

Pacific Ocean Stocks

v4.66 (Nov-03-2024)

Not present Present Preferred

Stock	B/Bmsy	Time Series Types			
		U/Umsy	B/Bmgt	U/Umgt	
1. ALBANPAC [Albacore tuna North Pacific Ocean]	TB SSB	ER F	TB SSB	ER F	
2. ALBASPAC [Albacore tuna South Pacific Ocean]	TB SSB	ER F	TB SSB	ER F	
3. BIGEYECWPAC [Bigeye tuna Central Western Pacific Ocean]	TB SSB	ER F	TB SSB	ER F	
4. BIGEYEPPAC [Bigeye tuna Eastern Pacific]	TB SSB	ER F	TB SSB	ER F	
5. BLSHARNPAC [Blue shark North Pacific]	TB SSB	ER F	TB SSB	ER F	
6. BMARLINPAC [Blue marlin Pacific Ocean]	TB SSB	ER F	TB SSB	ER F	
7. OWSHARCWPAC [Oceanic whitetip shark Central Western Pacific Ocean]	TB SSB	ER F	TB SSB	ER F	
8. PACBTUNA [Pacific bluefin tuna Pacific Ocean]	TB SSB	ER F	TB SSB	ER F	
9. SFMAKONPAC [Shortfin mako North Pacific]	TB SSB	ER F	TB SSB	ER F	
10. SFMAKONWPAC [Shortfin mako Northwest Pacific Ocean]	TB SSB	ER F	TB SSB	ER F	
11. SKJCWPAC [Skipjack tuna Central Western Pacific Ocean]	TB SSB	ER F	TB SSB	ER F	
12. SKJEPAC [Skipjack tuna Eastern Pacific]	TB SSB	ER F	TB SSB	ER F	
13. SLKSHARCWPAC [Silky shark Central Western Pacific Ocean]	TB SSB	ER F	TB SSB	ER F	
14. STMARLINNEPAC [Striped marlin Northeast Pacific]	TB SSB	ER F	TB SSB	ER F	
15. STMARLINSWPO [Striped marlin Western Pacific Ocean]	TB SSB	ER F	TB SSB	ER F	
16. STMARLINWCNPAC [Striped marlin Western and Central North Pacific]	TB SSB	ER F	TB SSB	ER F	
17. SWORDEPAC [Swordfish Eastern Pacific]	TB SSB	ER F	TB SSB	ER F	
18. SWORDNPAC [Swordfish North Pacific Ocean]	TB SSB	ER F	TB SSB	ER F	
19. SWORDSPAC [Swordfish South Pacific Ocean]	TB SSB	ER F	TB SSB	ER F	
20. THRSHARNPAC [Thresher shark North Pacific]	TB SSB	ER F	TB SSB	ER F	
21. YFINCWPAC [Yellowfin tuna Central Western Pacific Ocean]	TB SSB	ER F	TB SSB	ER F	
22. YFINEPAC [Yellowfin tuna Eastern Pacific]	TB SSB	ER F	TB SSB	ER F	

Albacore tuna North Pacific Ocean [ALBANPAC]

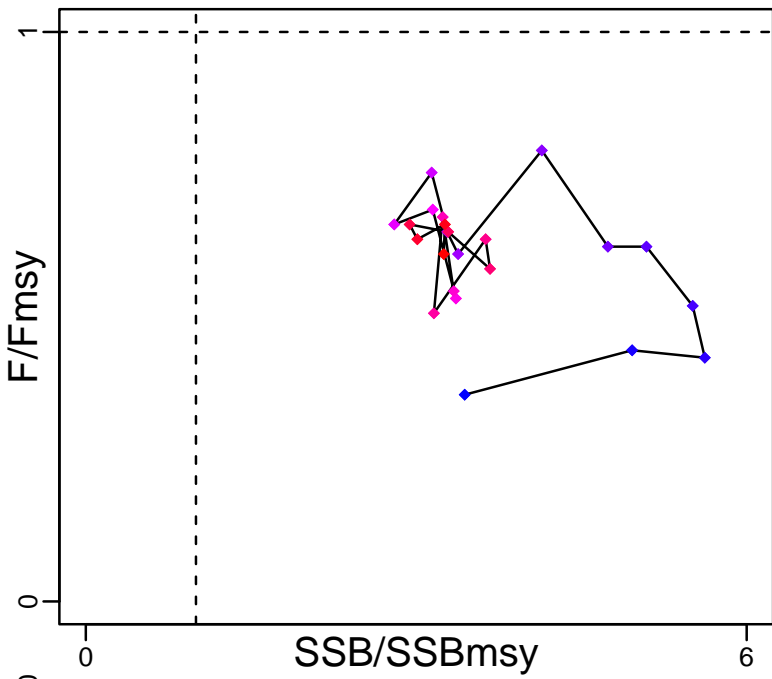
Metadata	
Scientific Name	Thunnus alalunga
Current Assess ID	ISC-ALBANPAC-1936-2020-LAWSON
Area	North Pacific Ocean
Management Authority	International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean
Assessor	International Scientific Committee for Tuna and Tuna-like Species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

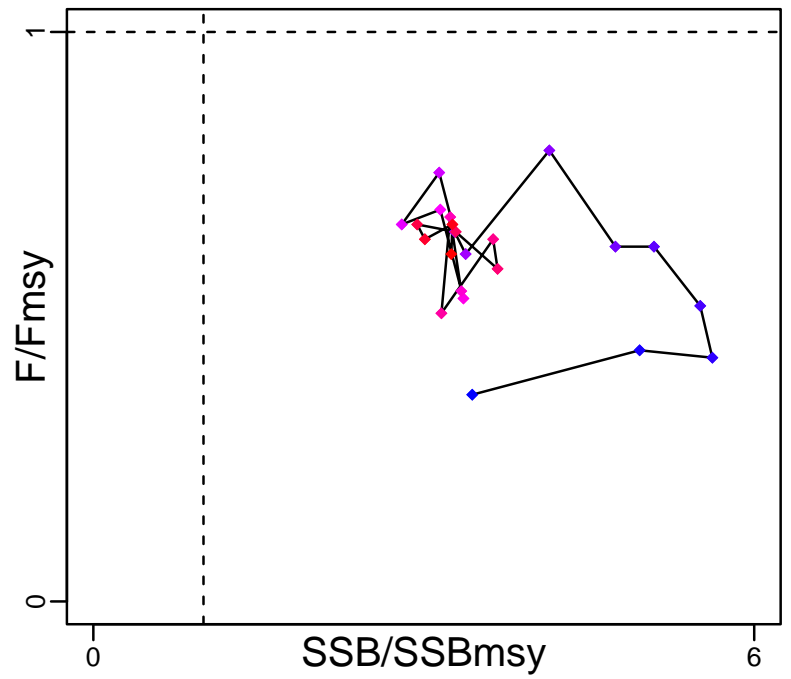
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2020	641,391	-	1+
SSB	SSB-MT	2020	58,858	Females	-
TN	-	-	-	-	-
R	R-E00	2020	173,719,000	-	-
F	F-1/yr	2020	0.47	-	-
ER	ER-calc-ratio	2020	0.078	-	-
TC	TC-MT	2020	36,226		
TL	TL-MT	2015	71,600		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT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

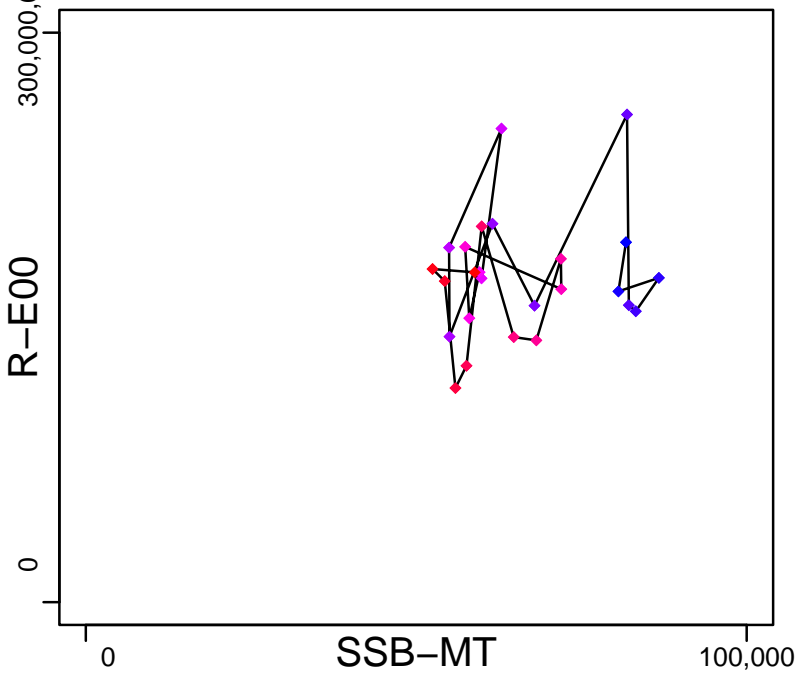
Kobe MSYpref (1952–2015–PONS)



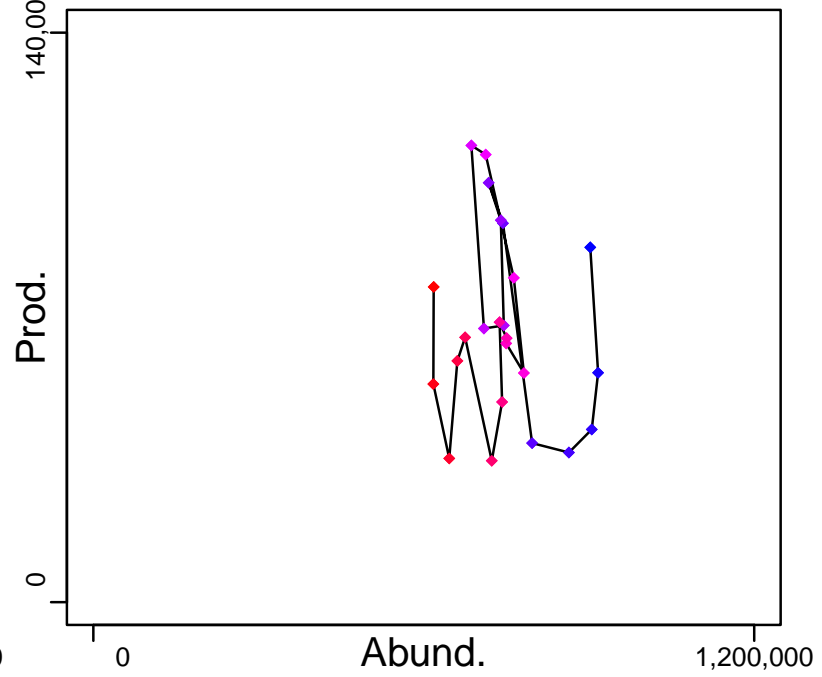
Kobe MGTpref (1952–2015–PONS)



Spawner Recruit (1936–2020–LAWSON)



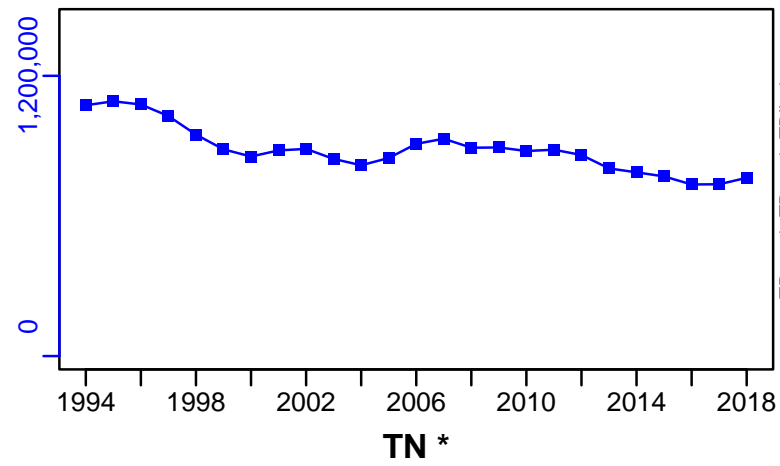
Production (1936–2020–LAWSON)



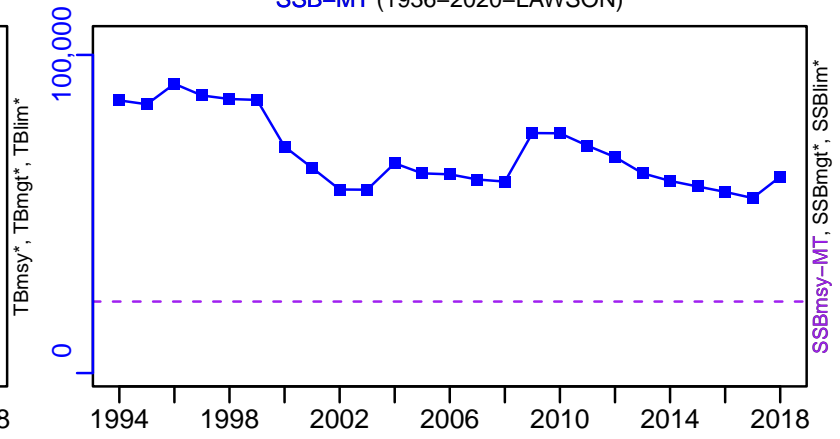
◆ Start Year ◆ End Year * No Data

Albacore tuna North Pacific Ocean [ALBANPAC]

TB-MT (1936–2020–LAWSON)

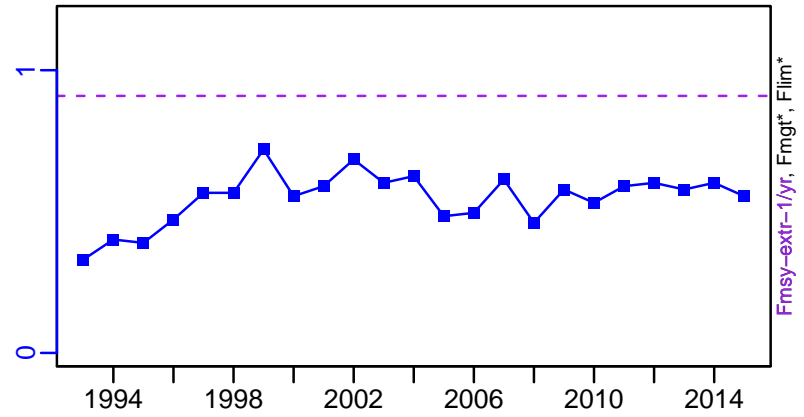


SSB-MT (1936–2020–LAWSON)

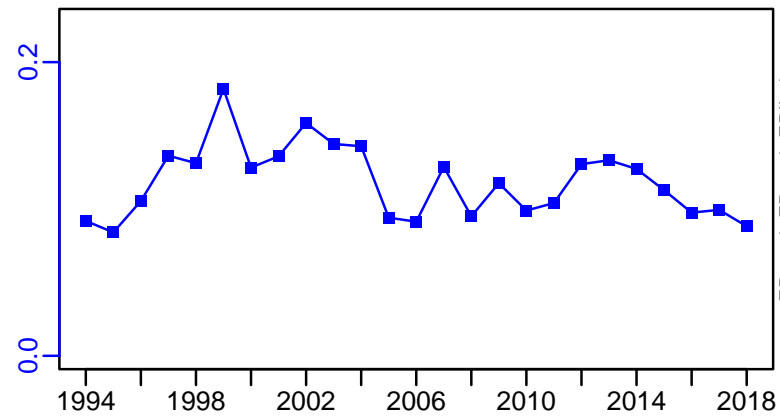


TN *

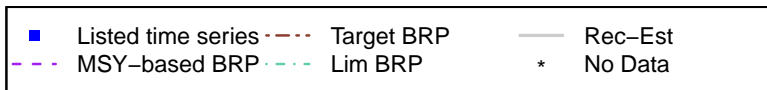
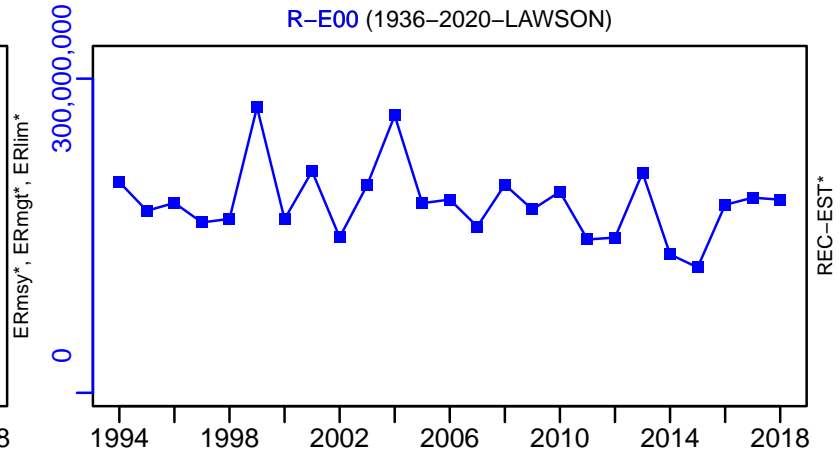
F-1/yr (1952–2015–PONS)



ER-calc-ratio (1936–2020–LAWSON)

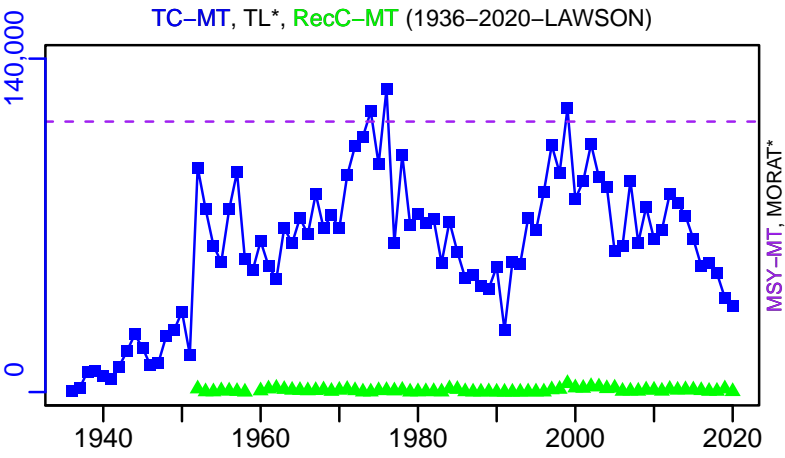


R-E00 (1936–2020–LAWSON)



Albacore tuna North Pacific Ocean [ALBANPAC]

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



TAC*, Cpair*, Cadv*



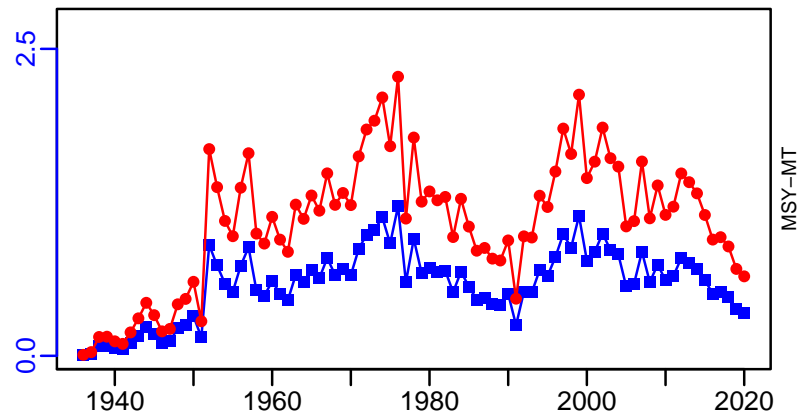
CPUE*



EFFORT*



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



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

Albacore tuna South Pacific Ocean [ALBASPAC]

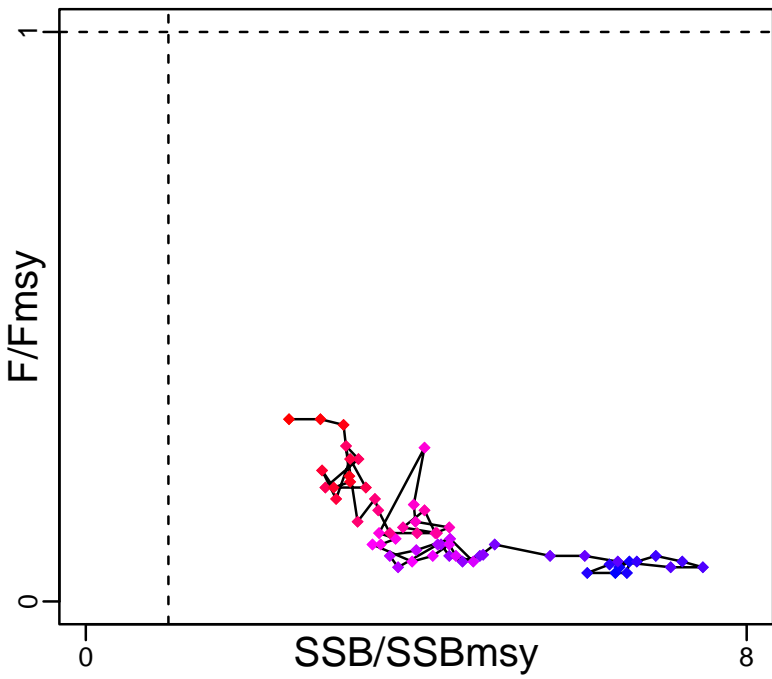
Metadata	
Scientific Name	Thunnus alalunga
Current Assess ID	SPC-ALBASPAC-1952-2020-SMITH
Area	South Pacific Ocean
Management Authority	Western and Central Pacific Fisheries Commission
Assessor	Secretariat of the Pacific Community
Asmts in RAM	2015, 2020, 2010

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	-	-	-

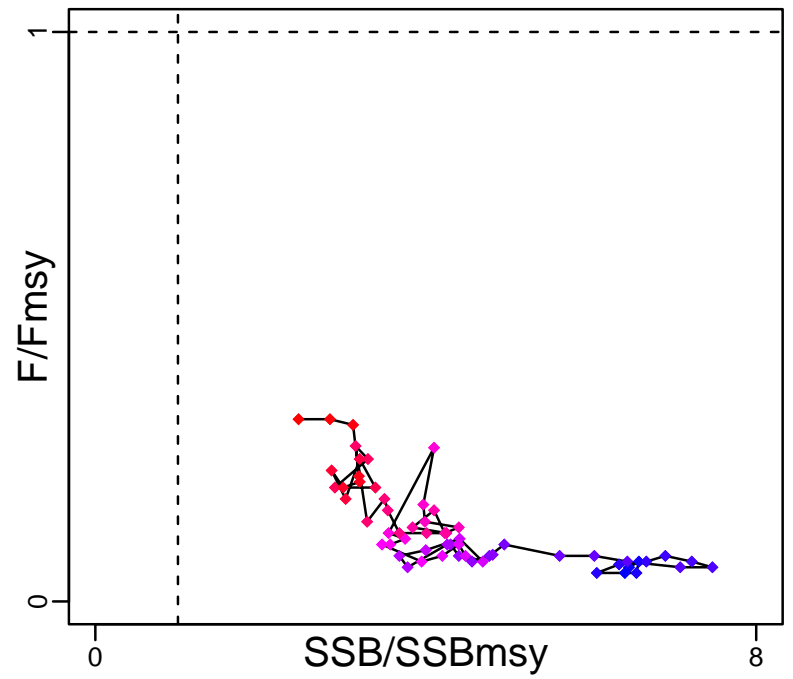
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2020	158,100	-	-
TN	-	-	-	-	-
R	R-E00	2015	6,410,000	-	-
F	F-1/yr	2020	0.28	-	-
ER	-	-	-	-	-
TC	TC-MT	2020	71,949		
TL	TL-MT	2015	68,300		
TB/TBmsy	TBdivTBmsy-dimensionless	2015	1.49		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless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

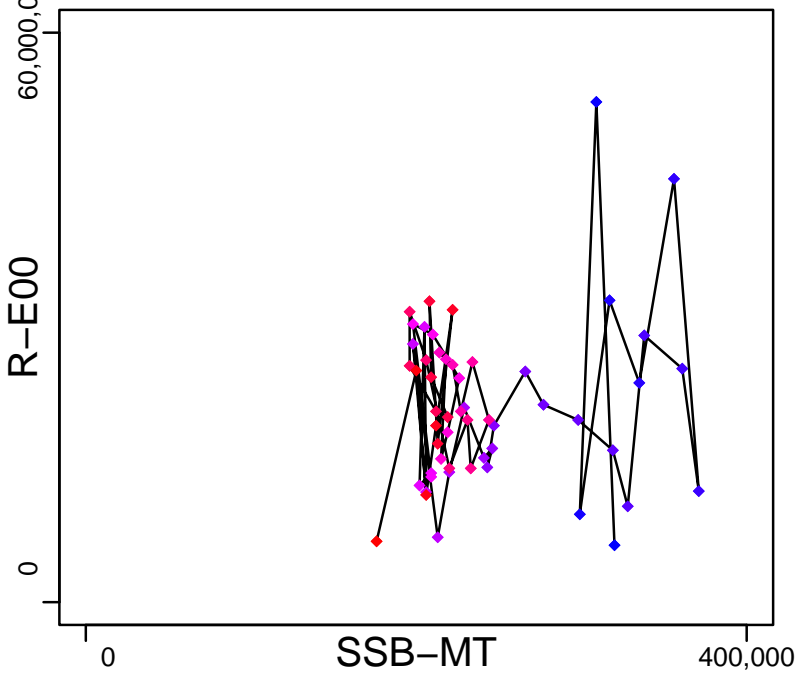
Kobe MSYpref (1952–2020–SMITH)



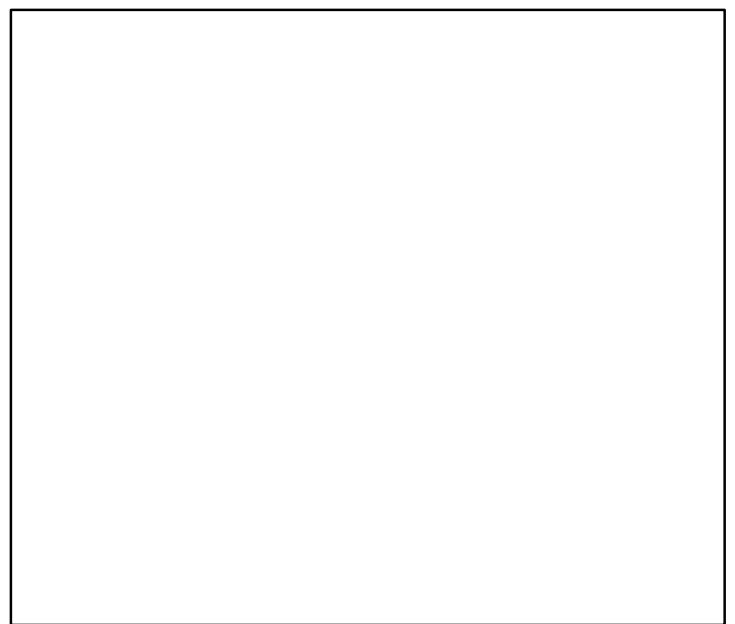
Kobe MGTpref (1952–2020–SMITH)



Spawner Recruit (1952–2015–PONS)



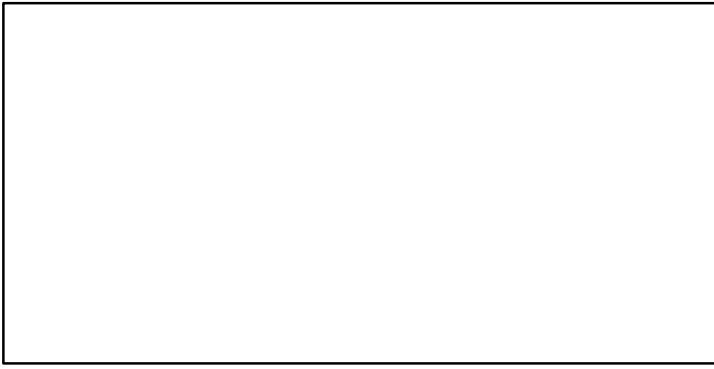
Production*



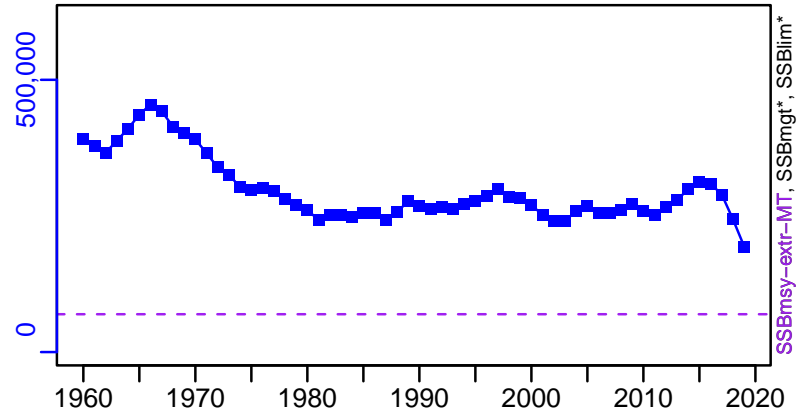
◆ Start Year ◆ End Year * No Data

Albacore tuna South Pacific Ocean [ALBASPAC]

TB*



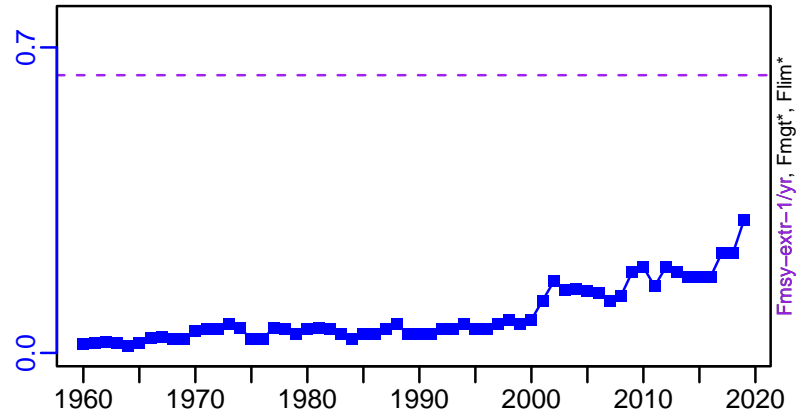
SSB-MT (1952-2020-SMITH)



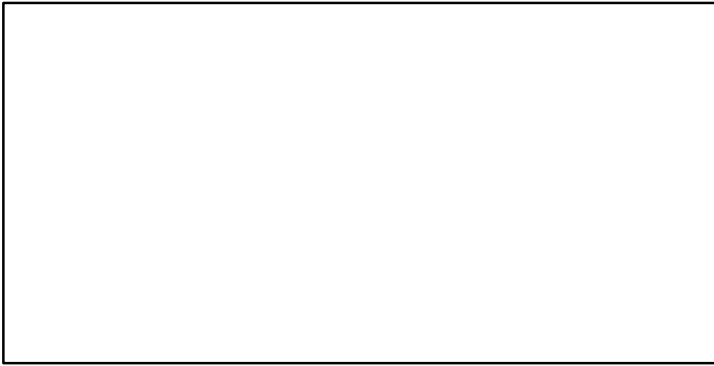
TN *



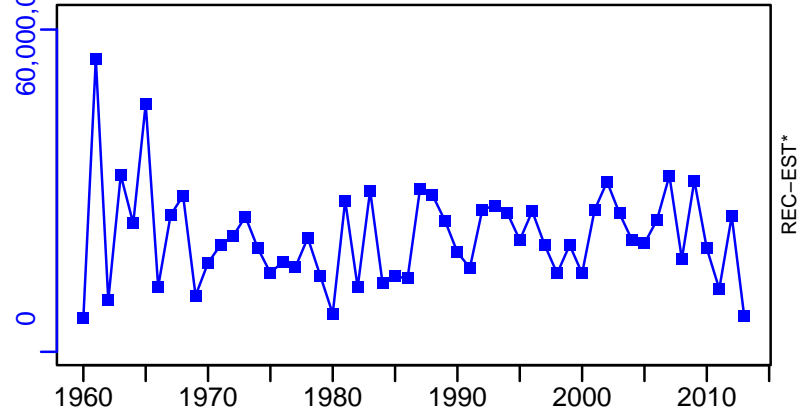
F-1/yr (1952-2020-SMITH)



ER*

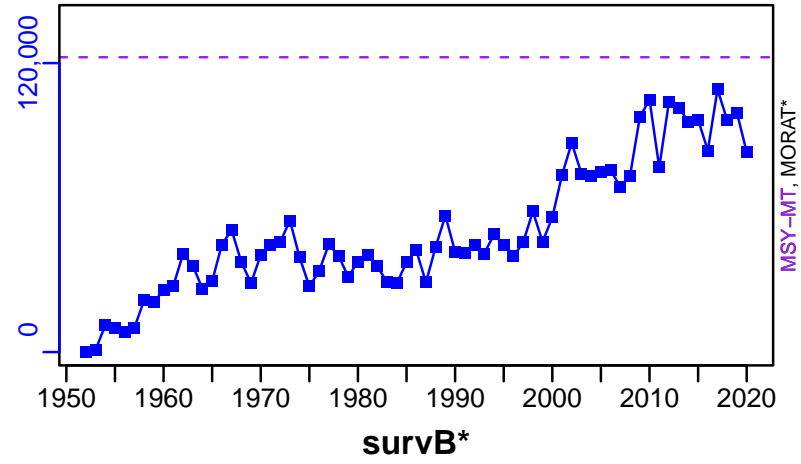


R-E00 (1952-2015-PONS)



Albacore tuna South Pacific Ocean [ALBASPAC]

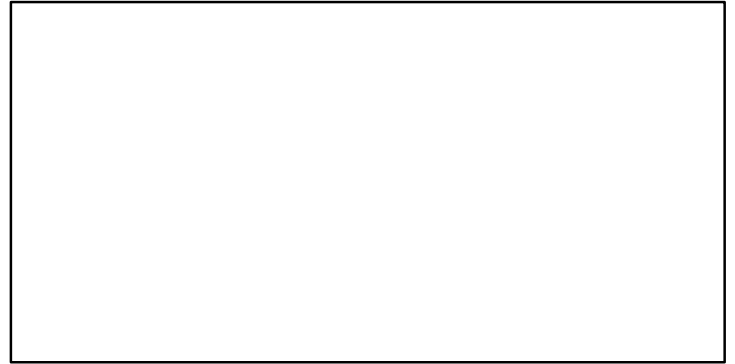
TC-MT, TL*, RecC* (1952-2020-SMITH)



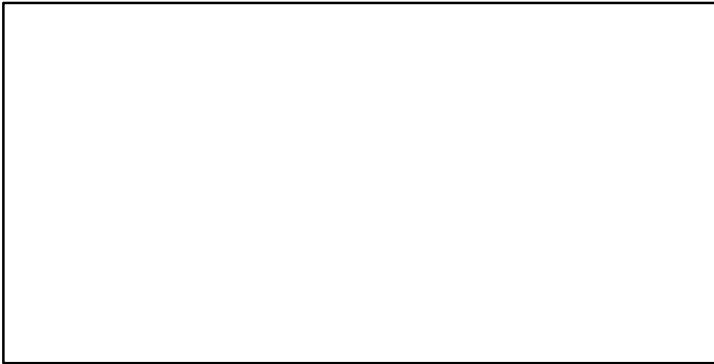
TAC*, Cpair*, Cadv*



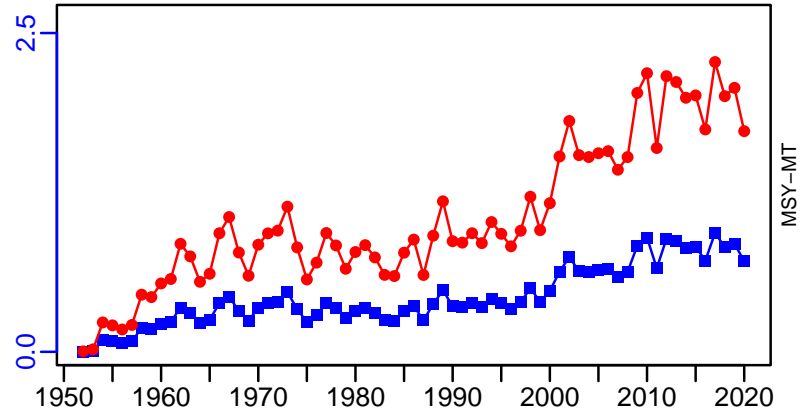
CPUE*



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

Bigeye tuna Central Western Pacific Ocean [BIGEYECWPAC]

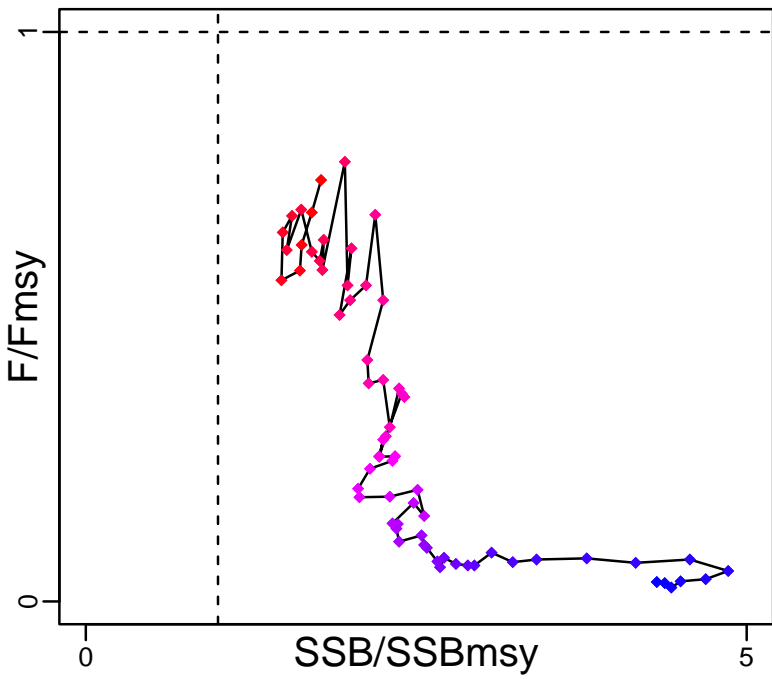
Metadata	
Scientific Name	Thunnus obesus
Current Assess ID	SPC-BIGEYECWPAC-1950-2020-SMITH
Area	Central Western Pacific Ocean
Management Authority	Western and Central Pacific Fisheries Commission
Assessor	Secretariat of the Pacific Community
Asmts in RAM	2015, 2020, 2006, 2012

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	-	-	-

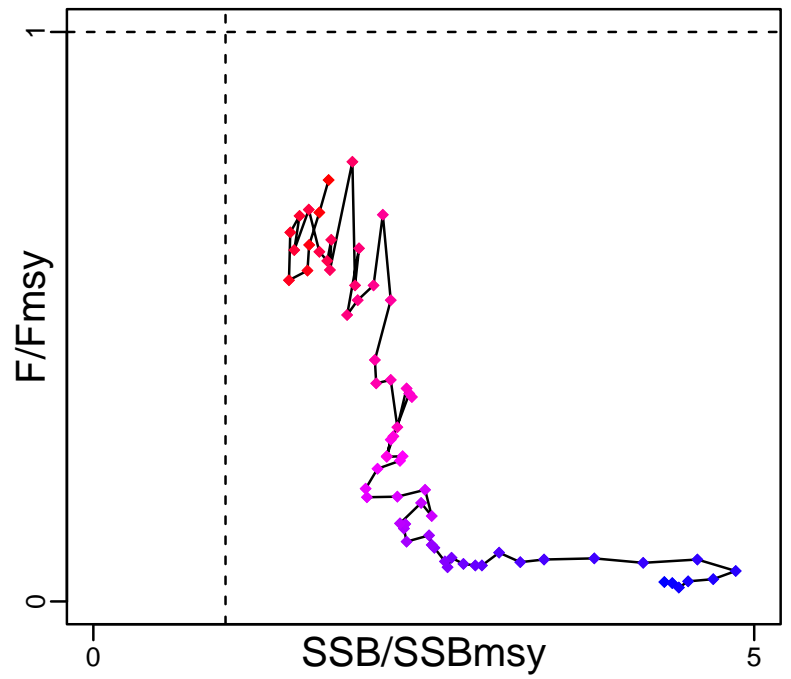
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2020	1,220,000	-	-
SSB	SSB-MT	2020	968,000	-	-
TN	-	-	-	-	-
R	R-E00	2006	17,600,000	-	-
F	F-1/yr	2020	0.25	-	-
ER	ER-calc-ratio	2020	0.124	-	-
TC	TC-MT	2020	148,371		
TL	TL-MT	2015	135,000		
TB/TBmsy	TBdivTBmsy-dimensionless	2012	0.921		
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]

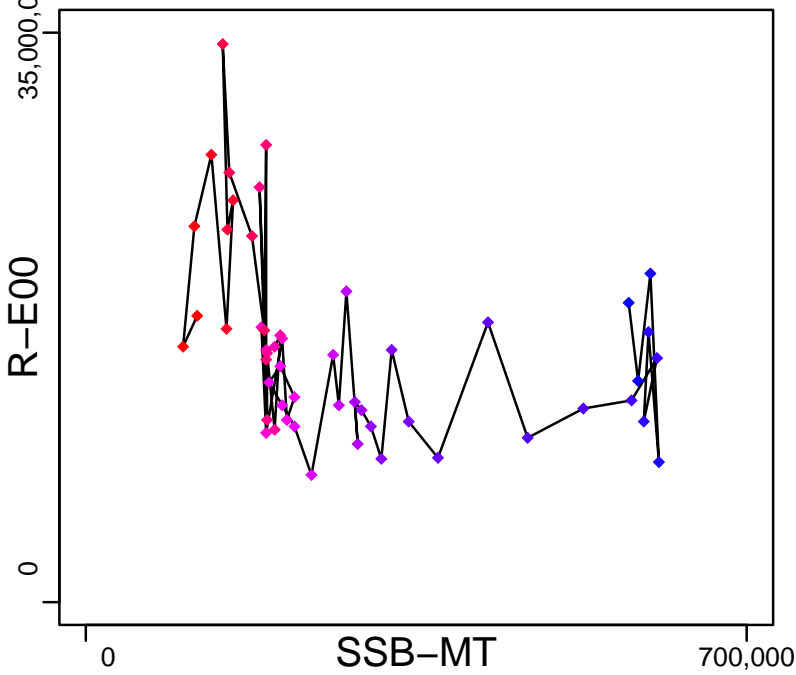
Kobe MSYpref (1950–2020–SMITH)



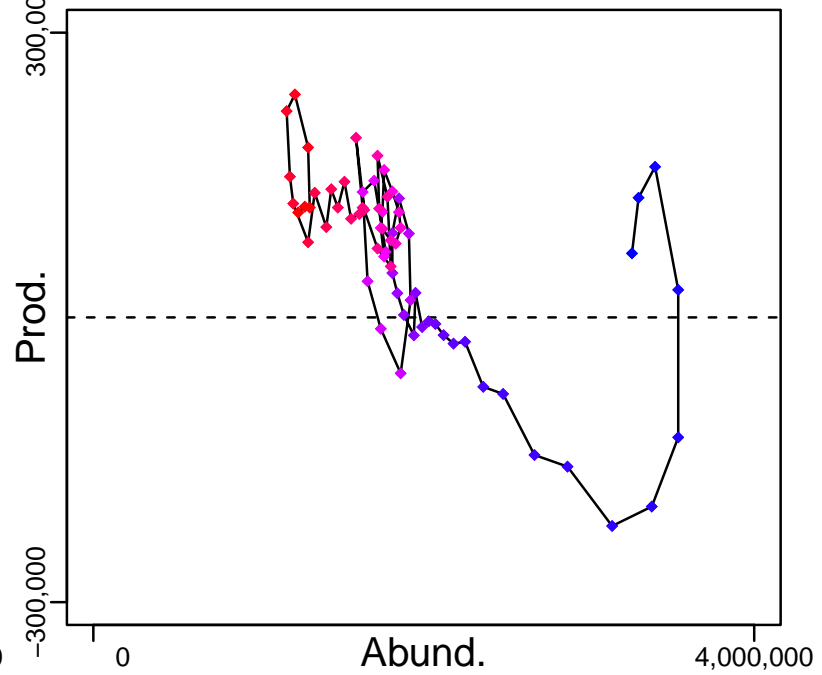
Kobe MGTpref (1950–2020–SMITH)



