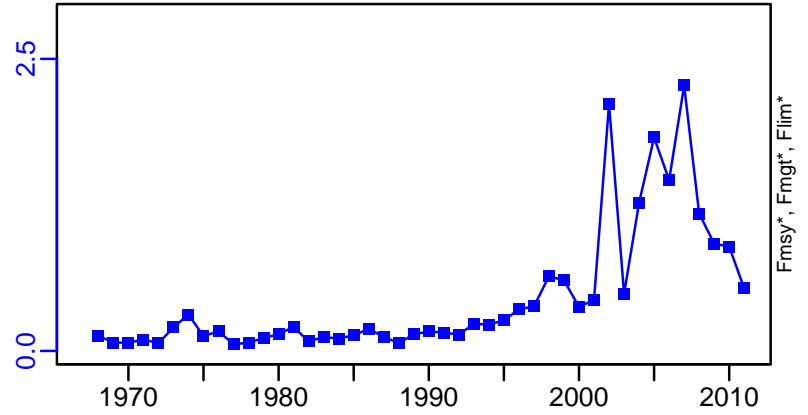
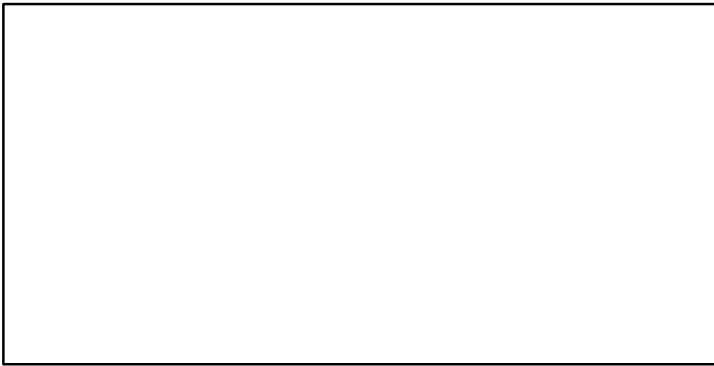


SSB-MT (1960–2018–ASHBROOK)

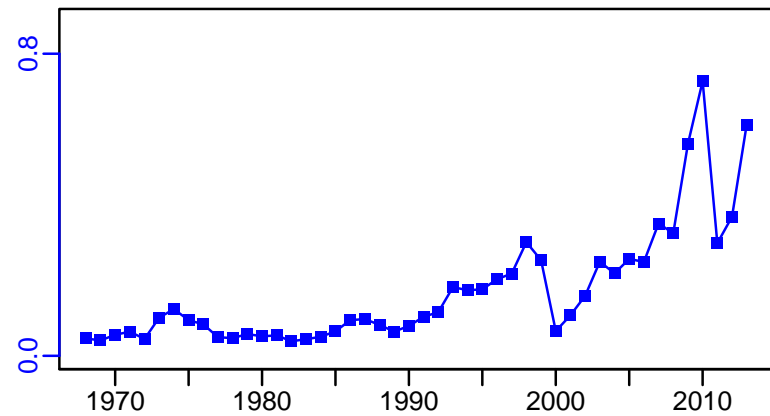


TN *

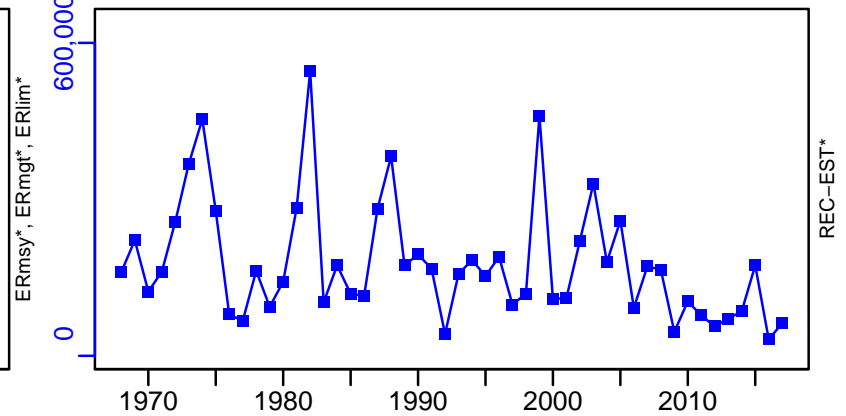
F-1/yr (1967–2011–CHING)



ER-calc-ratio (1968–2014–WATSON)



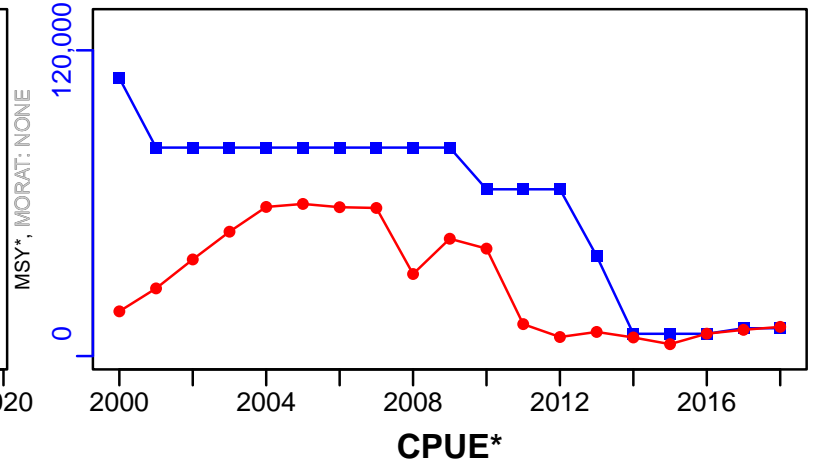
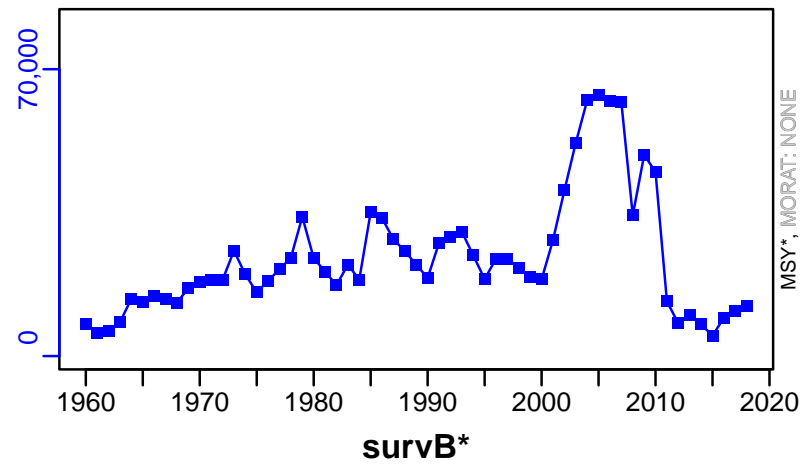
R-E00 (1960–2018–ASHBROOK)



Mackerel Northwest Atlantic (NAFO Subareas 3 and 4) [MACKNWATLSA3-4]

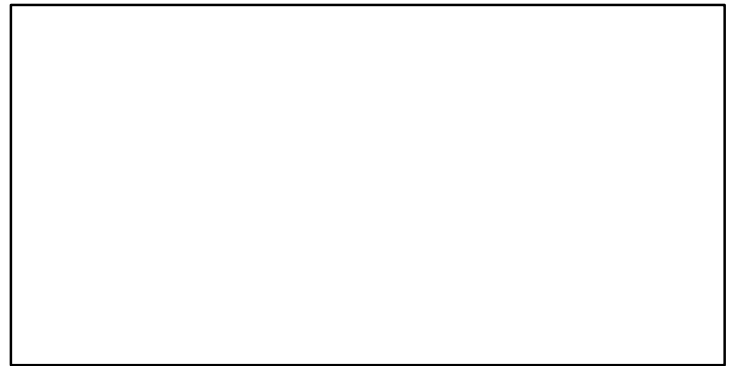
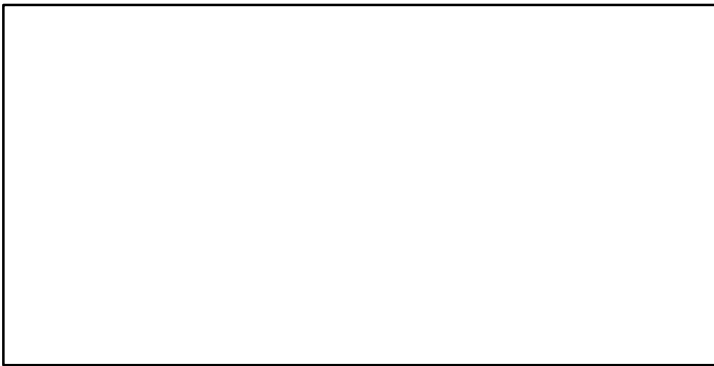
TL-MT, TC*, RecC* (1960-2018-ASHBROOK)

TAC-MT, Cpair-MT, Cadv* (1960-2018-ASHBROOK)



EFFORT*

CdivMSY*



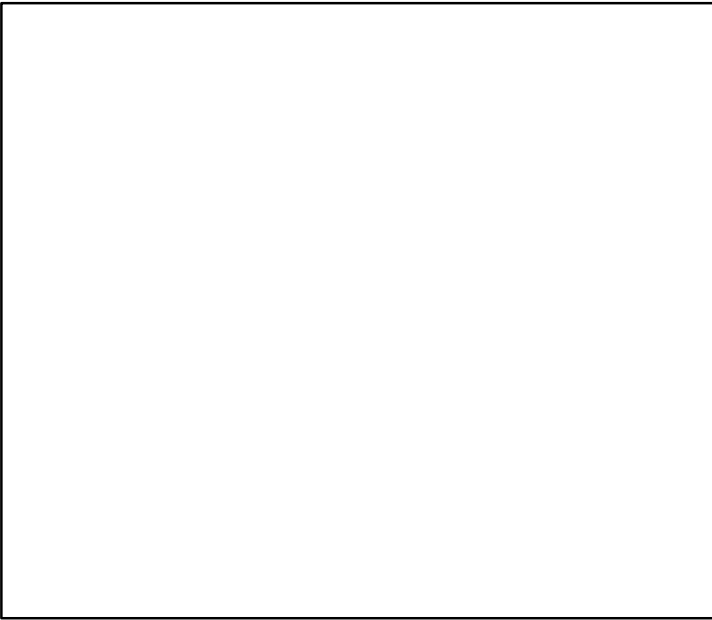
Mediterranean horse mackerel Black Sea [MHMACKMEDGSA29]

Metadata	
Scientific Name	Trachurus mediterraneus
Current Assess ID	SGSABS-MHMACKMEDGSA29-2005-2022-HIVELY
Area	Black Sea
Management Authority	General Fisheries Council for the Mediterranean, DG MARE, and national states
Assessor	Subregional Group on Stock Assessment for the Black Sea
Asmts in RAM	2021, 2022, 2014, 2016

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	Fmsy-1/yr	2016	0.267
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	Fmgt-1/yr	2016	0.267
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2022	8407	-	-
TN	-	-	-	-	-
R	R-E00	2022	3,391,341,000	-	-
F	F-1/yr	2022	0.996	-	-
ER	-	-	-	-	-
TC	TC-MT	2022	11,439		
TL	TL-MT	2021	21,538		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	F-1/yr/Fmsy-1/yr	2016	3.663		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	F-1/yr/Fmgt-1/yr	2016	3.663		
ER/ERmgt	-	-	-		

