

Japan Stocks

v4.491 (Dec-21-2019)

Not present Present Preferred

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

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

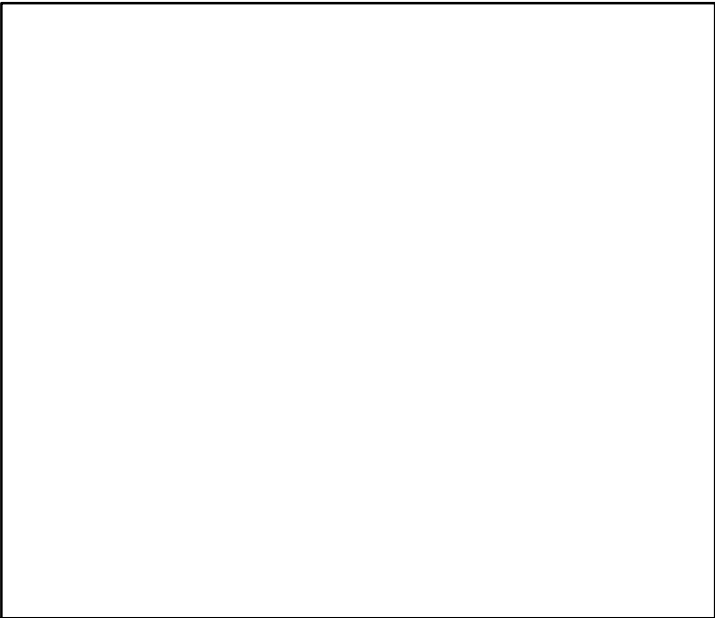
Walleye pollock Nemuro Strait [APOLLNEMS]

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

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

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

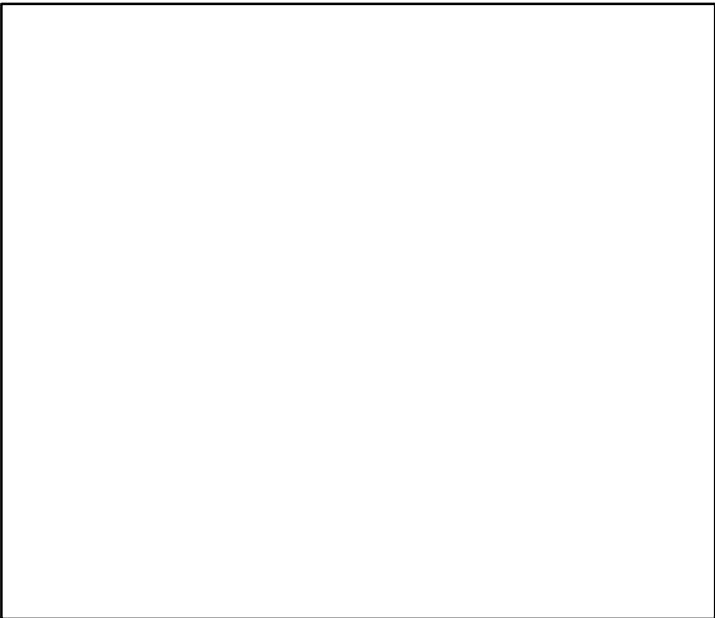
Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

TB*



SSB*



TN *



F*



ER*



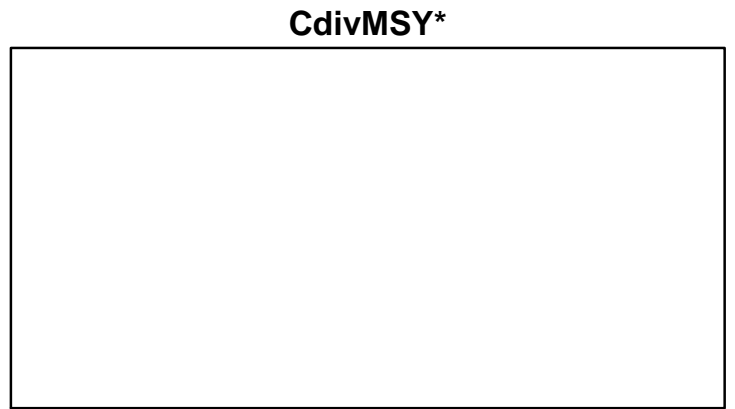
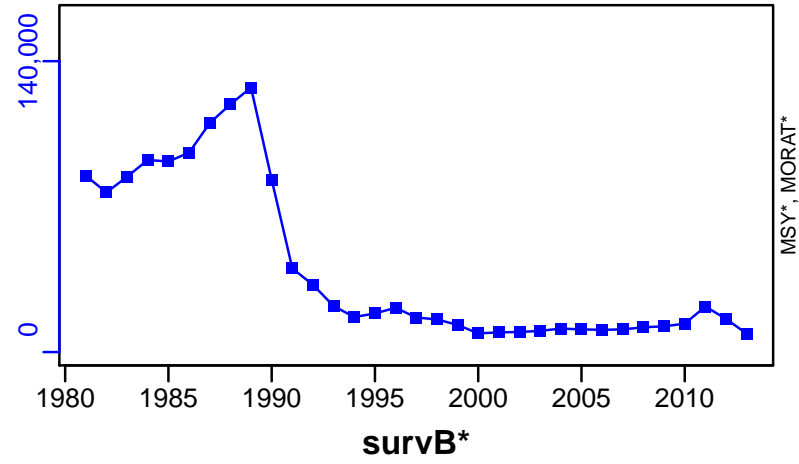
Recruits*



Walleye pollock Nemuro Strait [APOLLNEMS]

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

TAC*, Cpair*, Cadv*



Walleye pollock Sea of Japan North [APOLLNSJ]

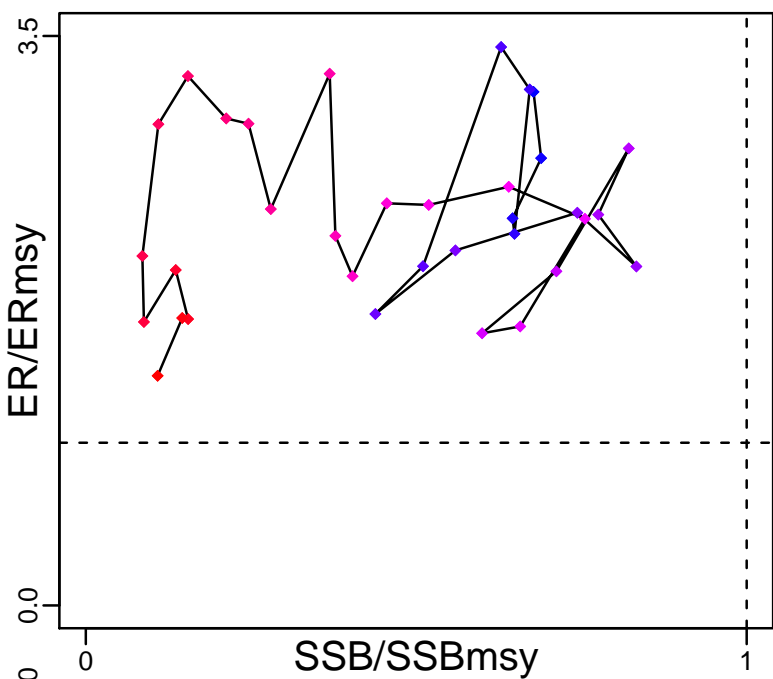
Metadata	
Scientific Name	Theragra chalcogramma
Current Assess ID	FAFRFJ-APOLLNSJ-1970-2013-JPNIMP2016
Area	Sea of Japan North
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013

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

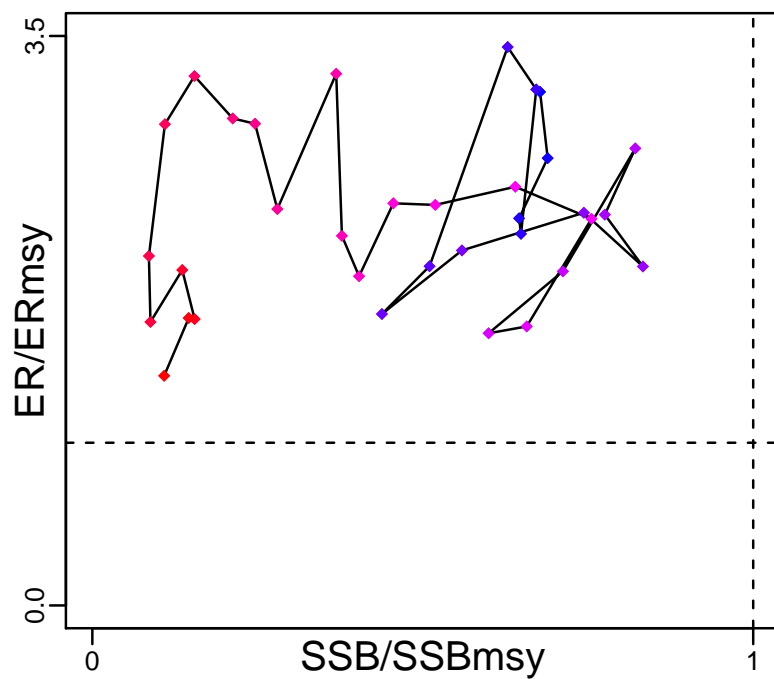
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	95,800	-	2
SSB	SSB-MT	2013	37,700	Both	4
TN	-	-	-	-	-
R	R-E00	2013	1.34×10^8	-	2
F	-	-	-	-	-
ER	ER-calc-ratio	2013	0.103	-	-
TC	TC-MT	2013	9870		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2013	0.155		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013	0.109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

Walleye pollock Sea of Japan North [APOLLNSJ]

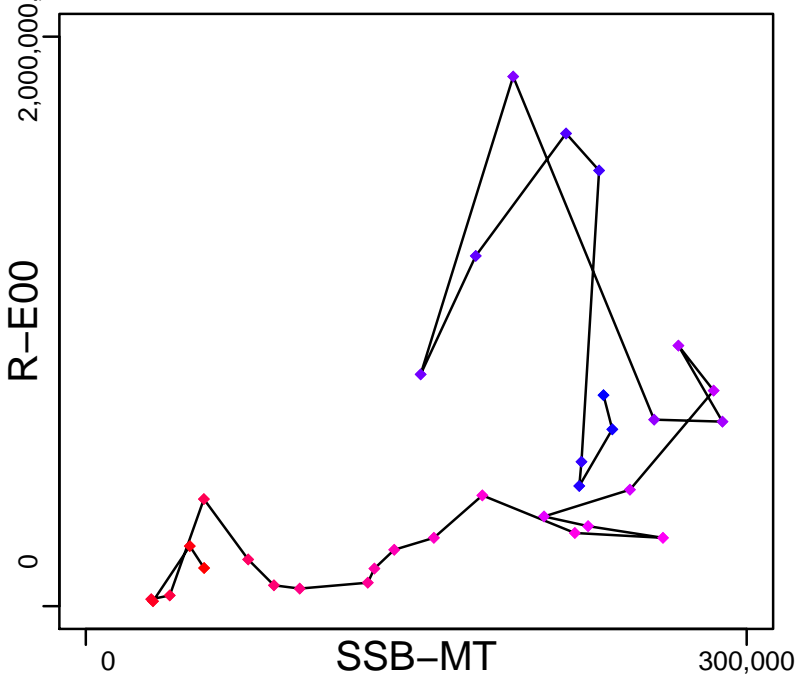
Kobe MSYpref (1970–2013–JPNIMP2016)



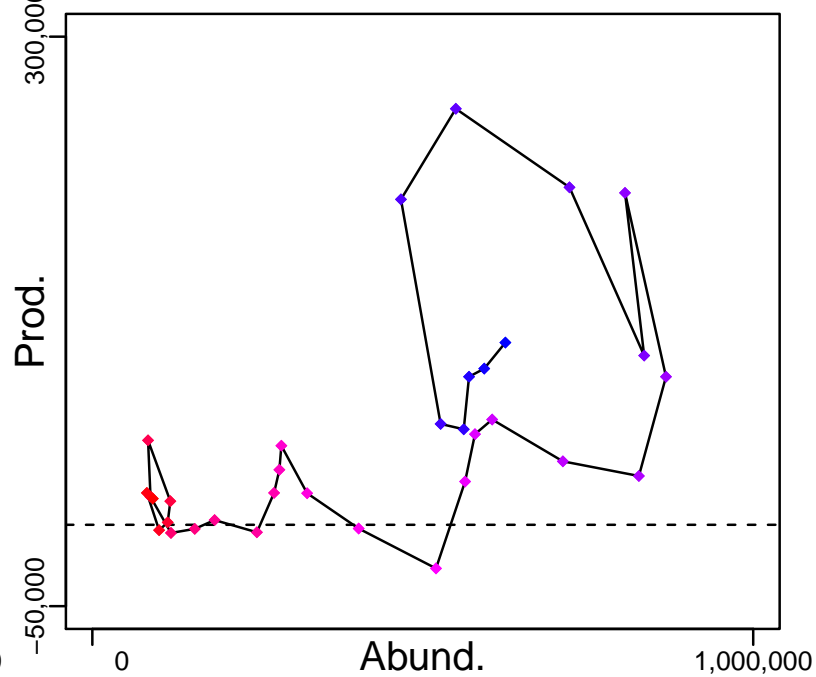
Kobe MGTpref (1970–2013–JPNIMP2016)



Spawner Recruit (1970–2013–JPNIMP2016)

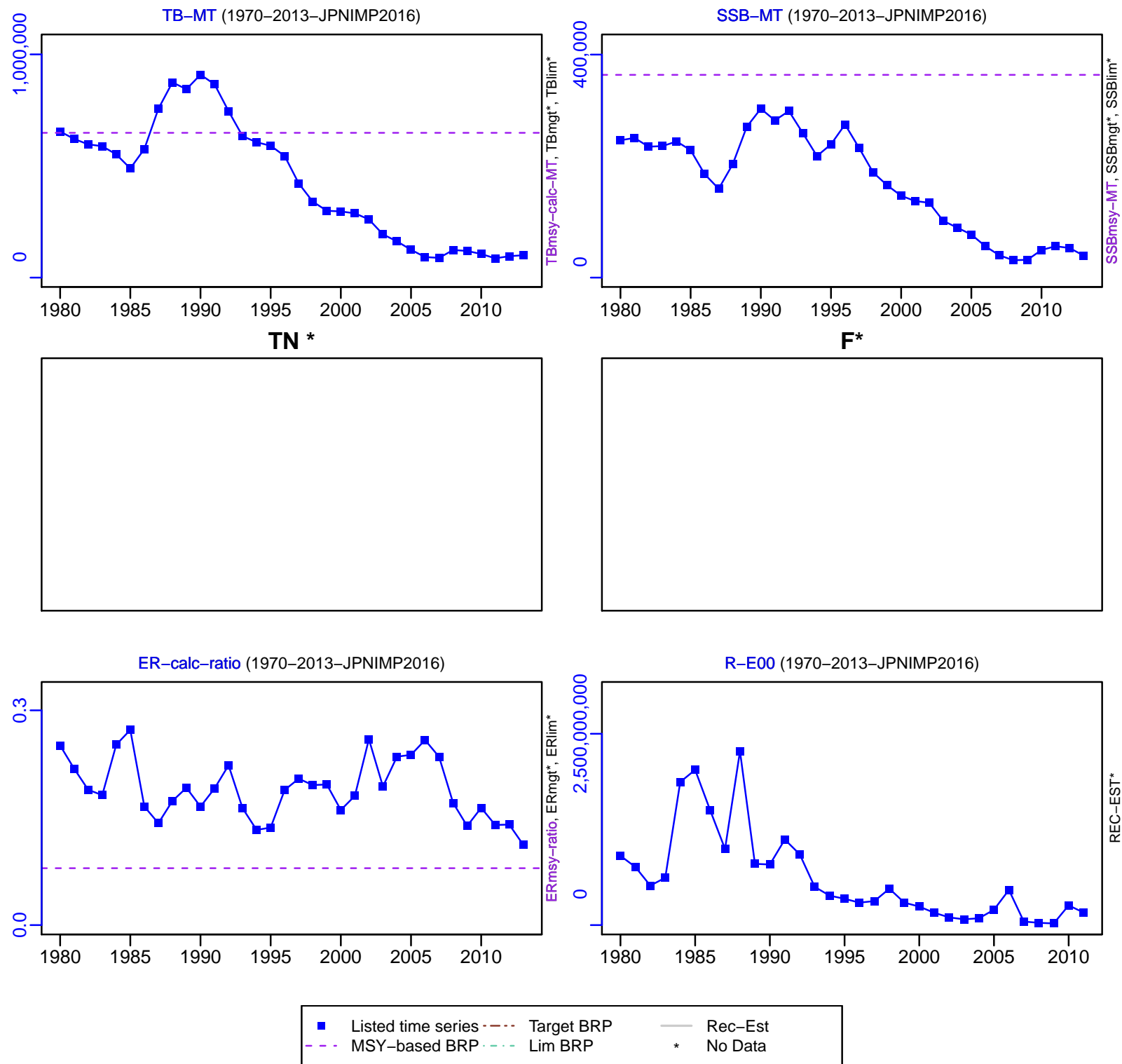


Production (1970–2013–JPNIMP2016)



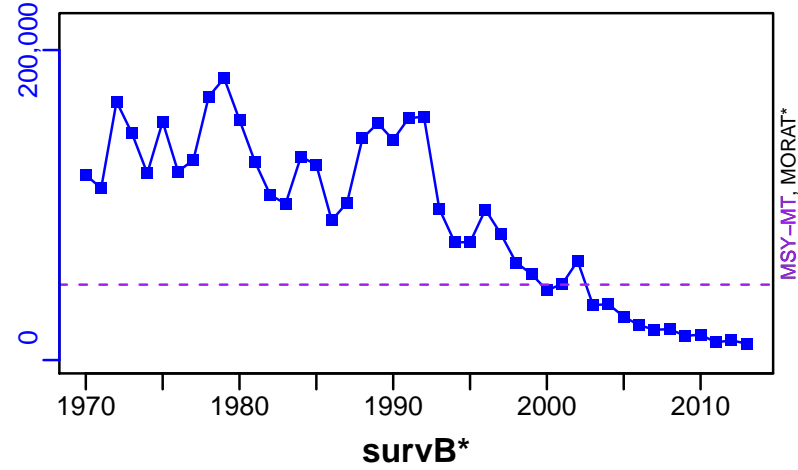
◆ Start Year ◆ End Year * No Data

Walleye pollock Sea of Japan North [APOLLNSJ]



Walleye pollock Sea of Japan North [APOLLNSJ]

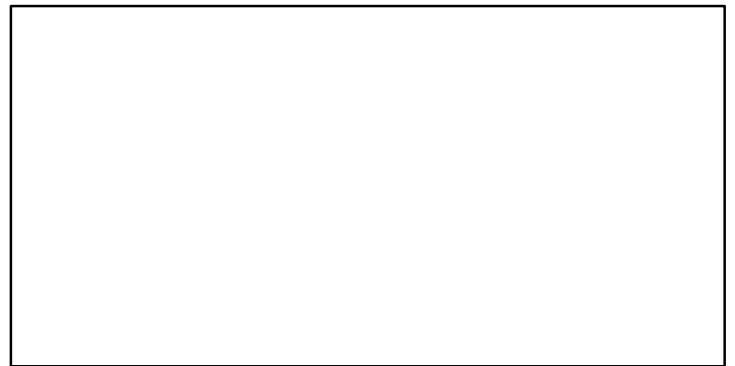
TC-MT, TL*, RecC* (1970-2013-JPNIMP2016)



TAC*, Cpair*, Cadv*



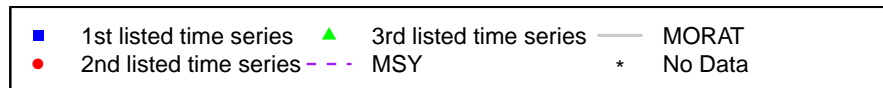
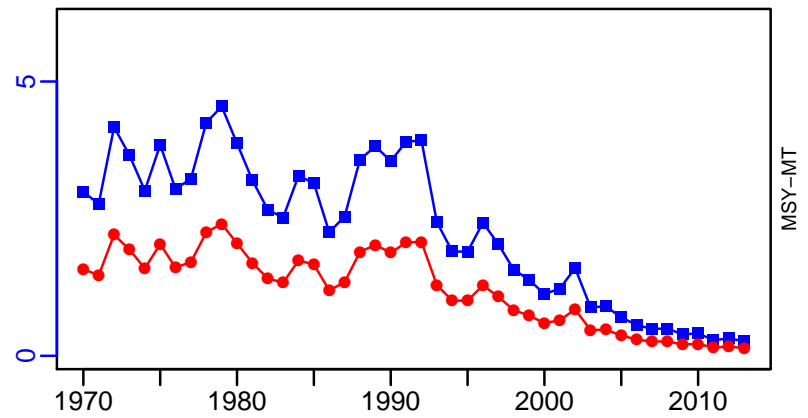
CPUE*



EFFORT*



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



Walleye pollock Okhotsk Sea [APOLLOKS]

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

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

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

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Walleye pollock Okhotsk Sea [APOLLOKS]

TB*



SSB*



TN *



F*



ER*



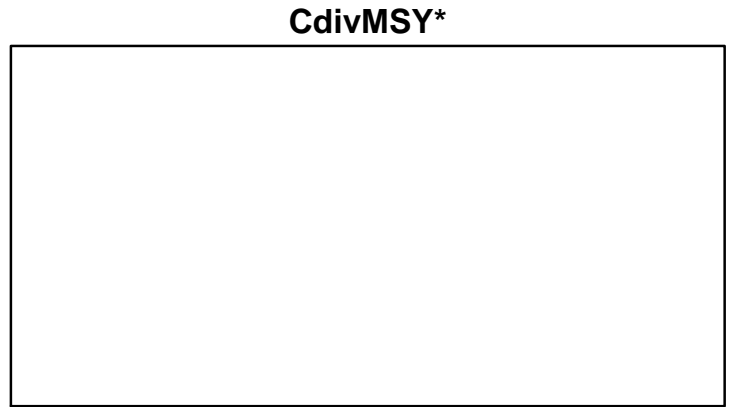
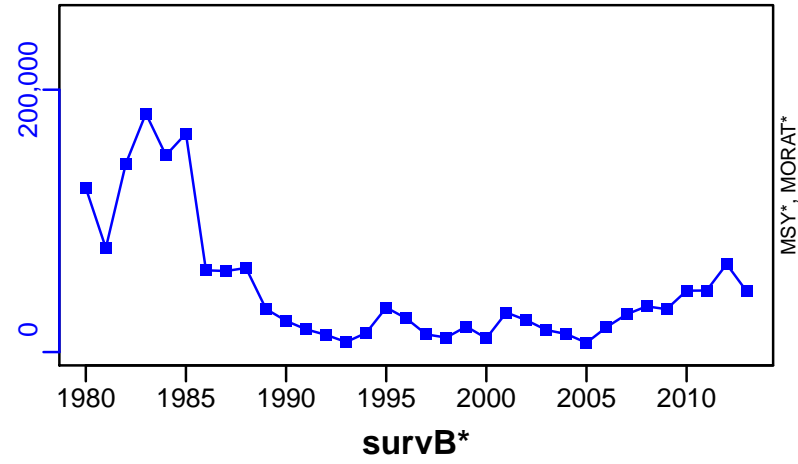
Recruits*



Walleye pollock Okhotsk Sea [APOLLOKS]

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

TAC*, Cpair*, Cadv*



Walleye pollock Pacific Coast of Japan [APOLLPJPN]

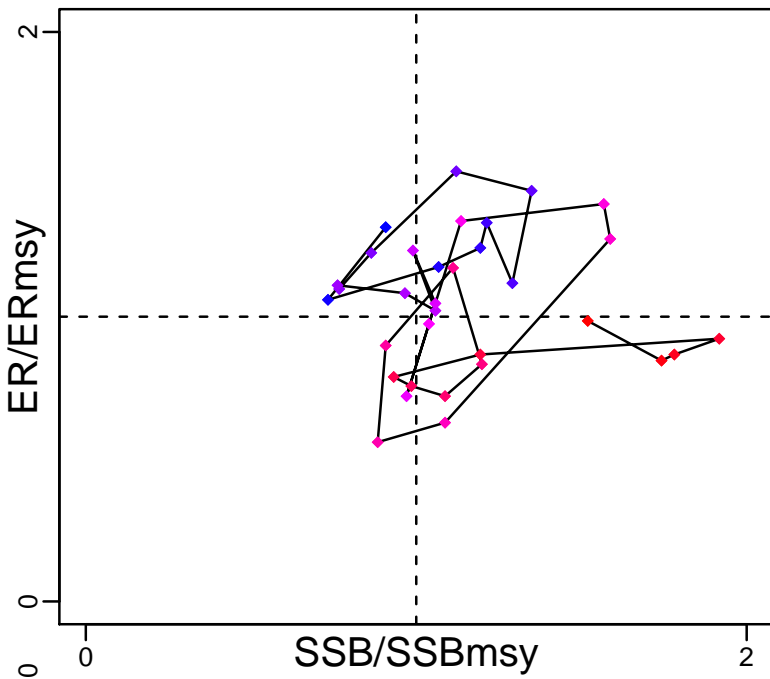
Metadata	
Scientific Name	Theragra chalcogramma
Current Assess ID	FAFRFJ-APOLLPJPN-1975-2013-JPNIMP2016
Area	Pacific Coast of Japan
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013

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

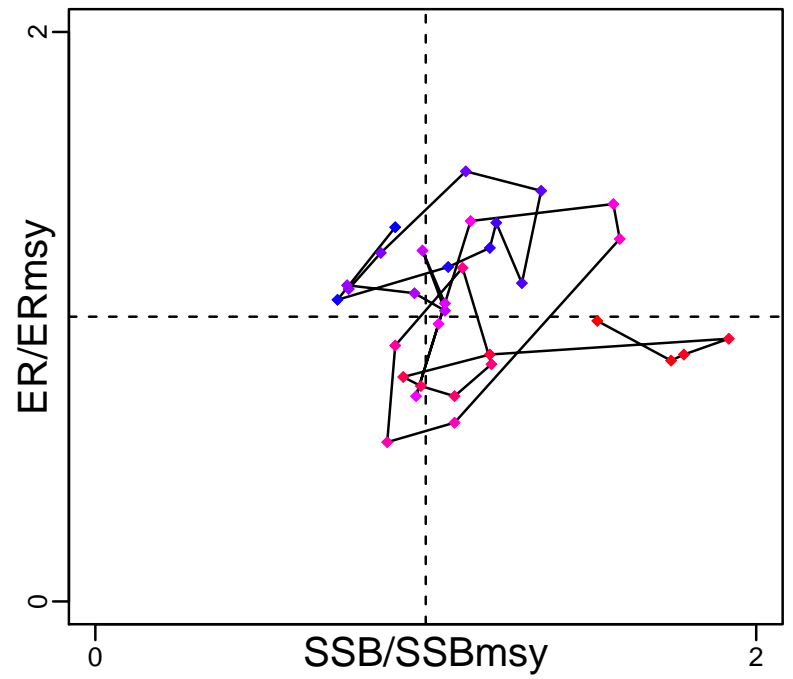
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	910,000	-	0
SSB	SSB-MT	2013	313,000	Both	4
TN	-	-	-	-	-
R	R-E00	2013	1.53×10^9	-	0
F	-	-	-	-	-
ER	ER-calc-ratio	2013	0.171	-	-
TC	TC-MT	2013	156,000		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2013	0.898		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013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

Walleye pollock Pacific Coast of Japan [APOLLJPN]

