

tuna-billfish Stocks

v4.66 (Nov-03-2024)

Not present Present Preferred

Stock	B/Bmsy	Time Series Types			
		U/Umsy	B/Bmgt	U/Umgt	
1. ALBAIO [Albacore tuna Indian Ocean]	TB SSB	ER F	TB SSB	ER F	
2. ALBAMED [Albacore tuna Mediterranean Sea]	TB SSB	ER F	TB SSB	ER F	
3. ALBANATL [Albacore tuna Northern Atlantic]	TB SSB	ER F	TB SSB	ER F	
4. ALBANPAC [Albacore tuna North Pacific Ocean]	TB SSB	ER F	TB SSB	ER F	
5. ALBASATL [Albacore tuna South Atlantic]	TB SSB	ER F	TB SSB	ER F	
6. ALBASPAC [Albacore tuna South Pacific Ocean]	TB SSB	ER F	TB SSB	ER F	
7. ATBTUNAEATL [Atlantic bluefin tuna Eastern Atlantic]	TB SSB	ER F	TB SSB	ER F	
8. ATBTUNAWATL [Atlantic bluefin tuna Western Atlantic]	TB SSB	ER F	TB SSB	ER F	
9. BIGEYEATL [Bigeye tuna Atlantic Ocean]	TB SSB	ER F	TB SSB	ER F	
10. BIGEYECWPAC [Bigeye tuna Central Western Pacific Ocean]	TB SSB	ER F	TB SSB	ER F	
11. BIGEYEOPAC [Bigeye tuna Eastern Pacific]	TB SSB	ER F	TB SSB	ER F	
12. BIGEYEIO [Bigeye tuna Indian Ocean]	TB SSB	ER F	TB SSB	ER F	
13. BLKMARLINIO [Black marlin Indian Ocean]	TB SSB	ER F	TB SSB	ER F	
14. BMARLINATL [Blue marlin Atlantic Ocean]	TB SSB	ER F	TB SSB	ER F	
15. BMARLINIO [Indo Pacific blue marlin Indian Ocean]	TB SSB	ER F	TB SSB	ER F	
16. BMARLINPAC [Blue marlin Pacific Ocean]	TB SSB	ER F	TB SSB	ER F	
17. IPSAILIO [Indo-Pacific sailfish Indian Ocean]	TB SSB	ER F	TB SSB	ER F	
18. PACBTUNA [Pacific bluefin tuna Pacific Ocean]	TB SSB	ER F	TB SSB	ER F	
19. SAILEATL [Sailfish Eastern Atlantic]	TB SSB	ER F	TB SSB	ER F	
20. SAILWATL [Sailfish Western Atlantic]	TB SSB	ER F	TB SSB	ER F	
21. SBT [Southern bluefin tuna Southern Oceans]	TB SSB	ER F	TB SSB	ER F	
22. SKJCIO [Skipjack tuna Indian Ocean]	TB SSB	ER F	TB SSB	ER F	
23. SKJCWPAC [Skipjack tuna Central Western Pacific Ocean]	TB SSB	ER F	TB SSB	ER F	
24. SKJEATL [Skipjack tuna Eastern Atlantic]	TB SSB	ER F	TB SSB	ER F	
25. SKJEPAC [Skipjack tuna Eastern Pacific]	TB SSB	ER F	TB SSB	ER F	
26. SKJWATL [Skipjack tuna Western Atlantic]	TB SSB	ER F	TB SSB	ER F	
27. STMARLINIO [Striped marlin Indian Ocean]	TB SSB	ER F	TB SSB	ER F	
28. STMARLINNEPAC [Striped marlin Northeast Pacific]	TB SSB	ER F	TB SSB	ER F	
29. STMARLINSWPO [Striped marlin Western Pacific Ocean]	TB SSB	ER F	TB SSB	ER F	
30. STMARLINWCNPAC [Striped marlin Western and Central North Pacific]	TB SSB	ER F	TB SSB	ER F	
31. SWORDEPAC [Swordfish Eastern Pacific]	TB SSB	ER F	TB SSB	ER F	
32. SWORDIO [Swordfish Indian Ocean]	TB SSB	ER F	TB SSB	ER F	
33. SWORDMED [Swordfish Mediterranean Sea]	TB SSB	ER F	TB SSB	ER F	
34. SWORDNATL [Swordfish Northern Atlantic]	TB SSB	ER F	TB SSB	ER F	
35. SWORDNPAC [Swordfish North Pacific Ocean]	TB SSB	ER F	TB SSB	ER F	
36. SWORDSATL [Swordfish South Atlantic]	TB SSB	ER F	TB SSB	ER F	
37. SWORDSPAC [Swordfish South Pacific Ocean]	TB SSB	ER F	TB SSB	ER F	
38. WMARLINATL [White marlin Atlantic Ocean]	TB SSB	ER F	TB SSB	ER F	

39. YFINATL [Yellowfin tuna Atlantic Ocean]	TB SSB	ER F	TB SSB	ER F
40. YFINCWPAC [Yellowfin tuna Central Western Pacific Ocean]	TB SSB	ER F	TB SSB	ER F
41. YFINEIO [Yellowfin tuna Indian Ocean]	TB SSB	ER F	TB SSB	ER F
42. YFINEPAC [Yellowfin tuna Eastern Pacific]	TB SSB	ER F	TB SSB	ER F

Albacore tuna Indian Ocean [ALBAIO]

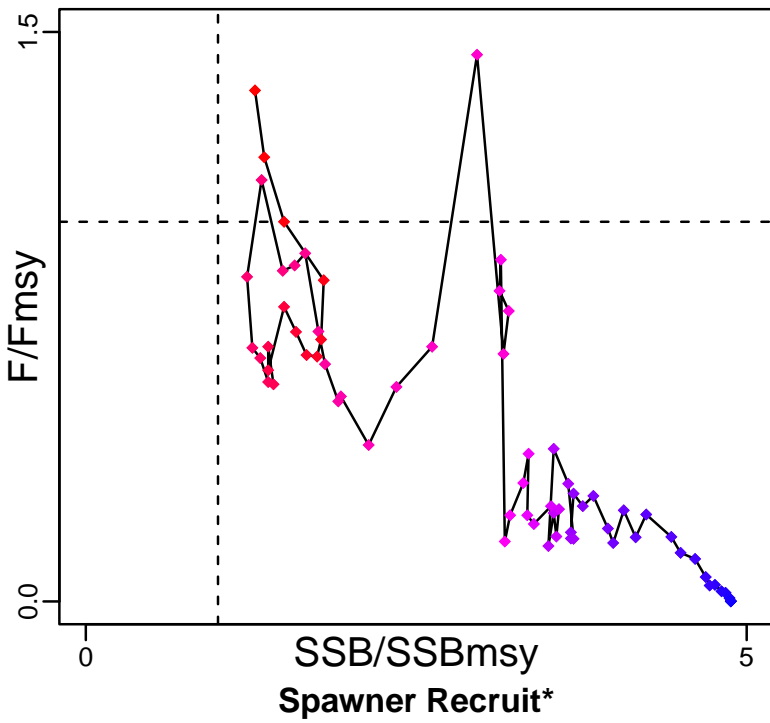
Metadata	
Scientific Name	Thunnus alalunga
Current Assess ID	IOTC-ALBAIO-1950-2020-SMITH
Area	Indian Ocean
Management Authority	Indian Ocean Tuna Commission
Assessor	Indian Ocean Tuna Commission
Asmts in RAM	2014, 2016, 2020

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-extr-MT	2020	110,491
Fmsy	Fmsy-1/yr	2014	0.06
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2014	187,325
MSY	MSY-MT	2020	93,933
M	M-1/yr	2014	0.3
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

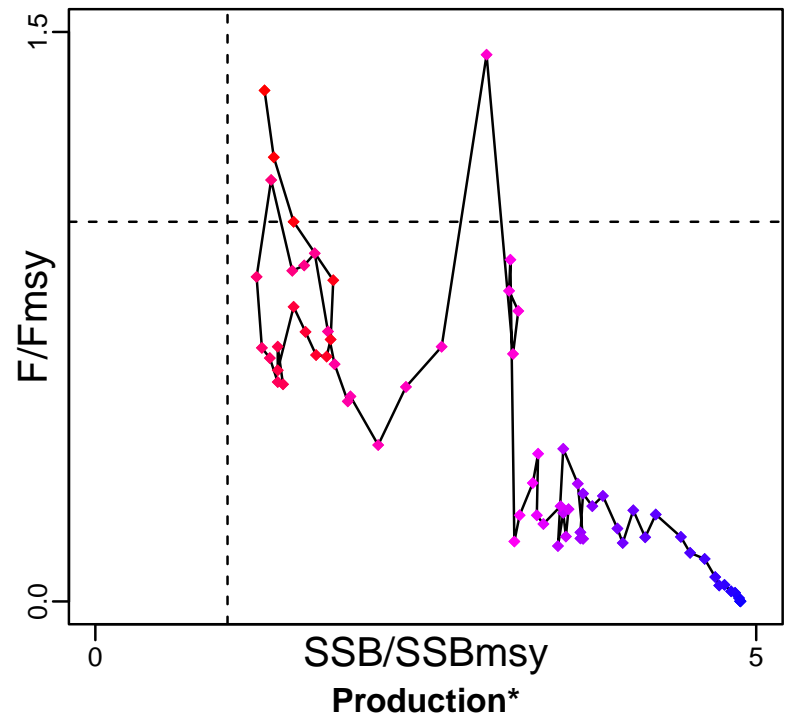
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2020	203,400	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2020	38,082		
TL	TL-MT	2016	36,000		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2020	1.28		
F/Fmsy	FdivFmsy-dimensionless	2020	1.346		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Albacore tuna Indian Ocean [ALBAIO]

Kobe MSY_{pref} (1950–2020–SMITH)



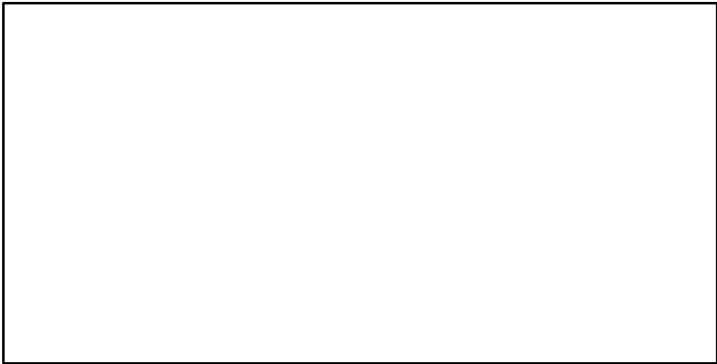
Kobe MGT_{pref} (1950–2020–SMITH)



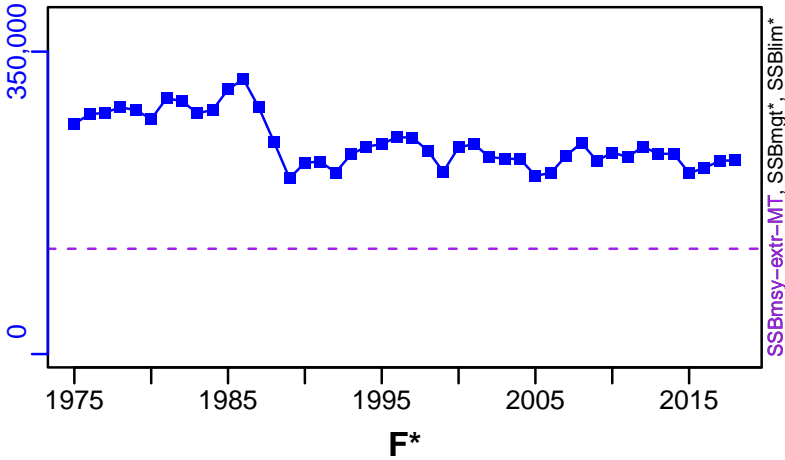
◆ Start Year ◆ End Year * No Data

Albacore tuna Indian Ocean [ALBAIO]

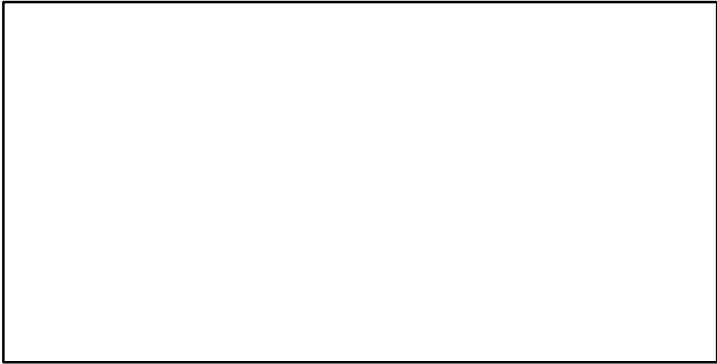
TB*



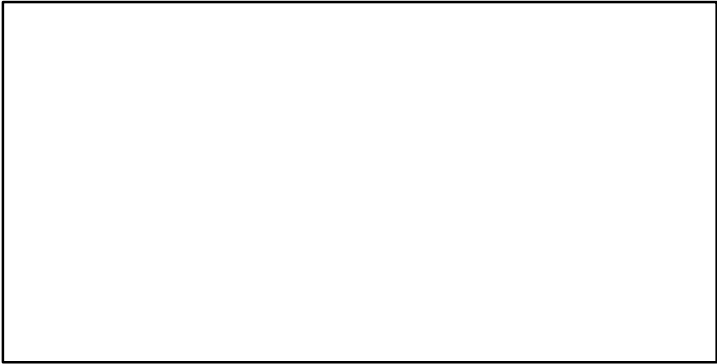
SSB-MT (1950-2020-SMITH)



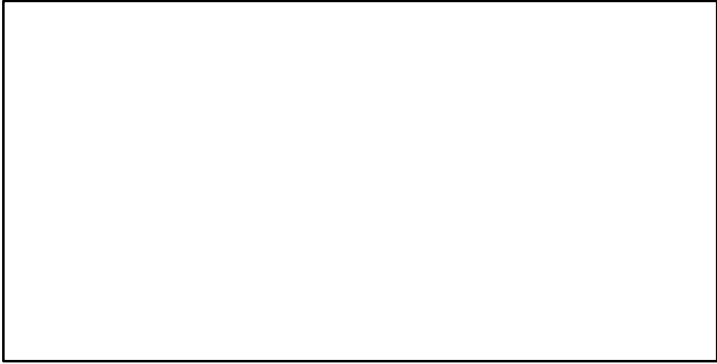
TN *



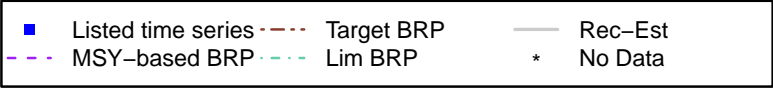
F*



ER*

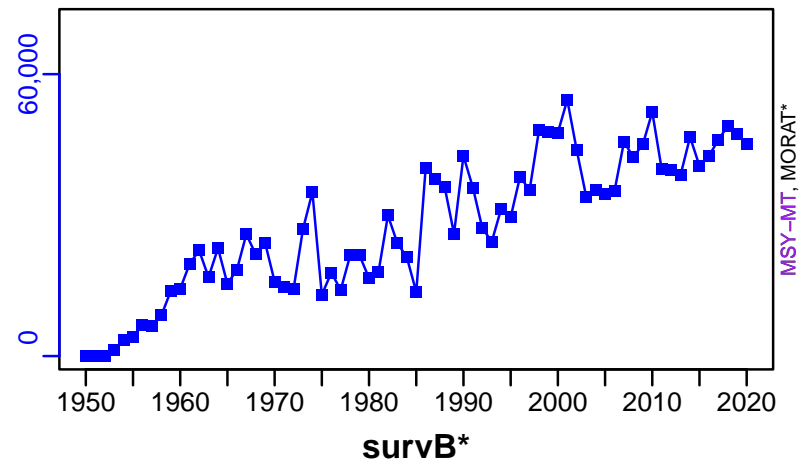


Recruits*



Albacore tuna Indian Ocean [ALBAIO]

TC-MT, TL*, RecC* (1950–2020–SMITH)



TAC*, Cpair*, Cadv*



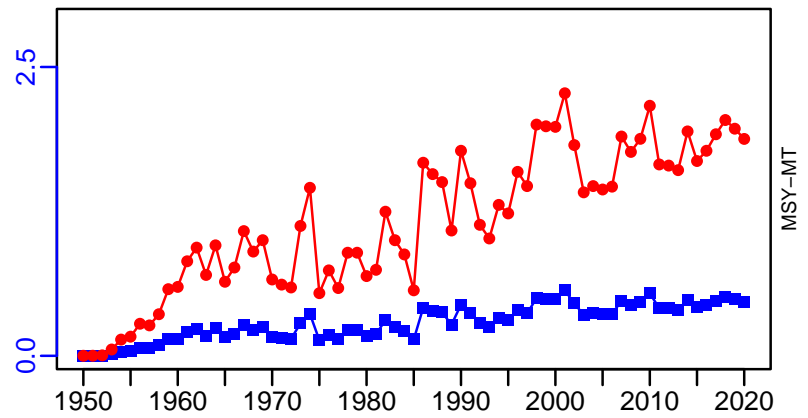
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1950–2020–SMITH)



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

Albacore tuna Mediterranean Sea [ALBAMED]

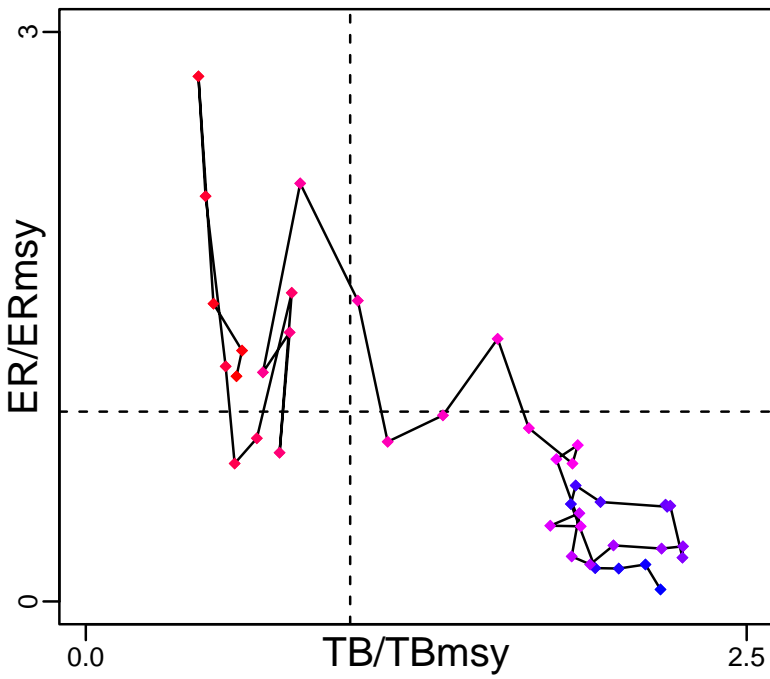
Metadata	
Scientific Name	Thunnus alalunga
Current Assess ID	ICCAT-ALBAMED-1950-2020-LAWSON
Area	Mediterranean Sea
Management Authority	International Commission for the Conservation of Atlantic Tunas
Assessor	International Commission for the Conservation of Atlantic Tunas
Asmts in RAM	2020, 2016, 2011

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2020	19,703
SSBmsy	-	-	-
Fmsy	Fmsy-1/yr	2020	0.184
ERmsy	ERmsy-calc-ratio	2020	0.185
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	TB0-MT	2011	322,000
SSB0	-	-	-
MSY	MSY-MT	2020	3654
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

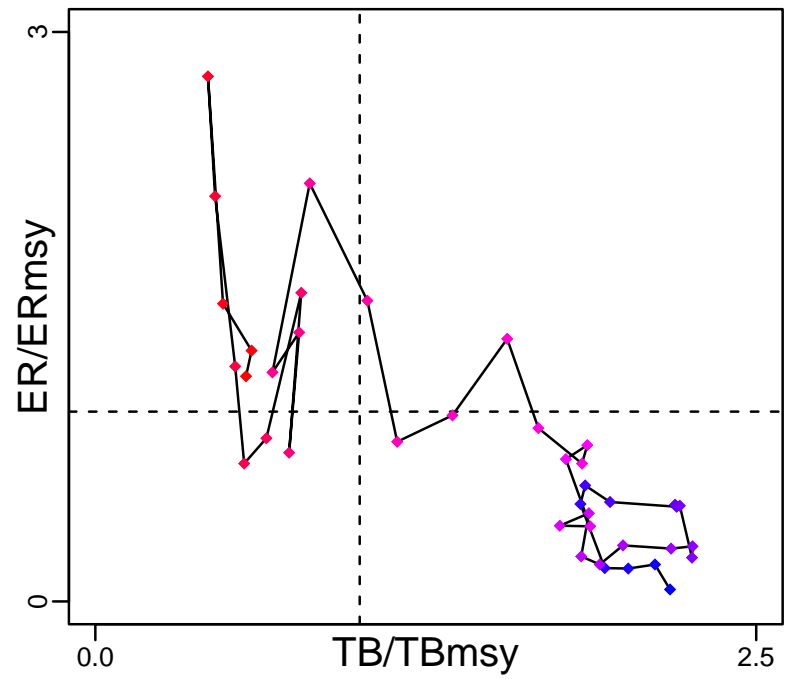
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2020	11,292	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	F-1/yr	2020	0.22	-	-
ER	ER-calc-ratio	2020	0.22	-	-
TC	TC-MT	2011	2120		
TL	TL-MT	2020	2675		
TB/TBmsy	TBdivTBmsy-dimensionless	2020	0.57		
SSB/SSBmsy	-	-	-		
F/Fmsy	FdivFmsy-dimensionless	2020	1.213		
ER/ERmsy	ER-calc-ratio/ERmsy-calc-ratio	2020	1.186		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Albacore tuna Mediterranean Sea [ALBAMED]

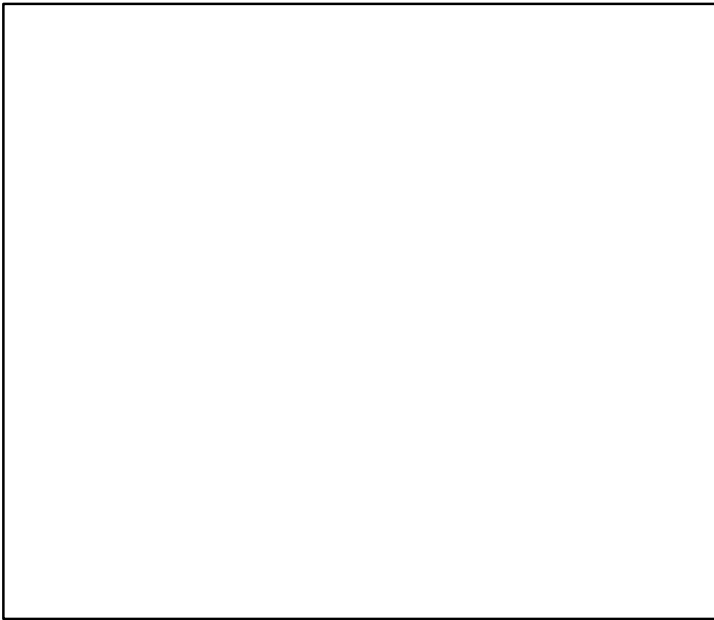
Kobe MSYpref (1950–2020–LAWSON)



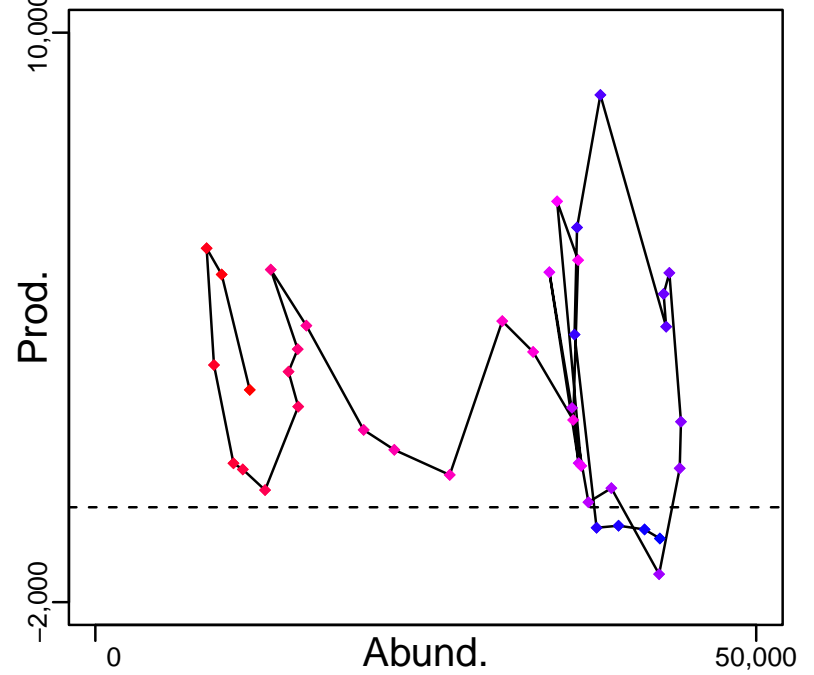
Kobe MGTpref (1950–2020–LAWSON)



Spawner Recruit*



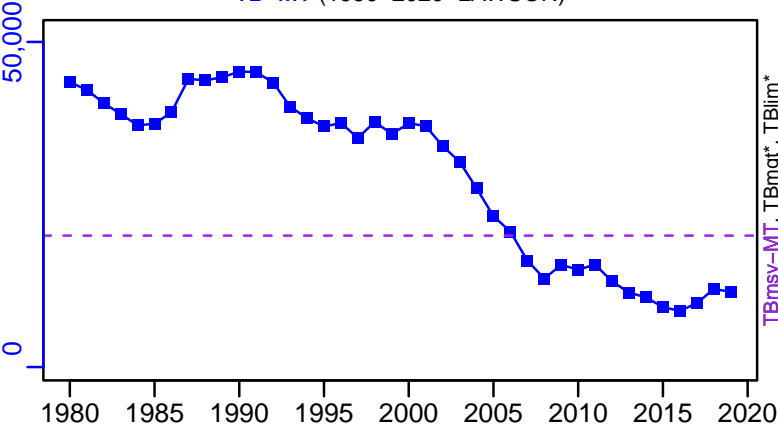
Production (1950–2020–LAWSON)



◆ Start Year ◆ End Year * No Data

Albacore tuna Mediterranean Sea [ALBAMED]

TB-MT (1950-2020-LAWSON)



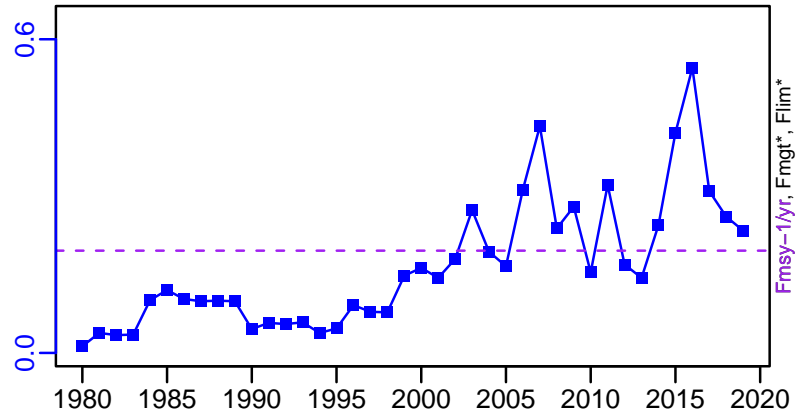
SSB*



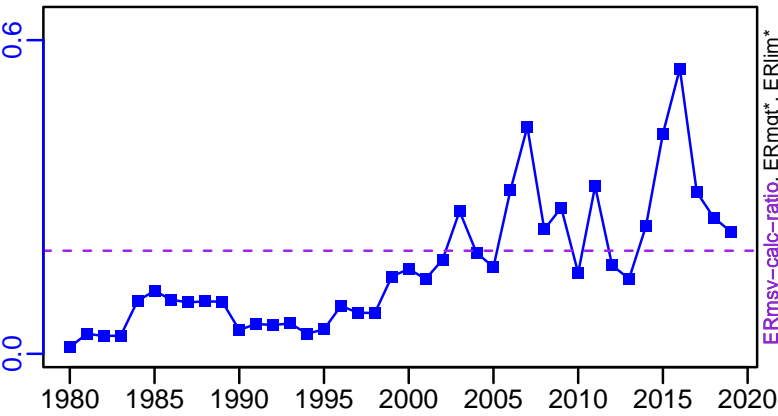
TN *



F-1/yr (1950-2020-LAWSON)



ER-calc-ratio (1950-2020-LAWSON)

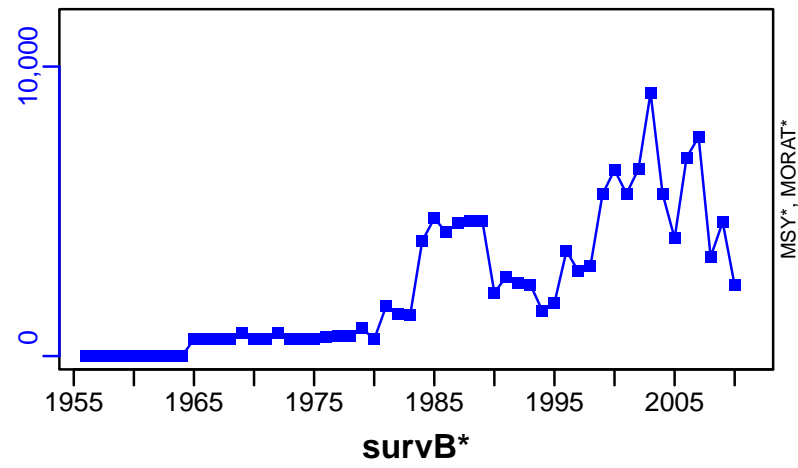


Recruits*



Albacore tuna Mediterranean Sea [ALBAMED]

TC-MT, TL*, RecC* (1956–2011–CHING)



TAC*, Cpair*, Cadv*



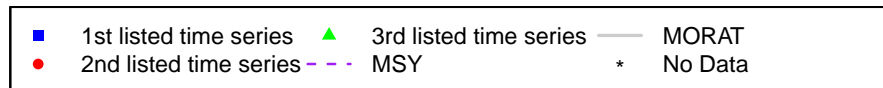
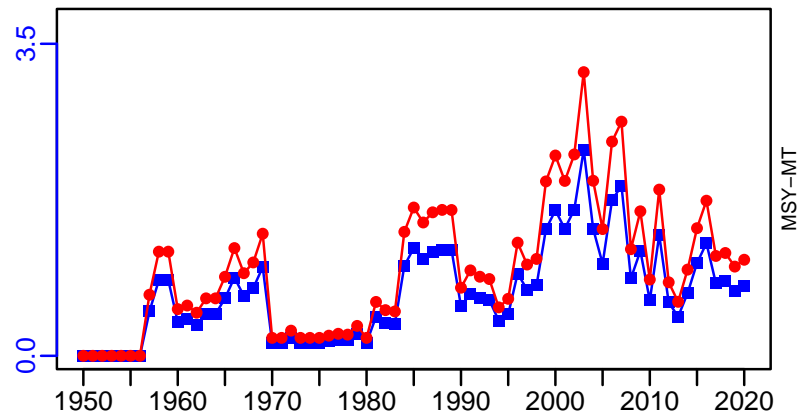
CPUE*



EFFORT*



TL-MT/MSY-MT, CdivMEANC-ratio, (1950–2020–LAWSON)



Albacore tuna Northern Atlantic [ALBANATL]

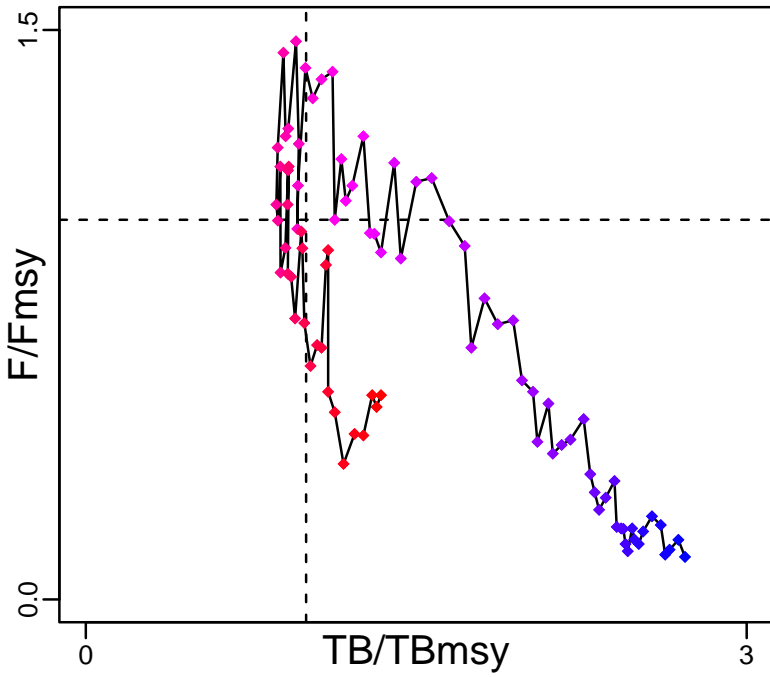
Metadata	
Scientific Name	Thunnus alalunga
Current Assess ID	ICCAT-ALBANATL-1930-2016-PONS
Area	Northern Atlantic
Management Authority	International Commission for the Conservation of Atlantic Tunas
Assessor	International Commission for the Conservation of Atlantic Tunas
Asmts in RAM	2011, 2015, 2016

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-extr-MT	2016	416,187
SSBmsy	-	-	-
Fmsy	Fmsy-extr-1/yr	2016	0.087
ERmsy	ERmsy-calc-ratio	2015	0.084
TBmgt	TBmgt-MT	2015	435,300
SSBmgt	-	-	-
Fmgt	Fmgt-1/yr	2015	0.084
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2015	36,650
M	M-1/yr	2015	0.3
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

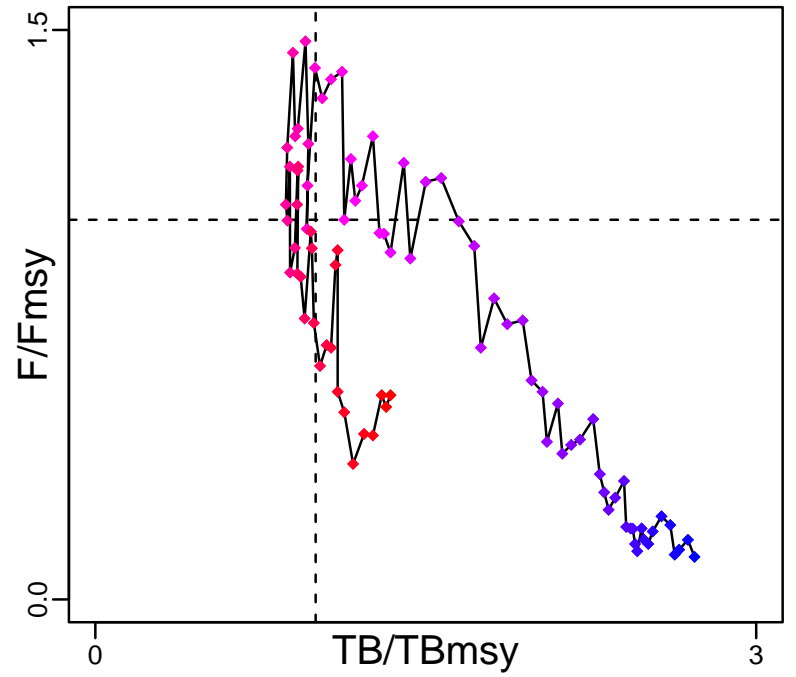
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2016	569,000	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	F-1/yr	2016	0.045	-	-
ER	ER-calc-ratio	2016	0.045	-	-
TC	TC-MT	2015	24,700		
TL	TL-MT	2016	30,100		
TB/TBmsy	TBdivTBmsy-dimensionless	2016	1.34		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2015	0.763		
F/Fmsy	FdivFmsy-dimensionless	2016	0.538		
ER/ERmsy	ER-calc-ratio/ERmsy-calc-ratio	2015	0.731		
TB/TBmgt	TB-MT/TBmgt-MT	2015	0.747		
SSB/SSBmgt	-	-	-		
F/Fmgt	F-1/yr/Fmgt-1/yr	2015	0.75		
ER/ERmgt	-	-	-		

Albacore tuna Northern Atlantic [ALBANATL]

Kobe MSYpref (1930–2016–PONS)



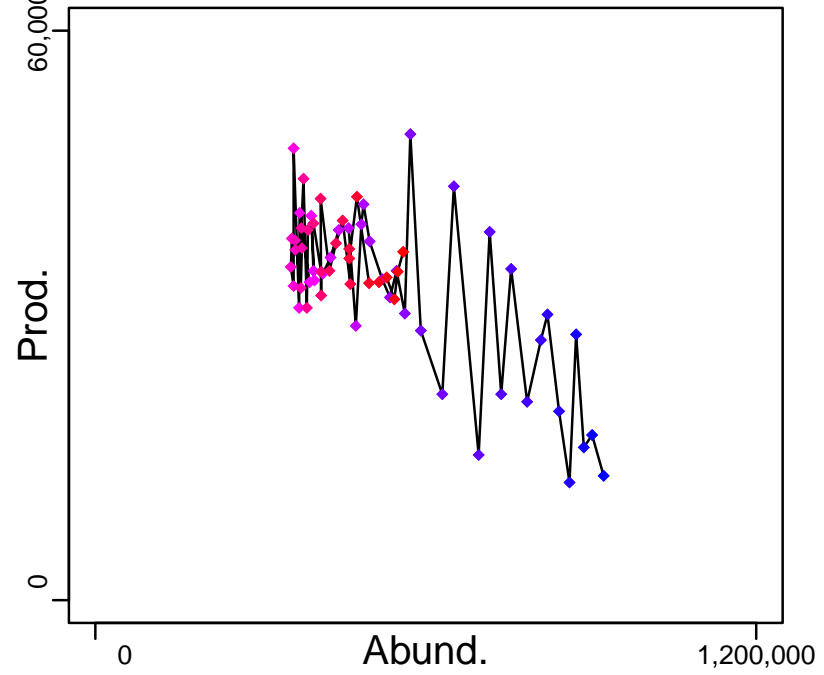
Kobe MGTpref (1930–2016–PONS)



Spawner Recruit*



Production (1930–2016–PONS)

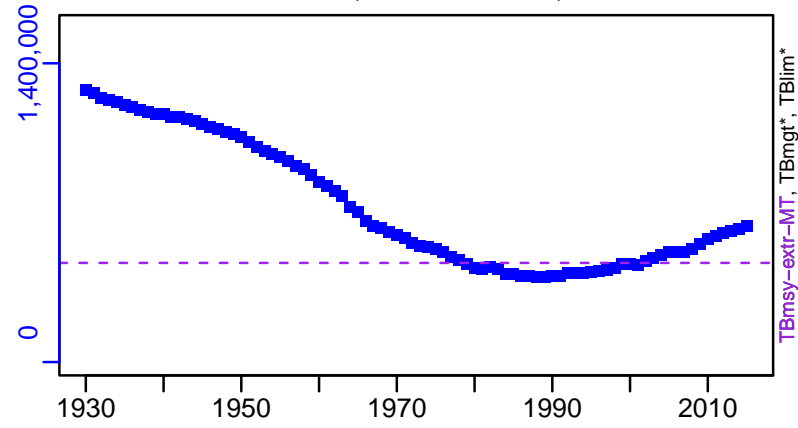


◆ Start Year ◆ End Year * No Data

Albacore tuna Northern Atlantic [ALBANATL]

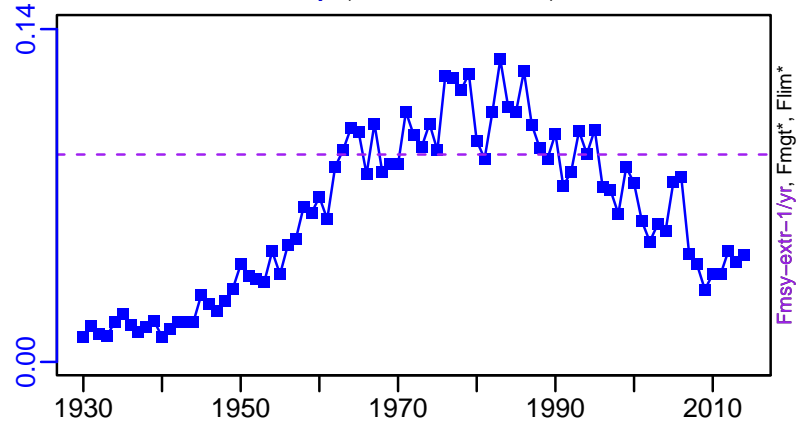
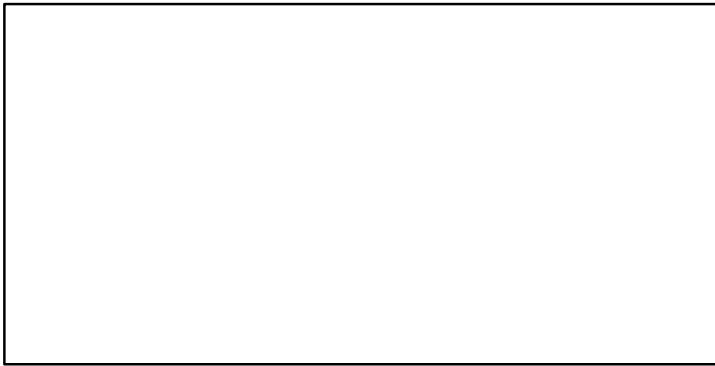
TB-MT (1930–2016–PONS)

SSB*



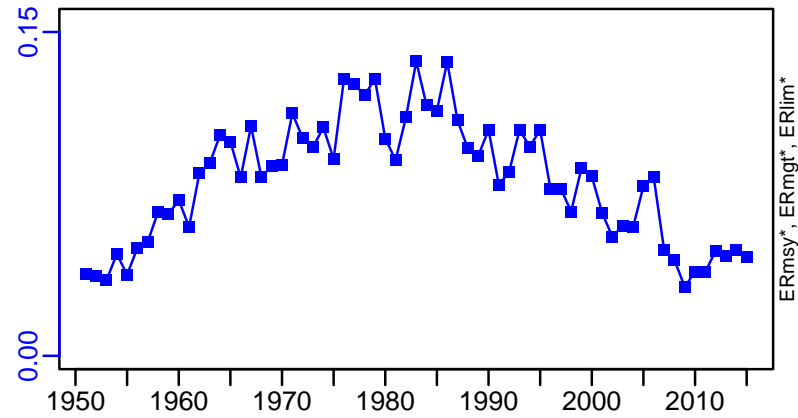
TN *

F-1/yr (1930–2016–PONS)



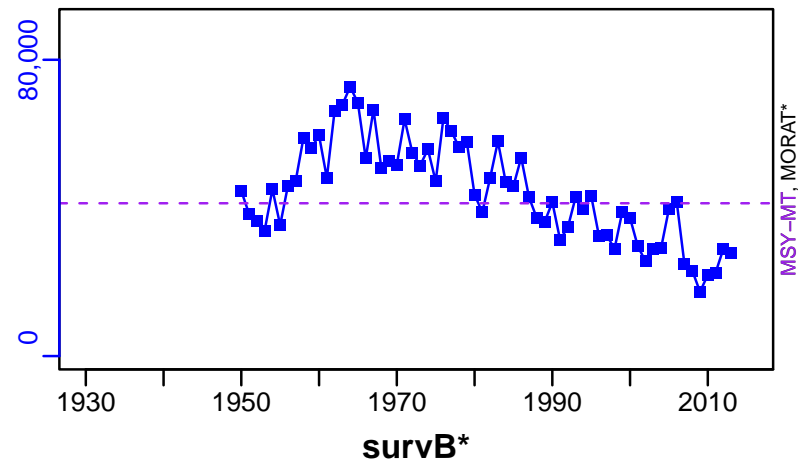
ER-calc-ratio (1930–2016–PONS)

Recruits*

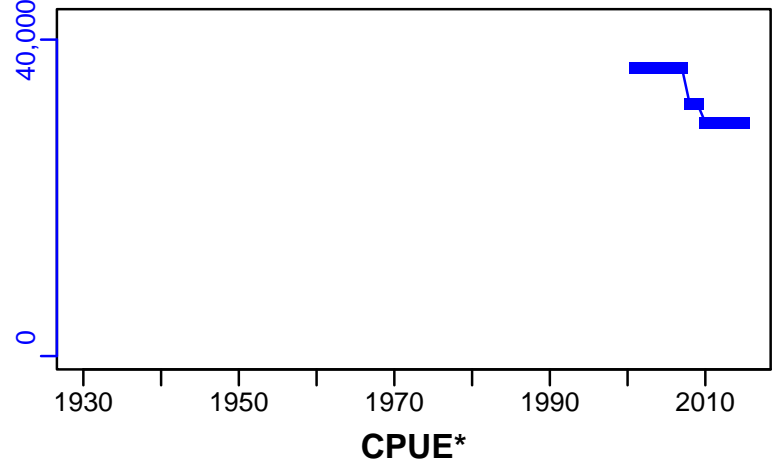


Albacore tuna Northern Atlantic [ALBANATL]

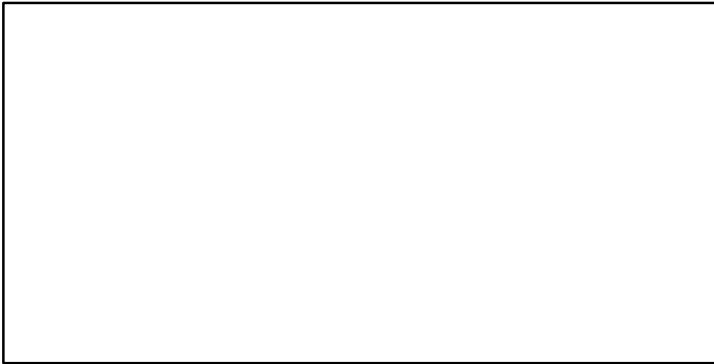
TC-MT, TL*, RecC* (1930-2015-PONS)



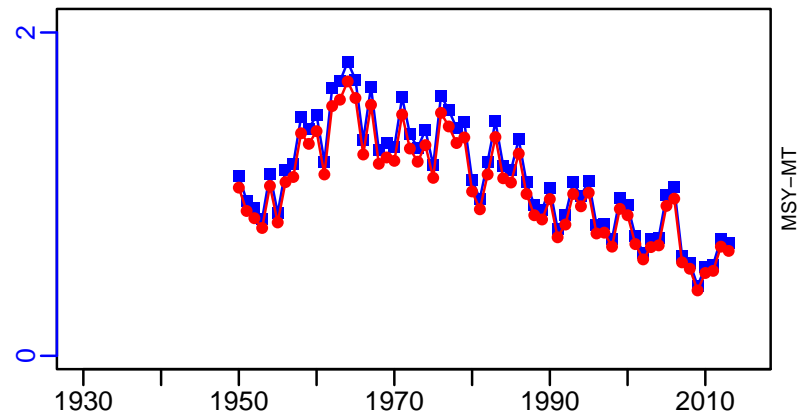
TAC-MT, Cpair*, Cadv* (1930-2015-PONS)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1930-2015-PONS)



Albacore tuna North Pacific Ocean [ALBANPAC]

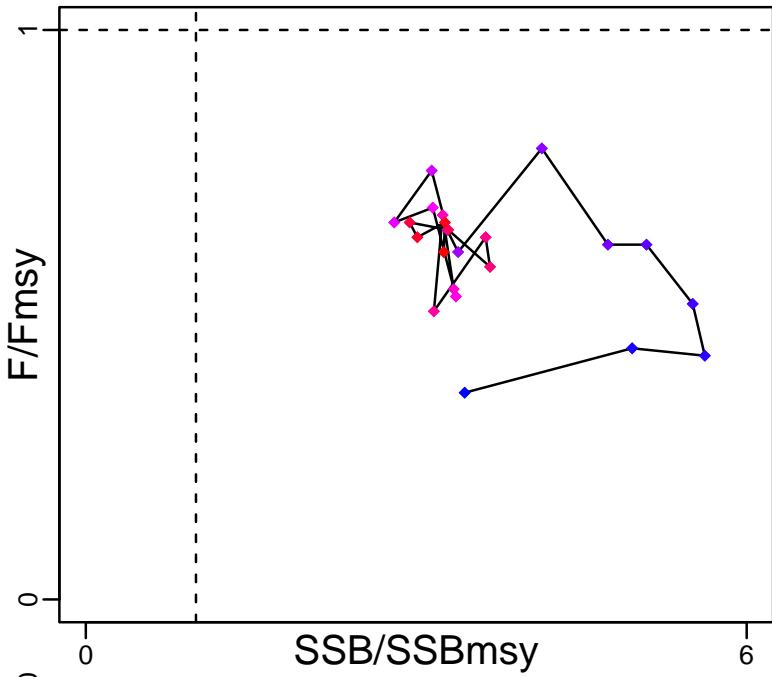
Metadata	
Scientific Name	Thunnus alalunga
Current Assess ID	ISC-ALBANPAC-1936-2020-LAWSON
Area	North Pacific Ocean
Management Authority	International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean
Assessor	International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean
Asmts in RAM	2020, 2012, 2015

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2020	21,431
Fmsy	Fmsy-extr-1/yr	2015	0.771
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2020	152,301
MSY	MSY-MT	2020	113,522
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

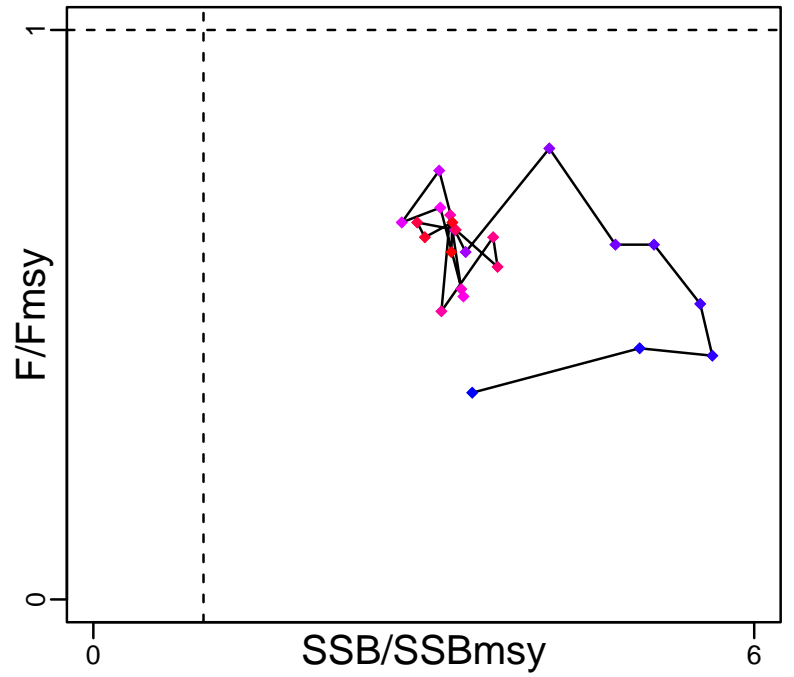
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2020	641,391	-	1+
SSB	SSB-MT	2020	58,858	Females	-
TN	-	-	-	-	-
R	R-E00	2020	173,719,000	-	-
F	F-1/yr	2020	0.47	-	-
ER	ER-calc-ratio	2020	0.078	-	-
TC	TC-MT	2020	36,226		
TL	TL-MT	2015	71,600		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2020	2.746		
F/Fmsy	FdivFmsy-dimensionless	2015	0.61		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Albacore tuna North Pacific Ocean [ALBANPAC]

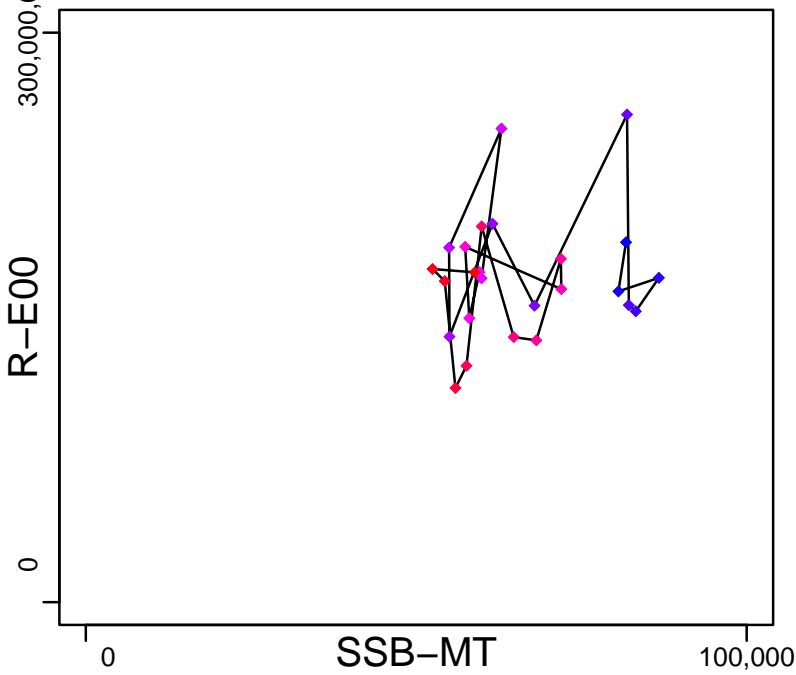
Kobe MSYpref (1952–2015–PONS)



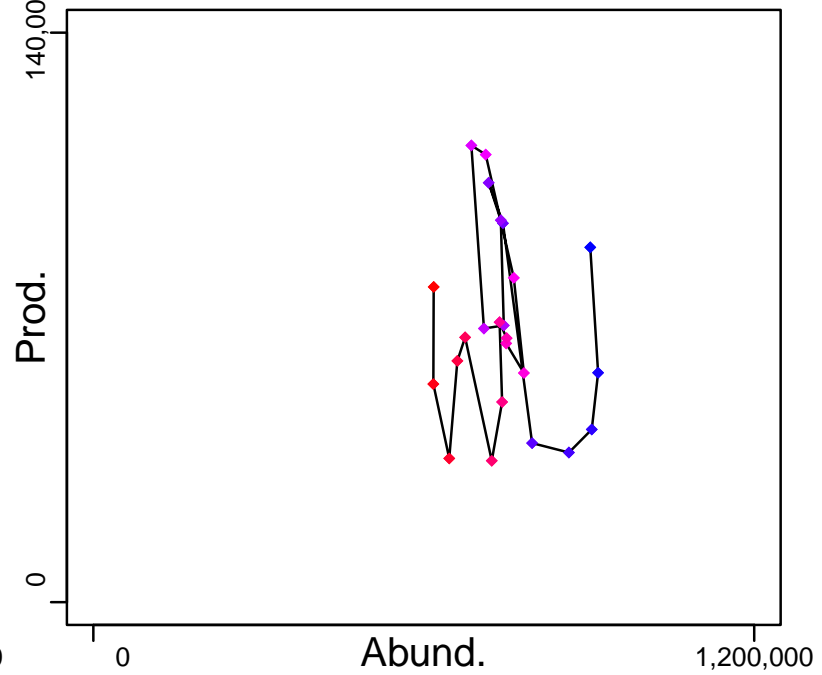
Kobe MGTpref (1952–2015–PONS)



Spawner Recruit (1936–2020–LAWSON)



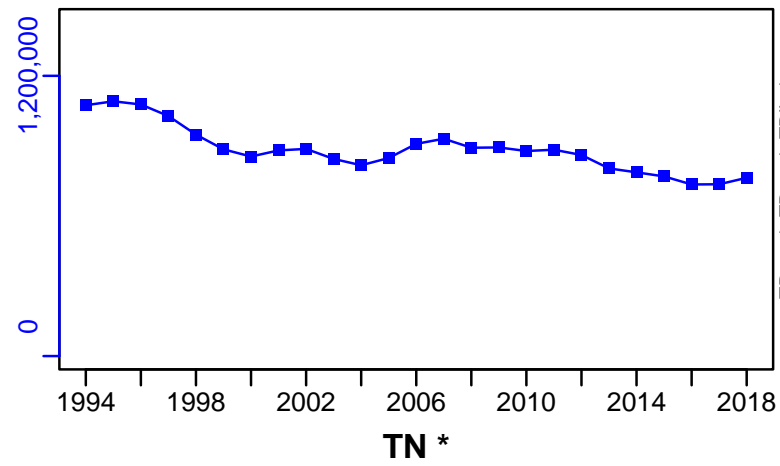
Production (1936–2020–LAWSON)



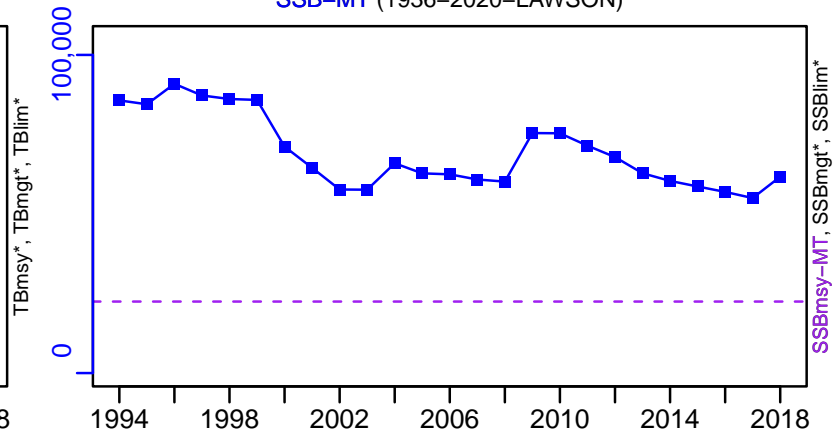
◆ Start Year ◆ End Year * No Data

Albacore tuna North Pacific Ocean [ALBANPAC]

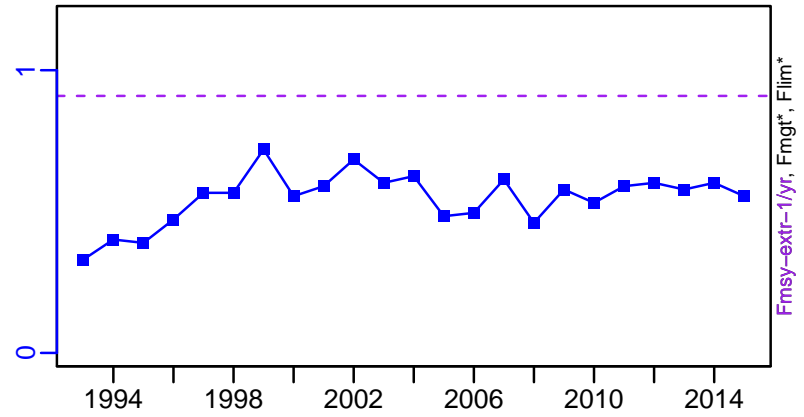
TB-MT (1936-2020-LAWSON)



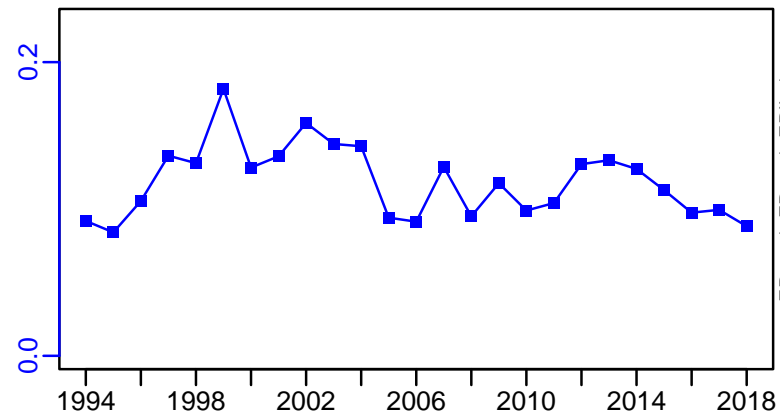
SSB-MT (1936-2020-LAWSON)



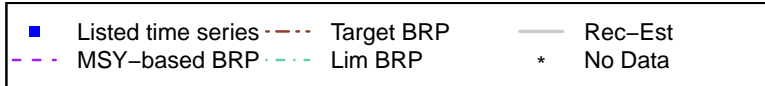
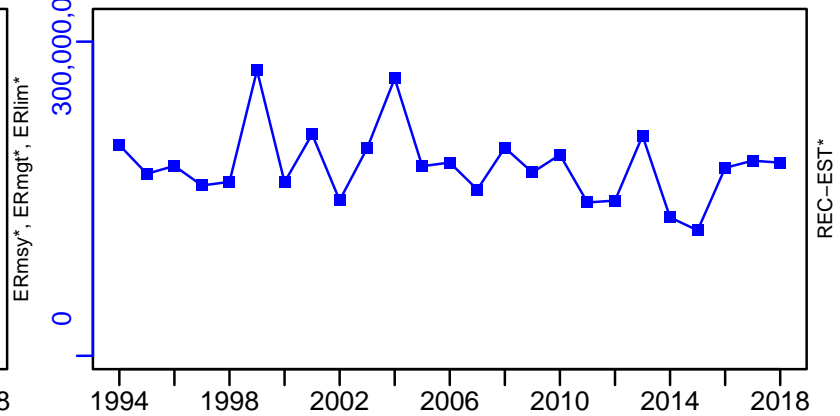
F-1/yr (1952-2015-PONS)



ER-calc-ratio (1936-2020-LAWSON)

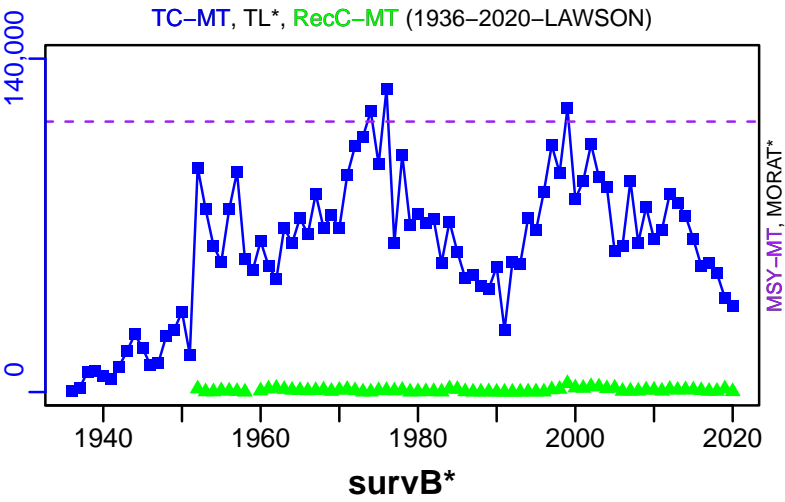


R-E00 (1936-2020-LAWSON)



Albacore tuna North Pacific Ocean [ALBANPAC]

TC-MT, TL*, RecC-MT (1936-2020-LAWSON)



TAC*, Cpair*, Cadv*



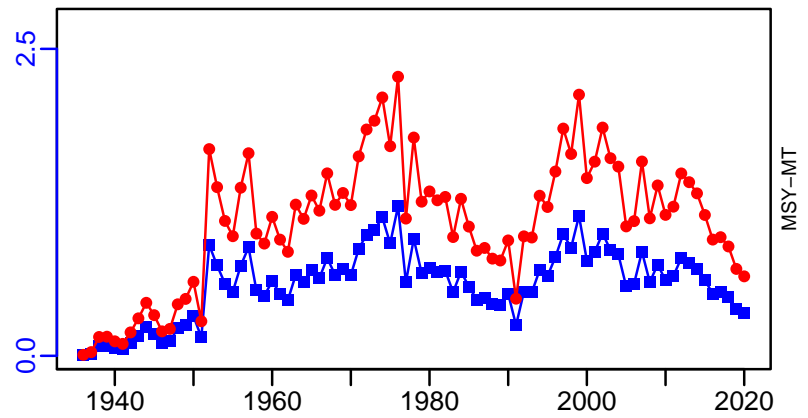
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1936-2020-LAWSON)



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

Albacore tuna South Atlantic [ALBASATL]

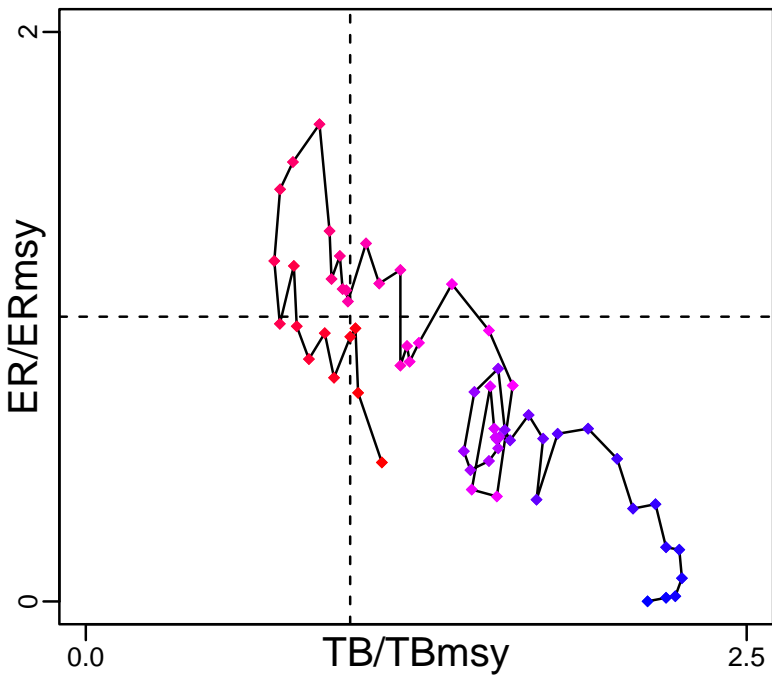
Metadata	
Scientific Name	Thunnus alalunga
Current Assess ID	ICCAT-ALBASATL-1956-2018-PONS
Area	South Atlantic
Management Authority	International Commission for the Conservation of Atlantic Tunas
Assessor	International Commission for the Conservation of Atlantic Tunas
Asmts in RAM	2015, 2016, 2018

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-extr-MT	2018	128,724
SSBmsy	-	-	-
Fmsy	Fmsy-extr-1/yr	2018	0.217
ERmsy	ERmsy-calc-ratio	2018	0.202
TBmgt	TBmgt-MT	2015	184,108
SSBmgt	-	-	-
Fmgt	Fmgt-1/yr	2015	0.17
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2018	26,000
M	M-1/yr	2018	0.3
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

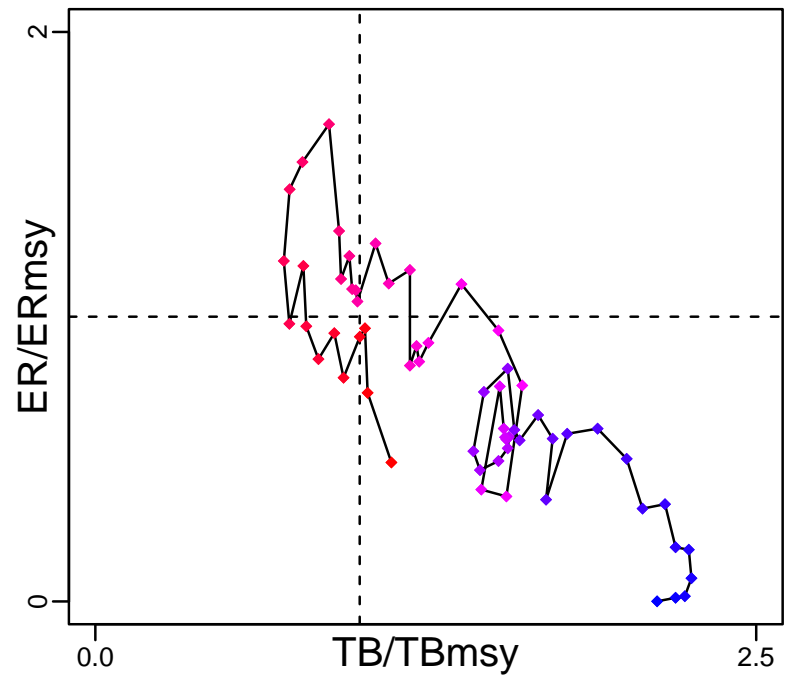
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2018	139,000	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	F-1/yr	2018	0.098	-	-
ER	ER-calc-ratio	2018	0.099	-	-
TC	TC-MT	2015	19,200		
TL	TL-MT	2018	17,098		
TB/TBmsy	TBdivTBmsy-dimensionless	2018	1.12		
SSB/SSBmsy	-	-	-		
F/Fmsy	FdivFmsy-dimensionless	2018	0.44		
ER/ERmsy	ER-calc-ratio/ERmsy-calc-ratio	2018	0.488		
TB/TBmgt	TB-MT/TBmgt-MT	2015	0.809		
SSB/SSBmgt	-	-	-		
F/Fmgt	F-1/yr/Fmgt-1/yr	2015	1.129		
ER/ERmgt	-	-	-		

Albacore tuna South Atlantic [ALBASATL]

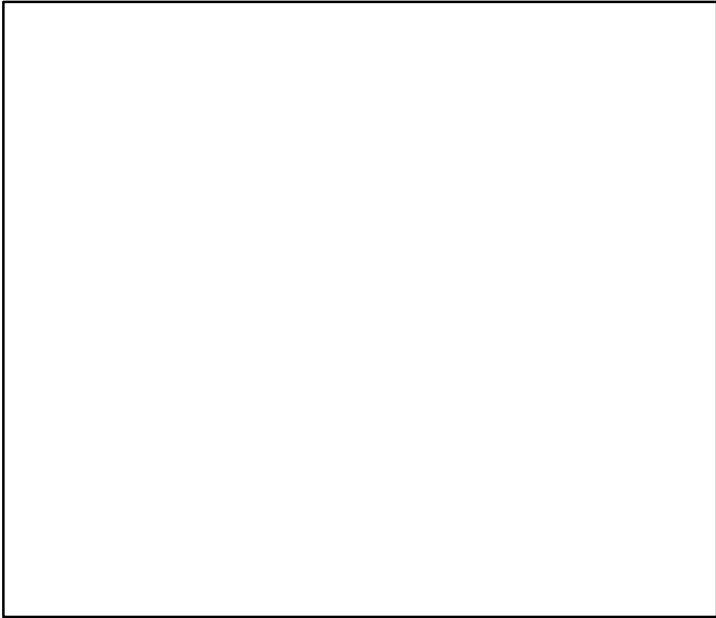
Kobe MSYpref (1956–2018–PONS)



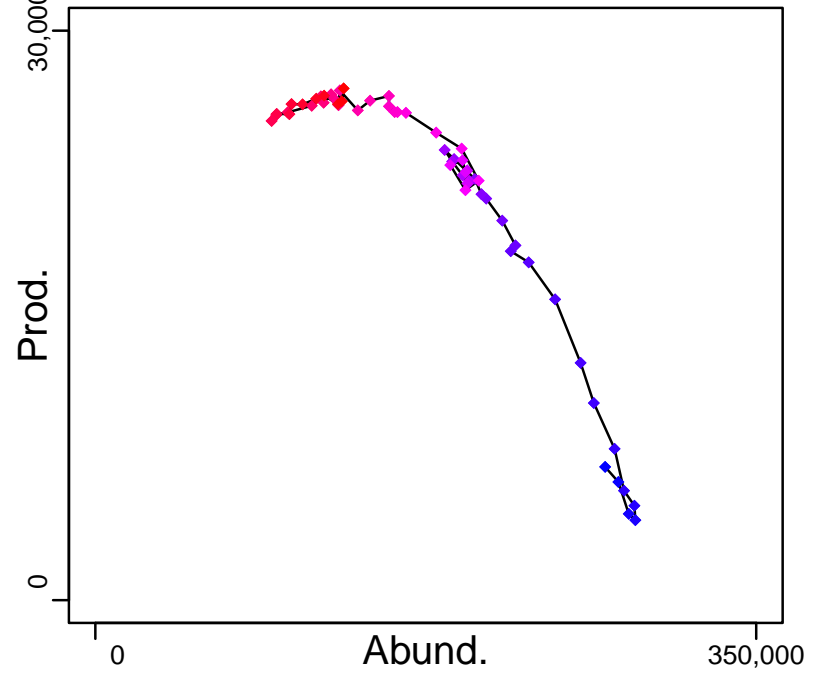
Kobe MGTpref (1956–2018–PONS)



Spawner Recruit*



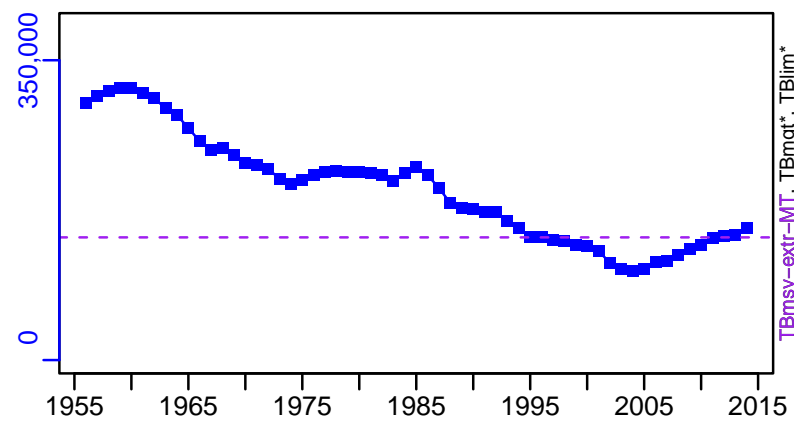
Production (1956–2018–PONS)



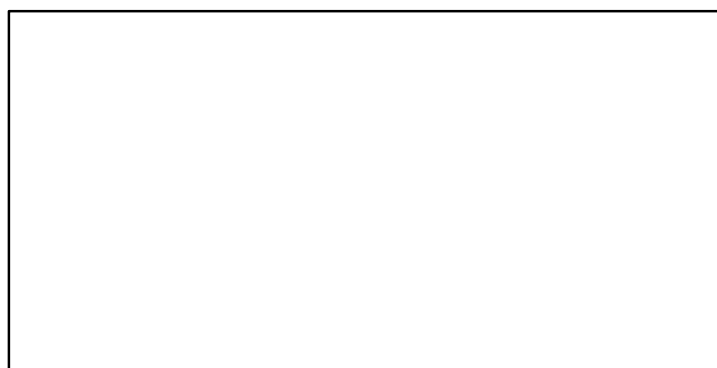
◆ Start Year ◆ End Year * No Data

Albacore tuna South Atlantic [ALBASATL]

TB-MT (1956–2018–PONS)



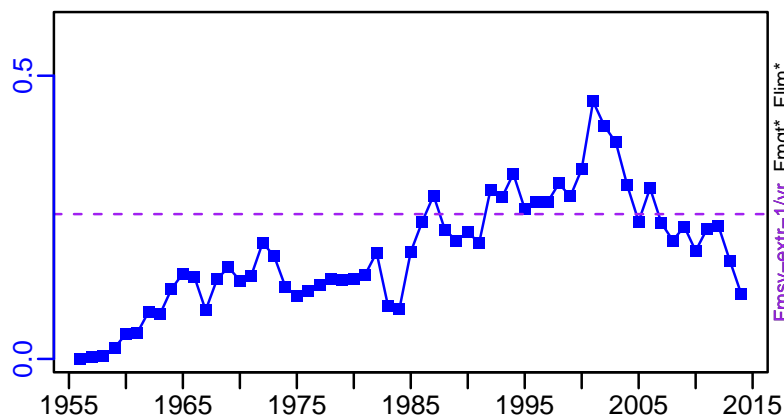
SSB*



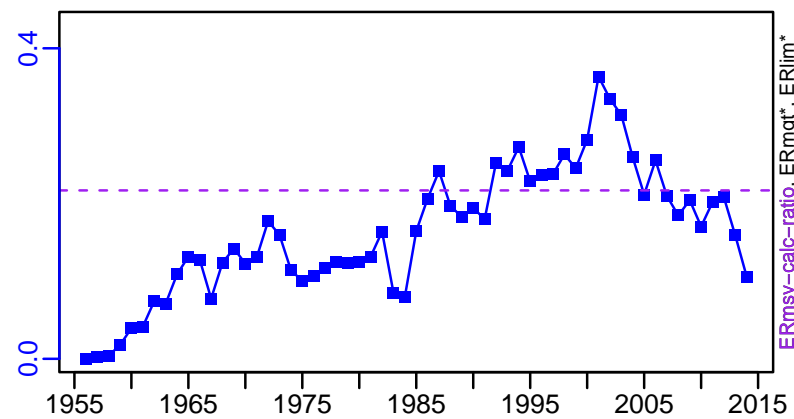
TN *



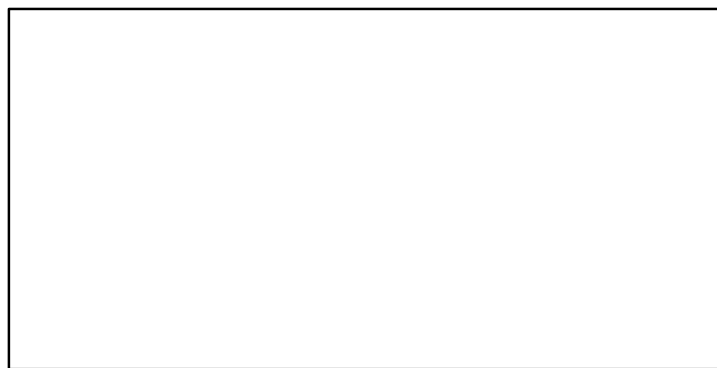
F-1/yr (1956–2018–PONS)



ER-calc-ratio (1956–2018–PONS)