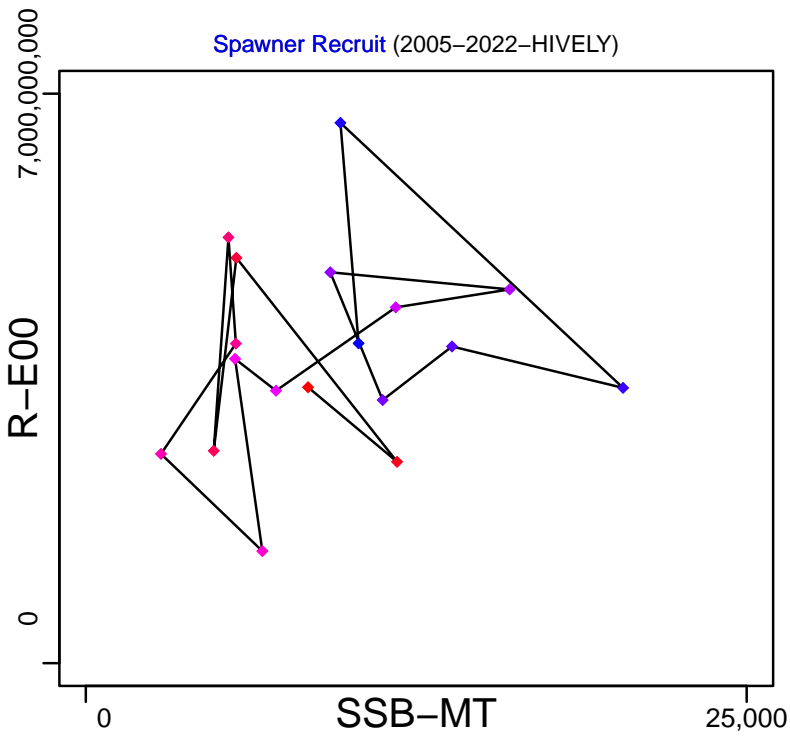
Kobe MSY*



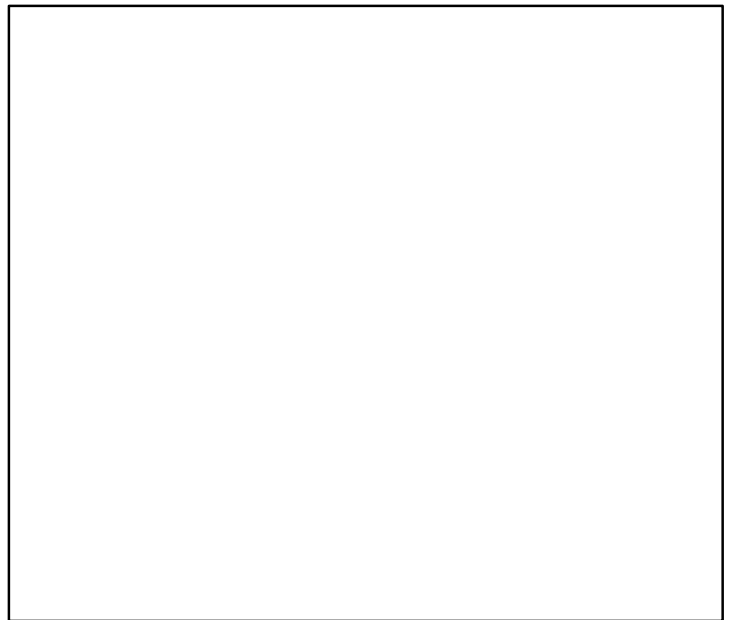
Kobe MGT*



Spawner Recruit (2005–2022–HIVELY)



Production*



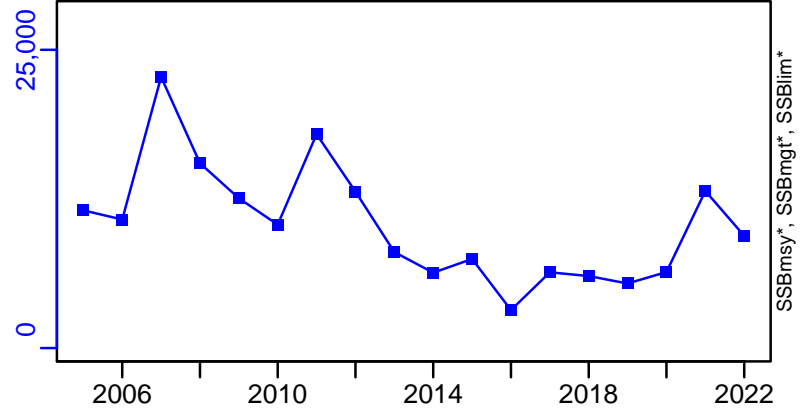
◆ Start Year ◆ End Year * No Data

Mediterranean horse mackerel Black Sea [MHMACKMEDGSA29]

TB*



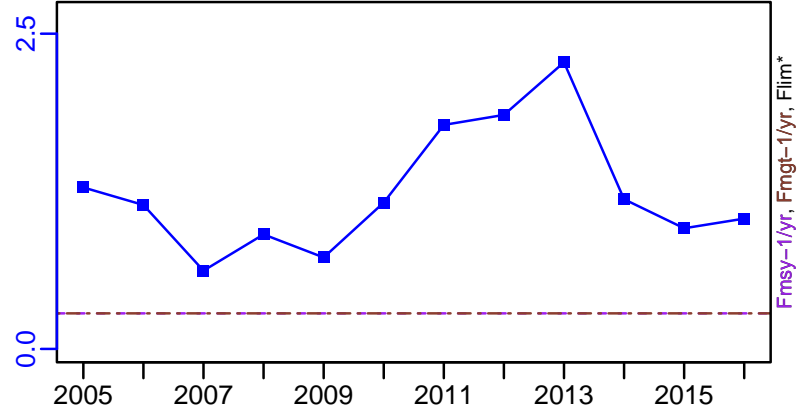
SSB-MT (2005–2022–HIVELY)



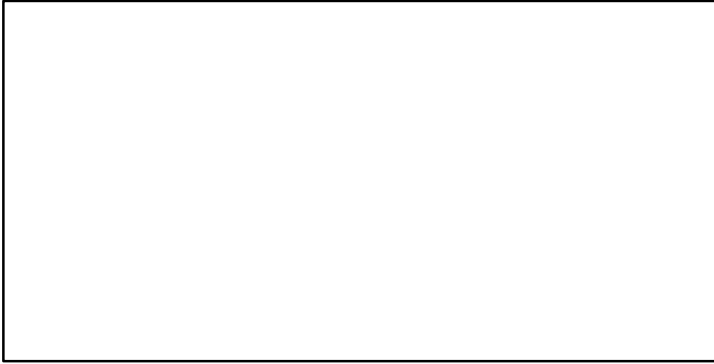
TN *



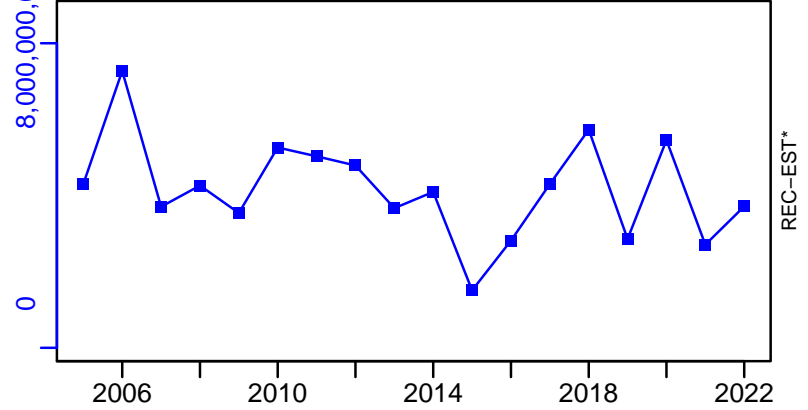
F-1/yr (2005–2016–MEDIMP2021–2)



ER*

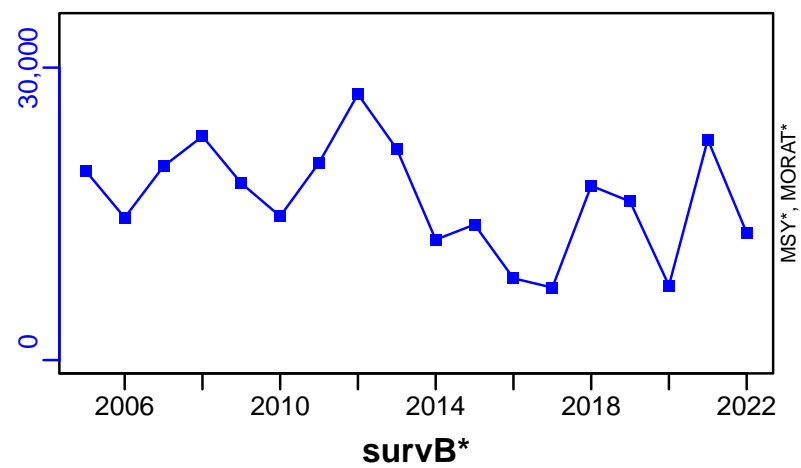


R-E00 (2005–2022–HIVELY)



Mediterranean horse mackerel Black Sea [MHMACKMEDGSA29]

TC-MT, TL*, RecC* (2005-2022-HIVELY)



TAC*, Cpair*, Cadv*



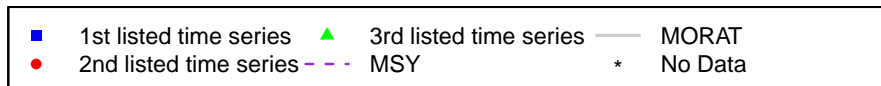
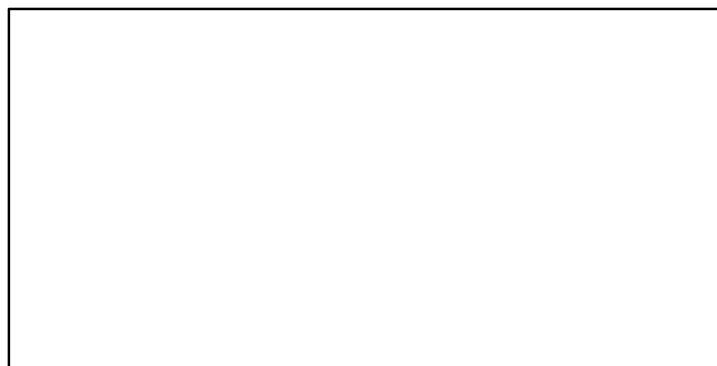
CPUE*



EFFORT*



CdivMSY*



Scad spp Central West Africa Guinea Bissau-Liberia [SCADSPPCWAGNB-LBR]

Metadata	
Scientific Name	Decapterus spp
Current Assess ID	FAO-SPNWA-SCADSPPCWAGNB-LBR-1994-2017-ASHBROOK
Area	Central West Africa Guinea Bissau-Liberia
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO Working Group on the Assessment of Small Pelagic Fish Off Northwest Africa
Asmts in RAM	2017

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2017	4796		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

TB*



SSB*



TN *



F*



ER*



Recruits*



■ Listed time series

--- MSY-based BRP

--- Target BRP

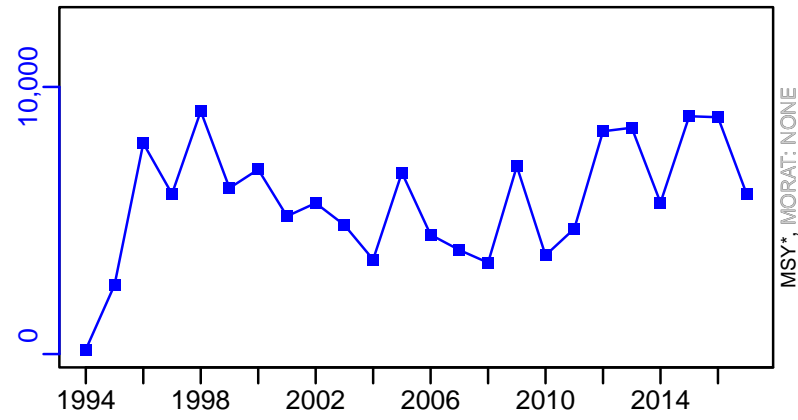
--- Lim BRP

— Rec-Est

* No Data

Scad spp Central West Africa Guinea Bissau–Liberia [SCADSPPCWAGNB–LBR]

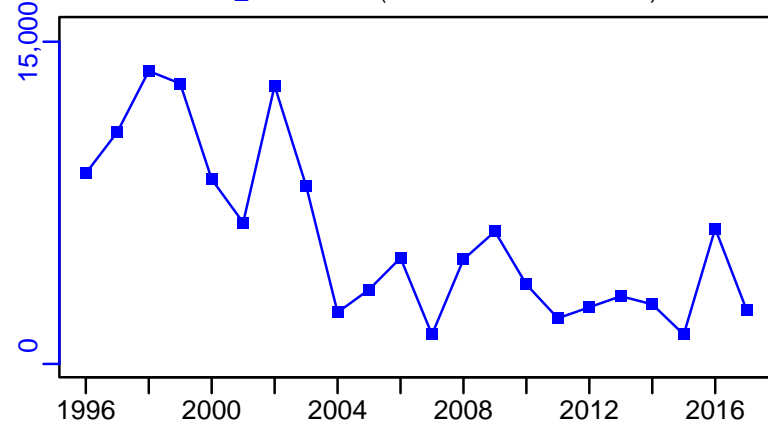
TC–MT, TL*, RecC* (1994–2017–ASHBROOK)



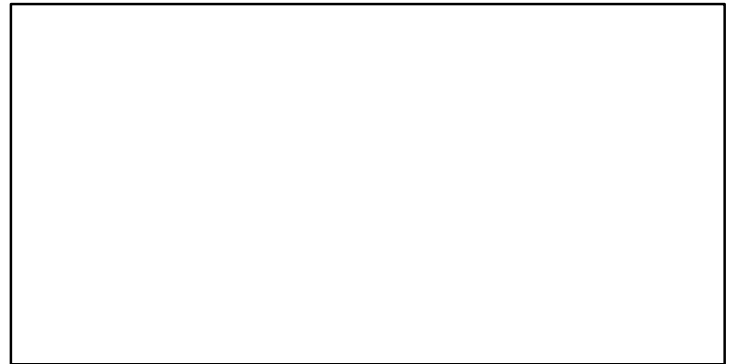
TAC*, Cpair*, Cadv*



survB_index–index (1994–2017–ASHBROOK)



