

Japan Stocks

v4.491 (Jan-06-2020)

Not present Present Preferred

| Stock | Time Series Types | | | |
|---|-------------------|--------|--------|--------|
| | B/Bmsy | U/Umsy | B/Bmgt | U/Umgt |
| 1. APOLLNEMS [Walleye pollock Nemuro Strait] | TB SSB | ER F | TB SSB | ER F |
| 2. APOLLNSJ [Walleye pollock Sea of Japan North] | TB SSB | ER F | TB SSB | ER F |
| 3. APOLLOKS [Walleye pollock Okhotsk Sea] | TB SSB | ER F | TB SSB | ER F |
| 4. APOLLPJPN [Walleye pollock Pacific Coast of Japan] | TB SSB | ER F | TB SSB | ER F |
| 5. APSHRIMPSOJ [Alaskan pink shrimp Sea of Japan] | TB SSB | ER F | TB SSB | ER F |
| 6. ARGREENNEMS [Arabesque greenling Nemuro Strait] | TB SSB | ER F | TB SSB | ER F |
| 7. ARGREENNHOKK [Arabesque greenling North coast of Hokkaido] | TB SSB | ER F | TB SSB | ER F |
| 8. ARGREENSHOKK [Arabesque greenling South coast of Hokkaido] | TB SSB | ER F | TB SSB | ER F |
| 9. ASCADECS [Amberstripe scad East China Sea] | TB SSB | ER F | TB SSB | ER F |
| 10. BMACECS [Spotted mackerel East China Sea] | TB SSB | ER F | TB SSB | ER F |
| 11. BMACKPJPN [Spotted mackerel Pacific Coast of Japan] | TB SSB | ER F | TB SSB | ER F |
| 12. BRMSOJ [Yellow sea bream Sea of Japan] | TB SSB | ER F | TB SSB | ER F |
| 13. BSCRAPERSECS [Black scraper Sea of Japan and East China Sea] | TB SSB | ER F | TB SSB | ER F |
| 14. BZCRABSOJ [Beni zuwai crab Sea of Japan] | TB SSB | ER F | TB SSB | ER F |
| 15. CJOBOKWI [Crimson jobfish Okinawa Islands] | TB SSB | ER F | TB SSB | ER F |
| 16. CMACKPJPN [Chub mackerel Pacific Coast of Japan] | TB SSB | ER F | TB SSB | ER F |
| 17. CMACKTSST [Chub mackerel Tsushima Strait] | TB SSB | ER F | TB SSB | ER F |
| 18. DSSMELTPAC [Deep sea smelt Pacific Ocean] | TB SSB | ER F | TB SSB | ER F |
| 19. DSSMELTSOJ [Deep sea smelt Sea of Japan] | TB SSB | ER F | TB SSB | ER F |
| 20. FHFLOUNSOJ [Flathead flounder Sea of Japan] | TB SSB | ER F | TB SSB | ER F |
| 21. FSNAPOKWI [Flame snapper Okinawa Islands] | TB SSB | ER F | TB SSB | ER F |
| 22. HERRHOKK [Pacific herring Hokkaido] | TB SSB | ER F | TB SSB | ER F |
| 23. HHTILEECS [Horsehead tilefish East China Sea] | TB SSB | ER F | TB SSB | ER F |
| 24. JAMBERJPN [Japanese amberjack Japan] | TB SSB | ER F | TB SSB | ER F |
| 25. JANCHOPJPN [Japanese anchovy Pacific Coast of Japan] | TB SSB | ER F | TB SSB | ER F |
| 26. JANCHOSETO [Japanese anchovy Inland Sea of Japan] | TB SSB | ER F | TB SSB | ER F |
| 27. JANCHOTSST [Japanese anchovy Tsushima Strait] | TB SSB | ER F | TB SSB | ER F |
| 28. JCSQUIDJPNAR [Japanese flying squid Japan Autumn recruitment] | TB SSB | ER F | TB SSB | ER F |
| 29. JCSQUIDJPNWR [Japanese flying squid Japan Winter recruitment] | TB SSB | ER F | TB SSB | ER F |
| 30. JMACKPJPN [Japanese jack mackerel Pacific Coast of Japan] | TB SSB | ER F | TB SSB | ER F |
| 31. JMACKTSST [Japanese jack mackerel Tsushima Strait] | TB SSB | ER F | TB SSB | ER F |
| 32. JPUFFIMKB [Japanese pufferfish Ise and Mikawa Bay] | TB SSB | ER F | TB SSB | ER F |
| 33. JPUFFSOJECSSI [Japanese pufferfish Sea of Japan and East China Sea and Seto Inland sea] | TB SSB | ER F | TB SSB | ER F |
| 34. JSNAPOKWI [Japanese snapper Okinawa Islands] | TB SSB | ER F | TB SSB | ER F |
| 35. KCROCKNPAC [Kichiji rockfish North Pacific] | TB SSB | ER F | TB SSB | ER F |
| 36. KCROCKOKS [Kichiji rockfish Okhotsk Sea] | TB SSB | ER F | TB SSB | ER F |
| 37. KCROCKSWHOKK [Kichiji rockfish Southwestern coast of Hokkaido] | TB SSB | ER F | TB SSB | ER F |

| | | | | |
|---|--------|------|--------|------|
| 38. LCODLINGPAC [Longfin codling Pacific Ocean] | TB SSB | ER F | TB SSB | ER F |
| 39. LHAIRTSOJECS [Largehead hairtail Sea of Japan and East China Sea] | TB SSB | ER F | TB SSB | ER F |
| 40. LJOBOKWI [Lavender jobfish Okinawa Islands] | TB SSB | ER F | TB SSB | ER F |
| 41. OFLOUNECS [Japanese flounder East China Sea] | TB SSB | ER F | TB SSB | ER F |
| 42. OFLOUNNSJ [Japanese flounder Sea of Japan North] | TB SSB | ER F | TB SSB | ER F |
| 43. OFLOUNPAC [Japanese flounder Pacific Ocean] | TB SSB | ER F | TB SSB | ER F |
| 44. OFLOUNSETO [Japanese flounder Inland Sea of Japan] | TB SSB | ER F | TB SSB | ER F |
| 45. PCODHOKK [Pacific cod Hokkaido] | TB SSB | ER F | TB SSB | ER F |
| 46. PCODNPAC [Pacific cod North Pacific] | TB SSB | ER F | TB SSB | ER F |
| 47. PCODSOJ [Pacific cod Sea of Japan] | TB SSB | ER F | TB SSB | ER F |
| 48. PHFLOUNNHOKK [Pointhead flounder North coast of Hokkaido] | TB SSB | ER F | TB SSB | ER F |
| 49. PHFLOUNSOJ [Pointhead flounder Sea of Japan] | TB SSB | ER F | TB SSB | ER F |
| 50. PILCHPJPN [Japanese sardine Pacific Coast of Japan] | TB SSB | ER F | TB SSB | ER F |
| 51. PILCHTSST [Japanese sardine Tsushima Strait] | TB SSB | ER F | TB SSB | ER F |
| 52. PSANDLIMKB [Pacific sand lance Ise and Mikawa Bay] | TB SSB | ER F | TB SSB | ER F |
| 53. PSLANCESYS [Pacific sand lance Souya Strait] | TB SSB | ER F | TB SSB | ER F |
| 54. RBRMECS [Red seabream East China Sea] | TB SSB | ER F | TB SSB | ER F |
| 55. RBRMSETOE [Red seabream Inland Sea of Japan (East)] | TB SSB | ER F | TB SSB | ER F |
| 56. RBRMSETOW [Red seabream Inland Sea of Japan (West)] | TB SSB | ER F | TB SSB | ER F |
| 57. RHERRPAC [Round herring Pacific Ocean] | TB SSB | ER F | TB SSB | ER F |
| 58. RHERRTSST [Round herring Tsushima Strait] | TB SSB | ER F | TB SSB | ER F |
| 59. RSFLOUNSOJ [Round nose flounder Sea of Japan] | TB SSB | ER F | TB SSB | ER F |
| 60. RSSOLENPAC [Roughscale sole North Pacific] | TB SSB | ER F | TB SSB | ER F |
| 61. SAURNWPAC [Pacific saury Northwest Pacific] | TB SSB | ER F | TB SSB | ER F |
| 62. SHAKOIMKB [Shako Ise and Mikawa Bay] | TB SSB | ER F | TB SSB | ER F |
| 63. SNOWCRABESJ [Snow crab Sea of Japan East] | TB SSB | ER F | TB SSB | ER F |
| 64. SNOWCRABHOKK [Snow crab Hokkaido] | TB SSB | ER F | TB SSB | ER F |
| 65. SNOWCRABNPAC [Snow crab North Pacific] | TB SSB | ER F | TB SSB | ER F |
| 66. SNOWCRABOKS [Snow crab Okhotsk Sea] | TB SSB | ER F | TB SSB | ER F |
| 67. SNOWCRABWSJ [Snow crab Sea of Japan West] | TB SSB | ER F | TB SSB | ER F |
| 68. SPANMACKECS [Japanese Spanish mackerel East China Sea] | TB SSB | ER F | TB SSB | ER F |
| 69. SPANMACKSETO [Japanese Spanish mackerel Inland Sea of Japan] | TB SSB | ER F | TB SSB | ER F |
| 70. SPSQUIDPAC [Spear squid Pacific Ocean] | TB SSB | ER F | TB SSB | ER F |
| 71. SPSQUIDTSSTWC [Spear squid Tsushima warm current] | TB SSB | ER F | TB SSB | ER F |
| 72. SSANDNSJ [Sailfin sandfish Sea of Japan North] | TB SSB | ER F | TB SSB | ER F |
| 73. SSANDWSJ [Sailfin sandfish Sea of Japan West] | TB SSB | ER F | TB SSB | ER F |
| 74. STSQUIDSOJECS [Swordtip squid Sea of Japan and East China Sea] | TB SSB | ER F | TB SSB | ER F |
| 75. WLFLOUNNPAC [Willow flounder North Pacific] | TB SSB | ER F | TB SSB | ER F |
| 76. WSCONGIMKB [Whitespotted conger Ise and Mikawa Bay] | TB SSB | ER F | TB SSB | ER F |
| 77. YGSFISHNPAC [Yellow goosefish North Pacific] | TB SSB | ER F | TB SSB | ER F |
| 78. YSFLOUNNHOKK [Yellow striped flounder North coast of Hokkaido] | TB SSB | ER F | TB SSB | ER F |
| 79. YSFLOUNSOJ [Yellow striped flounder Sea of Japan] | TB SSB | ER F | TB SSB | ER F |

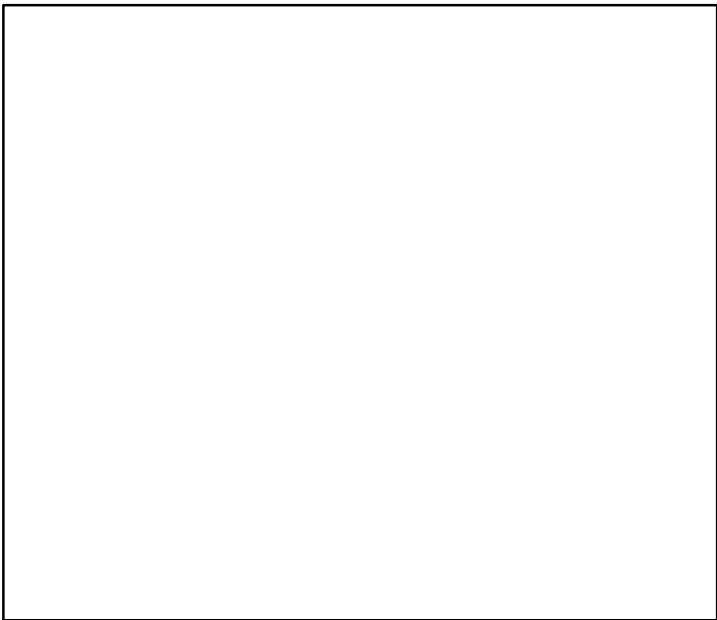
Walleye pollock Nemuro Strait [APOLLNEMS]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Theragra chalcogramma |
| Current Assess ID | FAFRFJ-APOLLNEMS-1981-2013-JPNIMP2016 |
| Area | Nemuro Strait |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

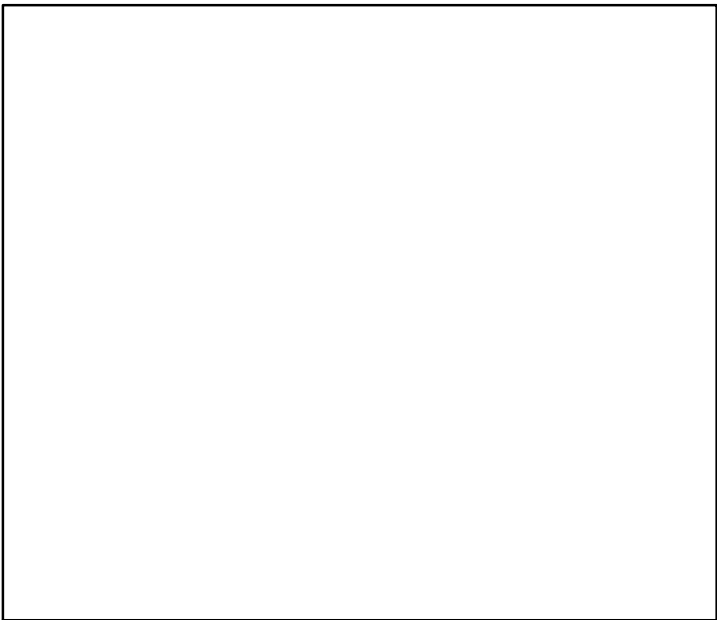
| Reference Points | | | |
|------------------|--------|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | - | - | - |
| Fmsy | - | - | - |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | - | - | - |
| M | M-1/yr | 2013 | 0.25 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

| Time Series | | | | | |
|-------------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 7720 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

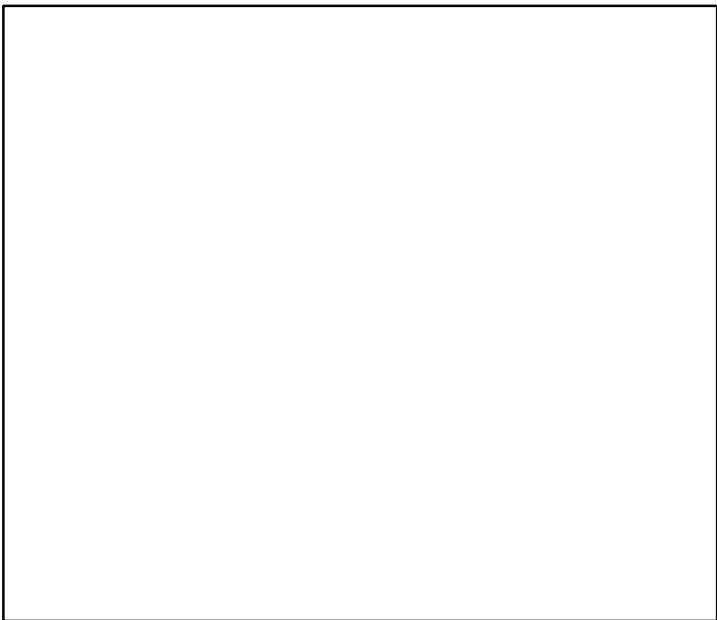
Kobe MSY*



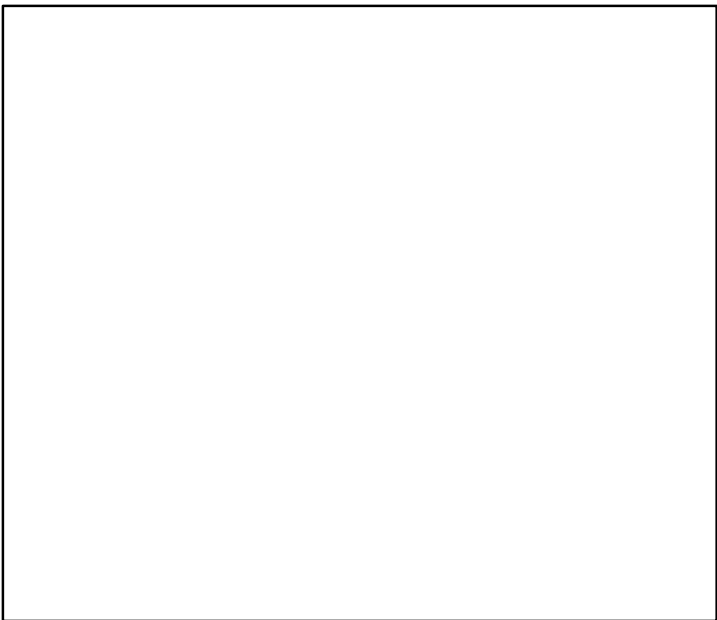
Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

TB*



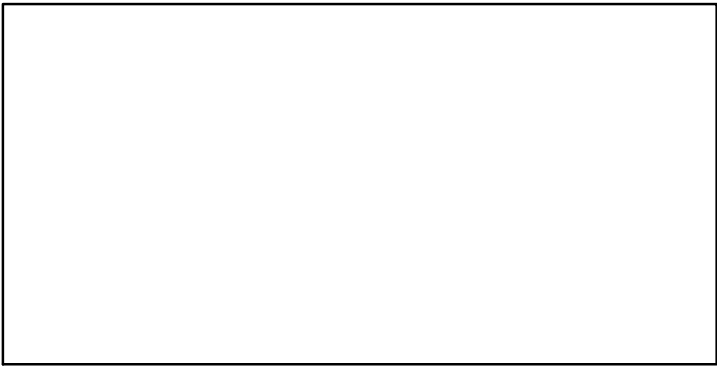
SSB*



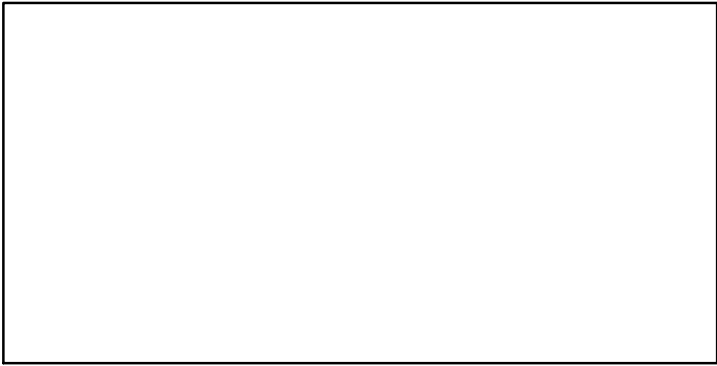
TN *



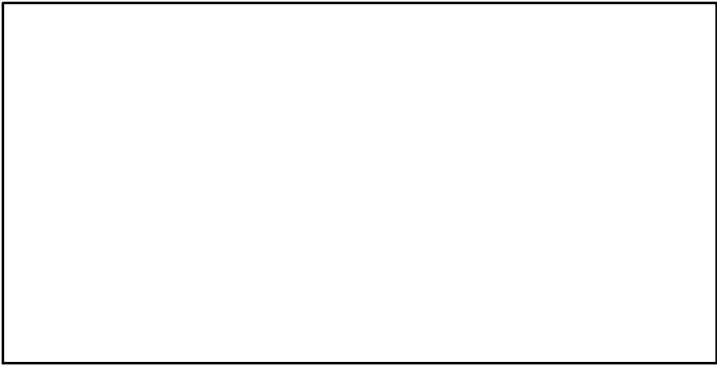
F*



ER*



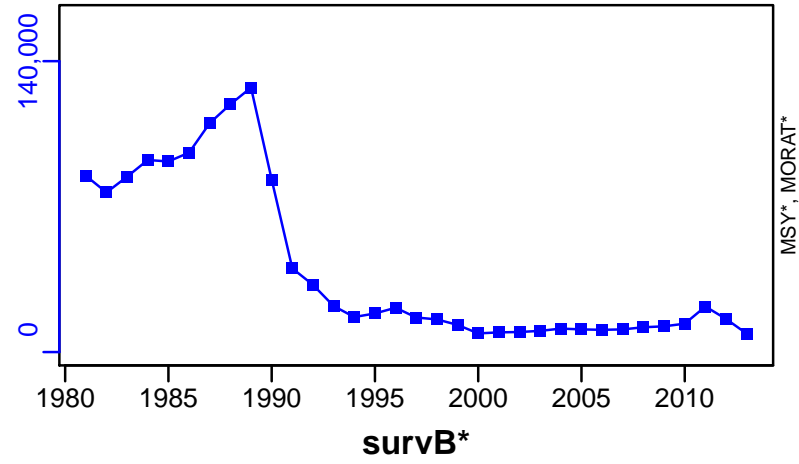
Recruits*



Walleye pollock Nemuro Strait [APOLLNEMS]

TC-MT, TL*, RecC* (1981-2013-JPNIMP2016)

TAC*, Cpair*, Cadv*



Walleye pollock Sea of Japan North [APOLLNSJ]

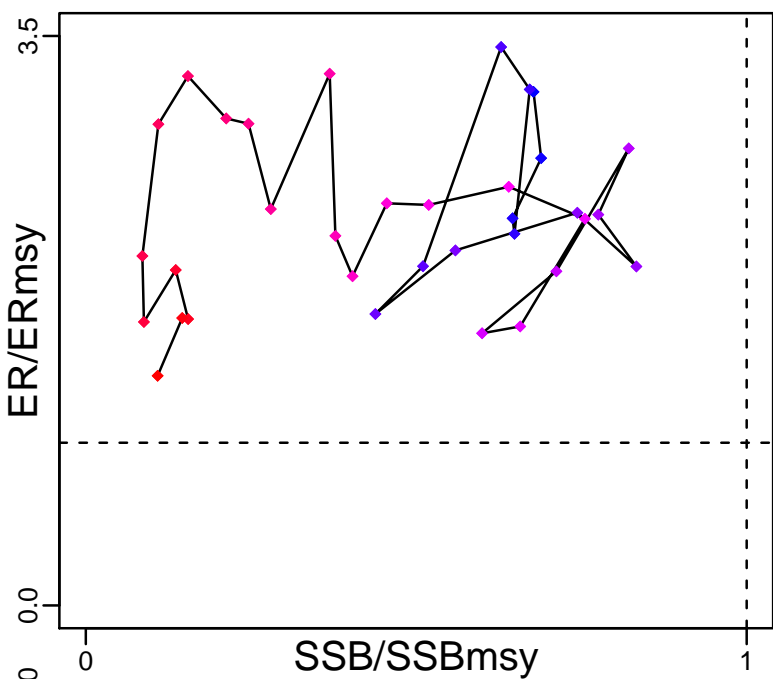
| Metadata | |
|-----------------------------|---|
| Scientific Name | Theragra chalcogramma |
| Current Assess ID | FAFRFJ-APOLLNSJ-1970-2013-JPNIMP2016 |
| Area | Sea of Japan North |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

| Reference Points | | | |
|------------------|---------------|-----------|---------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-calc-MT | 2013 | 619,267 |
| SSBmsy | SSBmsy-MT | 2013 | 346,887 |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2013 | 0.073 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-MT | 2013 | 45,207 |
| M | M-1/yr | 2013 | 0.25 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

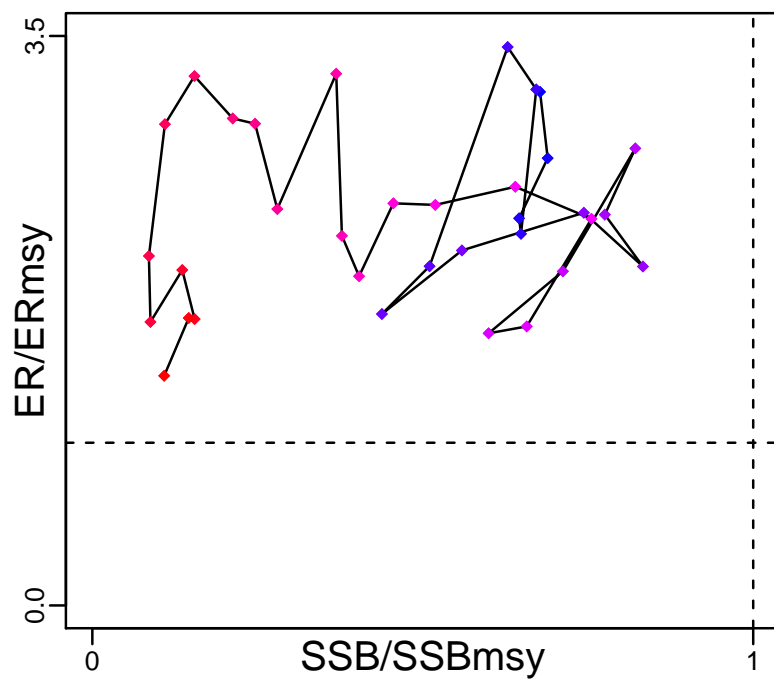
| Time Series | | | | | |
|-------------------|---------------------------|-----------|--------------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2013 | 95,800 | - | 2 |
| SSB | SSB-MT | 2013 | 37,700 | Both | 4 |
| TN | - | - | - | - | - |
| R | R-E00 | 2013 | 1.34×10^8 | - | 2 |
| F | - | - | - | - | - |
| ER | ER-calc-ratio | 2013 | 0.103 | - | - |
| TC | TC-MT | 2013 | 9870 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-calc-MT | 2013 | 0.155 | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-MT | 2013 | 0.109 | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2013 | 1.411 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Walleye pollock Sea of Japan North [APOLLNSJ]

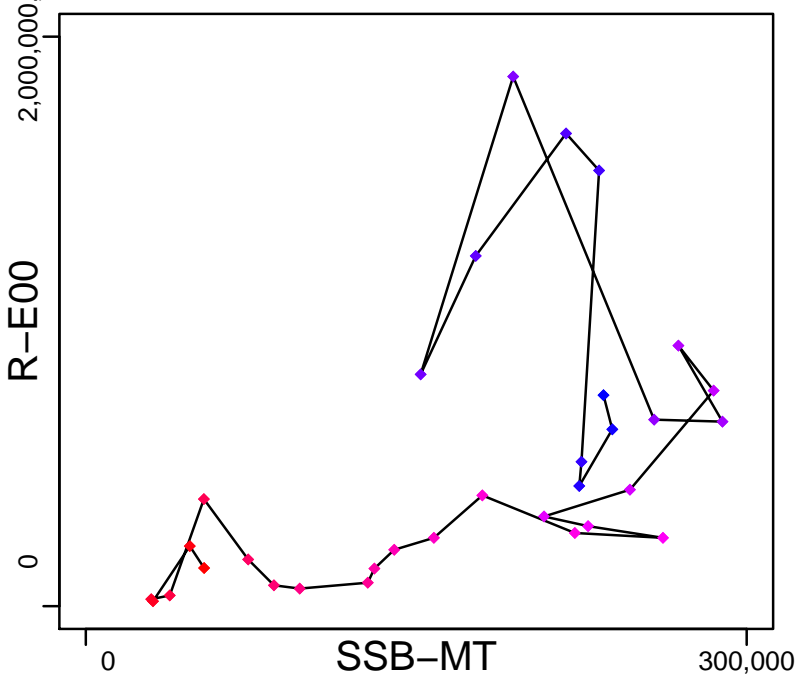
Kobe MSYpref (1970–2013–JPNIMP2016)



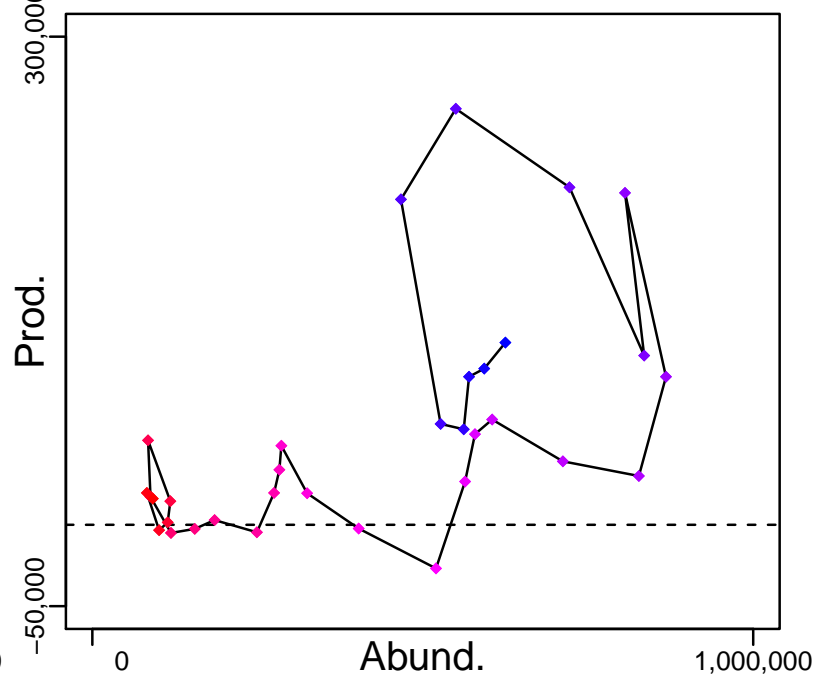
Kobe MGTpref (1970–2013–JPNIMP2016)



Spawner Recruit (1970–2013–JPNIMP2016)

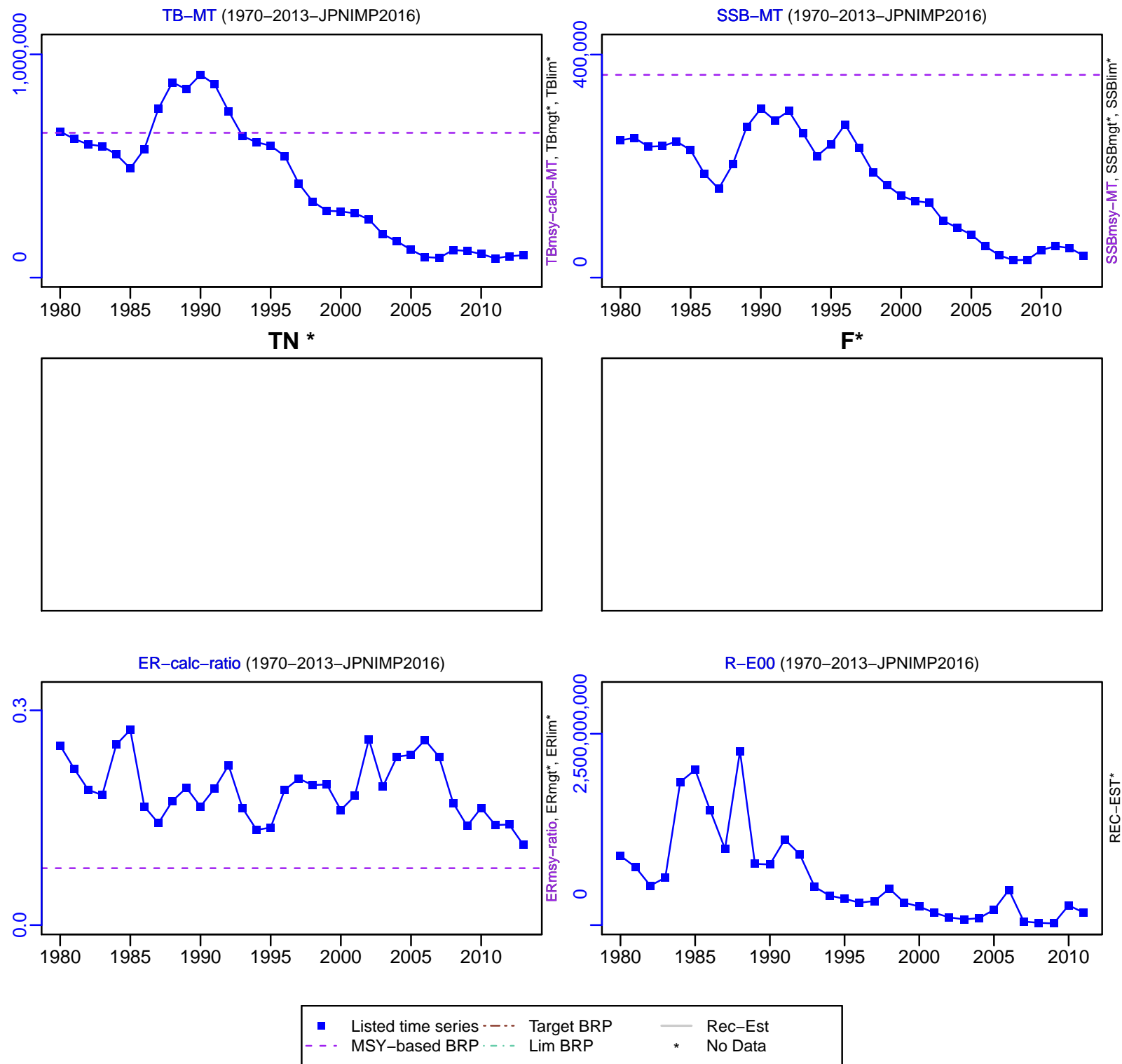


Production (1970–2013–JPNIMP2016)



◆ Start Year ◆ End Year * No Data

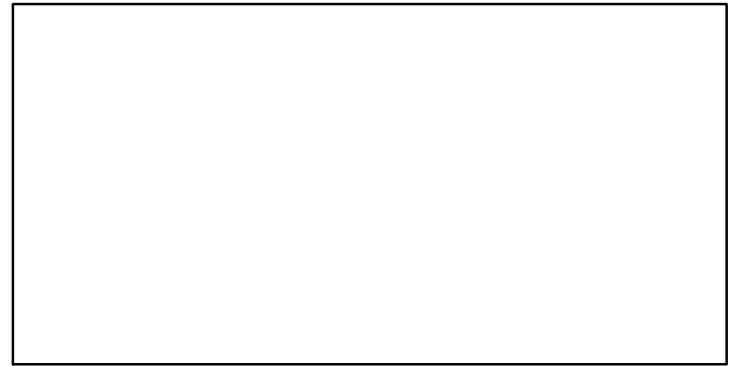
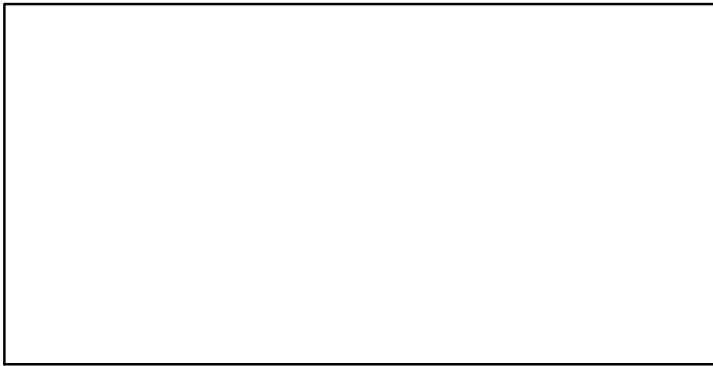
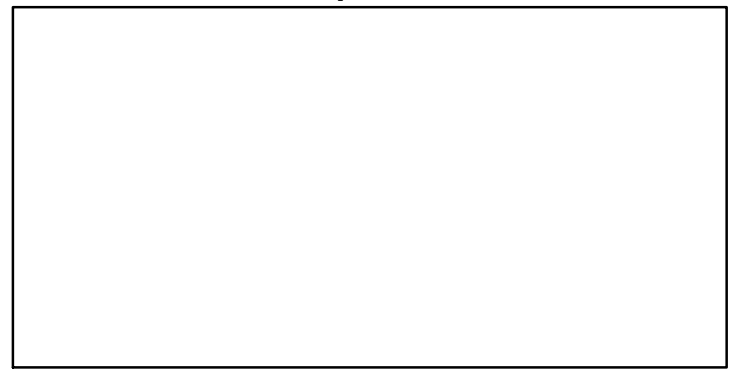
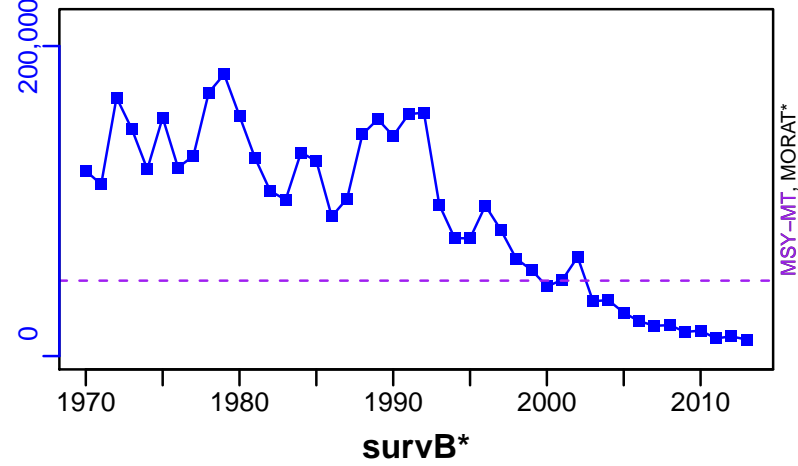
Walleye pollock Sea of Japan North [APOLLNSJ]



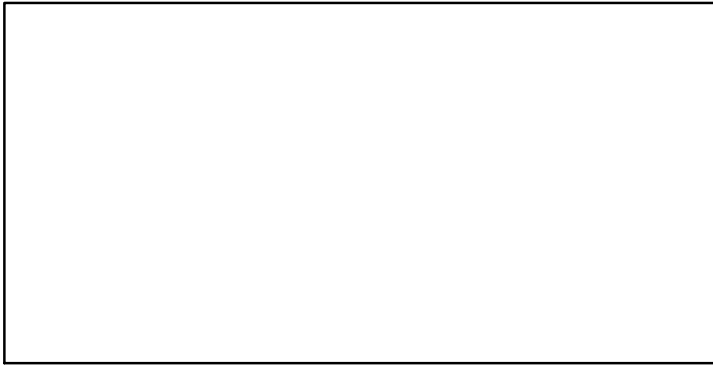
Walleye pollock Sea of Japan North [APOLLNSJ]

TC-MT, TL*, RecC* (1970-2013-JPNIMP2016)

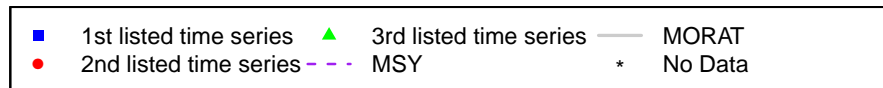
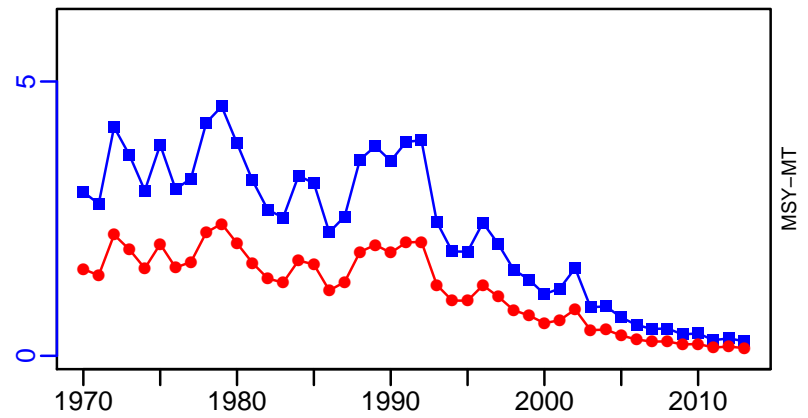
TAC*, Cpair*, Cadv*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1970-2013-JPNIMP2016)



Walleye pollock Okhotsk Sea [APOLLOKS]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Theragra chalcogramma |
| Current Assess ID | FAFRFJ-APOLLOKS-1980-2013-JPNIMP2016 |
| Area | Okhotsk Sea |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

| Reference Points | | | |
|------------------|--------|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | - | - | - |
| Fmsy | - | - | - |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | - | - | - |
| M | M-1/yr | 2013 | 0.25 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

| Time Series | | | | | |
|-------------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 36,400 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Walleye pollock Okhotsk Sea [APOLLOKS]

TB*



SSB*



TN *



F*



ER*



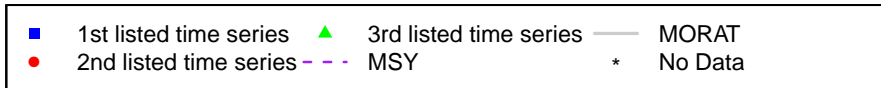
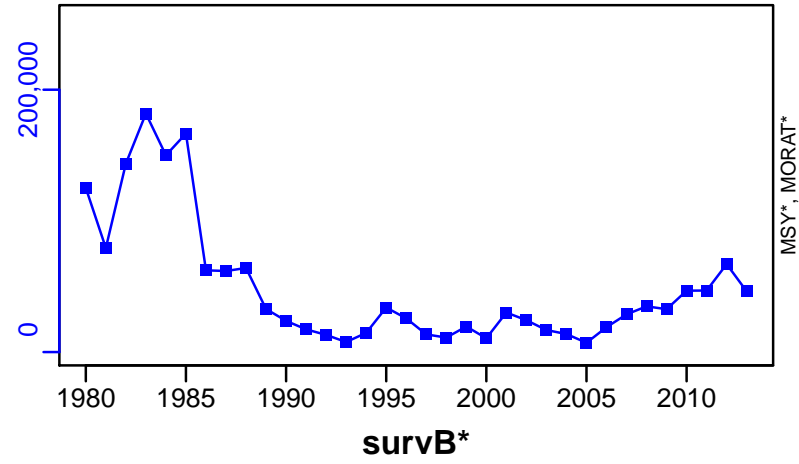
Recruits*



Walleye pollock Okhotsk Sea [APOLLOKS]

TC-MT, TL*, RecC* (1980–2013–JPNIMP2016)

TAC*, Cpair*, Cadv*



Walleye pollock Pacific Coast of Japan [APOLLJPJN]

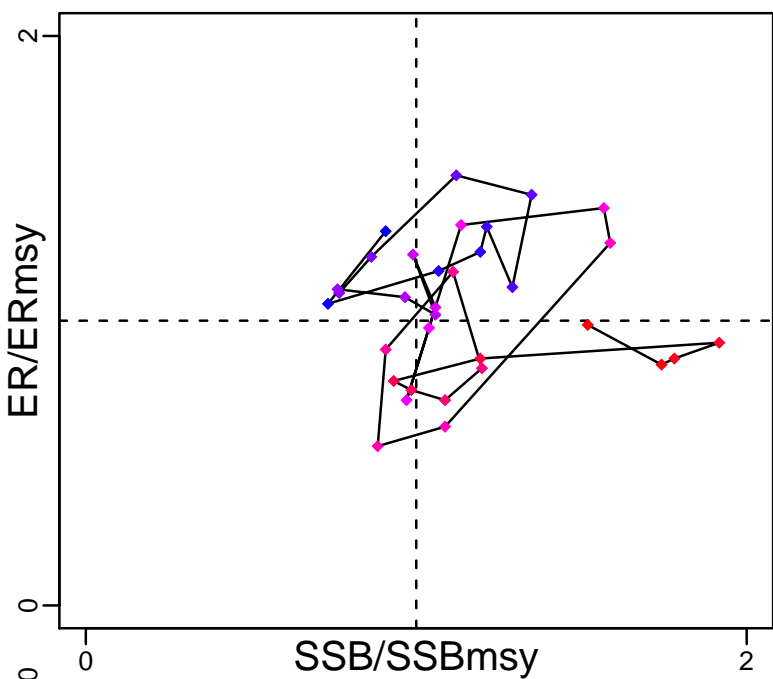
| Metadata | |
|-----------------------------|---|
| Scientific Name | Theragra chalcogramma |
| Current Assess ID | FAFRFJ-APOLLJPJN-1975-2013-JPNIMP2016 |
| Area | Pacific Coast of Japan |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

| Reference Points | | | |
|------------------|---------------|-----------|-----------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-calc-MT | 2013 | 1,013,493 |
| SSBmsy | SSBmsy-MT | 2013 | 206,052 |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2013 | 0.174 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-MT | 2013 | 176,348 |
| M | M-1/yr | 2013 | 0.25 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

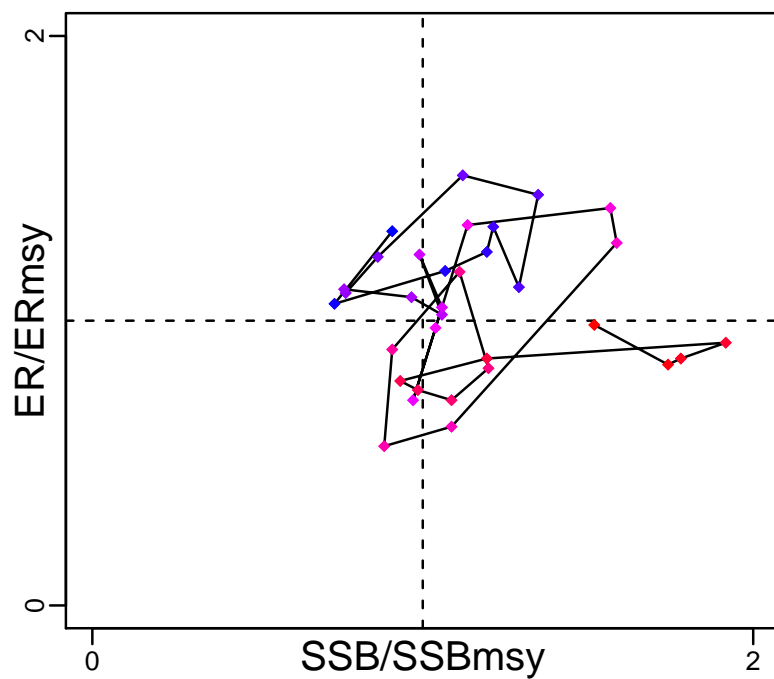
| Time Series | | | | | |
|-------------------|---------------------------|-----------|--------------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2013 | 910,000 | - | 0 |
| SSB | SSB-MT | 2013 | 313,000 | Both | 4 |
| TN | - | - | - | - | - |
| R | R-E00 | 2013 | 1.53×10^9 | - | 0 |
| F | - | - | - | - | - |
| ER | ER-calc-ratio | 2013 | 0.171 | - | - |
| TC | TC-MT | 2013 | 156,000 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-calc-MT | 2013 | 0.898 | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-MT | 2013 | 1.519 | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2013 | 0.985 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Walleye pollock Pacific Coast of Japan [APOLLJPN]

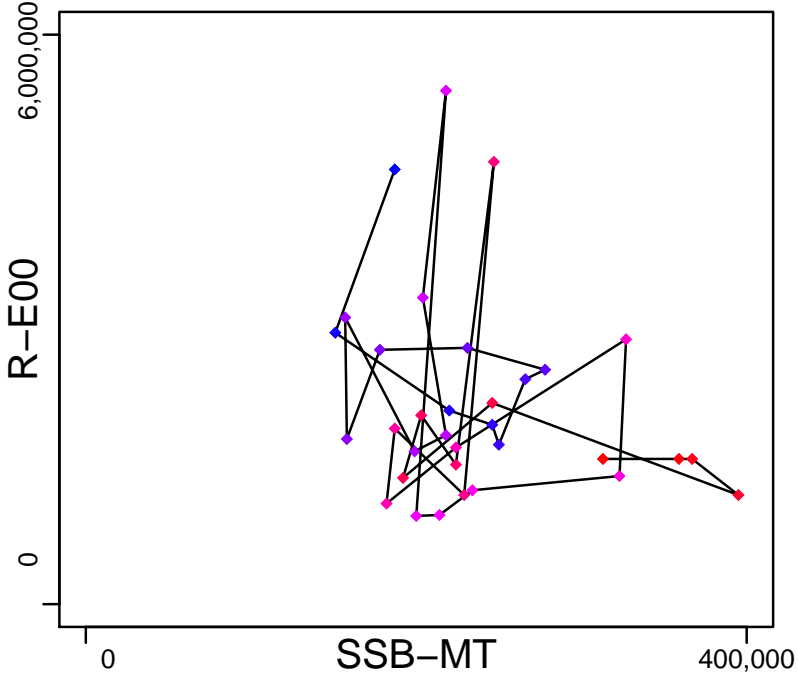
Kobe MSYpref (1975–2013–JPNIMP2016)



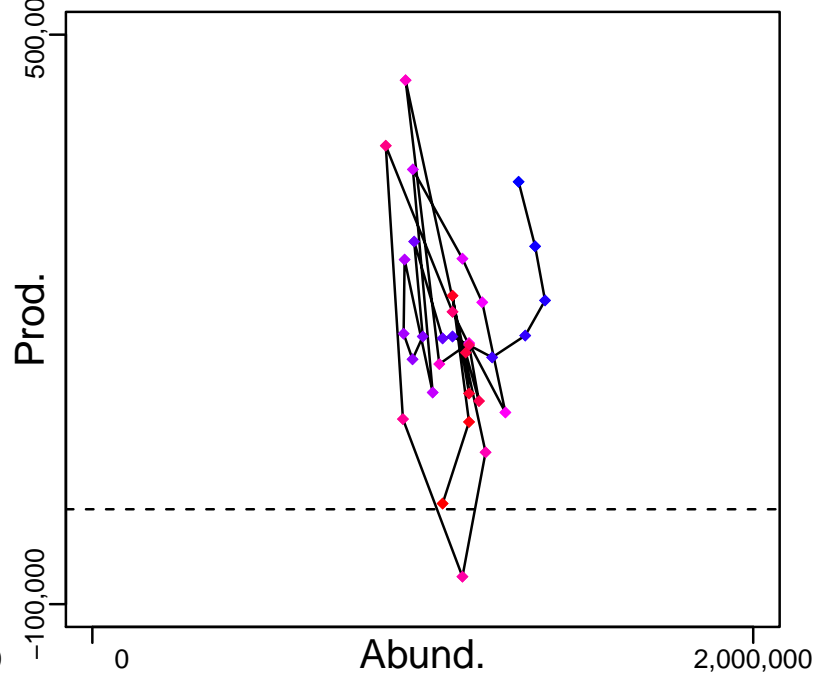
Kobe MGTpref (1975–2013–JPNIMP2016)



Spawner Recruit (1975–2013–JPNIMP2016)



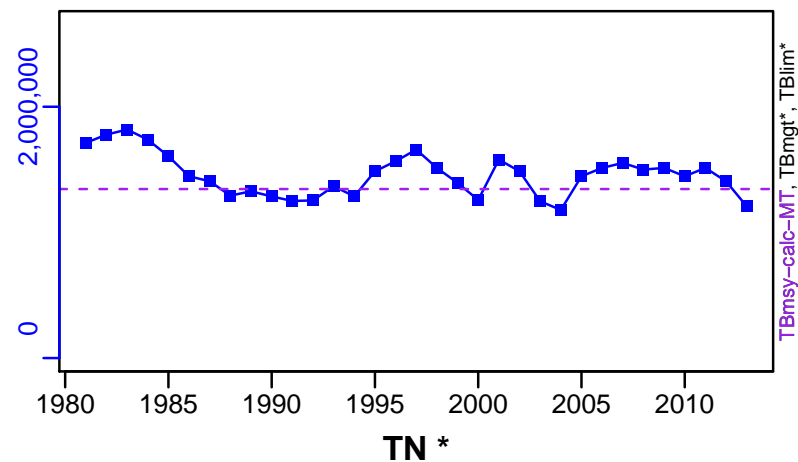
Production (1975–2013–JPNIMP2016)



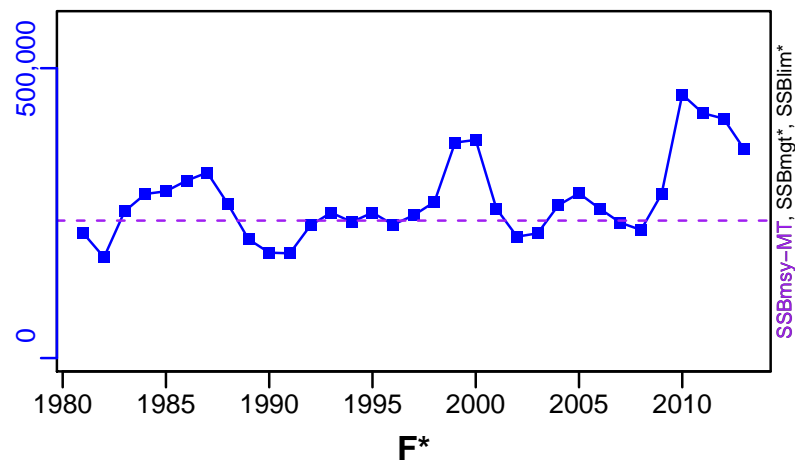
◆ Start Year ◆ End Year * No Data

Walleye pollock Pacific Coast of Japan [APOLLJPJN]

TB-MT (1975-2013-JPNIMP2016)



SSB-MT (1975-2013-JPNIMP2016)



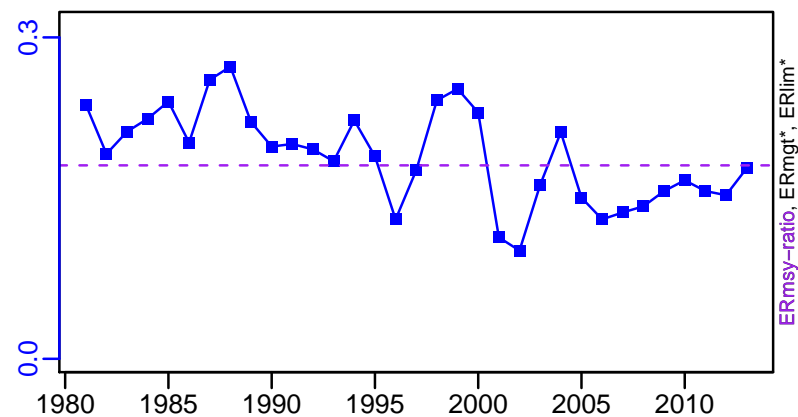
TN *



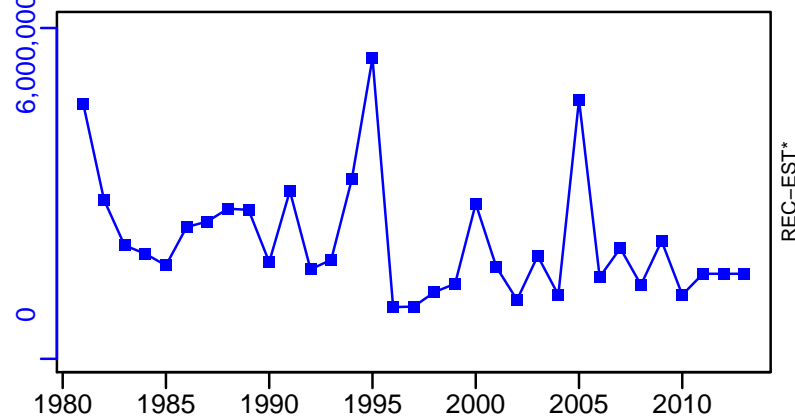
F*



ER-calc-ratio (1975-2013-JPNIMP2016)

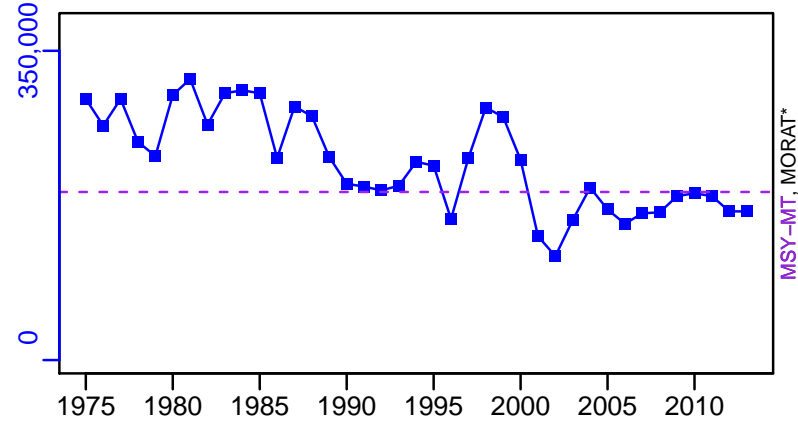


R-E00 (1975-2013-JPNIMP2016)



Walleye pollock Pacific Coast of Japan [APOLLPJPN]

TC-MT, TL*, RecC* (1975–2013–JPNIMP2016)



TAC*, Cpair*, Cadv*



survB*



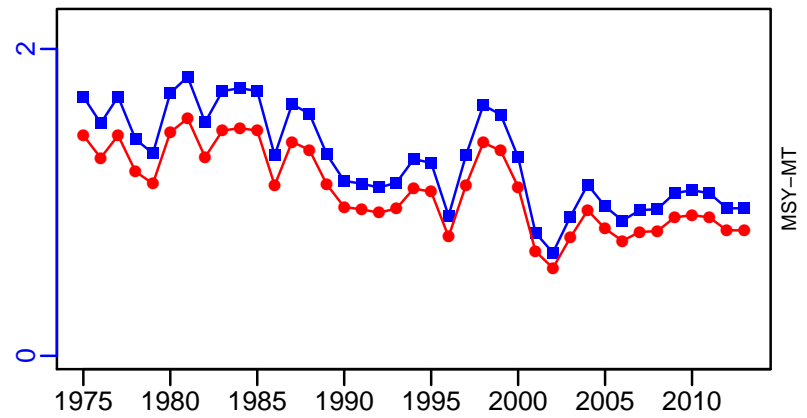
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1975–2013–JPNIMP2016)



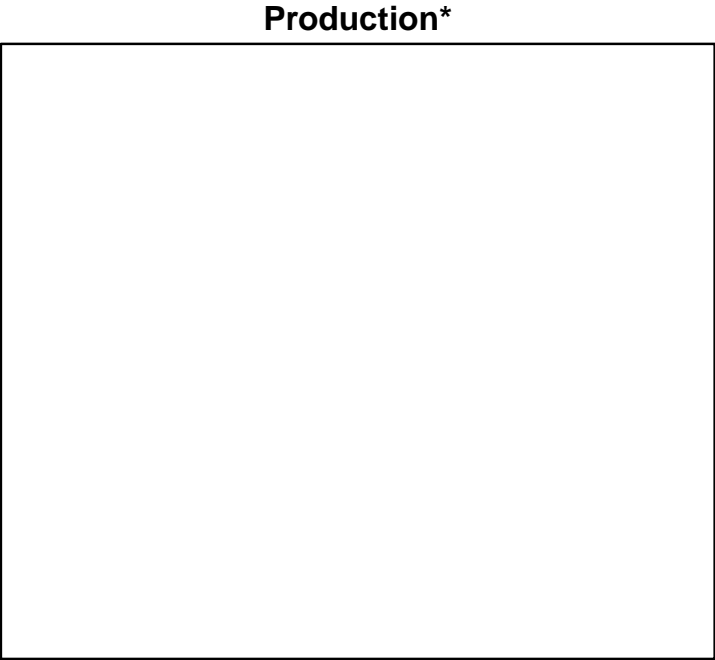
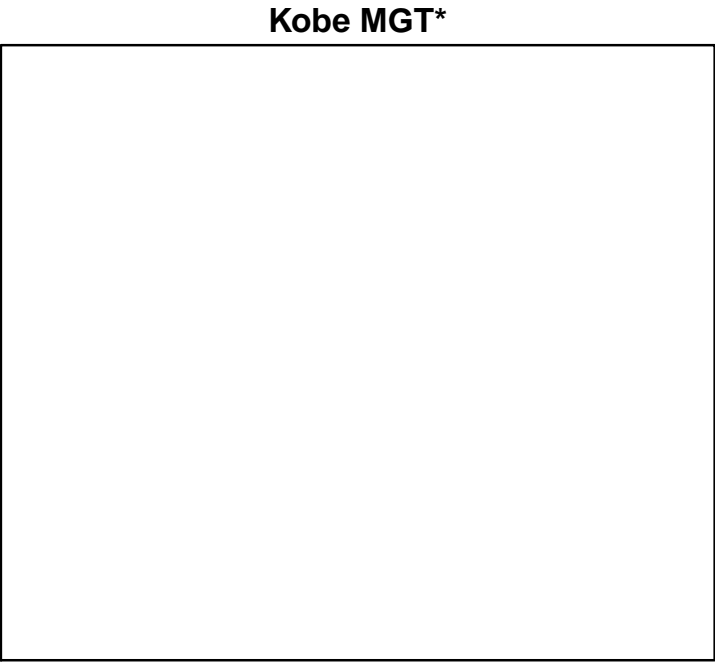
- 1st listed time series
- 2nd listed time series
- 3rd listed time series
- MORAT
- MSY
- No Data

Alaskan pink shrimp Sea of Japan [APSHRIMPSOJ]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Pandalus eous |
| Current Assess ID | FAFRFJ-APSHRIMPSOJ-1985-2013-JPNIMP2016 |
| Area | Sea of Japan |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

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

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 1730 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |



◆ Start Year ◆ End Year * No Data

Alaskan pink shrimp Sea of Japan [APSHRIMPSOJ]

TB*



SSB*



TN *



F*



ER*



Recruits*



■ Listed time series

--- MSY-based BRP

--- Target BRP

--- Lim BRP

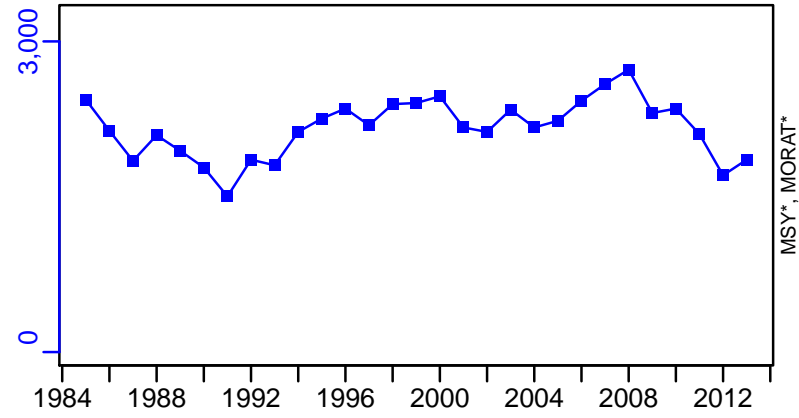
— Rec-Est

* No Data

Alaskan pink shrimp Sea of Japan [APSHRIMPSOJ]

TC-MT, TL*, RecC* (1985–2013–JPNIMP2016)

TAC*, Cpair*, Cadv*



Arabesque greenling Nemuro Strait [ARGREENNEMS]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Pleurogrammus azonus |
| Current Assess ID | FAFRFJ-ARGREENNEMS-1985-2013-JPNIMP2016 |
| Area | Nemuro Strait |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

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

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 4090 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

TB*



SSB*



TN *



F*



ER*

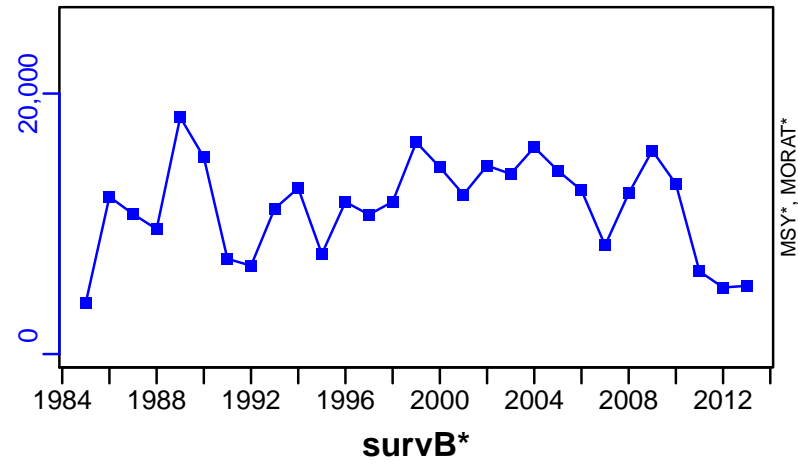


Recruits*



Arabesque greenling Nemuro Strait [ARGREENNEMS]

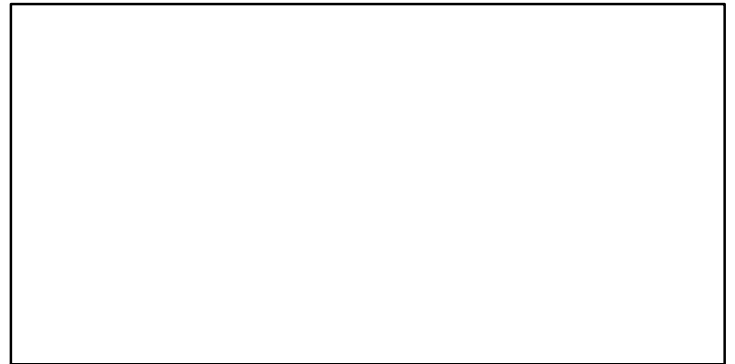
TC-MT, TL*, RecC* (1985–2013–JPNIMP2016)



TAC*, Cpair*, Cadv*



CPUE*



EFFORT*



CdivMSY*



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

Arabesque greenling North coast of Hokkaido [ARGREENNHOKK]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Pleurogrammus azonus |
| Current Assess ID | FAFRFJ-ARGREENNHOKK-1980-2013-JPNIMP2016 |
| Area | North coast of Hokkaido |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

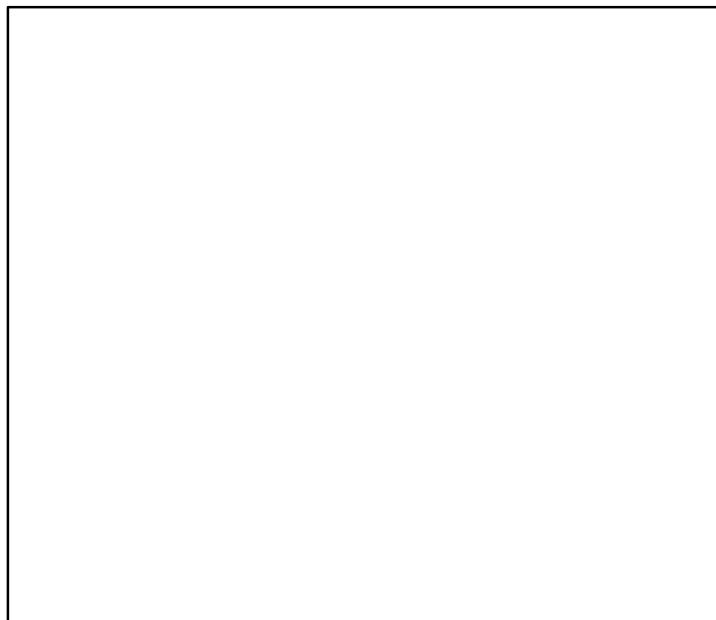
| Reference Points | | | |
|------------------|----|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | - | - | - |
| Fmsy | - | - | - |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | -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

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 46,300 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Kobe MSY*



Kobe MGT*



Spawner Recruit*



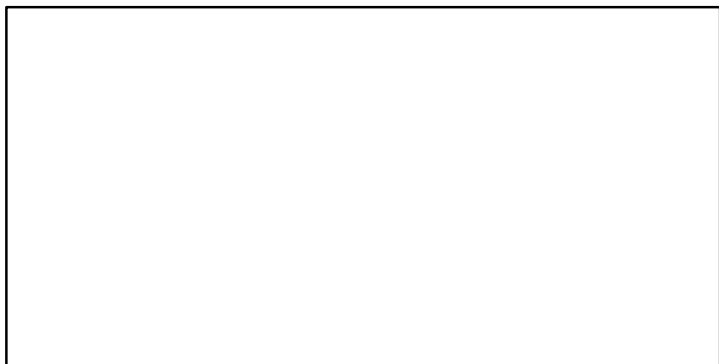
Production*



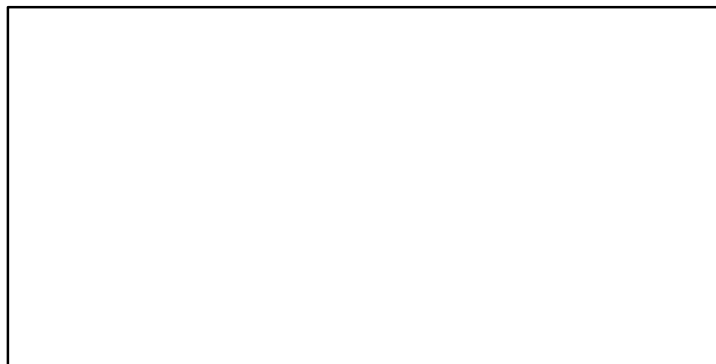
◆ Start Year ◆ End Year * No Data

Arabesque greenling North coast of Hokkaido [ARGREENNHOKK]

TB*



SSB*



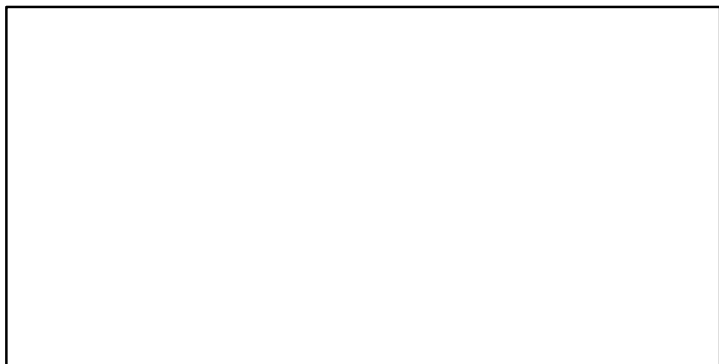
TN *



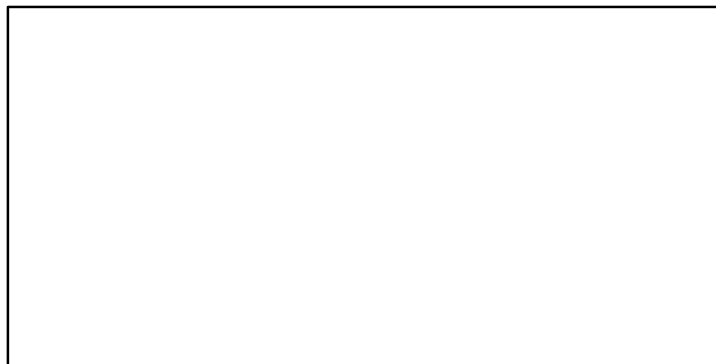
F*



ER*



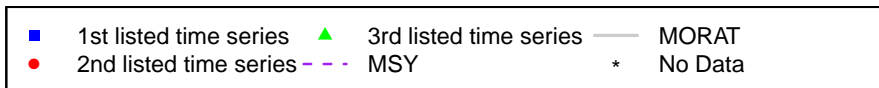
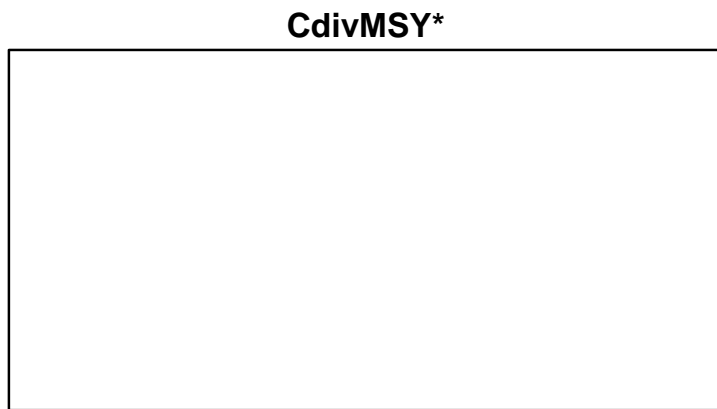
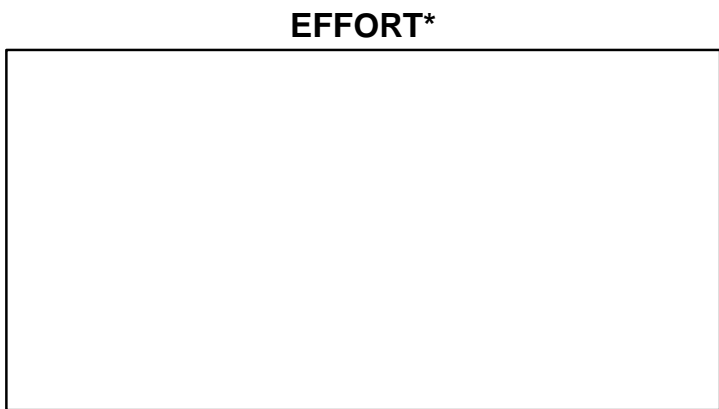
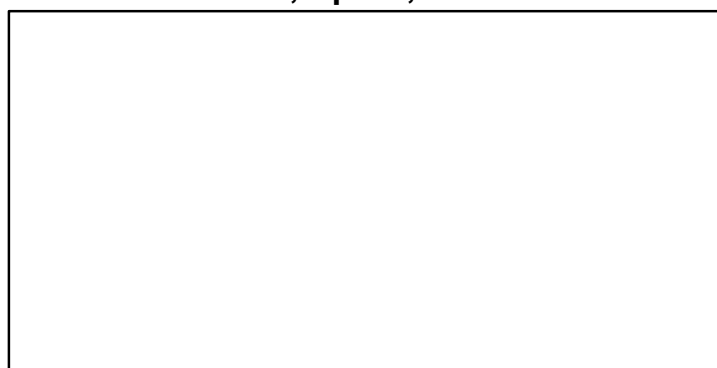
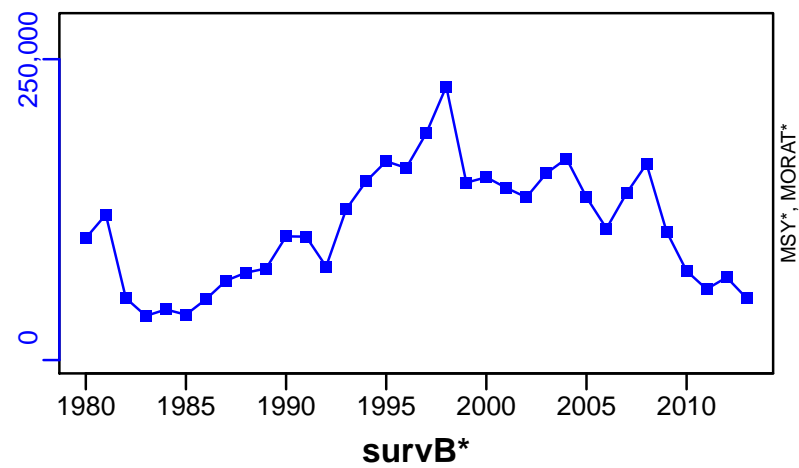
Recruits*



Arabesque greenling North coast of Hokkaido [ARGREENNHOKK]

TC-MT, TL*, RecC* (1980–2013–JPNIMP2016)

TAC*, Cpair*, Cadv*



Arabesque greenling South coast of Hokkaido [ARGREENSHOKK]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Pleurogrammus azonus |
| Current Assess ID | FAFRFJ-ARGREENSHOKK-1975-2013-JPNIMP2016 |
| Area | South coast of Hokkaido |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

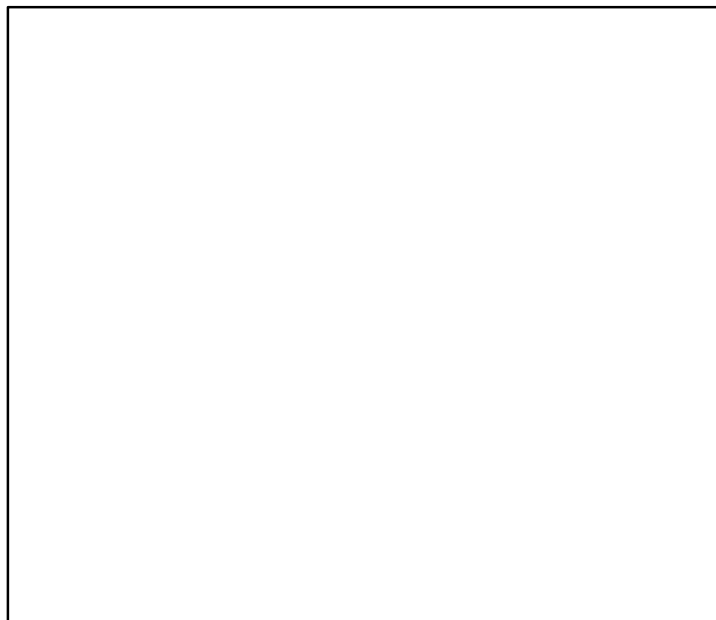
| Reference Points | | | |
|------------------|----|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | - | - | - |
| Fmsy | - | - | - |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | -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

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 2300 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Kobe MSY*



Kobe MGT*



Spawner Recruit*



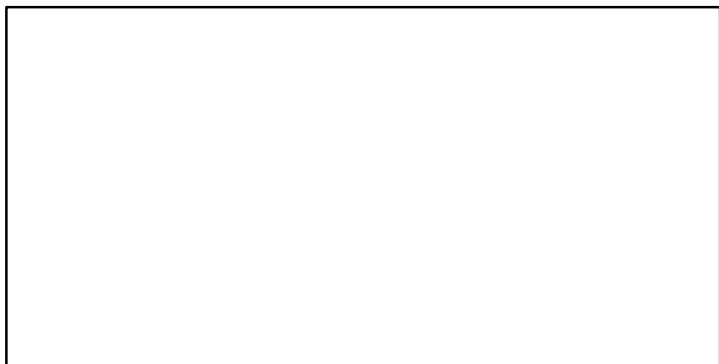
Production*



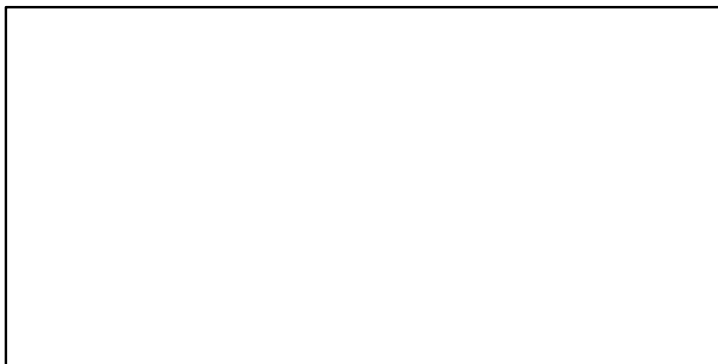
◆ Start Year ◆ End Year * No Data

Arabesque greenling South coast of Hokkaido [ARGREENSHOKK]

TB*



SSB*



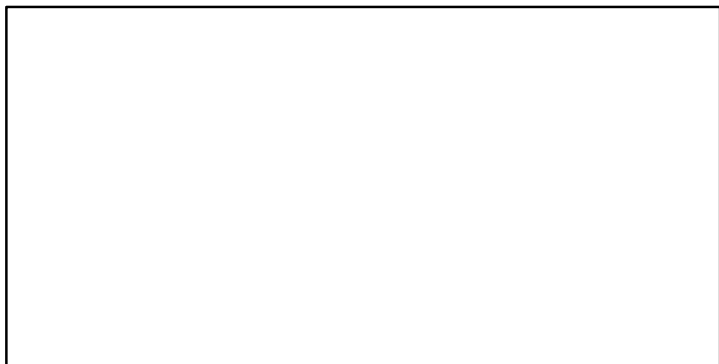
TN *



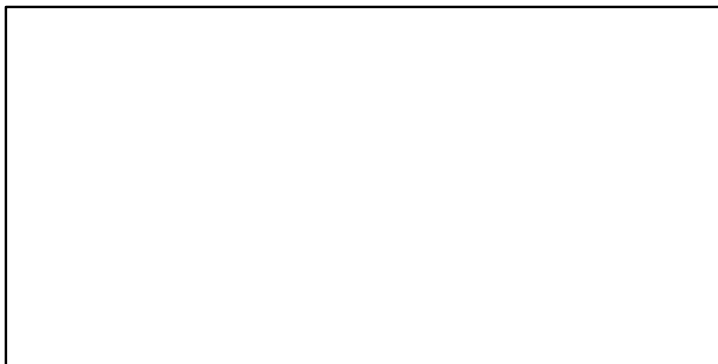
F*



ER*

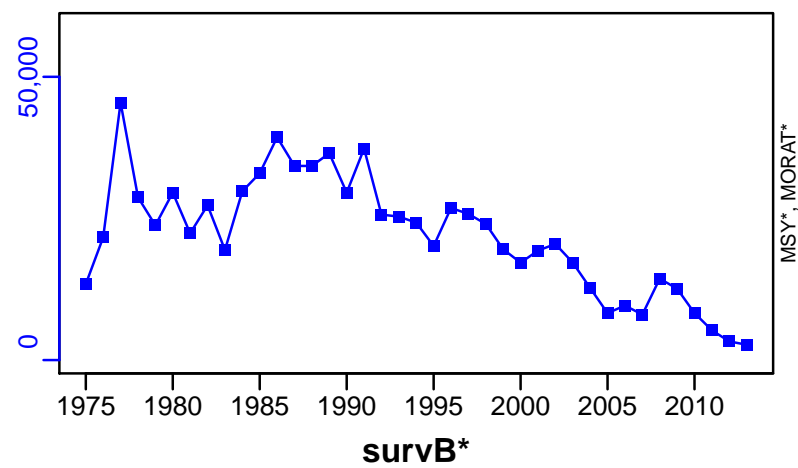


Recruits*



Arabesque greenling South coast of Hokkaido [ARGREENSHOKK]

TC-MT, TL*, RecC* (1975–2013–JPNIMP2016)



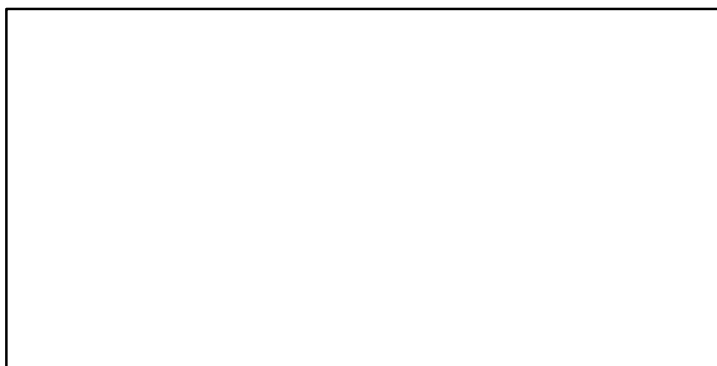
TAC*, Cpair*, Cadv*



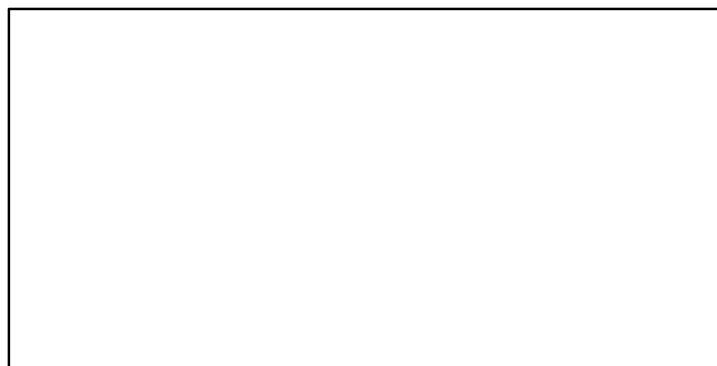
CPUE*



EFFORT*



CdivMSY*



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

Amberstripe scad East China Sea [ASCADECS]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Decapterus muroadsi |
| Current Assess ID | FAFRFJ-ASCADECS-1973-2013-JPNIMP2016 |
| Area | East China Sea |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

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

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 6780 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

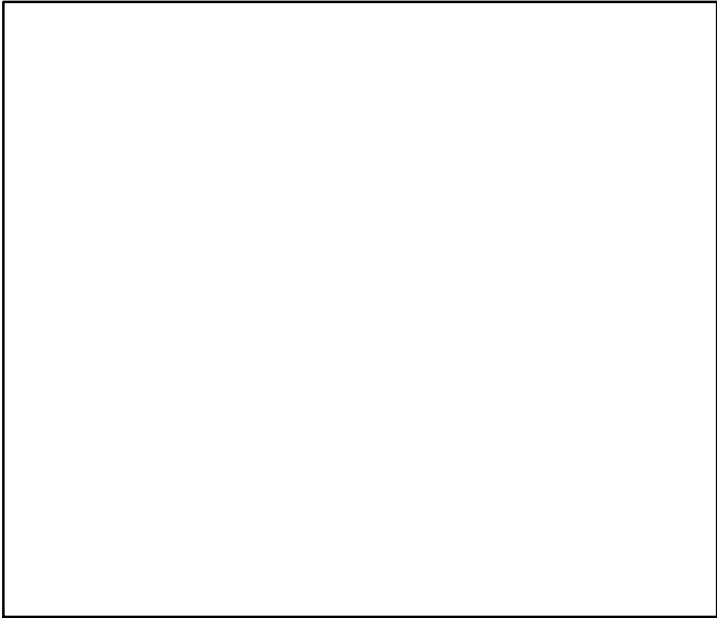
Kobe MSY*



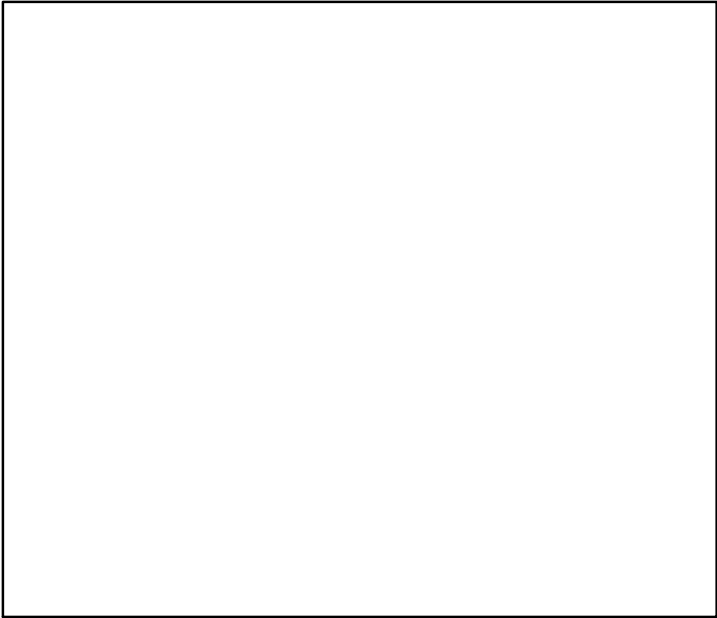
Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Amberstripe scad East China Sea [ASCADECS]

TB*



SSB*



TN *



F*



ER*

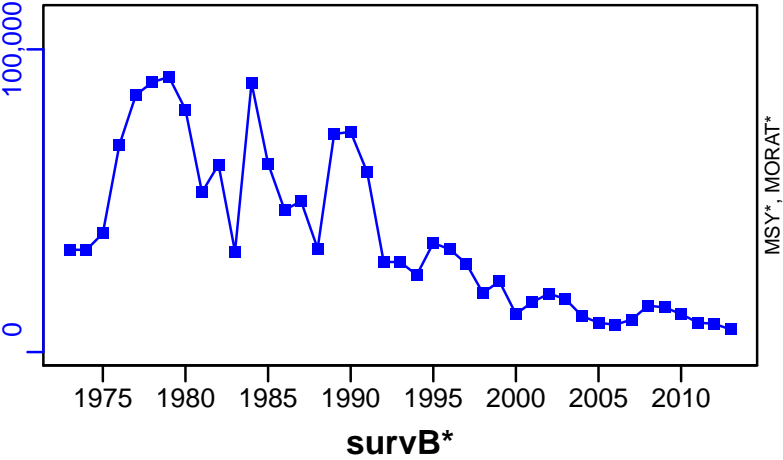


Recruits*



Amberstripe scad East China Sea [ASCADECS]

TC-MT, TL*, RecC* (1973-2013-JPNIMP2016)



TAC*, Cpair*, Cadv*



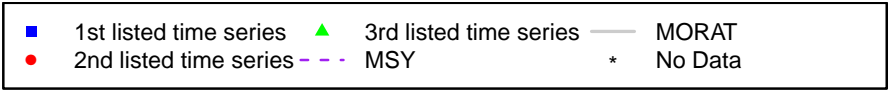
CPUE*



EFFORT*



CdivMSY*



Spotted mackerel East China Sea [BMACKECS]

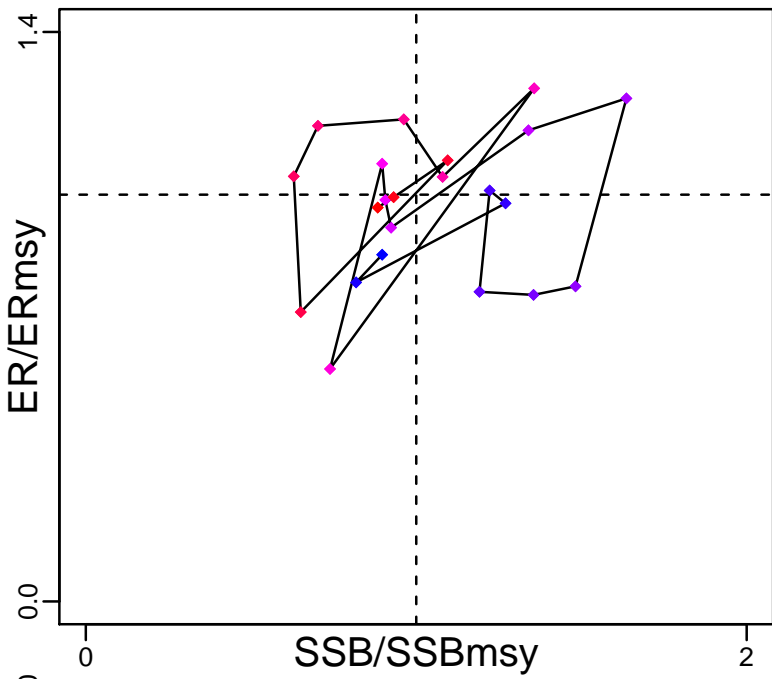
| Metadata | |
|-----------------------------|---|
| Scientific Name | Scomber australasicus |
| Current Assess ID | FAFRFJ-BMACKECS-1992-2013-JPNIMP2016 |
| Area | East China Sea |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

| Reference Points | | | |
|------------------|---------------|-----------|---------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-calc-MT | 2013 | 140,403 |
| SSBmsy | SSBmsy-MT | 2013 | 51,957 |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2013 | 0.39 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-MT | 2013 | 54,757 |
| M | M-1/yr | 2013 | 0.4 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

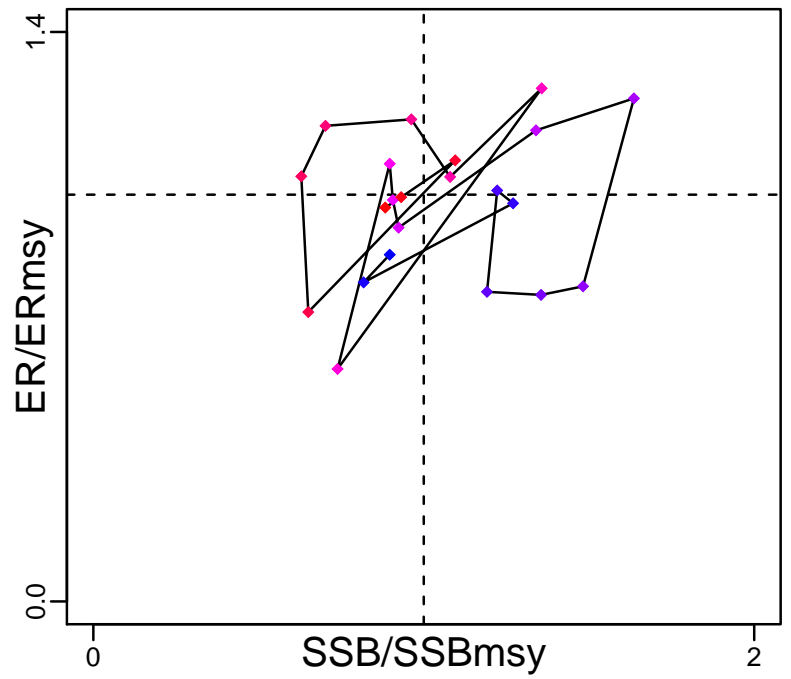
| Time Series | | | | | |
|-------------------|---------------------------|-----------|--------------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2013 | 134,000 | - | 0 |
| SSB | SSB-MT | 2013 | 45,900 | Both | 1 |
| TN | - | - | - | - | - |
| R | R-E00 | 2013 | 3.01×10^8 | - | 0 |
| F | - | - | - | - | - |
| ER | ER-calc-ratio | 2013 | 0.378 | - | - |
| TC | TC-MT | 2013 | 50,600 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-calc-MT | 2013 | 0.954 | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-MT | 2013 | 0.883 | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2013 | 0.968 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Spotted mackerel East China Sea [BMACKECS]

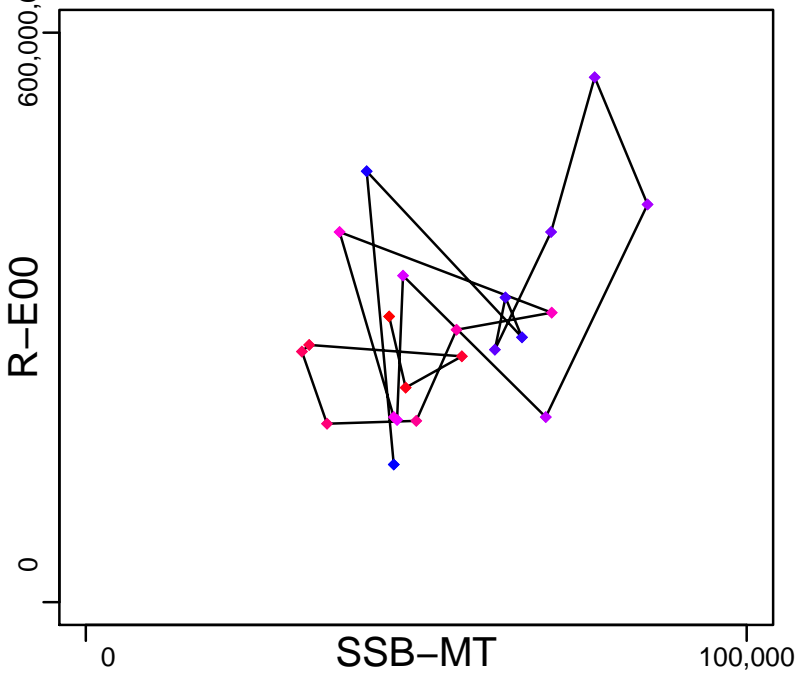
Kobe MSYpref (1992–2013–JPNIMP2016)



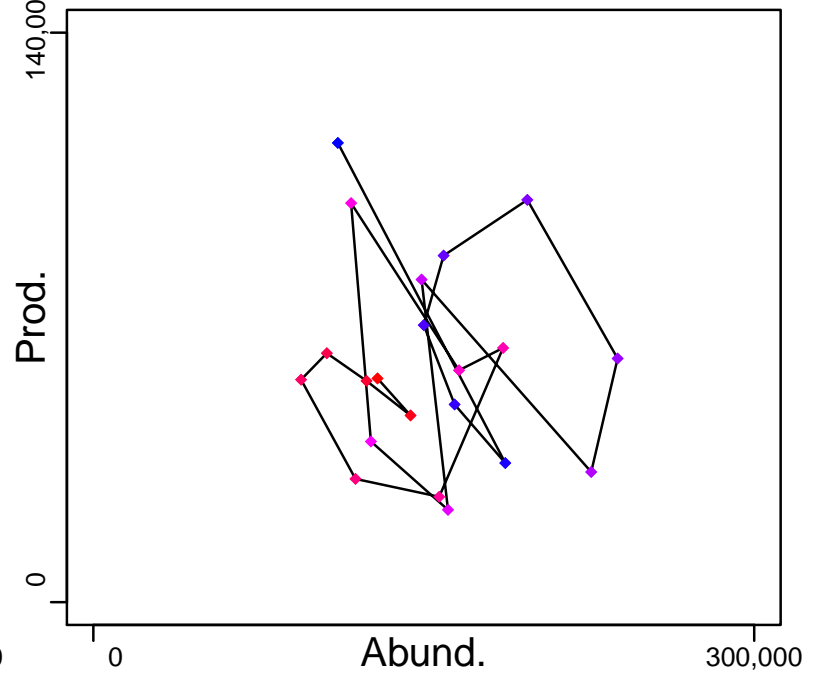
Kobe MGTpref (1992–2013–JPNIMP2016)



Spawner Recruit (1992–2013–JPNIMP2016)



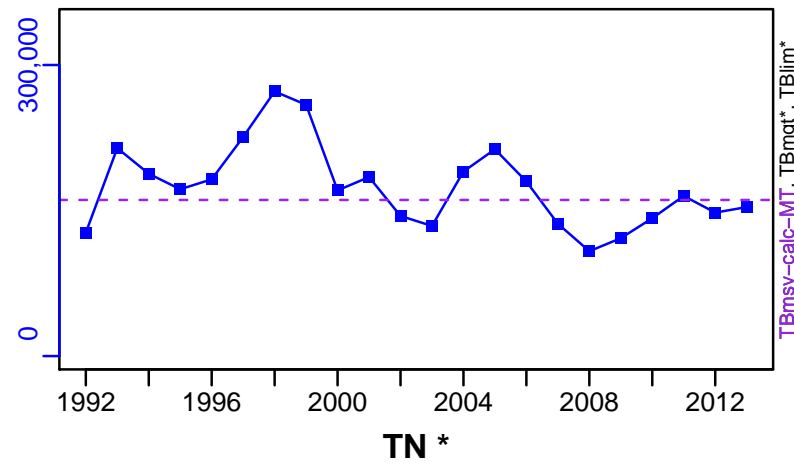
Production (1992–2013–JPNIMP2016)



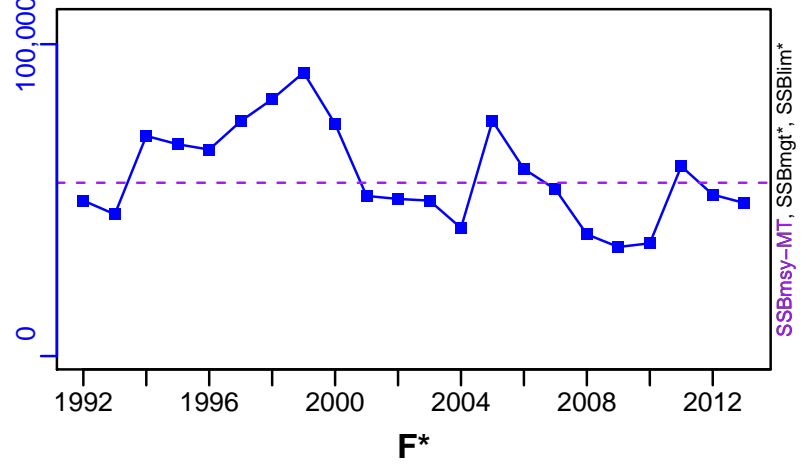
◆ Start Year ◆ End Year * No Data

Spotted mackerel East China Sea [BMACKECS]

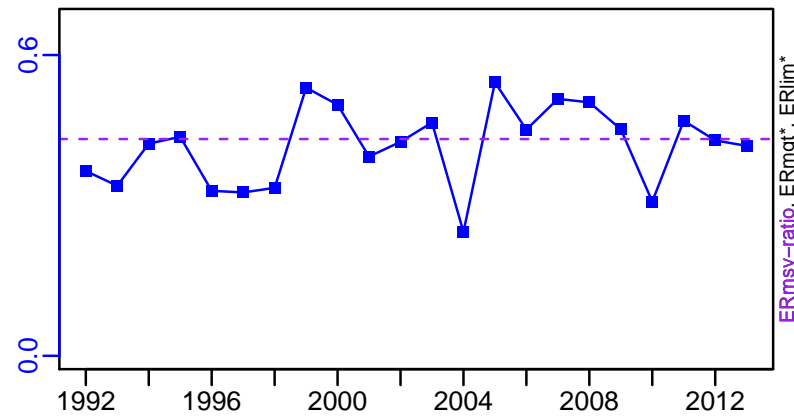
TB-MT (1992–2013–JPNIMP2016)



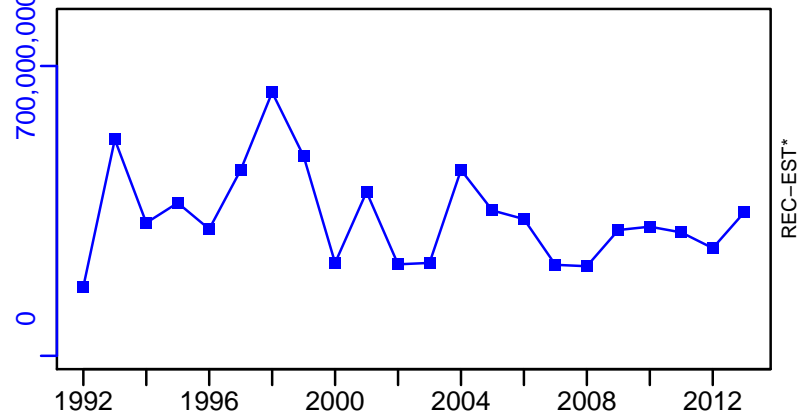
SSB-MT (1992–2013–JPNIMP2016)



ER-calc-ratio (1992–2013–JPNIMP2016)

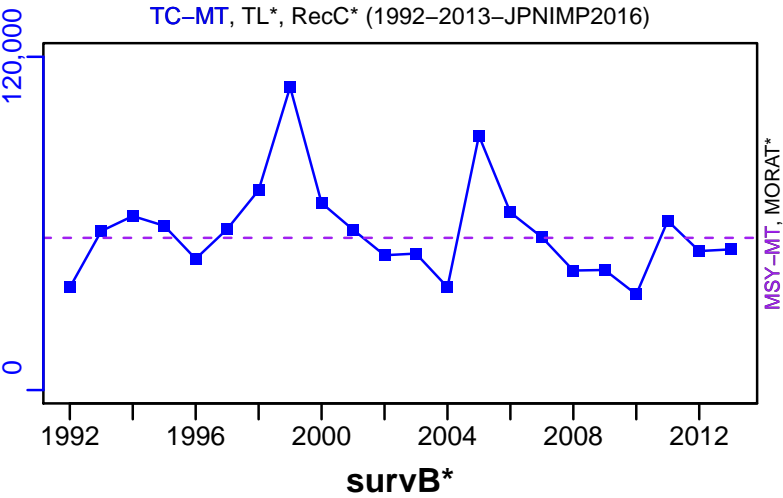


R-E00 (1992–2013–JPNIMP2016)



Spotted mackerel East China Sea [BMACKECS]

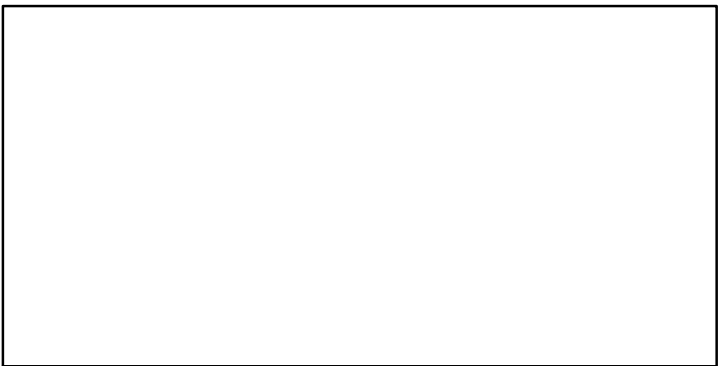
TC-MT, TL*, RecC* (1992-2013-JPNIMP2016)



TAC*, Cpair*, Cadv*



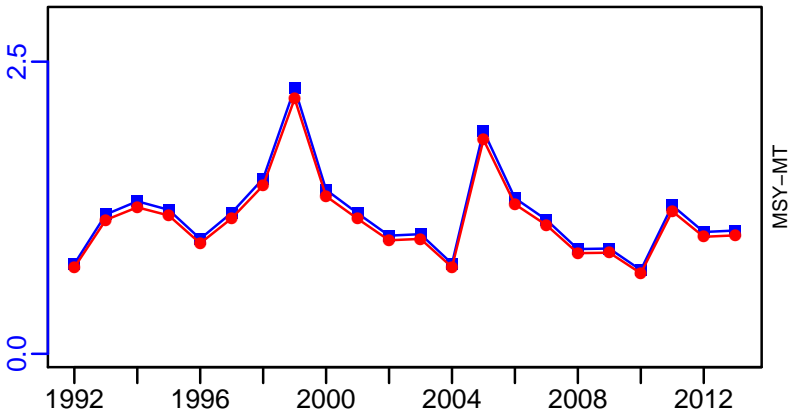
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1992-2013-JPNIMP2016)



Spotted mackerel Pacific Coast of Japan [BMACKPJPN]

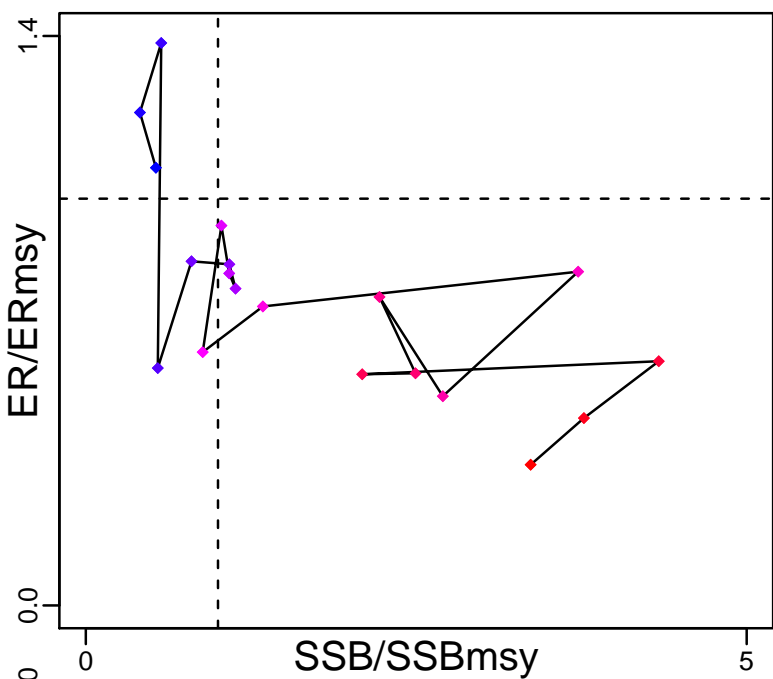
| Metadata | |
|-----------------------------|---|
| Scientific Name | Scomber australasicus |
| Current Assess ID | FAFRFJ-BMACKPJPN-1982-2013-JPNIMP2016 |
| Area | Pacific Coast of Japan |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

| Reference Points | | | |
|------------------|---------------|-----------|---------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-calc-MT | 2013 | 369,685 |
| SSBmsy | SSBmsy-MT | 2013 | 91,814 |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2013 | 0.394 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-MT | 2013 | 145,656 |
| M | M-1/yr | 2013 | 0.4 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

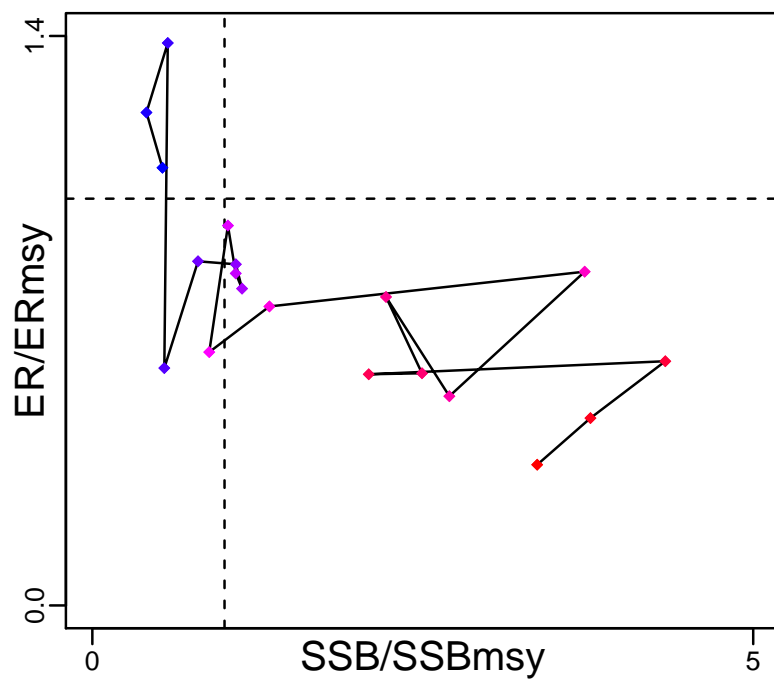
| Time Series | | | | | |
|-------------------|---------------------------|-----------|--------------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2013 | 785,000 | - | 0 |
| SSB | SSB-MT | 2013 | 309,000 | Both | 2 |
| TN | - | - | - | - | - |
| R | R-E00 | 2013 | 1.22×10^9 | - | 0 |
| F | - | - | - | - | - |
| ER | ER-calc-ratio | 2013 | 0.136 | - | - |
| TC | TC-MT | 2013 | 107,000 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-calc-MT | 2013 | 2.123 | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-MT | 2013 | 3.365 | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2013 | 0.346 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Spotted mackerel Pacific Coast of Japan [BMACKPJPN]