Spawner Recruit (1952–2006–JENSEN)



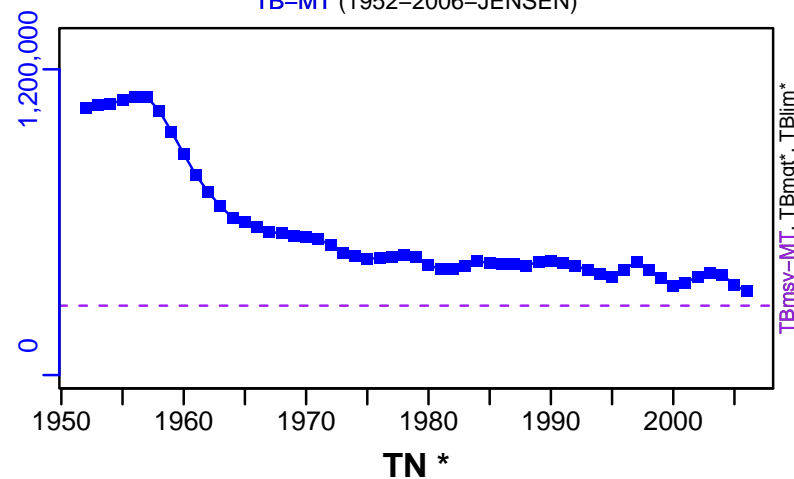
Production (1950–2020–SMITH)



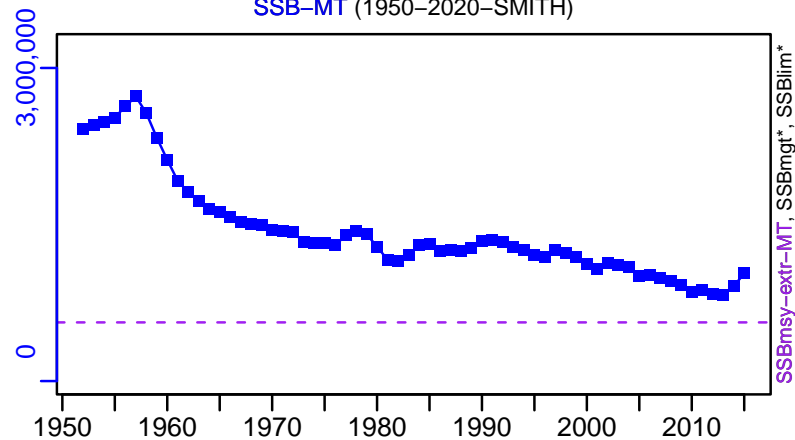
◆ Start Year ◆ End Year * No Data

Bigeye tuna Central Western Pacific Ocean [BIGEYECWPAC]

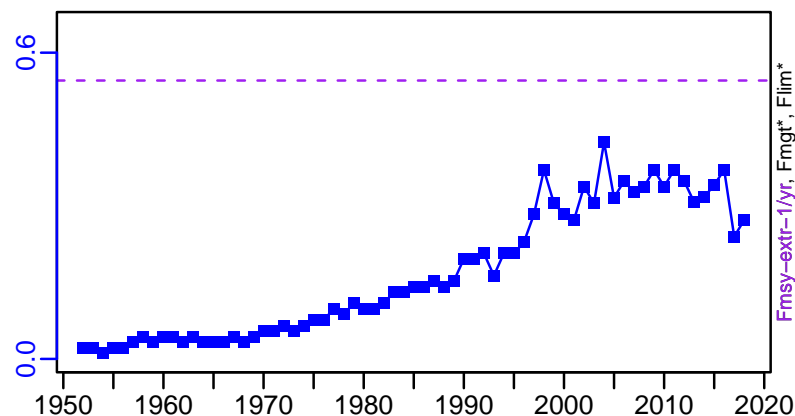
TB-MT (1952-2006-JENSEN)



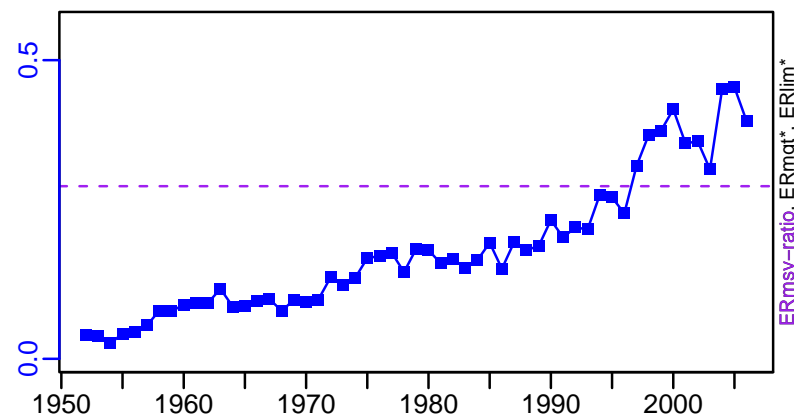
SSB-MT (1950-2020-SMITH)



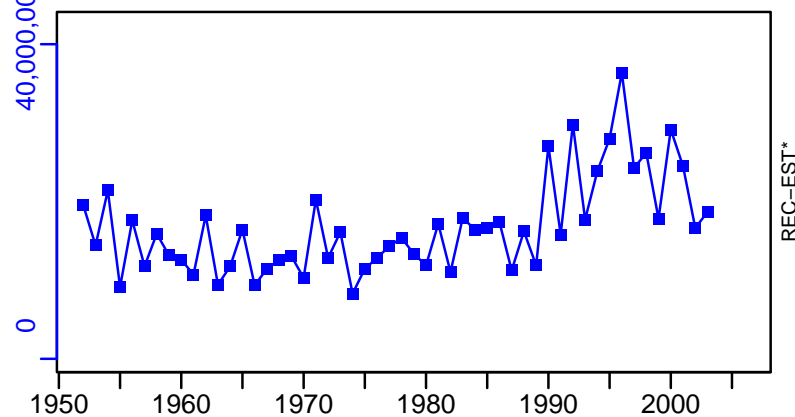
F-1/yr (1950-2020-SMITH)



ER-ratio (1952-2006-JENSEN)

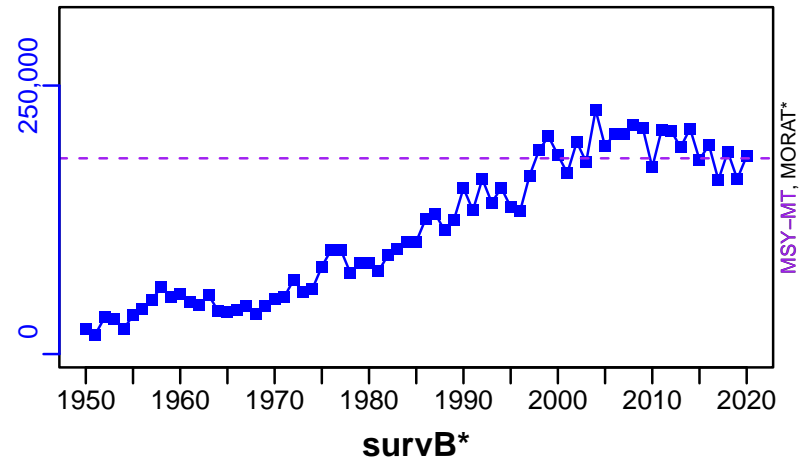


R-E00 (1952-2006-JENSEN)

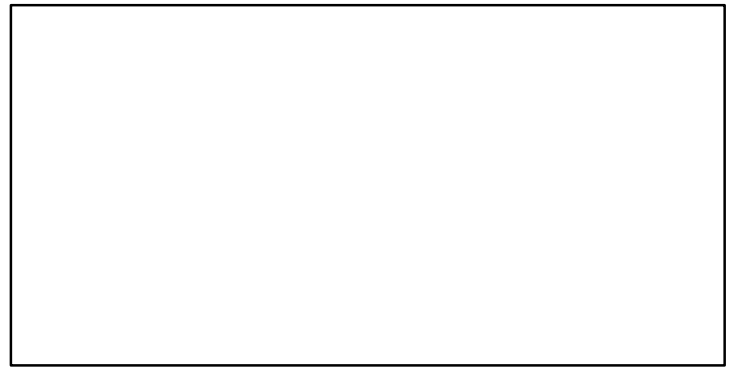


Bigeye tuna Central Western Pacific Ocean [BIGEYECWPAC]

TC-MT, TL*, RecC* (1950–2020–SMITH)



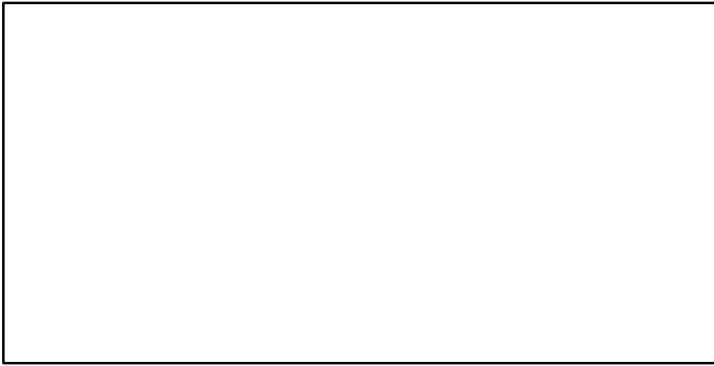
TAC*, Cpair*, Cadv*



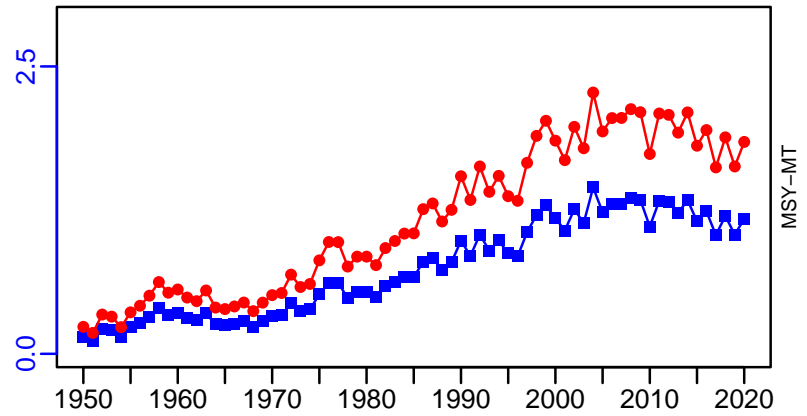
CPUE*



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]

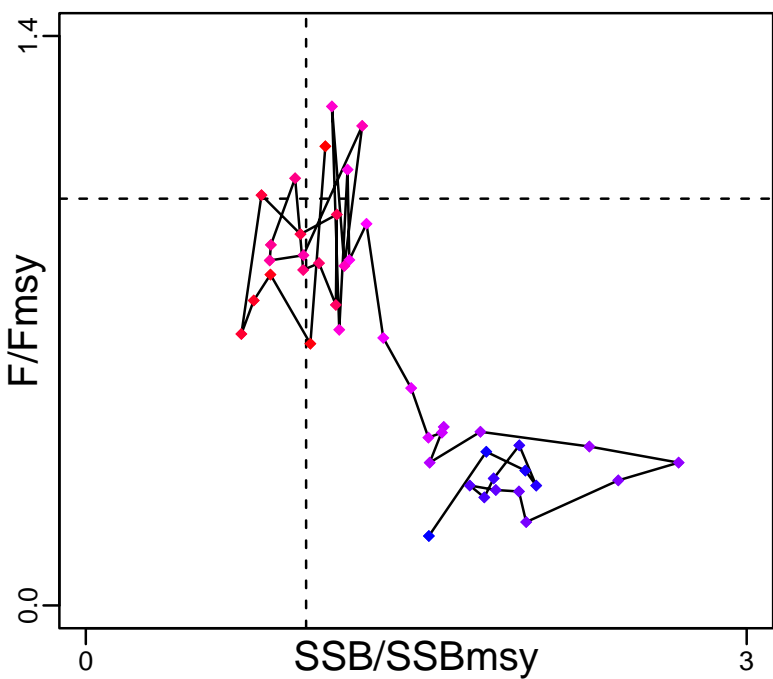
Metadata	
Scientific Name	Thunnus obesus
Current Assess ID	IATTC-BIGEYEEPAC-1954-2018-PONS
Area	Eastern Pacific
Management Authority	Inter-American Tropical Tuna Commission
Assessor	Inter-American Tropical Tuna Commission
Asmts in RAM	2012, 2016, 2018

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	-	-	-

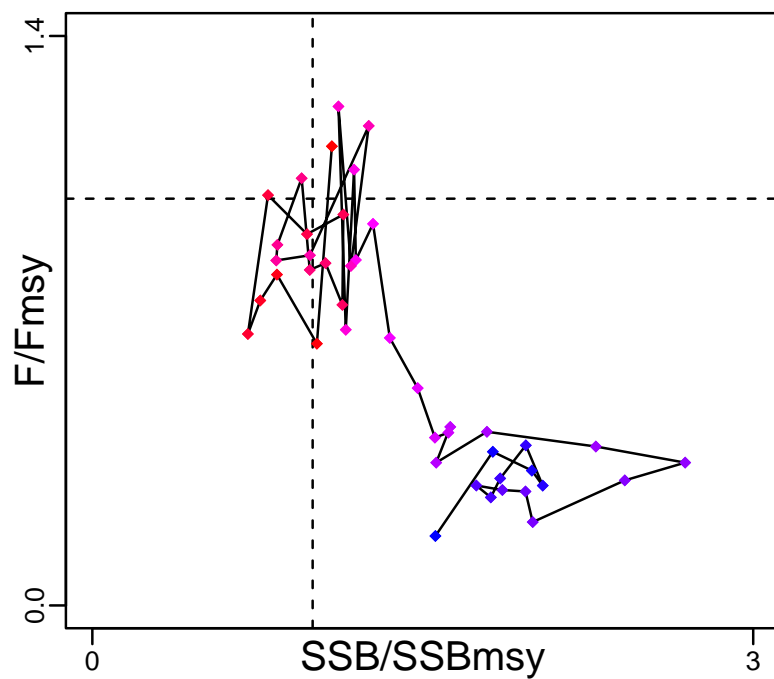
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2016	110,000	-	-
TN	-	-	-	-	-
R	R-E00	2016	6900	-	-
F	F-1/yr	2016	0.826	-	-
ER	-	-	-	-	-
TC	TC-MT	2012	88,000		
TL	TL-MT	2018	93,990		
TB/TBmsy	TBdivTBmsy-dimensionless	2012	0.945		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2018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

Bigeye tuna Eastern Pacific [BIGEYEEPAC]

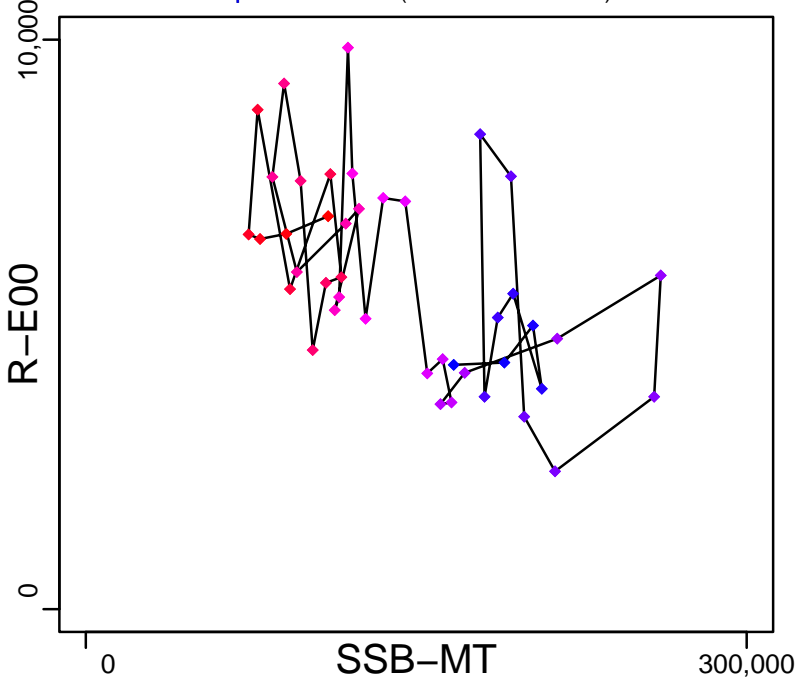
Kobe MSYpref (1954–2018–PONS)



Kobe MGTpref (1954–2018–PONS)



Spawner Recruit (1954–2016–PONS)



Production*



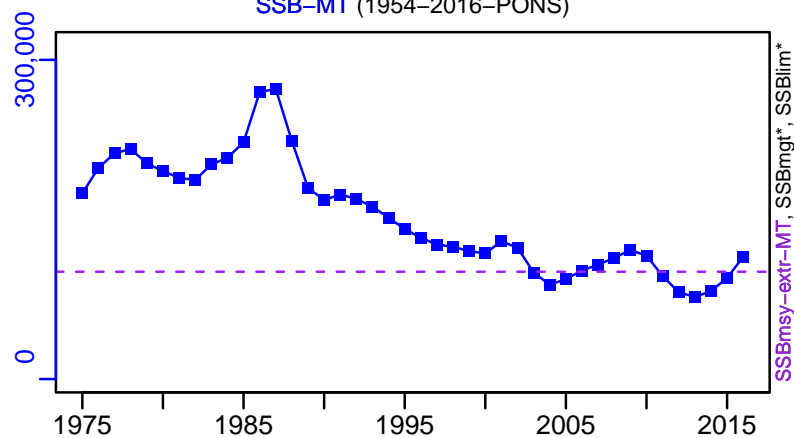
◆ Start Year ◆ End Year * No Data

Bigeye tuna Eastern Pacific [BIGEYEEPAC]

TB*



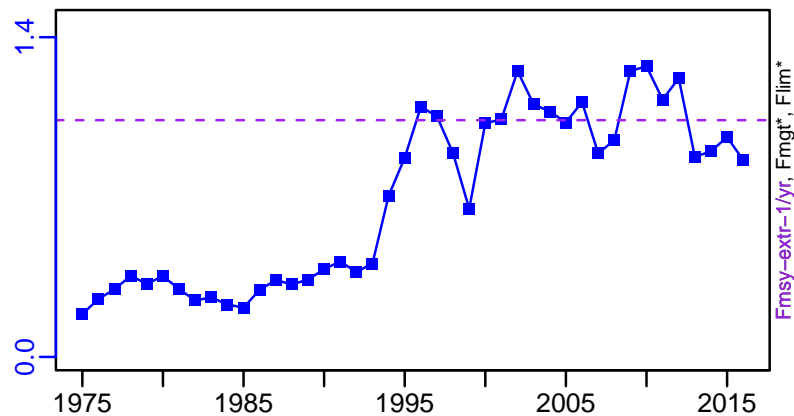
SSB-MT (1954–2016–PONS)



TN *



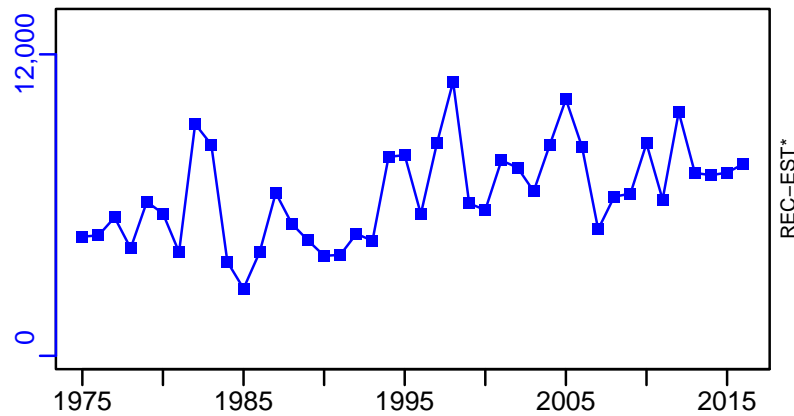
F-1/yr (1954–2016–PONS)



ER*

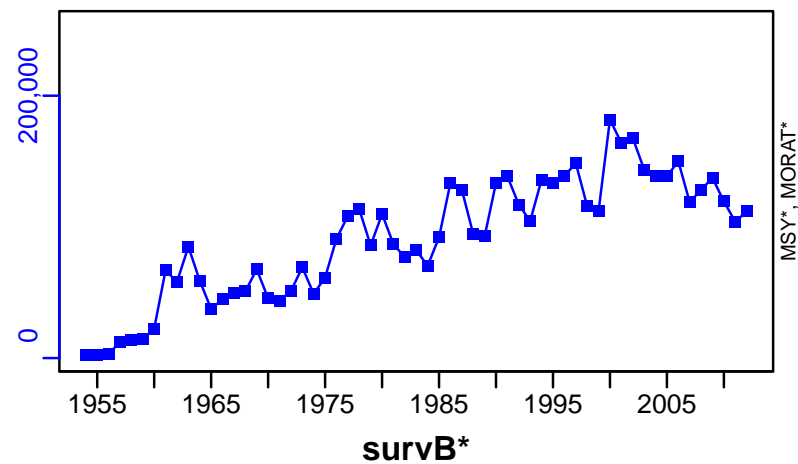


R-E00 (1954–2016–PONS)



Bigeye tuna Eastern Pacific [BIGEYEEPAC]

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



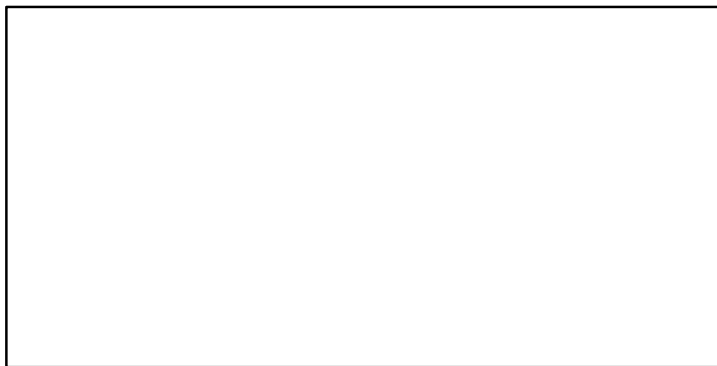
TAC*, Cpair*, Cadv*



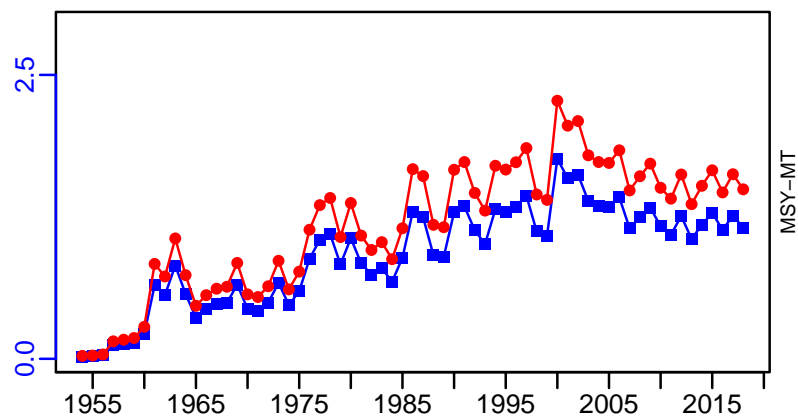
CPUE*



EFFORT*



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



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

Blue shark North Pacific [BLSHARNPAC]

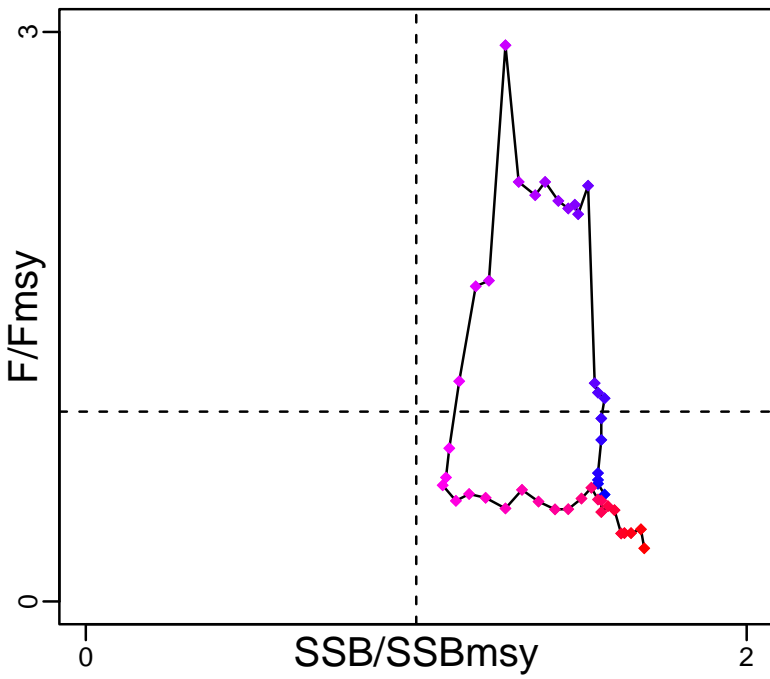
Metadata	
Scientific Name	Prionace glauca
Current Assess ID	SPC-BLSHARNPAC-1970-2015-SMITH
Area	North Pacific
Management Authority	Western and Central Pacific Fisheries Commission
Assessor	Secretariat of the Pacific Community
Asmts in RAM	2015, 2012

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2012	320,547
SSBmsy	SSBmsy-extr-MT	2015	190,412
Fmsy	Fmsy-extr-1/yr	2015	0.359
ERmsy	ERmsy-ratio	2012	0.225
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2012	593,707
MSY	MSY-MT	2012	72,123
M	M-1/yr	2012	0.135
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

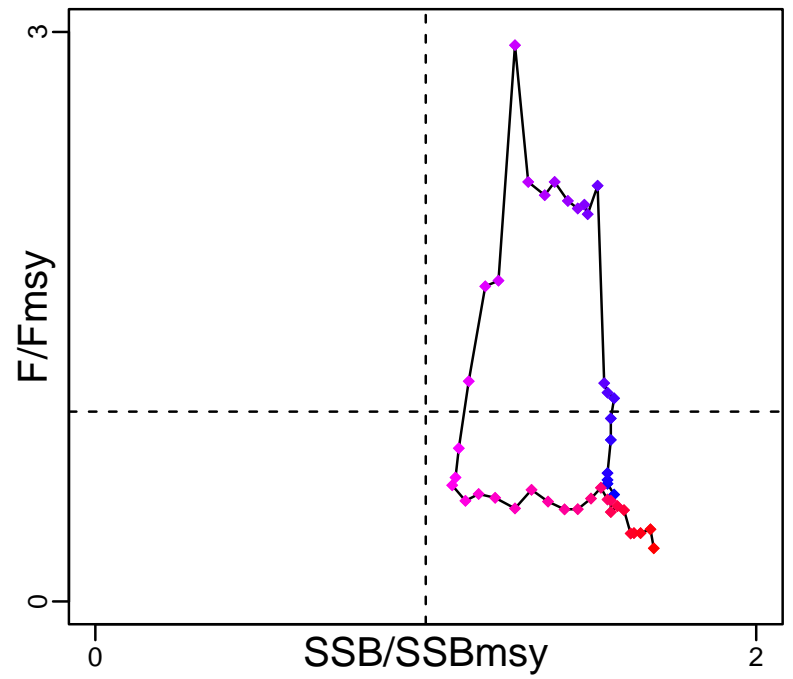
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2015	295,774	-	-
TN	-	-	-	-	-
R	R-E00	2012	30,100,000	Both	0
F	F-1/yr	2015	0.1	-	-
ER	-	-	-	-	-
TC	TC-MT	2015	37,300		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2015	1.69		
F/Fmsy	FdivFmsy-dimensionless	2015	0.28		
ER/ERmsy	ERdivERmsy-dimensionless	2012	0.358		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Blue shark North Pacific [BLSHARNPAC]

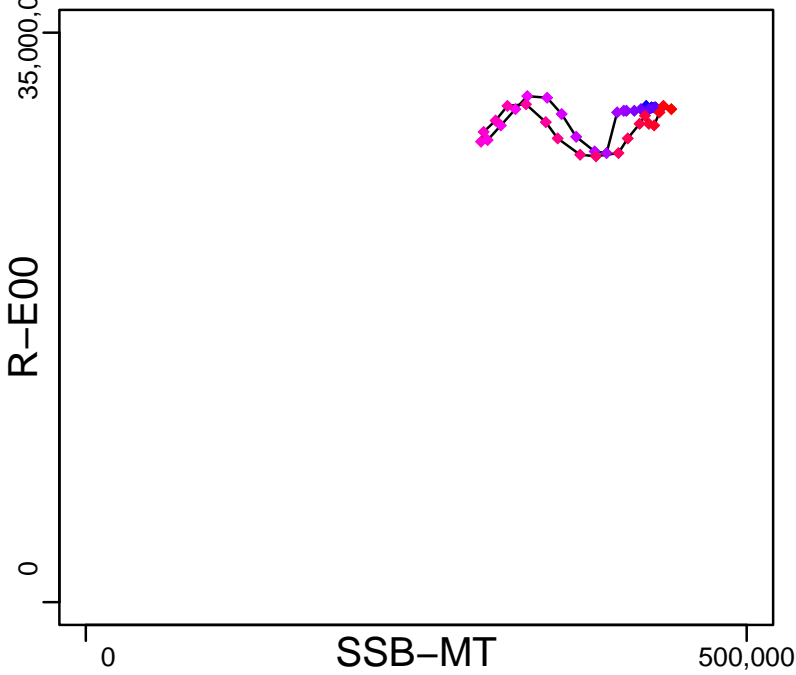
Kobe MSYpref (1970–2015–SMITH)



Kobe MGTpref (1970–2015–SMITH)



Spawner Recruit (1971–2012–ASHBROOK)



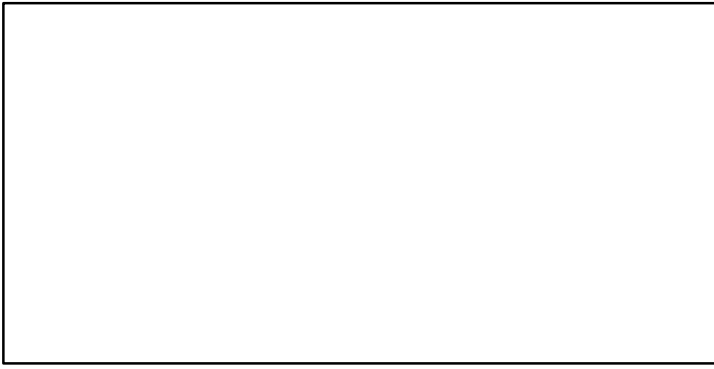
Production*



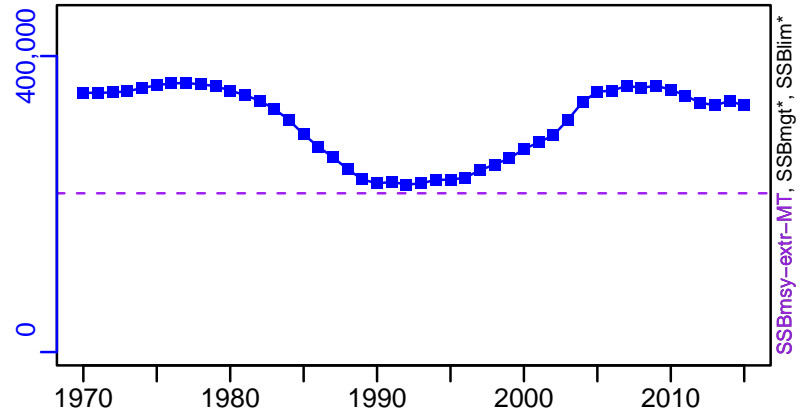
◆ Start Year ◆ End Year * No Data

Blue shark North Pacific [BLSHARNPAC]

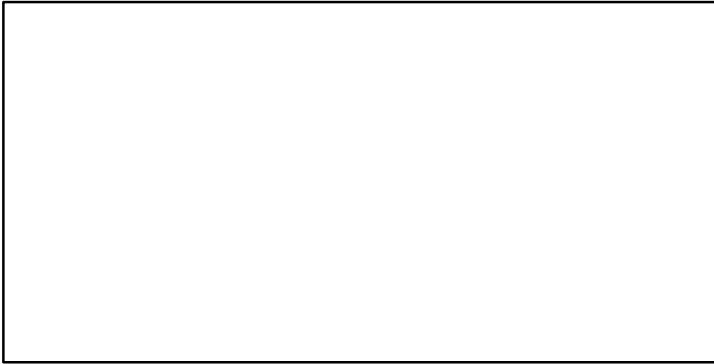
TB*



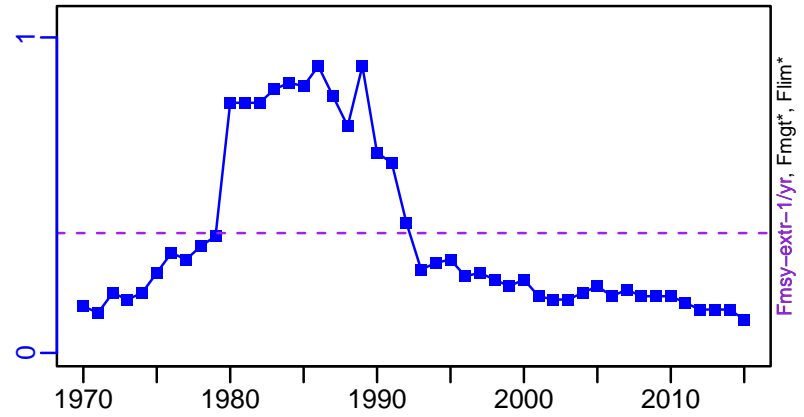
SSB-MT (1970-2015-SMITH)



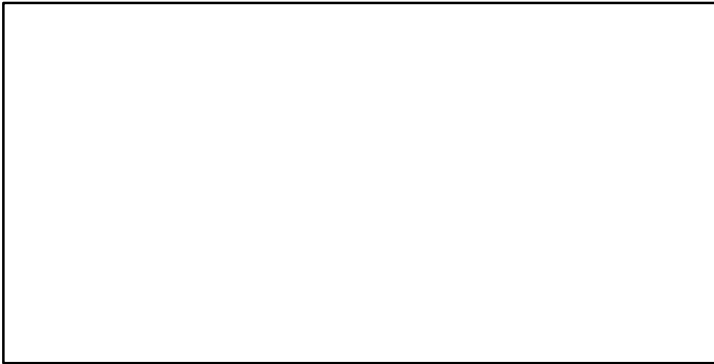
TN *



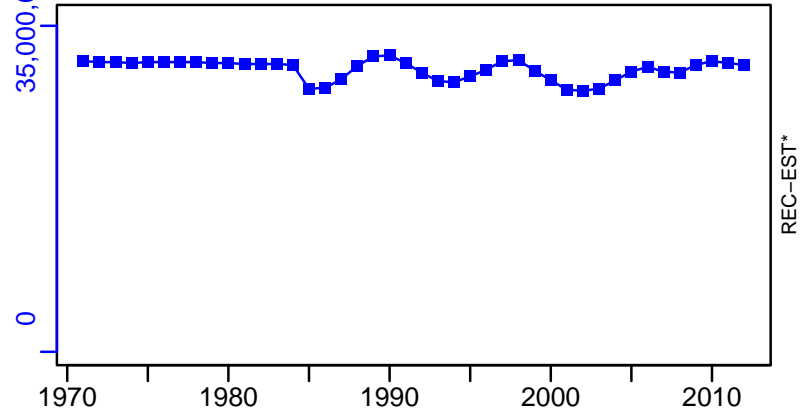
F-1/yr (1970-2015-SMITH)



ER*



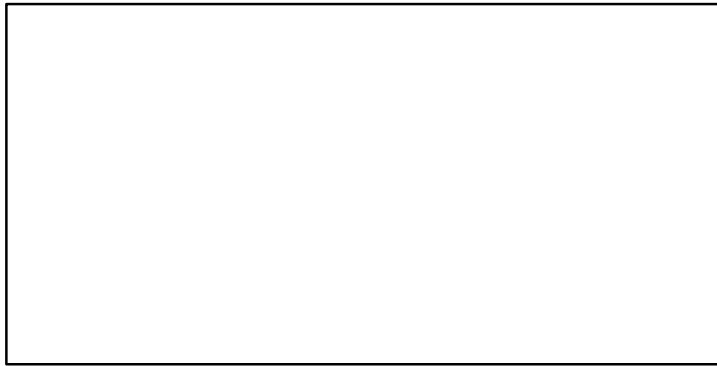
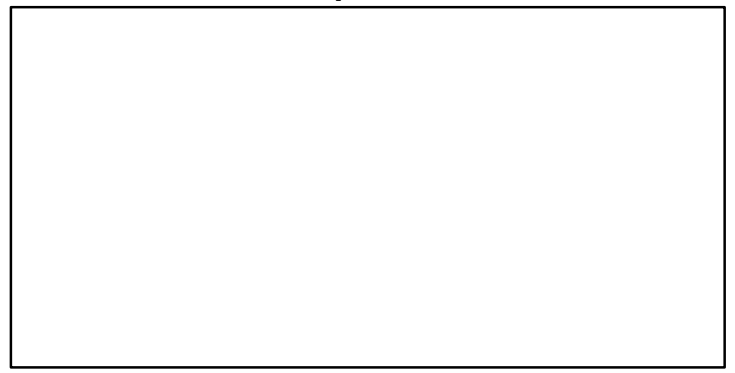
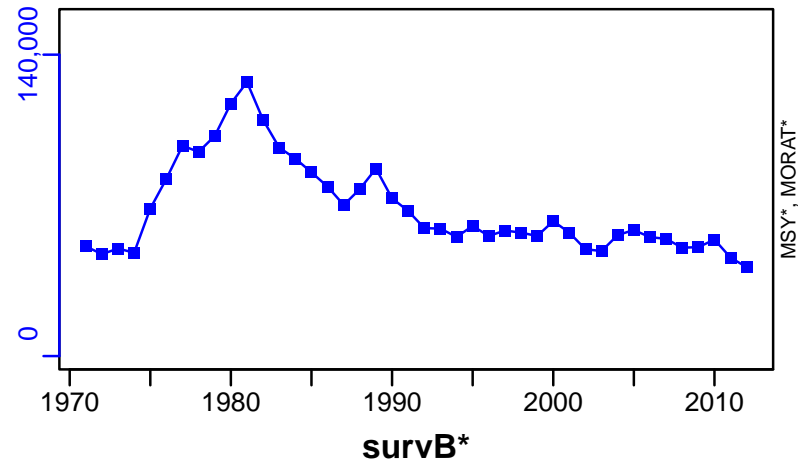
R-E00 (1971-2012-ASHBROOK)



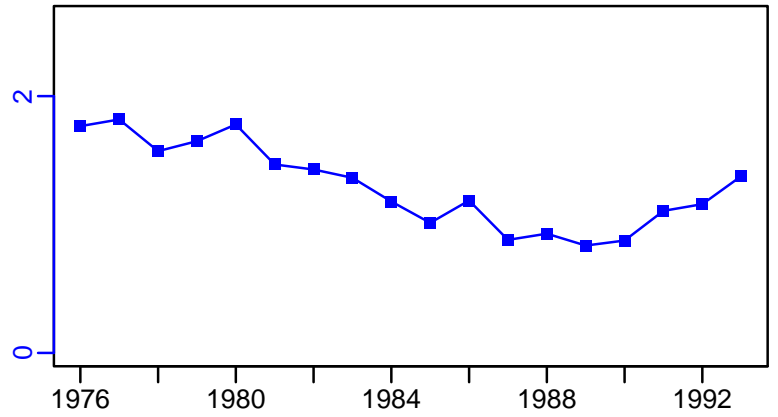
Blue shark North Pacific [BLSHARNPAC]

TC-MT, TL*, RecC* (1970-2015-SMITH)

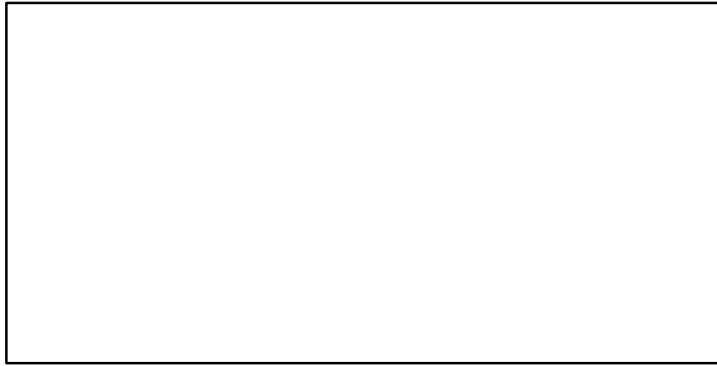
TAC*, Cpair*, Cadv*



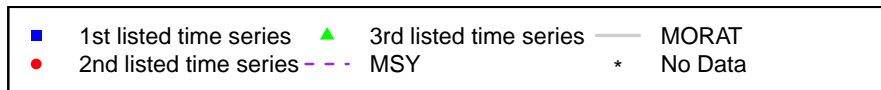
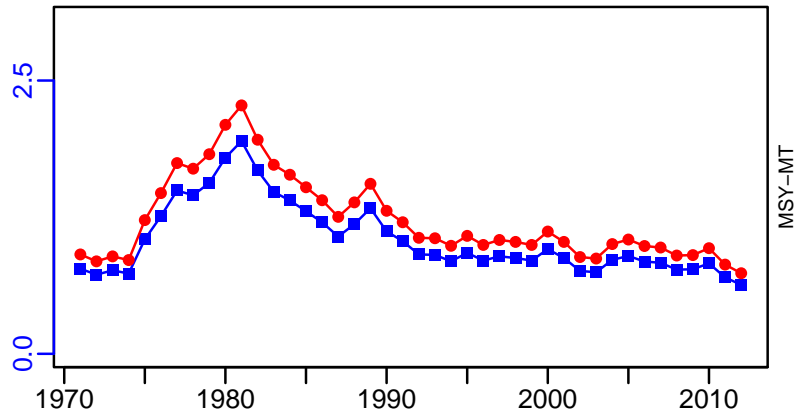
CPUE-1-index (1971-2012-ASHBROOK)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1971-2012-ASHBROOK)



Blue marlin Pacific Ocean [BMARLINPAC]