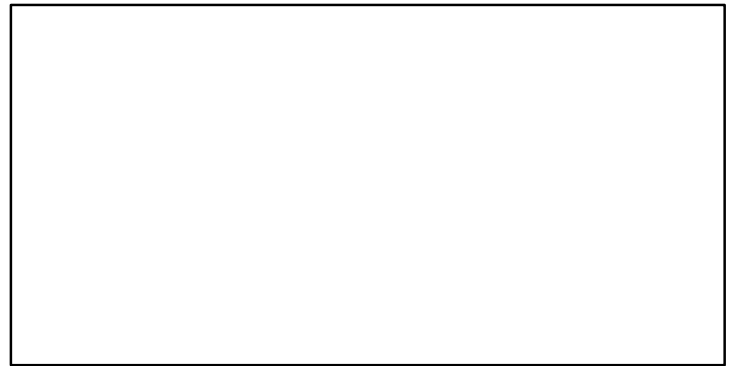
CPUE*



EFFORT*



CdivMSY*



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

Japanese Spanish mackerel East China Sea [SPANMACKECS]

Metadata	
Scientific Name	Scomberomorus niphonius
Current Assess ID	FAFRFJ-SPANMACKECS-1984-2013-JPNIMP2016
Area	East China Sea
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2013	12,200		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

TB*



SSB*



TN *



F*



ER*

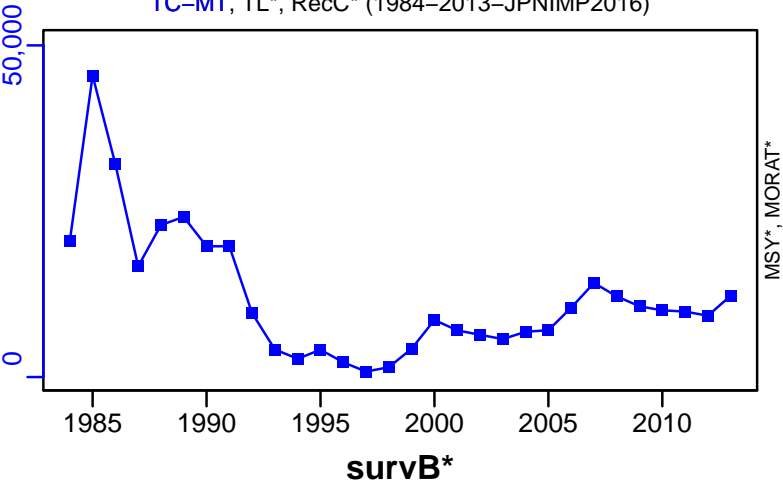


Recruits*



Japanese Spanish mackerel East China Sea [SPANMACKECS]

TC-MT, TL*, RecC* (1984-2013-JPNIMP2016)



TAC*, Cpair*, Cadv*



CPUE*



EFFORT*



CdivMSY*



Spanish mackerel Gulf of Mexico [SPANMACKGM]

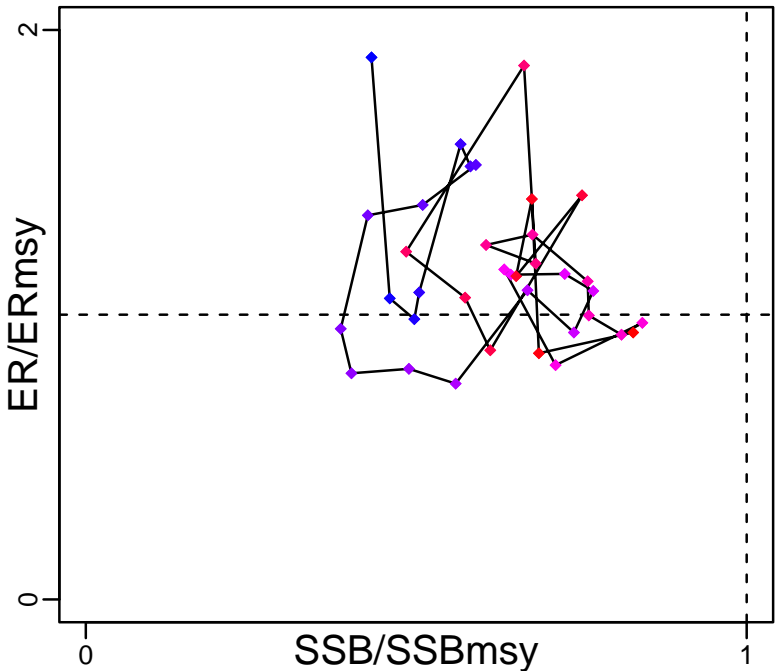
Metadata	
Scientific Name	Scomberomorus maculatus
Current Assess ID	SEFSC-SPANMACKGM-1986-2023-SISIMP2024
Area	Gulf of Mexico
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2011, 2023

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2023	14,168
Fmsy	Fmsy-pr-1/yr	2011	0.36
ERmsy	ERmsy-ratio	2023	0.384
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	SSBlim-MT	2023	8754
Flim	-	-	-
ERlim	-	-	-

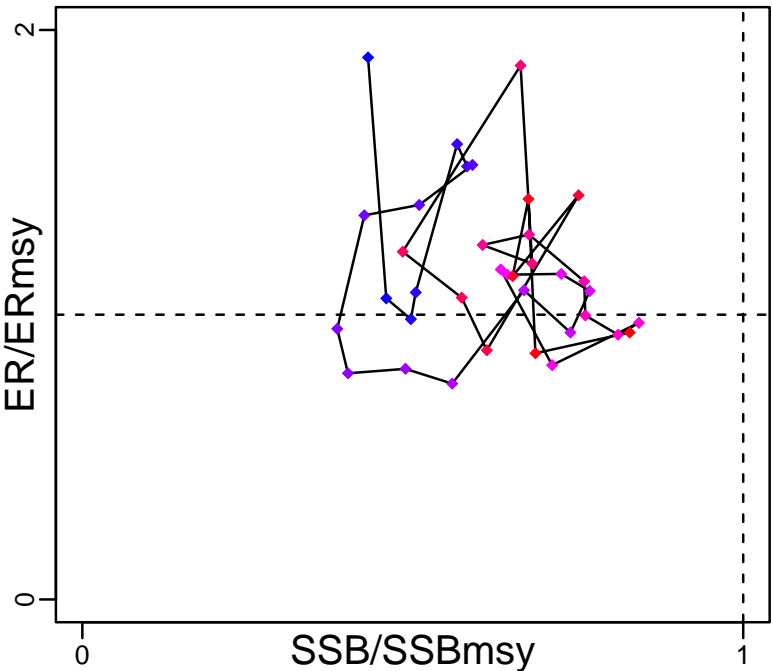
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2011	28,400	-	-
SSB	SSB-MT	2023	14,238	-	-
TN	-	-	-	-	-
R	R-E00	2023	84,516	-	0
F	F-1/yr	2011	0.12	-	-
ER	ER-ratio	2023	0.36	-	-
TC	TC-MT	2023	190		
TL	TL-MT	2011	567		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2023	1.005		
F/Fmsy	F-1/yr/Fmsy-pr-1/yr	2011	0.333		
ER/ERmsy	ER-ratio/ERmsy-ratio	2023	0.938		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Spanish mackerel Gulf of Mexico [SPANMACKGM]

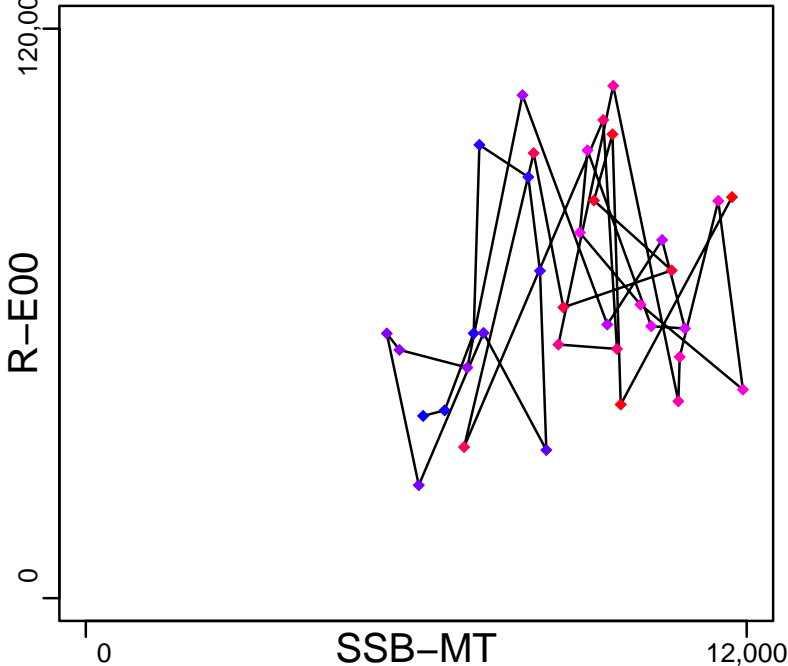
Kobe MSYpref (1986–2023–SISIMP2024)



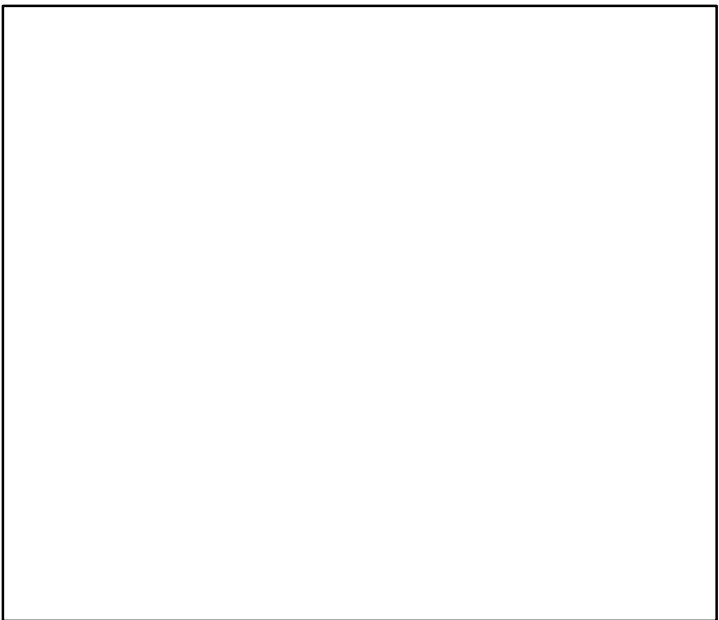
Kobe MGTpref (1986–2023–SISIMP2024)



Spawner Recruit (1986–2023–SISIMP2024)



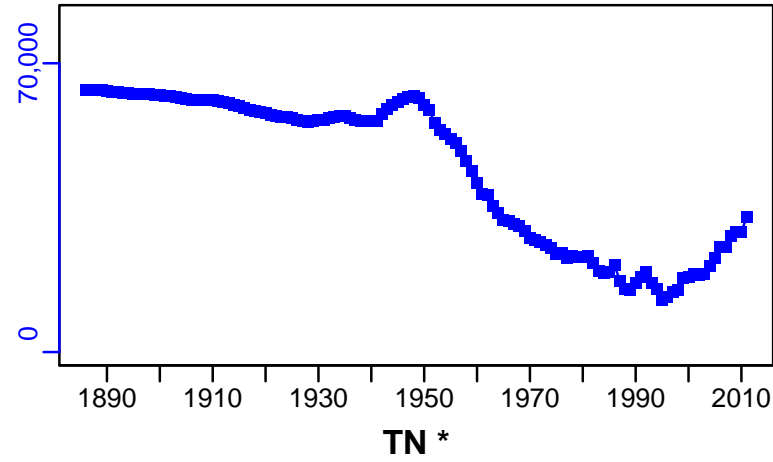
Production*



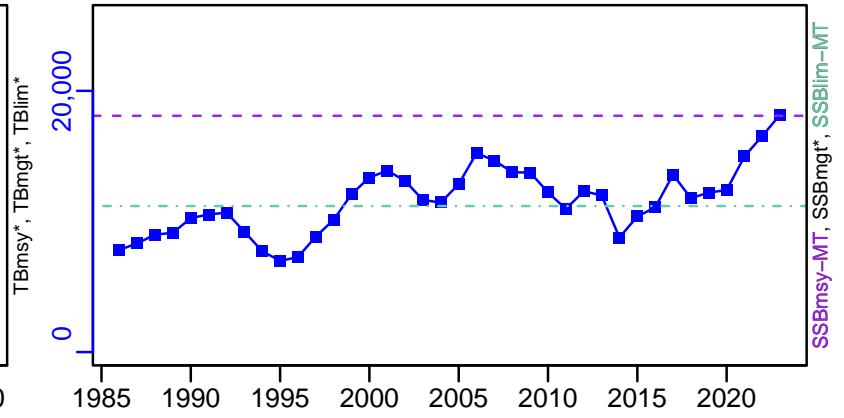
◆ Start Year ◆ End Year * No Data

Spanish mackerel Gulf of Mexico [SPANMACKGM]

