

# Pacific Ocean Stocks

## v4.41 (Aug-21-2018)

Not present Present Preferred

Stock	Time Series Types			
	B/Bmsy	U/Umsy	B/Bmgt	U/Umgmt
1. ALBANPAC [Albacore tuna North Pacific]	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]	TB SSB	ER F	TB SSB	ER F
4. BIGEYEEPAC [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. PACBTUNA [Pacific bluefin tuna Pacific Ocean]	TB SSB	ER F	TB SSB	ER F
8. SFMAKONWPAC [Shortfin mako Northwest Pacific Ocean]	TB SSB	ER F	TB SSB	ER F
9. SKJCWPAC [Skipjack tuna Central Western Pacific]	TB SSB	ER F	TB SSB	ER F
10. SKJEPAC [Skipjack tuna Eastern Pacific]	TB SSB	ER F	TB SSB	ER F
11. STMARLINNEPAC [Striped marlin Northeast Pacific]	TB SSB	ER F	TB SSB	ER F
12. STMARLINSWPO [Striped marlin Southwestern Pacific Ocean]	TB SSB	ER F	TB SSB	ER F
13. STMARLINWCNPAC [Striped marlin Western and Central North Pacific]	TB SSB	ER F	TB SSB	ER F
14. SWORDEPAC [Swordfish Eastern Pacific]	TB SSB	ER F	TB SSB	ER F
15. SWORDNPAC [Swordfish North Pacific]	TB SSB	ER F	TB SSB	ER F
16. YFINCWPAC [Yellowfin tuna Central Western Pacific]	TB SSB	ER F	TB SSB	ER F
17. YFINEPAC [Yellowfin tuna Eastern Pacific]	TB SSB	ER F	TB SSB	ER F

## Albacore tuna North Pacific [ALBANPAC]

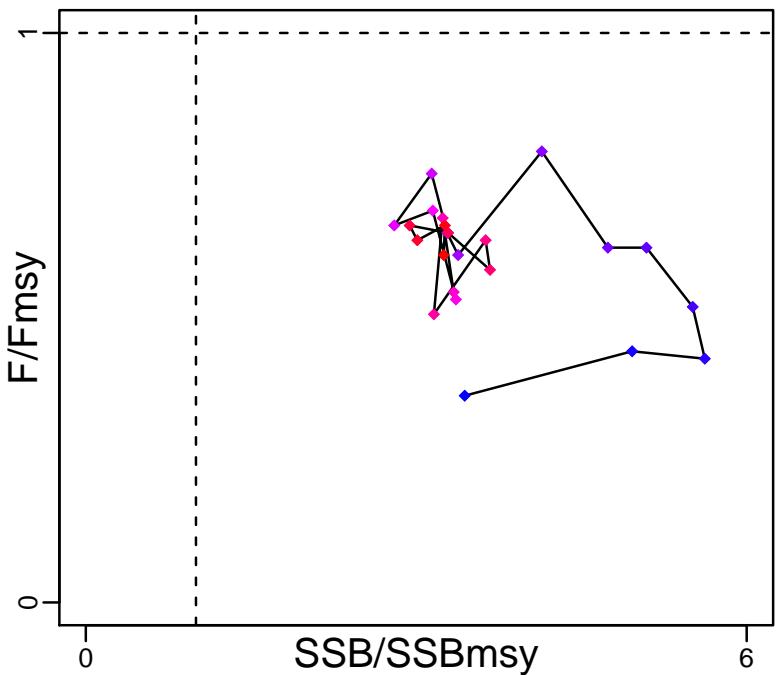
<b>Metadata</b>	
<b>Scientific Name</b>	Thunnus alalunga
<b>Current Assess ID</b>	ISC-ALBANPAC-1952-2015-PONS
<b>Area</b>	North Pacific Ocean
<b>Management Authority</b>	International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean
<b>Assessor</b>	International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean
<b>Asmts in RAM</b>	2012, 2015

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-extr-MT	2015	24,805
<b>Fmsy</b>	Fmsy-extr-1/yr	2015	0.77
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2012	105,571
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

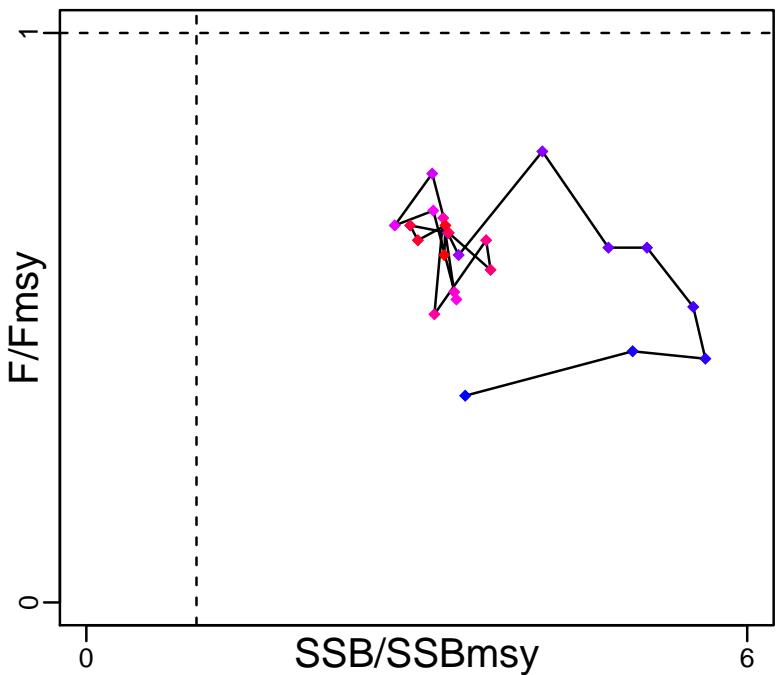
<b>Time Series</b>					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	806,000	-	-
<b>SSB</b>	SSB-MT	2015	80,600	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2015	219,000	-	-
<b>F</b>	F-1/yr	2015	0.47	-	-
<b>ER</b>	ER-calc-ratio	2015	0.089	-	-
<b>TC</b>	TC-MT	2012	80,200		
<b>TL</b>	TL-MT	2015	71,600		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSBdivSSBmsy-dimensionless	2015	3.25		
<b>F/Fmsy</b>	FdivFmsy-dimensionless	2015	0.61		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

Albacore tuna North Pacific [ALBANPAC]

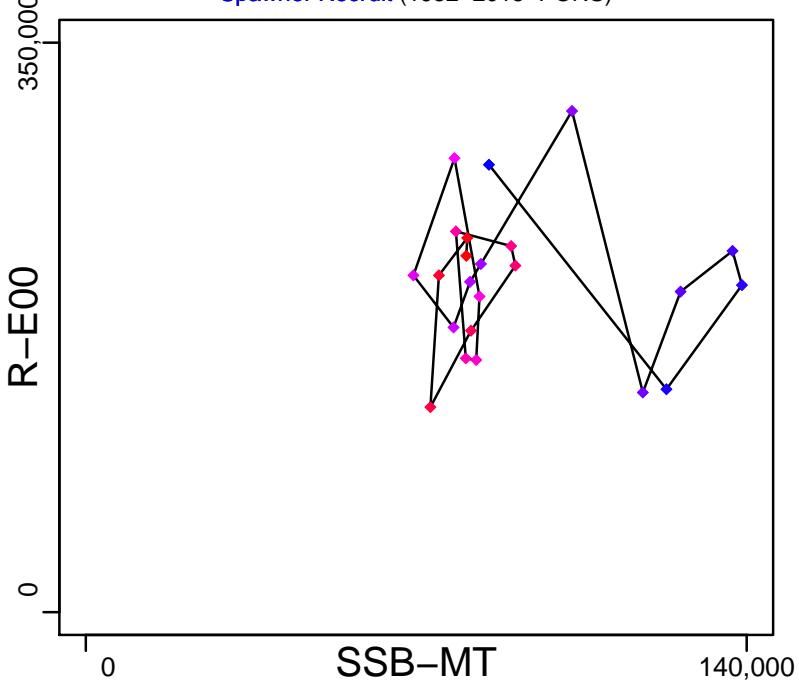
Kobe MSYpref (1952–2015–PONS)



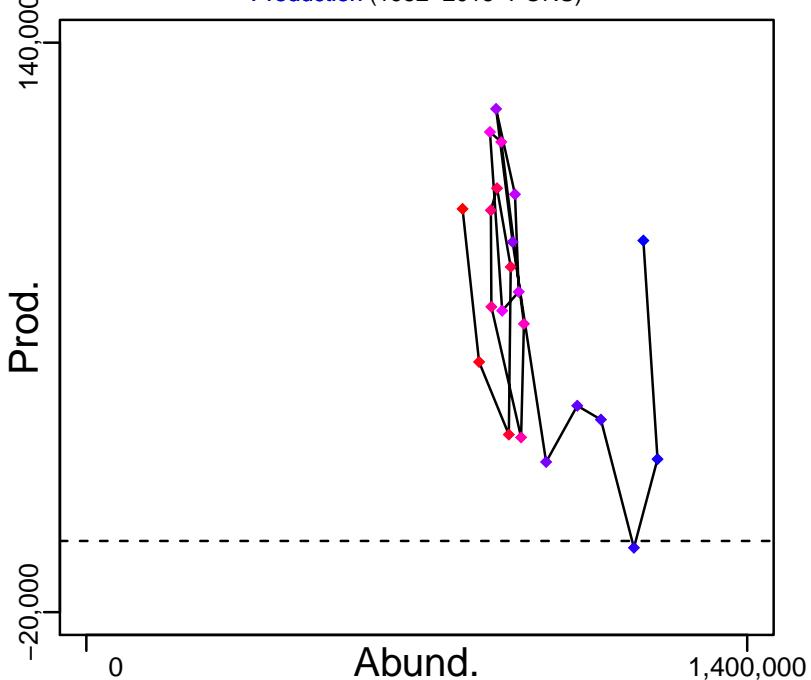
Kobe MGTPref (1952–2015–PONS)



Spawner Recruit (1952–2015–PONS)



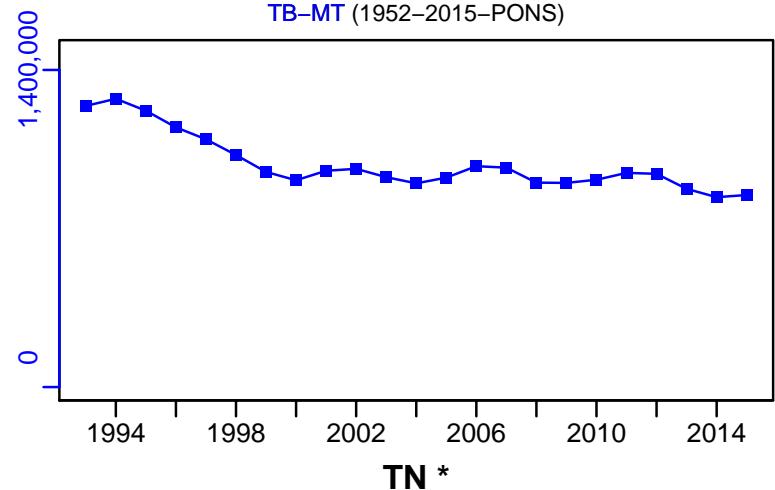
Production (1952–2015–PONS)



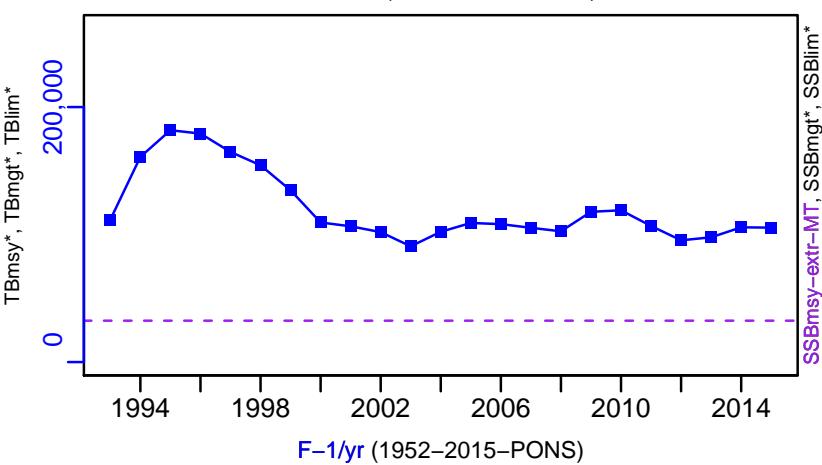
◆ Start Year   ◆ End Year   \* No Data

### Albacore tuna North Pacific [ALBANPAC]

TB-MT (1952–2015–PONS)

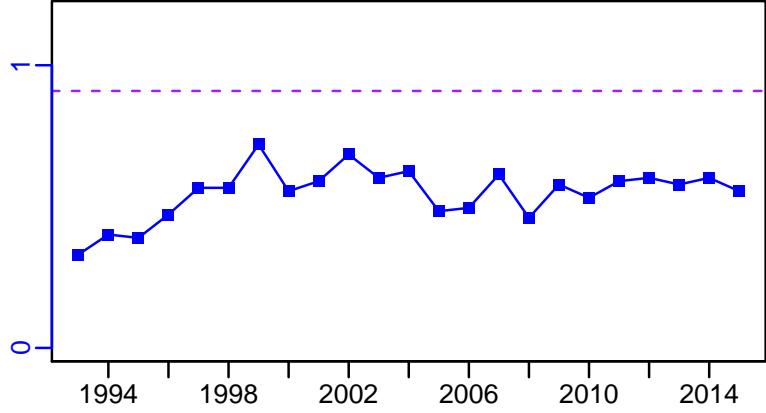


SSB-MT (1952–2015–PONS)

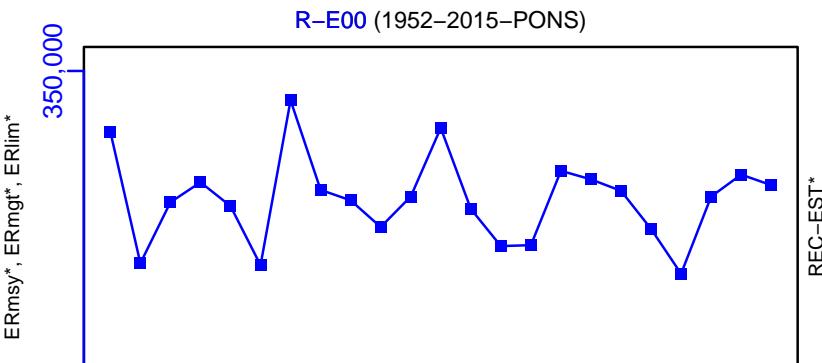


TN \*

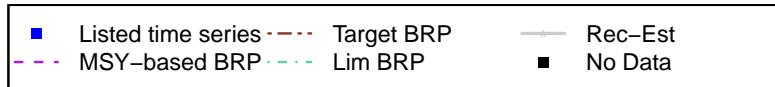
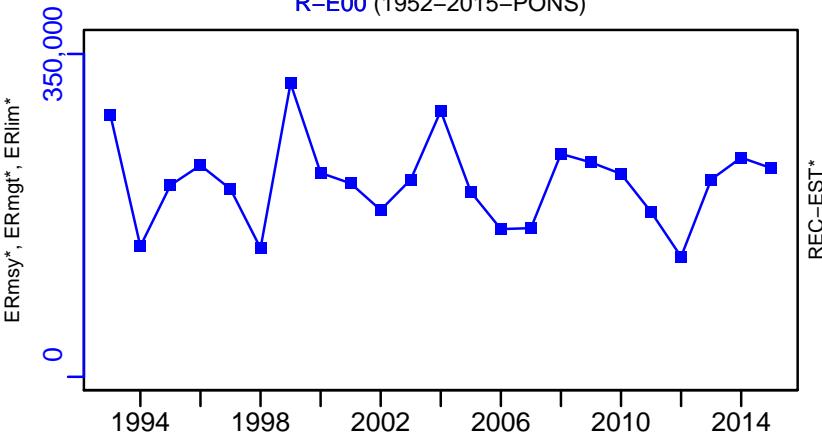
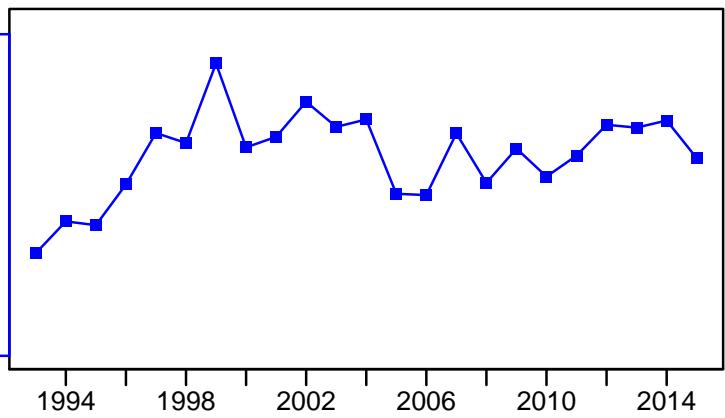
F-1/yr (1952–2015–PONS)



ER-calc-ratio (1952–2015–PONS)



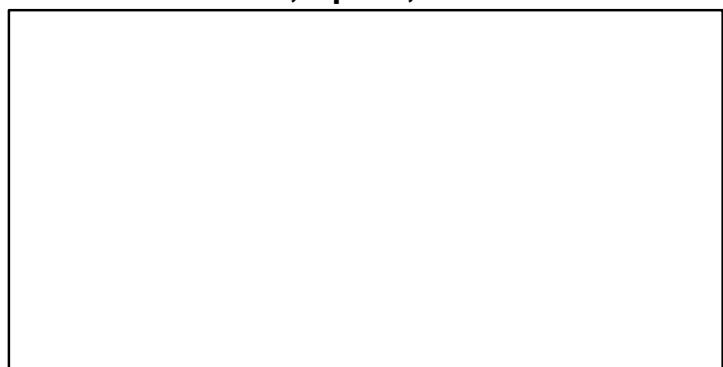
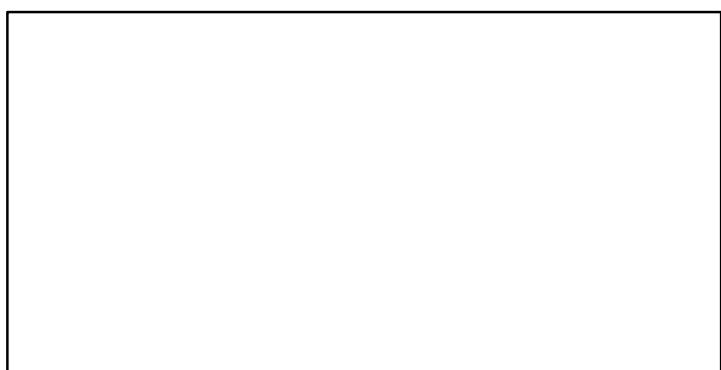
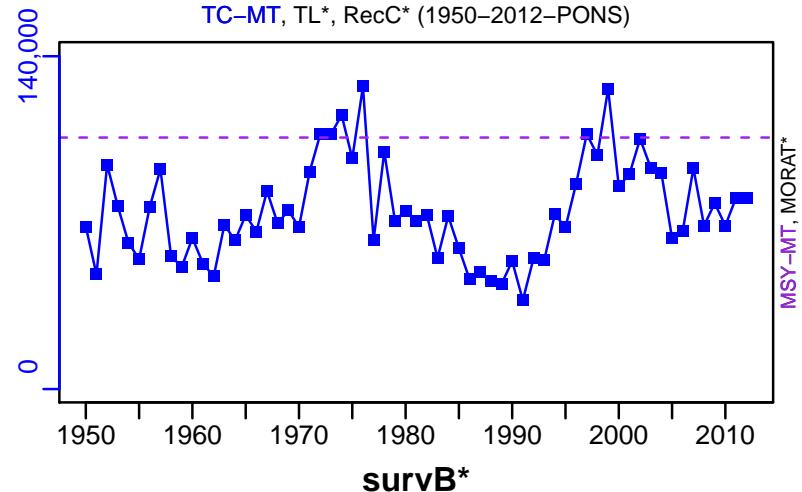
R-E00 (1952–2015–PONS)



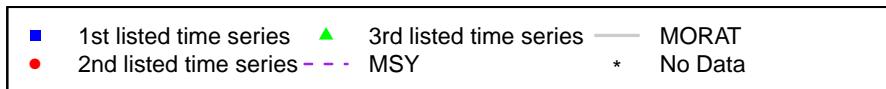
Albacore tuna North Pacific [ALBANPAC]

TC-MT, TL\*, RecC\* (1950–2012–PONS)

TAC\*, Cpair\*, Cadv\*



CPUE\*



## Albacore tuna South Pacific Ocean [ALBASPAC]

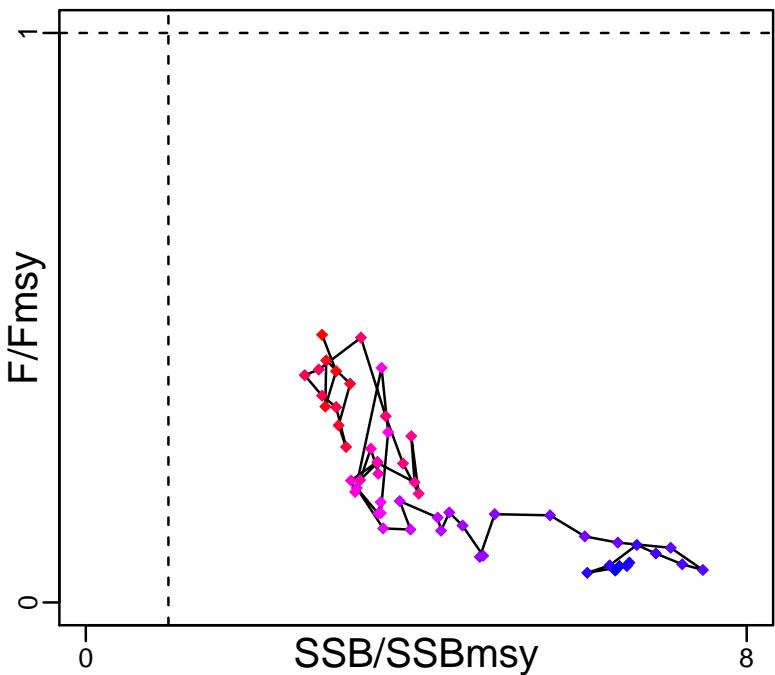
<b>Metadata</b>	
<b>Scientific Name</b>	Thunnus alalunga
<b>Current Assess ID</b>	SPC-ALBASPAC-1952-2015-PONS
<b>Area</b>	South Pacific Ocean
<b>Management Authority</b>	Western and Central Pacific Fisheries Commission
<b>Assessor</b>	Secretariat of the Pacific Community
<b>Asmts in RAM</b>	2015, 2010

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-MT	2010	835,200
<b>SSBmsy</b>	SSBmsy-extr-MT	2015	58,130
<b>Fmsy</b>	Fmsy-extr-1/yr	2015	1.325
<b>ERmsy</b>	ERmsy-calc-ratio	2010	0.119
<b>TBmgt</b>	TBmgt-MT	2010	835,200
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	Fmgt-1/yr	2010	0.16
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2010	1,629,000
<b>SSB0</b>	SSB0-MT	2010	721,400
<b>MSY</b>	MSY-MT	2015	76,800
<b>M</b>	M-1/yr	2010	0.4
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

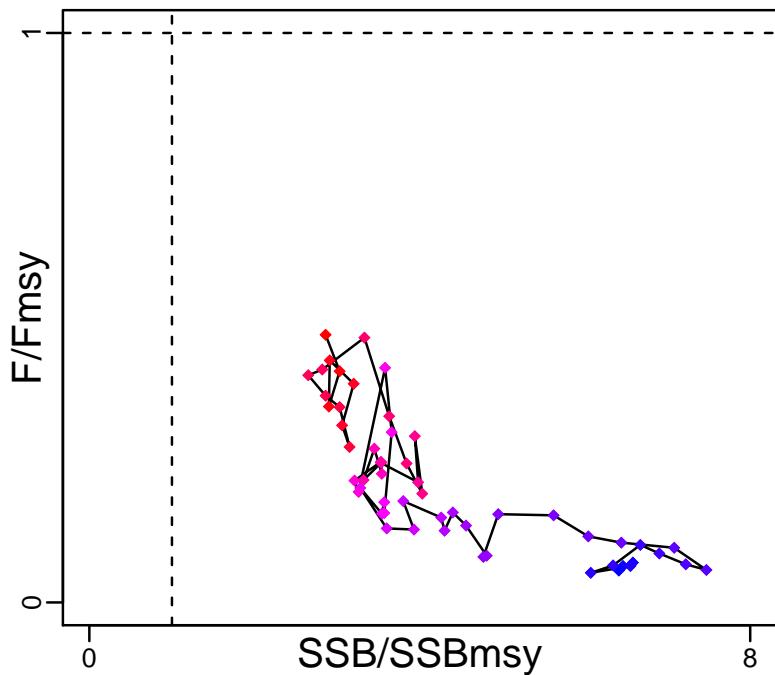
<b>Time Series</b>						
Type	ID	Asmt Year	Curr Value	Sex	Age	
<b>TB</b>	-	-	-	-	-	
<b>SSB</b>	SSB-MT	2015	176,000	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2015	6,410,000	-	-	
<b>F</b>	F-1/yr	2015	0.613	-	-	
<b>ER</b>	-	-	-	-	-	
<b>TC</b>	TC-MT	2010	88,500			
<b>TL</b>	TL-MT	2015	68,300			
<b>TB/TBmsy</b>	TBdivTBmsy-dimensionless	2015	1.49			
<b>SSB/SSBmsy</b>	SSBdivSSBmsy-dimensionless	2015	2.86			
<b>F/Fmsy</b>	FdivFmsy-dimensionless	2015	0.47			
<b>ER/ERmsy</b>	-	-	-			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

Albacore tuna South Pacific Ocean [ALBASPAC]

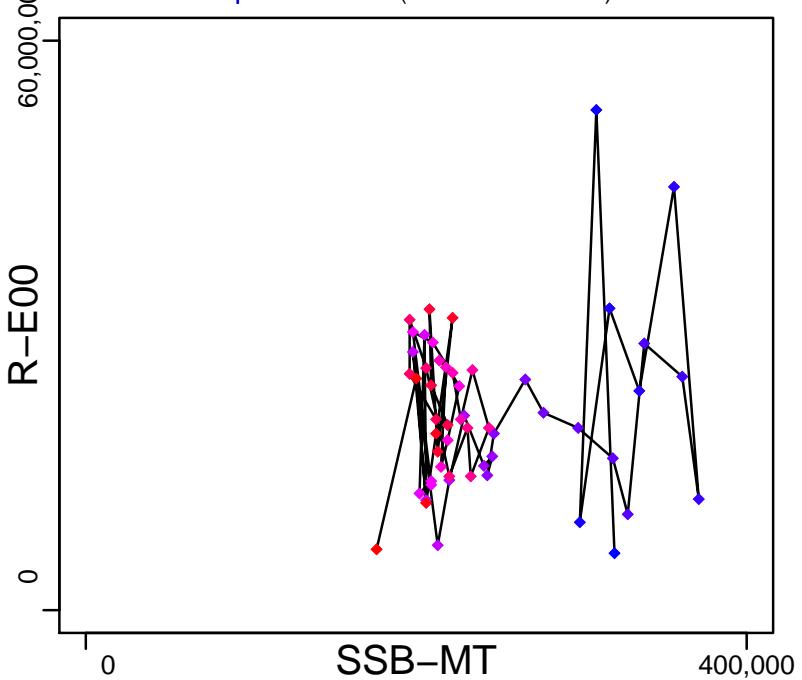
Kobe MSYpref (1952–2015–PONS)



Kobe MGTPref (1952–2015–PONS)



Spawner Recruit (1952–2015–PONS)



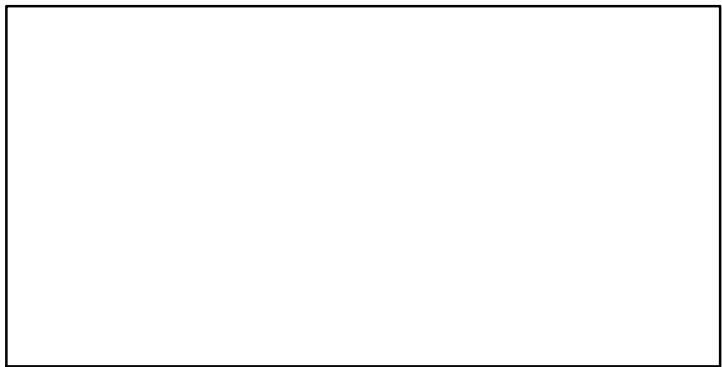
Production\*



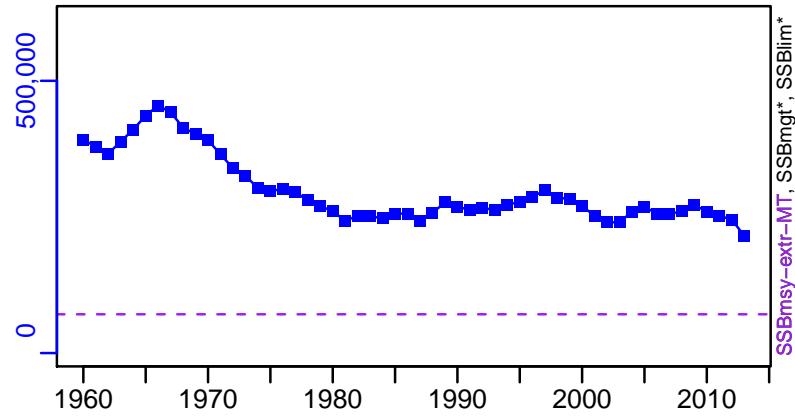
◆ Start Year   ◆ End Year   \* No Data

Albacore tuna South Pacific Ocean [ALBASPAC]

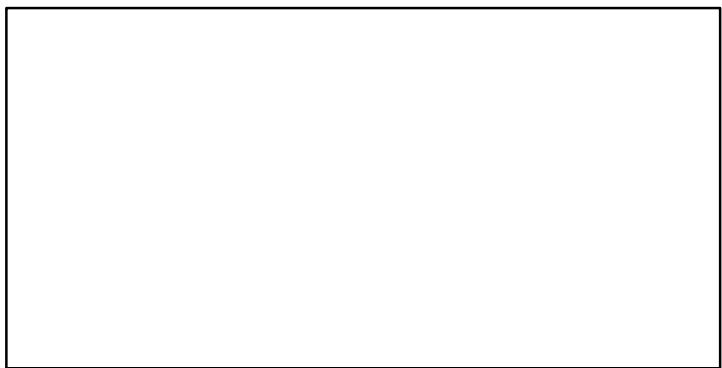
**TB\***



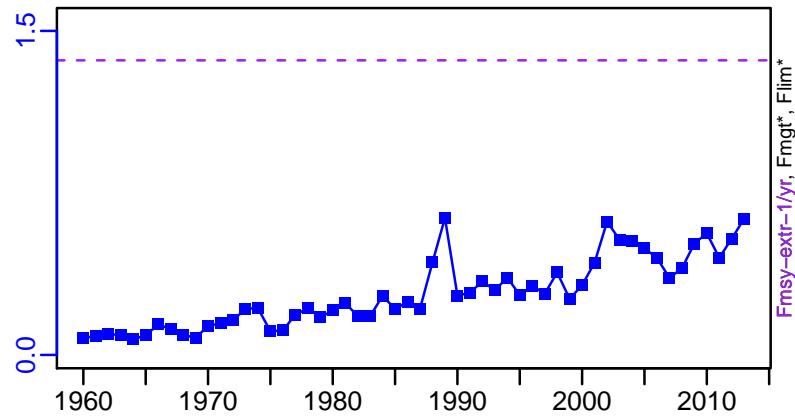
**SSB-MT** (1952–2015–PONS)



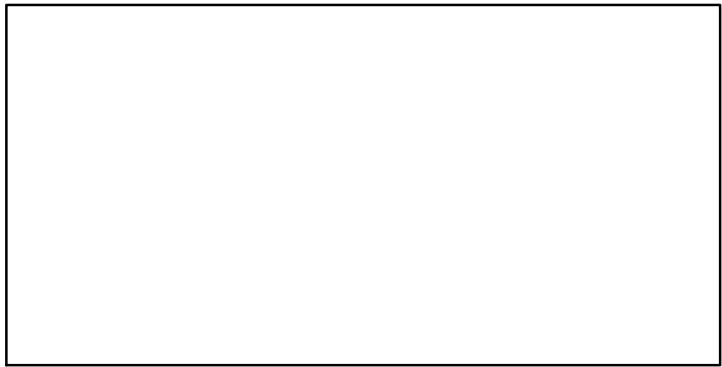
**TN \***



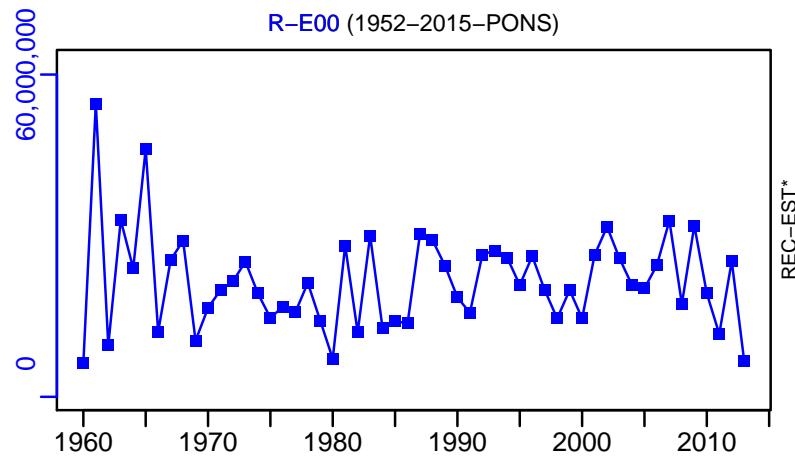
**F-1/yr** (1952–2015–PONS)



**ER\***



**R-E00** (1952–2015–PONS)

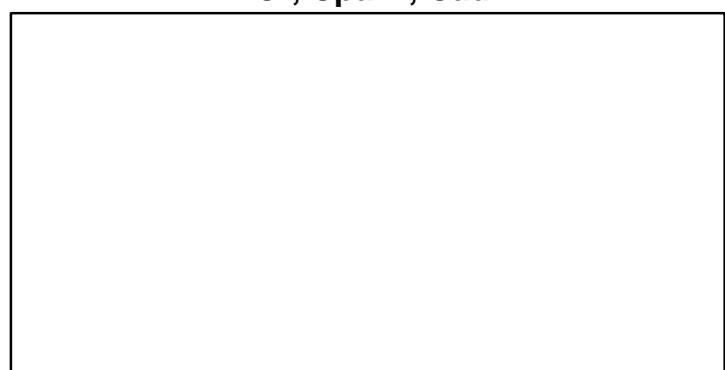
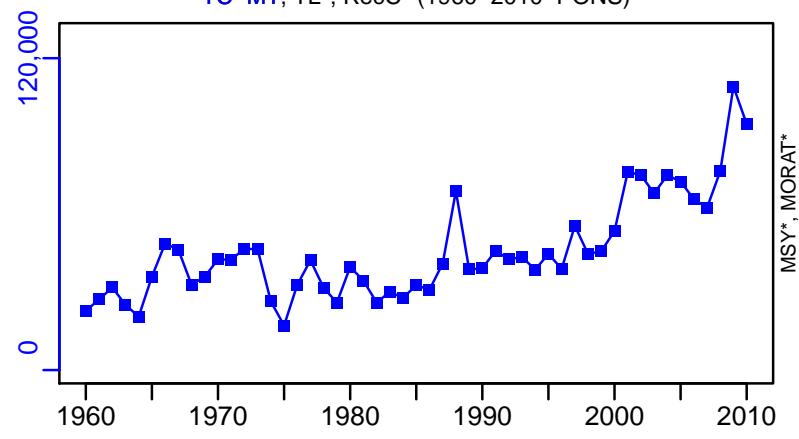