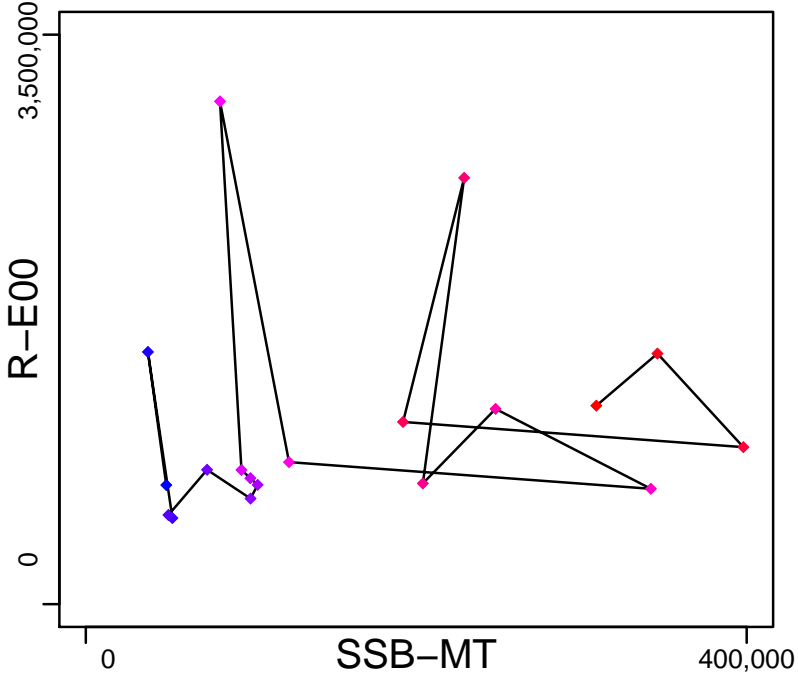
Kobe MSYpref (1982–2013–JPNIMP2016)



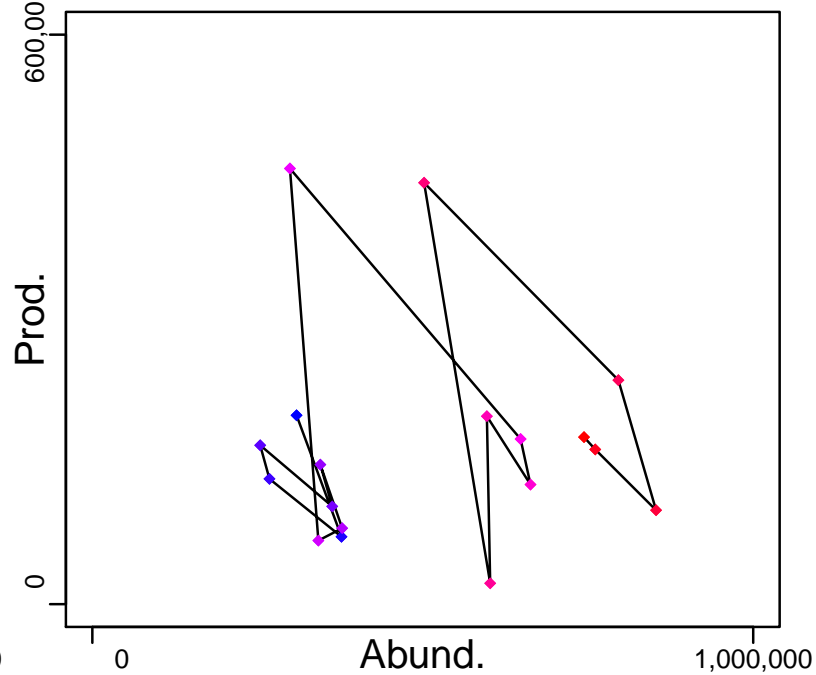
Kobe MGTpref (1982–2013–JPNIMP2016)



Spawner Recruit (1982–2013–JPNIMP2016)



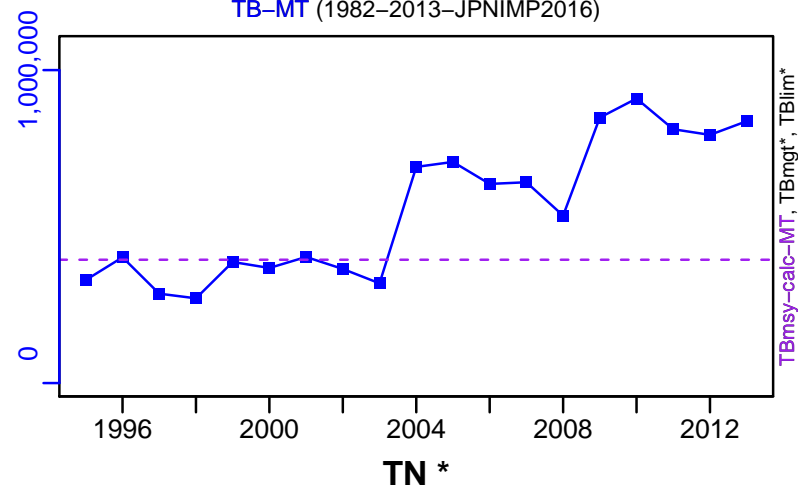
Production (1982–2013–JPNIMP2016)



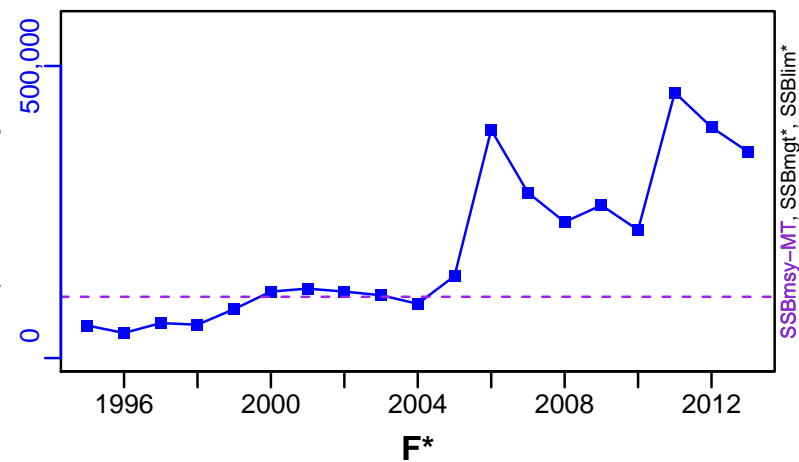
◆ Start Year ◆ End Year * No Data

Spotted mackerel Pacific Coast of Japan [BMACKPJPN]

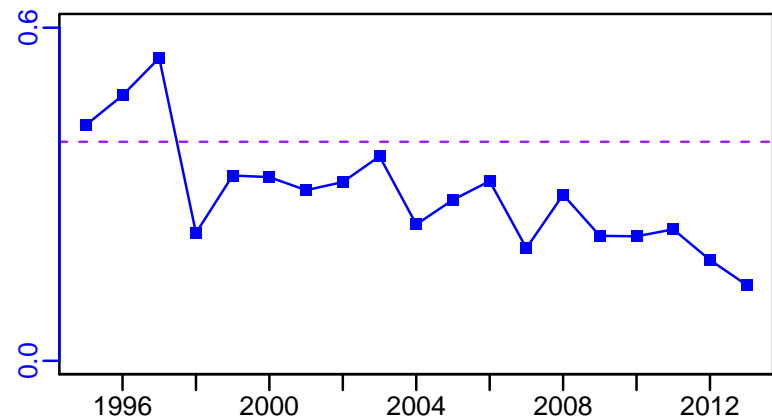
TB-MT (1982-2013-JPNIMP2016)



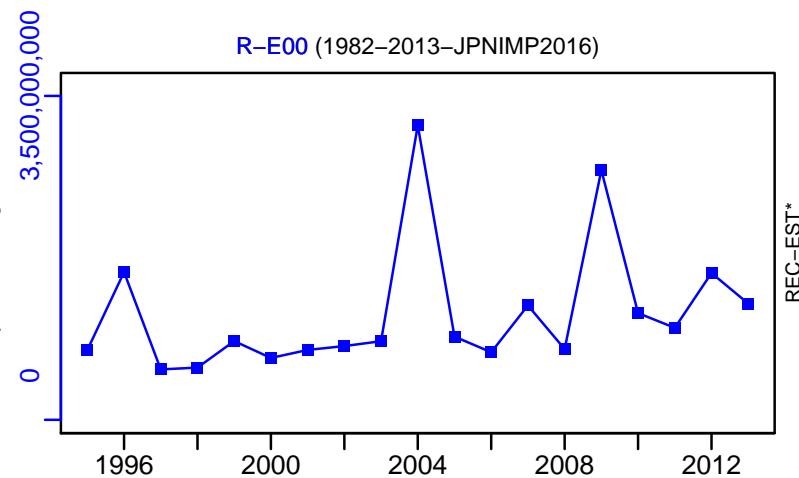
SSB-MT (1982-2013-JPNIMP2016)



ER-calc-ratio (1982-2013-JPNIMP2016)

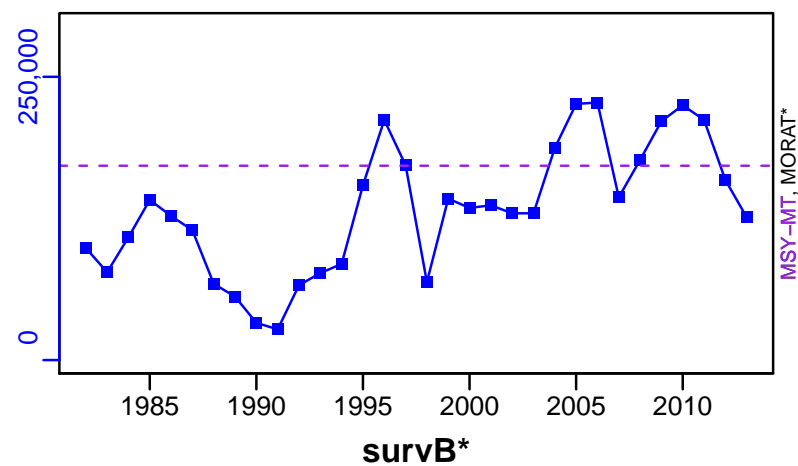


R-E00 (1982-2013-JPNIMP2016)



Spotted mackerel Pacific Coast of Japan [BMACKPJPN]

TC-MT, TL*, RecC* (1982-2013-JPNIMP2016)



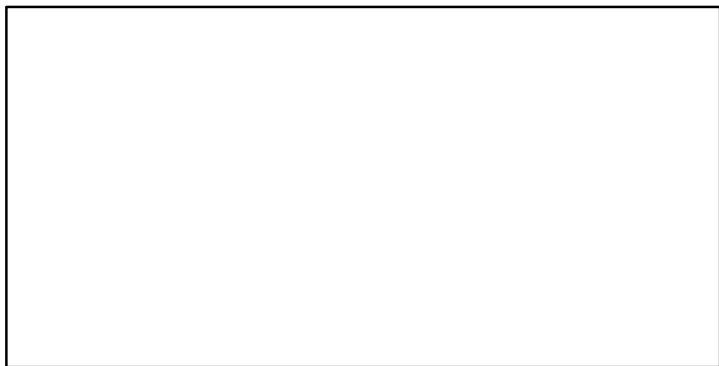
TAC*, Cpair*, Cadv*



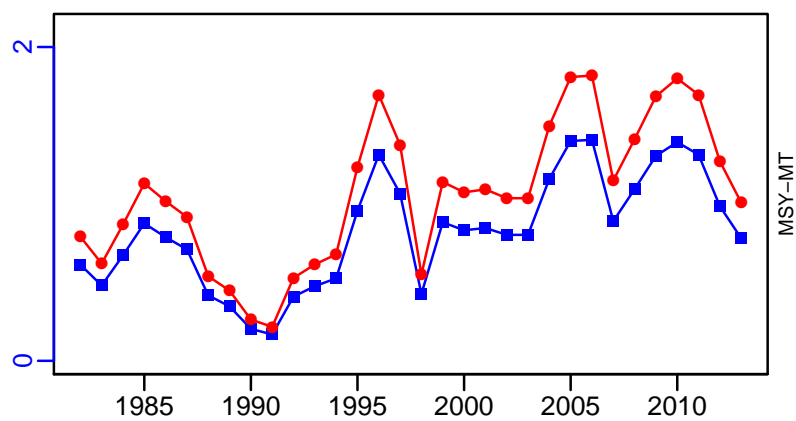
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1982-2013-JPNIMP2016)



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

Yellow sea bream Sea of Japan [BRMSOJ]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Dentex tumifrons |
| Current Assess ID | FAFRFJ-BRMSOJ-1980-2013-JPNIMP2016 |
| Area | Sea of Japan |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2010, 2013 |

| Reference Points | | | |
|------------------|--------|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | - | - | - |
| Fmsy | - | - | - |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | - | - | - |
| M | M-1/yr | 2013 | 0.22 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

| Time Series | | | | | |
|-------------------|----------|-----------|-------------------|-----|--------|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2010 | 5560 | - | 0 |
| SSB | SSB-MT | 2010 | 2910 | - | - |
| TN | - | - | - | - | - |
| R | R-E00 | 2010 | 4.4×10^7 | - | - |
| F | F-1/yr | 2010 | 0.46 | - | 0 to 4 |
| ER | ER-ratio | 2010 | 0.219 | - | - |
| TC | TC-MT | 2013 | 4140 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

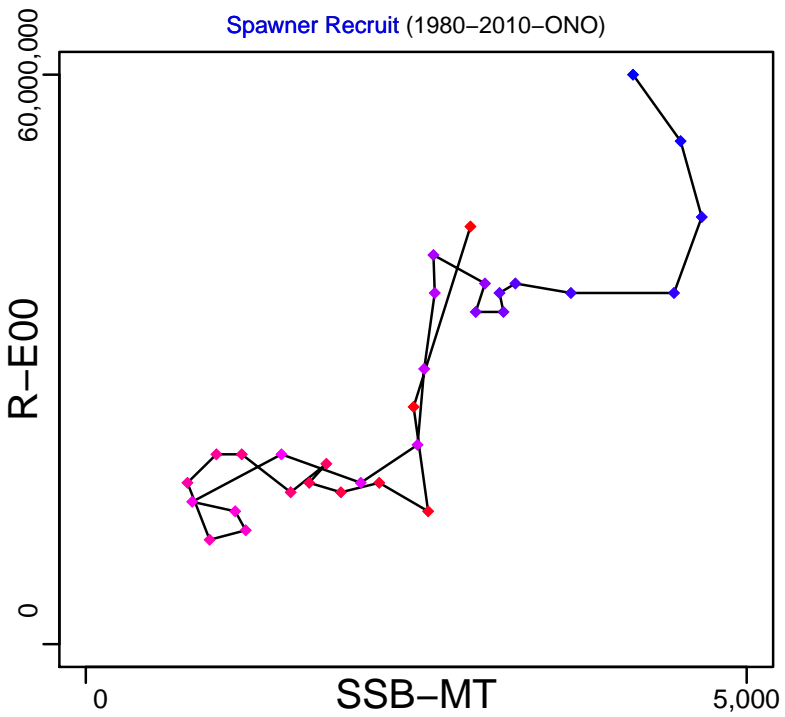
Kobe MSY*



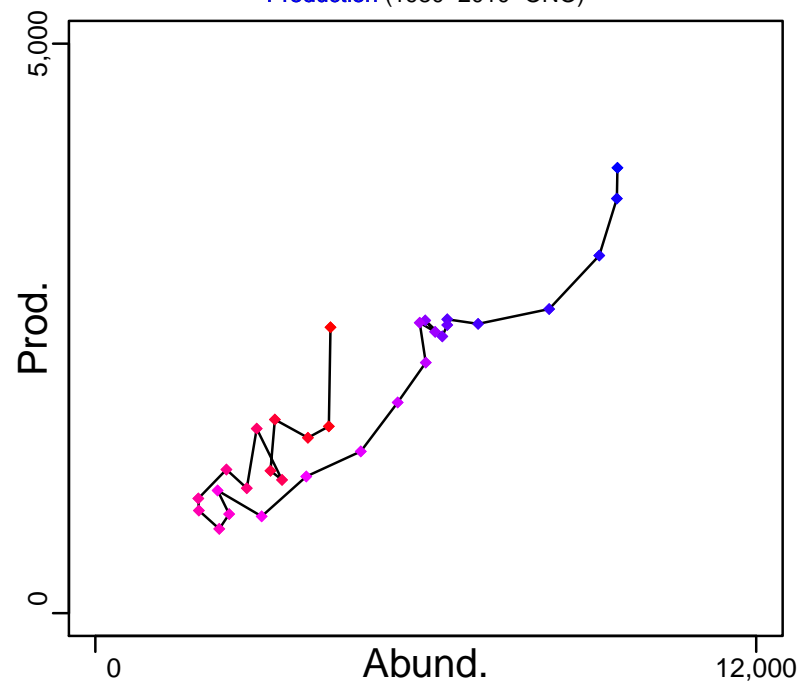
Kobe MGT*



Spawner Recruit (1980–2010–ONO)



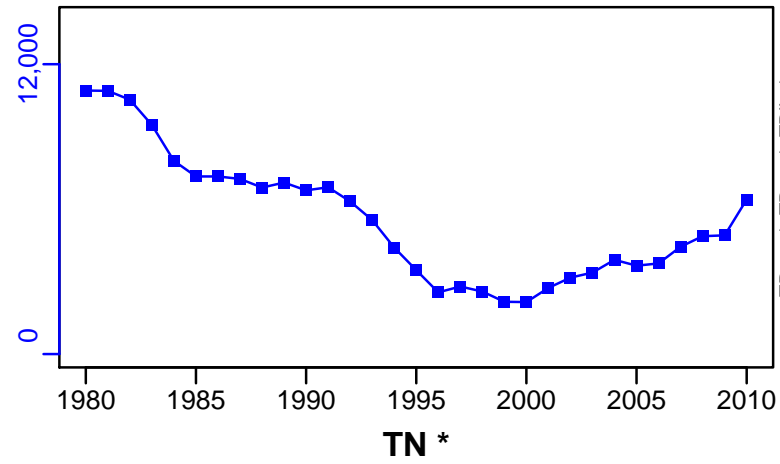
Production (1980–2010–ONO)



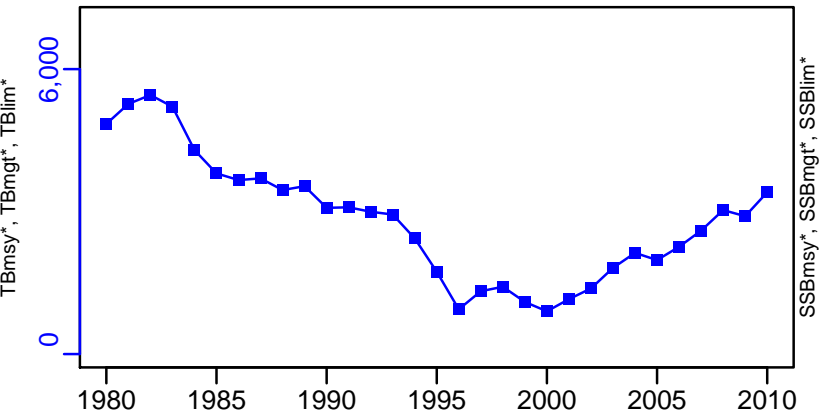
◆ Start Year ◆ End Year * No Data

Yellow sea bream Sea of Japan [BRMSOJ]

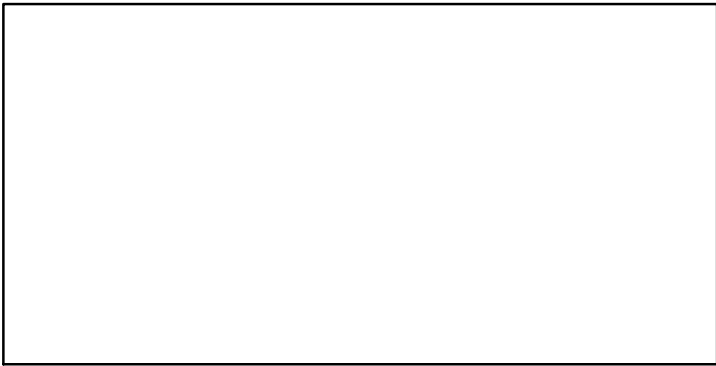
TB-MT (1980-2010-ONO)



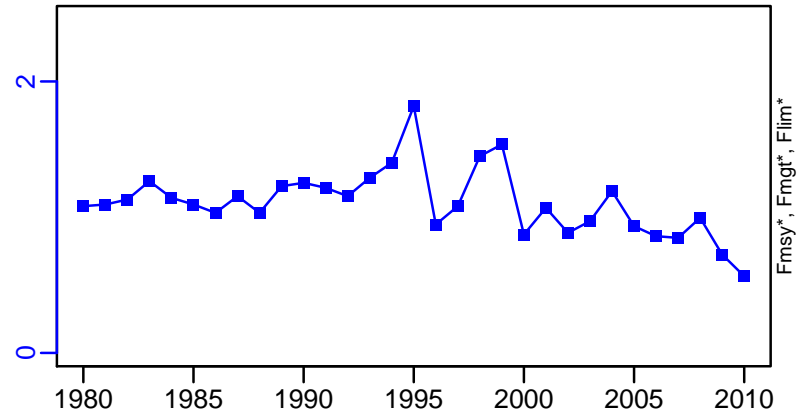
SSB-MT (1980-2010-ONO)



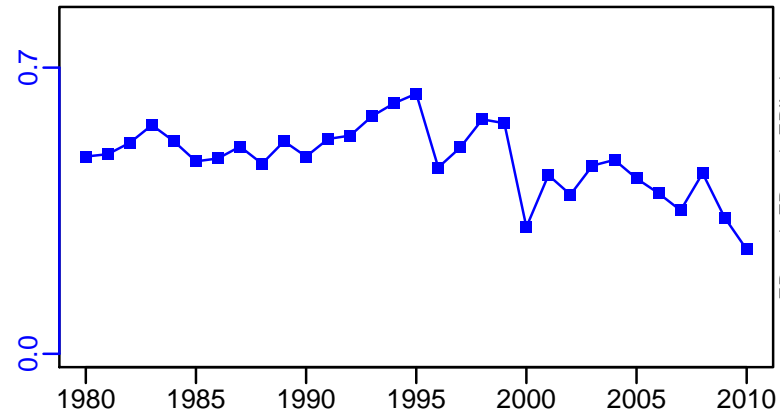
TN *



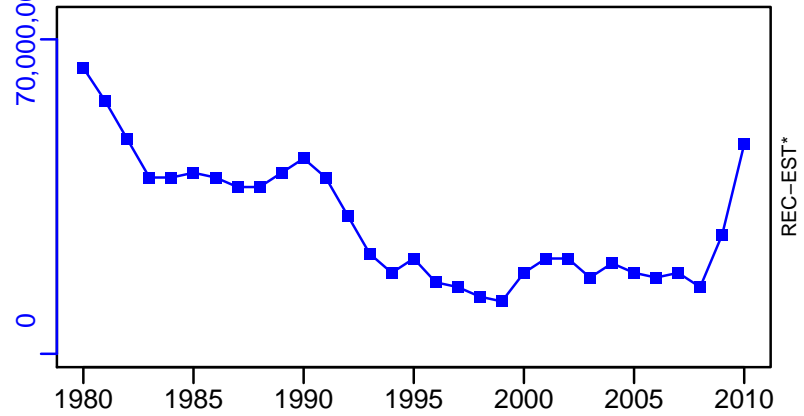
F-1/yr (1980-2010-ONO)



ER-ratio (1980-2010-ONO)



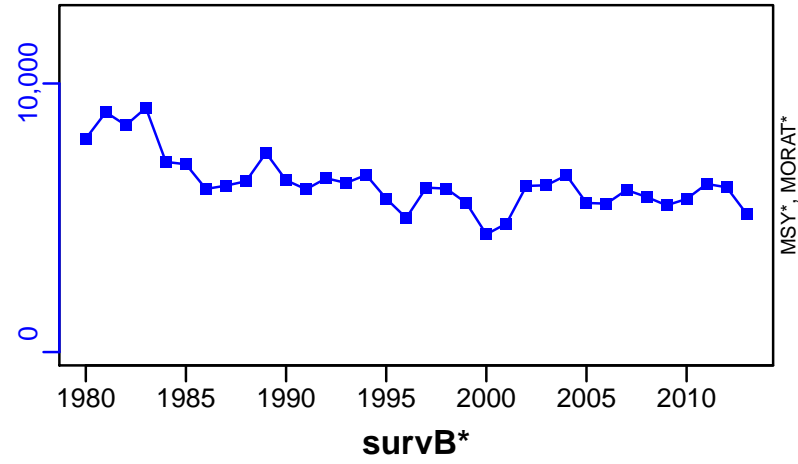
R-E00 (1980-2010-ONO)



Yellow sea bream Sea of Japan [BRMSOJ]

TC-MT, TL*, RecC* (1980-2013-JPNIMP2016)

TAC*, Cpair*, Cadv*



Black scraper Sea of Japan and East China Sea [BSCRAPERSECS]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Thamnaconus modestus |
| Current Assess ID | FAFRFJ-BSCRAPERSECS-2000-2013-JPNIMP2016 |
| Area | Sea of Japan and East China Sea |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

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

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 5460 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Kobe MSY*



Kobe MGT*



Spawner Recruit*



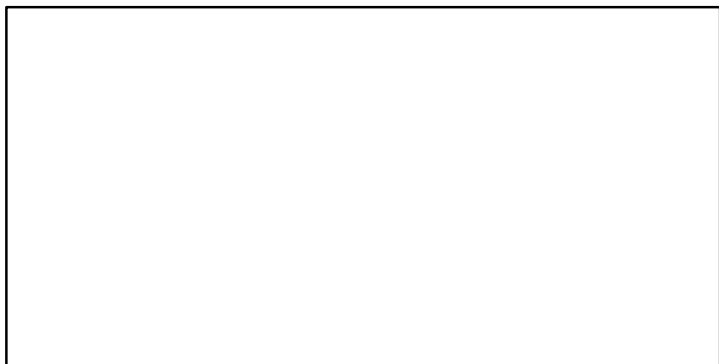
Production*



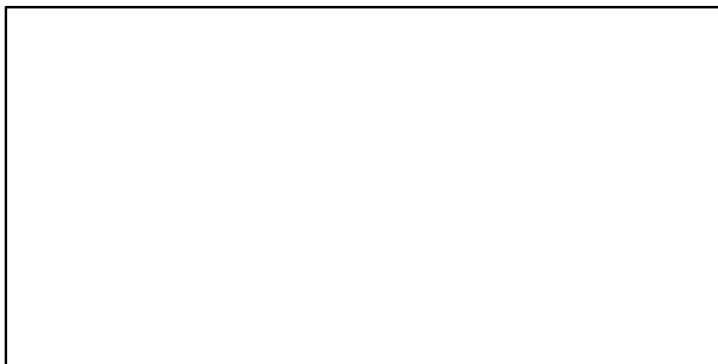
◆ Start Year ◆ End Year * No Data

Black scraper Sea of Japan and East China Sea [BSCRAPERSEJCS]

TB*



SSB*



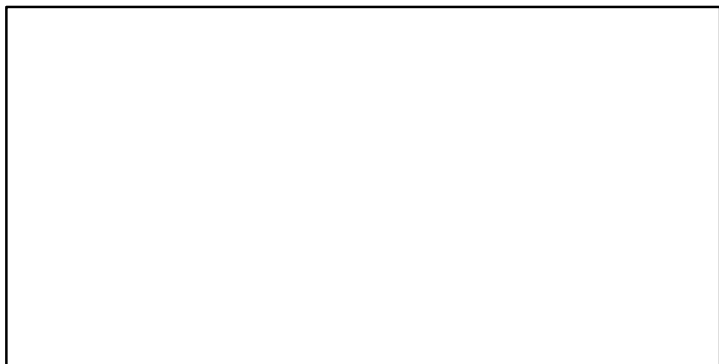
TN *



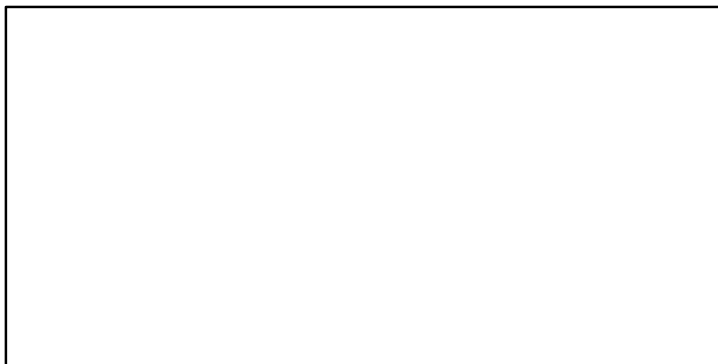
F*



ER*



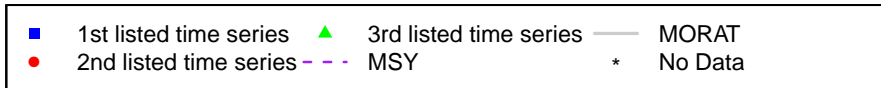
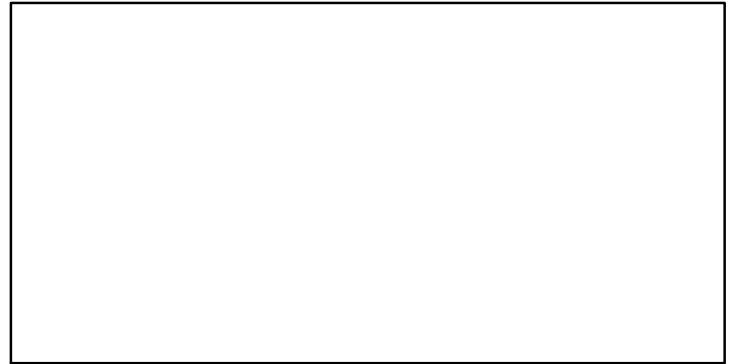
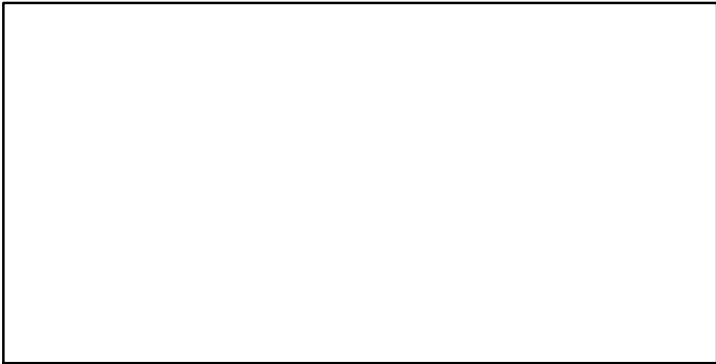
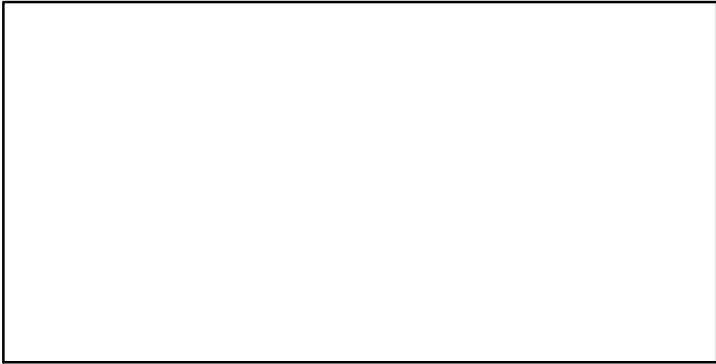
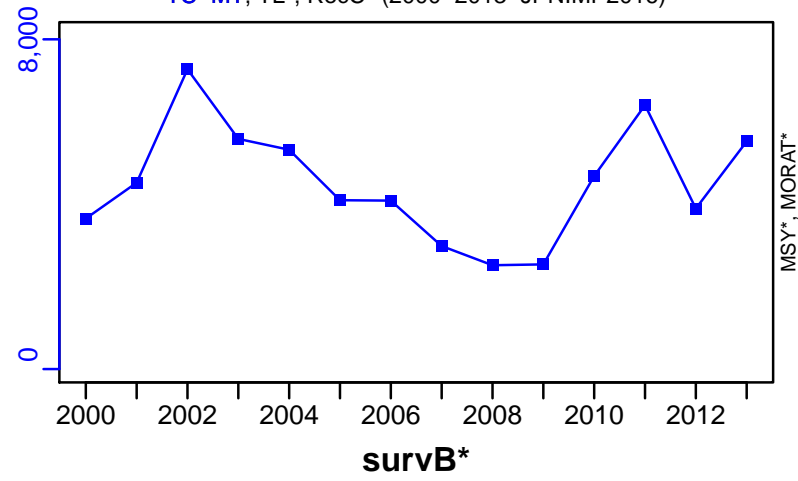
Recruits*



Black scraper Sea of Japan and East China Sea [BSCRAPERSEJCS]

TC-MT, TL*, RecC* (2000–2013–JPNIMP2016)

TAC*, Cpair*, Cadv*



Beni zuwai crab Sea of Japan [BZCRABSOJ]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Chionoecetes japonicus |
| Current Assess ID | FAFRFJ-BZCRABSOJ-1999-2013-JPNIMP2016 |
| Area | Sea of Japan |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

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

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 15,100 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

TB*



SSB*



TN *



F*



ER*

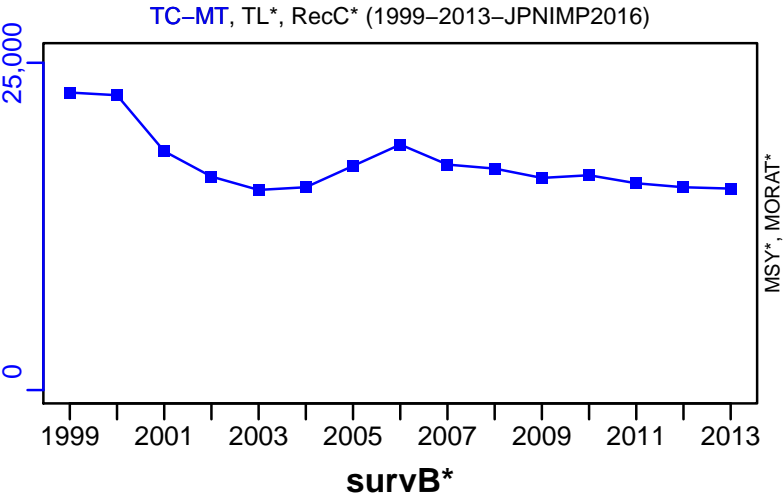


Recruits*



Beni zuwai crab Sea of Japan [BZCRABSOJ]

TC-MT, TL*, RecC* (1999-2013-JPNIMP2016)



TAC*, Cpair*, Cadv*



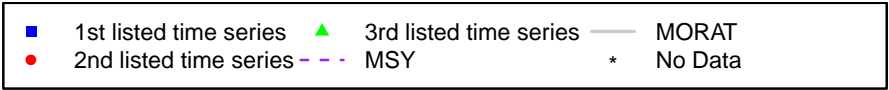
CPUE*



EFFORT*



CdivMSY*



Crimson jobfish Okinawa Islands [CJOBOKWI]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Pristipomoides filamentosus |
| Current Assess ID | FAFRFJ-CJOBOKWI-1989-2013-JPNIMP2016 |
| Area | Okinawa Islands |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

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

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 25 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Crimson jobfish Okinawa Islands [CJOBOKWI]

TB*



SSB*



TN *



F*



ER*



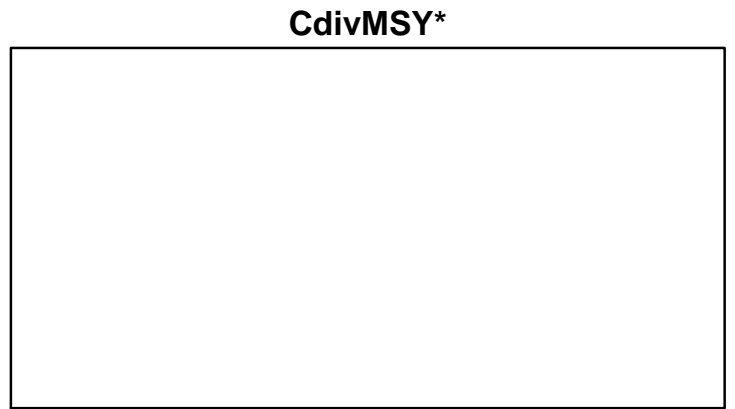
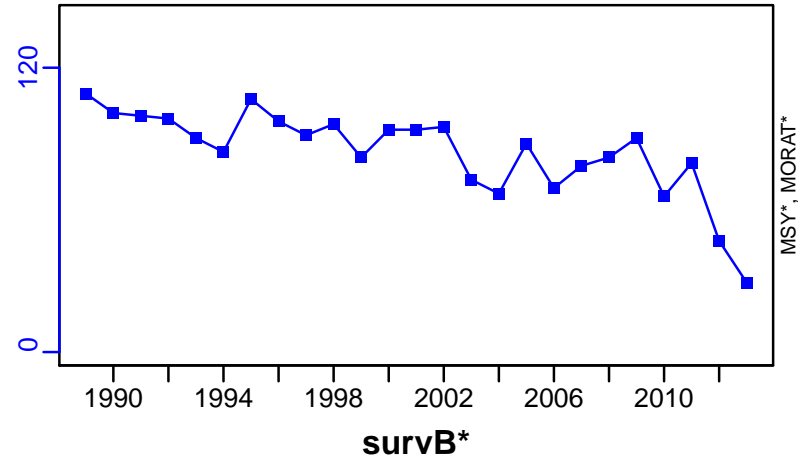
Recruits*



Crimson jobfish Okinawa Islands [CJOBOKWI]

TC-MT, TL*, RecC* (1989–2013–JPNIMP2016)

TAC*, Cpair*, Cadv*



Chub mackerel Pacific Coast of Japan [CMACKPJPN]

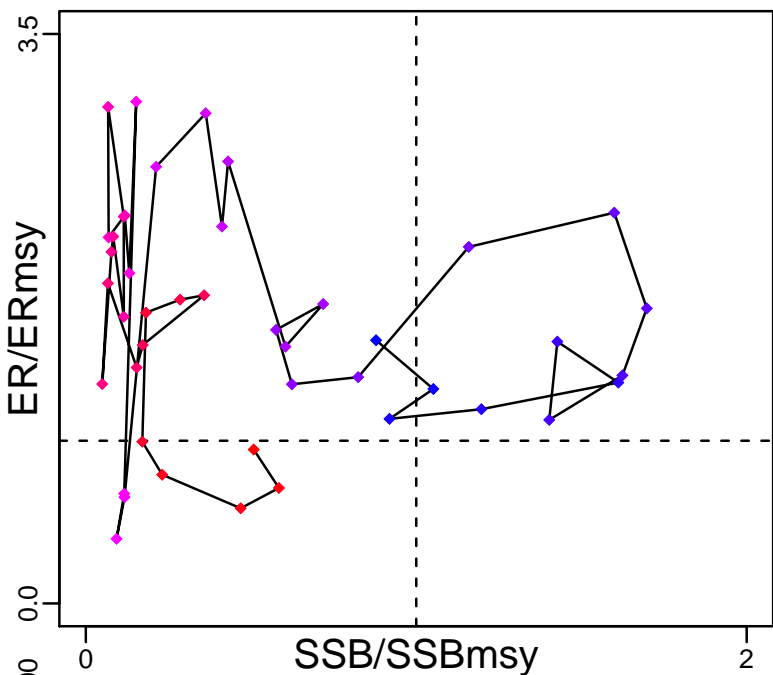
| Metadata | |
|-----------------------------|---|
| Scientific Name | Scomber japonicus |
| Current Assess ID | FAFRFJ-CMACKPJPN-1970-2013-JPNIMP2016 |
| Area | Pacific Coast of Japan |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2009, 2013 |

| Reference Points | | | |
|------------------|---------------|-----------|-----------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-calc-MT | 2013 | 2,077,724 |
| SSBmsy | SSBmsy-MT | 2013 | 812,856 |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2013 | 0.171 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-MT | 2013 | 355,291 |
| M | M-1/yr | 2013 | 0.4 |
| TBlim | TBlim-MT | 2009 | 450 |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

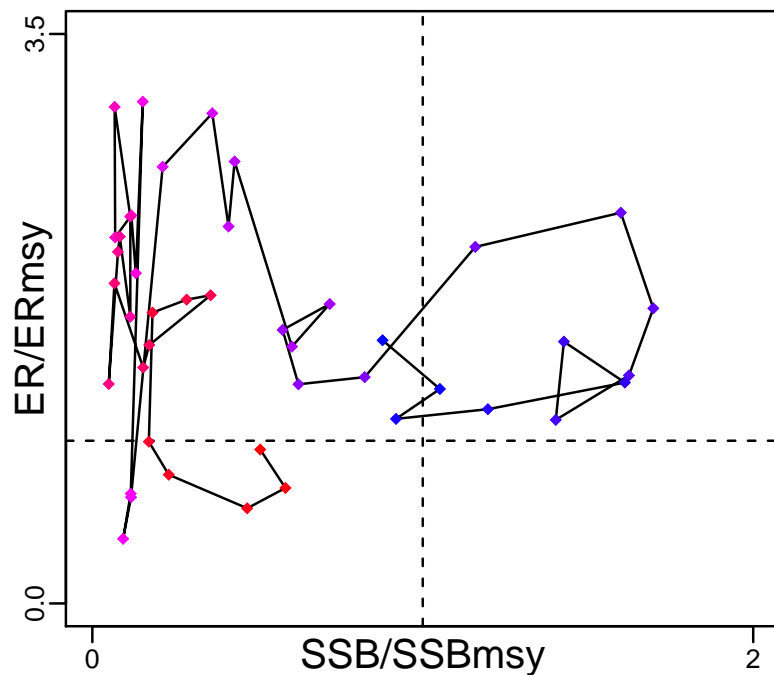
| Time Series | | | | | |
|-------------------|---------------------------|-----------|--------------------|------|--------|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2013 | 1,360,000 | - | 0 |
| SSB | SSB-MT | 2013 | 413,000 | Both | 2 |
| TN | - | - | - | - | - |
| R | R-E00 | 2013 | 5.53×10^9 | - | 0 |
| F | F-1/yr | 2009 | 0.28 | Both | 0 to 5 |
| ER | ER-calc-ratio | 2013 | 0.162 | - | - |
| TC | TC-MT | 2013 | 220,000 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-calc-MT | 2013 | 0.655 | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-MT | 2013 | 0.508 | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2013 | 0.946 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Chub mackerel Pacific Coast of Japan [CMACKPJPN]

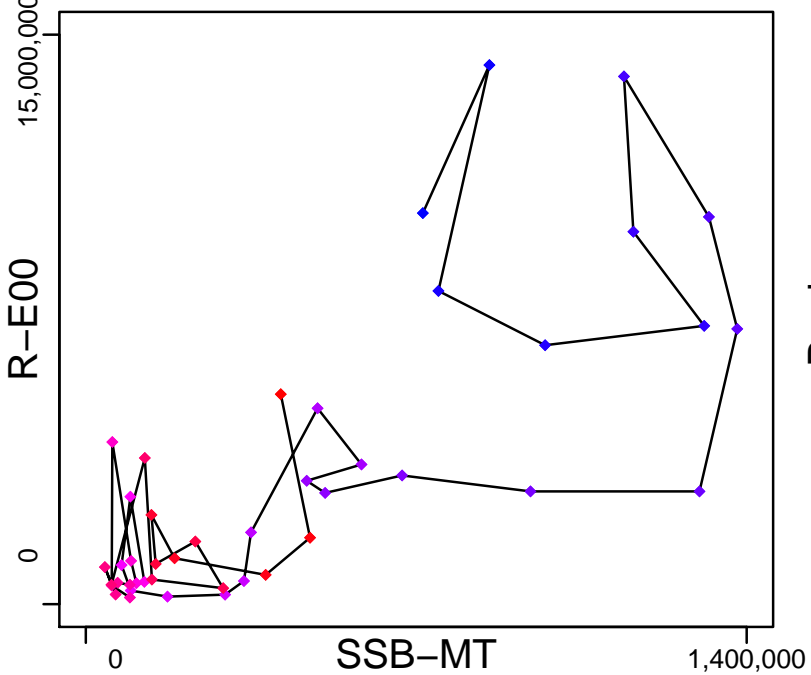
Kobe MSYpref (1970–2013–JPNIMP2016)



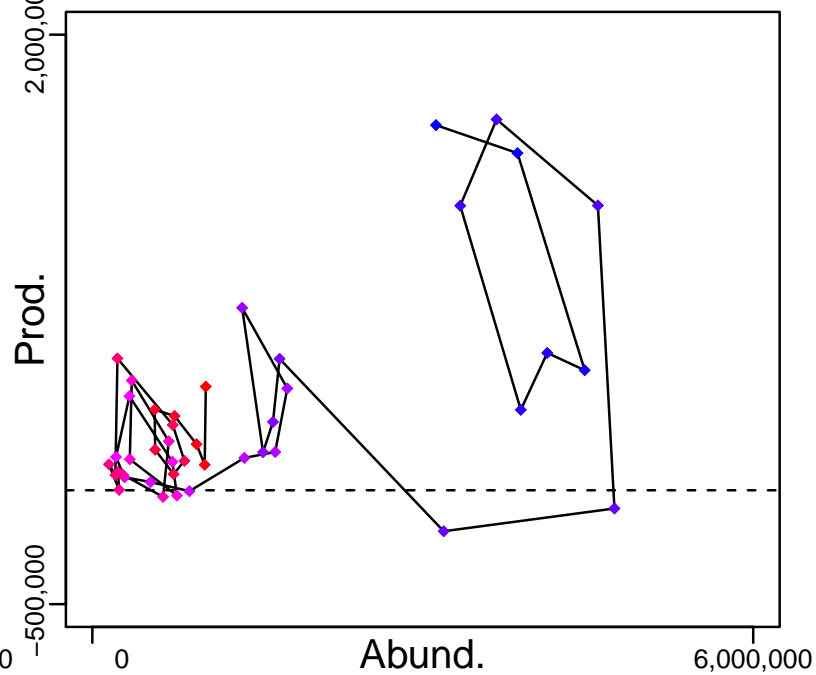
Kobe MGTpref (1970–2013–JPNIMP2016)



Spawner Recruit (1970–2013–JPNIMP2016)



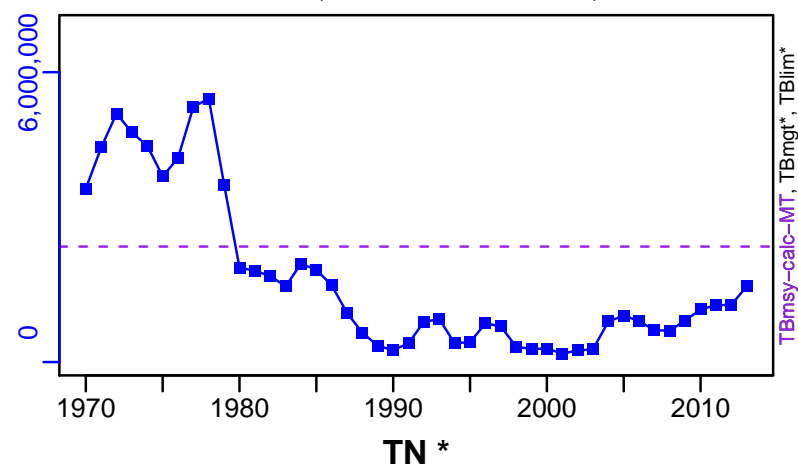
Production (1970–2013–JPNIMP2016)



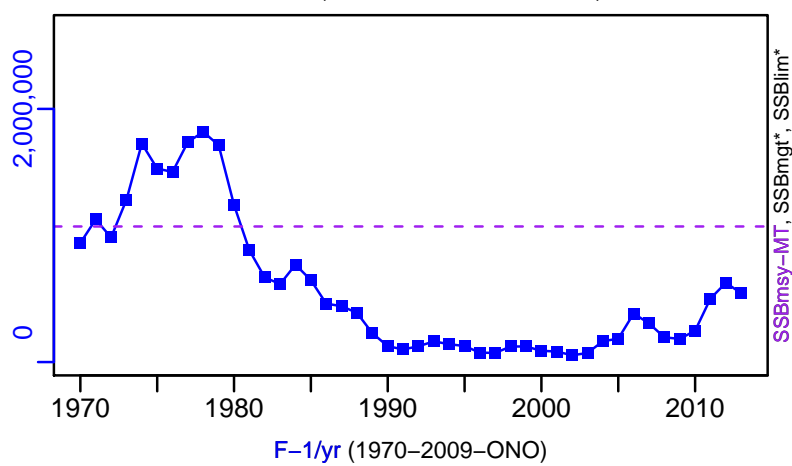
◆ Start Year ◆ End Year * No Data

Chub mackerel Pacific Coast of Japan [CMACKPJPN]

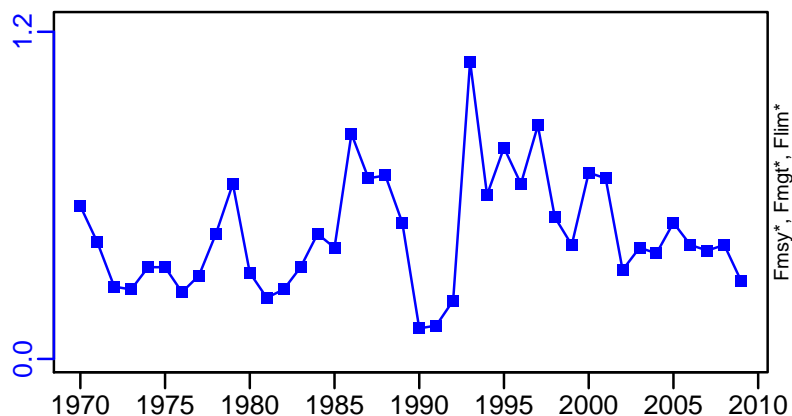
TB-MT (1970-2013-JPNIMP2016)



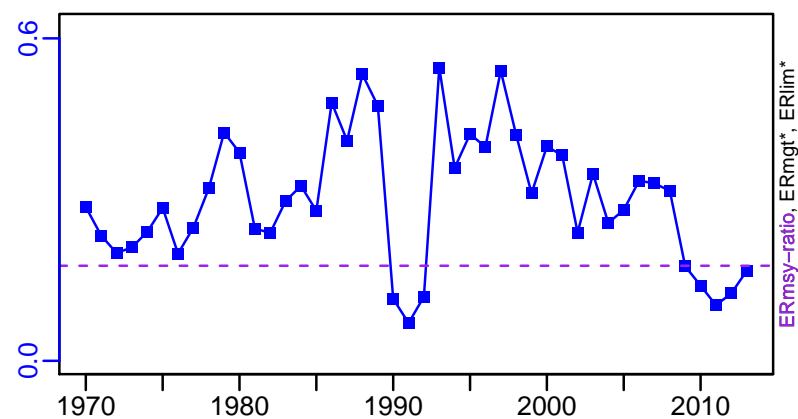
SSB-MT (1970-2013-JPNIMP2016)



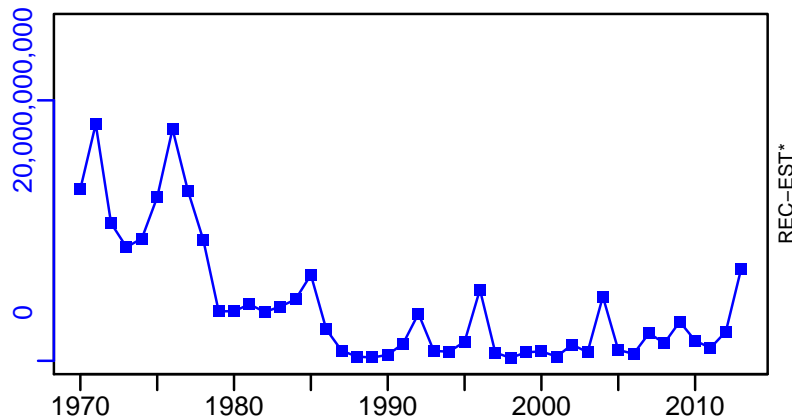
F-1/yr (1970-2009-ONO)



ER-calc-ratio (1970-2013-JPNIMP2016)

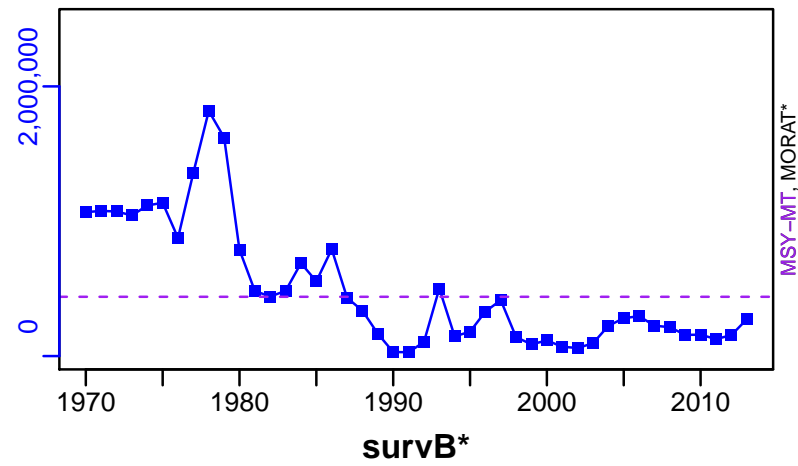


R-E00 (1970-2013-JPNIMP2016)



Chub mackerel Pacific Coast of Japan [CMACKPJPN]

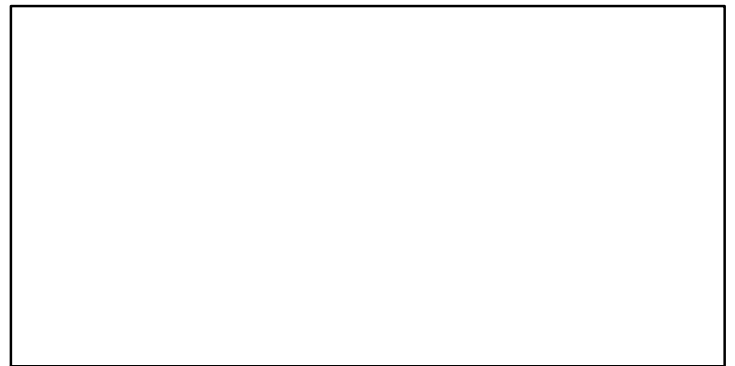
TC-MT, TL*, RecC* (1970–2013–JPNIMP2016)



TAC*, Cpair*, Cadv*



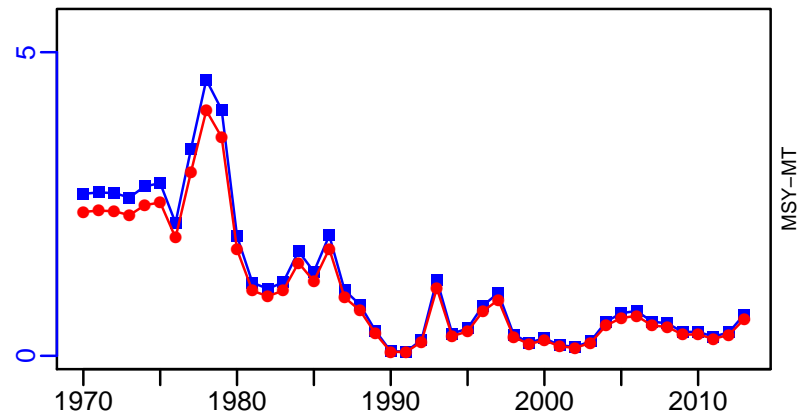
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1970–2013–JPNIMP2016)



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

Chub mackerel Tsushima Strait [CMACKTSST]

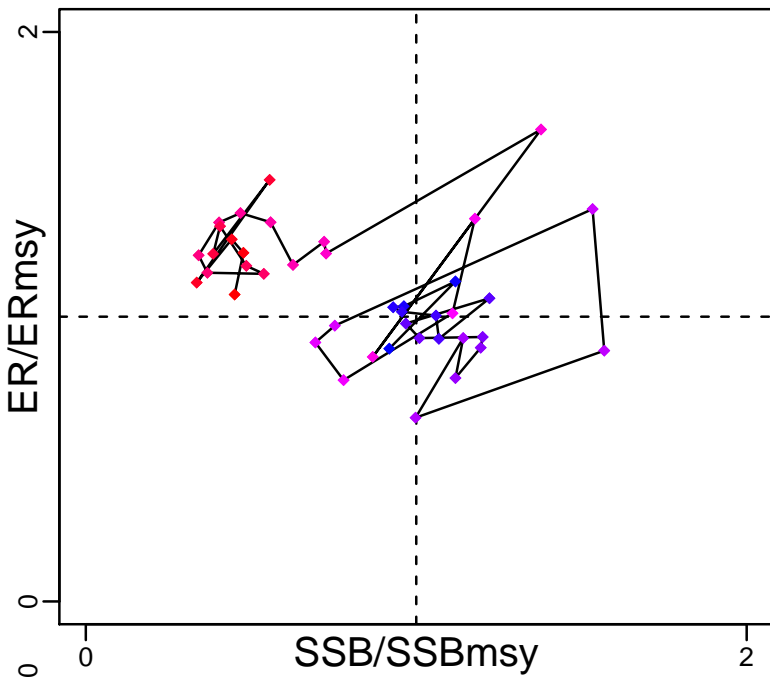
| Metadata | |
|-----------------------------|---|
| Scientific Name | Scomber japonicus |
| Current Assess ID | FAFRFJ-CMACKTSST-1973-2013-JPNIMP2016 |
| Area | Tsushima Strait |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

| Reference Points | | | |
|------------------|---------------|-----------|---------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-calc-MT | 2013 | 899,288 |
| SSBmsy | SSBmsy-MT | 2013 | 339,714 |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2013 | 0.362 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-MT | 2013 | 325,542 |
| M | M-1/yr | 2013 | 0.4 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

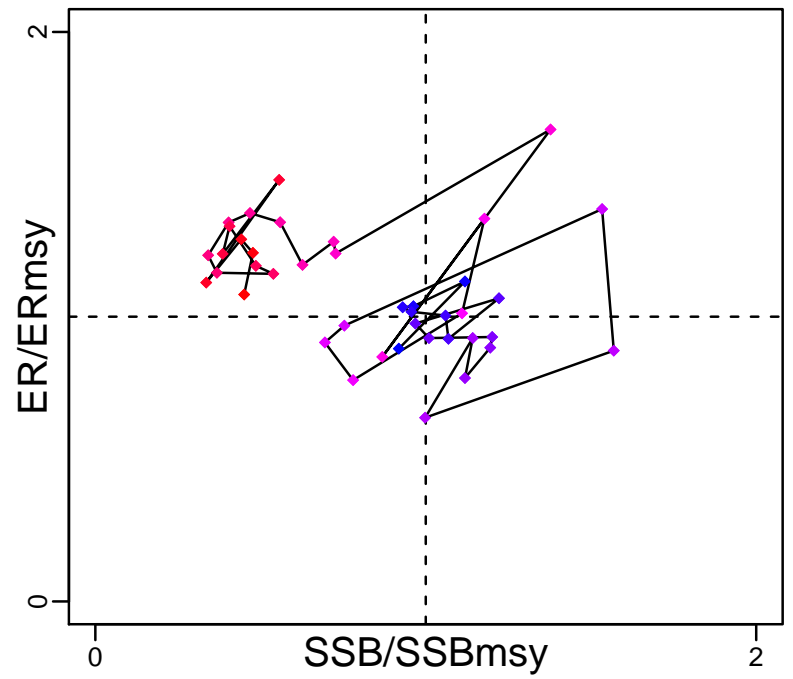
| Time Series | | | | | |
|-------------------|---------------------------|-----------|--------------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2013 | 428,000 | - | 0 |
| SSB | SSB-MT | 2013 | 153,000 | Both | 1 |
| TN | - | - | - | - | - |
| R | R-E00 | 2013 | 8.98×10^8 | - | 0 |
| F | - | - | - | - | - |
| ER | ER-calc-ratio | 2013 | 0.39 | - | - |
| TC | TC-MT | 2013 | 167,000 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-calc-MT | 2013 | 0.476 | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-MT | 2013 | 0.45 | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2013 | 1.078 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Chub mackerel Tsushima Strait [CMACKTSST]

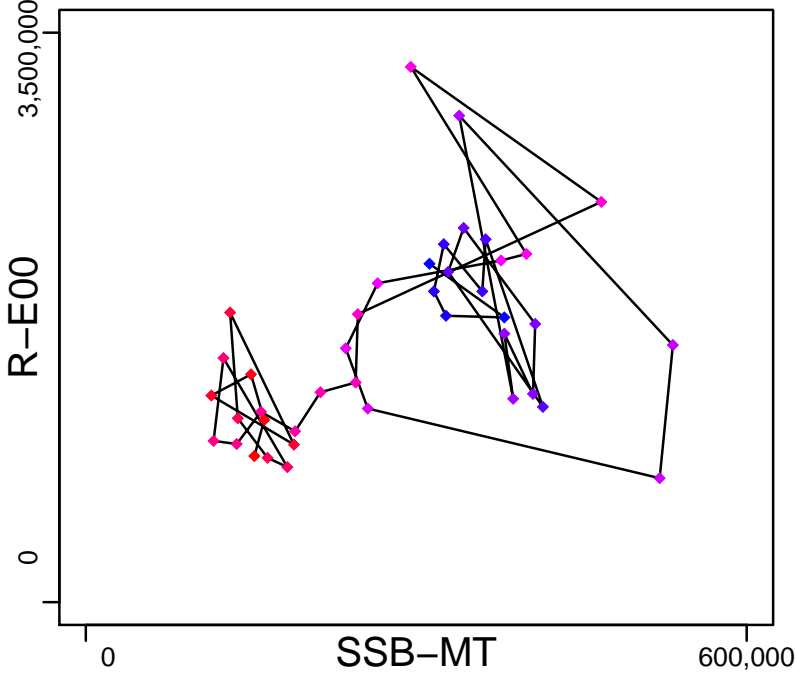
Kobe MSYpref (1973–2013–JPNIMP2016)



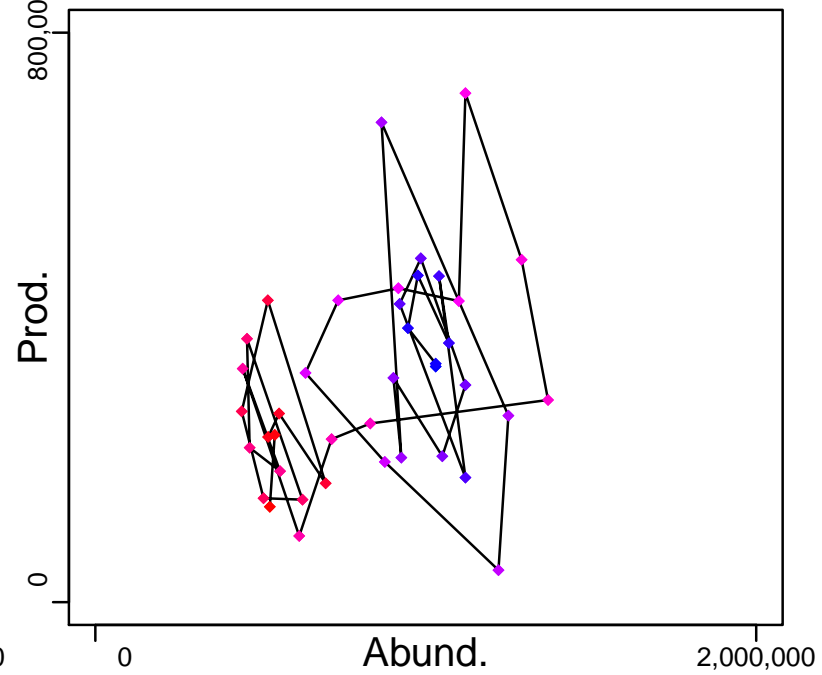
Kobe MGTpref (1973–2013–JPNIMP2016)



Spawner Recruit (1973–2013–JPNIMP2016)



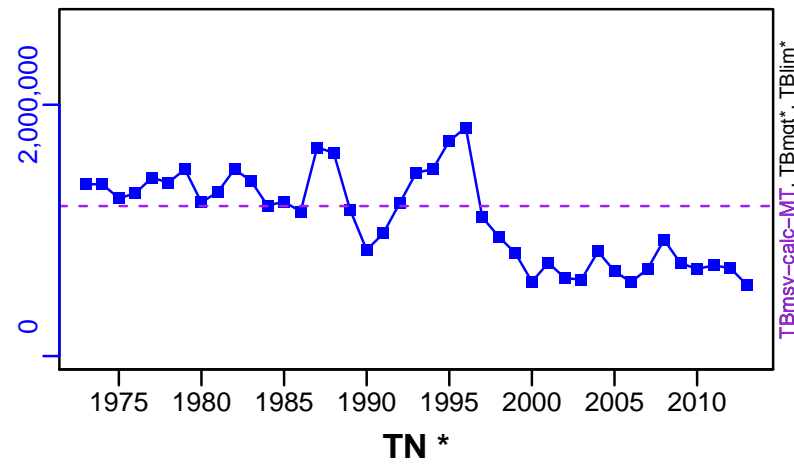
Production (1973–2013–JPNIMP2016)



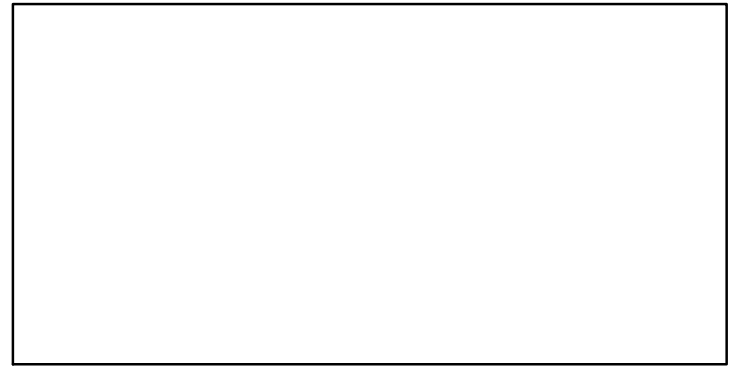
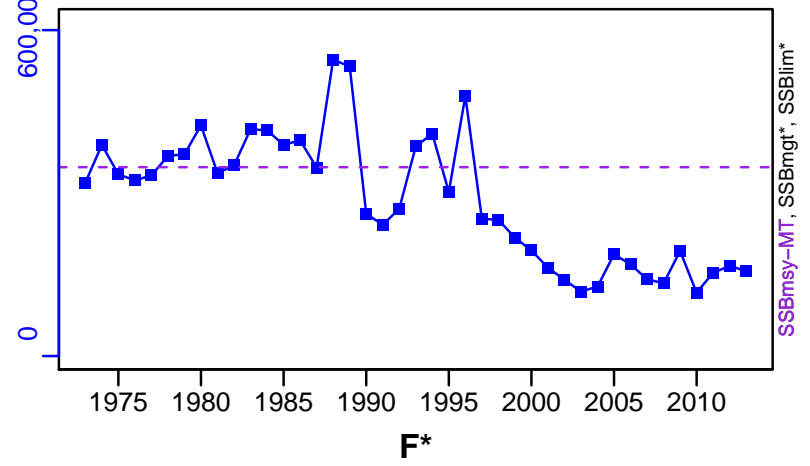
◆ Start Year ◆ End Year * No Data

Chub mackerel Tsushima Strait [CMACKTSST]

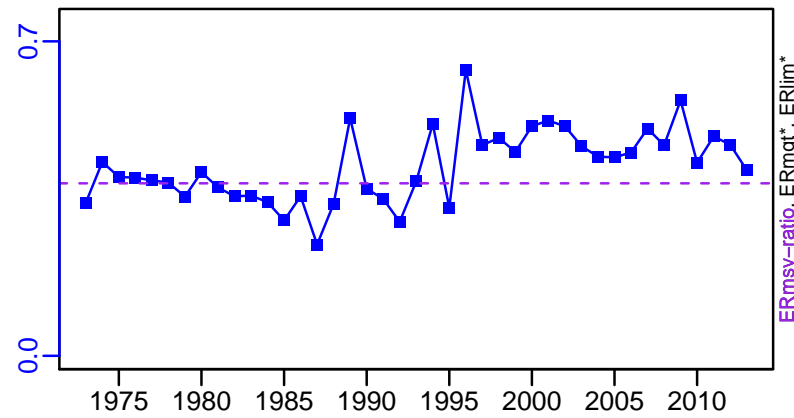
TB-MT (1973-2013-JPNIMP2016)



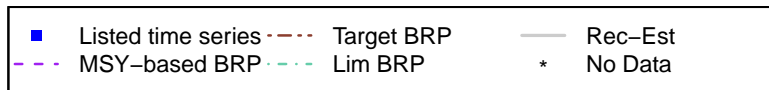
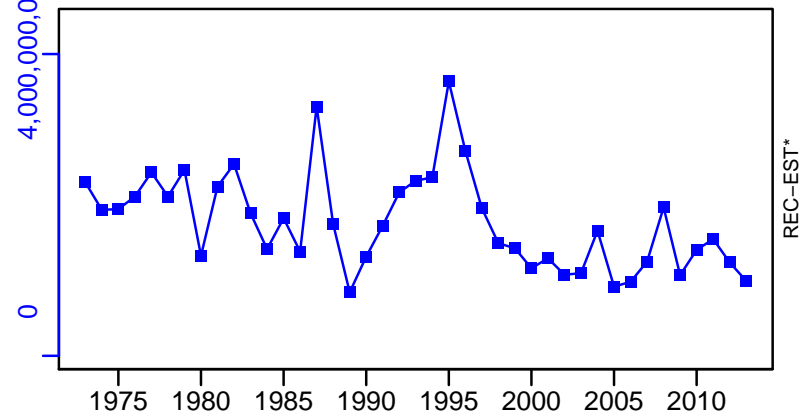
SSB-MT (1973-2013-JPNIMP2016)



ER-calc-ratio (1973-2013-JPNIMP2016)

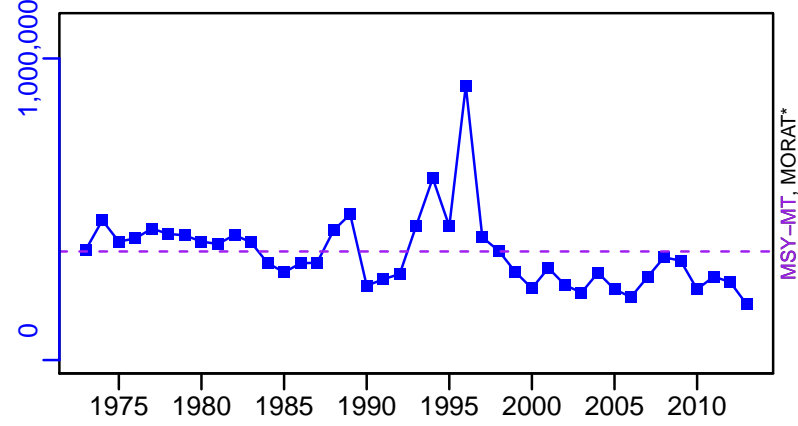


R-E00 (1973-2013-JPNIMP2016)



Chub mackerel Tsushima Strait [CMACKTSST]

TC-MT, TL*, RecC* (1973-2013-JPNIMP2016)



TAC*, Cpair*, Cadv*



survB*



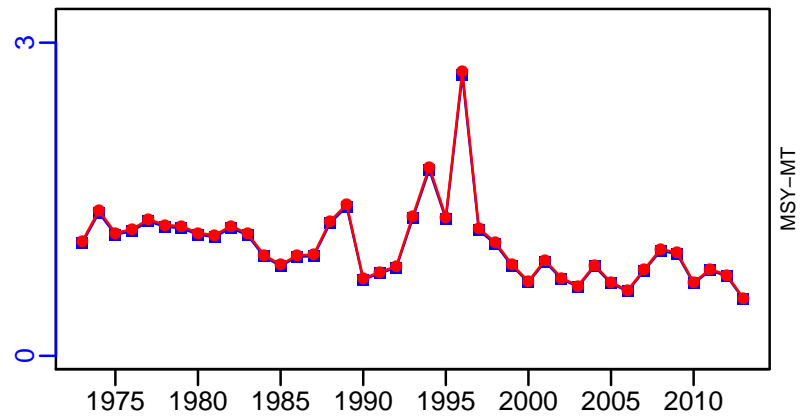
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1973-2013-JPNIMP2016)



- 1st listed time series (blue square)
- 2nd listed time series (red circle)
- 3rd listed time series (green triangle)
- MSY (purple dashed line)
- MORAT (grey line)
- No Data (*)

Deep sea smelt Pacific Ocean [DSSMELTPAC]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Glossanodon semifasciatus |
| Current Assess ID | FAFRFJ-DSSMELTPAC-1980-2013-JPNIMP2016 |
| Area | Pacific Ocean |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

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

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 599 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Deep sea smelt Pacific Ocean [DSSMELTPAC]

TB*



SSB*



TN *



F*



ER*



Recruits*

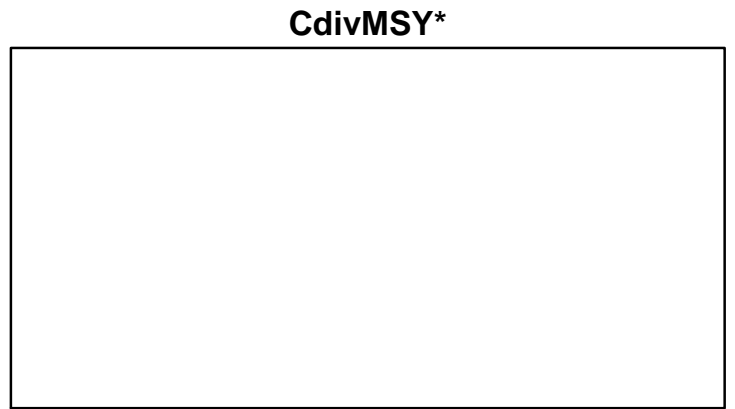
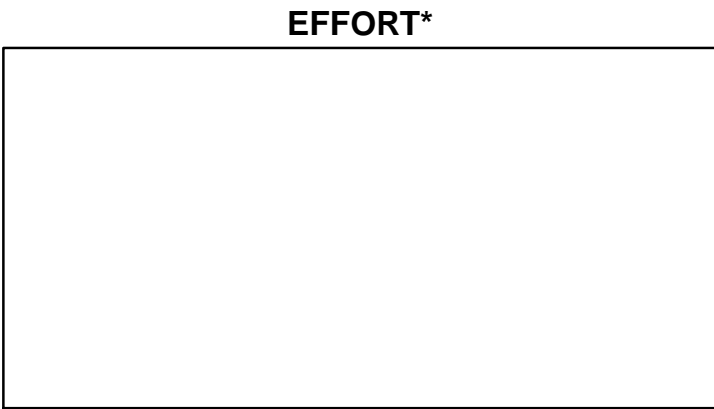
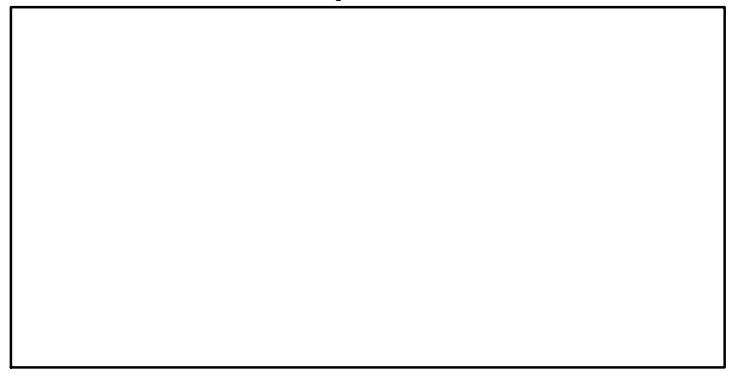
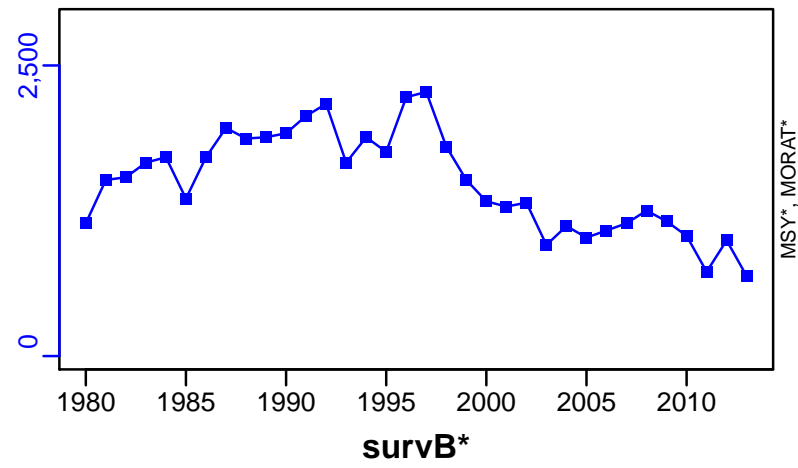


| | | |
|----------------------|------------------|-----------|
| ■ Listed time series | - - - Target BRP | — Rec-Est |
| - - - MSY-based BRP | · · · Lim BRP | * No Data |

Deep sea smelt Pacific Ocean [DSSMELTPAC]

TC-MT, TL*, RecC* (1980–2013–JPNIMP2016)

TAC*, Cpair*, Cadv*



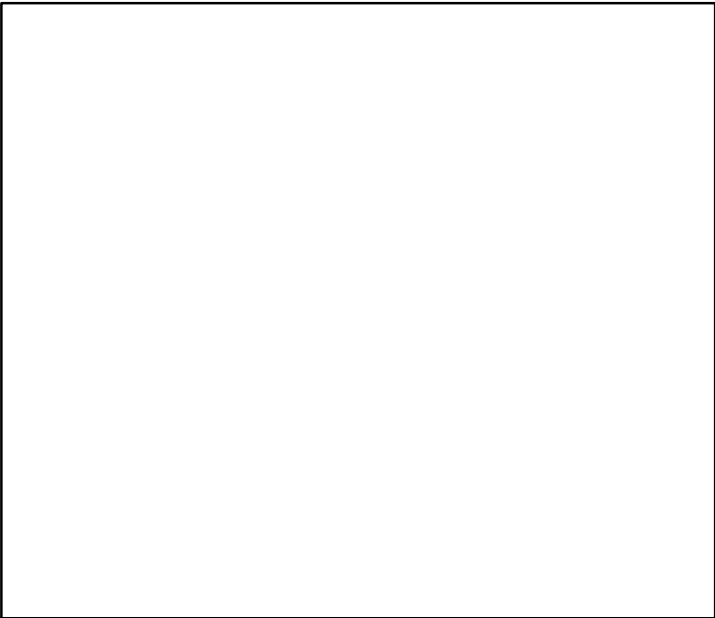
Deep sea smelt Sea of Japan [DSSMELTSOJ]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Glossanodon semifasciatus |
| Current Assess ID | FAFRFJ-DSSMELTSOJ-1975-2013-JPNIMP2016 |
| Area | Sea of Japan |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

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

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 2560 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

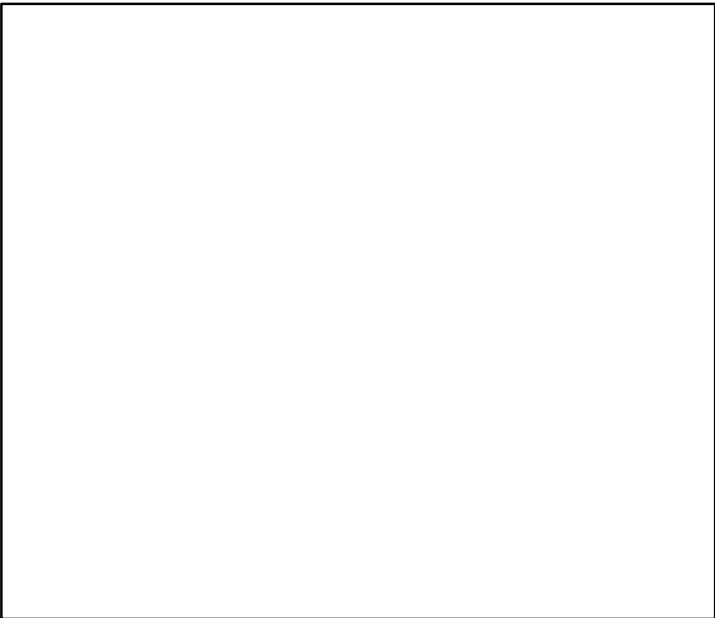
Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

TB*



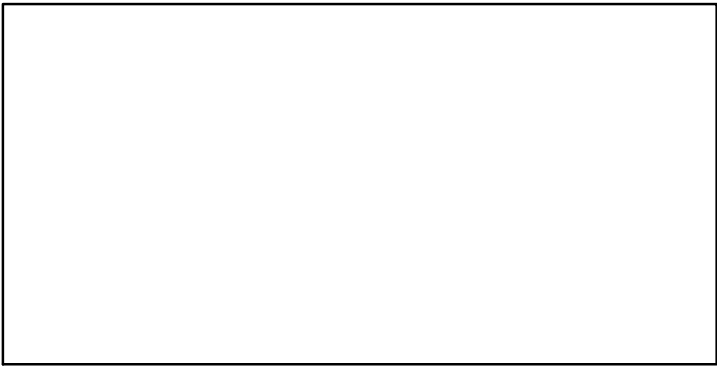
SSB*



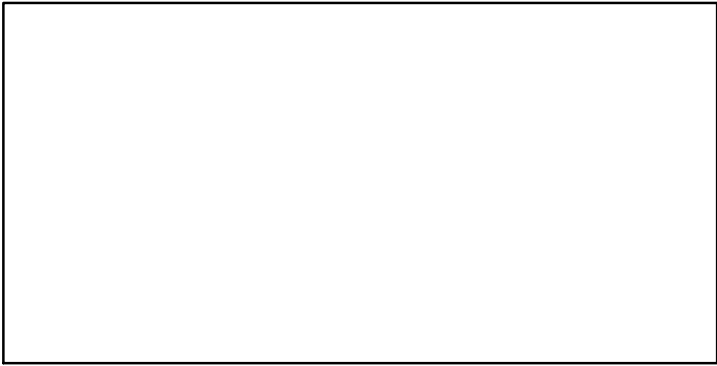
TN *



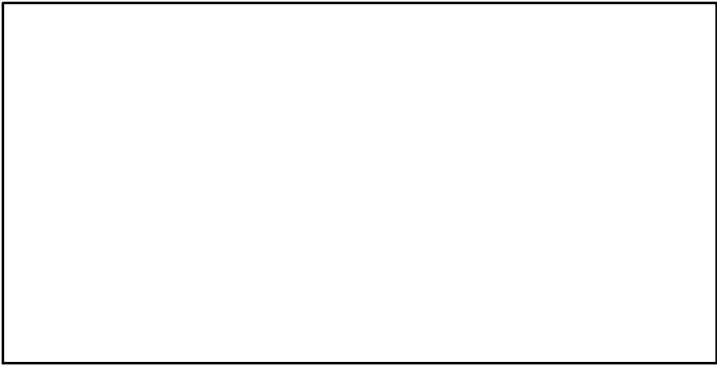
F*



ER*

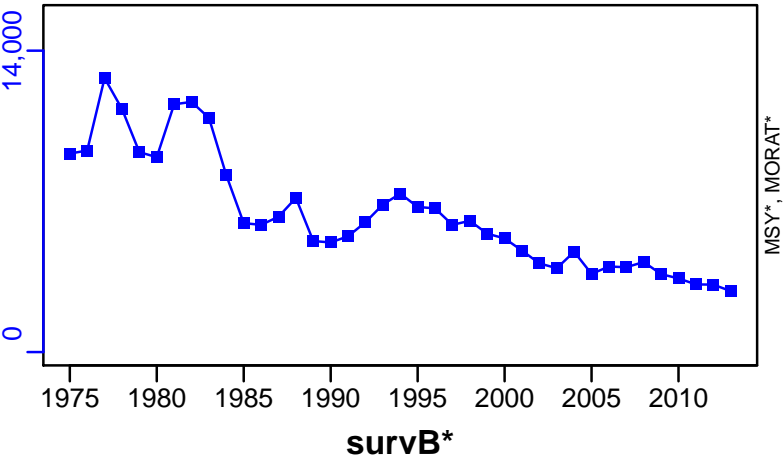


Recruits*



Deep sea smelt Sea of Japan [DSSMELTSOJ]

TC-MT, TL*, RecC* (1975-2013-JPNIMP2016)



TAC*, Cpair*, Cadv*



CPUE*



EFFORT*



CdivMSY*



Flathead flounder Sea of Japan [FHFLOUNSOJ]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Hippoglossoides dubius |
| Current Assess ID | FAFRFJ-FHFLOUNSOJ-1991-2013-JPNIMP2016 |
| Area | Sea of Japan |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

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

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 5450 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Flathead flounder Sea of Japan [FHFLOUNSOJ]

TB*



SSB*



TN *



F*



ER*

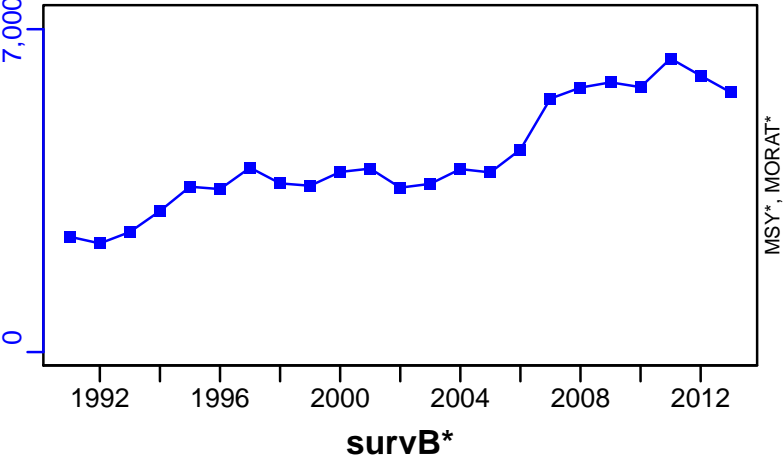


Recruits*



Flathead flounder Sea of Japan [FHFLOUNSOJ]

TC-MT, TL*, RecC* (1991-2013-JPNIMP2016)



TAC*, Cpair*, Cadv*



CPUE*



EFFORT*



CdivMSY*



Flame snapper Okinawa Islands [FSNAPOKWI]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Etelis coruscans |
| Current Assess ID | FAFRFJ-FSNAPOKWI-1989-2013-JPNIMP2016 |
| Area | Okinawa Islands |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

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

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 103 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Flame snapper Okinawa Islands [FSNAPOKWI]

TB*



SSB*



TN *



F*



ER*



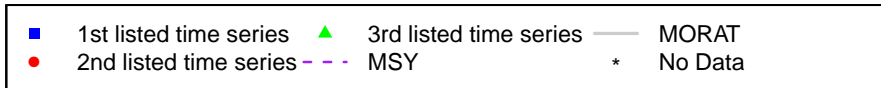
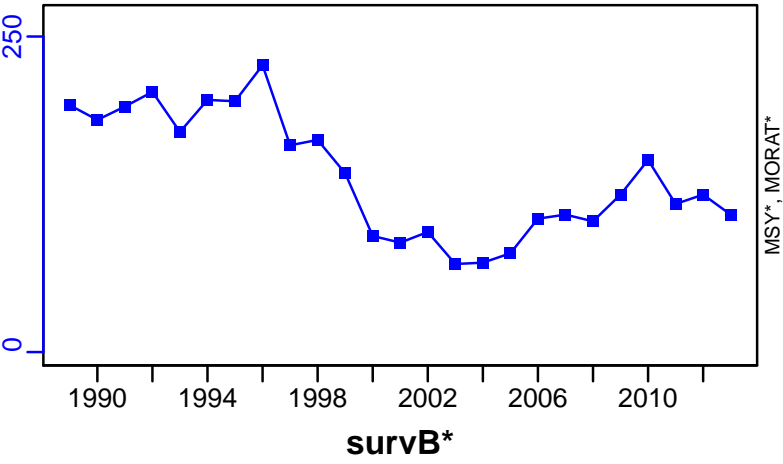
Recruits*



Flame snapper Okinawa Islands [FSNAPOKWI]

TC-MT, TL*, RecC* (1989-2013-JPNIMP2016)

TAC*, Cpair*, Cadv*



Pacific herring Hokkaido [HERRHOKK]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Clupea pallasii |
| Current Assess ID | FAFRFJ-HERRHOKK-1975-2013-JPNIMP2016 |
| Area | Hokkaido |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

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

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 4600 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Pacific herring Hokkaido [HERRHOKK]

TB*



SSB*



TN *



F*



ER*

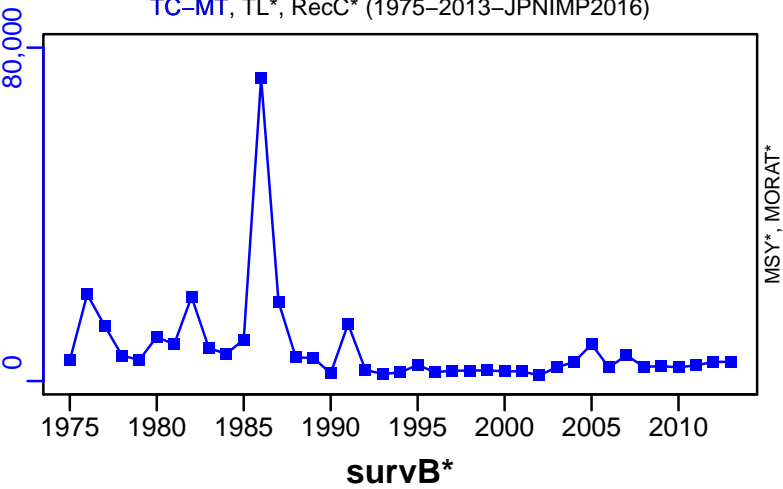


Recruits*



Pacific herring Hokkaido [HERRHOKK]

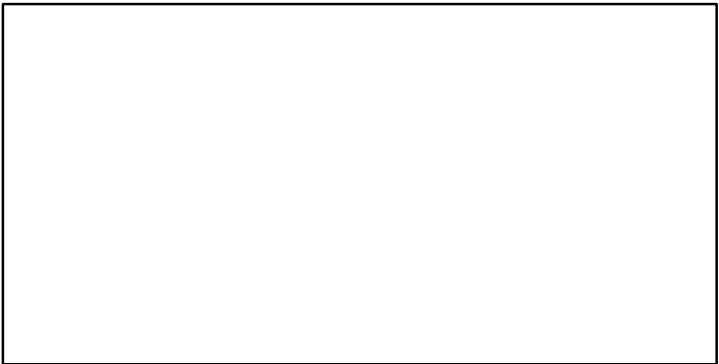
TC-MT, TL*, RecC* (1975-2013-JPNIMP2016)



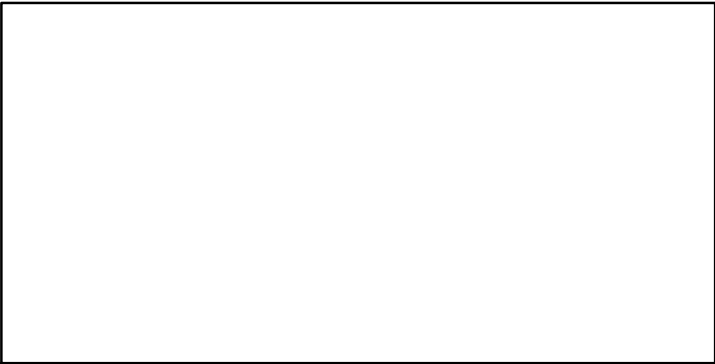
TAC*, Cpair*, Cadv*



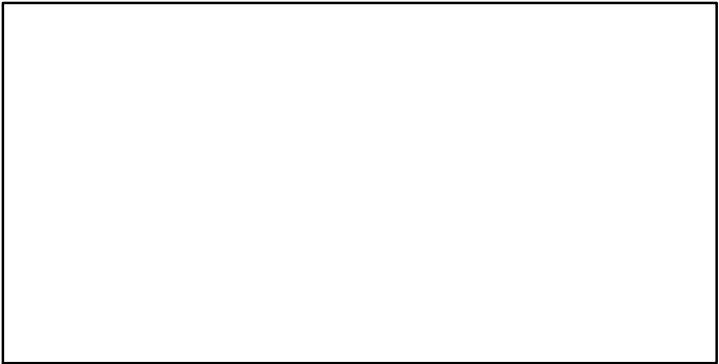
CPUE*



EFFORT*



CdivMSY*



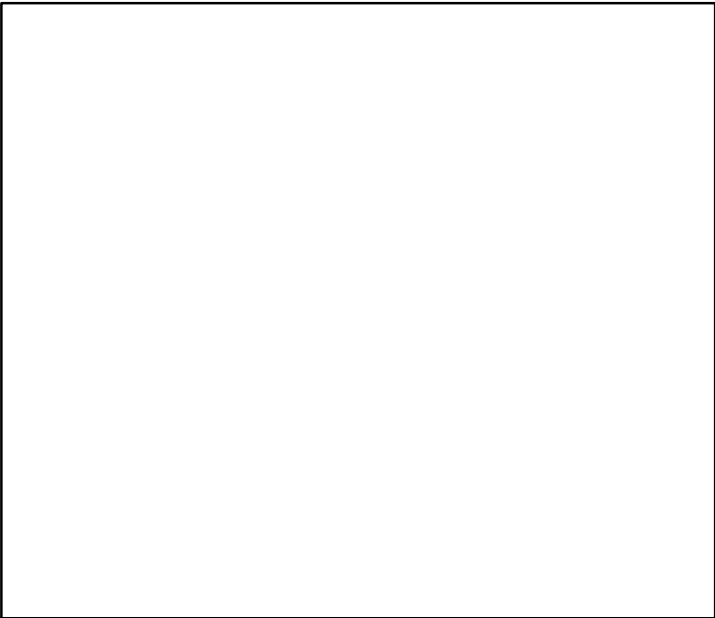
Horsehead tilefish East China Sea [HHTILEECS]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Branchiostegus japonicus |
| Current Assess ID | FAFRFJ-HHTILEECS-1985-2013-JPNIMP2016 |
| Area | East China Sea |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

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

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 611 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

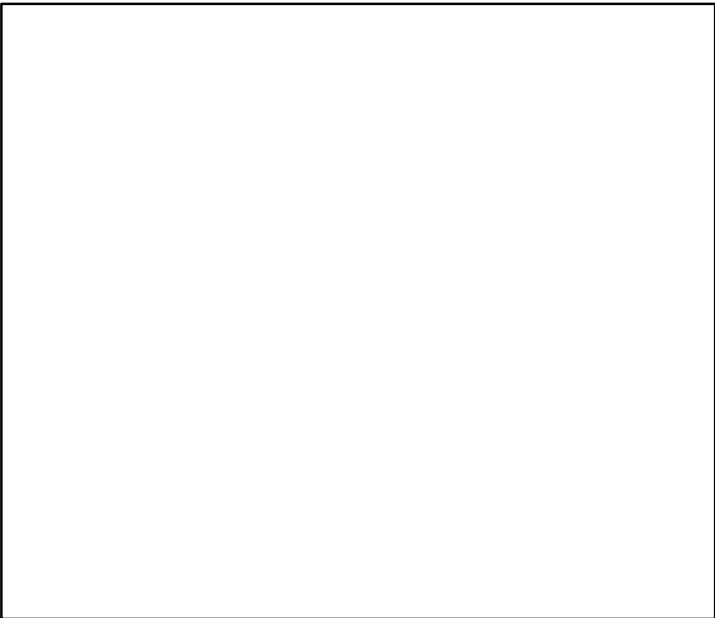
Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Horsehead tilefish East China Sea [HHTILEECS]

TB*



SSB*



TN *



F*



ER*



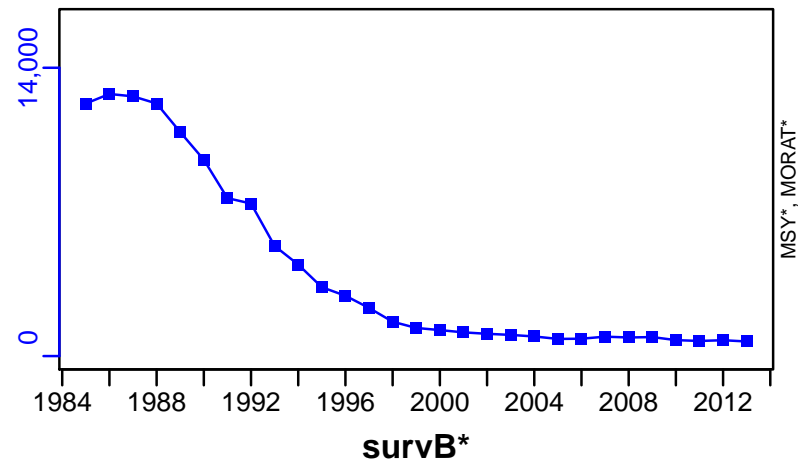
Recruits*



Horsehead tilefish East China Sea [HHTILEECS]

TC-MT, TL*, RecC* (1985-2013-JPNIMP2016)

TAC*, Cpair*, Cadv*



Japanese amberjack Japan [JAMBERJPN]

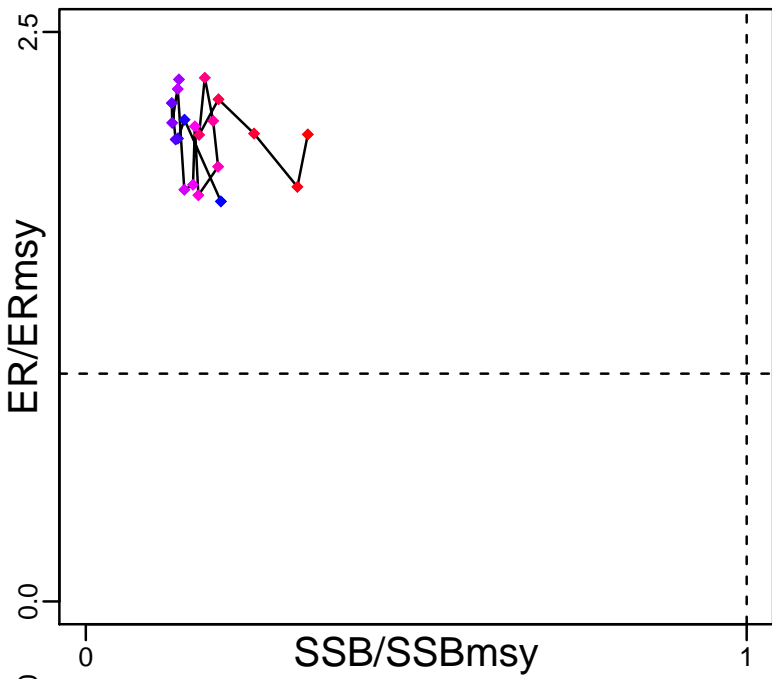
| Metadata | |
|-----------------------------|---|
| Scientific Name | Seriola quinqueradiata |
| Current Assess ID | FAFRFJ-JAMBERJPN-1952-2013-JPNIMP2016 |
| Area | Japan |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
|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

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

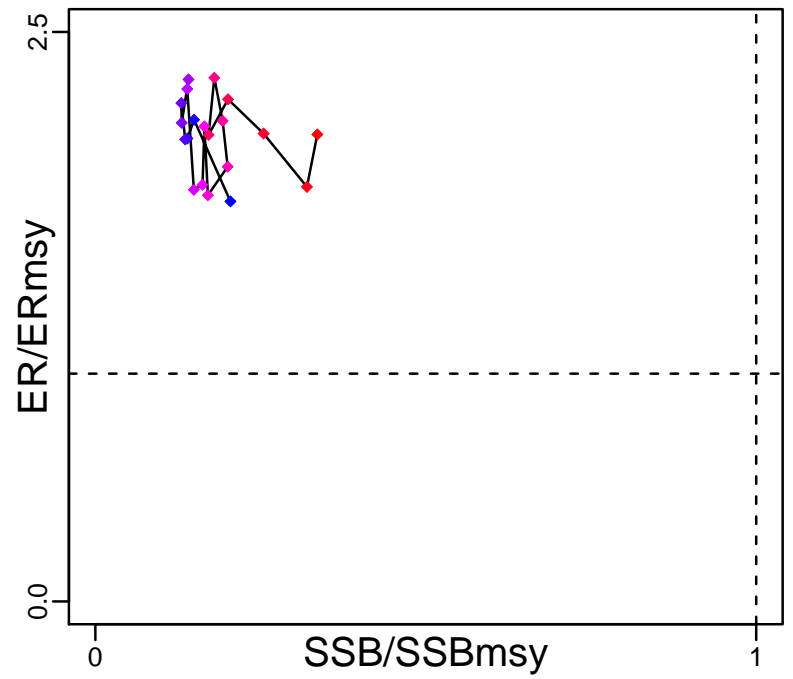
| Time Series | | | | | |
|-------------------|---------------------------|-----------|--------------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2013 | 294,000 | - | 0 |
| SSB | SSB-MT | 2013 | 128,000 | Both | 2 |
| TN | - | - | - | - | - |
| R | R-E00 | 2013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

Japanese amberjack Japan [JAMBERJPN]

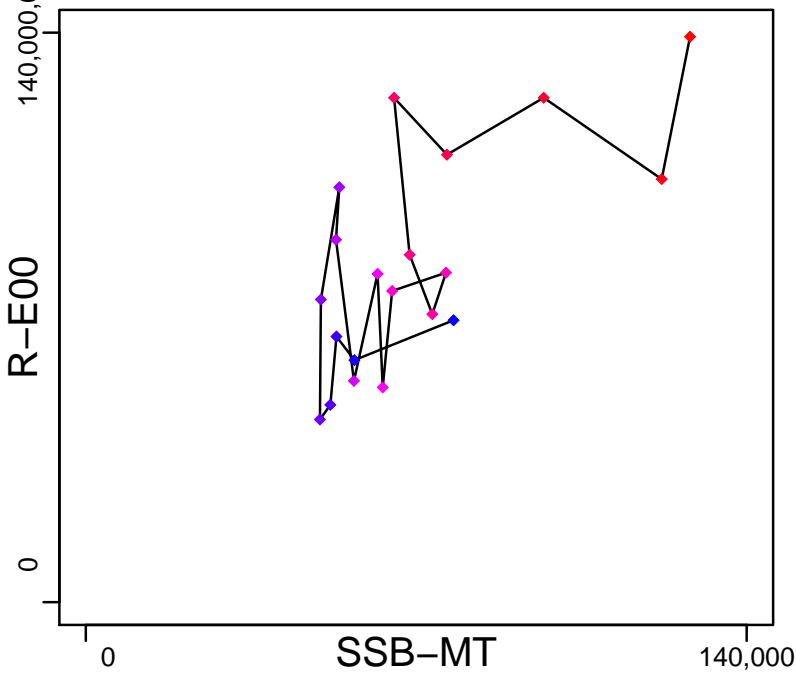
Kobe MSYpref (1952–2013–JPNIMP2016)



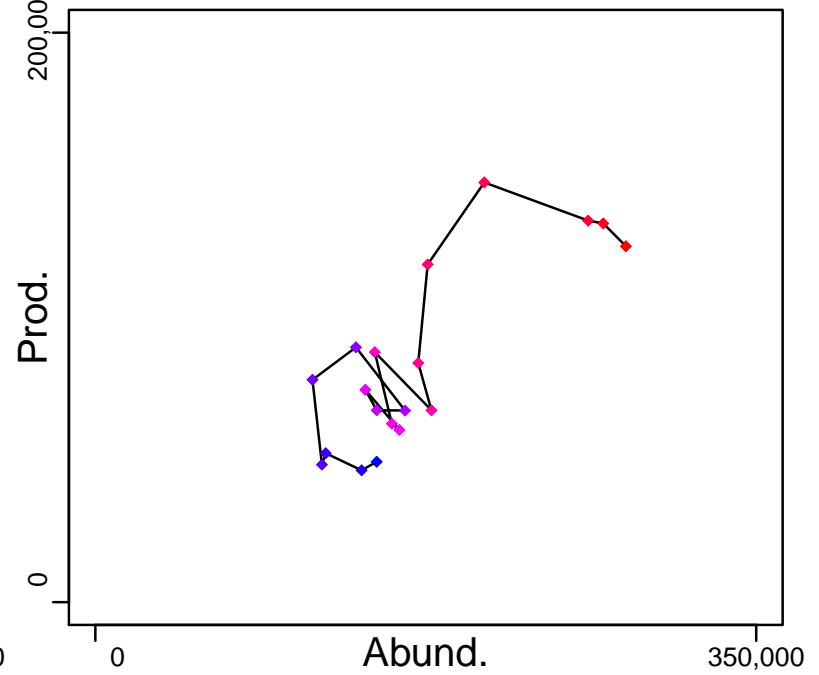
Kobe MGTpref (1952–2013–JPNIMP2016)



Spawner Recruit (1952–2013–JPNIMP2016)



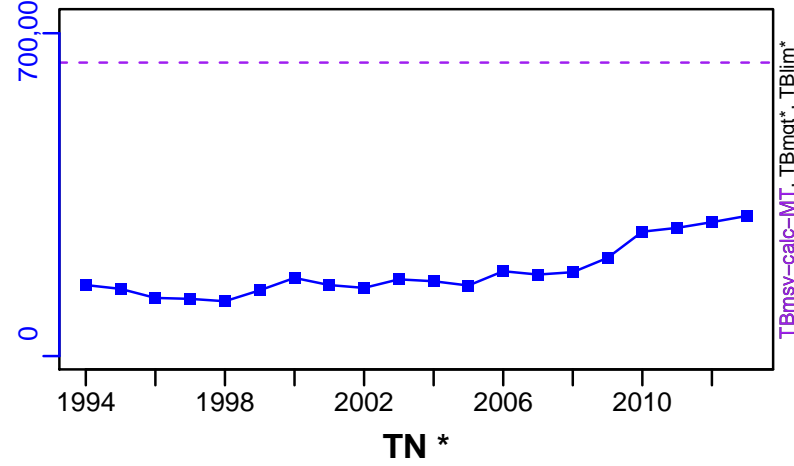
Production (1952–2013–JPNIMP2016)



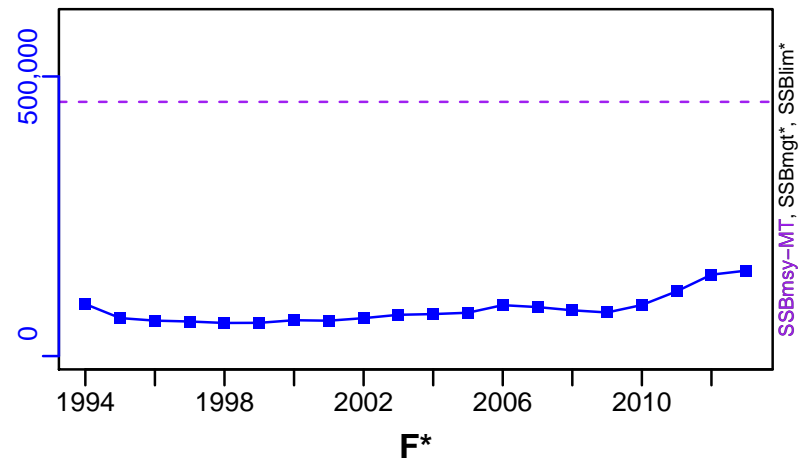
◆ Start Year ◆ End Year * No Data

Japanese amberjack Japan [JAMBERJPN]

TB-MT (1952-2013-JPNIMP2016)