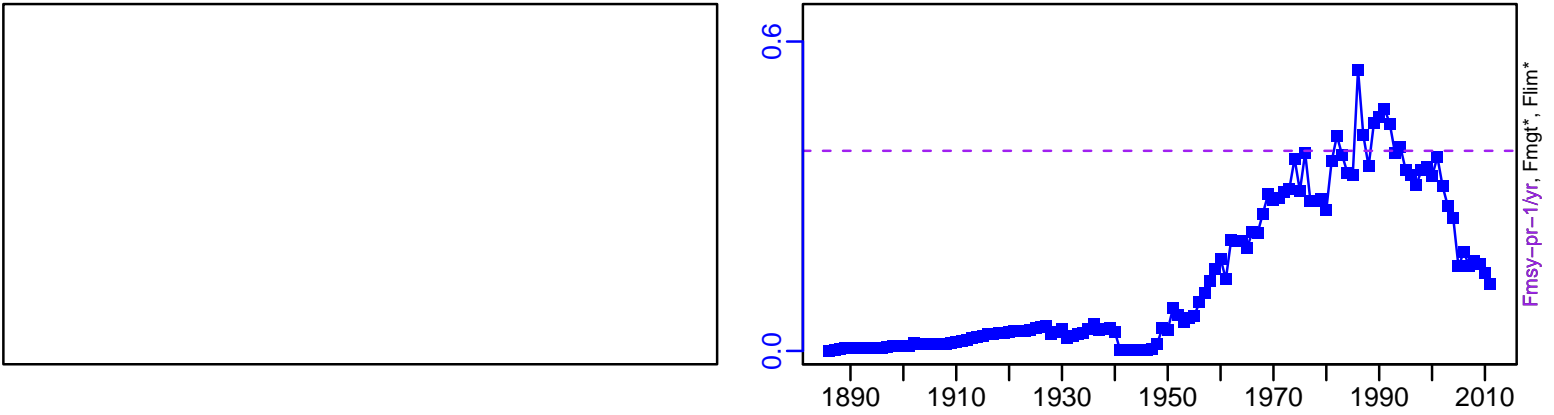
TB-MT (1886–2011–HIVELY)



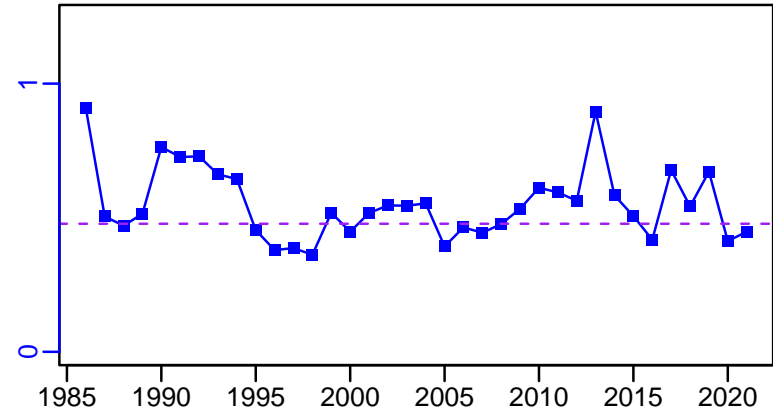
SSB-MT (1986–2023–SISIMP2024)



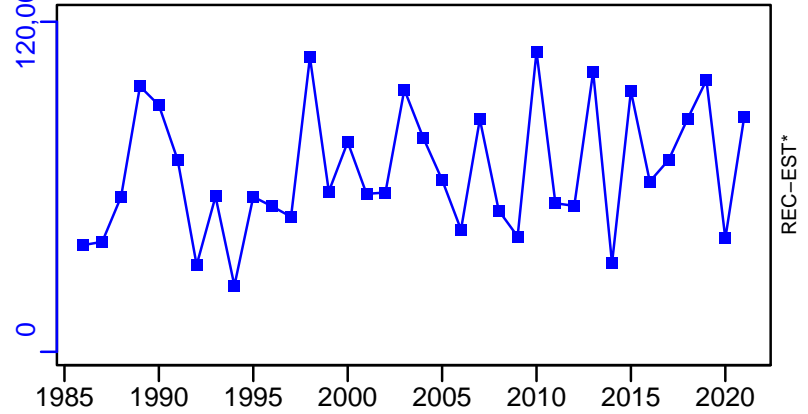
F-1/yr (1886–2011–HIVELY)



ER-ratio (1986–2023–SISIMP2024)

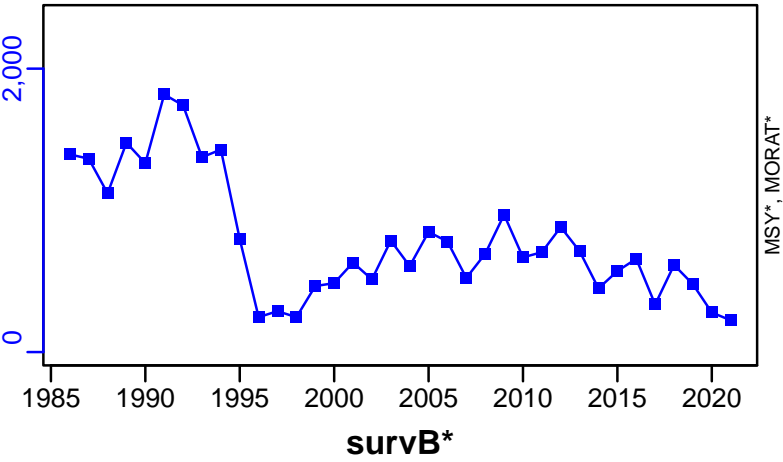


R-E00 (1986–2023–SISIMP2024)

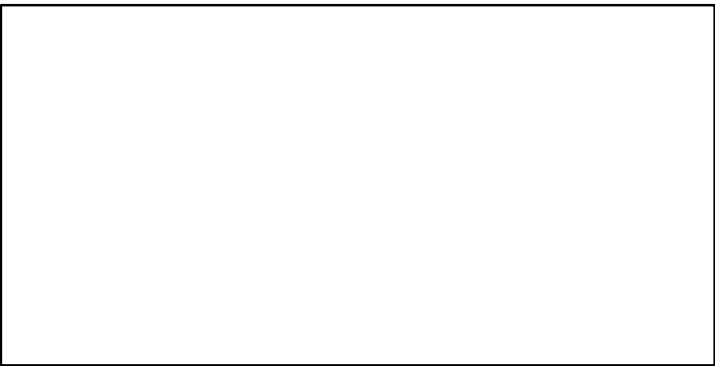


Spanish mackerel Gulf of Mexico [SPANMACKGM]

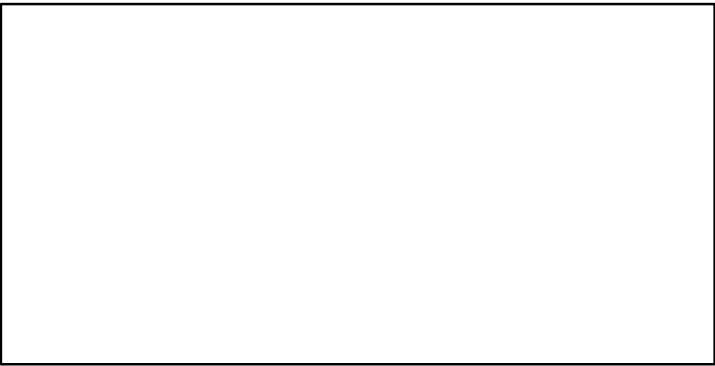
TC-MT, TL*, RecC* (1986-2023-SISIMP2024)



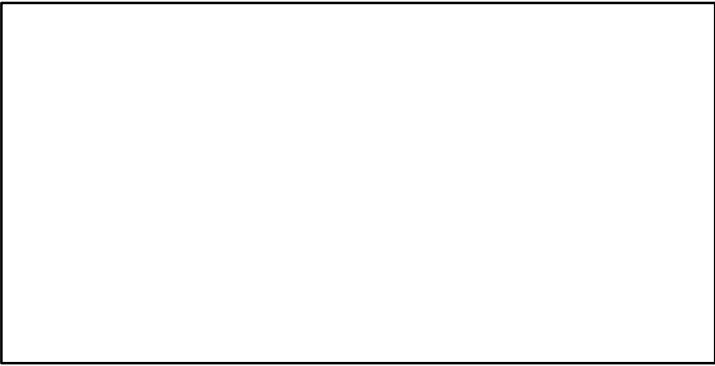
TAC*, Cpair*, Cadv*



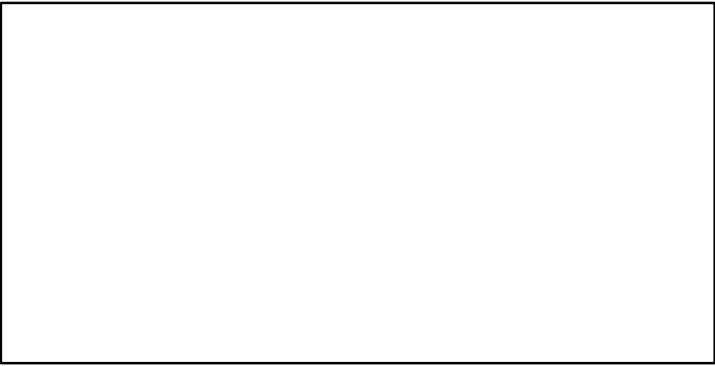
CPUE*



EFFORT*



CdivMSY*



Spanish mackerel Southern Atlantic coast [SPANMACKSATLC]

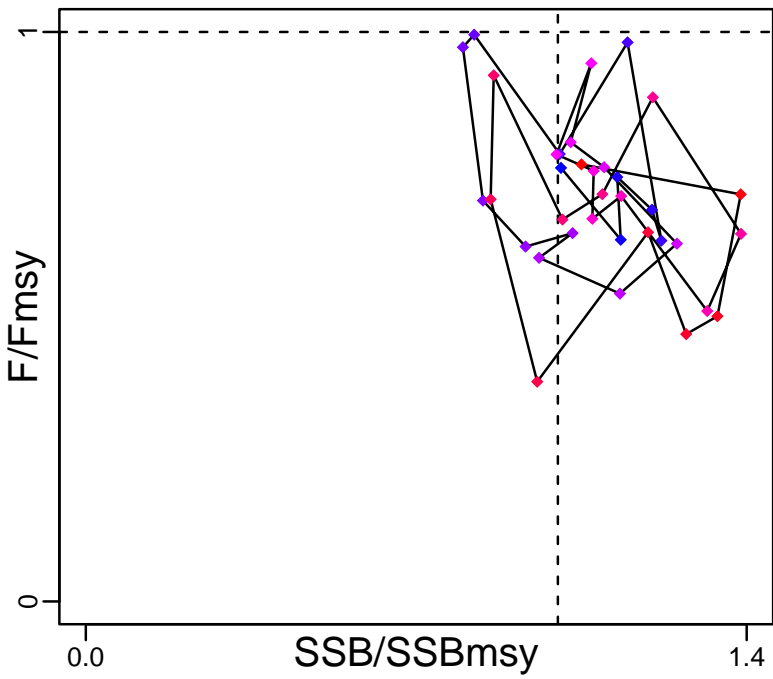
Metadata	
Scientific Name	Scomberomorus maculatus
Current Assess ID	SEFSC-SPANMACKSATLC-1986-2020-SISIMP2024
Area	Southern Atlantic coast
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southeast Fisheries Science Center
Asmts in RAM	2012, 2020

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2012	9548
SSBmsy	SSBmsy-MT	2020	6406
Fmsy	Fmsy-1/yr	2020	0.516
ERmsy	ERmsy-calc-ratio	2012	0.288
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2012	3266
Fmgt	Fmgt-1/yr	2012	0.517
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2020	3724
M	M-1/yr	2012	0.35
TBlim	-	-	-
SSBlim	SSBlim-MT	2020	4804
Flim	-	-	-
ERlim	-	-	-

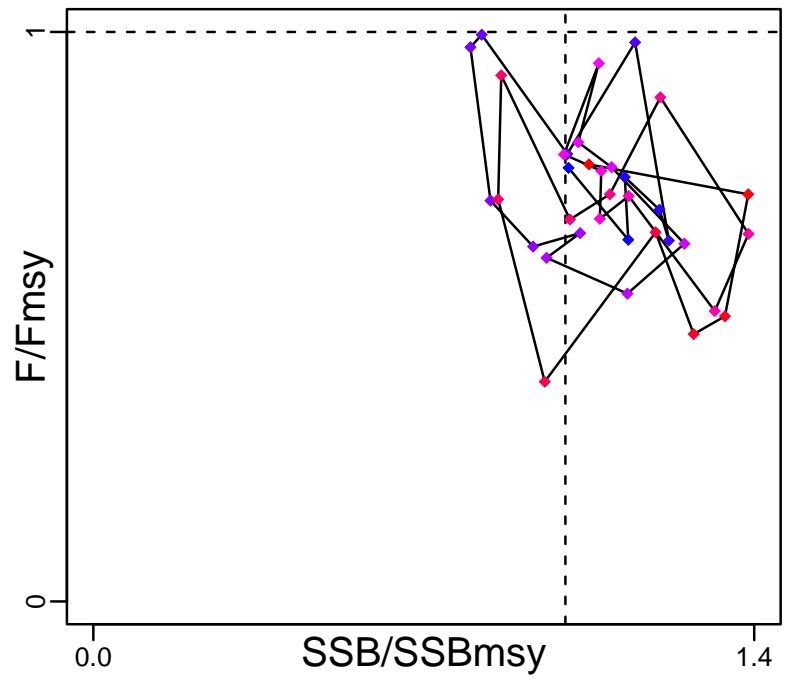
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2012	11,400	-	-
SSB	SSB-MT	2020	6725	-	-
TN	-	-	-	-	-
R	R-E00	2020	18,460,130	-	0
F	F-1/yr	2020	0.396	-	-
ER	ER-calc-ratio	2012	0.159	-	-
TC	TC-MT	2020	6360		
TL	TL-MT	2012	1920		
TB/TBmsy	TB-MT/TBmsy-MT	2012	1.194		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2020	1.05		
F/Fmsy	F-1/yr/Fmsy-1/yr	2020	0.767		
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]

