

Pacific Ocean Stocks

v4.44 (Dec-21-2018)

Not present Present Preferred

| Stock | Time Series Types | | | |
|---|-------------------|--------|--------|--------|
| | B/Bmsy | U/Umsy | B/Bmgt | U/Umgt |
| 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]

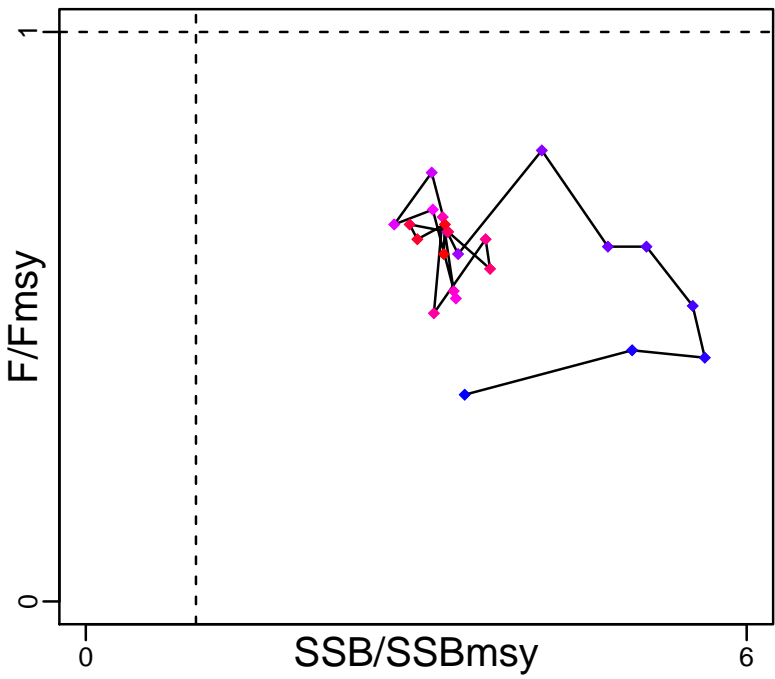
| Metadata | |
|-----------------------------|--|
| Scientific Name | Thunnus alalunga |
| Current Assess ID | ISC-ALBANPAC-1952-2015-PONS |
| Area | North Pacific Ocean |
| Management Authority | International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean |
| Assessor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

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

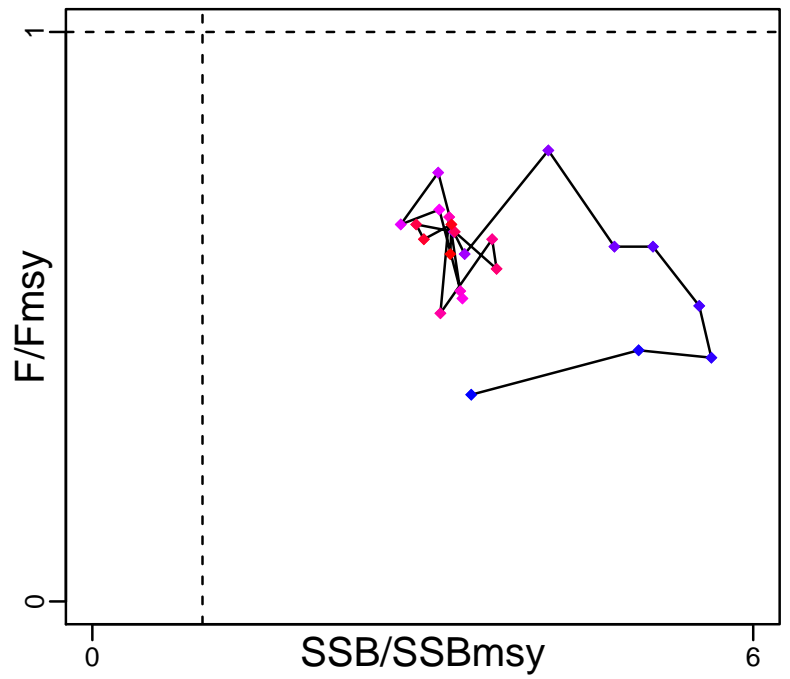
| Time Series | | | | | |
|-------------------|----------------------------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2015 | 806,000 | - | - |
| SSB | SSB-MT | 2015 | 80,600 | - | - |
| TN | - | - | - | - | - |
| R | R-E00 | 2015 | 219,000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

Albacore tuna North Pacific [ALBANPAC]

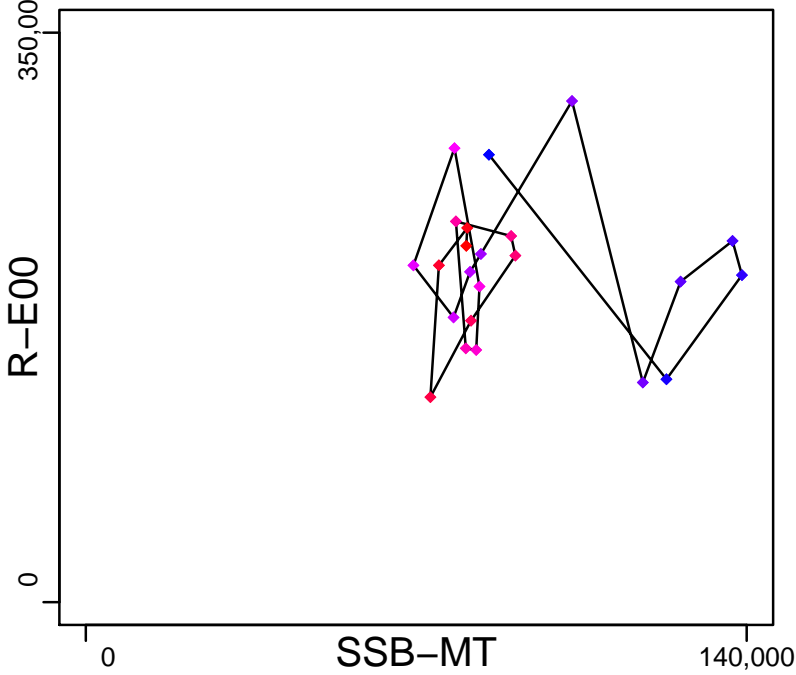
Kobe MSYpref (1952–2015–PONS)



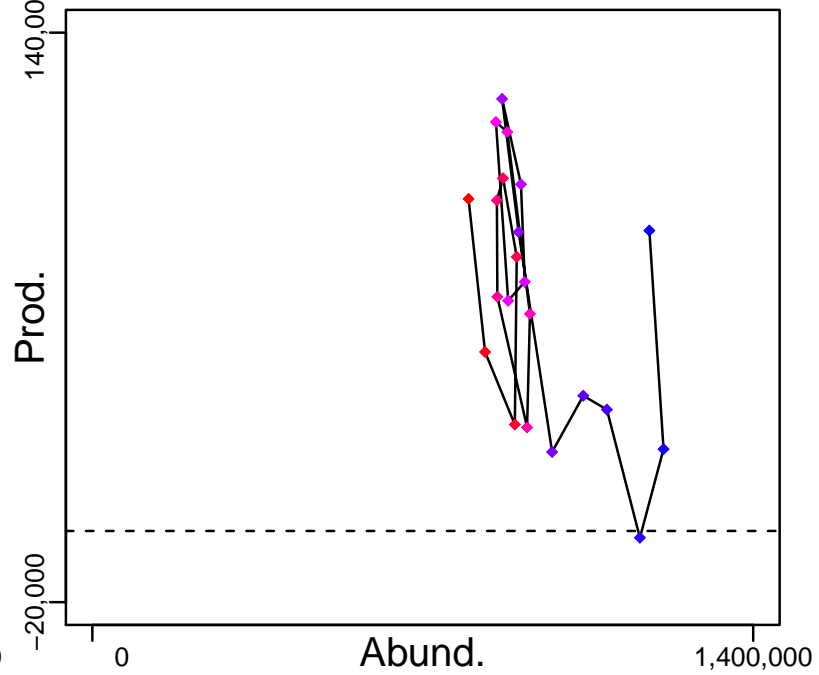
Kobe MGTpref (1952–2015–PONS)



Spawner Recruit (1952–2015–PONS)



Production (1952–2015–PONS)

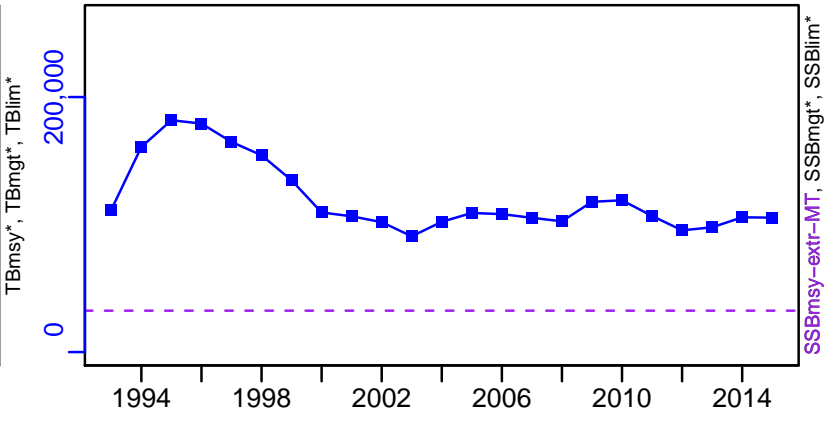
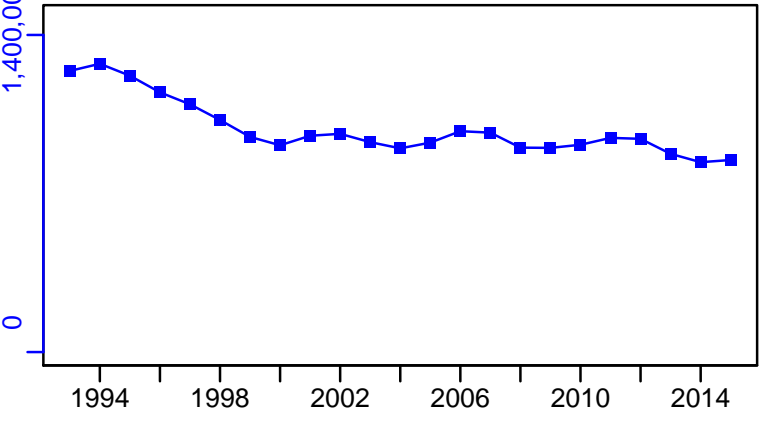


◆ Start Year ◆ End Year * No Data

Albacore tuna North Pacific [ALBANPAC]

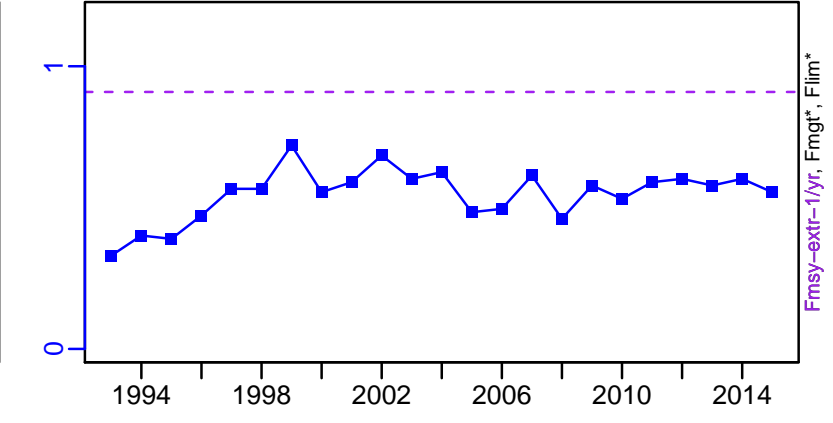
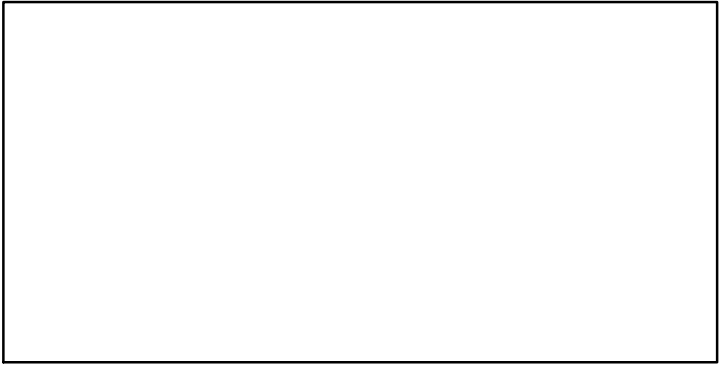
TB-MT (1952-2015-PONS)

SSB-MT (1952-2015-PONS)



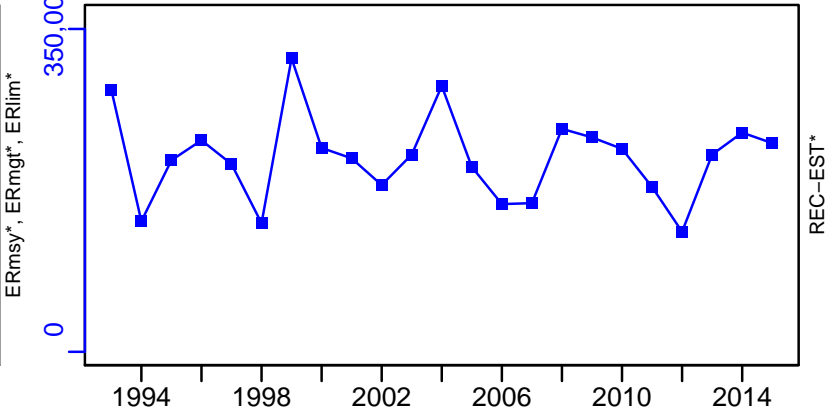
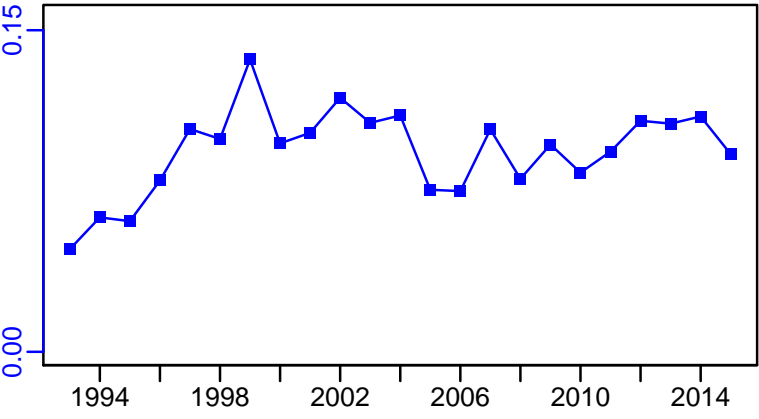
TN *

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



ER-calc-ratio (1952-2015-PONS)

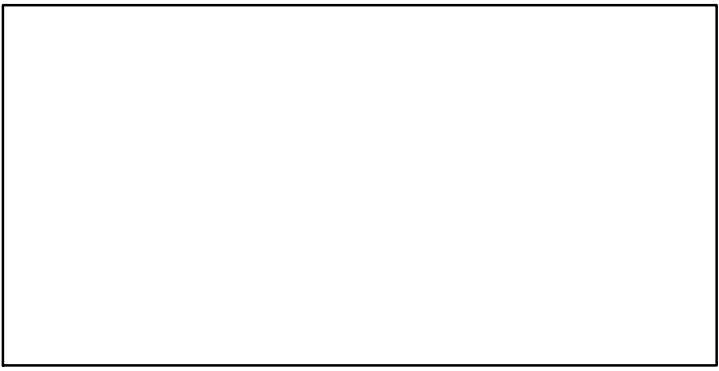
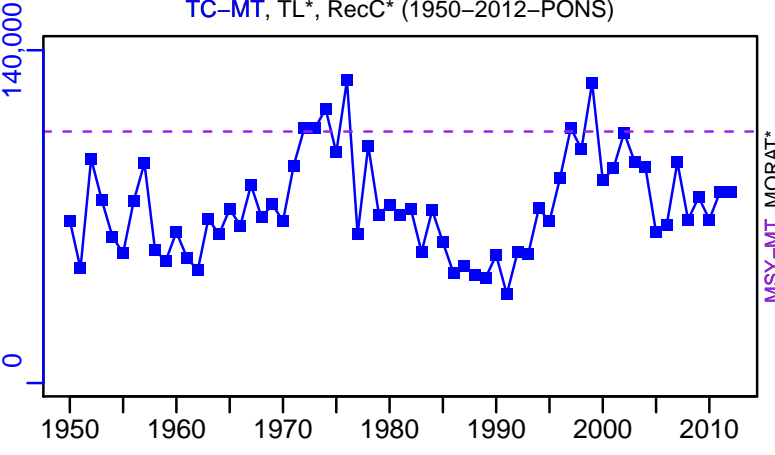
R-E00 (1952-2015-PONS)



Albacore tuna North Pacific [ALBANPAC]

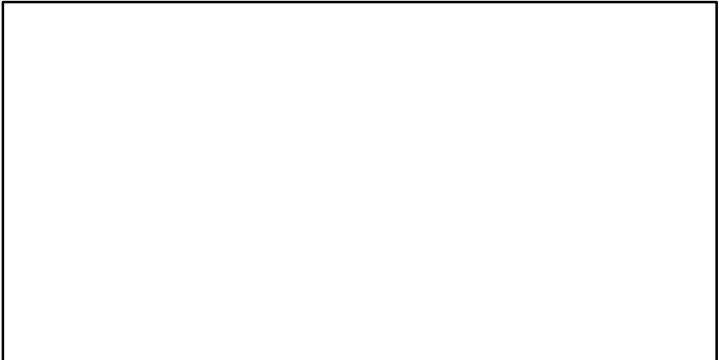
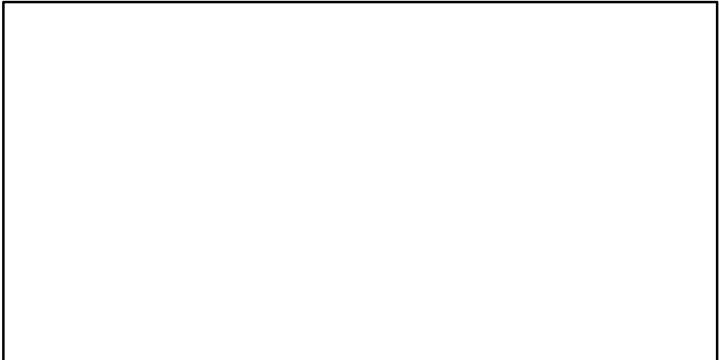
TC-MT, TL*, RecC* (1950-2012-PONS)

TAC*, Cpair*, Cadv*



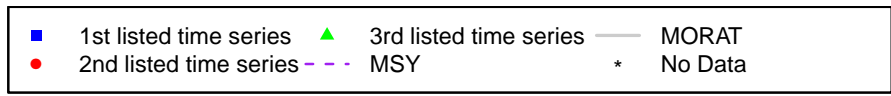
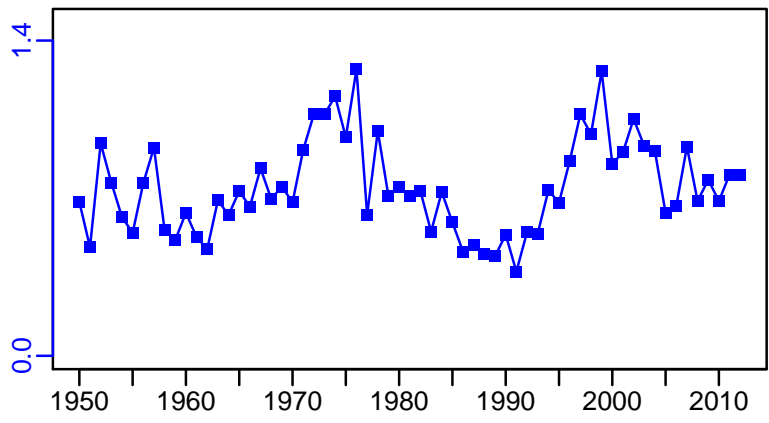
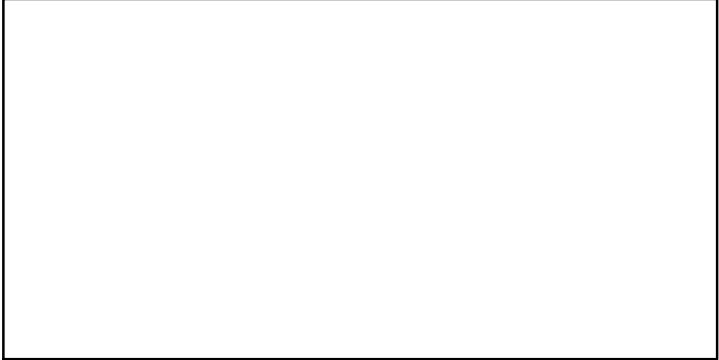
survB*

CPUE*



EFFORT*

CdivMSY-ratio (1950-2012-PONS)



Albacore tuna South Pacific Ocean [ALBASPAC]

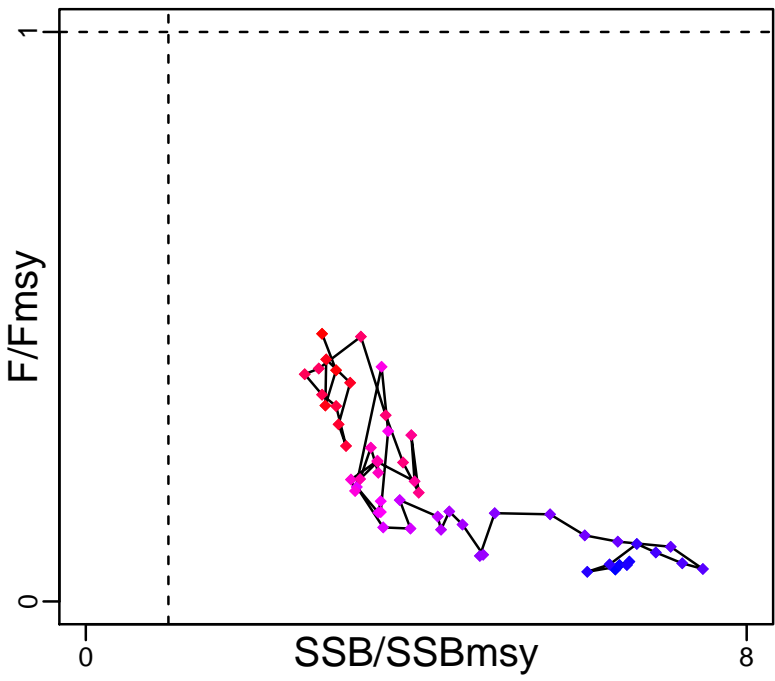
| Metadata | |
|-----------------------------|--|
| Scientific Name | Thunnus alalunga |
| Current Assess ID | SPC-ALBASPAC-1952-2015-PONS |
| Area | South Pacific Ocean |
| Management Authority | Western and Central Pacific Fisheries Commission |
| Assessor | Secretariat of the Pacific Community |
|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

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

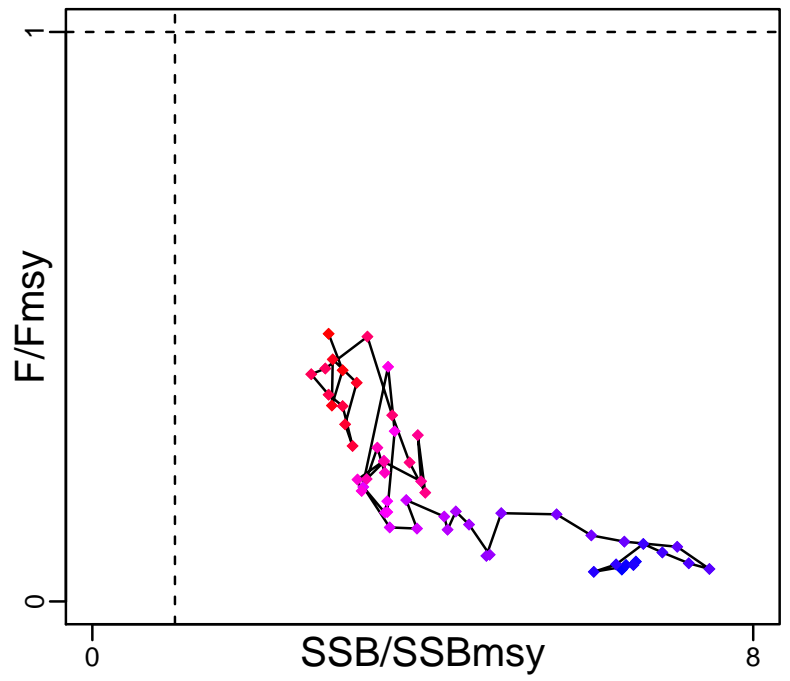
| Time Series | | | | | |
|-------------------|----------------------------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | SSB-MT | 2015 | 176,000 | - | - |
| TN | - | - | - | - | - |
| R | R-E00 | 2015 | 6,410,000 | - | - |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

Albacore tuna South Pacific Ocean [ALBASPAC]

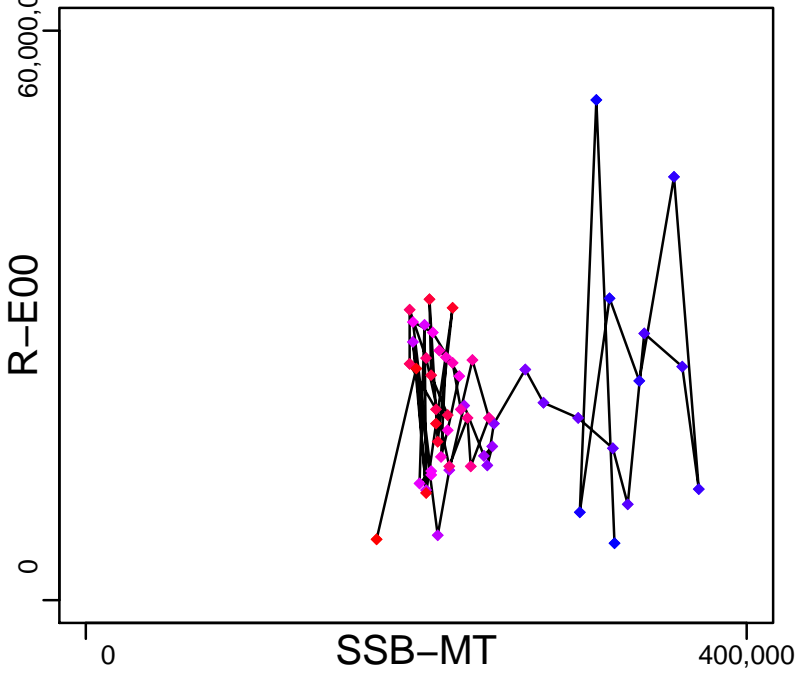
Kobe MSYpref (1952–2015–PONS)



Kobe MGTpref (1952–2015–PONS)



Spawner Recruit (1952–2015–PONS)



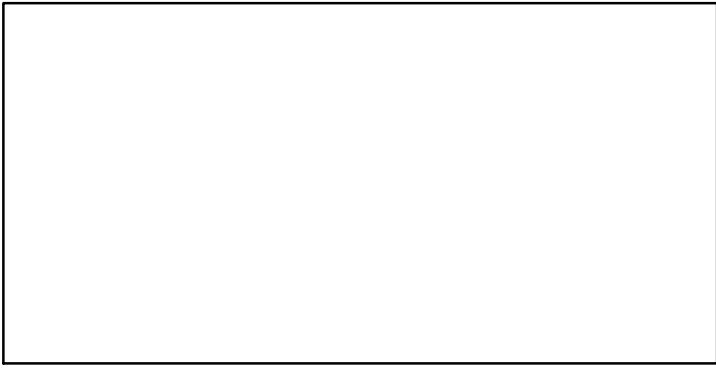
Production*



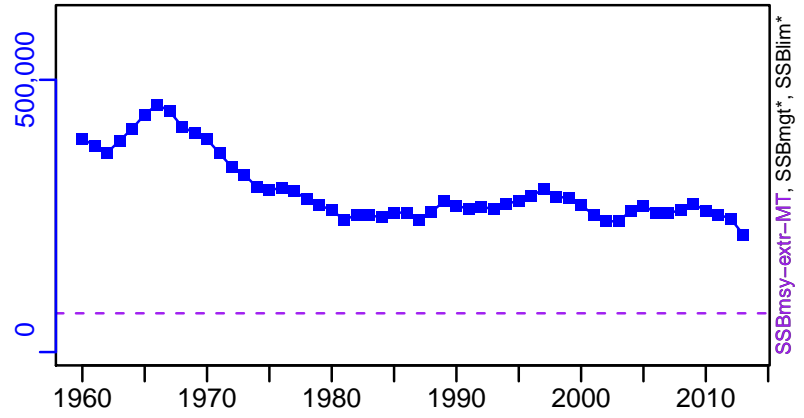
◆ Start Year ◆ End Year * No Data

Albacore tuna South Pacific Ocean [ALBASPAC]

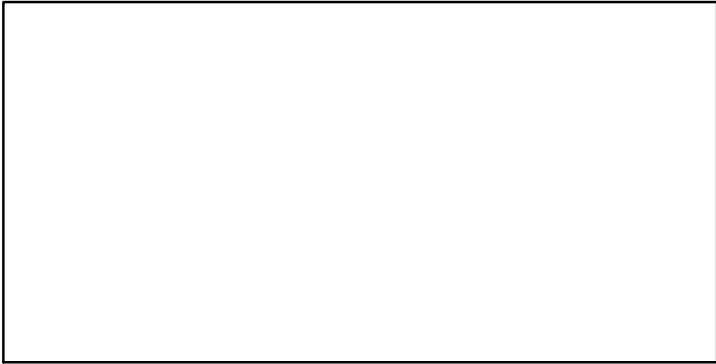
TB*



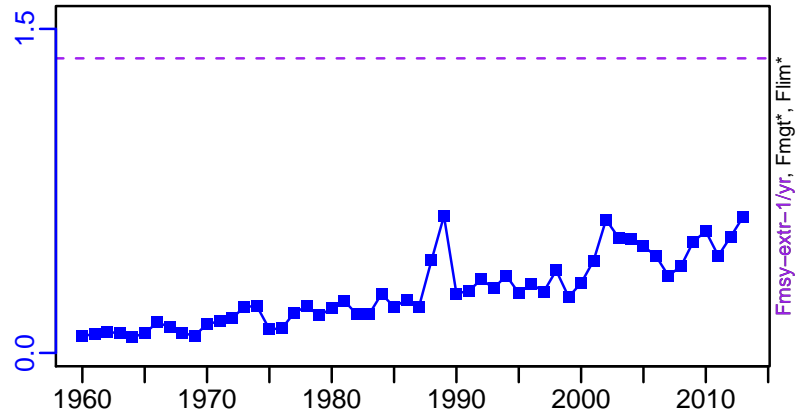
SSB-MT (1952-2015-PONS)



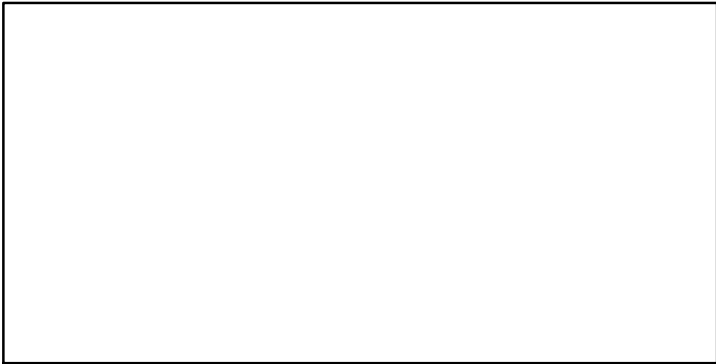
TN *



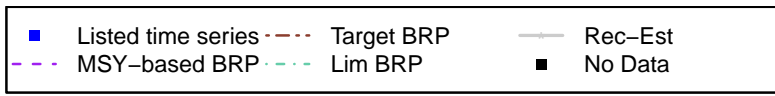
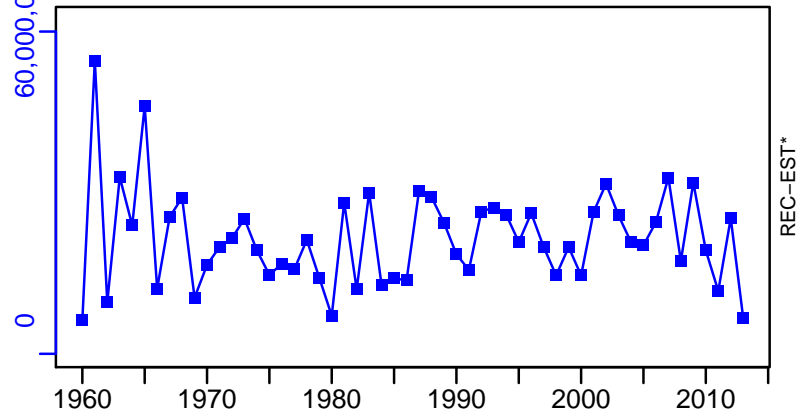
F-1/yr (1952-2015-PONS)



ER*



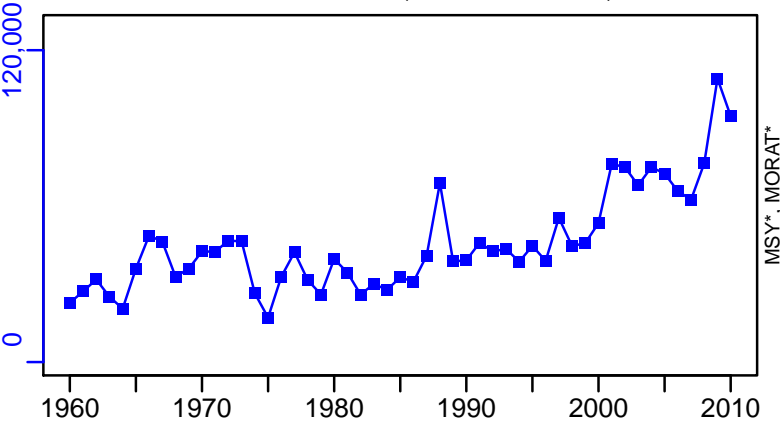
R-E00 (1952-2015-PONS)



Albacore tuna South Pacific Ocean [ALBASPAC]

TC-MT, TL*, RecC* (1960-2010-PONS)

TAC*, Cpair*, Cadv*

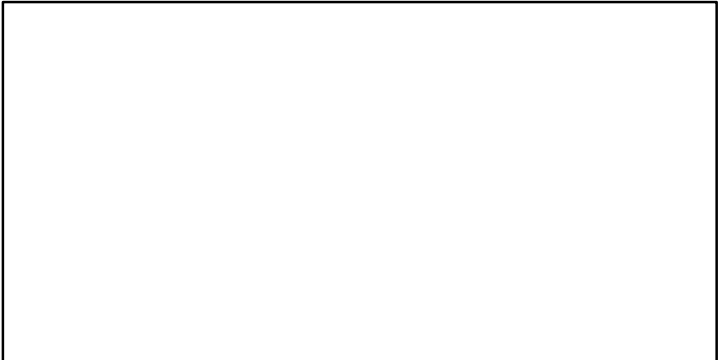
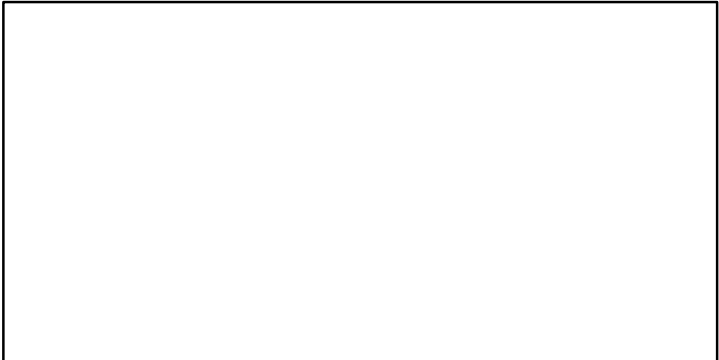


MSY*, MORAT*



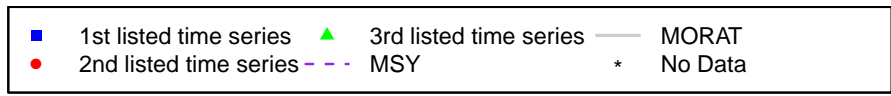
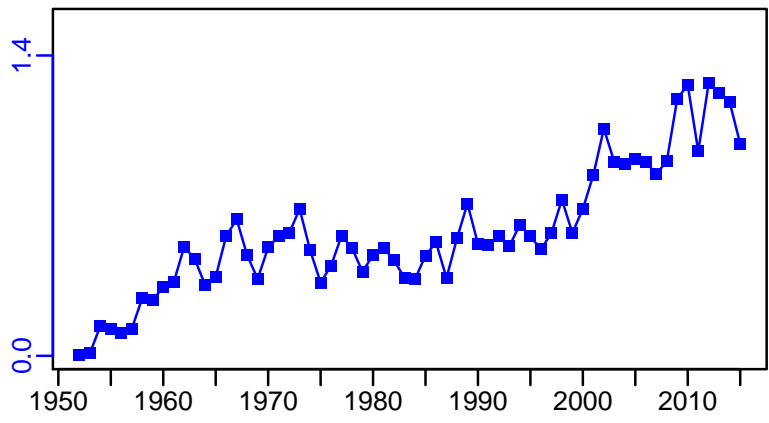
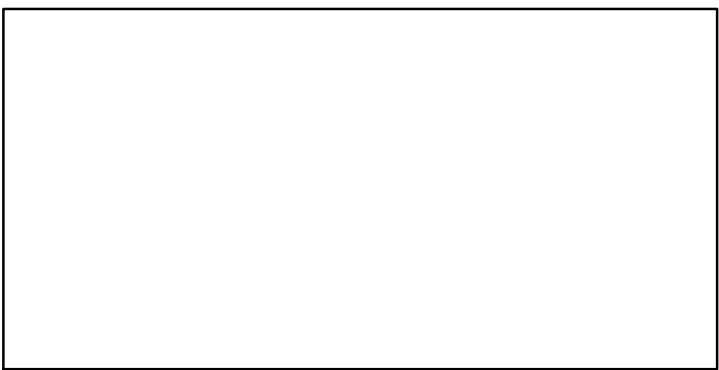
survB*

CPUE*



EFFORT*

CdivMSY-ratio (1952-2015-PONS)



Bigeye tuna Central Western Pacific [BIGEYECWPAC]