- |                      |              |
|----------------------|--------------|
| ■ Listed time series | — Target BRP |
| - - - MSY-based BRP  | --- Lim BRP  |
| ■ No Data            | — Rec-Est    |

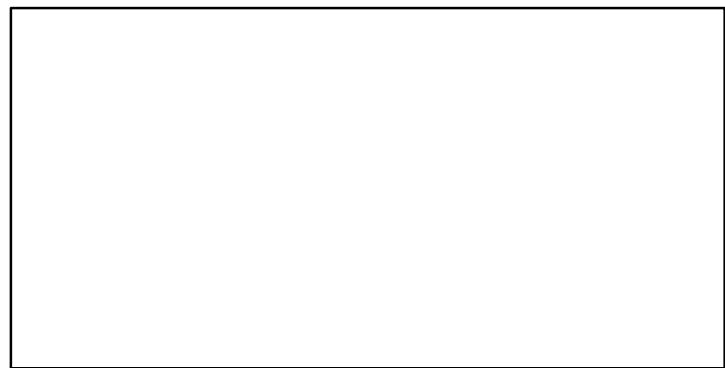
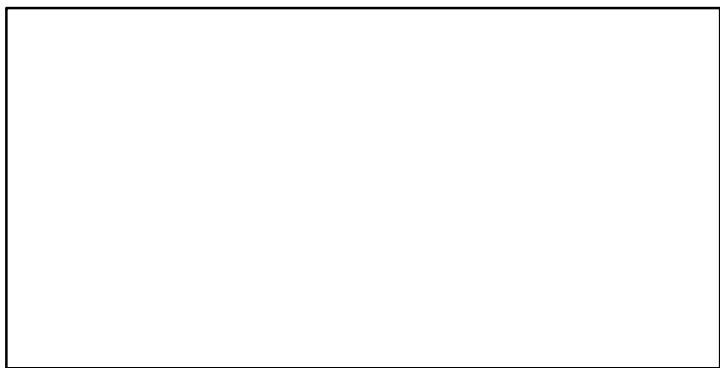
Albacore tuna South Pacific Ocean [ALBASPAC]

TC-MT, TL\*, RecC\* (1960–2010–PONS)

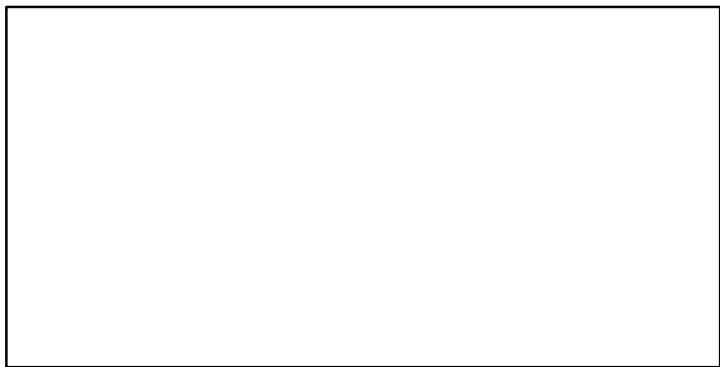
TAC\*, Cpair\*, Cadv\*



CPUE\*



**EFFORT\***



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

## Bigeye tuna Central Western Pacific [BIGEYECWPAC]

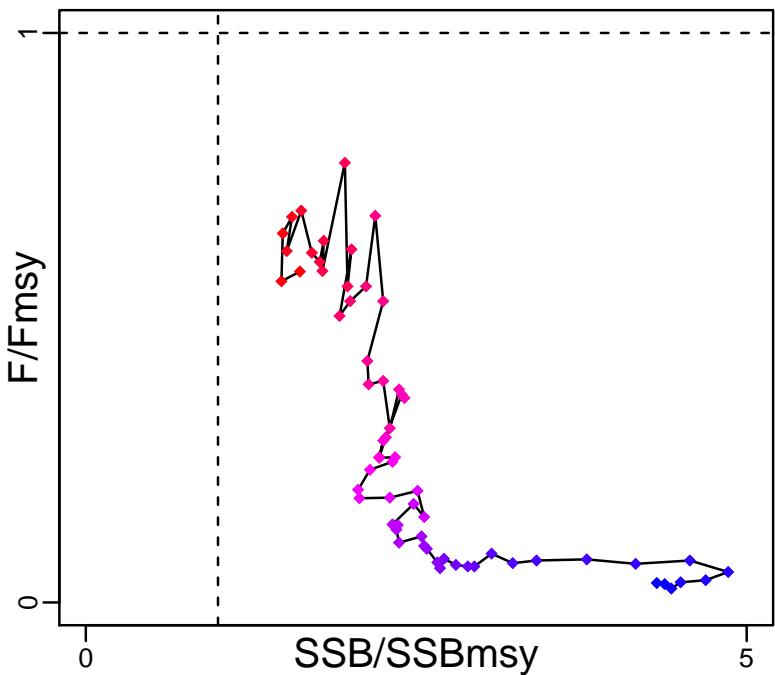
<b>Metadata</b>	
<b>Scientific Name</b>	Thunnus obesus
<b>Current Assess ID</b>	SPC-BIGEYECWPAC-1950-2015-PONS
<b>Area</b>	Central Western Pacific Ocean
<b>Management Authority</b>	Western and Central Pacific Fisheries Commission
<b>Assessor</b>	Secretariat of the Pacific Community
<b>Asmts in RAM</b>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

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	TBmsy-MT	2006	249,600
<b>SSBmsy</b>	SSBmsy-extr-MT	2015	526,600
<b>Fmsy</b>	Fmsy-extr-1/yr	2015	0.504
<b>ERmsy</b>	ERmsy-ratio	2006	0.259
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2012	345,400
<b>Fmgt</b>	Fmgt-1/yr	2012	0.039
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2012	2,286,000
<b>SSB0</b>	SSB0-MT	2012	1,207,000
<b>MSY</b>	MSY-MT	2012	108,520
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

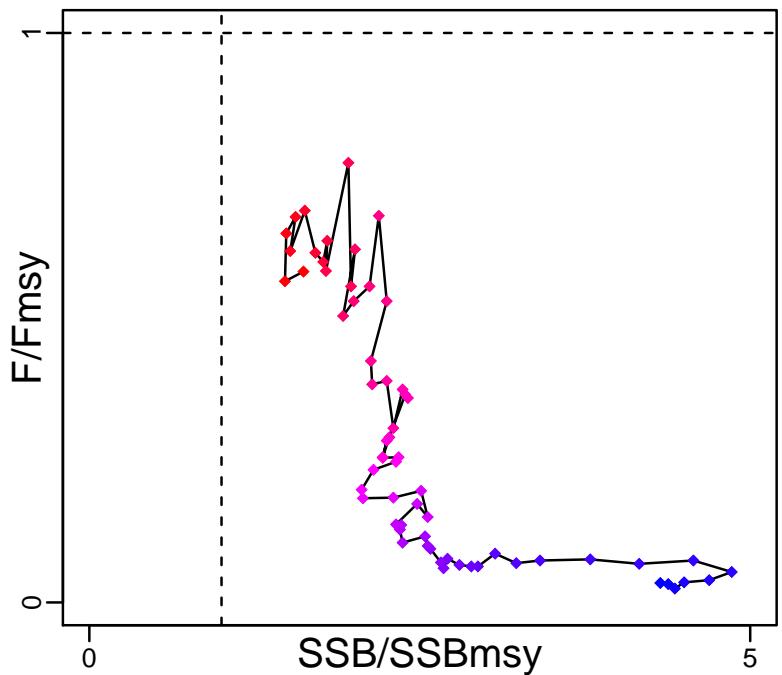
<b>Time Series</b>						
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>	
<b>TB</b>	TB-MT	2015	1,500,000	-	-	
<b>SSB</b>	SSB-MT	2015	968,000	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2006	17,600,000	-	-	
<b>F</b>	F-1/yr	2015	0.313	-	-	
<b>ER</b>	ER-calc-ratio	2015	0.106	-	-	
<b>TC</b>	TC-MT	2012	162,000			
<b>TL</b>	TL-MT	2015	135,000			
<b>TB/TBmsy</b>	TBdivTBmsy-dimensionless	2012	0.921			
<b>SSB/SSBmsy</b>	SSBdivSSBmsy-dimensionless	2015	1.62			
<b>F/Fmsy</b>	FdivFmsy-dimensionless	2015	0.626			
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2006	1.376			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

**Bigeye tuna Central Western Pacific [BIGEYECWPAC]**

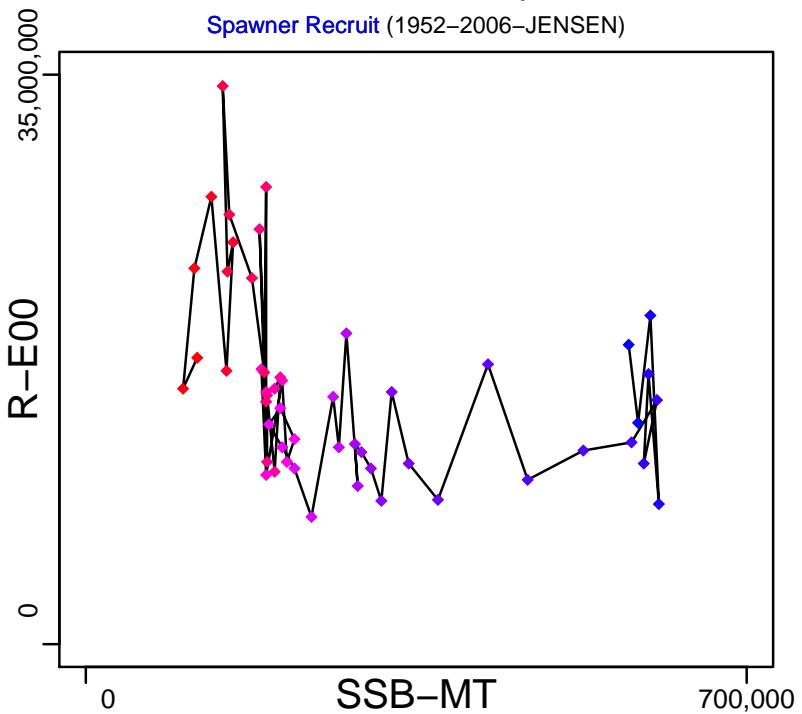
Kobe MSYpref (1950–2015–PONS)



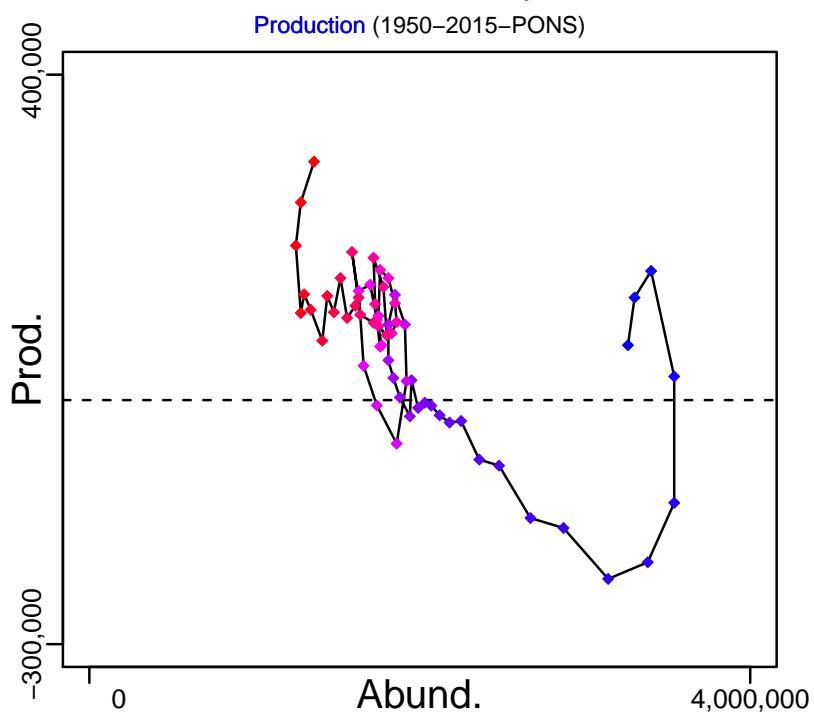
Kobe MGTPref (1950–2015–PONS)



Spawner Recruit (1952–2006–JENSEN)



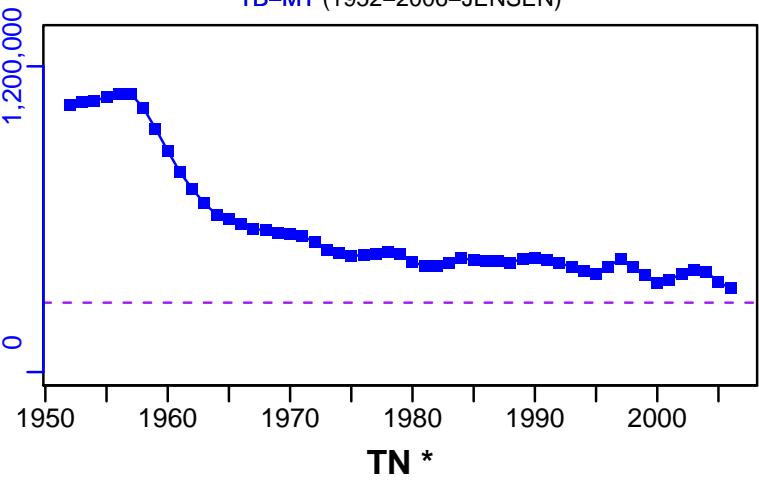
Production (1950–2015–PONS)



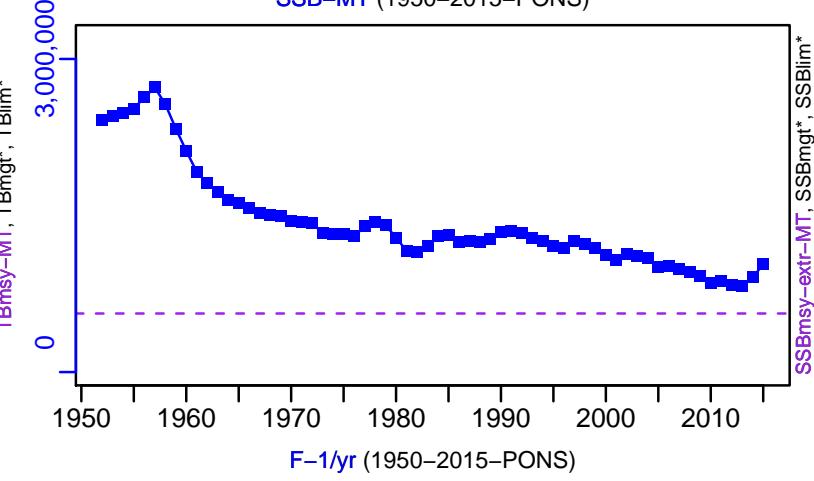
◆ Start Year	◆ End Year	*	No Data
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### Bigeye tuna Central Western Pacific [BIGEYECWPAC]

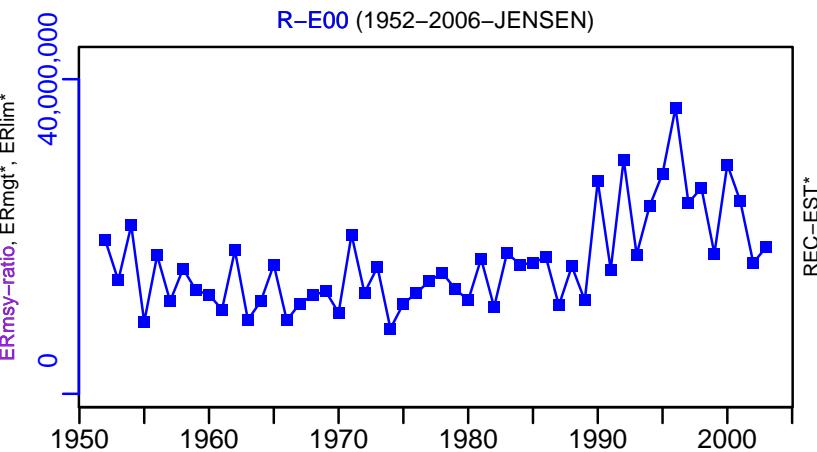
TB-MT (1952–2006–JENSEN)



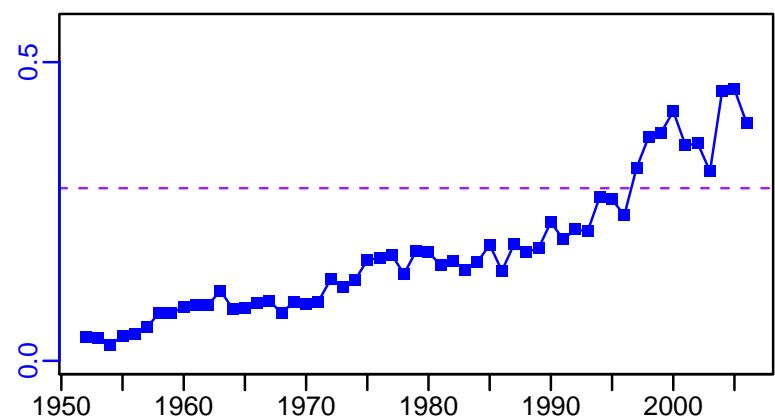
SSB-MT (1950–2015–PONS)



ER-ratio (1952–2006–JENSEN)



R-E00 (1952–2006–JENSEN)

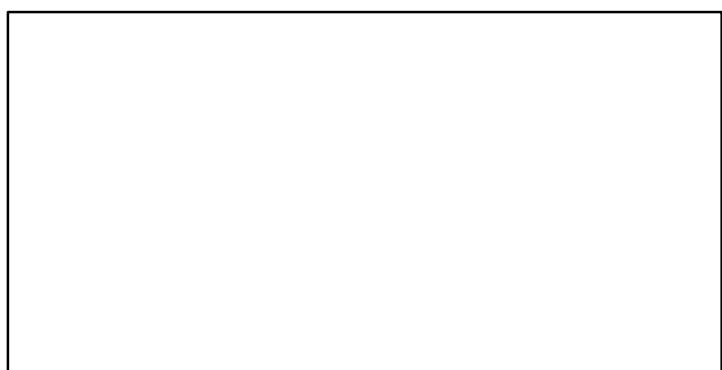
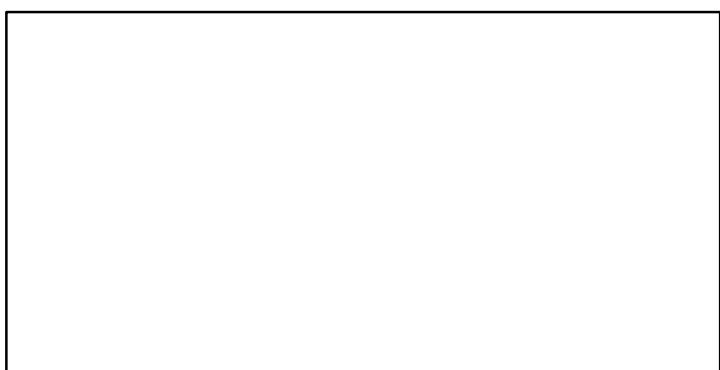
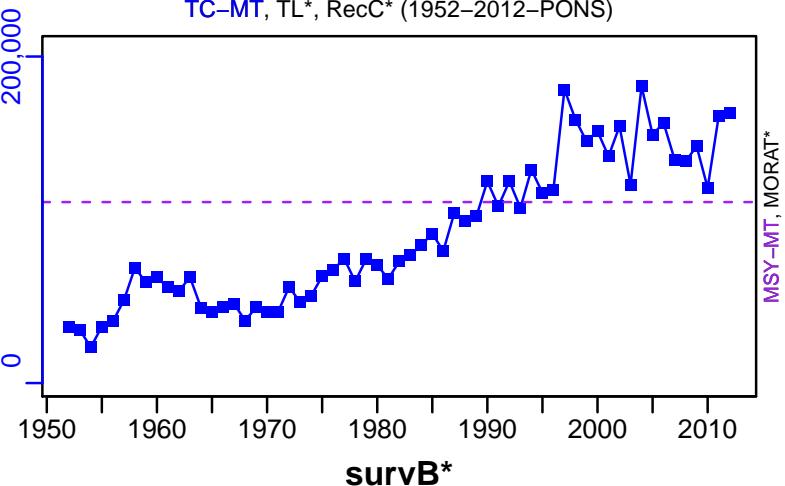


<span style="color: blue;">■</span>	Listed time series	<span style="color: brown;">—</span>	Target BRP	<span style="color: gray;">—</span>	REC-EST
<span style="color: purple;">—</span>	MSY-based BRP	<span style="color: cyan;">—</span>	Lim BRP	<span style="color: black;">■</span>	No Data

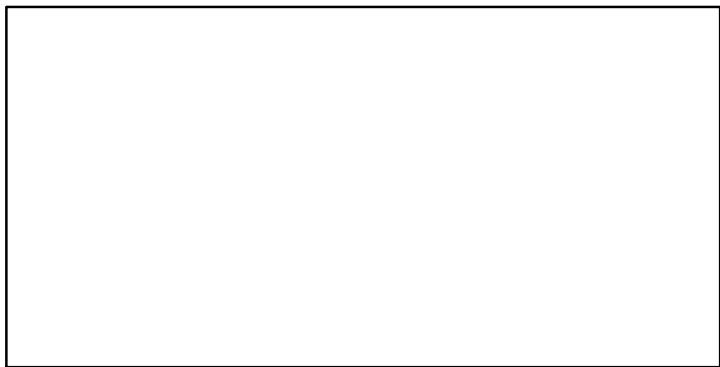
**Bigeye tuna Central Western Pacific [BIGEYECWPAC]**

TC-MT, TL\*, RecC\* (1952–2012–PONS)

TAC\*, Cpair\*, Cadv\*



**EFFORT\***



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

## Bigeye tuna Eastern Pacific [BIGEYEEPAC]

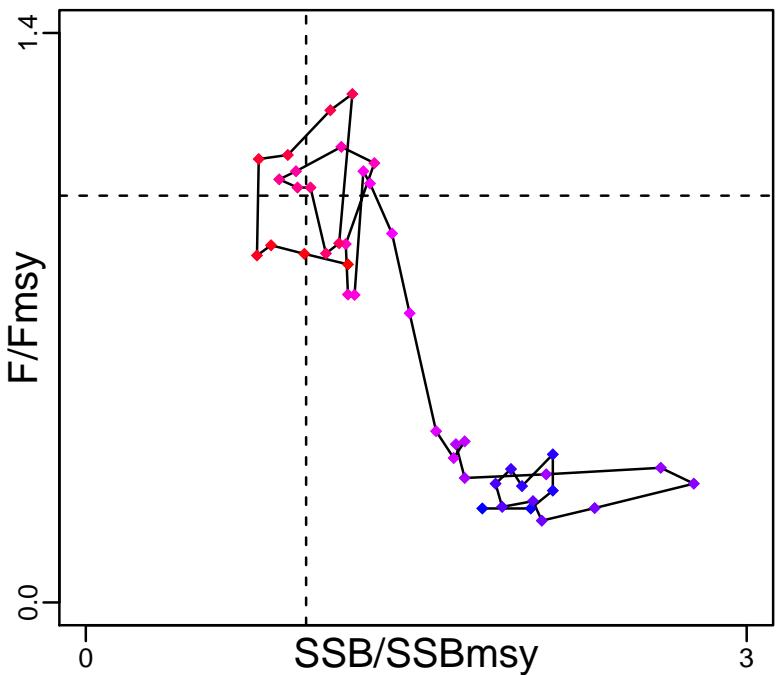
<b>Metadata</b>	
<b>Scientific Name</b>	Thunnus obesus
<b>Current Assess ID</b>	IATTC-BIGEYEEPAC-1954-2016-PONS
<b>Area</b>	Eastern Pacific
<b>Management Authority</b>	Inter-American Tropical Tuna Commission
<b>Assessor</b>	Inter-American Tropical Tuna Commission
<b>Asmts in RAM</b>	2012, 2016

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-MT	2012	420,280
<b>SSBmsy</b>	SSBmsy-extr-MT	2016	96,555
<b>Fmsy</b>	Fmsy-extr-1/yr	2016	0.994
<b>ERmsy</b>	ERmsy-calc-ratio	2012	0.263
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2016	106,201
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

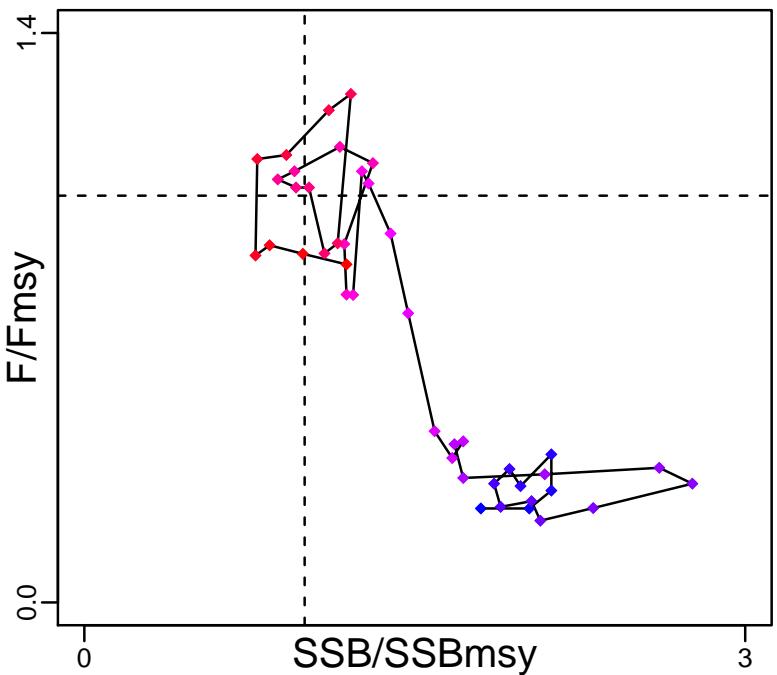
<b>Time Series</b>						
Type	ID	Asmt Year	Curr Value	Sex	Age	
<b>TB</b>	-	-	-	-	-	
<b>SSB</b>	SSB-MT	2016	110,000	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2016	6900	-	-	
<b>F</b>	F-1/yr	2016	0.826	-	-	
<b>ER</b>	-	-	-	-	-	
<b>TC</b>	TC-MT	2012	88,000			
<b>TL</b>	TL-MT	2016	94,100			
<b>TB/TBmsy</b>	TBdivTBmsy-dimensionless	2012	0.945			
<b>SSB/SSBmsy</b>	SSBdivSSBmsy-dimensionless	2016	1.19			
<b>F/Fmsy</b>	FdivFmsy-dimensionless	2016	0.831			
<b>ER/ERmsy</b>	-	-	-			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

**Bigeye tuna Eastern Pacific [BIGEYEEPAC]**

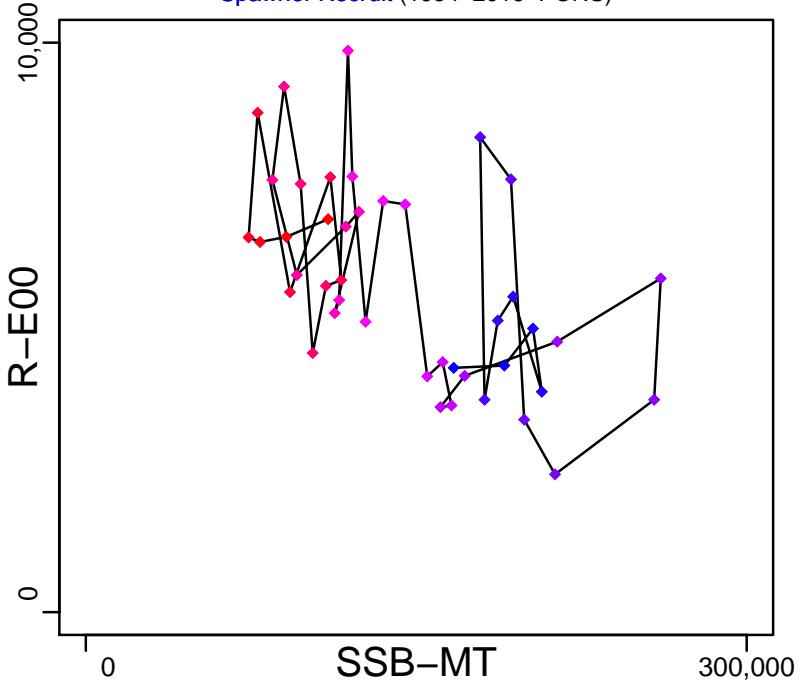
Kobe MSYpref (1954–2016–PONS)



Kobe MGTPref (1954–2016–PONS)



Spawner Recruit (1954–2016–PONS)



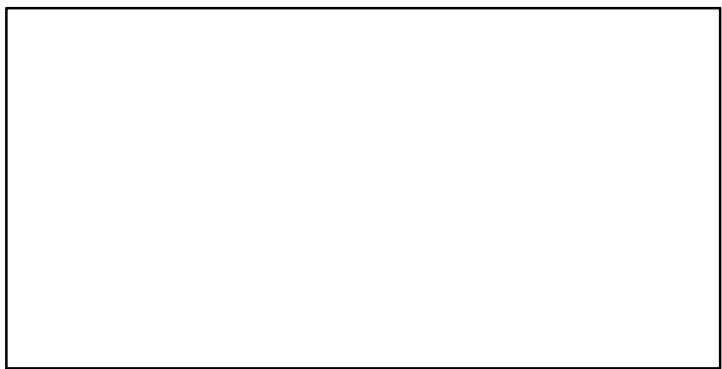
Production\*



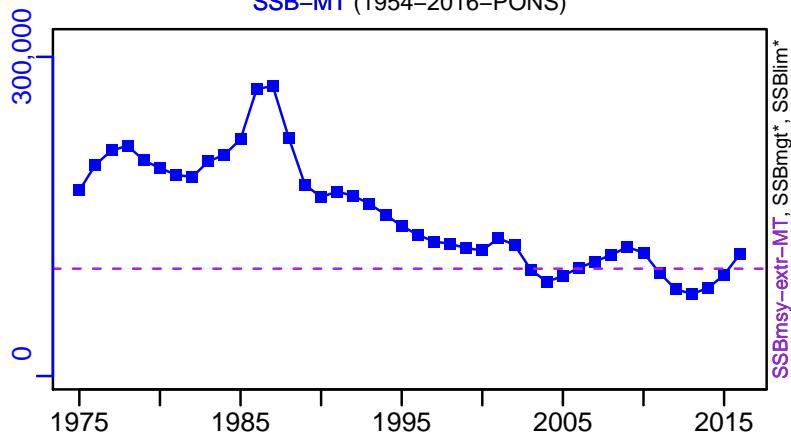
◆ Start Year ♦ End Year \* No Data

**Bigeye tuna Eastern Pacific [BIGEYEEPAC]**

**TB\***



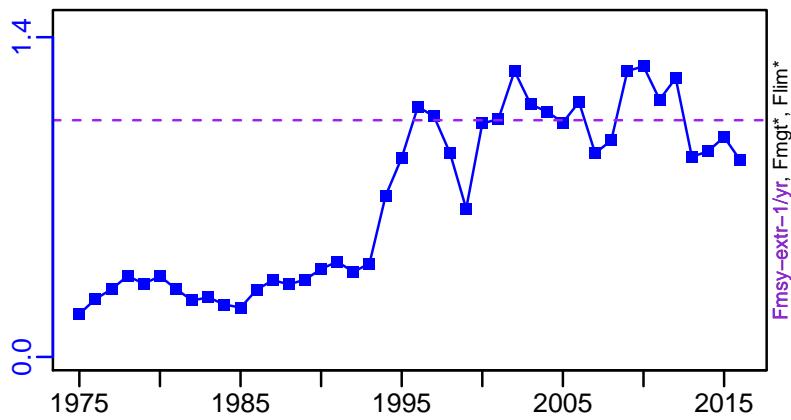
**SSB-MT (1954–2016–PONS)**



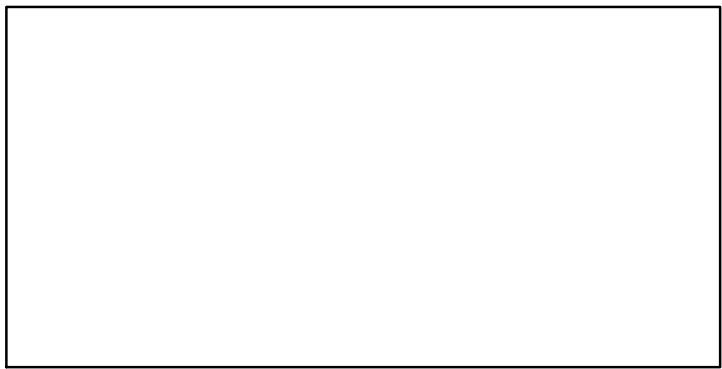
**TN \***



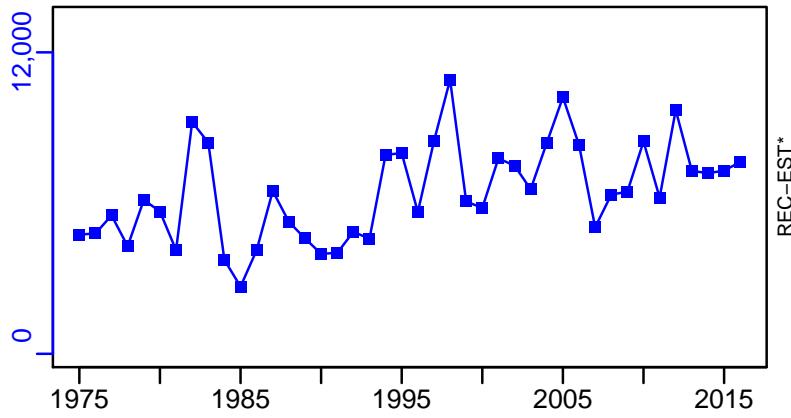
**F-1/yr (1954–2016–PONS)**



**ER\***



**R-E00 (1954–2016–PONS)**



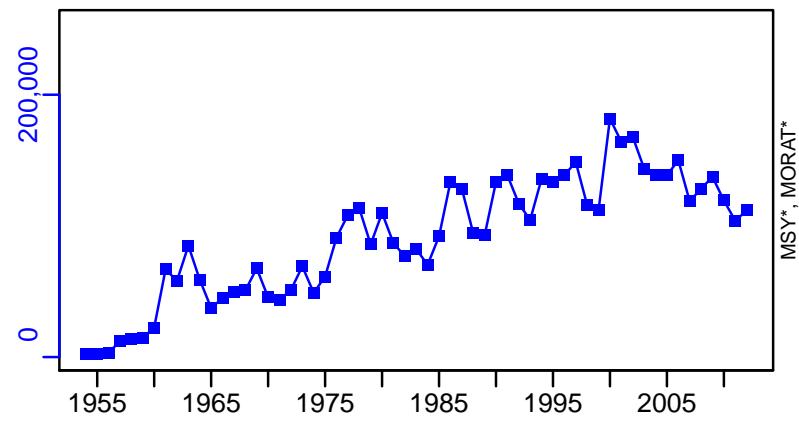
Fmsy-extr-1/yr, Fmgt\*, Film\*, SSBlmt, SSBlmgt\*, SSBlim\*