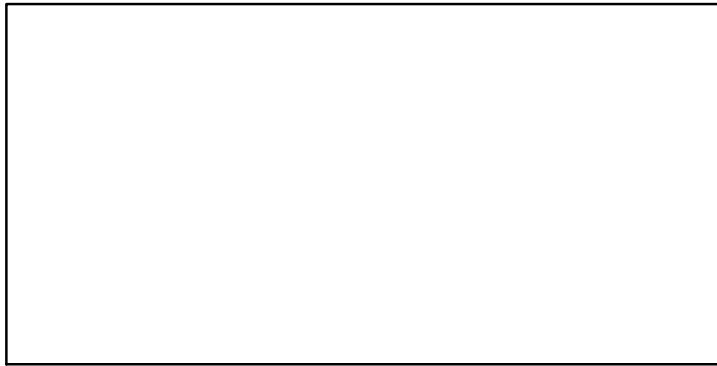


SSB-MT (1952-2013-JPNIMP2016)

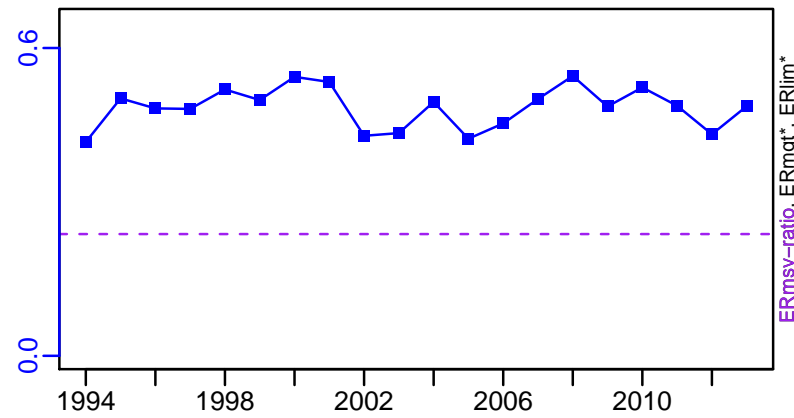


TN *

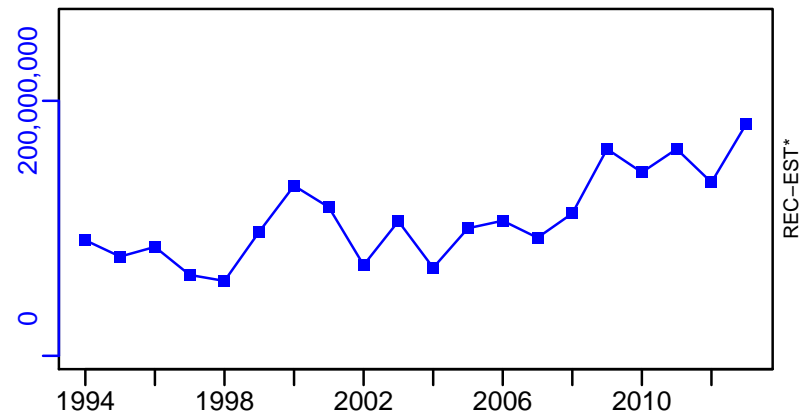
F*



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



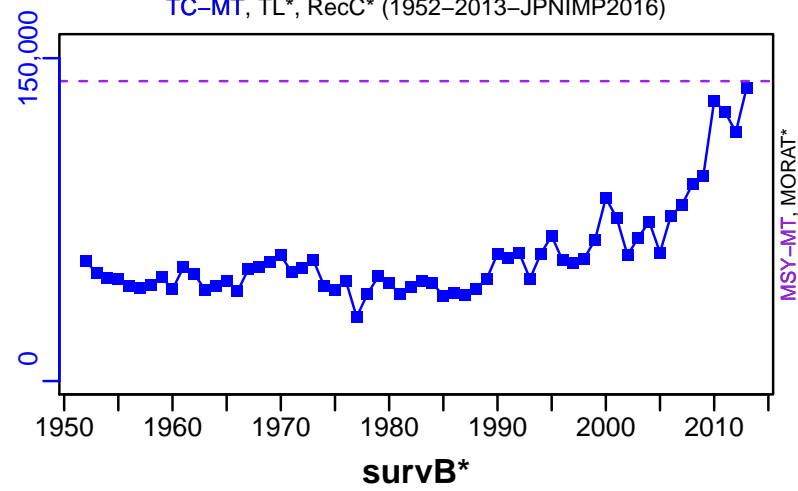
R-E00 (1952-2013-JPNIMP2016)



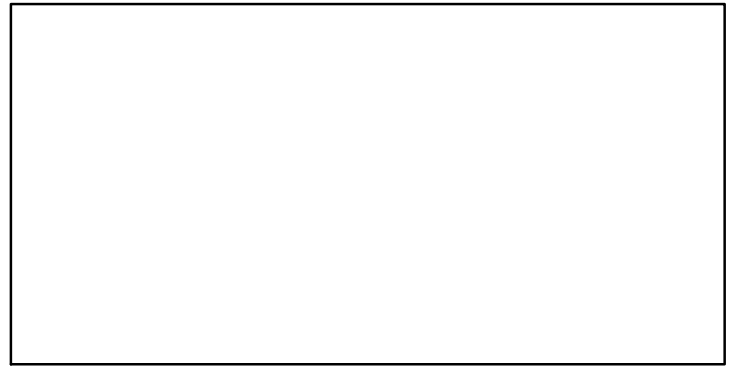
Japanese amberjack Japan [JAMBERJPN]

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

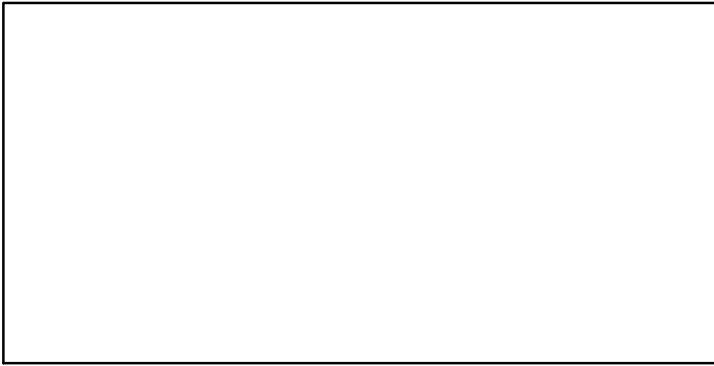
TAC*, Cpair*, Cadv*



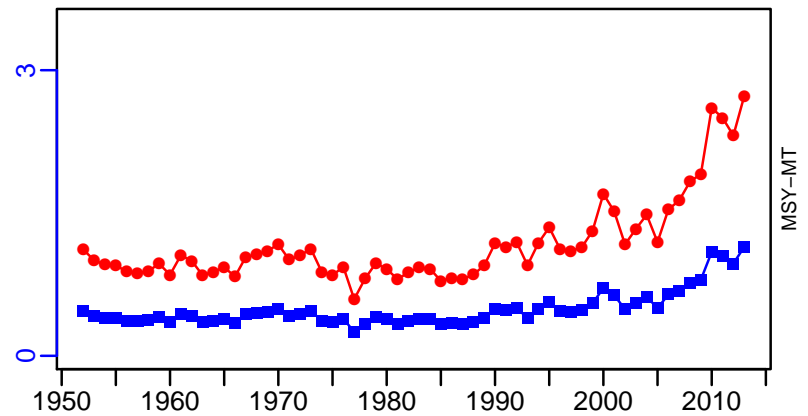
CPUE*



EFFORT*



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



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

Japanese anchovy Pacific Coast of Japan [JANCHOPJPN]

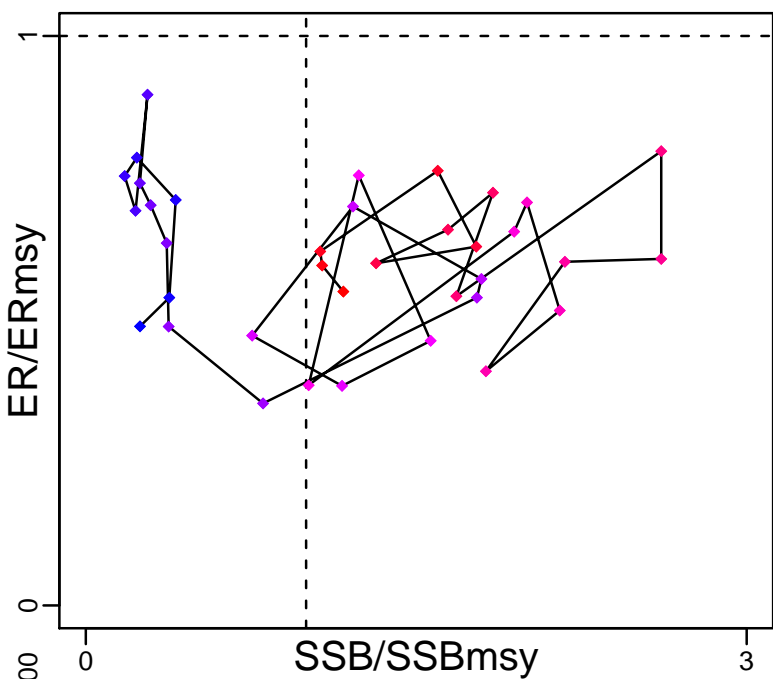
| Metadata | |
|-----------------------------|---|
| Scientific Name | Engraulis japonicus |
| Current Assess ID | FAFRFJ-JANCHOPJPN-1978-2013-JPNIMP2016 |
| Area | Pacific Coast of Japan |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

| Reference Points | | | |
|------------------|---------------|-----------|---------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-calc-MT | 2013 | 590,244 |
| SSBmsy | SSBmsy-MT | 2013 | 343,019 |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2013 | 0.45 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-MT | 2013 | 265,610 |
| M | M-1/yr | 2013 | 1 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

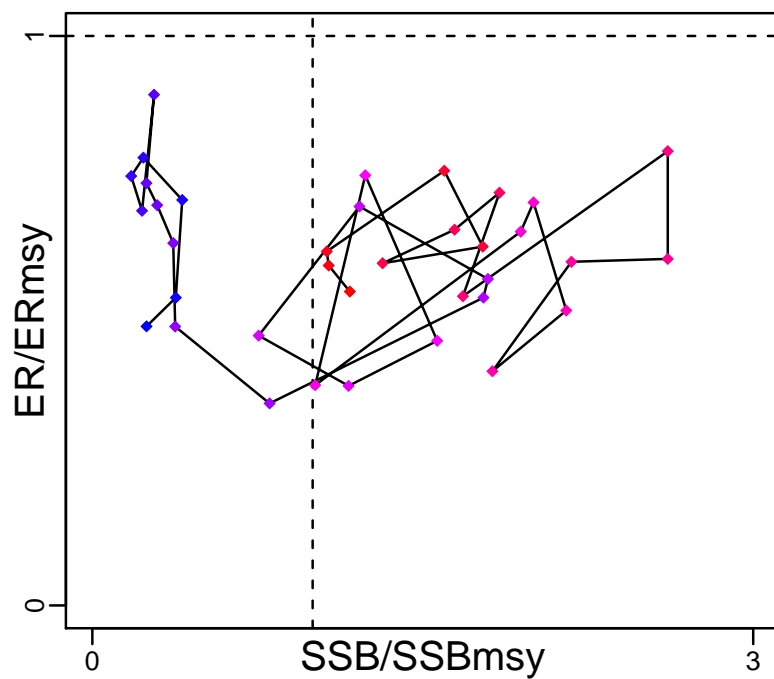
| Time Series | | | | | |
|-------------------|---------------------------|-----------|-----------------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2013 | 625,000 | - | 0 |
| SSB | SSB-MT | 2013 | 401,000 | - | 1 |
| TN | - | - | - | - | - |
| R | R-E00 | 2013 | 8.02×10^{10} | - | 0 |
| F | - | - | - | - | - |
| ER | ER-calc-ratio | 2013 | 0.248 | - | - |
| TC | TC-MT | 2013 | 155,000 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-calc-MT | 2013 | 1.059 | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-MT | 2013 | 1.169 | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2013 | 0.551 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Japanese anchovy Pacific Coast of Japan [JANCHOPJPN]

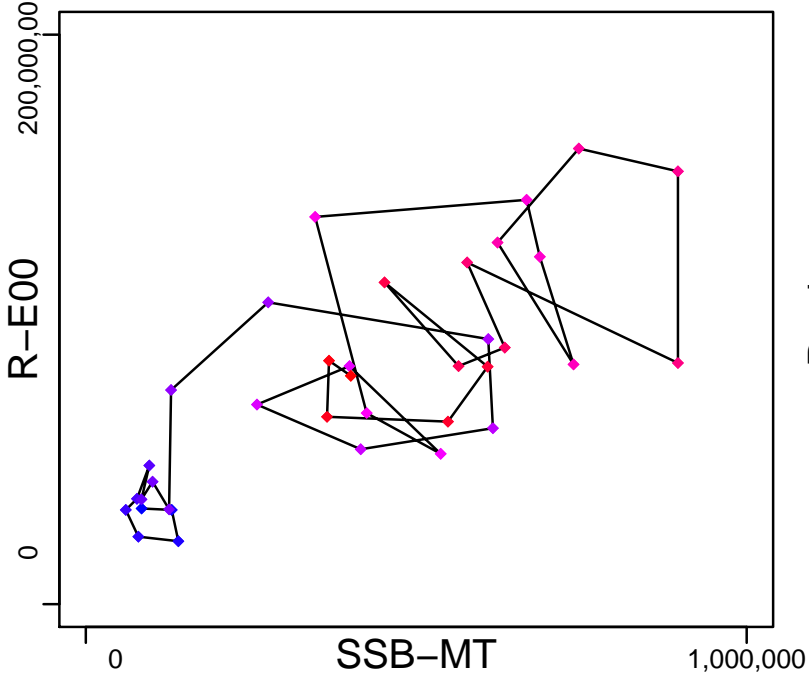
Kobe MSYpref (1978–2013–JPNIMP2016)



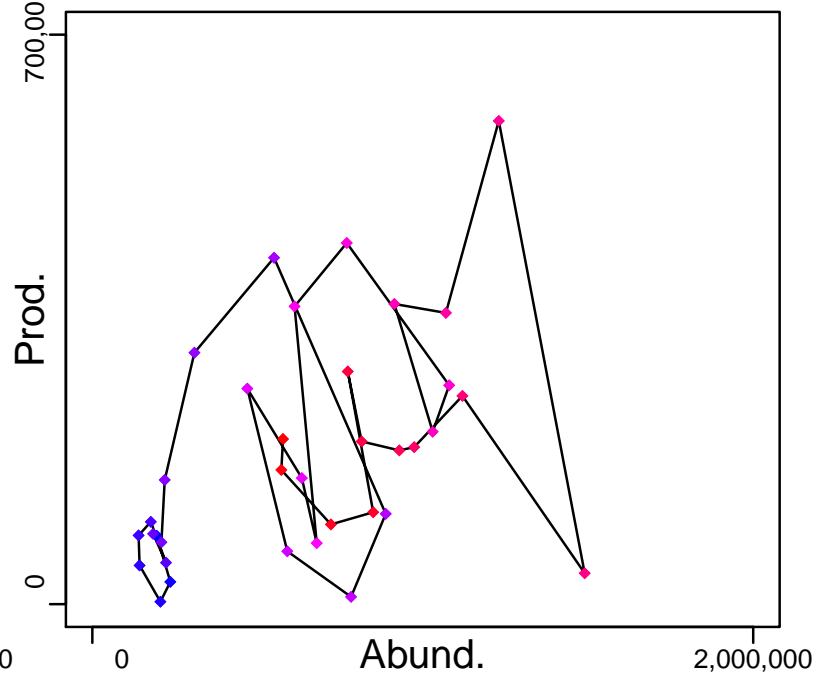
Kobe MGTpref (1978–2013–JPNIMP2016)



Spawner Recruit (1978–2013–JPNIMP2016)



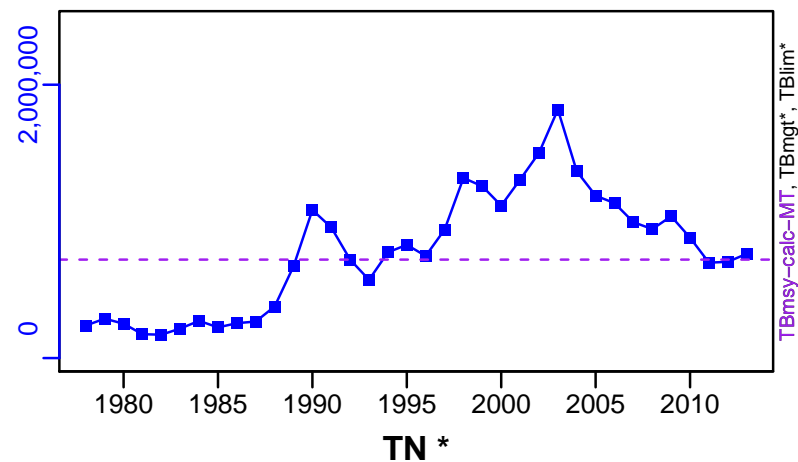
Production (1978–2013–JPNIMP2016)



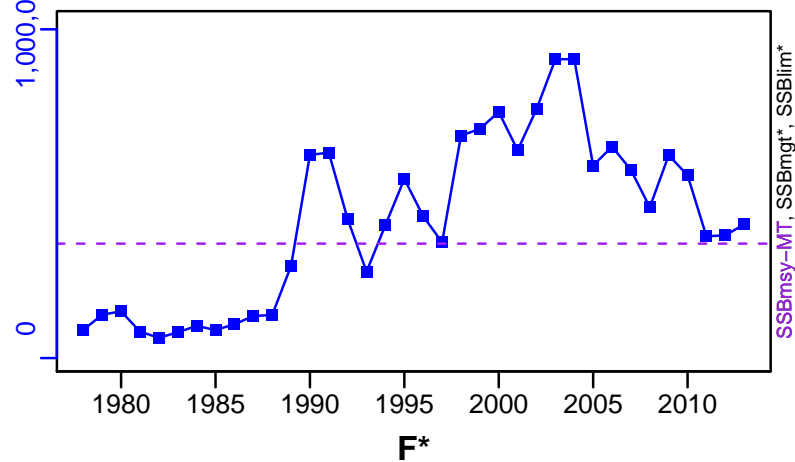
◆ Start Year ◆ End Year * No Data

Japanese anchovy Pacific Coast of Japan [JANCHOPJPN]

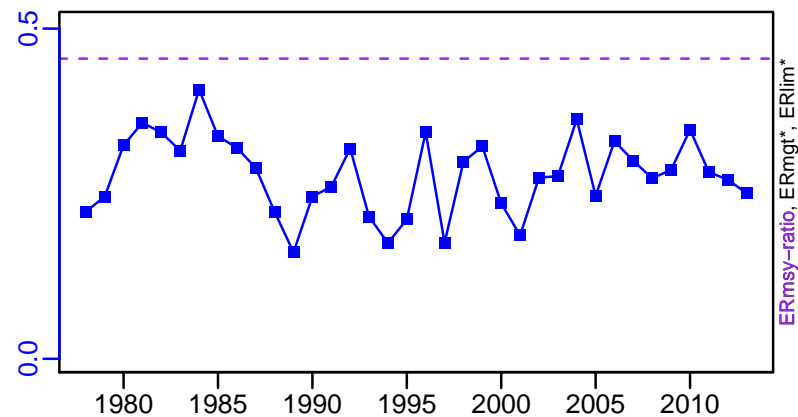
TB-MT (1978-2013-JPNIMP2016)



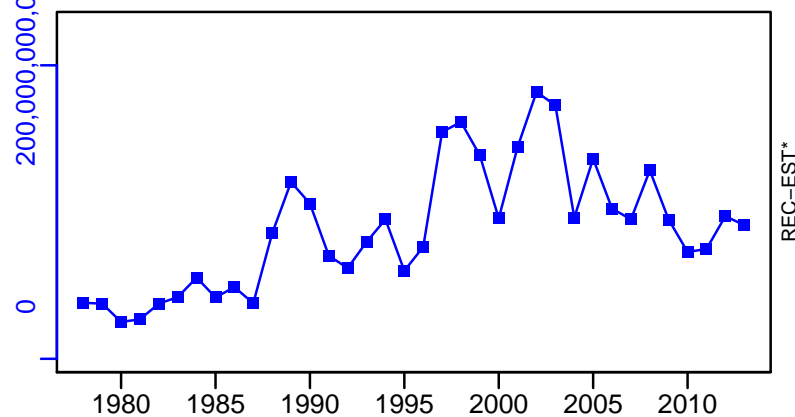
SSB-MT (1978-2013-JPNIMP2016)



ER-calc-ratio (1978-2013-JPNIMP2016)

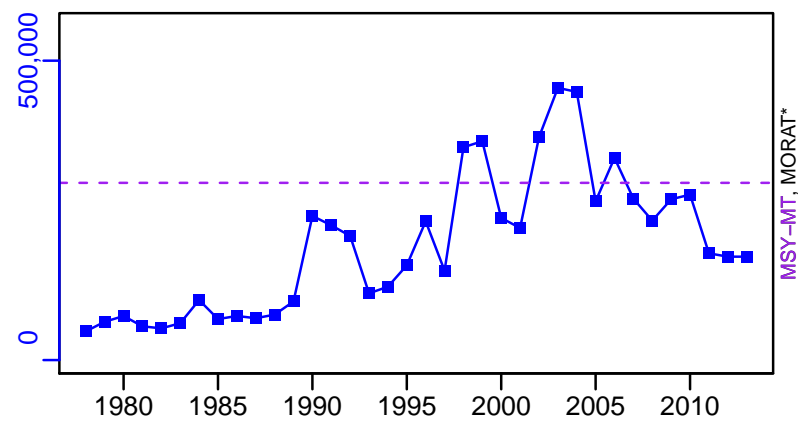


R-E00 (1978-2013-JPNIMP2016)

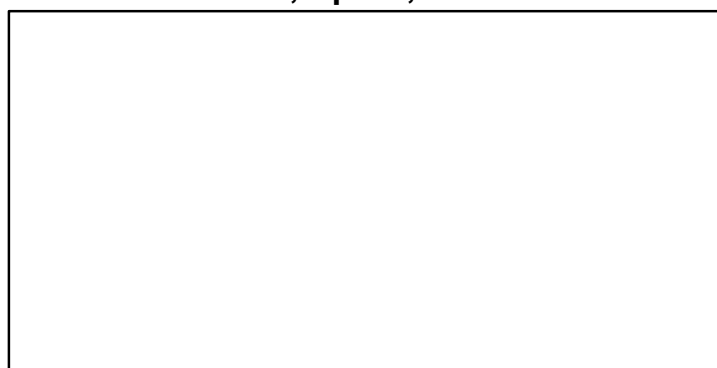


Japanese anchovy Pacific Coast of Japan [JANCHOPJPN]

TC-MT, TL*, RecC* (1978–2013–JPNIMP2016)



TAC*, Cpair*, Cadv*



survB*



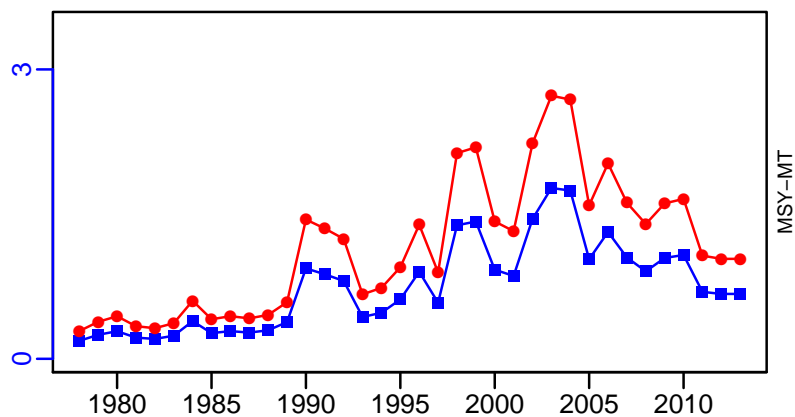
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1978–2013–JPNIMP2016)



1st listed time series (blue square), 2nd listed time series (red circle), 3rd listed time series (green triangle), MORAT (grey line), No Data (*)

Japanese anchovy Inland Sea of Japan [JANCHOSETO]

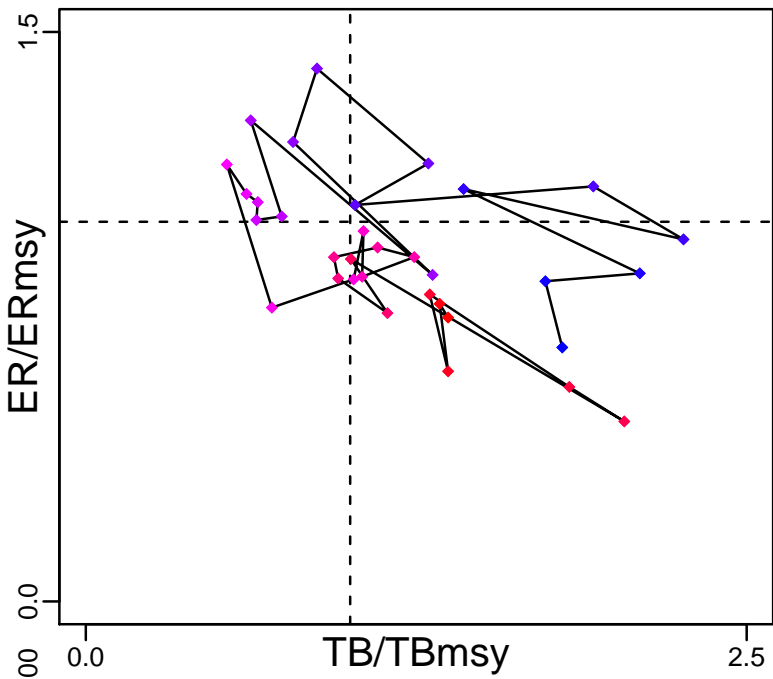
| Metadata | |
|-----------------------------|---|
| Scientific Name | Engraulis japonicus |
| Current Assess ID | FAFRFJ-JANCHOSETO-1955-2013-JPNIMP2016 |
| Area | Inland Sea of Japan |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

| Reference Points | | | |
|------------------|-------------|-----------|---------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-MT | 2013 | 187,524 |
| SSBmsy | - | - | - |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2013 | 0.371 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-calc-MT | 2013 | 69,571 |
| M | M-1/yr | 2013 | 2.41 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

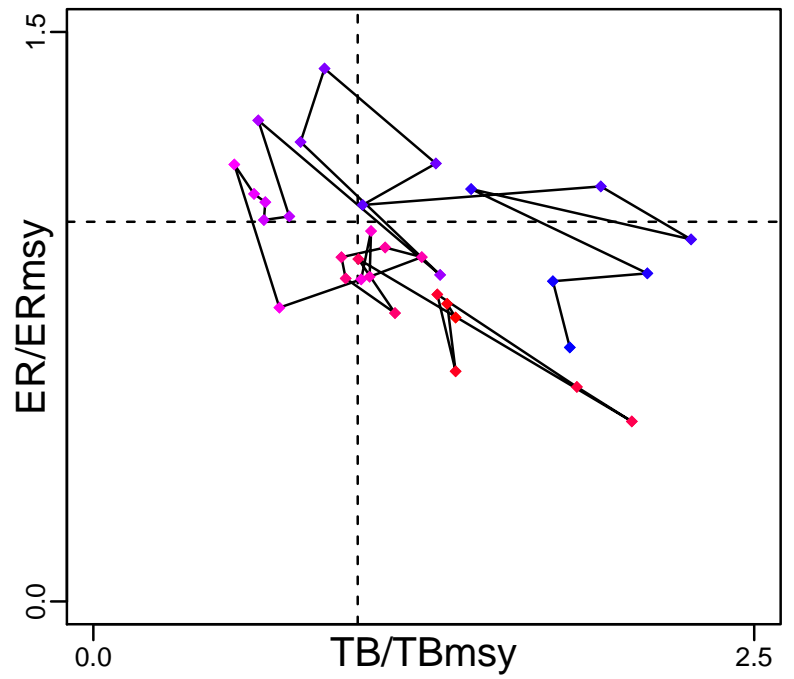
| Time Series | | | | | |
|-------------------|---------------------------|-----------|-----------------------|------|-----------|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2013 | 257,000 | - | 0 |
| SSB | SSB-MT | 2013 | 70,000 | Both | 0.4166667 |
| TN | - | - | - | - | - |
| R | R-E00 | 2013 | 3.91×10^{11} | - | 0 |
| F | - | - | - | - | - |
| ER | ER-calc-ratio | 2013 | 0.277 | - | - |
| TC | TC-MT | 2013 | 71,300 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-MT | 2013 | 1.37 | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2013 | 0.748 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Japanese anchovy Inland Sea of Japan [JANCHOSETO]

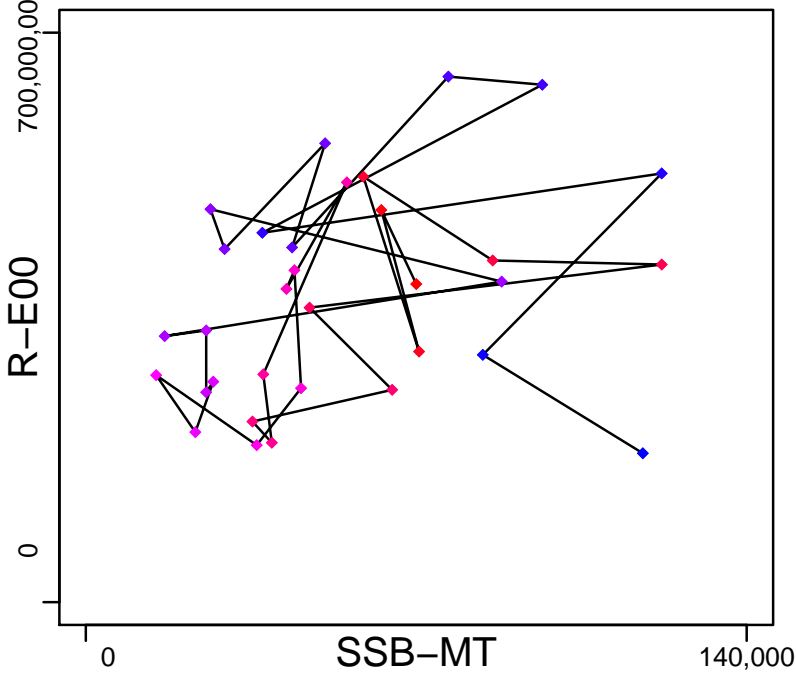
Kobe MSYpref (1955–2013–JPNIMP2016)



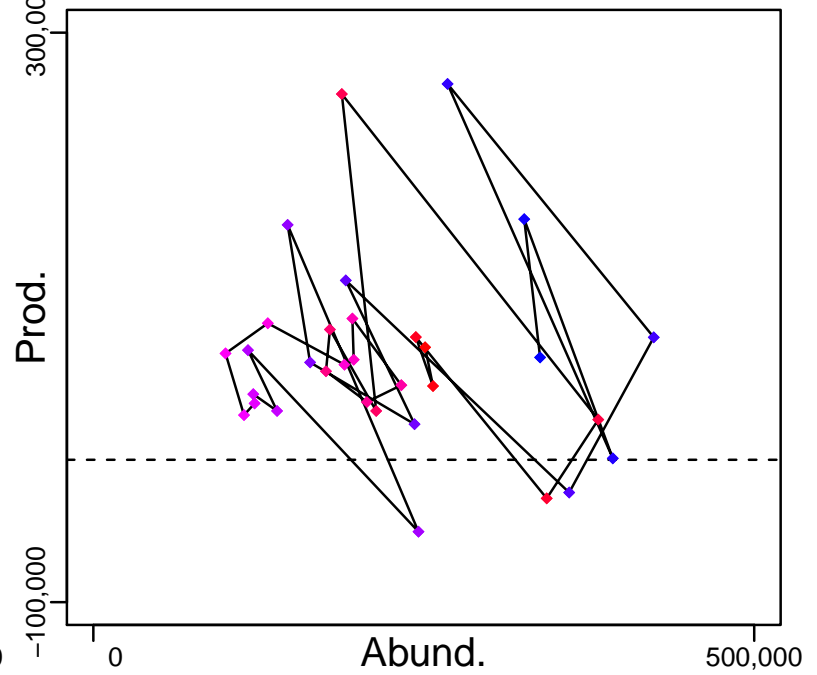
Kobe MGTpref (1955–2013–JPNIMP2016)



Spawner Recruit (1955–2013–JPNIMP2016)



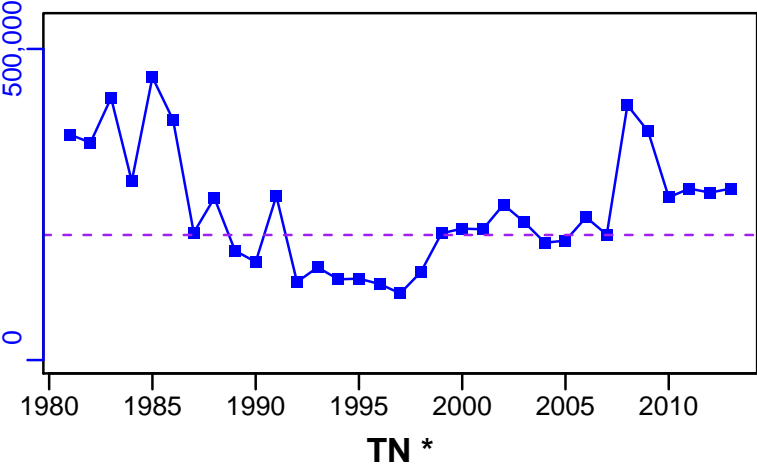
Production (1955–2013–JPNIMP2016)



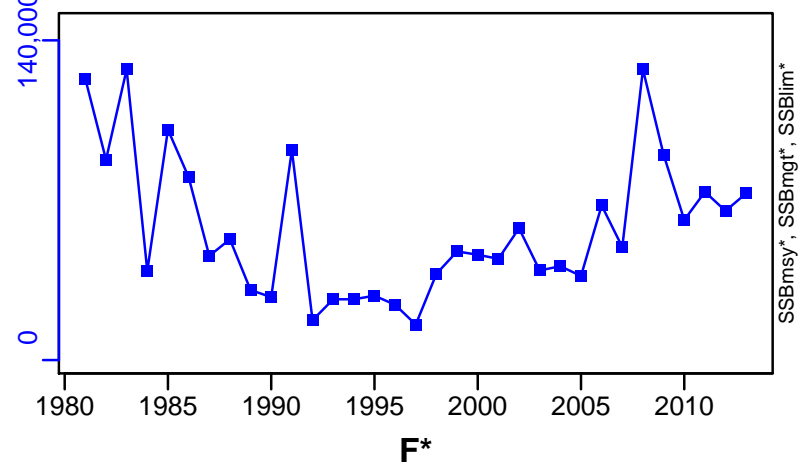
◆ Start Year ◆ End Year * No Data

Japanese anchovy Inland Sea of Japan [JANCHOSETO]

TB-MT (1955-2013-JPNIMP2016)

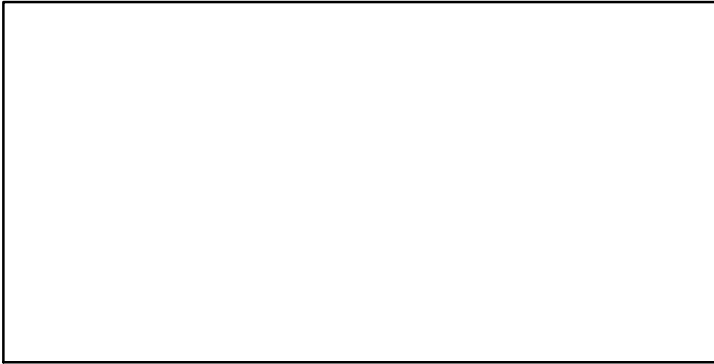


SSB-MT (1955-2013-JPNIMP2016)

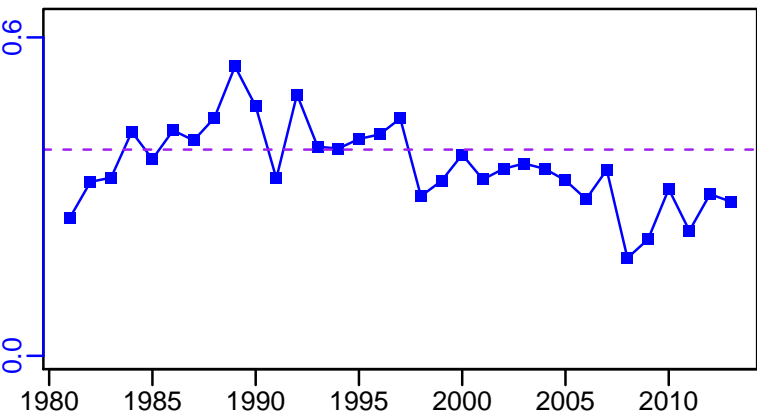


TN *

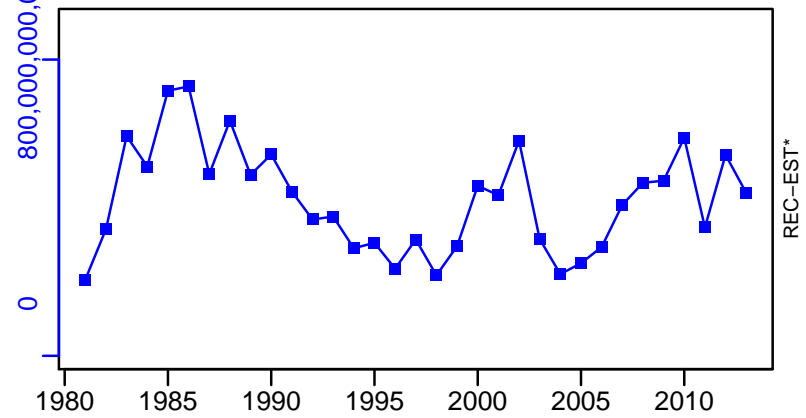
F*



ER-calc-ratio (1955-2013-JPNIMP2016)

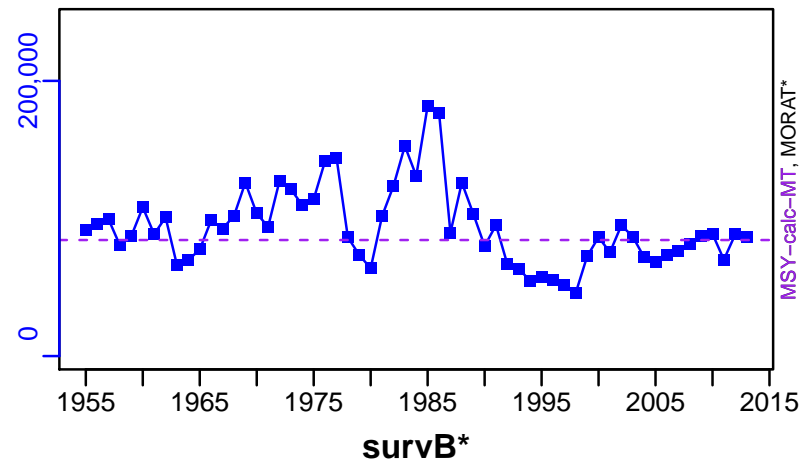


R-E00 (1955-2013-JPNIMP2016)



Japanese anchovy Inland Sea of Japan [JANCHOSETO]

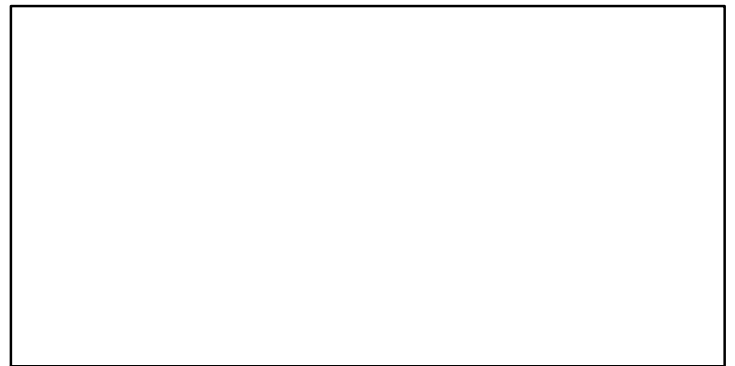
TC-MT, TL*, RecC* (1955-2013-JPNIMP2016)



TAC*, Cpair*, Cadv*



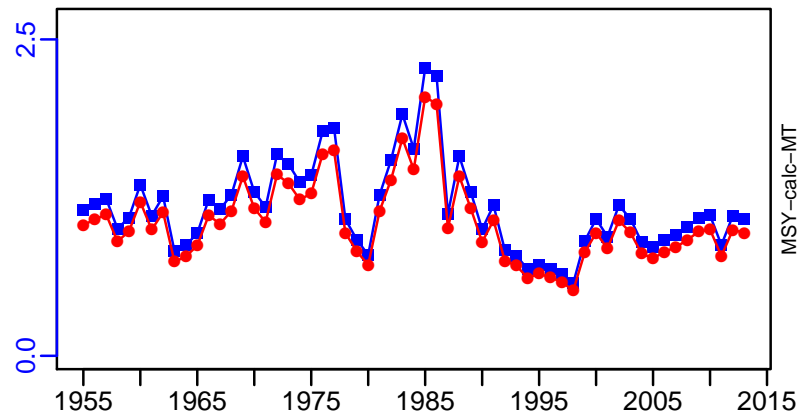
CPUE*



EFFORT*



TC-MT/MSY-calc-MT, CdivMEANC-ratio, (1955-2013-JPNIMP2016)



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

Japanese anchovy Tsushima Strait [JANCHOTSST]

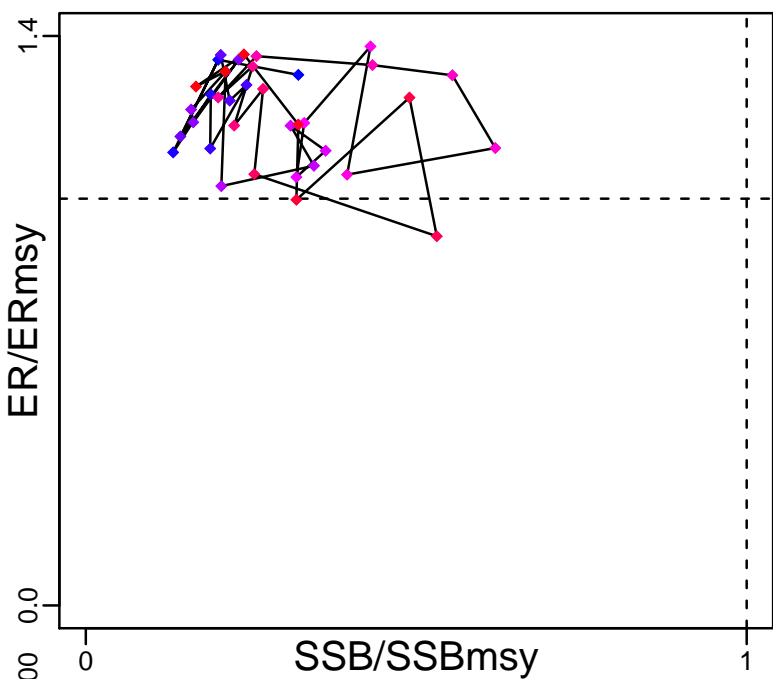
| Metadata | |
|-----------------------------|---|
| Scientific Name | Engraulis japonicus |
| Current Assess ID | FAFRFJ-JANCHOTSST-1976-2013-JPNIMP2016 |
| Area | Tsushima Strait |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

| Reference Points | | | |
|------------------|---------------|-----------|---------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-calc-MT | 2013 | 402,460 |
| SSBmsy | SSBmsy-MT | 2013 | 338,932 |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2013 | 0.372 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-MT | 2013 | 149,715 |
| M | M-1/yr | 2013 | 1 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

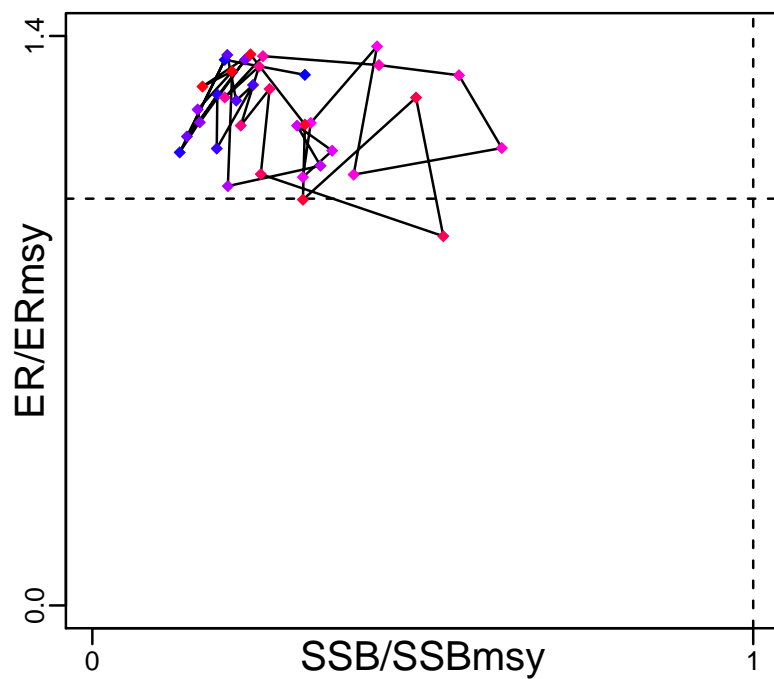
| Time Series | | | | | |
|-------------------|---------------------------|-----------|-----------------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2013 | 98,500 | - | 0 |
| SSB | SSB-MT | 2013 | 71,500 | Both | 1 |
| TN | - | - | - | - | - |
| R | R-E00 | 2013 | 5.37×10^{10} | - | 0 |
| F | - | - | - | - | - |
| ER | ER-calc-ratio | 2013 | 0.488 | - | - |
| TC | TC-MT | 2013 | 48,100 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-calc-MT | 2013 | 0.245 | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-MT | 2013 | 0.211 | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2013 | 1.313 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Japanese anchovy Tsushima Strait [JANCHOTSST]

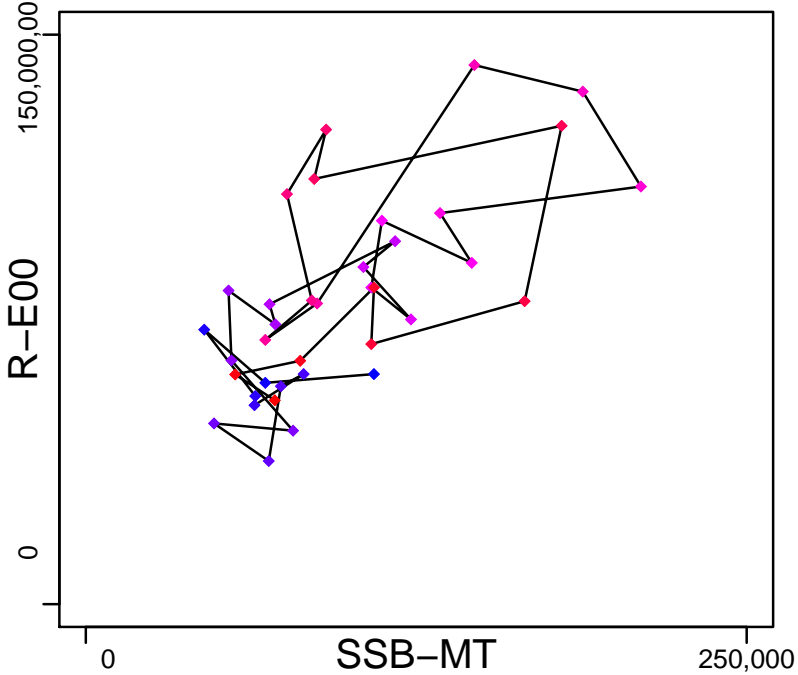
Kobe MSYpref (1976–2013–JPNIMP2016)



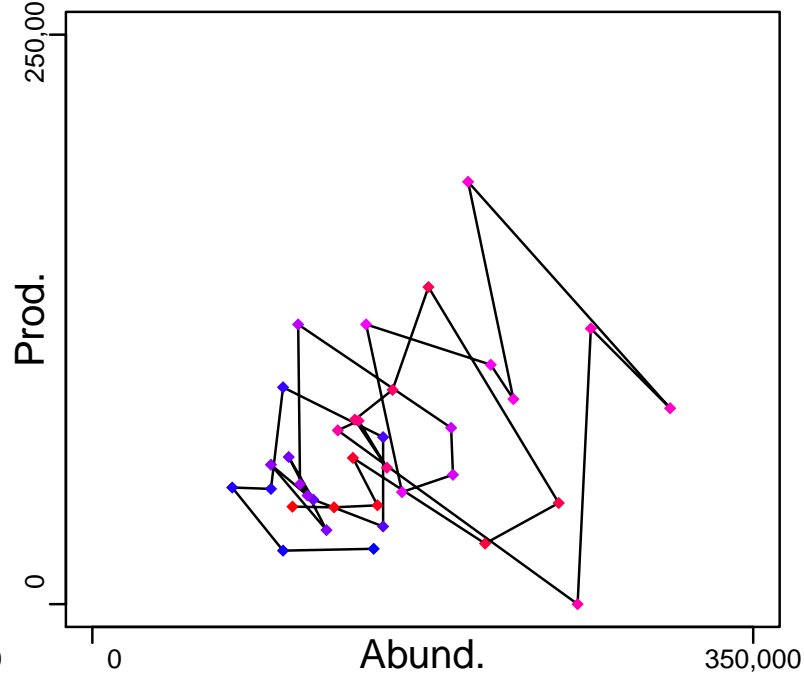
Kobe MGTpref (1976–2013–JPNIMP2016)



Spawner Recruit (1976–2013–JPNIMP2016)



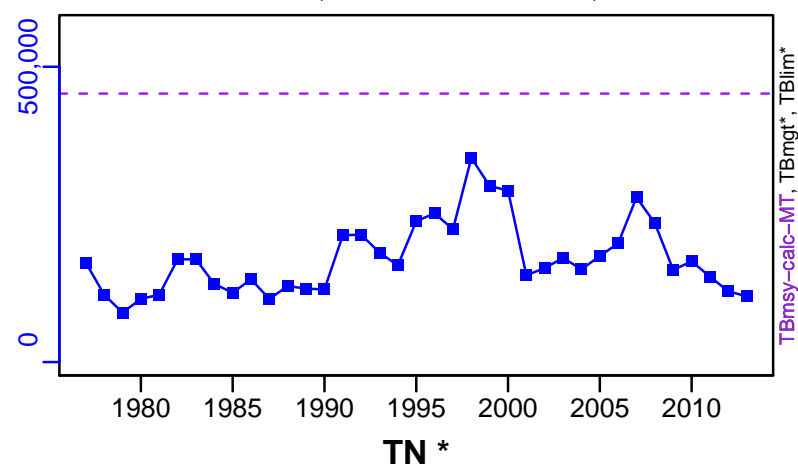
Production (1976–2013–JPNIMP2016)



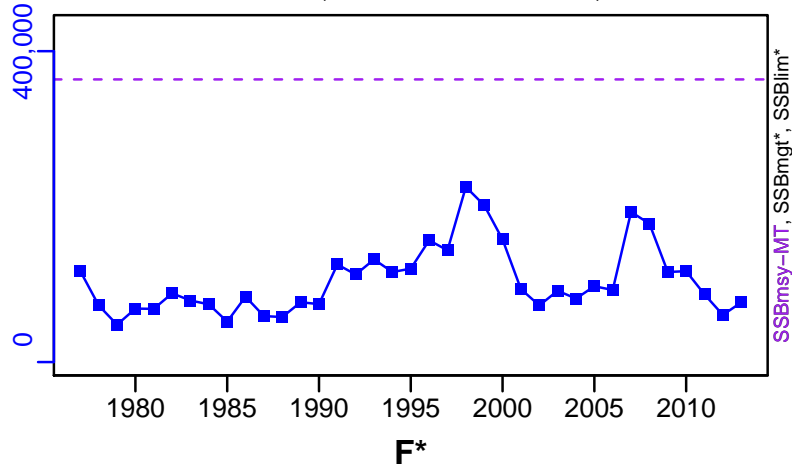
◆ Start Year ◆ End Year * No Data

Japanese anchovy Tsushima Strait [JANCHOTSST]

TB-MT (1976-2013-JPNIMP2016)



SSB-MT (1976-2013-JPNIMP2016)



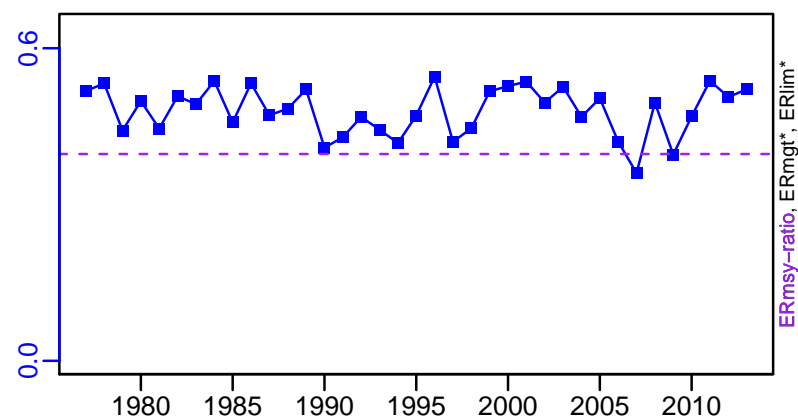
TN *



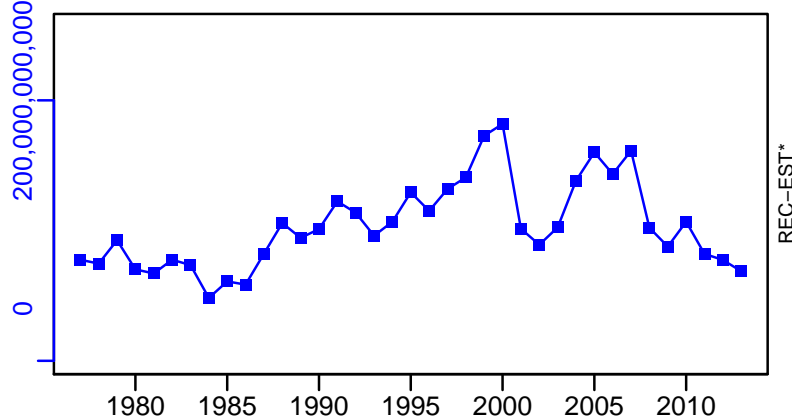
F*



ER-calc-ratio (1976-2013-JPNIMP2016)

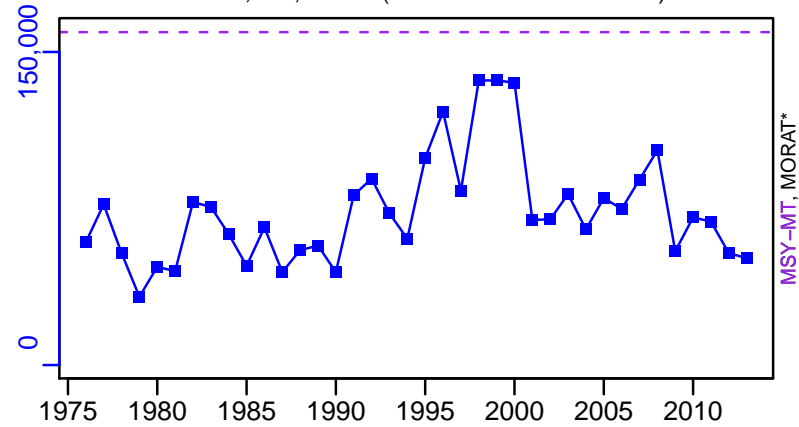


R-E00 (1976-2013-JPNIMP2016)



Japanese anchovy Tsushima Strait [JANCHOTSST]

TC-MT, TL*, RecC* (1976–2013–JPNIMP2016)



TAC*, Cpair*, Cadv*



survB*



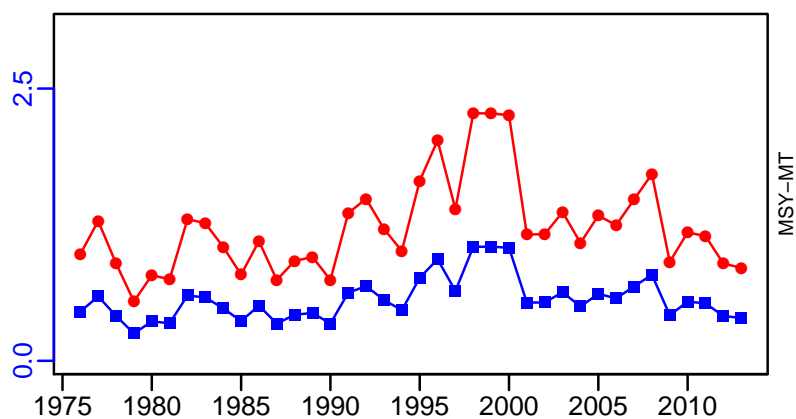
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1976–2013–JPNIMP2016)



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

Japanese flying squid Japan Autumn recruitment [JCSQUIDJPNAR]

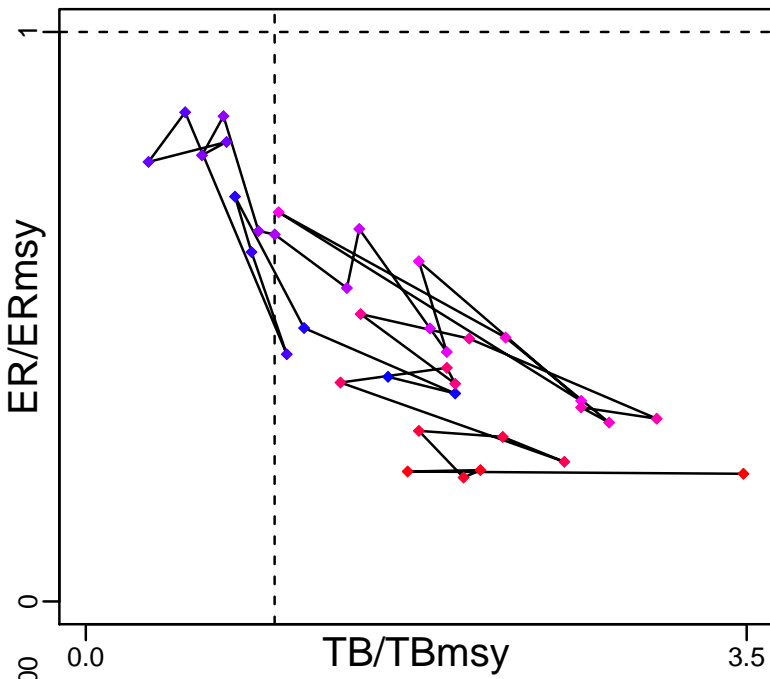
| Metadata | |
|-----------------------------|---|
| Scientific Name | Todarodes pacificus |
| Current Assess ID | FAFRFJ-JCSQUIDJPNAR-1979-2014-JPNIMP2016 |
| Area | Japan Autumn recruitment |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2014 |

| Reference Points | | | |
|------------------|-------------|-----------|---------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-MT | 2014 | 674,723 |
| SSBmsy | - | - | - |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2014 | 0.446 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-calc-MT | 2014 | 300,926 |
| M | M-1/yr | 2014 | 1.2 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

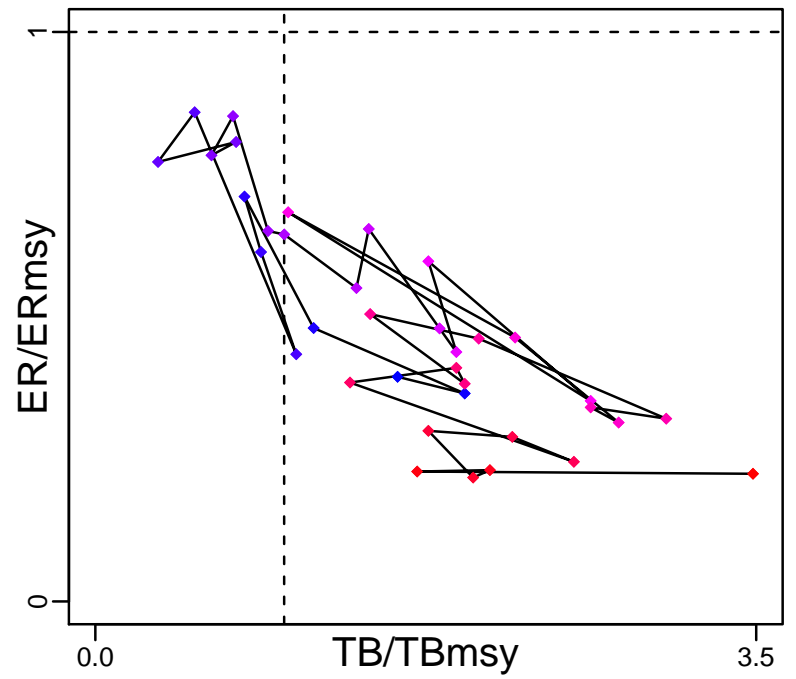
| Time Series | | | | | |
|-------------------|---------------------------|-----------|--------------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2014 | 2,350,000 | - | 0.5 |
| SSB | SSB-MT | 2014 | 1,110,000 | Both | 0.5 |
| TN | - | - | - | - | - |
| R | R-E00 | 2014 | 8.37×10^9 | - | 0.5 |
| F | - | - | - | - | - |
| ER | ER-calc-ratio | 2014 | 0.1 | - | - |
| TC | TC-MT | 2014 | 235,000 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-MT | 2014 | 3.483 | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2014 | 0.224 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Japanese flying squid Japan Autumn recruitment [JCSQUIDJPNAR]

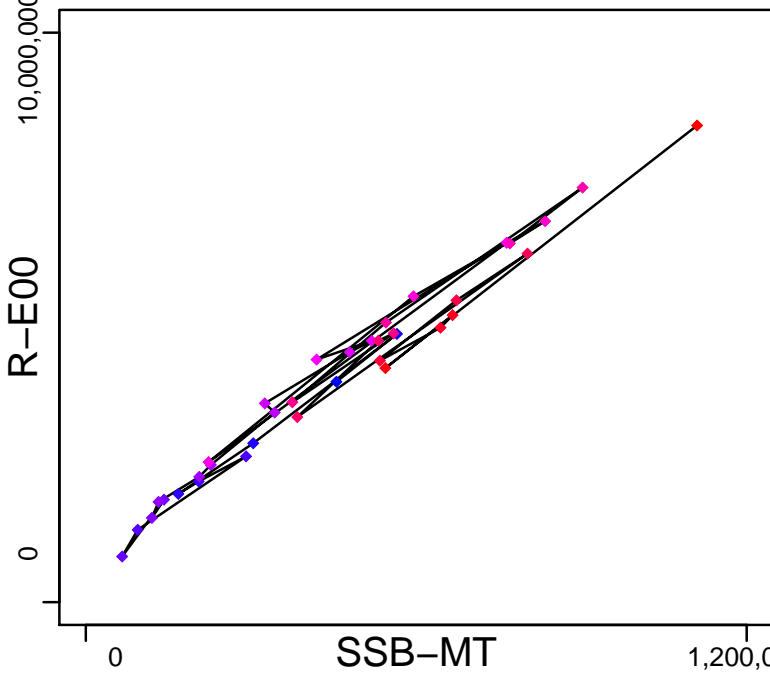
Kobe MSYpref (1979–2014–JPNIMP2016)



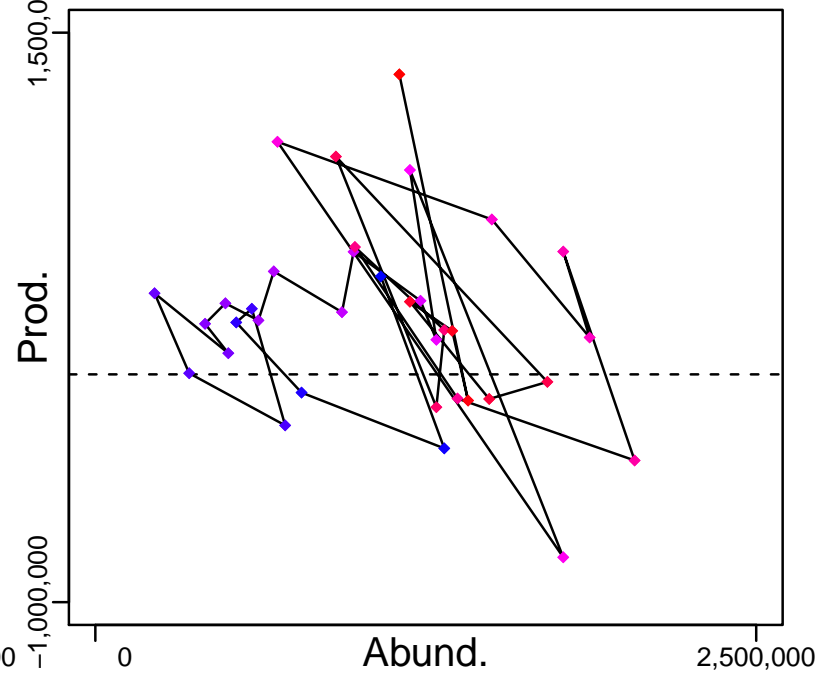
Kobe MGTpref (1979–2014–JPNIMP2016)



Spawner Recruit (1979–2014–JPNIMP2016)



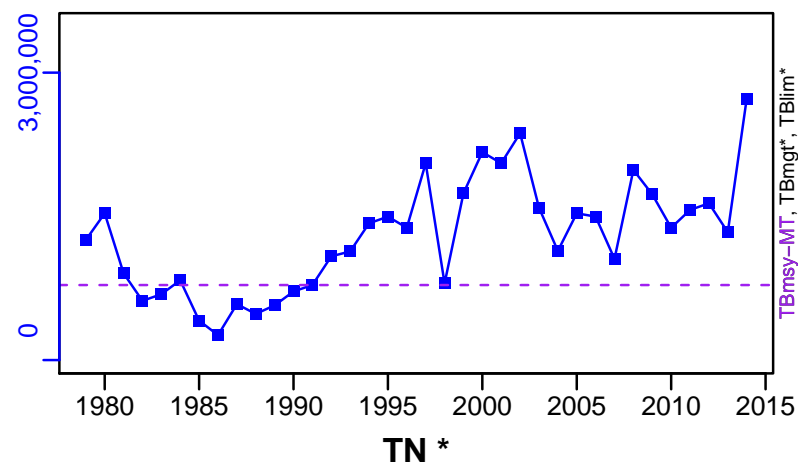
Production (1979–2014–JPNIMP2016)



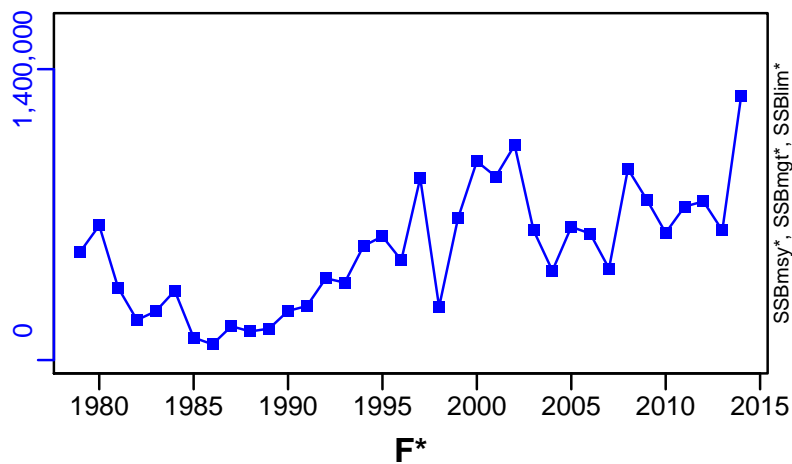
◆ Start Year ◆ End Year * No Data

Japanese flying squid Japan Autumn recruitment [JCSQUIDJPNAR]

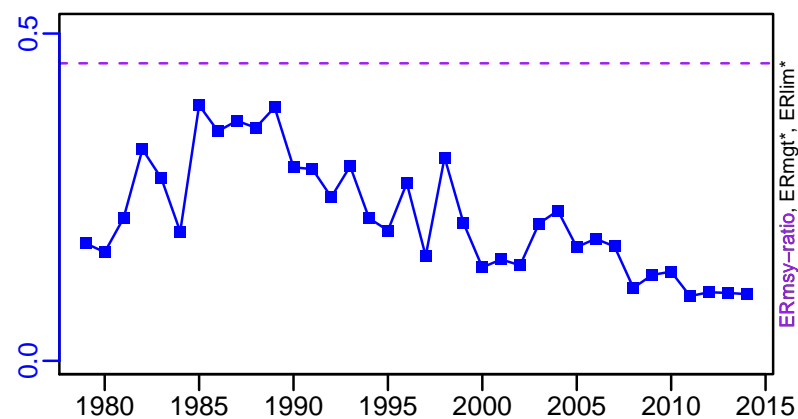
TB-MT (1979–2014–JPNIMP2016)



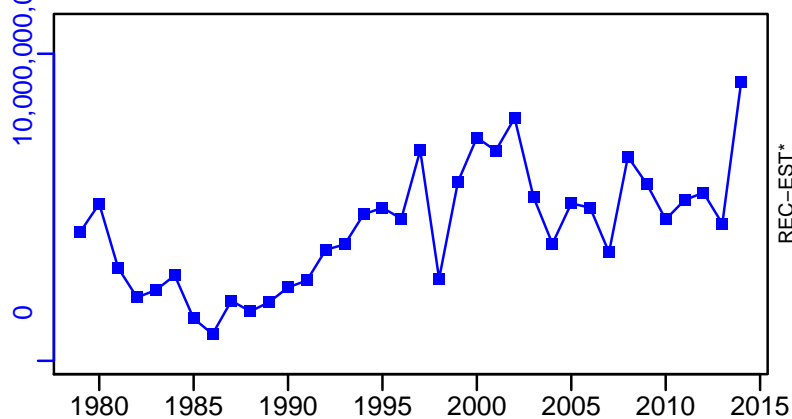
SSB-MT (1979–2014–JPNIMP2016)



ER-calc-ratio (1979–2014–JPNIMP2016)



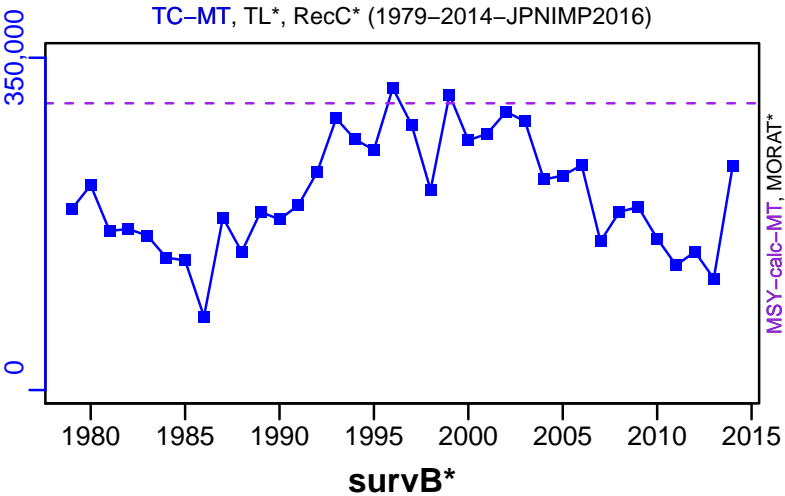
R-E00 (1979–2014–JPNIMP2016)



Japanese flying squid Japan Autumn recruitment [JCSQUIDJPNAR]

TC-MT, TL*, RecC* (1979–2014–JPNIMP2016)

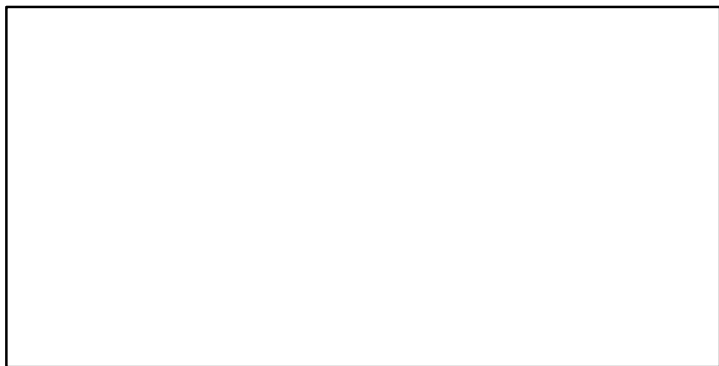
TAC*, Cpair*, Cadv*



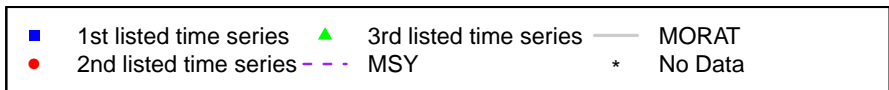
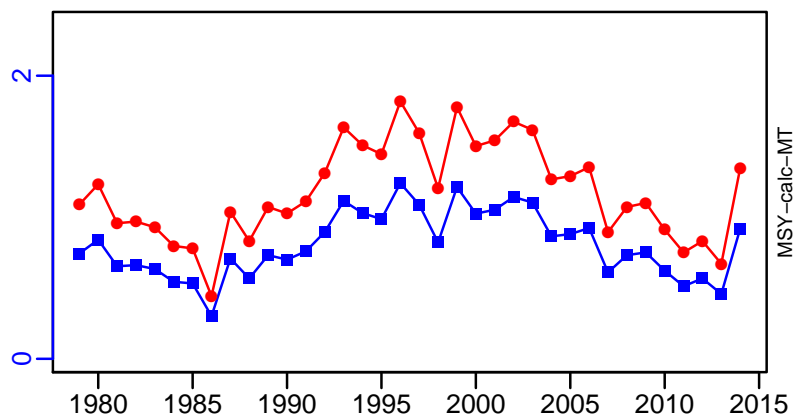
CPUE*



EFFORT*



TC-MT/MSY-calc-MT, CdivMEANC-ratio, (1979–2014–JPNIMP2016)



Japanese flying squid Japan Winter recruitment [JCSQUIDJPNWR]

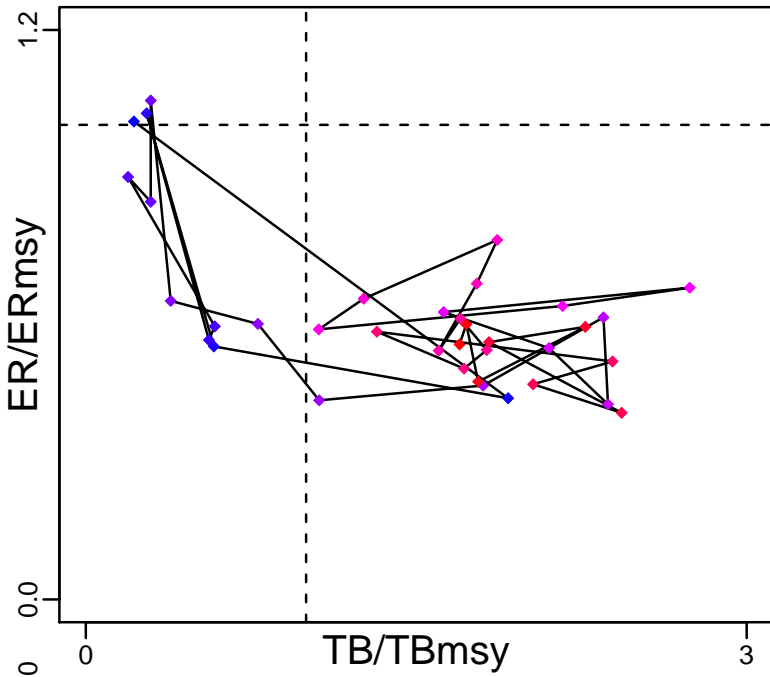
| Metadata | |
|-----------------------------|---|
| Scientific Name | Todarodes pacificus |
| Current Assess ID | FAFRFJ-JCSQUIDJPNWR-1979-2014-JPNIMP2016 |
| Area | Japan Winter recruitment |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2014 |

| Reference Points | | | |
|------------------|-------------|-----------|---------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-MT | 2014 | 485,117 |
| SSBmsy | - | - | - |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2014 | 0.459 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-calc-MT | 2014 | 222,669 |
| M | M-1/yr | 2014 | 1.2 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

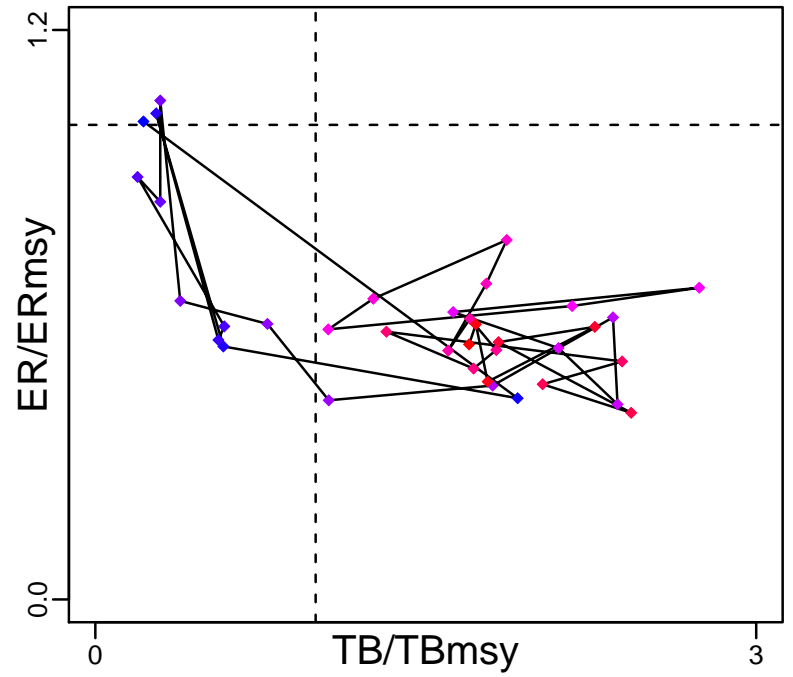
| Time Series | | | | | |
|-------------------|---------------------------|-----------|--------------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2014 | 823,000 | - | 0.5 |
| SSB | SSB-MT | 2014 | 301,000 | Both | 0.5 |
| TN | - | - | - | - | - |
| R | R-E00 | 2014 | 2.66×10^9 | - | 0.5 |
| F | - | - | - | - | - |
| ER | ER-calc-ratio | 2014 | 0.247 | - | - |
| TC | TC-MT | 2014 | 203,000 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-MT | 2014 | 1.696 | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2014 | 0.537 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Japanese flying squid Japan Winter recruitment [JCSQUIDJPNWR]

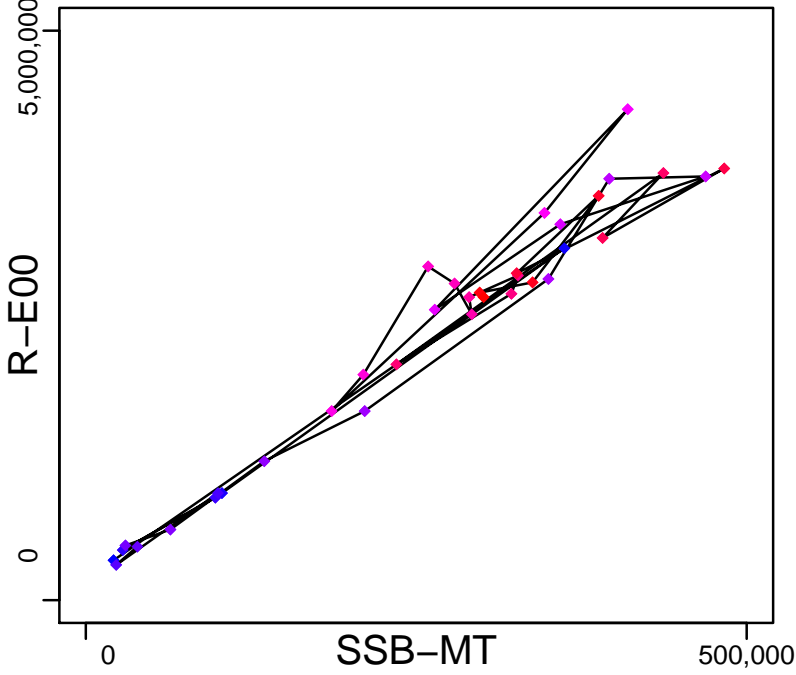
Kobe MSYpref (1979–2014–JPNIMP2016)



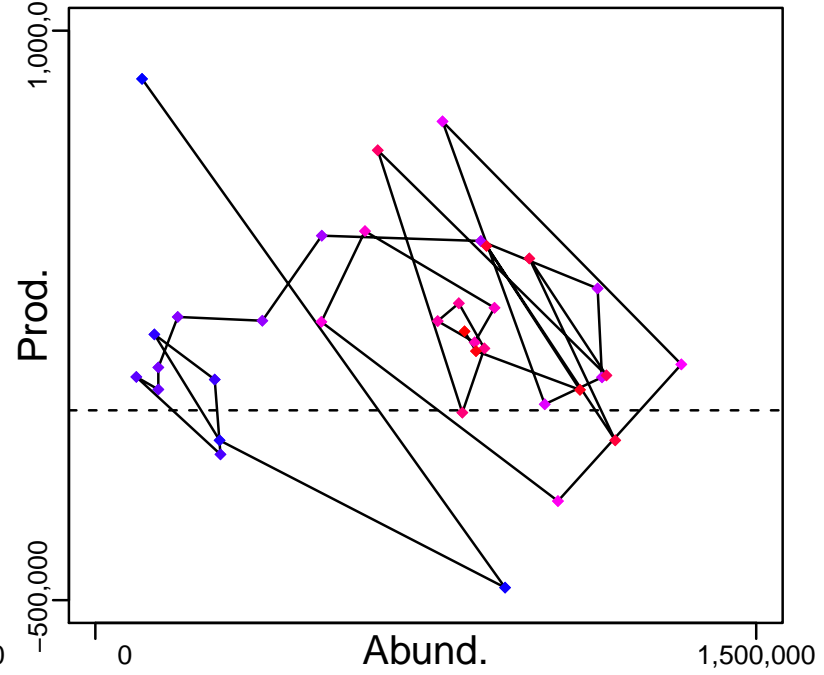
Kobe MGTpref (1979–2014–JPNIMP2016)



Spawner Recruit (1979–2014–JPNIMP2016)



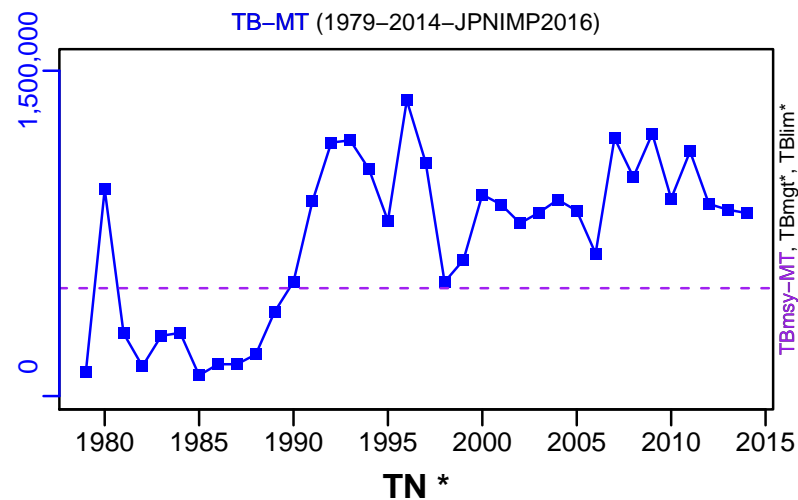
Production (1979–2014–JPNIMP2016)



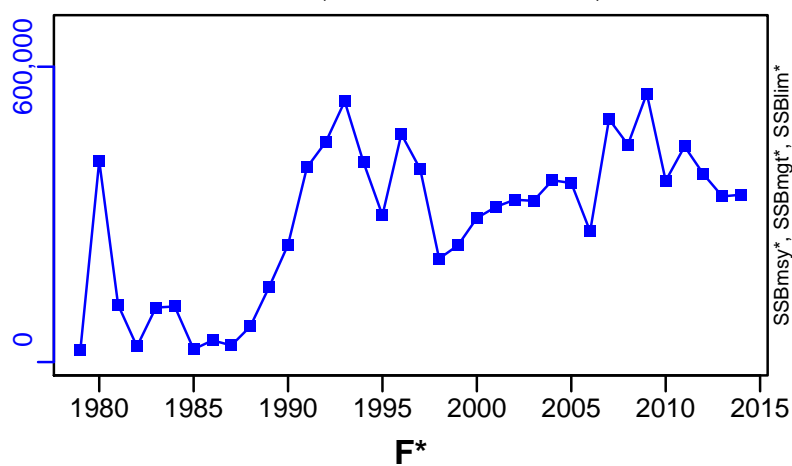
◆ Start Year ◆ End Year * No Data

Japanese flying squid Japan Winter recruitment [JCSQUIDJPNWR]

TB-MT (1979–2014–JPNIMP2016)



SSB-MT (1979–2014–JPNIMP2016)

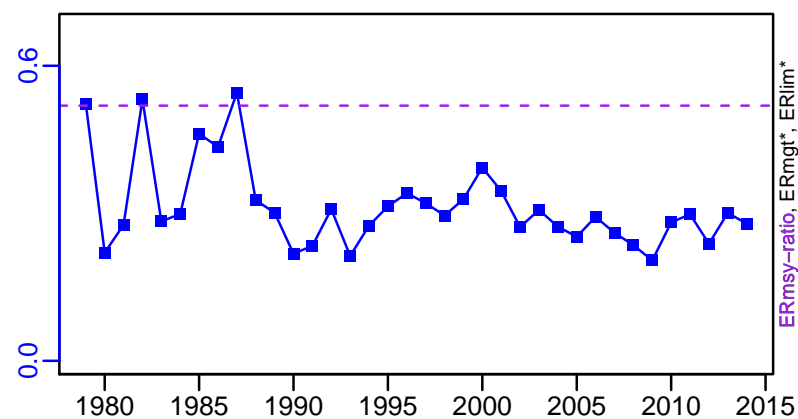


TN *

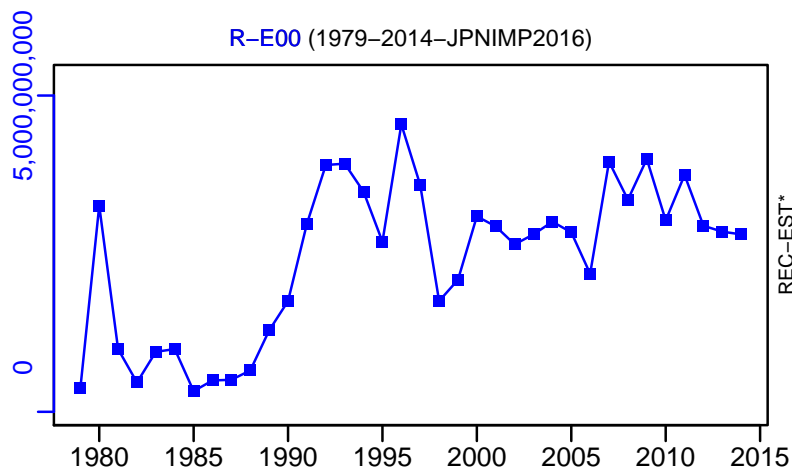
F*



ER-calc-ratio (1979–2014–JPNIMP2016)

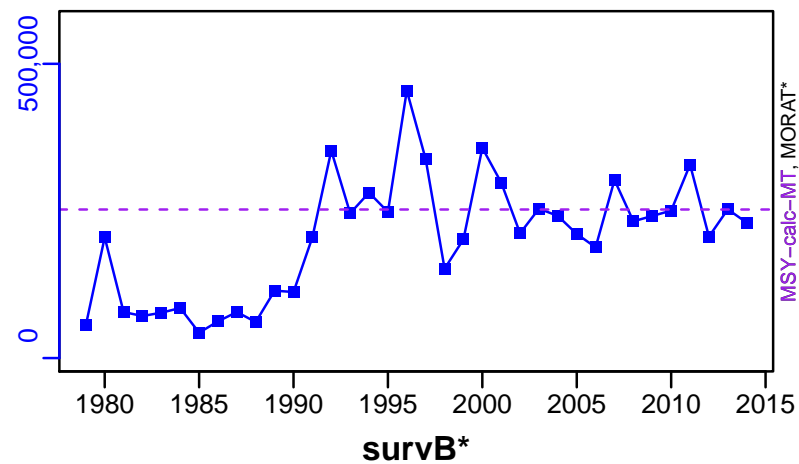


R-E00 (1979–2014–JPNIMP2016)



Japanese flying squid Japan Winter recruitment [JCSQUIDJPNWR]

TC-MT, TL*, RecC* (1979–2014–JPNIMP2016)



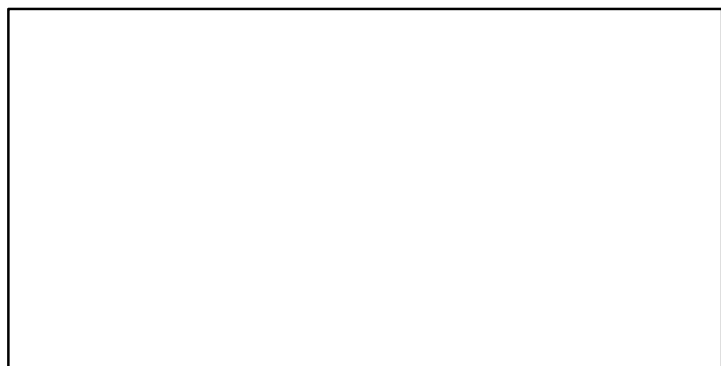
TAC*, Cpair*, Cadv*



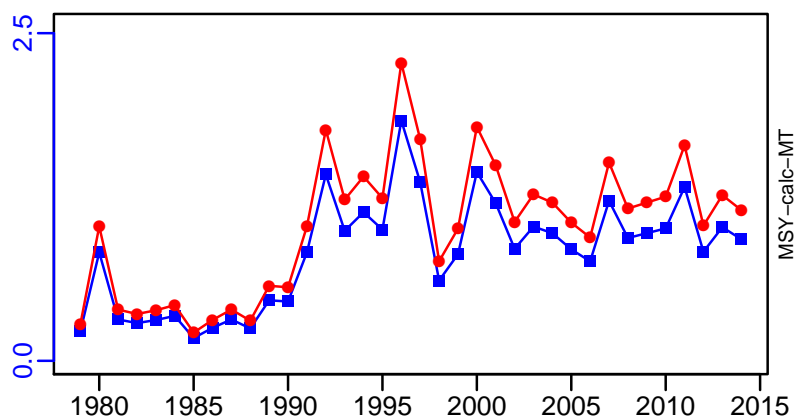
CPUE*



EFFORT*



TC-MT/MSY-calc-MT, CdivMEANC-ratio, (1979–2014–JPNIMP2016)



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

Japanese jack mackerel Pacific Coast of Japan [JMACKPJPN]

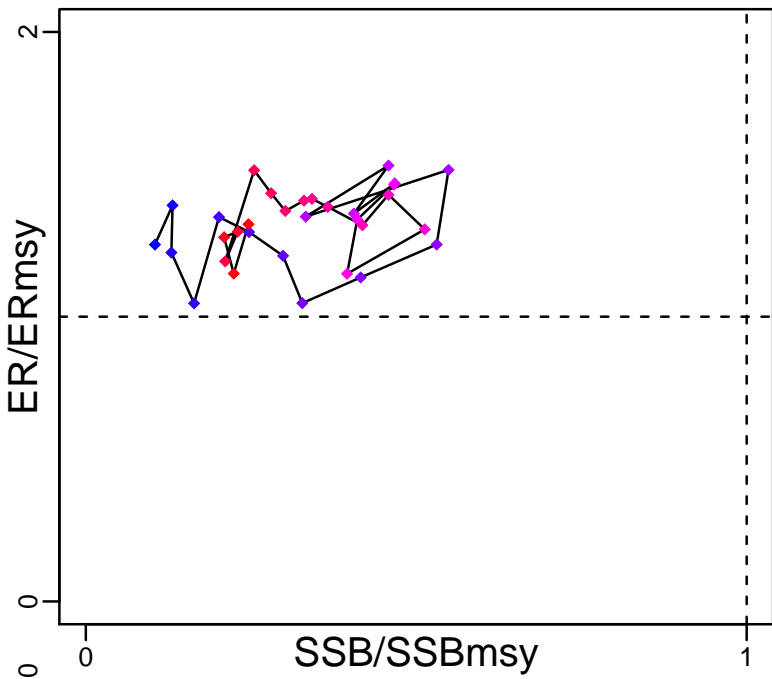
| Metadata | |
|-----------------------------|---|
| Scientific Name | Trachurus japonicus |
| Current Assess ID | FAFRFJ-JMACKPJPN-1982-2013-JPNIMP2016 |
| Area | Pacific Coast of Japan |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2009, 2013 |

| Reference Points | | | |
|------------------|---------------|-----------|---------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-calc-MT | 2013 | 208,037 |
| SSBmsy | SSBmsy-MT | 2013 | 116,600 |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2013 | 0.341 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-MT | 2013 | 70,941 |
| M | M-1/yr | 2013 | 0.5 |
| TBlim | TBlim-MT | 2009 | 24 |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

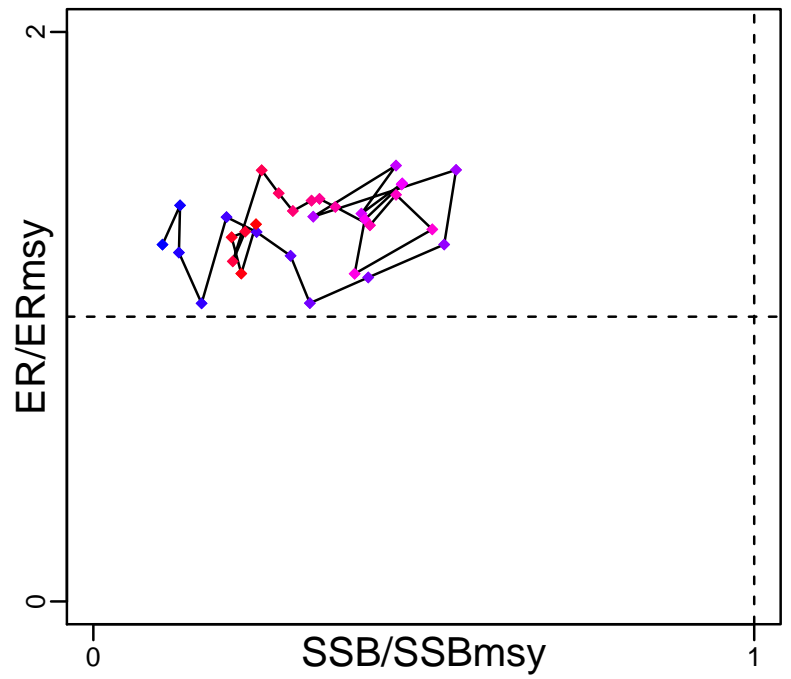
| Time Series | | | | | |
|-------------------|---------------------------|-----------|--------------------|------|--------|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2013 | 61,100 | - | 0 |
| SSB | SSB-MT | 2013 | 28,700 | Both | 1 |
| TN | - | - | - | - | - |
| R | R-E00 | 2013 | 5.55×10^8 | - | 0 |
| F | F-1/yr | 2009 | 1.26 | Both | 0 to 2 |
| ER | ER-calc-ratio | 2013 | 0.452 | - | - |
| TC | TC-MT | 2013 | 27,600 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-calc-MT | 2013 | 0.294 | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-MT | 2013 | 0.246 | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2013 | 1.325 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Japanese jack mackerel Pacific Coast of Japan [JMACKPJPN]

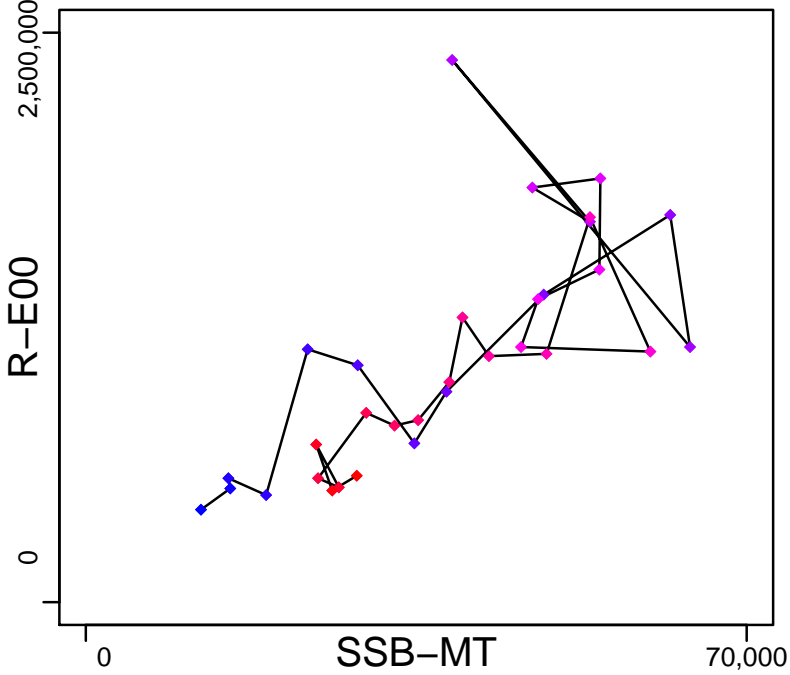
Kobe MSYpref (1982–2013–JPNIMP2016)



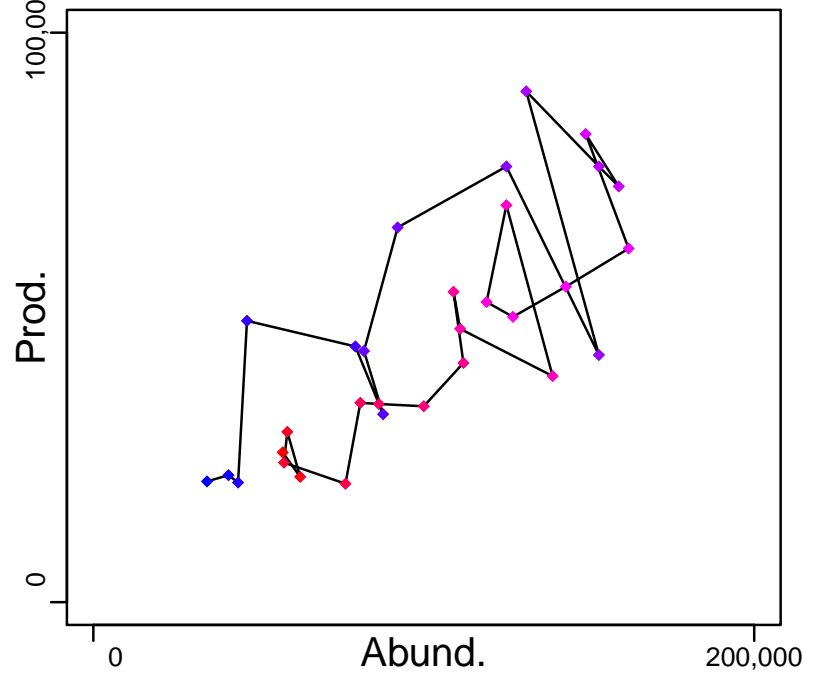
Kobe MGTpref (1982–2013–JPNIMP2016)



Spawner Recruit (1982–2013–JPNIMP2016)



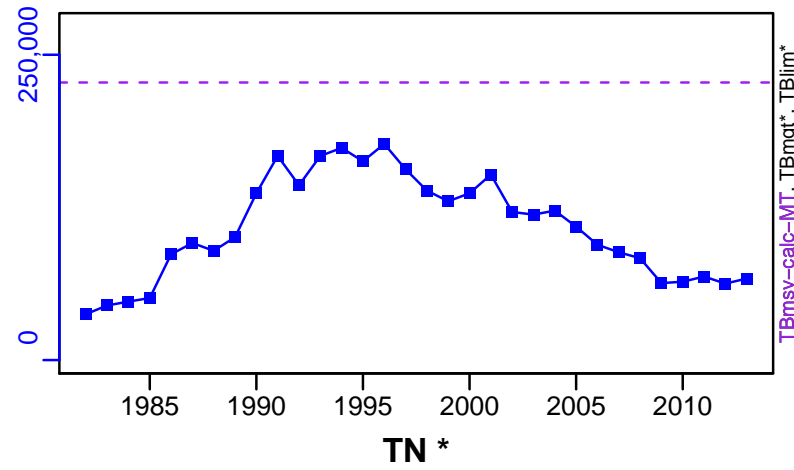
Production (1982–2013–JPNIMP2016)



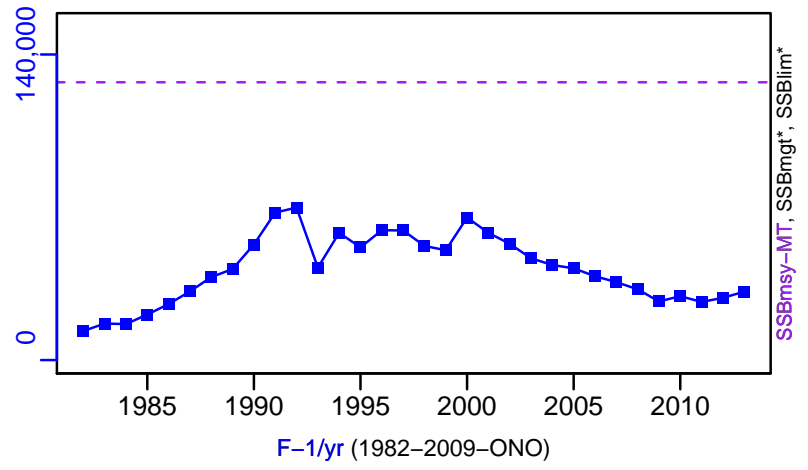
◆ Start Year ◆ End Year * No Data

Japanese jack mackerel Pacific Coast of Japan [JMACKPJPN]

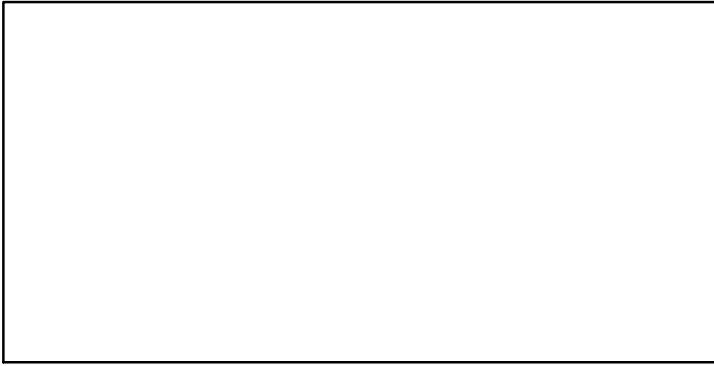
TB-MT (1982-2013-JPNIMP2016)



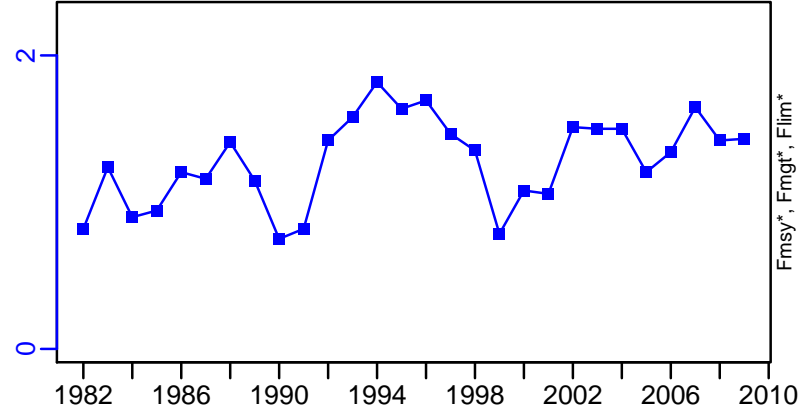
SSB-MT (1982-2013-JPNIMP2016)



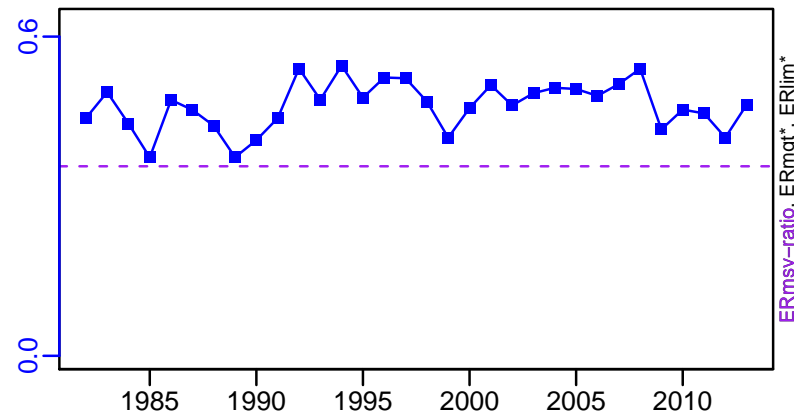
TN *



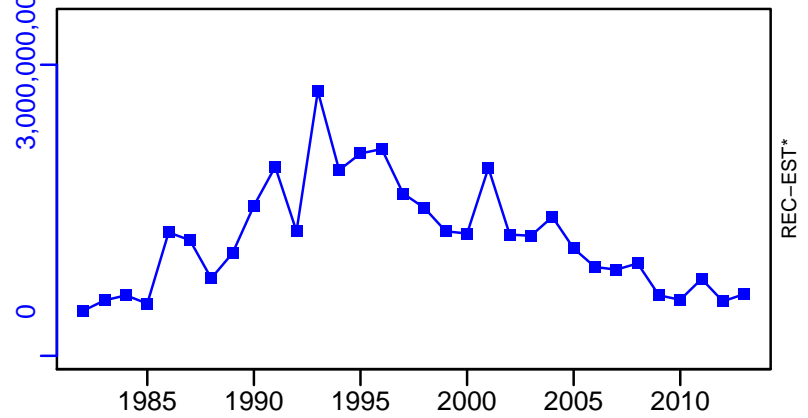
F-1/yr (1982-2009-ONO)



ER-calc-ratio (1982-2013-JPNIMP2016)



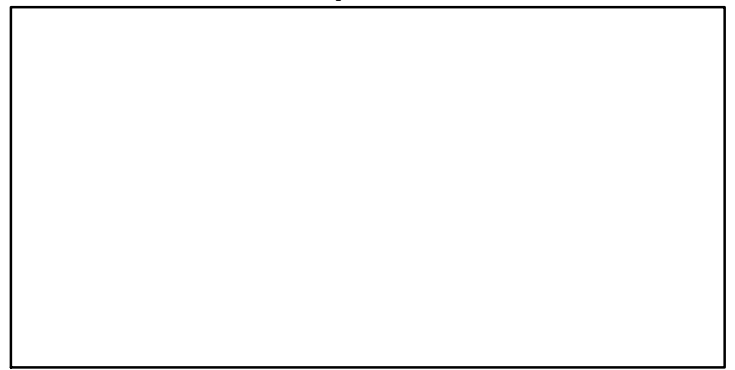
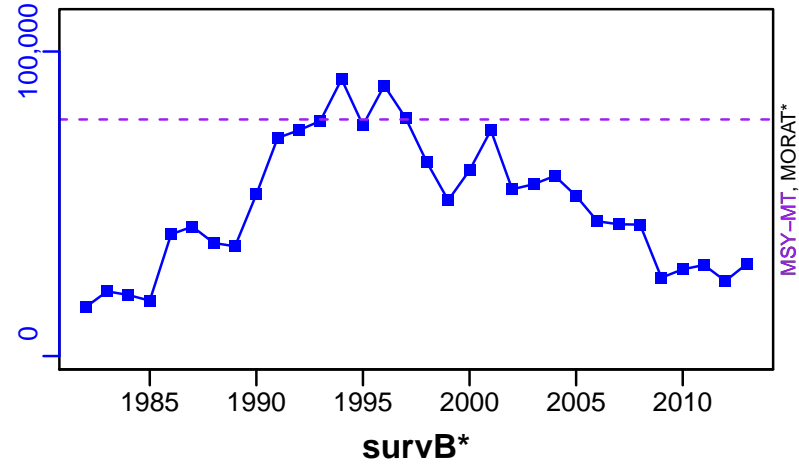
R-E00 (1982-2013-JPNIMP2016)



