

South America Stocks

v4.61 (Apr-02-2023)

Not present Present Preferred

| Stock | B/Bmsy | Time Series Types | | | |
|---|--------|-------------------|--------|--------|--|
| | | U/Umsy | B/Bmgt | U/Umgt | |
| 1. ACMACKSARG [Argentine chub mackerel Southern Argentina] | TB SSB | ER F | TB SSB | ER F | |
| 2. AFLONCH [Alfonsino Chile] | TB SSB | ER F | TB SSB | ER F | |
| 3. ARGANCHONARG [Argentine anchoita Northern Argentina] | TB SSB | ER F | TB SSB | ER F | |
| 4. ARGANCHOSARG [Argentine anchoita Southern Argentina] | TB SSB | ER F | TB SSB | ER F | |
| 5. ARGHAKENARG [Argentine hake Northern Argentina] | TB SSB | ER F | TB SSB | ER F | |
| 6. ARGHAKESARG [Argentine hake Southern Argentina] | TB SSB | ER F | TB SSB | ER F | |
| 7. BSQLOBSTERCSCH [Yellow squat lobster Central-Southern Chile] | TB SSB | ER F | TB SSB | ER F | |
| 8. BSQLOBSTERNCH [Yellow squat lobster Northern Chile] | TB SSB | ER F | TB SSB | ER F | |
| 9. CHERRCHVX [Chilean herring Central-Southern Chile] | TB SSB | ER F | TB SSB | ER F | |
| 10. CHTRACCH [Chilean jack mackerel Chilean EEZ and offshore] | TB SSB | ER F | TB SSB | ER F | |
| 11. CSARDCSCH [Chilean sardine Central-Southern Chile] | TB SSB | ER F | TB SSB | ER F | |
| 12. NSHRIMPCSCH [Nylon shrimp Central-Southern Chile] | TB SSB | ER F | TB SSB | ER F | |
| 13. NSHRIMPNC [Nylon shrimp Northern Chile] | TB SSB | ER F | TB SSB | ER F | |
| 14. OROUGHYCH [Orange roughy Chile] | TB SSB | ER F | TB SSB | ER F | |
| 15. PANCHCCH [Peruvian anchoveta Central Chile] | TB SSB | ER F | TB SSB | ER F | |
| 16. PANCHCSCH [Peruvian anchoveta Central-Southern Chile] | TB SSB | ER F | TB SSB | ER F | |
| 17. PANCHNCHSP [Peruvian anchoveta Northern Chile Southern Peru] | TB SSB | ER F | TB SSB | ER F | |
| 18. PANCHPERUNC [Peruvian anchoveta North-Central Peruvian coast] | TB SSB | ER F | TB SSB | ER F | |
| 19. PATCODARGS [Patagonian cod Southern Argentina] | TB SSB | ER F | TB SSB | ER F | |
| 20. PATGRENADIERCH [Patagonian grenadier Central-Southern Chile] | TB SSB | ER F | TB SSB | ER F | |
| 21. PATGRENADIERSARG [Patagonian grenadier Southern Argentina] | TB SSB | ER F | TB SSB | ER F | |
| 22. PCEELARGS [Pink cusk eel Southern Argentina] | TB SSB | ER F | TB SSB | ER F | |
| 23. PCEELCSCH [Pink cusk eel Central-Southern Chile] | TB SSB | ER F | TB SSB | ER F | |
| 24. PCEELSCH [Pink cusk eel Southern Chile] | TB SSB | ER F | TB SSB | ER F | |
| 25. PTOOTHFISHCH [Patagonian toothfish South Chile Argentina] | TB SSB | ER F | TB SSB | ER F | |
| 26. RSQLOBSTERCSCH [Red squat lobster Central-Southern Chile] | TB SSB | ER F | TB SSB | ER F | |
| 27. RSQLOBSTERNCH [Red squat lobster Northern Chile] | TB SSB | ER F | TB SSB | ER F | |
| 28. SBREAMCH [Deepwater cardinalfish Chile] | TB SSB | ER F | TB SSB | ER F | |
| 29. SBWHITARGS [Southern blue whiting Southern Argentina] | TB SSB | ER F | TB SSB | ER F | |
| 30. SBWHITCH [Southern blue whiting Central-Southern Chile] | TB SSB | ER F | TB SSB | ER F | |
| 31. SOUTHHAKECH [Southern hake Central-Southern Chile] | TB SSB | ER F | TB SSB | ER F | |
| 32. SPHAKECH [South Pacific hake Central-Southern Chile] | TB SSB | ER F | TB SSB | ER F | |
| 33. SSARDCH [Southern sardine Central-Southern Chile] | TB SSB | ER F | TB SSB | ER F | |
| 34. YNOSESKACSCH [Yellownose skate Central-Southern Chile] | TB SSB | ER F | TB SSB | ER F | |
| 35. YNOSESKASCH [Yellownose skate Southern Chile] | TB SSB | ER F | TB SSB | ER F | |

Argentine chub mackerel Southern Argentina [ACMACKSARG]

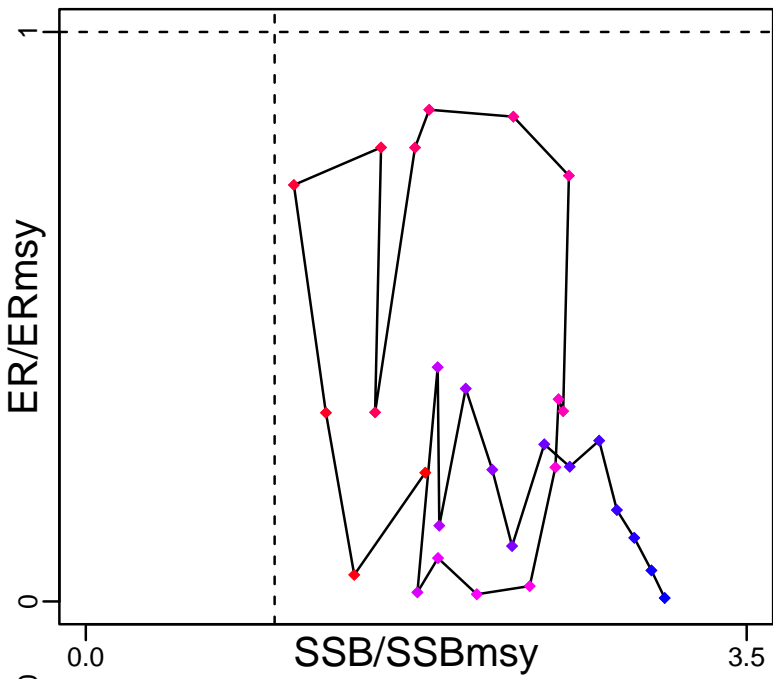
| Metadata | |
|-----------------------------|---|
| Scientific Name | Scomber colias |
| Current Assess ID | INIDEP-ACMACKSARG-1989-2020-PARMA |
| Area | Southern Argentina |
| Management Authority | Consejo Federal Pesquero, Argentina national management |
| Assessor | Instituto Nacional de Investigacion y Desarrollo Pesquero |
| Asmts in RAM | 2016, 2020 |

| Reference Points | | | |
|------------------|------------------|-----------|--------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-MT | 2020 | 72,658 |
| SSBmsy | SSBmsy-MT | 2020 | 57,455 |
| Fmsy | Fmsy-1/yr | 2020 | 0.475 |
| ERmsy | ERmsy-calc-ratio | 2020 | 0.209 |
| TBmgt | - | - | - |
| SSBmgt | SSBmgt-MT | 2020 | 76,800 |
| Fmgt | Fmgt-1/yr | 2020 | 0.31 |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-MT | 2020 | 15,200 |
| M | M-1/yr | 2020 | 0.38 |
| TBlim | - | - | - |
| SSBlim | SSBlim-MT | 2016 | 59,000 |
| Flim | Flim-1/yr | 2016 | 0.81 |
| ERlim | - | - | - |

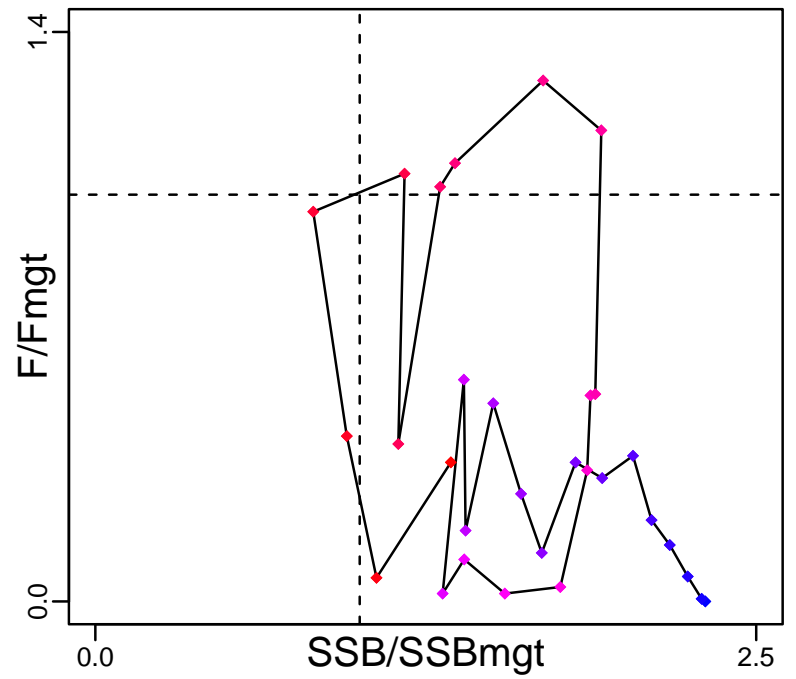
| Time Series | | | | | |
|-------------------|--------------------------------|-----------|-------------|------|--------|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2020 | 116,131 | Both | 10-Jan |
| SSB | SSB-MT | 2020 | 103,295 | Both | 10-Jan |
| TN | TN-E00 | 2020 | 646,680,519 | Both | 10-Jan |
| R | R-E00 | 2020 | 211,084,354 | Both | 1 |
| F | F-1/yr | 2020 | 0.106 | Both | 10-Jul |
| ER | ER-calc-ratio | 2020 | 0.047 | - | - |
| TC | TC-MT | 2020 | 5494 | | |
| TL | TL-MT | 2020 | 5494 | | |
| TB/TBmsy | TB-MT/TBmsy-MT | 2020 | 1.598 | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-MT | 2020 | 1.798 | | |
| F/Fmsy | F-1/yr/Fmsy-1/yr | 2020 | 0.223 | | |
| ER/ERmsy | ER-calc-ratio/ERmsy-calc-ratio | 2020 | 0.226 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | SSB-MT/SSBmgt-MT | 2020 | 1.345 | | |
| F/Fmgt | F-1/yr/Fmgt-1/yr | 2020 | 0.342 | | |
| ER/ERmgt | - | - | - | | |

Argentine chub mackerel Southern Argentina [ACMACKSARG]

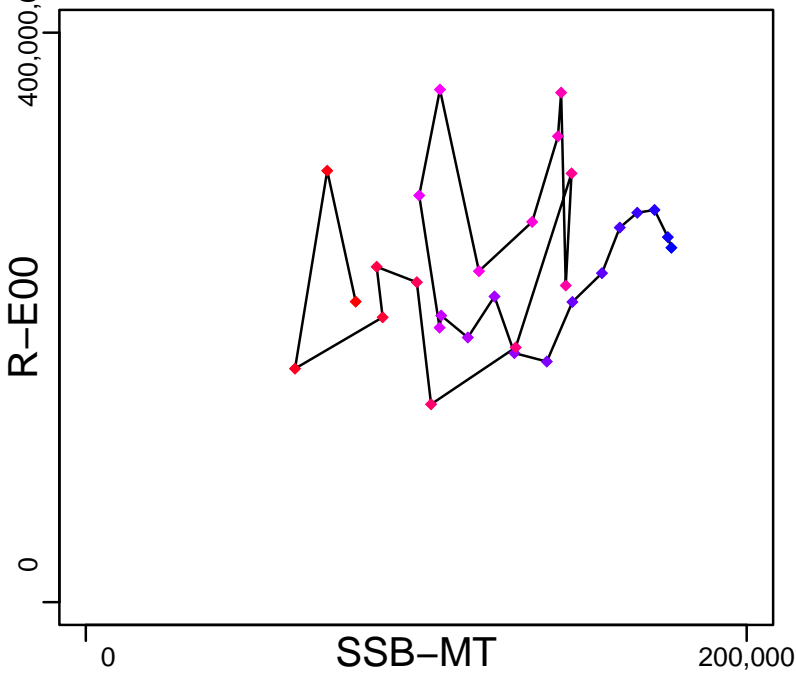
Kobe MSYpref (1989–2020–PARMA)



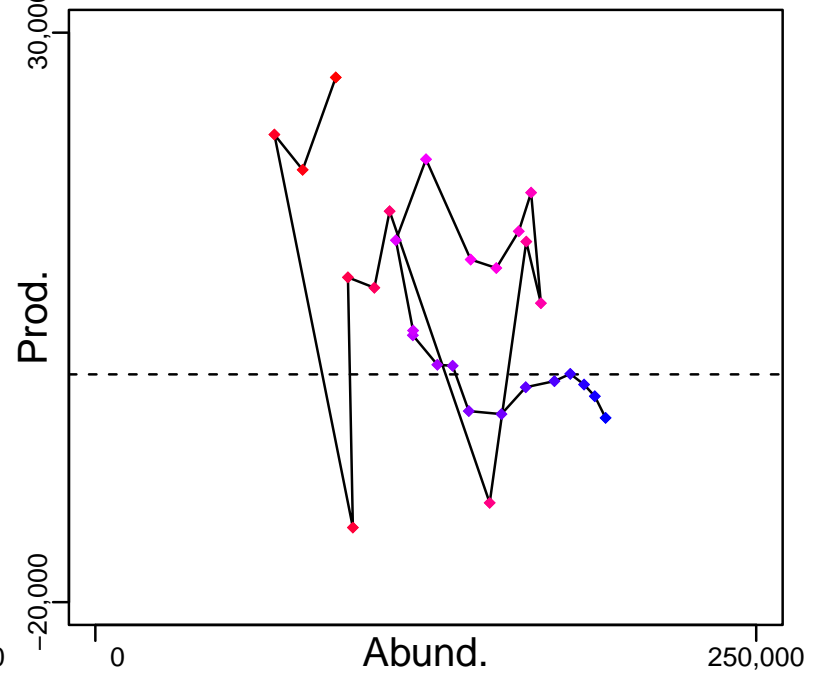
Kobe MGTpref (1989–2020–PARMA)



Spawner Recruit (1989–2020–PARMA)

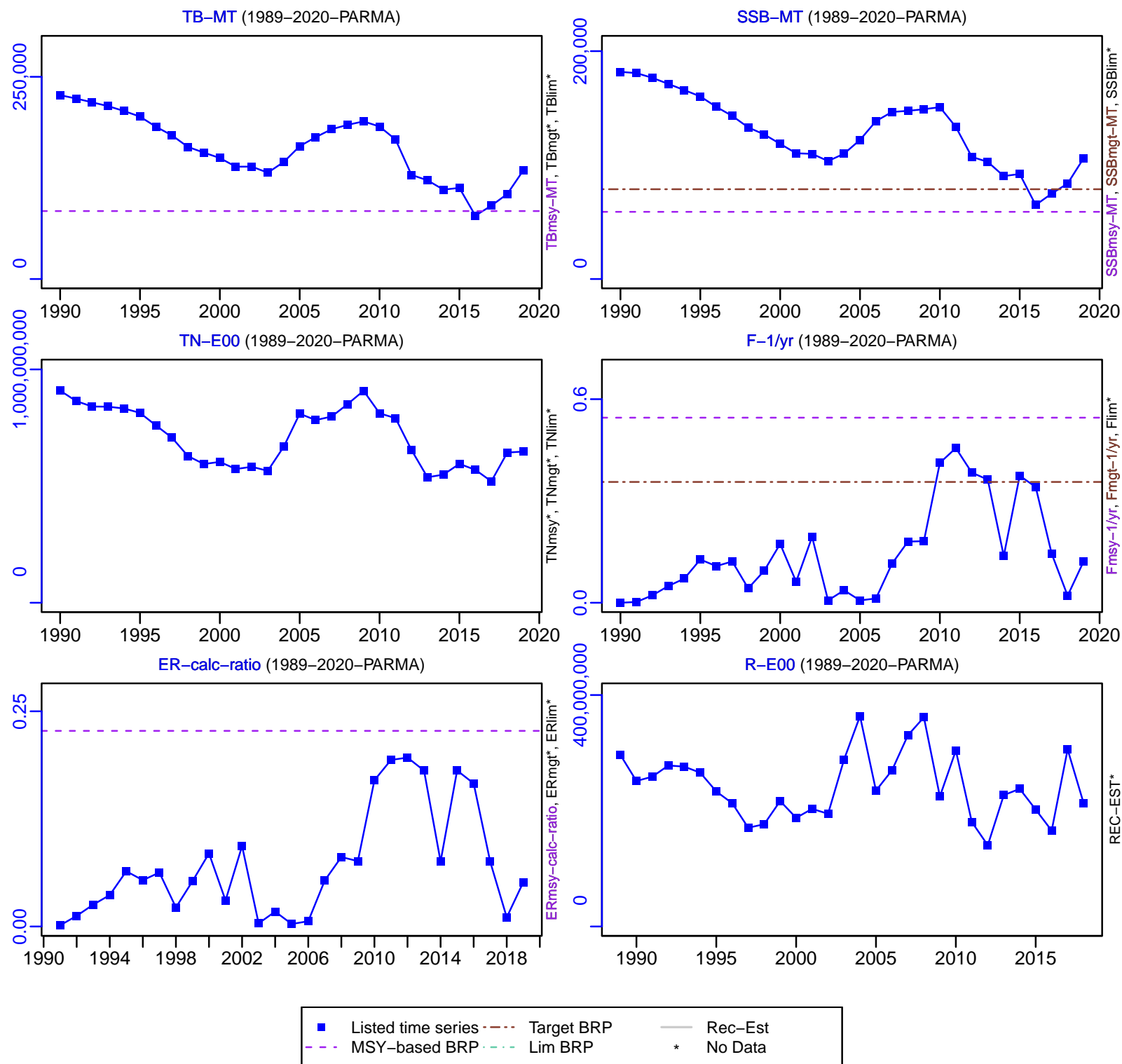


Production (1989–2020–PARMA)



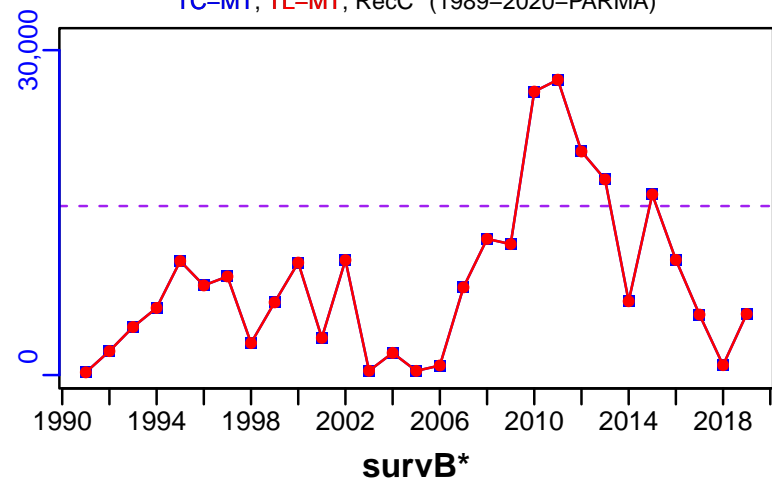
◆ Start Year ◆ End Year * No Data

Argentine chub mackerel Southern Argentina [ACMACKSARG]

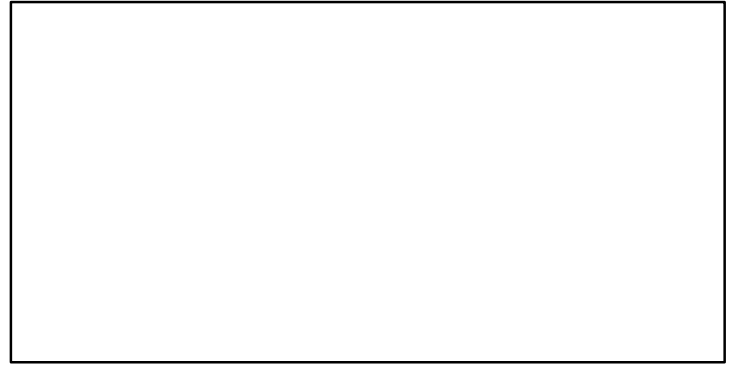
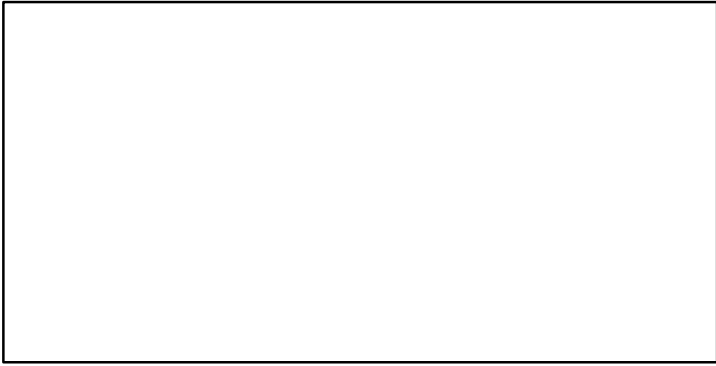
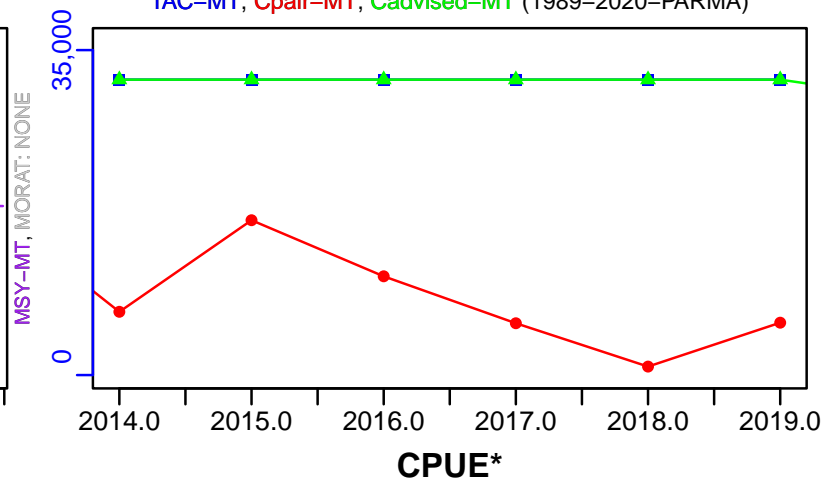


Argentine chub mackerel Southern Argentina [ACMACKSARG]

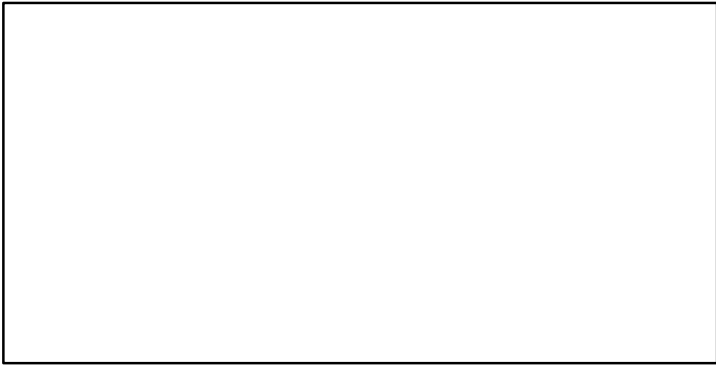
TC-MT, TL-MT, RecC* (1989–2020–PARMA)



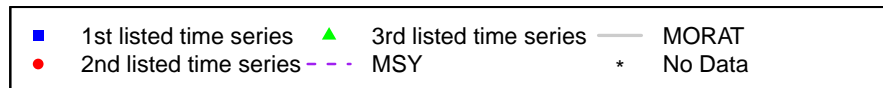
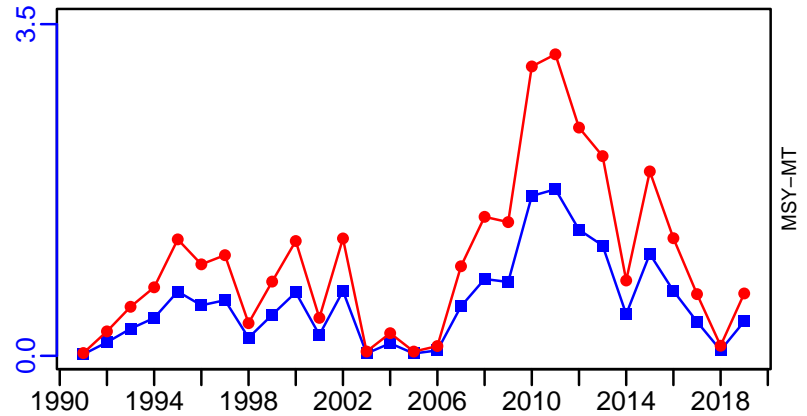
TAC-MT, Cpair-MT, Cadvised-MT (1989–2020–PARMA)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1989–2020–PARMA)



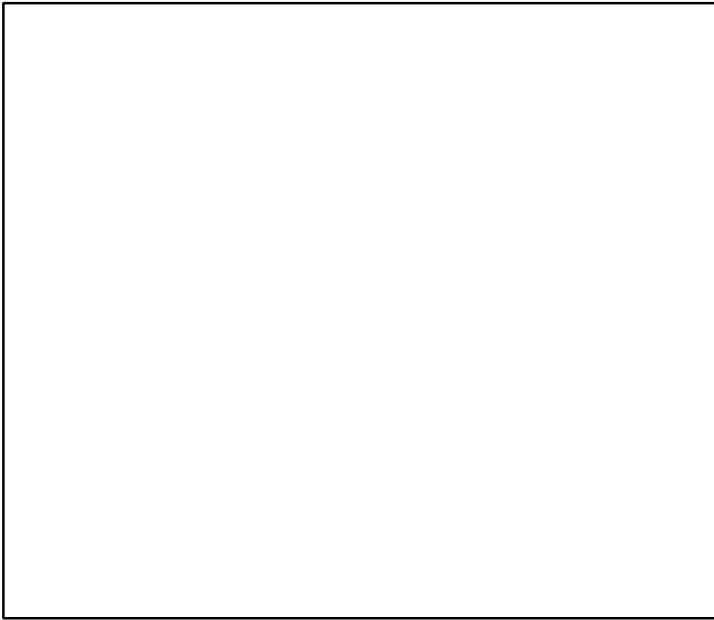
Alfonsino Chile [AFLONCH]

| Metadata | |
|-----------------------------|--|
| Scientific Name | Beryx splendens |
| Current Assess ID | SPRFMO-AFLONCH-1998-2011-CHING |
| Area | Chile |
| Management Authority | South Pacific Regional Fisheries Management Organization |
| Assessor | South Pacific Regional Fisheries Management Organization |
| Asmts in RAM | 2011 |

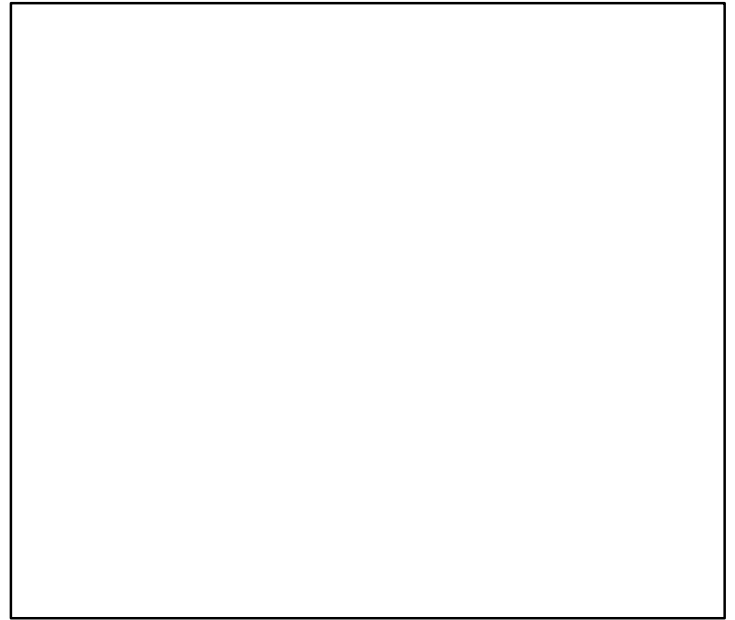
| Reference Points | | | |
|------------------|----|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | - | - | - |
| Fmsy | - | - | - |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | -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

| Time Series | | | | | |
|-------------|---------------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2011 | 11,600 | - | - |
| SSB | SSB-MT | 2011 | 944 | - | - |
| TN | - | - | - | - | - |
| R | R-E00 | 2011 | 4370 | - | - |
| F | - | - | - | - | - |
| ER | ER-calc-ratio | 2011 | 0.018 | - | - |
| TC | - | - | - | | |
| TL | TL-MT | 2011 | 204 | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

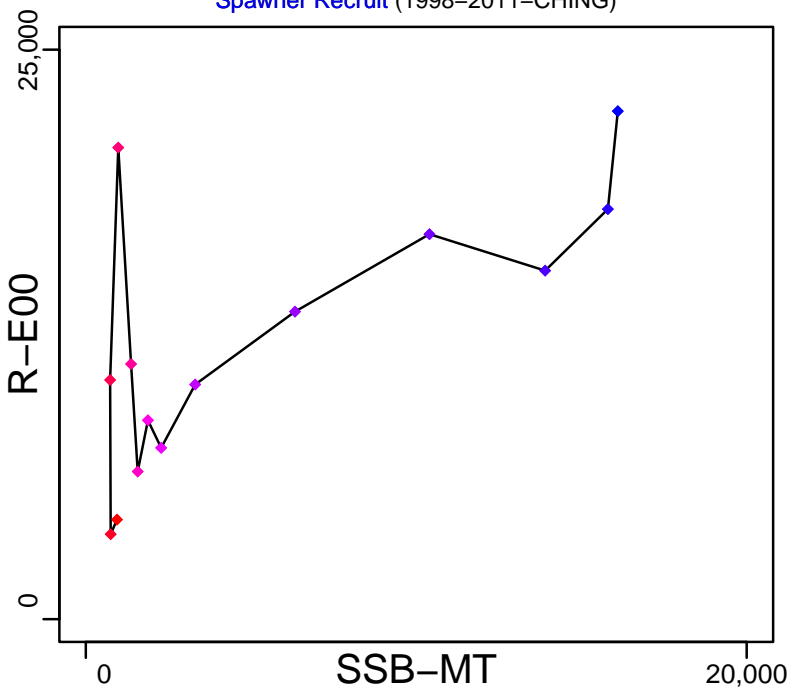
Kobe MSY*



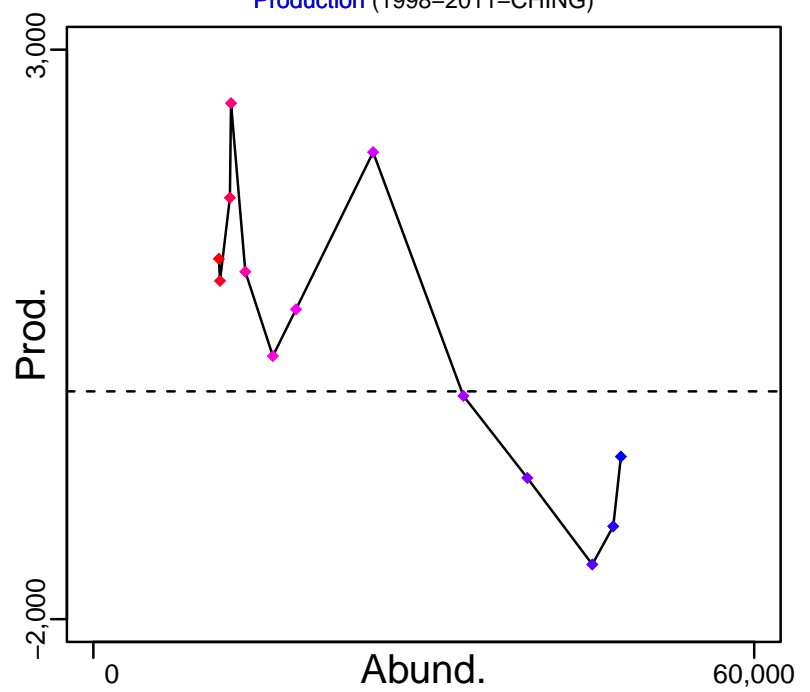
Kobe MGT*



Spawner Recruit (1998–2011–CHING)



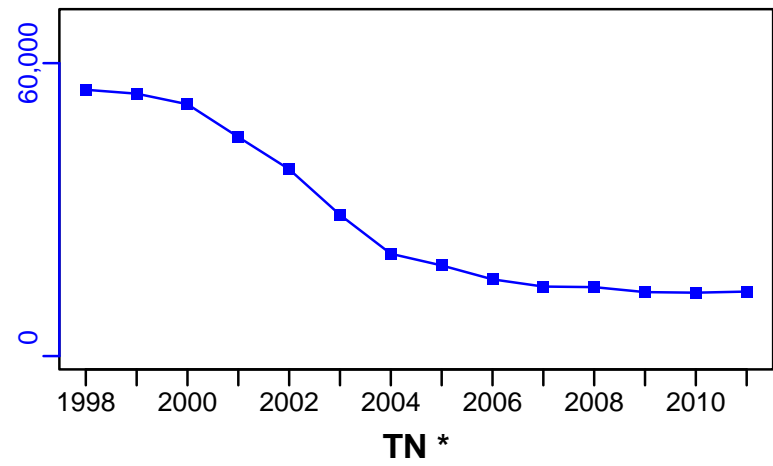
Production (1998–2011–CHING)



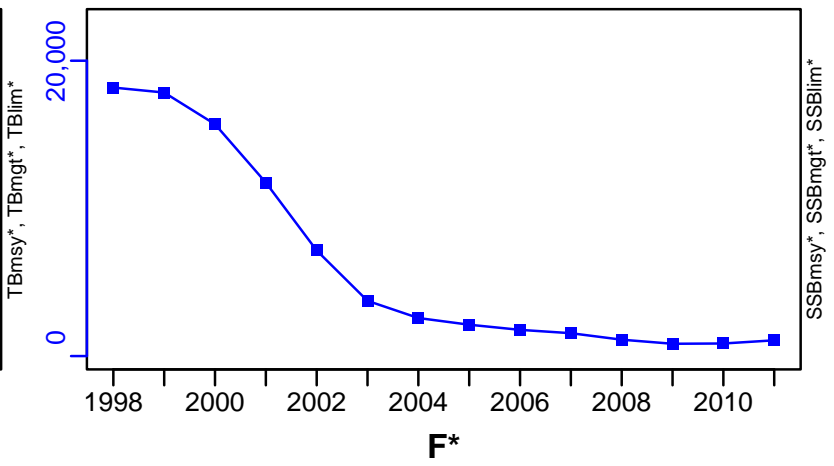
◆ Start Year ◆ End Year * No Data

Alfonsino Chile [AFLONCH]

TB-MT (1998–2011–CHING)

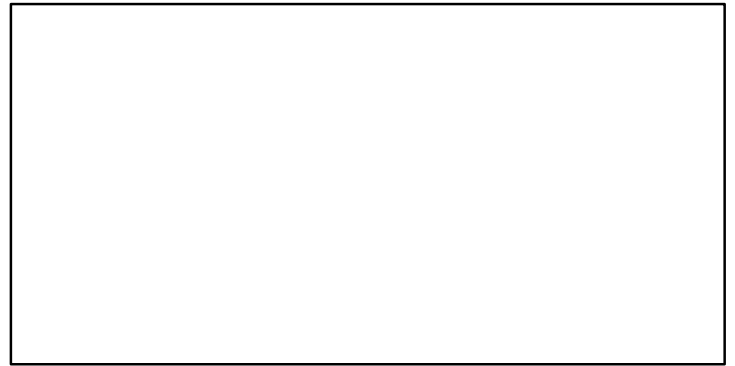
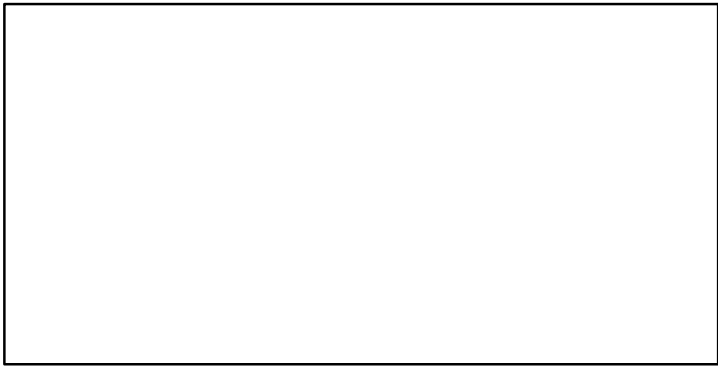


SSB-MT (1998–2011–CHING)

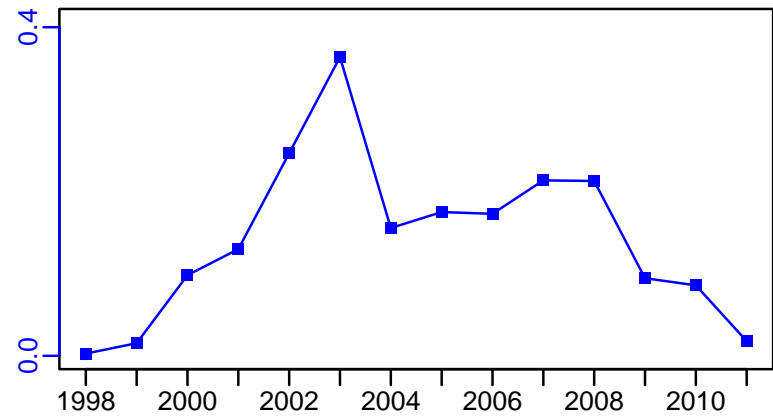


TN *

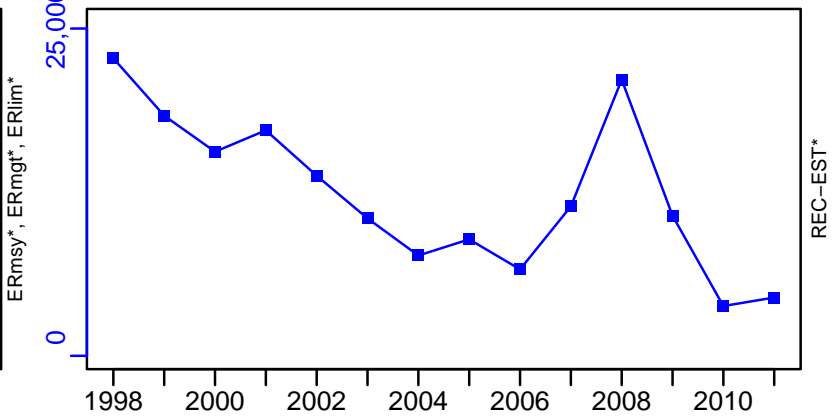
F*



ER-calc-ratio (1998–2011–CHING)

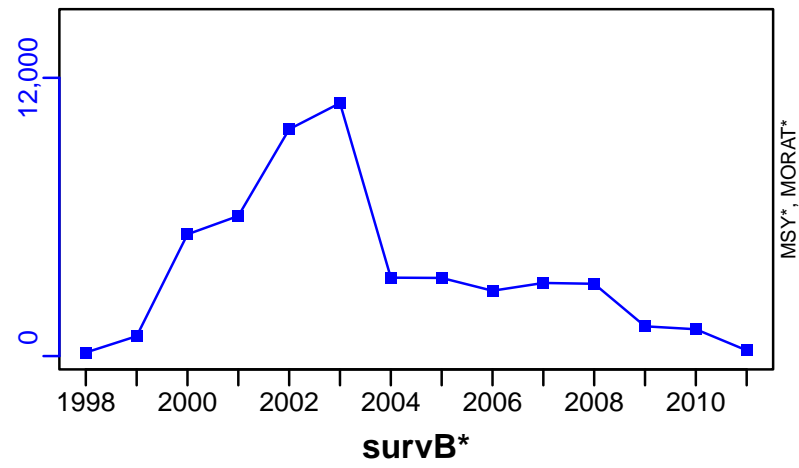


R-E00 (1998–2011–CHING)

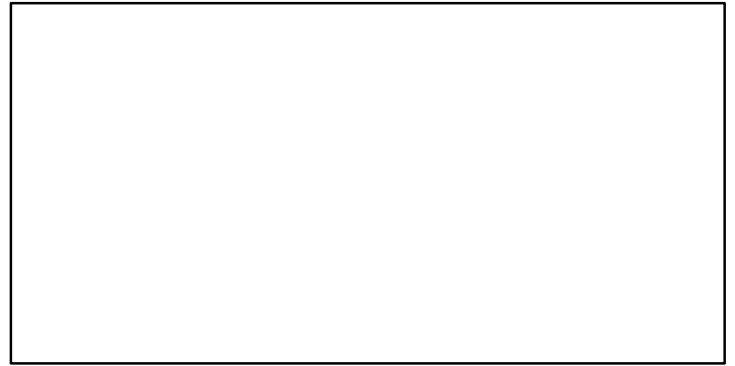


Alfonsino Chile [AFLONCH]

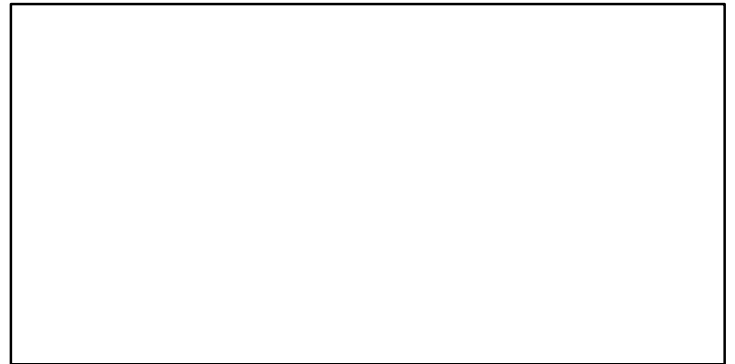
TL-MT, TC*, RecC* (1998-2011-CHING)



TAC*, Cpair*, Cadv*



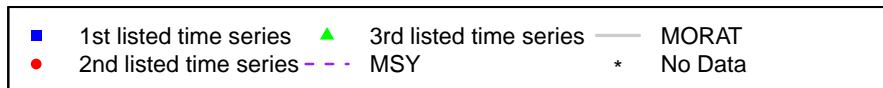
CPUE*



EFFORT*



CdivMSY*



Argentine anchoita Northern Argentina [ARGANCHONARG]

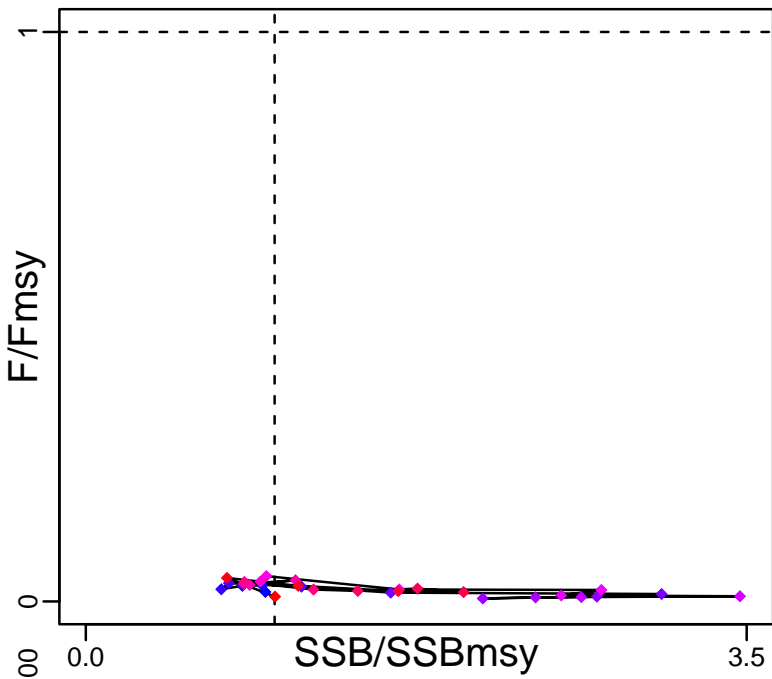
| Metadata | |
|-----------------------------|---|
| Scientific Name | Engraulis anchoita |
| Current Assess ID | INIDEP-ARGANCHONARG-1989-2019-PARMA |
| Area | Northern Argentina |
| Management Authority | Consejo Federal Pesquero, Argentina national management |
| Assessor | Instituto Nacional de Investigacion y Desarrollo Pesquero |
| Asmts in RAM | 2007, 2015, 2016, 2019 |

| Reference Points | | | |
|------------------|-------------|-----------|-----------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-MT | 2019 | 1,866,031 |
| SSBmsy | SSBmsy-MT | 2019 | 795,744 |
| Fmsy | Fmsy-1/yr | 2019 | 1.625 |
| ERmsy | ERmsy-ratio | 2007 | 0.405 |
| TBmgt | - | - | - |
| SSBmgt | SSBmgt-MT | 2019 | 788,664 |
| Fmgt | Fmgt-1/yr | 2019 | 1.1 |
| ERmgt | - | - | - |
| TB0 | TB0-MT | 2016 | 3,370,285 |
| SSB0 | SSB0-MT | 2016 | 2,196,036 |
| MSY | MSY-MT | 2015 | 222,163 |
| M | M-1/yr | 2019 | 1.01 |
| TBlim | - | - | - |
| SSBlim | SSBlim-MT | 2016 | 293,000 |
| Flim | Flim-1/yr | 2016 | 4.4 |
| ERlim | - | - | - |

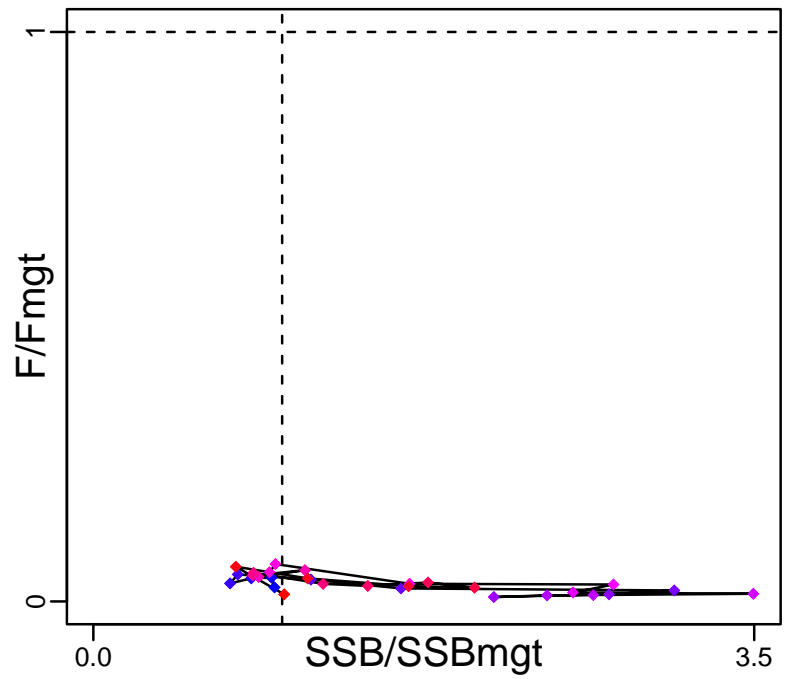
| Time Series | | | | | |
|-------------------|----------------------|-----------|---------------------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2019 | 1,679,482 | Both | 1+ |
| SSB | SSB-MT | 2019 | 797,357 | Both | 2+ |
| TN | - | - | - | - | - |
| R | R-E00 | 2019 | $1.674,83 \times 10^{11}$ | Both | 1 |
| F | F-1/yr | 2019 | 0.014 | Both | 6 |
| ER | ER-calc-ratio | 2019 | 0.001 | - | - |
| TC | TC-MT | 2019 | 1815 | | |
| TL | TL-MT | 2019 | 12,130 | | |
| TB/TBmsy | TB-MT/TBmsy-MT | 2019 | 0.9 | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-MT | 2019 | 1.002 | | |
| F/Fmsy | F-1/yr/Fmsy-1/yr | 2019 | 0.008 | | |
| ER/ERmsy | ER-ratio/ERmsy-ratio | 2007 | 0.053 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | SSB-MT/SSBmgt-MT | 2019 | 1.011 | | |
| F/Fmgt | F-1/yr/Fmgt-1/yr | 2019 | 0.012 | | |
| ER/ERmgt | - | - | - | | |

Argentine anchoita Northern Argentina [ARGANCHONARG]

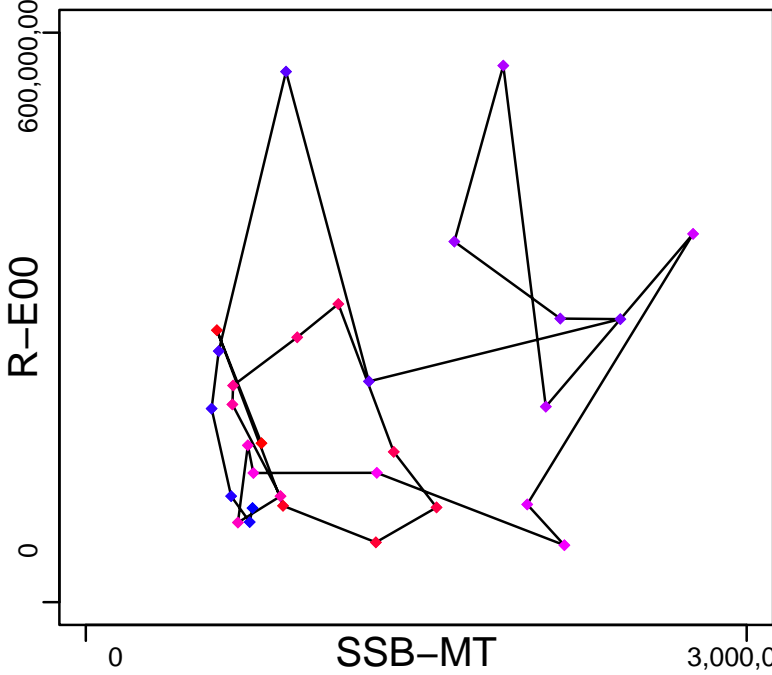
Kobe MSYpref (1989–2019–PARMA)



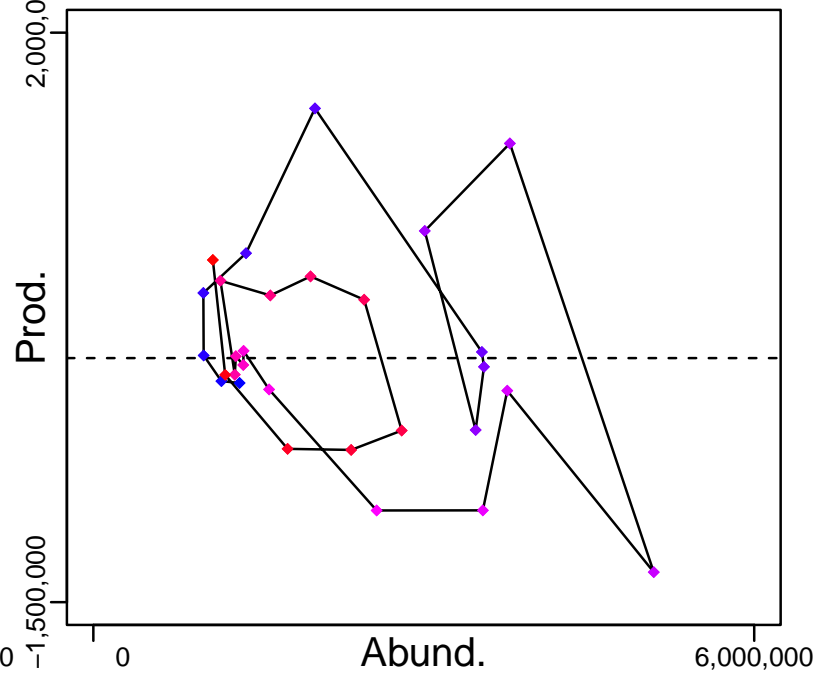
Kobe MGTpref (1989–2019–PARMA)



Spawner Recruit (1989–2019–PARMA)

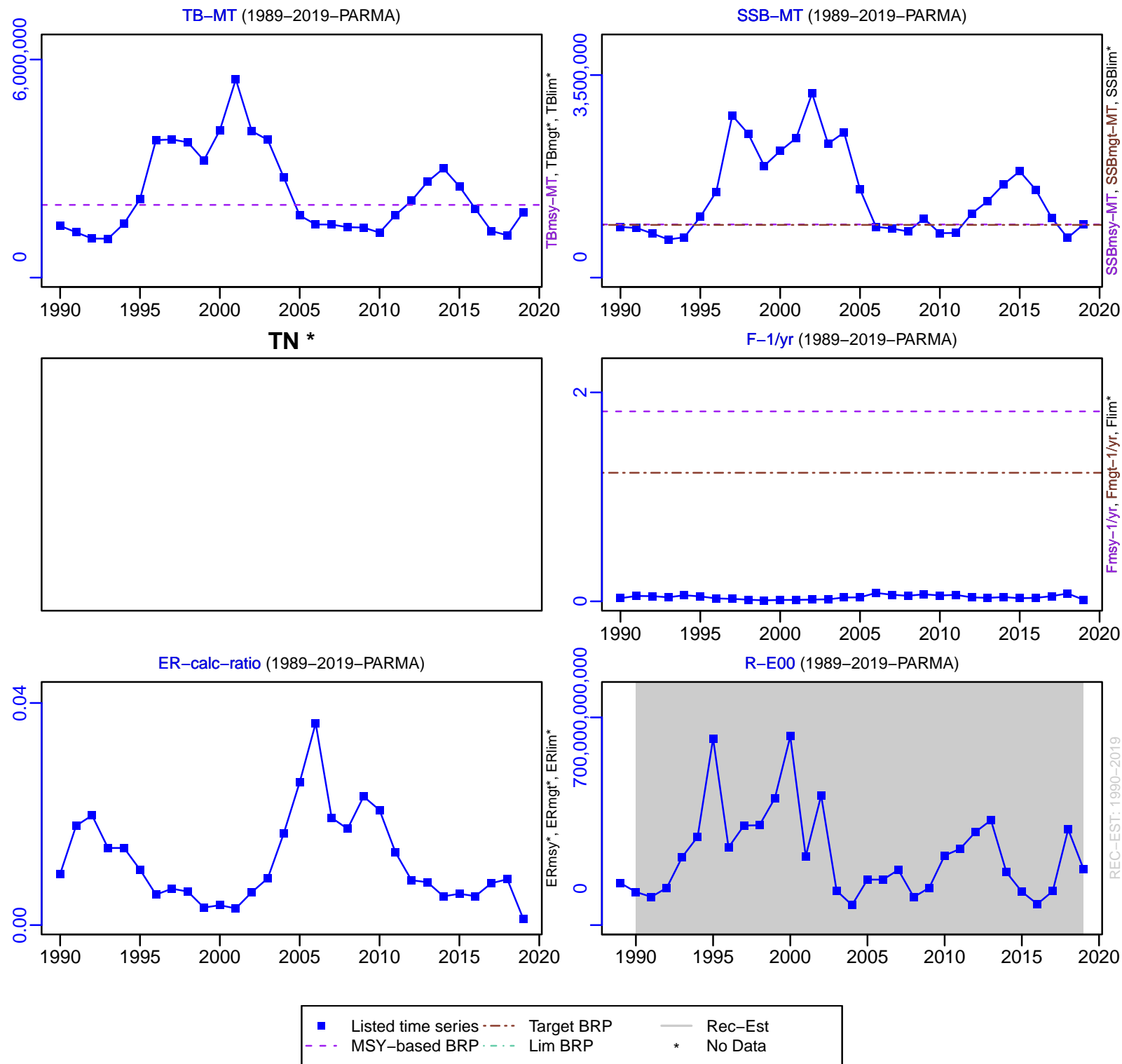


Production (1989–2019–PARMA)



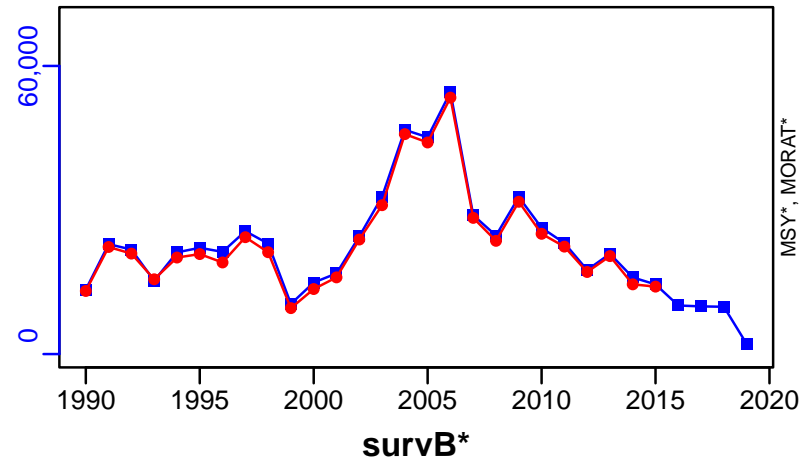
◆ Start Year ◆ End Year * No Data

Argentine anchoita Northern Argentina [ARGANCHONARG]

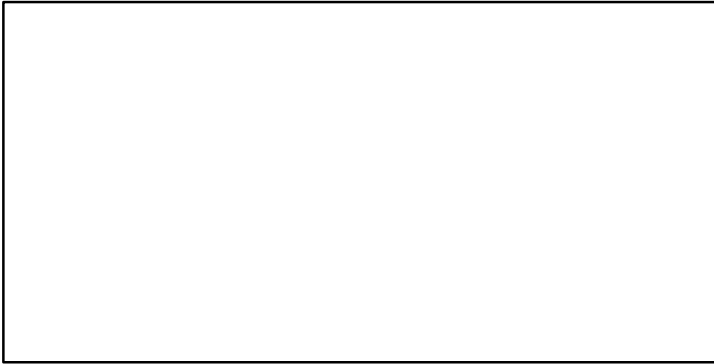
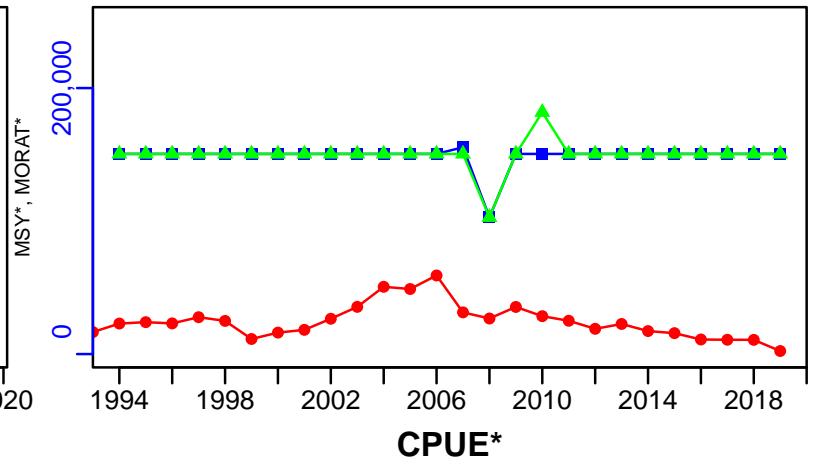


Argentine anchoita Northern Argentina [ARGANCHONARG]

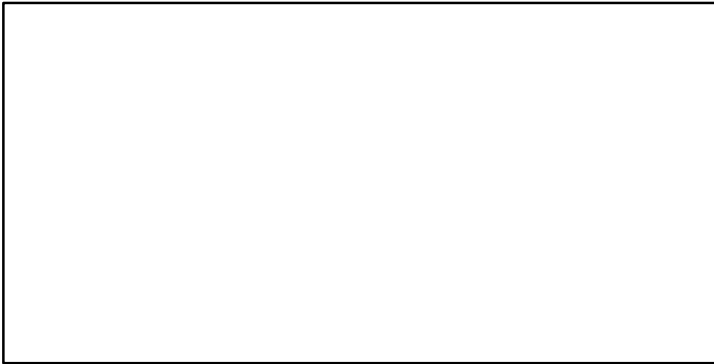
TC-MT, TL-MT, RecC* (1989-2019-PARMA)



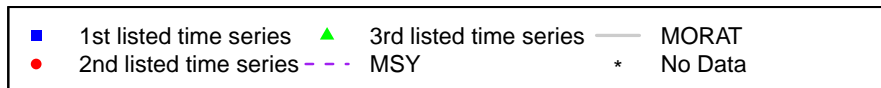
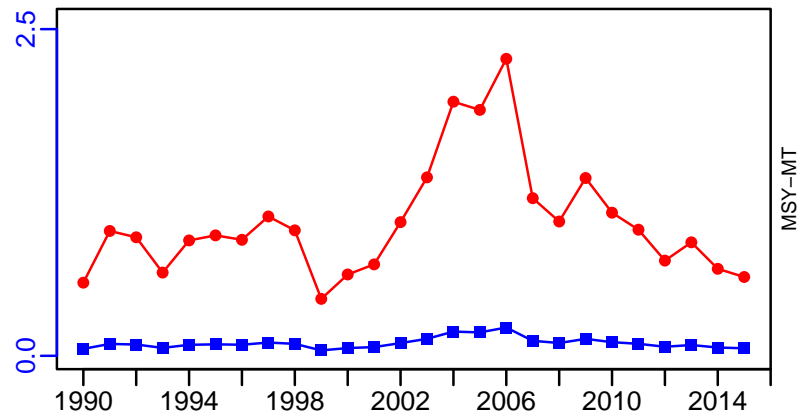
TAC-MT, Cpair-MT, Cadvised-MT (1989-2019-PARMA)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1989-2015-ORLANDO)



Argentine anchoita Southern Argentina [ARGANCHOSARG]

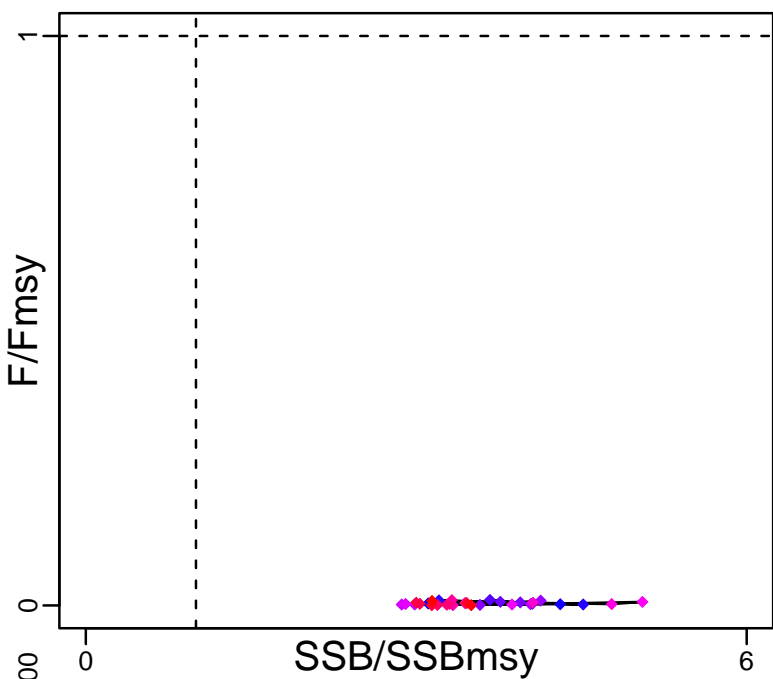
| Metadata | |
|-----------------------------|---|
| Scientific Name | Engraulis anchoita |
| Current Assess ID | INIDEP-ARGANCHOSARG-1989-2020-PARMA |
| Area | Southern Argentina |
| Management Authority | Consejo Federal Pesquero, Argentina national management |
| Assessor | Instituto Nacional de Investigacion y Desarrollo Pesquero |
| Asmts in RAM | 2015, 2020, 2007 |

| Reference Points | | | |
|------------------|-------------|-----------|---------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-MT | 2020 | 734,669 |
| SSBmsy | SSBmsy-MT | 2020 | 309,895 |
| Fmsy | Fmsy-1/yr | 2020 | 1.46 |
| ERmsy | ERmsy-ratio | 2007 | 0.395 |
| TBmgt | - | - | - |
| SSBmgt | SSBmgt-MT | 2020 | 484,937 |
| Fmgt | Fmgt-1/yr | 2020 | 0.71 |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-MT | 2015 | 454,000 |
| M | M-1/yr | 2020 | 0.98 |
| TBlim | TBlim-MT | 2007 | 350,000 |
| SSBlim | SSBlim-MT | 2015 | 339,700 |
| Flim | - | - | - |
| ERlim | - | - | - |

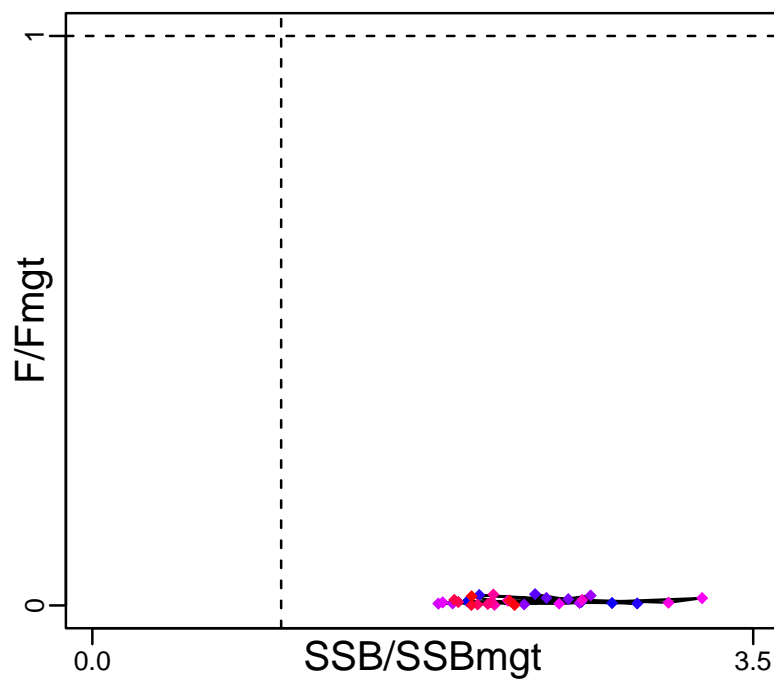
| Time Series | | | | | |
|-------------------|----------------------|-----------|---------------------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2020 | 1,245,613 | Both | 1+ |
| SSB | SSB-MT | 2020 | 974,089 | Both | 1+ |
| TN | - | - | - | - | - |
| R | R-E00 | 2020 | $1.305,56 \times 10^{11}$ | Both | 1 |
| F | F-1/yr | 2020 | 0.011 | Both | 6 |
| ER | ER-calc-ratio | 2020 | 0.003 | - | - |
| TC | TC-MT | 2020 | 4146 | | |
| TL | TL-MT | 2015 | 2280 | | |
| TB/TBmsy | TB-MT/TBmsy-MT | 2020 | 1.695 | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-MT | 2020 | 3.143 | | |
| F/Fmsy | F-1/yr/Fmsy-1/yr | 2020 | 0.008 | | |
| ER/ERmsy | ER-ratio/ERmsy-ratio | 2007 | 0.005 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | SSB-MT/SSBmgt-MT | 2020 | 2.009 | | |
| F/Fmgt | F-1/yr/Fmgt-1/yr | 2020 | 0.016 | | |
| ER/ERmgt | - | - | - | | |

Argentine anchoita Southern Argentina [ARGANCHOSARG]

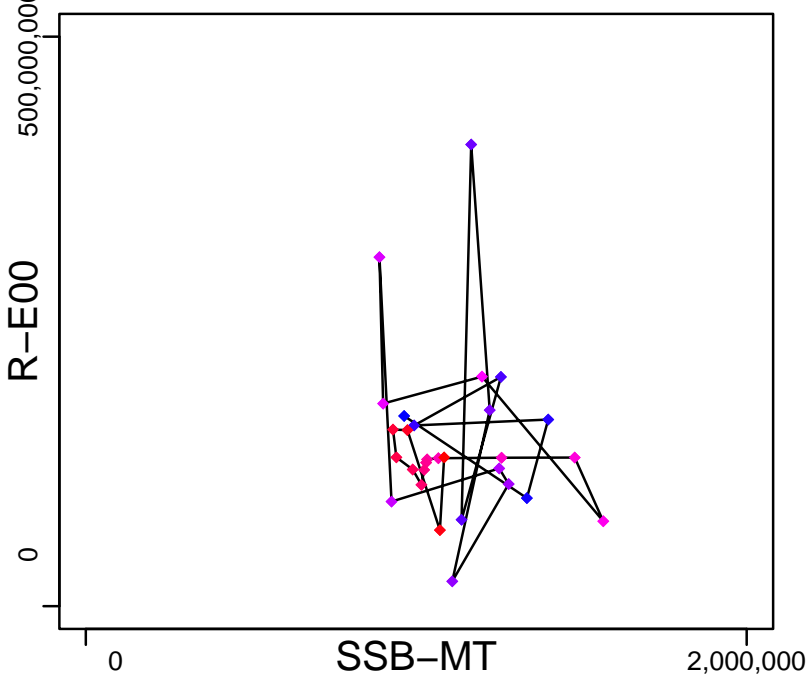
Kobe MSY_{pref} (1989–2020–PARMA)



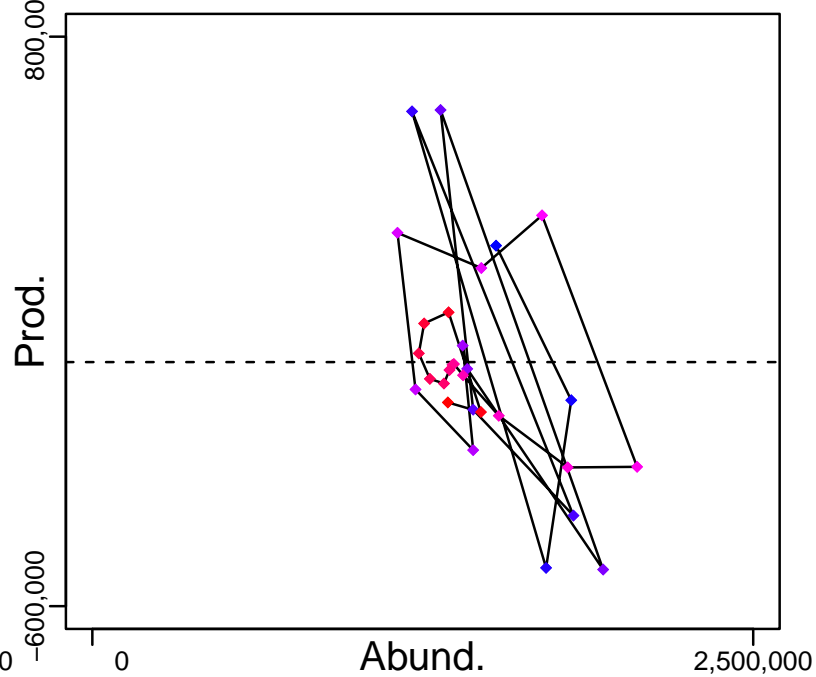
Kobe MGT_{pref} (1989–2020–PARMA)



Spawner Recruit (1989–2020–PARMA)



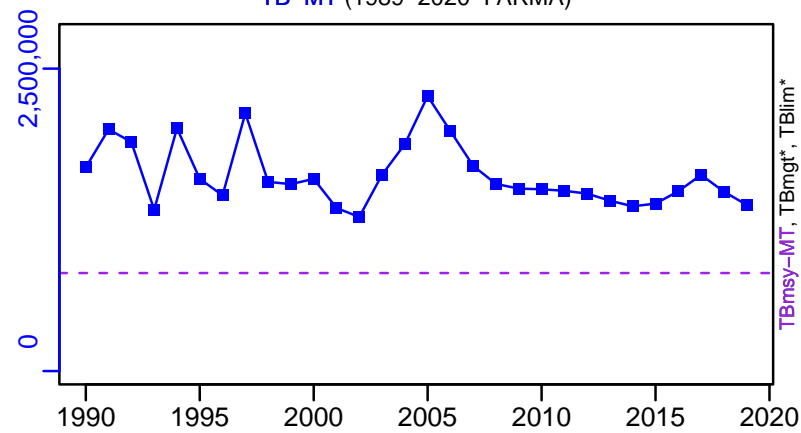
Production (1989–2020–PARMA)



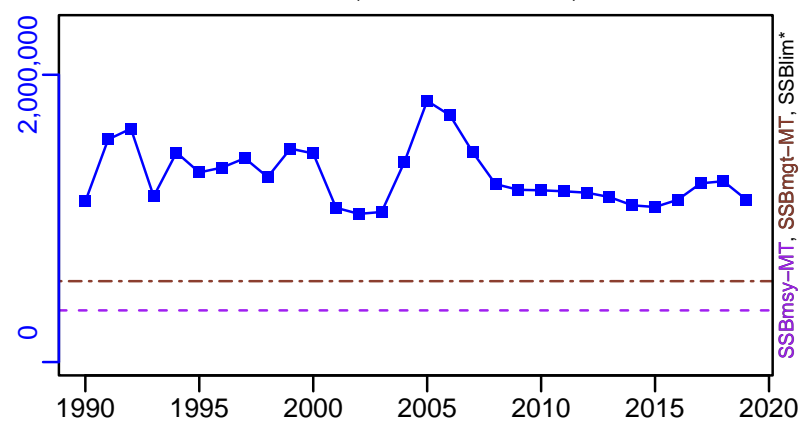
◆ Start Year ◆ End Year * No Data

Argentine anchoita Southern Argentina [ARGANCHOSARG]

TB-MT (1989–2020–PARMA)



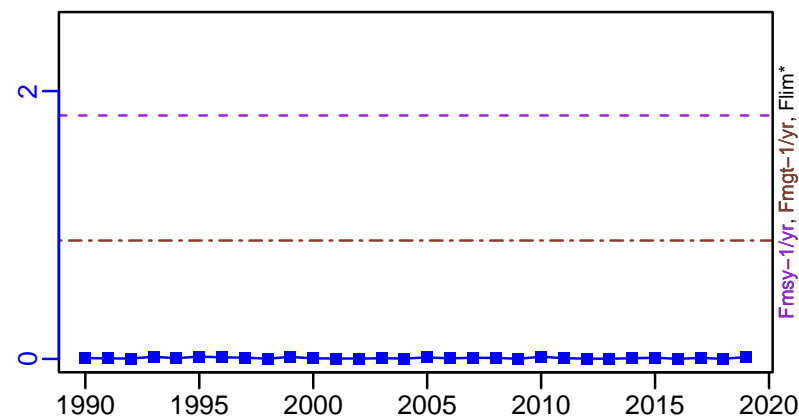
SSB-MT (1989–2020–PARMA)



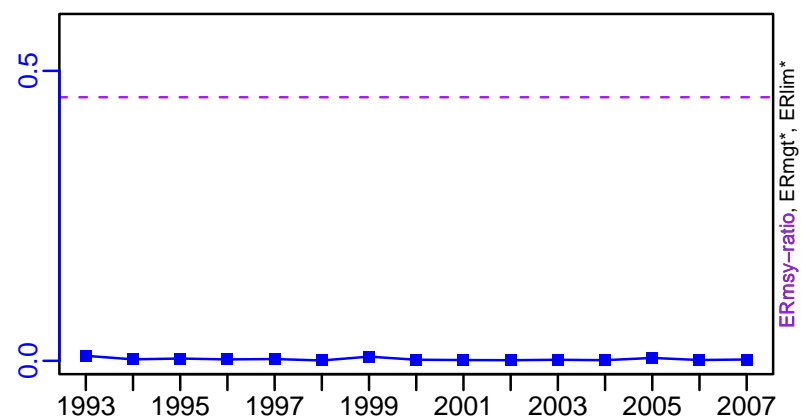
TN *



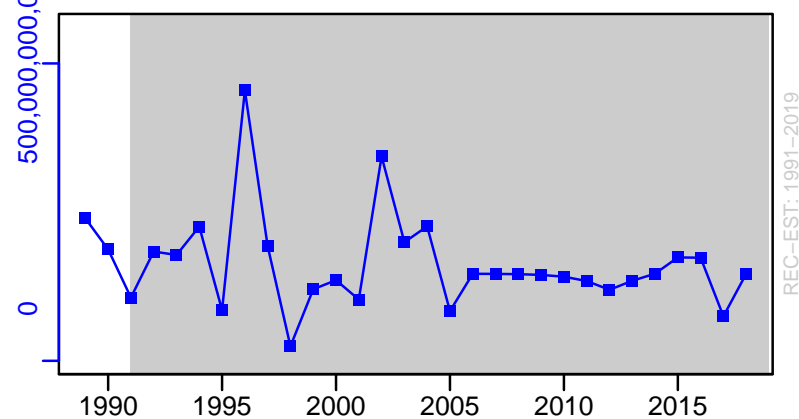
F-1/yr (1989–2020–PARMA)



ER-ratio (1992–2007–Parma)

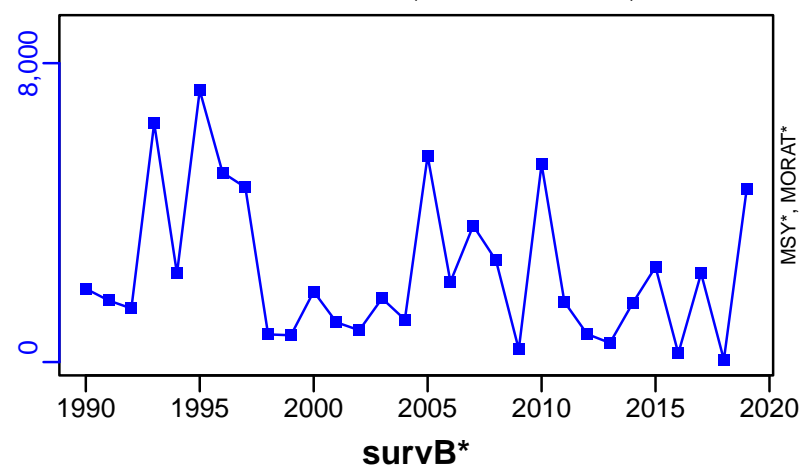


R-E00 (1989–2020–PARMA)

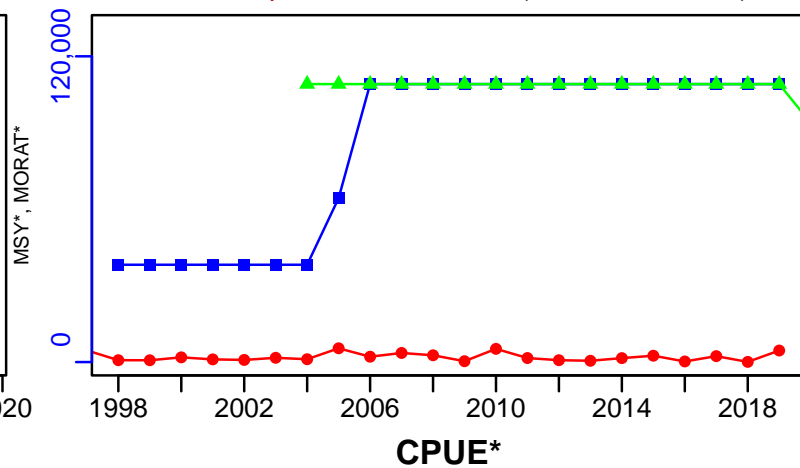


Argentine anchoita Southern Argentina [ARGANCHOSARG]

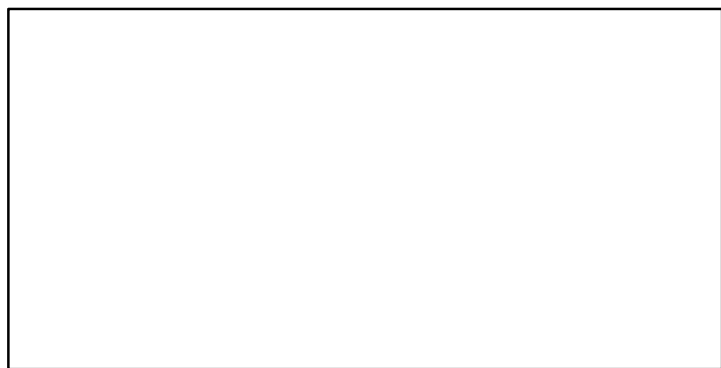
TC-MT, TL*, RecC* (1989–2020–PARMA)



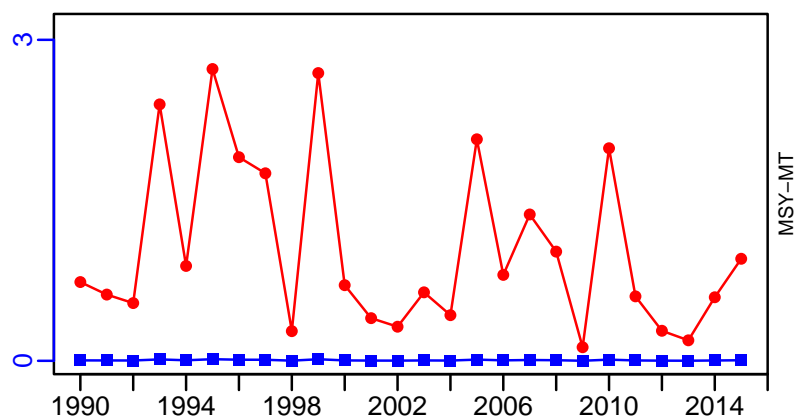
TAC-MT, Cpair-MT, Cadvised-MT (1989–2020–PARMA)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1989–2015–BURATTI)



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

Argentine hake Northern Argentina [ARGHAKENARG]

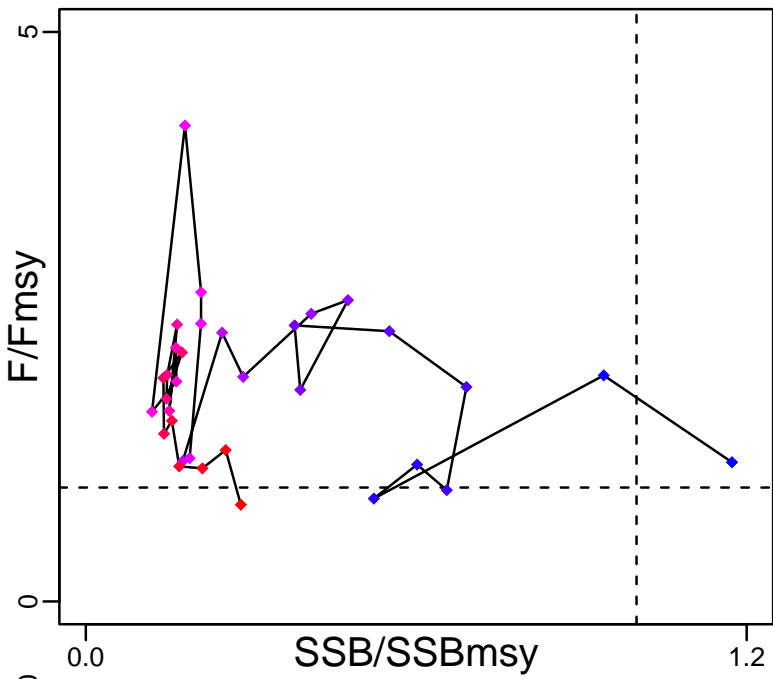
| Metadata | |
|-----------------------------|---|
| Scientific Name | Merluccius hubbsi |
| Current Assess ID | INIDEP-ARGHAKENARG-1985-2018-PARMA |
| Area | Northern Argentina |
| Management Authority | Consejo Federal Pesquero, Argentina national management |
| Assessor | Instituto Nacional de Investigacion y Desarrollo Pesquero |
| Asmts in RAM | 2014, 2018, 2011 |

| Reference Points | | | |
|------------------|-----------|-----------|---------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | SSBmsy-MT | 2018 | 423,330 |
| Fmsy | Fmsy-1/yr | 2018 | 0.392 |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-MT | 2018 | 138,112 |
| M | M-1/yr | 2018 | 0.3 |
| TBlim | - | - | - |
| SSBlim | SSBlim-MT | 2014 | 230,000 |
| Flim | - | - | - |
| ERlim | - | - | - |

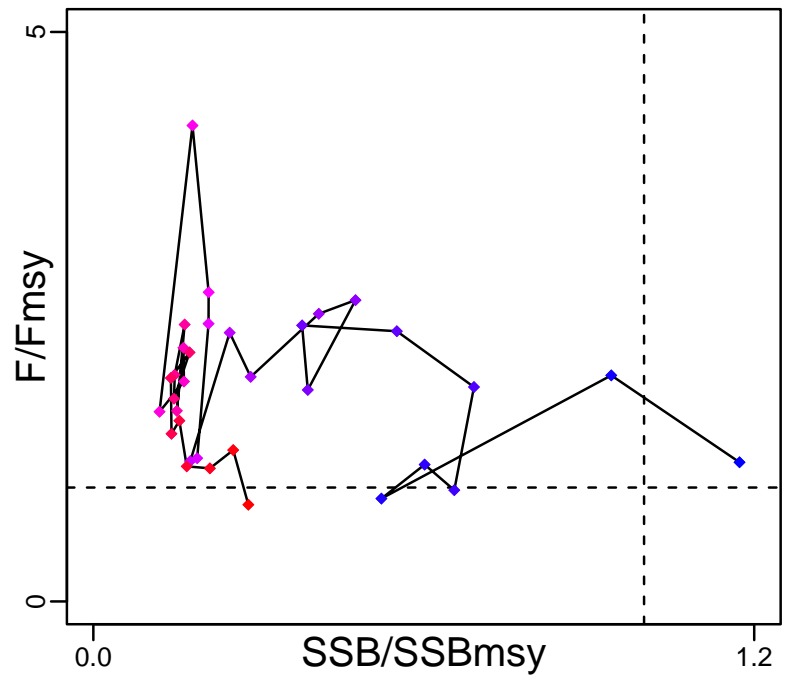
| Time Series | | | | | |
|-------------------|------------------|-----------|-------------|------|-------|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2018 | 170,125 | Both | - |
| SSB | SSB-MT | 2018 | 119,165 | Both | - |
| TN | - | - | - | - | - |
| R | R-E00 | 2018 | 300,085,000 | - | - |
| F | F-1/yr | 2018 | 0.333 | Both | 6-Mar |
| ER | ER-calc-ratio | 2018 | 0.3 | - | - |
| TC | TC-MT | 2018 | 51,099 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-MT | 2018 | 0.281 | | |
| F/Fmsy | F-1/yr/Fmsy-1/yr | 2018 | 0.849 | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Argentine hake Northern Argentina [ARGHAKENARG]

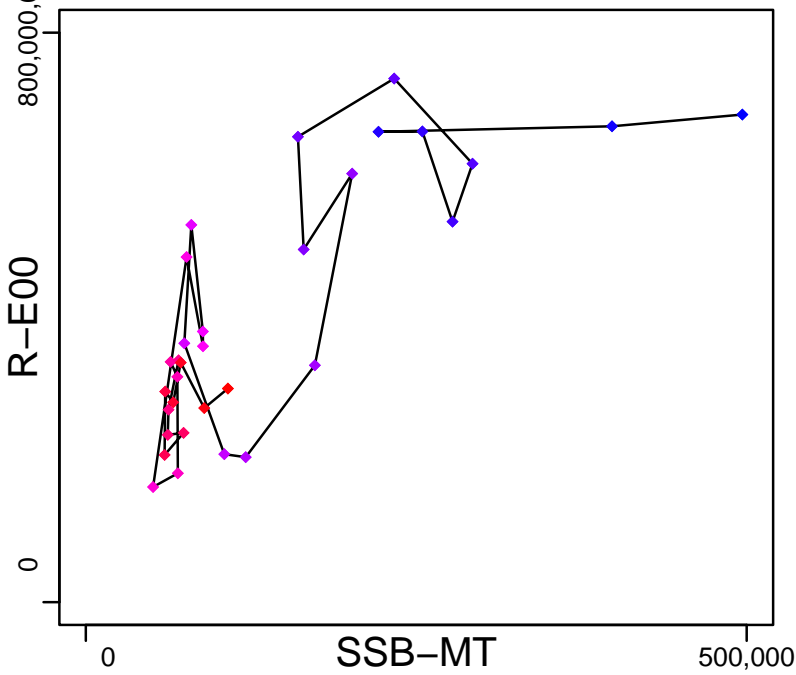
Kobe MSYpref (1985–2018–PARMA)