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

**Bigeye tuna Eastern Pacific [BGEYEEPAC]**

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

**TAC\***, Cpair\*, Cadv\*



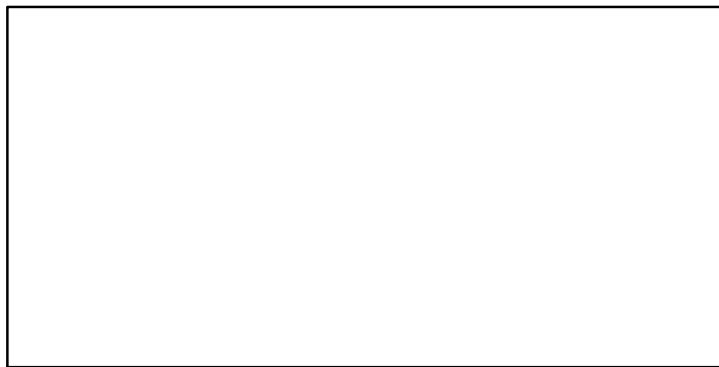
**survB\***



**CPUE\***



**EFFORT\***



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

## Blue shark North Pacific [BLSHARNPAC]

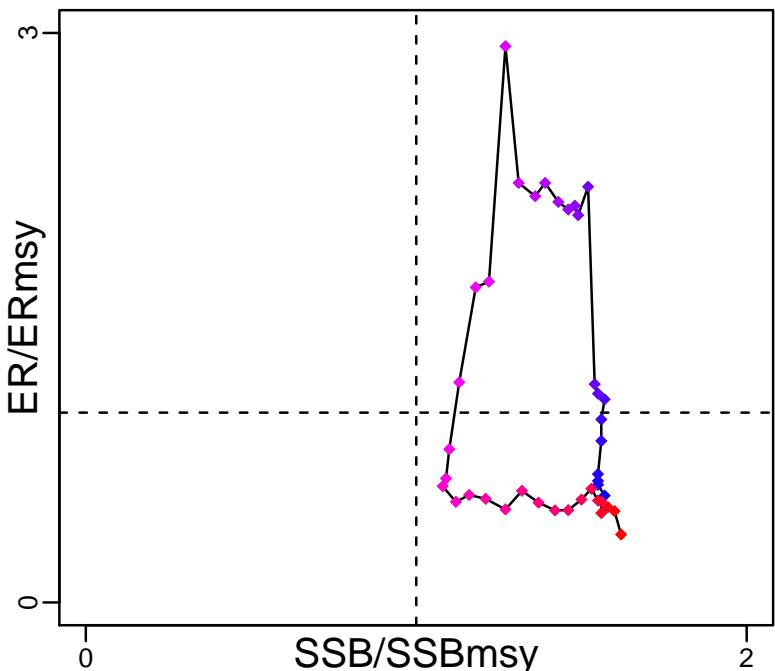
<b>Metadata</b>	
<b>Scientific Name</b>	Prionace glauca
<b>Current Assess ID</b>	ISC-BLSHARNPAC-1971-2012-ASHBROOK
<b>Area</b>	North Pacific Ocean
<b>Management Authority</b>	International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean
<b>Assessor</b>	International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean
<b>Asmts in RAM</b>	2012

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	TBmsy-calc-MT	2012	320,547
<b>SSBmsy</b>	SSBmsy-MT	2012	277,565
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2012	0.225
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	SSB0-MT	2012	593,707
<b>MSY</b>	MSY-MT	2012	72,123
<b>M</b>	M-1/yr	2012	0.135
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

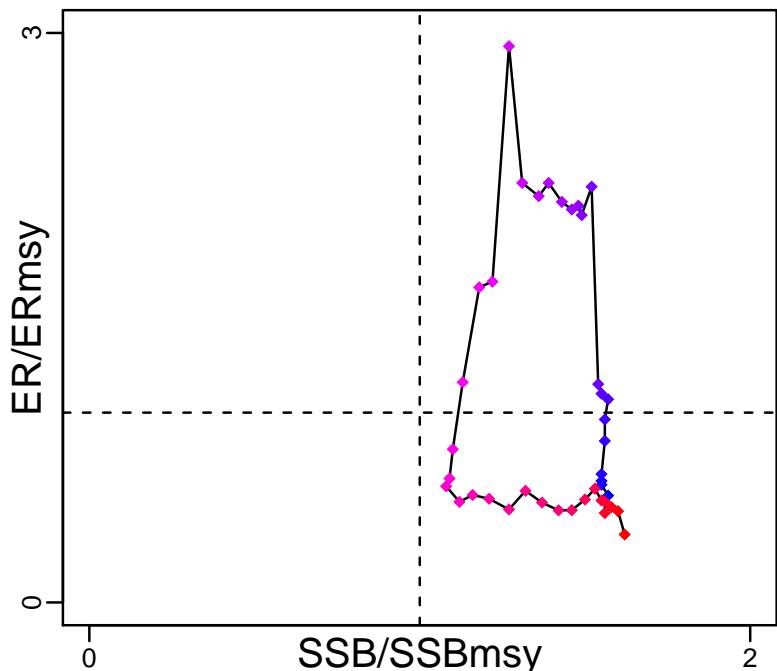
<b>Time Series</b>						
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>	
<b>TB</b>	-	-	-	-	-	
<b>SSB</b>	SSB-MT	2012	443,000	Females	5+	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2012	30,100,000	Both	0	
<b>F</b>	-	-	-	-	-	
<b>ER</b>	-	-	-	-	-	
<b>TC</b>	TC-MT	2012	37,300			
<b>TL</b>	-	-	-			
<b>TB/TBmsy</b>	-	-	-			
<b>SSB/SSBmsy</b>	SSBdivSSBmsy-dimensionless	2012	1.62			
<b>F/Fmsy</b>	-	-	-			
<b>ER/ERmsy</b>	ERdivERmsy-dimensionless	2012	0.358			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

**Blue shark North Pacific [BLSHARNPAC]**

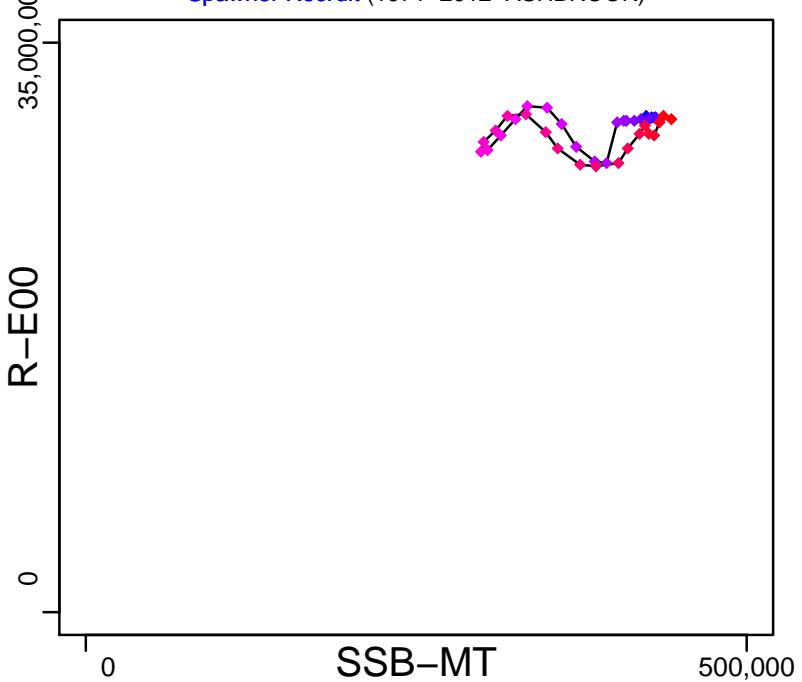
Kobe MSYpref (1971–2012–ASHBROOK)



Kobe MGTpref (1971–2012–ASHBROOK)



Spawner Recruit (1971–2012–ASHBROOK)



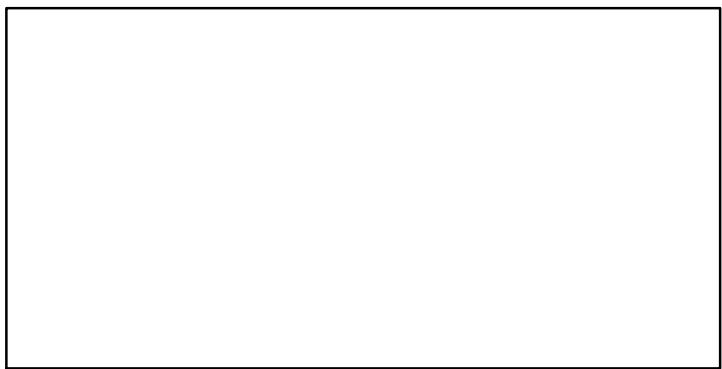
SSB/SSBmsy

**Production\***

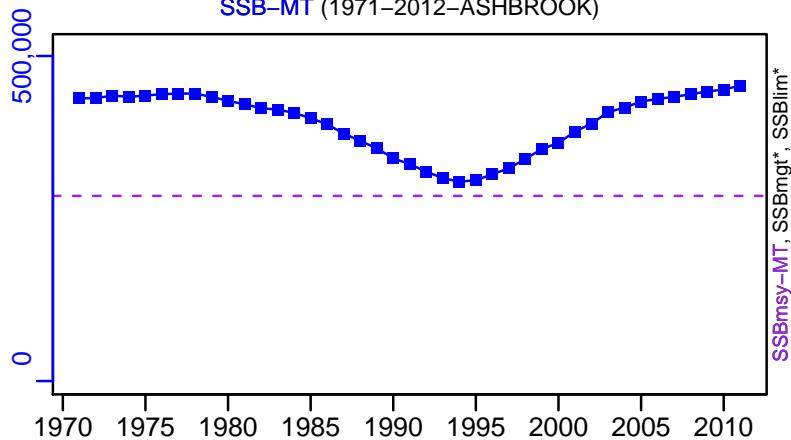
- ◆ Start Year
- ◆ End Year
- \* No Data

**Blue shark North Pacific [BLSHARNPAC]**

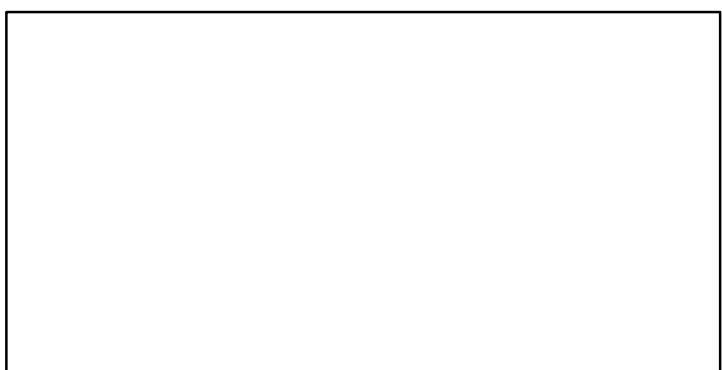
**TB\***



**SSB-MT (1971–2012–ASHBROOK)**



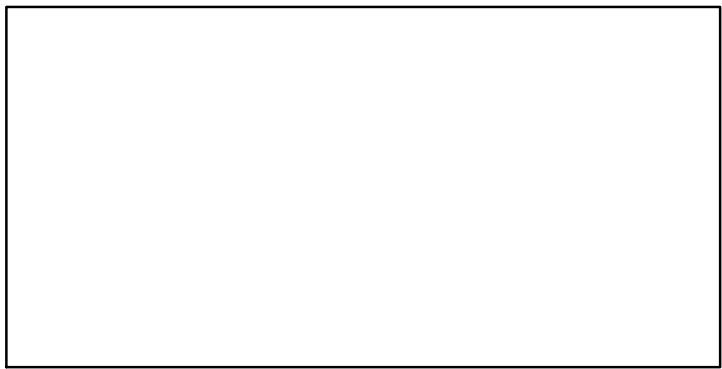
**TN \***



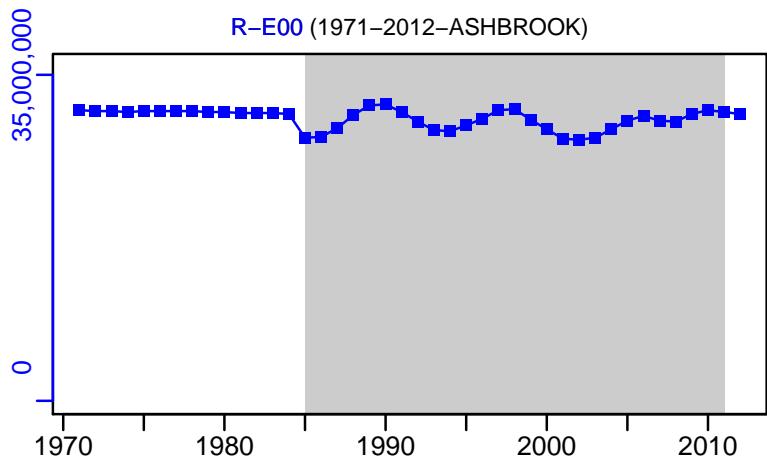
**F\***



**ER\***



**R-E00 (1971–2012–ASHBROOK)**

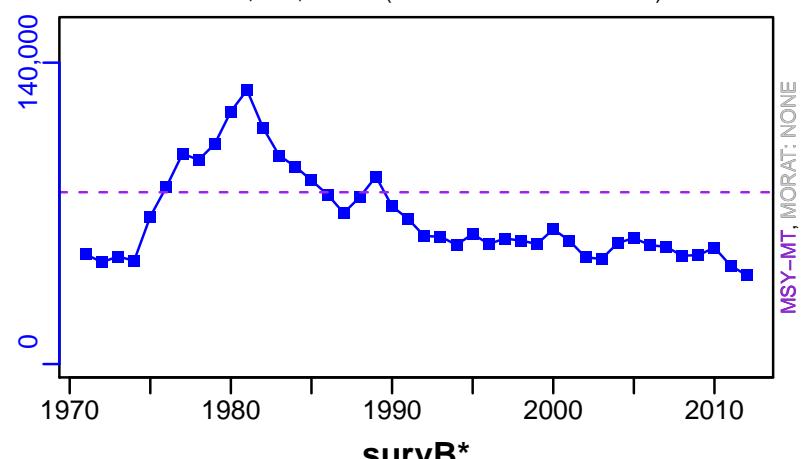


- |                      |              |           |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| — MSY-based BRP      | ··· Lim BRP  | ■ No Data |

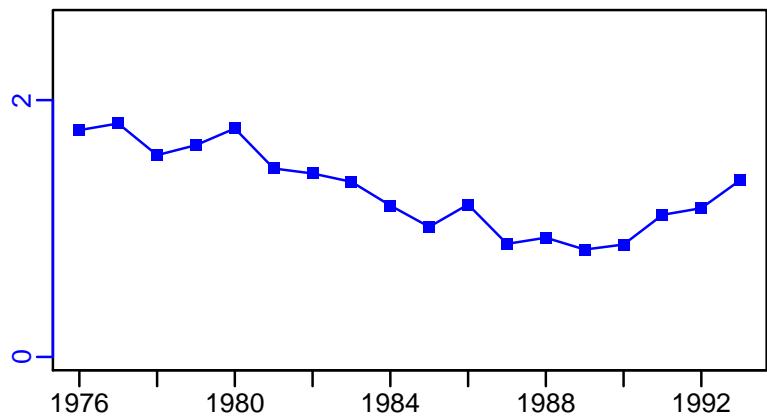
**Blue shark North Pacific [BLSHARNPAC]**

TC-MT, TL\*, RecC\* (1971–2012-ASHBROOK)

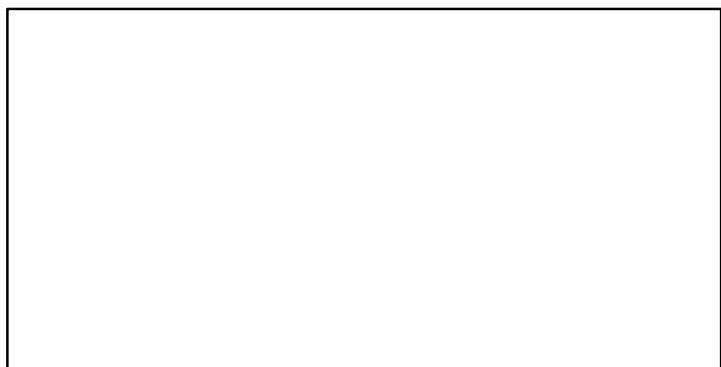
TAC\*, Cpair\*, Cadv\*



CPUE-1-index (1971–2012-ASHBROOK)



**EFFORT\***



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

## Blue marlin Pacific Ocean [BMARLINPAC]

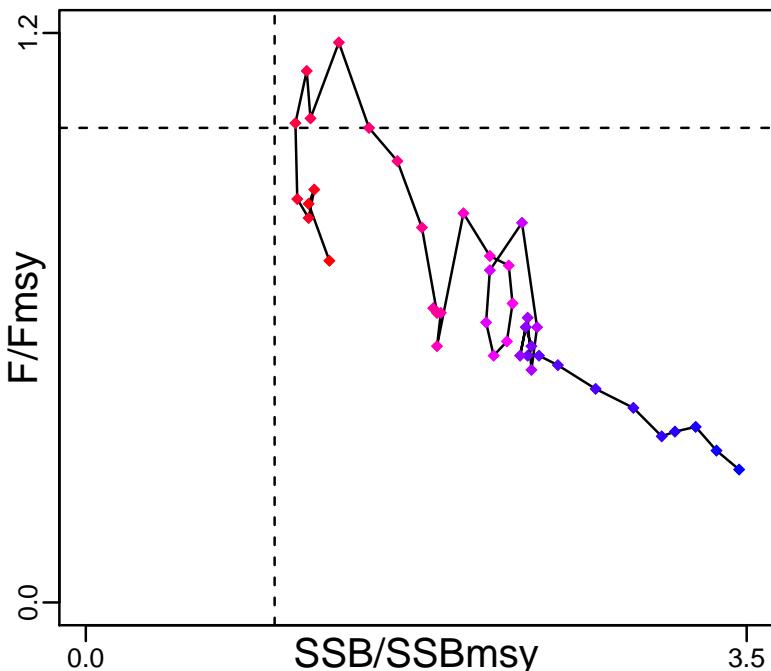
<b>Metadata</b>	
<b>Scientific Name</b>	Makaira nigricans
<b>Current Assess ID</b>	ISC-BMARLINPAC-1952-2011-PONS
<b>Area</b>	Pacific Ocean
<b>Management Authority</b>	International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean
<b>Assessor</b>	International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean
<b>Asmts in RAM</b>	2011

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2011	19,437
<b>Fmsy</b>	Fmsy-1/yr	2011	0.32
<b>ERrmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2011	19,437
<b>Fmgt</b>	Fmgt-1/yr	2011	0.32
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2011	19,459
<b>M</b>	M-1/yr	2011	0.42
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

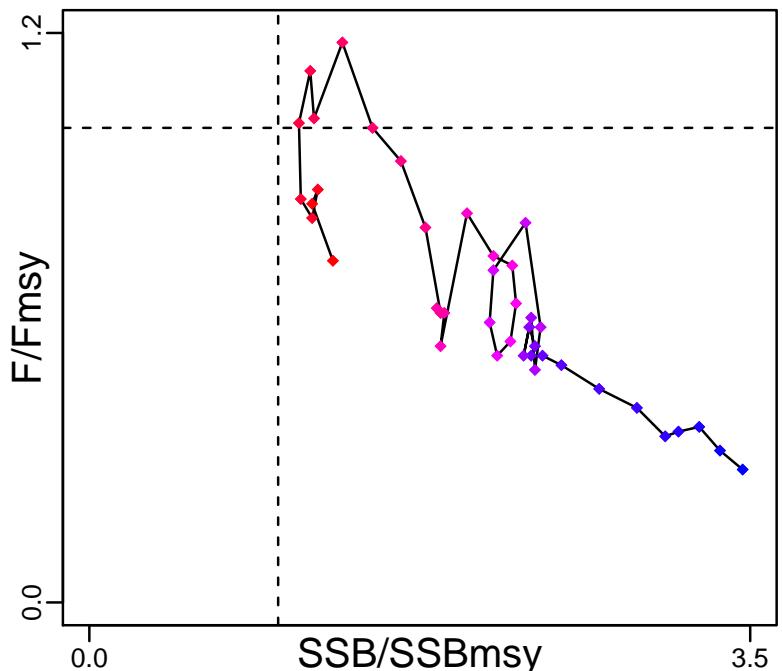
<b>Time Series</b>						
Type	ID	Asmt Year	Curr Value	Sex	Age	
<b>TB</b>	-	-	-	-	-	
<b>SSB</b>	SSB-MT	2011	25,000	Females	4+	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2011	825,000	-	-	
<b>F</b>	F-1/yr	2011	0.232	-	-	
<b>ER</b>	-	-	-	-	-	
<b>TC</b>	TC-MT	2011	17,400			
<b>TL</b>	-	-	-			
<b>TB/TBmsy</b>	-	-	-			
<b>SSB/SSBmsy</b>	SSBdivSSBmsy-dimensionless	2011	1.29			
<b>F/Fmsy</b>	FdivFmsy-dimensionless	2011	0.72			
<b>ER/ERrmsy</b>	-	-	-			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2011	1.286			
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2011	0.725			
<b>ER/ERmgt</b>	-	-	-			

**Blue marlin Pacific Ocean [BMARLINPAC]**

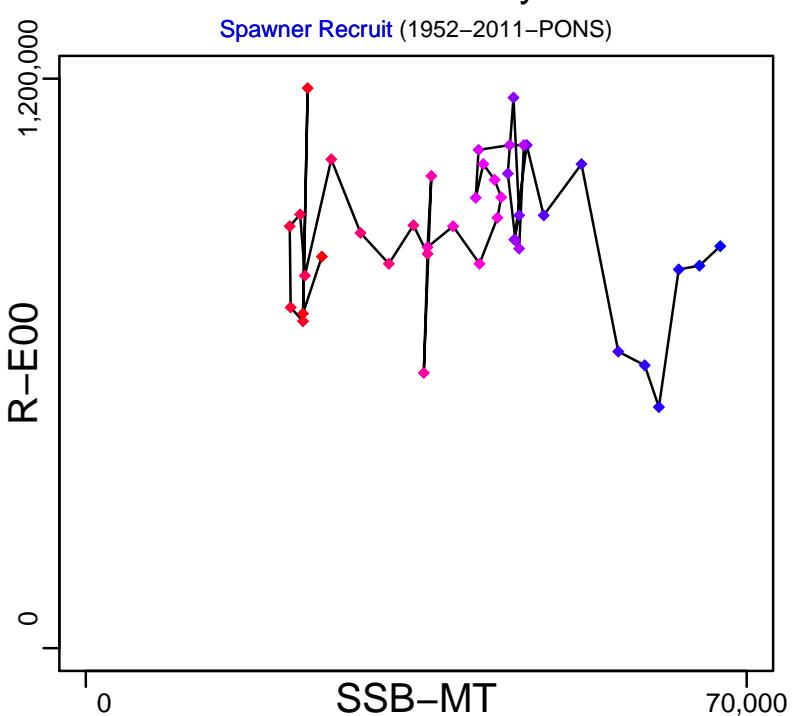
Kobe MSYpref (1952–2011–PONS)



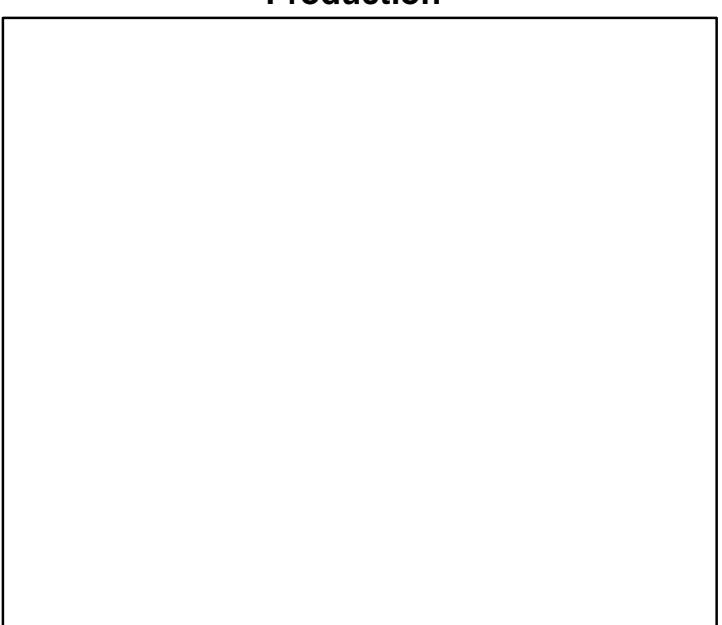
Kobe MGTPref (1952–2011–PONS)



Spawner Recruit (1952–2011–PONS)



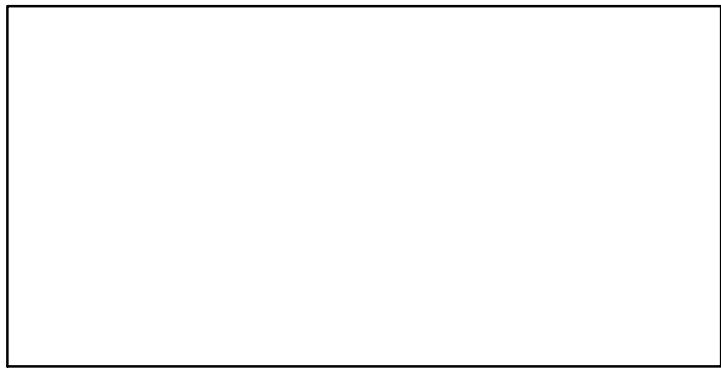
Production\*



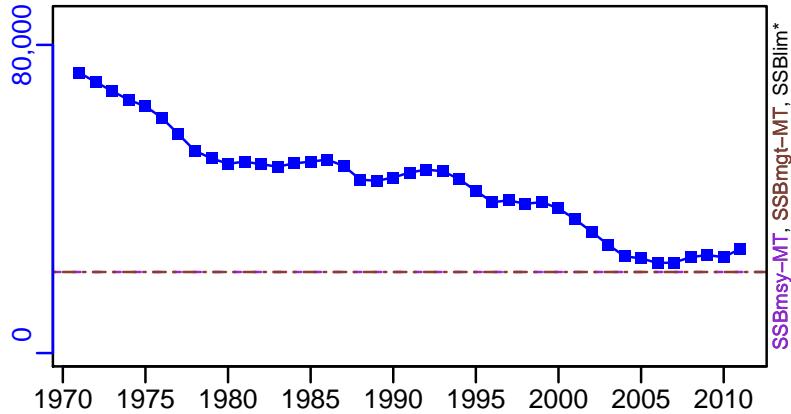
♦ Start Year   ♦ End Year   \* No Data

Blue marlin Pacific Ocean [BMARLINPAC]

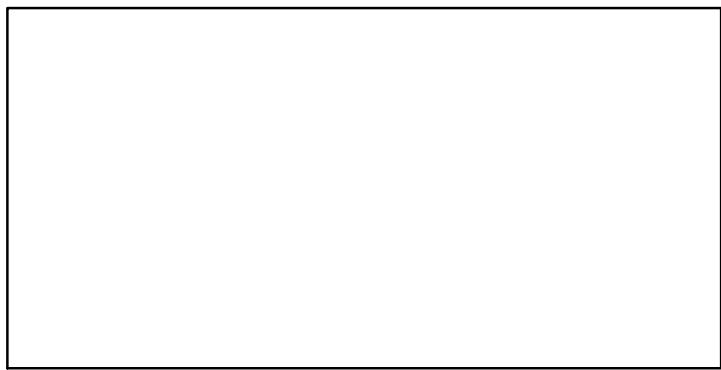
**TB\***



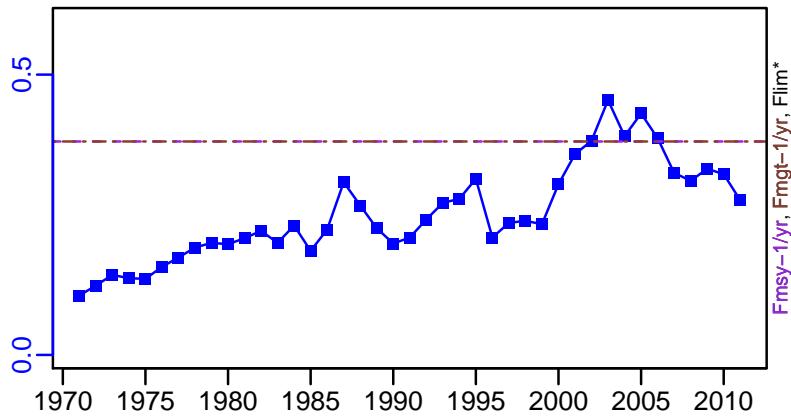
**SSB-MT** (1952–2011–PONS)



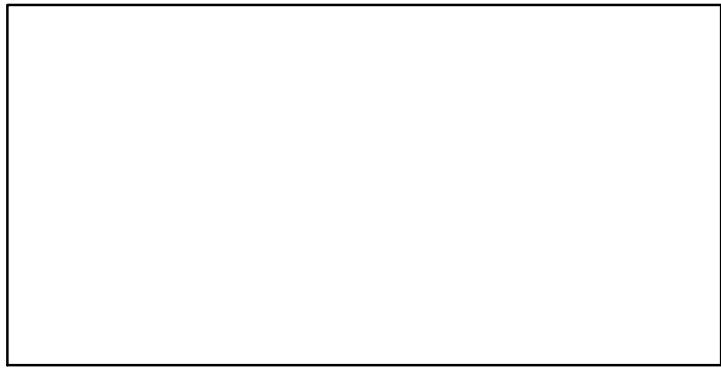
**TN \***



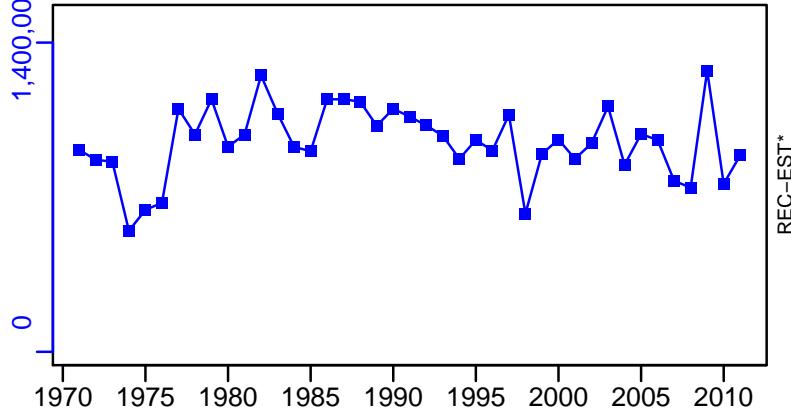
**F-1/yr** (1952–2011–PONS)



**ER\***



**R-E00** (1952–2011–PONS)

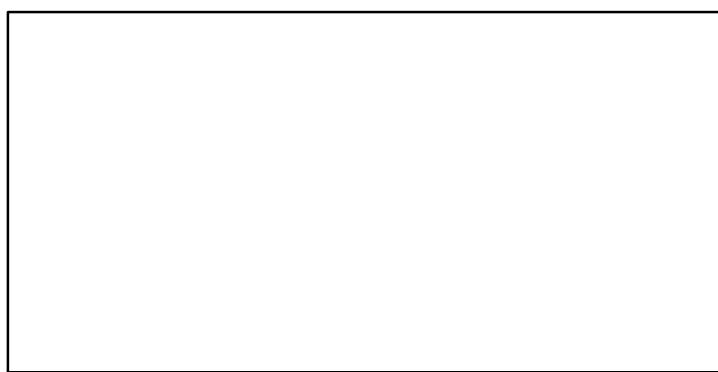
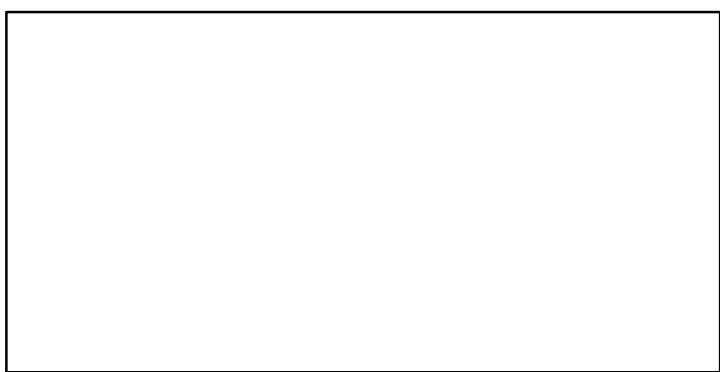
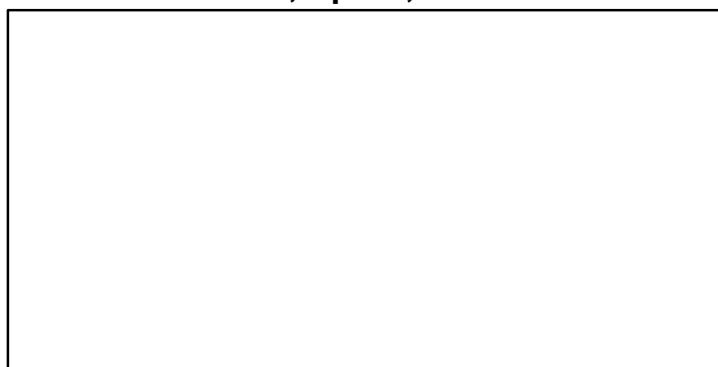
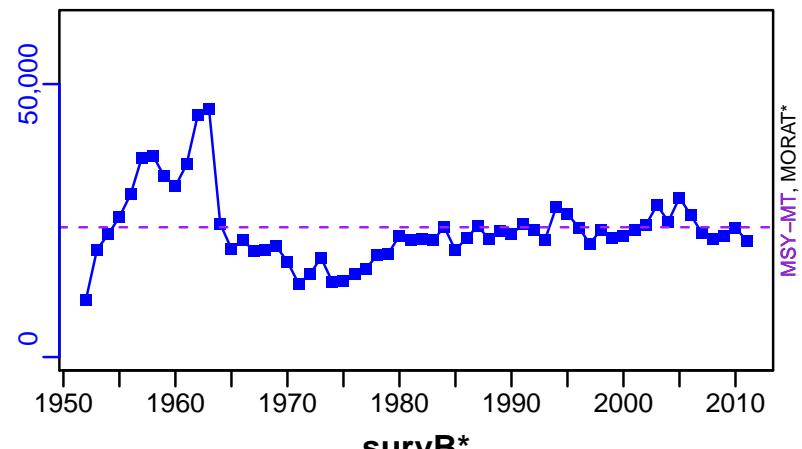


- |                      |              |
|----------------------|--------------|
| ■ Listed time series | — Target BRP |
| — MSY-based BRP      | — Lim BRP    |
| ■ No Data            | — Rec-Est    |

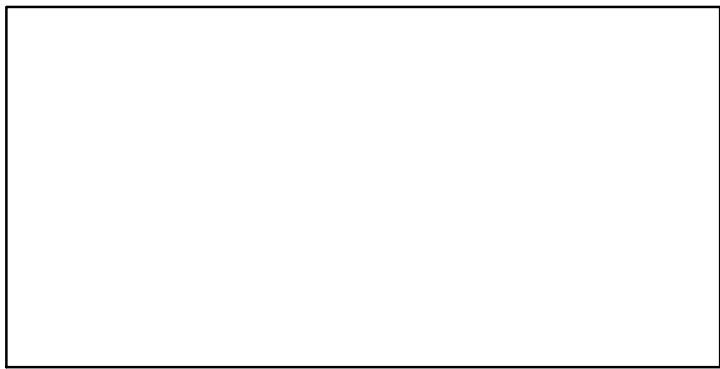
**Blue marlin Pacific Ocean [BMARLINPAC]**

TC-MT, TL\*, RecC\* (1952–2011–PONS)