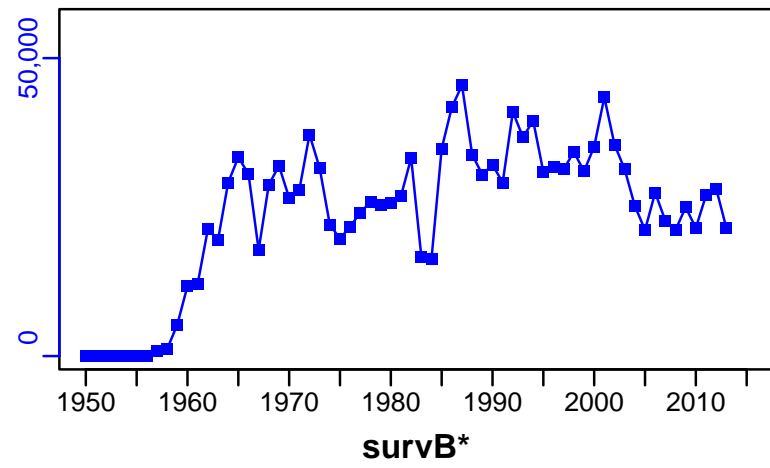


Recruits*

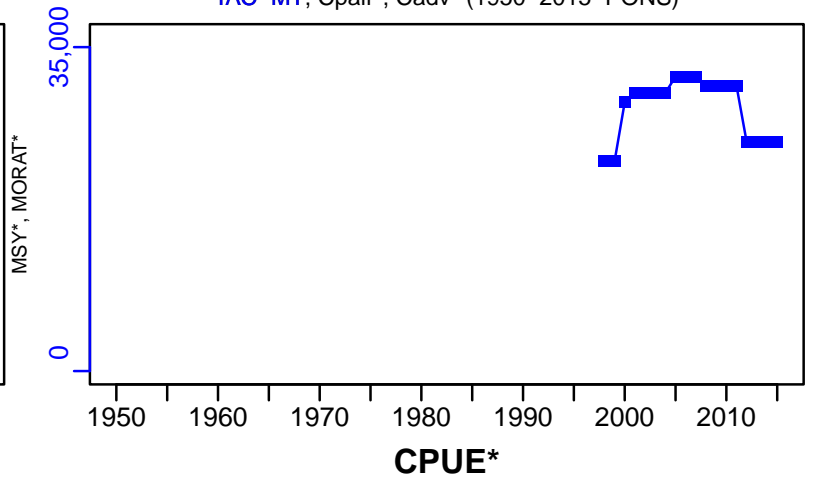


Albacore tuna South Atlantic [ALBASATL]

TC-MT, TL*, RecC* (1950-2015-PONS)



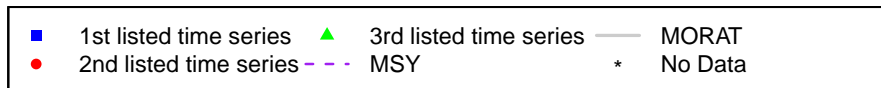
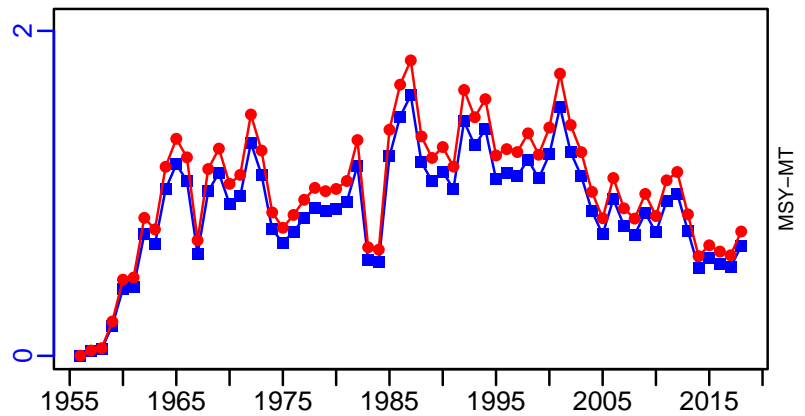
TAC-MT, Cpair*, Cadv* (1950-2015-PONS)



EFFORT*



TL-MT/MSY-MT, CdivMEANC-ratio, (1956-2018-PONS)



Albacore tuna South Pacific Ocean [ALBASPAC]

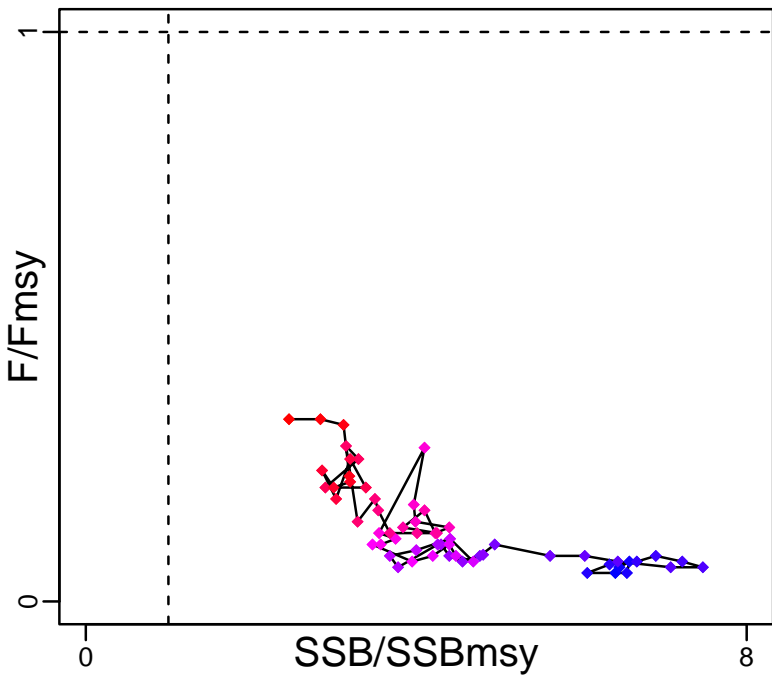
Metadata	
Scientific Name	Thunnus alalunga
Current Assess ID	SPC-ALBASPAC-1952-2020-SMITH
Area	South Pacific Ocean
Management Authority	Western and Central Pacific Fisheries Commission
Assessor	Secretariat of the Pacific Community
Asmts in RAM	2015, 2020, 2010

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2010	835,200
SSBmsy	SSBmsy-extr-MT	2020	56,683
Fmsy	Fmsy-extr-1/yr	2020	0.583
ERmsy	ERmsy-calc-ratio	2010	0.119
TBmgt	TBmgt-MT	2010	835,200
SSBmgt	-	-	-
Fmgt	Fmgt-1/yr	2010	0.16
ERmgt	-	-	-
TB0	TB0-MT	2010	1,629,000
SSB0	SSB0-MT	2010	721,400
MSY	MSY-MT	2020	106,058
M	M-1/yr	2010	0.4
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

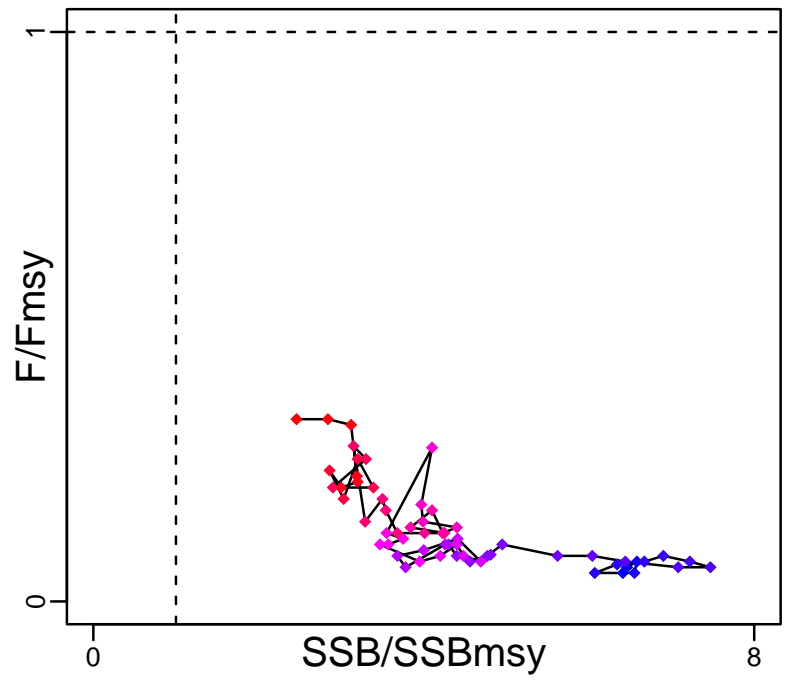
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2020	158,100	-	-
TN	-	-	-	-	-
R	R-E00	2015	6,410,000	-	-
F	F-1/yr	2020	0.28	-	-
ER	-	-	-	-	-
TC	TC-MT	2020	71,949		
TL	TL-MT	2015	68,300		
TB/TBmsy	TBdivTBmsy-dimensionless	2015	1.49		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2020	2.46		
F/Fmsy	FdivFmsy-dimensionless	2020	0.32		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Albacore tuna South Pacific Ocean [ALBASPAC]

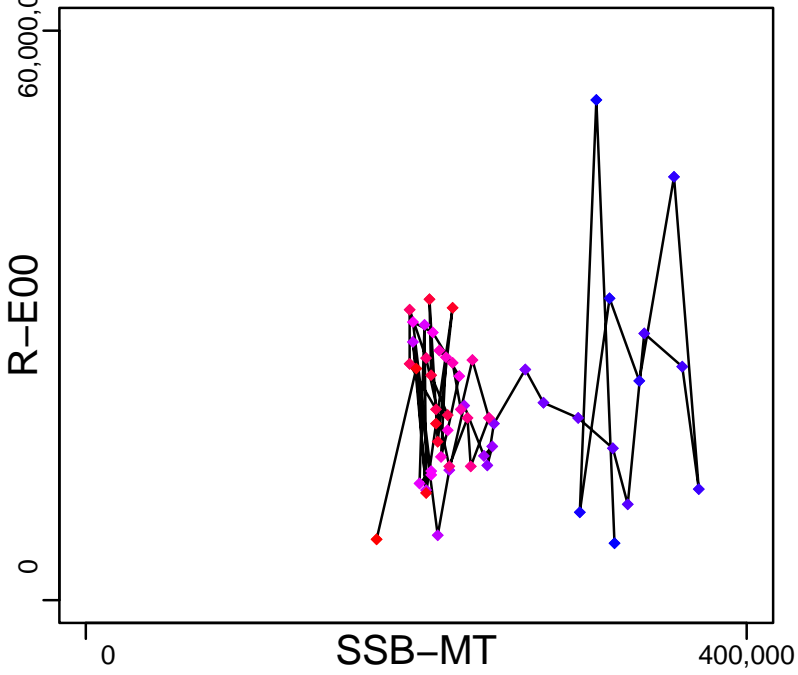
Kobe MSYpref (1952–2020–SMITH)



Kobe MGTpref (1952–2020–SMITH)



Spawner Recruit (1952–2015–PONS)



Production*



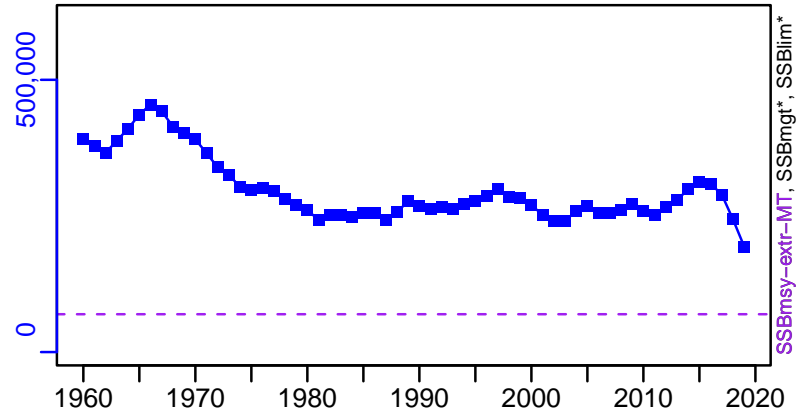
◆ Start Year ◆ End Year * No Data

Albacore tuna South Pacific Ocean [ALBASPAC]

TB*



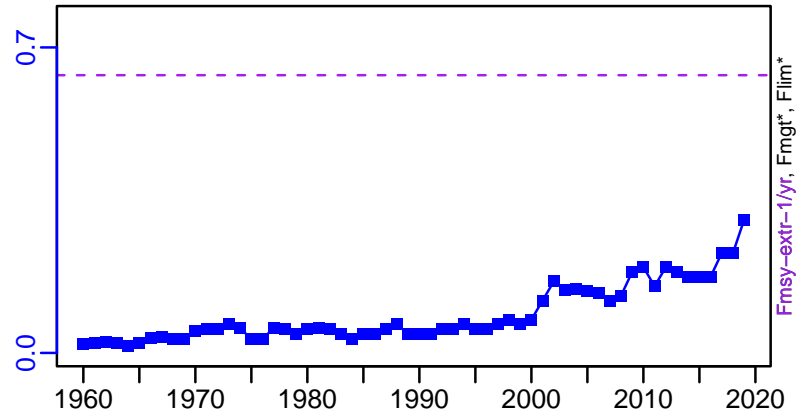
SSB-MT (1952-2020-SMITH)



TN *



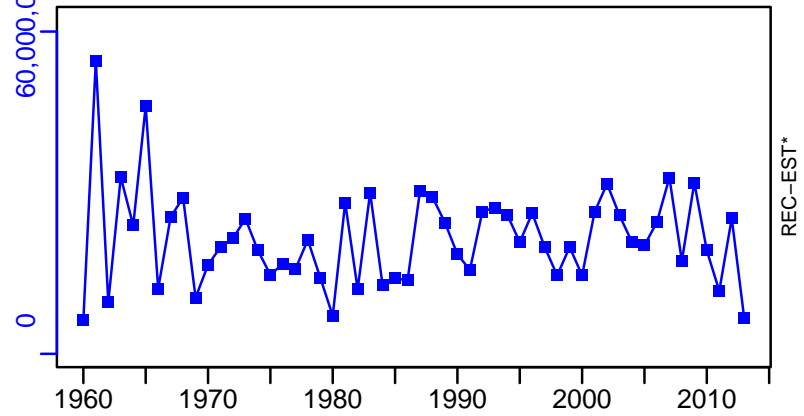
F-1/yr (1952-2020-SMITH)



ER*

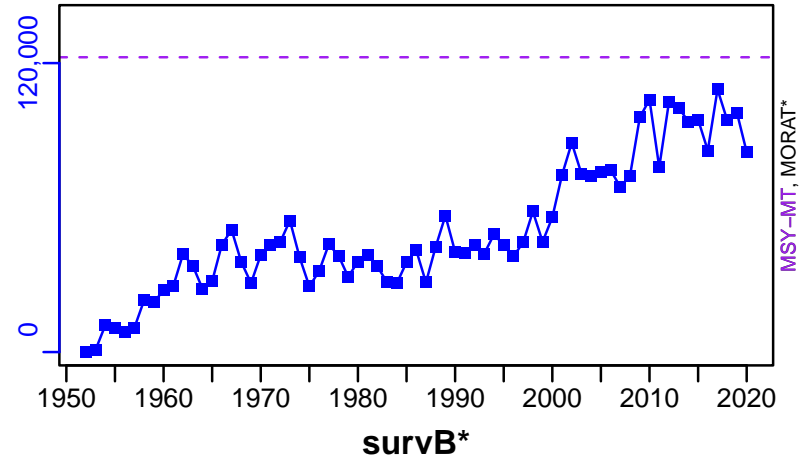


R-E00 (1952-2015-PONS)



Albacore tuna South Pacific Ocean [ALBASPAC]

TC-MT, TL*, RecC* (1952-2020-SMITH)



TAC*, Cpair*, Cadv*



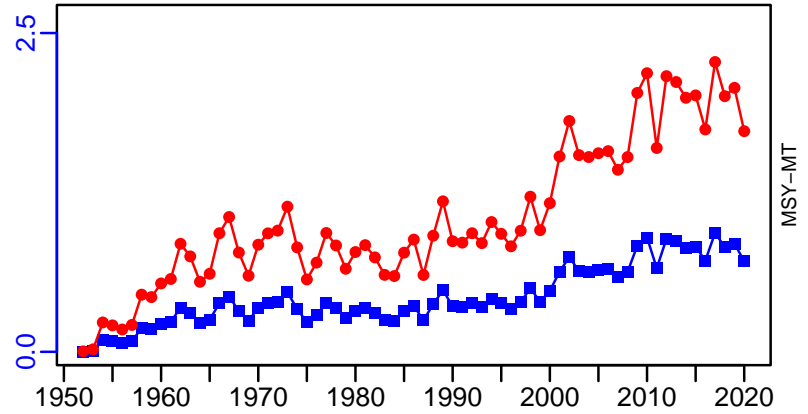
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1952-2020-SMITH)



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

Atlantic bluefin tuna Eastern Atlantic [ATBTUNAEATL]

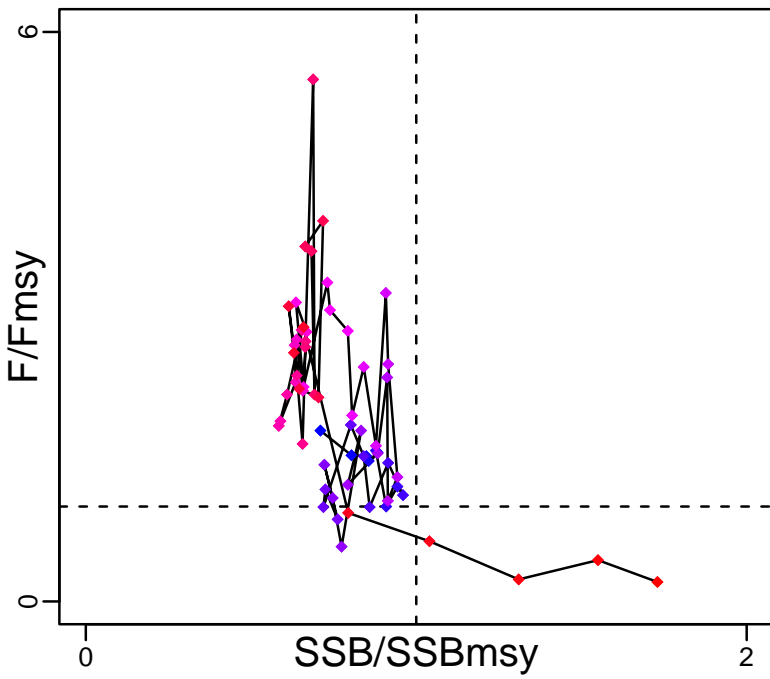
Metadata	
Scientific Name	Thunnus thynnus
Current Assess ID	ICCAT-ATBTUNAEATL-1951-2016-PONS
Area	Eastern Atlantic
Management Authority	International Commission for the Conservation of Atlantic Tunas
Assessor	International Commission for the Conservation of Atlantic Tunas
Asmts in RAM	2015, 2016

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2015	325,322
Fmsy	Fmsy-extr-1/yr	2016	0.111
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2015	325,322
Fmgt	Fmgt-1/yr	2015	0.14
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2015	40,252
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

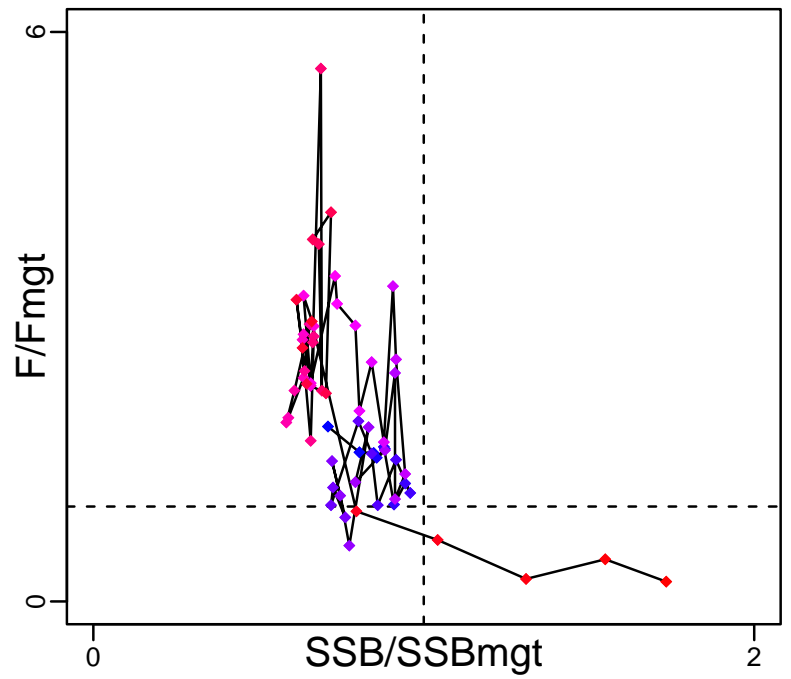
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2016	605,000	-	-
TN	-	-	-	-	-
R	R-E00	2016	4,330,000	-	-
F	F-1/yr	2016	0.038	-	10+
ER	-	-	-	-	-
TC	TC-MT	2015	13,200		
TL	TL-MT	2016	6940		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2015	1.73		
F/Fmsy	FdivFmsy-dimensionless	2016	0.34		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2015	1.734		
F/Fmgt	F-1/yr/Fmgt-1/yr	2015	0.209		
ER/ERmgt	-	-	-		

Atlantic bluefin tuna Eastern Atlantic [ATBTUNAEATL]

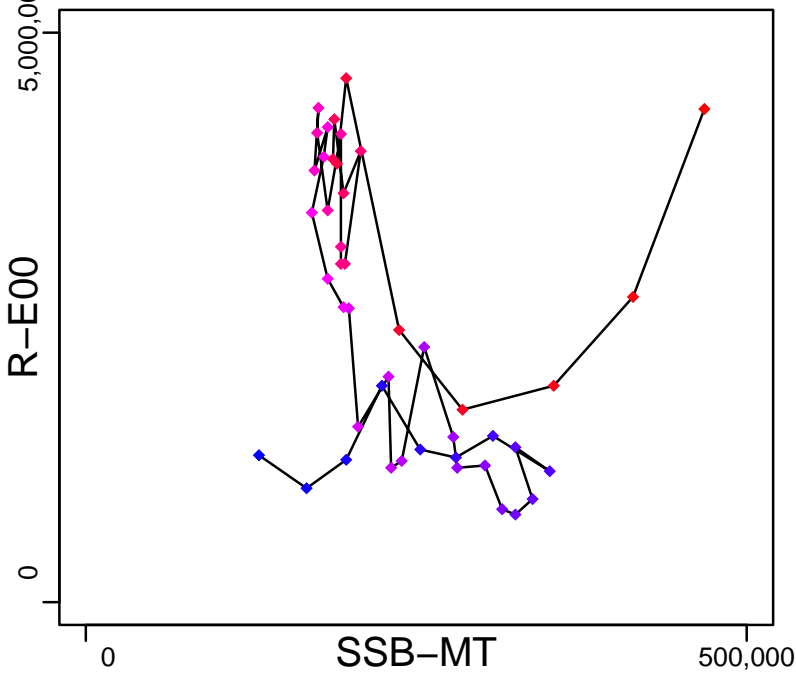
Kobe MSYpref (1950–2015–PONS)



Kobe MGTpref (1950–2015–PONS)



Spawner Recruit (1951–2016–PONS)



Production*



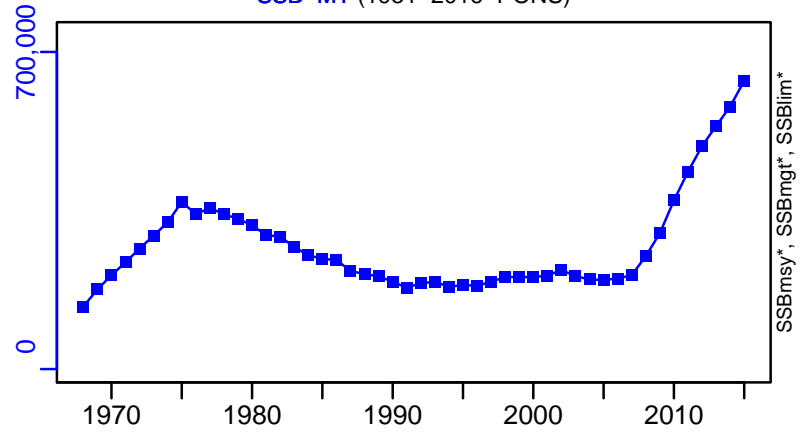
◆ Start Year ◆ End Year * No Data

Atlantic bluefin tuna Eastern Atlantic [ATBTUNAEATL]

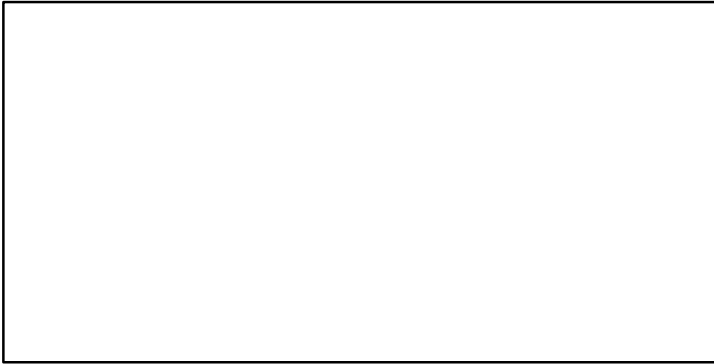
TB*



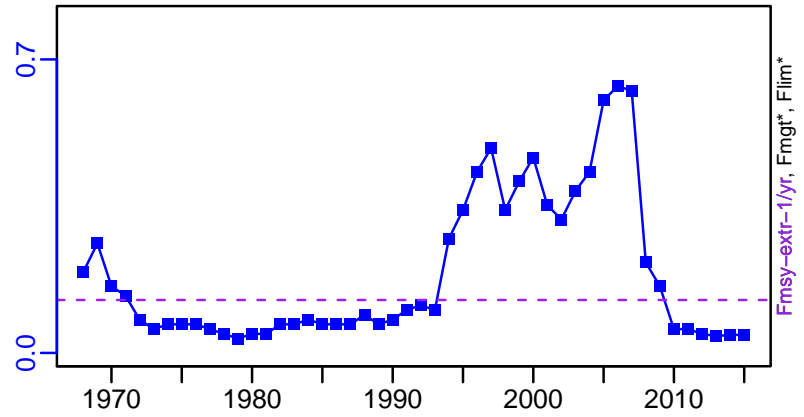
SSB-MT (1951–2016–PONS)



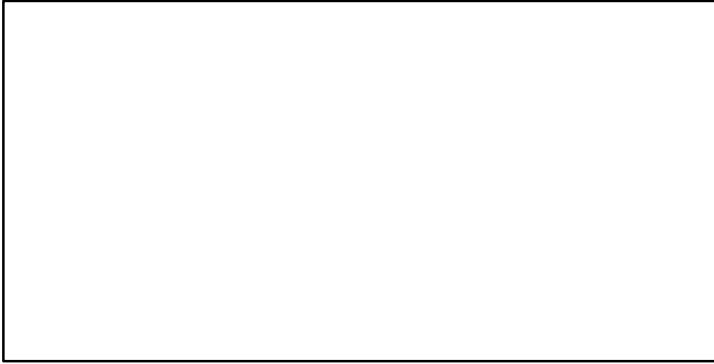
TN *



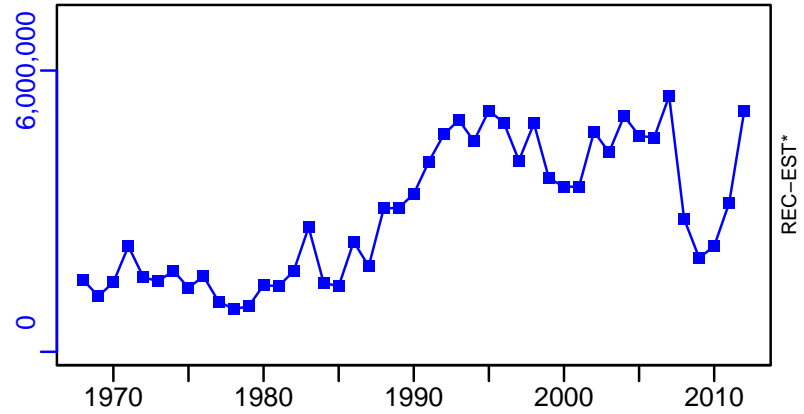
F-1/yr (1951–2016–PONS)



ER*



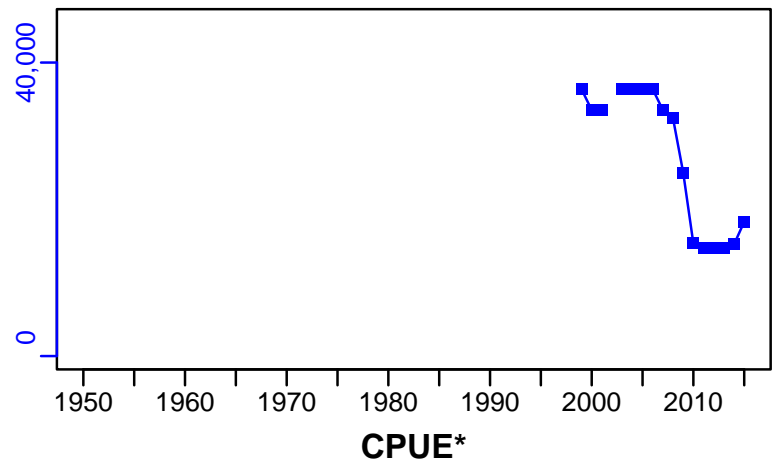
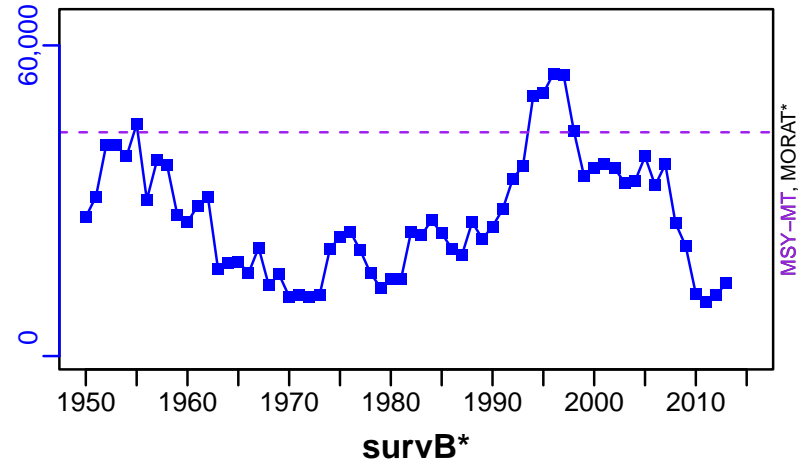
R-E00 (1951–2016–PONS)



Atlantic bluefin tuna Eastern Atlantic [ATBTUNAEATL]

TC-MT, TL*, RecC* (1950-2015-PONS)

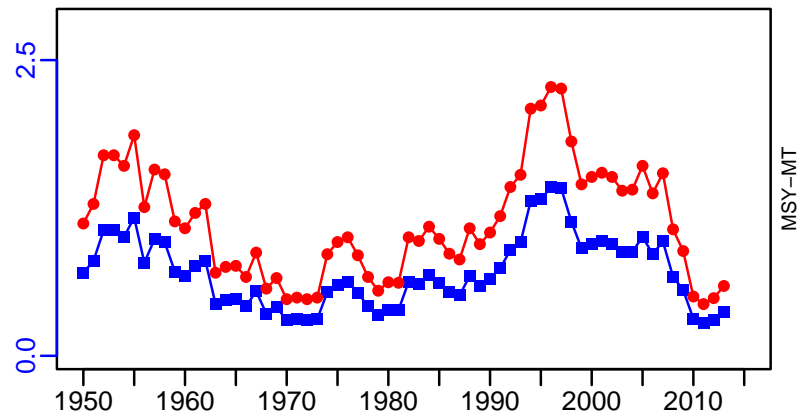
TAC-MT, Cpair*, Cadv* (1950-2015-PONS)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1950-2015-PONS)



Atlantic bluefin tuna Western Atlantic [ATBTUNAWATL]

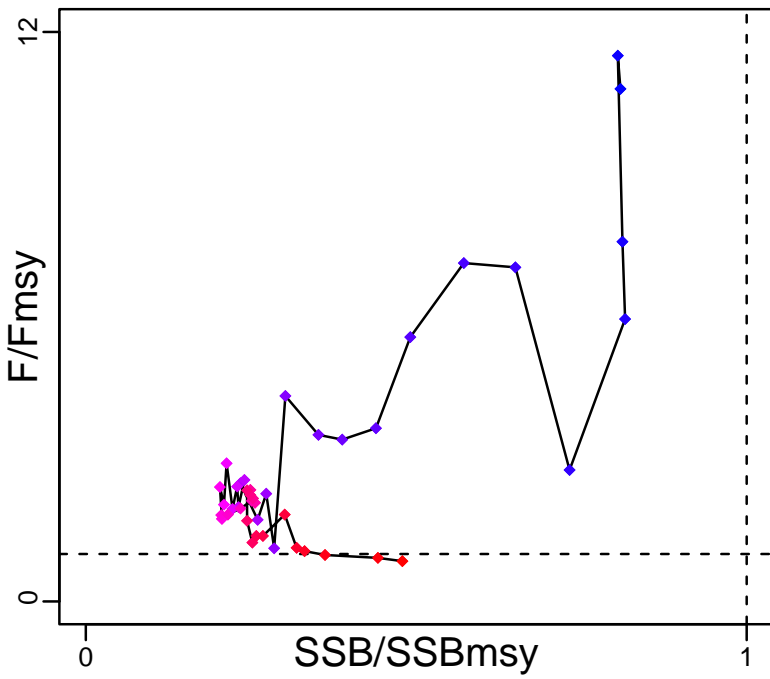
Metadata	
Scientific Name	Thunnus thynnus
Current Assess ID	ICCAT-ATBTUNAWATL-1950-2019-SISIMP2021-2
Area	Western Atlantic
Management Authority	International Commission for the Conservation of Atlantic Tunas
Assessor	International Commission for the Conservation of Atlantic Tunas
Asmts in RAM	2015, 2019, 2016, 2013

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2015	62,443
Fmsy	Fmsy-extr-1/yr	2016	0.104
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2015	62,443
Fmgt	Fmgt-1/yr	2015	0.08
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2015	5233
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

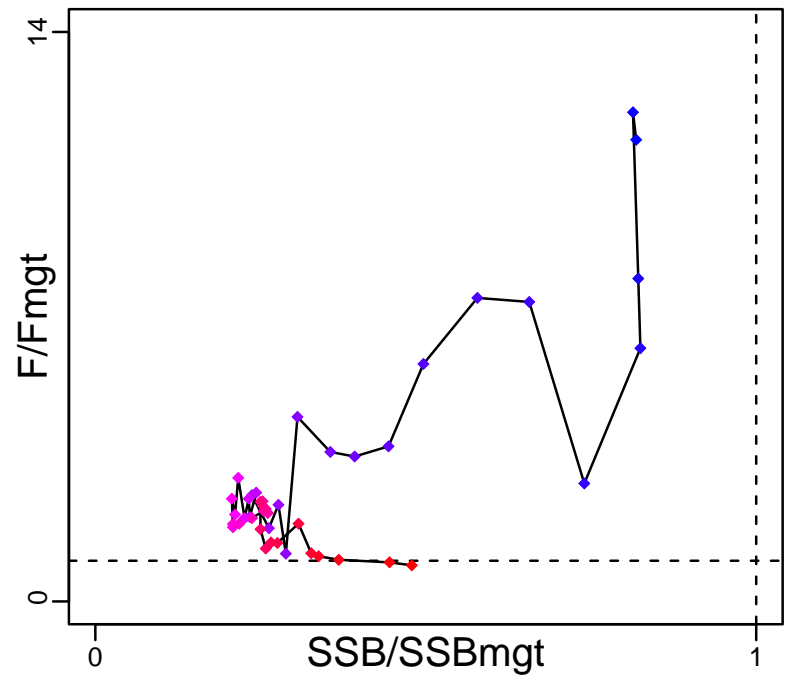
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2016	18,400	-	-
TN	-	-	-	-	-
R	R-E00	2013	80,300	-	1
F	F-1/yr	2016	0.094	-	-
ER	-	-	-	-	-
TC	TC-MT	2019	2310		
TL	TL-MT	2016	1910		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2015	0.479		
F/Fmsy	FdivFmsy-dimensionless	2016	0.9		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2015	0.479		
F/Fmgt	F-1/yr/Fmgt-1/yr	2015	0.887		
ER/ERmgt	-	-	-		

Atlantic bluefin tuna Western Atlantic [ATBTUNAWATL]

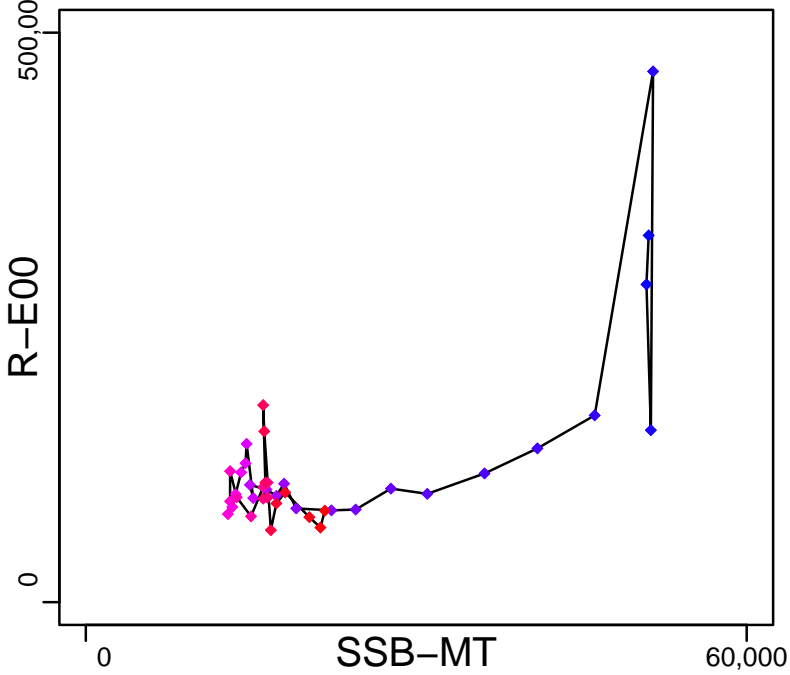
Kobe MSY_{pref} (1950–2015–PONS)



Kobe MGT_{pref} (1950–2015–PONS)



Spawner Recruit (1970–2013–SISIMP2016)



Production*



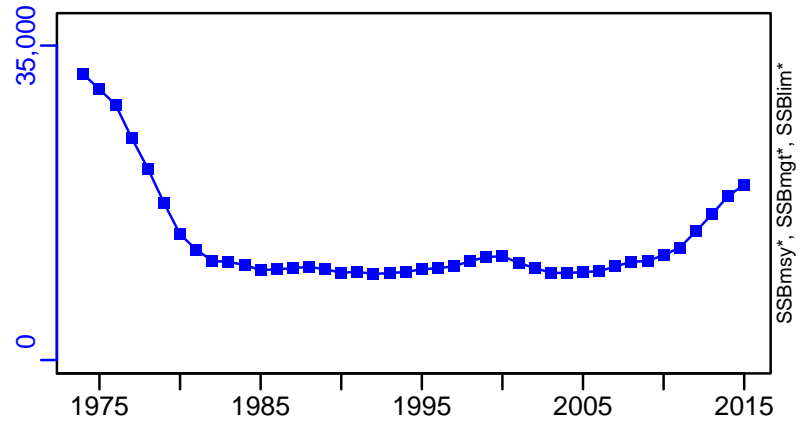
◆ Start Year ◆ End Year * No Data

Atlantic bluefin tuna Western Atlantic [ATBTUNAWATL]

TB*



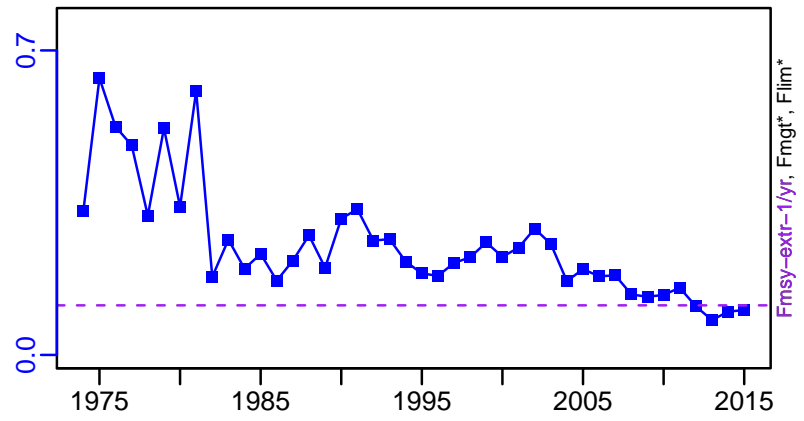
SSB-MT (1951–2016–PONS)



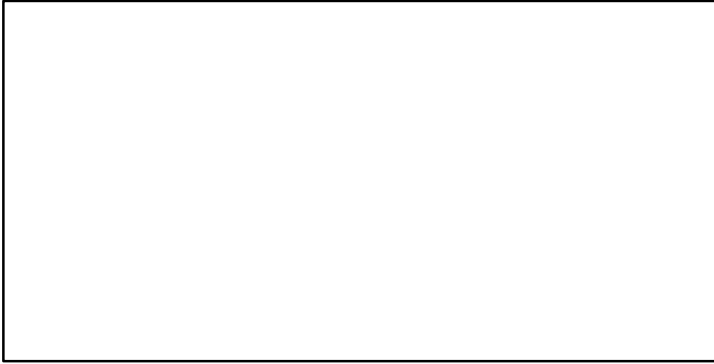
TN *



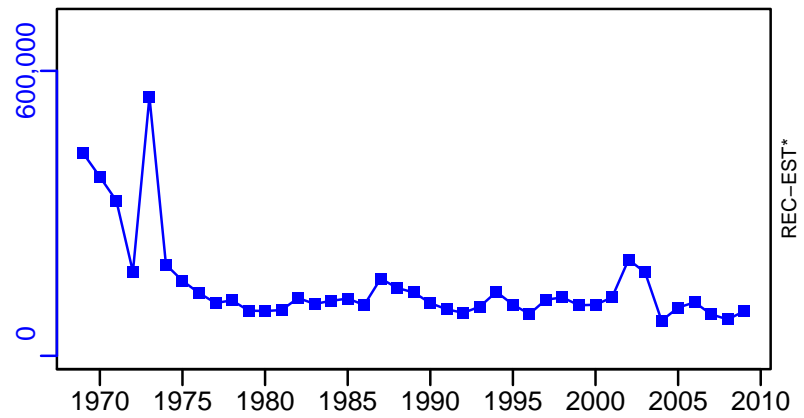
F-1/yr (1951–2016–PONS)



ER*

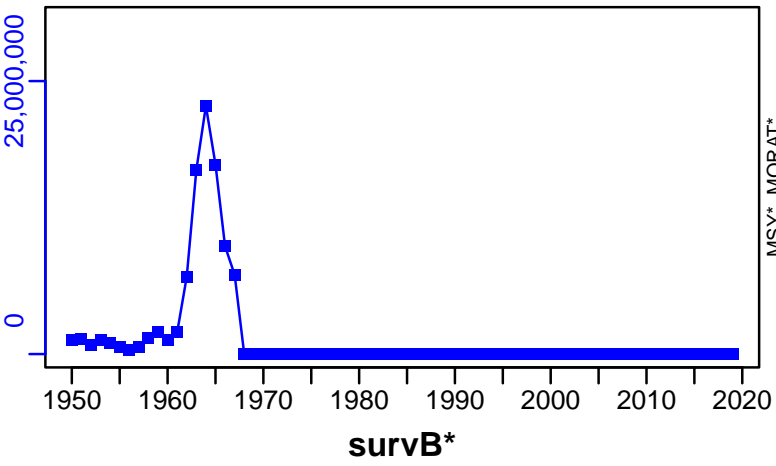


R-E00 (1970–2013–SISIMP2016)

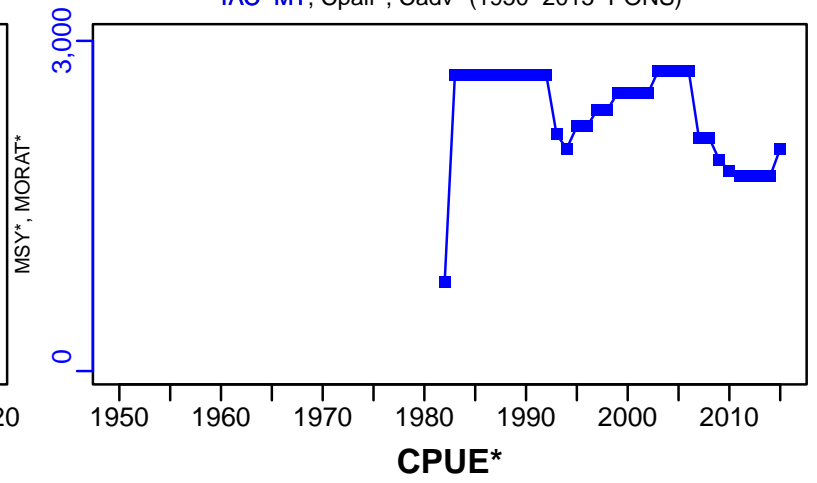


Atlantic bluefin tuna Western Atlantic [ATBTUNAWATL]

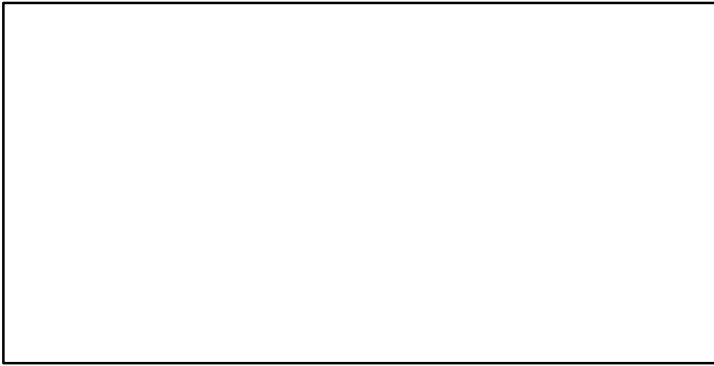
TC-MT, TL*, RecC* (1950-2019-SISIMP2021-2)



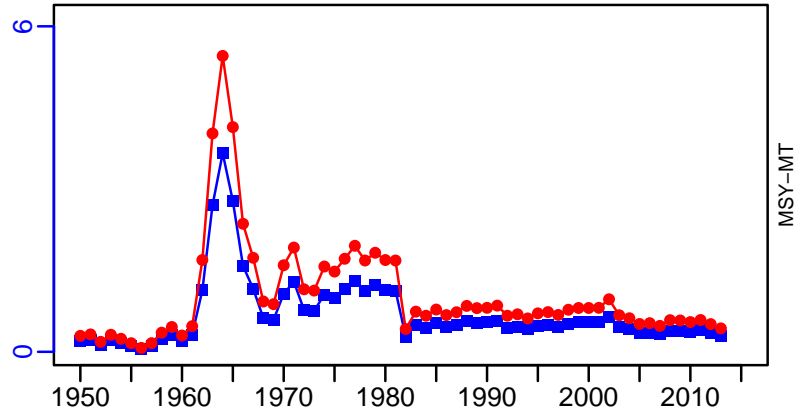
TAC-MT, Cpair*, Cadv* (1950-2015-PONS)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1950-2015-PONS)



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

Bigeye tuna Atlantic Ocean [BIGEYEATL]

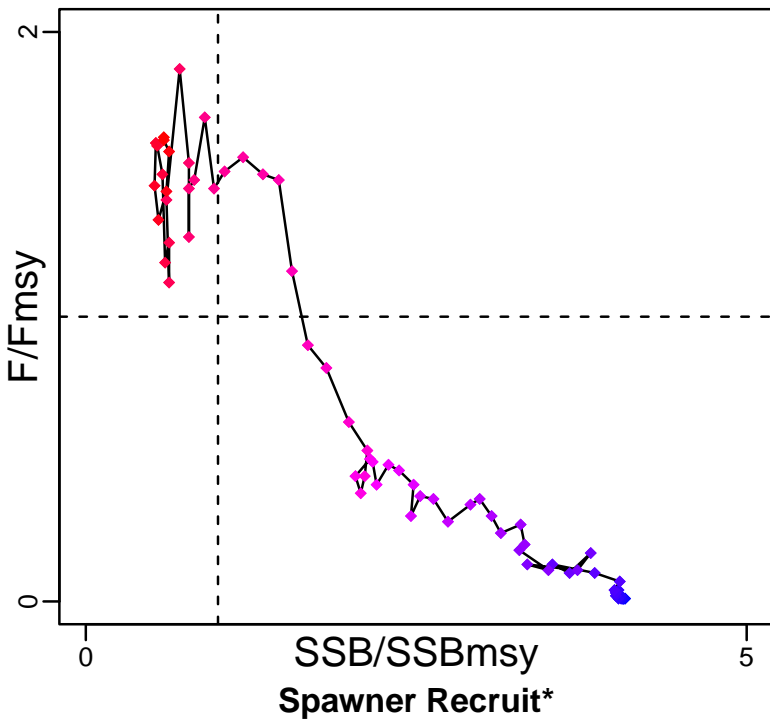
Metadata	
Scientific Name	Thunnus obesus
Current Assess ID	ICCAT-BIGEYEATL-1950-2018-PONS
Area	Atlantic Ocean
Management Authority	International Commission for the Conservation of Atlantic Tunas
Assessor	International Commission for the Conservation of Atlantic Tunas
Asmts in RAM	2010, 2016, 2018

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-extr-MT	2016	451,460
SSBmsy	-	-	-
Fmsy	Fmsy-extr-1/yr	2016	0.163
ERmsy	ERmsy-calc-ratio	2010	0.216
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2018	76,000
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

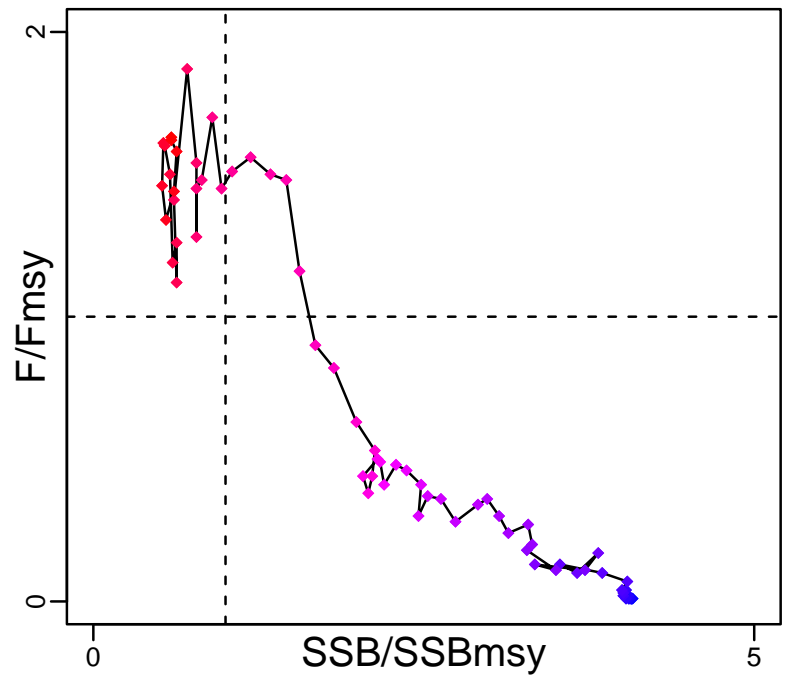
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2016	426,000	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	F-1/yr	2016	0.136	-	-
ER	ER-calc-ratio	2016	0.184	-	-
TC	TC-MT	2010	87,900		
TL	TL-MT	2018	72,880		
TB/TBmsy	TBdivTBmsy-dimensionless	2016	0.744		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2018	0.59		
F/Fmsy	FdivFmsy-dimensionless	2018	1.63		
ER/ERmsy	ER-ratio/ERmsy-calc-ratio	2010	0.964		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Bigeye tuna Atlantic Ocean [BIGEYEATL]

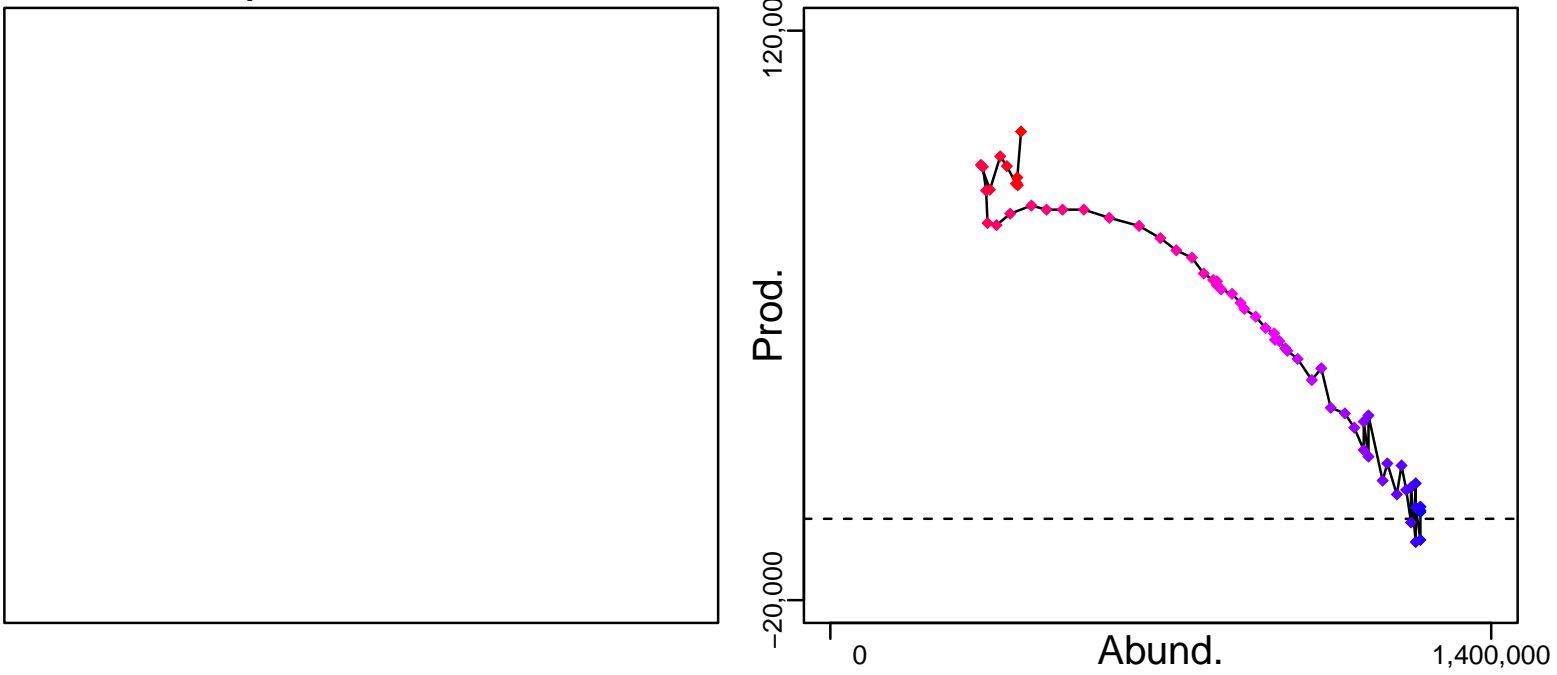
Kobe MSYpref (1950–2018–PONS)



Kobe MGTpref (1950–2018–PONS)

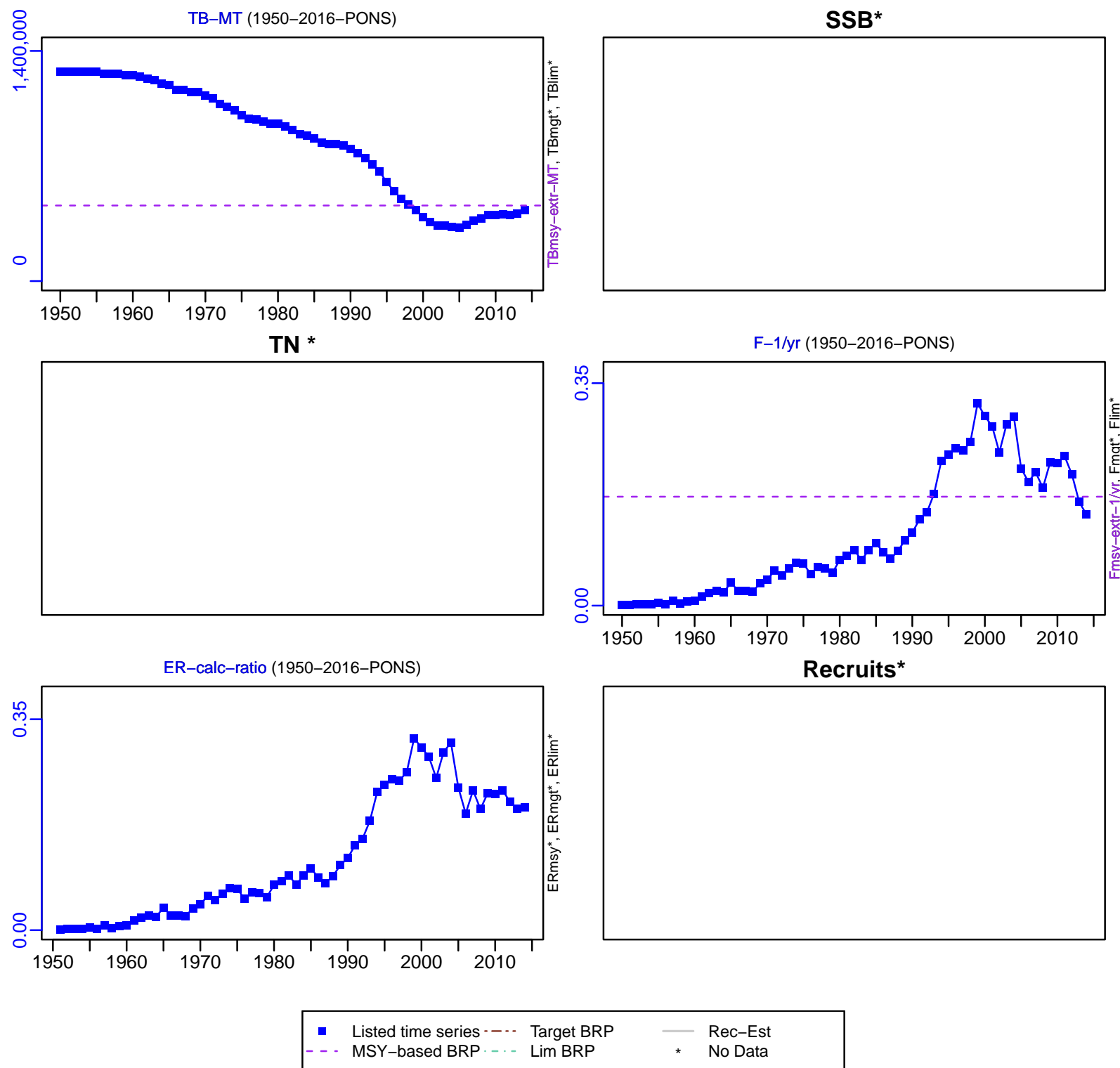


Production (1950–2016–PONS)



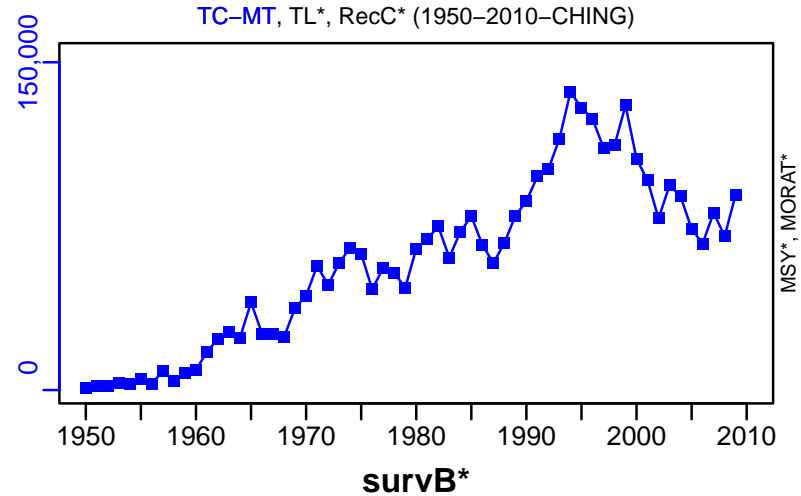
◆ Start Year ◆ End Year * No Data

Bigeye tuna Atlantic Ocean [BIGEYEATL]



Bigeye tuna Atlantic Ocean [BIGEYEATL]

TC-MT, TL*, RecC* (1950–2010–CHING)



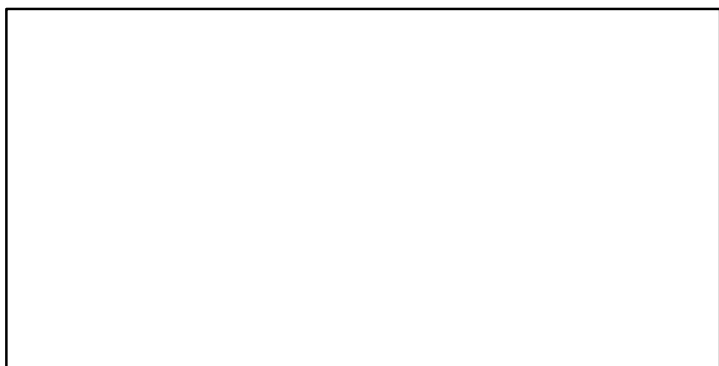
TAC*, Cpair*, Cadv*



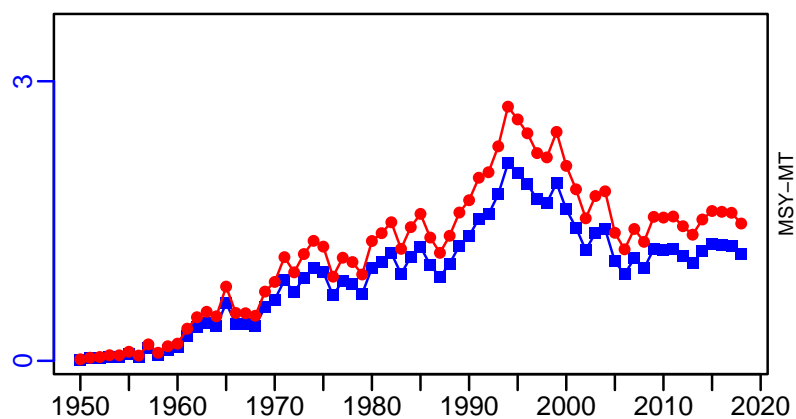
CPUE*



EFFORT*



TL-MT/MSY-MT, CdivMEANC-ratio, (1950–2018–PONS)



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

Bigeye tuna Central Western Pacific Ocean [BIGEYECWPAC]

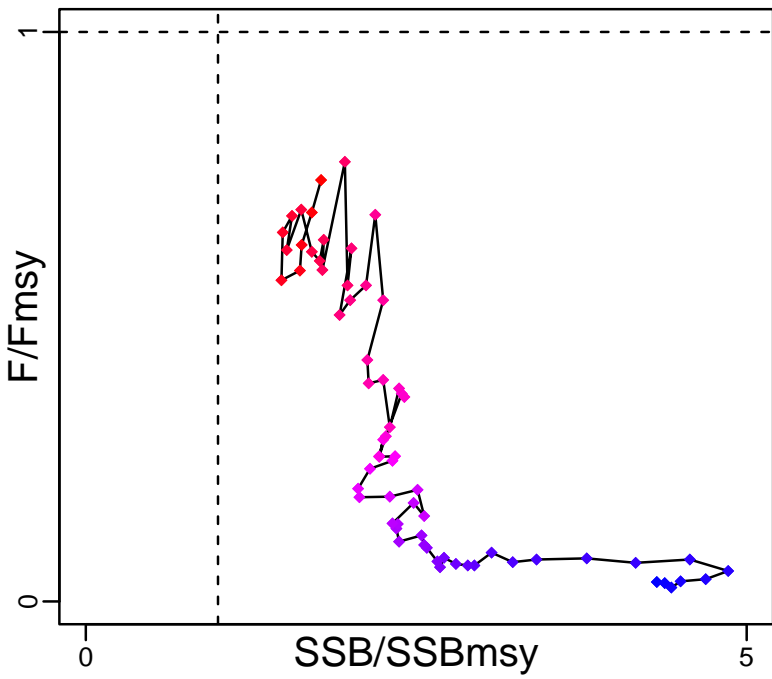
Metadata	
Scientific Name	Thunnus obesus
Current Assess ID	SPC-BIGEYECWPAC-1950-2020-SMITH
Area	Central Western Pacific Ocean
Management Authority	Western and Central Pacific Fisheries Commission
Assessor	Secretariat of the Pacific Community
Asmts in RAM	2015, 2020, 2006, 2012

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2006	249,600
SSBmsy	SSBmsy-extr-MT	2020	527,536
Fmsy	Fmsy-extr-1/yr	2020	0.501
ERmsy	ERmsy-ratio	2006	0.259
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2012	345,400
Fmgt	Fmgt-1/yr	2012	0.039
ERmgt	-	-	-
TB0	TB0-MT	2012	2,286,000
SSB0	SSB0-MT	2012	1,207,000
MSY	MSY-MT	2020	146,715
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

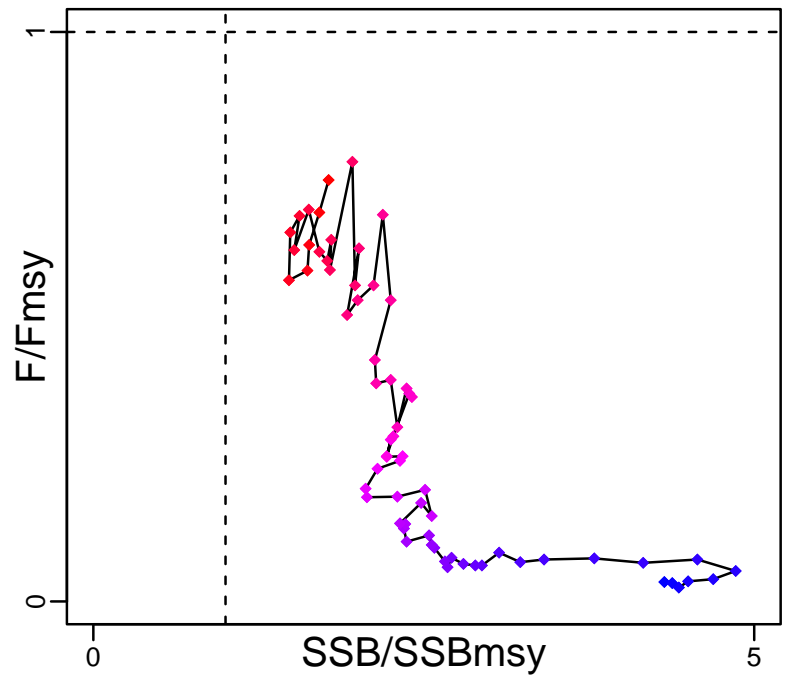
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2020	1,220,000	-	-
SSB	SSB-MT	2020	968,000	-	-
TN	-	-	-	-	-
R	R-E00	2006	17,600,000	-	-
F	F-1/yr	2020	0.25	-	-
ER	ER-calc-ratio	2020	0.124	-	-
TC	TC-MT	2020	148,371		
TL	TL-MT	2015	135,000		
TB/TBmsy	TBdivTBmsy-dimensionless	2012	0.921		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2020	1.7		
F/Fmsy	FdivFmsy-dimensionless	2020	0.74		
ER/ERmsy	ER-ratio/ERmsy-ratio	2006	1.376		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Bigeye tuna Central Western Pacific Ocean [BIGEYECWPAC]

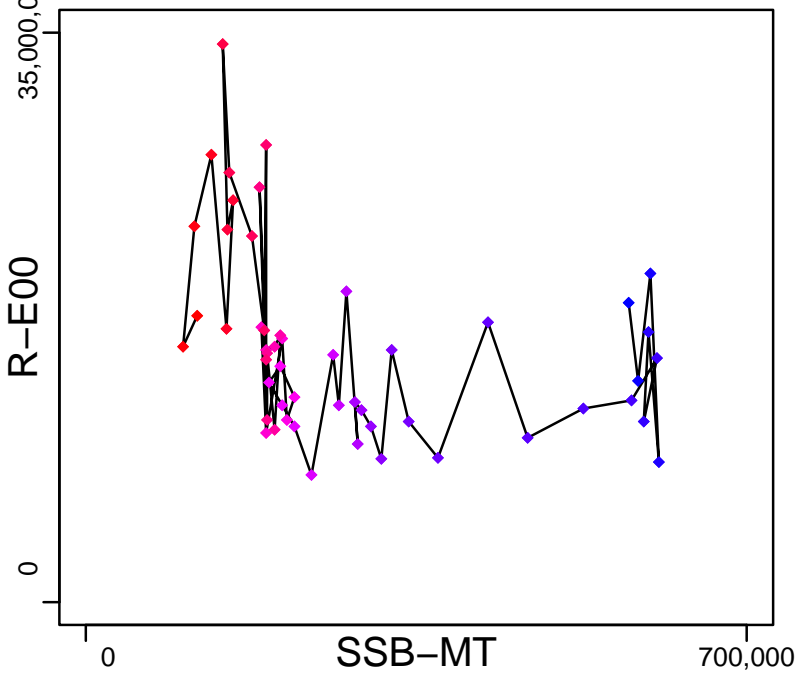
Kobe MSYpref (1950–2020–SMITH)



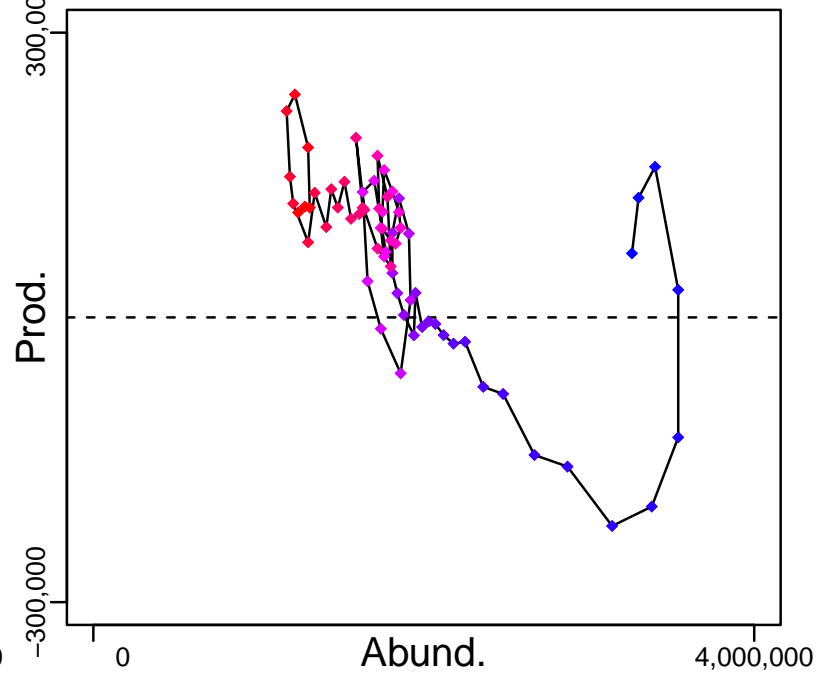
Kobe MGTpref (1950–2020–SMITH)



Spawner Recruit (1952–2006–JENSEN)



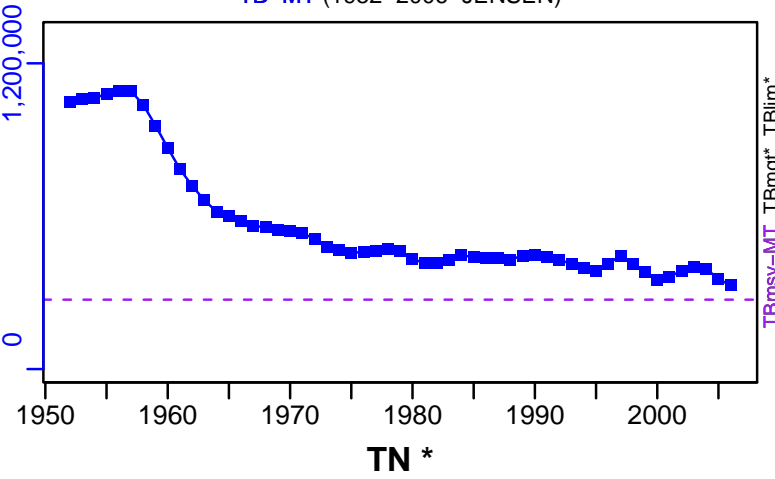
Production (1950–2020–SMITH)



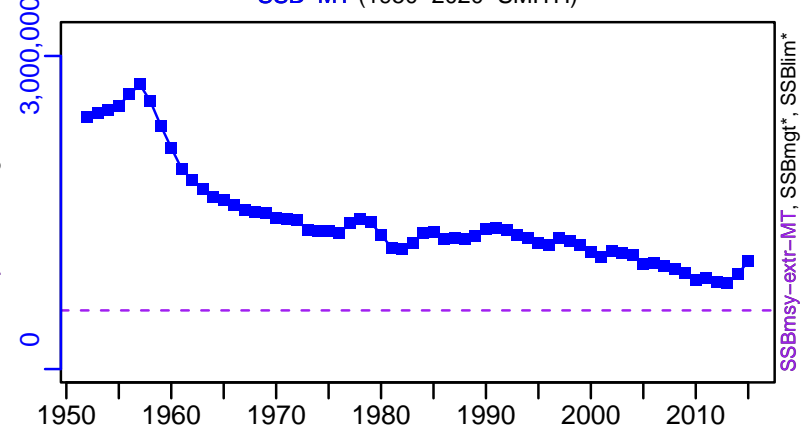
◆ Start Year ◆ End Year * No Data

Bigeye tuna Central Western Pacific Ocean [BIGEYECWPAC]

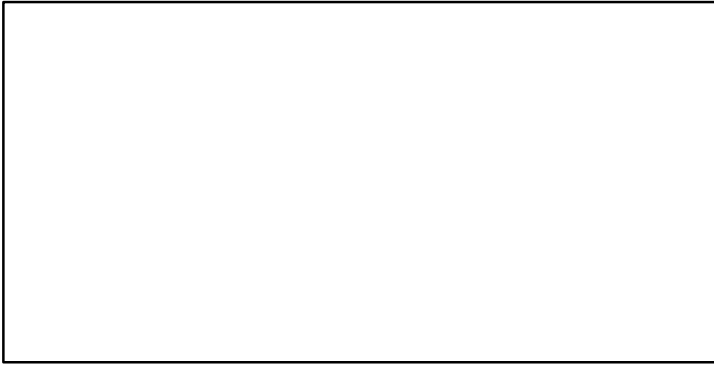
TB-MT (1952-2006-JENSEN)



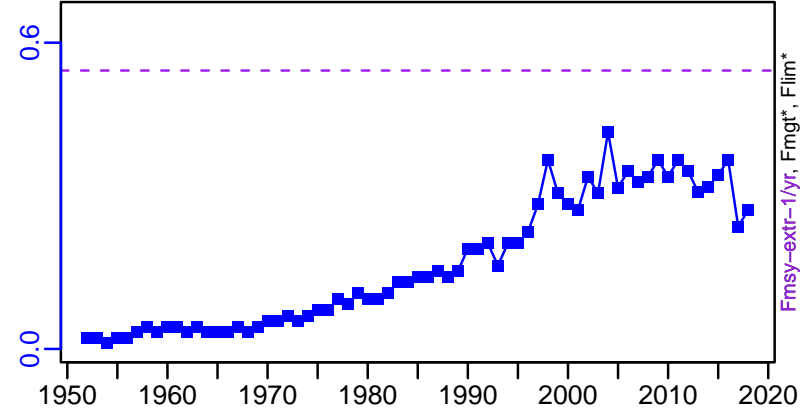
SSB-MT (1950-2020-SMITH)



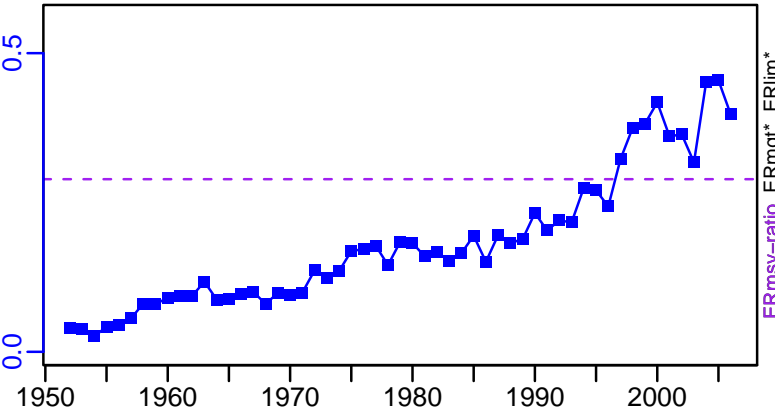
TN *



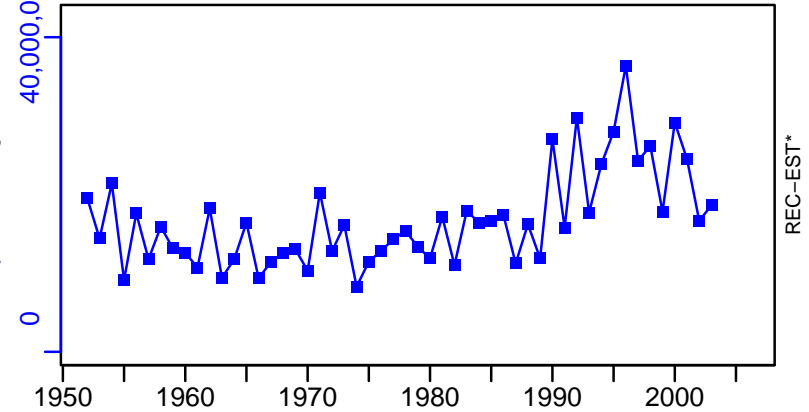
F-1/yr (1950-2020-SMITH)



ER-ratio (1952-2006-JENSEN)