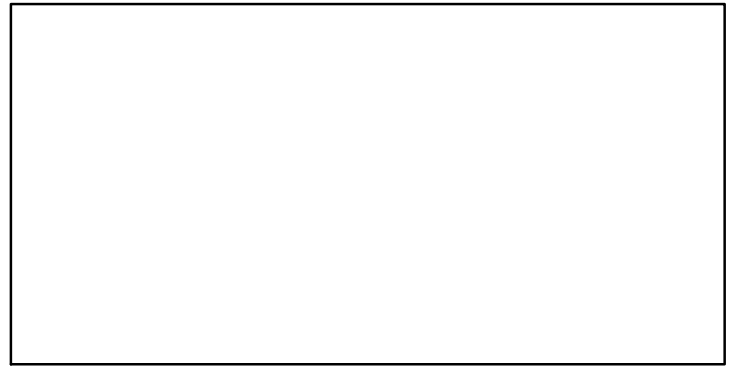
Japanese jack mackerel Pacific Coast of Japan [JMACKPJPN]

TC-MT, TL*, RecC* (1982-2013-JPNIMP2016)

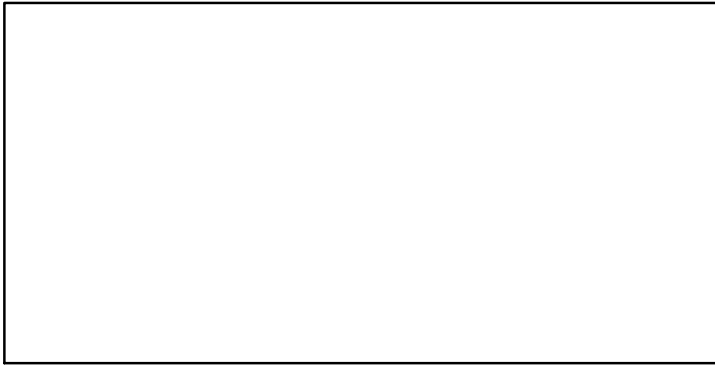
TAC*, Cpair*, Cadv*



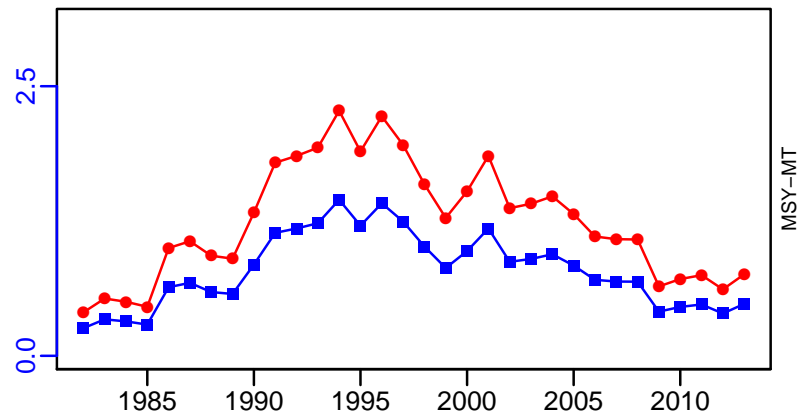
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1982-2013-JPNIMP2016)



Japanese jack mackerel Tsushima Strait [JMACKTSST]

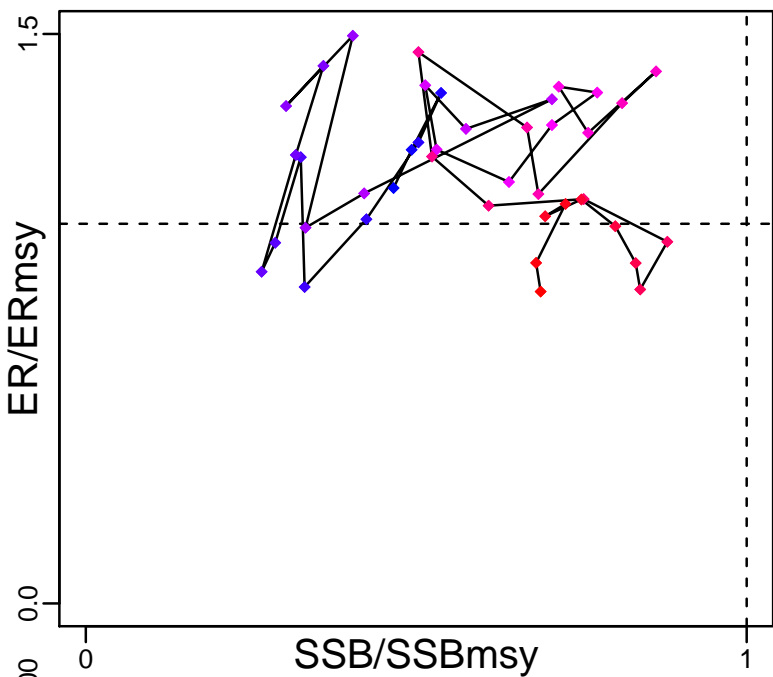
| Metadata | |
|-----------------------------|---|
| Scientific Name | Trachurus japonicus |
| Current Assess ID | FAFRFJ-JMACKTSST-1973-2013-JPNIMP2016 |
| Area | Tsushima Strait |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2010, 2013 |

| Reference Points | | | |
|------------------|---------------|-----------|---------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-calc-MT | 2013 | 528,740 |
| SSBmsy | SSBmsy-MT | 2013 | 292,056 |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2013 | 0.332 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-MT | 2013 | 175,542 |
| M | M-1/yr | 2013 | 0.5 |
| TBlim | - | - | - |
| SSBlim | SSBlim-MT | 2010 | 150,000 |
| Flim | - | - | - |
| ERlim | - | - | - |

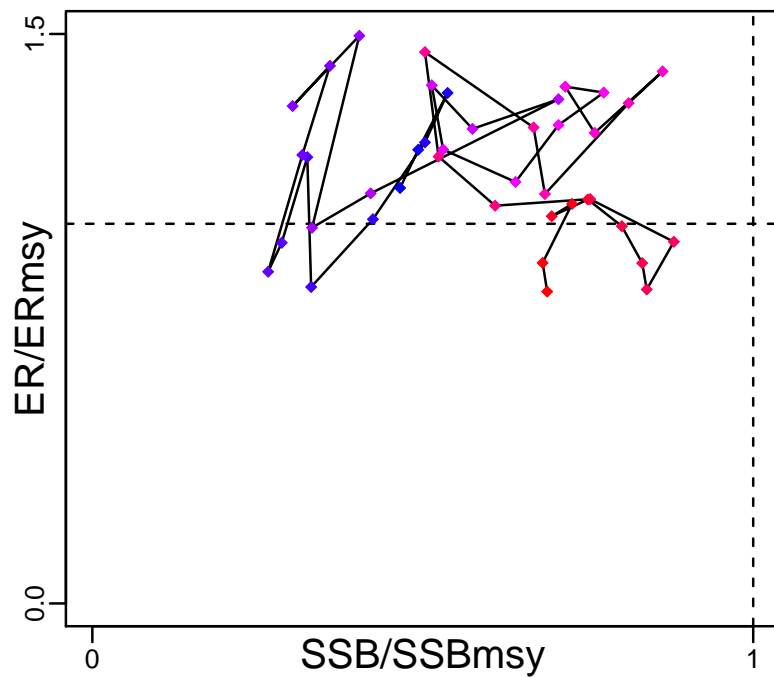
| Time Series | | | | | |
|-------------------|---------------------------|-----------|--------------------|------|--------|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2013 | 440,000 | - | 0 |
| SSB | SSB-MT | 2013 | 201,000 | Both | 1 |
| TN | - | - | - | - | - |
| R | R-E00 | 2013 | 5.98×10^9 | - | 0 |
| F | F-1/yr | 2010 | 0.736 | - | 0 to 3 |
| ER | ER-calc-ratio | 2013 | 0.273 | - | - |
| TC | TC-MT | 2013 | 120,000 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-calc-MT | 2013 | 0.832 | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-MT | 2013 | 0.688 | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2013 | 0.821 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Japanese jack mackerel Tsushima Strait [JMACKTSST]

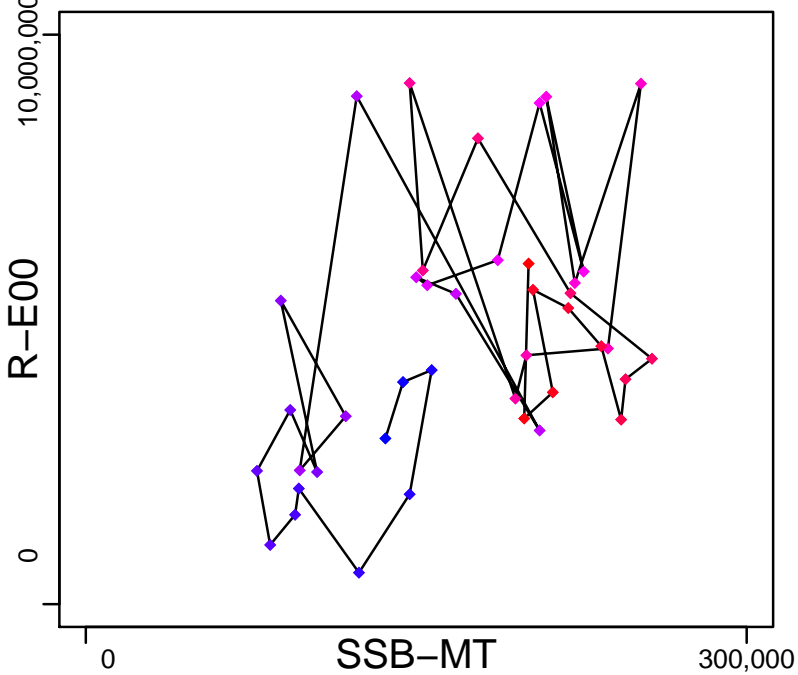
Kobe MSYpref (1973–2013–JPNIMP2016)



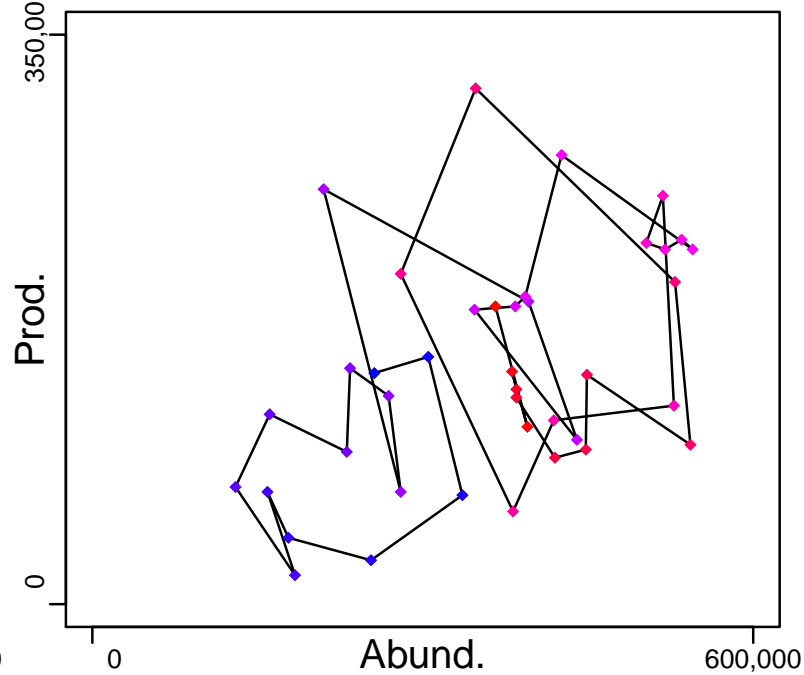
Kobe MGTpref (1973–2013–JPNIMP2016)



Spawner Recruit (1973–2013–JPNIMP2016)

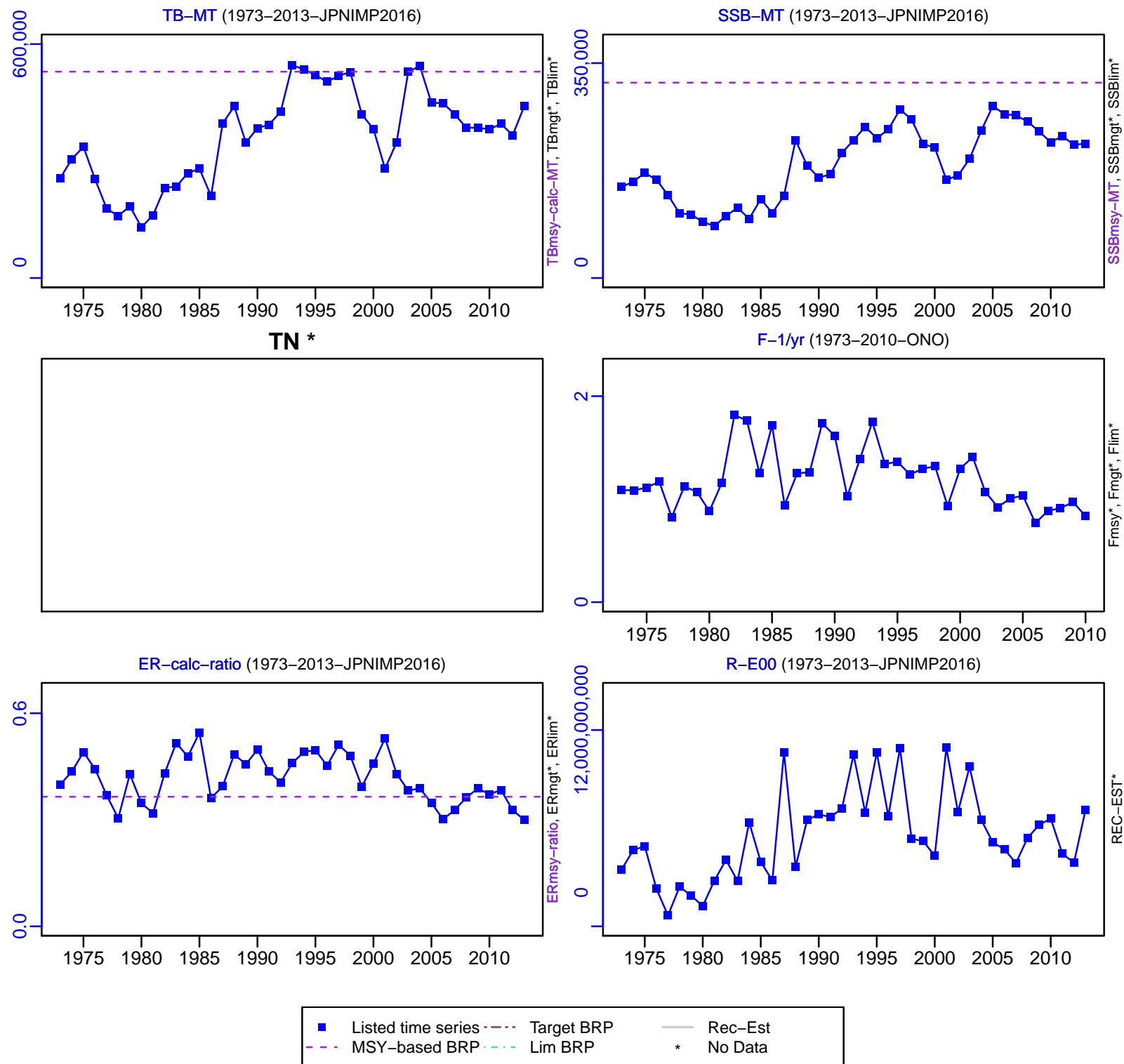


Production (1973–2013–JPNIMP2016)



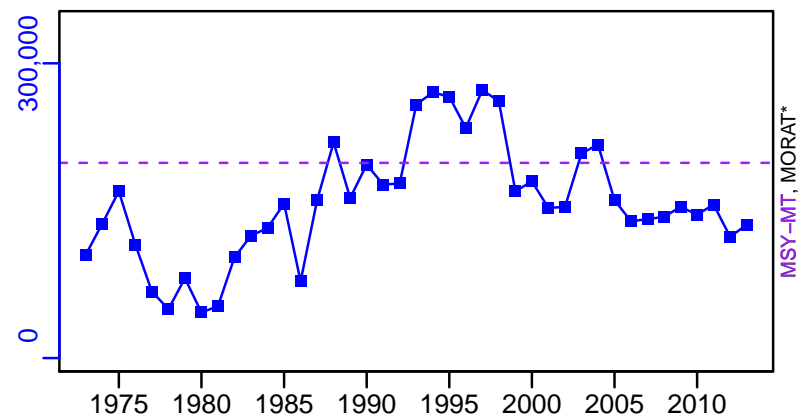
◆ Start Year ◆ End Year * No Data

Japanese jack mackerel Tsushima Strait [JMACKTSST]



Japanese jack mackerel Tsushima Strait [JMACKTSST]

TC-MT, TL*, RecC* (1973-2013-JPNIMP2016)



TAC*, Cpair*, Cadv*



survB*



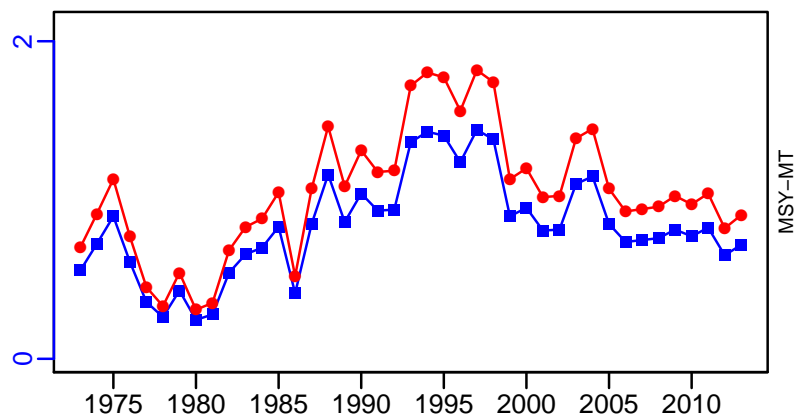
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1973-2013-JPNIMP2016)



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

Japanese pufferfish Ise and Mikawa Bay [JPUFFIMKB]

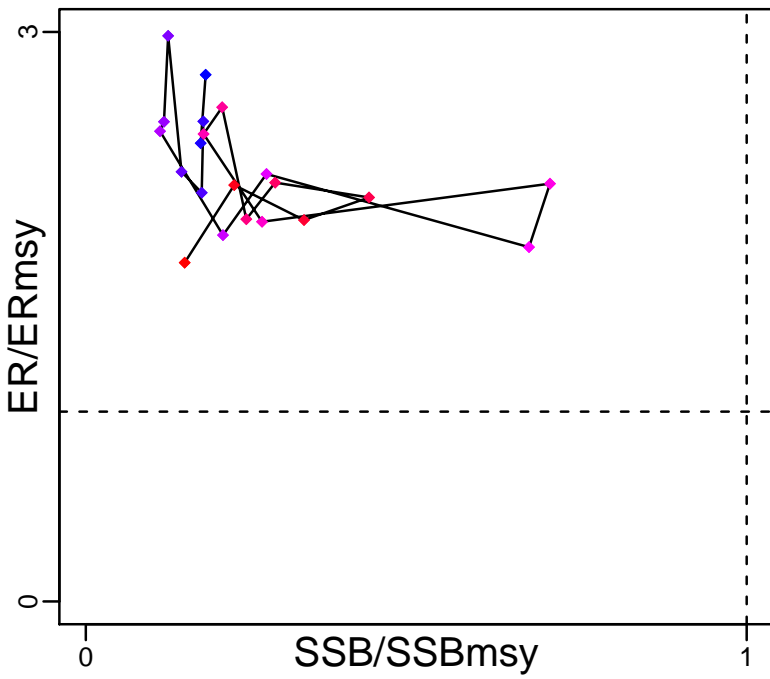
| Metadata | |
|-----------------------------|---|
| Scientific Name | Takifugu rubripes |
| Current Assess ID | FAFRFJ-JPUFFIMKB-1993-2013-JPNIMP2016 |
| Area | Ise and Mikawa Bay |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

| Reference Points | | | |
|------------------|---------------|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-calc-MT | 2013 | 471 |
| SSBmsy | SSBmsy-MT | 2013 | 252 |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2013 | 0.284 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-MT | 2013 | 134 |
| M | M-1/yr | 2013 | 0.25 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

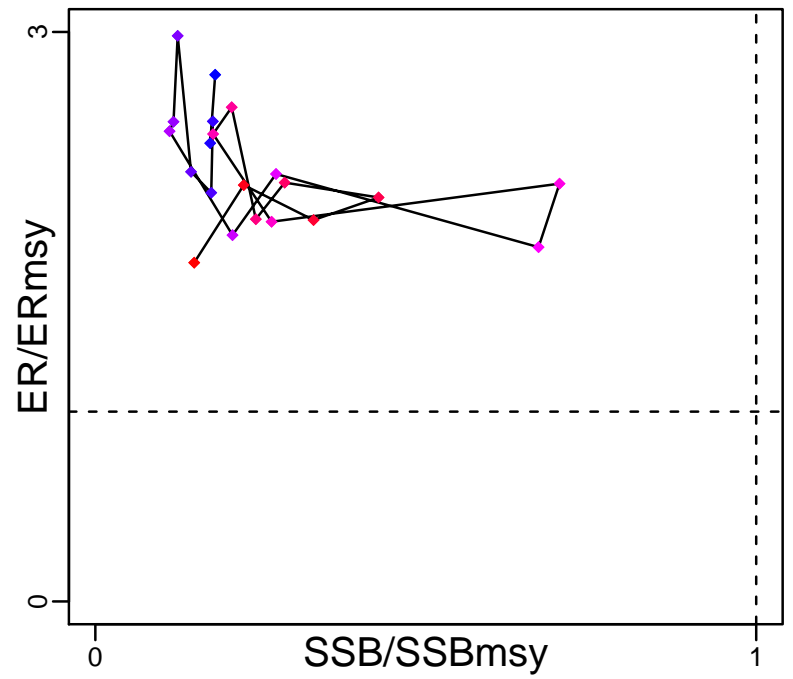
| Time Series | | | | | |
|-------------------|---------------------------|-----------|------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2013 | 132 | - | 0 |
| SSB | SSB-MT | 2013 | 38 | Both | 2 |
| TN | - | - | - | - | - |
| R | R-E00 | 2013 | 119,000 | - | 0 |
| F | - | - | - | - | - |
| ER | ER-calc-ratio | 2013 | 0.507 | - | - |
| TC | TC-MT | 2013 | 67 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-calc-MT | 2013 | 0.28 | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-MT | 2013 | 0.15 | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2013 | 1.785 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Japanese pufferfish Ise and Mikawa Bay [JPUFFIMKB]

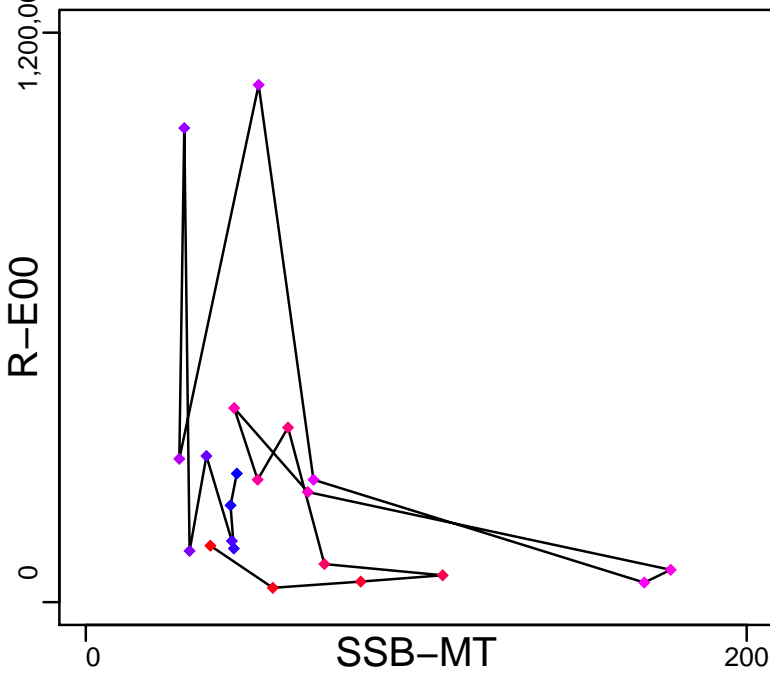
Kobe MSYpref (1993–2013–JPNIMP2016)



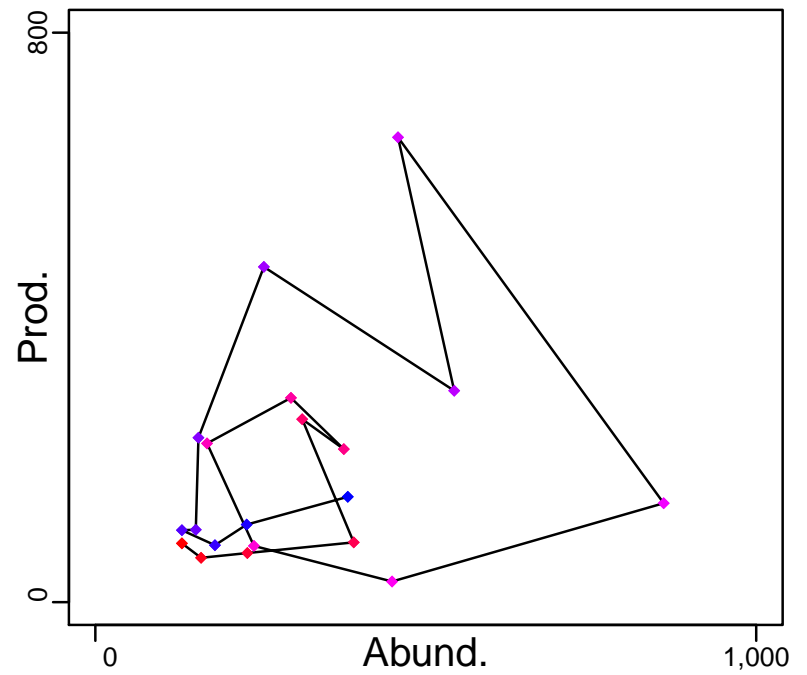
Kobe MGTpref (1993–2013–JPNIMP2016)



Spawner Recruit (1993–2013–JPNIMP2016)



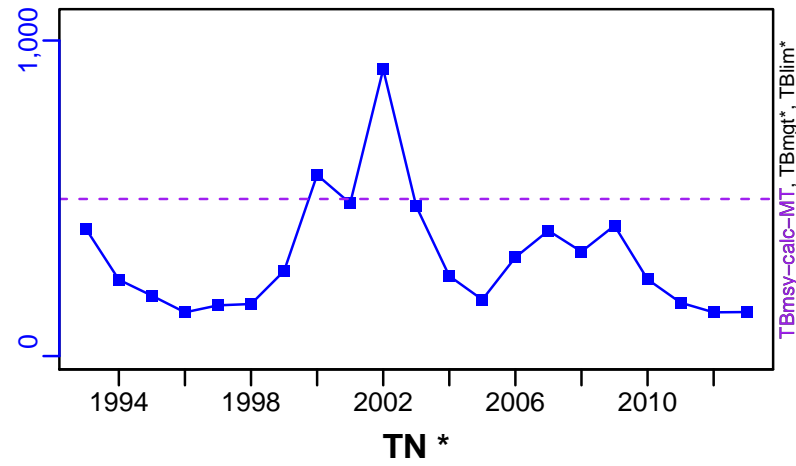
Production (1993–2013–JPNIMP2016)



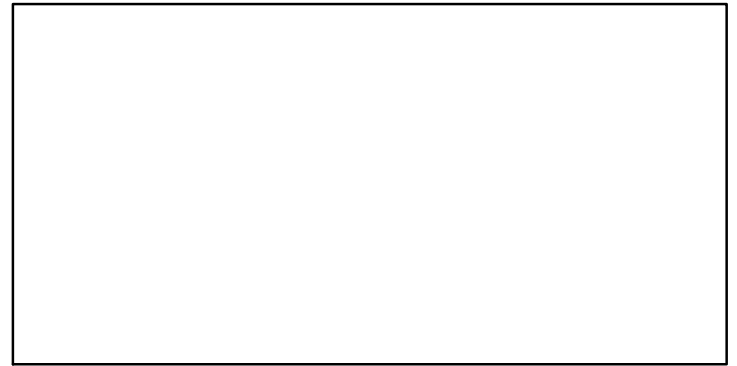
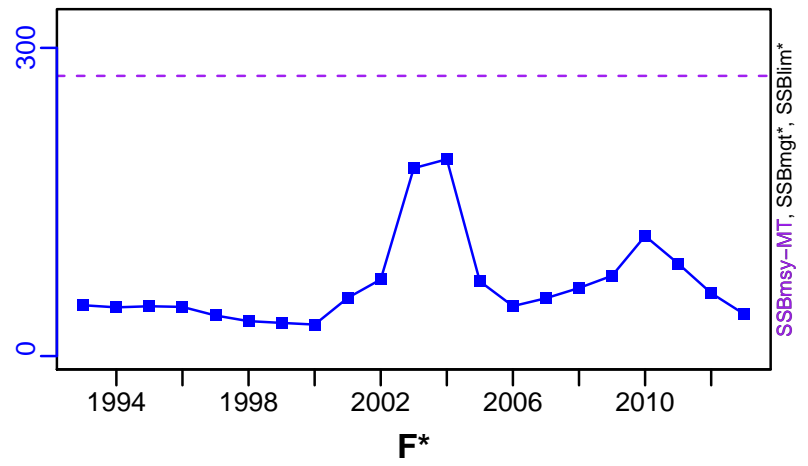
◆ Start Year ◆ End Year * No Data

Japanese pufferfish Ise and Mikawa Bay [JPUFFIMKB]

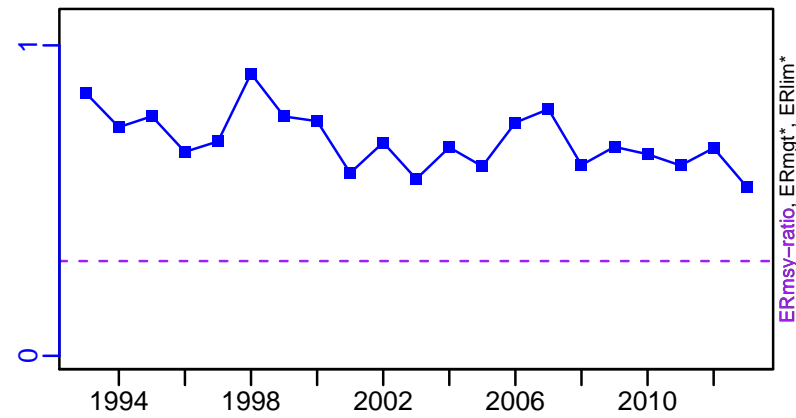
TB-MT (1993-2013-JPNIMP2016)



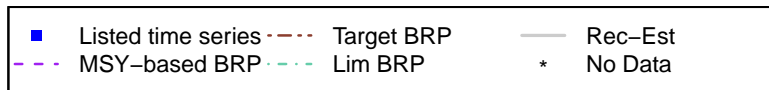
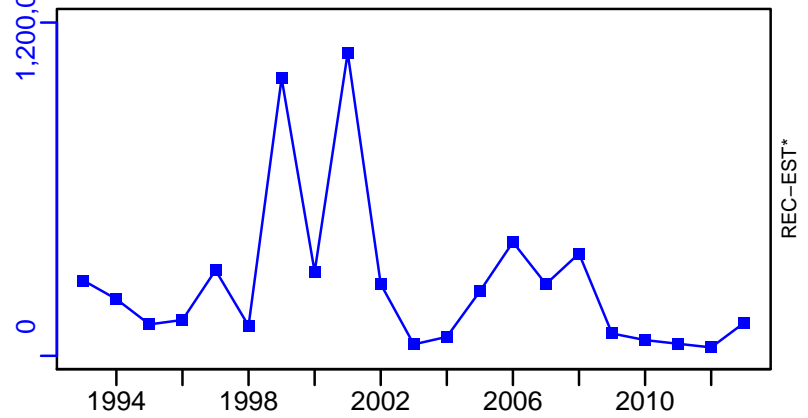
SSB-MT (1993-2013-JPNIMP2016)



ER-calc-ratio (1993-2013-JPNIMP2016)

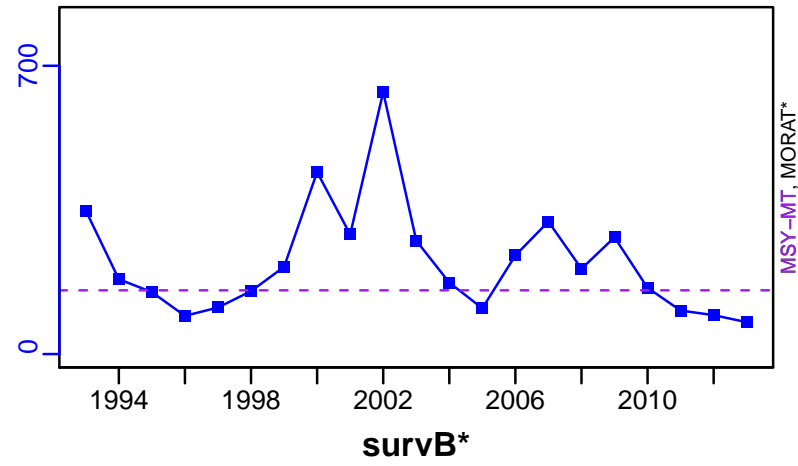


R-E00 (1993-2013-JPNIMP2016)



Japanese pufferfish Ise and Mikawa Bay [JPUFFIMKB]

TC-MT, TL*, RecC* (1993–2013–JPNIMP2016)



TAC*, Cpair*, Cadv*



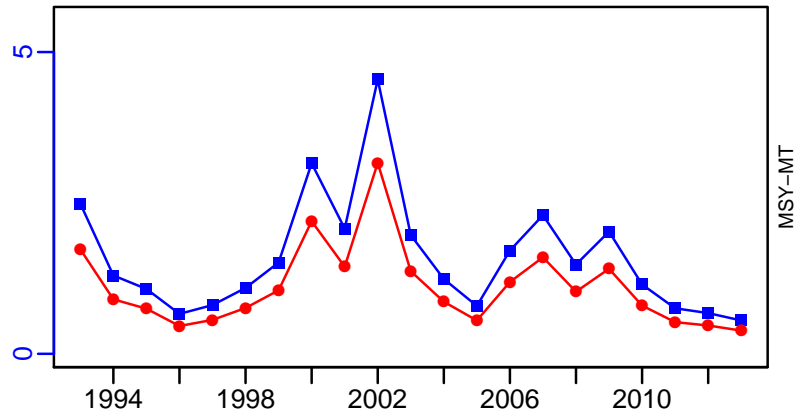
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1993–2013–JPNIMP2016)



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

**Japanese pufferfish Sea of Japan and East China Sea and Seto Inland sea
[JPUFFSOJECSSI]**

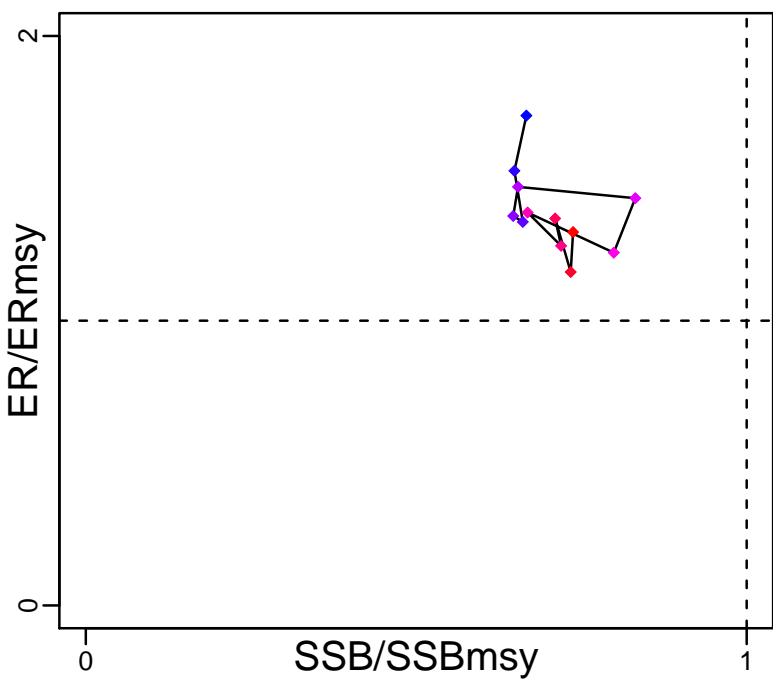
| Metadata | |
|-----------------------------|---|
| Scientific Name | Takifugu rubripes |
| Current Assess ID | FAFRFJ-JPUFFSOJECSSI-1993-2013-JPNIMP2016 |
| Area | Sea of Japan and East China Sea and Seto Inland sea |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

| Reference Points | | | |
|------------------|---------------|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-calc-MT | 2013 | 1120 |
| SSBmsy | SSBmsy-MT | 2013 | 552 |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2013 | 0.23 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-MT | 2013 | 258 |
| M | M-1/yr | 2013 | 0.25 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

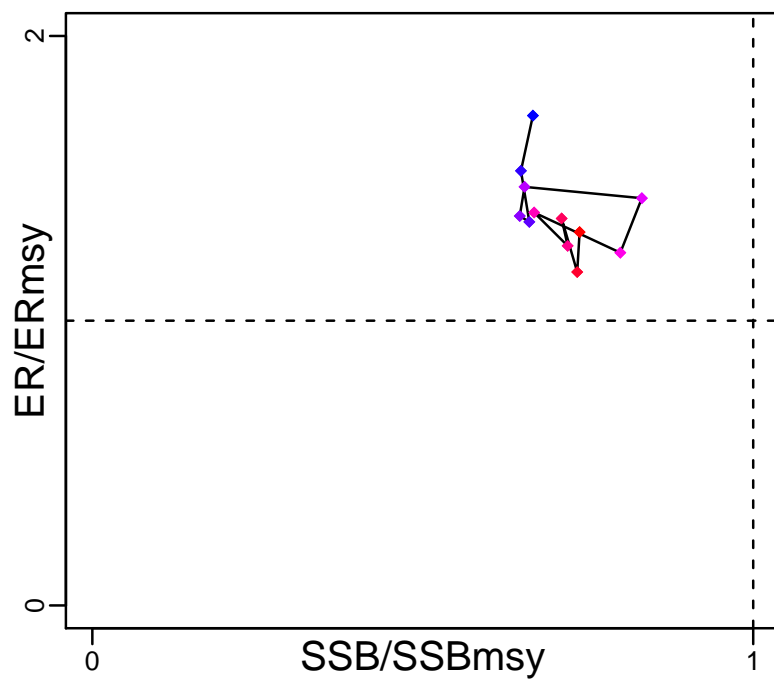
| Time Series | | | | | |
|-------------------|---------------------------|-----------|------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2013 | 829 | - | 0 |
| SSB | SSB-MT | 2013 | 407 | Both | 3 |
| TN | - | - | - | - | - |
| R | R-E00 | 2013 | 203,000 | - | 0 |
| F | - | - | - | - | - |
| ER | ER-calc-ratio | 2013 | 0.302 | - | - |
| TC | TC-MT | 2013 | 250 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-calc-MT | 2013 | 0.74 | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-MT | 2013 | 0.737 | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2013 | 1.311 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Japanese pufferfish Sea of Japan and East China Sea and Seto Inland sea [JPUFFSOJECSSI]

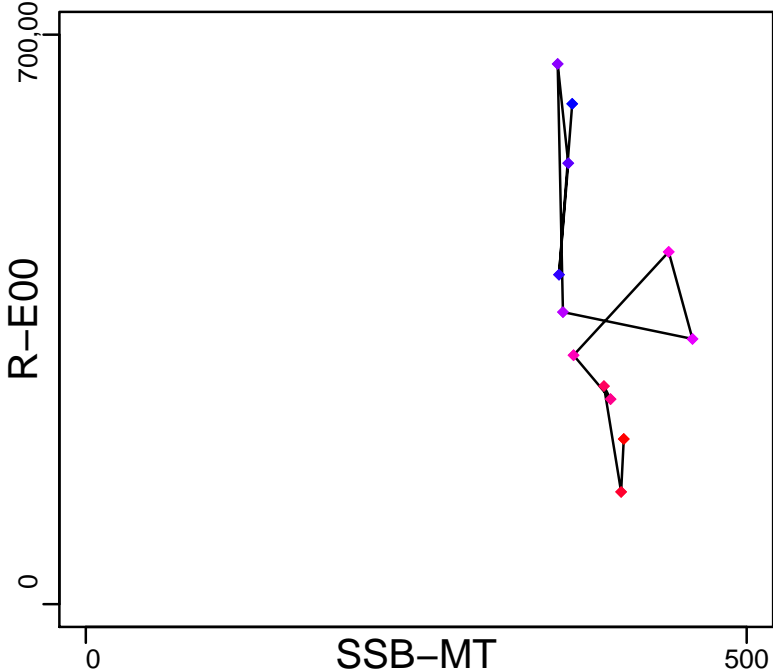
Kobe MSYpref (1993–2013–JPNIMP2016)



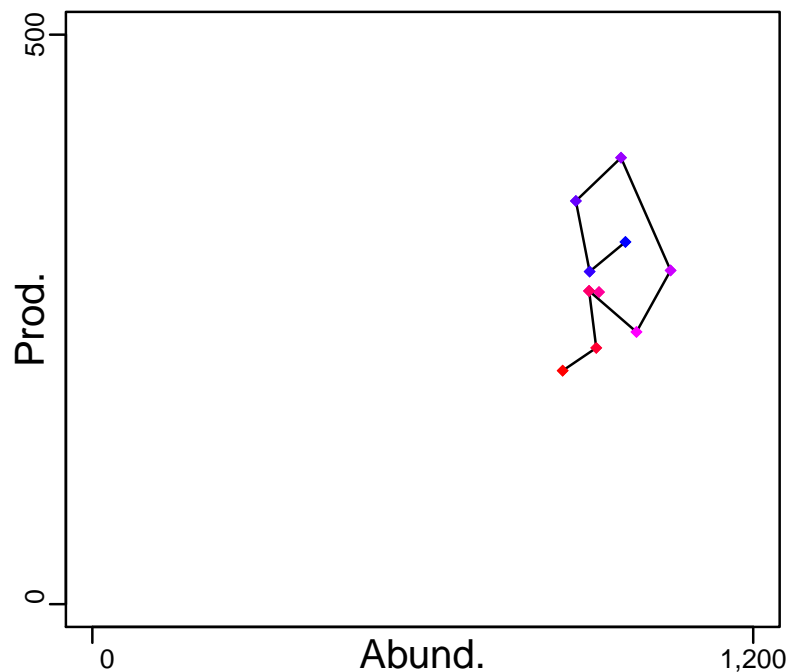
Kobe MGTpref (1993–2013–JPNIMP2016)



Spawner Recruit (1993–2013–JPNIMP2016)



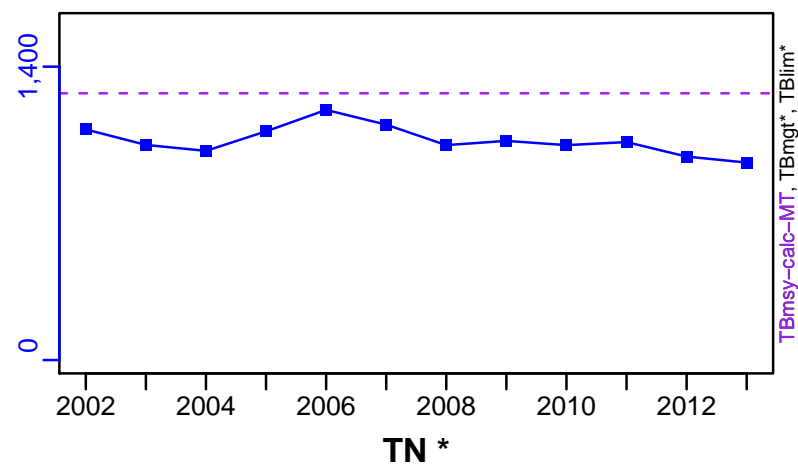
Production (1993–2013–JPNIMP2016)



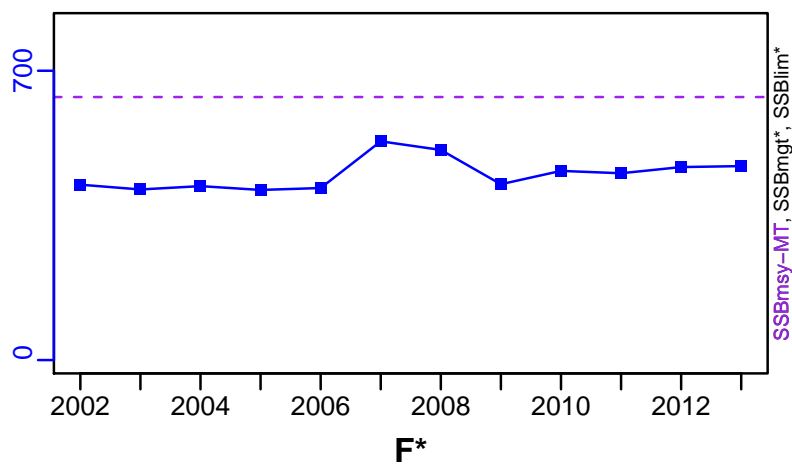
◆ Start Year ◆ End Year * No Data

Japanese pufferfish Sea of Japan and East China Sea and Seto Inland sea [JPUFFSOJECSSI]

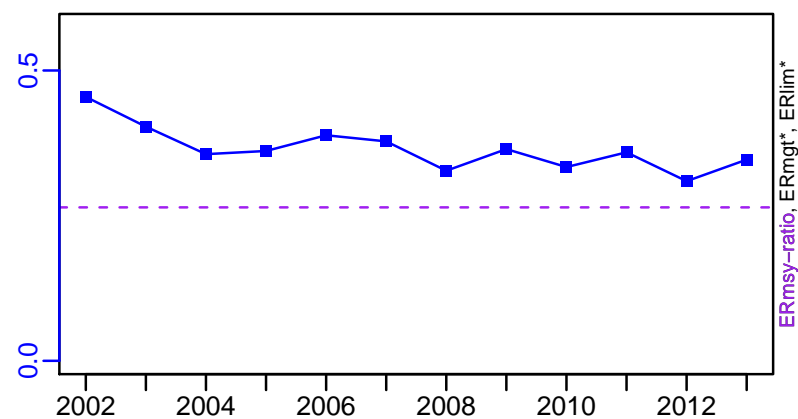
TB-MT (1993–2013–JPNIMP2016)



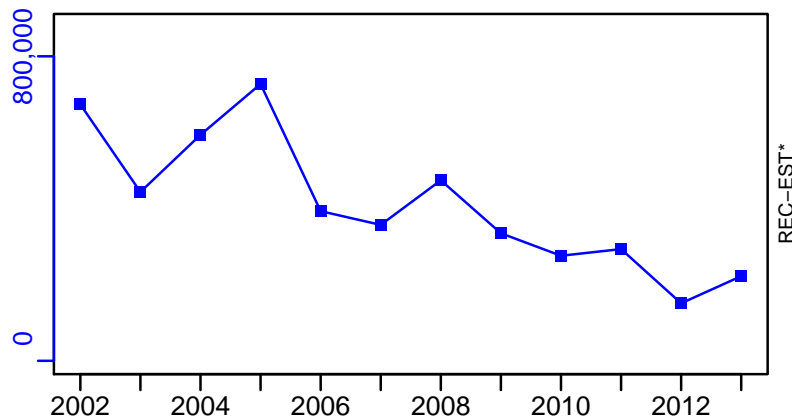
SSB-MT (1993–2013–JPNIMP2016)



ER-calc-ratio (1993–2013–JPNIMP2016)

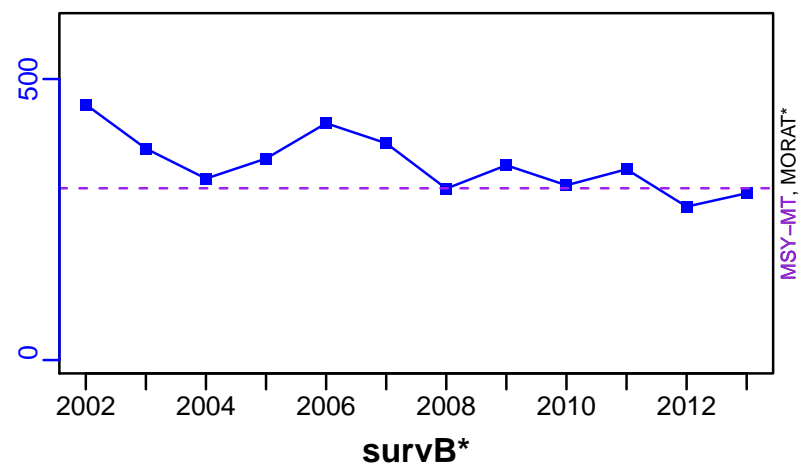


R-E00 (1993–2013–JPNIMP2016)



Japanese pufferfish Sea of Japan and East China Sea and Seto Inland sea [JPUFFSOJECSSI]

TC-MT, TL*, RecC* (1993–2013–JPNIMP2016)



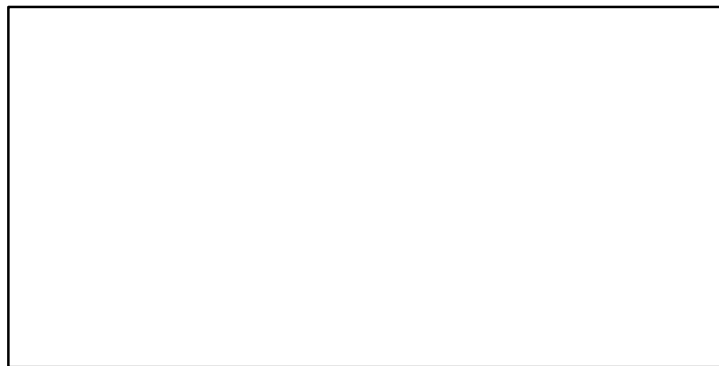
TAC*, Cpair*, Cadv*



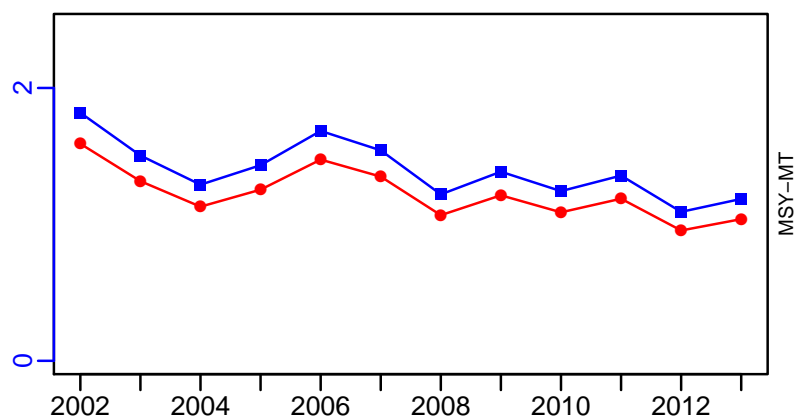
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1993–2013–JPNIMP2016)



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

Japanese snapper Okinawa Islands [JSNAPOKWI]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Paracaesio caerulea |
| Current Assess ID | FAFRFJ-JSNAPOKWI-1989-2013-JPNIMP2016 |
| Area | Okinawa Islands |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

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

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 153 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Japanese snapper Okinawa Islands [JSNAPOKWI]

TB*



SSB*



TN *



F*



ER*

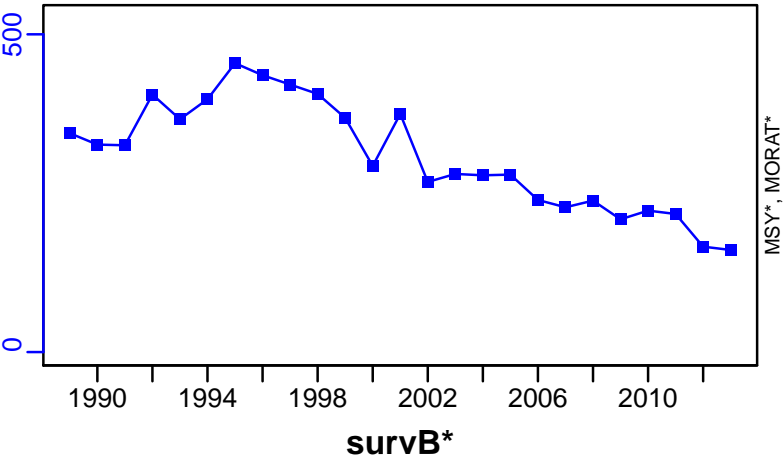


Recruits*



Japanese snapper Okinawa Islands [JSNAPOKWI]

TC-MT, TL*, RecC* (1989-2013-JPNIMP2016)



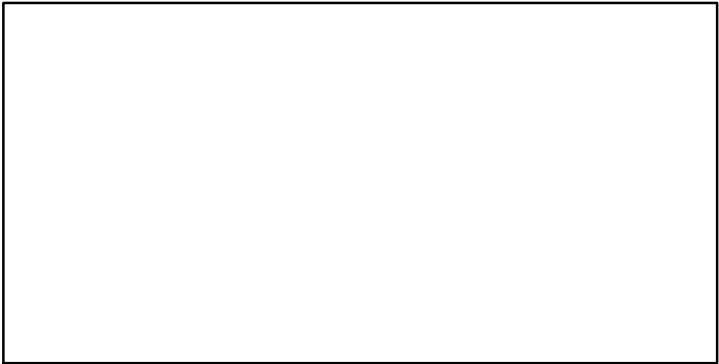
TAC*, Cpair*, Cadv*



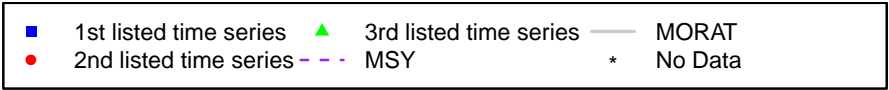
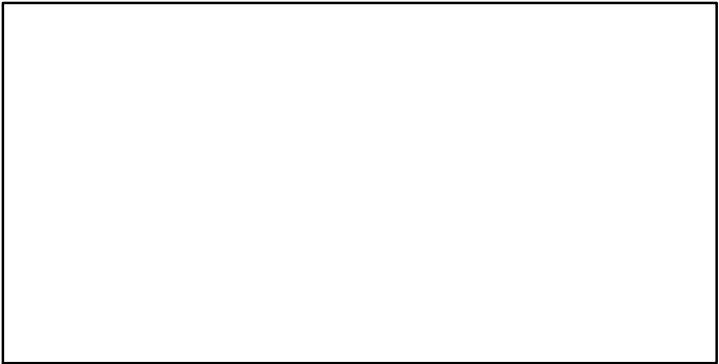
CPUE*



EFFORT*



CdivMSY*



Kichiji rockfish North Pacific [KCROCKNPAC]

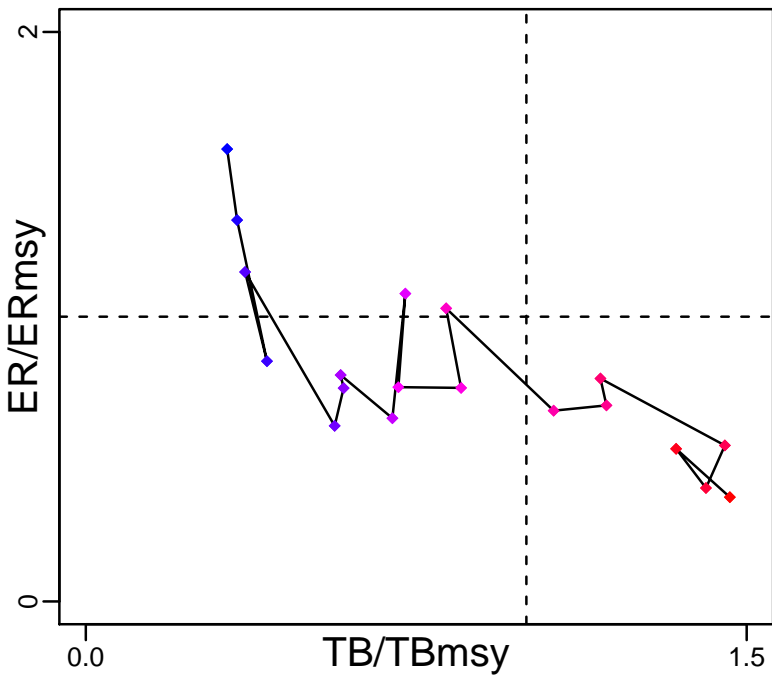
| Metadata | |
|-----------------------------|---|
| Scientific Name | Sebastolobus macrochir |
| Current Assess ID | FAFRFJ-KCROCKNPAC-1975-2013-JPNIMP2016 |
| Area | North Pacific |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

| Reference Points | | | |
|------------------|-------------|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-MT | 2013 | 4426 |
| SSBmsy | - | - | - |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2013 | 0.168 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-calc-MT | 2013 | 744 |
| M | M-1/yr | 2013 | 0.125 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

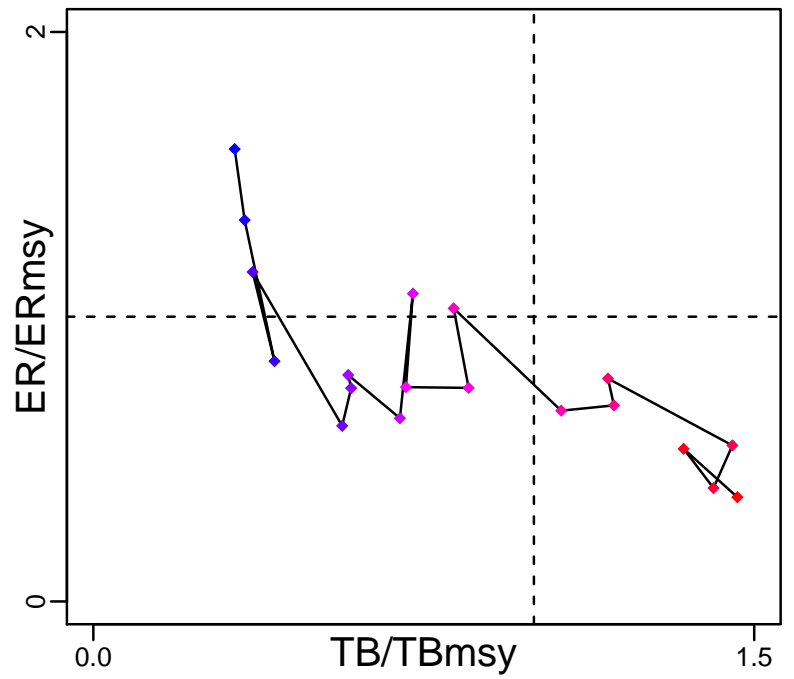
| Time Series | | | | | |
|-------------------|---------------------------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2013 | 6470 | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | ER-calc-ratio | 2013 | 0.062 | - | - |
| TC | TC-MT | 2013 | 398 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-MT | 2013 | 1.462 | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2013 | 0.366 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Kichiji rockfish North Pacific [KCROCKNPAC]

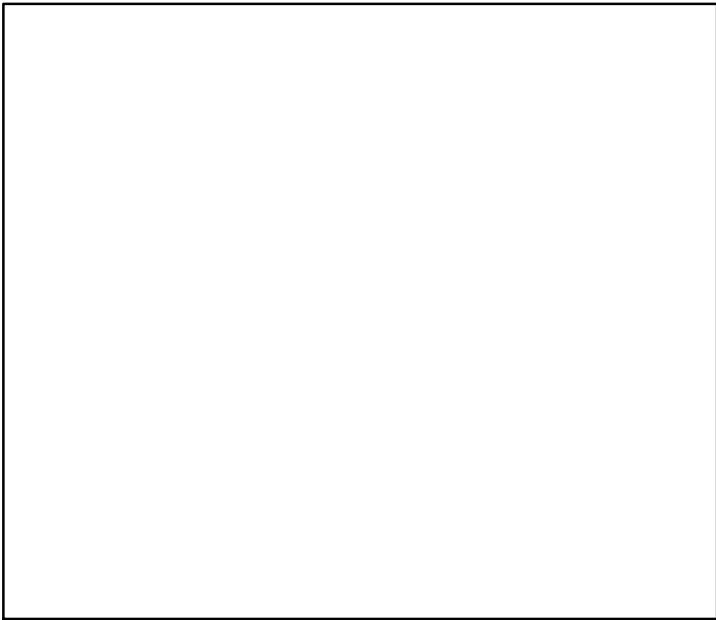
Kobe MSYpref (1975–2013–JPNIMP2016)



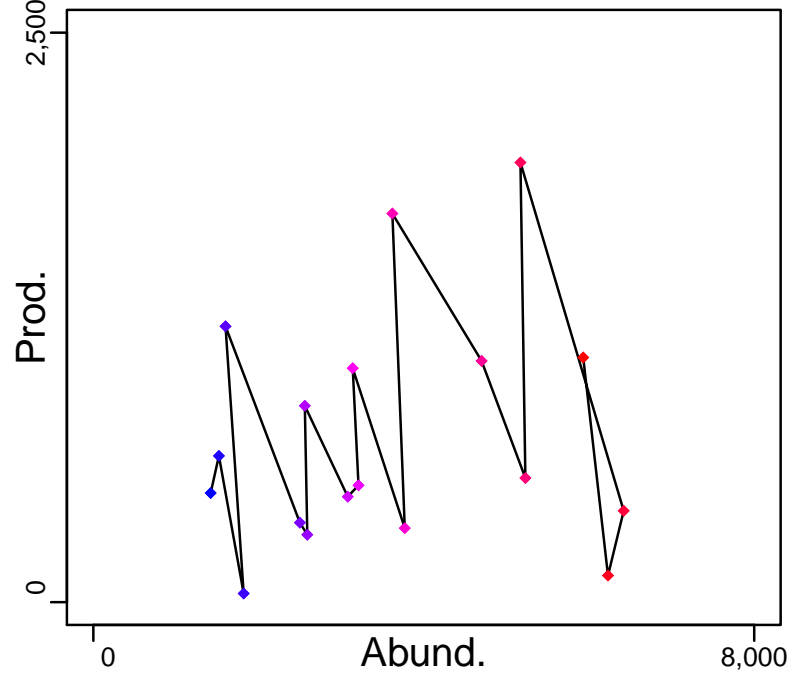
Kobe MGTpref (1975–2013–JPNIMP2016)



Spawner Recruit*



Production (1975–2013–JPNIMP2016)

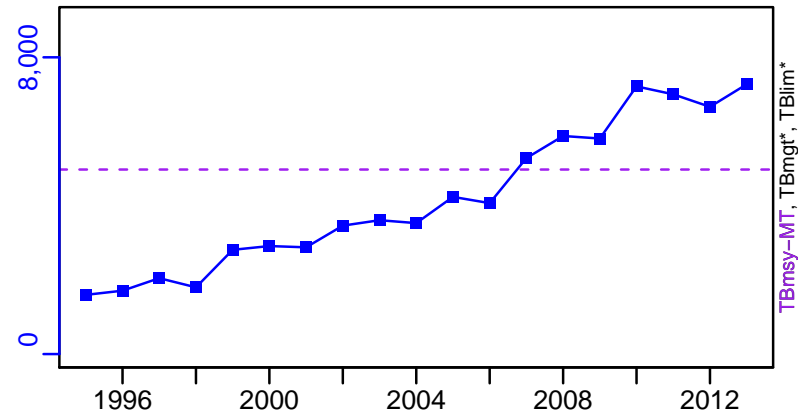


◆ Start Year ◆ End Year * No Data

Kichiji rockfish North Pacific [KCROCKNPAC]

TB-MT (1975-2013-JPNIMP2016)

SSB*



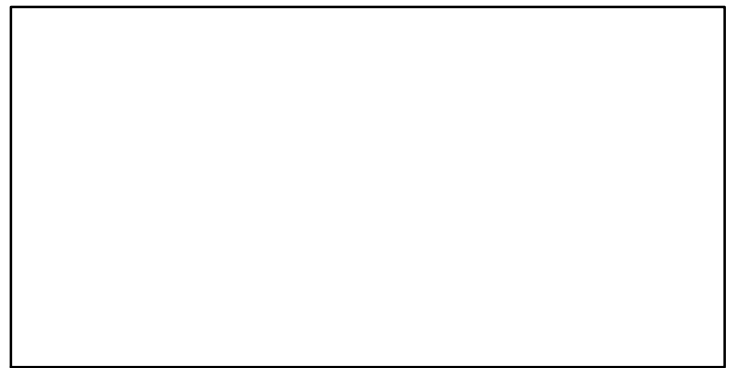
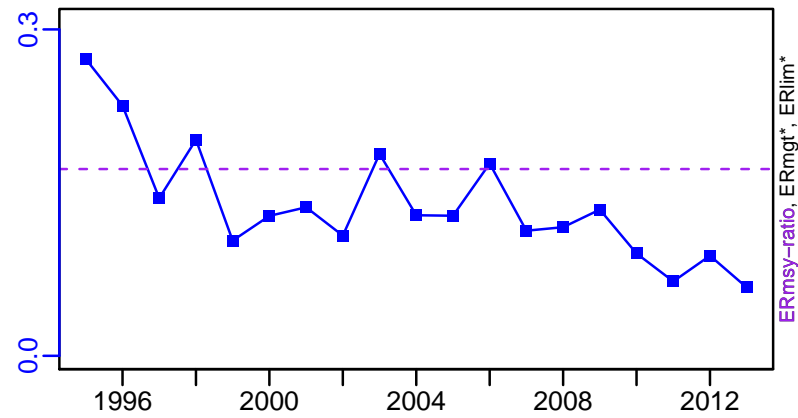
TN *

F*



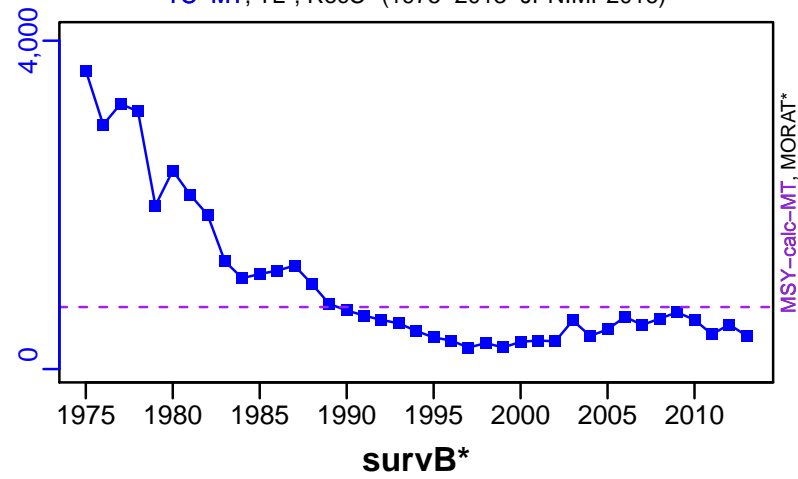
ER-calc-ratio (1975-2013-JPNIMP2016)

Recruits*



Kichiji rockfish North Pacific [KCROCKNPAC]

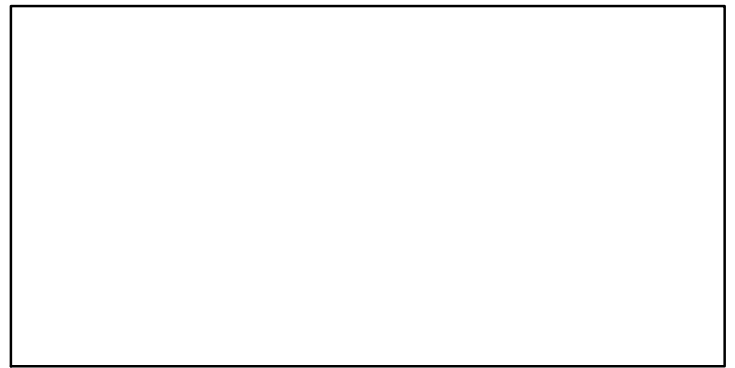
TC-MT, TL*, RecC* (1975–2013–JPNIMP2016)



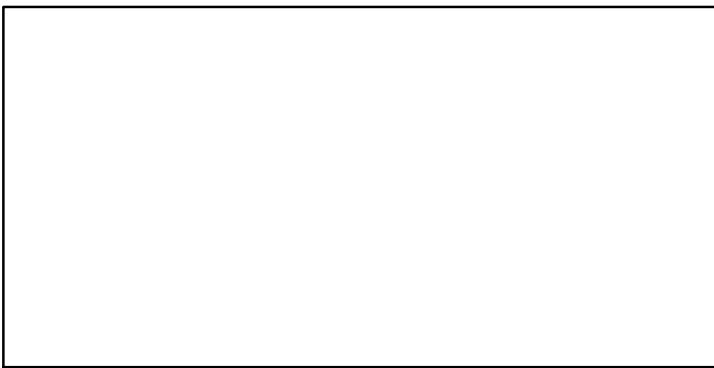
TAC*, Cpair*, Cadv*



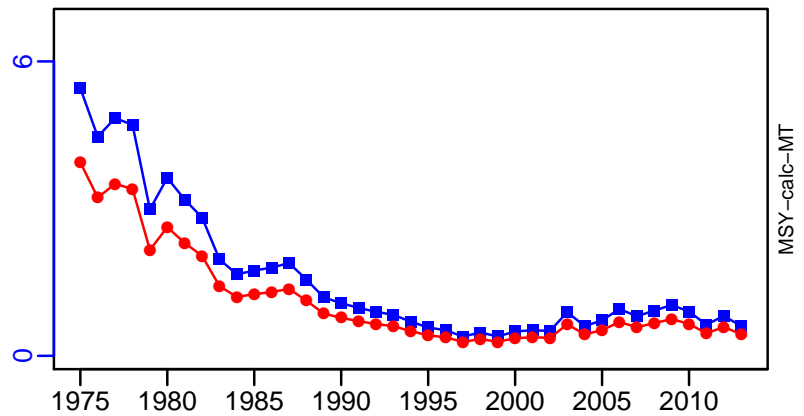
CPUE*



EFFORT*



TC-MT/MSY-calc-MT, CdivMEANC-ratio, (1975–2013–JPNIMP2016)



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

Kichiji rockfish Okhotsk Sea [KCROCKOKS]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Sebastolobus macrochir |
| Current Assess ID | FAFRFJ-KCROCKOKS-1975-2013-JPNIMP2016 |
| Area | Okhotsk Sea |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

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

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 309 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Kichiji rockfish Okhotsk Sea [KCROCKOKS]

TB*



SSB*



TN *



F*



ER*

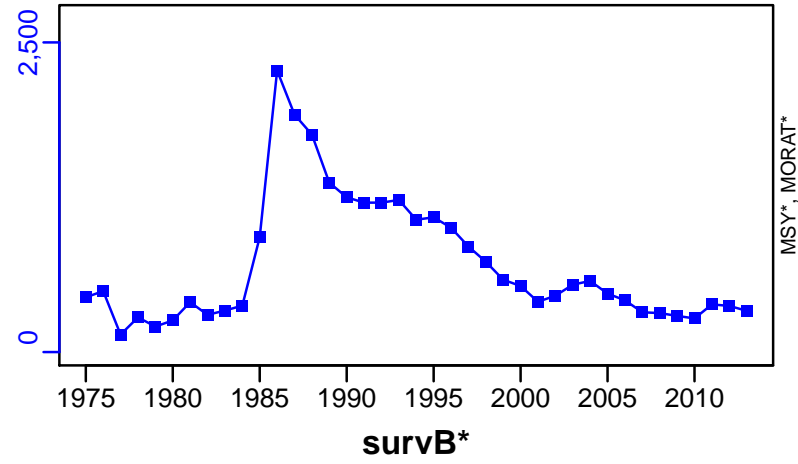


Recruits*



Kichiji rockfish Okhotsk Sea [KCROCKOKS]

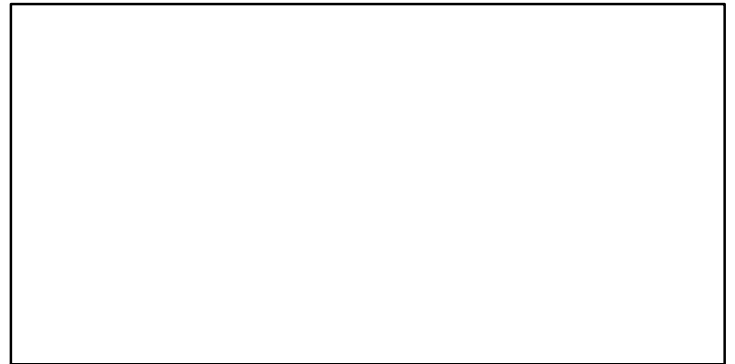
TC-MT, TL*, RecC* (1975-2013-JPNIMP2016)



TAC*, Cpair*, Cadv*



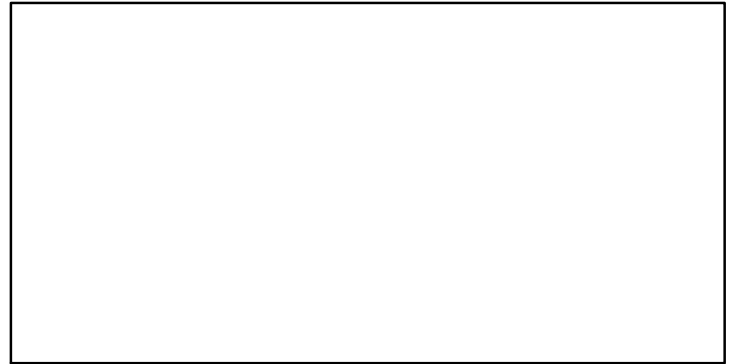
CPUE*



EFFORT*



CdivMSY*



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

Kichiji rockfish Southwestern coast of Hokkaido [KCROCKSWHOKK]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Sebastolobus macrochir |
| Current Assess ID | FAFRFJ-KCROCKSWHOKK-1975-2013-JPNIMP2016 |
| Area | Southwestern coast of Hokkaido |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

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

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 363 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Kobe MSY*



Kobe MGT*



Spawner Recruit*



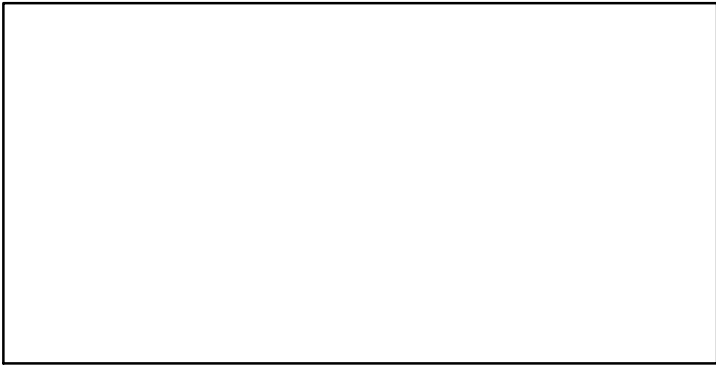
Production*



◆ Start Year ◆ End Year * No Data

Kichiji rockfish Southwestern coast of Hokkaido [KCROCKSWHOKK]

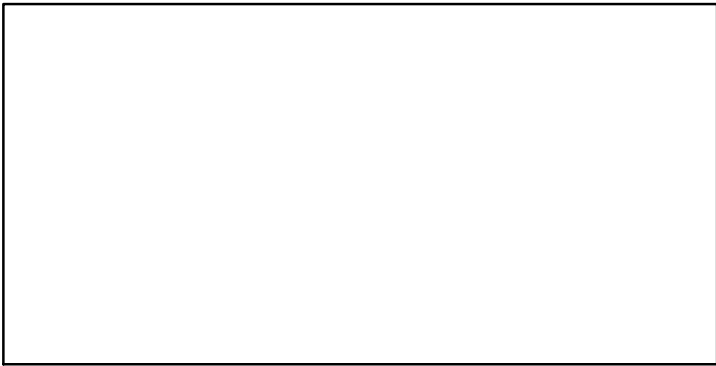
TB*



SSB*



TN *



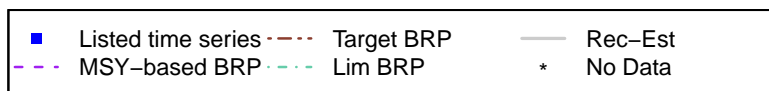
F*



ER*



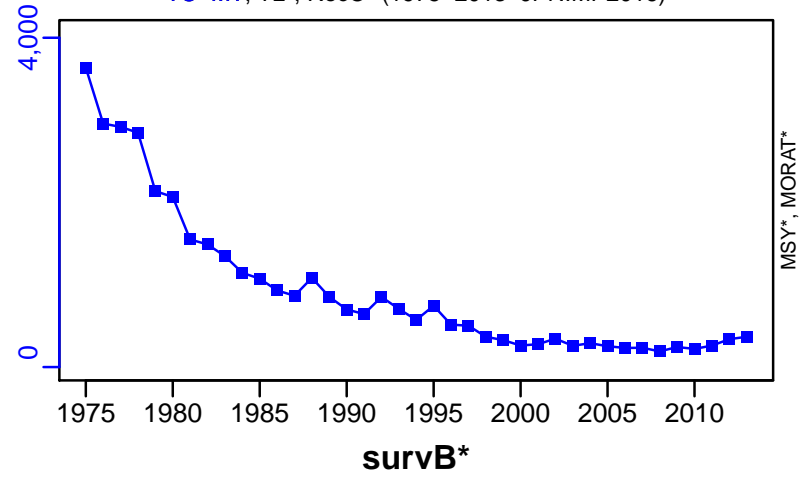
Recruits*



Kichiji rockfish Southwestern coast of Hokkaido [KCROCKSWHOKK]

TC-MT, TL*, RecC* (1975-2013-JPNIMP2016)

TAC*, Cpair*, Cadv*



Longfin codling Pacific Ocean [LCODLINGPAC]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Laemonema longipes |
| Current Assess ID | FAFRFJ-LCODLINGPAC-1989-2013-JPNIMP2016 |
| Area | Pacific Ocean |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

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

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 16,300 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Longfin codling Pacific Ocean [LCODLINGPAC]

TB*



SSB*



TN *



F*



ER*



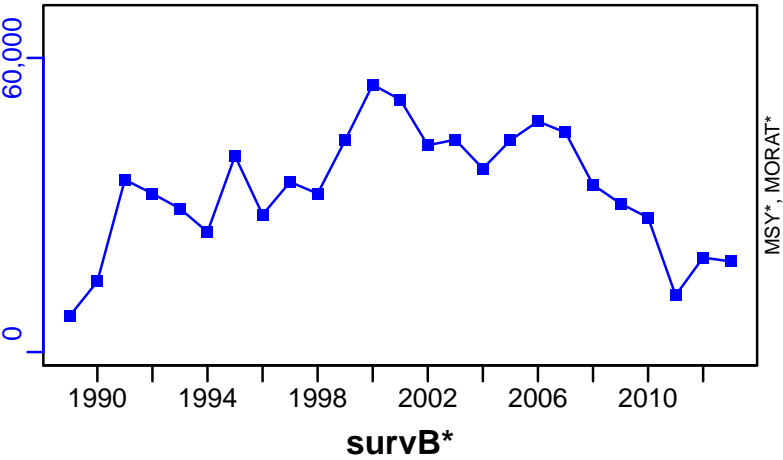
Recruits*



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

Longfin codling Pacific Ocean [LCODLINGPAC]

TC-MT, TL*, RecC* (1989–2013–JPNIMP2016)



TAC*, Cpair*, Cadv*



CPUE*



EFFORT*



CdivMSY*



Largehead hairtail Sea of Japan and East China Sea [LHAIRTSOJECS]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Trichiurus lepturus |
| Current Assess ID | FAFRFJ-LHAIRTSOJECS-1981-2013-JPNIMP2016 |
| Area | Sea of Japan and East China Sea |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

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

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 2070 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Largehead hairtail Sea of Japan and East China Sea [LHAIRTSOJECS]

TB*



SSB*



TN *



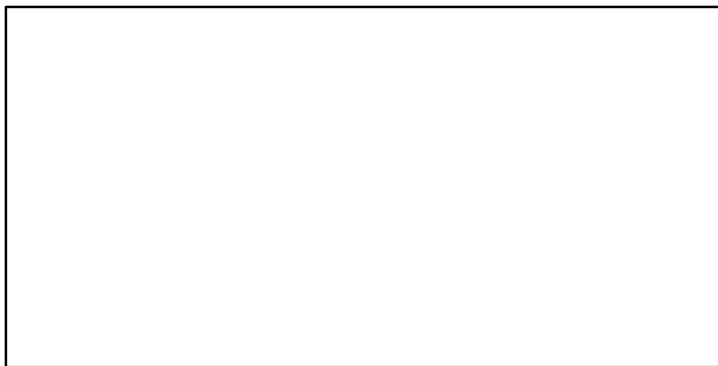
F*



ER*

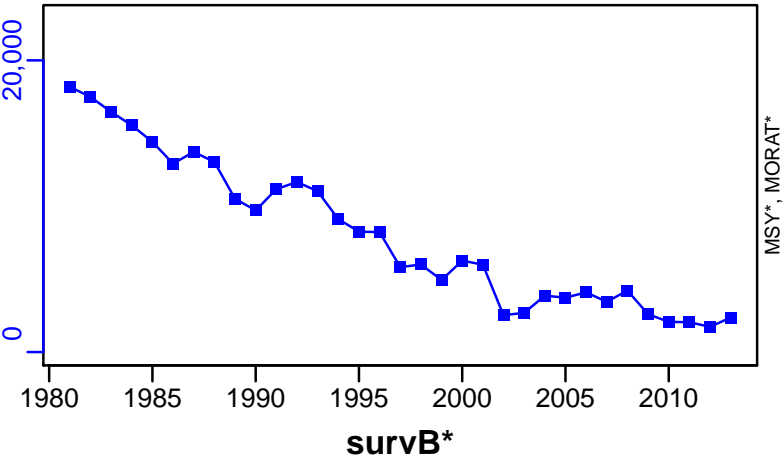


Recruits*



Largehead hairtail Sea of Japan and East China Sea [LHAIRTSOJECS]

TC-MT, TL*, RecC* (1981-2013-JPNIMP2016)



TAC*, Cpair*, Cadv*



CPUE*



EFFORT*



CdivMSY*



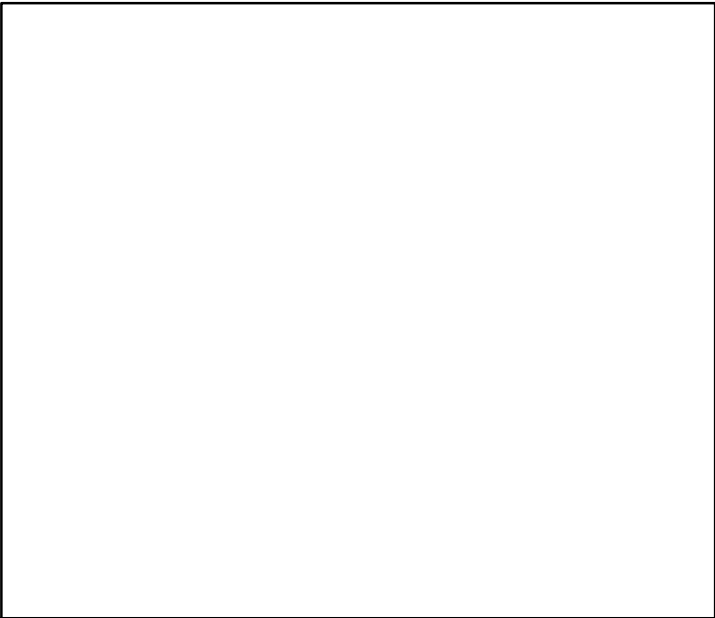
Lavender jobfish Okinawa Islands [LJOBOKWI]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Pristipomoides sieboldii |
| Current Assess ID | FAFRFJ-LJOBOKWI-1989-2013-JPNIMP2016 |
| Area | Okinawa Islands |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

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

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 103 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

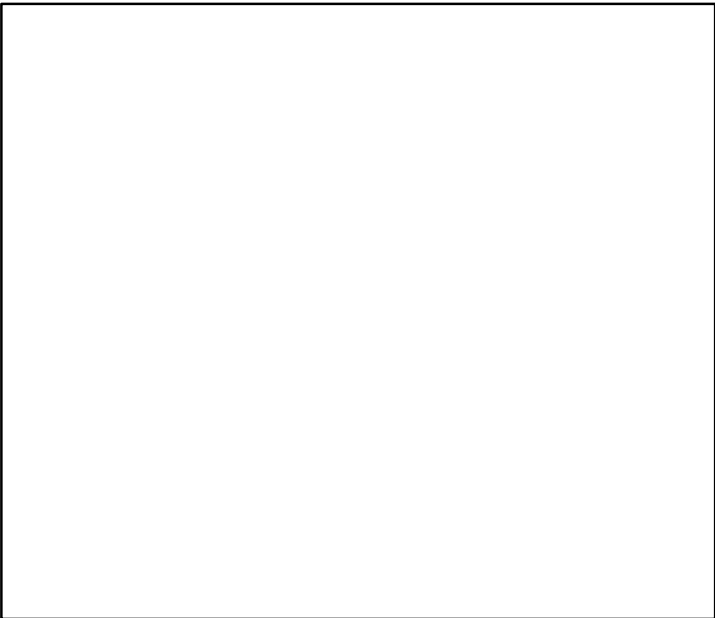
Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Lavender jobfish Okinawa Islands [LJOBOKWI]

TB*



SSB*



TN *



F*



ER*

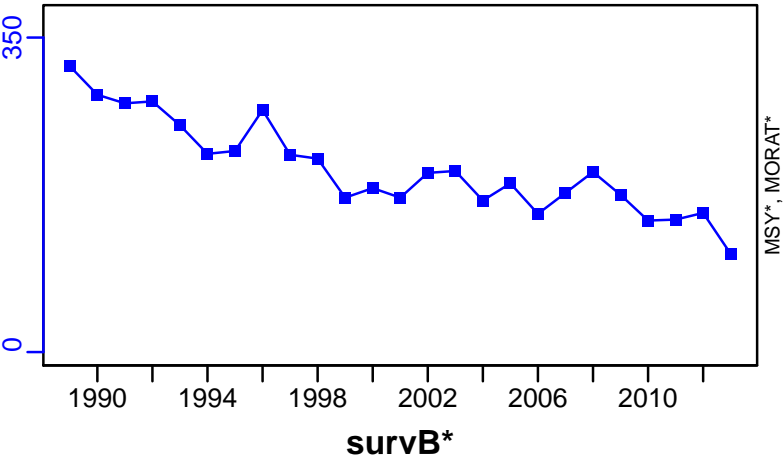


Recruits*



Lavender jobfish Okinawa Islands [LJOBOKWI]

TC-MT, TL*, RecC* (1989-2013-JPNIMP2016)



TAC*, Cpair*, Cadv*



CPUE*



EFFORT*



CdivMSY*



Japanese flounder East China Sea [OFLOUNECS]

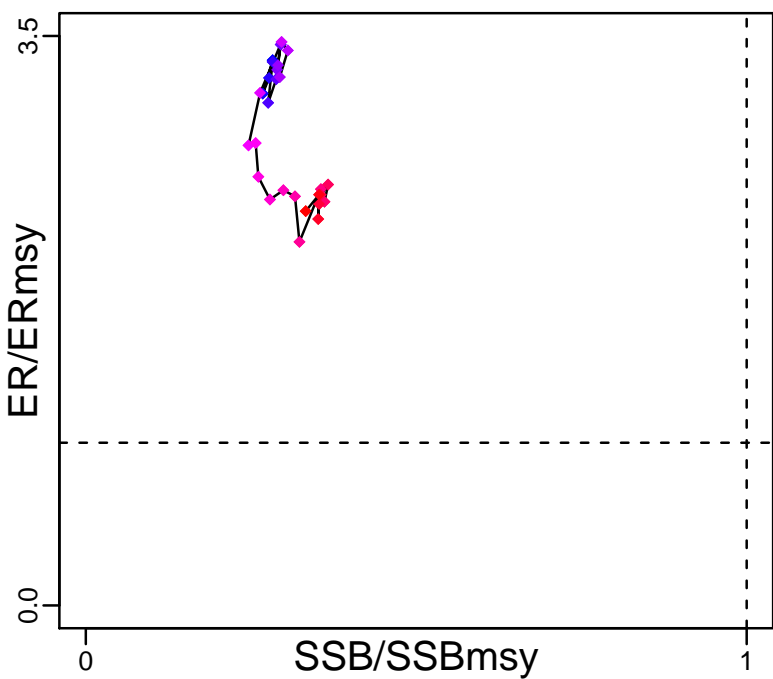
| Metadata | |
|-----------------------------|---|
| Scientific Name | Paralichthys olivaceus |
| Current Assess ID | FAFRFJ-OFLOUNECS-1975-2013-JPNIMP2016 |
| Area | East China Sea |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013, 2010 |

| Reference Points | | | |
|------------------|---------------|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-calc-MT | 2013 | 7826 |
| SSBmsy | SSBmsy-MT | 2013 | 7393 |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2013 | 0.151 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-MT | 2013 | 1182 |
| M | M-1/yr | 2013 | 0.208 |
| TBlim | - | - | - |
| SSBlim | SSBlim-MT | 2010 | 2181 |
| Flim | - | - | - |
| ERlim | - | - | - |

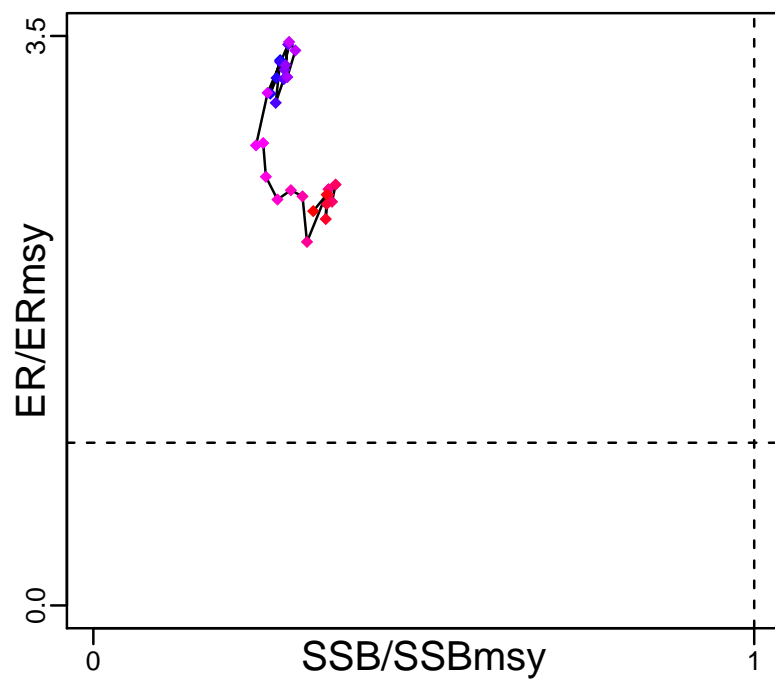
| Time Series | | | | | |
|-------------------|---------------------------|-----------|------------|------|--------|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2013 | 3170 | - | 1 |
| SSB | SSB-MT | 2013 | 2460 | Both | 2 |
| TN | - | - | - | - | - |
| R | R-E00 | 2013 | 1,290,000 | - | 0 |
| F | F-1/yr | 2010 | 0.59 | - | 0 to 7 |
| ER | ER-calc-ratio | 2013 | 0.366 | - | - |
| TC | TC-MT | 2013 | 1160 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-calc-MT | 2013 | 0.405 | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-MT | 2013 | 0.333 | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2013 | 2.423 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Japanese flounder East China Sea [OFLOUNECS]

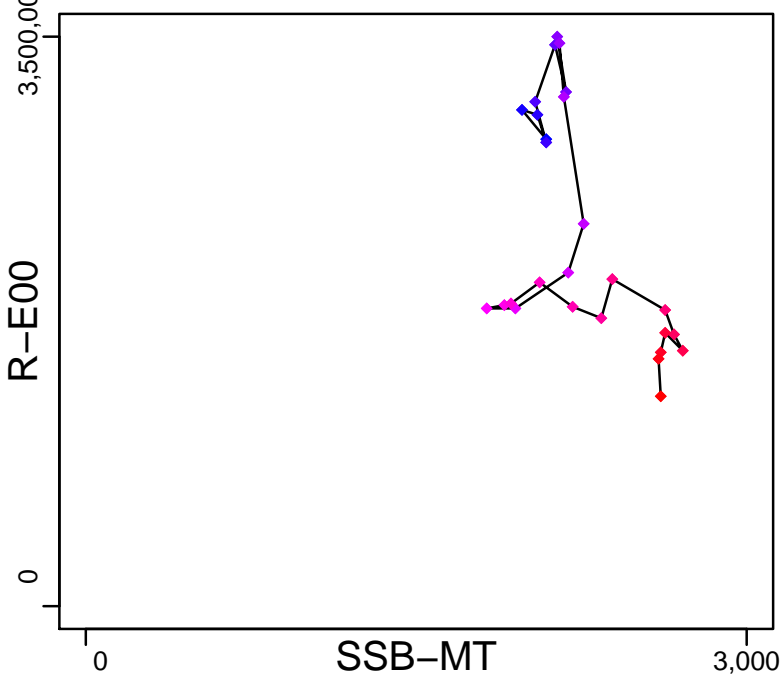
Kobe MSYpref (1975–2013–JPNIMP2016)



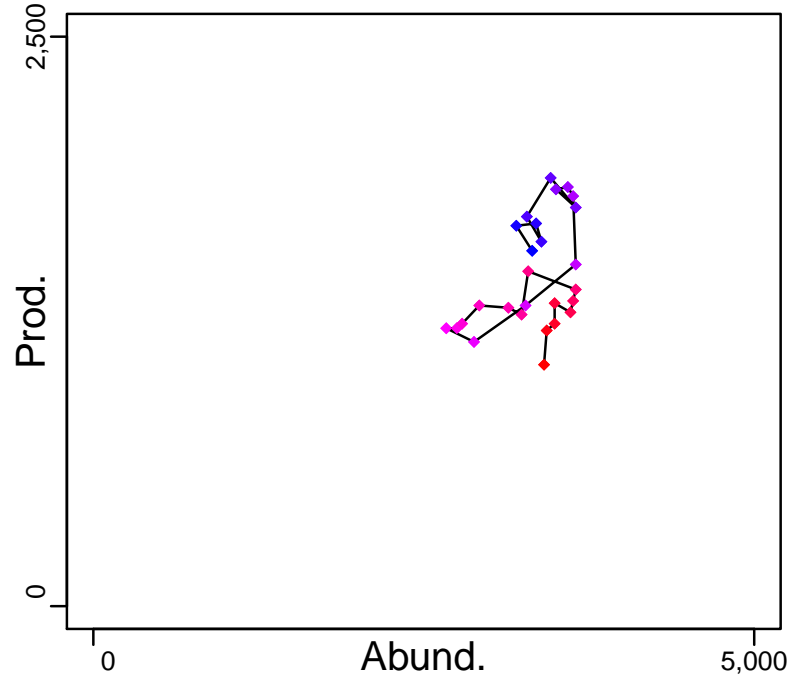
Kobe MGTpref (1975–2013–JPNIMP2016)



Spawner Recruit (1975–2013–JPNIMP2016)



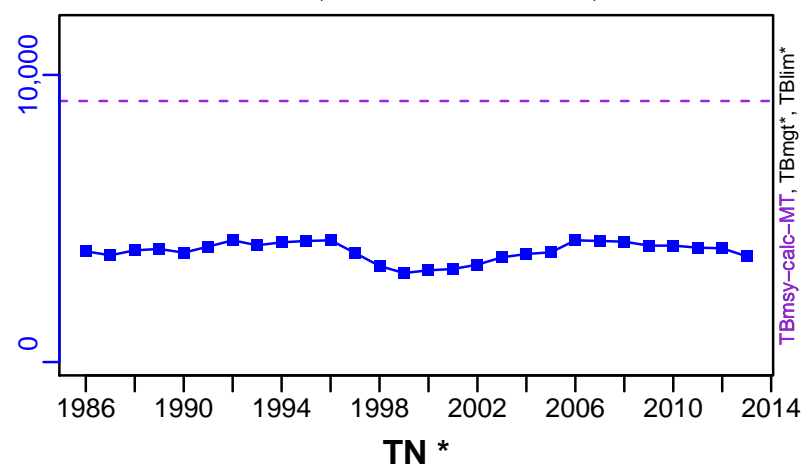
Production (1975–2013–JPNIMP2016)



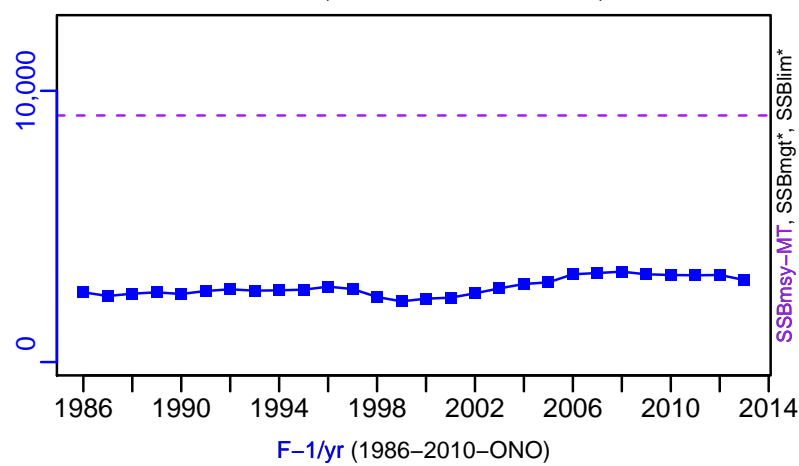
◆ Start Year ◆ End Year * No Data

Japanese flounder East China Sea [OFLOUNECS]

TB-MT (1975-2013-JPNIMP2016)



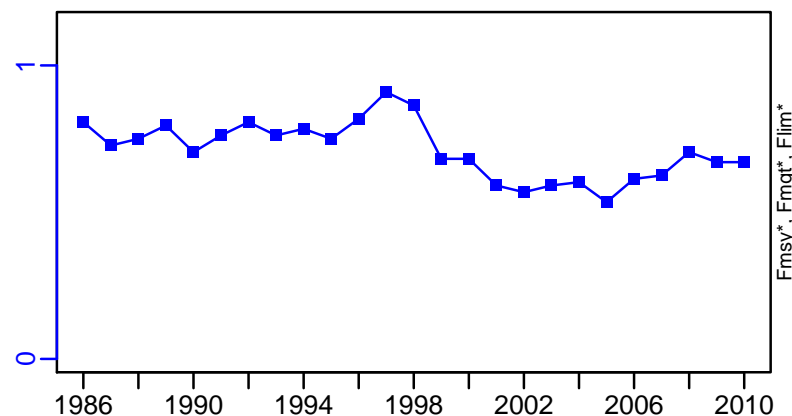
SSB-MT (1975-2013-JPNIMP2016)



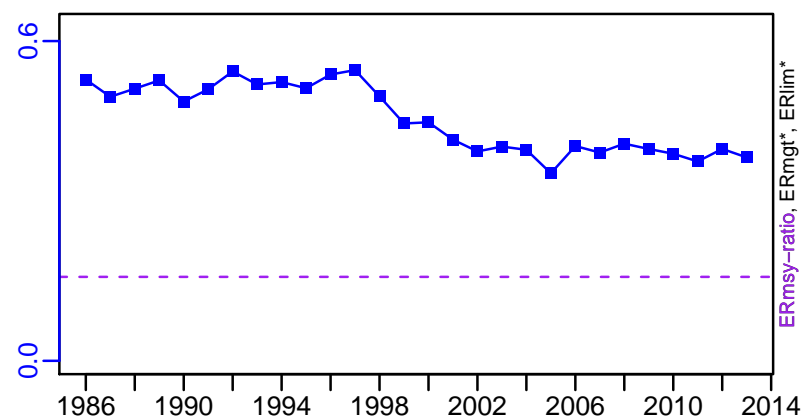
TN *



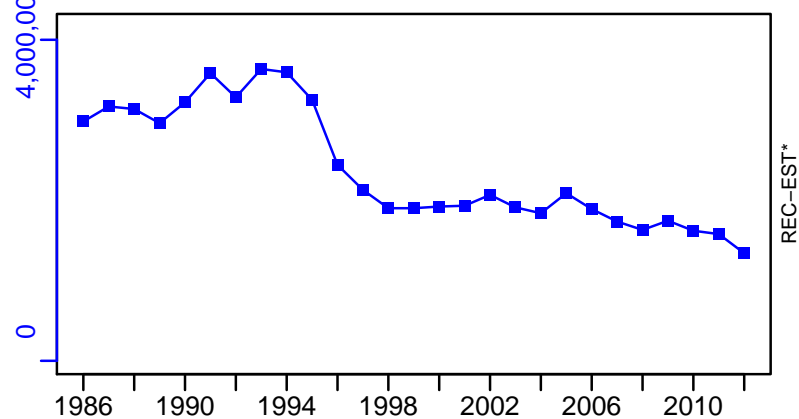
F-1/yr (1986-2010-ONO)



ER-calc-ratio (1975-2013-JPNIMP2016)

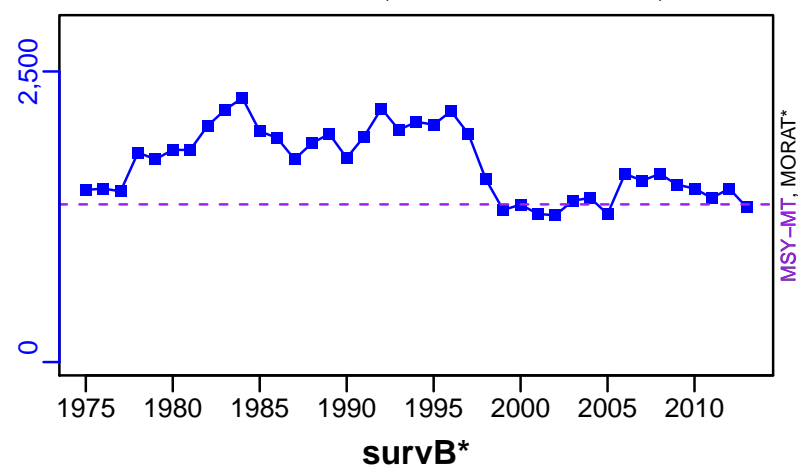


R-E00 (1975-2013-JPNIMP2016)



Japanese flounder East China Sea [OFLOUNECS]

TC-MT, TL*, RecC* (1975–2013–JPNIMP2016)



TAC*, Cpair*, Cadv*



survB*



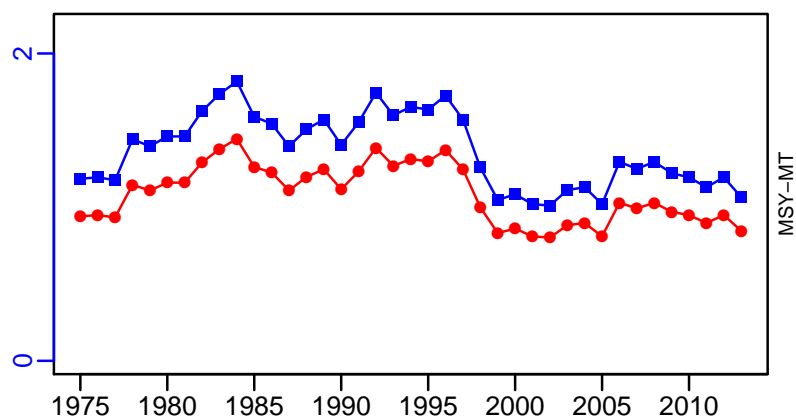
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1975–2013–JPNIMP2016)



- 1st listed time series (blue square)
- 2nd listed time series (red circle)
- 3rd listed time series (green triangle)
- MSY (purple dashed line)
- MORAT (grey line)
- No Data (*)

Japanese flounder Sea of Japan North [OFLOUNNSJ]

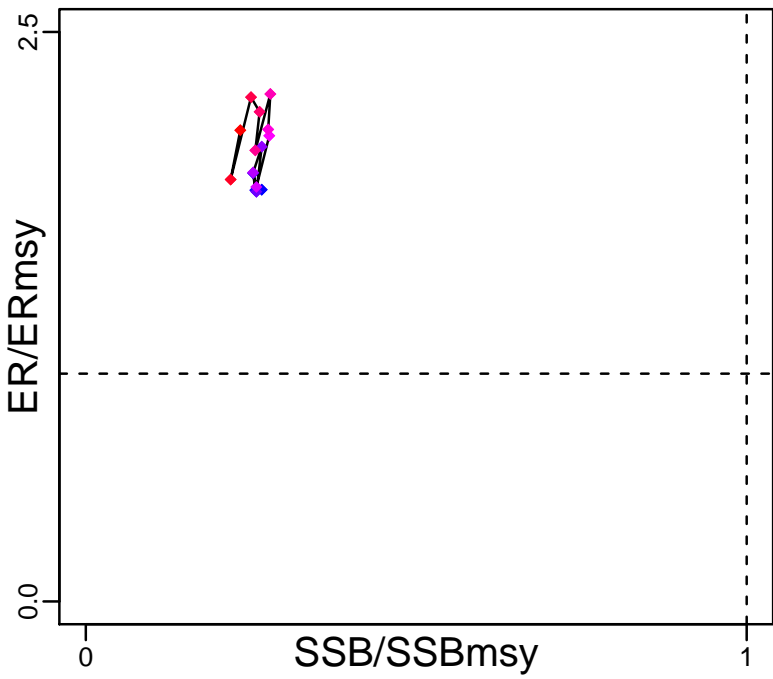
| Metadata | |
|-----------------------------|---|
| Scientific Name | Paralichthys olivaceus |
| Current Assess ID | FAFRFJ-OFLOUNNSJ-1970-2013-JPNIMP2016 |
| Area | Sea of Japan North |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013, 2010 |

| Reference Points | | | |
|------------------|---------------|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-calc-MT | 2013 | 7172 |
| SSBmsy | SSBmsy-MT | 2013 | 6160 |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2013 | 0.217 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-MT | 2013 | 1556 |
| M | M-1/yr | 2013 | 0.2 |
| TBlim | - | - | - |
| SSBlim | SSBlim-MT | 2010 | 2900 |
| Flim | - | - | - |
| ERlim | - | - | - |

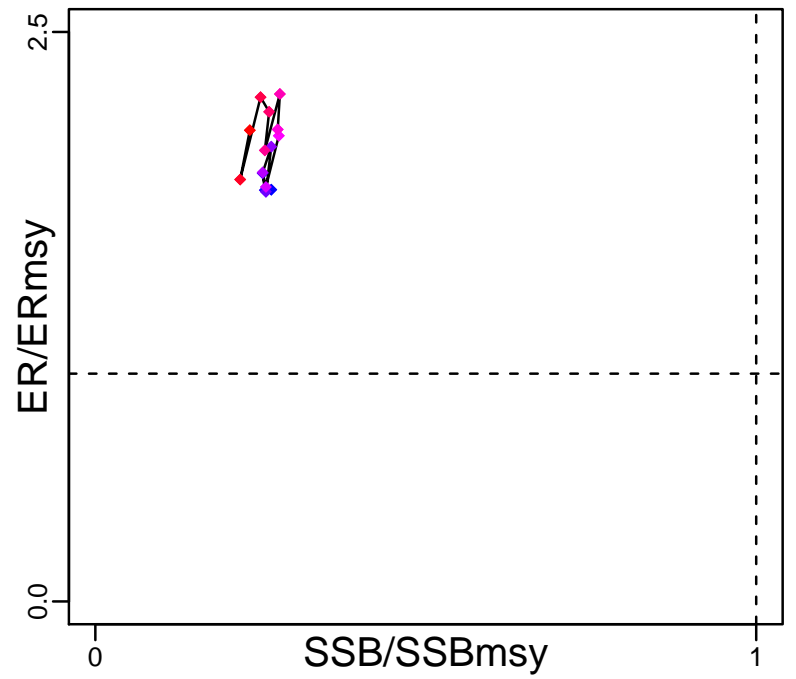
| Time Series | | | | | |
|-------------------|---------------------------|-----------|------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2013 | 2210 | - | 1 |
| SSB | SSB-MT | 2013 | 1440 | Both | 2 |
| TN | - | - | - | - | - |
| R | R-E00 | 2013 | 1,990,000 | - | 1 |
| F | - | - | - | - | - |
| ER | ER-calc-ratio | 2013 | 0.449 | - | - |
| TC | TC-MT | 2013 | 992 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-calc-MT | 2013 | 0.308 | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-MT | 2013 | 0.234 | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2013 | 2.069 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Japanese flounder Sea of Japan North [OFLOUNNSJ]