TAC\*, Cpair\*, Cadv\*



**EFFORT\***



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

## Pacific bluefin tuna Pacific Ocean [PACBTUNA]

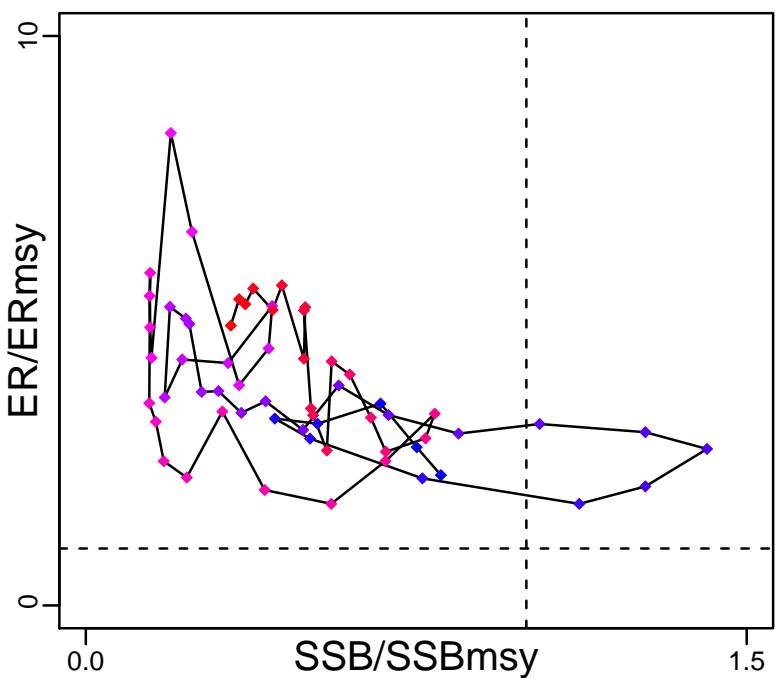
<b>Metadata</b>	
<b>Scientific Name</b>	Thunnus orientalis
<b>Current Assess ID</b>	ISC-PACBTUNA-1952-2014-PONS
<b>Area</b>	Pacific Ocean
<b>Management Authority</b>	International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean
<b>Assessor</b>	International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean
<b>Asmts in RAM</b>	2012, 2014

<b>Reference Points</b>			
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Value</b>
<b>TBmsy</b>	TBmsy-calc-MT	2012	251,233
<b>SSBmsy</b>	SSBmsy-MT	2012	105,960
<b>Fmsy</b>	Fmsy-1/yr	2012	0.117
<b>ERmsy</b>	ERmsy-ratio	2012	0.069
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2012	17,345
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

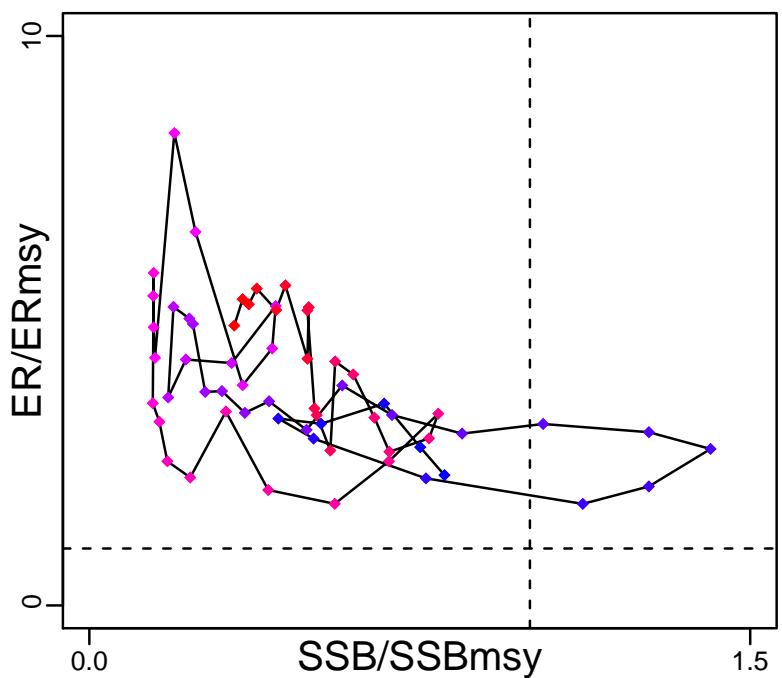
<b>Time Series</b>					
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>
<b>TB</b>	TB-MT	2014	35,800	-	-
<b>SSB</b>	SSB-MT	2014	16,600	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2014	3,690,000	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2014	0.492	-	-
<b>TC</b>	TC-MT	2012	15,200		
<b>TL</b>	TL-MT	2014	17,600		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2012	0.178		
<b>SSB/SSBmsy</b>	SSBdivSSBmsy-dimensionless	2012	0.329		
<b>F/Fmsy</b>	FdivFmsy-dimensionless	2012	1.79		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2012	4.914		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

Pacific bluefin tuna Pacific Ocean [PACBTUNA]

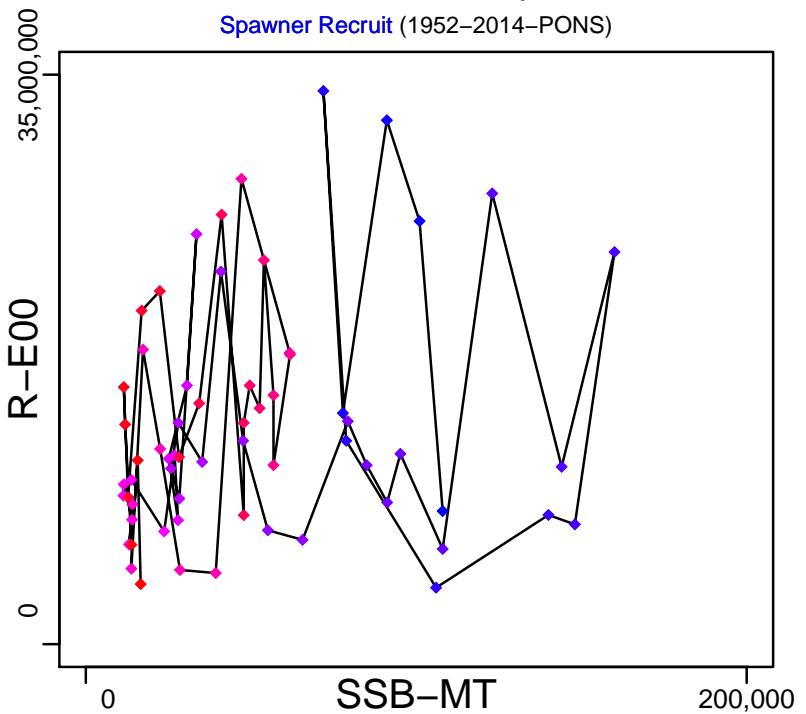
Kobe MSYpref (1952–2012–PONS)



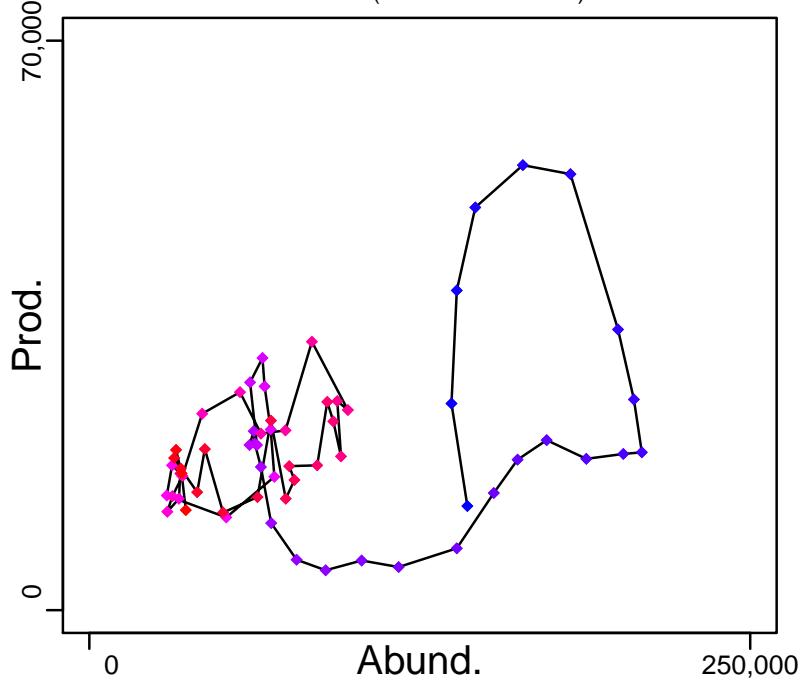
Kobe MGTPref (1952–2012–PONS)



Spawner Recruit (1952–2014–PONS)



Production (1952–2014–PONS)

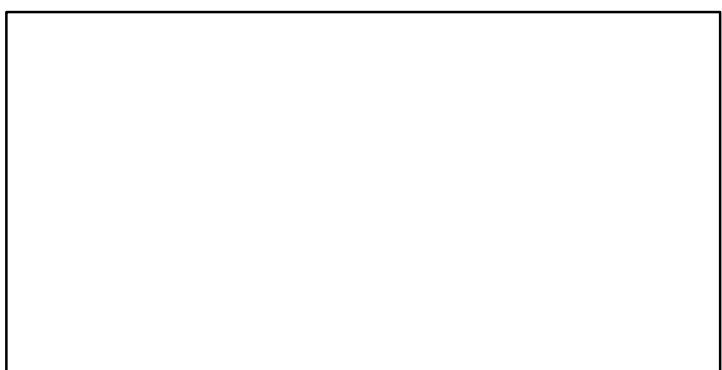
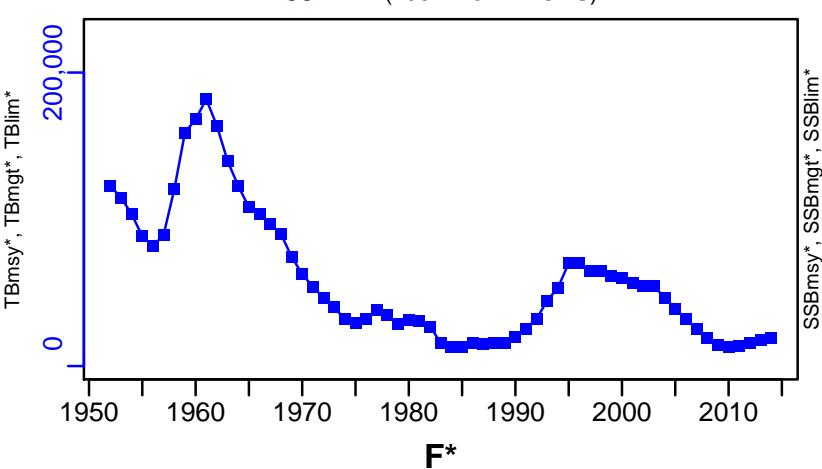
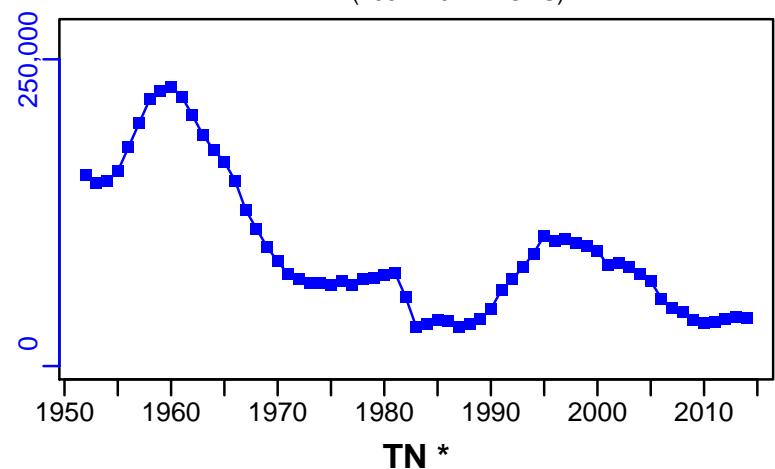


◆ Start Year   ◆ End Year   \* No Data

Pacific bluefin tuna Pacific Ocean [PACBTUNA]

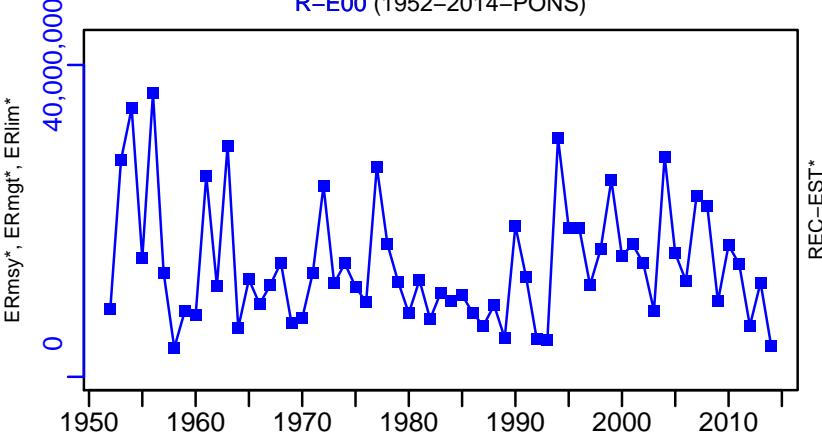
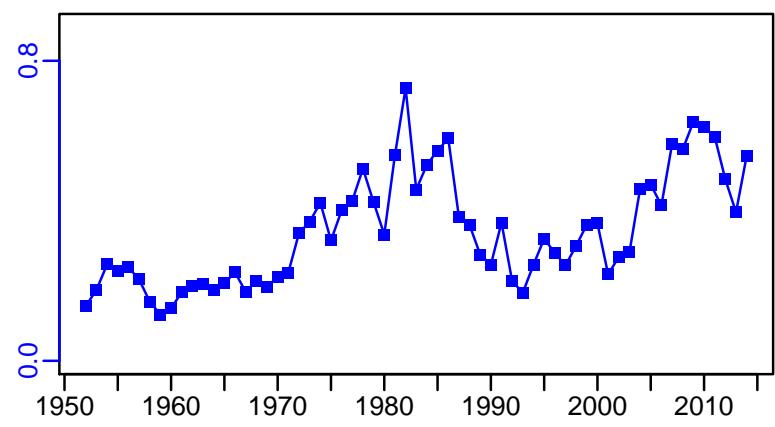
TB-MT (1952–2014–PONS)

SSB-MT (1952–2014–PONS)



ER-calc-ratio (1952–2014–PONS)

R-E00 (1952–2014–PONS)

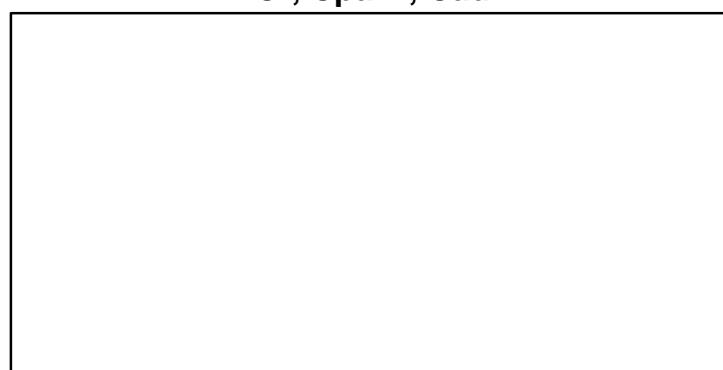
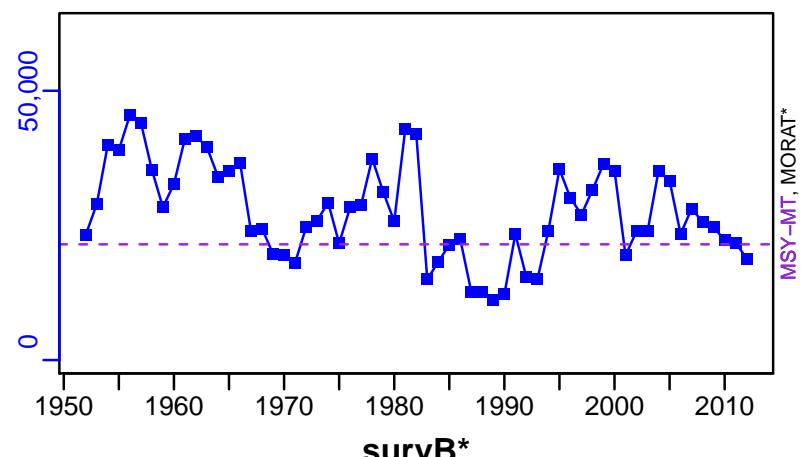


- |                      |              |           |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| - - MSY-based BRP    | ·· Lim BRP   | ■ No Data |

Pacific bluefin tuna Pacific Ocean [PACBTUNA]

TC-MT, TL\*, RecC\* (1952–2012–PONS)

TAC\*, Cpair\*, Cadv\*



CPUE\*



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

## Shortfin mako Northwest Pacific Ocean [SFMAKONWPAC]

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

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

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

**Kobe MSY\***

**Kobe MGT\***

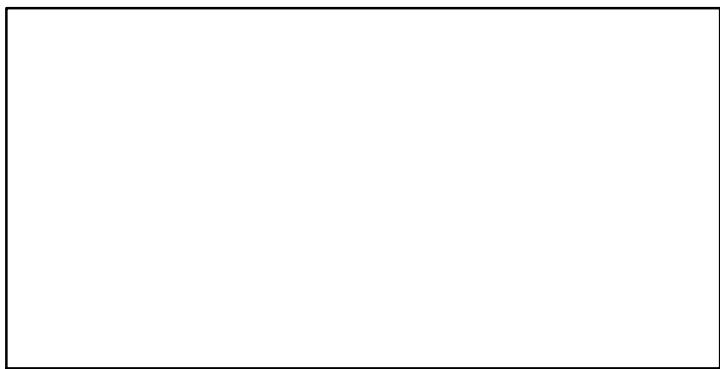
**Spawner Recruit\***

**Production\***

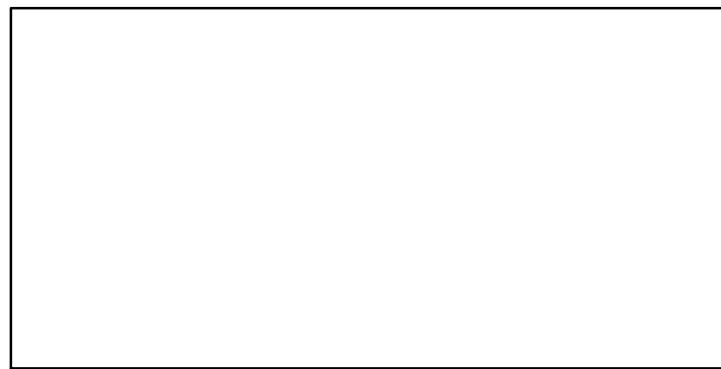
◆ Start Year   ◆ End Year   \* No Data

Shortfin mako Northwest Pacific Ocean [SFMAKONWPAC]

**TB\***



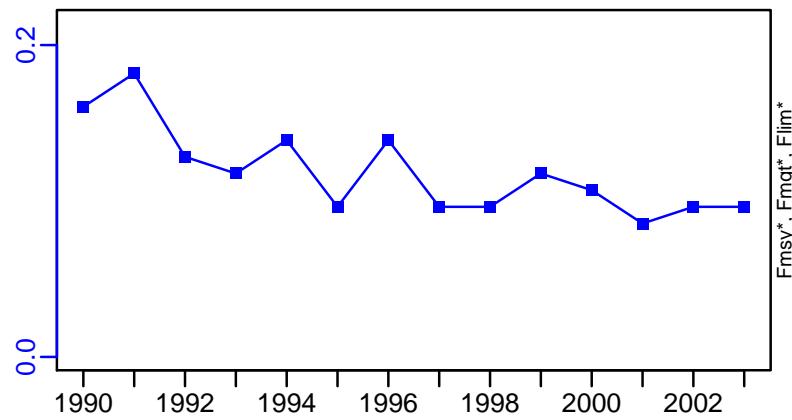
**SSB\***



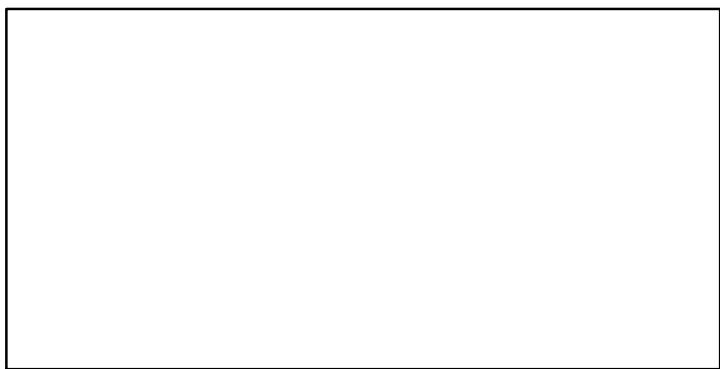
**TN \***



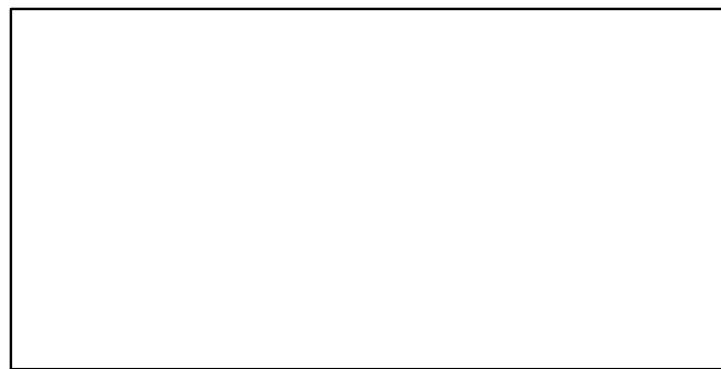
**F-female-1/yr (1990–2003-FAUCONNET)**



**ER\***



**Recruits\***

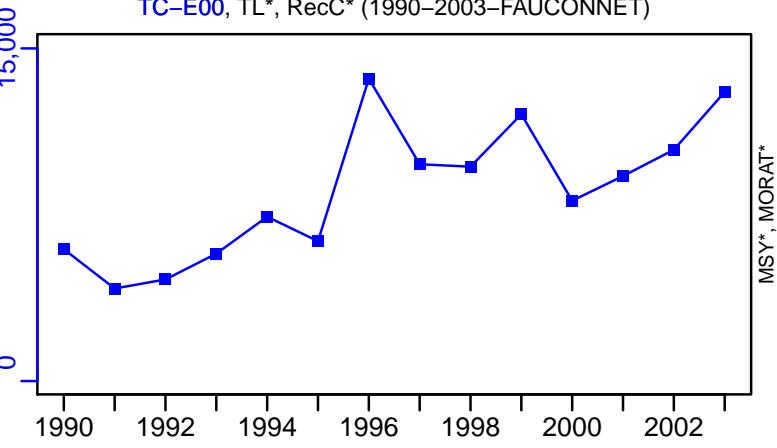


- |                      |              |           |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| - - MSY-based BRP    | ·· Lim BRP   | ■ No Data |

**Shortfin mako Northwest Pacific Ocean [SFMAKONWPAC]**

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

TAC\*, Cpair\*, Cadv\*



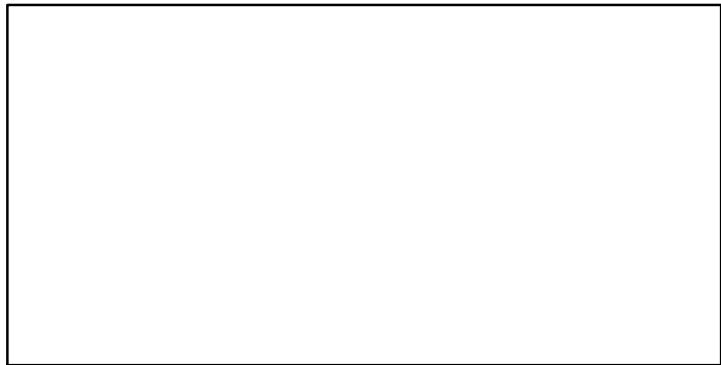
**survB\***



**CPUE\***



**EFFORT\***



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

## Skipjack tuna Central Western Pacific [SKJCWPAC]

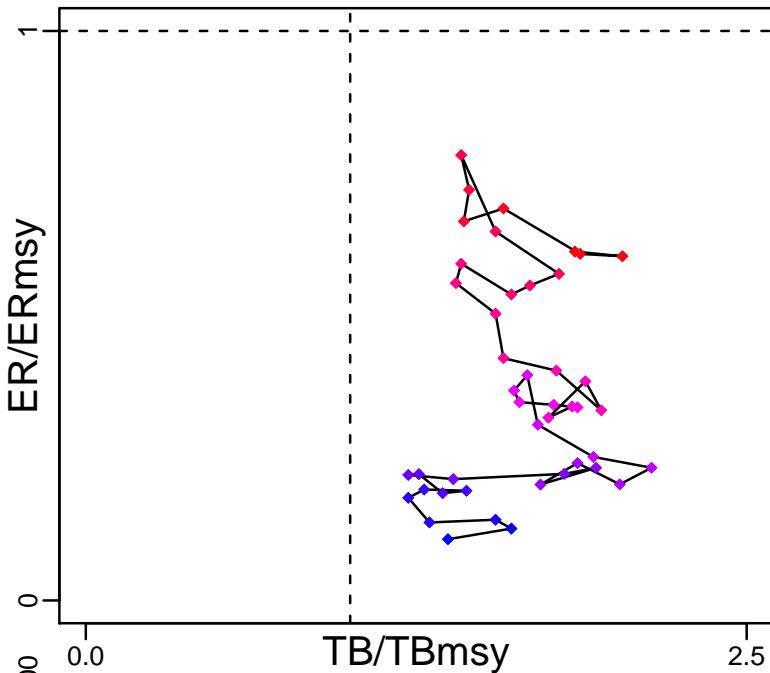
Metadata	
<b>Scientific Name</b>	Katsuwonus pelamis
<b>Current Assess ID</b>	SPC-SKJCWPAC-1950-2015-PONS
<b>Area</b>	Central Western Pacific Ocean
<b>Management Authority</b>	Western and Central Pacific Fisheries Commission
<b>Assessor</b>	Secretariat of the Pacific Community
<b>Asmts in RAM</b>	2012,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

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-extr-MT	2015	2,388,801
<b>SSBmsy</b>	SSBmsy-MT	2012	1,753,000
<b>Fmsy</b>	Fmsy-extr-1/yr	2015	3.095
<b>ERmsy</b>	ERmsy-calc-ratio	2015	0.678
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2012	1,753,000
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2012	6,587,000
<b>SSB0</b>	SSB0-MT	2012	6,229,000
<b>MSY</b>	MSY-MT	2015	1,618,800
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

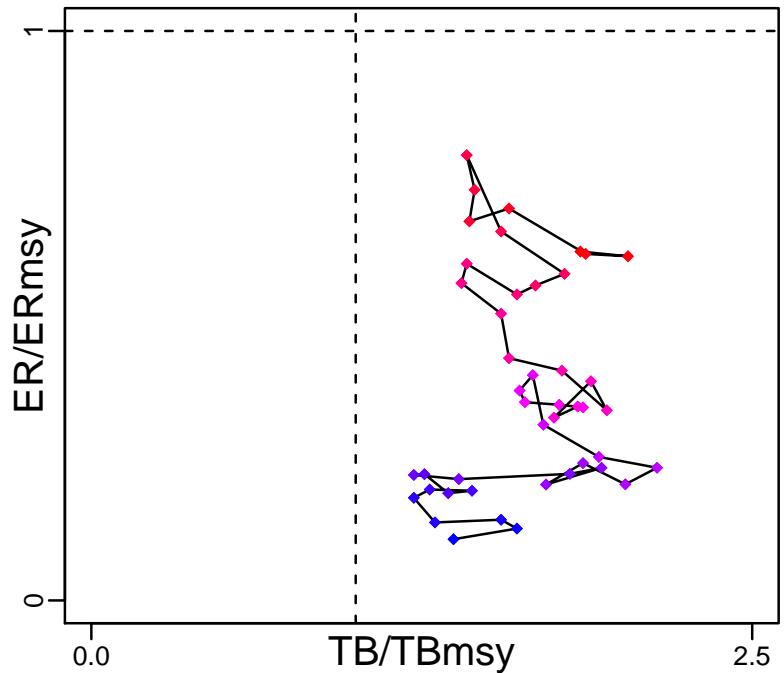
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
<b>TB</b>	TB-MT	2015	4,410,000	-	-	
<b>SSB</b>	SSB-MT	2015	4,170,000	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2015	$5 \times 10^9$	-	-	
<b>F</b>	F-1/yr	2015	1.33	-	-	
<b>ER</b>	ER-calc-ratio	2015	0.415	-	-	
<b>TC</b>	TC-MT	2012	1,650,000			
<b>TL</b>	TL-MT	2015	1,830,000			
<b>TB/TBmsy</b>	TBdivTBmsy-dimensionless	2015	1.85			
<b>SSB/SSBmsy</b>	SSBdivSSBmsy-dimensionless	2012	1.82			
<b>F/Fmsy</b>	FdivFmsy-dimensionless	2015	0.48			
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-calc-ratio	2015	0.613			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

Skipjack tuna Central Western Pacific [SKJCWPAC]

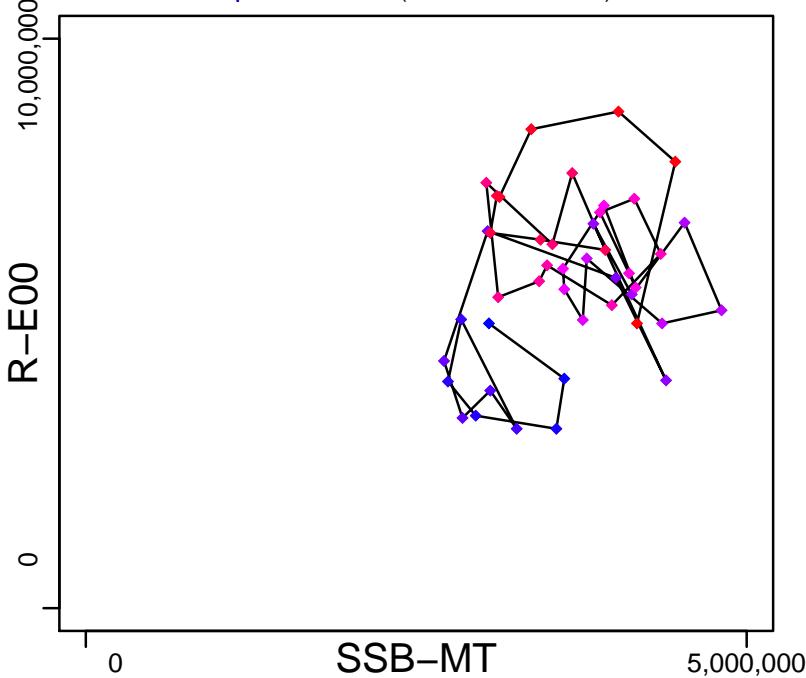
Kobe MSYpref (1950–2015–PONS)



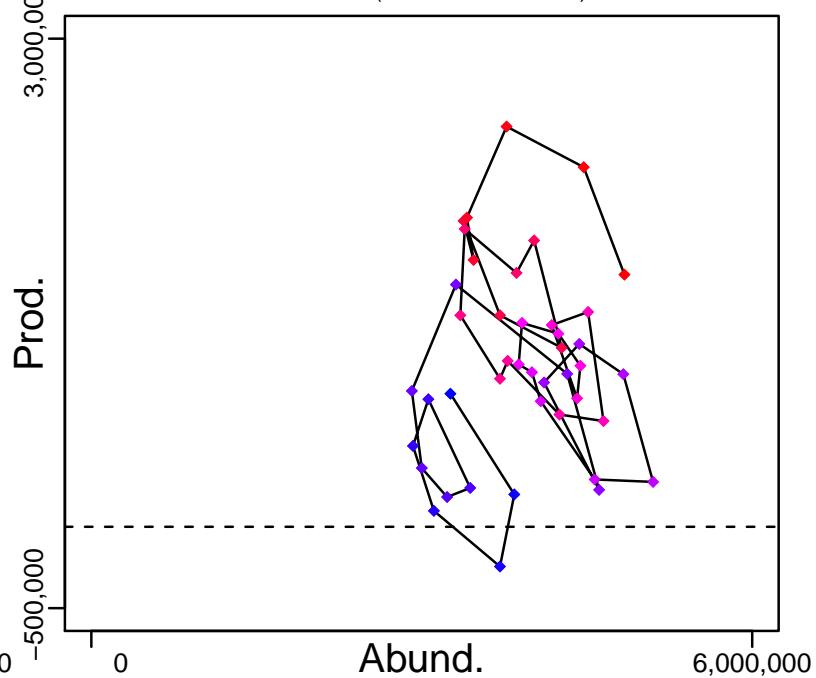
Kobe MGTPref (1950–2015–PONS)



Spawner Recruit (1950–2015–PONS)



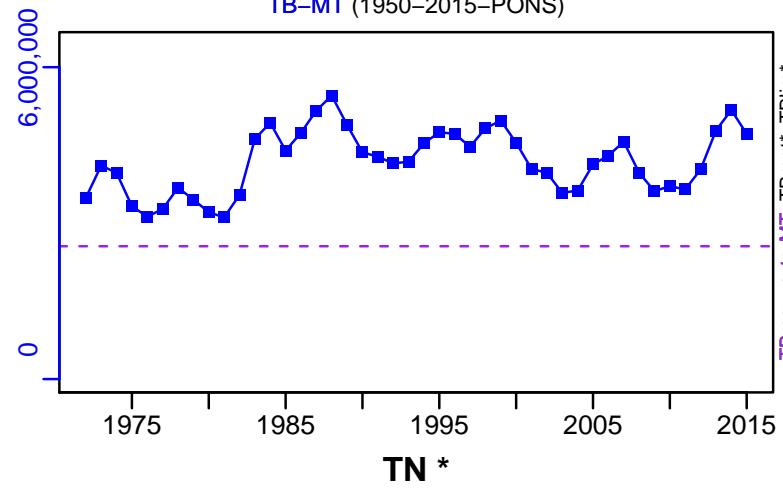
Production (1950–2015–PONS)



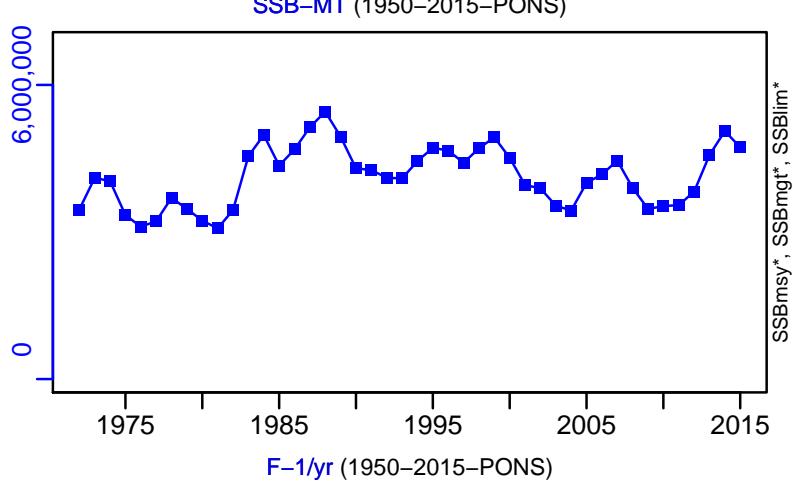
◆ Start Year ◆ End Year \* No Data

Skipjack tuna Central Western Pacific [SKJCWPAC]

TB-MT (1950–2015–PONS)