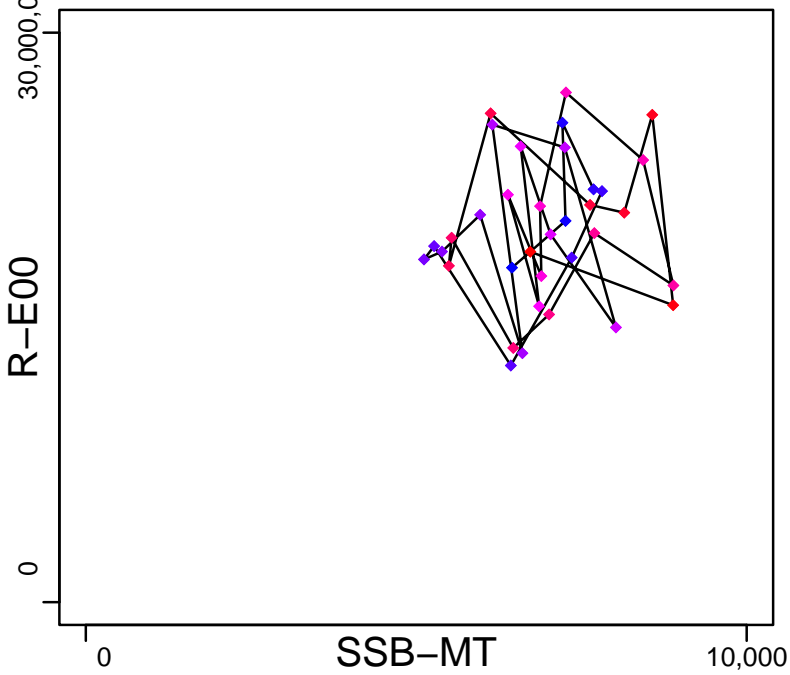
Kobe MSY_{pref} (1986–2020–SISIMP2024)



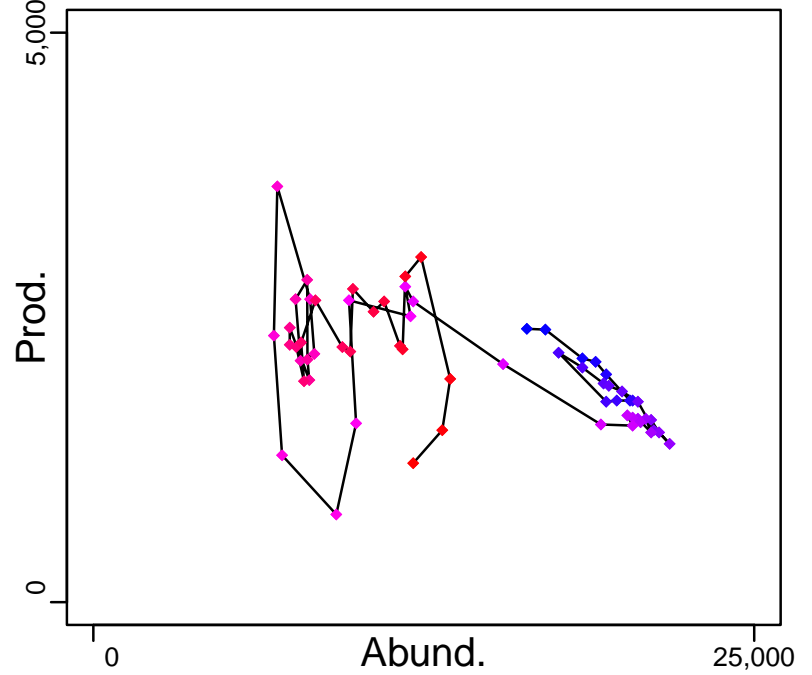
Kobe MGT_{pref} (1986–2020–SISIMP2024)



Spawner Recruit (1986–2020–SISIMP2024)



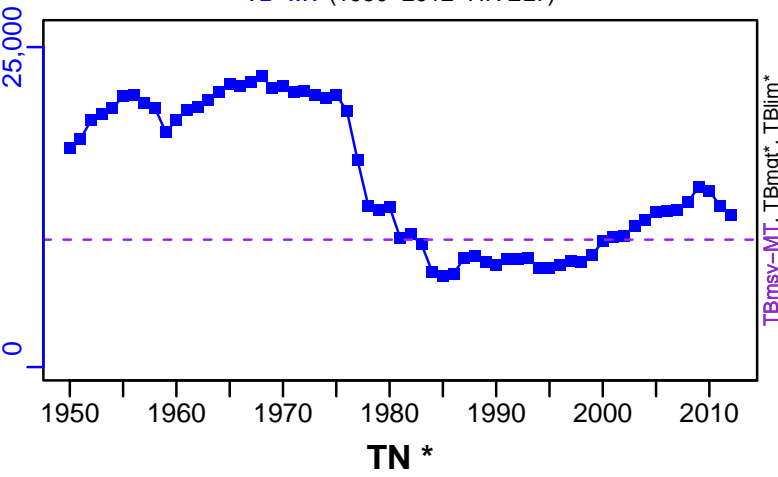
Production (1950–2012–HIVELY)



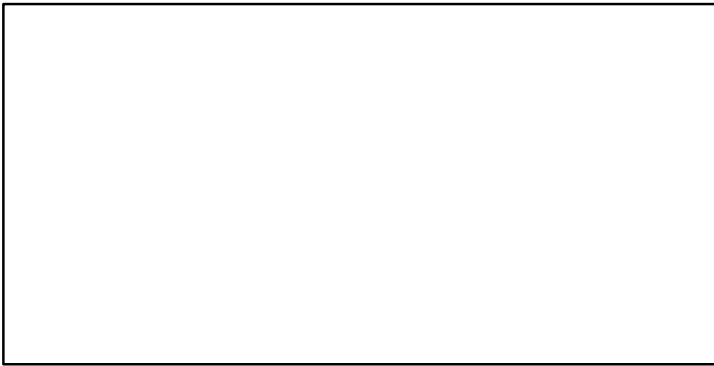
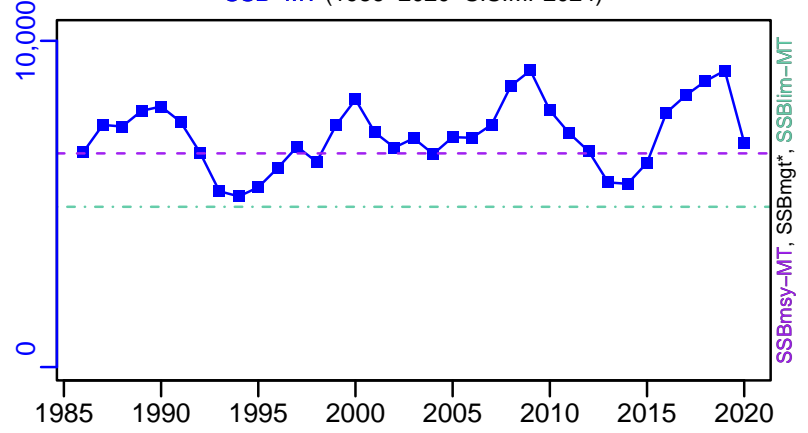
◆ Start Year ◆ End Year * No Data

Spanish mackerel Southern Atlantic coast [SPANMACKSATLC]

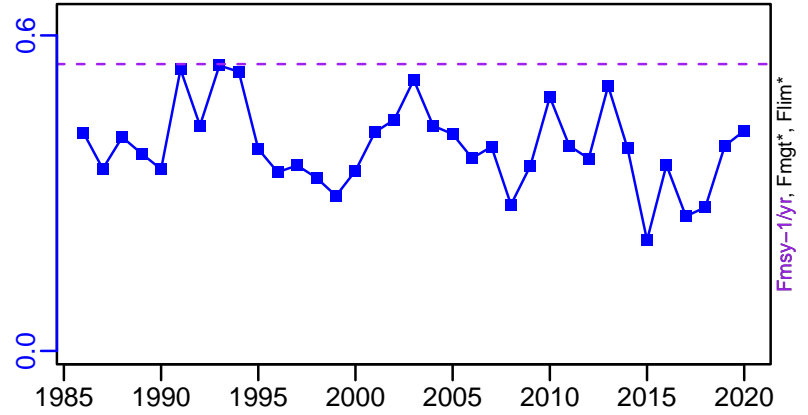
TB-MT (1950-2012-HIVELY)



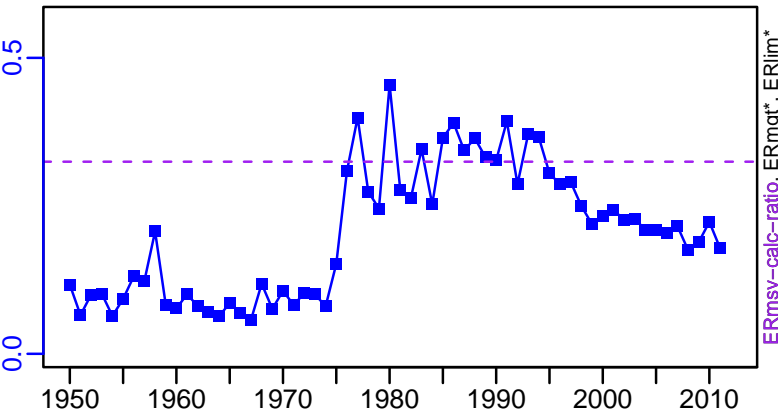
SSB-MT (1986-2020-SISIMP2024)



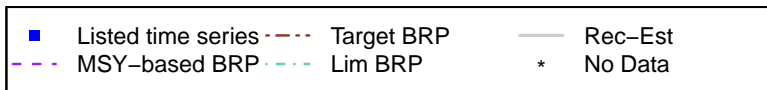
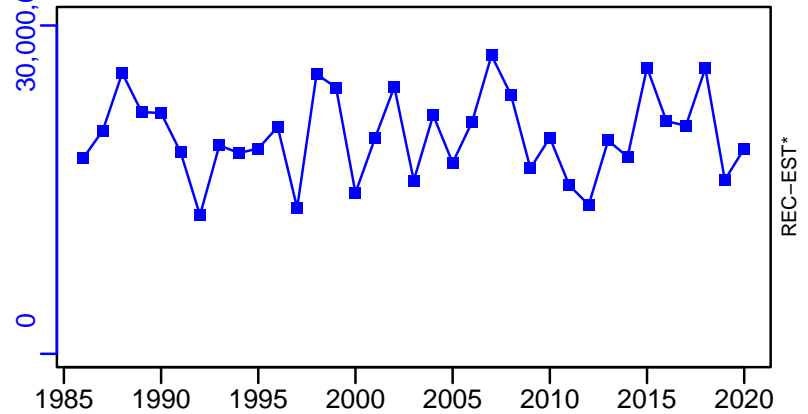
F-1/yr (1986-2020-SISIMP2024)



ER-calc-ratio (1950-2012-HIVELY)

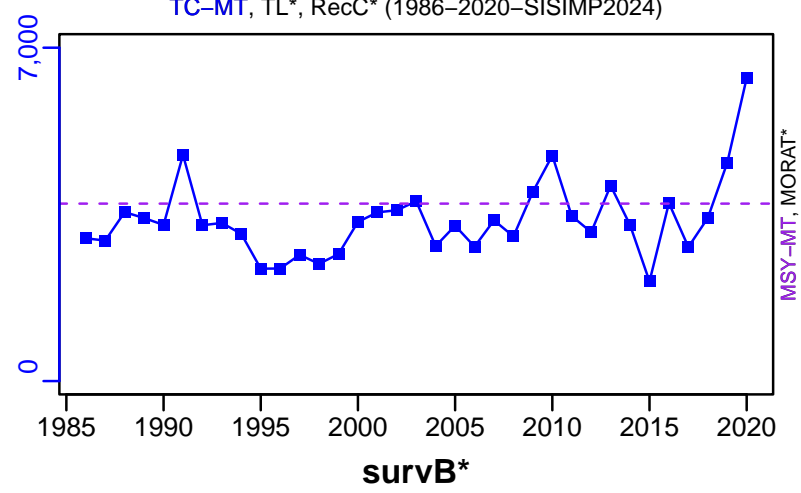


R-E00 (1986-2020-SISIMP2024)



Spanish mackerel Southern Atlantic coast [SPANMACKSATLC]

TC-MT, TL*, RecC* (1986-2020-SISIMP2024)