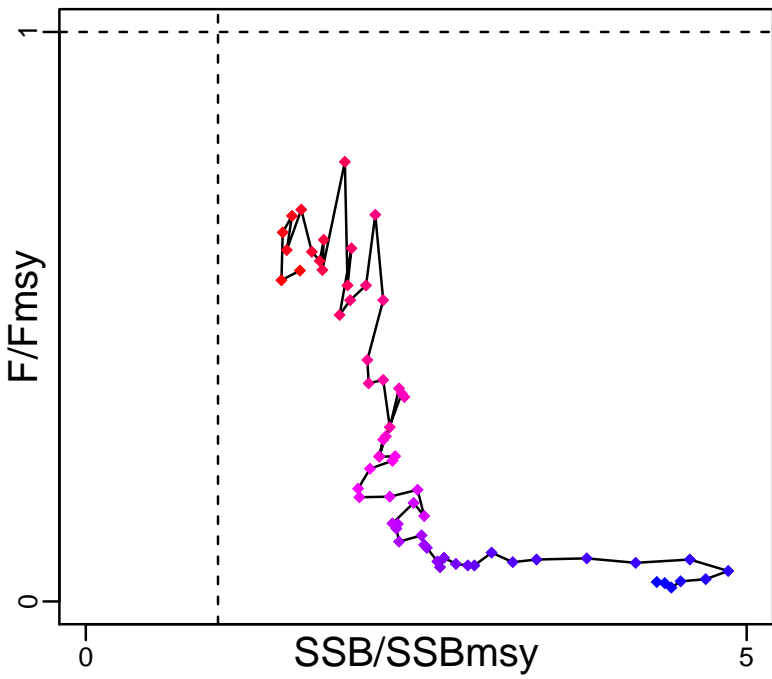
| Metadata | |
|-----------------------------|--|
| Scientific Name | Thunnus obesus |
| Current Assess ID | SPC-BIGEYECWPAC-1950-2015-PONS |
| Area | Central Western Pacific Ocean |
| Management Authority | Western and Central Pacific Fisheries Commission |
| Assessor | Secretariat of the Pacific Community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

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

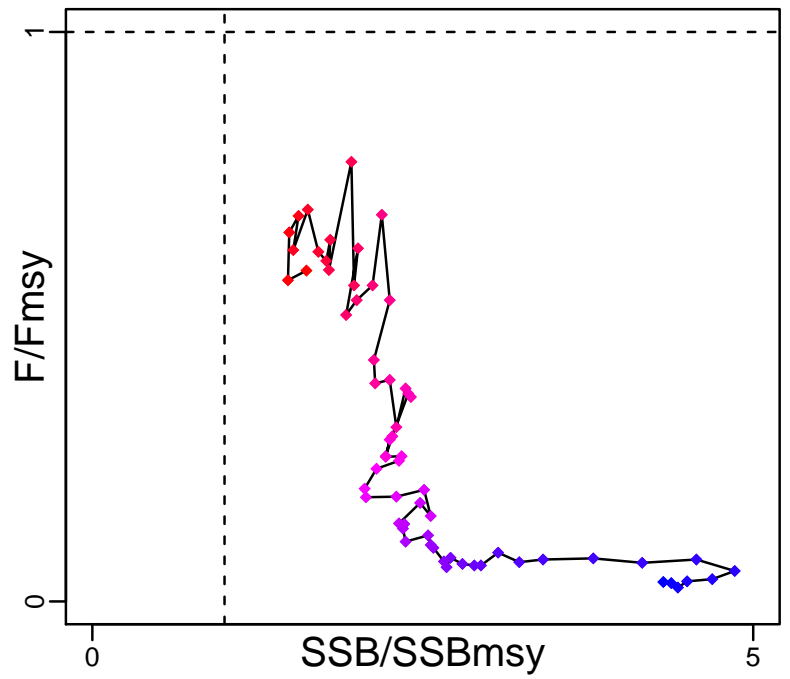
| Time Series | | | | | |
|-------------------|----------------------------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2015 | 1,500,000 | - | - |
| SSB | SSB-MT | 2015 | 968,000 | - | - |
| TN | - | - | - | - | - |
| R | R-E00 | 2006 | 17,600,000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

Bigeye tuna Central Western Pacific [BIGEYECWPAC]

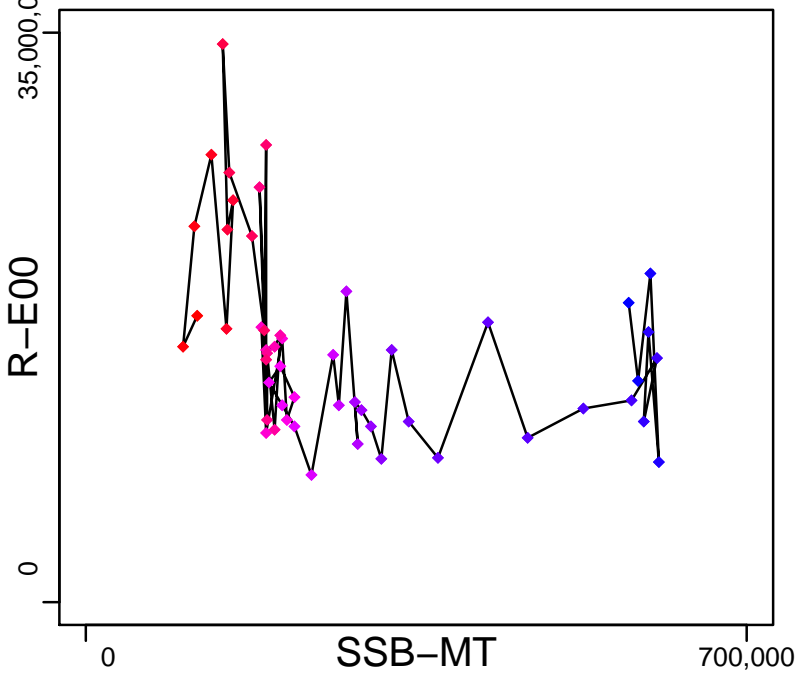
Kobe MSYpref (1950–2015–PONS)



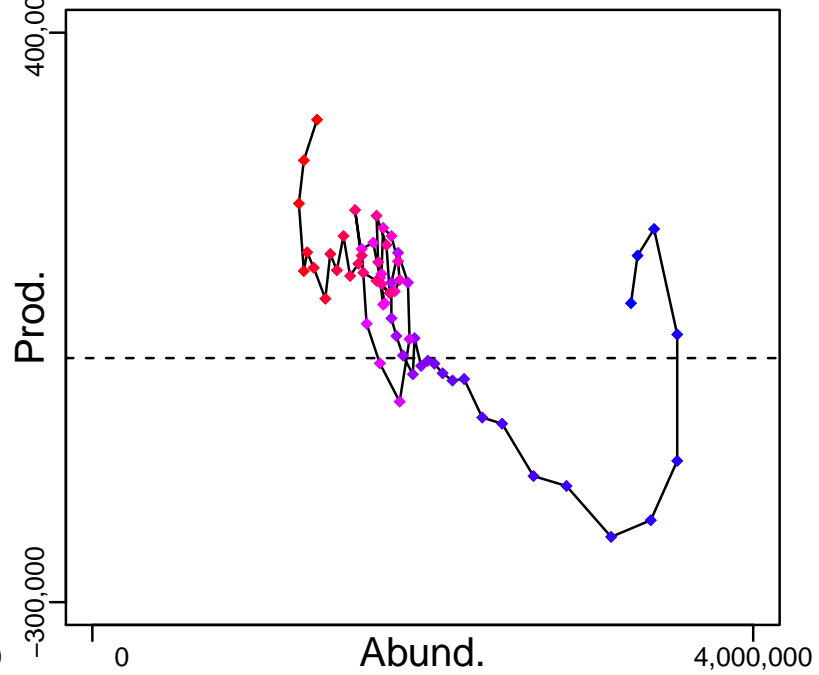
Kobe MGTpref (1950–2015–PONS)



Spawner Recruit (1952–2006–JENSEN)



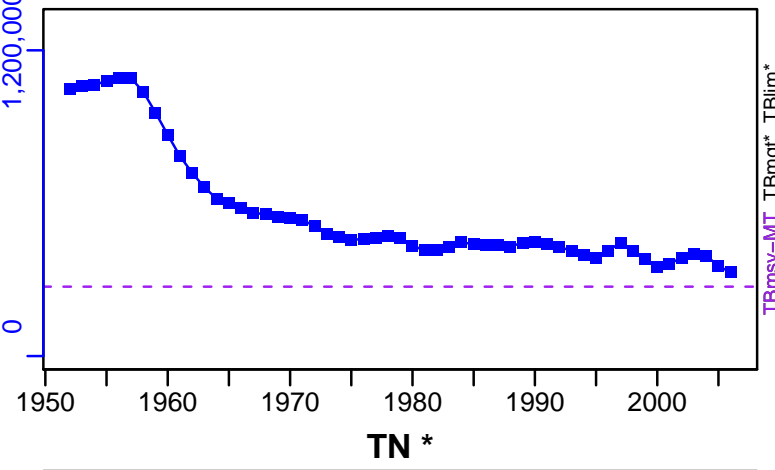
Production (1950–2015–PONS)



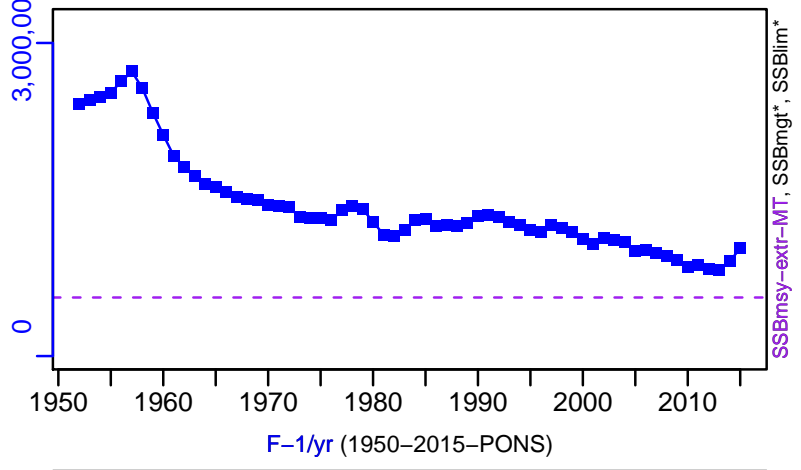
◆ Start Year ◆ End Year * No Data

Bigeye tuna Central Western Pacific [BIGEYECWPAC]

TB-MT (1952-2006-JENSEN)

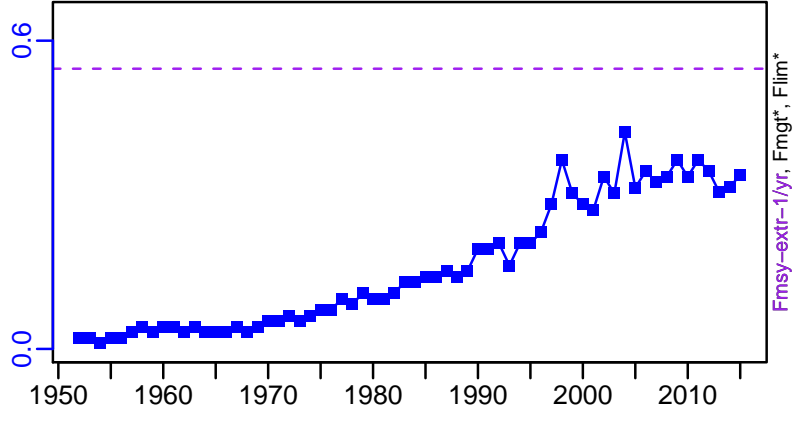


SSB-MT (1950-2015-PONS)

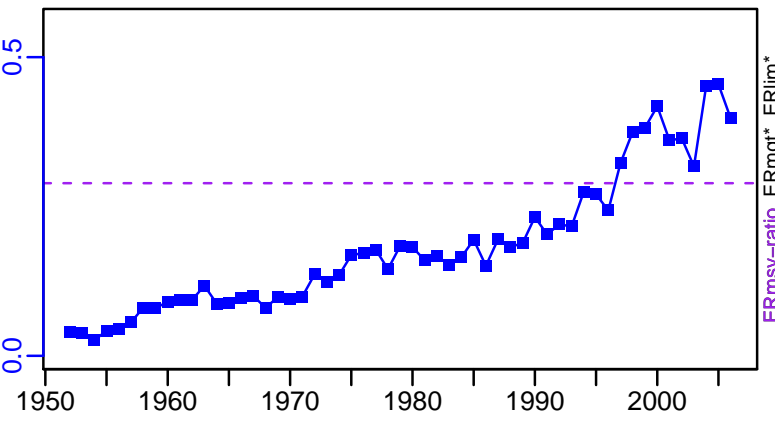


TN *

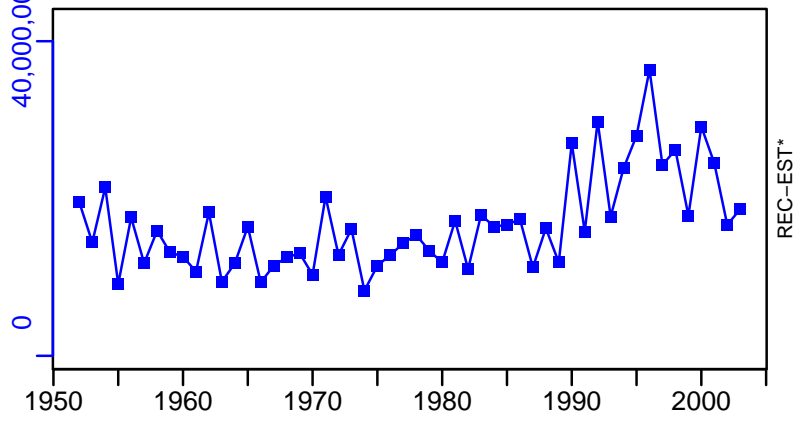
F-1/yr (1950-2015-PONS)



ER-ratio (1952-2006-JENSEN)



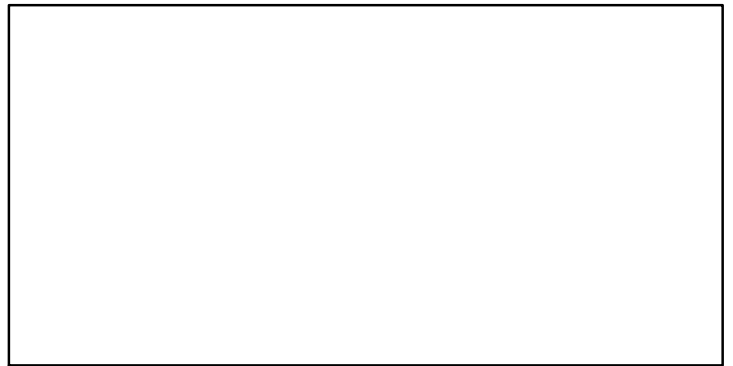
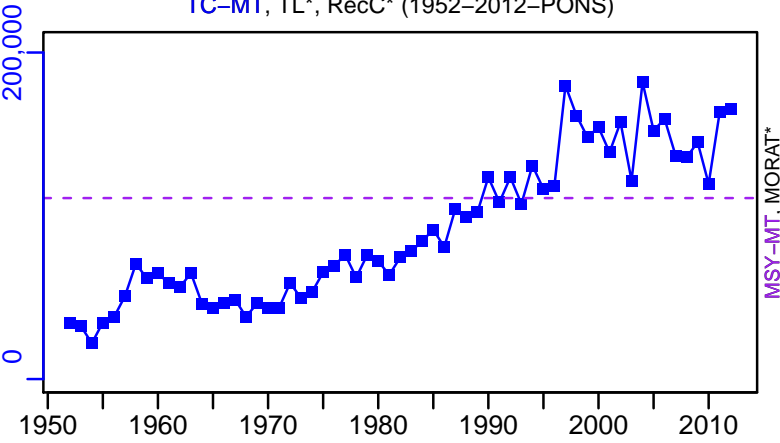
R-E00 (1952-2006-JENSEN)



Bigeye tuna Central Western Pacific [BIGEYECWPAC]

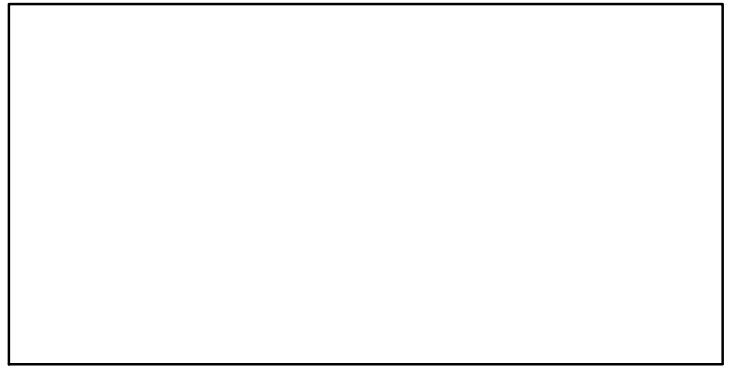
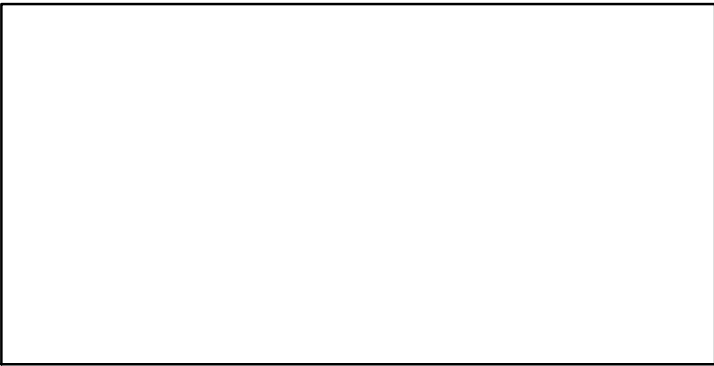
TC-MT, TL*, RecC* (1952-2012-PONS)

TAC*, Cpair*, Cadv*



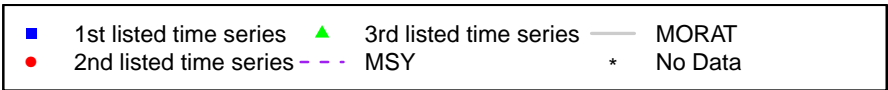
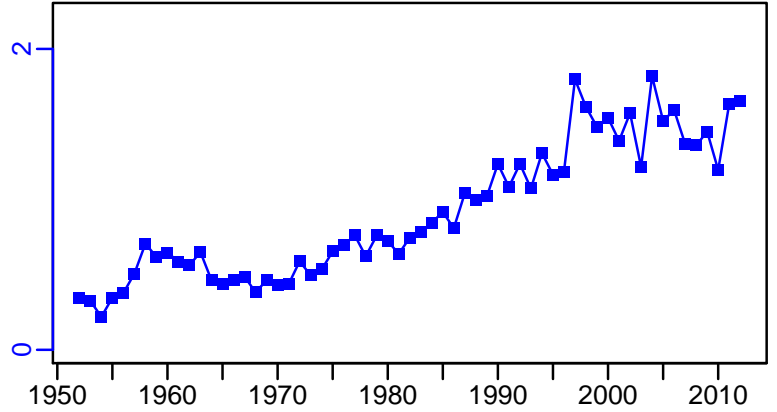
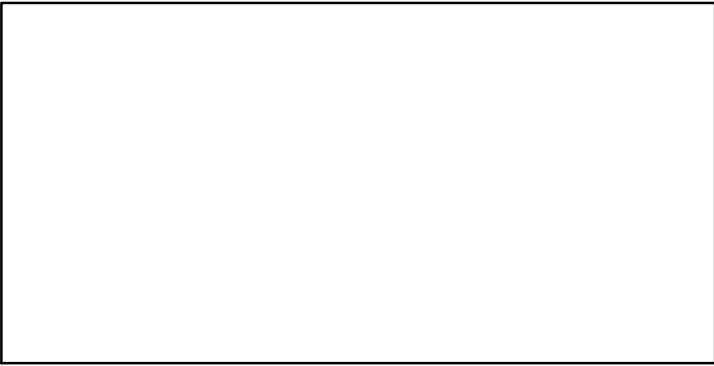
survB*

CPUE*



EFFORT*

CdivMSY-ratio (1952-2012-PONS)



Bigeye tuna Eastern Pacific [BIGEYEEPAC]

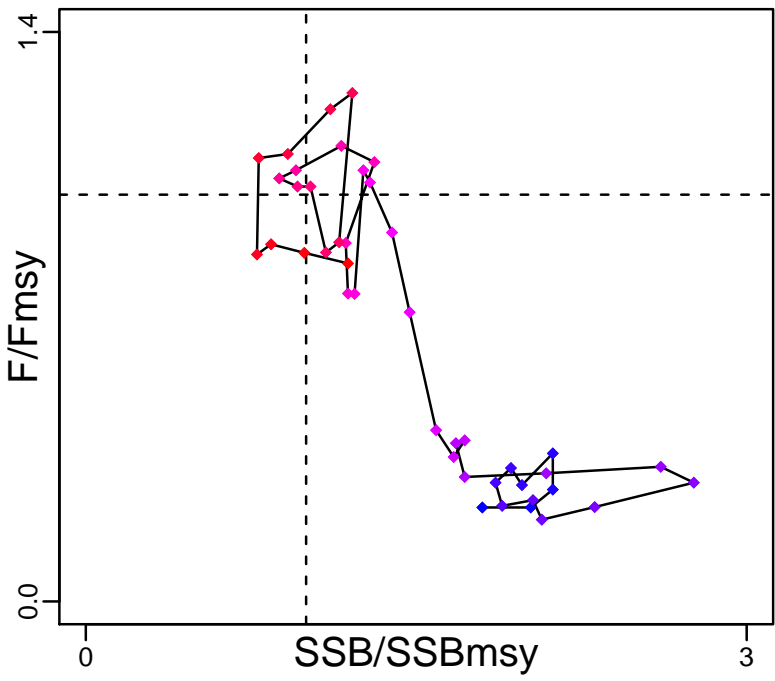
| Metadata | |
|-----------------------------|---|
| Scientific Name | Thunnus obesus |
| Current Assess ID | IATTC-BIGEYEEPAC-1954-2016-PONS |
| Area | Eastern Pacific |
| Management Authority | Inter-American Tropical Tuna Commission |
| Assessor | Inter-American Tropical Tuna Commission |
| Asmts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

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

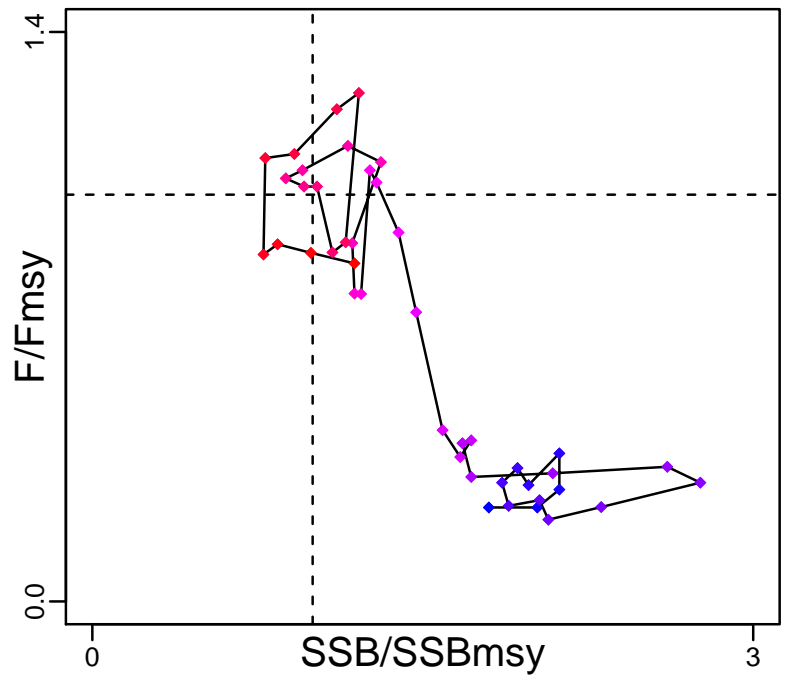
| Time Series | | | | | |
|-------------------|----------------------------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | SSB-MT | 2016 | 110,000 | - | - |
| TN | - | - | - | - | - |
| R | R-E00 | 2016 | 6900 | - | - |
| F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

Bigeye tuna Eastern Pacific [BIGEYEEPAC]

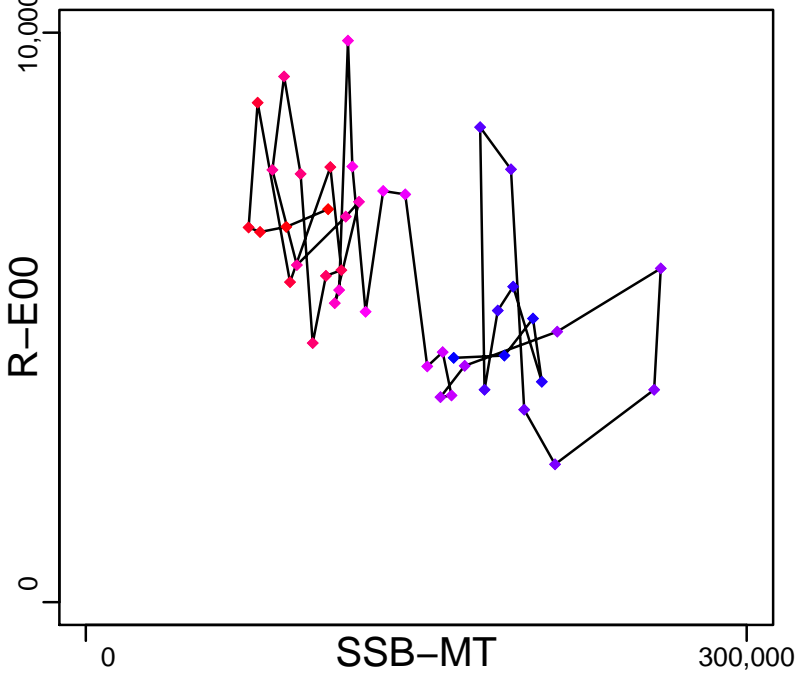
Kobe MSYpref (1954–2016–PONS)



Kobe MGTpref (1954–2016–PONS)



Spawner Recruit (1954–2016–PONS)



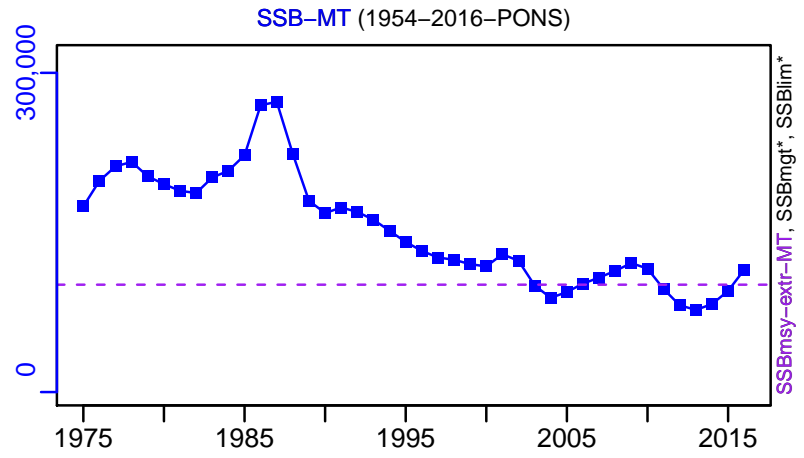
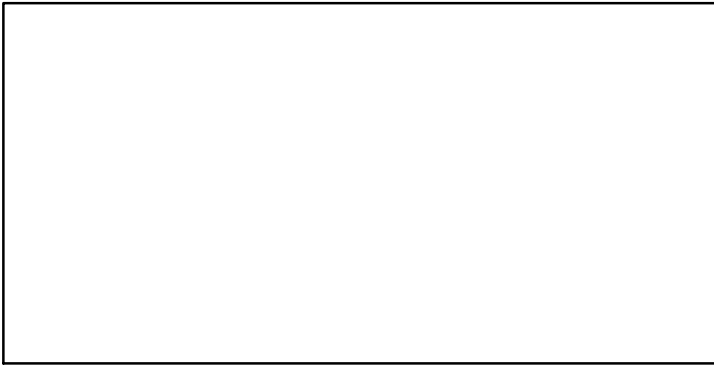
Production*



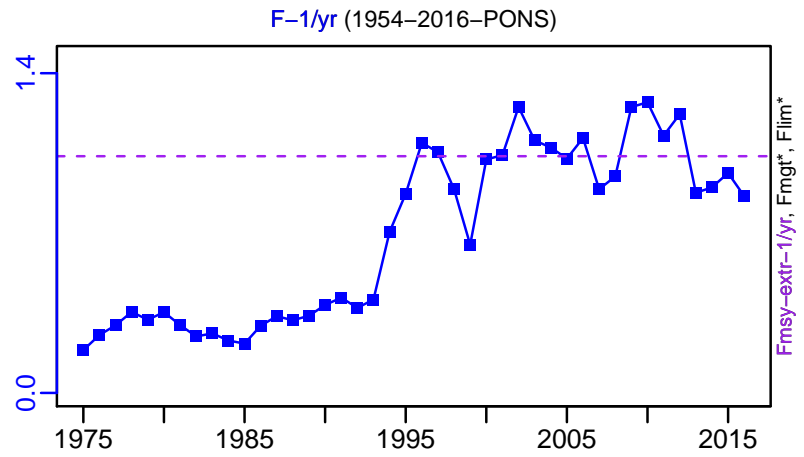
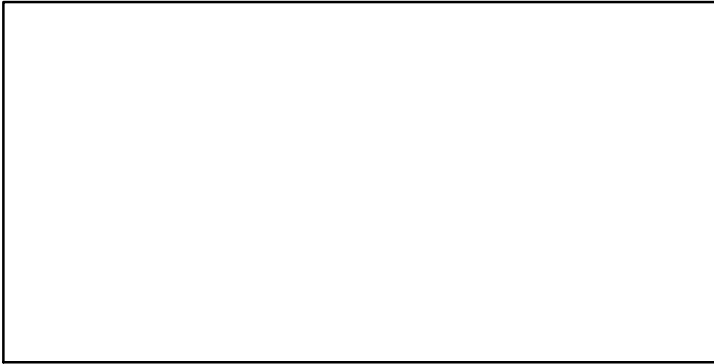
◆ Start Year ◆ End Year * No Data

Bigeye tuna Eastern Pacific [BIGEYEEPAC]

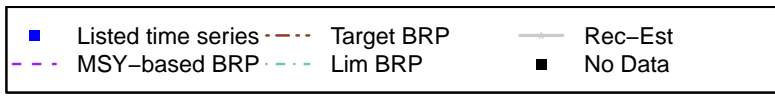
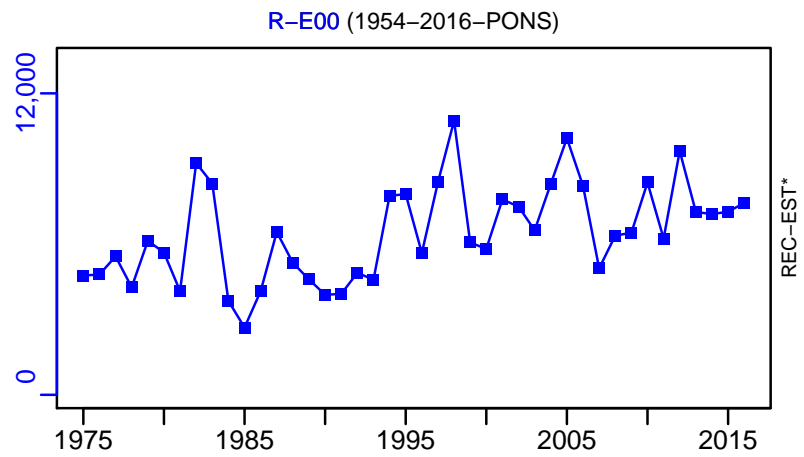
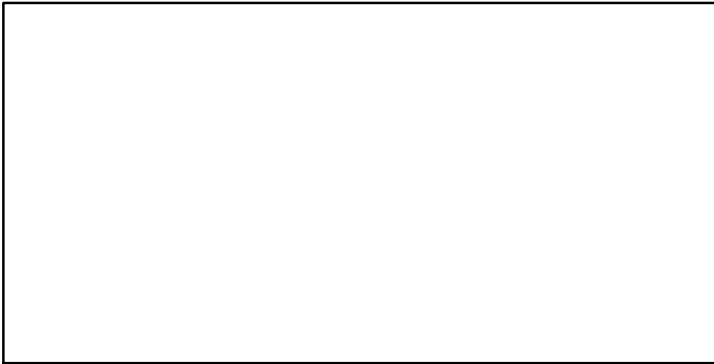
TB*



TN *



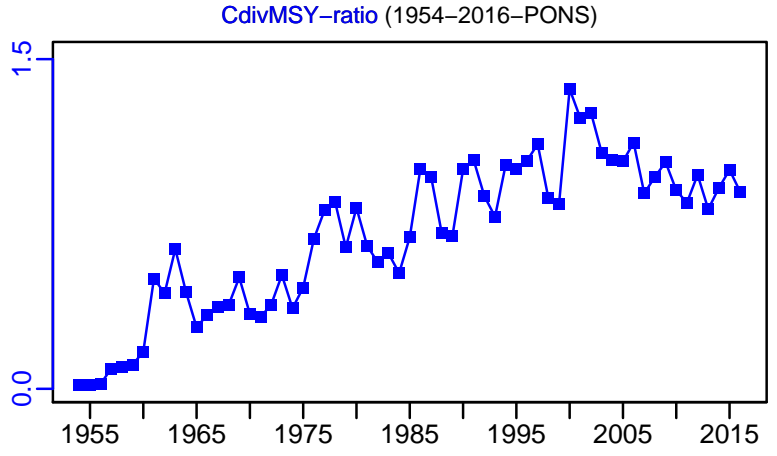
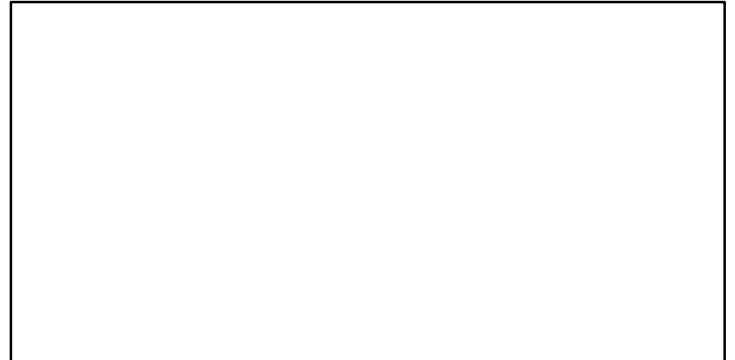
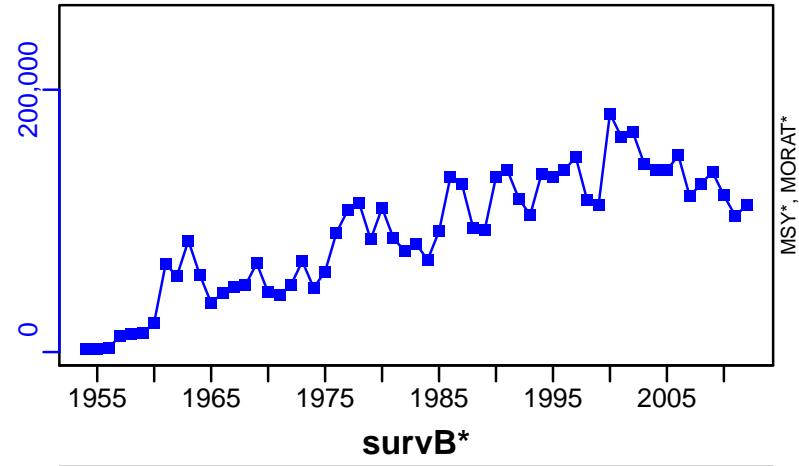
ER*



Bigeye tuna Eastern Pacific [BIGEYEEPAC]

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

TAC*, Cpair*, Cadv*



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

Blue shark North Pacific [BLSHARNPAC]

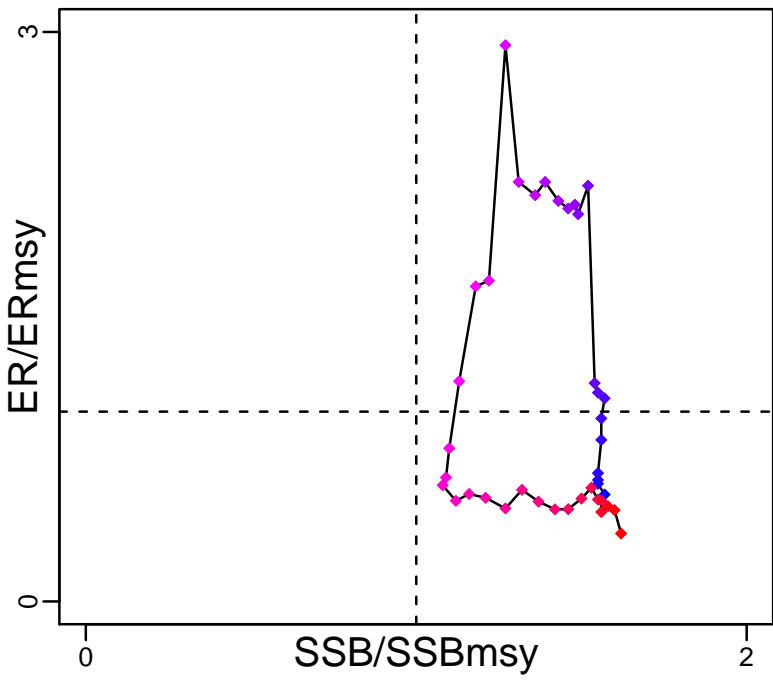
| Metadata | |
|-----------------------------|--|
| Scientific Name | Prionace glauca |
| Current Assess ID | ISC-BLSHARNPAC-1971-2012-ASHBROOK |
| Area | North Pacific Ocean |
| Management Authority | International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean |
| Assessor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

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

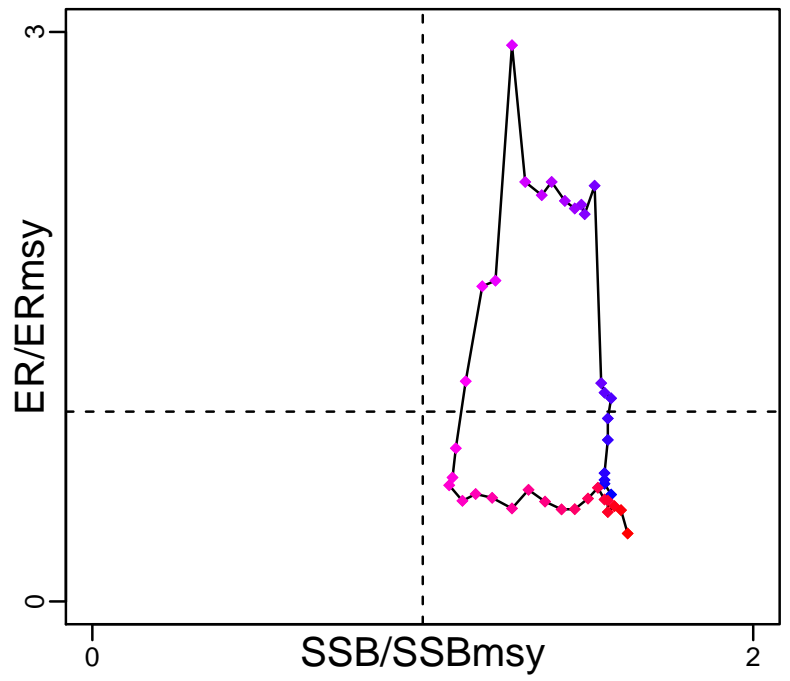
| Time Series | | | | | |
|-------------------|----------------------------|-----------|------------|---------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | SSB-MT | 2012 | 443,000 | Females | 5+ |
| TN | - | - | - | - | - |
| R | R-E00 | 2012 | 30,100,000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