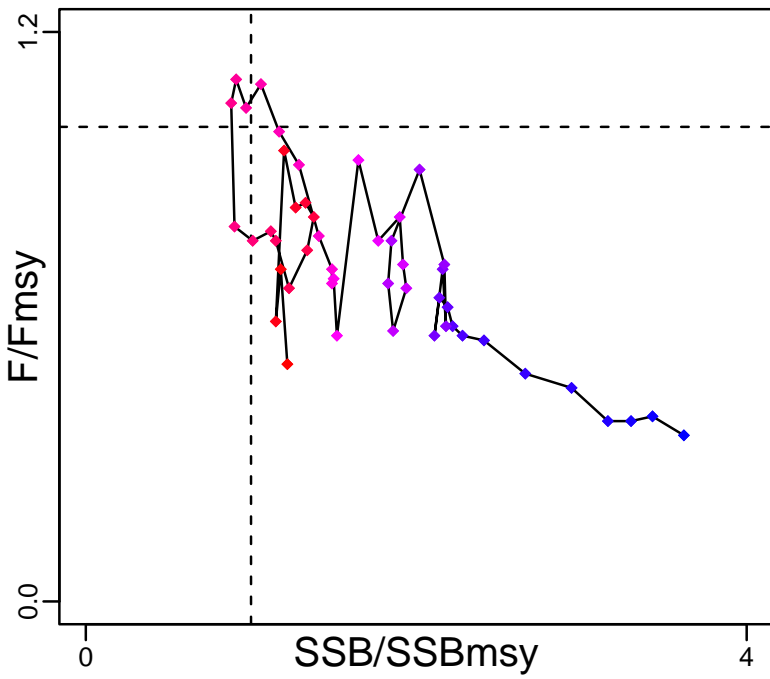
Metadata	
Scientific Name	Makaira nigricans
Current Assess ID	ISC-BMARLINPAC-1971-2019-LAWSON
Area	Pacific Ocean
Management Authority	International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean
Assessor	International Scientific Committee for Tuna and Tuna-like Species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

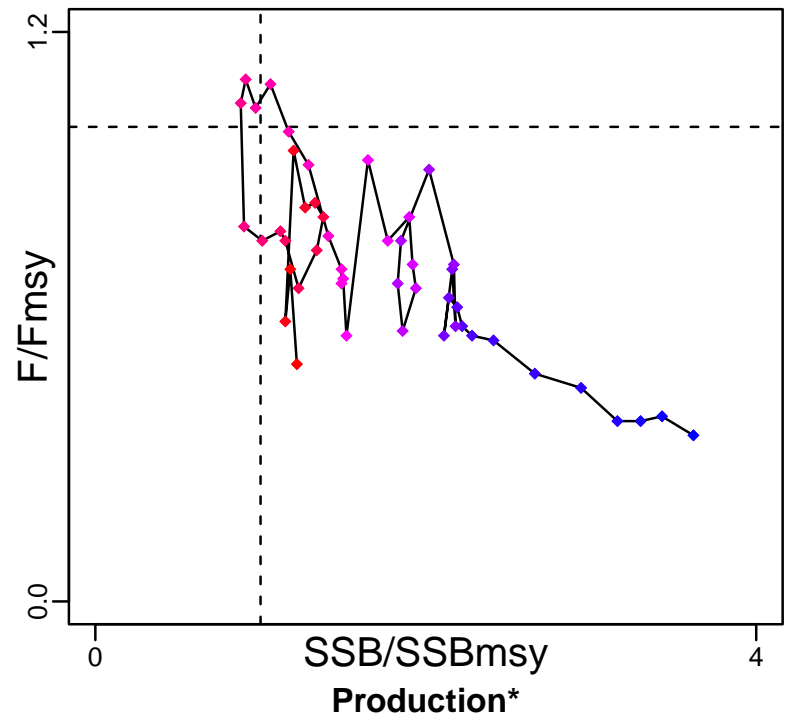
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2019	24,241	Females	-
TN	-	-	-	-	-
R	R-E00	2019	880,000	-	-
F	F-1/yr	2019	0.11	-	-
ER	-	-	-	-	-
TC	TC-MT	2019	16,504		
TL	TL-MT	2014	20,356		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2019	1.22		
F/Fmsy	FdivFmsy-dimensionless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

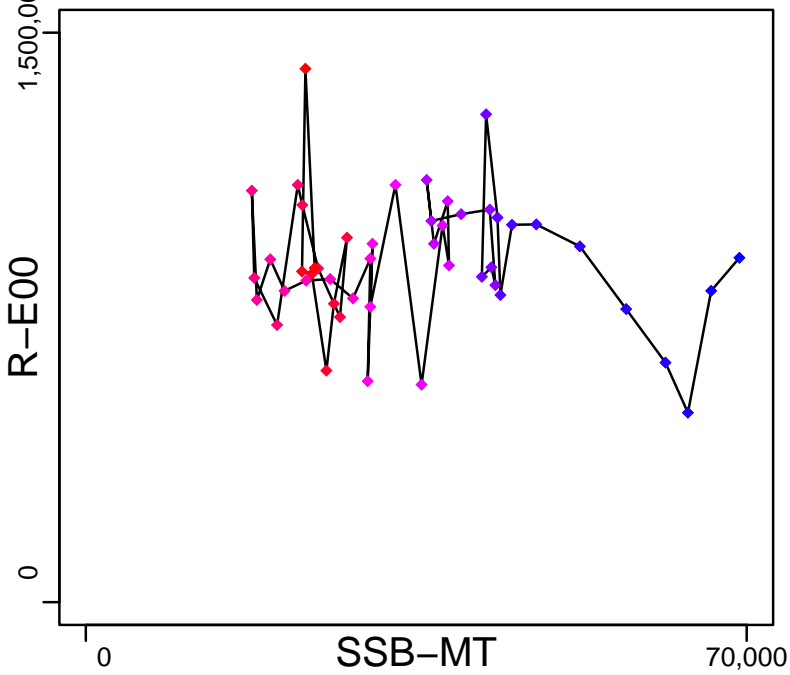
Kobe MSYpref (1971–2019–LAWSON)



Kobe MGTpref (1971–2019–LAWSON)



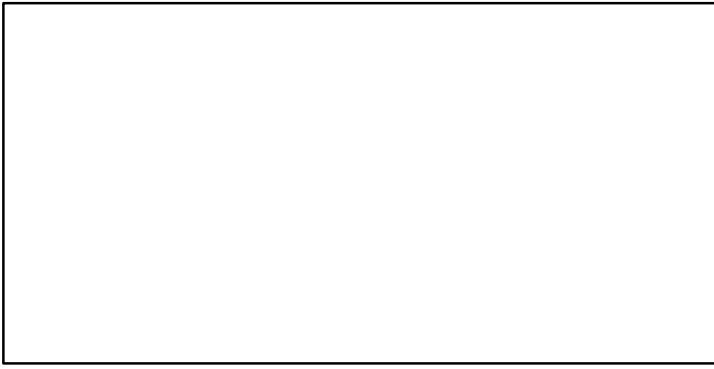
Spawner Recruit (1971–2019–LAWSON)



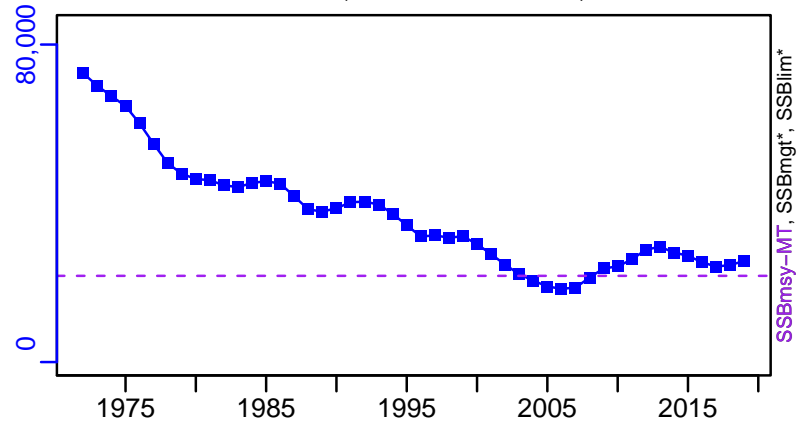
◆ Start Year ◆ End Year * No Data

Blue marlin Pacific Ocean [BMARLINPAC]

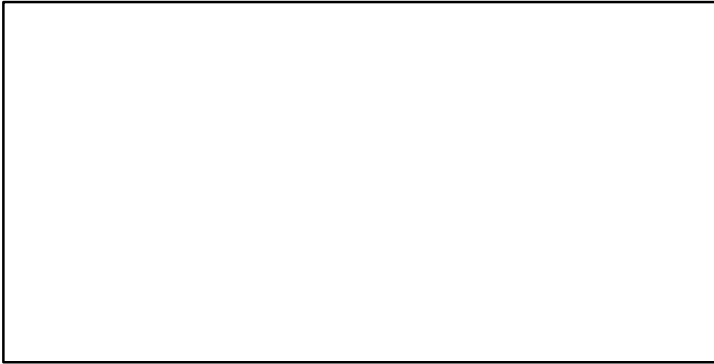
TB*



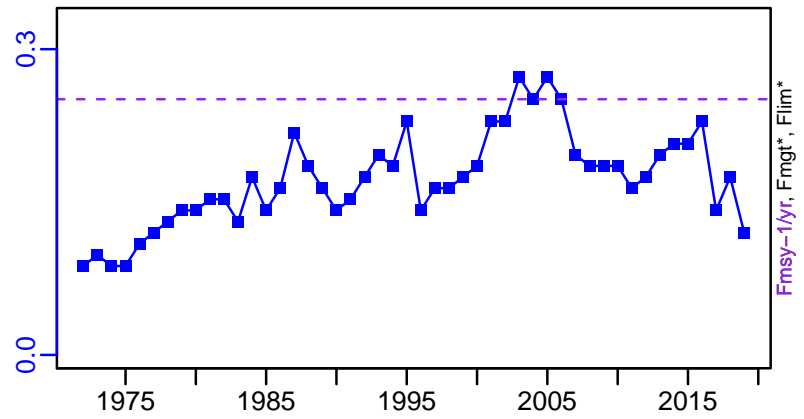
SSB-MT (1971-2019-LAWSON)



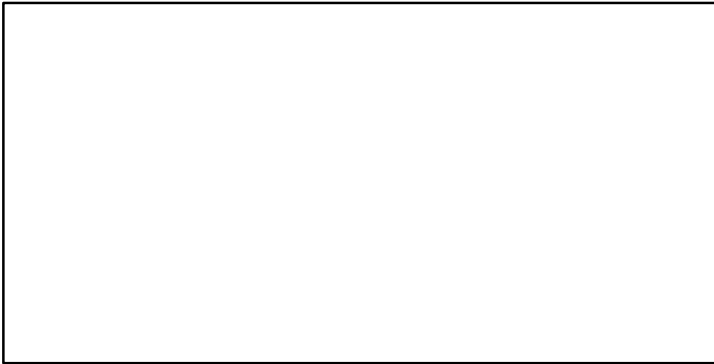
TN *



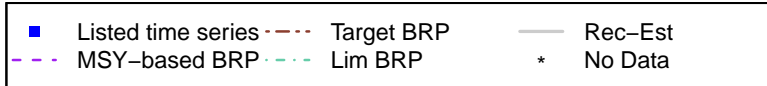
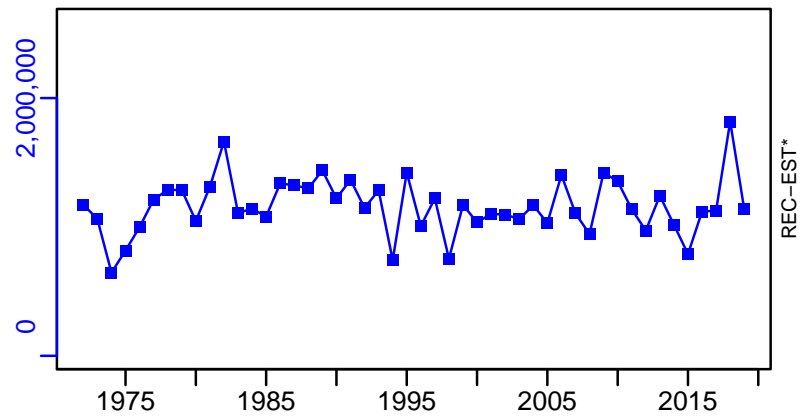
F-1/yr (1971-2019-LAWSON)



ER*

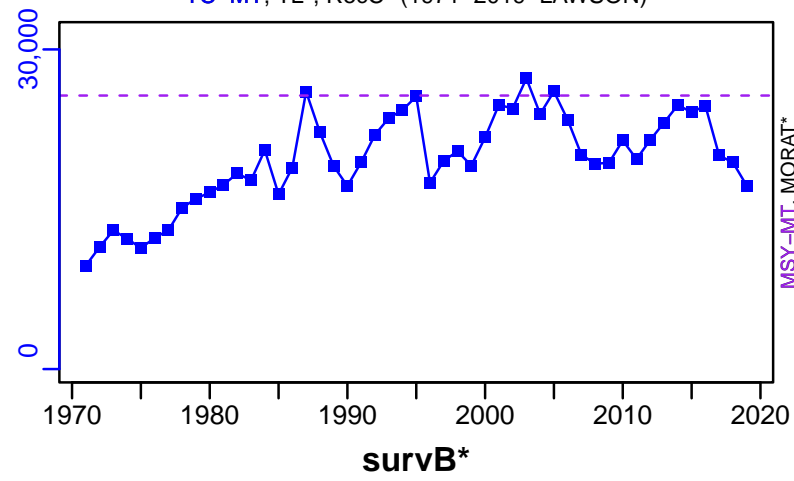


R-E00 (1971-2019-LAWSON)



Blue marlin Pacific Ocean [BMARLINPAC]

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



TAC*, Cpair*, Cadv*



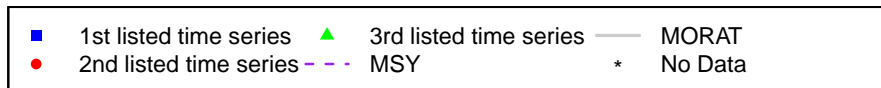
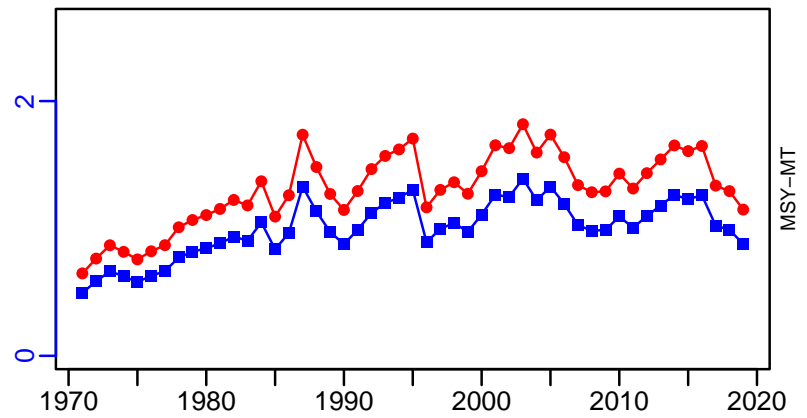
CPUE*



EFFORT*



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



Oceanic whitetip shark Central Western Pacific Ocean [OWSHARCWPAC]

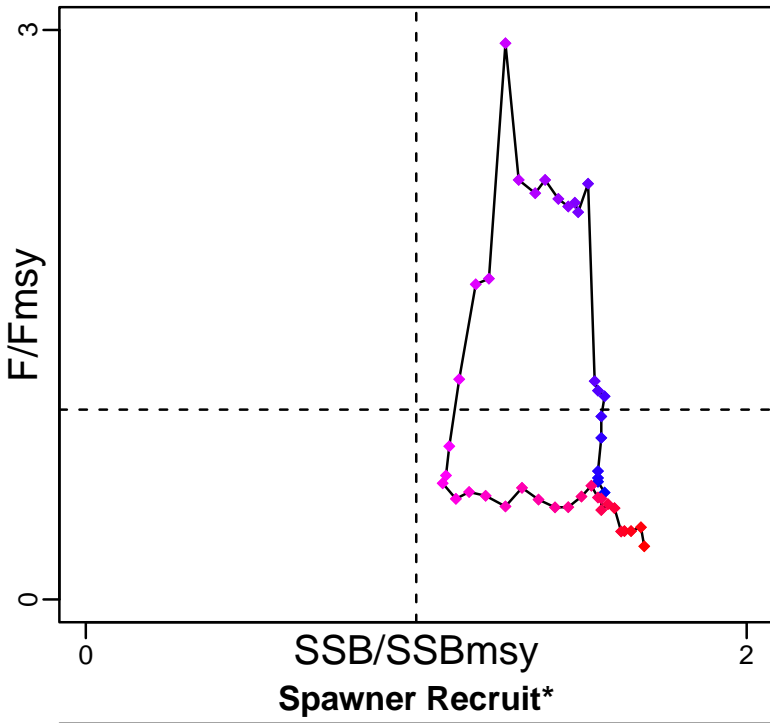
Metadata	
Scientific Name	Carcharhinus longimanus
Current Assess ID	SPC-OWSHARCWPAC-1970-2016-SMITH
Area	Central Western Pacific Ocean
Management Authority	Western and Central Pacific Fisheries Commission
Assessor	Secretariat of the Pacific Community
Asmts in RAM	2016

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-extr-MT	2016	190,412
Fmsy	Fmsy-extr-1/yr	2016	0.359
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2016	7055
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

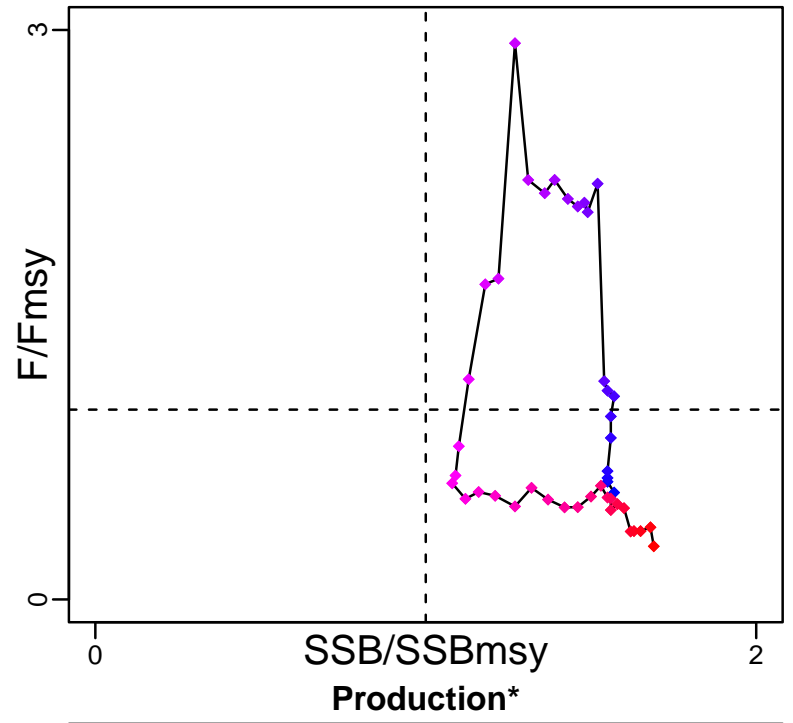
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2016	295,774	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	F-1/yr	2016	0.1	-	-
ER	-	-	-	-	-
TC	TC-MT	2016	2464		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2016	1.69		
F/Fmsy	FdivFmsy-dimensionless	2016	0.28		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Oceanic whitetip shark Central Western Pacific Ocean [OWSHARCWPAC]

Kobe MSYpref (1970–2016–SMITH)



Kobe MGTpref (1970–2016–SMITH)



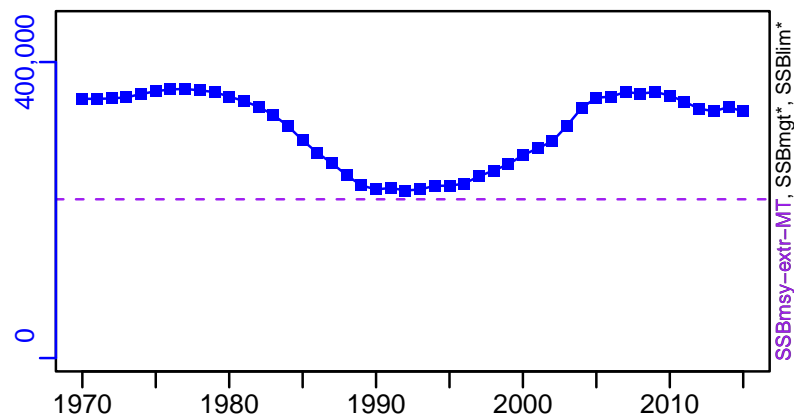
◆ Start Year ◆ End Year * No Data

Oceanic whitetip shark Central Western Pacific Ocean [OWSHARCWPAC]

TB*



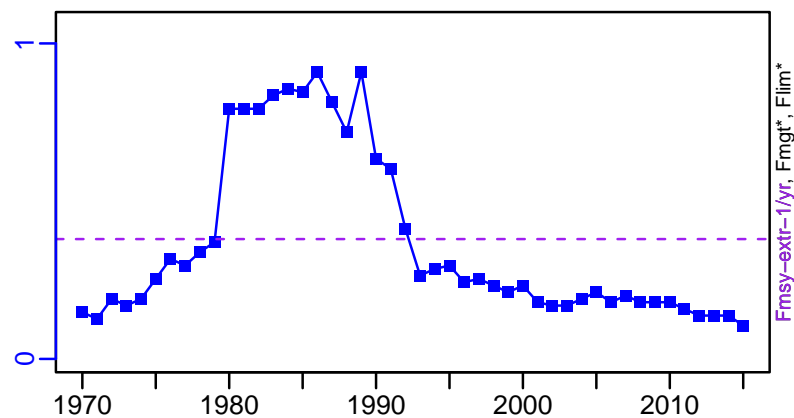
SSB-MT (1970–2016–SMITH)



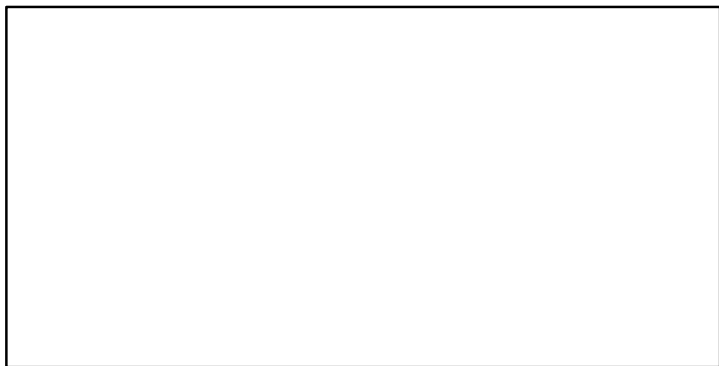
TN *



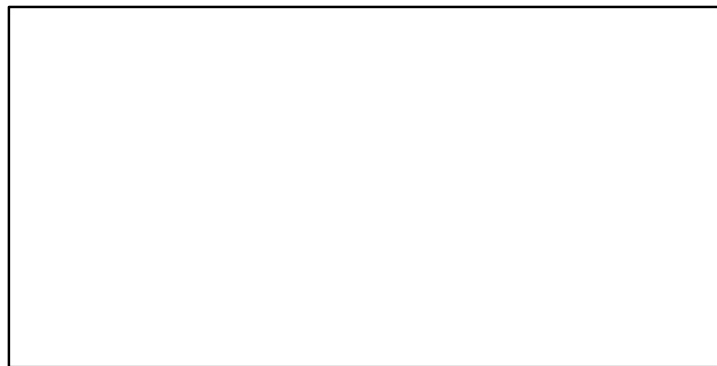
F-1/yr (1970–2016–SMITH)



ER*

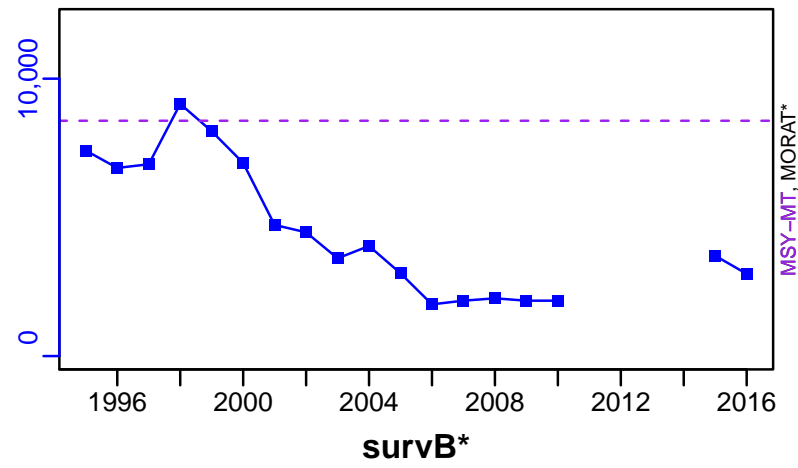


Recruits*



Oceanic whitetip shark Central Western Pacific Ocean [OWSHARCWPAC]

TC-MT, TL*, RecC* (1970–2016–SMITH)



TAC*, Cpair*, Cadv*



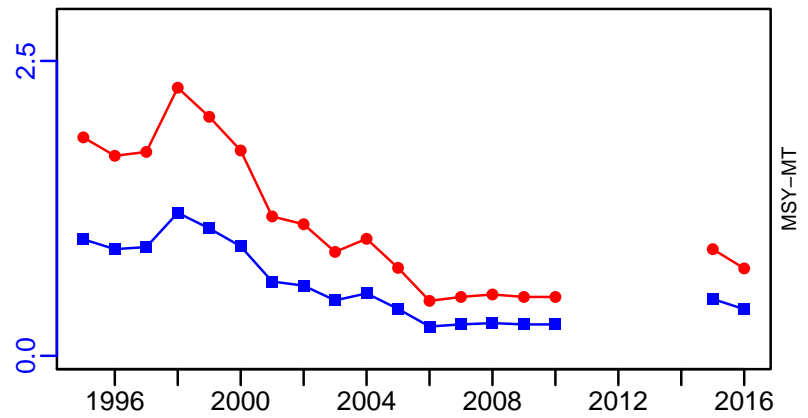
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1970–2016–SMITH)



Pacific bluefin tuna Pacific Ocean [PACBTUNA]

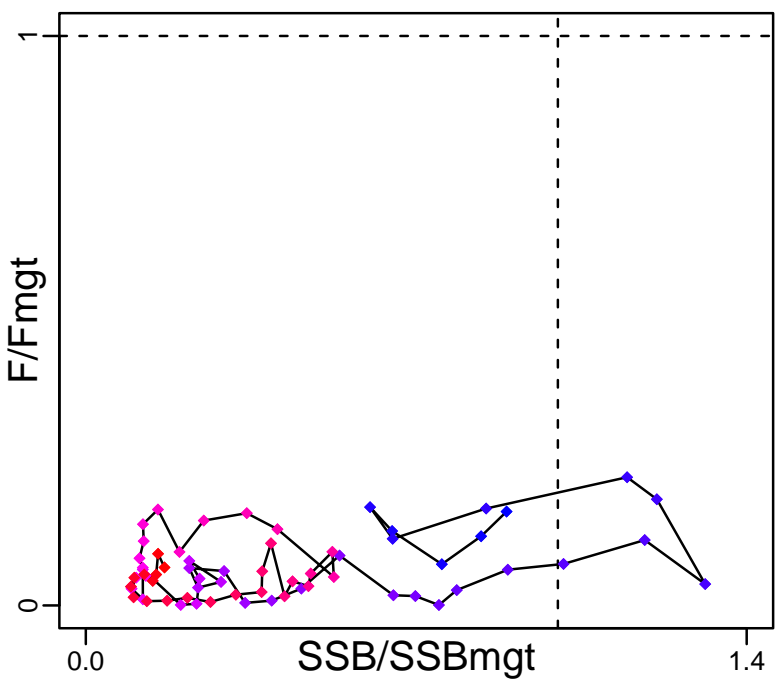
Metadata	
Scientific Name	Thunnus orientalis
Current Assess ID	ISC-PACBTUNA-1952-2020-LAWSON
Area	Pacific Ocean
Management Authority	International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean
Assessor	International Scientific Committee for Tuna and Tuna-like Species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

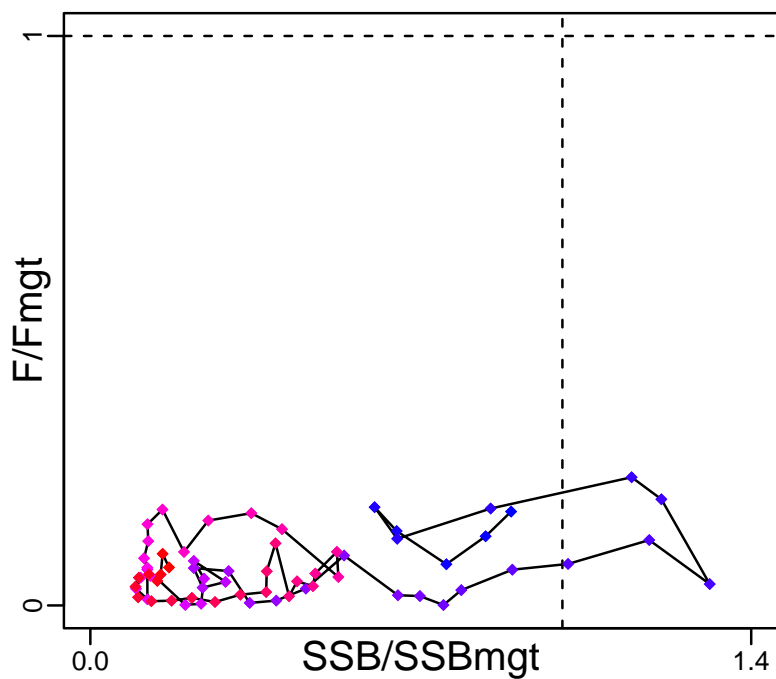
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2020	82,212	-	-
SSB	SSB-MT	2020	28,228	-	-
TN	-	-	-	-	-
R	R-E00	2020	4,658,000	-	-
F	F-1/yr	2020	0.045	-	-
ER	ER-calc-ratio	2020	0.124	-	-
TC	TC-MT	2020	13,779		
TL	TL-MT	2018	7165		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2012	0.178		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	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]

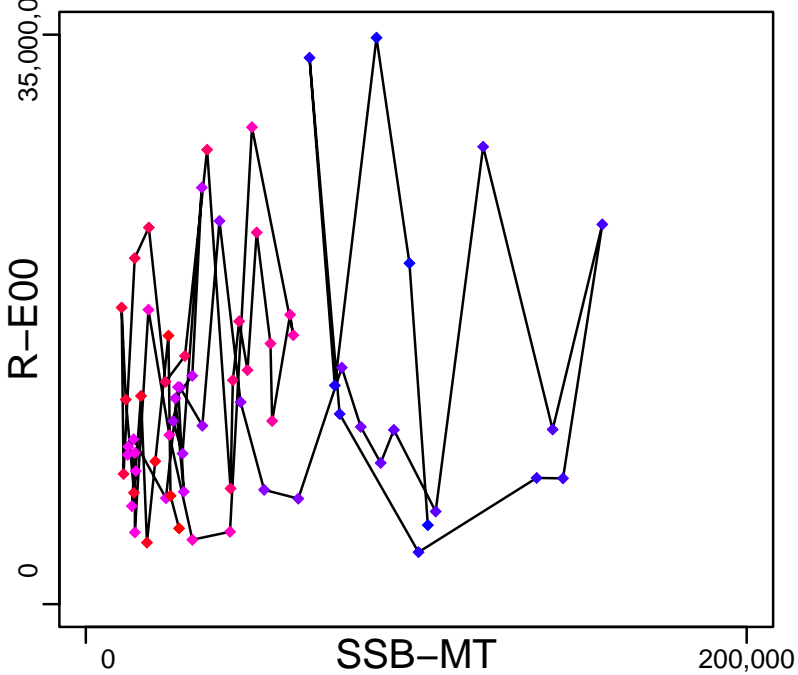
Kobe MSYpref (1950–2018–PONS)



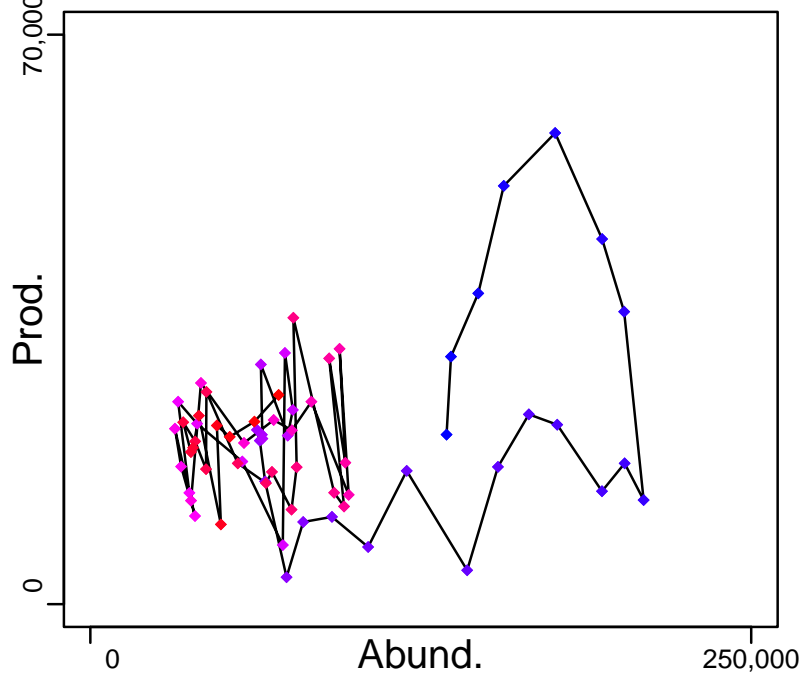
Kobe MGTpref (1950–2018–PONS)



Spawner Recruit (1952–2020–LAWSON)



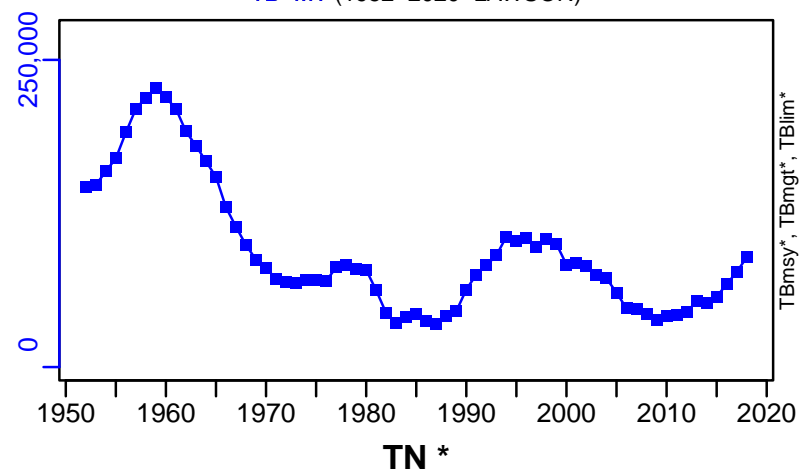
Production (1952–2020–LAWSON)



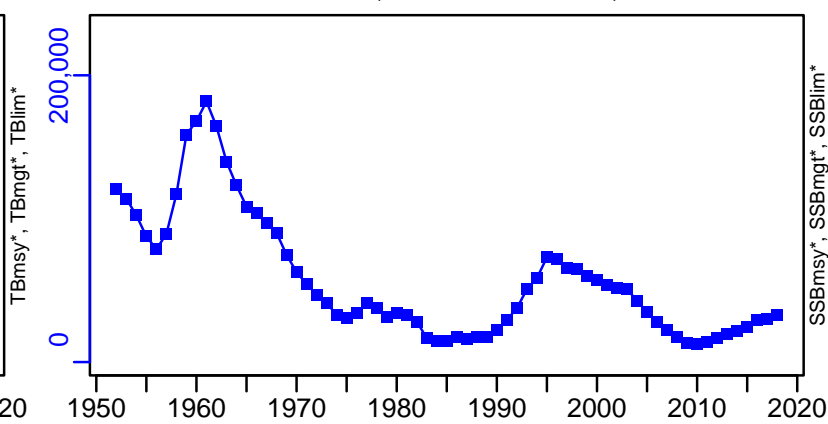
◆ Start Year ◆ End Year * No Data

Pacific bluefin tuna Pacific Ocean [PACBTUNA]

TB-MT (1952-2020-LAWSON)



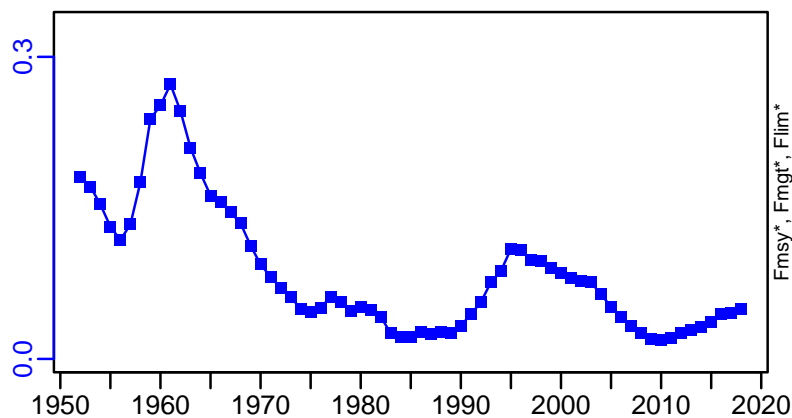
SSB-MT (1952-2020-LAWSON)



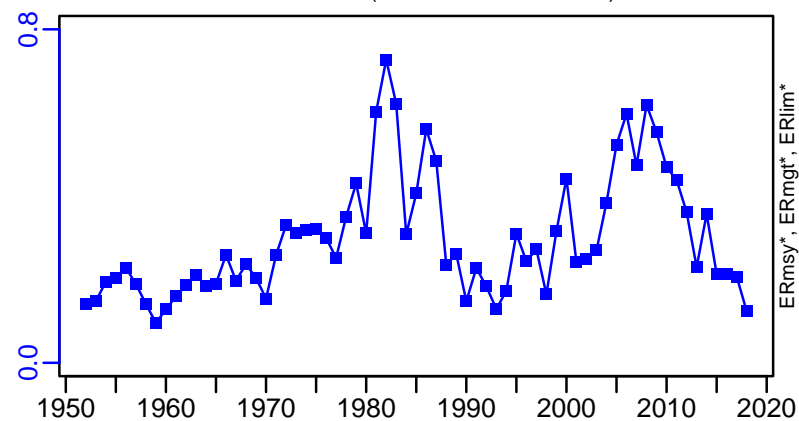
TN *



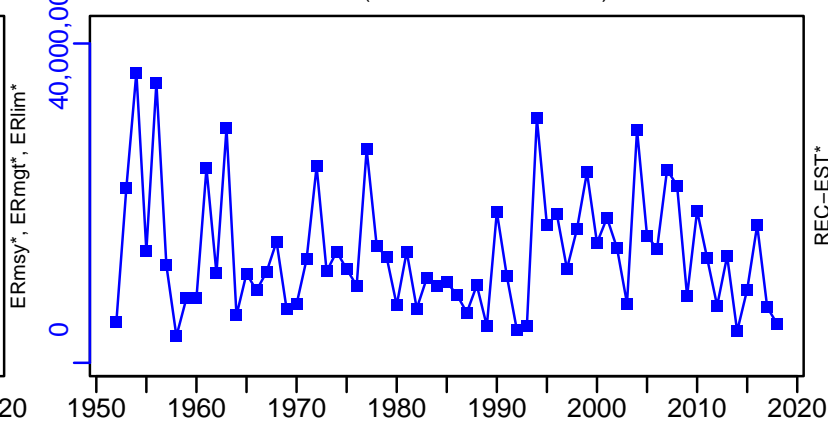
F-1/yr (1952-2020-LAWSON)



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

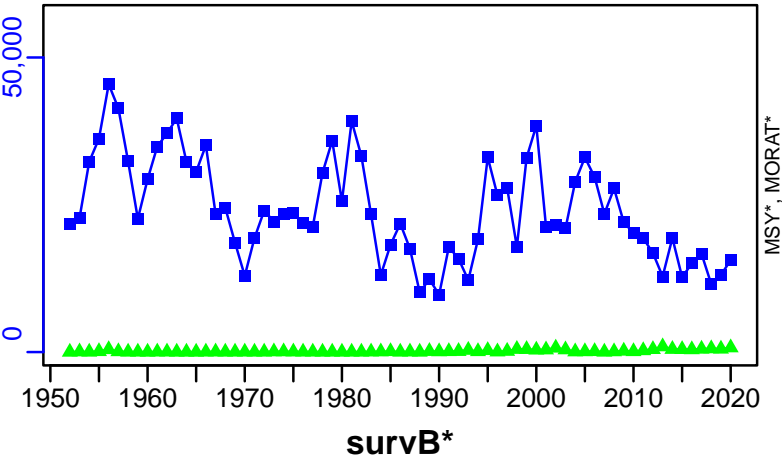


R-E00 (1952-2020-LAWSON)



Pacific bluefin tuna Pacific Ocean [PACBTUNA]

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



TAC*, Cpair*, Cadv*



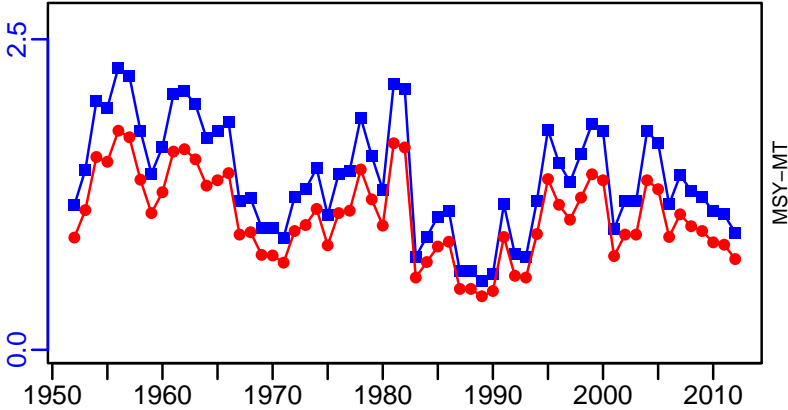
CPUE*



EFFORT*



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



Shortfin mako North Pacific [SFMAKONPAC]

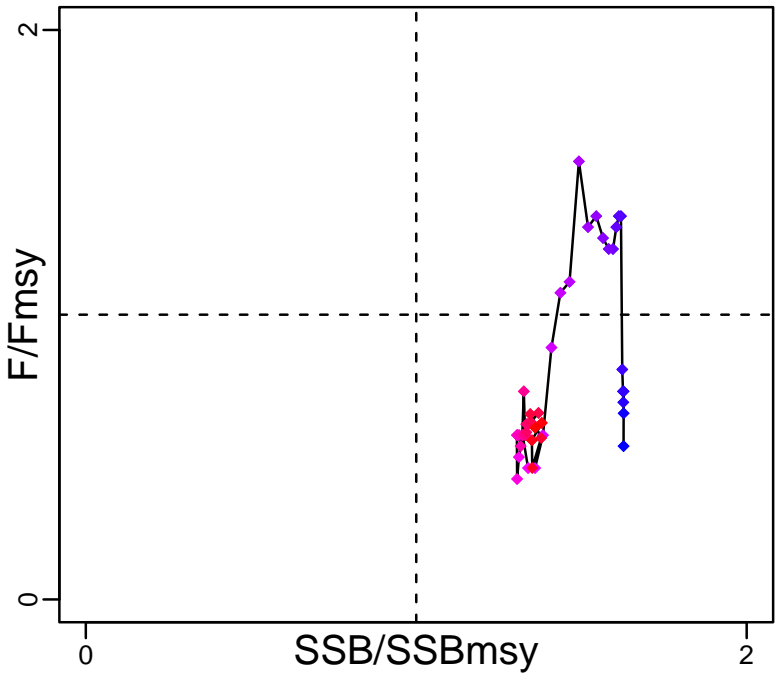
Metadata	
Scientific Name	Isurus oxyrinchus
Current Assess ID	SPC-SFMAKONPAC-1975-2016-SMITH
Area	North Pacific
Management Authority	Western and Central Pacific Fisheries Commission
Assessor	Secretariat of the Pacific Community
Asmts in RAM	2007, 2016