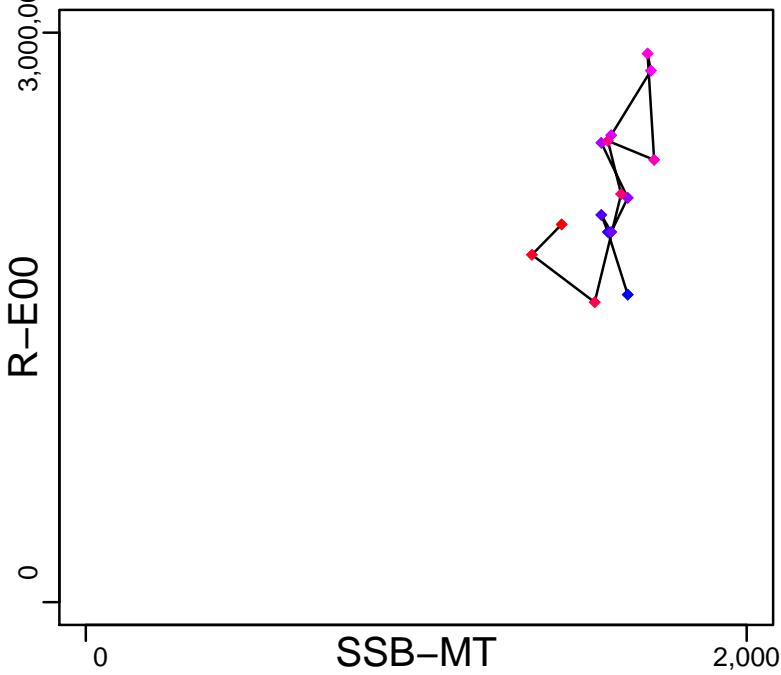
Kobe MSYpref (1970–2013–JPNIMP2016)



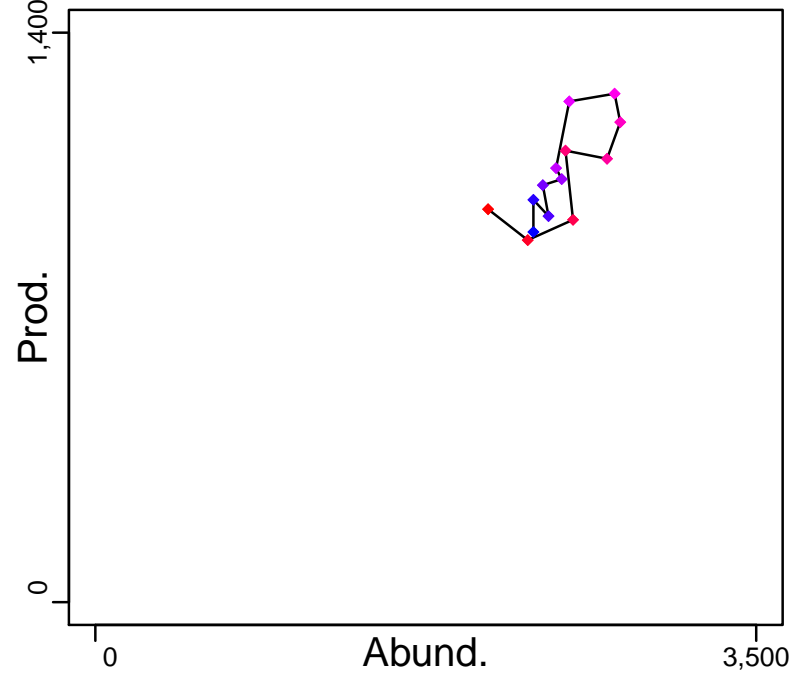
Kobe MGTpref (1970–2013–JPNIMP2016)



Spawner Recruit (1970–2013–JPNIMP2016)



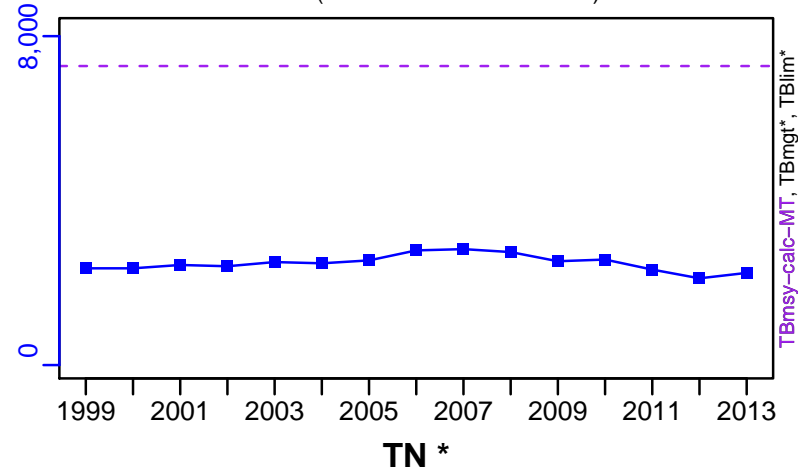
Production (1970–2013–JPNIMP2016)



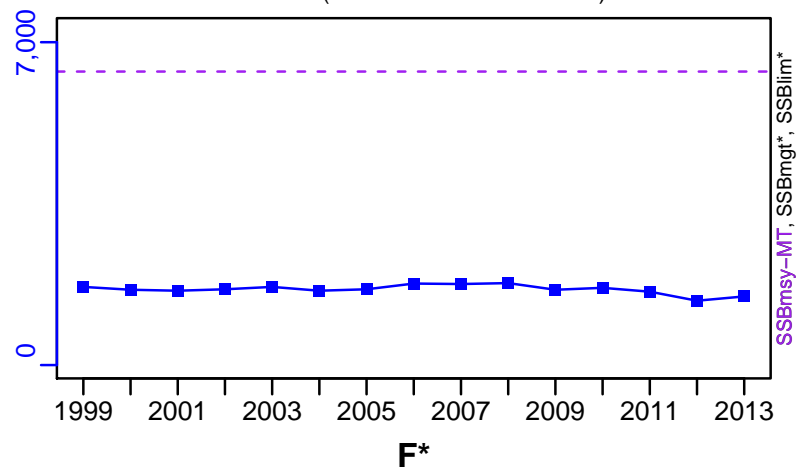
◆ Start Year ◆ End Year * No Data

Japanese flounder Sea of Japan North [OFLOUNNSJ]

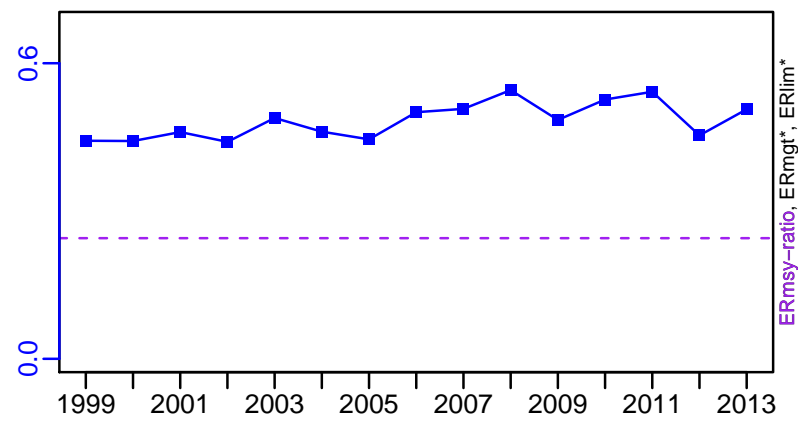
TB-MT (1970-2013-JPNIMP2016)



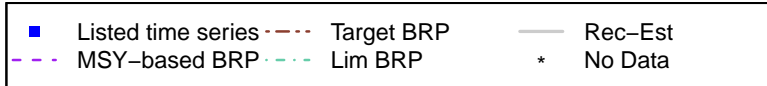
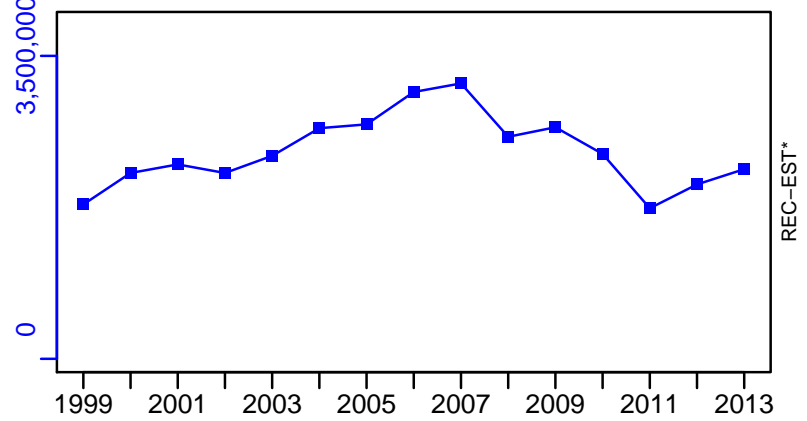
SSB-MT (1970-2013-JPNIMP2016)



ER-calc-ratio (1970-2013-JPNIMP2016)



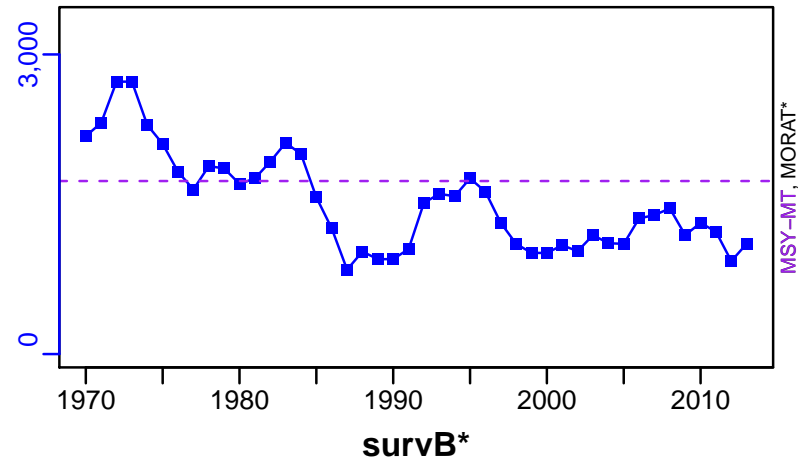
R-E00 (1970-2013-JPNIMP2016)



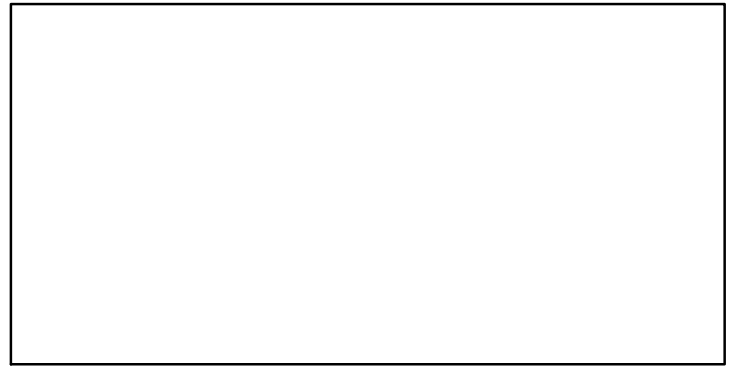
Japanese flounder Sea of Japan North [OFLOUNNSJ]

TC-MT, TL*, RecC* (1970–2013–JPNIMP2016)

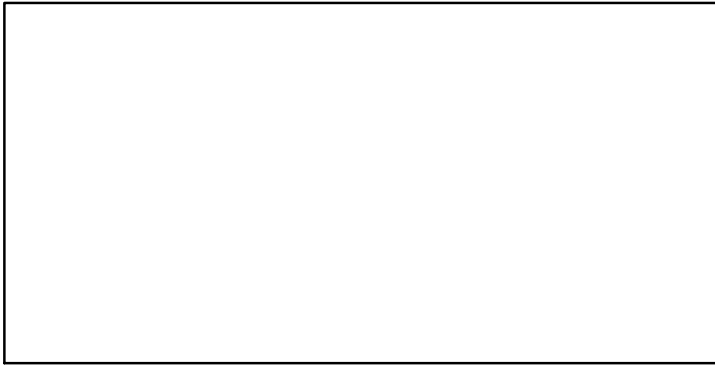
TAC*, Cpair*, Cadv*



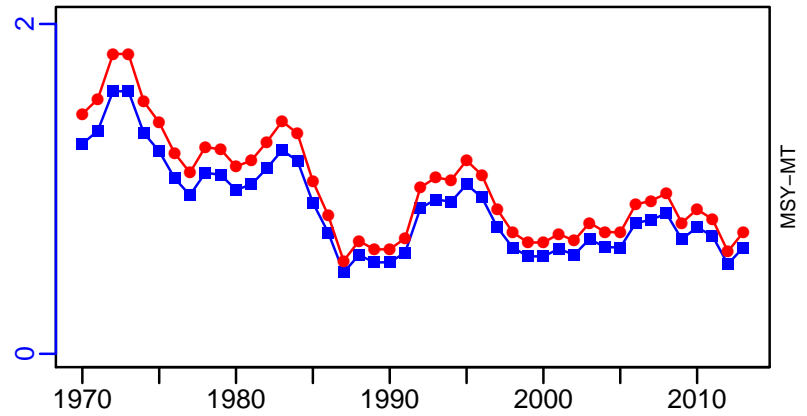
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1970–2013–JPNIMP2016)



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

Japanese flounder Pacific Ocean [OFLOUNPAC]

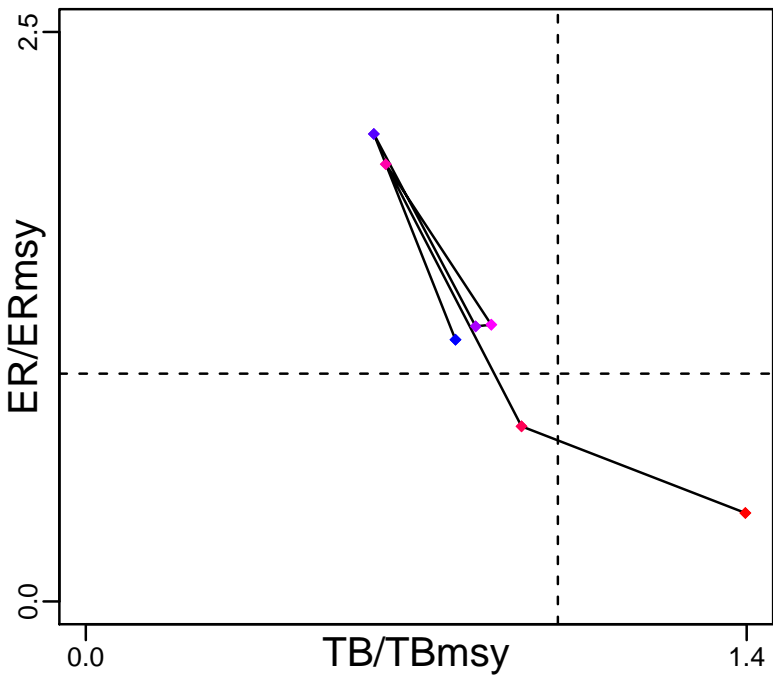
| Metadata | |
|-----------------------------|---|
| Scientific Name | Paralichthys olivaceus |
| Current Assess ID | FAFRFJ-OFLOUNPAC-1970-2013-JPNIMP2016 |
| Area | Pacific Ocean |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013, 2009 |

| Reference Points | | | |
|------------------|-------------|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-MT | 2013 | 5146 |
| SSBmsy | - | - | - |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2013 | 0.419 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-calc-MT | 2013 | 2156 |
| M | M-1/yr | 2013 | 0.21 |
| TBlim | - | - | - |
| SSBlim | SSBlim-MT | 2009 | 1600 |
| Flim | - | - | - |
| ERlim | - | - | - |

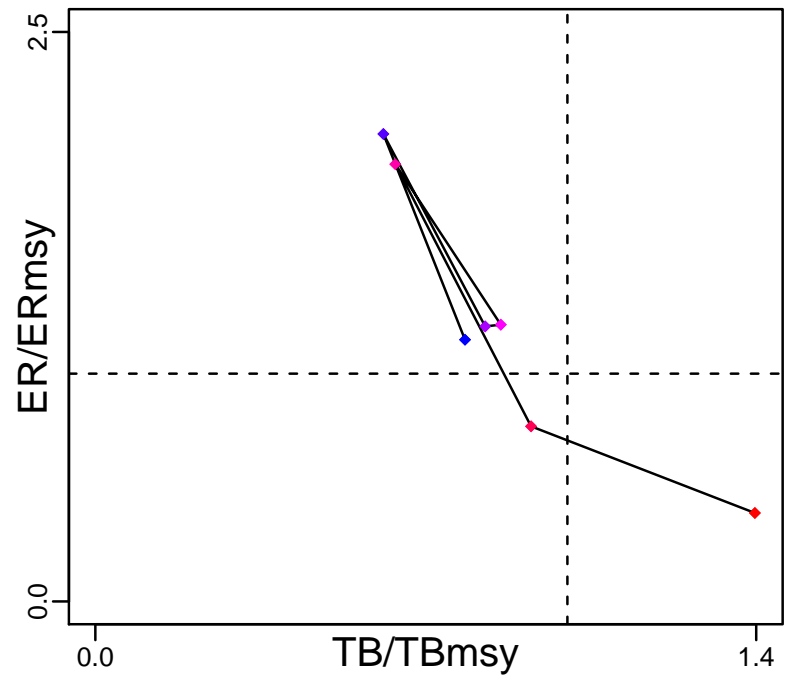
| Time Series | | | | | |
|-------------------|---------------------------|-----------|------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2013 | 7190 | - | 1 |
| SSB | SSB-MT | 2013 | 1070 | Both | 3 |
| TN | - | - | - | - | - |
| R | R-E00 | 2013 | 1,940,000 | - | 1 |
| F | - | - | - | - | - |
| ER | ER-calc-ratio | 2013 | 0.163 | - | - |
| TC | TC-MT | 2013 | 2380 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-MT | 2013 | 1.397 | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2013 | 0.388 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Japanese flounder Pacific Ocean [OFLOUNPAC]

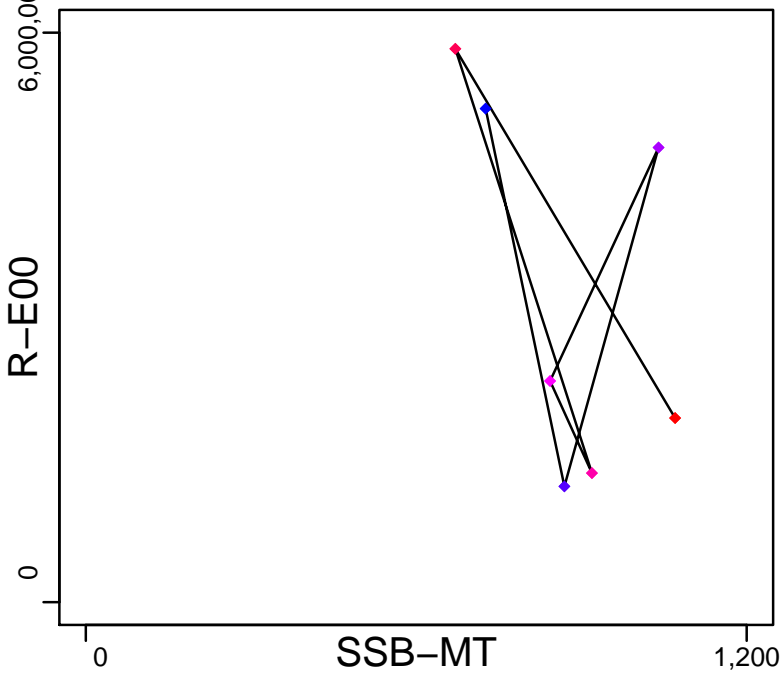
Kobe MSYpref (1970–2013–JPNIMP2016)



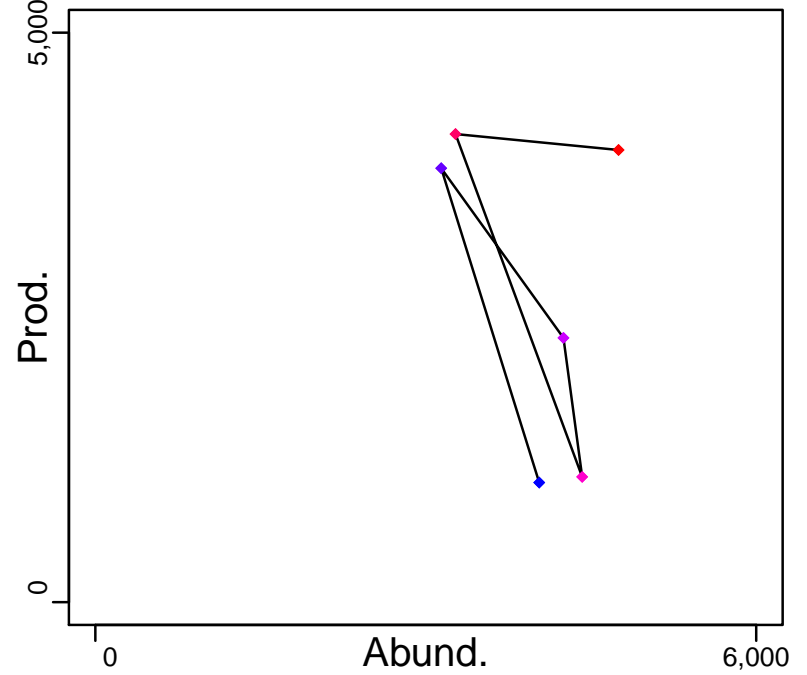
Kobe MGTpref (1970–2013–JPNIMP2016)



Spawner Recruit (1970–2013–JPNIMP2016)



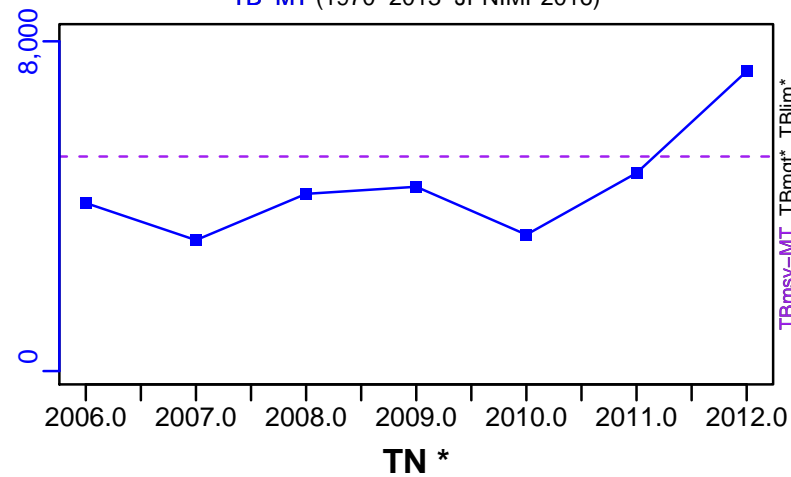
Production (1970–2013–JPNIMP2016)



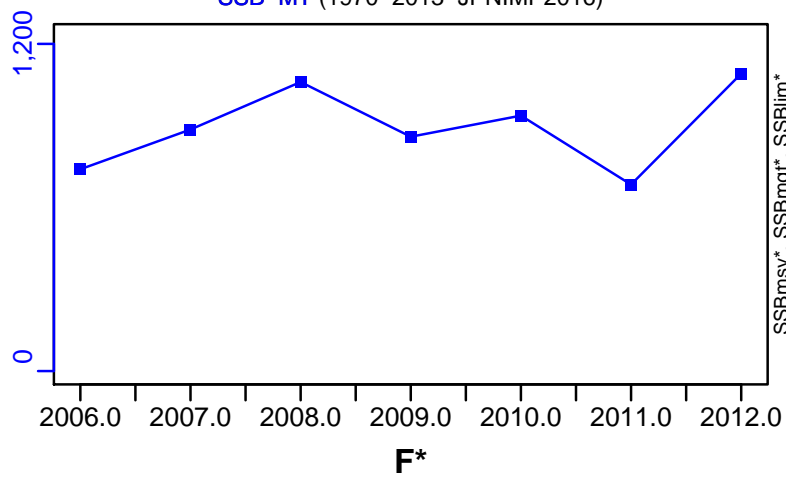
◆ Start Year ◆ End Year * No Data

Japanese flounder Pacific Ocean [OFLOUNPAC]

TB-MT (1970-2013-JPNIMP2016)



SSB-MT (1970-2013-JPNIMP2016)



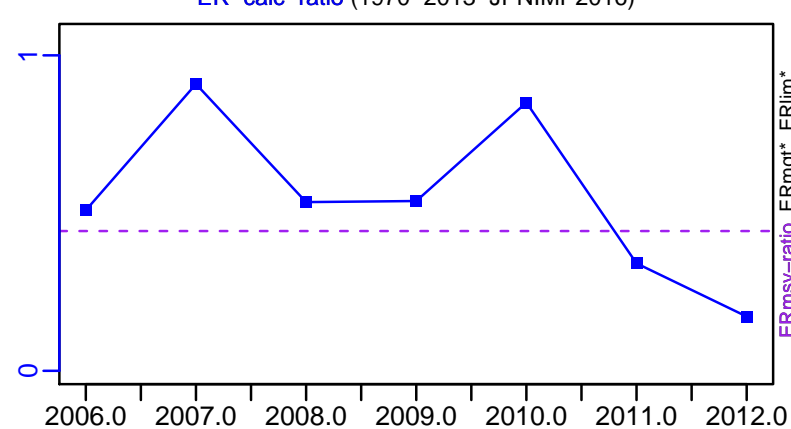
TN *



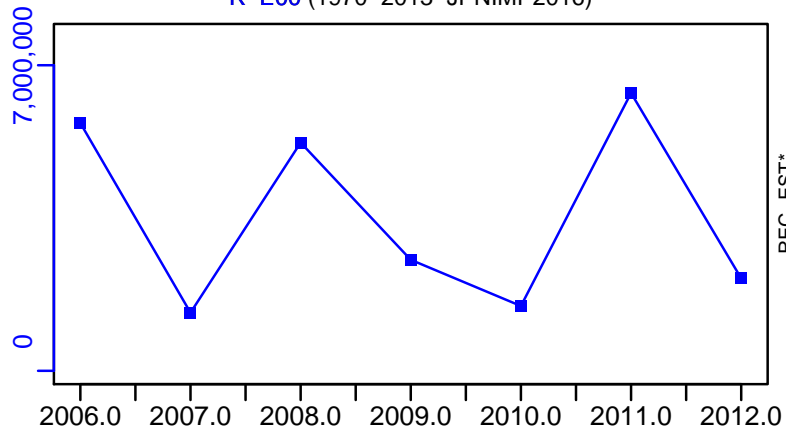
F*



ER-calc-ratio (1970-2013-JPNIMP2016)



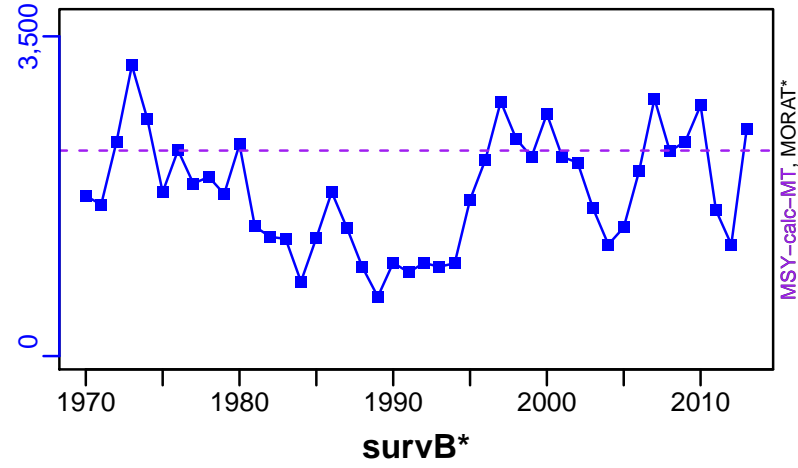
R-E00 (1970-2013-JPNIMP2016)



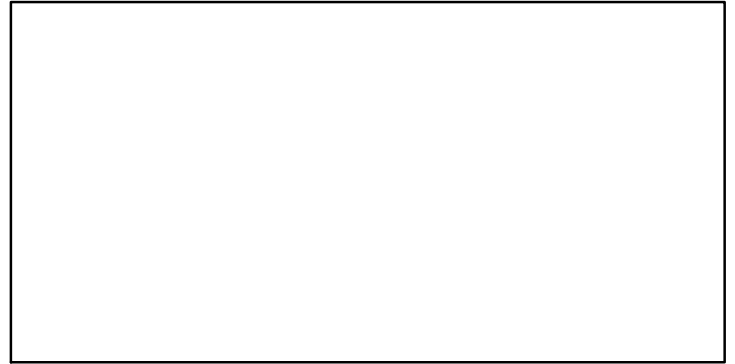
Japanese flounder Pacific Ocean [OFLOUNPAC]

TC-MT, TL*, RecC* (1970-2013-JPNIMP2016)

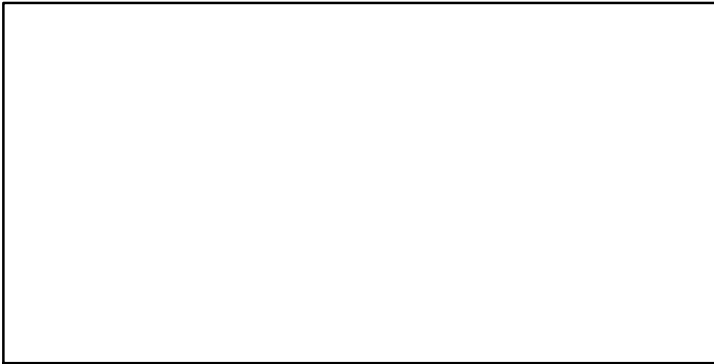
TAC*, Cpair*, Cadv*



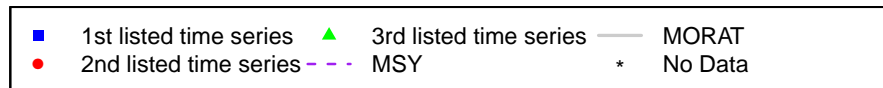
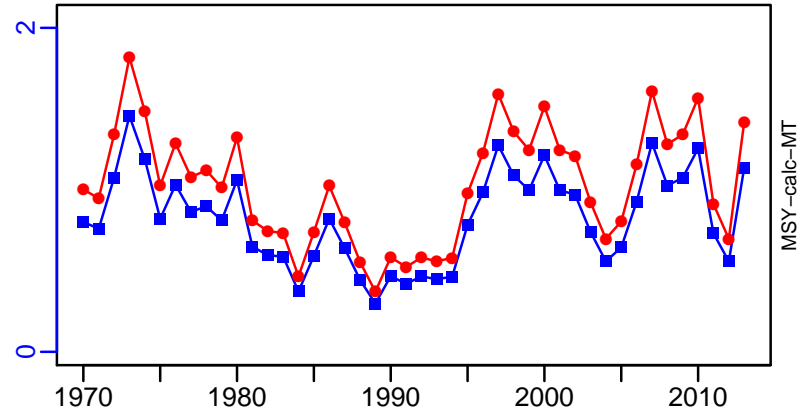
CPUE*



EFFORT*



TC-MT/MSY-calc-MT, CdivMEANC-ratio, (1970-2013-JPNIMP2016)



Japanese flounder Inland Sea of Japan [OFLOUNSETO]

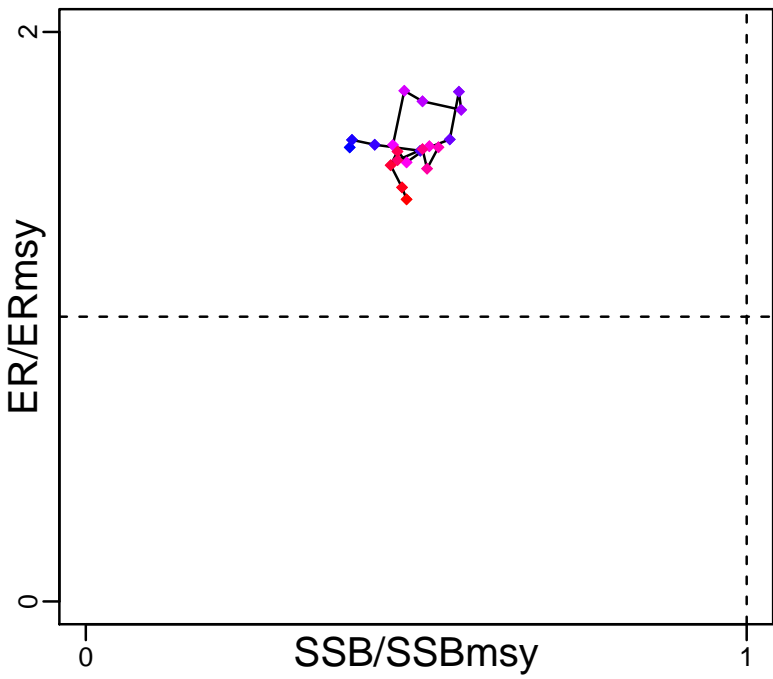
| Metadata | |
|-----------------------------|---|
| Scientific Name | Paralichthys olivaceus |
| Current Assess ID | FAFRFJ-OFLOUNSETO-1965-2013-JPNIMP2016 |
| Area | Inland Sea of Japan |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013, 2010 |

| Reference Points | | | |
|------------------|---------------|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-calc-MT | 2013 | 4012 |
| SSBmsy | SSBmsy-MT | 2013 | 2905 |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2013 | 0.218 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-MT | 2013 | 875 |
| M | M-1/yr | 2013 | 0.31 |
| TBlim | - | - | - |
| SSBlim | SSBlim-MT | 2010 | 992 |
| Flim | - | - | - |
| ERlim | - | - | - |

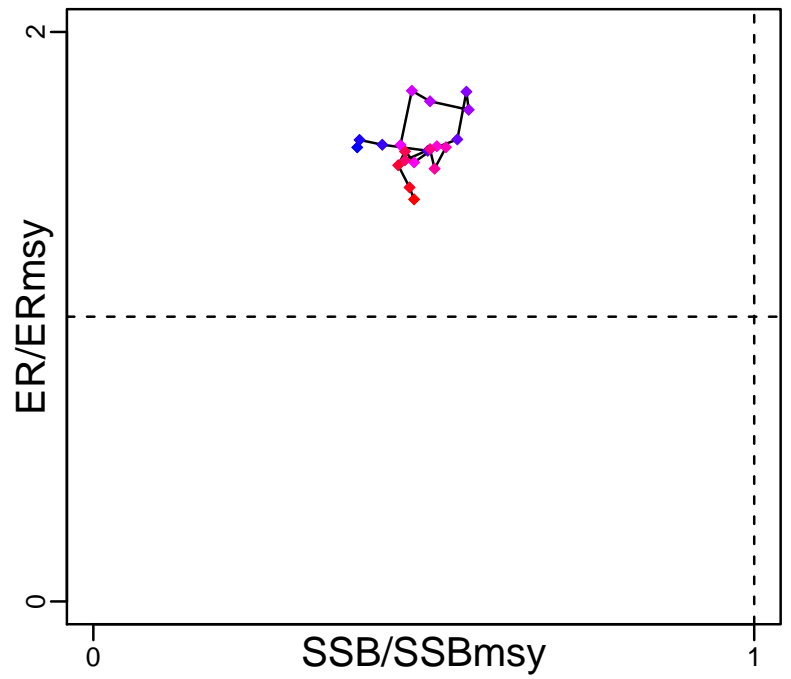
| Time Series | | | | | |
|-------------------|---------------------------|-----------|------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2013 | 2170 | - | 0 |
| SSB | SSB-MT | 2013 | 1410 | Both | 2 |
| TN | - | - | - | - | - |
| R | R-E00 | 2013 | 897,000 | - | 0 |
| F | - | - | - | - | - |
| ER | ER-calc-ratio | 2013 | 0.308 | - | - |
| TC | TC-MT | 2013 | 668 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-calc-MT | 2013 | 0.541 | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-MT | 2013 | 0.485 | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2013 | 1.412 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Japanese flounder Inland Sea of Japan [OFLOUNSETO]

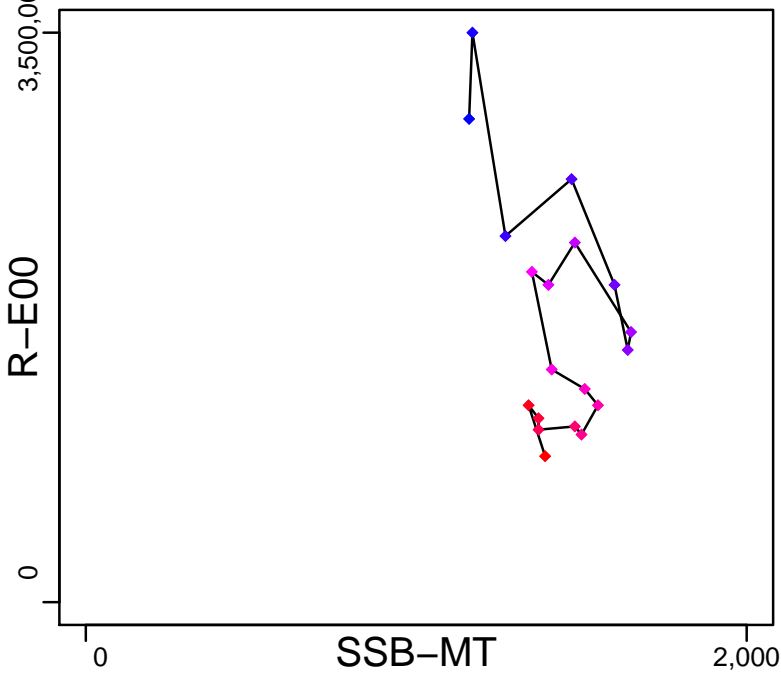
Kobe MSYpref (1965–2013–JPNIMP2016)



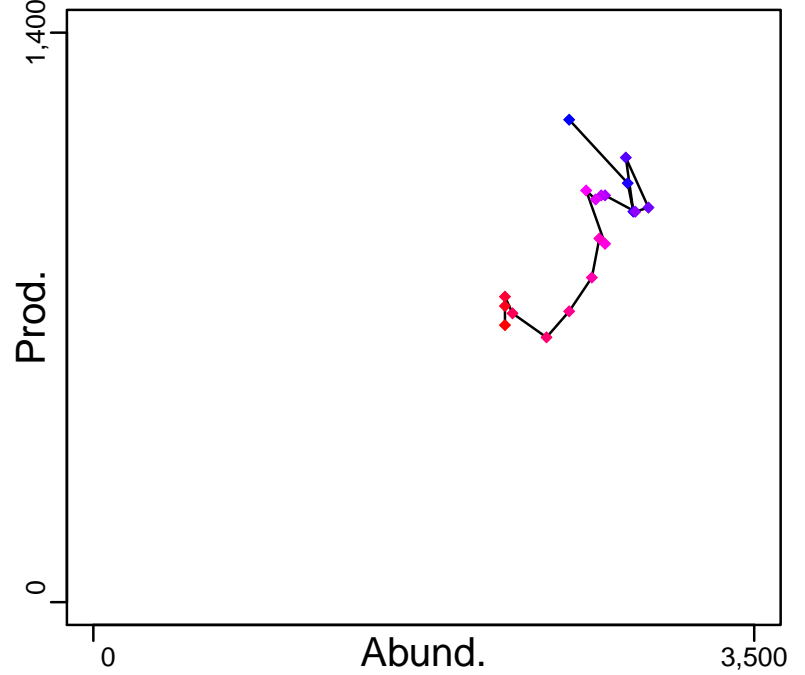
Kobe MGTpref (1965–2013–JPNIMP2016)



Spawner Recruit (1965–2013–JPNIMP2016)



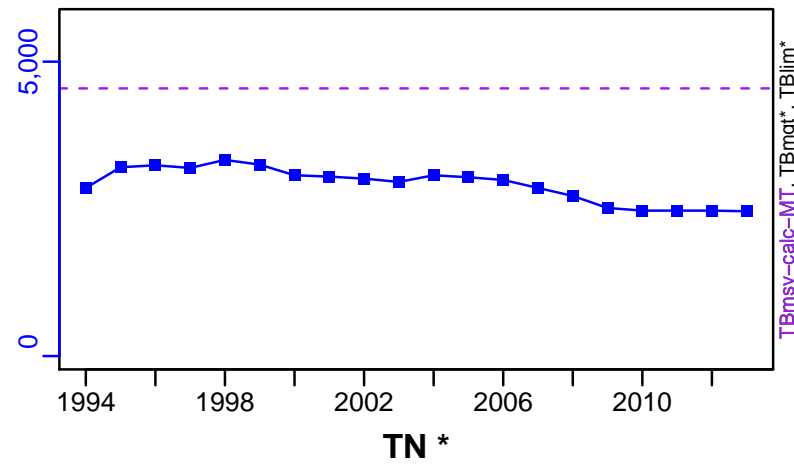
Production (1965–2013–JPNIMP2016)



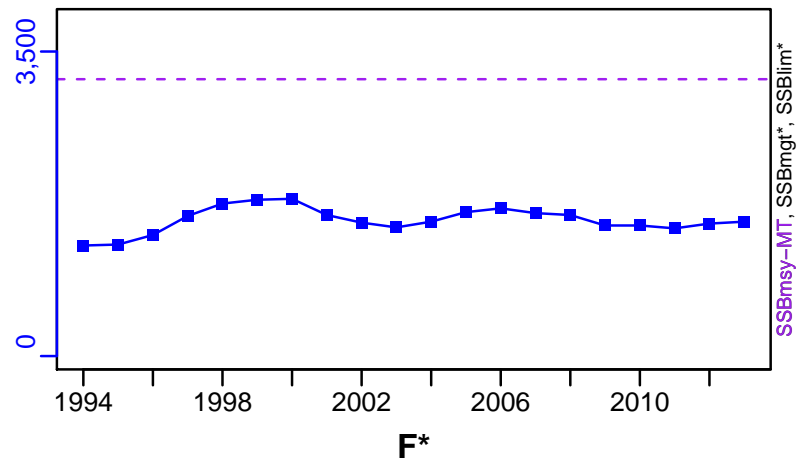
◆ Start Year ◆ End Year * No Data

Japanese flounder Inland Sea of Japan [OFLOUNSETO]

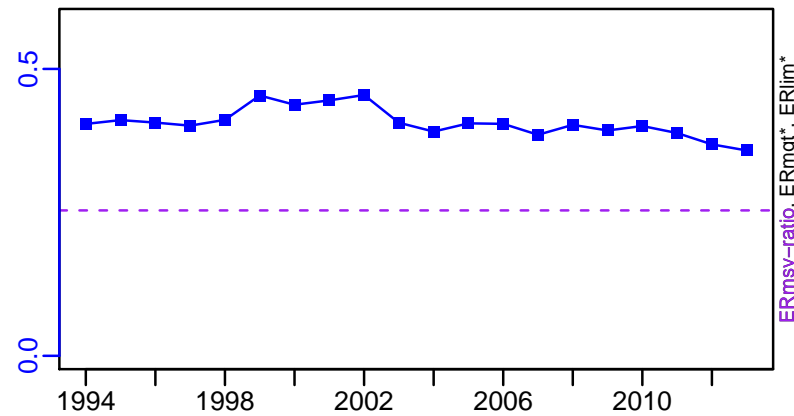
TB-MT (1965-2013-JPNIMP2016)



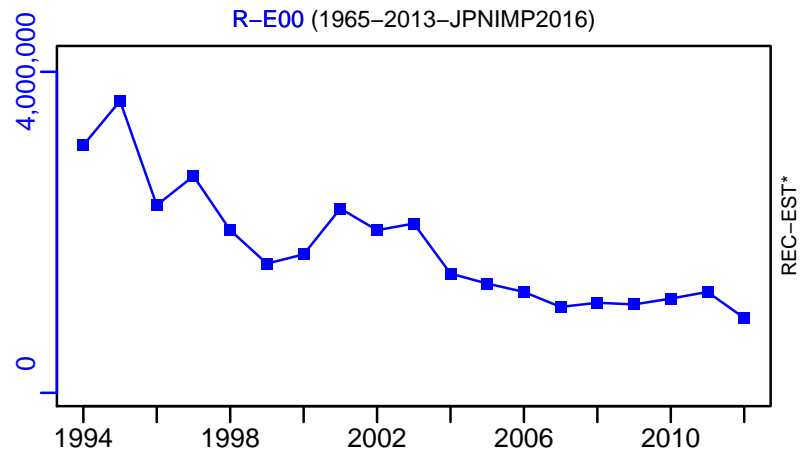
SSB-MT (1965-2013-JPNIMP2016)



ER-calc-ratio (1965-2013-JPNIMP2016)



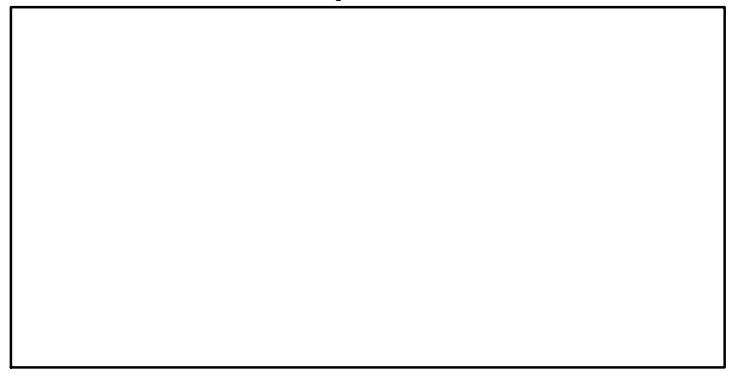
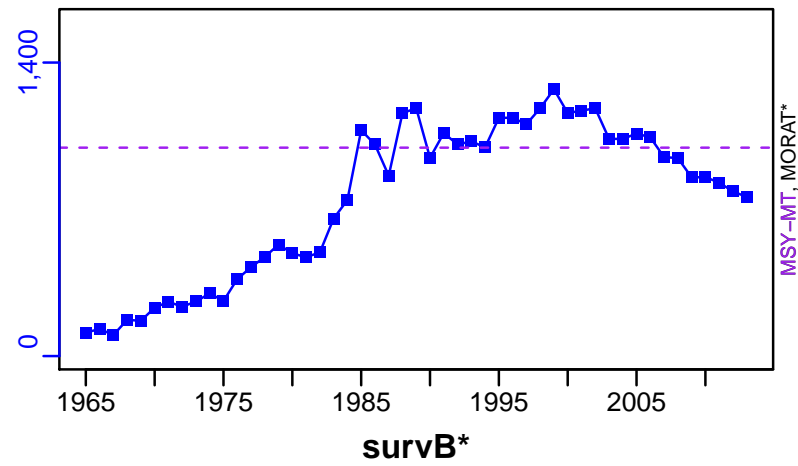
R-E00 (1965-2013-JPNIMP2016)



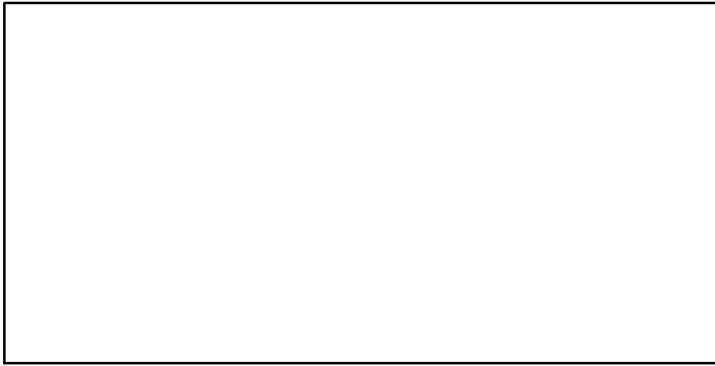
Japanese flounder Inland Sea of Japan [OFLOUNSETO]

TC-MT, TL*, RecC* (1965–2013–JPNIMP2016)

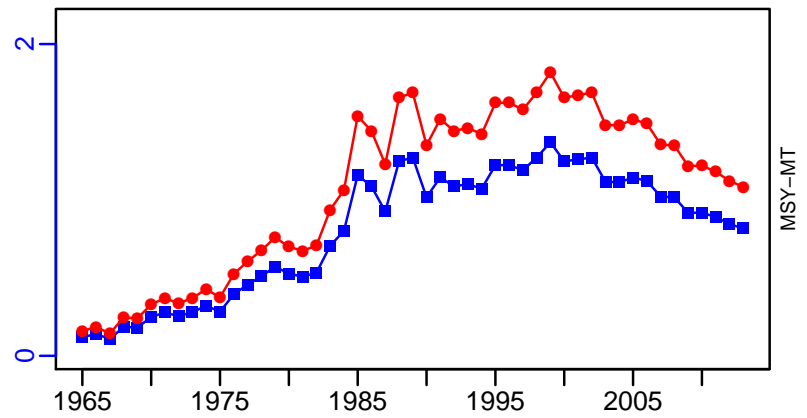
TAC*, Cpair*, Cadv*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1965–2013–JPNIMP2016)



Pacific cod Hokkaido [PCODHOKK]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Gadus macrocephalus |
| Current Assess ID | FAFRFJ-PCODHOKK-1985-2013-JPNIMP2016 |
| Area | Hokkaido |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

| Reference Points | | | |
|------------------|--------|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | - | - | - |
| Fmsy | - | - | - |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | - | - | - |
| M | M-1/yr | 2013 | 0.313 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 28,900 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

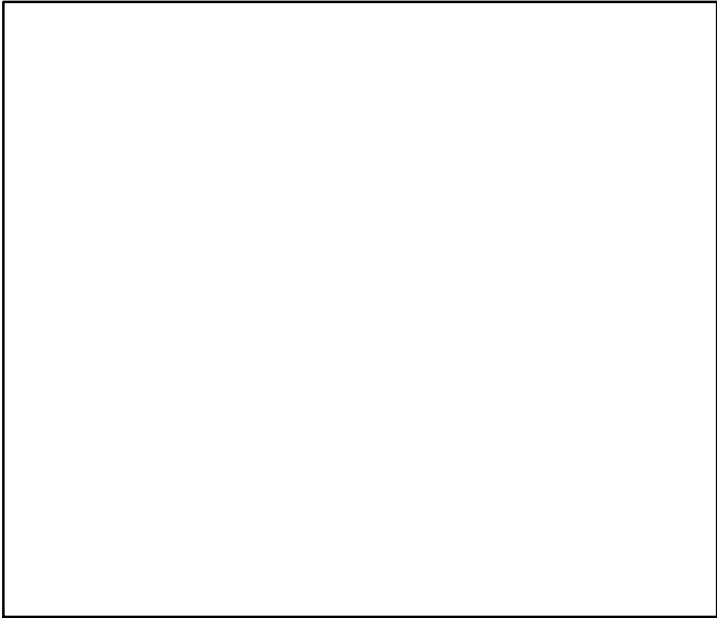
Kobe MSY*



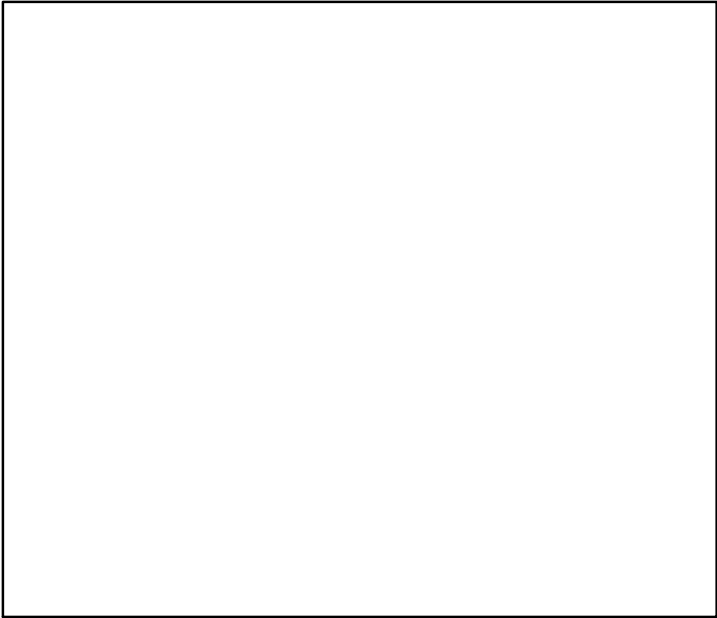
Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

TB*



SSB*



TN *



F*



ER*

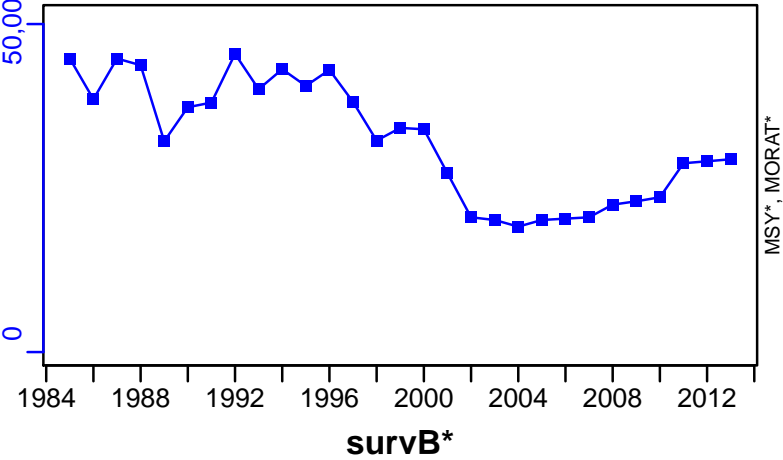


Recruits*



Pacific cod Hokkaido [PCODHOKK]

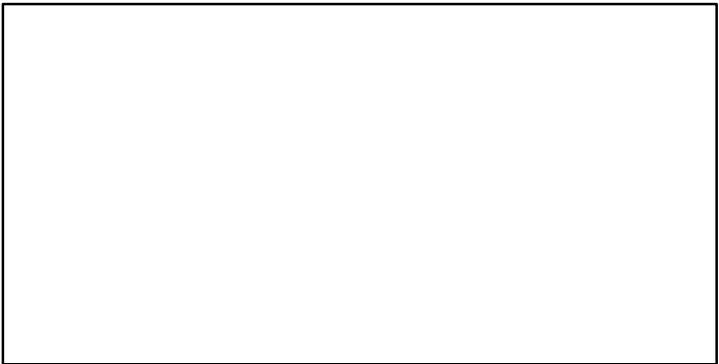
TC-MT, TL*, RecC* (1985-2013-JPNIMP2016)



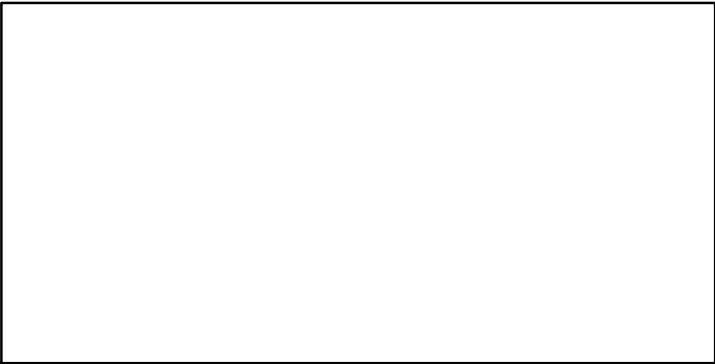
TAC*, Cpair*, Cadv*



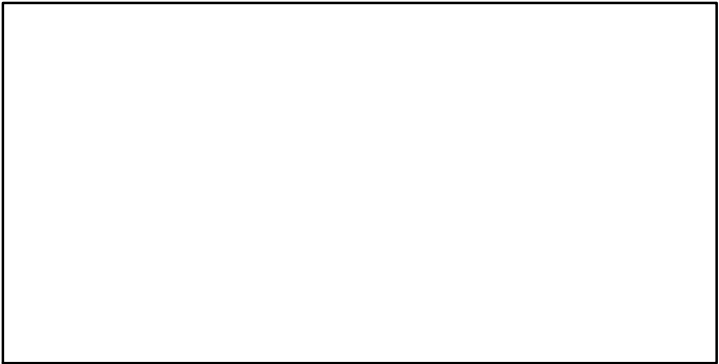
CPUE*



EFFORT*



CdivMSY*



Pacific cod North Pacific [PCODNPAC]

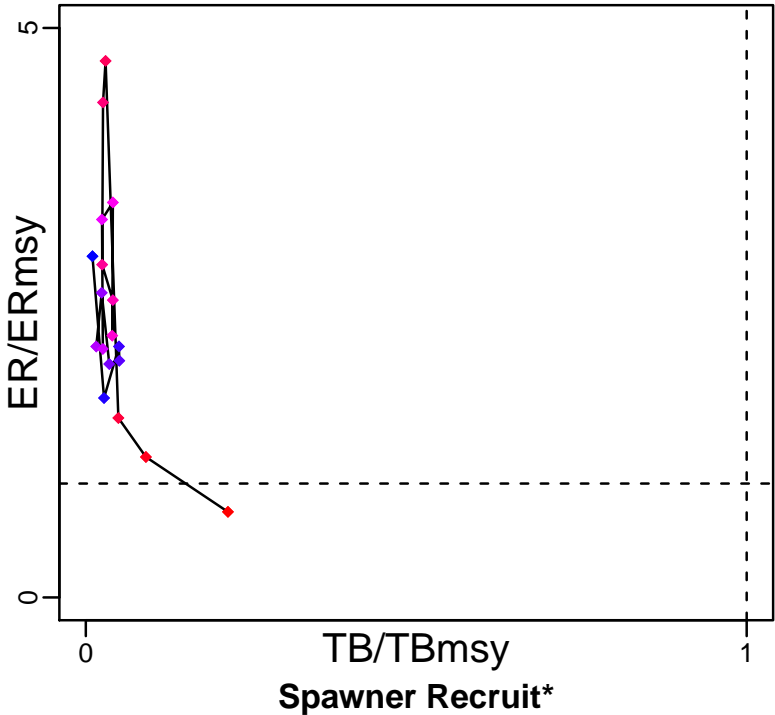
| Metadata | |
|-----------------------------|---|
| Scientific Name | Gadus macrocephalus |
| Current Assess ID | FAFRFJ-PCODNPAC-1975-2014-JPNIMP2016 |
| Area | North Pacific |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2014 |

| Reference Points | | | |
|------------------|-------------|-----------|-----------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-MT | 2014 | 1,297,226 |
| SSBmsy | - | - | - |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2014 | 0.145 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-calc-MT | 2014 | 188,098 |
| M | M-1/yr | 2014 | 0.313 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

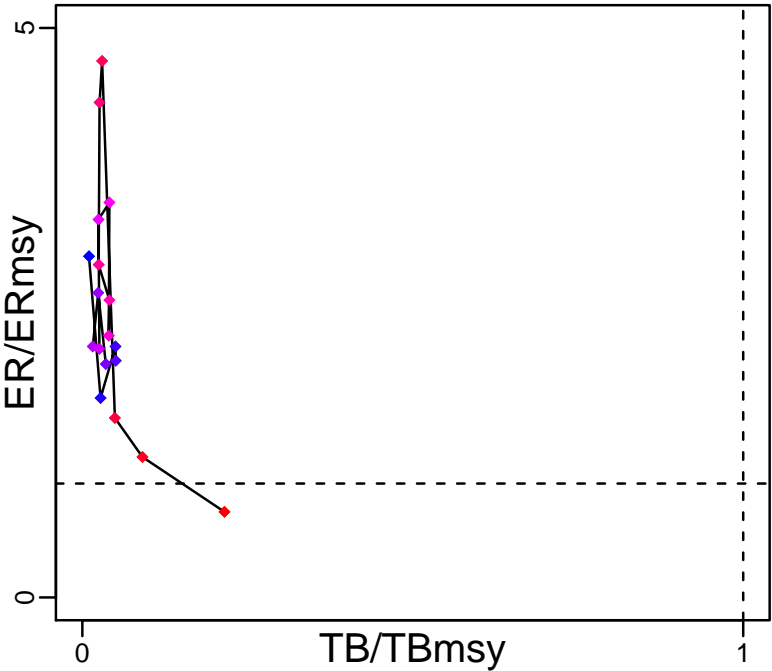
| Time Series | | | | | |
|-------------------|---------------------------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2014 | 267,000 | - | 1 |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | ER-calc-ratio | 2014 | 0.109 | - | - |
| TC | TC-MT | 2014 | 30,400 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-MT | 2014 | 0.206 | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2014 | 0.751 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Pacific cod North Pacific [PCODNPAC]

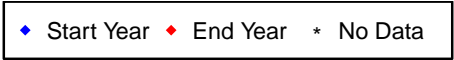
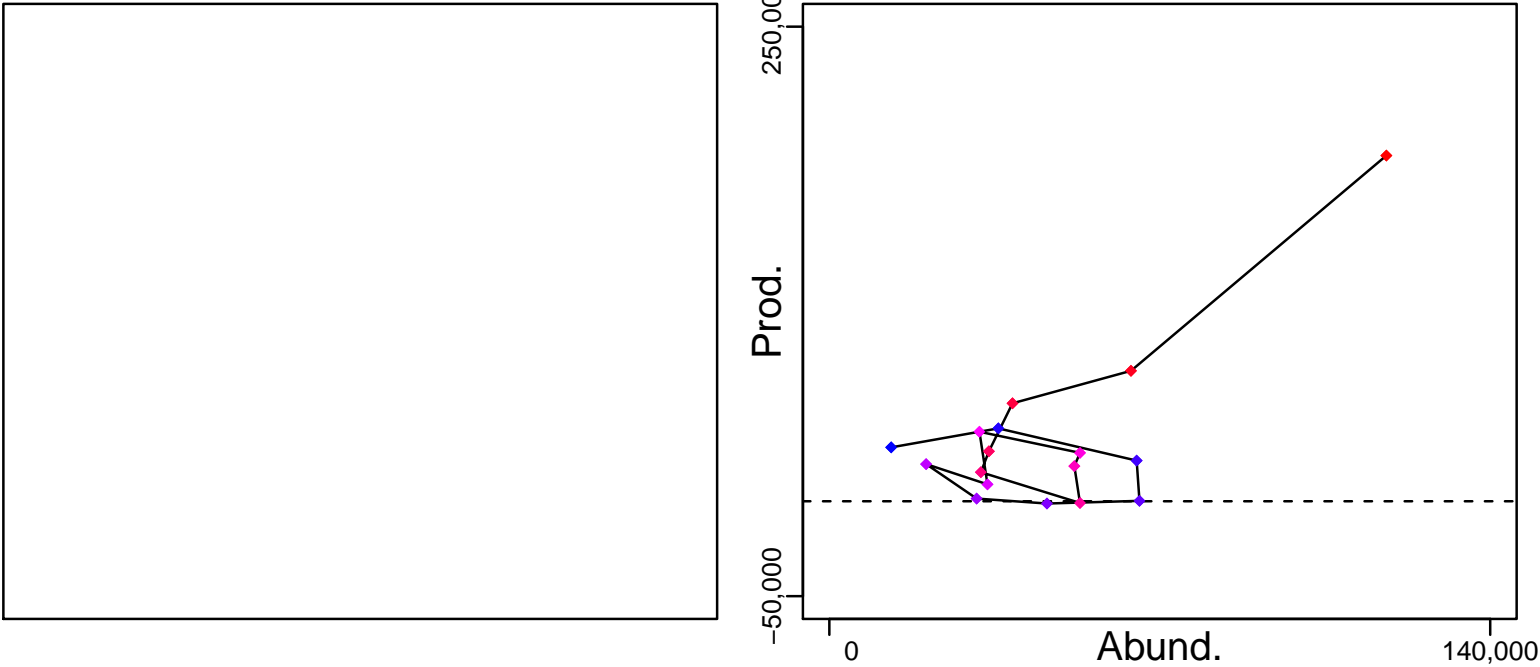
Kobe MSYpref (1975–2014–JPNIMP2016)



Kobe MGTpref (1975–2014–JPNIMP2016)

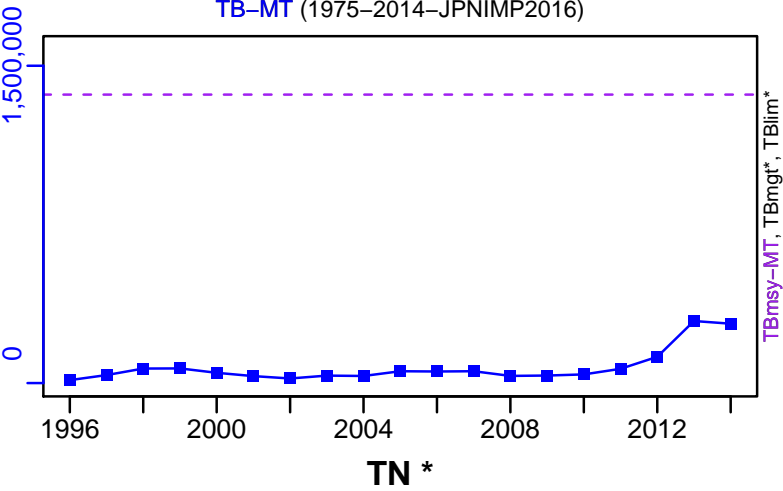


Production (1975–2014–JPNIMP2016)



Pacific cod North Pacific [PCODNPAC]

TB-MT (1975-2014-JPNIMP2016)



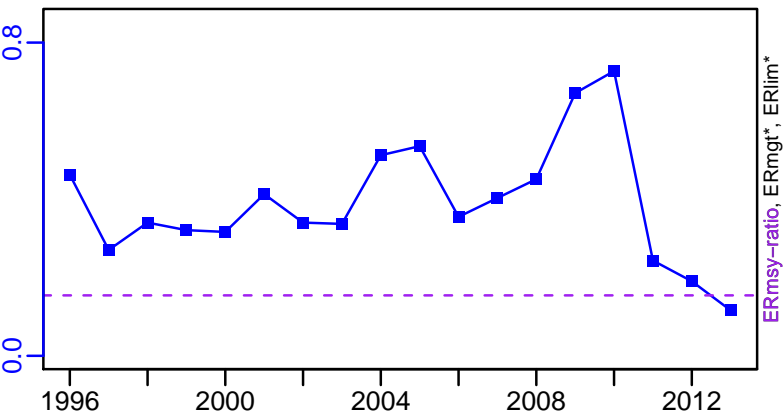
SSB*



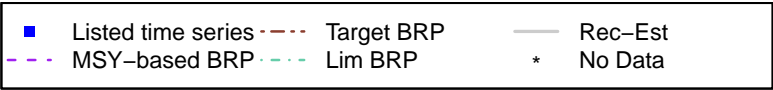
F*



ER-calc-ratio (1975-2014-JPNIMP2016)

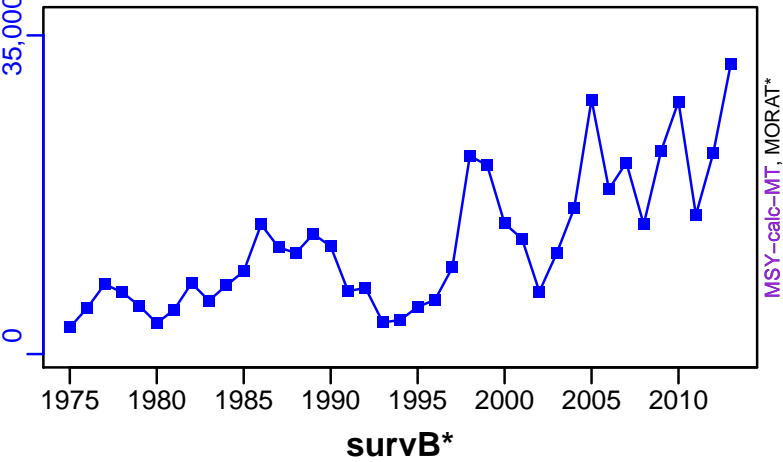


Recruits*



Pacific cod North Pacific [PCODNPAC]

TC-MT, TL*, RecC* (1975-2014-JPNIMP2016)



TAC*, Cpair*, Cadv*



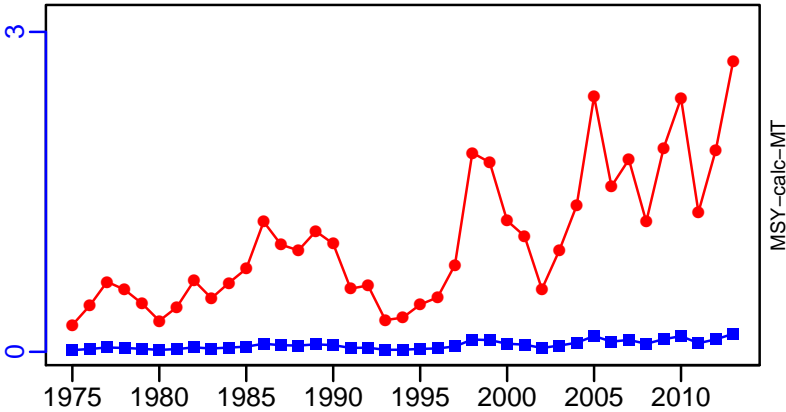
CPUE*



EFFORT*



TC-MT/MSY-calc-MT, CdivMEANC-ratio, (1975-2014-JPNIMP2016)



Pacific cod Sea of Japan [PCODSOJ]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Gadus macrocephalus |
| Current Assess ID | FAFRFJ-PCODSOJ-1964-2013-JPNIMP2016 |
| Area | Sea of Japan |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

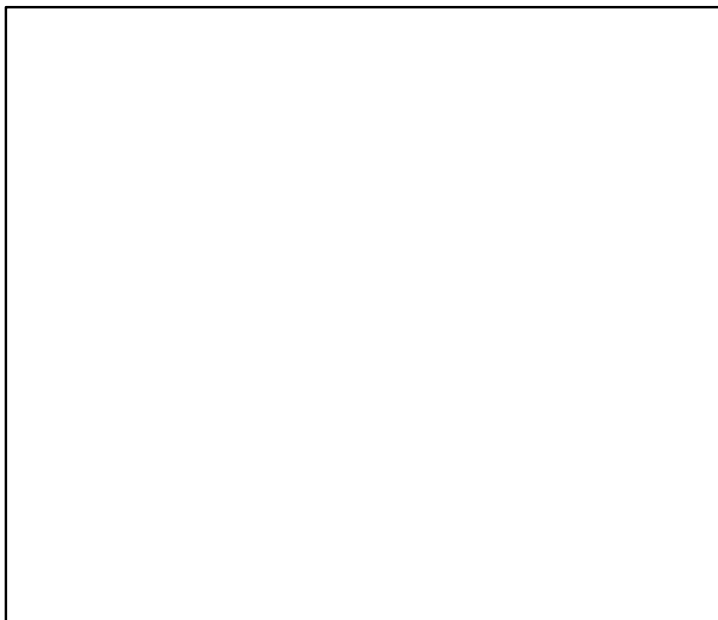
| Reference Points | | | |
|------------------|--------|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | - | - | - |
| Fmsy | - | - | - |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | - | - | - |
| M | M-1/yr | 2013 | 0.313 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 3920 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

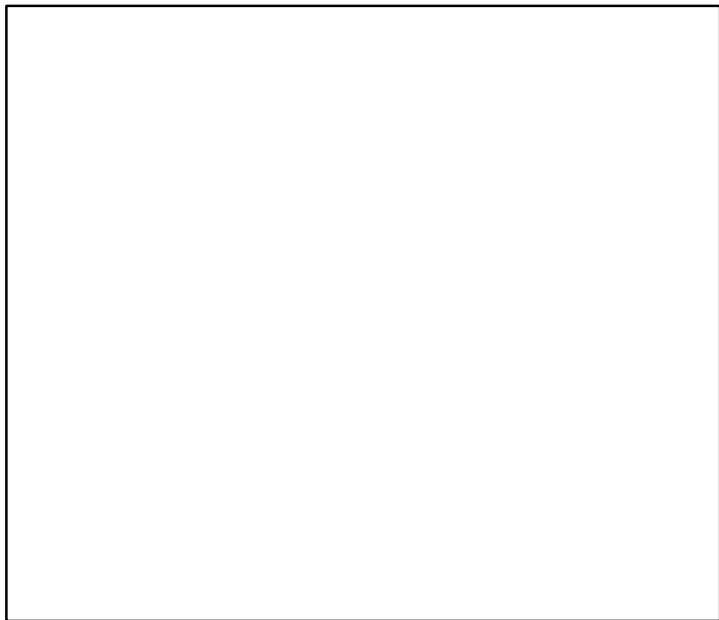
Kobe MSY*



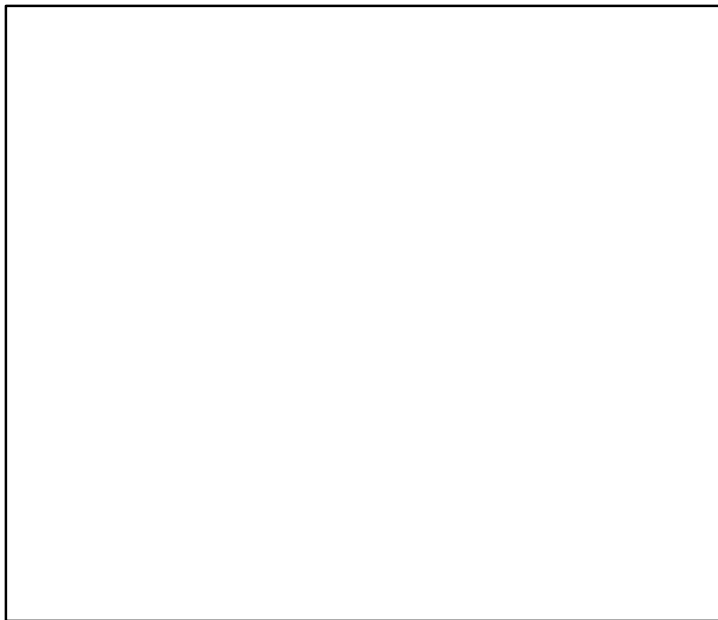
Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Pacific cod Sea of Japan [PCODSOJ]

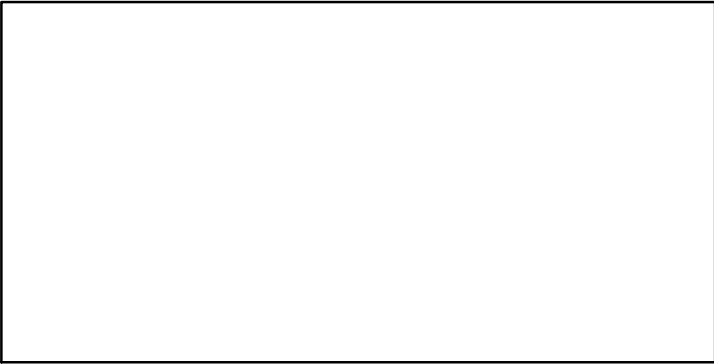
TB*



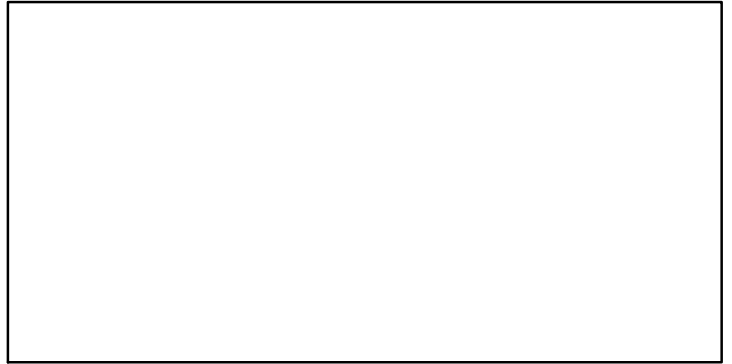
SSB*



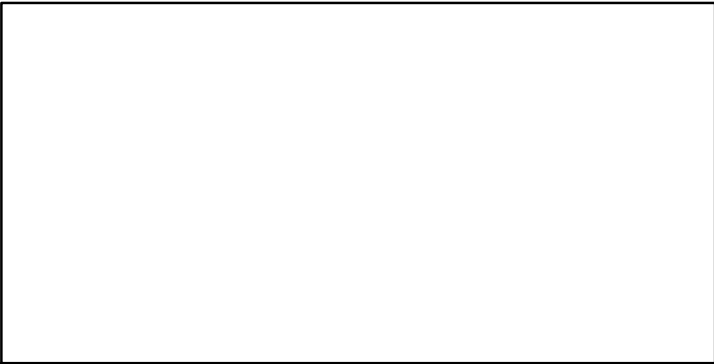
TN *



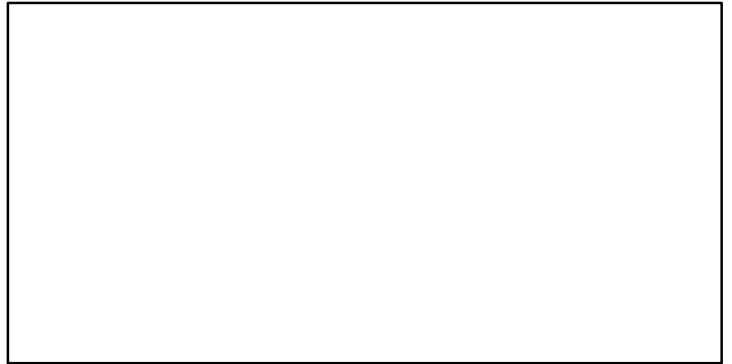
F*



ER*



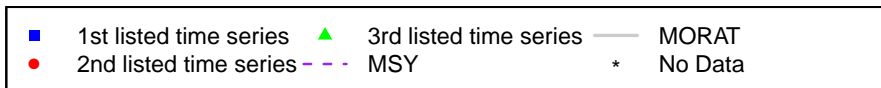
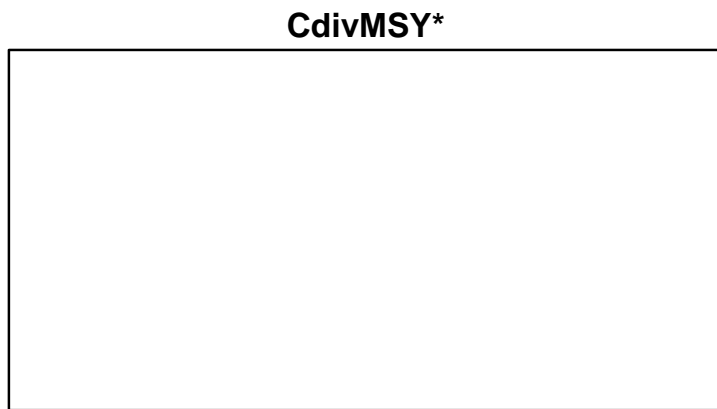
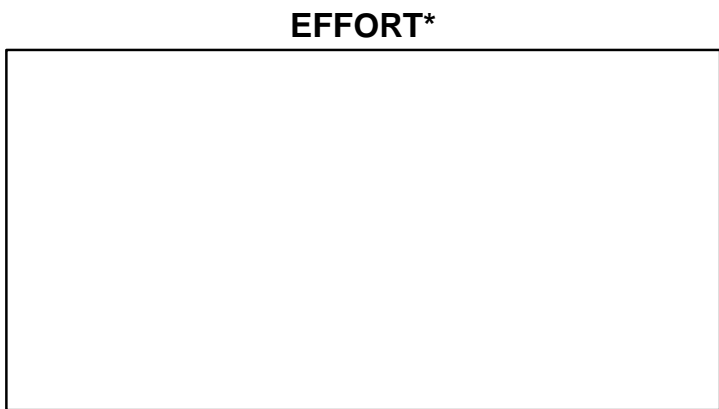
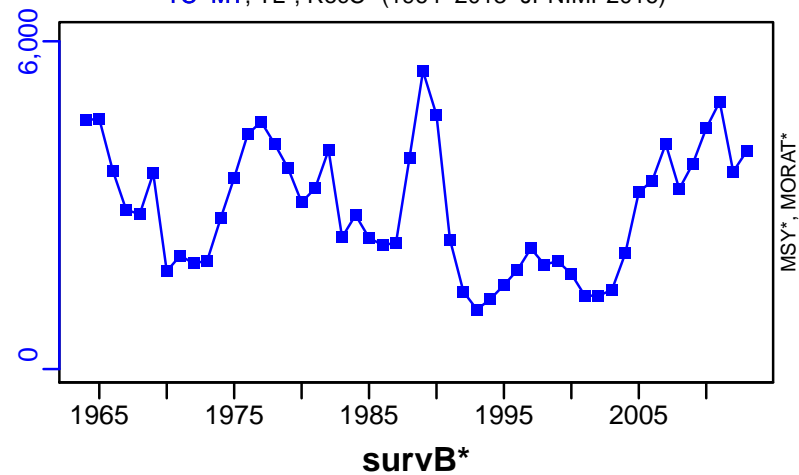
Recruits*



Pacific cod Sea of Japan [PCODSOJ]

TC-MT, TL*, RecC* (1964-2013-JPNIMP2016)

TAC*, Cpair*, Cadv*



Pointhead flounder North coast of Hokkaido [PHFLOUNNHOKK]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Cleisthenes herzensteini |
| Current Assess ID | FAFRFJ-PHFLOUNNHOKK-1985-2013-JPNIMP2016 |
| Area | North coast of Hokkaido |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

| Reference Points | | | |
|------------------|--------|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | - | - | - |
| Fmsy | - | - | - |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | - | - | - |
| M | M-1/yr | 2013 | 0.3 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 2000 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Kobe MSY*



Kobe MGT*



Spawner Recruit*



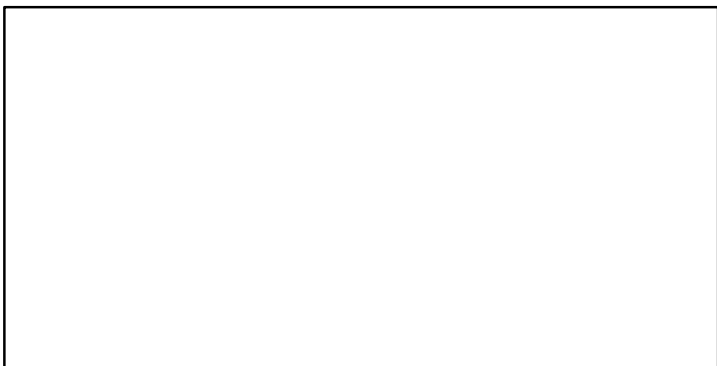
Production*



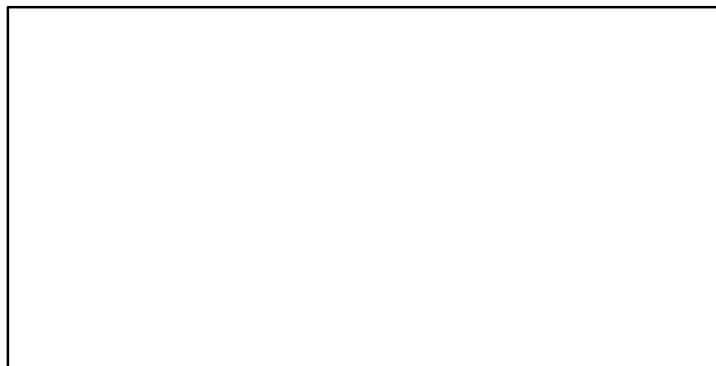
◆ Start Year ◆ End Year * No Data

Pointhead flounder North coast of Hokkaido [PHFLOUNNHOKK]

TB*



SSB*



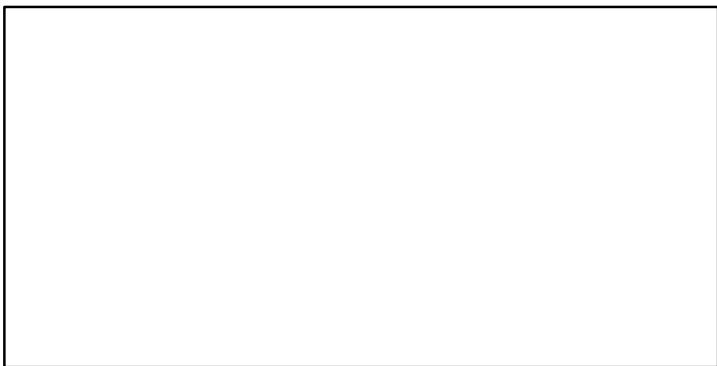
TN *



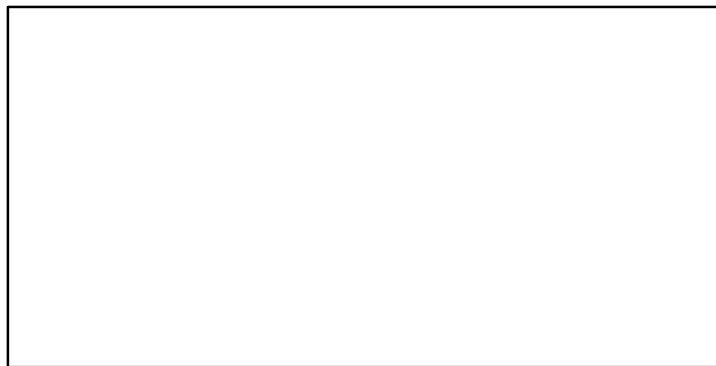
F*



ER*



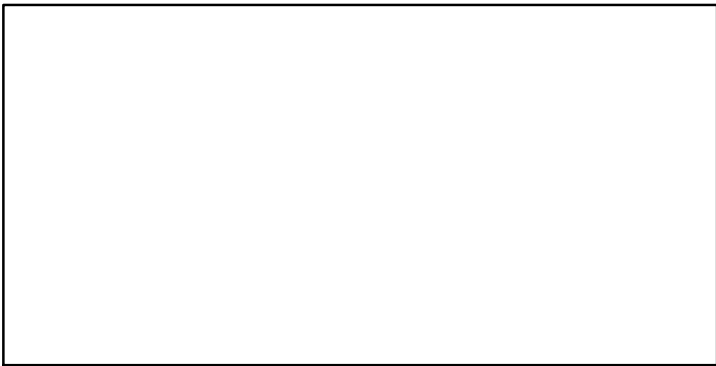
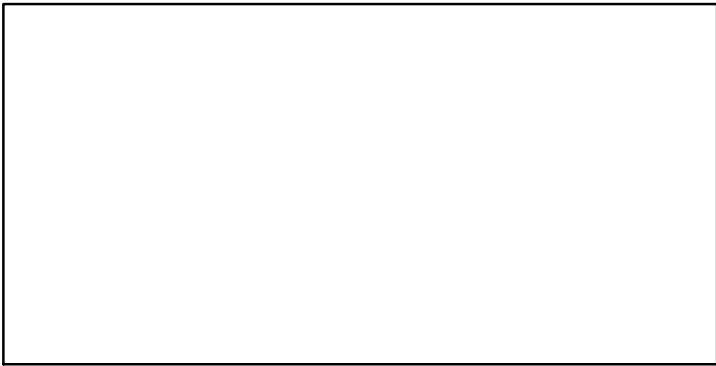
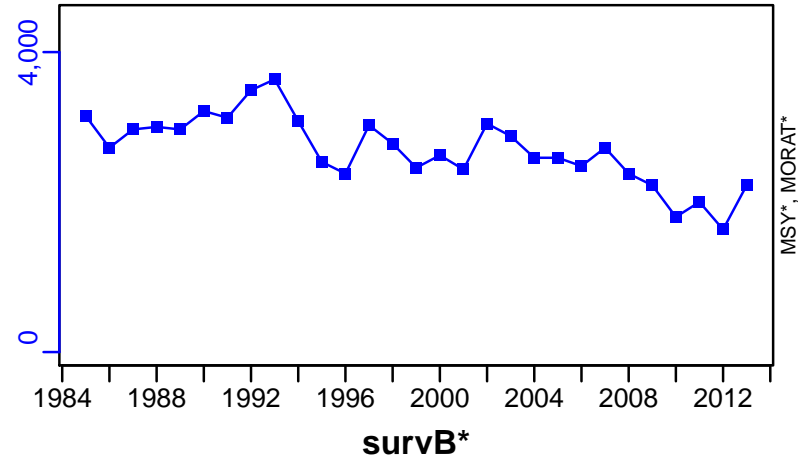
Recruits*



Pointhead flounder North coast of Hokkaido [PHFLOUNNHOKK]

TC-MT, TL*, RecC* (1985-2013-JPNIMP2016)

TAC*, Cpair*, Cadv*



Pointhead flounder Sea of Japan [PHFLOUNSOJ]

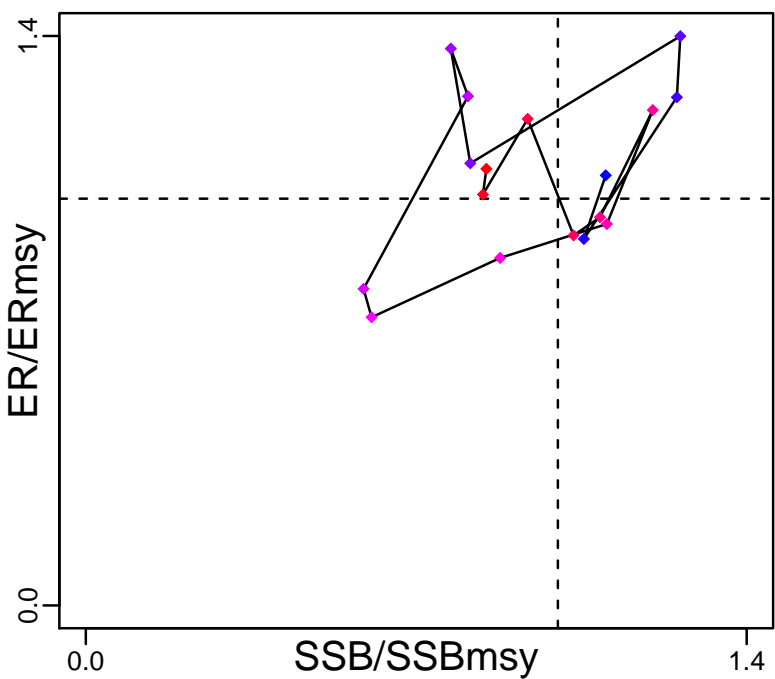
| Metadata | |
|-----------------------------|---|
| Scientific Name | Cleisthenes herzensteini |
| Current Assess ID | FAFRFJ-PHFLOUNSOJ-1966-2013-JPNIMP2016 |
| Area | Sea of Japan |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

| Reference Points | | | |
|------------------|---------------|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-calc-MT | 2013 | 9285 |
| SSBmsy | SSBmsy-MT | 2013 | 4113 |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2013 | 0.319 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-MT | 2013 | 2962 |
| M | M-1/yr | 2013 | 0.3 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

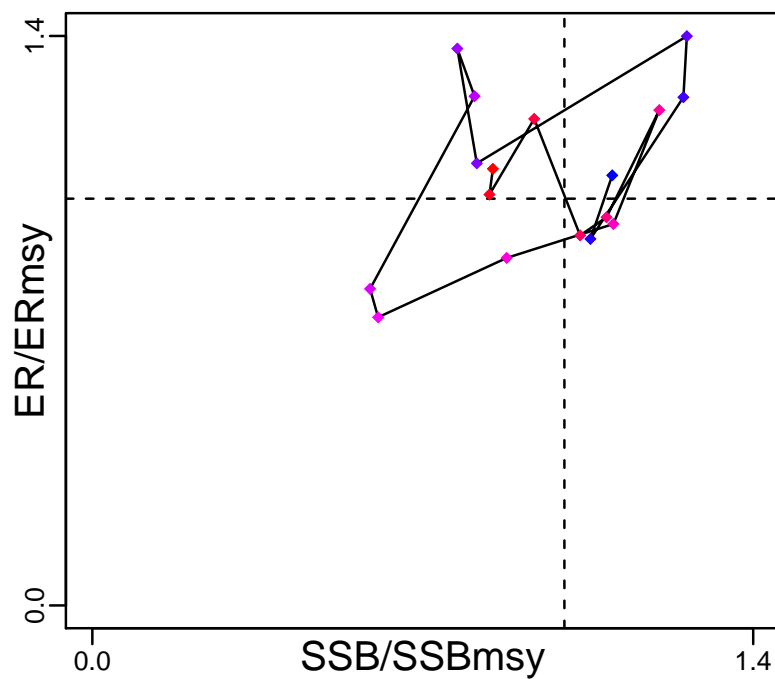
| Time Series | | | | | |
|-------------------|---------------------------|-----------|-------------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2013 | 8850 | - | 1 |
| SSB | SSB-MT | 2013 | 3490 | Both | 3 |
| TN | - | - | - | - | - |
| R | R-E00 | 2013 | 4.1×10^7 | - | 1 |
| F | - | - | - | - | - |
| ER | ER-calc-ratio | 2013 | 0.342 | - | - |
| TC | TC-MT | 2013 | 3030 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-calc-MT | 2013 | 0.953 | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-MT | 2013 | 0.849 | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2013 | 1.073 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Pointhead flounder Sea of Japan [PHFLOUNSOJ]

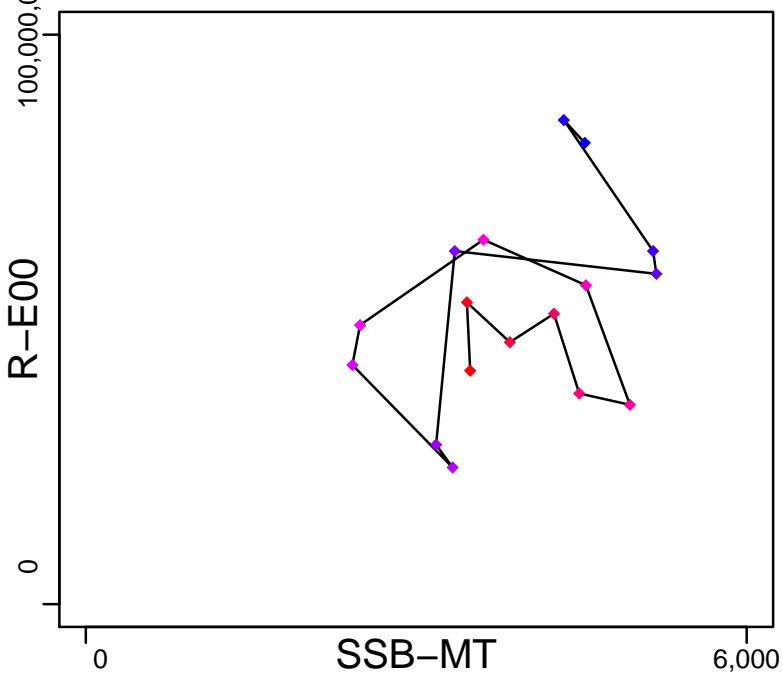
Kobe MSYpref (1966–2013–JPNIMP2016)



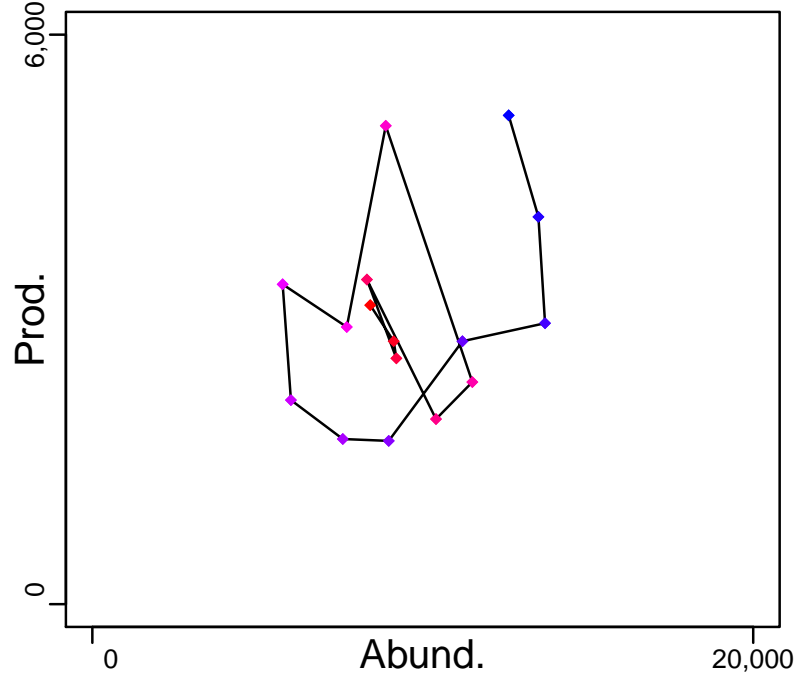
Kobe MGTpref (1966–2013–JPNIMP2016)



Spawner Recruit (1966–2013–JPNIMP2016)



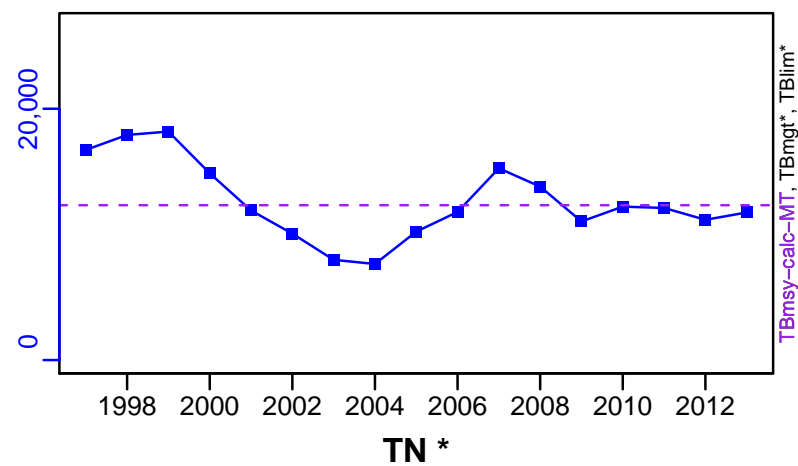
Production (1966–2013–JPNIMP2016)



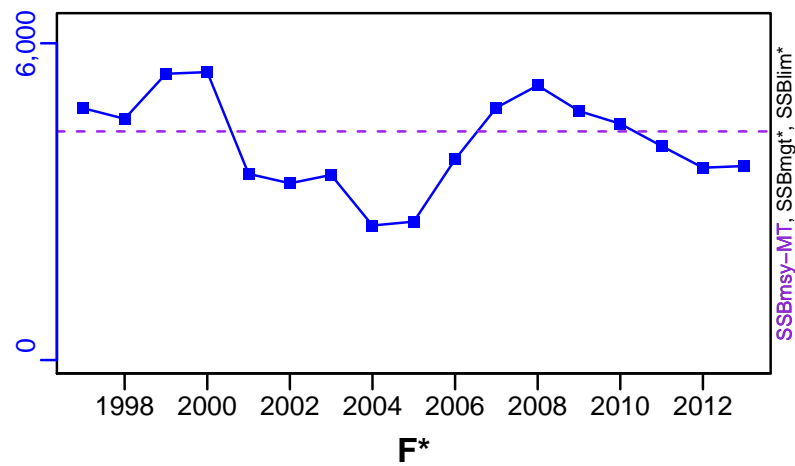
◆ Start Year ◆ End Year * No Data

Pointhead flounder Sea of Japan [PHFLOUNSOJ]

TB-MT (1966–2013–JPNIMP2016)



SSB-MT (1966–2013–JPNIMP2016)



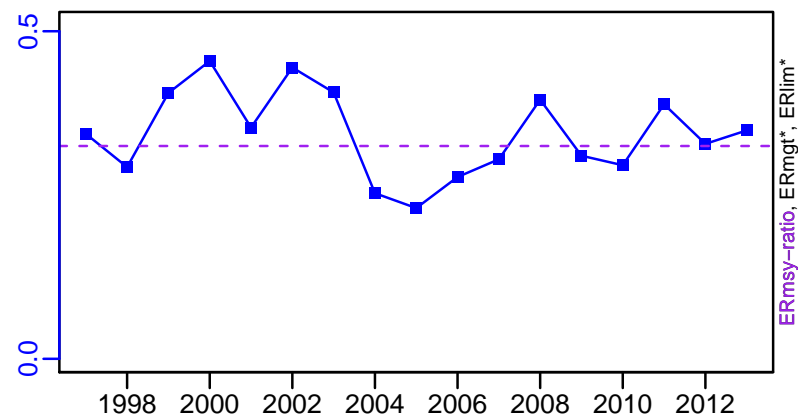
TN *



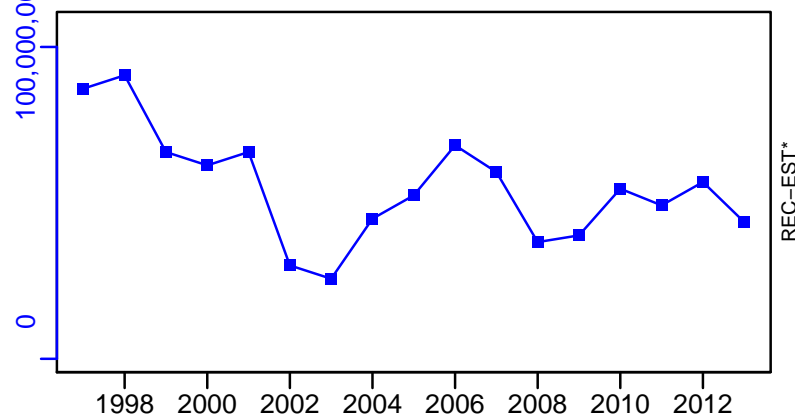
F*



ER-calc-ratio (1966–2013–JPNIMP2016)

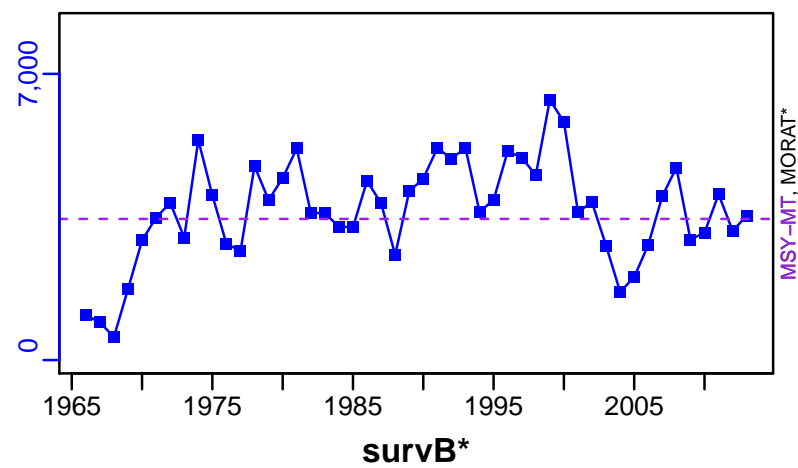


R-E00 (1966–2013–JPNIMP2016)



Pointhead flounder Sea of Japan [PHFLOUNSOJ]

TC-MT, TL*, RecC* (1966–2013–JPNIMP2016)



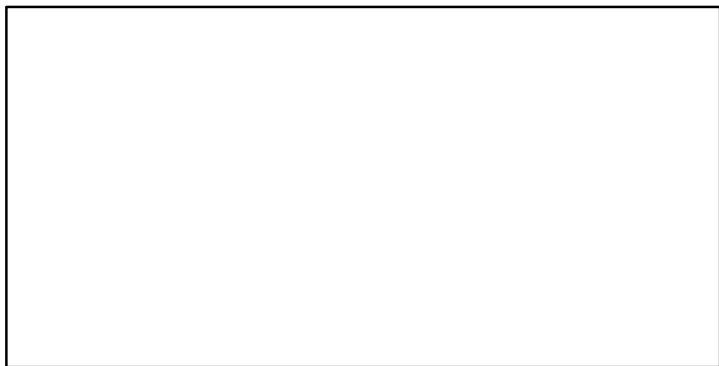
TAC*, Cpair*, Cadv*



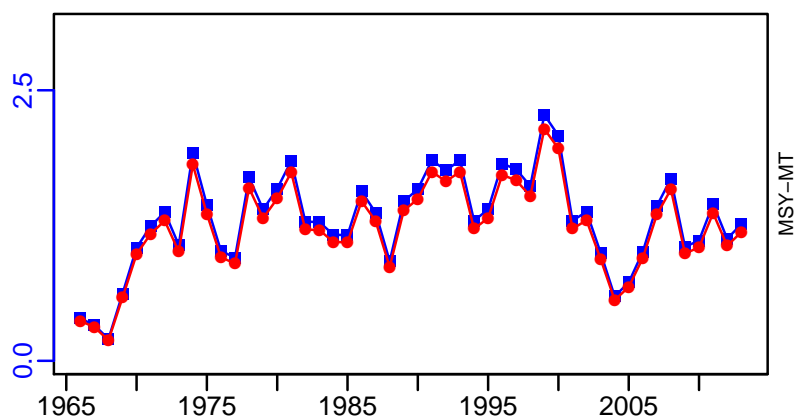
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1966–2013–JPNIMP2016)



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

Japanese sardine Pacific Coast of Japan [PILCHPJPN]

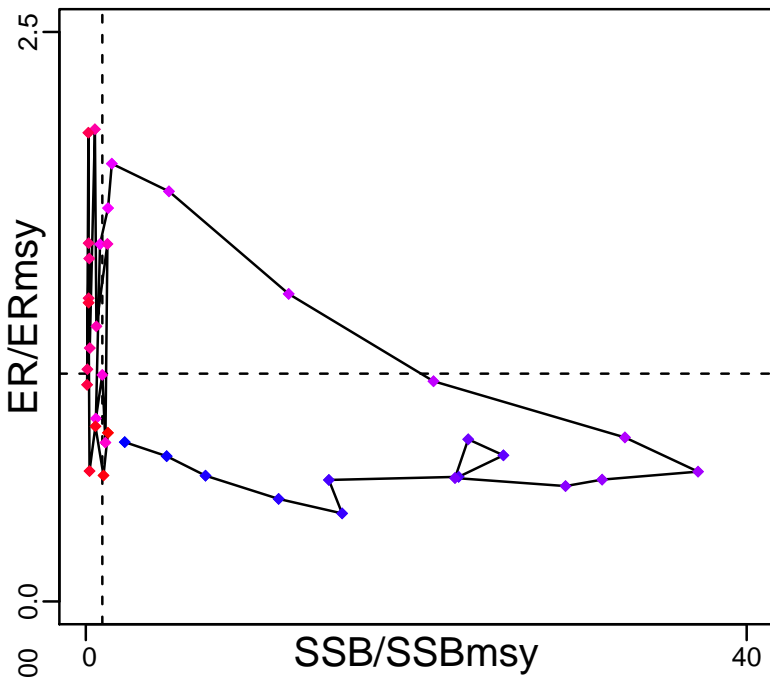
| Metadata | |
|-----------------------------|---|
| Scientific Name | Sardinops melanostictus |
| Current Assess ID | FAFRFJ-PILCHPJPN-1975-2013-JPNIMP2016 |
| Area | Pacific Coast of Japan |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013, 2009 |

| Reference Points | | | |
|------------------|---------------|-----------|---------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-calc-MT | 2013 | 628,366 |
| SSBmsy | SSBmsy-MT | 2013 | 361,622 |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2013 | 0.28 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-MT | 2013 | 175,942 |
| M | M-1/yr | 2013 | 0.4 |
| TBlim | TBlim-MT | 2009 | 221 |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

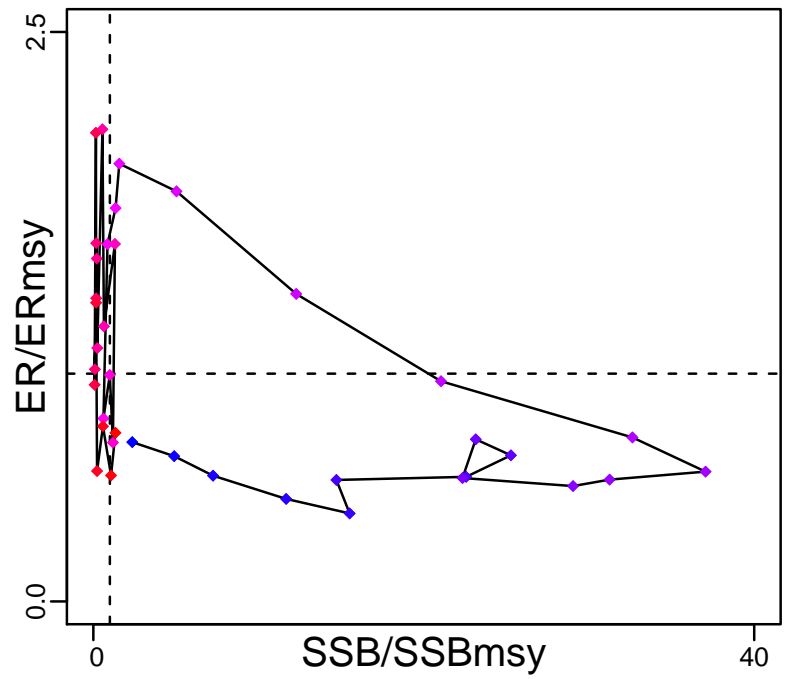
| Time Series | | | | | |
|-------------------|---------------------------|-----------|--------------------|------|--------|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2013 | 714,000 | - | 0 |
| SSB | SSB-MT | 2013 | 484,000 | Both | 1 |
| TN | - | - | - | - | - |
| R | R-E00 | 2013 | 5.98×10^9 | - | 0 |
| F | F-1/yr | 2009 | 0.41 | Both | 0 to 4 |
| ER | ER-calc-ratio | 2013 | 0.207 | - | - |
| TC | TC-MT | 2013 | 148,000 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-calc-MT | 2013 | 1.136 | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-MT | 2013 | 1.338 | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2013 | 0.74 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Japanese sardine Pacific Coast of Japan [PILCHPJPN]