Blue shark North Pacific [BLSHARNPAC]

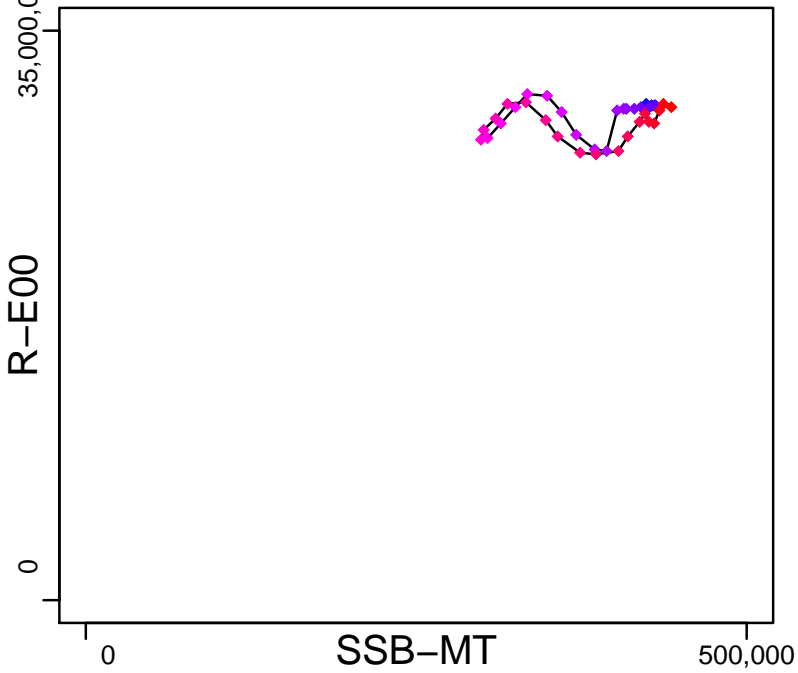
Kobe MSYpref (1971–2012–ASHBROOK)



Kobe MGTpref (1971–2012–ASHBROOK)



Spawner Recruit (1971–2012–ASHBROOK)



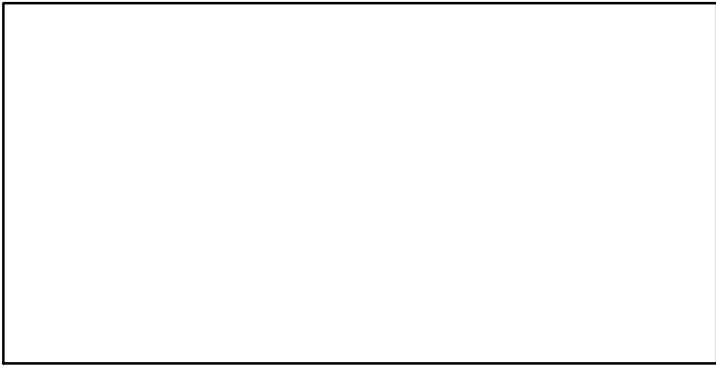
Production*



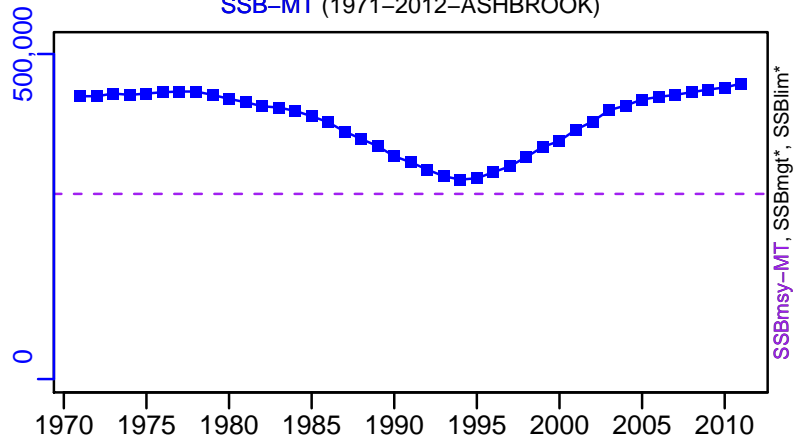
◆ Start Year ◆ End Year * No Data

Blue shark North Pacific [BLSHARNPAC]

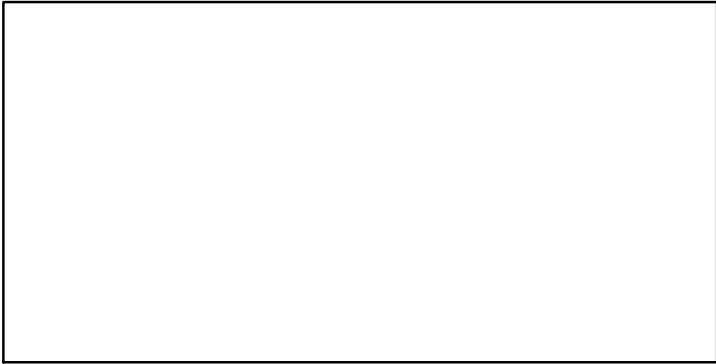
TB*



SSB-MT (1971-2012-ASHBROOK)



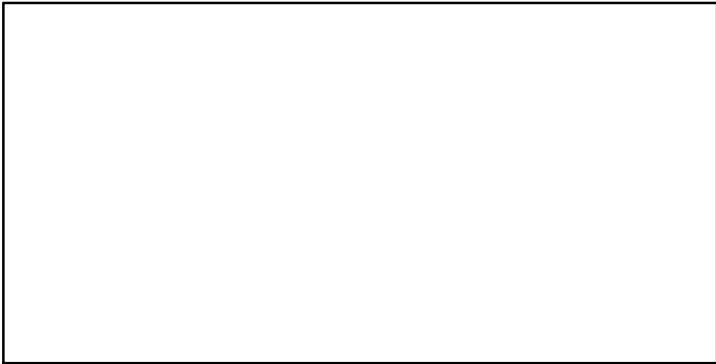
TN *



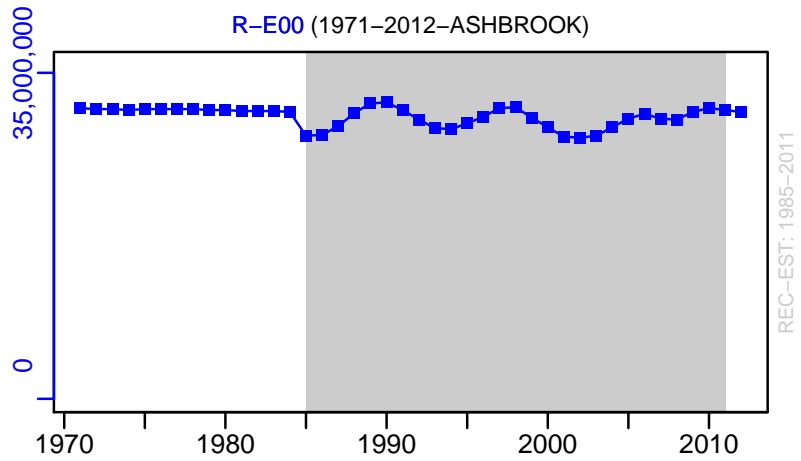
F*



ER*



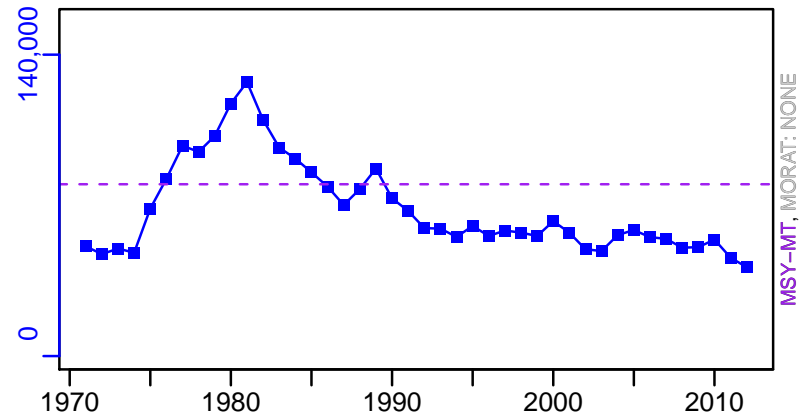
R-E00 (1971-2012-ASHBROOK)



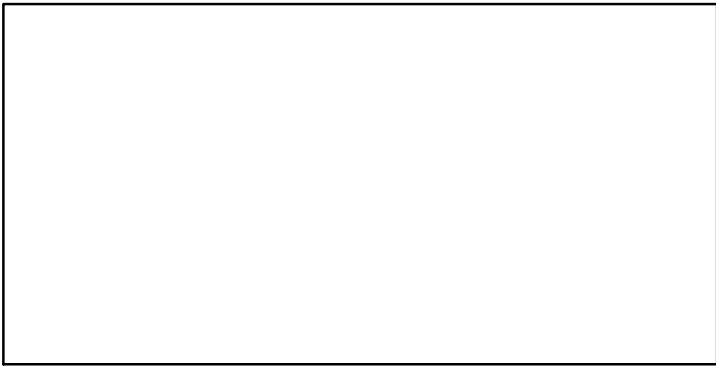
Blue shark North Pacific [BLSHARNPAC]

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

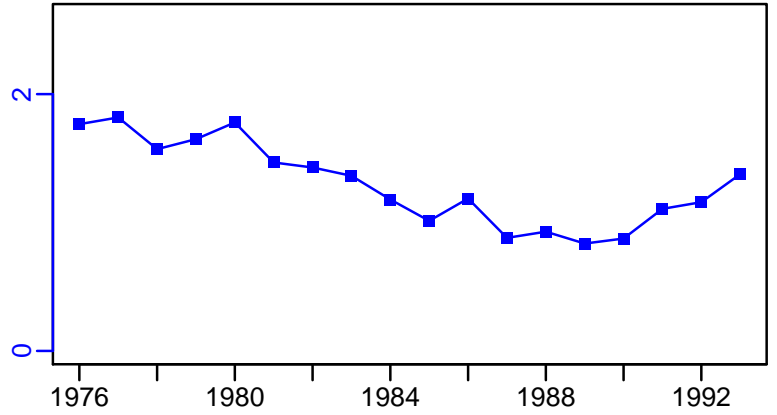
TAC*, Cpair*, Cadv*



survB*



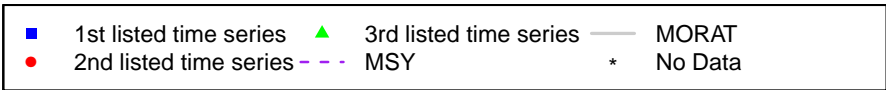
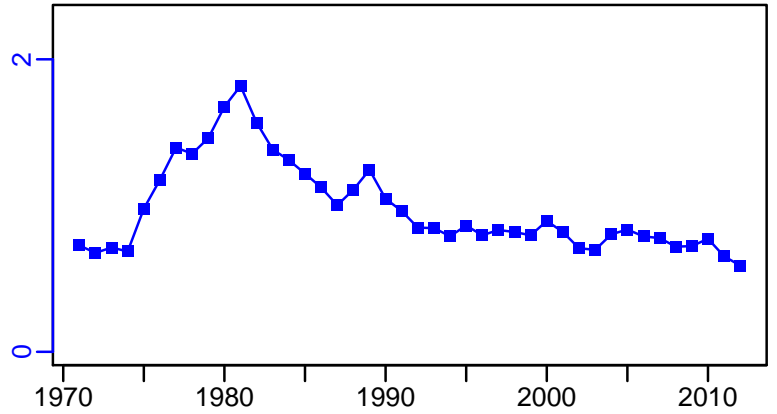
CPUE-1-index (1971-2012-ASHBROOK)



EFFORT*



CdivMSY-ratio (1971-2012-ASHBROOK)



Blue marlin Pacific Ocean [BMARLINPAC]

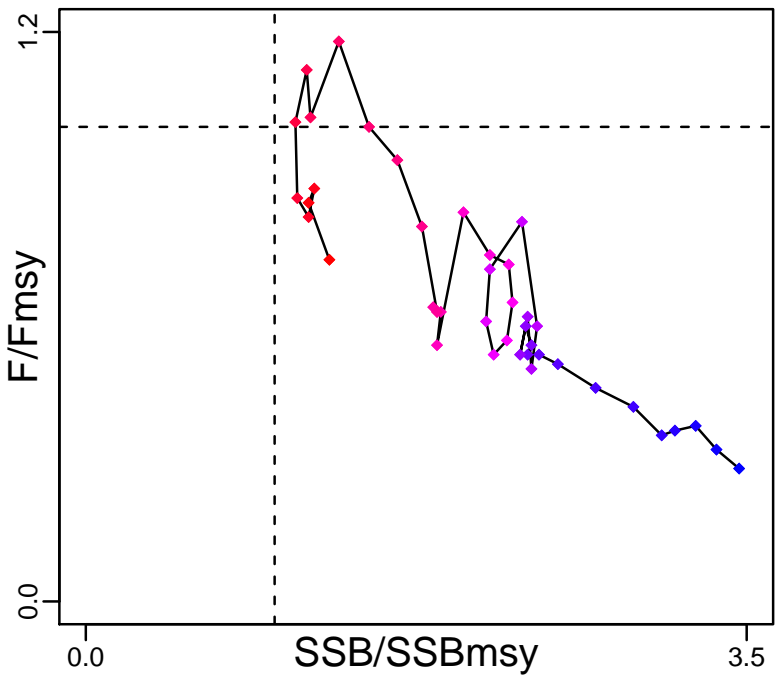
| Metadata | |
|-----------------------------|--|
| Scientific Name | Makaira nigricans |
| Current Assess ID | ISC-BMARLINPAC-1952-2011-PONS |
| Area | Pacific Ocean |
| Management Authority | International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean |
| Assessor |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

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

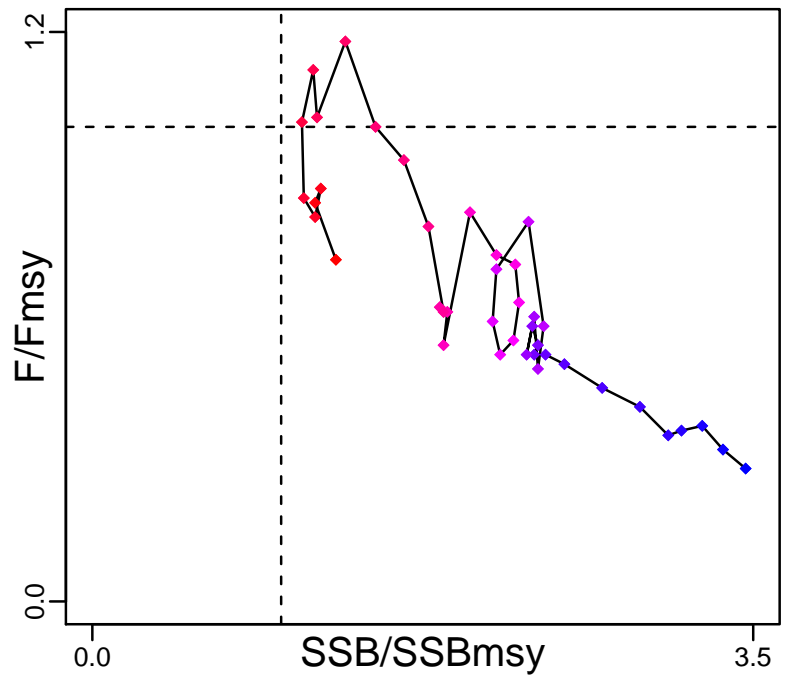
| Time Series | | | | | |
|-------------------|----------------------------|-----------|------------|---------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | SSB-MT | 2011 | 25,000 | Females | 4+ |
| TN | - | - | - | - | - |
| R | R-E00 | 2011 | 825,000 |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

Blue marlin Pacific Ocean [BMARLINPAC]

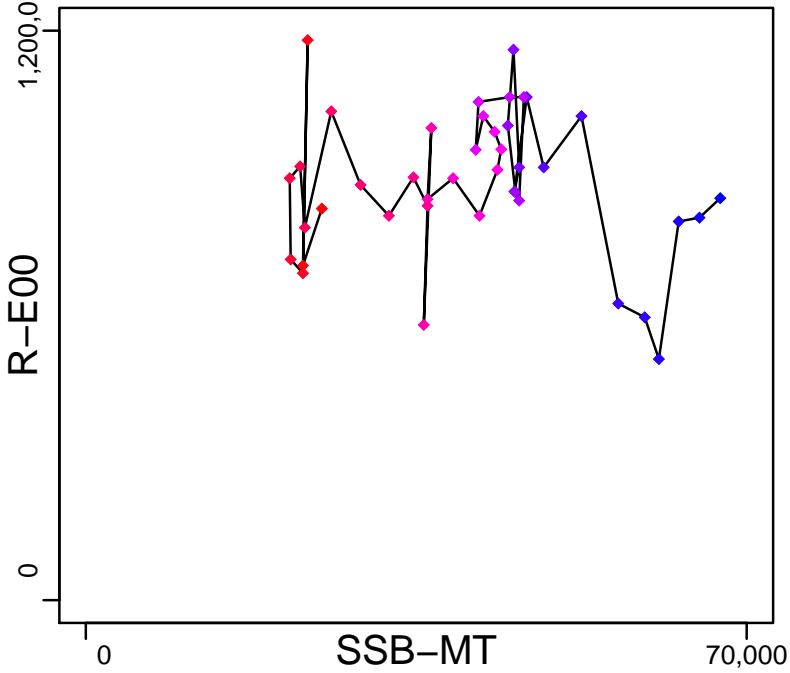
Kobe MSYpref (1952–2011–PONS)



Kobe MGTpref (1952–2011–PONS)



Spawner Recruit (1952–2011–PONS)



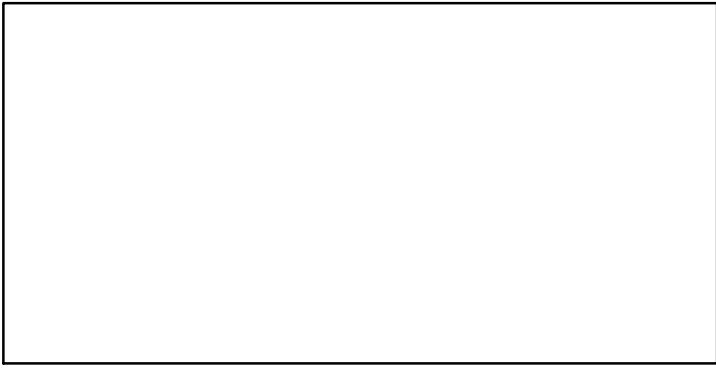
Production*



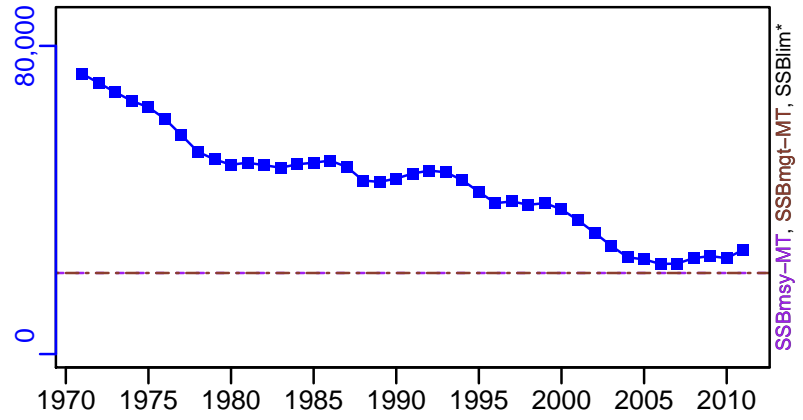
◆ Start Year ◆ End Year * No Data

Blue marlin Pacific Ocean [BMARLINPAC]

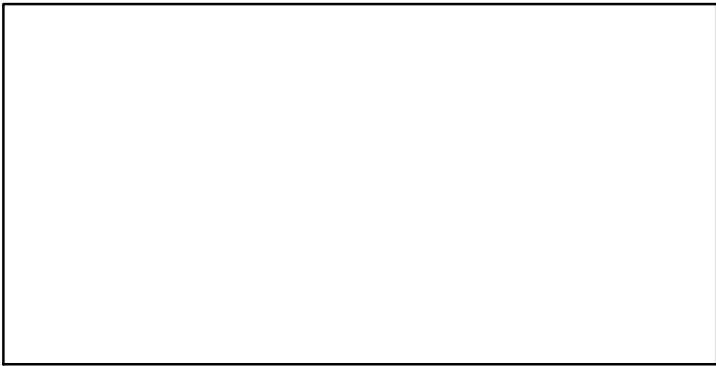
TB*



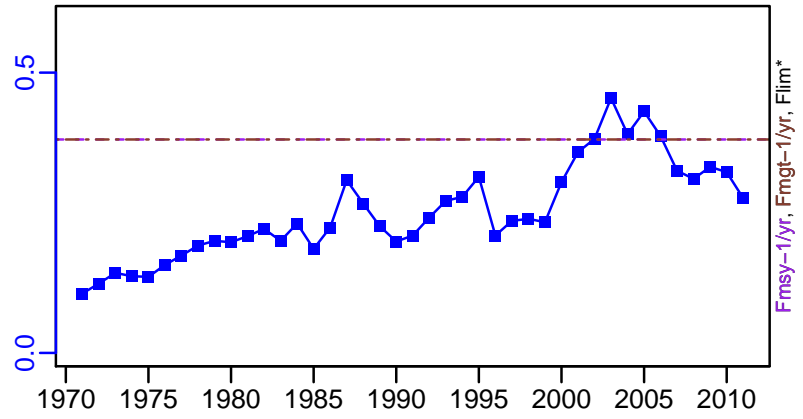
SSB-MT (1952-2011-PONS)



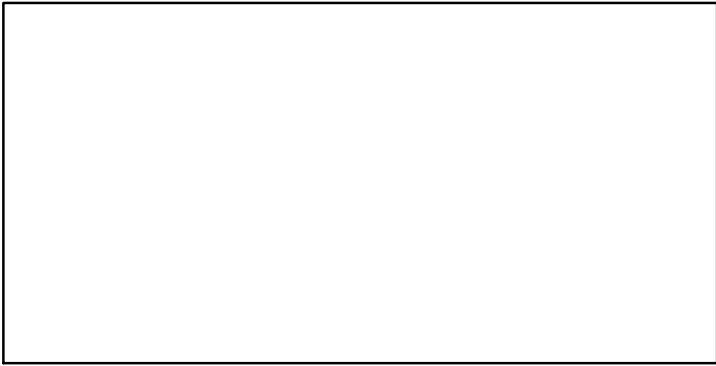
TN *



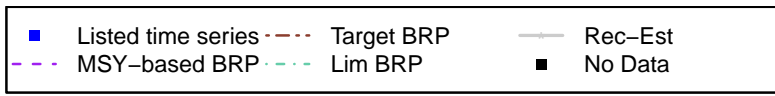
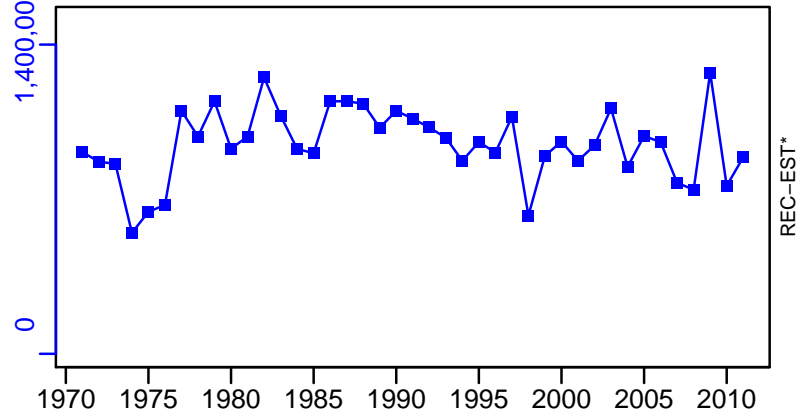
F-1/yr (1952-2011-PONS)



ER*



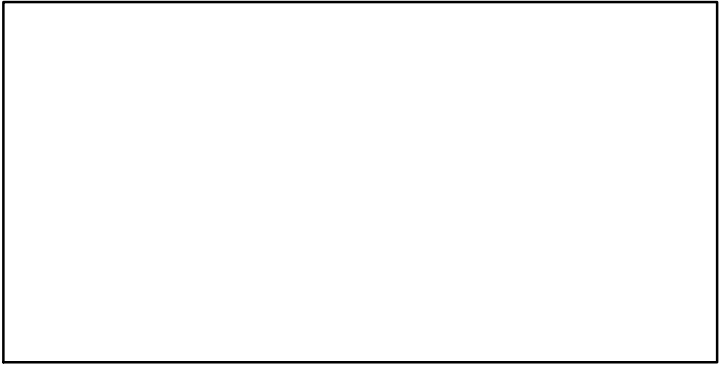
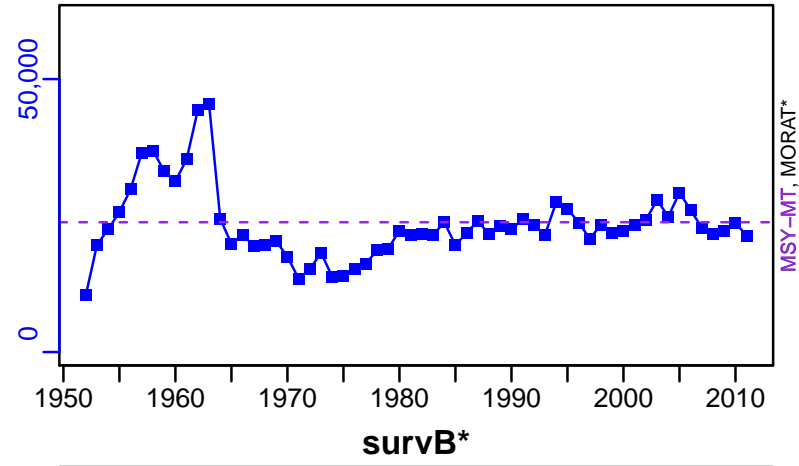
R-E00 (1952-2011-PONS)



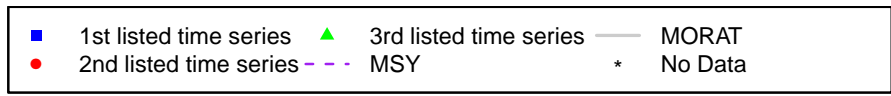
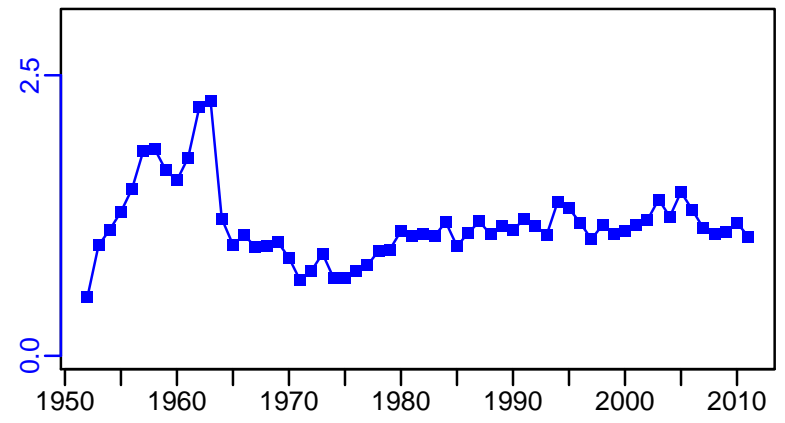
Blue marlin Pacific Ocean [BMARLINPAC]

TC-MT, TL*, RecC* (1952-2011-PONS)

TAC*, Cpair*, Cadv*



CdivMSY-ratio (1952-2011-PONS)



Pacific bluefin tuna Pacific Ocean [PACBTUNA]

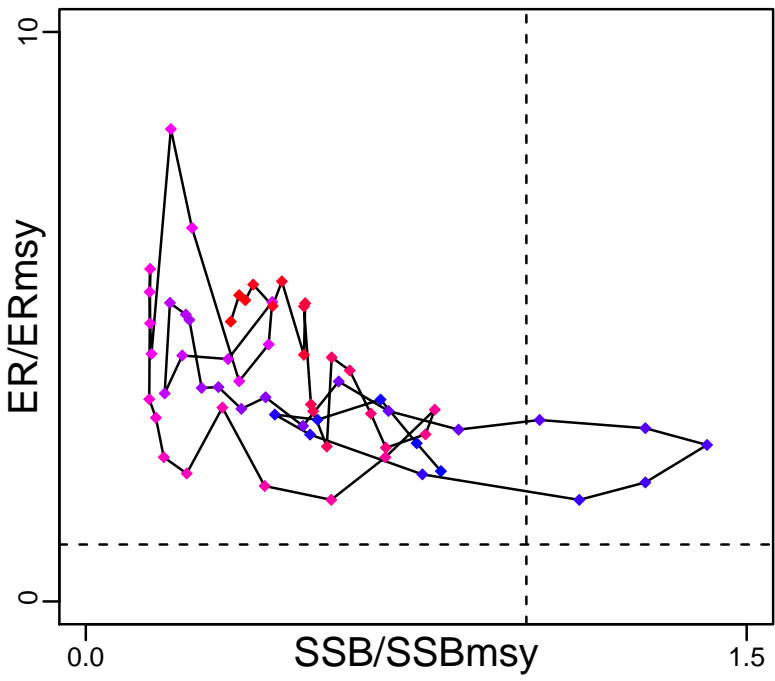
| Metadata | |
|-----------------------------|--|
| Scientific Name | Thunnus orientalis |
| Current Assess ID | ISC-PACBTUNA-1952-2014-PONS |
| Area | Pacific Ocean |
| Management Authority | International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean |
| Assessor |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

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

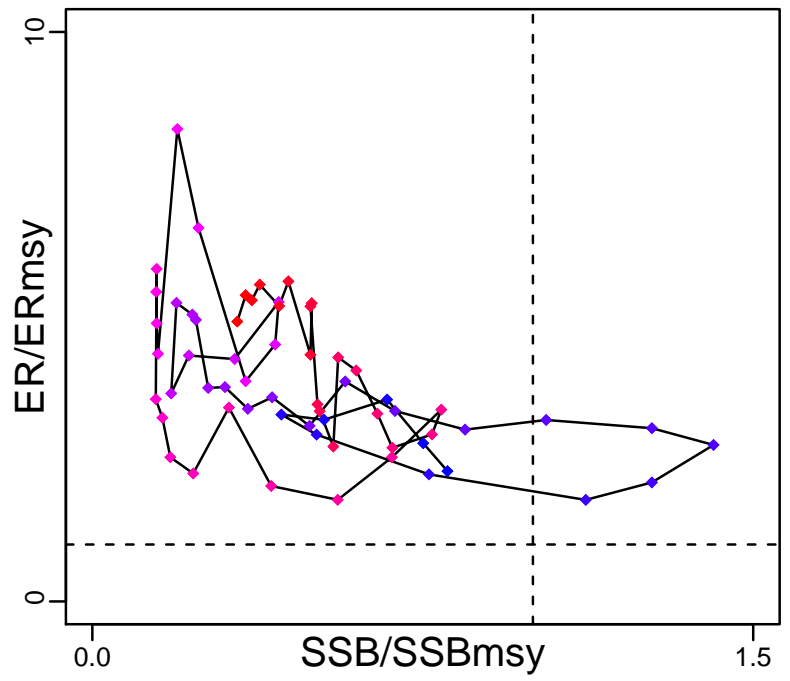
| Time Series | | | | | |
|-------------------|----------------------------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2014 | 35,800 | - | - |
| SSB | SSB-MT | 2014 | 16,600 | - | - |
| TN | - | - | - | - | - |
| R | R-E00 | 2014 | 3,690,000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

Pacific bluefin tuna Pacific Ocean [PACBTUNA]

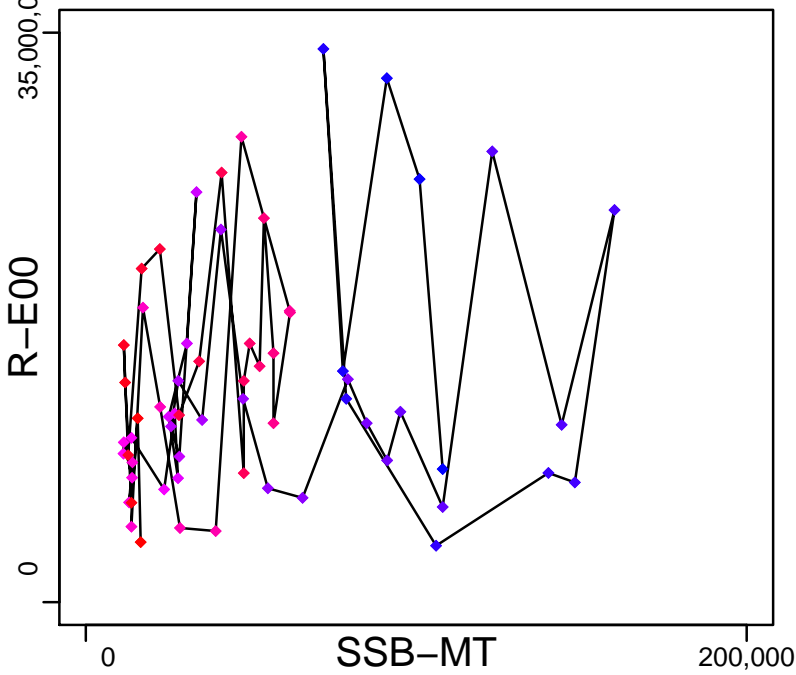
Kobe MSYpref (1952–2012–PONS)



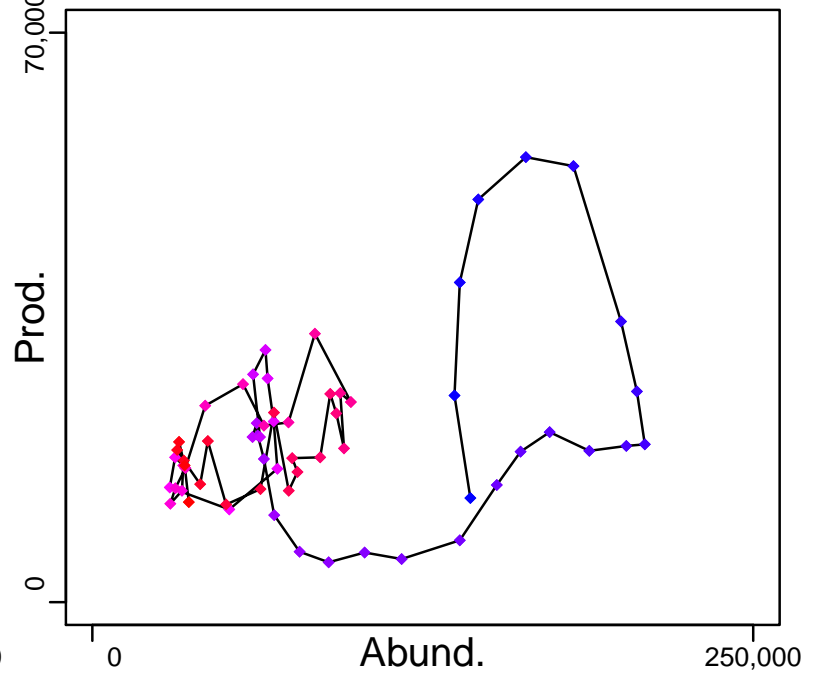
Kobe MGTpref (1952–2012–PONS)



Spawner Recruit (1952–2014–PONS)



Production (1952–2014–PONS)

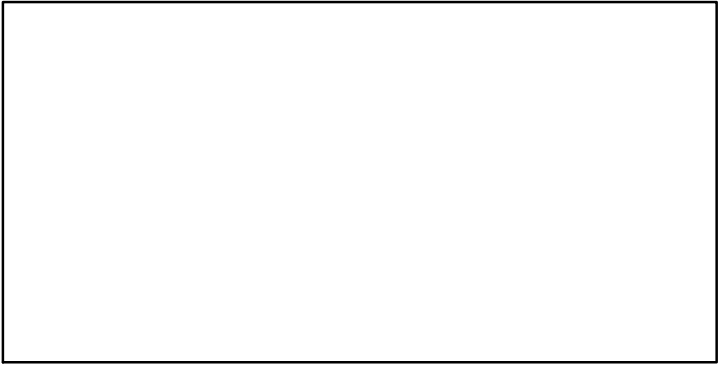
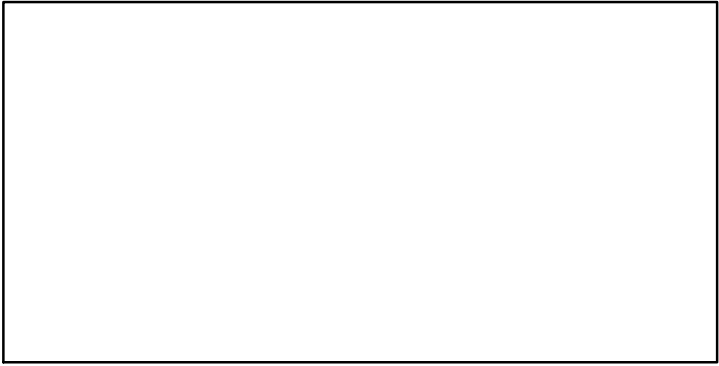
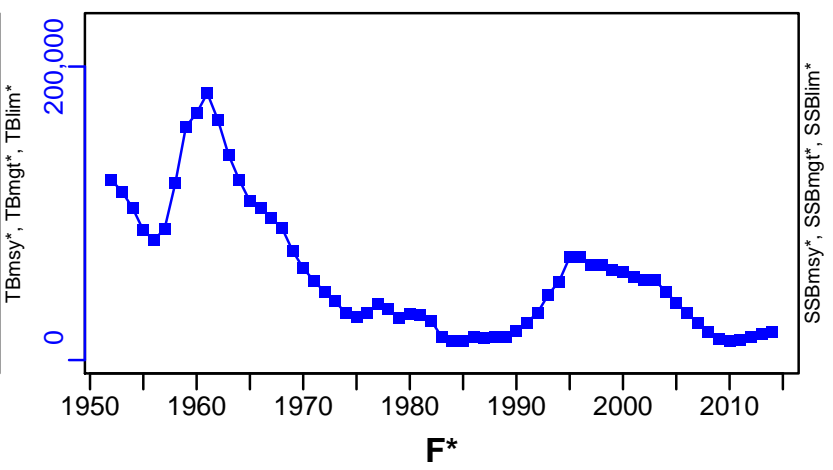
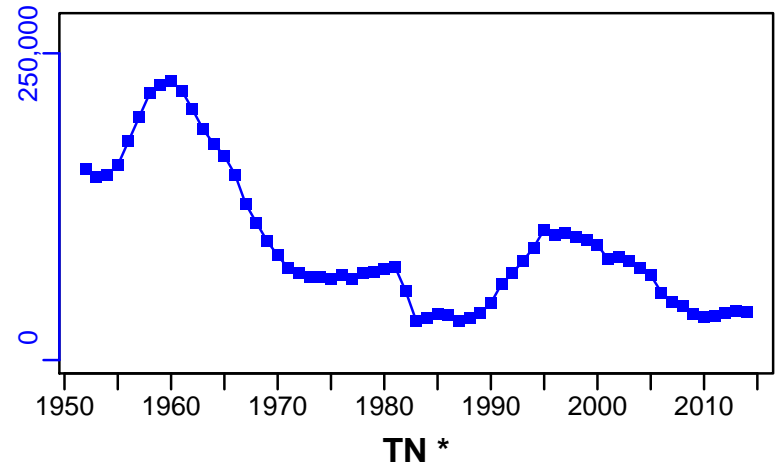