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-E00	2007	633,700
Fmsy	Fmsy-extr-1/yr	2016	0.263
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2016	3127
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

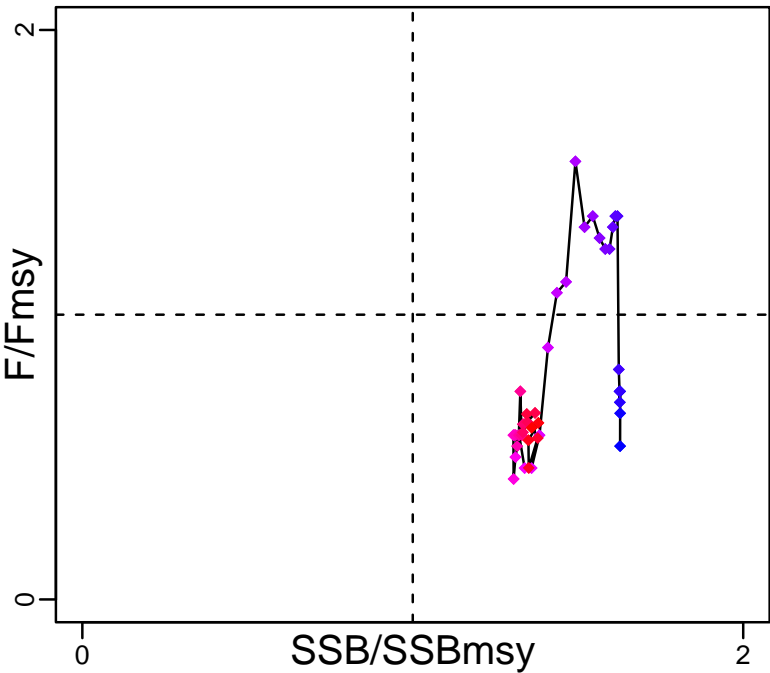
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-E00	2016	859,000	-	-
TN	-	-	-	-	-
R	R-E00	2007	1,020,600	-	0
F	F-1/yr	2016	0.145	-	-
ER	-	-	-	-	-
TC	TC-MT	2016	2360		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2016	1.36		
F/Fmsy	FdivFmsy-dimensionless	2016	0.603		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Shortfin mako North Pacific [SFMAKONPAC]

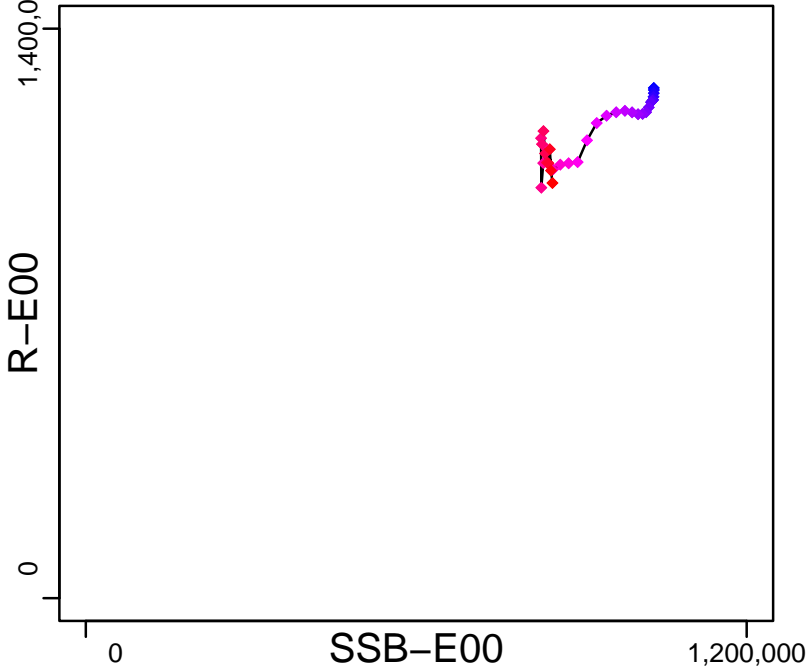
Kobe MSYpref (1975–2016–SMITH)



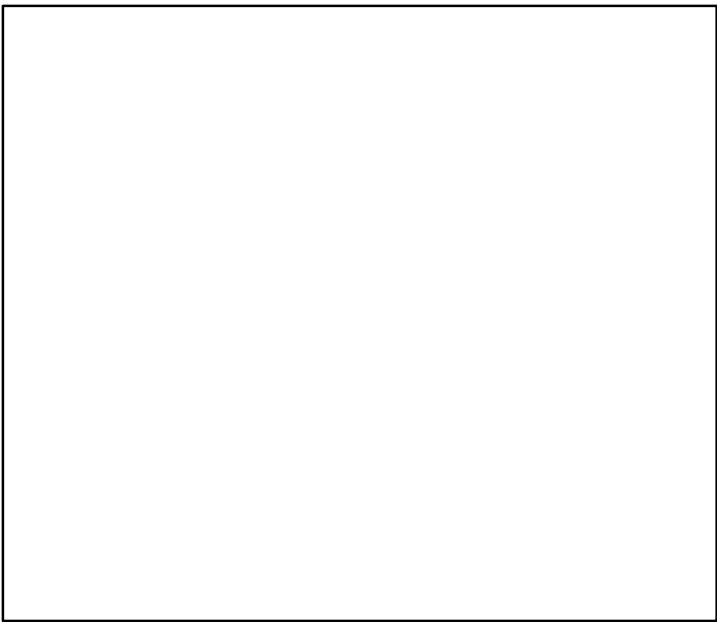
Kobe MGTpref (1975–2016–SMITH)



Spawner Recruit (1975–2007–SISIMP2021)



Production*



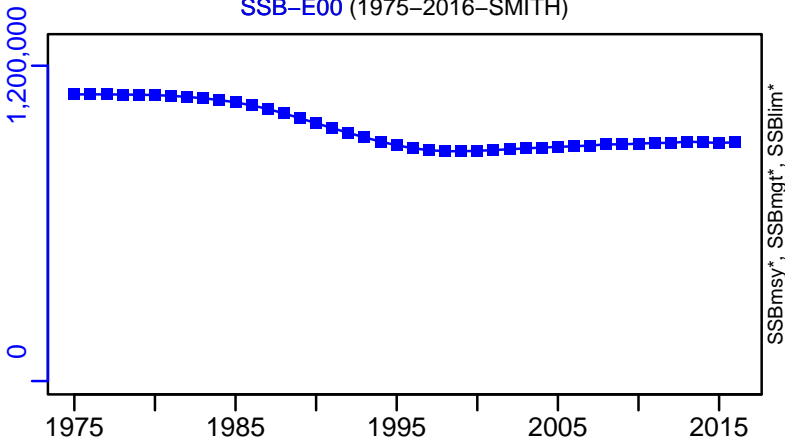
◆ Start Year ◆ End Year * No Data

Shortfin mako North Pacific [SFMAKONPAC]

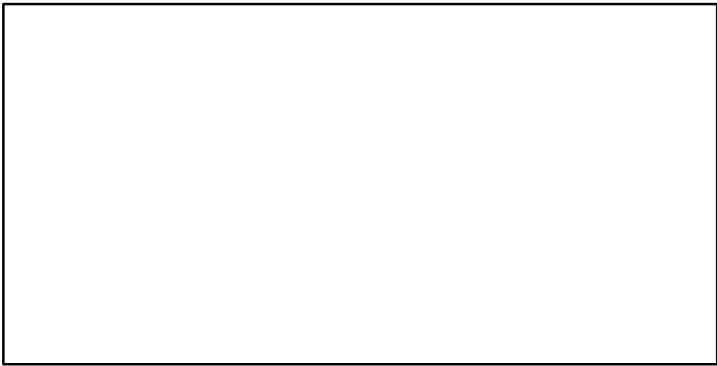
TB*



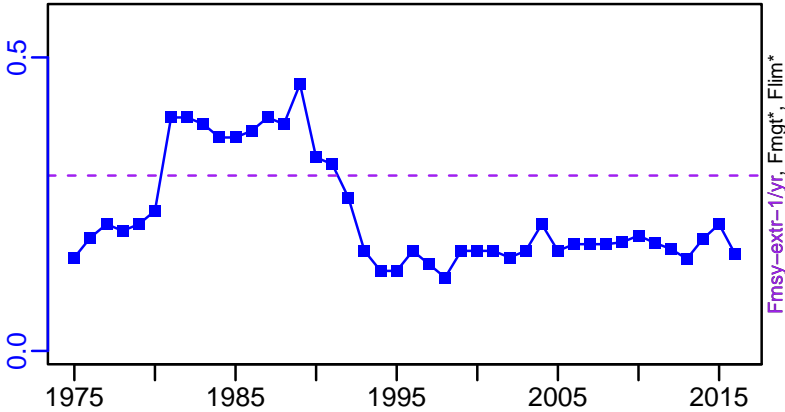
SSB-E00 (1975–2016–SMITH)



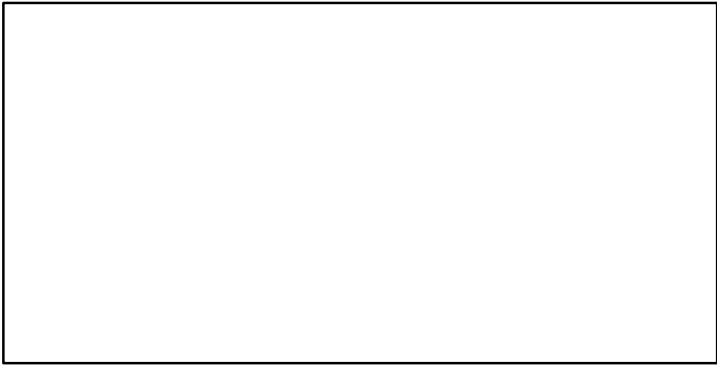
TN *



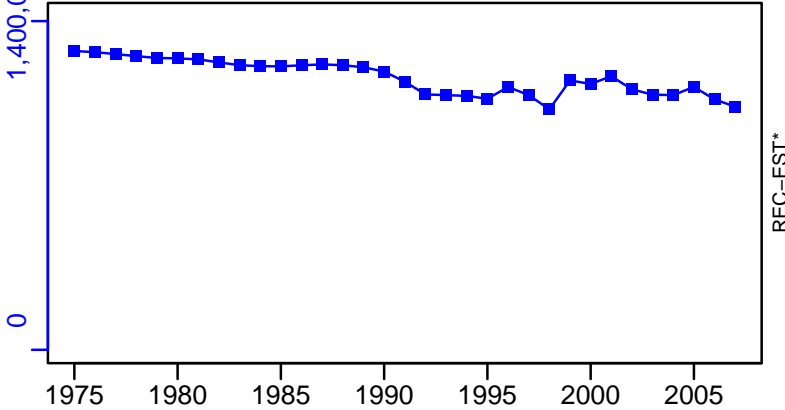
F-1/yr (1975–2016–SMITH)



ER*

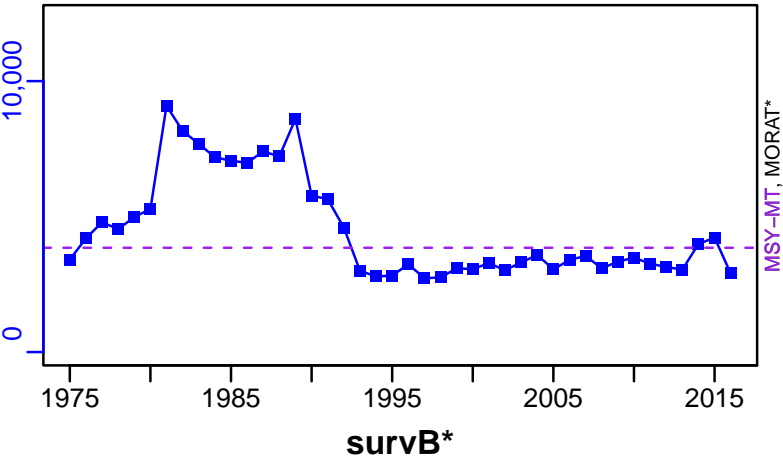


R-E00 (1975–2007–SISIMP2021)



Shortfin mako North Pacific [SFMKONPAC]

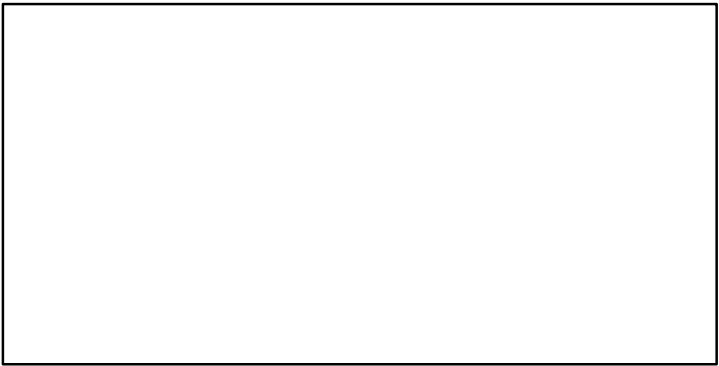
TC-MT, TL*, RecC* (1975-2016-SMITH)



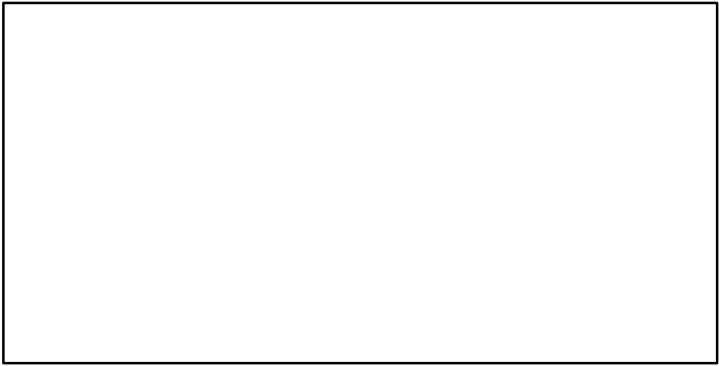
TAC*, Cpair*, Cadv*



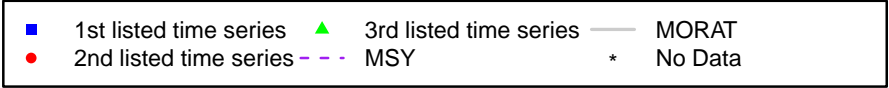
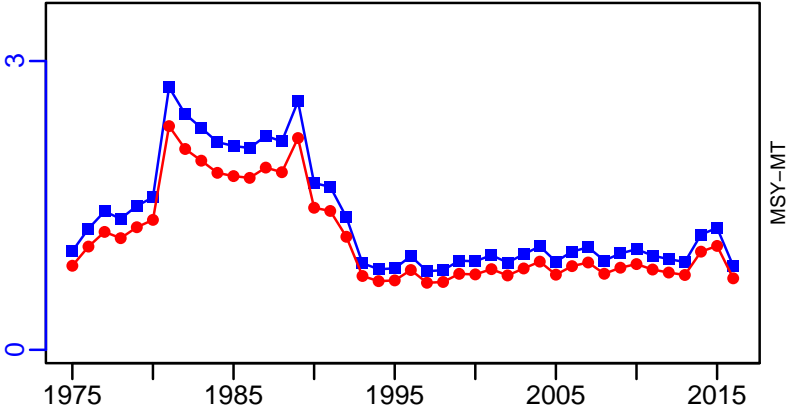
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1975-2016-SMITH)



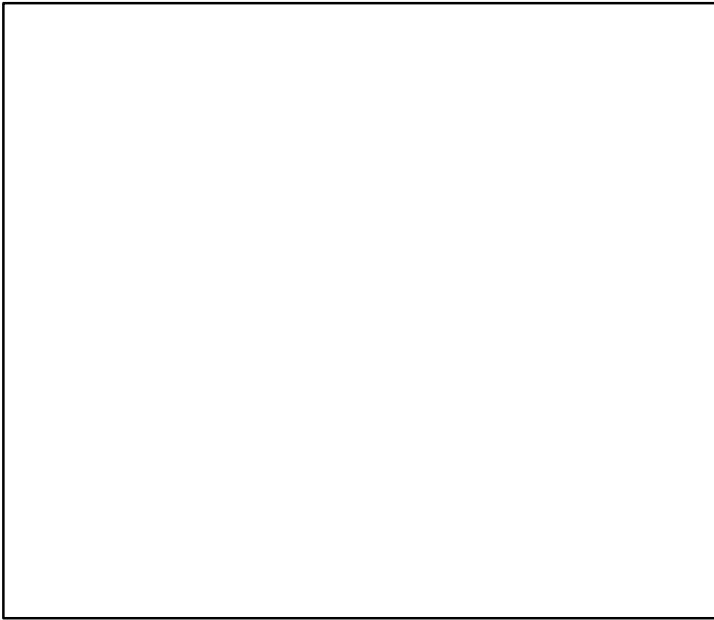
Shortfin mako Northwest Pacific Ocean [SFMAKONWPAC]

Metadata	
Scientific Name	Isurus oxyrinchus
Current Assess ID	IMARM-SFMAKONWPAC-1990-2003-FAUCONNET
Area	Nothwest Pacific Ocean
Management Authority	Unknown management body
Assessor	Institute of Marine Affairs and Resource Management - National Taiwan Ocean University, 2 Pei-Ning Road, Keelung 20224, Taiwan
Asmts in RAM	2003

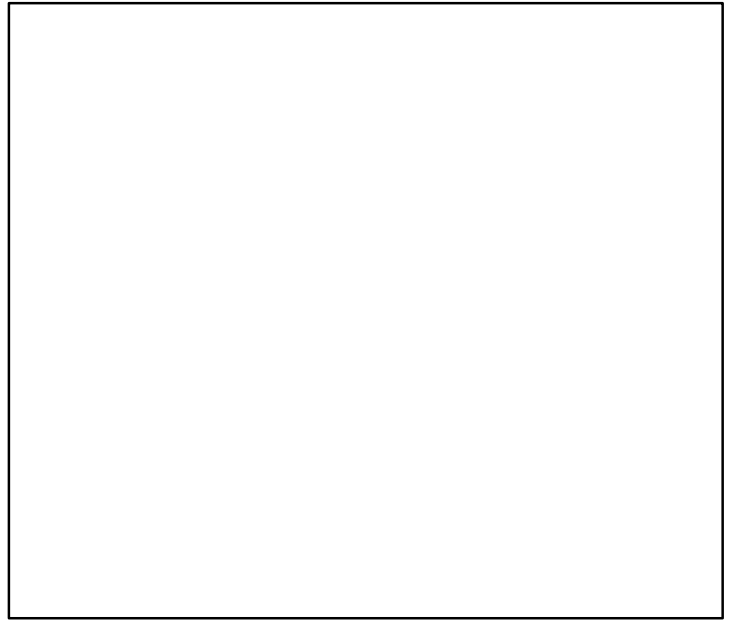
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	F-female-1/yr	2003	0.09	-	0 to 22
ER	-	-	-	-	-
TC	TC-E00	2003	13,000		
TL	TL-MT	2003	754		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

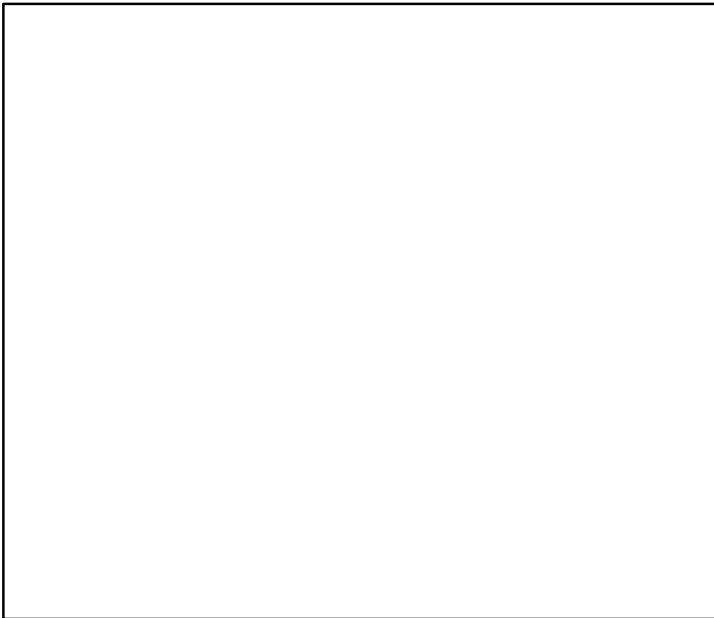
Kobe MSY*



Kobe MGT*



Spawner Recruit*



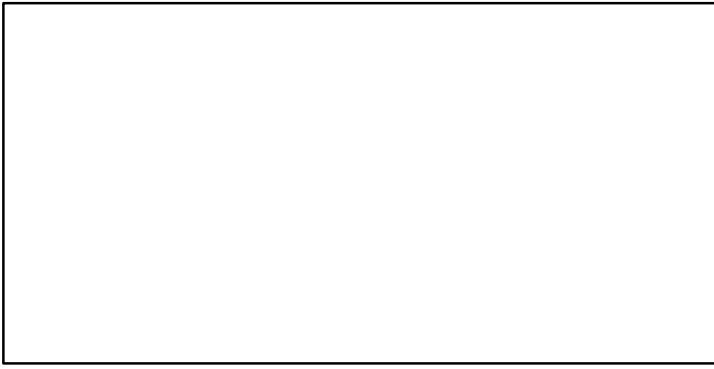
Production*



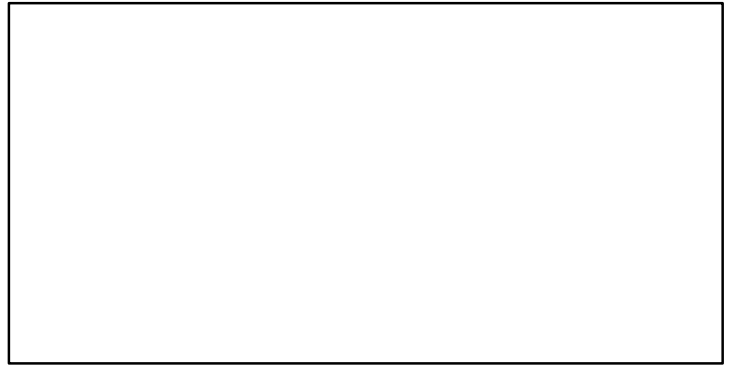
◆ Start Year ◆ End Year * No Data

Shortfin mako Northwest Pacific Ocean [SFMAKONWPAC]

TB*



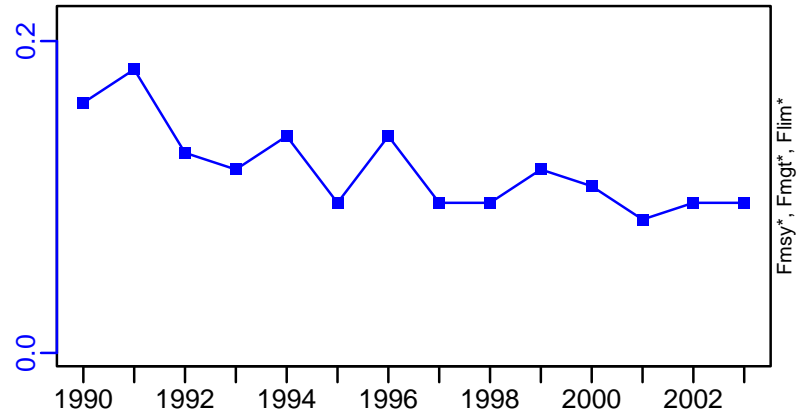
SSB*



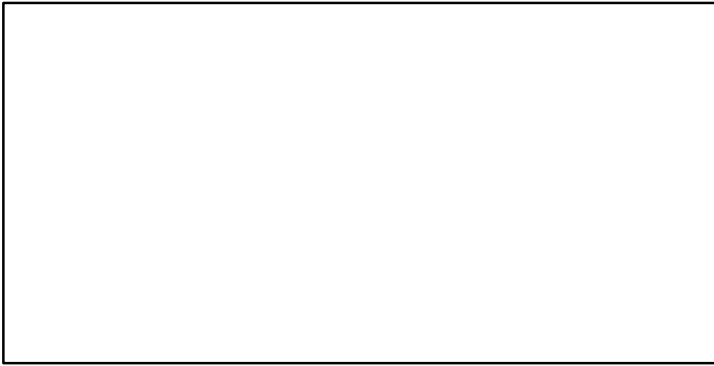
TN *



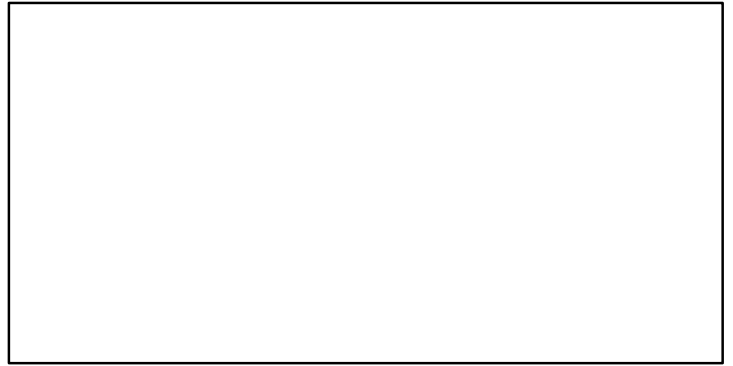
F-female-1/yr (1990–2003–FAUCONNET)



ER*



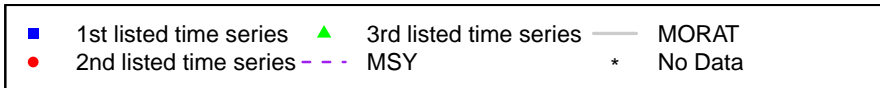
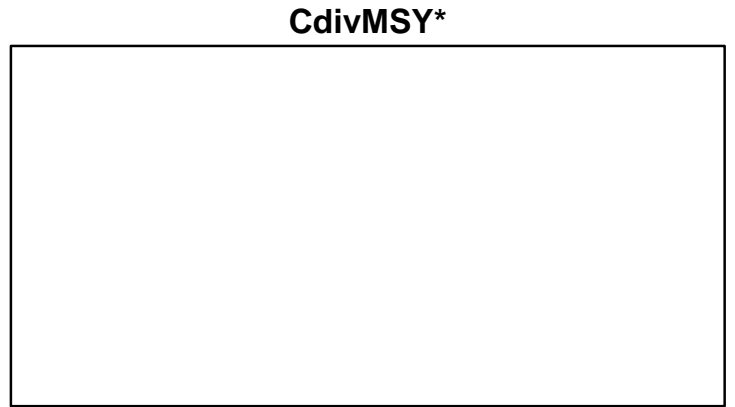
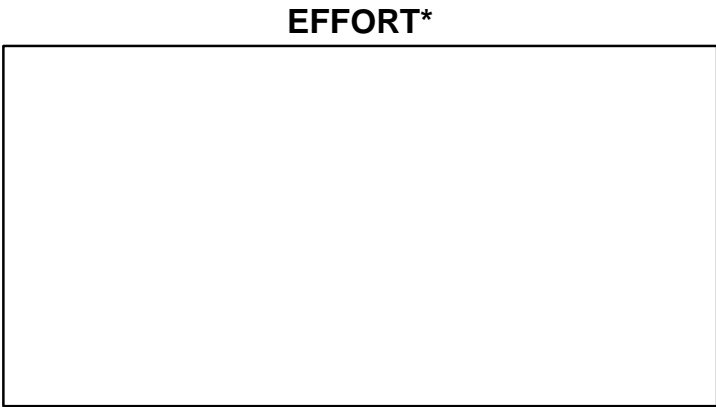
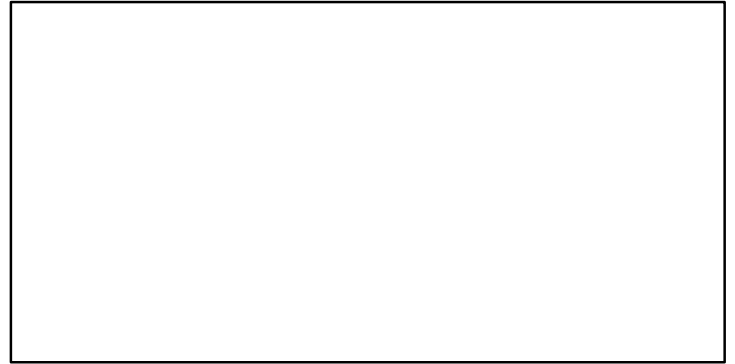
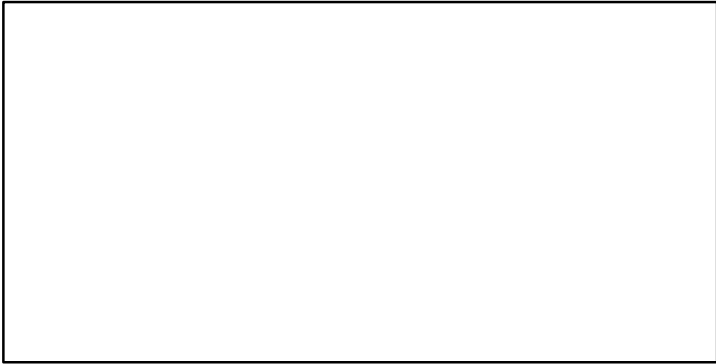
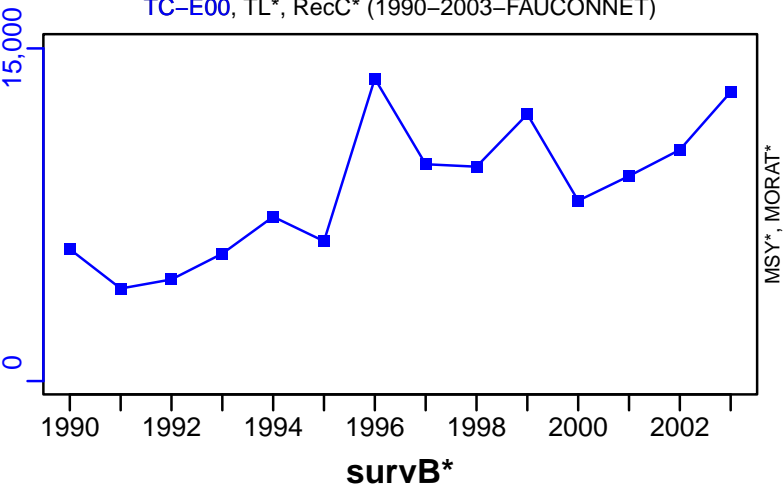
Recruits*



Shortfin mako Northwest Pacific Ocean [SFMAKONWPAC]

TC-E00, TL*, RecC* (1990–2003–FAUCONNET)

TAC*, Cpair*, Cadv*



Skipjack tuna Central Western Pacific Ocean [SKJCWPAC]

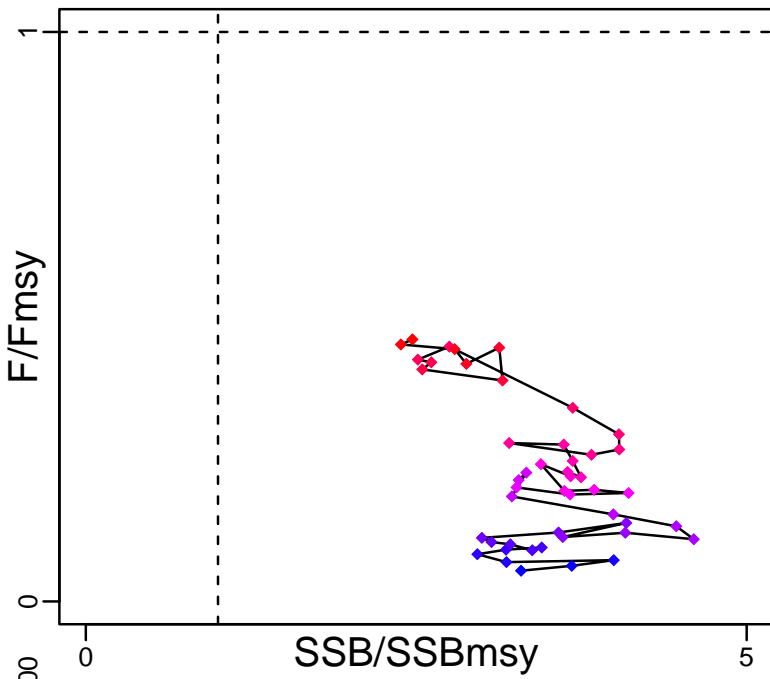
Metadata	
Scientific Name	Katsuwonus pelamis
Current Assess ID	SPC-SKJCWPAC-1950-2018-PONS
Area	Central Western Pacific Ocean
Management Authority	Western and Central Pacific Fisheries Commission
Assessor	Secretariat of the Pacific Community
Asmts in RAM	2012, 2015, 2018

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	-	-	-

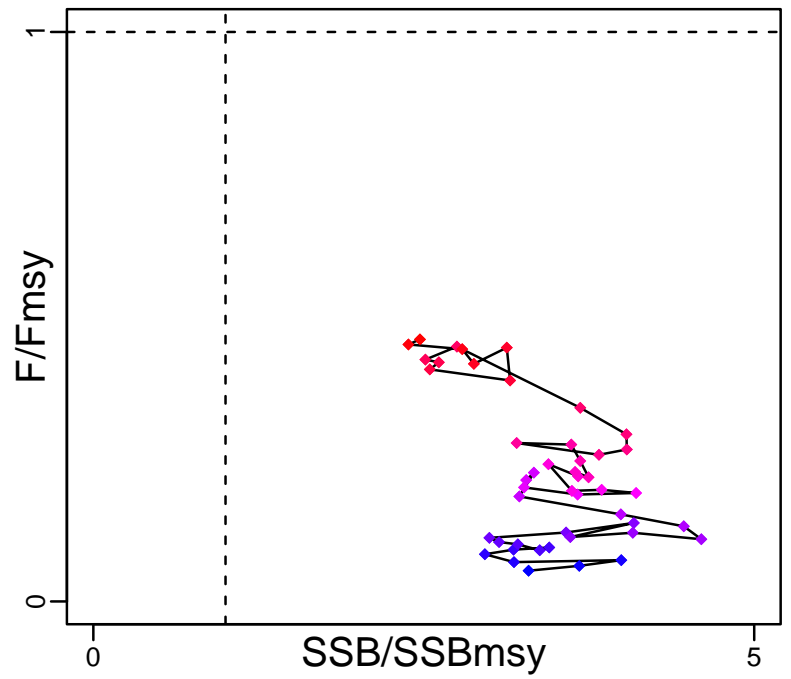
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2015	4,410,000	-	-
SSB	SSB-MT	2015	4,170,000	-	-
TN	-	-	-	-	-
R	R-E00	2018	3,512,462,963	-	-
F	F-1/yr	2018	0.404	-	-
ER	ER-calc-ratio	2015	0.415	-	-
TC	TC-MT	2012	1,650,000		
TL	TL-MT	2018	1,795,559		
TB/TBmsy	TBdivTBmsy-dimensionless	2018	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]

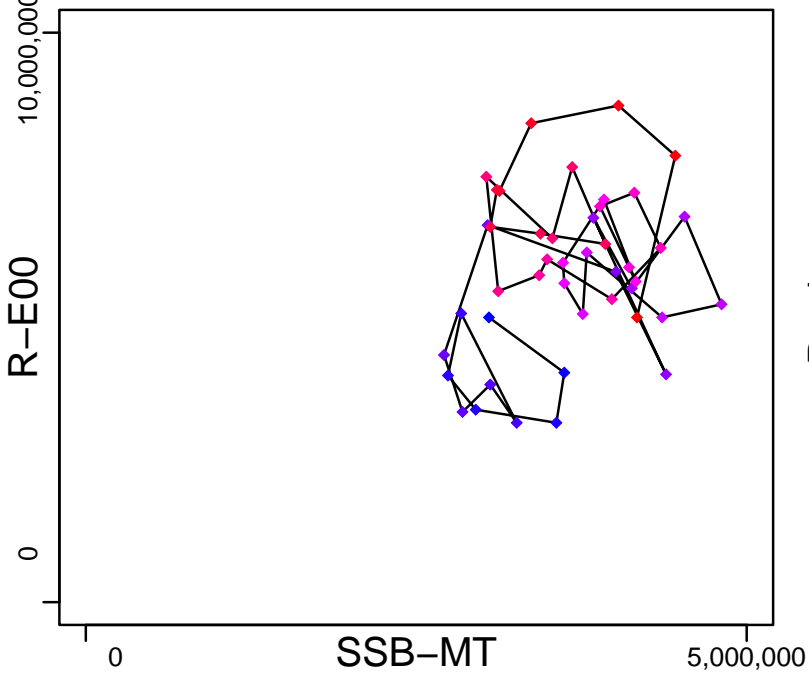
Kobe MSY_{pref} (1950–2018–PONS)



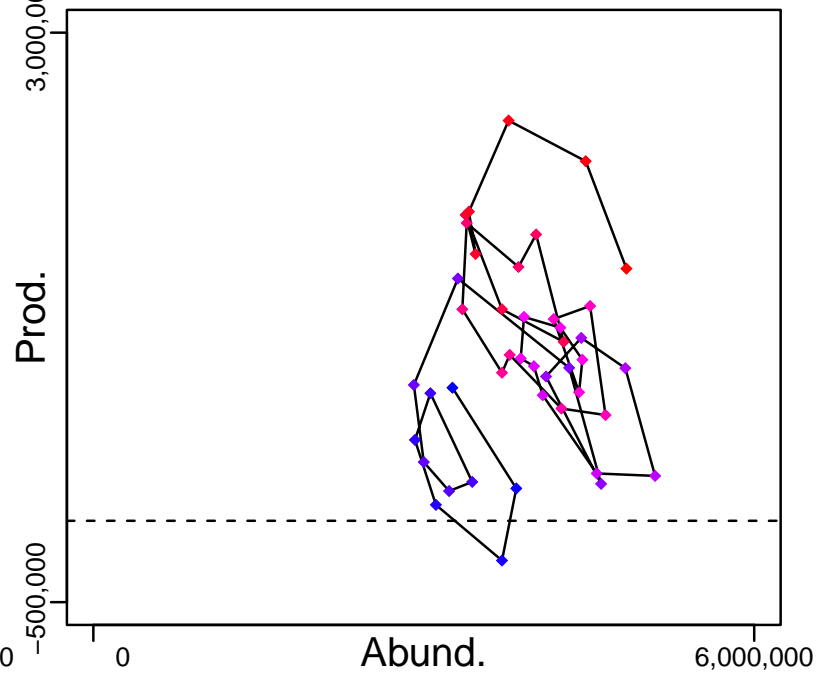
Kobe MGT_{pref} (1950–2018–PONS)



Spawner Recruit (1950–2015–PONS)



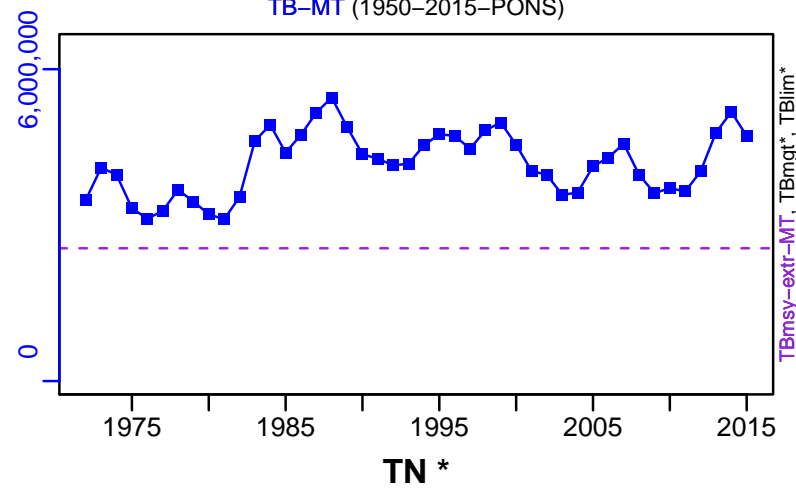
Production (1950–2015–PONS)



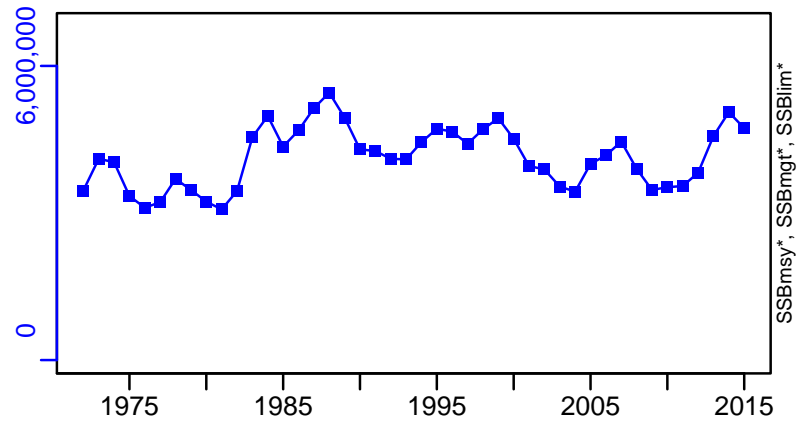
◆ Start Year ◆ End Year * No Data

Skipjack tuna Central Western Pacific Ocean [SKJCWPAC]

TB-MT (1950–2015–PONS)



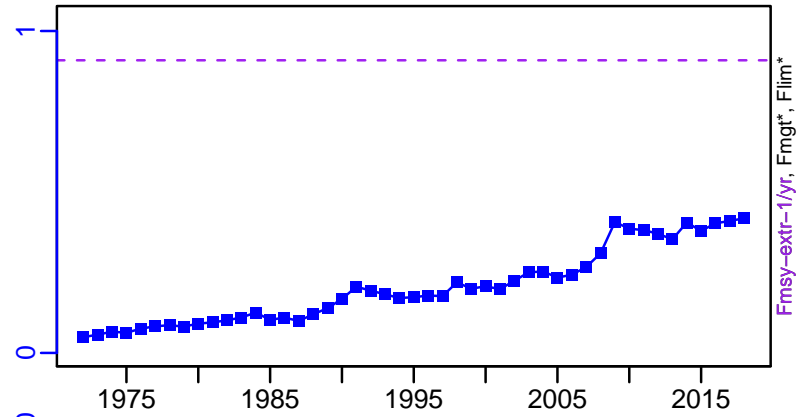
SSB-MT (1950–2015–PONS)



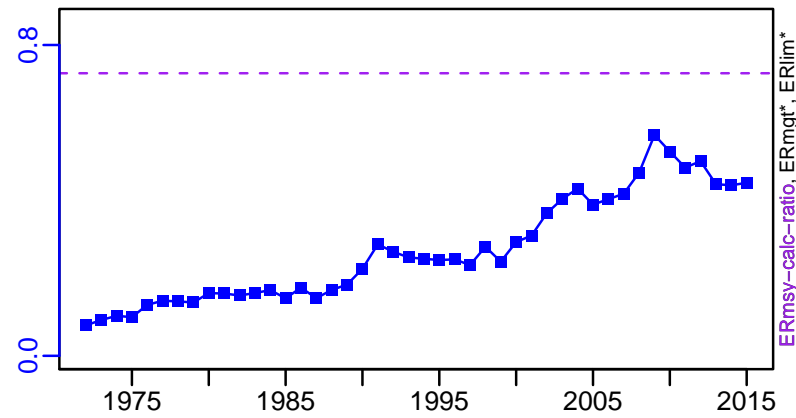
TN *



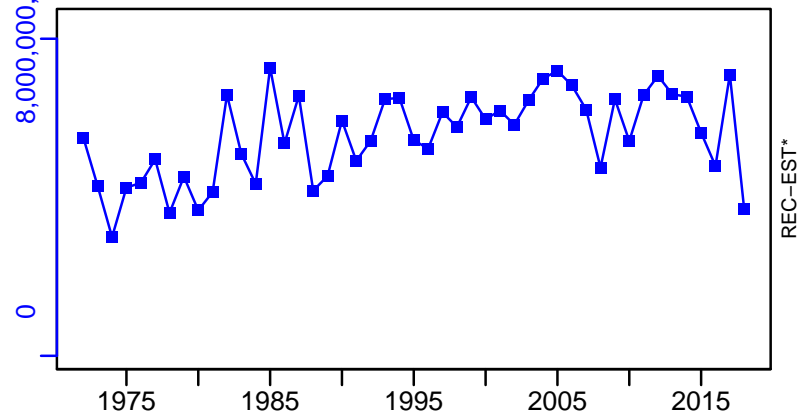
F-1/yr (1950–2018–PONS)