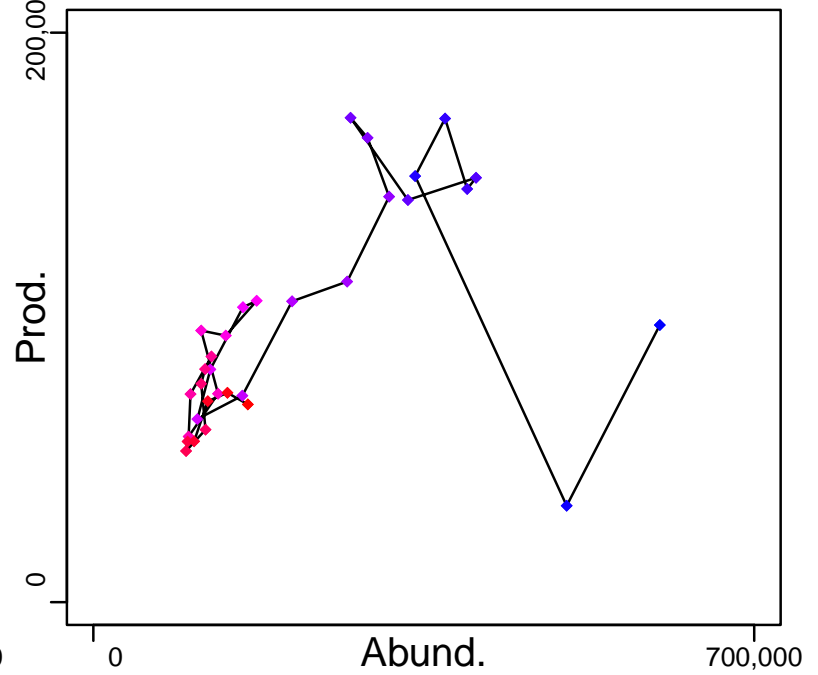
Kobe MGTpref (1985–2018–PARMA)



Spawner Recruit (1985–2018–PARMA)



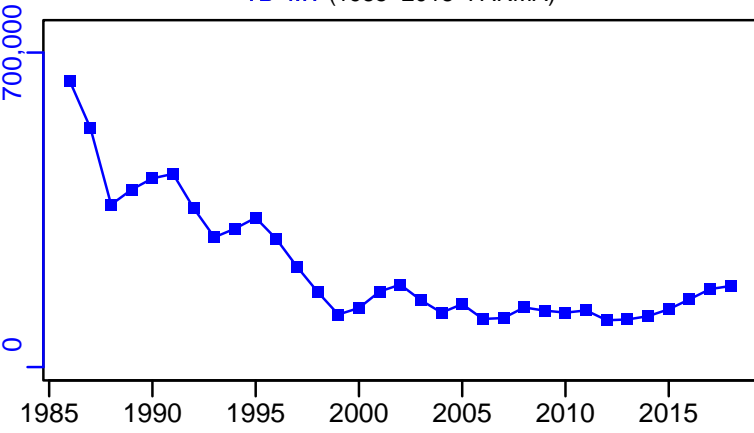
Production (1985–2018–PARMA)



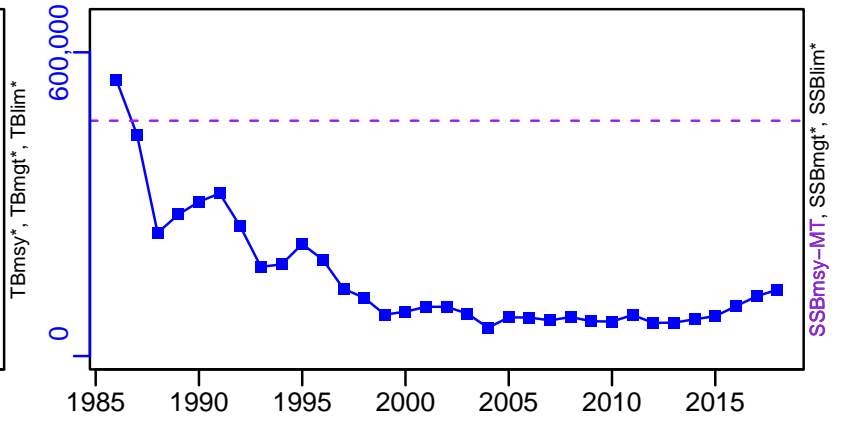
◆ Start Year ◆ End Year * No Data

Argentine hake Northern Argentina [ARGHAKENARG]

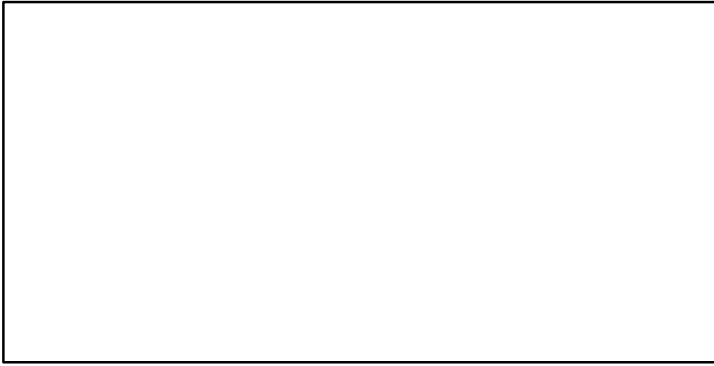
TB-MT (1985-2018-PARMA)



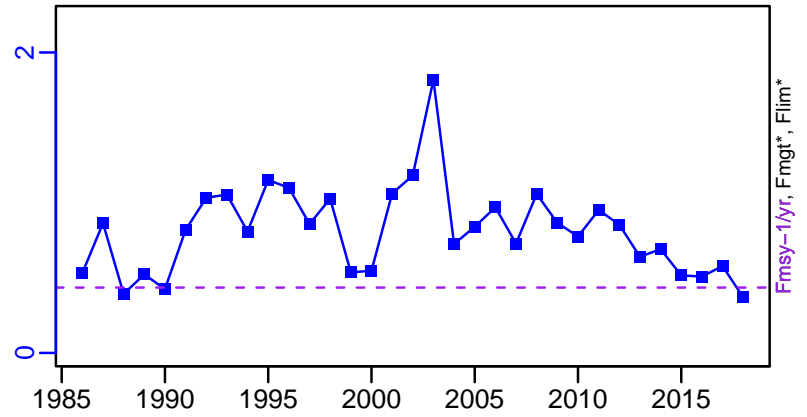
SSB-MT (1985-2018-PARMA)



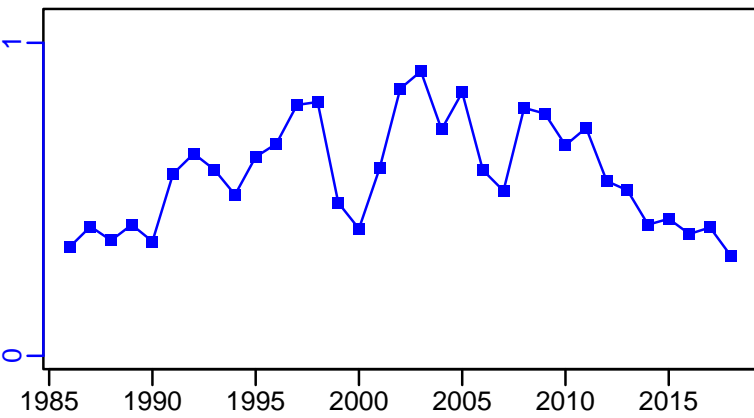
TN *



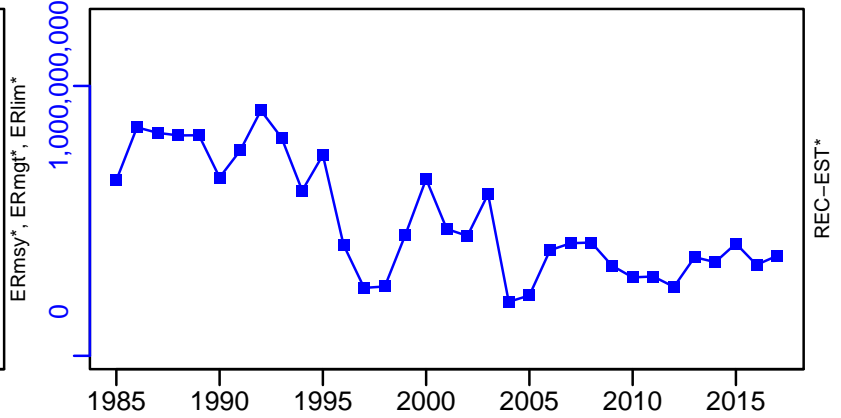
F-1/yr (1985-2018-PARMA)



ER-calc-ratio (1985-2018-PARMA)

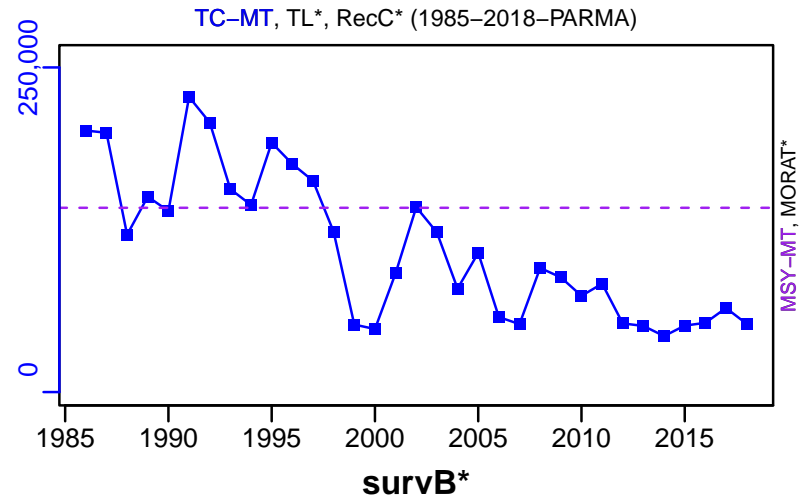


R-E00 (1985-2018-PARMA)

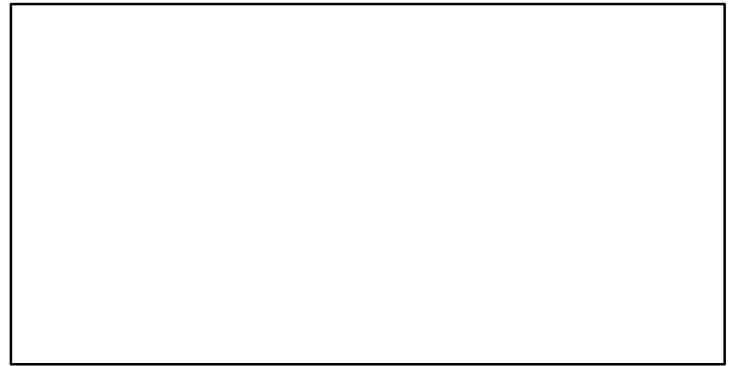
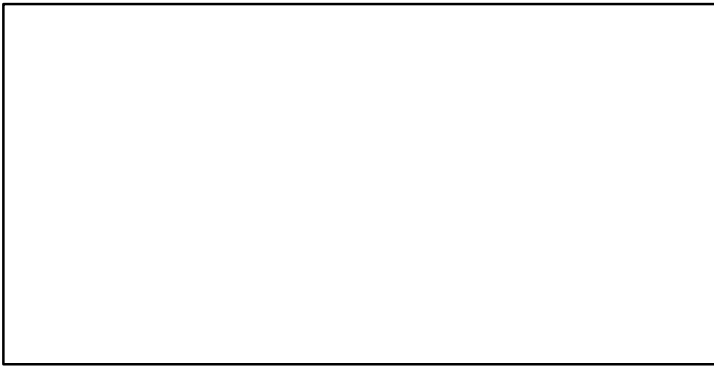
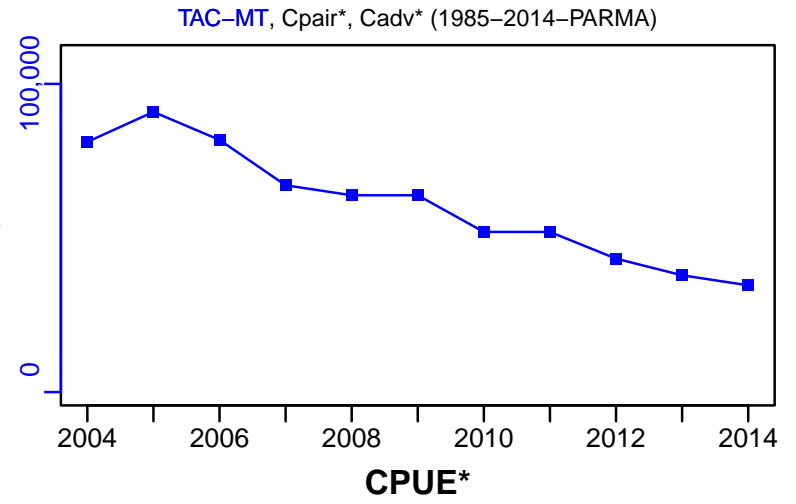


Argentine hake Northern Argentina [ARGHAKENARG]

TC-MT, TL*, RecC* (1985-2018-PARMA)



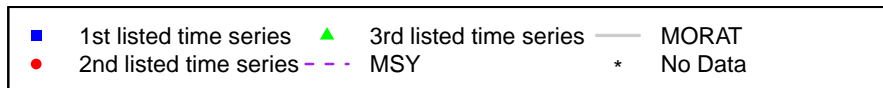
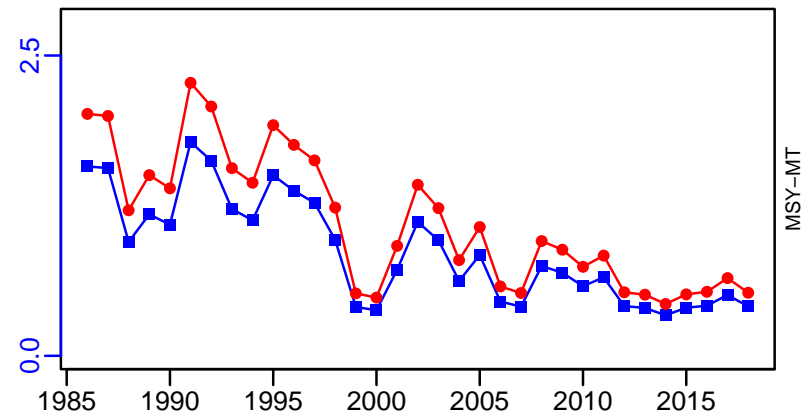
TAC-MT, Cpair*, Cadv* (1985-2014-PARMA)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1985-2018-PARMA)



Argentine hake Southern Argentina [ARGHAKESARG]

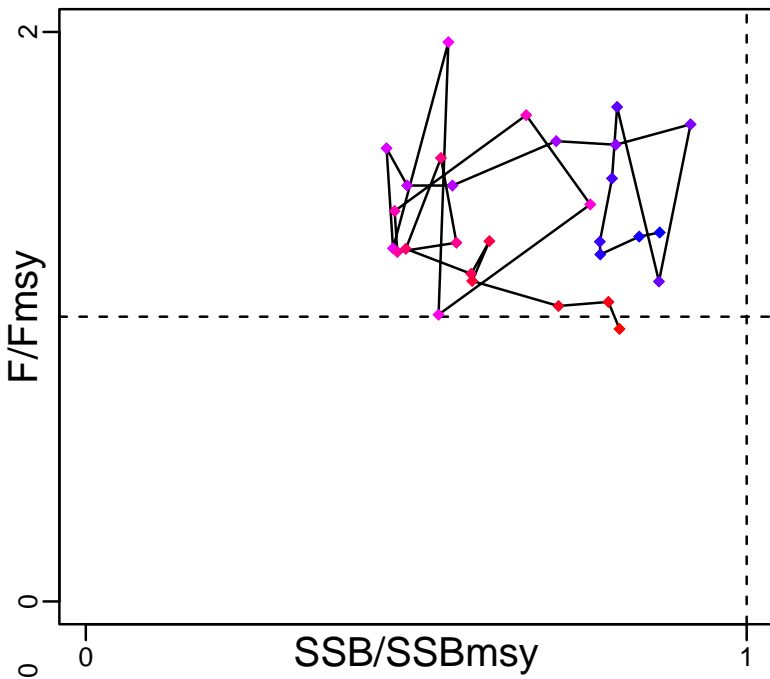
| Metadata | |
|-----------------------------|---|
| Scientific Name | Merluccius hubbsi |
| Current Assess ID | INIDEP-ARGHAKESARG-1989-2019-Parma |
| Area | Southern Argentina |
| Management Authority | Consejo Federal Pesquero, Argentina national management |
| Assessor | Instituto Nacional de Investigacion y Desarrollo Pesquero |
| Asmts in RAM | 2015, 2019, 2011 |

| Reference Points | | | |
|------------------|-----------|-----------|-----------------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | SSBmsy-MT | 2019 | 668,386 |
| Fmsy | Fmsy-1/yr | 2019 | 0.558 |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | SSBmgt-MT | 2019 | 6×10^5 |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-MT | 2019 | 527,521 |
| M | M-1/yr | 2019 | 0.3 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

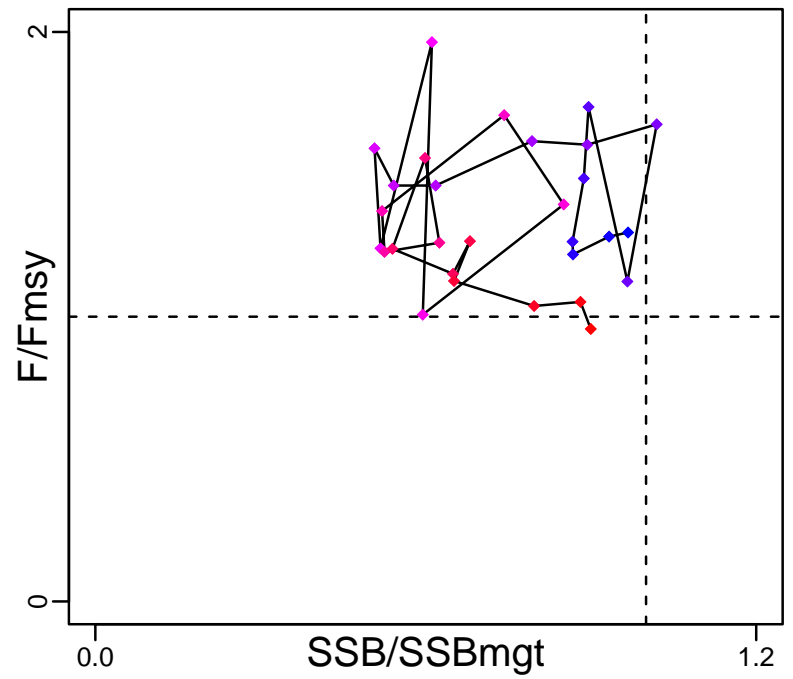
| Time Series | | | | | |
|-------------------|------------------|-----------|---------------|------|-------|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2019 | 885,210 | - | - |
| SSB | SSB-MT | 2019 | 539,759 | Both | - |
| TN | - | - | - | - | - |
| R | R-E00 | 2019 | 1,909,620,000 | - | 1 |
| F | F-1/yr | 2019 | 0.534 | Both | 6-Mar |
| ER | ER-ratio | 2019 | 0.779 | Both | - |
| TC | TC-MT | 2019 | 420,278 | | |
| TL | TL-MT | 2019 | 309,862 | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-MT | 2019 | 0.808 | | |
| F/Fmsy | F-1/yr/Fmsy-1/yr | 2019 | 0.957 | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | SSB-MT/SSBmgt-MT | 2019 | 0.9 | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Argentine hake Southern Argentina [ARGHAKESARG]

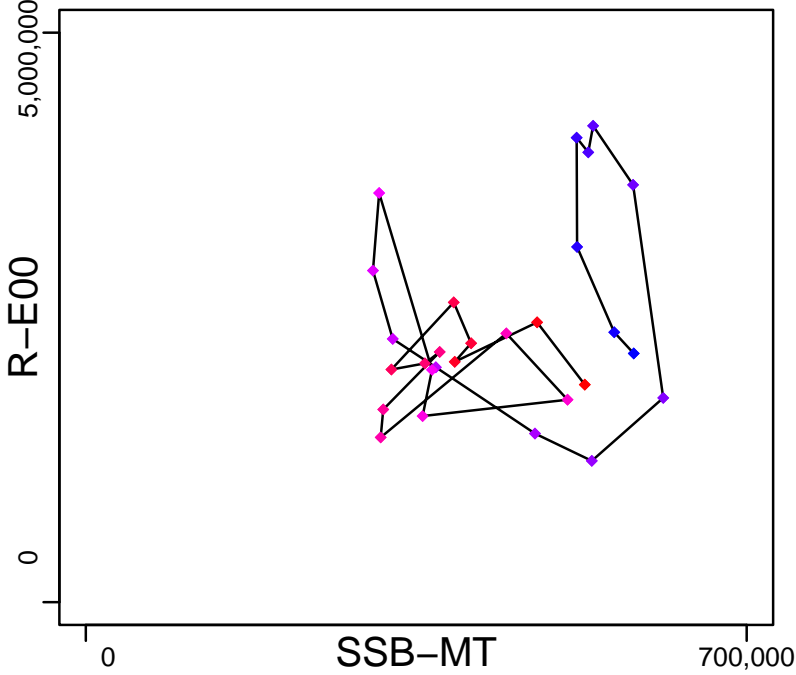
Kobe MSYpref (1989–2019–Parma)



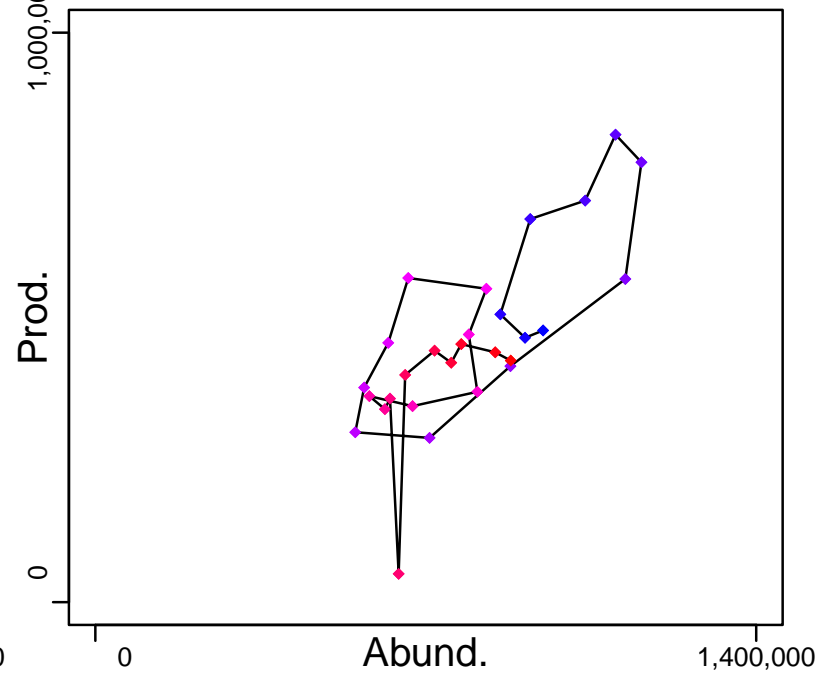
Kobe MGTpref (1989–2019–Parma)



Spawner Recruit (1989–2019–Parma)



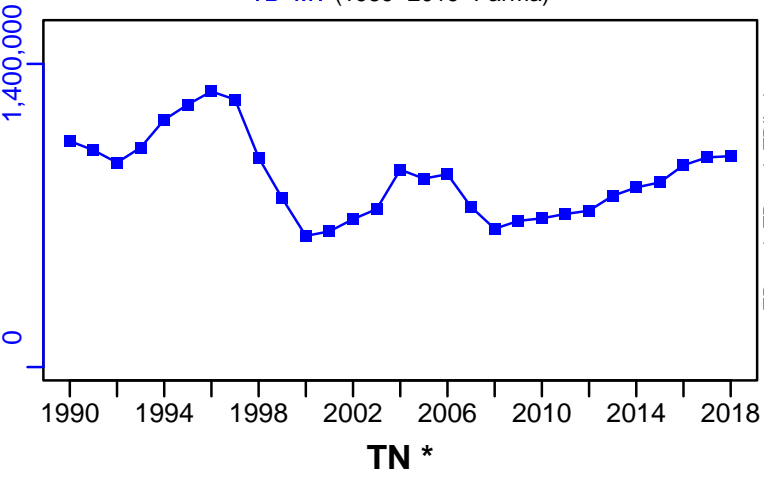
Production (1989–2019–Parma)



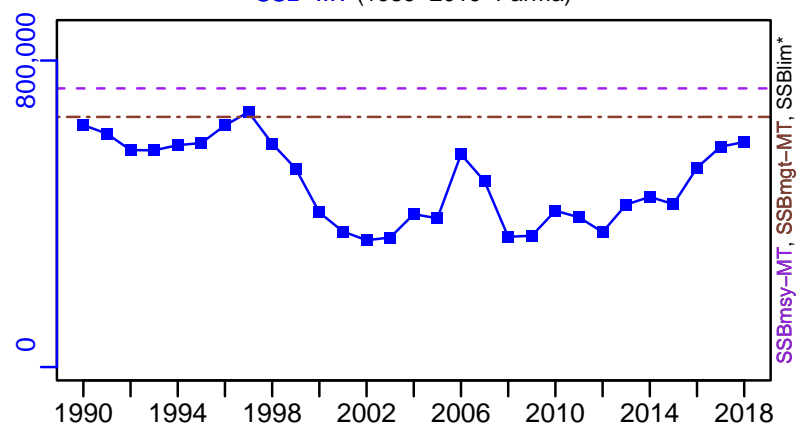
◆ Start Year ◆ End Year * No Data

Argentine hake Southern Argentina [ARGHAKESARG]

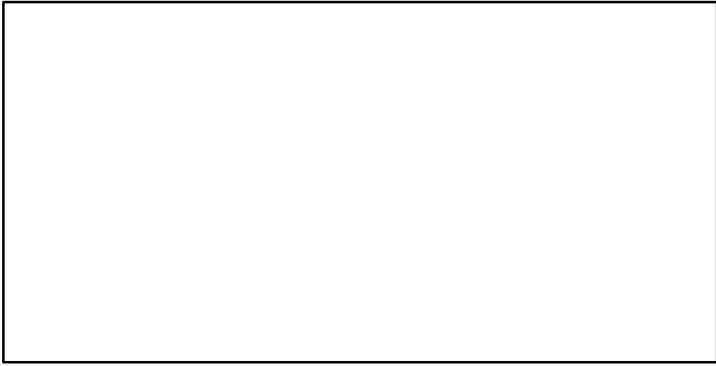
TB-MT (1989–2019–Parma)



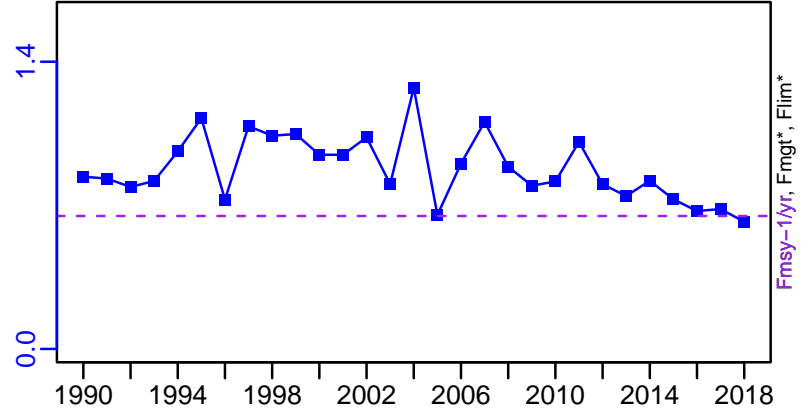
SSB-MT (1989–2019–Parma)



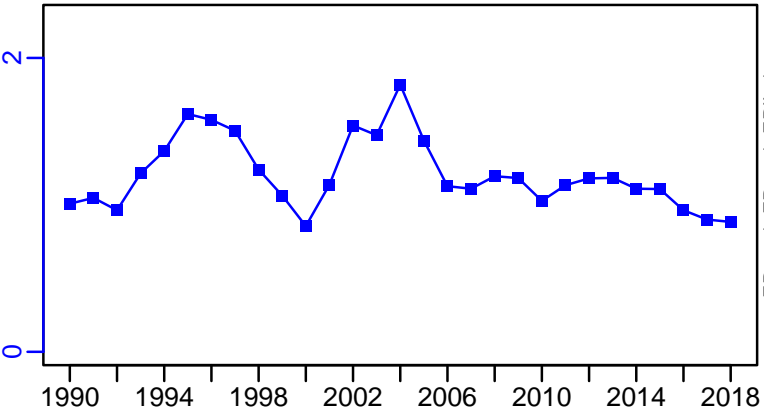
TN *



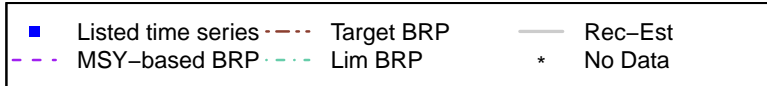
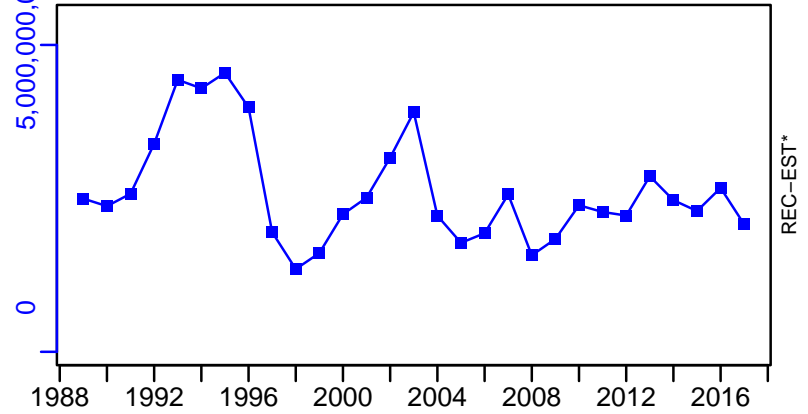
F-1/yr (1989–2019–Parma)



ER-ratio (1989–2019–Parma)



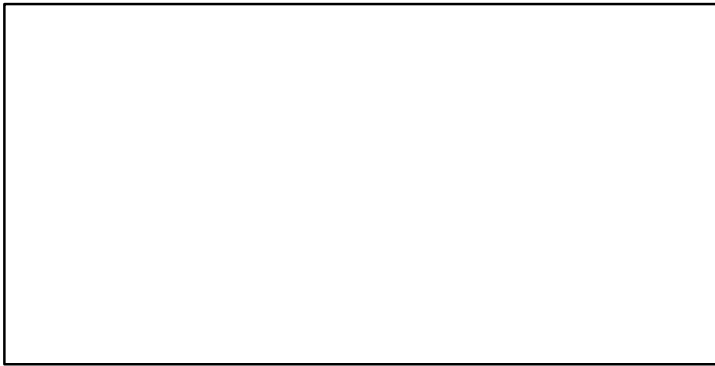
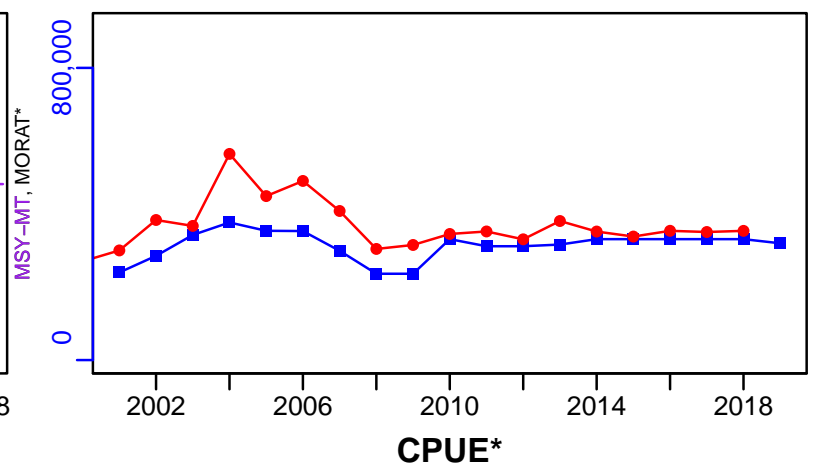
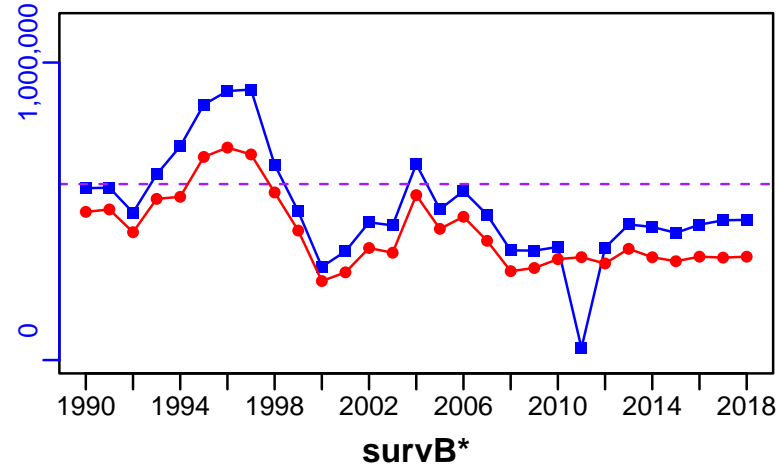
R-E00 (1989–2019–Parma)



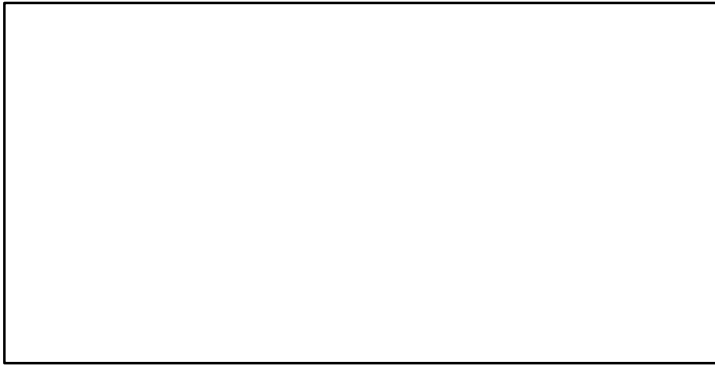
Argentine hake Southern Argentina [ARGHAKESARG]

TC-MT, TL-MT, RecC* (1989-2019-Parma)

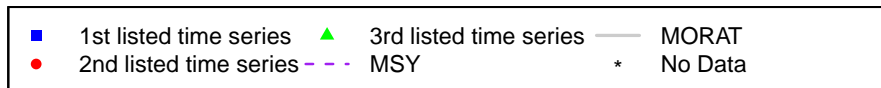
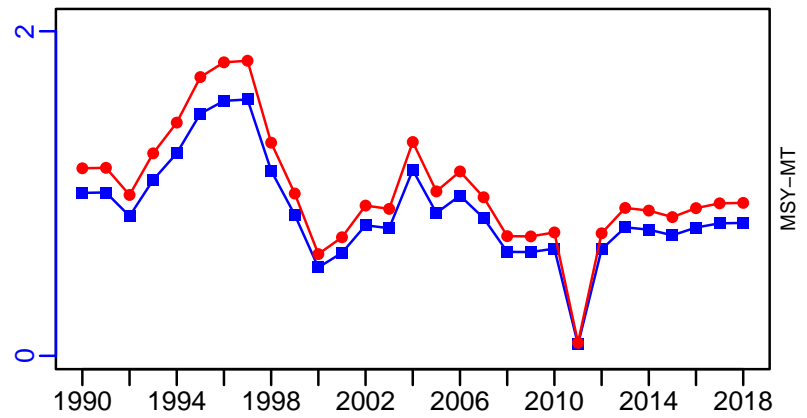
TAC-MT, Cpair-MT, Cadv* (1989-2019-Parma)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1989-2019-Parma)



Yellow squat lobster Central-Southern Chile [BSQLOBSTERCSCH]

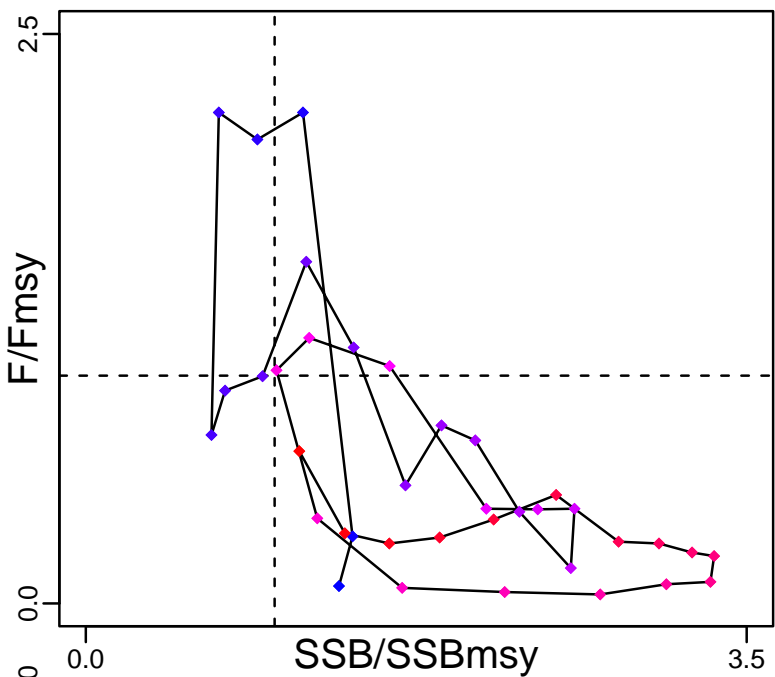
| Metadata | |
|-----------------------------|---|
| Scientific Name | Cervimunida johni |
| Current Assess ID | IFOPCH-BSQLOBSTERCSCH-1976-2015-PARMA |
| Area | Central-Southern Chile |
| Management Authority | Subsecretaria de Pesca |
| Assessor | Instituto de Fomento Pesquero - Chilean Fisheries Development Institute |
| Asmts in RAM | 2015 |

| Reference Points | | | |
|------------------|--------------|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | SSBmsy-pr-MT | 2015 | 5139 |
| Fmsy | Fmsy-pr-1/yr | 2015 | 0.38 |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | SSBmgt-MT | 2015 | 5139 |
| Fmgt | Fmgt-1/yr | 2015 | 0.38 |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | - | - | - |
| M | M-1/yr | 2015 | 0.3 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

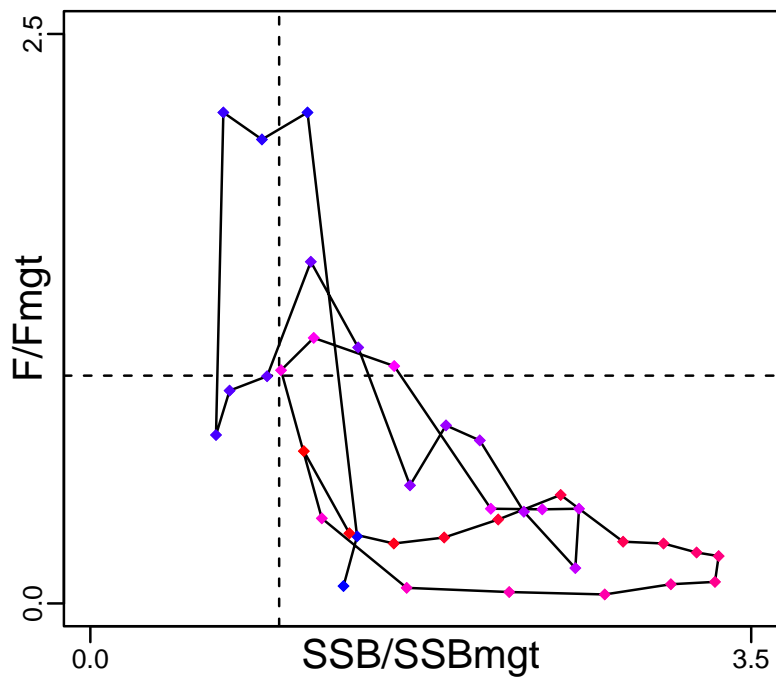
| Time Series | | | | | |
|-------------------|---------------------|-----------|--------------------|---------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2015 | 23,300 | - | - |
| SSB | SSB-MT | 2015 | 5810 | Females | - |
| TN | - | - | - | - | - |
| R | R-E00 | 2015 | 2.74×10^8 | - | 3 |
| F | F-1/yr | 2015 | 0.254 | - | - |
| ER | ER-calc-ratio | 2015 | 0.139 | - | - |
| TC | - | - | - | | |
| TL | TL-MT | 2015 | 3250 | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-pr-MT | 2015 | 1.131 | | |
| F/Fmsy | F-1/yr/Fmsy-pr-1/yr | 2015 | 0.668 | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | SSB-MT/SSBmgt-MT | 2015 | 1.131 | | |
| F/Fmgt | F-1/yr/Fmgt-1/yr | 2015 | 0.668 | | |
| ER/ERmgt | - | - | - | | |

Yellow squat lobster Central–Southern Chile [BSQLOBSTERCSCH]

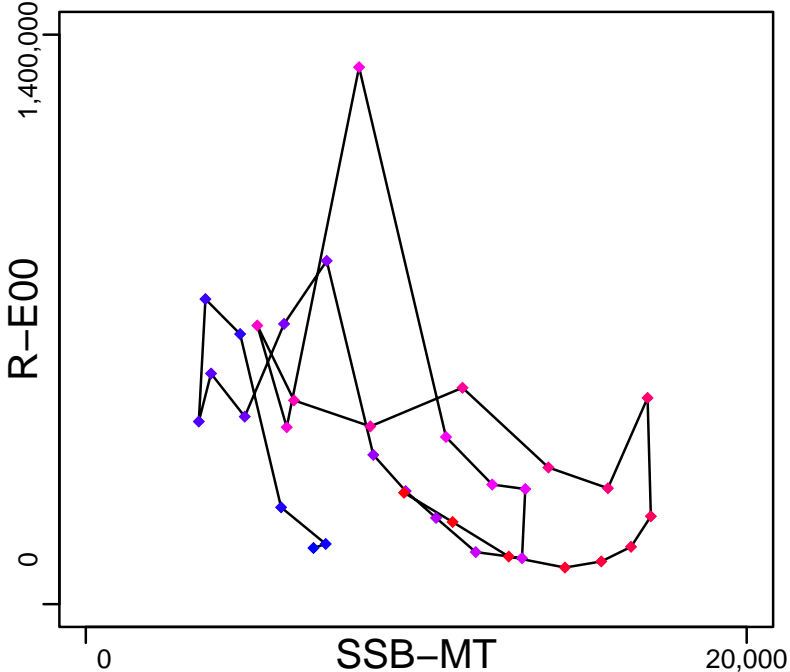
Kobe MSYpref (1976–2015–PARMA)



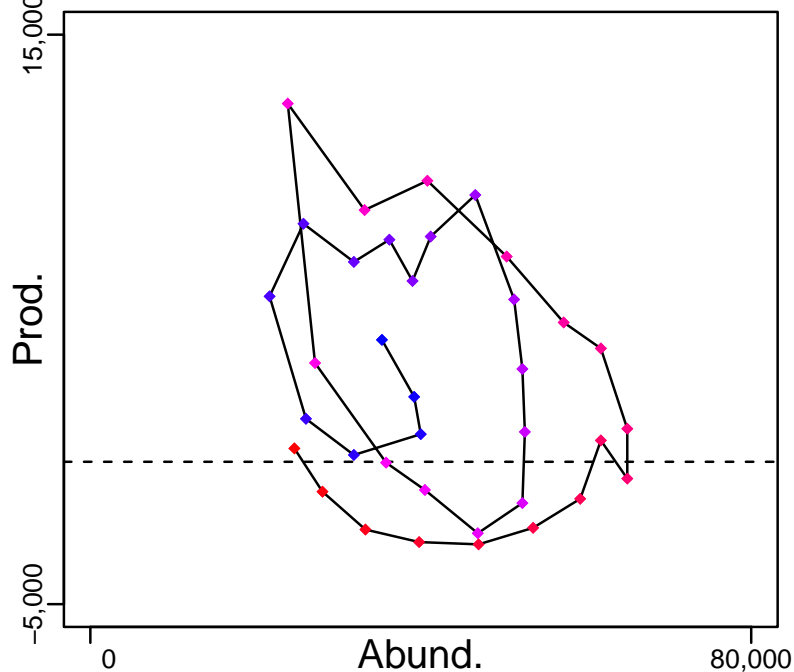
Kobe MGTpref (1976–2015–PARMA)



Spawner Recruit (1976–2015–PARMA)



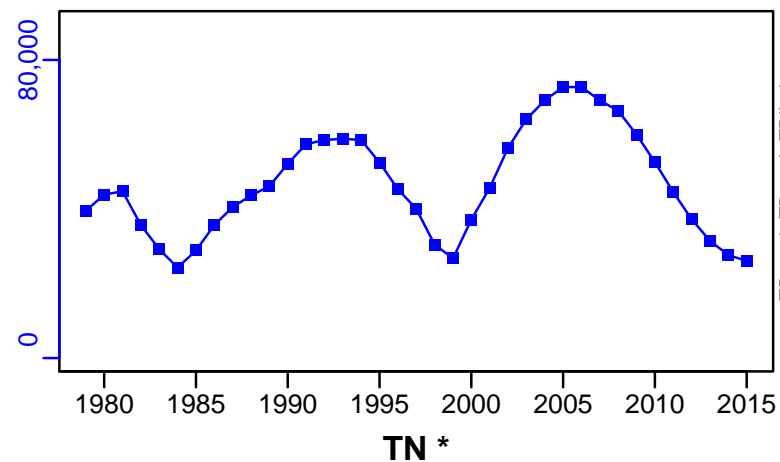
Production (1976–2015–PARMA)



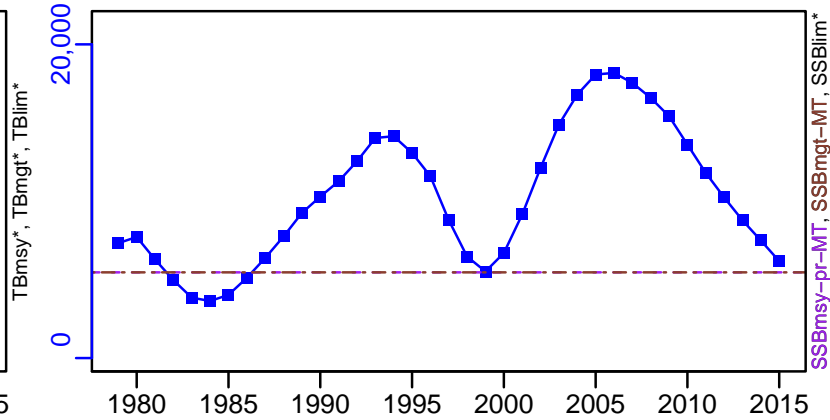
◆ Start Year ◆ End Year * No Data

Yellow squat lobster Central–Southern Chile [BSQLOBSTERCSCH]

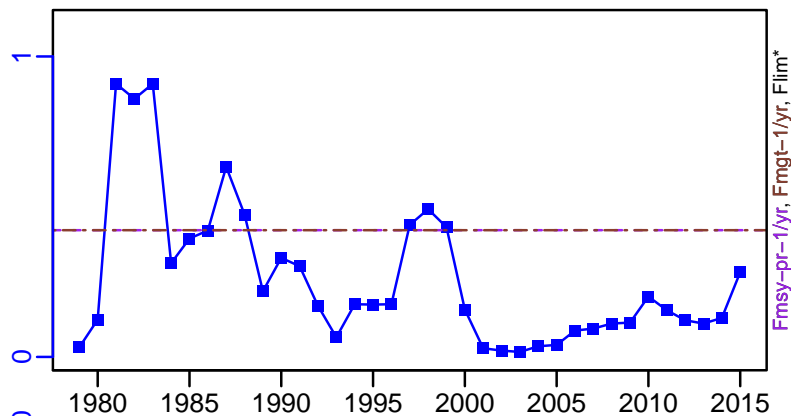
TB–MT (1976–2015–PARMA)



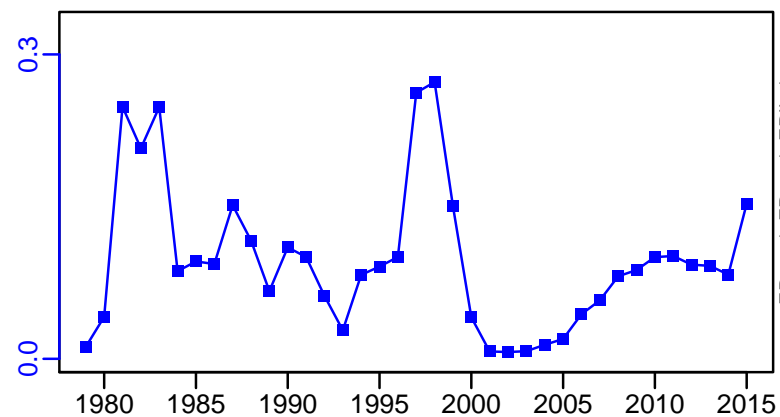
SSB–MT (1976–2015–PARMA)



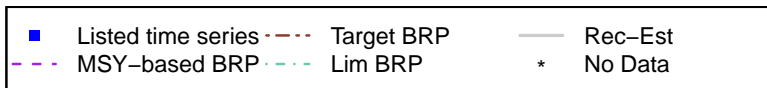
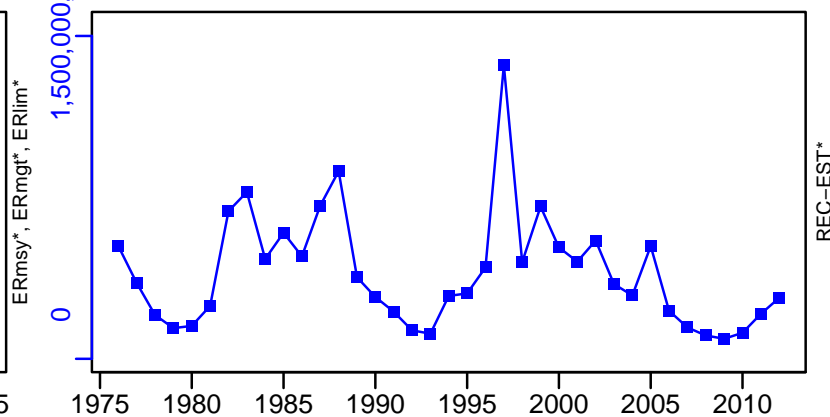
F–1/yr (1976–2015–PARMA)



ER–calc–ratio (1976–2015–PARMA)



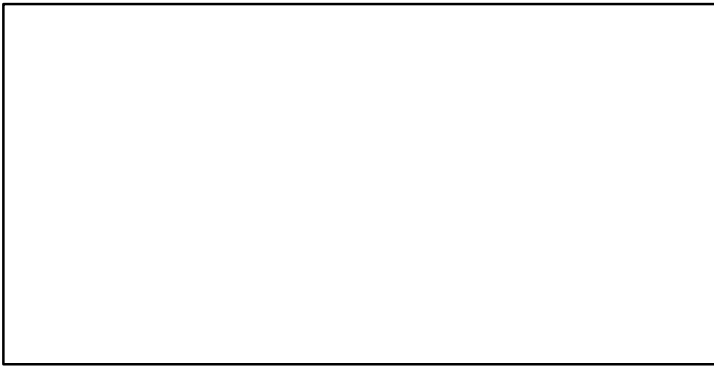
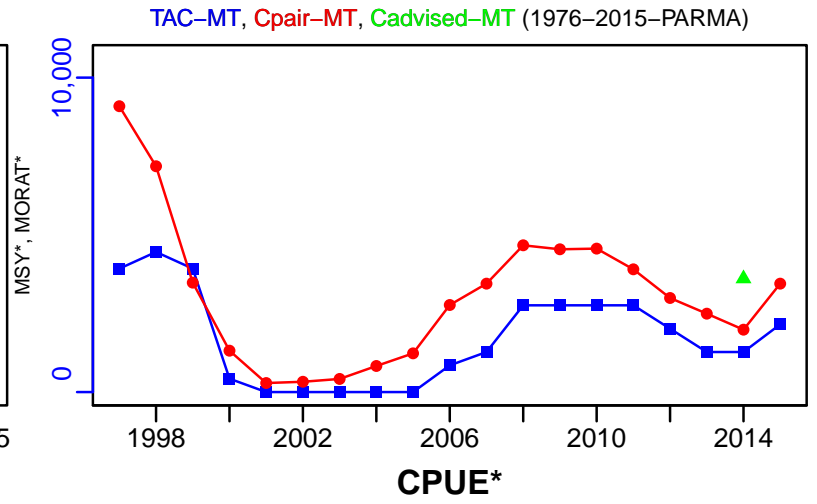
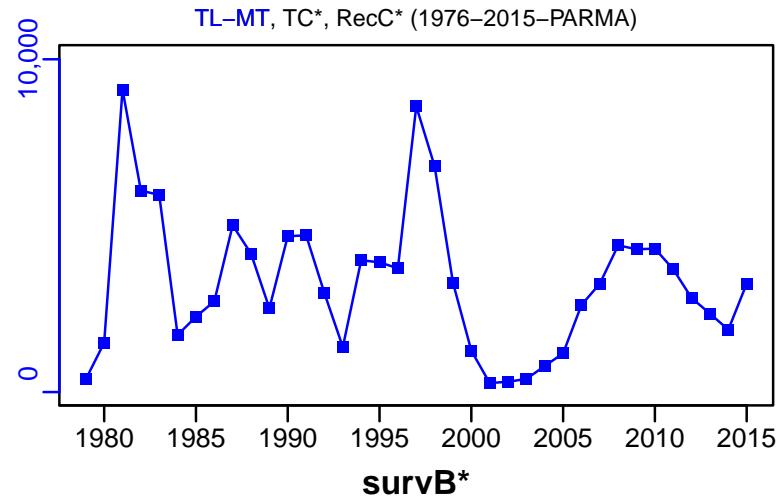
R–E00 (1976–2015–PARMA)



Yellow squat lobster Central–Southern Chile [BSQLOBSTERCSCH]

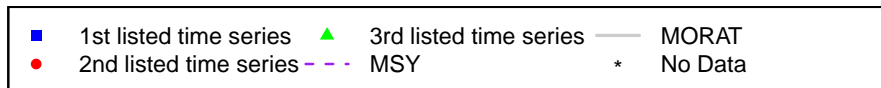
TL–MT, TC*, RecC* (1976–2015–PARMA)

TAC–MT, Cpair–MT, Cadvised–MT (1976–2015–PARMA)



EFFORT*

CdivMSY*



Yellow squat lobster Northern Chile [BSQLOBSTERNCH]

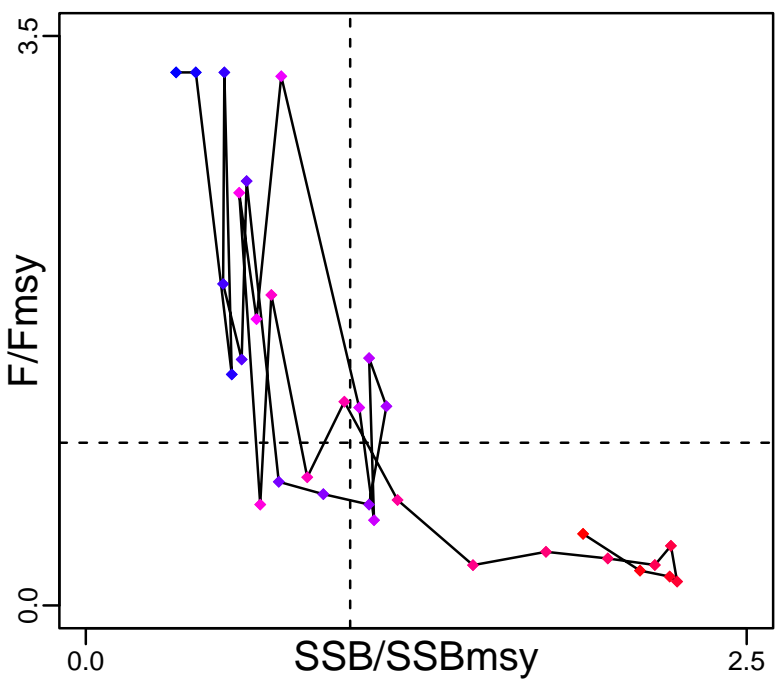
| Metadata | |
|-----------------------------|---|
| Scientific Name | Cervimunida johni |
| Current Assess ID | IFOPCH-BSQLOBSTERNCH-1982-2015-PARMA |
| Area | Northern Chile |
| Management Authority | Subsecretaria de Pesca |
| Assessor | Instituto de Fomento Pesquero - Chilean Fisheries Development Institute |
| Asmts in RAM | 2015 |

| Reference Points | | | |
|------------------|--------------|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | SSBmsy-pr-MT | 2015 | 2137 |
| Fmsy | Fmsy-pr-1/yr | 2015 | 0.25 |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | SSBmgt-MT | 2015 | 2137 |
| Fmgt | Fmgt-1/yr | 2015 | 0.25 |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | - | - | - |
| M | M-1/yr | 2015 | 0.3 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

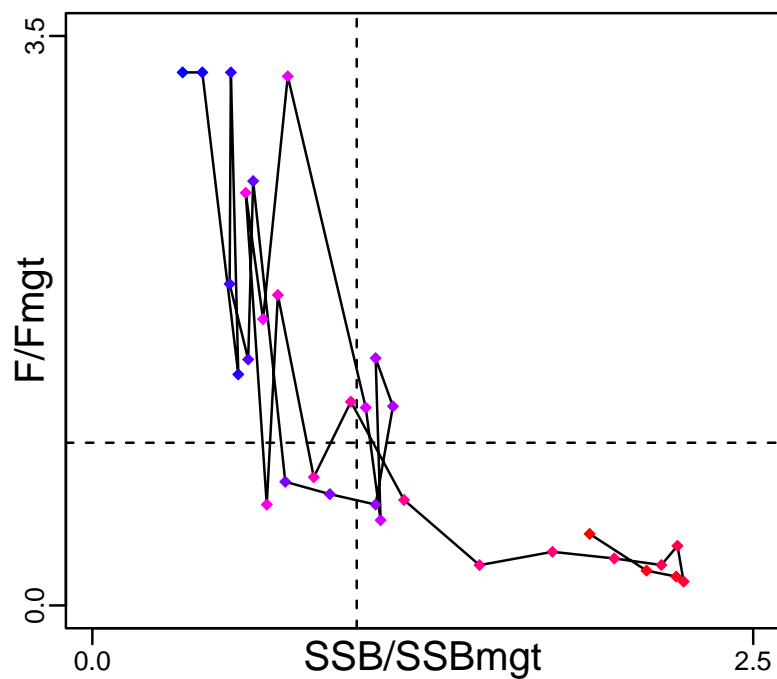
| Time Series | | | | | |
|-------------------|---------------------|-----------|--------------------|---------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2015 | 19,100 | - | - |
| SSB | SSB-MT | 2015 | 4020 | Females | - |
| TN | - | - | - | - | - |
| R | R-E00 | 2015 | 1.65×10^8 | - | 3 |
| F | F-1/yr | 2015 | 0.11 | - | - |
| ER | ER-calc-ratio | 2015 | 0.066 | - | - |
| TC | - | - | - | | |
| TL | TL-MT | 2015 | 1260 | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-pr-MT | 2015 | 1.881 | | |
| F/Fmsy | F-1/yr/Fmsy-pr-1/yr | 2015 | 0.44 | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | SSB-MT/SSBmgt-MT | 2015 | 1.881 | | |
| F/Fmgt | F-1/yr/Fmgt-1/yr | 2015 | 0.44 | | |
| ER/ERmgt | - | - | - | | |

Yellow squat lobster Northern Chile [BSQLOBSTERNCH]

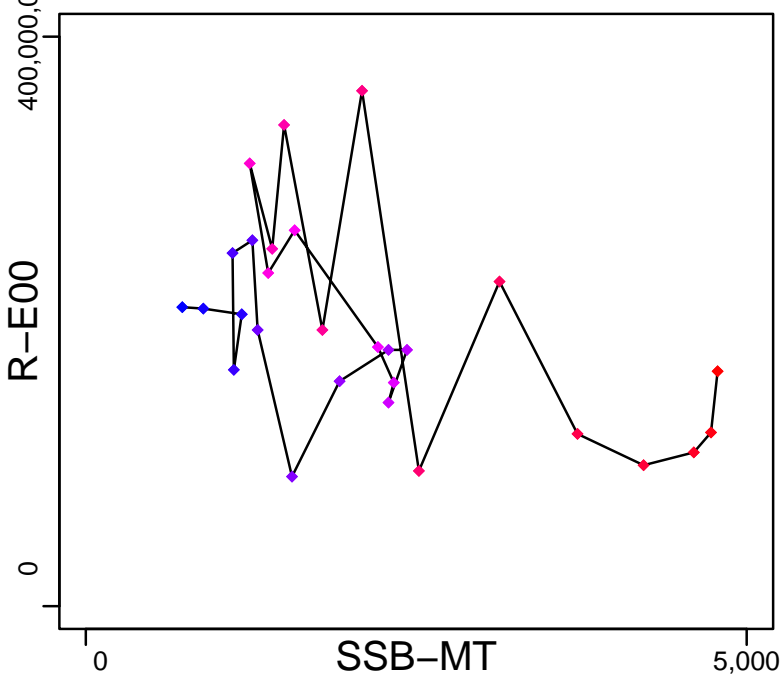
Kobe MSYpref (1982–2015–PARMA)



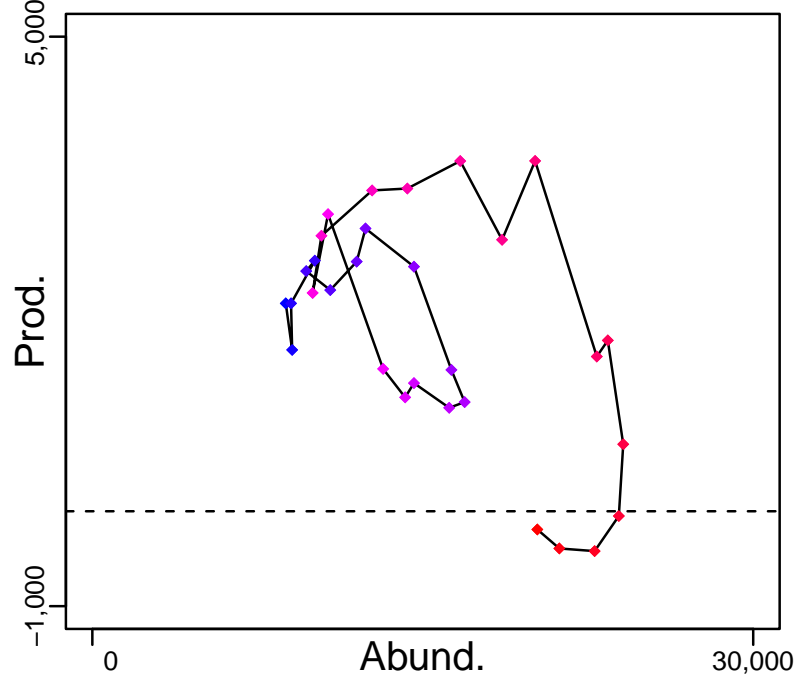
Kobe MGTpref (1982–2015–PARMA)



Spawner Recruit (1982–2015–PARMA)



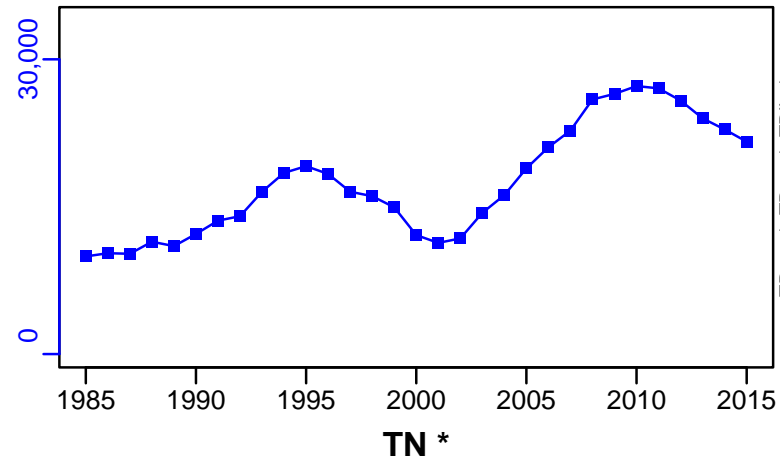
Production (1982–2015–PARMA)



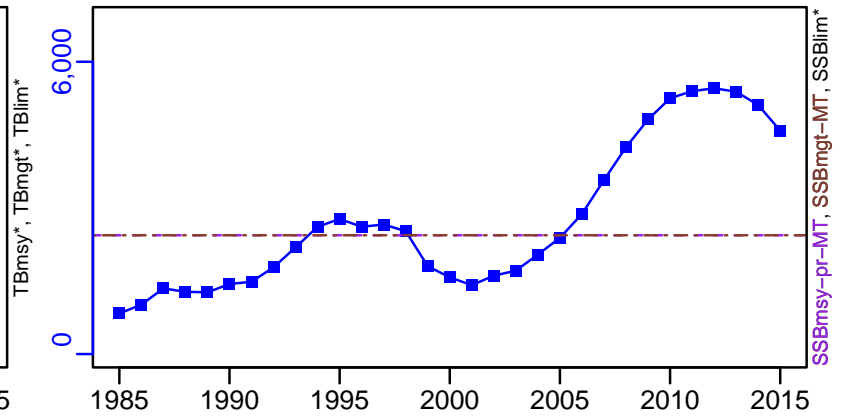
◆ Start Year ◆ End Year * No Data

Yellow squat lobster Northern Chile [BSQLOBSTERNCH]

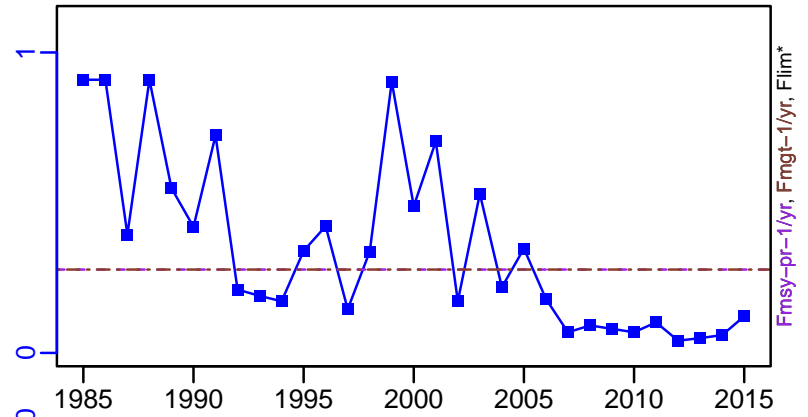
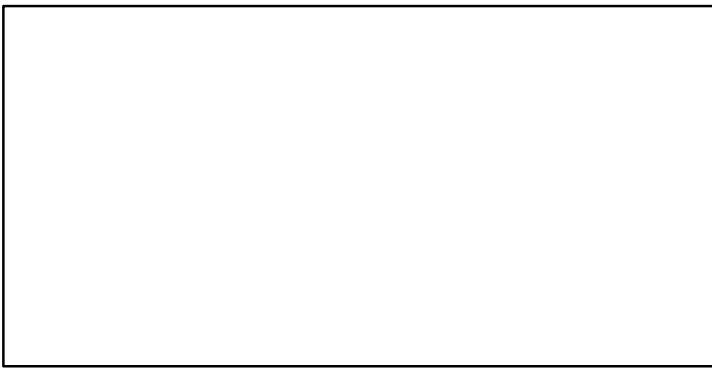
TB-MT (1982-2015-PARMA)



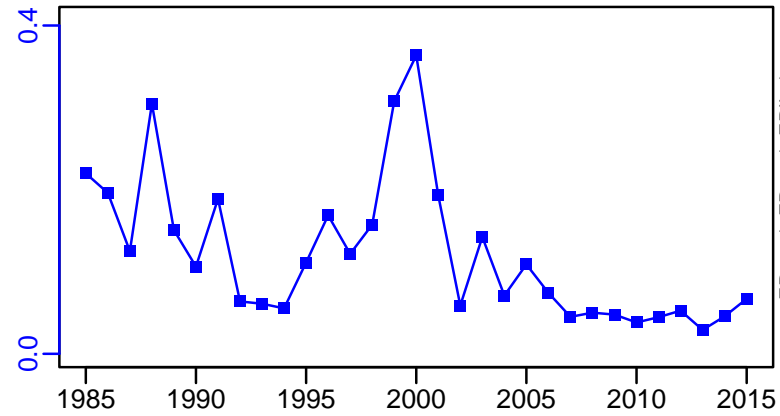
SSB-MT (1982-2015-PARMA)



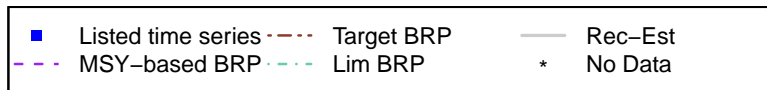
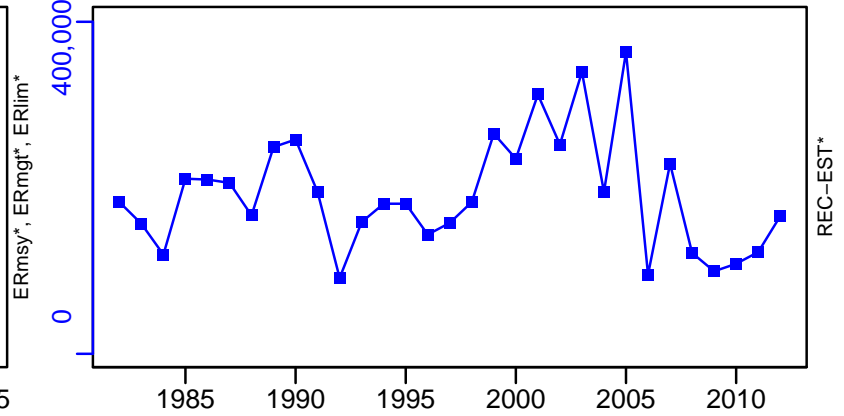
F-1/yr (1982-2015-PARMA)



ER-calc-ratio (1982-2015-PARMA)



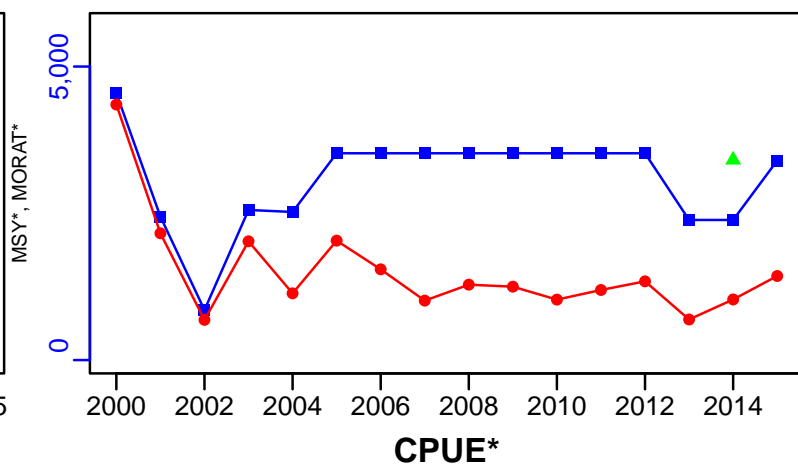
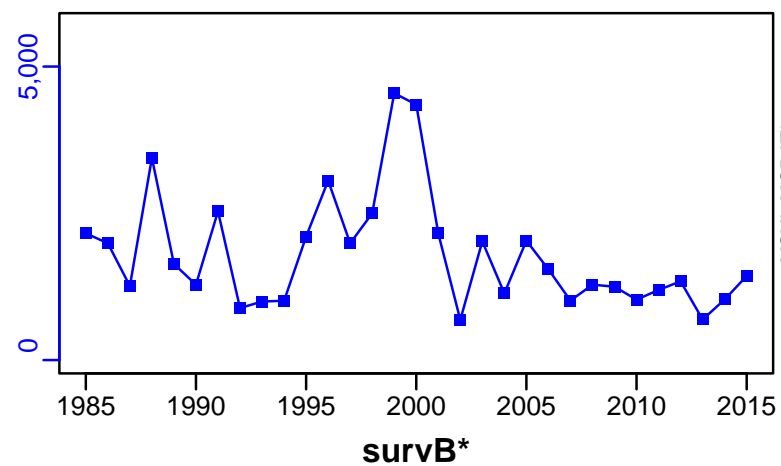
R-E00 (1982-2015-PARMA)



Yellow squat lobster Northern Chile [BSQLOBSTERNCH]

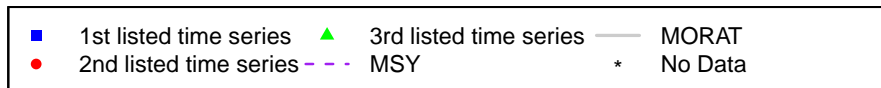
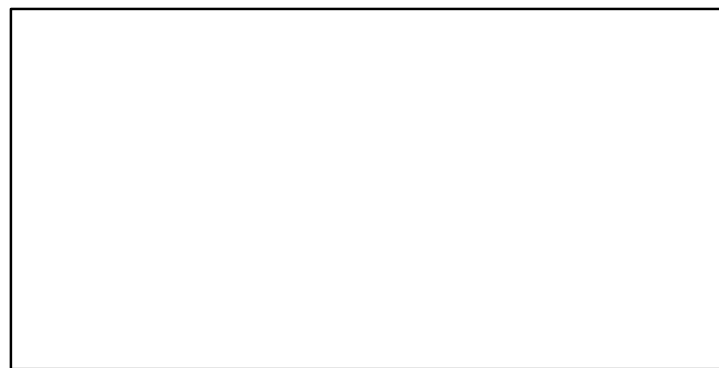
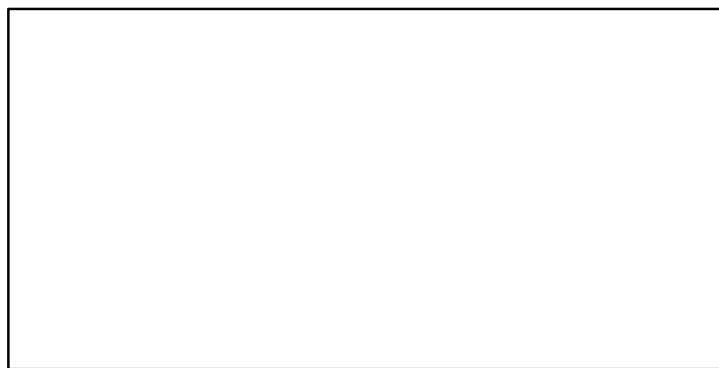
TL-MT, TC*, RecC* (1982-2015-PARMA)

TAC-MT, Cpair-MT, Cadvised-MT (1982-2015-PARMA)



EFFORT*

CdivMSY*



Chilean herring Central-Southern Chile [CHERRCHVX]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Strangomera bentincki |
| Current Assess ID | IFOPCH-CHERRCHVX-1960-2012-CHING |
| Area | Central-Southern Chile |
| Management Authority | Subsecretaria de Pesca |
| Assessor | Instituto de Fomento Pesquero - Chilean Fisheries Development Institute |
| Asmts in RAM | 2012 |

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

| Time Series | | | | | |
|-------------|---------------|-----------|-----------------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2012 | 4,190,000 | - | - |
| SSB | SSB-MT | 2012 | 1,620,000 | - | - |
| TN | - | - | - | - | - |
| R | R-E00 | 2012 | 7.41×10^{10} | - | - |
| F | F-1/yr | 2012 | 0.262 | - | - |
| ER | ER-calc-ratio | 2012 | 0.221 | - | - |
| TC | - | - | - | | |
| TL | TL-MT | 2012 | 833,000 | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Chilean herring Central–Southern Chile [CHERRCHVX]

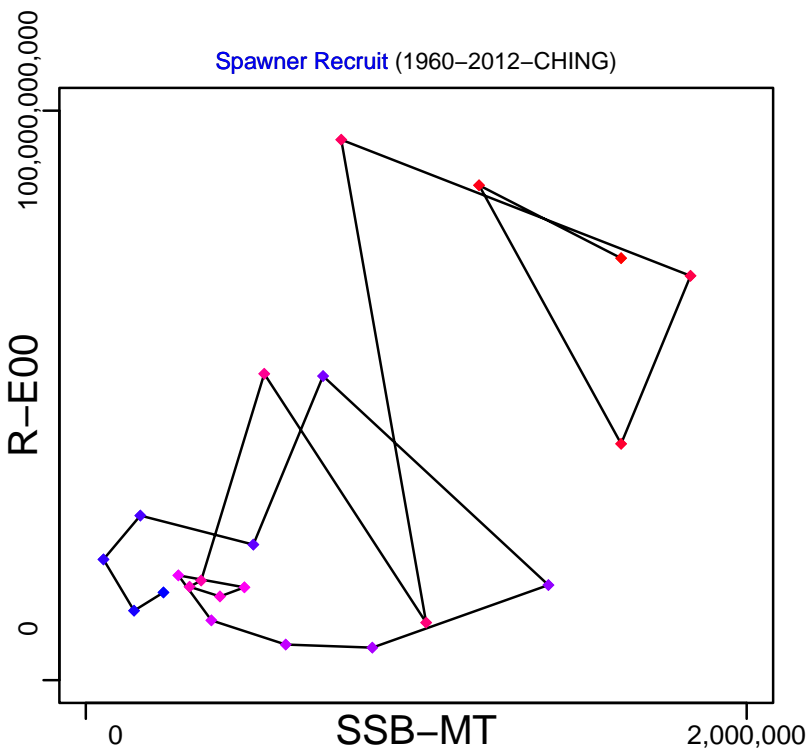
Kobe MSY*



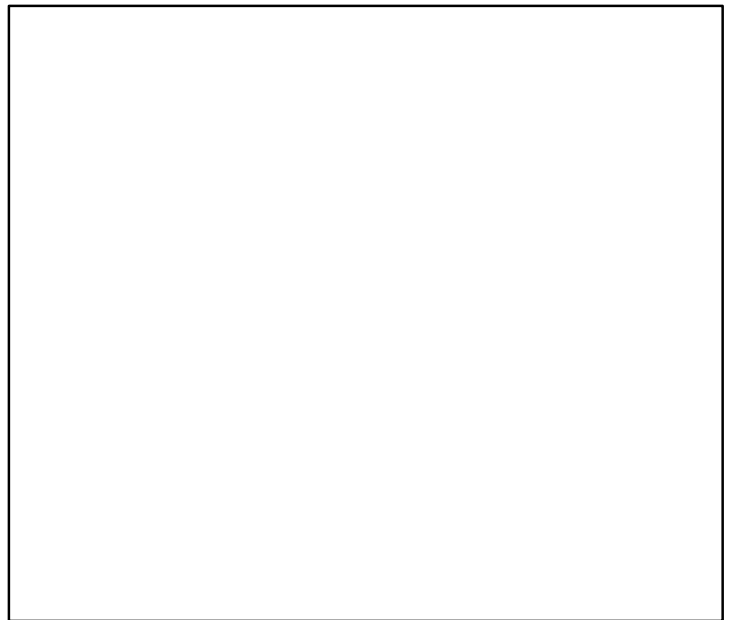
Kobe MGT*



Spawner Recruit (1960–2012–CHING)



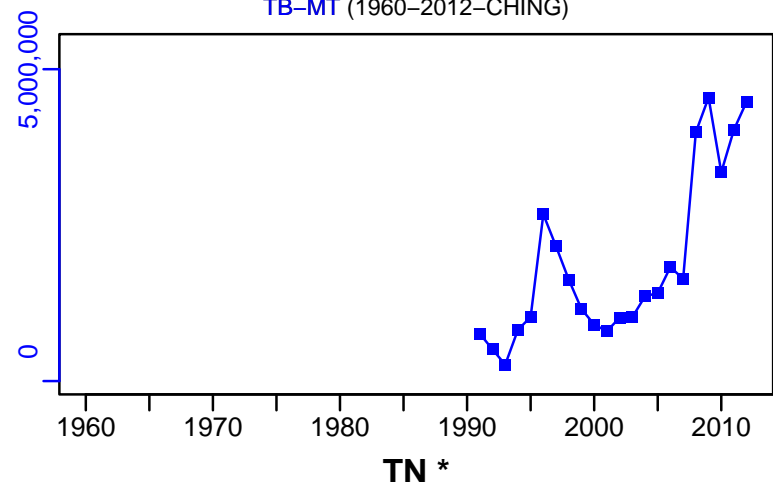
Production*



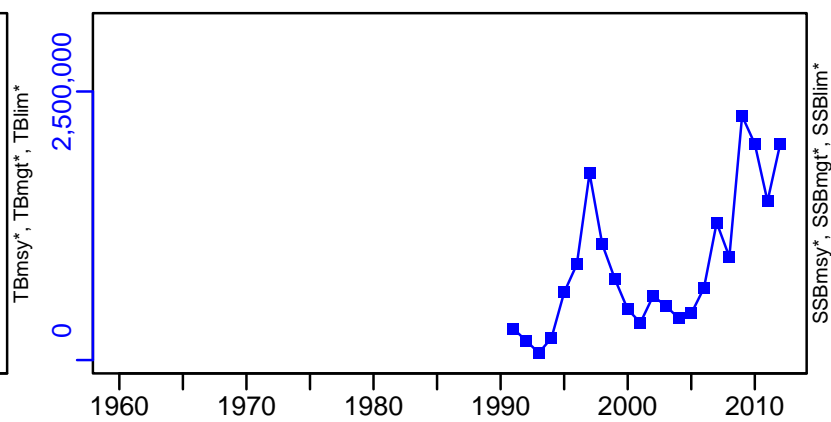
◆ Start Year ◆ End Year * No Data

Chilean herring Central–Southern Chile [CHERRCHVX]

TB-MT (1960–2012–CHING)



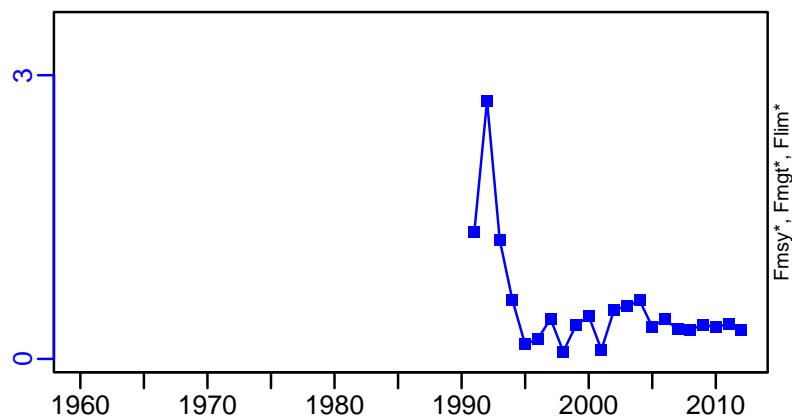
SSB-MT (1960–2012–CHING)



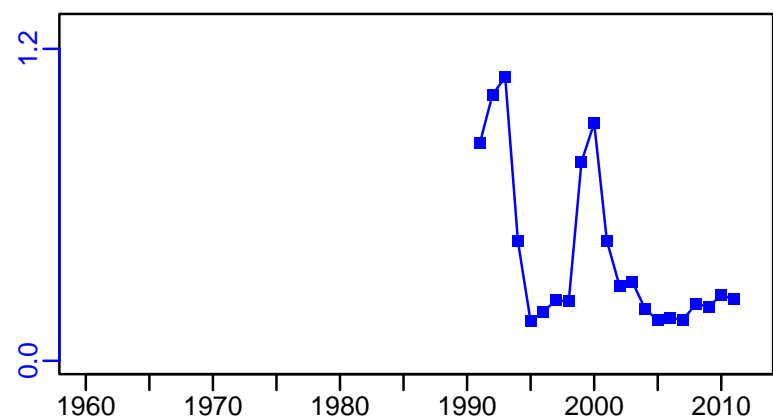
TN *



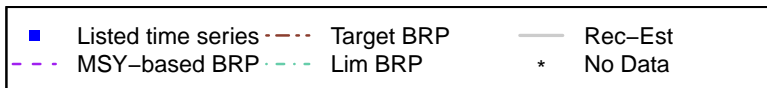
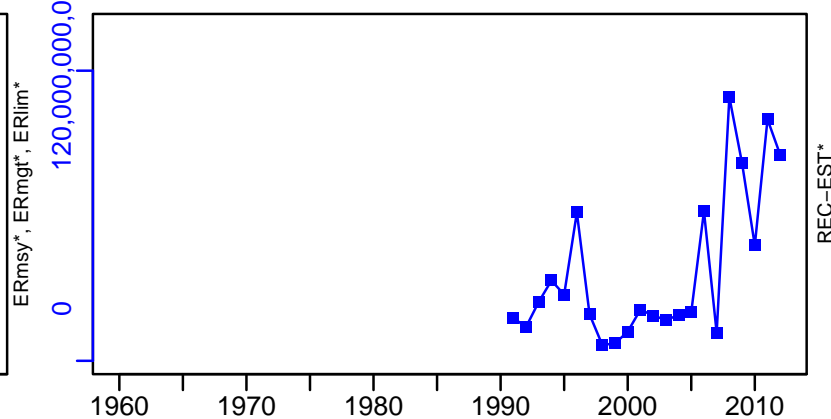
F-1/yr (1960–2012–CHING)



ER-calc-ratio (1960–2012–CHING)



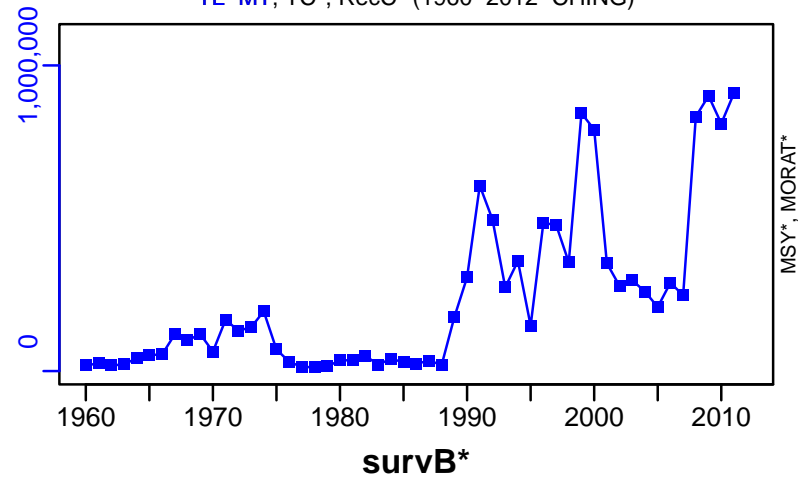
R-E00 (1960–2012–CHING)



Chilean herring Central–Southern Chile [CHERRCHVX]

TL–MT, TC*, RecC* (1960–2012–CHING)