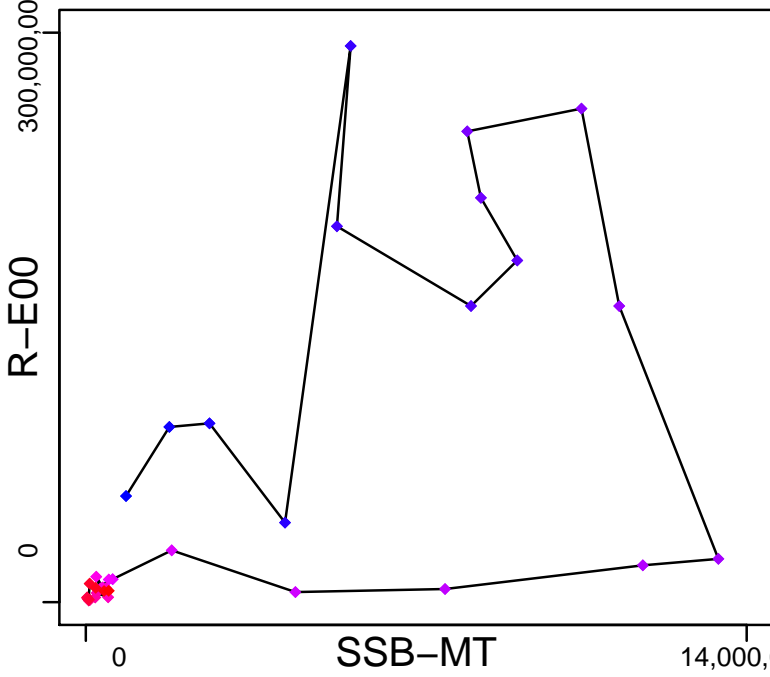
Kobe MSYpref (1975–2013–JPNIMP2016)



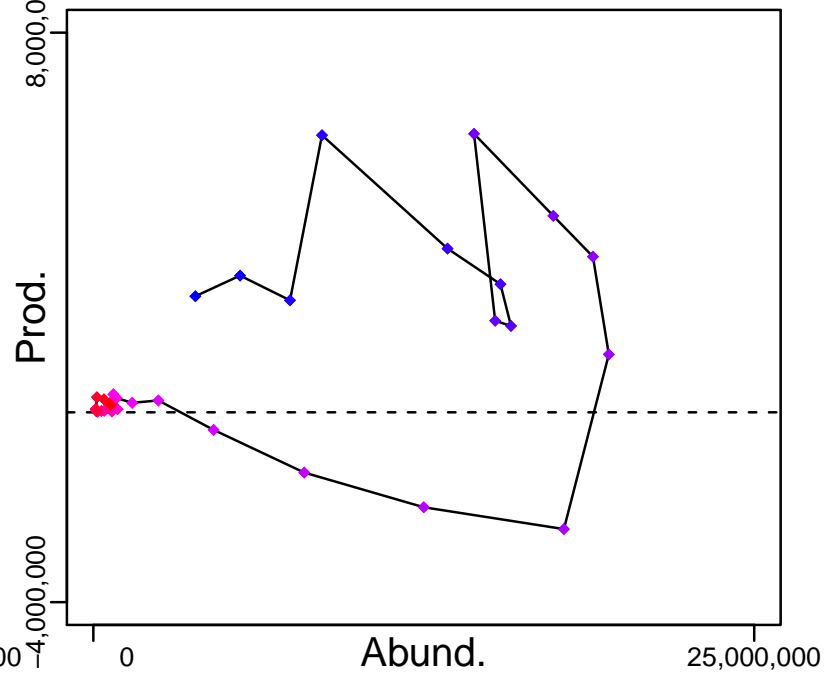
Kobe MGTpref (1975–2013–JPNIMP2016)



Spawner Recruit (1975–2013–JPNIMP2016)



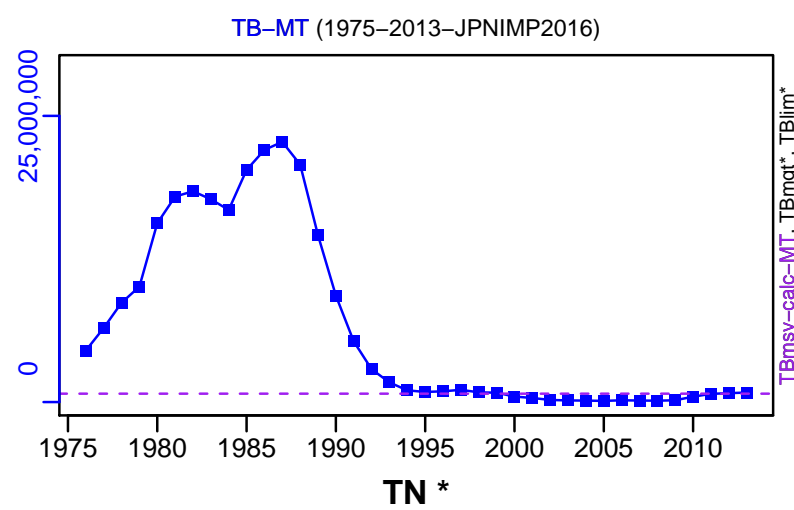
Production (1975–2013–JPNIMP2016)



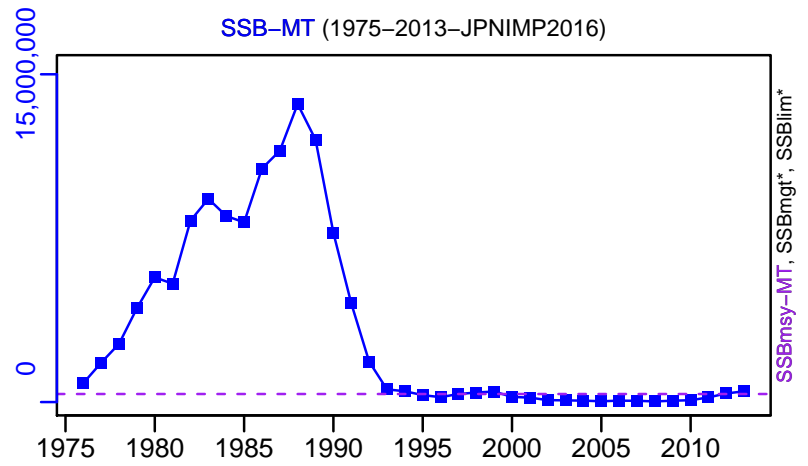
◆ Start Year ◆ End Year * No Data

Japanese sardine Pacific Coast of Japan [PILCHPJPN]

TB-MT (1975-2013-JPNIMP2016)

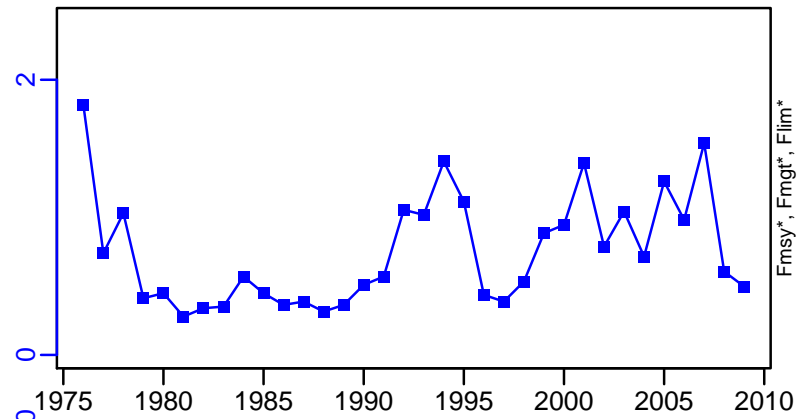


SSB-MT (1975-2013-JPNIMP2016)

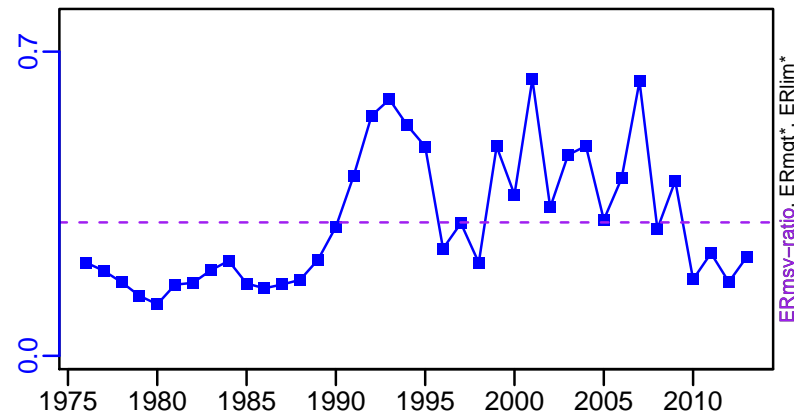


TN *

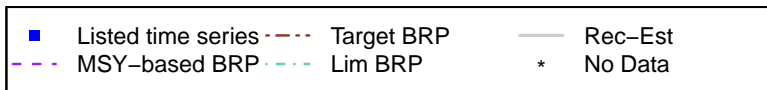
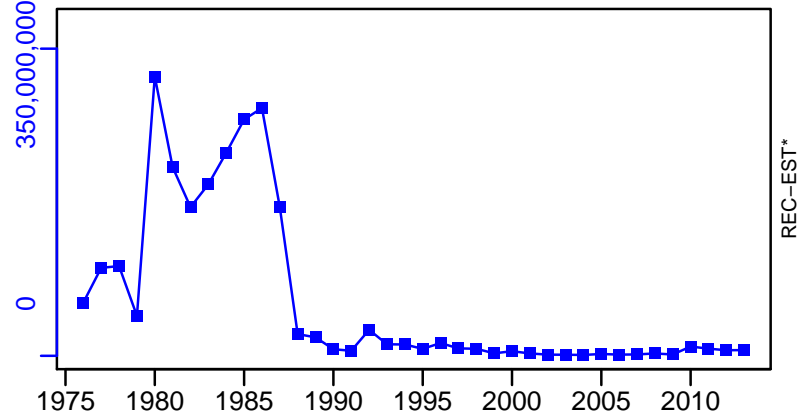
F-1/yr (1976-2009-ONO)



ER-calc-ratio (1975-2013-JPNIMP2016)



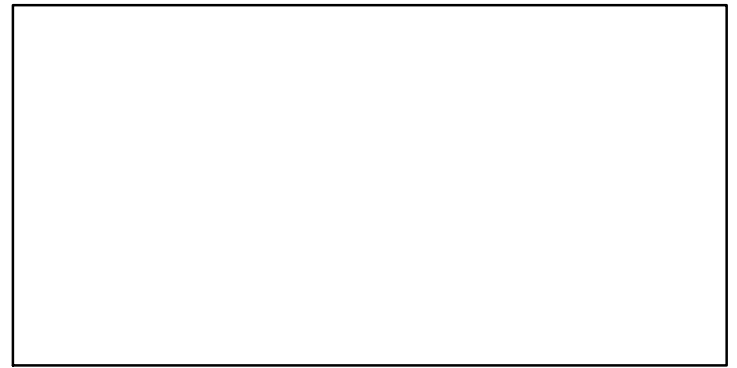
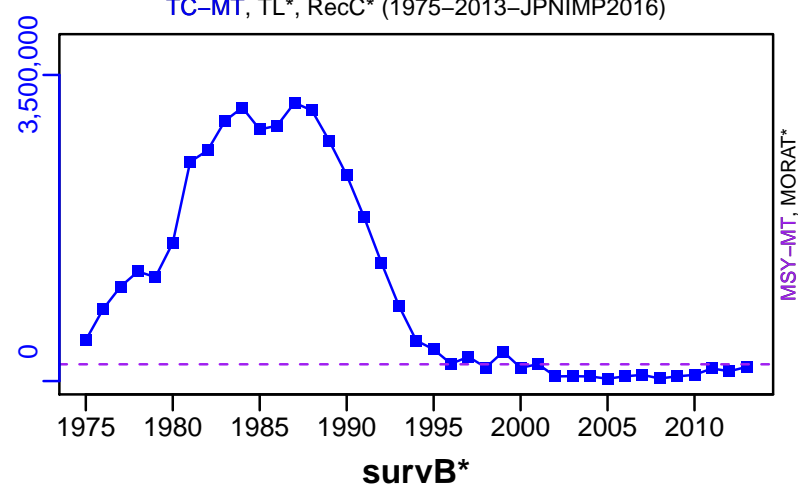
R-E00 (1975-2013-JPNIMP2016)



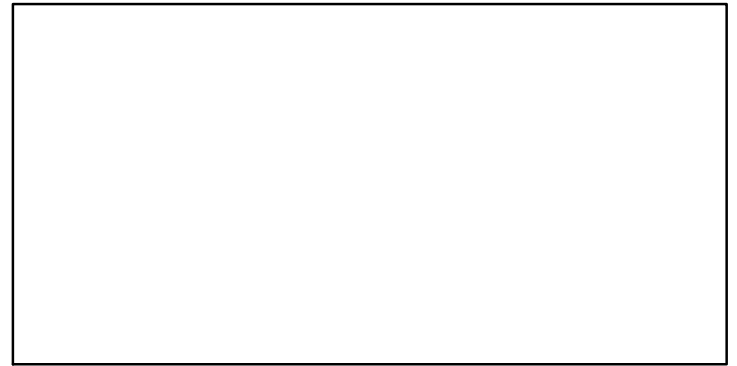
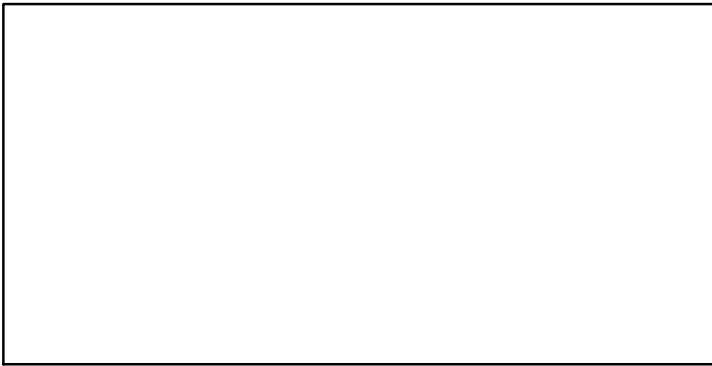
Japanese sardine Pacific Coast of Japan [PILCHPJPN]

TC-MT, TL*, RecC* (1975–2013–JPNIMP2016)

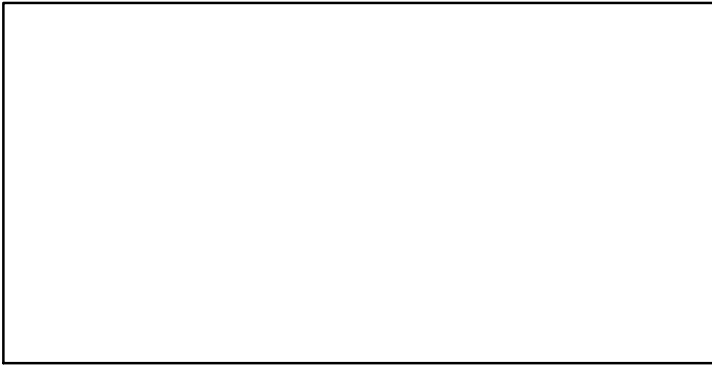
TAC*, Cpair*, Cadv*



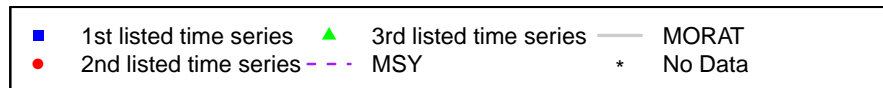
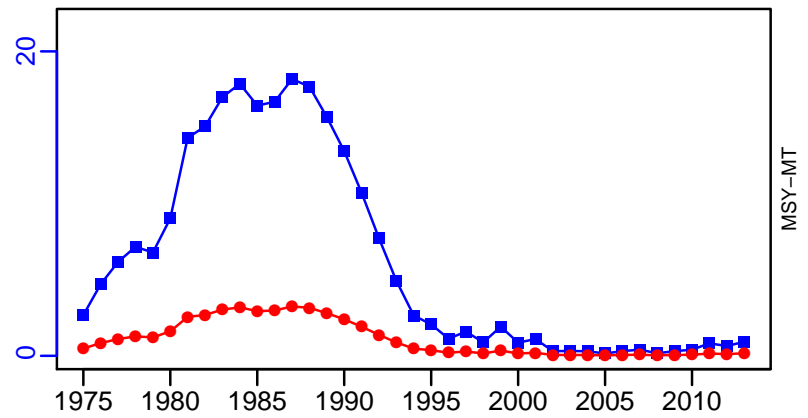
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1975–2013–JPNIMP2016)



Japanese sardine Tsushima Strait [PILCHTSST]

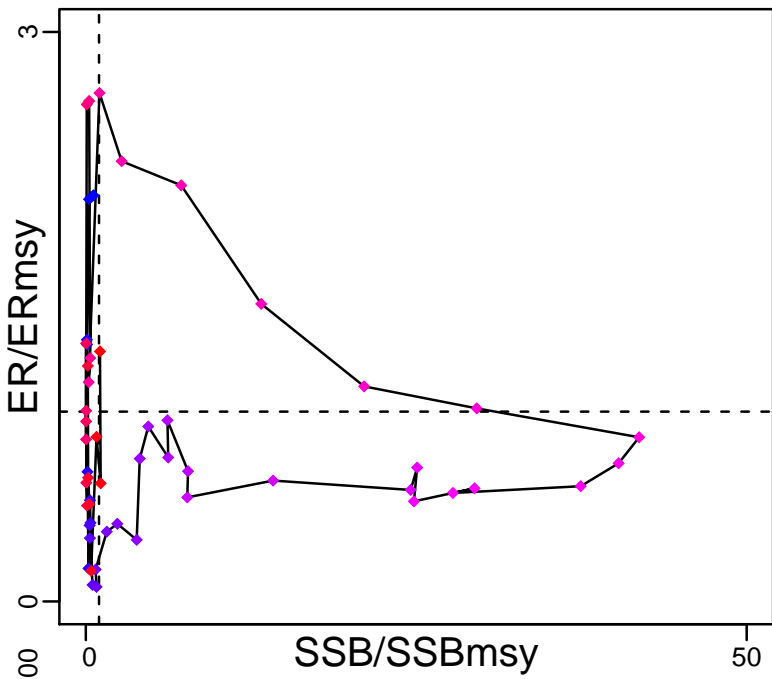
| Metadata | |
|-----------------------------|---|
| Scientific Name | Sardinops melanostictus |
| Current Assess ID | FAFRFJ-PILCHTSST-1960-2013-JPNIMP2016 |
| Area | Tsushima Strait |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2010, 2013 |

| Reference Points | | | |
|------------------|---------------|-----------|---------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-calc-MT | 2013 | 203,892 |
| SSBmsy | SSBmsy-MT | 2013 | 122,056 |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2013 | 0.26 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-MT | 2013 | 53,012 |
| M | M-1/yr | 2013 | 0.4 |
| TBlim | - | - | - |
| SSBlim | SSBlim-MT | 2010 | 10,000 |
| Flim | - | - | - |
| ERlim | - | - | - |

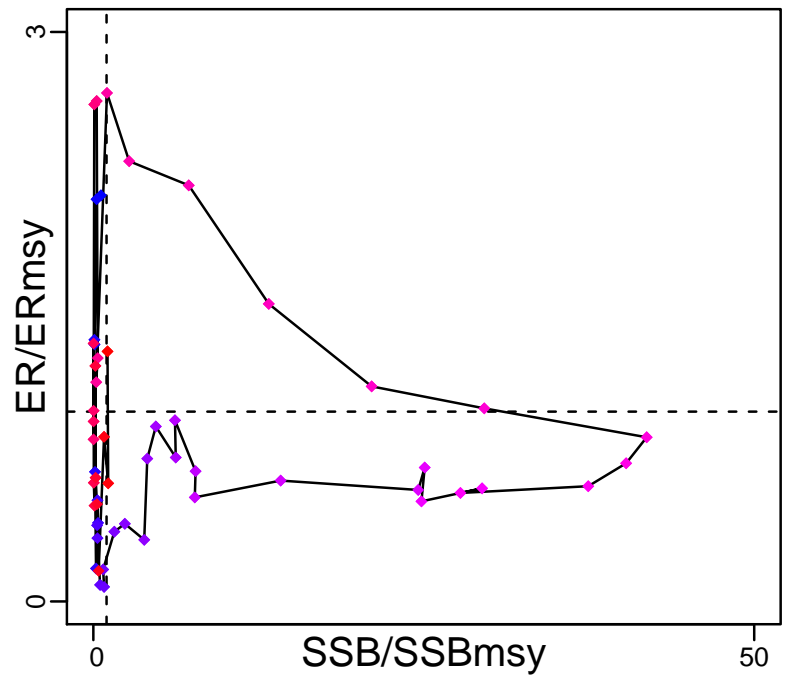
| Time Series | | | | | |
|-------------------|---------------------------|-----------|--------------------|------|----------|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2013 | 252,000 | - | 0 |
| SSB | SSB-MT | 2013 | 131,000 | Both | 1 |
| TN | - | - | - | - | - |
| R | R-E00 | 2013 | 5.17×10^9 | - | 0.00E+00 |
| F | - | - | - | - | - |
| ER | ER-calc-ratio | 2013 | 0.342 | - | - |
| TC | TC-MT | 2013 | 86,300 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-calc-MT | 2013 | 1.236 | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-MT | 2013 | 1.073 | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2013 | 1.317 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Japanese sardine Tsushima Strait [PILCHTSST]

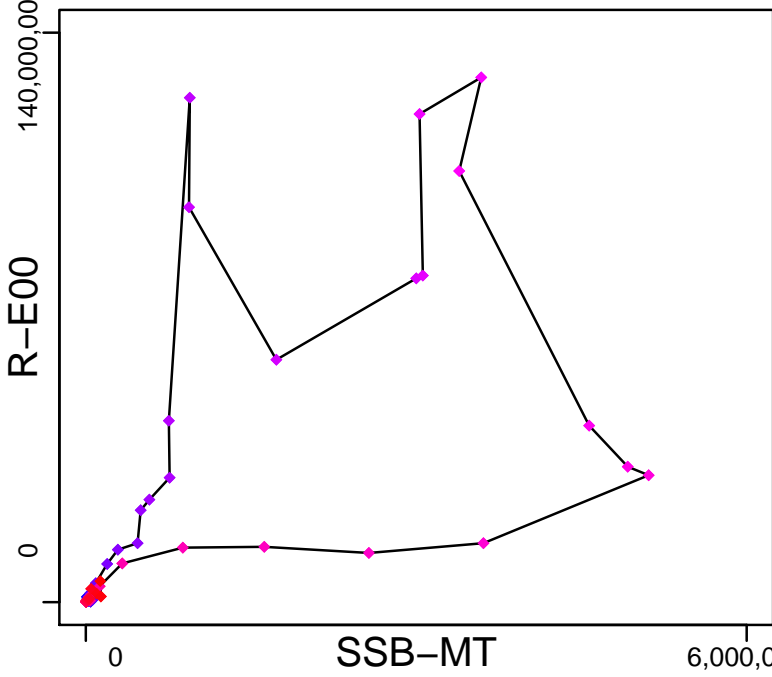
Kobe MSYpref (1960–2013–JPNIMP2016)



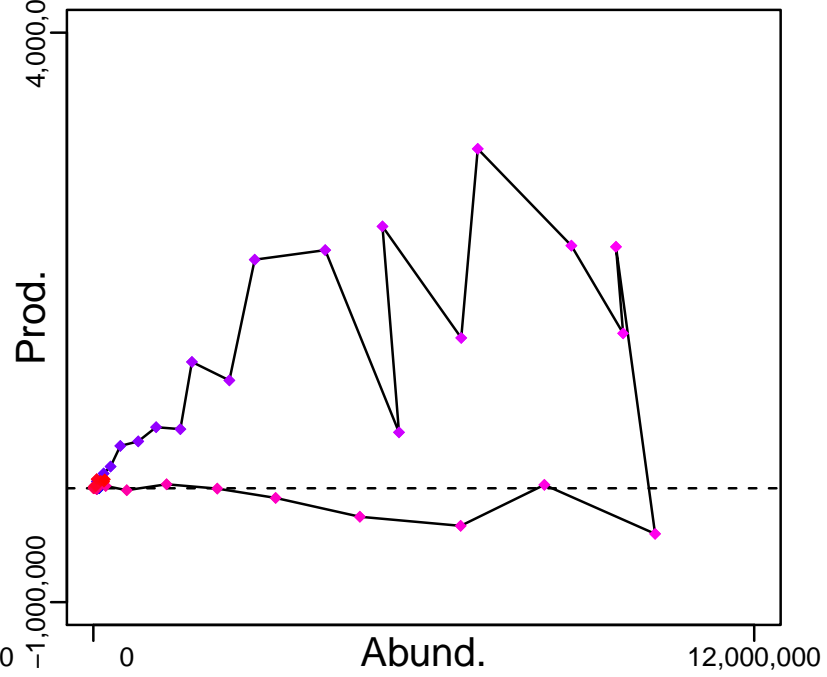
Kobe MGTpref (1960–2013–JPNIMP2016)



Spawner Recruit (1960–2013–JPNIMP2016)

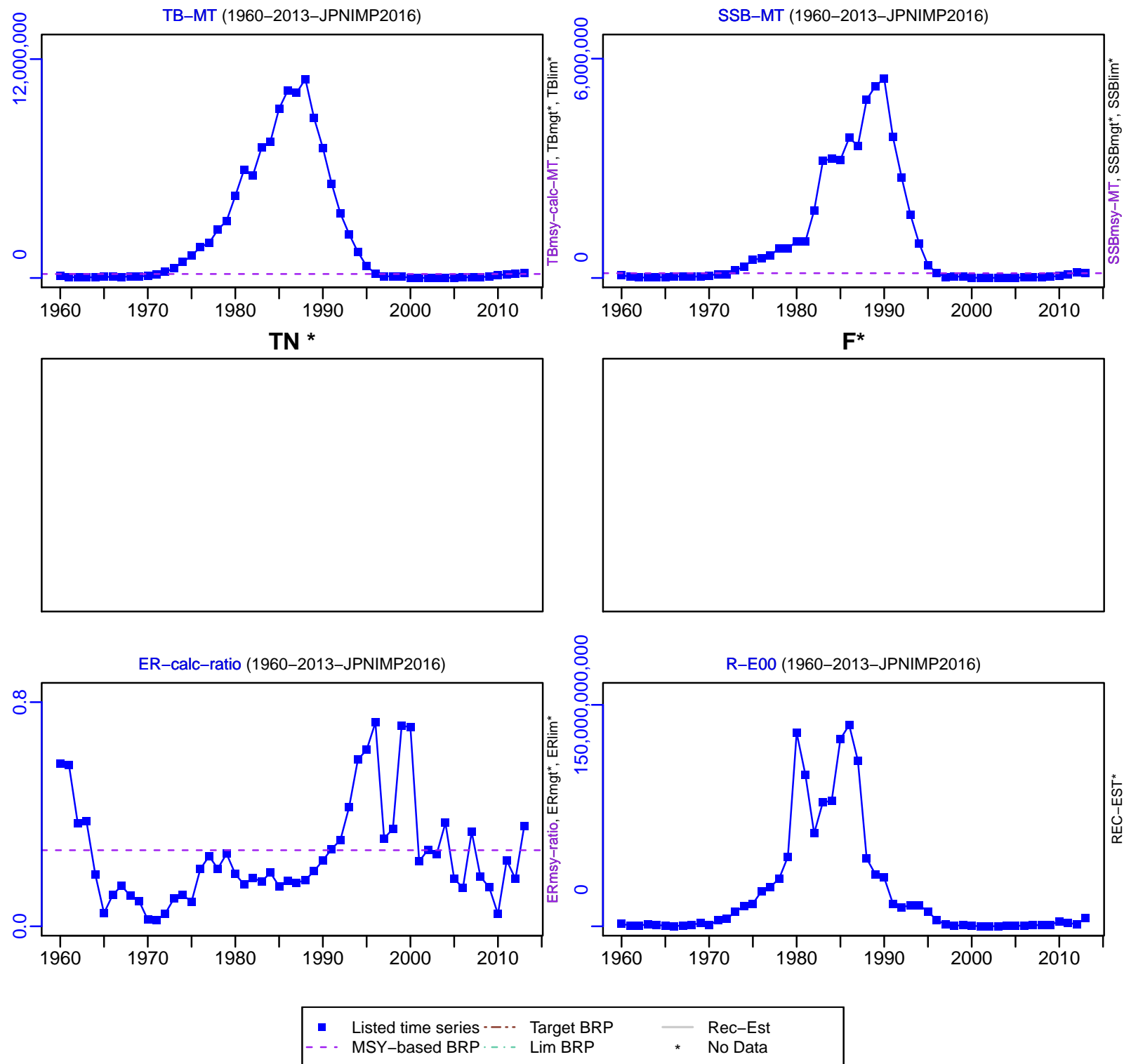


Production (1960–2013–JPNIMP2016)



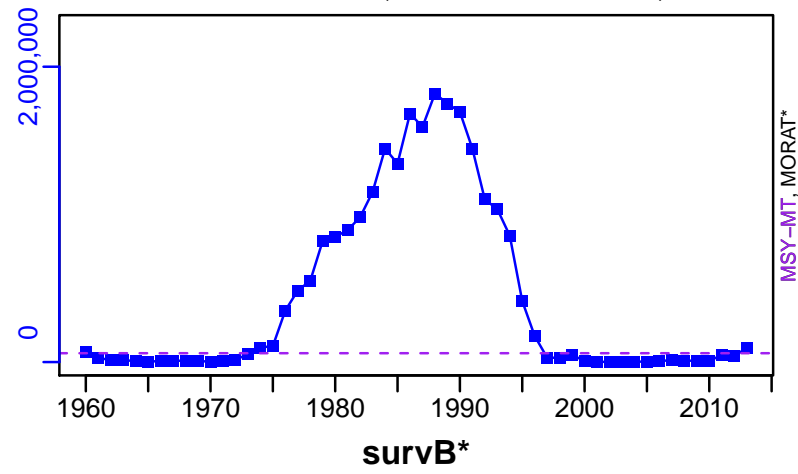
◆ Start Year ◆ End Year * No Data

Japanese sardine Tsushima Strait [PILCHTSST]



Japanese sardine Tsushima Strait [PILCHTSST]

TC-MT, TL*, RecC* (1960–2013–JPNIMP2016)



TAC*, Cpair*, Cadv*



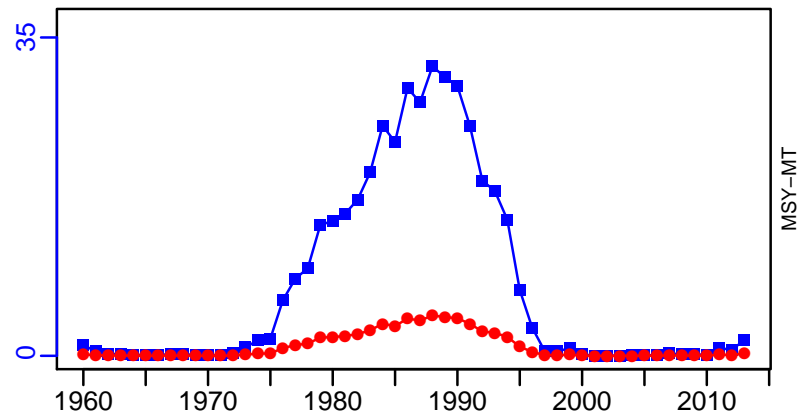
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1960–2013–JPNIMP2016)



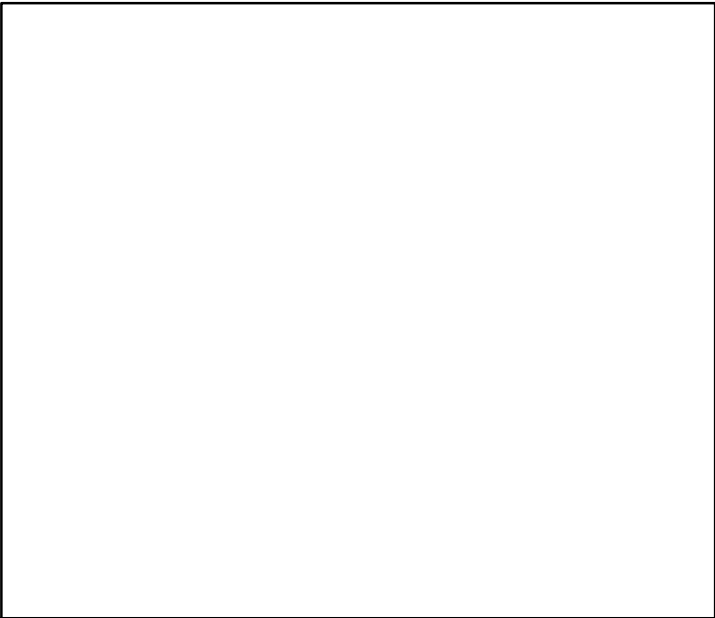
Pacific sandlance Ise and Mikawa Bay [PSANDLIMKB]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Ammodytes personatus |
| Current Assess ID | FAFRFJ-PSANDLIMKB-1979-2014-JPNIMP2016 |
| Area | Ise and Mikawa Bay |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2014 |

| 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 | R-E00 | 2014 | 2.92×10^{10} | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2014 | 13,100 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

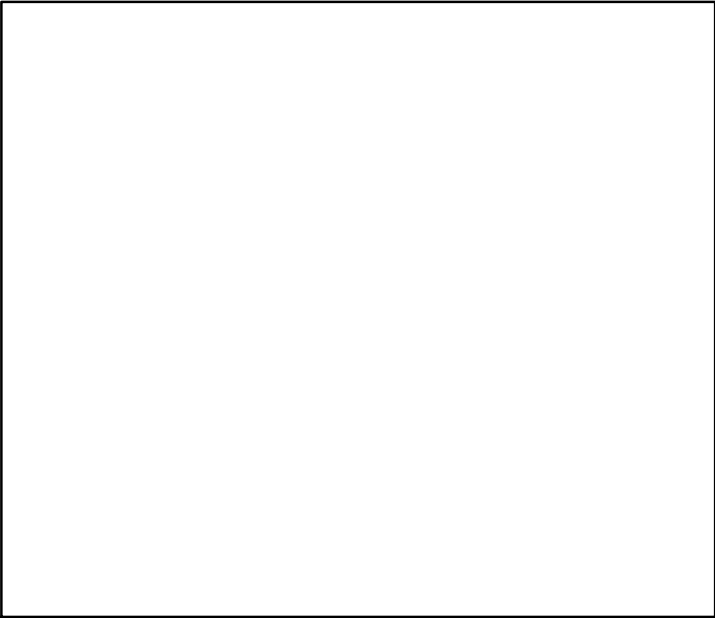
Kobe MSY*



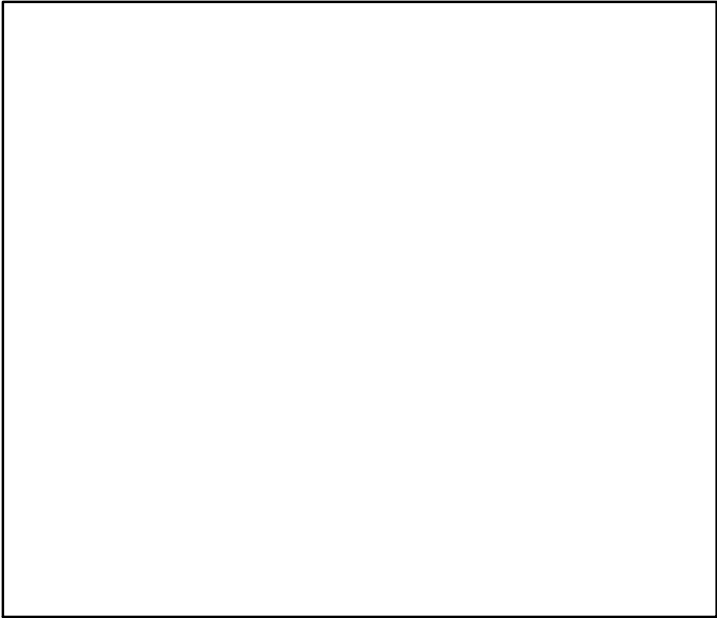
Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Pacific sandlance Ise and Mikawa Bay [PSANDLIMKB]

TB*



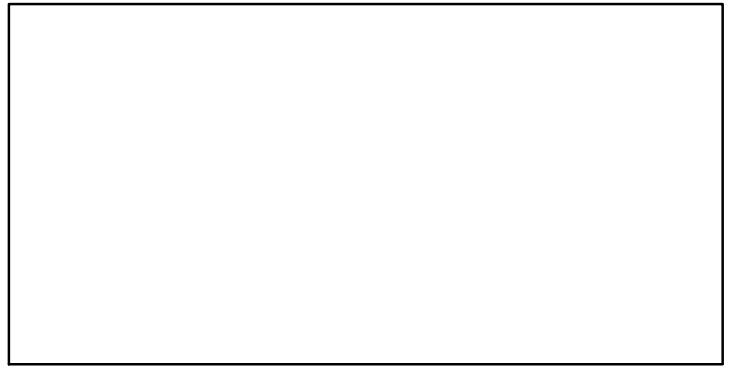
SSB*



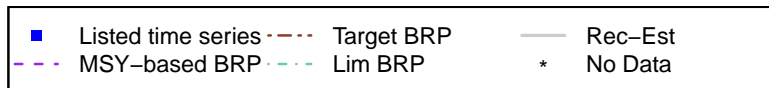
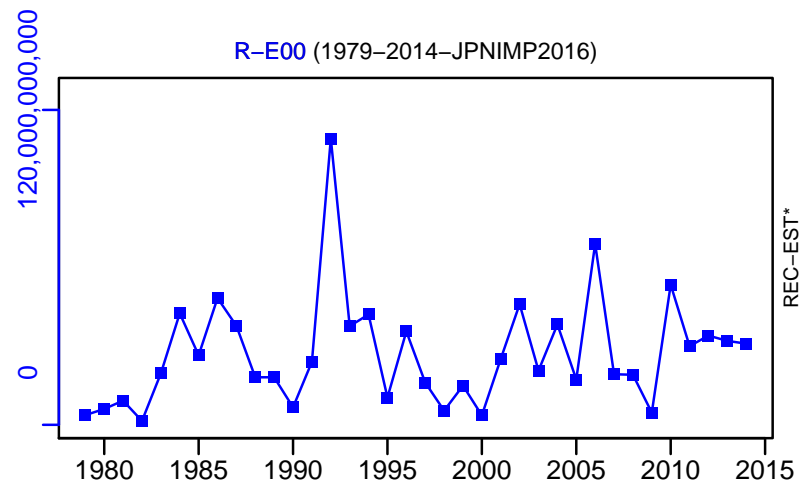
TN *



F*



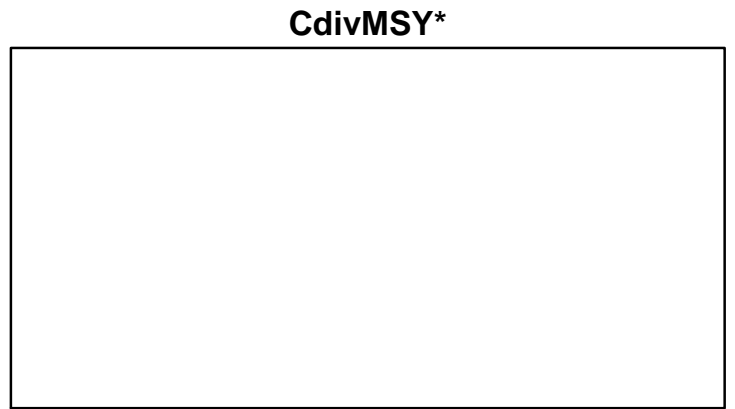
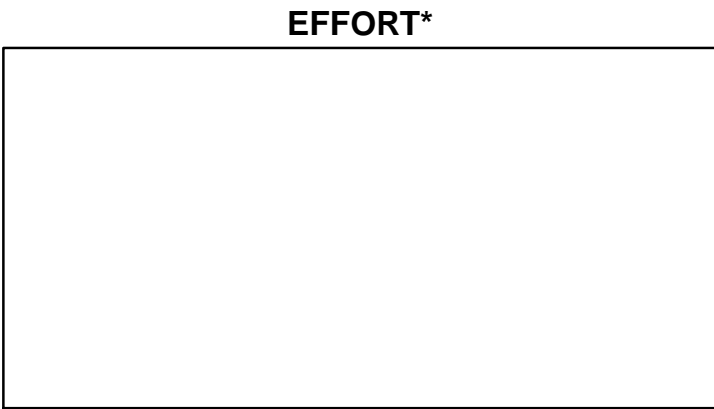
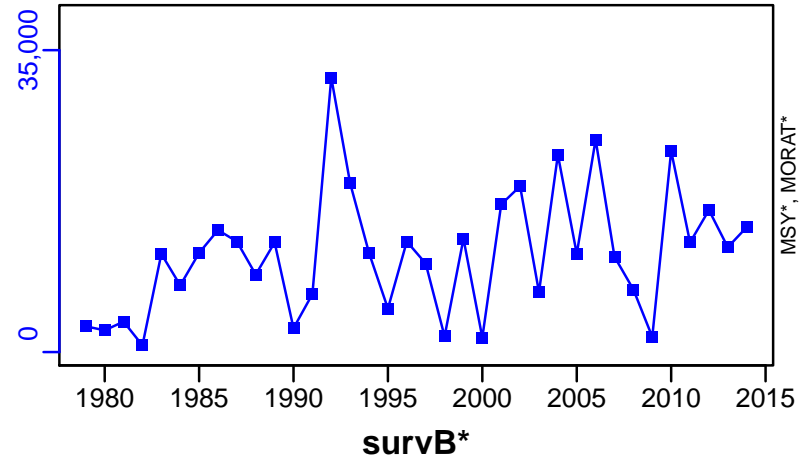
ER*



Pacific sand lance Ise and Mikawa Bay [PSANDLIMKB]

TC-MT, TL*, RecC* (1979-2014-JPNIMP2016)

TAC*, Cpair*, Cadv*



Pacific sand lance Souya Strait [PSLANCESYS]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Ammodytes hexapterus |
| Current Assess ID | FAFRFJ-PSLANCESYS-1980-2013-JPNIMP2016 |
| Area | Souya Strait |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

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

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 7020 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Pacific sand lance Souya Strait [PSLANCESYS]

TB*



SSB*



TN *



F*



ER*

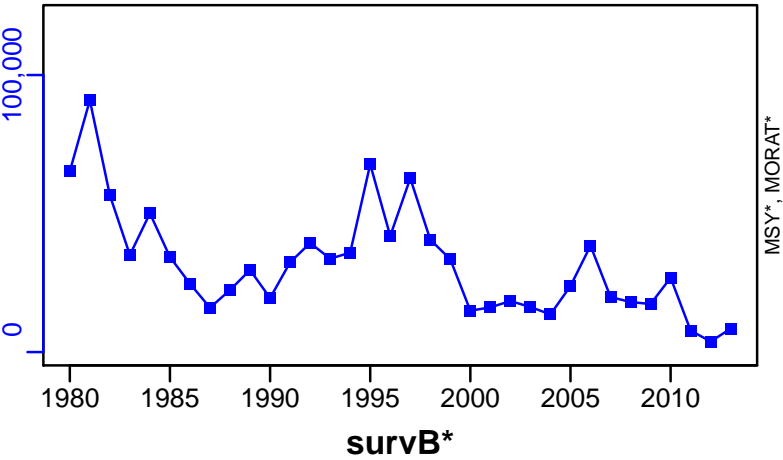


Recruits*



Pacific sand lance Souya Strait [PSLANCESYS]

TC-MT, TL*, RecC* (1980-2013-JPNIMP2016)



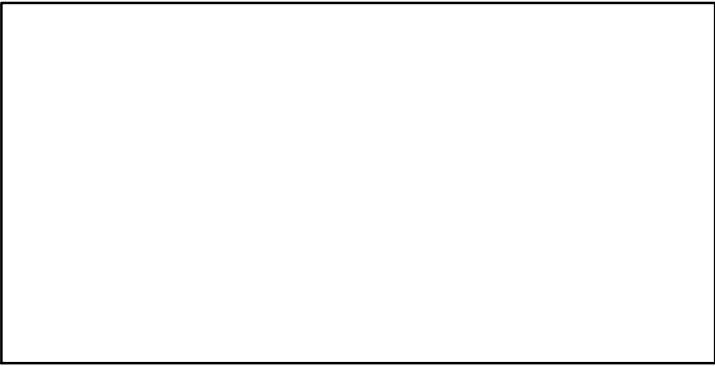
TAC*, Cpair*, Cadv*



CPUE*



EFFORT*



CdivMSY*



Red seabream East China Sea [RBRMECS]

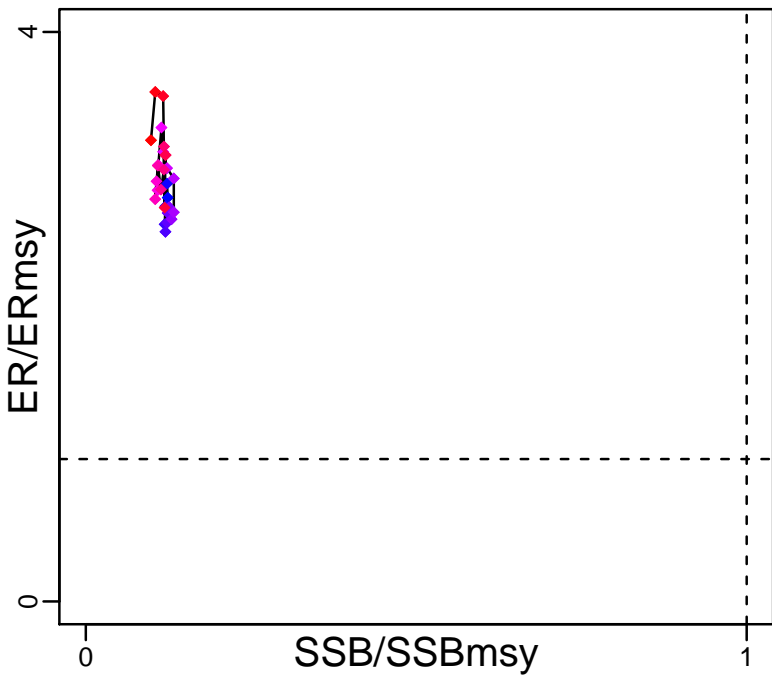
| Metadata | |
|-----------------------------|---|
| Scientific Name | Pagrus major |
| Current Assess ID | FAFRFJ-RBRMECS-1969-2013-JPNIMP2016 |
| Area | East China Sea |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2010, 2013 |

| Reference Points | | | |
|------------------|---------------|-----------|--------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-calc-MT | 2013 | 96,880 |
| SSBmsy | SSBmsy-MT | 2013 | 87,132 |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2013 | 0.12 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-MT | 2013 | 11,626 |
| M | M-1/yr | 2013 | 0.125 |
| TBlim | - | - | - |
| SSBlim | SSBlim-MT | 2010 | 9900 |
| Flim | - | - | - |
| ERlim | - | - | - |

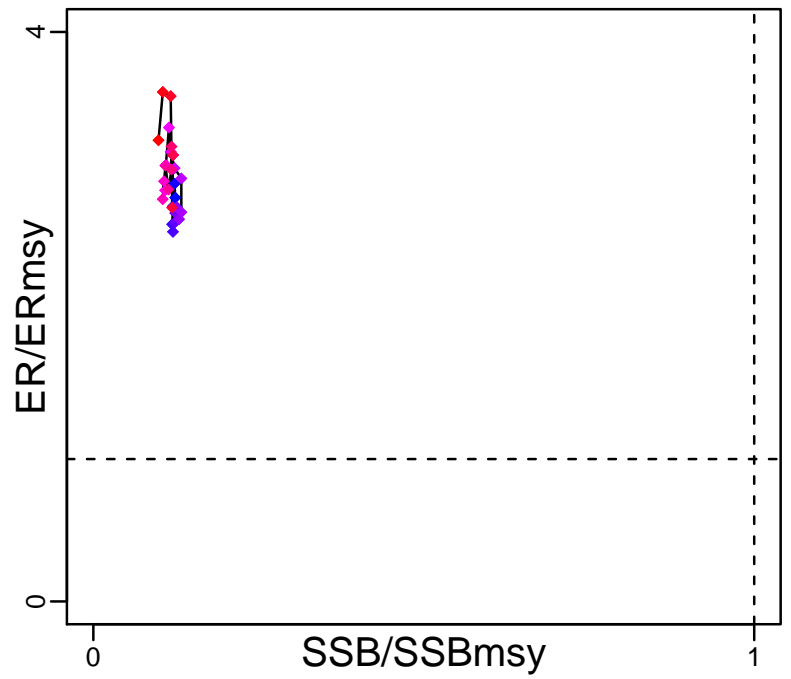
| Time Series | | | | | |
|-------------------|---------------------------|-----------|------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2013 | 14,200 | - | 1 |
| SSB | SSB-MT | 2013 | 8590 | Both | 3 |
| TN | - | - | - | - | - |
| R | R-E00 | 2013 | 10,800,000 | - | 1 |
| F | - | - | - | - | - |
| ER | ER-calc-ratio | 2013 | 0.389 | - | - |
| TC | TC-MT | 2013 | 5520 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-calc-MT | 2013 | 0.147 | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-MT | 2013 | 0.099 | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2013 | 3.239 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Red seabream East China Sea [RBRMECS]

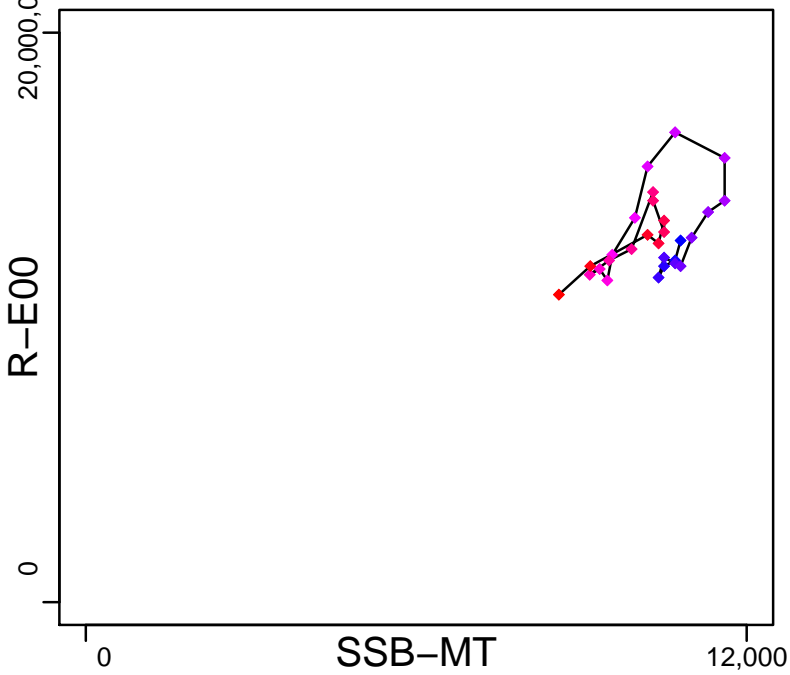
Kobe MSYpref (1969–2013–JPNIMP2016)



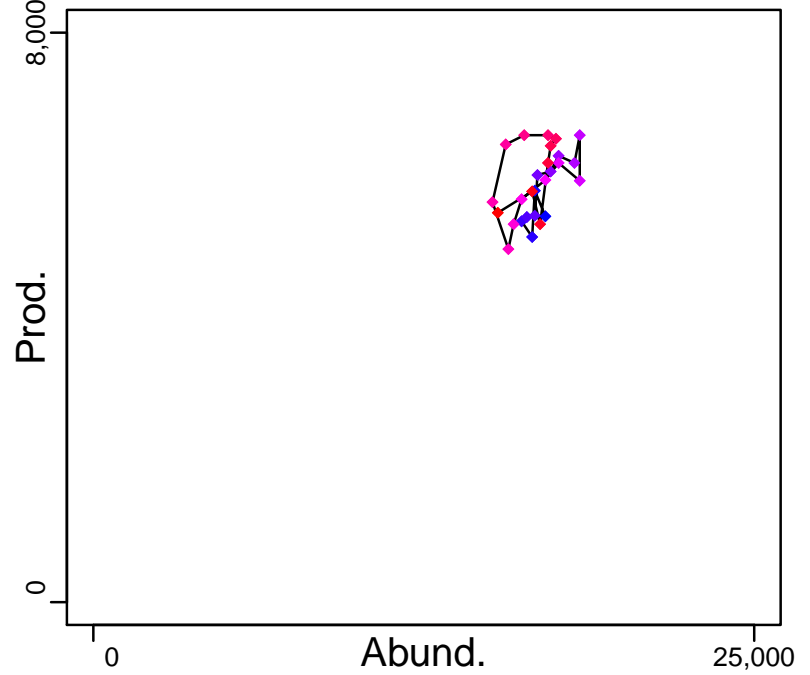
Kobe MGTpref (1969–2013–JPNIMP2016)



Spawner Recruit (1969–2013–JPNIMP2016)



Production (1969–2013–JPNIMP2016)

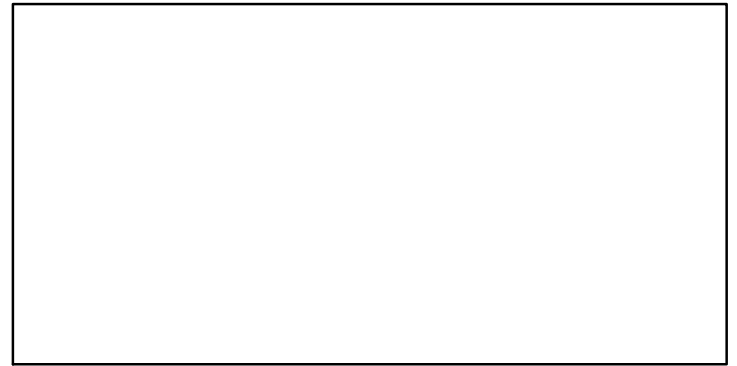
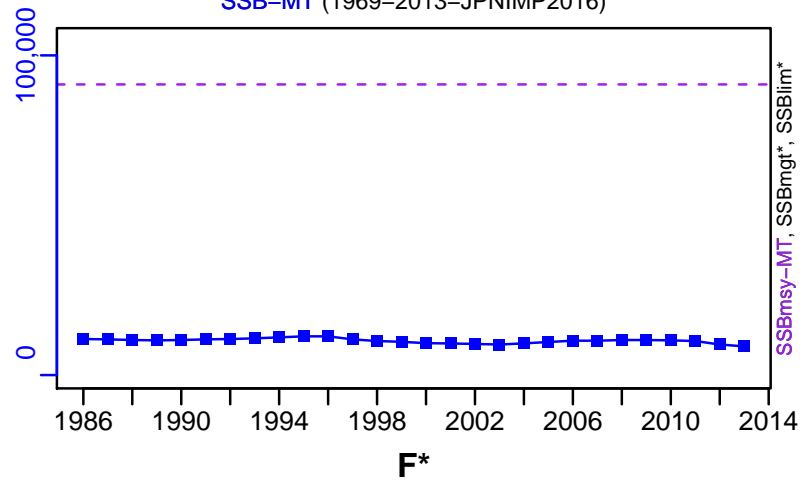
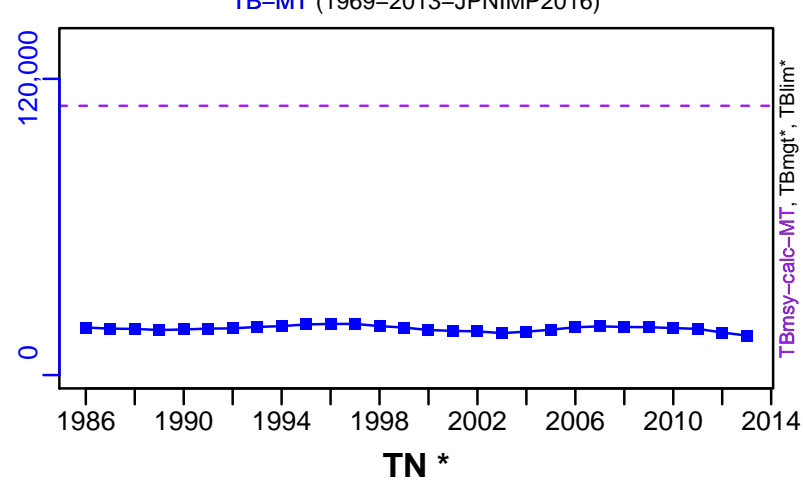


◆ Start Year ◆ End Year * No Data

Red seabream East China Sea [RBRMECS]

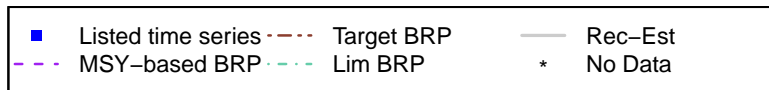
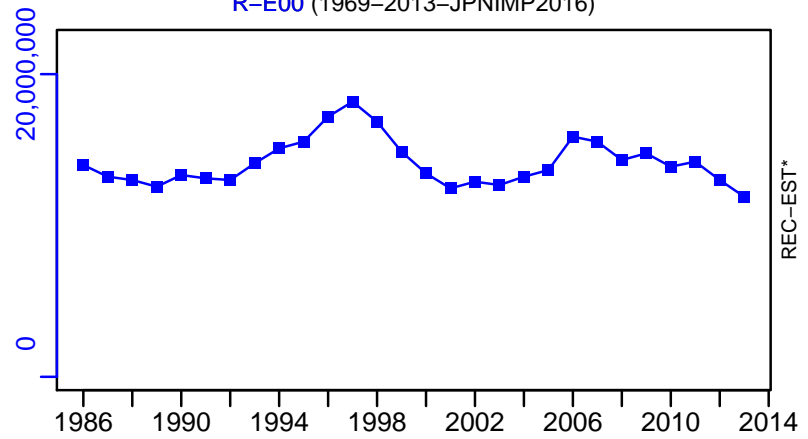
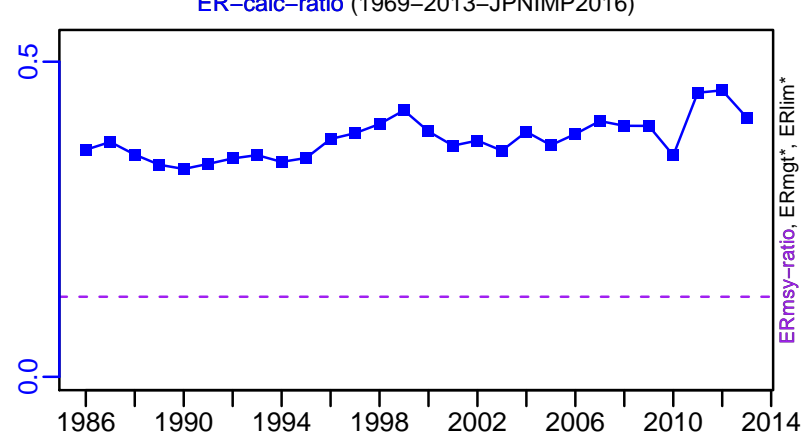
TB-MT (1969-2013-JPNIMP2016)

SSB-MT (1969-2013-JPNIMP2016)



ER-calc-ratio (1969-2013-JPNIMP2016)

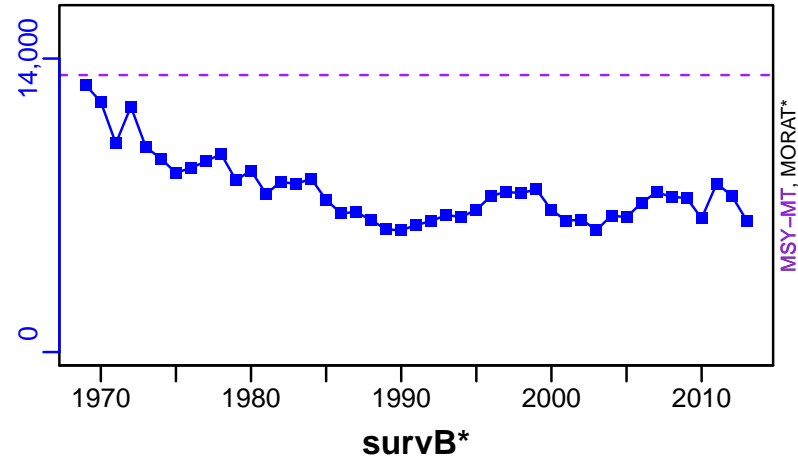
R-E00 (1969-2013-JPNIMP2016)



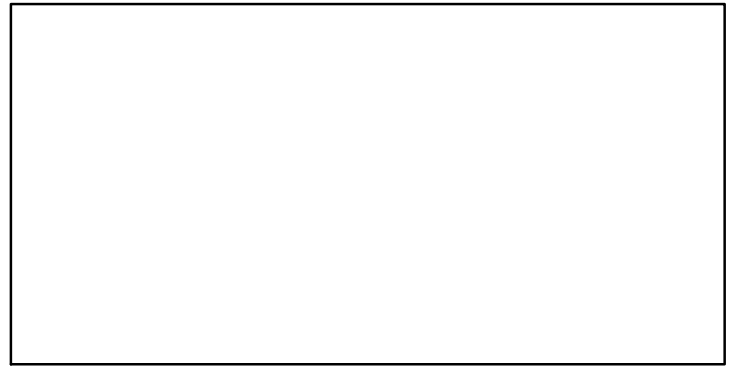
Red seabream East China Sea [RBRMECS]

TC-MT, TL*, RecC* (1969–2013–JPNIMP2016)

TAC*, Cpair*, Cadv*



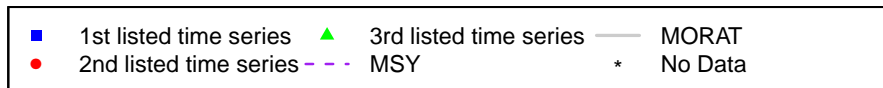
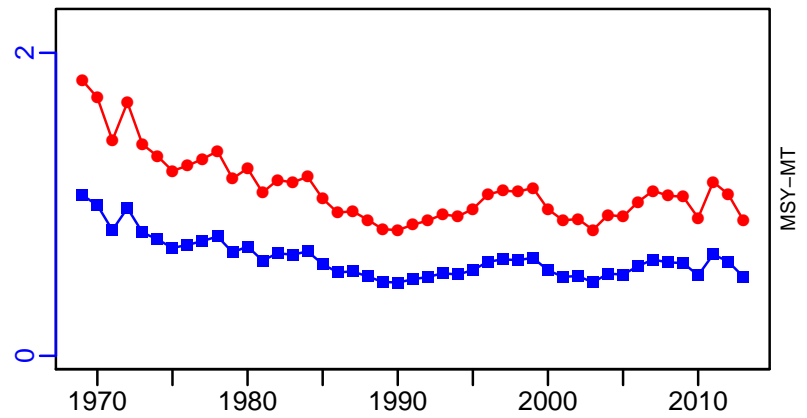
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1969–2013–JPNIMP2016)



Red seabream Inland Sea of Japan (East) [RBRMSETOE]

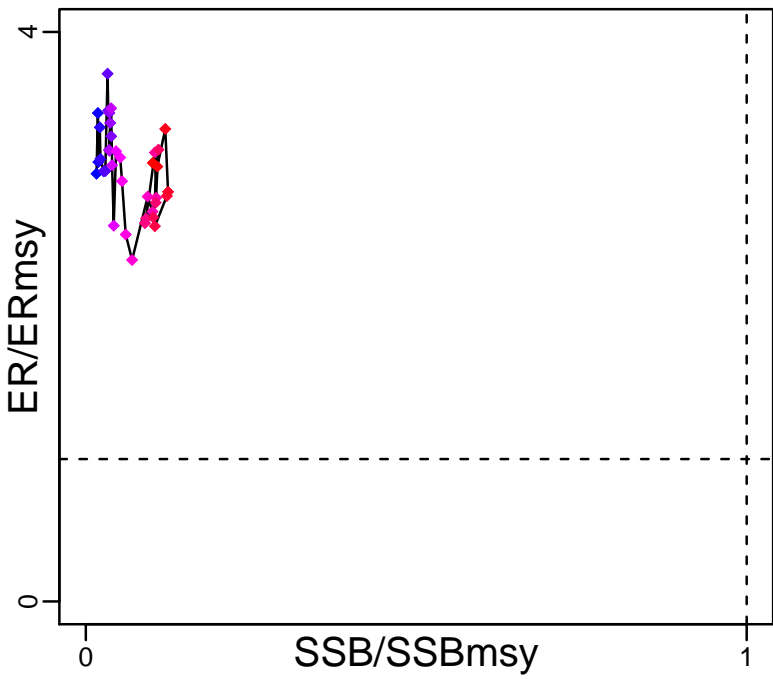
| Metadata | |
|-----------------------------|---|
| Scientific Name | Pagrus major |
| Current Assess ID | FAFRFJ-RBRMSETOE-1977-2013-JPNIMP2016 |
| Area | Inland Sea of Japan (East) |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2010, 2013 |

| Reference Points | | | |
|------------------|---------------|-----------|--------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-calc-MT | 2013 | 21,417 |
| SSBmsy | SSBmsy-MT | 2013 | 16,552 |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2013 | 0.145 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-MT | 2013 | 3106 |
| M | M-1/yr | 2013 | 0.24 |
| TBlim | - | - | - |
| SSBlim | SSBlim-MT | 2010 | 304 |
| Flim | - | - | - |
| ERlim | - | - | - |

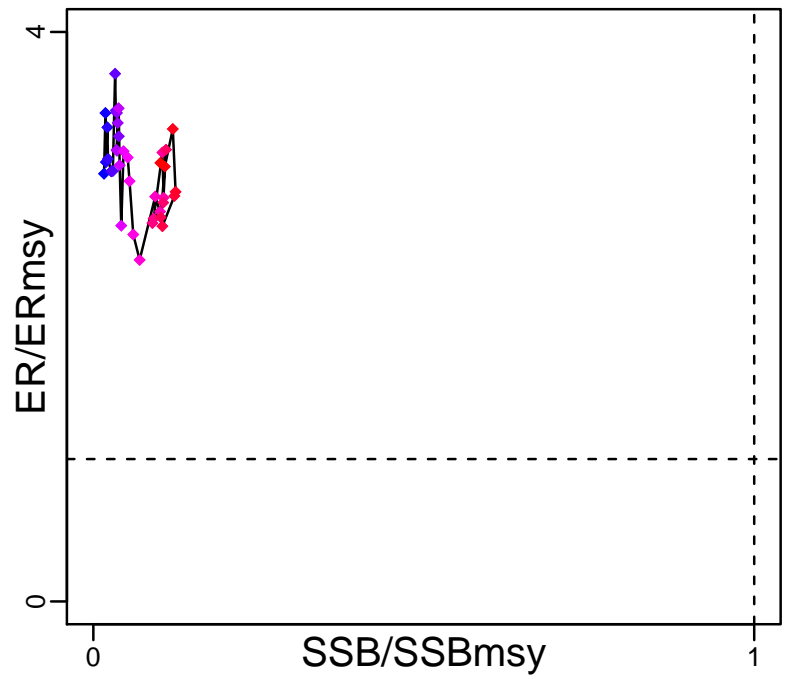
| Time Series | | | | | |
|-------------------|---------------------------|-----------|------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2013 | 4030 | - | 0 |
| SSB | SSB-MT | 2013 | 1680 | Both | 3 |
| TN | - | - | - | - | - |
| R | R-E00 | 2013 | 8,730,000 | - | 0 |
| F | - | - | - | - | - |
| ER | ER-calc-ratio | 2013 | 0.447 | - | - |
| TC | TC-MT | 2013 | 1800 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-calc-MT | 2013 | 0.188 | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-MT | 2013 | 0.101 | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2013 | 3.08 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Red seabream Inland Sea of Japan (East) [RBRMSETOE]

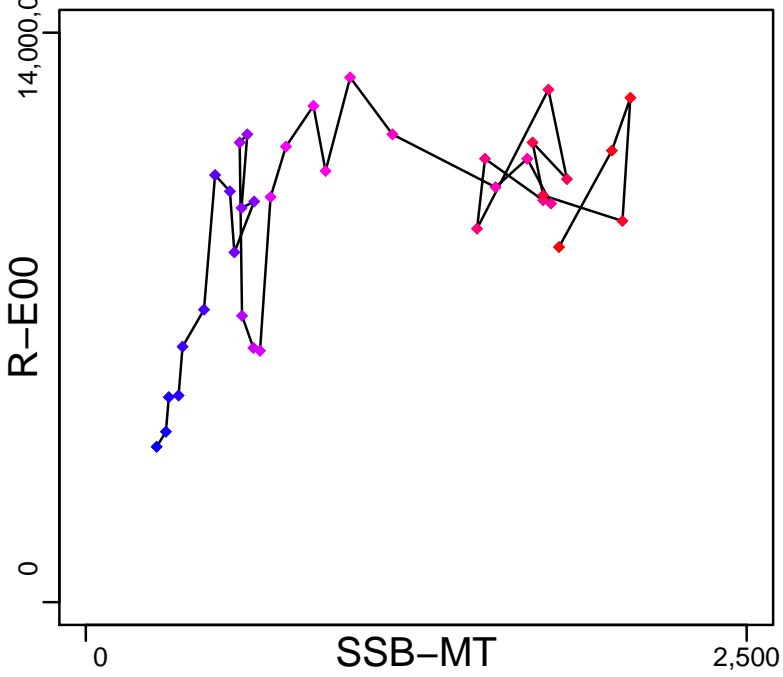
Kobe MSYpref (1977–2013–JPNIMP2016)



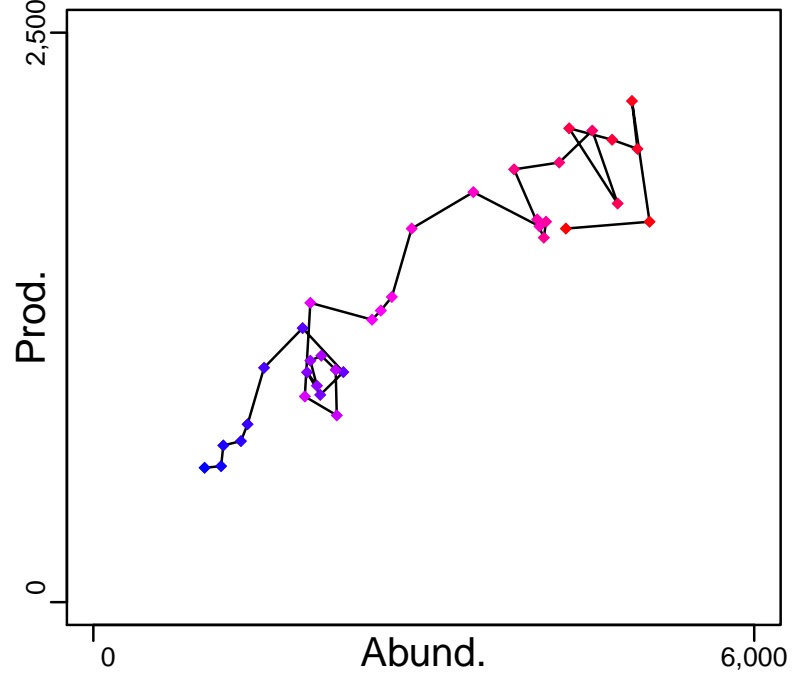
Kobe MGTpref (1977–2013–JPNIMP2016)



Spawner Recruit (1977–2013–JPNIMP2016)



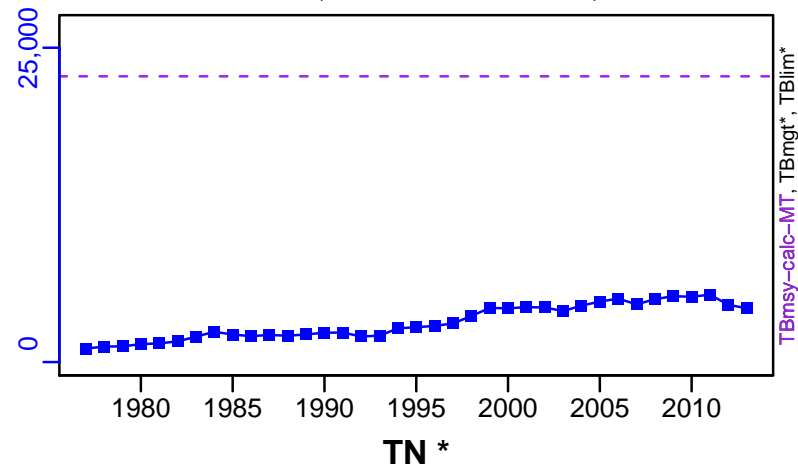
Production (1977–2013–JPNIMP2016)



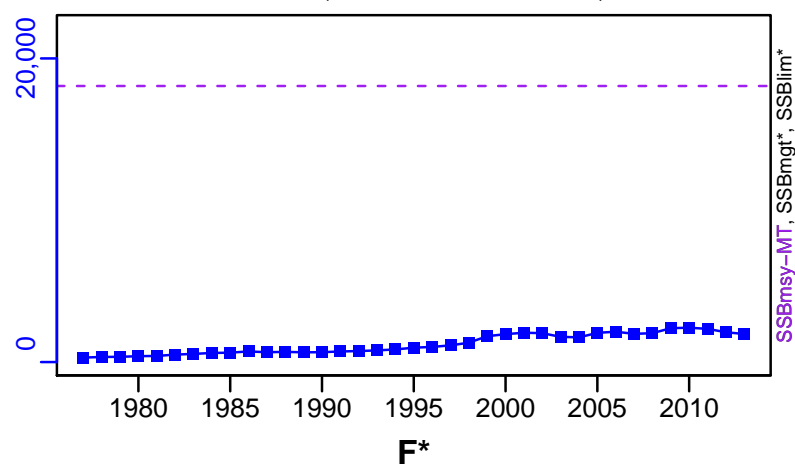
◆ Start Year ◆ End Year * No Data

Red seabream Inland Sea of Japan (East) [RBRMSETOE]

TB-MT (1977-2013-JPNIMP2016)



SSB-MT (1977-2013-JPNIMP2016)

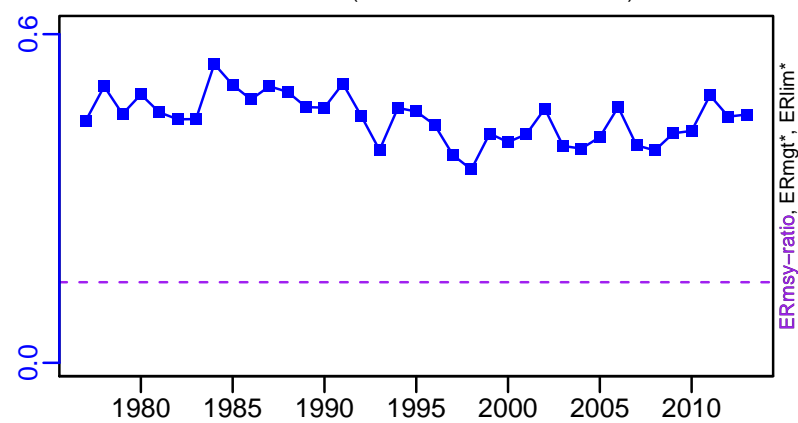


TN *

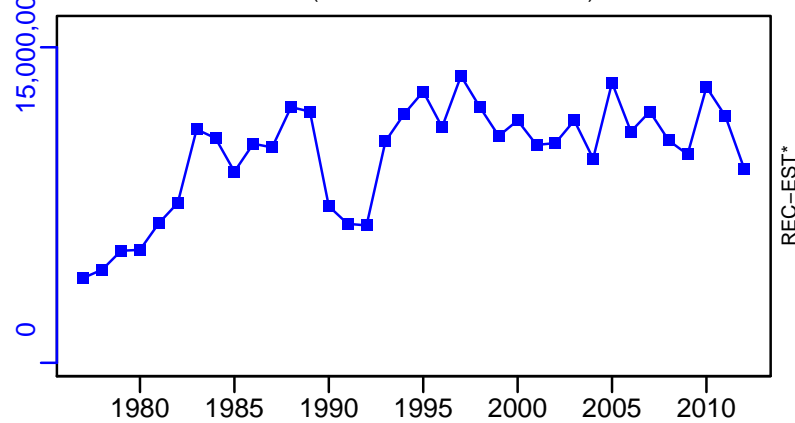
F*



ER-calc-ratio (1977-2013-JPNIMP2016)

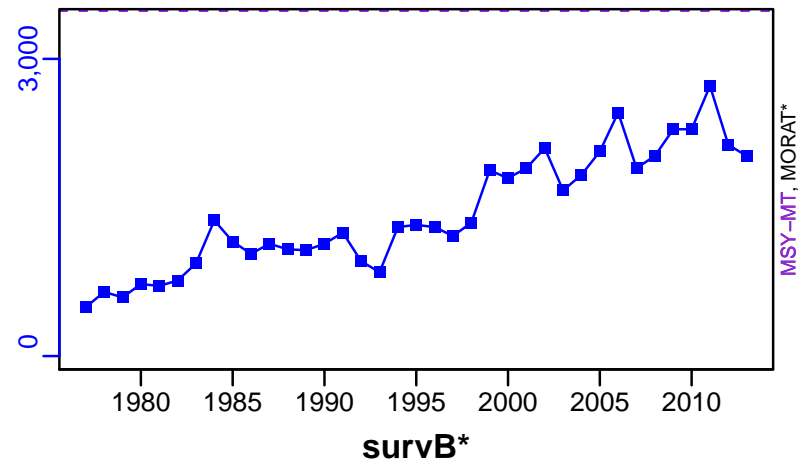


R-E00 (1977-2013-JPNIMP2016)



Red seabream Inland Sea of Japan (East) [RBRMSETOE]

TC-MT, TL*, RecC* (1977-2013-JPNIMP2016)



TAC*, Cpair*, Cadv*



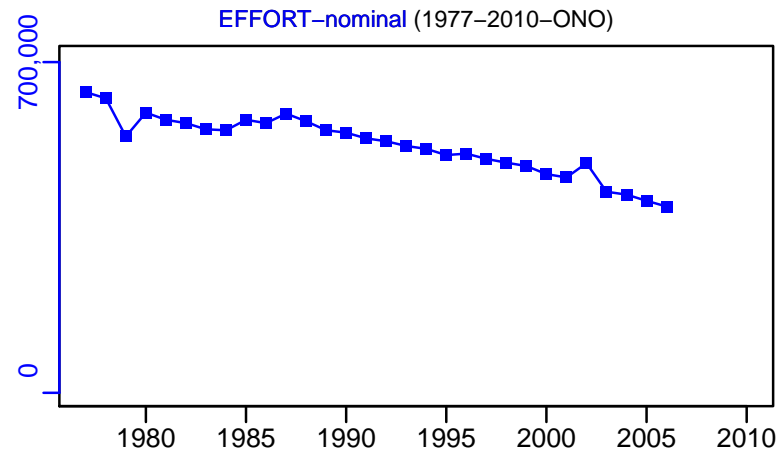
survB*



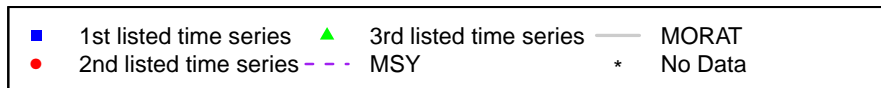
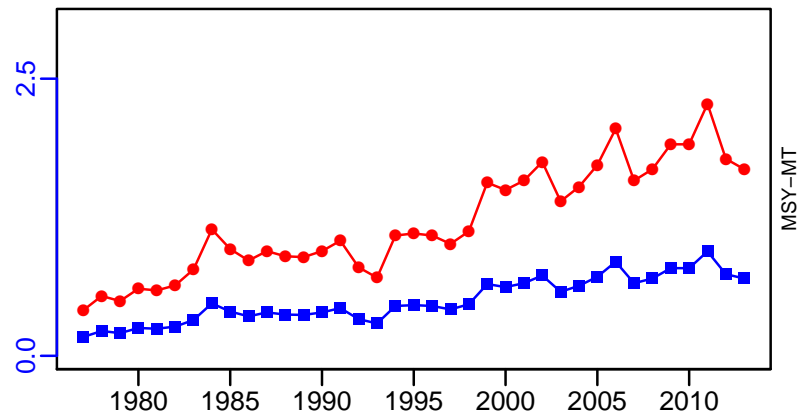
CPUE*



EFFORT-nominal (1977-2010-ONO)



TC-MT/MSY-MT, CdivMEANC-ratio, (1977-2013-JPNIMP2016)



Red seabream Inland Sea of Japan (West) [RBRMSETOW]

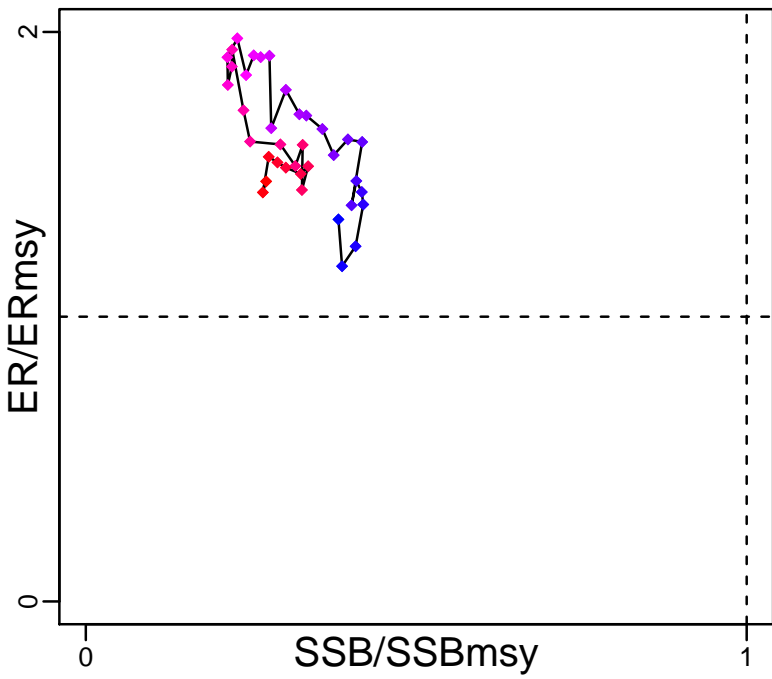
| Metadata | |
|-----------------------------|---|
| Scientific Name | Pagrus major |
| Current Assess ID | FAFRFJ-RBRMSETOW-1977-2013-JPNIMP2016 |
| Area | Inland Sea of Japan (West) |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2010, 2013 |

| Reference Points | | | |
|------------------|---------------|-----------|--------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-calc-MT | 2013 | 24,122 |
| SSBmsy | SSBmsy-MT | 2013 | 18,103 |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2013 | 0.173 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-MT | 2013 | 4173 |
| M | M-1/yr | 2013 | 0.24 |
| TBlim | - | - | - |
| SSBlim | SSBlim-MT | 2010 | 4212 |
| Flim | - | - | - |
| ERlim | - | - | - |

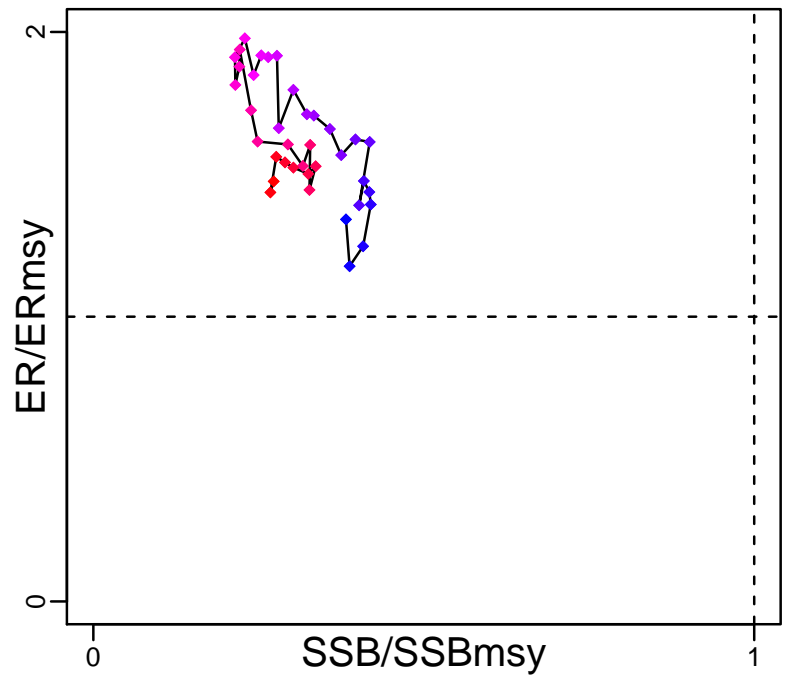
| Time Series | | | | | |
|-------------------|---------------------------|-----------|------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2013 | 8620 | - | 0 |
| SSB | SSB-MT | 2013 | 4940 | Both | 3 |
| TN | - | - | - | - | - |
| R | R-E00 | 2013 | 8,300,000 | - | 0 |
| F | - | - | - | - | - |
| ER | ER-calc-ratio | 2013 | 0.255 | - | - |
| TC | TC-MT | 2013 | 2200 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-calc-MT | 2013 | 0.357 | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-MT | 2013 | 0.273 | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2013 | 1.475 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Red seabream Inland Sea of Japan (West) [RBRMSETOW]

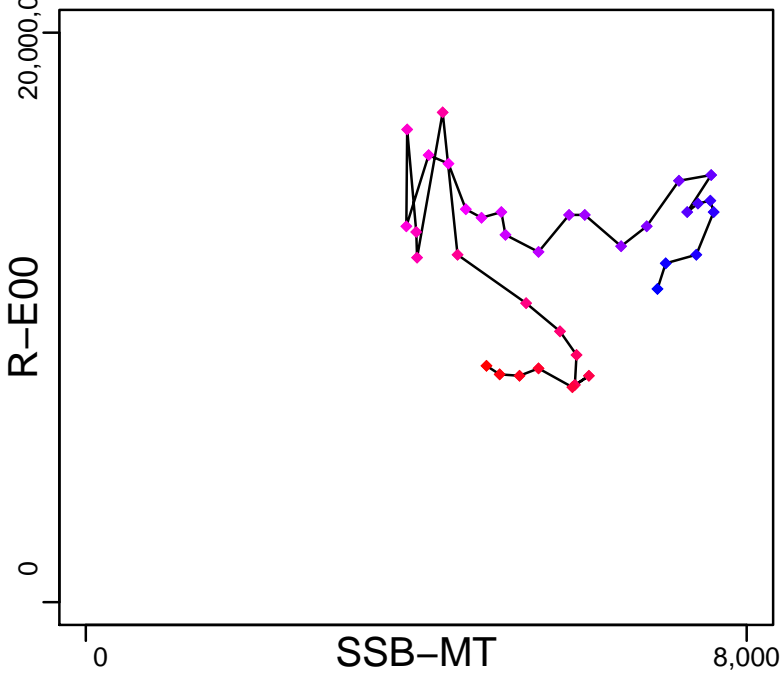
Kobe MSYpref (1977–2013–JPNIMP2016)



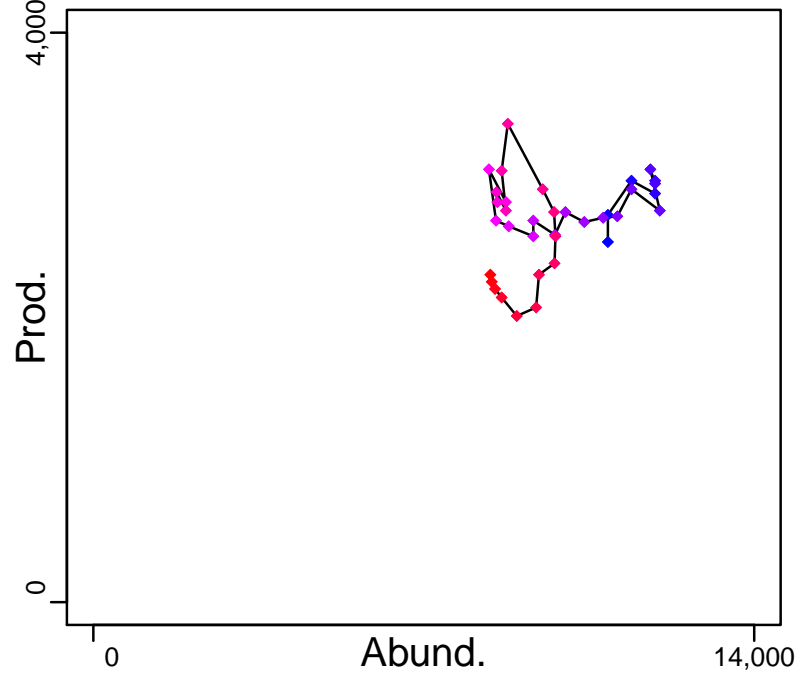
Kobe MGTpref (1977–2013–JPNIMP2016)



Spawner Recruit (1977–2013–JPNIMP2016)



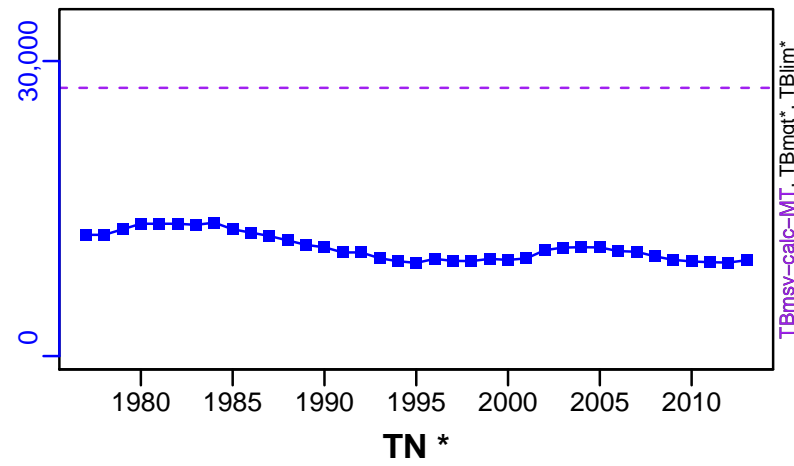
Production (1977–2013–JPNIMP2016)



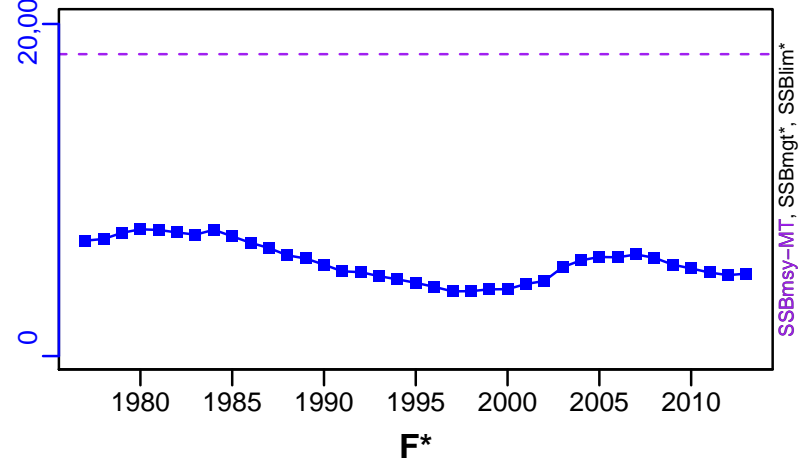
◆ Start Year ◆ End Year * No Data

Red seabream Inland Sea of Japan (West) [RBRMSETOW]

TB-MT (1977-2013-JPNIMP2016)

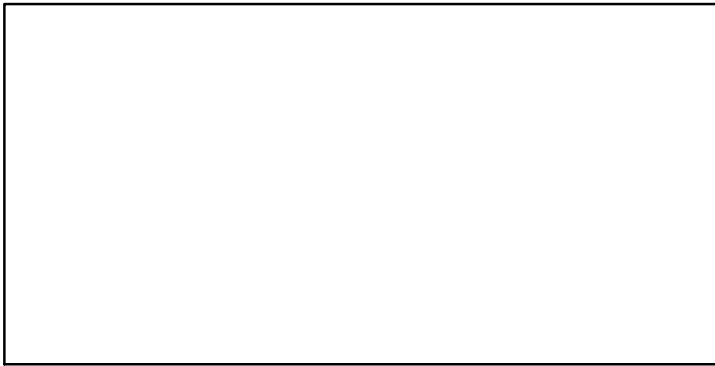


SSB-MT (1977-2013-JPNIMP2016)

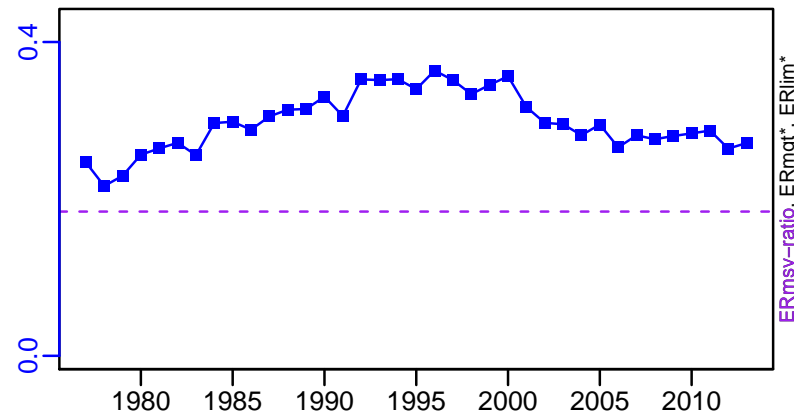


TN *

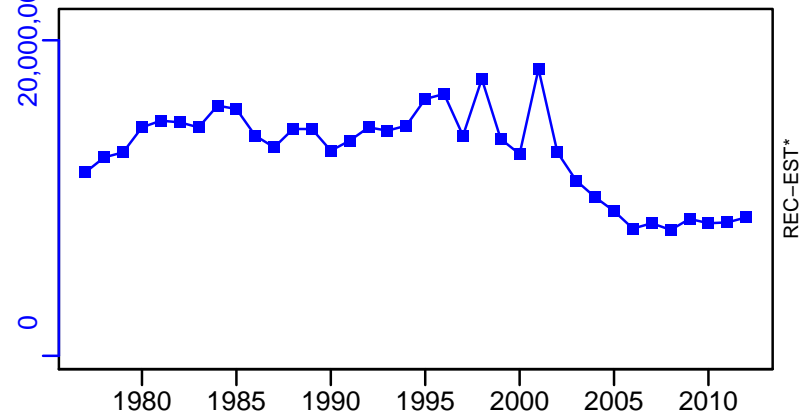
F*



ER-calc-ratio (1977-2013-JPNIMP2016)



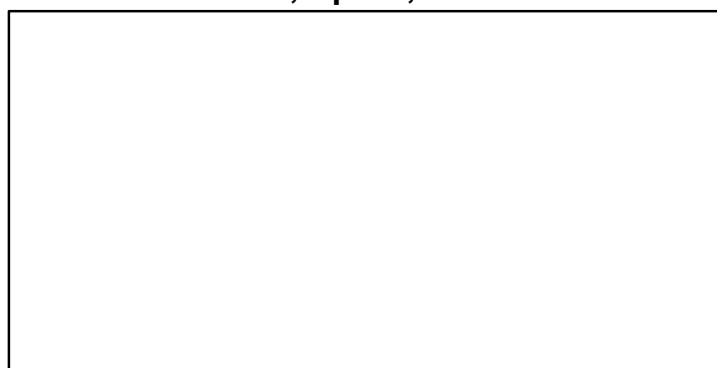
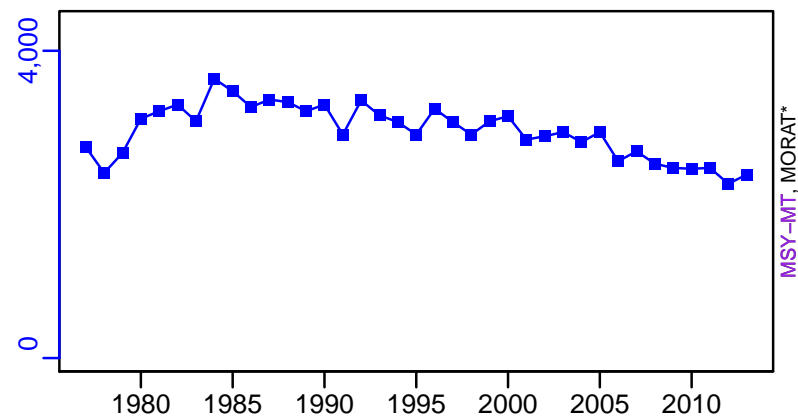
R-E00 (1977-2013-JPNIMP2016)



Red seabream Inland Sea of Japan (West) [RBRMSETOW]

TC-MT, TL*, RecC* (1977–2013–JPNIMP2016)

TAC*, Cpair*, Cadv*



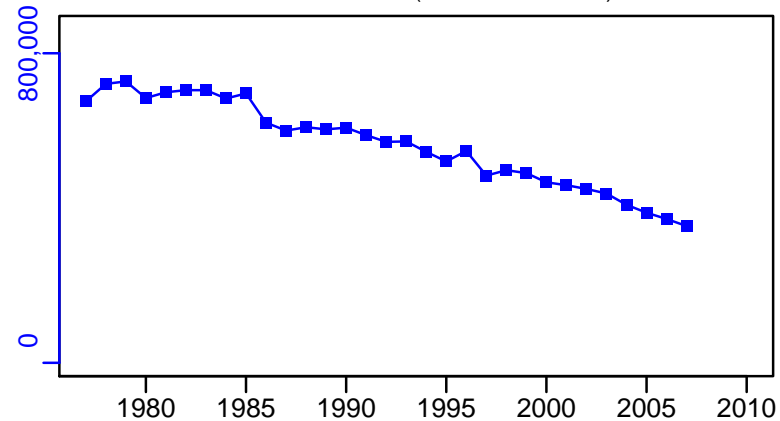
survB*



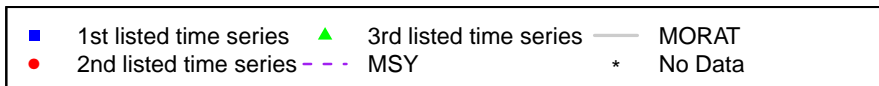
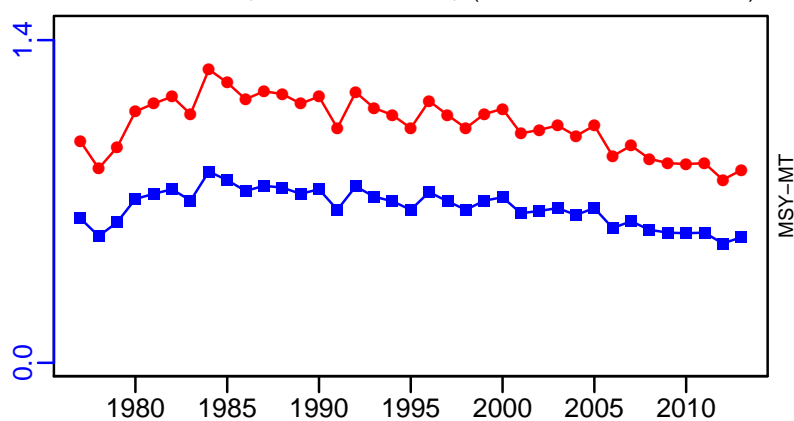
CPUE*



EFFORT-nominal (1977–2010–ONO)



TC-MT/MSY-MT, CdivMEANC-ratio, (1977–2013–JPNIMP2016)



Round herring Pacific Ocean [RHERRPAC]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Etrumeus teres |
| Current Assess ID | FAFRFJ-RHERRPAC-1985-2013-JPNIMP2016 |
| Area | Pacific Ocean |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

| Reference Points | | | |
|------------------|--------|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | - | - | - |
| Fmsy | - | - | - |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | - | - | - |
| M | M-1/yr | 2013 | 0.7 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

| Time Series | | | | | |
|-------------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 37,000 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Kobe MSY*



Kobe MGT*



Spawner Recruit*



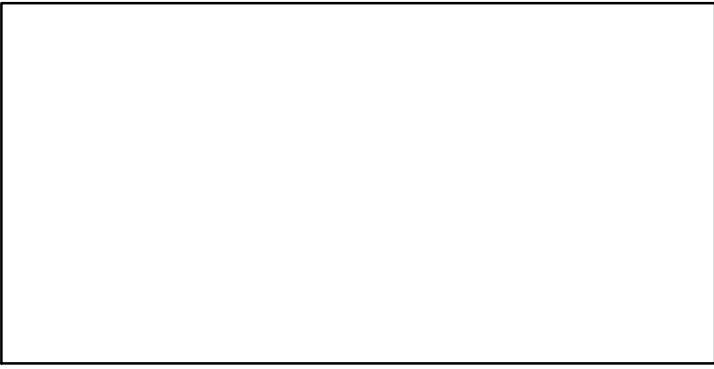
Production*



◆ Start Year ◆ End Year * No Data

Round herring Pacific Ocean [RHERRPAC]

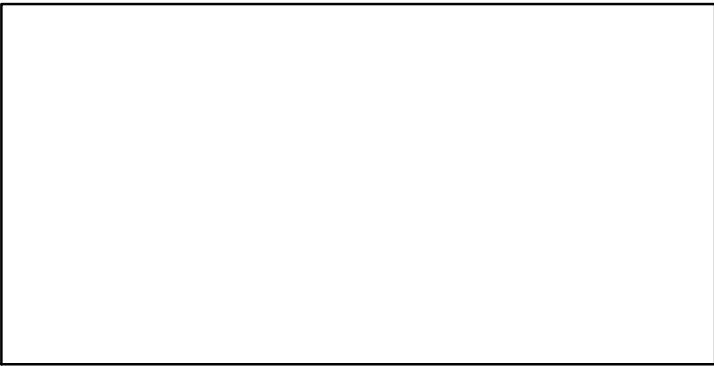
TB*



SSB*



TN *



F*



ER*



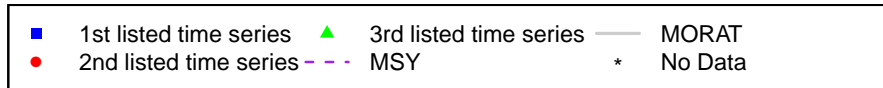
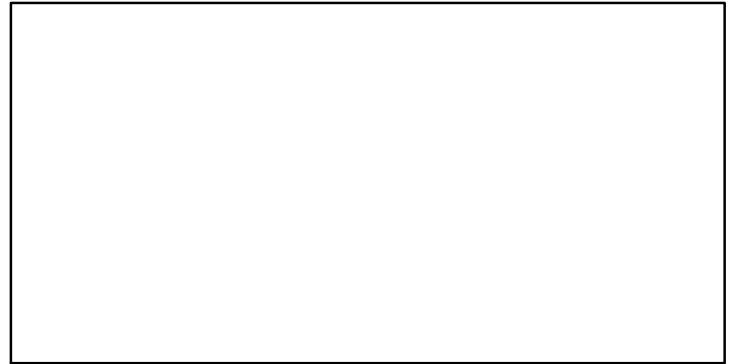
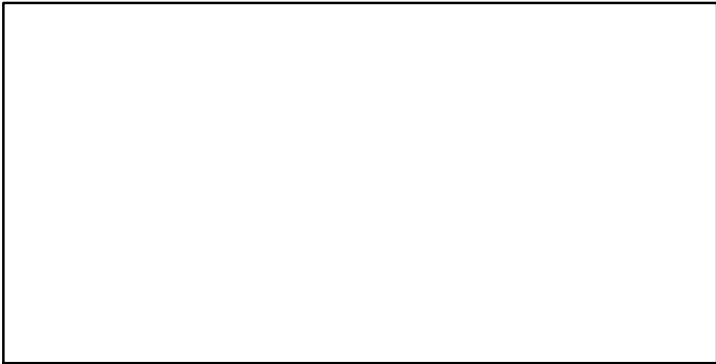
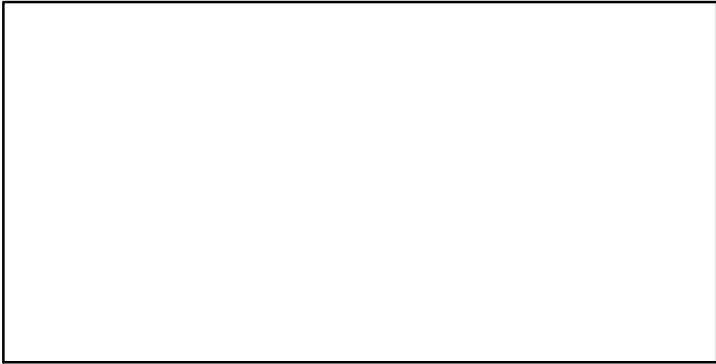
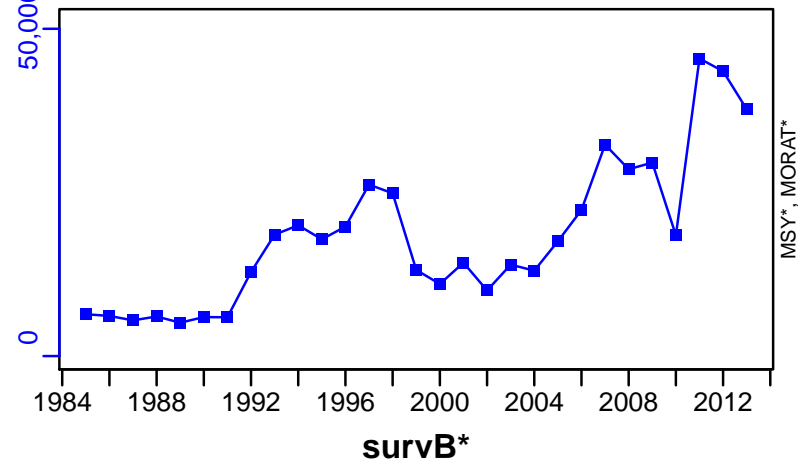
Recruits*



Round herring Pacific Ocean [RHERRPAC]

TC-MT, TL*, RecC* (1985-2013-JPNIMP2016)

TAC*, Cpair*, Cadv*



Round herring Tsushima Strait [RHERRTSST]