TAC*, Cpair*, Cadv*



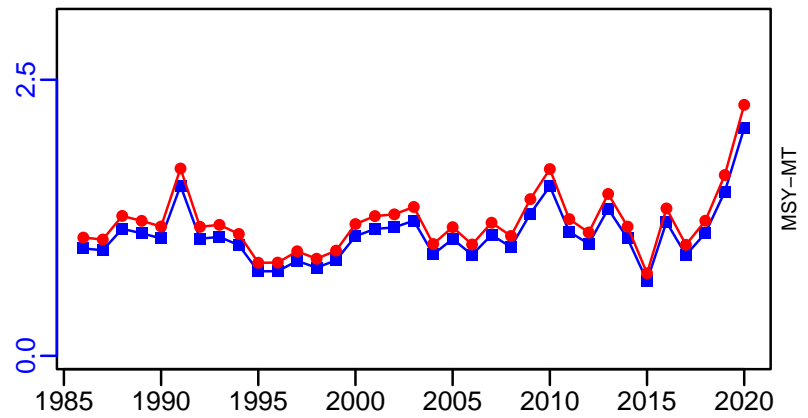
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1986-2020-SISIMP2024)



Japanese Spanish mackerel Inland Sea of Japan [SPANMACKSETO]

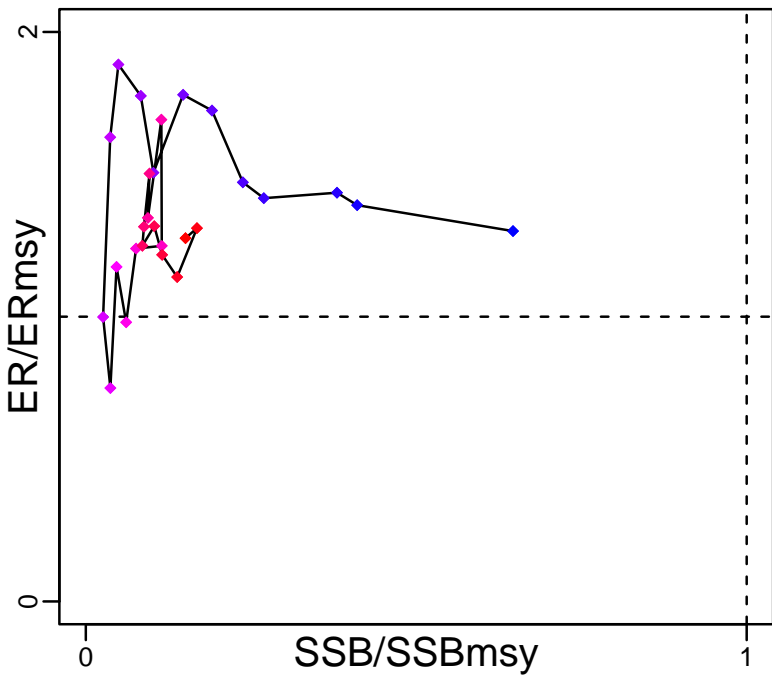
Metadata	
Scientific Name	Scomberomorus niphonius
Current Assess ID	FAFRFJ-SPANMACKSETO-1987-2013-JPNIMP2016
Area	Inland Sea of Japan
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2010, 2013

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2013	24,474
SSBmsy	SSBmsy-MT	2013	16,707
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2013	0.283
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2013	6926
M	M-1/yr	2013	0.3
TBlim	-	-	-
SSBlim	SSBlim-MT	2010	3979
Flim	-	-	-
ERlim	-	-	-

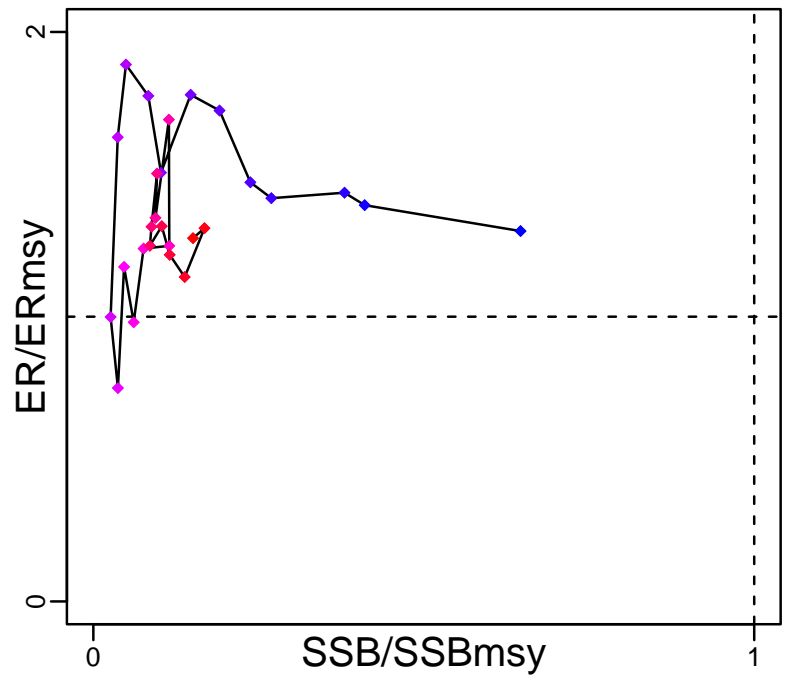
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	4930	-	0
SSB	SSB-MT	2013	2520	Both	1
TN	-	-	-	-	-
R	R-E00	2013	1,410,000	-	0
F	F-1/yr	2010	0.93	-	0 to 5
ER	ER-calc-ratio	2013	0.361	-	-
TC	TC-MT	2013	1780		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2013	0.201		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013	0.151		
F/Fmsy	-	-	-		
ER/ERmsy	ER-calc-ratio/ERmsy-ratio	2013	1.276		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Japanese Spanish mackerel Inland Sea of Japan [SPANMACKSETO]

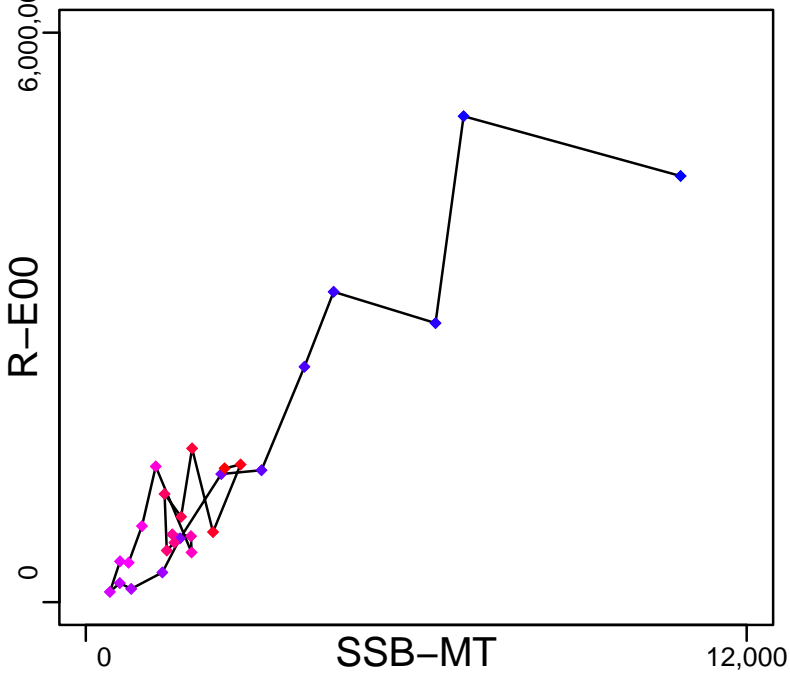
Kobe MSYpref (1987–2013–JPNIMP2016)



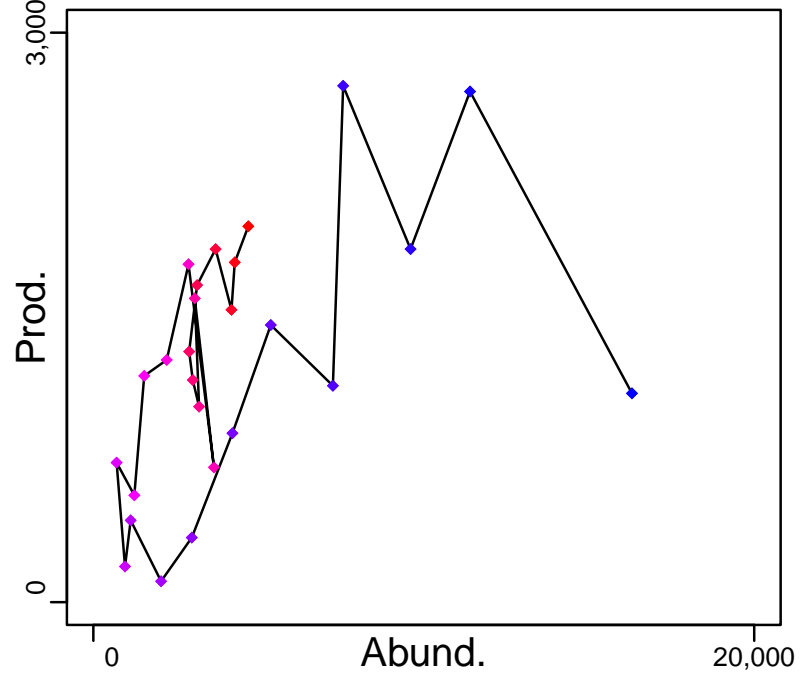
Kobe MGTpref (1987–2013–JPNIMP2016)



Spawner Recruit (1987–2013–JPNIMP2016)



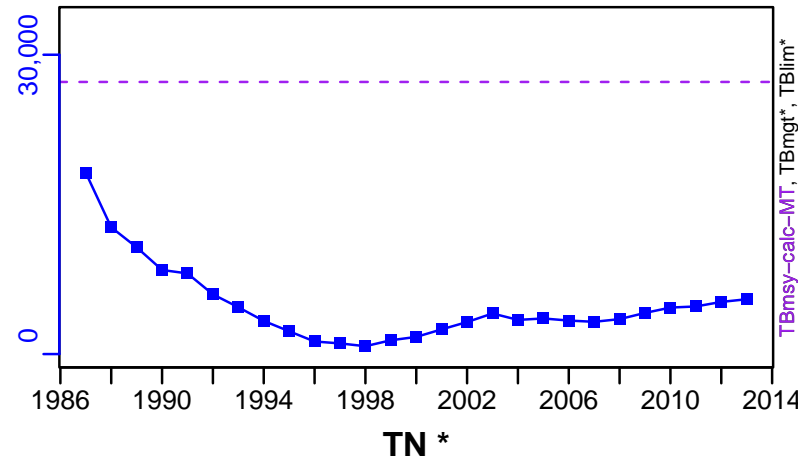
Production (1987–2013–JPNIMP2016)



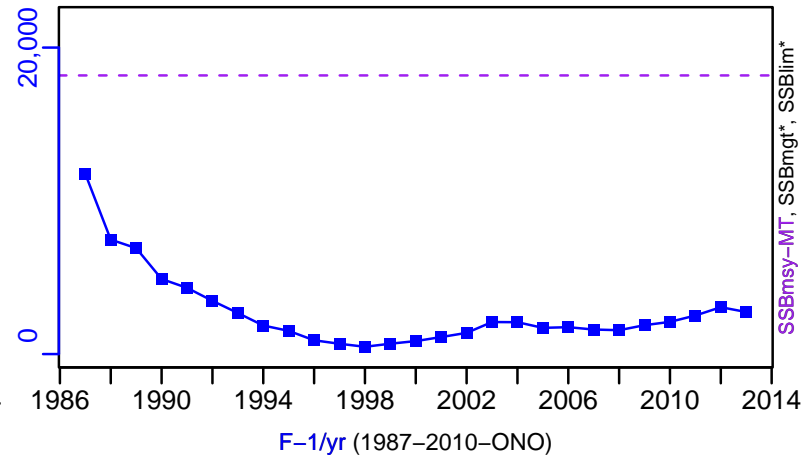
◆ Start Year ◆ End Year * No Data

Japanese Spanish mackerel Inland Sea of Japan [SPANMACKSETO]

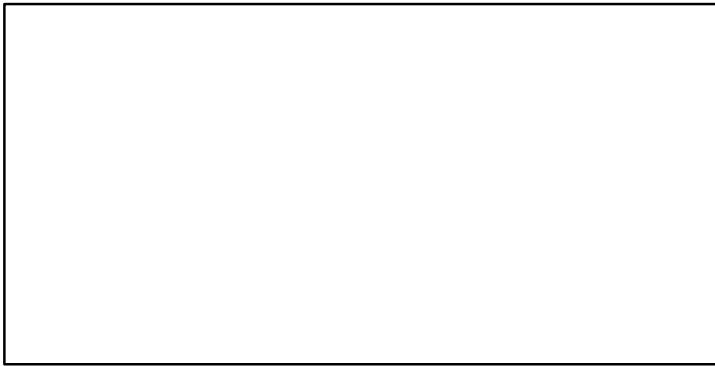
TB-MT (1987–2013–JPNIMP2016)