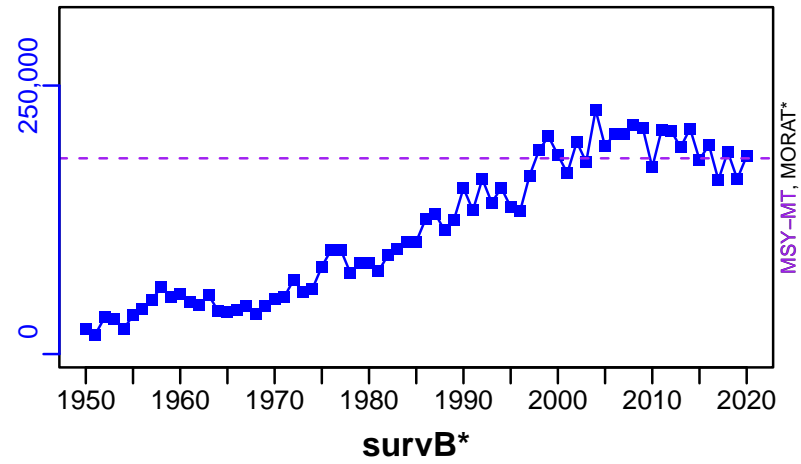


R-E00 (1952-2006-JENSEN)



Bigeye tuna Central Western Pacific Ocean [BIGEYECWPAC]

TC-MT, TL*, RecC* (1950-2020-SMITH)



TAC*, Cpair*, Cadv*



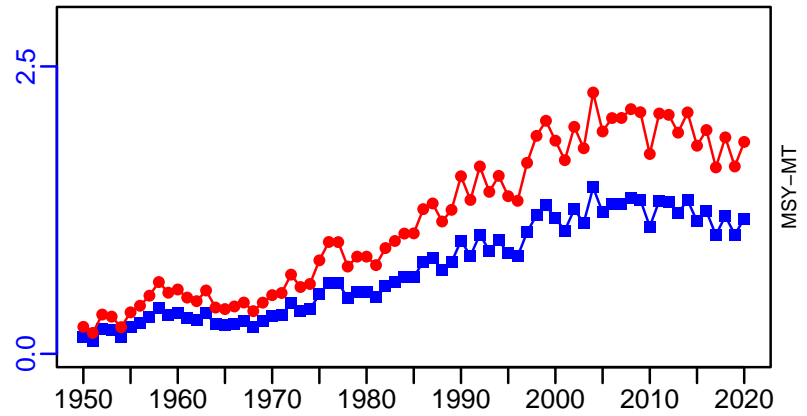
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1950-2020-SMITH)



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

Bigeye tuna Eastern Pacific [BIGEYEEPAC]

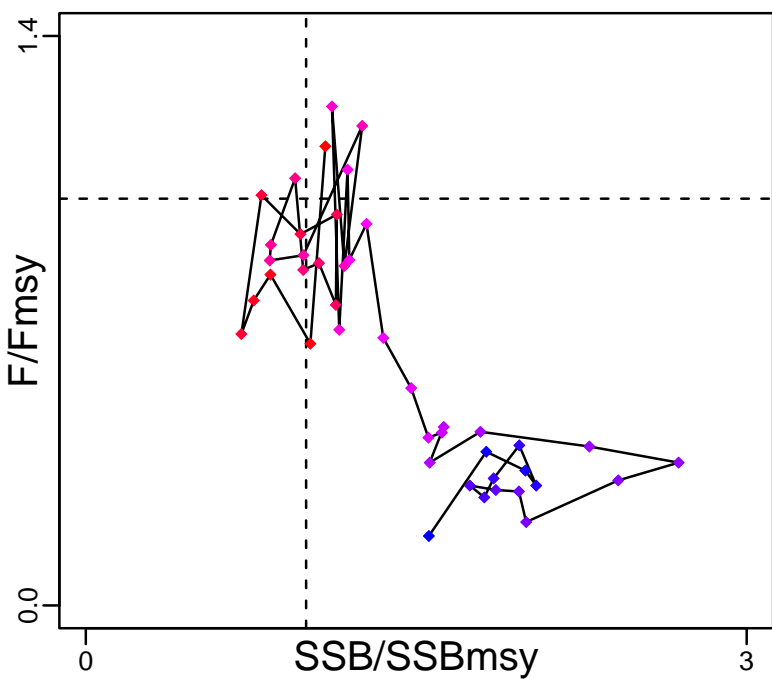
Metadata	
Scientific Name	Thunnus obesus
Current Assess ID	IATTC-BIGEYEEPAC-1954-2018-PONS
Area	Eastern Pacific
Management Authority	Inter-American Tropical Tuna Commission
Assessor	Inter-American Tropical Tuna Commission
Asmts in RAM	2012, 2016, 2018

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2012	420,280
SSBmsy	SSBmsy-extr-MT	2016	96,545
Fmsy	Fmsy-extr-1/yr	2016	0.994
ERmsy	ERmsy-calc-ratio	2012	0.263
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2018	95,491
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

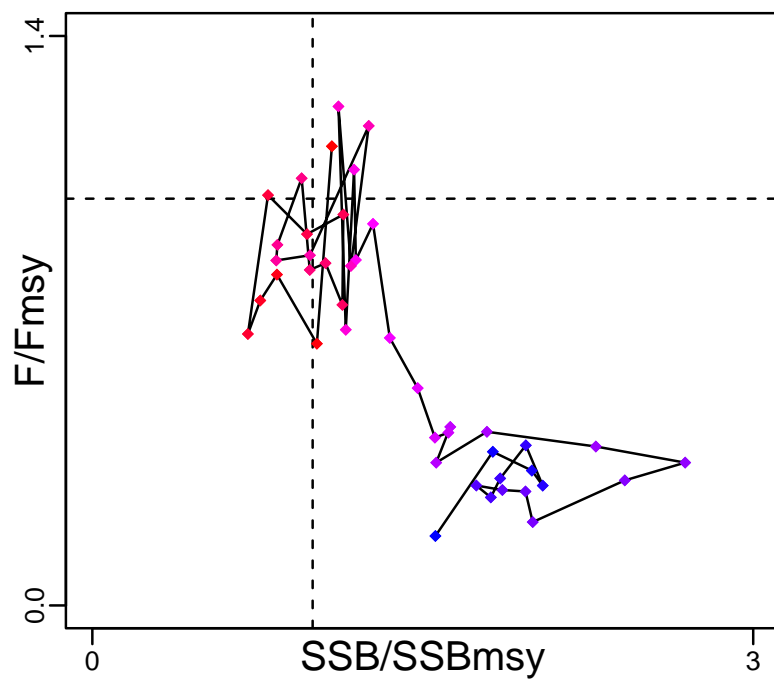
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2016	110,000	-	-
TN	-	-	-	-	-
R	R-E00	2016	6900	-	-
F	F-1/yr	2016	0.826	-	-
ER	-	-	-	-	-
TC	TC-MT	2012	88,000		
TL	TL-MT	2018	93,990		
TB/TBmsy	TBdivTBmsy-dimensionless	2012	0.945		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2018	1.015		
F/Fmsy	FdivFmsy-dimensionless	2018	1.129		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Bigeye tuna Eastern Pacific [BIGEYEEPAC]

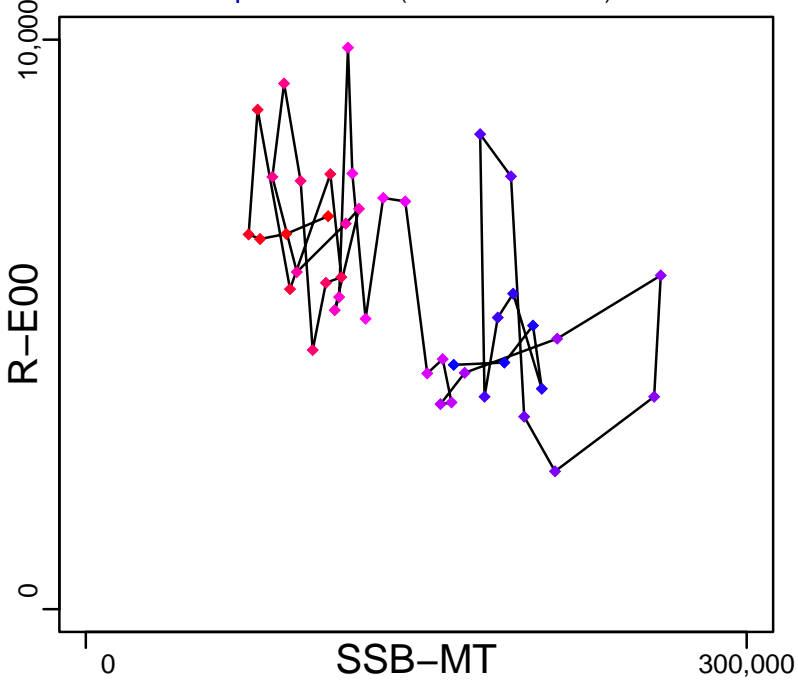
Kobe MSYpref (1954–2018–PONS)



Kobe MGTpref (1954–2018–PONS)



Spawner Recruit (1954–2016–PONS)



Production*



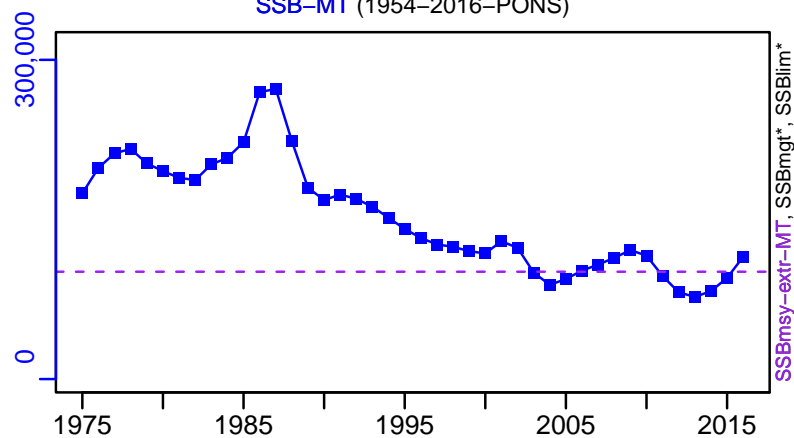
◆ Start Year ◆ End Year * No Data

Bigeye tuna Eastern Pacific [BIGEYEPAAC]

TB*



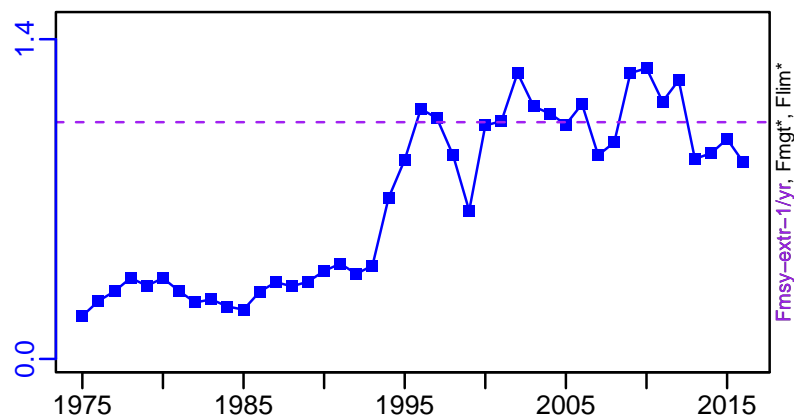
SSB-MT (1954–2016–PONS)



TN *



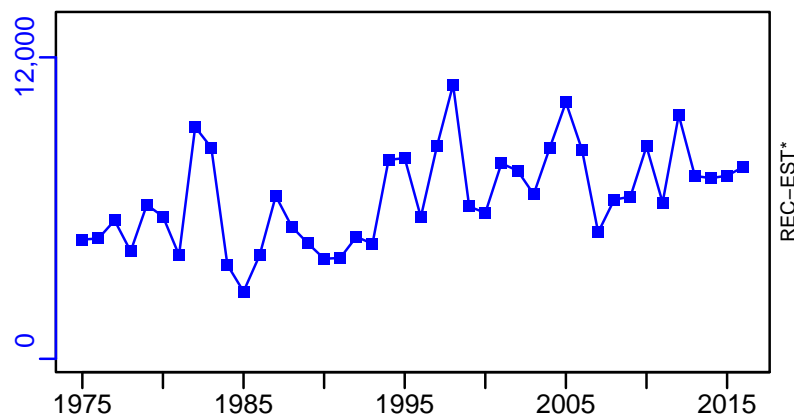
F-1/yr (1954–2016–PONS)



ER*

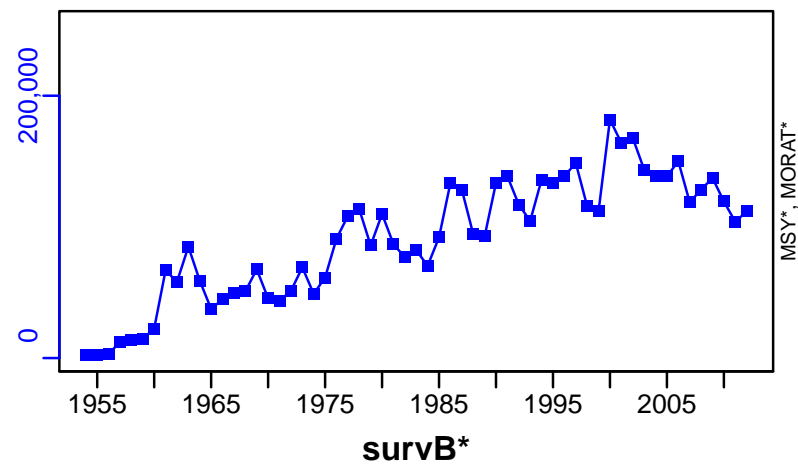


R-E00 (1954–2016–PONS)



Bigeye tuna Eastern Pacific [BIGEYEEPAC]

TC-MT, TL*, RecC* (1954-2012-PONS)



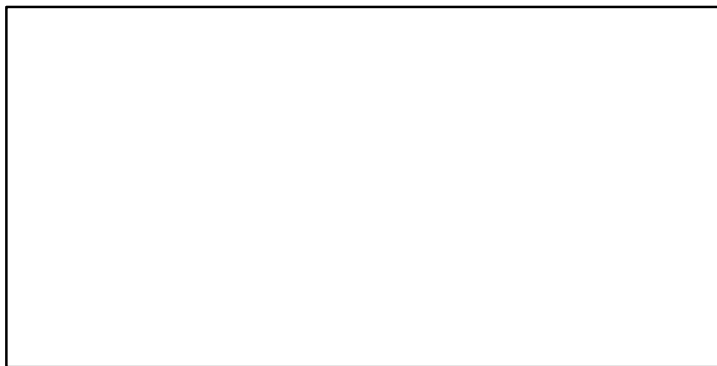
TAC*, Cpair*, Cadv*



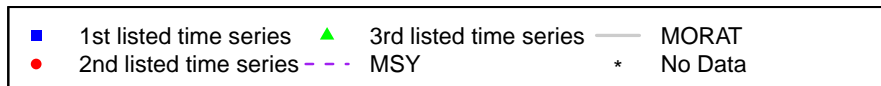
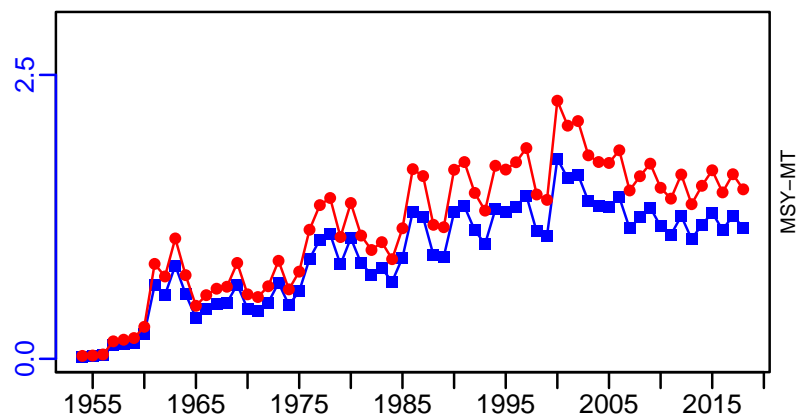
CPUE*



EFFORT*



TL-MT/MSY-MT, CdivMEANC-ratio, (1954-2018-PONS)



Bigeye tuna Indian Ocean [BIGEYEIO]

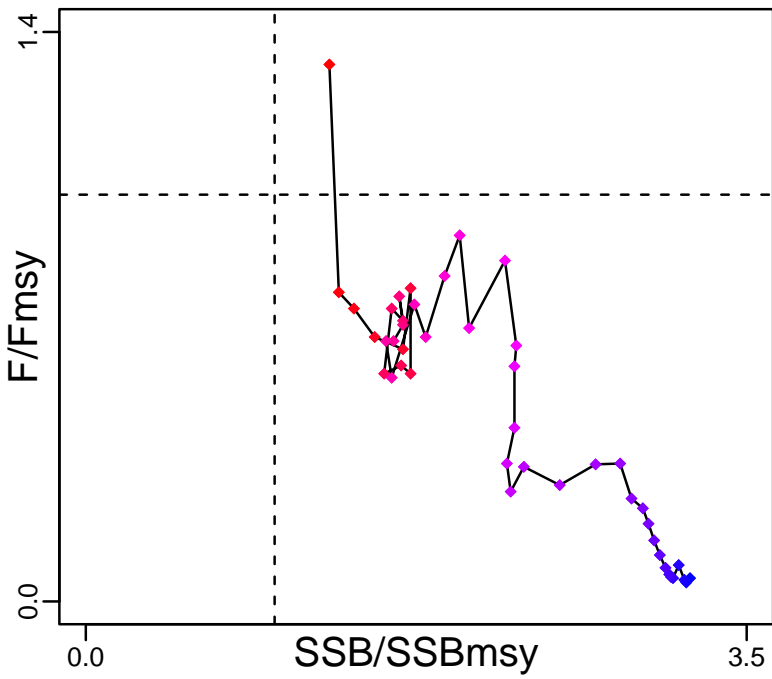
Metadata	
Scientific Name	Thunnus obesus
Current Assess ID	IOTC-BIGEYEIO-1950-2020-SMITH
Area	Indian Ocean
Management Authority	Indian Ocean Tuna Commission
Assessor	Indian Ocean Tuna Commission
Asmts in RAM	2014, 2016, 2020

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-extr-MT	2020	593,381
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2014	1,674,570
MSY	MSY-MT	2020	86,236
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

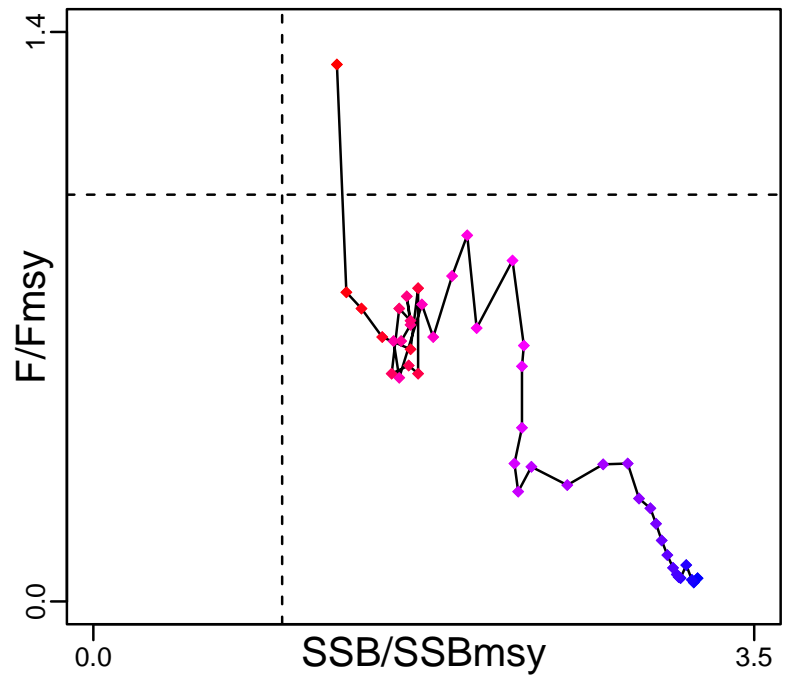
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2020	714,158	-	-
TN	-	-	-	-	-
R	R-E00	2014	108,000	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2020	83,498		
TL	TL-MT	2016	87,600		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2020	1.29		
F/Fmsy	FdivFmsy-dimensionless	2020	1.32		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Bigeye tuna Indian Ocean [BIGEYEIO]

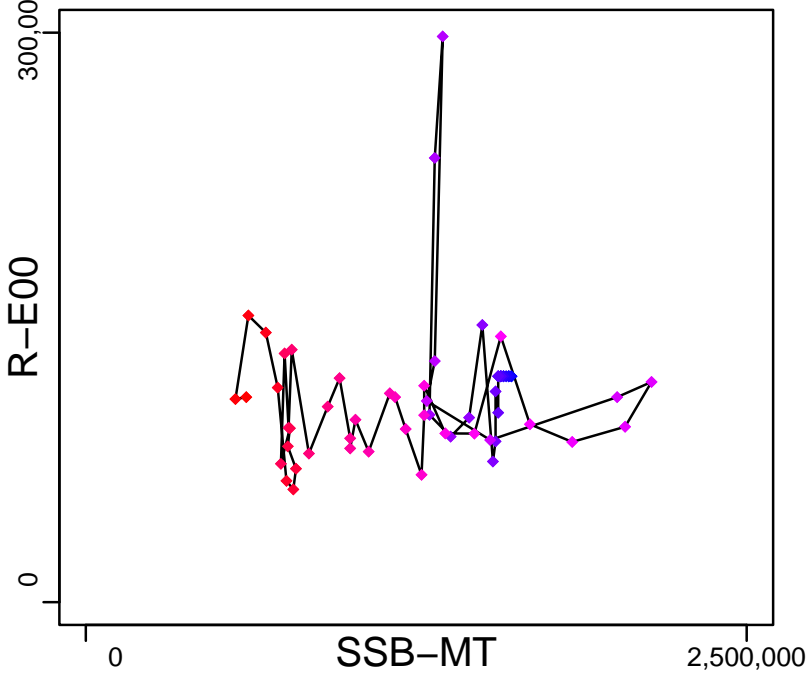
Kobe MSYpref (1950–2020–SMITH)



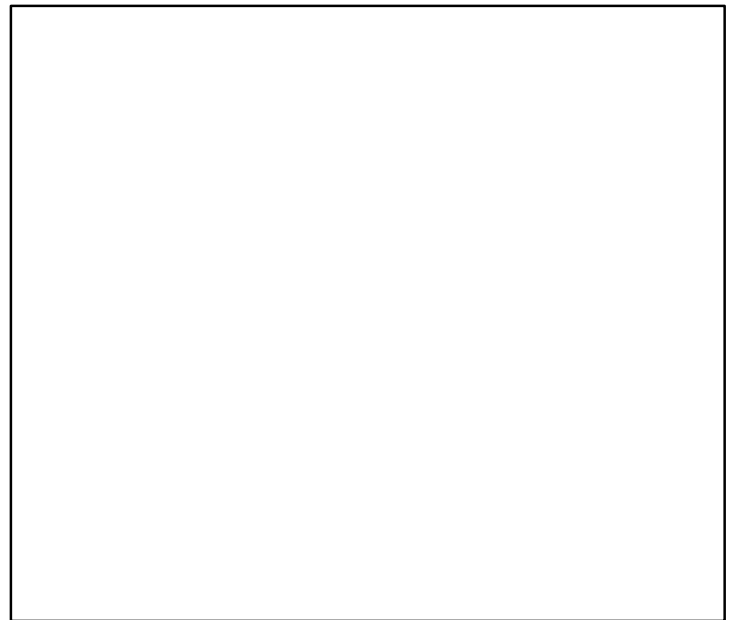
Kobe MGTpref (1950–2020–SMITH)



Spawner Recruit (1950–2014–PONS)



Production*



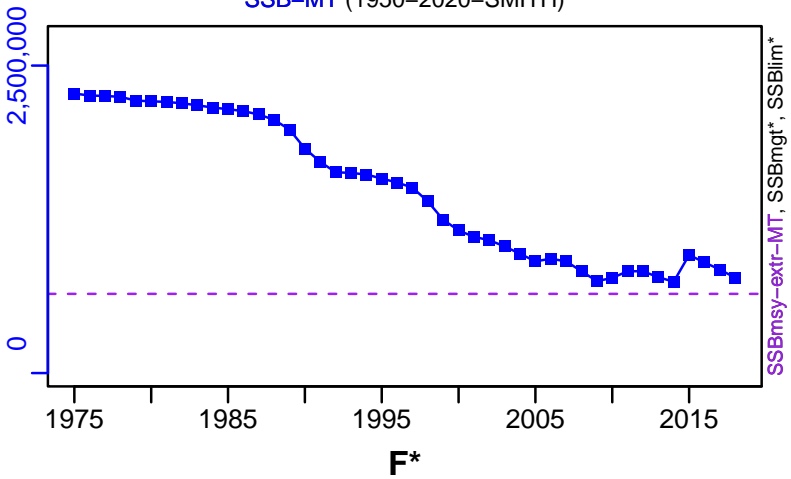
◆ Start Year ◆ End Year * No Data

Bigeye tuna Indian Ocean [BIGEYEIO]

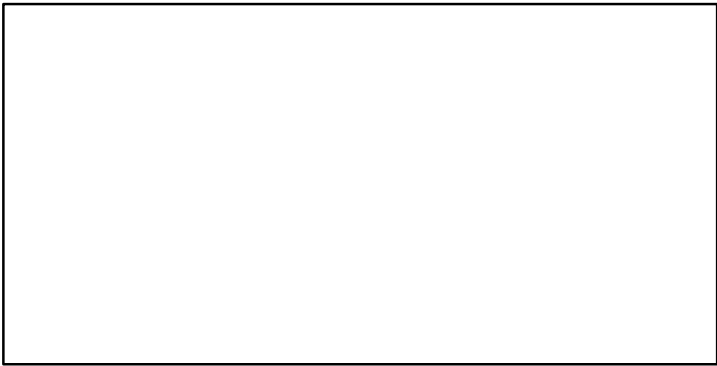
TB*



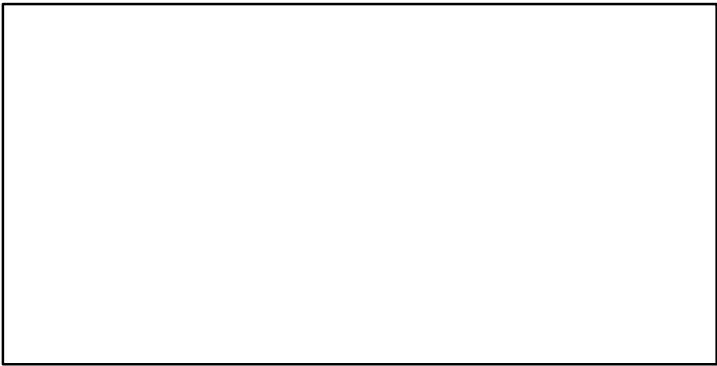
SSB-MT (1950-2020-SMITH)



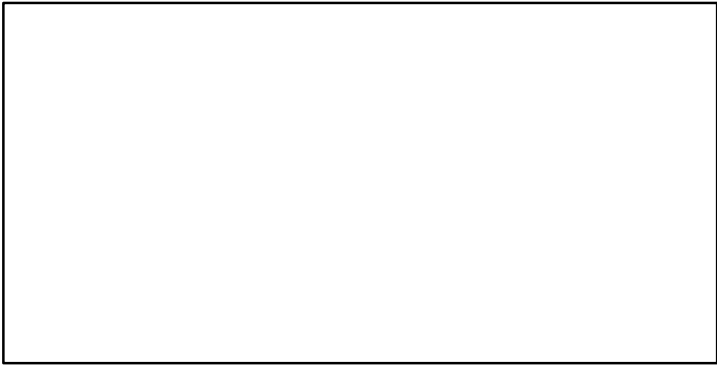
TN *



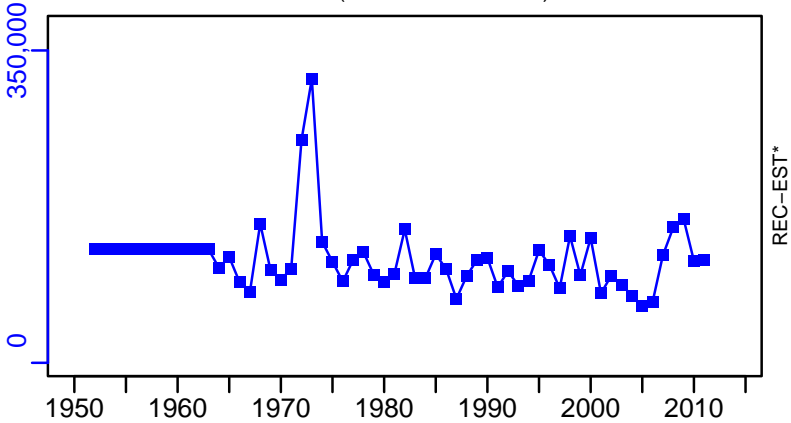
F*



ER*

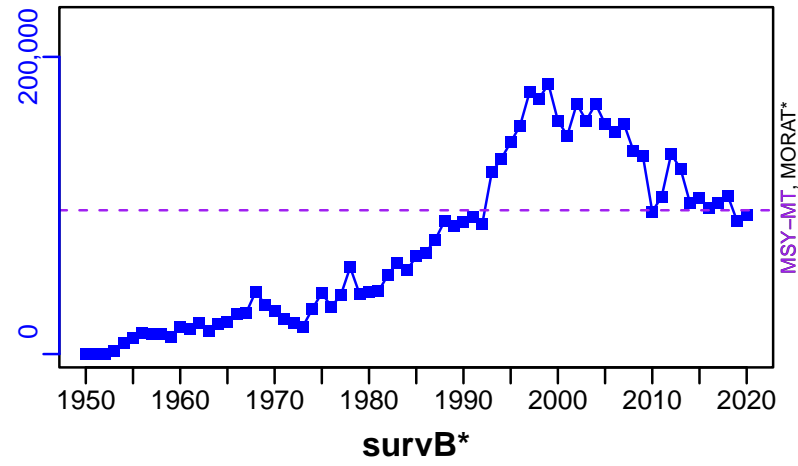


R-E00 (1950-2014-PONS)



Bigeye tuna Indian Ocean [BIGEYEIO]

TC-MT, TL*, RecC* (1950–2020–SMITH)



TAC*, Cpair*, Cadv*



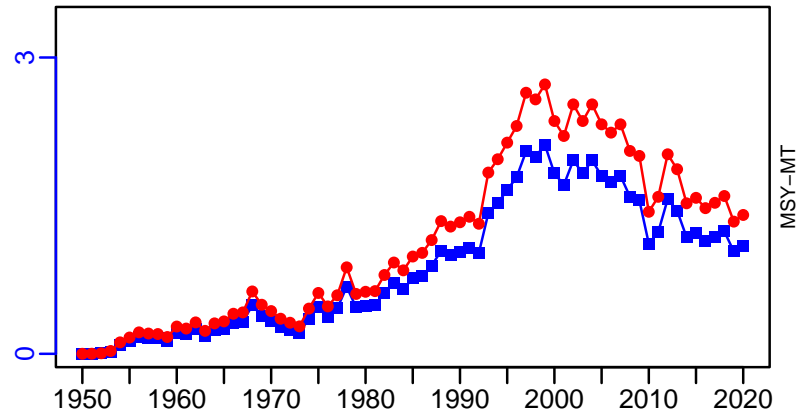
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1950–2020–SMITH)



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

Black marlin Indian Ocean [BLKMARLINIO]

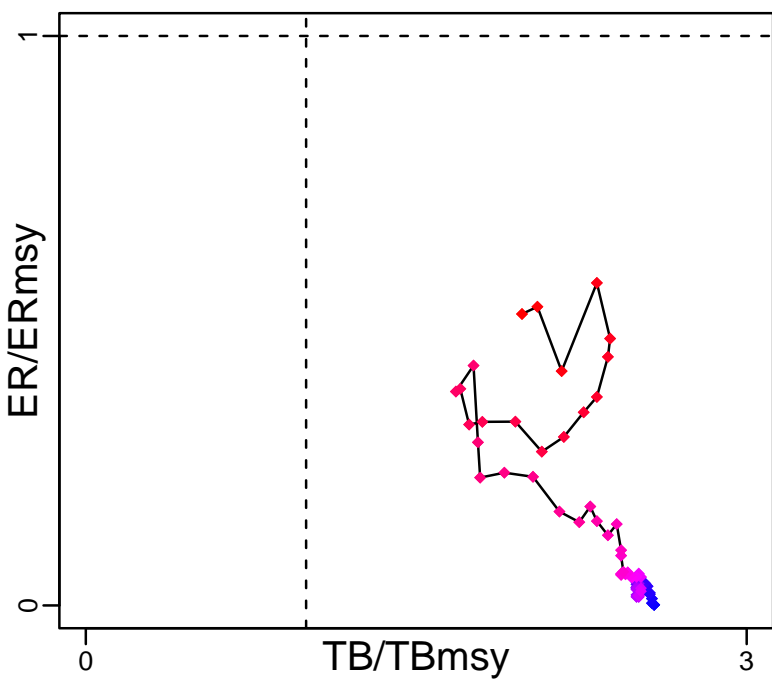
Metadata	
Scientific Name	Istiompax indica
Current Assess ID	IOTC-BLKMARLINIO-1950-2020-SMITH
Area	Indian Ocean
Management Authority	Indian Ocean Tuna Commission
Assessor	Indian Ocean Tuna Commission
Asmts in RAM	2014, 2018, 2020

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-extr-MT	2020	90,501
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	ERmsy-calc-ratio	2020	0.191
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	TB0-MT	2014	73,000
SSB0	-	-	-
MSY	MSY-MT	2020	17,301
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

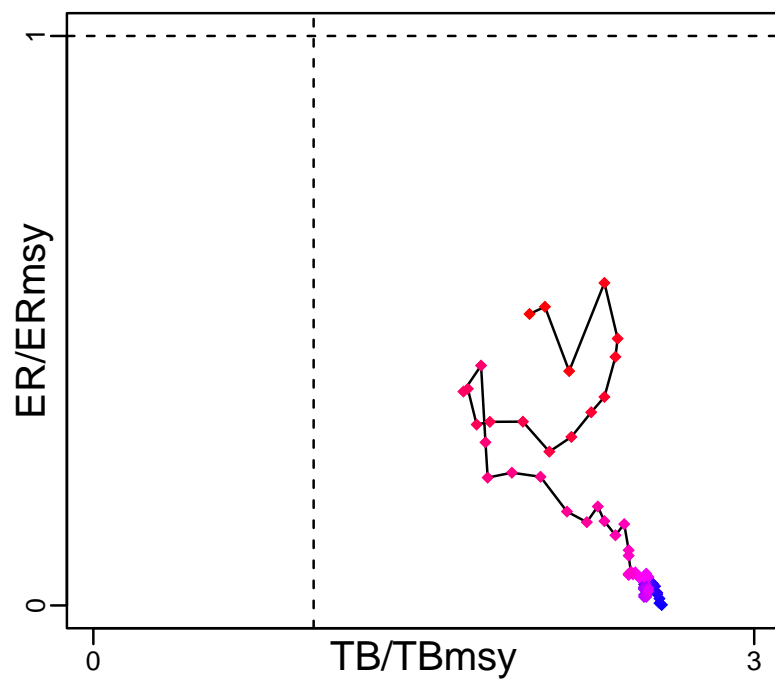
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2020	184,400	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-calc-ratio	2020	0.098	-	-
TC	TC-MT	2020	16,977		
TL	TL-MT	2018	16,459		
TB/TBmsy	TBdivTBmsy-dimensionless	2020	1.98		
SSB/SSBmsy	-	-	-		
F/Fmsy	FdivFmsy-dimensionless	2020	0.53		
ER/ERmsy	ER-calc-ratio/ERmsy-calc-ratio	2020	0.512		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Black marlin Indian Ocean [BLKMARLINIO]

Kobe MSYpref (1950–2020–SMITH)



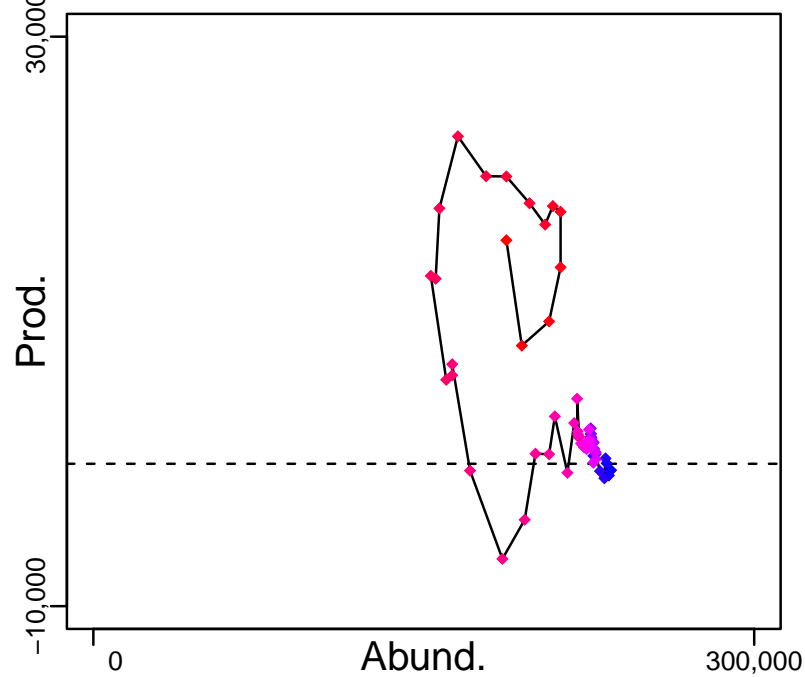
Kobe MGTpref (1950–2020–SMITH)



Spawner Recruit*



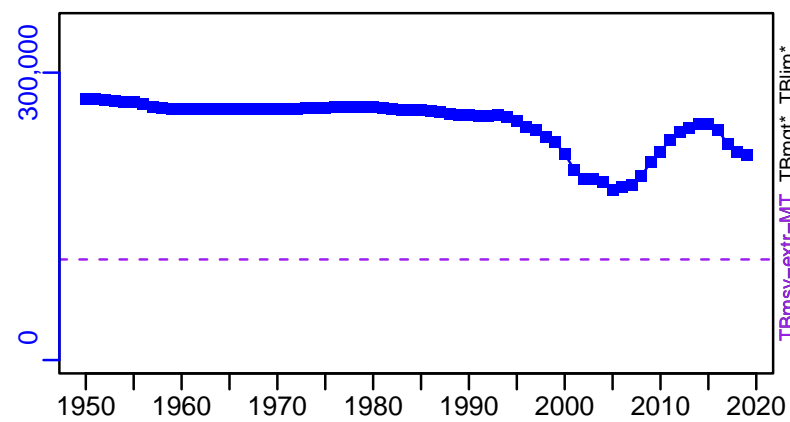
Production (1950–2020–SMITH)



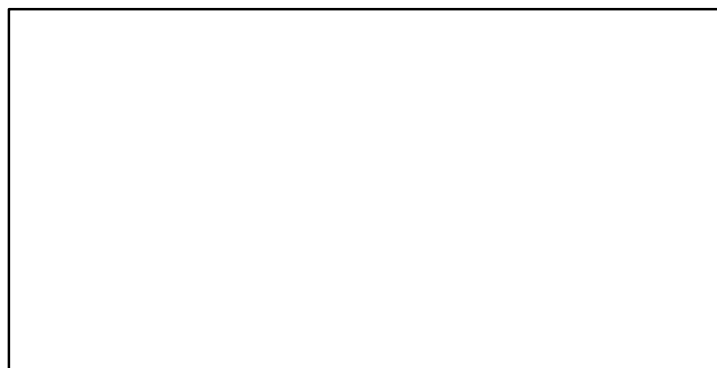
◆ Start Year ◆ End Year * No Data

Black marlin Indian Ocean [BLKMARLINIO]

TB-MT (1950-2020-SMITH)



SSB*



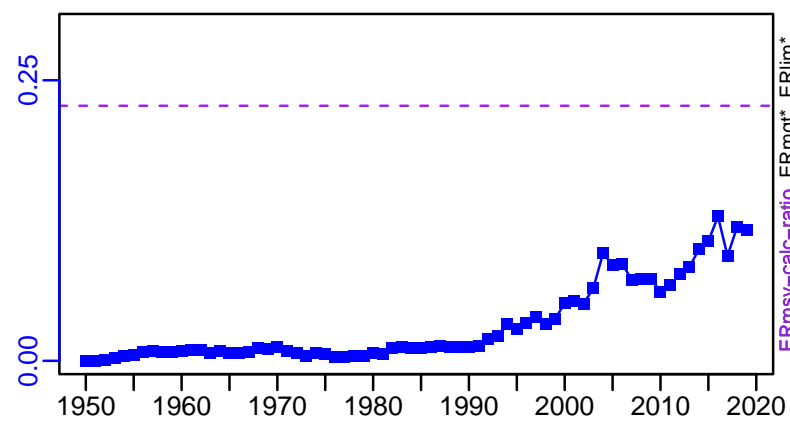
TN *



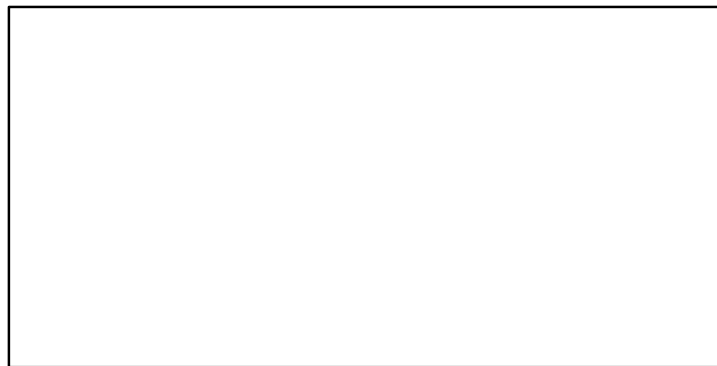
F*



ER-calc-ratio (1950-2020-SMITH)

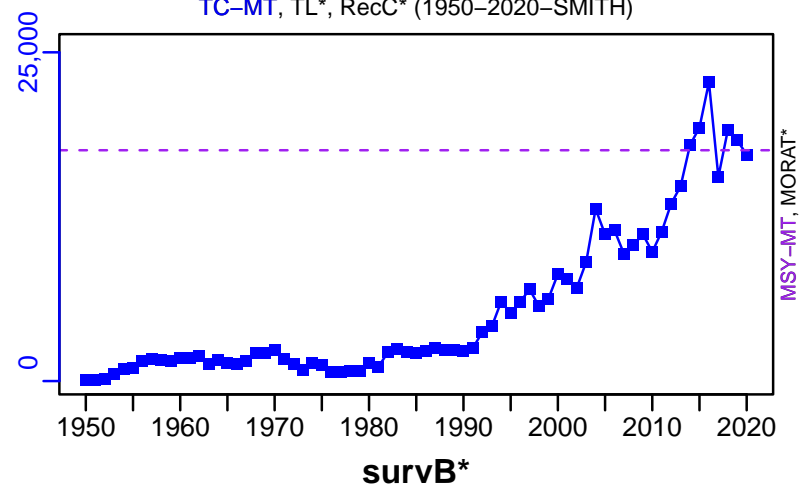


Recruits*



Black marlin Indian Ocean [BLKMARLINIO]

TC-MT, TL*, RecC* (1950–2020–SMITH)



TAC*, Cpair*, Cadv*



survB*



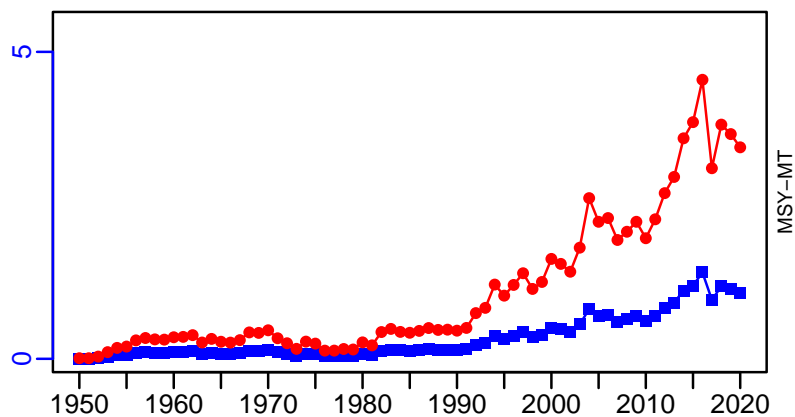
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1950–2020–SMITH)



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

Blue marlin Atlantic Ocean [BMARLINATL]

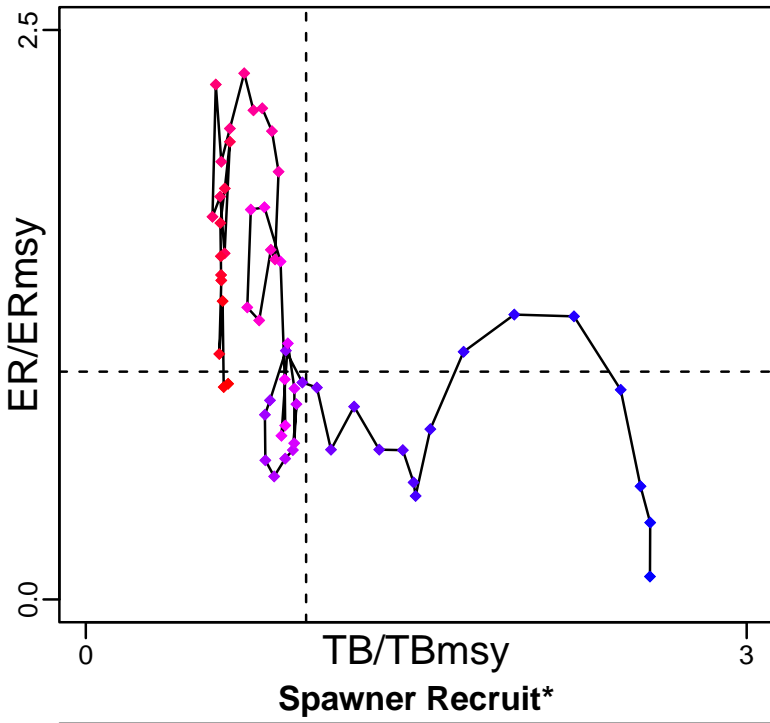
Metadata	
Scientific Name	Makaira nigricans
Current Assess ID	ICCAT-BMARLINATL-1956-2018-PONS
Area	Atlantic Ocean
Management Authority	International Commission for the Conservation of Atlantic Tunas
Assessor	International Commission for the Conservation of Atlantic Tunas
Asmts in RAM	2010, 2018, 2017

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-extr-MT	2018	32,065
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	ERmsy-calc-ratio	2018	0.103
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2018	3302
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

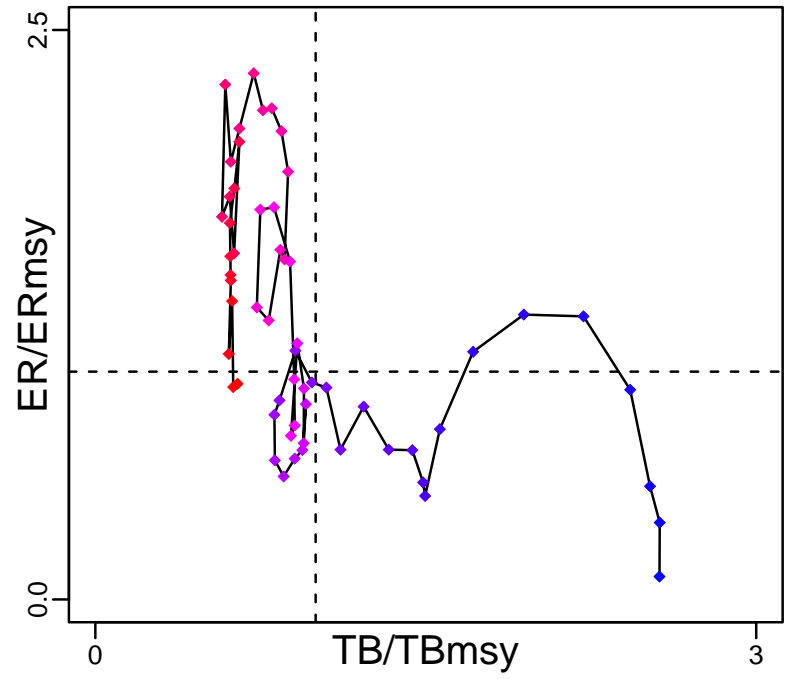
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2018	20,741	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	F-1/yr	2010	0.222	-	-
ER	ER-calc-ratio	2018	0.098	-	-
TC	TC-MT	2017	1987		
TL	TL-MT	2018	1411		
TB/TBmsy	TBdivTBmsy-dimensionless	2018	0.646		
SSB/SSBmsy	-	-	-		
F/Fmsy	FdivFmsy-dimensionless	2018	0.957		
ER/ERmsy	ER-calc-ratio/ERmsy-calc-ratio	2018	0.947		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Blue marlin Atlantic Ocean [BMARLINATL]

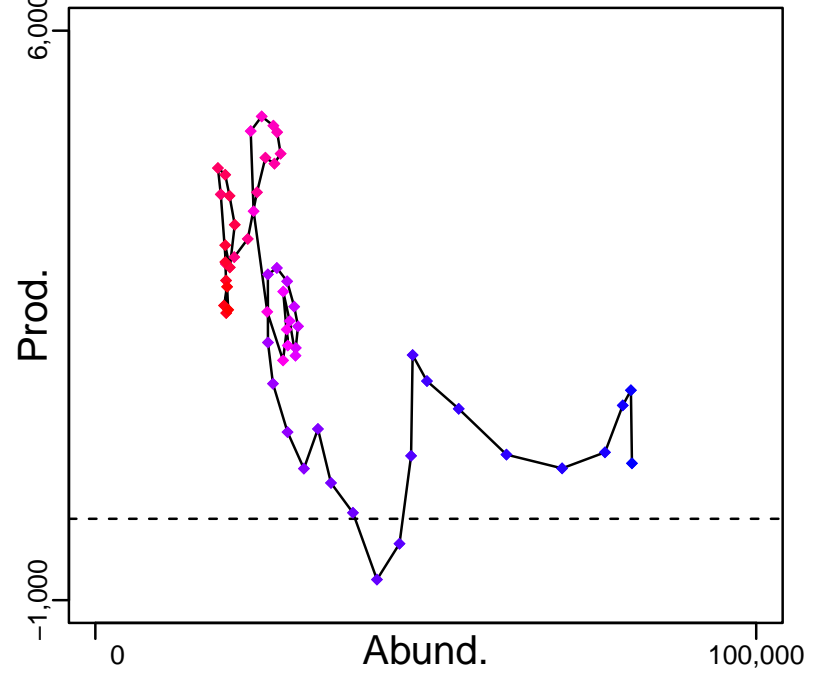
Kobe MSYpref (1956–2018–PONS)



Kobe MGTpref (1956–2018–PONS)



Production (1956–2018–PONS)

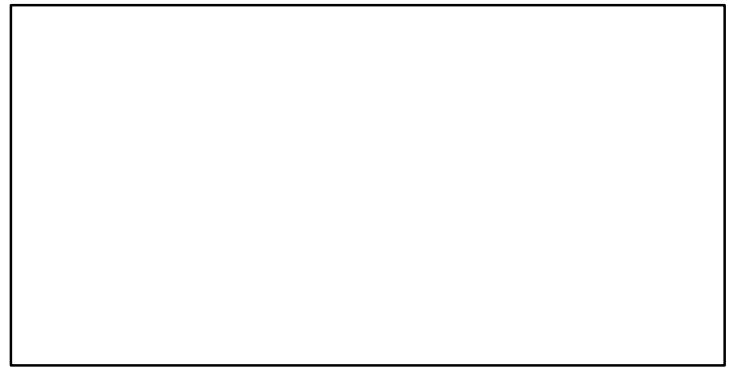
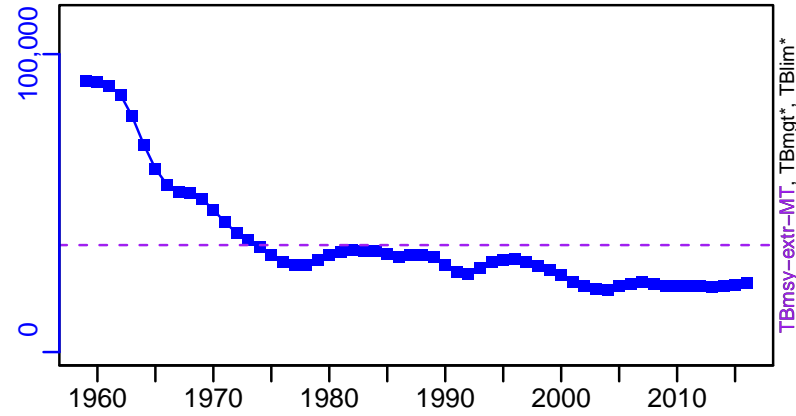


◆ Start Year ◆ End Year * No Data

Blue marlin Atlantic Ocean [BMARLINATL]

TB-MT (1956-2018-PONS)

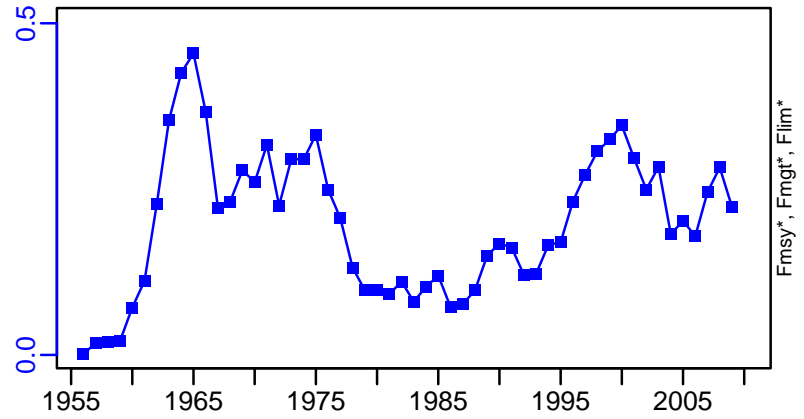
SSB*



TN *

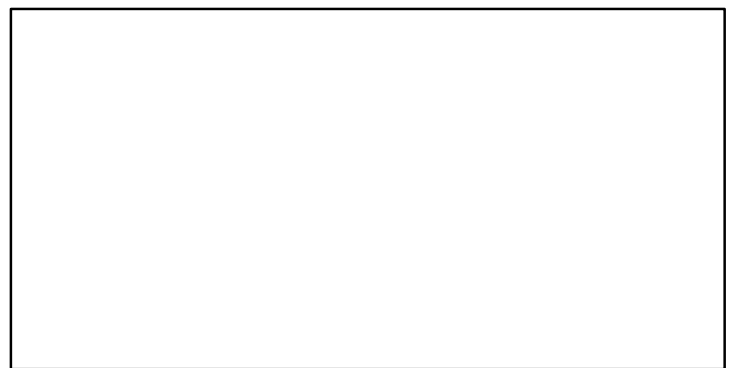
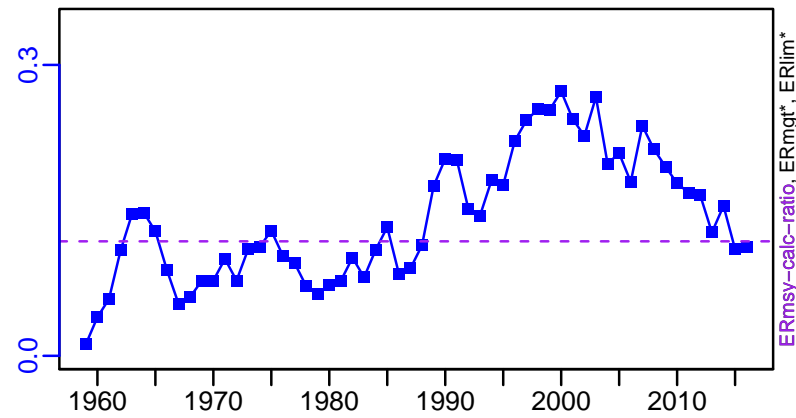


F-1/yr (1956-2010-CHING)



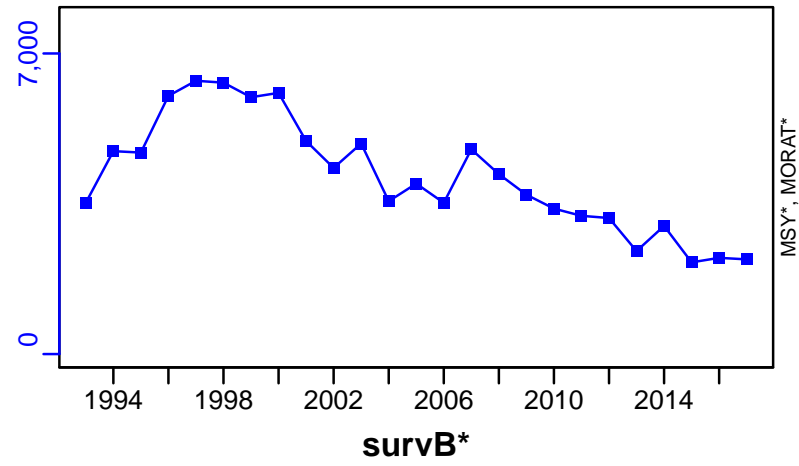
ER-calc-ratio (1956-2018-PONS)

Recruits*



Blue marlin Atlantic Ocean [BMARLINATL]

TC-MT, TL*, RecC* (1993–2017–SISIMP2021)



TAC*, Cpair*, Cadv*



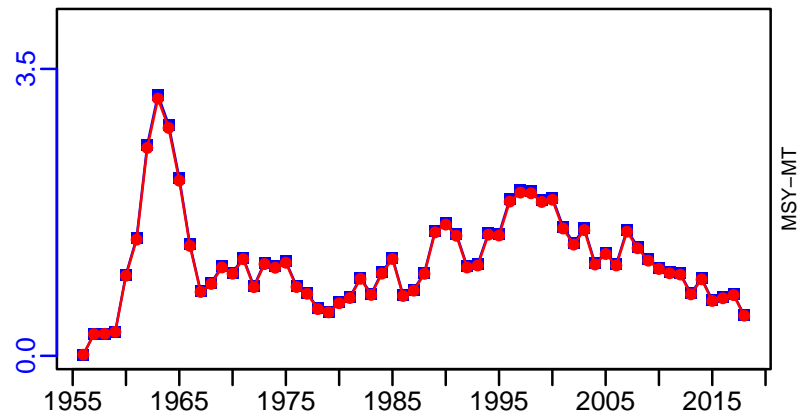
CPUE*



EFFORT*



TL-MT/MSY-MT, CdivMEANC-ratio, (1956–2018–PONS)



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

Indo Pacific blue marlin Indian Ocean [BMARLINIO]

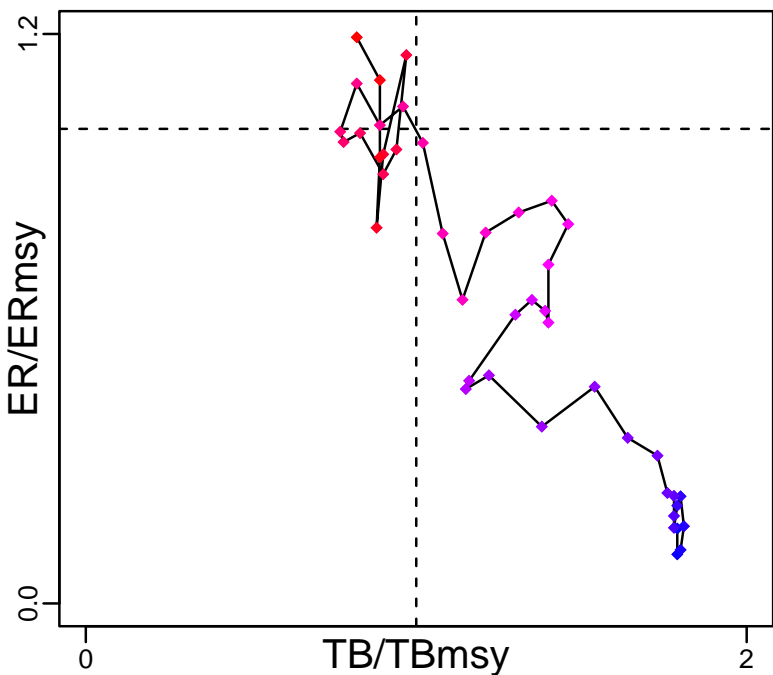
Metadata	
Scientific Name	Makaira mazara
Current Assess ID	IOTC-BMARLINIO-1950-2020-SMITH
Area	Indian Ocean
Management Authority	Indian Ocean Tuna Commission
Assessor	Indian Ocean Tuna Commission
Asmts in RAM	2014, 2018, 2020

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-extr-MT	2020	45,428
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	ERmsy-calc-ratio	2020	0.22
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	TB0-MT	2014	259,000
SSB0	-	-	-
MSY	MSY-MT	2020	9980
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

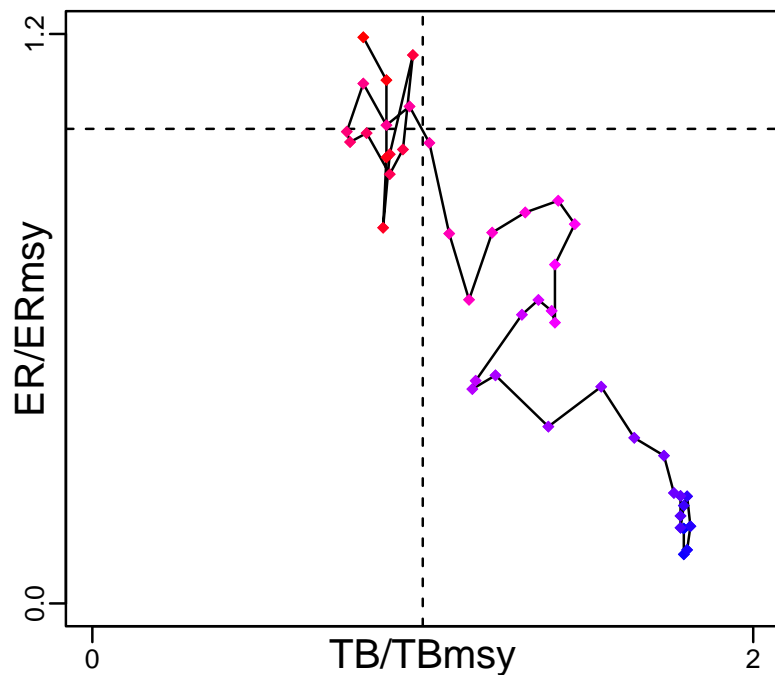
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2020	37,660	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-calc-ratio	2020	0.262	-	-
TC	TC-MT	2020	6958		
TL	TL-MT	2018	7811		
TB/TBmsy	TBdivTBmsy-dimensionless	2020	0.82		
SSB/SSBmsy	-	-	-		
F/Fmsy	FdivFmsy-dimensionless	2020	1.47		
ER/ERmsy	ER-calc-ratio/ERmsy-calc-ratio	2020	1.193		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Indo Pacific blue marlin Indian Ocean [BMARLINIO]

Kobe MSYpref (1950–2020–SMITH)



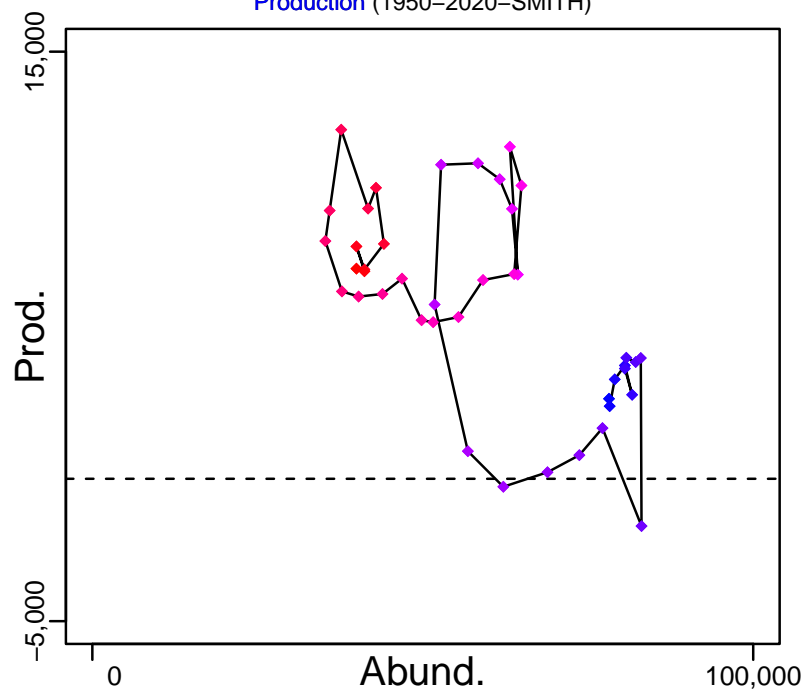
Kobe MGTpref (1950–2020–SMITH)



Spawner Recruit*



Production (1950–2020–SMITH)

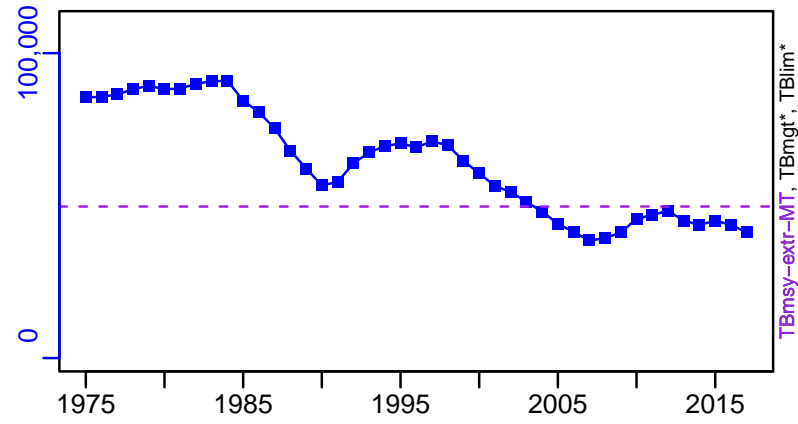


◆ Start Year ◆ End Year * No Data

Indo Pacific blue marlin Indian Ocean [BMARLINIO]

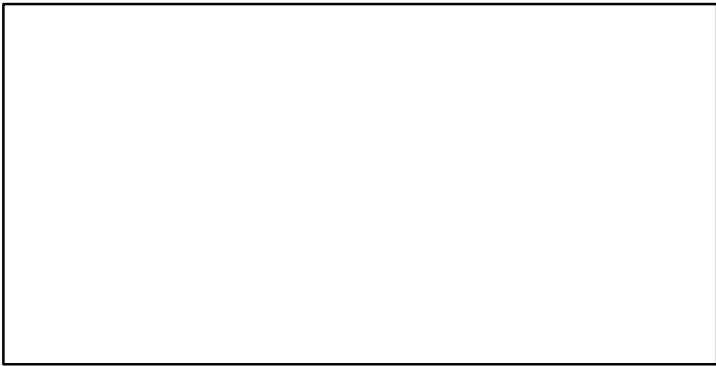
TB-MT (1950-2020-SMITH)

SSB*



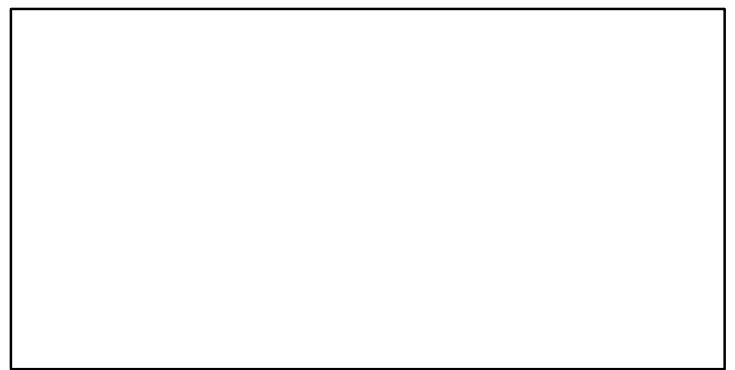
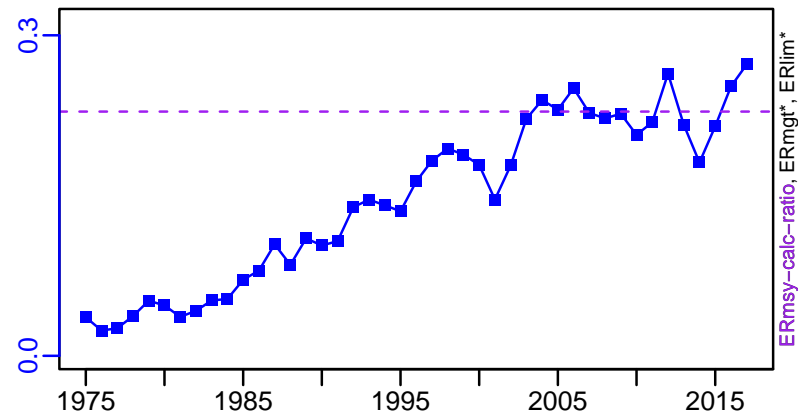
TN *

F*



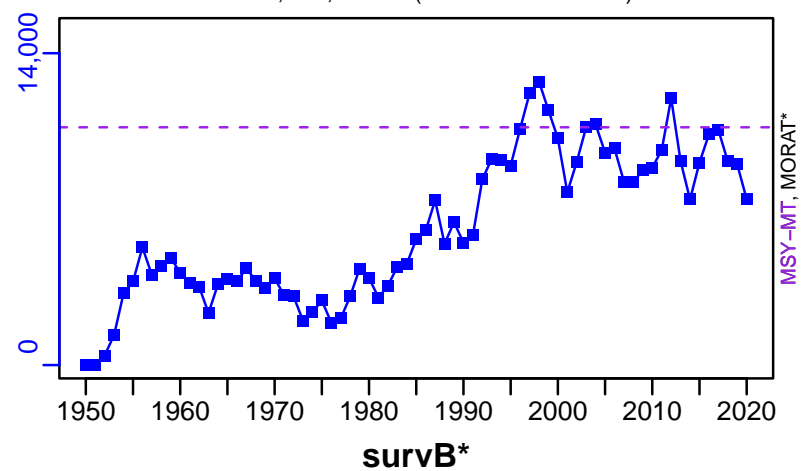
ER-calc-ratio (1950-2020-SMITH)

Recruits*



Indo Pacific blue marlin Indian Ocean [BMARLINIO]

TC-MT, TL*, RecC* (1950-2020-SMITH)



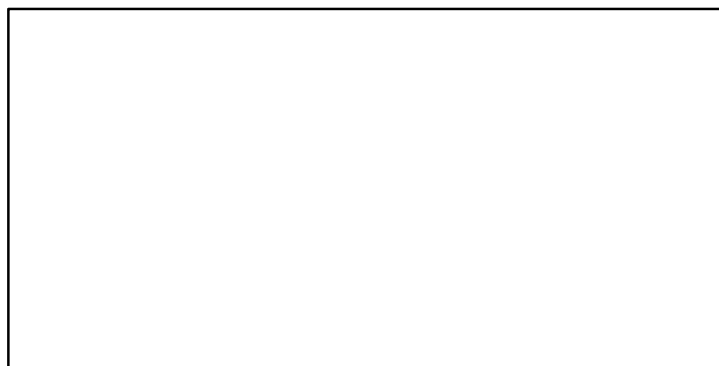
TAC*, Cpair*, Cadv*



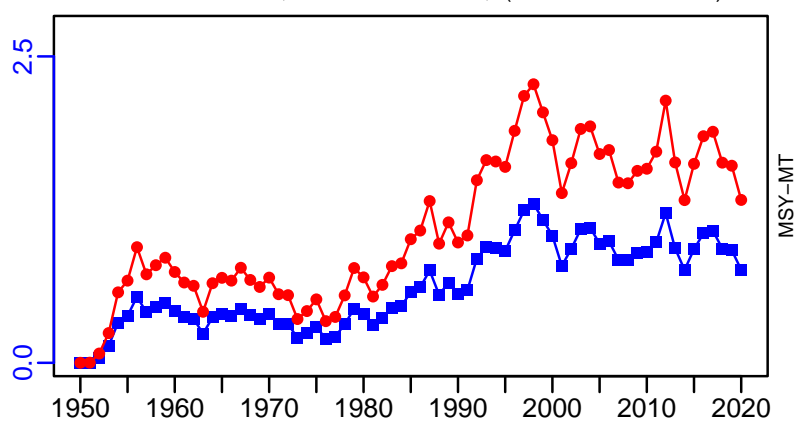
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1950-2020-SMITH)



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

Blue marlin Pacific Ocean [BMARLINPAC]

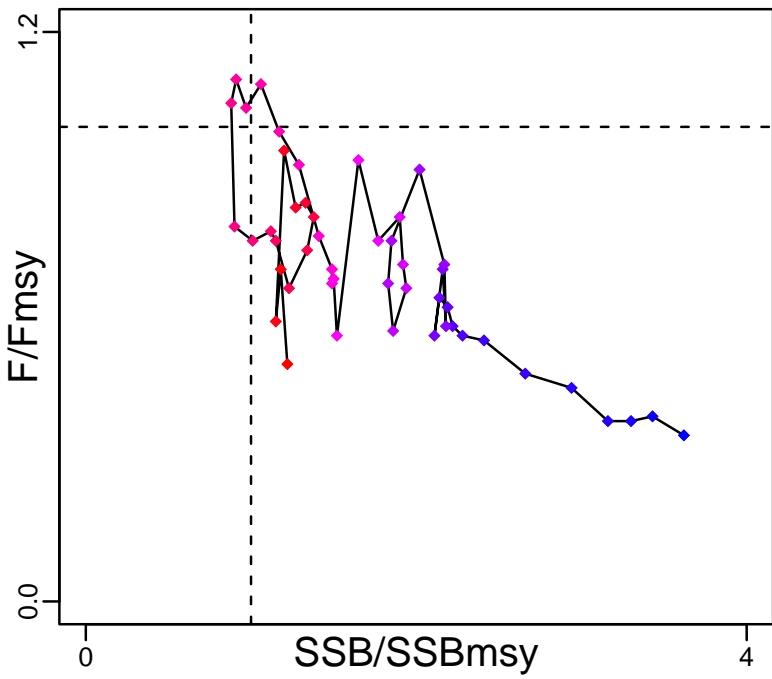
Metadata	
Scientific Name	Makaira nigricans
Current Assess ID	ISC-BMARLINPAC-1971-2019-LAWSON
Area	Pacific Ocean
Management Authority	International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean
Assessor	International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean
Asmts in RAM	2011, 2014, 2019

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2019	20,677
Fmsy	Fmsy-1/yr	2019	0.23
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2011	19,437
Fmgt	Fmgt-1/yr	2011	0.32
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2019	24,600
M	M-1/yr	2011	0.42
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

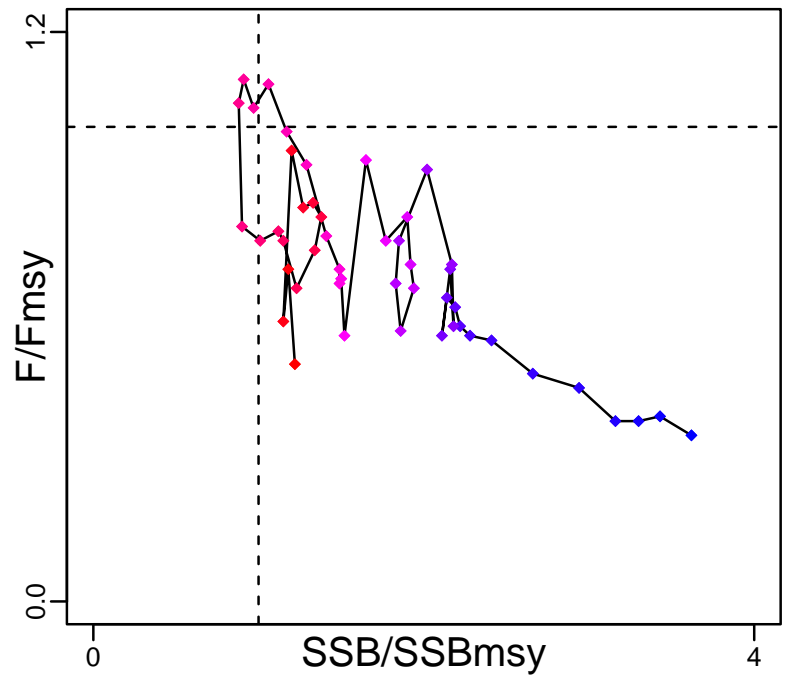
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2019	24,241	Females	-
TN	-	-	-	-	-
R	R-E00	2019	880,000	-	-
F	F-1/yr	2019	0.11	-	-
ER	-	-	-	-	-
TC	TC-MT	2019	16,504		
TL	TL-MT	2014	20,356		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2019	1.22		
F/Fmsy	FdivFmsy-dimensionless	2019	0.5		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2011	1.286		
F/Fmgt	F-1/yr/Fmgt-1/yr	2011	0.725		
ER/ERmgt	-	-	-		

Blue marlin Pacific Ocean [BMARLINPAC]