◆ Start Year ◆ End Year * No Data

Pacific bluefin tuna Pacific Ocean [PACBTUNA]

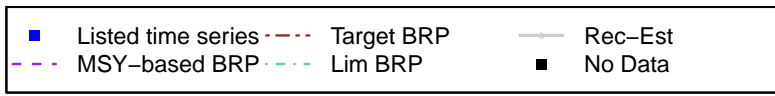
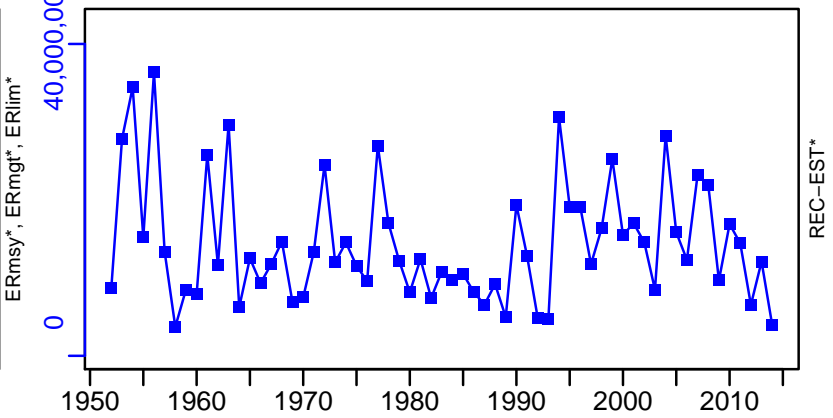
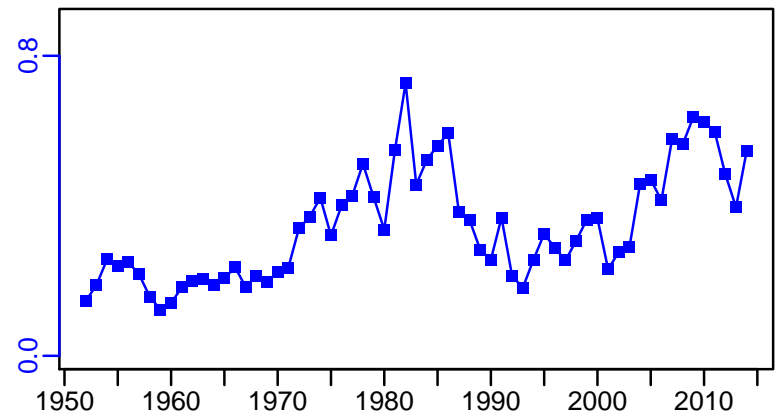
TB-MT (1952-2014-PONS)

SSB-MT (1952-2014-PONS)



ER-calc-ratio (1952-2014-PONS)

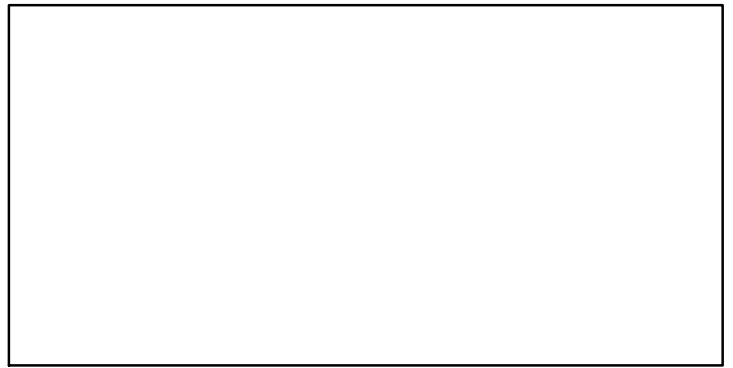
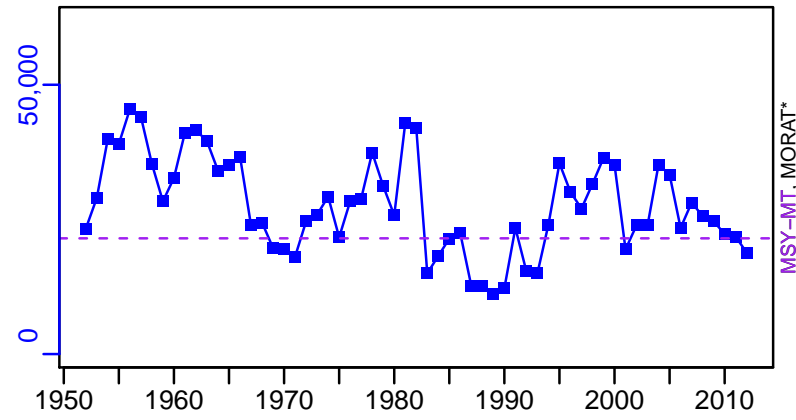
R-E00 (1952-2014-PONS)



Pacific bluefin tuna Pacific Ocean [PACBTUNA]

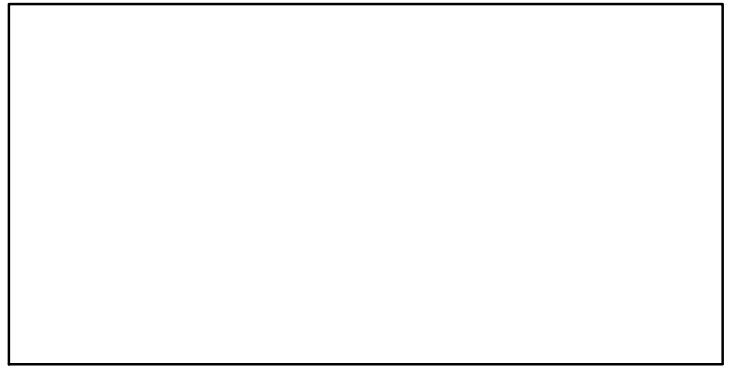
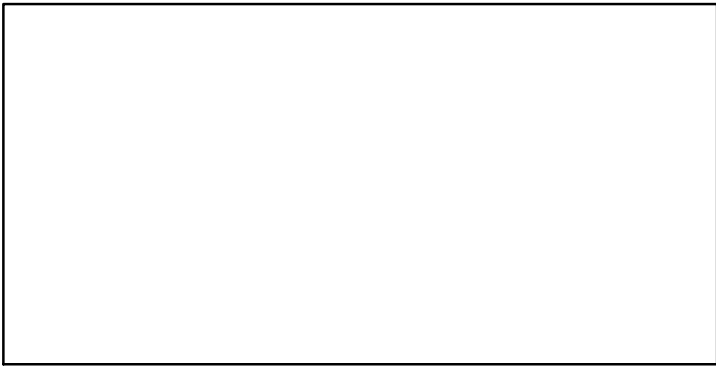
TC-MT, TL*, RecC* (1952-2012-PONS)

TAC*, Cpair*, Cadv*



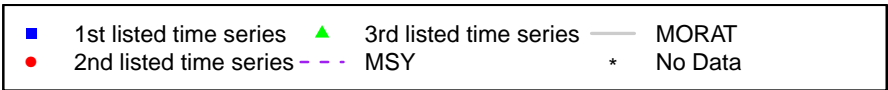
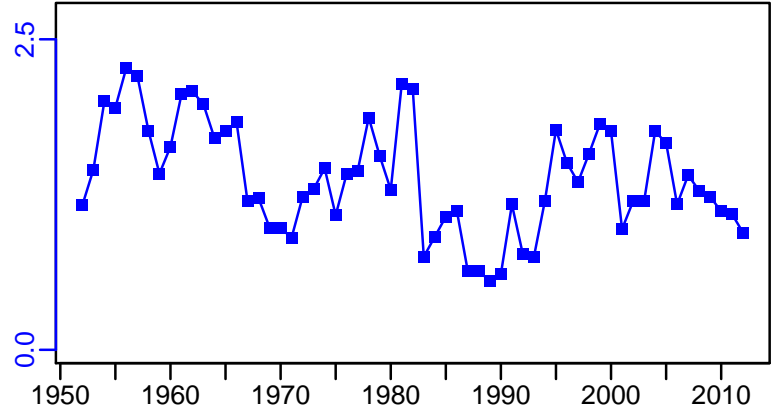
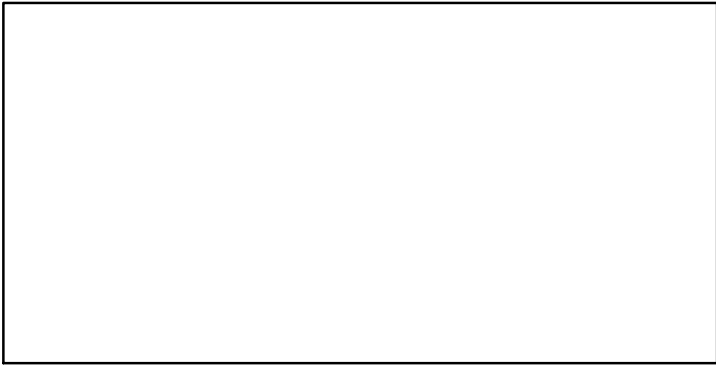
survB*

CPUE*



EFFORT*

CdivMSY-ratio (1952-2012-PONS)



Shortfin mako Northwest Pacific Ocean [SFMAKONWPAC]

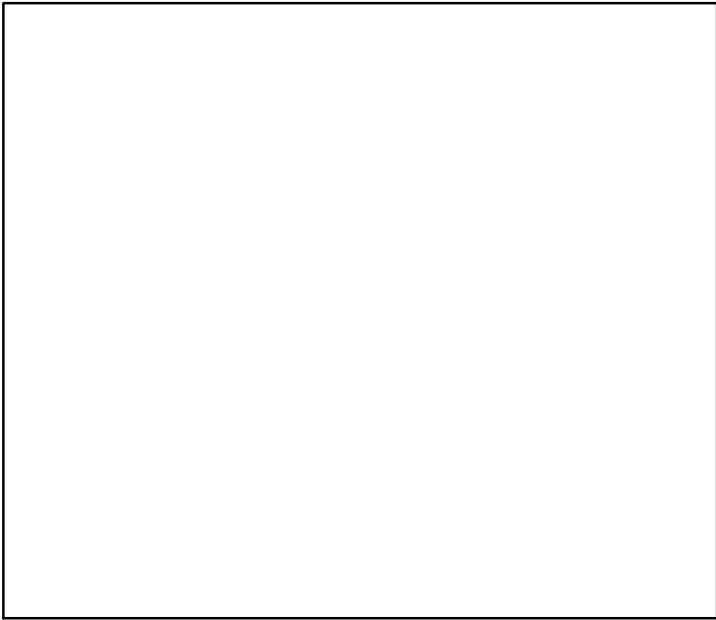
| Metadata | |
|-----------------------------|--|
| Scientific Name | Isurus oxyrinchus |
| Current Assess ID | IMARM-SFMAKONWPAC-1990-2003-FAUCONNET |
| Area | Nothwest Pacific Ocean |
| Management Authority | Unknown management body |
| Assessor | Institute of Marine Affairs and Resource Management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

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

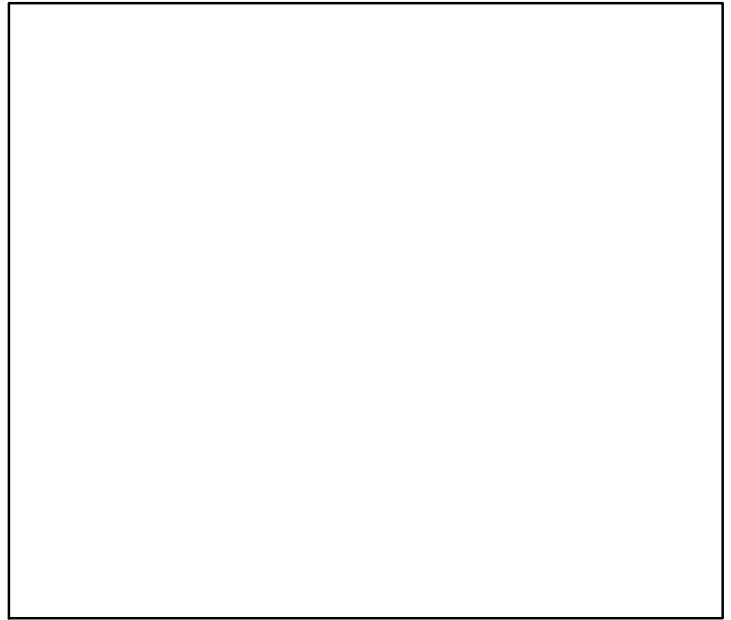
| Time Series | | | | | |
|-------------|---------------|-----------|------------|-----|---------|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | F-female-1/yr | 2003 | 0.09 | - | 0 to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

Shortfin mako Northwest Pacific Ocean [SFMAKONWPAC]

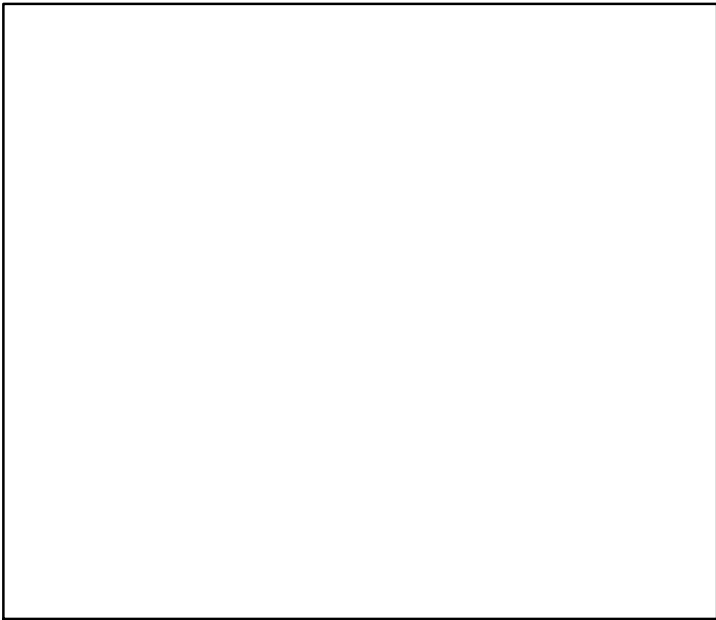
Kobe MSY*



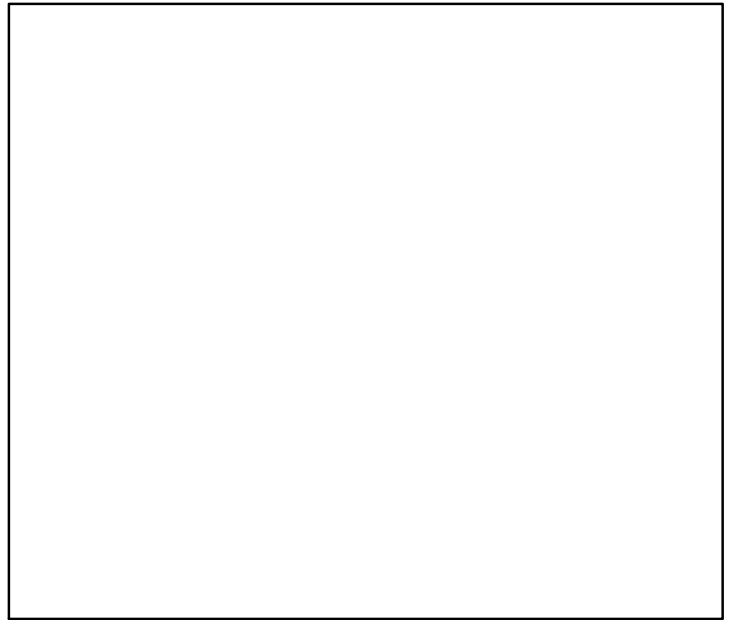
Kobe MGT*



Spawner Recruit*



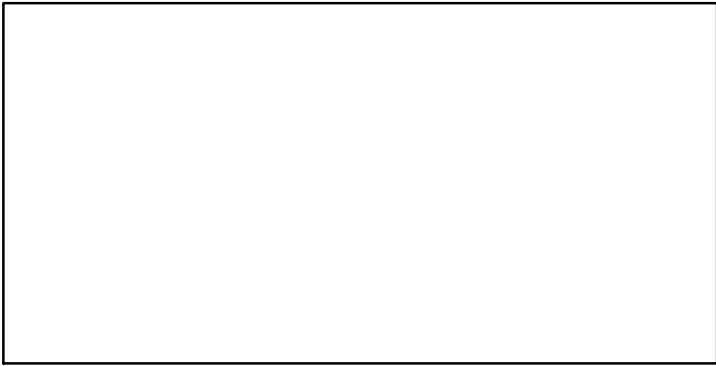
Production*



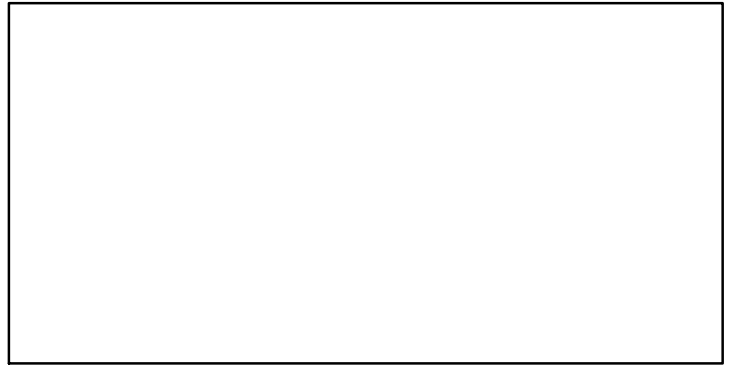
◆ Start Year ◆ End Year * No Data

Shortfin mako Northwest Pacific Ocean [SFMAKONWPAC]

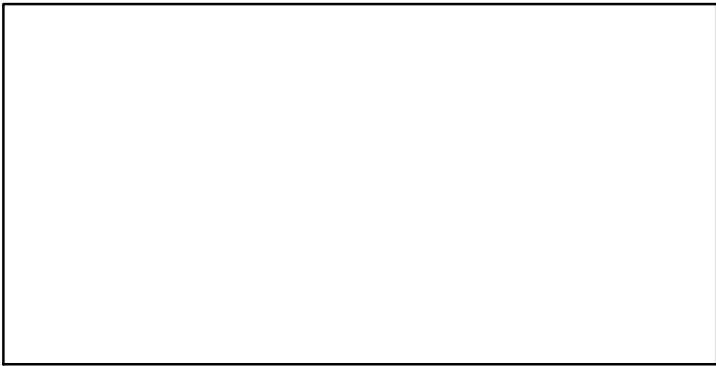
TB*



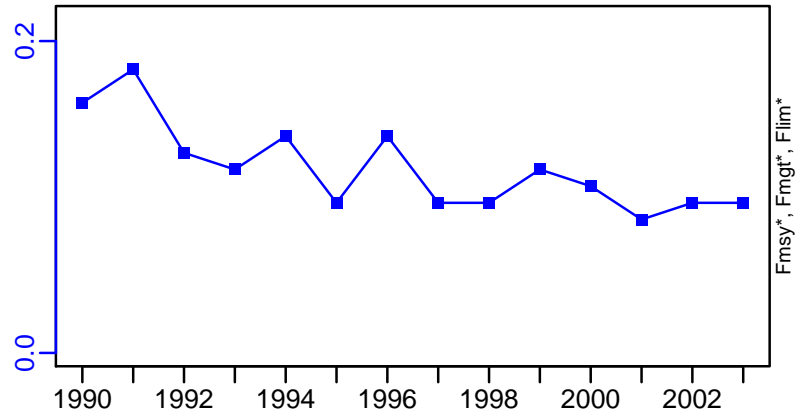
SSB*



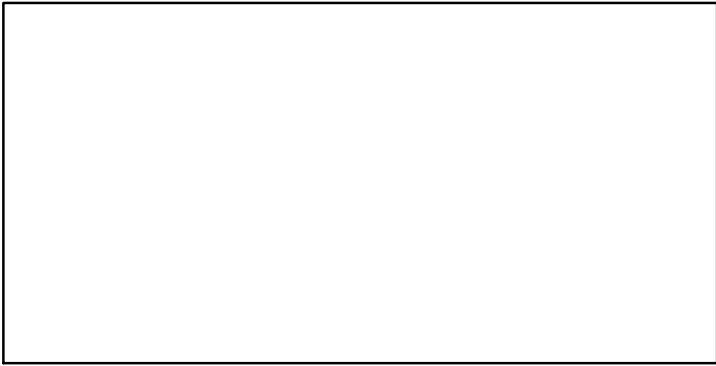
TN *



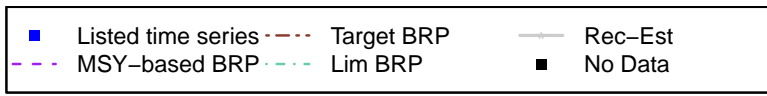
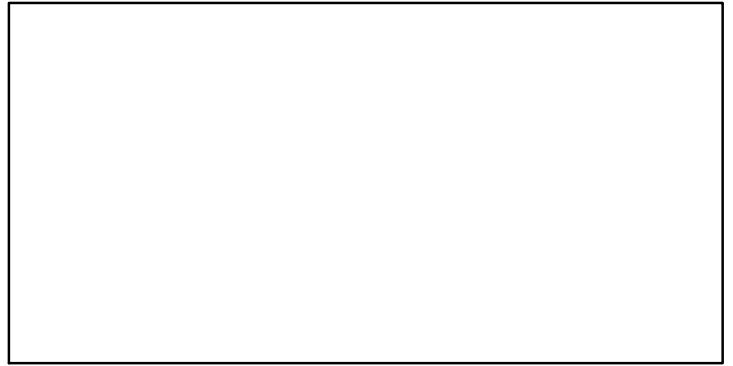
F-female-1/yr (1990-2003-FAUCONNET)



ER*



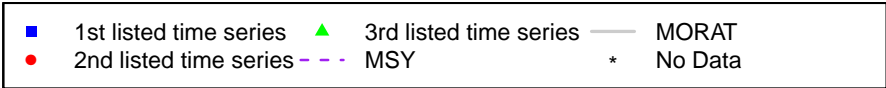
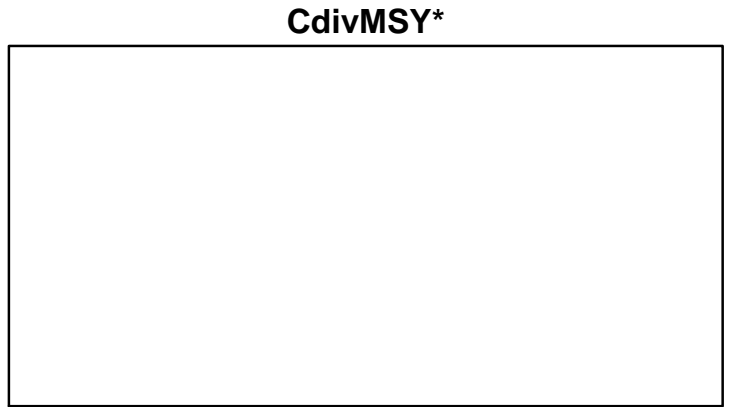
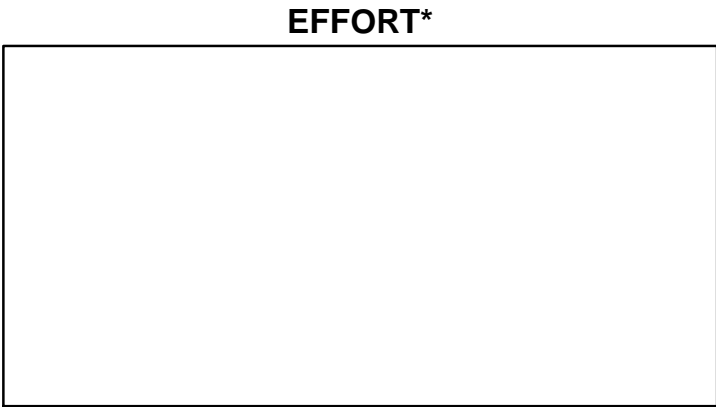
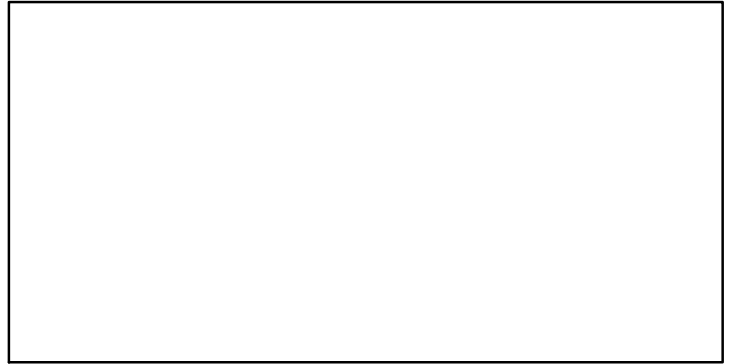
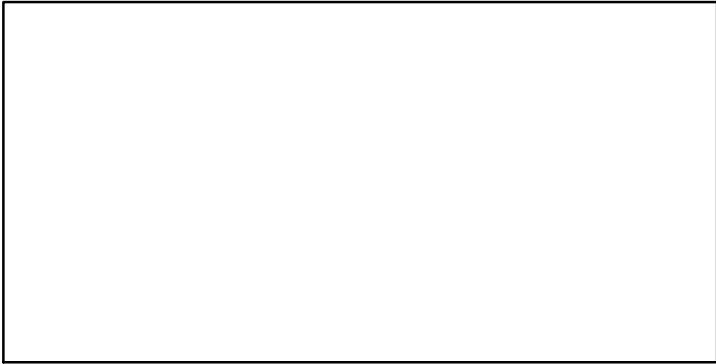
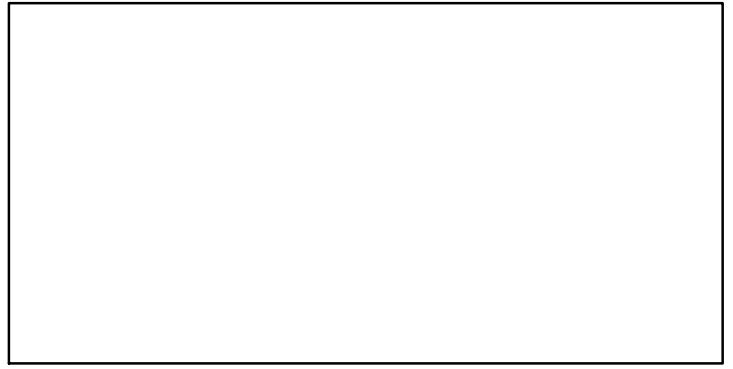
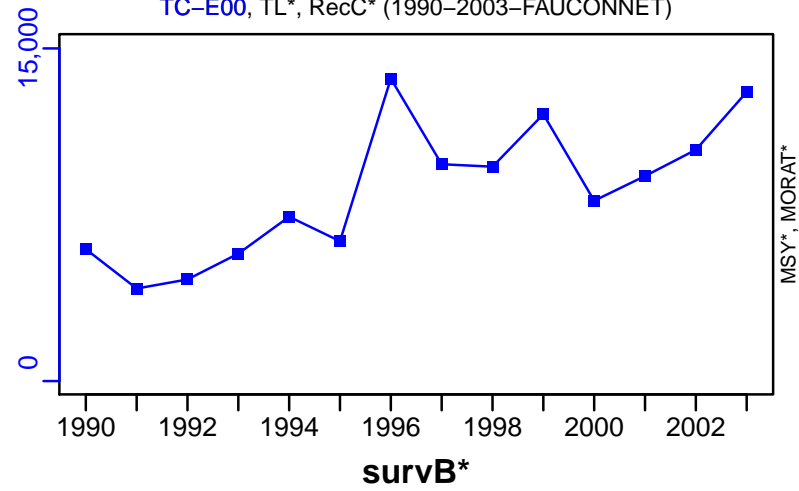
Recruits*



Shortfin mako Northwest Pacific Ocean [SFMAKONWPAC]

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

TAC*, Cpair*, Cadv*



Skipjack tuna Central Western Pacific [SKJCWPAC]

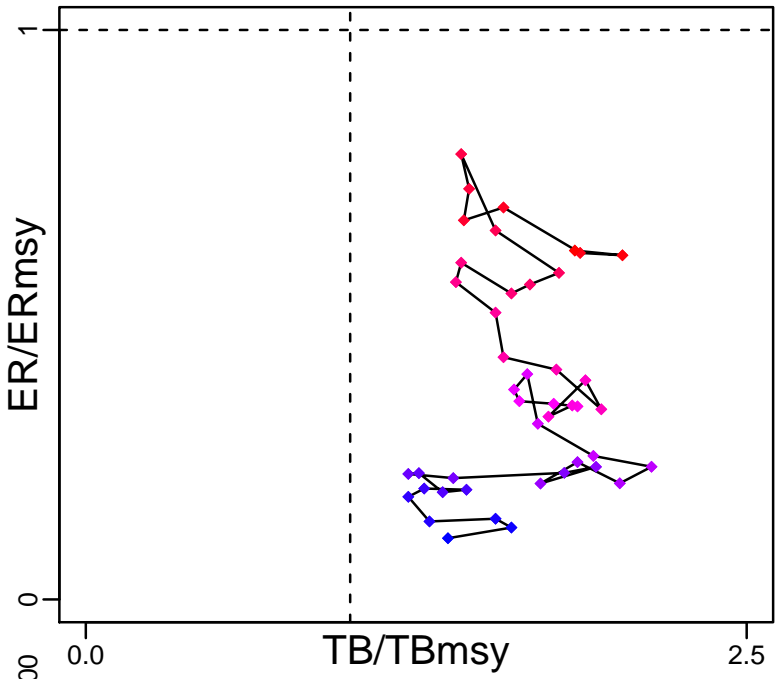
| Metadata | |
|-----------------------------|--|
| Scientific Name | Katsuwonus pelamis |
| Current Assess ID | SPC-SKJCWPAC-1950-2015-PONS |
| Area | Central Western Pacific Ocean |
| Management Authority | Western and Central Pacific Fisheries Commission |
| Assessor | Secretariat of the Pacific Community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

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

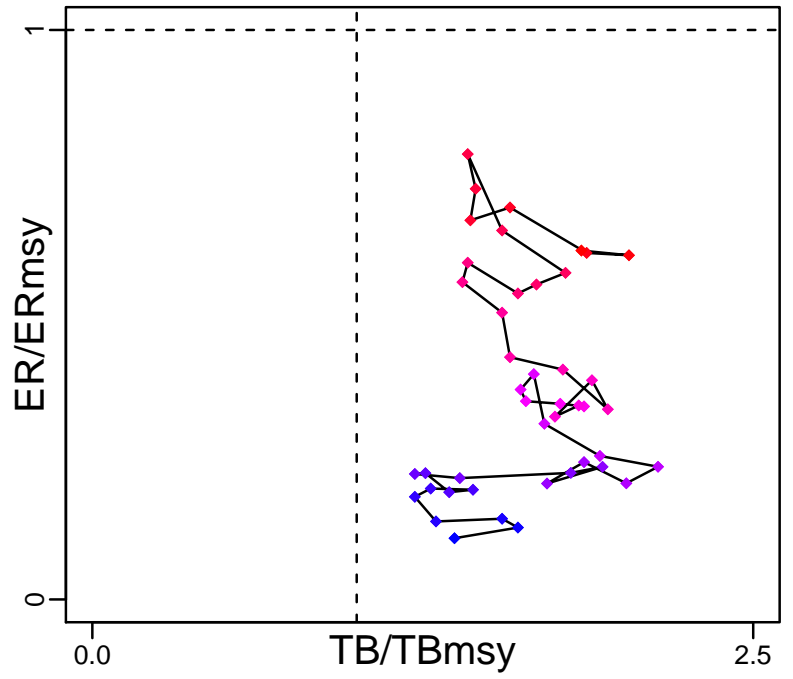
| Time Series | | | | | |
|-------------------|--------------------------------|-----------|-----------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2015 | 4,410,000 | - | - |
| SSB | SSB-MT | 2015 | 4,170,000 | - | - |
| TN | - | - | - | - | - |
| R | R-E00 |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

Skipjack tuna Central Western Pacific [SKJCWPAC]

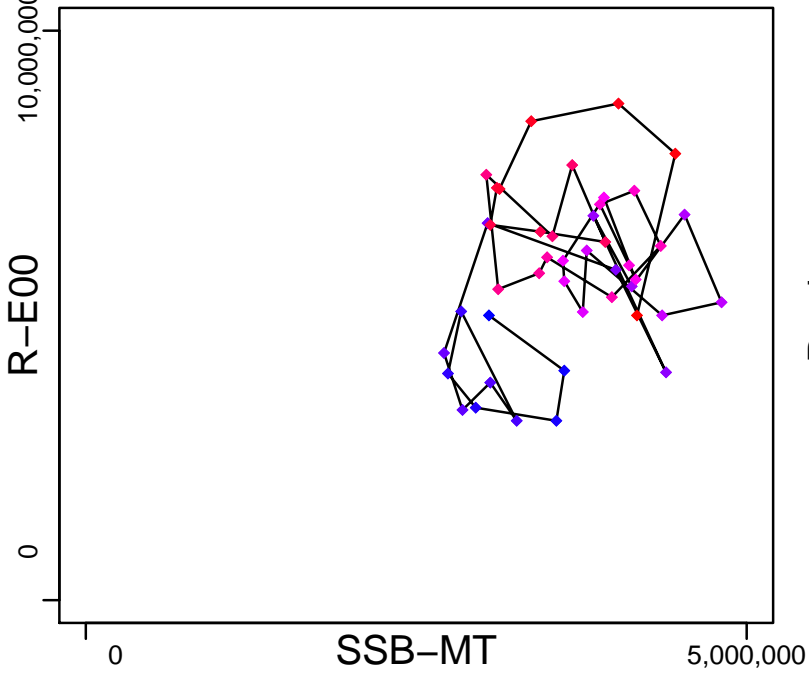
Kobe MSYpref (1950–2015–PONS)



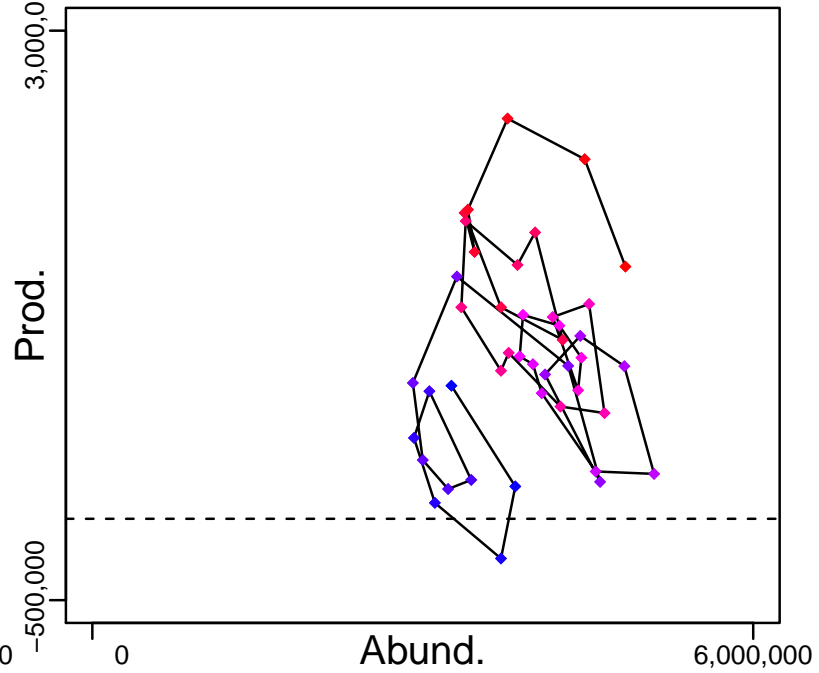
Kobe MGTpref (1950–2015–PONS)



Spawner Recruit (1950–2015–PONS)



Production (1950–2015–PONS)

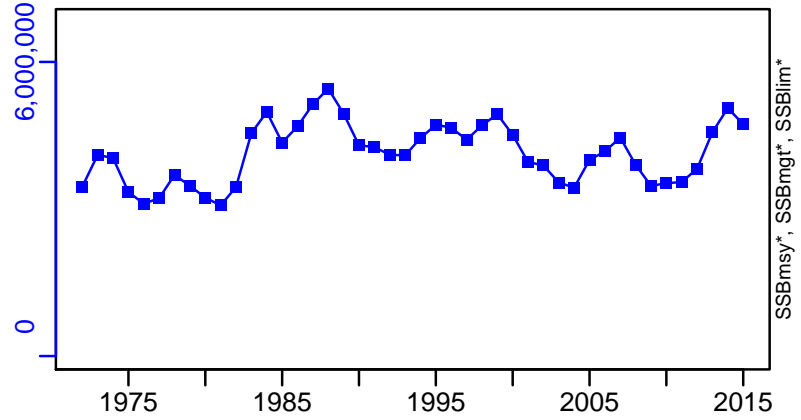
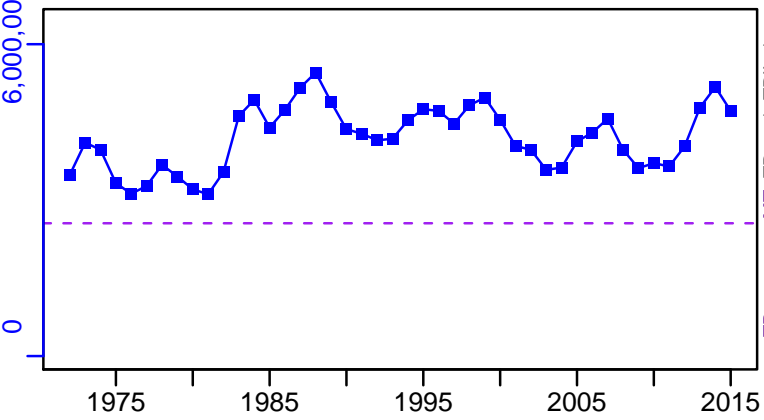