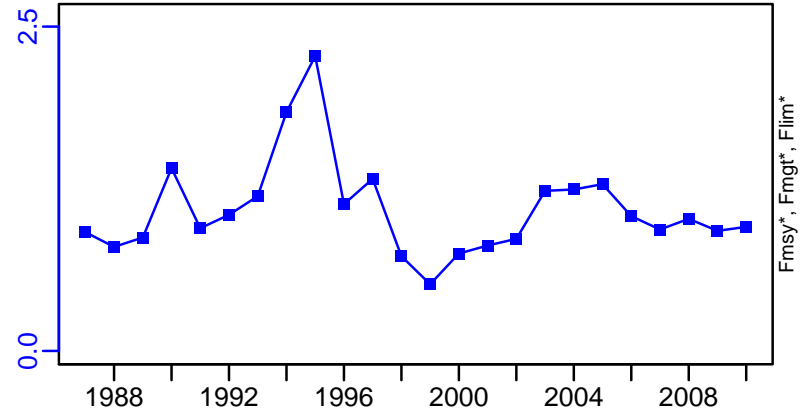
SSB-MT (1987–2013–JPNIMP2016)



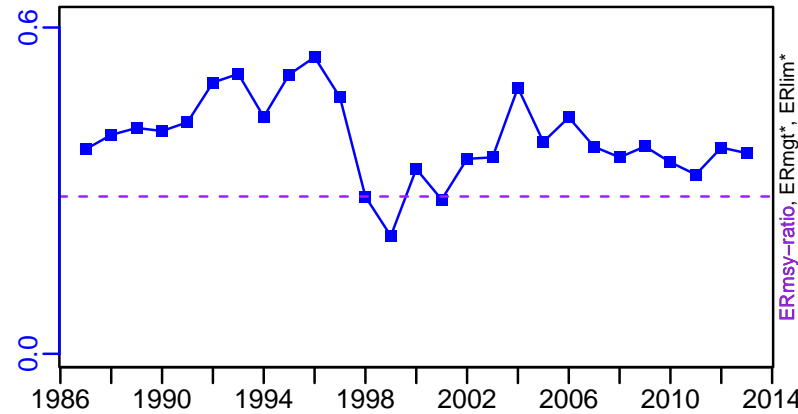
TN *



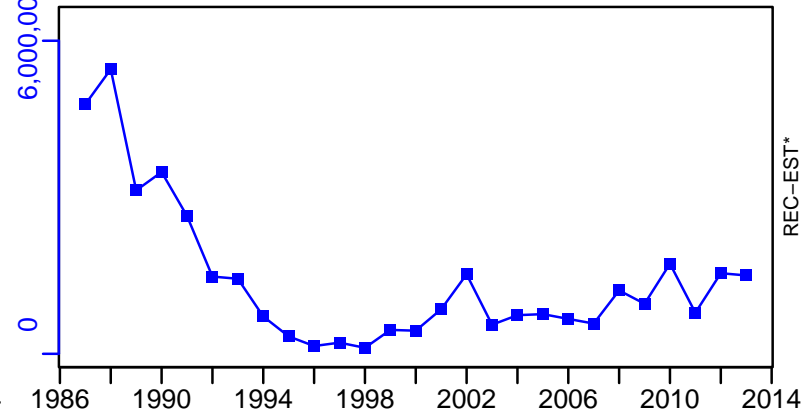
F-1/yr (1987–2010–ONO)



ER-calc-ratio (1987–2013–JPNIMP2016)

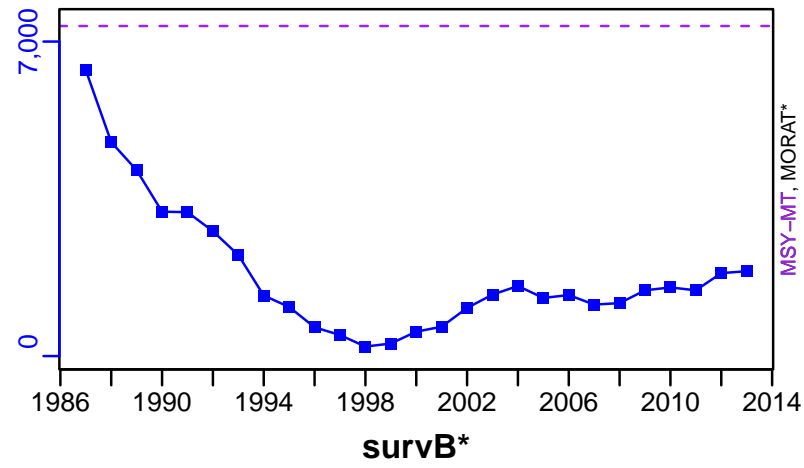


R-E00 (1987–2013–JPNIMP2016)



Japanese Spanish mackerel Inland Sea of Japan [SPANMACKSETO]

TC-MT, TL*, RecC* (1987-2013-JPNIMP2016)



TAC*, Cpair*, Cadv*



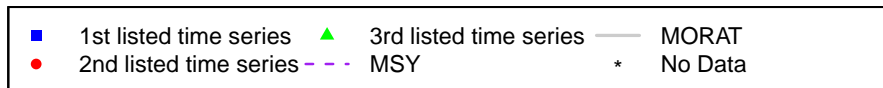
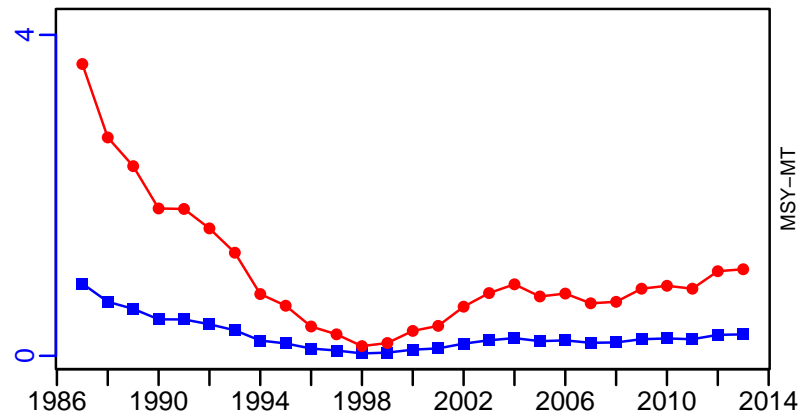
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1987-2013-JPNIMP2016)



Trevally New Zealand Areas TRE 7 [TREVALLYTRE7]

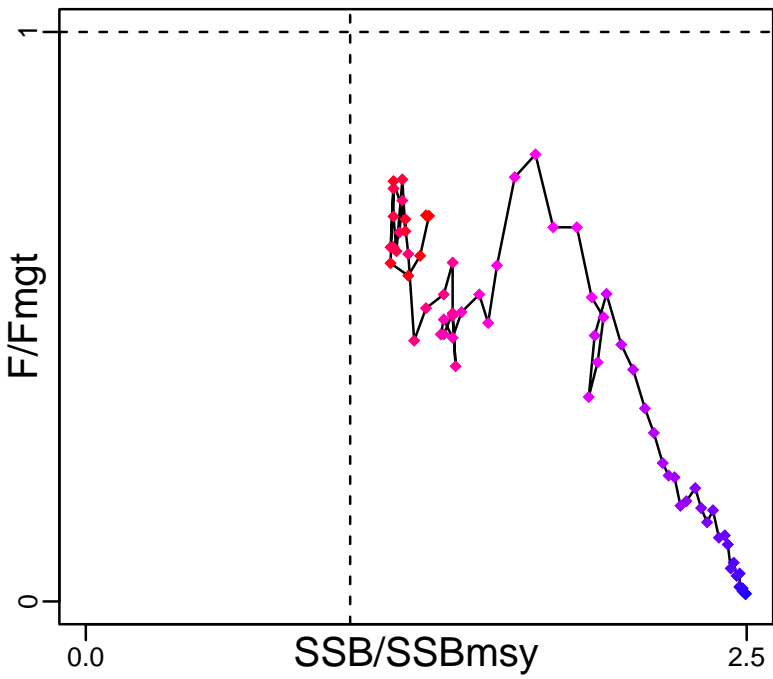
Metadata	
Scientific Name	Pseudocaranx dentex
Current Assess ID	NZMFishINSHOREWG-TREVALLYTRE7-1944-2014-LANGLEY
Area	New Zealand Areas TRE 7
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Inshore Working Group
Asmts in RAM	2005, 2014

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2005	26,990
SSBmsy	SSBmsy-MT	2014	8936
Fmsy	Fmsy-1/yr	2005	0.113
ERmsy	ERmsy-ratio	2005	0.08
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2014	8936
Fmgt	Fmgt-1/yr	2014	0.088
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2014	22,339
MSY	MSY-MT	2014	1818
M	M-1/yr	2014	0.1
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

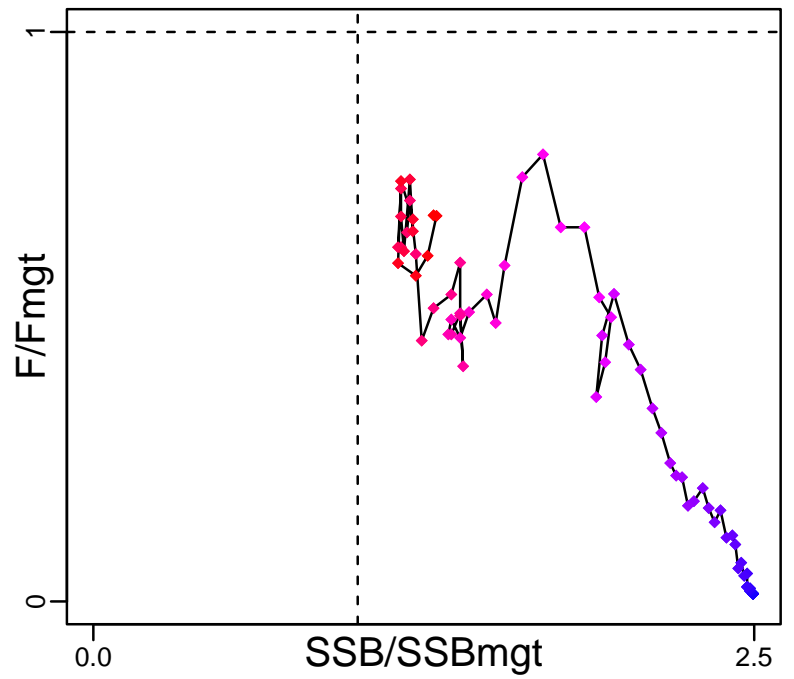
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2005	28,200	-	1
SSB	SSB-MT	2014	11,500	Females	4 to 40+
TN	-	-	-	-	-
R	R-E00	2014	3,530,000	Both	0
F	F-1/yr	2005	0.094	-	-
ER	ER-ratio	2005	0.087	-	-
TC	TC-MT	2014	1530		
TL	TL-MT	2014	1440		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2005	1.045		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2014	1.287		
F/Fmsy	F-1/yr/Fmsy-1/yr	2005	0.83		
ER/ERmsy	ER-ratio/ERmsy-ratio	2005	1.082		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2014	1.287		
F/Fmgt	FdivFmgt-dimensionless	2014	0.678		
ER/ERmgt	-	-	-		

Trevally New Zealand Areas TRE 7 [TREVALLYTRE7]

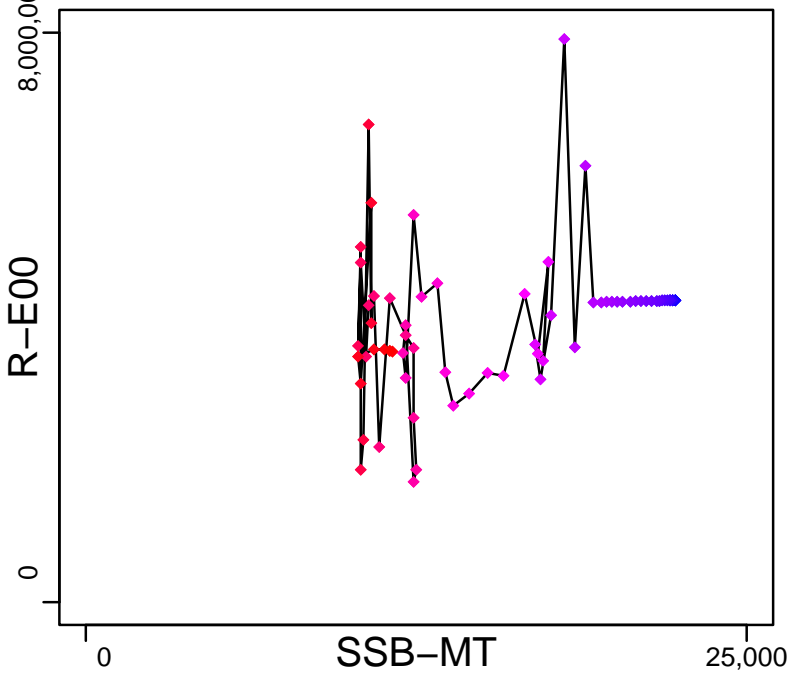
Kobe MSYpref (1944–2014–LANGLEY)