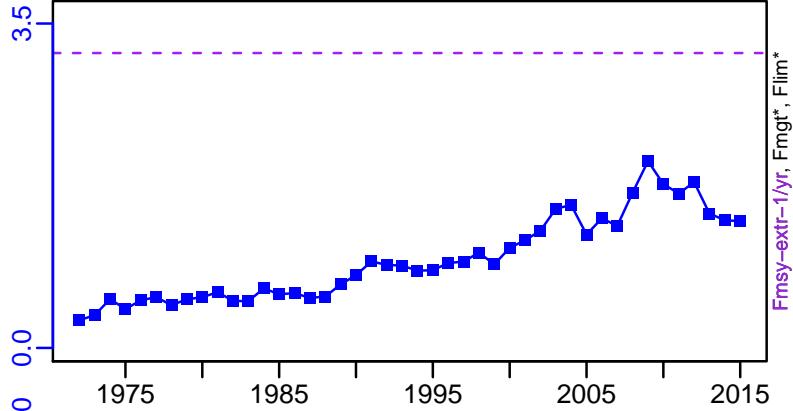
SSB-MT (1950–2015–PONS)



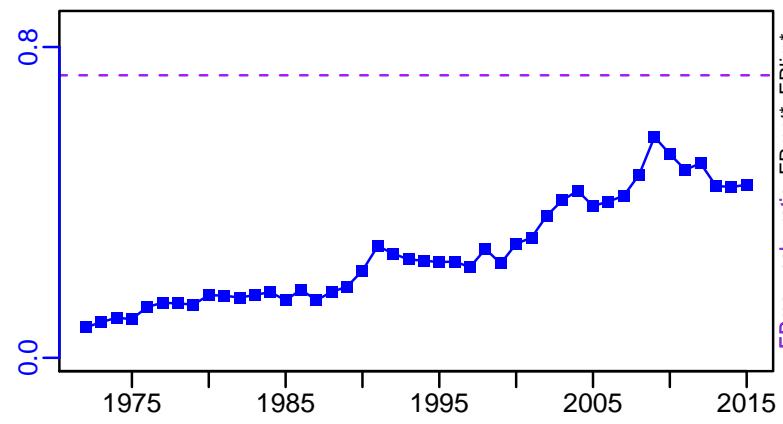
TN \*



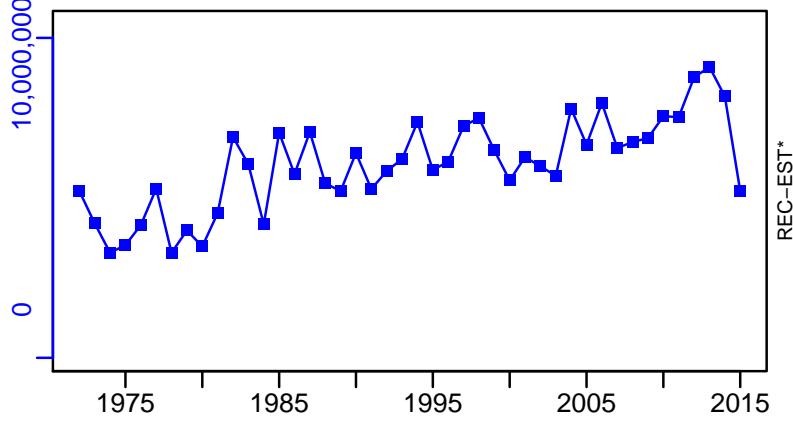
F-1/yr (1950–2015–PONS)



ER-calc-ratio (1950–2015–PONS)



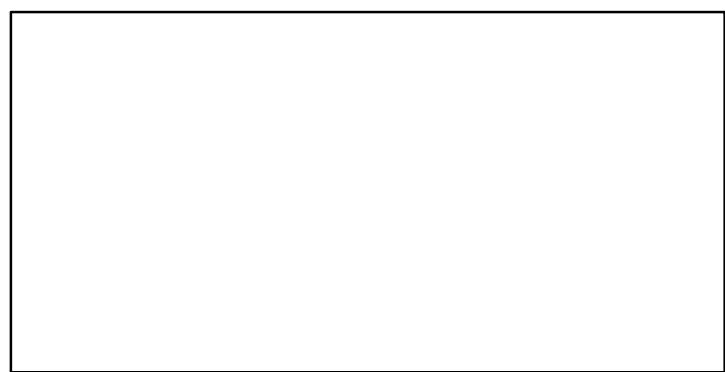
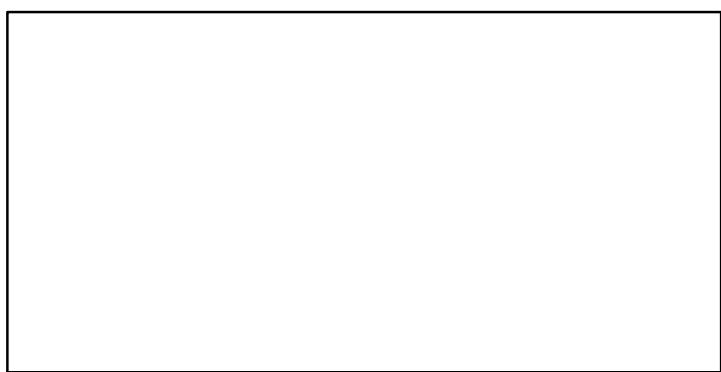
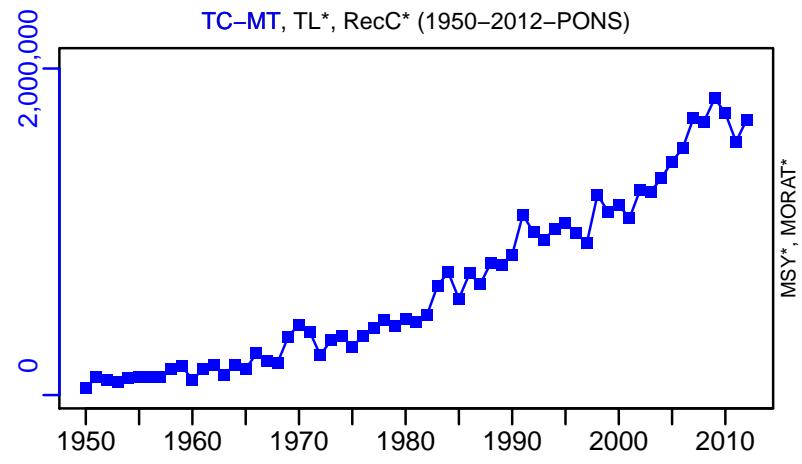
R-E00 (1950–2015–PONS)



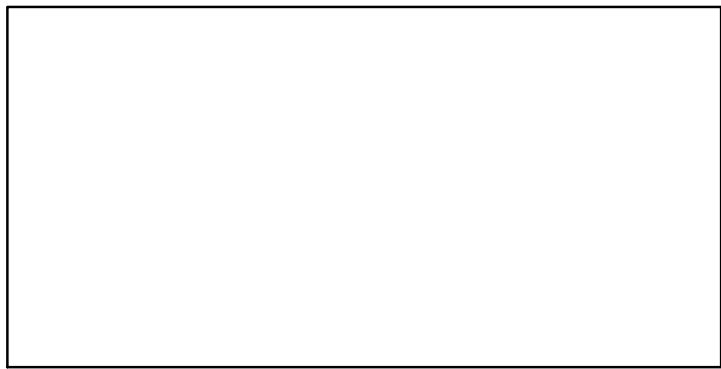
Skipjack tuna Central Western Pacific [SKJCWPAC]

TC-MT, TL\*, RecC\* (1950–2012–PONS)

TAC\*, Cpair\*, Cadv\*



**EFFORT\***



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

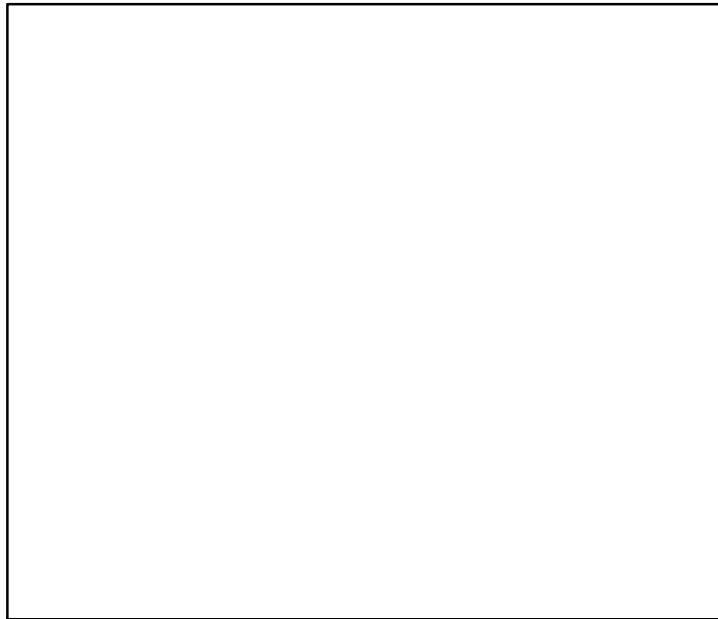
## Skipjack tuna Eastern Pacific [SKJEPAC]

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

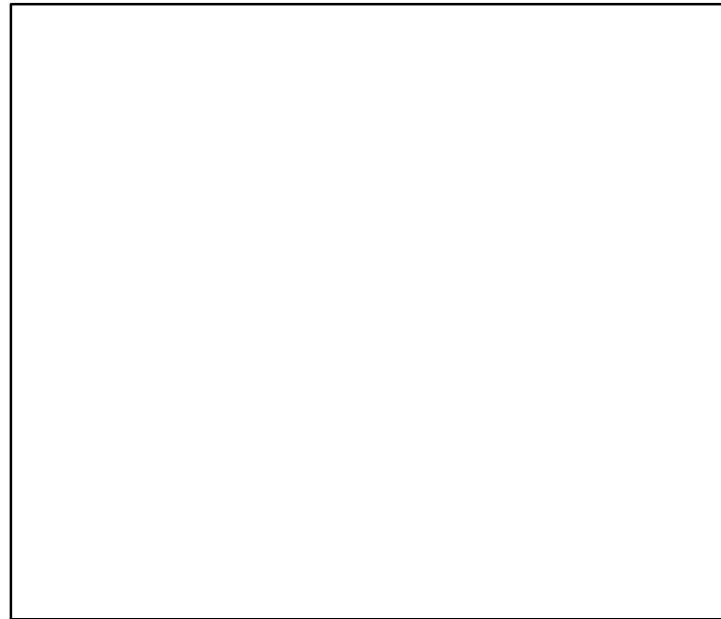
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-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

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

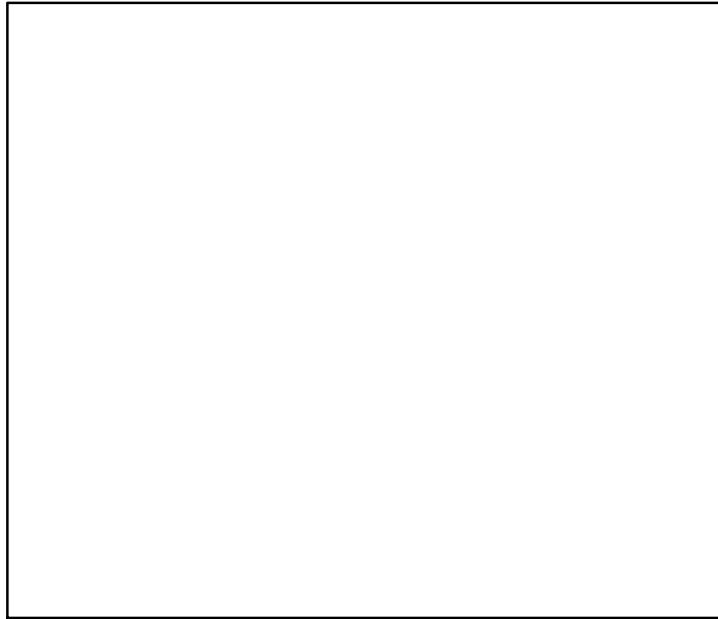
**Kobe MSY\***



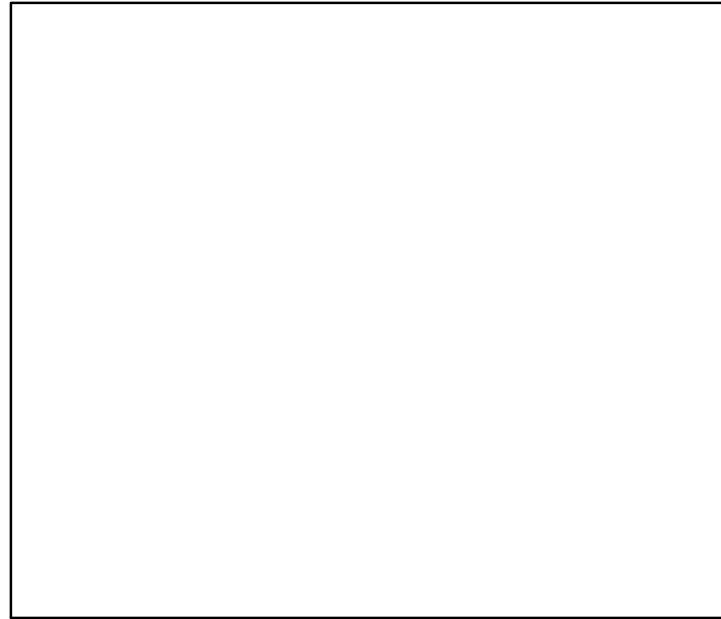
**Kobe MGT\***



**Spawner Recruit\***



**Production\***

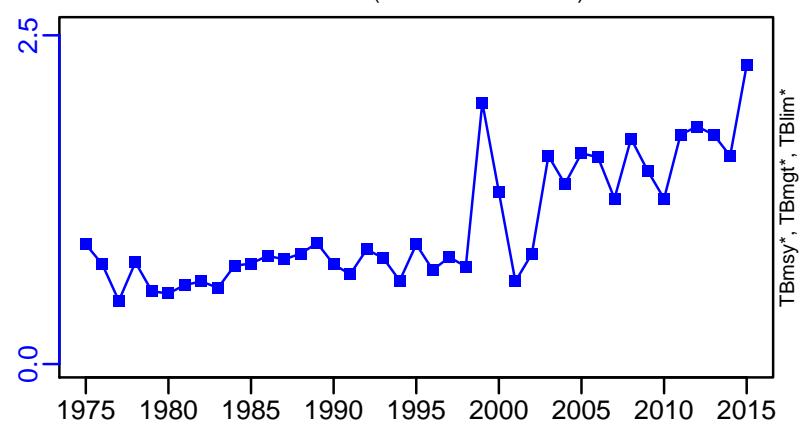


◆ Start Year ♦ End Year \* No Data

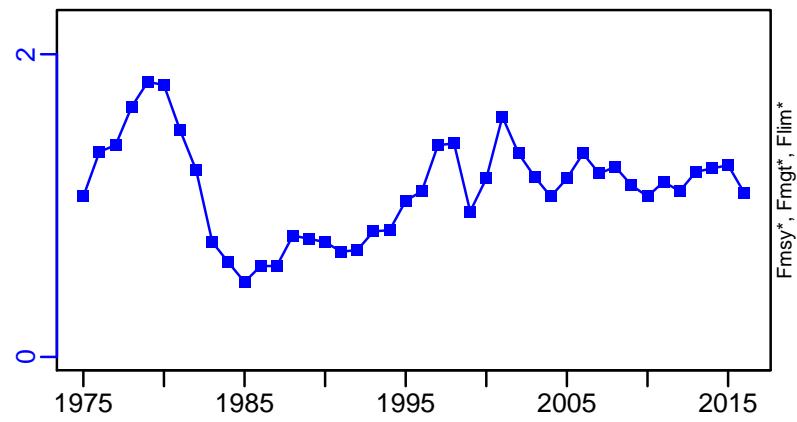
Skipjack tuna Eastern Pacific [SKJEPAC]

TB-relative (1918–2016–PONS)

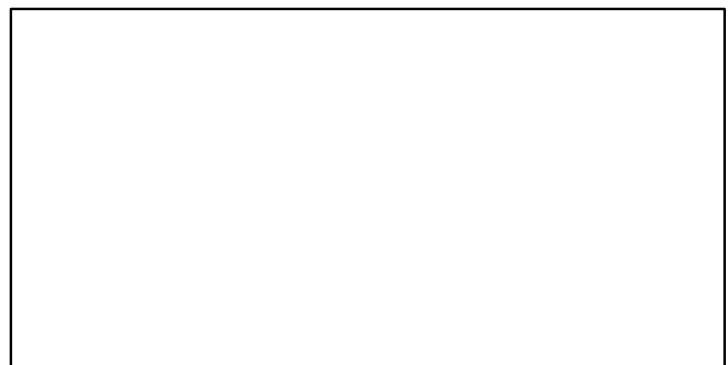
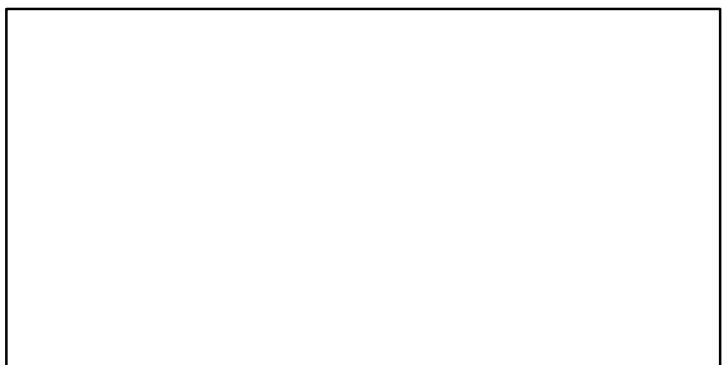
SSB\*



F-relative (1918–2016–PONS)



Recruits\*

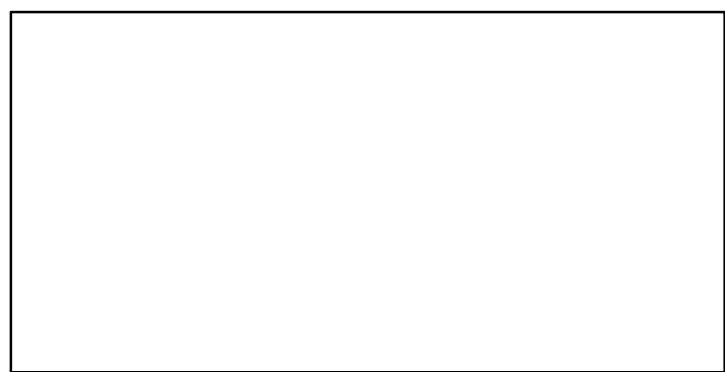
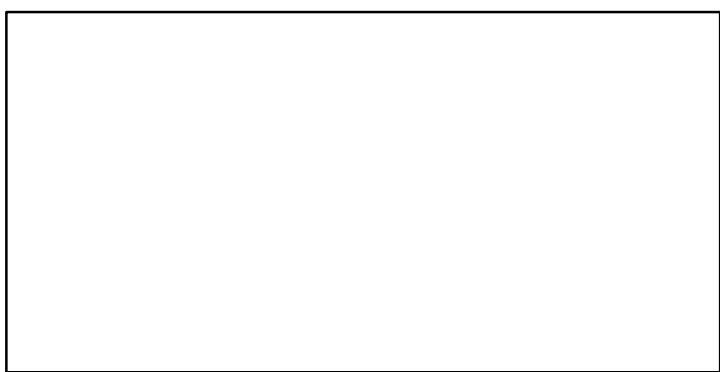
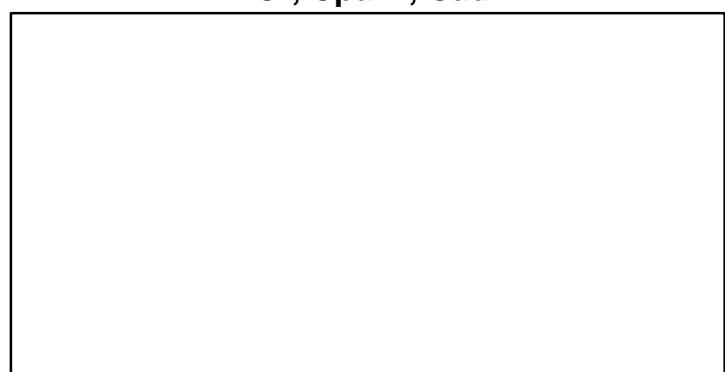
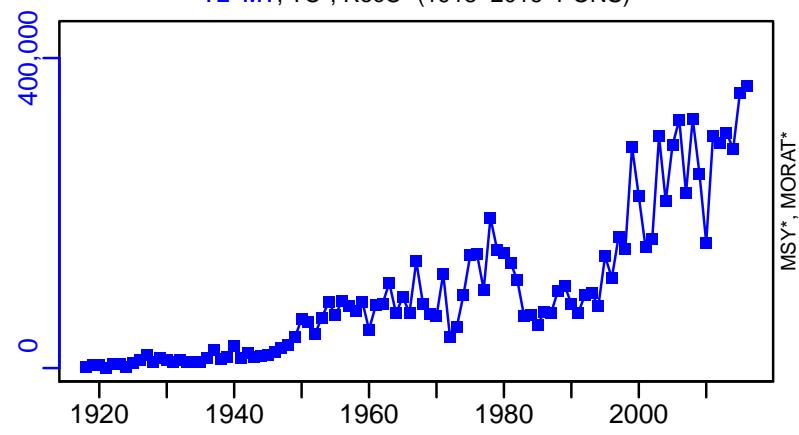


- |                      |              |           |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| - - MSY-based BRP    | ·· Lim BRP   | ■ No Data |

Skipjack tuna Eastern Pacific [SKJEPAC]

TL-MT, TC\*, RecC\* (1918–2016-PONS)

TAC\*, Cpair\*, Cadv\*



EFFORT\*



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

## Striped marlin Northeast Pacific [STMARLINNEPAC]

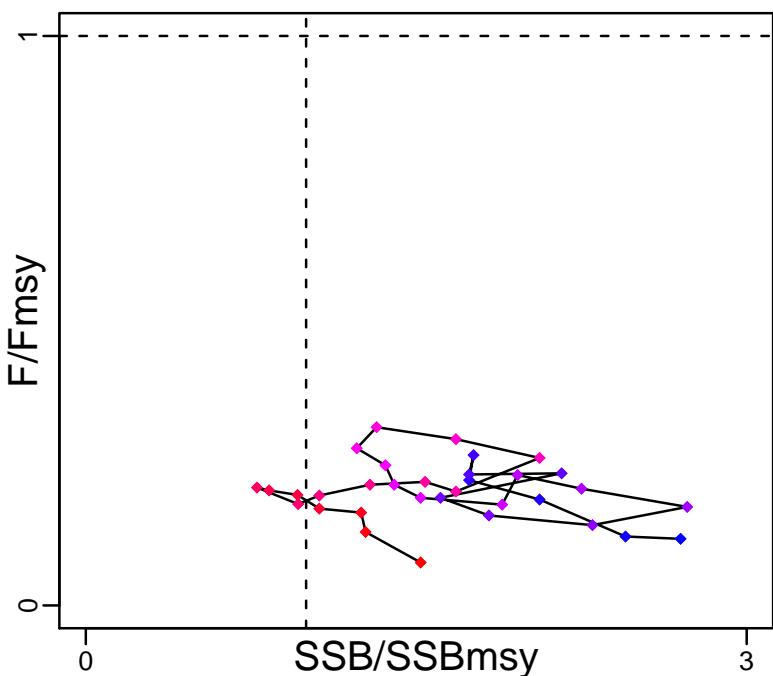
<b>Metadata</b>	
<b>Scientific Name</b>	Kajikia audax
<b>Current Assess ID</b>	IATTC-STMARLINNEPAC-1954-2009-BRANCH
<b>Area</b>	Northeast Pacific
<b>Management Authority</b>	Inter-American Tropical Tuna Commission
<b>Assessor</b>	Inter-American Tropical Tuna Commission
<b>Asmts in RAM</b>	2009

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

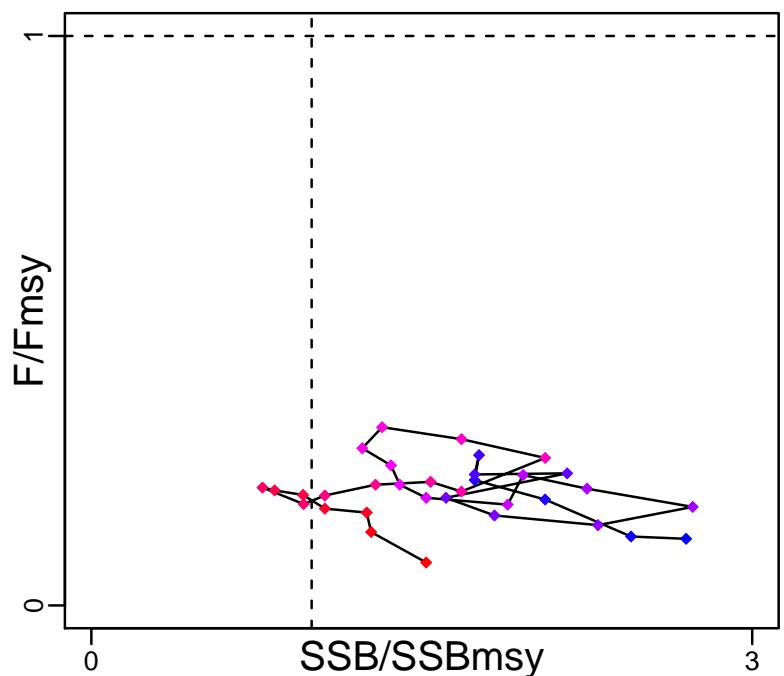
<b>Time Series</b>						
<b>Type</b>	<b>ID</b>	<b>Asmt Year</b>	<b>Curr Value</b>	<b>Sex</b>	<b>Age</b>	
<b>TB</b>	TB-MT	2009	5060	-	1+	
<b>SSB</b>	SSB-MT	2009	2090	Females	2+	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-MT	2009	239	-	0	
<b>F</b>	-	-	-	-	-	
<b>ER</b>	ER-calc-ratio	2009	0.269	-	-	
<b>TC</b>	TC-MT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

**Striped marlin Northeast Pacific [STMARLINNEPAC]**

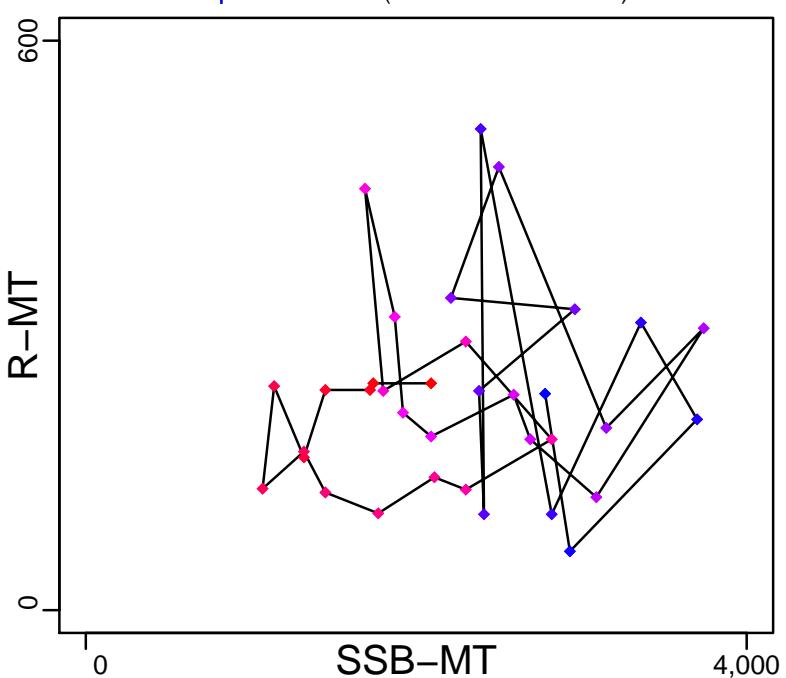
Kobe MSYpref (1954–2009–BRANCH)



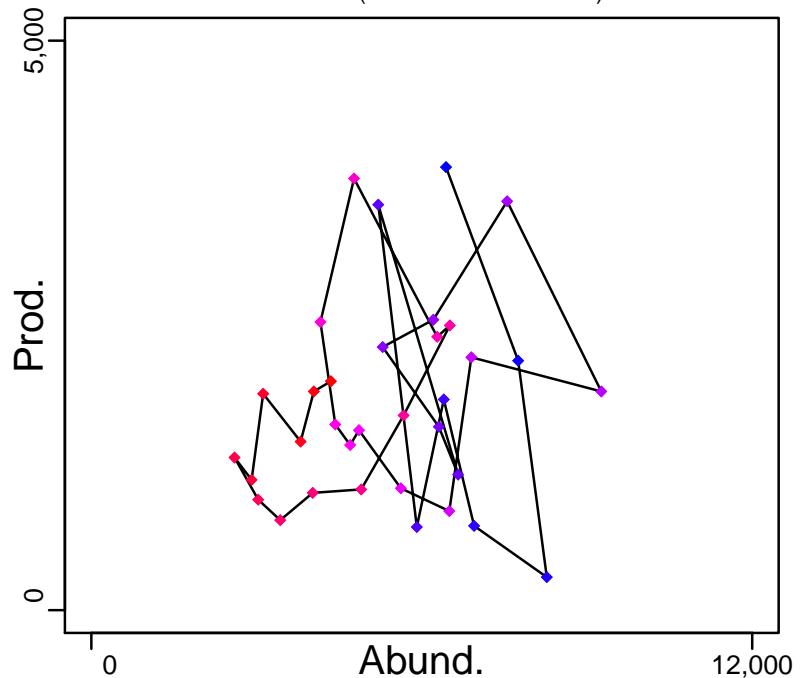
Kobe MGTpref (1954–2009–BRANCH)



Spawner Recruit (1954–2009–BRANCH)



Production (1954–2009–BRANCH)

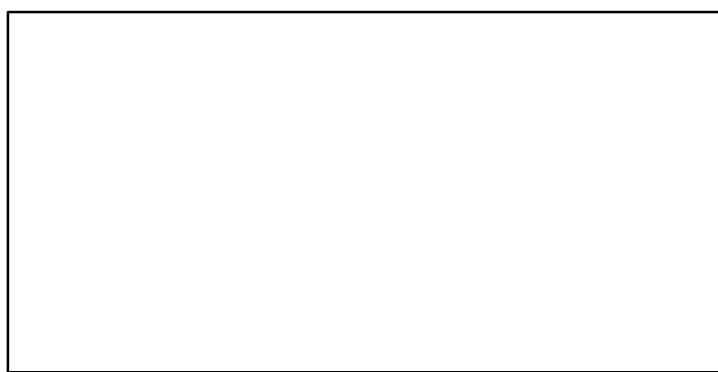
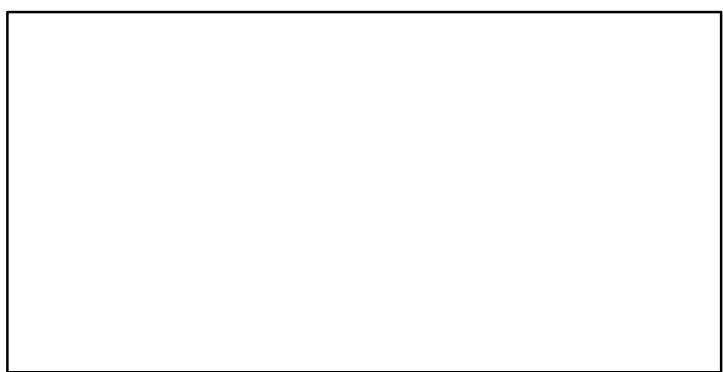
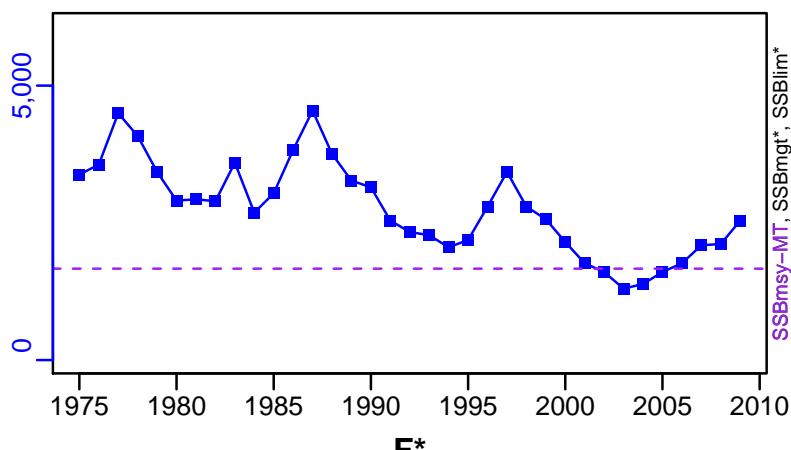
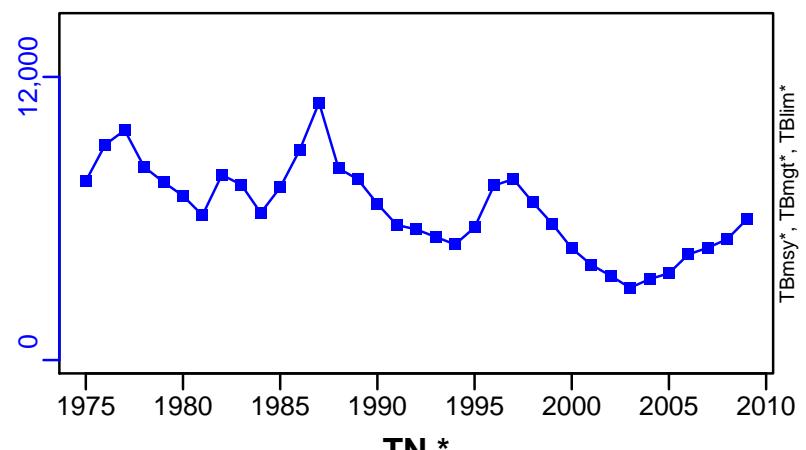


◆ Start Year   ◆ End Year   \* No Data

### Striped marlin Northeast Pacific [STMARLINNEPAC]

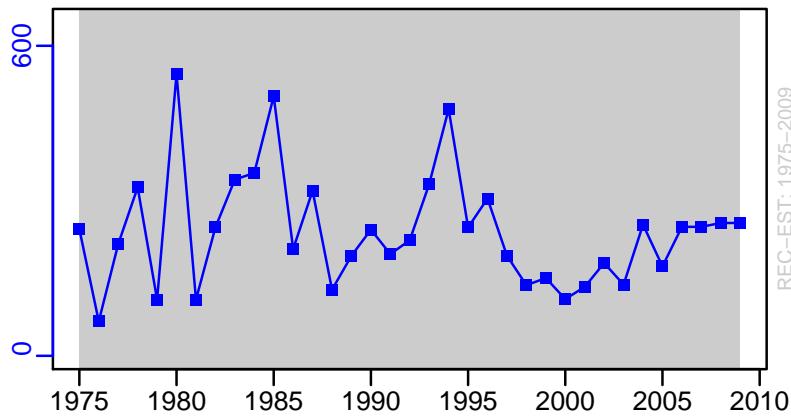
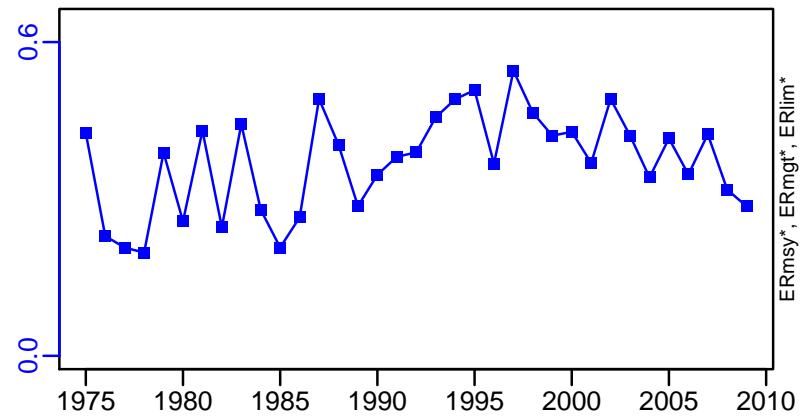
TB-MT (1954–2009–BRANCH)