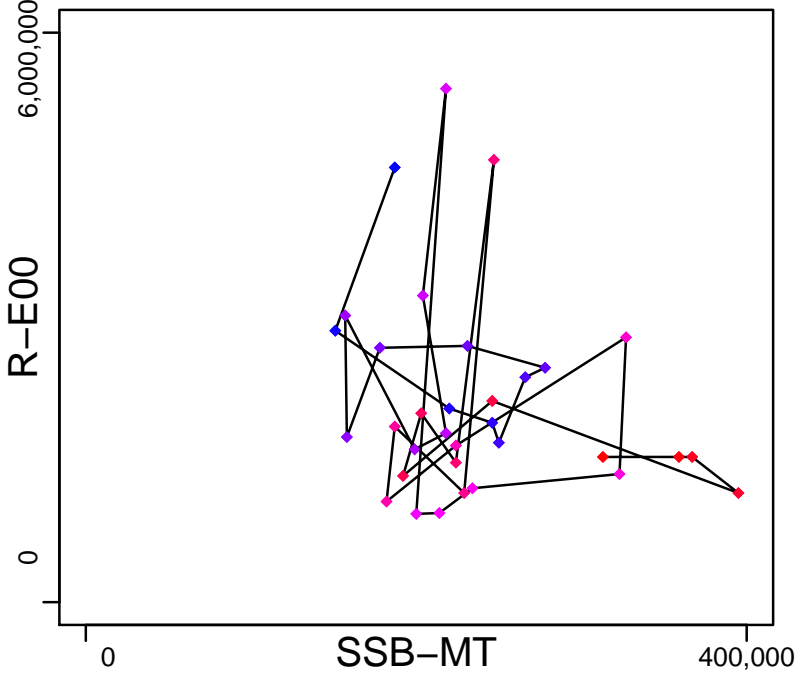
Kobe MSYpref (1975–2013–JPNIMP2016)



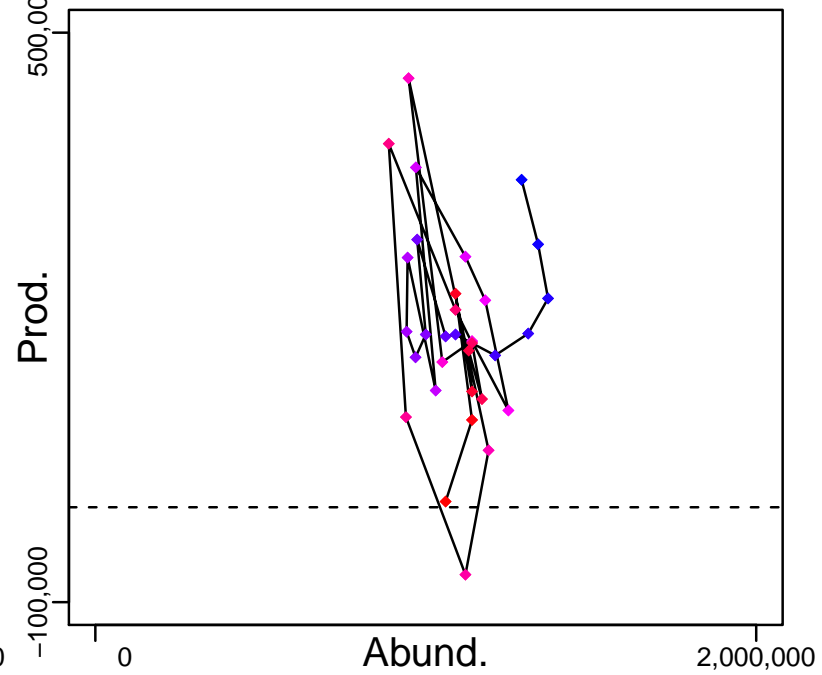
Kobe MGTpref (1975–2013–JPNIMP2016)



Spawner Recruit (1975–2013–JPNIMP2016)



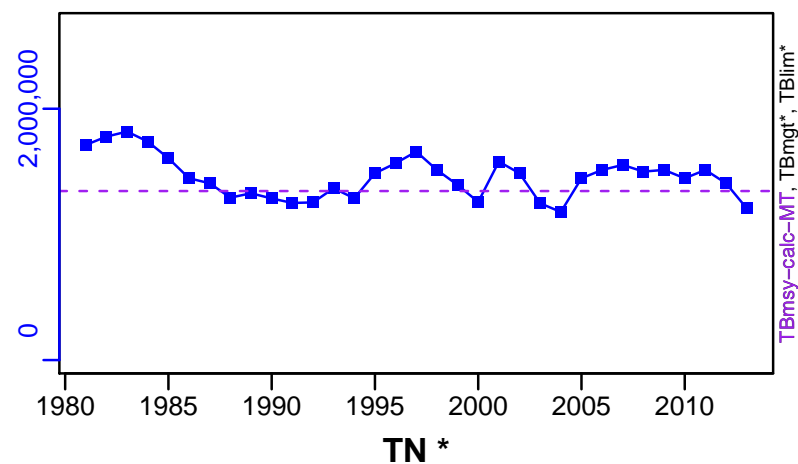
Production (1975–2013–JPNIMP2016)



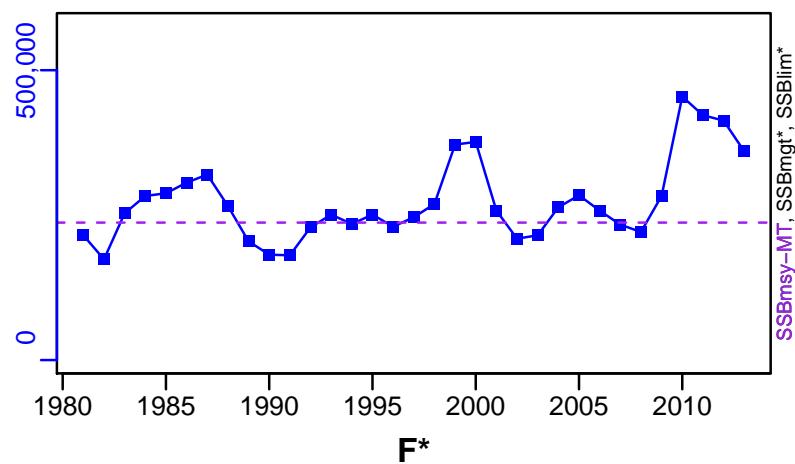
◆ Start Year ◆ End Year * No Data

Walleye pollock Pacific Coast of Japan [APOLLPJPN]

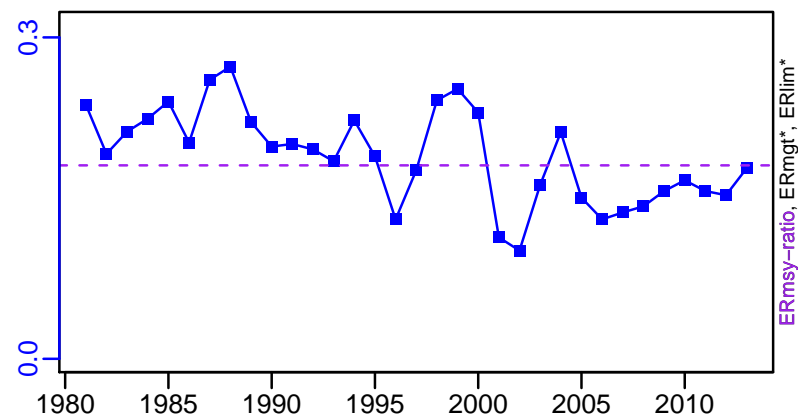
TB-MT (1975-2013-JPNIMP2016)



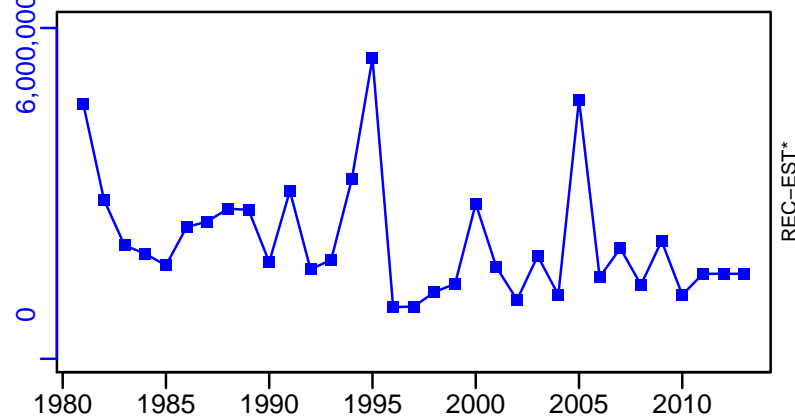
SSB-MT (1975-2013-JPNIMP2016)



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

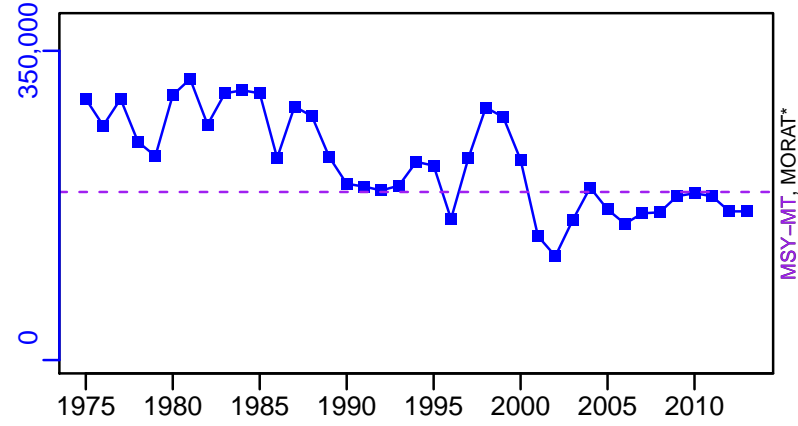


R-E00 (1975-2013-JPNIMP2016)



Walleye pollock Pacific Coast of Japan [APOLLPJPN]

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



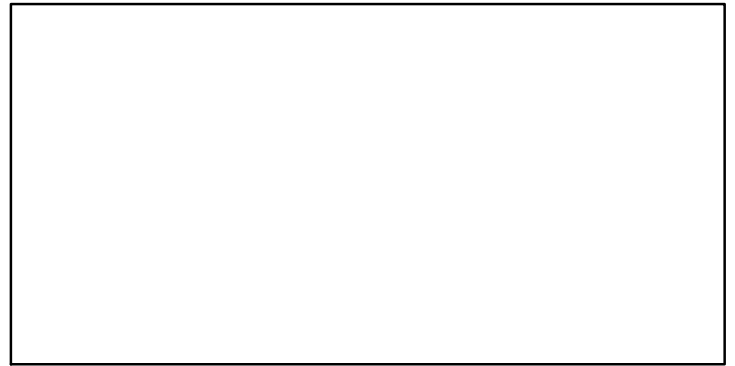
TAC*, Cpair*, Cadv*



survB*



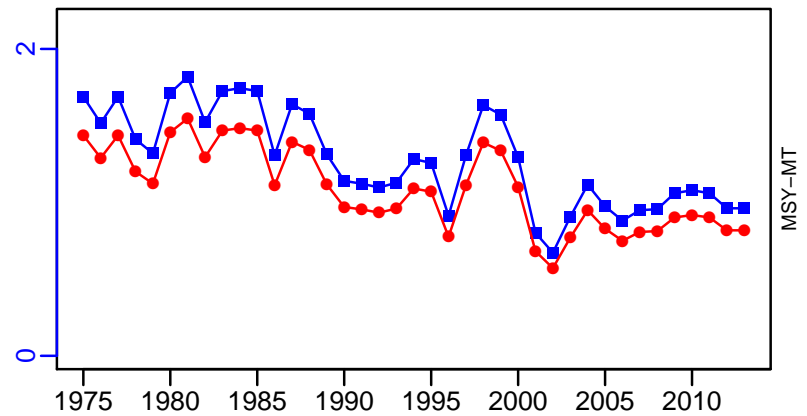
CPUE*



EFFORT*



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



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

Alaskan pink shrimp Sea of Japan [APSHRIMPSOJ]

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

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

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

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Alaskan pink shrimp Sea of Japan [APSHRIMPSOJ]

TB*



SSB*



TN *



F*



ER*



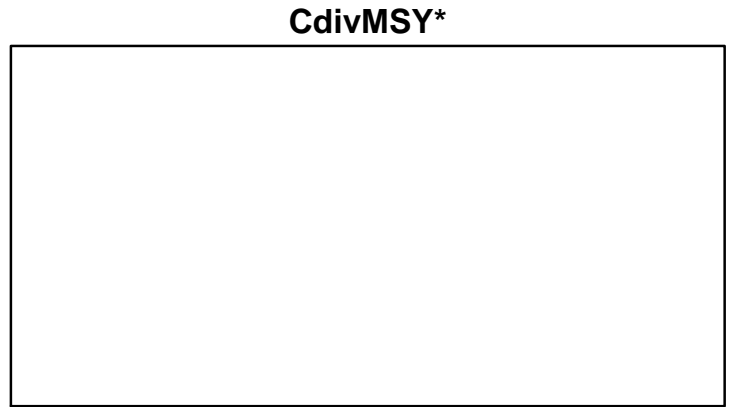
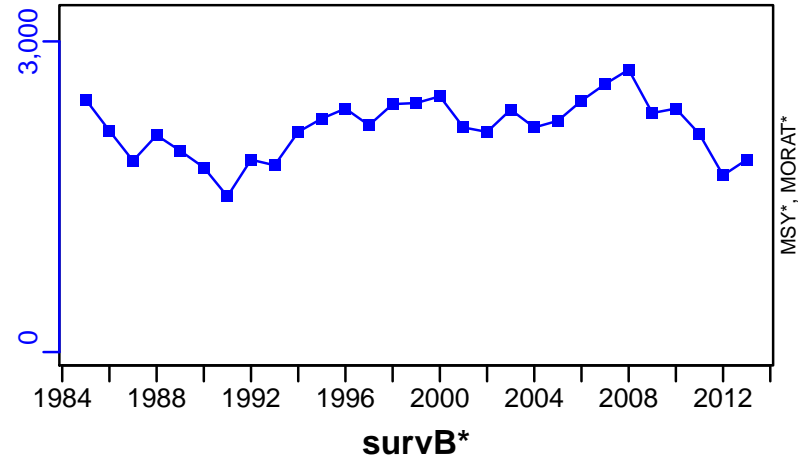
Recruits*



Alaskan pink shrimp Sea of Japan [APSHRIMPSOJ]

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

TAC*, Cpair*, Cadv*



Arabesque greenling Nemuro Strait [ARGREENNEMS]

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

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

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

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

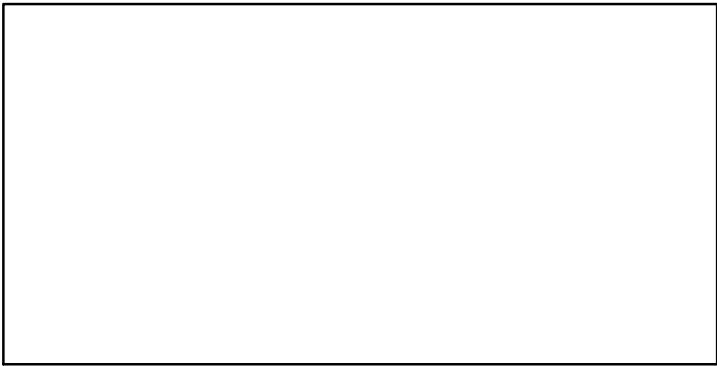
TB*



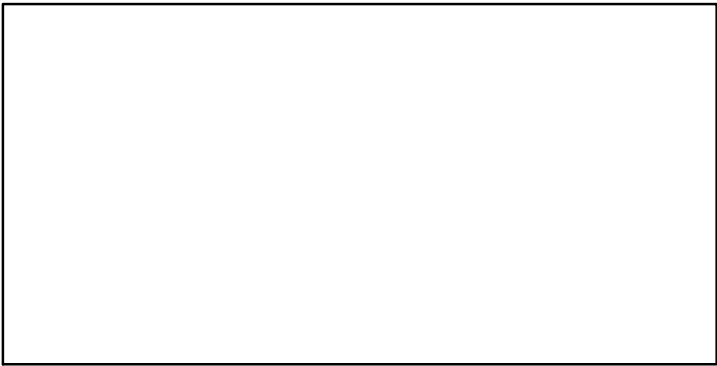
SSB*



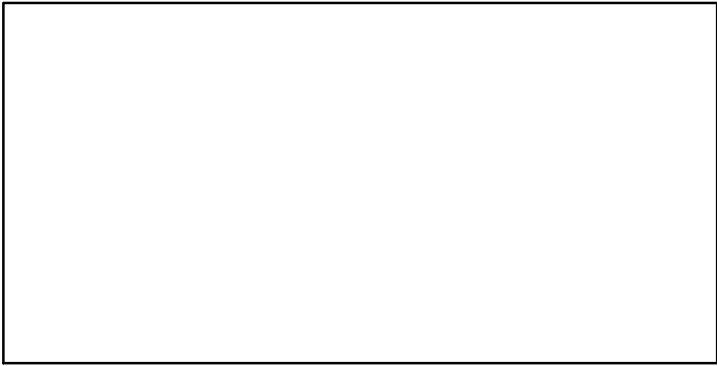
TN *



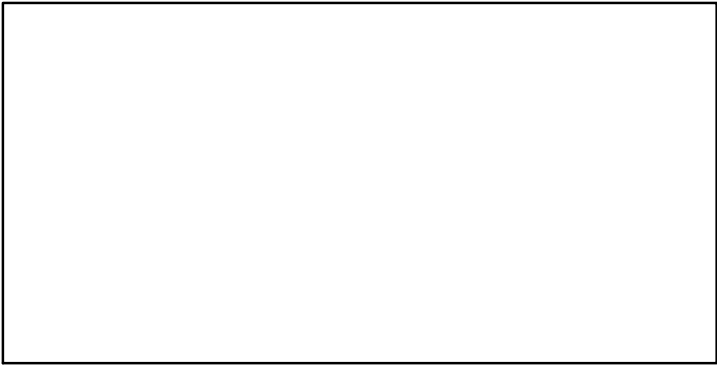
F*



ER*



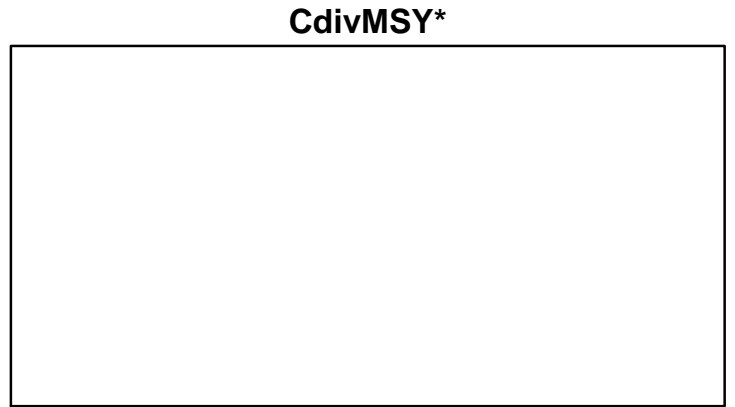
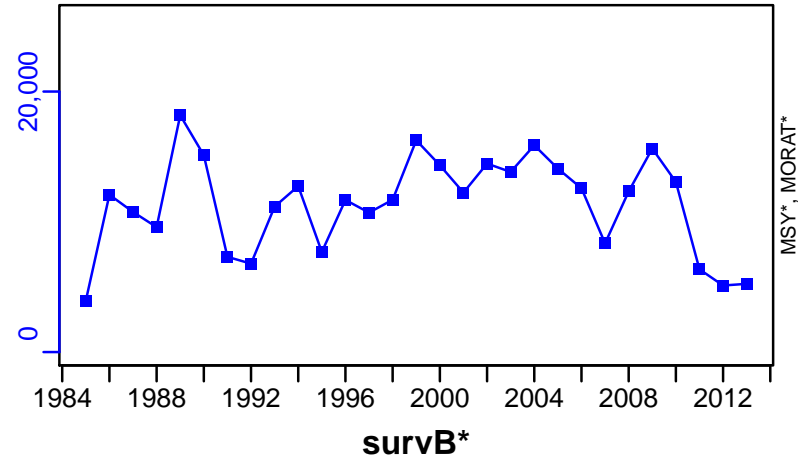
Recruits*



Arabesque greenling Nemuro Strait [ARGREENNEMS]

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

TAC*, Cpair*, Cadv*



Arabesque greenling North coast of Hokkaido [ARGREENNHOKK]

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

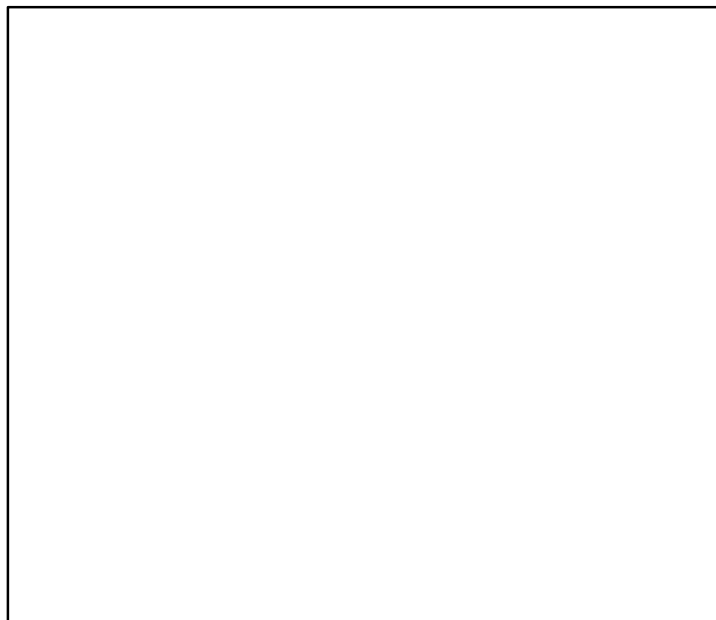
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

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

Kobe MSY*



Kobe MGT*



Spawner Recruit*



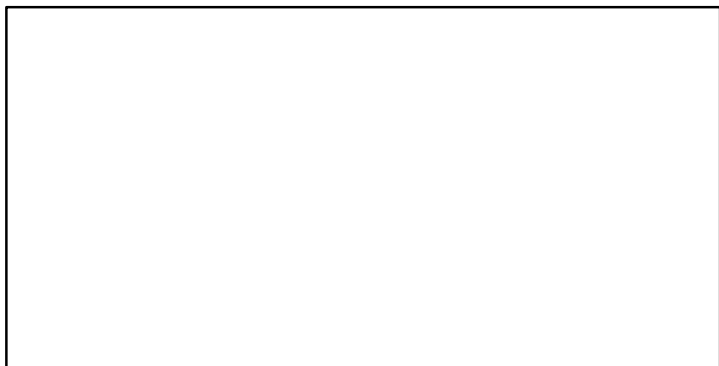
Production*



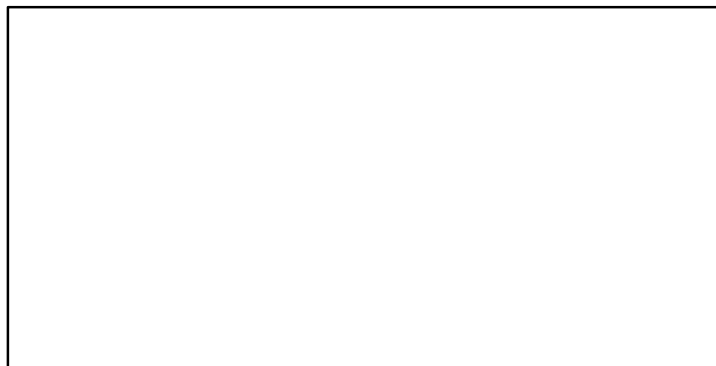
◆ Start Year ◆ End Year * No Data

Arabesque greenling North coast of Hokkaido [ARGREENNHOKK]

TB*



SSB*



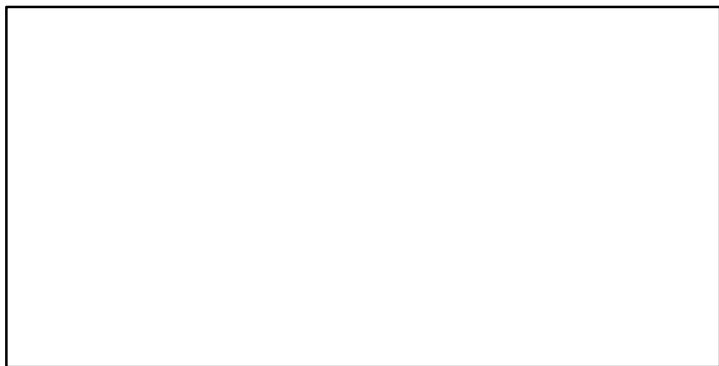
TN *



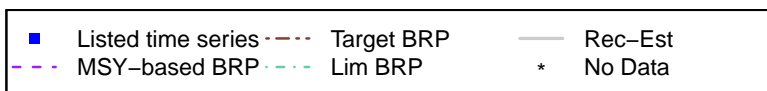
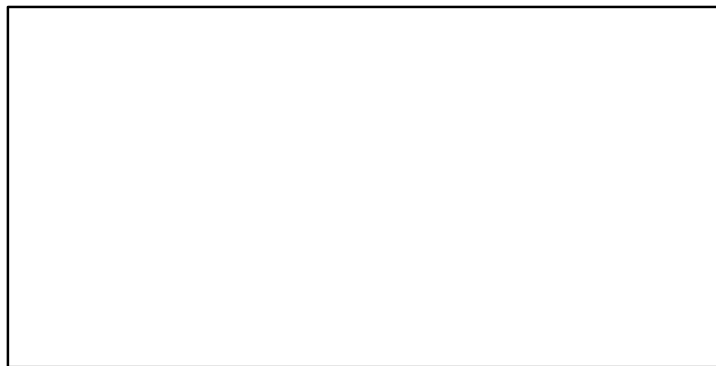
F*



ER*



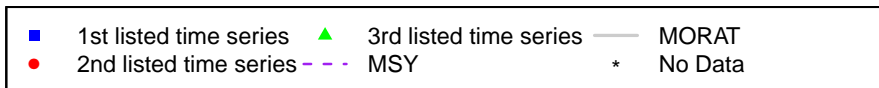
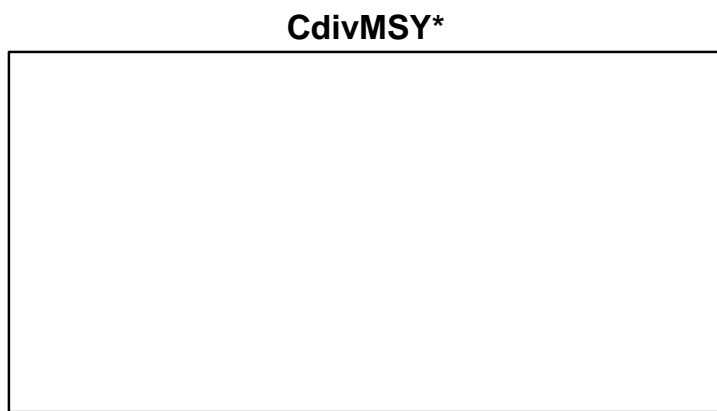
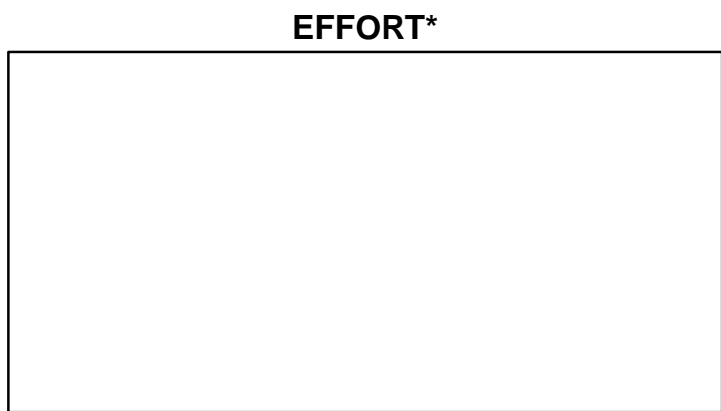
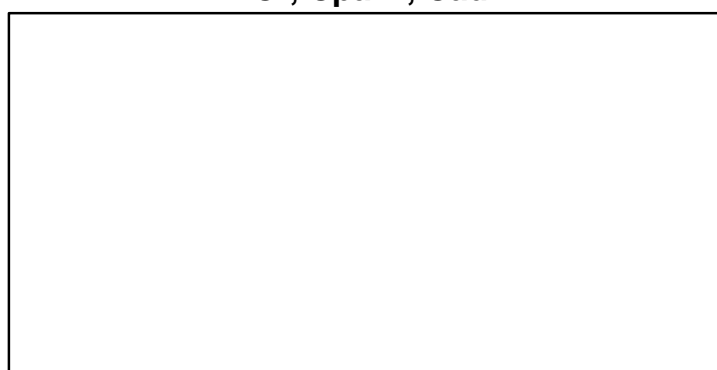
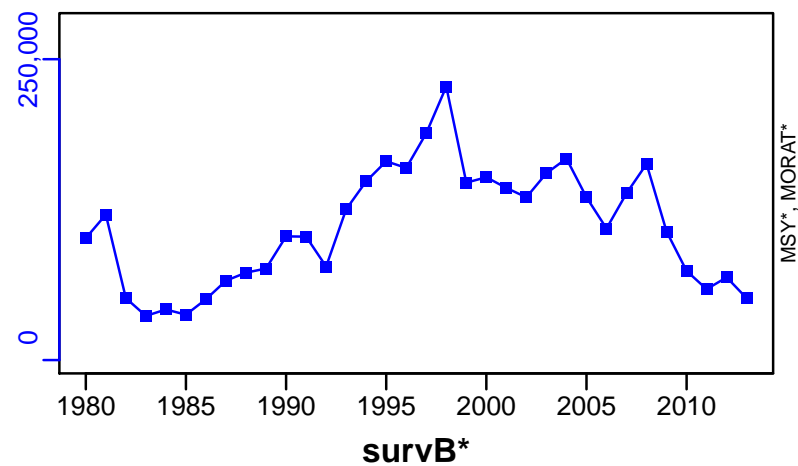
Recruits*