TAC*, Cpair*, Cadv*



CPUE*

EFFORT*

CdivMSY*

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

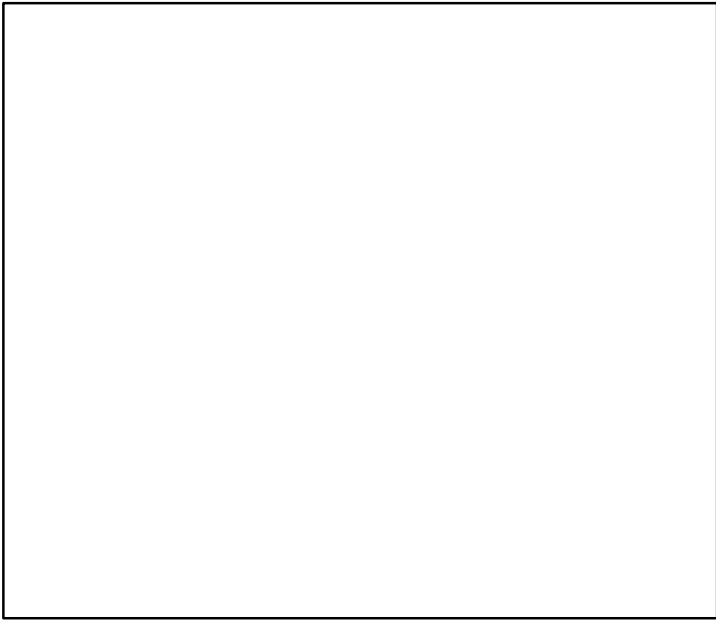
Chilean jack mackerel Chilean EEZ and offshore [CHTRACCH]

| Metadata | |
|-----------------------------|--|
| Scientific Name | Trachurus murphyi |
| Current Assess ID | SPRFMO-CHTRACCH-1969-2015-PARMA |
| Area | Chilean EEZ and offshore |
| Management Authority | South Pacific Regional Fisheries Management Organization |
| Assessor | South Pacific Regional Fisheries Management Organization |
| Asmts in RAM | 2010, 2015 |

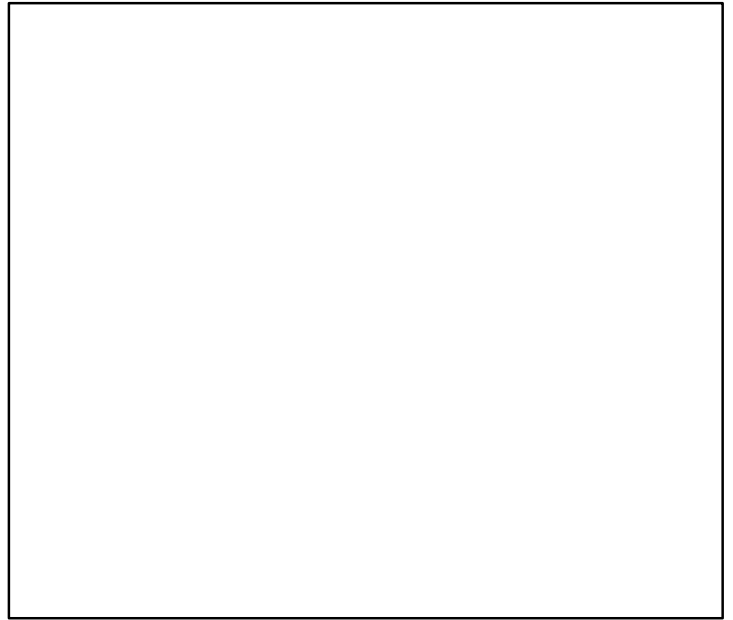
| Reference Points | | | |
|------------------|--------|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | - | - | - |
| Fmsy | - | - | - |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | - | - | - |
| M | M-1/yr | 2015 | 0.23 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

| Time Series | | | | | |
|-------------------|----------|-----------|-----------------------|-----|---------|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2010 | 2,360,000 | - | - |
| SSB | SSB-MT | 2015 | 2,720,000 | - | - |
| TN | - | - | - | - | - |
| R | R-E00 | 2015 | 1.25×10^{10} | - | 1 |
| F | F-1/yr | 2015 | 0.18 | - | 1 to 12 |
| ER | ER-ratio | 2010 | 0.315 | - | - |
| TC | TC-MT | 2015 | 434,000 | | |
| TL | TL-MT | 2015 | 434,000 | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

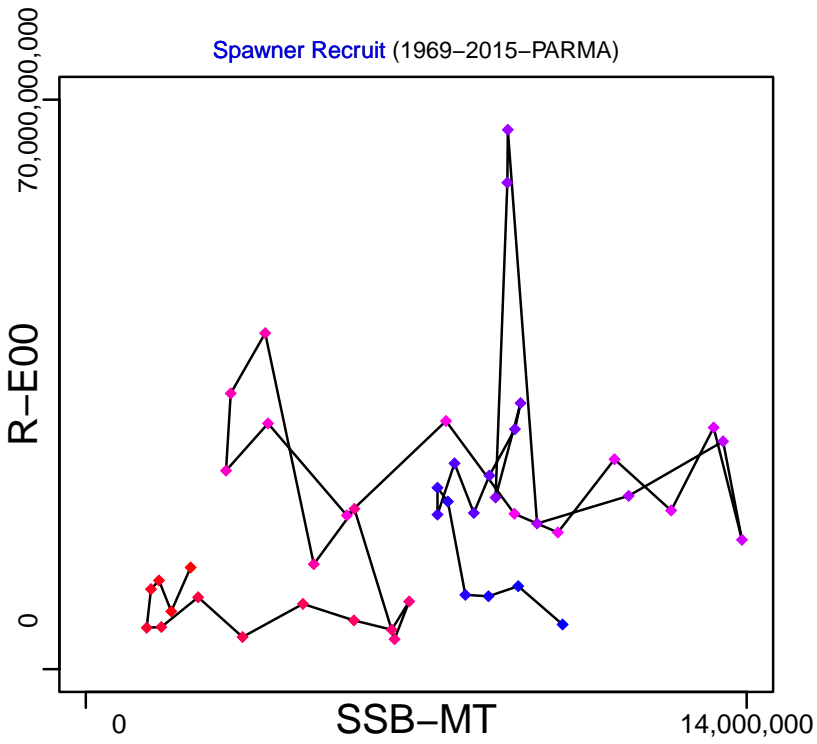
Kobe MSY*



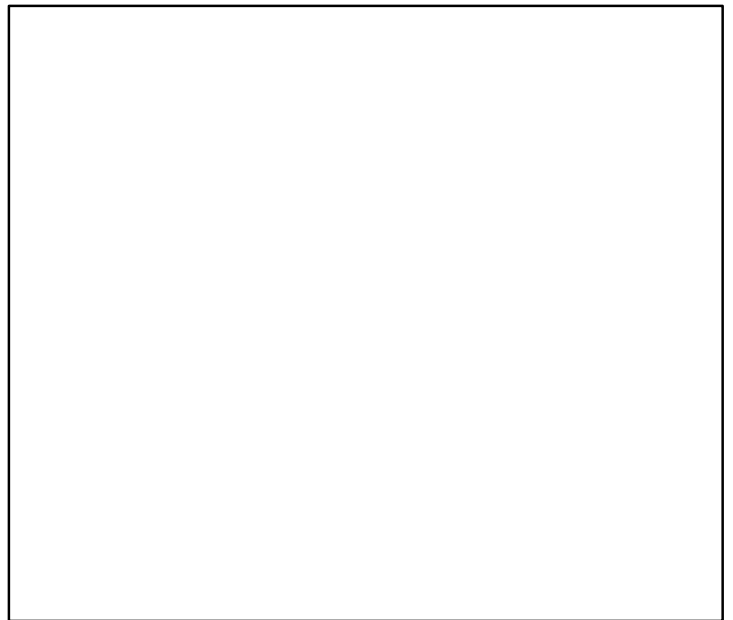
Kobe MGT*



Spawner Recruit (1969–2015–PARMA)



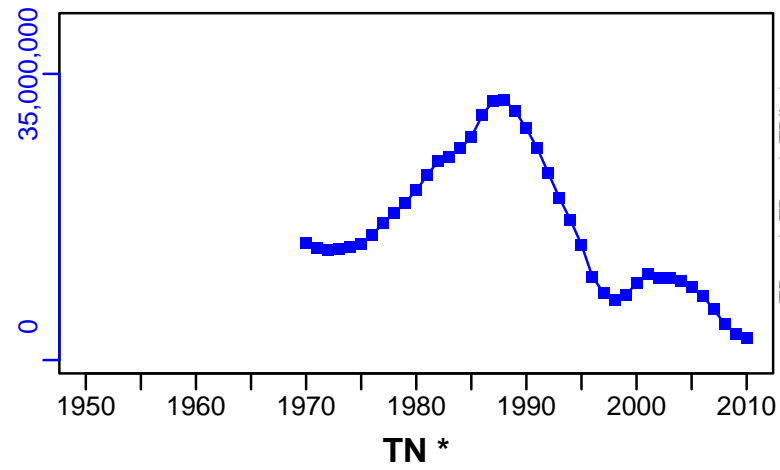
Production*



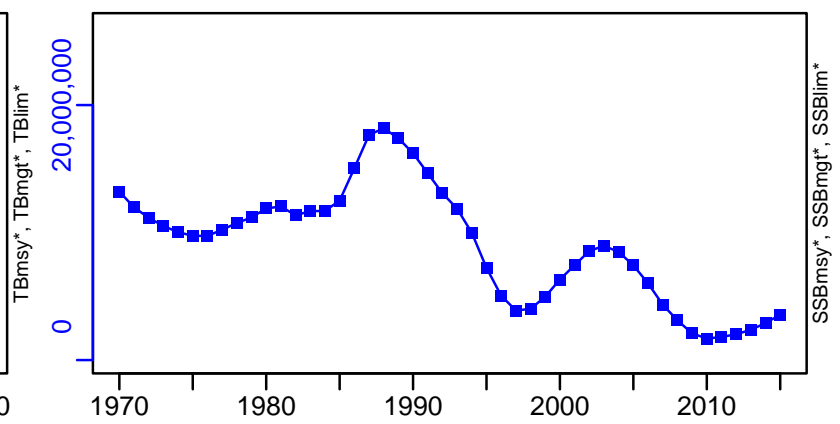
◆ Start Year ◆ End Year * No Data

Chilean jack mackerel Chilean EEZ and offshore [CHTRACCH]

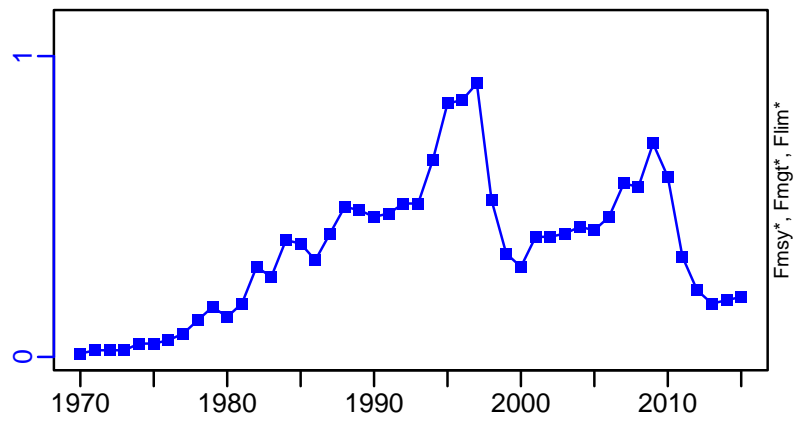
TB-MT (1950-2010-RICARD)



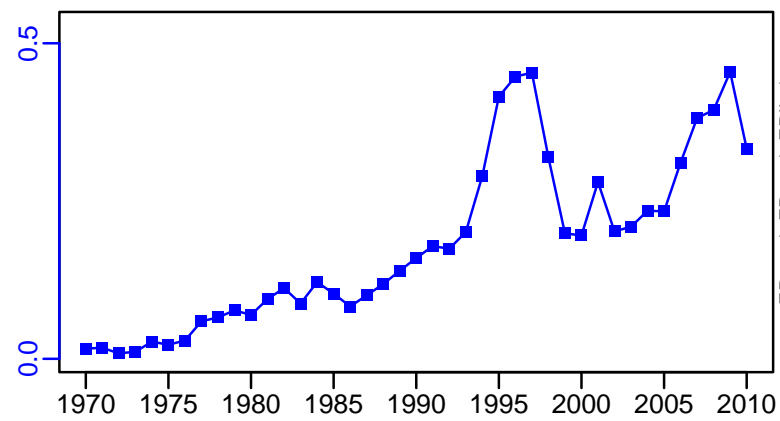
SSB-MT (1969-2015-PARMA)



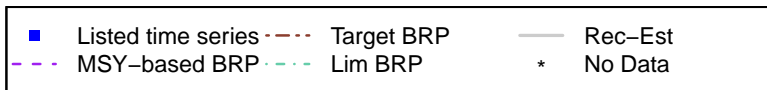
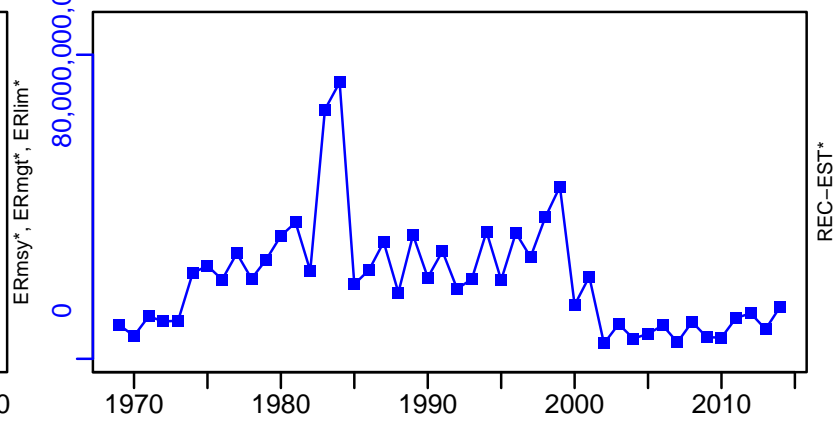
F-1/yr (1969-2015-PARMA)



ER-ratio (1950-2010-RICARD)

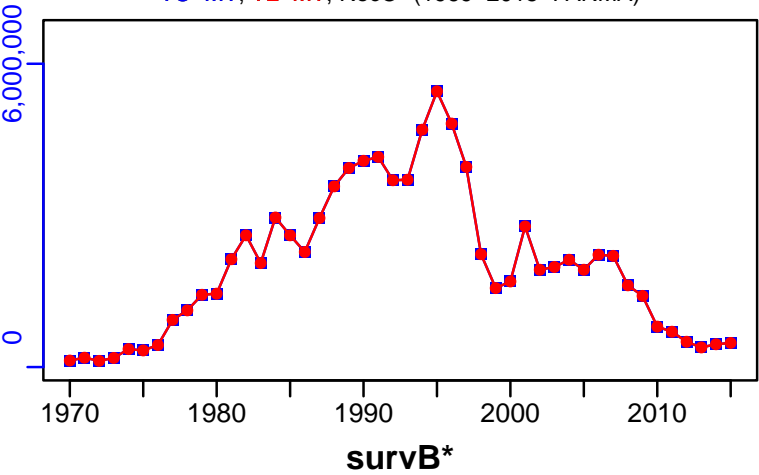


R-E00 (1969-2015-PARMA)

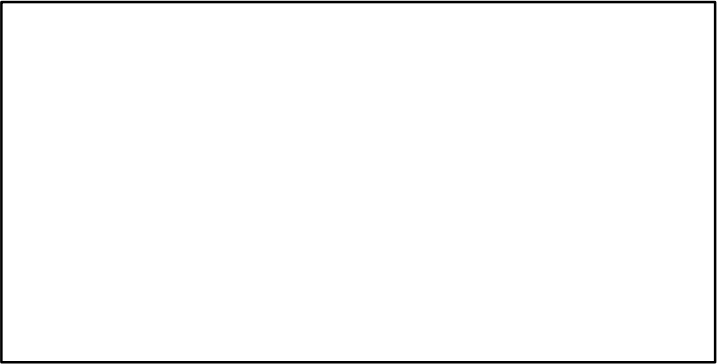
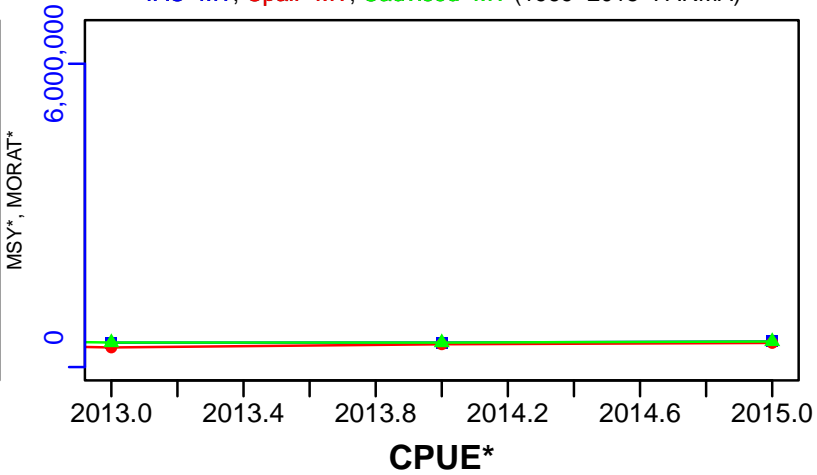


Chilean jack mackerel Chilean EEZ and offshore [CHTRACCH]

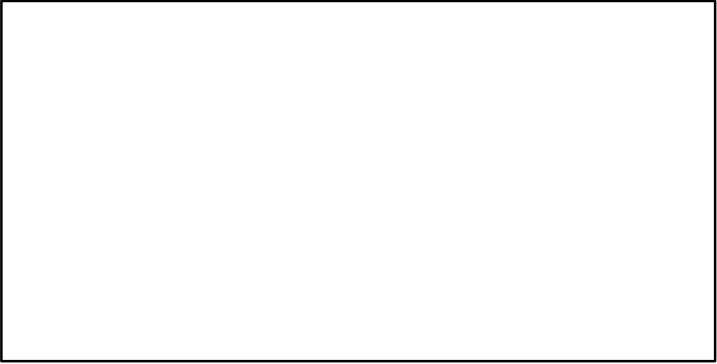
TC-MT, TL-MT, RecC* (1969-2015-PARMA)



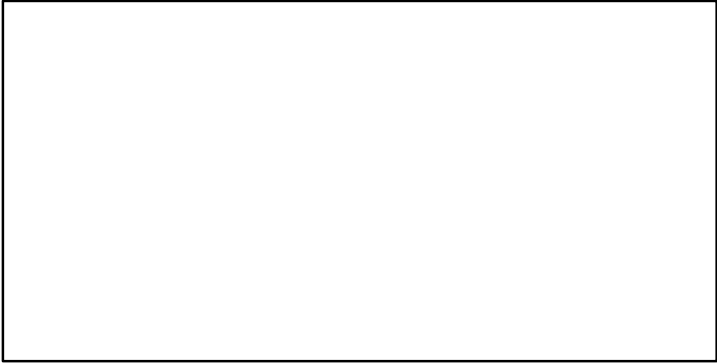
TAC-MT, Cpair-MT, Cadvised-MT (1969-2015-PARMA)



EFFORT*



CdivMSY*



Chilean sardine Central-Southern Chile [CSARDCSCH]

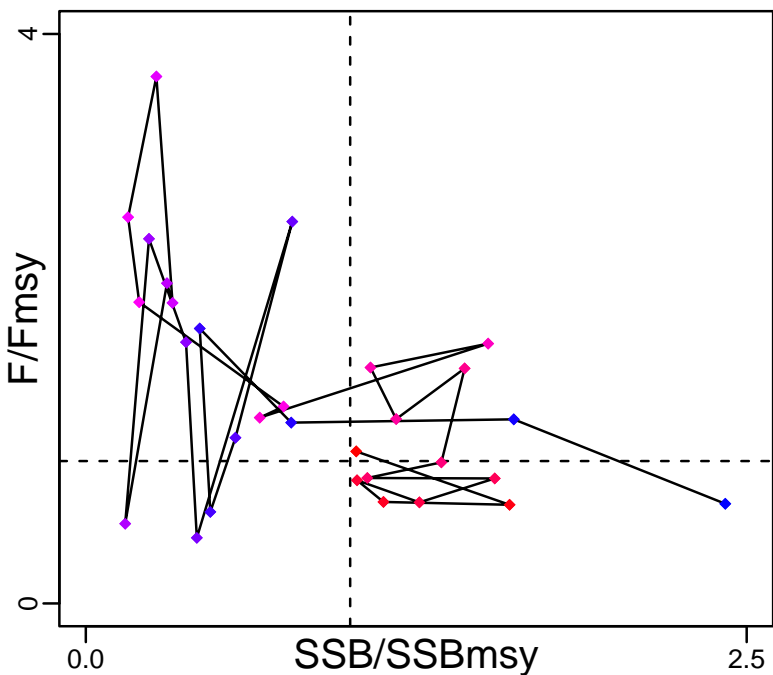
| Metadata | |
|-----------------------------|---|
| Scientific Name | Strangomera bentincki |
| Current Assess ID | IFOPCH-CSARDCSCH-1991-2020-Quiroz |
| Area | Central-Southern Chile |
| Management Authority | Subsecretaria de Pesca |
| Assessor | Instituto de Fomento Pesquero - Chilean Fisheries Development Institute |
| Asmts in RAM | 2015, 2020 |

| Reference Points | | | |
|------------------|--------------|-----------|-----------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | SSBmsy-pr-MT | 2020 | 830,339 |
| Fmsy | Fmsy-pr-1/yr | 2020 | 0.3 |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | SSBmgt-MT | 2015 | 889,000 |
| Fmgt | Fmgt-1/yr | 2015 | 0.26 |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | SSB0-MT | 2020 | 1,509,710 |
| MSY | MSY-MT | 2020 | 289,790 |
| M | M-1/yr | 2020 | 1 |
| TBlim | - | - | - |
| SSBlim | SSBlim-MT | 2015 | 444,000 |
| Flim | - | - | - |
| ERlim | - | - | - |

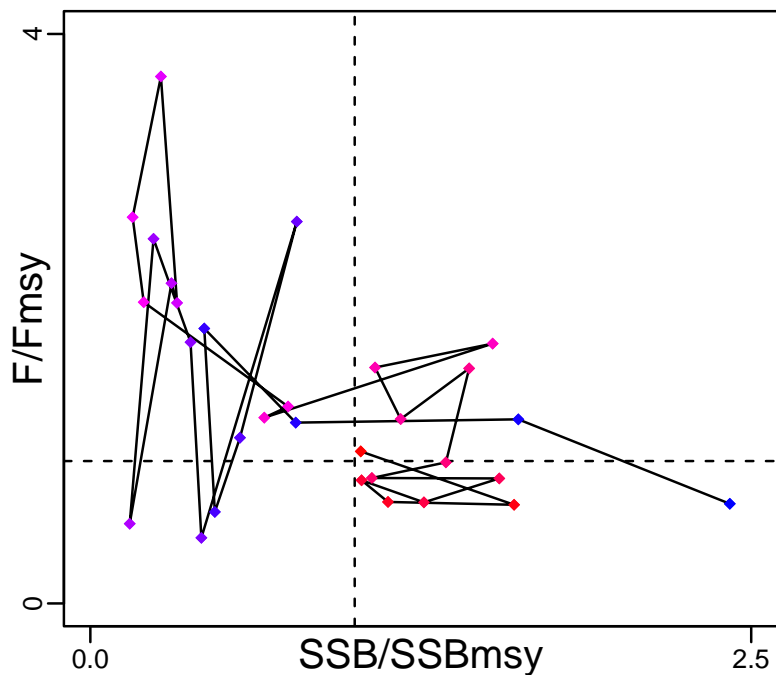
| Time Series | | | | | |
|-------------------|----------------------------|-----------|------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2020 | 1,333,000 | - | - |
| SSB | SSB-MT | 2020 | 849,310 | Both | - |
| TN | - | - | - | - | - |
| R | R-E00 | 2020 | 58,067 | Both | - |
| F | F-1/yr | 2020 | 0.21 | Both | - |
| ER | ER-ratio | 2020 | 0.217 | - | - |
| TC | TC-MT | 2020 | 289,779 | | |
| TL | TL-MT | 2015 | 431,000 | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | SSBdivSSBmsy-dimensionless | 2020 | 1.023 | | |
| F/Fmsy | FdivFmsy-dimensionless | 2020 | 1.068 | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | SSB-MT/SSBmgt-MT | 2015 | 1.485 | | |
| F/Fmgt | F-1/yr/Fmgt-1/yr | 2015 | 0.735 | | |
| ER/ERmgt | - | - | - | | |

Chilean sardine Central–Southern Chile [CSARDCSCH]

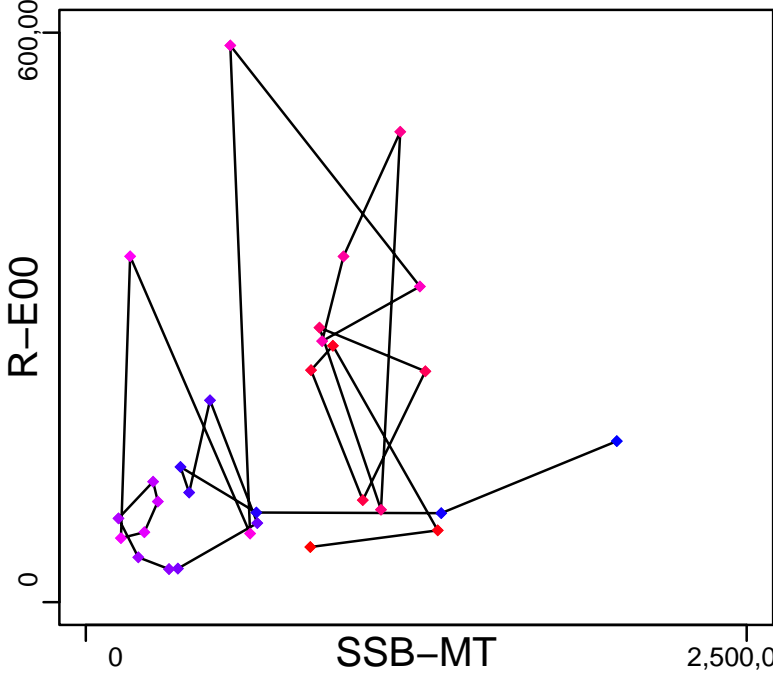
Kobe MSYpref (1991–2020–Quiroz)



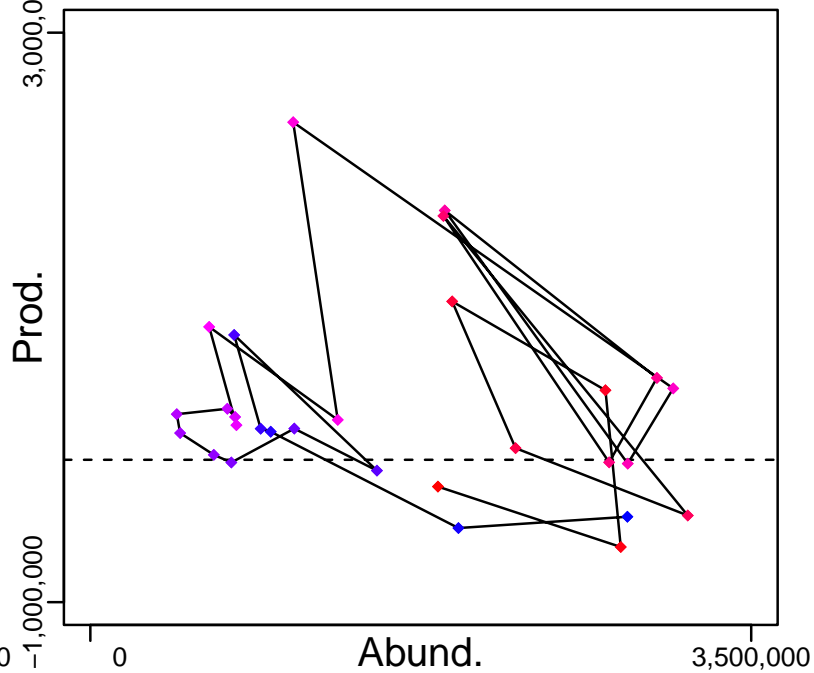
Kobe MGTpref (1991–2020–Quiroz)



Spawner Recruit (1991–2020–Quiroz)

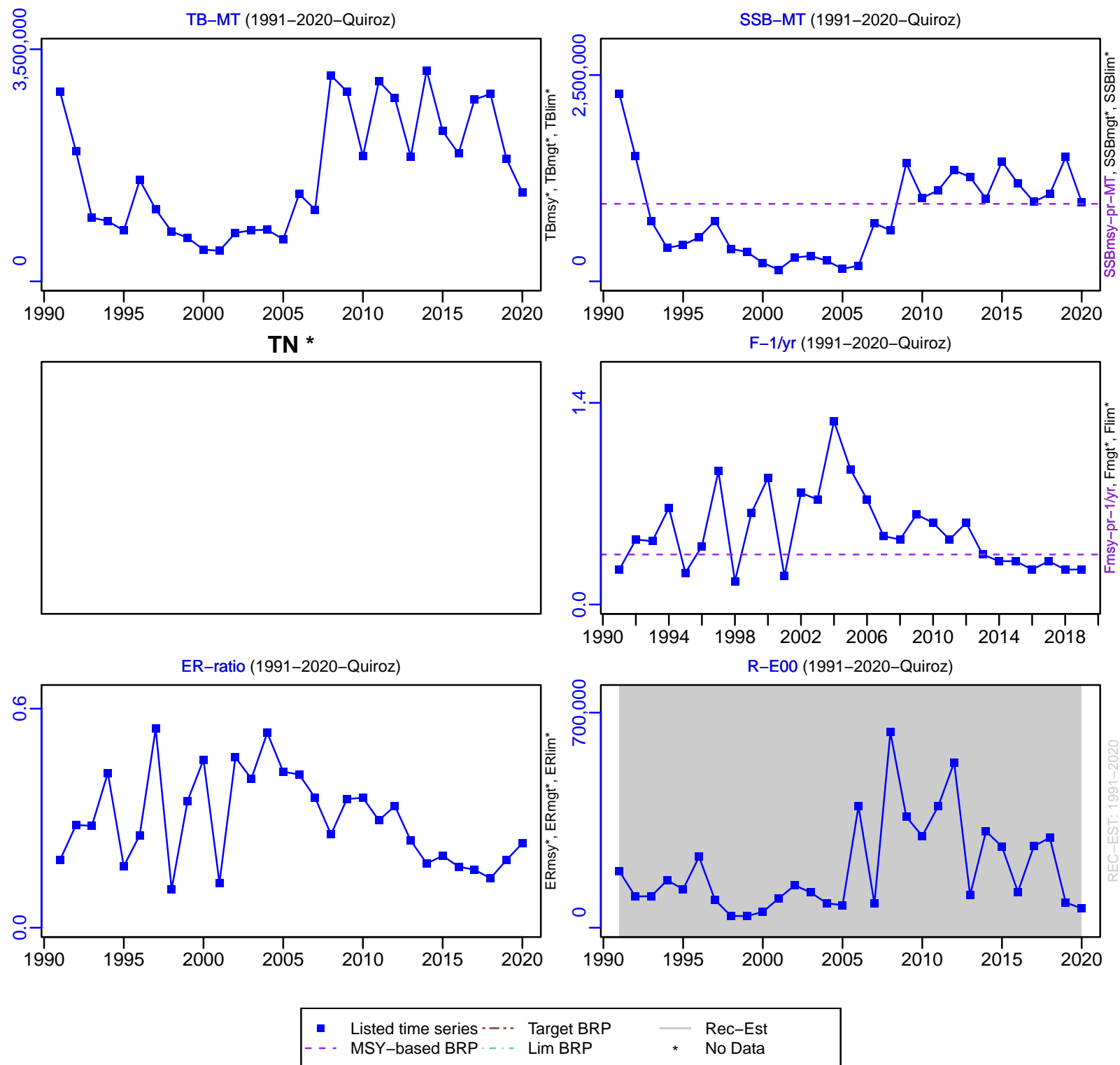


Production (1991–2020–Quiroz)



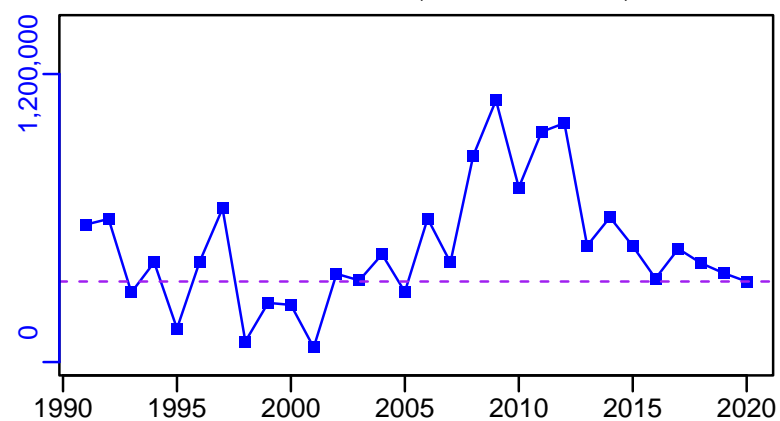
◆ Start Year ◆ End Year * No Data

Chilean sardine Central–Southern Chile [CSARDCSCH]

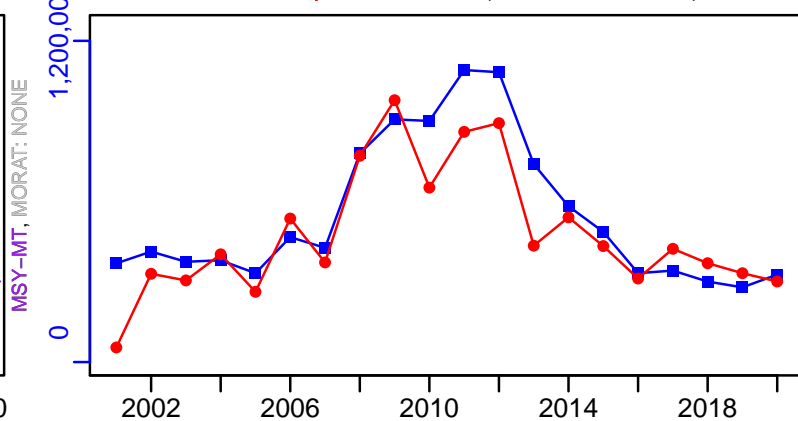


Chilean sardine Central–Southern Chile [CSARDCSCH]

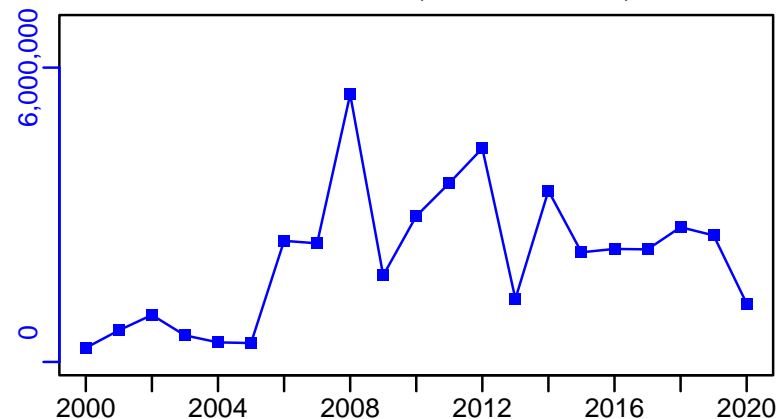
TC–MT, TL*, RecC* (1991–2020–Quiroz)



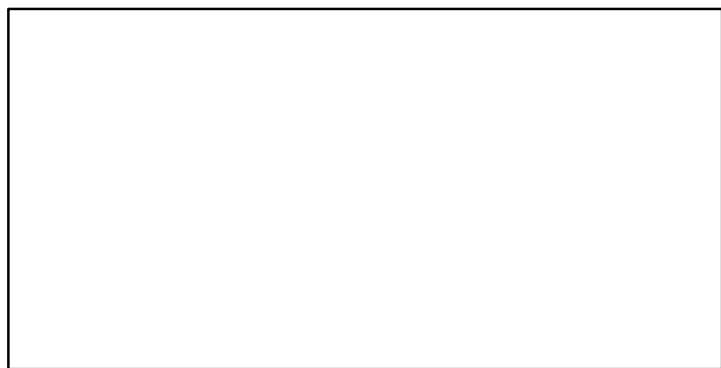
TAC–MT, Cpair–MT, Cadv* (1991–2020–Quiroz)



survB_absolute–MT (1991–2020–Quiroz)



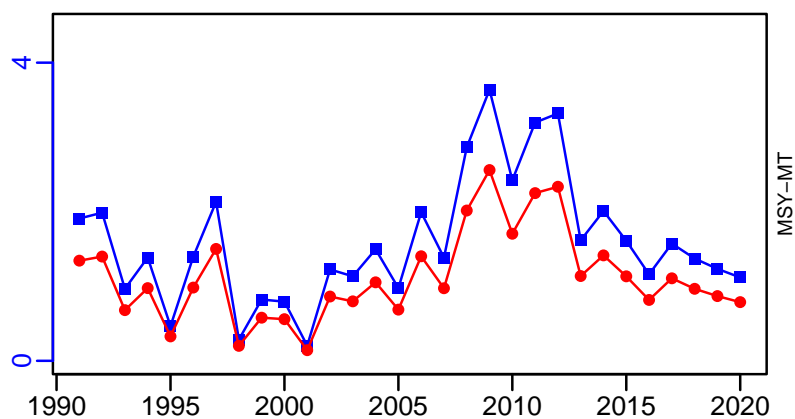
EFFORT*



CPUE*



TC–MT/MSY–MT, CdivMEANC–ratio, (1991–2020–Quiroz)



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

Nylon shrimp Central-Southern Chile [NSHRIMPCSCH]

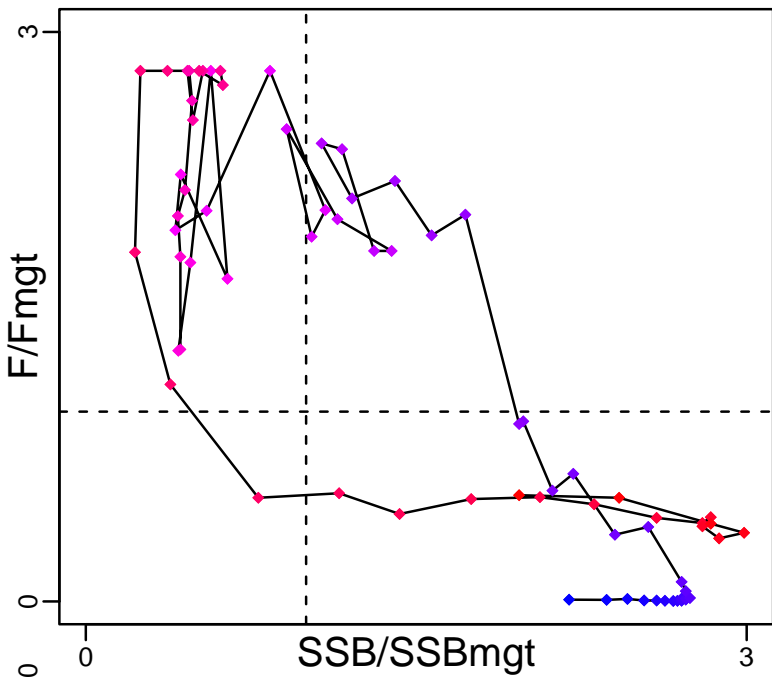
| Metadata | |
|-----------------------------|---|
| Scientific Name | Heterocarpus reedi |
| Current Assess ID | IFOPCH-NSHRIMPCSCH-1944-2016-PARMA |
| Area | Central-Southern Chile |
| Management Authority | Subsecretaria de Pesca |
| Assessor | Instituto de Fomento Pesquero - Chilean Fisheries Development Institute |
| Asmts in RAM | 2016 |

| Reference Points | | | |
|------------------|-----------|-----------|--------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | - | - | - |
| Fmsy | - | - | - |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | SSBmgt-MT | 2016 | 5287 |
| Fmgt | Fmgt-1/yr | 2016 | 0.293 |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | SSB0-MT | 2016 | 11,750 |
| MSY | - | - | - |
| M | M-1/yr | 2016 | 0.36 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

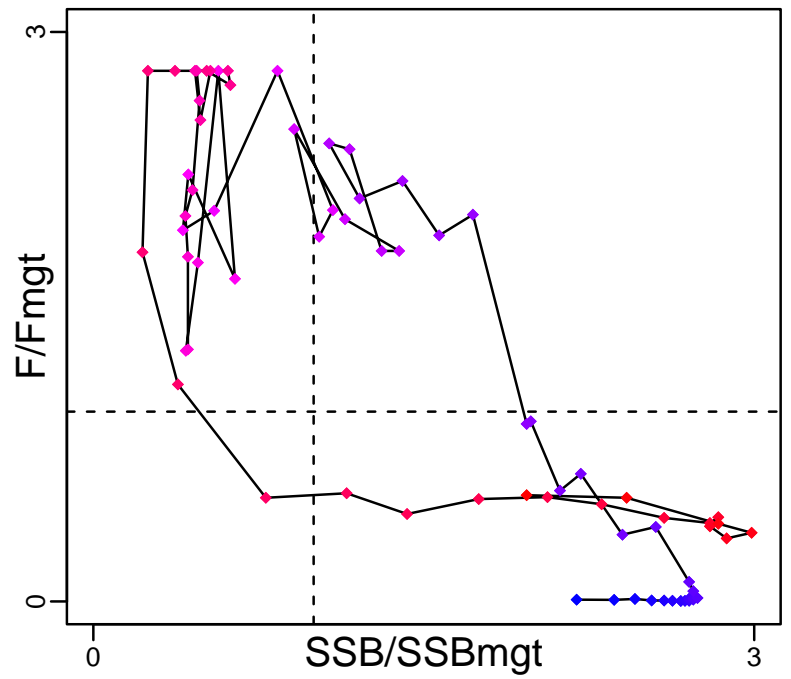
| Time Series | | | | | |
|-------------------|------------------|-----------|--------------------|---------|--------|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2016 | 37,900 | Both | - |
| SSB | SSB-MT | 2016 | 10,400 | Females | 1 to 6 |
| TN | - | - | - | - | - |
| R | R-E00 | 2016 | 1.41×10^9 | Females | 1 |
| F | F-1/yr | 2016 | 0.164 | Females | - |
| ER | ER-calc-ratio | 2016 | 0.08 | - | - |
| TC | - | - | - | - | - |
| TL | TL-MT | 2016 | 3040 | - | - |
| TB/TBmsy | - | - | - | - | - |
| SSB/SSBmsy | - | - | - | - | - |
| F/Fmsy | - | - | - | - | - |
| ER/ERmsy | - | - | - | - | - |
| TB/TBmgt | - | - | - | - | - |
| SSB/SSBmgt | SSB-MT/SSBmgt-MT | 2016 | 1.967 | - | - |
| F/Fmgt | F-1/yr/Fmgt-1/yr | 2016 | 0.56 | - | - |
| ER/ERmgt | - | - | - | - | - |

Nylon shrimp Central–Southern Chile [NSHRIMPCSCH]

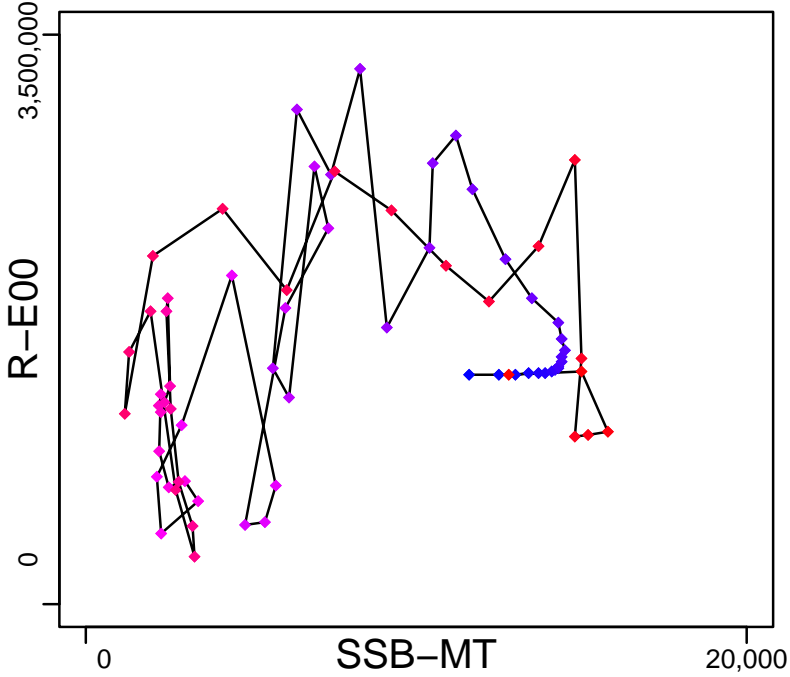
Kobe MSYpref (1944–2016–PARMA)



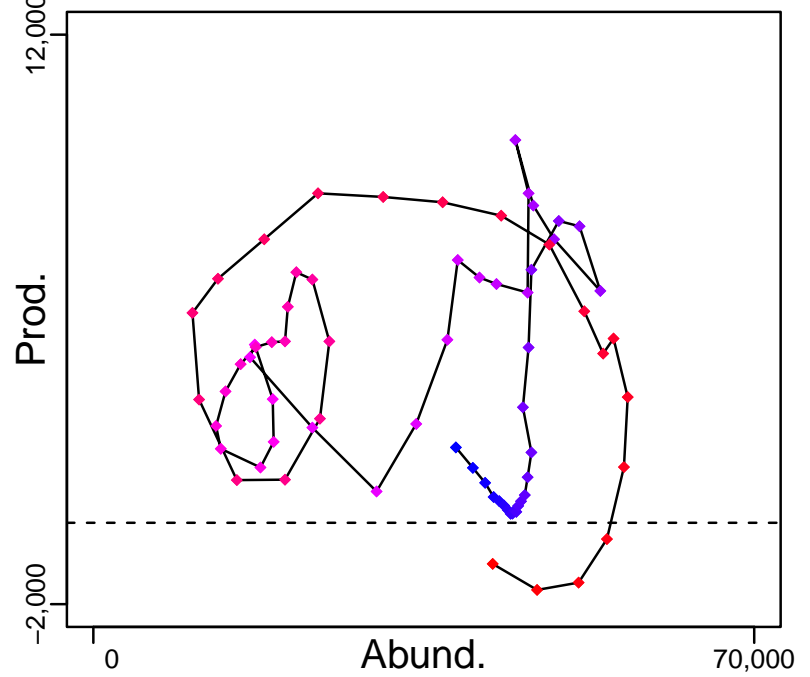
Kobe MGTpref (1944–2016–PARMA)



Spawner Recruit (1944–2016–PARMA)



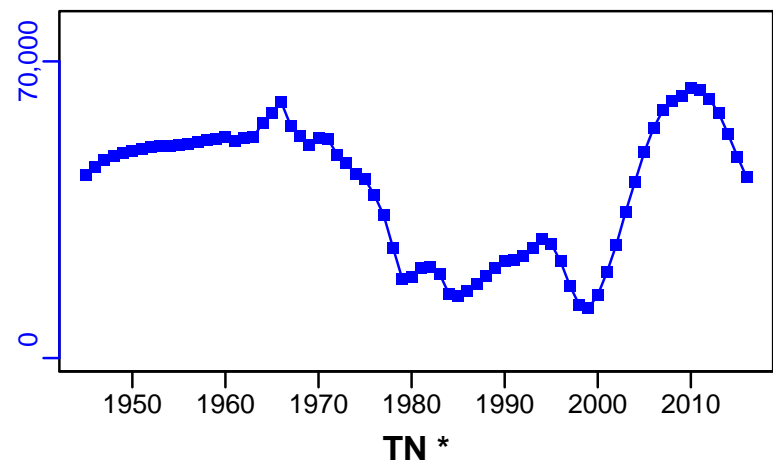
Production (1944–2016–PARMA)



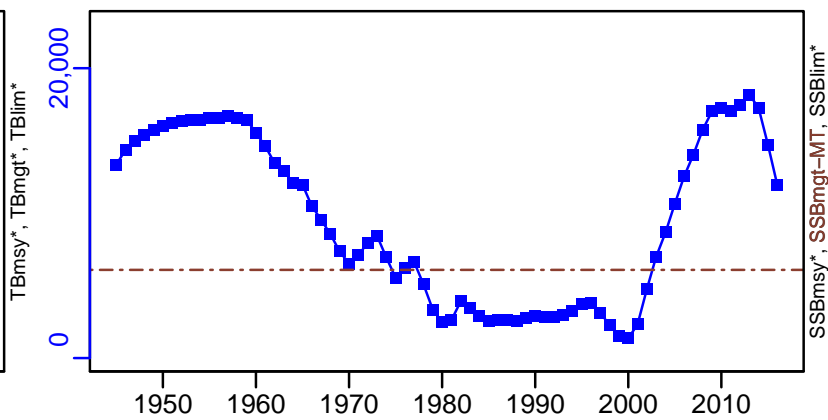
◆ Start Year ◆ End Year * No Data

Nylon shrimp Central–Southern Chile [NSHRIMPCSCH]

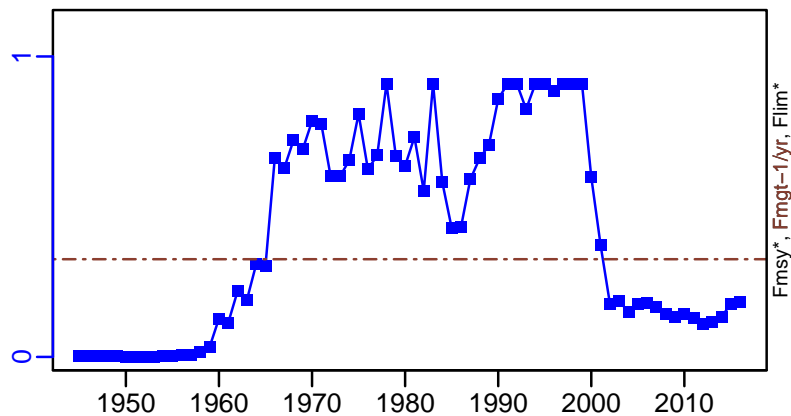
TB–MT (1944–2016–PARMA)



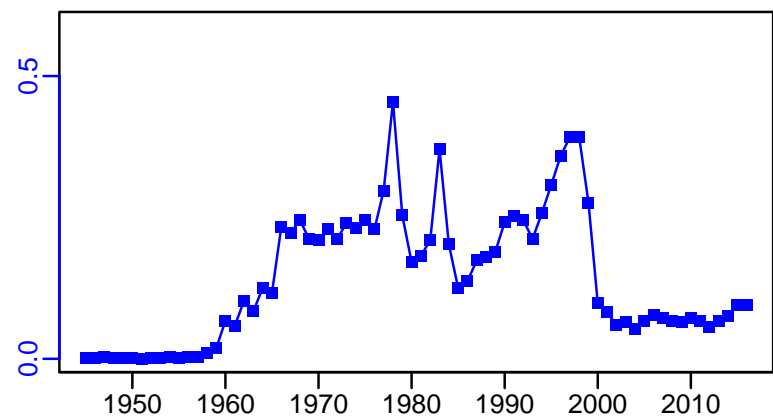
SSB–MT (1944–2016–PARMA)



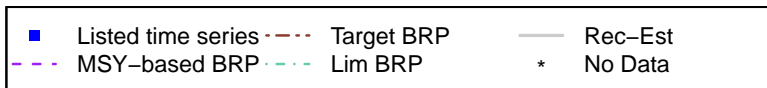
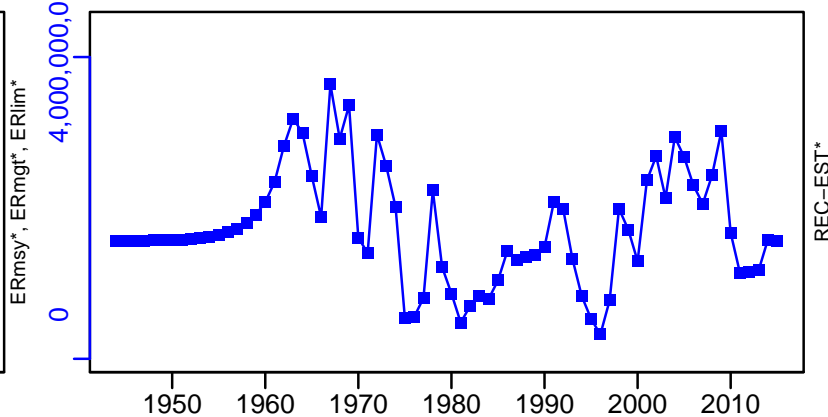
F–1/yr (1944–2016–PARMA)



ER–calc–ratio (1944–2016–PARMA)



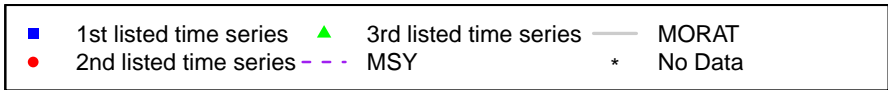
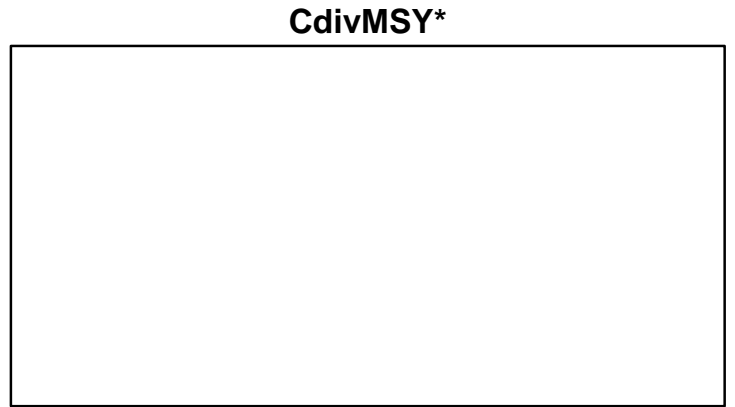
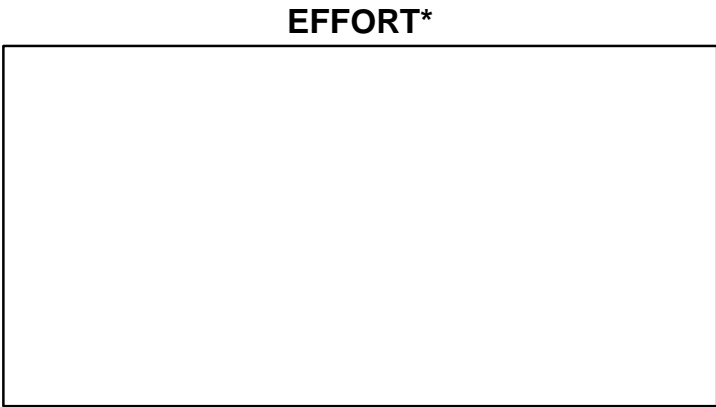
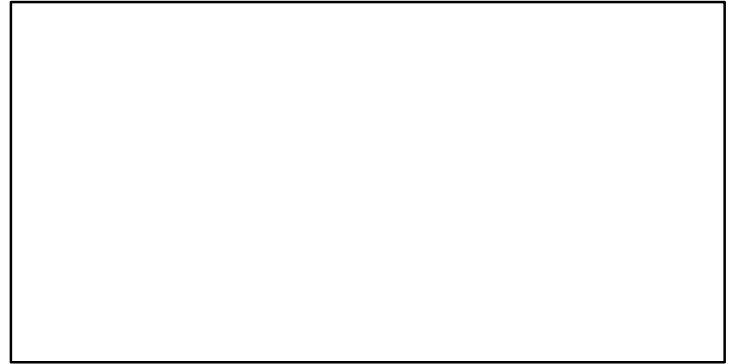
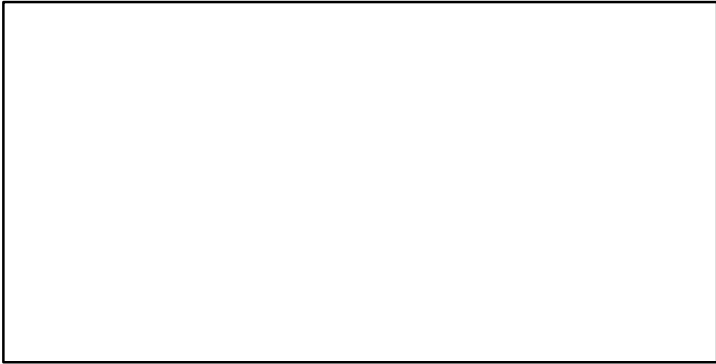
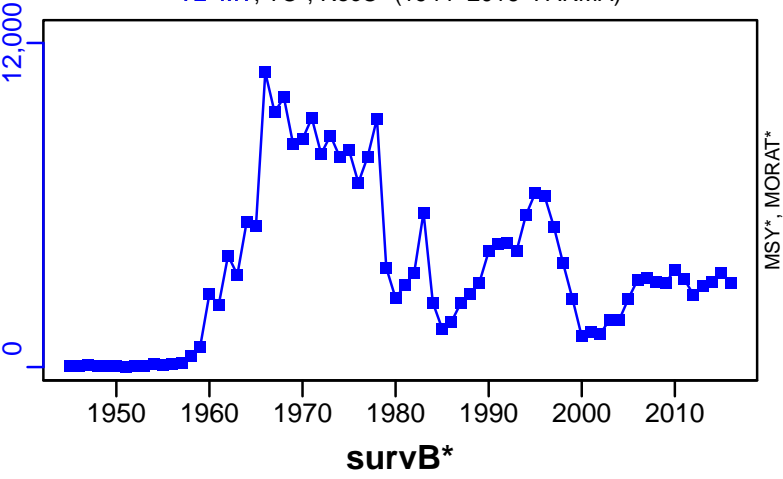
R–E00 (1944–2016–PARMA)



Nylon shrimp Central–Southern Chile [NSHRIMPCSCH]

TL–MT, TC*, RecC* (1944–2016–PARMA)

TAC*, Cpair*, Cadv*



Nylon shrimp Northern Chile [NSHRIMPNCH]

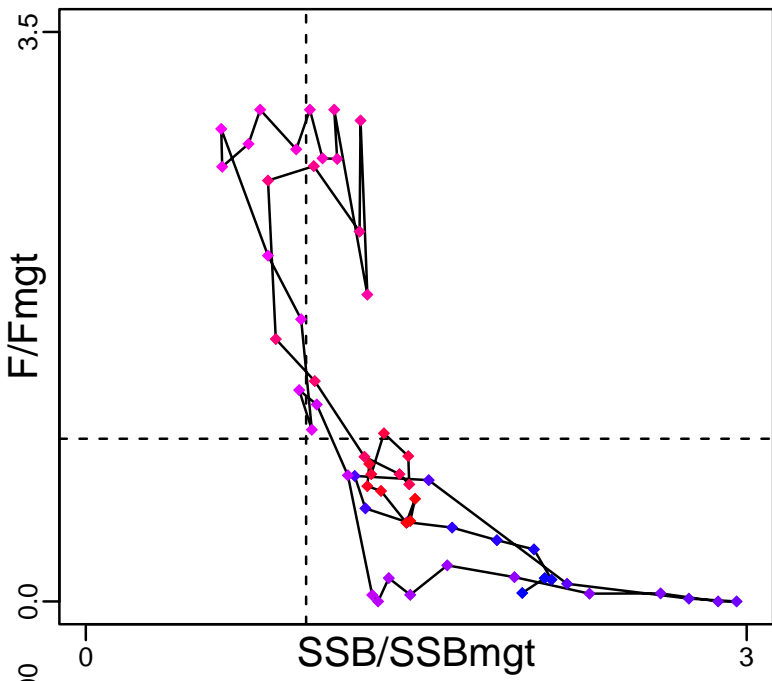
| Metadata | |
|-----------------------------|---|
| Scientific Name | Heterocarpus reedi |
| Current Assess ID | IFOPCH-NSHRIMPNCH-1960-2016-PARMA |
| Area | Northern Chile |
| Management Authority | Subsecretaria de Pesca |
| Assessor | Instituto de Fomento Pesquero - Chilean Fisheries Development Institute |
| Asmts in RAM | 2016 |

| Reference Points | | | |
|------------------|-----------|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | - | - | - |
| Fmsy | - | - | - |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | SSBmgt-MT | 2016 | 2261 |
| Fmgt | Fmgt-1/yr | 2016 | 0.271 |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | SSB0-MT | 2016 | 5025 |
| MSY | - | - | - |
| M | M-1/yr | 2016 | 0.36 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

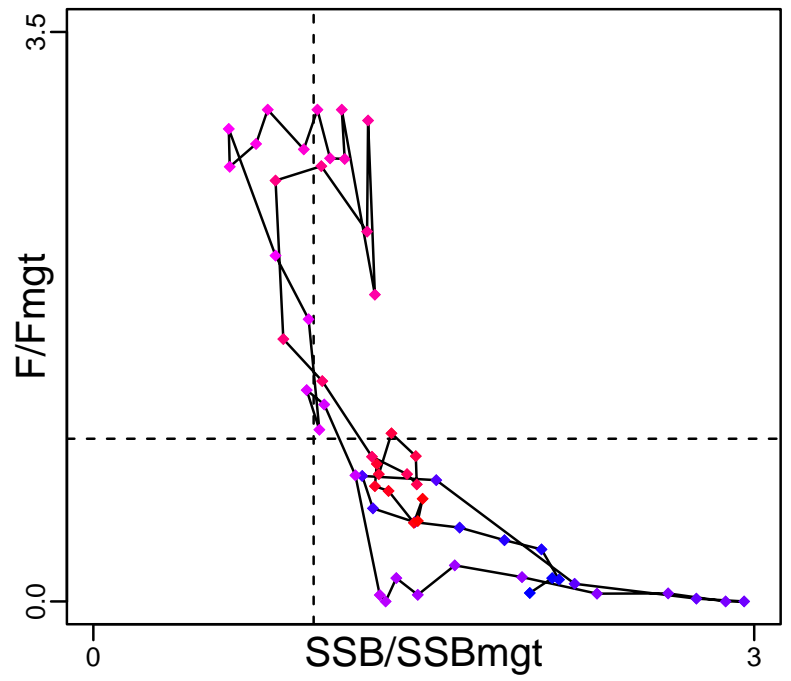
| Time Series | | | | | |
|-------------------|------------------|-----------|--------------------|---------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2016 | 13,000 | Both | - |
| SSB | SSB-MT | 2016 | 3330 | Females | - |
| TN | - | - | - | - | - |
| R | R-E00 | 2016 | 6.26×10^8 | Females | 1 |
| F | F-1/yr | 2016 | 0.134 | Females | - |
| ER | ER-calc-ratio | 2016 | 0.062 | - | - |
| TC | - | - | - | | |
| TL | TL-MT | 2016 | 803 | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | SSB-MT/SSBmgt-MT | 2016 | 1.473 | | |
| F/Fmgt | F-1/yr/Fmgt-1/yr | 2016 | 0.494 | | |
| ER/ERmgt | - | - | - | | |

Nylon shrimp Northern Chile [NSHRIMPNCH]

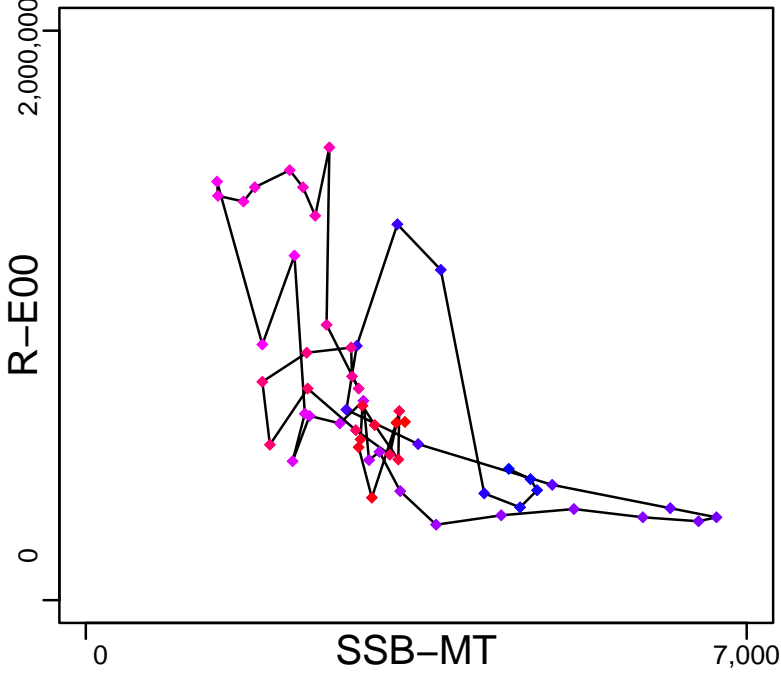
Kobe MSYpref (1960–2016–PARMA)



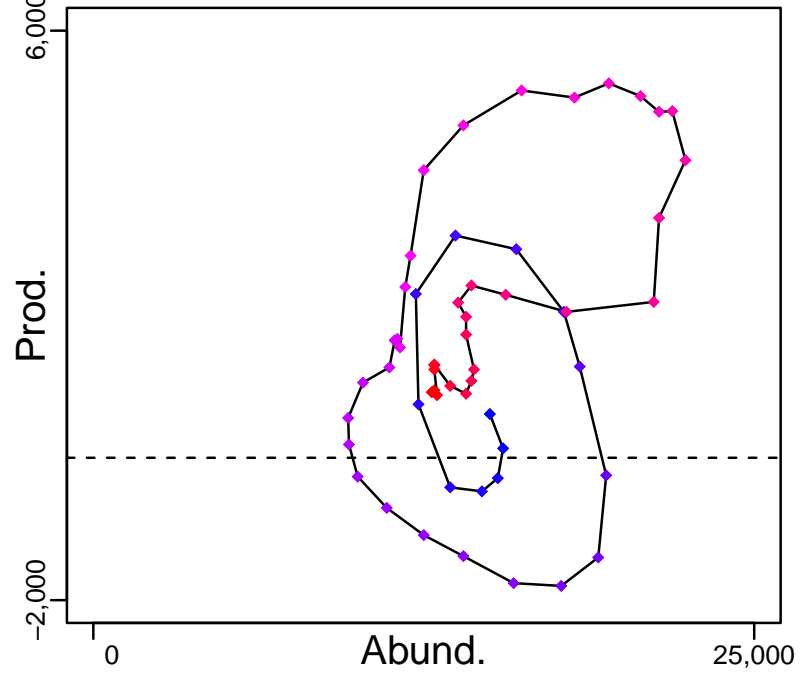
Kobe MGTpref (1960–2016–PARMA)



Spawner Recruit (1960–2016–PARMA)



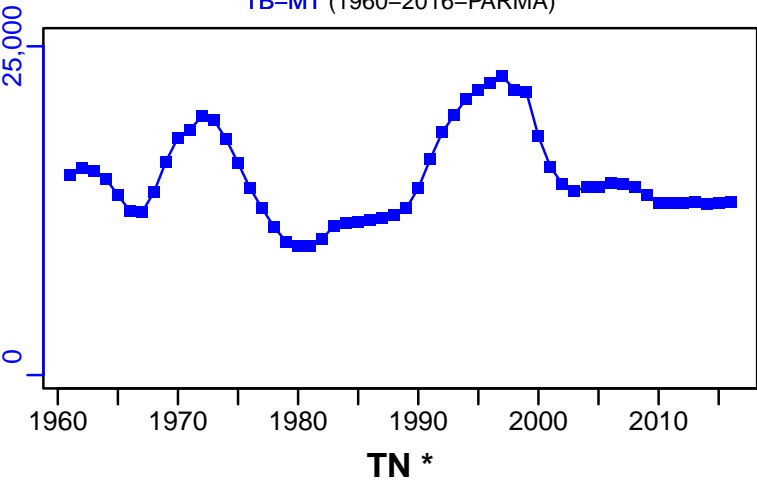
Production (1960–2016–PARMA)



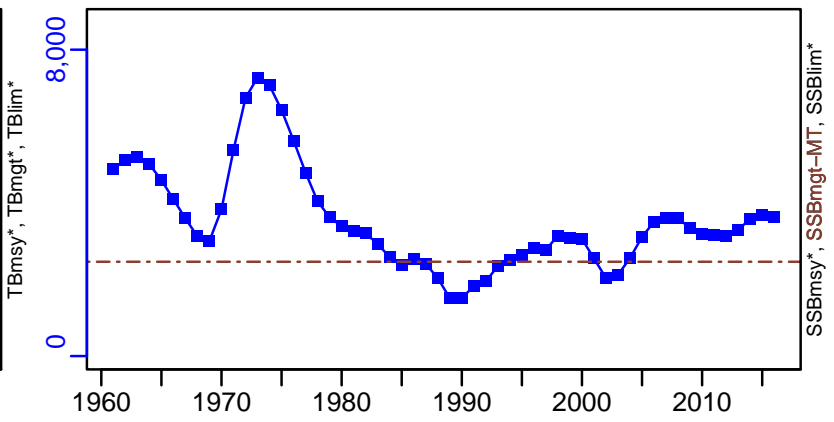
◆ Start Year ◆ End Year * No Data

Nylon shrimp Northern Chile [NSHRIMPNCH]

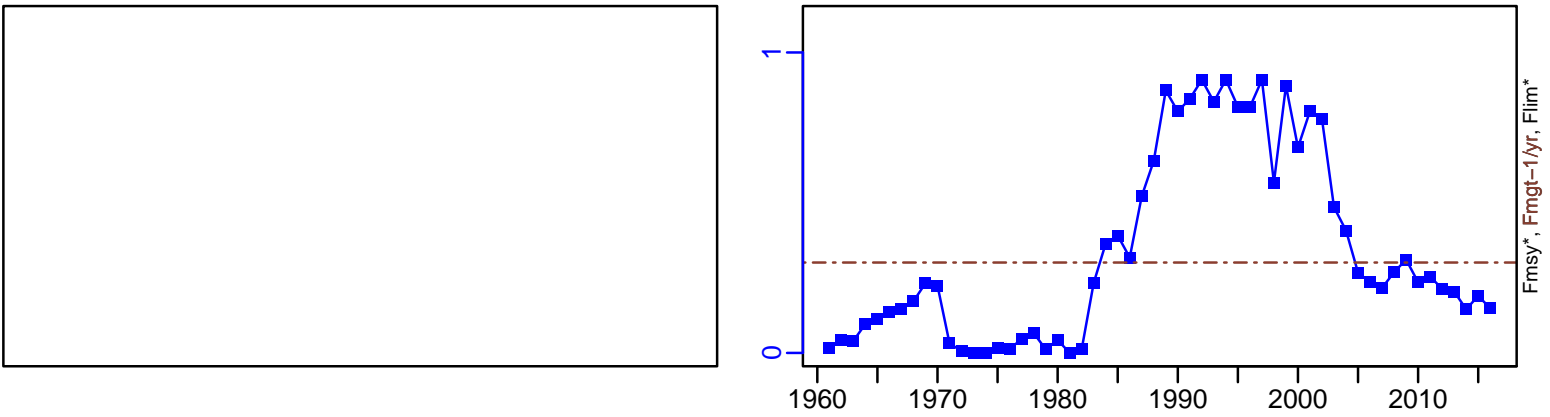
TB-MT (1960–2016–PARMA)



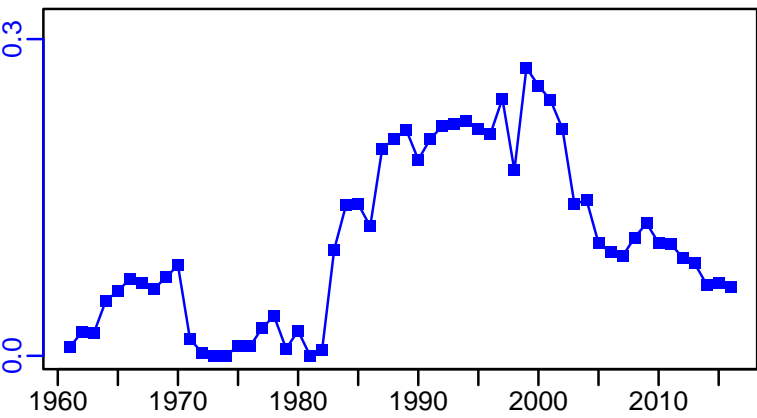
SSB-MT (1960–2016–PARMA)



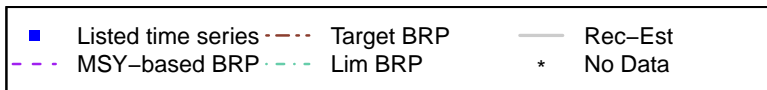
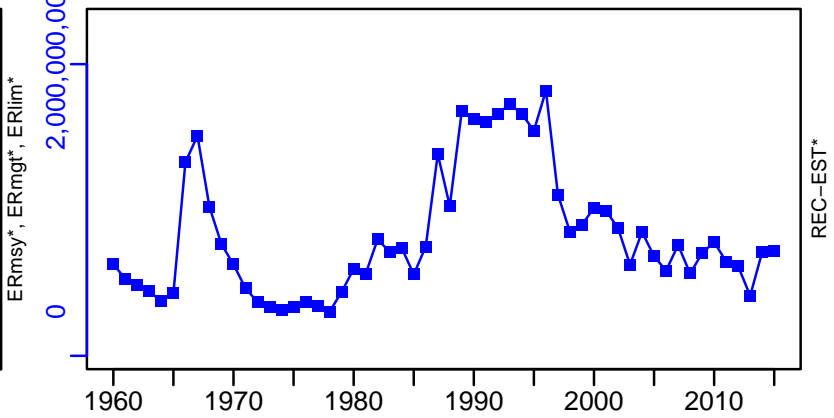
F-1/yr (1960–2016–PARMA)



ER-calc-ratio (1960–2016–PARMA)

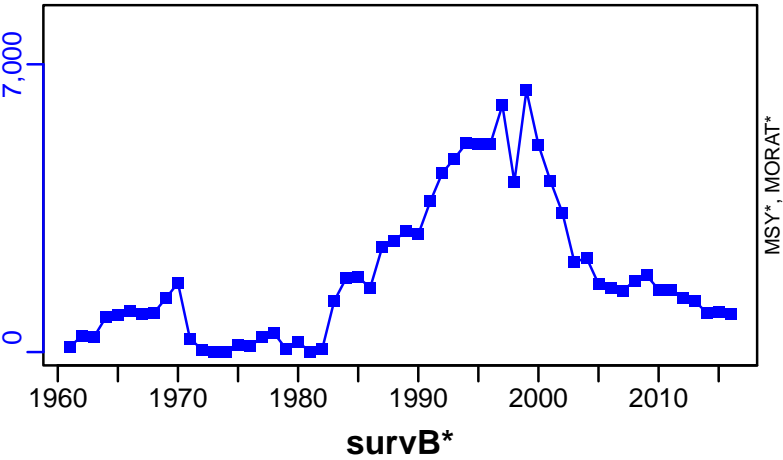


R-E00 (1960–2016–PARMA)

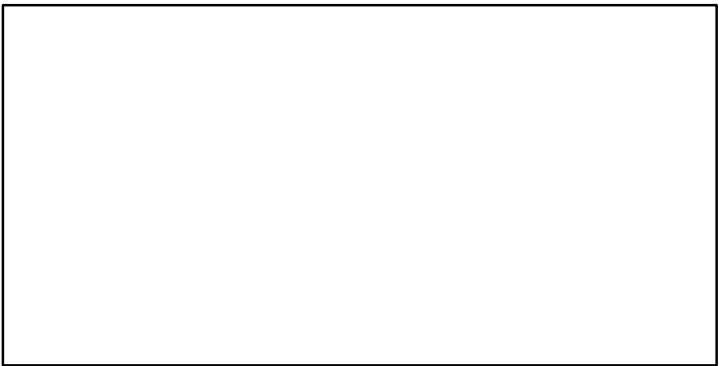


Nylon shrimp Northern Chile [NSHRIMPNCH]

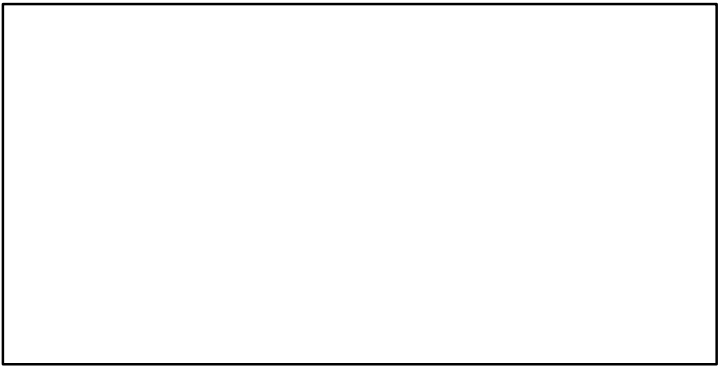
TL-MT, TC*, RecC* (1960–2016–PARMA)



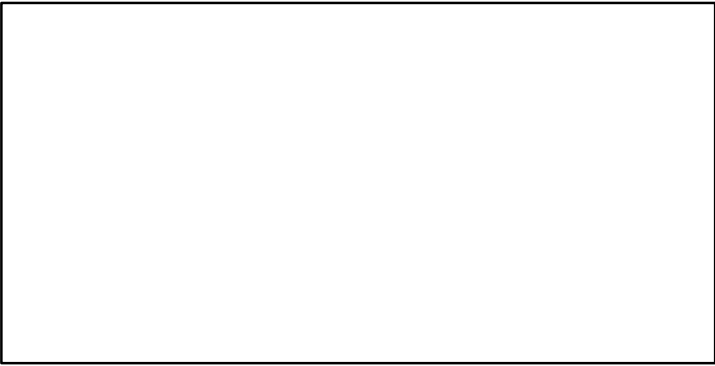
TAC*, Cpair*, Cadv*



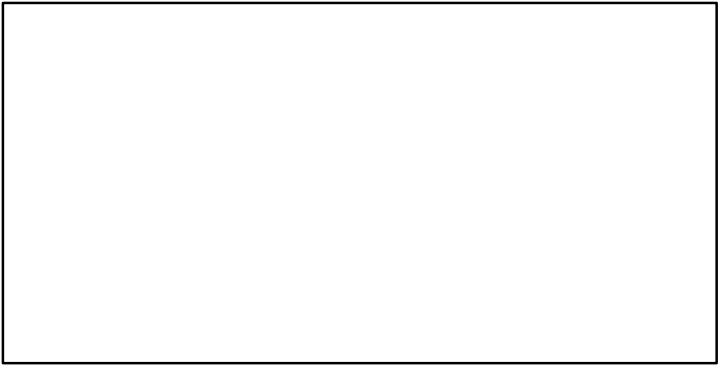
CPUE*



EFFORT*



CdivMSY*



Orange roughy Chile [OROUGHYCH]

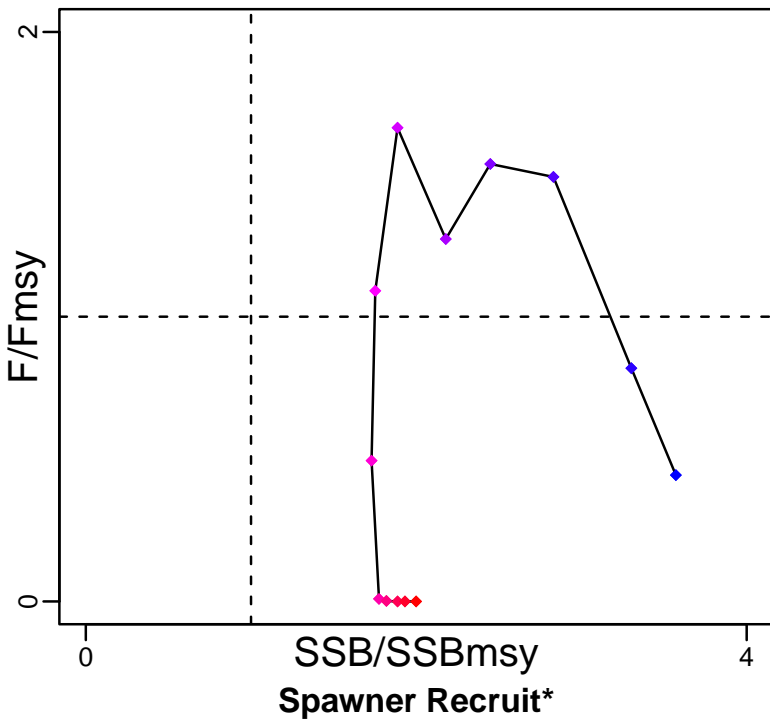
| Metadata | |
|-----------------------------|--|
| Scientific Name | Hoplostethus atlanticus |
| Current Assess ID | SPRFMO-OROUGHYCH-1999-2011-PARMA |
| Area | Chile |
| Management Authority | South Pacific Regional Fisheries Management Organization |
| Assessor | South Pacific Regional Fisheries Management Organization |
| Asmts in RAM | 2011 |

| Reference Points | | | |
|------------------|--------------|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | SSBmsy-pr-MT | 2011 | 4452 |
| Fmsy | Fmsy-1/yr | 2011 | 0.11 |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | - | - | - |
| M | M-1/yr | 2011 | 0.045 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

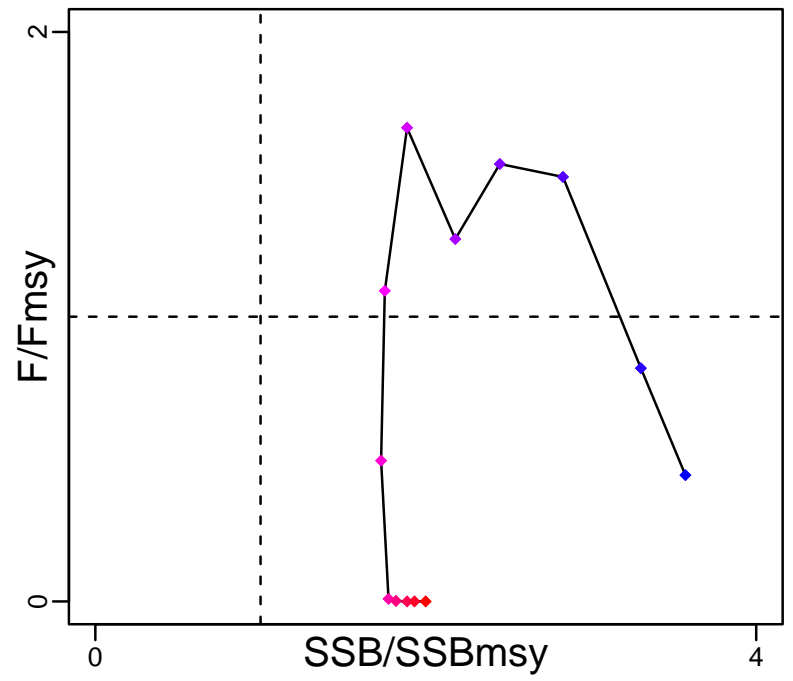
| Time Series | | | | | |
|-------------------|---------------------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2011 | 23,600 | - | - |
| SSB | SSB-MT | 2011 | 8900 | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | F-1/yr | 2011 | 0 | - | - |
| ER | ER-calc-ratio | 2011 | 0 | - | - |
| TC | TC-MT | 2011 | 0 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-pr-MT | 2011 | 1.999 | | |
| F/Fmsy | F-1/yr/Fmsy-1/yr | 2011 | 0 | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Orange roughy Chile [OROUGHYCH]

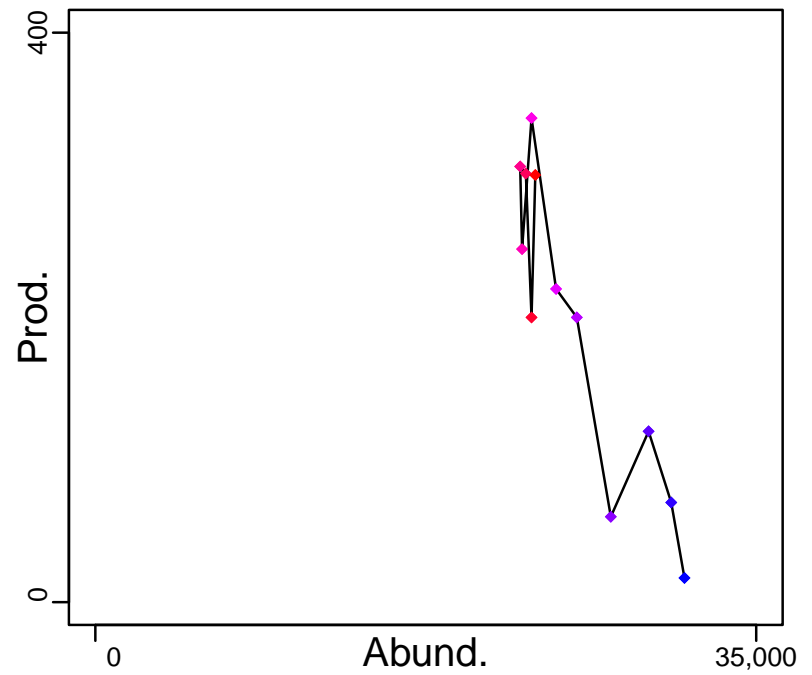
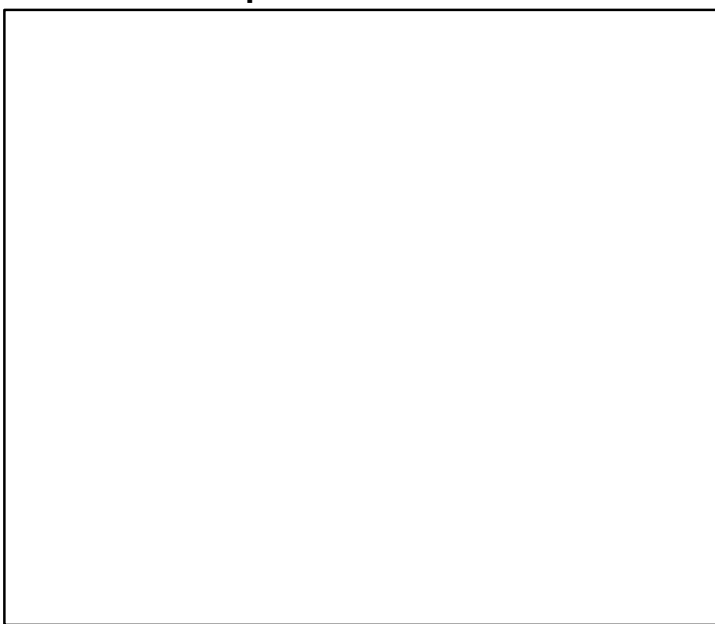
Kobe MSYpref (1999–2011–PARMA)



Kobe MGTpref (1999–2011–PARMA)



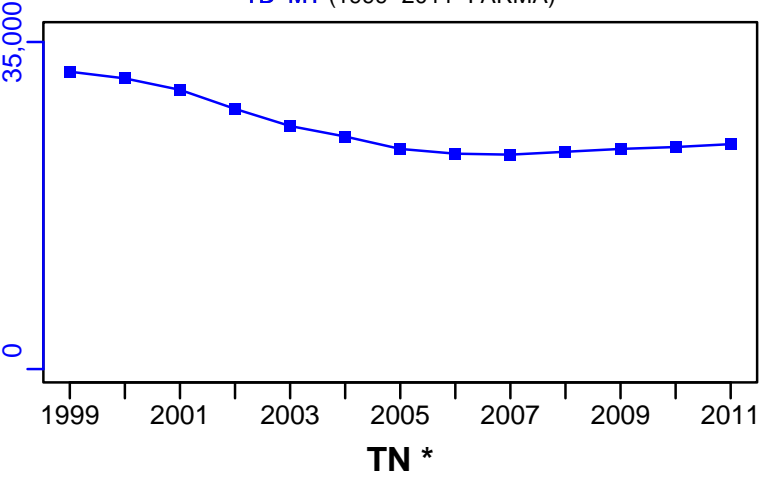
Production (1999–2011–PARMA)