◆ Start Year ◆ End Year * No Data

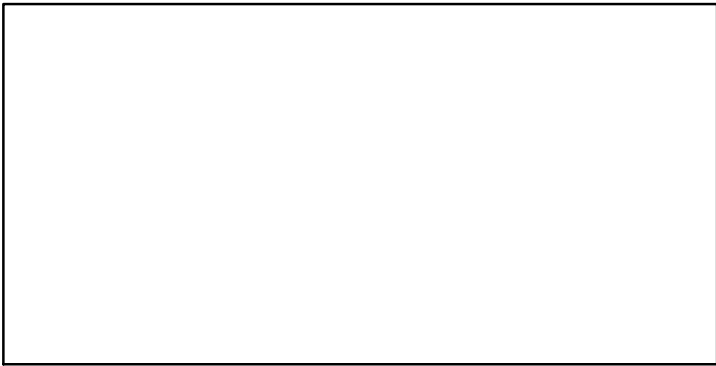
Skipjack tuna Central Western Pacific [SKJCWPAC]

TB-MT (1950-2015-PONS)

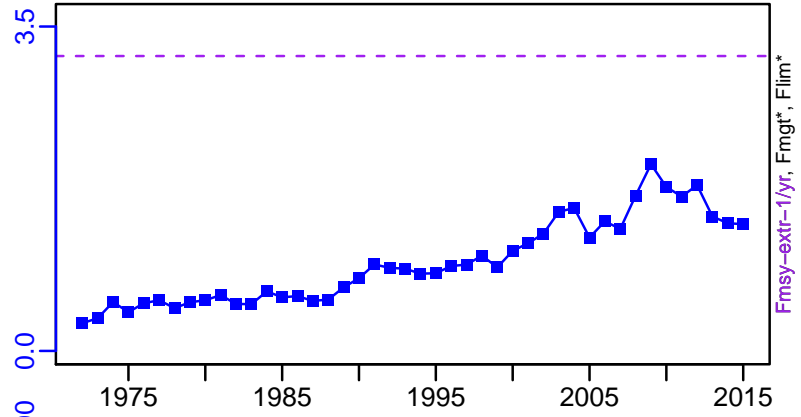
SSB-MT (1950-2015-PONS)



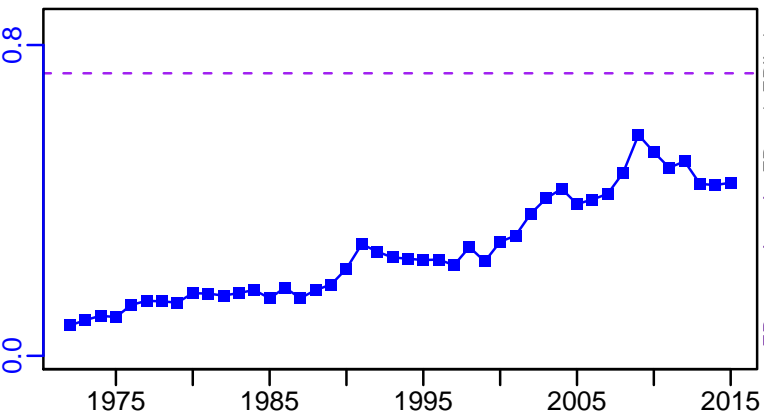
TN *



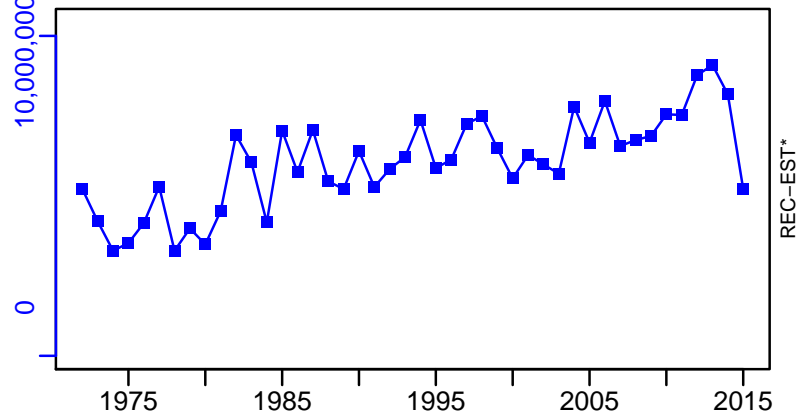
F-1/yr (1950-2015-PONS)



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



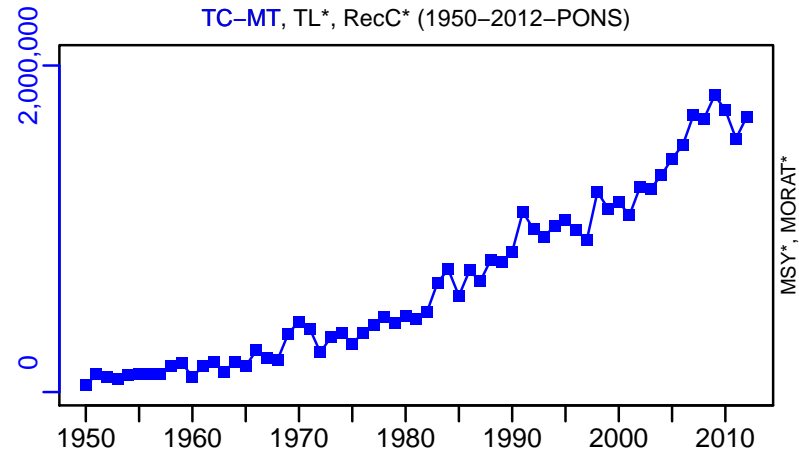
R-E00 (1950-2015-PONS)



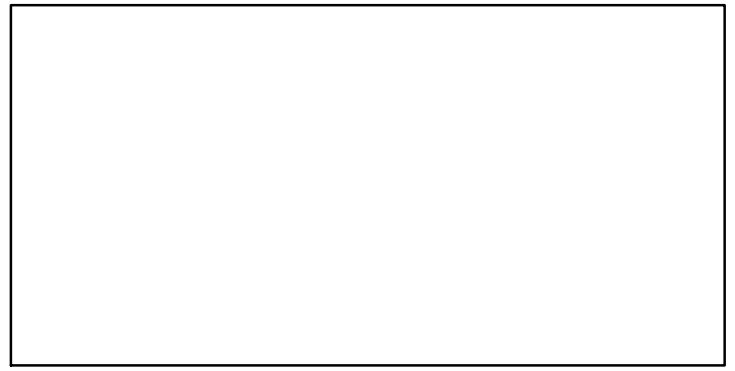
Skipjack tuna Central Western Pacific [SKJCWPAC]

TC-MT, TL*, RecC* (1950-2012-PONS)

TAC*, Cpair*, Cadv*

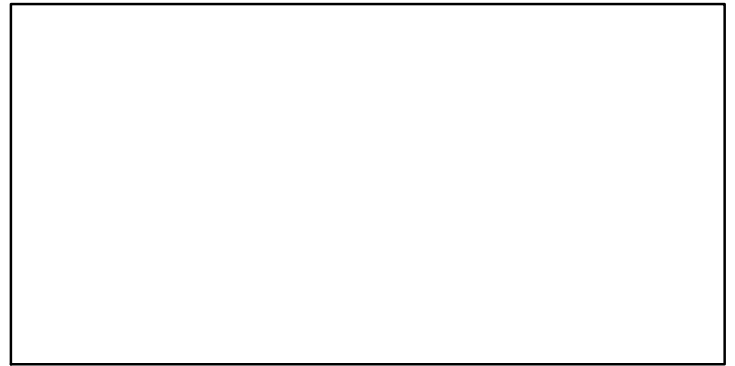
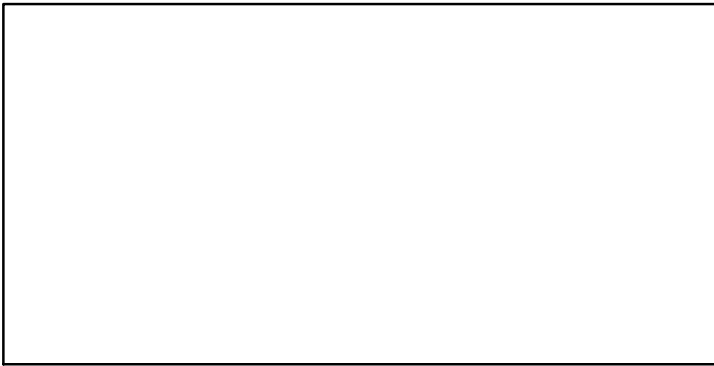


MSY*, MORAT*



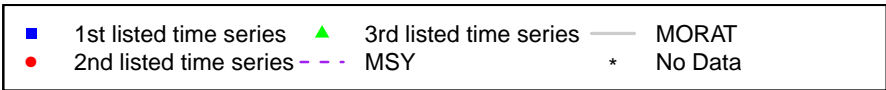
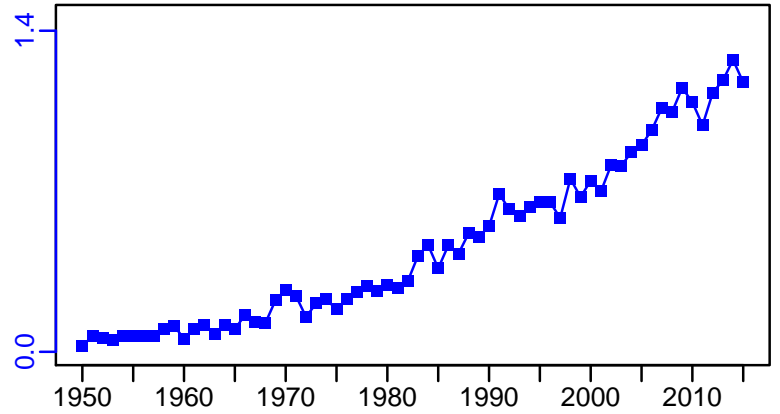
survB*

CPUE*



EFFORT*

CdivMSY-ratio (1950-2015-PONS)



Skipjack tuna Eastern Pacific [SKJEPAC]

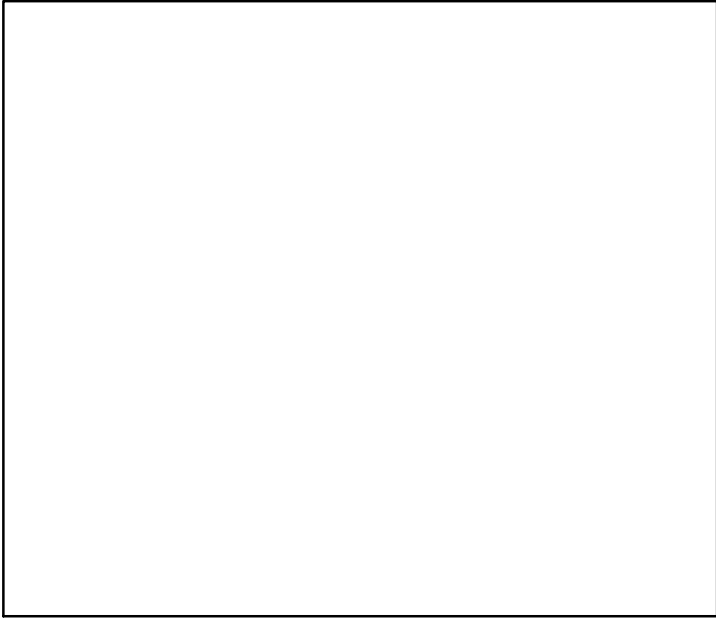
| Metadata | |
|-----------------------------|---|
| Scientific Name | Katsuwonus pelamis |
| Current Assess ID | IATTC-SKJEPAC-1918-2016-PONS |
| Area | Eastern Pacific |
| Management Authority | Inter-American Tropical Tuna Commission |
| Assessor | Inter-American Tropical Tuna Commission |
| Asmts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

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

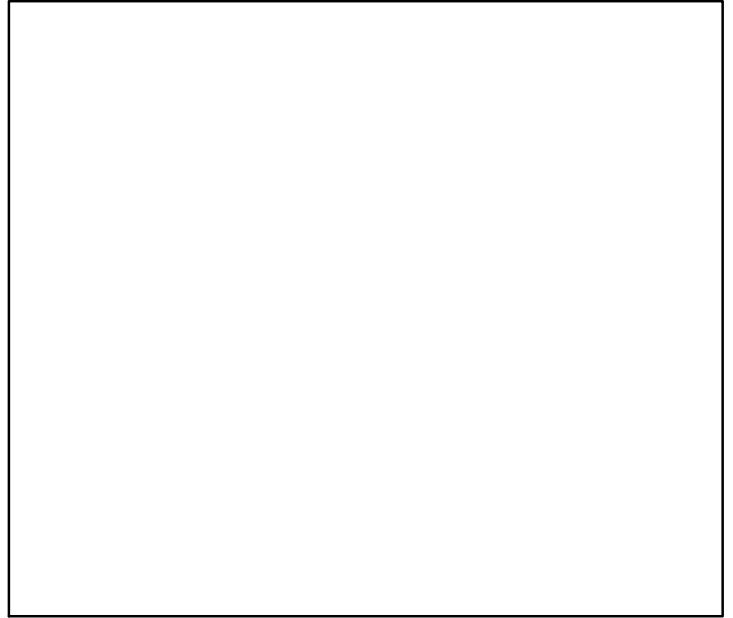
| Time Series | | | | | |
|-------------|-------------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-relative | 2016 | 2.24 | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | F-relative | 2016 | 0.984 |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

Skipjack tuna Eastern Pacific [SKJEPAC]

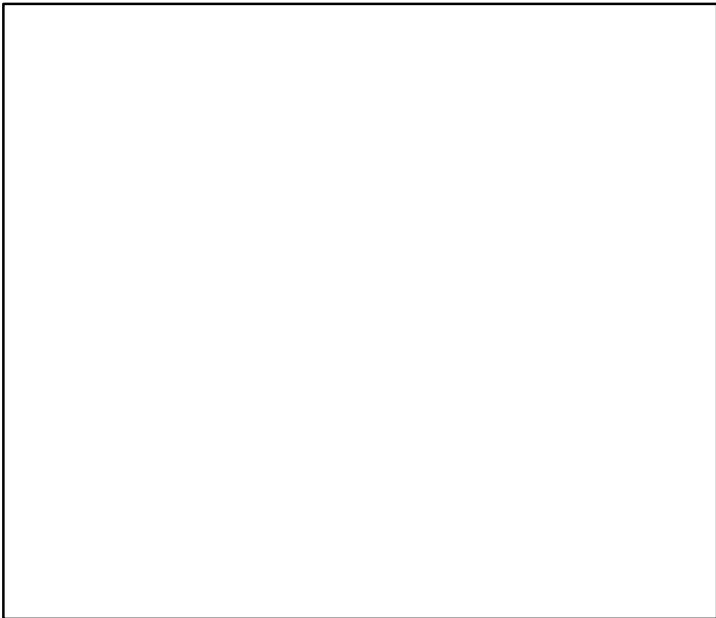
Kobe MSY*



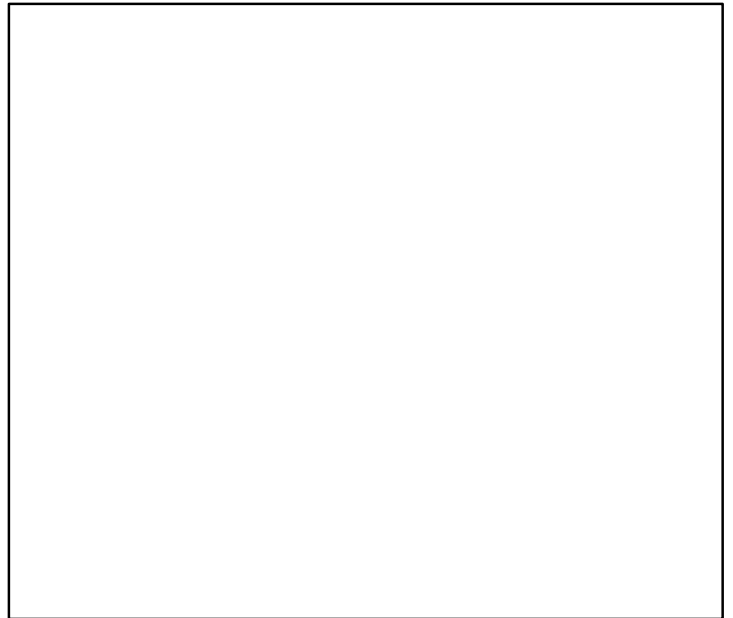
Kobe MGT*



Spawner Recruit*



Production*

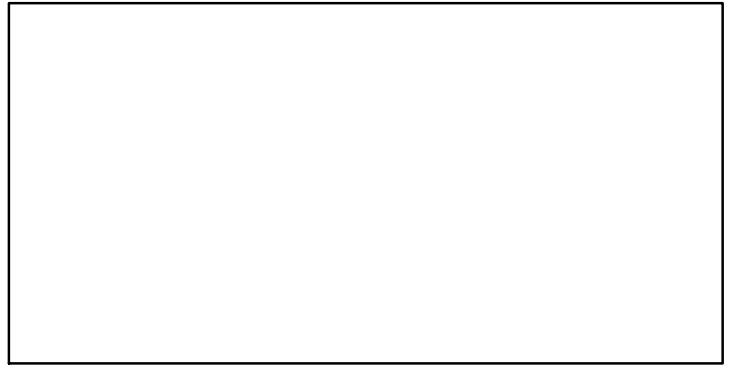
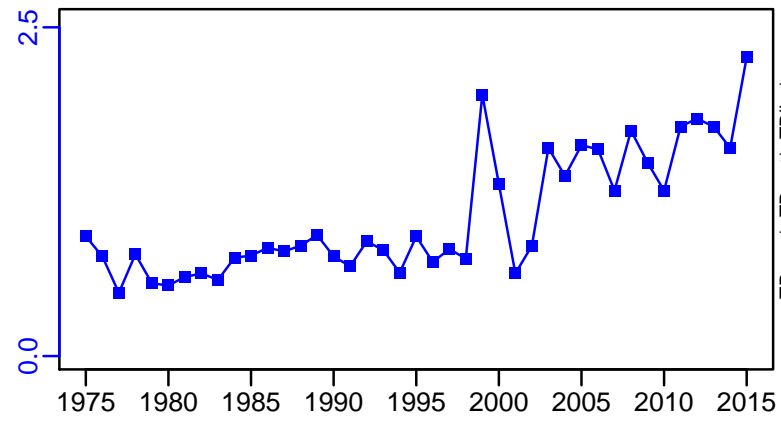


◆ Start Year ◆ End Year * No Data

Skipjack tuna Eastern Pacific [SKJEPAC]

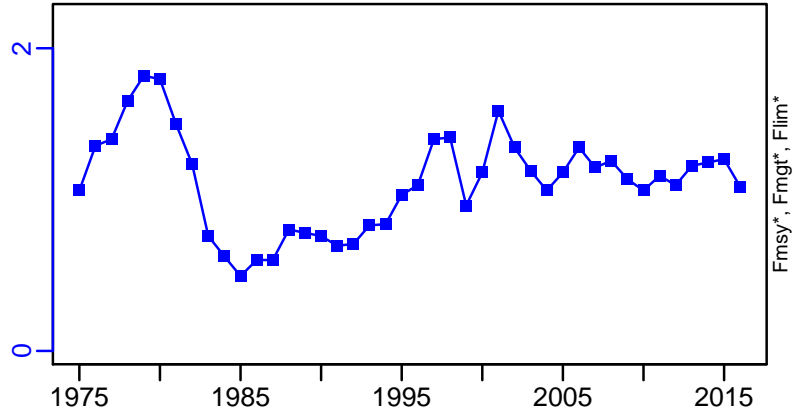
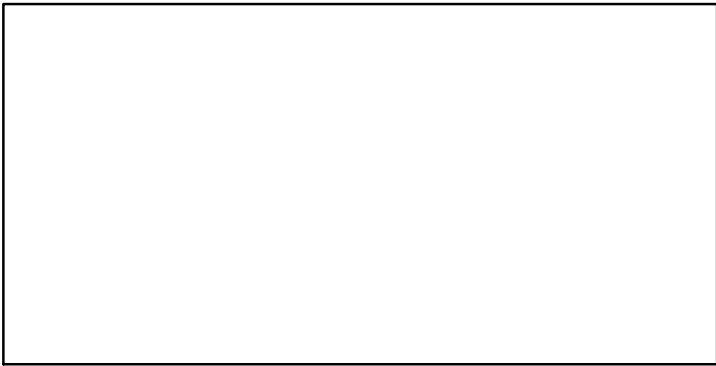
TB-relative (1918–2016–PONS)

SSB*



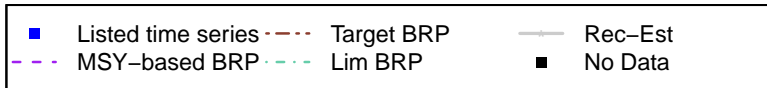
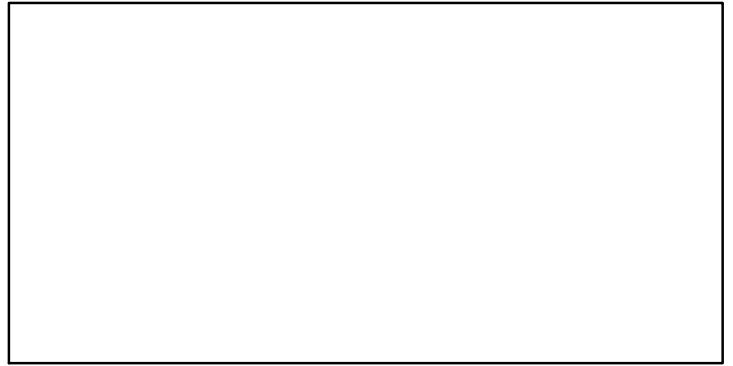
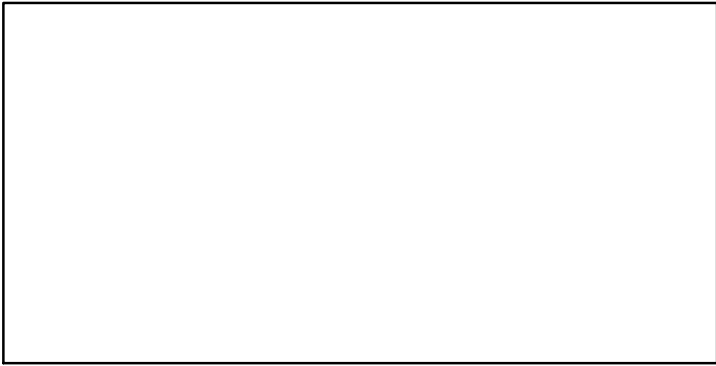
TN *

F-relative (1918–2016–PONS)



ER*

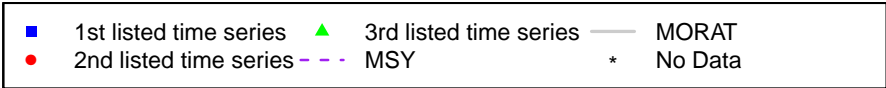
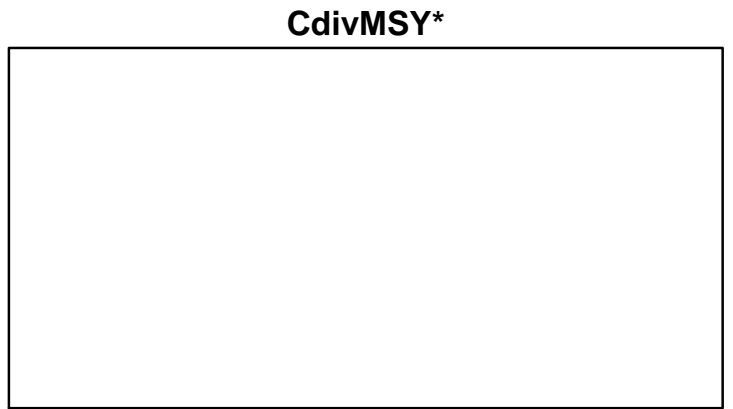
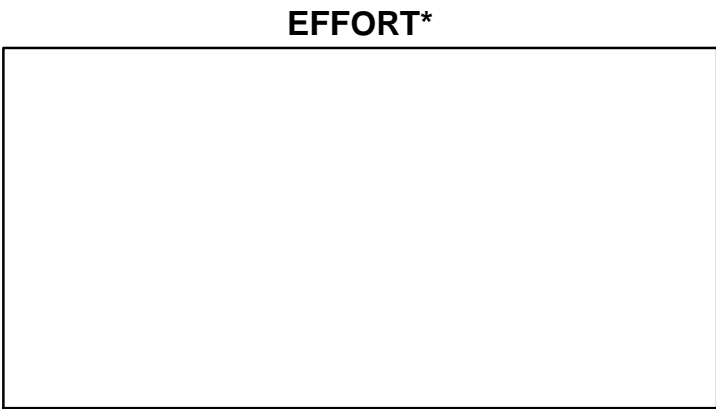
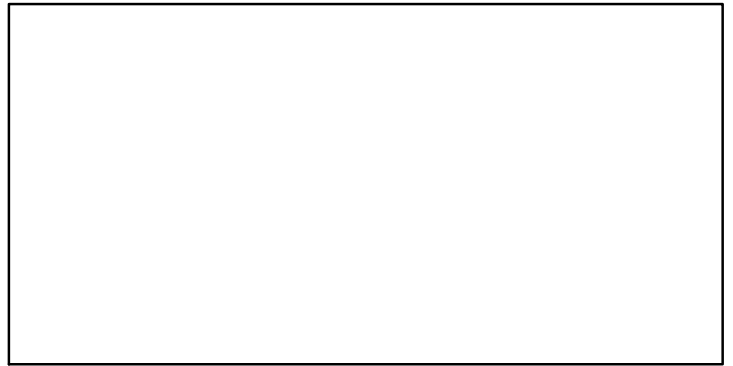
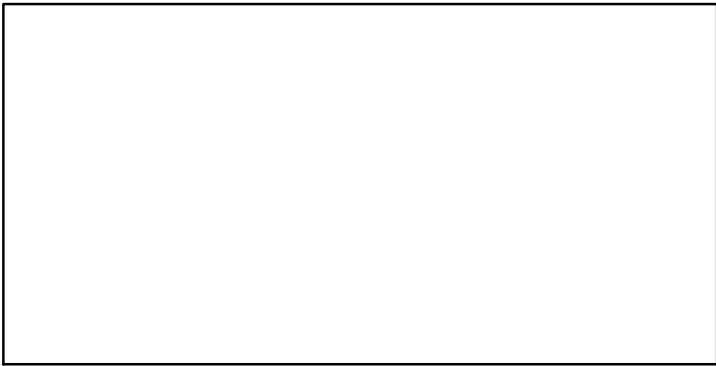
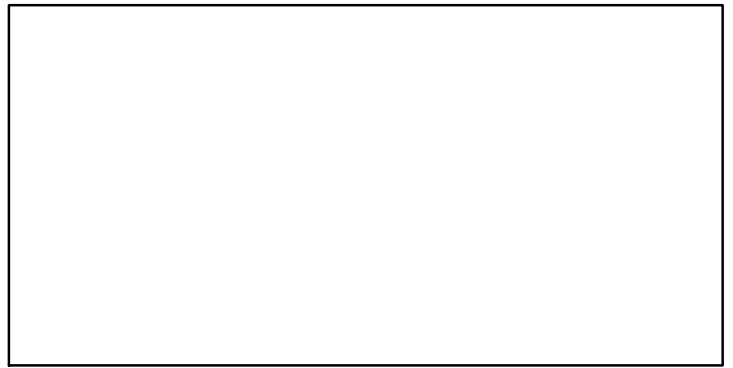
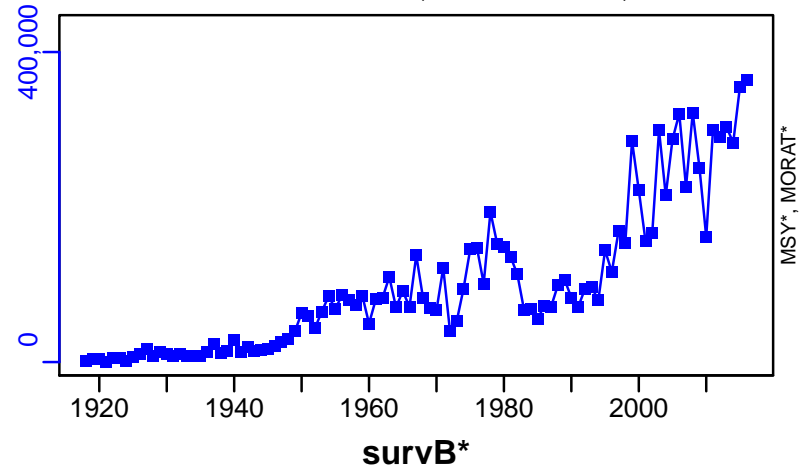
Recruits*



Skipjack tuna Eastern Pacific [SKJEPAC]

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

TAC*, Cpair*, Cadv*



Striped marlin Northeast Pacific [STMARLINNEPAC]

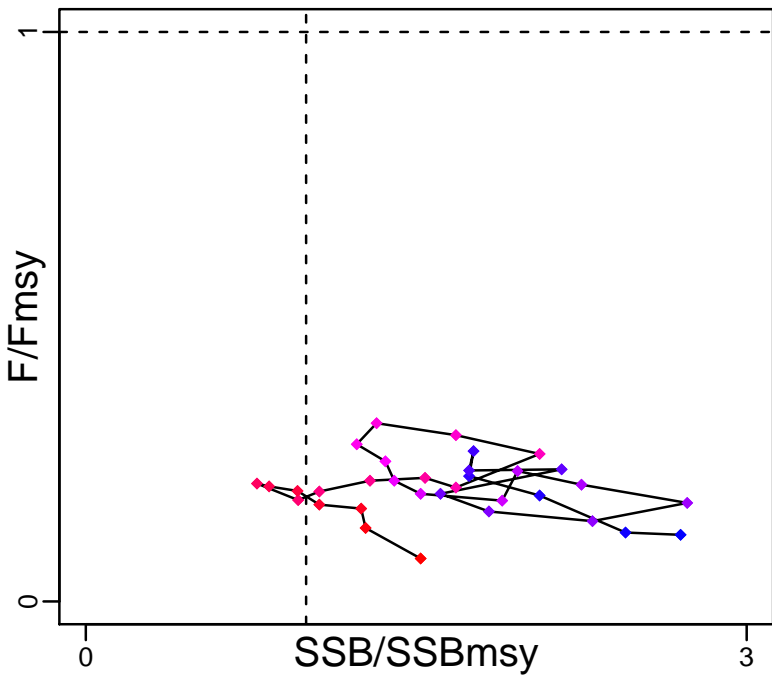
| Metadata | |
|-----------------------------|---|
| Scientific Name | Kajikia audax |
| Current Assess ID | IATTC-STMARLINNEPAC-1954-2009-BRANCH |
| Area | Northeast Pacific |
| Management Authority | Inter-American Tropical Tuna Commission |
| Assessor | Inter-American Tropical Tuna Commission |
|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

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

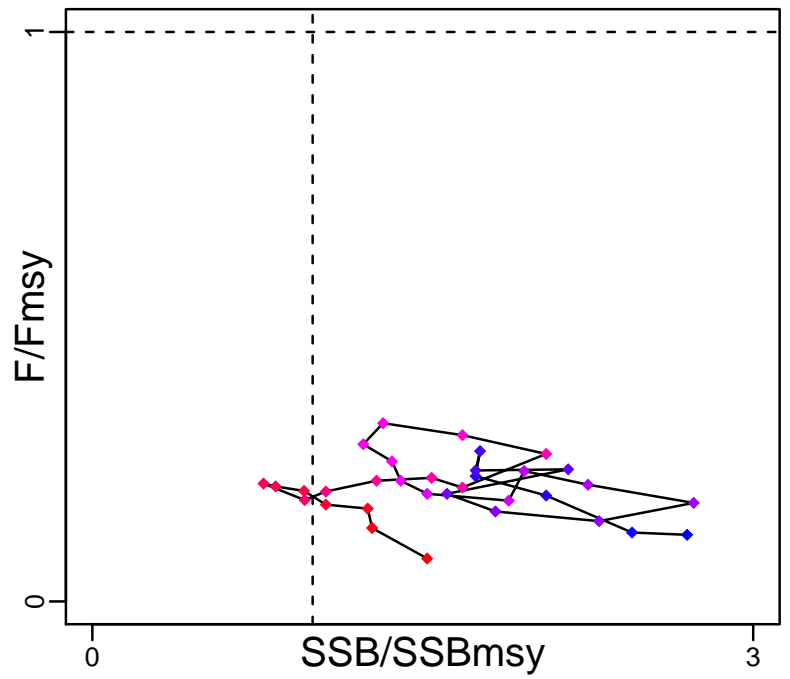
| Time Series | | | | | |
|-------------------|----------------------------|-----------|------------|---------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2009 | 5060 | - | 1+ |
| SSB | SSB-MT | 2009 | 2090 | Females | 2+ |
| TN | - | - | - | - | - |
| R | R-MT | 2009 | 239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

Striped marlin Northeast Pacific [STMARLINNEPAC]

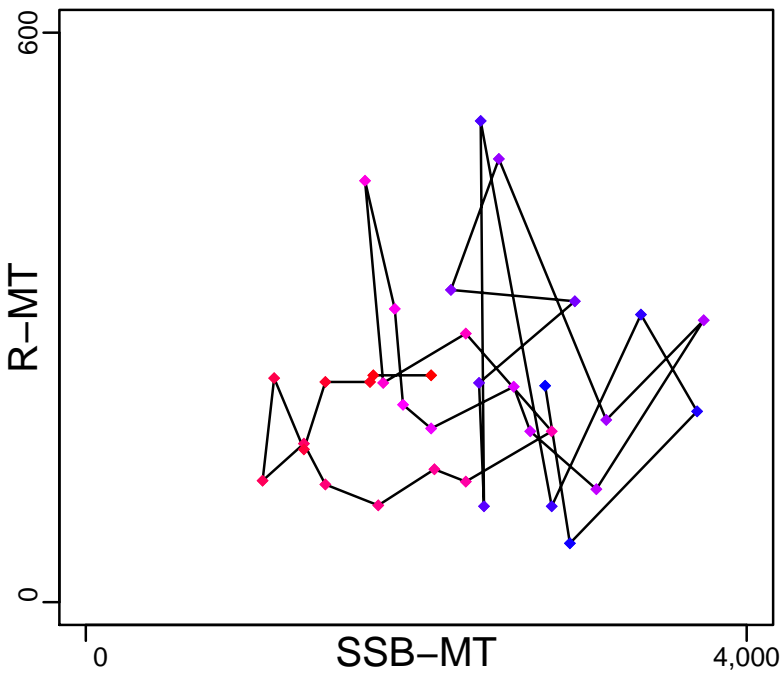
Kobe MSYpref (1954–2009–BRANCH)



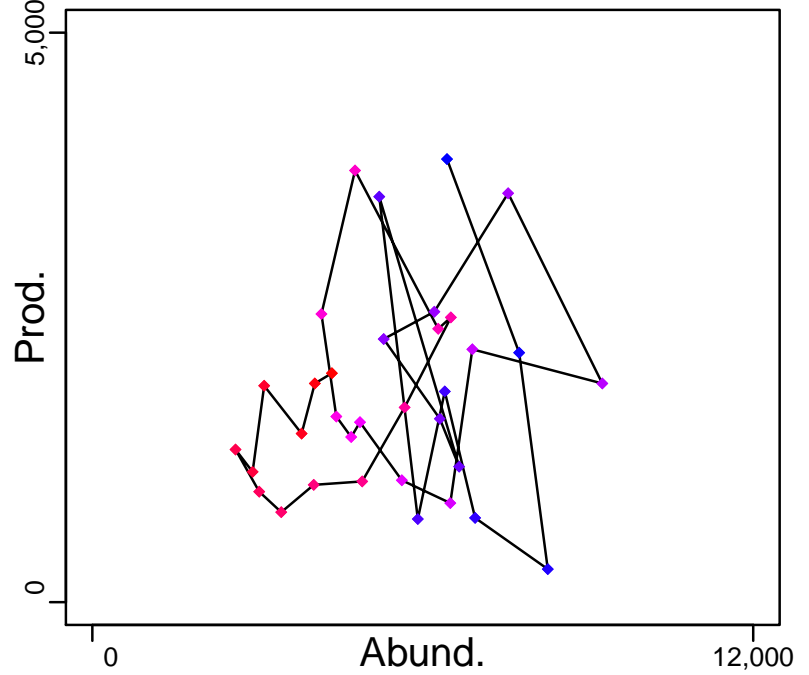
Kobe MGTpref (1954–2009–BRANCH)



Spawner Recruit (1954–2009–BRANCH)



Production (1954–2009–BRANCH)

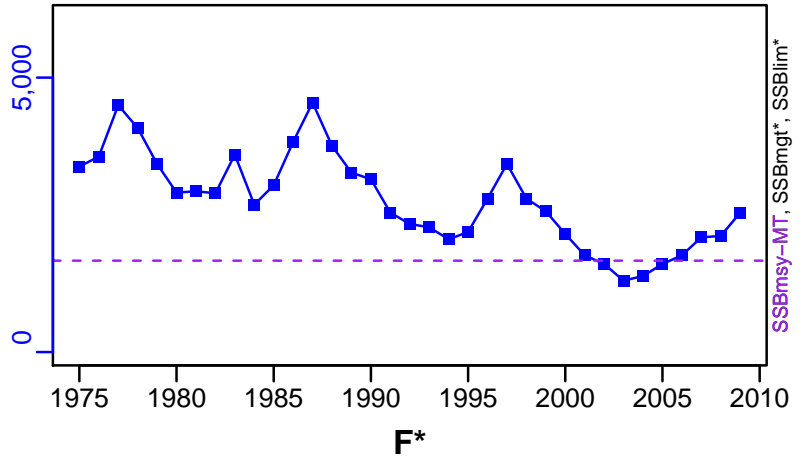
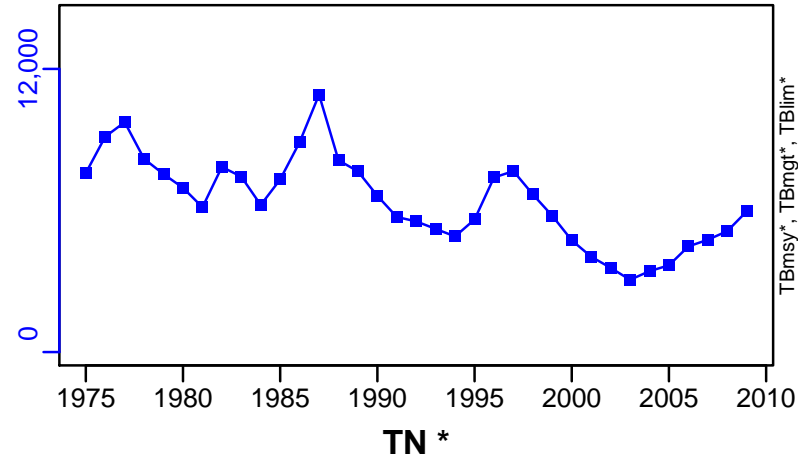