Arabesque greenling North coast of Hokkaido [ARGREENNHOKK]

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

TAC*, Cpair*, Cadv*



Arabesque greenling South coast of Hokkaido [ARGREENSHOKK]

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

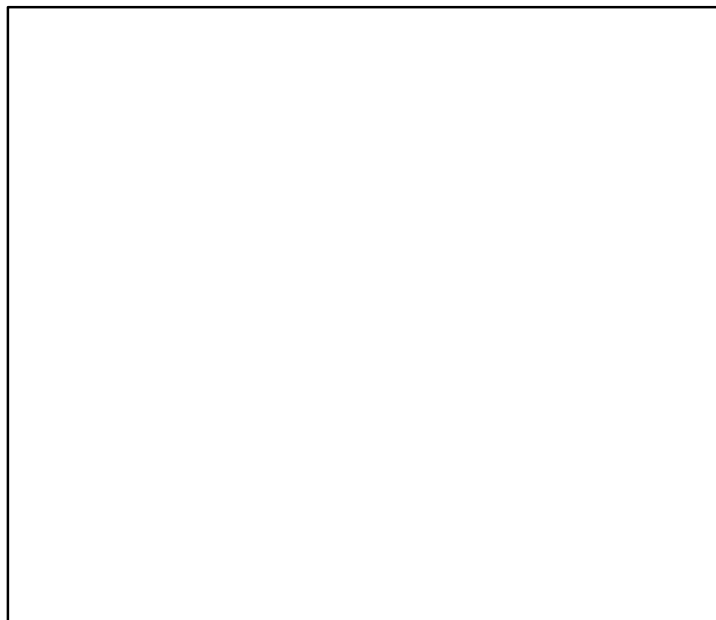
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

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

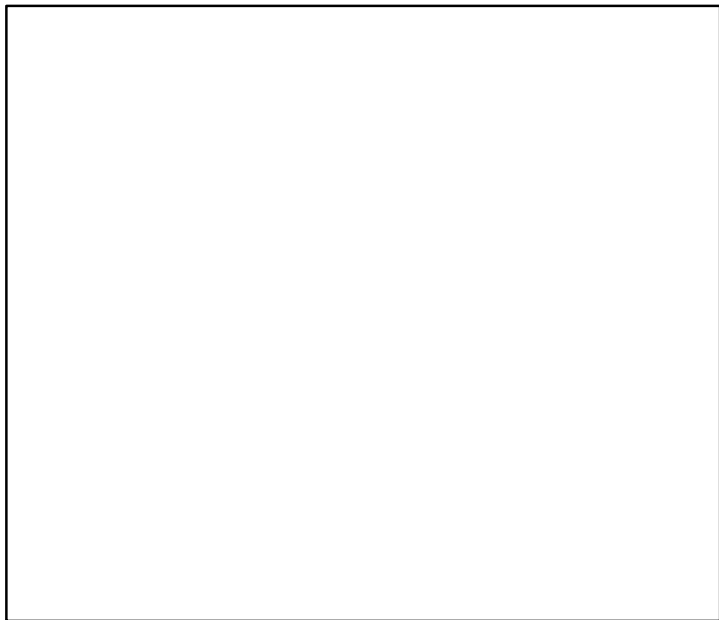
Kobe MSY*



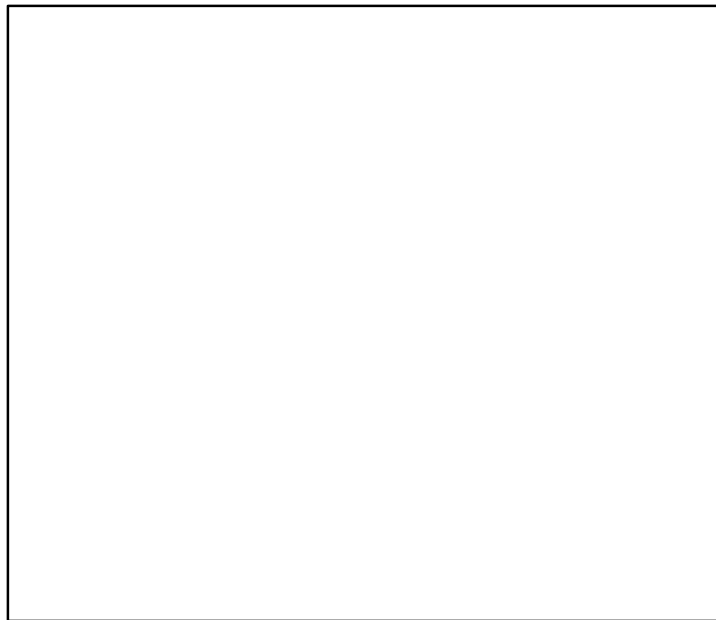
Kobe MGT*



Spawner Recruit*



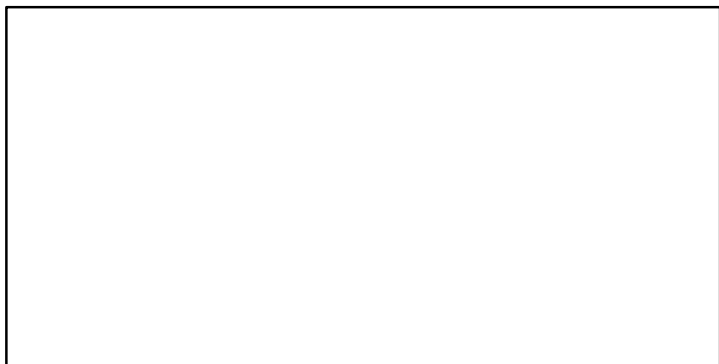
Production*



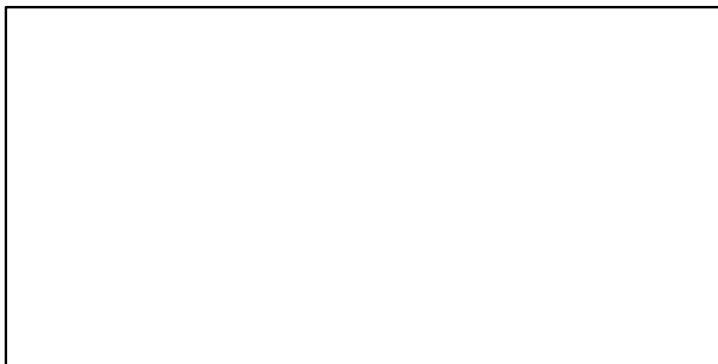
◆ Start Year ◆ End Year * No Data

Arabesque greenling South coast of Hokkaido [ARGREENSHOKK]

TB*



SSB*



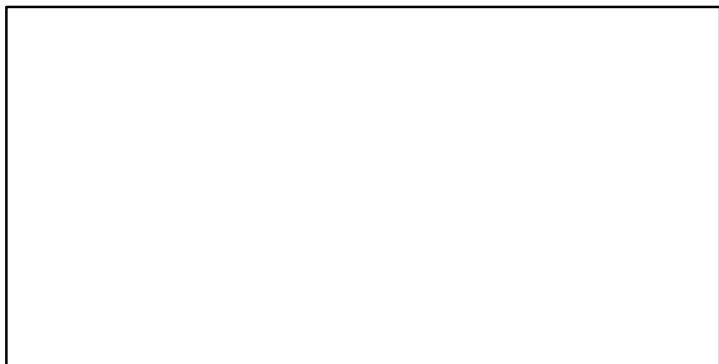
TN *



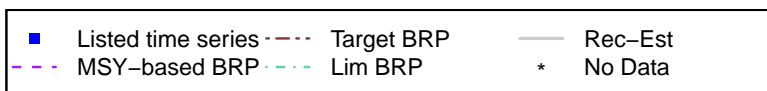
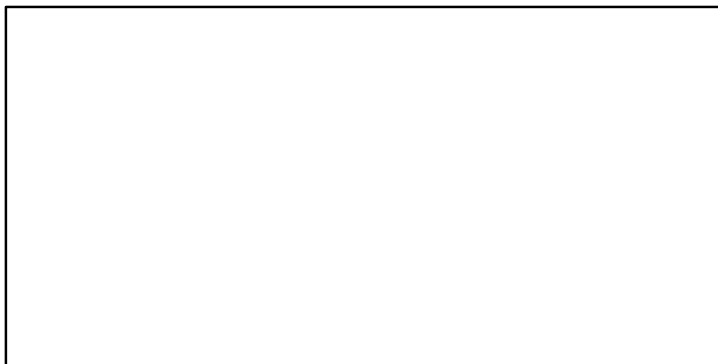
F*



ER*

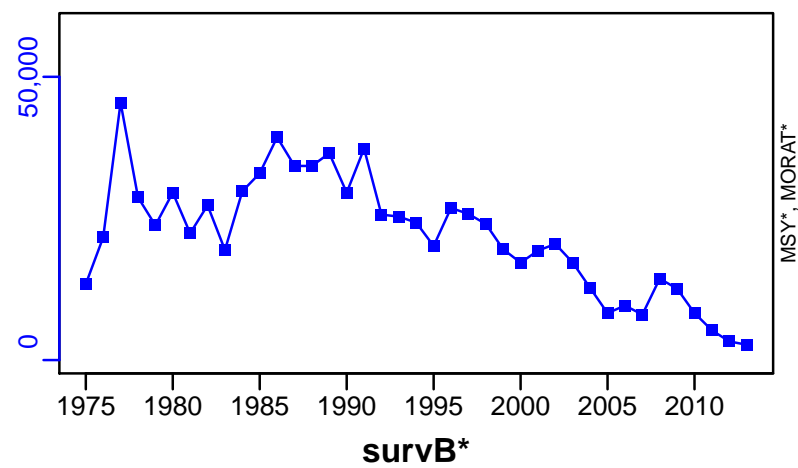


Recruits*



Arabesque greenling South coast of Hokkaido [ARGREENSHOKK]

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



TAC*, Cpair*, Cadv*



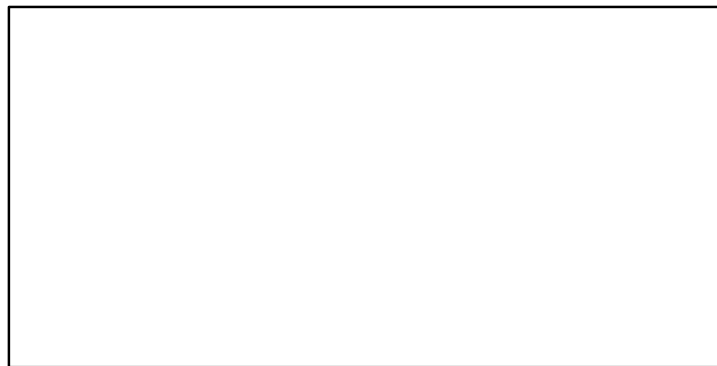
CPUE*



EFFORT*



CdivMSY*



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

Amberstripe scad East China Sea [ASCADECS]

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

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

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

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Amberstripe scad East China Sea [ASCADECS]

TB*



SSB*



TN *



F*



ER*

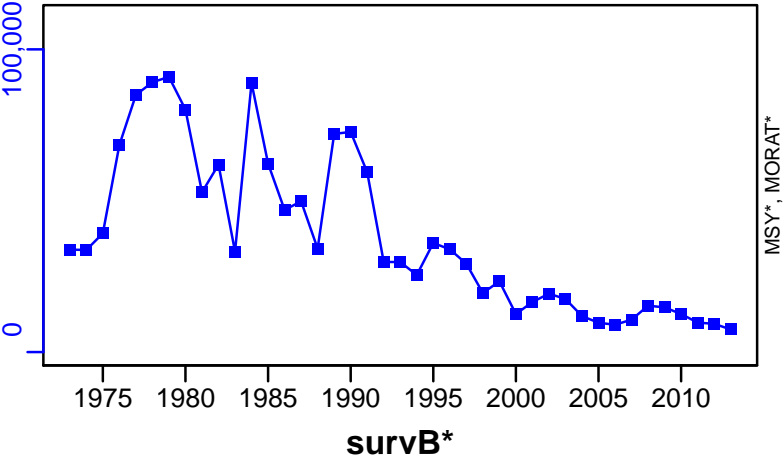


Recruits*



Amberstripe scad East China Sea [ASCADECS]

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



TAC*, Cpair*, Cadv*



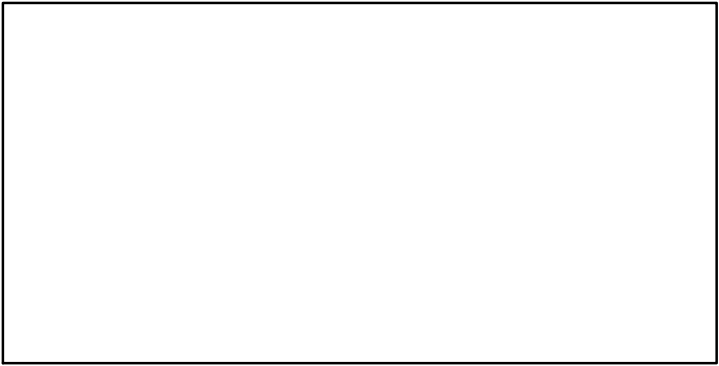
CPUE*



EFFORT*



CdivMSY*



Spotted mackerel East China Sea [BMACKECS]

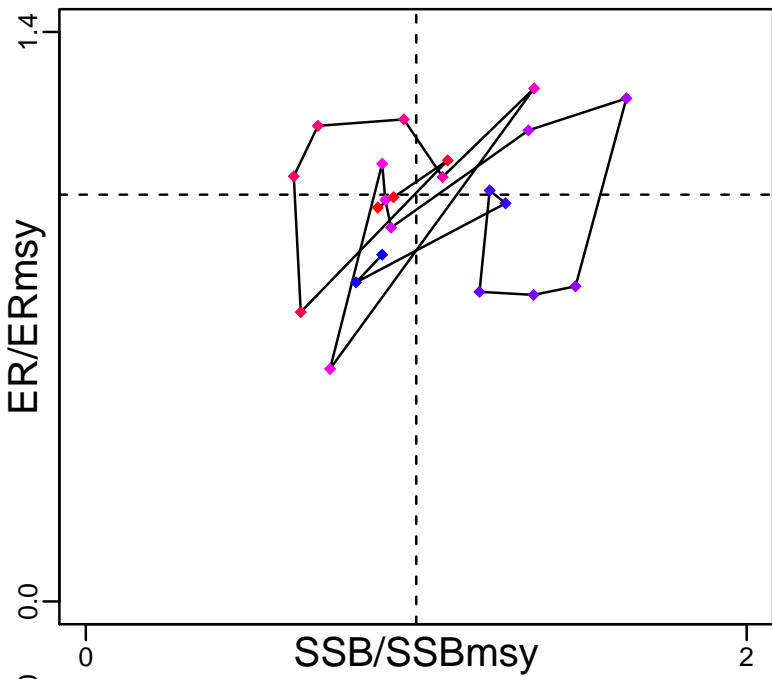
Metadata	
Scientific Name	Scomber australasicus
Current Assess ID	FAFRFJ-BMACKECS-1992-2013-JPNIMP2016
Area	East China Sea
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013

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

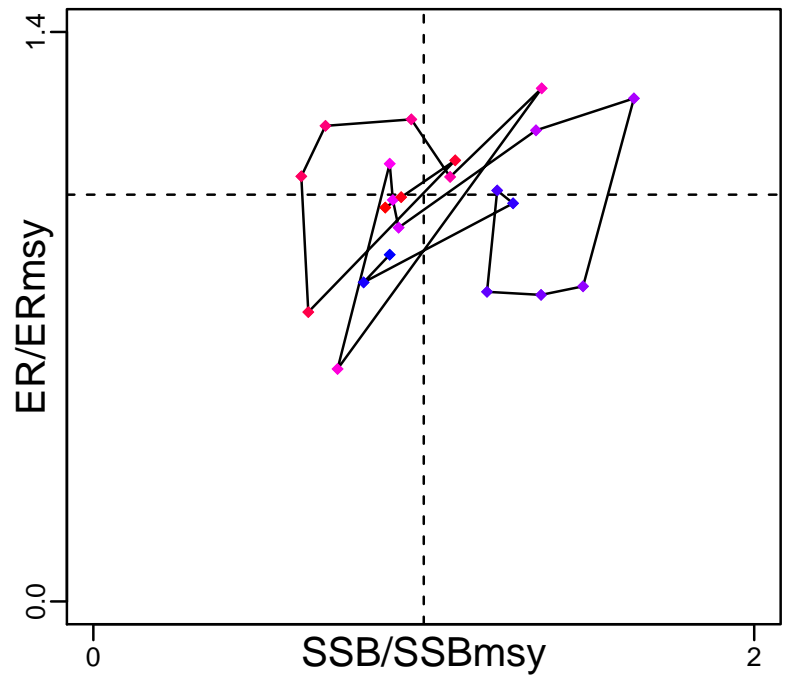
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	134,000	-	0
SSB	SSB-MT	2013	45,900	Both	1
TN	-	-	-	-	-
R	R-E00	2013	3.01×10^8	-	0
F	-	-	-	-	-
ER	ER-calc-ratio	2013	0.378	-	-
TC	TC-MT	2013	50,600		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2013	0.954		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013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

Spotted mackerel East China Sea [BMACKECS]

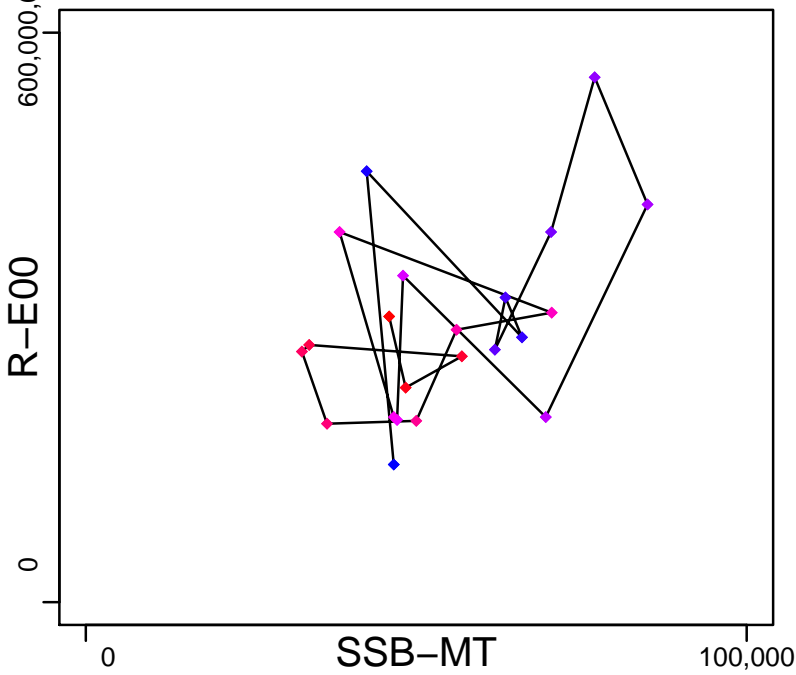
Kobe MSYpref (1992–2013–JPNIMP2016)



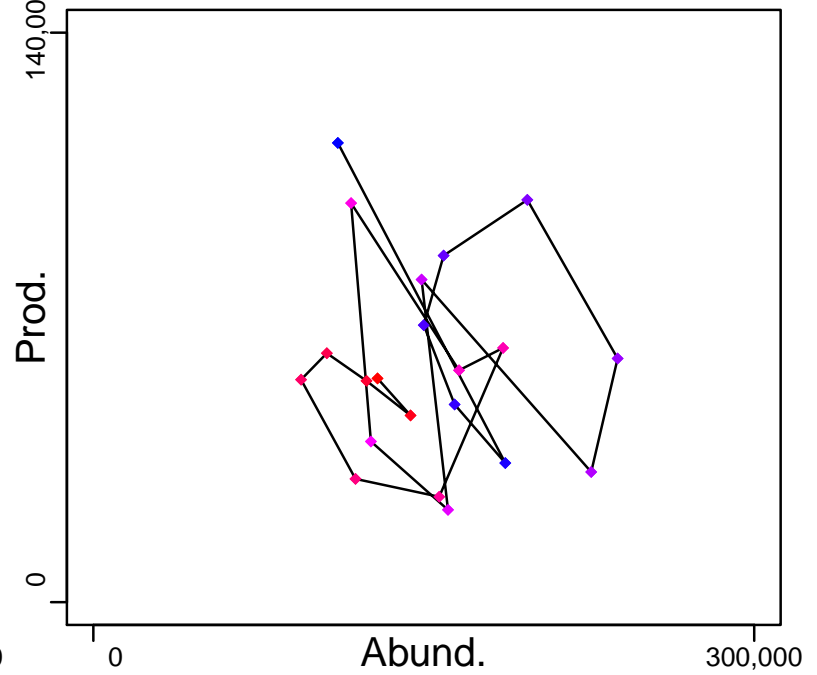
Kobe MGTpref (1992–2013–JPNIMP2016)



Spawner Recruit (1992–2013–JPNIMP2016)



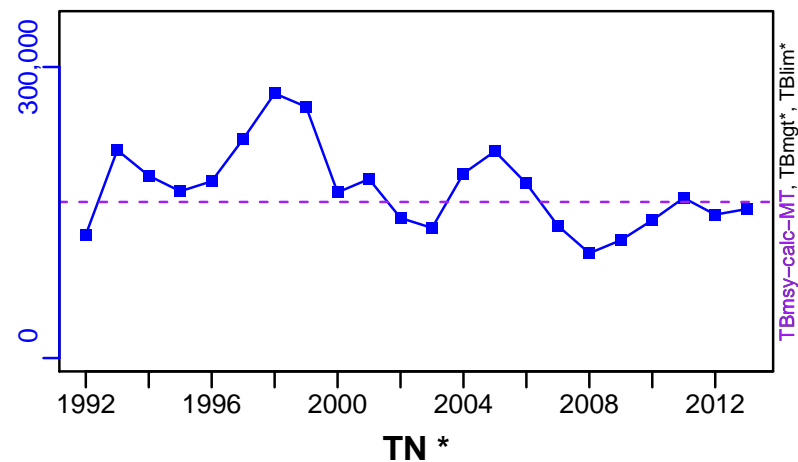
Production (1992–2013–JPNIMP2016)



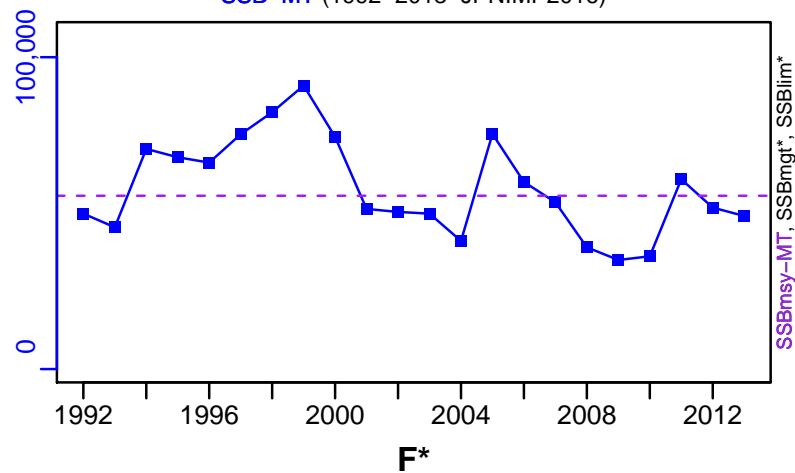
◆ Start Year ◆ End Year * No Data

Spotted mackerel East China Sea [BMACKECS]

TB-MT (1992–2013–JPNIMP2016)



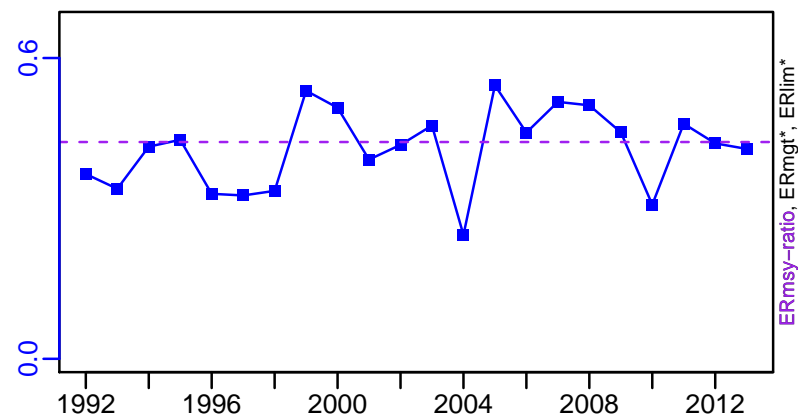
SSB-MT (1992–2013–JPNIMP2016)



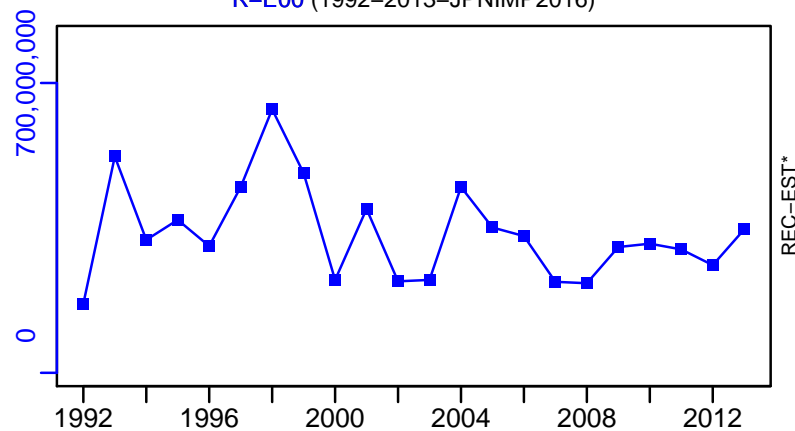
TN *

F*

ER-calc-ratio (1992–2013–JPNIMP2016)

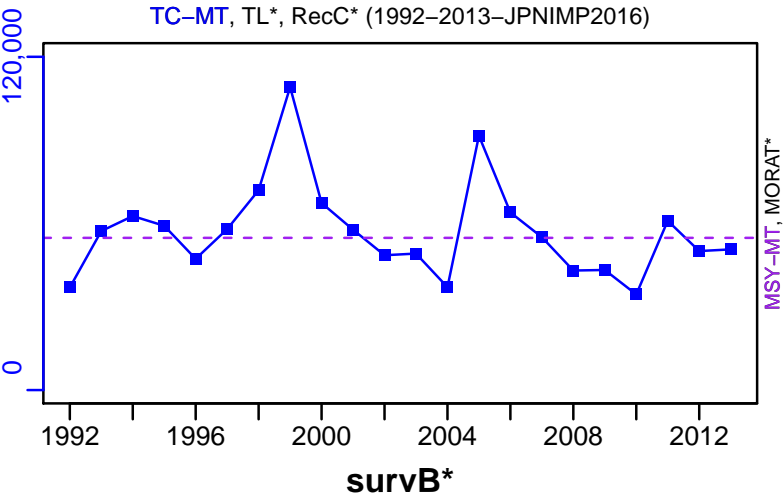


R-E00 (1992–2013–JPNIMP2016)