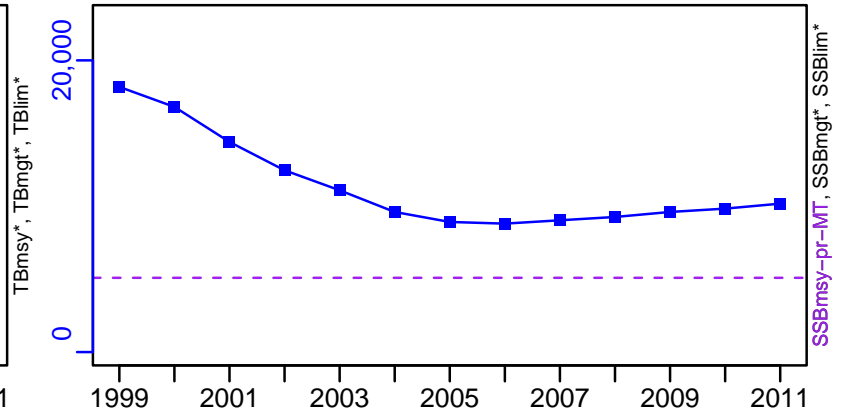
◆ Start Year ◆ End Year * No Data

Orange roughy Chile [OROUGHYCH]

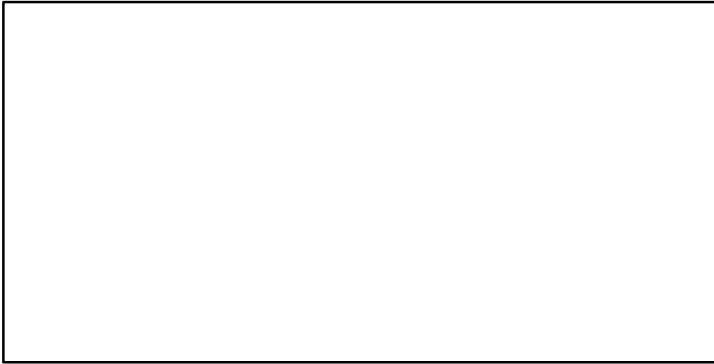
TB-MT (1999–2011–PARMA)



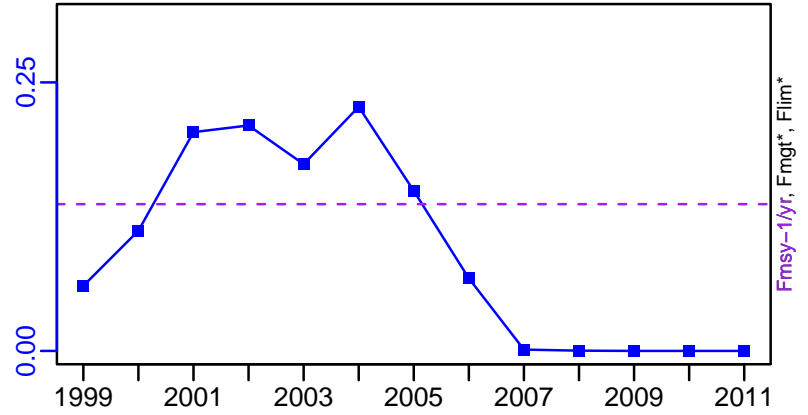
SSB-MT (1999–2011–PARMA)



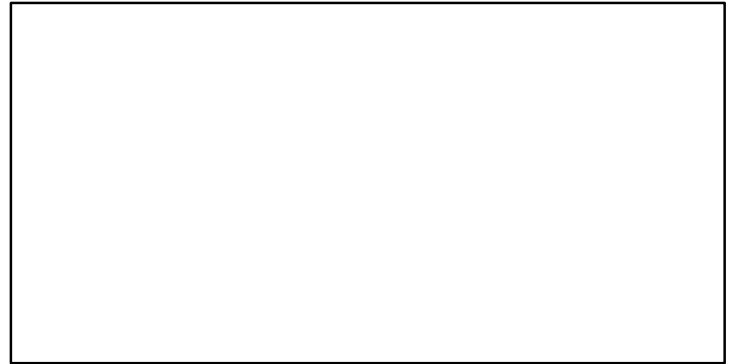
TN *



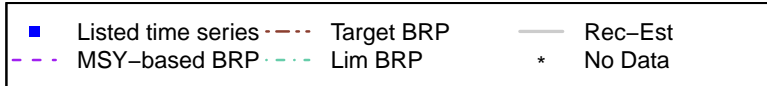
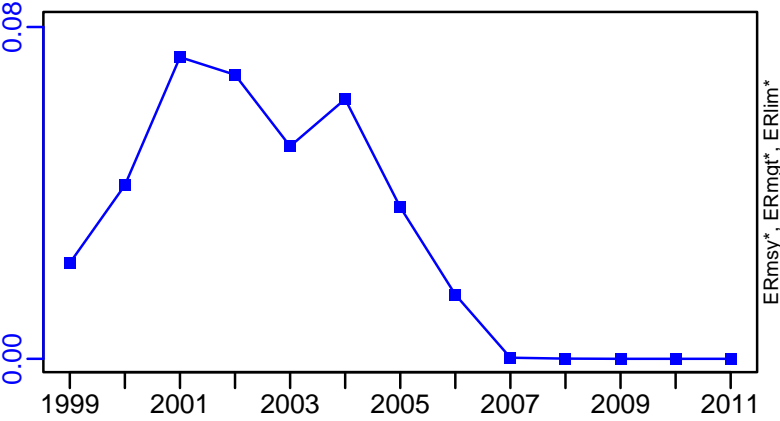
F-1/yr (1999–2011–PARMA)



Recruits*



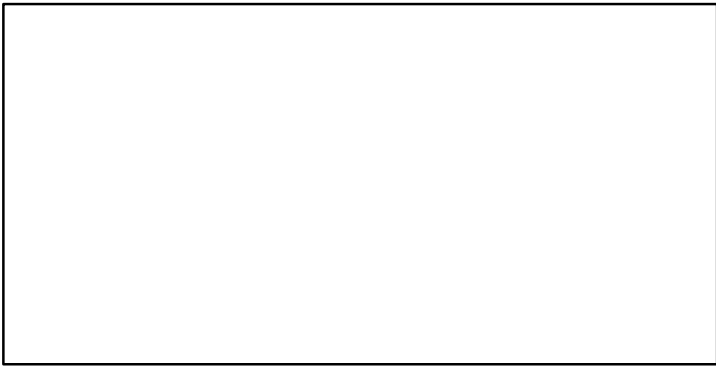
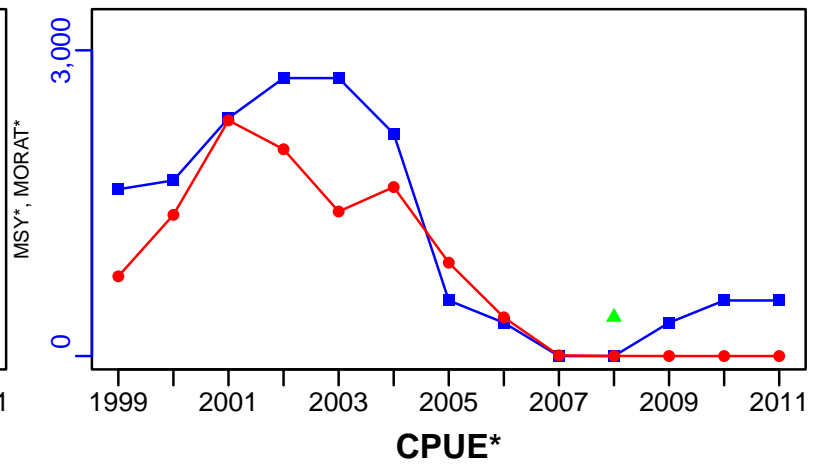
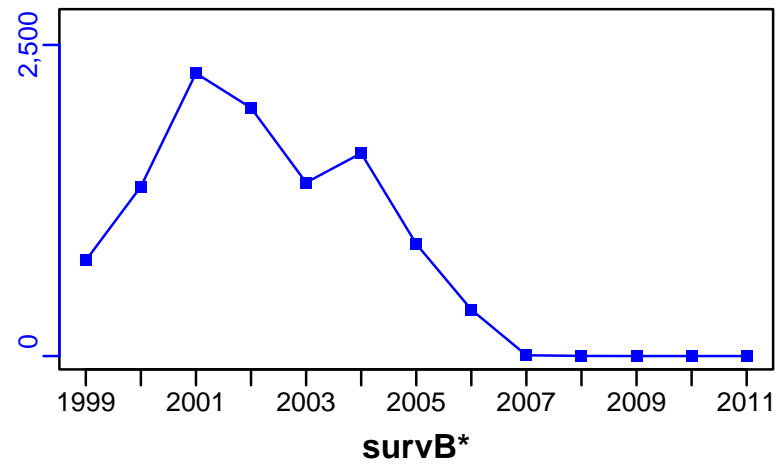
ER-calc-ratio (1999–2011–PARMA)



Orange roughy Chile [OROUGHYCH]

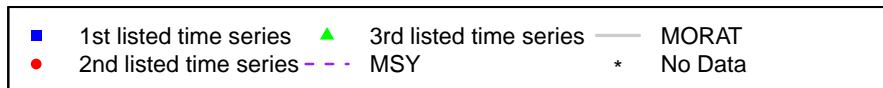
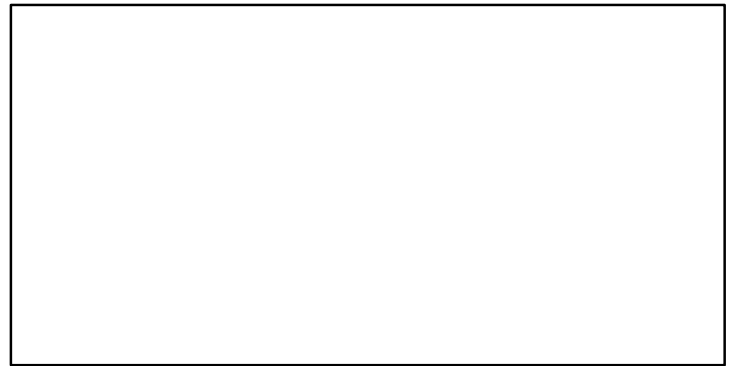
TC-MT, TL*, RecC* (1999-2011-PARMA)

TAC-MT, Cpair-MT, Cadvised-MT (1999-2011-PARMA)



EFFORT*

CdivMSY*



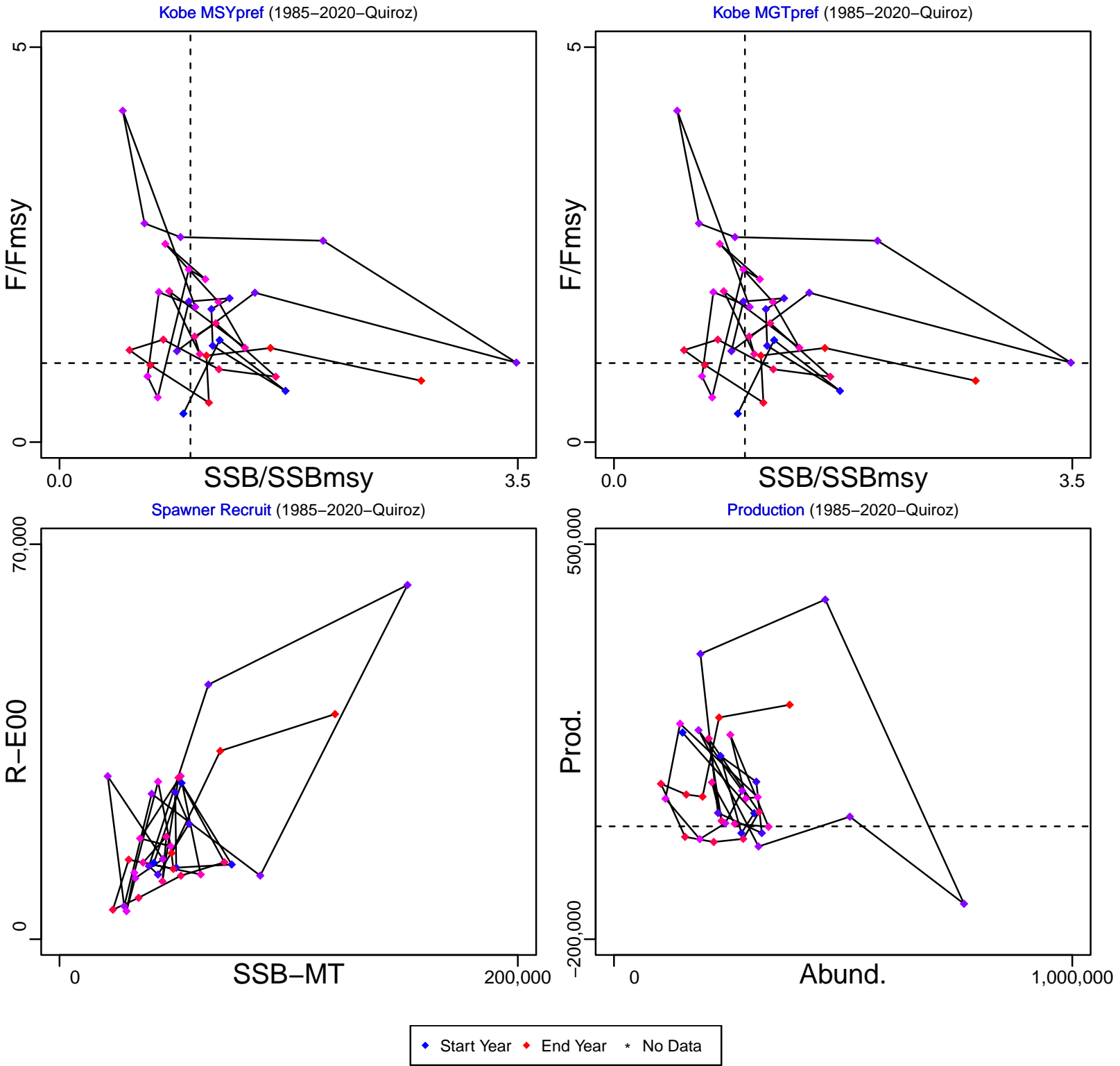
Peruvian anchoveta Central Chile [PANCHCCH]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Engraulis ringens |
| Current Assess ID | IFOPCH-PANCHCCH-1985-2020-Quiroz |
| Area | Central Chile |
| Management Authority | Subsecretaria de Pesca |
| Assessor | Instituto de Fomento Pesquero - Chilean Fisheries Development Institute |
| Asmts in RAM | 2016, 2020 |

| Reference Points | | | |
|------------------|--------------|-----------|--------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | SSBmsy-pr-MT | 2020 | 43,530 |
| Fmsy | Fmsy-pr-1/yr | 2020 | 0.48 |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | SSBmgt-MT | 2016 | 51,000 |
| Fmgt | Fmgt-1/yr | 2016 | 0.47 |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | SSB0-MT | 2020 | 78,953 |
| MSY | MSY-MT | 2020 | 81,367 |
| M | M-1/yr | 2020 | 1.3 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

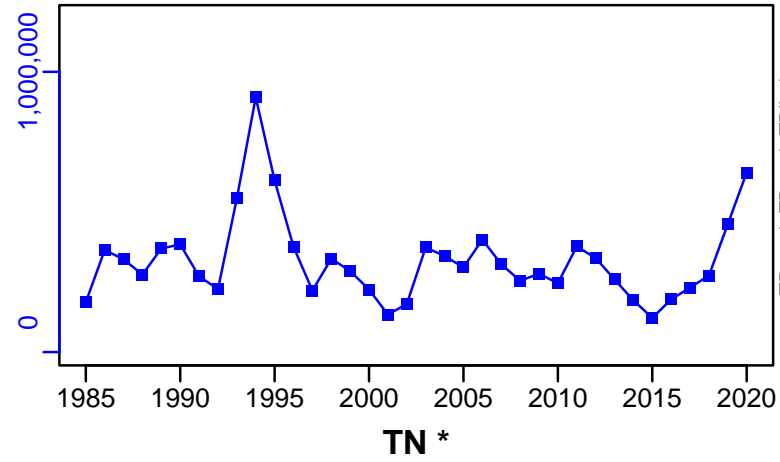
| Time Series | | | | | |
|-------------------|----------------------------|-----------|------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2020 | 538,270 | - | - |
| SSB | SSB-MT | 2020 | 120,240 | Both | - |
| TN | - | - | - | - | - |
| R | R-E00 | 2020 | 39,889 | Both | - |
| F | F-1/yr | 2020 | 0.373 | Both | - |
| ER | ER-ratio | 2020 | 0.121 | - | - |
| TC | TC-MT | 2020 | 91,927 | | |
| TL | TL-MT | 2016 | 36,400 | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | SSBdivSSBmsy-dimensionless | 2020 | 2.762 | | |
| F/Fmsy | FdivFmsy-dimensionless | 2020 | 0.777 | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | SSB-MT/SSBmgt-MT | 2016 | 1.061 | | |
| F/Fmgt | F-1/yr/Fmgt-1/yr | 2016 | 0.894 | | |
| ER/ERmgt | - | - | - | | |

Peruvian anchoveta Central Chile [PANCHCCH]

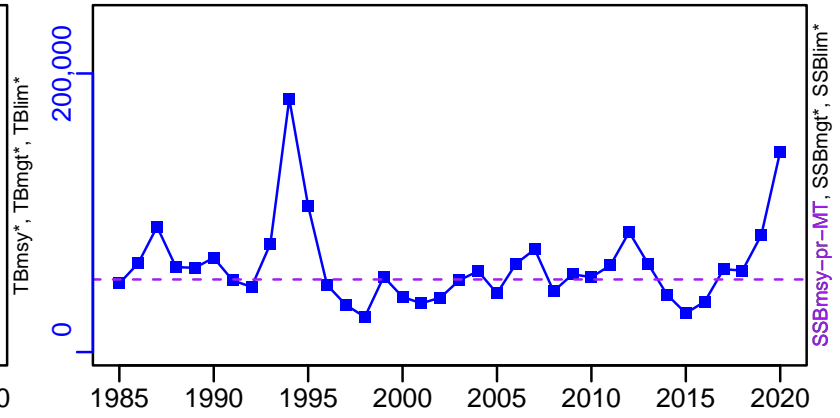


Peruvian anchoveta Central Chile [PANCHCCH]

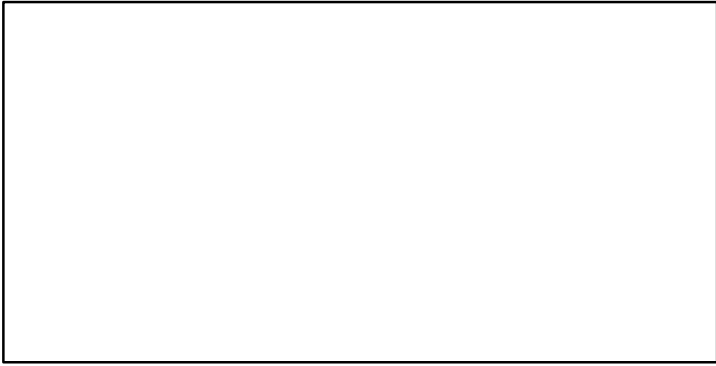
TB-MT (1985–2020–Quiroz)



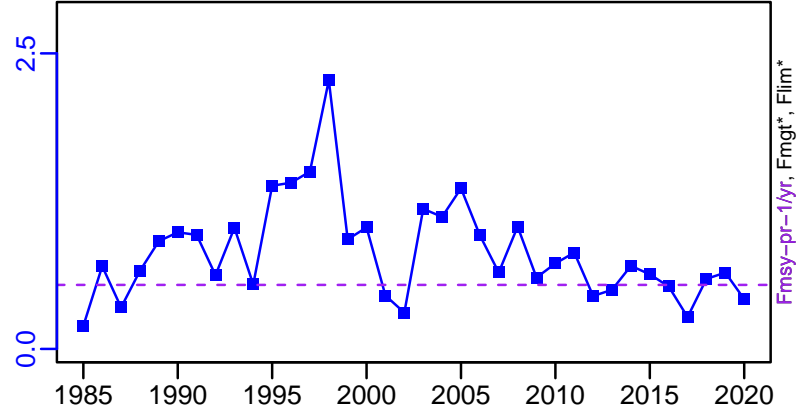
SSB-MT (1985–2020–Quiroz)



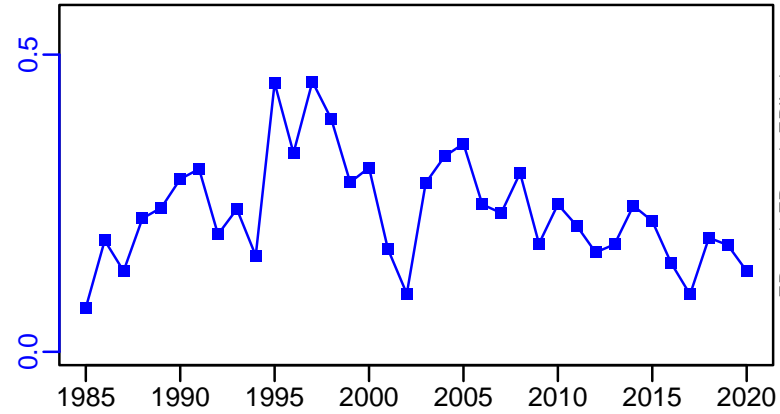
TN *



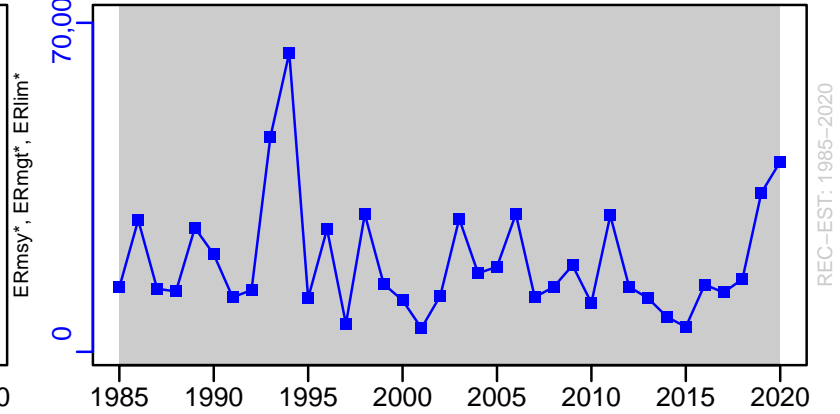
F-1/yr (1985–2020–Quiroz)



ER-ratio (1985–2020–Quiroz)

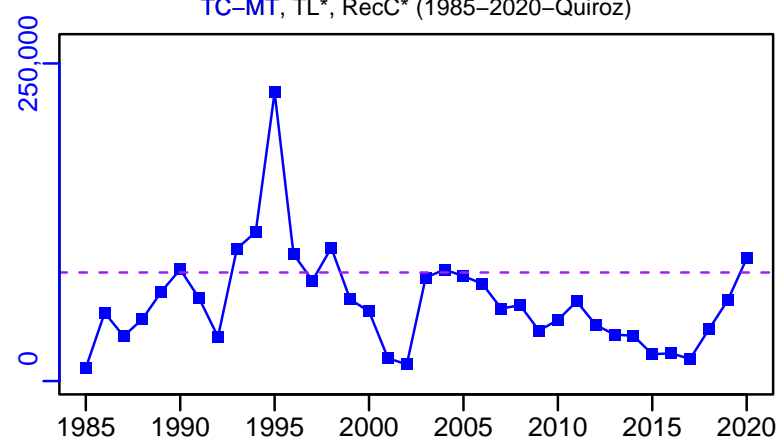


R-E00 (1985–2020–Quiroz)

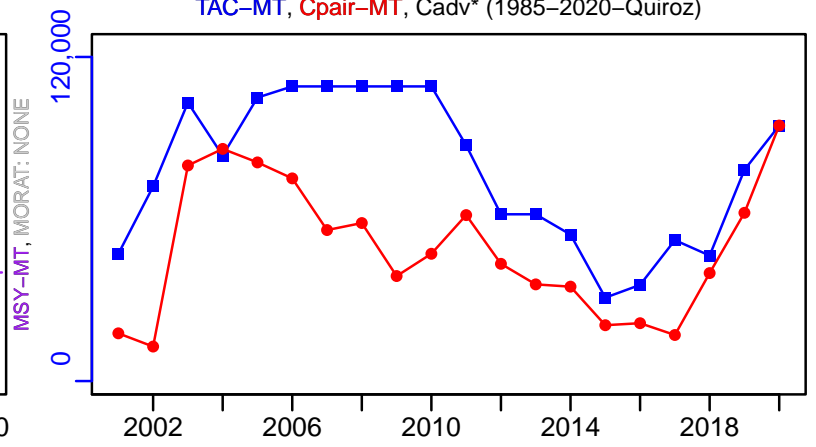


Peruvian anchoveta Central Chile [PANCHCCH]

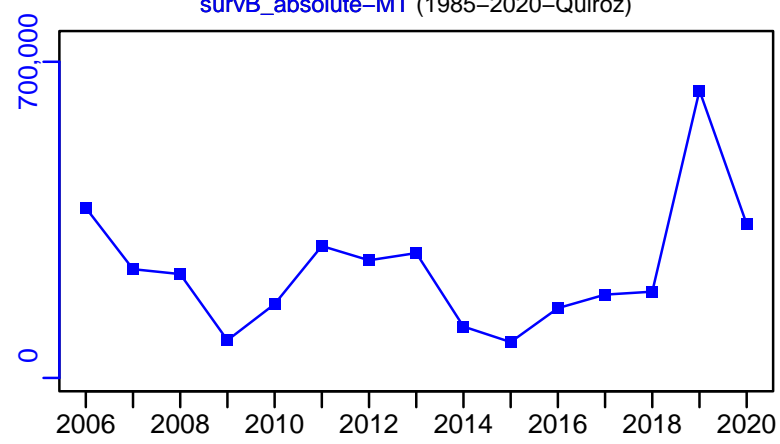
TC-MT, TL*, RecC* (1985–2020–Quiroz)



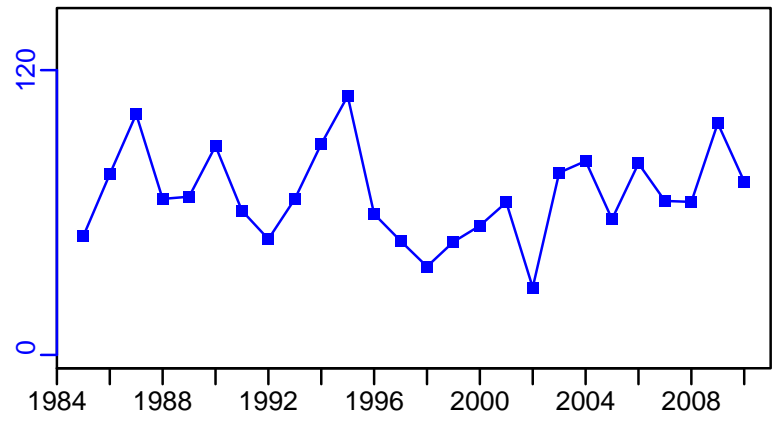
TAC-MT, Cpair-MT, Cadv* (1985–2020–Quiroz)



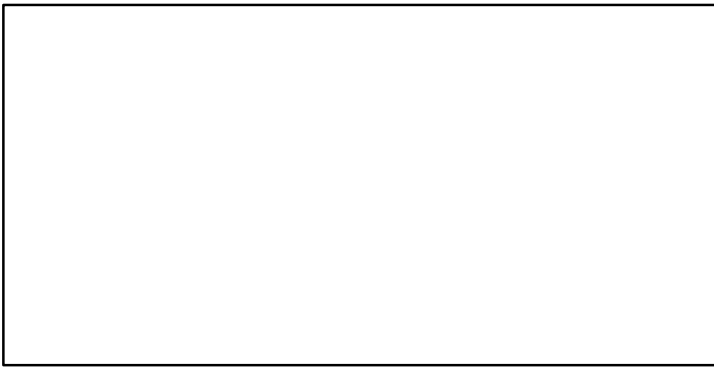
survB_absolute-MT (1985–2020–Quiroz)



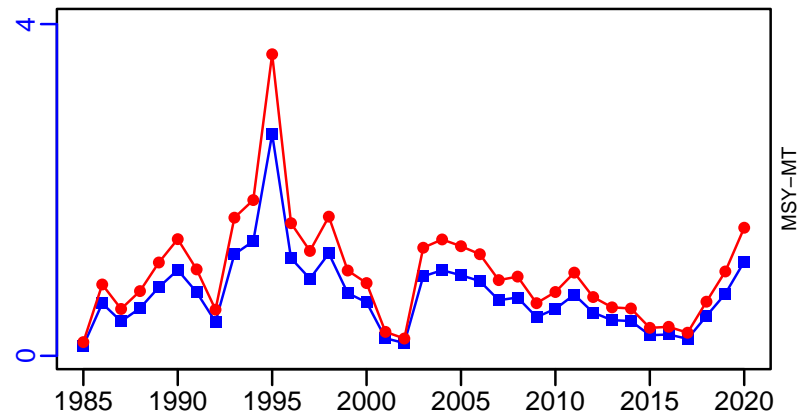
CPUE-index (1985–2020–Quiroz)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1985–2020–Quiroz)



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

Peruvian anchoveta Central-Southern Chile [PANCHCSCH]

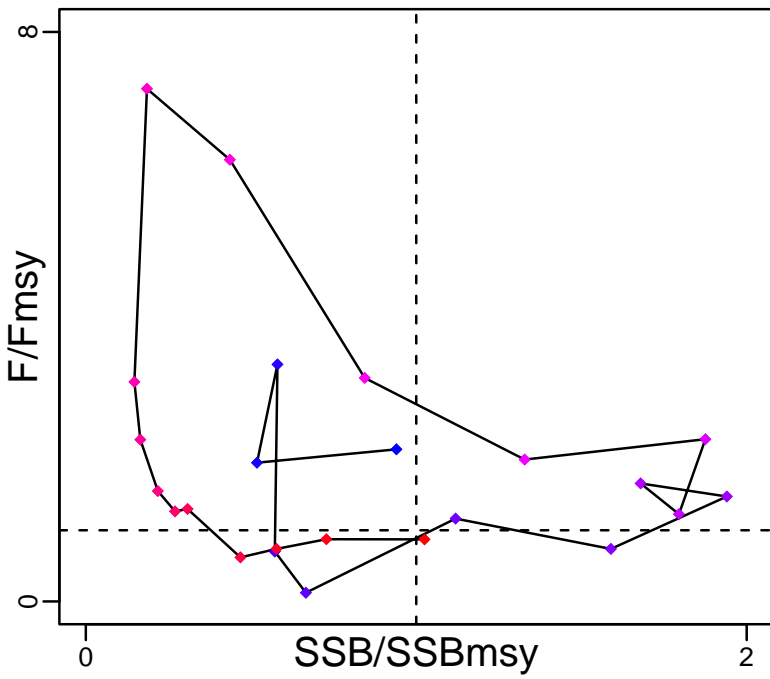
| Metadata | |
|-----------------------------|---|
| Scientific Name | Engraulis ringens |
| Current Assess ID | IFOPCH-PANCHCSCH-1997-2020-Quiroz |
| Area | Central-Southern Chile |
| Management Authority | Subsecretaria de Pesca |
| Assessor | Instituto de Fomento Pesquero - Chilean Fisheries Development Institute |
| Asmts in RAM | 2016, 2020 |

| Reference Points | | | |
|------------------|--------------|-----------|---------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | SSBmsy-pr-MT | 2020 | 482,277 |
| Fmsy | Fmsy-pr-1/yr | 2020 | 0.44 |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | SSBmgt-MT | 2016 | 562,000 |
| Fmgt | Fmgt-1/yr | 2016 | 0.396 |
| ERMgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | SSB0-MT | 2020 | 877,959 |
| MSY | MSY-MT | 2020 | 160,810 |
| M | M-1/yr | 2020 | 0.7 |
| TBlim | - | - | - |
| SSBlim | SSBlim-MT | 2016 | 281,000 |
| Flim | - | - | - |
| ERlim | - | - | - |

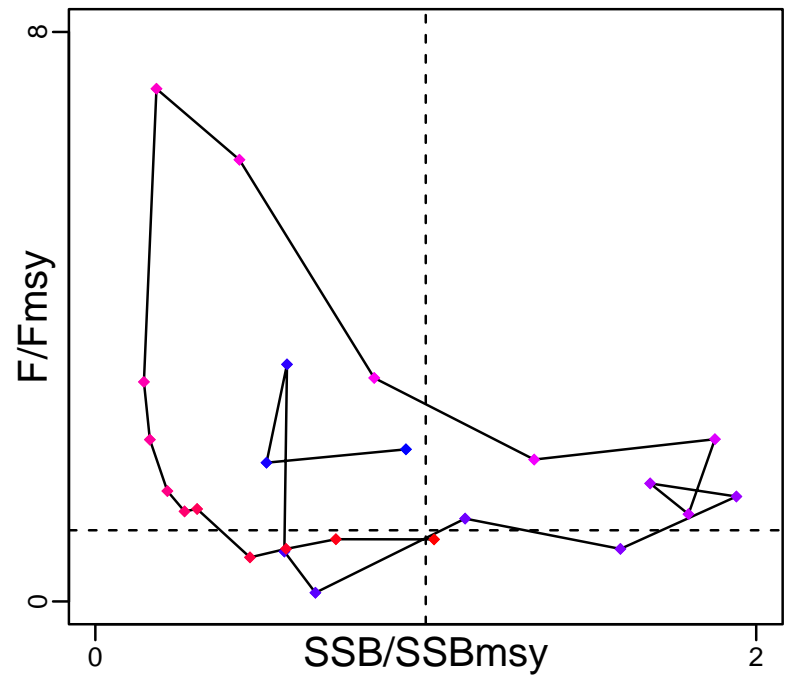
| Time Series | | | | | |
|-------------------|----------------------------|-----------|------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2020 | 824,040 | - | - |
| SSB | SSB-MT | 2020 | 495,110 | Both | - |
| TN | - | - | - | - | - |
| R | R-E00 | 2020 | 58,165 | Both | - |
| F | F-1/yr | 2020 | 0.385 | Both | - |
| ER | ER-ratio | 2020 | 0.195 | - | - |
| TC | TC-MT | 2020 | 160,799 | | |
| TL | TL-MT | 2016 | 44,600 | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | SSBdivSSBmsy-dimensionless | 2020 | 1.025 | | |
| F/Fmsy | FdivFmsy-dimensionless | 2020 | 0.872 | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | SSB-MT/SSBmgt-MT | 2016 | 0.363 | | |
| F/Fmgt | F-1/yr/Fmgt-1/yr | 2016 | 0.995 | | |
| ER/ERMgt | - | - | - | | |

Peruvian anchoveta Central–Southern Chile [PANCHCSCH]

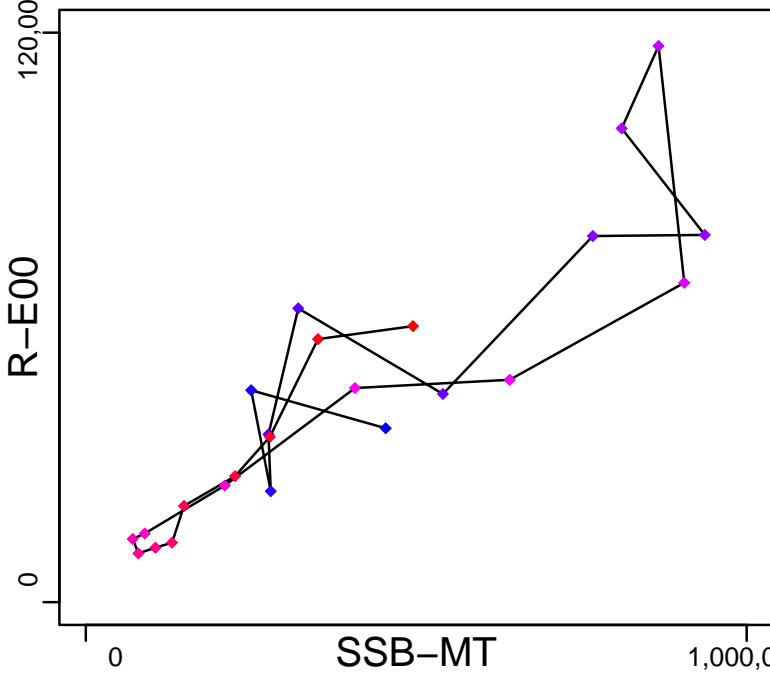
Kobe MSY_{pref} (1997–2020–Quiroz)



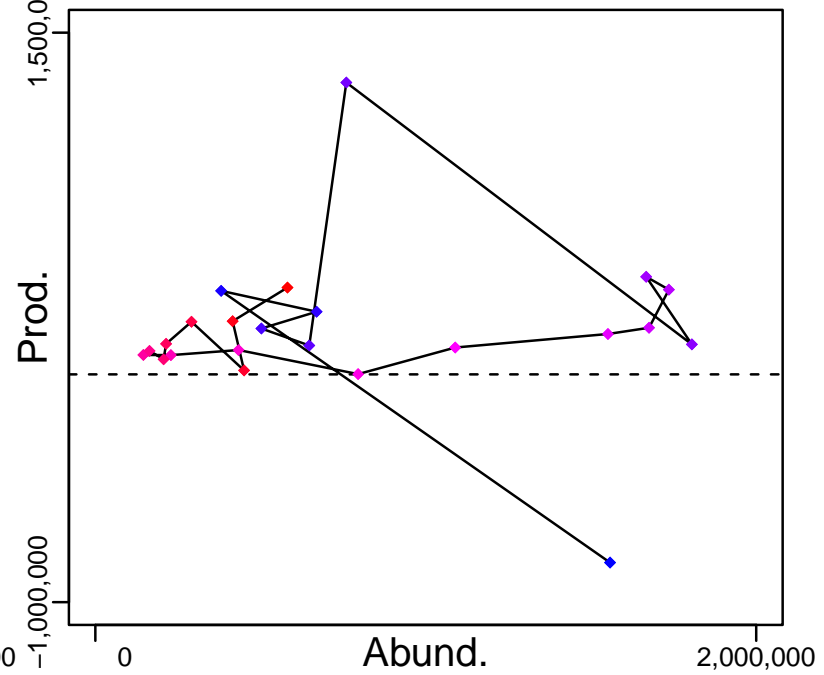
Kobe MGT_{pref} (1997–2020–Quiroz)



Spawner Recruit (1997–2020–Quiroz)



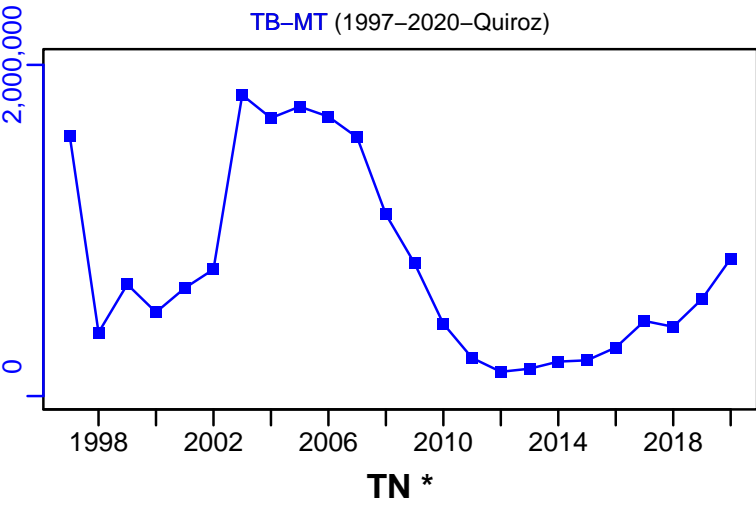
Production (1997–2020–Quiroz)



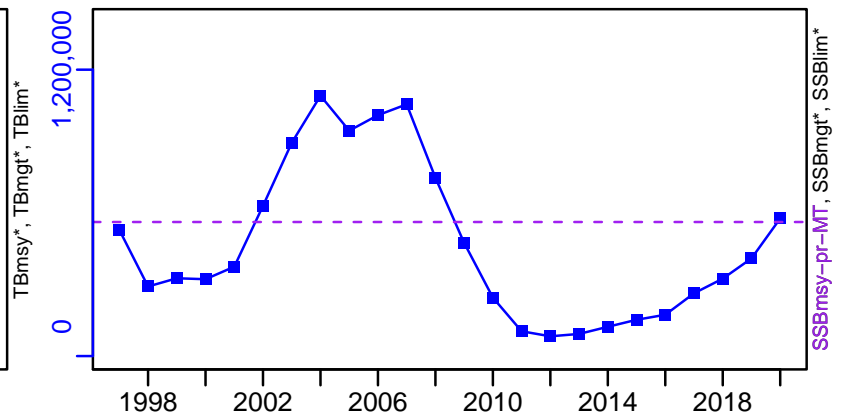
◆ Start Year ◆ End Year * No Data

Peruvian anchoveta Central–Southern Chile [PANCHCSCH]

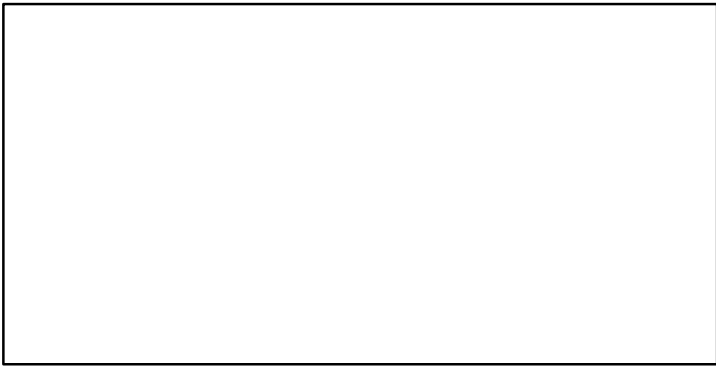
TB–MT (1997–2020–Quiroz)



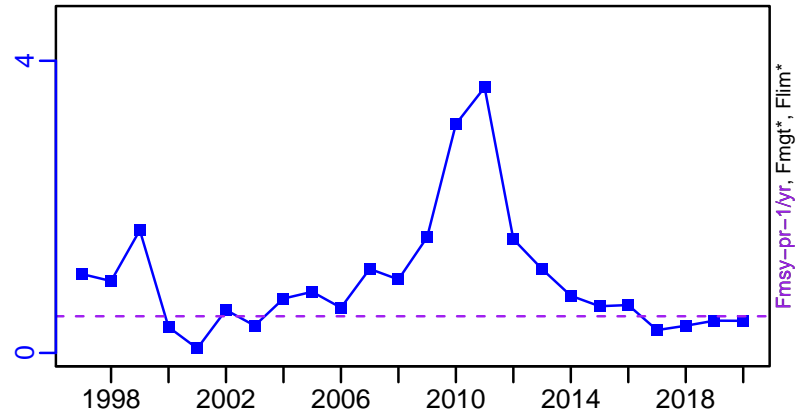
SSB–MT (1997–2020–Quiroz)



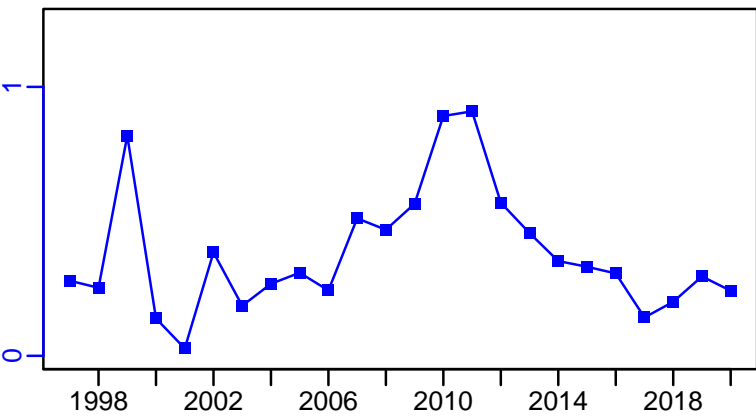
TN *



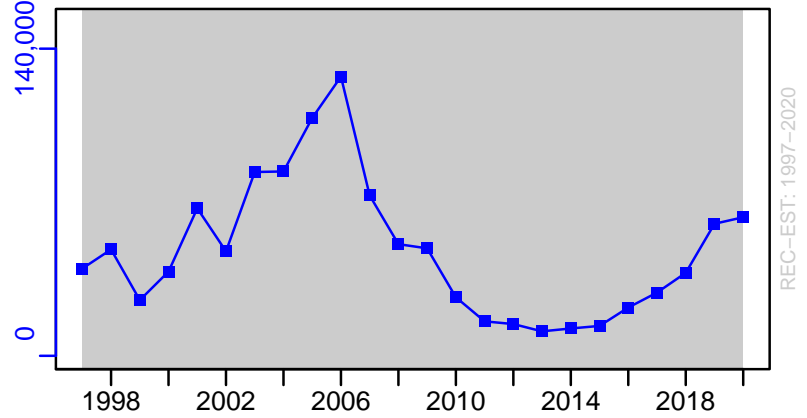
F–1/yr (1997–2020–Quiroz)



ER–ratio (1997–2020–Quiroz)

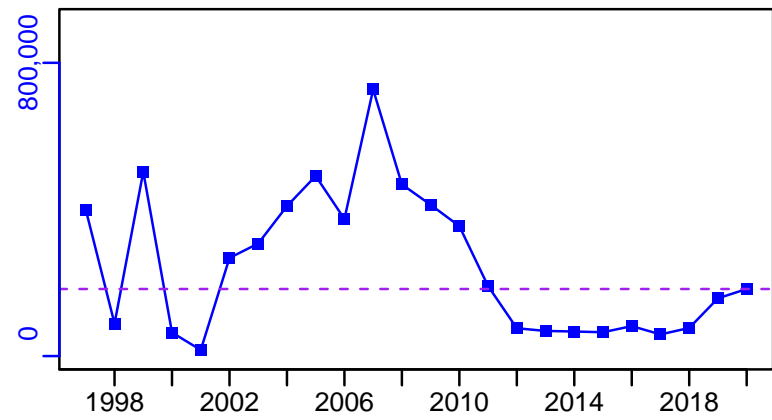


R–E00 (1997–2020–Quiroz)

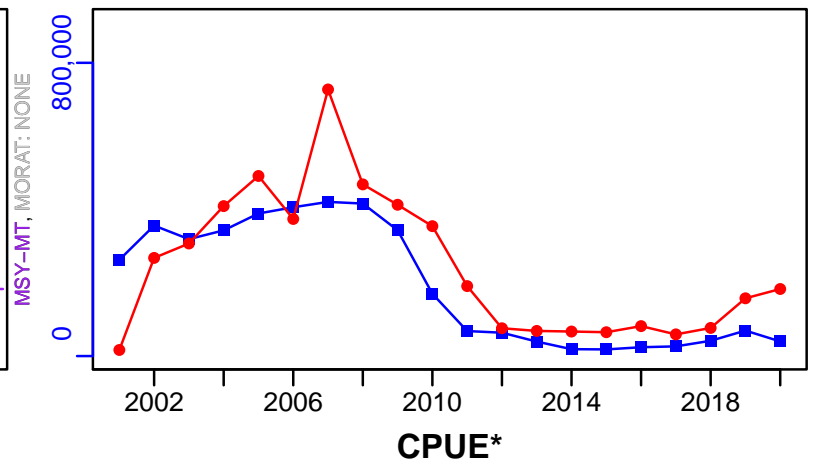


Peruvian anchoveta Central–Southern Chile [PANCHCSCH]

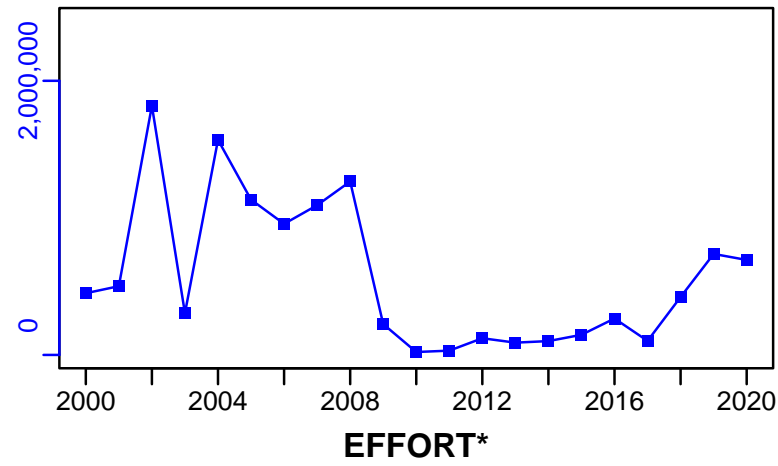
TC–MT, TL*, RecC* (1997–2020–Quiroz)



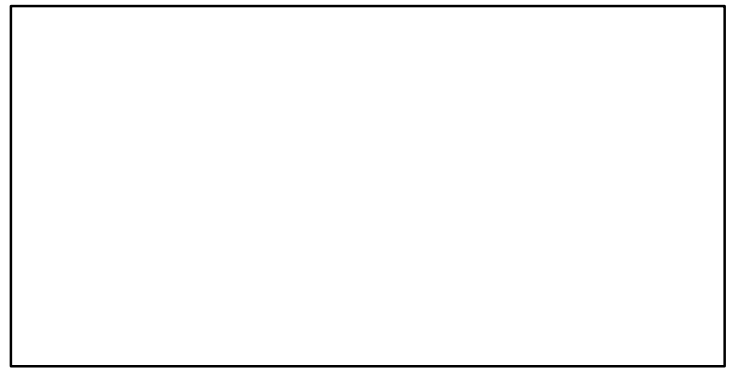
TAC–MT, Cpair–MT, Cadv* (1997–2020–Quiroz)



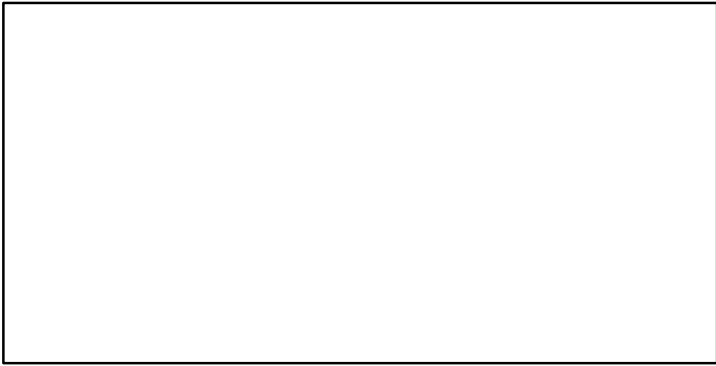
survB_absolute–MT (1997–2020–Quiroz)



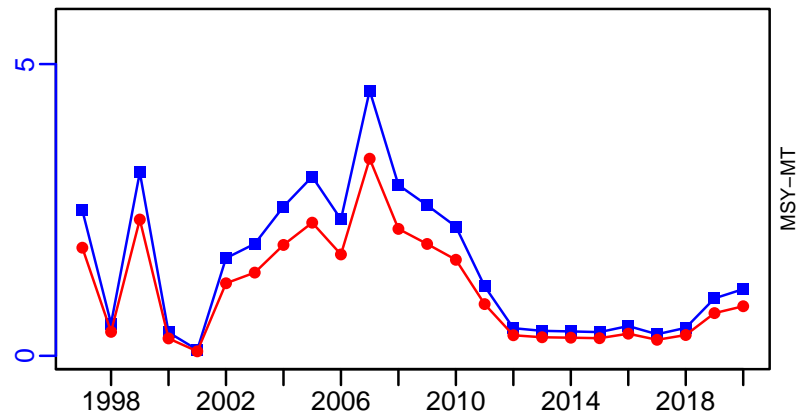
CPUE*



EFFORT*



TC–MT/MSY–MT, CdivMEANC–ratio, (1997–2020–Quiroz)



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

Peruvian anchoveta Northern Chile Southern Peru [PANCHNCHSP]

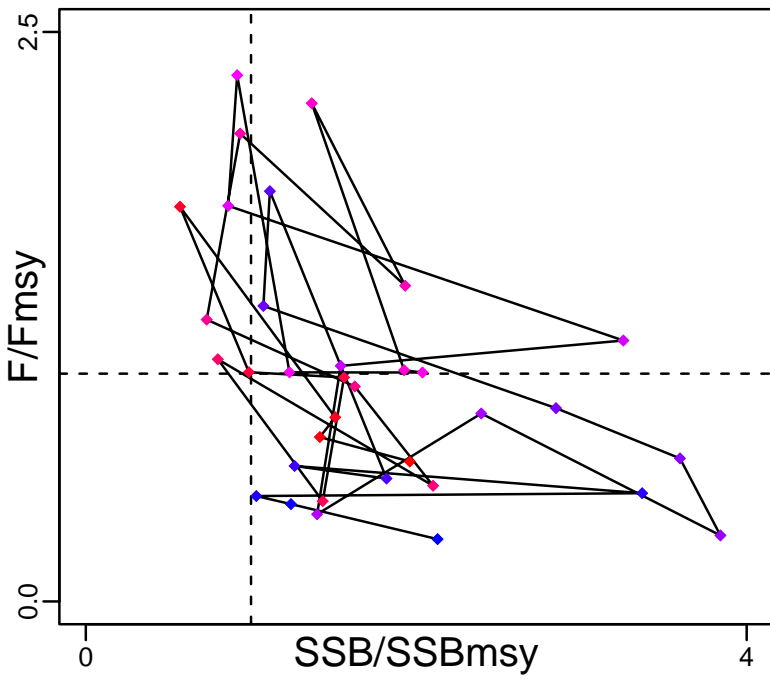
| Metadata | |
|-----------------------------|---|
| Scientific Name | Engraulis ringens |
| Current Assess ID | IFOPCH-PANCHNCHSP-1986-2019-Quiroz |
| Area | Northern Chile Southern Peru |
| Management Authority | Subsecretaria de Pesca |
| Assessor | Instituto de Fomento Pesquero - Chilean Fisheries Development Institute |
| Asmts in RAM | 2015, 2019 |

| Reference Points | | | |
|------------------|--------------|-----------|-----------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | SSBmsy-pr-MT | 2019 | 642,260 |
| Fmsy | Fmsy-pr-1/yr | 2019 | 0.863 |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | SSBmgt-MT | 2015 | 2,021,000 |
| Fmgt | Fmgt-1/yr | 2015 | 1.18 |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | SSB0-MT | 2019 | 1,284,520 |
| MSY | MSY-MT | 2019 | 338,192 |
| M | M-1/yr | 2019 | 2.2 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

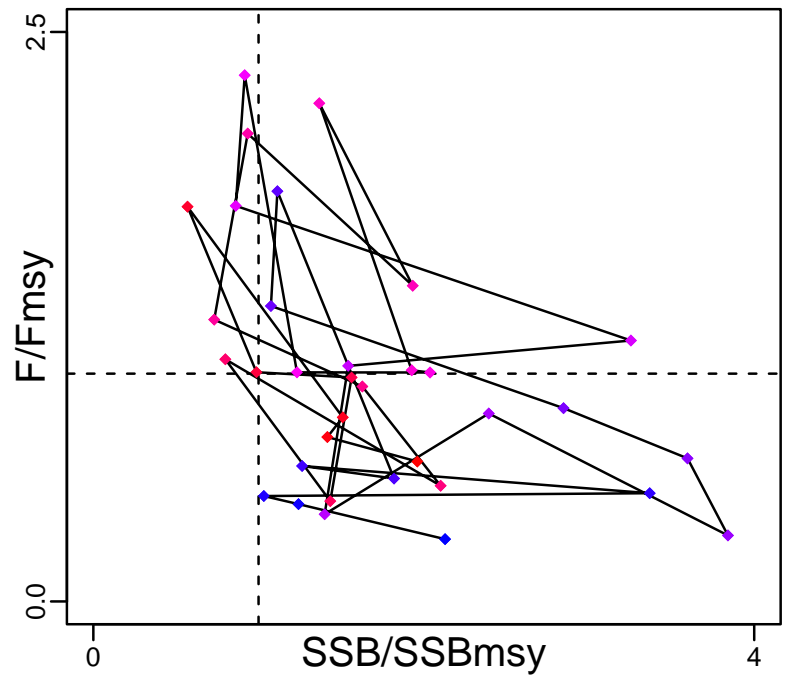
| Time Series | | | | | |
|-------------------|----------------------------|-----------|------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2019 | 2,069,000 | - | - |
| SSB | SSB-MT | 2019 | 1,259,400 | Both | - |
| TN | - | - | - | - | - |
| R | R-E00 | 2019 | 349,460 | Both | - |
| F | F-1/yr | 2019 | 0.53 | Both | - |
| ER | ER-ratio | 2019 | 0.259 | - | - |
| TC | TC-MT | 2019 | 690,083 | | |
| TL | TL-MT | 2015 | 1,200,000 | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | SSBdivSSBmsy-dimensionless | 2019 | 1.961 | | |
| F/Fmsy | FdivFmsy-dimensionless | 2019 | 0.614 | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | SSB-MT/SSBmgt-MT | 2015 | 0.599 | | |
| F/Fmgt | F-1/yr/Fmgt-1/yr | 2015 | 3.576 | | |
| ER/ERmgt | - | - | - | | |

Peruvian anchoveta Northern Chile Southern Peru [PANCHNCHSP]

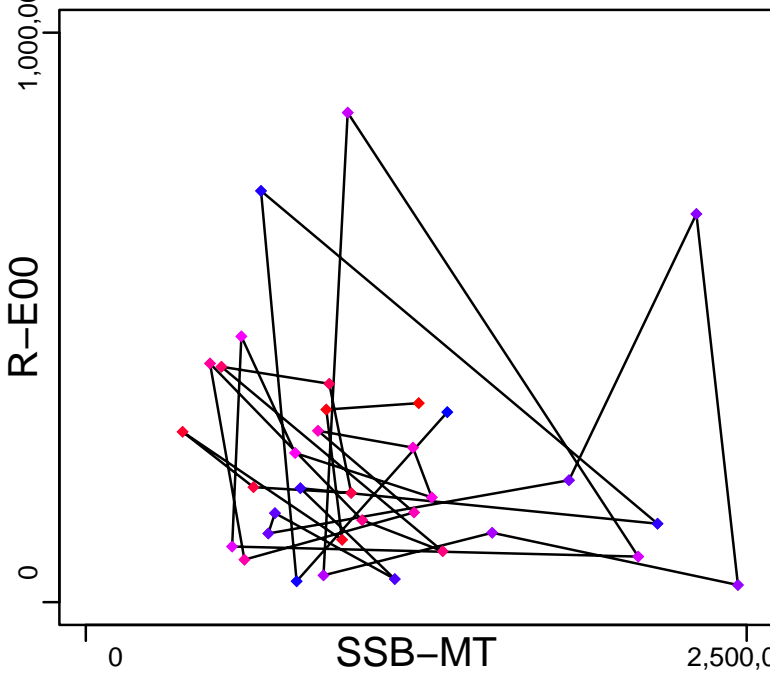
Kobe MSY_{pref} (1986–2019–Quiroz)



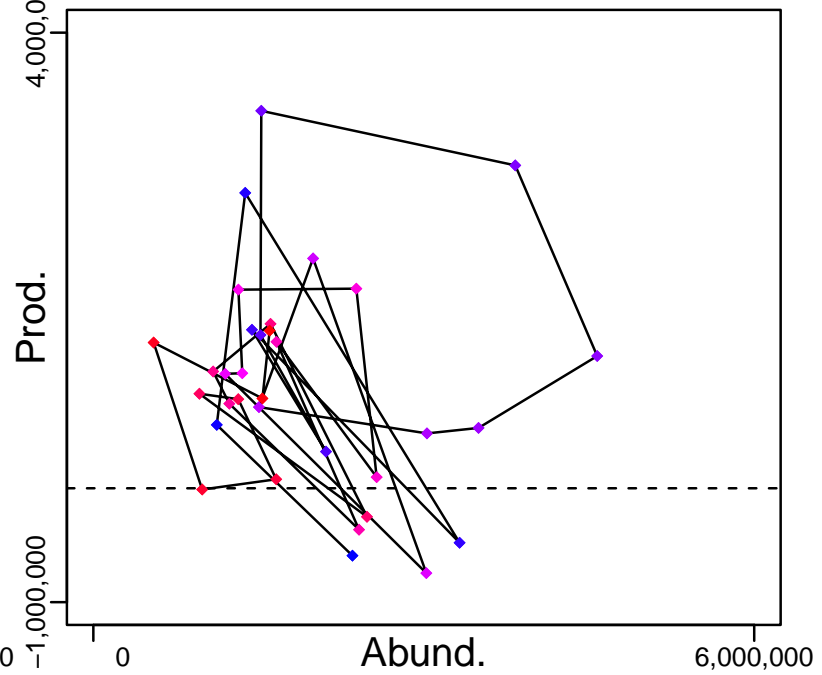
Kobe MGT_{pref} (1986–2019–Quiroz)



Spawner Recruit (1986–2019–Quiroz)



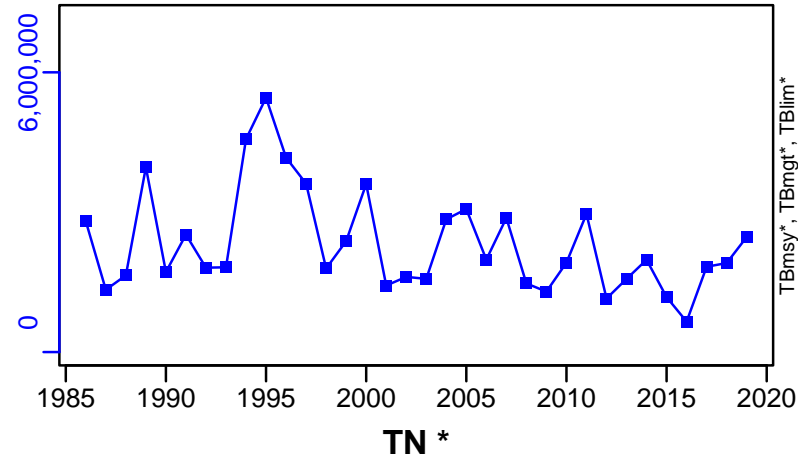
Production (1986–2019–Quiroz)



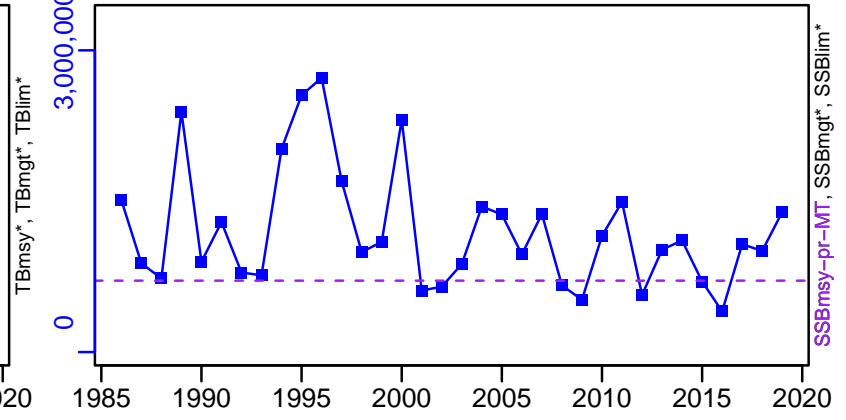
◆ Start Year ◆ End Year * No Data

Peruvian anchoveta Northern Chile Southern Peru [PANCHNCHSP]

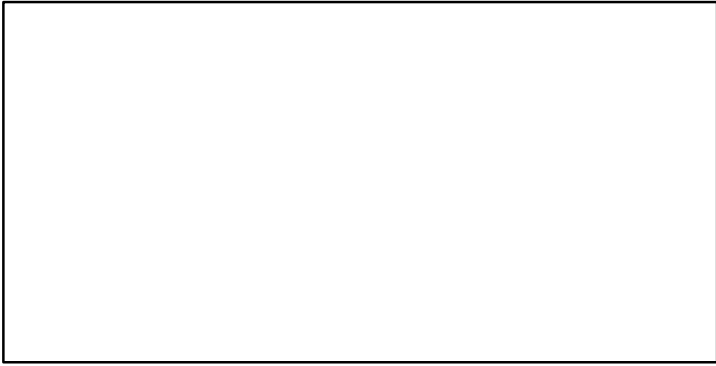
TB-MT (1986–2019–Quiroz)



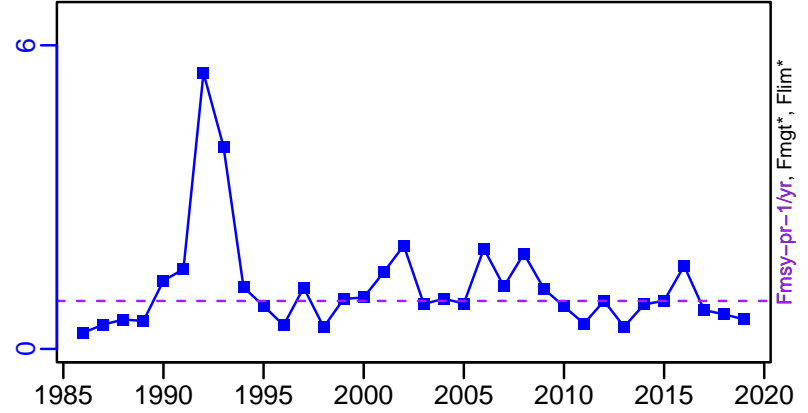
SSB-MT (1986–2019–Quiroz)



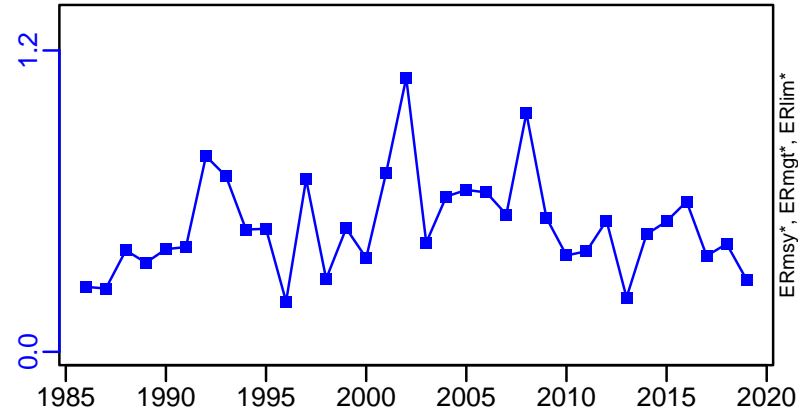
TN *



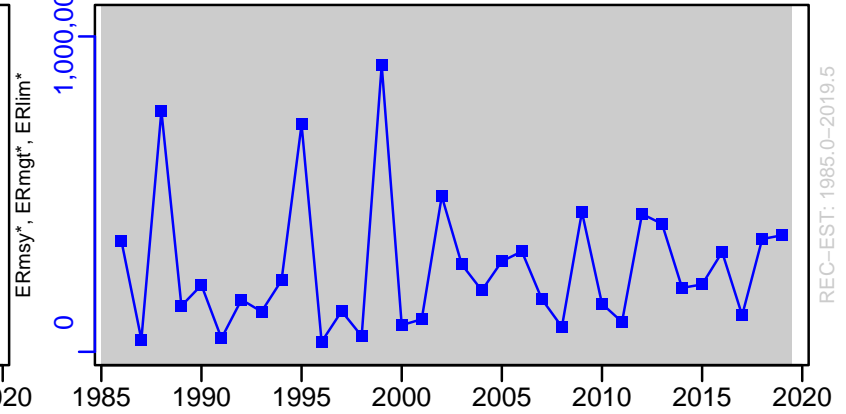
F-1/yr (1986–2019–Quiroz)



ER-ratio (1986–2019–Quiroz)

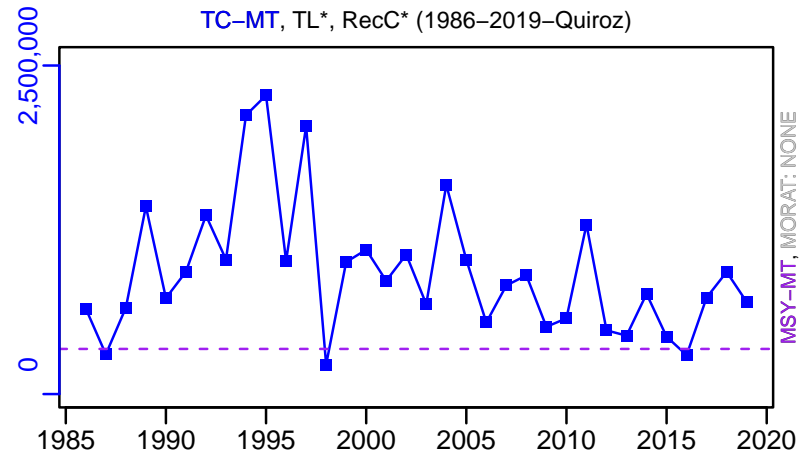


R-E00 (1986–2019–Quiroz)

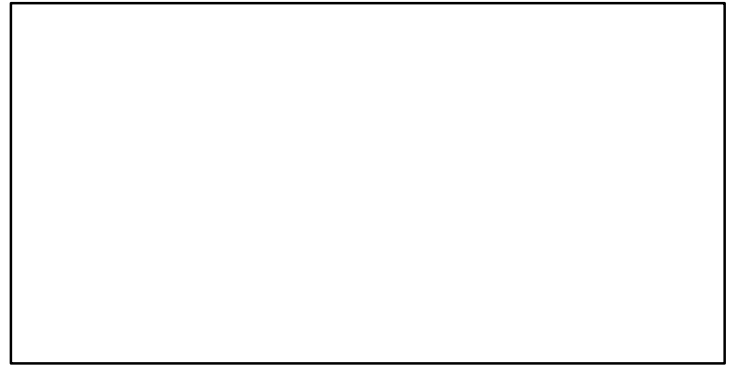


Peruvian anchoveta Northern Chile Southern Peru [PANCHNCHSP]

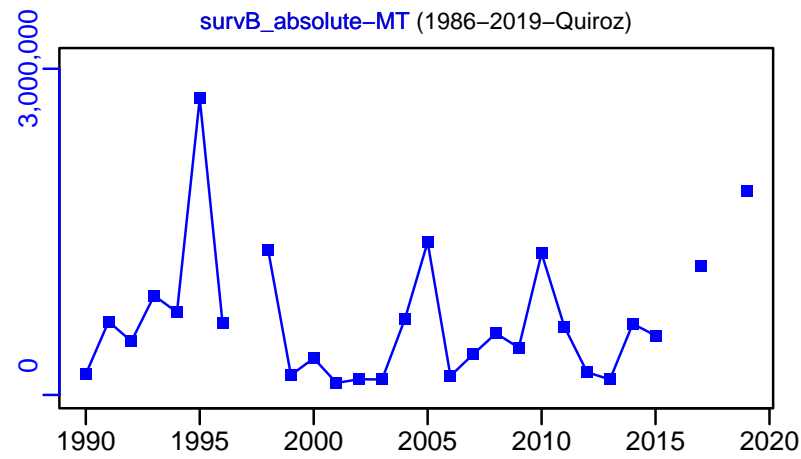
TC-MT, TL*, RecC* (1986–2019–Quiroz)



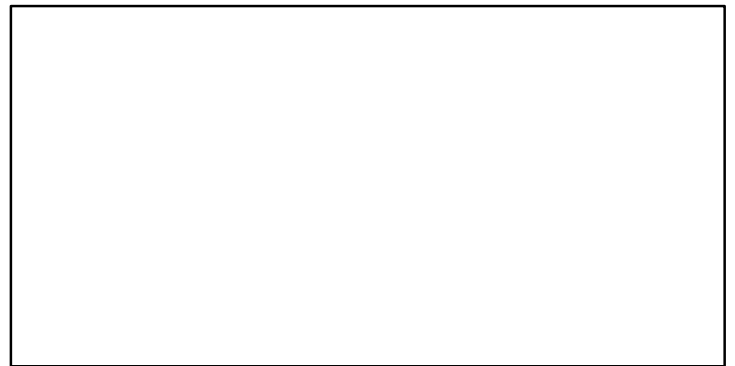
TAC*, Cpair*, Cadv*



survB_absolute-MT (1986–2019–Quiroz)



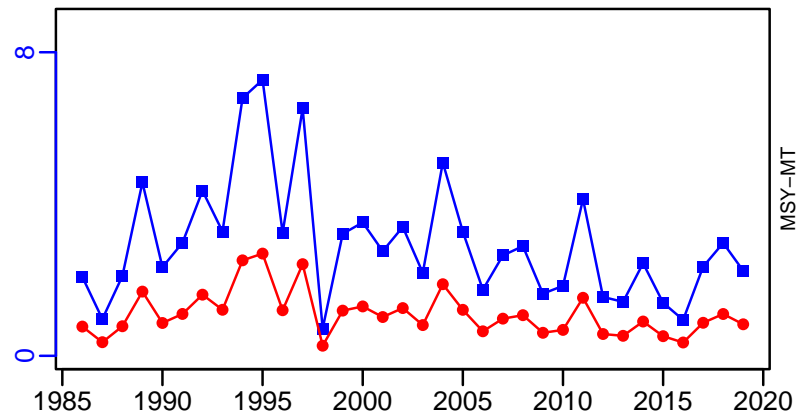
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1986–2019–Quiroz)



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

Peruvian anchoveta North-Central Peruvian coast [PANCHPERUNC]

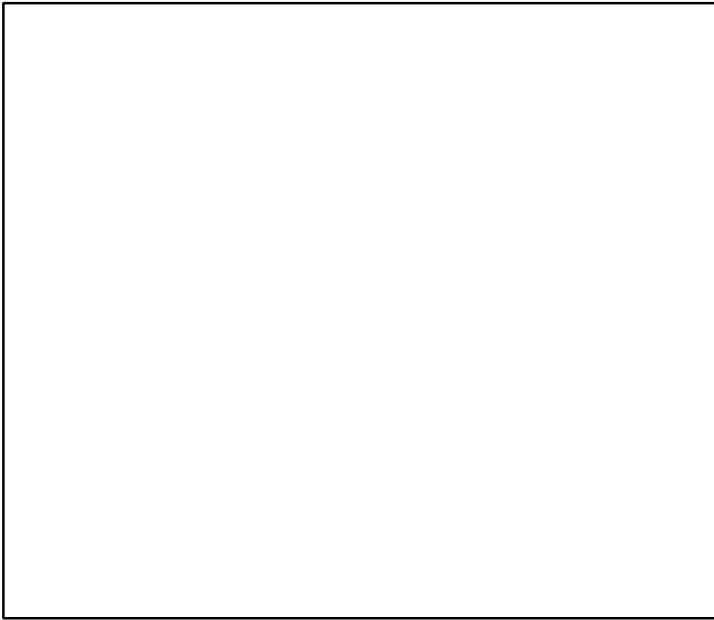
| Metadata | |
|-----------------------------|--|
| Scientific Name | Engraulis ringens |
| Current Assess ID | IMARPE-PANCHPERUNC-1953-2020-DIAZ |
| Area | North-Central Peruvian coast |
| Management Authority | Instituto del Mar del Peru, Peru national management |
| Assessor | Instituto del Mar del Peru |
| Asmts in RAM | 2020, 2008, 2016 |

| Reference Points | | | |
|------------------|-------------|-----------|-----------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-pr-MT | 2016 | 6,660,000 |
| SSBmsy | - | - | - |
| Fmsy | - | - | - |
| ERmsy | - | - | - |
| TBmgt | TBmgt-MT | 2016 | 6,660,000 |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | - | - | - |
| M | - | - | - |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

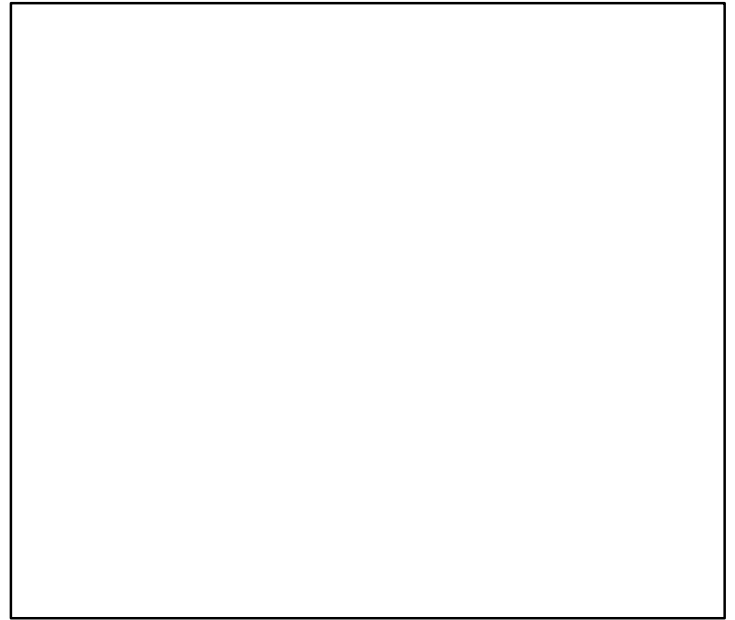
| Time Series | | | | | |
|-------------------|-------------------|-----------|--------------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2016 | 10,200,000 | Both | - |
| SSB | SSB-MT | 2008 | 6,590,000 | Both | - |
| TN | - | - | - | - | - |
| R | R-E00 | 2016 | 1.81×10^8 | Both | - |
| F | F-1/yr | 2008 | 0.588 | - | - |
| ER | ER-calc-ratio | 2016 | 0.325 | - | - |
| TC | - | - | - | | |
| TL | TL-MT | 2020 | 3,151,481 | | |
| TB/TBmsy | TB-MT/TBmsy-pr-MT | 2016 | 1.532 | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | TB-MT/TBmgt-MT | 2016 | 1.532 | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Peruvian anchoveta North-Central Peruvian coast [PANCHPERUNC]

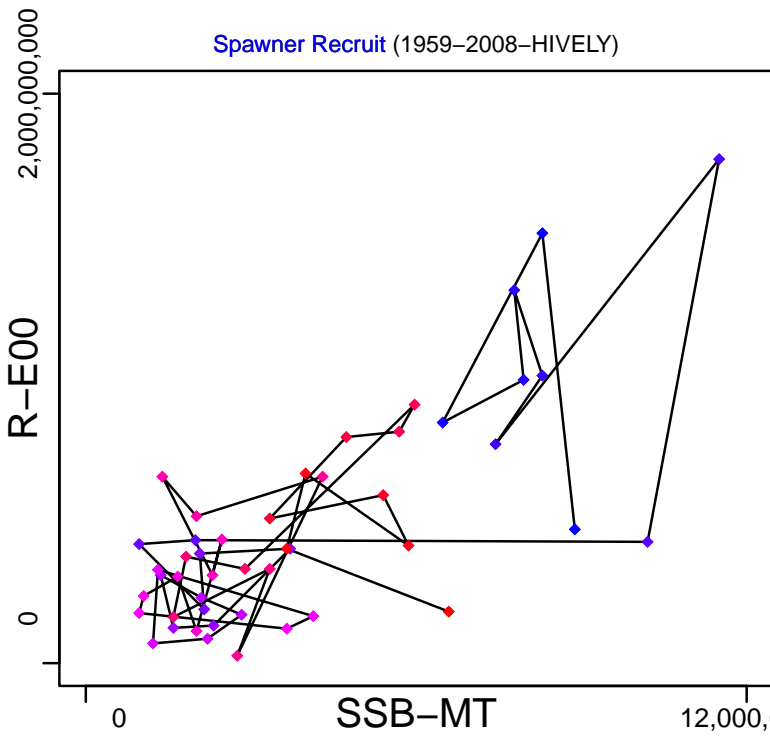
Kobe MSY*



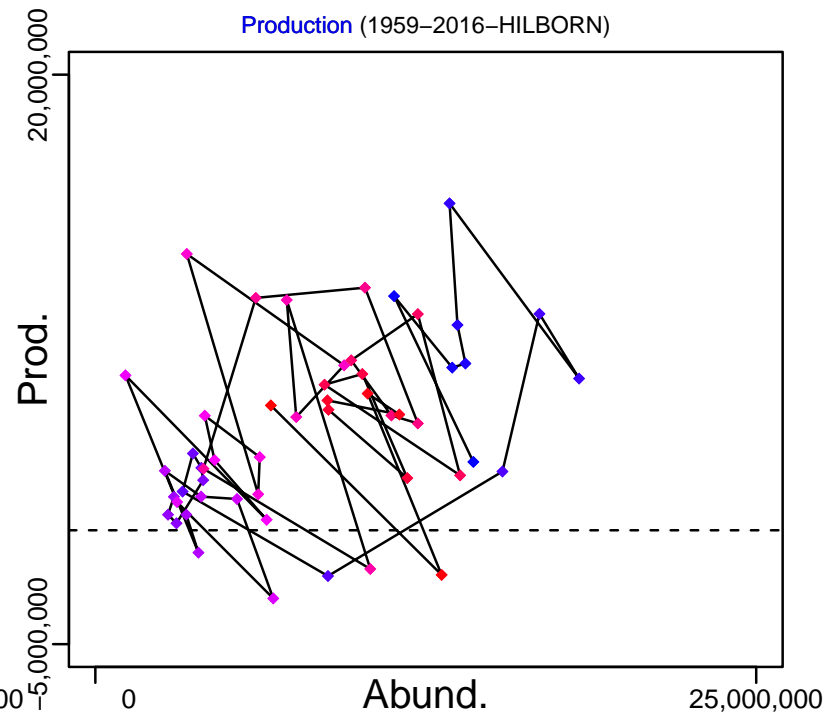
Kobe MGT*



Spawner Recruit (1959–2008–HIVELY)



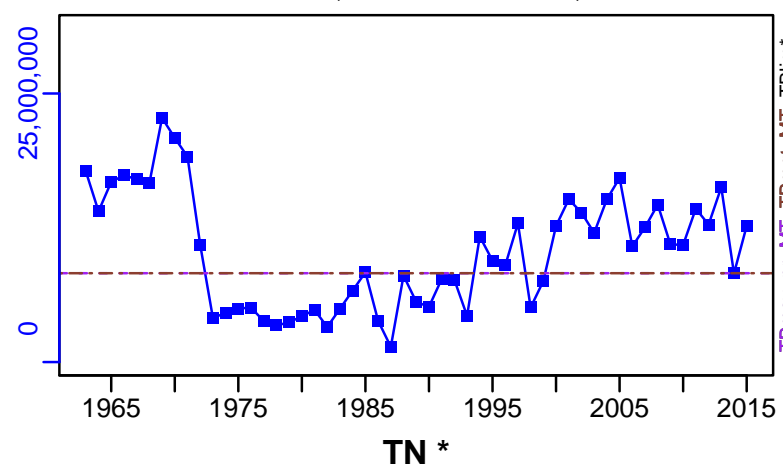
Production (1959–2016–HILBORN)



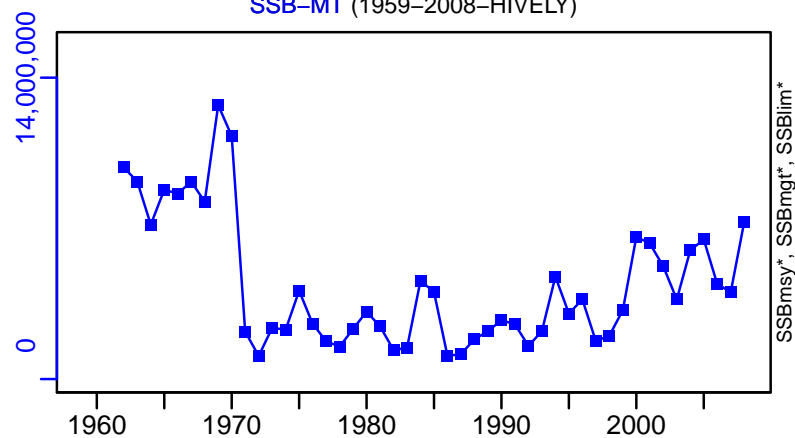
◆ Start Year ◆ End Year * No Data

Peruvian anchoveta North-Central Peruvian coast [PANCHPERUNC]

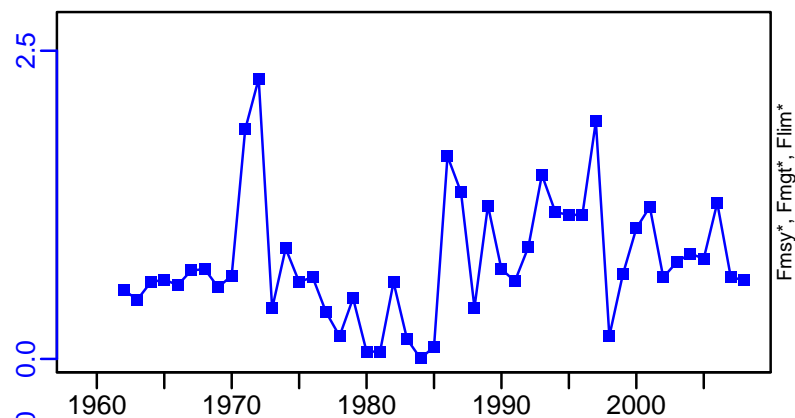
TB-MT (1959-2016-HILBORN)



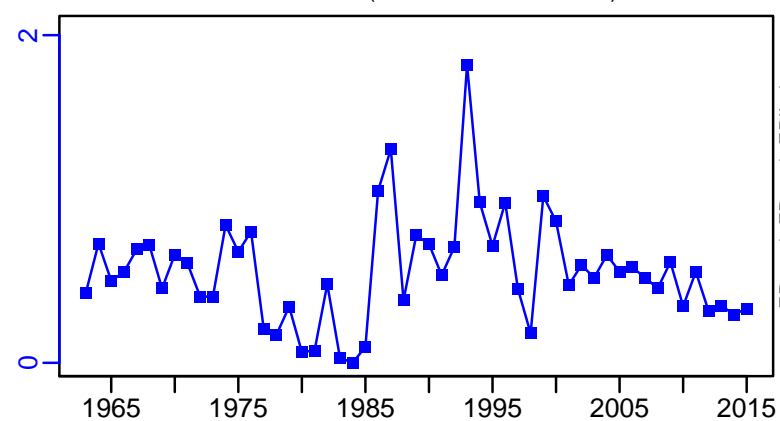
SSB-MT (1959-2008-HIVELY)



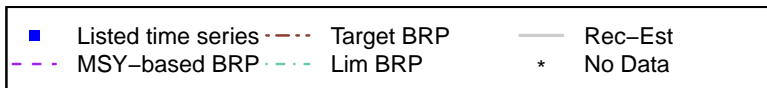
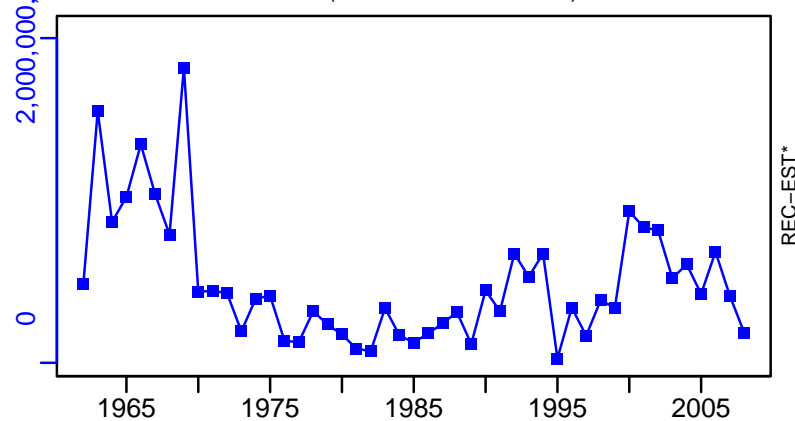
F-1/yr (1959-2008-HIVELY)



ER-calc-ratio (1959-2016-HILBORN)