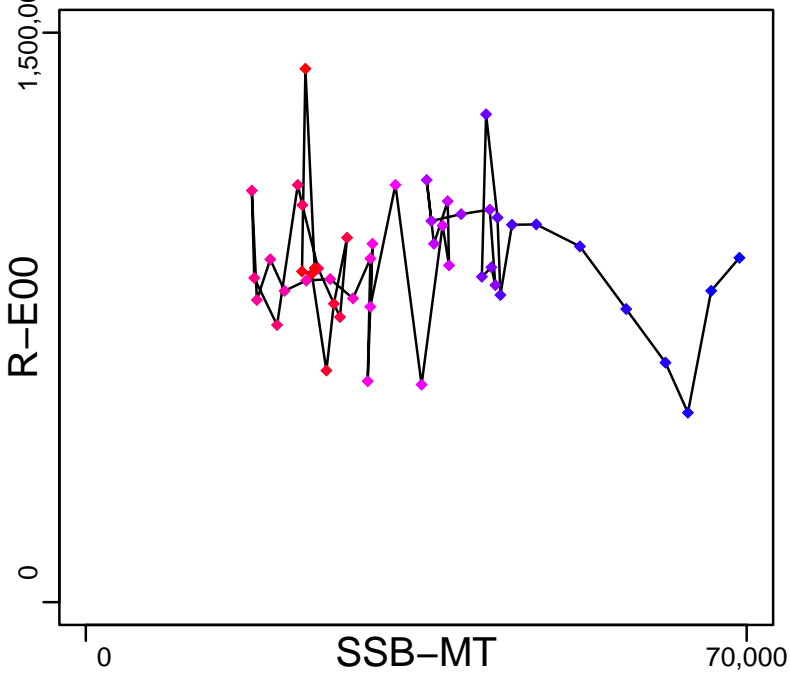
Kobe MSYpref (1971–2019–LAWSON)



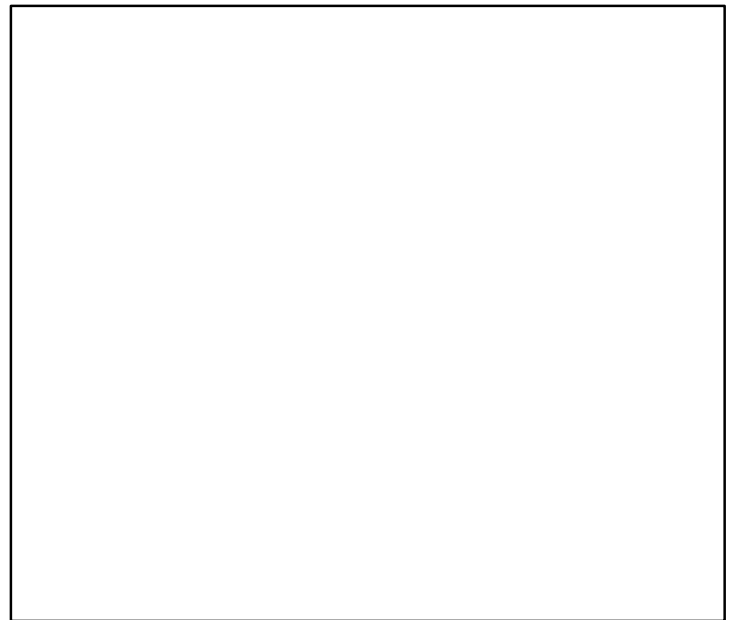
Kobe MGTpref (1971–2019–LAWSON)



Spawner Recruit (1971–2019–LAWSON)



Production*



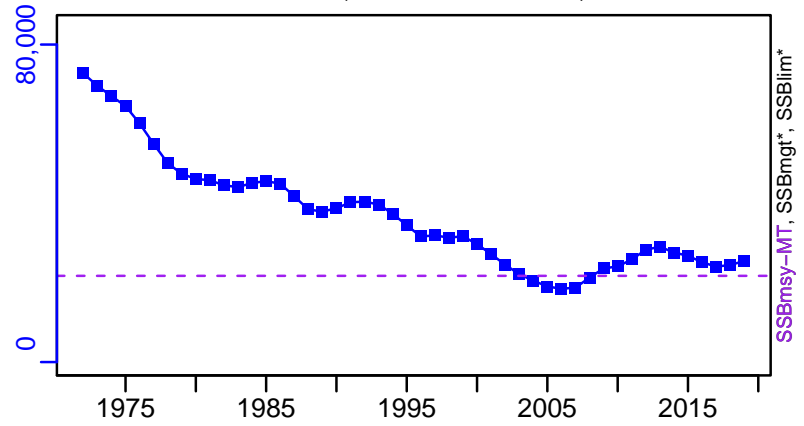
◆ Start Year ◆ End Year * No Data

Blue marlin Pacific Ocean [BMARLINPAC]

TB*



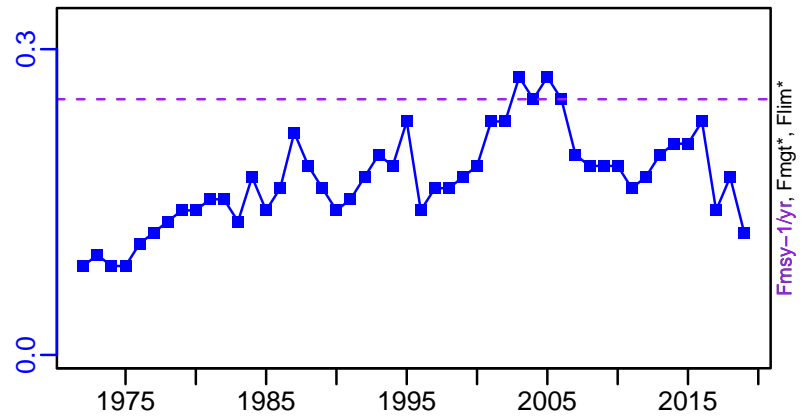
SSB-MT (1971-2019-LAWSON)



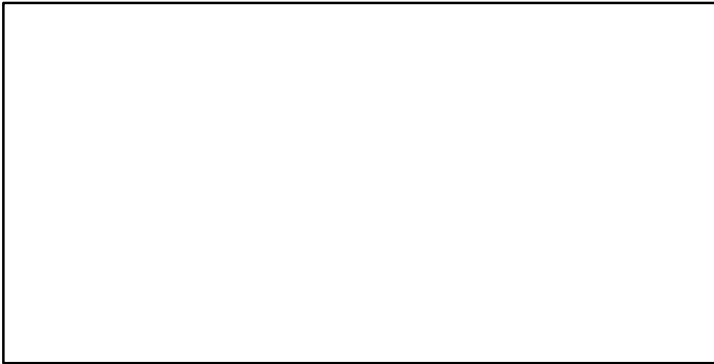
TN *



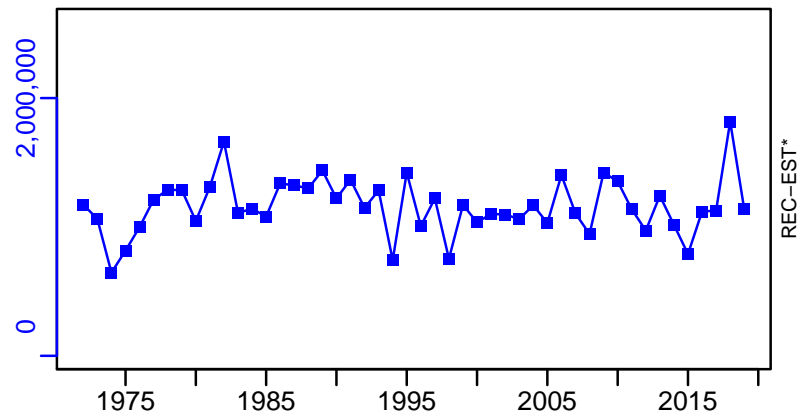
F-1/yr (1971-2019-LAWSON)



ER*

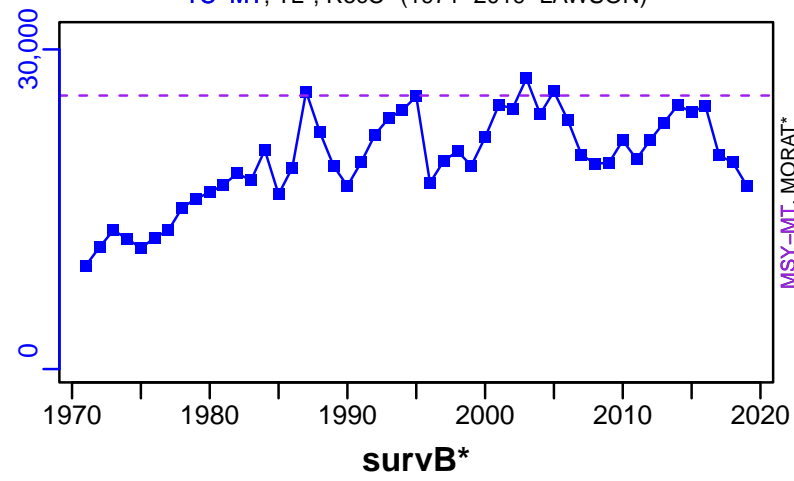


R-E00 (1971-2019-LAWSON)



Blue marlin Pacific Ocean [BMARLINPAC]

TC-MT, TL*, RecC* (1971-2019-LAWSON)



TAC*, Cpair*, Cadv*



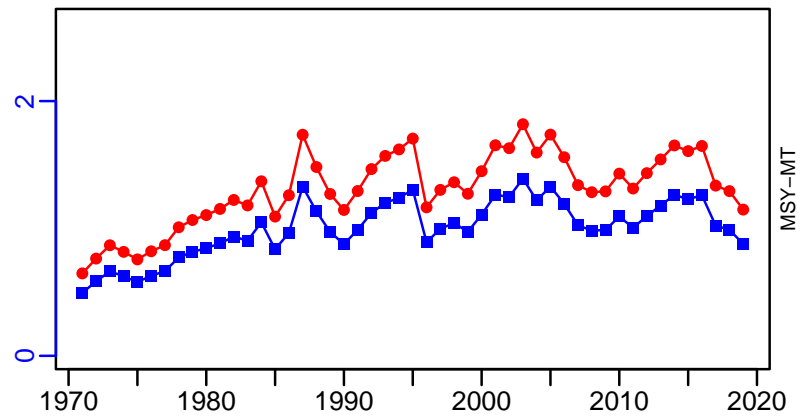
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1971-2019-LAWSON)



Indo-Pacific sailfish Indian Ocean [IPSAILIO]

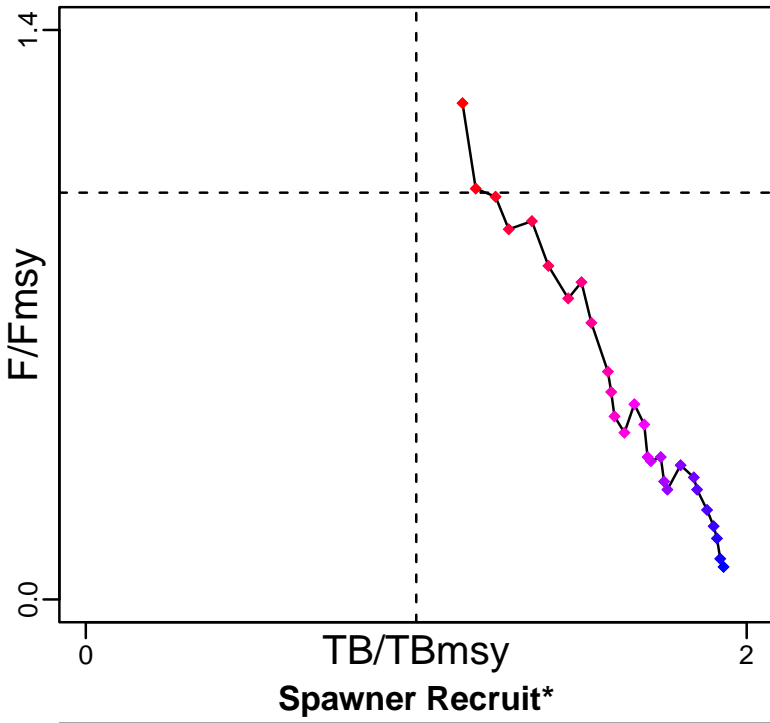
Metadata	
Scientific Name	Istiophorus platypterus
Current Assess ID	IOTC-IPSAILIO-1980-2019-SMITH
Area	Indian Ocean
Management Authority	Indian Ocean Tuna Commission
Assessor	Indian Ocean Tuna Commission
Asmts in RAM	2018, 2019

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2019	23,900
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

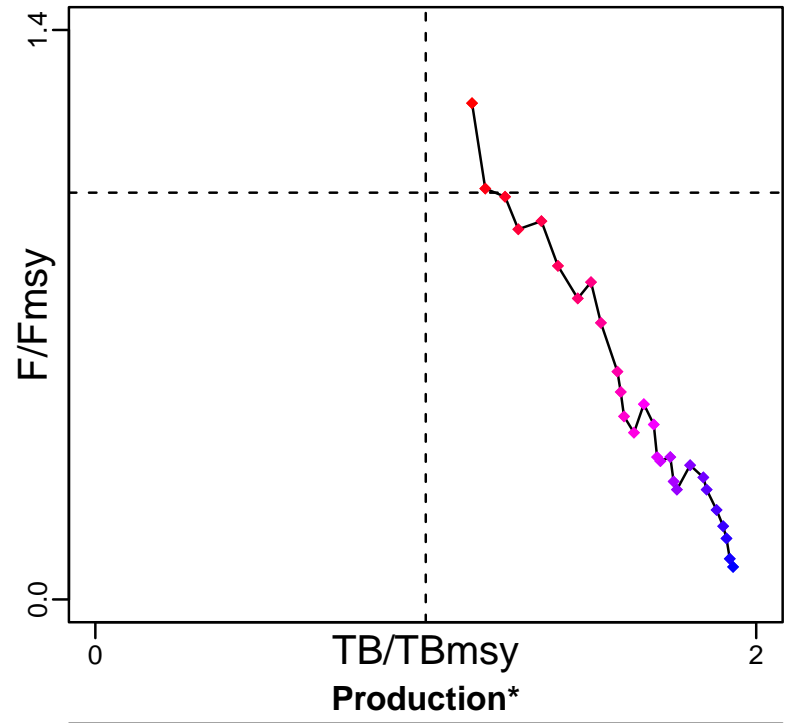
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2019	29,635		
TL	TL-MT	2018	32,287		
TB/TBmsy	TBdivTBmsy-dimensionless	2019	1.14		
SSB/SSBmsy	-	-	-		
F/Fmsy	FdivFmsy-dimensionless	2019	1.22		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Indo-Pacific sailfish Indian Ocean [IPSAILIO]

Kobe MSYpref (1980–2019–SMITH)



Kobe MGTpref (1980–2019–SMITH)



◆ Start Year ◆ End Year * No Data

TB*



SSB*



TN *



F*



ER*

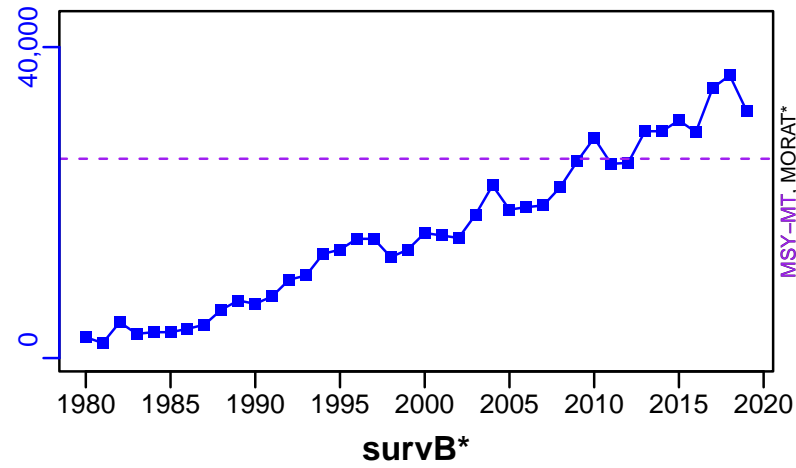


Recruits*



Indo-Pacific sailfish Indian Ocean [IPSAILIO]

TC-MT, TL*, RecC* (1980–2019–SMITH)



TAC*, Cpair*, Cadv*



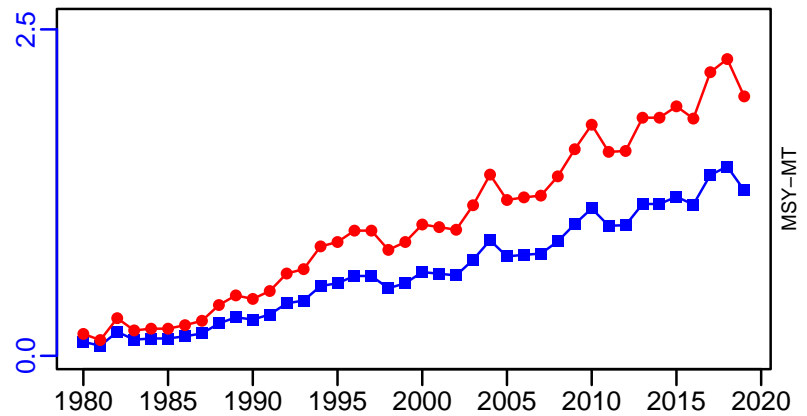
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1980–2019–SMITH)



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

Pacific bluefin tuna Pacific Ocean [PACBTUNA]

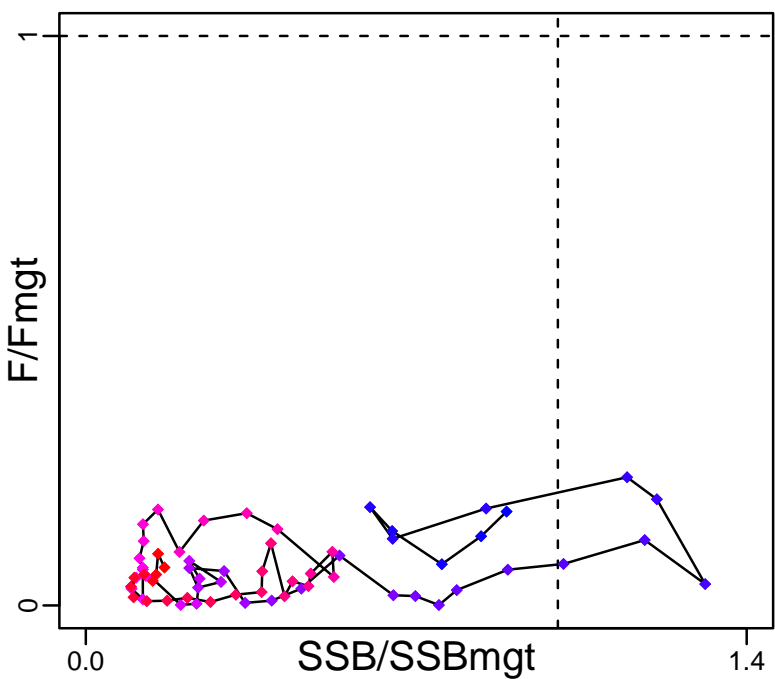
Metadata	
Scientific Name	Thunnus orientalis
Current Assess ID	ISC-PACBTUNA-1952-2020-LAWSON
Area	Pacific Ocean
Management Authority	International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean
Assessor	International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean
Asmts in RAM	2018, 2012, 2014, 2016, 2020

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2012	251,233
SSBmsy	SSBmsy-MT	2016	135,874
Fmsy	Fmsy-1/yr	2012	0.117
ERmsy	ERmsy-ratio	2012	0.069
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2012	17,345
M	-	-	-
TBlim	-	-	-
SSBlim	SSBlim-MT	2016	101,906
Flim	-	-	-
ERlim	-	-	-

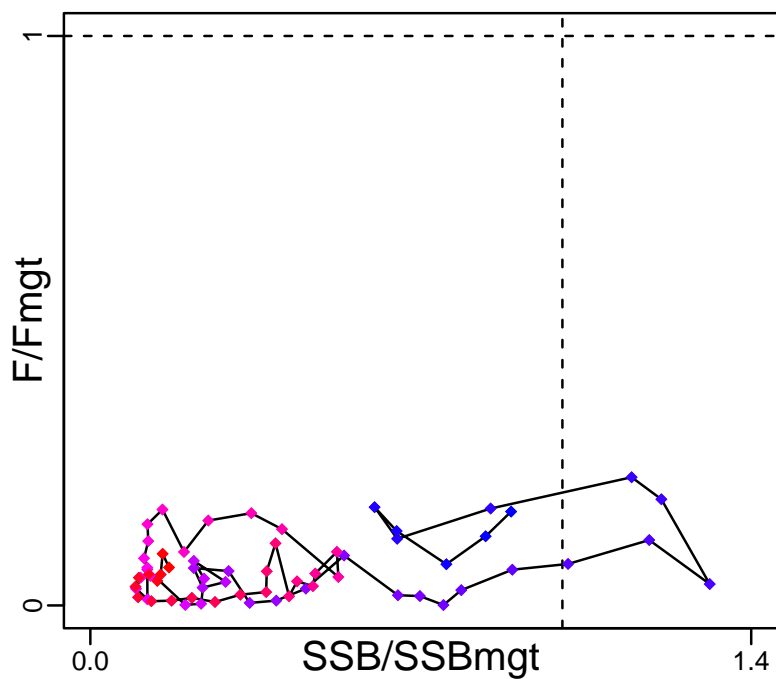
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2020	82,212	-	-
SSB	SSB-MT	2020	28,228	-	-
TN	-	-	-	-	-
R	R-E00	2020	4,658,000	-	-
F	F-1/yr	2020	0.045	-	-
ER	ER-calc-ratio	2020	0.124	-	-
TC	TC-MT	2020	13,779		
TL	TL-MT	2018	7165		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2012	0.178		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2016	0.157		
F/Fmsy	FdivFmsy-dimensionless	2012	1.79		
ER/ERmsy	ER-calc-ratio/ERmsy-ratio	2012	4.914		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSBdivSSBmgt-dimensionless	2018	0.167		
F/Fmgt	FdivFmgt-dimensionless	2018	0.067		
ER/ERmgt	-	-	-		

Pacific bluefin tuna Pacific Ocean [PACBTUNA]

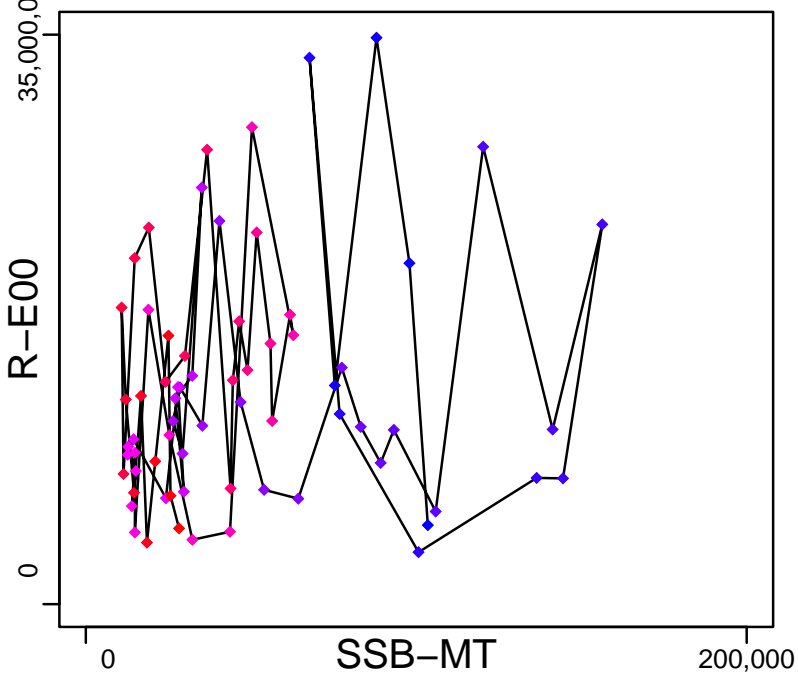
Kobe MSYpref (1950–2018–PONS)



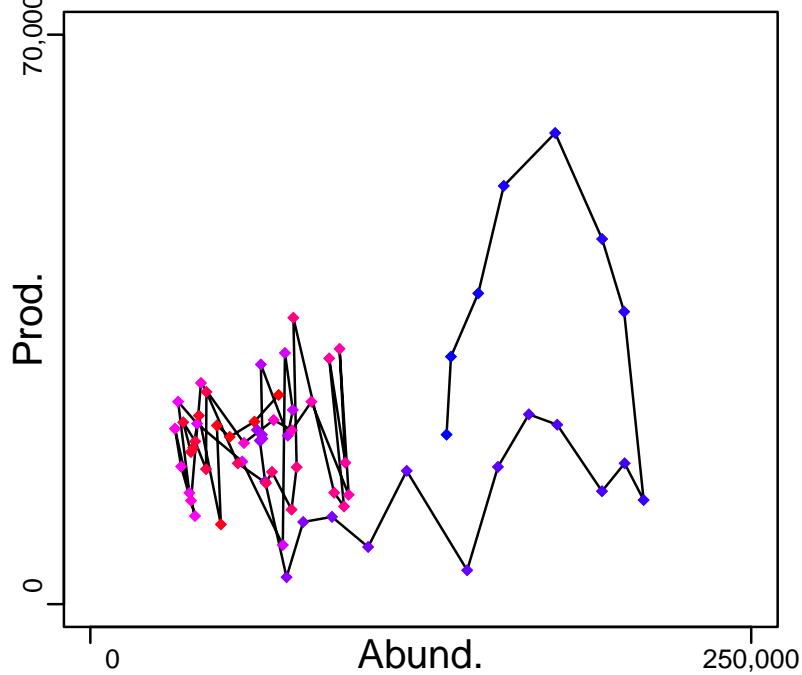
Kobe MGTpref (1950–2018–PONS)



Spawner Recruit (1952–2020–LAWSON)



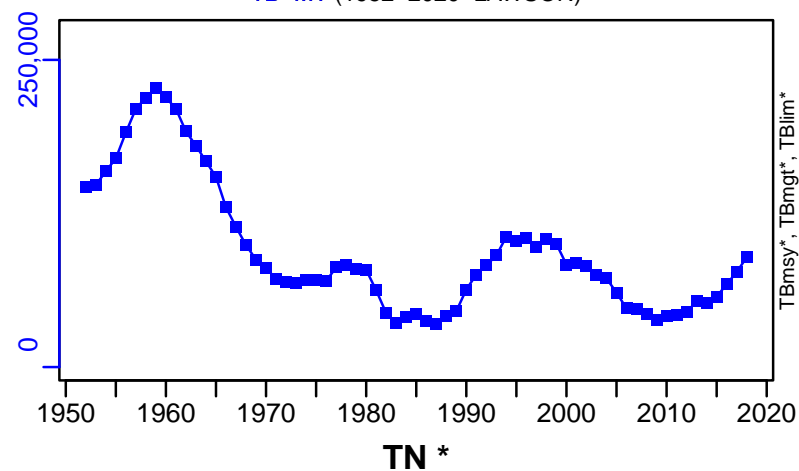
Production (1952–2020–LAWSON)



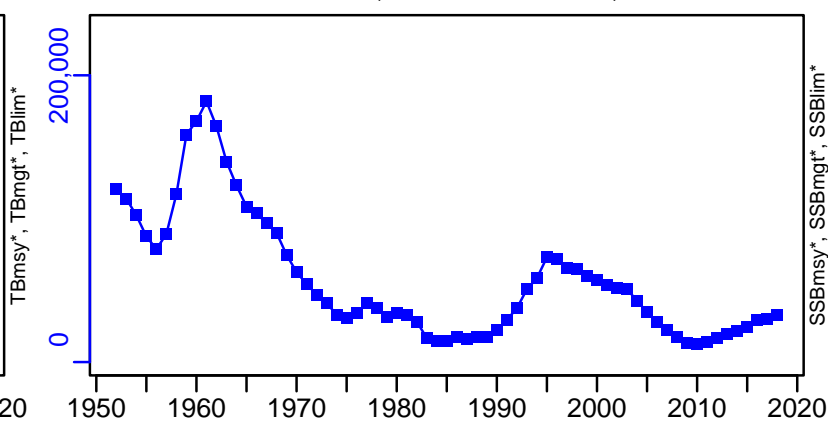
◆ Start Year ◆ End Year * No Data

Pacific bluefin tuna Pacific Ocean [PACBTUNA]

TB-MT (1952-2020-LAWSON)



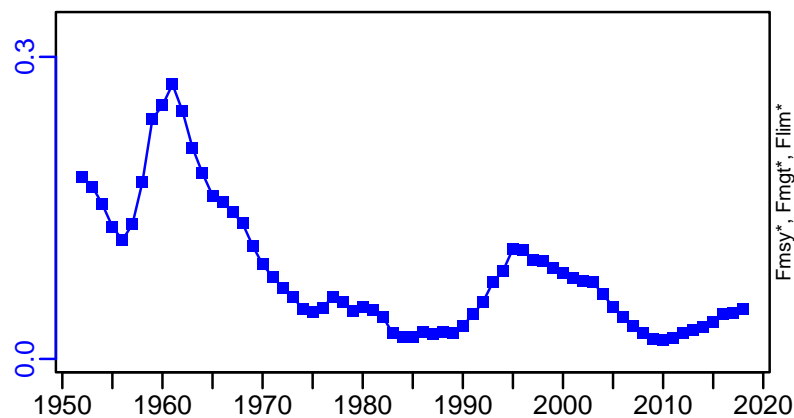
SSB-MT (1952-2020-LAWSON)



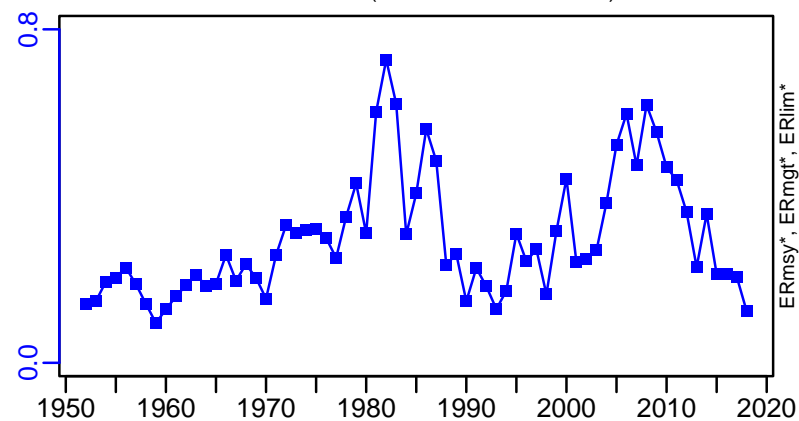
TN *



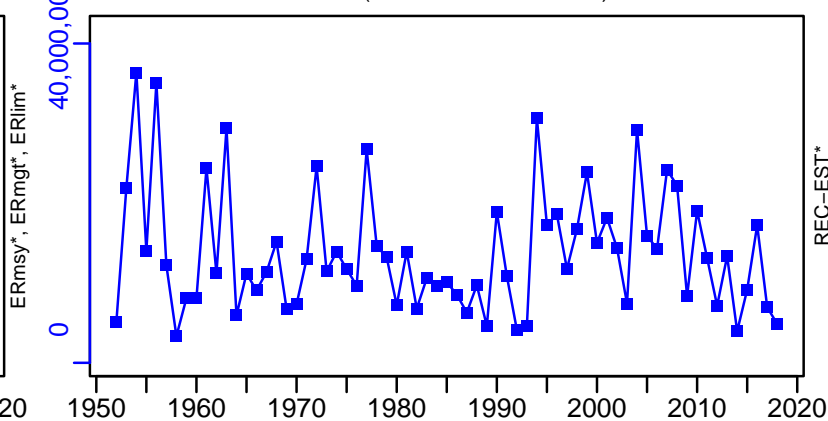
F-1/yr (1952-2020-LAWSON)



ER-calc-ratio (1952-2020-LAWSON)

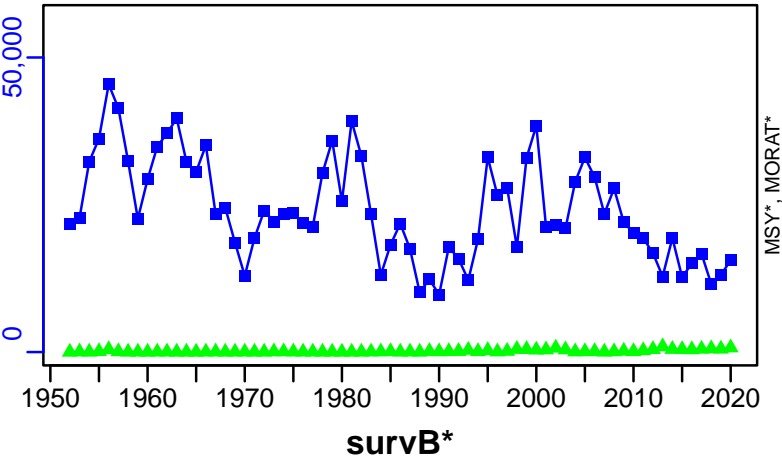


R-E00 (1952-2020-LAWSON)



Pacific bluefin tuna Pacific Ocean [PACBTUNA]

TC-MT, TL*, RecC-MT (1952-2020-LAWSON)



TAC*, Cpair*, Cadv*



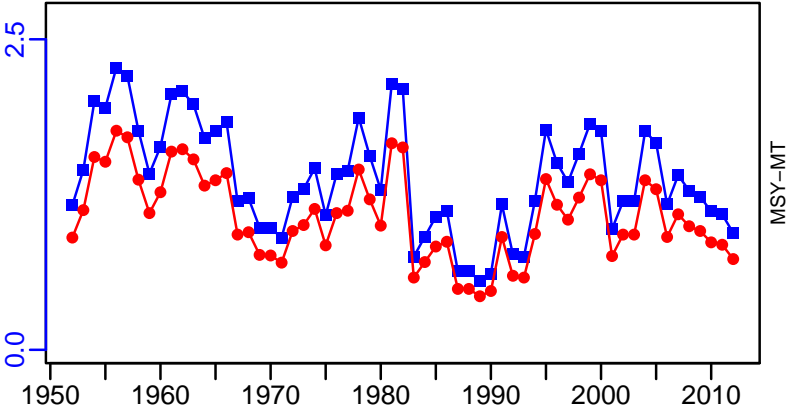
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1952-2012-PONS)



Sailfish Eastern Atlantic [SAILEATL]

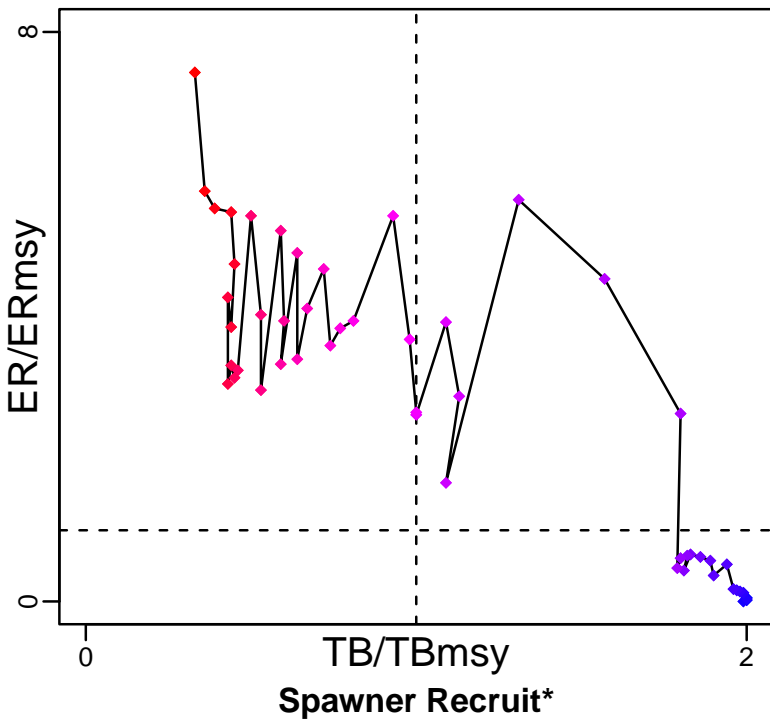
Metadata	
Scientific Name	Istiophorus albicans
Current Assess ID	ICCAT-SAILEATL-1950-2018-PONS
Area	Eastern Atlantic
Management Authority	International Commission for the Conservation of Atlantic Tunas
Assessor	International Commission for the Conservation of Atlantic Tunas
Asmts in RAM	2018, 2010

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-extr-MT	2010	14,775
SSBmsy	-	-	-
Fmsy	Fmsy-1/yr	2010	0.145
ERmsy	ERmsy-calc-ratio	2010	0.058
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	TB0-MT	2010	24,320
SSB0	-	-	-
MSY	MSY-MT	2018	1977
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

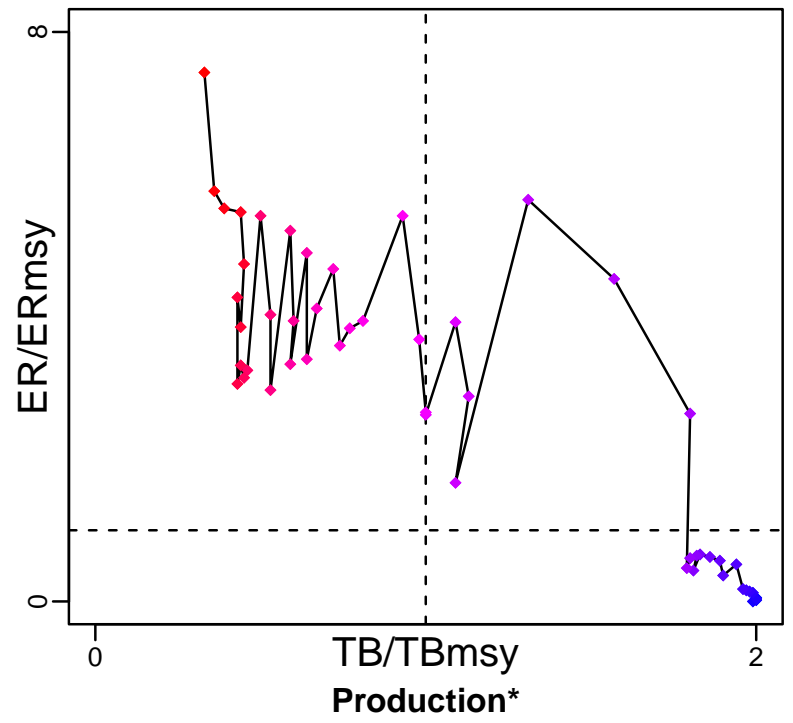
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2010	3620	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-ratio	2010	0.428	-	-
TC	TC-MT	2010	2770		
TL	TL-MT	2018	938		
TB/TBmsy	TBdivTBmsy-dimensionless	2018	0.88		
SSB/SSBmsy	-	-	-		
F/Fmsy	FdivFmsy-dimensionless	2010	3.08		
ER/ERmsy	ER-ratio/ERmsy-calc-ratio	2010	7.431		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Sailfish Eastern Atlantic [SAILEATL]

Kobe MSYpref (1956–2010–CHING)



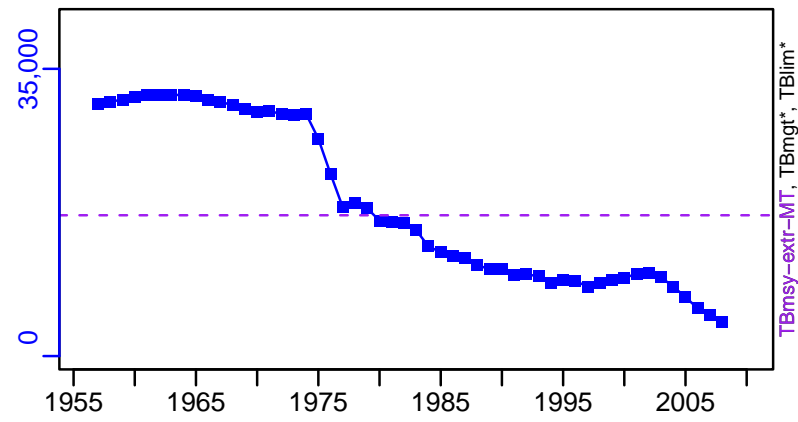
Kobe MGTpref (1956–2010–CHING)



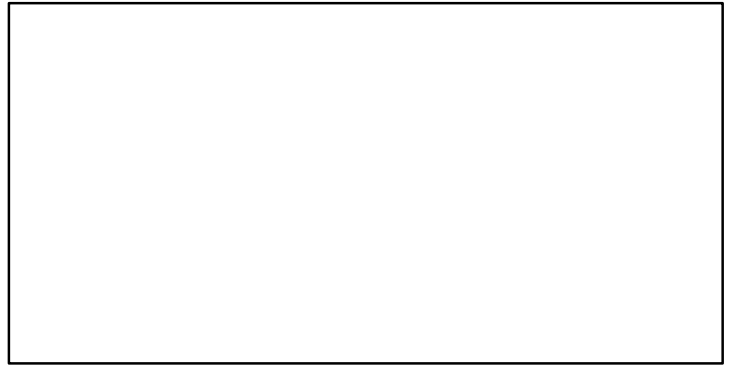
◆ Start Year ◆ End Year * No Data

Sailfish Eastern Atlantic [SAILEATL]

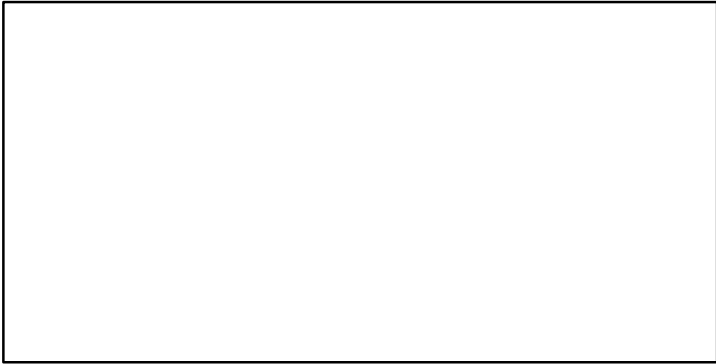
TB-MT (1956-2010-CHING)



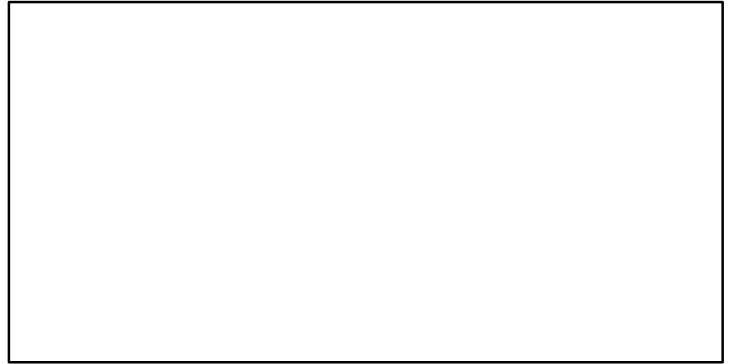
SSB*



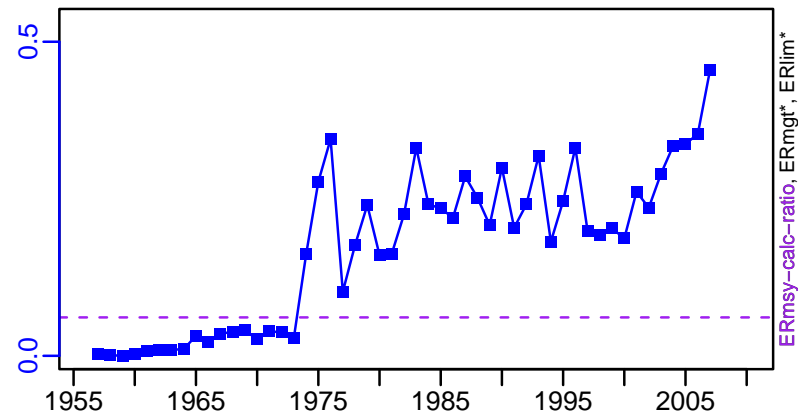
TN *



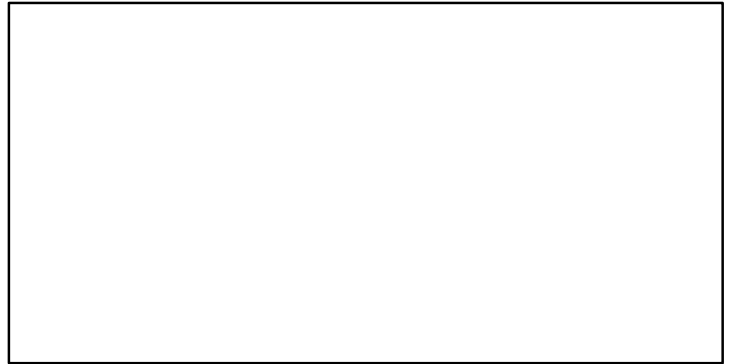
F*



ER-ratio (1956-2010-CHING)



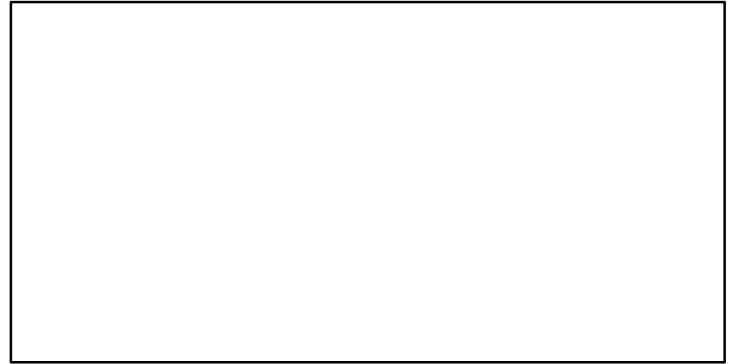
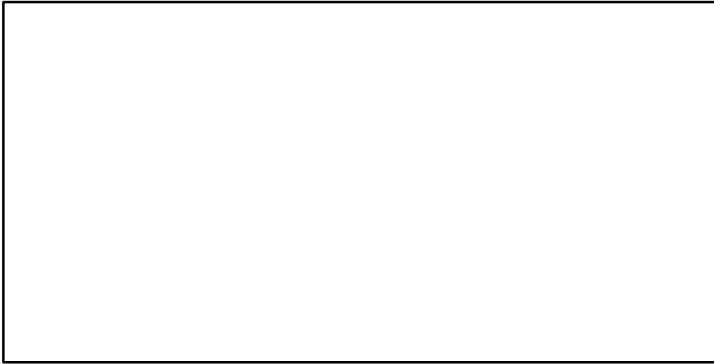
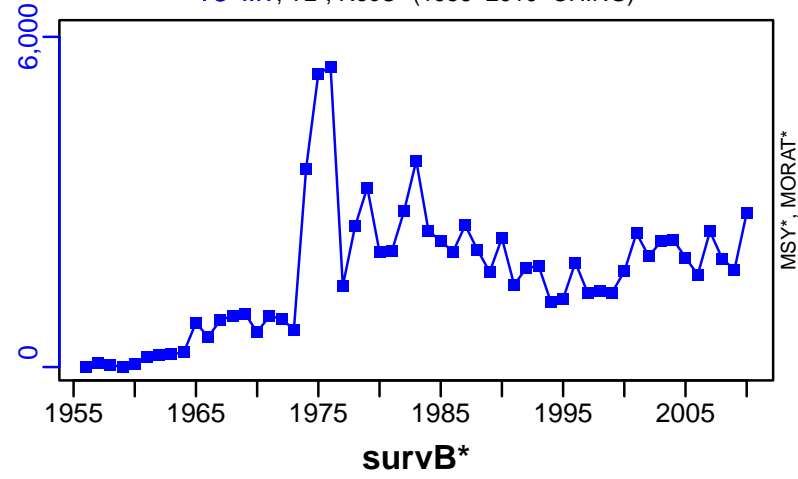
Recruits*



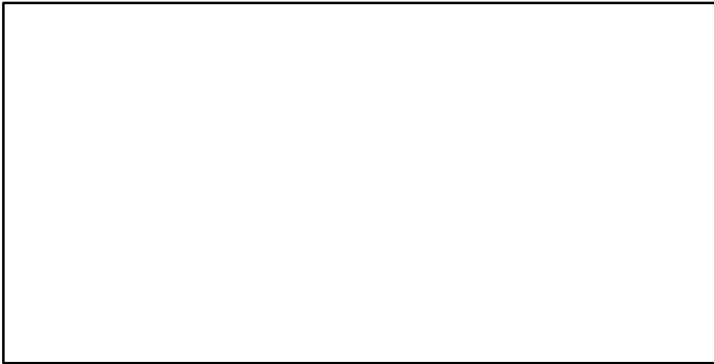
Sailfish Eastern Atlantic [SAILEATL]

TC-MT, TL*, RecC* (1956–2010–CHING)

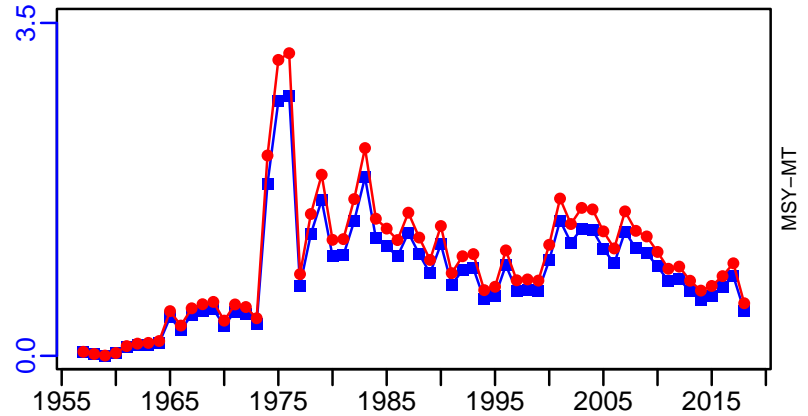
TAC*, Cpair*, Cadv*



EFFORT*



TL-MT/MSY-MT, CdivMEANC-ratio, (1950–2018–PONS)



Sailfish Western Atlantic [SAILWATL]

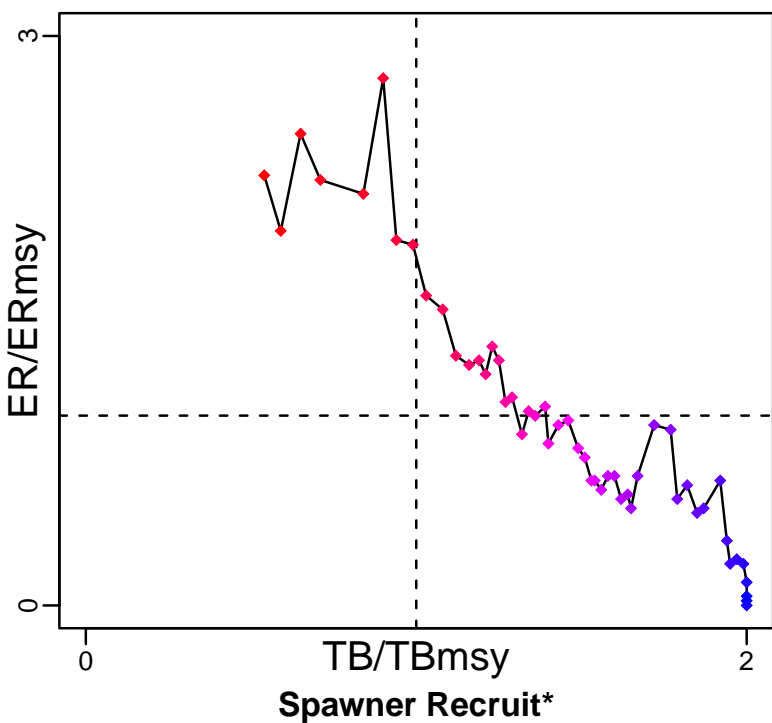
Metadata	
Scientific Name	Istiophorus albicans
Current Assess ID	ICCAT-SAILWATL-1950-2018-PONS
Area	Western Atlantic
Management Authority	International Commission for the Conservation of Atlantic Tunas
Assessor	International Commission for the Conservation of Atlantic Tunas
Asmts in RAM	2018, 2010

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-extr-MT	2010	20,708
SSBmsy	-	-	-
Fmsy	Fmsy-1/yr	2010	0.043
ERmsy	ERmsy-calc-ratio	2010	0.041
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	TB0-MT	2010	41,070
SSB0	-	-	-
MSY	MSY-MT	2018	1317
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

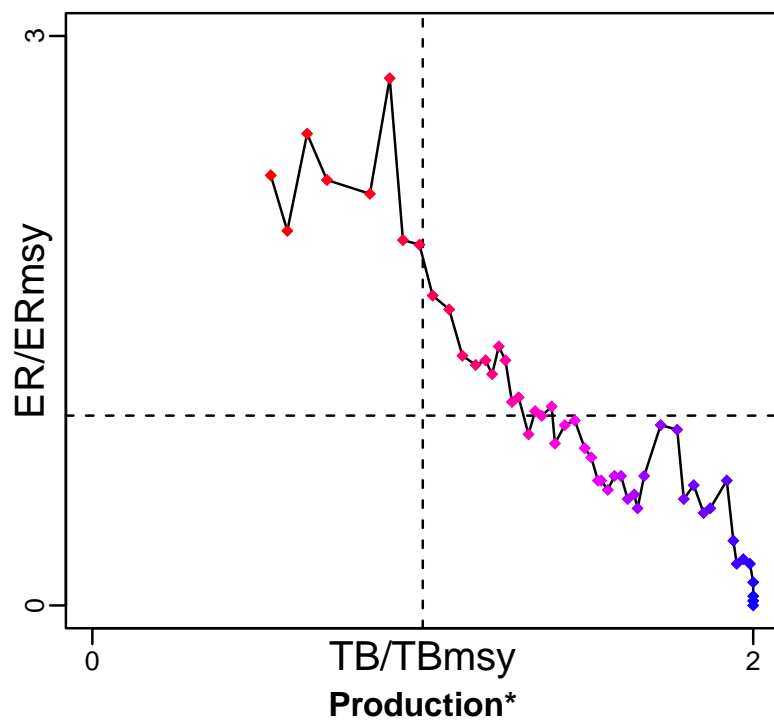
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2010	14,500	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-ratio	2010	0.093	-	-
TC	TC-MT	2010	625		
TL	TL-MT	2018	1369		
TB/TBmsy	TBdivTBmsy-dimensionless	2018	0.382		
SSB/SSBmsy	-	-	-		
F/Fmsy	FdivFmsy-dimensionless	2010	2.2		
ER/ERmsy	ER-ratio/ERmsy-calc-ratio	2010	2.266		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Sailfish Western Atlantic [SAILWATL]

Kobe MSYpref (1956–2010–CHING)



Kobe MGTpref (1956–2010–CHING)

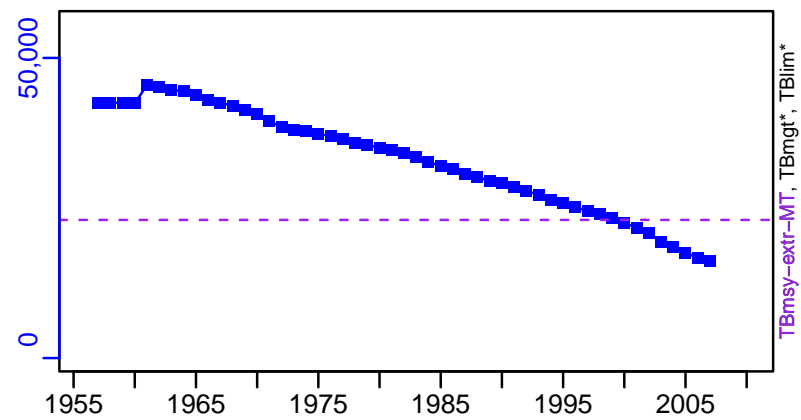


◆ Start Year ◆ End Year * No Data

Sailfish Western Atlantic [SAILWATL]

TB-MT (1956-2010-CHING)

SSB*



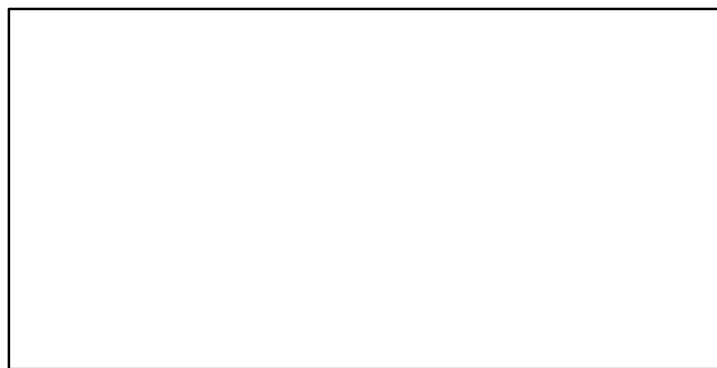
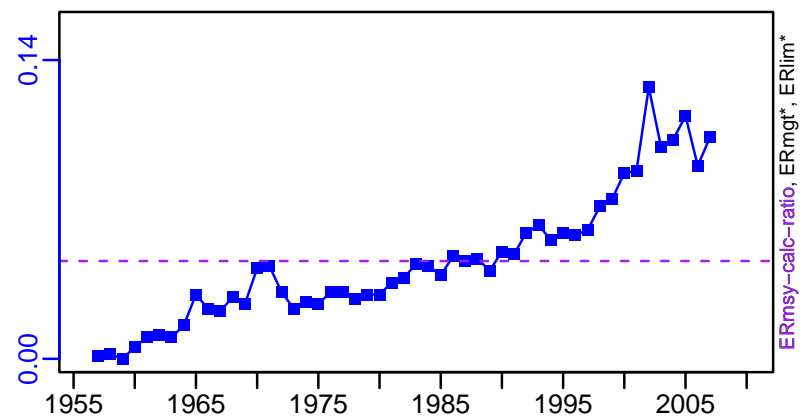
TN *

F*



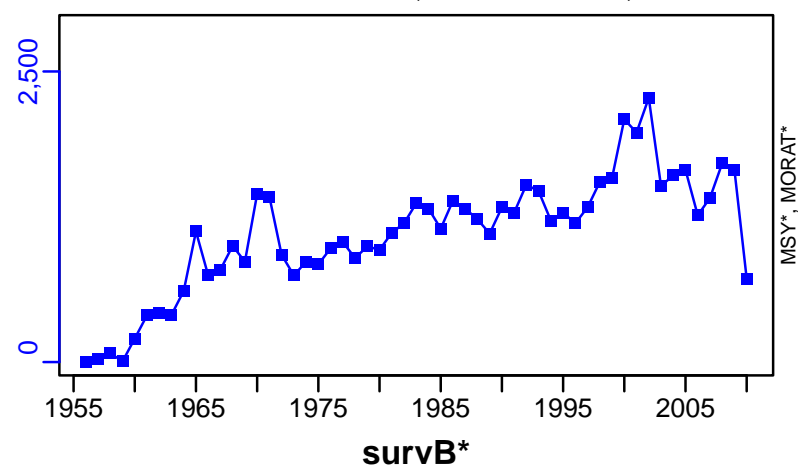
ER-ratio (1956-2010-CHING)

Recruits*



Sailfish Western Atlantic [SAILWATL]

TC-MT, TL*, RecC* (1956–2010–CHING)



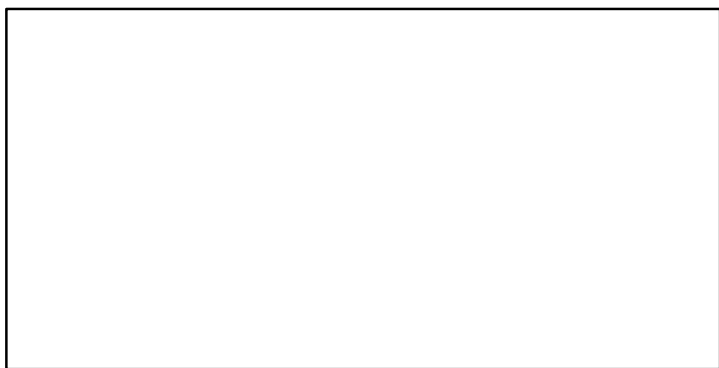
TAC*, Cpair*, Cadv*



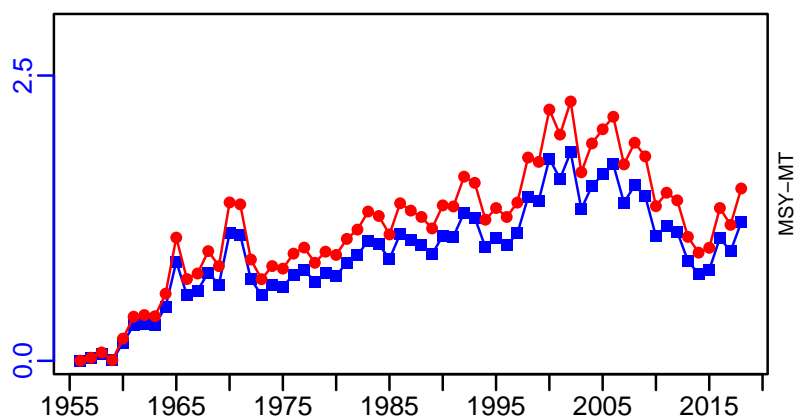
CPUE*



EFFORT*



TL-MT/MSY-MT, CdivMEANC-ratio, (1950–2018–PONS)



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

Southern bluefin tuna Southern Oceans [SBT]

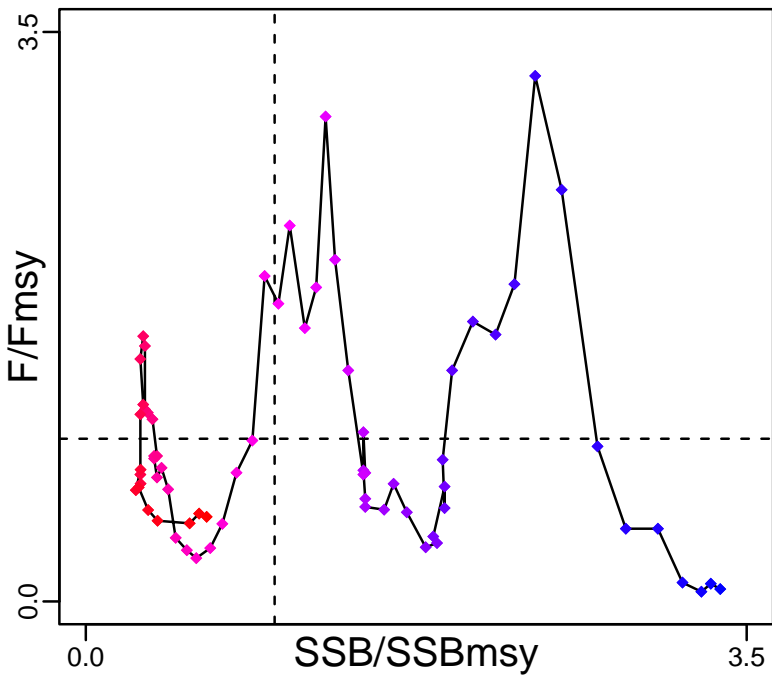
Metadata	
Scientific Name	Thunnus maccoyii
Current Assess ID	CCSBT-SC-SBT-1931-2020-SMITH
Area	Southern Oceans
Management Authority	Commission for the Conservation of Southern Bluefin Tuna
Assessor	CCSBT Scientific Committee
Asmts in RAM	2016, 2020, 2014

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-extr-MT	2014	533,659
SSBmsy	SSBmsy-extr-MT	2020	341,425
Fmsy	Fmsy-extr-1/yr	2020	0.089
ERmsy	ERmsy-ratio	2014	0.355
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2020	33,207
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

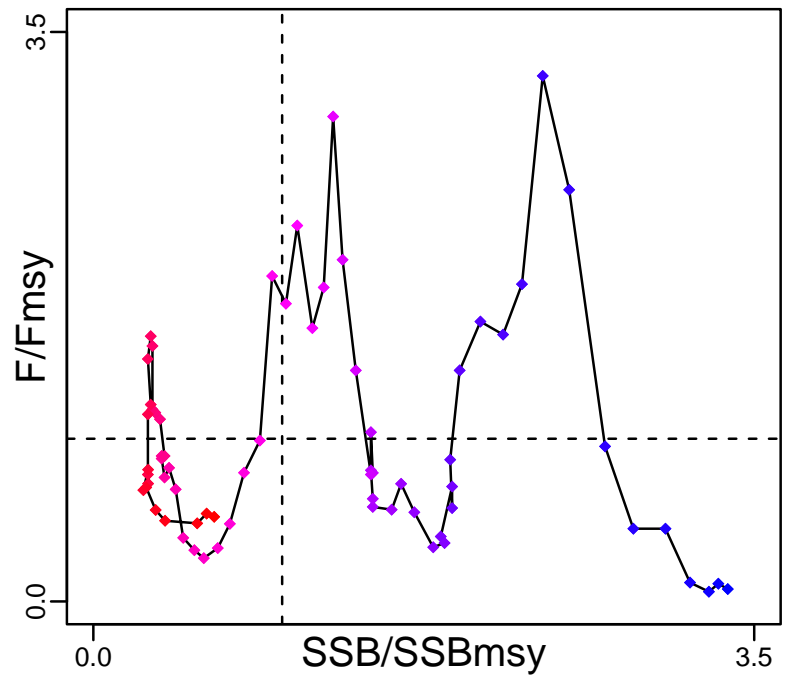
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2016	1,070,000	-	-
SSB	SSB-MT	2020	130,000	Females	-
TN	-	-	-	-	-
R	R-E00	2016	3,810,000	-	-
F	F-1/yr	2020	0.058	-	-
ER	ER-calc-ratio	2016	0.013	-	-
TC	TC-MT	2014	11,700		
TL	TL-MT	2020	16,441		
TB/TBmsy	TBdivTBmsy-dimensionless	2014	0.653		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2020	0.69		
F/Fmsy	FdivFmsy-dimensionless	2020	0.52		
ER/ERmsy	ER-calc-ratio/ERmsy-ratio	2014	0.11		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Southern bluefin tuna Southern Oceans [SBT]

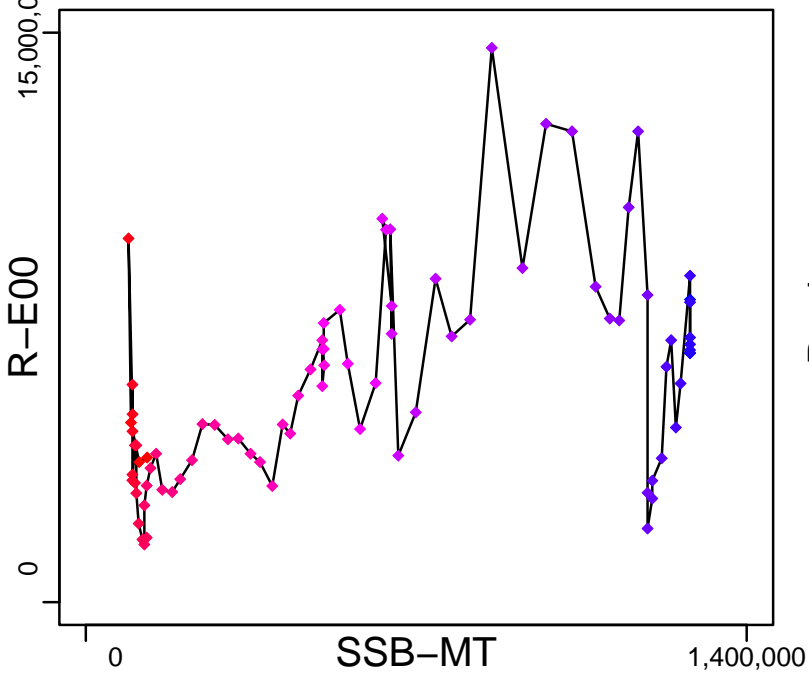
Kobe MSYpref (1931–2020–SMITH)



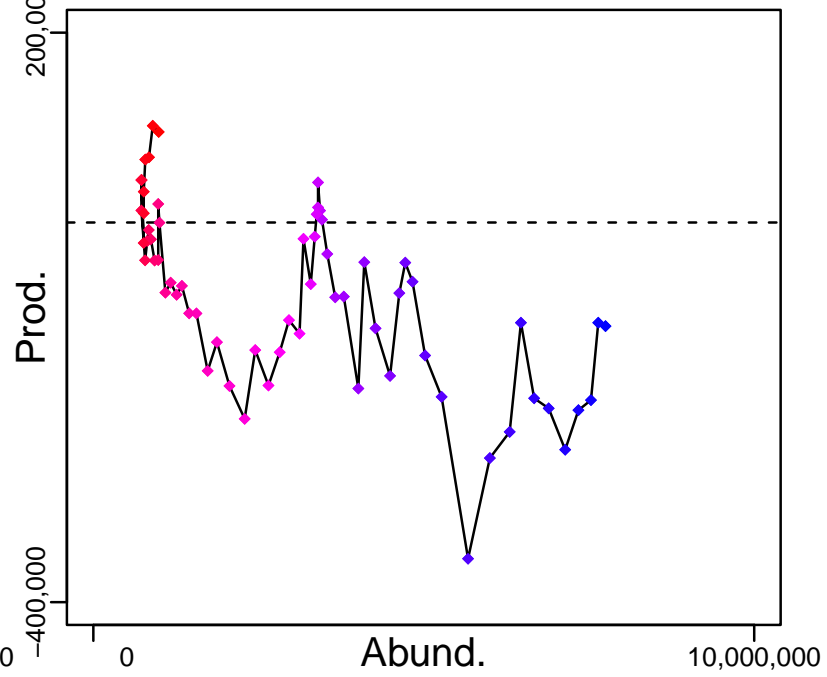
Kobe MGTpref (1931–2020–SMITH)



Spawner Recruit (1931–2016–PONS)



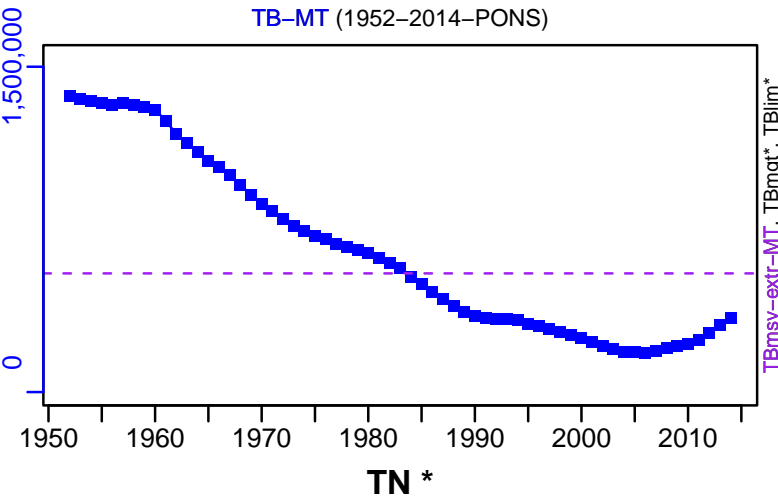
Production (1931–2016–PONS)



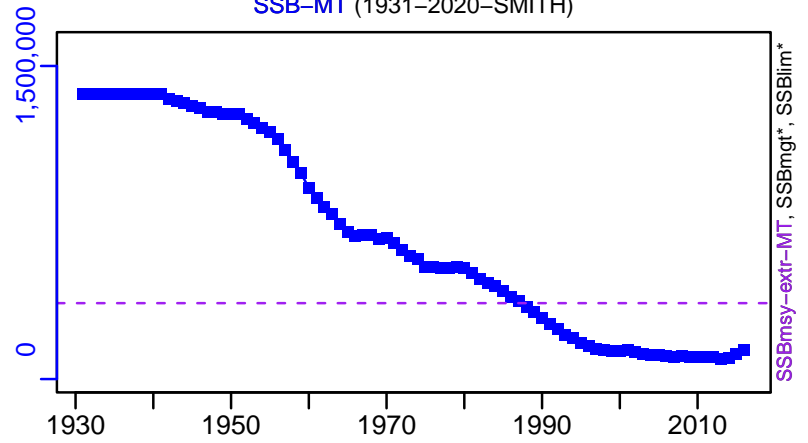
◆ Start Year ◆ End Year * No Data

Southern bluefin tuna Southern Oceans [SBT]

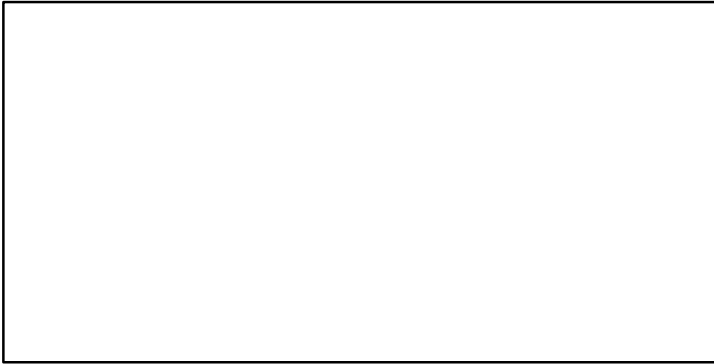
TB-MT (1952–2014–PONS)



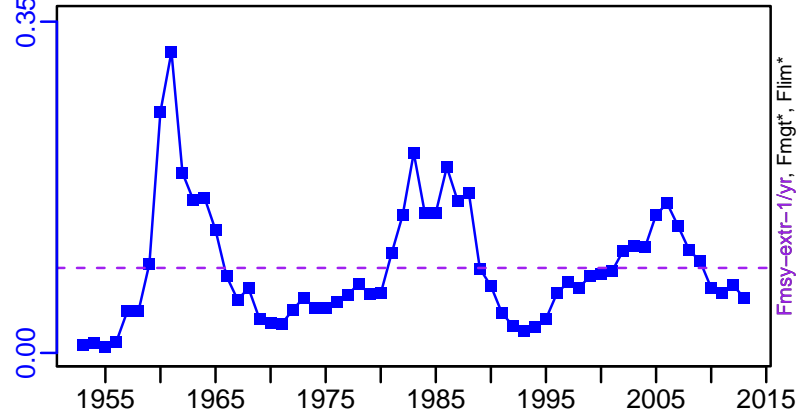
SSB-MT (1931–2020–SMITH)



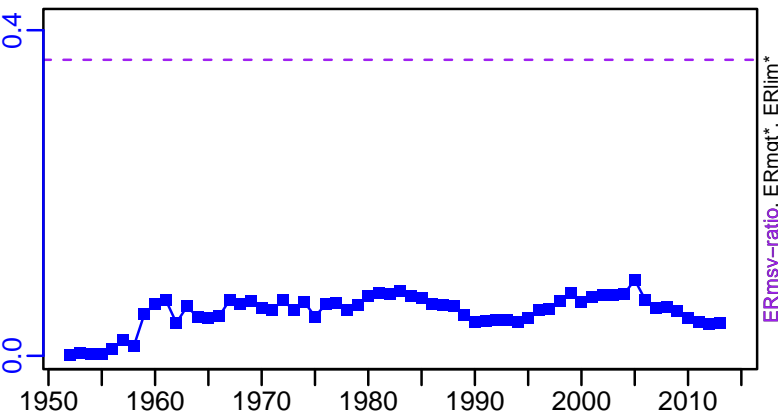
TN *



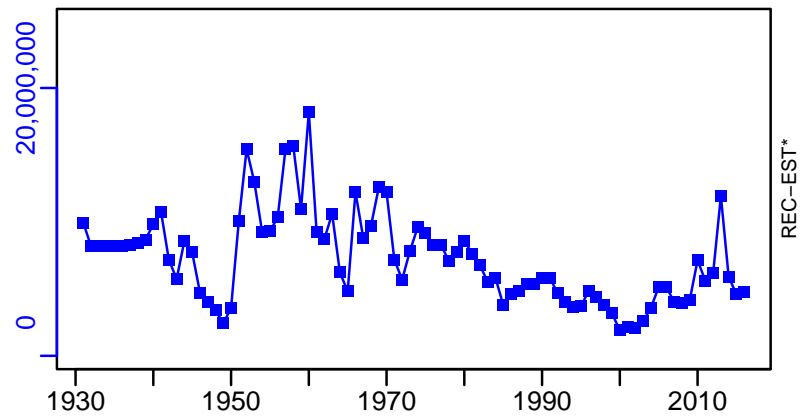
F-1/yr (1931–2020–SMITH)



ER-calc-ratio (1952–2014–PONS)

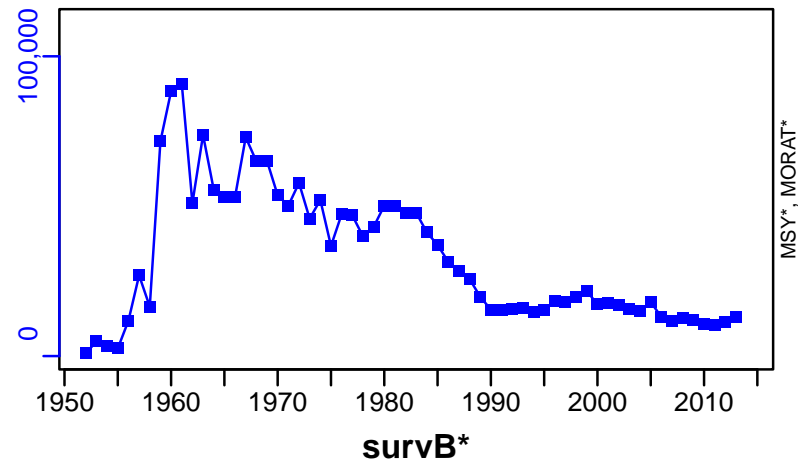


R-E00 (1931–2016–PONS)



Southern bluefin tuna Southern Oceans [SBT]

TC-MT, TL*, RecC* (1952-2014-PONS)



TAC*, Cpair*, Cadv*



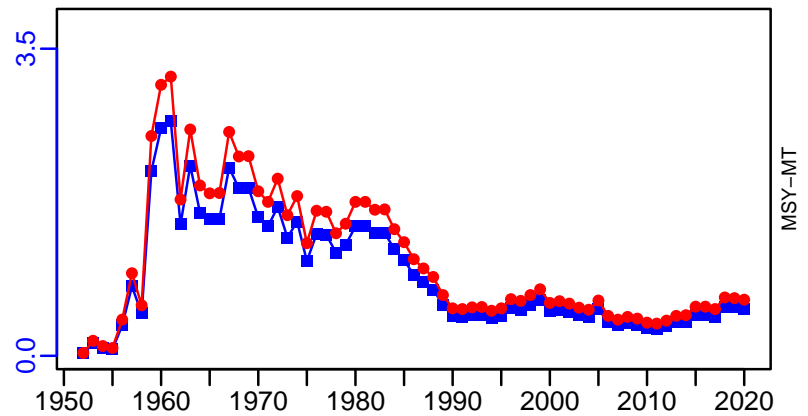
CPUE*



EFFORT*



TL-MT/MSY-MT, CdivMEANC-ratio, (1931-2020-SMITH)



Skipjack tuna Indian Ocean [SKJCIO]