Spotted mackerel East China Sea [BMACKECS]

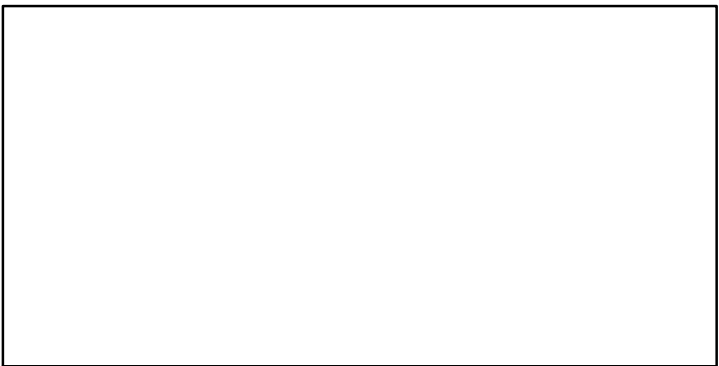
TC-MT, TL*, RecC* (1992-2013-JPNIMP2016)



TAC*, Cpair*, Cadv*



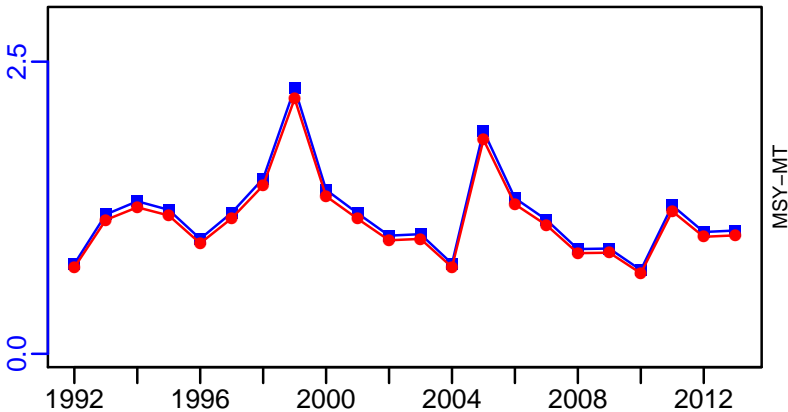
CPUE*



EFFORT*



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



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

Spotted mackerel Pacific Coast of Japan [BMACKPJPN]

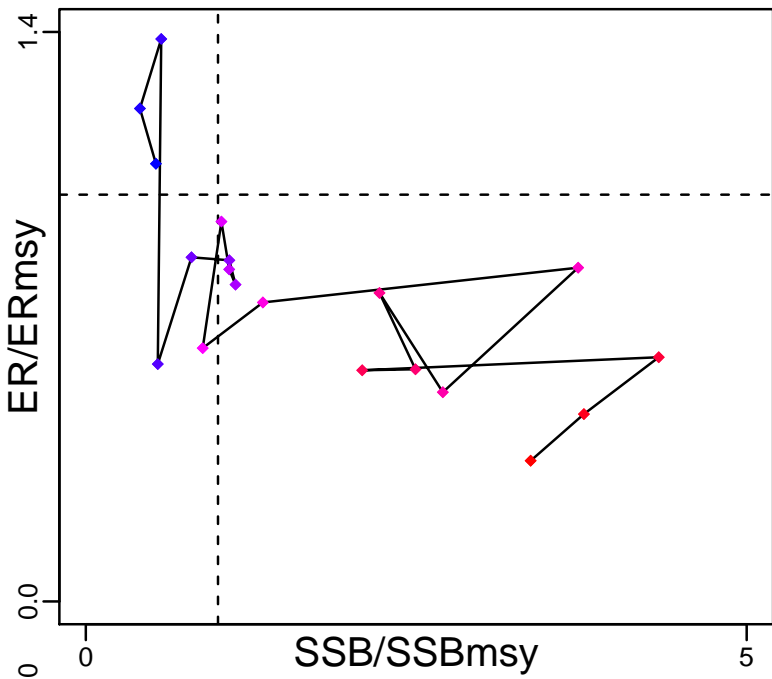
Metadata	
Scientific Name	Scomber australasicus
Current Assess ID	FAFRFJ-BMACKPJPN-1982-2013-JPNIMP2016
Area	Pacific Coast of Japan
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013

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

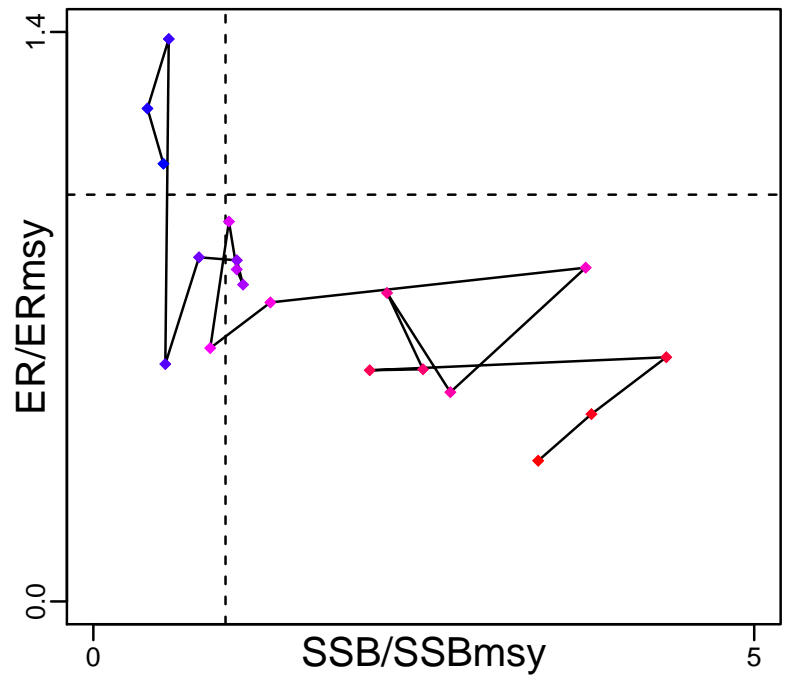
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	785,000	-	0
SSB	SSB-MT	2013	309,000	Both	2
TN	-	-	-	-	-
R	R-E00	2013	1.22×10^9	-	0
F	-	-	-	-	-
ER	ER-calc-ratio	2013	0.136	-	-
TC	TC-MT	2013	107,000		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2013	2.123		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013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

Spotted mackerel Pacific Coast of Japan [BMACKPJPN]

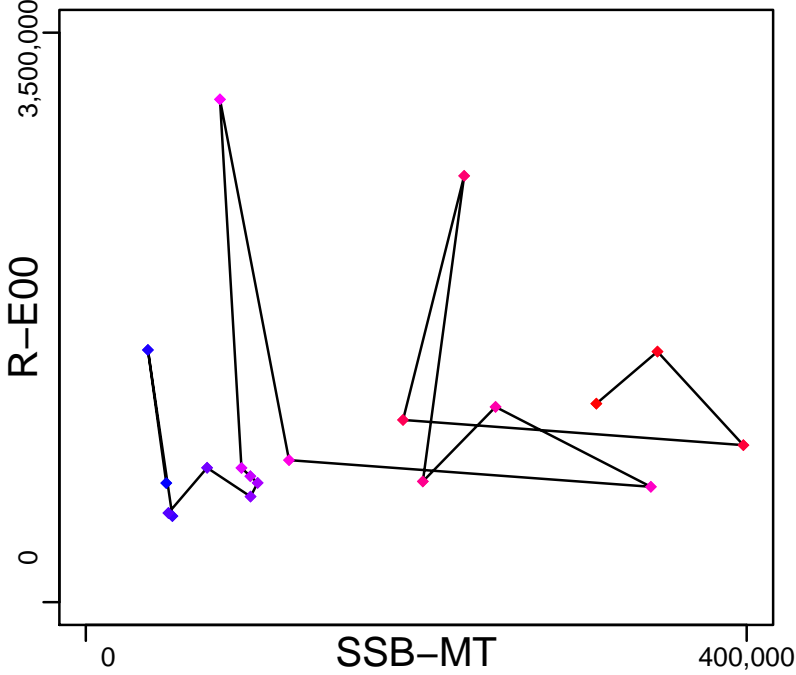
Kobe MSYpref (1982–2013–JPNIMP2016)



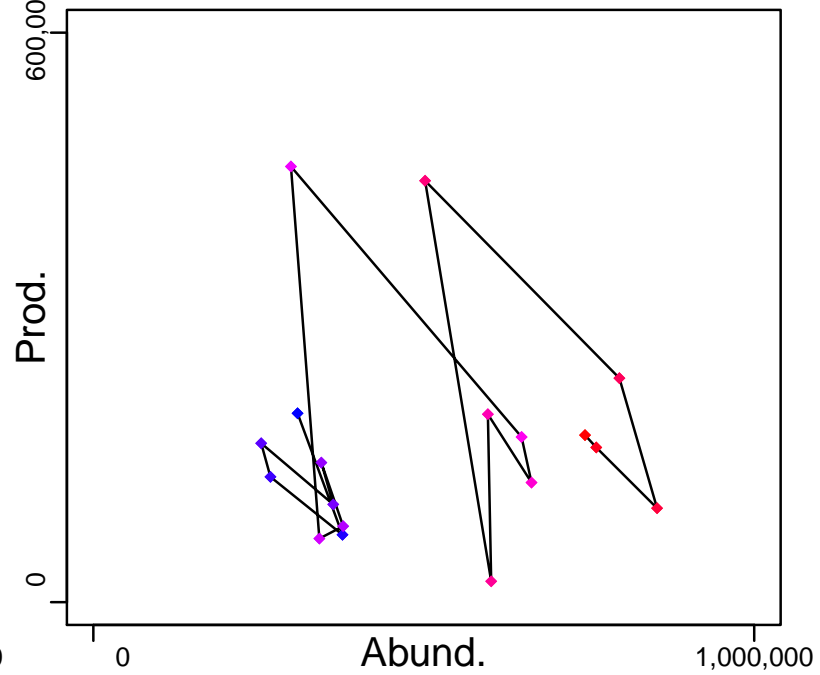
Kobe MGTpref (1982–2013–JPNIMP2016)



Spawner Recruit (1982–2013–JPNIMP2016)



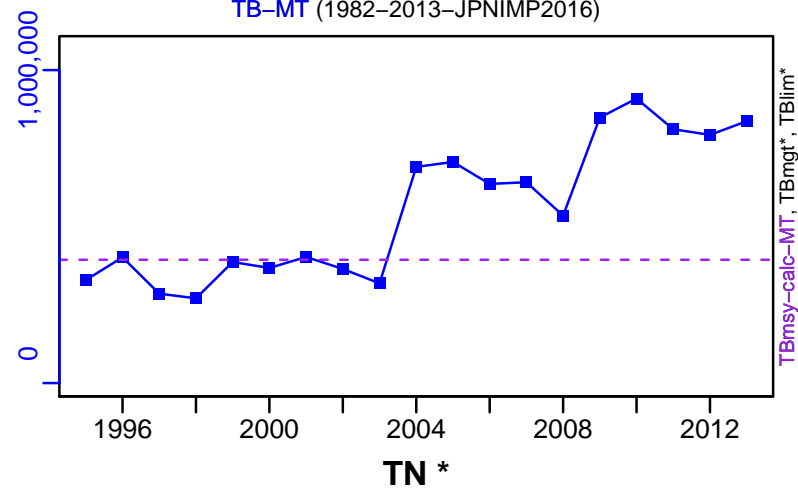
Production (1982–2013–JPNIMP2016)



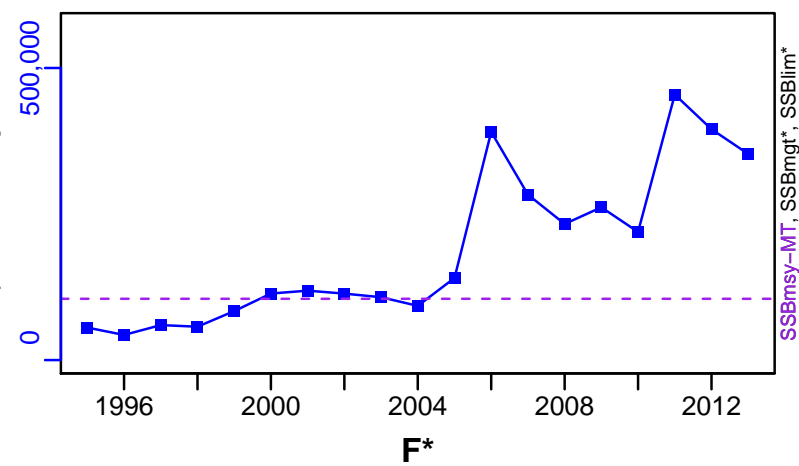
◆ Start Year ◆ End Year * No Data

Spotted mackerel Pacific Coast of Japan [BMACKPJPN]

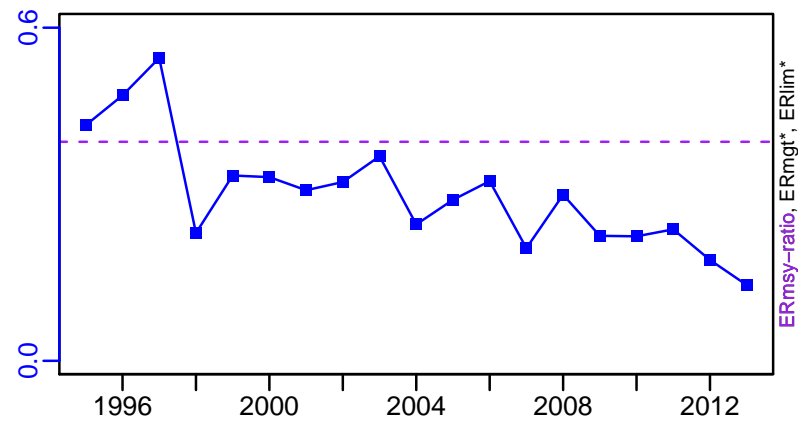
TB-MT (1982-2013-JPNIMP2016)



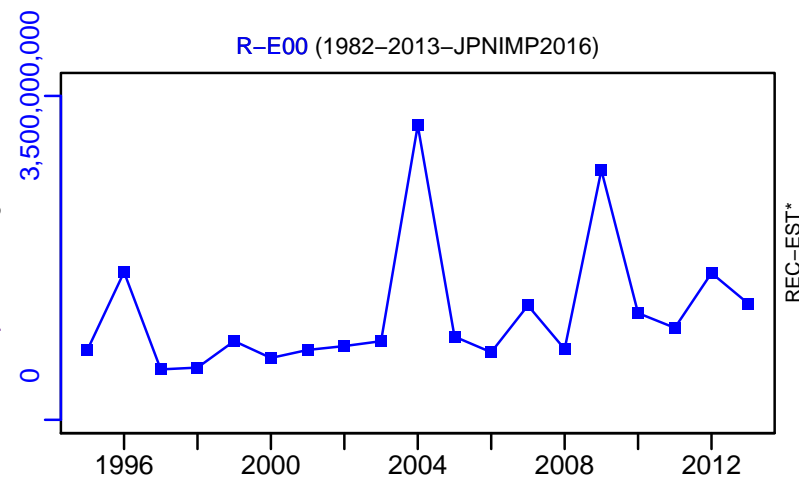
SSB-MT (1982-2013-JPNIMP2016)



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

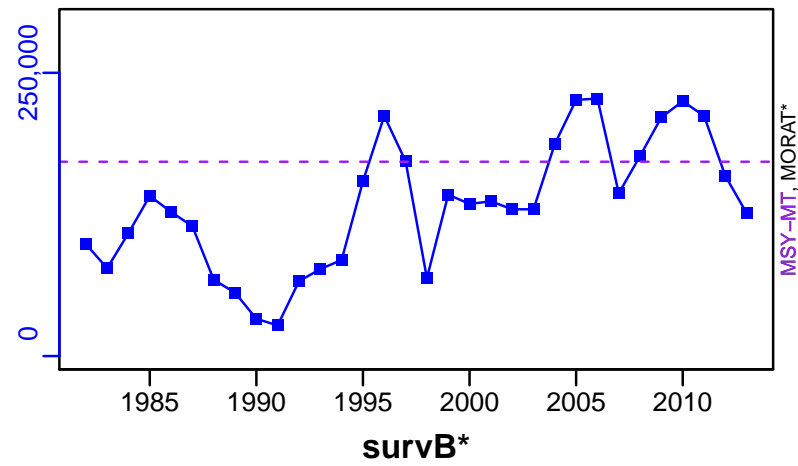


R-E00 (1982-2013-JPNIMP2016)



Spotted mackerel Pacific Coast of Japan [BMACKPJPN]

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



TAC*, Cpair*, Cadv*



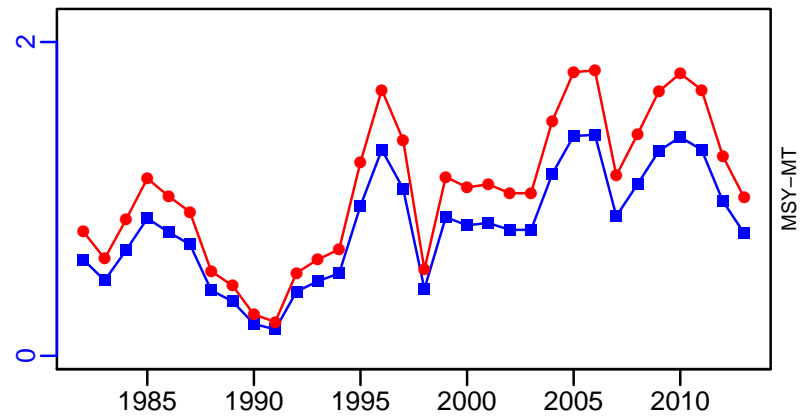
CPUE*



EFFORT*



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



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

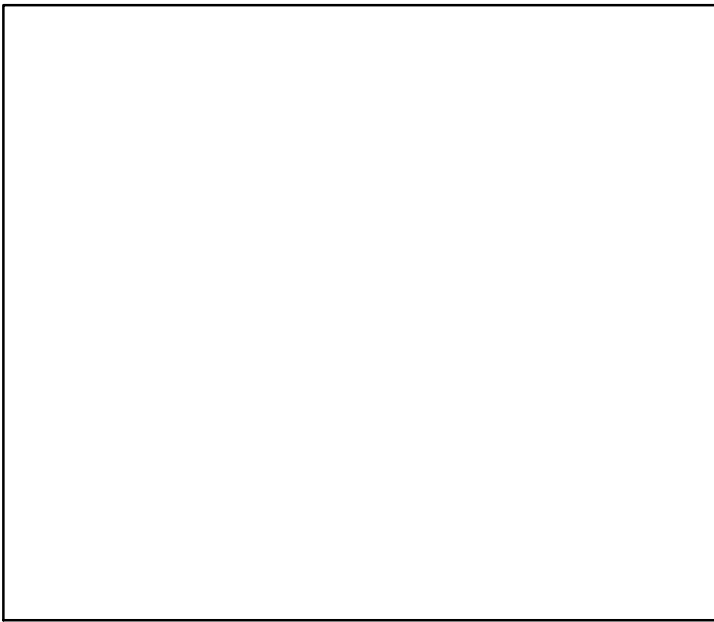
Yellow sea bream Sea of Japan [BRMSOJ]

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

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

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

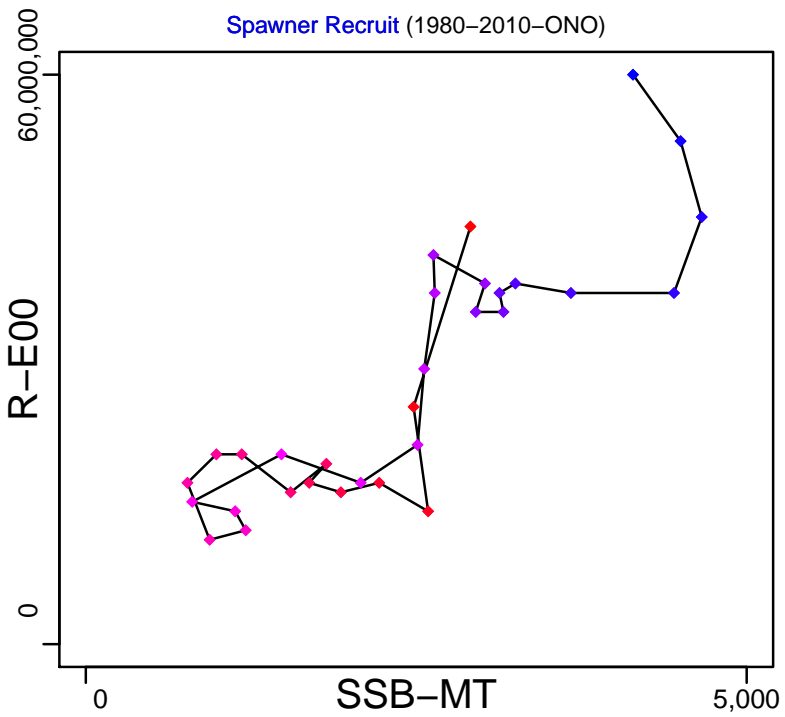
Kobe MSY*



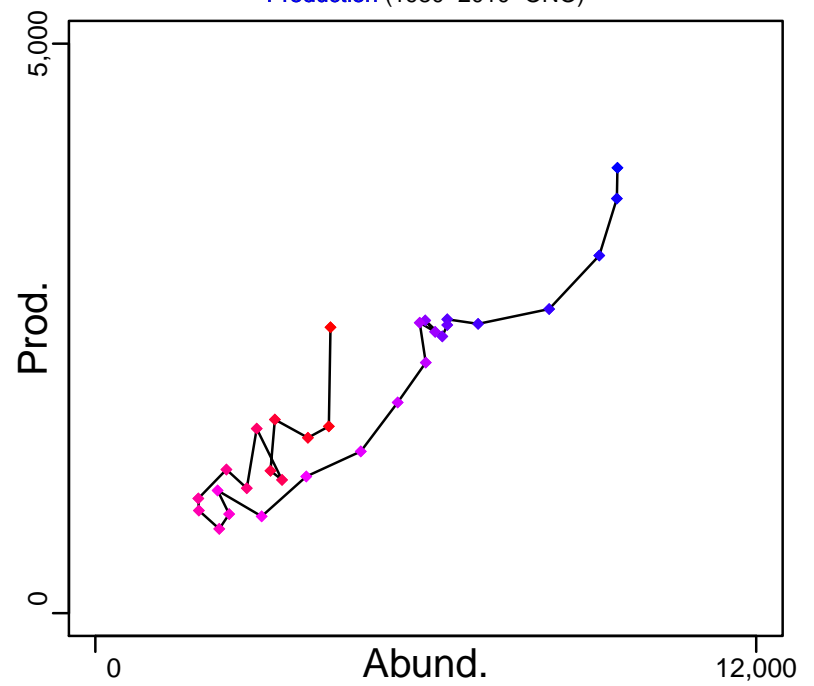
Kobe MGT*



Spawner Recruit (1980–2010–ONO)



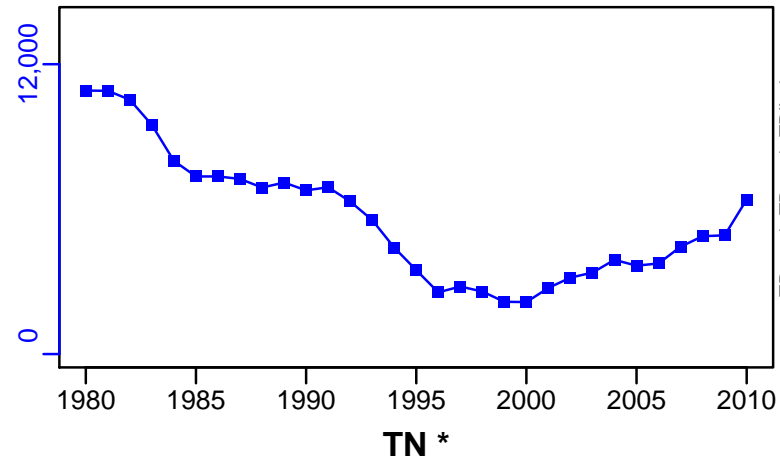
Production (1980–2010–ONO)



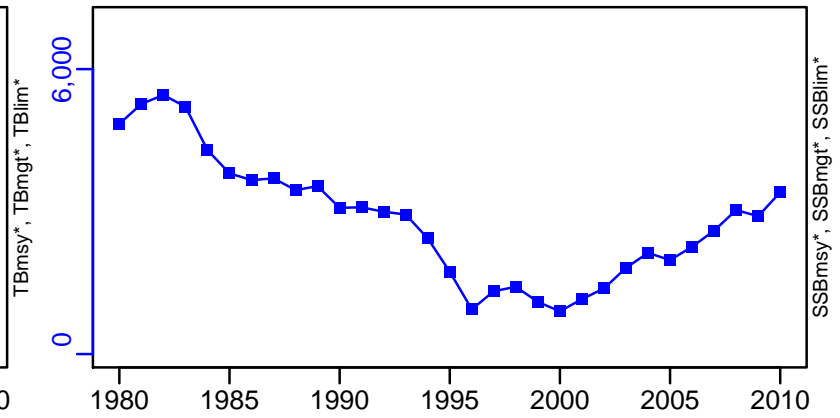
◆ Start Year ◆ End Year * No Data

Yellow sea bream Sea of Japan [BRMSOJ]

TB-MT (1980-2010-ONO)



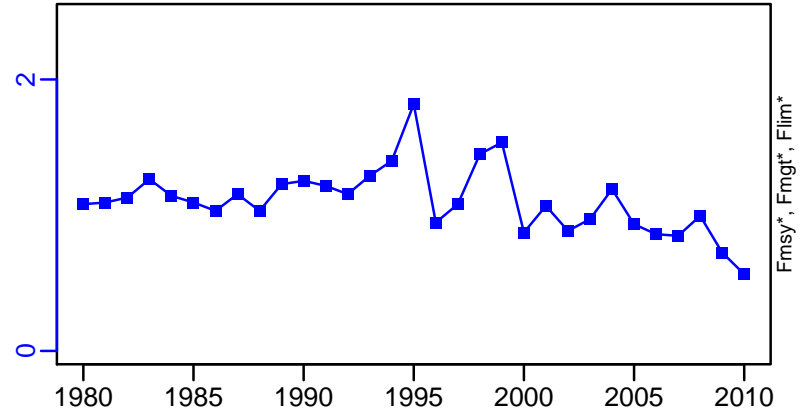
SSB-MT (1980-2010-ONO)



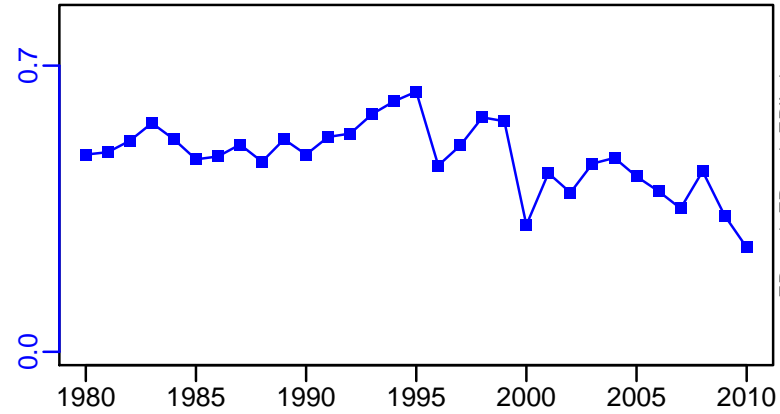
TN *



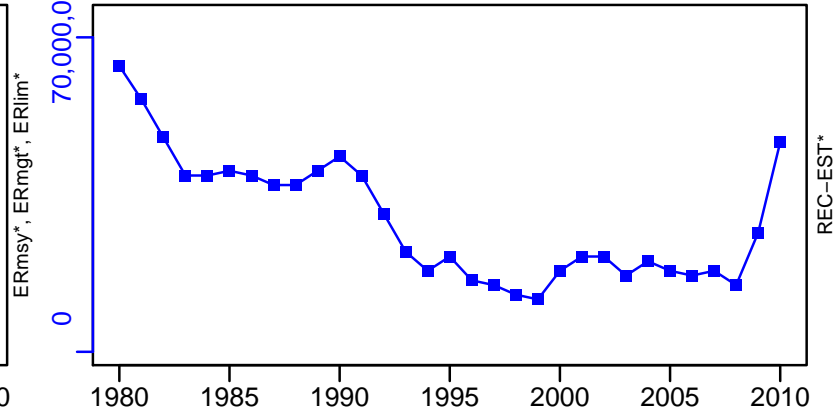
F-1/yr (1980-2010-ONO)