SSB-MT (1954–2009–BRANCH)



ER-calc-ratio (1954–2009–BRANCH)

R-MT (1954–2009–BRANCH)

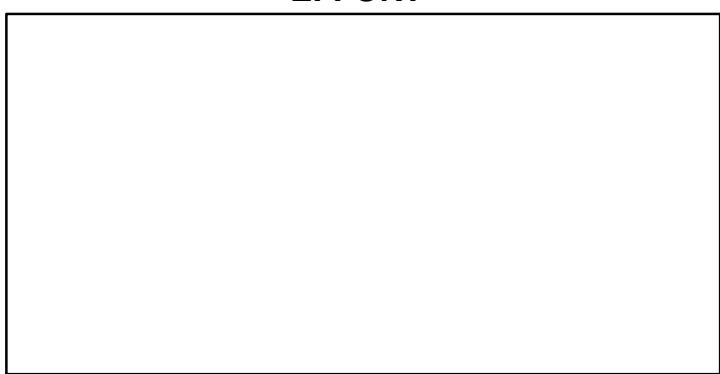
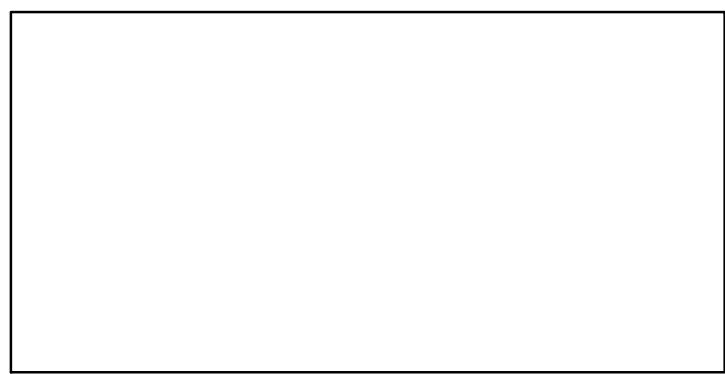
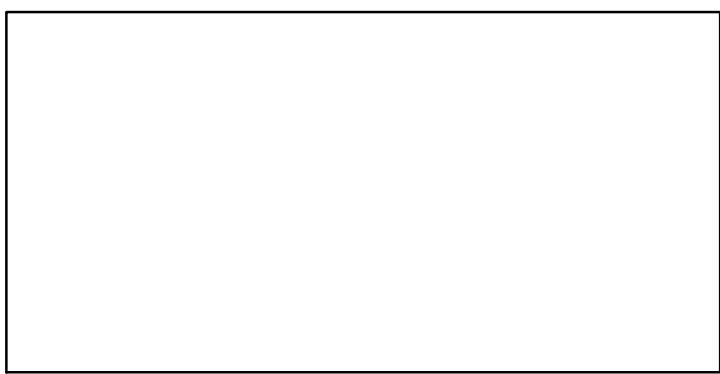
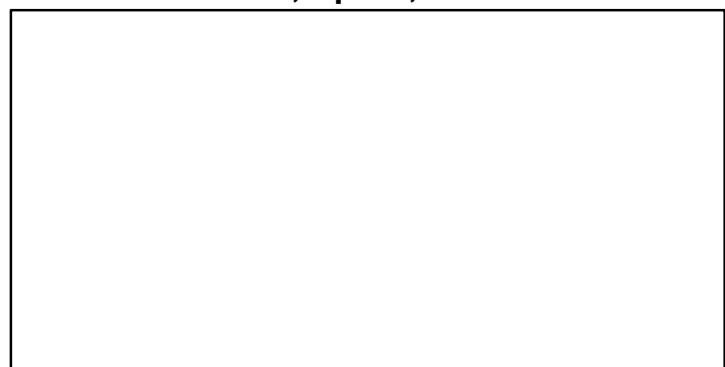
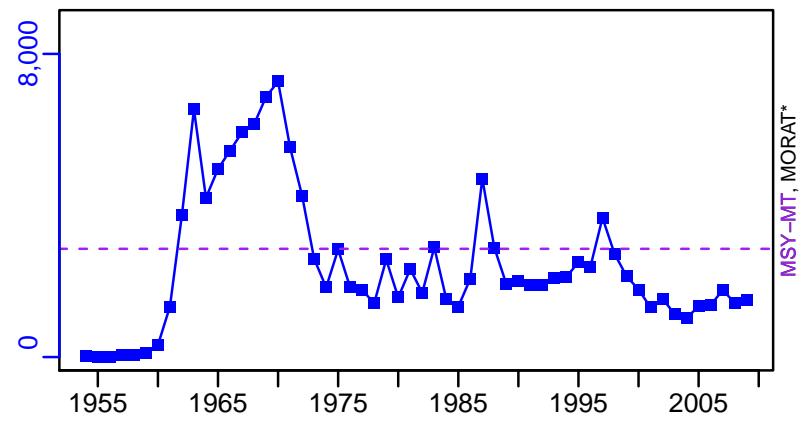


- |                      |              |           |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| - - MSY-based BRP    | --- Lim BRP  | ■ No Data |

Striped marlin Northeast Pacific [STMARLINNEPAC]

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

TAC\*, Cpair\*, Cadv\*



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

## Striped marlin Southwestern Pacific Ocean [STMARLINSWPO]

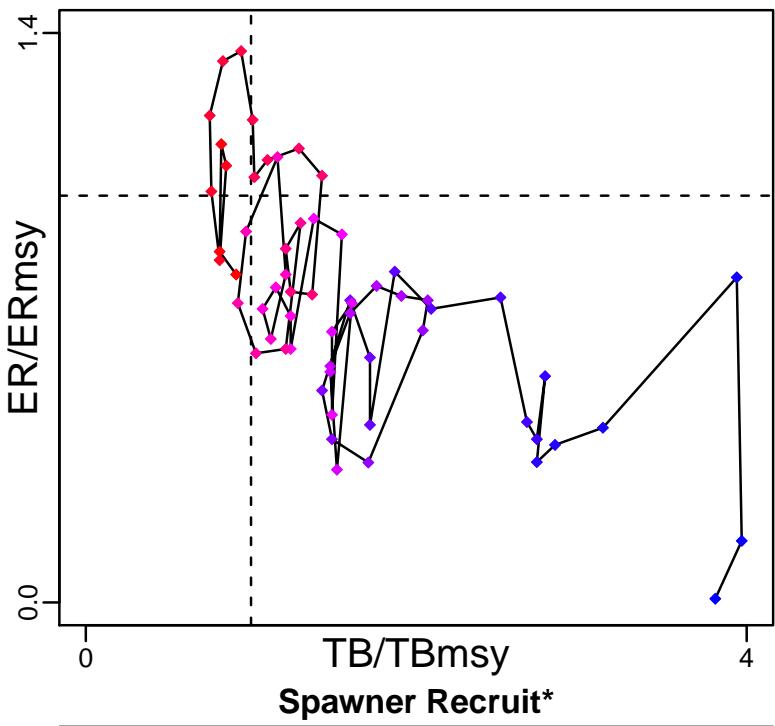
Metadata	
<b>Scientific Name</b>	Kajikia audax
<b>Current Assess ID</b>	SPC-STMARLINSWPO-1952-2011-CHING
<b>Area</b>	Western Pacific Ocean
<b>Management Authority</b>	Western and Central Pacific Fisheries Commission
<b>Assessor</b>	Secretariat of the Pacific Community
<b>Asmts in RAM</b>	2011

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-extr-MT	2011	7326
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	Fmsy-1/yr	2011	0.226
<b>ERmsy</b>	ERmsy-calc-ratio	2011	0.284
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2011	2081
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

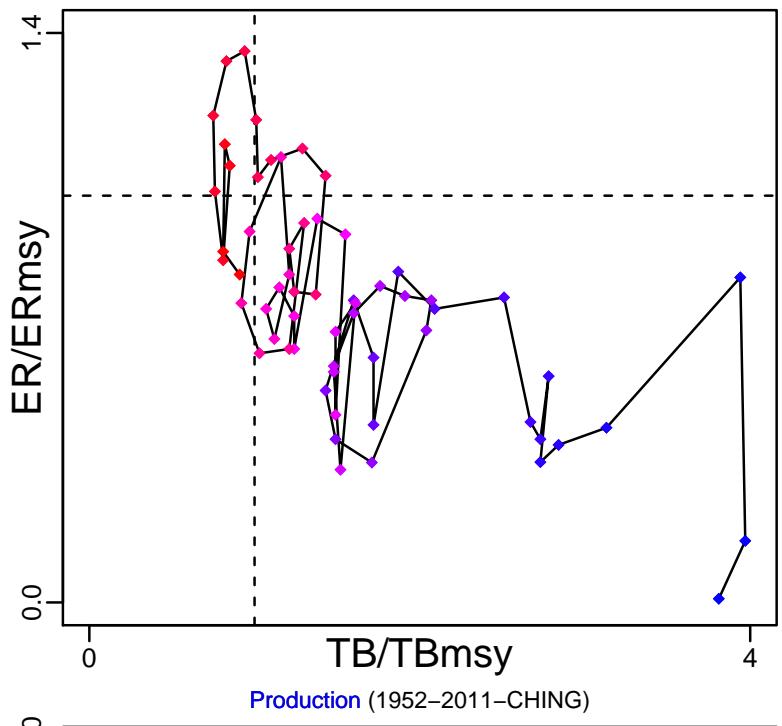
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
<b>TB</b>	TB-MT	2011	6640	-	-	
<b>SSB</b>	-	-	-	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	-	-	-	-	-	
<b>F</b>	-	-	-	-	-	
<b>ER</b>	ER-ratio	2011	0.229	-	-	
<b>TC</b>	TC-MT	2011	1520			
<b>TL</b>	-	-	-			
<b>TB/TBmsy</b>	TBdivTBmsy-dimensionless	2011	0.91			
<b>SSB/SSBmsy</b>	-	-	-			
<b>F/Fmsy</b>	FdivFmsy-dimensionless	2011	0.81			
<b>ER/ERmsy</b>	ER-ratio/ERmsy-calc-ratio	2011	0.806			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

Striped marlin Southwestern Pacific Ocean [STMARLINSWPO]

Kobe MSYpref (1952–2011–CHING)

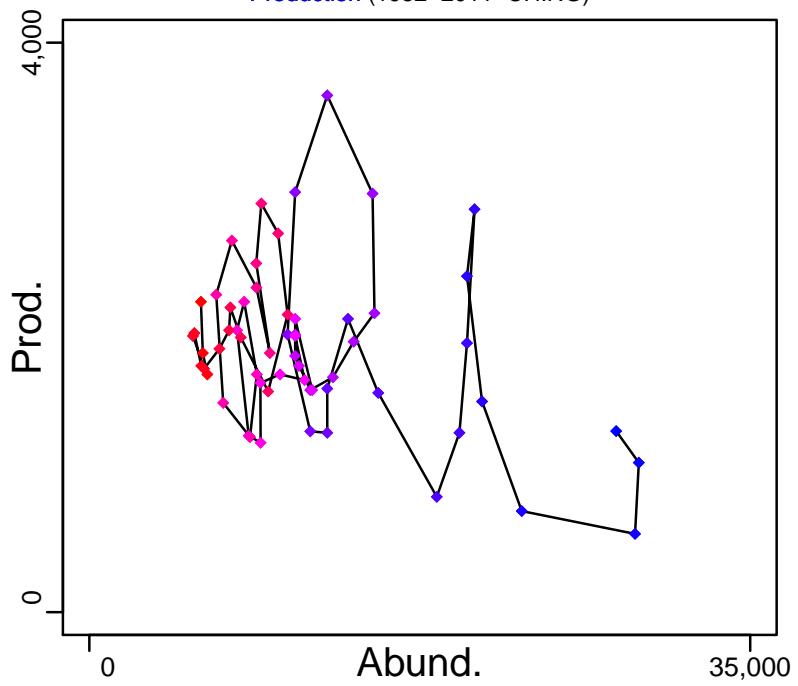
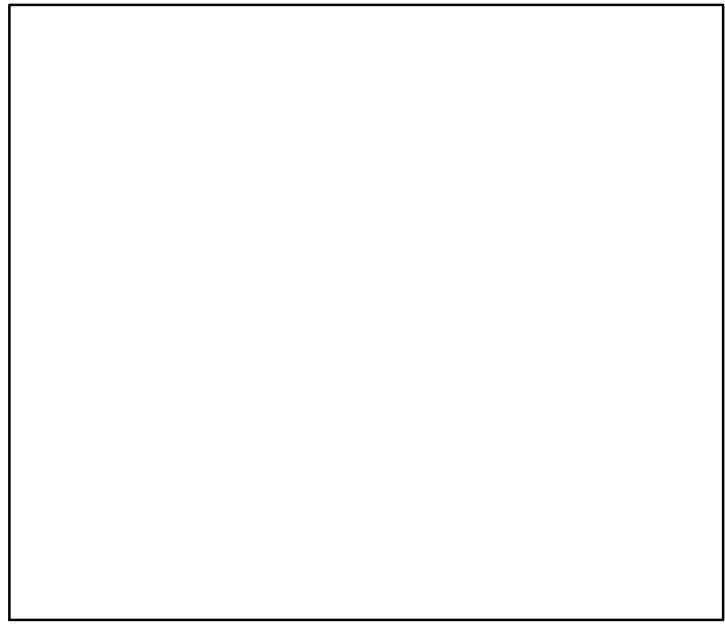


Kobe MGTPref (1952–2011–CHING)



**Spawner Recruit\***

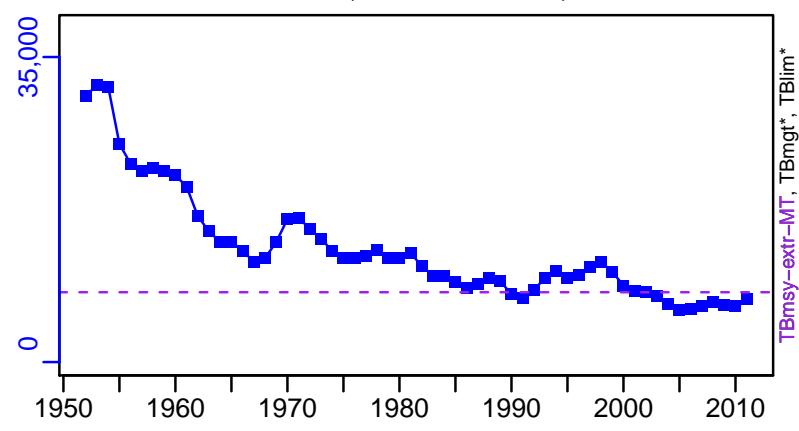
**Production (1952–2011–CHING)**



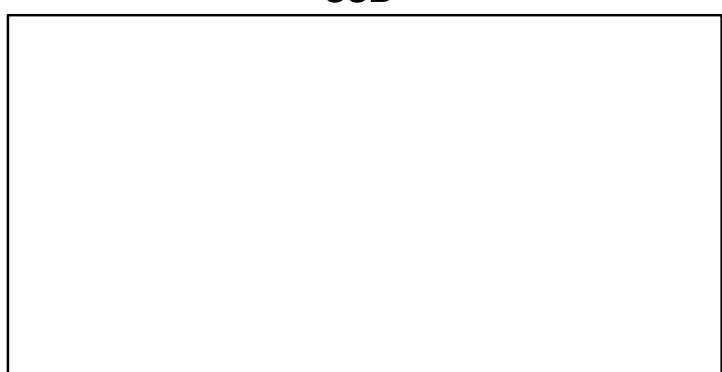
◆ Start Year   ◆ End Year   \* No Data

Striped marlin Southwestern Pacific Ocean [STMARLINSWPO]

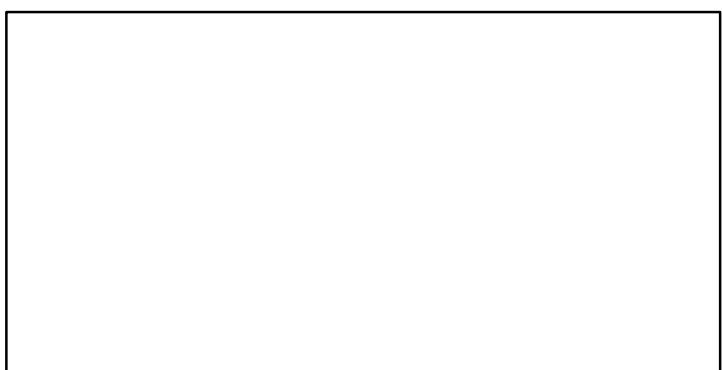
TB-MT (1952–2011-CHING)



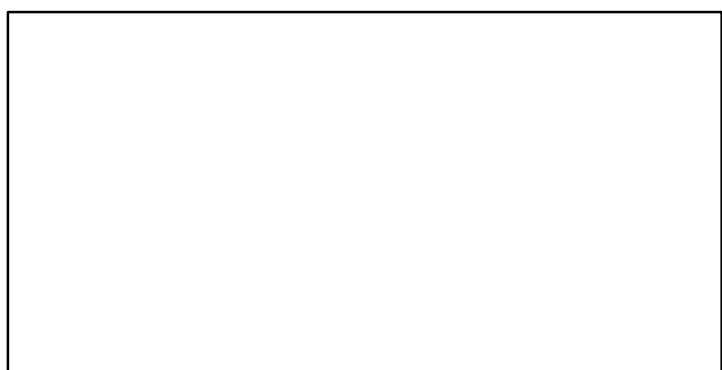
SSB\*



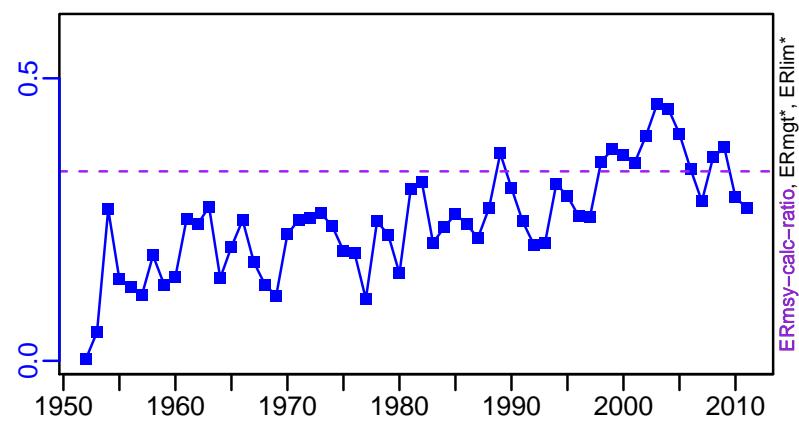
TN \*



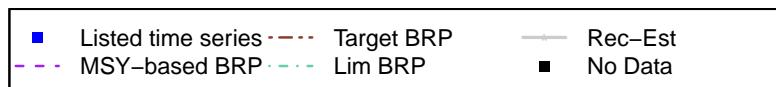
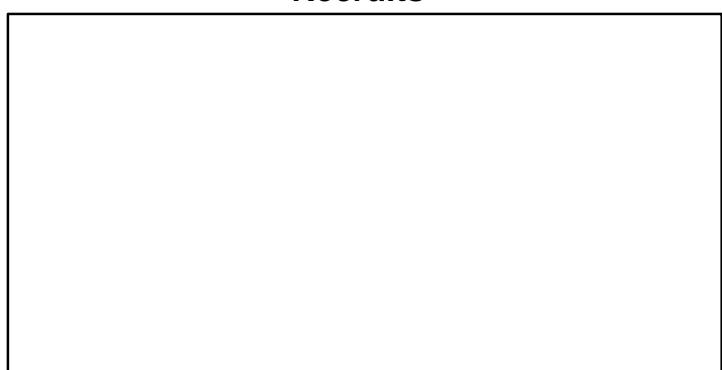
F\*



ER-ratio (1952–2011-CHING)



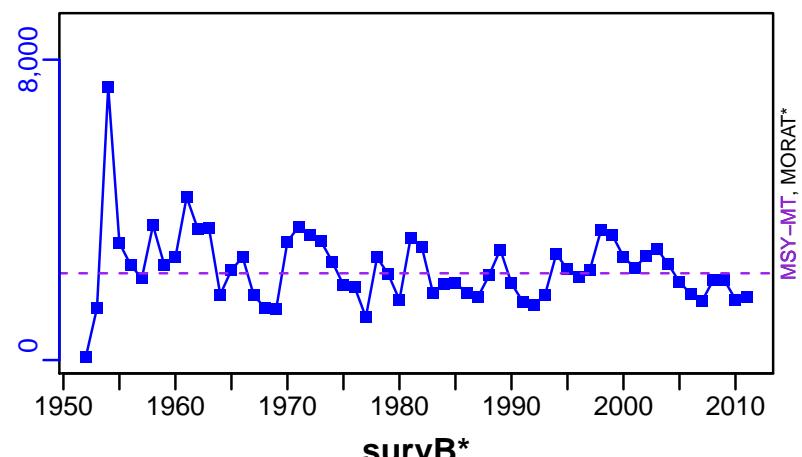
Recruits\*



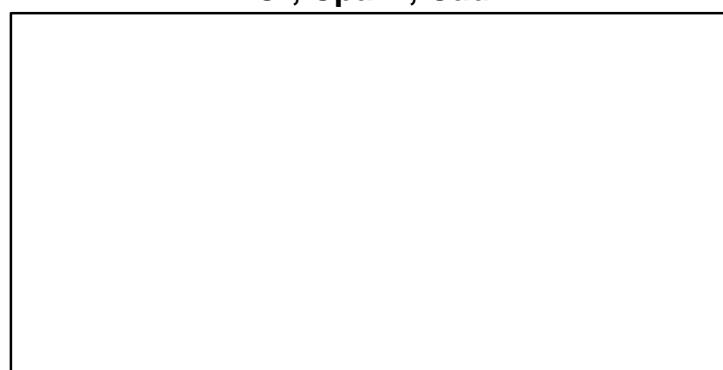
Striped marlin Southwestern Pacific Ocean [STMARLINSWPO]

TC-MT, TL\*, RecC\* (1952–2011-CHING)

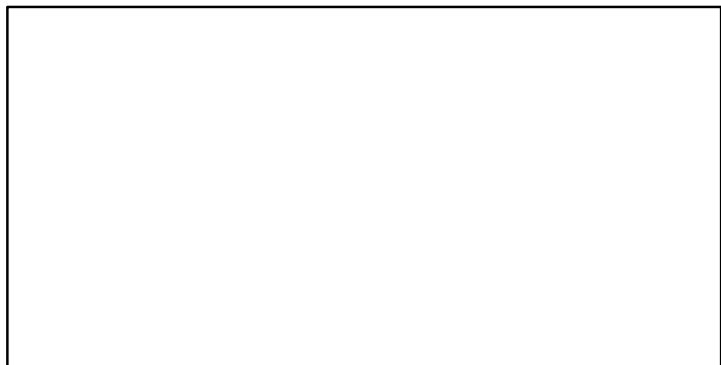
TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



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

## Striped marlin Western and Central North Pacific [STMARLINWCNPAC]

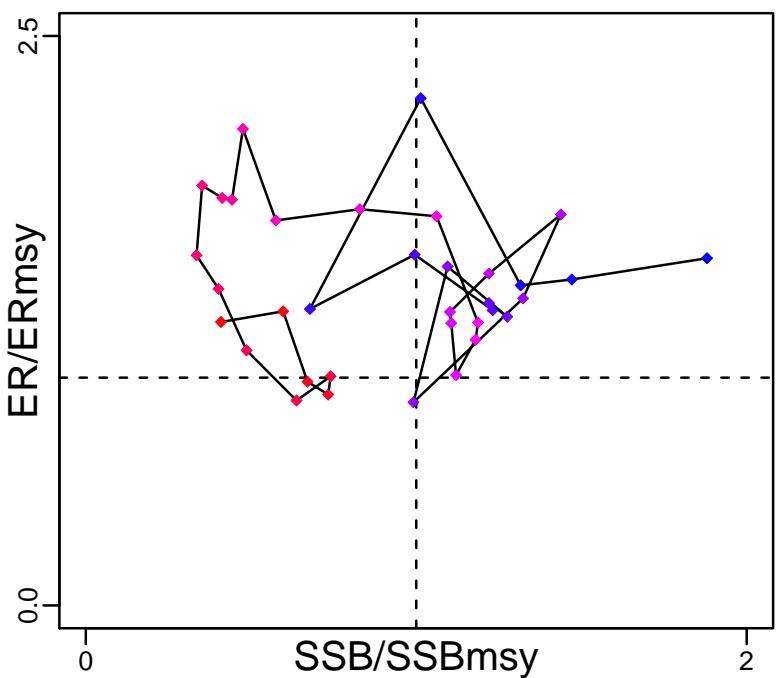
Metadata	
<b>Scientific Name</b>	Kajikia audax
<b>Current Assess ID</b>	ISC-STMARLINWCNPAC-1974-2013-SISIMP2016
<b>Area</b>	Western and Central North Pacific
<b>Management Authority</b>	International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean
<b>Assessor</b>	International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean
<b>Asmts in RAM</b>	2010, 2013

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-extr-MT	2010	16,721
<b>SSBmsy</b>	SSBmsy-MT	2013	2819
<b>Fmsy</b>	Fmsy-1/yr	2010	0.612
<b>ERmsy</b>	ERmsy-ratio	2010	0.386
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2010	43,468
<b>SSB0</b>	SSB0-MT	2010	18,507
<b>MSY</b>	MSY-MT	2013	5657
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2013	2819
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

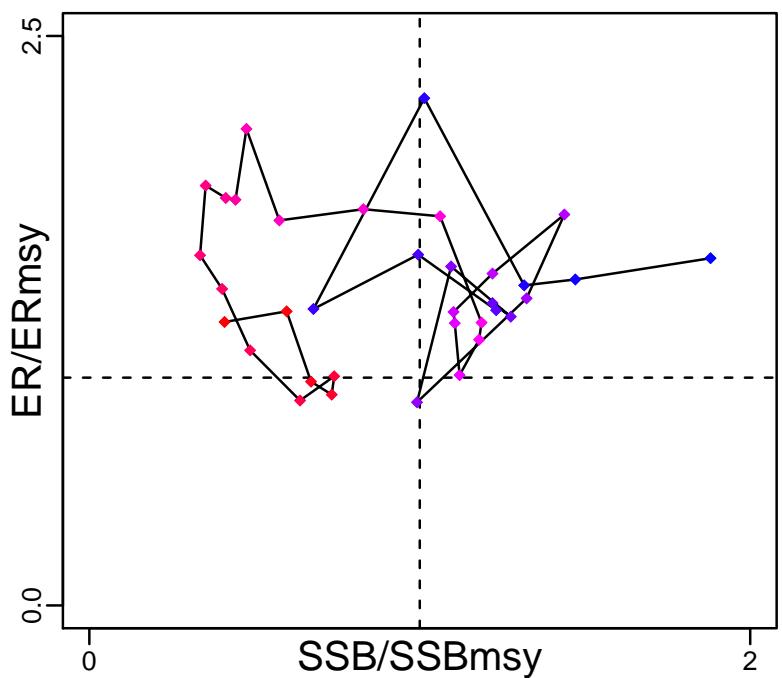
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2010	6630	-	-
<b>SSB</b>	SSB-MT	2013	6820	Females	1+
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2010	326,000	-	-
<b>F</b>	F-1/yr	2010	0.75	-	-
<b>ER</b>	ER-ratio	2010	0.48	-	-
<b>TC</b>	TC-MT	2013	2980		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TBdivTBmsy-dimensionless	2010	0.35		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	2.419		
<b>F/Fmsy</b>	FdivFmsy-dimensionless	2010	1.22		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2010	1.244		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

Striped marlin Western and Central North Pacific [STMARLINWCNPAC]

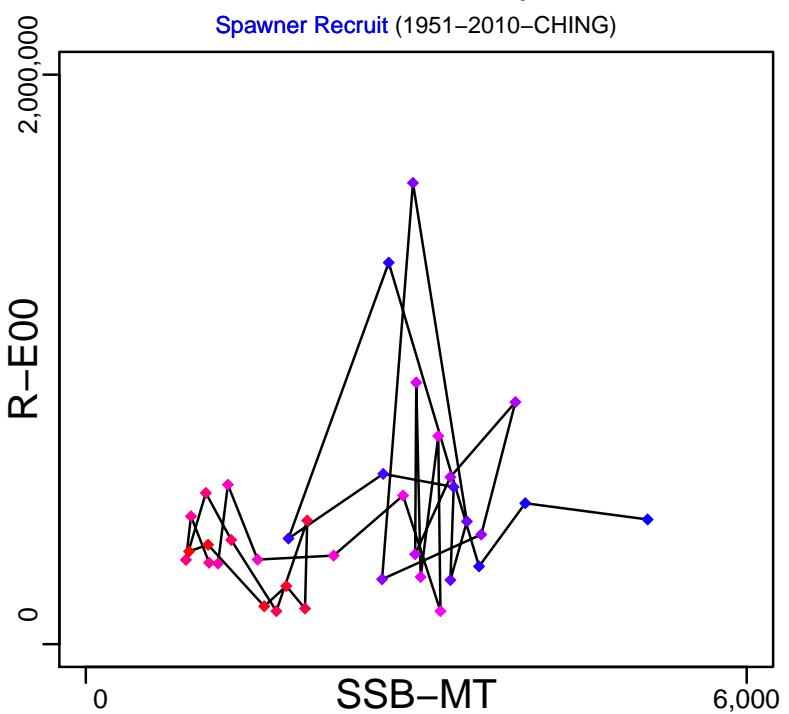
Kobe MSYpref (1951–2010–CHING)



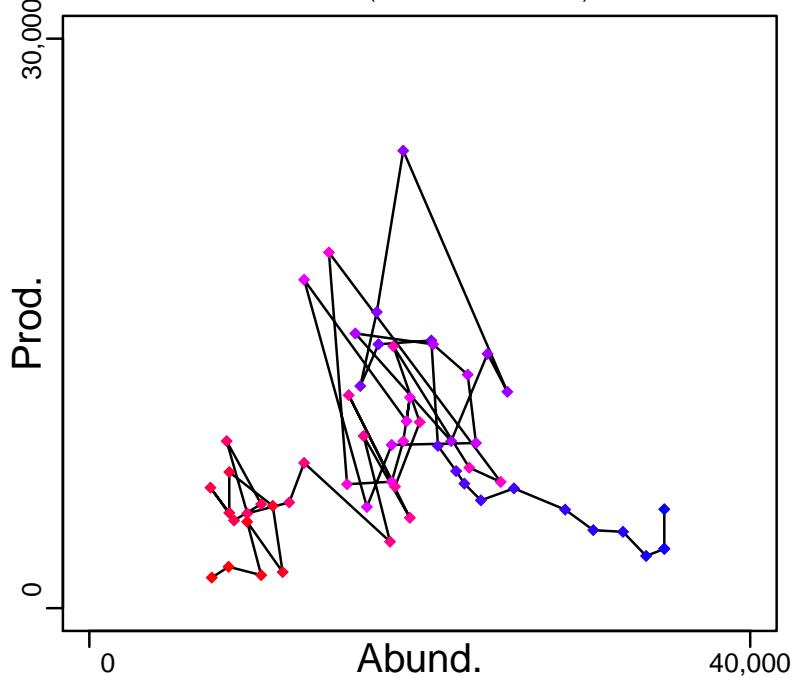
Kobe MGTPref (1951–2010–CHING)



Spawner Recruit (1951–2010–CHING)



Production (1951–2010–CHING)

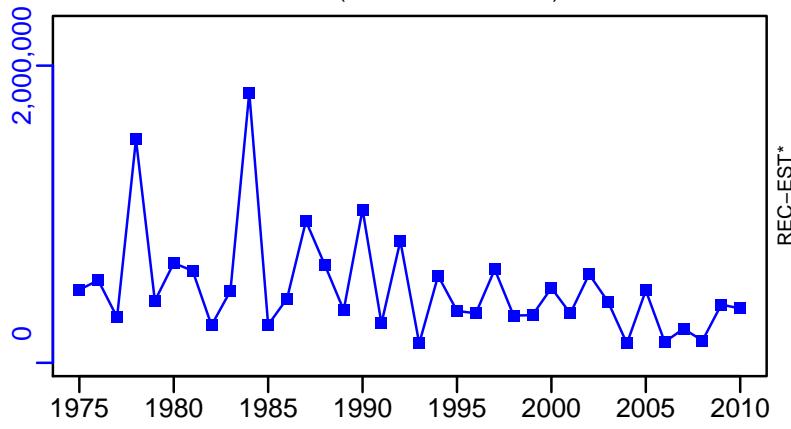
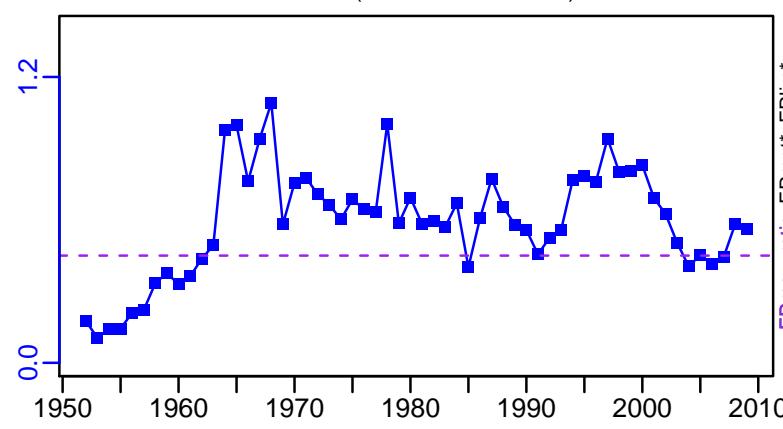
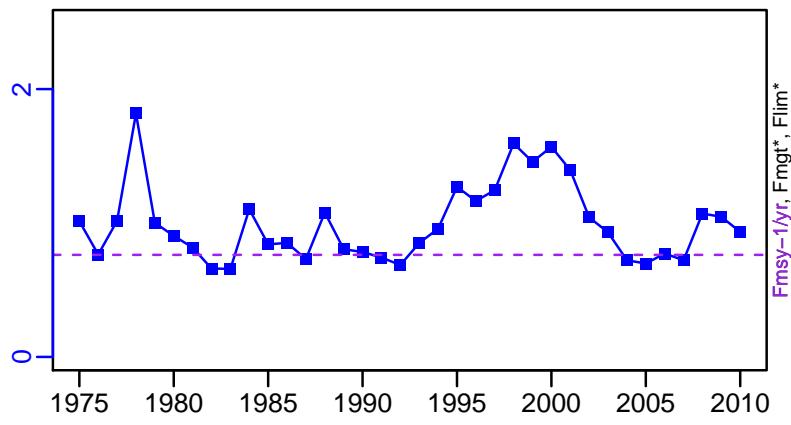
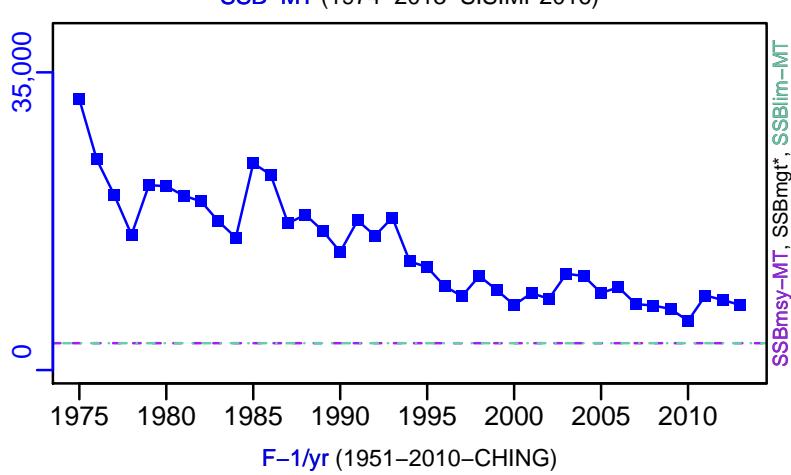
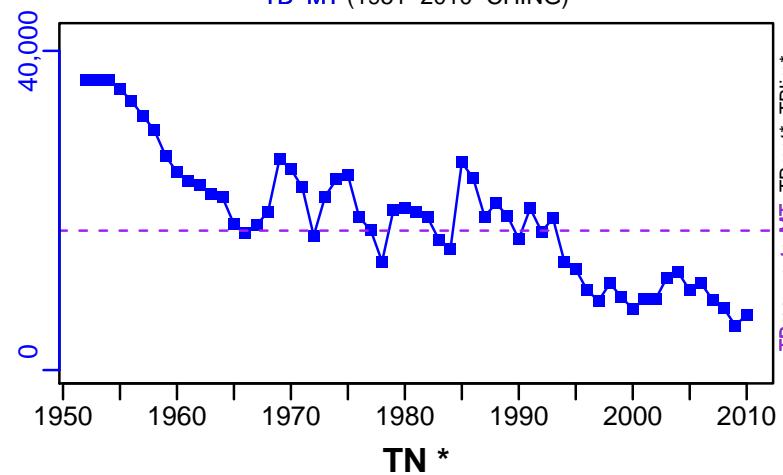