◆ Start Year ◆ End Year * No Data

Striped marlin Northeast Pacific [STMARLINNEPAC]

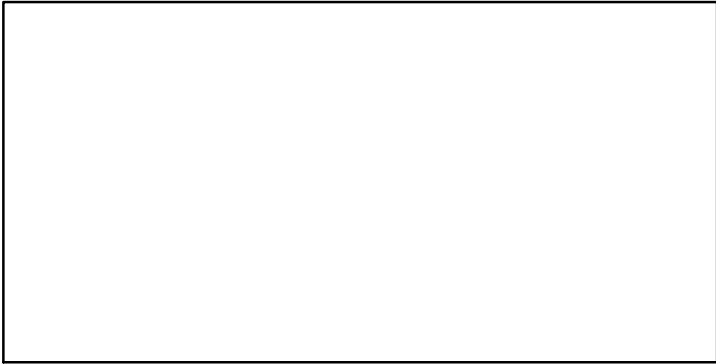
TB-MT (1954-2009-BRANCH)

SSB-MT (1954-2009-BRANCH)



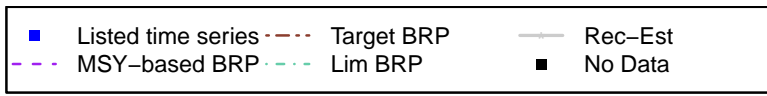
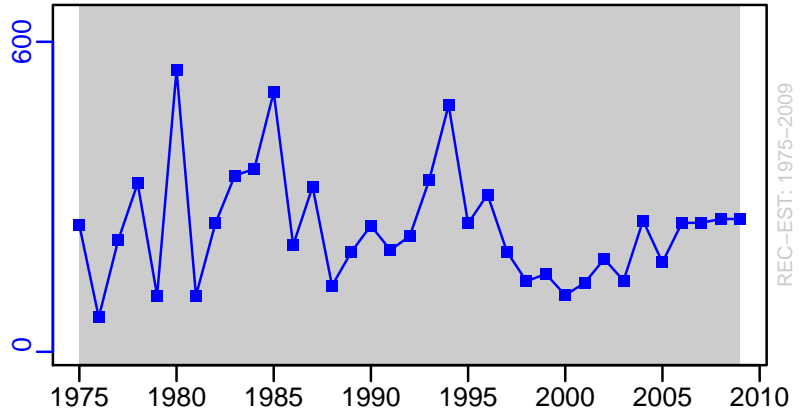
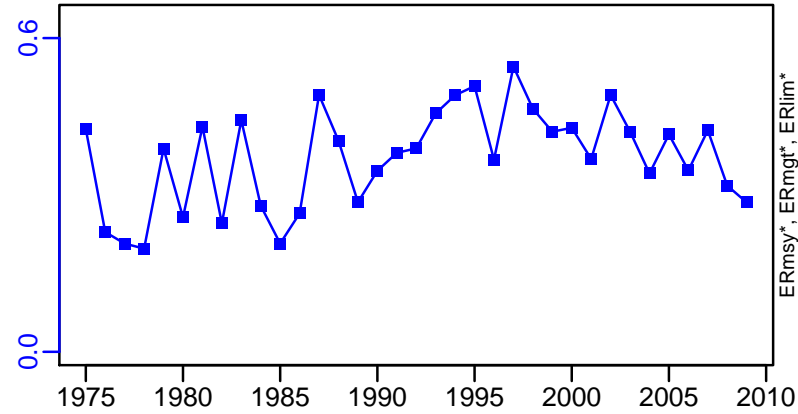
TN *

F*



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

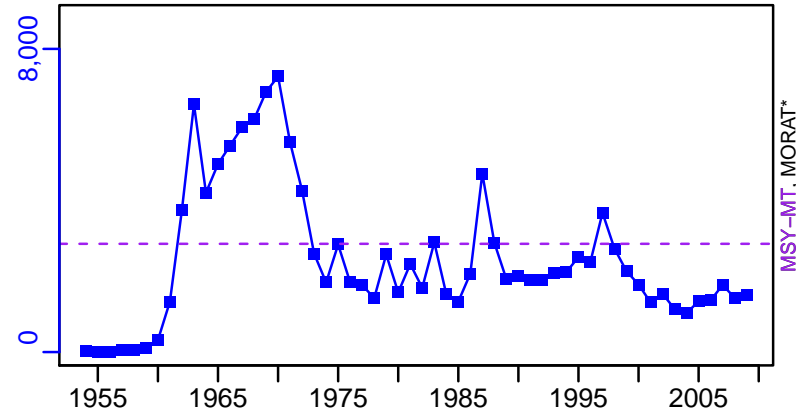
R-MT (1954-2009-BRANCH)



Striped marlin Northeast Pacific [STMARLINNEPAC]

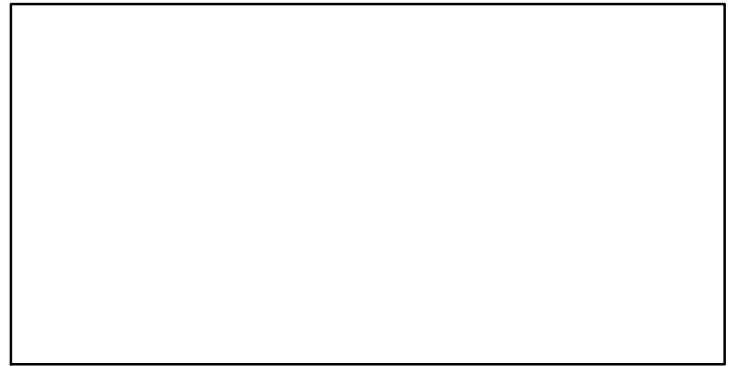
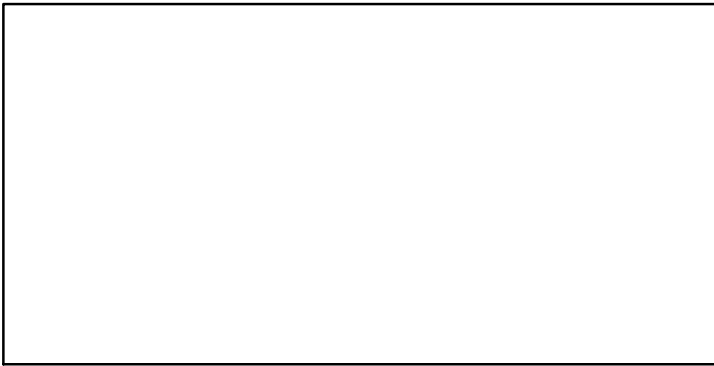
TC-MT, TL*, RecC* (1954-2009-BRANCH)

TAC*, Cpair*, Cadv*



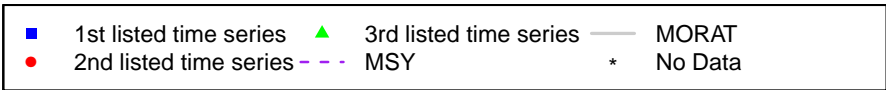
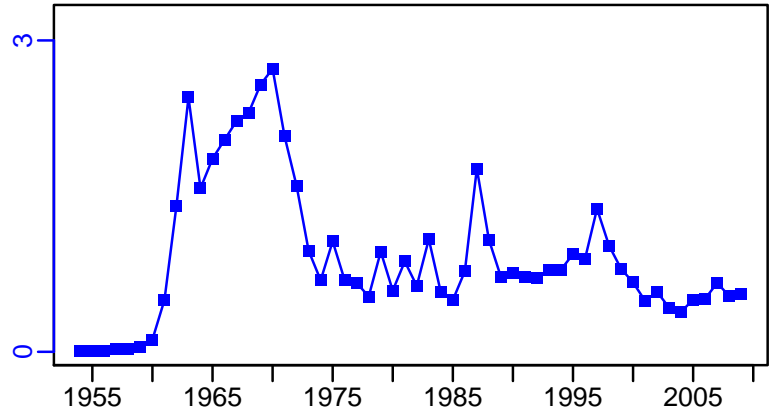
survB*

CPUE*



EFFORT*

CdivMSY-ratio (1954-2009-BRANCH)



Striped marlin Southwestern Pacific Ocean [STMARLINSWPO]

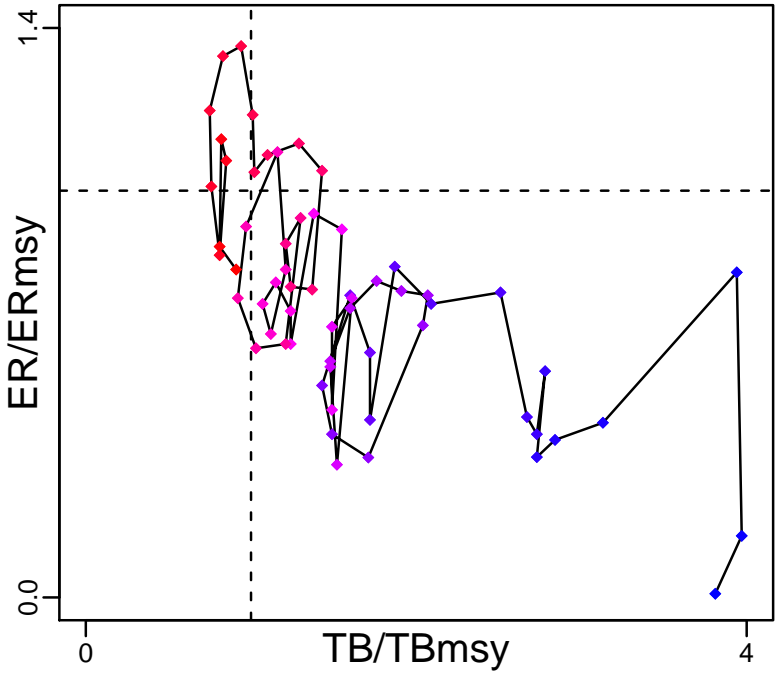
| Metadata | |
|-----------------------------|--|
| Scientific Name | Kajikia audax |
| Current Assess ID | SPC-STMARLINSWPO-1952-2011-CHING |
| Area | Western Pacific Ocean |
| Management Authority | Western and Central Pacific Fisheries Commission |
| Assessor | Secretariat of the Pacific Community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

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

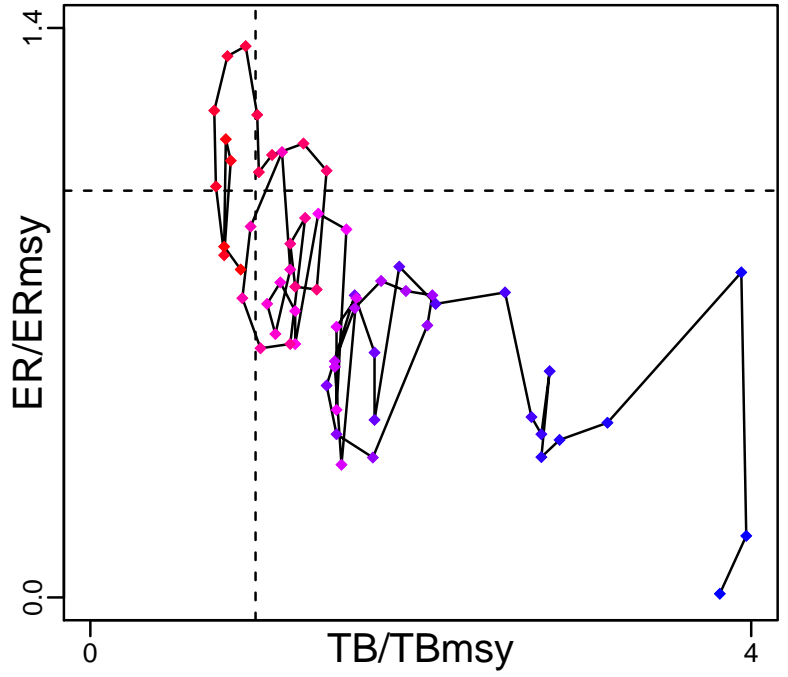
| Time Series | | | | | |
|-------------------|---------------------------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2011 | 6640 | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | -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

Striped marlin Southwestern Pacific Ocean [STMARLINSWPO]

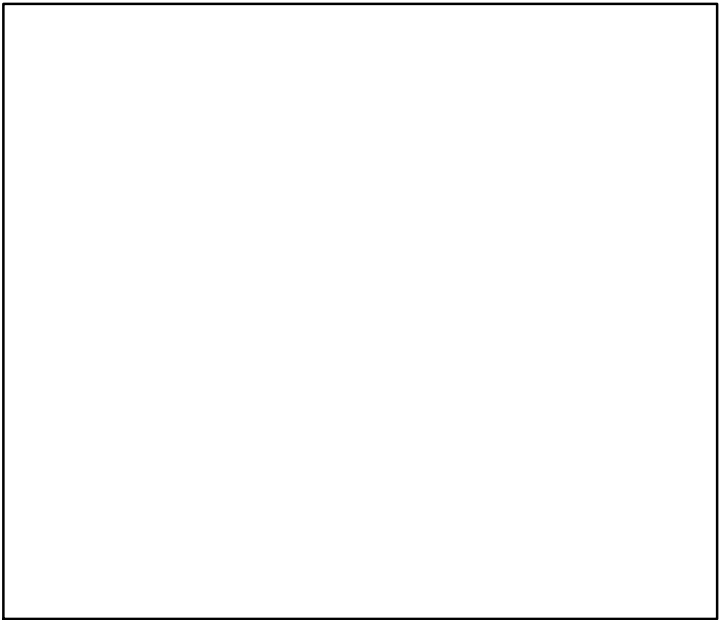
Kobe MSYpref (1952–2011–CHING)



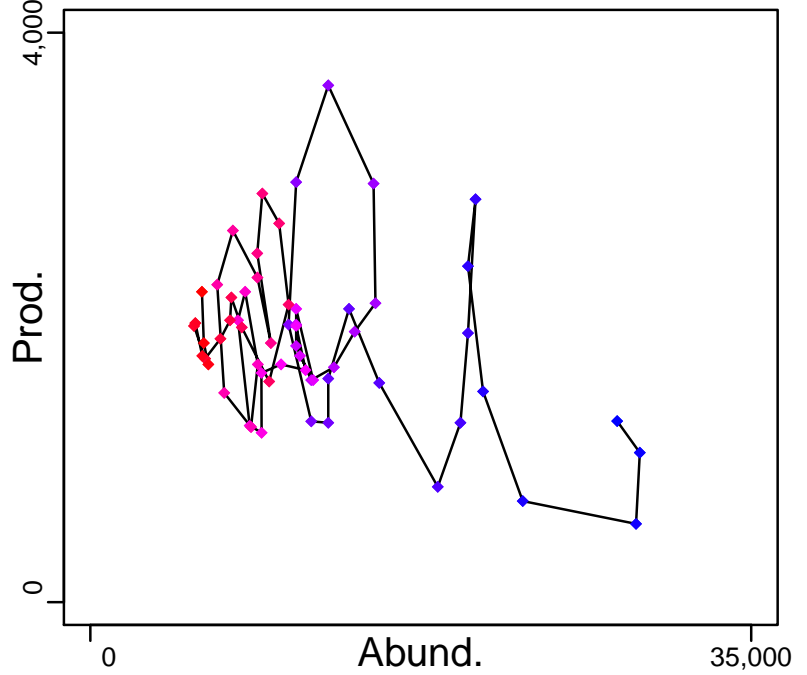
Kobe MGTpref (1952–2011–CHING)



Spawner Recruit*



Production (1952–2011–CHING)

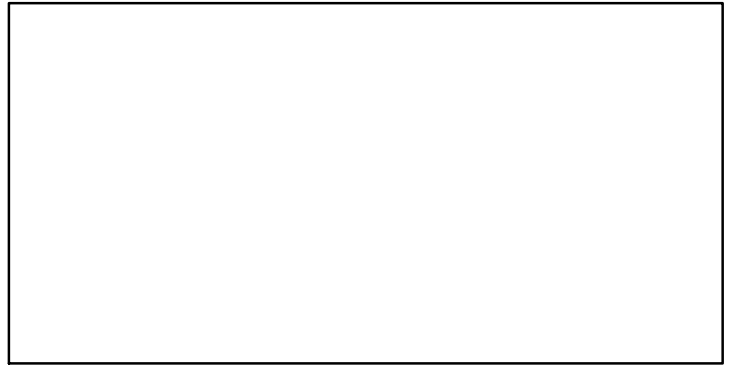
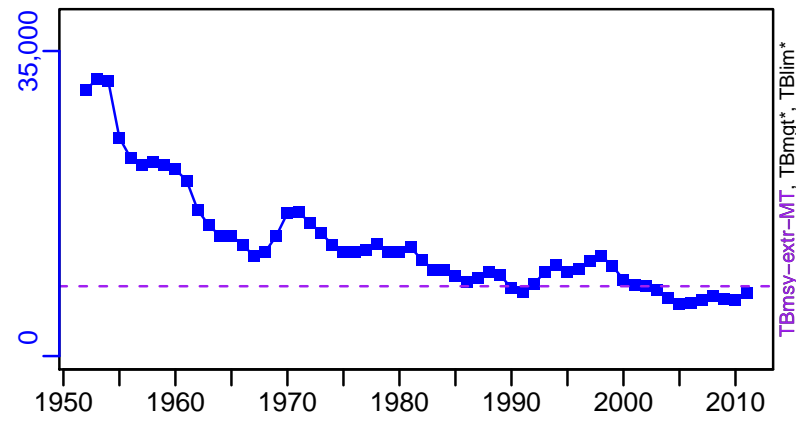


◆ Start Year ◆ End Year * No Data

Striped marlin Southwestern Pacific Ocean [STMARLINSWPO]

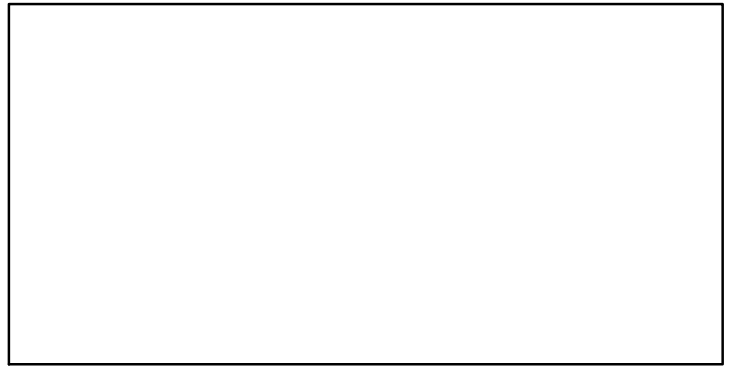
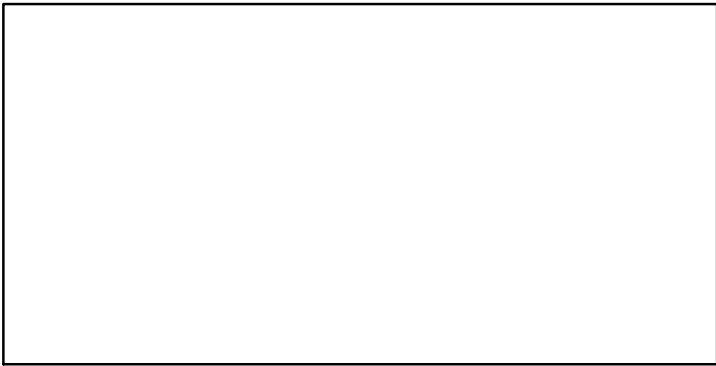
TB-MT (1952-2011-CHING)

SSB*



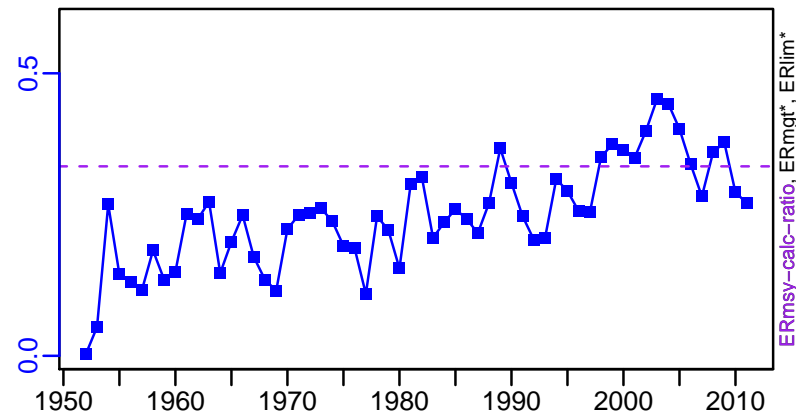
TN *

F*



ER-ratio (1952-2011-CHING)

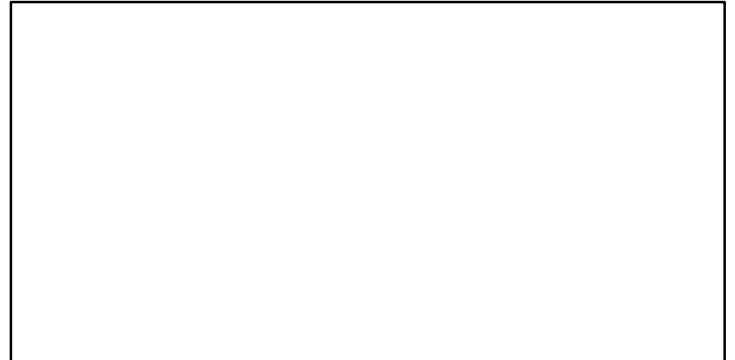
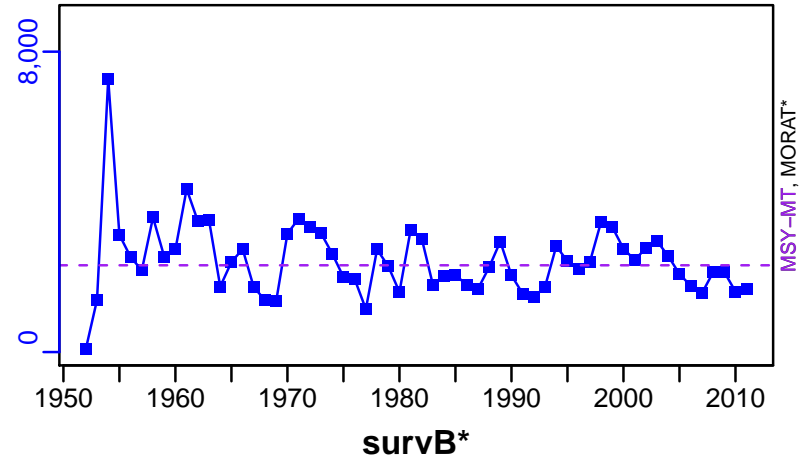
Recruits*



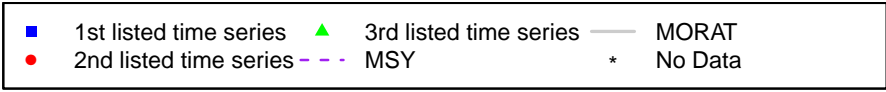
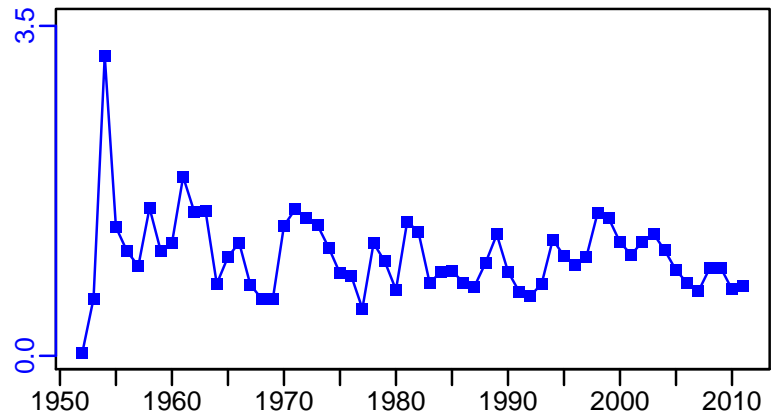
Striped marlin Southwestern Pacific Ocean [STMARLINSWPO]

TC-MT, TL*, RecC* (1952-2011-CHING)

TAC*, Cpair*, Cadv*



CdivMSY-ratio (1952-2011-CHING)



Striped marlin Western and Central North Pacific [STMARLINWCNPAC]

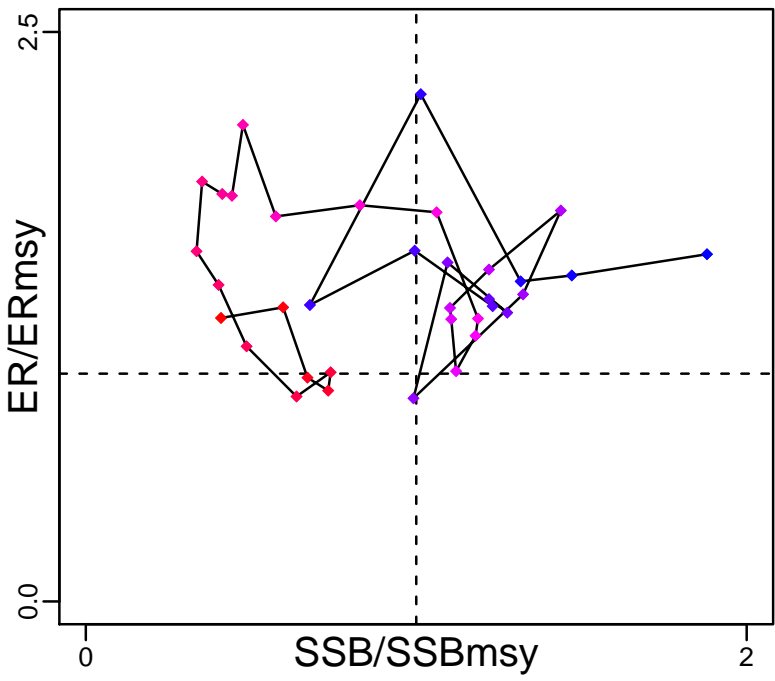
| Metadata | |
|-----------------------------|--|
| Scientific Name | Kajikia audax |
| Current Assess ID | ISC-STMARLINWCNPAC-1974-2013-SISIMP2016 |
| Area | Western and Central North Pacific |
| Management Authority | International Scientific Committee for Tuna and Tuna-like Species in the North Pacific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

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

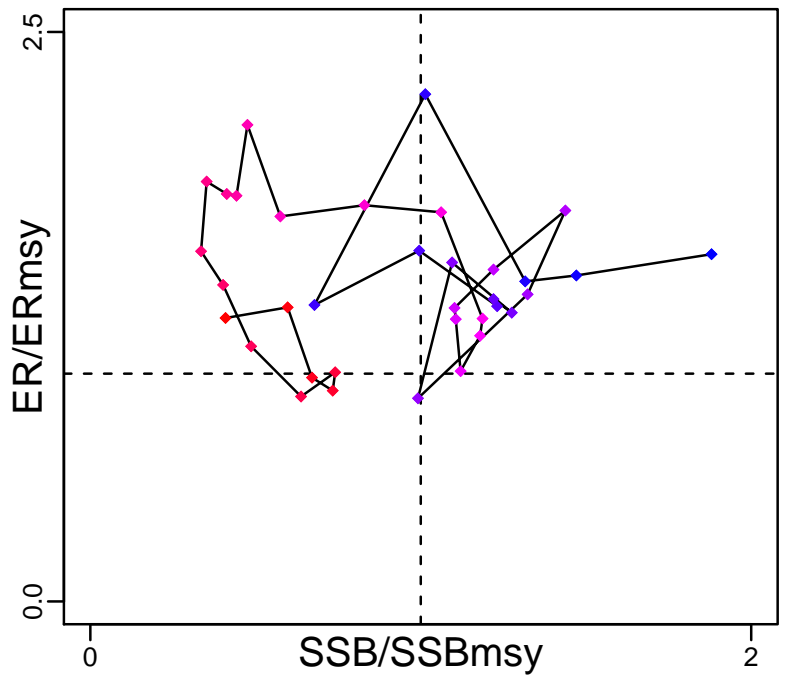
| Time Series | | | | | |
|-------------------|--------------------------|-----------|------------|---------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2010 | 6630 | - | - |
| SSB | SSB-MT | 2013 | 6820 | Females | 1+ |
| TN | - | - | - | - | - |
| R | R-E00 | 2010 | 326,000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

Striped marlin Western and Central North Pacific [STMARLINWCPAC]

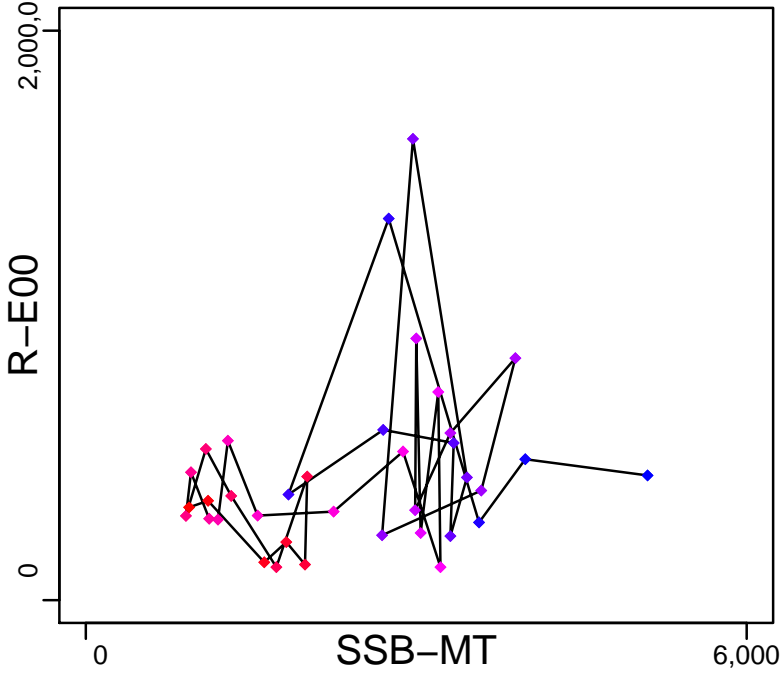
Kobe MSYpref (1951–2010–CHING)



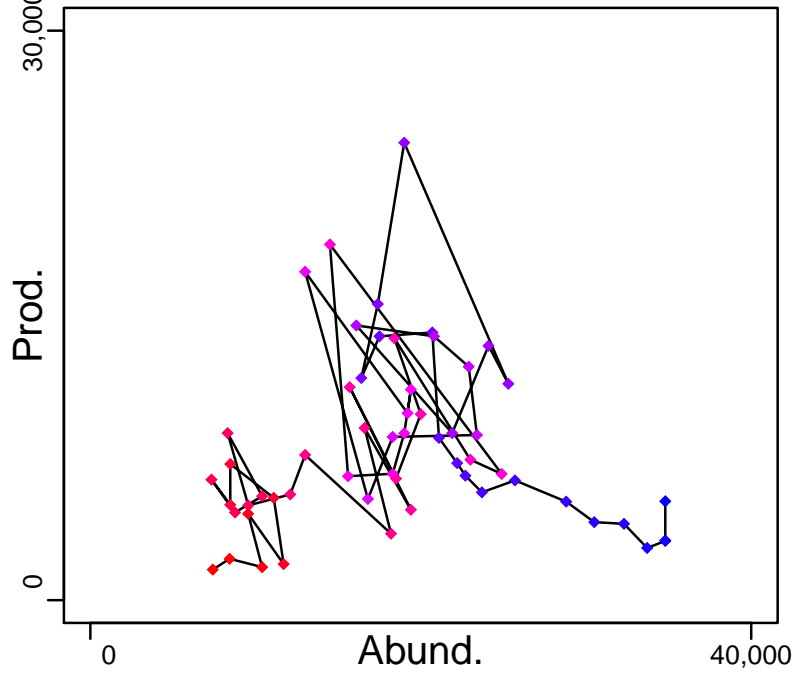
Kobe MGTpref (1951–2010–CHING)



Spawner Recruit (1951–2010–CHING)



Production (1951–2010–CHING)

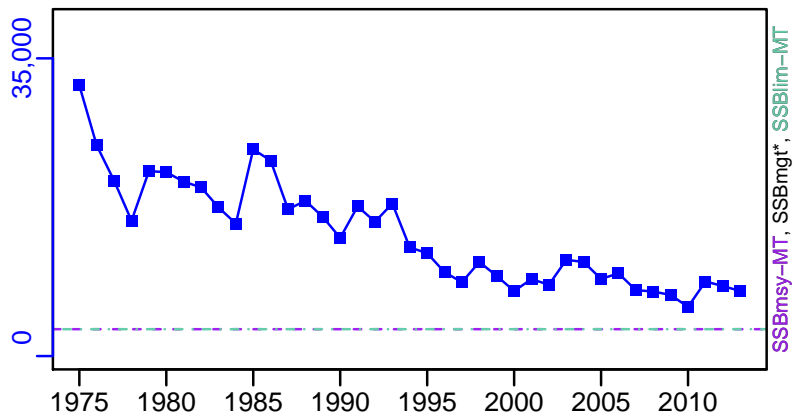
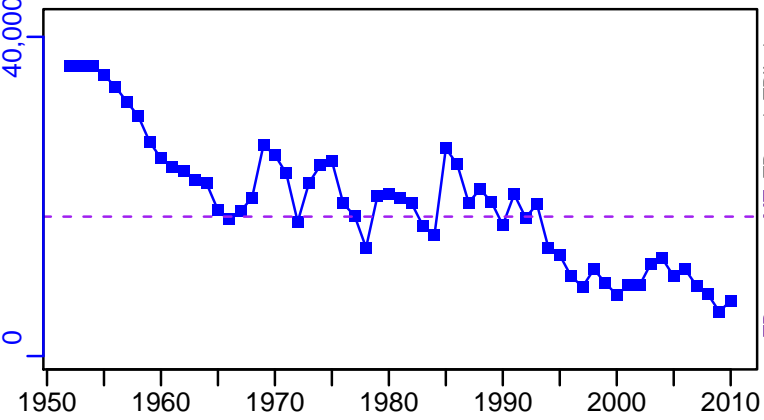


◆ Start Year ◆ End Year * No Data

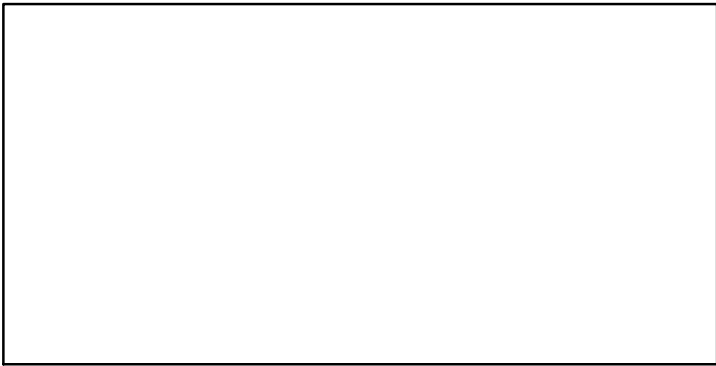
Striped marlin Western and Central North Pacific [STMARLINWCPAC]

TB-MT (1951-2010-CHING)

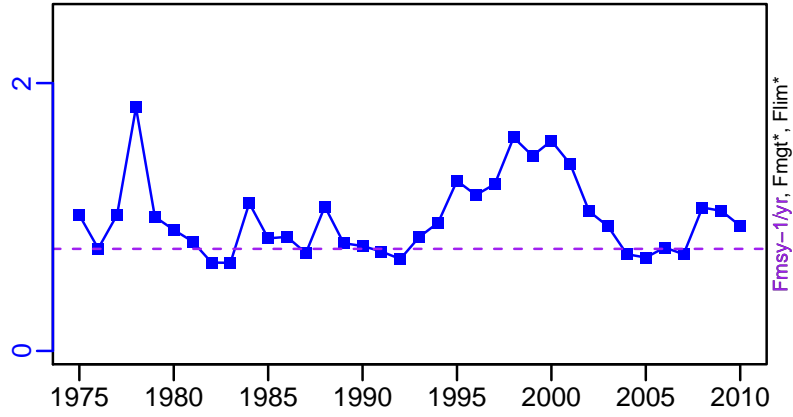
SSB-MT (1974-2013-SISIMP2016)



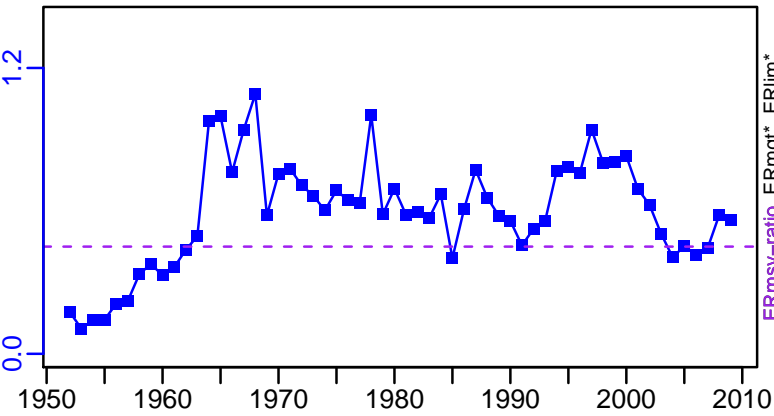
TN *



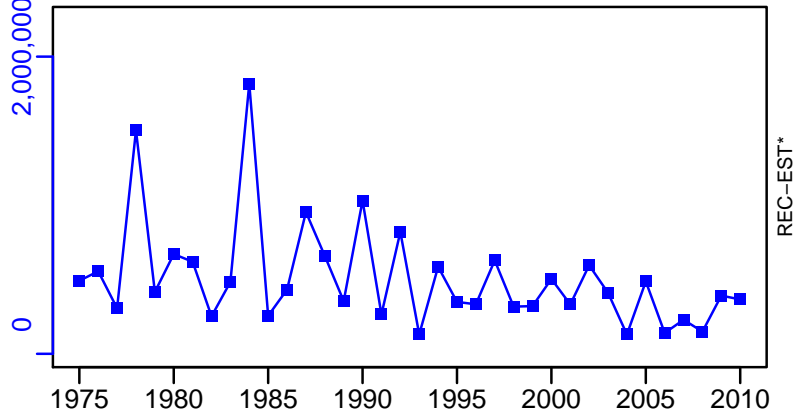
F-1/yr (1951-2010-CHING)