ER-ratio (1980-2010-ONO)



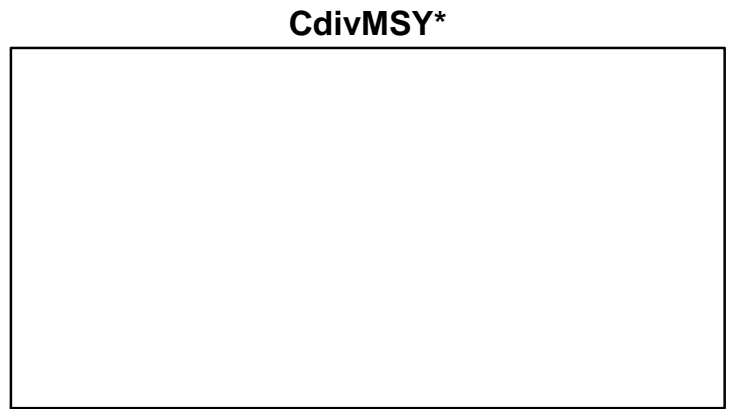
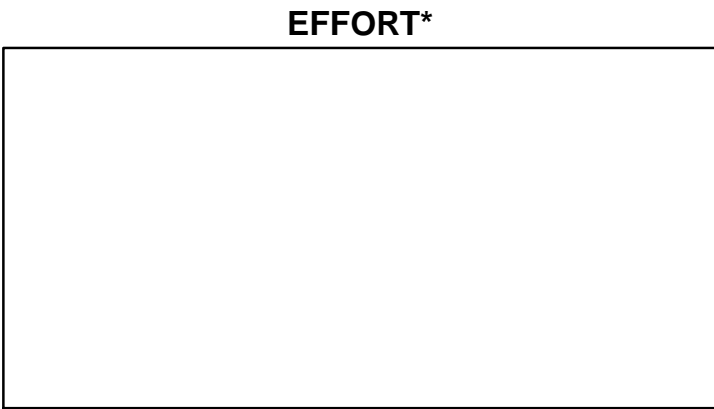
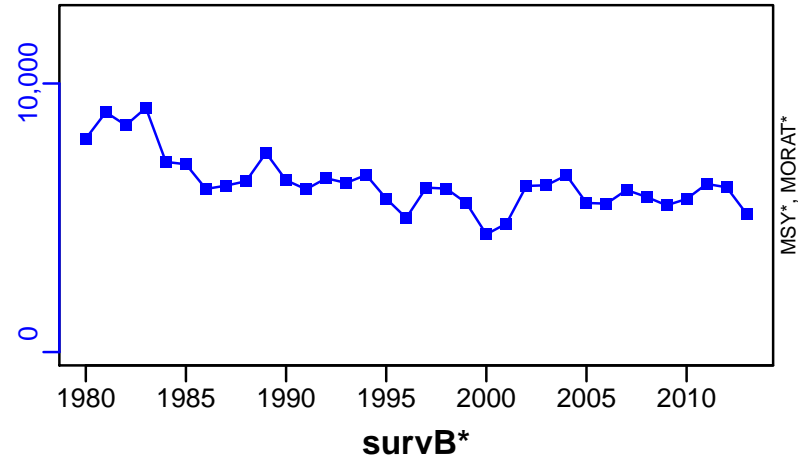
R-E00 (1980-2010-ONO)



Yellow sea bream Sea of Japan [BRMSOJ]

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

TAC*, Cpair*, Cadv*



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

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

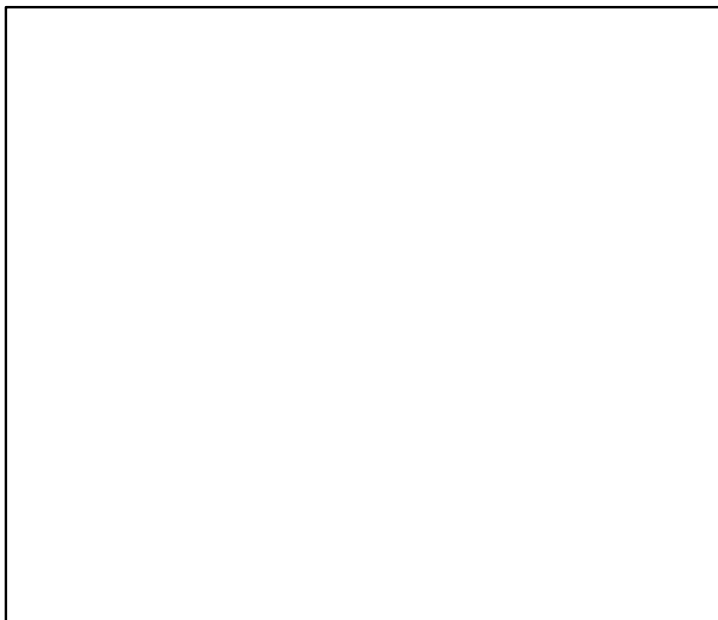
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

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

Kobe MSY*



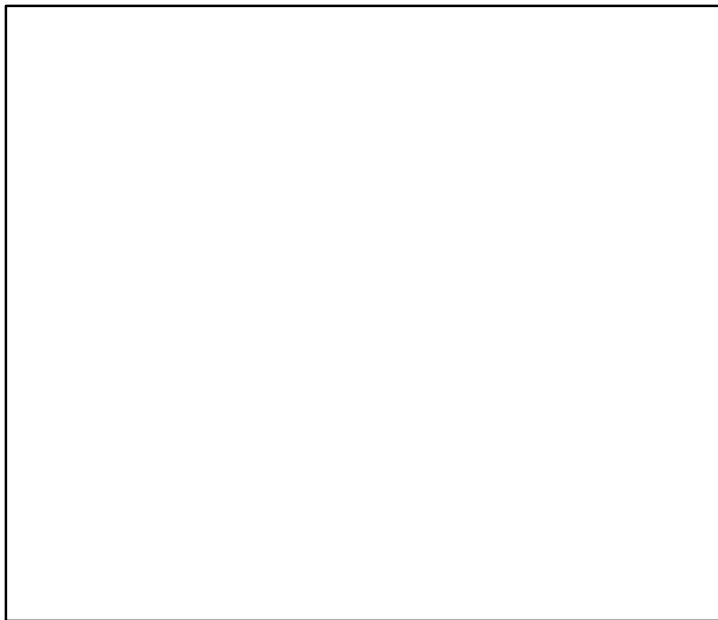
Kobe MGT*



Spawner Recruit*



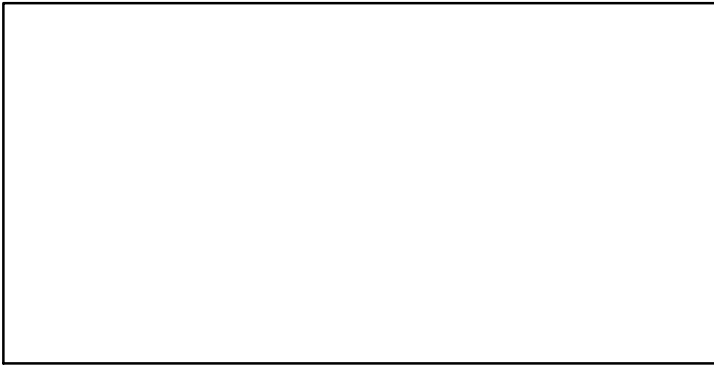
Production*



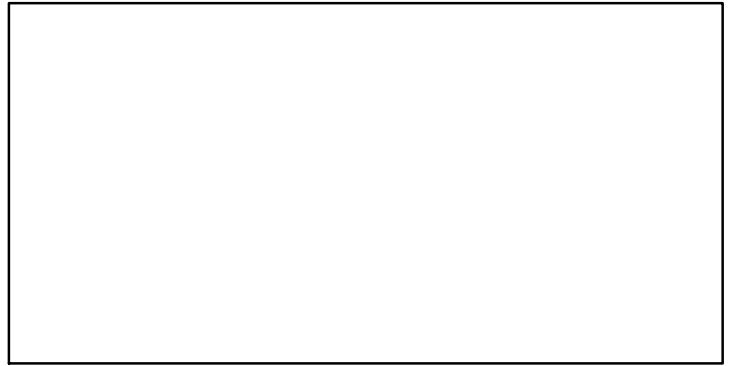
◆ Start Year ◆ End Year * No Data

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

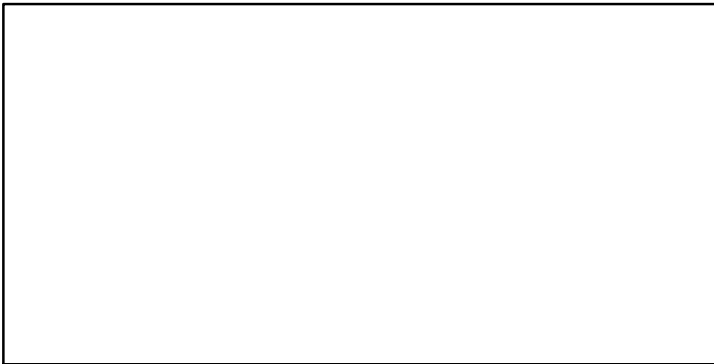
TB*



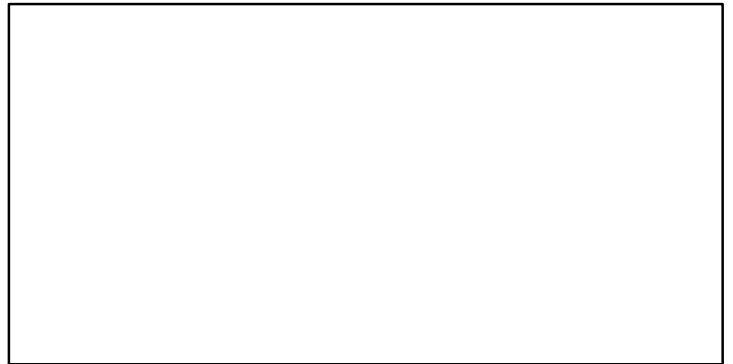
SSB*



TN *



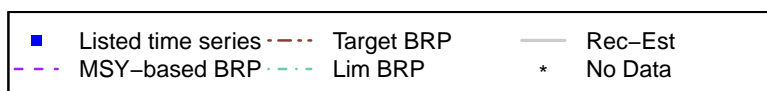
F*



ER*

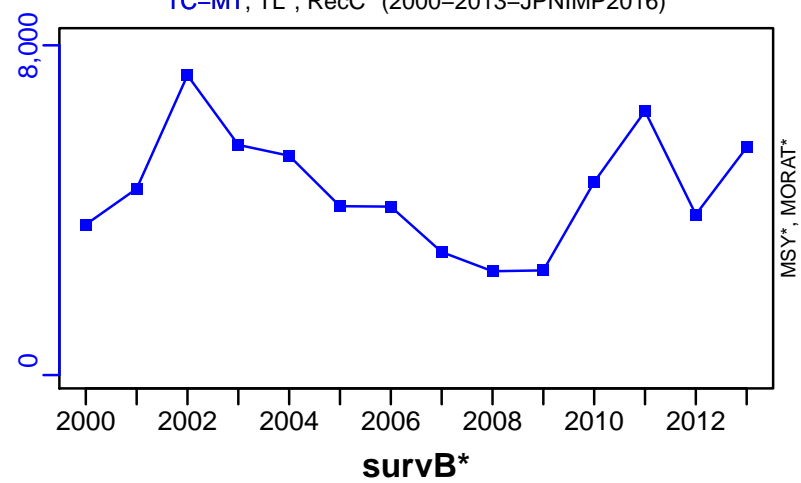


Recruits*

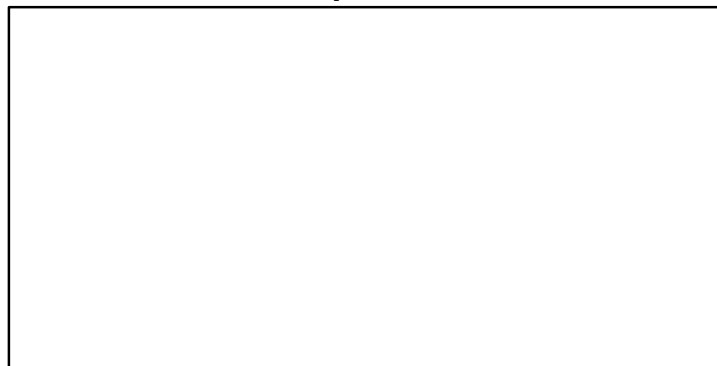


Black scraper Sea of Japan and East China Sea [BSCRAPERSEJCS]

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



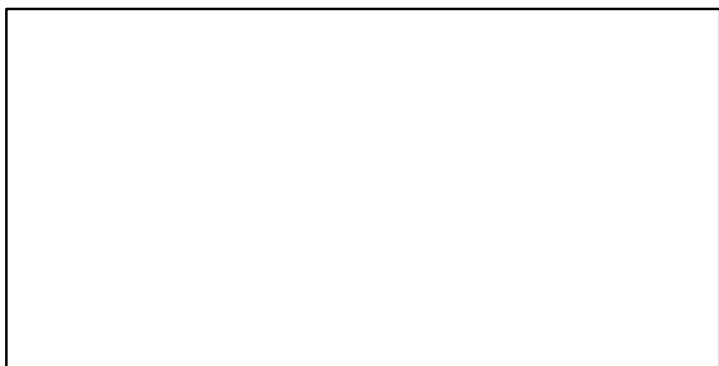
TAC*, Cpair*, Cadv*



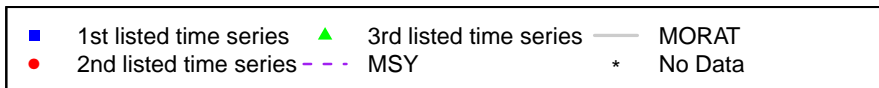
CPUE*



EFFORT*



CdivMSY*



Beni zuwai crab Sea of Japan [BZCRABSOJ]

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

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

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

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

TB*



SSB*



TN *



F*



ER*

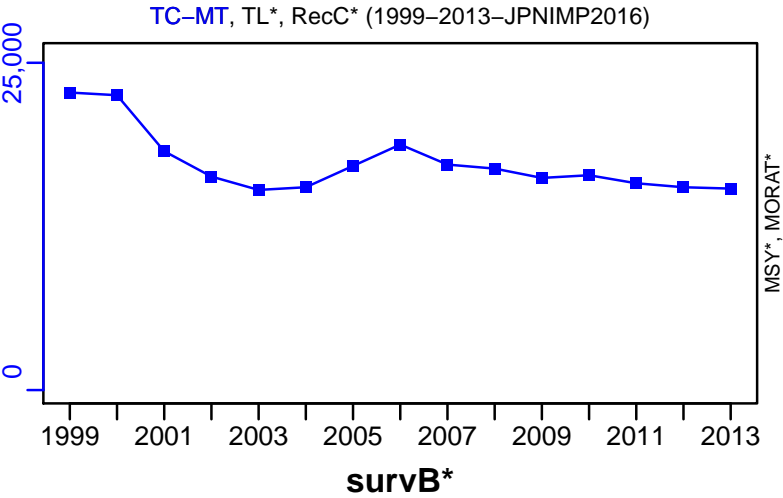


Recruits*



Beni zuwai crab Sea of Japan [BZCRABSOJ]

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



TAC*, Cpair*, Cadv*



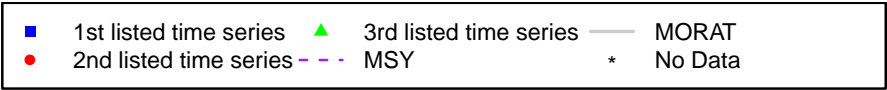
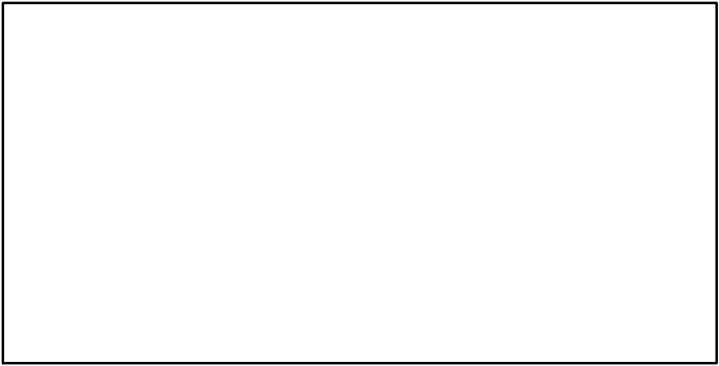
CPUE*



EFFORT*



CdivMSY*



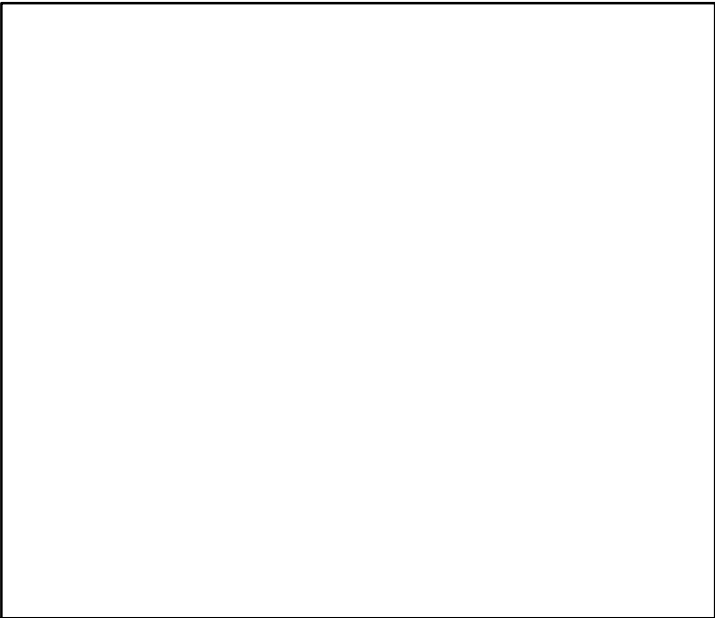
Crimson jobfish Okinawa Islands [CJOBOKWI]

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

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

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

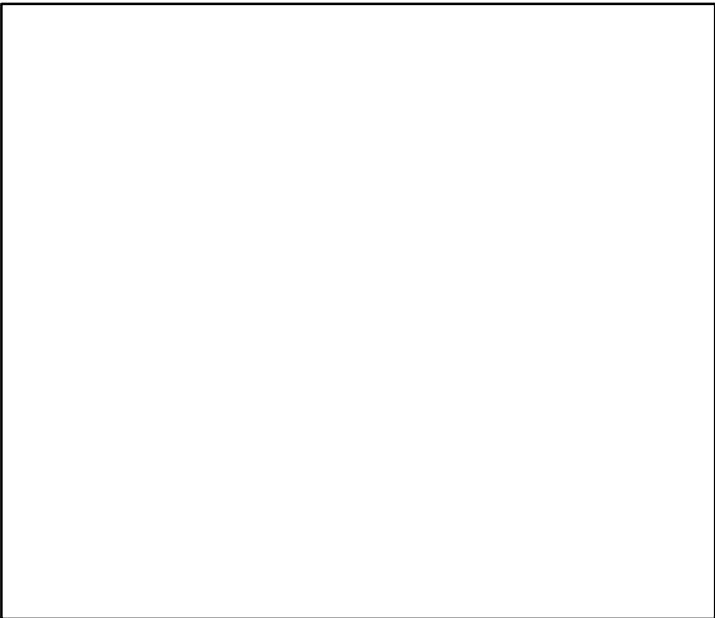
Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Crimson jobfish Okinawa Islands [CJOBOKWI]

TB*



SSB*



TN *



F*



ER*



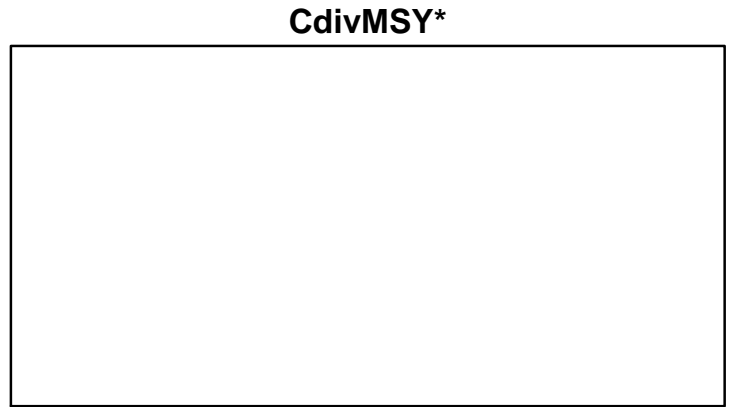
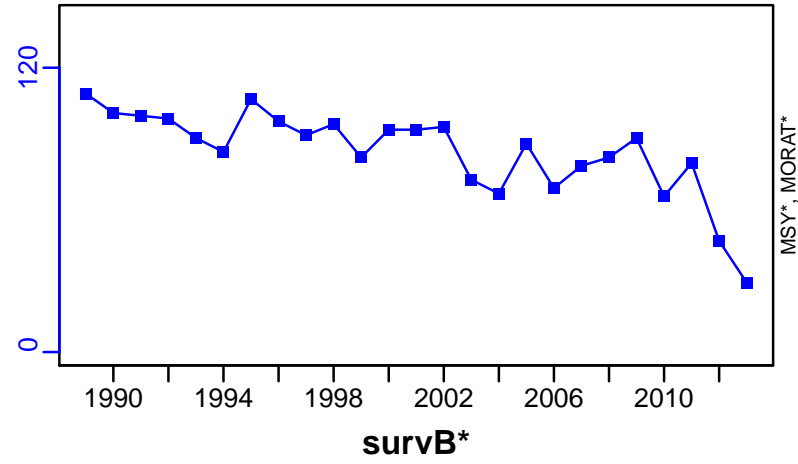
Recruits*



Crimson jobfish Okinawa Islands [CJOBOKWI]

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

TAC*, Cpair*, Cadv*



Chub mackerel Pacific Coast of Japan [CMACKPJPN]

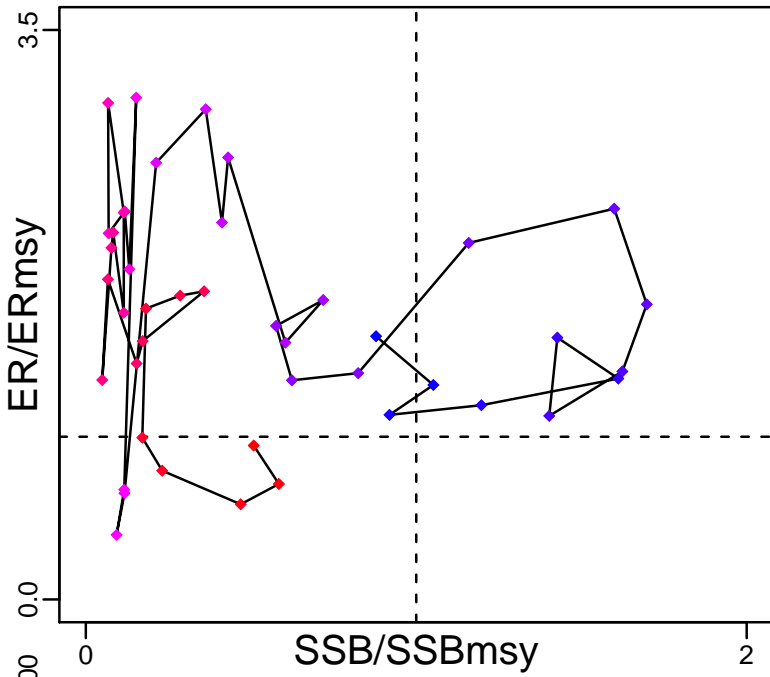
Metadata	
Scientific Name	Scomber japonicus
Current Assess ID	FAFRFJ-CMACKPJPN-1970-2013-JPNIMP2016
Area	Pacific Coast of Japan
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2009, 2013

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

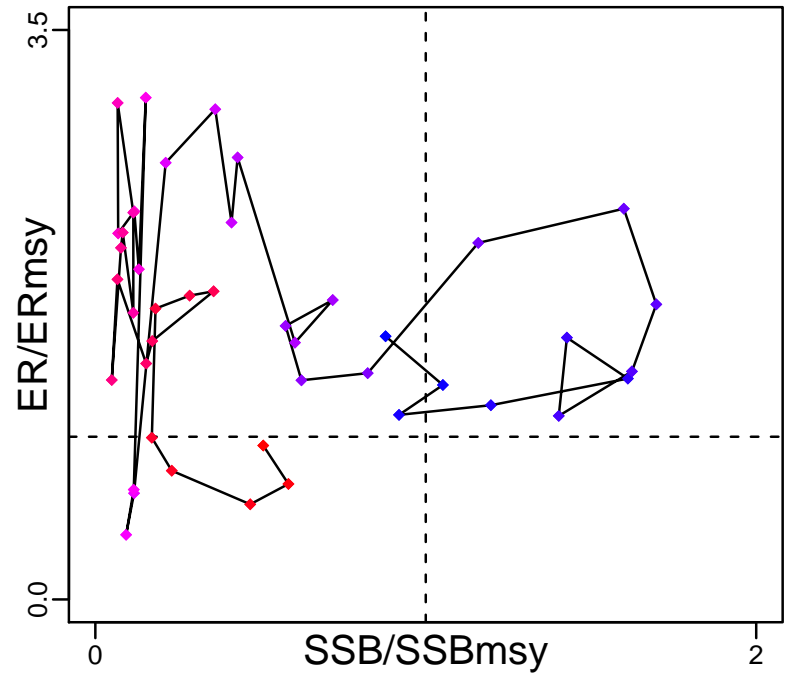
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	1,360,000	-	0
SSB	SSB-MT	2013	413,000	Both	2
TN	-	-	-	-	-
R	R-E00	2013	5.53×10^9	-	0
F	F-1/yr	2009	0.28	Both	0 to 5
ER	ER-calc-ratio	2013	0.162	-	-
TC	TC-MT	2013	220,000		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2013	0.655		
SSB/SSBmsy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

Chub mackerel Pacific Coast of Japan [CMACKPJPN]

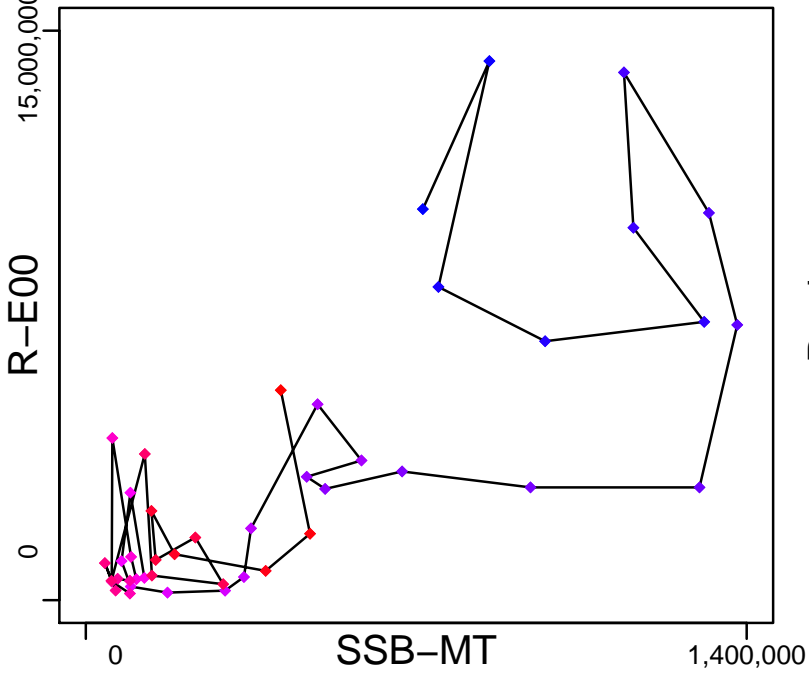
Kobe MSYpref (1970–2013–JPNIMP2016)