ER-calc-ratio (1950–2015–PONS)

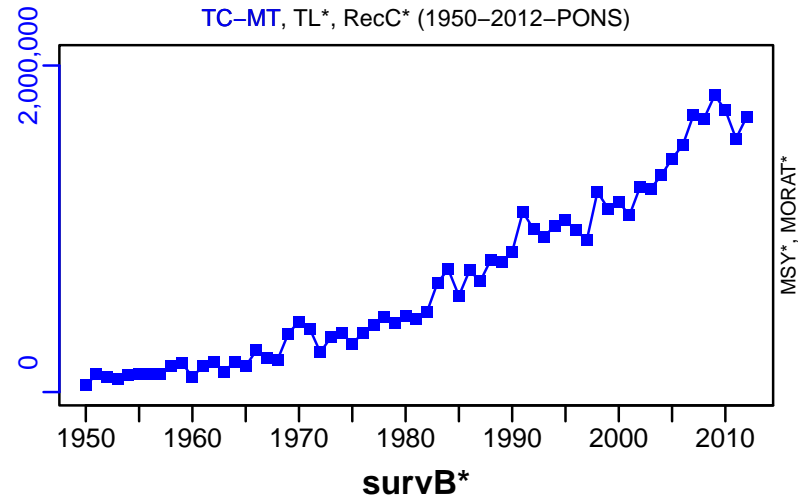


R-E00 (1950–2018–PONS)



Skipjack tuna Central Western Pacific Ocean [SKJCWPAC]

TC-MT, TL*, RecC* (1950–2012–PONS)



TAC*, Cpair*, Cadv*



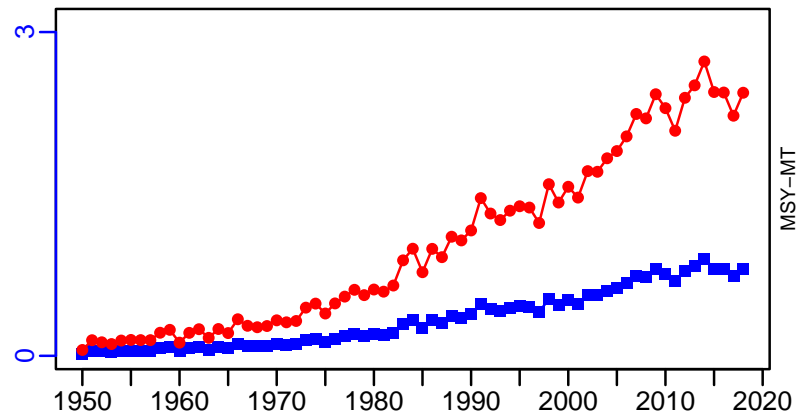
CPUE*



EFFORT*



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



Skipjack tuna Eastern 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*

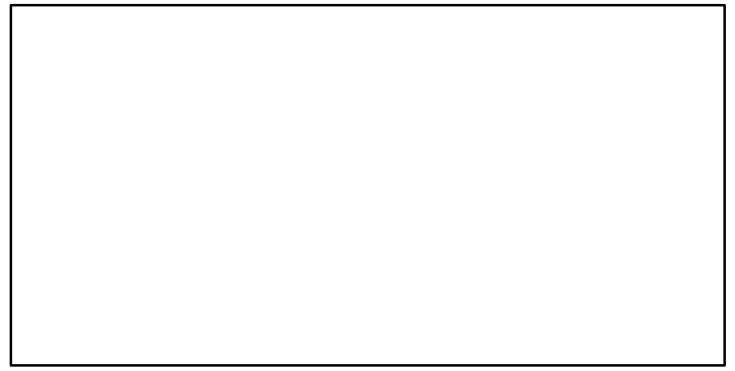
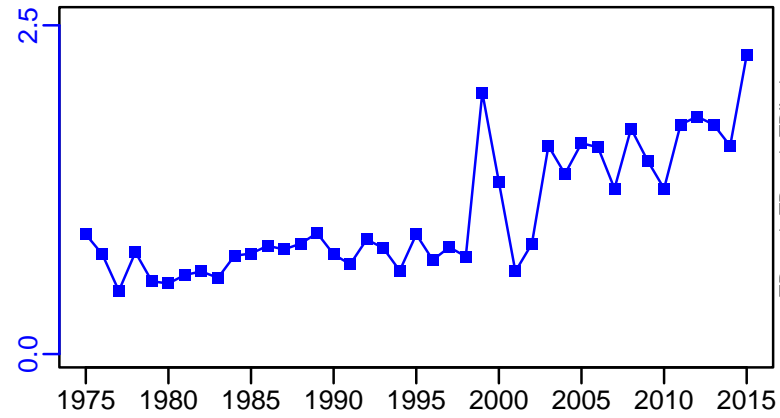


◆ Start Year ◆ End Year * No Data

Skipjack tuna Eastern Pacific [SKJEPAC]

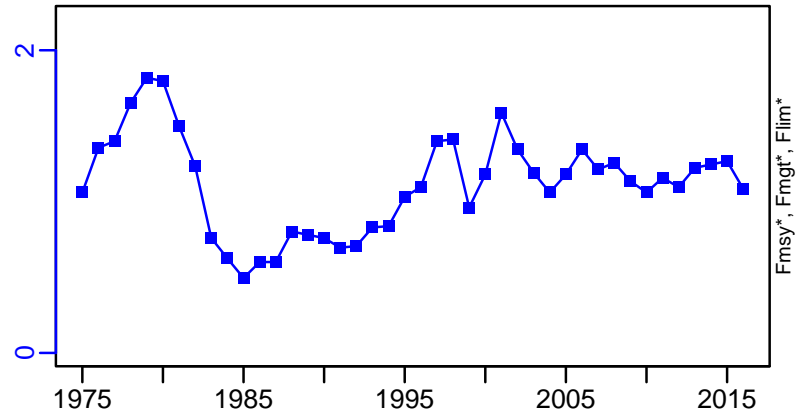
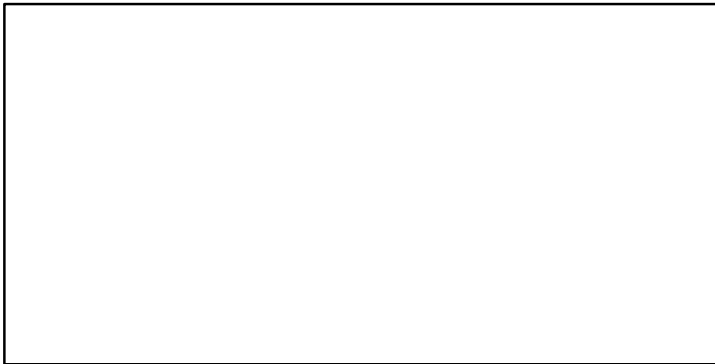
TB-relative (1918–2016–PONS)

SSB*



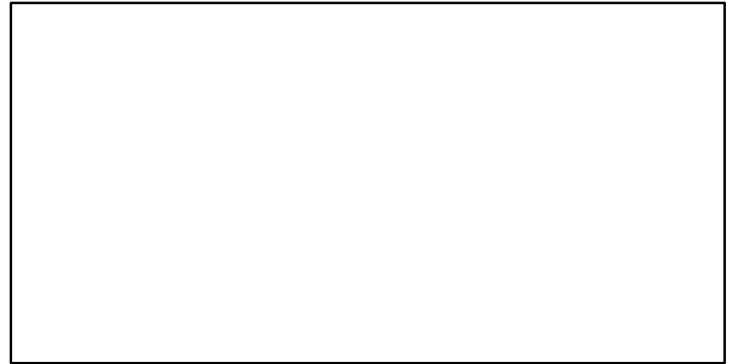
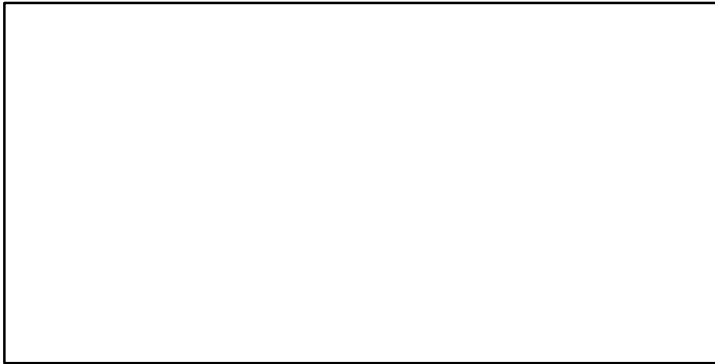
TN *

F-relative (1918–2016–PONS)



ER*

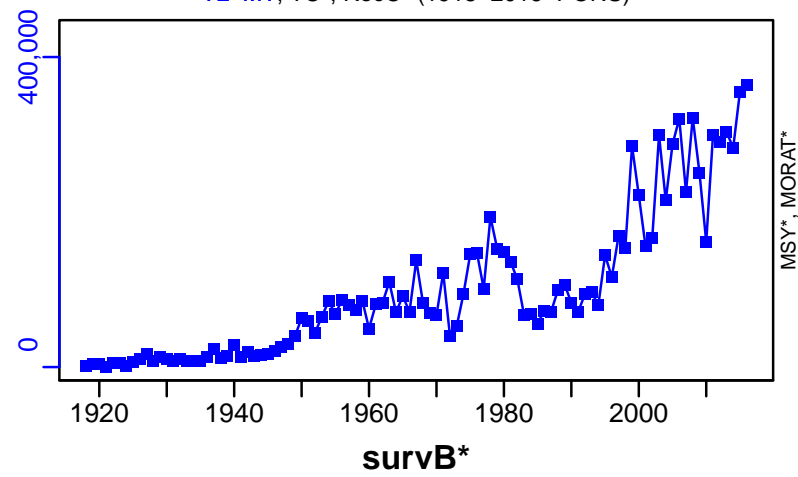
Recruits*



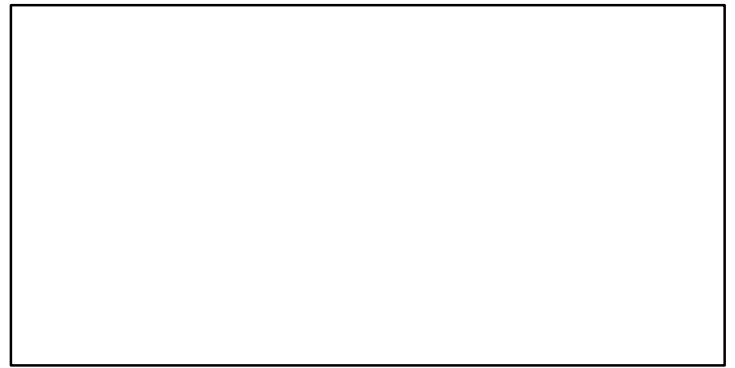
Skipjack tuna Eastern Pacific [SKJEPAC]

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

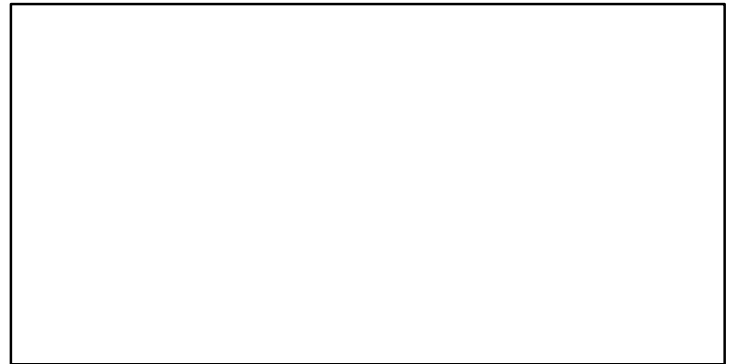
TAC*, Cpair*, Cadv*



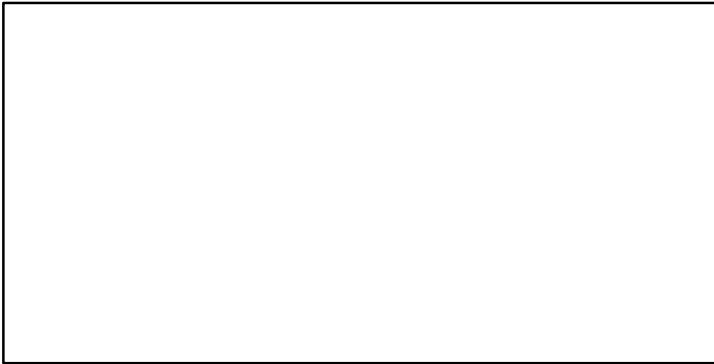
MSY*, MORAT*



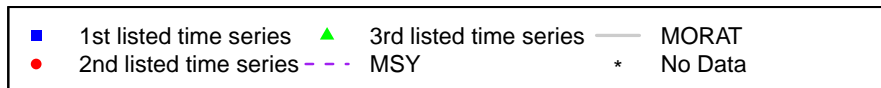
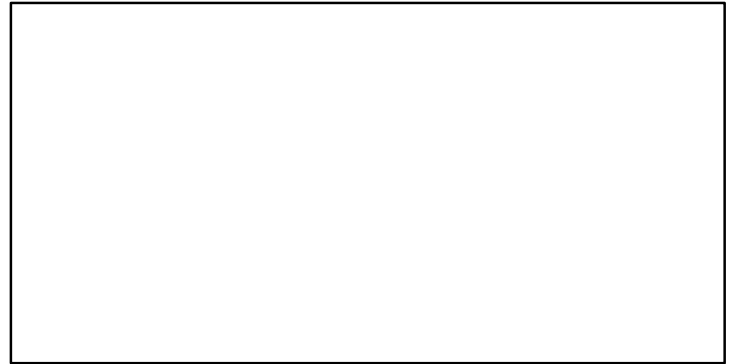
CPUE*



EFFORT*



CdivMSY*



Silky shark Central Western Pacific Ocean [SLKSHARCWPAC]

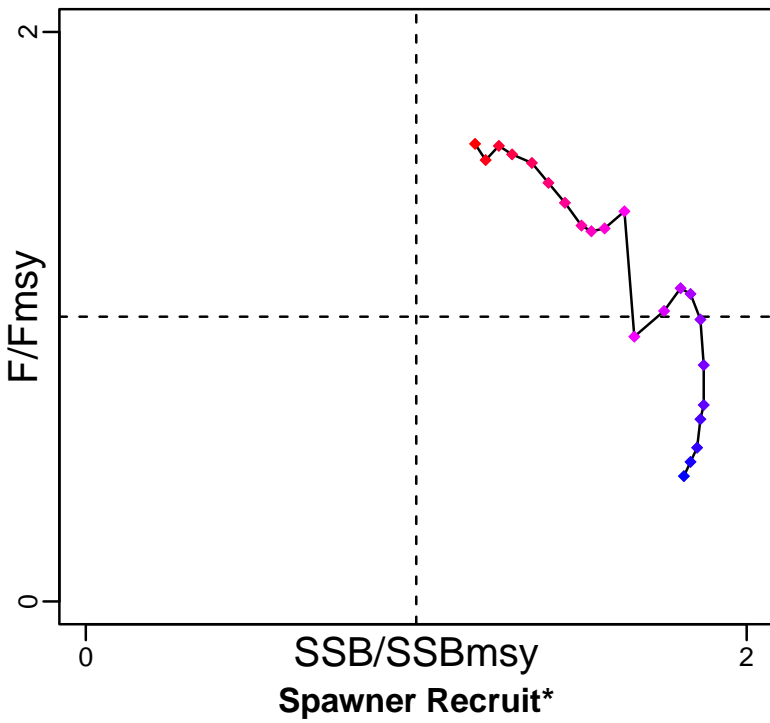
Metadata	
Scientific Name	Carcharhinus falciformis
Current Assess ID	SPC-SLKSHARCWPAC-1995-2016-SMITH
Area	Central Western Pacific Ocean
Management Authority	Western and Central Pacific Fisheries Commission
Assessor	Secretariat of the Pacific Community
Asmts in RAM	2016

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-extr-MT	2016	4720
Fmsy	Fmsy-extr-1/yr	2016	0.195
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2016	12,162
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

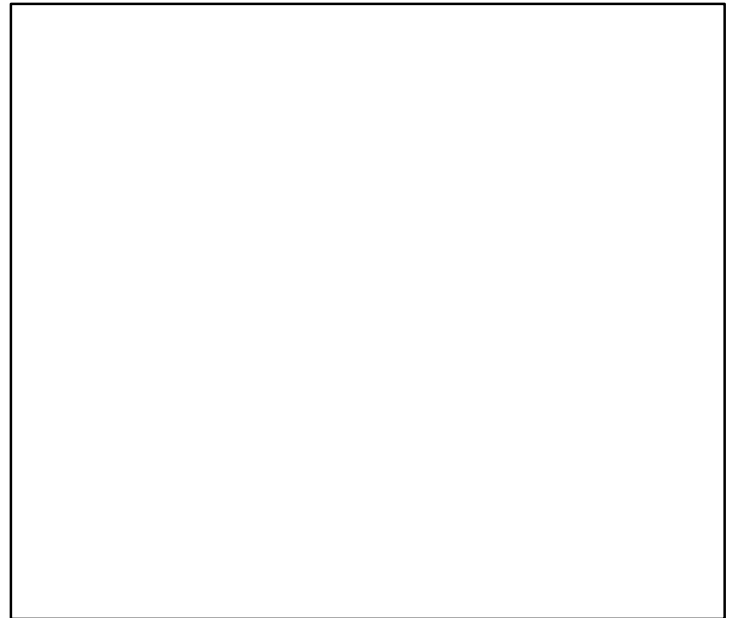
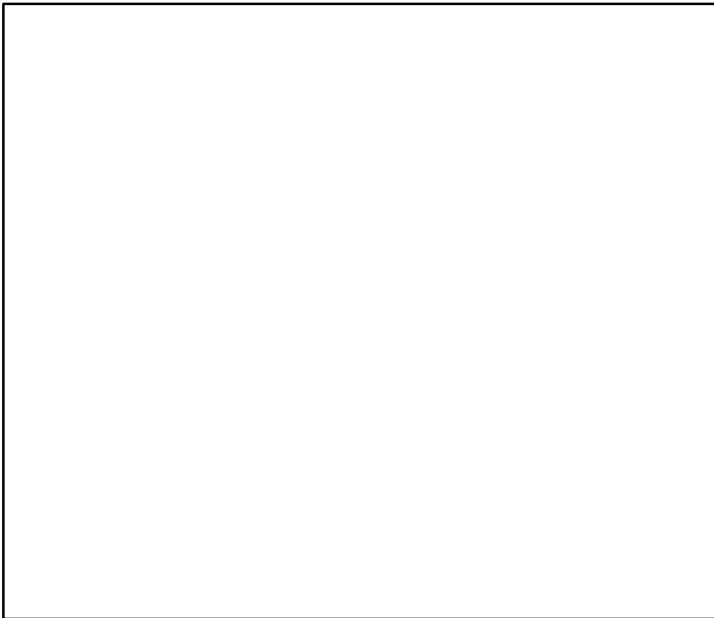
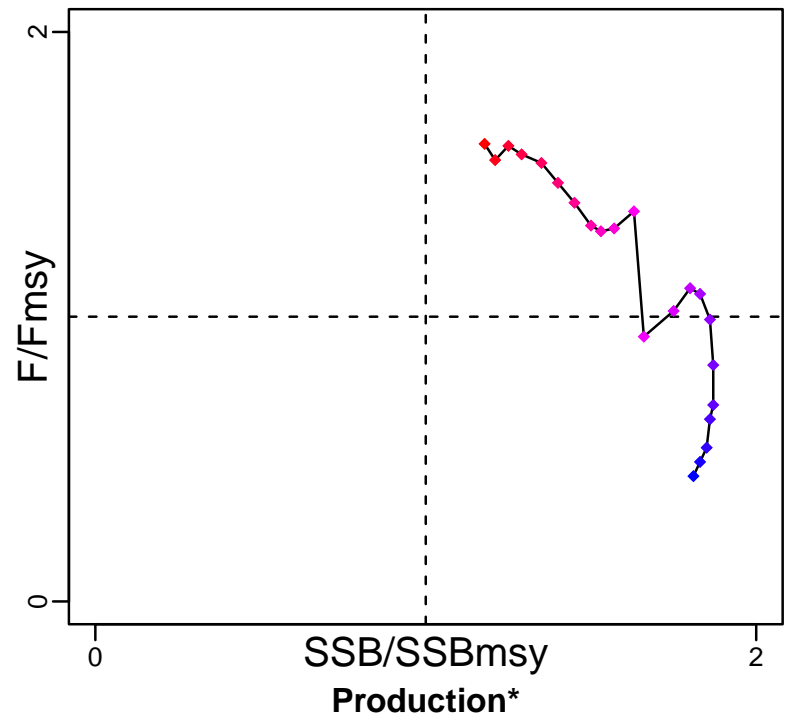
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2016	33,700	-	-
SSB	SSB-MT	2016	5560	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	F-1/yr	2016	0.313	-	-
ER	-	-	-	-	-
TC	TC-MT	2016	22,503		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2016	1.178		
F/Fmsy	FdivFmsy-dimensionless	2016	1.607		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Silky shark Central Western Pacific Ocean [SLKSHARCWPAC]

Kobe MSYpref (1995–2016–SMITH)



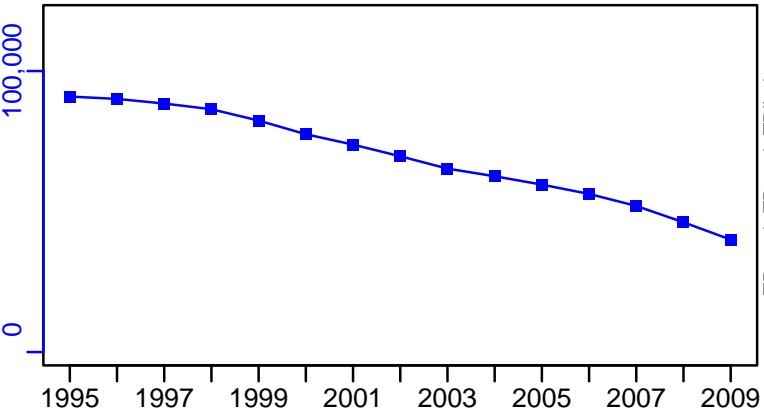
Kobe MGTpref (1995–2016–SMITH)



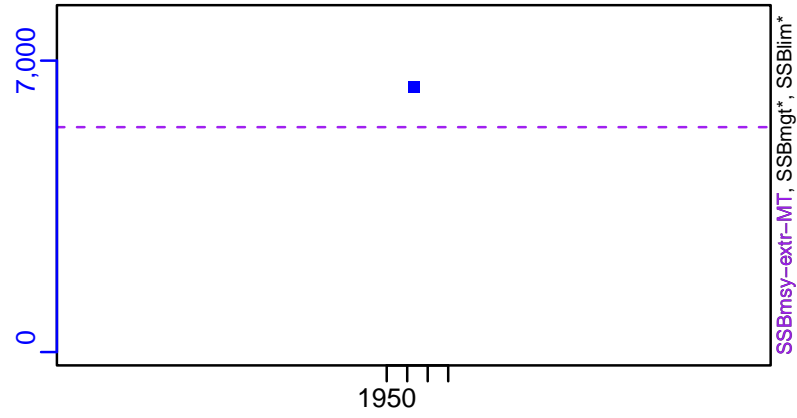
◆ Start Year ◆ End Year * No Data

Silky shark Central Western Pacific Ocean [SLKSHARCWPAC]

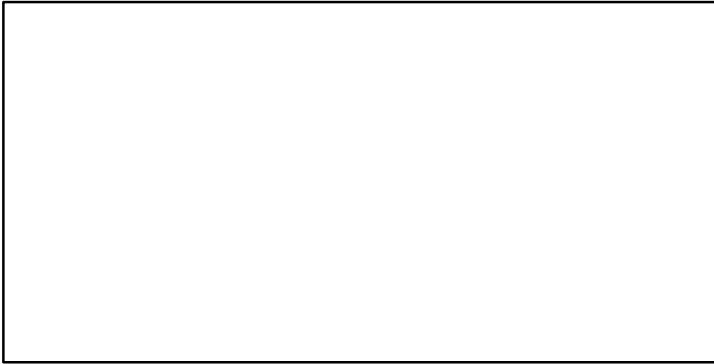
TB-MT (1995–2016–SMITH)



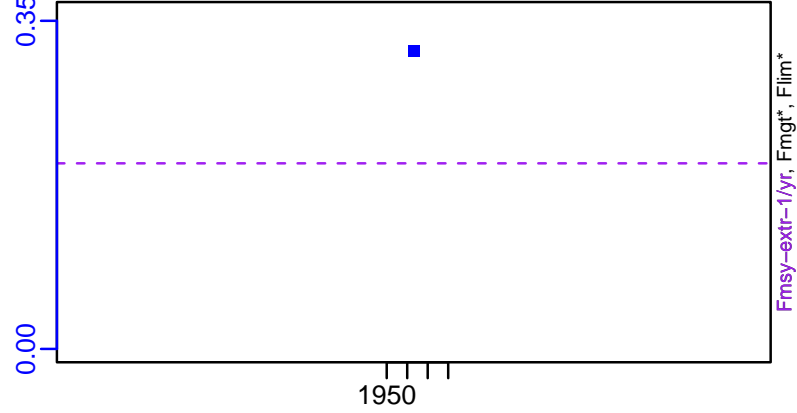
SSB-MT (1995–2016–SMITH)



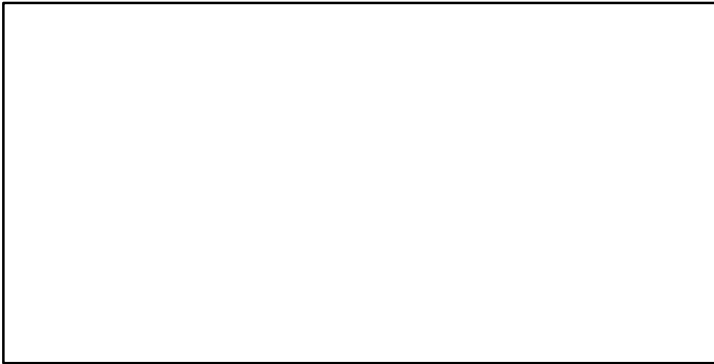
TN *



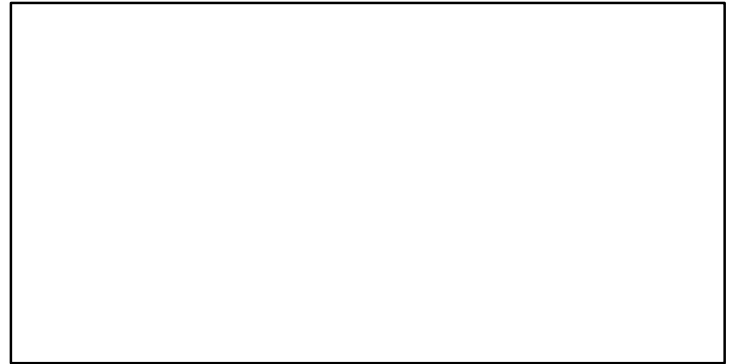
F-1/yr (1995–2016–SMITH)



ER*

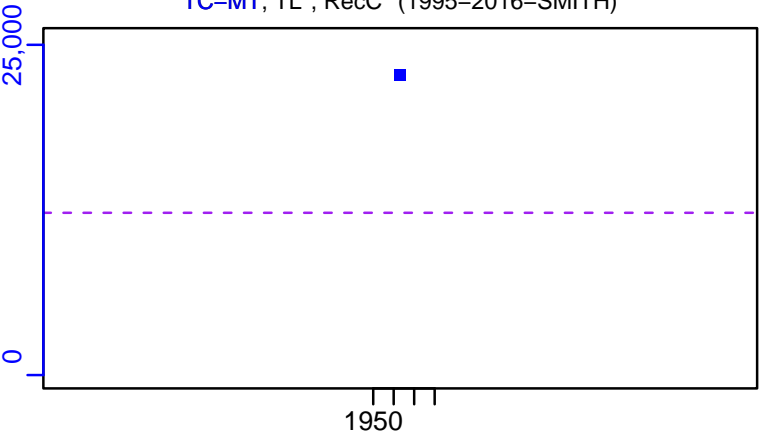


Recruits*

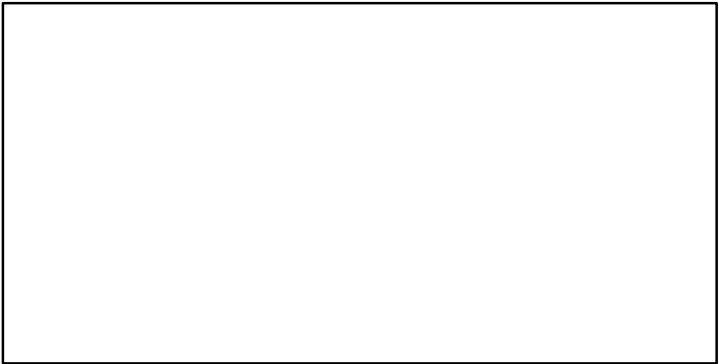


Silky shark Central Western Pacific Ocean [SLKSHARCWPAC]

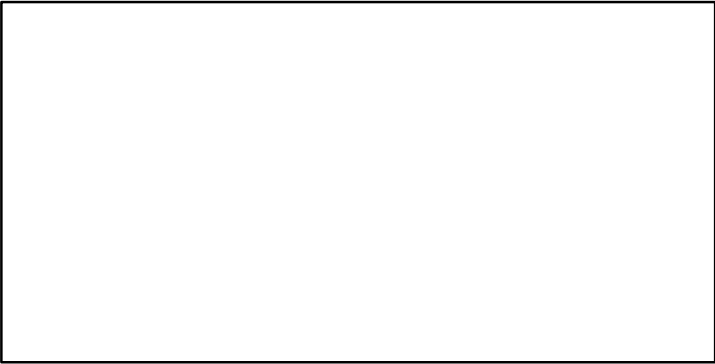
TC-MT, TL*, RecC* (1995-2016-SMITH)



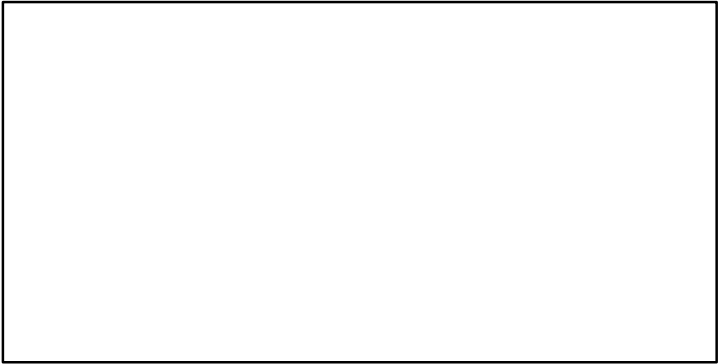
TAC*, Cpair*, Cadv*



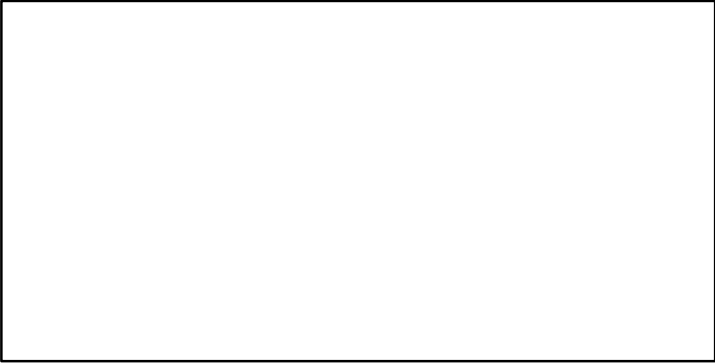
survB*



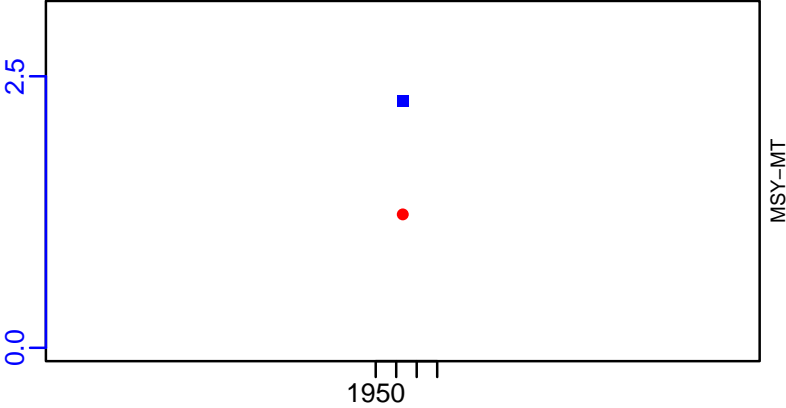
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1995-2016-SMITH)



Striped marlin Northeast Pacific [STMARLINNEPAC]

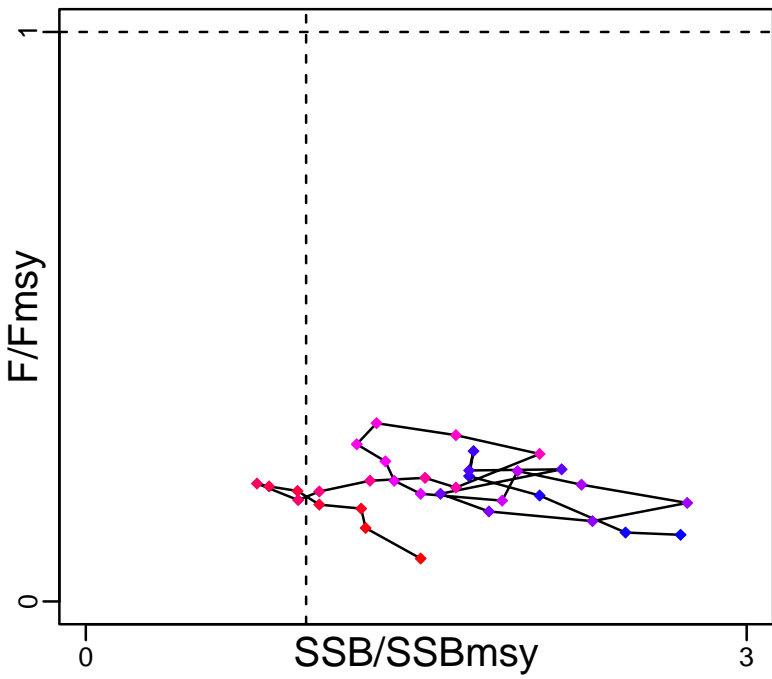
Metadata	
Scientific Name	Kajikia audax
Current Assess ID	IATTC-STMARLINNEPAC-1954-2009-BRANCH
Area	Northeast Pacific
Management Authority	Inter-American Tropical Tuna Commission
Assessor	Inter-American Tropical Tuna Commission
Asmts in RAM	2009

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	-	-	-

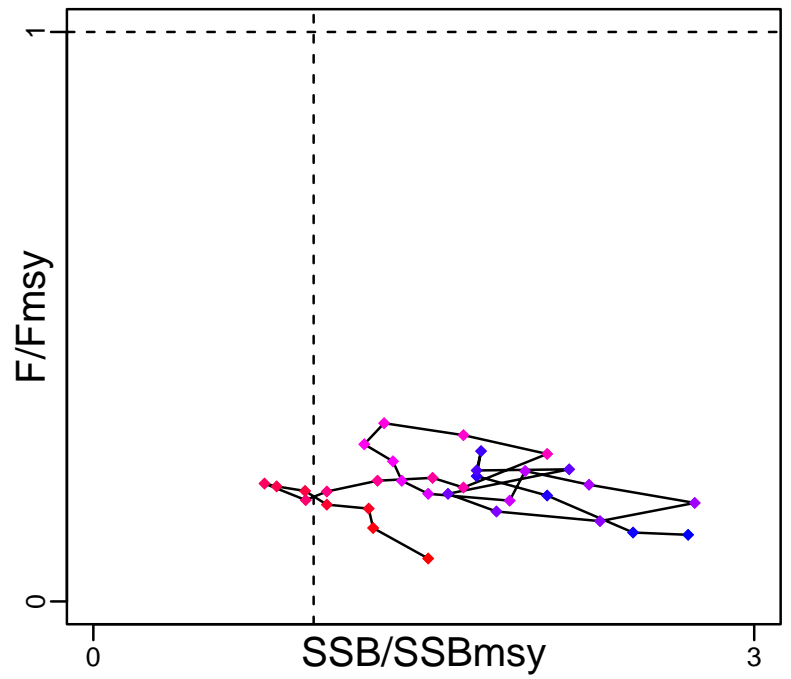
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2009	5060	-	1+
SSB	SSB-MT	2009	2090	Females	2+
TN	-	-	-	-	-
R	R-MT	2009	239	-	0
F	-	-	-	-	-
ER	ER-calc-ratio	2009	0.269	-	-
TC	TC-MT	2009	1360		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2009	1.52		
F/Fmsy	FdivFmsy-dimensionless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

Striped marlin Northeast Pacific [STMARLINNEPAC]

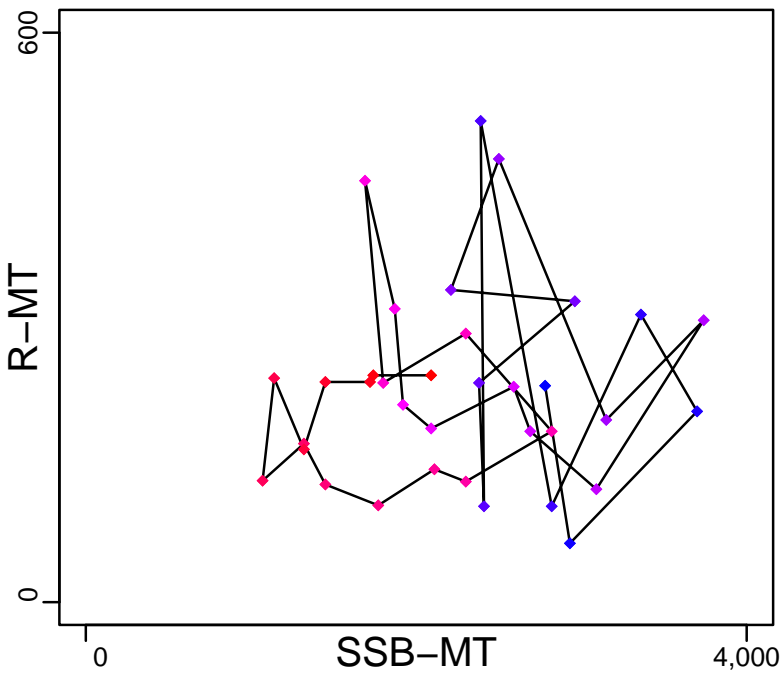
Kobe MSYpref (1954–2009–BRANCH)



Kobe MGTpref (1954–2009–BRANCH)



Spawner Recruit (1954–2009–BRANCH)



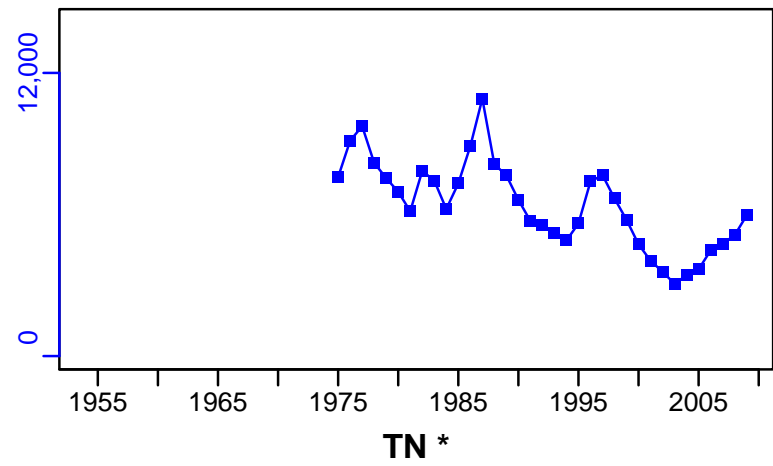
Production*



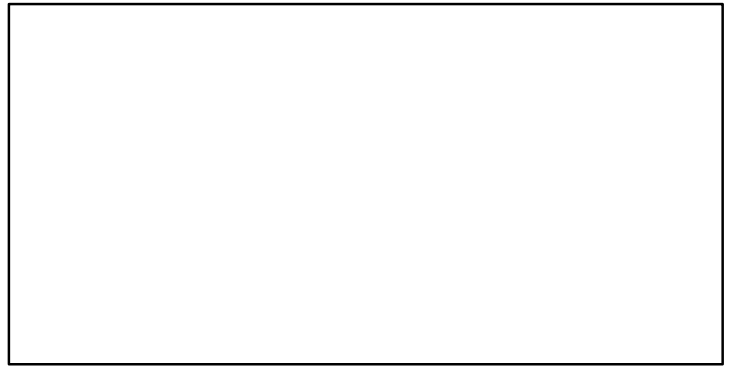
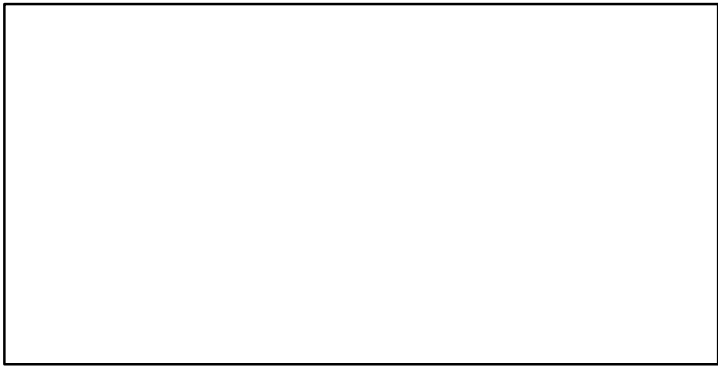
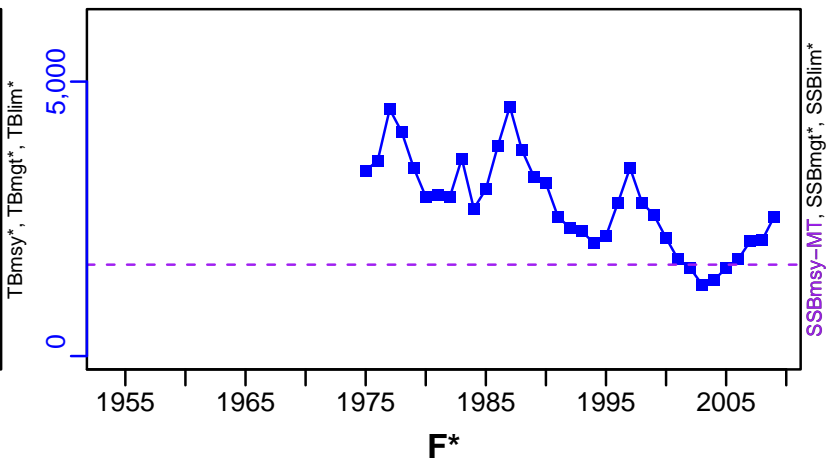
◆ Start Year ◆ End Year * No Data