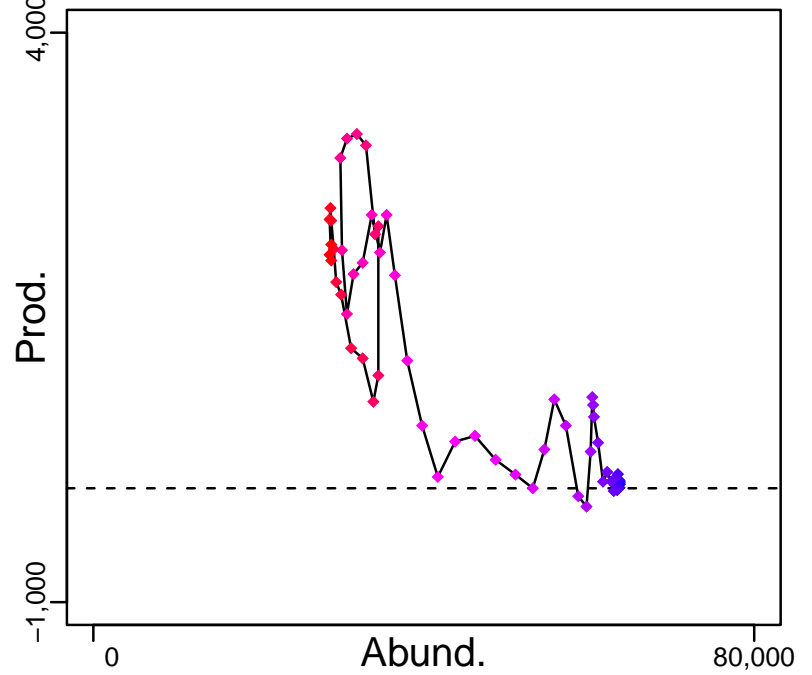
Kobe MGTpref (1944–2014–LANGLEY)



Spawner Recruit (1944–2014–LANGLEY)



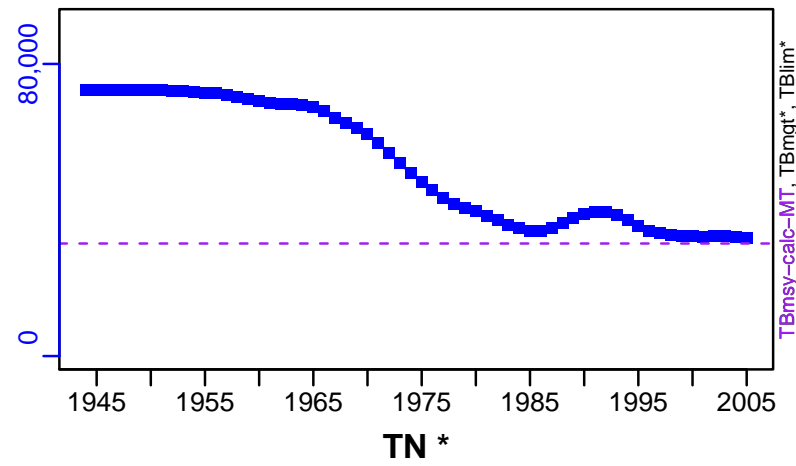
Production (1944–2005–JENSEN)



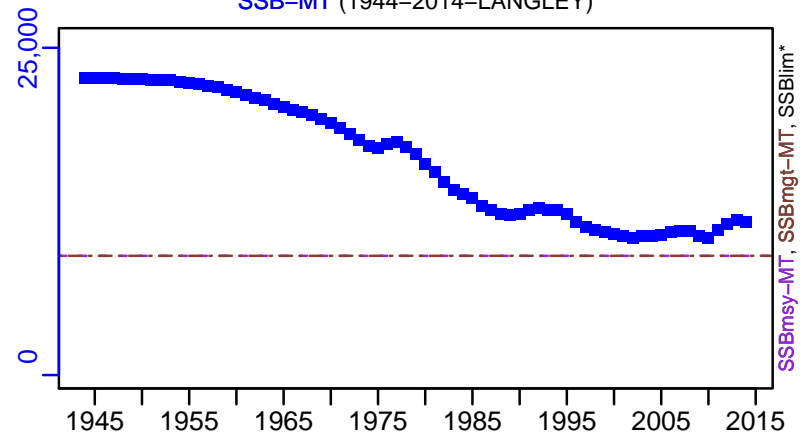
◆ Start Year ◆ End Year * No Data

Trevally New Zealand Areas TRE 7 [TREVALLYTRE7]

TB-MT (1944-2005-JENSEN)



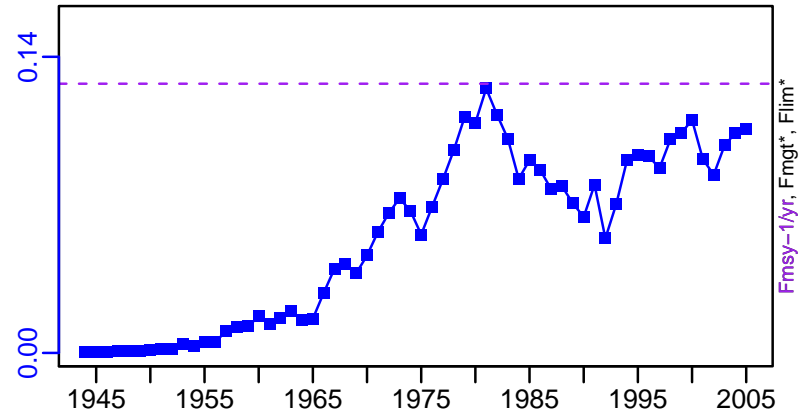
SSB-MT (1944-2014-LANGLEY)



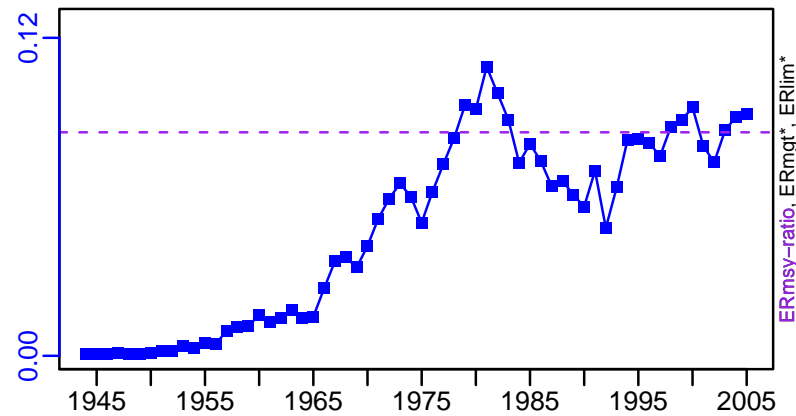
TN *



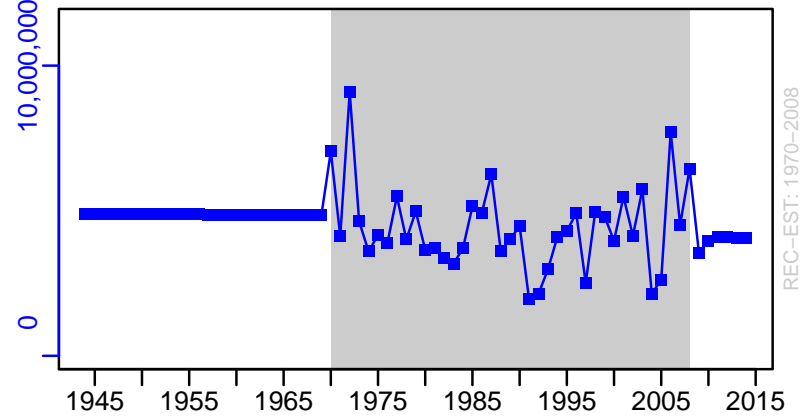
F-1/yr (1944-2005-JENSEN)



ER-ratio (1944-2005-JENSEN)

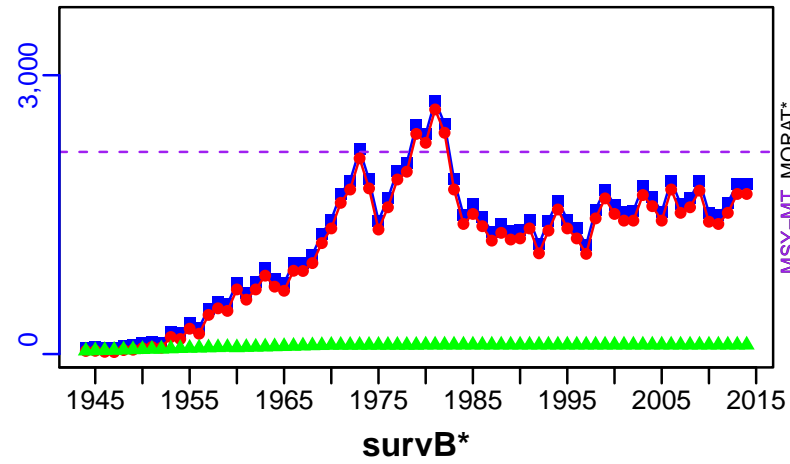


R-E00 (1944-2014-LANGLEY)

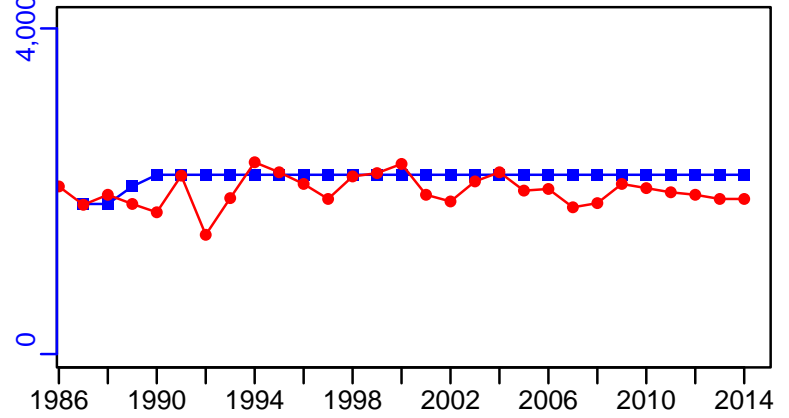


Trevally New Zealand Areas TRE 7 [TREVALLYTRE7]

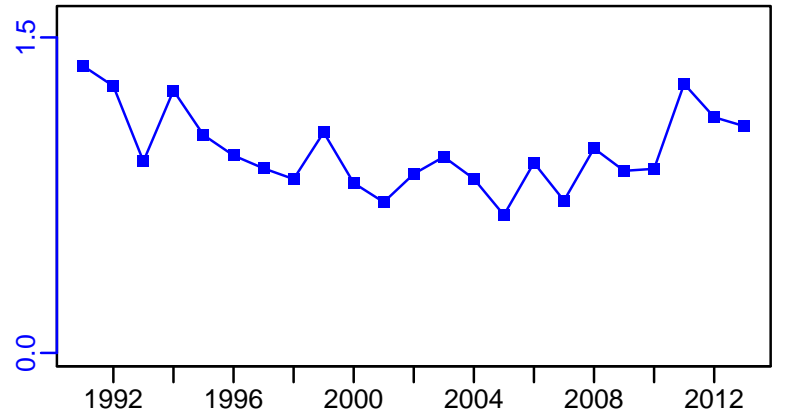
TC-MT, TL-MT, RecC-MT (1944-2014-LANGLEY)



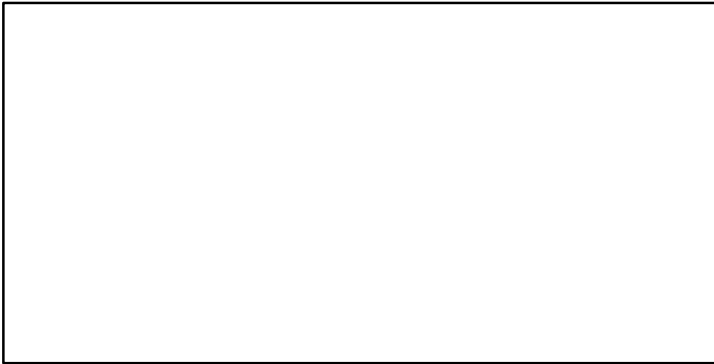
TAC-MT, Cpair-MT, Cadv* (1944-2014-LANGLEY)



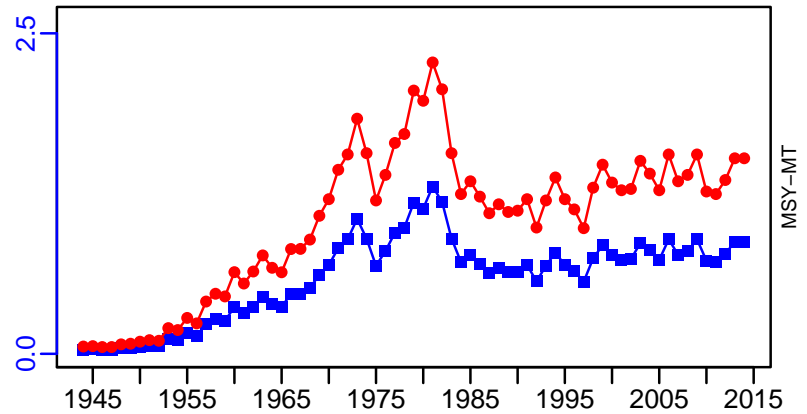
CPUE-MT (1944-2014-LANGLEY)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1944-2014-LANGLEY)



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