ER-ratio (1951-2010-CHING)



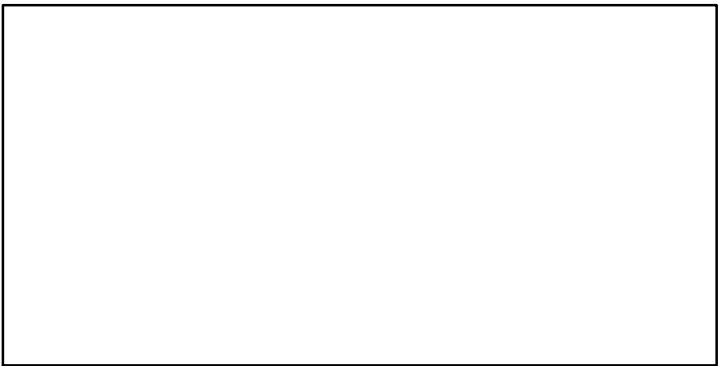
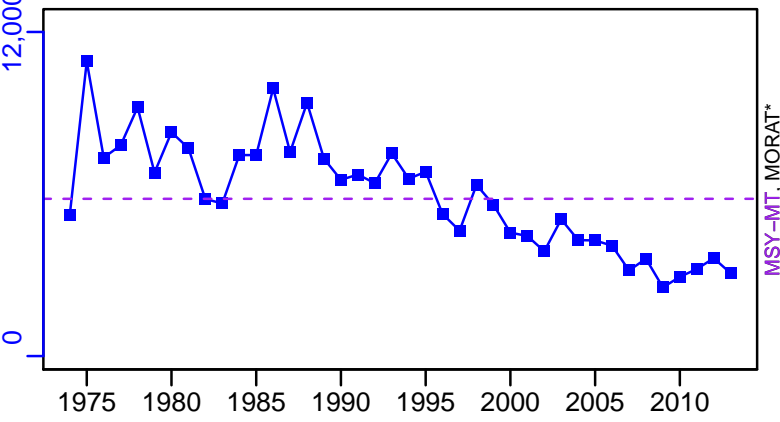
R-E00 (1951-2010-CHING)



Striped marlin Western and Central North Pacific [STMARLINWCPAC]

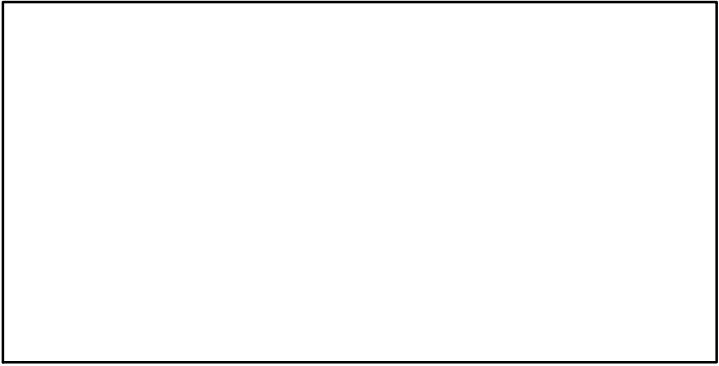
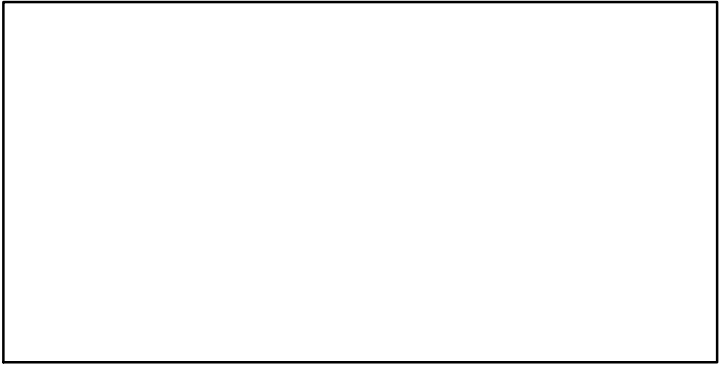
TC-MT, TL*, RecC* (1974-2013-SISIMP2016)

TAC*, Cpair*, Cadv*



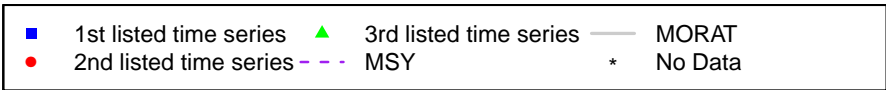
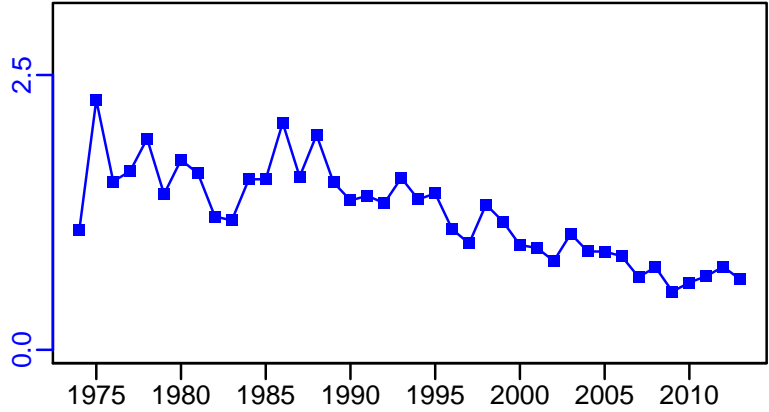
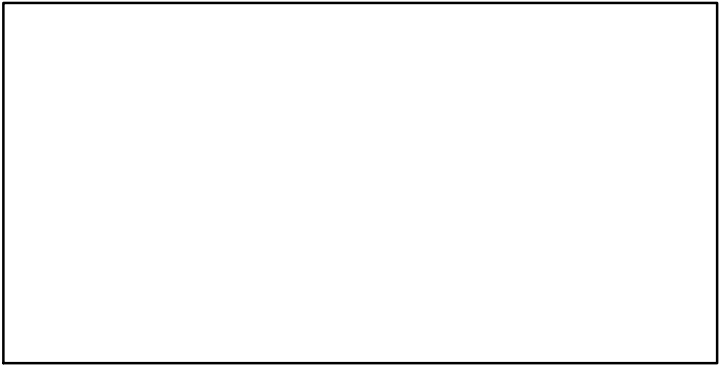
survB*

CPUE*



EFFORT*

CdivMSY-ratio (1974-2013-SISIMP2016)



Swordfish Eastern Pacific [SWORDEPAC]

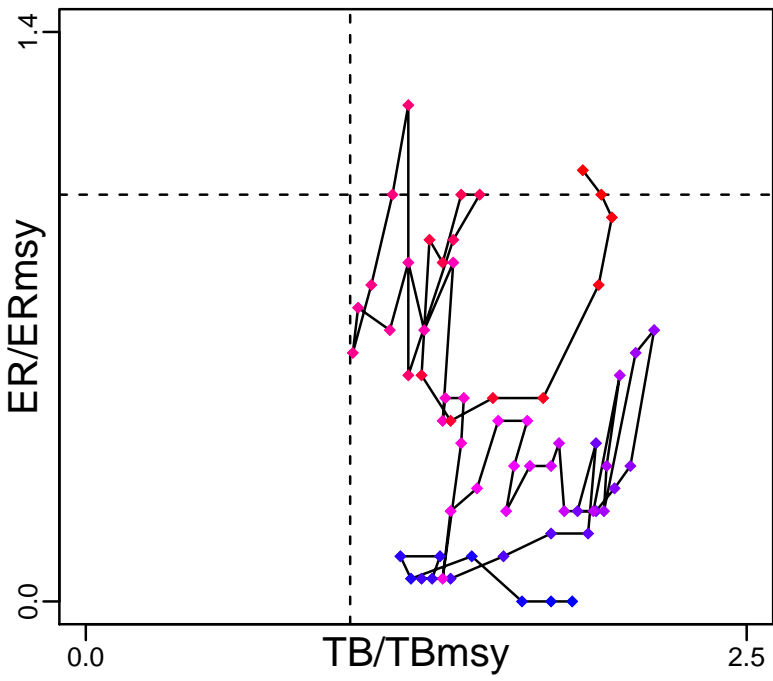
| Metadata | |
|-----------------------------|---|
| Scientific Name | Xiphias gladius |
| Current Assess ID | IATTC-SWORDEPAC-1951-2012-PONS |
| Area | Eastern Pacific |
| Management Authority | Inter-American Tropical Tuna Commission |
| Assessor | Inter-American Tropical Tuna Commission |
| Asmts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

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

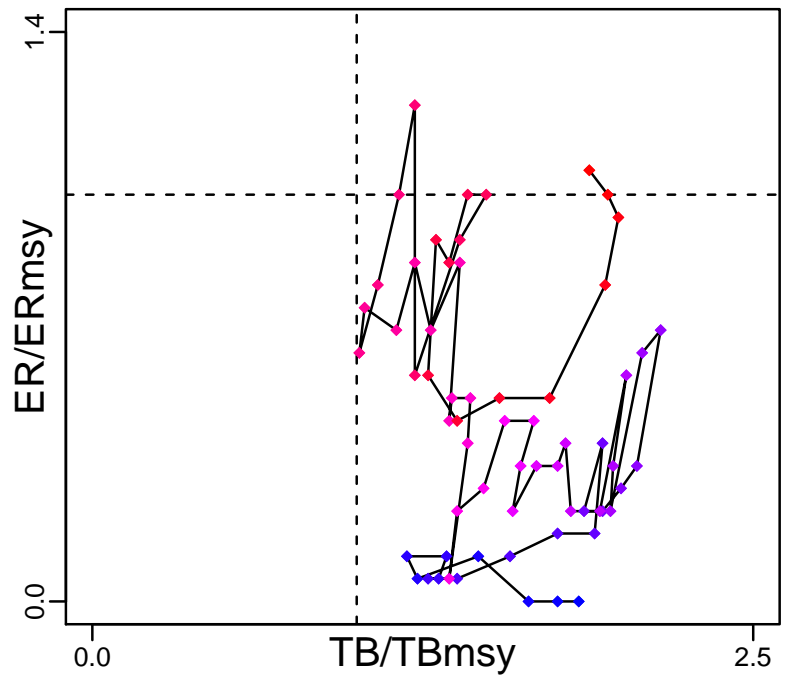
| Time Series | | | | | |
|-------------------|--------------------------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2012 | 58,600 | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - |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

Swordfish Eastern Pacific [SWORDEPAC]

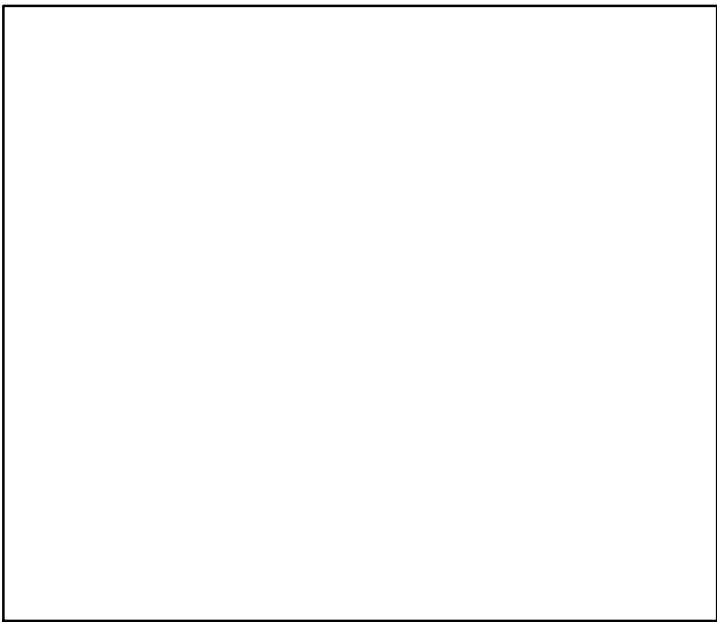
Kobe MSYpref (1951–2012–PONS)



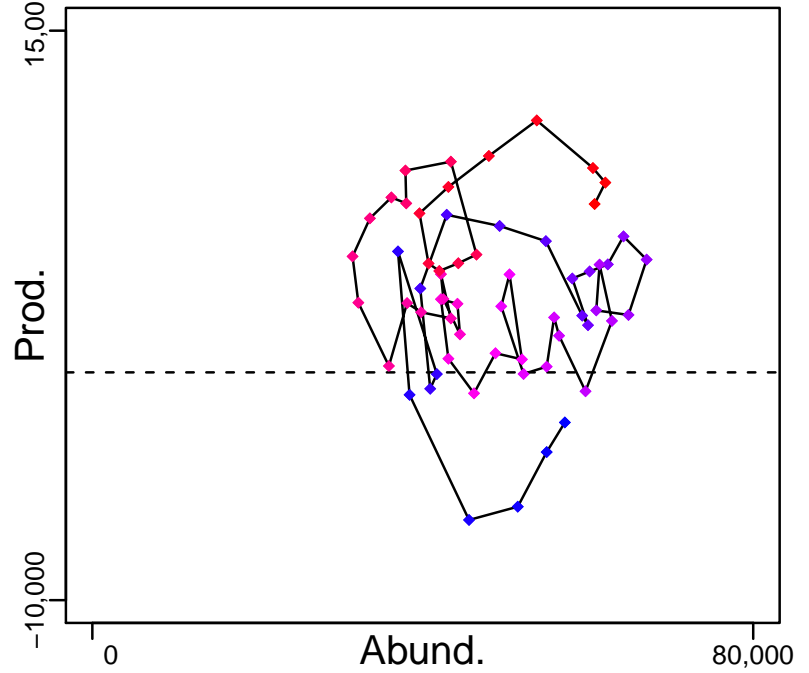
Kobe MGTpref (1951–2012–PONS)



Spawner Recruit*



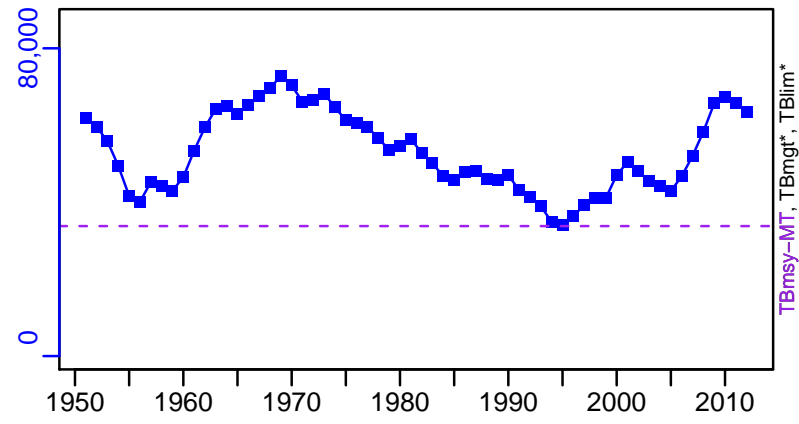
Production (1951–2012–PONS)



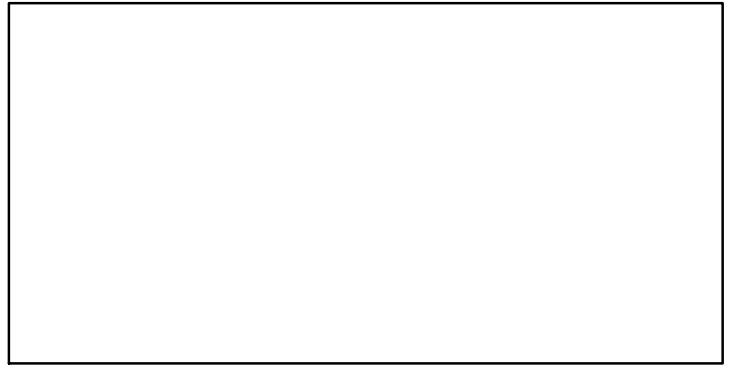
◆ Start Year ◆ End Year * No Data

Swordfish Eastern Pacific [SWORDEPAC]

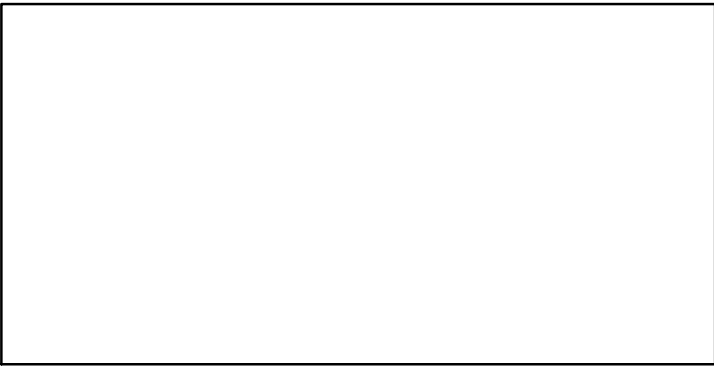
TB-MT (1951-2012-PONS)



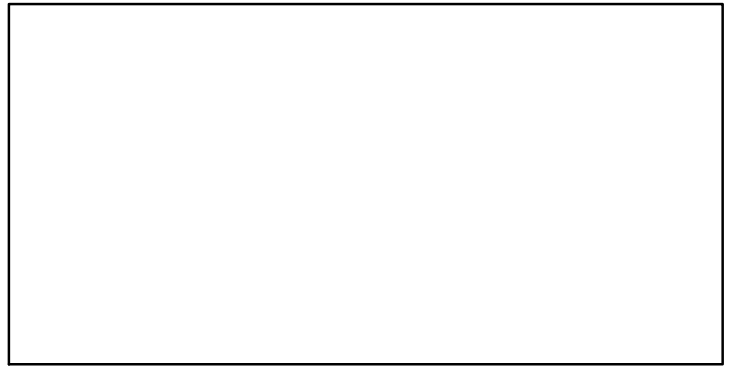
SSB*



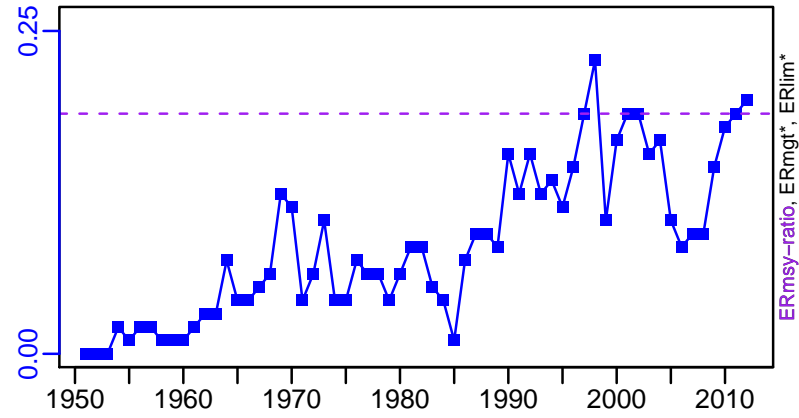
TN *



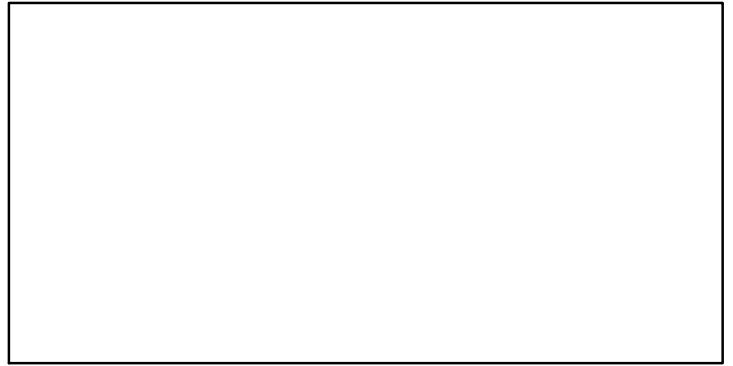
F*



ER-ratio (1951-2012-PONS)



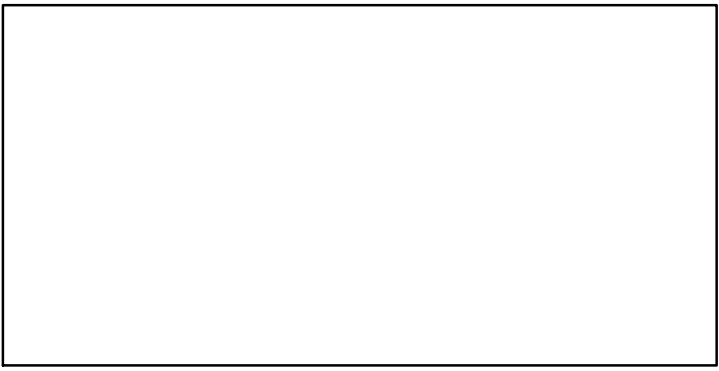
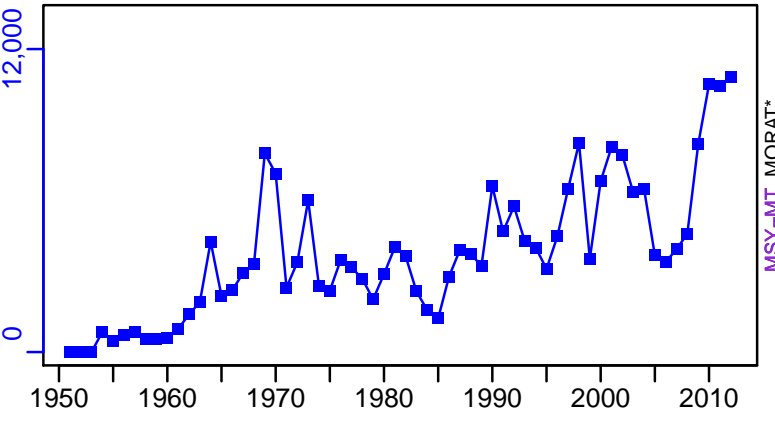
Recruits*



Swordfish Eastern Pacific [SWORDEPAC]

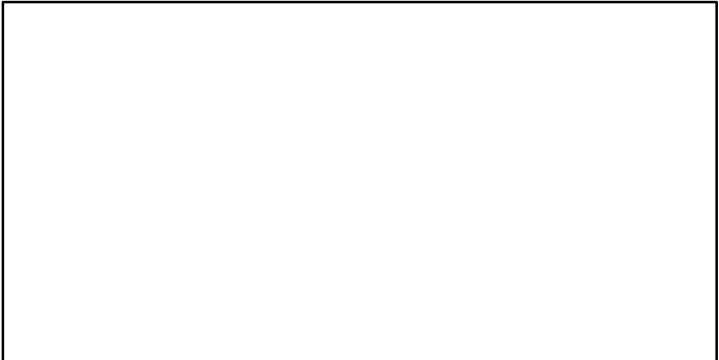
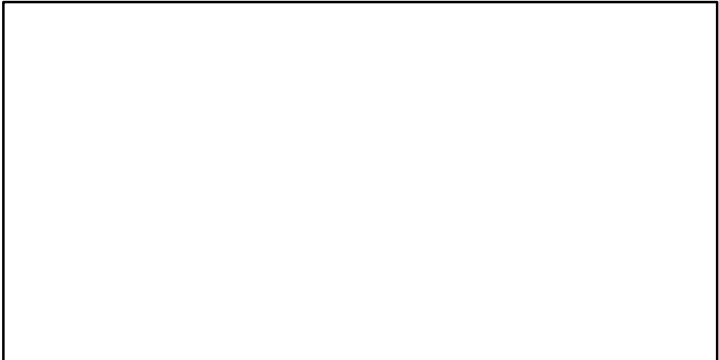
TC-MT, TL*, RecC* (1951-2012-PONS)

TAC*, Cpair*, Cadv*



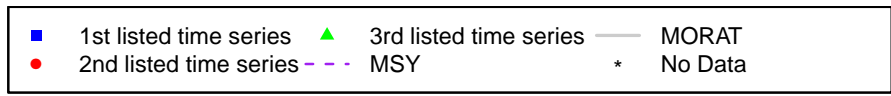
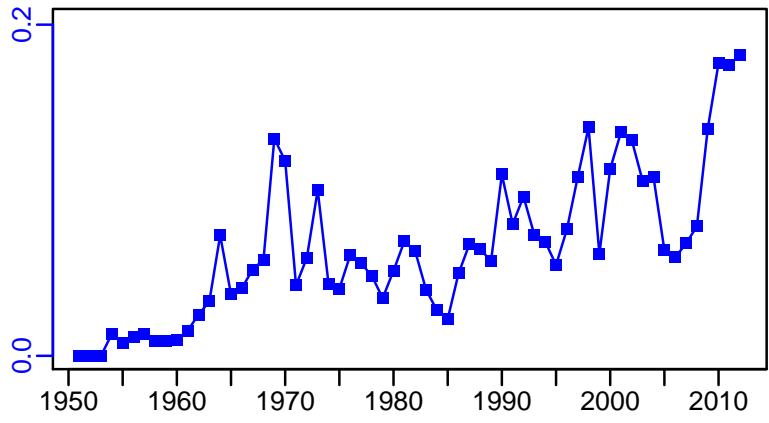
survB*

CPUE*



EFFORT*

CdivMSY-ratio (1951-2012-PONS)



Swordfish North Pacific [SWORDNPAC]

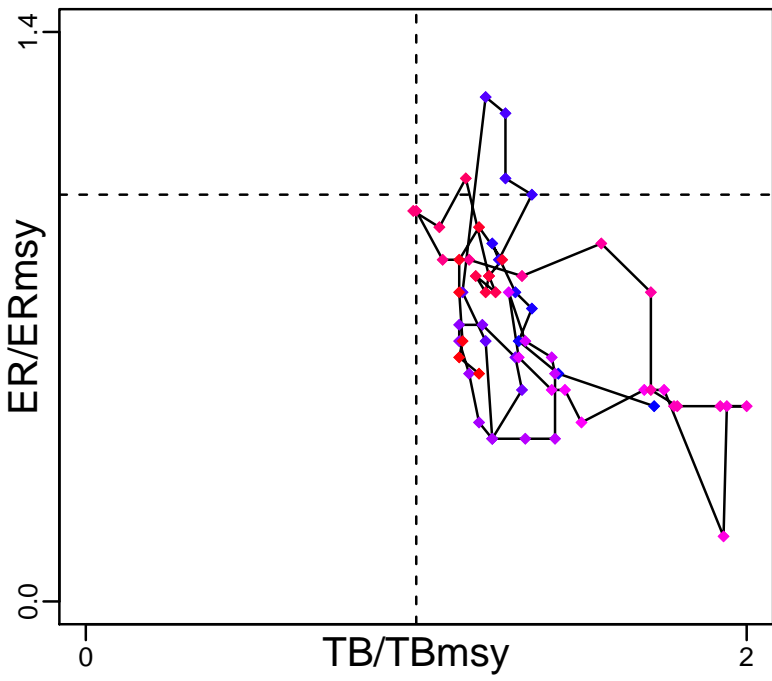
| Metadata | |
|-----------------------------|--|
| Scientific Name | Xiphias gladius |
| Current Assess ID | ISC-SWORDNPAC-1951-2012-PONS |
| Area | North Pacific Ocean |
| Management Authority | International Scientific Committee for Tuna and Tuna-like Species in the North Pacific Ocean |
| Assessor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

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

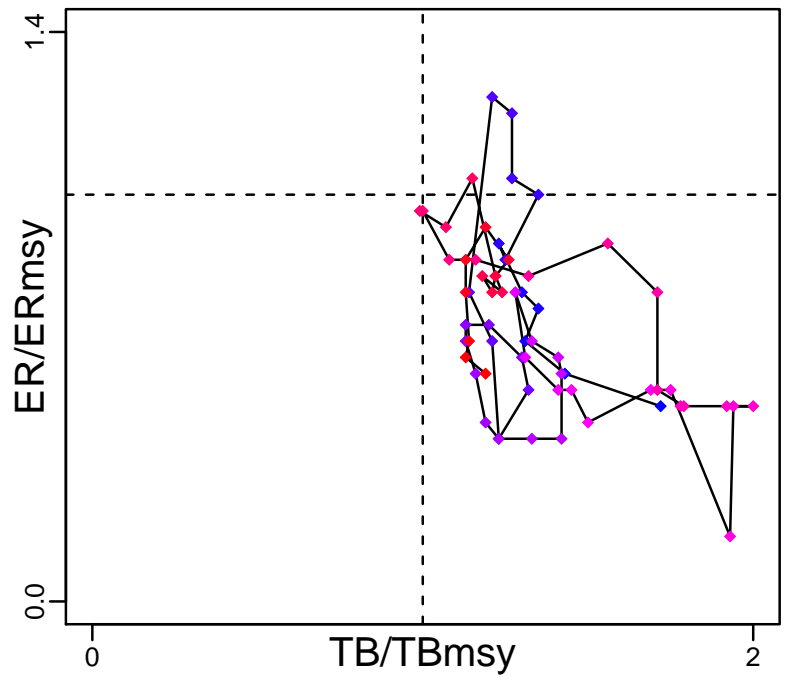
| Time Series | | | | | |
|-------------------|--------------------------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2012 | 72,500 | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - |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

Swordfish North Pacific [SWORDNPAC]

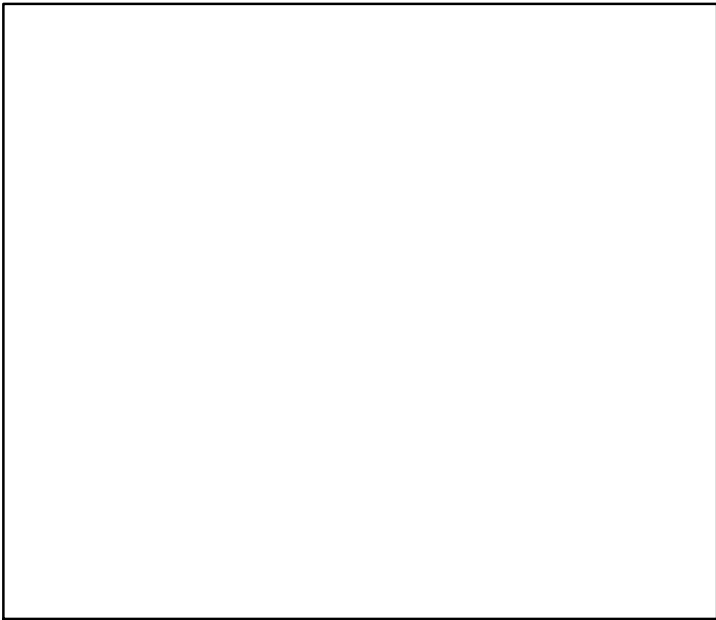
Kobe MSYpref (1951-2012-PONS)



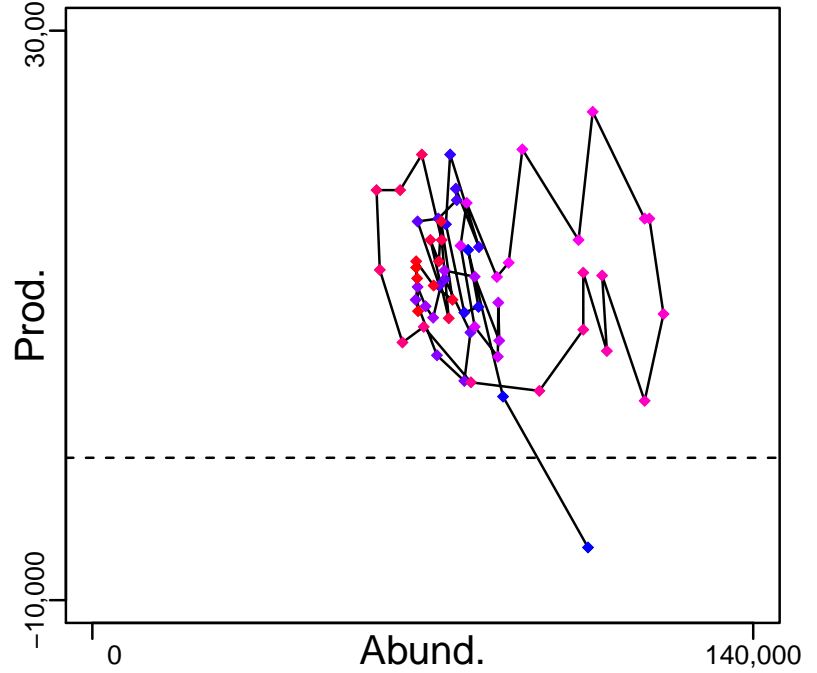
Kobe MGTpref (1951-2012-PONS)



Spawner Recruit*



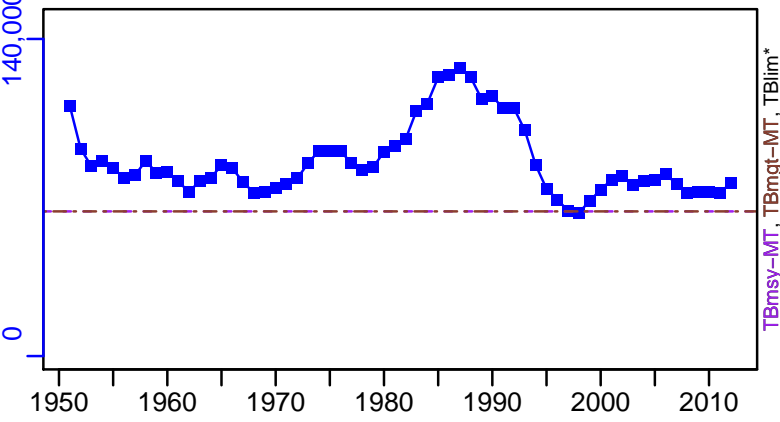
Production (1951-2012-PONS)



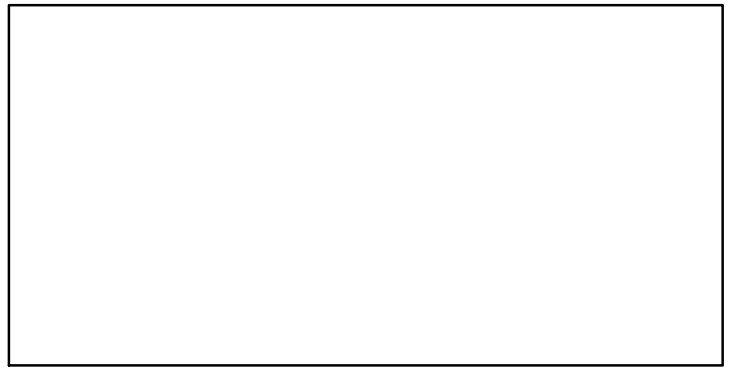
◆ Start Year ◆ End Year * No Data

Swordfish North Pacific [SWORDNPAC]

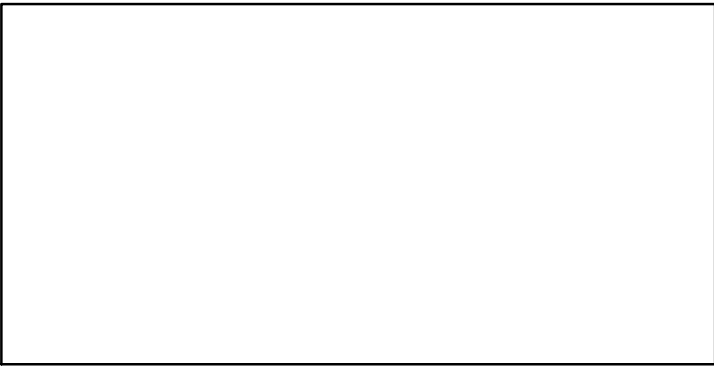
TB-MT (1951-2012-PONS)



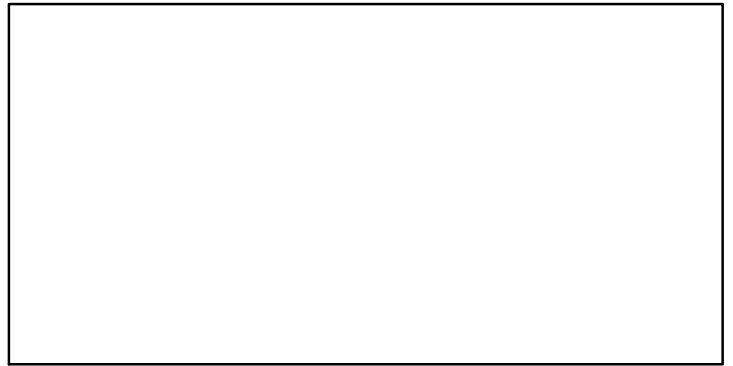
SSB*



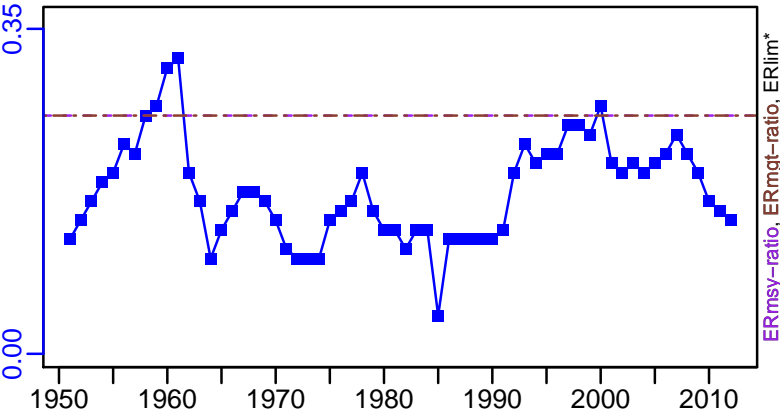
TN *



F*



ER-ratio (1951-2012-PONS)



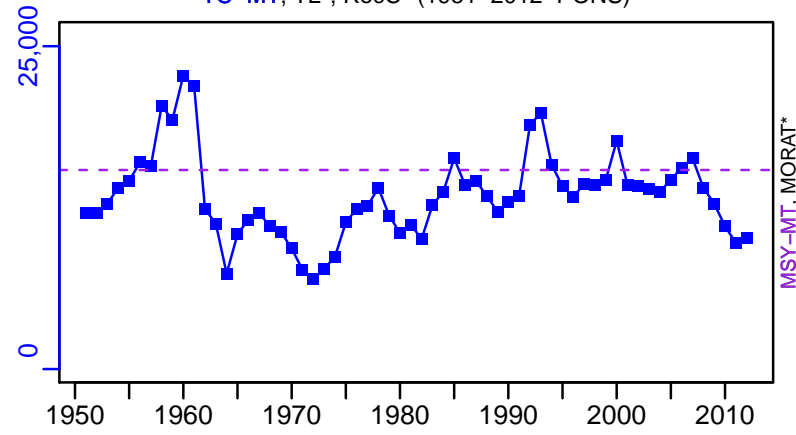
Recruits*



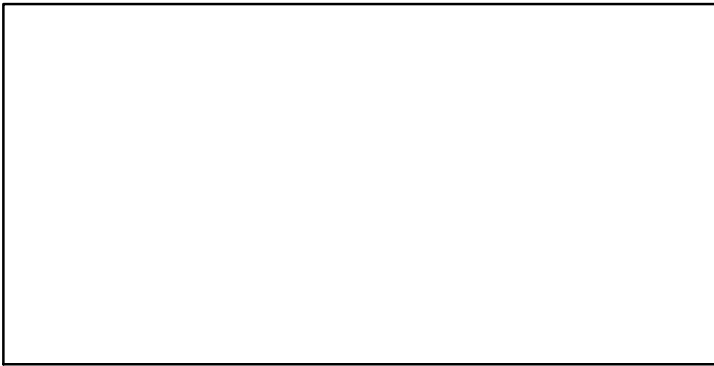
Swordfish North Pacific [SWORNPAC]