Striped marlin Northeast Pacific [STMARLINNEPAC]

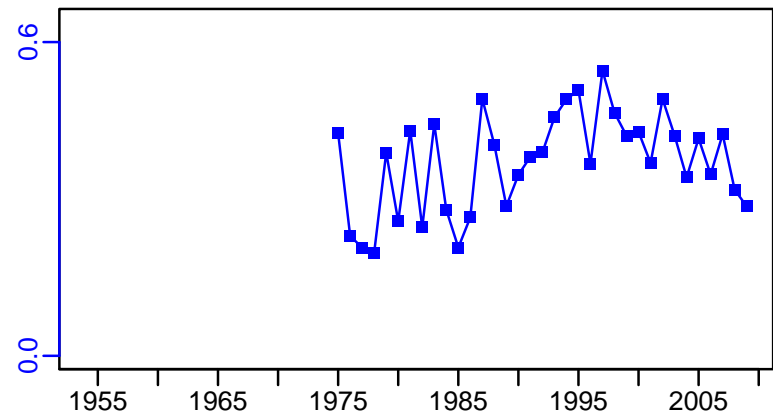
TB-MT (1954-2009-BRANCH)



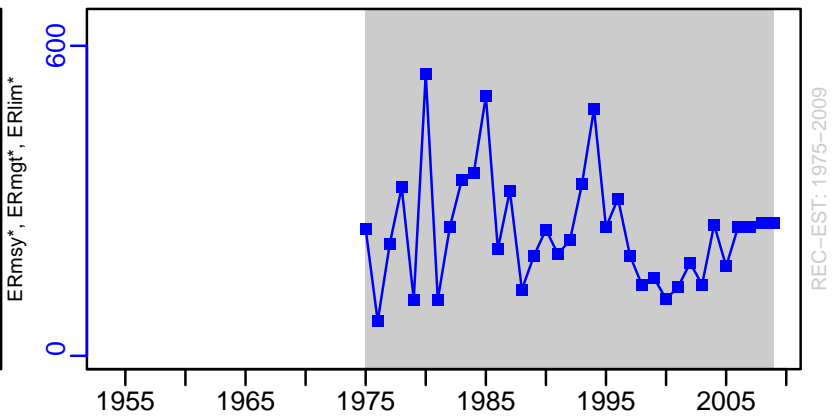
SSB-MT (1954-2009-BRANCH)



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



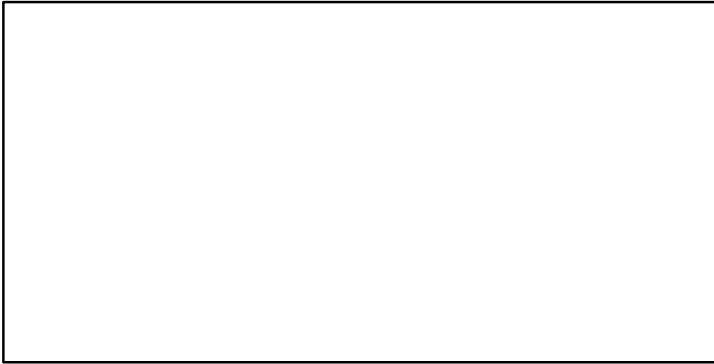
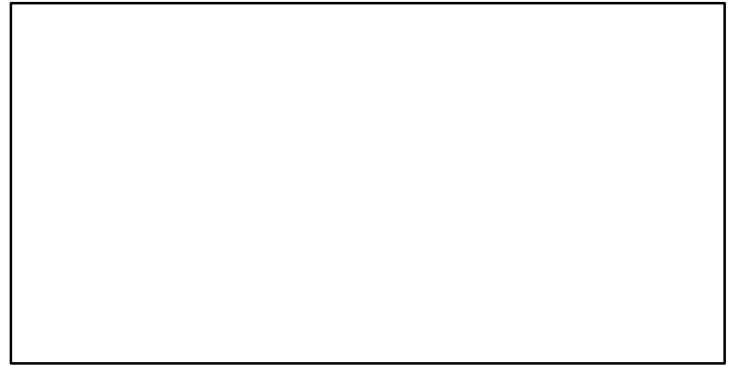
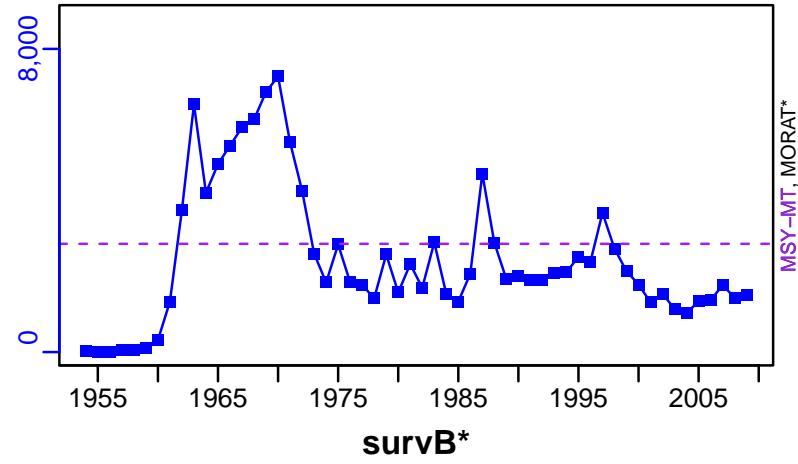
R-MT (1954-2009-BRANCH)



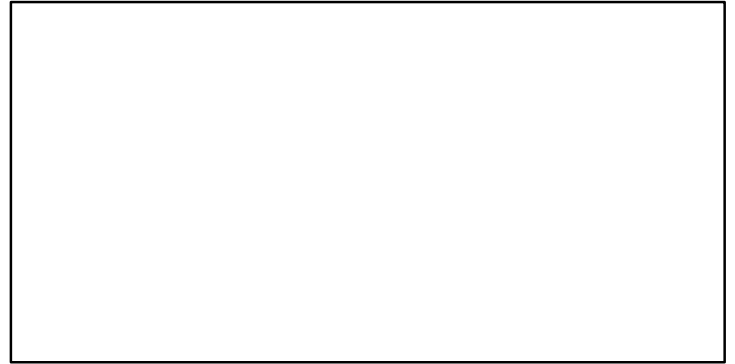
Striped marlin Northeast Pacific [STMARLINNEPAC]

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

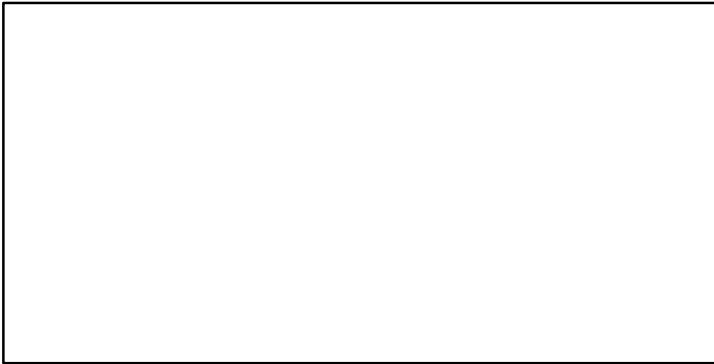
TAC*, Cpair*, Cadv*



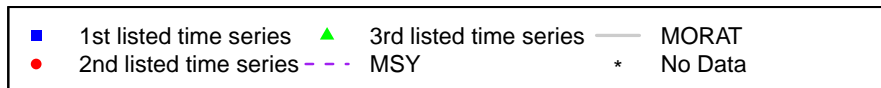
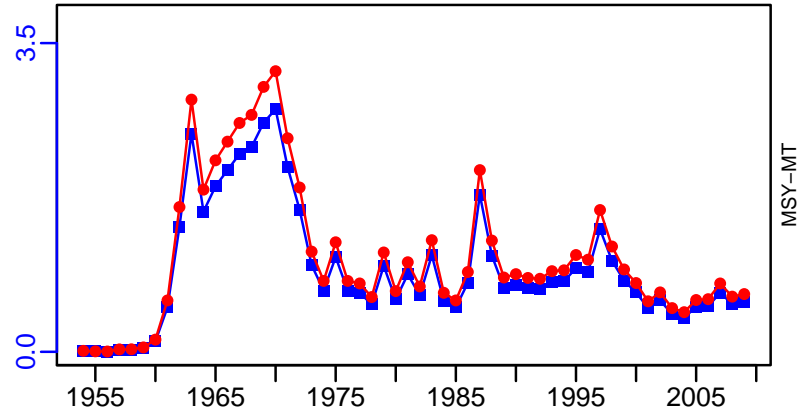
CPUE*



EFFORT*



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



Striped marlin Western Pacific Ocean [STMARLINSWPO]

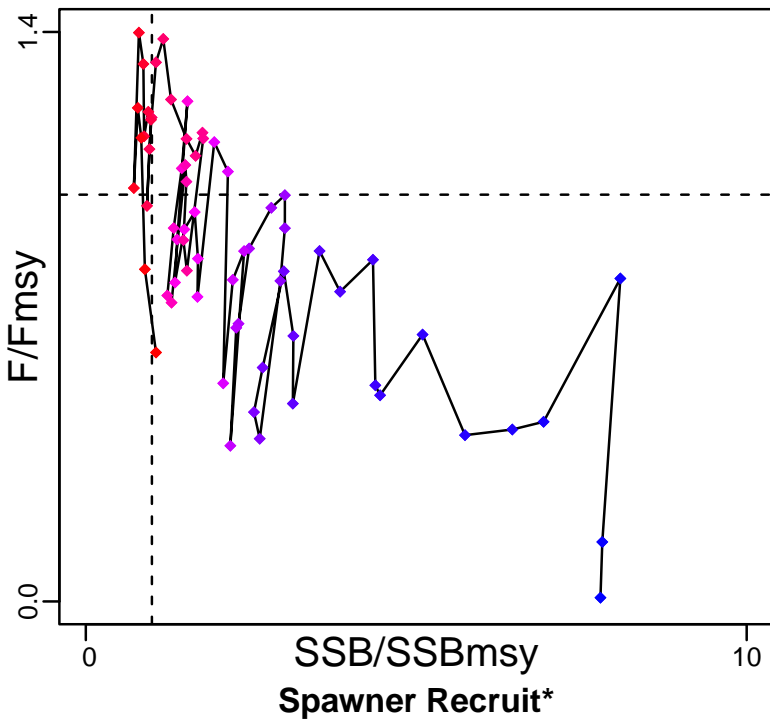
Metadata	
Scientific Name	Kajikia audax
Current Assess ID	SPC-STMARLINSWPO-1951-2018-PONS
Area	Western Pacific Ocean
Management Authority	Western and Central Pacific Fisheries Commission
Assessor	Secretariat of the Pacific Community
Asmts in RAM	2018, 2011

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	-	-	-

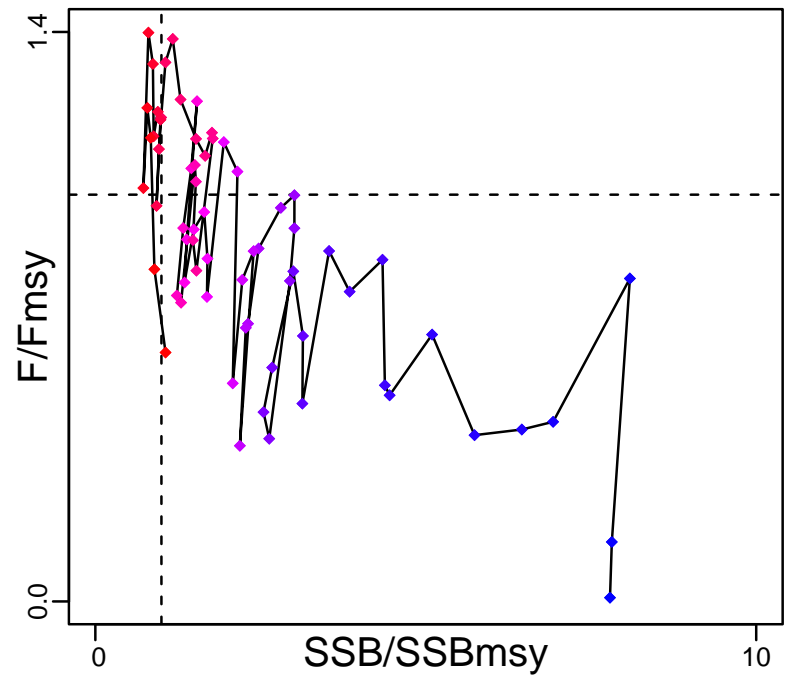
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2011	6640	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-ratio	2011	0.229	-	-
TC	TC-MT	2011	1520		
TL	TL-MT	2018	1552		
TB/TBmsy	TBdivTBmsy-dimensionless	2011	0.91		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2018	1.062		
F/Fmsy	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]

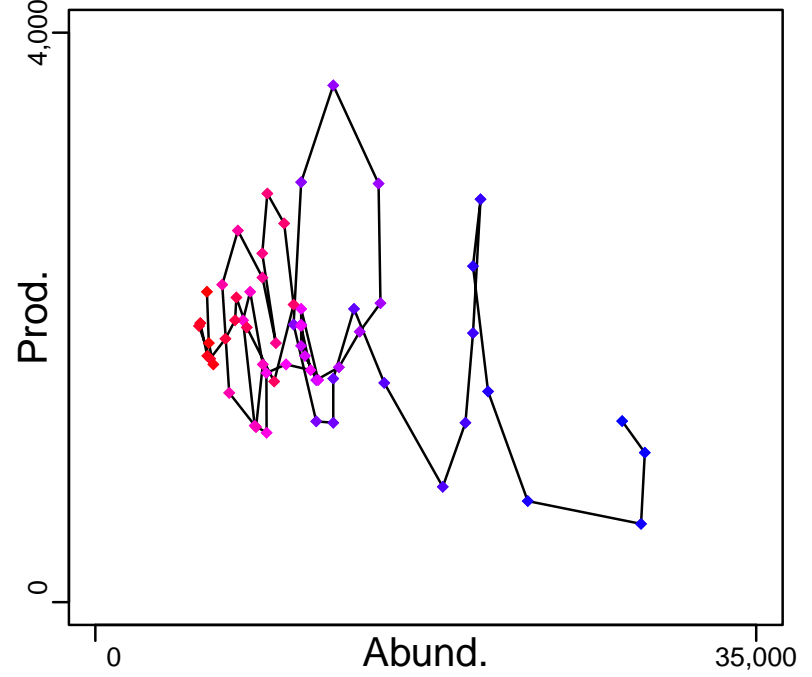
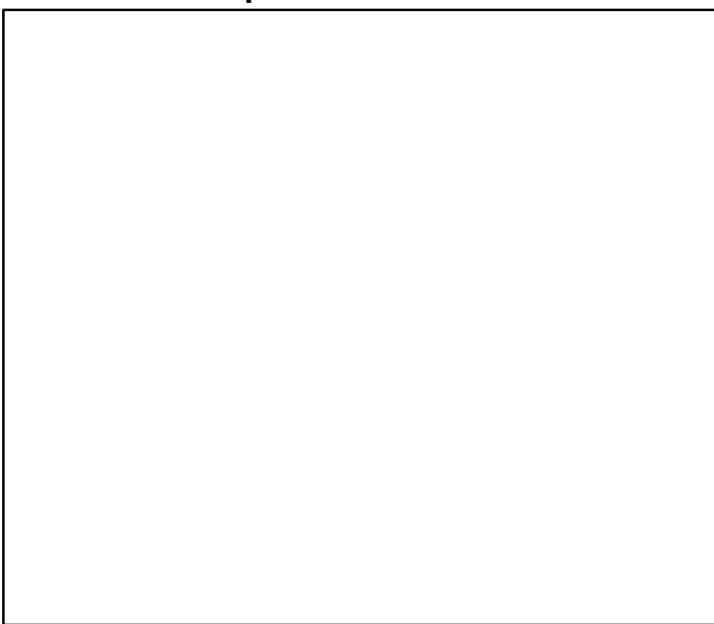
Kobe MSYpref (1951–2018–PONS)



Kobe MGTpref (1951–2018–PONS)



Production (1952–2011–CHING)

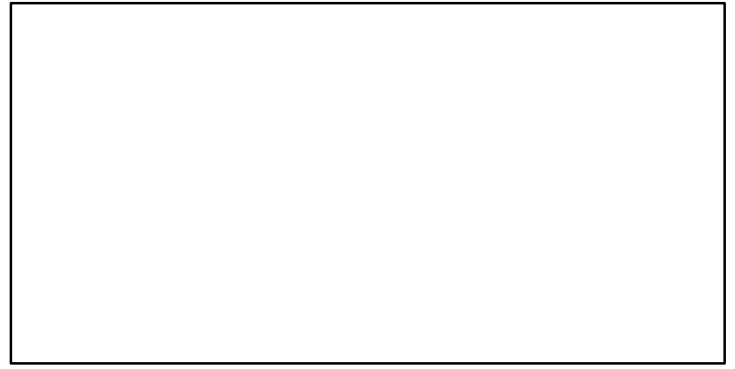
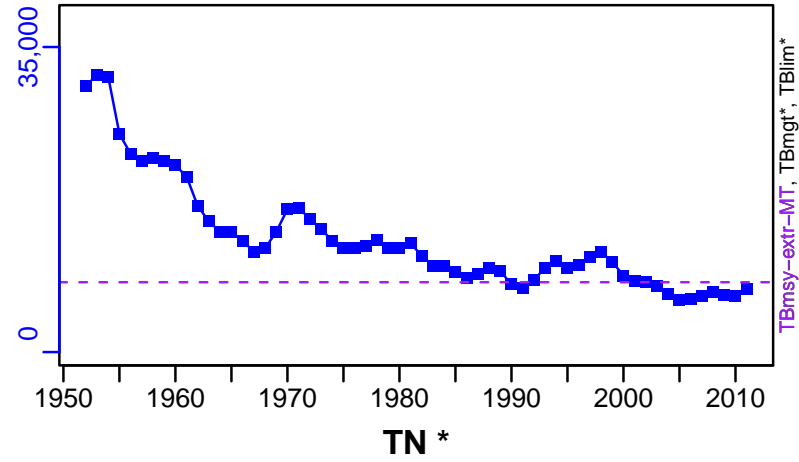


◆ Start Year ◆ End Year * No Data

Striped marlin Western Pacific Ocean [STMARLINSWPO]

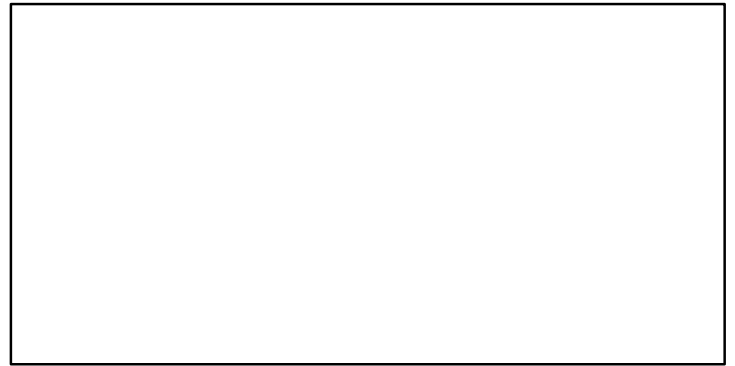
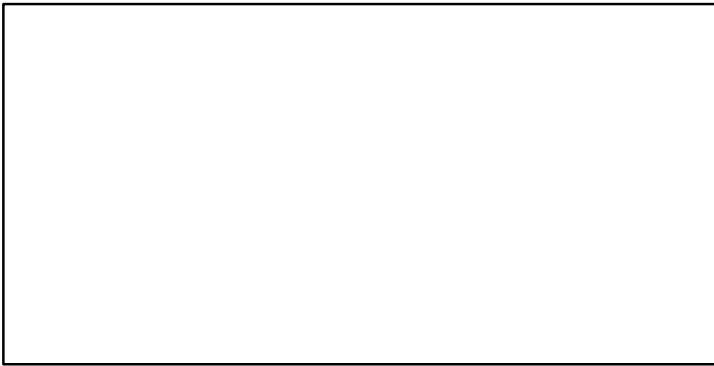
TB-MT (1952-2011-CHING)

SSB*



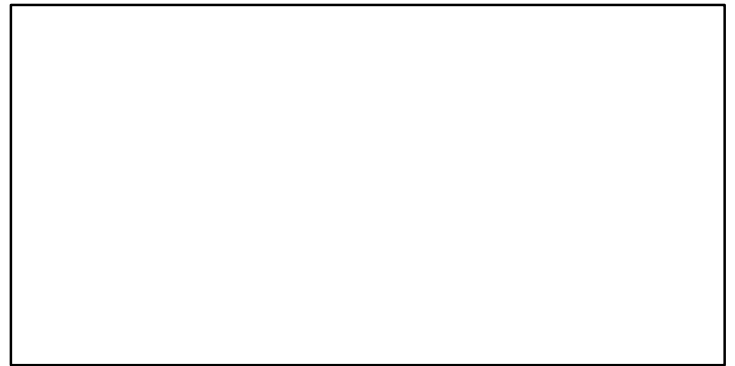
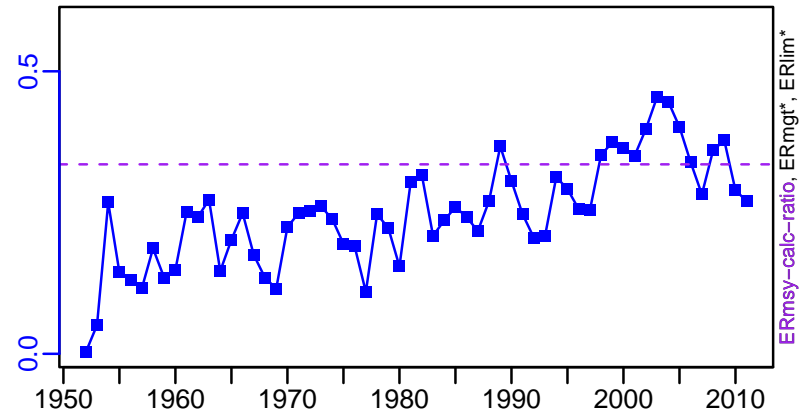
TN *

F*



ER-ratio (1952-2011-CHING)

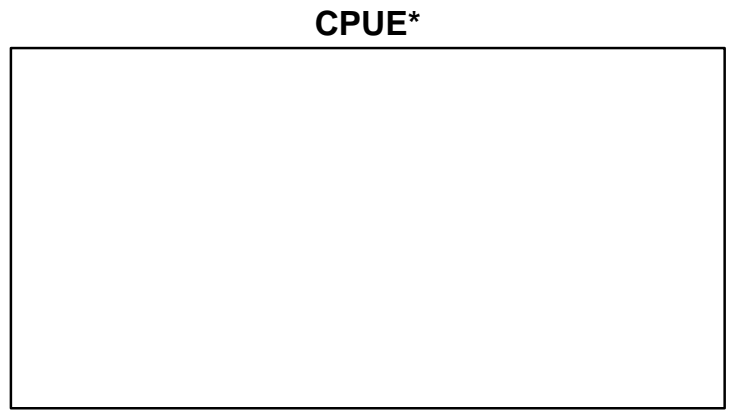
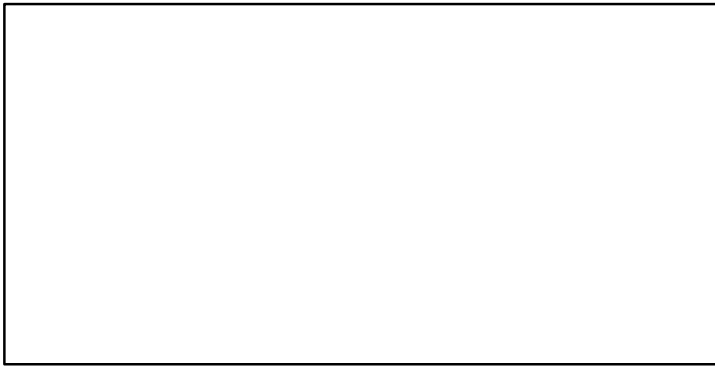
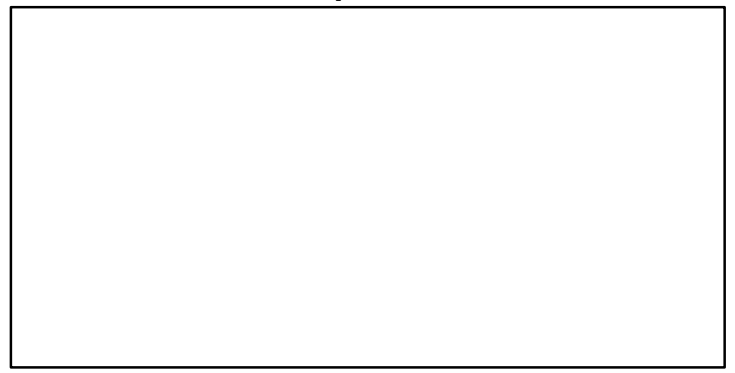
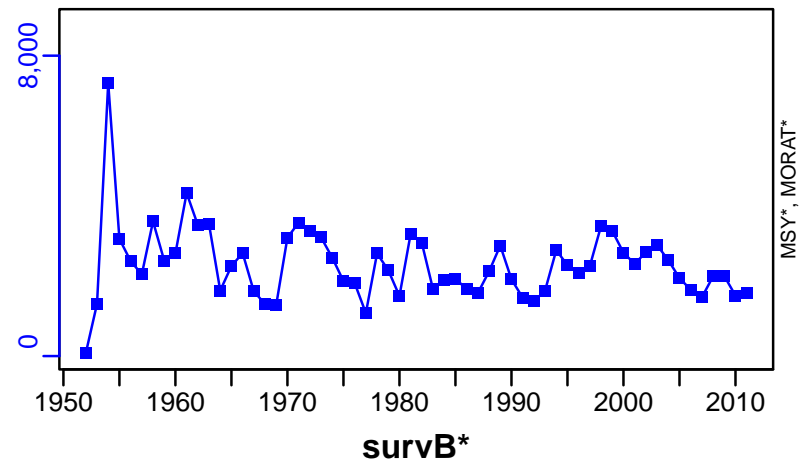
Recruits*



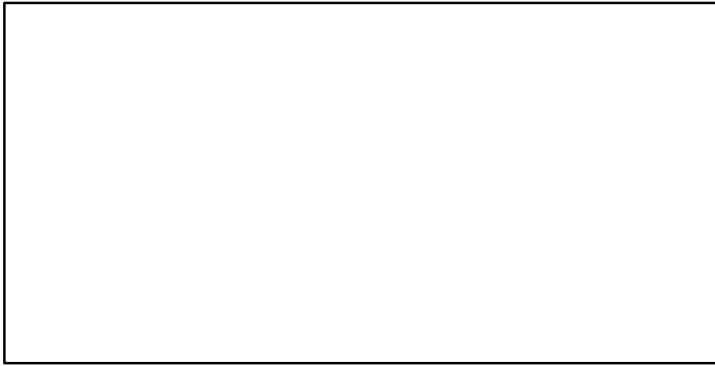
Striped marlin Western Pacific Ocean [STMARLINSWPO]

TC-MT, TL*, RecC* (1952–2011–CHING)

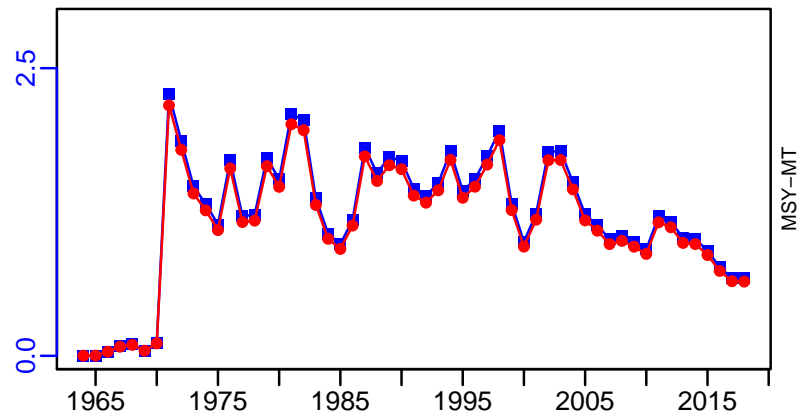
TAC*, Cpair*, Cadv*



EFFORT*



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



Striped marlin Western and Central North Pacific [STMARLINWCNPAC]

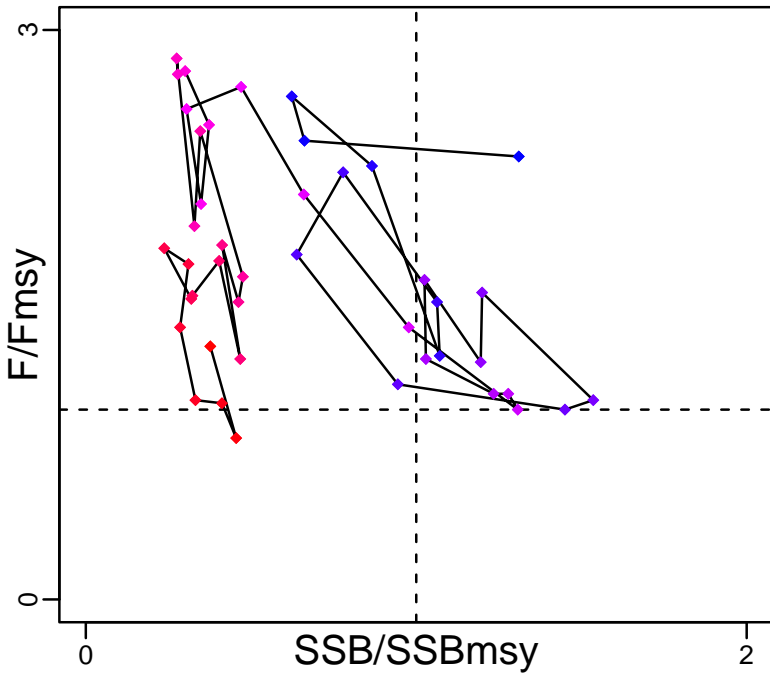
Metadata	
Scientific Name	Kajikia audax
Current Assess ID	ISC-STMARLINWCNPAC-1950-2018-PONS
Area	Western and Central North Pacific
Management Authority	International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean
Assessor	International Scientific Committee for Tuna and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

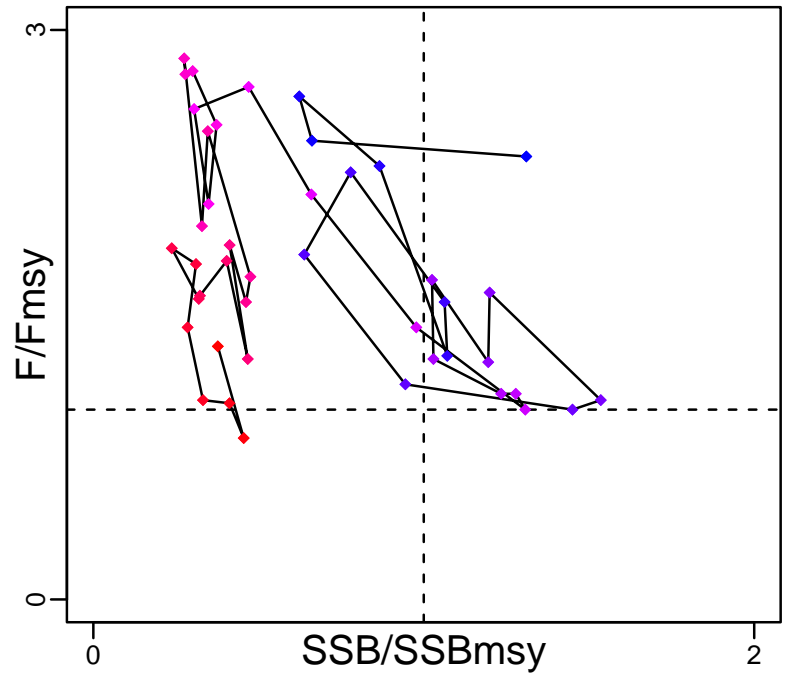
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	6820	-	1+
SSB	SSB-MT	2010	938	-	-
TN	-	-	-	-	-
R	R-E00	2010	326,000	-	-
F	F-1/yr	2010	0.75	-	-
ER	ER-calc-ratio	2013	0.437	-	-
TC	TC-MT	2013	2980		
TL	TL-MT	2018	3188		
TB/TBmsy	TBdivTBmsy-dimensionless	2010	0.35		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless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

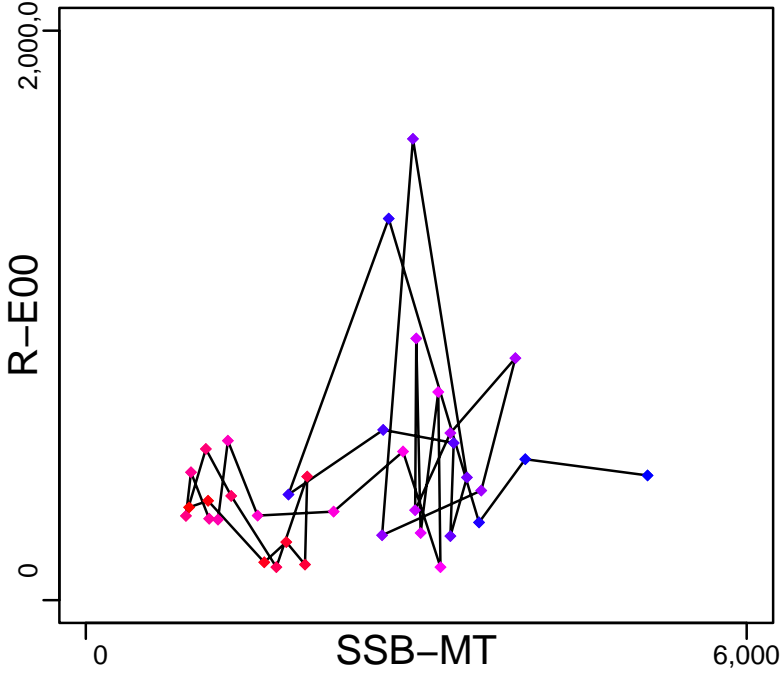
Kobe MSY_{pref} (1950–2018–PONS)



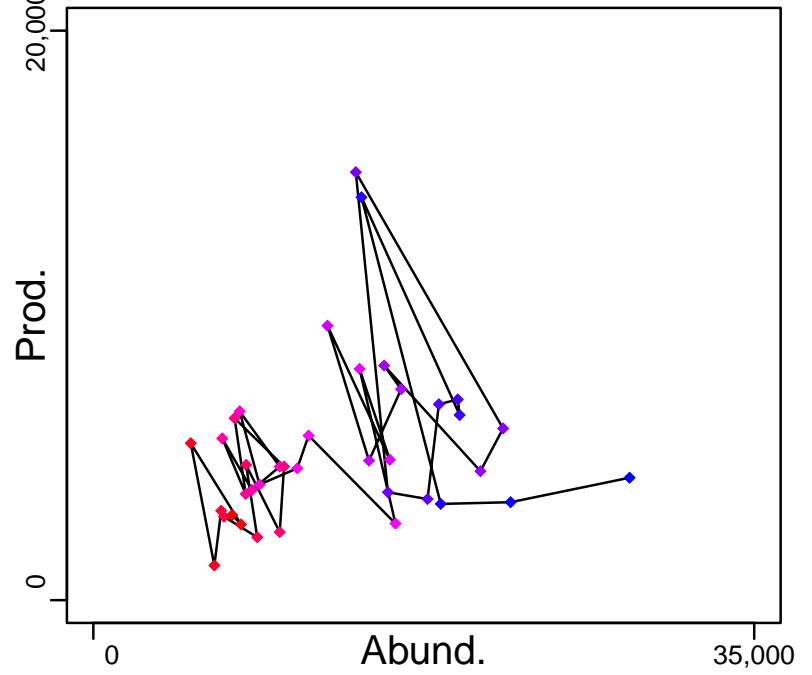
Kobe MGT_{pref} (1950–2018–PONS)



Spawner Recruit (1951–2010–CHING)



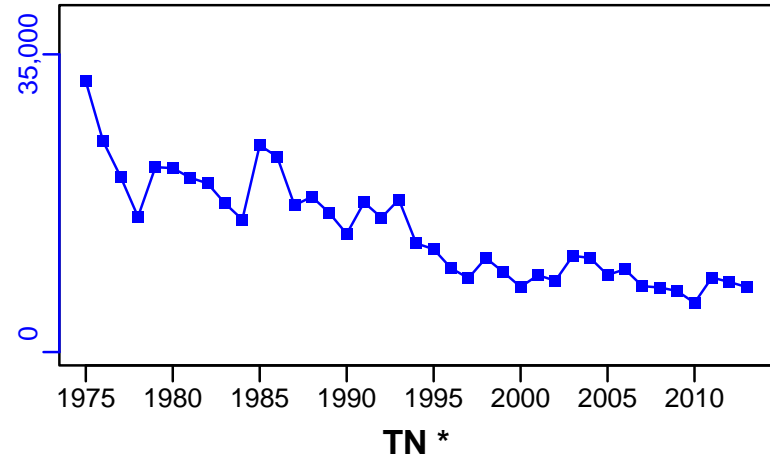
Production (1974–2013–SISIMP2016)



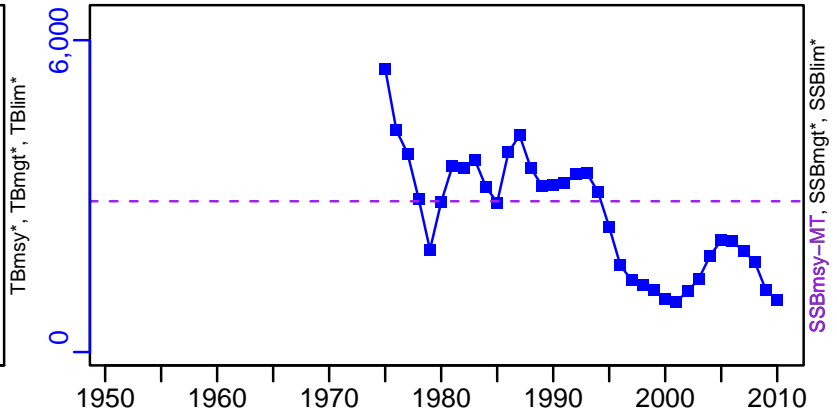
◆ Start Year ◆ End Year * No Data

Striped marlin Western and Central North Pacific [STMARLINWCPAC]

TB-MT (1974–2013–SISIMP2016)



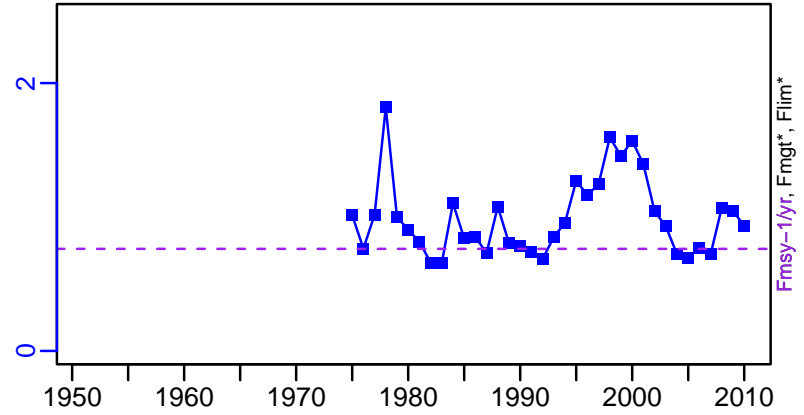
SSB-MT (1951–2010–CHING)



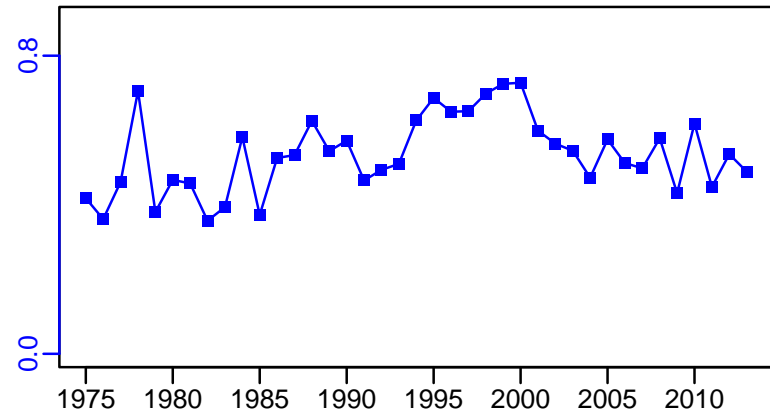
TN *



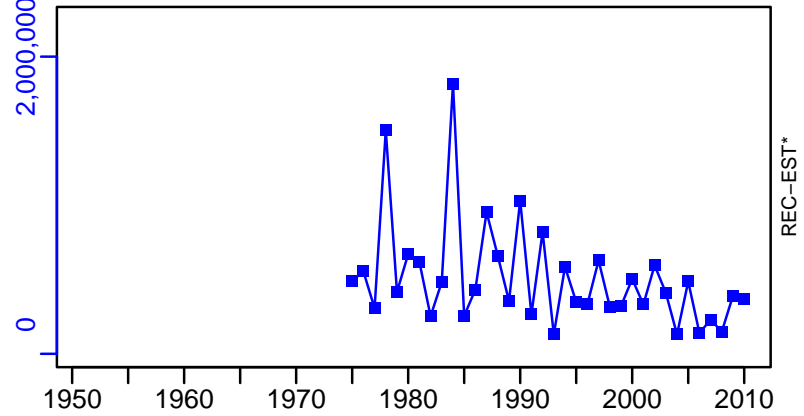
F-1/yr (1951–2010–CHING)



ER-calc-ratio (1974–2013–SISIMP2016)



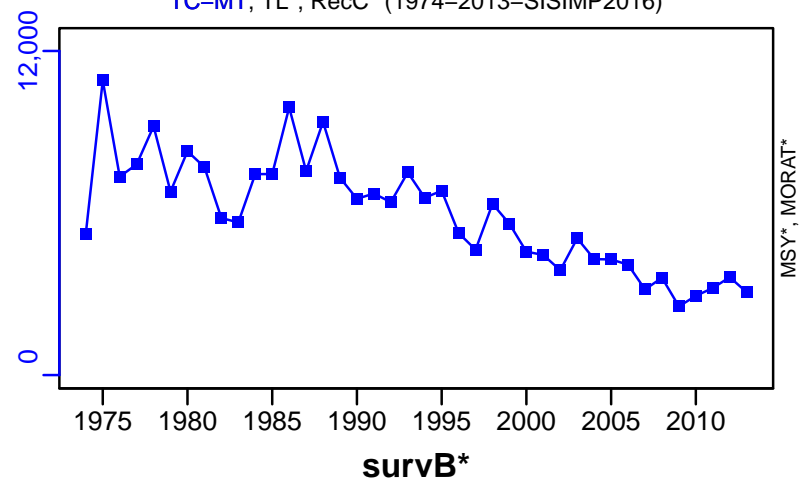
R-E00 (1951–2010–CHING)



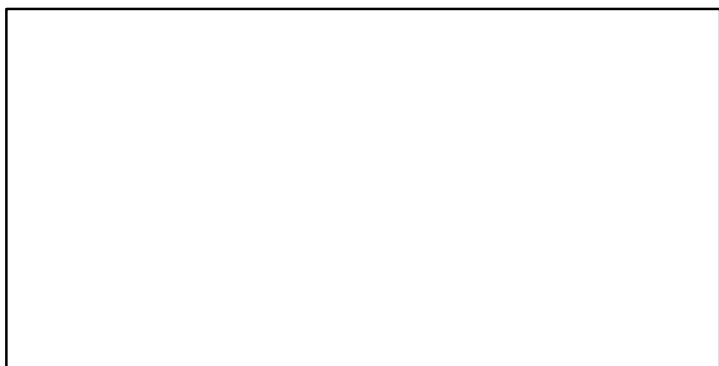
Striped marlin Western and Central North Pacific [STMARLINWCPAC]