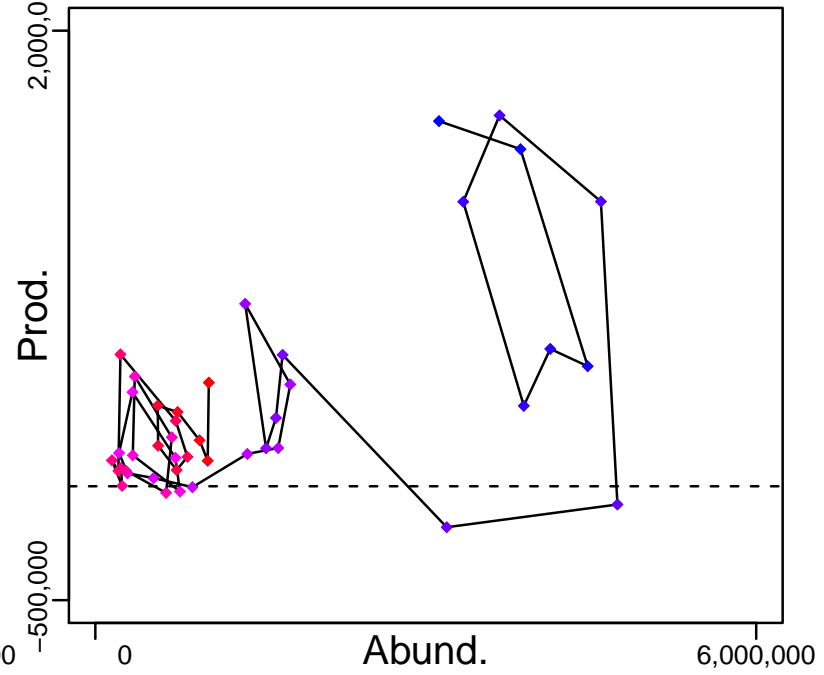
Kobe MGTpref (1970–2013–JPNIMP2016)



Spawner Recruit (1970–2013–JPNIMP2016)



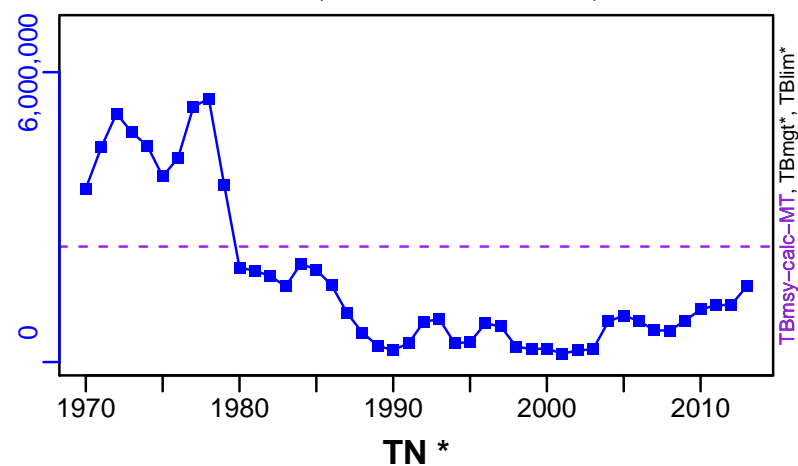
Production (1970–2013–JPNIMP2016)



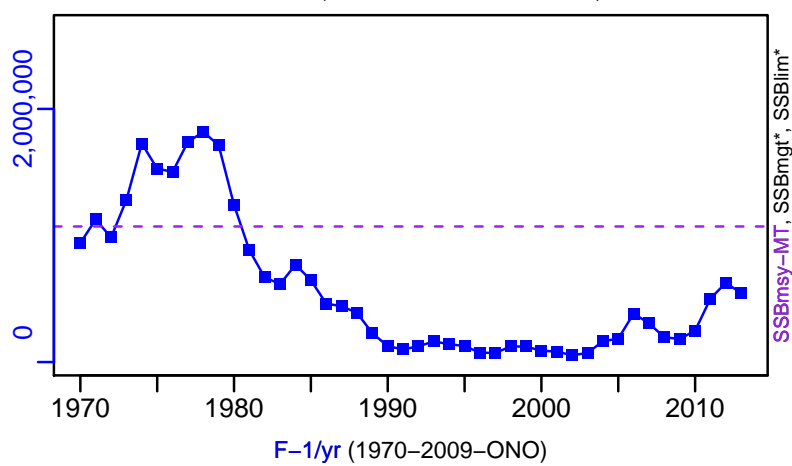
◆ Start Year ◆ End Year * No Data

Chub mackerel Pacific Coast of Japan [CMACKPJPN]

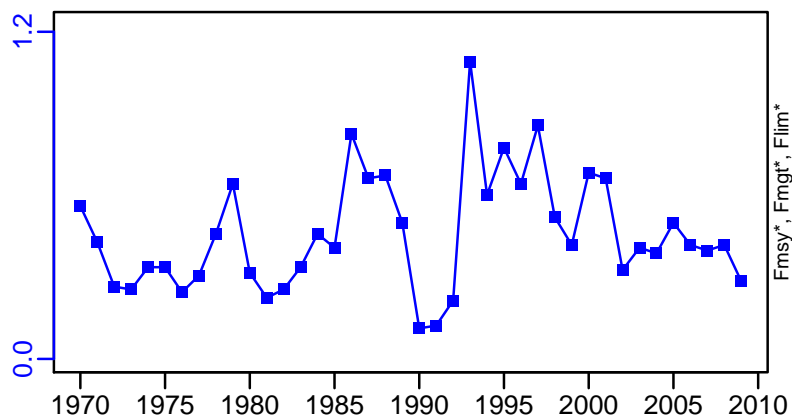
TB-MT (1970-2013-JPNIMP2016)



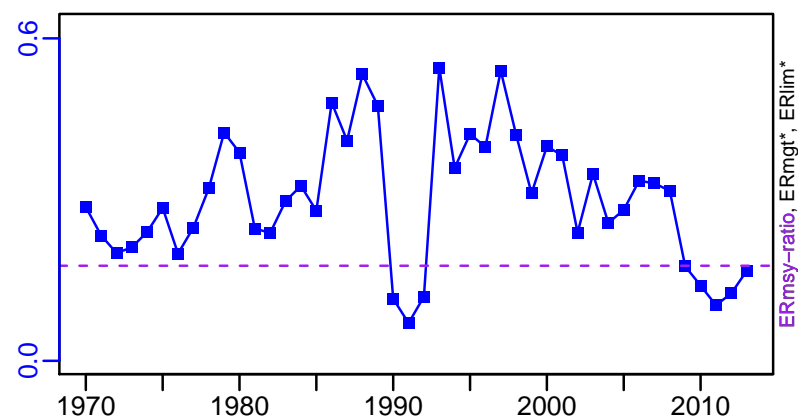
SSB-MT (1970-2013-JPNIMP2016)



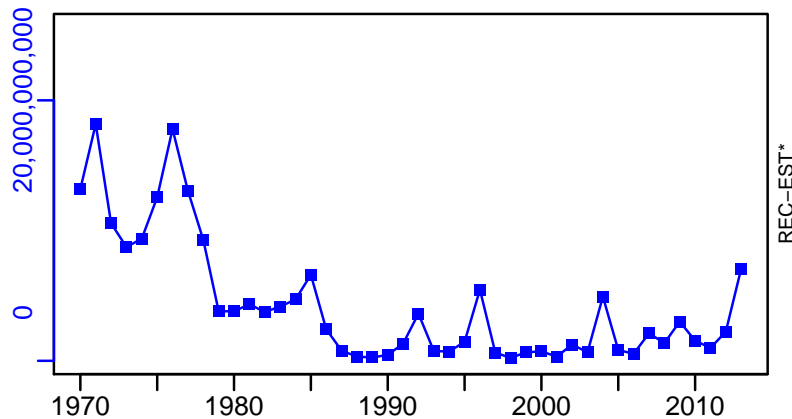
F-1/yr (1970-2009-ONO)



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

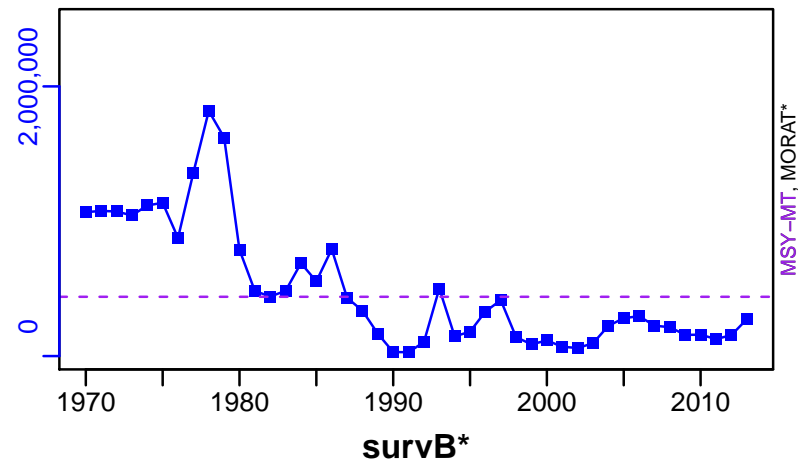


R-E00 (1970-2013-JPNIMP2016)



Chub mackerel Pacific Coast of Japan [CMACKPJPN]

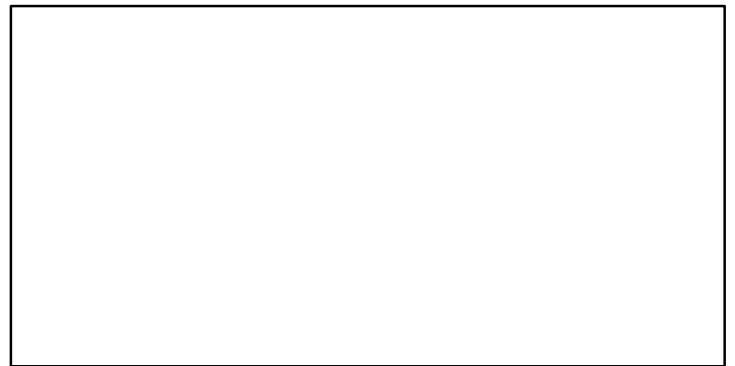
TC-MT, TL*, RecC* (1970–2013–JPNIMP2016)



TAC*, Cpair*, Cadv*



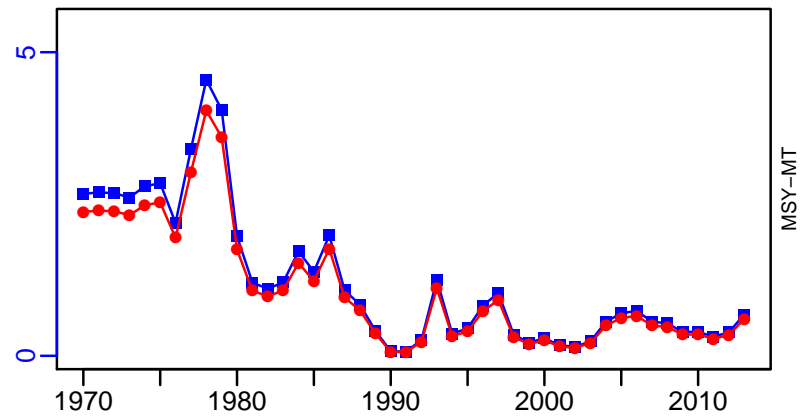
CPUE*



EFFORT*



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



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

Chub mackerel Tsushima Strait [CMACKTSST]

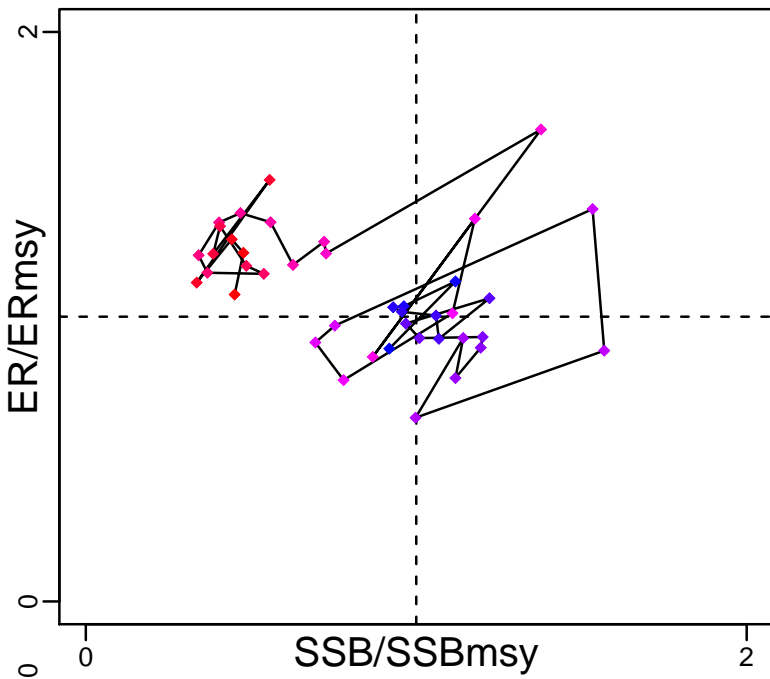
Metadata	
Scientific Name	Scomber japonicus
Current Assess ID	FAFRFJ-CMACKTSST-1973-2013-JPNIMP2016
Area	Tsushima Strait
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013

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

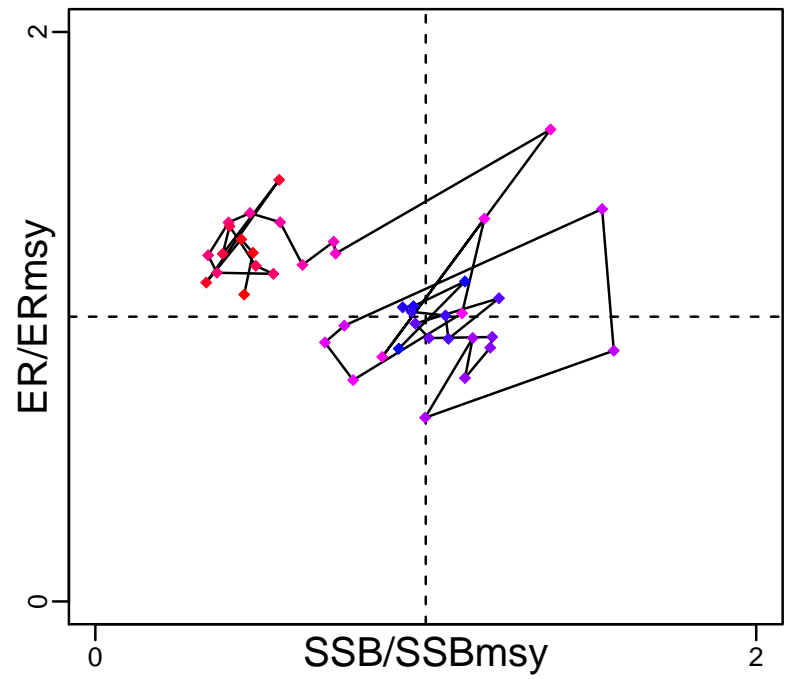
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	428,000	-	0
SSB	SSB-MT	2013	153,000	Both	1
TN	-	-	-	-	-
R	R-E00	2013	8.98×10^8	-	0
F	-	-	-	-	-
ER	ER-calc-ratio	2013	0.39	-	-
TC	TC-MT	2013	167,000		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2013	0.476		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013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

Chub mackerel Tsushima Strait [CMACKTSST]

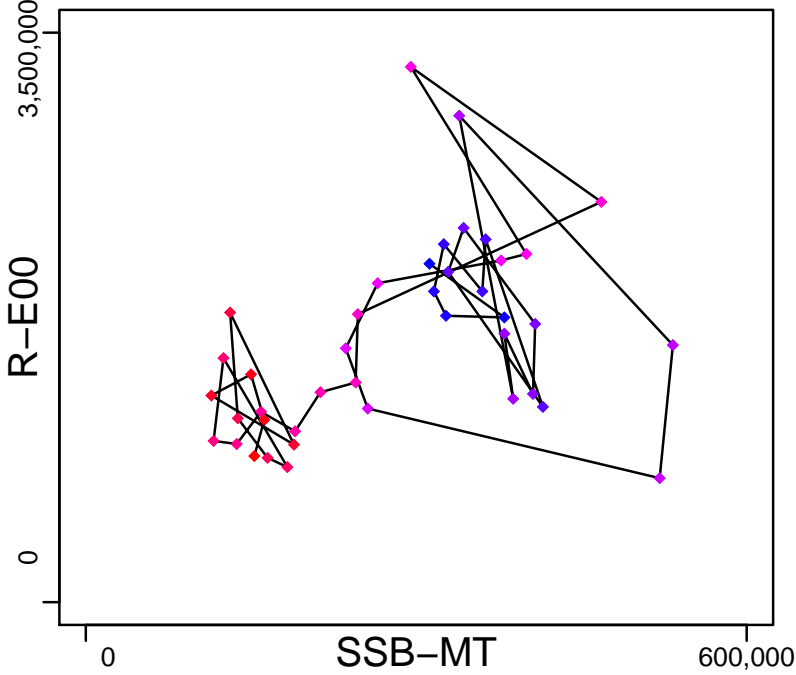
Kobe MSYpref (1973–2013–JPNIMP2016)



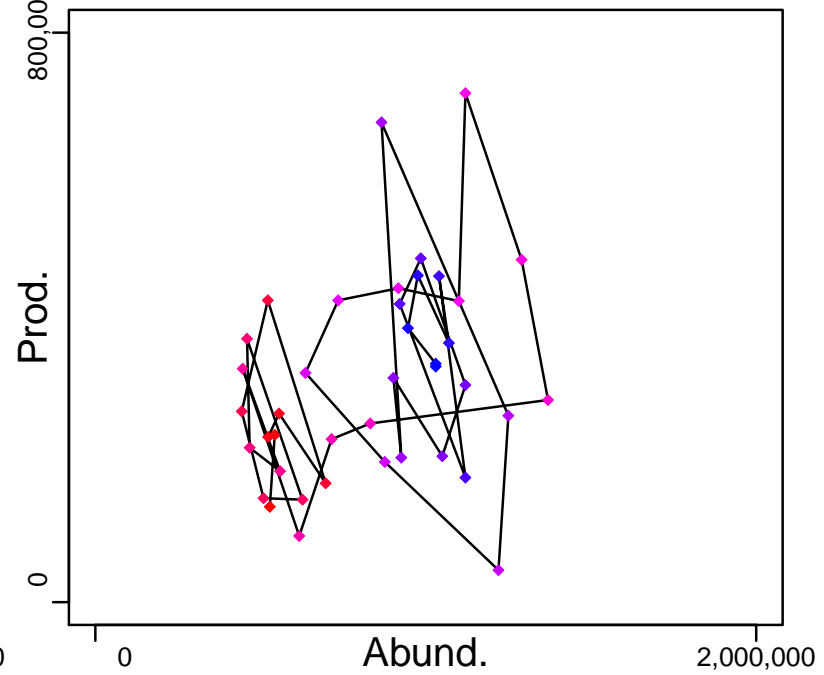
Kobe MGTpref (1973–2013–JPNIMP2016)



Spawner Recruit (1973–2013–JPNIMP2016)



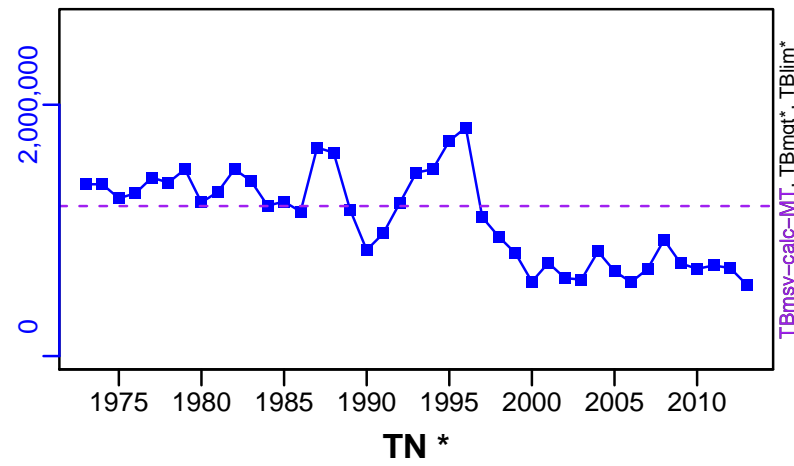
Production (1973–2013–JPNIMP2016)



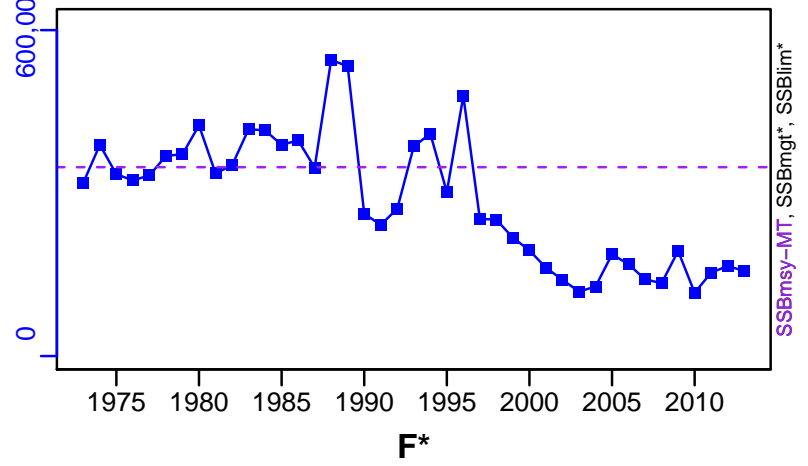
◆ Start Year ◆ End Year * No Data

Chub mackerel Tsushima Strait [CMACKTSST]

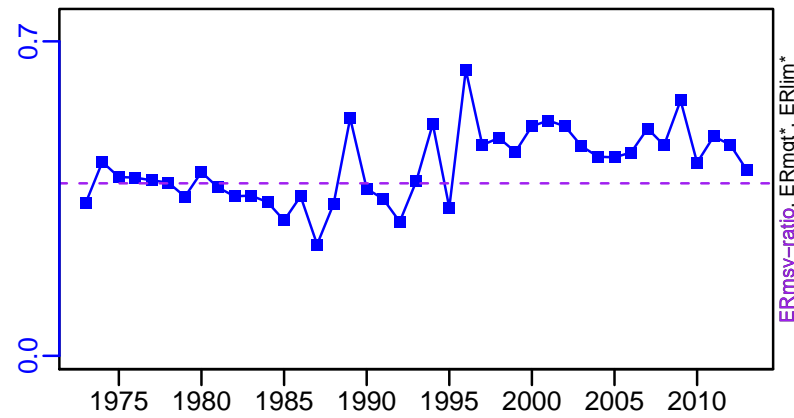
TB-MT (1973-2013-JPNIMP2016)



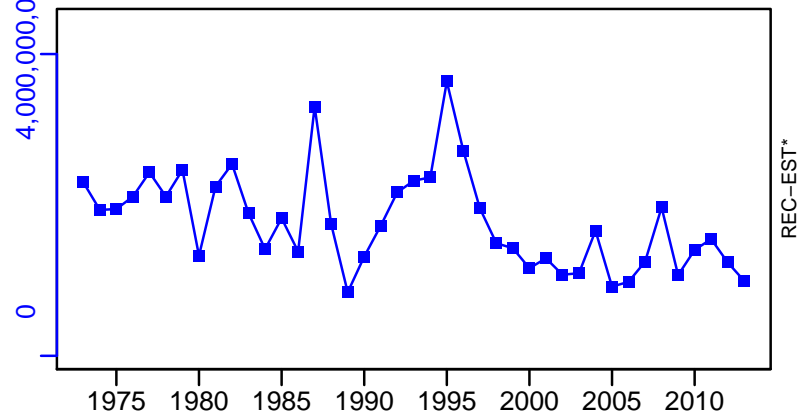
SSB-MT (1973-2013-JPNIMP2016)



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

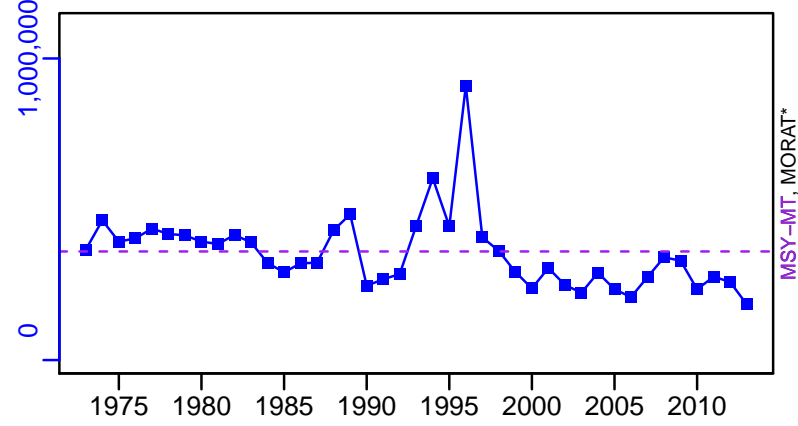


R-E00 (1973-2013-JPNIMP2016)



Chub mackerel Tsushima Strait [CMACKTSST]

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



TAC*, Cpair*, Cadv*



survB*



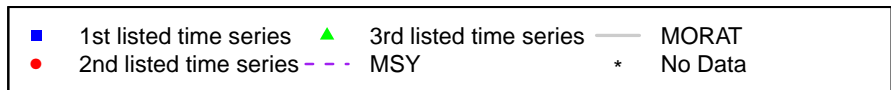
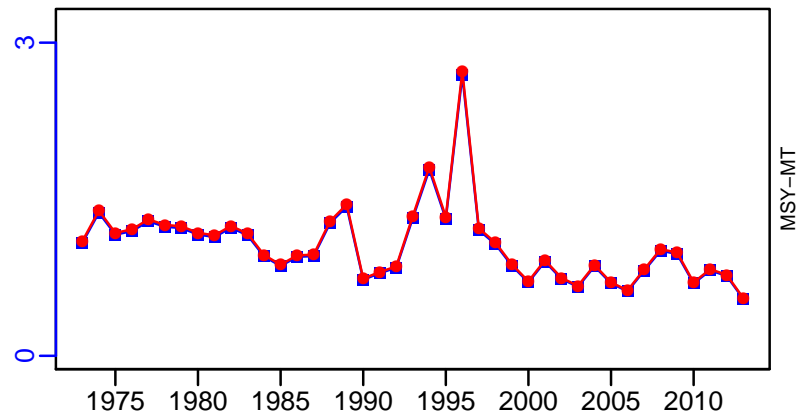
CPUE*



EFFORT*



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



Deep sea smelt Pacific Ocean [DSSMELTPAC]

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

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

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

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Deep sea smelt Pacific Ocean [DSSMELTPAC]