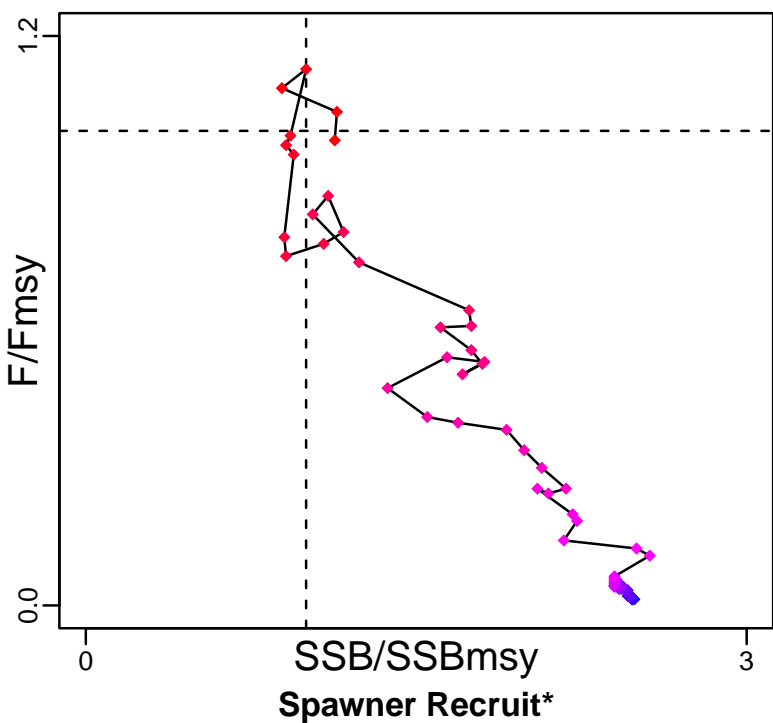
Metadata	
Scientific Name	Katsuwonus pelamis
Current Assess ID	IOTC-SKJCIO-1950-2019-SMITH
Area	Indian Ocean
Management Authority	Indian Ocean Tuna Commission
Assessor	Indian Ocean Tuna Commission
Asmts in RAM	2014, 2016, 2019

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2014	788,806
SSBmsy	SSBmsy-extr-MT	2019	521,631
Fmsy	-	-	-
ERmsy	ERmsy-calc-ratio	2014	0.529
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2019	574,000
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

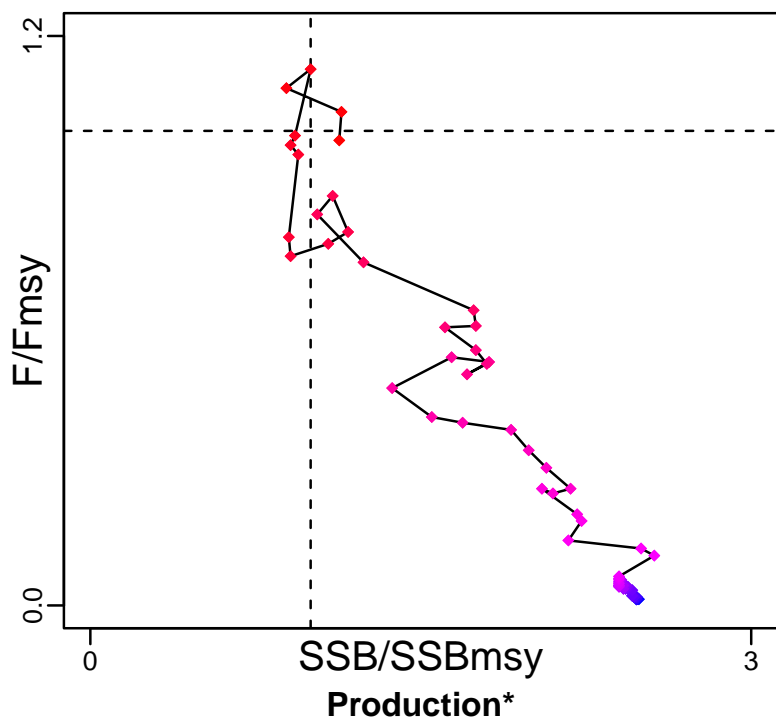
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2014	947,000	-	-
SSB	SSB-MT	2019	615,000	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-calc-ratio	2014	0.404	-	-
TC	TC-MT	2019	547,248		
TL	TL-MT	2016	471,000		
TB/TBmsy	TBdivTBmsy-dimensionless	2014	1.15		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2019	1.13		
F/Fmsy	FdivFmsy-dimensionless	2019	0.98		
ER/ERmsy	ER-calc-ratio/ERmsy-calc-ratio	2014	0.765		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Skipjack tuna Indian Ocean [SKJCIO]

Kobe MSYpref (1950–2019–SMITH)



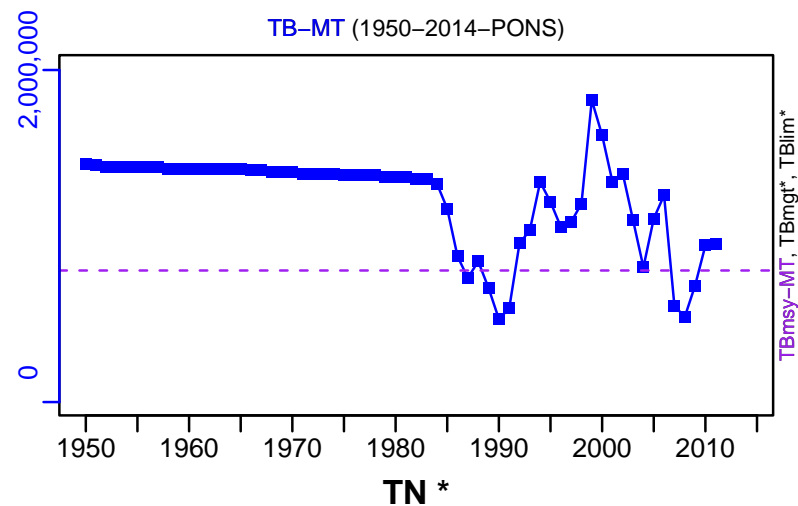
Kobe MGTpref (1950–2019–SMITH)



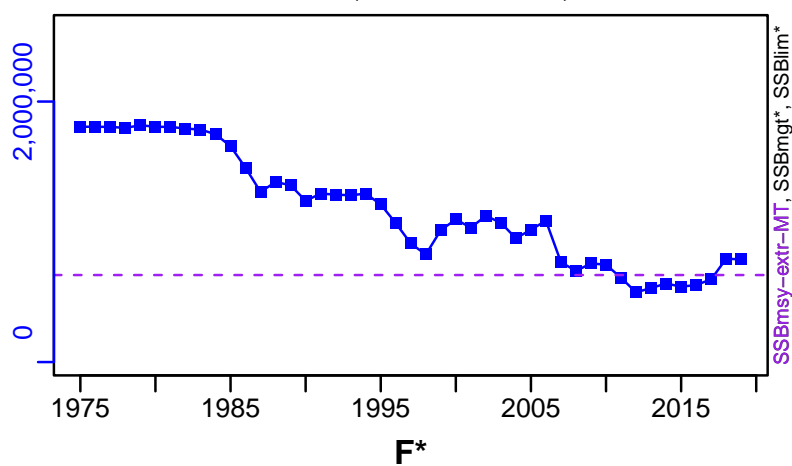
◆ Start Year ◆ End Year * No Data

Skipjack tuna Indian Ocean [SKJCIO]

TB-MT (1950–2014–PONS)



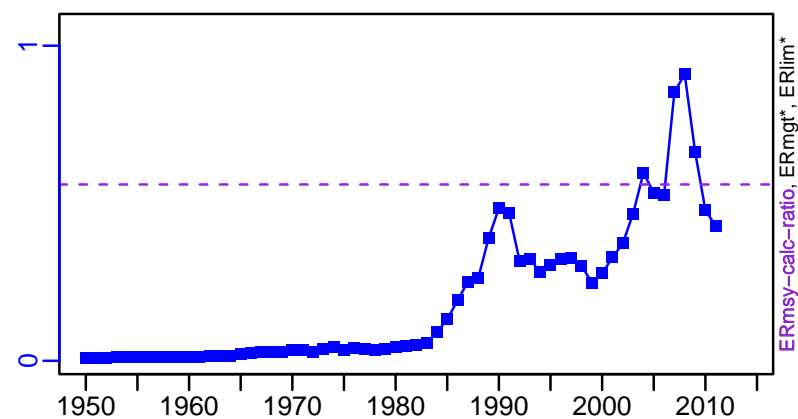
SSB-MT (1950–2019–SMITH)



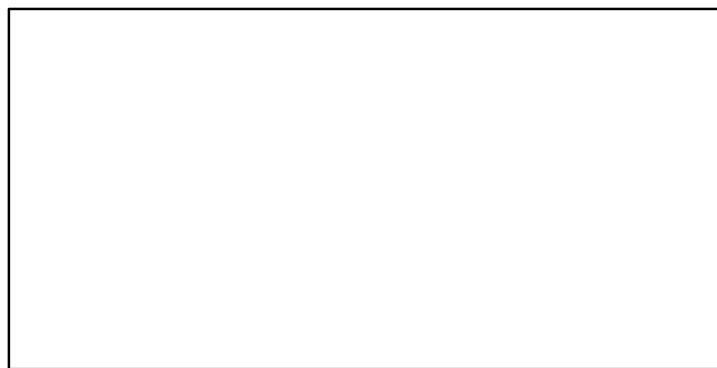
TN *

F*

ER-calc-ratio (1950–2014–PONS)

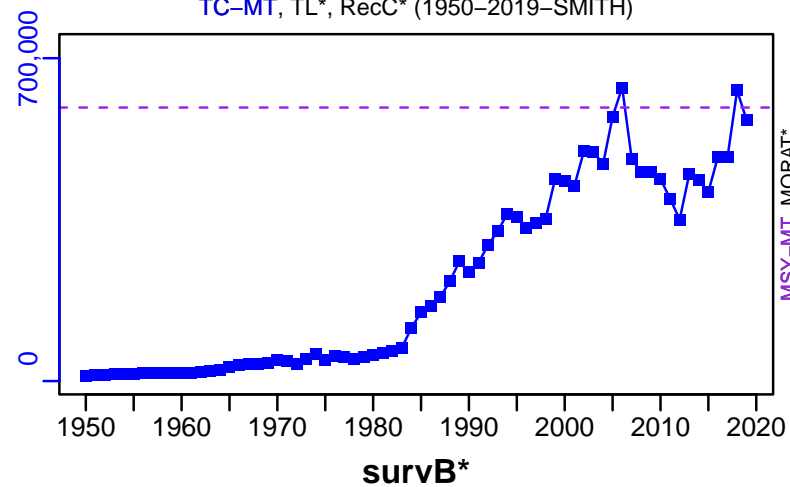


Recruits*



Skipjack tuna Indian Ocean [SKJCIO]

TC-MT, TL*, RecC* (1950–2019–SMITH)



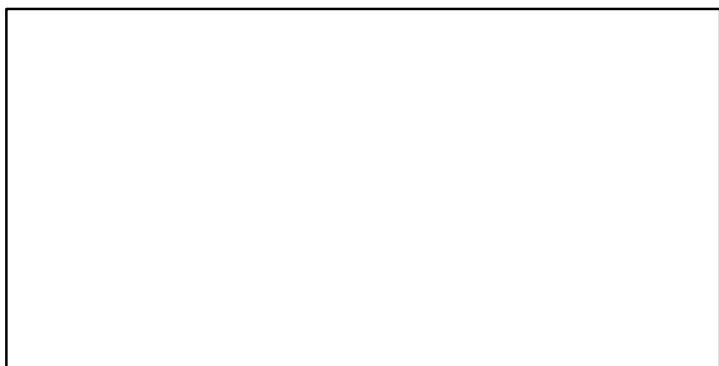
TAC*, Cpair*, Cadv*



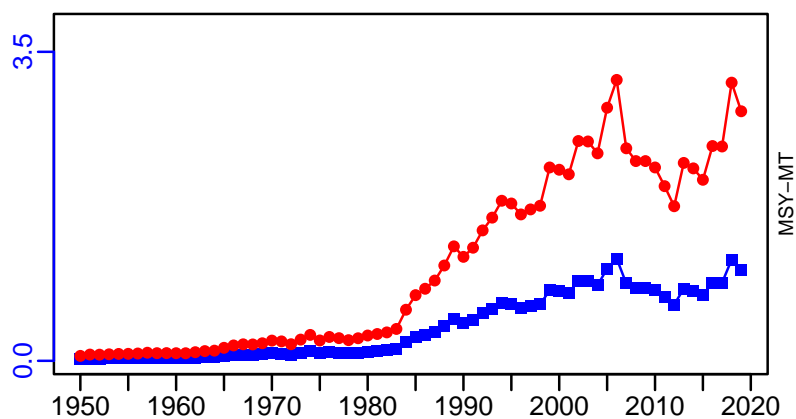
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1950–2019–SMITH)



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

Skipjack tuna Central Western Pacific Ocean [SKJCWPAC]

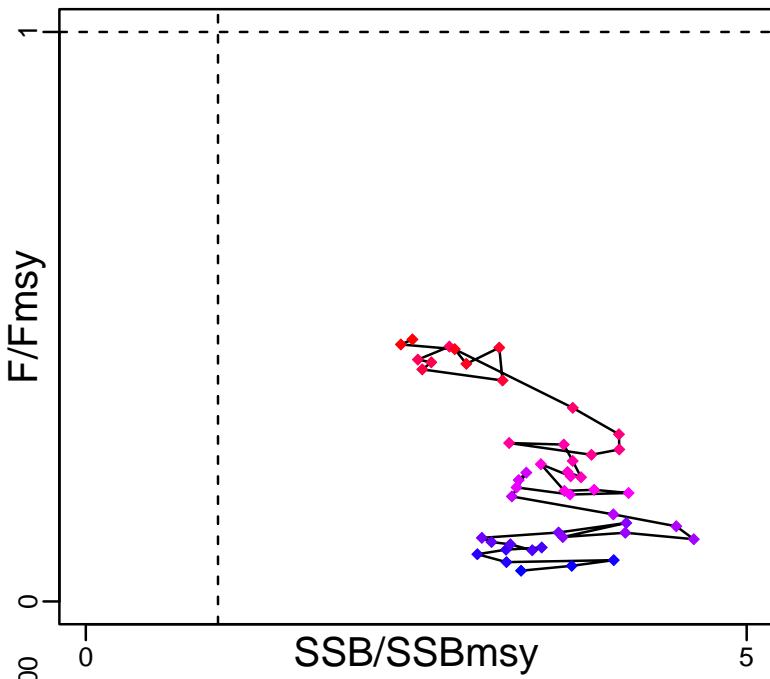
Metadata	
Scientific Name	Katsuwonus pelamis
Current Assess ID	SPC-SKJCWPAC-1950-2018-PONS
Area	Central Western Pacific Ocean
Management Authority	Western and Central Pacific Fisheries Commission
Assessor	Secretariat of the Pacific Community
Asmts in RAM	2012, 2015, 2018

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-extr-MT	2015	2,388,395
SSBmsy	SSBmsy-MT	2012	1,753,000
Fmsy	Fmsy-extr-1/yr	2018	0.877
ERmsy	ERmsy-calc-ratio	2015	0.678
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2012	1,753,000
Fmgt	-	-	-
ERmgt	-	-	-
TB0	TB0-MT	2012	6,587,000
SSB0	SSB0-MT	2012	6,229,000
MSY	MSY-MT	2018	2,296,566
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

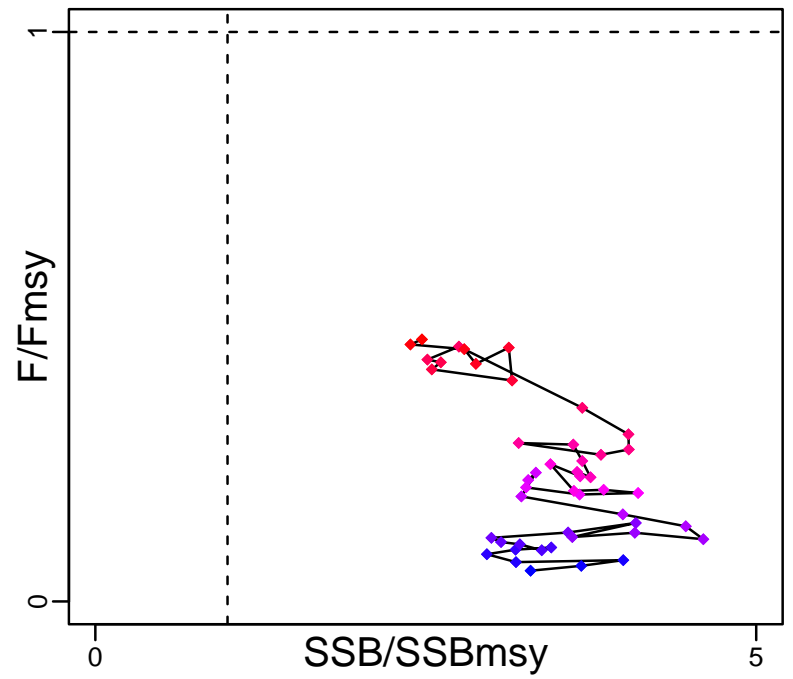
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2015	4,410,000	-	-
SSB	SSB-MT	2015	4,170,000	-	-
TN	-	-	-	-	-
R	R-E00	2018	3,512,462,963	-	-
F	F-1/yr	2018	0.404	-	-
ER	ER-calc-ratio	2015	0.415	-	-
TC	TC-MT	2012	1,650,000		
TL	TL-MT	2018	1,795,559		
TB/TBmsy	TBdivTBmsy-dimensionless	2018	1.724		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2018	2.471		
F/Fmsy	FdivFmsy-dimensionless	2018	0.46		
ER/ERmsy	ER-calc-ratio/ERmsy-calc-ratio	2015	0.612		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Skipjack tuna Central Western Pacific Ocean [SKJCWPAC]

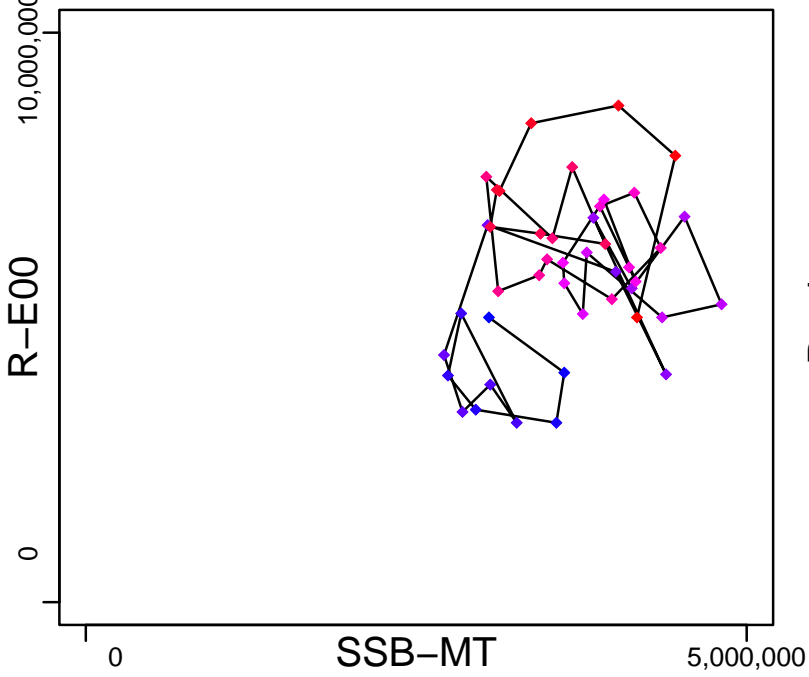
Kobe MSY_{pref} (1950–2018–PONS)



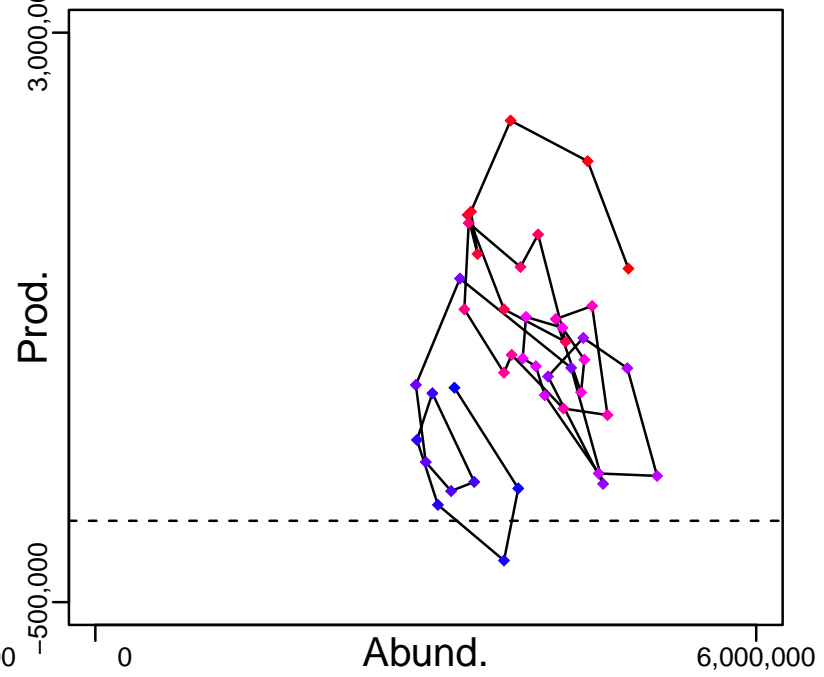
Kobe MGT_{pref} (1950–2018–PONS)



Spawner Recruit (1950–2015–PONS)



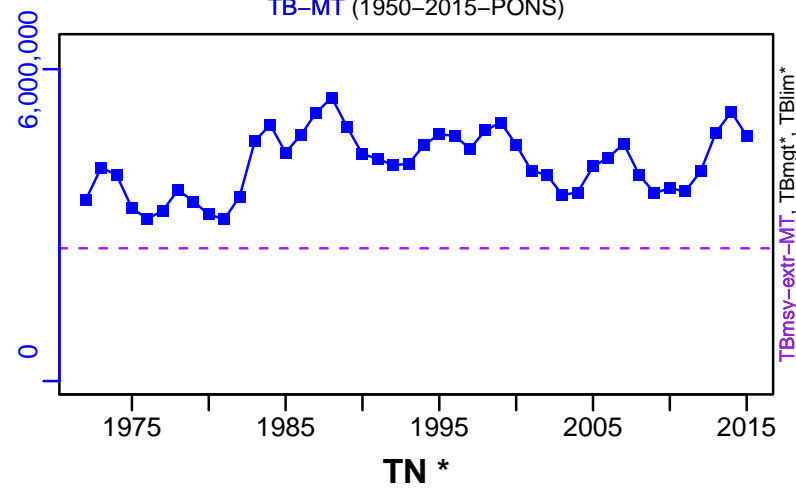
Production (1950–2015–PONS)



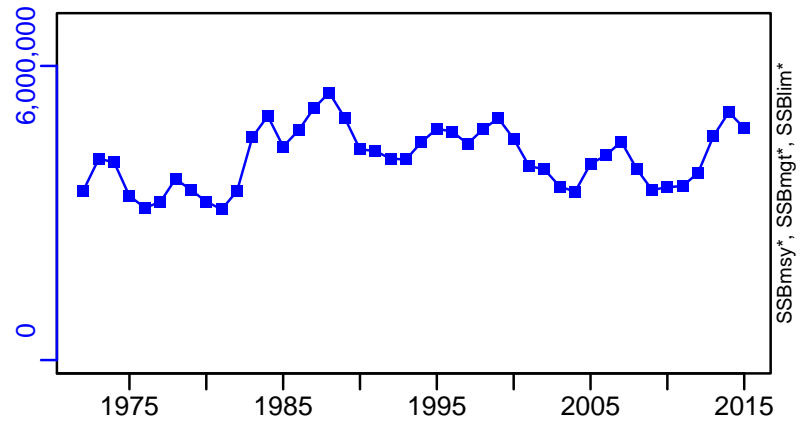
◆ Start Year ◆ End Year * No Data

Skipjack tuna Central Western Pacific Ocean [SKJCWPAC]

TB-MT (1950–2015–PONS)



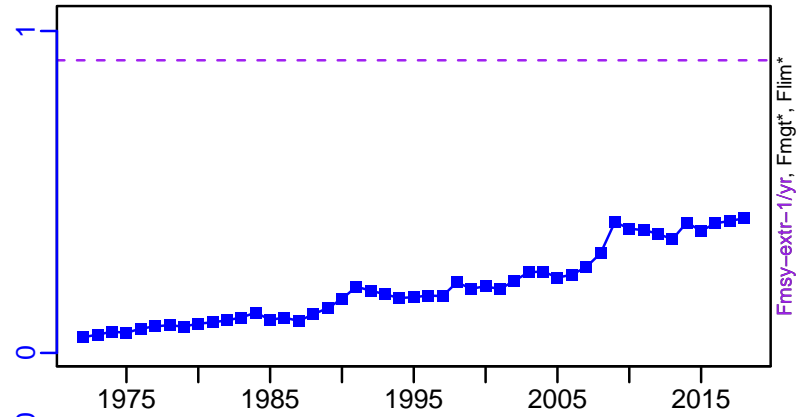
SSB-MT (1950–2015–PONS)



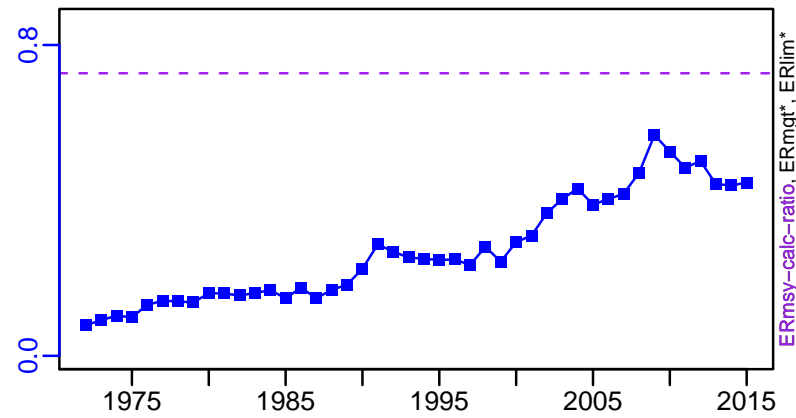
TN *



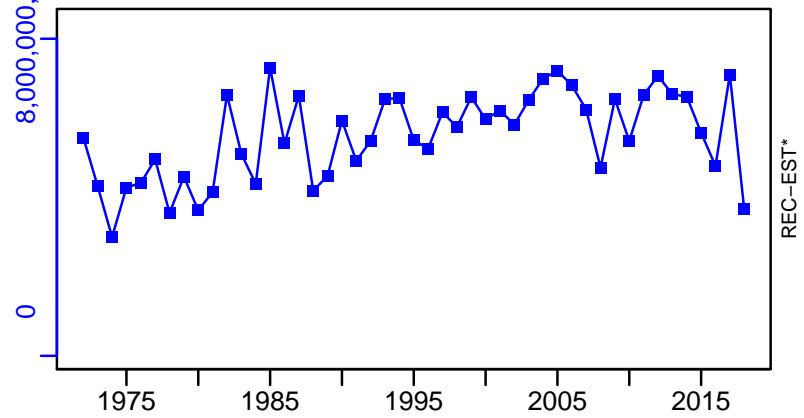
F-1/yr (1950–2018–PONS)



ER-calc-ratio (1950–2015–PONS)



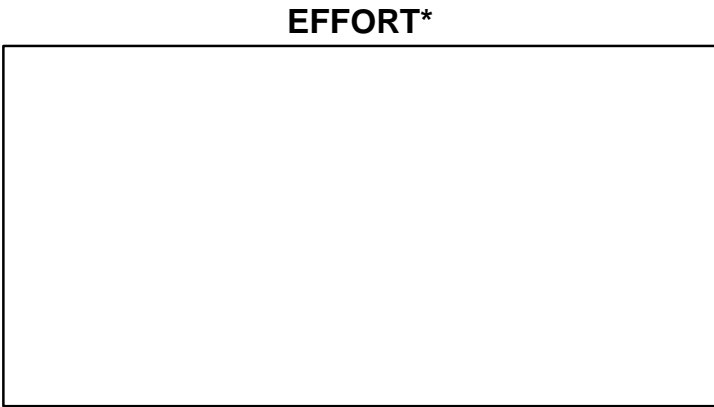
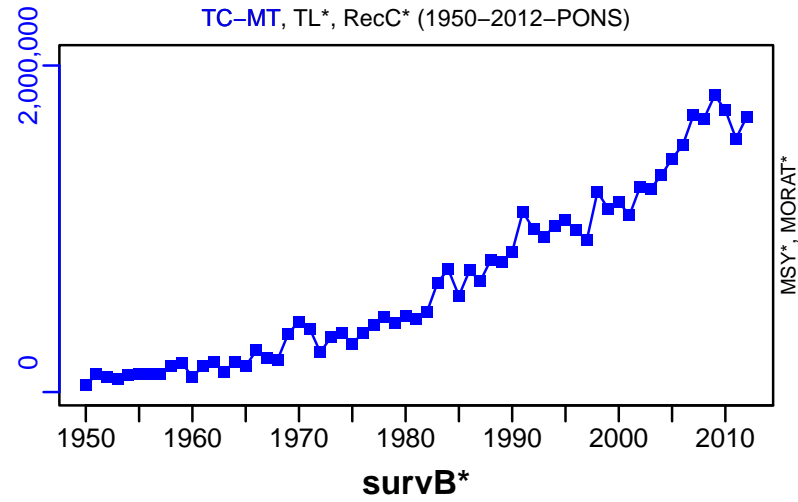
R-E00 (1950–2018–PONS)



Skipjack tuna Central Western Pacific Ocean [SKJCWPAC]

TC-MT, TL*, RecC* (1950–2012–PONS)

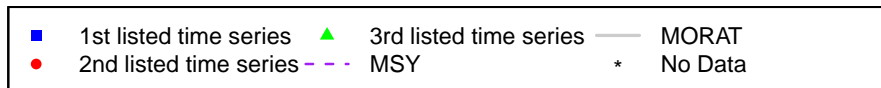
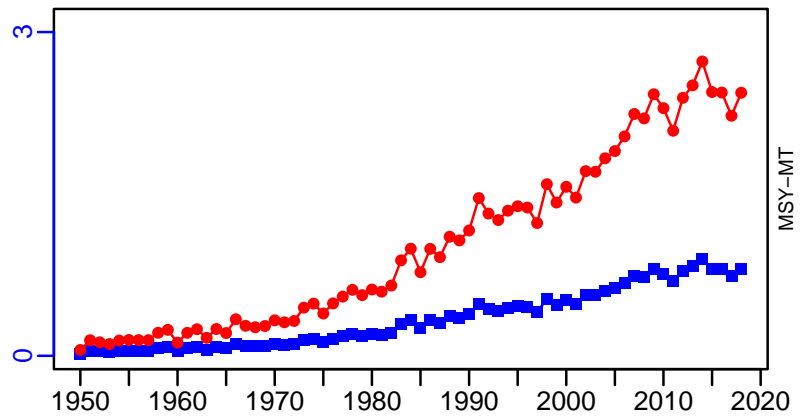
TAC*, Cpair*, Cadv*



CPUE*

EFFORT*

TL-MT/MSY-MT, CdivMEANC-ratio, (1950–2018–PONS)



Skipjack tuna Eastern Atlantic [SKJEATL]

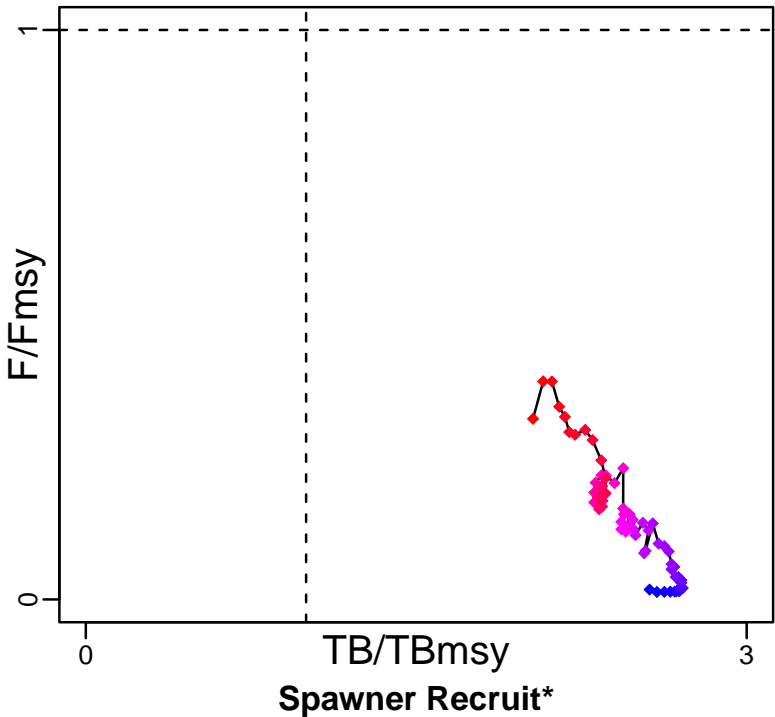
Metadata	
Scientific Name	Katsuwonus pelamis
Current Assess ID	ICCAT-SKJEATL-1950-2021-HIVELY
Area	Eastern Atlantic
Management Authority	International Commission for the Conservation of Atlantic Tunas
Assessor	International Commission for the Conservation of Atlantic Tunas
Asmts in RAM	2010, 2021, 2016

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-extr-MT	2010	384,115
SSBmsy	-	-	-
Fmsy	Fmsy-1/yr	2010	0.637
ERmsy	ERmsy-calc-ratio	2010	0.407
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2010	156,500
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

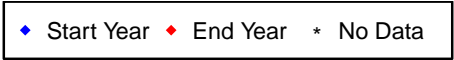
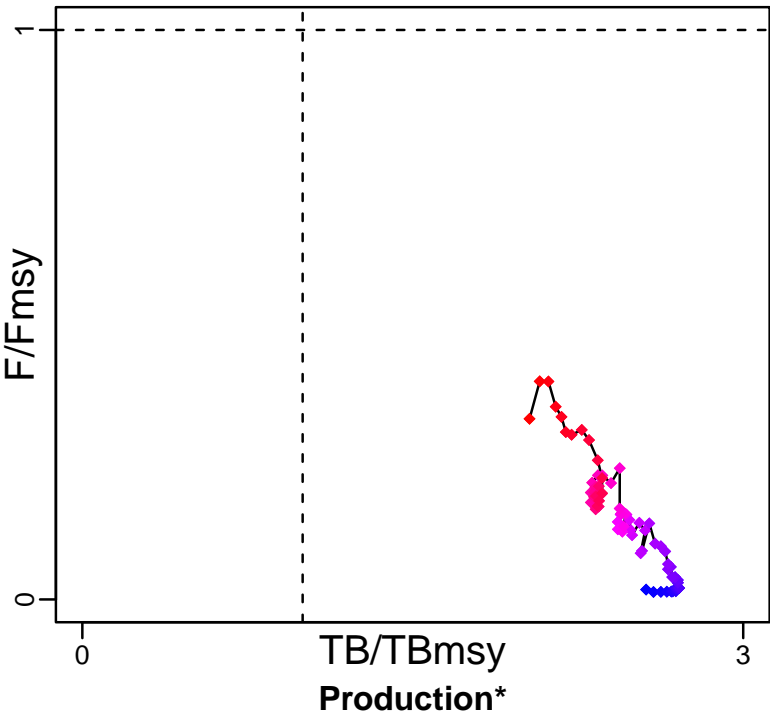
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2010	656,000	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	F-1/yr	2010	0.172	-	-
ER	ER-ratio	2010	0.176	-	-
TC	TC-MT	2010	164,000		
TL	TL-MT	2021	217,874		
TB/TBmsy	TBdivTBmsy-dimensionless	2021	2.017		
SSB/SSBmsy	-	-	-		
F/Fmsy	FdivFmsy-dimensionless	2021	0.317		
ER/ERmsy	ER-ratio/ERmsy-calc-ratio	2010	0.432		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Skipjack tuna Eastern Atlantic [SKJEATL]

Kobe MSYpref (1950–2021–HIVELY)

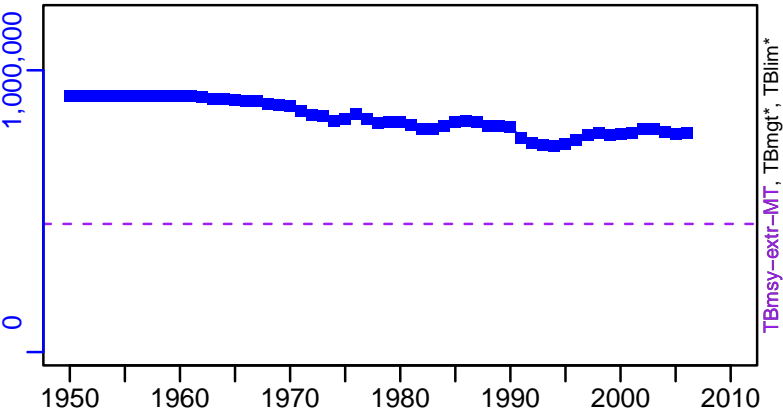


Kobe MGTpref (1950–2021–HIVELY)



Skipjack tuna Eastern Atlantic [SKJEATL]

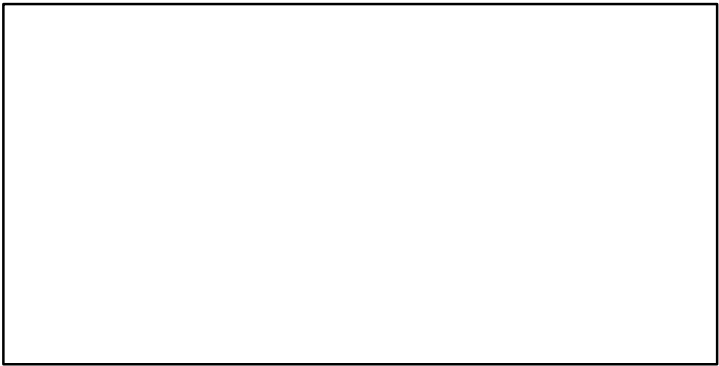
TB-MT (1950-2010-CHING)



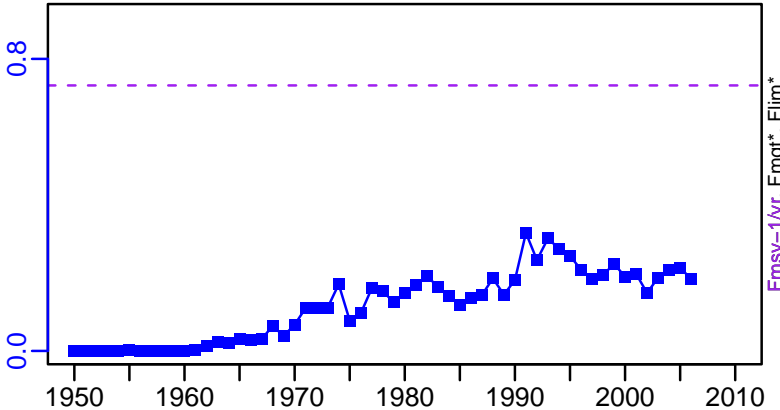
SSB*



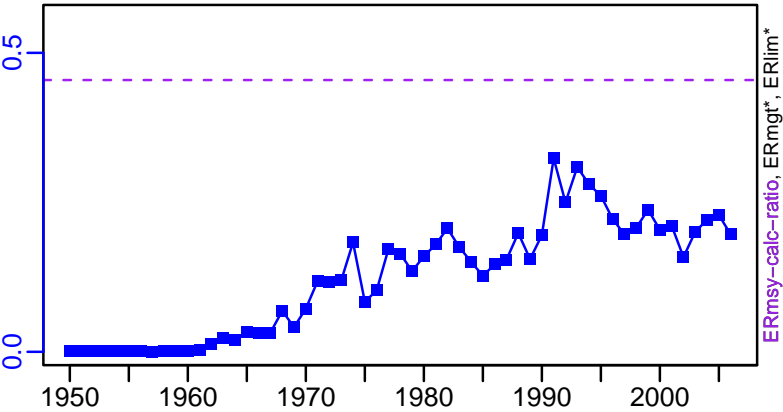
TN *



F-1/yr (1950-2010-CHING)



ER-ratio (1950-2010-CHING)

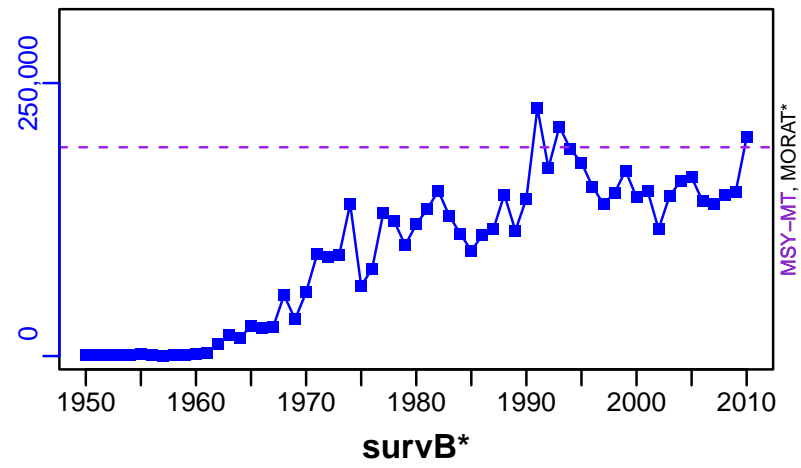


Recruits*



Skipjack tuna Eastern Atlantic [SKJEATL]

TC-MT, TL*, RecC* (1950–2010–CHING)



TAC*, Cpair*, Cadv*



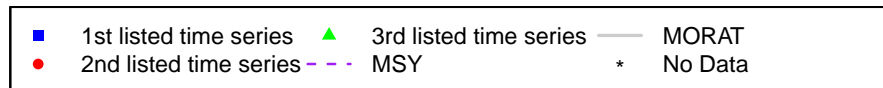
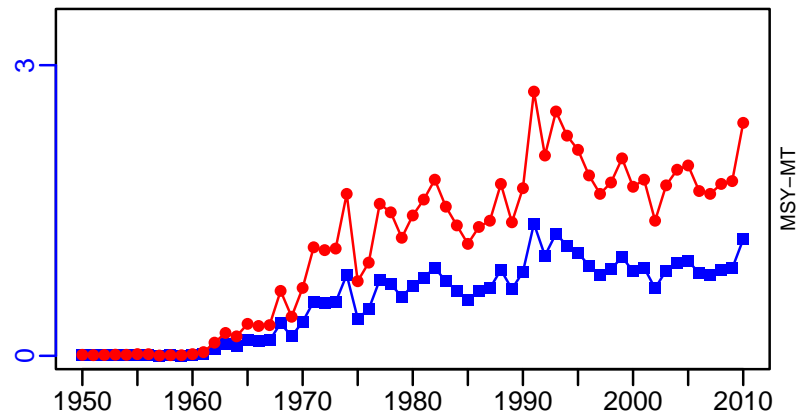
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1950–2010–CHING)



Skipjack tuna Eastern Pacific [SKJEPAC]

Metadata	
Scientific Name	Katsuwonus pelamis
Current Assess ID	IATTC-SKJEPAC-1918-2016-PONS
Area	Eastern Pacific
Management Authority	Inter-American Tropical Tuna Commission
Assessor	Inter-American Tropical Tuna Commission
Asmts in RAM	2016

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-relative	2016	2.24	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	F-relative	2016	0.984	-	-
ER	-	-	-	-	-
TC	-	-	-		
TL	TL-MT	2016	338,000		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

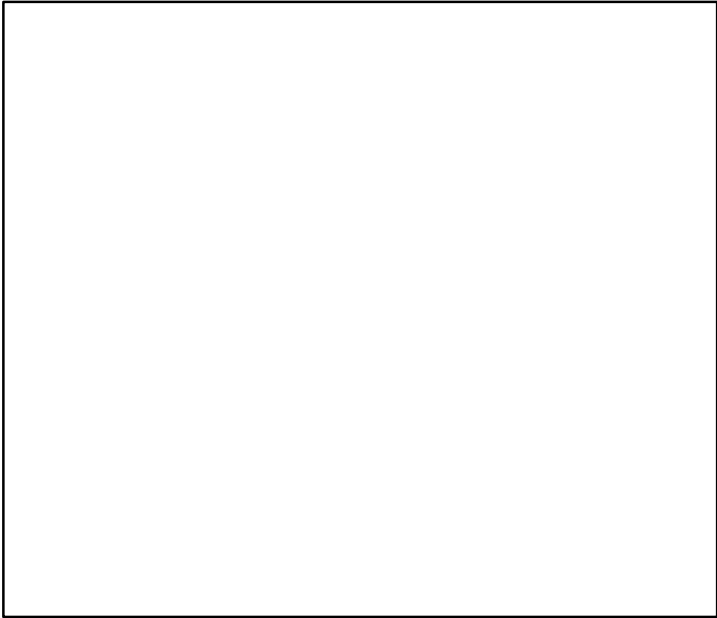
Kobe MSY*



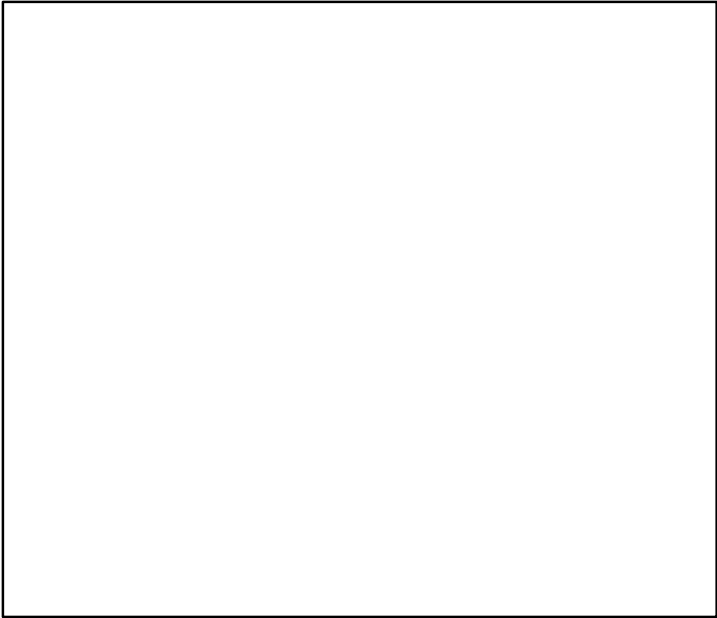
Kobe MGT*



Spawner Recruit*



Production*

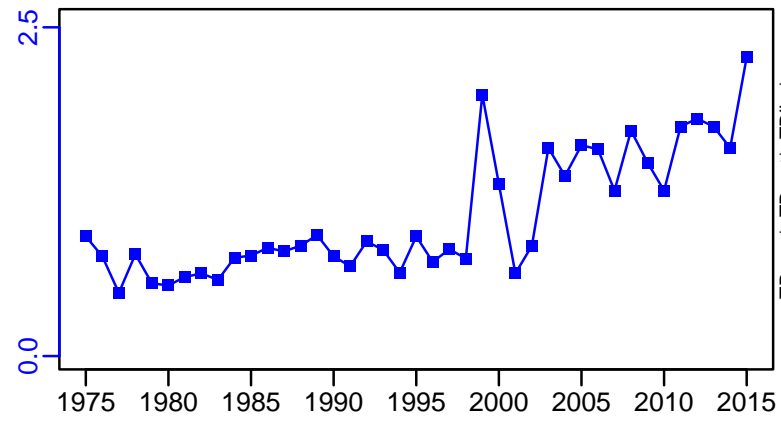


◆ Start Year ◆ End Year * No Data

Skipjack tuna Eastern Pacific [SKJEPAC]

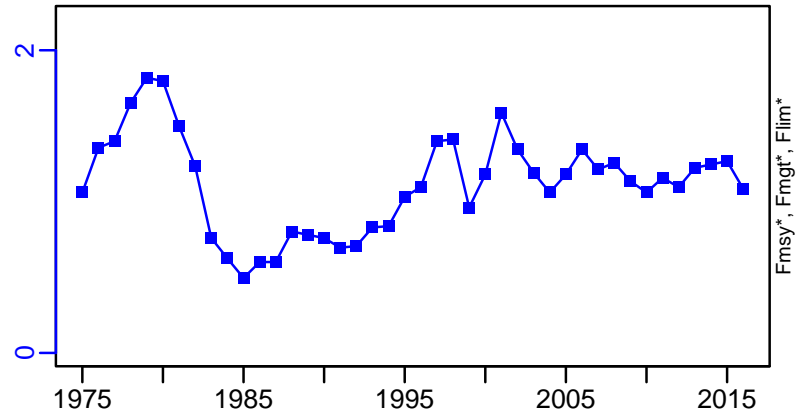
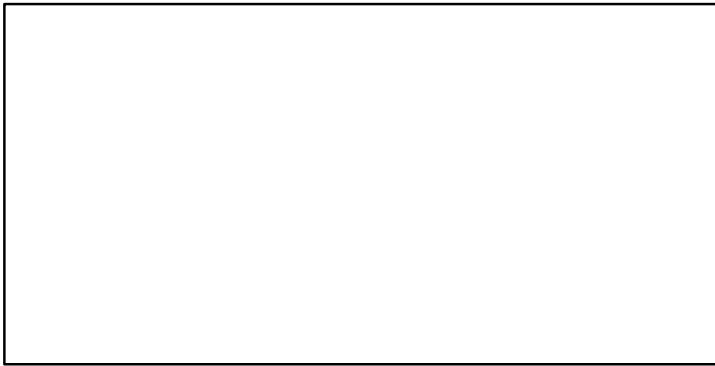
TB-relative (1918–2016–PONS)

SSB*



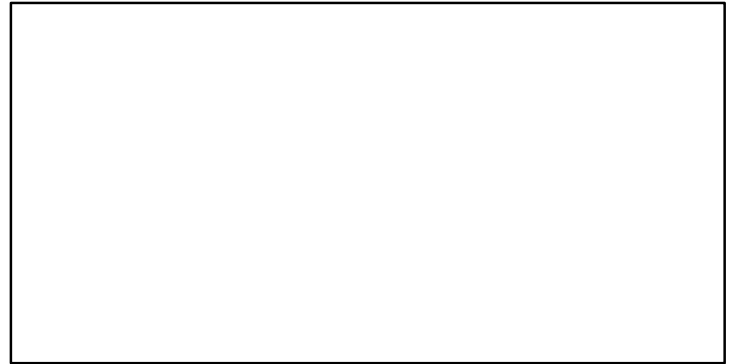
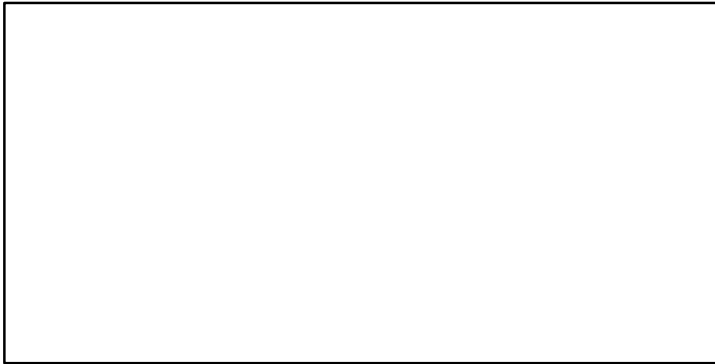
TN *

F-relative (1918–2016–PONS)



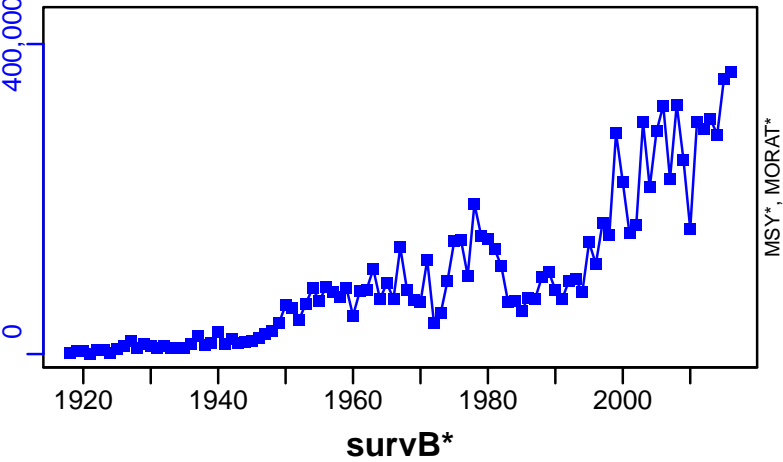
ER*

Recruits*

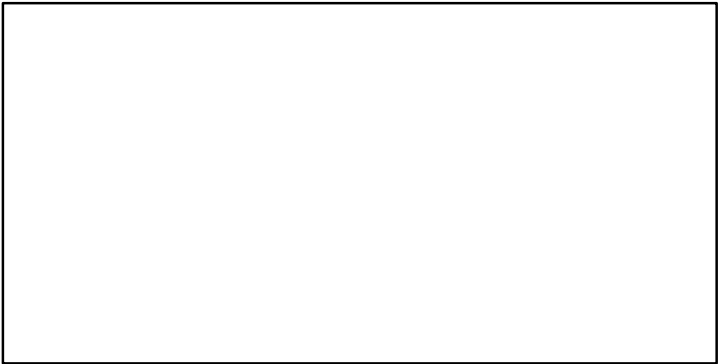


Skipjack tuna Eastern Pacific [SKJEPAC]

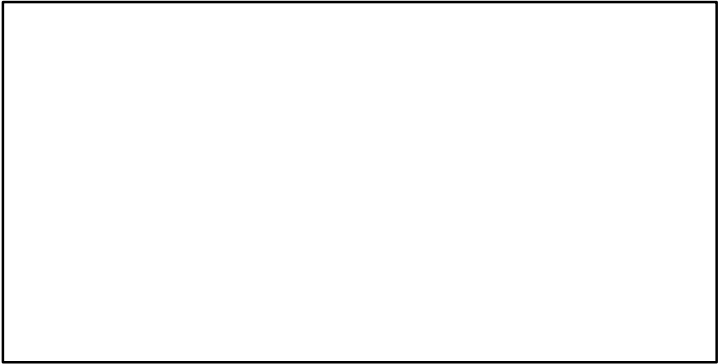
TL-MT, TC*, RecC* (1918-2016-PONS)



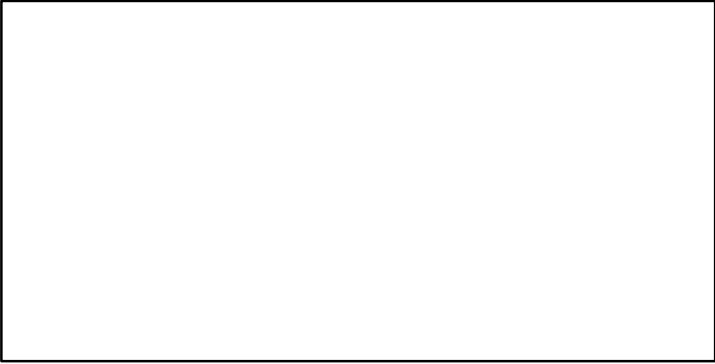
TAC*, Cpair*, Cadv*



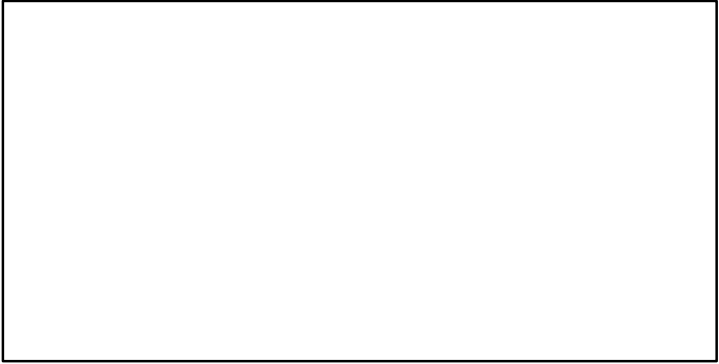
CPUE*



EFFORT*



CdivMSY*



Skipjack tuna Western Atlantic [SKJWATL]

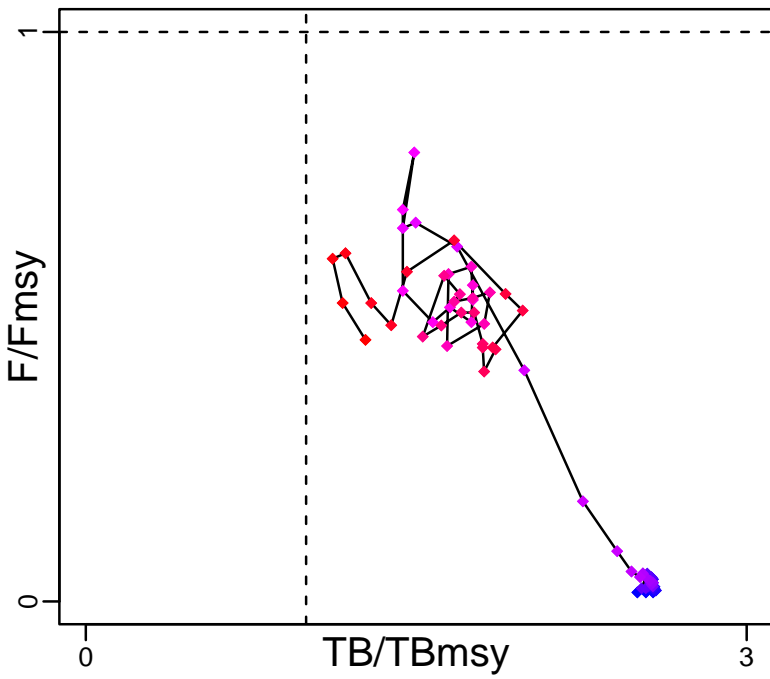
Metadata	
Scientific Name	Katsuwonus pelamis
Current Assess ID	ICCAT-SKJWATL-1952-2020-HIVELY
Area	Western Atlantic
Management Authority	International Commission for the Conservation of Atlantic Tunas
Assessor	International Commission for the Conservation of Atlantic Tunas
Asmts in RAM	2014, 2018, 2020

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2014	29,160
SSBmsy	-	-	-
Fmsy	Fmsy-1/yr	2014	1.08
ERmsy	ERmsy-calc-ratio	2014	1.084
TBmgt	TBmgt-MT	2014	29,160
SSBmgt	-	-	-
Fmgt	Fmgt-1/yr	2014	1.08
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2018	31,000
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

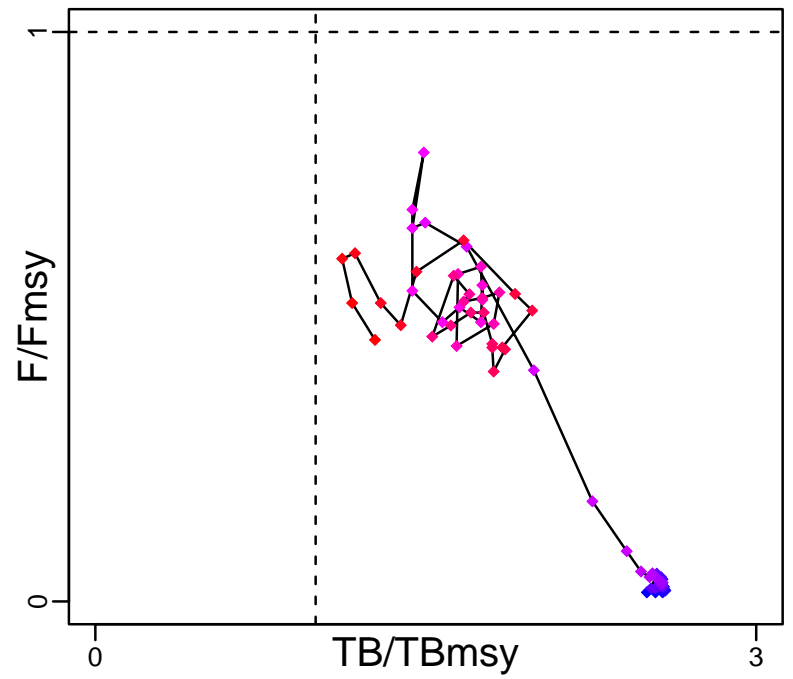
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2014	37,600	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	F-1/yr	2014	0.74	-	-
ER	ER-calc-ratio	2014	0.53	-	-
TC	TC-MT	2014	18,600		
TL	TL-MT	2020	18,183		
TB/TBmsy	TBdivTBmsy-dimensionless	2020	1.27		
SSB/SSBmsy	-	-	-		
F/Fmsy	FdivFmsy-dimensionless	2020	0.459		
ER/ERmsy	ER-calc-ratio/ERmsy-calc-ratio	2014	0.489		
TB/TBmgt	TB-MT/TBmgt-MT	2014	1.289		
SSB/SSBmgt	-	-	-		
F/Fmgt	F-1/yr/Fmgt-1/yr	2014	0.685		
ER/ERmgt	-	-	-		

Skipjack tuna Western Atlantic [SKJWATL]

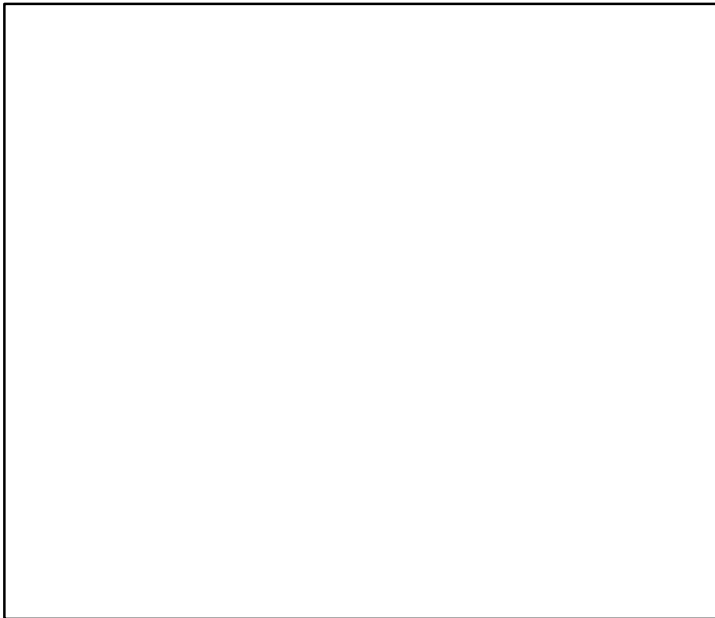
Kobe MSYpref (1952–2020–HIVELY)



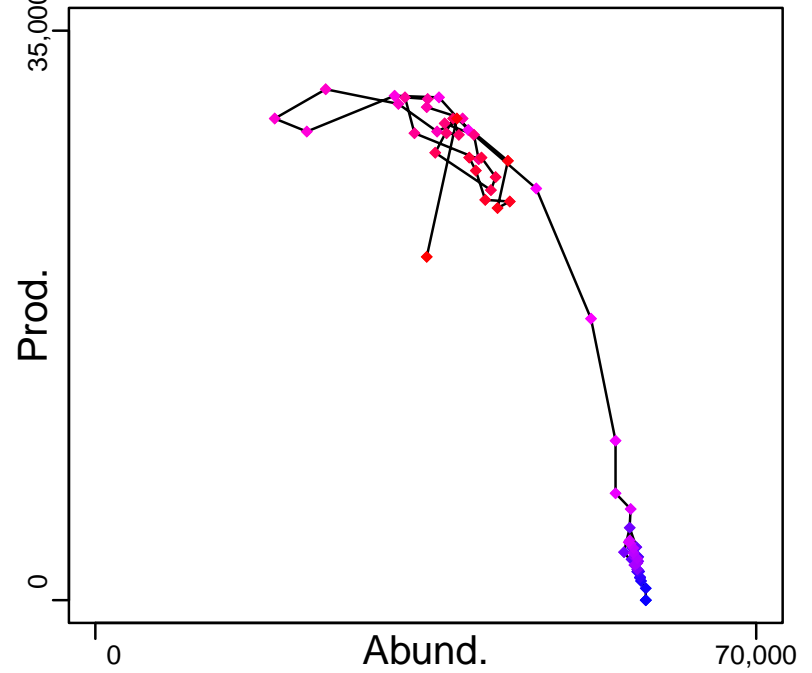
Kobe MGTpref (1952–2020–HIVELY)



Spawner Recruit*



Production (1950–2014–PONS)

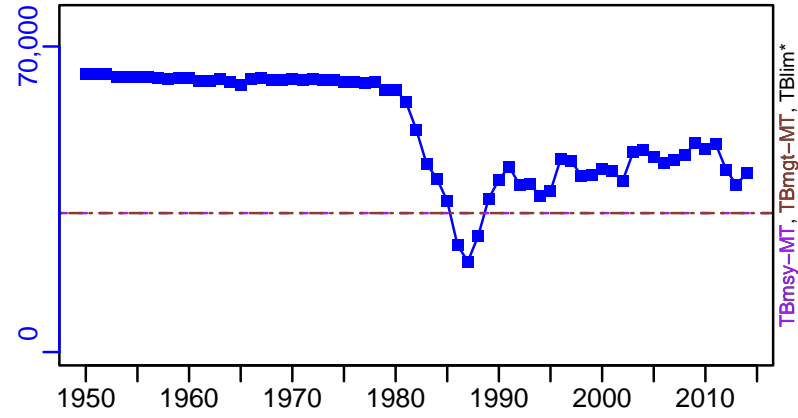


◆ Start Year ◆ End Year * No Data

Skipjack tuna Western Atlantic [SKJWATL]

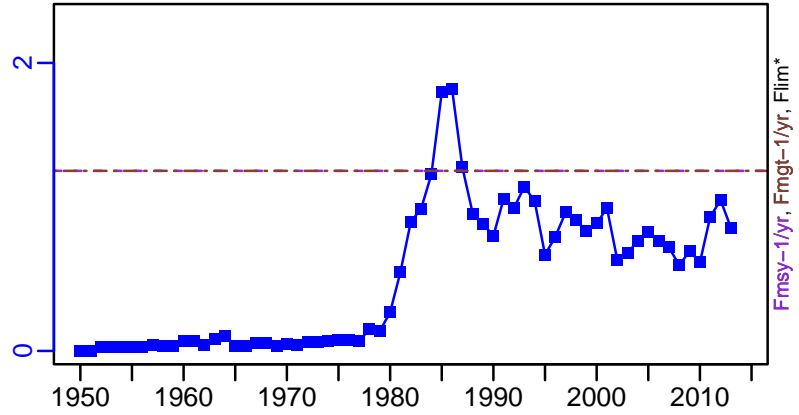
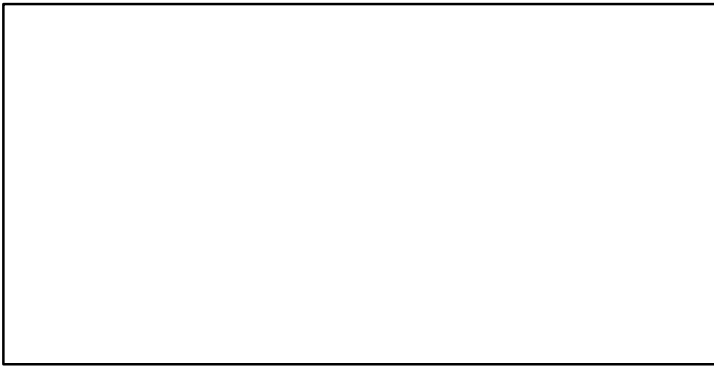
TB-MT (1950–2014–PONS)

SSB*



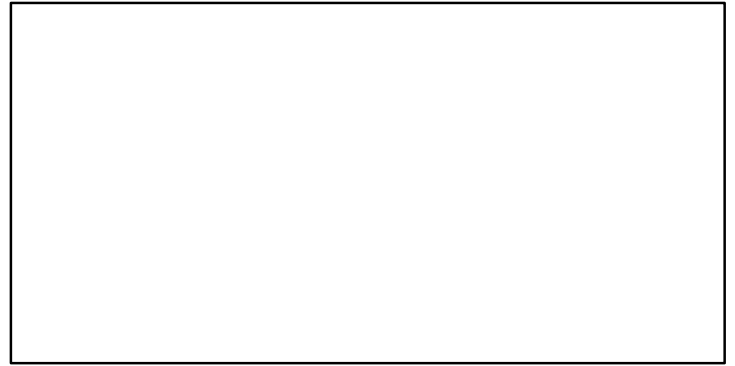
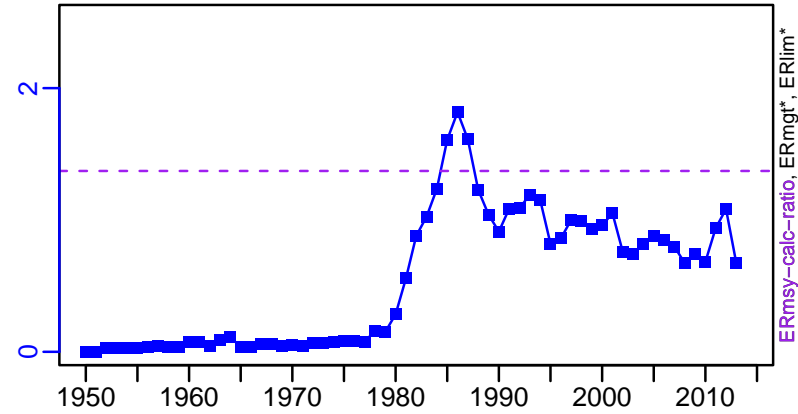
TN *

F-1/yr (1950–2014–PONS)



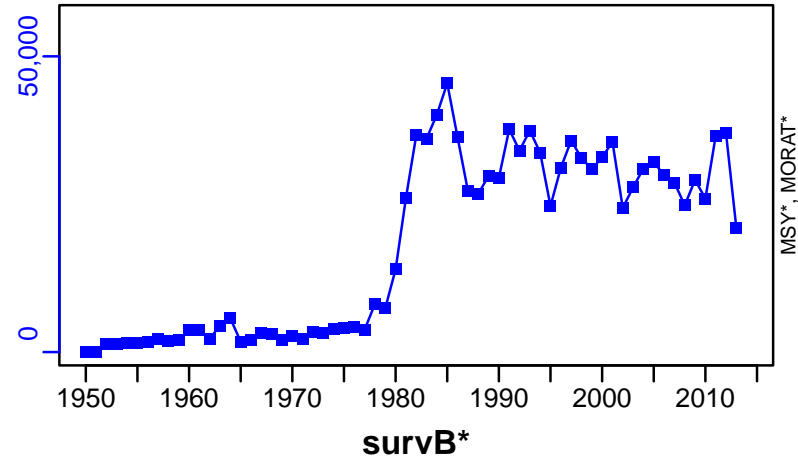
ER-calc-ratio (1950–2014–PONS)

Recruits*



Skipjack tuna Western Atlantic [SKJWATL]

TC-MT, TL*, RecC* (1950–2014–PONS)



TAC*, Cpair*, Cadv*



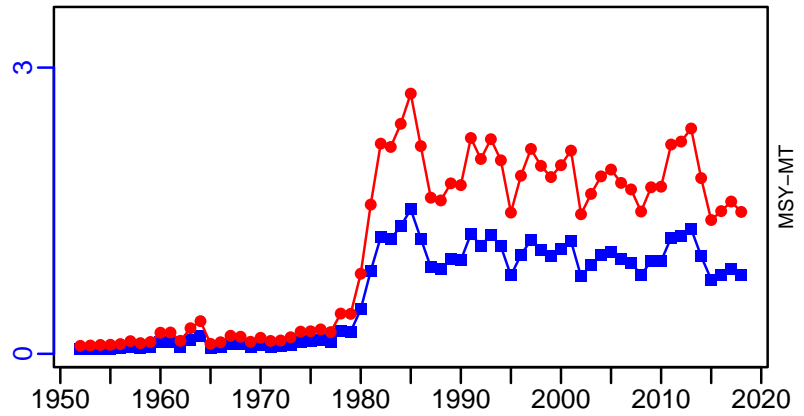
CPUE*



EFFORT*



TL-MT/MSY-MT, CdivMEANC-ratio, (1950–2018–PONS)



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

Striped marlin Indian Ocean [STMARLINIO]

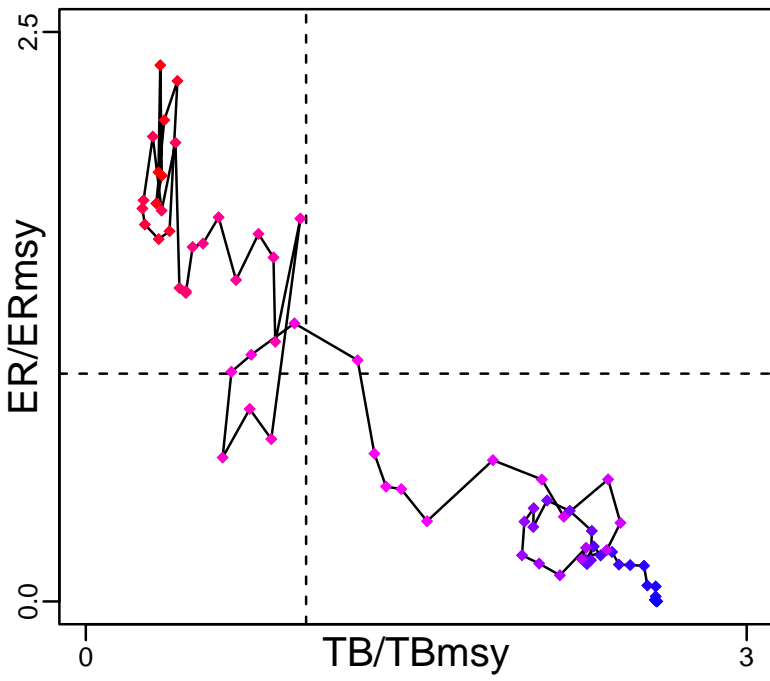
Metadata	
Scientific Name	Kajikia audax
Current Assess ID	IOTC-STMARLINIO-1950-2018-PONS
Area	Indian Ocean
Management Authority	Indian Ocean Tuna Commission
Assessor	Indian Ocean Tuna Commission
Asmts in RAM	2014, 2018

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-extr-MT	2018	19,169
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	ERmsy-calc-ratio	2018	0.247
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	TB0-MT	2014	61,450
SSB0	-	-	-
MSY	MSY-MT	2018	4730
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

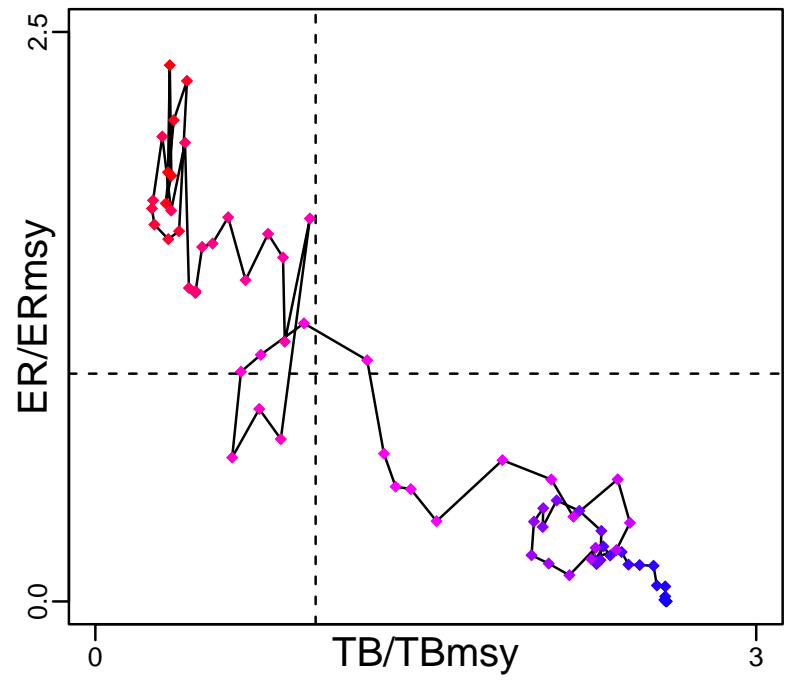
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2018	5610	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-calc-ratio	2018	0.465	-	-
TC	TC-MT	2014	3990		
TL	TL-MT	2018	2604		
TB/TBmsy	TBdivTBmsy-dimensionless	2018	0.33		
SSB/SSBmsy	-	-	-		
F/Fmsy	FdivFmsy-dimensionless	2018	1.99		
ER/ERmsy	ER-calc-ratio/ERmsy-calc-ratio	2018	1.884		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Striped marlin Indian Ocean [STMARLINIO]

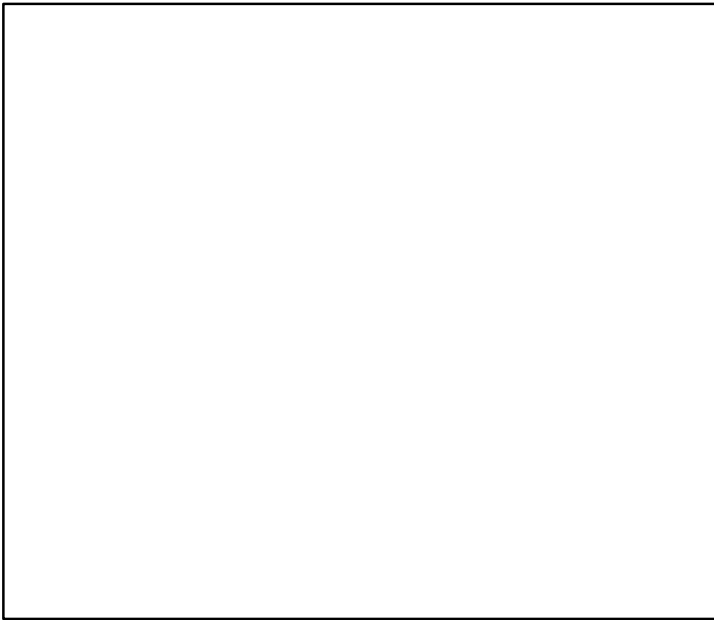
Kobe MSYpref (1950–2018–PONS)