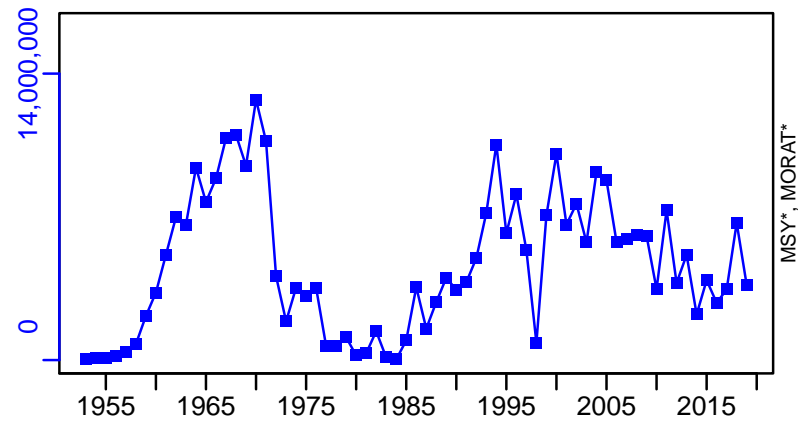


R-E00 (1959-2016-HILBORN)



Peruvian anchoveta North–Central Peruvian coast [PANCHPERUNC]

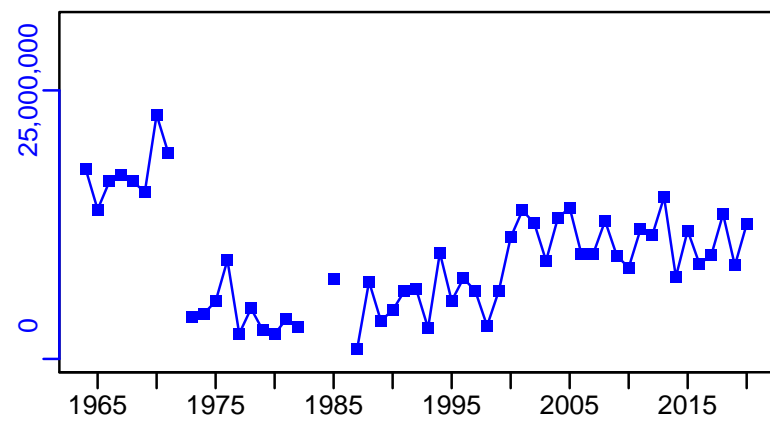
TL–MT, TC*, RecC* (1953–2020–DIAZ)



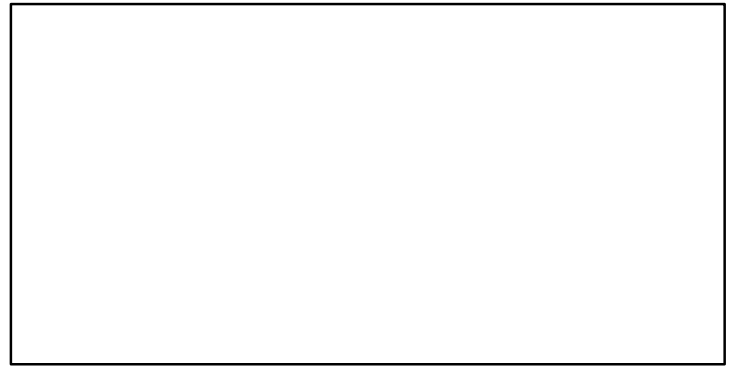
TAC*, Cpair*, Cadv*



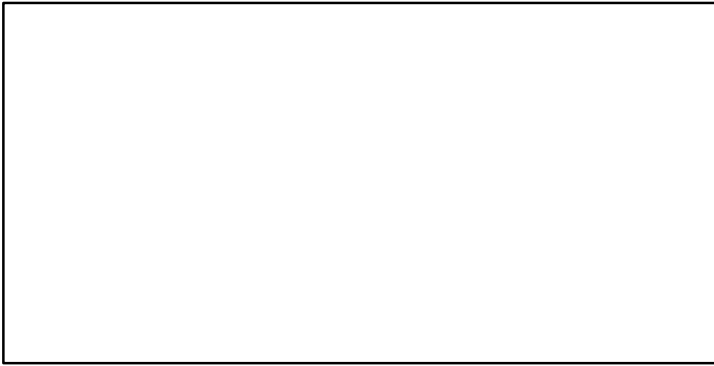
survB_absolute–MT (1953–2020–DIAZ)



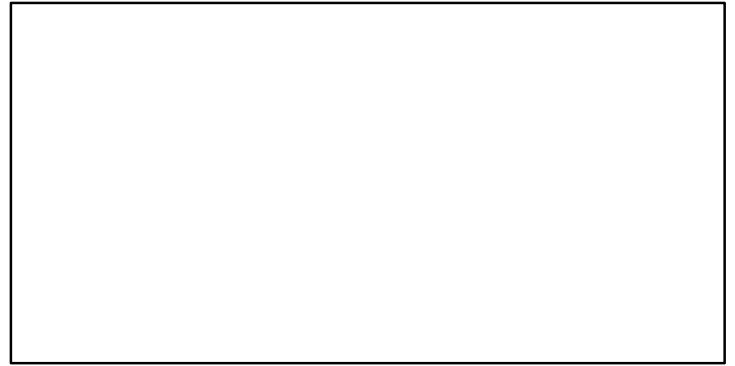
CPUE*



EFFORT*



CdivMSY*



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

Patagonian cod Southern Argentina [PATCODARGS]

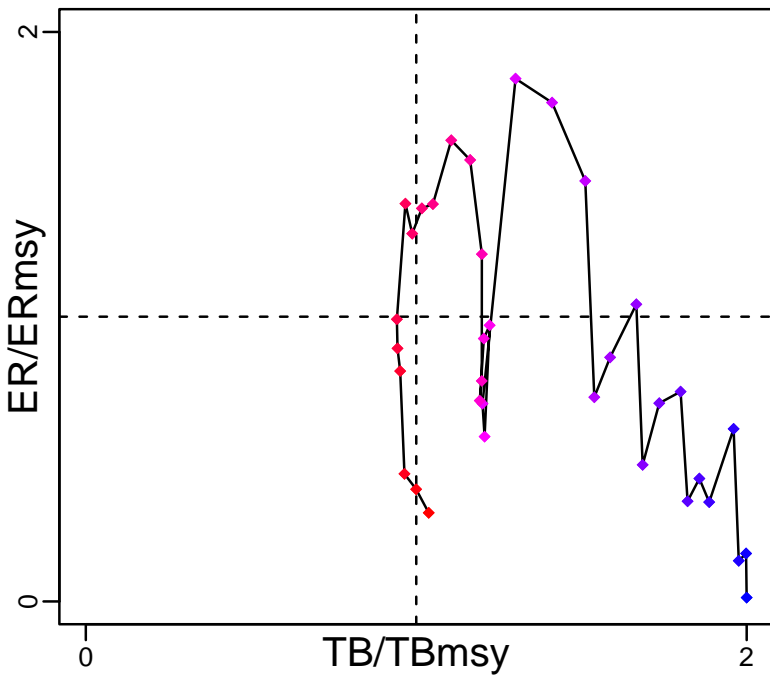
| Metadata | |
|-----------------------------|---|
| Scientific Name | Salilota australis |
| Current Assess ID | INIDEP-PATCODARGS-1984-2020-Parma |
| Area | Southern Argentina |
| Management Authority | Consejo Federal Pesquero, Argentina national management |
| Assessor | Instituto Nacional de Investigacion y Desarrollo Pesquero |
| Asmts in RAM | 2020 |

| Reference Points | | | |
|------------------|-------------|-----------|---------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-MT | 2020 | 100,734 |
| SSBmsy | - | - | - |
| Fmsy | - | - | - |
| ERmsy | ERmsy-ratio | 2020 | 0.066 |
| TBmgt | TBmgt-MT | 2020 | 90,660 |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | TB0-MT | 2020 | 201,468 |
| SSB0 | - | - | - |
| MSY | MSY-MT | 2020 | 6478 |
| M | - | - | - |
| TBlim | TBlim-MT | 2020 | 60,440 |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

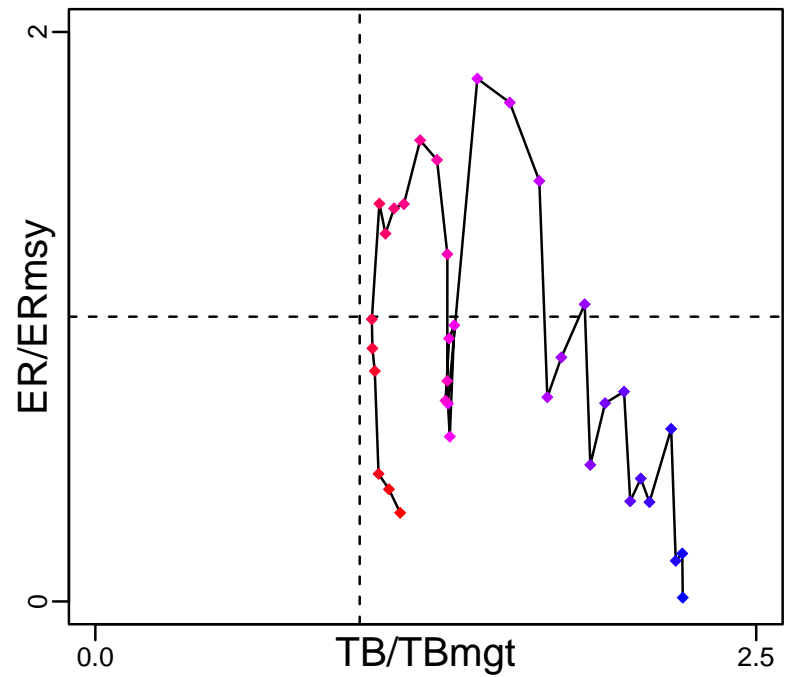
| Time Series | | | | | |
|-------------------|----------------------|-----------|------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2020 | 108,844 | - | 1+ |
| SSB | - | - | - | - | - |
| TN | - | - | - | - | - |
| R | - | - | - | - | - |
| F | - | - | - | - | - |
| ER | ER-ratio | 2020 | 0.021 | Both | - |
| TC | TC-MT | 2020 | 2164 | | |
| TL | TL-MT | 2020 | 2164 | | |
| TB/TBmsy | TB-MT/TBmsy-MT | 2020 | 1.081 | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ER-ratio/ERmsy-ratio | 2020 | 0.311 | | |
| TB/TBmgt | TB-MT/TBmgt-MT | 2020 | 1.201 | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Patagonian cod Southern Argentina [PATCODARGS]

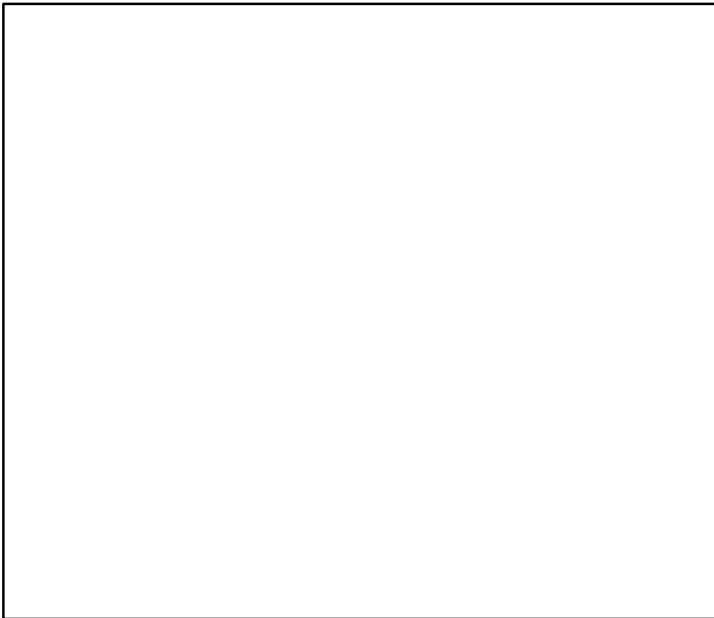
Kobe MSYpref (1984–2020–Parma)



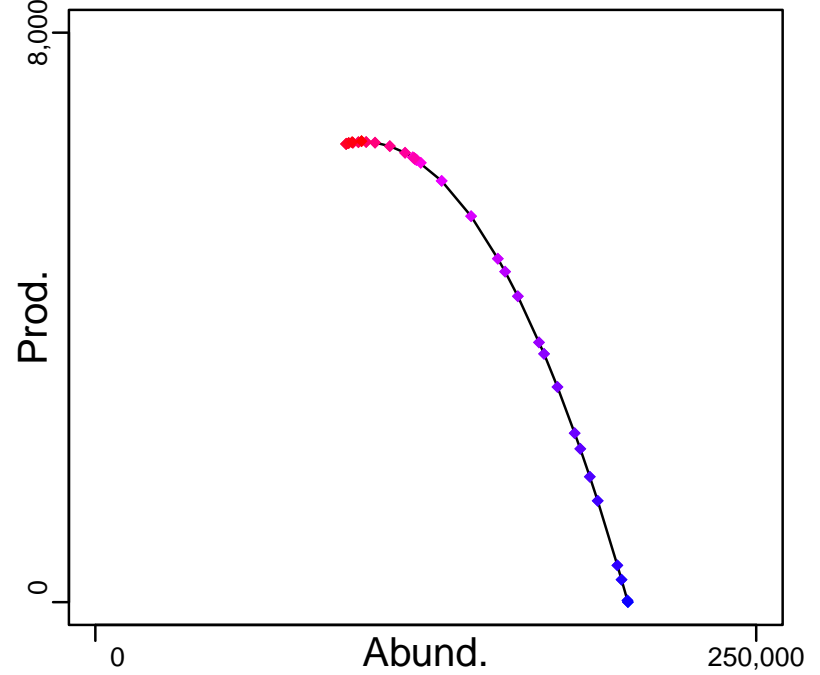
Kobe MGTpref (1984–2020–Parma)



Spawner Recruit*



Production (1984–2020–Parma)

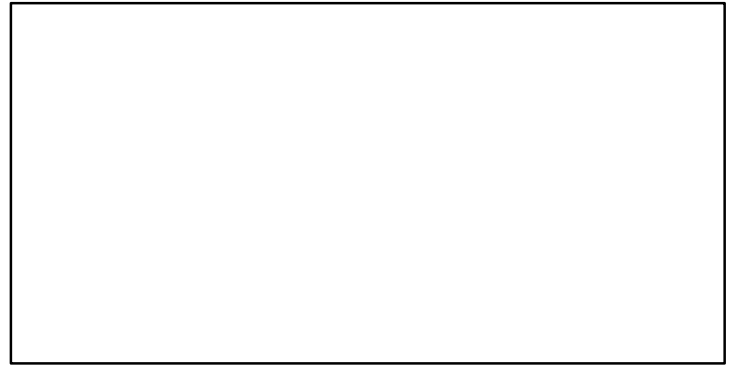
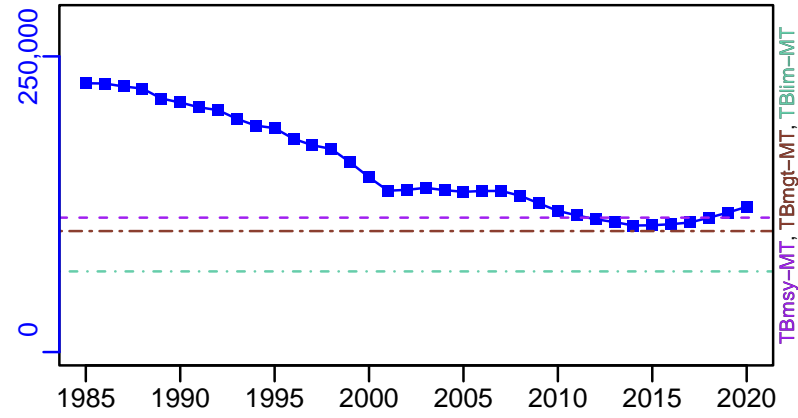


◆ Start Year ◆ End Year * No Data

Patagonian cod Southern Argentina [PATCODARGS]

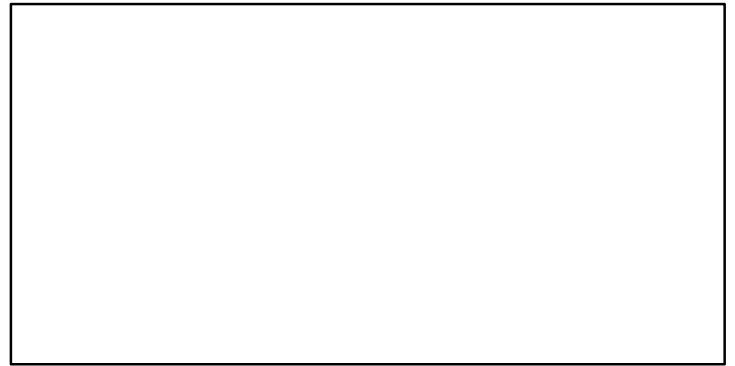
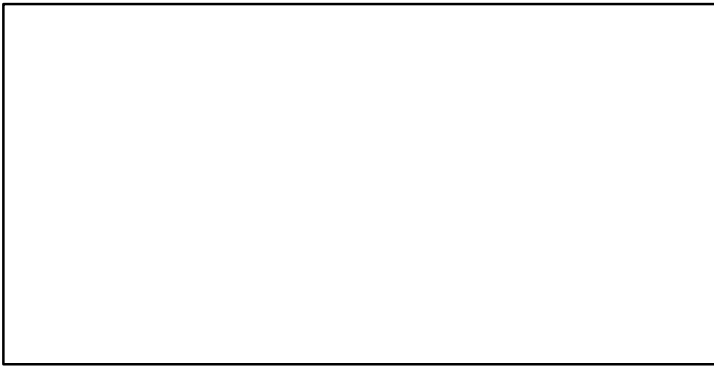
TB-MT (1984–2020–Parma)

SSB*



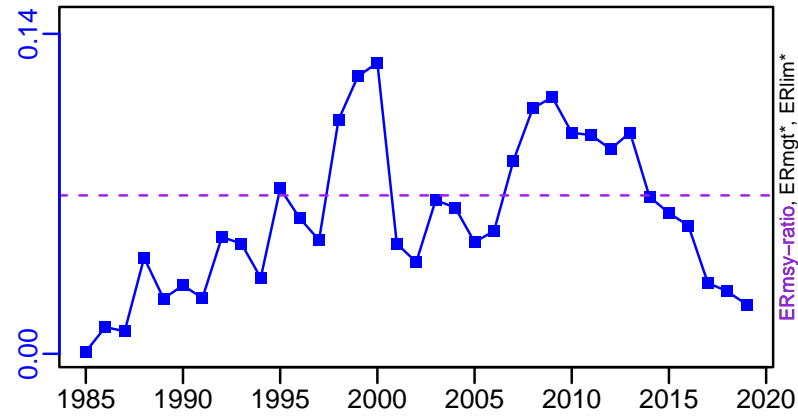
TN *

F*



ER-ratio (1984–2020–Parma)

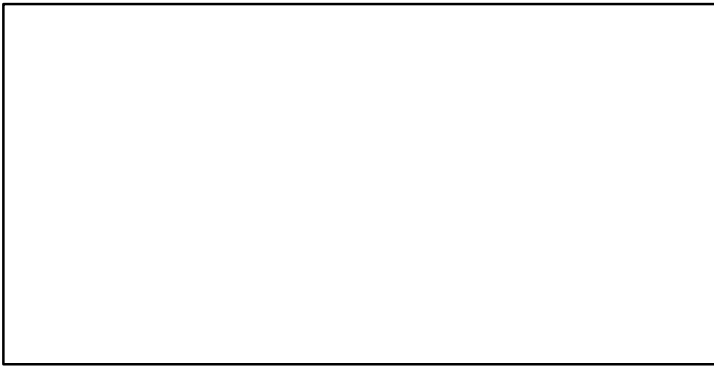
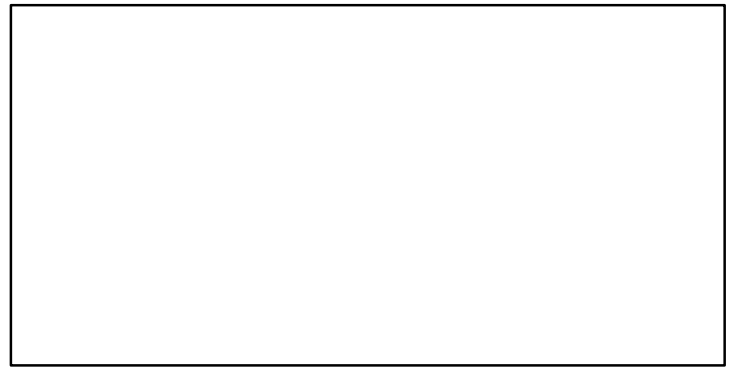
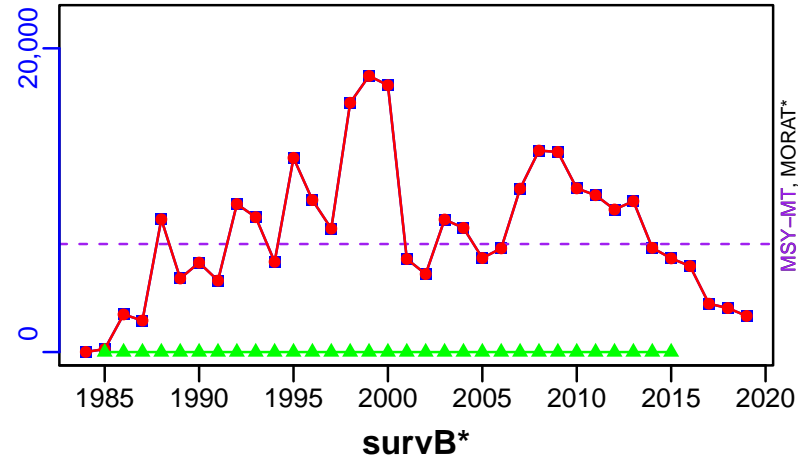
Recruits*



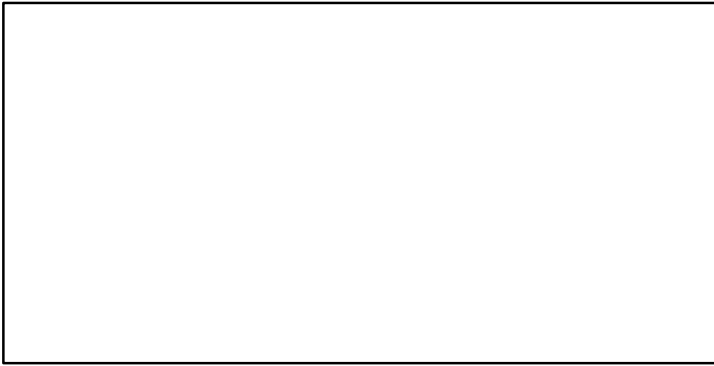
Patagonian cod Southern Argentina [PATCODARGS]

TC-MT, TL-MT, RecC-MT (1984–2020–Parma)

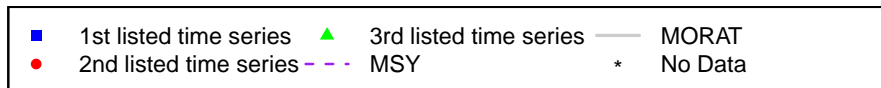
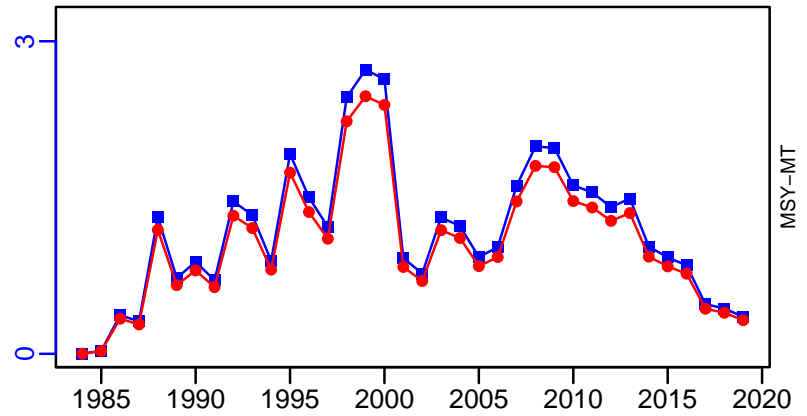
TAC*, Cpair*, Cadv*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1984–2020–Parma)



Patagonian grenadier Central-Southern Chile [PATGRENADIERCH]

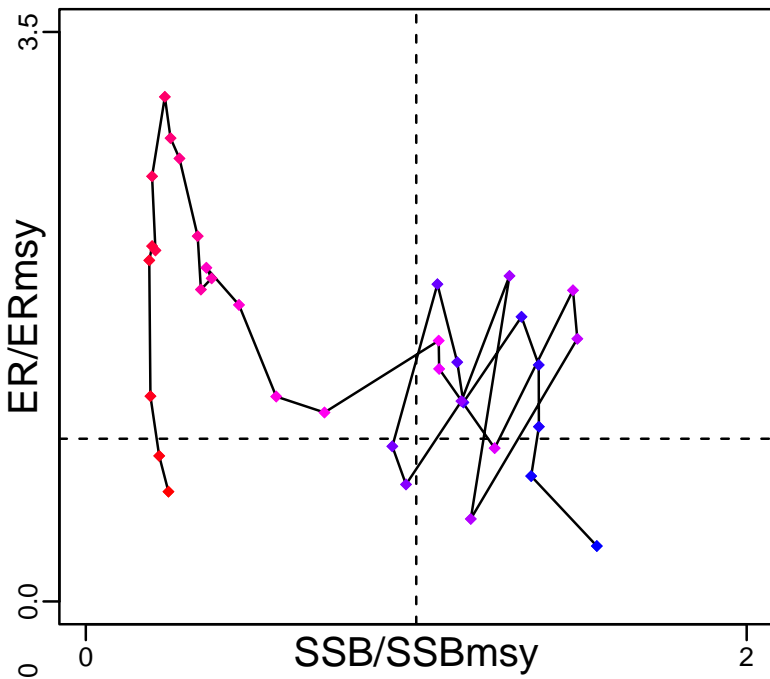
| Metadata | |
|-----------------------------|---|
| Scientific Name | Macruronus magellanicus |
| Current Assess ID | IFOPCH-PATGRENADIERCH-1985-2020-Quiroz |
| Area | Central-Southern Chile |
| Management Authority | Subsecretaria de Pesca |
| Assessor | Instituto de Fomento Pesquero - Chilean Fisheries Development Institute |
| Asmts in RAM | 2012, 2015, 2020 |

| Reference Points | | | |
|------------------|------------------|-----------|---------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | SSBmsy-pr-MT | 2020 | 489,984 |
| Fmsy | - | - | - |
| ERmsy | ERmsy-extr-ratio | 2020 | 0.173 |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | - | - | - |
| M | M-1/yr | 2015 | 0.35 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

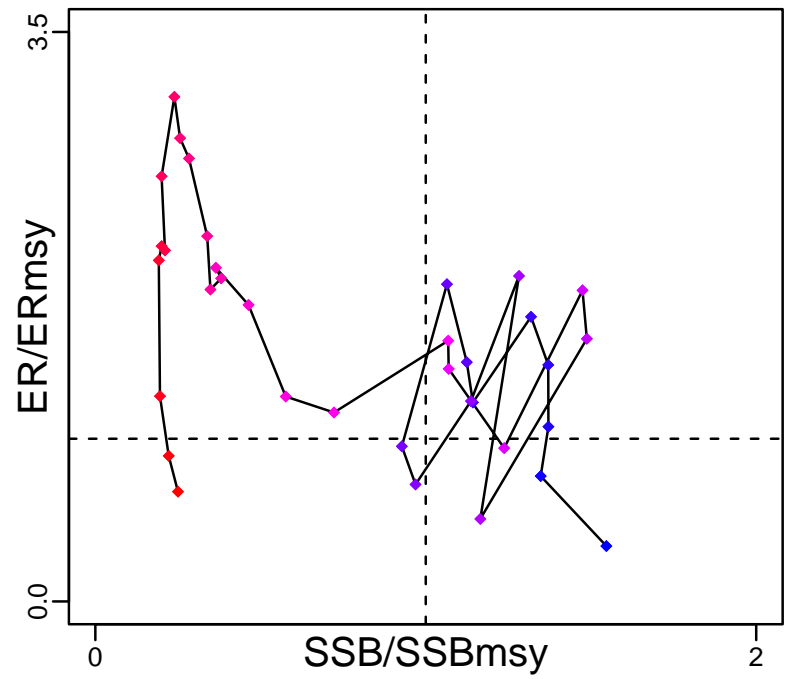
| Time Series | | | | | |
|-------------------|----------------------------|-----------|-------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2020 | 359,318 | - | - |
| SSB | SSB-MT | 2020 | 150,652 | - | - |
| TN | - | - | - | - | - |
| R | R-E00 | 2020 | 584,268,000 | - | - |
| F | - | - | - | - | - |
| ER | ER-ratio | 2020 | 0.06 | - | - |
| TC | TC-MT | 2020 | 17,902 | | |
| TL | TL-MT | 2020 | 17,902 | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | SSBdivSSBmsy-dimensionless | 2020 | 0.25 | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | ERdivERmsy-dimensionless | 2020 | 0.675 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Patagonian grenadier Central–Southern Chile [PATGRENADIERCH]

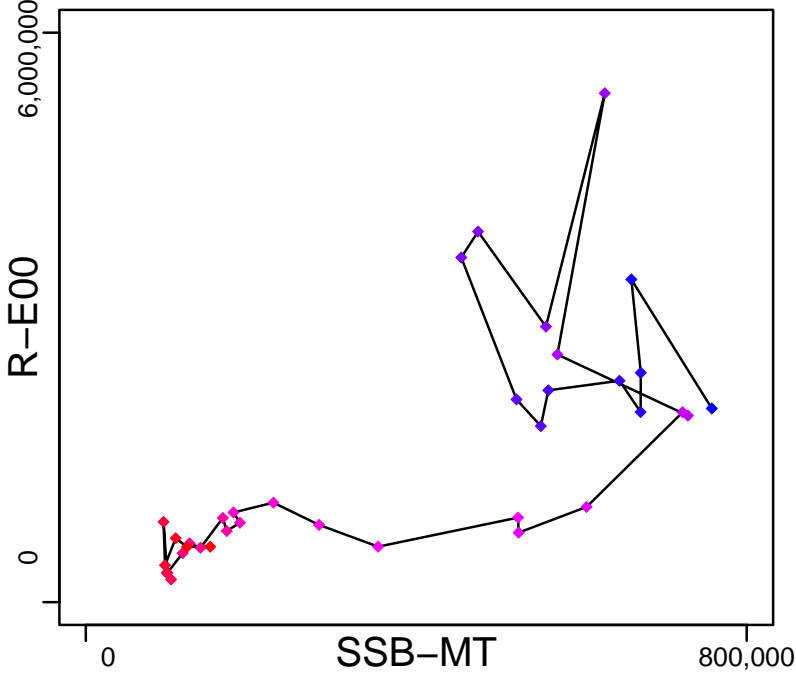
Kobe MSYpref (1985–2020–Quiroz)



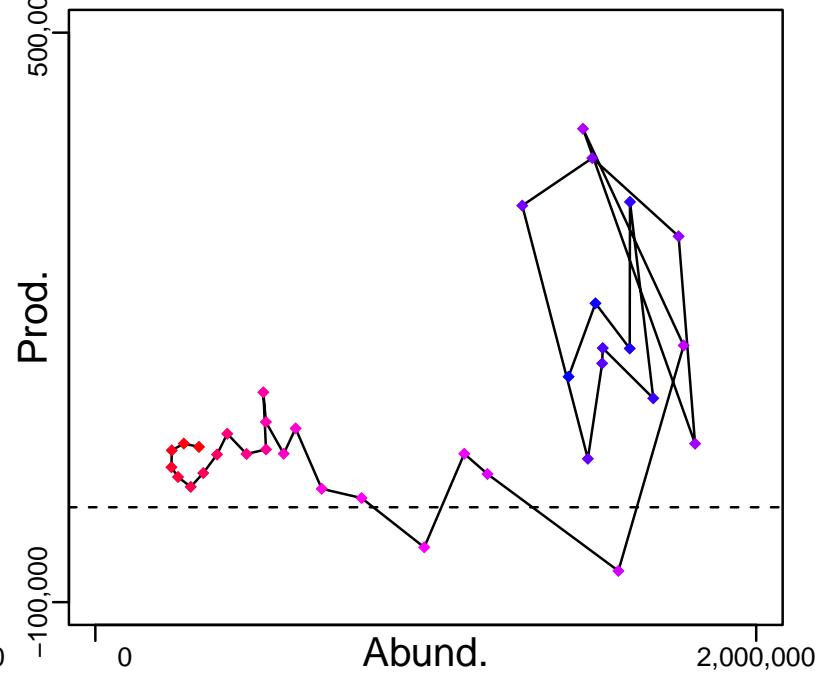
Kobe MGTpref (1985–2020–Quiroz)



Spawner Recruit (1985–2020–Quiroz)



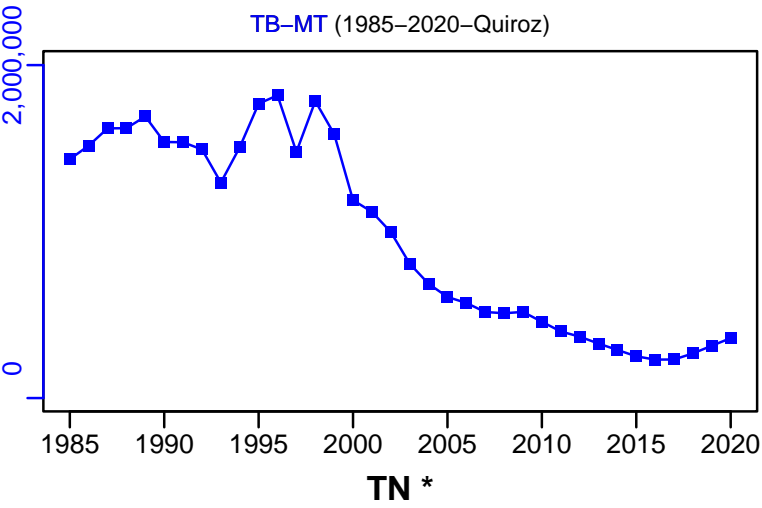
Production (1985–2020–Quiroz)



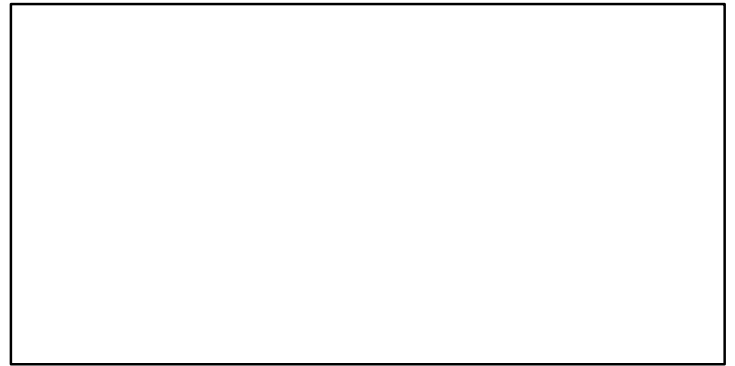
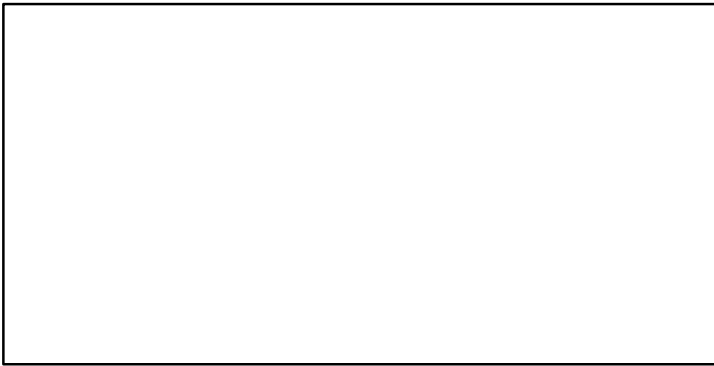
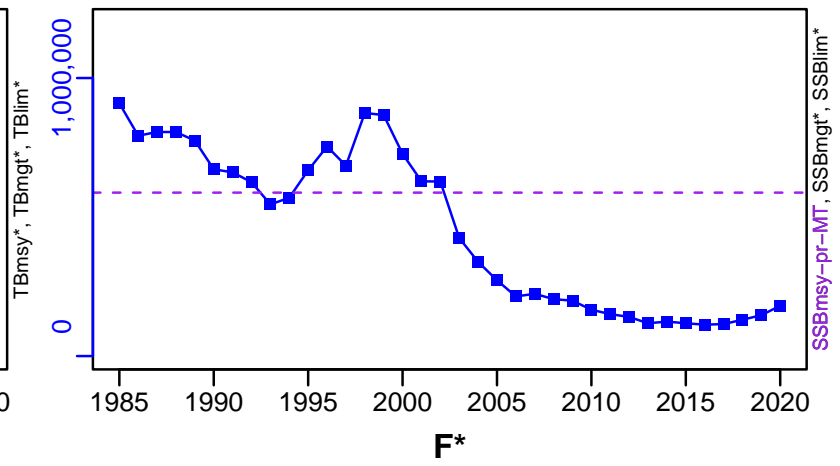
◆ Start Year ◆ End Year * No Data

Patagonian grenadier Central–Southern Chile [PATGRENIERCH]

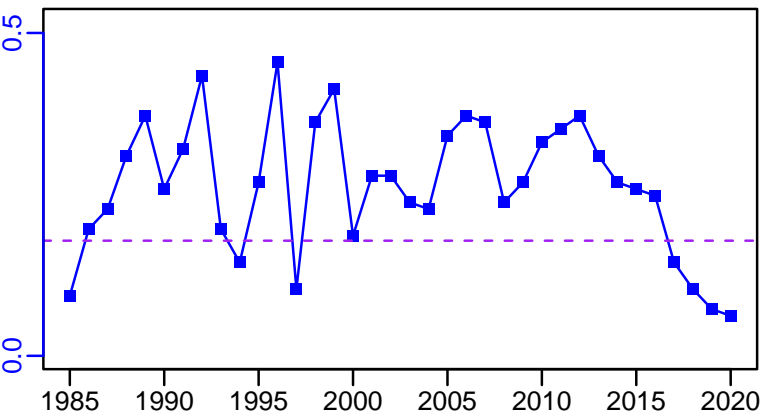
TB–MT (1985–2020–Quiroz)



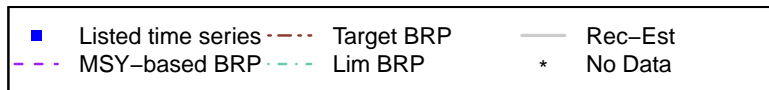
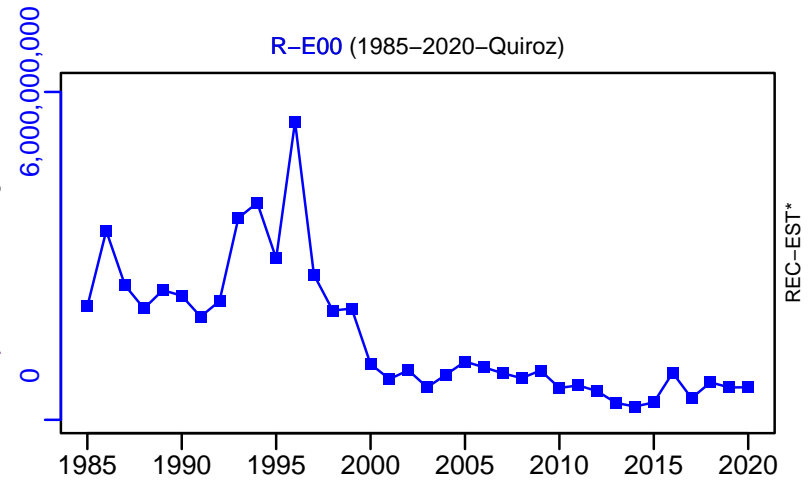
SSB–MT (1985–2020–Quiroz)



ER–ratio (1985–2020–Quiroz)

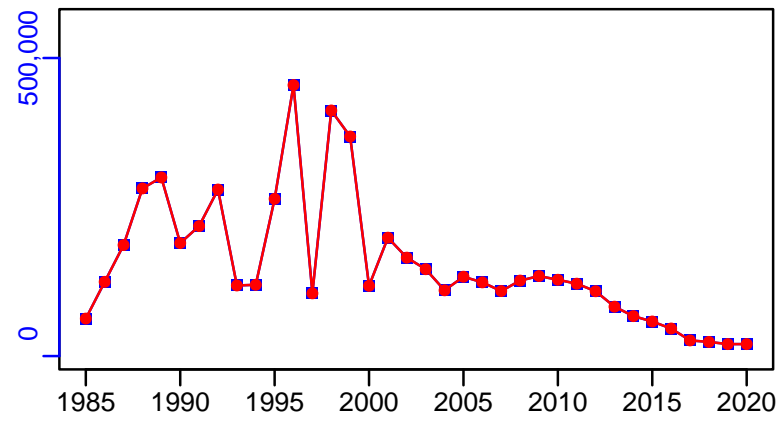


R–E00 (1985–2020–Quiroz)

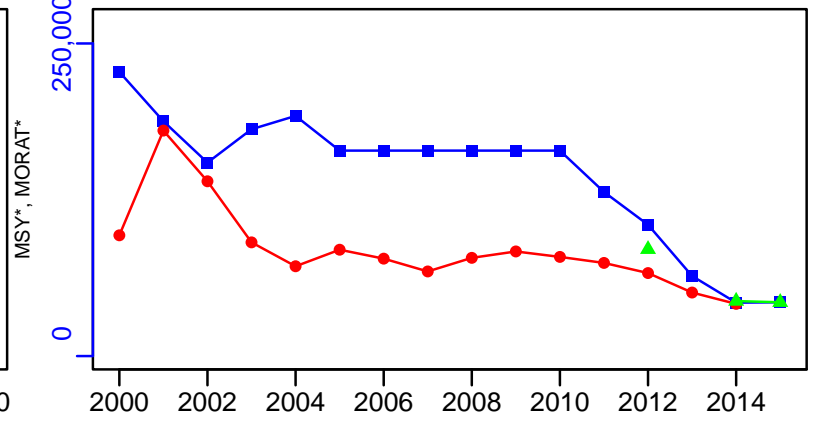


Patagonian grenadier Central–Southern Chile [PATGRENADIERCH]

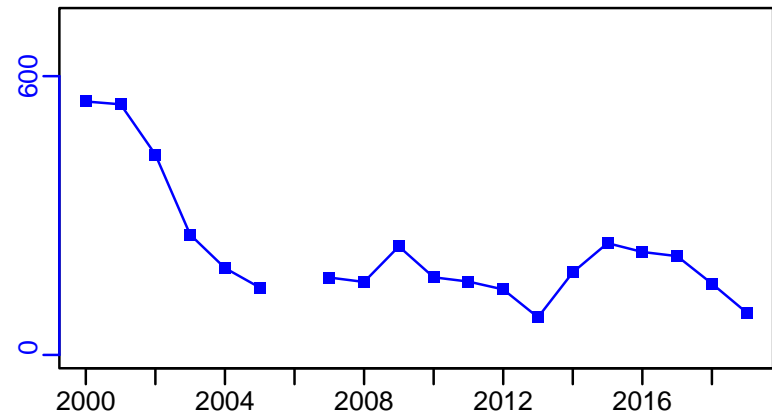
TC–MT, TL–MT, RecC* (1985–2020–Quiroz)



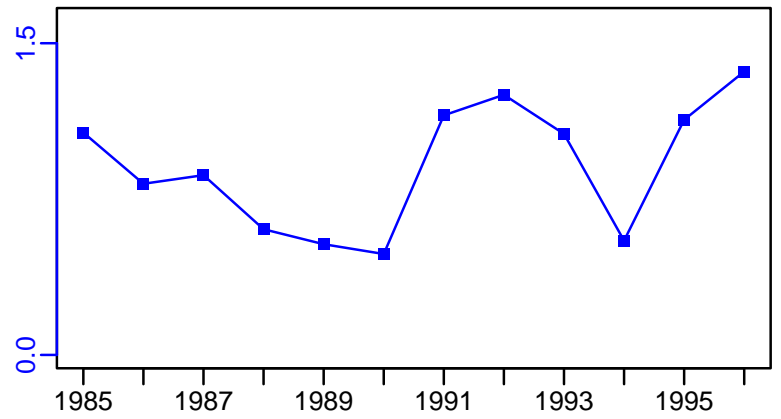
TAC–MT, Cpair–MT, Cadvised–MT (1985–2020–Quiroz)



survB_absolute–MT (1985–2020–Quiroz)



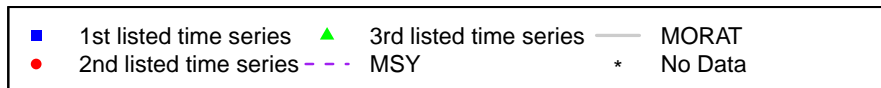
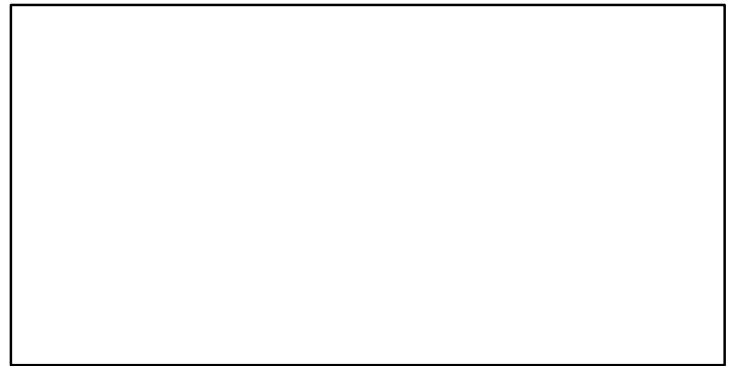
CPUE–1–index (1985–2020–Quiroz)



EFFORT*



CdivMSY*



Patagonian grenadier Southern Argentina [PATGRENADIERSARG]

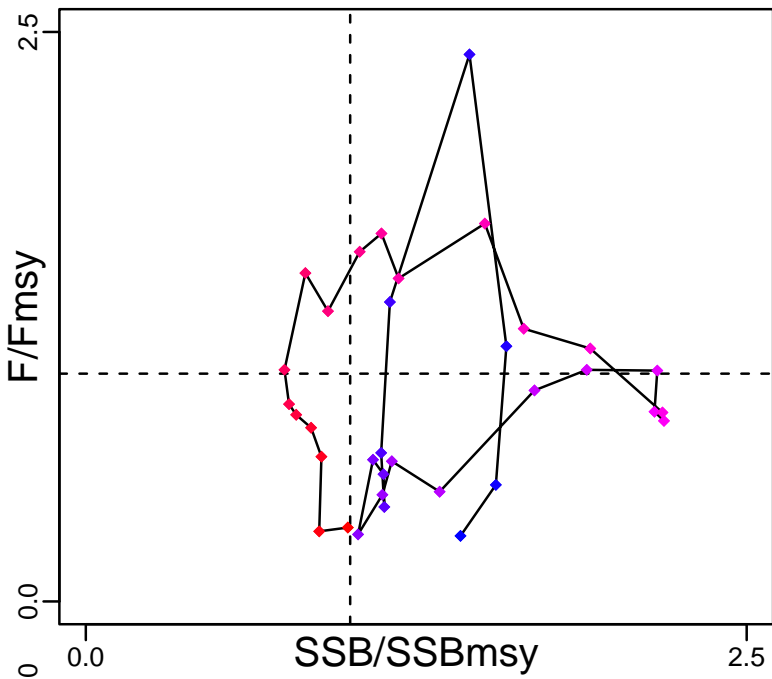
| Metadata | |
|-----------------------------|---|
| Scientific Name | Macruronus magellanicus |
| Current Assess ID | INIDEP-PATGRENADIERSARG-1983-2019-Parma |
| Area | Southern Argentina |
| Management Authority | Consejo Federal Pesquero, Argentina national management |
| Assessor | Instituto Nacional de Investigacion y Desarrollo Pesquero |
| Asmts in RAM | 2006, 2015, 2019 |

| Reference Points | | | |
|------------------|-------------|-----------|---------|
| Type | ID | Asmt Year | Value |
| TBmsy | TBmsy-MT | 2006 | 642,031 |
| SSBmsy | SSBmsy-MT | 2019 | 278,120 |
| Fmsy | Fmsy-1/yr | 2019 | 0.299 |
| ERmsy | ERmsy-ratio | 2006 | 0.206 |
| TBmgt | - | - | - |
| SSBmgt | SSBmgt-MT | 2019 | 198,474 |
| Fmgt | Fmgt-1/yr | 2019 | 0.215 |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | SSB0-MT | 2019 | 496,186 |
| MSY | MSY-MT | 2019 | 78,761 |
| M | M-1/yr | 2019 | 0.35 |
| TBlim | TBlim-MT | 2006 | 415,041 |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

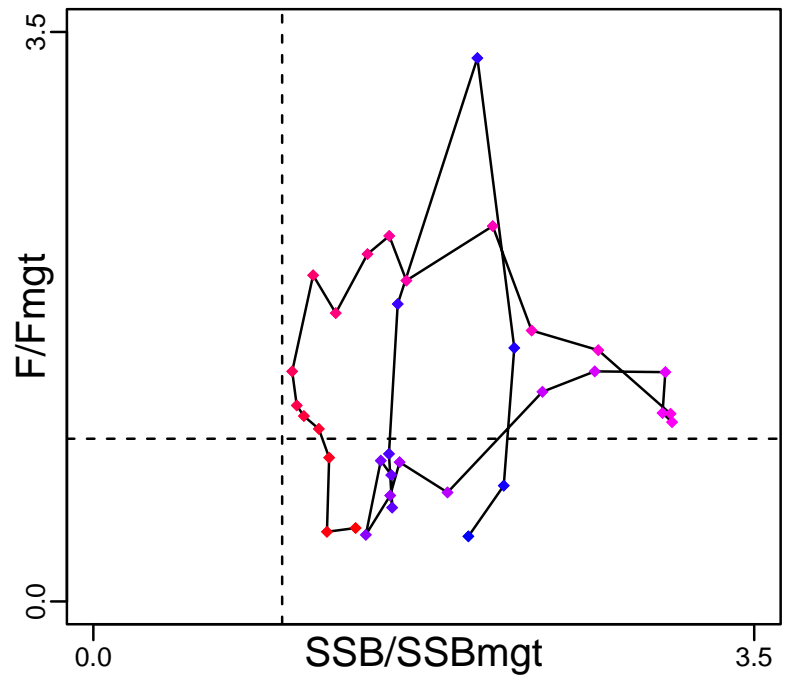
| Time Series | | | | | |
|-------------------|----------------------|-----------|-------------|-----|-------|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2019 | 686,905 | - | 1+ |
| SSB | SSB-MT | 2019 | 275,663 | - | 2+ |
| TN | - | - | - | - | - |
| R | R-E00 | 2019 | 239,478,000 | - | 1 |
| F | F-1/yr | 2019 | 0.097 | - | 3-11+ |
| ER | ER-calc-ratio | 2019 | 0.062 | - | - |
| TC | TC-MT | 2019 | 50,000 | | |
| TL | - | - | - | | |
| TB/TBmsy | TB-MT/TBmsy-MT | 2006 | 2.149 | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-MT | 2019 | 0.991 | | |
| F/Fmsy | F-1/yr/Fmsy-1/yr | 2019 | 0.324 | | |
| ER/ERmsy | ER-ratio/ERmsy-ratio | 2006 | 0.534 | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | SSB-MT/SSBmgt-MT | 2019 | 1.389 | | |
| F/Fmgt | F-1/yr/Fmgt-1/yr | 2019 | 0.451 | | |
| ER/ERmgt | - | - | - | | |

Patagonian grenadier Southern Argentina [PATGRENADIERSARG]

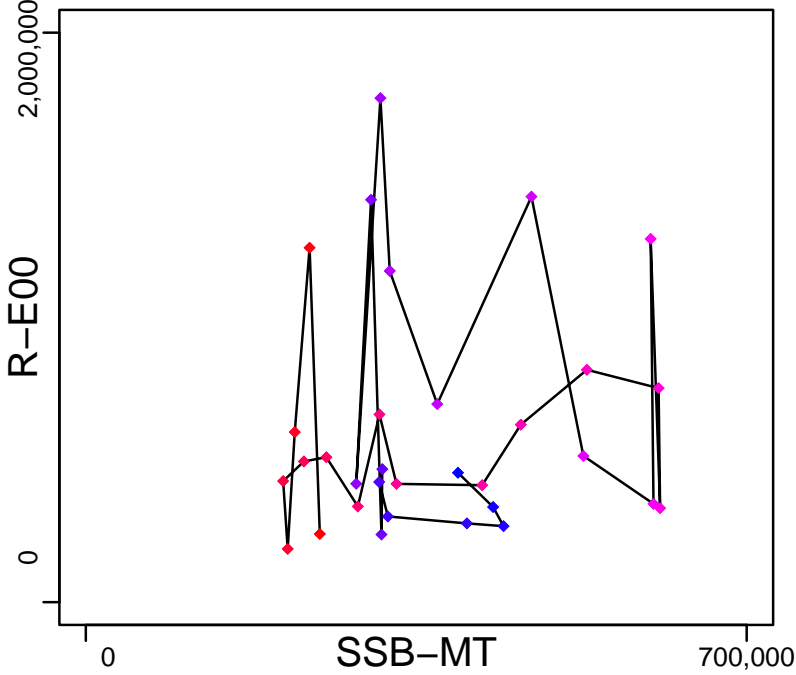
Kobe MSYpref (1983–2019–Parma)



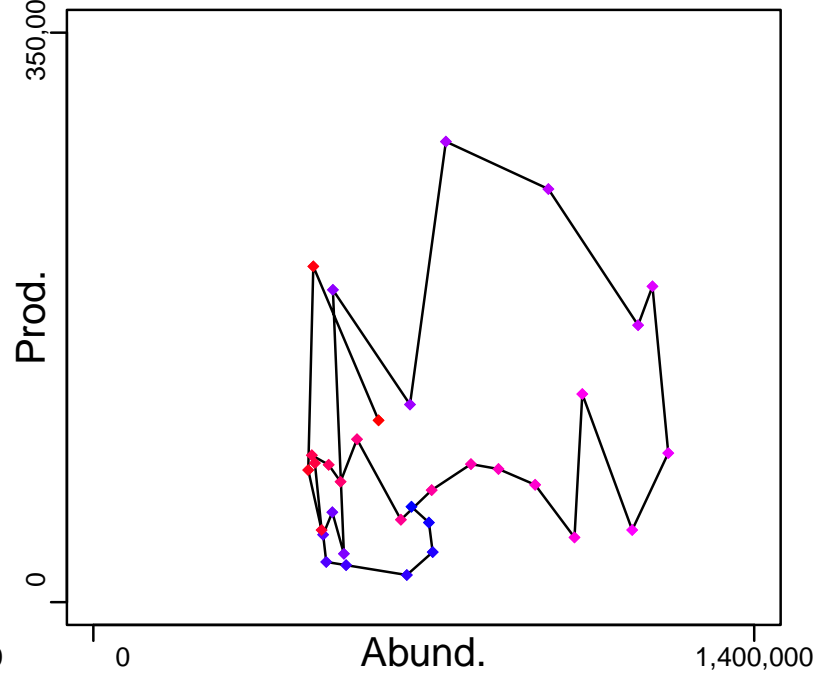
Kobe MGTpref (1983–2019–Parma)



Spawner Recruit (1983–2019–Parma)

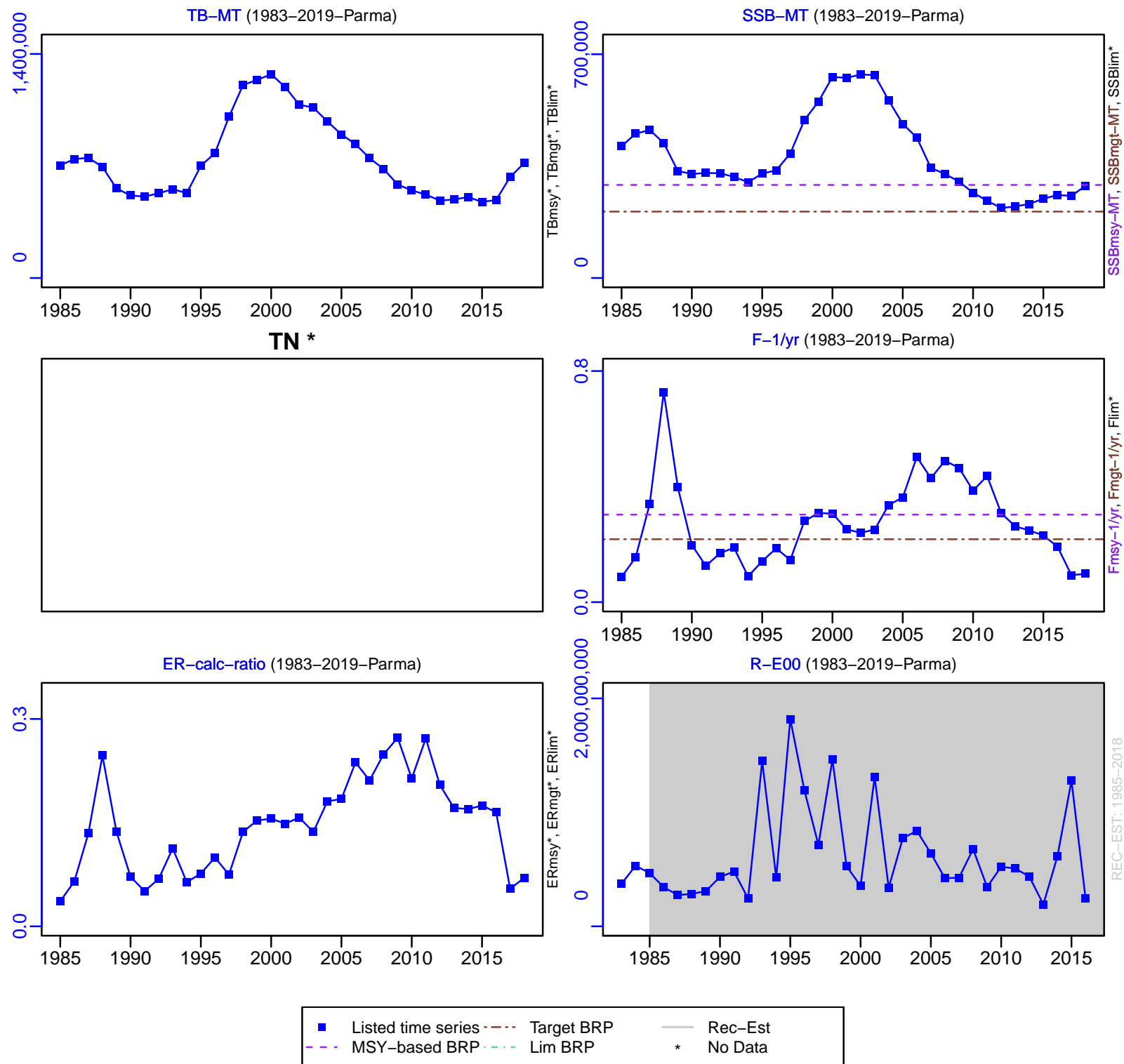


Production (1983–2019–Parma)



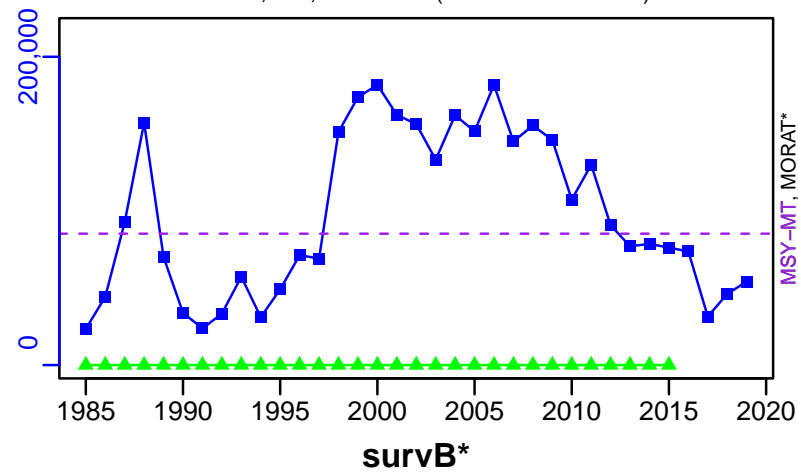
◆ Start Year ◆ End Year * No Data

Patagonian grenadier Southern Argentina [PATGRENADIERSARG]

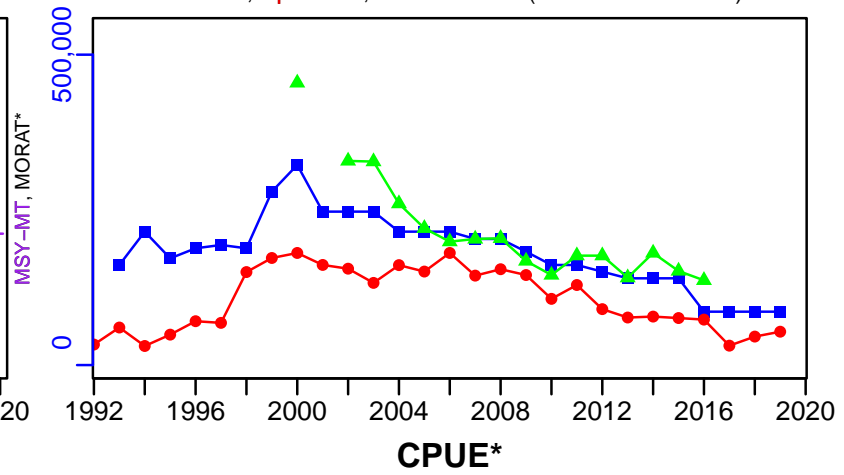


Patagonian grenadier Southern Argentina [PATGRENADIERSARG]

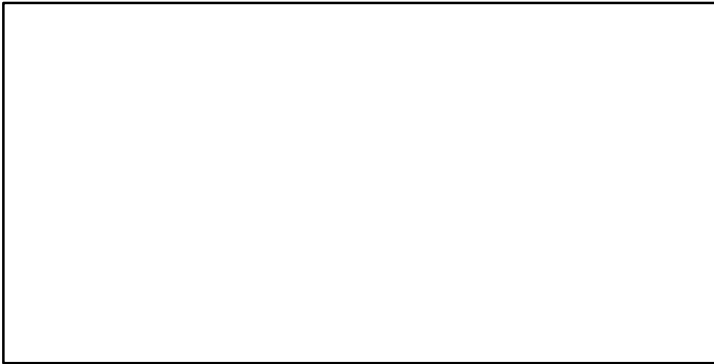
TC-MT, TL*, RecC-MT (1983-2019-Parma)



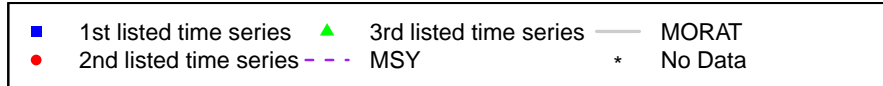
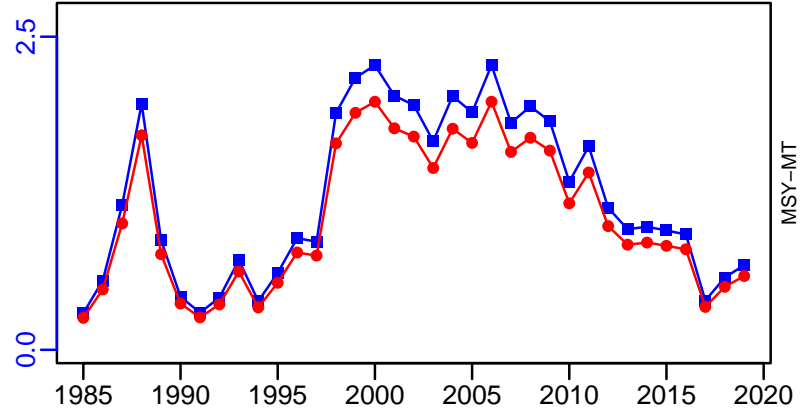
TAC-MT, Cpair-MT, Cadvised-MT (1983-2019-Parma)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1983-2019-Parma)



Pink cusk eel Southern Argentina [PCEELARGS]

| Metadata | |
|-----------------------------|---|
| Scientific Name | Genypterus blacodes |
| Current Assess ID | INIDEP-PCEELARGS-1979-2014-CORDO |
| Area | Southern Argentina |
| Management Authority | Consejo Federal Pesquero, Argentina national management |
| Assessor | Instituto Nacional de Investigacion y Desarrollo Pesquero |
| Asmts in RAM | 2014 |

| Reference Points | | | |
|------------------|-----------|-----------|---------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | - | - | - |
| Fmsy | - | - | - |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | SSBmgt-MT | 2014 | 110,823 |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | MSY-MT | 2014 | 11,700 |
| M | M-1/yr | 2014 | 0.2 |
| TBlim | - | - | - |
| SSBlim | SSBlim-MT | 2014 | 73,882 |
| Flim | - | - | - |
| ERlim | - | - | - |

| Time Series | | | | | |
|-------------|------------------|-----------|------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2014 | 91,600 | - | - |
| SSB | SSB-MT | 2014 | 48,000 | Both | - |
| TN | - | - | - | - | - |
| R | R-E00 | 2014 | 24,000 | Both | 1 |
| F | F-1/yr | 2014 | 0.139 | - | - |
| ER | ER-calc-ratio | 2014 | 0.117 | - | - |
| TC | TC-MT | 2014 | 9480 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | SSB-MT/SSBmgt-MT | 2014 | 0.433 | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Pink cusk eel Southern Argentina [PCEELARGS]

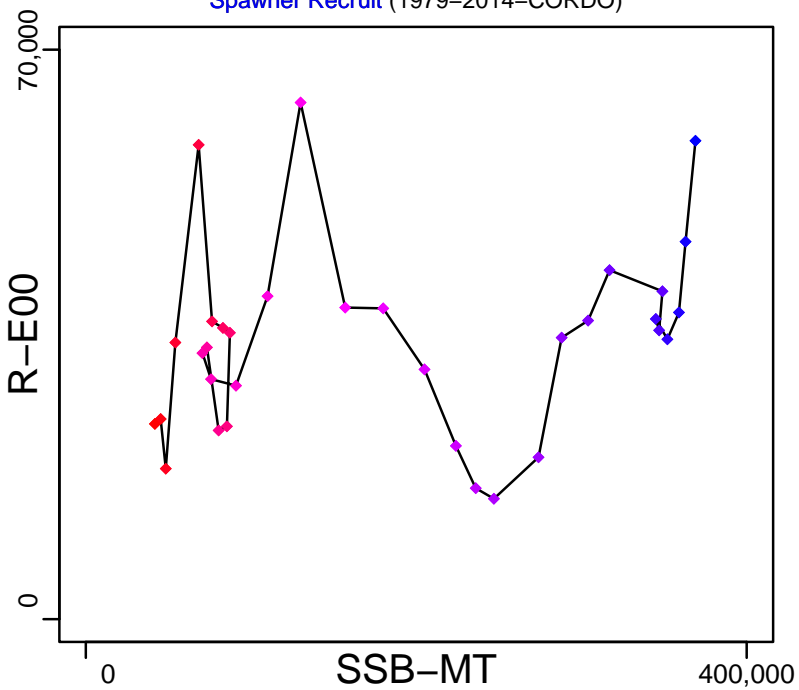
Kobe MSY*



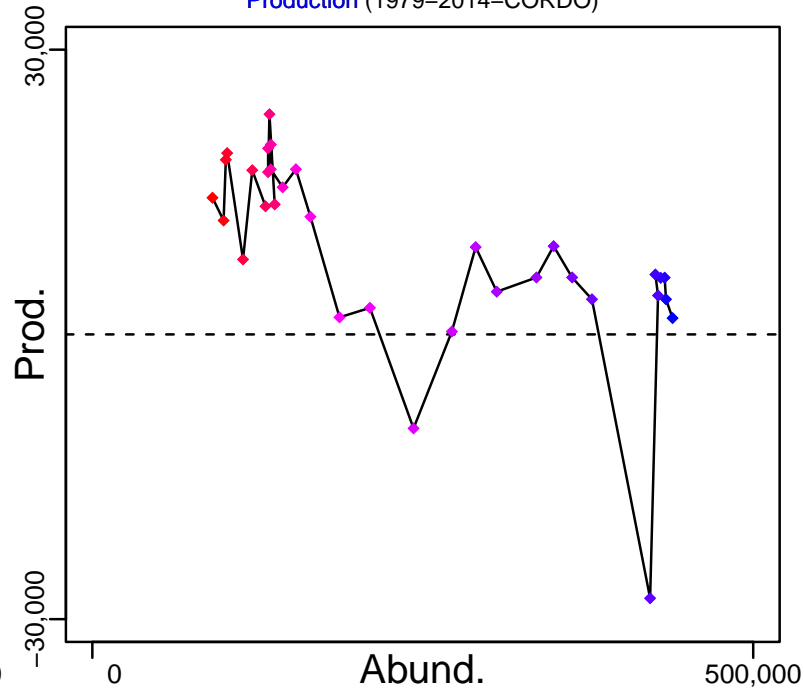
Kobe MGT*



Spawner Recruit (1979–2014–CORDO)

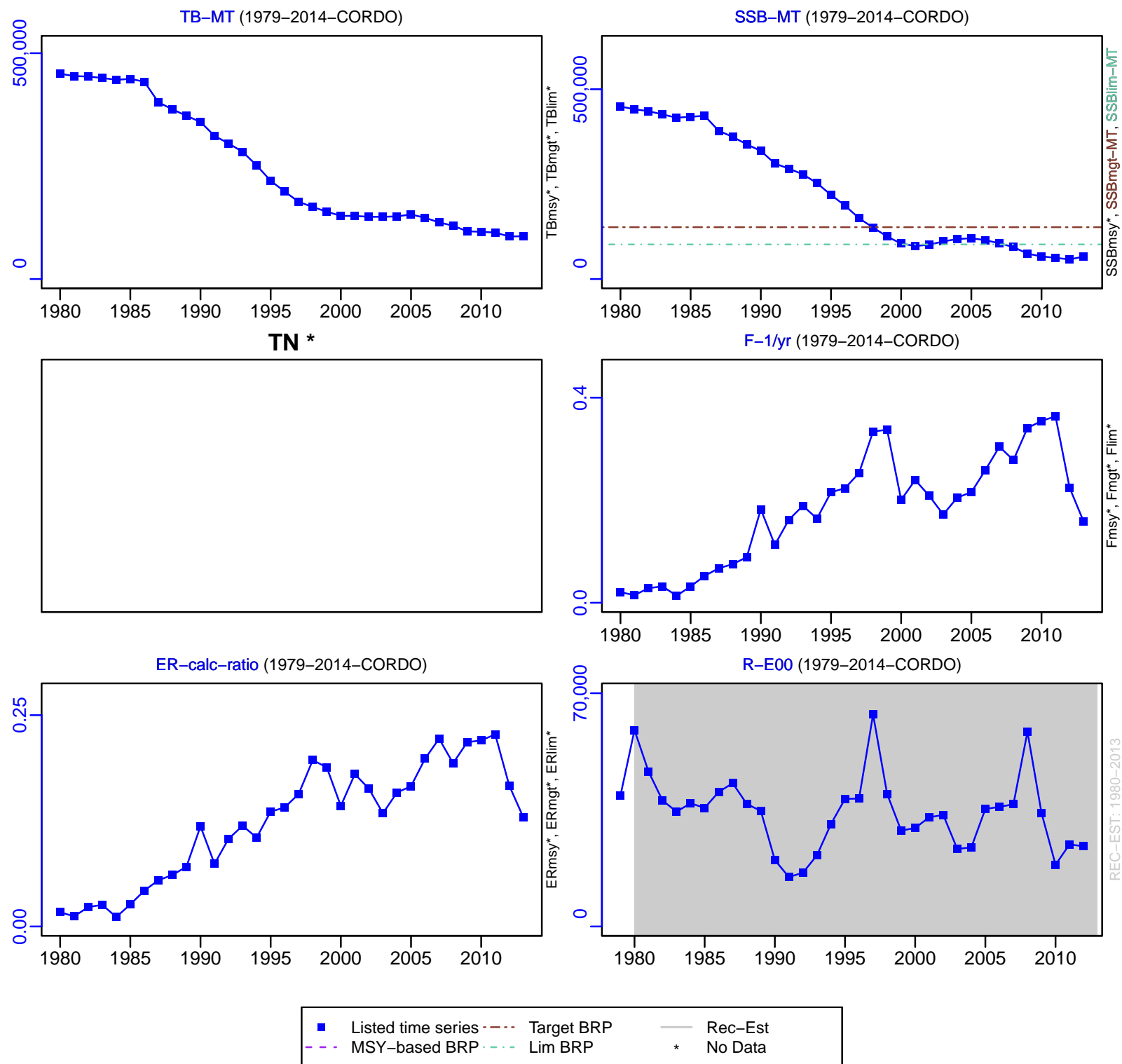


Production (1979–2014–CORDO)



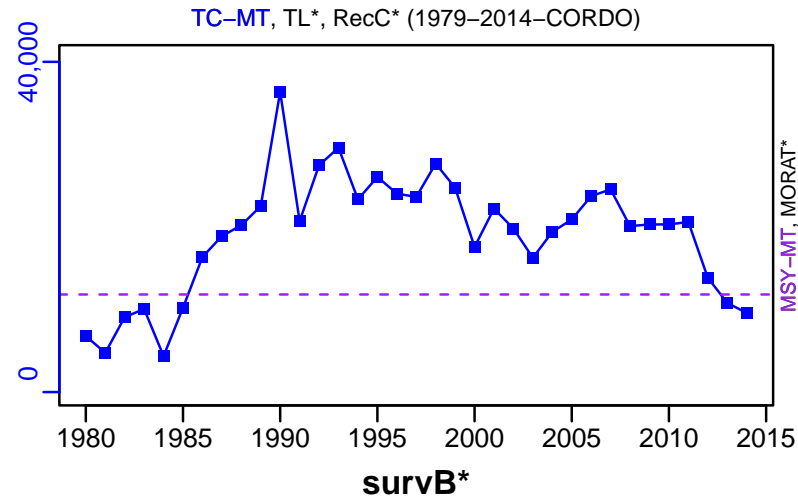
◆ Start Year ◆ End Year * No Data

Pink cusk eel Southern Argentina [PCEELARGS]

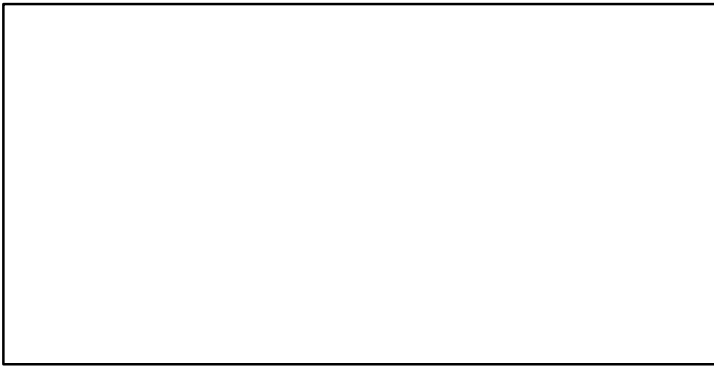
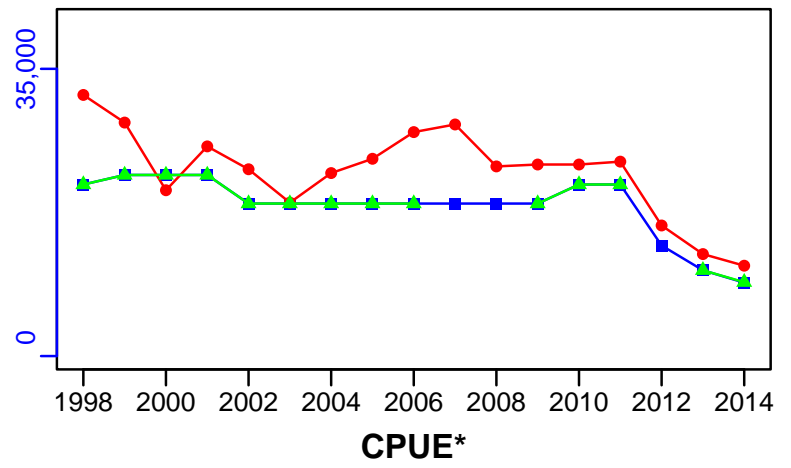


Pink cusk eel Southern Argentina [PCEELARGS]

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



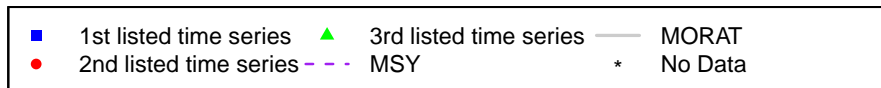
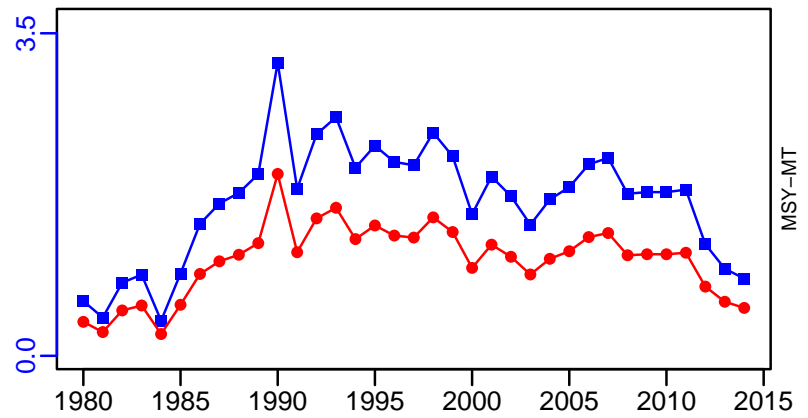
TAC-MT, Cpair-MT, Cadvised-MT (1979-2014-CORDO)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1979-2014-CORDO)



Pink cusk eel Central-Southern Chile [PCEELCSCH]

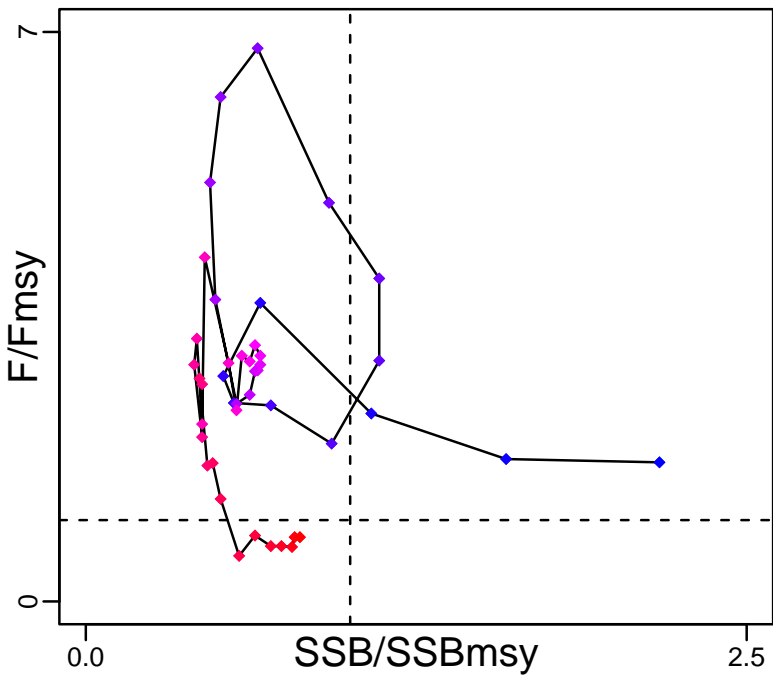
| Metadata | |
|-----------------------------|---|
| Scientific Name | Genypterus blacodes |
| Current Assess ID | IFOPCH-PCEELCSCH-1978-2020-Quiroz |
| Area | Central-Southern Chile |
| Management Authority | Subsecretaria de Pesca |
| Assessor | Instituto de Fomento Pesquero - Chilean Fisheries Development Institute |
| Asmts in RAM | 2015, 2020 |

| Reference Points | | | |
|------------------|----------------|-----------|--------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | SSBmsy-pr-MT | 2020 | 8066 |
| Fmsy | Fmsy-extr-1/yr | 2020 | 0.157 |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | SSBmgt-MT | 2020 | 8067 |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | SSB0-MT | 2020 | 20,167 |
| MSY | - | - | - |
| M | M-1/yr | 2015 | 0.27 |
| TBlim | - | - | - |
| SSBlim | SSBlim-MT | 2015 | 3746 |
| Flim | - | - | - |
| ERlim | - | - | - |

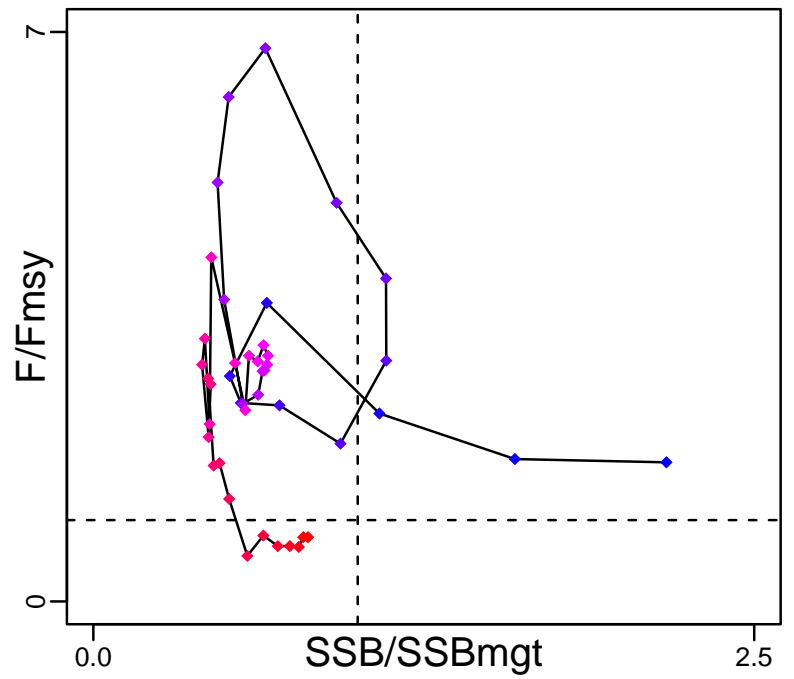
| Time Series | | | | | |
|-------------------|----------------------------|-----------|------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2020 | 23,267 | Both | - |
| SSB | SSB-MT | 2020 | 6552 | Both | - |
| TN | - | - | - | - | - |
| R | R-E00 | 2020 | 5544 | Both | - |
| F | F-1/yr | 2020 | 0.13 | Both | - |
| ER | ER-calc-ratio | 2020 | 0.043 | - | - |
| TC | - | - | - | | |
| TL | TL-MT | 2020 | 989 | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | SSBdivSSBmsy-dimensionless | 2020 | 0.81 | | |
| F/Fmsy | FdivFmsy-dimensionless | 2020 | 0.79 | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | SSB-MT/SSBmgt-MT | 2020 | 0.812 | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Pink cusk eel Central–Southern Chile [PCEELCSCH]

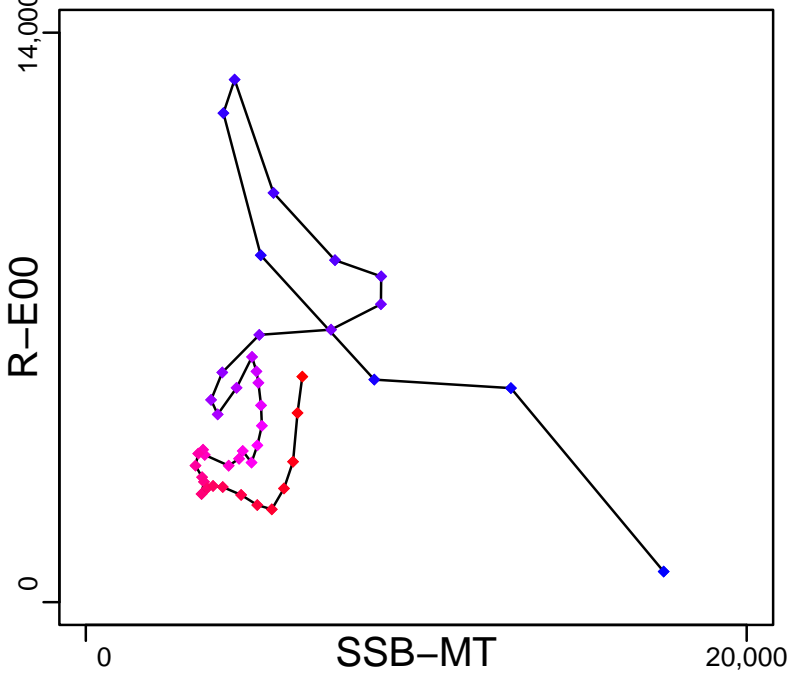
Kobe MSYpref (1978–2020–Quiroz)



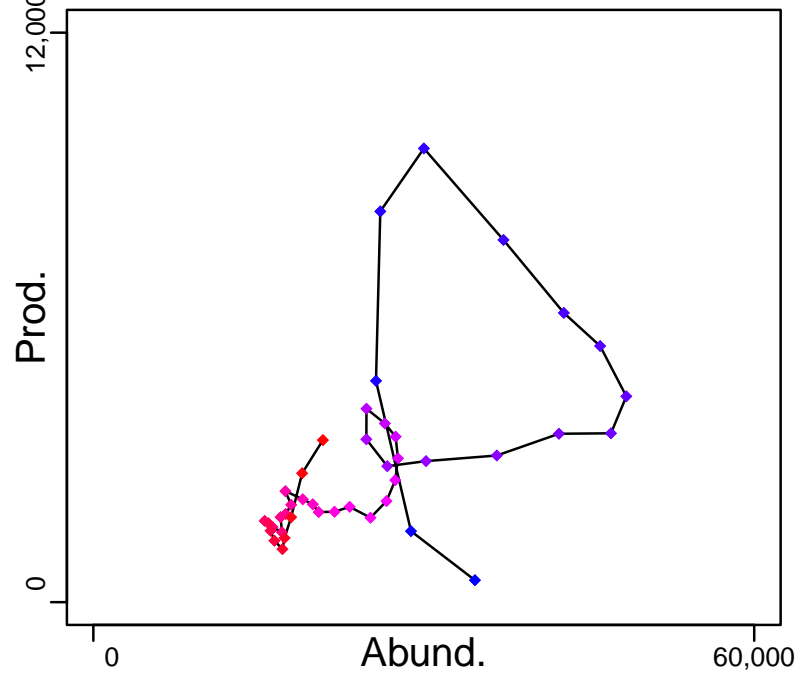
Kobe MGTpref (1978–2020–Quiroz)



Spawner Recruit (1978–2020–Quiroz)



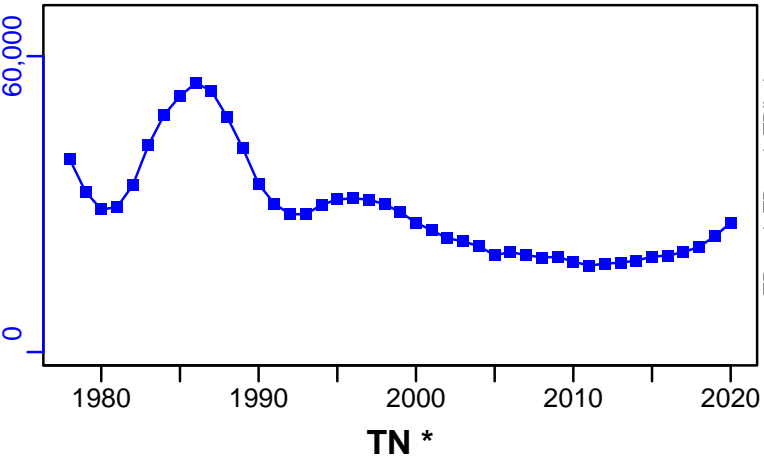
Production (1978–2020–Quiroz)