TB*



SSB*



TN *



F*



ER*



Recruits*

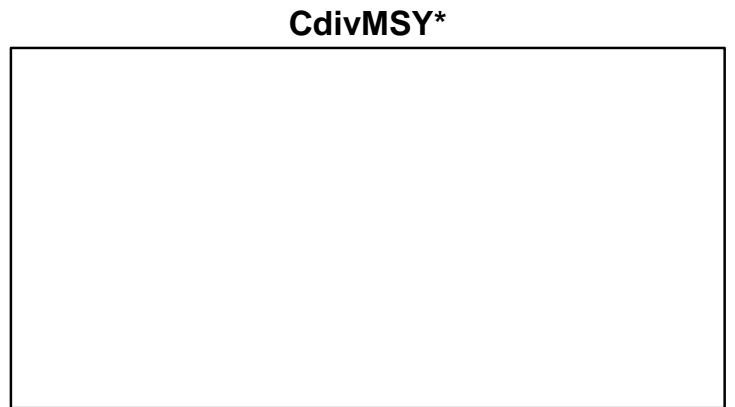
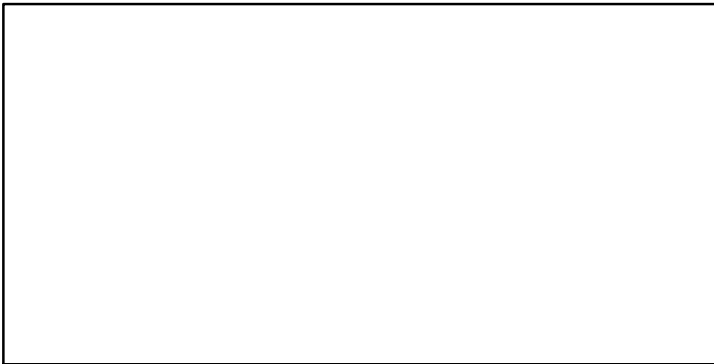
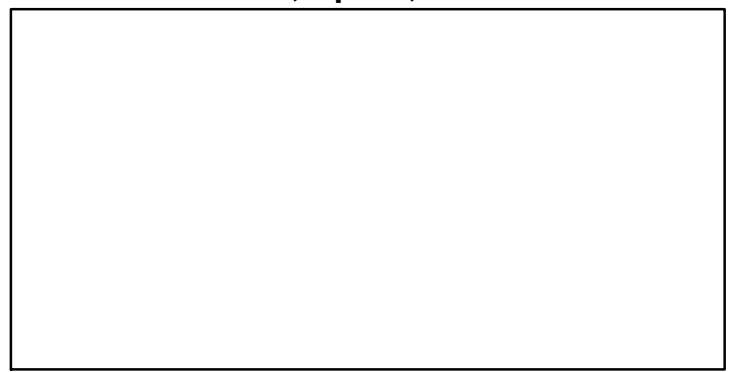
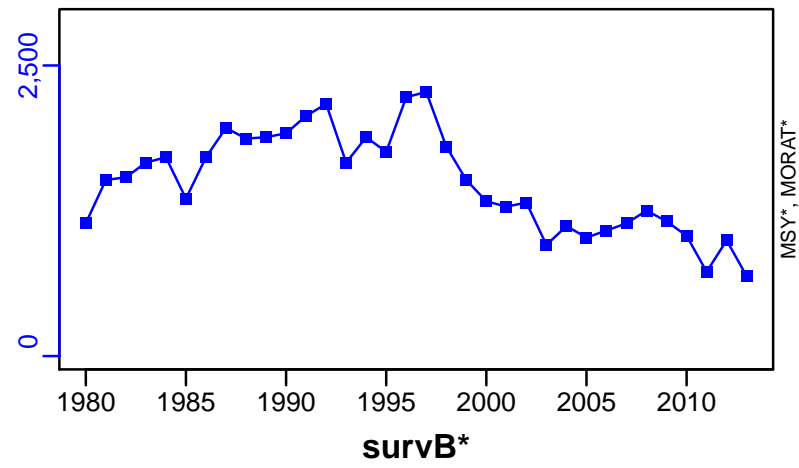


■ Listed time series	- - - Target BRP	— Rec-Est
- - - MSY-based BRP	· · · Lim BRP	* No Data

Deep sea smelt Pacific Ocean [DSSMELTPAC]

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

TAC*, Cpair*, Cadv*



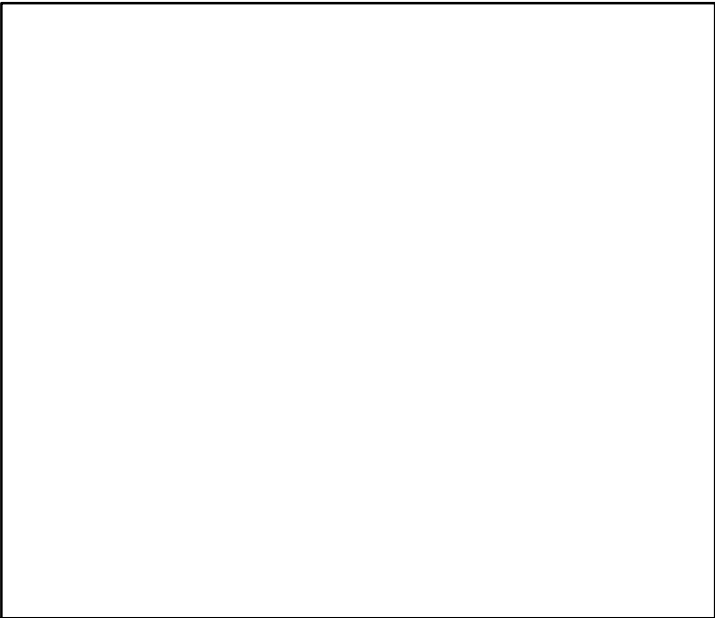
Deep sea smelt Sea of Japan [DSSMELTSOJ]

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

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

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

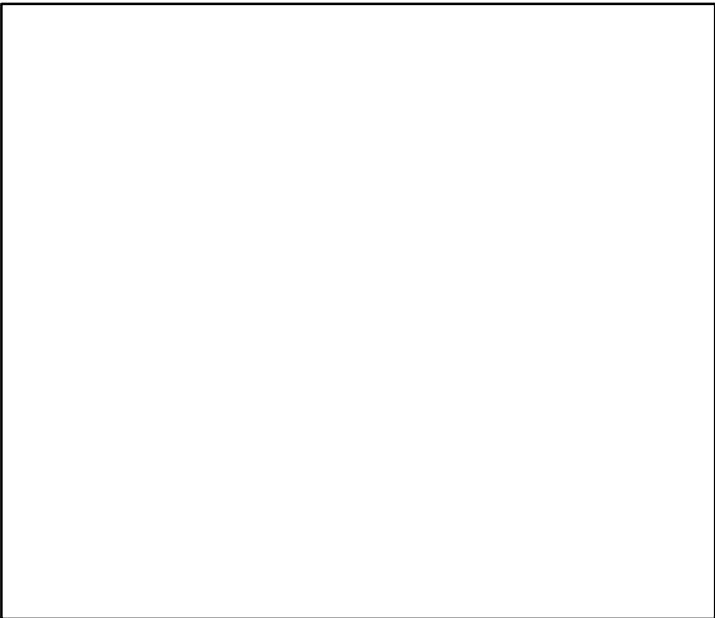
Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

TB*



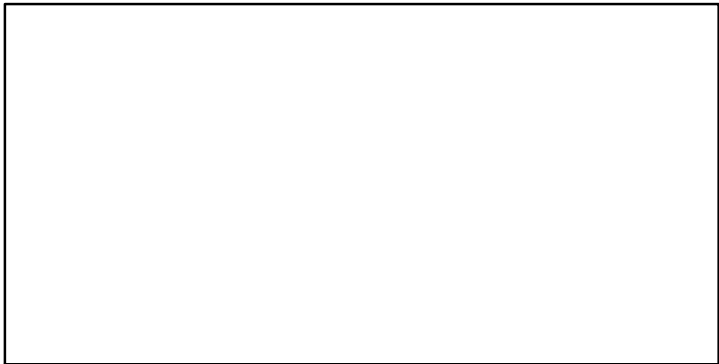
SSB*



TN *



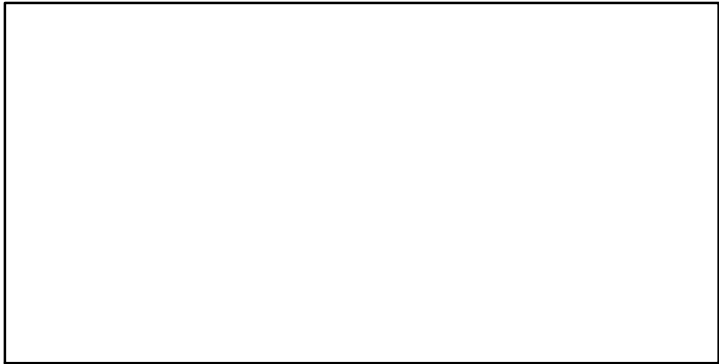
F*



ER*

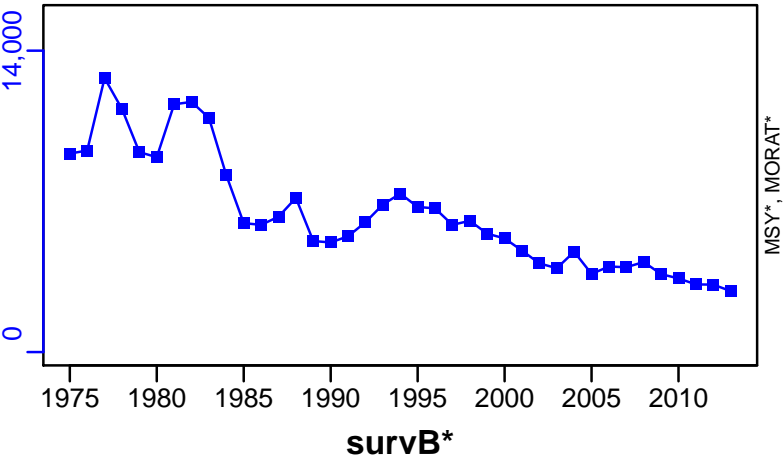


Recruits*



Deep sea smelt Sea of Japan [DSSMELTSOJ]

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



TAC*, Cpair*, Cadv*



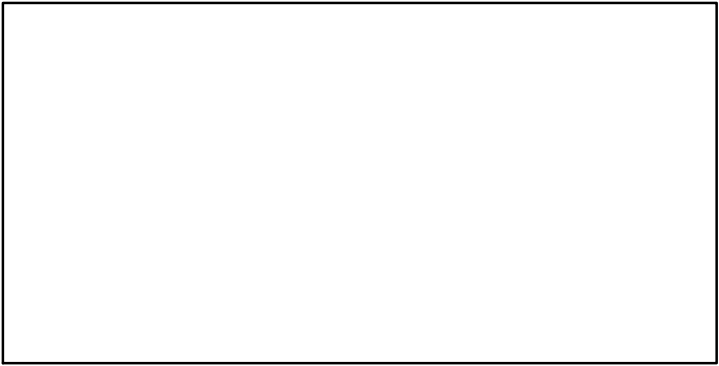
CPUE*



EFFORT*



CdivMSY*



Flathead flounder Sea of Japan [FHFLOUNSOJ]

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

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

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

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Flathead flounder Sea of Japan [FHFLOUNSOJ]

TB*



SSB*



TN *



F*



ER*

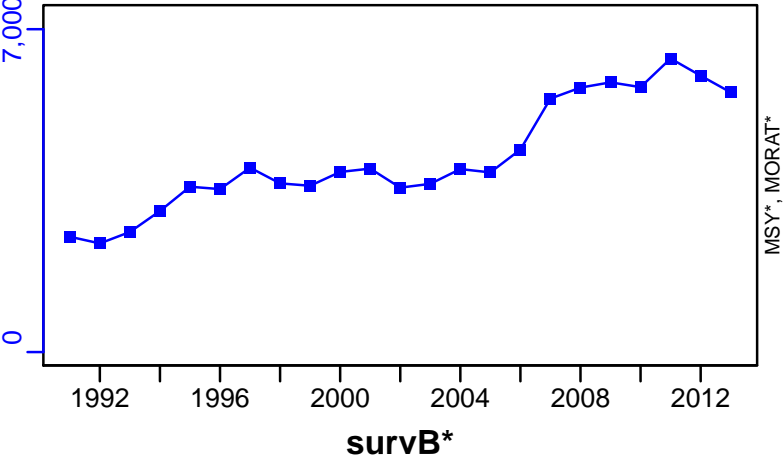


Recruits*



Flathead flounder Sea of Japan [FHFLOUNSOJ]

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



TAC*, Cpair*, Cadv*



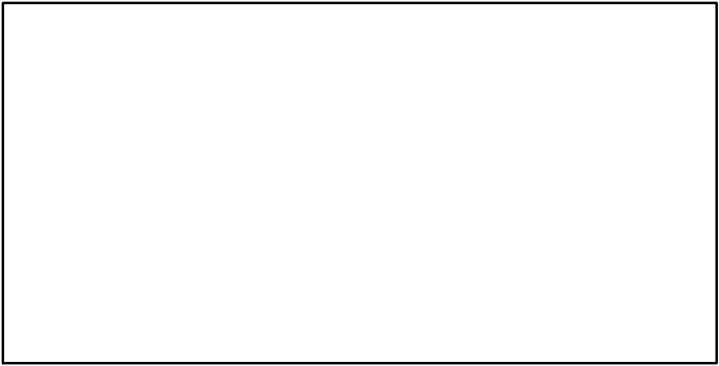
CPUE*



EFFORT*



CdivMSY*



Flame snapper Okinawa Islands [FSNAPOKWI]

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

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

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

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Flame snapper Okinawa Islands [FSNAPOKWI]

TB*



SSB*



TN *



F*



ER*



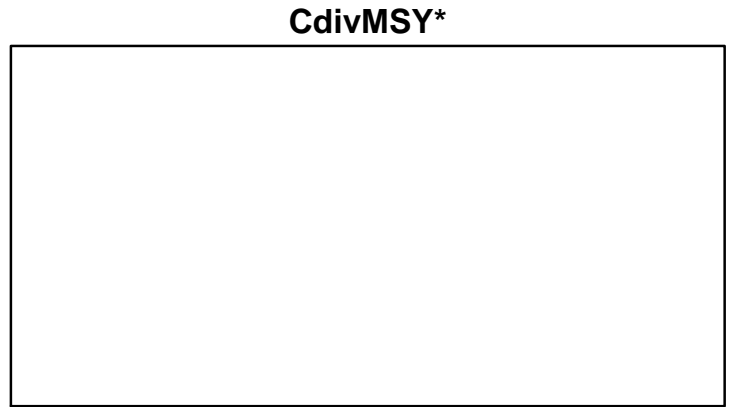
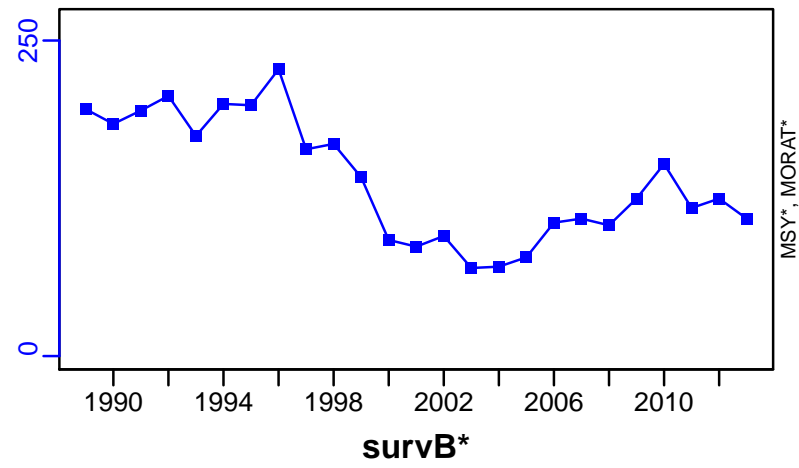
Recruits*



Flame snapper Okinawa Islands [FSNAPOKWI]

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

TAC*, Cpair*, Cadv*



Pacific herring Hokkaido [HERRHOKK]

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

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

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

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Pacific herring Hokkaido [HERRHOKK]

TB*



SSB*



TN *



F*



ER*

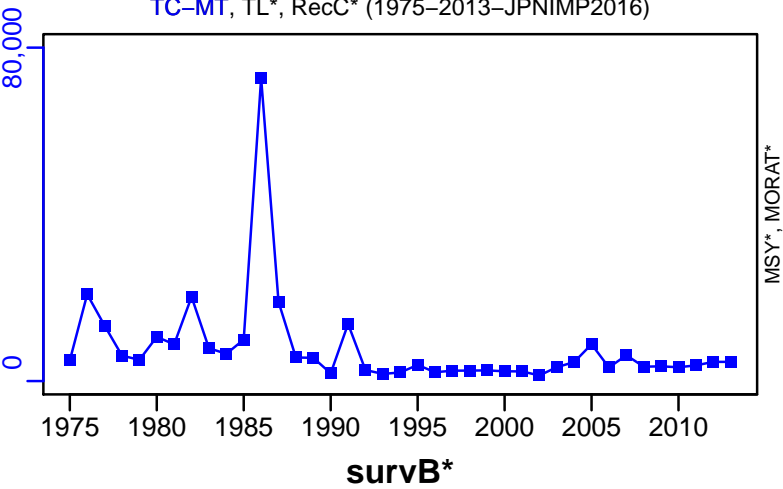


Recruits*



Pacific herring Hokkaido [HERRHOKK]

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



TAC*, Cpair*, Cadv*



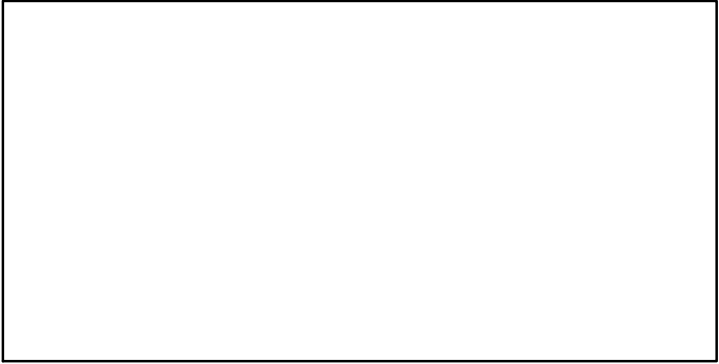
CPUE*



EFFORT*



CdivMSY*



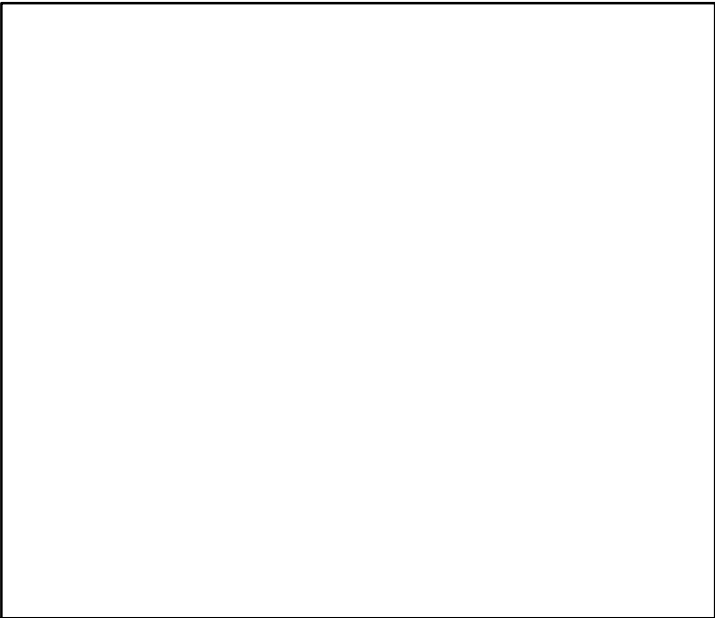
Horsehead tilefish East China Sea [HHTILEECS]

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

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

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

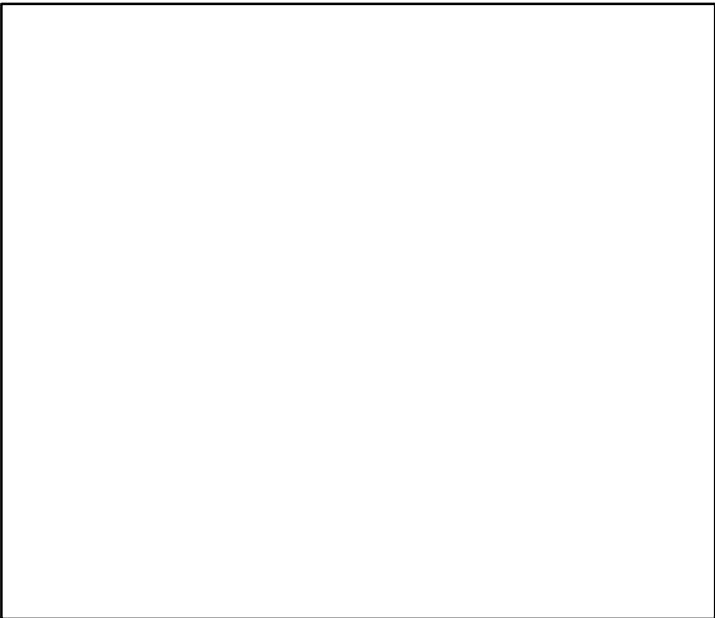
Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Horsehead tilefish East China Sea [HHTILEECS]

TB*



SSB*



TN *



F*



ER*



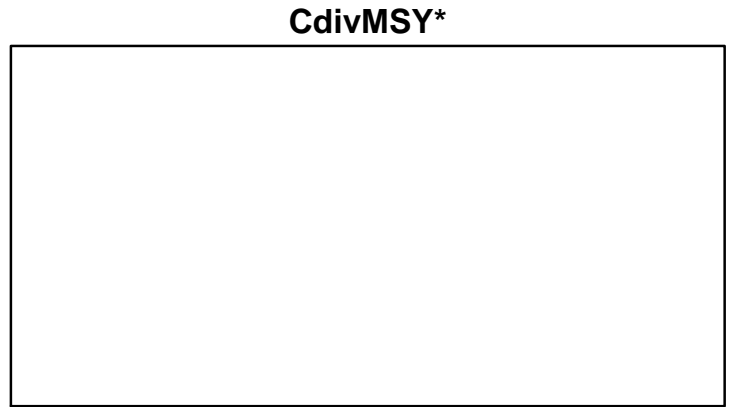
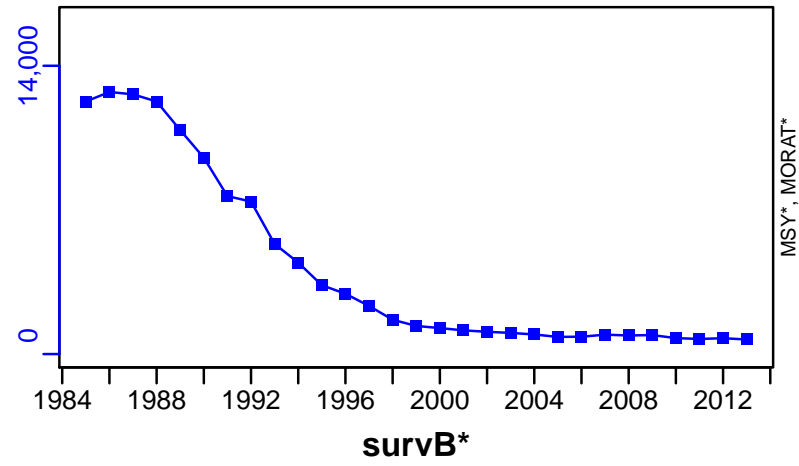
Recruits*



Horsehead tilefish East China Sea [HHTILEECS]

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

TAC*, Cpair*, Cadv*



Japanese amberjack Japan [JAMBERJPN]

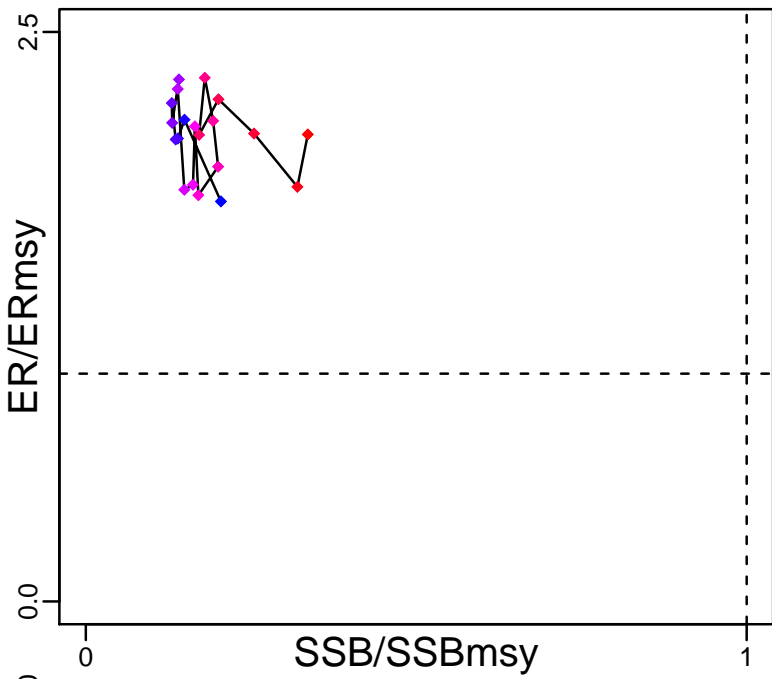
Metadata	
Scientific Name	Seriola quinqueradiata
Current Assess ID	FAFRFJ-JAMBERJPN-1952-2013-JPNIMP2016
Area	Japan
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013

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

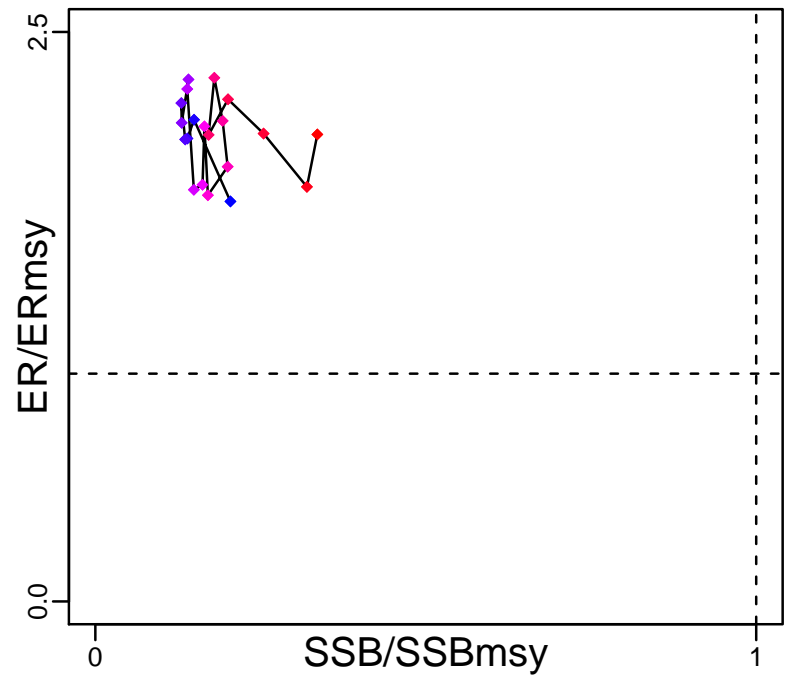
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	294,000	-	0
SSB	SSB-MT	2013	128,000	Both	2
TN	-	-	-	-	-
R	R-E00	2013	1.39×10^8	-	0
F	-	-	-	-	-
ER	ER-calc-ratio	2013	0.449	-	-
TC	TC-MT	2013	132,000		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2013	0.477		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013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

Japanese amberjack Japan [JAMBERJPN]

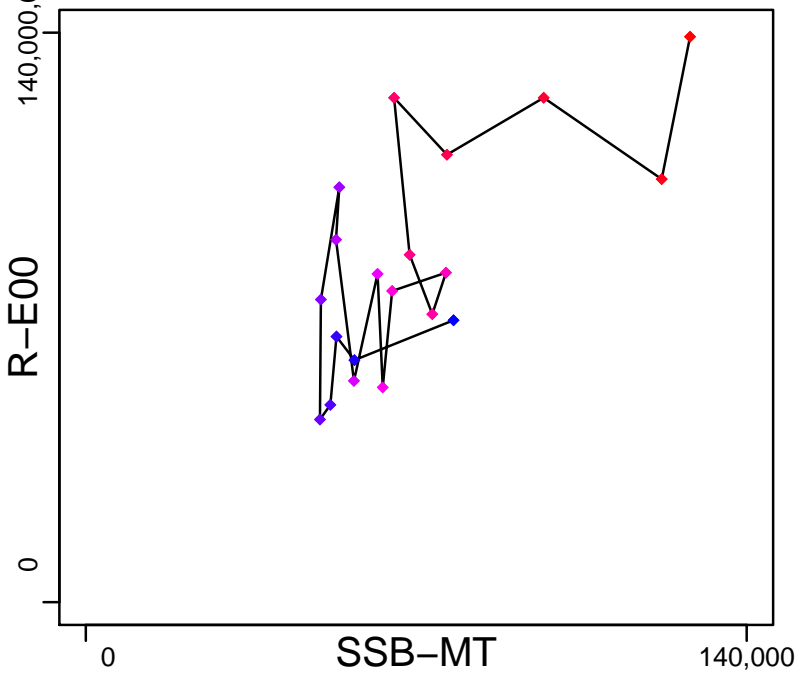
Kobe MSYpref (1952–2013–JPNIMP2016)