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

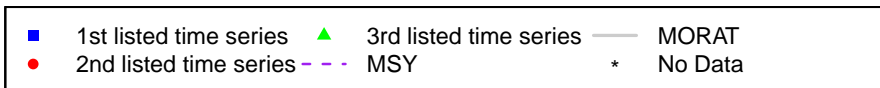
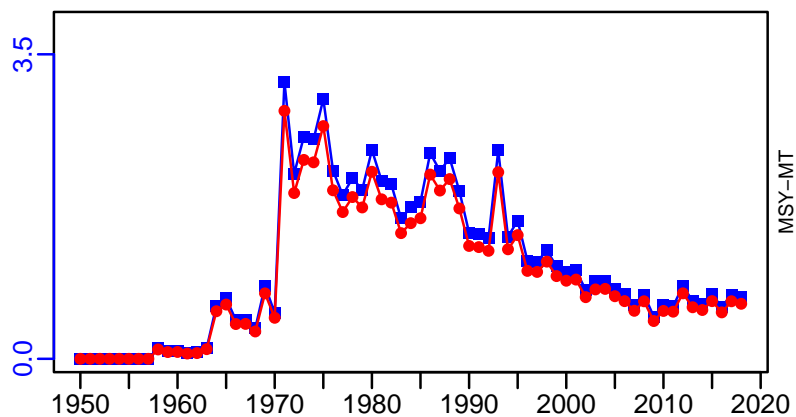
TAC*, Cpair*, Cadv*



EFFORT*



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



Swordfish Eastern Pacific [SWORDEPAC]

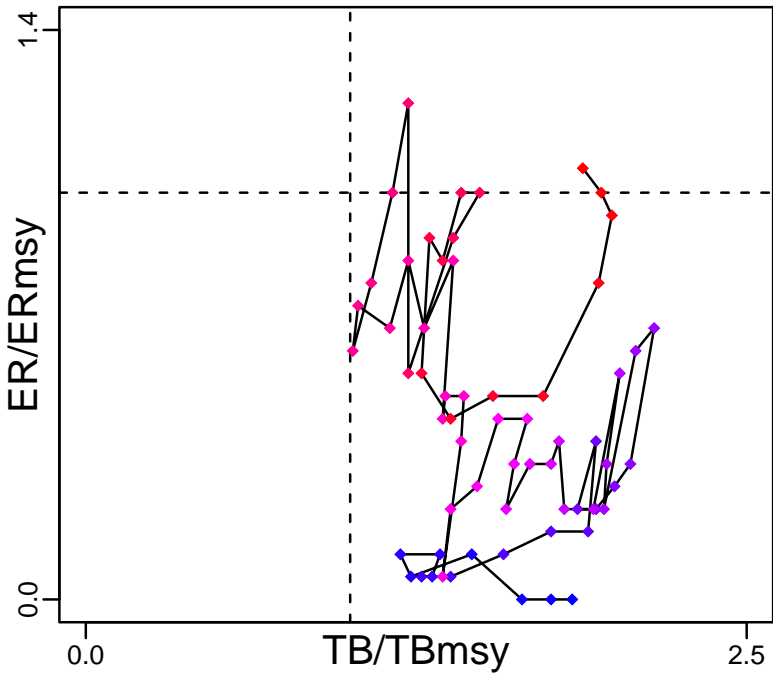
Metadata	
Scientific Name	Xiphias gladius
Current Assess ID	IATTC-SWORDEPAC-1951-2012-PONS
Area	Eastern Pacific
Management Authority	Inter-American Tropical Tuna Commission
Assessor	Inter-American Tropical Tuna Commission
Asmts in RAM	2012

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	-	-	-

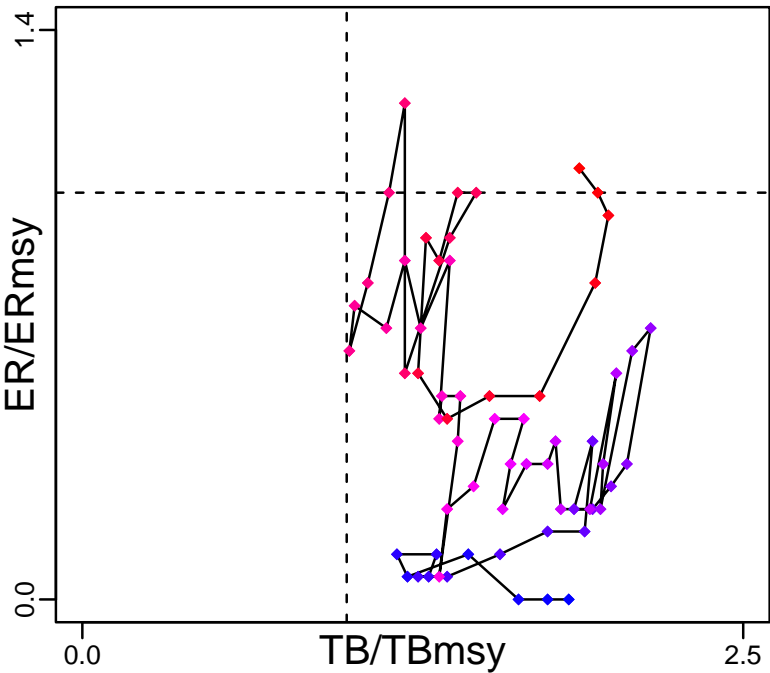
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2012	58,600	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-ratio	2012	0.19	-	-
TC	TC-MT	2012	9910		
TL	-	-	-		
TB/TBmsy	TBdivTBmsy-dimensionless	2012	1.88		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	ERdivERmsy-dimensionless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

Swordfish Eastern Pacific [SWORDEPAC]

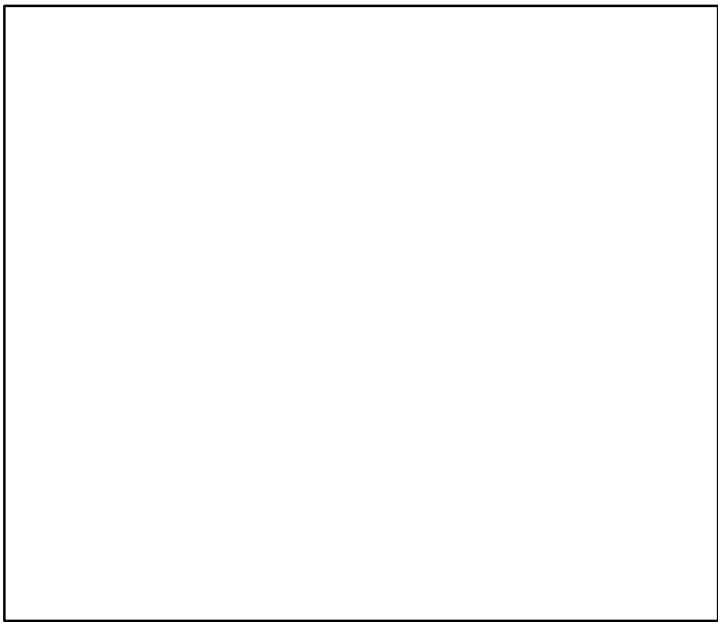
Kobe MSYpref (1951–2012–PONS)



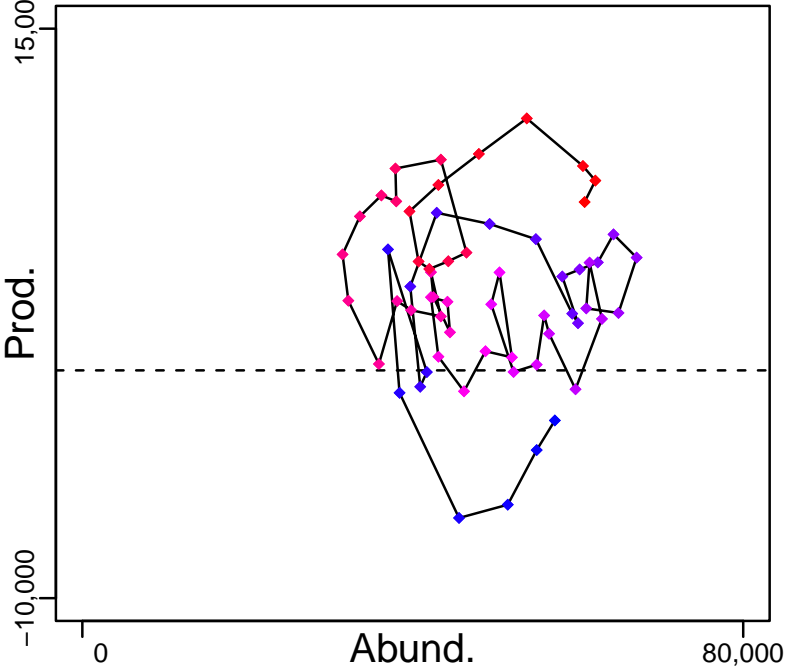
Kobe MGTpref (1951–2012–PONS)



Spawner Recruit*



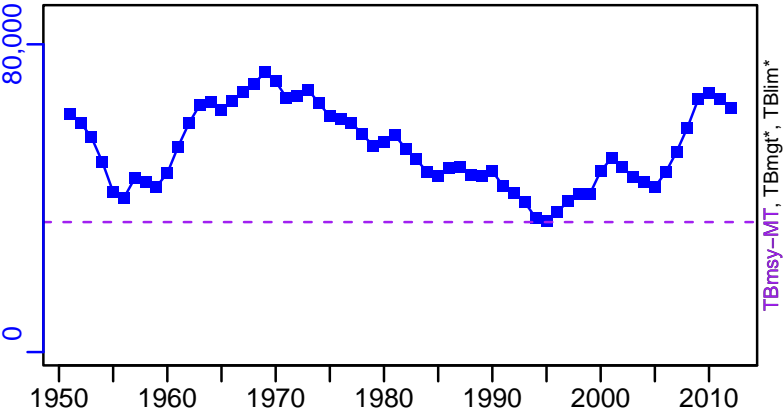
Production (1951–2012–PONS)



◆ Start Year ◆ End Year * No Data

Swordfish Eastern Pacific [SWORDEPAC]

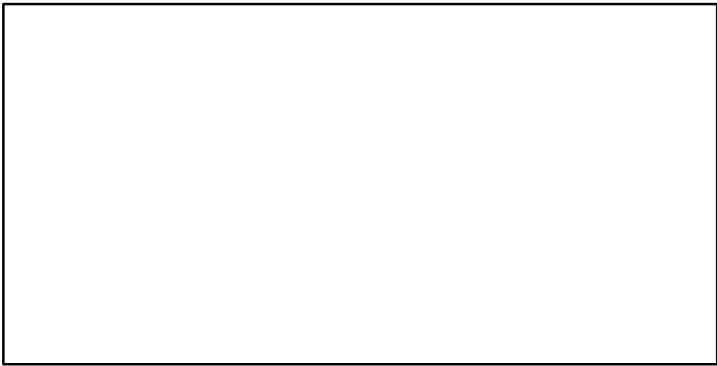
TB-MT (1951-2012-PONS)



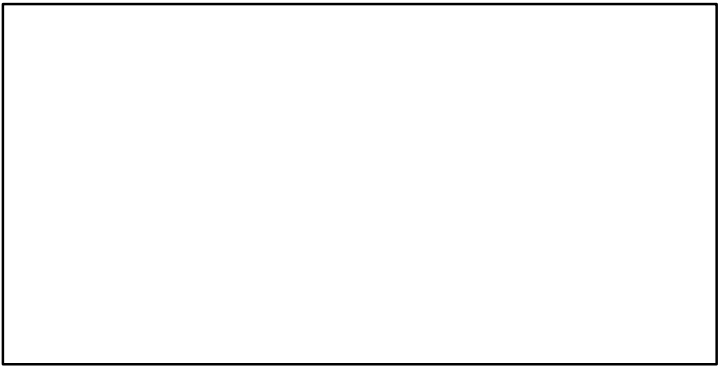
SSB*



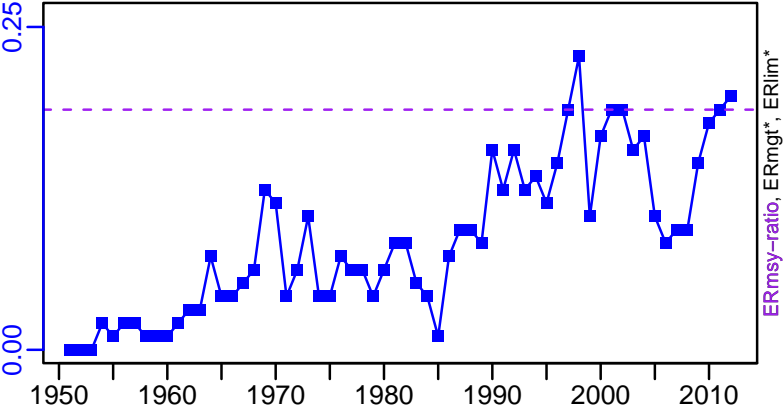
TN *



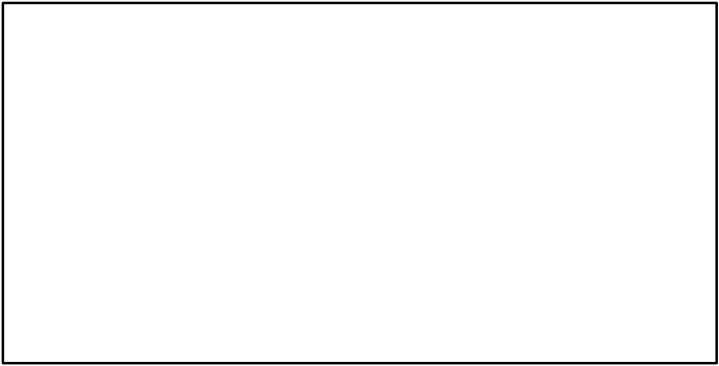
F*



ER-ratio (1951-2012-PONS)



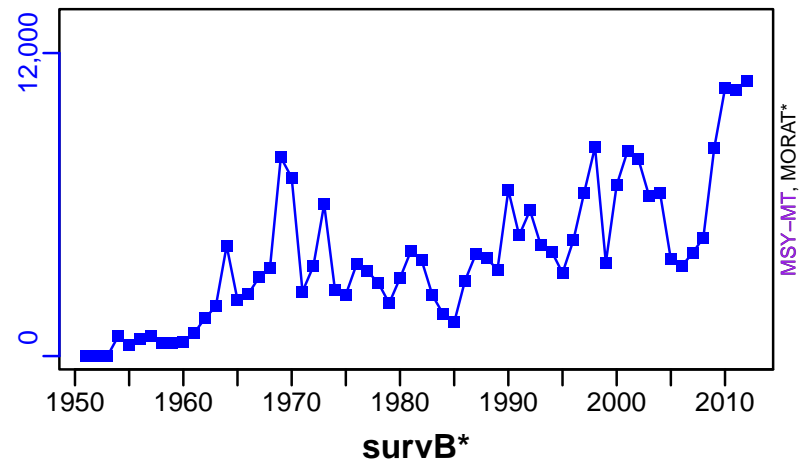
Recruits*



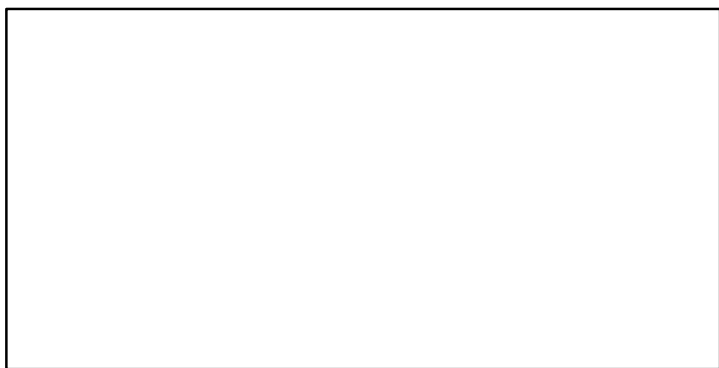
Swordfish Eastern Pacific [SWORDEPAC]

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

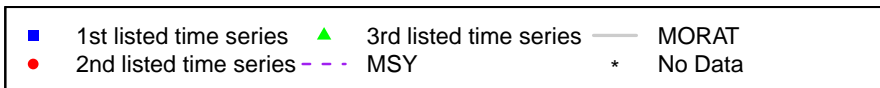
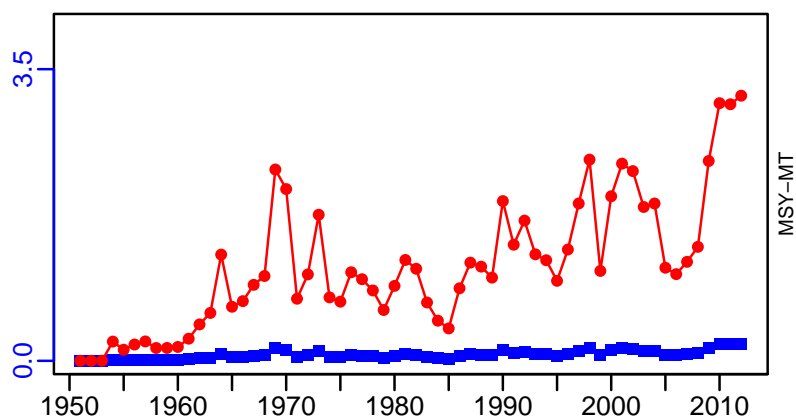
TAC*, Cpair*, Cadv*



EFFORT*



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



Swordfish North Pacific Ocean [SWORDNPAC]

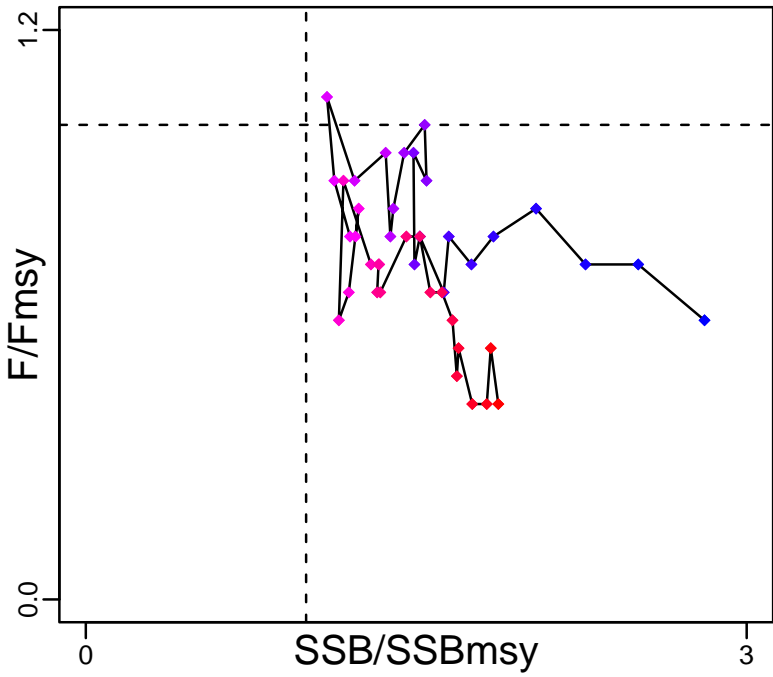
Metadata	
Scientific Name	Xiphias gladius
Current Assess ID	ISC-SWORDNPAC-1950-2018-PONS
Area	North Pacific Ocean
Management Authority	International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean
Assessor	International Scientific Committee for Tuna and Tuna-like Species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

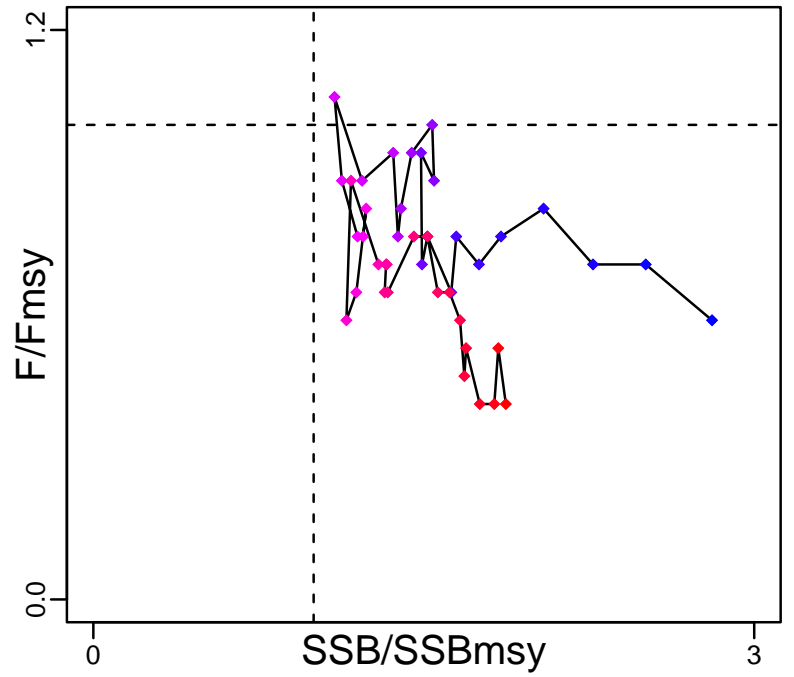
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2018	71,979	-	1+
SSB	SSB-MT	2018	29,404	Females	-
TN	-	-	-	-	-
R	R-E00	2018	781,000	-	0
F	F-1/yr	2018	0.07	-	-
ER	ER-calc-ratio	2018	0.097	-	-
TC	TC-MT	2018	6969		
TL	-	-	-		
TB/TBmsy	TBdivTBmsy-dimensionless	2012	1.19		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	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]

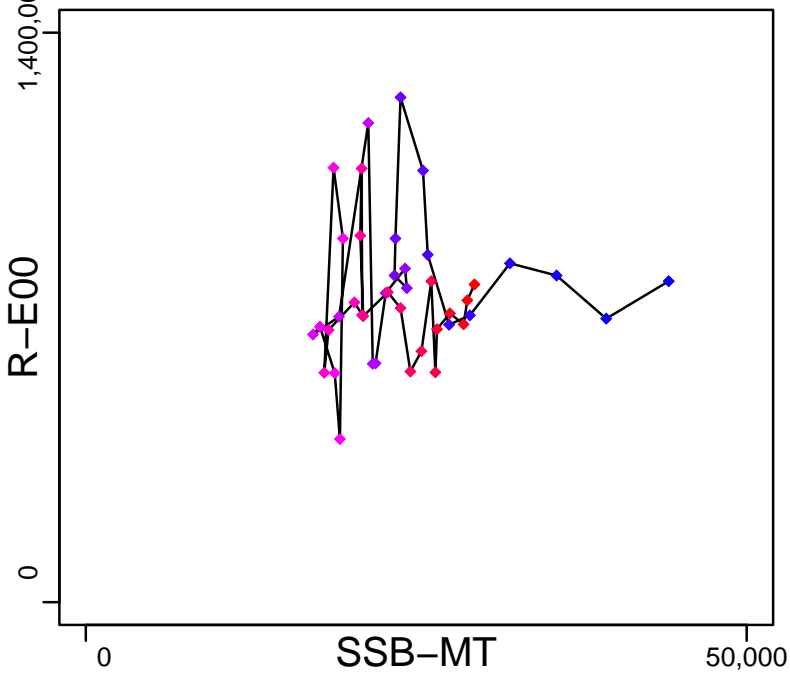
Kobe MSYpref (1950–2018–PONS)



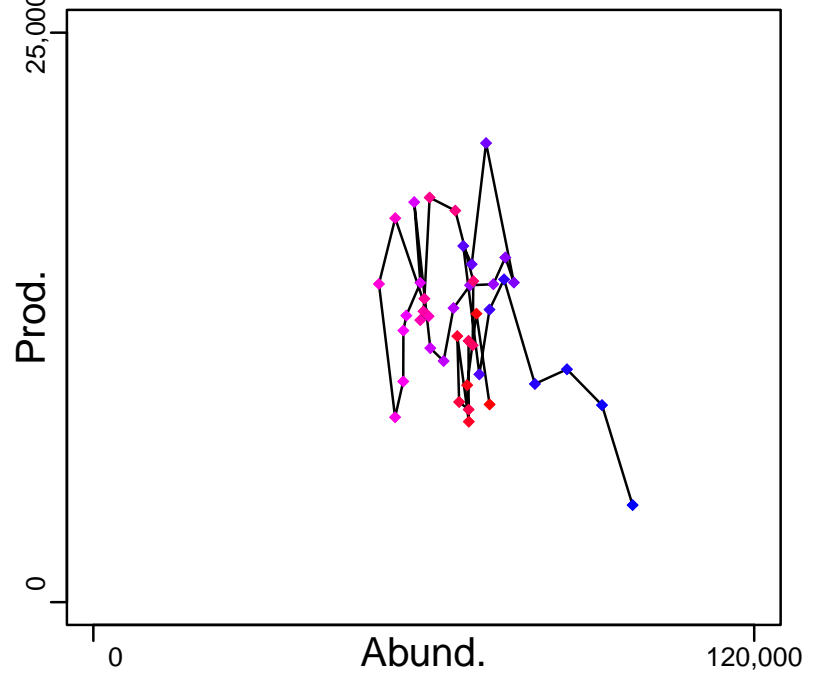
Kobe MGTpref (1950–2018–PONS)



Spawner Recruit (1950–2018–PONS)

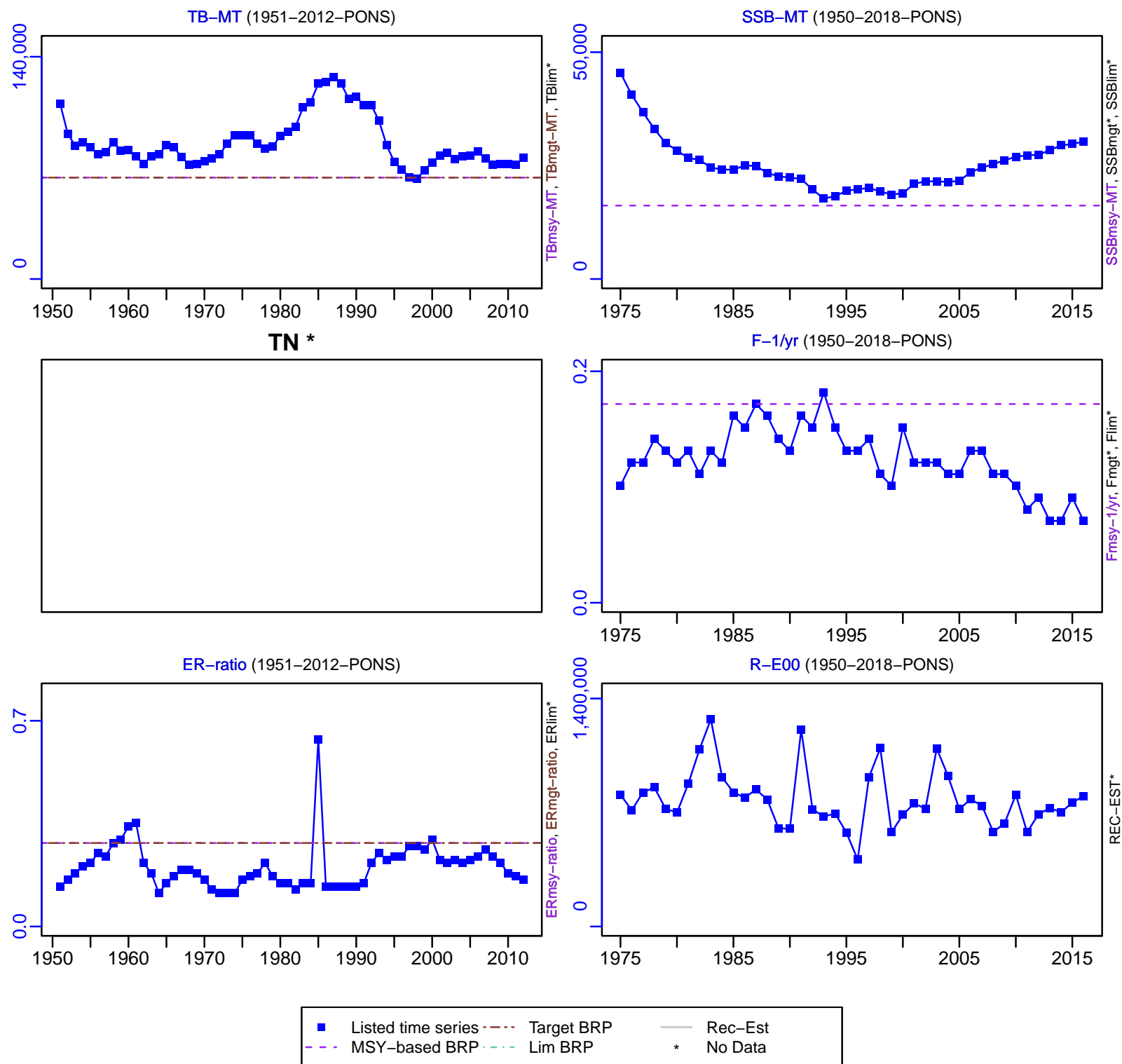


Production (1950–2018–PONS)



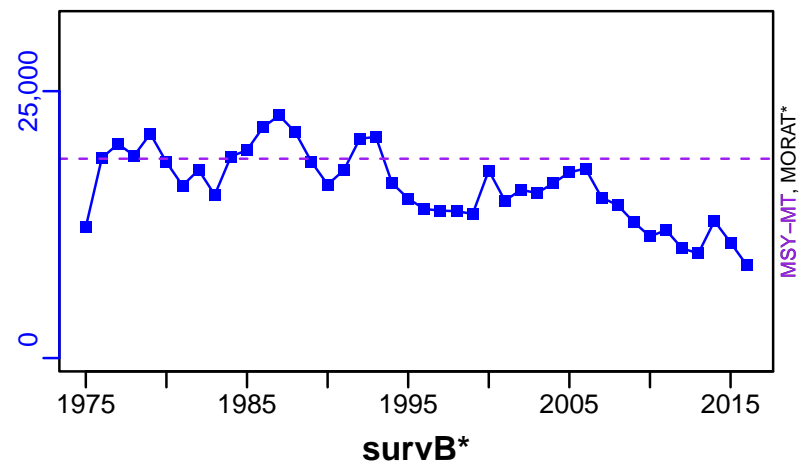
◆ Start Year ◆ End Year * No Data

Swordfish North Pacific Ocean [SWORDNPAC]



Swordfish North Pacific Ocean [SWORDNPAC]

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



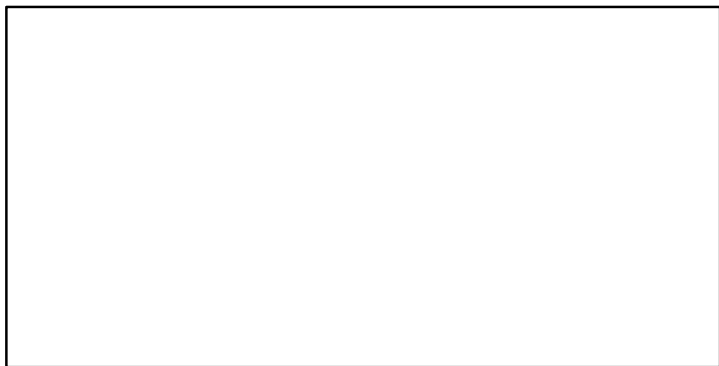
TAC*, Cpair*, Cadv*



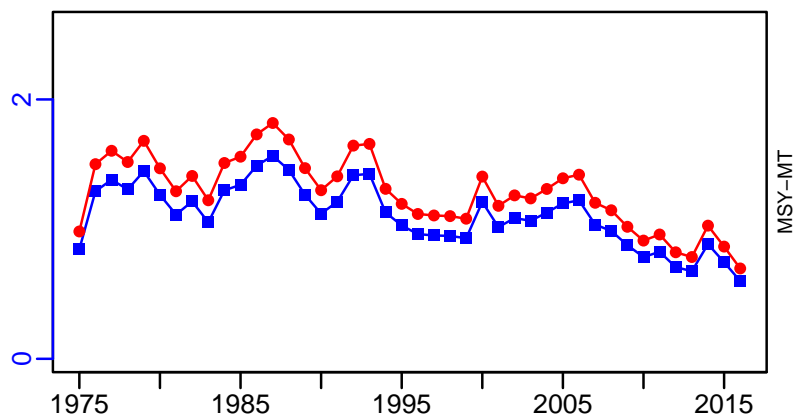
CPUE*



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 Pacific Ocean [SWORDSPAC]

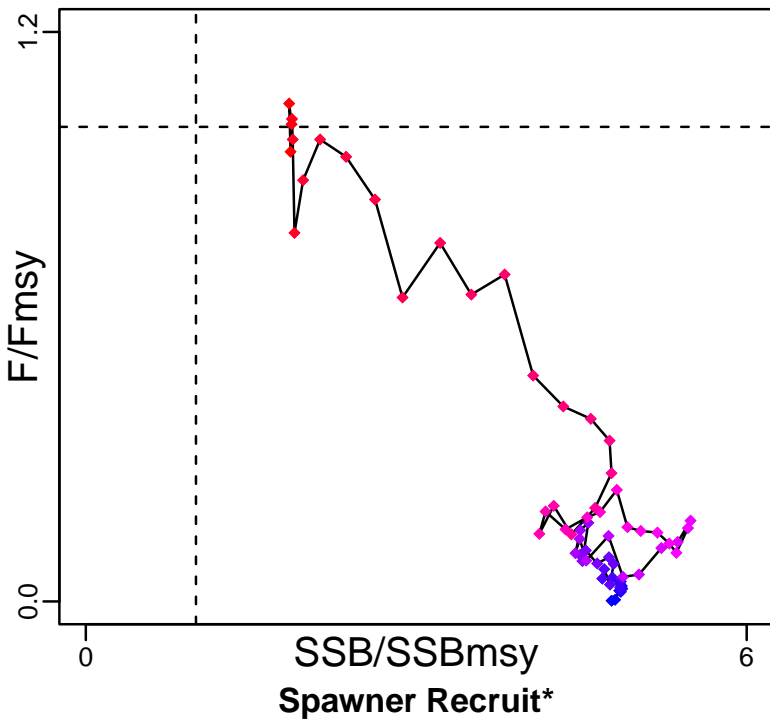
Metadata	
Scientific Name	Xiphias gladius
Current Assess ID	ISC-SWORDSPAC-1952-2018-PONS
Area	South Pacific Ocean
Management Authority	International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean
Assessor	International Scientific Committee for Tuna and Tuna-like Species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

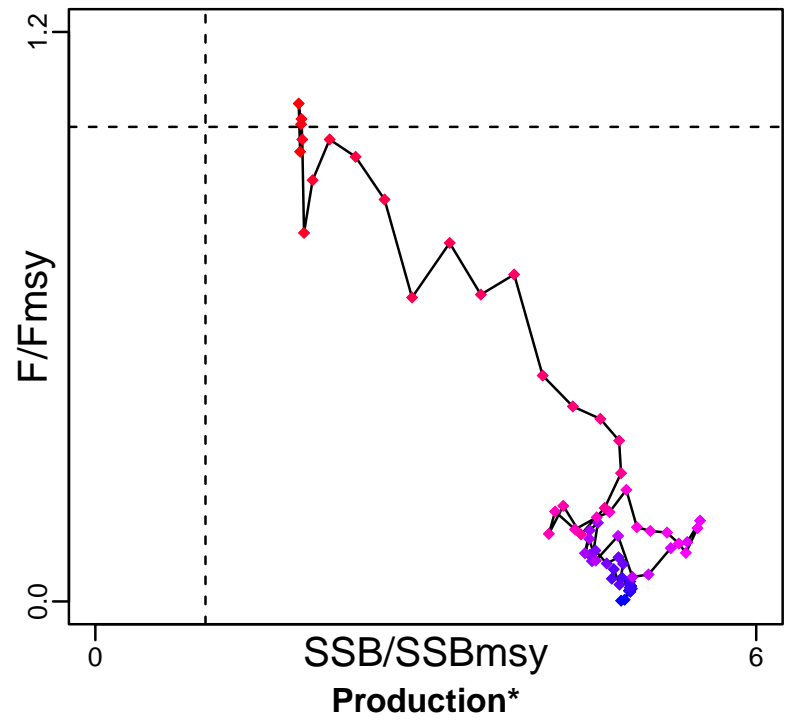
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	-	-	-		
TL	TL-MT	2018	20,774		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2018	1.859		
F/Fmsy	FdivFmsy-dimensionless	2018	0.948		
ER/ERmsy	-	-	-		
TB/TBmgt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

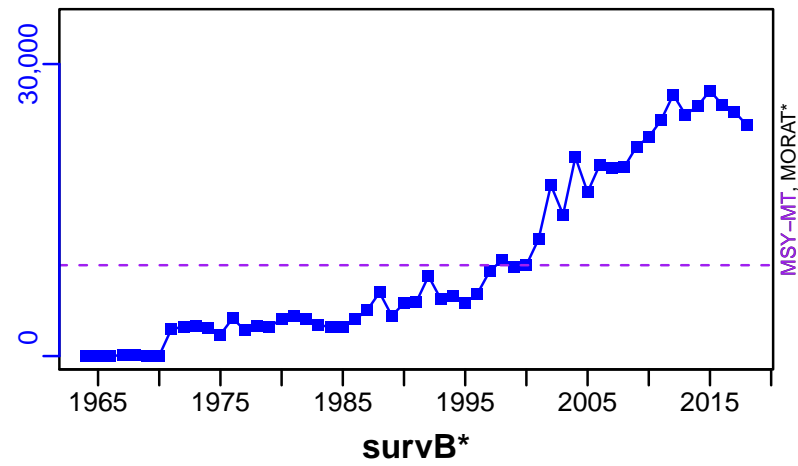


Recruits*



Swordfish South Pacific Ocean [SWORDSPAC]

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



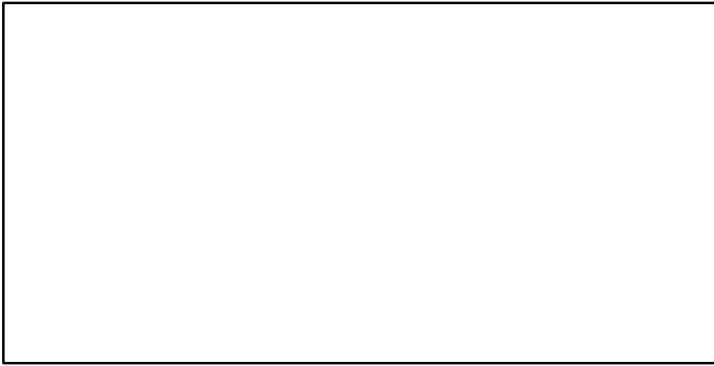
TAC*, Cpair*, Cadv*



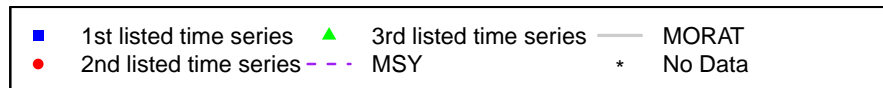
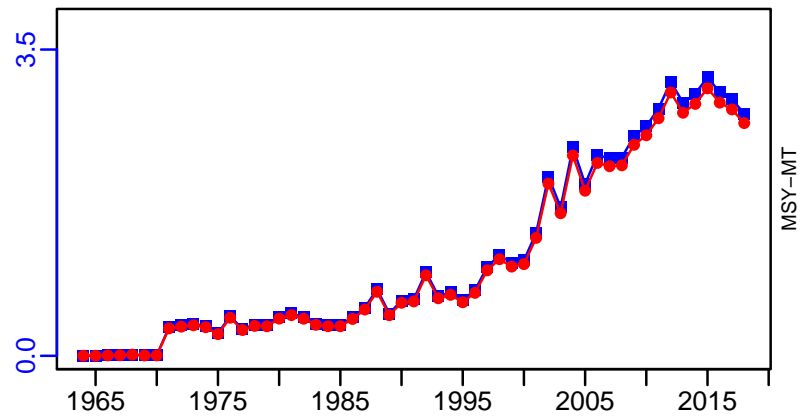
CPUE*



EFFORT*



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



Thresher shark North Pacific [THRSHARNPAC]

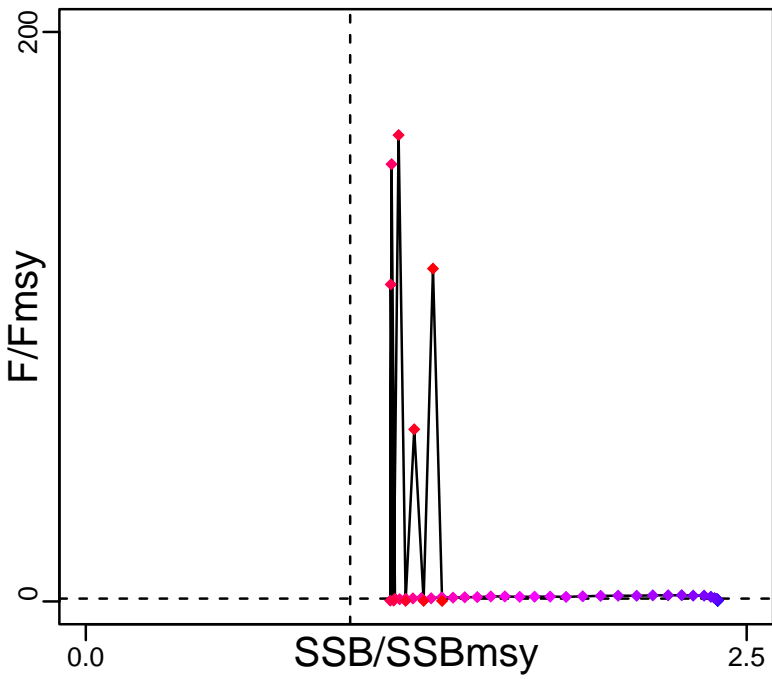
Metadata	
Scientific Name	Alopias vulpinus
Current Assess ID	SWFSC-THRSHARNPAC-1969-2014-SISIMP2021
Area	North Pacific
Management Authority	National Marine Fisheries Service, US national management
Assessor	Southwest Fisheries Science Center
Asmts in RAM	2014

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-E00	2014	101,500
Fmsy	Fmsy-1/yr	2014	0.45
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	SSBlim-E00	2014	97,500
Flim	Flim-1/yr	2014	0.45
ERlim	-	-	-