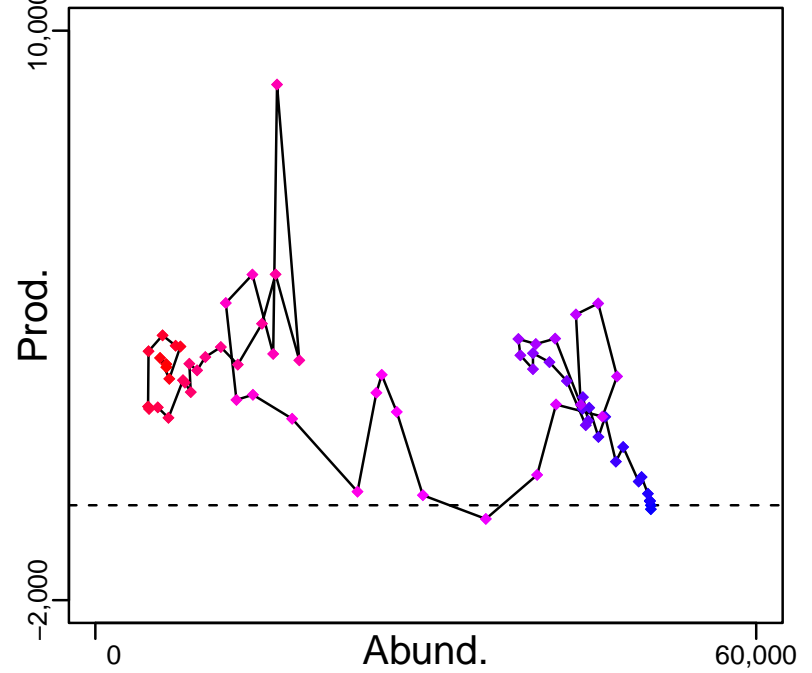
Kobe MGTpref (1950–2018–PONS)



Spawner Recruit*



Production (1950–2018–PONS)

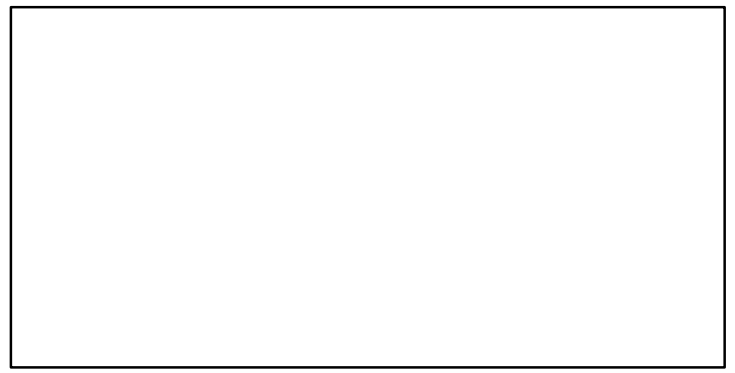
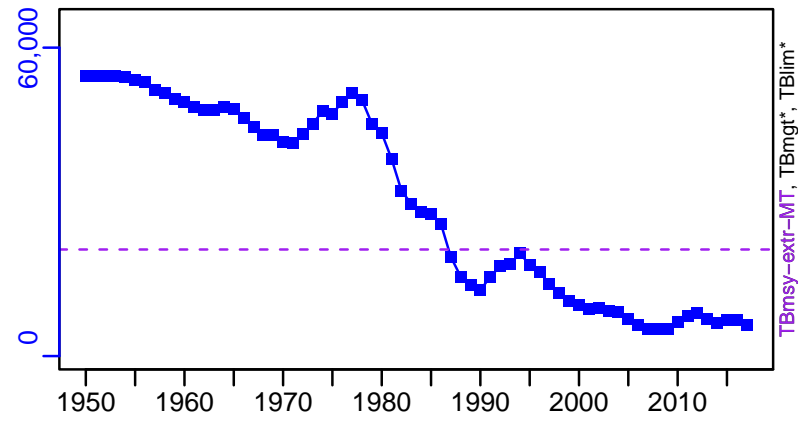


◆ Start Year ◆ End Year * No Data

Striped marlin Indian Ocean [STMARLINIO]

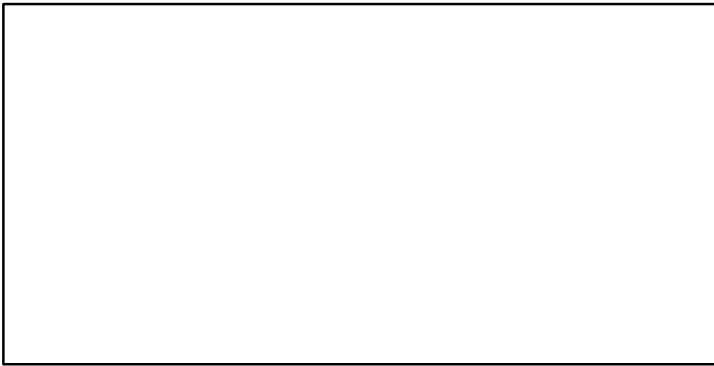
TB-MT (1950-2018-PONS)

SSB*



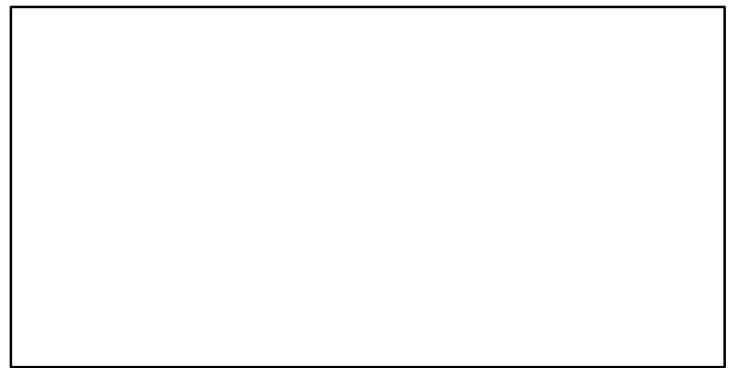
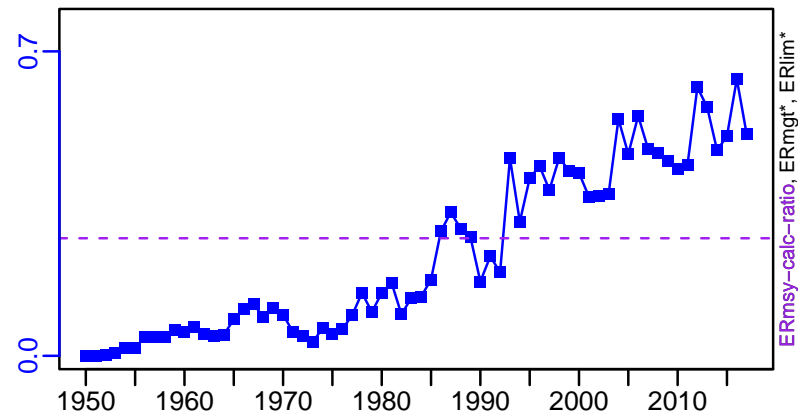
TN *

F*



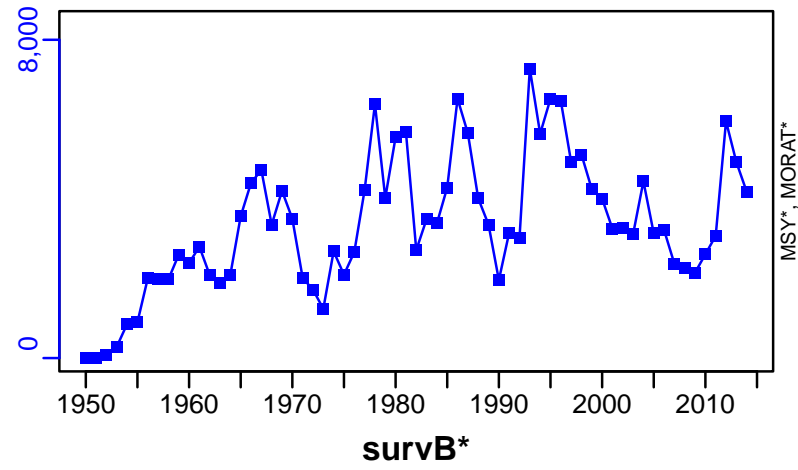
ER-calc-ratio (1950-2018-PONS)

Recruits*



Striped marlin Indian Ocean [STMARLINIO]

TC-MT, TL*, RecC* (1950–2014–PONS)



TAC*, Cpair*, Cadv*



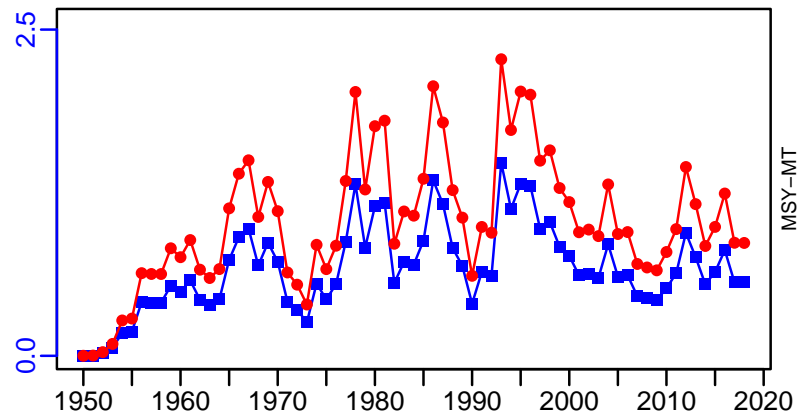
CPUE*



EFFORT*



TL-MT/MSY-MT, CdivMEANC-ratio, (1950–2018–PONS)



Striped marlin Northeast Pacific [STMARLINNEPAC]

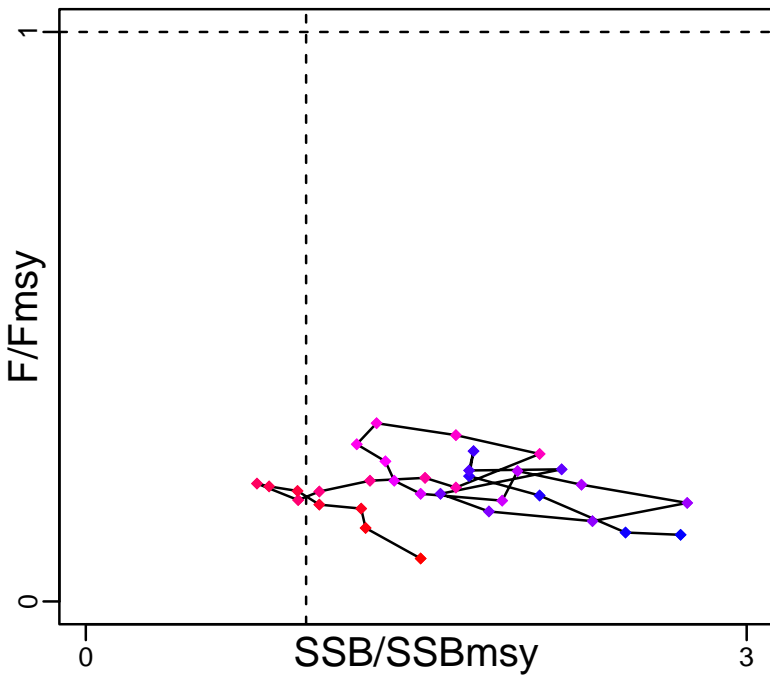
Metadata	
Scientific Name	Kajikia audax
Current Assess ID	IATTC-STMARLINNEPAC-1954-2009-BRANCH
Area	Northeast Pacific
Management Authority	Inter-American Tropical Tuna Commission
Assessor	Inter-American Tropical Tuna Commission
Asmts in RAM	2009

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2009	1370
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2009	5556
MSY	MSY-MT	2009	2596
M	M-1/yr	2009	0.5
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

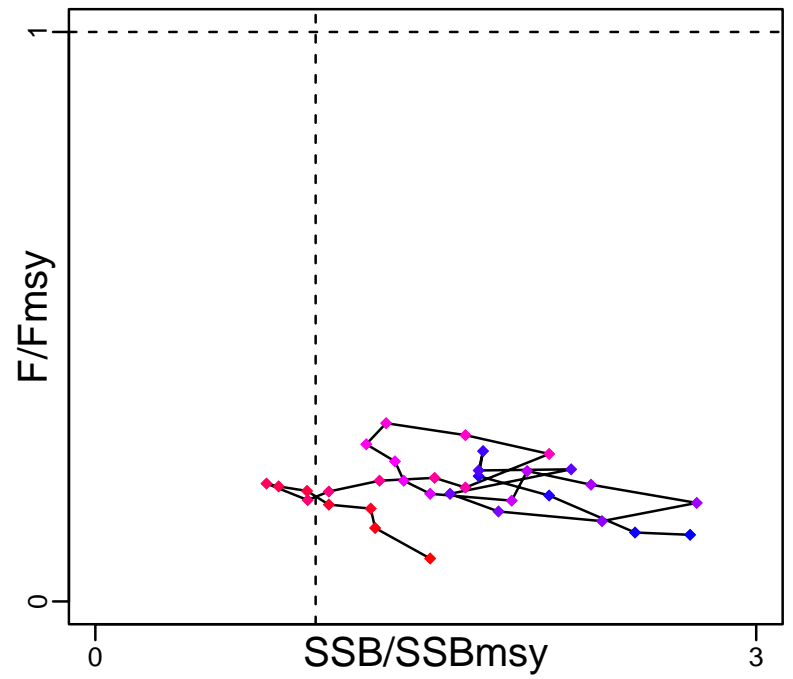
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2009	5060	-	1+
SSB	SSB-MT	2009	2090	Females	2+
TN	-	-	-	-	-
R	R-MT	2009	239	-	0
F	-	-	-	-	-
ER	ER-calc-ratio	2009	0.269	-	-
TC	TC-MT	2009	1360		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2009	1.52		
F/Fmsy	FdivFmsy-dimensionless	2009	0.075		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Striped marlin Northeast Pacific [STMARLINNEPAC]

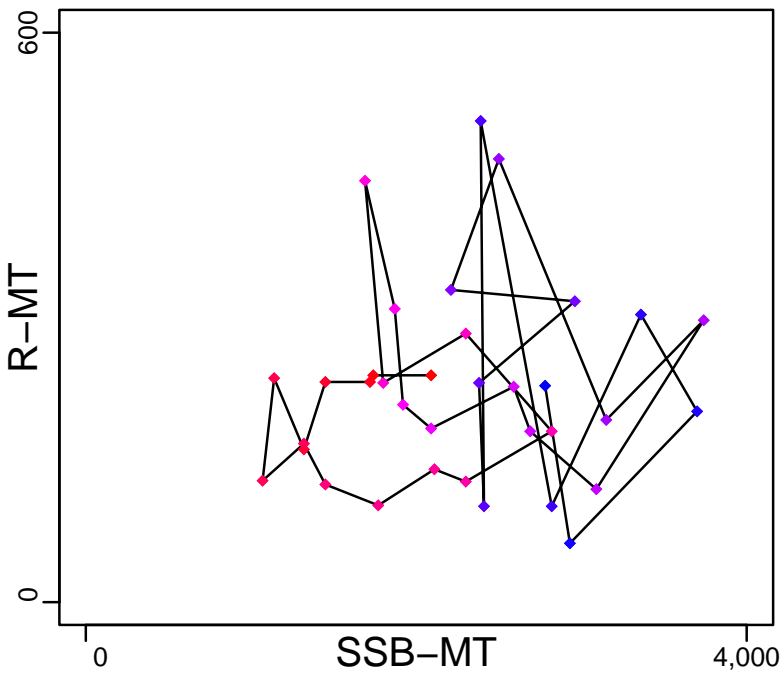
Kobe MSYpref (1954–2009–BRANCH)



Kobe MGTpref (1954–2009–BRANCH)



Spawner Recruit (1954–2009–BRANCH)



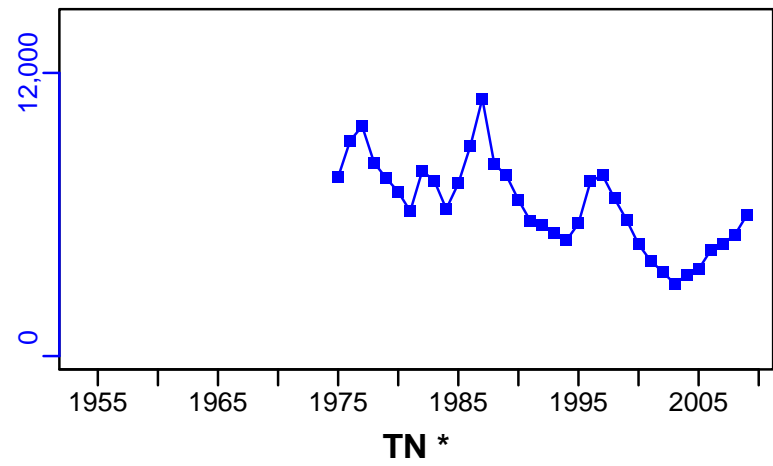
Production*



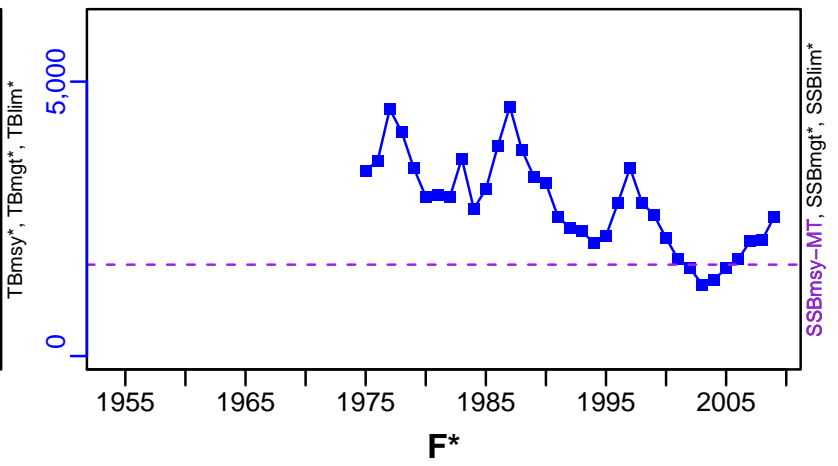
◆ Start Year ◆ End Year * No Data

Striped marlin Northeast Pacific [STMARLINNEPAC]

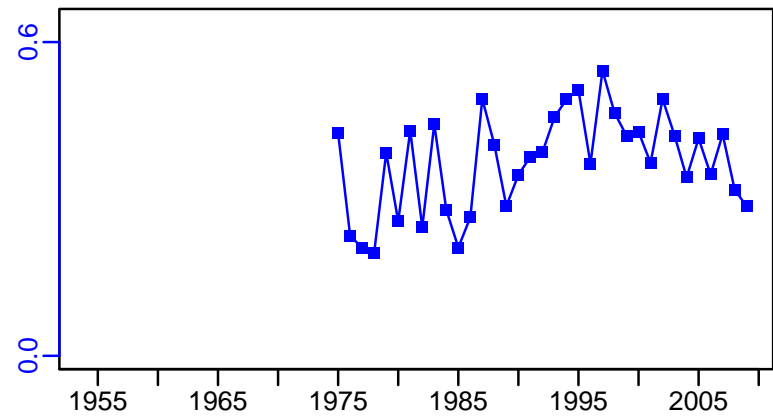
TB-MT (1954-2009-BRANCH)



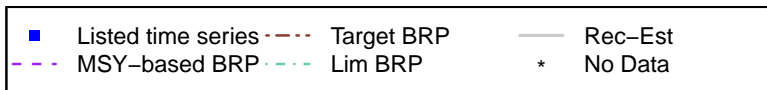
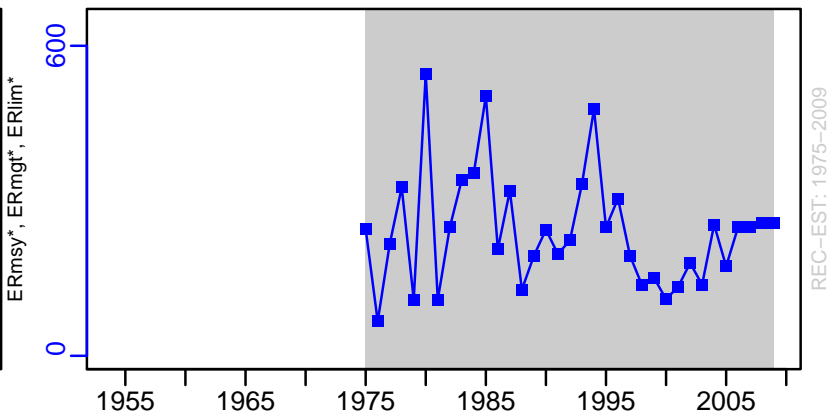
SSB-MT (1954-2009-BRANCH)



ER-calc-ratio (1954-2009-BRANCH)



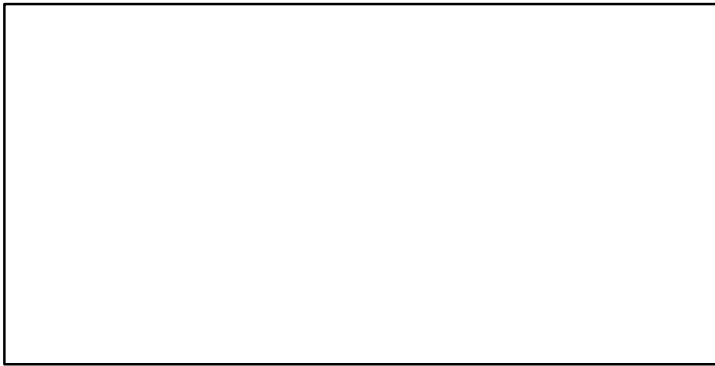
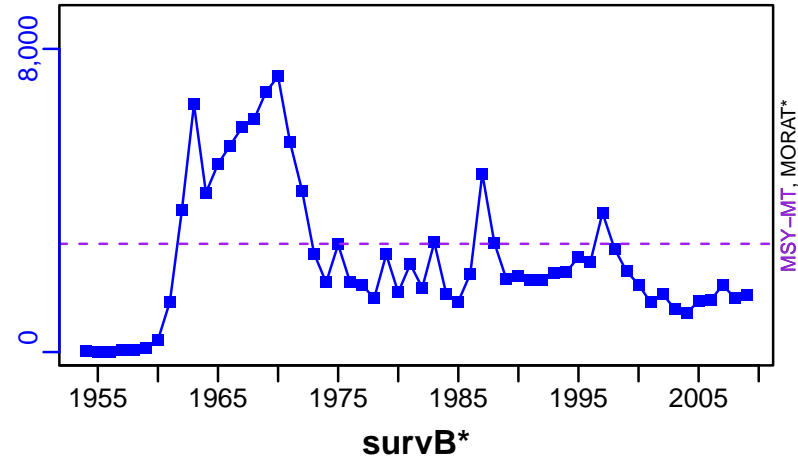
R-MT (1954-2009-BRANCH)



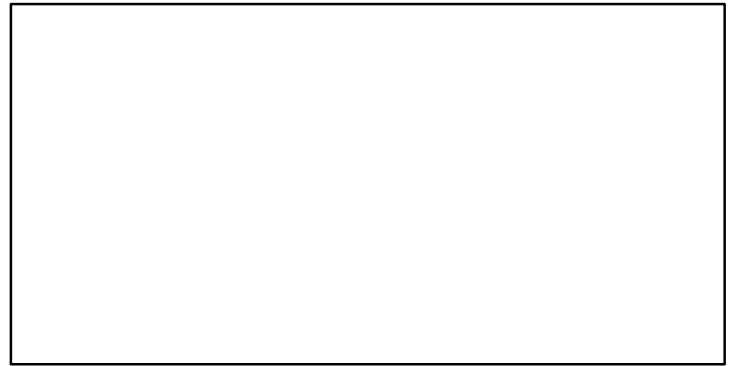
Striped marlin Northeast Pacific [STMARLINNEPAC]

TC-MT, TL*, RecC* (1954-2009-BRANCH)

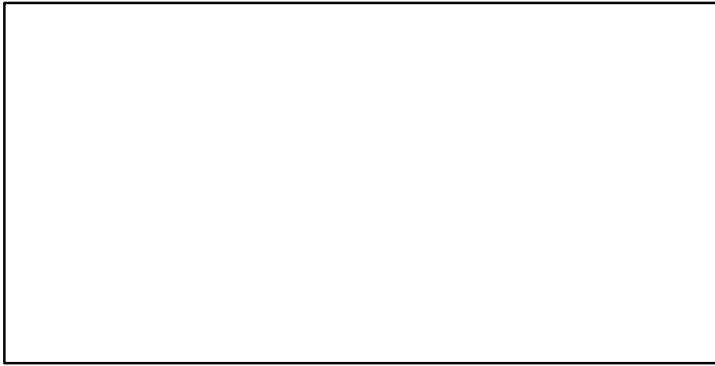
TAC*, Cpair*, Cadv*



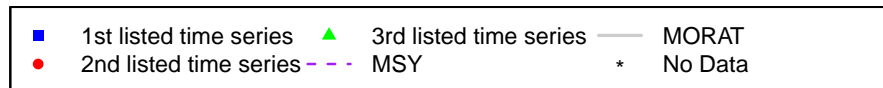
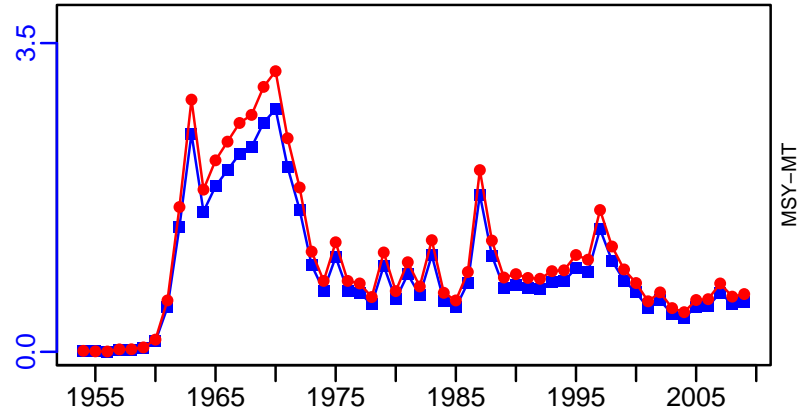
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1954-2009-BRANCH)



Striped marlin Western Pacific Ocean [STMARLINSWPO]

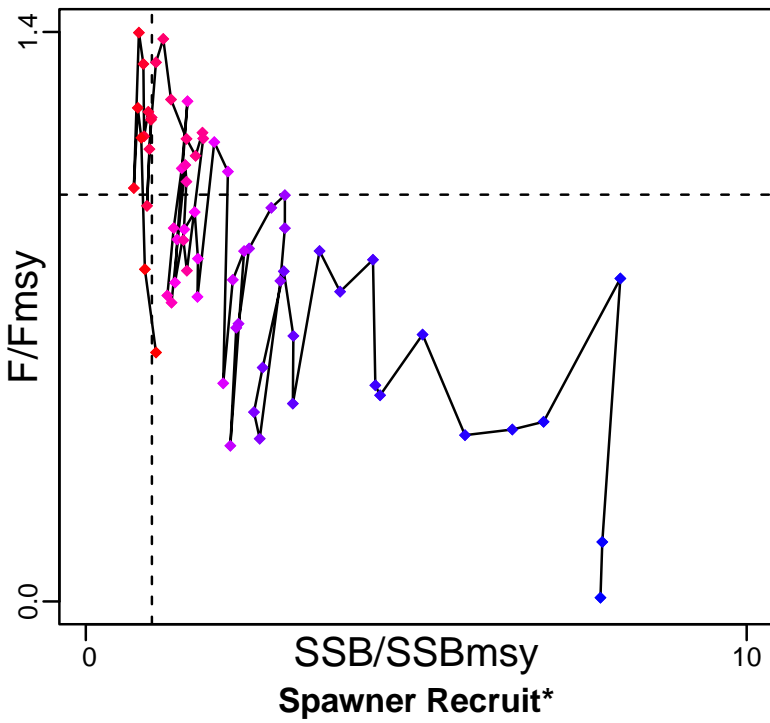
Metadata	
Scientific Name	Kajikia audax
Current Assess ID	SPC-STMARLINSWPO-1951-2018-PONS
Area	Western Pacific Ocean
Management Authority	Western and Central Pacific Fisheries Commission
Assessor	Secretariat of the Pacific Community
Asmts in RAM	2018, 2011

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-extr-MT	2011	7326
SSBmsy	-	-	-
Fmsy	Fmsy-1/yr	2011	0.226
ERmsy	ERmsy-calc-ratio	2011	0.284
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2018	2672
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

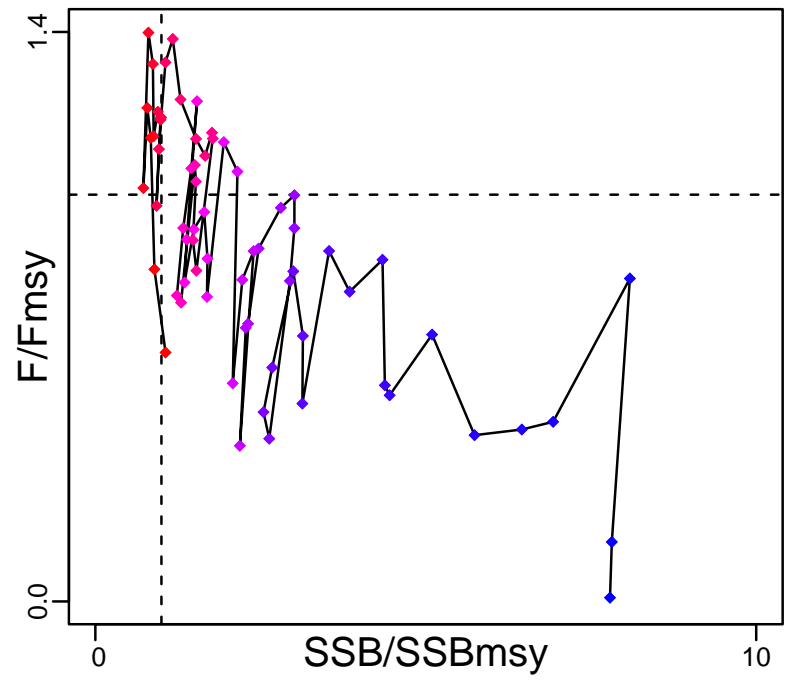
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2011	6640	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-ratio	2011	0.229	-	-
TC	TC-MT	2011	1520		
TL	TL-MT	2018	1552		
TB/TBmsy	TBdivTBmsy-dimensionless	2011	0.91		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2018	1.062		
F/Fmsy	FdivFmsy-dimensionless	2018	0.612		
ER/ERmsy	ER-ratio/ERmsy-calc-ratio	2011	0.806		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Striped marlin Western Pacific Ocean [STMARLINSWPO]

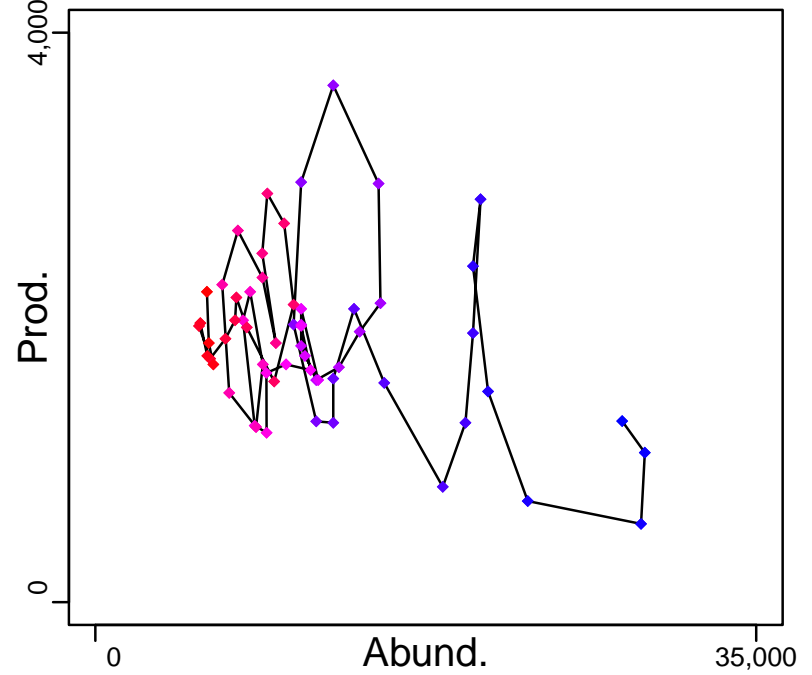
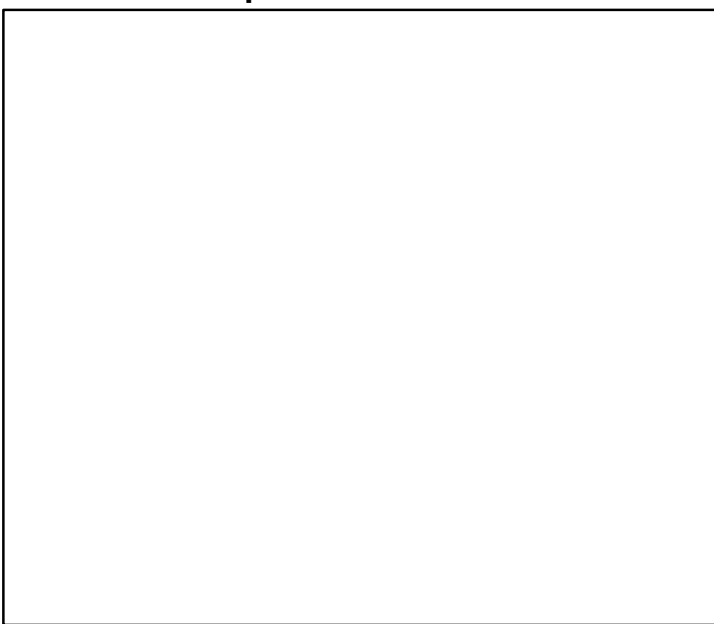
Kobe MSYpref (1951–2018–PONS)



Kobe MGTpref (1951–2018–PONS)



Production (1952–2011–CHING)

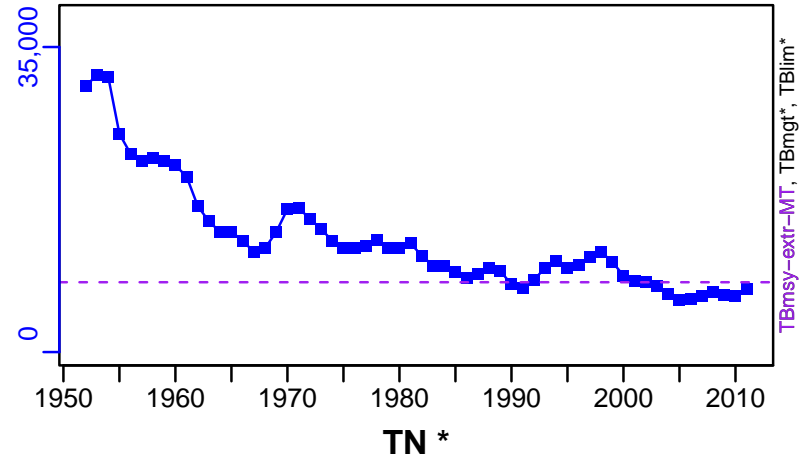


◆ Start Year ◆ End Year * No Data

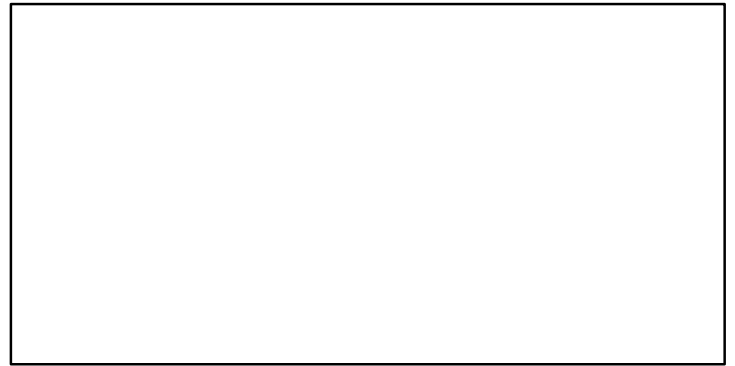
Striped marlin Western Pacific Ocean [STMARLINSWPO]

TB-MT (1952-2011-CHING)

SSB*

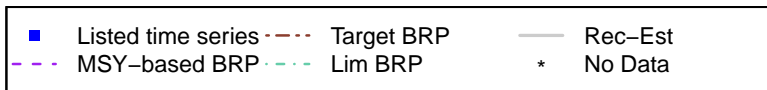
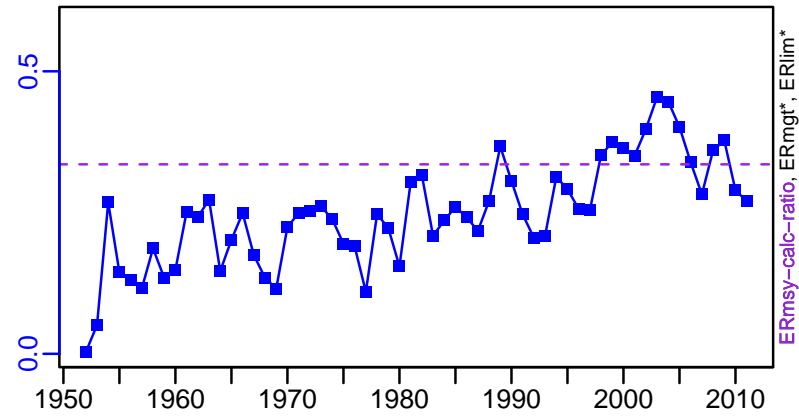


F*



ER-ratio (1952-2011-CHING)

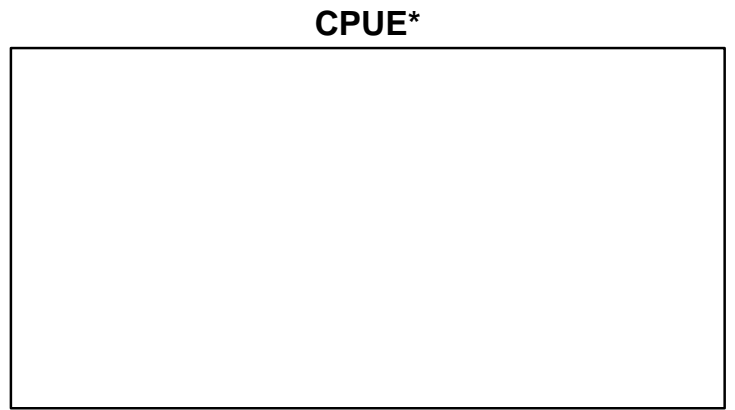
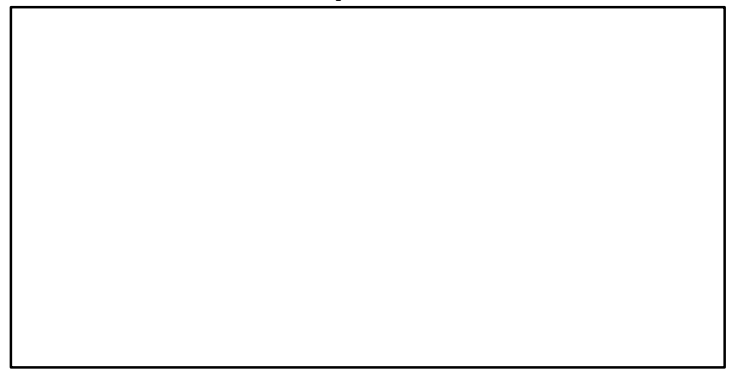
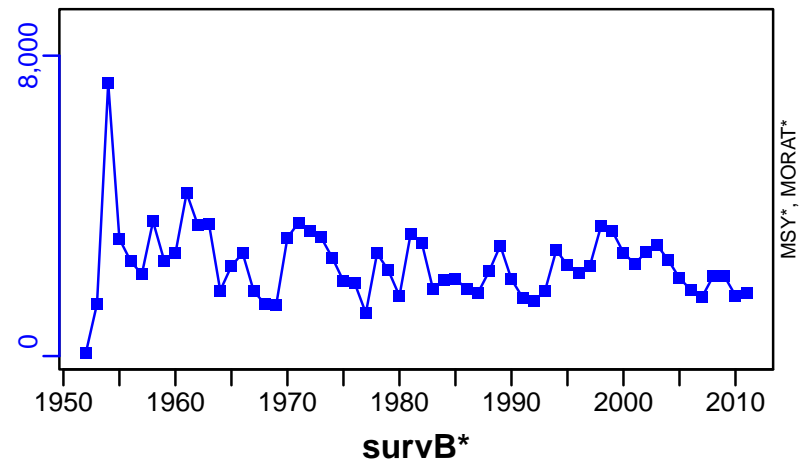
Recruits*



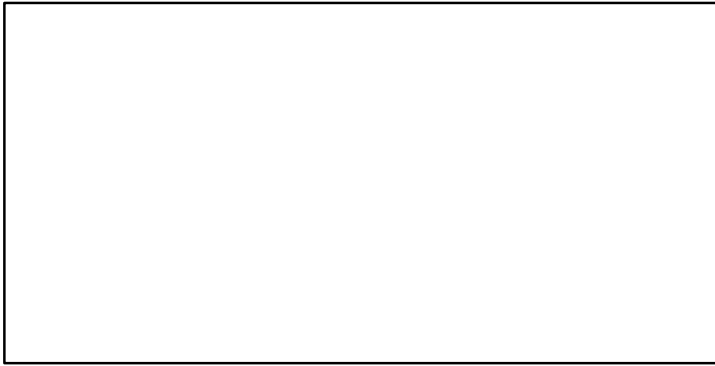
Striped marlin Western Pacific Ocean [STMARLINSWPO]

TC-MT, TL*, RecC* (1952–2011–CHING)

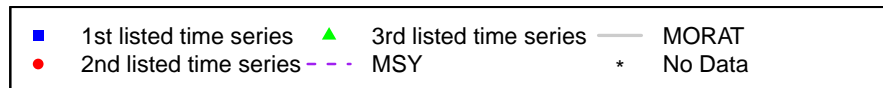
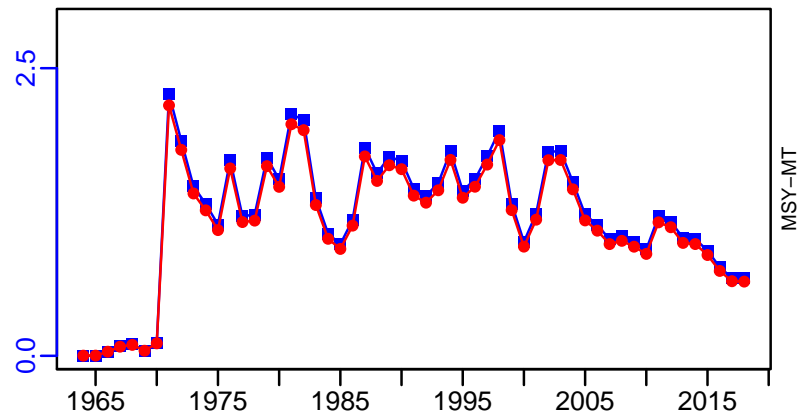
TAC*, Cpair*, Cadv*



EFFORT*



TL-MT/MSY-MT, CdivMEANC-ratio, (1951–2018–PONS)



Striped marlin Western and Central North Pacific [STMARLINWCNPAC]

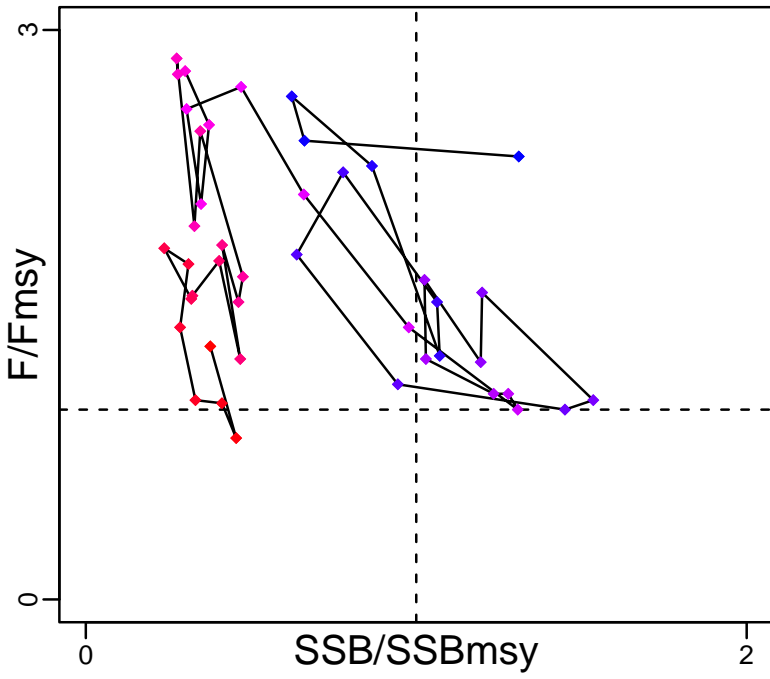
Metadata	
Scientific Name	Kajikia audax
Current Assess ID	ISC-STMARLINWCNPAC-1950-2018-PONS
Area	Western and Central North Pacific
Management Authority	International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean
Assessor	International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean
Asmts in RAM	2018, 2010, 2013

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-extr-MT	2010	16,721
SSBmsy	SSBmsy-MT	2013	2819
Fmsy	Fmsy-1/yr	2010	0.612
ERmsy	ERmsy-ratio	2010	0.386
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	TB0-MT	2010	43,468
SSB0	SSB0-MT	2010	18,507
MSY	MSY-MT	2018	4946
M	-	-	-
TBlim	-	-	-
SSBlim	SSBlim-MT	2013	2819
Flim	-	-	-
ERlim	-	-	-

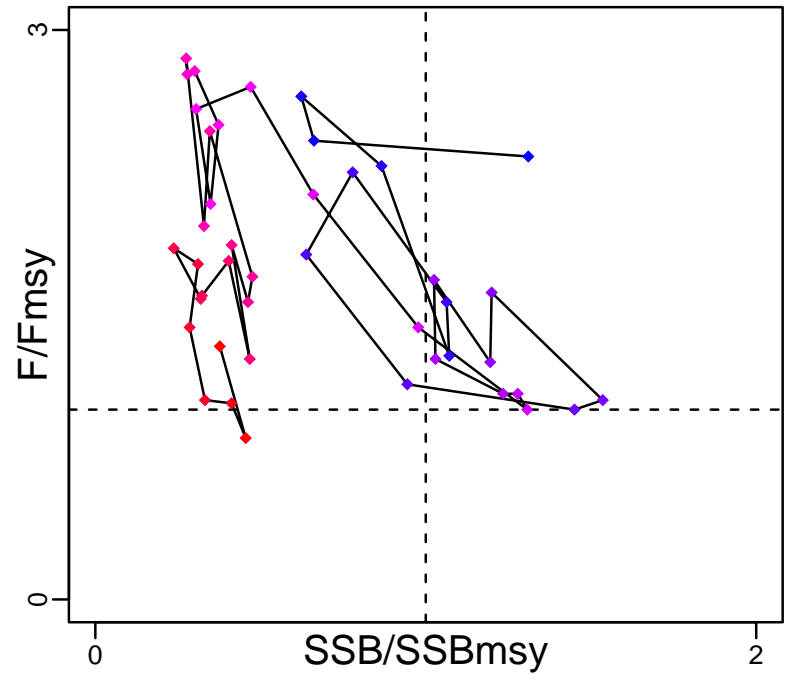
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	6820	-	1+
SSB	SSB-MT	2010	938	-	-
TN	-	-	-	-	-
R	R-E00	2010	326,000	-	-
F	F-1/yr	2010	0.75	-	-
ER	ER-calc-ratio	2013	0.437	-	-
TC	TC-MT	2013	2980		
TL	TL-MT	2018	3188		
TB/TBmsy	TBdivTBmsy-dimensionless	2010	0.35		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2018	0.377		
F/Fmsy	FdivFmsy-dimensionless	2018	1.761		
ER/ERmsy	ER-ratio/ERmsy-ratio	2010	1.244		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Striped marlin Western and Central North Pacific [STMARLINWCPAC]

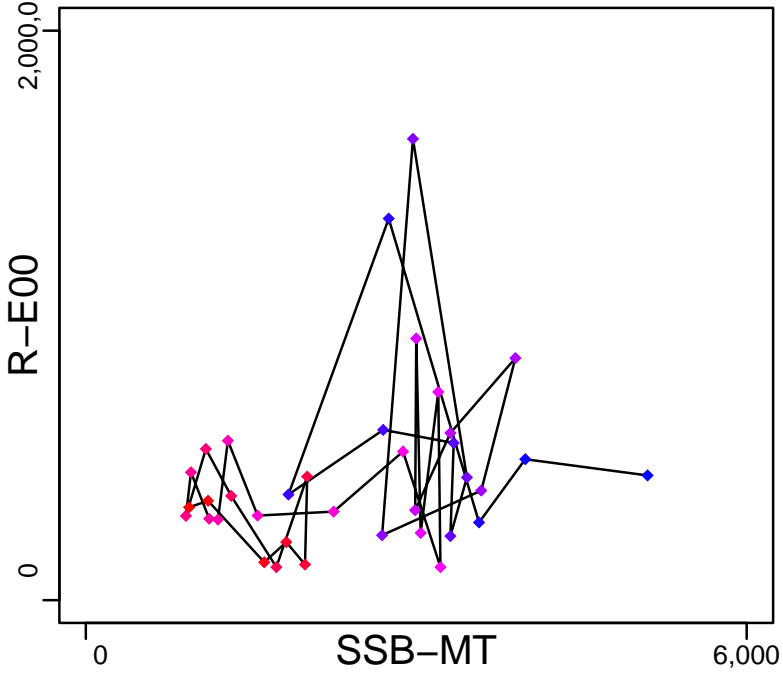
Kobe MSYpref (1950–2018–PONS)



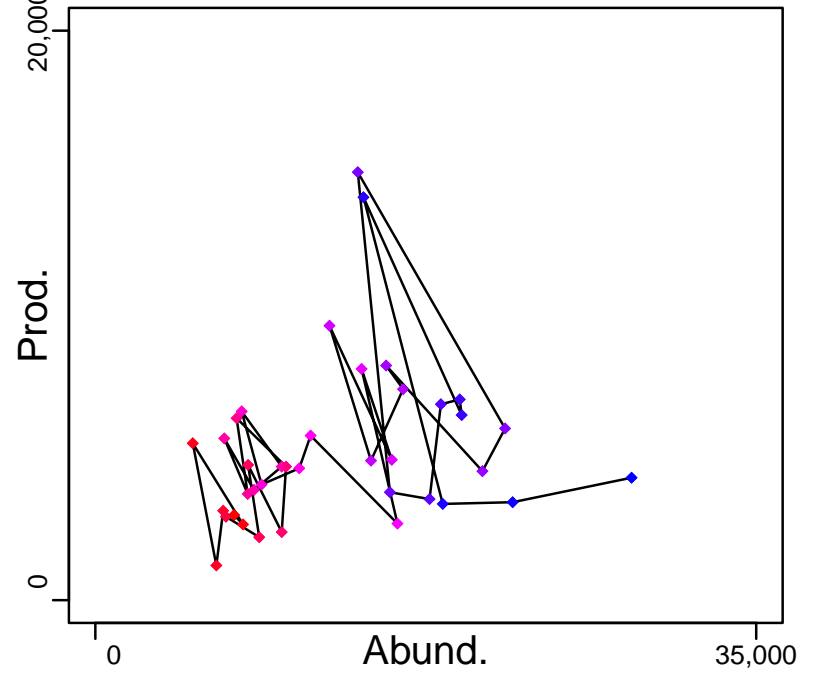
Kobe MGTpref (1950–2018–PONS)



Spawner Recruit (1951–2010–CHING)



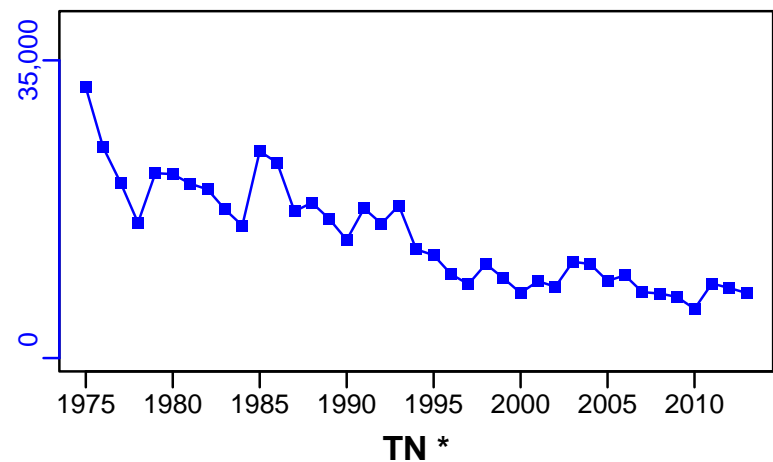
Production (1974–2013–SISIMP2016)



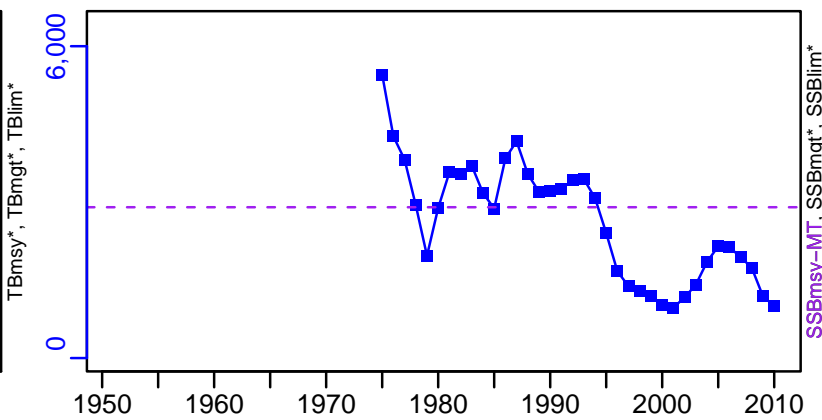
◆ Start Year ◆ End Year * No Data

Striped marlin Western and Central North Pacific [STMARLINWCNPAC]

TB-MT (1974–2013–SISIMP2016)



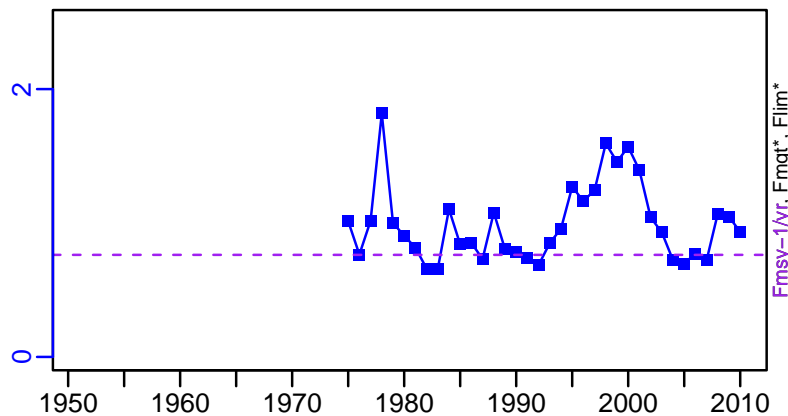
SSB-MT (1951–2010–CHING)



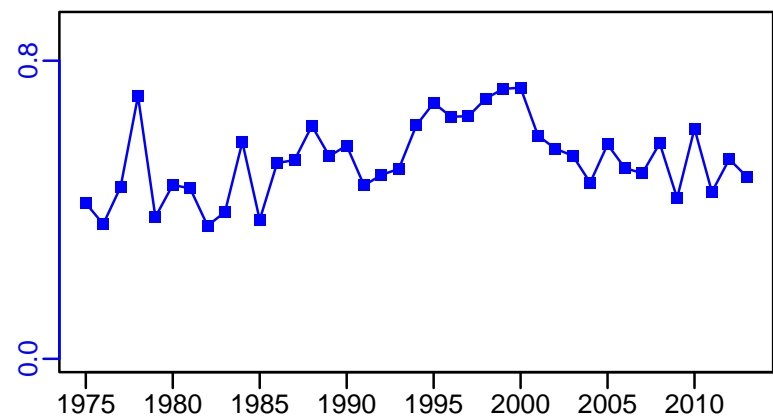
TN *



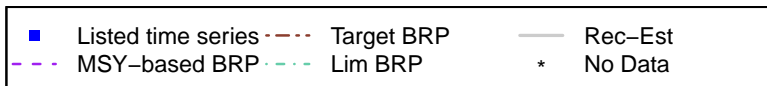
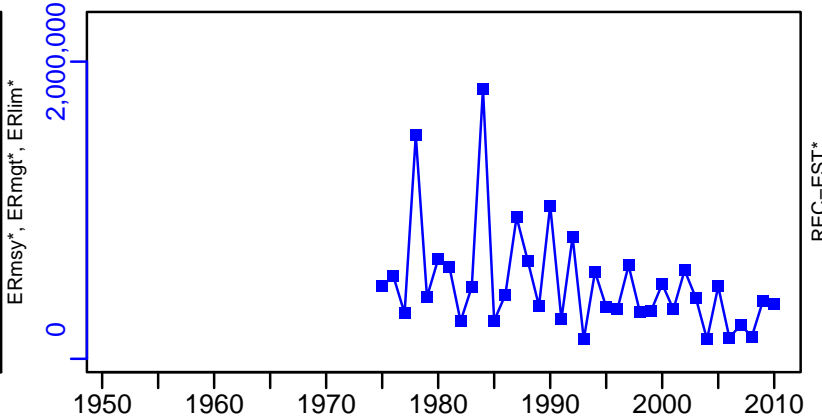
F-1/yr (1951–2010–CHING)



ER-calc-ratio (1974–2013–SISIMP2016)



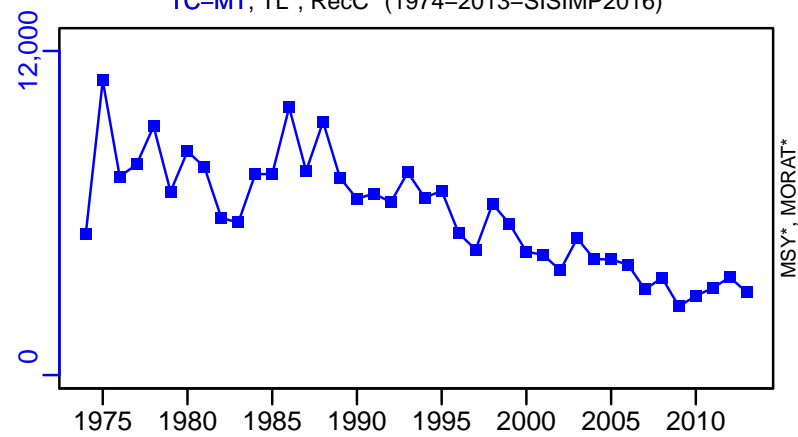
R-E00 (1951–2010–CHING)



Striped marlin Western and Central North Pacific [STMARLINWCPAC]

TC-MT, TL*, RecC* (1974–2013–SISIMP2016)

TAC*, Cpair*, Cadv*



survB*



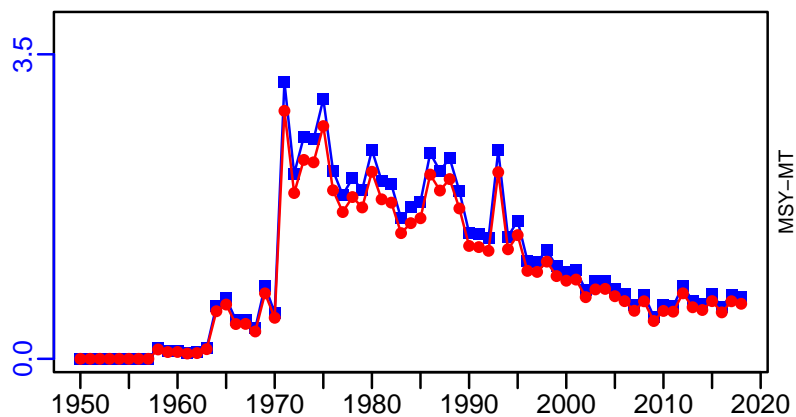
CPUE*



EFFORT*



TL-MT/MSY-MT, CdivMEANC-ratio, (1950–2018–PONS)



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

Swordfish Eastern Pacific [SWORDEPAC]

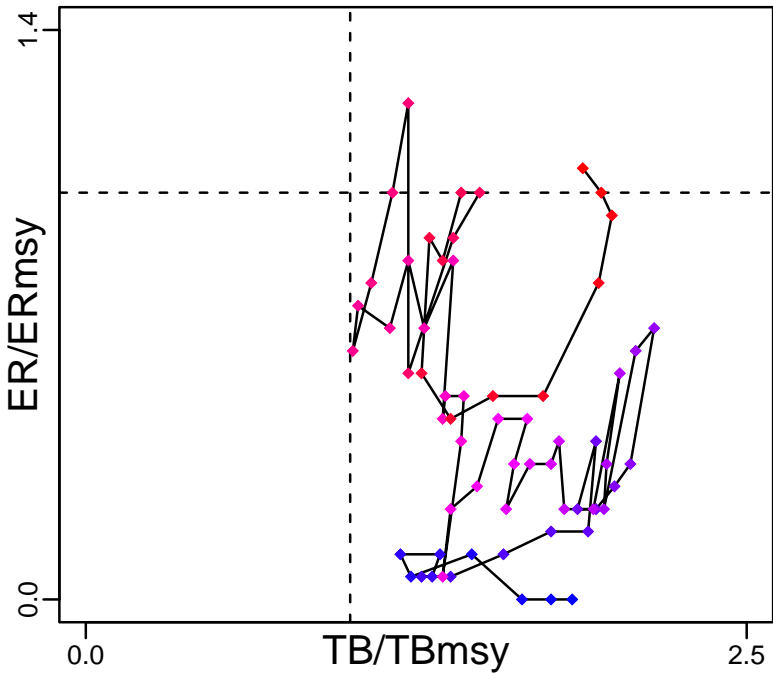
Metadata	
Scientific Name	Xiphias gladius
Current Assess ID	IATTC-SWORDEPAC-1951-2012-PONS
Area	Eastern Pacific
Management Authority	Inter-American Tropical Tuna Commission
Assessor	Inter-American Tropical Tuna Commission
Asmts in RAM	2012

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2012	31,170
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2012	0.18
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	TB0-MT	2012	57,210
SSB0	-	-	-
MSY	MSY-MT	2012	54,900
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

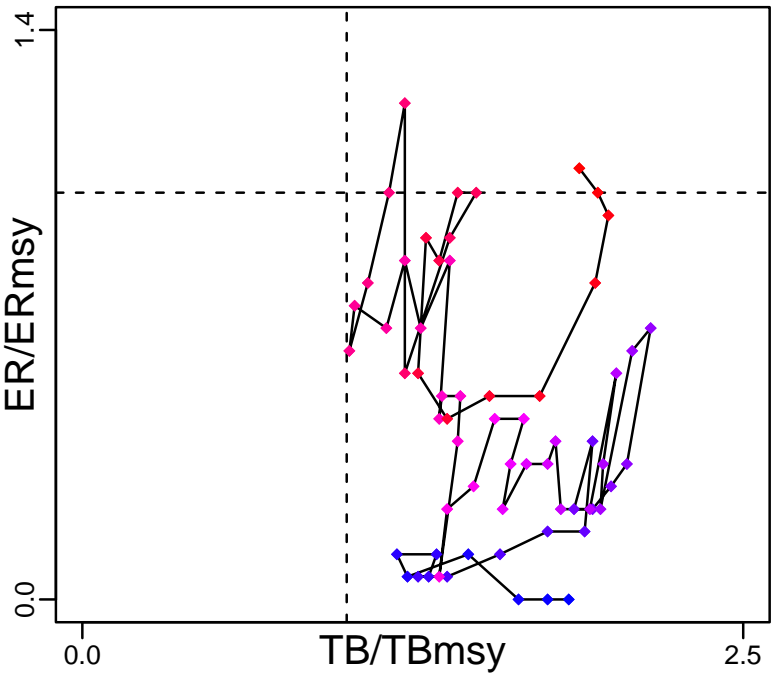
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2012	58,600	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-ratio	2012	0.19	-	-
TC	TC-MT	2012	9910		
TL	-	-	-		
TB/TBmsy	TBdivTBmsy-dimensionless	2012	1.88		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	ERdivERmsy-dimensionless	2012	1.06		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Swordfish Eastern Pacific [SWORDEPAC]

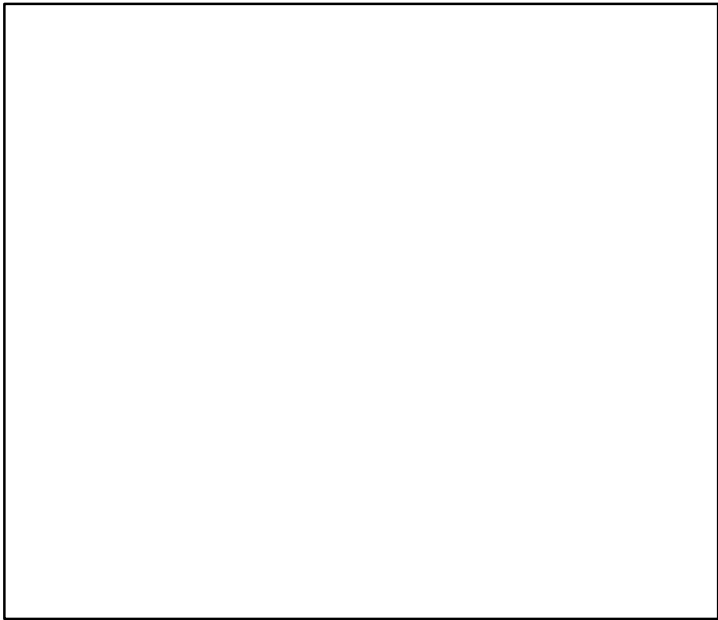
Kobe MSYpref (1951–2012–PONS)



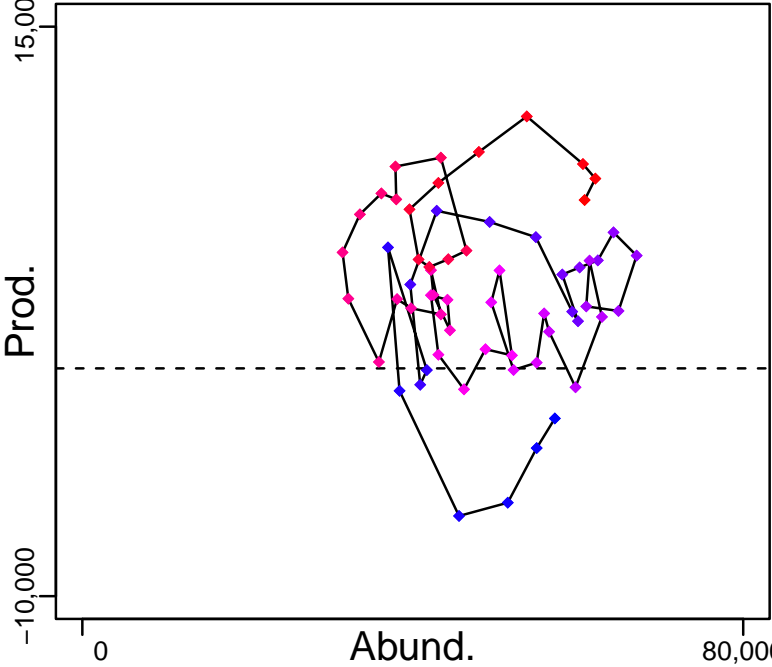
Kobe MGTpref (1951–2012–PONS)



Spawner Recruit*



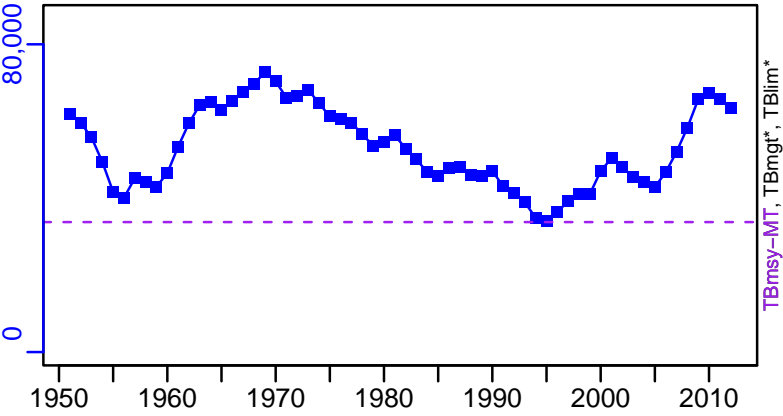
Production (1951–2012–PONS)



◆ Start Year ◆ End Year * No Data

Swordfish Eastern Pacific [SWORDEPAC]

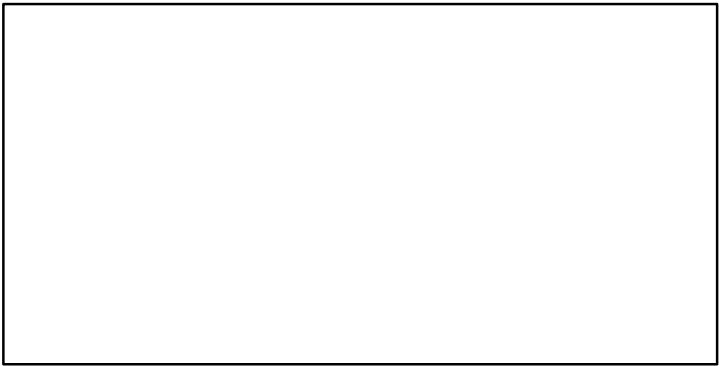
TB-MT (1951-2012-PONS)



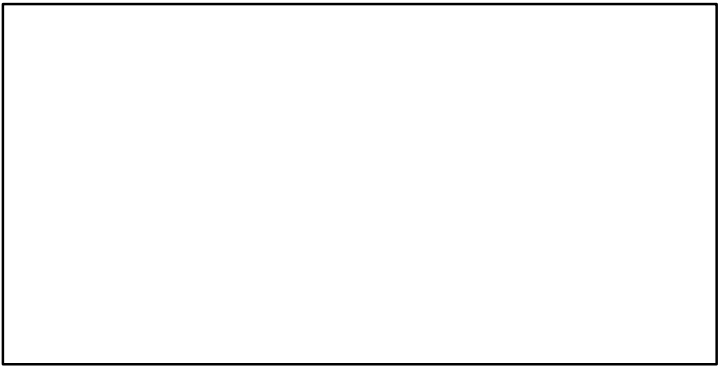
SSB*



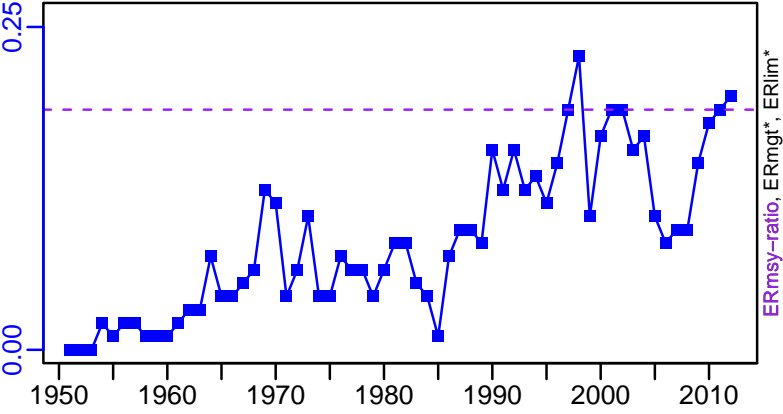
TN *



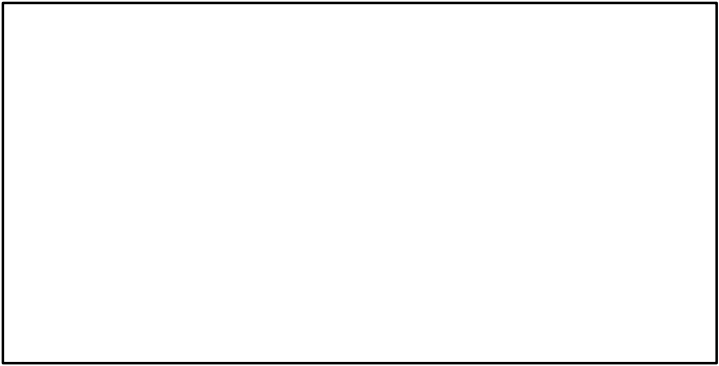
F*



ER-ratio (1951-2012-PONS)

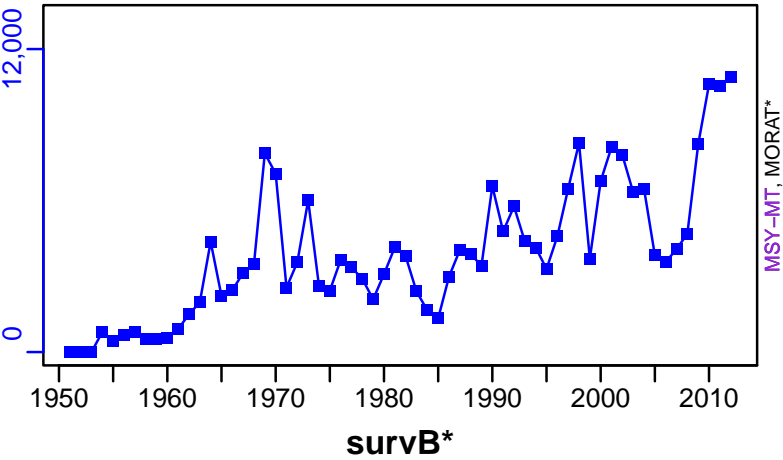


Recruits*



Swordfish Eastern Pacific [SWORDEPAC]

TC-MT, TL*, RecC* (1951-2012-PONS)



TAC*, Cpair*, Cadv*



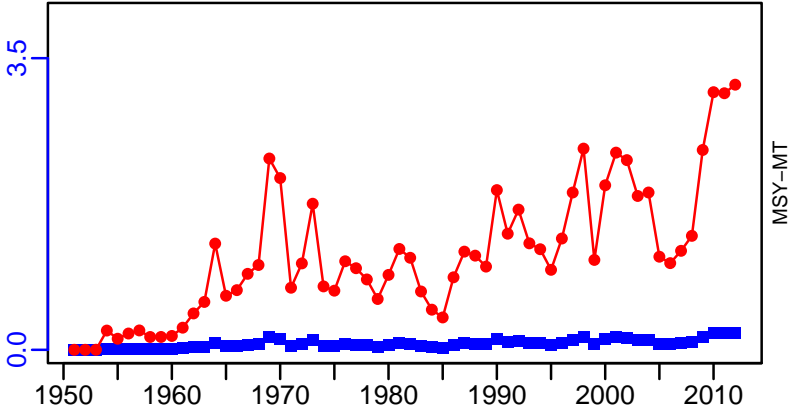
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1951-2012-PONS)



Swordfish Indian Ocean [SWORDIO]

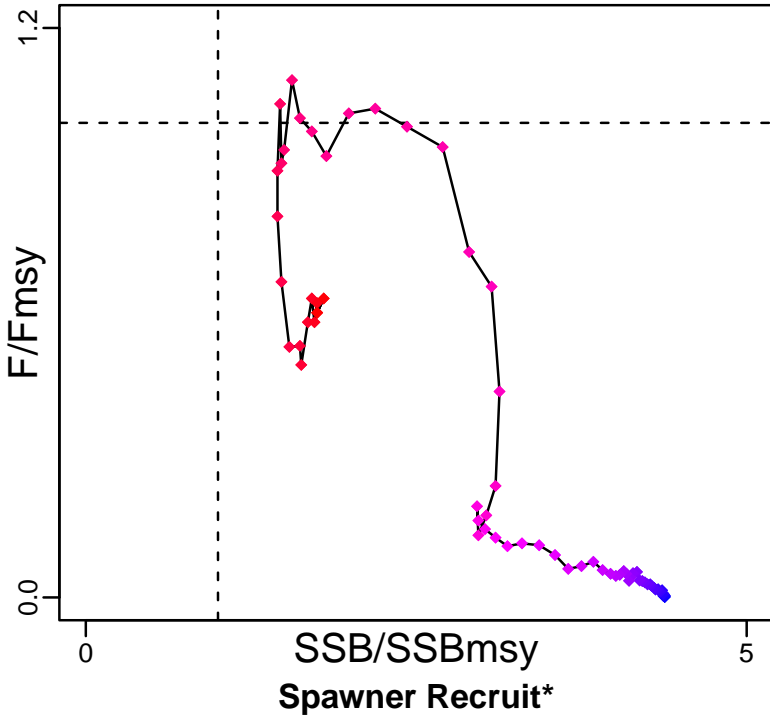
Metadata	
Scientific Name	Xiphias gladius
Current Assess ID	IOTC-SWORDIO-1950-2020-SMITH
Area	Indian Ocean
Management Authority	Indian Ocean Tuna Commission
Assessor	Indian Ocean Tuna Commission
Asmts in RAM	2014, 2018, 2020

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-extr-MT	2020	72,256
Fmsy	Fmsy-1/yr	2014	0.12
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2020	33,000
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