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

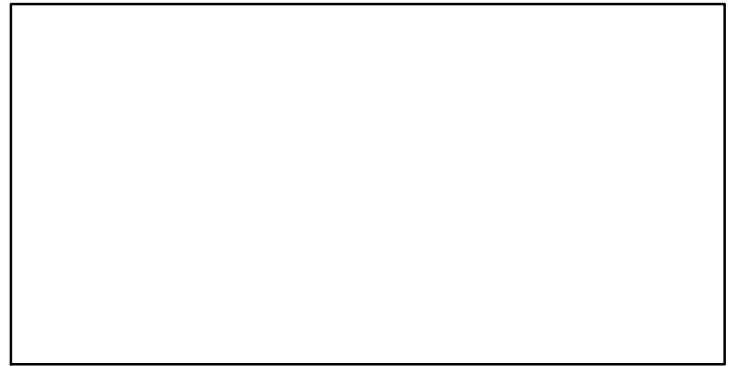
TAC*, Cpair*, Cadv*



survB*



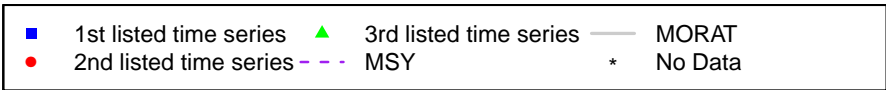
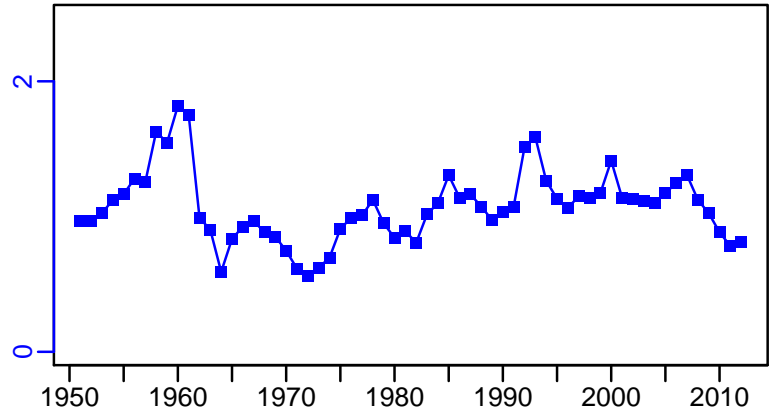
CPUE*



EFFORT*



CdivMSY-ratio (1951-2012-PONS)



Yellowfin tuna Central Western Pacific [YFINCWPAC]

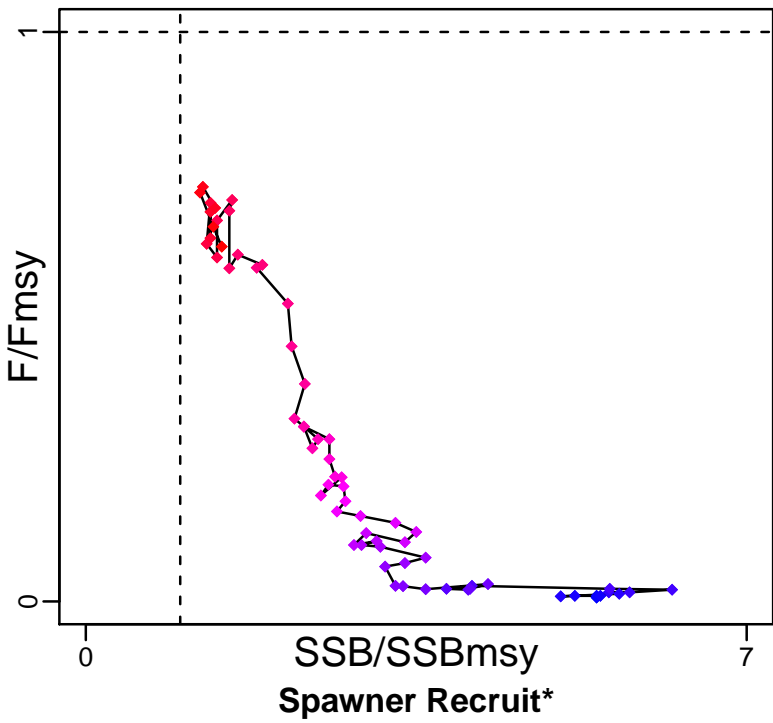
| Metadata | |
|-----------------------------|--|
| Scientific Name | Thunnus albacares |
| Current Assess ID | SPC-YFINCWPAC-1950-2015-PONS |
| Area | Central Western Pacific Ocean |
| Management Authority | Western and Central Pacific Fisheries Commission |
| Assessor | Secretariat of the Pacific Community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

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

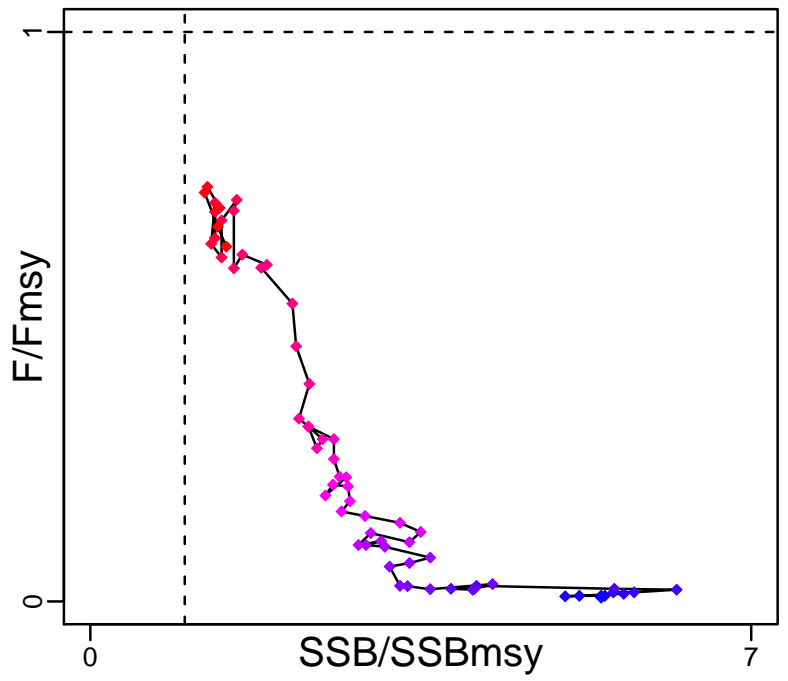
| Time Series | | | | | |
|-------------------|----------------------------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2015 | 2,580,000 | - | - |
| SSB | SSB-MT | 2015 | 1,210,000 | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | -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

Yellowfin tuna Central Western Pacific [YFINCWPA]

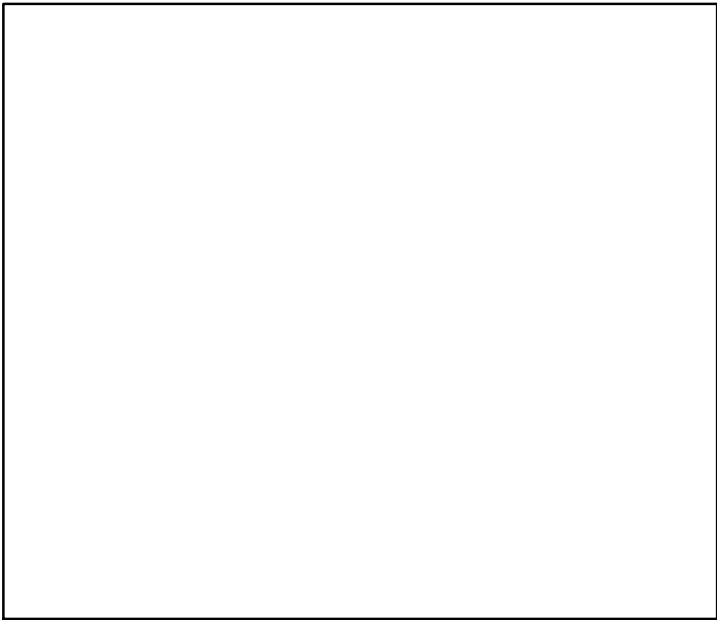
Kobe MSYpref (1950–2015–PONS)



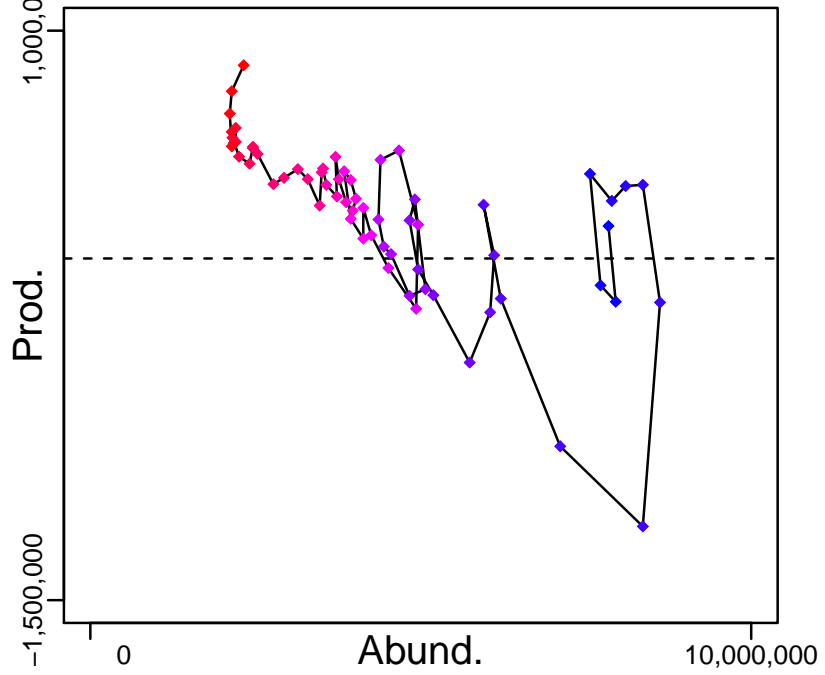
Kobe MGTpref (1950–2015–PONS)



Spawner Recruit*



Production (1950–2015–PONS)

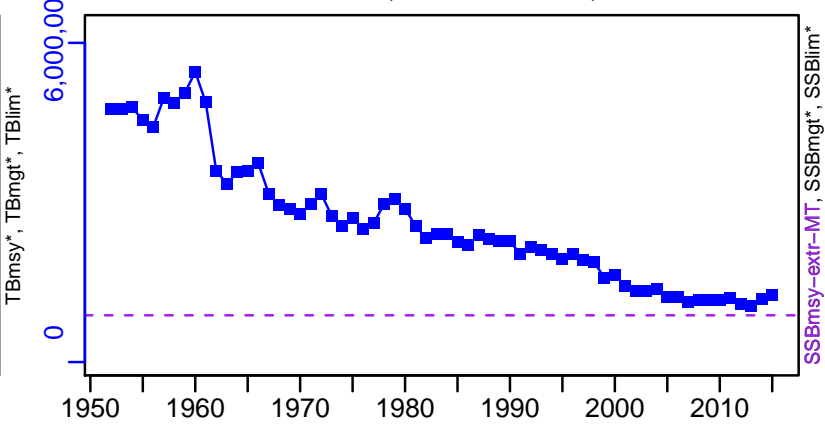
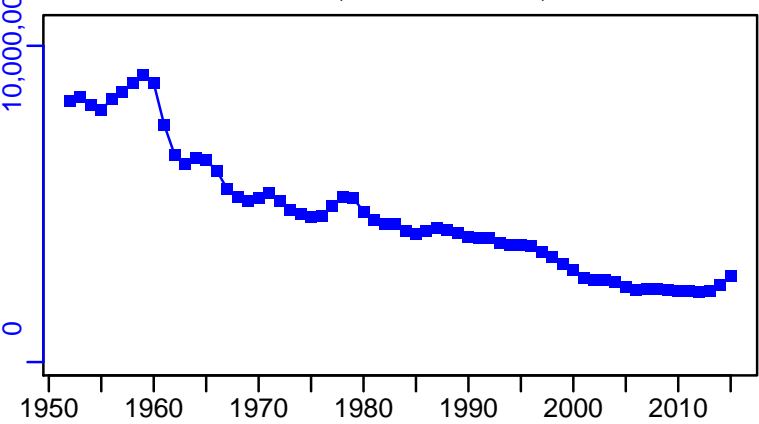


◆ Start Year ◆ End Year * No Data

Yellowfin tuna Central Western Pacific [YFNCWPAC]

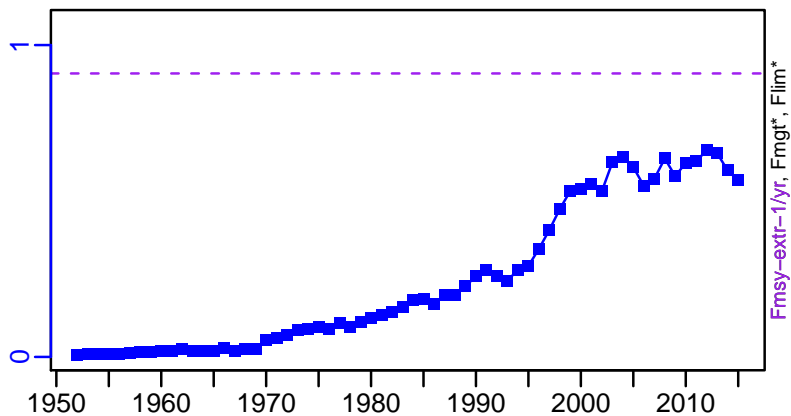
TB-MT (1950-2015-PONS)

SSB-MT (1950-2015-PONS)



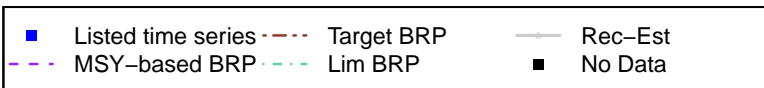
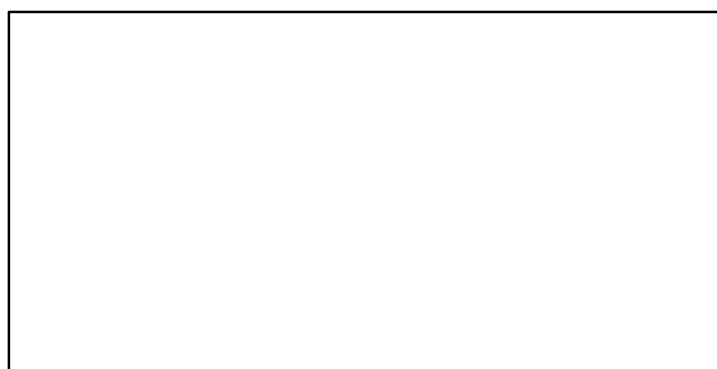
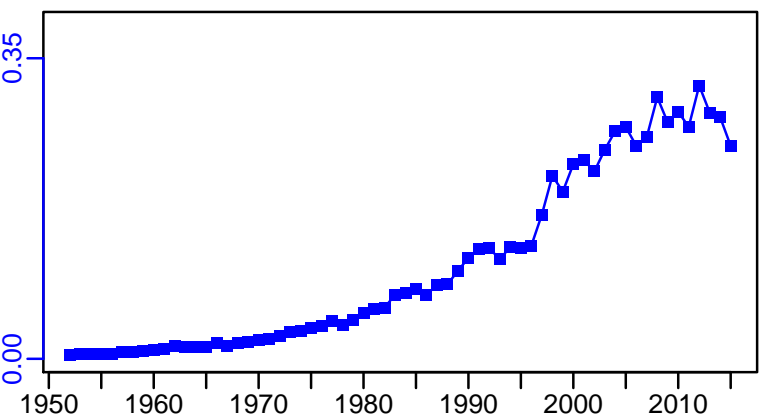
TN *

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



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

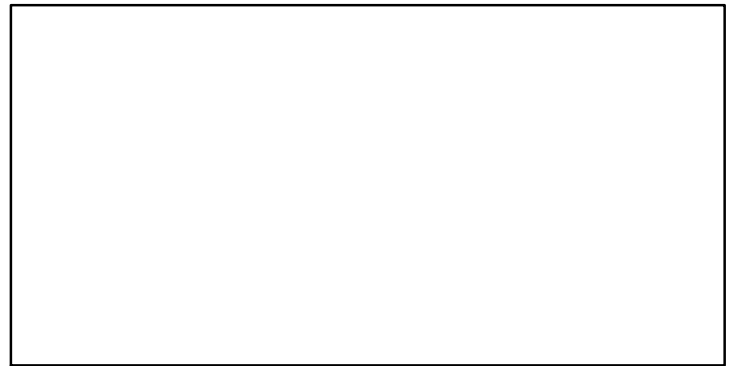
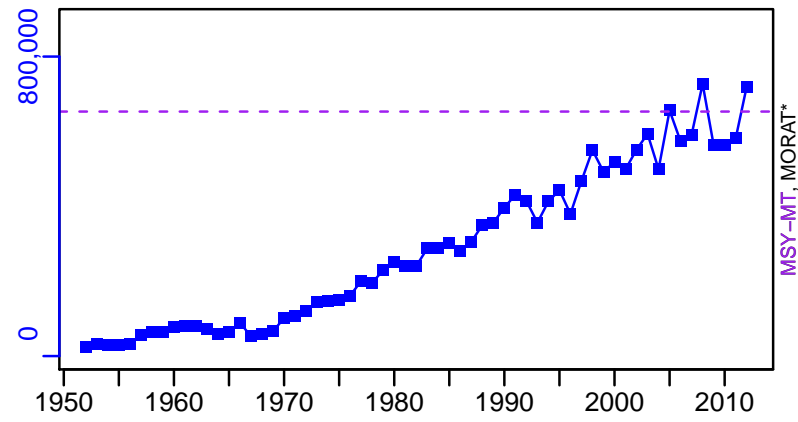
Recruits*



Yellowfin tuna Central Western Pacific [YFINCWPAC]

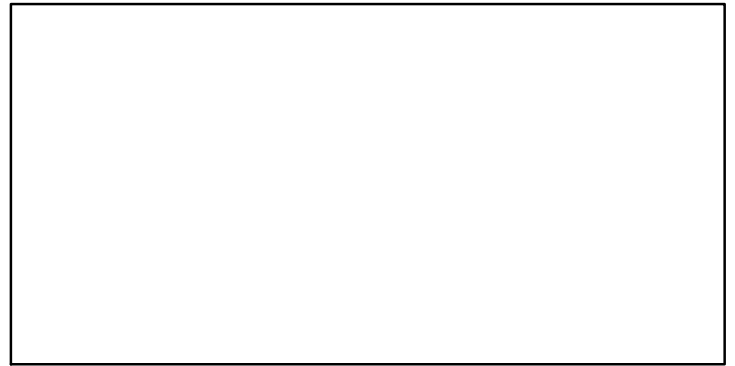
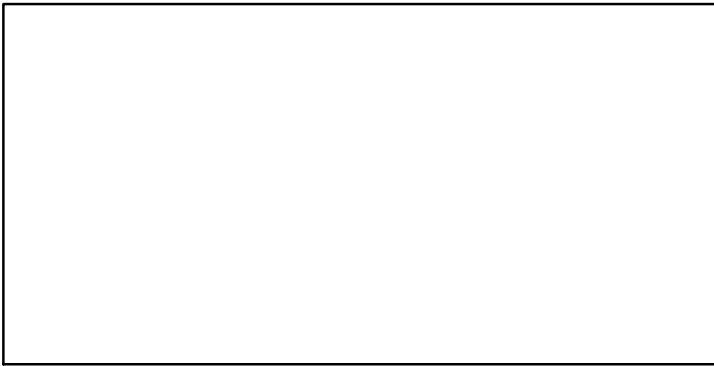
TC-MT, TL*, RecC* (1952-2012-PONS)

TAC*, Cpair*, Cadv*



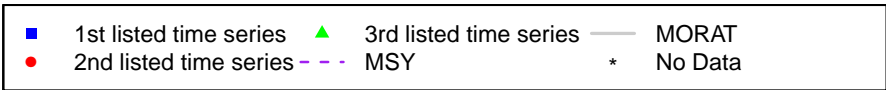
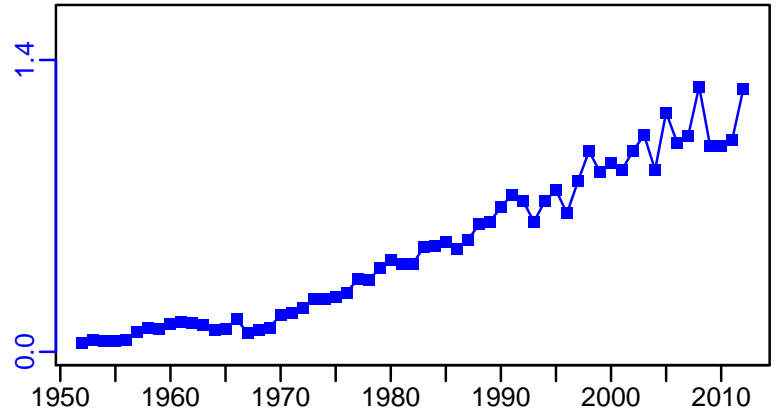
survB*

CPUE*



EFFORT*

CdivMSY-ratio (1952-2012-PONS)



Yellowfin tuna Eastern Pacific [YFINEPAC]

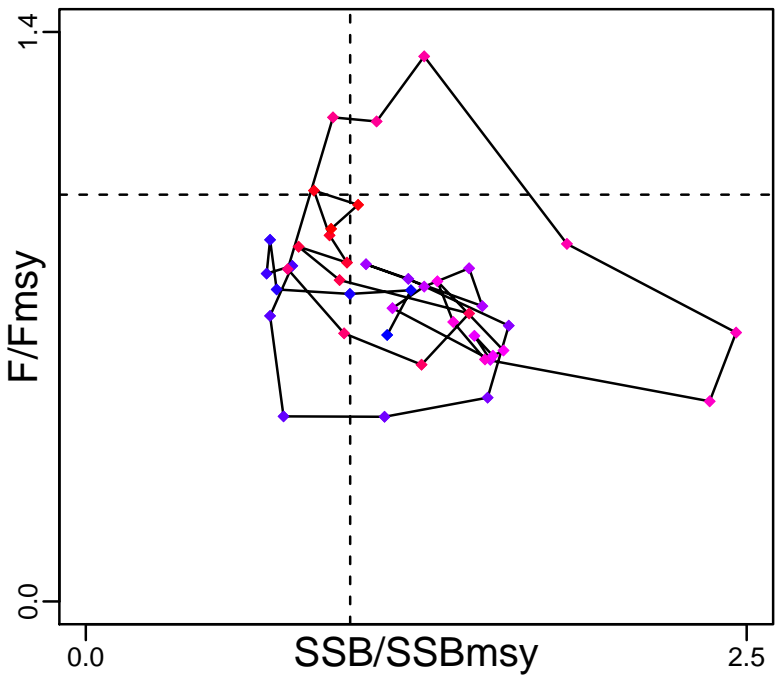
| Metadata | |
|-----------------------------|---|
| Scientific Name | Thunnus albacares |
| Current Assess ID | IATTC-YFINEPAC-1950-2016-PONS |
| Area | Northeast Pacific |
| Management Authority | Inter-American Tropical Tuna Commission |
| Assessor | Inter-American Tropical Tuna Commission |
| Asmts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

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

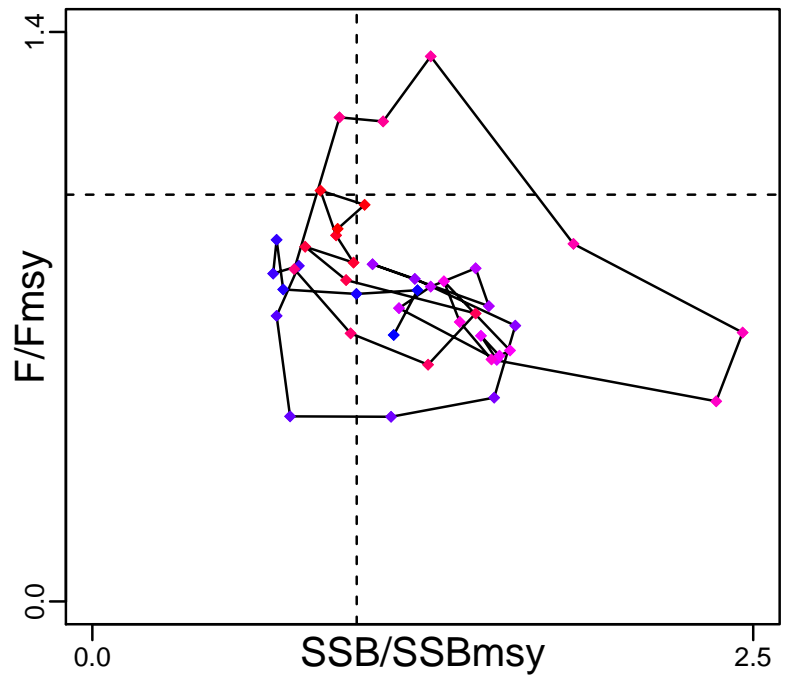
| Time Series | | | | | |
|-------------------|----------------------------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | SSB-MT | 2016 | 3,360,000 | - | - |
| TN | - | - | - | - | - |
| R | R-E00 | 2016 | 303,000 | - | - |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

Yellowfin tuna Eastern Pacific [YFINEPAC]

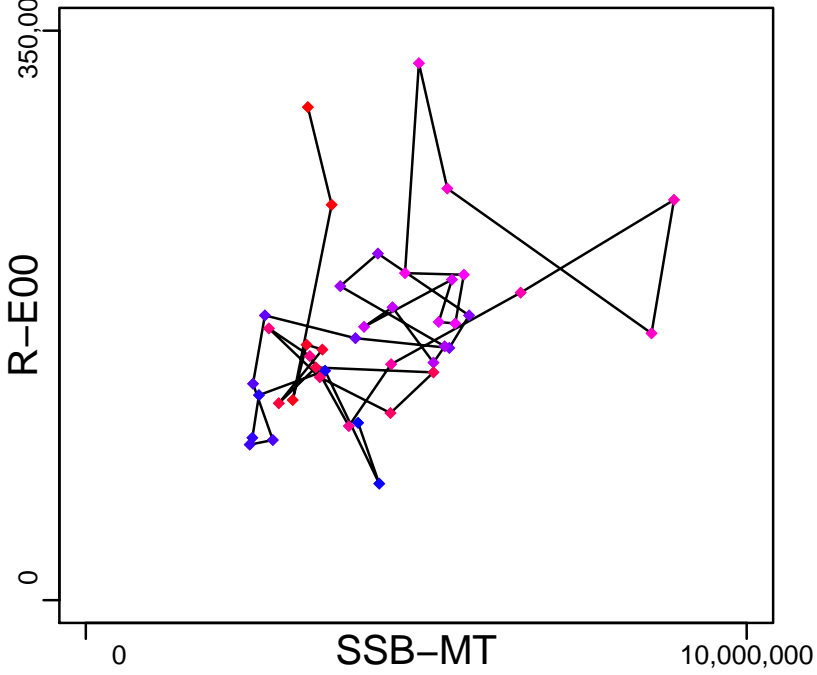
Kobe MSYpref (1950–2016–PONS)



Kobe MGTpref (1950–2016–PONS)



Spawner Recruit (1950–2016–PONS)



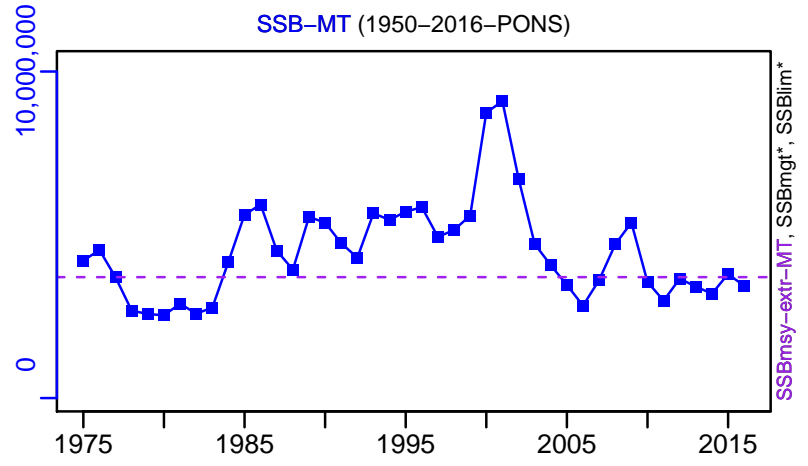
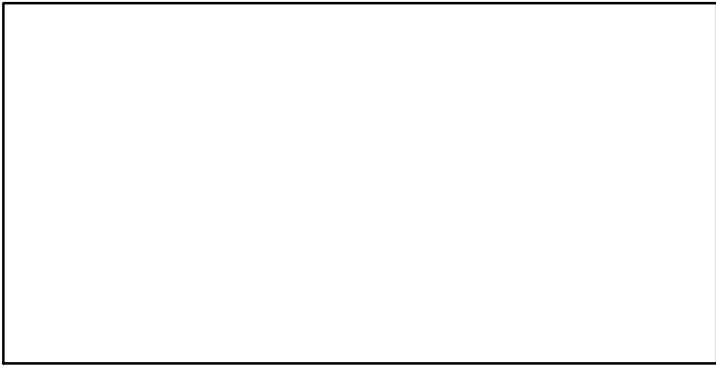
Production*



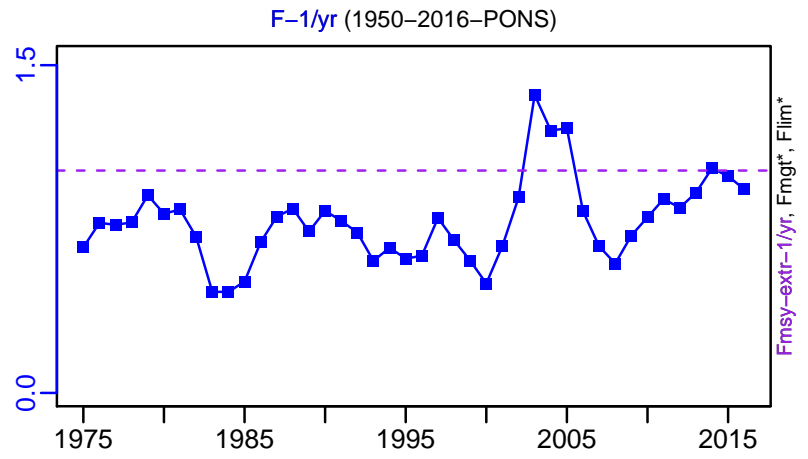
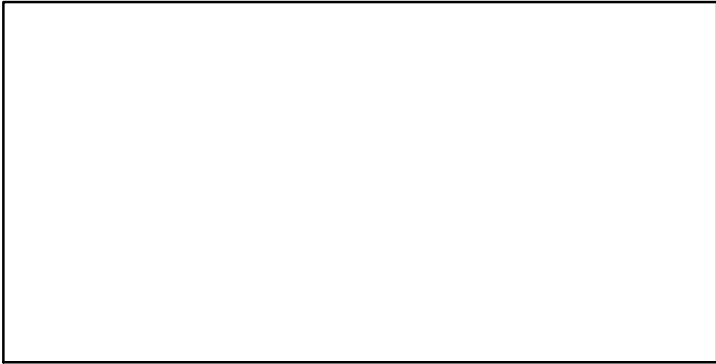
◆ Start Year ◆ End Year * No Data

Yellowfin tuna Eastern Pacific [YFINEPAC]

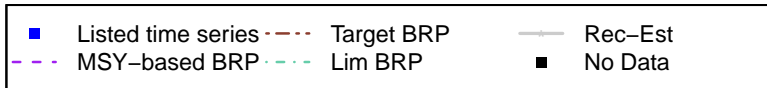
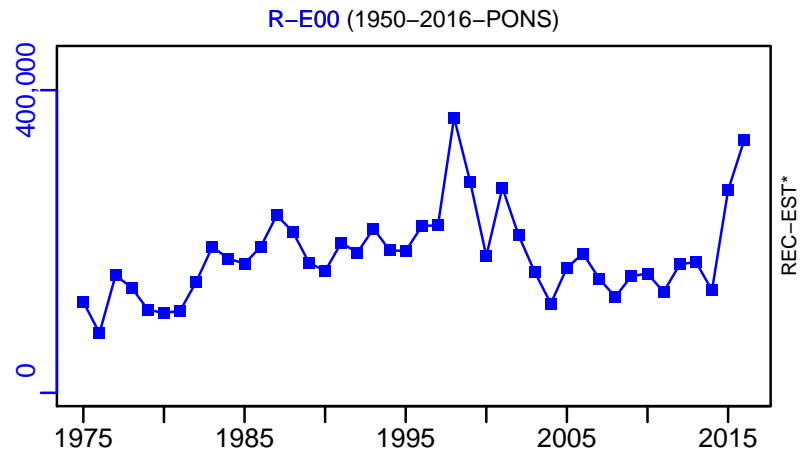
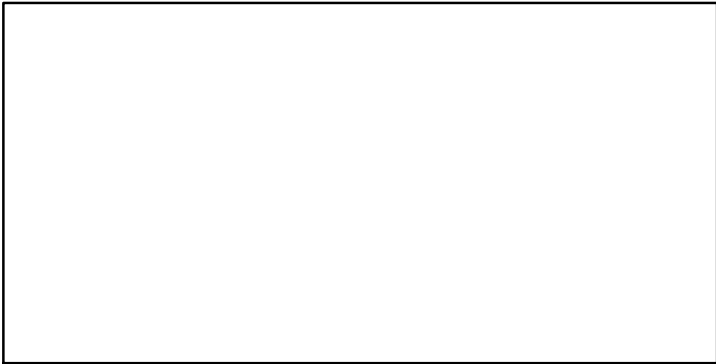
TB*



TN *



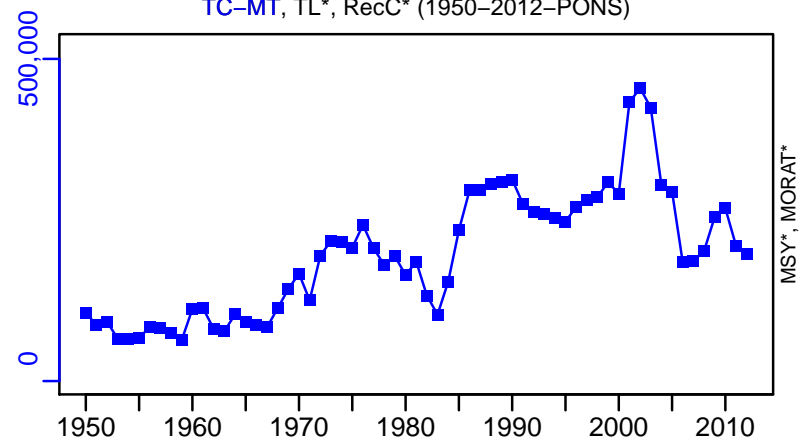
ER*



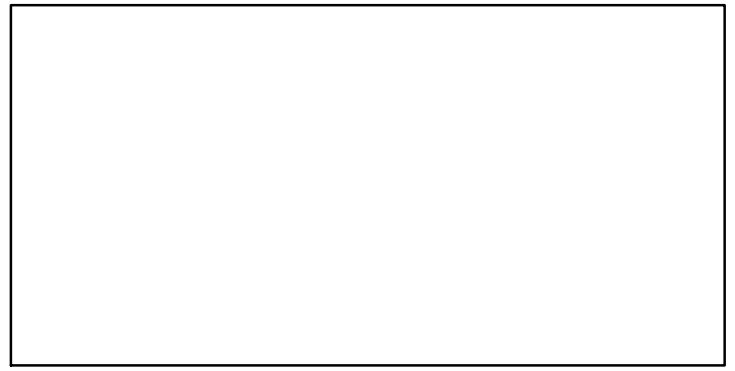
Yellowfin tuna Eastern Pacific [YFINEPAC]

TC-MT, TL*, RecC* (1950-2012-PONS)

TAC*, Cpair*, Cadv*

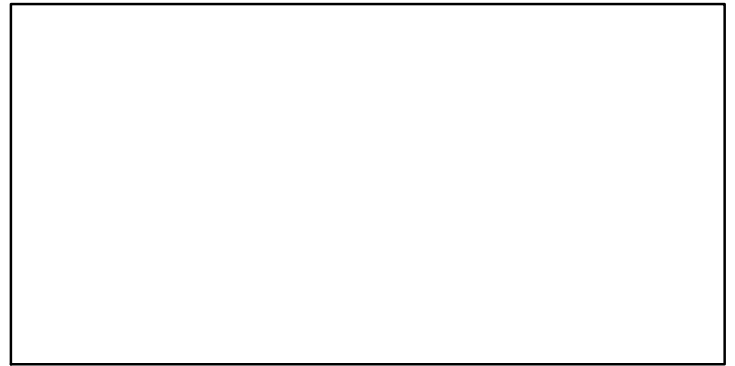
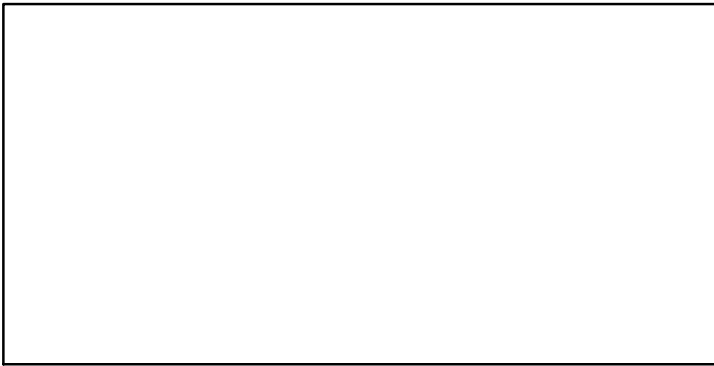


MSY*, MORAT*



survB*

CPUE*



EFFORT*

CdivMSY-ratio (1950-2016-PONS)