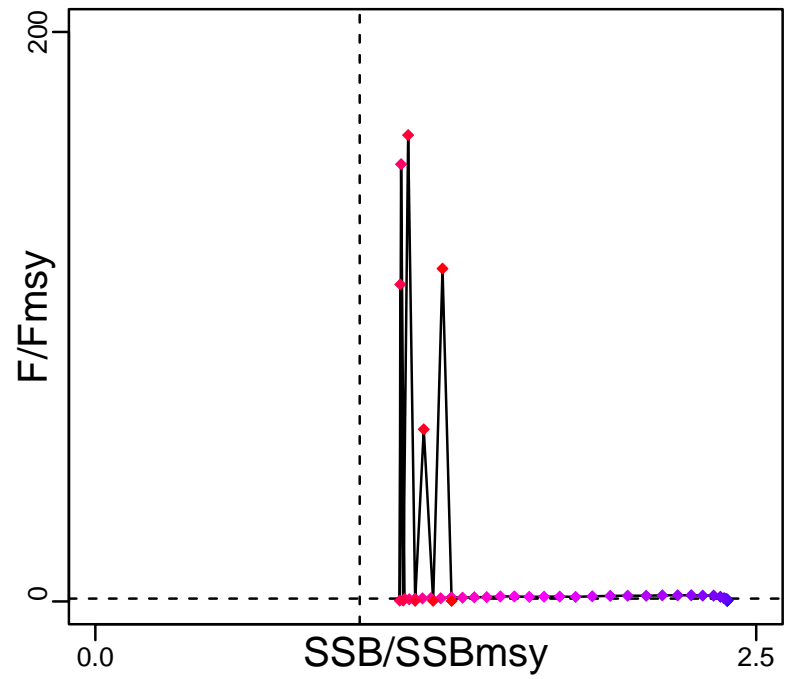
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-E00	2014	136,800	-	-
TN	-	-	-	-	-
R	R-E00	2014	180	-	-
F	F-1/yr	2014	0.09	-	-
ER	-	-	-	-	-
TC	-	-	-		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-E00/SSBmsy-E00	2014	1.348		
F/Fmsy	F-1/yr/Fmsy-1/yr	2014	0.2		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Thresher shark North Pacific [THRSHARNPAC]

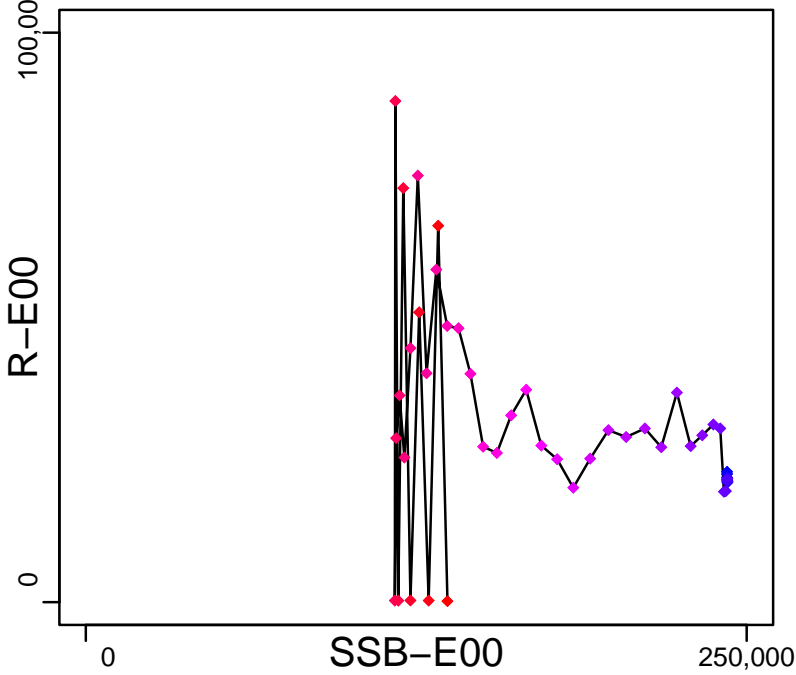
Kobe MSYpref (1969–2014–SISIMP2021)



Kobe MGTpref (1969–2014–SISIMP2021)



Spawner Recruit (1969–2014–SISIMP2021)



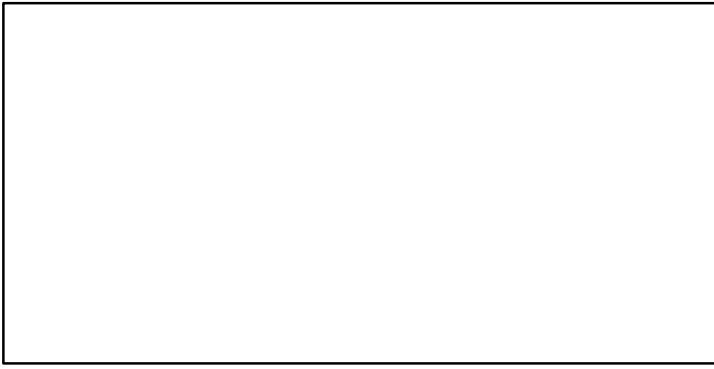
Production*



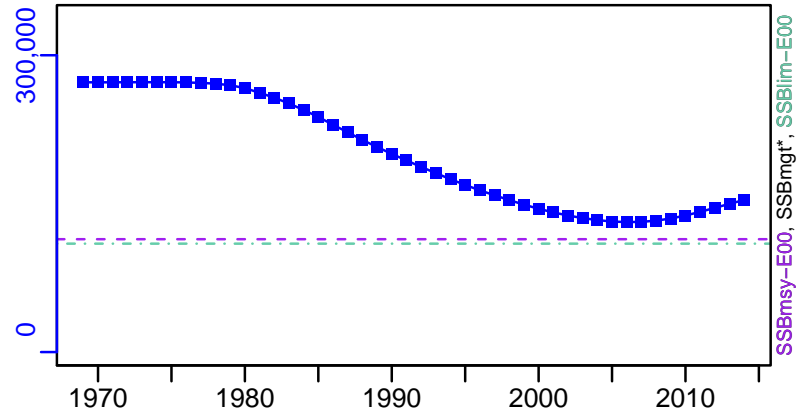
◆ Start Year ◆ End Year * No Data

Thresher shark North Pacific [THRSHARNPAC]

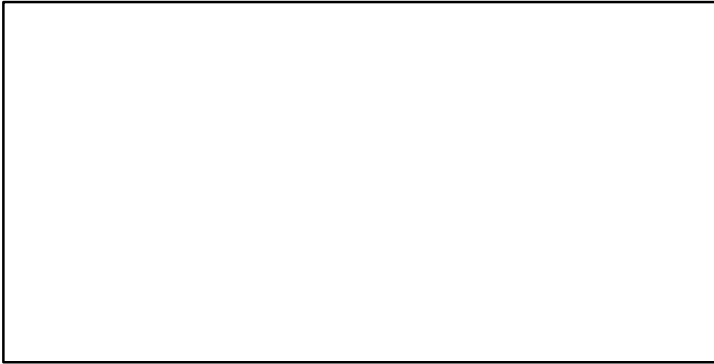
TB*



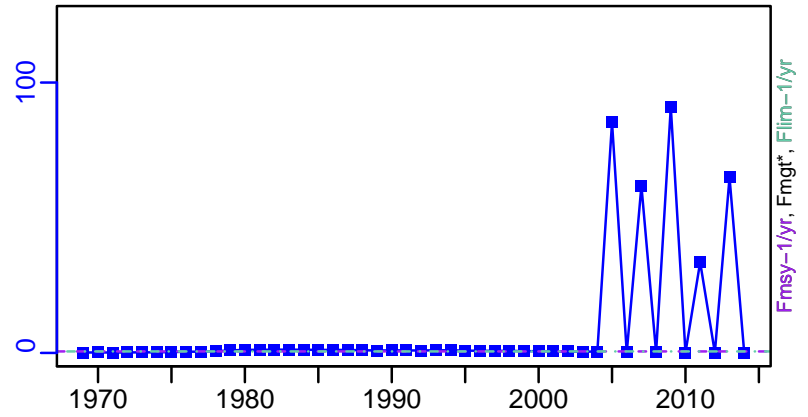
SSB-E00 (1969-2014-SISIMP2021)



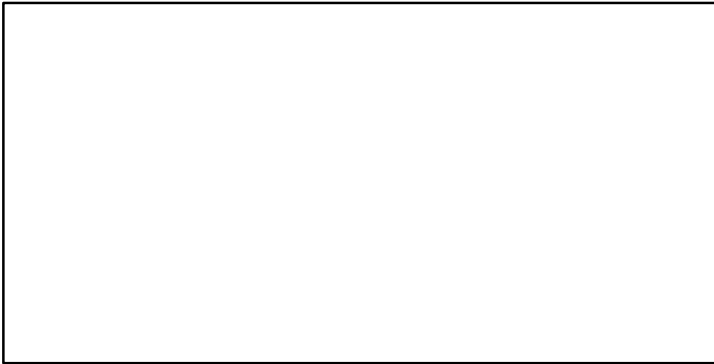
TN *



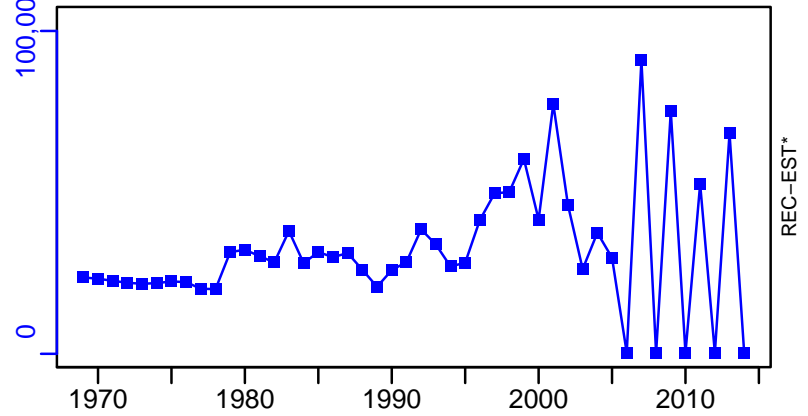
F-1/yr (1969-2014-SISIMP2021)



ER*



R-E00 (1969-2014-SISIMP2021)



Thresher shark North Pacific [THRSHARNPAC]

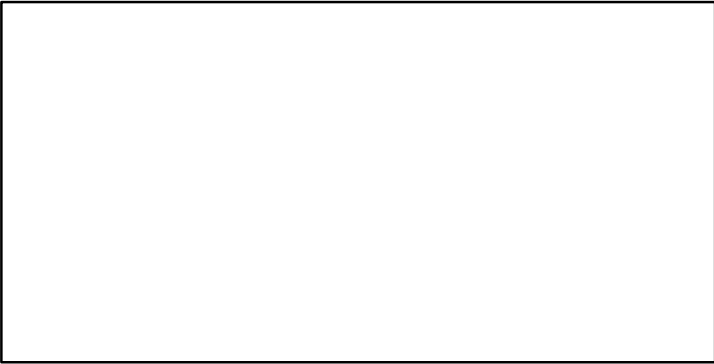
TC*, TL*, RecC*



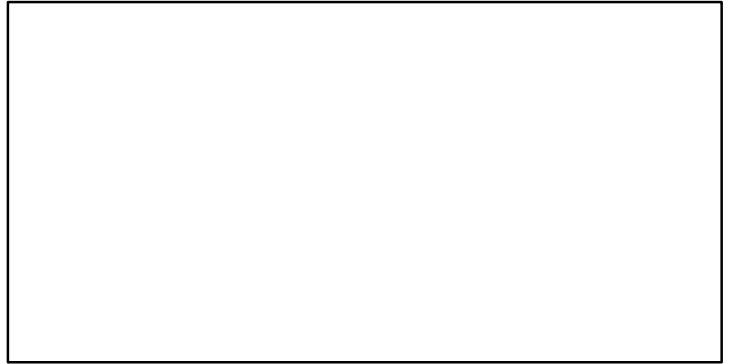
TAC*, Cpair*, Cadv*



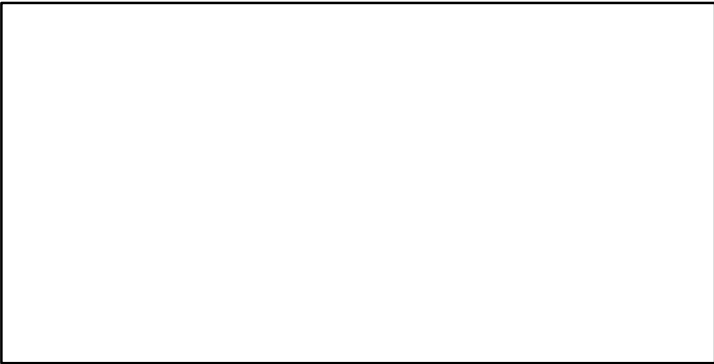
survB*



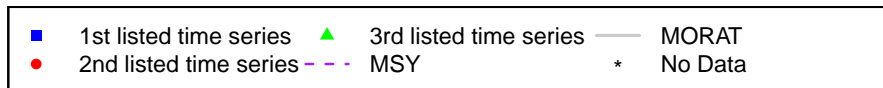
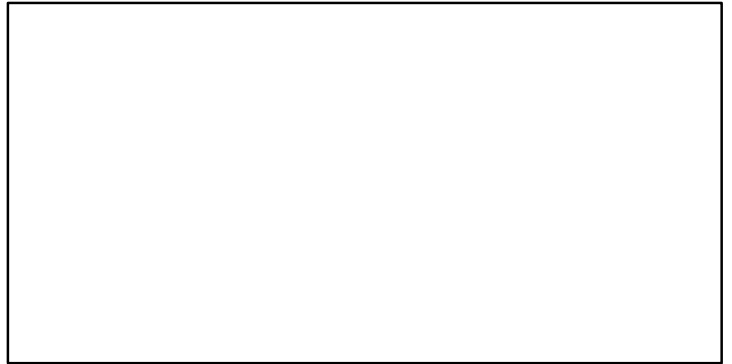
CPUE*



EFFORT*



CdivMSY*



Yellowfin tuna Central Western Pacific Ocean [YFINCWPAC]

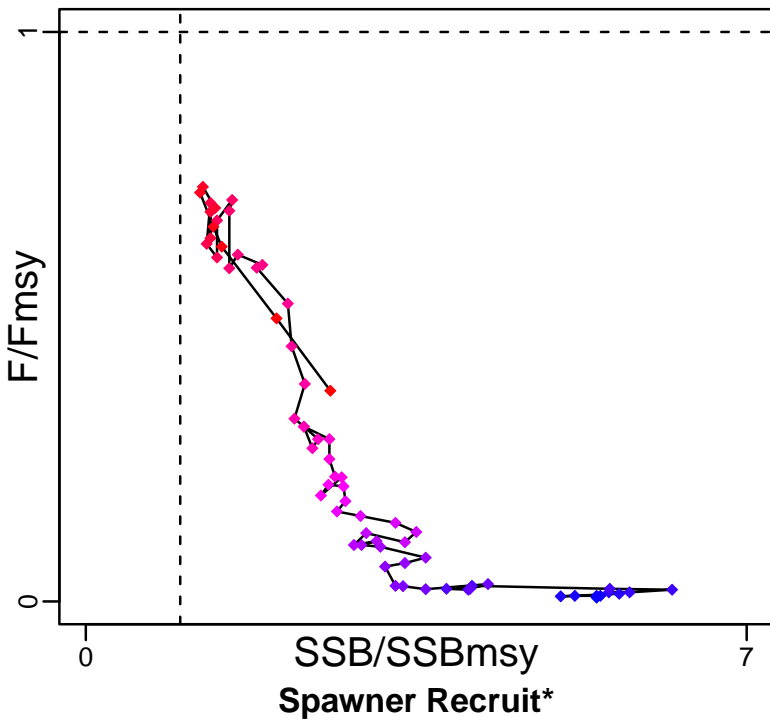
Metadata	
Scientific Name	Thunnus albacares
Current Assess ID	SPC-YFINCWPAC-1950-2020-SMITH
Area	Central Western Pacific Ocean
Management Authority	Western and Central Pacific Fisheries Commission
Assessor	Secretariat of the Pacific Community
Asmts in RAM	2015, 2020, 2012

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	-	-	-

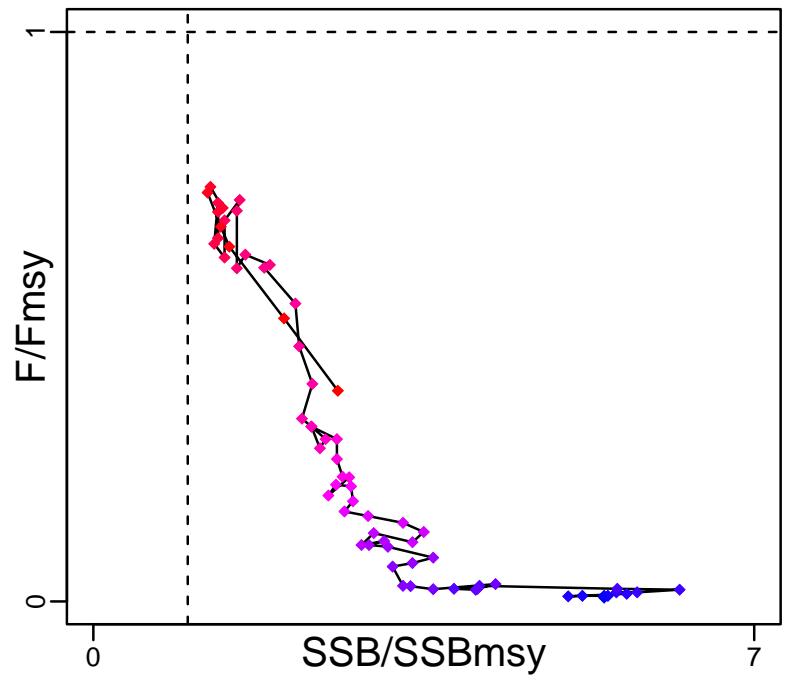
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2020	2,120,000	-	-
SSB	SSB-MT	2020	1,210,000	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	F-1/yr	2020	0.457	-	-
ER	ER-calc-ratio	2020	0.328	-	-
TC	TC-MT	2020	722,042		
TL	TL-MT	2015	576,000		
TB/TBmsy	TBdivTBmsy-dimensionless	2012	1.19		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless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

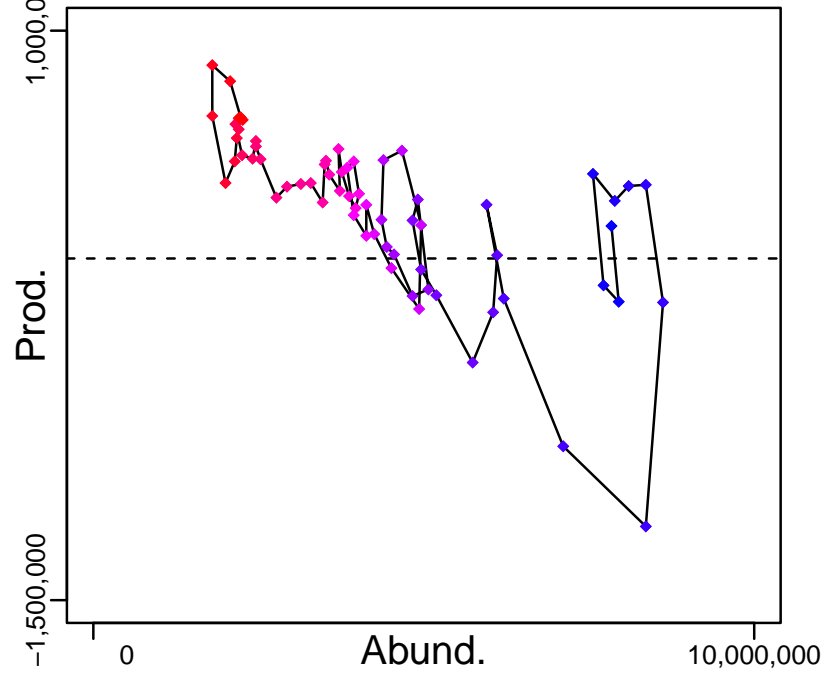
Kobe MSYpref (1950–2020–SMITH)



Kobe MGTpref (1950–2020–SMITH)



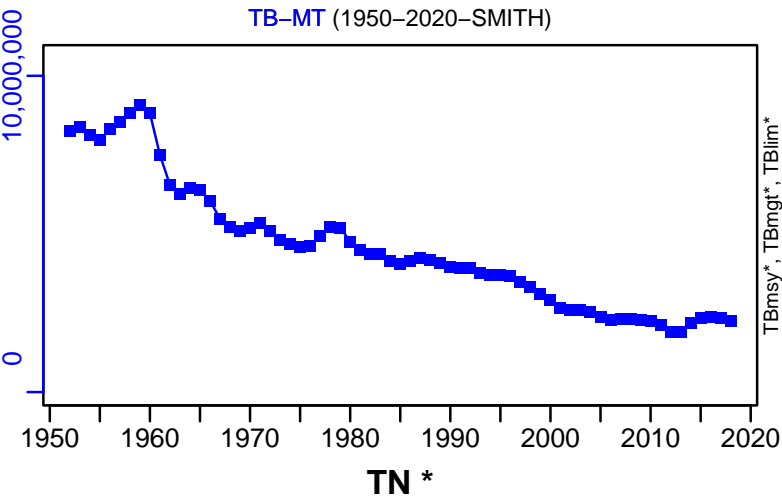
Production (1950–2020–SMITH)



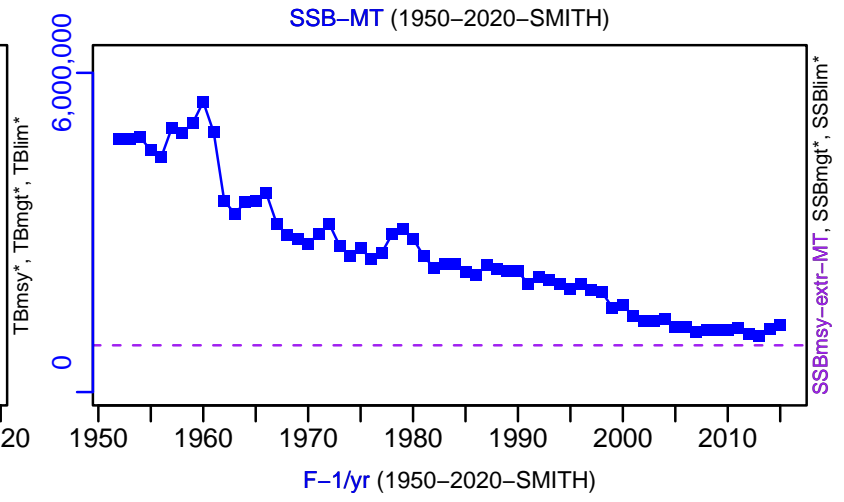
◆ Start Year ◆ End Year * No Data

Yellowfin tuna Central Western Pacific Ocean [YFINCWPAC]

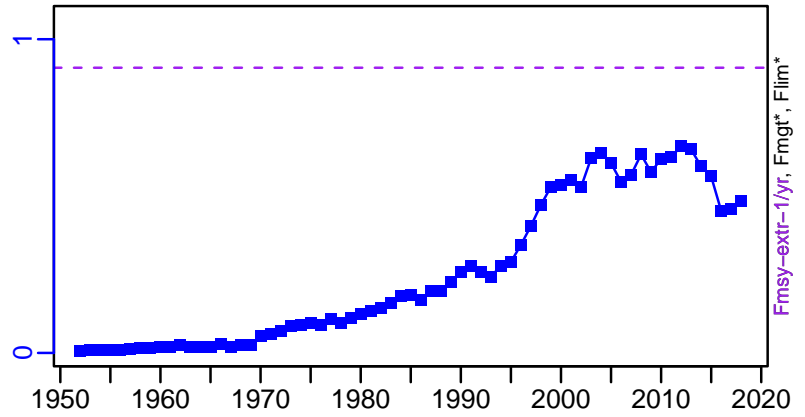
TB-MT (1950-2020-SMITH)



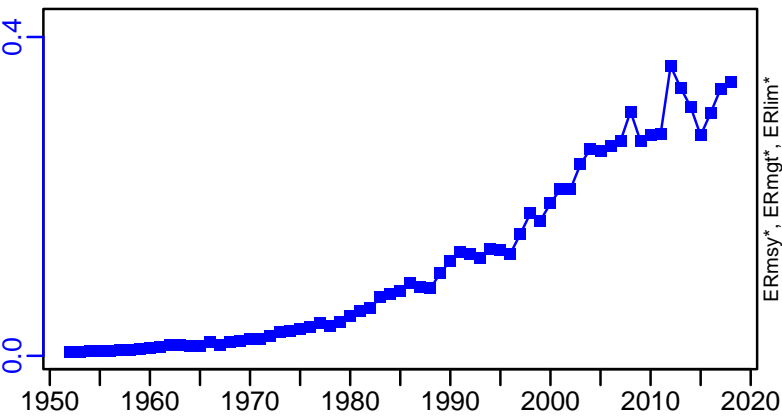
SSB-MT (1950-2020-SMITH)



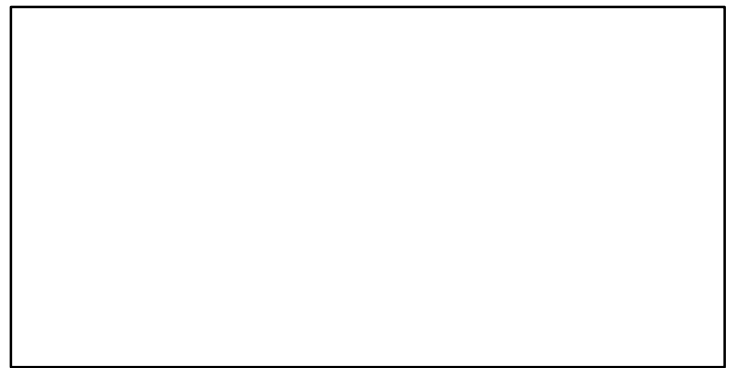
F-1/yr (1950-2020-SMITH)



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



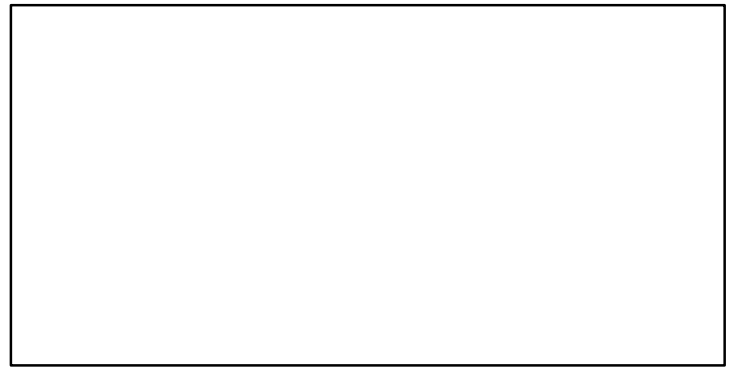
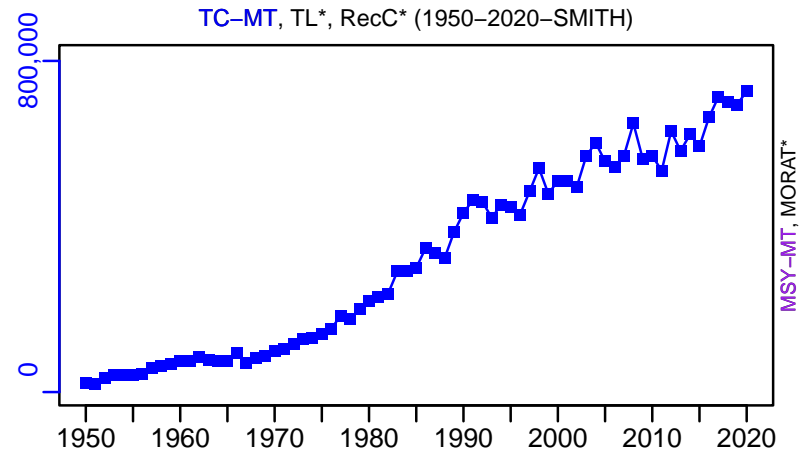
Recruits*



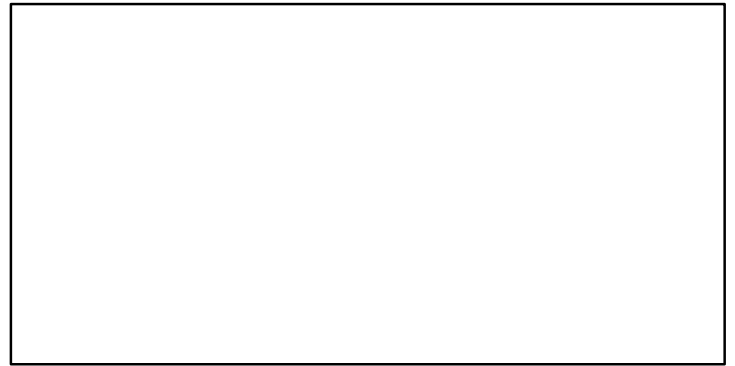
Yellowfin tuna Central Western Pacific Ocean [YFINCWPAC]

TC-MT, TL*, RecC* (1950–2020–SMITH)

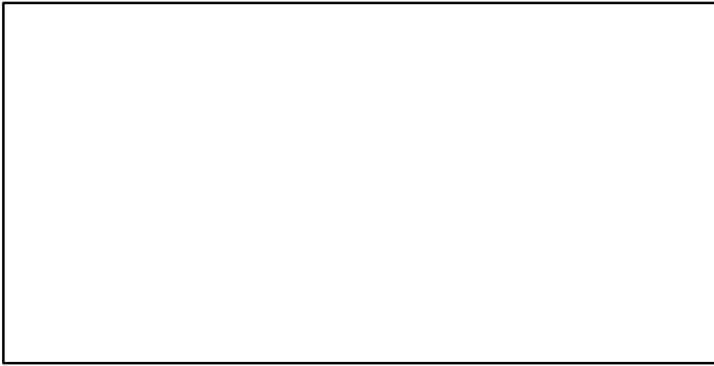
TAC*, Cpair*, Cadv*



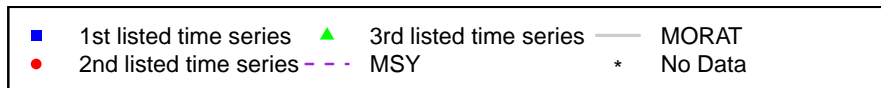
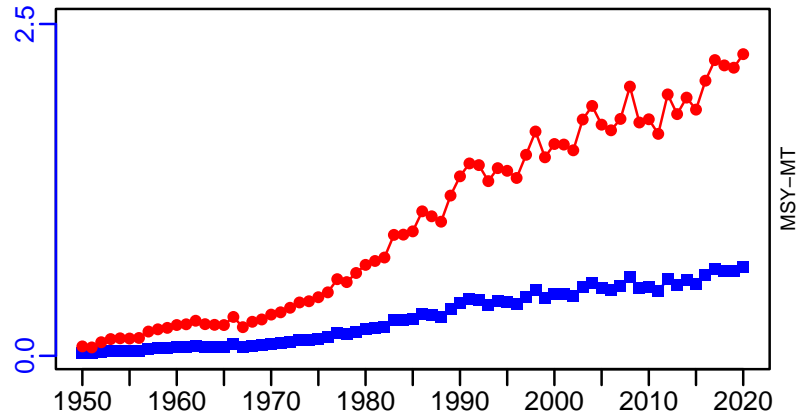
CPUE*



EFFORT*



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



Yellowfin tuna Eastern Pacific [YFINEPAC]

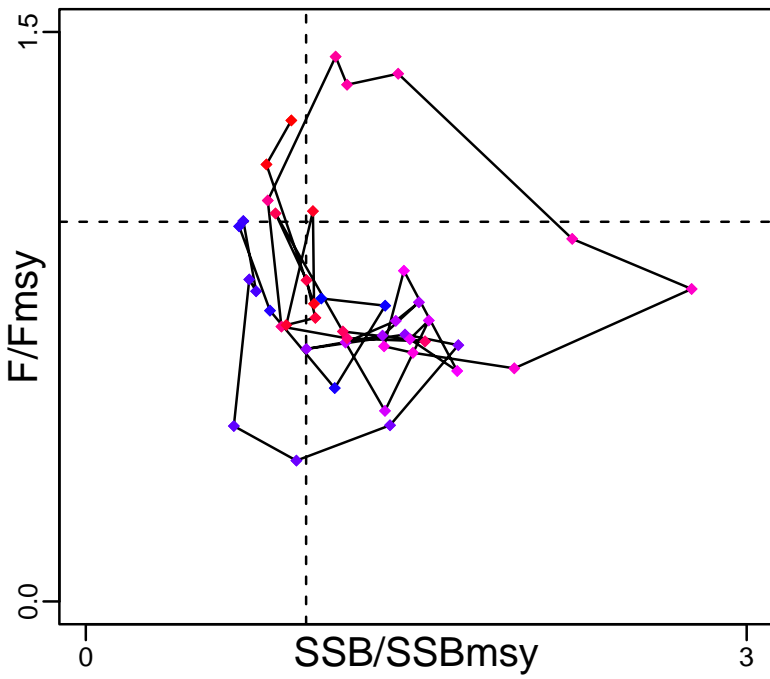
Metadata	
Scientific Name	Thunnus albacares
Current Assess ID	IATTC-YFINEPAC-1918-2019-PONS
Area	Eastern Pacific
Management Authority	Inter-American Tropical Tuna Commission
Assessor	Inter-American Tropical Tuna Commission
Asmts in RAM	2019, 2012, 2016

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	-	-	-

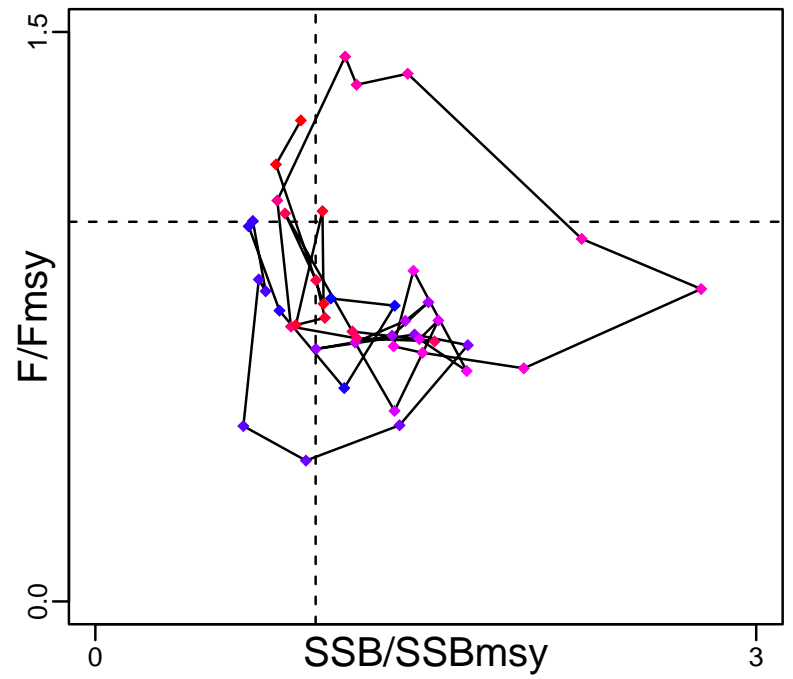
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2016	3,360,000	-	-
TN	-	-	-	-	-
R	R-E00	2016	303,000	-	-
F	F-1/yr	2016	0.916	-	-
ER	-	-	-	-	-
TC	TC-MT	2012	191,000		
TL	TL-MT	2019	251,054		
TB/TBmsy	TBdivTBmsy-dimensionless	2012	1.07		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless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

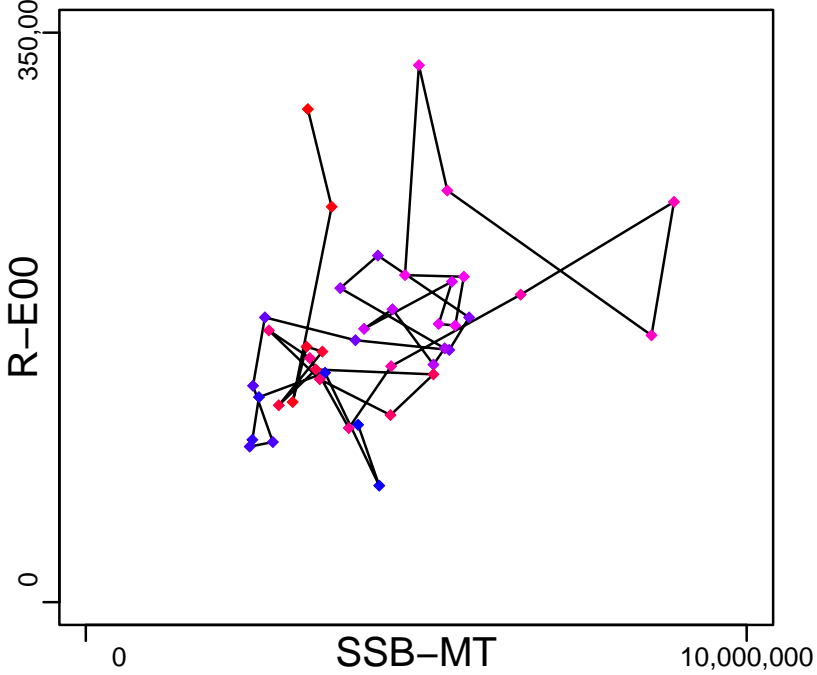
Kobe MSYpref (1918–2019–PONS)



Kobe MGTpref (1918–2019–PONS)



Spawner Recruit (1950–2016–PONS)



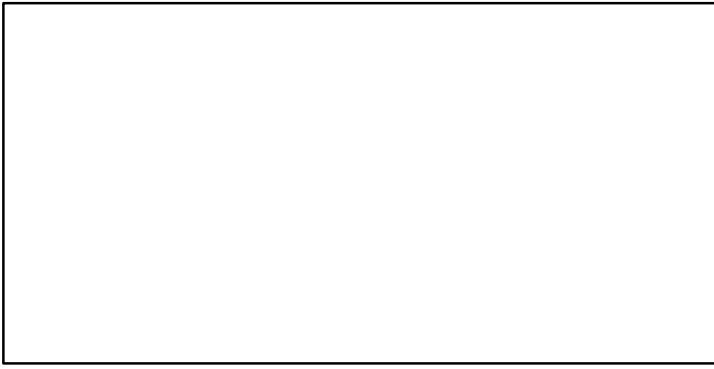
Production*



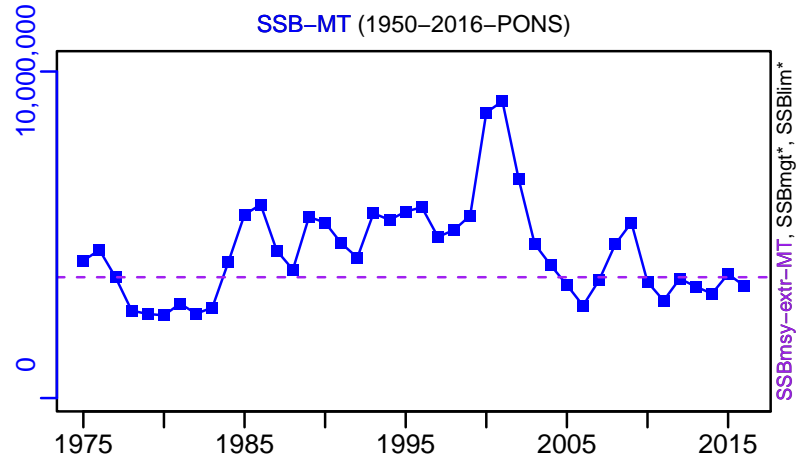
◆ Start Year ◆ End Year * No Data

Yellowfin tuna Eastern Pacific [YFINEPAC]

TB*



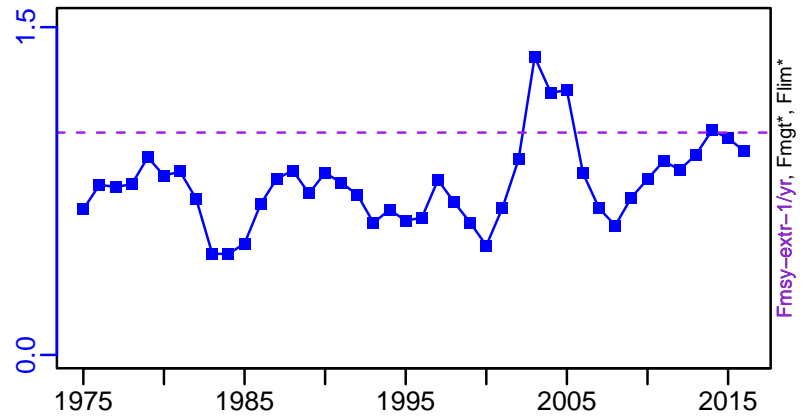
SSB-MT (1950–2016–PONS)



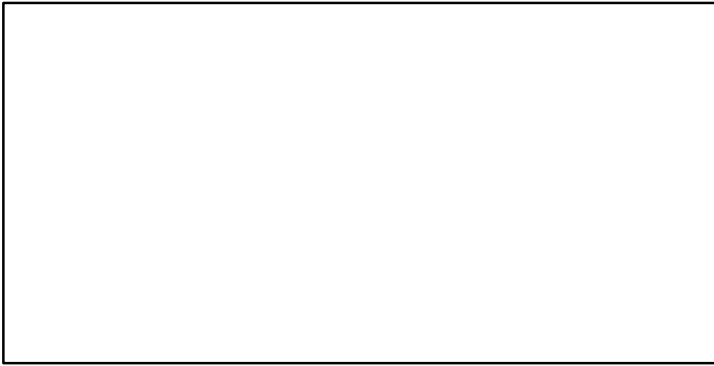
TN *



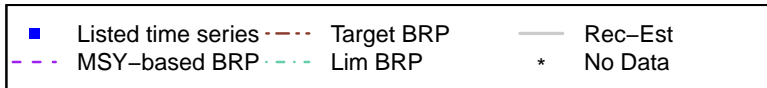
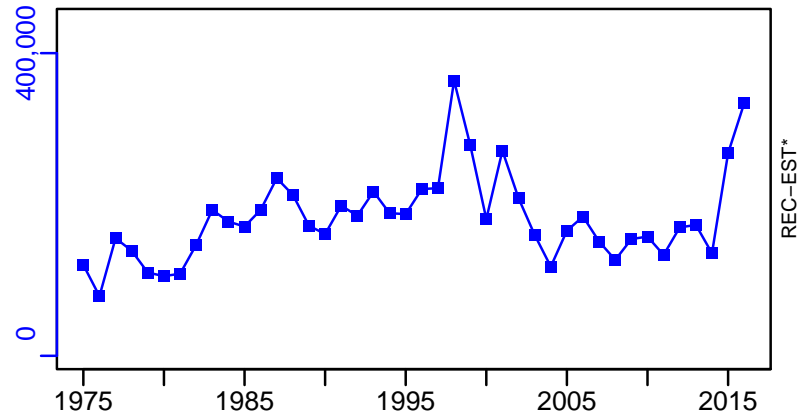
F-1/yr (1950–2016–PONS)



ER*

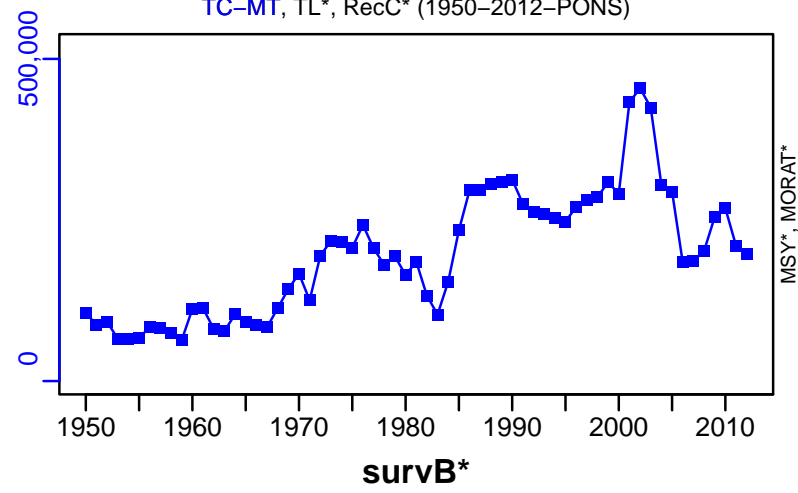


R-E00 (1950–2016–PONS)



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)