◆ Start Year	◆ End Year	*	No Data
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Striped marlin Western and Central North Pacific [STMARLINWCNPAC]

TB-MT (1951–2010-CHING)

SSB-MT (1974–2013-SISIMP2016)

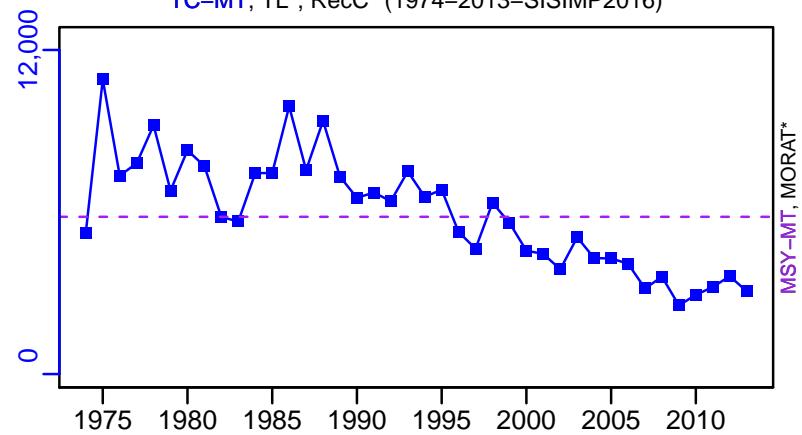


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	--- Lim BRP	■ No Data

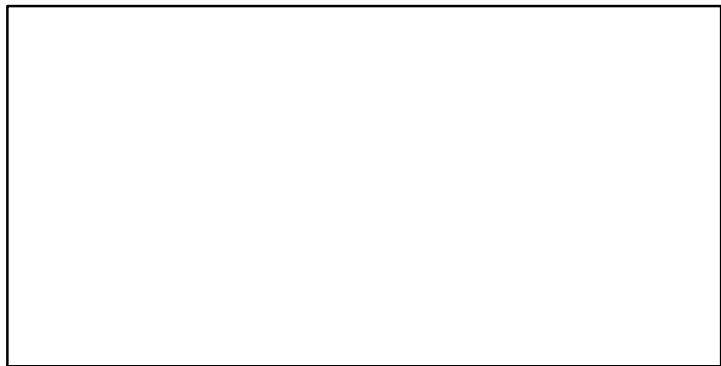
Striped marlin Western and Central North Pacific [STMARLINWCNPAC]

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

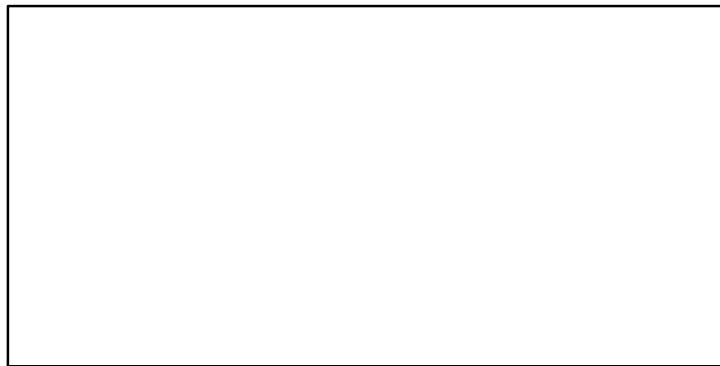
TAC\*, Cpair\*, Cadv\*



**survB\***



**CPUE\***



**EFFORT\***



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

## Swordfish Eastern Pacific [SWORDEPAC]

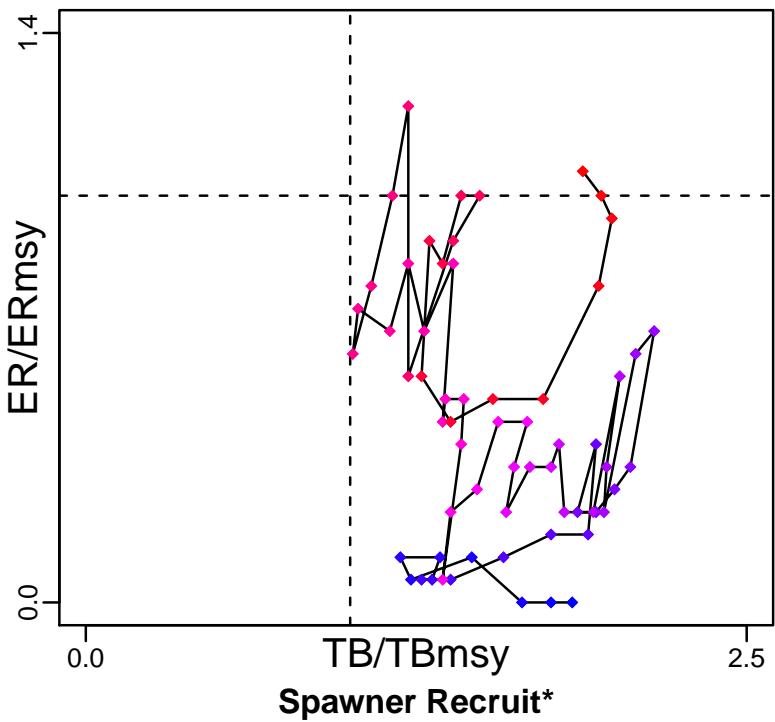
Metadata	
<b>Scientific Name</b>	Xiphias gladius
<b>Current Assess ID</b>	IATTC-SWORDEPAC-1951-2012-PONS
<b>Area</b>	Eastern Pacific
<b>Management Authority</b>	Inter-American Tropical Tuna Commission
<b>Assessor</b>	Inter-American Tropical Tuna Commission
<b>Asmts in RAM</b>	2012

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

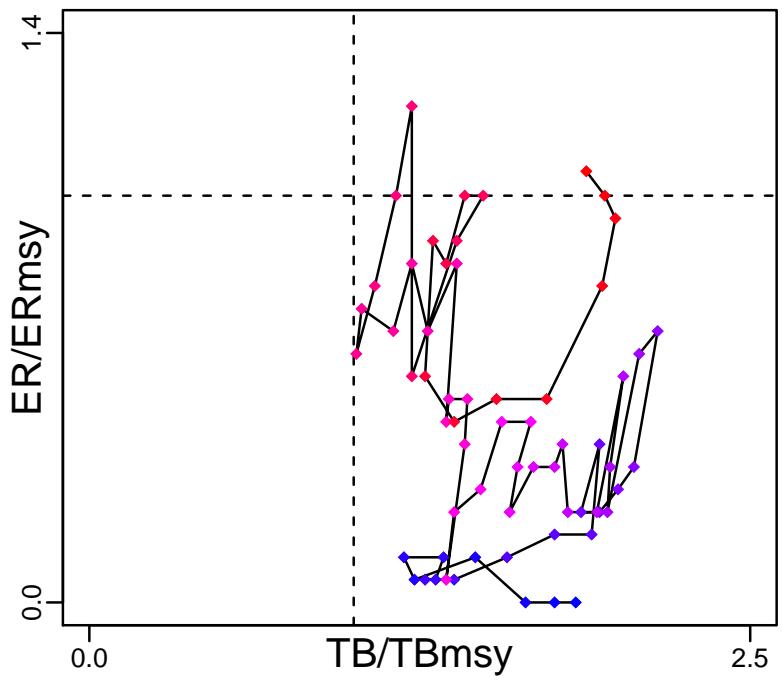
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
<b>TB</b>	TB-MT	2012	58,600	-	-	
<b>SSB</b>	-	-	-	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	-	-	-	-	-	
<b>F</b>	-	-	-	-	-	
<b>ER</b>	ER-ratio	2012	0.19	-	-	
<b>TC</b>	TC-MT	2012	9910			
<b>TL</b>	-	-	-			
<b>TB/TBmsy</b>	TBdivTBmsy-dimensionless	2012	1.88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

Swordfish Eastern Pacific [SWORDEPAC]

Kobe MSYpref (1951–2012–PONS)

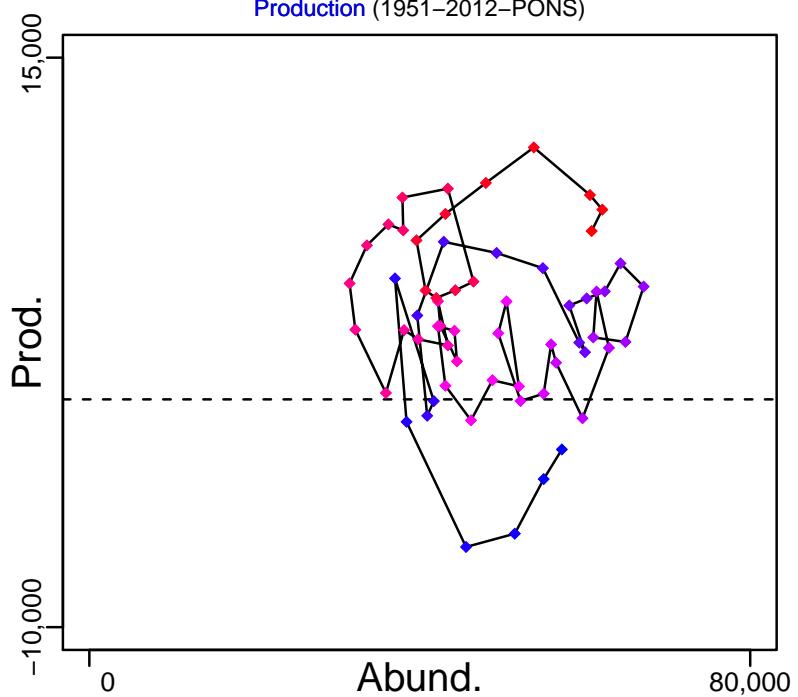
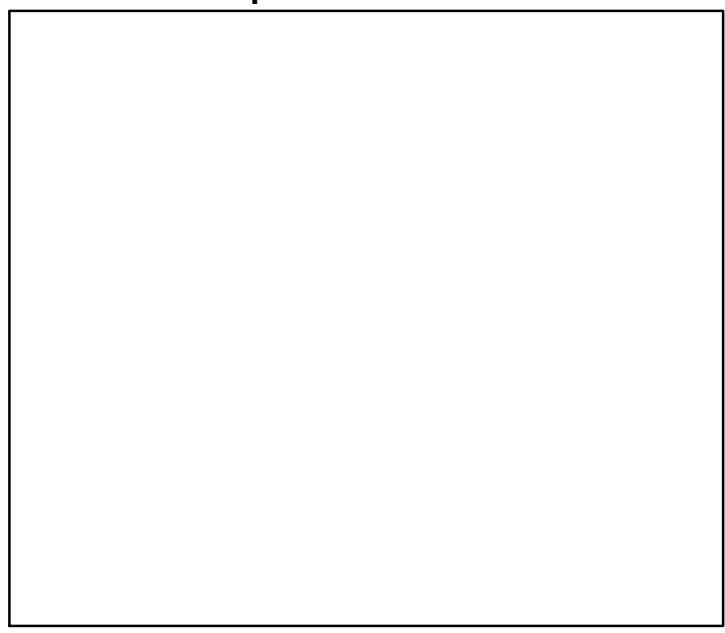


Kobe MGTPref (1951–2012–PONS)



**Spawner Recruit\***

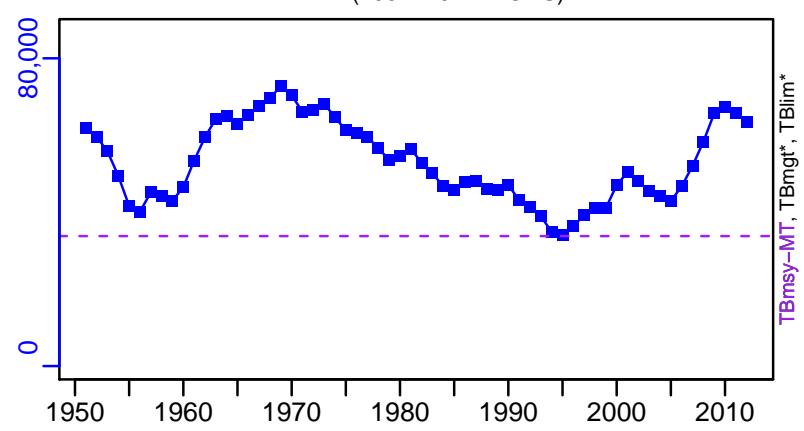
**Production (1951–2012–PONS)**



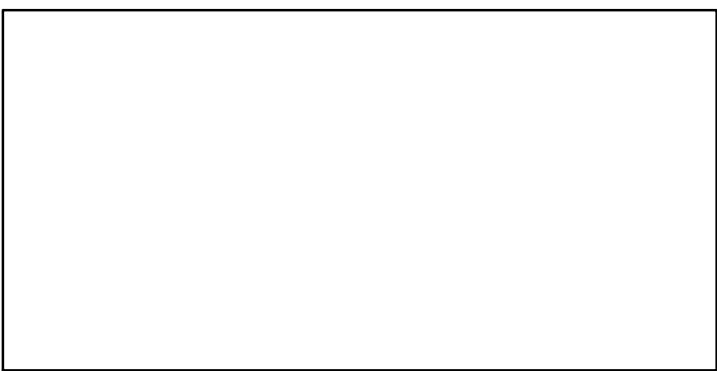
◆ Start Year   ◆ End Year   \* No Data

### Swordfish Eastern Pacific [SWORDEPAC]

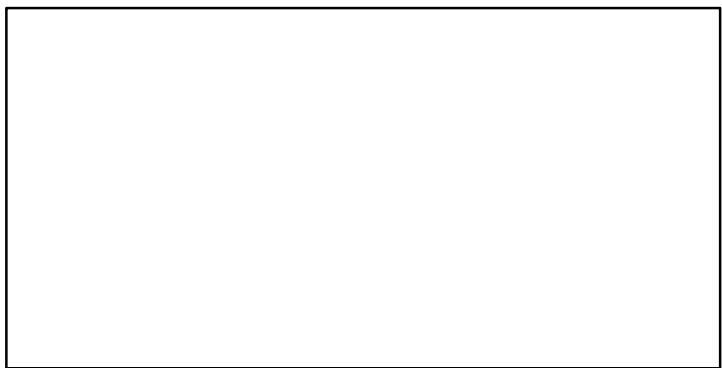
TB-MT (1951–2012-PONS)



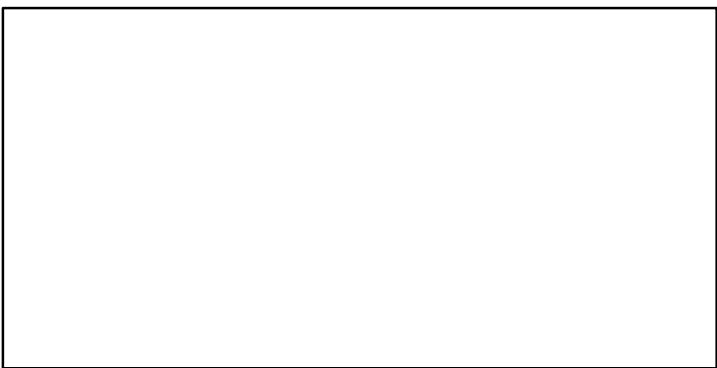
SSB\*



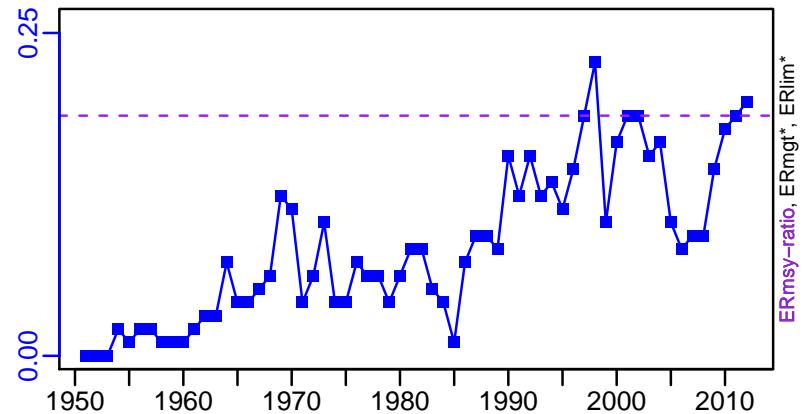
TN \*



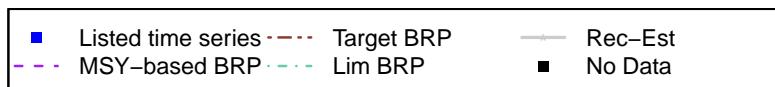
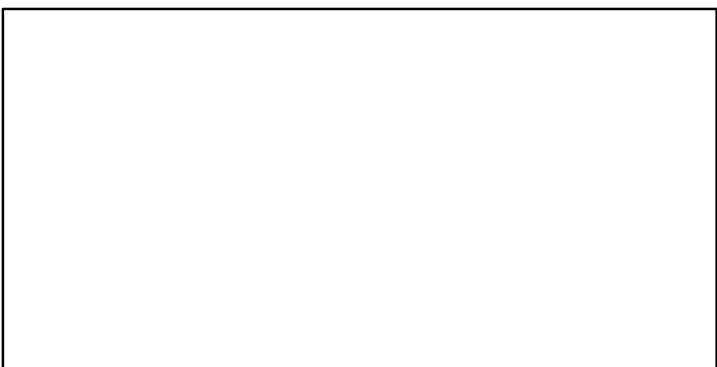
F\*



ER-ratio (1951–2012-PONS)



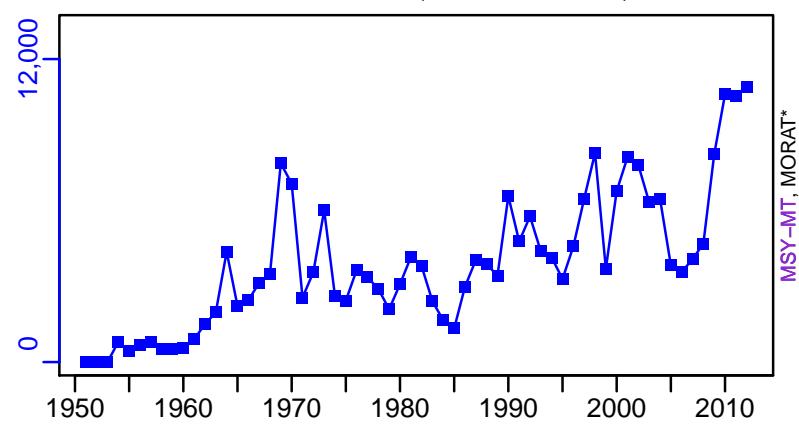
Recruits\*



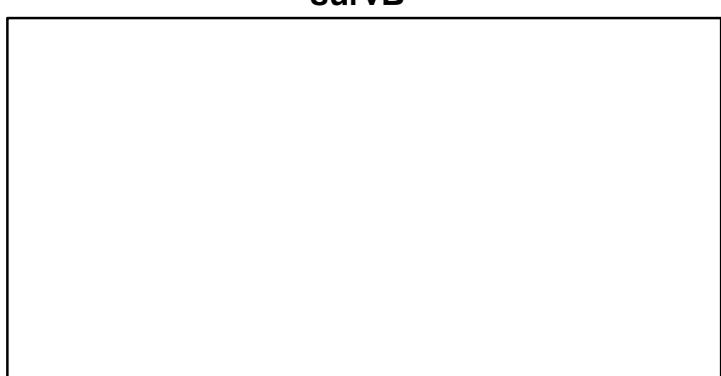
Swordfish Eastern Pacific [SWORDEPAC]

TC-MT, TL\*, RecC\* (1951–2012–PONS)

TAC\*, Cpair\*, Cadv\*



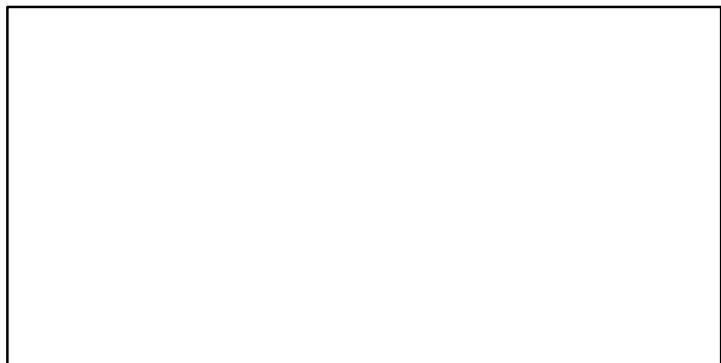
MSY-MT, MORAT\*



CPUE\*



EFFORT\*



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

## Swordfish North Pacific [SWORDNPAC]

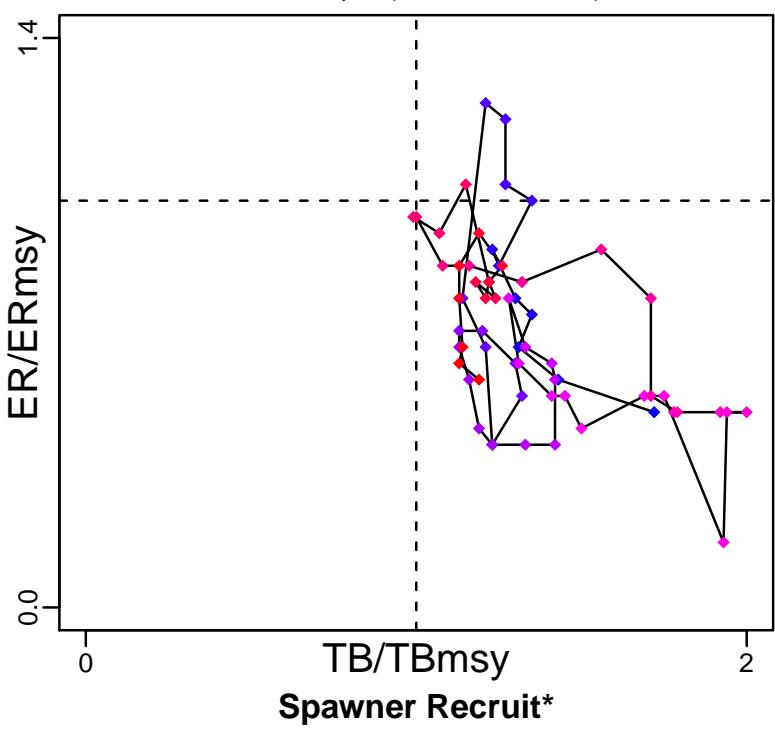
Metadata	
<b>Scientific Name</b>	Xiphias gladius
<b>Current Assess ID</b>	ISC-SWORDNPAC-1951-2012-PONS
<b>Area</b>	North Pacific Ocean
<b>Management Authority</b>	International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean
<b>Assessor</b>	International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean
<b>Asmts in RAM</b>	2012

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-MT	2012	60,720
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2012	0.25
<b>TBmgt</b>	TBmgt-MT	2012	60,720
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	ERmgt-ratio	2012	0.25
<b>TB0</b>	TB0-MT	2012	104,600
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2012	14,920
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

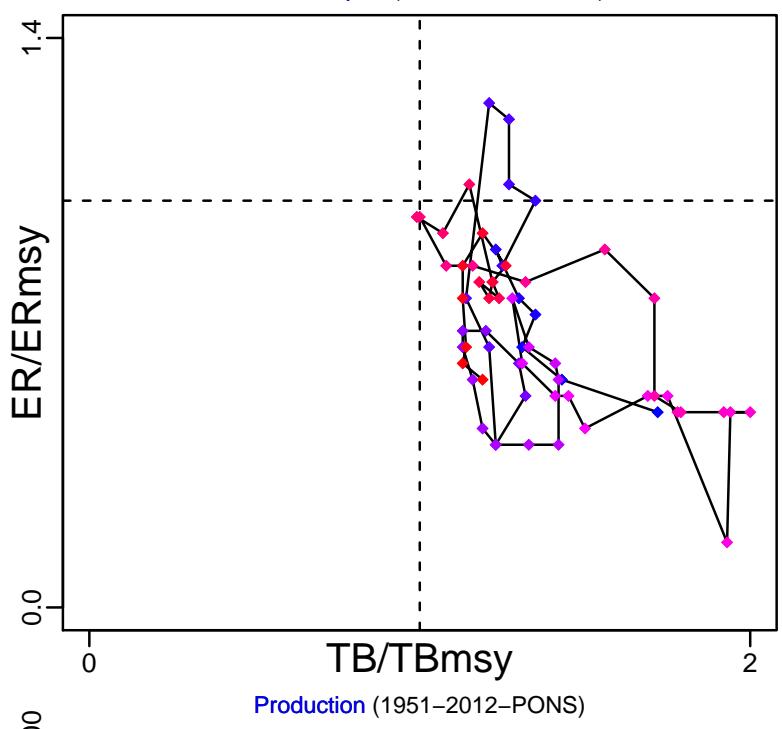
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
<b>TB</b>	TB-MT	2012	72,500	-	-	
<b>SSB</b>	-	-	-	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	-	-	-	-	-	
<b>F</b>	-	-	-	-	-	
<b>ER</b>	ER-ratio	2012	0.14	-	-	
<b>TC</b>	TC-MT	2012	9860			
<b>TL</b>	-	-	-			
<b>TB/TBmsy</b>	TBdivTBmsy-dimensionless	2012	1.19			
<b>SSB/SSBmsy</b>	-	-	-			
<b>F/Fmsy</b>	-	-	-			
<b>ER/ERmsy</b>	ERdivERmsy-dimensionless	2012	0.56			
<b>TB/TBmgt</b>	TB-MT/TBmgt-MT	2012	1.194			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

Swordfish North Pacific [SWORDNPAC]

Kobe MSYpref (1951–2012–PONS)

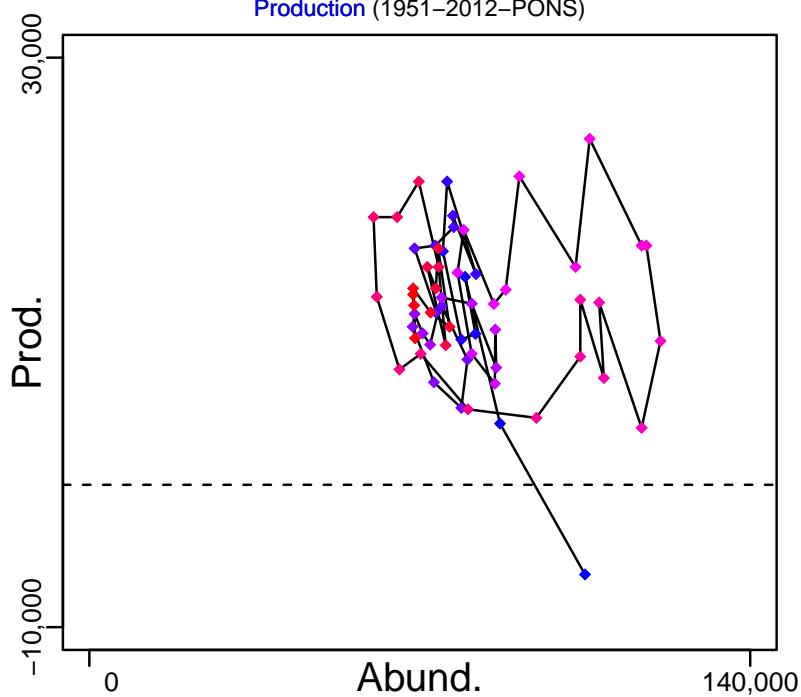
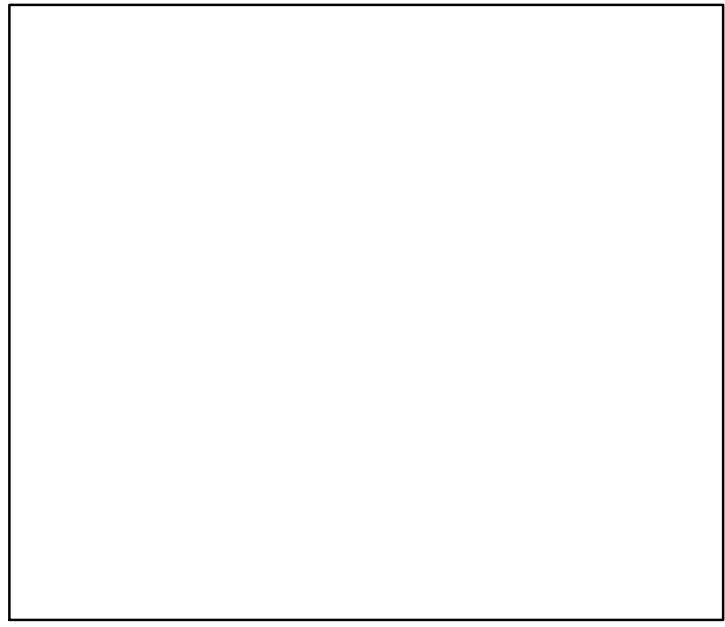


Kobe MGTPref (1951–2012–PONS)



**Spawner Recruit\***

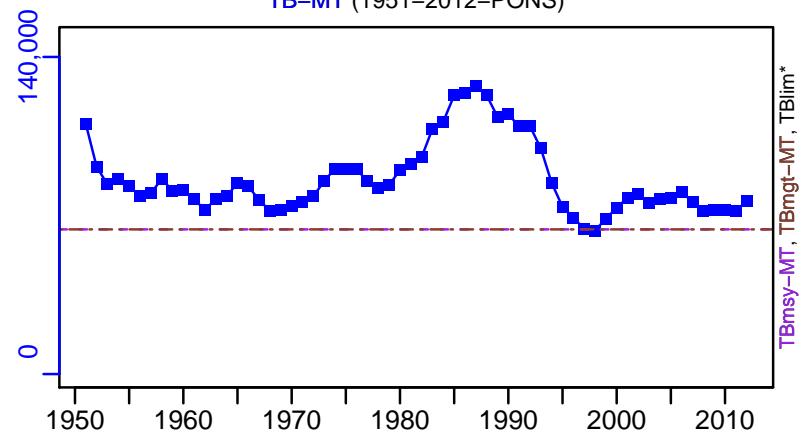
**Production (1951–2012–PONS)**



◆ Start Year   ◆ End Year   \* No Data

Swordfish North Pacific [SWORDNPAC]

TB-MT (1951–2012-PONS)



SSB\*



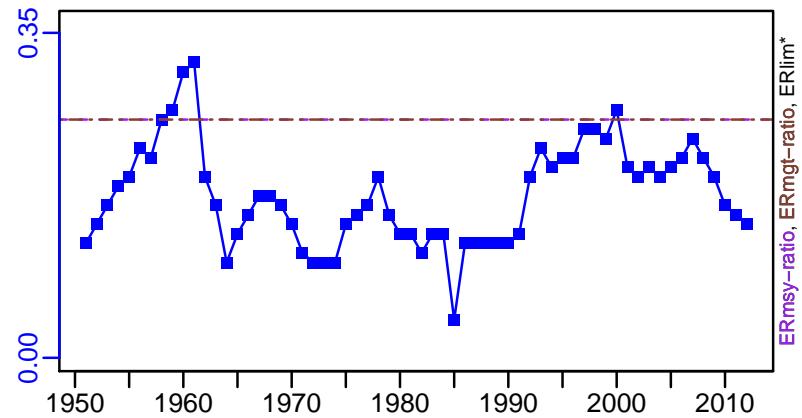
TN \*



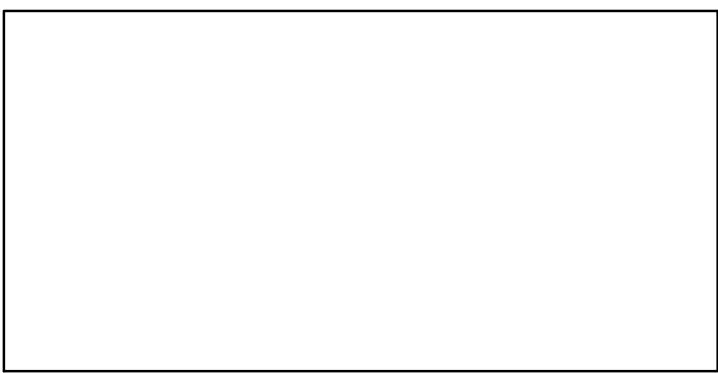
F\*



ER-ratio (1951–2012-PONS)



Recruits\*

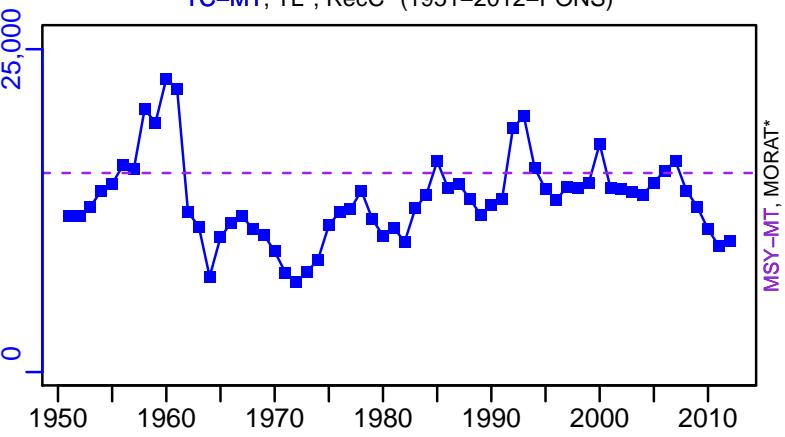


- |                      |              |           |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| — MSY-based BRP      | ··· Lim BRP  | ■ No Data |

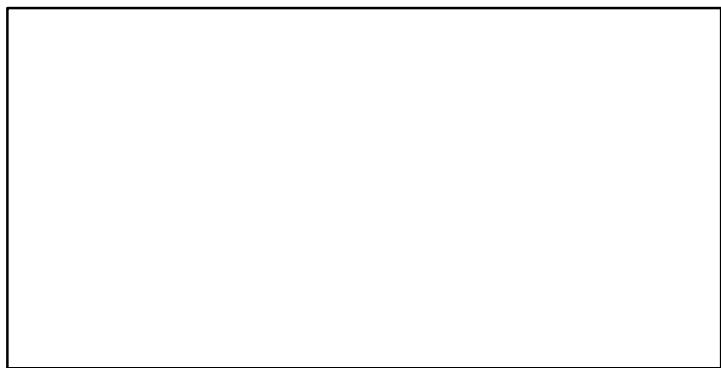
Swordfish North Pacific [SWORDNPAC]

TC-MT, TL\*, RecC\* (1951–2012–PONS)