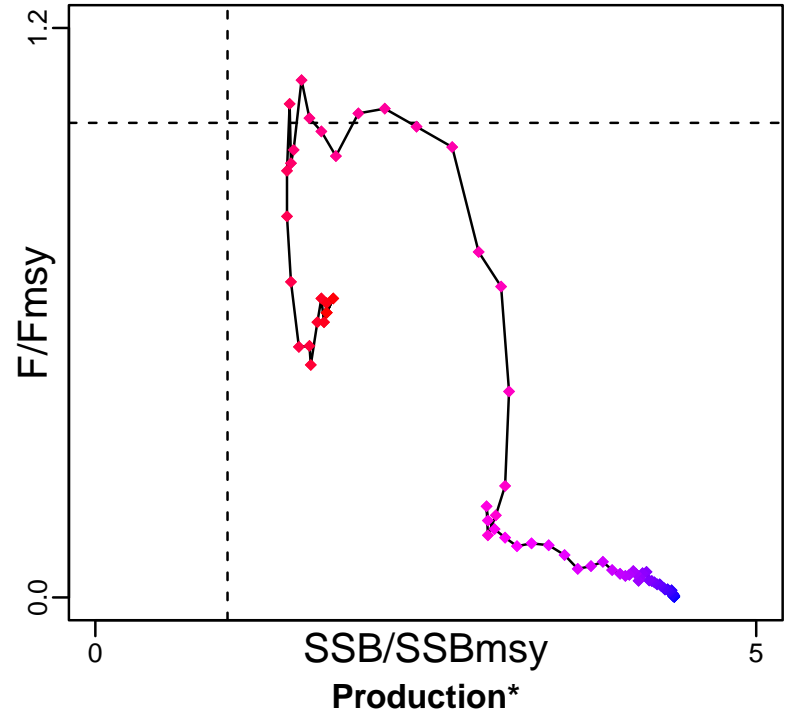
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2020	102,000	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	F-1/yr	2014	0.08	-	-
ER	-	-	-	-	-
TC	TC-MT	2020	26,005		
TL	TL-MT	2018	30,844		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2020	1.75		
F/Fmsy	FdivFmsy-dimensionless	2020	0.6		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Swordfish Indian Ocean [SWORDIO]

Kobe MSYpref (1950–2020–SMITH)



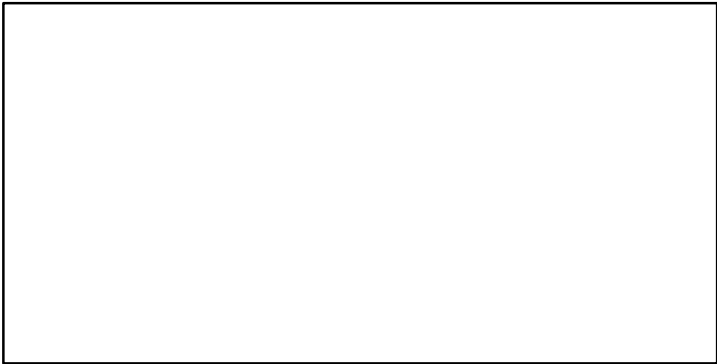
Kobe MGTpref (1950–2020–SMITH)



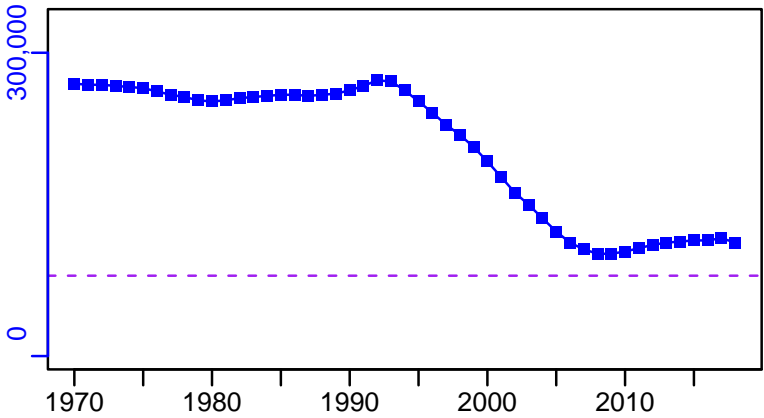
◆ Start Year ◆ End Year * No Data

Swordfish Indian Ocean [SWORDIO]

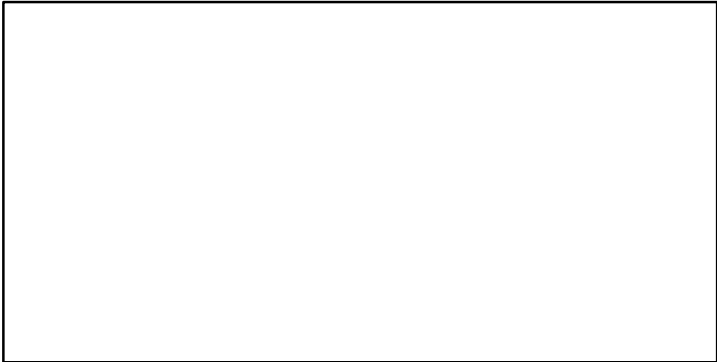
TB*



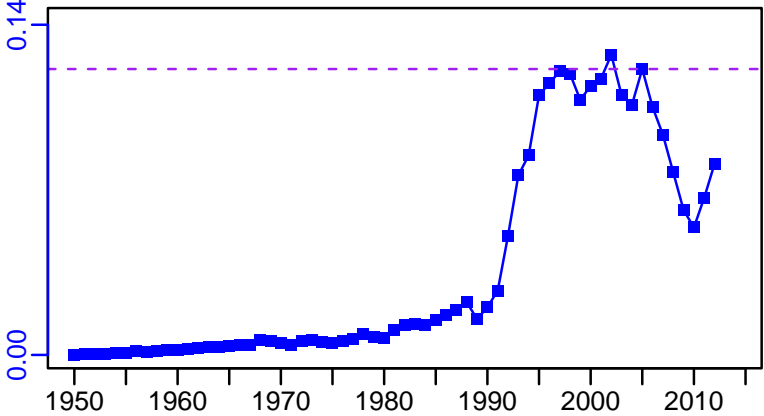
SSB-MT (1950-2020-SMITH)



TN *



F-1/yr (1950-2014-PONS)



ER*

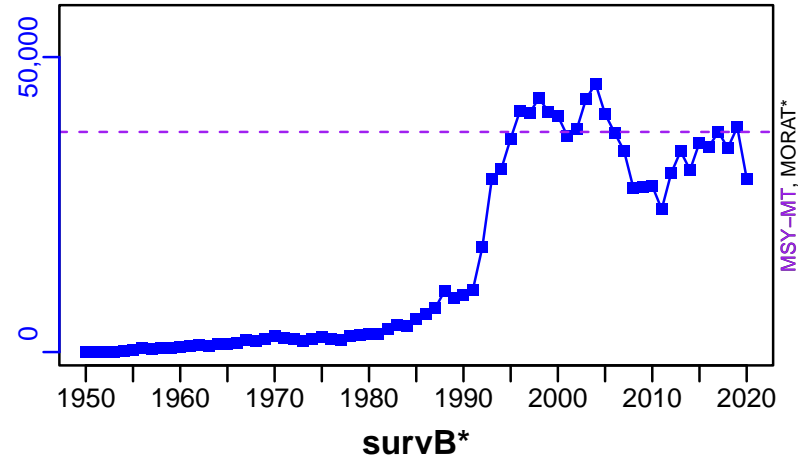


Recruits*



Swordfish Indian Ocean [SWORDIO]

TC-MT, TL*, RecC* (1950–2020–SMITH)



TAC*, Cpair*, Cadv*



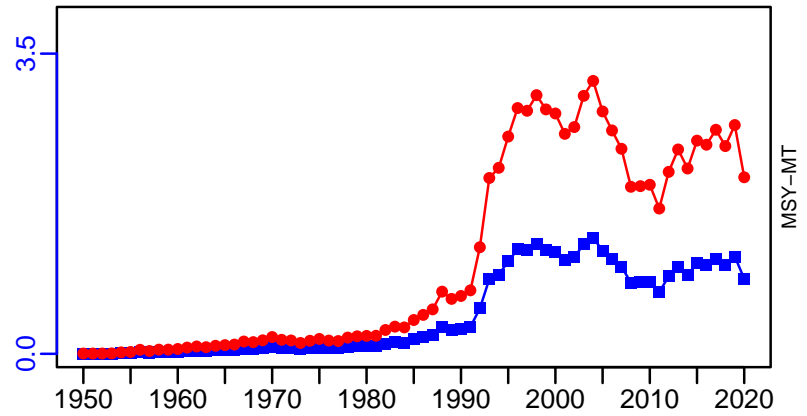
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1950–2020–SMITH)



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

Swordfish Mediterranean Sea [SWORDMED]

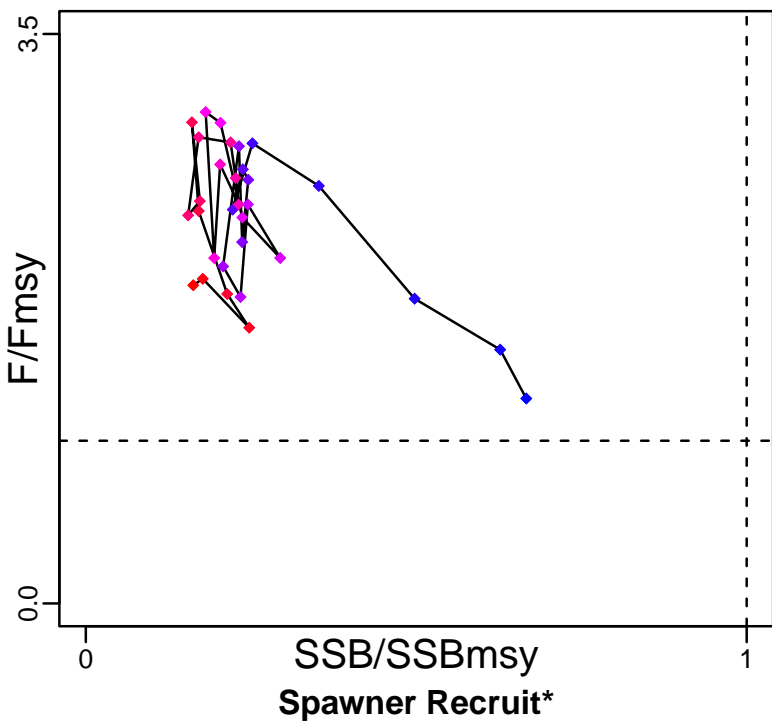
Metadata	
Scientific Name	Xiphias gladius
Current Assess ID	ICCAT-SWORDMED-1950-2018-PONS
Area	Mediterranean Sea
Management Authority	International Commission for the Conservation of Atlantic Tunas
Assessor	International Commission for the Conservation of Atlantic Tunas
Asmts in RAM	2009, 2018

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-extr-MT	2009	73,728
SSBmsy	-	-	-
Fmsy	Fmsy-1/yr	2009	0.26
ERmsy	ERmsy-calc-ratio	2009	0.198
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2018	19,683
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

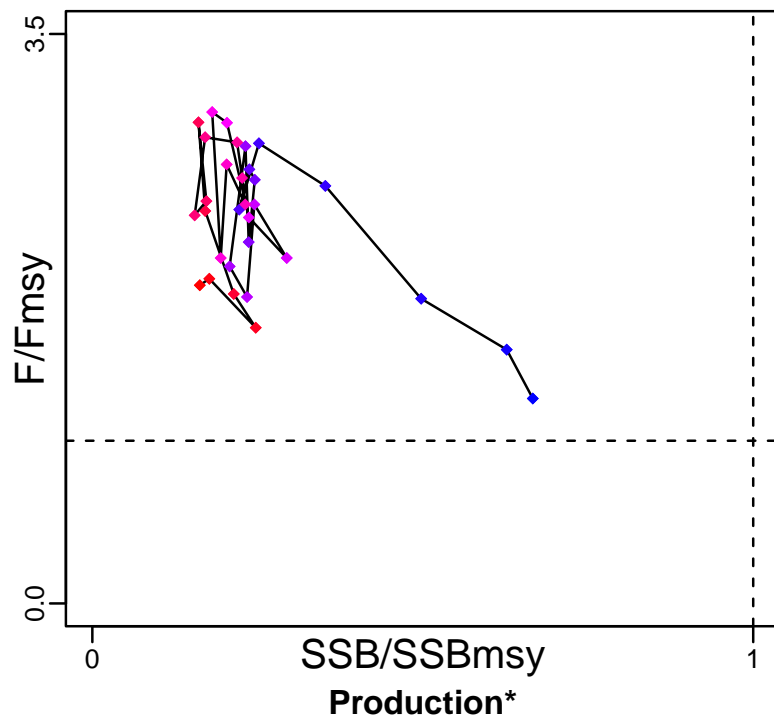
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2009	64,600	-	-
SSB	SSB-MT	2009	33,600	-	3+
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-ratio	2018	0.487	-	-
TC	TC-MT	2009	9340		
TL	TL-MT	2018	7079		
TB/TBmsy	TBdivTBmsy-dimensionless	2009	0.96		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2018	0.163		
F/Fmsy	FdivFmsy-dimensionless	2018	1.956		
ER/ERmsy	ER-ratio/ERmsy-calc-ratio	2009	0.954		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Swordfish Mediterranean Sea [SWORDMED]

Kobe MSYpref (1950–2018–PONS)



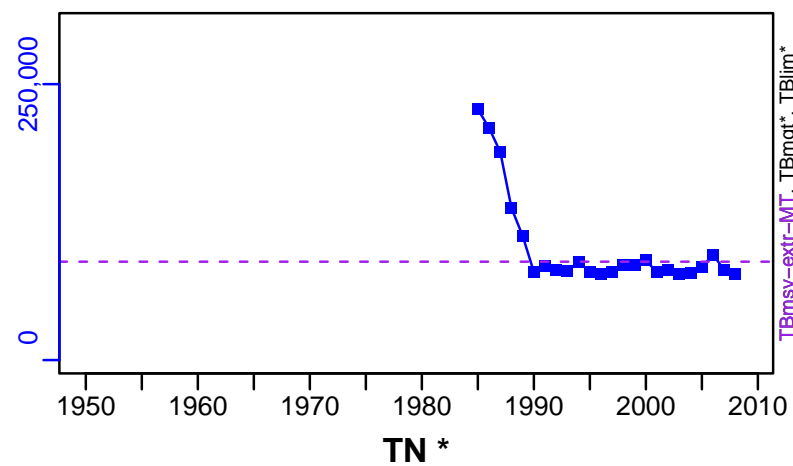
Kobe MGTpref (1950–2018–PONS)



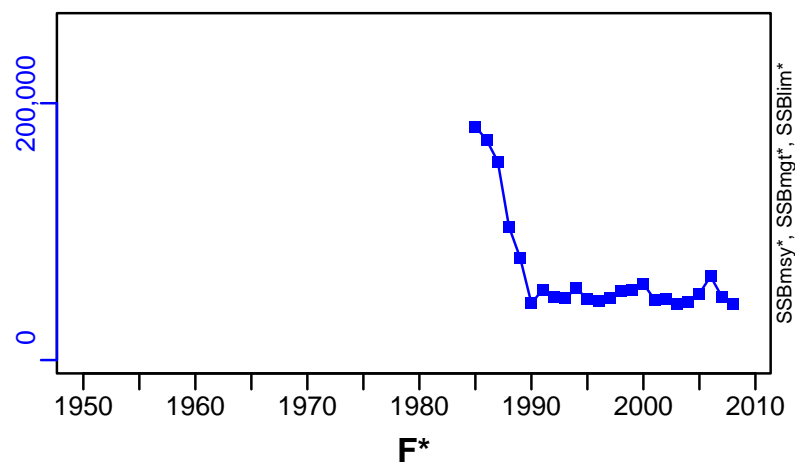
◆ Start Year ◆ End Year * No Data

Swordfish Mediterranean Sea [SWORDMED]

TB-MT (1950–2009–CHING)



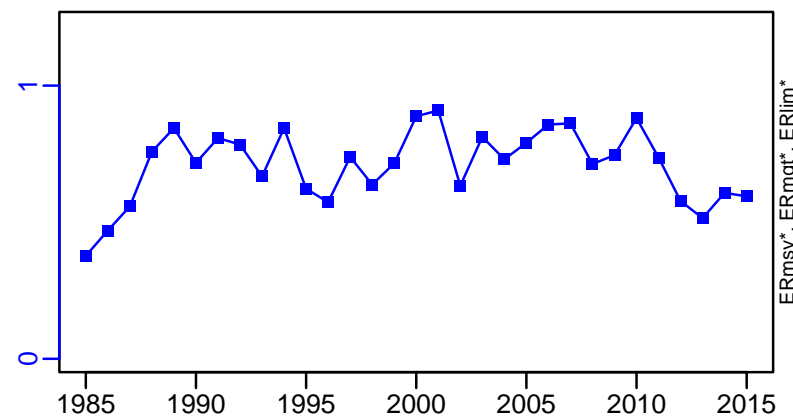
SSB-MT (1950–2009–CHING)



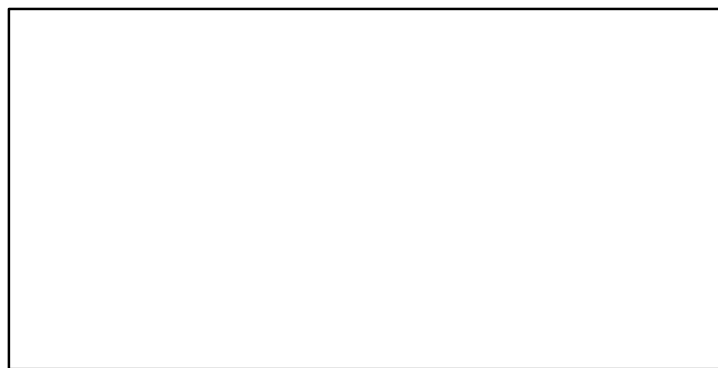
TN *

F*

ER-ratio (1950–2018–PONS)



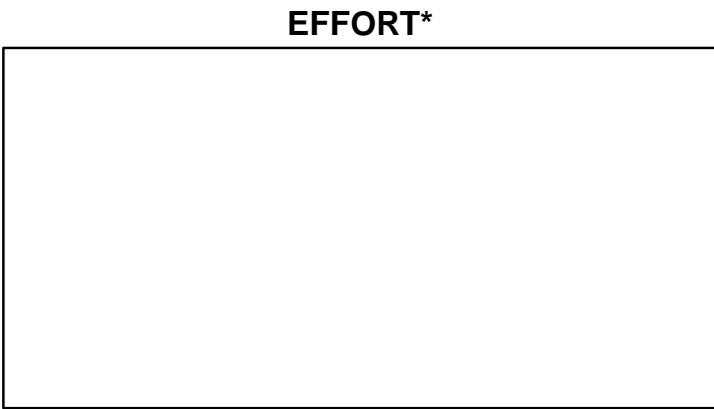
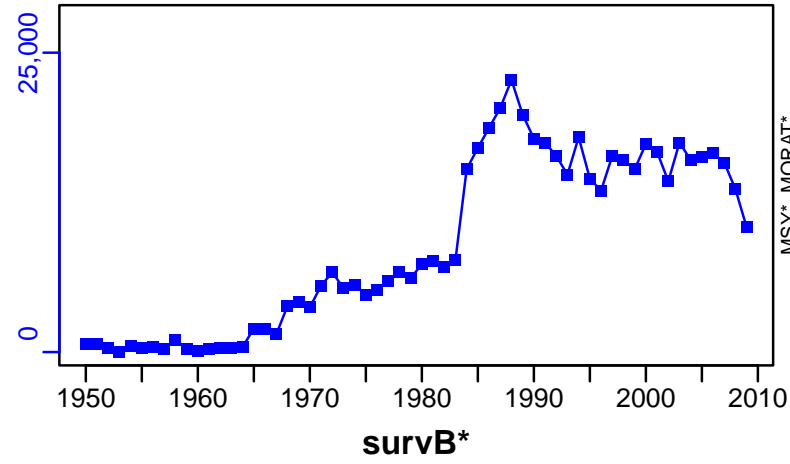
Recruits*



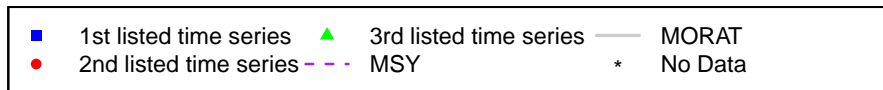
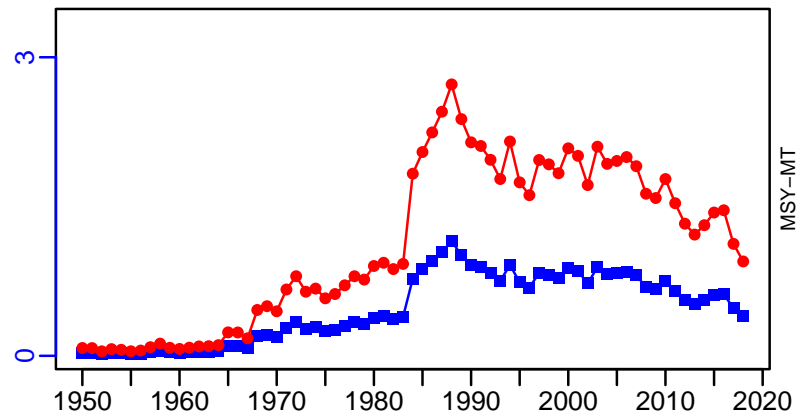
Swordfish Mediterranean Sea [SWORDMED]

TC-MT, TL*, RecC* (1950–2009–CHING)

TAC*, Cpair*, Cadv*



TL-MT/MSY-MT, CdivMEANC-ratio, (1950–2018–PONS)



Swordfish Northern Atlantic [SWORDNATL]

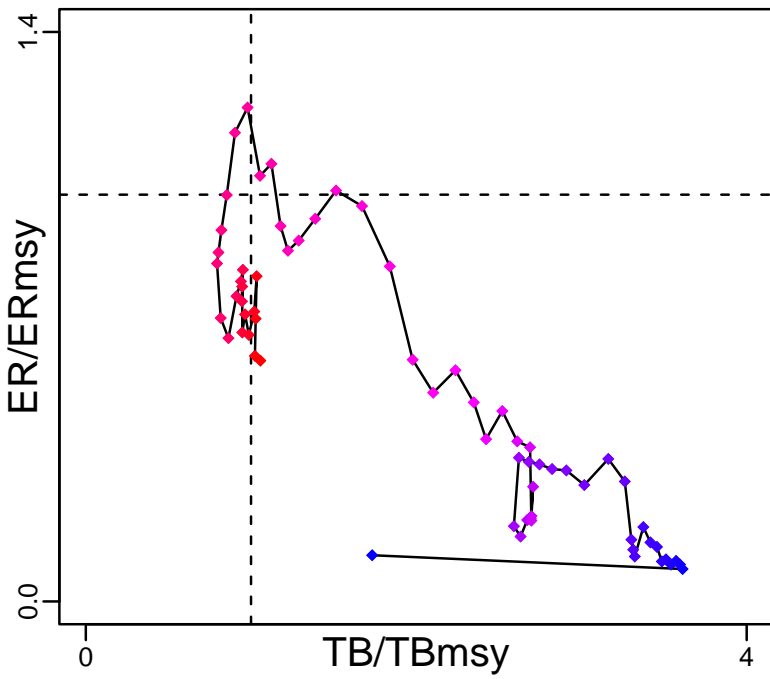
Metadata	
Scientific Name	Xiphias gladius
Current Assess ID	ICCAT-SWORDNATL-1950-2018-PONS
Area	Northern Atlantic
Management Authority	International Commission for the Conservation of Atlantic Tunas
Assessor	International Commission for the Conservation of Atlantic Tunas
Asmts in RAM	2011, 2015, 2018

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-extr-MT	2018	56,741
SSBmsy	-	-	-
Fmsy	Fmsy-1/yr	2015	0.21
ERmsy	ERmsy-calc-ratio	2018	0.23
TBmgt	TBmgt-MT	2015	65,060
SSBmgt	-	-	-
Fmgt	Fmgt-1/yr	2015	0.21
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2018	13,059
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

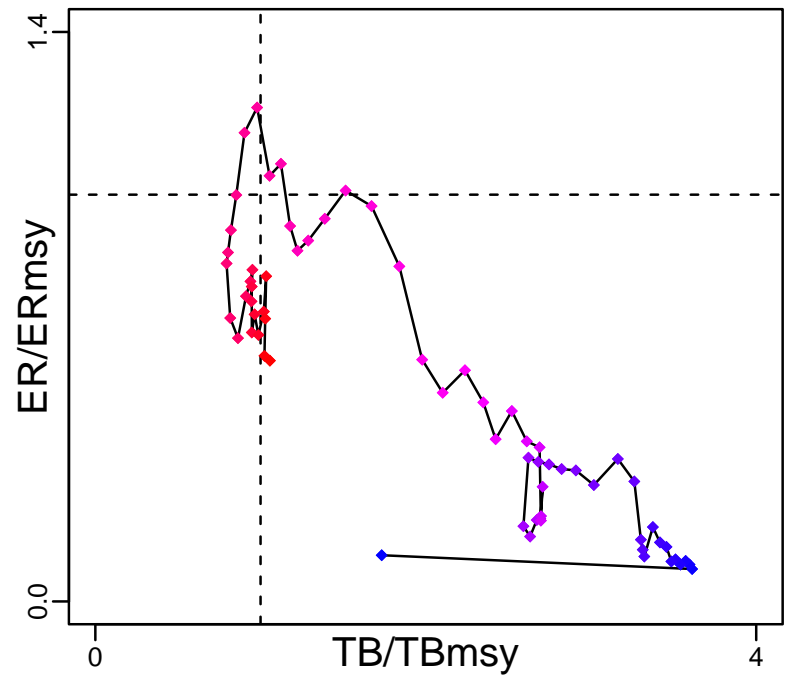
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2018	78,344	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	F-1/yr	2015	0.17	-	-
ER	ER-calc-ratio	2018	0.136	-	-
TC	TC-MT	2015	12,000		
TL	TL-MT	2018	8893		
TB/TBmsy	TBdivTBmsy-dimensionless	2018	1.057		
SSB/SSBmsy	-	-	-		
F/Fmsy	FdivFmsy-dimensionless	2018	0.778		
ER/ERmsy	ER-calc-ratio/ERmsy-calc-ratio	2018	0.592		
TB/TBmgt	TB-MT/TBmgt-MT	2015	1.136		
SSB/SSBmgt	-	-	-		
F/Fmgt	F-1/yr/Fmgt-1/yr	2015	0.81		
ER/ERmgt	-	-	-		

Swordfish Northern Atlantic [SWORDNATL]

Kobe MSYpref (1950–2018–PONS)



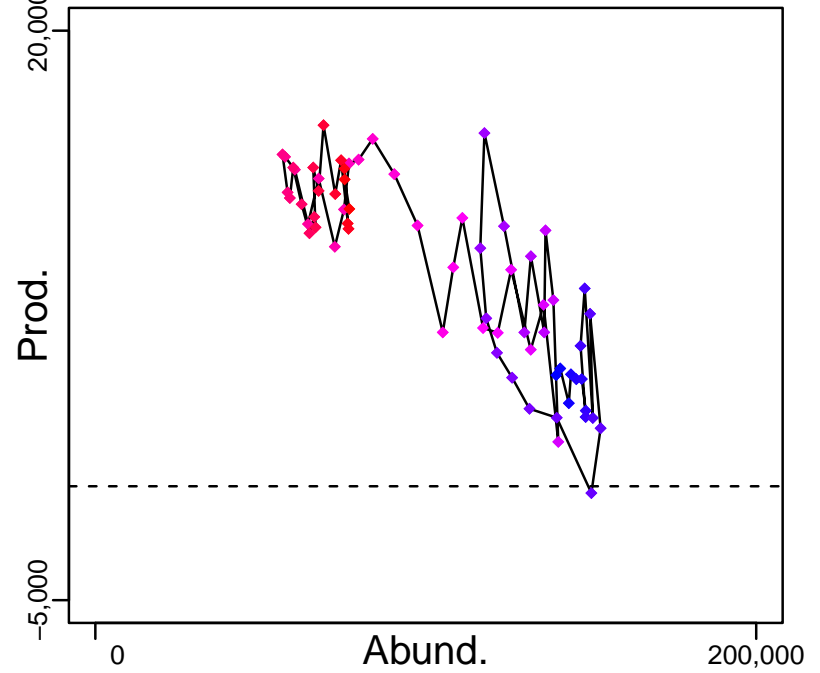
Kobe MGTpref (1950–2018–PONS)



Spawner Recruit*



Production (1950–2018–PONS)

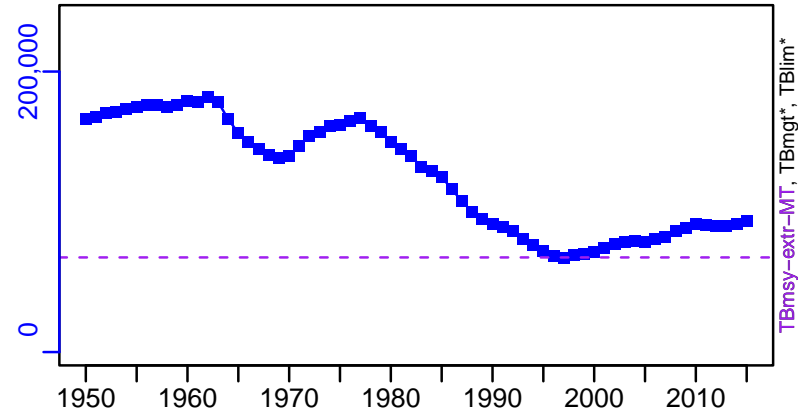


◆ Start Year ◆ End Year * No Data

Swordfish Northern Atlantic [SWORDNATL]

TB-MT (1950–2018–PONS)

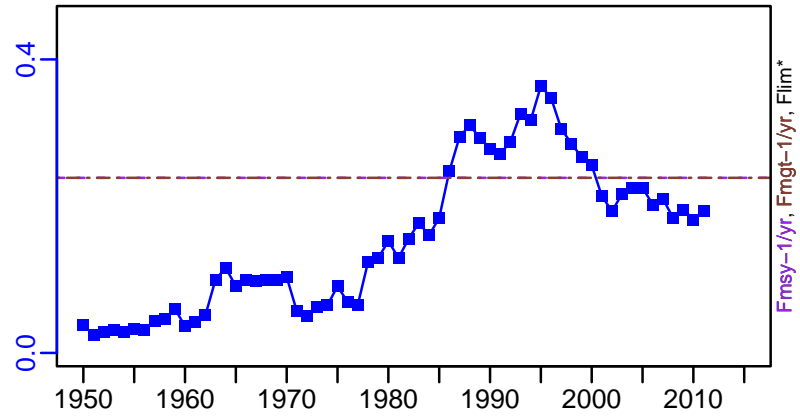
SSB*



TN *

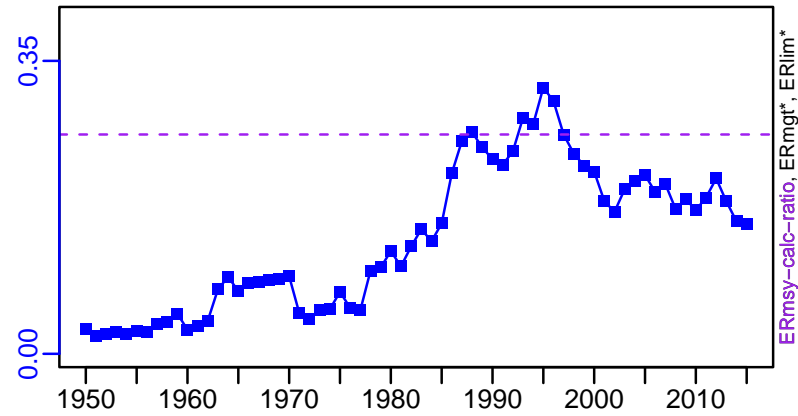


F-1/yr (1950–2015–PONS)



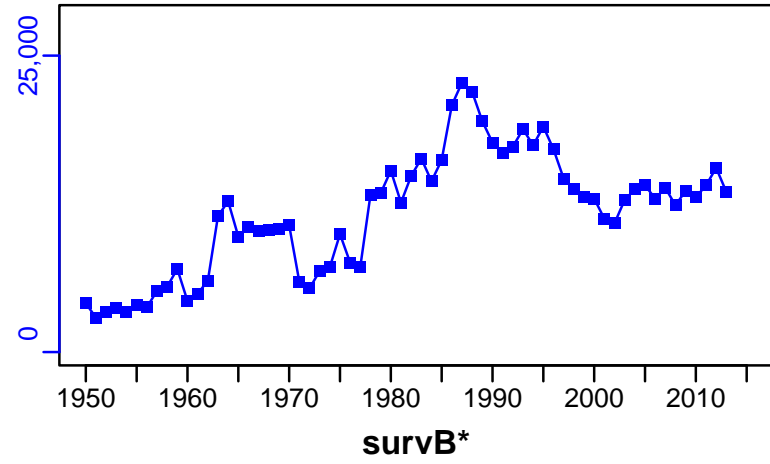
ER-calc-ratio (1950–2018–PONS)

Recruits*

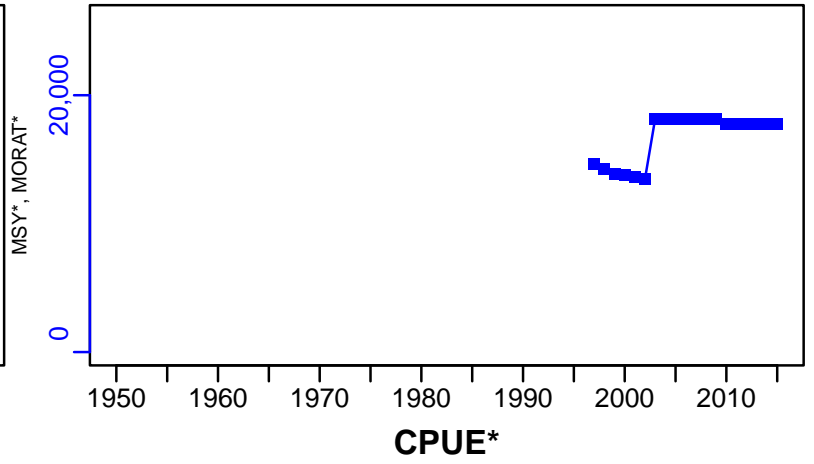


Swordfish Northern Atlantic [SWORDNATL]

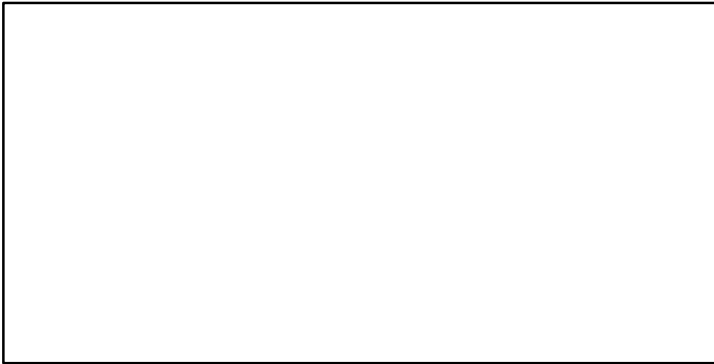
TC-MT, TL*, RecC* (1950-2015-PONS)



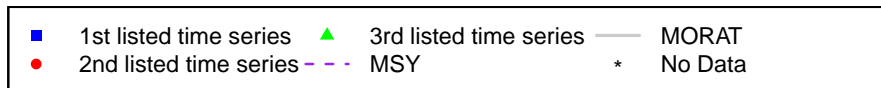
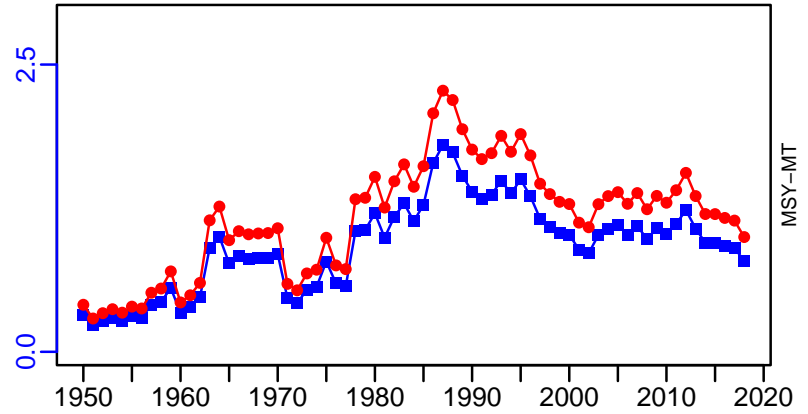
TAC-MT, Cpair*, Cadv* (1950-2015-PONS)



EFFORT*



TL-MT/MSY-MT, CdivMEANC-ratio, (1950-2018-PONS)



Swordfish North Pacific Ocean [SWORDNPAC]

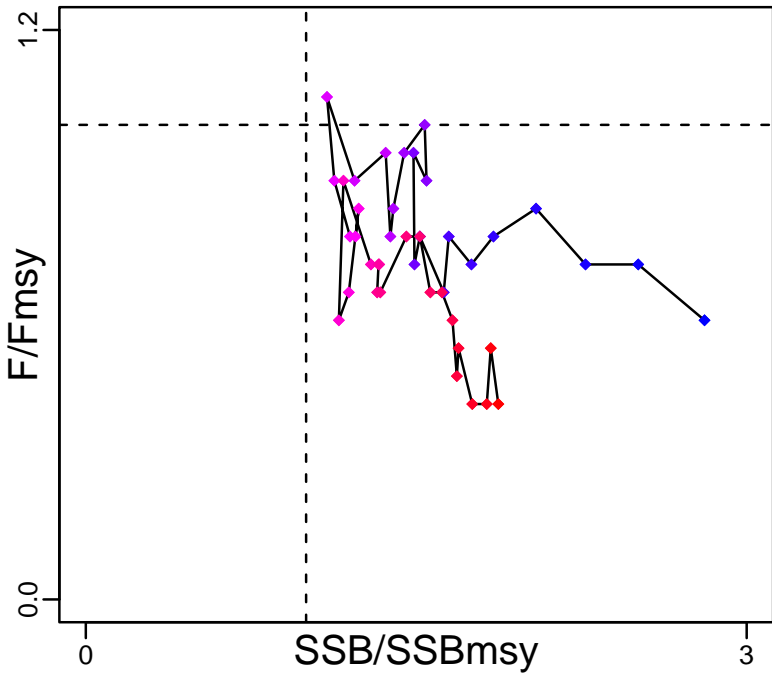
Metadata	
Scientific Name	Xiphias gladius
Current Assess ID	ISC-SWORDNPAC-1950-2018-PONS
Area	North Pacific Ocean
Management Authority	International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean
Assessor	International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean
Asmts in RAM	2018, 2012

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2012	60,720
SSBmsy	SSBmsy-MT	2018	15,702
Fmsy	Fmsy-1/yr	2018	0.17
ERmsy	ERmsy-ratio	2012	0.25
TBmgt	TBmgt-MT	2012	60,720
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	ERmgt-ratio	2012	0.25
TB0	TB0-MT	2012	104,600
SSB0	-	-	-
MSY	MSY-MT	2018	14,941
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

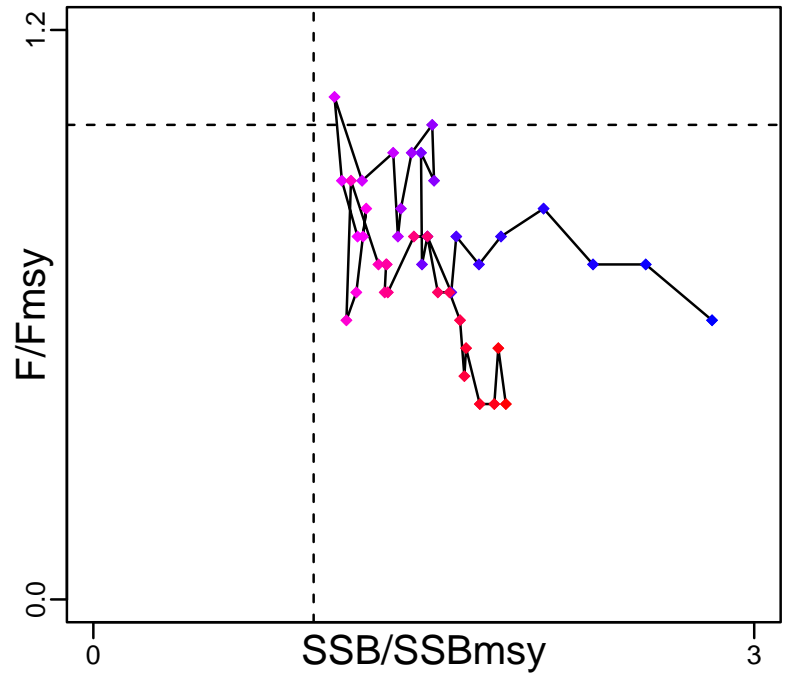
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2018	71,979	-	1+
SSB	SSB-MT	2018	29,404	Females	-
TN	-	-	-	-	-
R	R-E00	2018	781,000	-	0
F	F-1/yr	2018	0.07	-	-
ER	ER-calc-ratio	2018	0.097	-	-
TC	TC-MT	2018	6969		
TL	-	-	-		
TB/TBmsy	TBdivTBmsy-dimensionless	2012	1.19		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2018	1.873		
F/Fmsy	FdivFmsy-dimensionless	2018	0.412		
ER/ERmsy	ERdivERmsy-dimensionless	2012	0.56		
TB/TBmgt	TB-MT/TBmgt-MT	2012	1.194		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Swordfish North Pacific Ocean [SWORDNPAC]

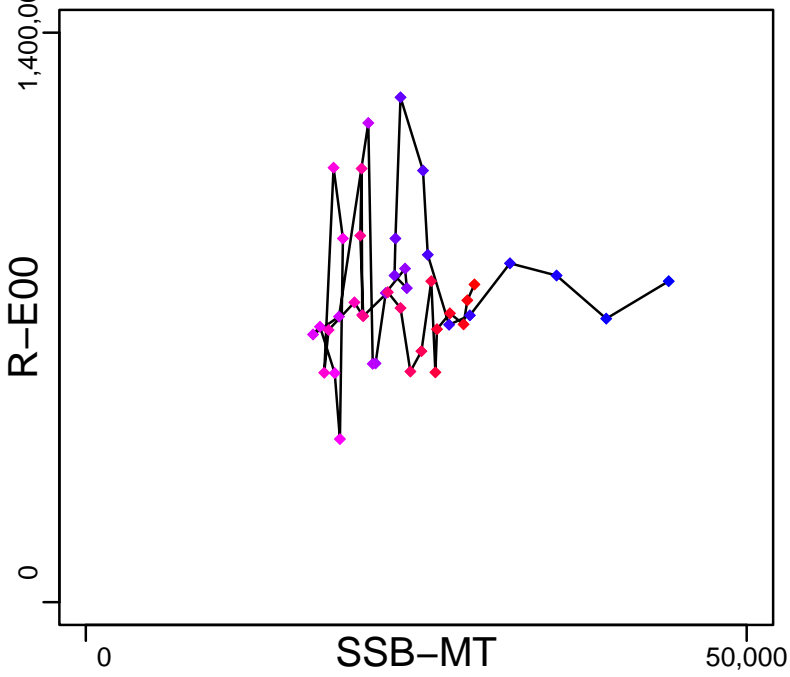
Kobe MSYpref (1950–2018–PONS)



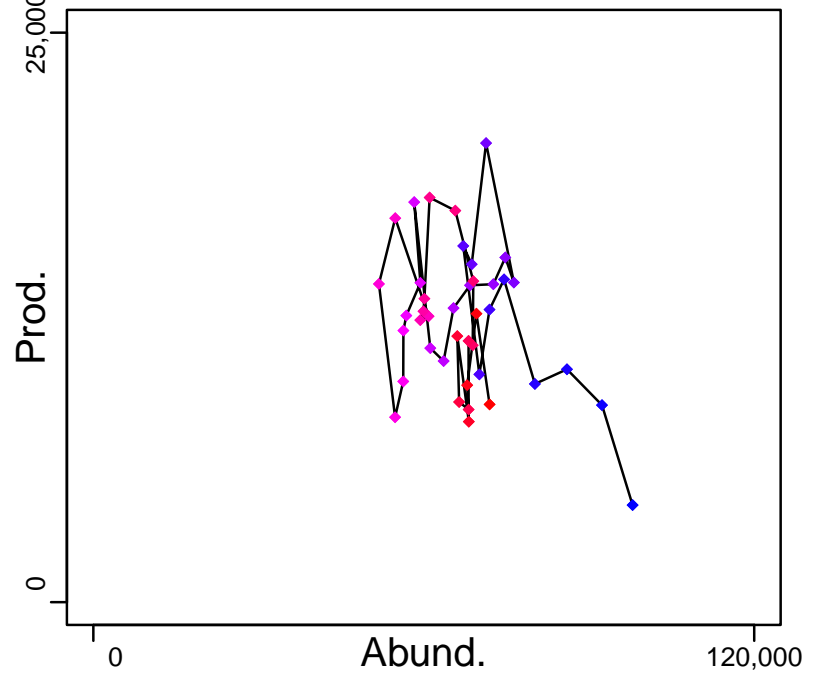
Kobe MGTpref (1950–2018–PONS)



Spawner Recruit (1950–2018–PONS)

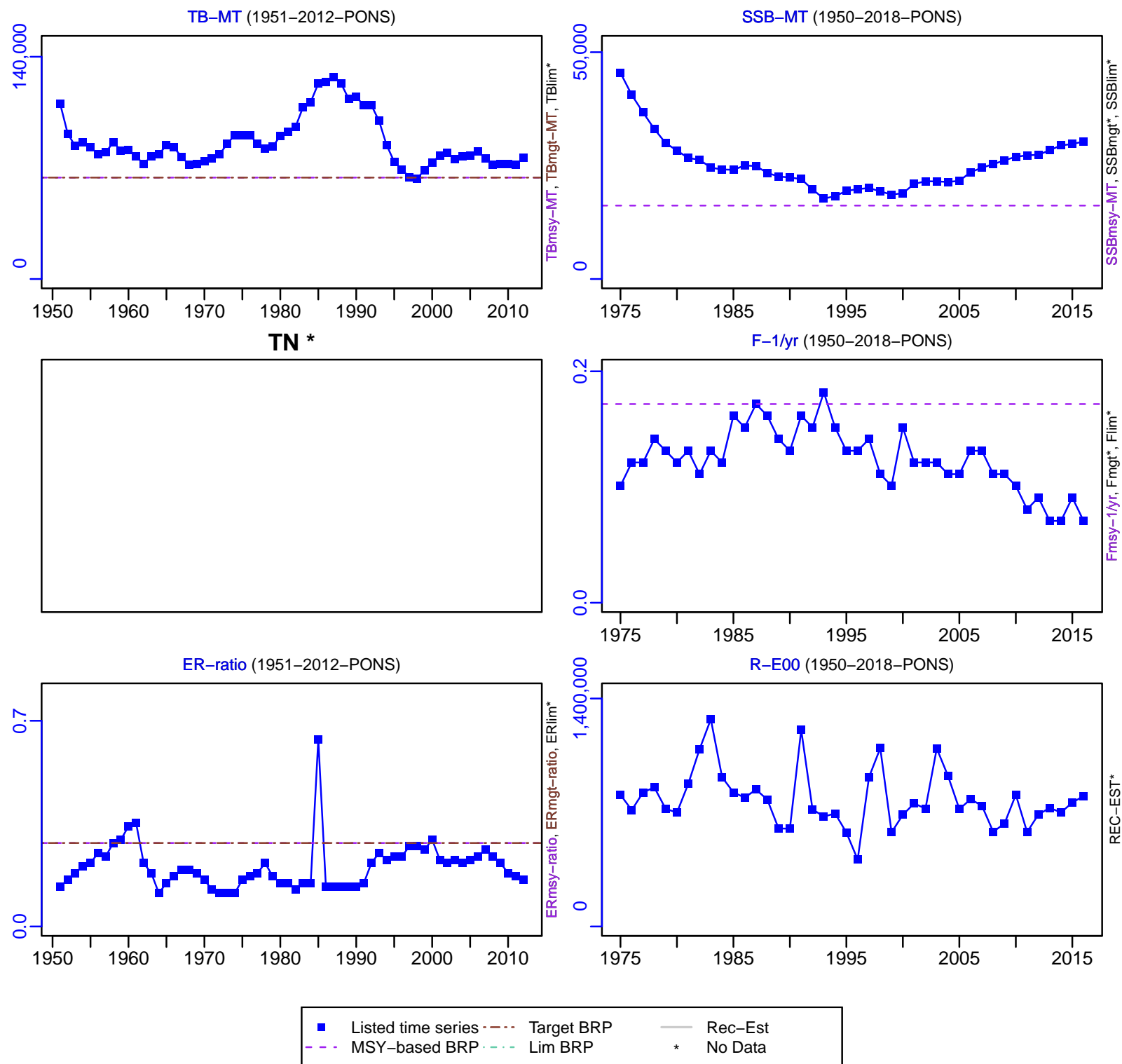


Production (1950–2018–PONS)



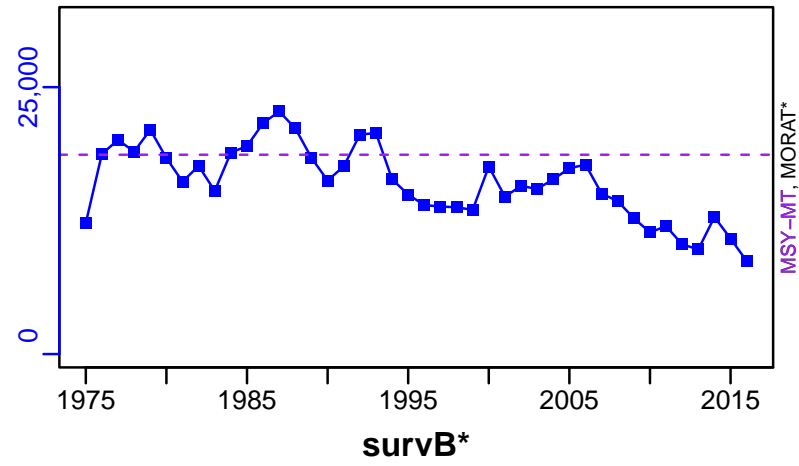
◆ Start Year ◆ End Year * No Data

Swordfish North Pacific Ocean [SWORDNPAC]



Swordfish North Pacific Ocean [SWORDNPAC]

TC-MT, TL*, RecC* (1950-2018-PONS)



TAC*, Cpair*, Cadv*



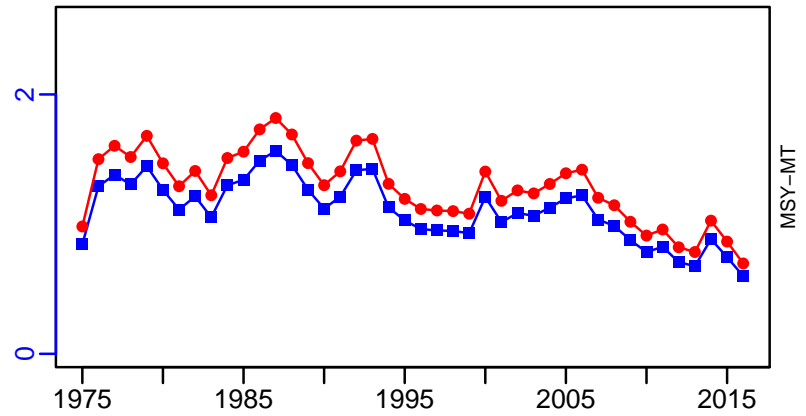
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1950-2018-PONS)



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

Swordfish South Atlantic [SWORDSATL]

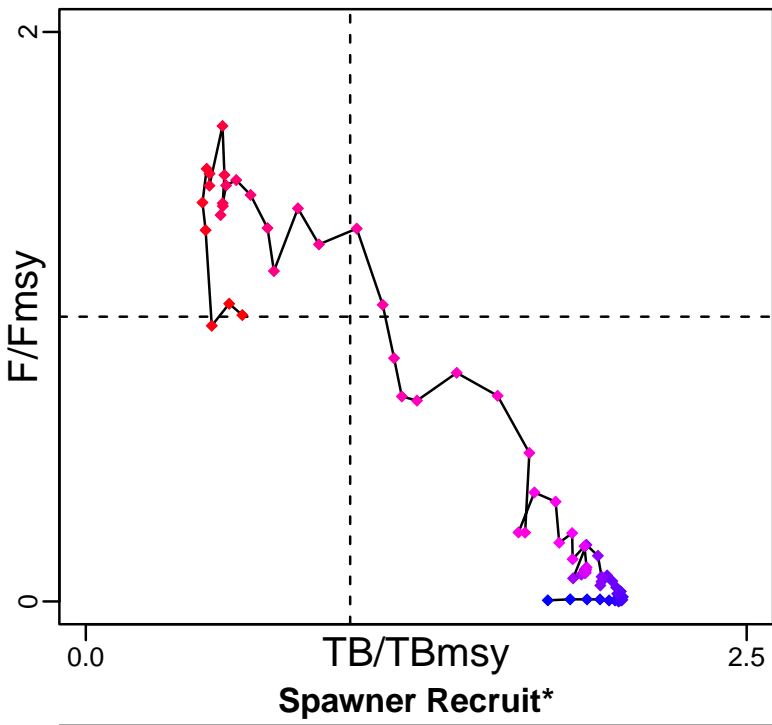
Metadata	
Scientific Name	Xiphias gladius
Current Assess ID	ICCAT-SWORDSATL-1950-2018-PONS
Area	South Atlantic
Management Authority	International Commission for the Conservation of Atlantic Tunas
Assessor	International Commission for the Conservation of Atlantic Tunas
Asmts in RAM	2015, 2018

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2015	58,360
SSBmsy	-	-	-
Fmsy	Fmsy-1/yr	2015	0.24
ERmsy	ERmsy-calc-ratio	2015	0.243
TBmgt	TBmgt-MT	2015	58,360
SSBmgt	-	-	-
Fmgt	Fmgt-1/yr	2015	0.24
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2018	14,570
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

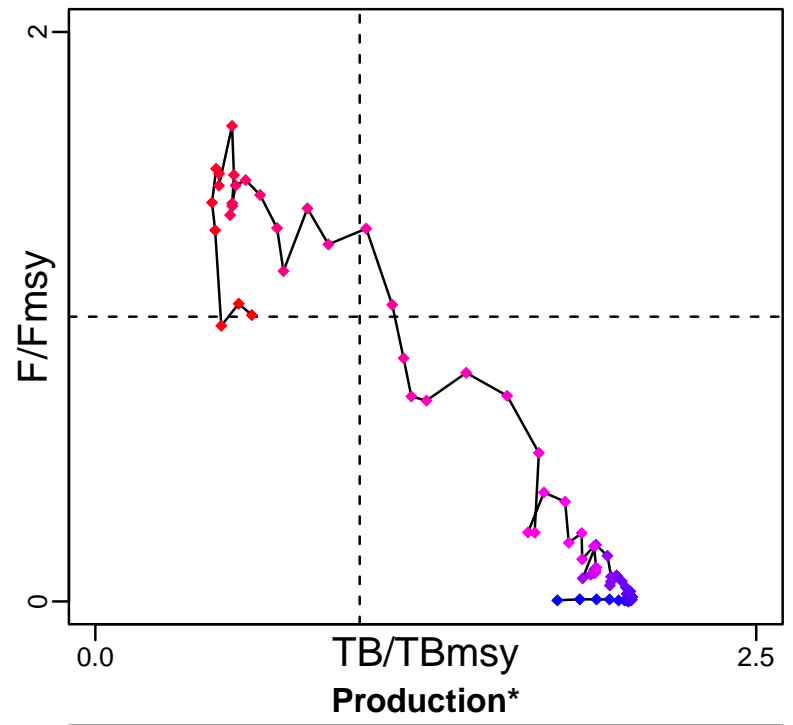
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2015	57,000	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	F-1/yr	2015	0.204	-	-
ER	ER-calc-ratio	2015	0.184	-	-
TC	TC-MT	2015	7820		
TL	TL-MT	2018	10,405		
TB/TBmsy	TBdivTBmsy-dimensionless	2018	0.592		
SSB/SSBmsy	-	-	-		
F/Fmsy	FdivFmsy-dimensionless	2018	1.006		
ER/ERmsy	ER-calc-ratio/ERmsy-calc-ratio	2015	0.757		
TB/TBmgt	TB-MT/TBmgt-MT	2015	0.977		
SSB/SSBmgt	-	-	-		
F/Fmgt	F-1/yr/Fmgt-1/yr	2015	0.85		
ER/ERmgt	-	-	-		

Swordfish South Atlantic [SWORDSATL]

Kobe MSY_{pref} (1950–2018–PONS)



Kobe MGT_{pref} (1950–2018–PONS)

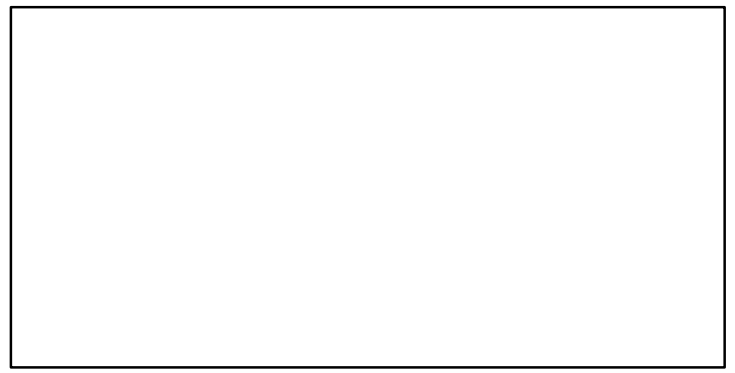
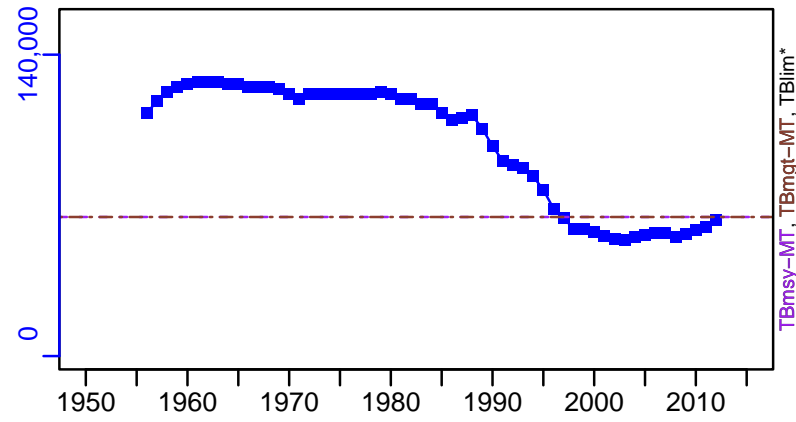


◆ Start Year ◆ End Year * No Data

Swordfish South Atlantic [SWORDSATL]

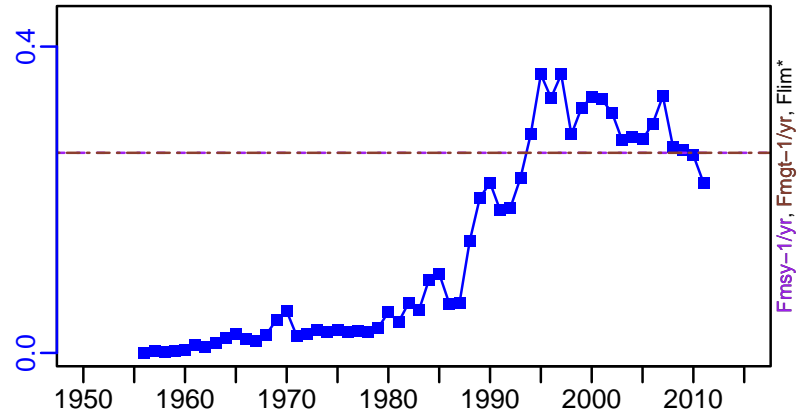
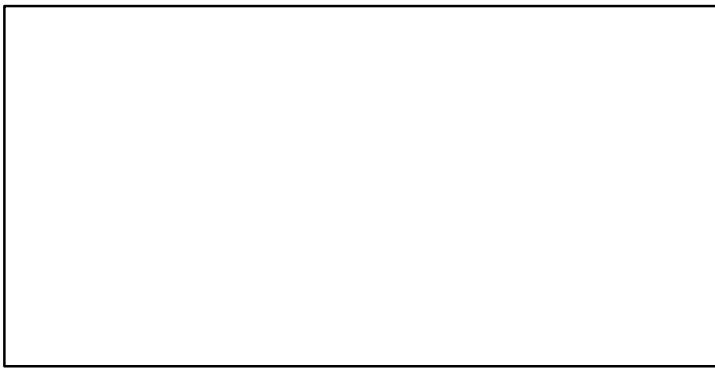
TB-MT (1950-2015-PONS)

SSB*



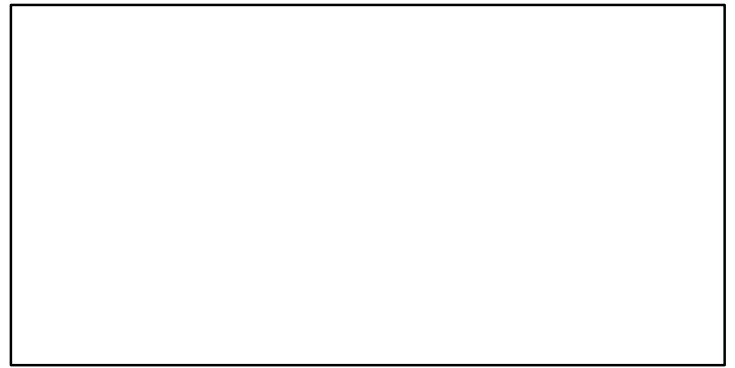
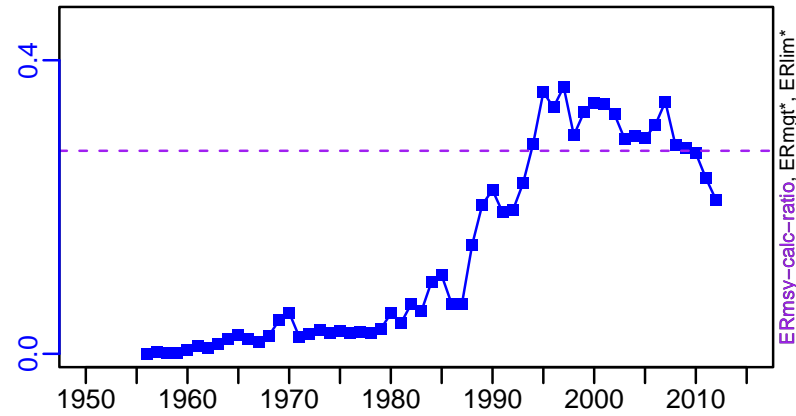
TN *

F-1/yr (1950-2015-PONS)



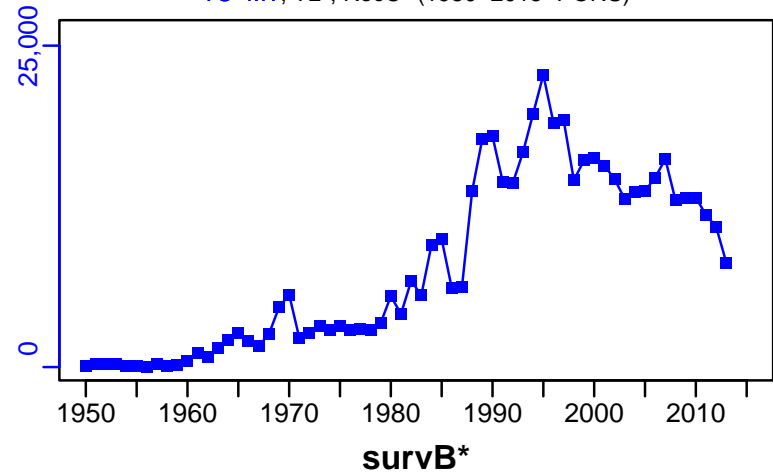
ER-calc-ratio (1950-2015-PONS)

Recruits*

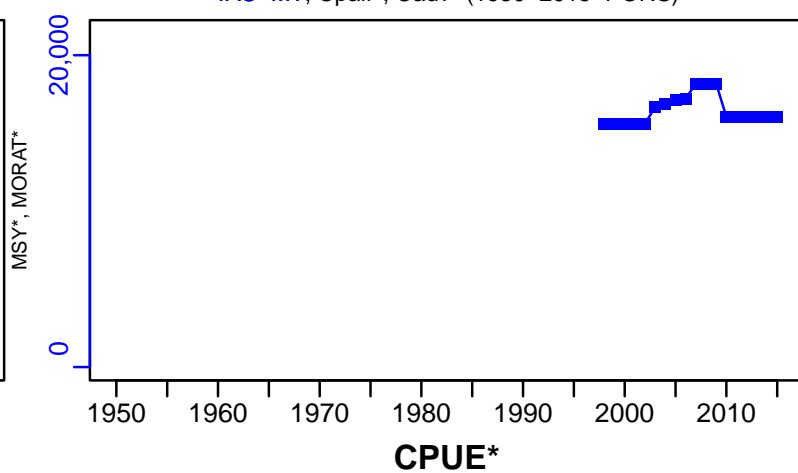


Swordfish South Atlantic [SWORDSATL]

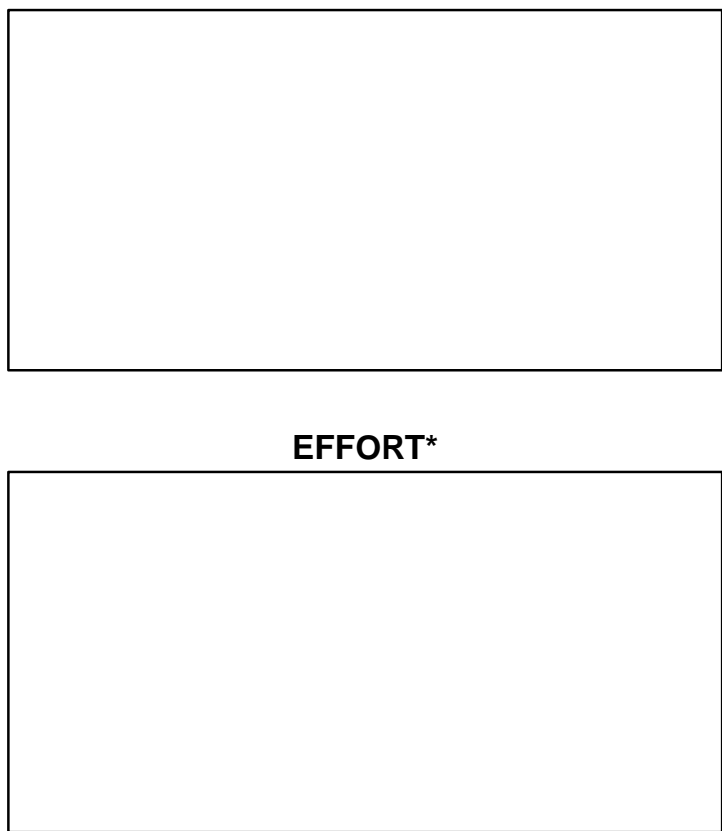
TC-MT, TL*, RecC* (1950-2015-PONS)



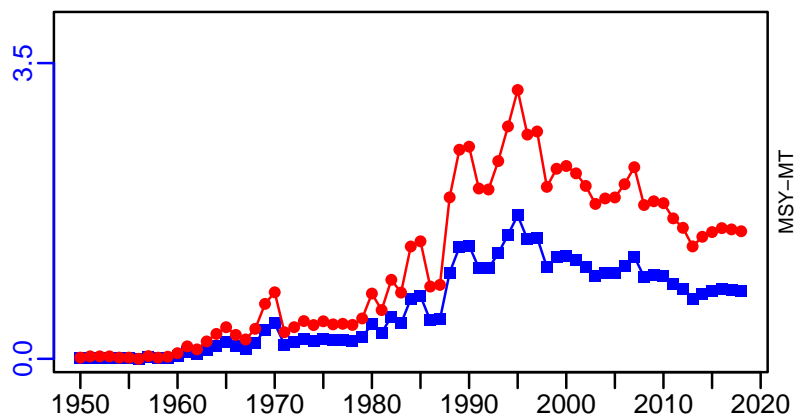
TAC-MT, Cpair*, Cadv* (1950-2015-PONS)



EFFORT*



TL-MT/MSY-MT, CdivMEANC-ratio, (1950-2018-PONS)



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

Swordfish South Pacific Ocean [SWORDSPAC]

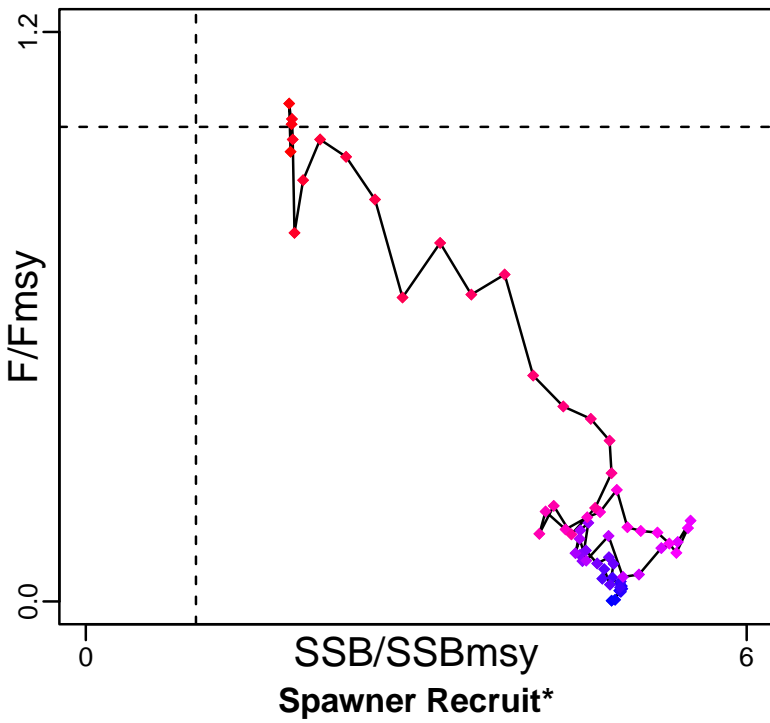
Metadata	
Scientific Name	Xiphias gladius
Current Assess ID	ISC-SWORDSPAC-1952-2018-PONS
Area	South Pacific Ocean
Management Authority	International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean
Assessor	International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean
Asmts in RAM	2018

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2018	8172
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

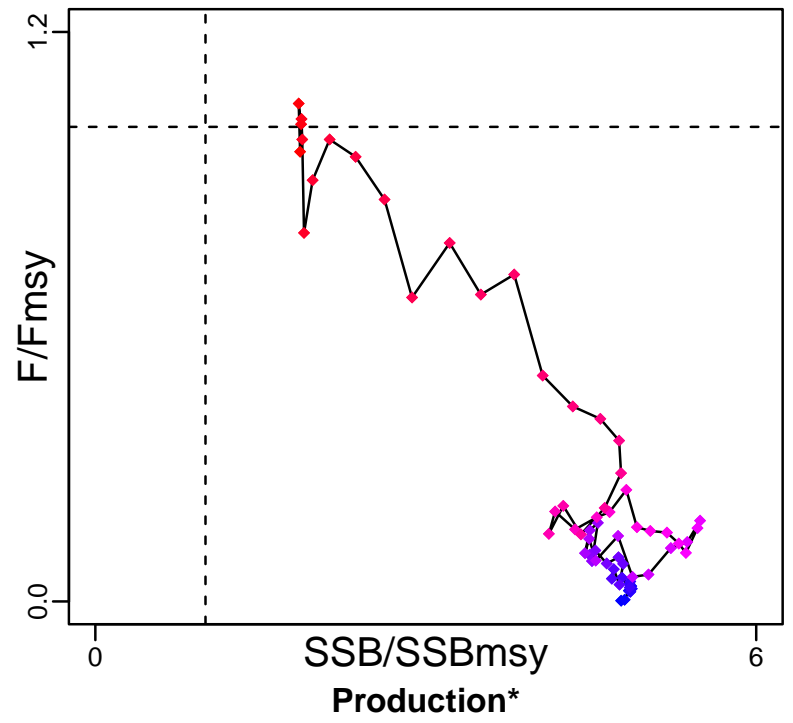
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	-	-	-		
TL	TL-MT	2018	20,774		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2018	1.859		
F/Fmsy	FdivFmsy-dimensionless	2018	0.948		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Swordfish South Pacific Ocean [SWORDSPAC]

Kobe MSYpref (1952–2018–PONS)



Kobe MGTpref (1952–2018–PONS)



◆ Start Year ◆ End Year * No Data

Swordfish South Pacific Ocean [SWORDSPAC]

TB*



SSB*



TN *



F*



ER*



Recruits*

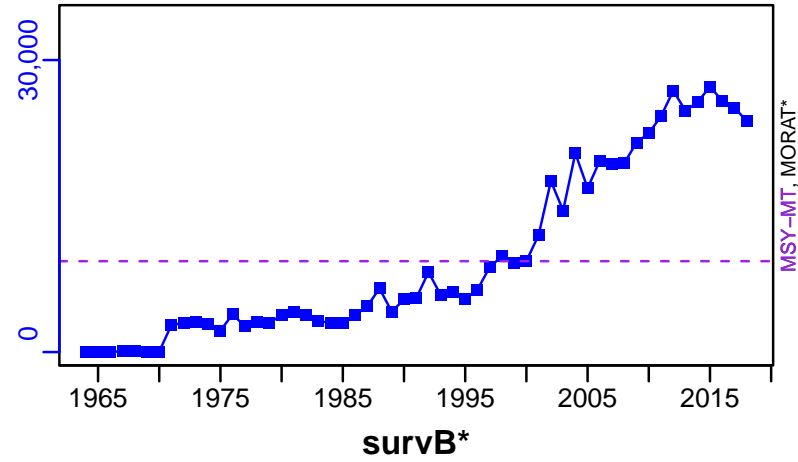


■ Listed time series	- - - Target BRP	— Rec-Est
- - - MSY-based BRP	· · · Lim BRP	* No Data

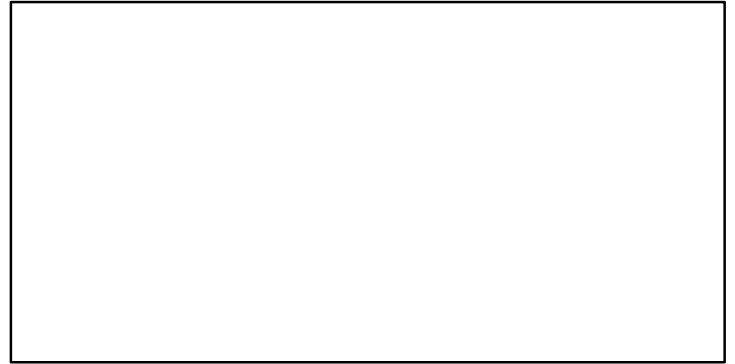
Swordfish South Pacific Ocean [SWORDSPAC]

TL-MT, TC*, RecC* (1952-2018-PONS)

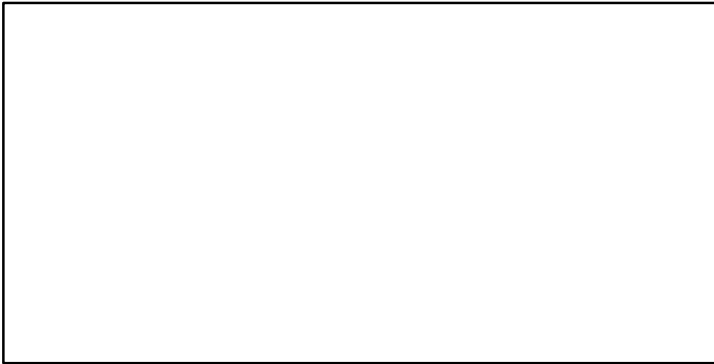
TAC*, Cpair*, Cadv*



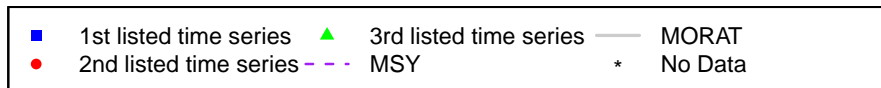
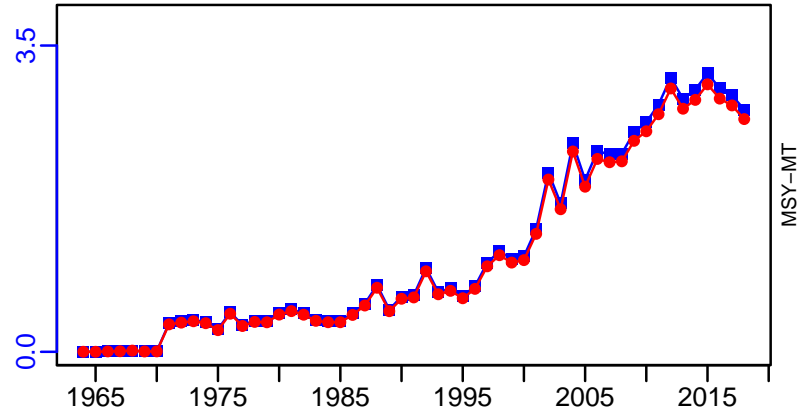
CPUE*



EFFORT*



TL-MT/MSY-MT, CdivMEANC-ratio, (1952-2018-PONS)



White marlin Atlantic Ocean [WMARLINATL]

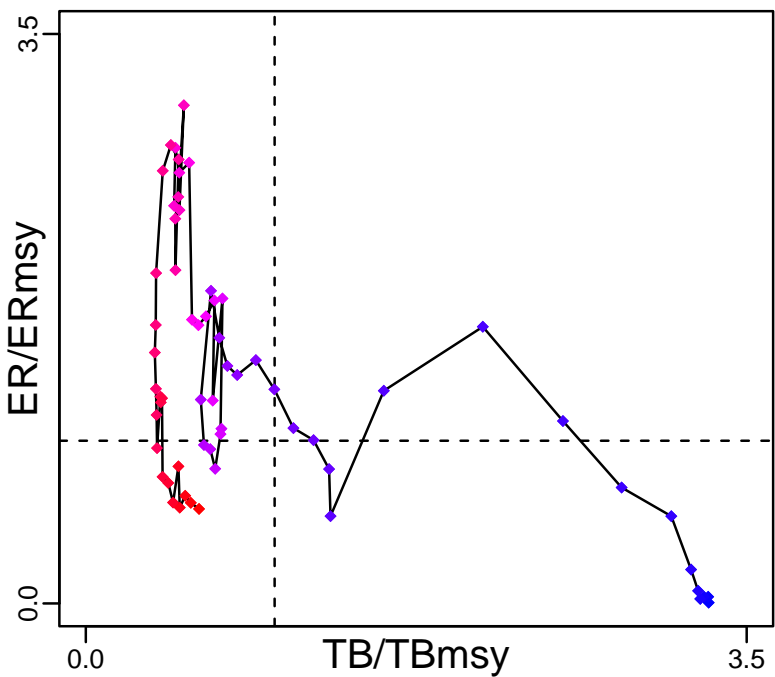
Metadata	
Scientific Name	Tetrapturus albidus
Current Assess ID	ICCAT-WMARLINATL-1956-2018-PONS
Area	Atlantic Ocean
Management Authority	International Commission for the Conservation of Atlantic Tunas
Assessor	International Commission for the Conservation of Atlantic Tunas
Asmts in RAM	2011, 2018