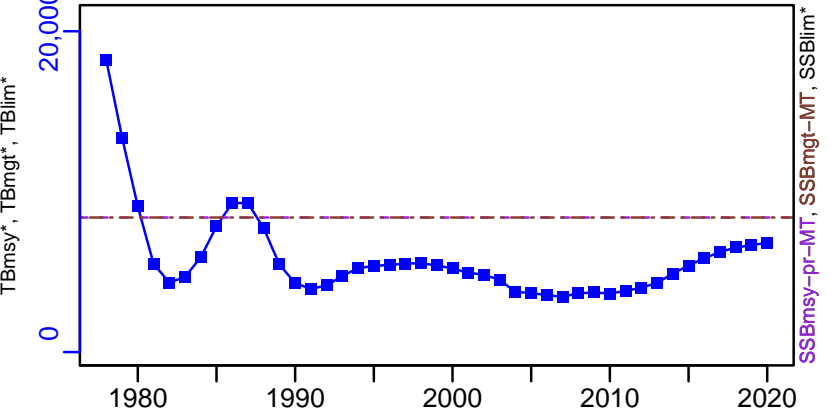
◆ Start Year ◆ End Year * No Data

Pink cusk eel Central–Southern Chile [PCEELCSCH]

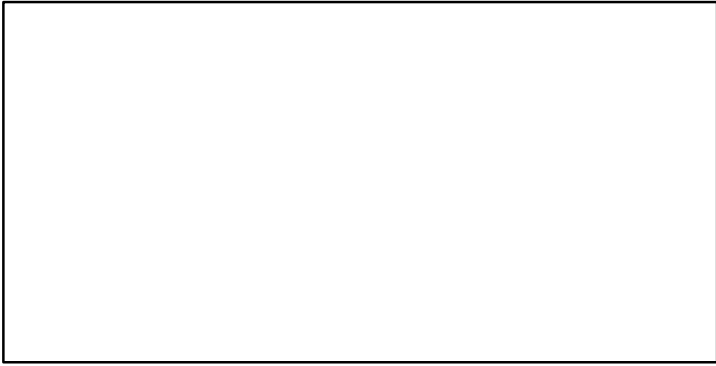
TB–MT (1978–2020–Quiroz)



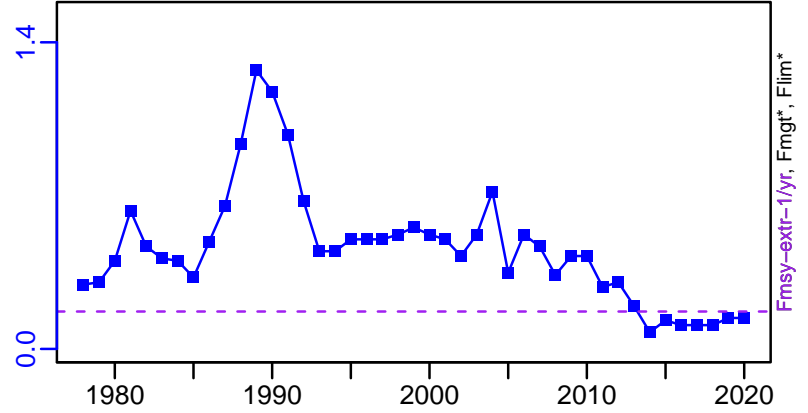
SSB–MT (1978–2020–Quiroz)



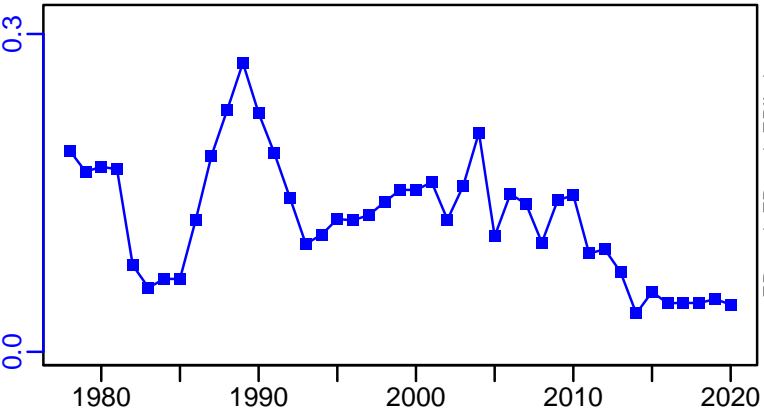
TN *



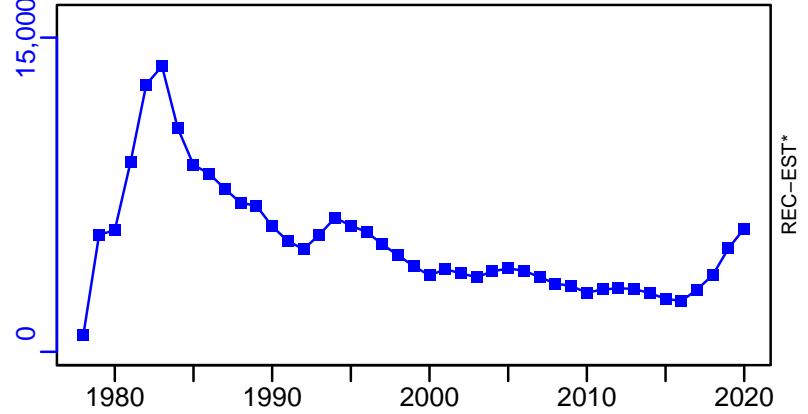
F–1/yr (1978–2020–Quiroz)



ER–calc–ratio (1978–2020–Quiroz)

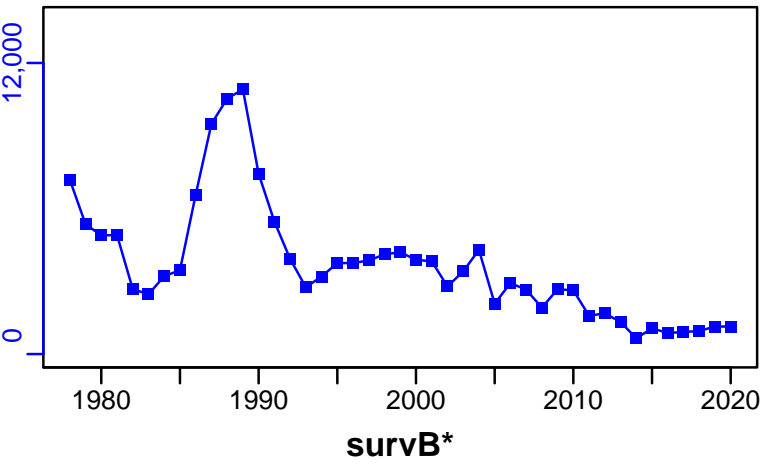


R–E00 (1978–2020–Quiroz)

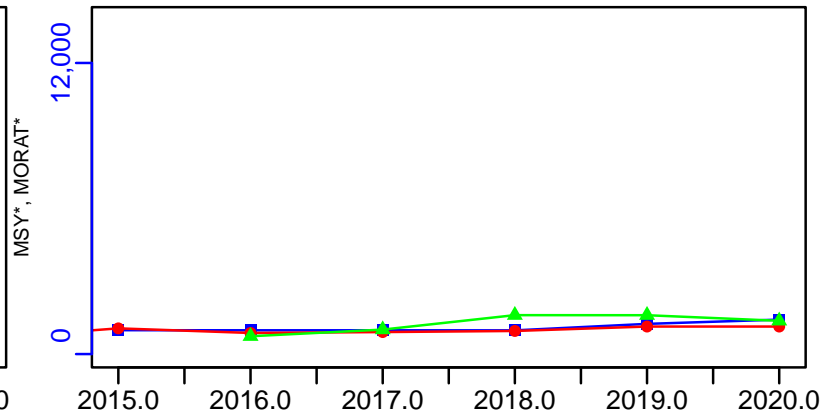


Pink cusk eel Central–Southern Chile [PCEELCSCH]

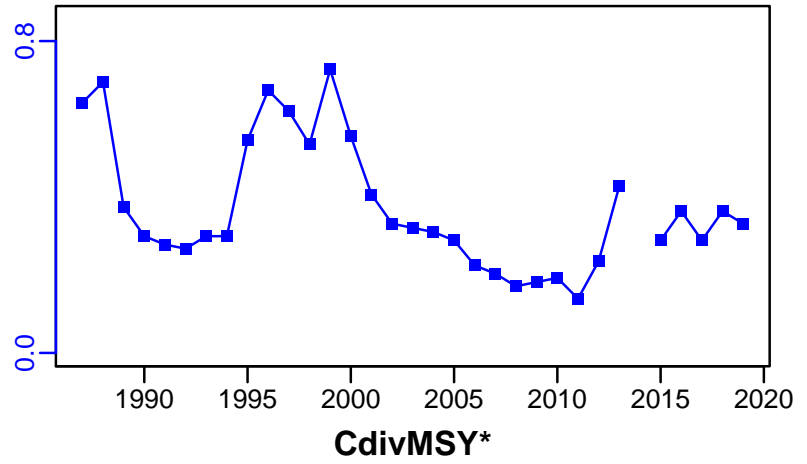
TL–MT, TC*, RecC* (1978–2020–Quiroz)



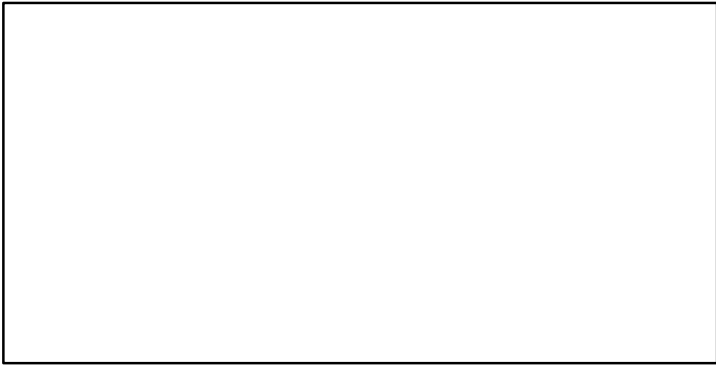
TAC–MT, Cpair–MT, Cadvised–MT (1978–2020–Quiroz)



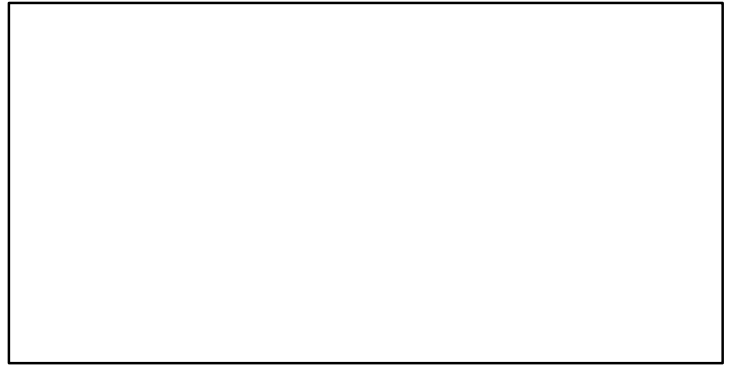
CPUE–index (1978–2020–Quiroz)



EFFORT*



CdivMSY*



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

Pink cusk eel Southern Chile [PCEELSCH]

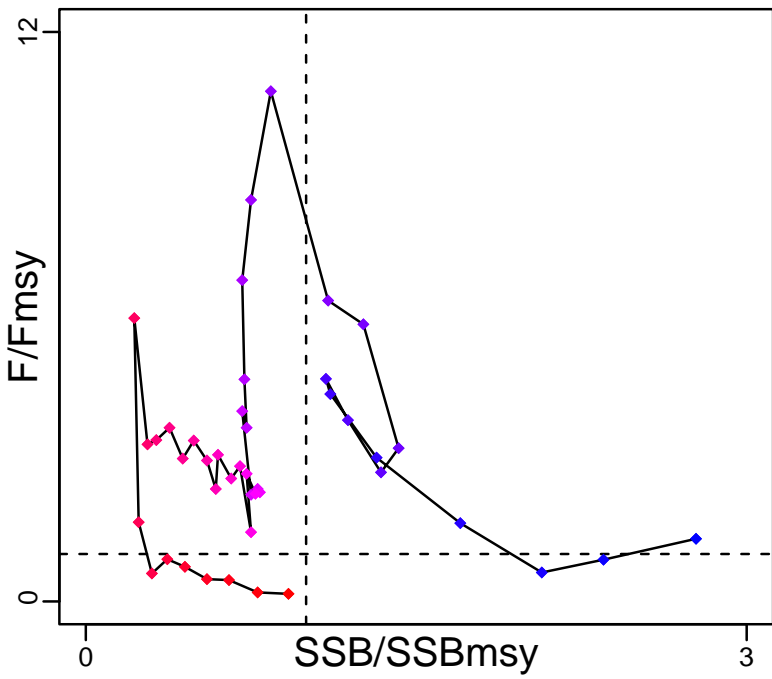
| Metadata | |
|-----------------------------|---|
| Scientific Name | Genypterus blacodes |
| Current Assess ID | IFOPCH-PCEELSCH-1978-2020-Quiroz |
| Area | Southern Chile |
| Management Authority | Subsecretaria de Pesca |
| Assessor | Instituto de Fomento Pesquero - Chilean Fisheries Development Institute |
| Asmts in RAM | 2015, 2020 |

| Reference Points | | | |
|------------------|----------------|-----------|--------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | SSBmsy-pr-MT | 2020 | 4450 |
| Fmsy | Fmsy-extr-1/yr | 2020 | 0.174 |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | SSBmgt-MT | 2020 | 4450 |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | SSB0-MT | 2020 | 11,125 |
| MSY | - | - | - |
| M | M-1/yr | 2015 | 0.23 |
| TBlim | - | - | - |
| SSBlim | SSBlim-MT | 2015 | 1825 |
| Flim | - | - | - |
| ERlim | - | - | - |

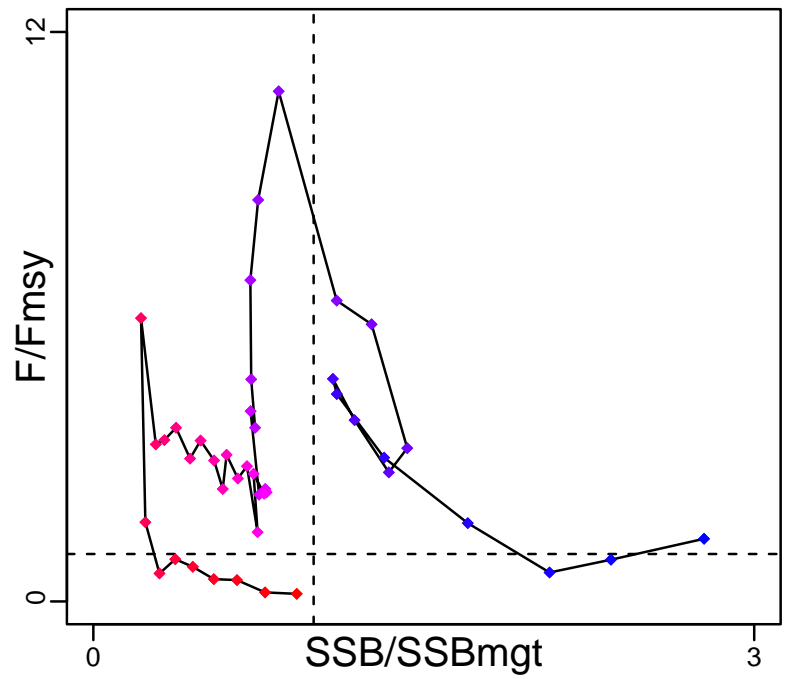
| Time Series | | | | | |
|-------------------|----------------------------|-----------|------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2020 | 11,983 | Both | - |
| SSB | SSB-MT | 2020 | 4109 | Both | - |
| TN | - | - | - | - | - |
| R | R-E00 | 2020 | 1860 | Both | - |
| F | F-1/yr | 2020 | 0.03 | Both | - |
| ER | ER-calc-ratio | 2020 | 0.01 | - | - |
| TC | - | - | - | | |
| TL | TL-MT | 2020 | 117 | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | SSBdivSSBmsy-dimensionless | 2020 | 0.92 | | |
| F/Fmsy | FdivFmsy-dimensionless | 2020 | 0.16 | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | SSB-MT/SSBmgt-MT | 2020 | 0.923 | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Pink cusk eel Southern Chile [PCEELSCH]

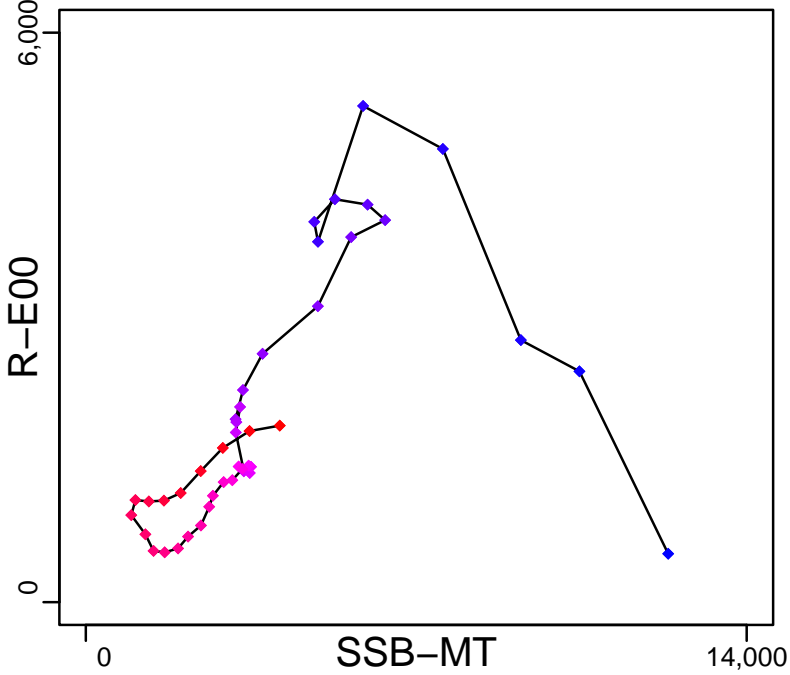
Kobe MSYpref (1978–2020–Quiroz)



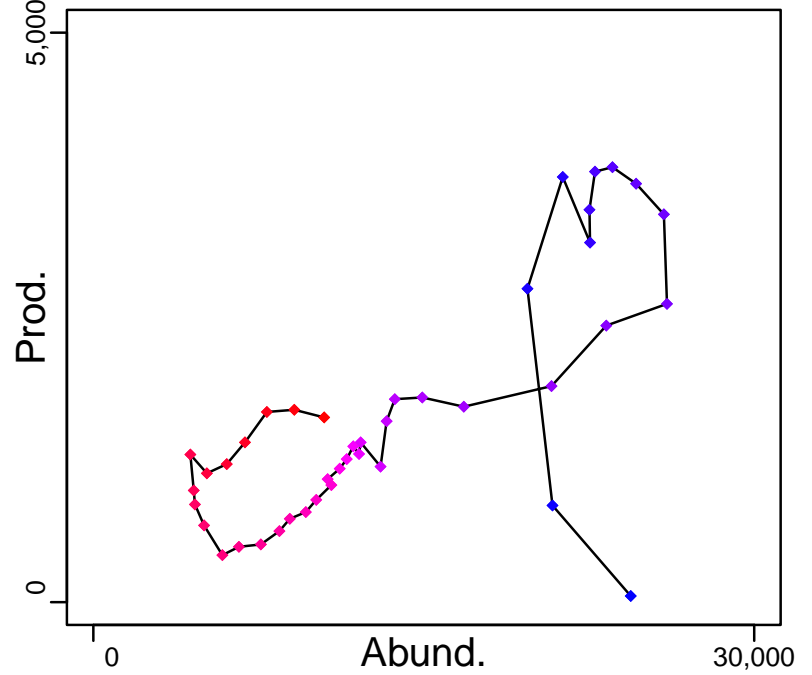
Kobe MGTpref (1978–2020–Quiroz)



Spawner Recruit (1978–2020–Quiroz)

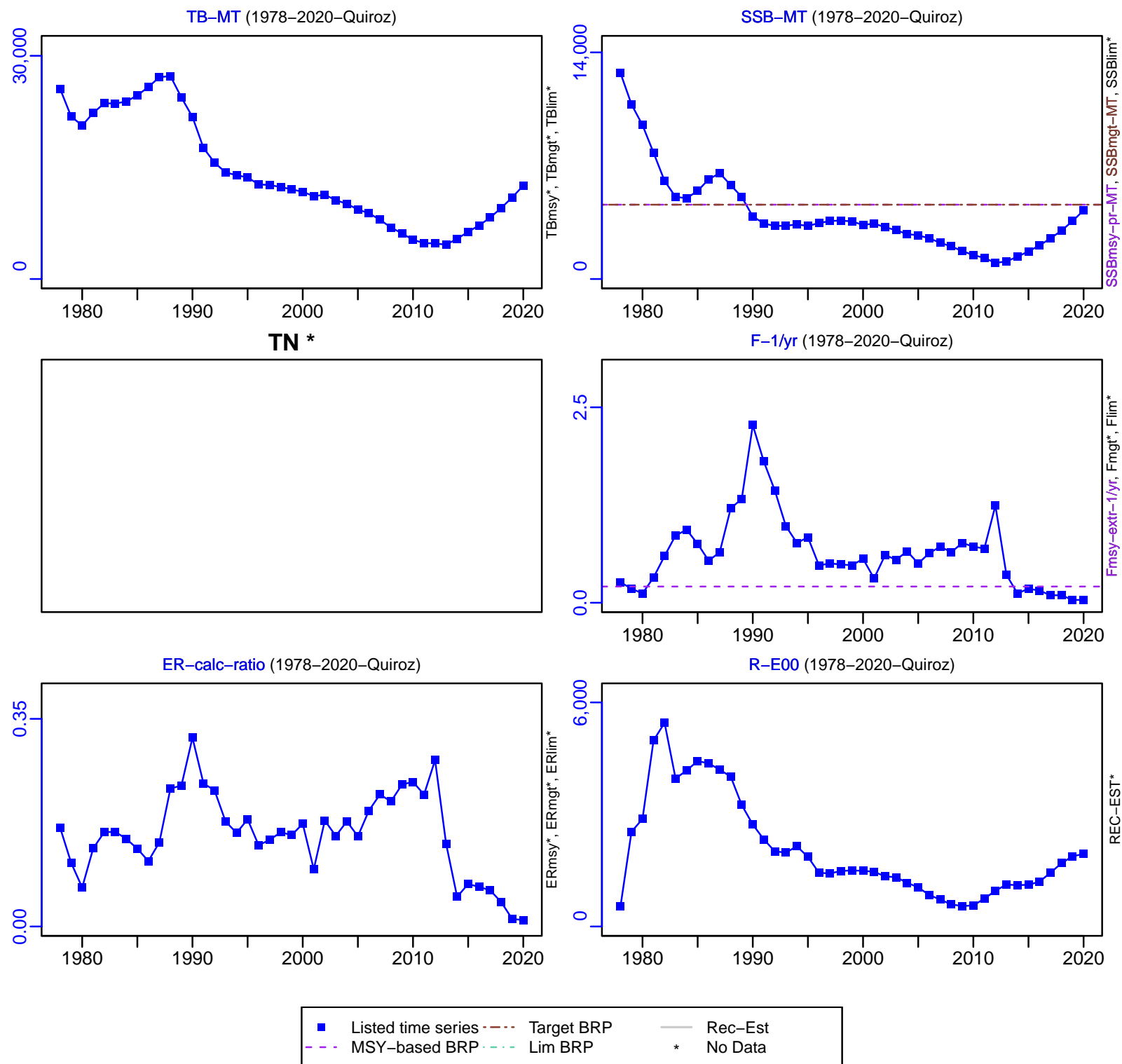


Production (1978–2020–Quiroz)



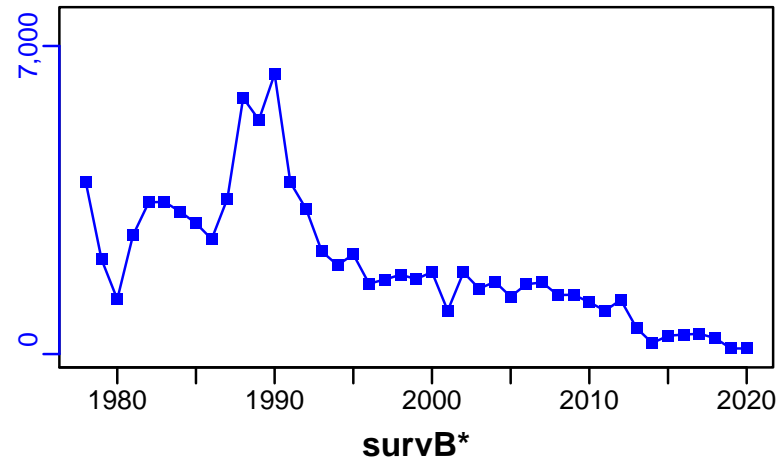
◆ Start Year ◆ End Year * No Data

Pink cusk eel Southern Chile [PCEELSCH]

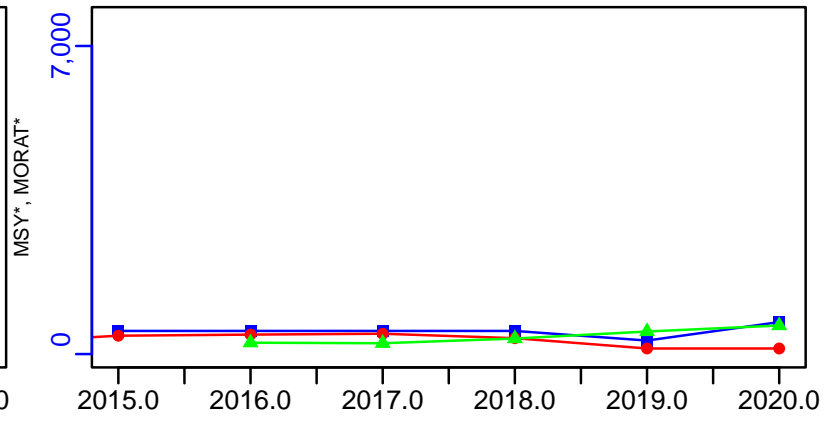


Pink cusk eel Southern Chile [PCEELSCH]

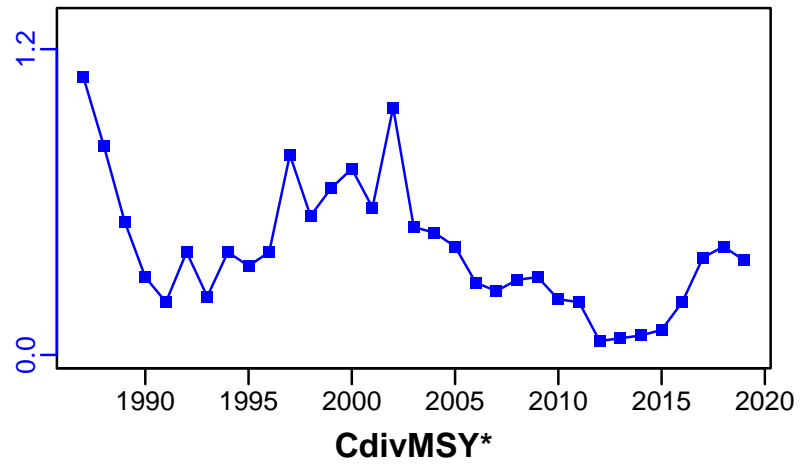
TL-MT, TC*, RecC* (1978-2020-Quiroz)



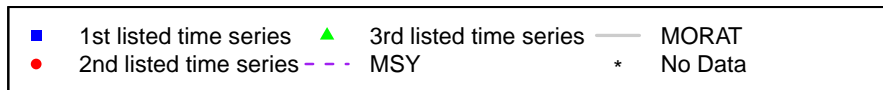
TAC-MT, Cpair-MT, Cadvised-MT (1978-2020-Quiroz)



CPUE-index (1978-2020-Quiroz)



EFFORT*



Patagonian toothfish South Chile Argentina [PTOOTHFISHCH]

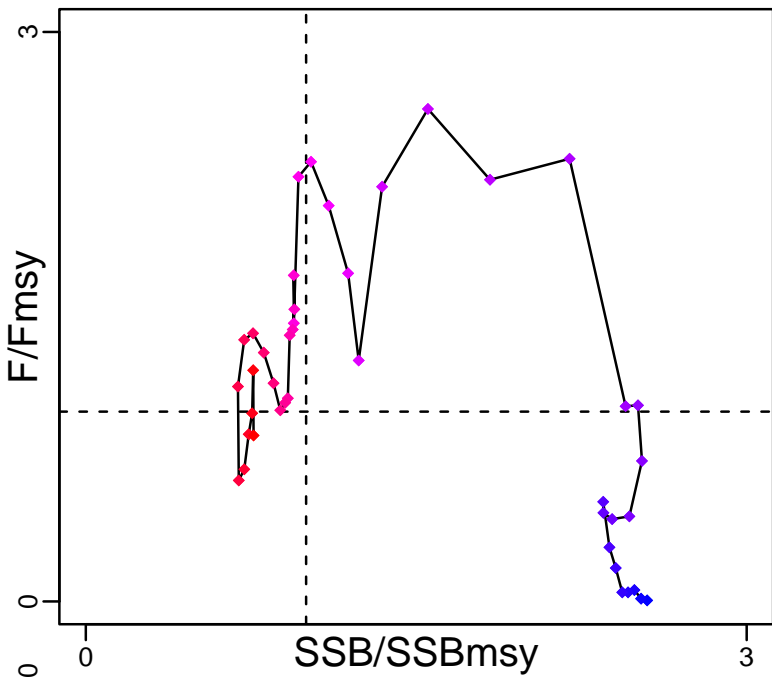
| Metadata | |
|-----------------------------|---|
| Scientific Name | Dissostichus eleginoides |
| Current Assess ID | IFP-PTOOTHFISHCH-1978-2019-Quiroz |
| Area | South Chile Argentina |
| Management Authority | Separate management by Chile (SUBPESCA) and Argentina (CFP) |
| Assessor | Instituto de Fomento Pesquero - Chilean Fisheries Development Institute |
| Asmts in RAM | 2014, 2019, 2011 |

| Reference Points | | | |
|------------------|----------------|-----------|--------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | SSBmsy-extr-MT | 2019 | 48,689 |
| Fmsy | Fmsy-extr-1/yr | 2019 | 0.061 |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | - | - | - |
| M | M-1/yr | 2014 | 0.15 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

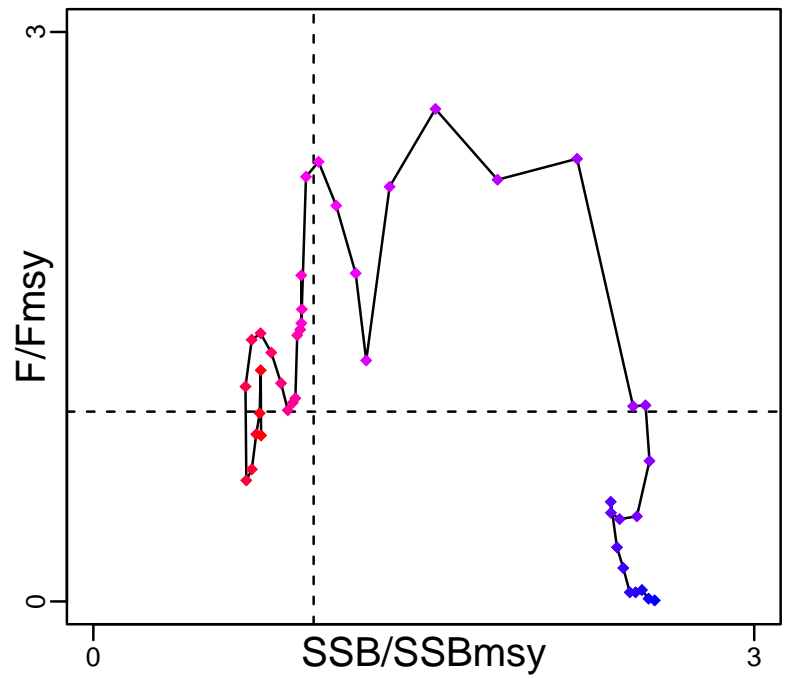
| Time Series | | | | | |
|-------------------|----------------------------|-----------|---------------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2019 | 69,644 | Both | - |
| SSB | SSB-MT | 2019 | 36,836 | Both | - |
| TN | - | - | - | - | - |
| R | R-E00 | 2019 | 2.676×10^9 | Both | - |
| F | F-1/yr | 2019 | 0.07 | - | - |
| ER | ER-calc-ratio | 2019 | 0.043 | - | - |
| TC | TC-MT | 2019 | 3024 | | |
| TL | TL-MT | 2019 | 3024 | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | SSBdivSSBmsy-dimensionless | 2019 | 0.761 | | |
| F/Fmsy | FdivFmsy-dimensionless | 2019 | 0.874 | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

Patagonian toothfish South Chile Argentina [PTOOTHFISHCH]

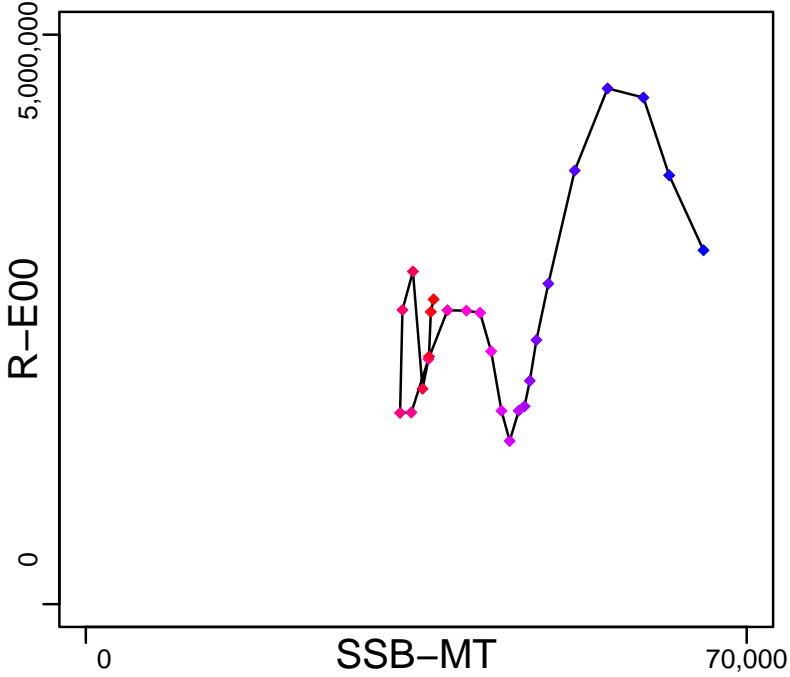
Kobe MSYpref (1978–2019–Quiroz)



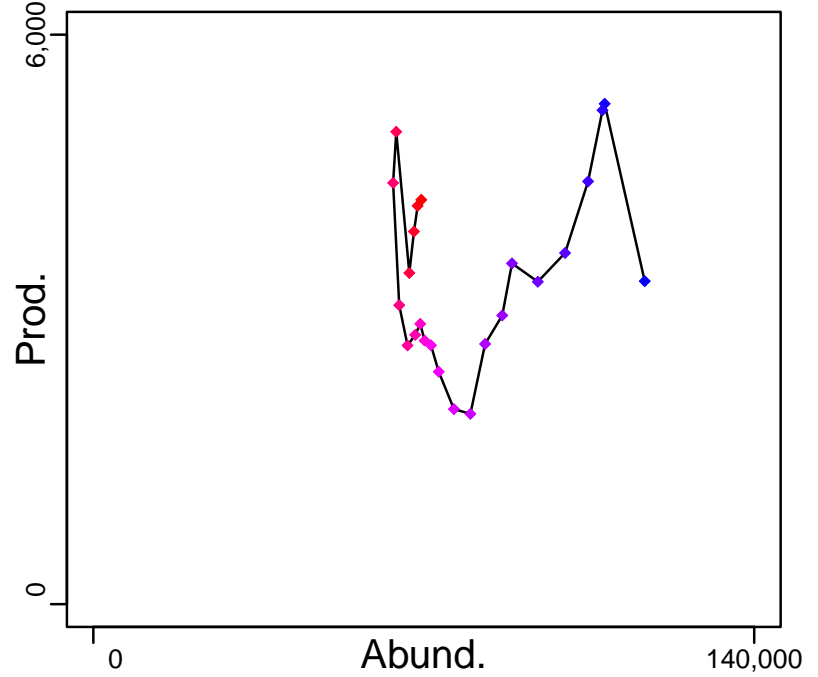
Kobe MGTpref (1978–2019–Quiroz)



Spawner Recruit (1978–2019–Quiroz)



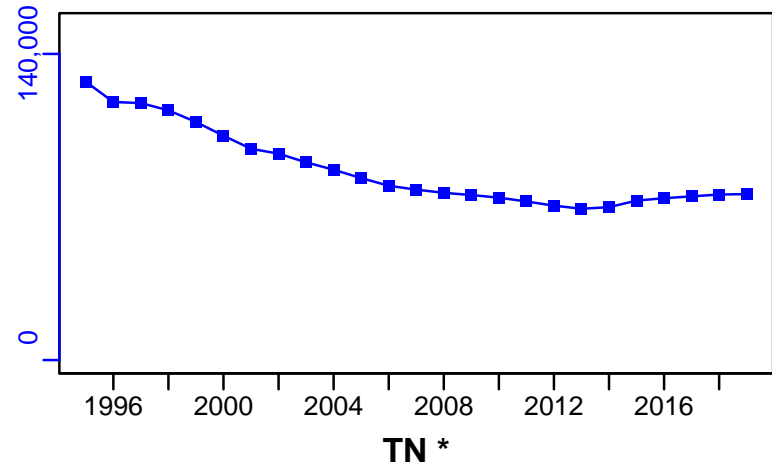
Production (1978–2019–Quiroz)



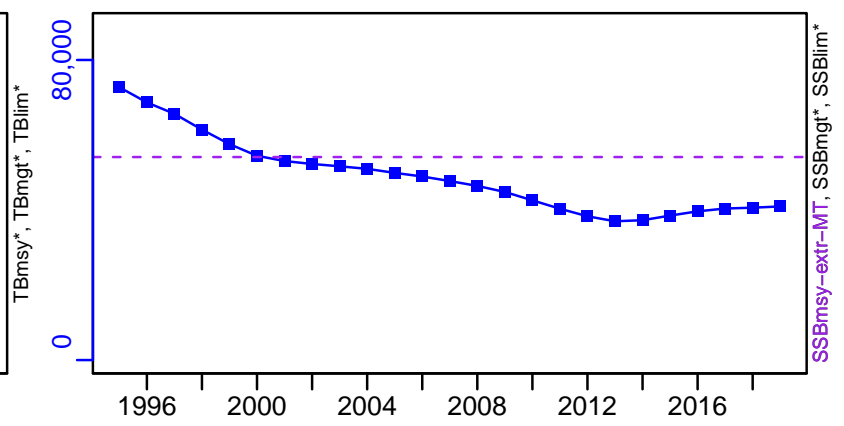
◆ Start Year ◆ End Year * No Data

Patagonian toothfish South Chile Argentina [PTOOTHFISHCH]

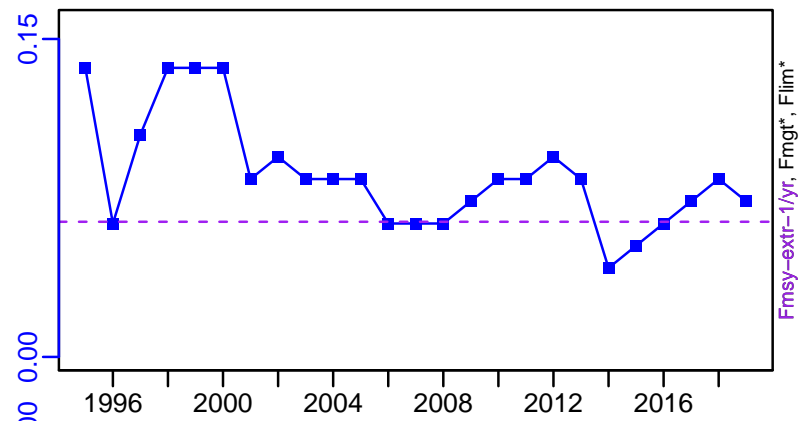
TB-MT (1978–2019–Quiroz)



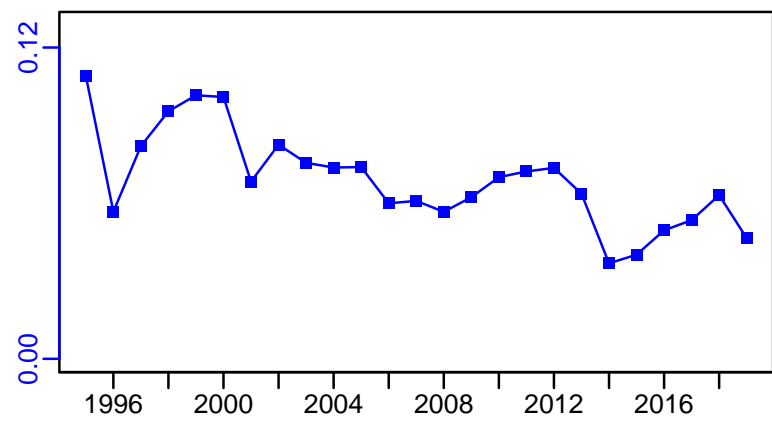
SSB-MT (1978–2019–Quiroz)



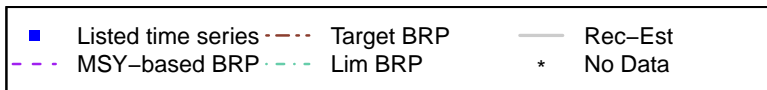
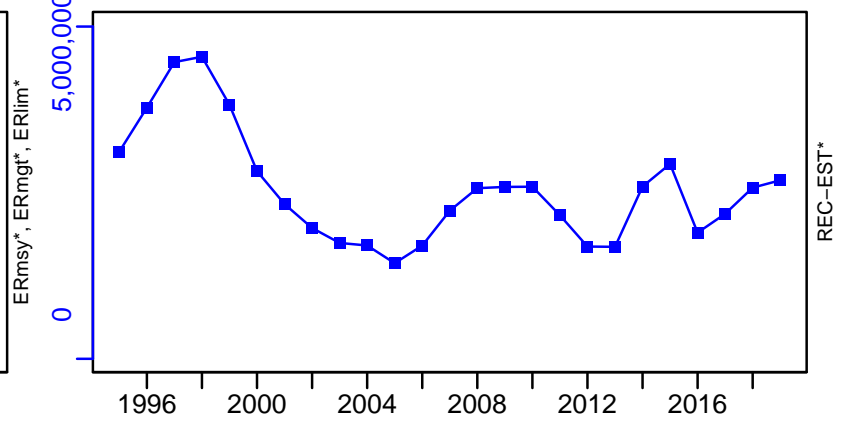
F-1/yr (1978–2019–Quiroz)



ER-calc-ratio (1978–2019–Quiroz)



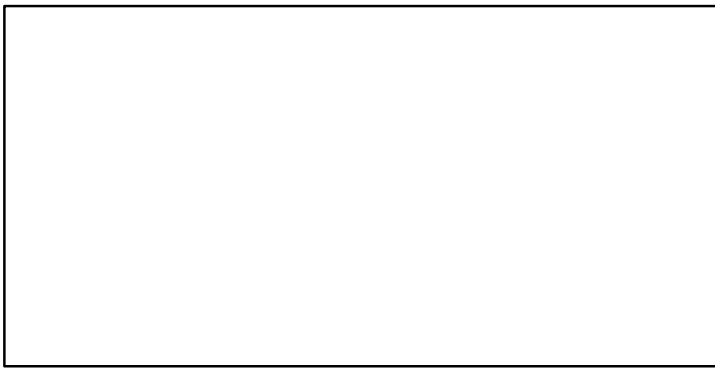
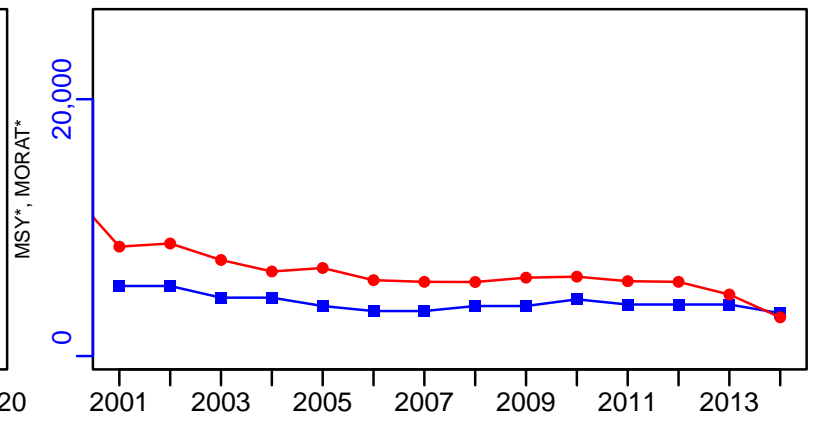
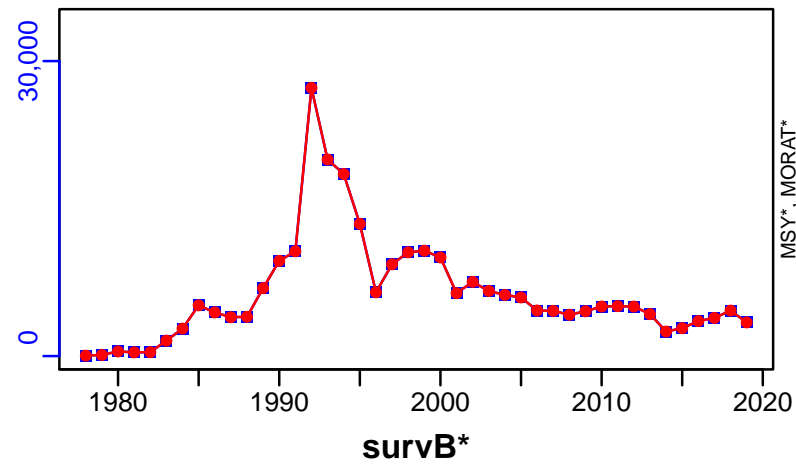
R-E00 (1978–2019–Quiroz)



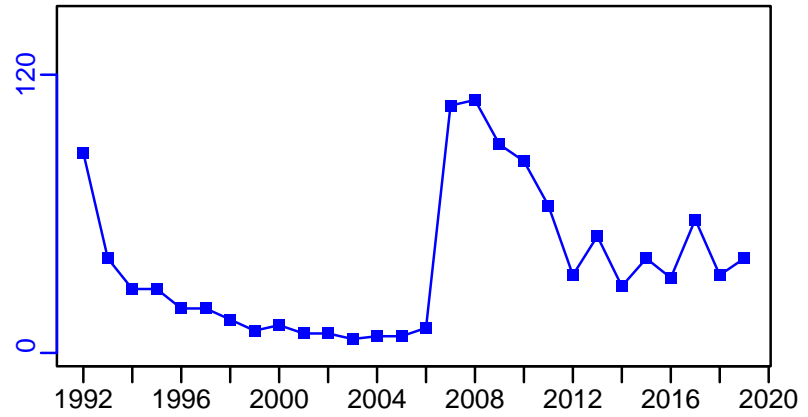
Patagonian toothfish South Chile Argentina [PTOOTHFISHCH]

TC-MT, TL-MT, RecC* (1978–2019–Quiroz)

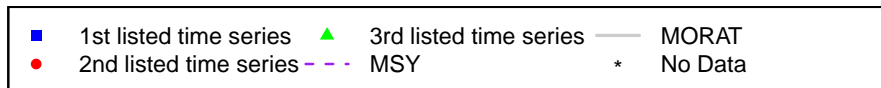
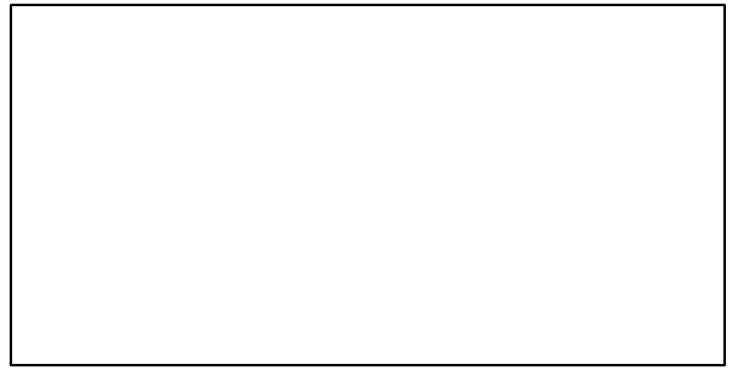
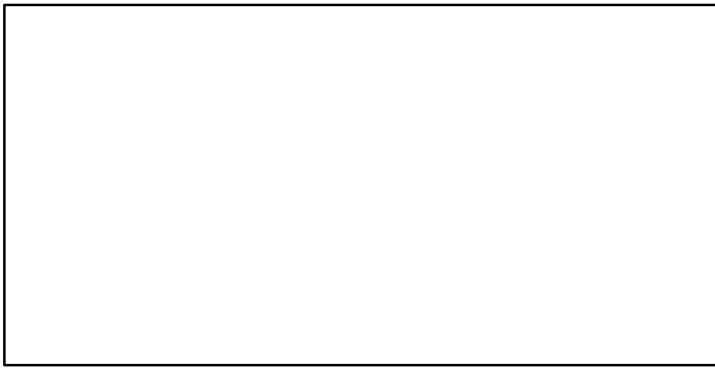
TAC-MT, Cpair-MT, Cadv* (1975–2014–TASCHERI)



EFFORT*



CdivMSY*



Red squat lobster Central-Southern Chile [RSQLOBSTERCSCCH]

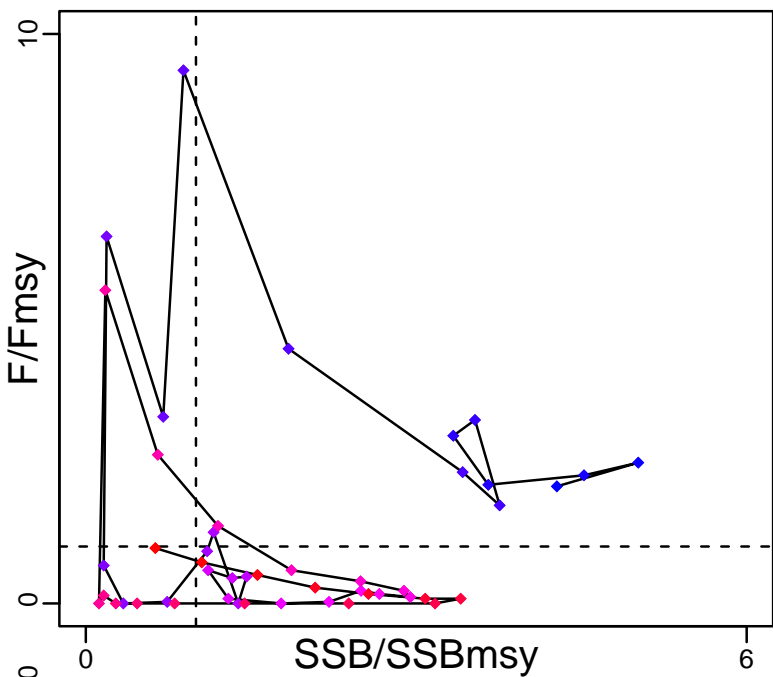
| Metadata | |
|-----------------------------|---|
| Scientific Name | Pleuroncodes monodon |
| Current Assess ID | IFOPCH-RSQLOBSTERCSCCH-1968-2015-PARMA |
| Area | Central-Southern Chile |
| Management Authority | Subsecretaria de Pesca |
| Assessor | Instituto de Fomento Pesquero - Chilean Fisheries Development Institute |
| Asmts in RAM | 2015 |

| Reference Points | | | |
|------------------|--------------|-----------|--------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | SSBmsy-pr-MT | 2015 | 22,330 |
| Fmsy | Fmsy-pr-1/yr | 2015 | 0.36 |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | SSBmgt-MT | 2015 | 22,330 |
| Fmgt | Fmgt-1/yr | 2015 | 0.36 |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | - | - | - |
| M | M-1/yr | 2015 | 0.35 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

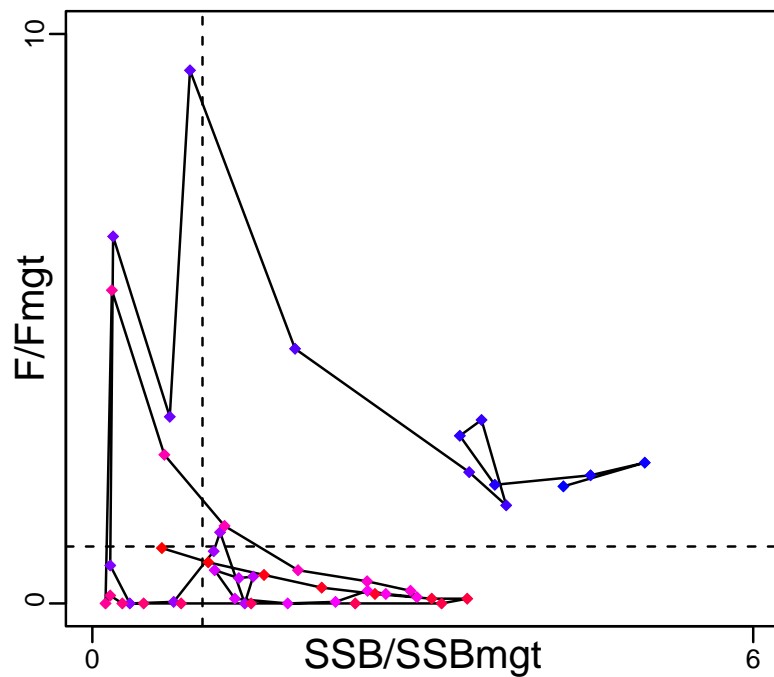
| Time Series | | | | | |
|-------------------|---------------------|-----------|--------------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2015 | 24,400 | Both | - |
| SSB | SSB-MT | 2015 | 14,100 | Both | - |
| TN | - | - | - | - | - |
| R | R-E00 | 2015 | 2.78×10^8 | Both | 1 |
| F | F-1/yr | 2015 | 0.35 | Both | - |
| ER | ER-calc-ratio | 2015 | 0.226 | - | - |
| TC | - | - | - | | |
| TL | TL-MT | 2015 | 5520 | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-pr-MT | 2015 | 0.631 | | |
| F/Fmsy | F-1/yr/Fmsy-pr-1/yr | 2015 | 0.972 | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | SSB-MT/SSBmgt-MT | 2015 | 0.631 | | |
| F/Fmgt | F-1/yr/Fmgt-1/yr | 2015 | 0.972 | | |
| ER/ERmgt | - | - | - | | |

Red squat lobster Central-Southern Chile [RSQLOBSTERCSCH]

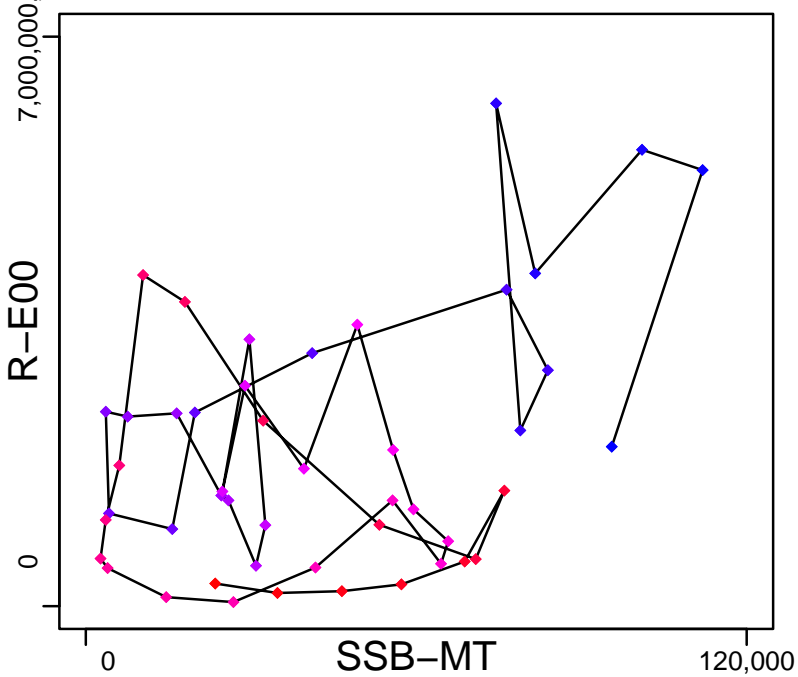
Kobe MSYpref (1968–2015–PARMA)



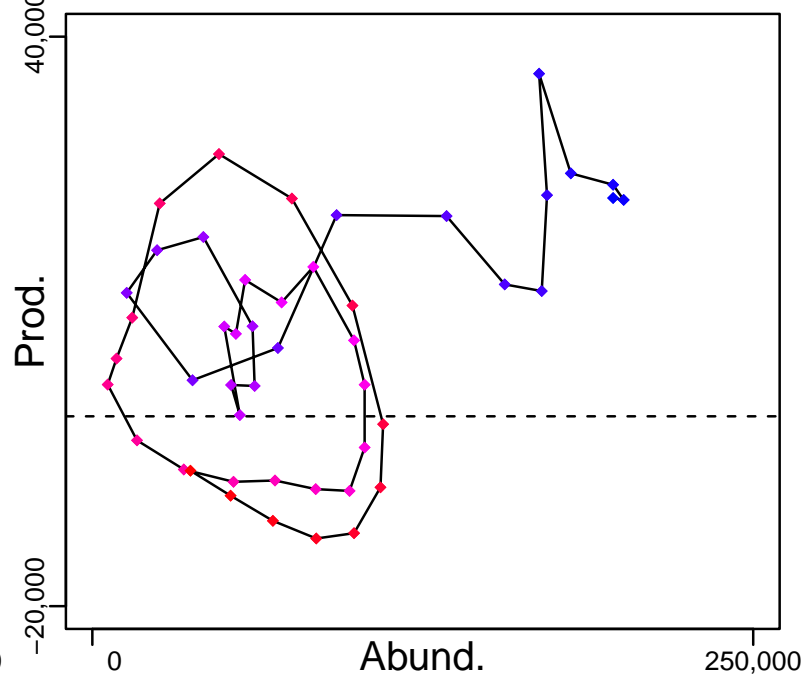
Kobe MGTpref (1968–2015–PARMA)



Spawner Recruit (1968–2015–PARMA)



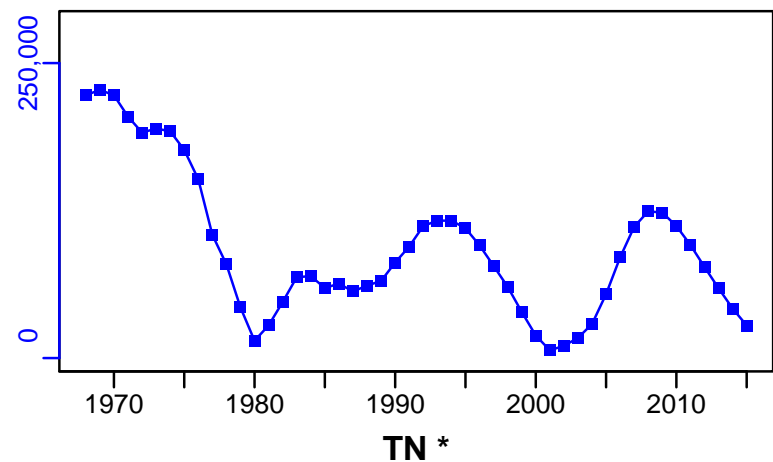
Production (1968–2015–PARMA)



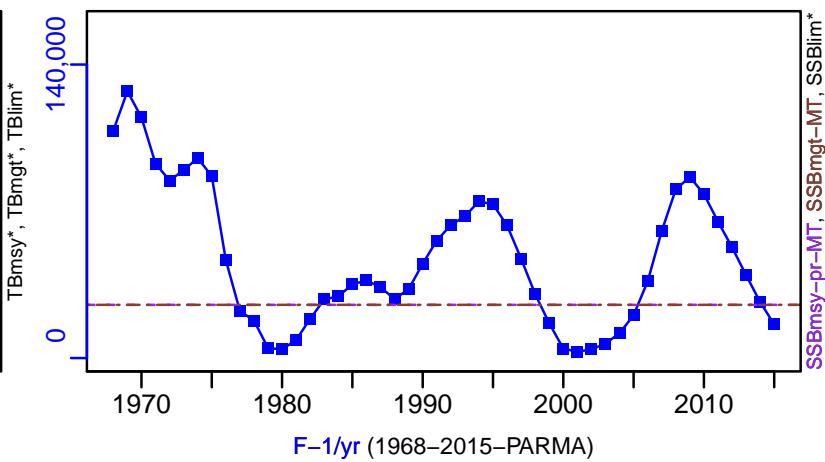
◆ Start Year ◆ End Year * No Data

Red squat lobster Central–Southern Chile [RSQLOBSTERCSCH]

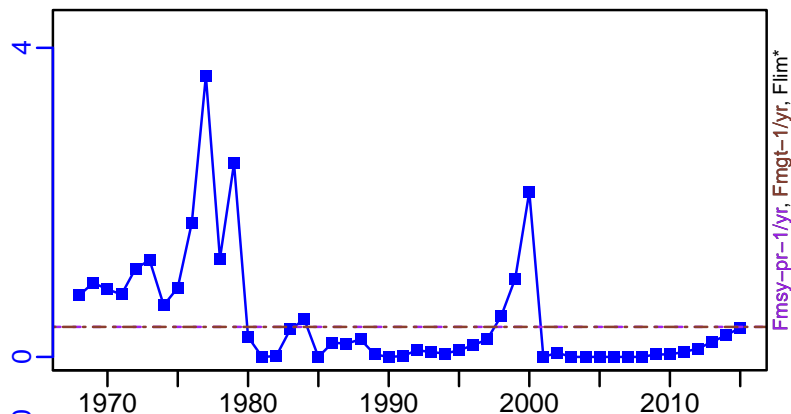
TB–MT (1968–2015–PARMA)



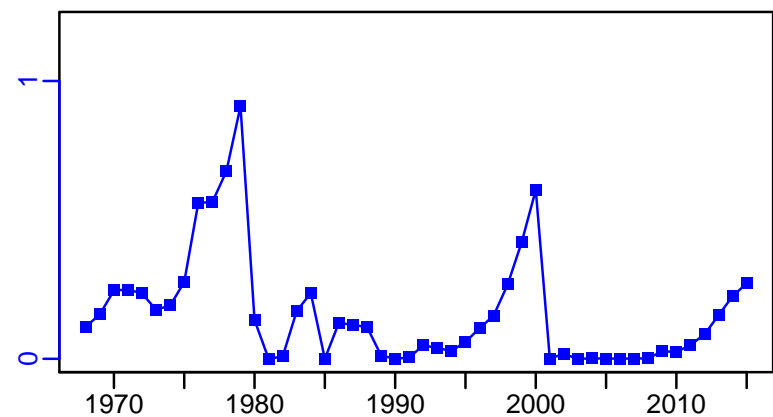
SSB–MT (1968–2015–PARMA)



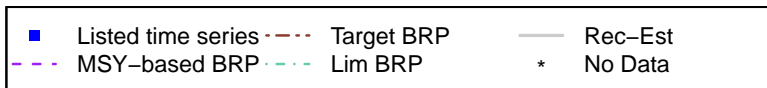
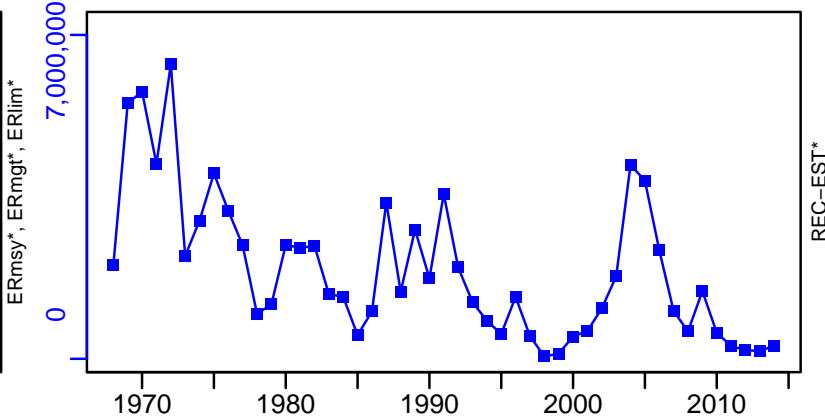
F–1/yr (1968–2015–PARMA)



ER–calc–ratio (1968–2015–PARMA)

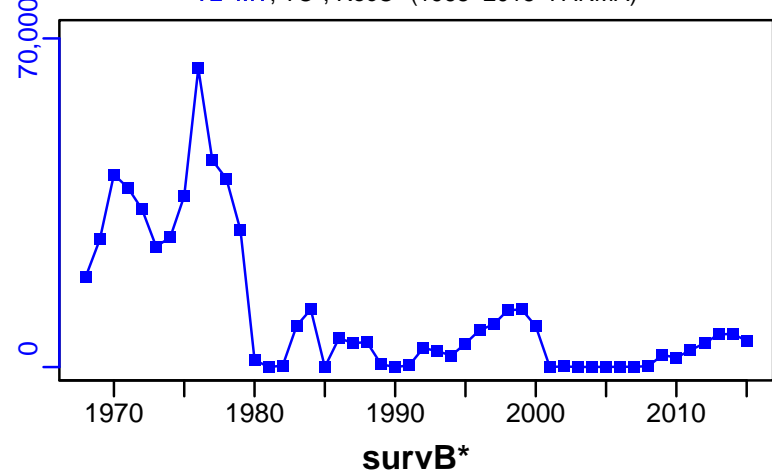


R–E00 (1968–2015–PARMA)

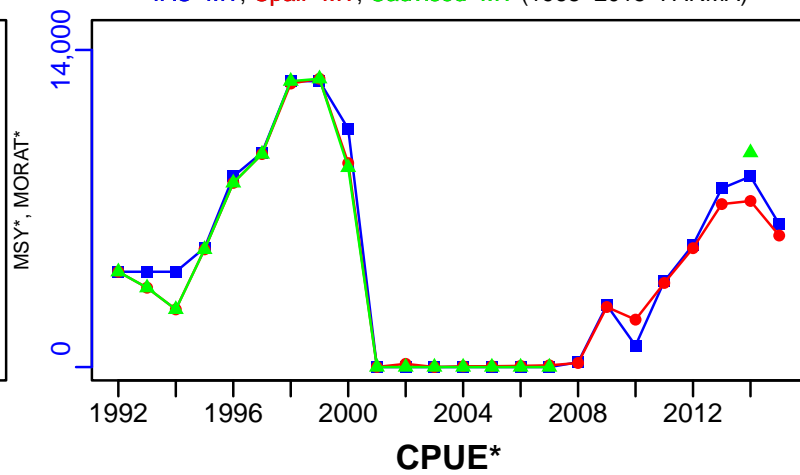


Red squat lobster Central–Southern Chile [RSQLOBSTERCSCH]

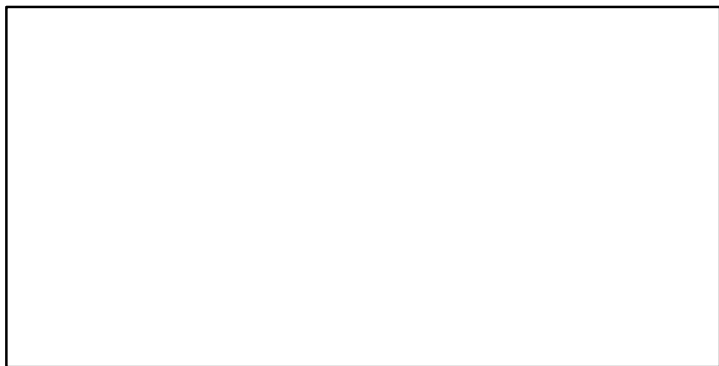
TL–MT, TC*, RecC* (1968–2015–PARMA)



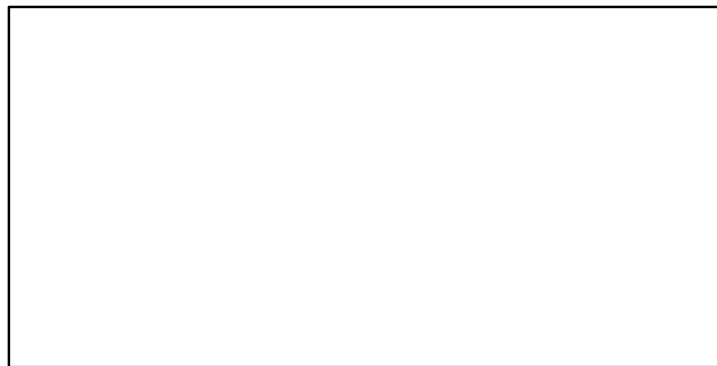
TAC–MT, Cpair–MT, Cadvised–MT (1968–2015–PARMA)



EFFORT*



CdivMSY*



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

Red squat lobster Northern Chile [RSQLOBSTERNCH]

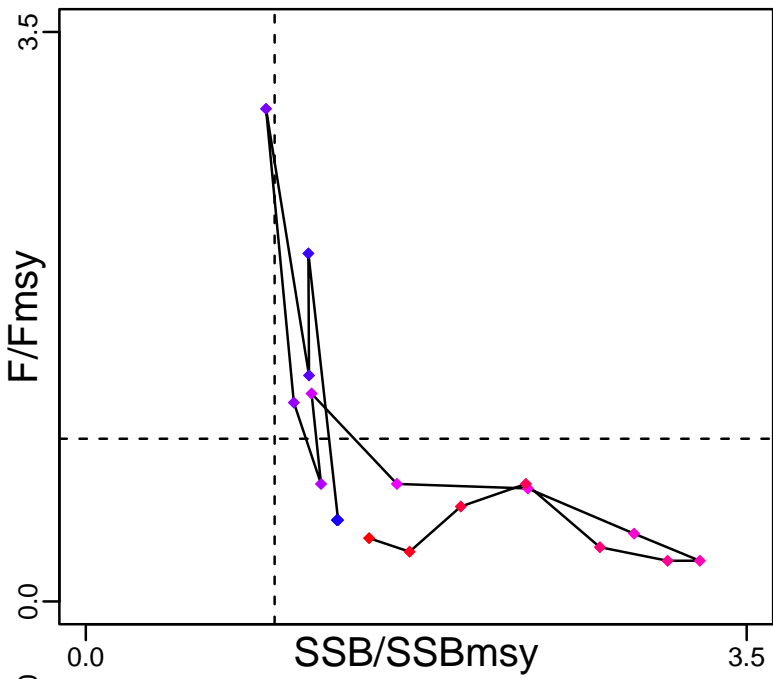
| Metadata | |
|-----------------------------|---|
| Scientific Name | Pleuroncodes monodon |
| Current Assess ID | IFOPCH-RSQLOBSTERNCH-1969-2015-PARMA |
| Area | Northern Chile |
| Management Authority | Subsecretaria de Pesca |
| Assessor | Instituto de Fomento Pesquero - Chilean Fisheries Development Institute |
| Asmts in RAM | 2015 |

| Reference Points | | | |
|------------------|--------------|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | SSBmsy-pr-MT | 2015 | 2986 |
| Fmsy | Fmsy-pr-1/yr | 2015 | 0.36 |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | SSBmgt-MT | 2015 | 2986 |
| Fmgt | Fmgt-1/yr | 2015 | 0.36 |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | - | - | - |
| MSY | - | - | - |
| M | M-1/yr | 2015 | 0.35 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

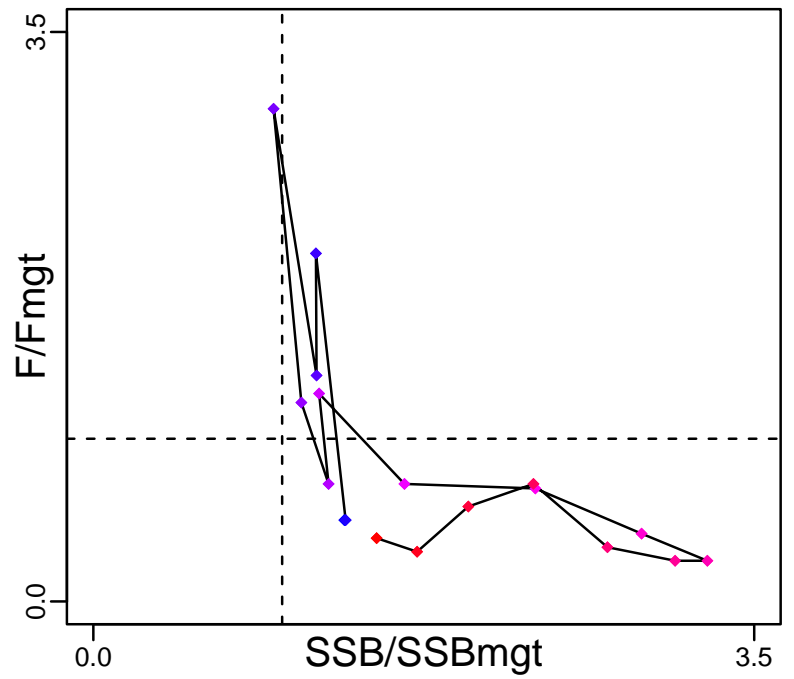
| Time Series | | | | | |
|-------------------|---------------------|-----------|--------------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2015 | 7010 | Both | - |
| SSB | SSB-MT | 2015 | 4480 | Both | - |
| TN | - | - | - | - | - |
| R | R-E00 | 2015 | 1.93×10^8 | Both | 1 |
| F | F-1/yr | 2015 | 0.14 | Both | - |
| ER | ER-calc-ratio | 2015 | 0.086 | - | - |
| TC | - | - | - | | |
| TL | TL-MT | 2015 | 602 | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-pr-MT | 2015 | 1.5 | | |
| F/Fmsy | F-1/yr/Fmsy-pr-1/yr | 2015 | 0.389 | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | SSB-MT/SSBmgt-MT | 2015 | 1.5 | | |
| F/Fmgt | F-1/yr/Fmgt-1/yr | 2015 | 0.389 | | |
| ER/ERmgt | - | - | - | | |

Red squat lobster Northern Chile [RSQLOBSTERNCH]

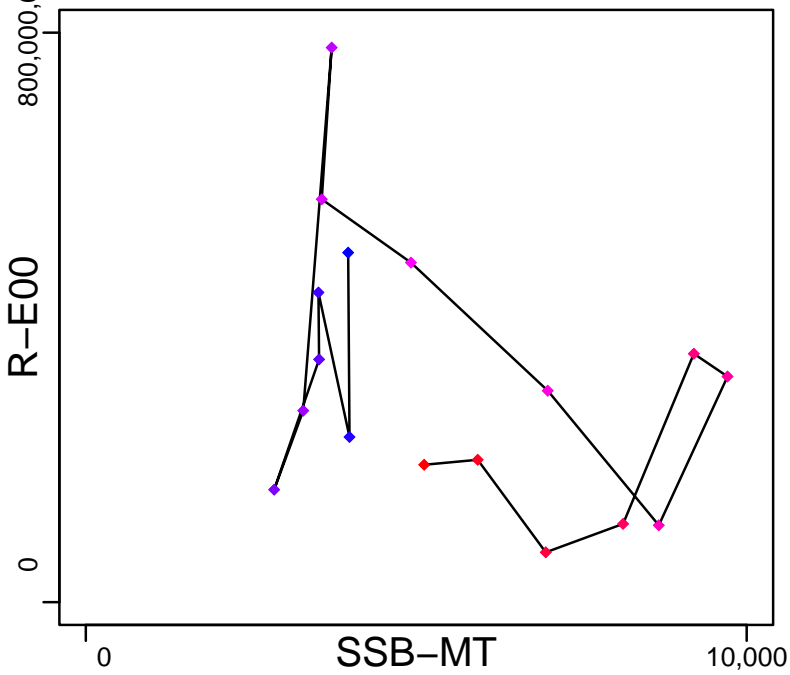
Kobe MSYpref (1969–2015–PARMA)



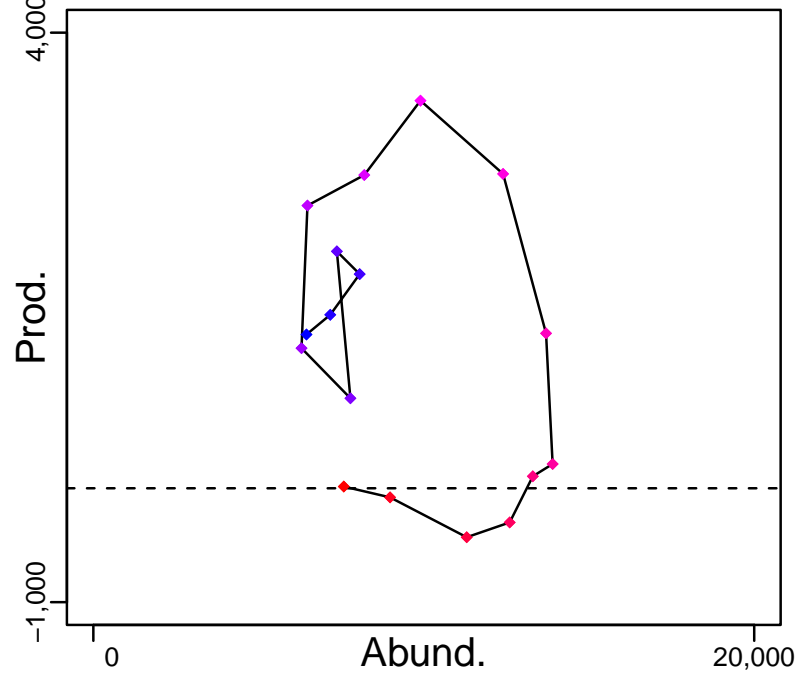
Kobe MGTpref (1969–2015–PARMA)



Spawner Recruit (1969–2015–PARMA)



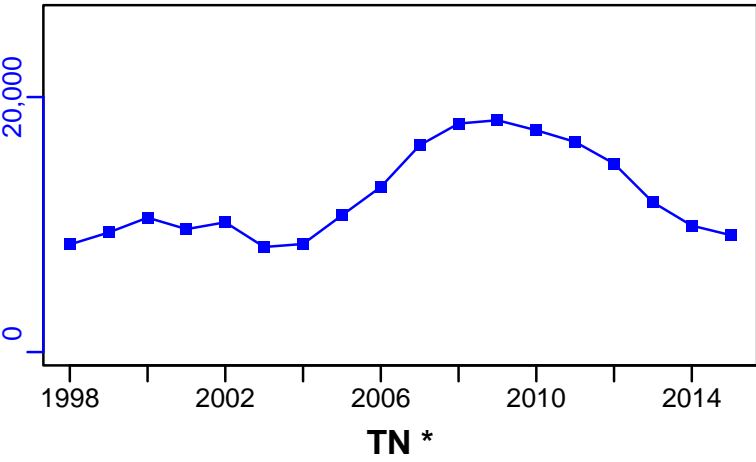
Production (1969–2015–PARMA)



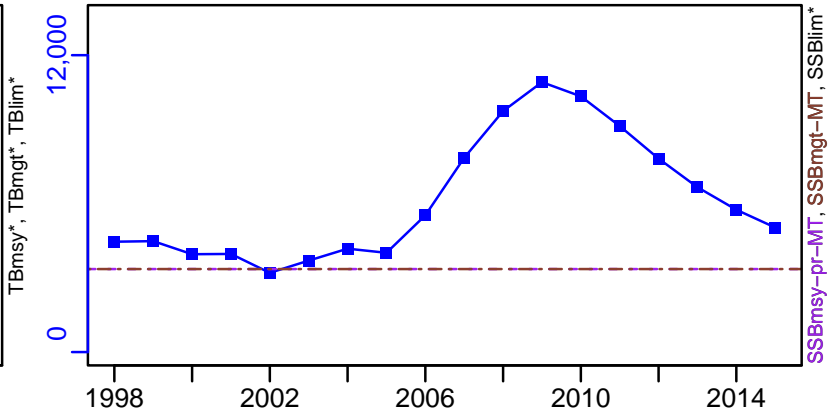
◆ Start Year ◆ End Year * No Data

Red squat lobster Northern Chile [RSQLOBSTERNCH]

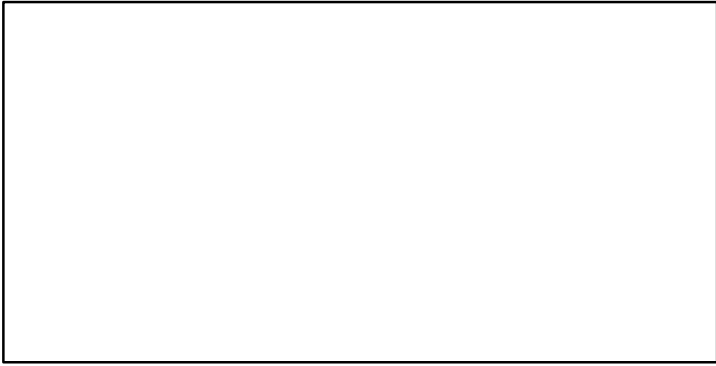
TB-MT (1969–2015–PARMA)



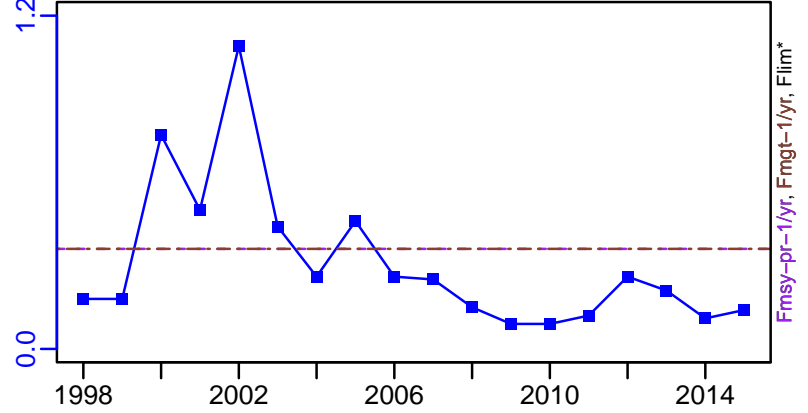
SSB-MT (1969–2015–PARMA)



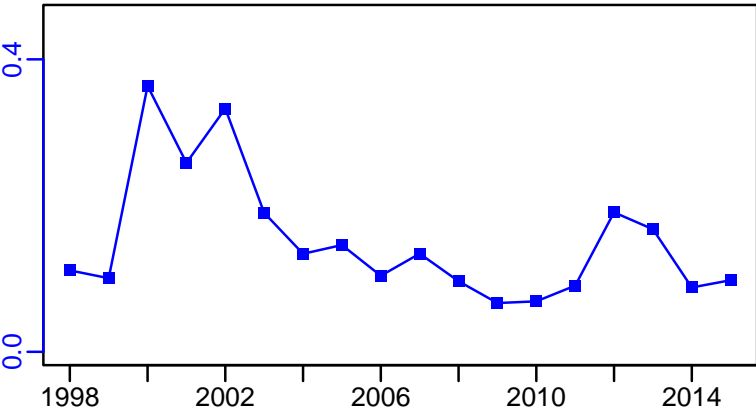
TN *



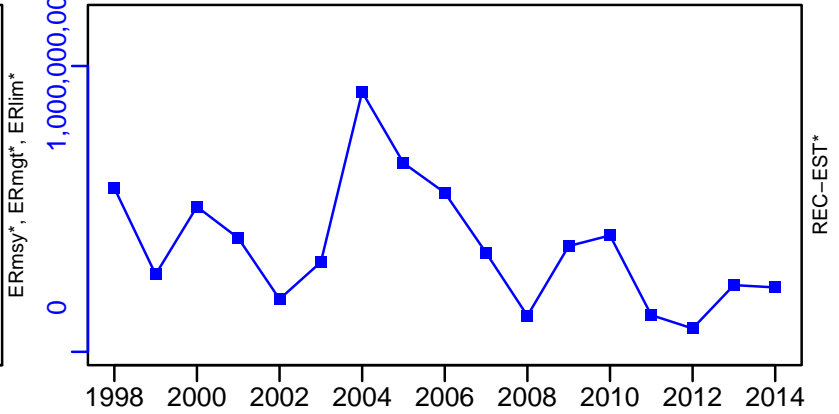
F-1/yr (1969–2015–PARMA)



ER-calc-ratio (1969–2015–PARMA)

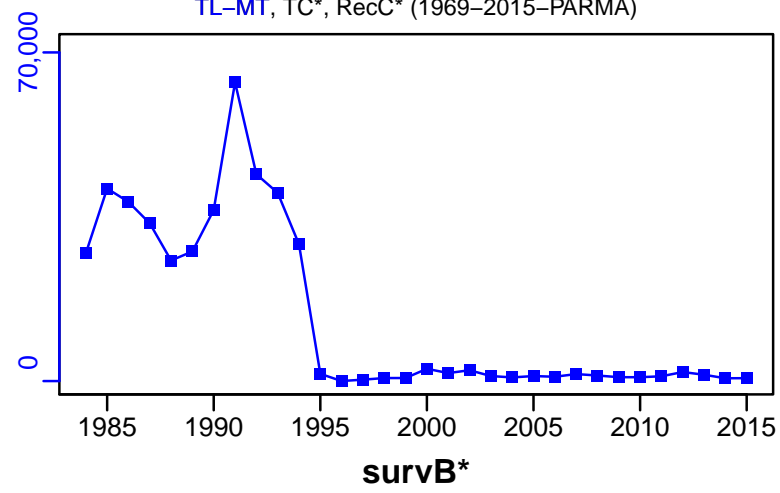


R-E00 (1969–2015–PARMA)

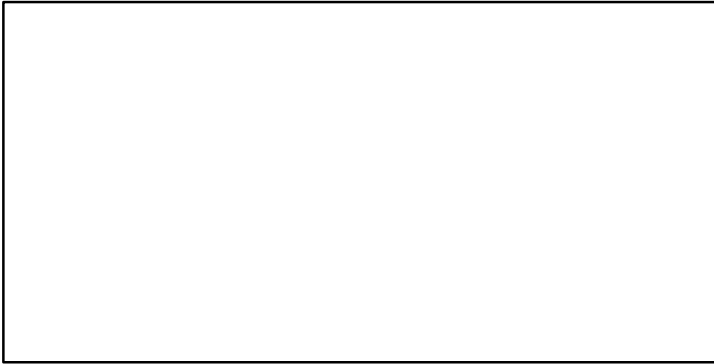
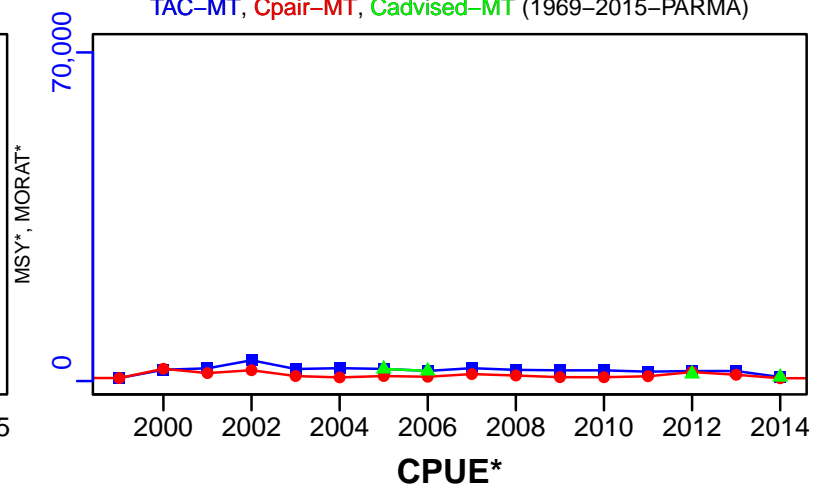