TAC\*, Cpair\*, Cadv\*



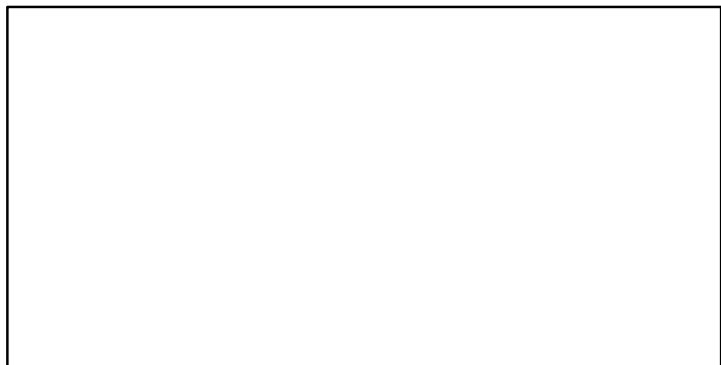
survB\*



CPUE\*



EFFORT\*



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

## Yellowfin tuna Central Western Pacific [YFINCWPAC]

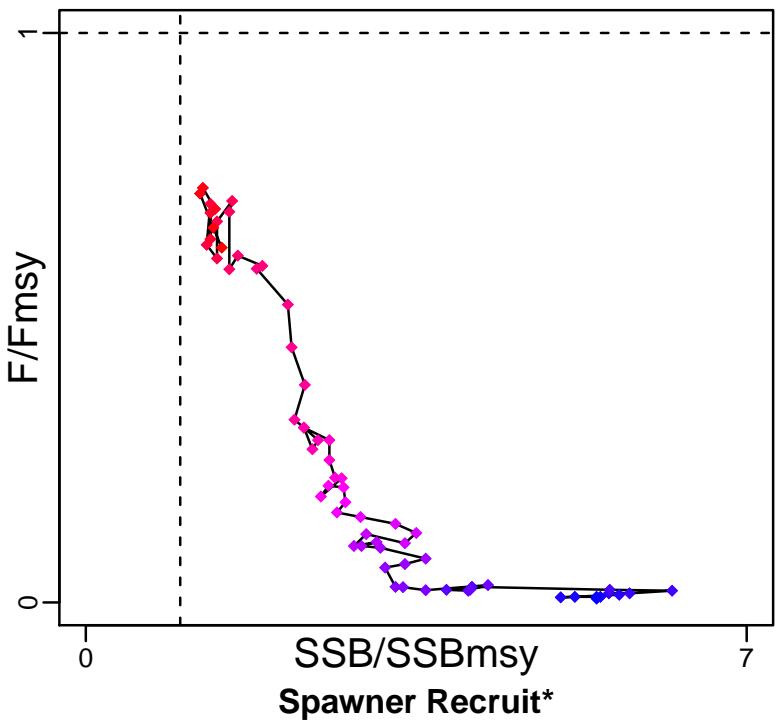
<b>Metadata</b>	
<b>Scientific Name</b>	Thunnus albacares
<b>Current Assess ID</b>	SPC-YFINCWPAC-1950-2015-PONS
<b>Area</b>	Central Western Pacific Ocean
<b>Management Authority</b>	Western and Central Pacific Fisheries Commission
<b>Assessor</b>	Secretariat of the Pacific Community
<b>Asmts in RAM</b>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

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-extr-MT	2015	841,000
<b>Fmsy</b>	Fmsy-extr-1/yr	2015	0.85
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2012	728,300
<b>Fmgt</b>	Fmgt-1/yr	2012	0.09
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2012	4,319,000
<b>SSB0</b>	SSB0-MT	2012	2,467,000
<b>MSY</b>	MSY-MT	2012	586,400
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

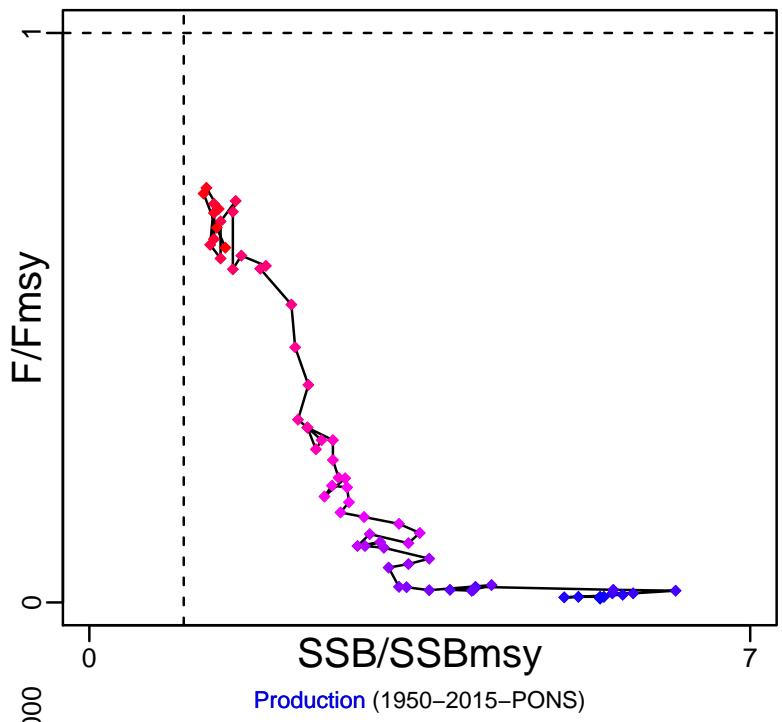
<b>Time Series</b>						
Type	ID	Asmt Year	Curr Value	Sex	Age	
<b>TB</b>	TB-MT	2015	2,580,000	-	-	
<b>SSB</b>	SSB-MT	2015	1,210,000	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	-	-	-	-	-	
<b>F</b>	F-1/yr	2015	0.529	-	-	
<b>ER</b>	ER-calc-ratio	2015	0.223	-	-	
<b>TC</b>	TC-MT	2012	646,000			
<b>TL</b>	TL-MT	2015	576,000			
<b>TB/TBmsy</b>	TBdivTBmsy-dimensionless	2012	1.19			
<b>SSB/SSBmsy</b>	SSBdivSSBmsy-dimensionless	2015	1.44			
<b>F/Fmsy</b>	FdivFmsy-dimensionless	2015	0.623			
<b>ER/ERmsy</b>	-	-	-			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2012	7.989			
<b>ER/ERmgt</b>	-	-	-			

Yellowfin tuna Central Western Pacific [YFINCWPAC]

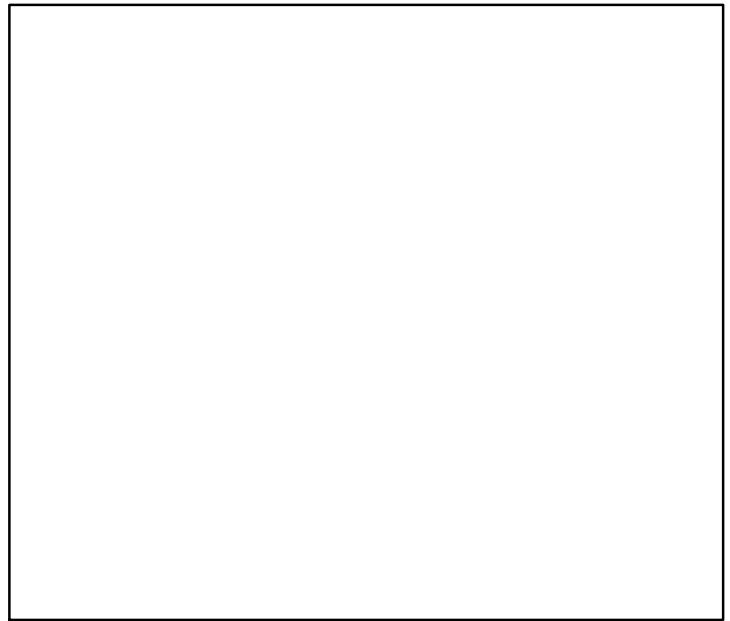
Kobe MSYpref (1950–2015–PONS)



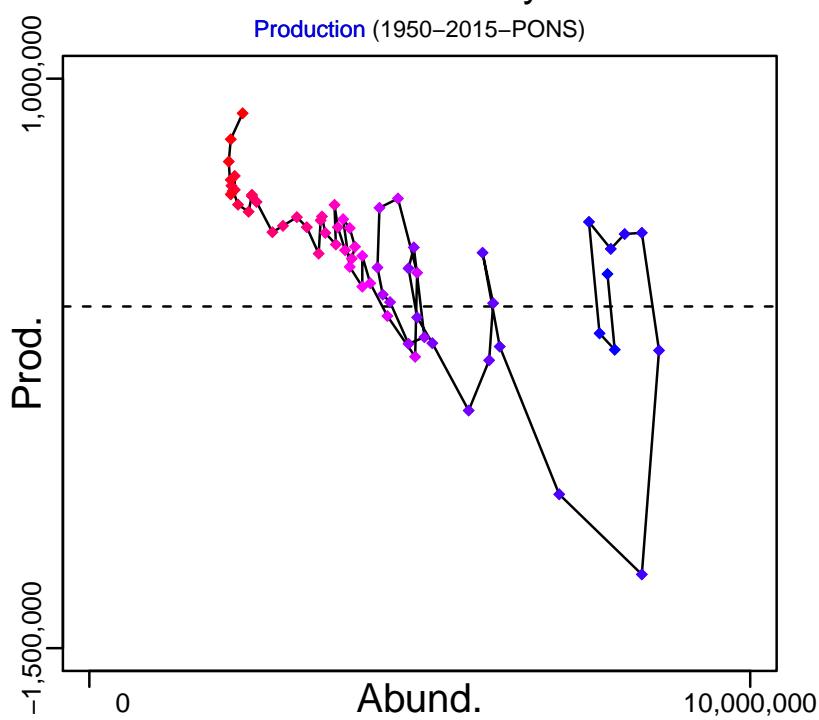
Kobe MGTPref (1950–2015–PONS)



**Spawner Recruit\***



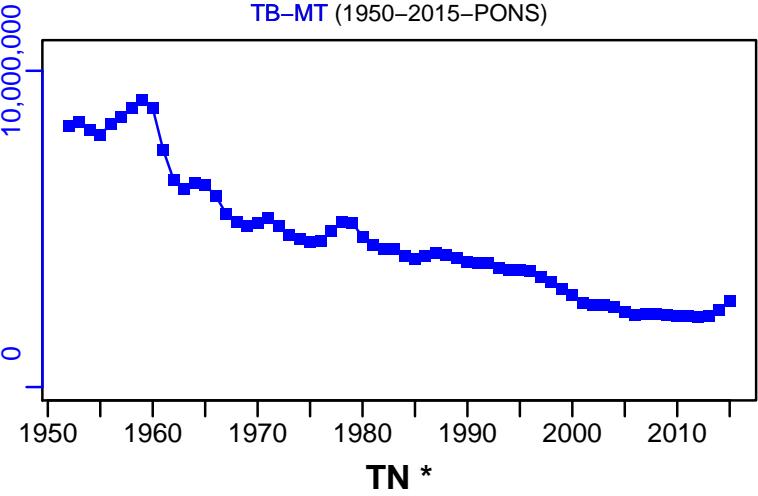
**Production (1950–2015–PONS)**



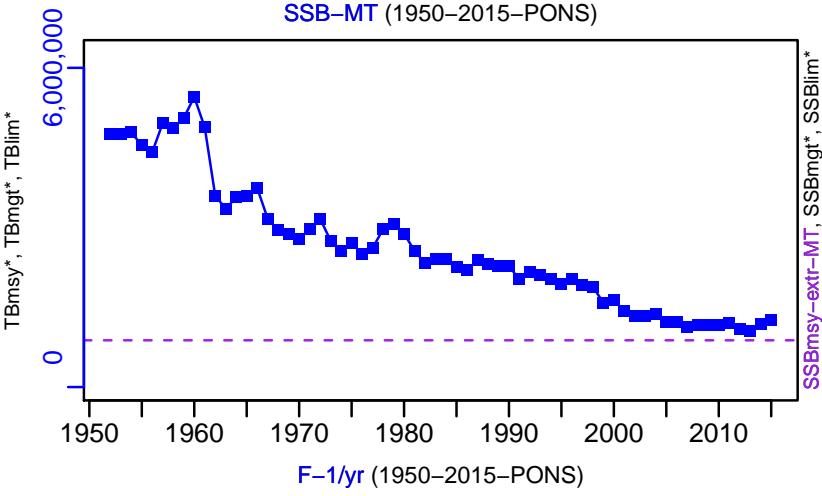
◆ Start Year   ◆ End Year   \* No Data

### Yellowfin tuna Central Western Pacific [YFINCWPAC]

TB-MT (1950–2015–PONS)

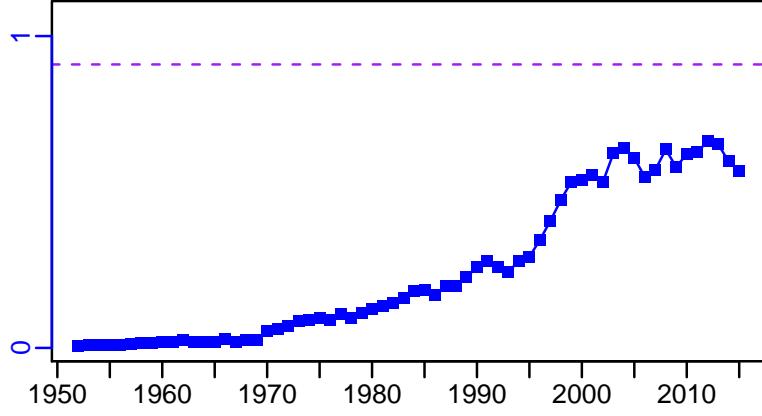


SSB-MT (1950–2015–PONS)



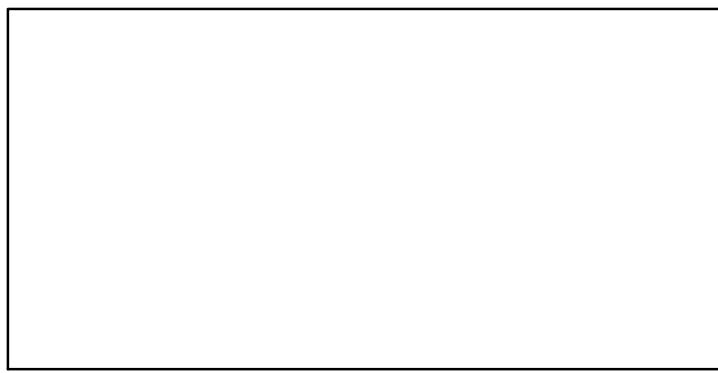
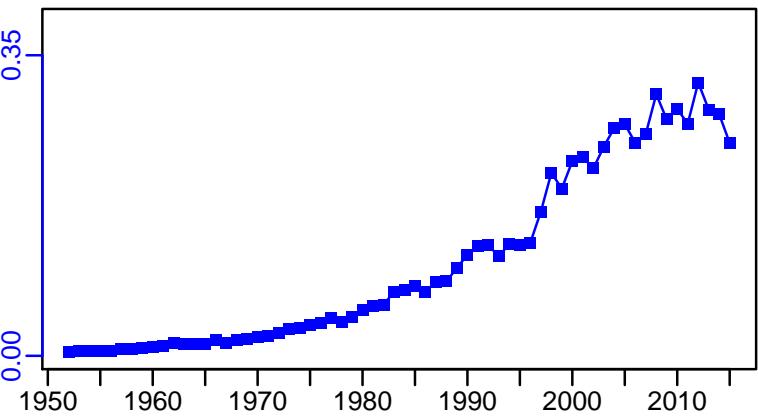
**TN \***

**F-1/yr (1950–2015–PONS)**



ER-calc-ratio (1950–2015–PONS)

**Recruits\***

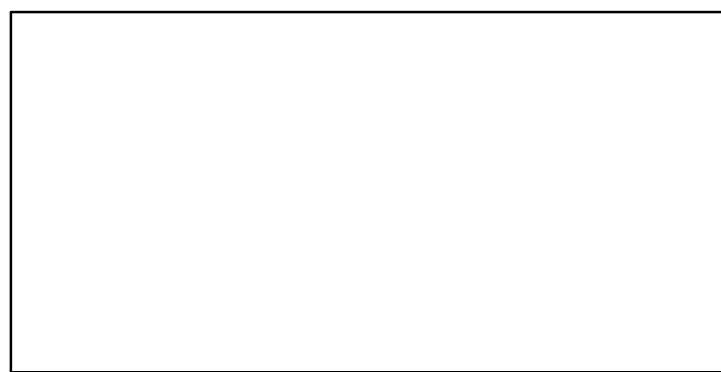
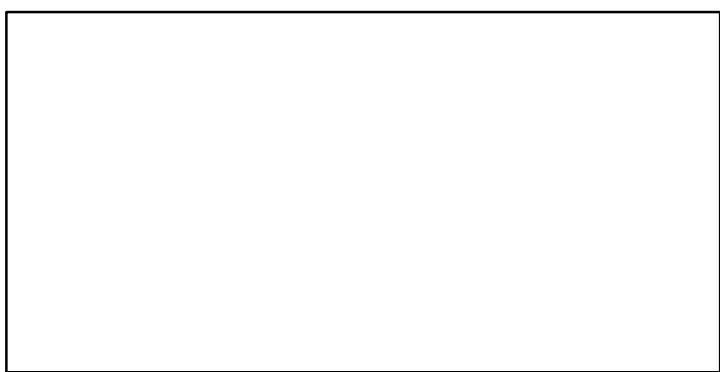
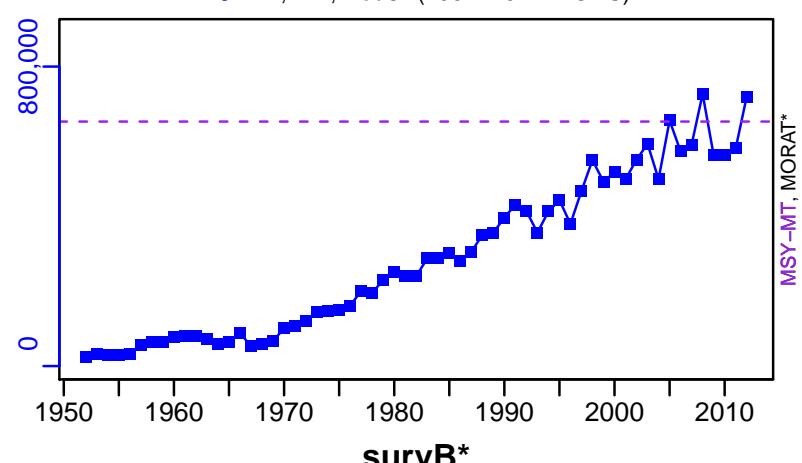


- |                      |              |           |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| - - MSY-based BRP    | ·· Lim BRP   | ■ No Data |

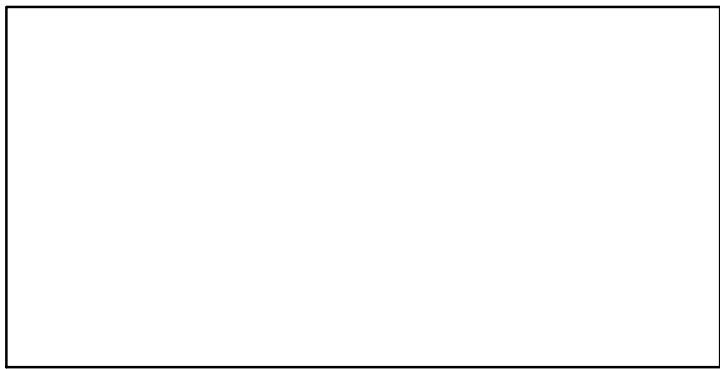
Yellowfin tuna Central Western Pacific [YFINCWPAC]

TC-MT, TL\*, RecC\* (1952–2012–PONS)

TAC\*, Cpair\*, Cadv\*



EFFORT\*



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

## Yellowfin tuna Eastern Pacific [YFINEPAC]

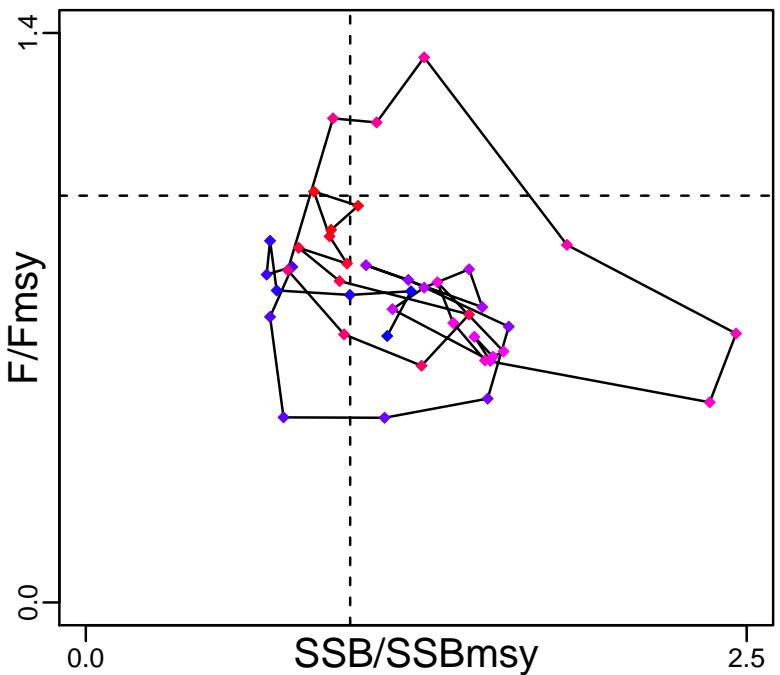
<b>Metadata</b>	
<b>Scientific Name</b>	Thunnus albacares
<b>Current Assess ID</b>	IATTC-YFINEPAC-1950-2016-PONS
<b>Area</b>	Northeast Pacific
<b>Management Authority</b>	Inter-American Tropical Tuna Commission
<b>Assessor</b>	Inter-American Tropical Tuna Commission
<b>Asmts in RAM</b>	2012, 2016

<b>Reference Points</b>			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-MT	2012	362,582
<b>SSBmsy</b>	SSBmsy-extr-MT	2016	3,624,300
<b>Fmsy</b>	Fmsy-extr-1/yr	2016	1
<b>ERmsy</b>	ERmsy-calc-ratio	2012	0.734
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2016	274,960
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

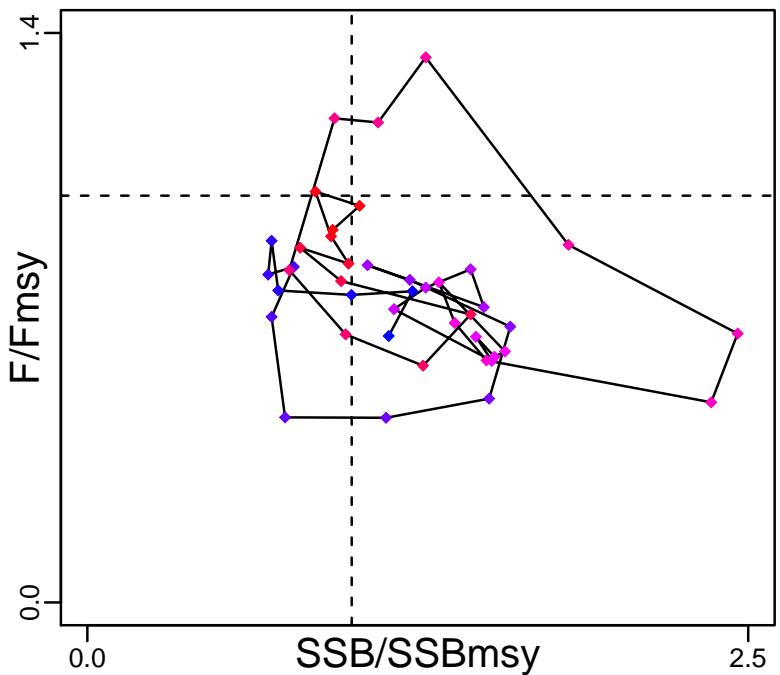
<b>Time Series</b>						
Type	ID	Asmt Year	Curr Value	Sex	Age	
<b>TB</b>	-	-	-	-	-	
<b>SSB</b>	SSB-MT	2016	3,360,000	-	-	
<b>TN</b>	-	-	-	-	-	
<b>R</b>	R-E00	2016	303,000	-	-	
<b>F</b>	F-1/yr	2016	0.916	-	-	
<b>ER</b>	-	-	-	-	-	
<b>TC</b>	TC-MT	2012	191,000			
<b>TL</b>	TL-MT	2016	252,000			
<b>TB/TBmsy</b>	TBdivTBmsy-dimensionless	2012	1.07			
<b>SSB/SSBmsy</b>	SSBdivSSBmsy-dimensionless	2016	0.928			
<b>F/Fmsy</b>	FdivFmsy-dimensionless	2016	0.916			
<b>ER/ERmsy</b>	-	-	-			
<b>TB/TBmgt</b>	-	-	-			
<b>SSB/SSBmgt</b>	-	-	-			
<b>F/Fmgt</b>	-	-	-			
<b>ER/ERmgt</b>	-	-	-			

Yellowfin tuna Eastern Pacific [YFINEPAC]

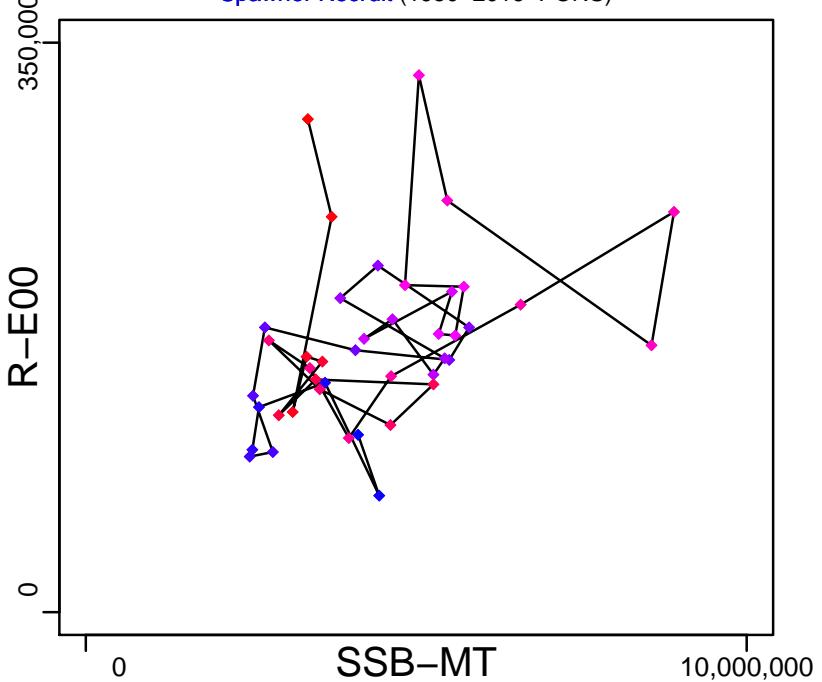
Kobe MSYpref (1950–2016–PONS)



Kobe MGTPref (1950–2016–PONS)



Spawner Recruit (1950–2016–PONS)



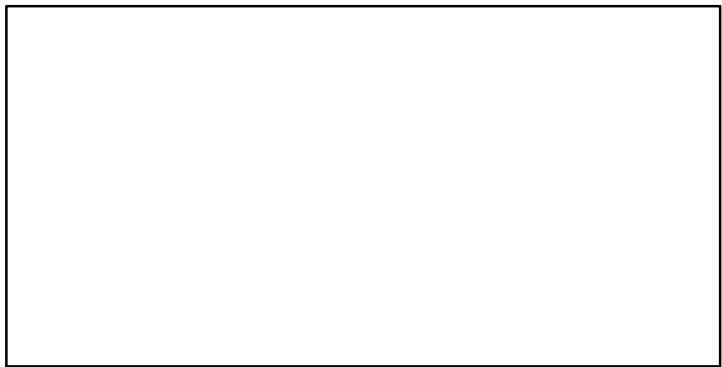
Production\*



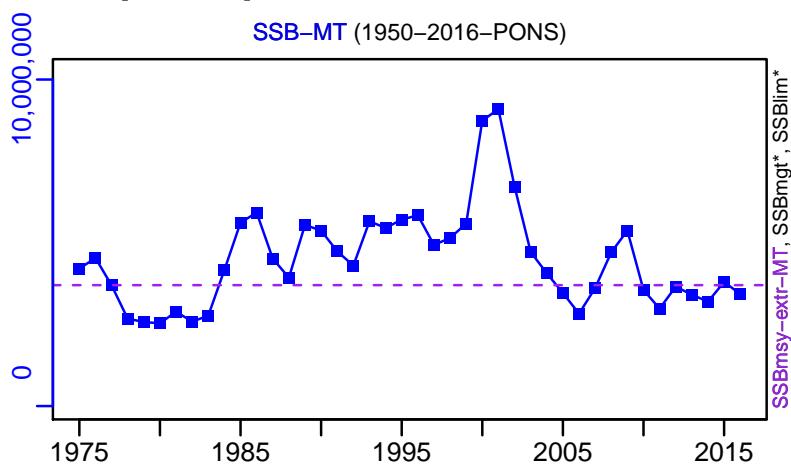
◆ Start Year ◆ End Year \* No Data

Yellowfin tuna Eastern Pacific [YFINEPAC]

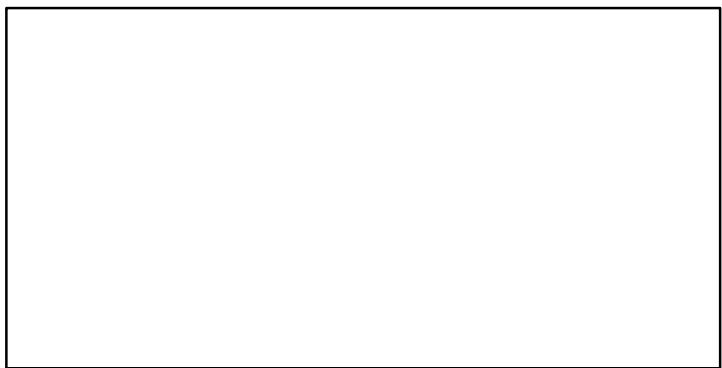
**TB\***



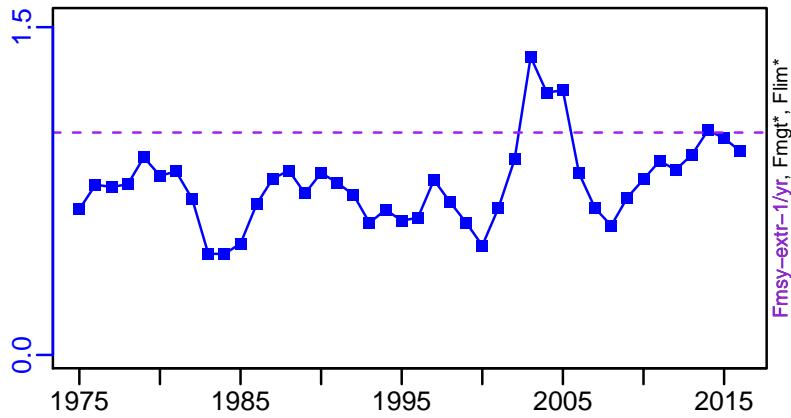
**SSB-MT (1950–2016–PONS)**



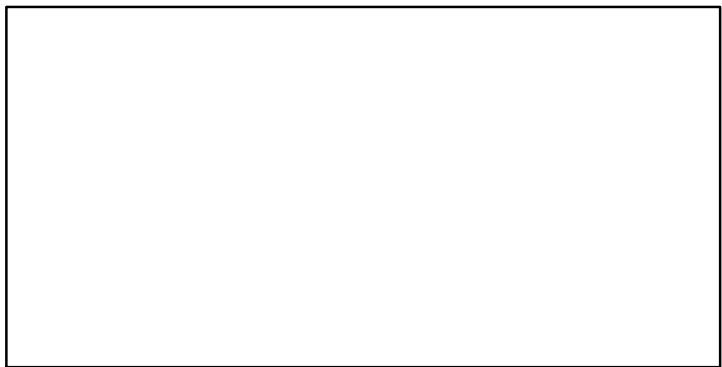
**TN \***



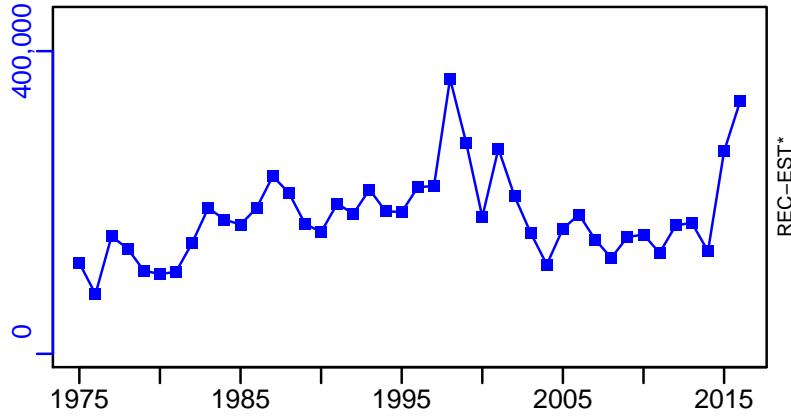
**F-1/yr (1950–2016–PONS)**



**ER\***



**R-E00 (1950–2016–PONS)**

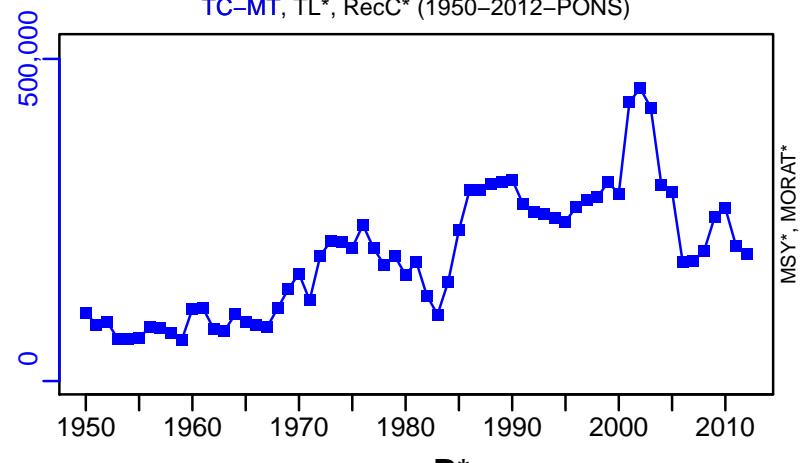


- |                      |              |           |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| — MSY-based BRP      | — Lim BRP    | ■ No Data |

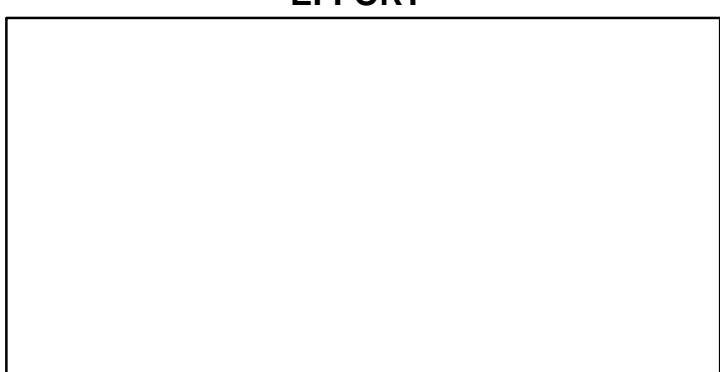
**Yellowfin tuna Eastern Pacific [YFINEPAC]**

TC-MT, TL\*, RecC\* (1950–2012–PONS)

TAC\*, Cpair\*, Cadv\*



CPUE\*



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