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-extr-MT	2018	10,031
SSBmsy	SSBmsy-MT	2011	2191
Fmsy	Fmsy-extr-1/yr	2018	0.143
ERmsy	ERmsy-calc-ratio	2018	0.149
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	TB0-MT	2011	36,234
SSB0	-	-	-
MSY	MSY-MT	2018	1495
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

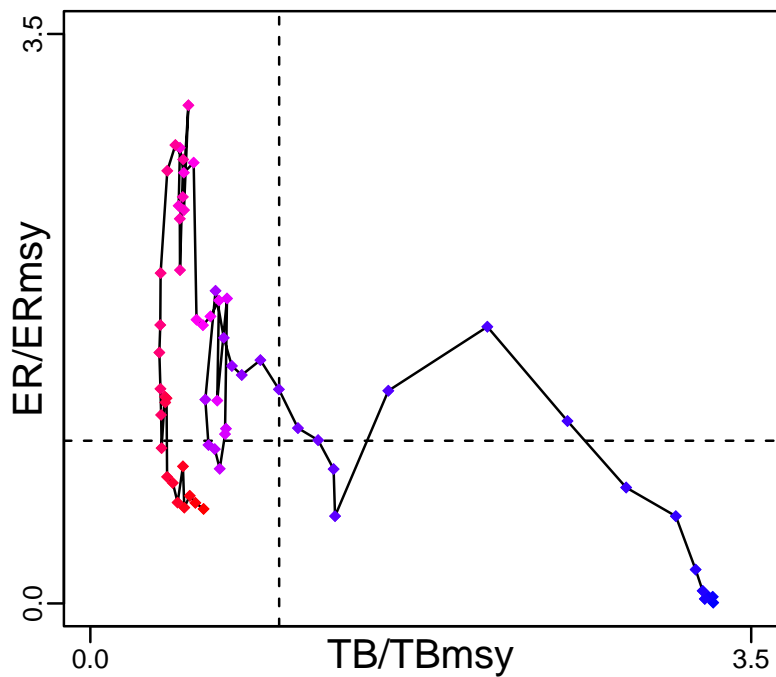
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2018	4878	-	-
SSB	SSB-MT	2011	706	-	-
TN	-	-	-	-	-
R	R-E00	2011	85,200	-	-
F	F-1/yr	2018	0.094	-	-
ER	ER-calc-ratio	2018	0.087	-	-
TC	TC-MT	2011	434		
TL	TL-MT	2018	247		
TB/TBmsy	TBdivTBmsy-dimensionless	2018	0.6		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2011	0.322		
F/Fmsy	FdivFmsy-dimensionless	2018	0.667		
ER/ERmsy	ER-calc-ratio/ERmsy-calc-ratio	2018	0.581		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

White marlin Atlantic Ocean [WMARLINATL]

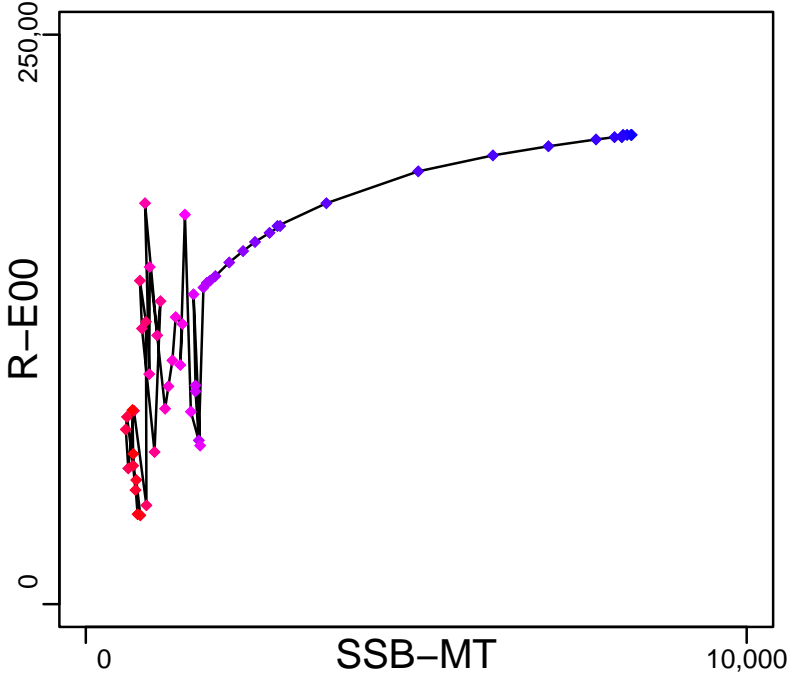
Kobe MSYpref (1956–2018–PONS)



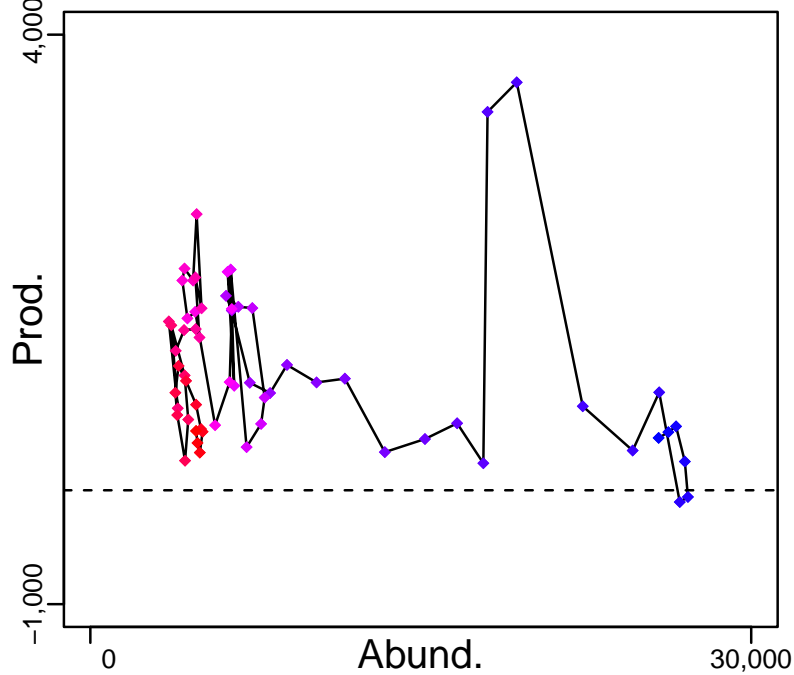
Kobe MGTpref (1956–2018–PONS)



Spawner Recruit (1956–2011–CHING)



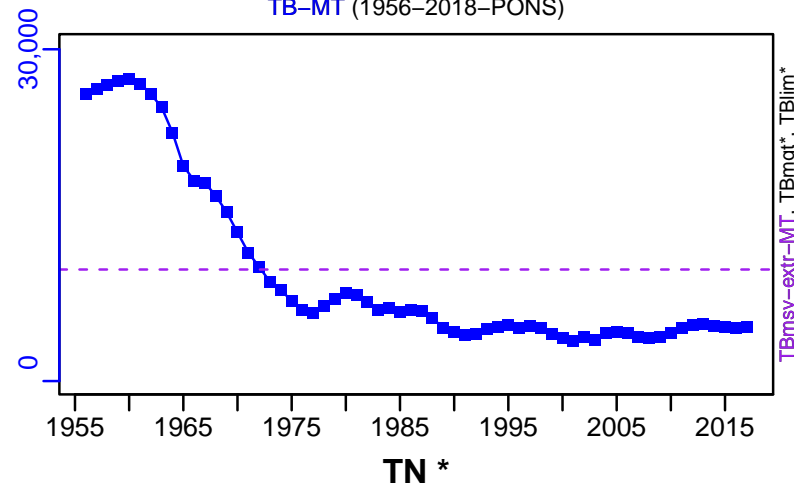
Production (1956–2018–PONS)



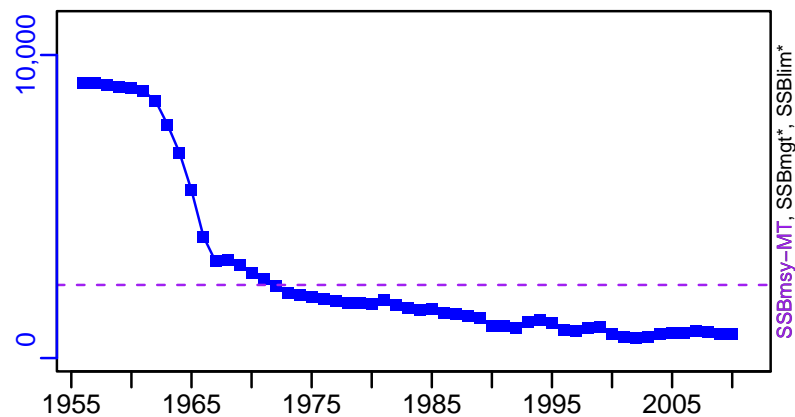
◆ Start Year ◆ End Year * No Data

White marlin Atlantic Ocean [WMARLINATL]

TB-MT (1956–2018–PONS)



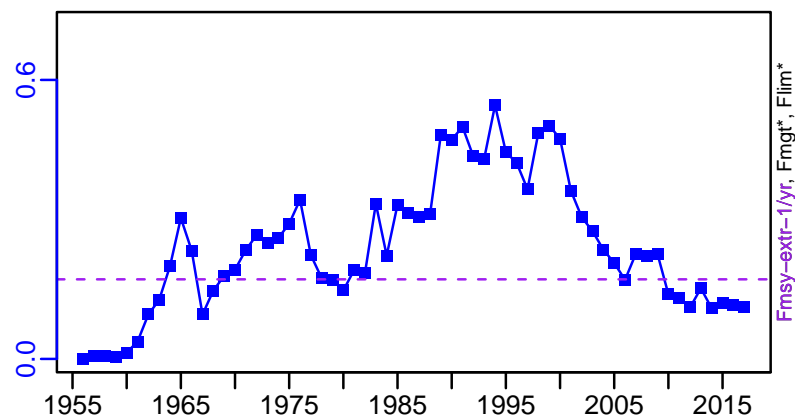
SSB-MT (1956–2011–CHING)



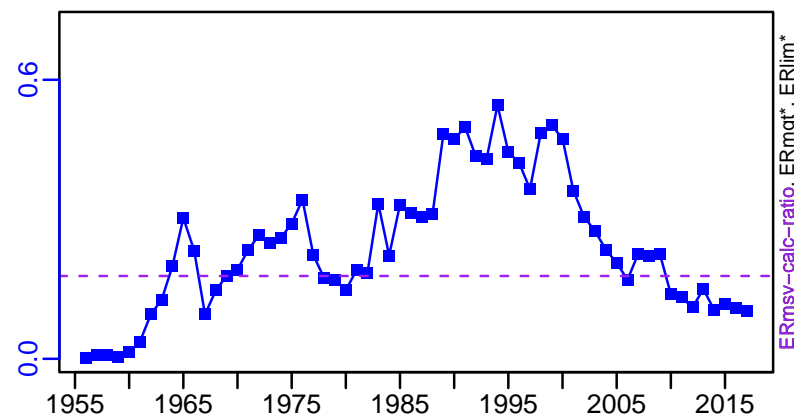
TN *



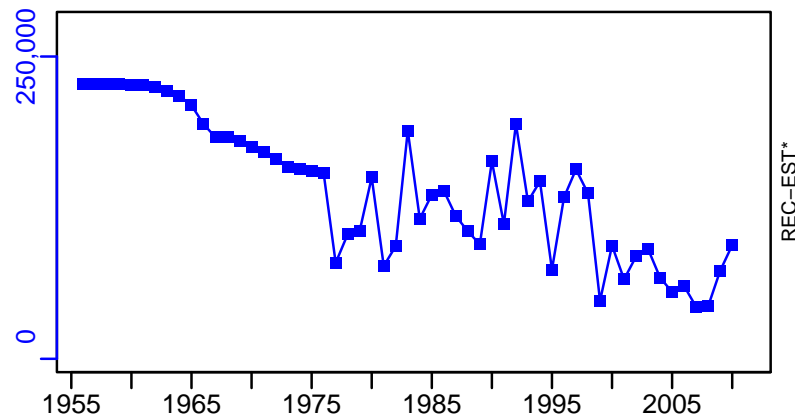
F-1/yr (1956–2018–PONS)



ER-calc-ratio (1956–2018–PONS)

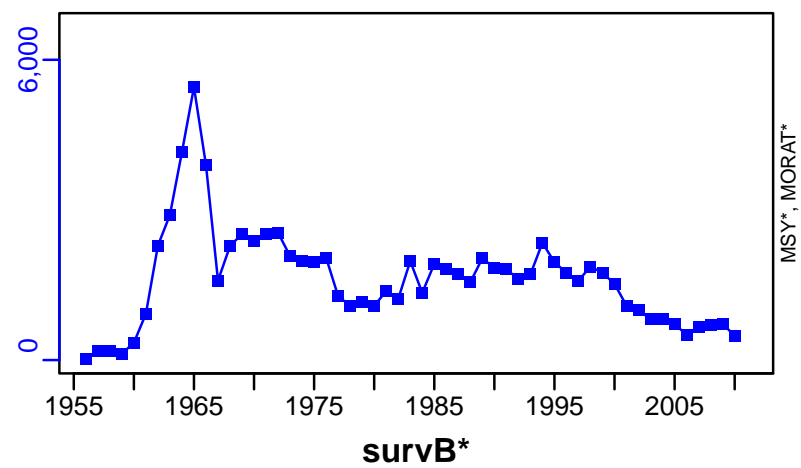


R-E00 (1956–2011–CHING)



White marlin Atlantic Ocean [WMARLINATL]

TC-MT, TL*, RecC* (1956–2011–CHING)



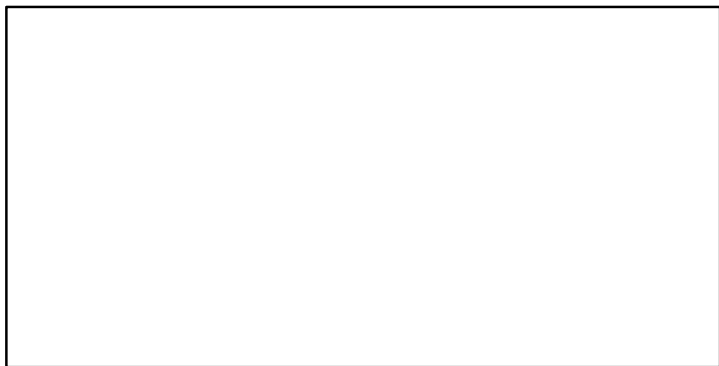
TAC*, Cpair*, Cadv*



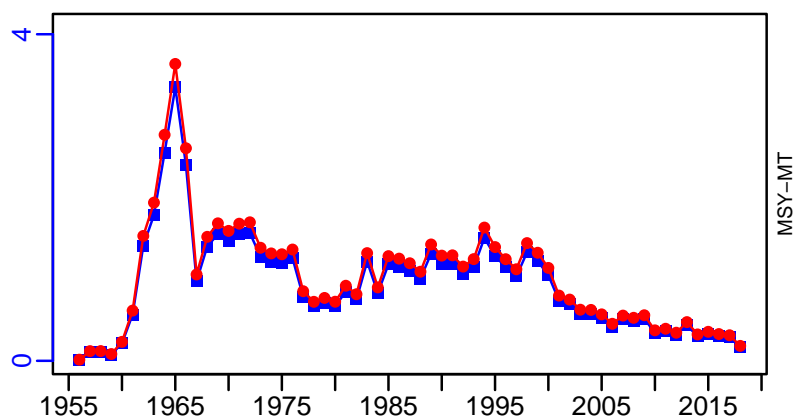
CPUE*



EFFORT*



TL-MT/MSY-MT, CdivMEANC-ratio, (1956–2018–PONS)



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

Yellowfin tuna Atlantic Ocean [YFINATL]

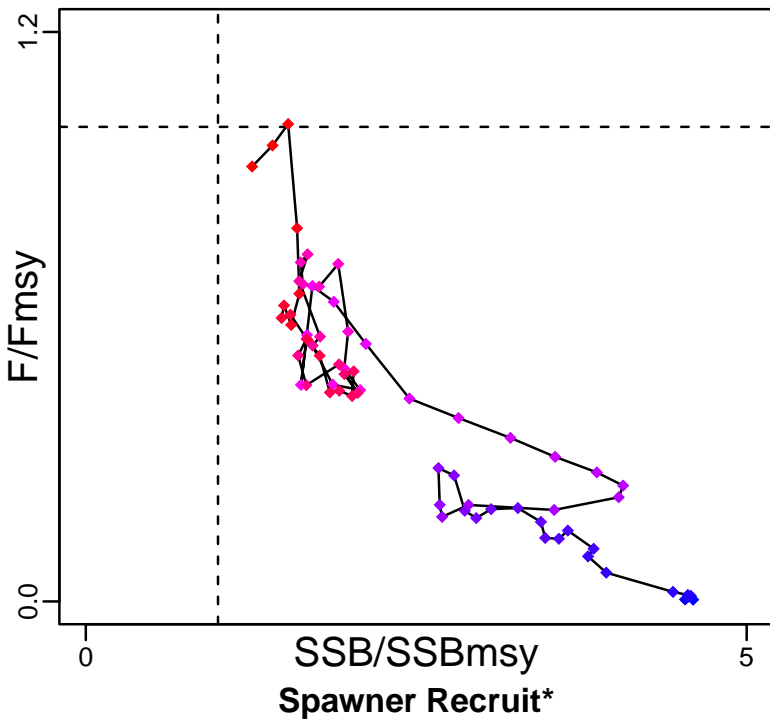
Metadata	
Scientific Name	Thunnus albacares
Current Assess ID	ICCAT-YFINATL-1950-2018-PONS
Area	Atlantic Ocean
Management Authority	International Commission for the Conservation of Atlantic Tunas
Assessor	International Commission for the Conservation of Atlantic Tunas
Asmts in RAM	2011, 2016, 2018

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-extr-MT	2016	740,132
SSBmsy	-	-	-
Fmsy	Fmsy-extr-1/yr	2016	0.17
ERmsy	ERmsy-calc-ratio	2011	0.257
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2018	121,298
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

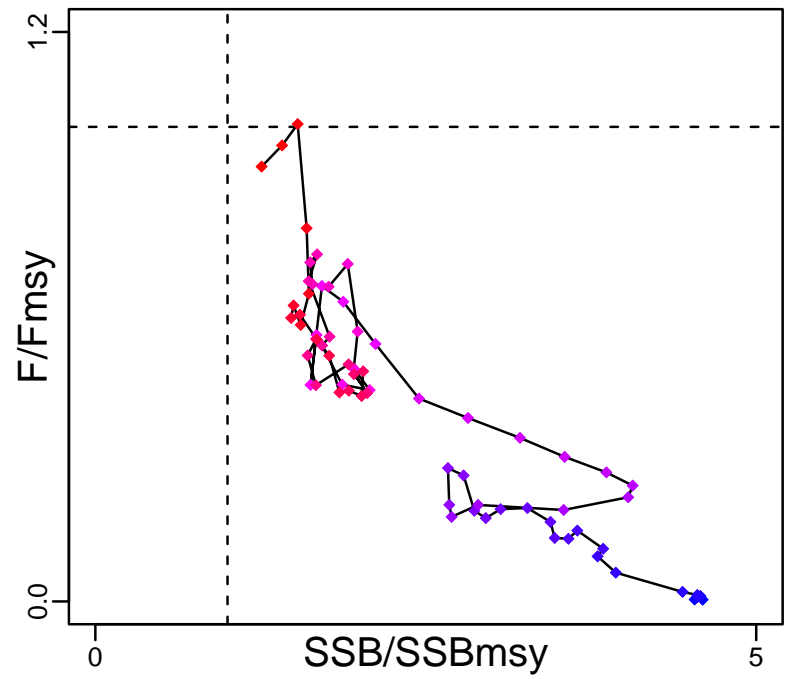
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2016	725,000	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	F-1/yr	2016	0.131	-	-
ER	ER-calc-ratio	2016	0.134	-	-
TC	TC-MT	2011	108,000		
TL	TL-MT	2018	133,900		
TB/TBmsy	TBdivTBmsy-dimensionless	2016	0.98		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2018	1.258		
F/Fmsy	FdivFmsy-dimensionless	2018	0.916		
ER/ERmsy	ER-ratio/ERmsy-calc-ratio	2011	1.074		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Yellowfin tuna Atlantic Ocean [YFINATL]

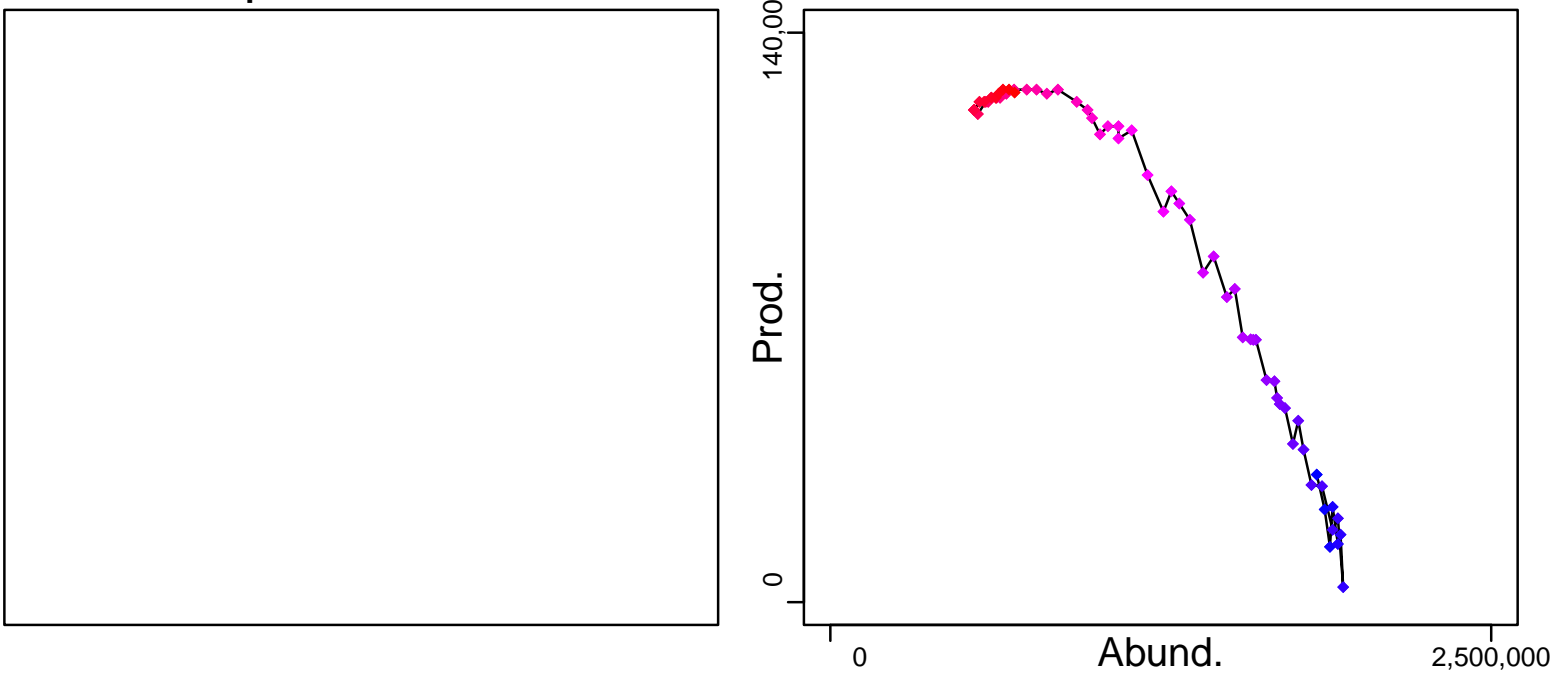
Kobe MSYpref (1950–2018–PONS)



Kobe MGTpref (1950–2018–PONS)



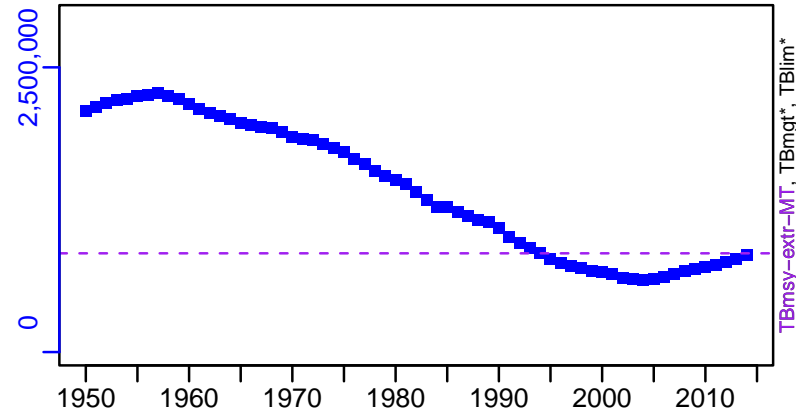
Production (1950–2016–PONS)



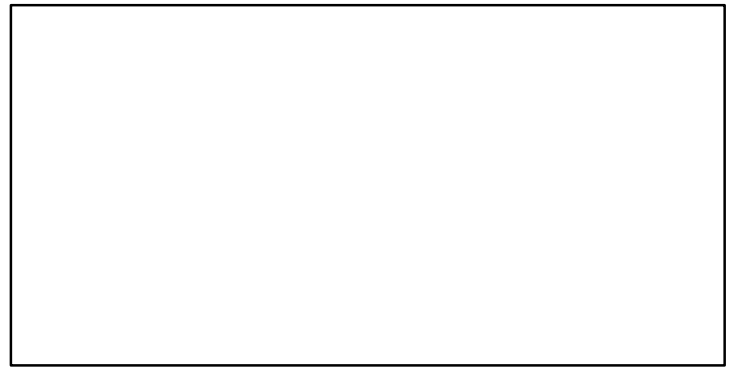
◆ Start Year ◆ End Year * No Data

Yellowfin tuna Atlantic Ocean [YFINATL]

TB-MT (1950–2016–PONS)



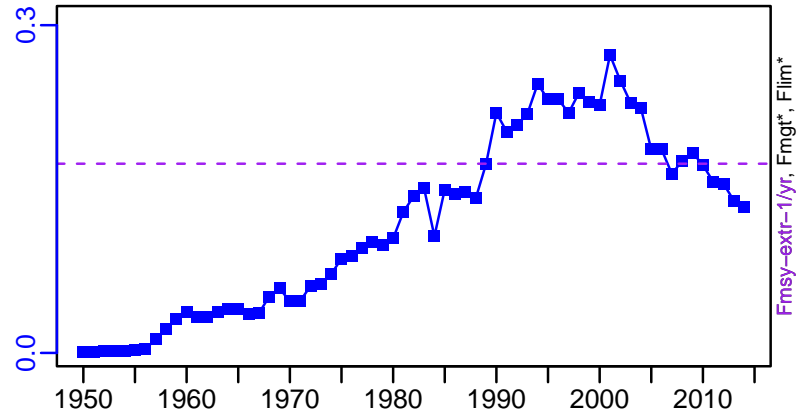
SSB*



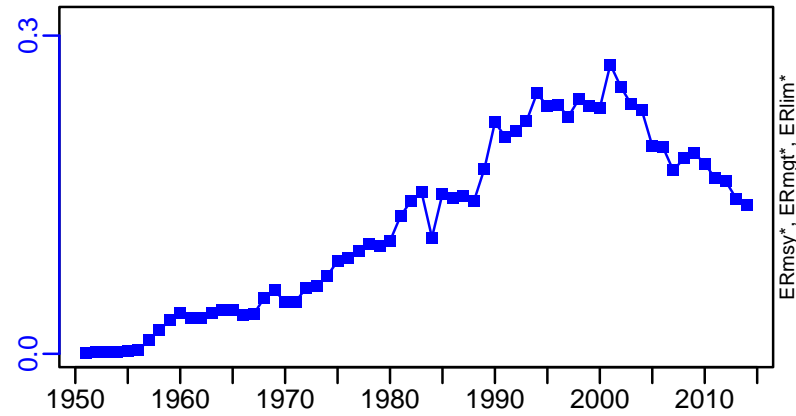
TN *



F-1/yr (1950–2016–PONS)



ER-calc-ratio (1950–2016–PONS)



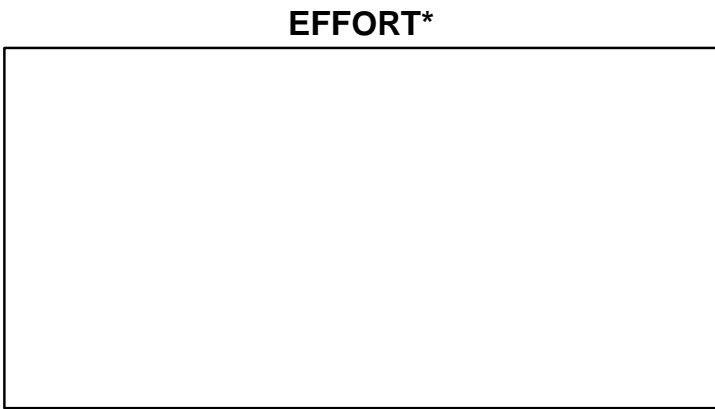
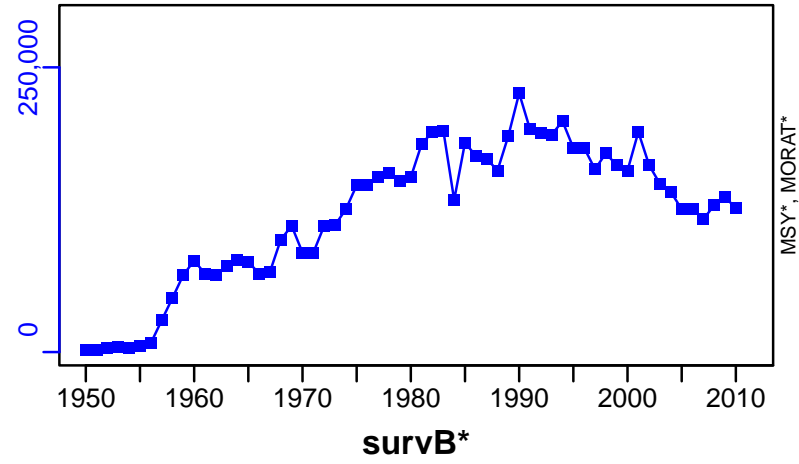
Recruits*



Yellowfin tuna Atlantic Ocean [YFINATL]

TC-MT, TL*, RecC* (1950–2011–CHING)

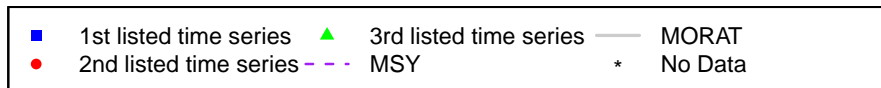
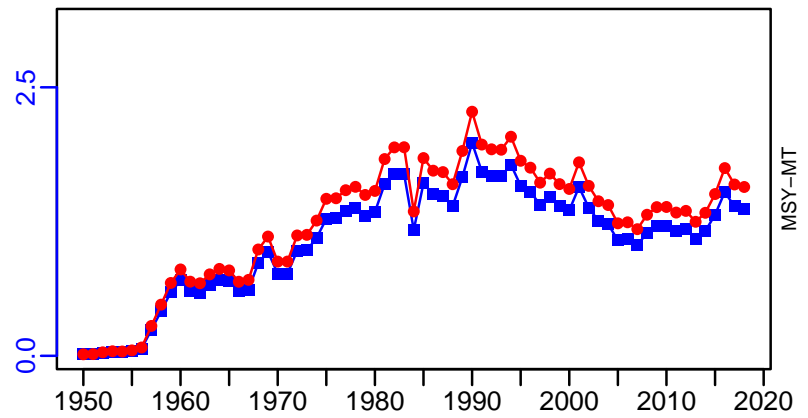
TAC*, Cpair*, Cadv*



CPUE*

EFFORT*

TL-MT/MSY-MT, CdivMEANC-ratio, (1950–2018–PONS)



Yellowfin tuna Central Western Pacific Ocean [YFINCWPAC]

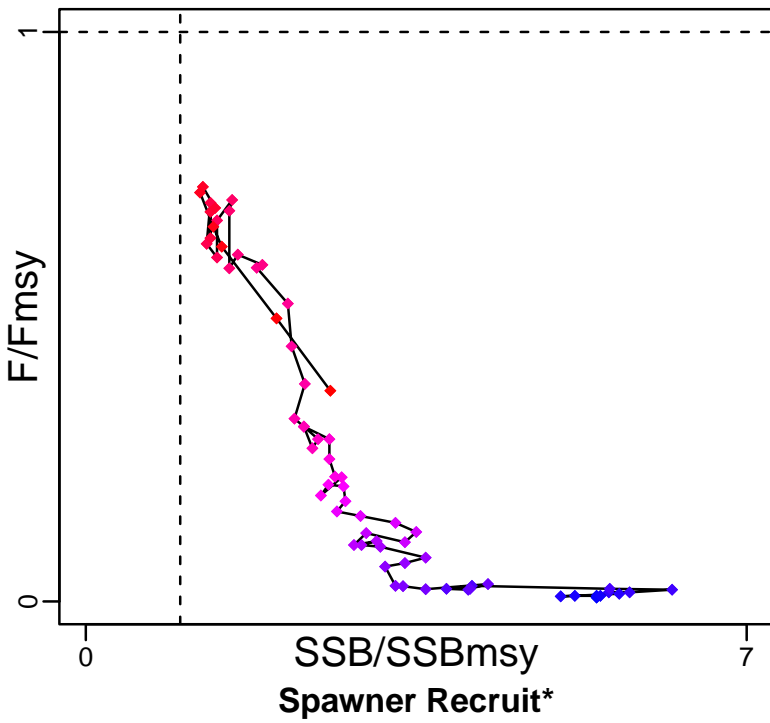
Metadata	
Scientific Name	Thunnus albacares
Current Assess ID	SPC-YFINCWPAC-1950-2020-SMITH
Area	Central Western Pacific Ocean
Management Authority	Western and Central Pacific Fisheries Commission
Assessor	Secretariat of the Pacific Community
Asmts in RAM	2015, 2020, 2012

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-extr-MT	2020	841,027
Fmsy	Fmsy-extr-1/yr	2020	0.855
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2012	728,300
Fmgt	Fmgt-1/yr	2012	0.09
ERmgt	-	-	-
TB0	TB0-MT	2012	4,319,000
SSB0	SSB0-MT	2012	2,467,000
MSY	MSY-MT	2020	1,090,706
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

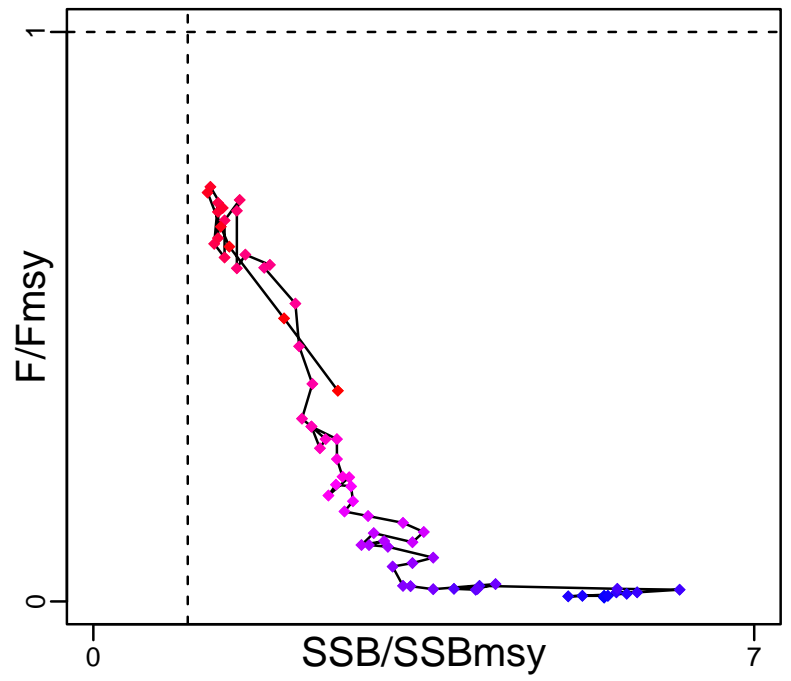
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2020	2,120,000	-	-
SSB	SSB-MT	2020	1,210,000	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	F-1/yr	2020	0.457	-	-
ER	ER-calc-ratio	2020	0.328	-	-
TC	TC-MT	2020	722,042		
TL	TL-MT	2015	576,000		
TB/TBmsy	TBdivTBmsy-dimensionless	2012	1.19		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2020	2.43		
F/Fmsy	FdivFmsy-dimensionless	2020	0.37		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	F-1/yr/Fmgt-1/yr	2012	7.989		
ER/ERmgt	-	-	-		

Yellowfin tuna Central Western Pacific Ocean [YFNCWPAC]

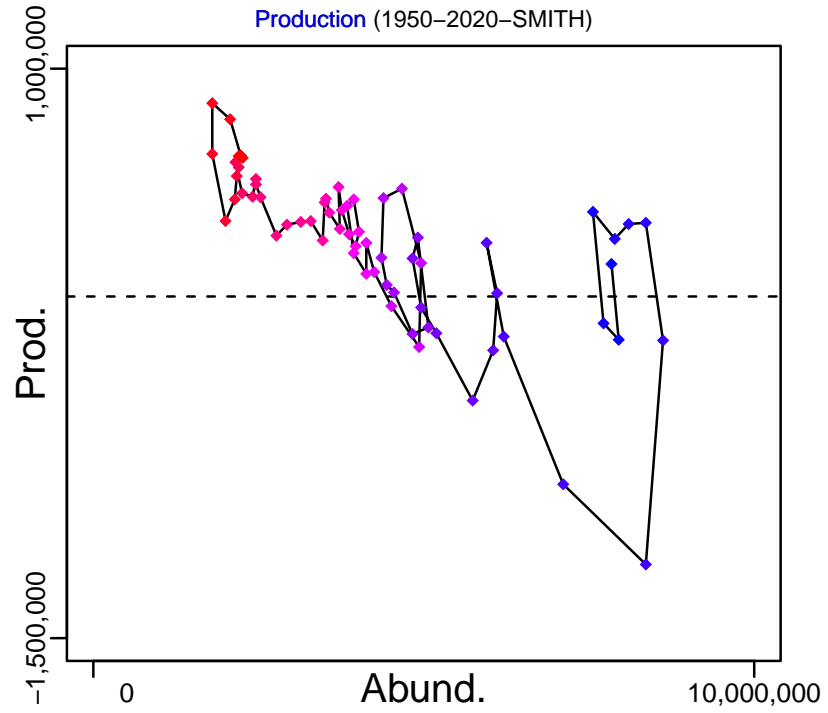
Kobe MSYpref (1950–2020–SMITH)



Kobe MGTpref (1950–2020–SMITH)



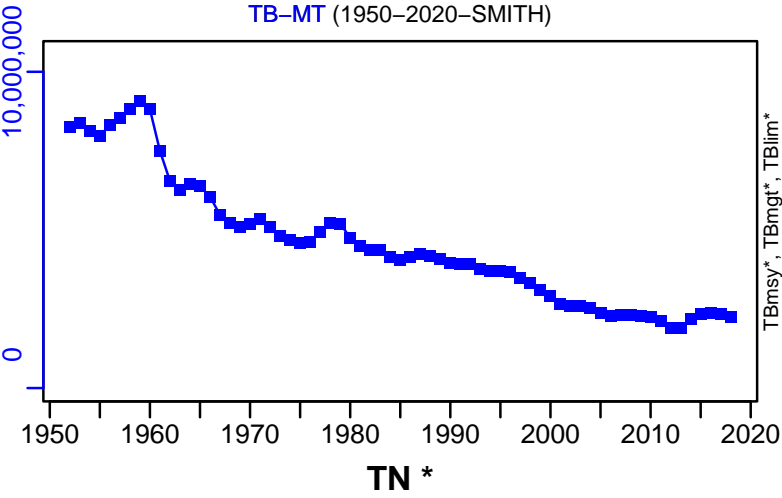
Production (1950–2020–SMITH)



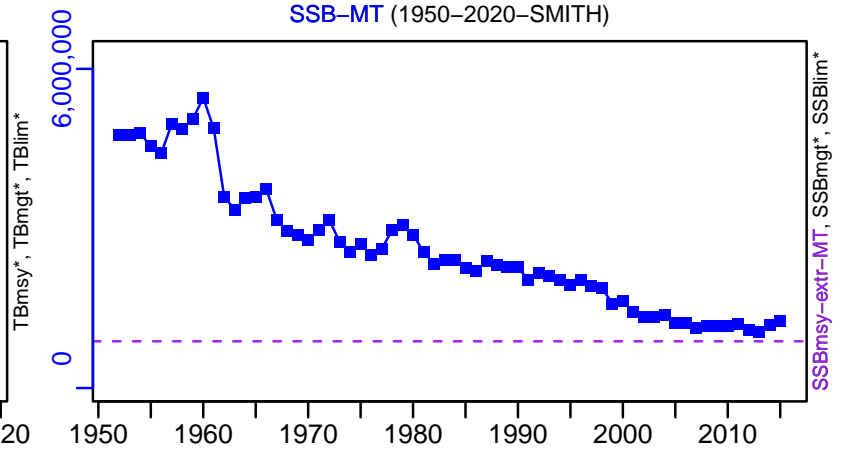
◆ Start Year ◆ End Year * No Data

Yellowfin tuna Central Western Pacific Ocean [YFINCWPAC]

TB-MT (1950-2020-SMITH)

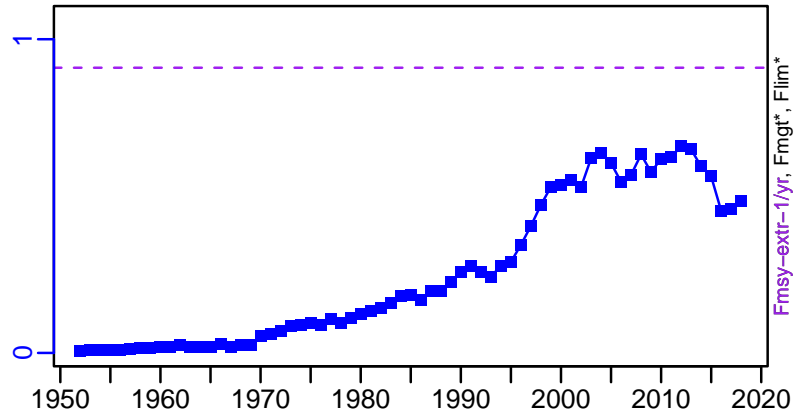


SSB-MT (1950-2020-SMITH)

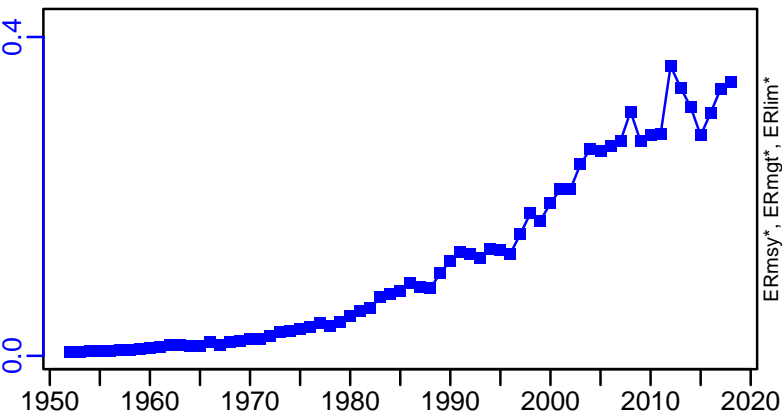


TN *

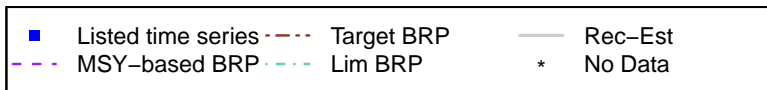
F-1/yr (1950-2020-SMITH)



ER-calc-ratio (1950-2020-SMITH)



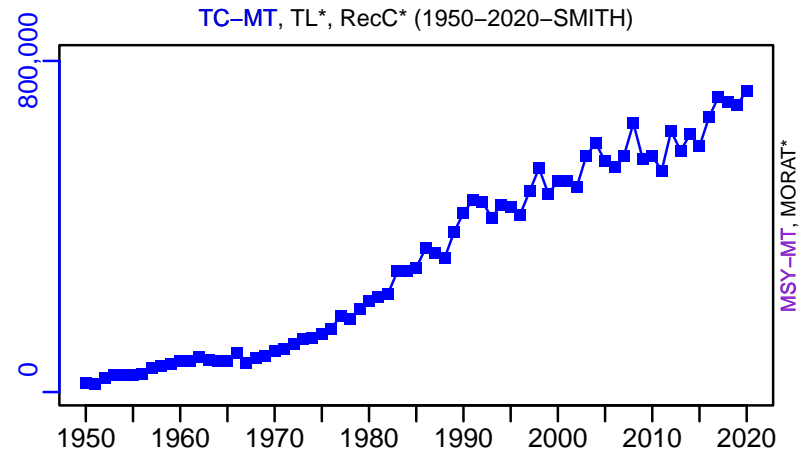
Recruits*



Yellowfin tuna Central Western Pacific Ocean [YFINCWPAC]

TC-MT, TL*, RecC* (1950–2020–SMITH)

TAC*, Cpair*, Cadv*



survB*



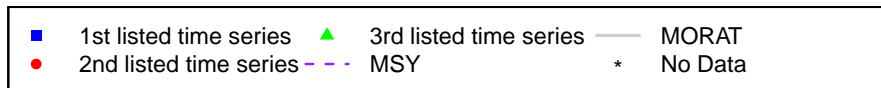
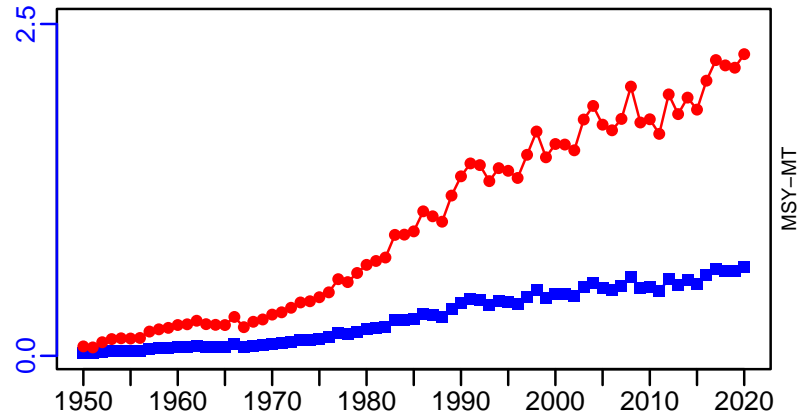
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1950–2020–SMITH)



Yellowfin tuna Indian Ocean [YFINEIO]

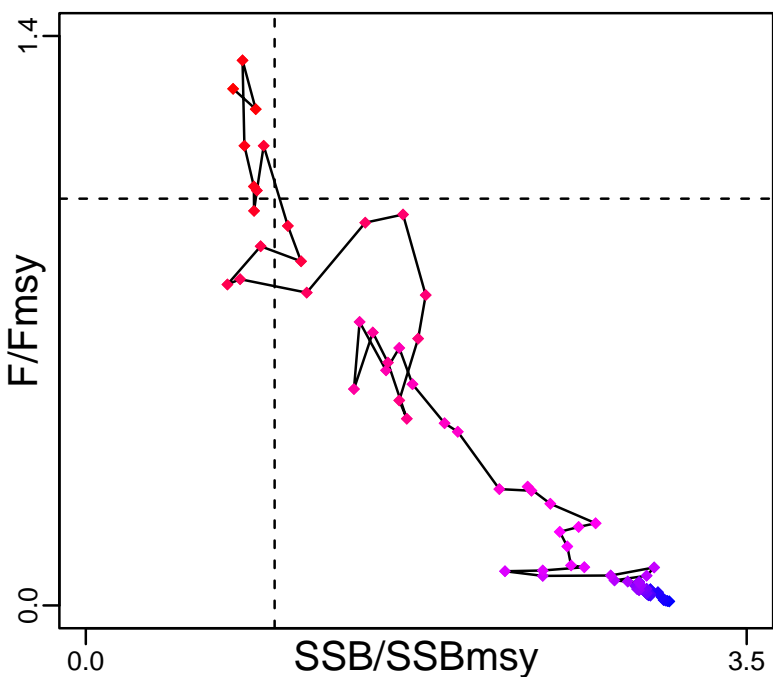
Metadata	
Scientific Name	Thunnus albacares
Current Assess ID	IOTC-YFINEIO-1950-2020-SMITH
Area	Indian Ocean
Management Authority	Indian Ocean Tuna Commission
Assessor	Indian Ocean Tuna Commission
Asmts in RAM	2014, 2016, 2020

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2014	1,346,000
SSBmsy	SSBmsy-extr-MT	2020	975,055
Fmsy	-	-	-
ERmsy	ERmsy-calc-ratio	2014	0.255
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	TB0-MT	2014	3,596,000
SSB0	SSB0-MT	2014	2,910,000
MSY	MSY-MT	2020	394,000
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

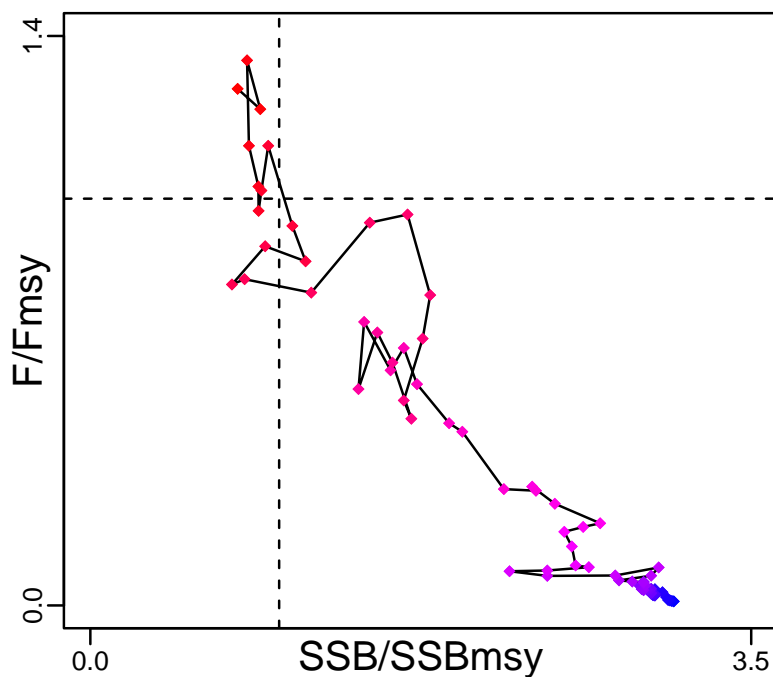
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2020	883,400	-	-
TN	-	-	-	-	-
R	R-E00	2014	99,700,000	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2020	432,623		
TL	TL-MT	2016	427,000		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2020	0.78		
F/Fmsy	FdivFmsy-dimensionless	2020	1.27		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Yellowfin tuna Indian Ocean [YFINEIO]

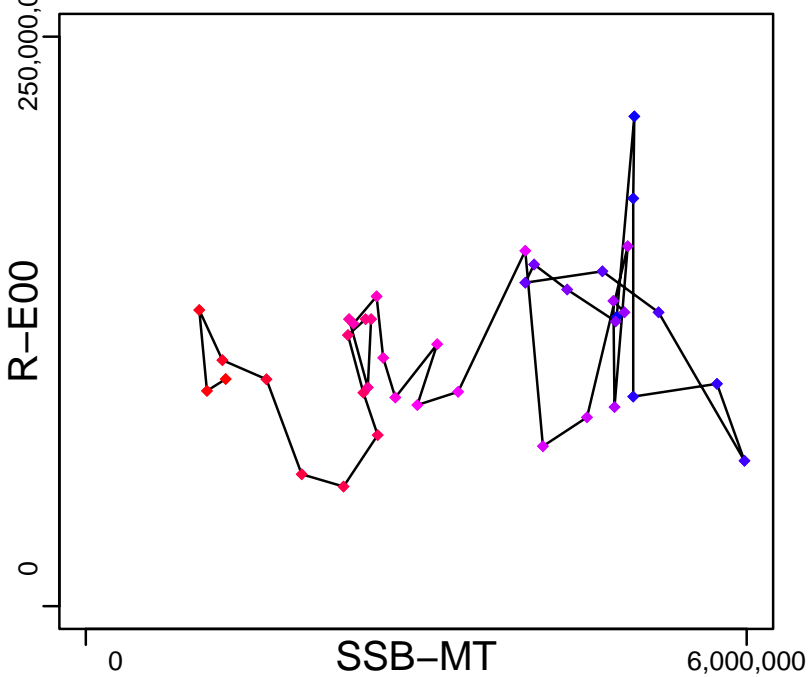
Kobe MSYpref (1950–2020–SMITH)



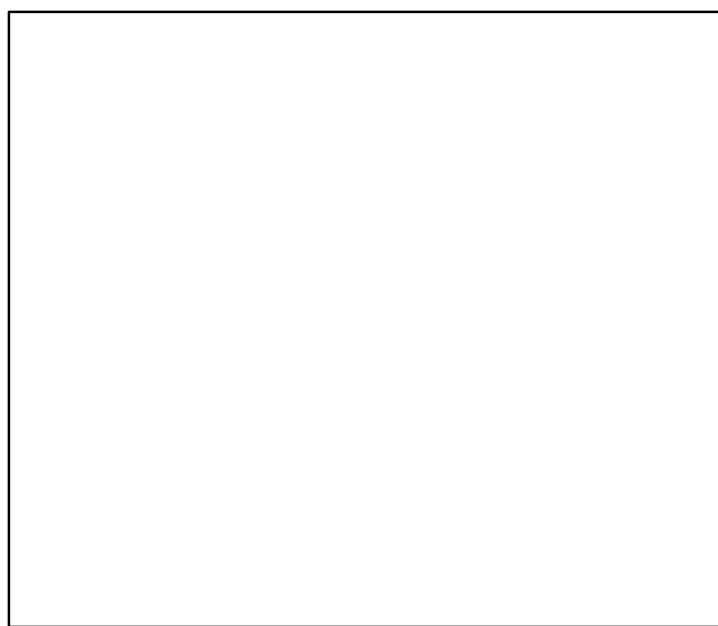
Kobe MGTpref (1950–2020–SMITH)



Spawner Recruit (1950–2014–PONS)



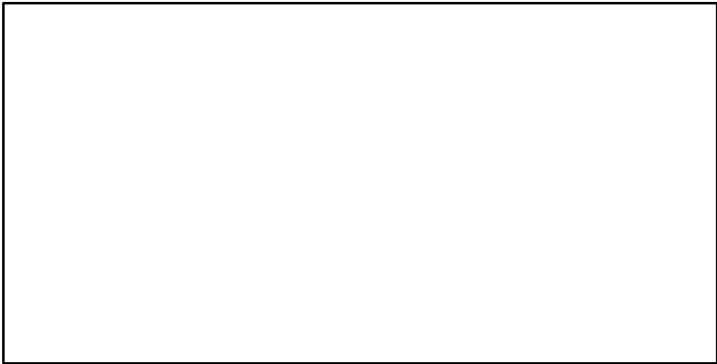
Production*



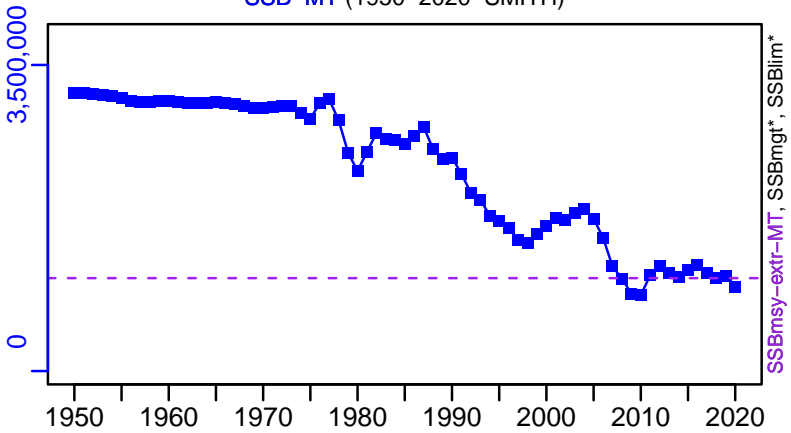
◆ Start Year ◆ End Year * No Data

Yellowfin tuna Indian Ocean [YFINEIO]

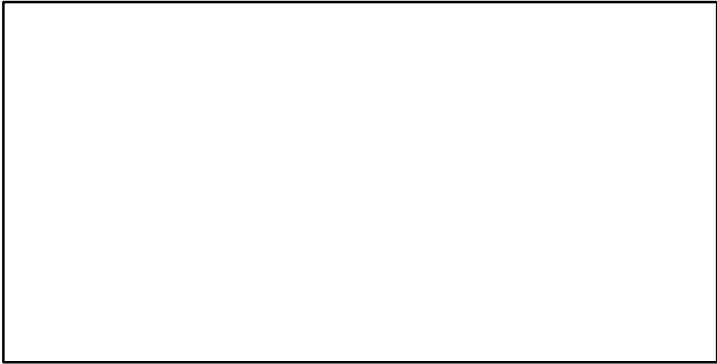
TB*



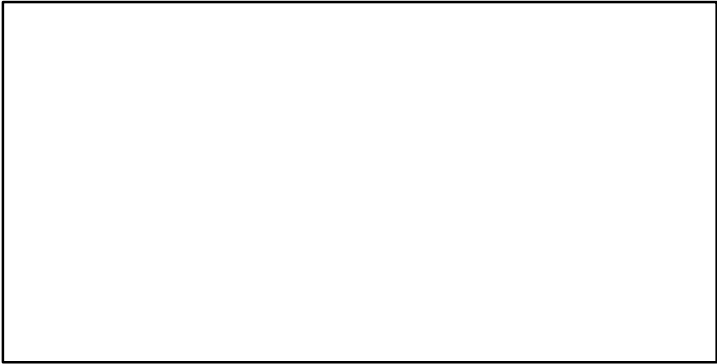
SSB-MT (1950–2020–SMITH)



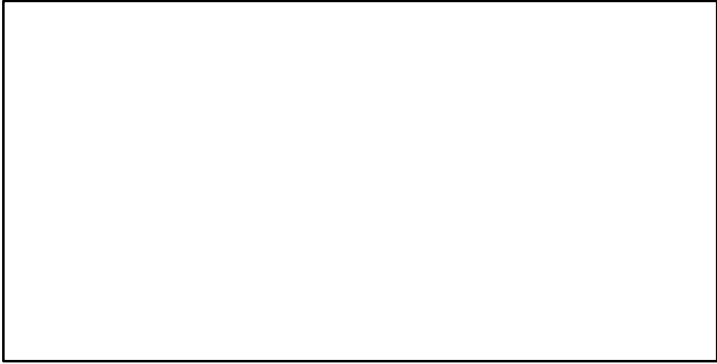
TN *



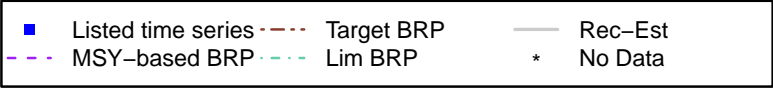
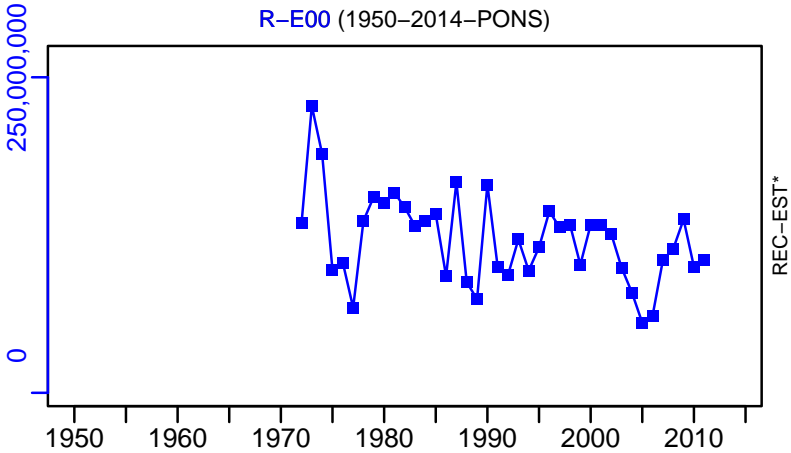
F*



ER*

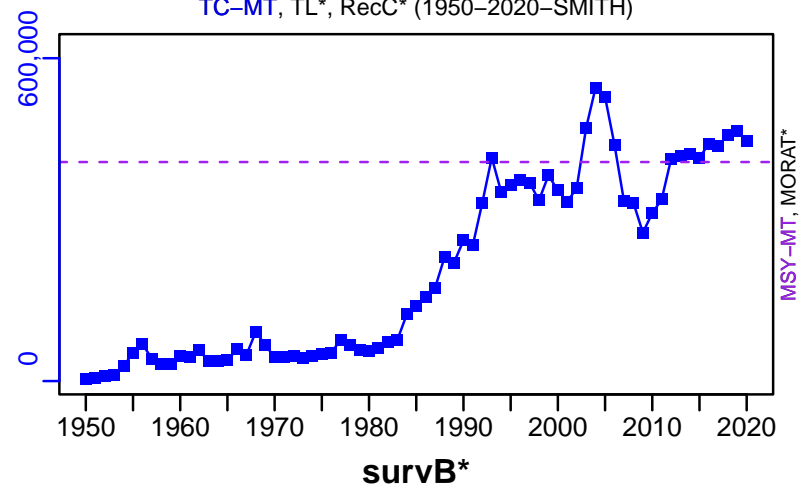


R-E00 (1950–2014–PONS)



Yellowfin tuna Indian Ocean [YFINEIO]

TC-MT, TL*, RecC* (1950–2020–SMITH)



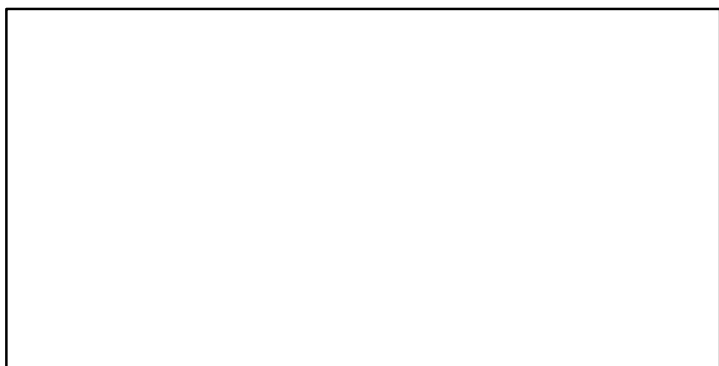
TAC*, Cpair*, Cadv*



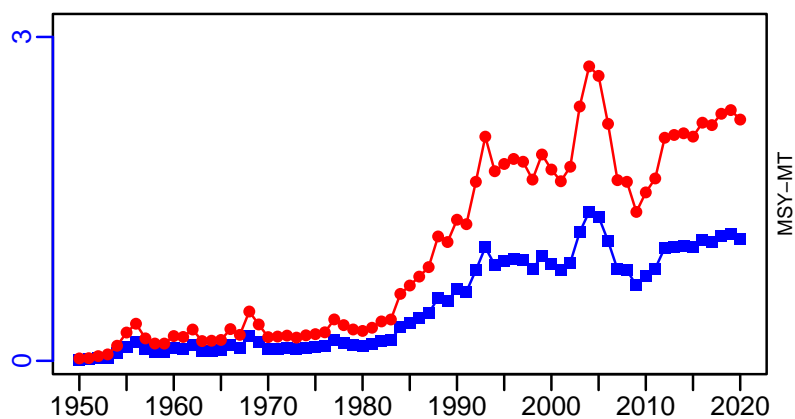
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1950–2020–SMITH)



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

Yellowfin tuna Eastern Pacific [YFINEPAC]

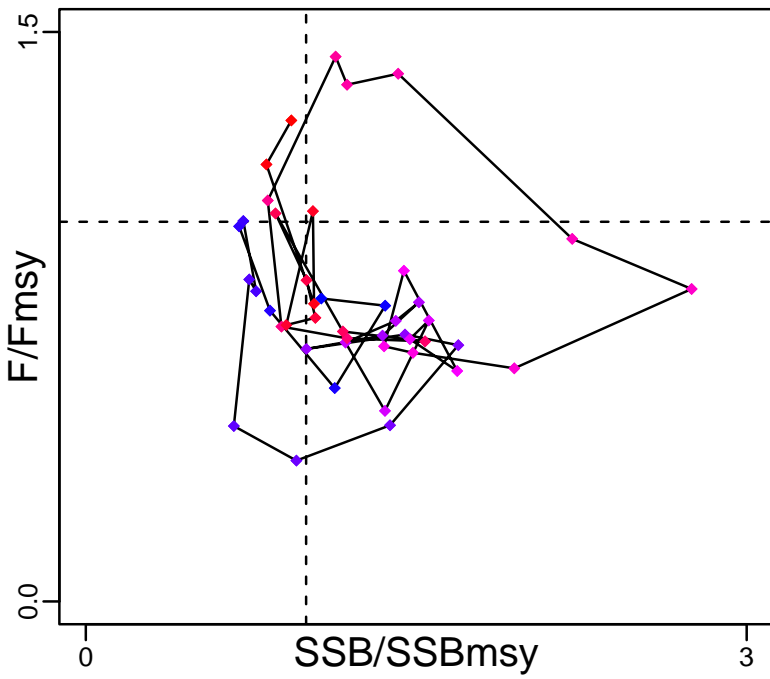
Metadata	
Scientific Name	Thunnus albacares
Current Assess ID	IATTC-YFINEPAC-1918-2019-PONS
Area	Eastern Pacific
Management Authority	Inter-American Tropical Tuna Commission
Assessor	Inter-American Tropical Tuna Commission
Asmts in RAM	2019, 2012, 2016

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2012	362,582
SSBmsy	SSBmsy-extr-MT	2016	3,623,005
Fmsy	Fmsy-extr-1/yr	2016	1
ERmsy	ERmsy-calc-ratio	2012	0.734
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2019	254,975
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

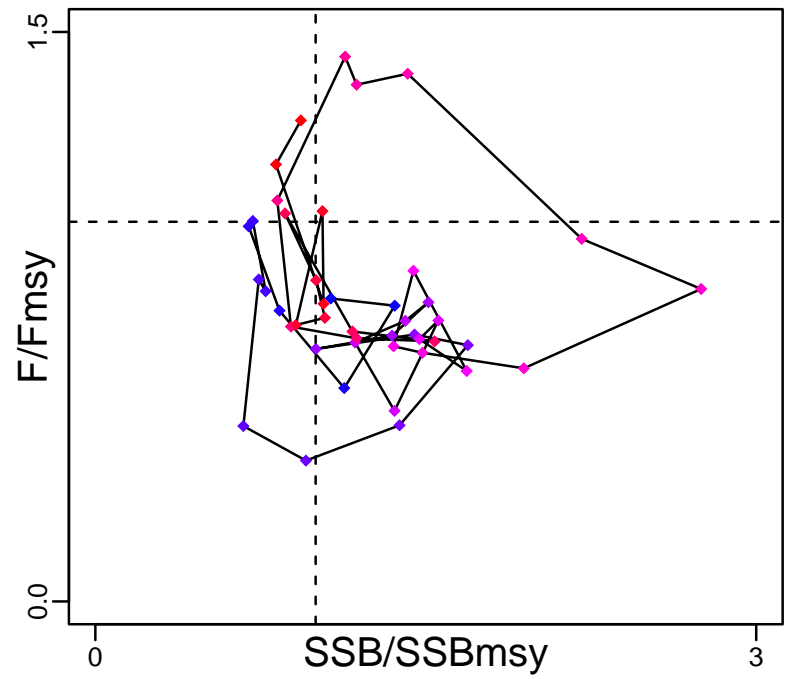
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2016	3,360,000	-	-
TN	-	-	-	-	-
R	R-E00	2016	303,000	-	-
F	F-1/yr	2016	0.916	-	-
ER	-	-	-	-	-
TC	TC-MT	2012	191,000		
TL	TL-MT	2019	251,054		
TB/TBmsy	TBdivTBmsy-dimensionless	2012	1.07		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2019	0.76		
F/Fmsy	FdivFmsy-dimensionless	2019	1.267		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Yellowfin tuna Eastern Pacific [YFINEPAC]

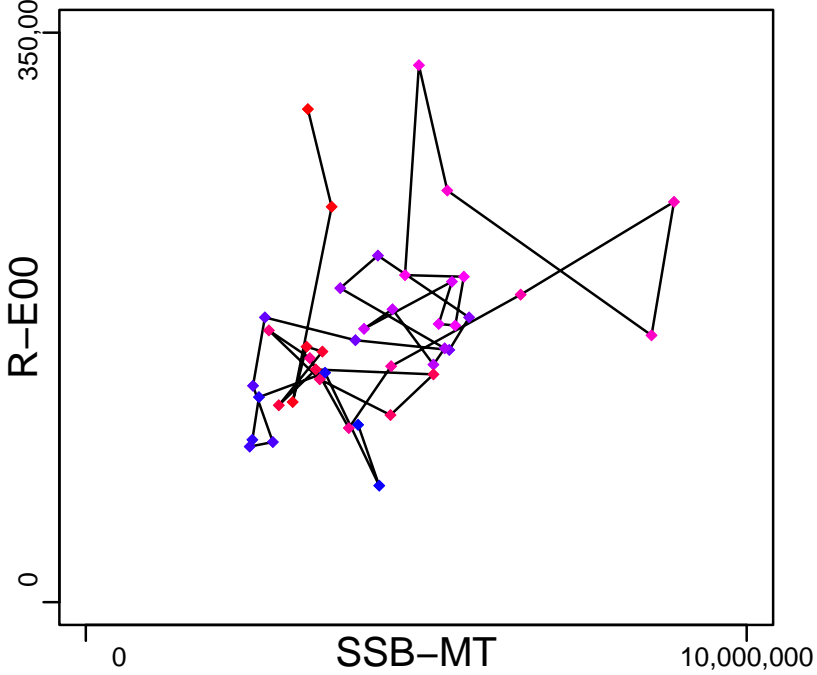
Kobe MSYpref (1918–2019–PONS)



Kobe MGTpref (1918–2019–PONS)



Spawner Recruit (1950–2016–PONS)



Production*



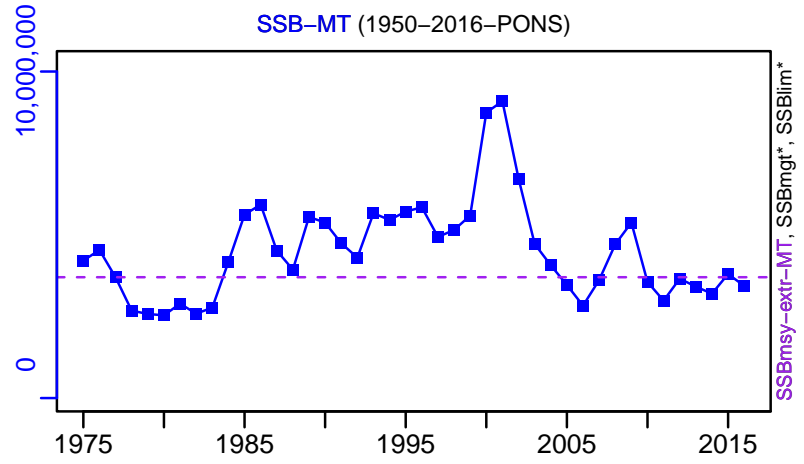
◆ Start Year ◆ End Year * No Data

Yellowfin tuna Eastern Pacific [YFINEPAC]

TB*



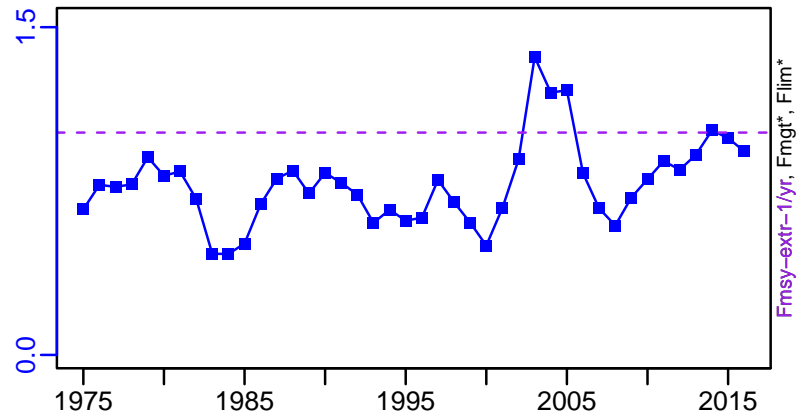
SSB-MT (1950–2016–PONS)



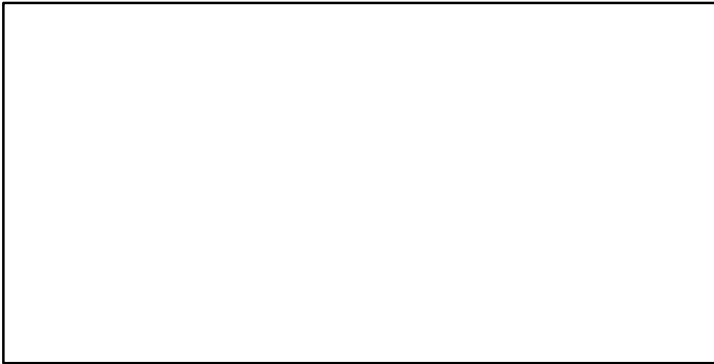
TN *



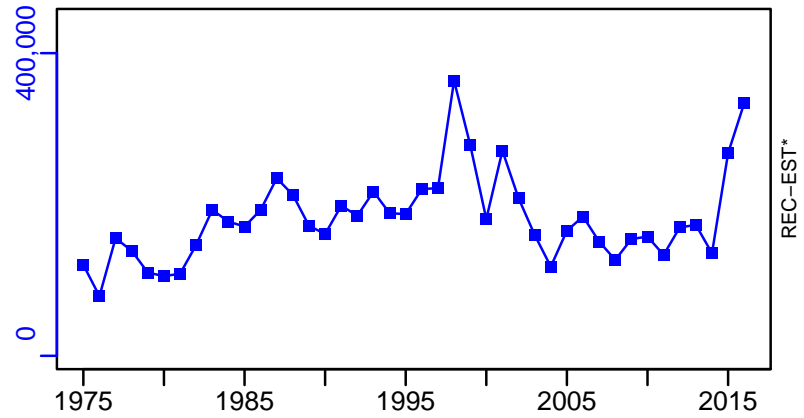
F-1/yr (1950–2016–PONS)



ER*

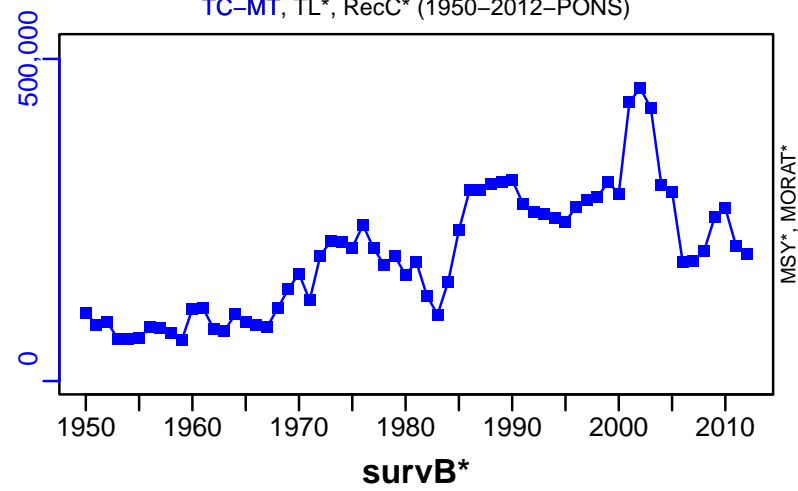


R-E00 (1950–2016–PONS)



Yellowfin tuna Eastern Pacific [YFINEPAC]

TC-MT, TL*, RecC* (1950–2012–PONS)



TAC*, Cpair*, Cadv*



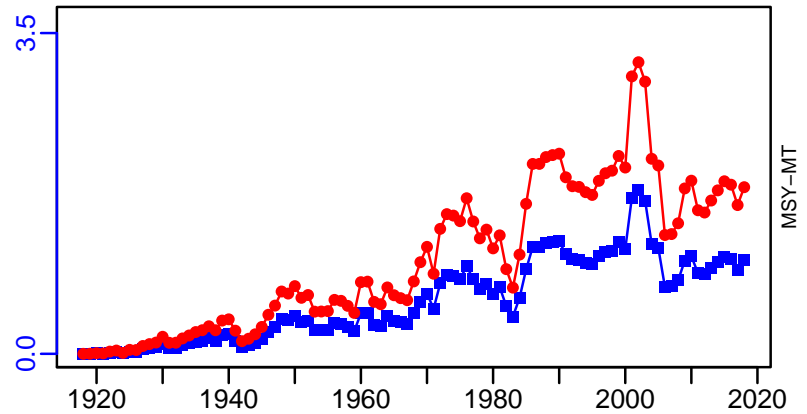
CPUE*



EFFORT*



TL-MT/MSY-MT, CdivMEANC-ratio, (1918–2019–PONS)



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