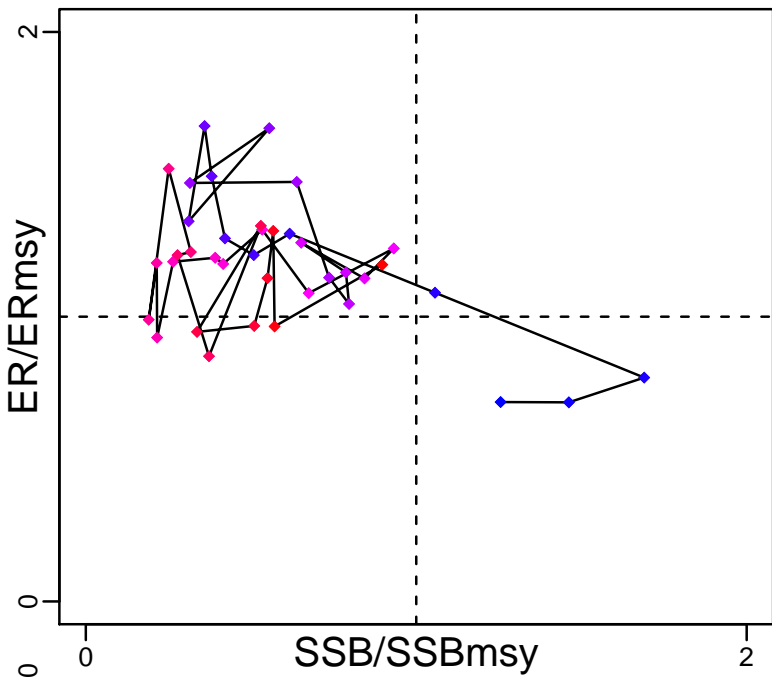
| Metadata | |
|-----------------------------|---|
| Scientific Name | Etrumeus teres |
| Current Assess ID | FAFRFJ-RHERRTSST-1976-2013-JPNIMP2016 |
| Area | Tsushima Strait |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

| Reference Points | | | |
|------------------|---------------|-----------|---------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-calc-MT | 2013 | 123,572 |
| SSBmsy | SSBmsy-MT | 2013 | 74,564 |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2013 | 0.356 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-MT | 2013 | 43,992 |
| M | M-1/yr | 2013 | 0.7 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

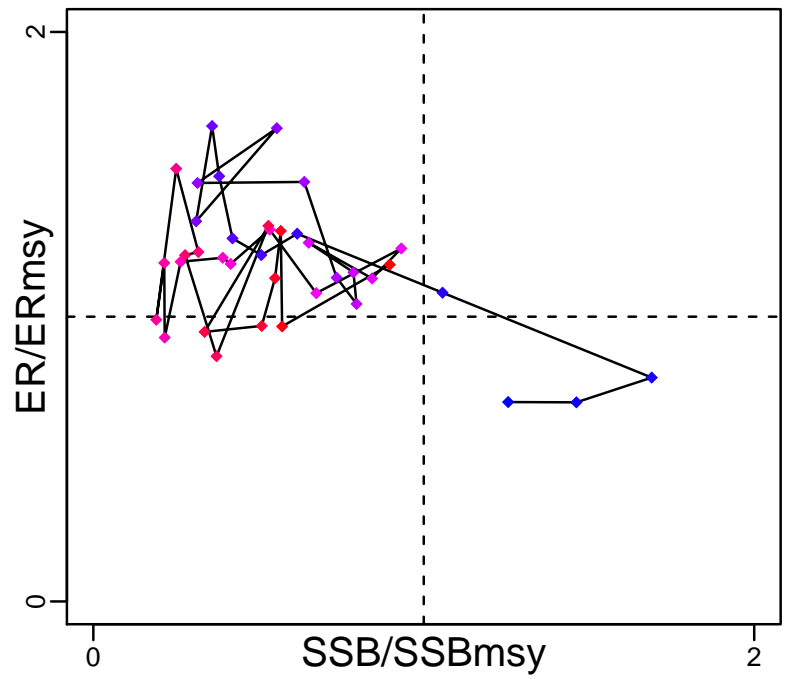
| Time Series | | | | | |
|-------------------|---------------------------|-----------|--------------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2013 | 119,000 | - | 0 |
| SSB | SSB-MT | 2013 | 66,900 | Both | 1 |
| TN | - | - | - | - | - |
| R | R-E00 | 2013 | 2.16×10^9 | - | 0 |
| F | - | - | - | - | - |
| ER | ER-calc-ratio | 2013 | 0.421 | - | - |
| TC | TC-MT | 2013 | 50,100 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-calc-MT | 2013 | 0.963 | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-MT | 2013 | 0.897 | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2013 | 1.183 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Round herring Tsushima Strait [RHERTSST]

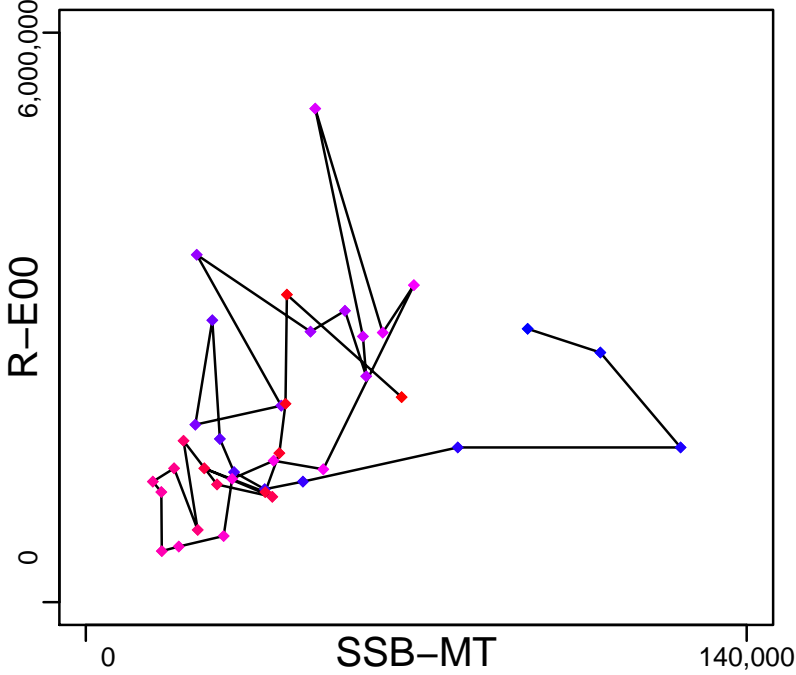
Kobe MSYpref (1976–2013–JPNIMP2016)



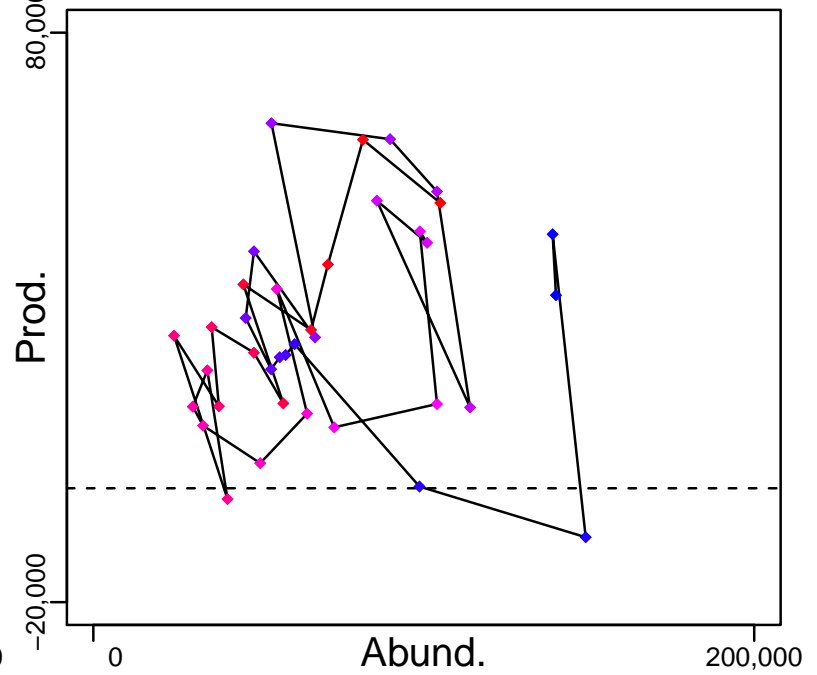
Kobe MGTpref (1976–2013–JPNIMP2016)



Spawner Recruit (1976–2013–JPNIMP2016)



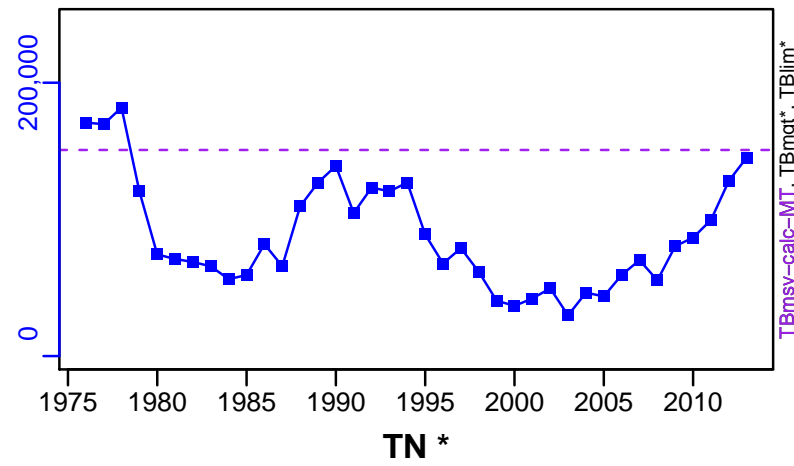
Production (1976–2013–JPNIMP2016)



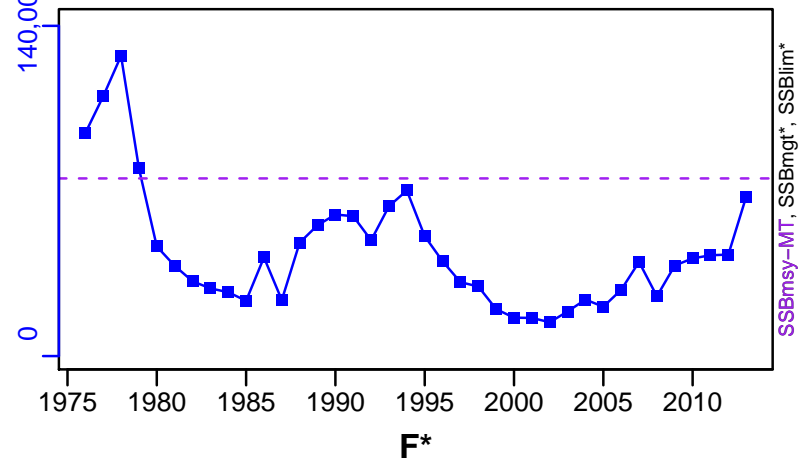
◆ Start Year ◆ End Year * No Data

Round herring Tsushima Strait [RHERTSST]

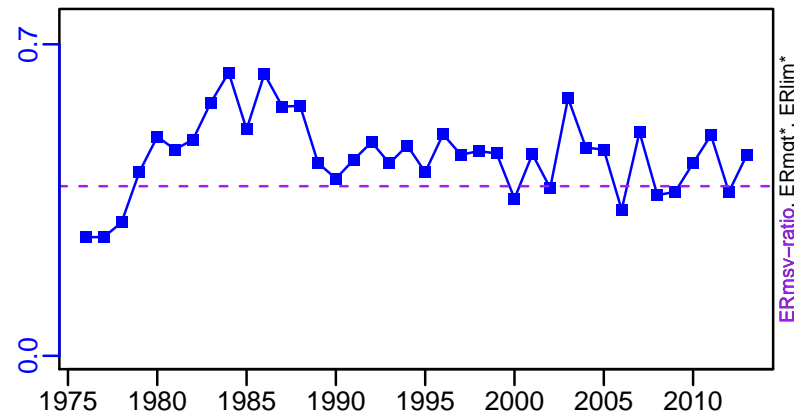
TB-MT (1976-2013-JPNIMP2016)



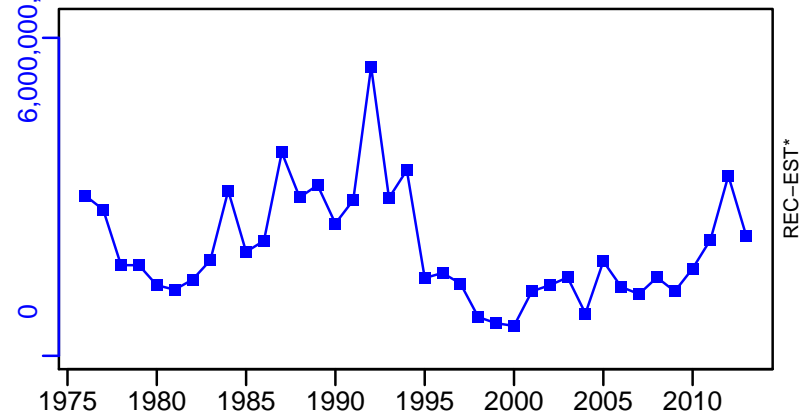
SSB-MT (1976-2013-JPNIMP2016)



ER-calc-ratio (1976-2013-JPNIMP2016)

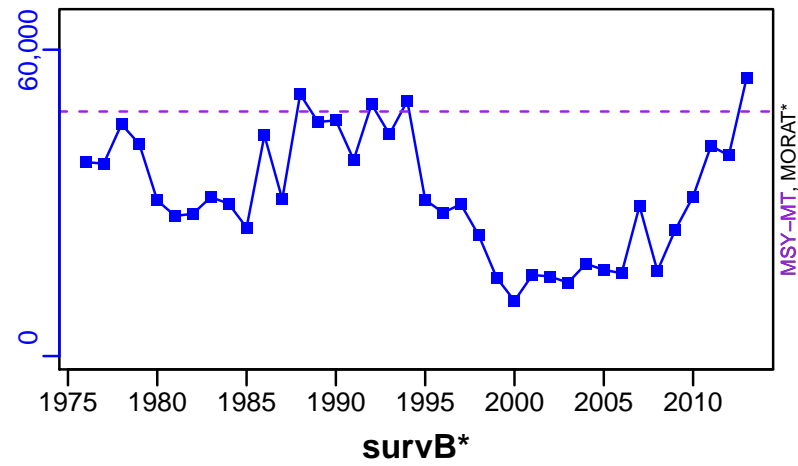


R-E00 (1976-2013-JPNIMP2016)



Round herring Tsushima Strait [RHERTSST]

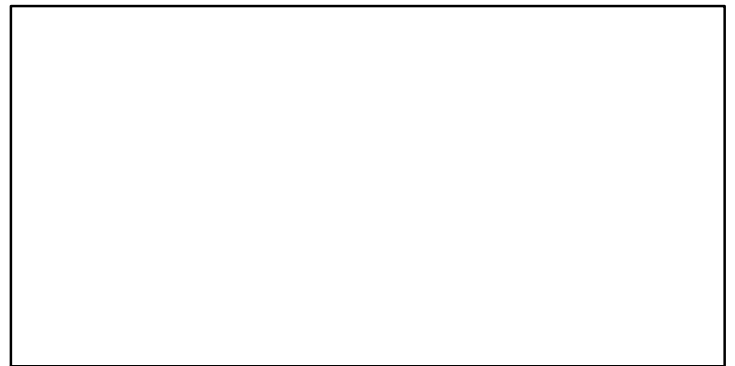
TC-MT, TL*, RecC* (1976–2013–JPNIMP2016)



TAC*, Cpair*, Cadv*



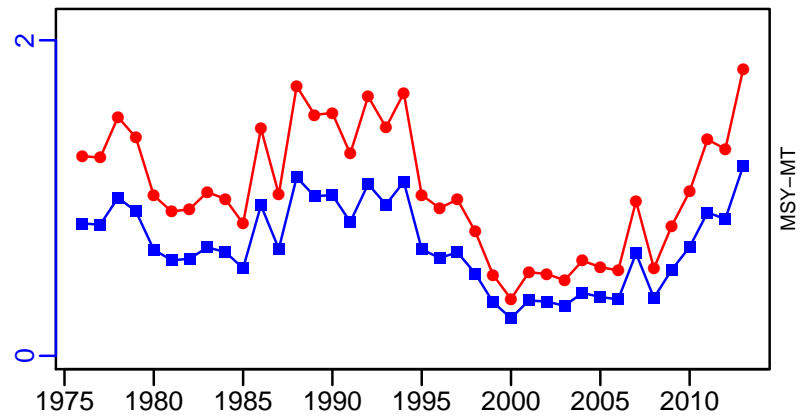
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1976–2013–JPNIMP2016)



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

Round nose flounder Sea of Japan [RSFLOUNSOJ]

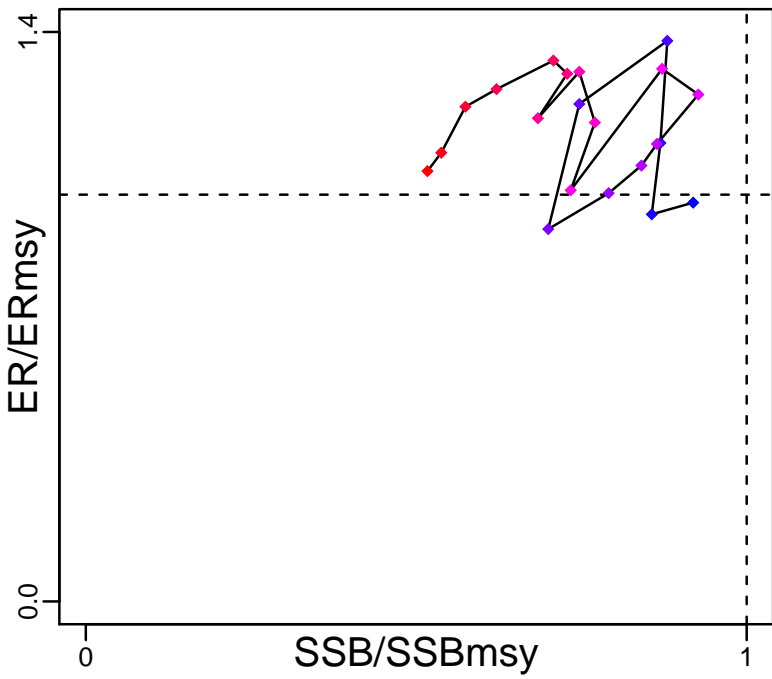
| Metadata | |
|-----------------------------|---|
| Scientific Name | Eopsetta grigorjewi |
| Current Assess ID | FAFRFJ-RSFLOUNSOJ-1966-2013-JPNIMP2016 |
| Area | Sea of Japan |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

| Reference Points | | | |
|------------------|---------------|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-calc-MT | 2013 | 5504 |
| SSBmsy | SSBmsy-MT | 2013 | 3830 |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2013 | 0.285 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-MT | 2013 | 1569 |
| M | M-1/yr | 2013 | 0.35 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

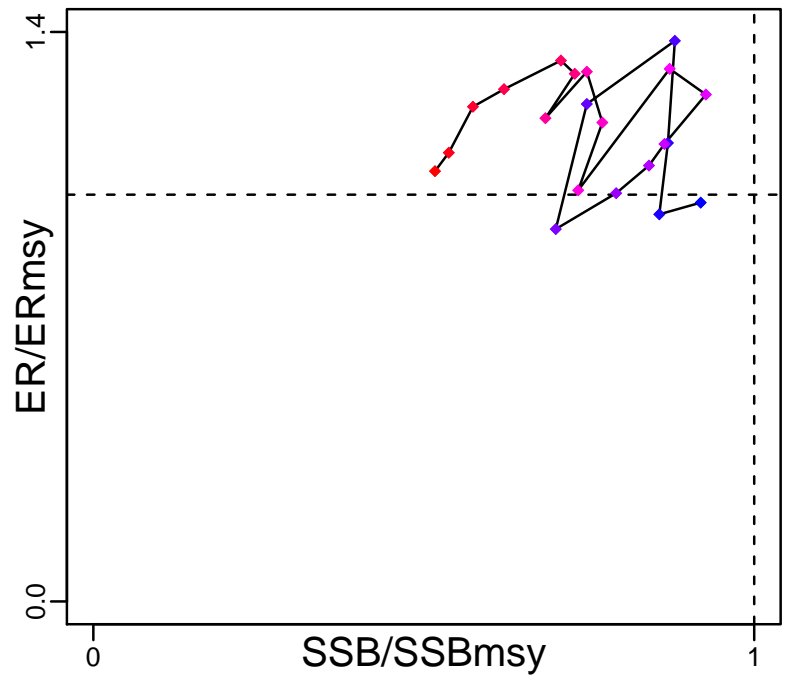
| Time Series | | | | | |
|-------------------|---------------------------|-----------|------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2013 | 2740 | - | 1 |
| SSB | SSB-MT | 2013 | 1980 | Both | 3 |
| TN | - | - | - | - | - |
| R | R-E00 | 2013 | 15,100,000 | - | 1 |
| F | - | - | - | - | - |
| ER | ER-calc-ratio | 2013 | 0.301 | - | - |
| TC | TC-MT | 2013 | 826 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-calc-MT | 2013 | 0.498 | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-MT | 2013 | 0.517 | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2013 | 1.058 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Round nose flounder Sea of Japan [RSFLOUNSOJ]

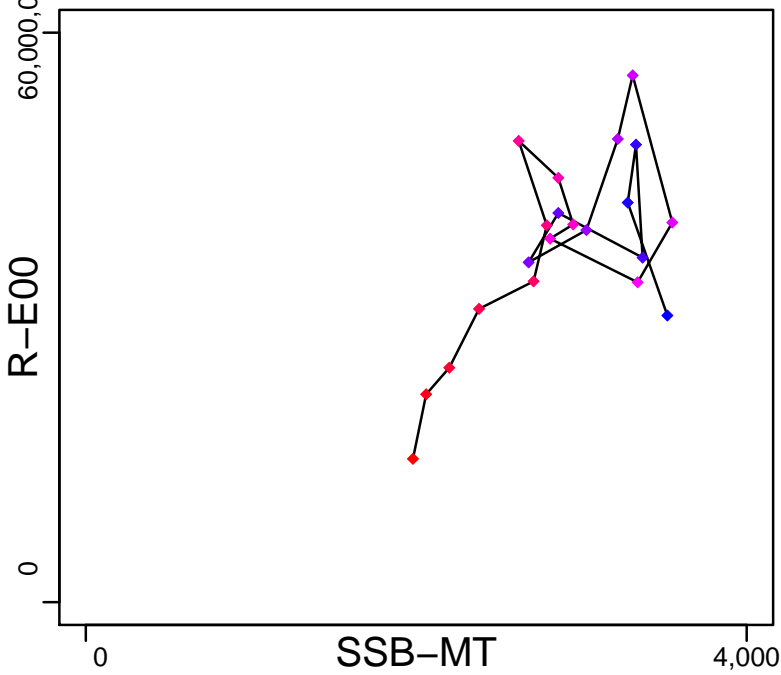
Kobe MSYpref (1966–2013–JPNIMP2016)



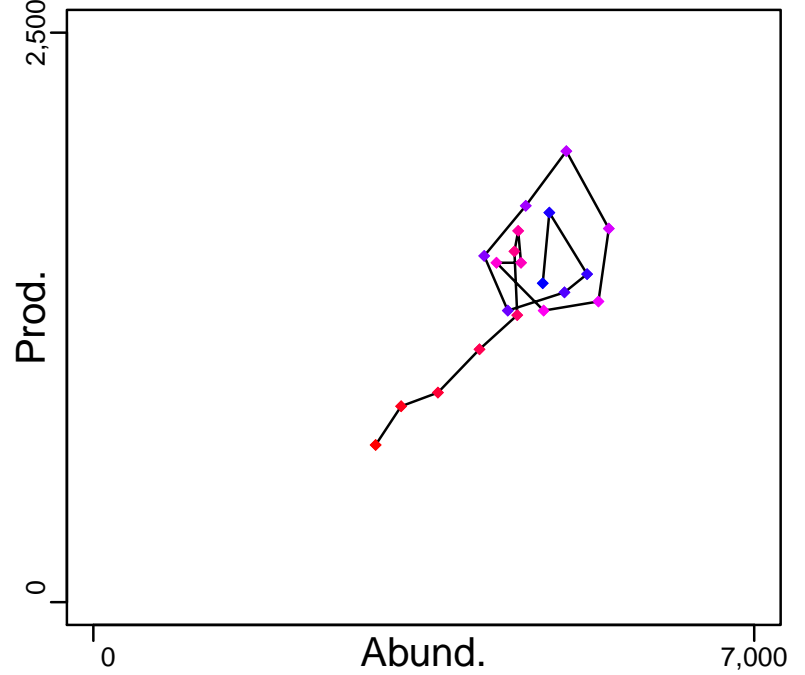
Kobe MGTpref (1966–2013–JPNIMP2016)



Spawner Recruit (1966–2013–JPNIMP2016)



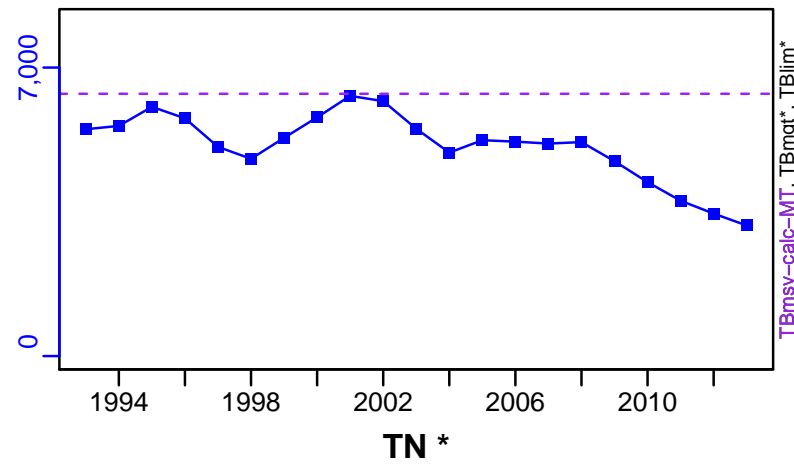
Production (1966–2013–JPNIMP2016)



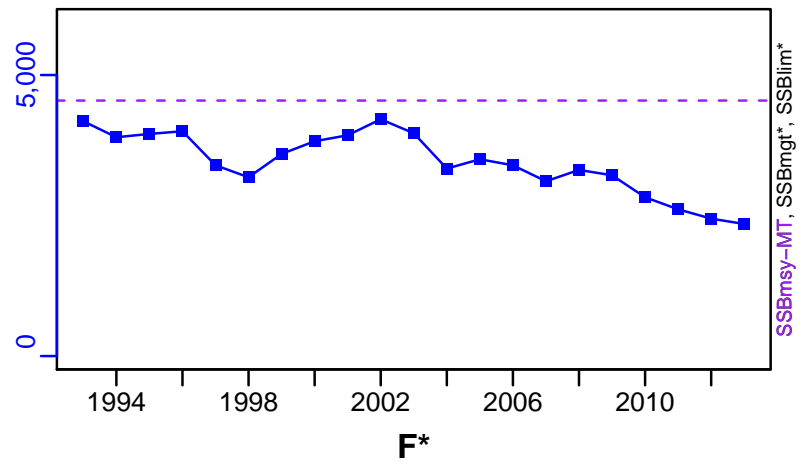
◆ Start Year ◆ End Year * No Data

Round nose flounder Sea of Japan [RSFLOUNSOJ]

TB-MT (1966-2013-JPNIMP2016)

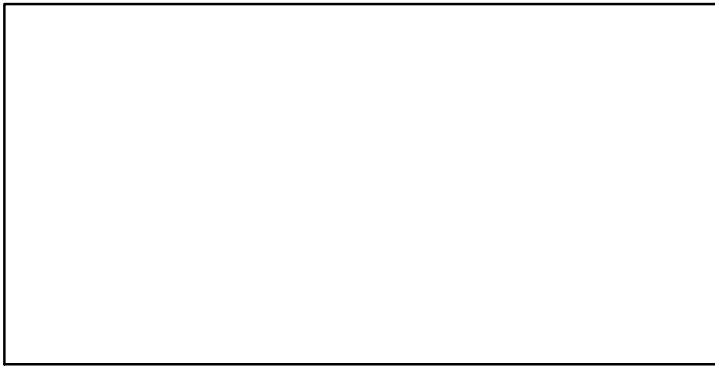


SSB-MT (1966-2013-JPNIMP2016)

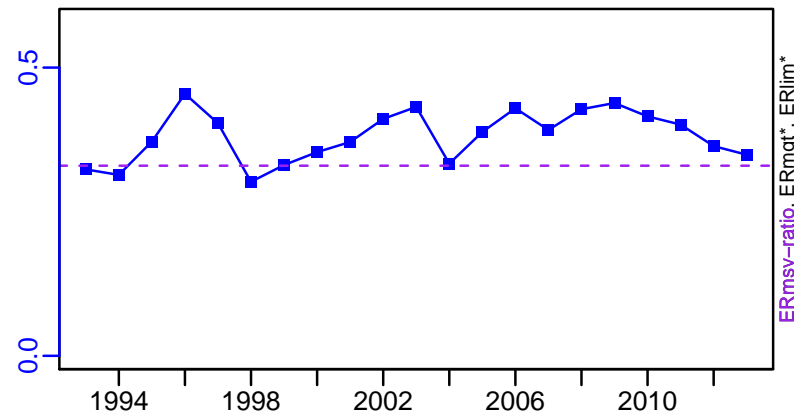


TN *

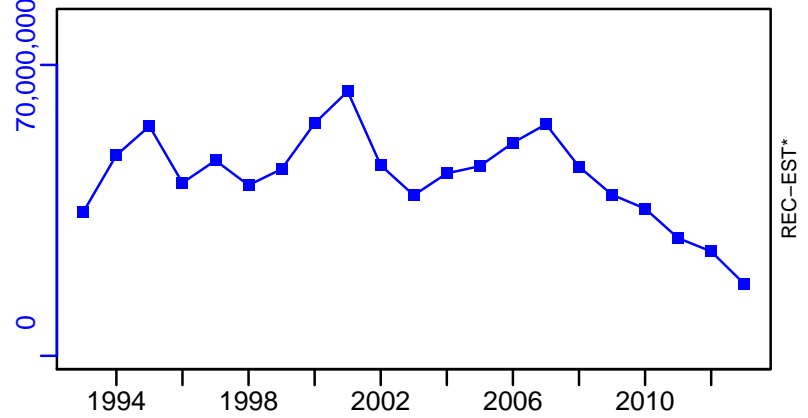
F*



ER-calc-ratio (1966-2013-JPNIMP2016)



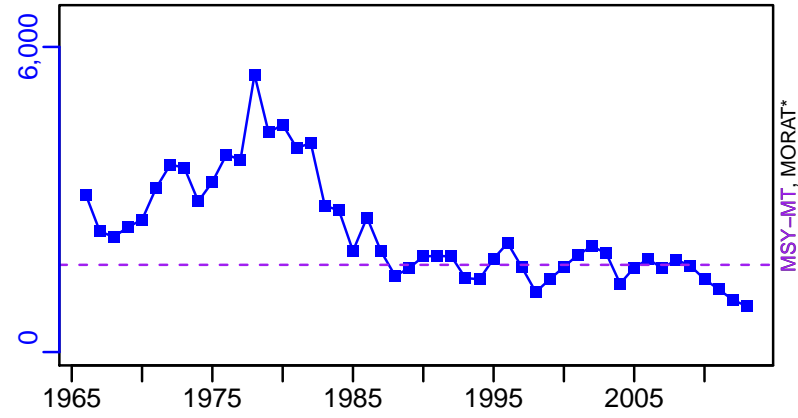
R-E00 (1966-2013-JPNIMP2016)



Round nose flounder Sea of Japan [RSFLOUNSOJ]

TC-MT, TL*, RecC* (1966–2013–JPNIMP2016)

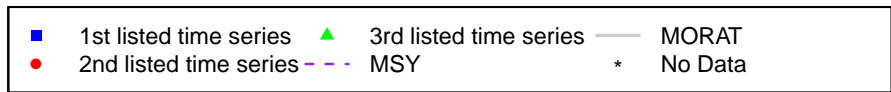
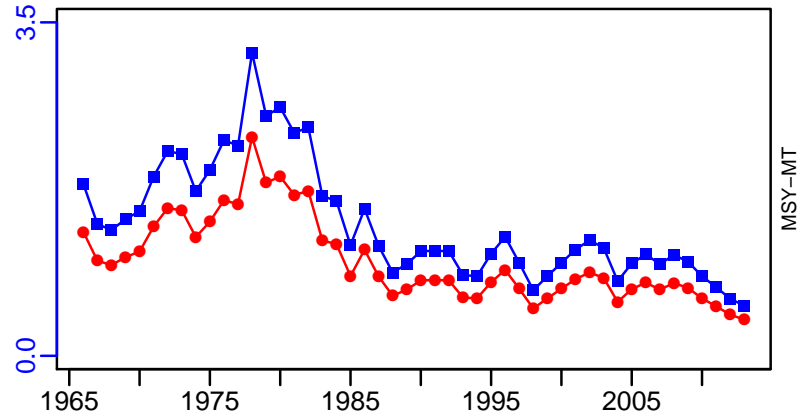
TAC*, Cpair*, Cadv*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1966–2013–JPNIMP2016)



Roughscale sole North Pacific [RSSOLENPAC]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Clidoderma asperrimum |
| Current Assess ID | FAFRFJ-RSSOLENPAC-1971-2013-JPNIMP2016 |
| Area | North Pacific |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

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

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 197 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Roughscale sole North Pacific [RSSOLENPAC]

TB*



SSB*



TN *



F*



ER*



Recruits*



■ Listed time series

--- MSY-based BRP

--- Target BRP

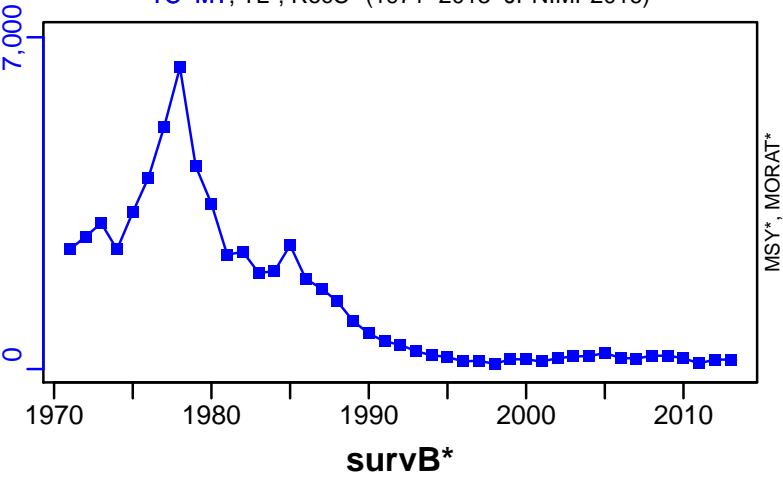
--- Lim BRP

— Rec-Est

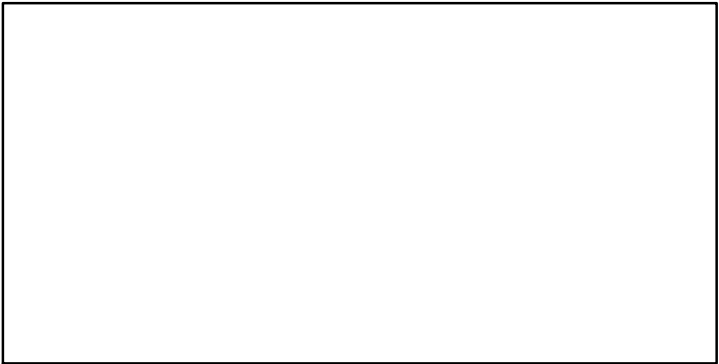
* No Data

Roughscale sole North Pacific [RSSOLENPAC]

TC-MT, TL*, RecC* (1971-2013-JPNIMP2016)



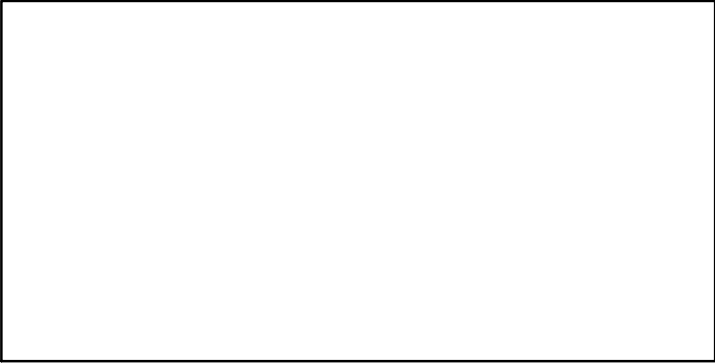
TAC*, Cpair*, Cadv*



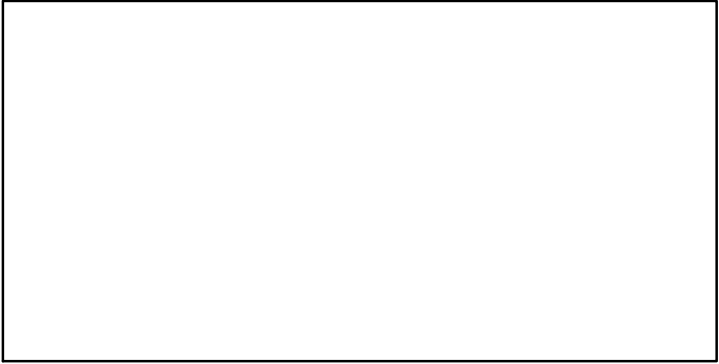
CPUE*



EFFORT*



CdivMSY*



Pacific saury Northwest Pacific [SAURNWPAC]

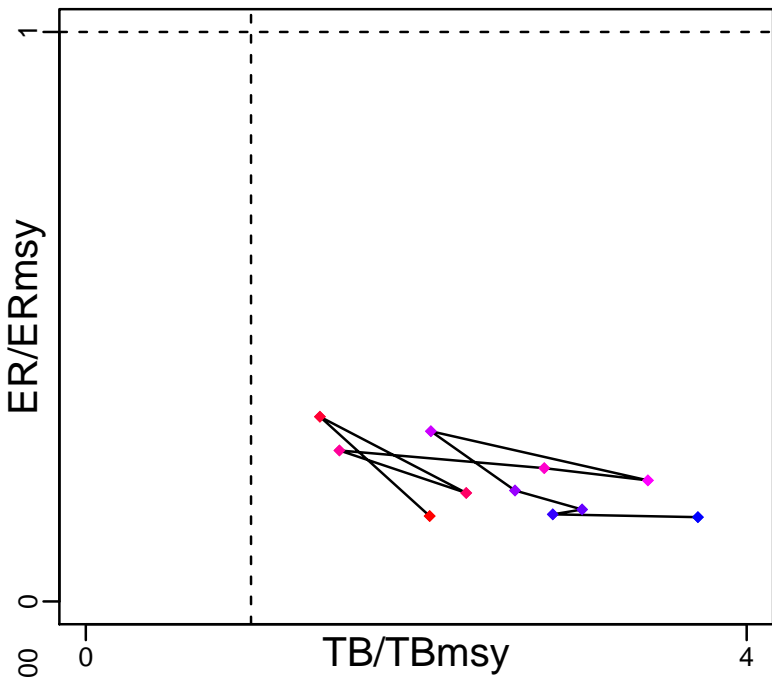
| Metadata | |
|-----------------------------|---|
| Scientific Name | Cololabis saira |
| Current Assess ID | FAFRFJ-SAURNWPAC-1980-2013-JPNIMP2016 |
| Area | Northwest Pacific |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2010, 2013 |

| Reference Points | | | |
|------------------|---------------|-----------|-----------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-MT | 2013 | 1,355,026 |
| SSBmsy | SSBmsy-est-MT | 2010 | 808,745 |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2013 | 0.35 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-calc-MT | 2013 | 474,259 |
| M | M-1/yr | 2013 | 1.25 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

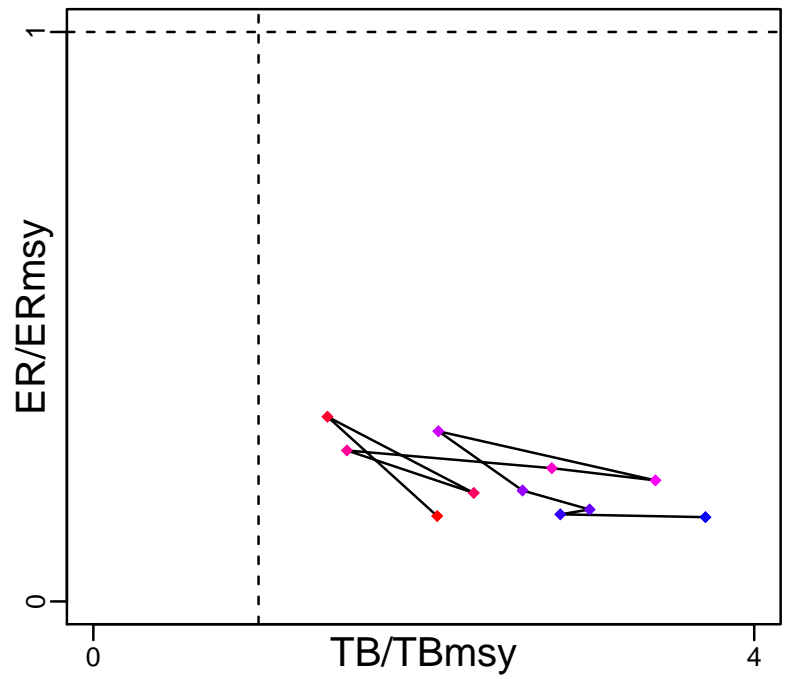
| Time Series | | | | | |
|-------------------|---------------------------|-----------|-----------------------|------|--------|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2013 | 2,820,000 | - | 0 |
| SSB | SSB-MT | 2013 | 1,410,000 | Both | 1 |
| TN | - | - | - | - | - |
| R | R-E00 | 2013 | 5.27×10^{10} | - | 0 |
| F | F-1/yr | 2010 | 0.264 | - | 0 to 1 |
| ER | ER-calc-ratio | 2013 | 0.052 | - | - |
| TC | TC-MT | 2013 | 148,000 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-MT | 2013 | 2.081 | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-est-MT | 2010 | 1.168 | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2013 | 0.15 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Pacific saury Northwest Pacific [SAURNWPAC]

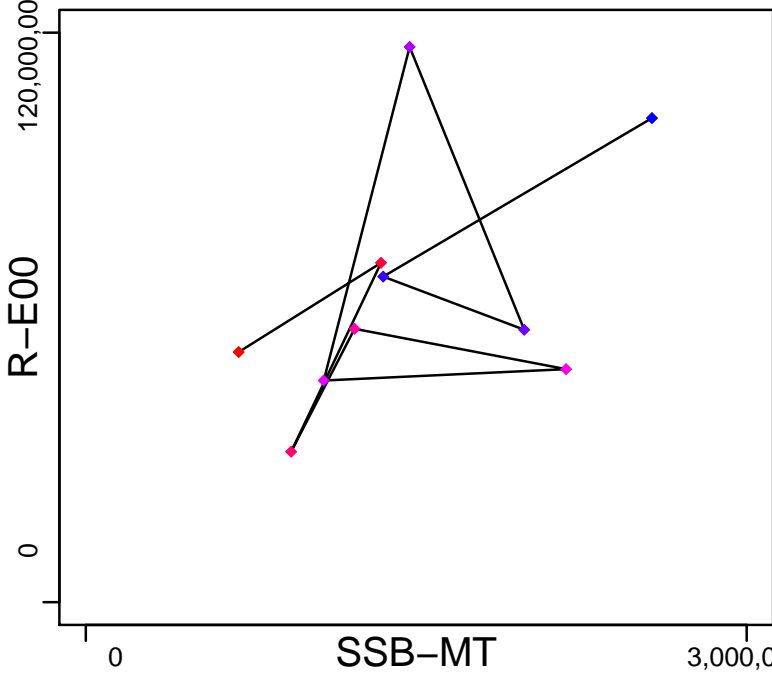
Kobe MSYpref (1980–2013–JPNIMP2016)



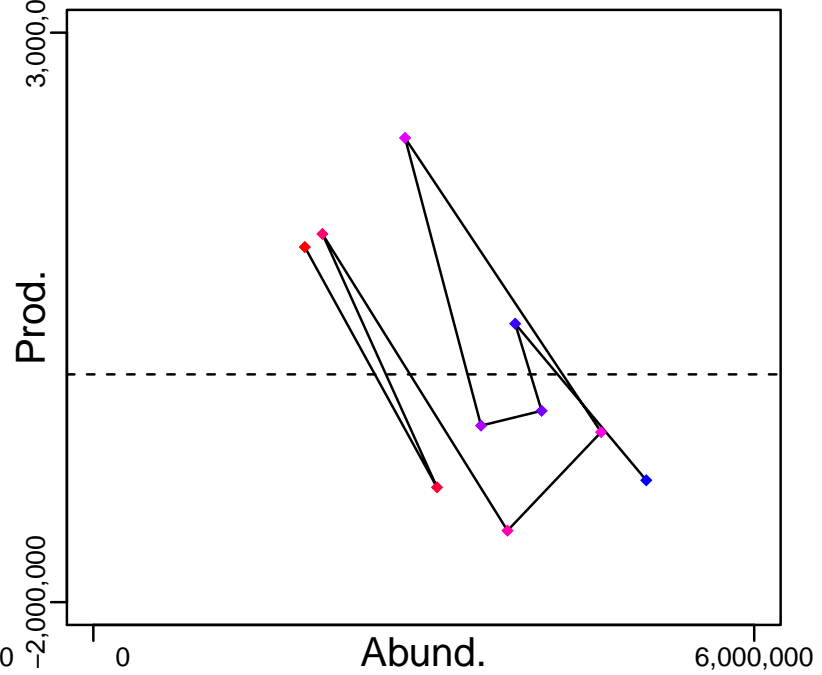
Kobe MGTpref (1980–2013–JPNIMP2016)



Spawner Recruit (1980–2013–JPNIMP2016)



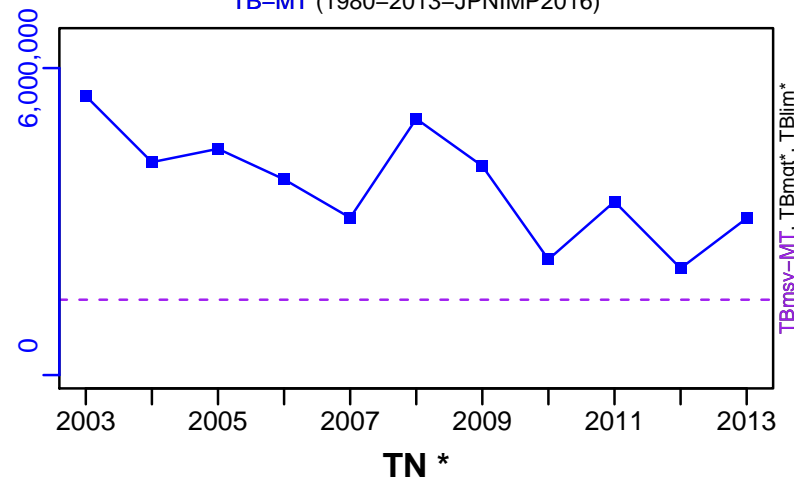
Production (1980–2013–JPNIMP2016)



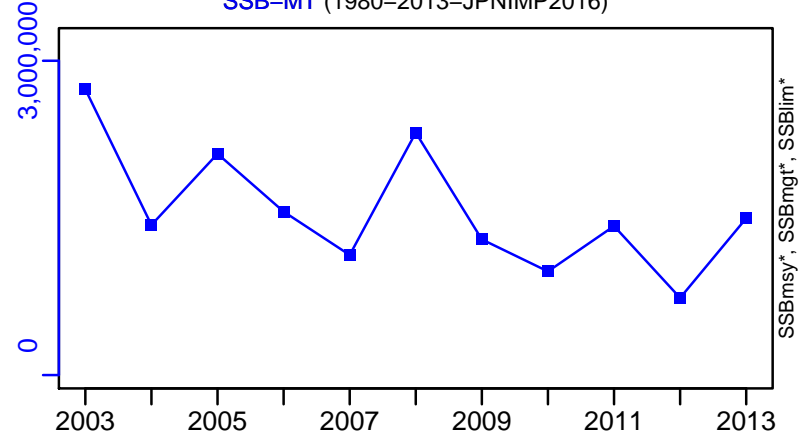
◆ Start Year ◆ End Year * No Data

Pacific saury Northwest Pacific [SAURNWPAC]

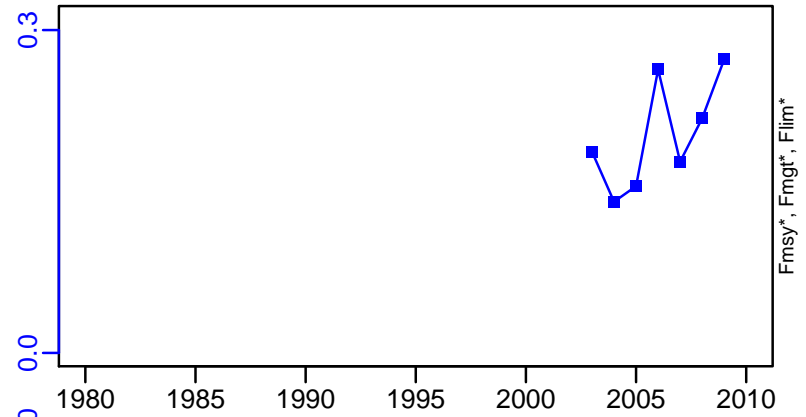
TB-MT (1980-2013-JPNIMP2016)



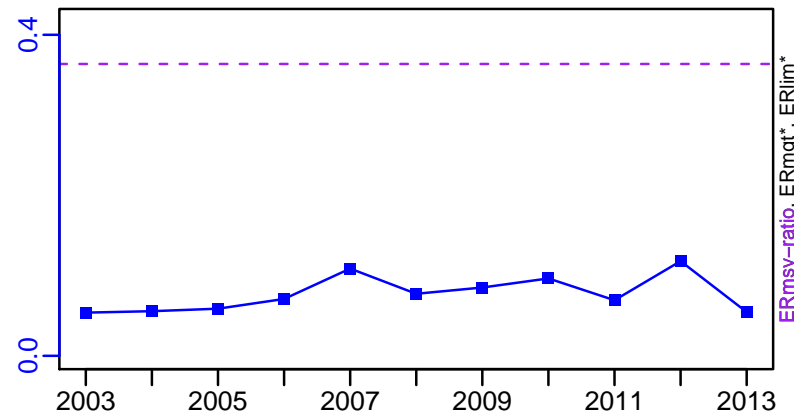
SSB-MT (1980-2013-JPNIMP2016)



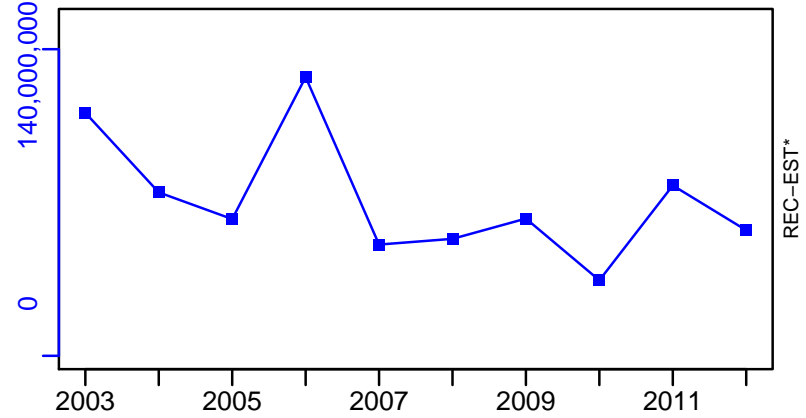
F-1/yr (1980-2010-ONO)



ER-calc-ratio (1980-2013-JPNIMP2016)



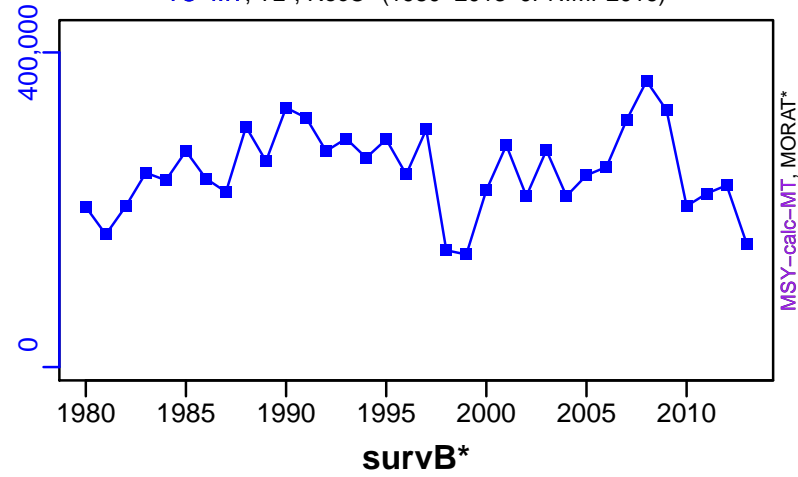
R-E00 (1980-2013-JPNIMP2016)



Pacific saury Northwest Pacific [SAURNWPAC]

TC-MT, TL*, RecC* (1980–2013–JPNIMP2016)

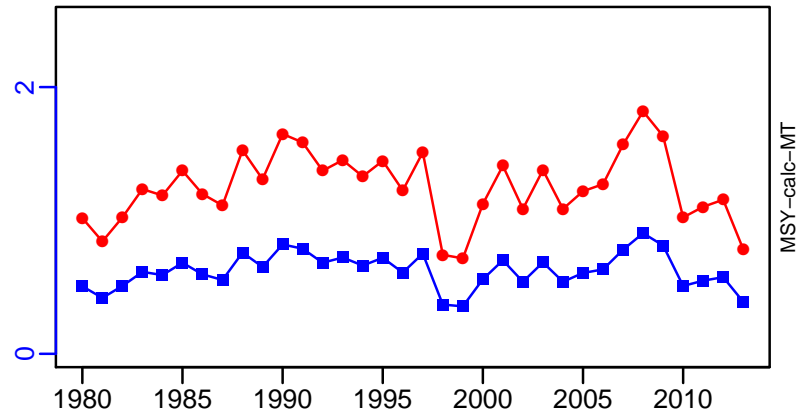
TAC*, Cpair*, Cadv*



EFFORT*



TC-MT/MSY-calc-MT, CdivMEANC-ratio, (1980–2013–JPNIMP2016)



Shako Ise and Mikawa Bay [SHAKOIMKB]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Oratosquilla oratoria |
| Current Assess ID | FAFRFJ-SHAKOIMKB-1970-2013-JPNIMP2016 |
| Area | Ise and Mikawa Bay |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

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

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 282 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

TB*



SSB*



TN *



F*



ER*

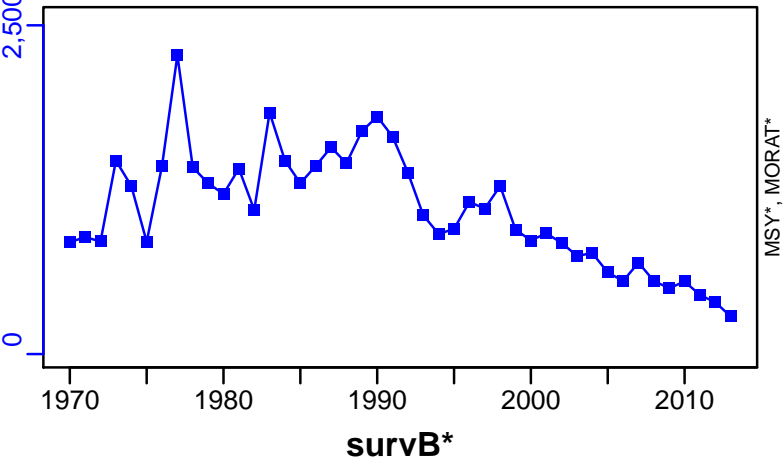


Recruits*



Shako Ise and Mikawa Bay [SHAKOIMKB]

TC-MT, TL*, RecC* (1970-2013-JPNIMP2016)



TAC*, Cpair*, Cadv*



CPUE*



EFFORT*



CdivMSY*



Snow crab Sea of Japan East [SNOWCRABESJ]

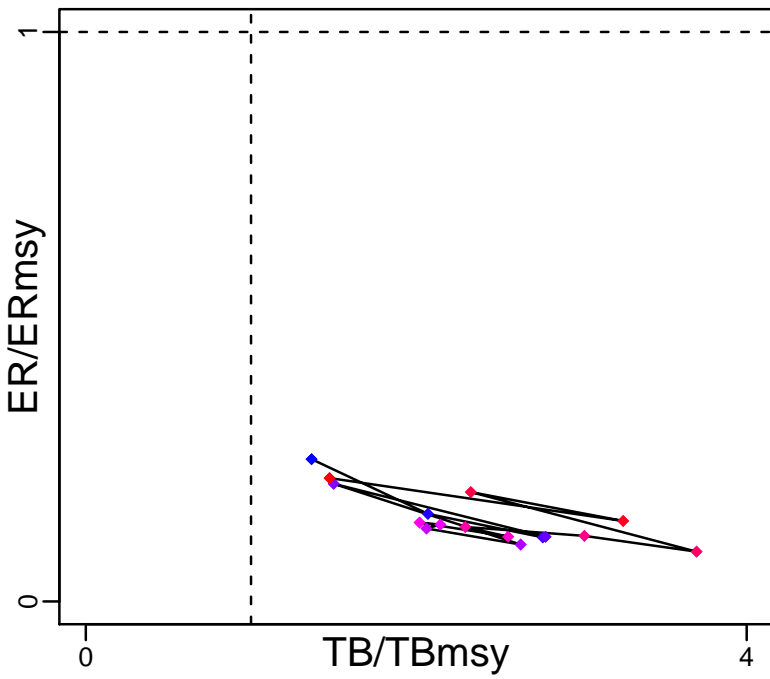
| Metadata | |
|-----------------------------|---|
| Scientific Name | Chionoecetes opilio |
| Current Assess ID | FAFRFJ-SNOWCRABESJ-1998-2014-JPNIMP2016 |
| Area | Sea of Japan East |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2014 |

| Reference Points | | | |
|------------------|-------------|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-MT | 2014 | 1193 |
| SSBmsy | - | - | - |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2014 | 0.695 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-calc-MT | 2014 | 829 |
| M | M-1/yr | 2014 | 0.35 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

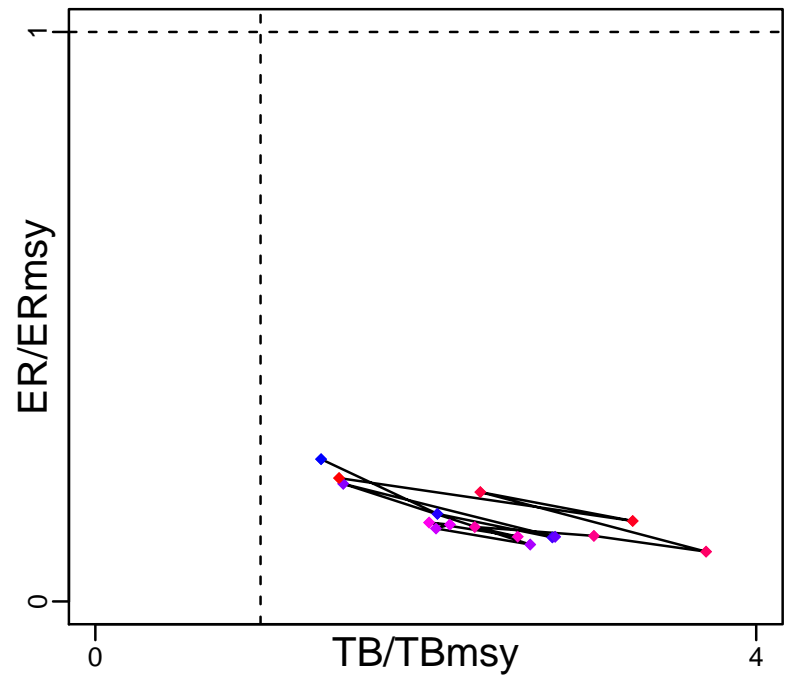
| Time Series | | | | | |
|-------------------|---------------------------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2014 | 3280 | - | 6 |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | ER-calc-ratio | 2014 | 0.151 | - | - |
| TC | TC-MT | 2014 | 265 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-MT | 2014 | 2.749 | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2014 | 0.217 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Snow crab Sea of Japan East [SNOWCRABESJ]

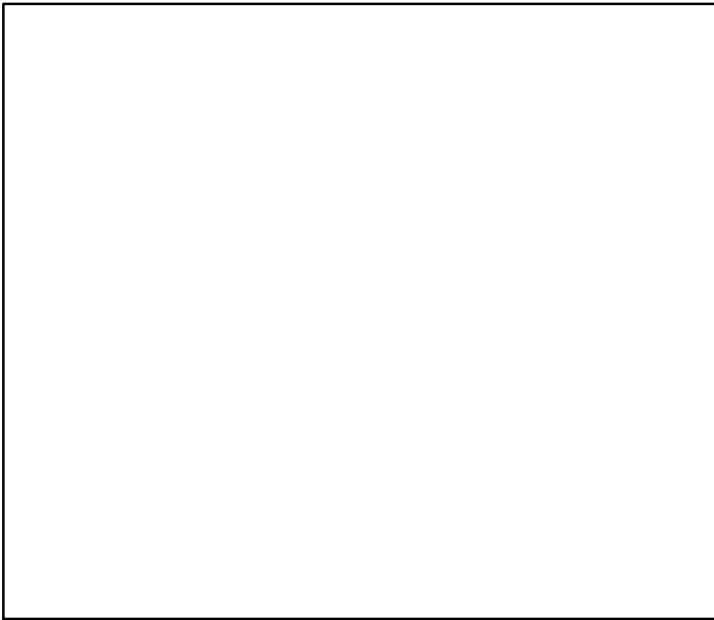
Kobe MSYpref (1998–2014–JPNIMP2016)



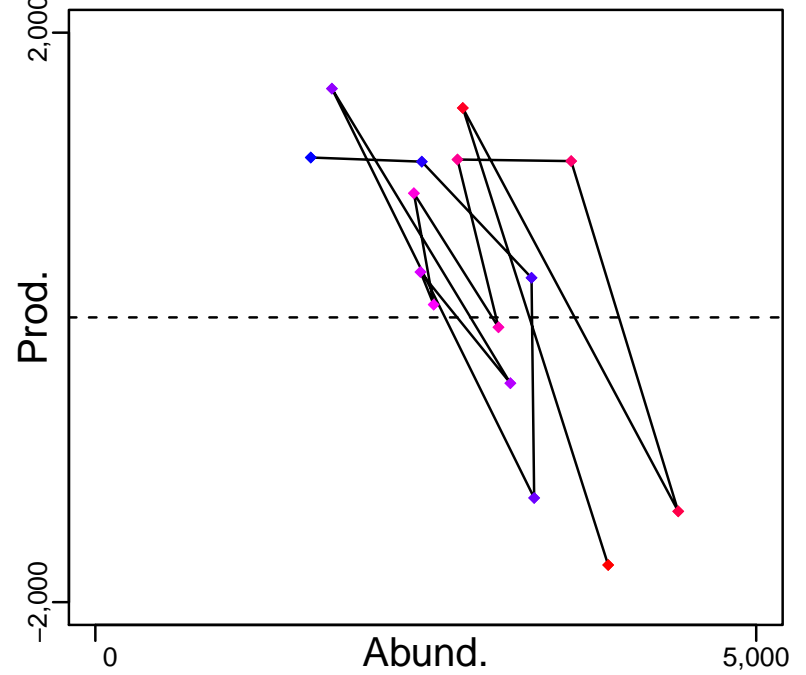
Kobe MGTpref (1998–2014–JPNIMP2016)



Spawner Recruit*



Production (1998–2014–JPNIMP2016)

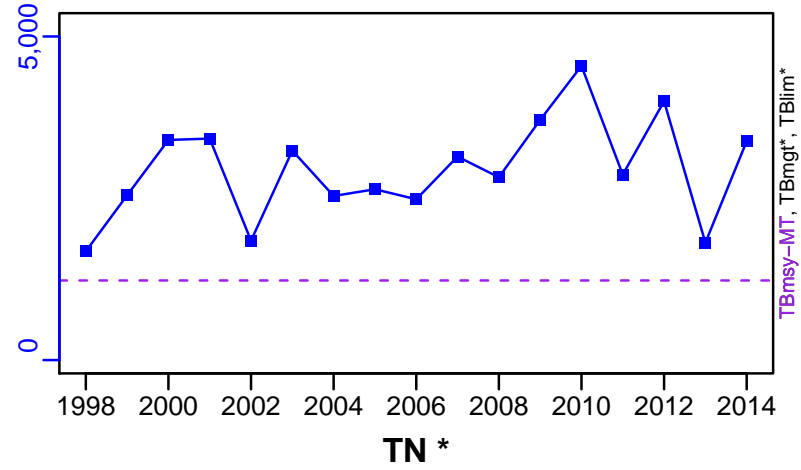


◆ Start Year ◆ End Year * No Data

Snow crab Sea of Japan East [SNOWCRABESJ]

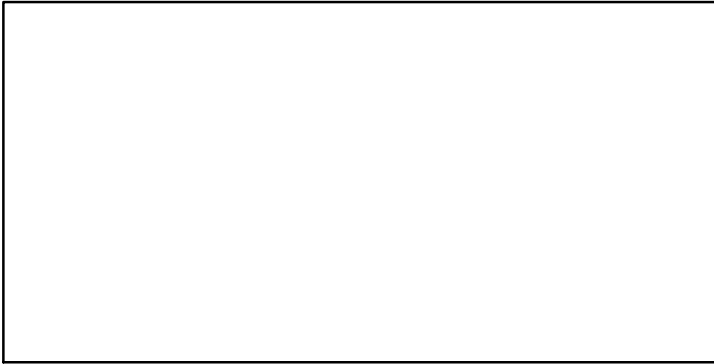
TB-MT (1998-2014-JPNIMP2016)

SSB*



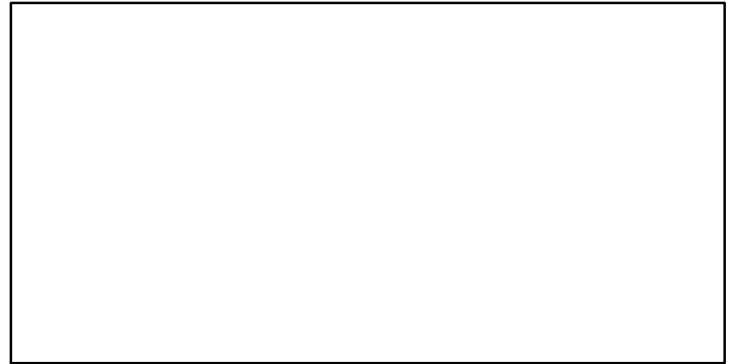
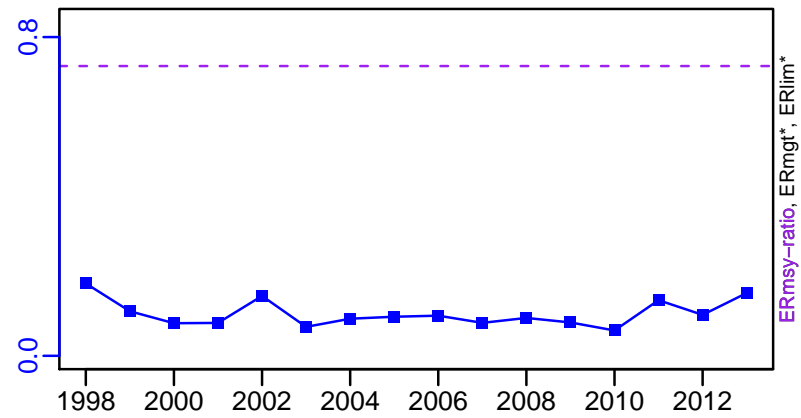
TN *

F*



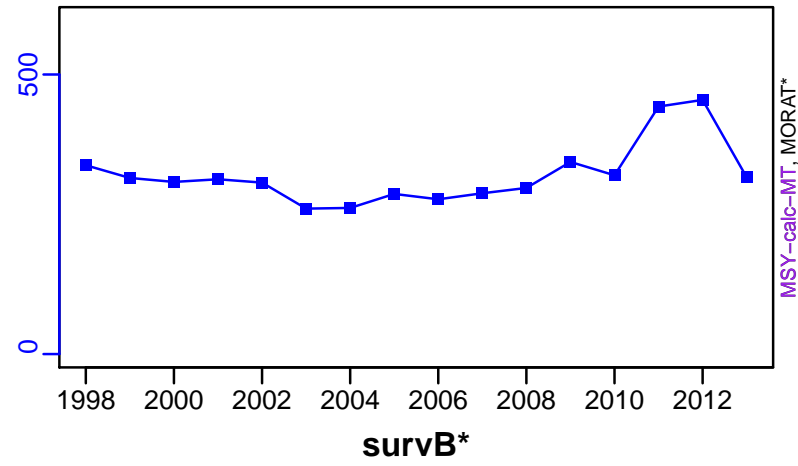
ER-calc-ratio (1998-2014-JPNIMP2016)

Recruits*



Snow crab Sea of Japan East [SNOWCRABESJ]

TC-MT, TL*, RecC* (1998–2014–JPNIMP2016)



TAC*, Cpair*, Cadv*



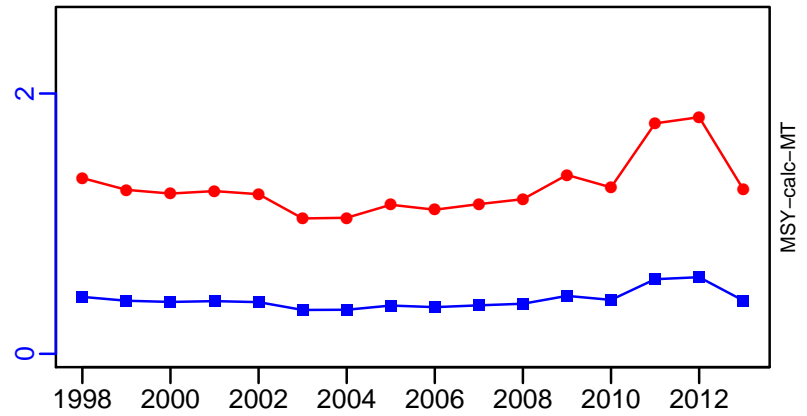
CPUE*



EFFORT*



TC-MT/MSY-calc-MT, CdivMEANC-ratio, (1998–2014–JPNIMP2016)

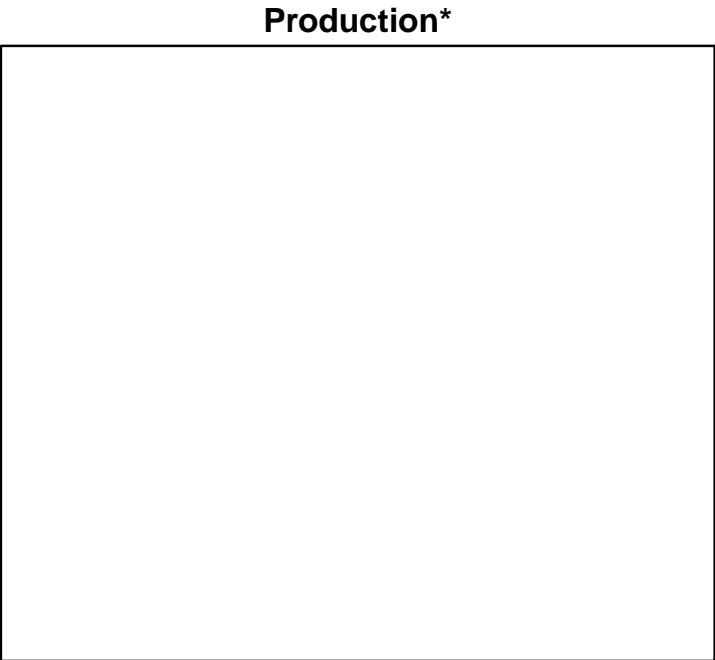
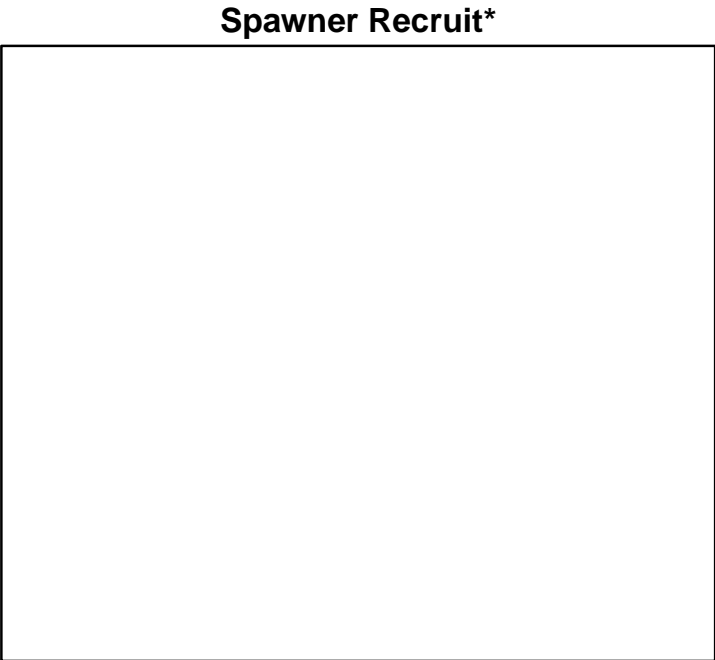
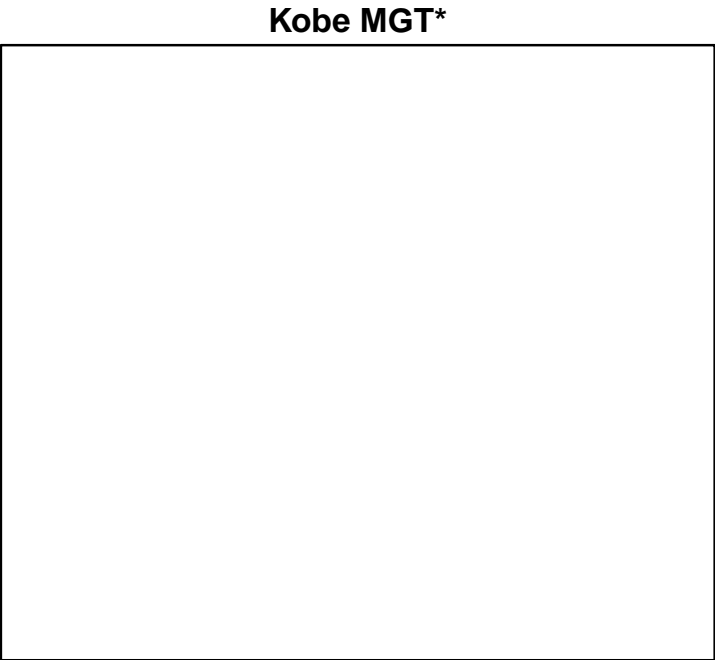
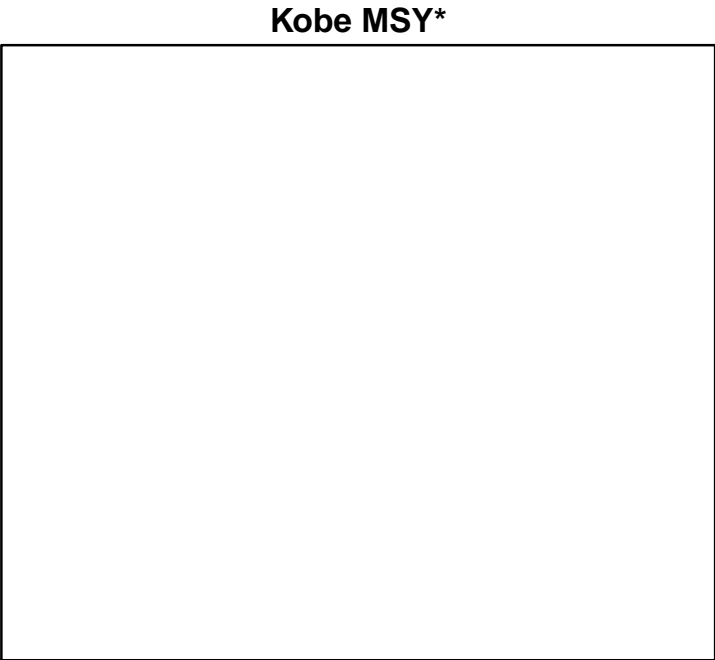


Snow crab Hokkaido [SNOWCRABHOKK]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Chionoecetes opilio |
| Current Assess ID | FAFRFJ-SNOWCRABHOKK-1986-2013-JPNIMP2016 |
| Area | Hokkaido |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

| Reference Points | | | |
|------------------|--------|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | - | - | - |
| Fmsy | - | - | - |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | - | - | - |
| M | M-1/yr | 2013 | 0.35 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 29 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |



◆ Start Year ◆ End Year * No Data

Snow crab Hokkaido [SNOWCRABHOKK]

TB*



SSB*



TN *



F*



ER*

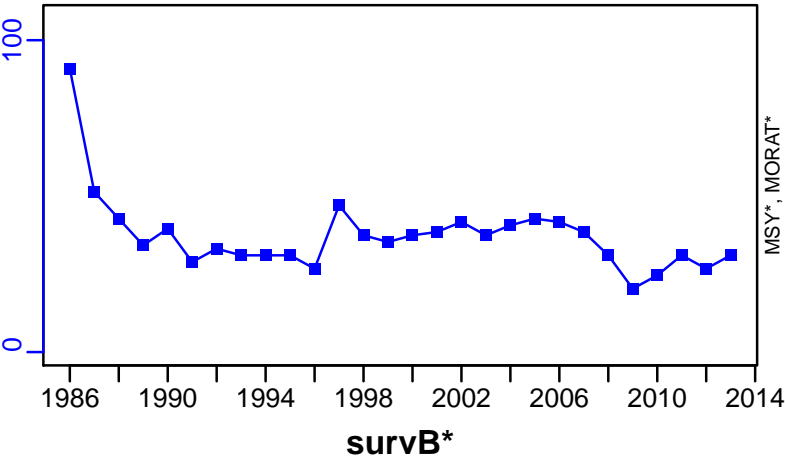


Recruits*



Snow crab Hokkaido [SNOWCRABHOKK]

TC-MT, TL*, RecC* (1986-2013-JPNIMP2016)



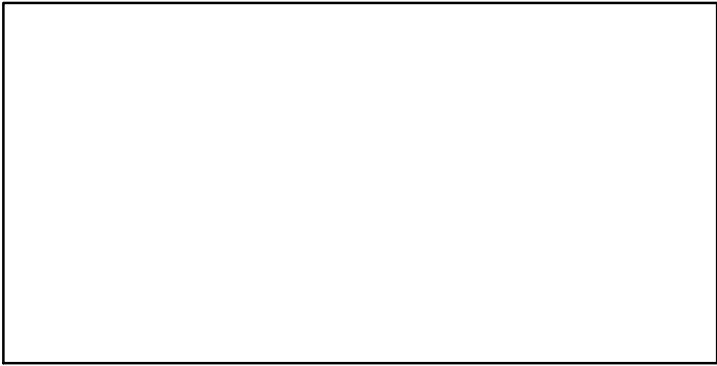
TAC*, Cpair*, Cadv*



CPUE*



EFFORT*



CdivMSY*



Snow crab North Pacific [SNOWCRABNPAC]

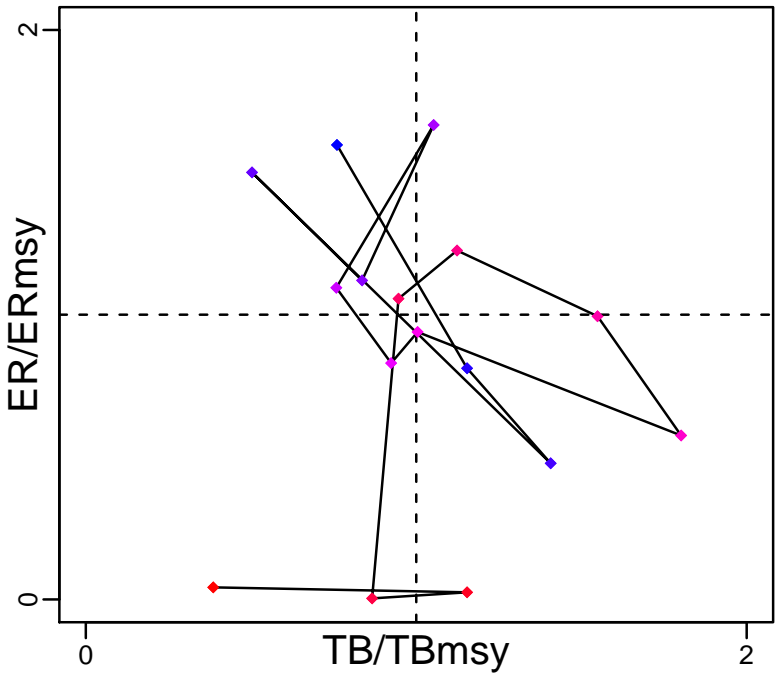
| Metadata | |
|-----------------------------|---|
| Scientific Name | Chionoecetes opilio |
| Current Assess ID | FAFRFJ-SNOWCRABNPAC-1992-2013-JPNIMP2016 |
| Area | North Pacific |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

| Reference Points | | | |
|------------------|-------------|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-MT | 2013 | 988 |
| SSBmsy | - | - | - |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2013 | 0.161 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-calc-MT | 2013 | 159 |
| M | M-1/yr | 2013 | 0.35 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

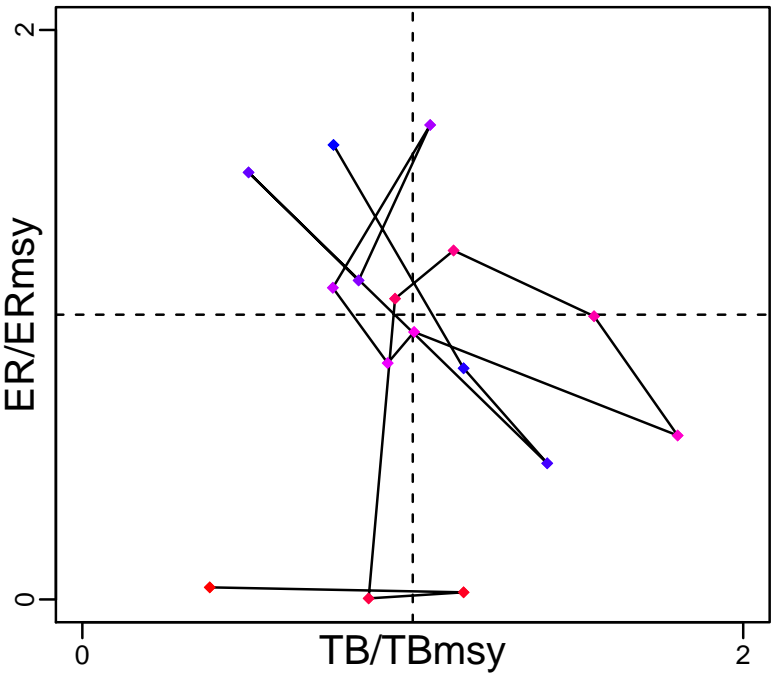
| Time Series | | | | | |
|-------------------|---------------------------|-----------|------------|---------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2013 | 381 | - | 7 |
| SSB | SSB-MT | 2013 | 83 | Females | 8 |
| TN | - | - | - | - | - |
| R | R-E00 | 2013 | 2,620,000 | - | 7 |
| F | - | - | - | - | - |
| ER | ER-calc-ratio | 2013 | 0.007 | - | - |
| TC | TC-MT | 2013 | 2.6 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-MT | 2013 | 0.386 | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2013 | 0.042 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Snow crab North Pacific [SNOWCRABNPAC]

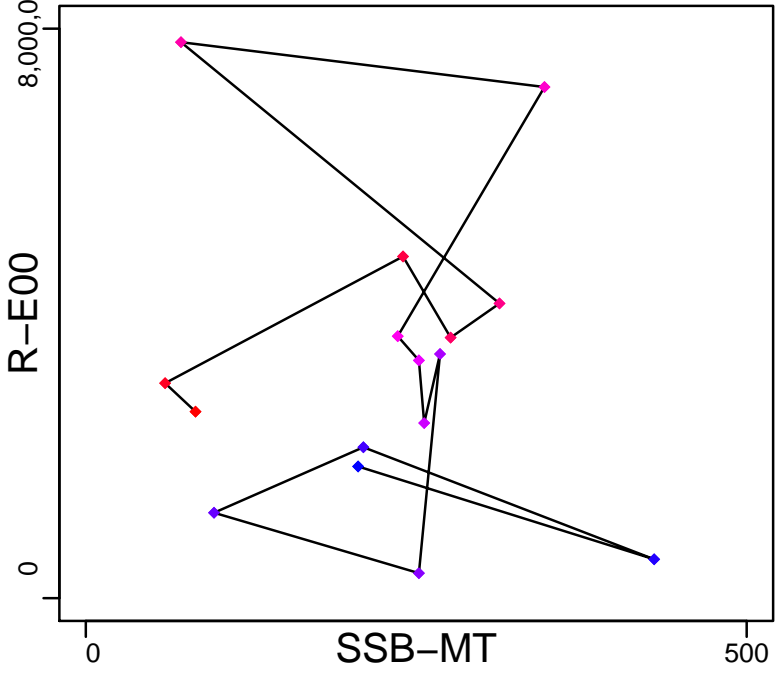
Kobe MSYpref (1992–2013–JPNIMP2016)



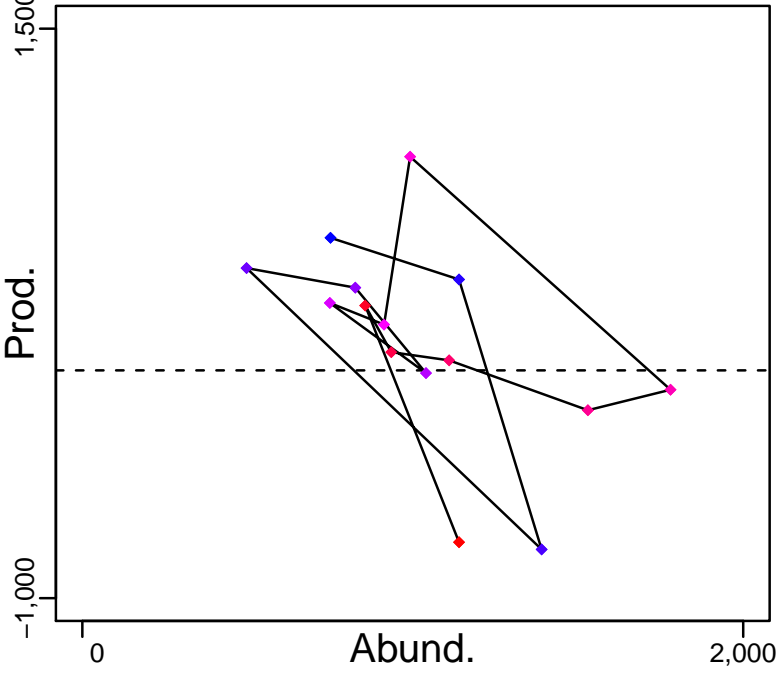
Kobe MGTpref (1992–2013–JPNIMP2016)



Spawner Recruit (1992–2013–JPNIMP2016)



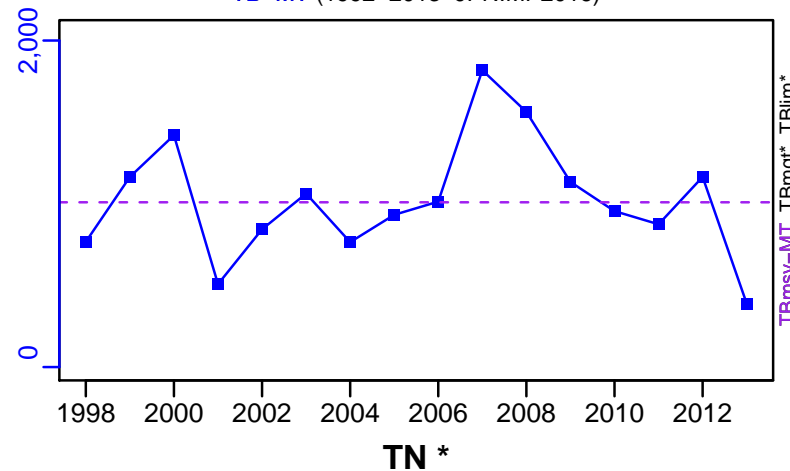
Production (1992–2013–JPNIMP2016)



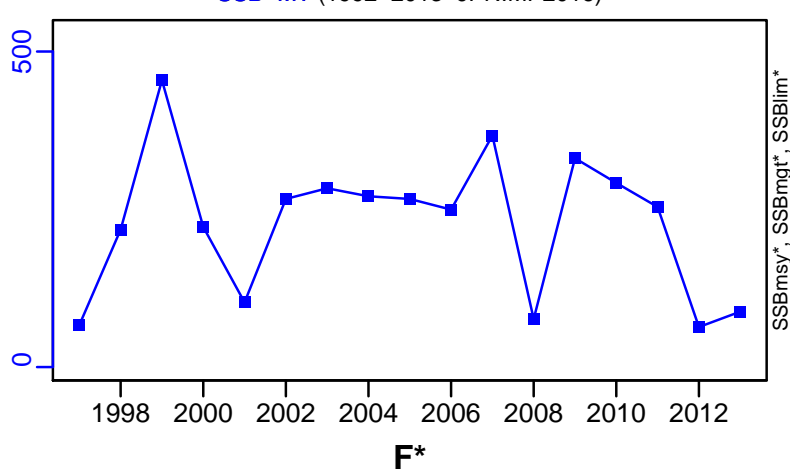
◆ Start Year ◆ End Year * No Data

Snow crab North Pacific [SNOWCRABNPAC]

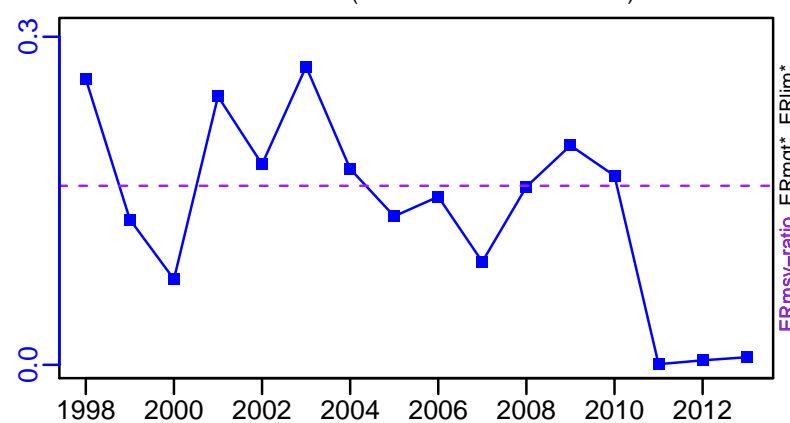
TB-MT (1992-2013-JPNIMP2016)



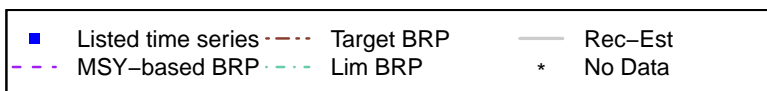
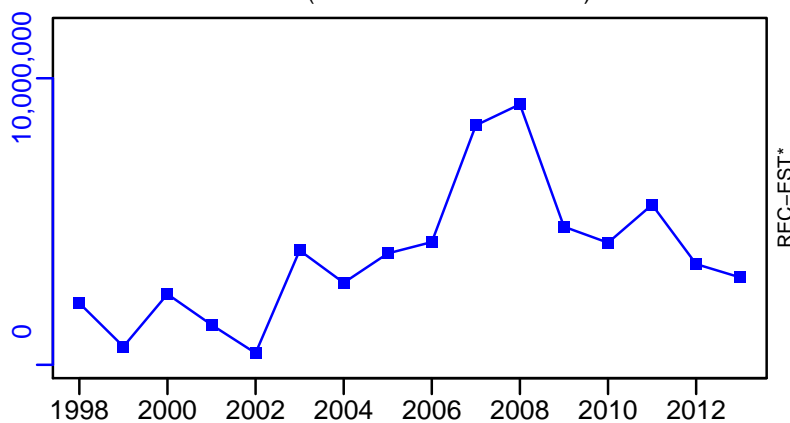
SSB-MT (1992-2013-JPNIMP2016)



ER-calc-ratio (1992-2013-JPNIMP2016)

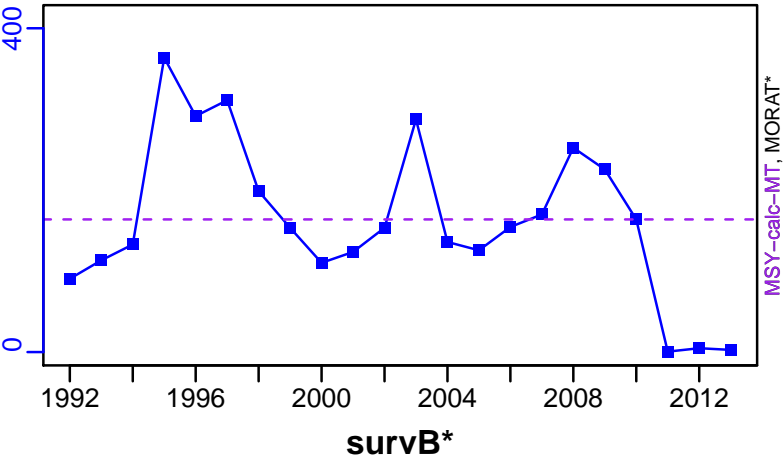


R-E00 (1992-2013-JPNIMP2016)



Snow crab North Pacific [SNOWCRABNPAC]

TC-MT, TL*, RecC* (1992-2013-JPNIMP2016)



TAC*, Cpair*, Cadv*



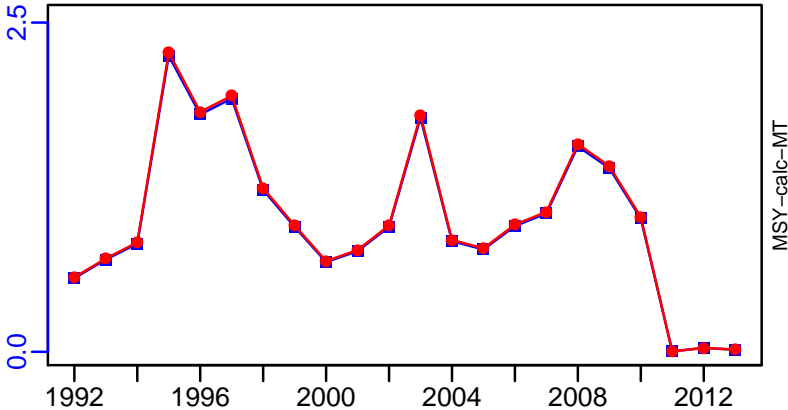
CPUE*



EFFORT*



TC-MT/MSY-calc-MT, CdivMEANC-ratio, (1992-2013-JPNIMP2016)



Snow crab Okhotsk Sea [SNOWCRABOKS]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Chionoecetes opilio |
| Current Assess ID | FAFRFJ-SNOWCRABOKS-1985-2013-JPNIMP2016 |
| Area | Okhotsk Sea |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

| Reference Points | | | |
|------------------|--------|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | - | - | - |
| Fmsy | - | - | - |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | - | - | - |
| M | M-1/yr | 2013 | 0.35 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 322 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Kobe MSY*



Kobe MGT*



Spawner Recruit*



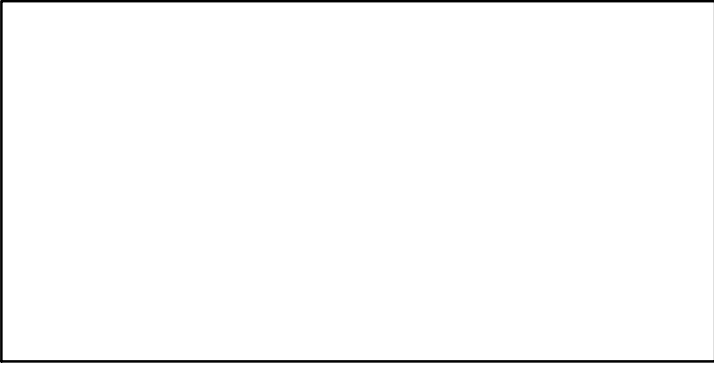
Production*



◆ Start Year ◆ End Year * No Data

Snow crab Okhotsk Sea [SNOWCRABOKS]

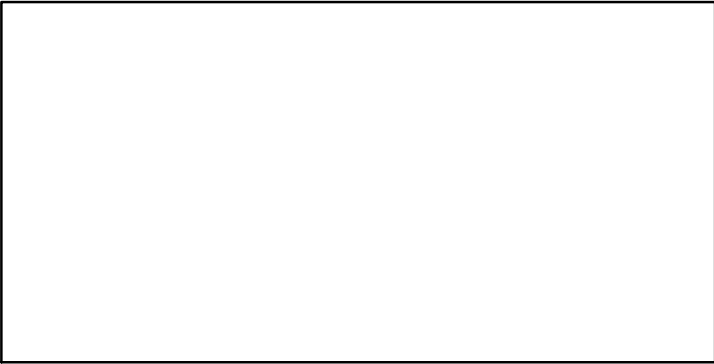
TB*



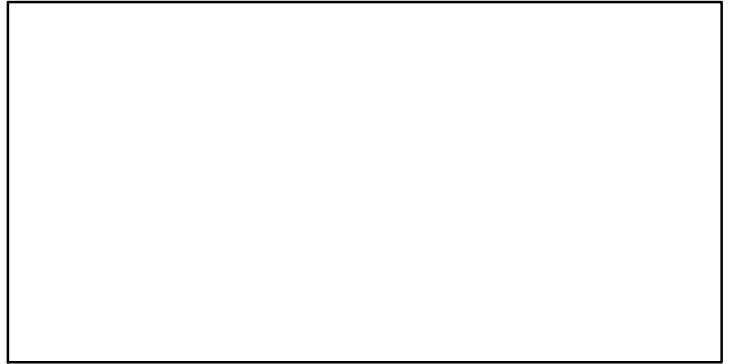
SSB*



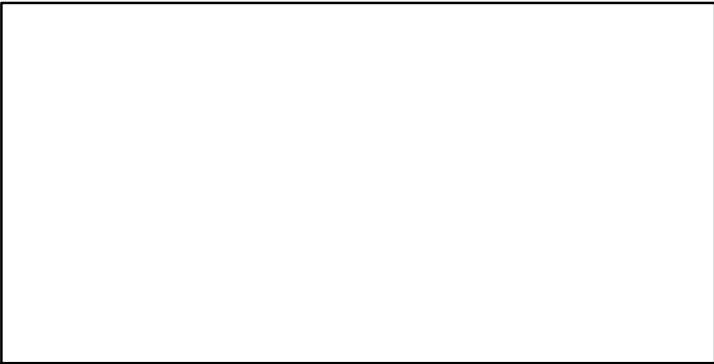
TN *



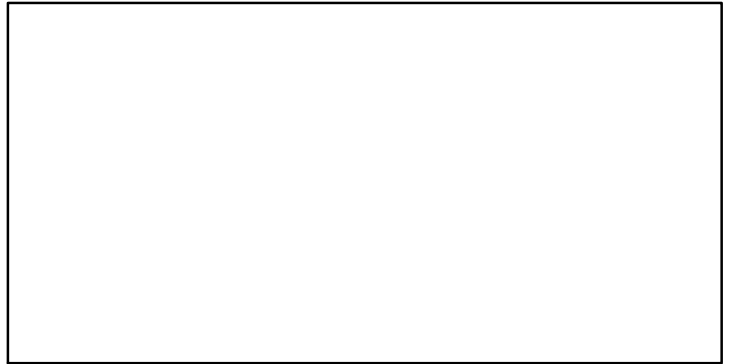
F*



ER*



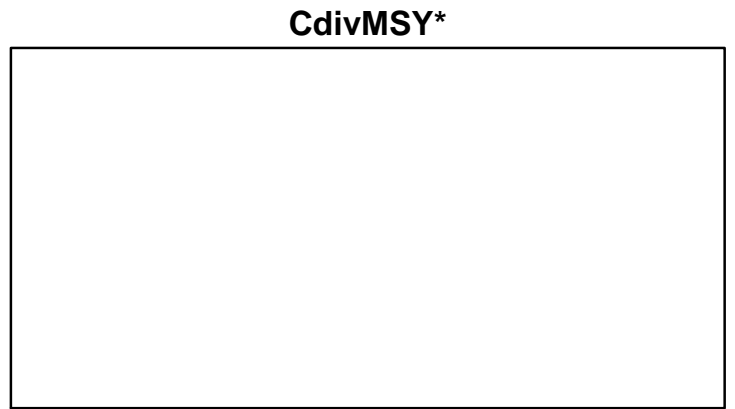
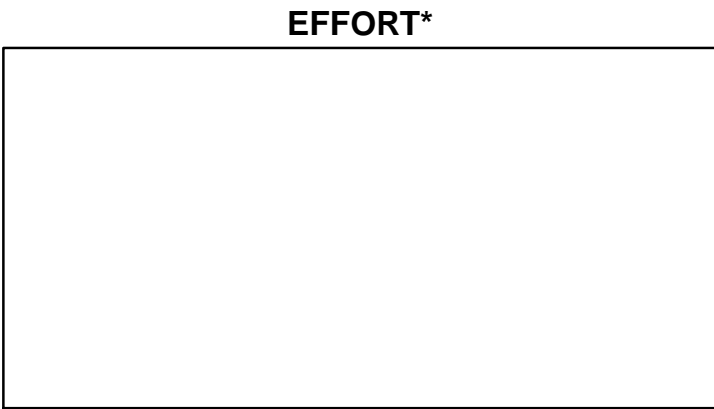
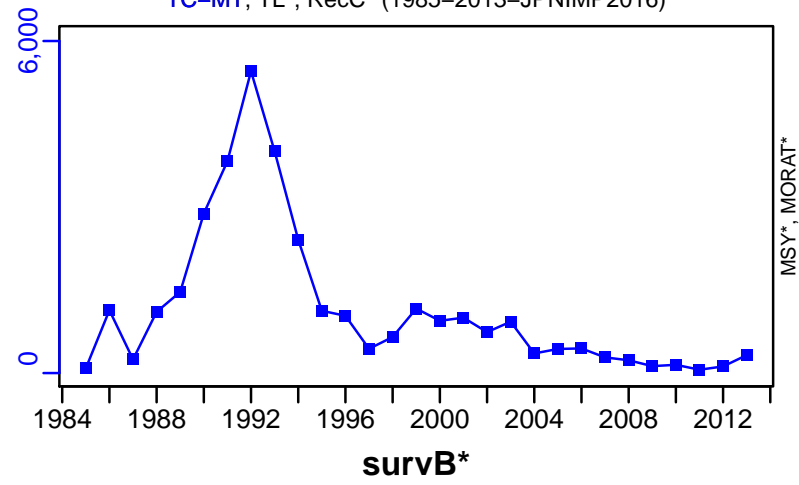
Recruits*



Snow crab Okhotsk Sea [SNOWCRABOKS]

TC-MT, TL*, RecC* (1985-2013-JPNIMP2016)

TAC*, Cpair*, Cadv*



Snow crab Sea of Japan West [SNOWCRABWSJ]

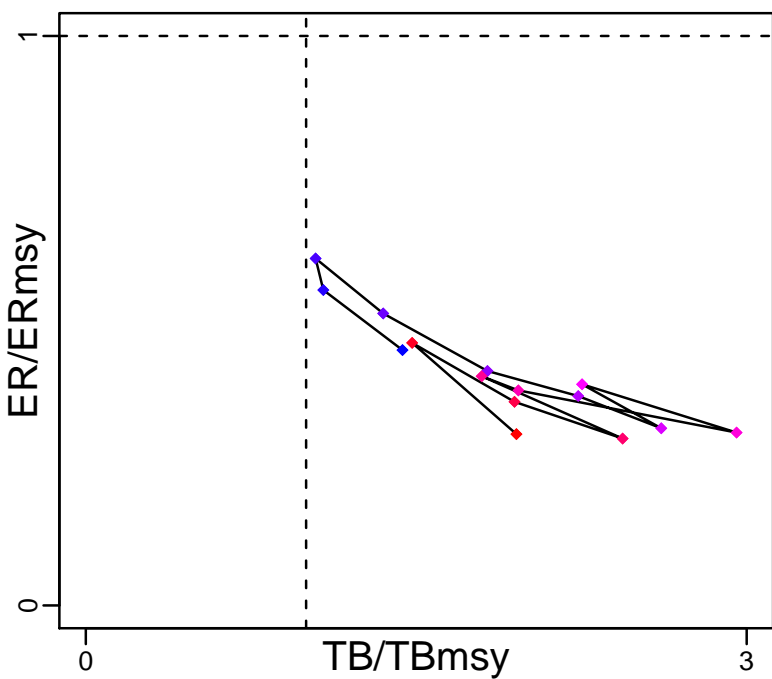
| Metadata | |
|-----------------------------|---|
| Scientific Name | Chionoecetes opilio |
| Current Assess ID | FAFRFJ-SNOWCRABWSJ-1999-2015-JPNIMP2016 |
| Area | Sea of Japan West |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2015 |

| Reference Points | | | |
|------------------|-------------|-----------|--------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-MT | 2015 | 11,408 |
| SSBmsy | - | - | - |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2015 | 0.48 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-calc-MT | 2015 | 5476 |
| M | M-1/yr | 2015 | 0.35 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

| Time Series | | | | | |
|-------------------|---------------------------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2015 | 14,700 | - | 6 |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | ER-calc-ratio | 2015 | 0.144 | - | - |
| TC | TC-MT | 2015 | 3220 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-MT | 2015 | 1.289 | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2015 | 0.301 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

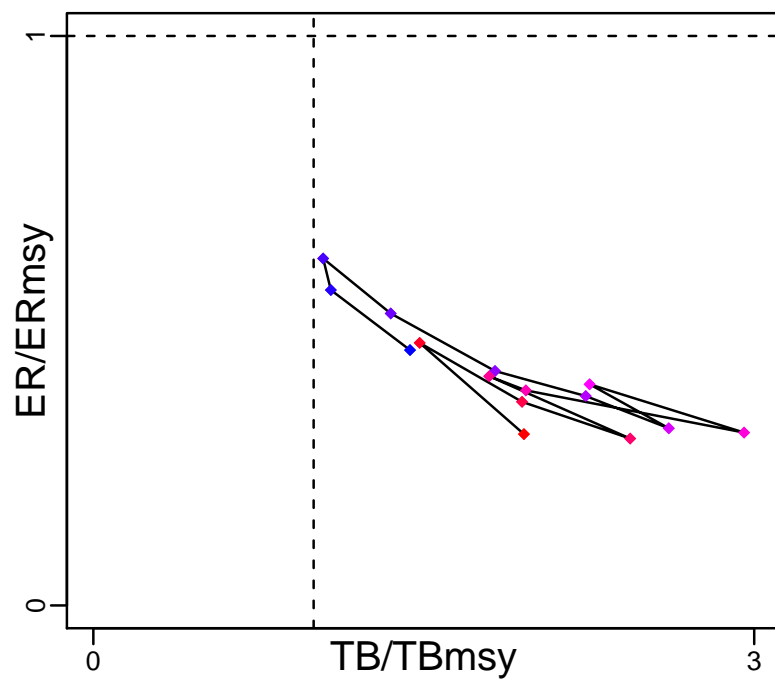
Snow crab Sea of Japan West [SNOWCRABWSJ]

Kobe MSYpref (1999–2015–JPNIMP2016)

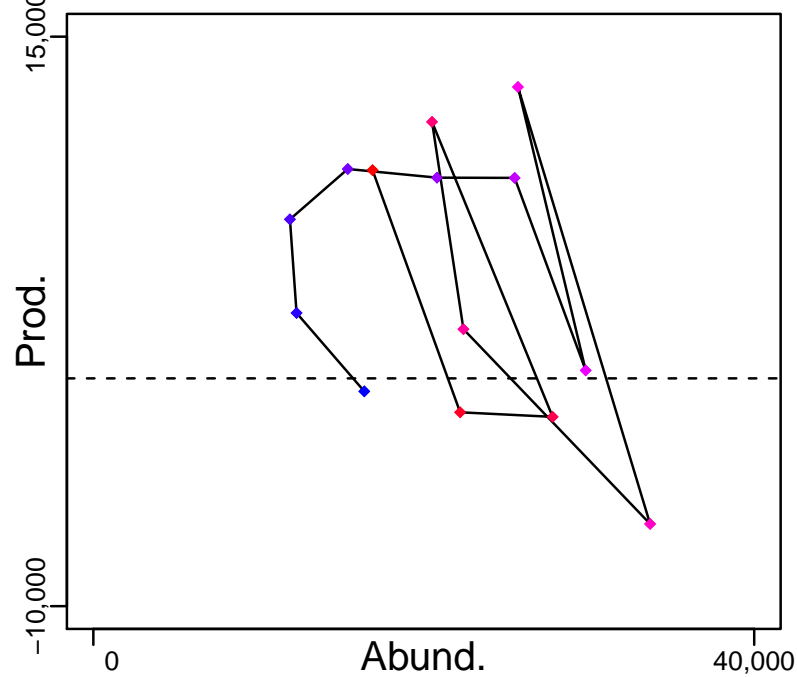


Spawner Recruit*

Kobe MGTpref (1999–2015–JPNIMP2016)