Red squat lobster Northern Chile [RSQLOBSTERNCH]

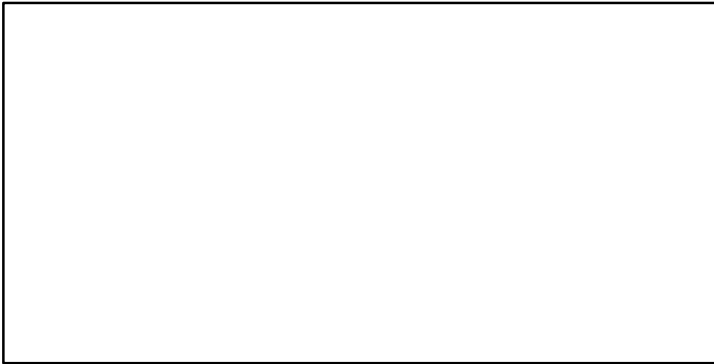
TL-MT, TC*, RecC* (1969-2015-PARMA)



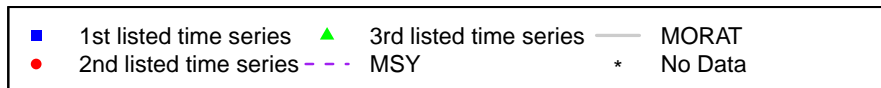
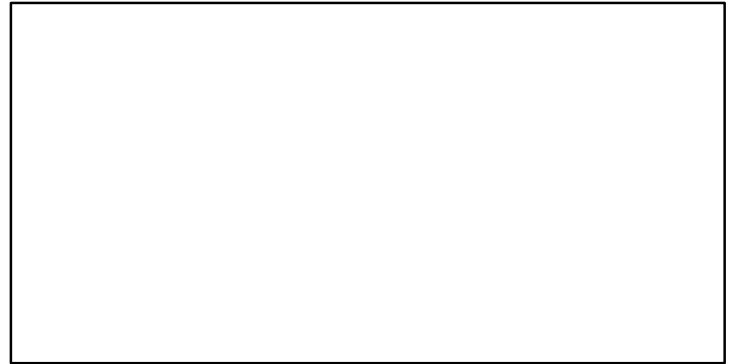
TAC-MT, Cpair-MT, Cadvised-MT (1969-2015-PARMA)



EFFORT*



CdivMSY*



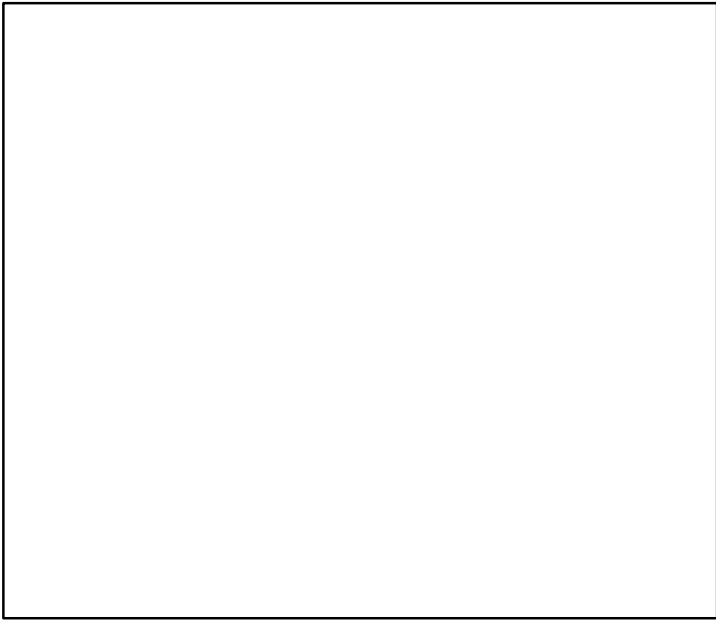
Deepwater cardinalfish Chile [SBREAMCH]

| Metadata | |
|-----------------------------|--|
| Scientific Name | Epigonus crassicaudus |
| Current Assess ID | SPRFMO-SBREAMCH-1989-2011-CHING |
| Area | Chile |
| Management Authority | South Pacific Regional Fisheries Management Organization |
| Assessor | South Pacific Regional Fisheries Management Organization |
| Asmts in RAM | 2011 |

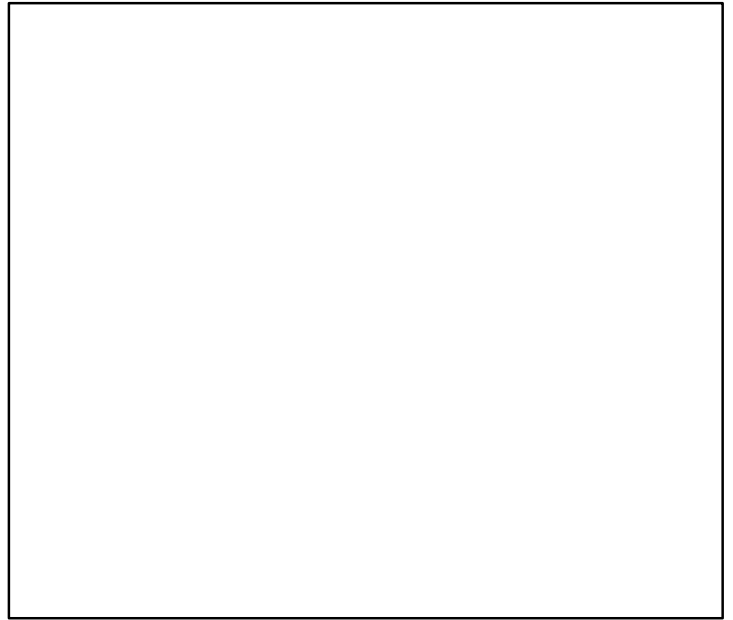
| Reference Points | | | |
|------------------|----|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | - | - | - |
| Fmsy | - | - | - |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | - | - | - |
| Fmgt | - | - | - |
| ERmgt | - | - | - |
| TB0 | - | - | -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

| Time Series | | | | | |
|-------------|---------------|-----------|------------|-----|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2011 | 920 | - | - |
| SSB | SSB-MT | 2011 | 607 | - | - |
| TN | - | - | - | - | - |
| R | R-E00 | 2011 | 553,000 | - | - |
| F | F-1/yr | 2011 | 12.2 | - | - |
| ER | ER-calc-ratio | 2011 | 0.097 | - | - |
| TC | - | - | - | | |
| TL | TL-MT | 2011 | 89 | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | - | - | - | | |
| F/Fmsy | - | - | - | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | - | - | - | | |
| F/Fmgt | - | - | - | | |
| ER/ERmgt | - | - | - | | |

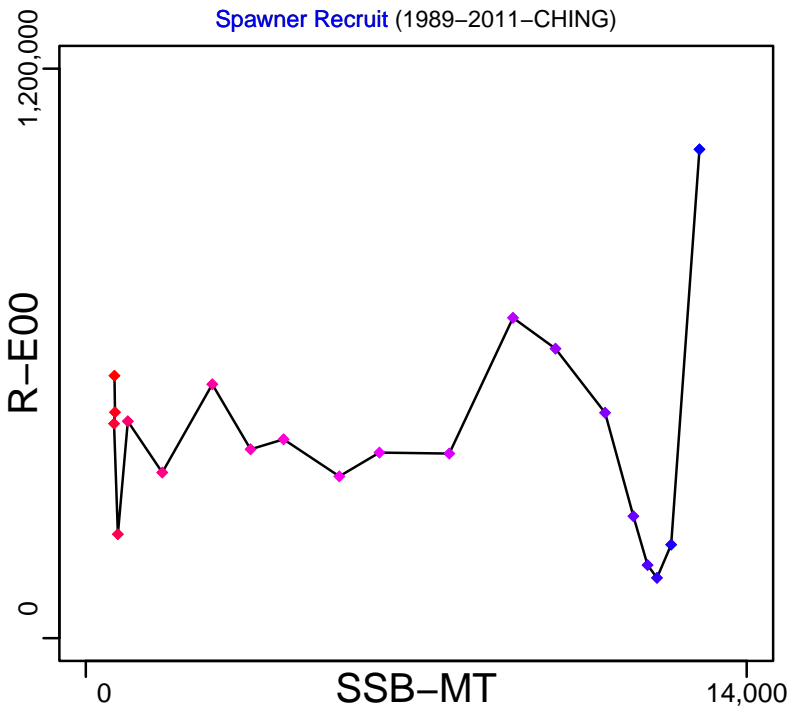
Kobe MSY*



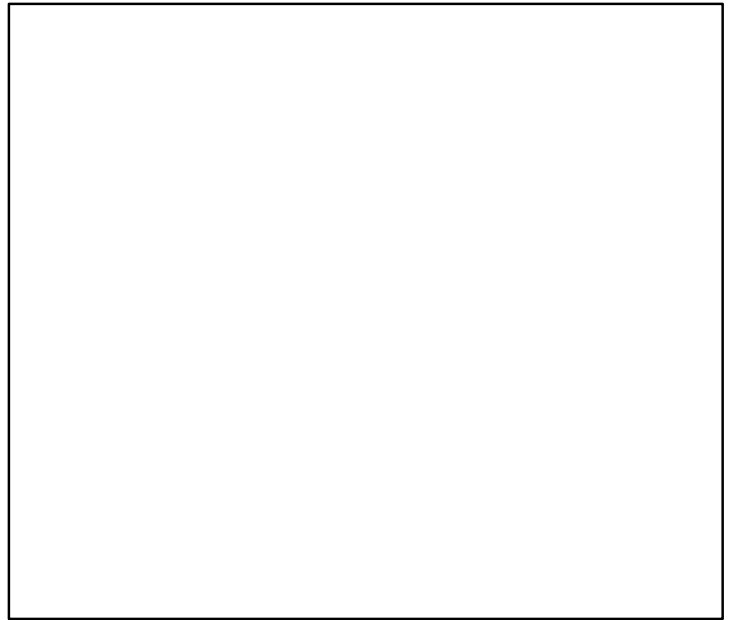
Kobe MGT*



Spawner Recruit (1989–2011–CHING)



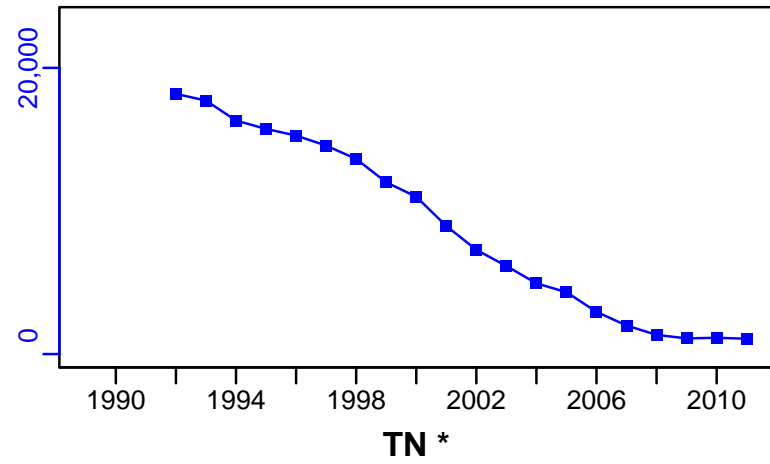
Production*



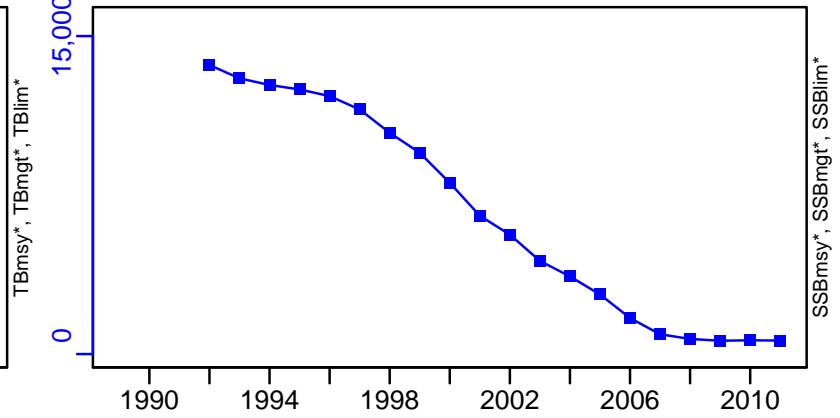
◆ Start Year ◆ End Year * No Data

Deepwater cardinalfish Chile [SBREAMCH]

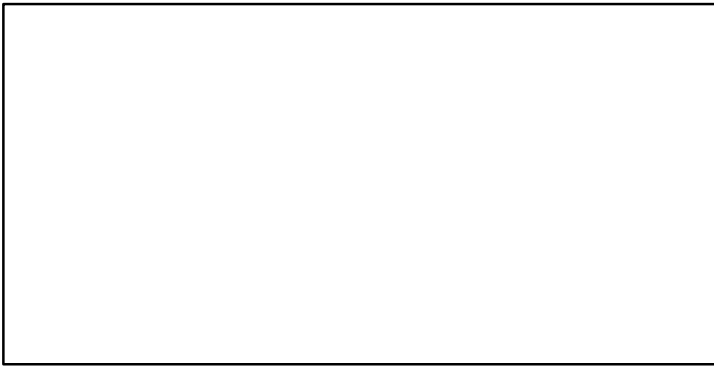
TB-MT (1989–2011–CHING)



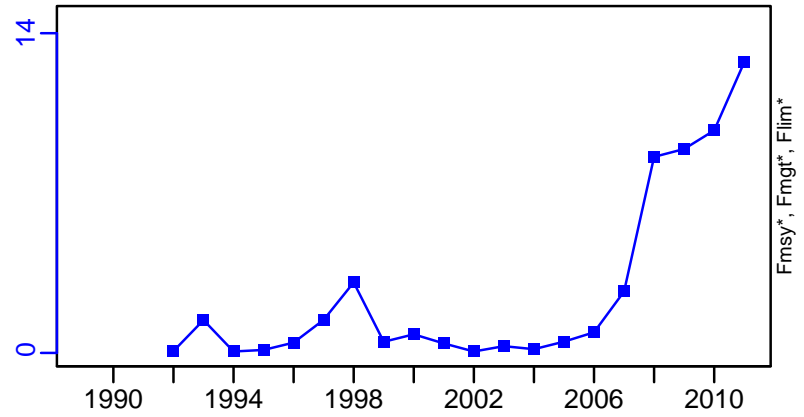
SSB-MT (1989–2011–CHING)



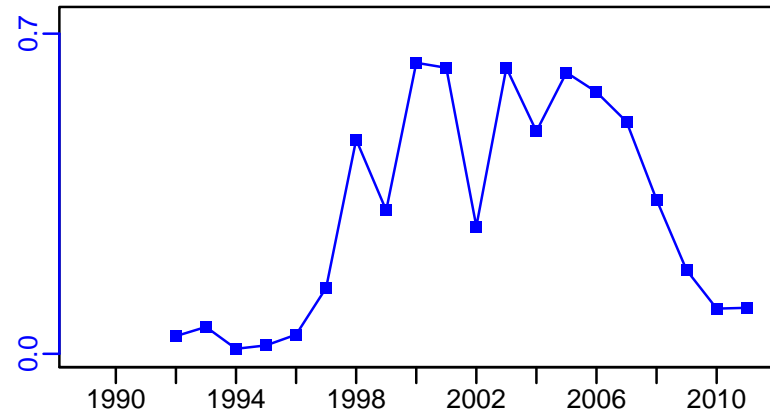
TN *



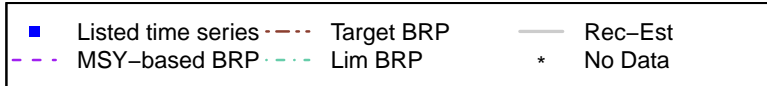
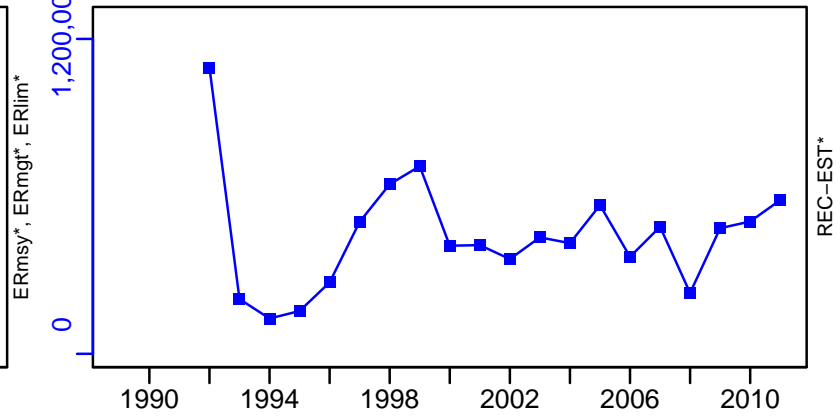
F-1/yr (1989–2011–CHING)



ER-calc-ratio (1989–2011–CHING)



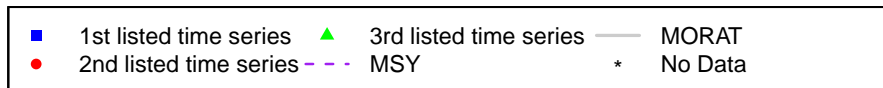
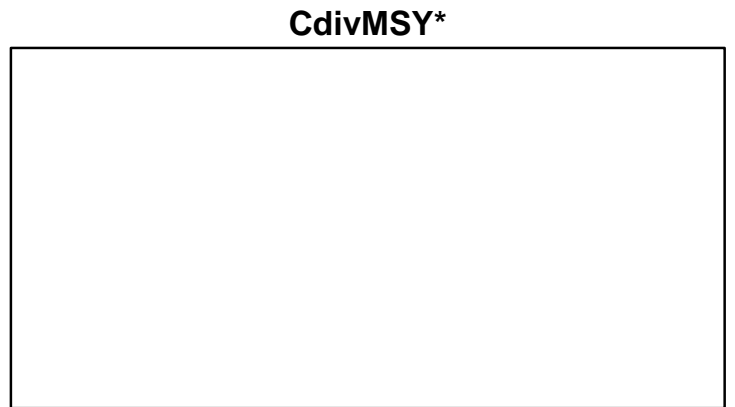
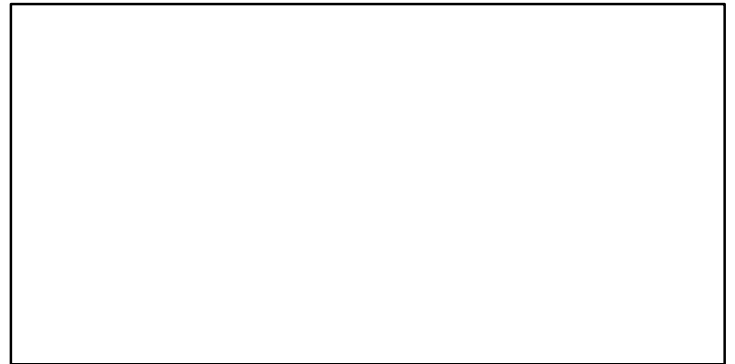
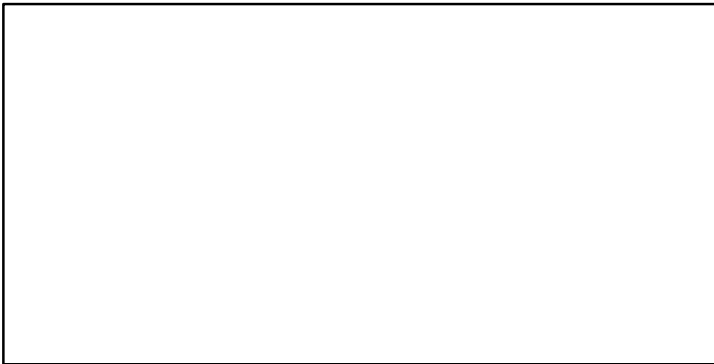
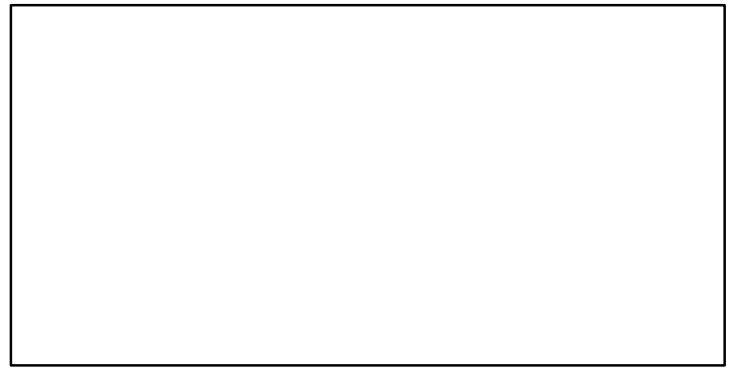
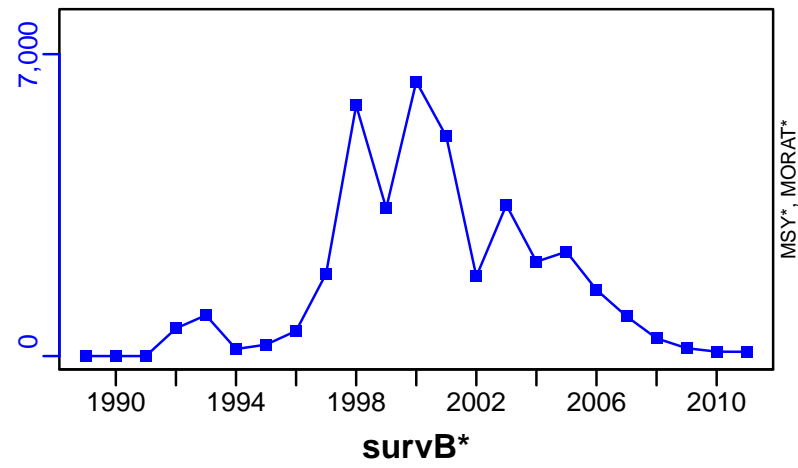
R-E00 (1989–2011–CHING)



Deepwater cardinalfish Chile [SBREAMCH]

TL-MT, TC*, RecC* (1989-2011-CHING)

TAC*, Cpair*, Cadv*



Southern blue whiting Southern Argentina [SBWHITARGS]

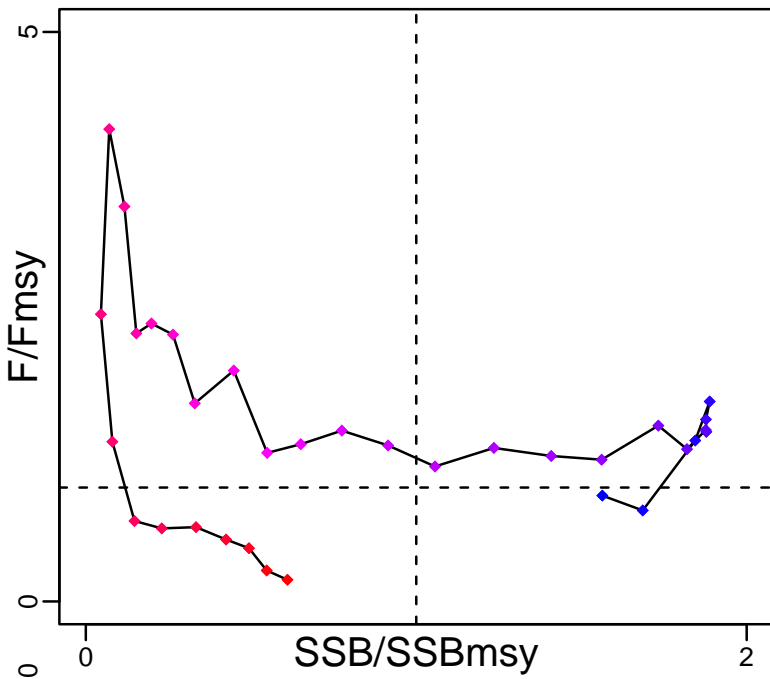
| Metadata | |
|-----------------------------|---|
| Scientific Name | Micromesistius australis |
| Current Assess ID | INIDEP-SBWHITARGS-1985-2020-PARMA |
| Area | Southern Argentina |
| Management Authority | Consejo Federal Pesquero, Argentina national management |
| Assessor | Instituto Nacional de Investigacion y Desarrollo Pesquero |
| Asmts in RAM | 2007, 2015, 2020 |

| Reference Points | | | |
|------------------|-----------|-----------|-----------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | SSBmsy-MT | 2020 | 565,722 |
| Fmsy | Fmsy-1/yr | 2020 | 0.184 |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | SSBmgt-MT | 2020 | 454,500 |
| Fmgt | Fmgt-1/yr | 2020 | 0.181 |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | SSB0-MT | 2015 | 1,515,000 |
| MSY | MSY-MT | 2020 | 96,296 |
| M | M-1/yr | 2020 | 0.15 |
| TBlim | - | - | - |
| SSBlim | SSBlim-MT | 2015 | 303,000 |
| Flim | - | - | - |
| ERlim | - | - | - |

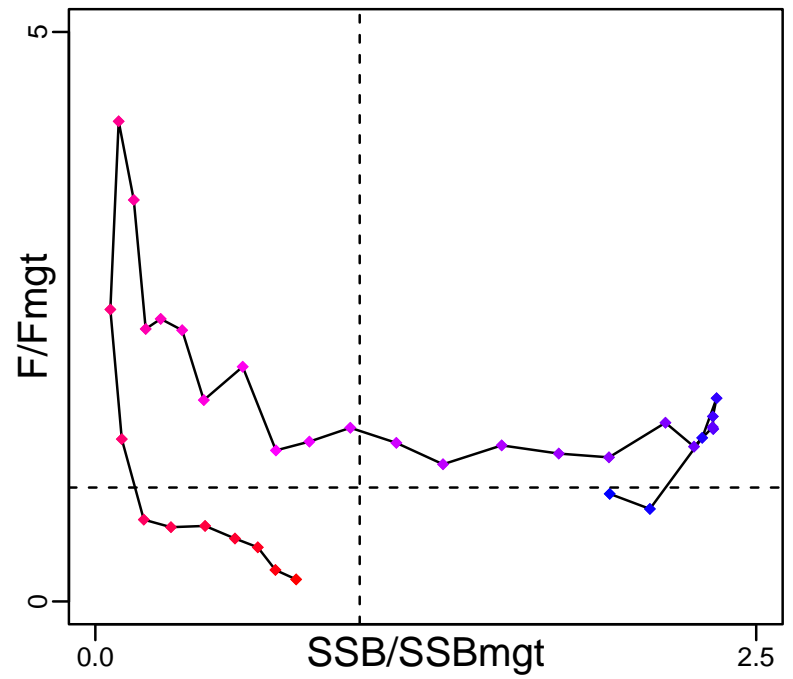
| Time Series | | | | | |
|-------------------|------------------|-----------|-------------|------|-------|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2020 | 435,368 | - | 1+ |
| SSB | SSB-MT | 2020 | 345,247 | Both | 2+ |
| TN | - | - | - | - | - |
| R | R-E00 | 2020 | 273,046,667 | - | 1 |
| F | F-1/yr | 2020 | 0.035 | - | 3-21+ |
| ER | ER-calc-ratio | 2020 | 0.039 | - | - |
| TC | TC-MT | 2020 | 15,050 | | |
| TL | - | - | - | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-MT | 2020 | 0.61 | | |
| F/Fmsy | F-1/yr/Fmsy-1/yr | 2020 | 0.19 | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | SSB-MT/SSBmgt-MT | 2020 | 0.76 | | |
| F/Fmgt | F-1/yr/Fmgt-1/yr | 2020 | 0.193 | | |
| ER/ERmgt | - | - | - | | |

Southern blue whiting Southern Argentina [SBWHITARGS]

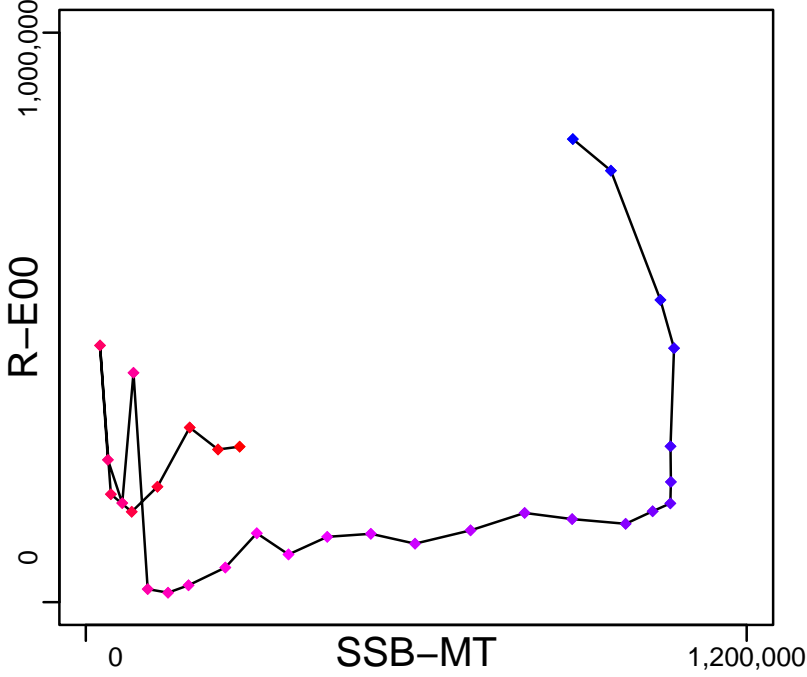
Kobe MSYpref (1985–2020–PARMA)



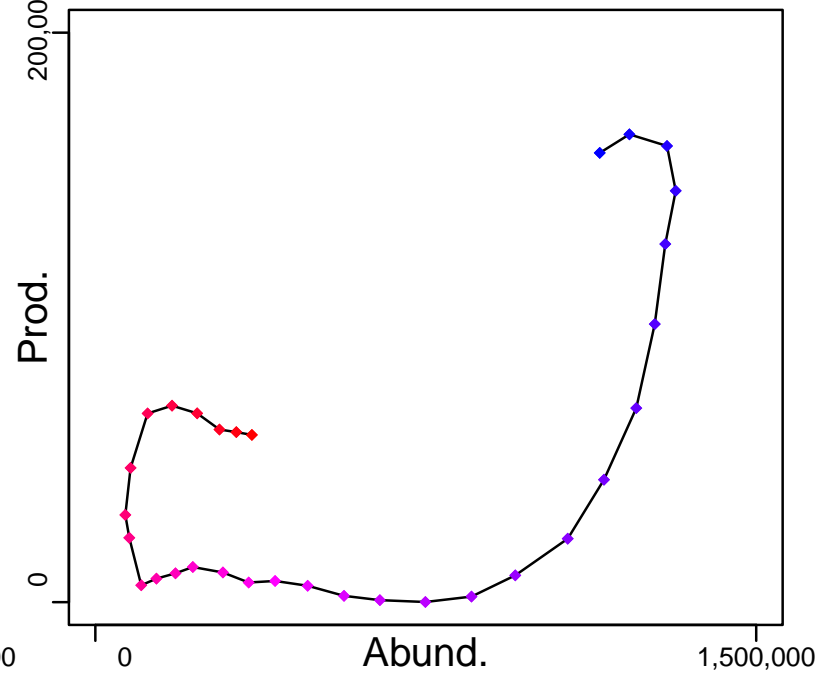
Kobe MGTpref (1985–2020–PARMA)



Spawner Recruit (1985–2020–PARMA)



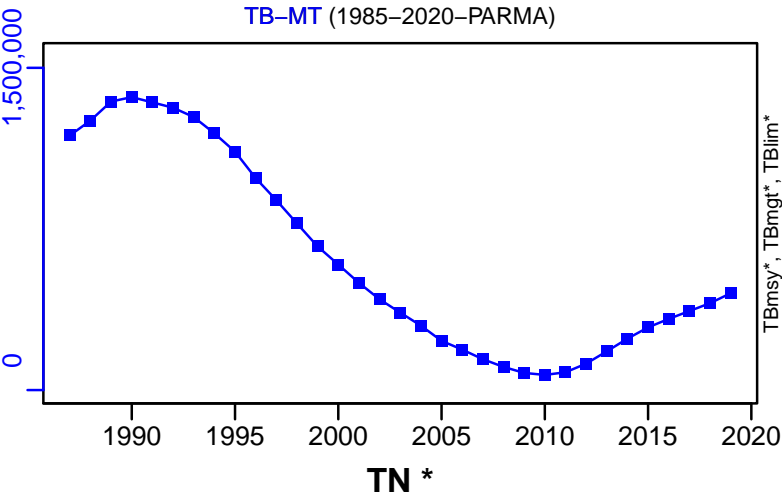
Production (1985–2020–PARMA)



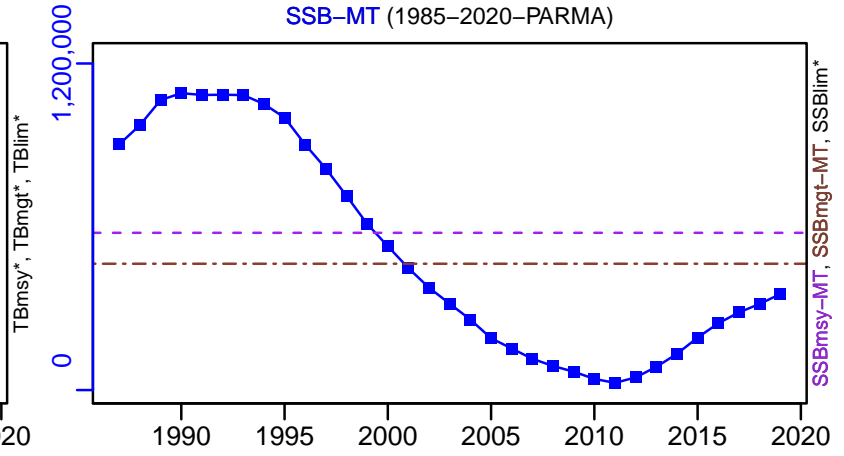
◆ Start Year ◆ End Year * No Data

Southern blue whiting Southern Argentina [SBWHITARGS]

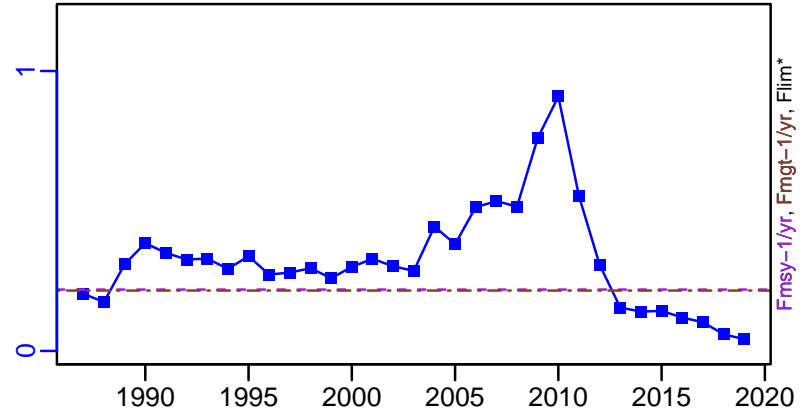
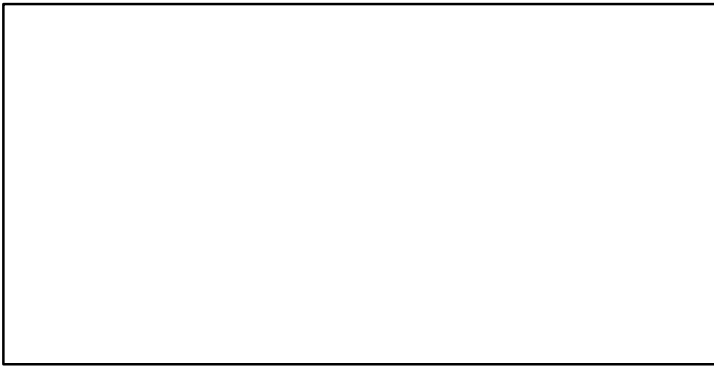
TB-MT (1985-2020-PARMA)



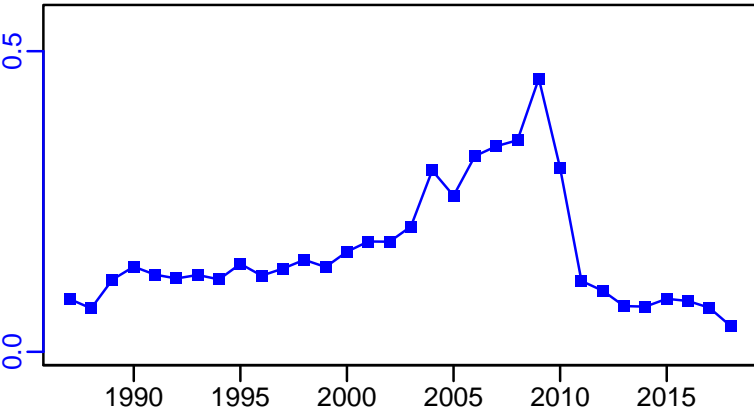
SSB-MT (1985-2020-PARMA)



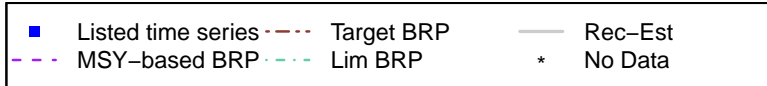
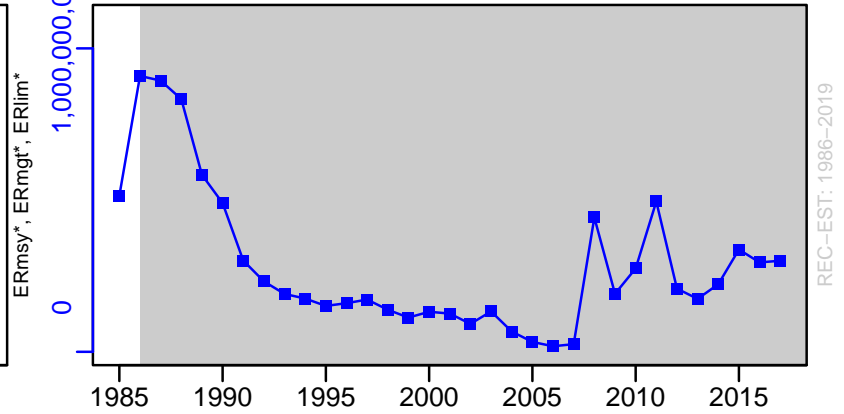
F-1/yr (1985-2020-PARMA)



ER-calc-ratio (1985-2020-PARMA)

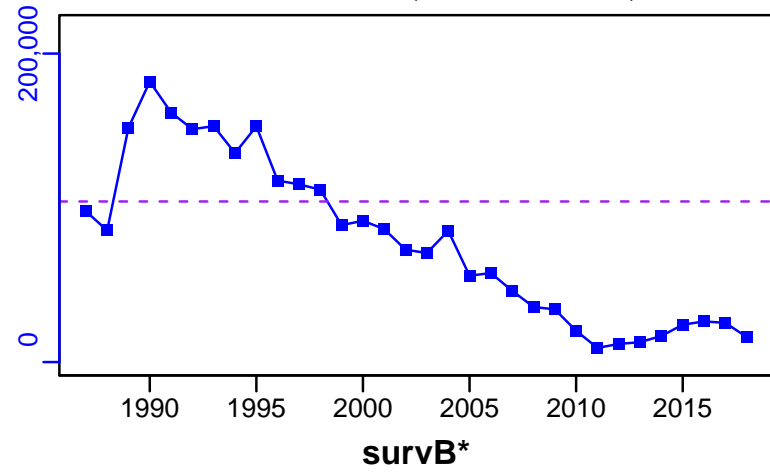


R-E00 (1985-2020-PARMA)

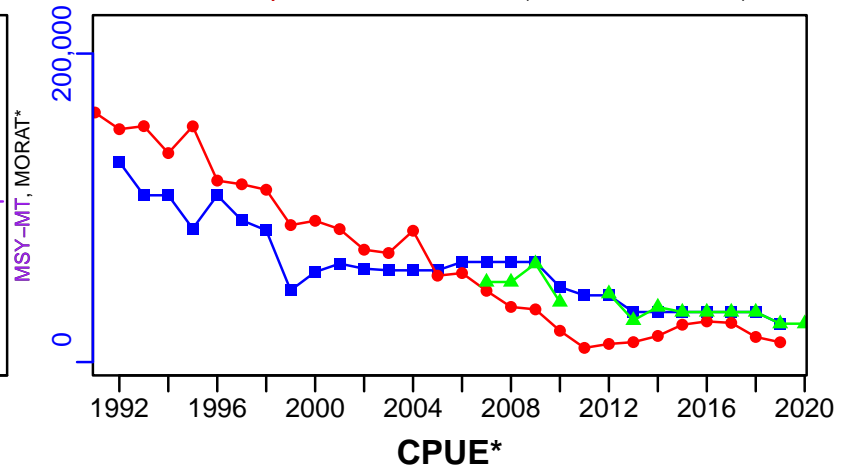


Southern blue whiting Southern Argentina [SBWHITARGS]

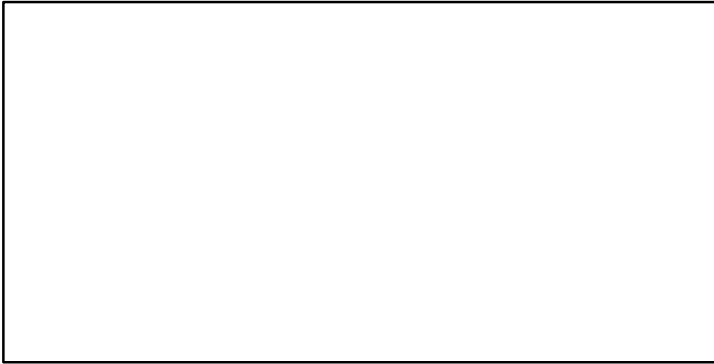
TC-MT, TL*, RecC* (1985-2020-PARMA)



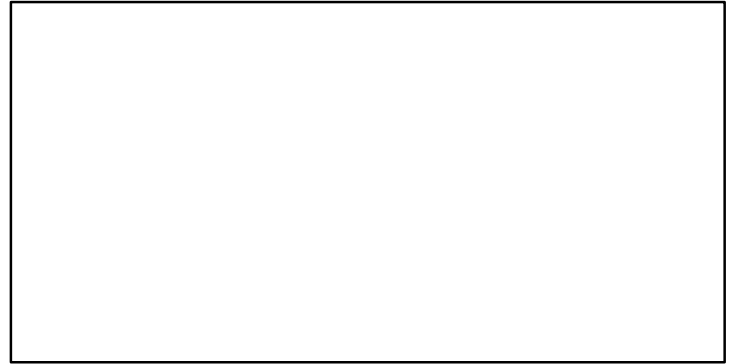
TAC-MT, Cpair-MT, Cadvised-MT (1985-2020-PARMA)



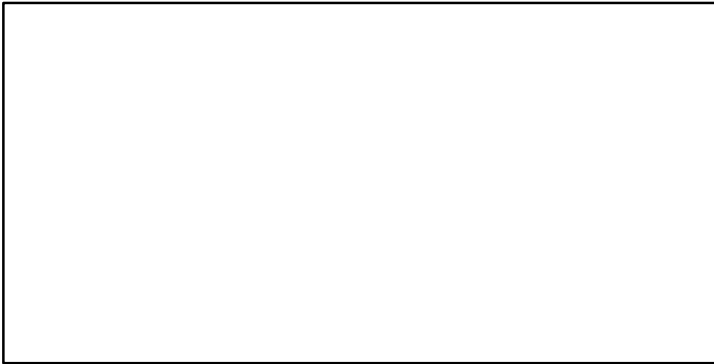
survB*



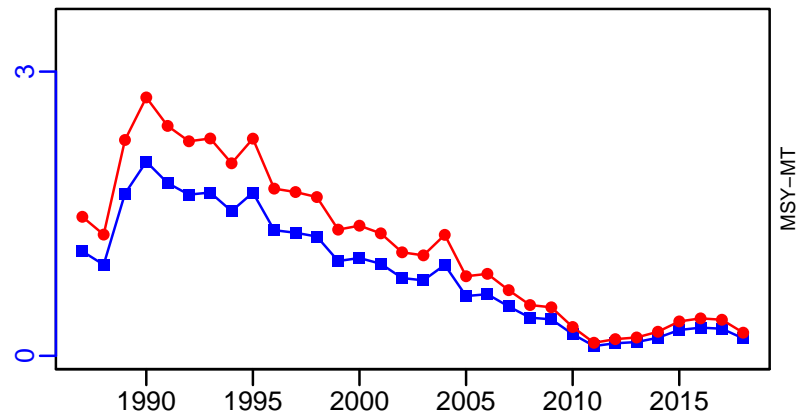
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1985-2020-PARMA)



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

Southern blue whiting Central-Southern Chile [SBWHITCH]

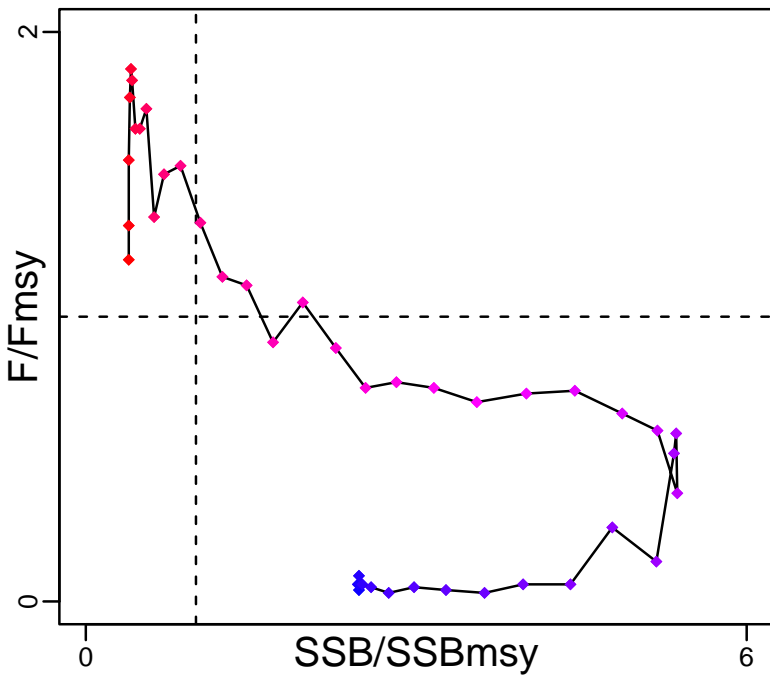
| Metadata | |
|-----------------------------|---|
| Scientific Name | Micromesistius australis |
| Current Assess ID | IFOPCH-SBWHITCH-1978-2020-Quiroz |
| Area | Central-Southern Chile |
| Management Authority | Subsecretaria de Pesca |
| Assessor | Instituto de Fomento Pesquero - Chilean Fisheries Development Institute |
| Asmts in RAM | 2015, 2016, 2020, 2012 |

| Reference Points | | | |
|------------------|--------------|-----------|---------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | SSBmsy-pr-MT | 2020 | 183,968 |
| Fmsy | Fmsy-pr-1/yr | 2020 | 0.194 |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | SSBmgt-MT | 2020 | 183,968 |
| Fmgt | Fmgt-1/yr | 2015 | 0.2 |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | SSB0-MT | 2020 | 459,920 |
| MSY | - | - | - |
| M | M-1/yr | 2016 | 0.18 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

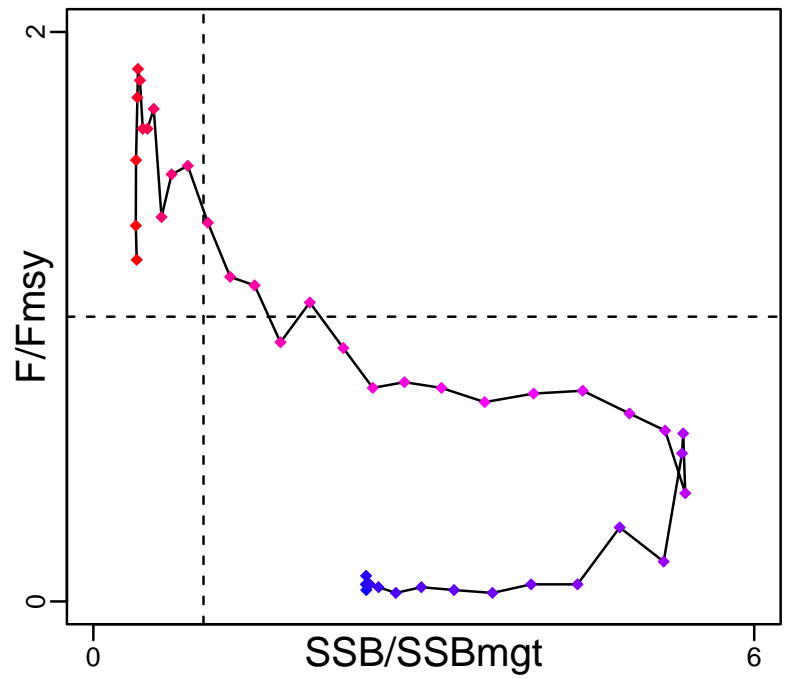
| Time Series | | | | | |
|-------------------|----------------------------|-----------|------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2020 | 130,562 | Both | - |
| SSB | SSB-MT | 2020 | 72,421 | Both | - |
| TN | - | - | - | - | - |
| R | R-E00 | 2020 | 121,775 | Both | - |
| F | F-1/yr | 2020 | 0.23 | Both | - |
| ER | ER-calc-ratio | 2020 | 0.02 | - | - |
| TC | TC-MT | 2020 | 2634 | | |
| TL | TL-MT | 2015 | 16,600 | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | SSBdivSSBmsy-dimensionless | 2020 | 0.39 | | |
| F/Fmsy | FdivFmsy-dimensionless | 2020 | 1.2 | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | SSB-MT/SSBmgt-MT | 2020 | 0.394 | | |
| F/Fmgt | F-1/yr/Fmgt-1/yr | 2015 | 1.02 | | |
| ER/ERmgt | - | - | - | | |

Southern blue whiting Central–Southern Chile [SBWHITCH]

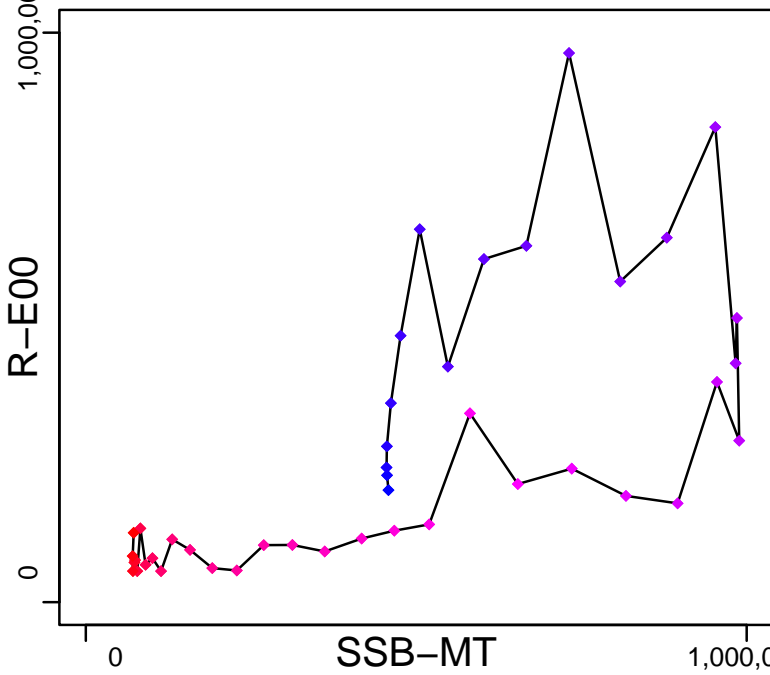
Kobe MSYpref (1978–2020–Quiroz)



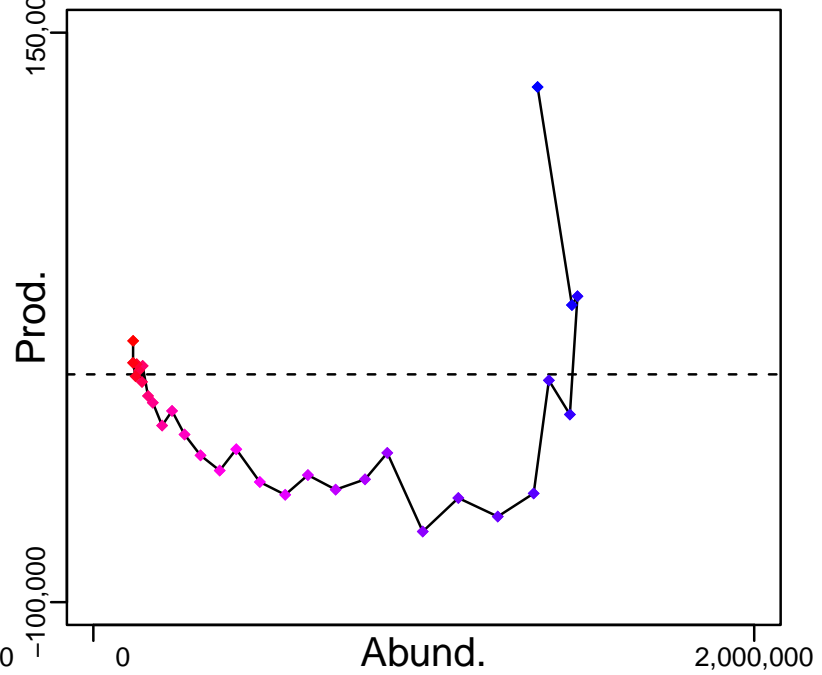
Kobe MGTpref (1978–2020–Quiroz)



Spawner Recruit (1978–2020–Quiroz)



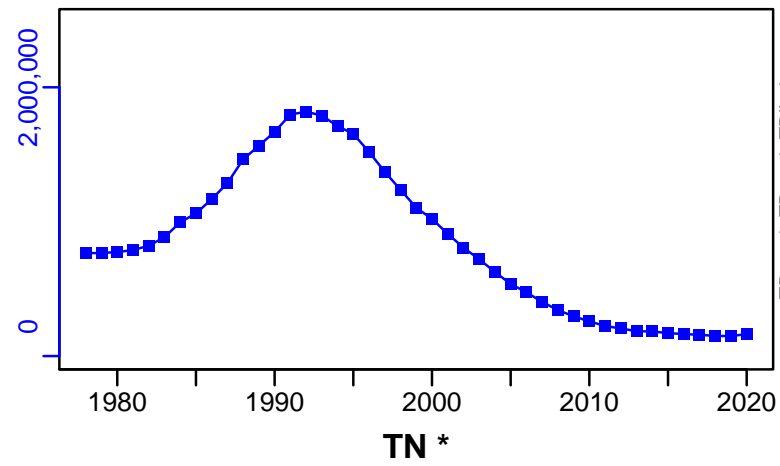
Production (1978–2020–Quiroz)



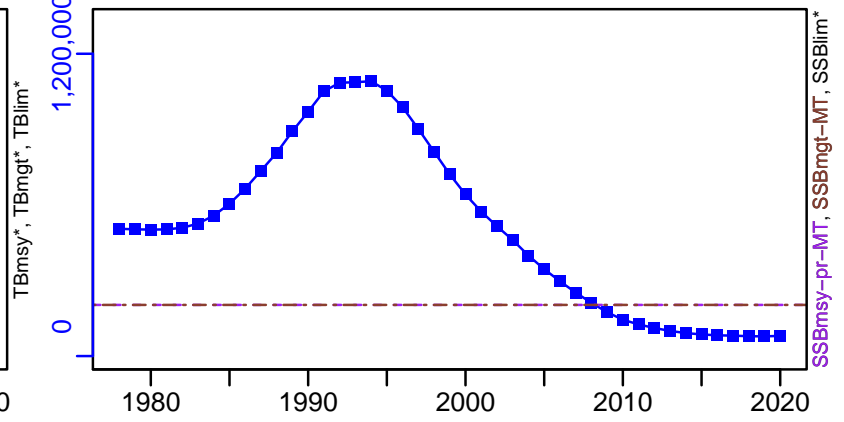
◆ Start Year ◆ End Year * No Data

Southern blue whiting Central–Southern Chile [SBWHITCH]

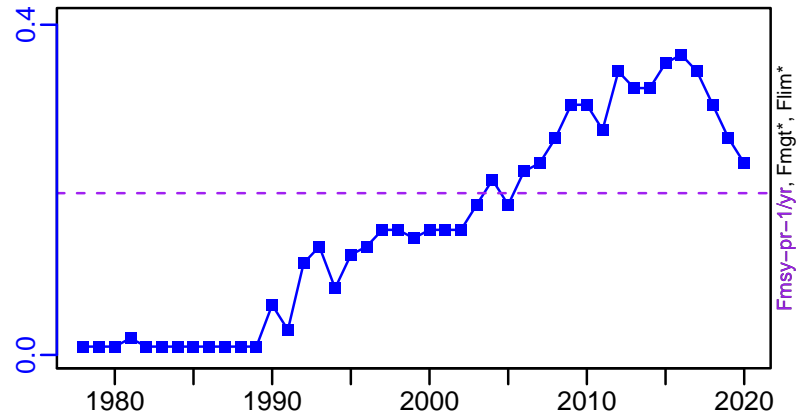
TB–MT (1978–2020–Quiroz)



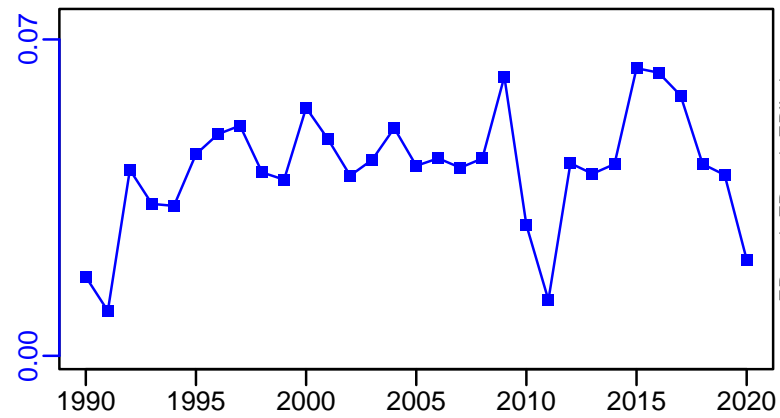
SSB–MT (1978–2020–Quiroz)



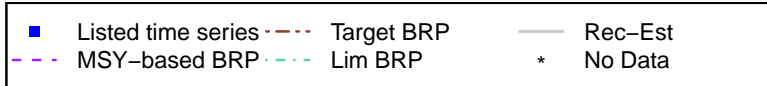
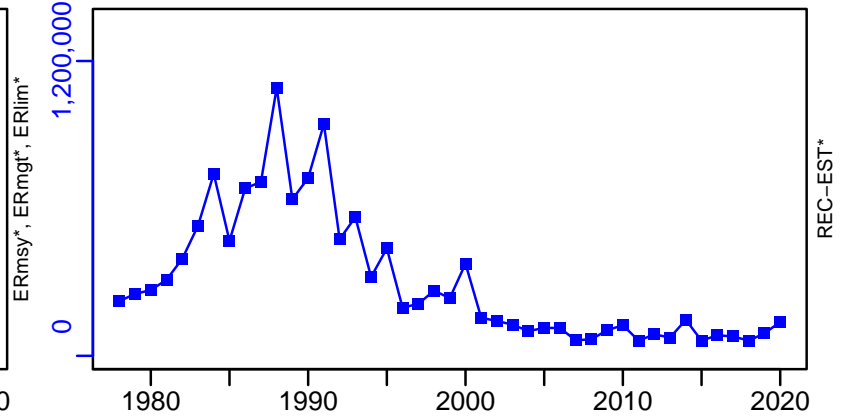
F–1/yr (1978–2020–Quiroz)



ER–calc–ratio (1978–2020–Quiroz)

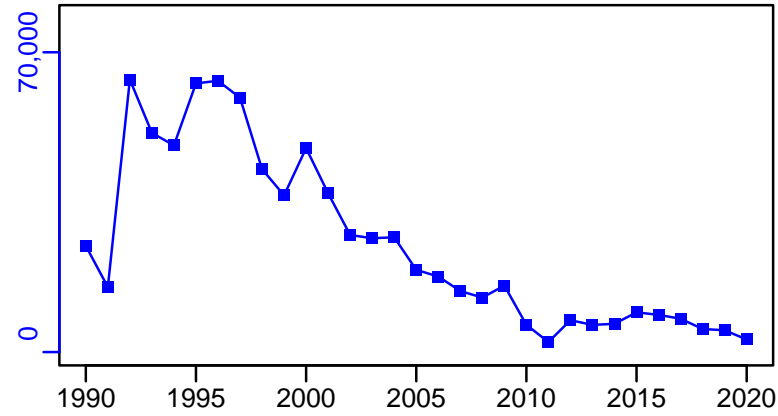


R–E00 (1978–2020–Quiroz)

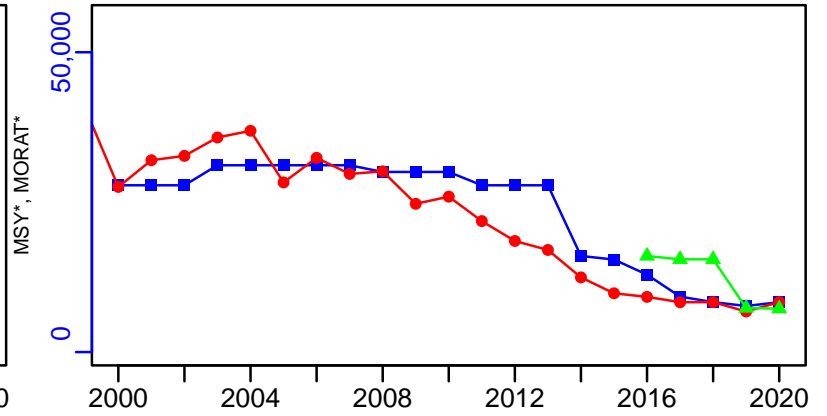


Southern blue whiting Central–Southern Chile [SBWHITCH]

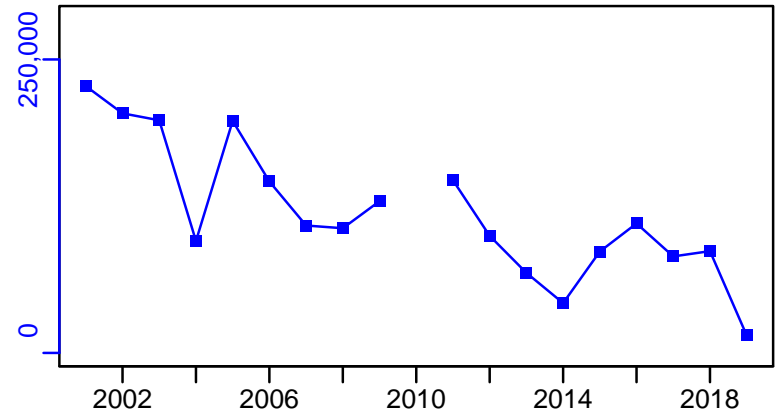
TC–MT, TL*, RecC* (1978–2020–Quiroz)



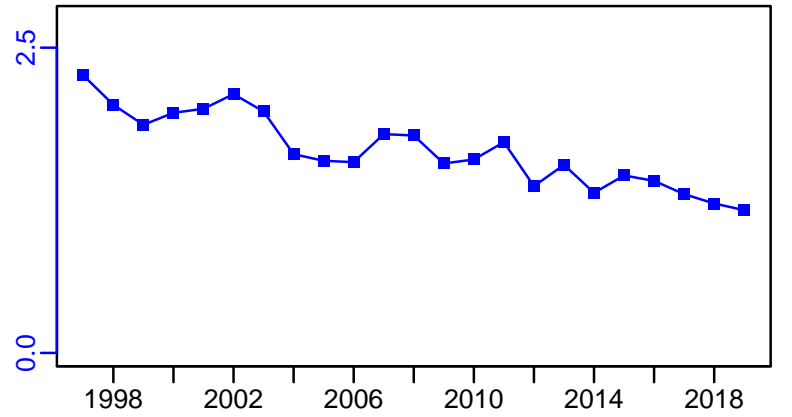
TAC–MT, Cpair–MT, Cadvised–MT (1978–2020–Quiroz)



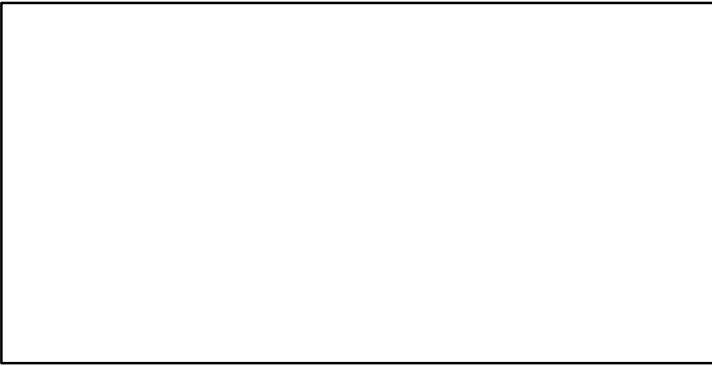
survB_absolute–MT (1978–2020–Quiroz)



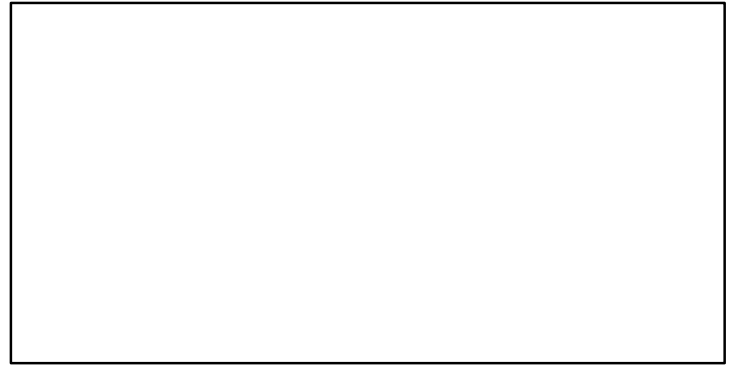
CPUE–index (1978–2020–Quiroz)



EFFORT*



CdivMSY*



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

Southern hake Central-Southern Chile [SOUTHHAKECH]

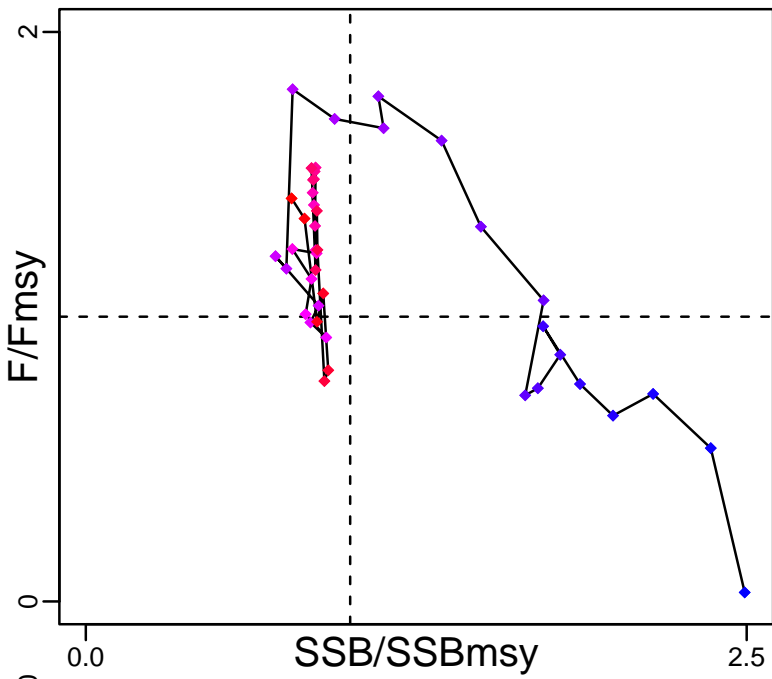
| Metadata | |
|-----------------------------|---|
| Scientific Name | Merluccius australis |
| Current Assess ID | IFOPCH-SOUTHHAKECH-1977-2019-Quiroz |
| Area | Central-Southern Chile |
| Management Authority | Subsecretaria de Pesca |
| Assessor | Instituto de Fomento Pesquero - Chilean Fisheries Development Institute |
| Asmts in RAM | 2011, 2015, 2019 |

| Reference Points | | | |
|------------------|--------------|-----------|---------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | SSBmsy-pr-MT | 2019 | 184,844 |
| Fmsy | Fmsy-pr-1/yr | 2019 | 0.257 |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | SSBmgt-MT | 2015 | 172,400 |
| Fmgt | Fmgt-1/yr | 2015 | 0.313 |
| ERmgt | - | - | - |
| TB0 | TB0-MT | 2015 | 940,000 |
| SSB0 | SSB0-MT | 2019 | 462,111 |
| MSY | - | - | - |
| M | M-1/yr | 2015 | 0.21 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

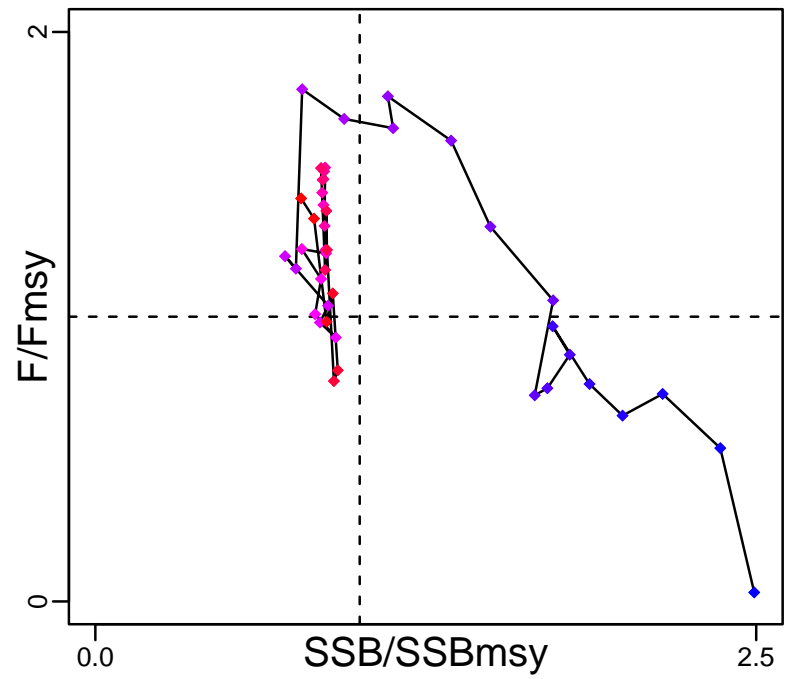
| Time Series | | | | | |
|-------------------|----------------------------|-----------|-------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2019 | 548,813 | - | - |
| SSB | SSB-MT | 2019 | 143,892 | Both | - |
| TN | - | - | - | - | - |
| R | R-E00 | 2019 | 115,428,000 | Both | - |
| F | F-1/yr | 2019 | 0.364 | Both | - |
| ER | ER-ratio | 2019 | 1.415 | - | - |
| TC | TC-MT | 2019 | 28,214 | | |
| TL | TL-MT | 2015 | 16,200 | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | SSBdivSSBmsy-dimensionless | 2019 | 0.778 | | |
| F/Fmsy | FdivFmsy-dimensionless | 2019 | 1.415 | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | SSB-MT/SSBmgt-MT | 2015 | 0.539 | | |
| F/Fmgt | F-1/yr/Fmgt-1/yr | 2015 | 1.086 | | |
| ER/ERmgt | - | - | - | | |

Southern hake Central–Southern Chile [SOUTHHAKECH]

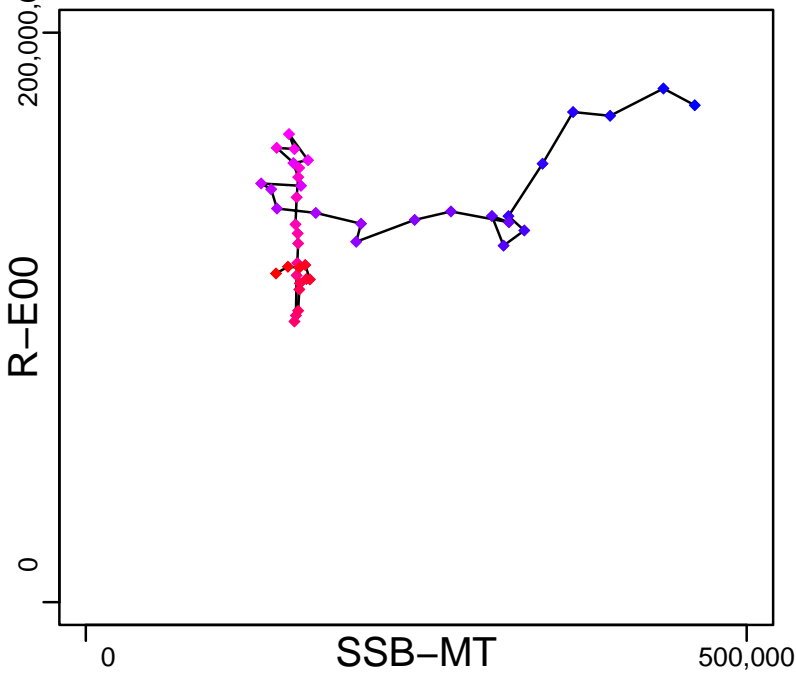
Kobe MSYpref (1977–2019–Quiroz)



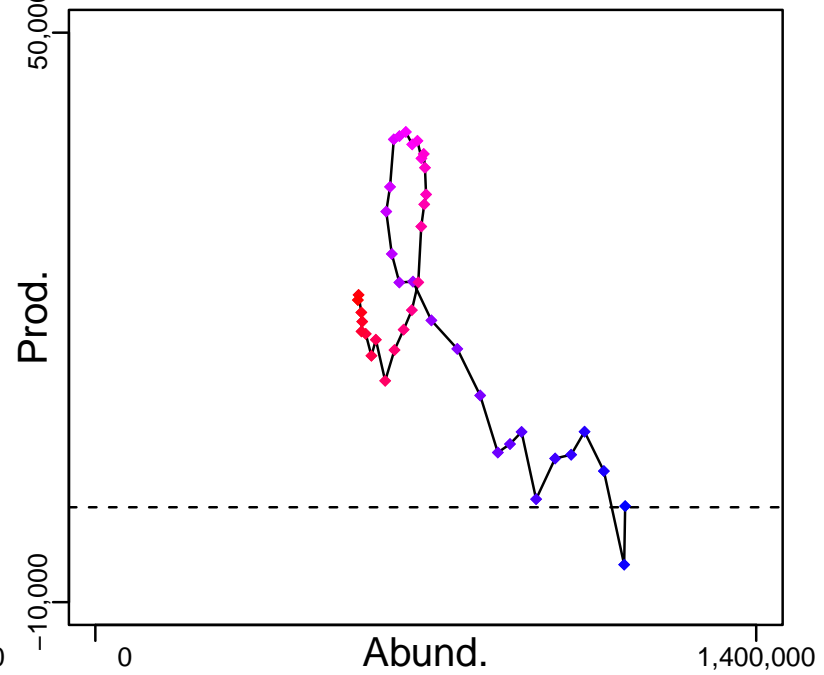
Kobe MGTpref (1977–2019–Quiroz)



Spawner Recruit (1977–2019–Quiroz)



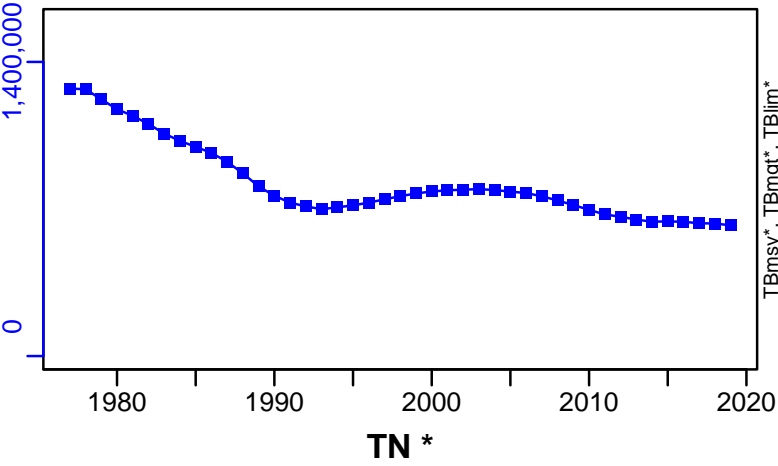
Production (1977–2019–Quiroz)



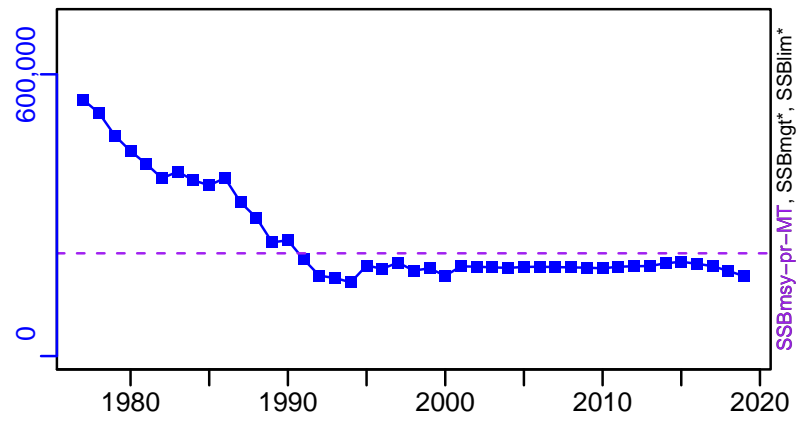
◆ Start Year ◆ End Year * No Data

Southern hake Central–Southern Chile [SOUTHHAKECH]

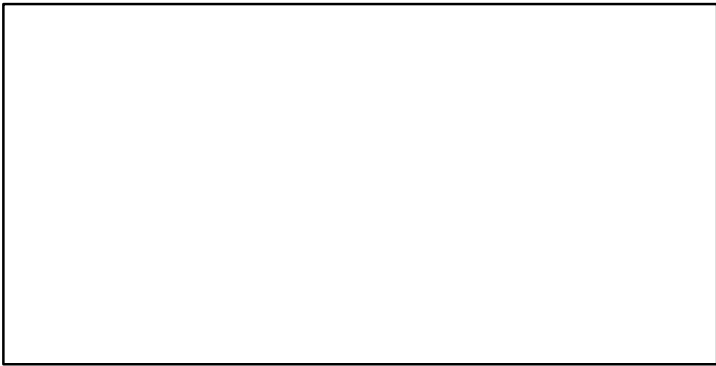
TB–MT (1977–2019–Quiroz)



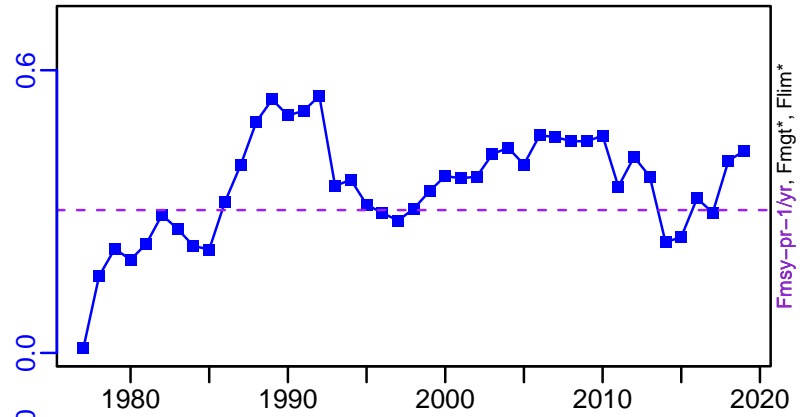
SSB–MT (1977–2019–Quiroz)



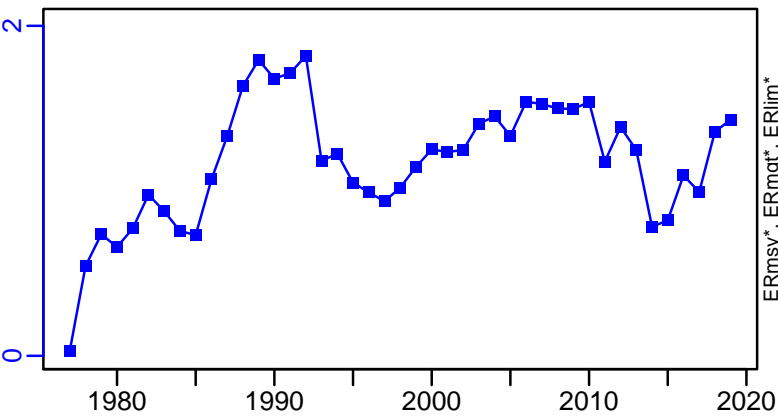
TN *



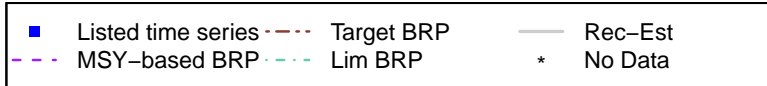
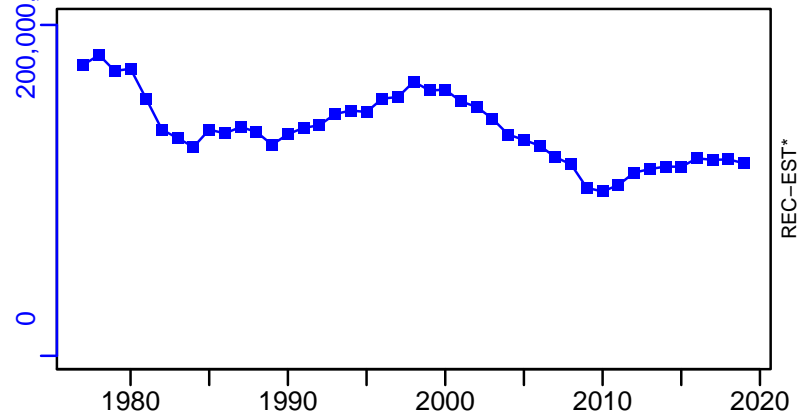
F–1/yr (1977–2019–Quiroz)



ER–ratio (1977–2019–Quiroz)

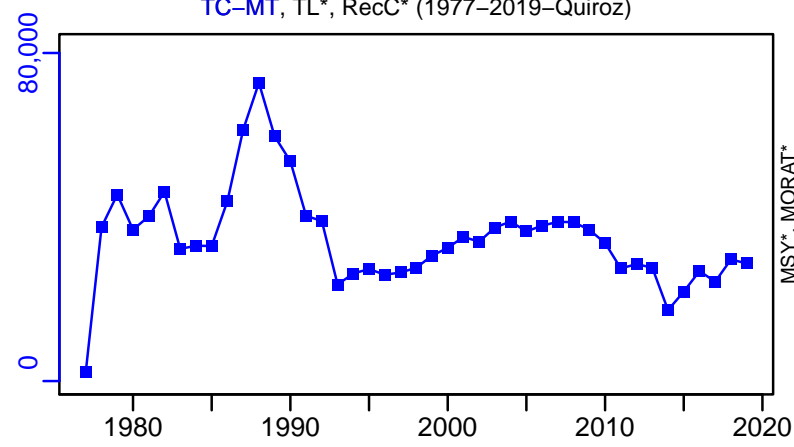


R–E00 (1977–2019–Quiroz)

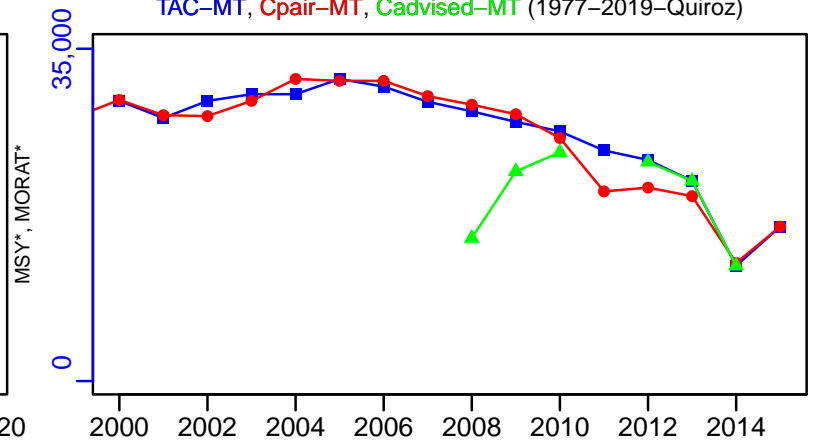


Southern hake Central–Southern Chile [SOUTHHAKECH]

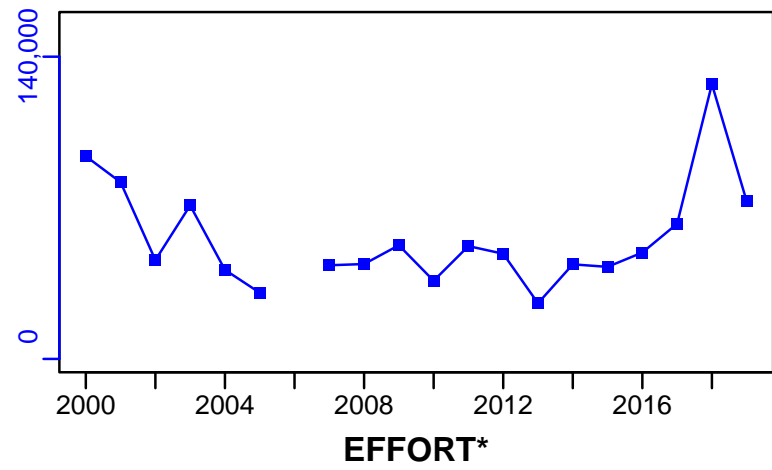
TC–MT, TL*, RecC* (1977–2019–Quiroz)



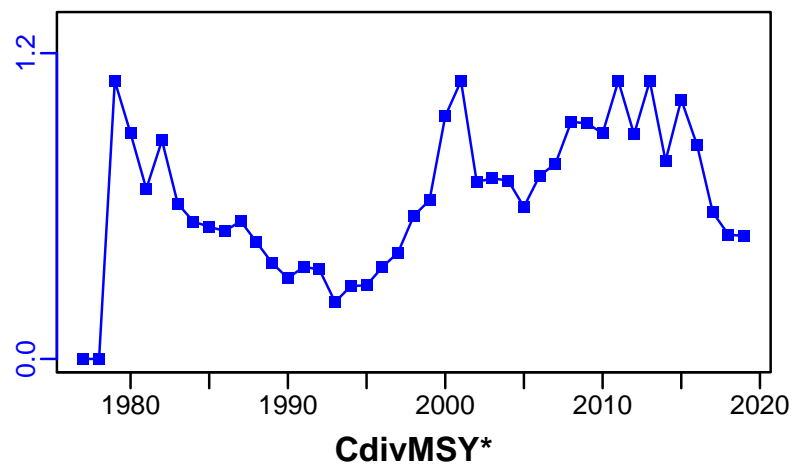
TAC–MT, Cpair–MT, Cadvised–MT (1977–2019–Quiroz)



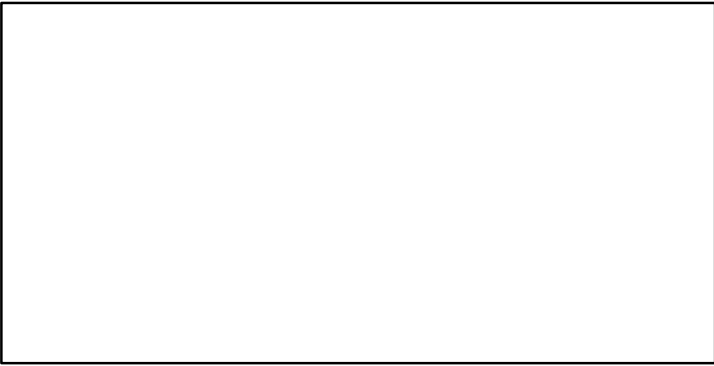
survB_absolute–MT (1977–2019–Quiroz)