Production (1999–2015–JPNIMP2016)

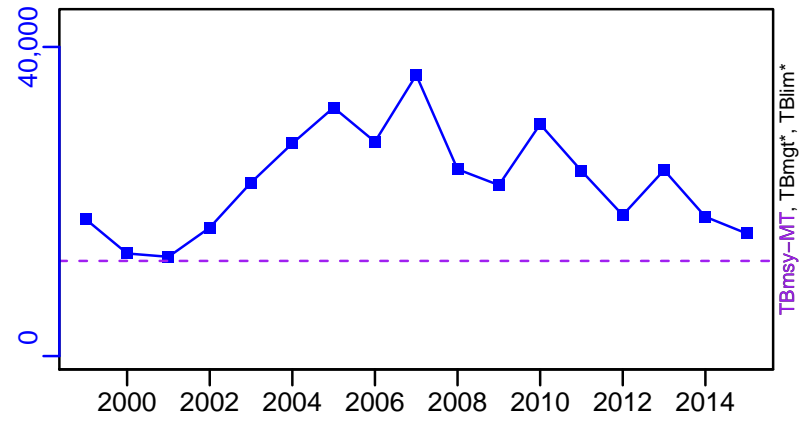


◆ Start Year ◆ End Year * No Data

Snow crab Sea of Japan West [SNOWCRABWSJ]

TB-MT (1999-2015-JPNIMP2016)

SSB*



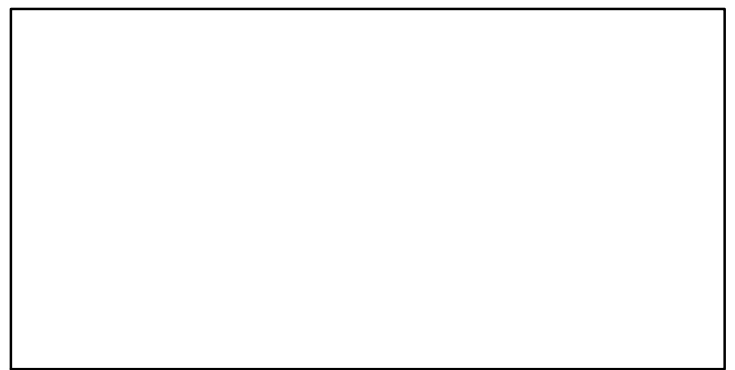
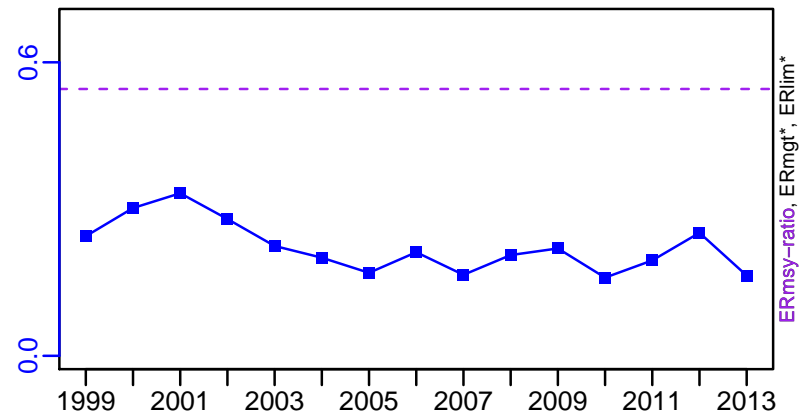
TN *

F*



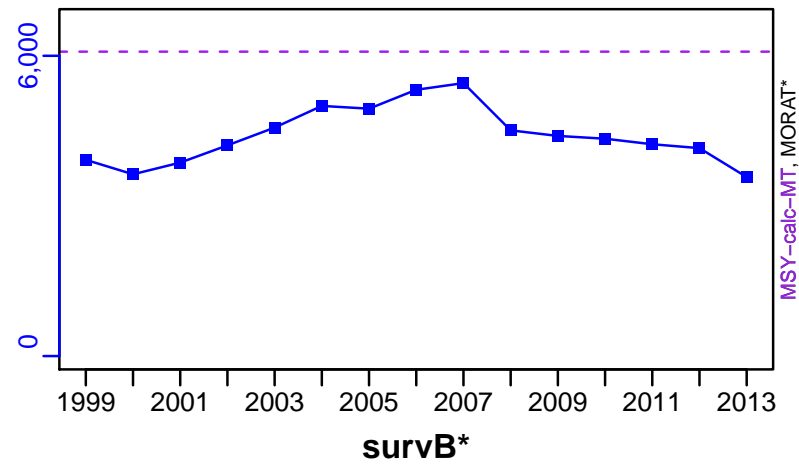
ER-calc-ratio (1999-2015-JPNIMP2016)

Recruits*



Snow crab Sea of Japan West [SNOWCRABWSJ]

TC-MT, TL*, RecC* (1999–2015–JPNIMP2016)



TAC*, Cpair*, Cadv*



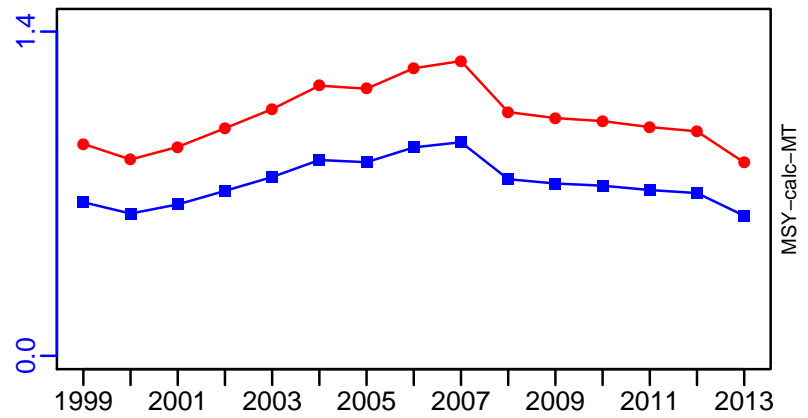
CPUE*



EFFORT*



TC-MT/MSY-calc-MT, CdivMEANC-ratio, (1999–2015–JPNIMP2016)



Japanese Spanish mackerel East China Sea [SPANMACKECS]

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

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

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

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

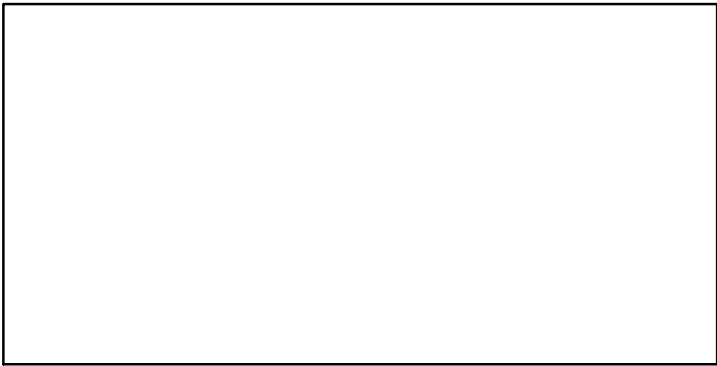
TB*



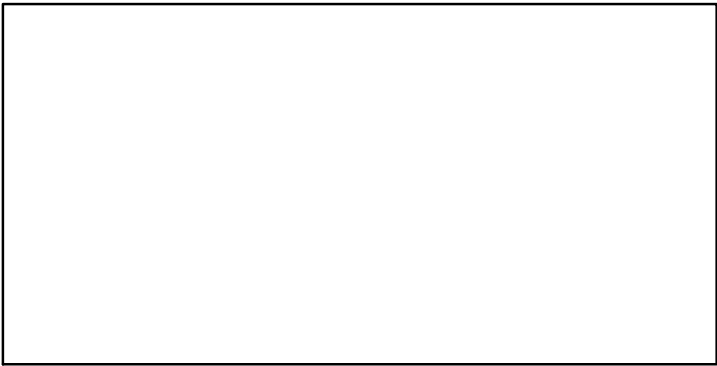
SSB*



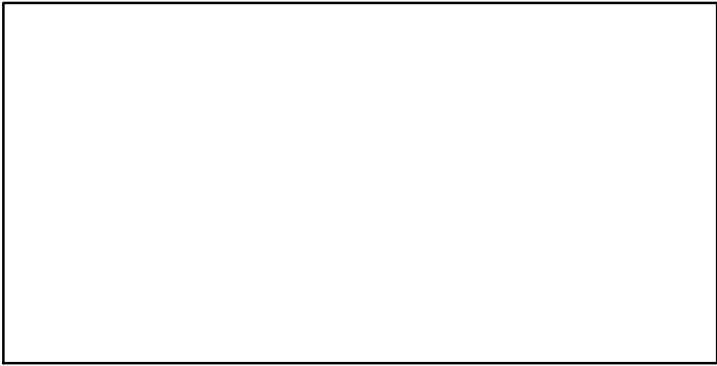
TN *



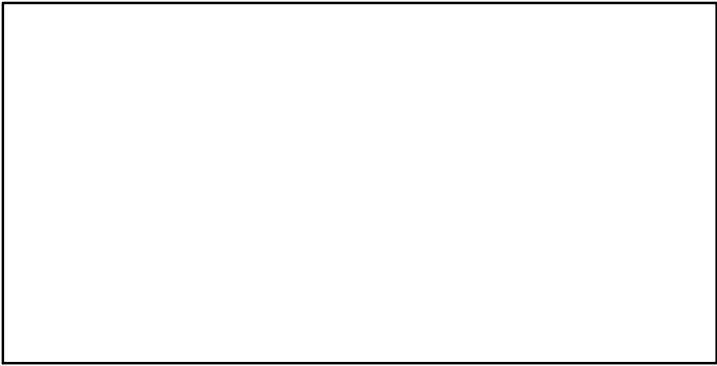
F*



ER*

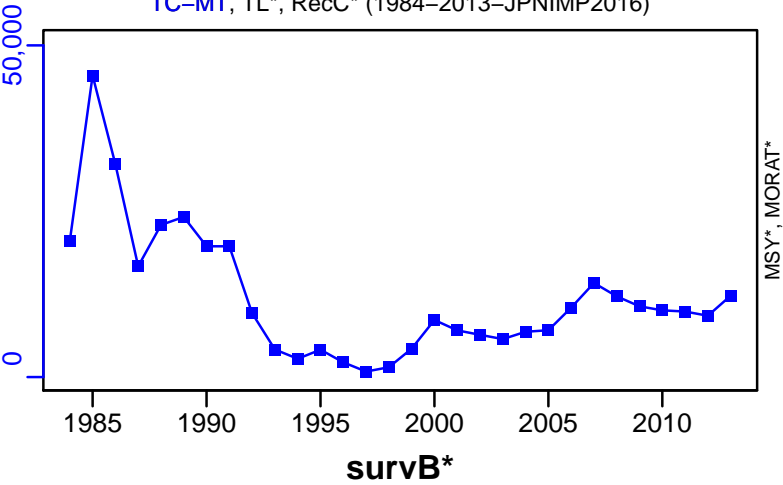


Recruits*

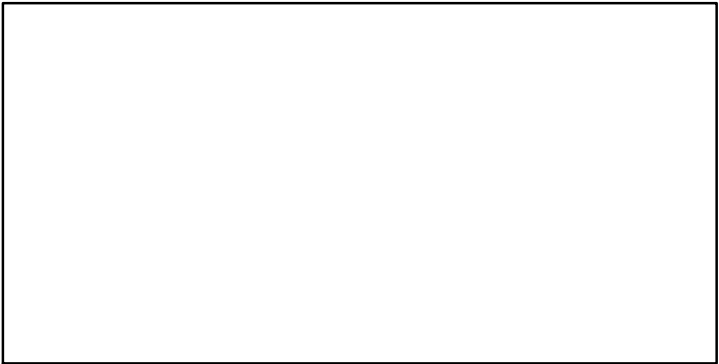


Japanese Spanish mackerel East China Sea [SPANMACK ECS]

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



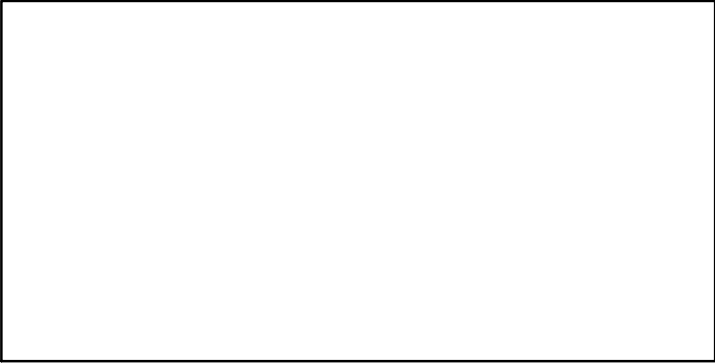
TAC*, Cpair*, Cadv*



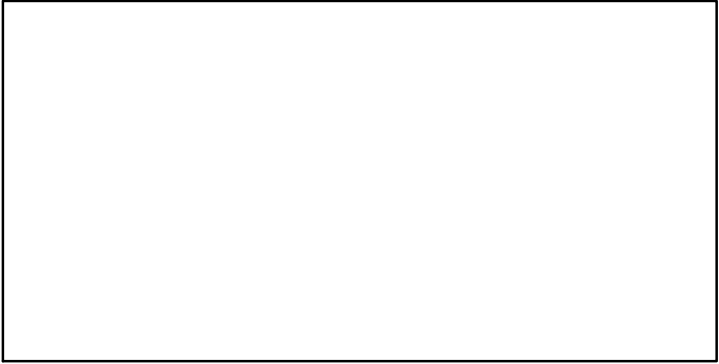
CPUE*



EFFORT*



CdivMSY*



Japanese Spanish mackerel Inland Sea of Japan [SPANMACKSETO]

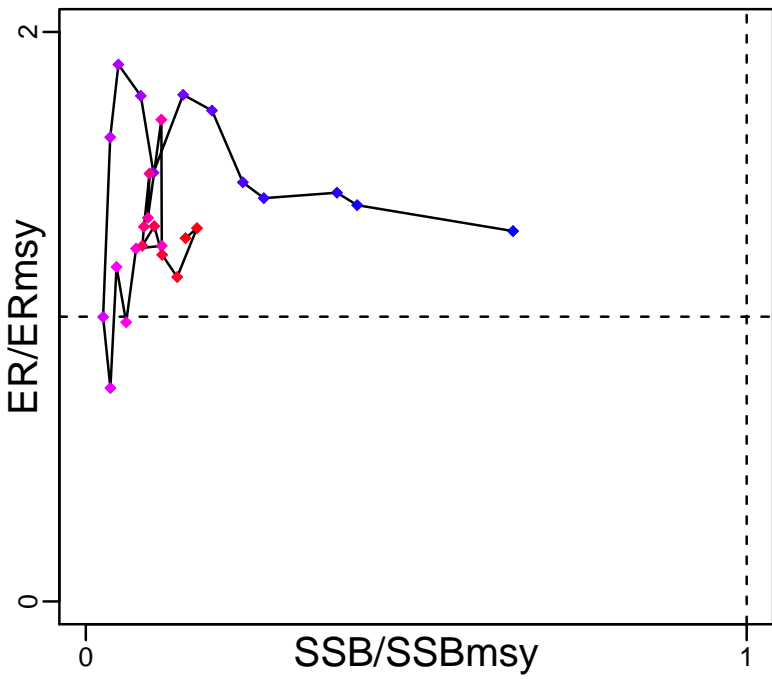
| Metadata | |
|-----------------------------|---|
| Scientific Name | Scomberomorus niphonius |
| Current Assess ID | FAFRFJ-SPANMACKSETO-1987-2013-JPNIMP2016 |
| Area | Inland Sea of Japan |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency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

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

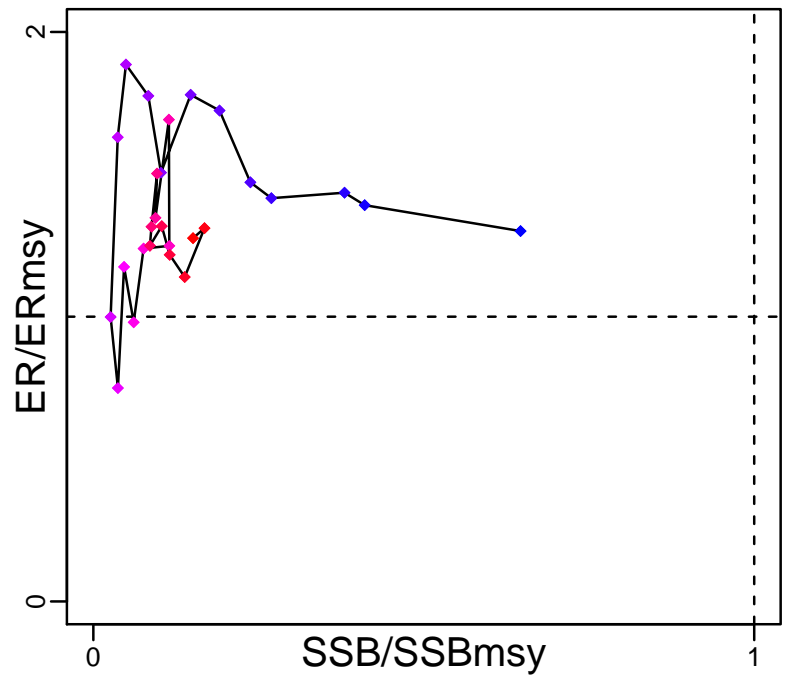
| Time Series | | | | | |
|-------------------|---------------------------|-----------|------------|------|--------|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2013 | 4930 | - | 0 |
| SSB | SSB-MT | 2013 | 2520 | Both | 1 |
| TN | - | - | - | - | - |
| R | R-E00 | 2013 | 1,410,000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

Japanese Spanish mackerel Inland Sea of Japan [SPANMACKSETO]

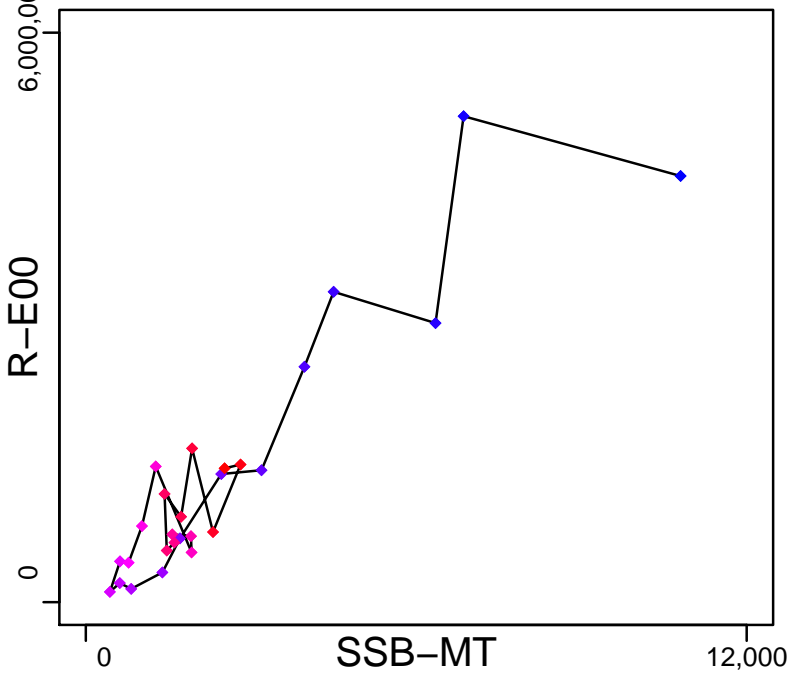
Kobe MSYpref (1987–2013–JPNIMP2016)



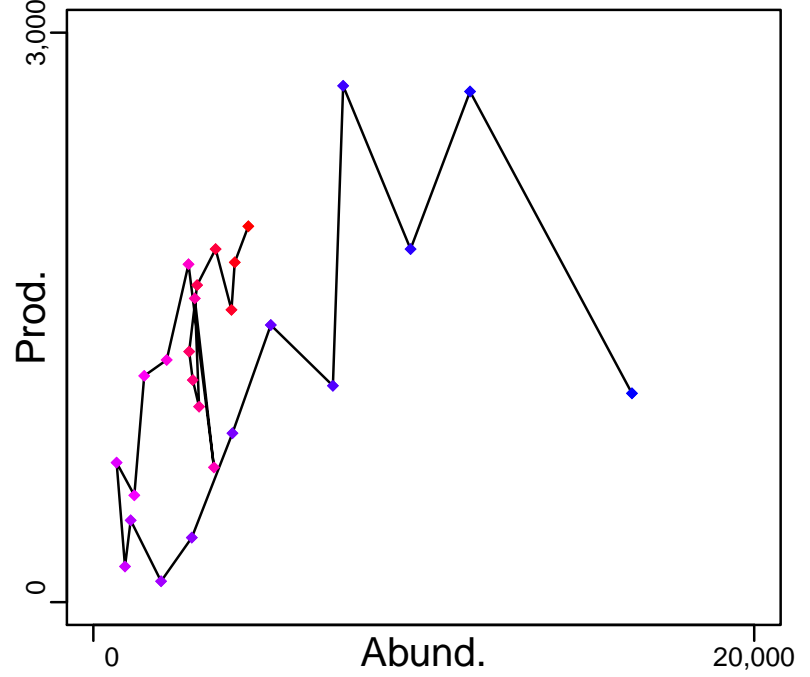
Kobe MGTpref (1987–2013–JPNIMP2016)



Spawner Recruit (1987–2013–JPNIMP2016)



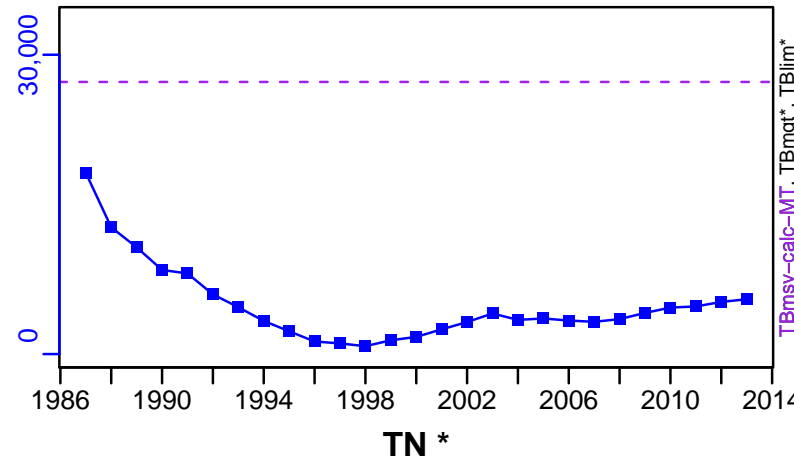
Production (1987–2013–JPNIMP2016)



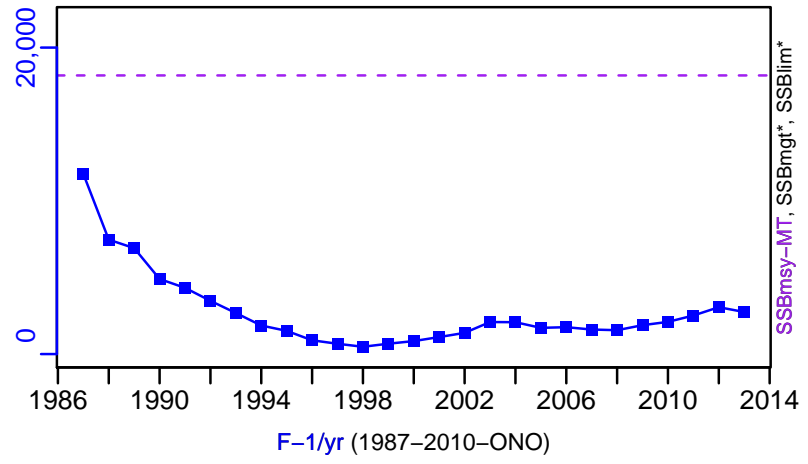
◆ Start Year ◆ End Year * No Data

Japanese Spanish mackerel Inland Sea of Japan [SPANMACKSETO]

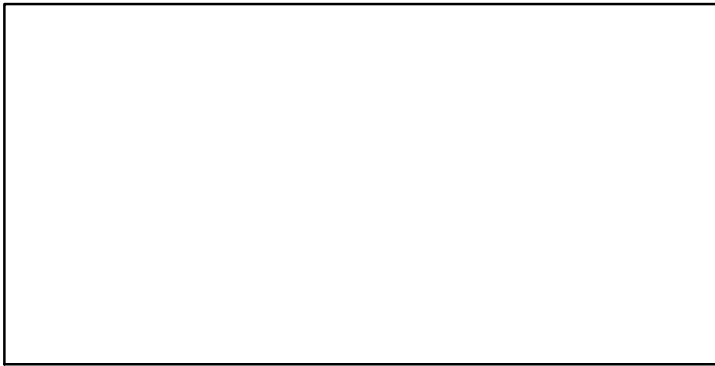
TB-MT (1987–2013–JPNIMP2016)



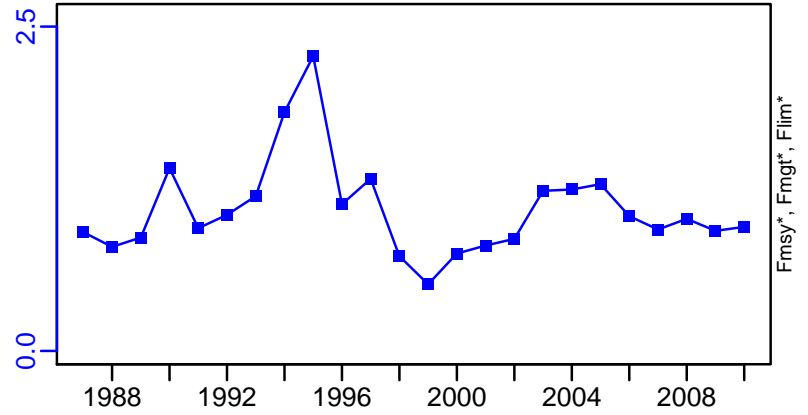
SSB-MT (1987–2013–JPNIMP2016)



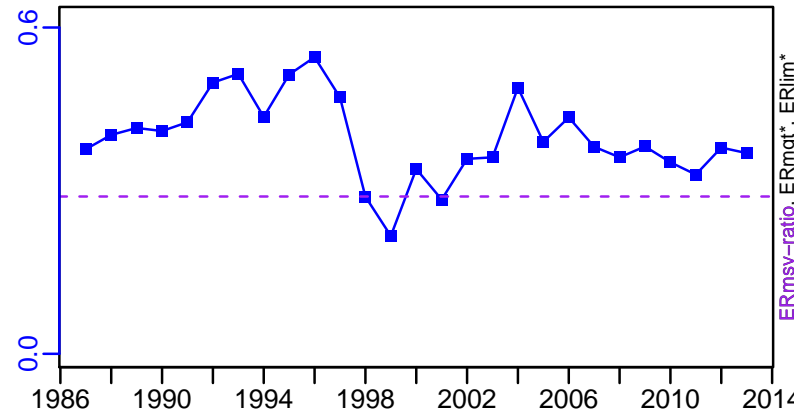
TN *



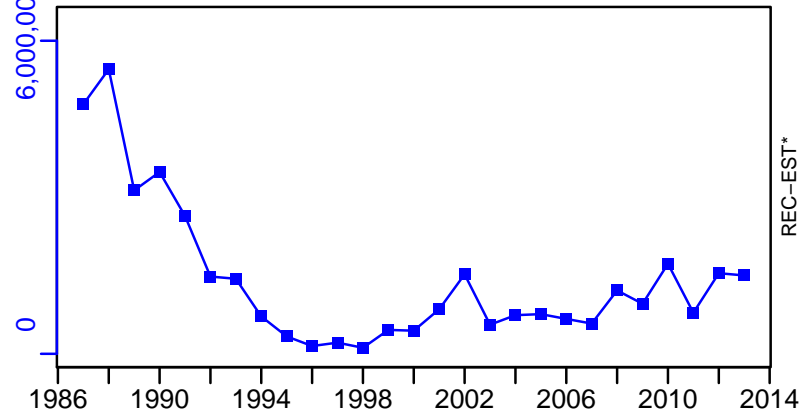
F-1/yr (1987–2010–ONO)



ER-calc-ratio (1987–2013–JPNIMP2016)

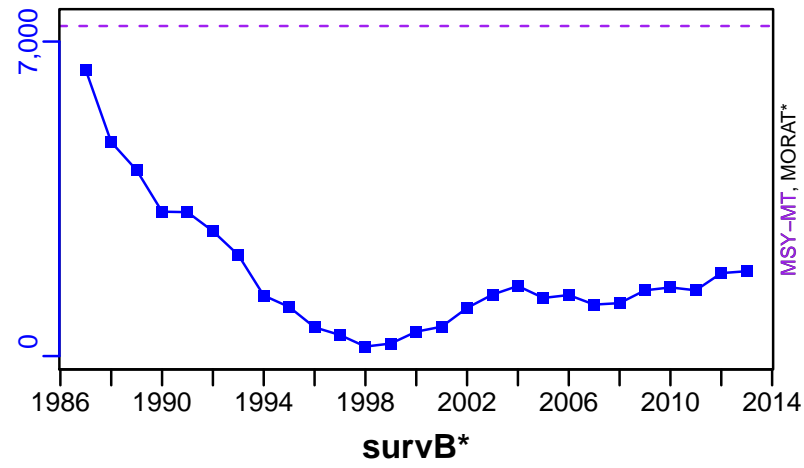


R-E00 (1987–2013–JPNIMP2016)



Japanese Spanish mackerel Inland Sea of Japan [SPANMACKSETO]

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



TAC*, Cpair*, Cadv*



survB*



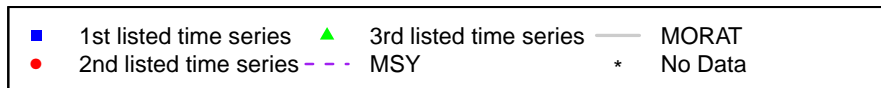
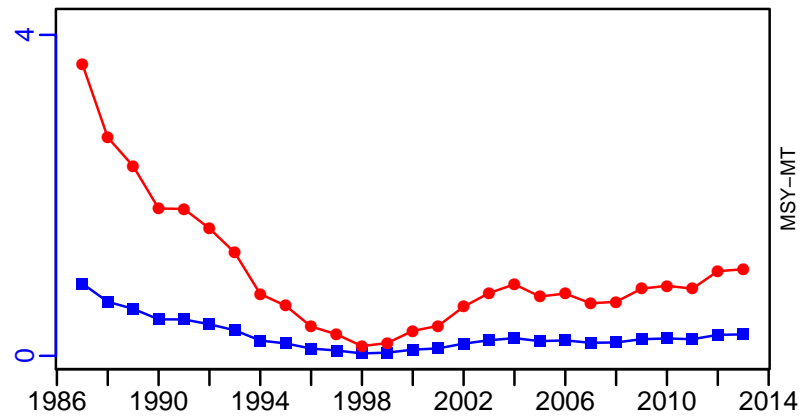
CPUE*



EFFORT*



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



Spear squid Pacific Ocean [SPSQUIDPAC]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Loligo bleekeri |
| Current Assess ID | FAFRFJ-SPSQUIDPAC-1978-2013-JPNIMP2016 |
| Area | Pacific Ocean |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

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

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 4250 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Spear squid Pacific Ocean [SPSQUIDPAC]

TB*



SSB*



TN *



F*



ER*

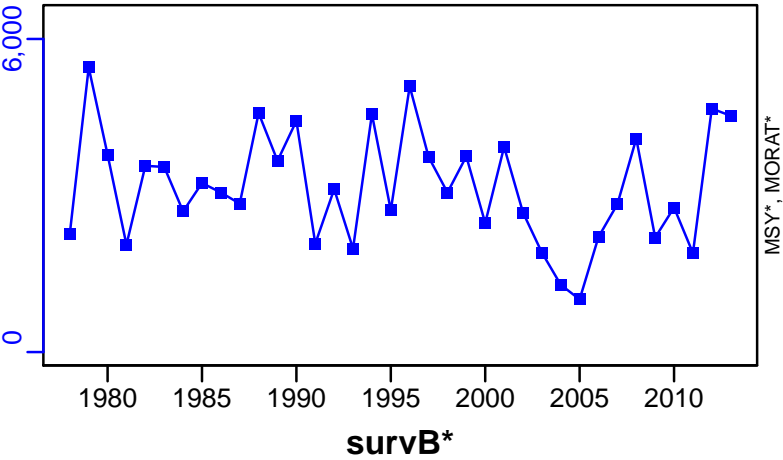


Recruits*



Spear squid Pacific Ocean [SPSQUIDPAC]

TC-MT, TL*, RecC* (1978-2013-JPNIMP2016)



TAC*, Cpair*, Cadv*



CPUE*



EFFORT*



CdivMSY*



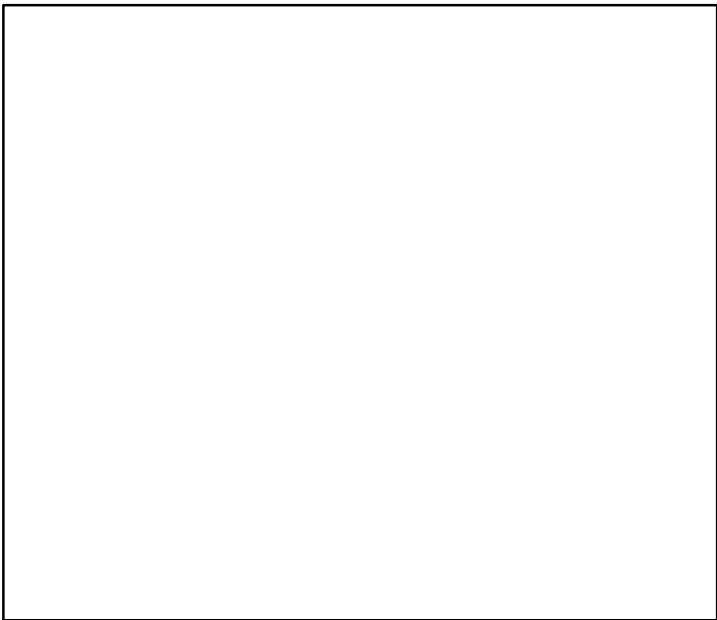
Spear squid Tsushima warm current [SPSQUIDTSSTWC]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Loligo bleekeri |
| Current Assess ID | FAFRFJ-SPSQUIDTSSTWC-1990-2013-JPNIMP2016 |
| Area | Tsushima warm current |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

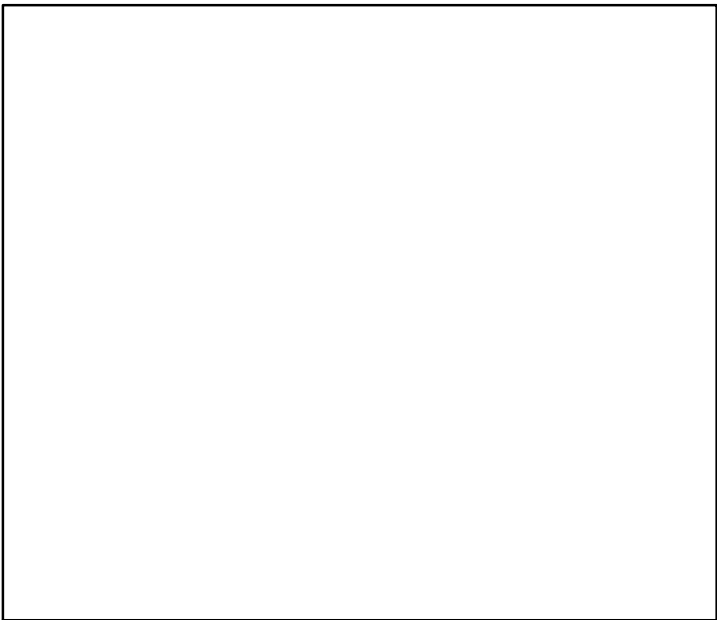
| Reference Points | | | |
|------------------|----|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | - | - | - |
| Fmsy | - | - | - |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | -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

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 2700 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

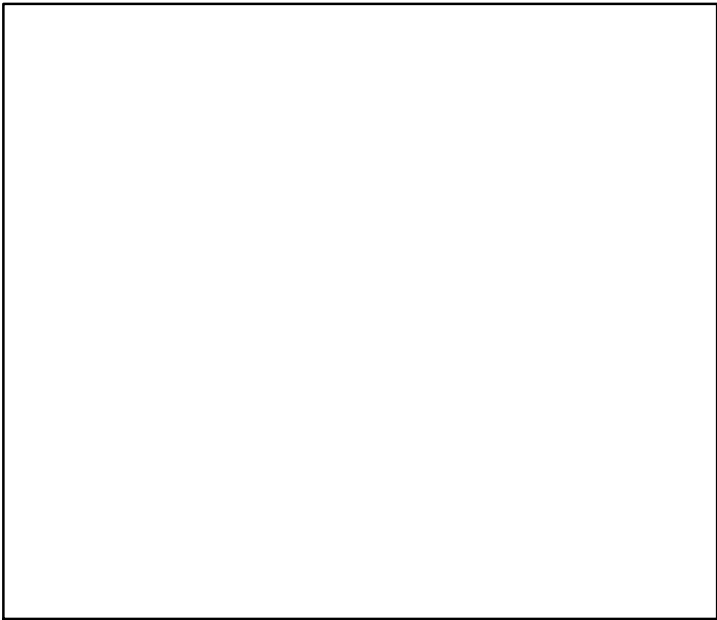
Kobe MSY*



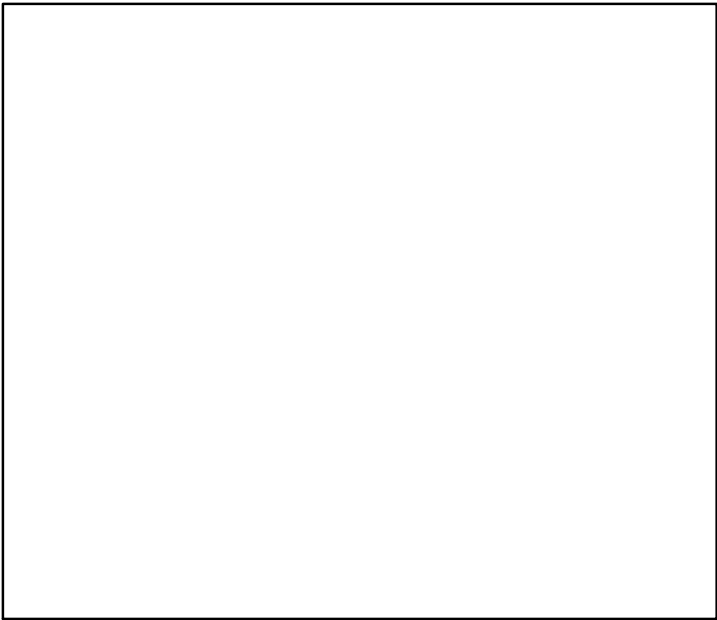
Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

TB*



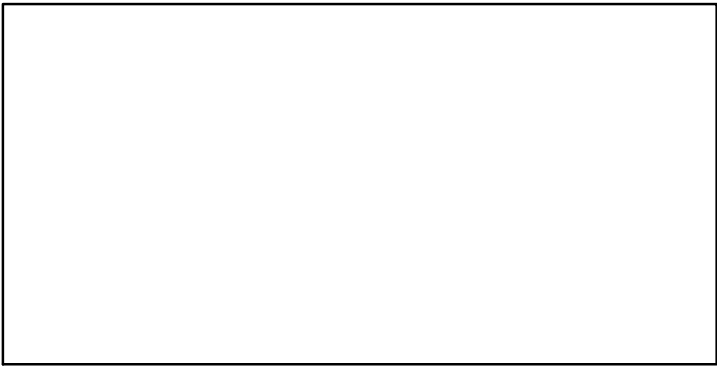
SSB*



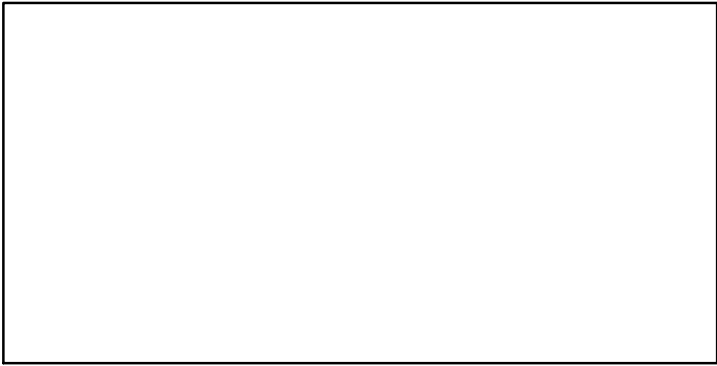
TN *



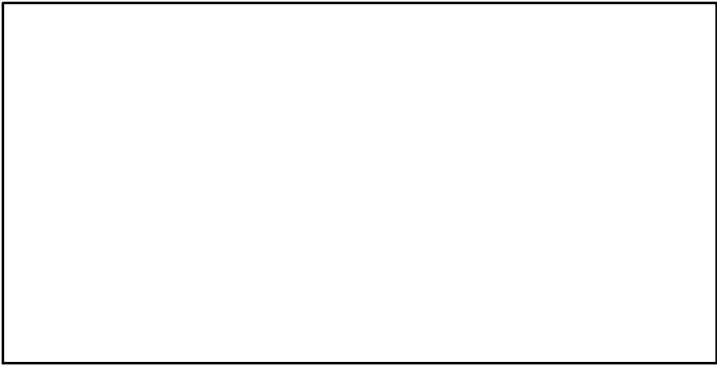
F*



ER*



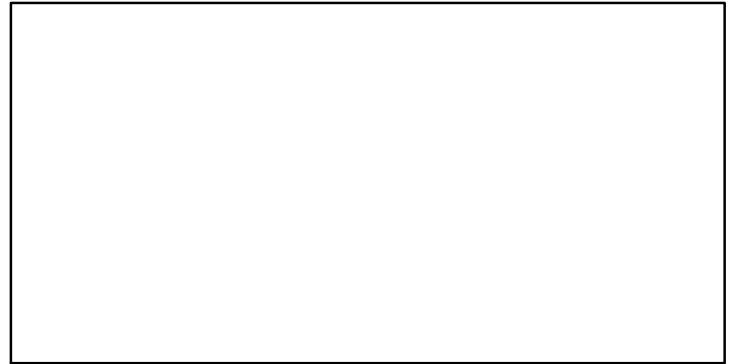
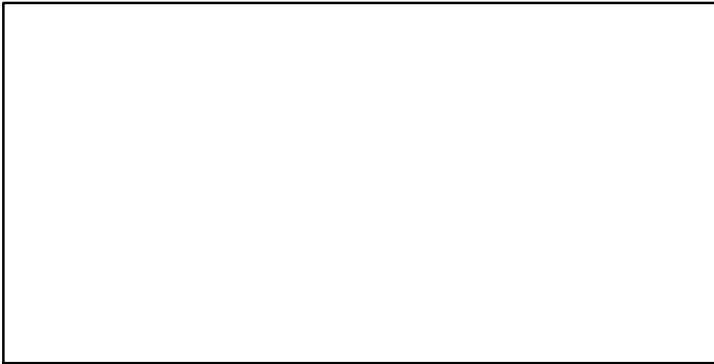
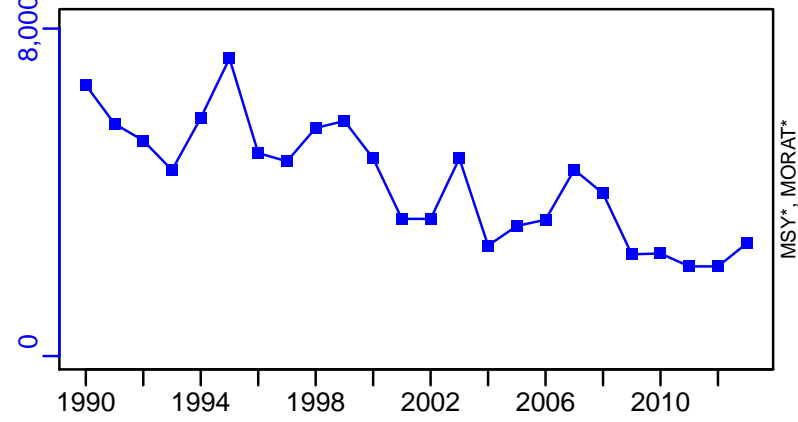
Recruits*



Spear squid Tsushima warm current [SPSQUIDTSSTWC]

TC-MT, TL*, RecC* (1990–2013–JPNIMP2016)

TAC*, Cpair*, Cadv*



Sailfin sandfish Sea of Japan North [SSANDNSJ]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Arctoscopus japonicus |
| Current Assess ID | FAFRFJ-SSANDNSJ-1952-2013-JPNIMP2016 |
| Area | Sea of Japan North |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

| Reference Points | | | |
|------------------|--------|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | - | - | - |
| Fmsy | - | - | - |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | - | - | - |
| M | M-1/yr | 2013 | 0.5 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 2740 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Sailfin sandfish Sea of Japan North [SSANDNSJ]

TB*



SSB*



TN *



F*



ER*

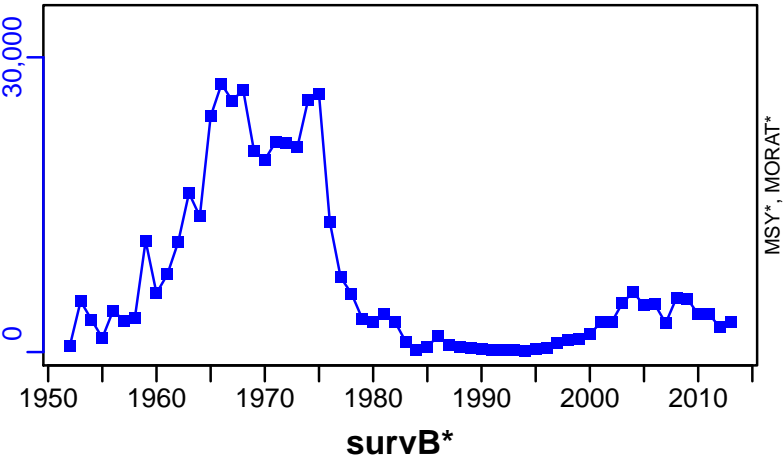


Recruits*



Sailfin sandfish Sea of Japan North [SSANDNSJ]

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



TAC*, Cpair*, Cadv*



CPUE*



EFFORT*



CdivMSY*



Sailfin sandfish Sea of Japan West [SSANDWSJ]

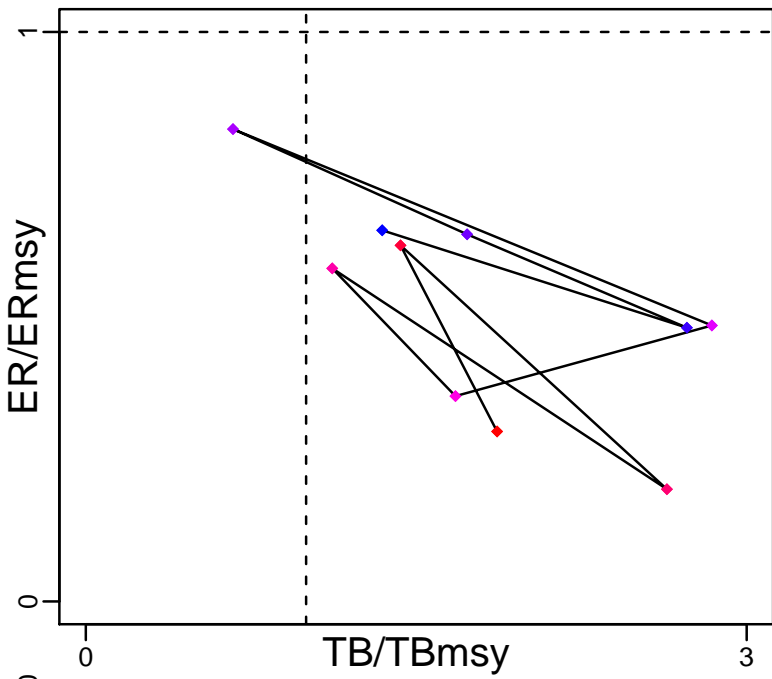
| Metadata | |
|-----------------------------|---|
| Scientific Name | Arctoscopus japonicus |
| Current Assess ID | FAFRFJ-SSANDWSJ-1970-2013-JPNIMP2016 |
| Area | Sea of Japan West |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

| Reference Points | | | |
|------------------|-------------|-----------|--------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-MT | 2013 | 13,230 |
| SSBmsy | - | - | - |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2013 | 0.506 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-calc-MT | 2013 | 6694 |
| M | M-1/yr | 2013 | 0.5 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

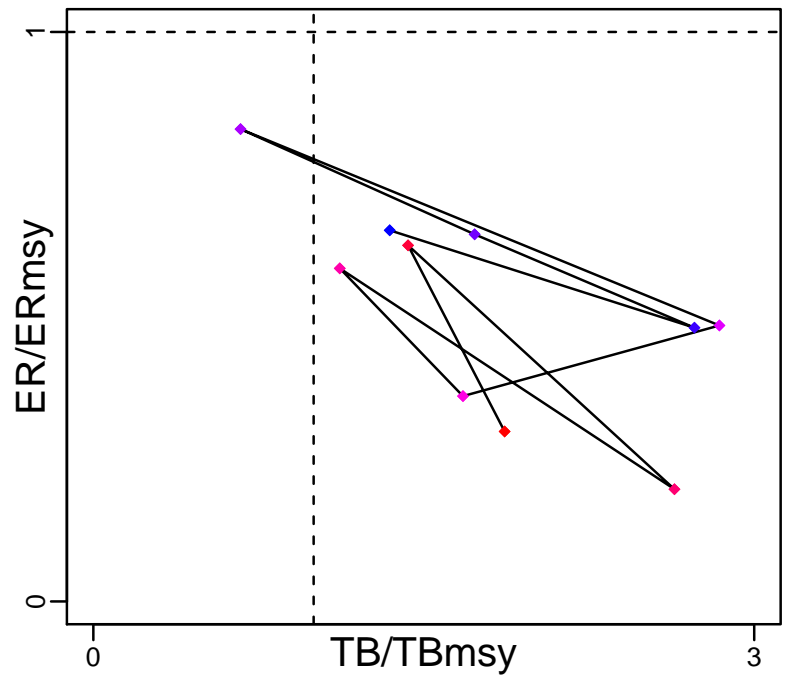
| Time Series | | | | | |
|-------------------|---------------------------|-----------|--------------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2013 | 24,700 | - | 1 |
| SSB | SSB-MT | 2013 | 7850 | Both | 2 |
| TN | - | - | - | - | - |
| R | R-E00 | 2013 | 5.76×10^8 | - | 1 |
| F | - | - | - | - | - |
| ER | ER-calc-ratio | 2013 | 0.151 | - | - |
| TC | TC-MT | 2013 | 3730 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-MT | 2013 | 1.867 | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2013 | 0.298 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Sailfin sandfish Sea of Japan West [SSANDWSJ]

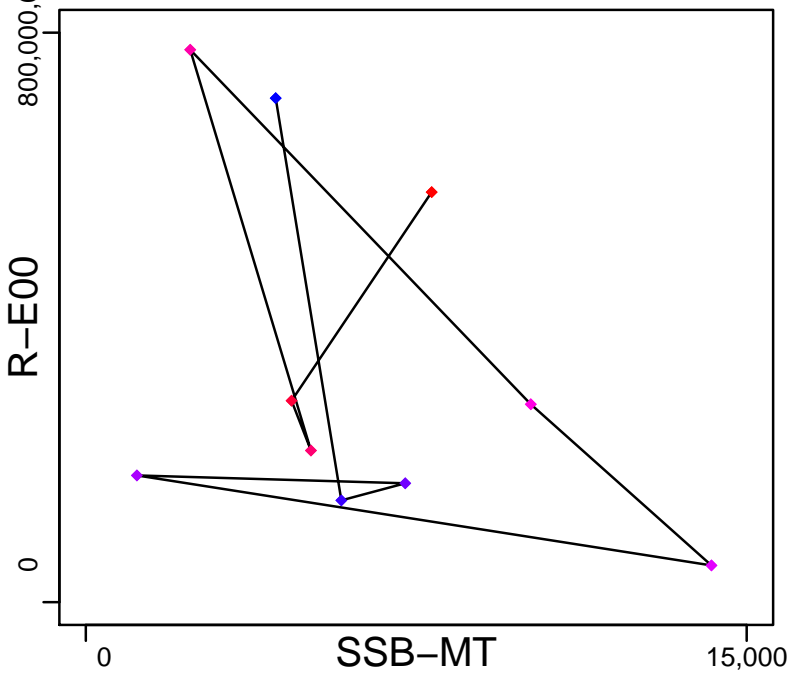
Kobe MSYpref (1970–2013–JPNIMP2016)



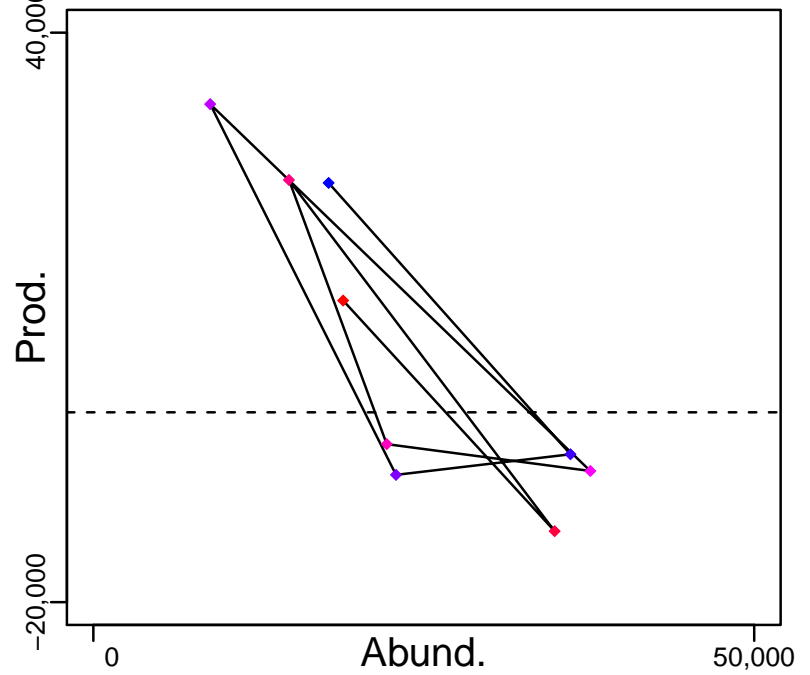
Kobe MGTpref (1970–2013–JPNIMP2016)



Spawner Recruit (1970–2013–JPNIMP2016)



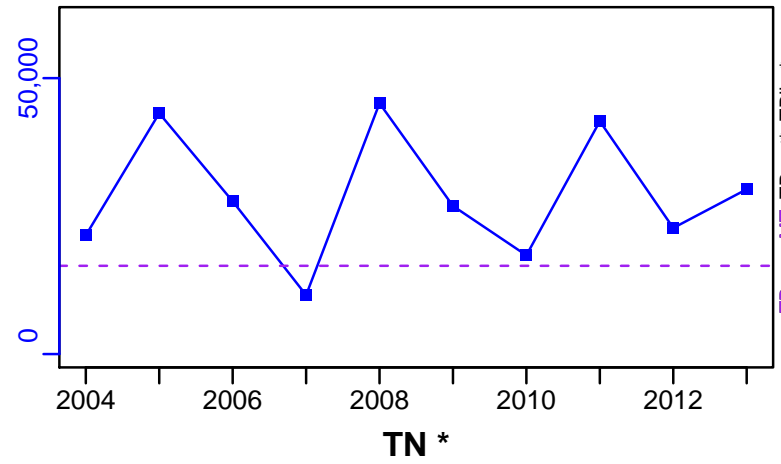
Production (1970–2013–JPNIMP2016)



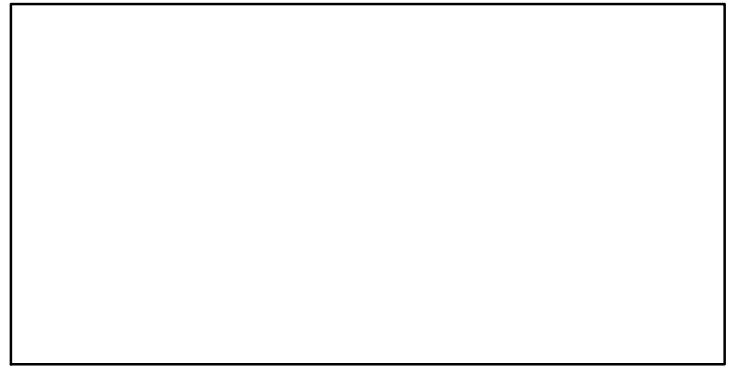
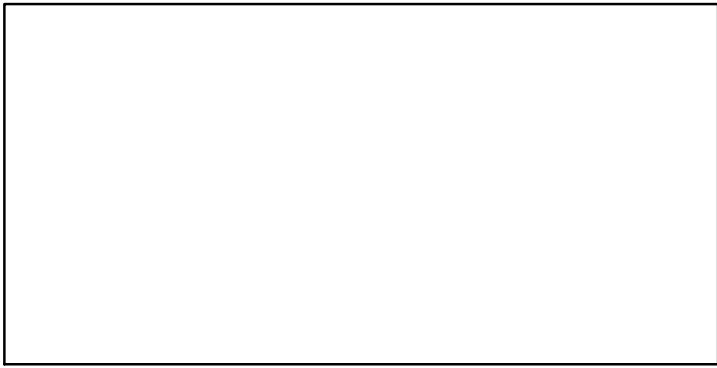
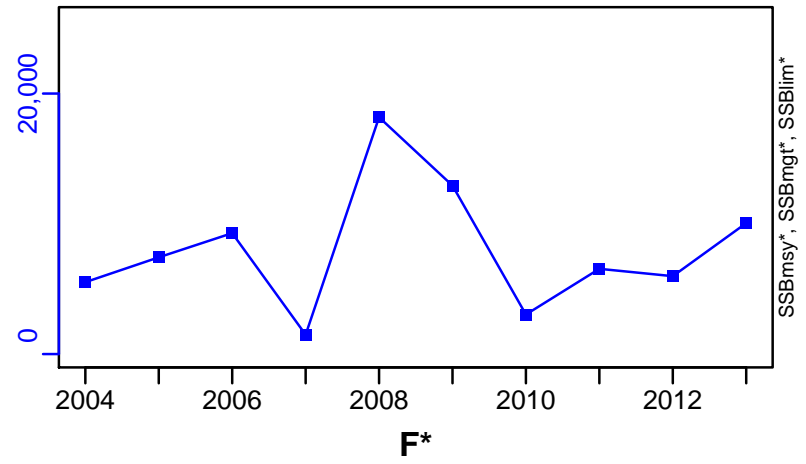
◆ Start Year ◆ End Year * No Data

Sailfin sandfish Sea of Japan West [SSANDWSJ]

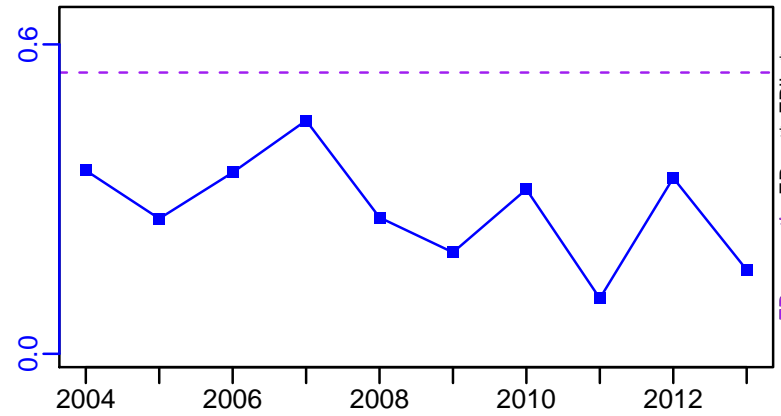
TB-MT (1970-2013-JPNIMP2016)



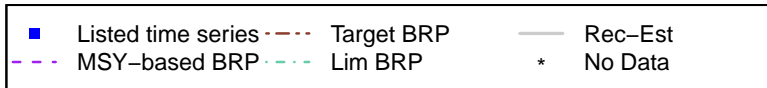
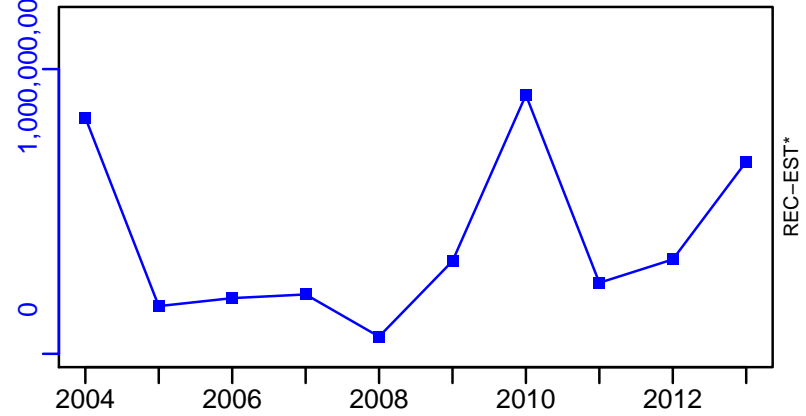
SSB-MT (1970-2013-JPNIMP2016)



ER-calc-ratio (1970-2013-JPNIMP2016)

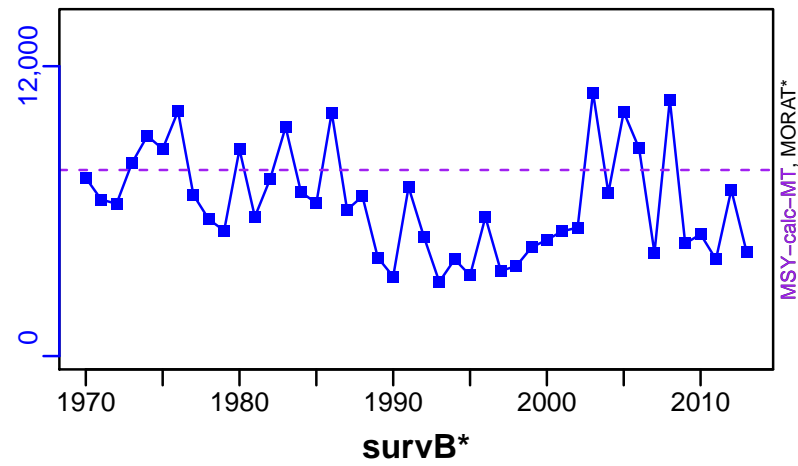


R-E00 (1970-2013-JPNIMP2016)



Sailfin sandfish Sea of Japan West [SSANDWSJ]

TC-MT, TL*, RecC* (1970–2013–JPNIMP2016)



TAC*, Cpair*, Cadv*



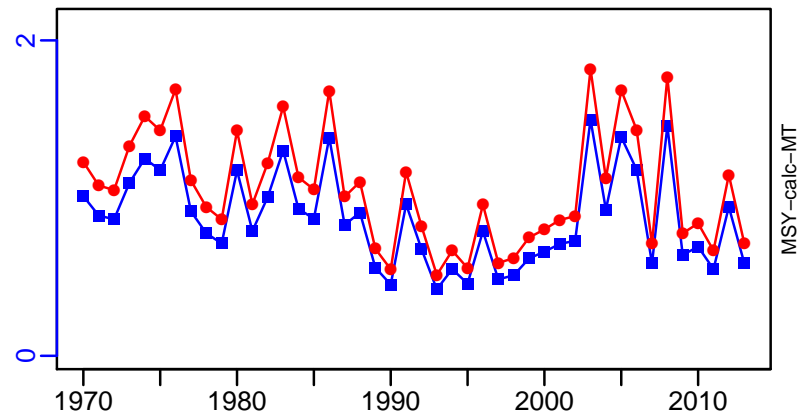
CPUE*



EFFORT*



TC-MT/MSY-calc-MT, CdivMEANC-ratio, (1970–2013–JPNIMP2016)



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

Swordtip squid Sea of Japan and East China Sea [STSQUIDSOJECS]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Uroteuthis edulis |
| Current Assess ID | FAFRFJ-STSQUIDSOJECS-1988-2013-JPNIMP2016 |
| Area | Sea of Japan and East China Sea |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

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

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 9220 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Kobe MSY*



Kobe MGT*



Spawner Recruit*



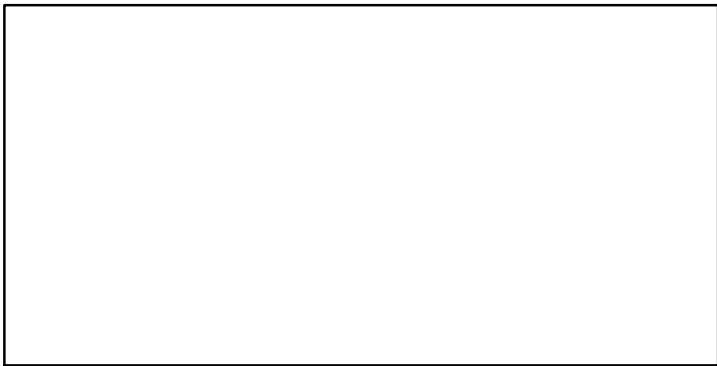
Production*



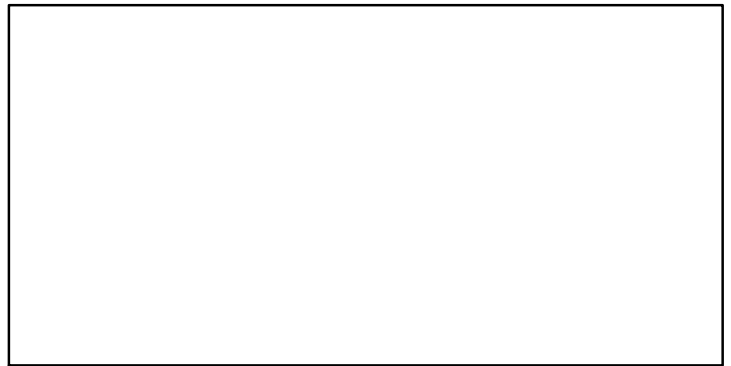
◆ Start Year ◆ End Year * No Data

Swordtip squid Sea of Japan and East China Sea [STSQUIDSOJECS]

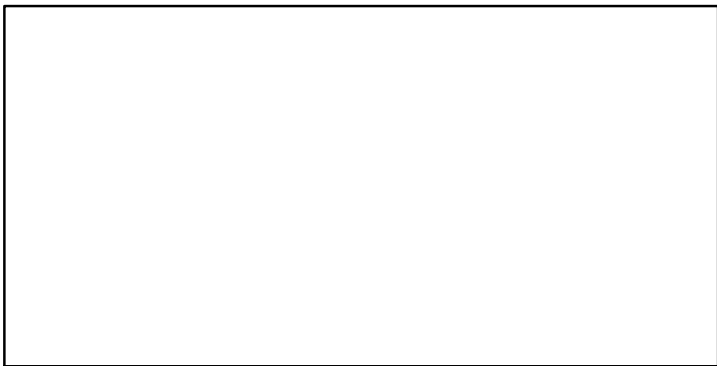
TB*



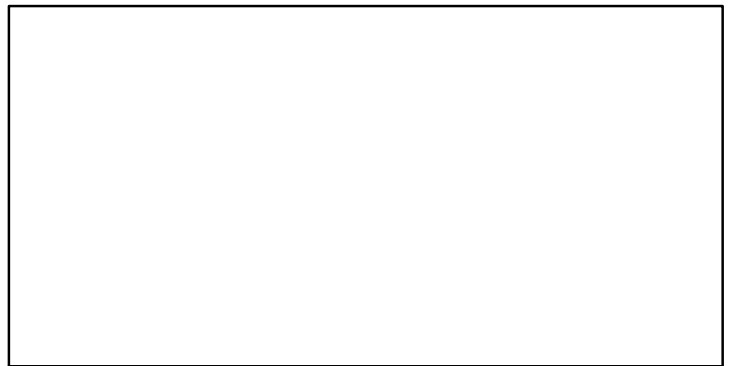
SSB*



TN *



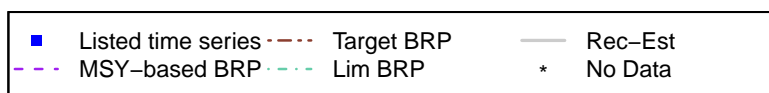
F*



ER*



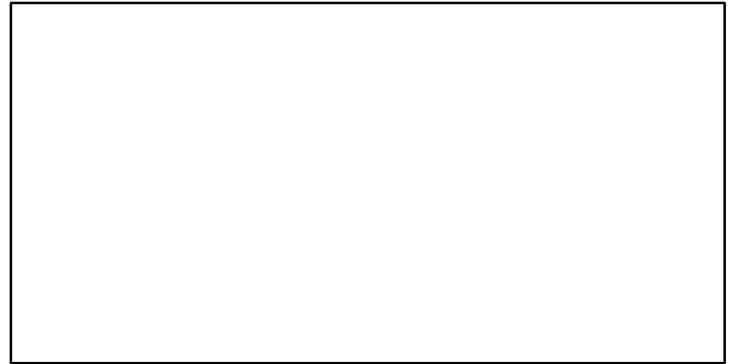
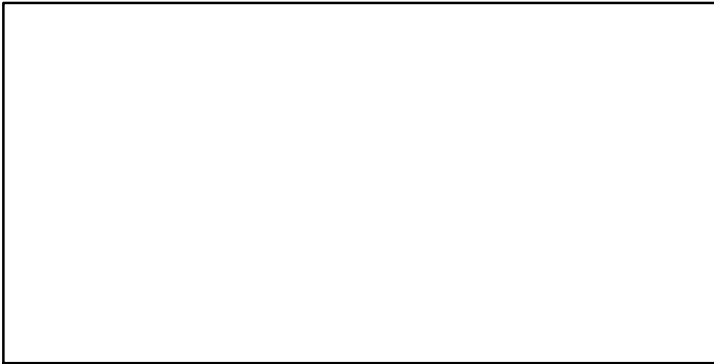
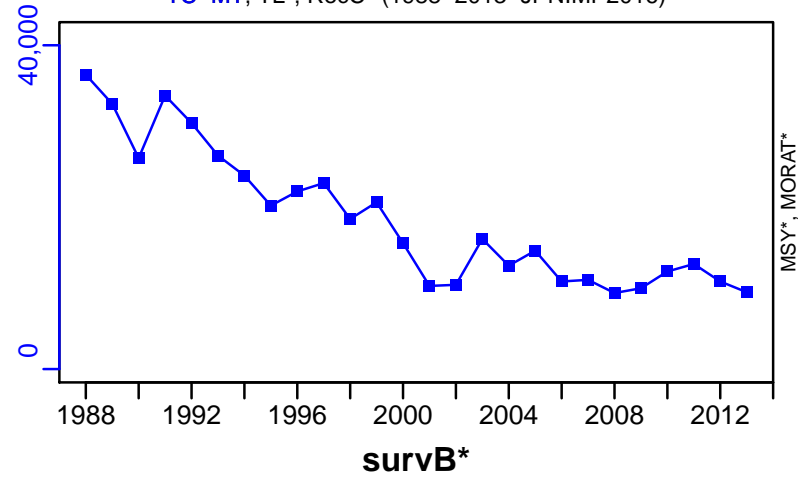
Recruits*



Swordtip squid Sea of Japan and East China Sea [STSQUIDSOJECS]

TC-MT, TL*, RecC* (1988–2013–JPNIMP2016)

TAC*, Cpair*, Cadv*



Willow flounder North Pacific [WLFLOUNNPAC]

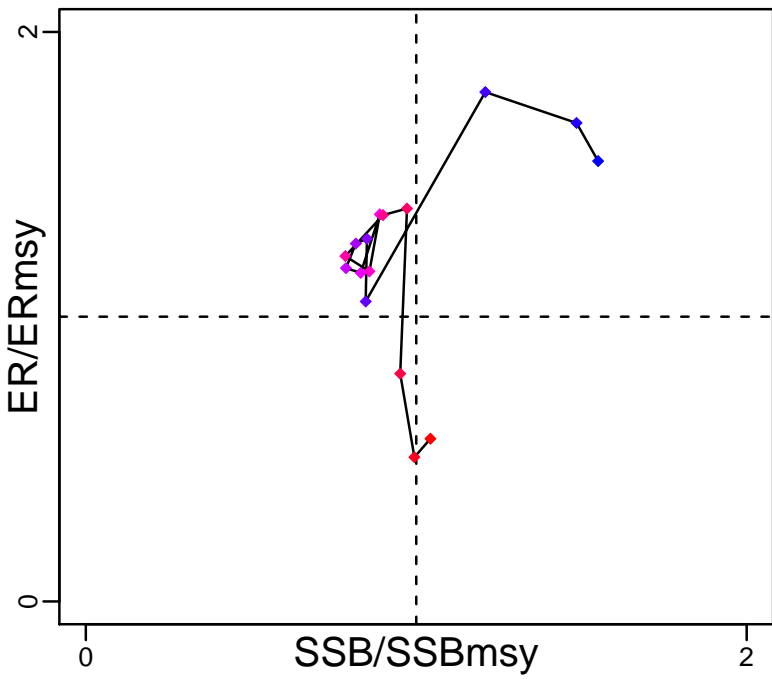
| Metadata | |
|-----------------------------|---|
| Scientific Name | Tanakius kitaharae |
| Current Assess ID | FAFRFJ-WLFLOUNNPAC-1997-2013-JPNIMP2016 |
| Area | North Pacific |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

| Reference Points | | | |
|------------------|---------------|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-calc-MT | 2013 | 695 |
| SSBmsy | SSBmsy-MT | 2013 | 536 |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2013 | 0.208 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-MT | 2013 | 145 |
| M | M-1/yr | 2013 | 0.25 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

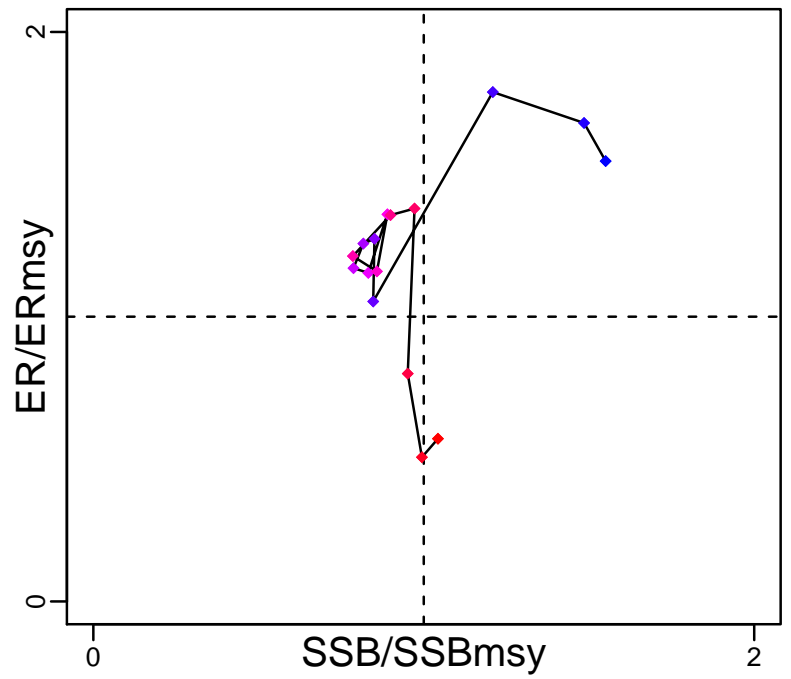
| Time Series | | | | | |
|-------------------|---------------------------|-----------|------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2013 | 673 | - | 1 |
| SSB | SSB-MT | 2013 | 559 | Both | 3 |
| TN | - | - | - | - | - |
| R | R-E00 | 2013 | 2,270,000 | - | 1 |
| F | - | - | - | - | - |
| ER | ER-calc-ratio | 2013 | 0.119 | - | - |
| TC | TC-MT | 2013 | 80 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-calc-MT | 2013 | 0.968 | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-MT | 2013 | 1.043 | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-ratio | 2013 | 0.571 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Willowy flounder North Pacific [WLFLOUNNPAC]

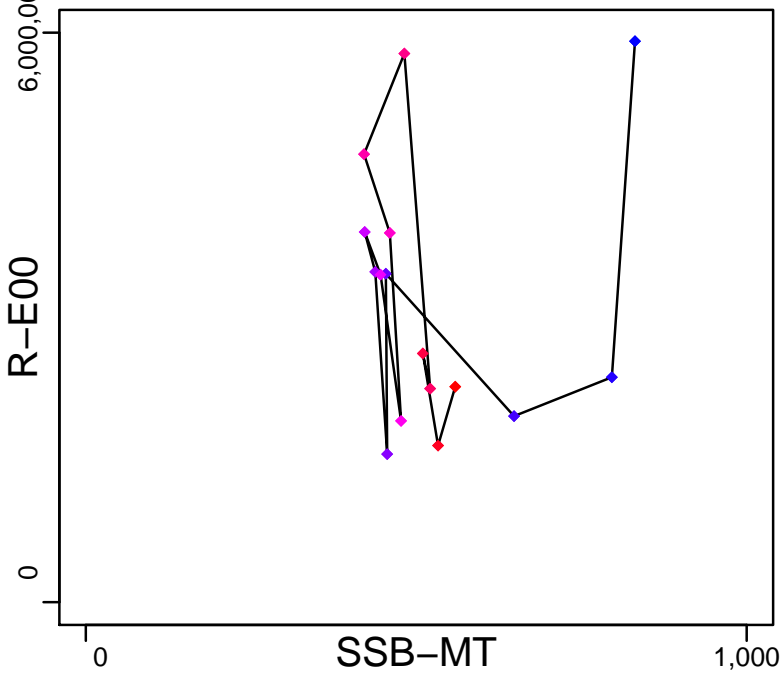
Kobe MSYpref (1997–2013–JPNIMP2016)



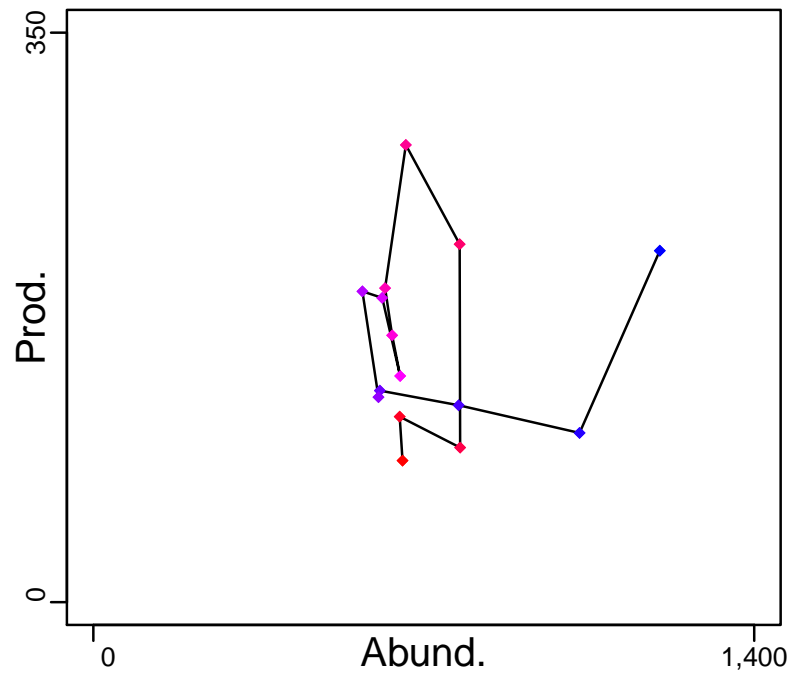
Kobe MGTpref (1997–2013–JPNIMP2016)



Spawner Recruit (1997–2013–JPNIMP2016)



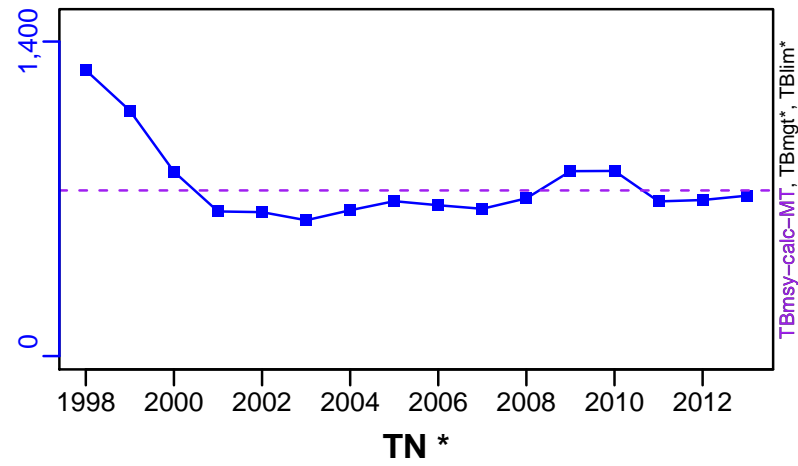
Production (1997–2013–JPNIMP2016)



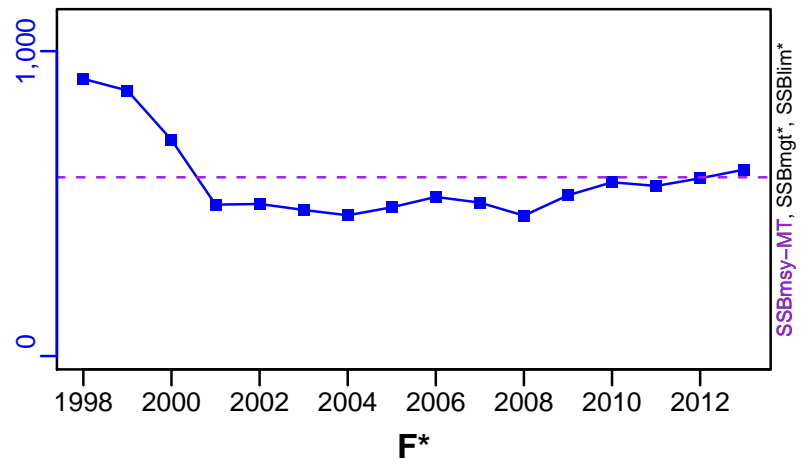
◆ Start Year ◆ End Year * No Data

Willowy flounder North Pacific [WLFLOUNNPAC]

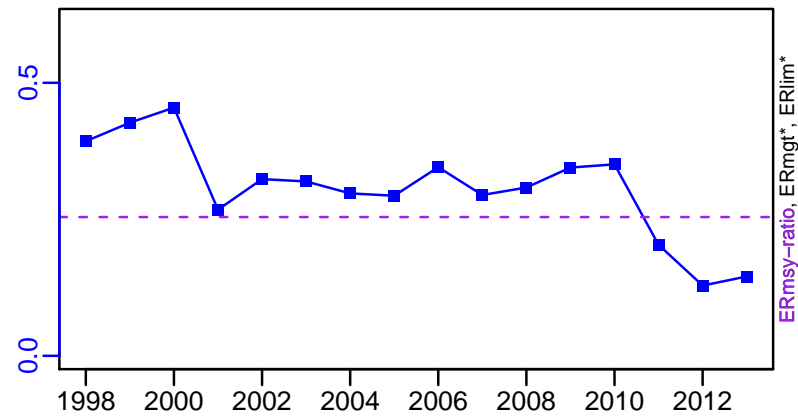
TB-MT (1997-2013-JPNIMP2016)



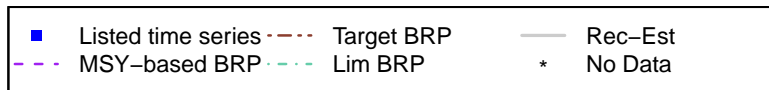
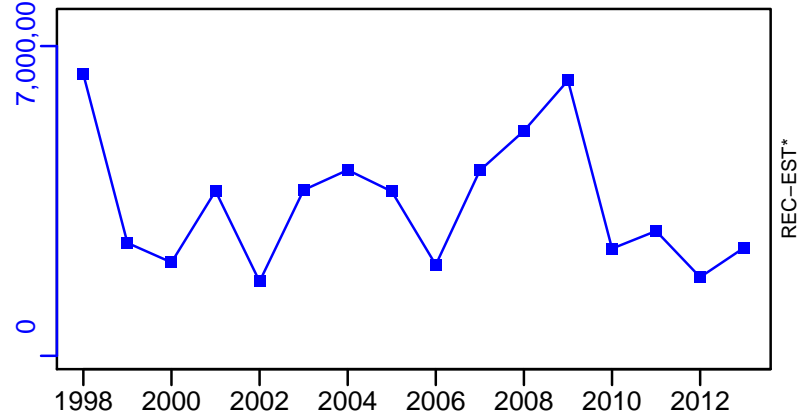
SSB-MT (1997-2013-JPNIMP2016)



ER-calc-ratio (1997-2013-JPNIMP2016)

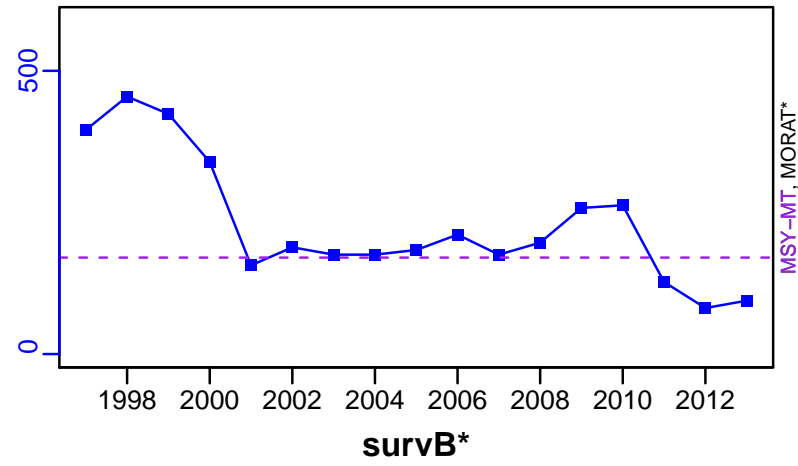


R-E00 (1997-2013-JPNIMP2016)



Willowy flounder North Pacific [WLFLOUNNPAC]

TC-MT, TL*, RecC* (1997-2013-JPNIMP2016)



TAC*, Cpair*, Cadv*



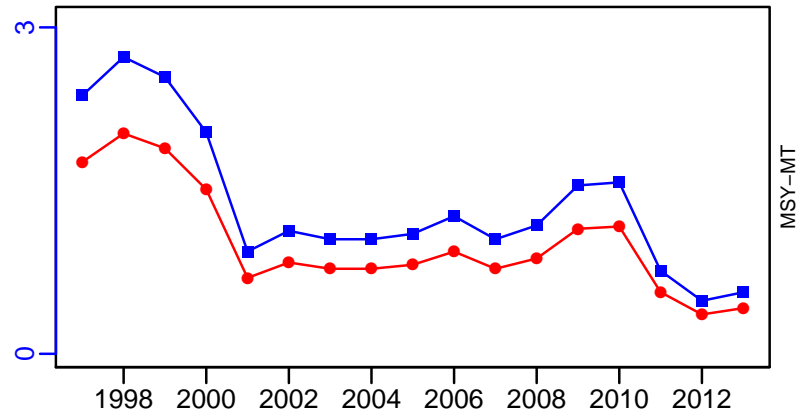
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1997-2013-JPNIMP2016)



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

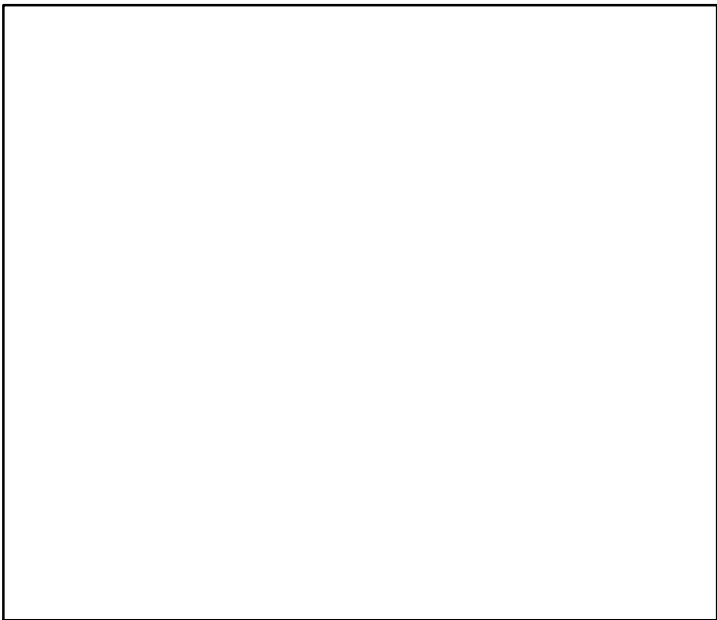
Whitespotted conger Ise and Mikawa Bay [WSCONGIMKB]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Conger myriaster |
| Current Assess ID | FAFRFJ-WSCONGIMKB-1980-2013-JPNIMP2016 |
| Area | Ise and Mikawa Bay |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

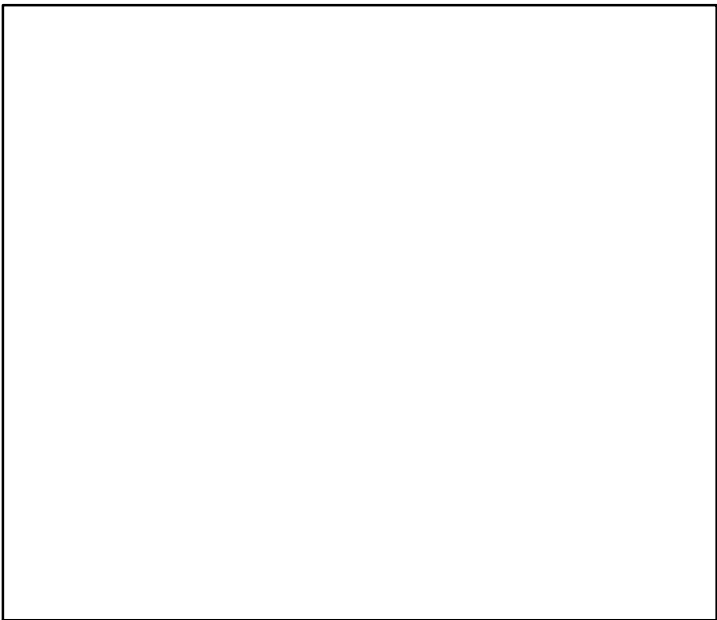
| Reference Points | | | |
|------------------|----|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | - | - | - |
| Fmsy | - | - | - |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | -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

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 354 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

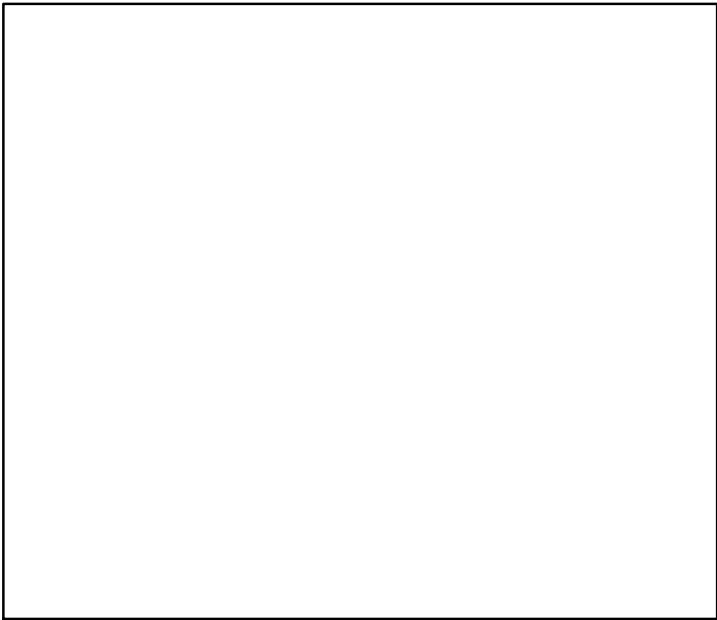
Kobe MSY*



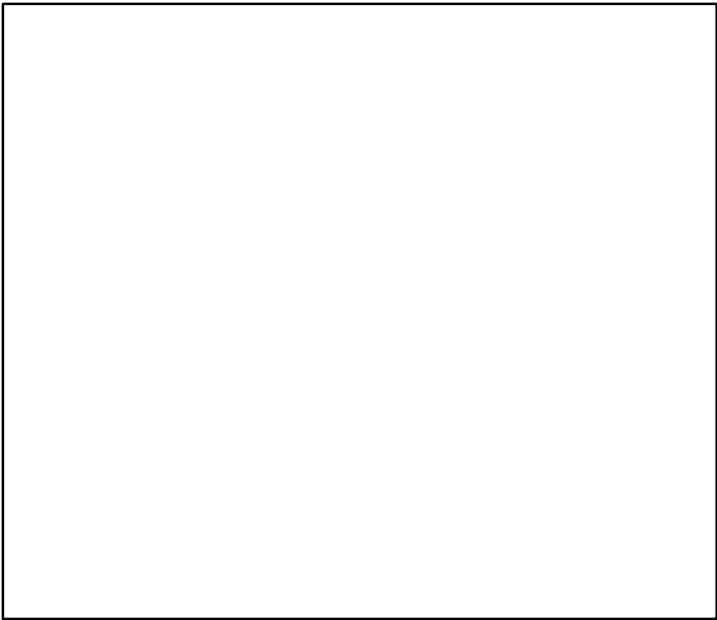
Kobe MGT*



Spawner Recruit*



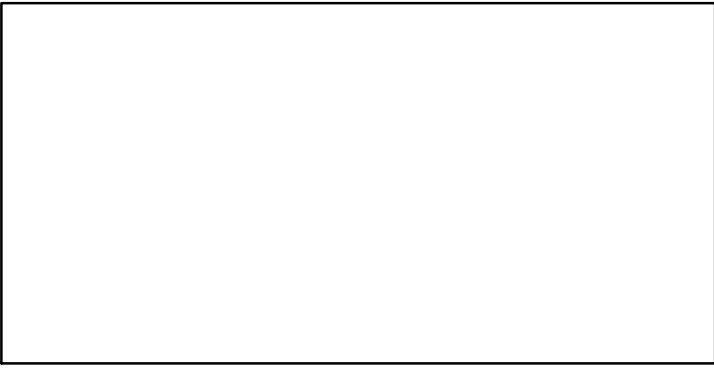
Production*



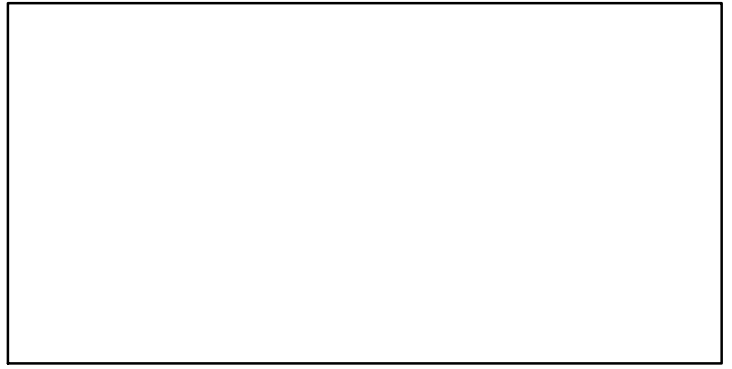
◆ Start Year ◆ End Year * No Data

Whitespotted conger Ise and Mikawa Bay [WSCONGIMKB]

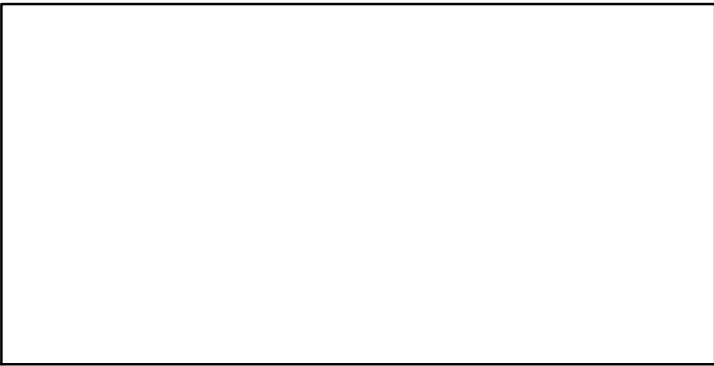
TB*



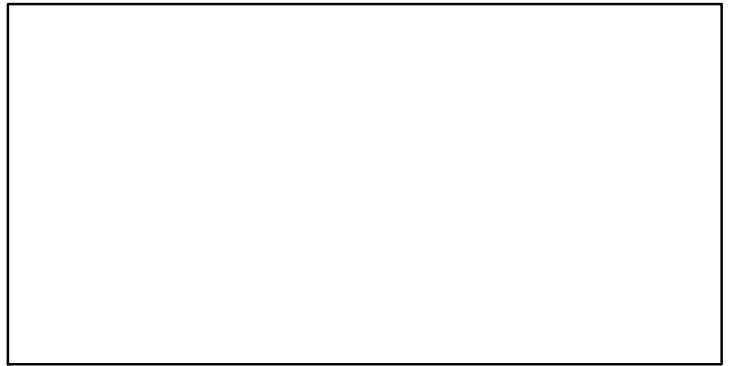
SSB*



TN *



F*



ER*



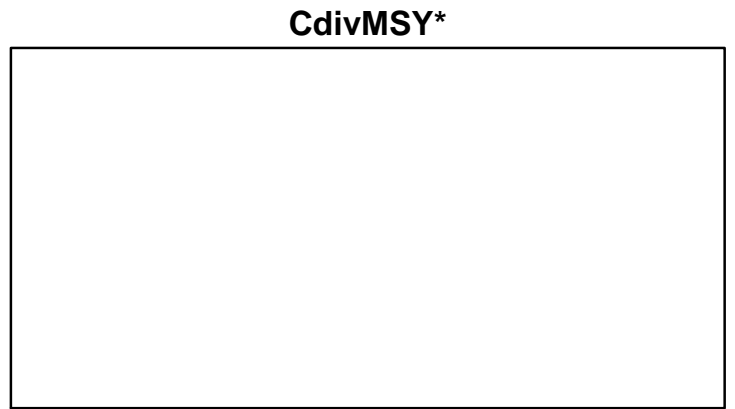
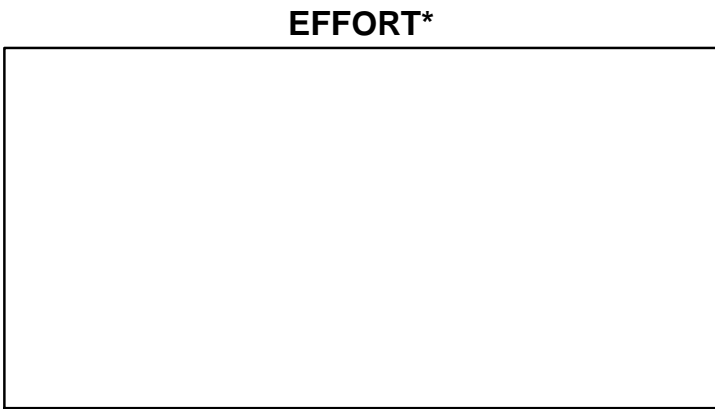
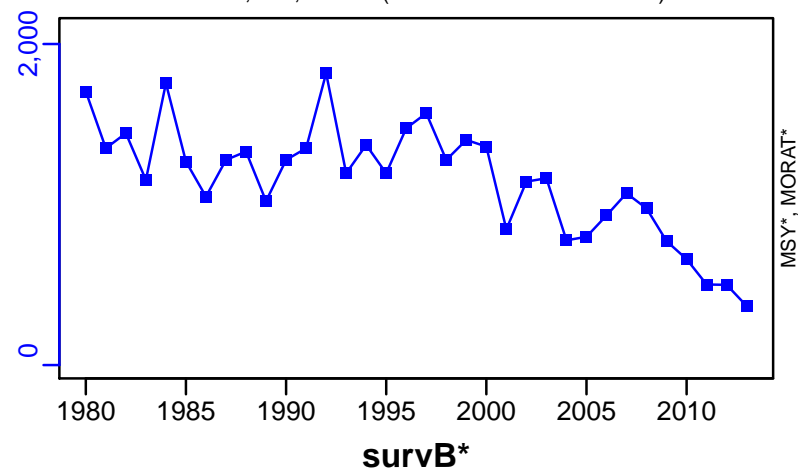
Recruits*



Whitespotted conger Ise and Mikawa Bay [WSCONGIMKB]

TC-MT, TL*, RecC* (1980–2013–JPNIMP2016)

TAC*, Cpair*, Cadv*



Yellow goosfish North Pacific [YGSFISHNPAC]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Lophius litulon |
| Current Assess ID | FAFRFJ-YGSFISHNPAC-1973-2013-JPNIMP2016 |
| Area | North Pacific |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

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

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 183 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Yellow goosefish North Pacific [YGSFISHNPAC]

TB*



SSB*



TN *



F*



ER*

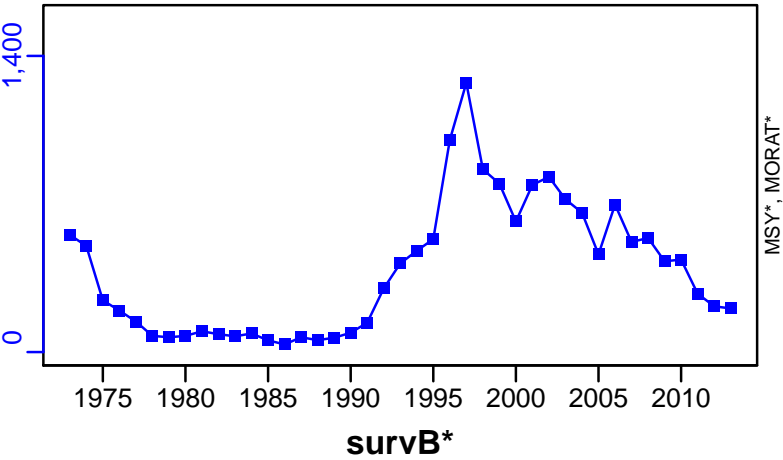


Recruits*



Yellow goosfish North Pacific [YGSFISHNPAC]

TC-MT, TL*, RecC* (1973-2013-JPNIMP2016)



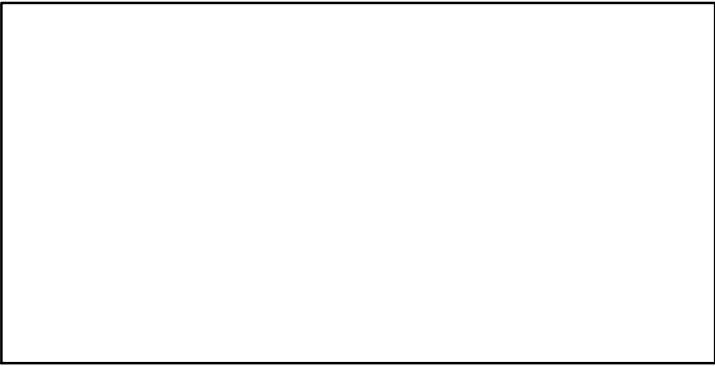
TAC*, Cpair*, Cadv*



CPUE*



EFFORT*



CdivMSY*



Yellow striped flounder North coast of Hokkaido [YSFLOUNNHOKK]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Pseudopleuronectes herzensteini |
| Current Assess ID | FAFRFJ-YSFLOUNNHOKK-1985-2013-JPNIMP2016 |
| Area | North coast of Hokkaido |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

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

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 1550 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Yellow striped flounder North coast of Hokkaido [YSFLOUNNHOKK]

TB*



SSB*



TN *



F*



ER*

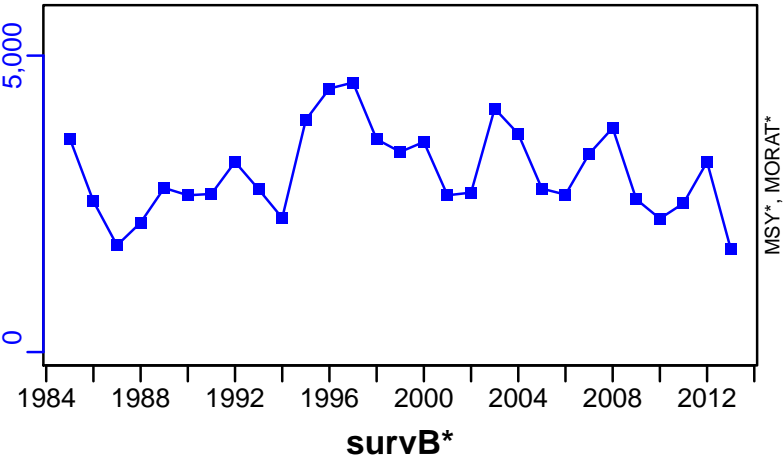


Recruits*



Yellow striped flounder North coast of Hokkaido [YSFLOUNNHOKK]

TC-MT, TL*, RecC* (1985-2013-JPNIMP2016)



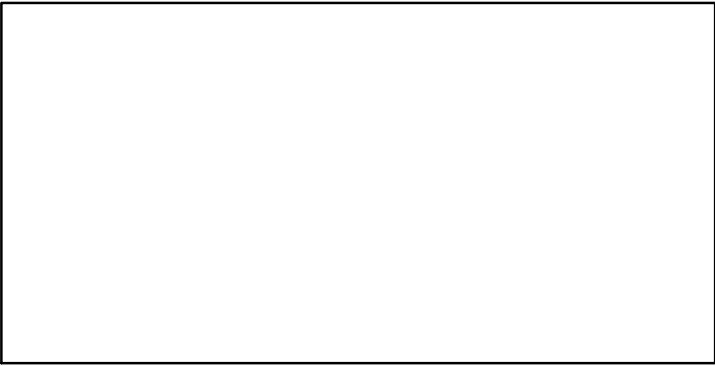
TAC*, Cpair*, Cadv*



CPUE*



EFFORT*



CdivMSY*



Yellow striped flounder Sea of Japan [YSFLOUNSOJ]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Pseudopleuronectes herzensteini |
| Current Assess ID | FAFRFJ-YSFLOUNSOJ-1980-2013-JPNIMP2016 |
| Area | Sea of Japan |
| Management Authority | Fisheries Agency of Japan |
| Assessor | Fisheries Agency and Fisheries Research Agency of Japan |
| Asmts in RAM | 2013 |

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

| Time Series | | | | | |
|-------------|-------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | - | - | - | - | - |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | - | - | - | - | - |
| TC | TC-MT | 2013 | 240 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Yellow striped flounder Sea of Japan [YSFLOUNSOJ]

TB*



SSB*



TN *



F*



ER*

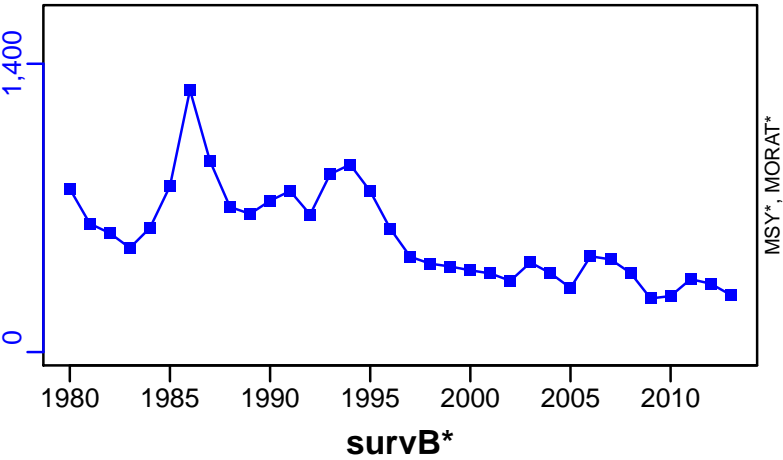


Recruits*



Yellow striped flounder Sea of Japan [YSFLOUNSOJ]

TC-MT, TL*, RecC* (1980-2013-JPNIMP2016)



TAC*, Cpair*, Cadv*



CPUE*



EFFORT*



CdivMSY*