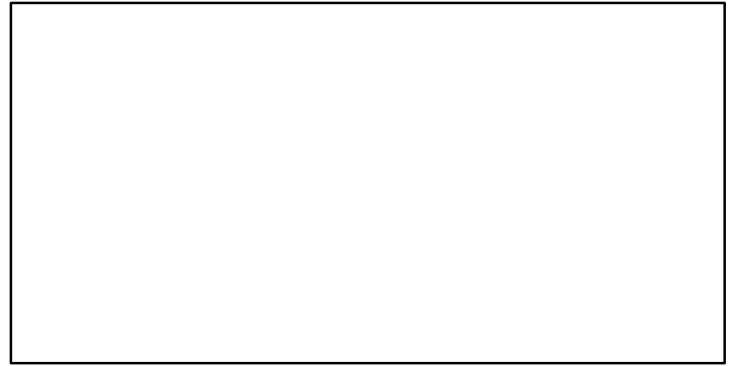
CPUE-1-index (1977–2019–Quiroz)



EFFORT*



CdivMSY*



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

South Pacific hake Central-Southern Chile [SPHAKECH]

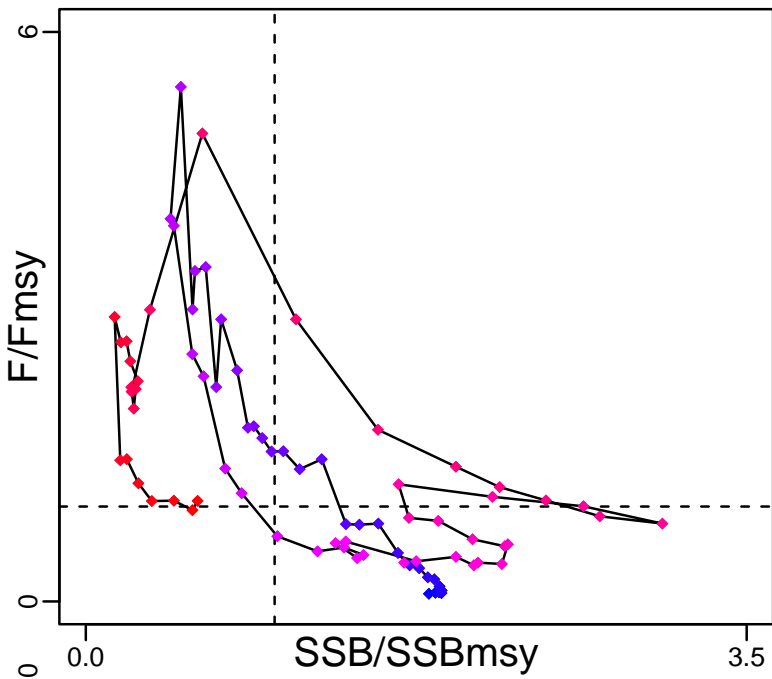
| Metadata | |
|-----------------------------|---|
| Scientific Name | Merluccius gayi |
| Current Assess ID | IFOPCH-SPHAKECH-1940-2020-Quiroz |
| Area | Central-Southern Chile |
| Management Authority | Subsecretaria de Pesca |
| Assessor | Instituto de Fomento Pesquero - Chilean Fisheries Development Institute |
| Asmts in RAM | 2015, 2020, 2012 |

| Reference Points | | | |
|------------------|--------------|-----------|---------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | SSBmsy-pr-MT | 2020 | 280,000 |
| Fmsy | Fmsy-pr-1/yr | 2020 | 0.2 |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | SSBmgt-MT | 2020 | 280,000 |
| Fmgt | Fmgt-1/yr | 2020 | 0.2 |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | SSB0-MT | 2020 | 587,360 |
| MSY | - | - | - |
| M | M-1/yr | 2015 | 0.33 |
| TBlim | - | - | - |
| SSBlim | - | - | - |
| Flim | - | - | - |
| ERlim | - | - | - |

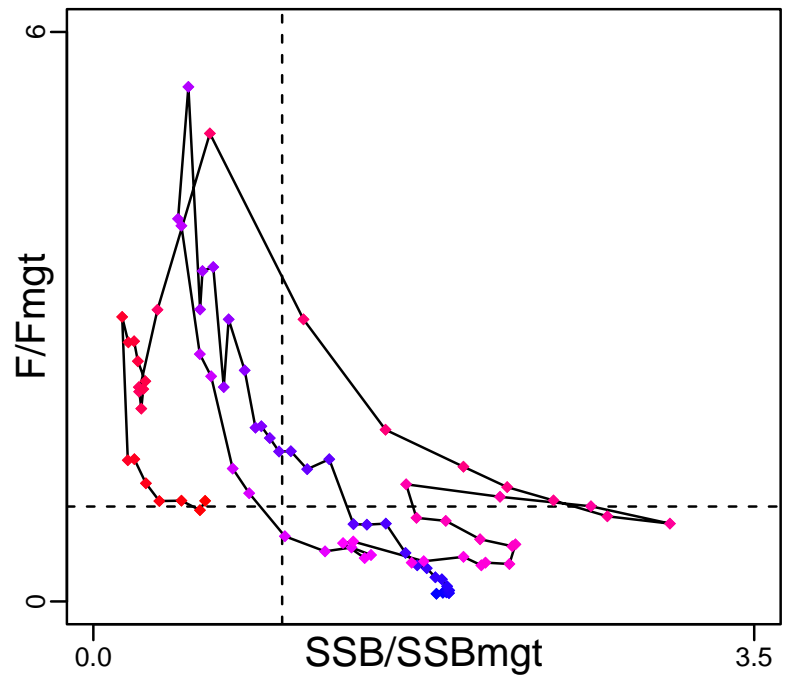
| Time Series | | | | | |
|-------------------|----------------------------|-----------|-------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2020 | 381,369 | - | - |
| SSB | SSB-MT | 2020 | 165,767 | Both | - |
| TN | - | - | - | - | - |
| R | R-E00 | 2020 | 412,339,000 | Both | - |
| F | F-1/yr | 2020 | 0.212 | - | - |
| ER | ER-calc-ratio | 2020 | 0.145 | - | - |
| TC | - | - | - | | |
| TL | TL-MT | 2020 | 55,400 | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | SSBdivSSBmsy-dimensionless | 2020 | 0.592 | | |
| F/Fmsy | FdivFmsy-dimensionless | 2020 | 1.06 | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | SSB-MT/SSBmgt-MT | 2020 | 0.592 | | |
| F/Fmgt | F-1/yr/Fmgt-1/yr | 2020 | 1.06 | | |
| ER/ERmgt | - | - | - | | |

South Pacific hake Central–Southern Chile [SPHAKECH]

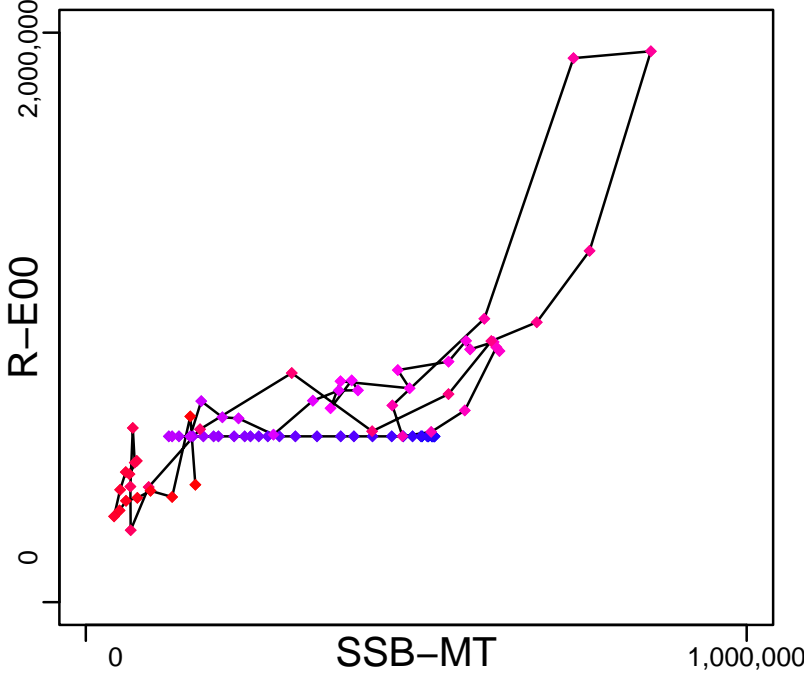
Kobe MSYpref (1940–2020–Quiroz)



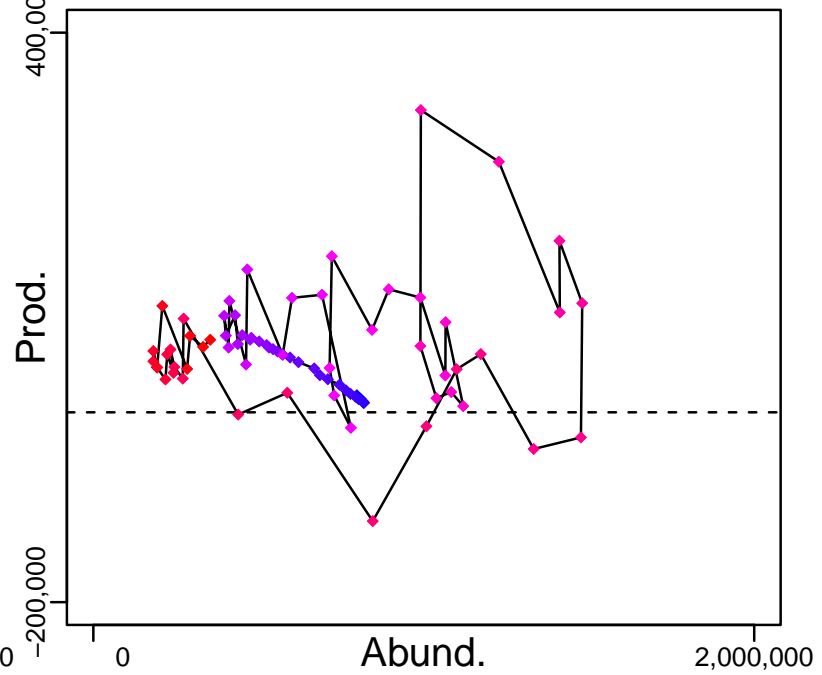
Kobe MGTpref (1940–2020–Quiroz)



Spawner Recruit (1940–2020–Quiroz)



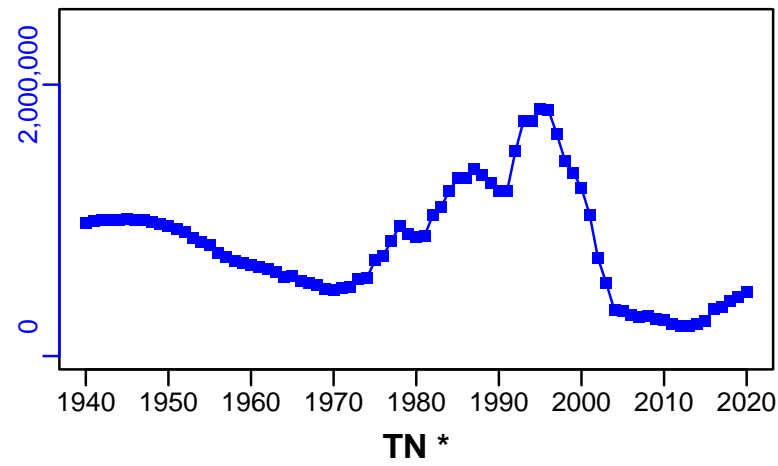
Production (1940–2020–Quiroz)



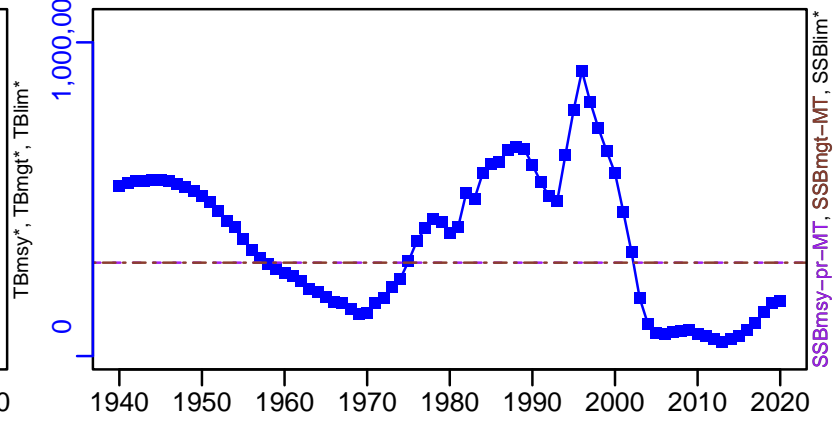
◆ Start Year ◆ End Year * No Data

South Pacific hake Central–Southern Chile [SPHAKECH]

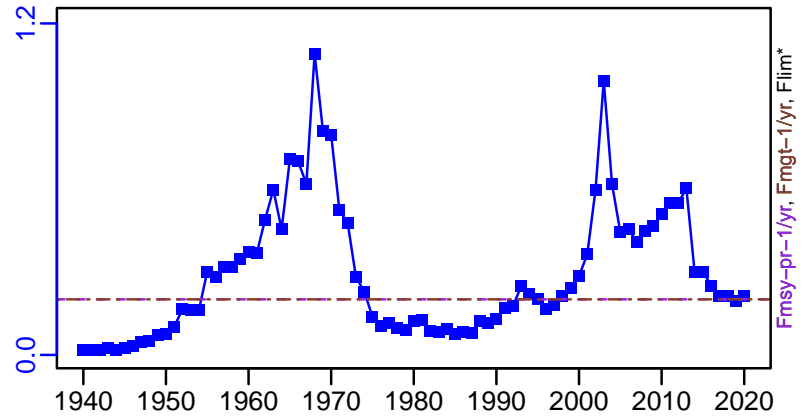
TB–MT (1940–2020–Quiroz)



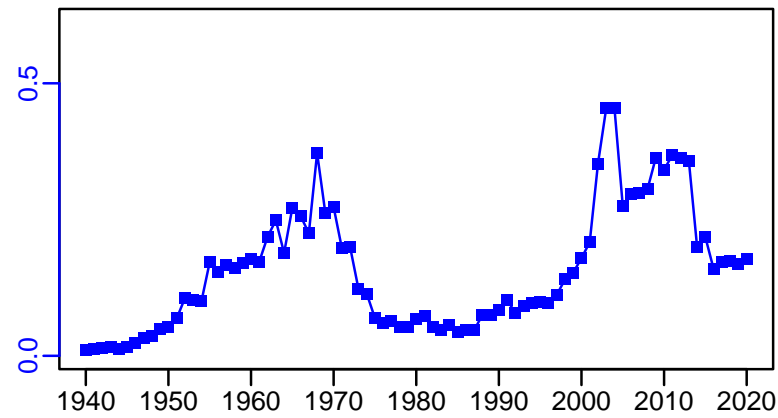
SSB–MT (1940–2020–Quiroz)



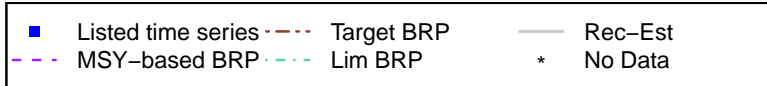
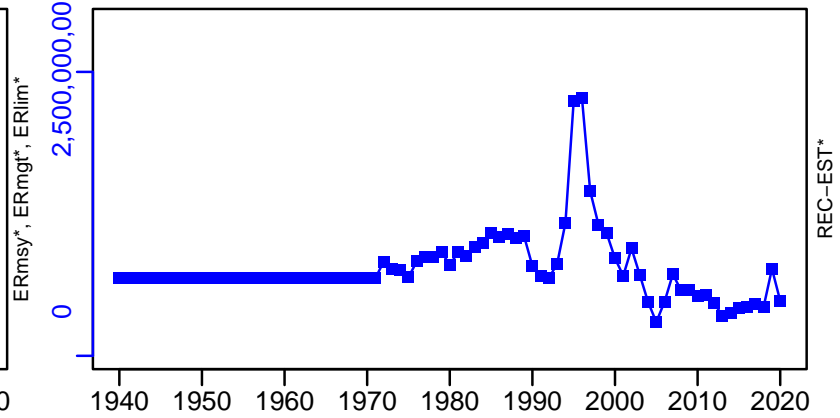
F–1/yr (1940–2020–Quiroz)



ER–calc–ratio (1940–2020–Quiroz)

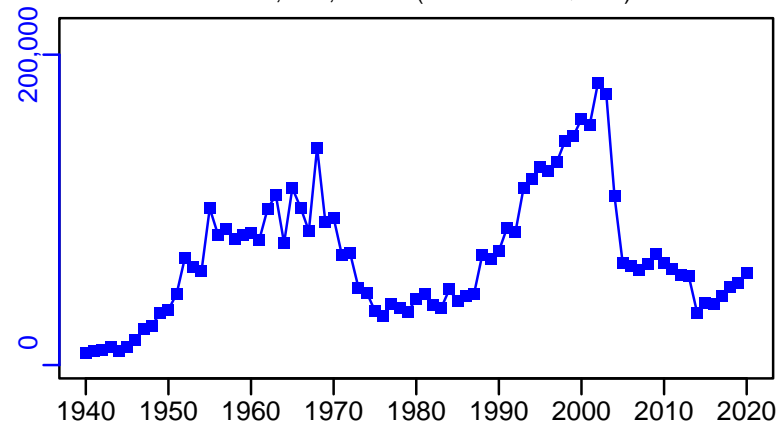


R–E00 (1940–2020–Quiroz)

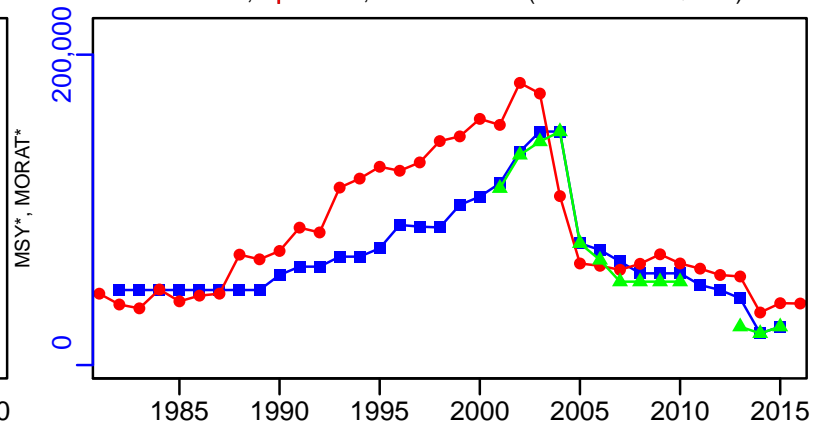


South Pacific hake Central–Southern Chile [SPHAKECH]

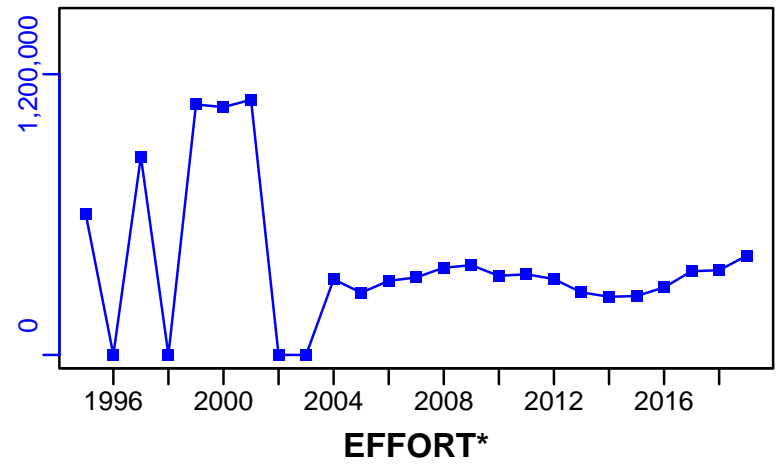
TL–MT, TC*, RecC* (1940–2020–Quiroz)



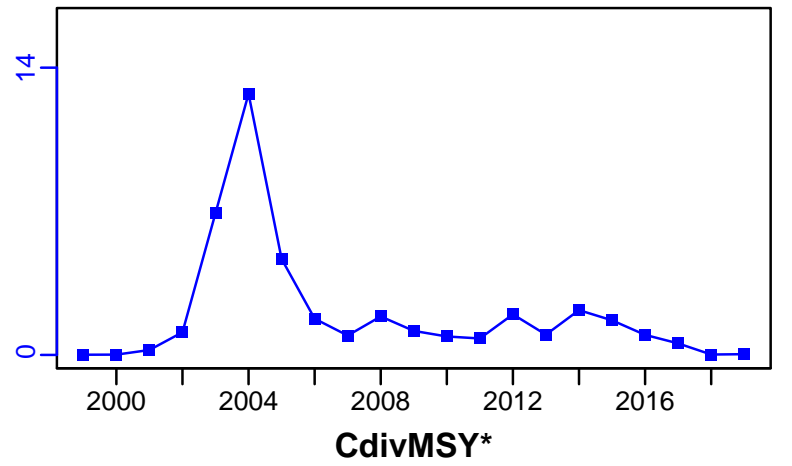
TAC–MT, Cpair–MT, Cadvised–MT (1940–2020–Quiroz)



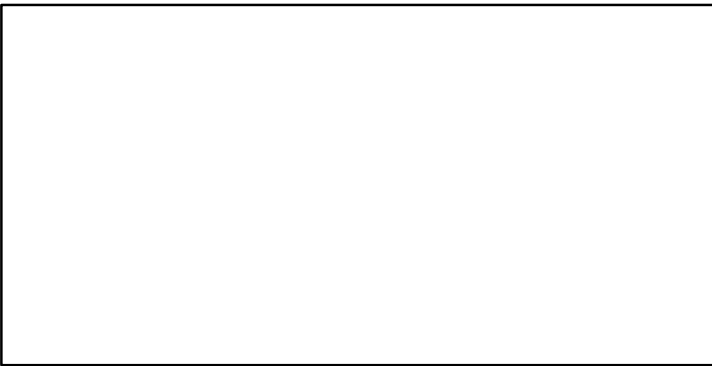
survB_absolute–MT (1940–2020–Quiroz)



CPUE–index (1940–2020–Quiroz)



EFFORT*



CdivMSY*



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

Southern sardine Central-Southern Chile [SSARDCH]

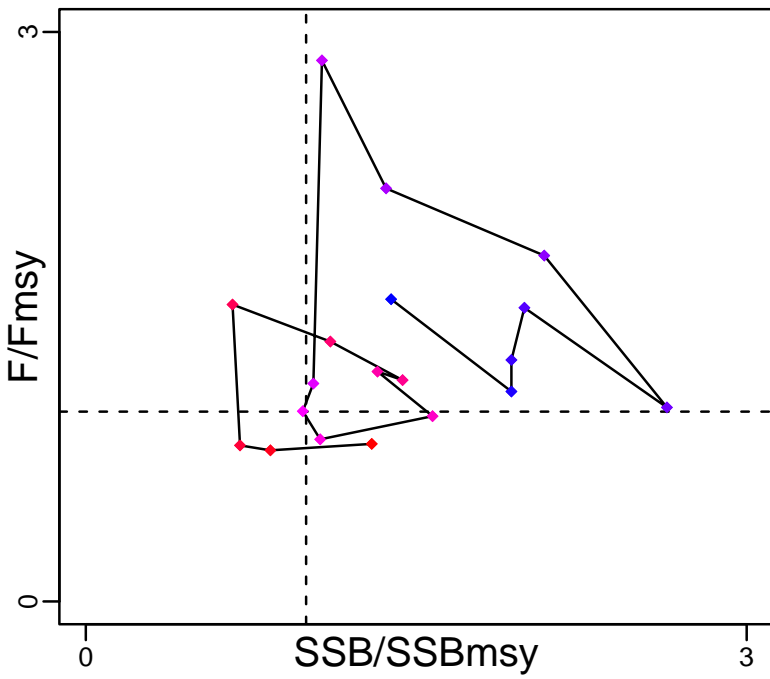
| Metadata | |
|-----------------------------|---|
| Scientific Name | Sprattus fuegensis |
| Current Assess ID | IFOPCH-SSARDCH-2002-2020-Quiroz |
| Area | Central-Southern Chile |
| Management Authority | Subsecretaria de Pesca |
| Assessor | Instituto de Fomento Pesquero - Chilean Fisheries Development Institute |
| Asmts in RAM | 2020, 2012, 2016 |

| Reference Points | | | |
|------------------|--------------|-----------|--------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | SSBmsy-pr-MT | 2020 | 29,549 |
| Fmsy | Fmsy-pr-1/yr | 2020 | 0.31 |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | SSBmgt-MT | 2016 | 32,400 |
| Fmgt | Fmgt-1/yr | 2016 | 0.34 |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | SSB0-MT | 2020 | 53,725 |
| MSY | MSY-MT | 2020 | 17,982 |
| M | M-1/yr | 2020 | 0.83 |
| TBlim | - | - | - |
| SSBlim | SSBlim-MT | 2020 | 14,774 |
| Flim | - | - | - |
| ERlim | - | - | - |

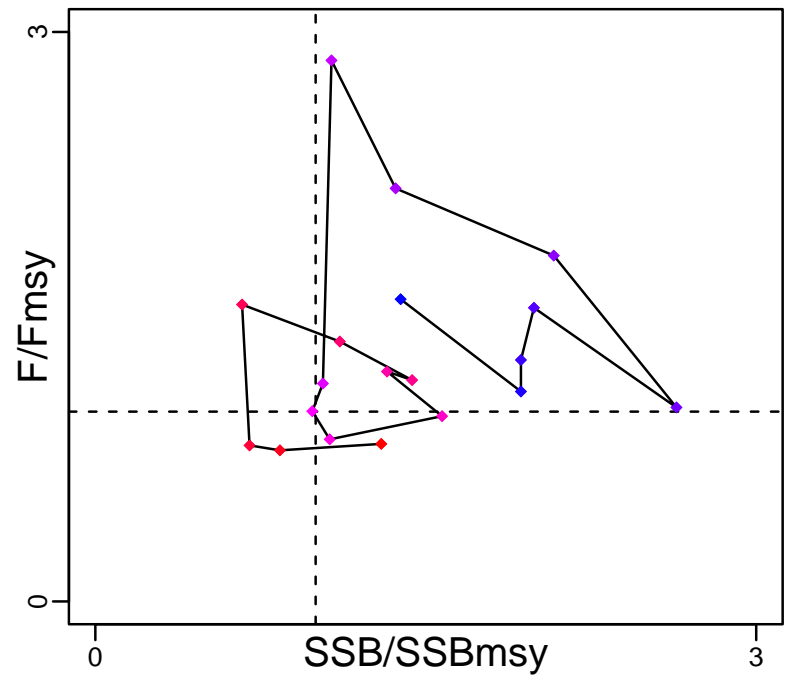
| Time Series | | | | | |
|-------------------|----------------------------|-----------|------------|------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2020 | 113,800 | - | - |
| SSB | SSB-MT | 2020 | 38,349 | Both | - |
| TN | - | - | - | - | - |
| R | R-E00 | 2020 | 2378 | Both | - |
| F | F-1/yr | 2020 | 0.26 | Both | - |
| ER | ER-ratio | 2020 | 0.134 | - | - |
| TC | TC-MT | 2020 | 15,471 | | |
| TL | TL-MT | 2016 | 20,000 | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | SSBdivSSBmsy-dimensionless | 2020 | 1.298 | | |
| F/Fmsy | FdivFmsy-dimensionless | 2020 | 0.83 | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | SSB-MT/SSBmgt-MT | 2016 | 1.296 | | |
| F/Fmgt | F-1/yr/Fmgt-1/yr | 2016 | 0.941 | | |
| ER/ERmgt | - | - | - | | |

Southern sardine Central–Southern Chile [SSARDCH]

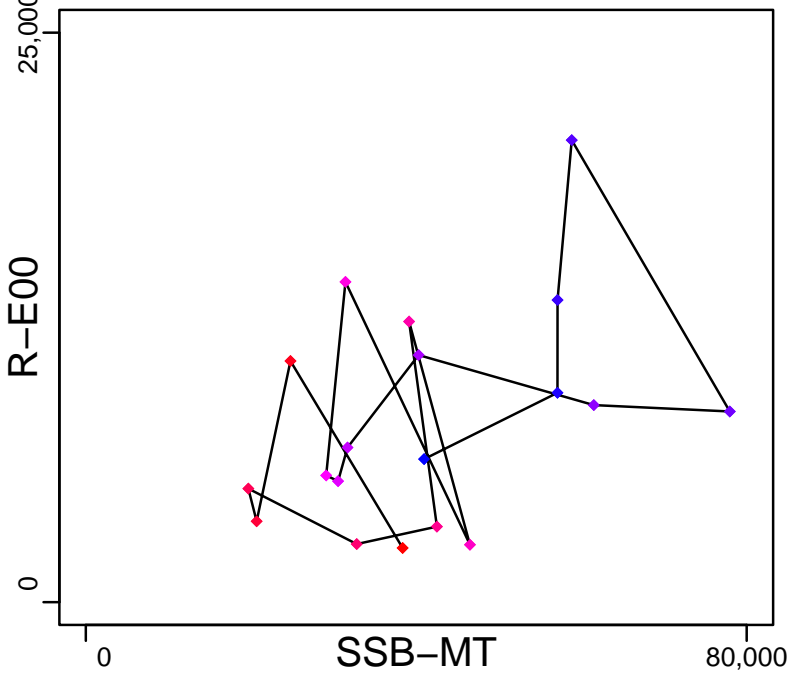
Kobe MSYpref (2002–2020–Quiroz)



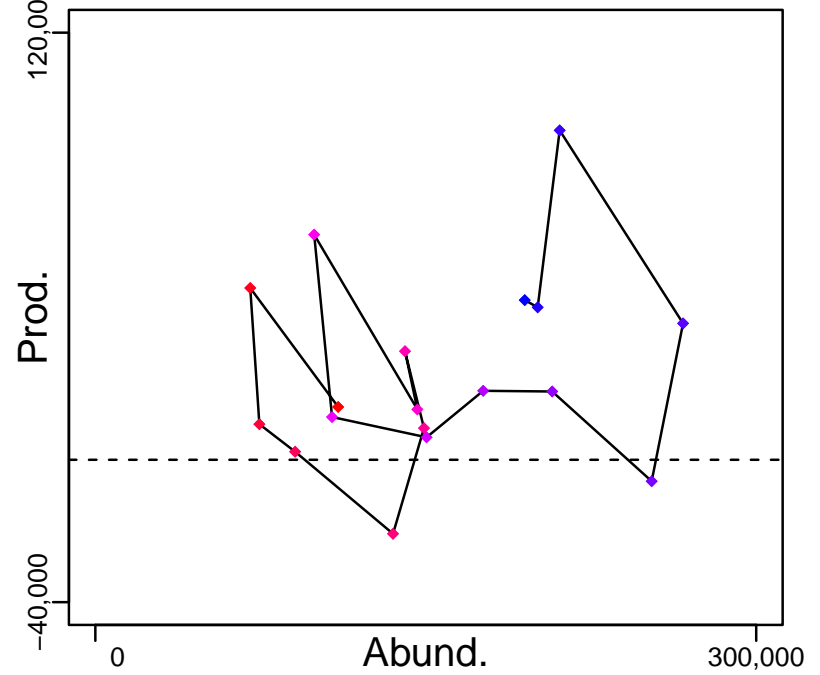
Kobe MGTpref (2002–2020–Quiroz)



Spawner Recruit (2002–2020–Quiroz)



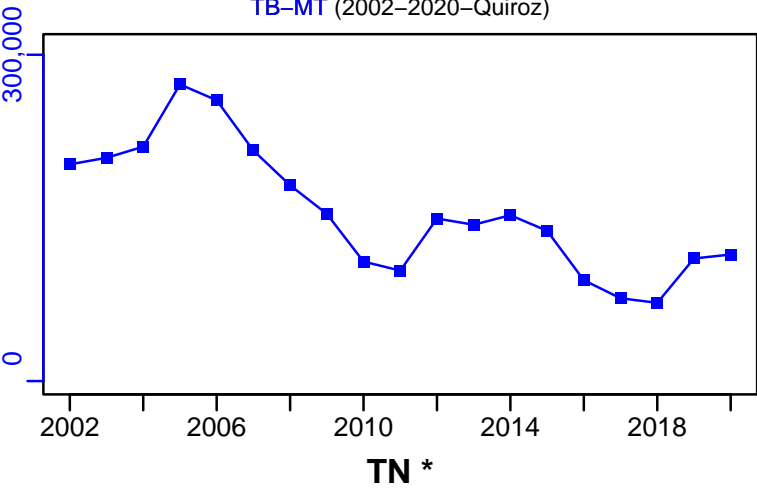
Production (2002–2020–Quiroz)



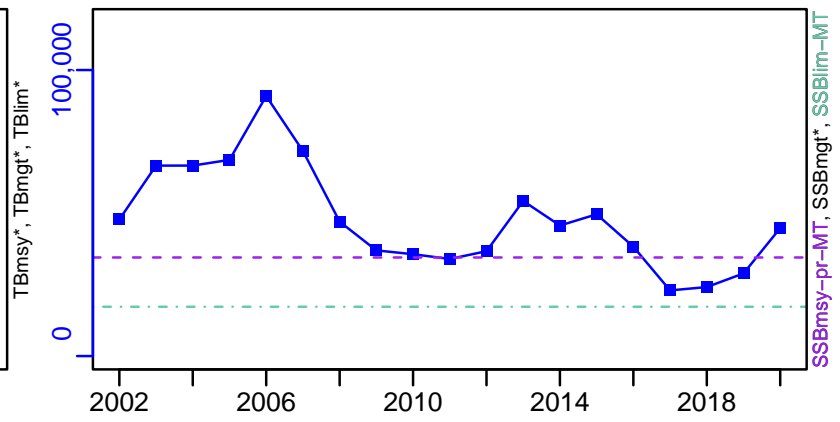
◆ Start Year ◆ End Year * No Data

Southern sardine Central–Southern Chile [SSARDCH]

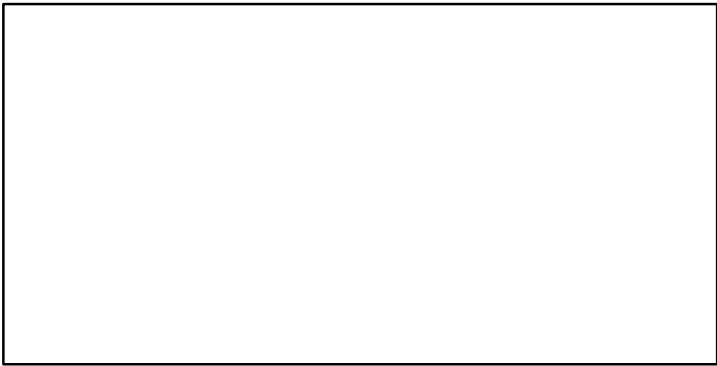
TB–MT (2002–2020–Quiroz)



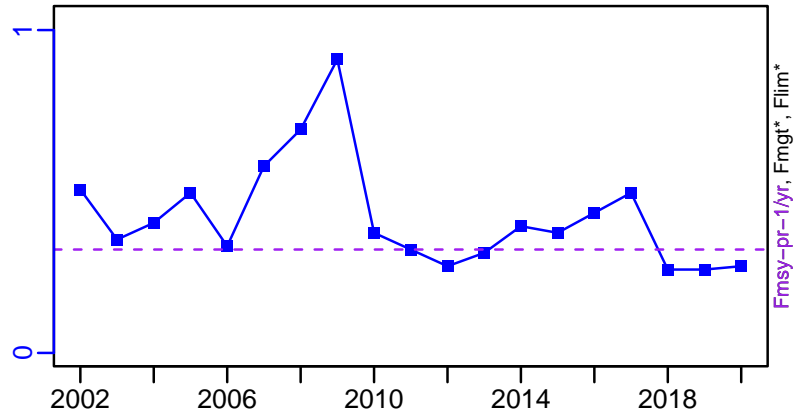
SSB–MT (2002–2020–Quiroz)



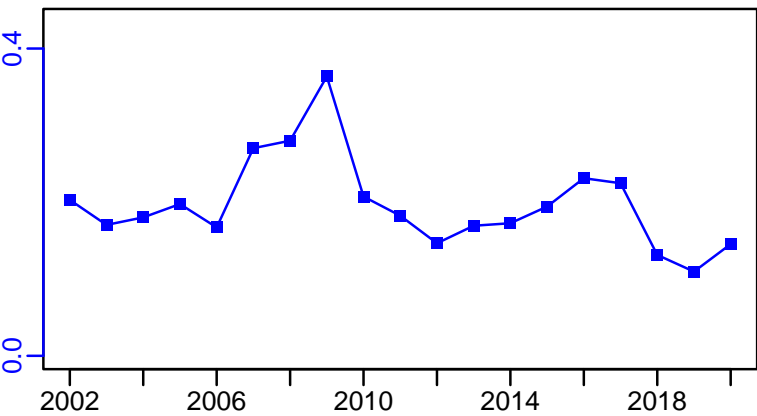
TN *



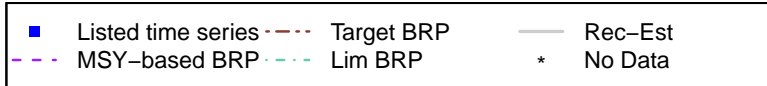
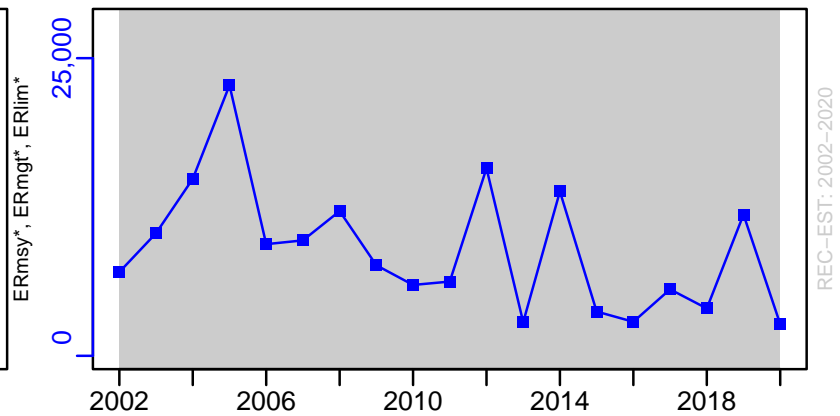
F–1/yr (2002–2020–Quiroz)



ER–ratio (2002–2020–Quiroz)

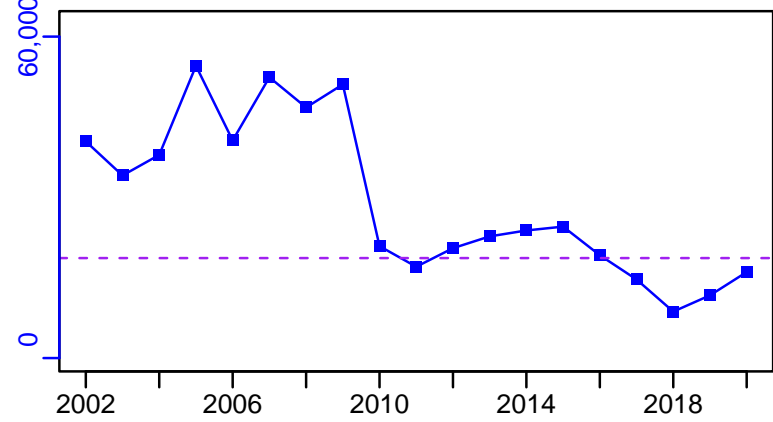


R–E00 (2002–2020–Quiroz)

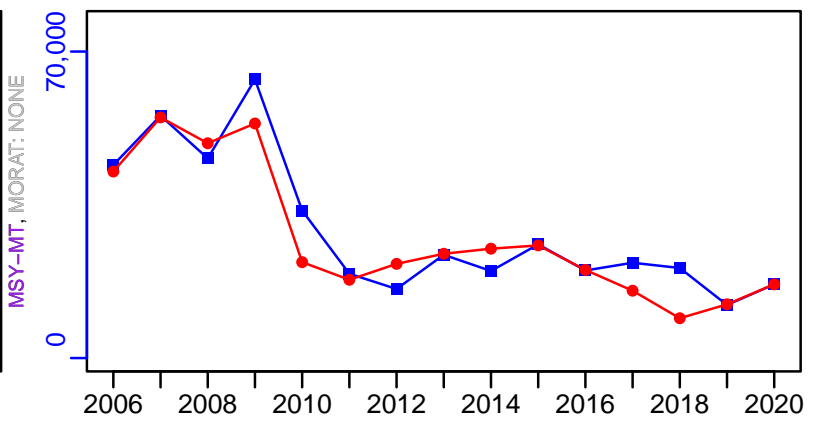


Southern sardine Central–Southern Chile [SSARDCH]

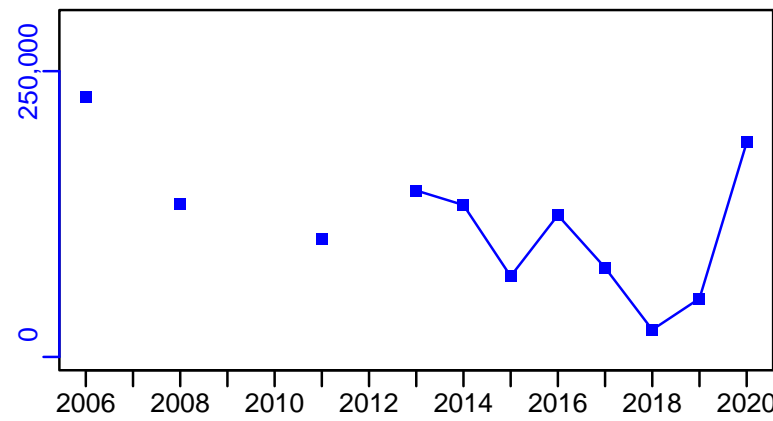
TC–MT, TL*, RecC* (2002–2020–Quiroz)



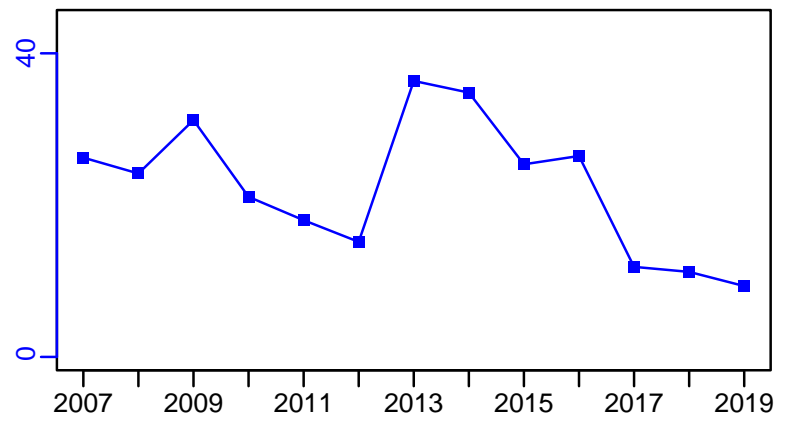
TAC–MT, Cpair–MT, Cadv* (2002–2020–Quiroz)



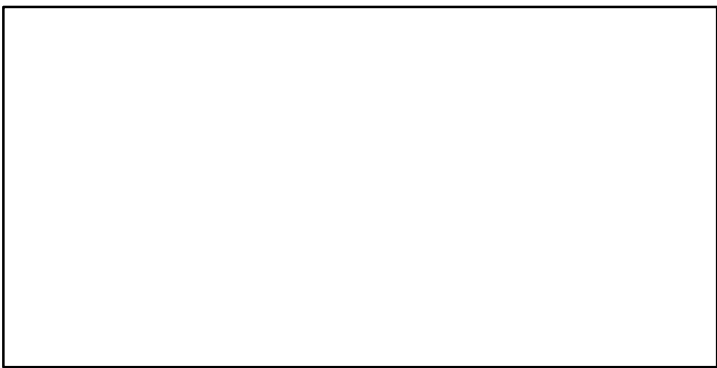
survB_absolute–MT (2002–2020–Quiroz)



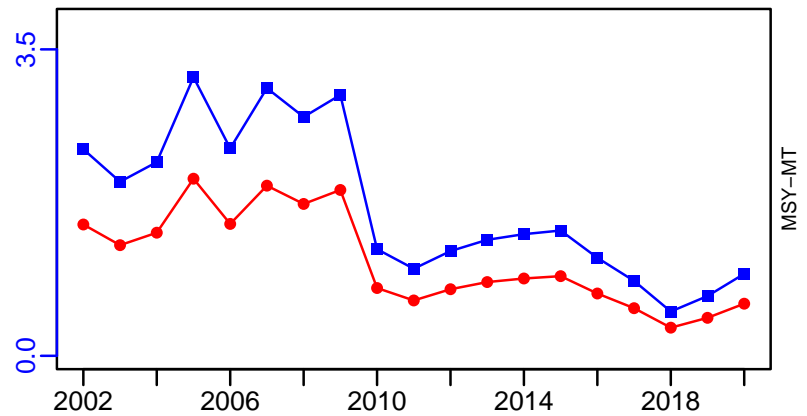
CPUE–index (2002–2020–Quiroz)



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TC–MT/MSY–MT, CdivMEANC–ratio, (2002–2020–Quiroz)



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

Yellownose skate Central-Southern Chile [YNOSESKACSCH]

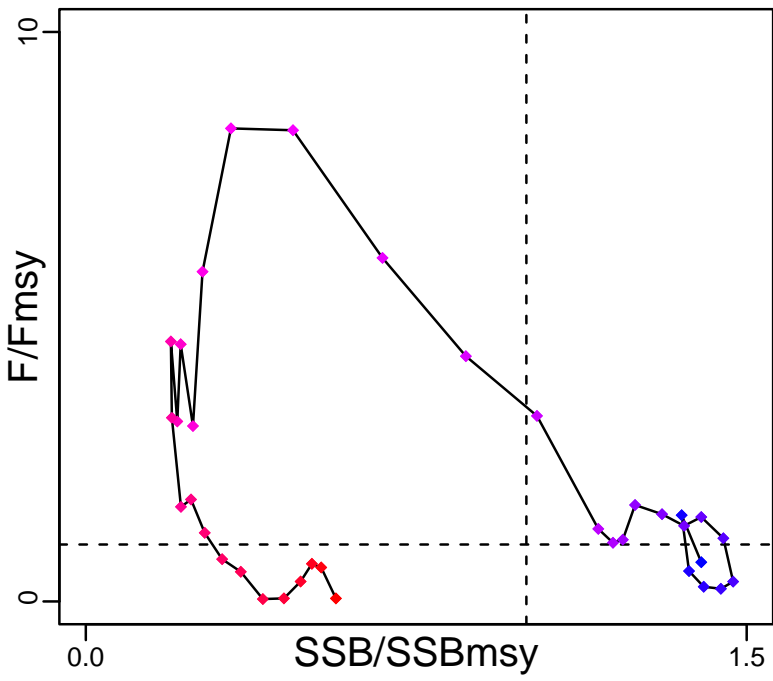
| Metadata | |
|-----------------------------|---|
| Scientific Name | Zearaja chilensis |
| Current Assess ID | IFOPCH-YNOSESKACSCH-1978-2014-PARMA |
| Area | Central-Southern Chile |
| Management Authority | Subsecretaria de Pesca |
| Assessor | Instituto de Fomento Pesquero - Chilean Fisheries Development Institute |
| Asmts in RAM | 2014 |

| Reference Points | | | |
|------------------|--------------|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | SSBmsy-pr-MT | 2014 | 1797 |
| Fmsy | Fmsy-1/yr | 2014 | 0.062 |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | SSBmgt-MT | 2014 | 1797 |
| Fmgt | Fmgt-1/yr | 2014 | 0.062 |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | SSB0-MT | 2014 | 3993 |
| MSY | - | - | - |
| M | M-1/yr | 2014 | 0.14 |
| TBlim | - | - | - |
| SSBlim | SSBlim-MT | 2014 | 898 |
| Flim | - | - | - |
| ERlim | - | - | - |

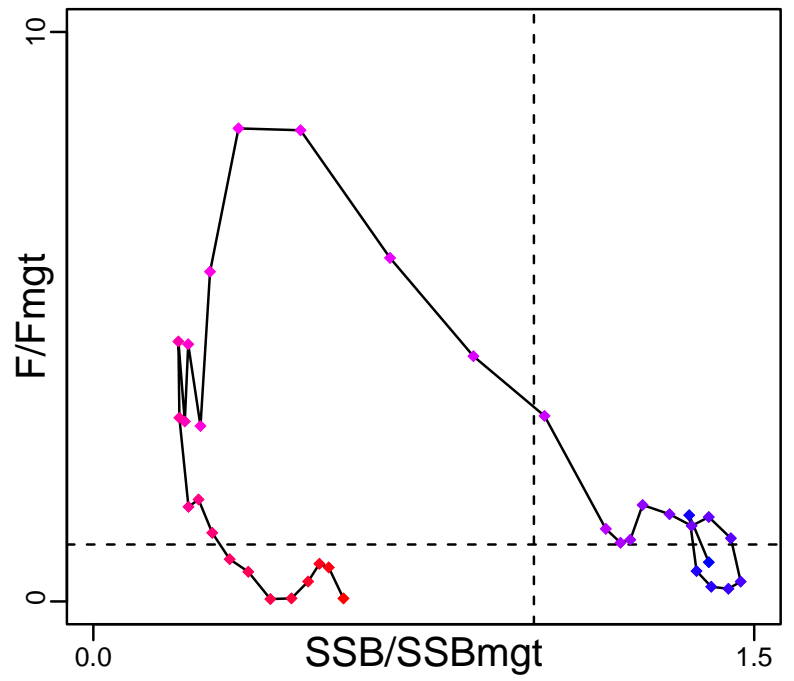
| Time Series | | | | | |
|-------------------|---------------------|-----------|------------|---------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2014 | 6090 | - | - |
| SSB | SSB-MT | 2014 | 1020 | Females | - |
| TN | - | - | - | - | - |
| R | R-E00 | 2014 | 253,000 | - | 1 |
| F | F-1/yr | 2014 | 0.003 | Females | - |
| ER | ER-calc-ratio | 2014 | 0.002 | - | - |
| TC | - | - | - | | |
| TL | TL-MT | 2014 | 15 | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-pr-MT | 2014 | 0.568 | | |
| F/Fmsy | F-1/yr/Fmsy-1/yr | 2014 | 0.053 | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | SSB-MT/SSBmgt-MT | 2014 | 0.568 | | |
| F/Fmgt | F-1/yr/Fmgt-1/yr | 2014 | 0.053 | | |
| ER/ERmgt | - | - | - | | |

Yellownose skate Central–Southern Chile [YNOSESKACSCH]

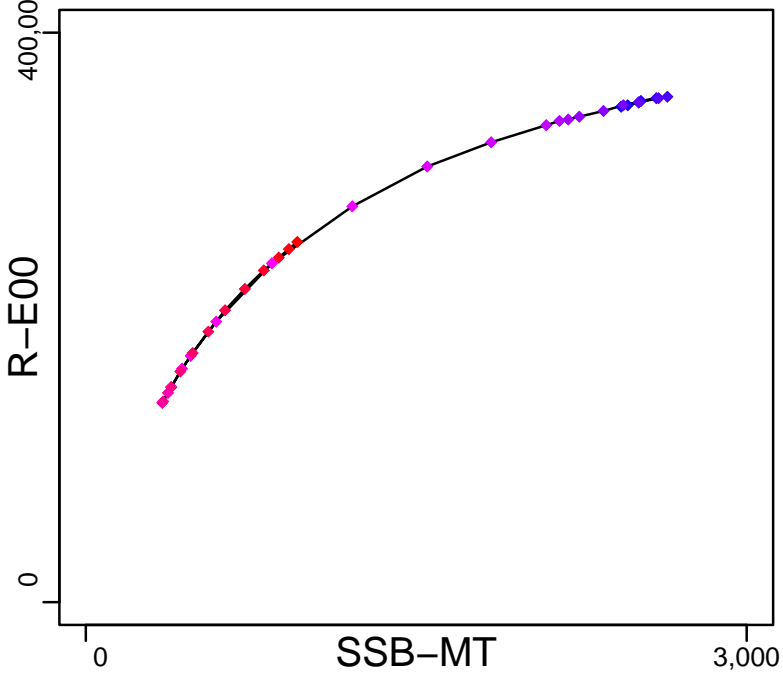
Kobe MSYpref (1978–2014–PARMA)



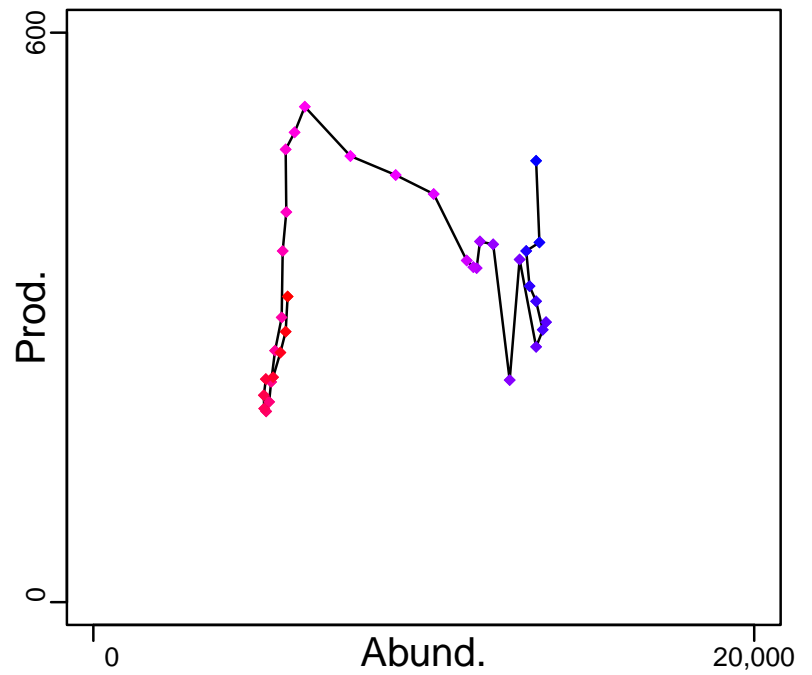
Kobe MGTpref (1978–2014–PARMA)



Spawner Recruit (1978–2014–PARMA)



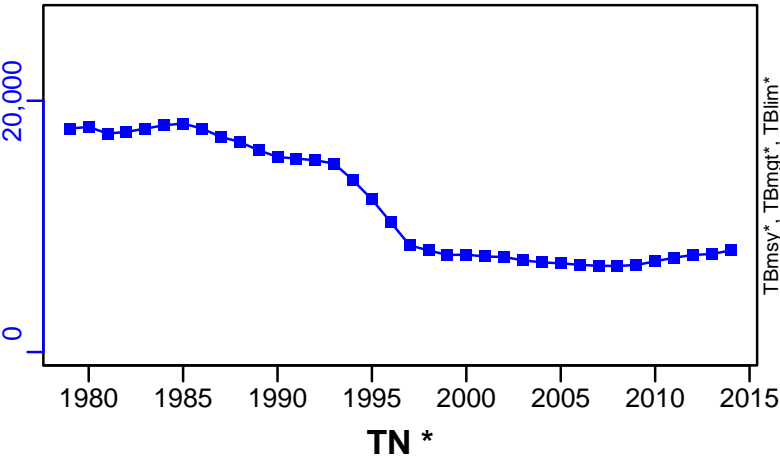
Production (1978–2014–PARMA)



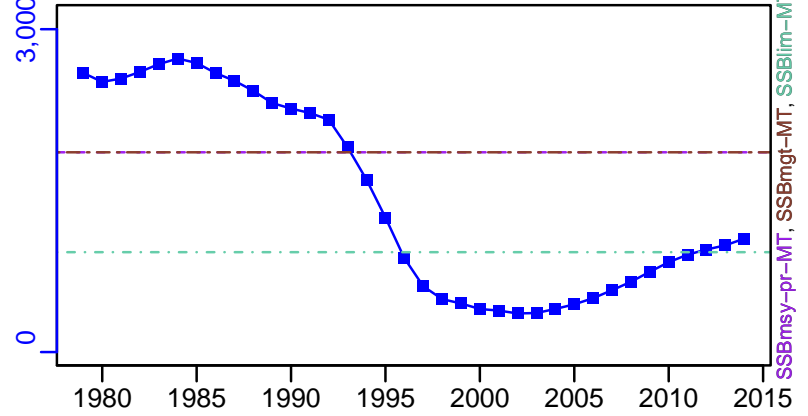
◆ Start Year ◆ End Year * No Data

Yellownose skate Central–Southern Chile [YNOSESKACSCH]

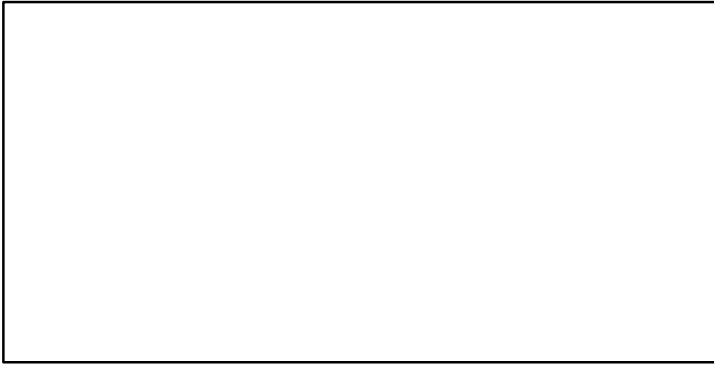
TB–MT (1978–2014–PARMA)



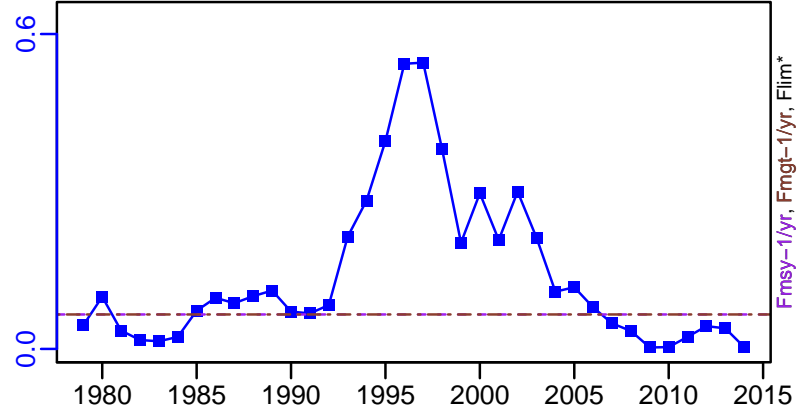
SSB–MT (1978–2014–PARMA)



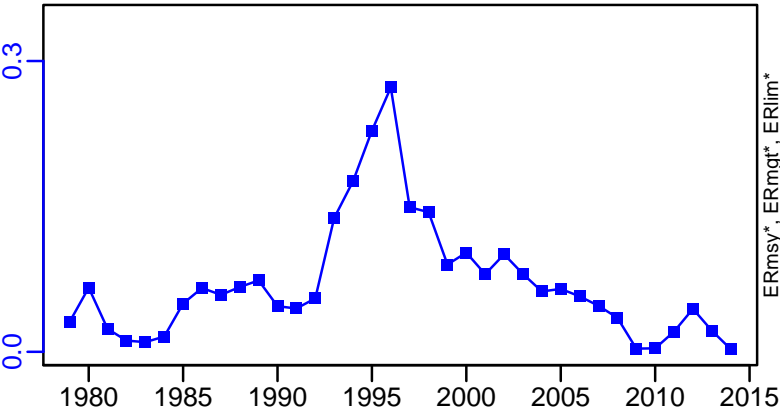
TN *



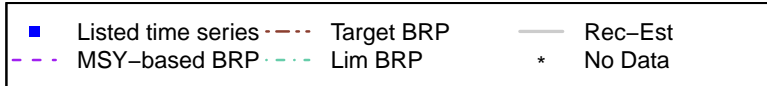
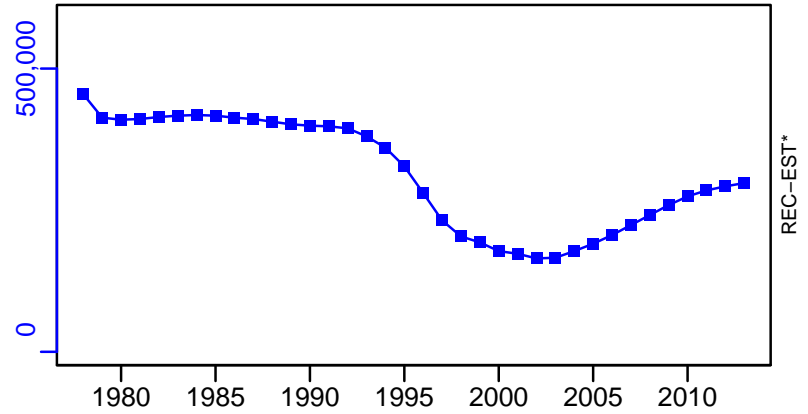
F–1/yr (1978–2014–PARMA)



ER–calc–ratio (1978–2014–PARMA)



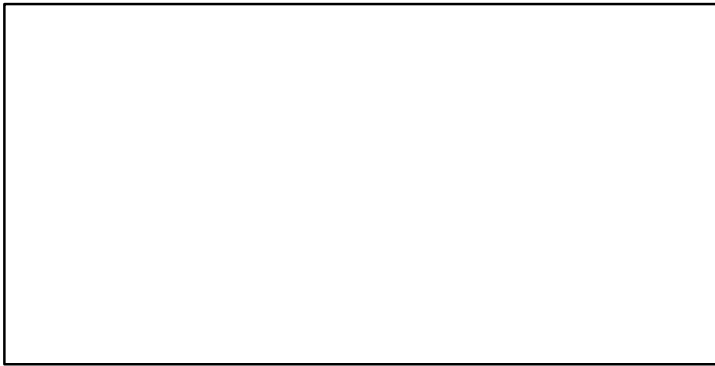
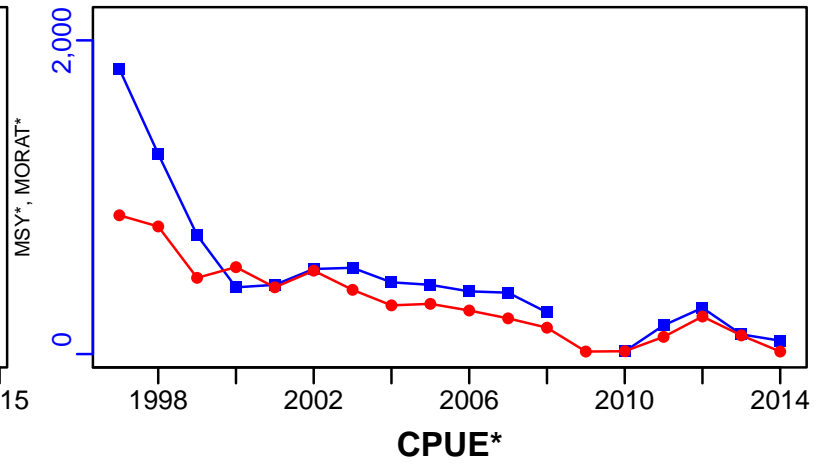
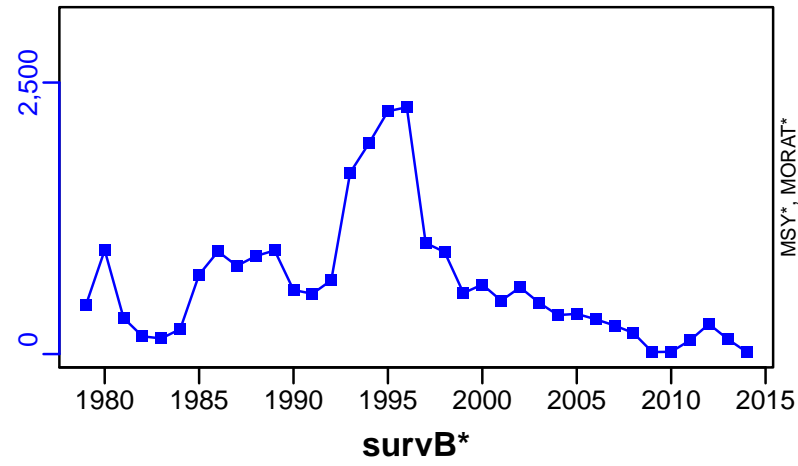
R–E00 (1978–2014–PARMA)



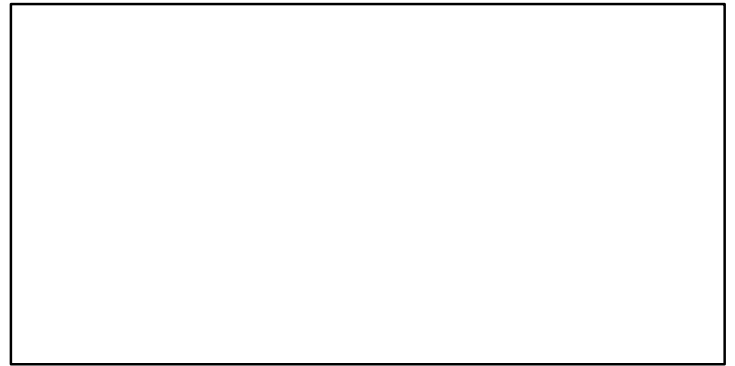
Yellownose skate Central–Southern Chile [YNOSESKACSCH]

TL–MT, TC*, RecC* (1978–2014–PARMA)

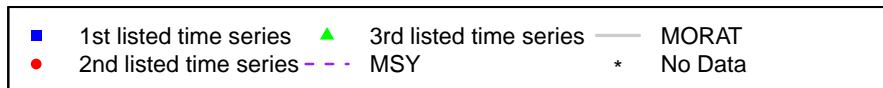
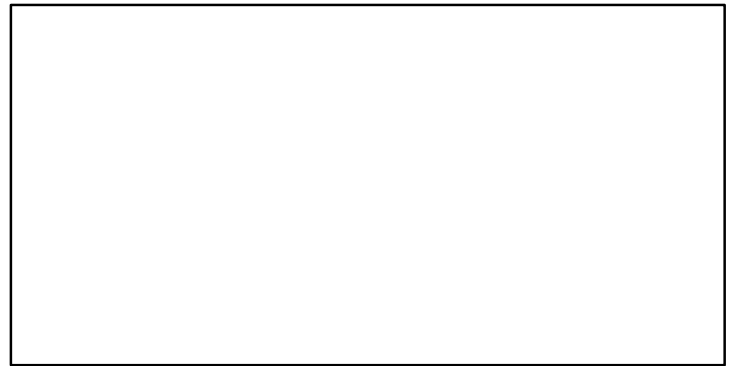
TAC–MT, Cpair–MT, Cadv* (1978–2014–PARMA)



EFFORT*



CdivMSY*



Yellownose skate Southern Chile [YNOSESKASCH]

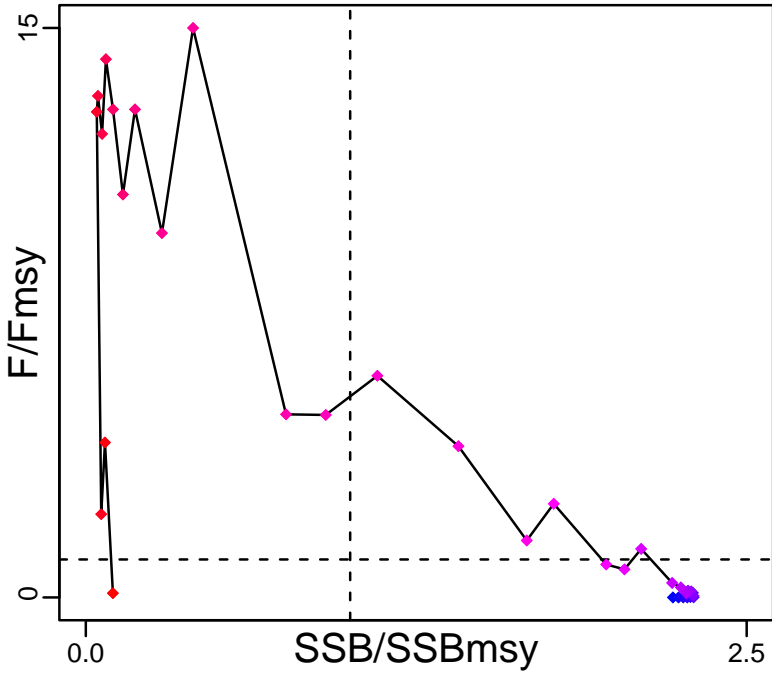
| Metadata | |
|-----------------------------|---|
| Scientific Name | Zearaja chilensis |
| Current Assess ID | IFOPCH-YNOSESKASCH-1978-2014-PARMA |
| Area | Southern Chile |
| Management Authority | Subsecretaria de Pesca |
| Assessor | Instituto de Fomento Pesquero - Chilean Fisheries Development Institute |
| Asmts in RAM | 2014 |

| Reference Points | | | |
|------------------|--------------|-----------|-------|
| Type | ID | Asmt Year | Value |
| TBmsy | - | - | - |
| SSBmsy | SSBmsy-pr-MT | 2014 | 3327 |
| Fmsy | Fmsy-1/yr | 2014 | 0.062 |
| ERmsy | - | - | - |
| TBmgt | - | - | - |
| SSBmgt | SSBmgt-MT | 2014 | 3327 |
| Fmgt | Fmgt-1/yr | 2014 | 0.062 |
| ERmgt | - | - | - |
| TB0 | - | - | - |
| SSB0 | SSB0-MT | 2014 | 7394 |
| MSY | - | - | - |
| M | M-1/yr | 2014 | 0.14 |
| TBlim | - | - | - |
| SSBlim | SSBlim-MT | 2014 | 1664 |
| Flim | - | - | - |
| ERlim | - | - | - |

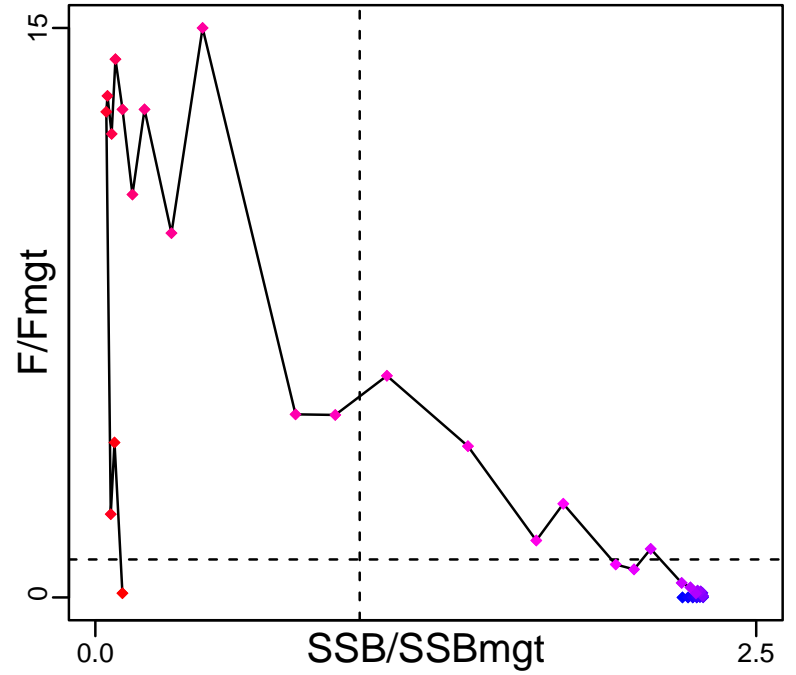
| Time Series | | | | | |
|-------------------|---------------------|-----------|------------|---------|-----|
| Type | ID | Asmt Year | Curr Value | Sex | Age |
| TB | TB-MT | 2014 | 3850 | - | - |
| SSB | SSB-MT | 2014 | 341 | Females | - |
| TN | - | - | - | - | - |
| R | R-E00 | 2014 | 113 | - | 1 |
| F | F-1/yr | 2014 | 0.007 | Females | - |
| ER | ER-calc-ratio | 2014 | 0.004 | - | - |
| TC | - | - | - | | |
| TL | TL-MT | 2014 | 16 | | |
| TB/TBmsy | - | - | - | | |
| SSB/SSBmsy | SSB-MT/SSBmsy-pr-MT | 2014 | 0.102 | | |
| F/Fmsy | F-1/yr/Fmsy-1/yr | 2014 | 0.112 | | |
| ER/ERmsy | - | - | - | | |
| TB/TBmgt | - | - | - | | |
| SSB/SSBmgt | SSB-MT/SSBmgt-MT | 2014 | 0.102 | | |
| F/Fmgt | F-1/yr/Fmgt-1/yr | 2014 | 0.112 | | |
| ER/ERmgt | - | - | - | | |

Yellownose skate Southern Chile [YNOSESKASCH]

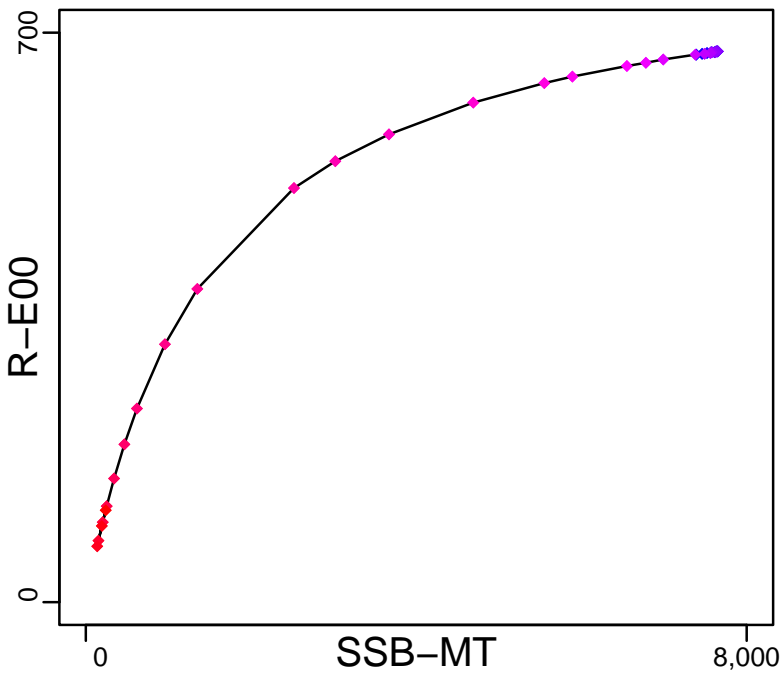
Kobe MSYpref (1978–2014–PARMA)



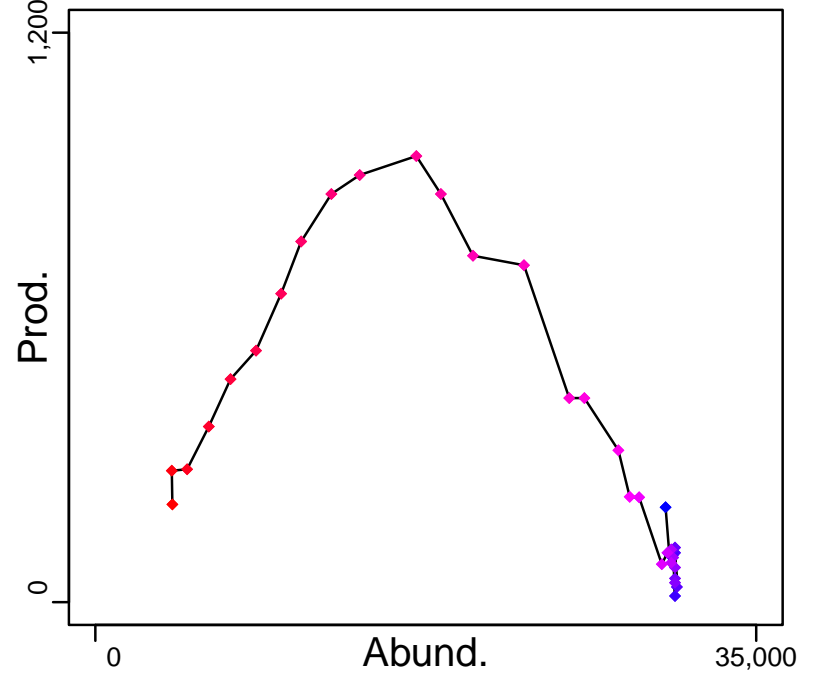
Kobe MGTpref (1978–2014–PARMA)



Spawner Recruit (1978–2014–PARMA)



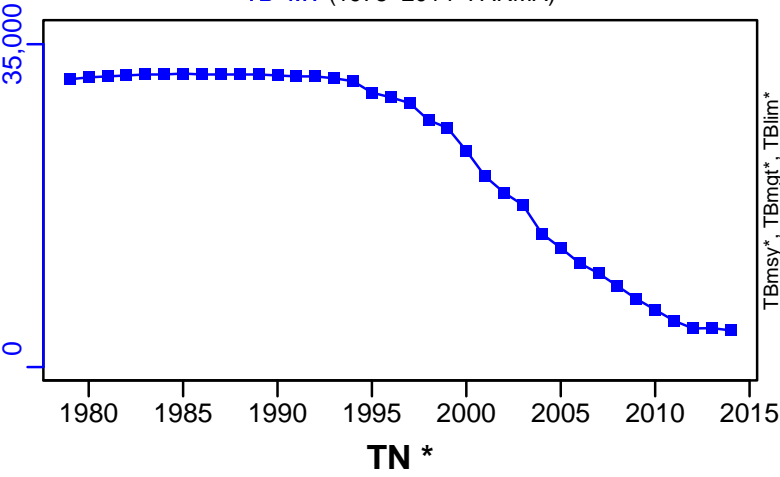
Production (1978–2014–PARMA)



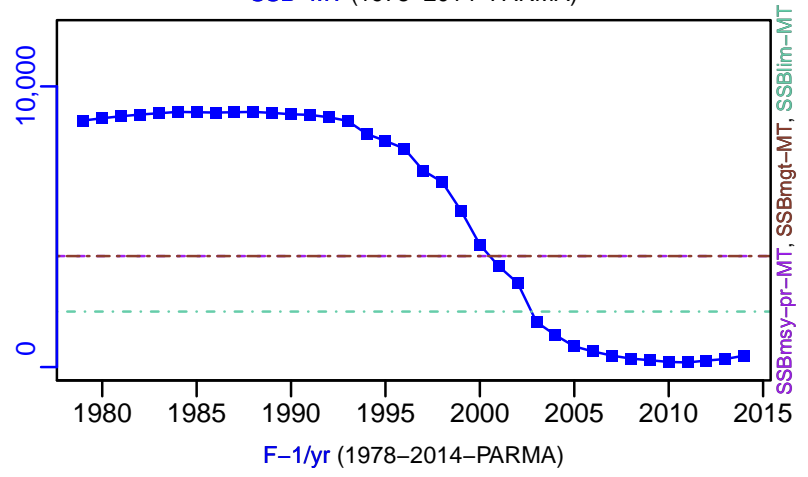
◆ Start Year ◆ End Year * No Data

Yellownose skate Southern Chile [YNOSESKASCH]

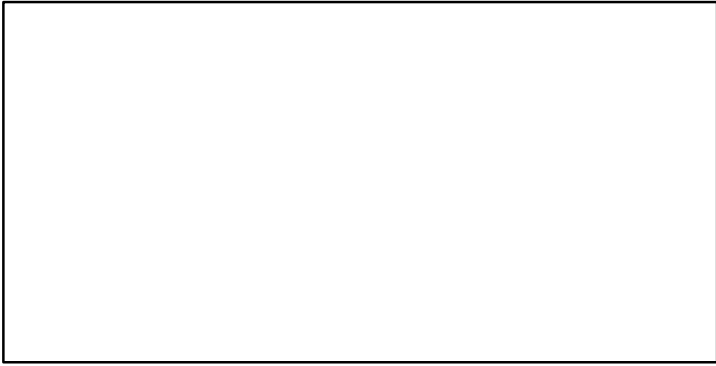
TB-MT (1978-2014-PARMA)



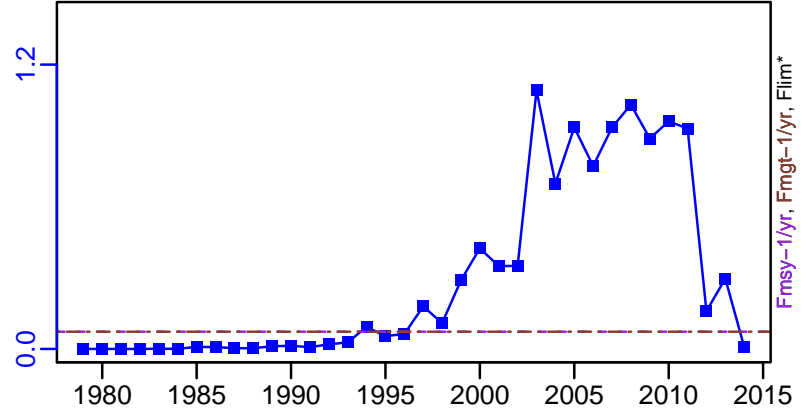
SSB-MT (1978-2014-PARMA)



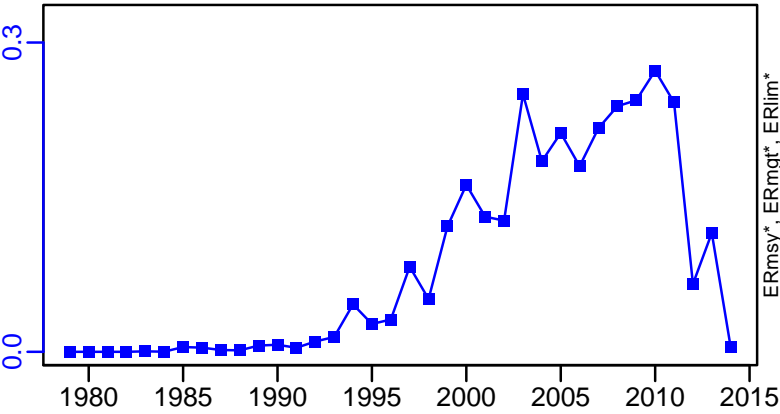
TN *



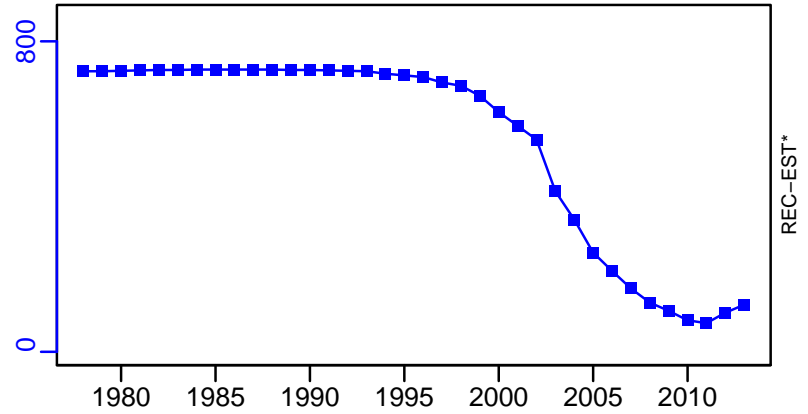
F-1/yr (1978-2014-PARMA)



ER-calc-ratio (1978-2014-PARMA)



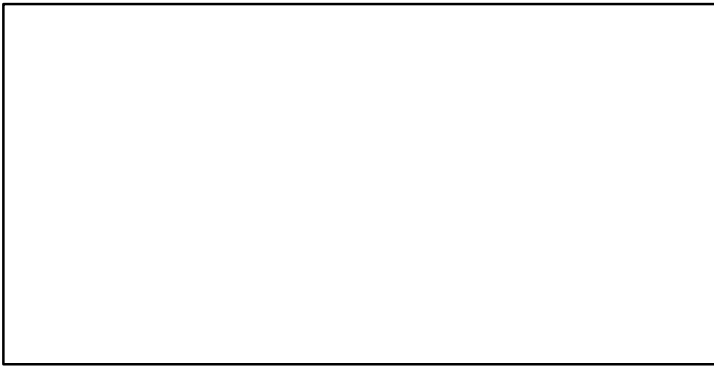
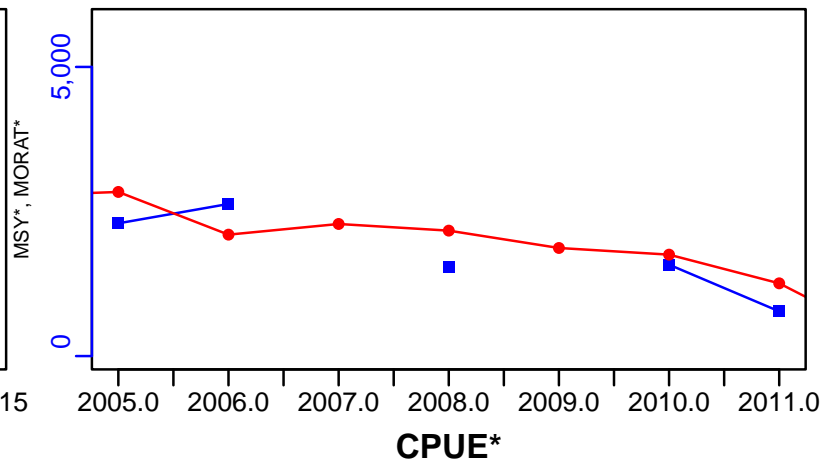
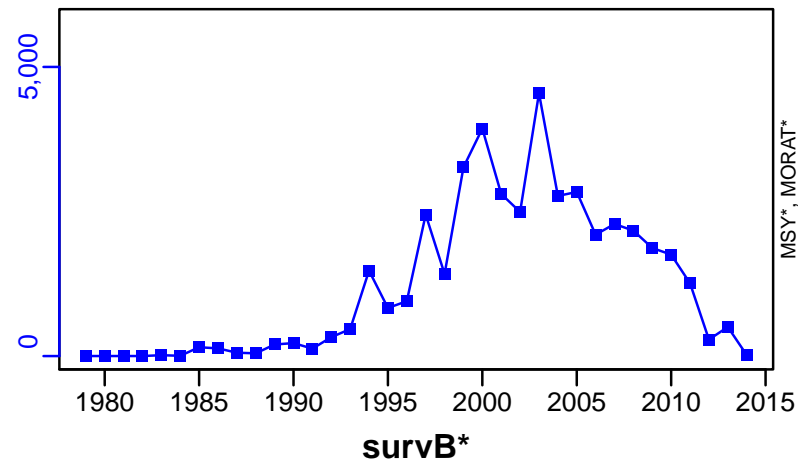
R-E00 (1978-2014-PARMA)



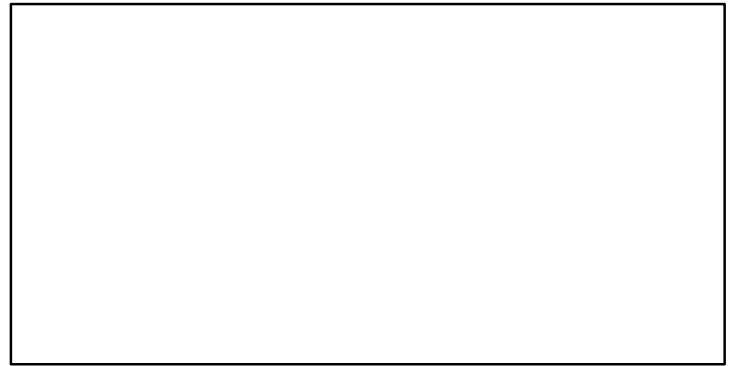
Yellownose skate Southern Chile [YNOSESKASCH]

TL-MT, TC*, RecC* (1978–2014–PARMA)

TAC-MT, Cpair-MT, Cadv* (1978–2014–PARMA)



EFFORT*



CdivMSY*