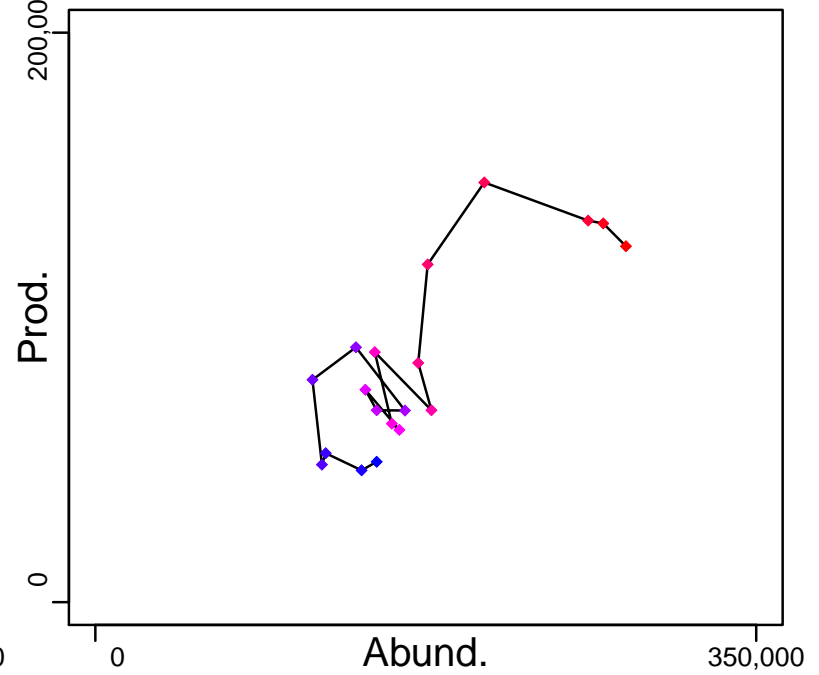
Kobe MGTpref (1952–2013–JPNIMP2016)



Spawner Recruit (1952–2013–JPNIMP2016)



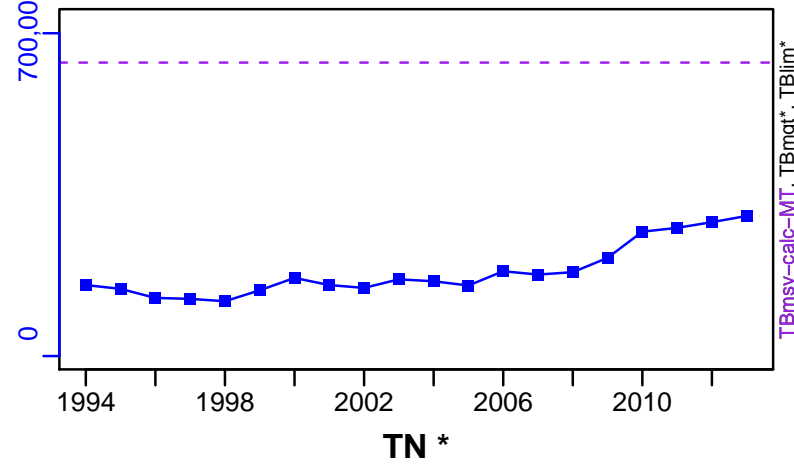
Production (1952–2013–JPNIMP2016)



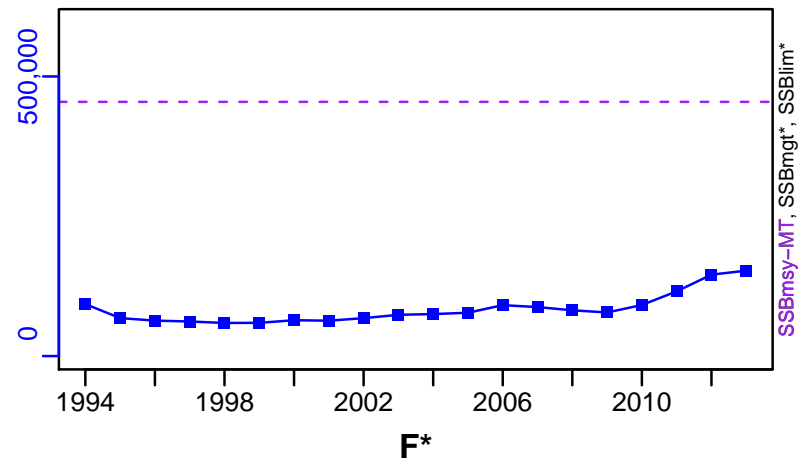
◆ Start Year ◆ End Year * No Data

Japanese amberjack Japan [JAMBERJPN]

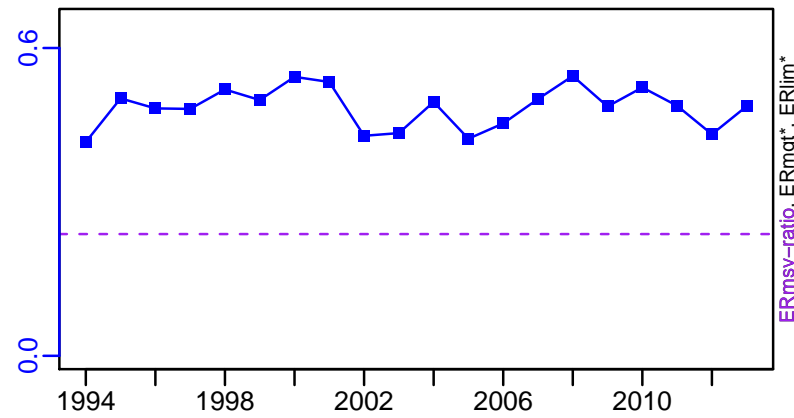
TB-MT (1952-2013-JPNIMP2016)



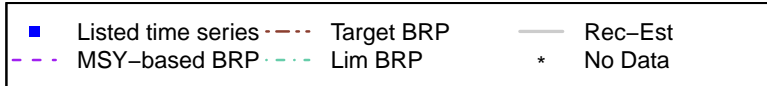
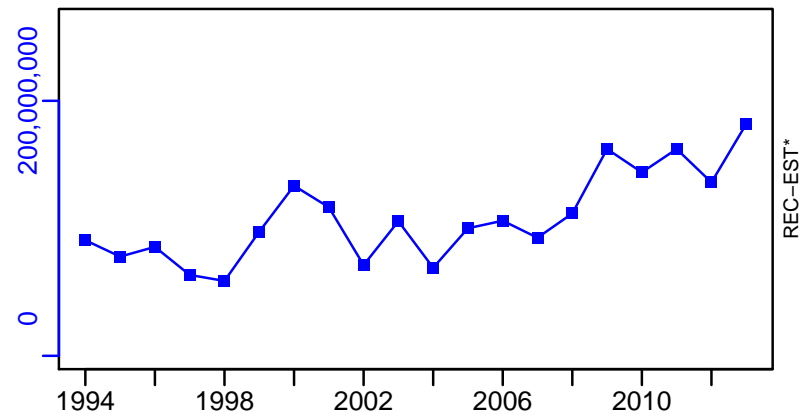
SSB-MT (1952-2013-JPNIMP2016)



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



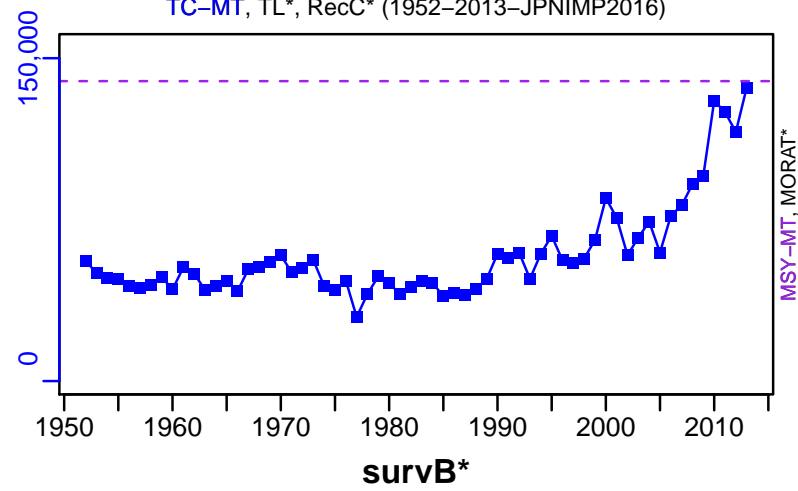
R-E00 (1952-2013-JPNIMP2016)



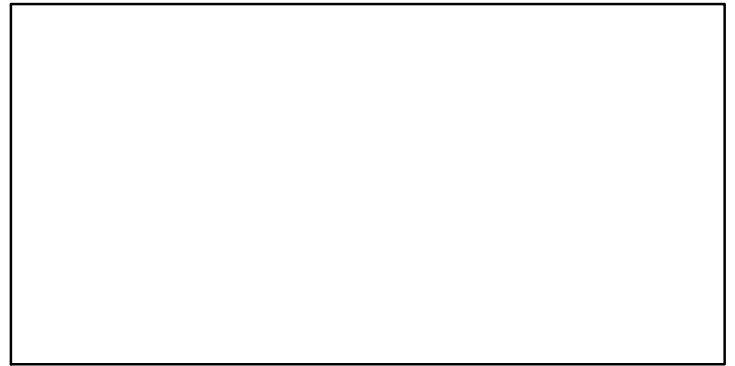
Japanese amberjack Japan [JAMBERJPN]

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

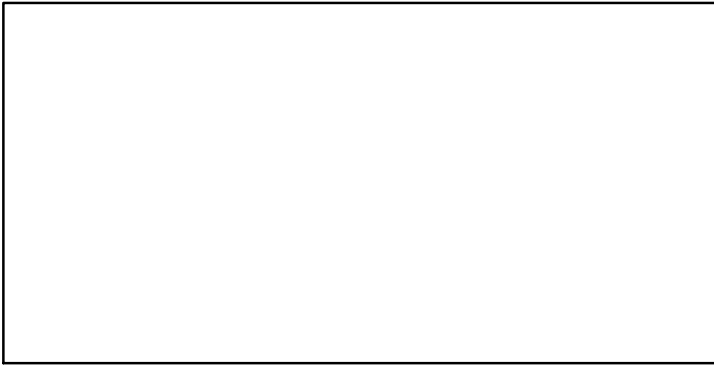
TAC*, Cpair*, Cadv*



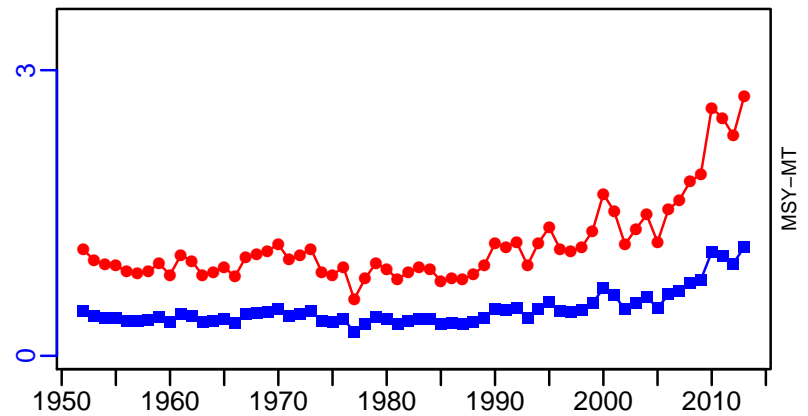
CPUE*



EFFORT*



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



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

Japanese anchovy Pacific Coast of Japan [JANCHOPJPN]

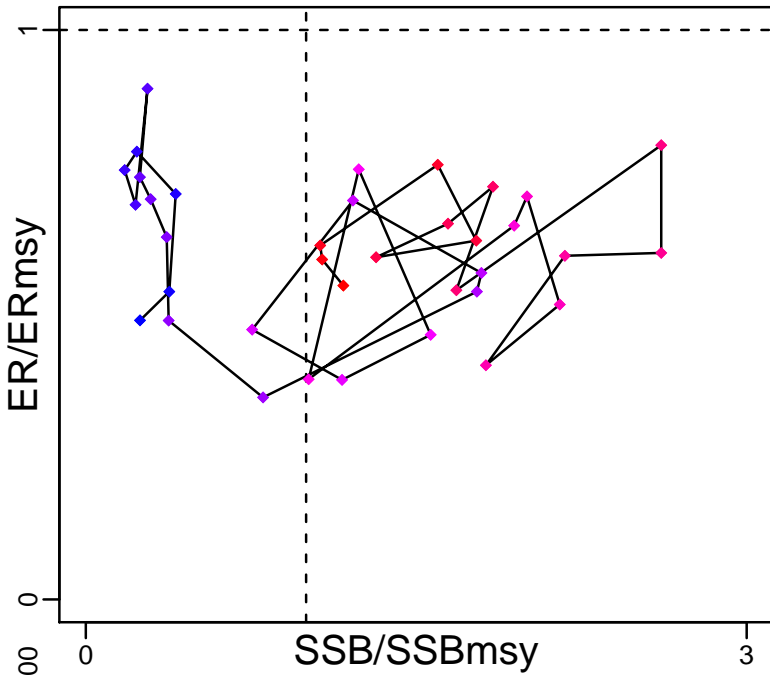
Metadata	
Scientific Name	Engraulis japonicus
Current Assess ID	FAFRFJ-JANCHOPJPN-1978-2013-JPNIMP2016
Area	Pacific Coast of Japan
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013

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

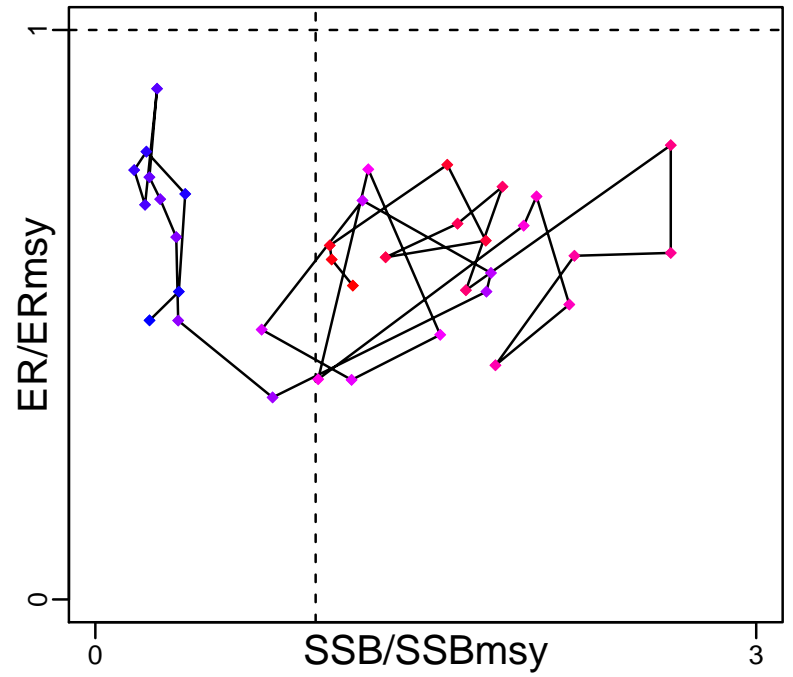
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	625,000	-	0
SSB	SSB-MT	2013	401,000	-	1
TN	-	-	-	-	-
R	R-E00	2013	8.02×10^{10}	-	0
F	-	-	-	-	-
ER	ER-calc-ratio	2013	0.248	-	-
TC	TC-MT	2013	155,000		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2013	1.059		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013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

Japanese anchovy Pacific Coast of Japan [JANCHOPJPN]

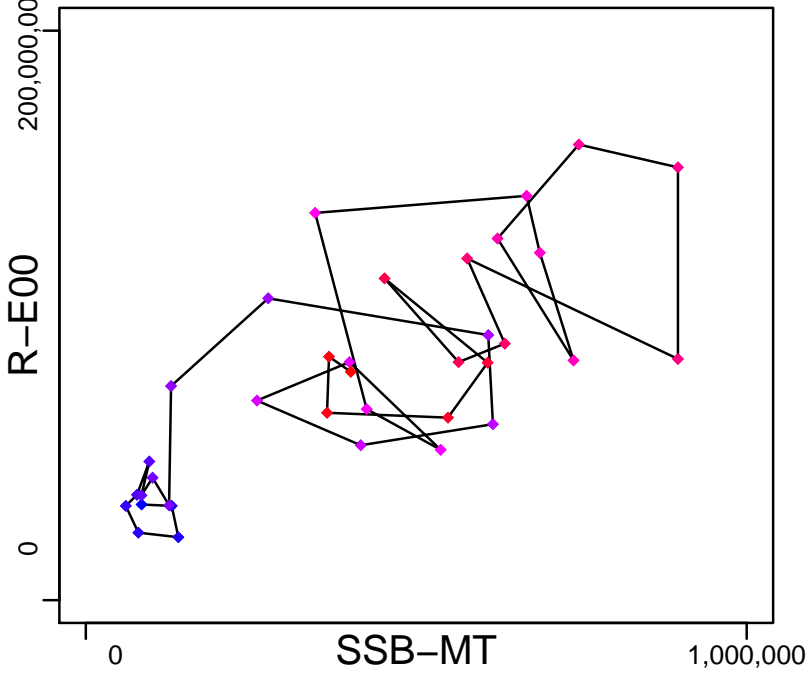
Kobe MSYpref (1978–2013–JPNIMP2016)



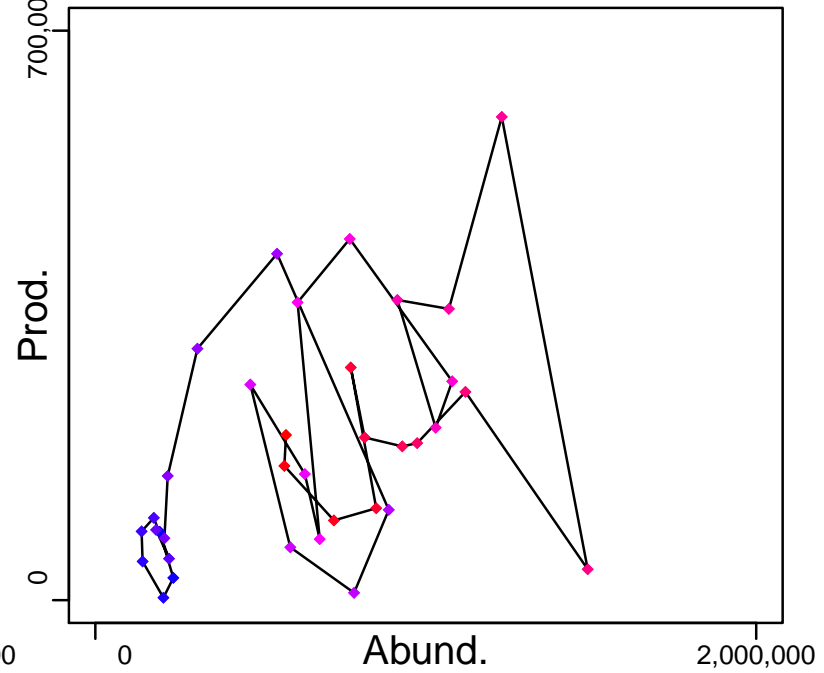
Kobe MGTpref (1978–2013–JPNIMP2016)



Spawner Recruit (1978–2013–JPNIMP2016)



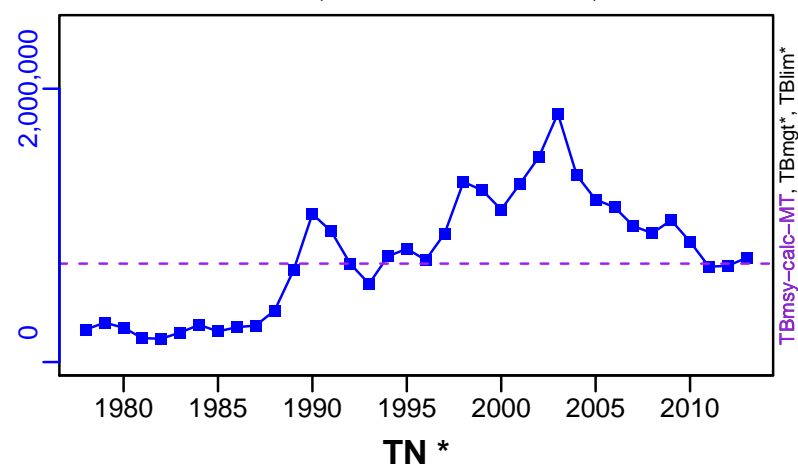
Production (1978–2013–JPNIMP2016)



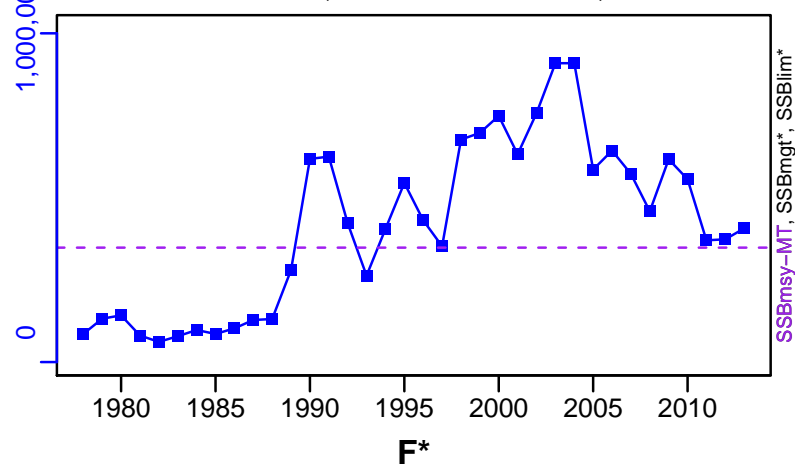
◆ Start Year ◆ End Year * No Data

Japanese anchovy Pacific Coast of Japan [JANCHOPJPN]

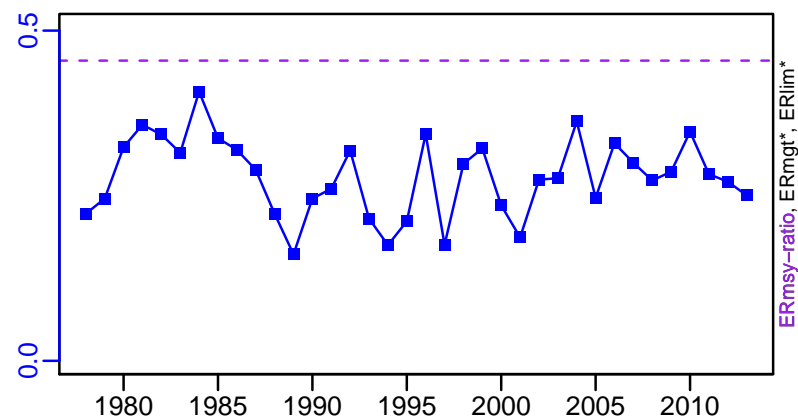
TB-MT (1978-2013-JPNIMP2016)



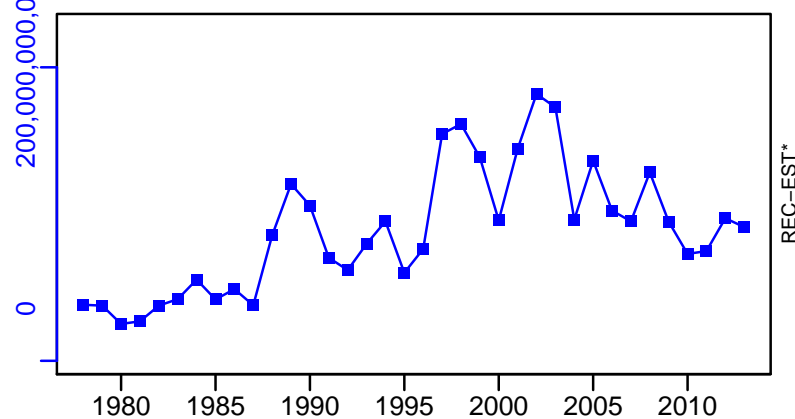
SSB-MT (1978-2013-JPNIMP2016)



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

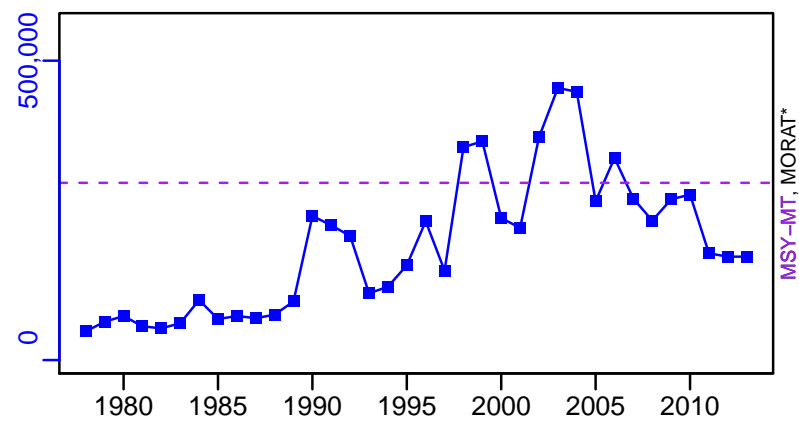


R-E00 (1978-2013-JPNIMP2016)

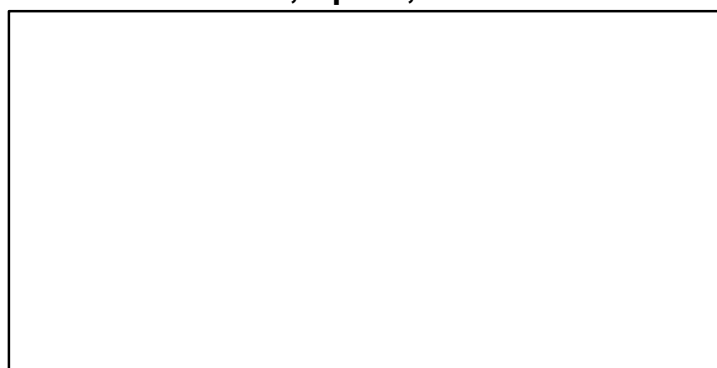


Japanese anchovy Pacific Coast of Japan [JANCHOPJPN]

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



TAC*, Cpair*, Cadv*



survB*



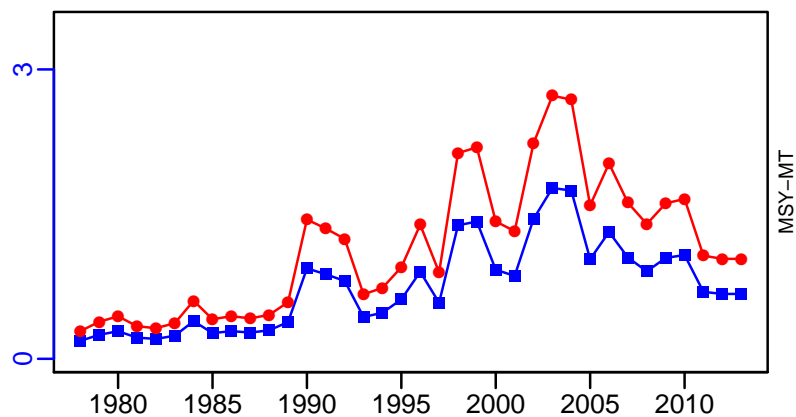
CPUE*



EFFORT*



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



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

Japanese anchovy Inland Sea of Japan [JANCHOSETO]

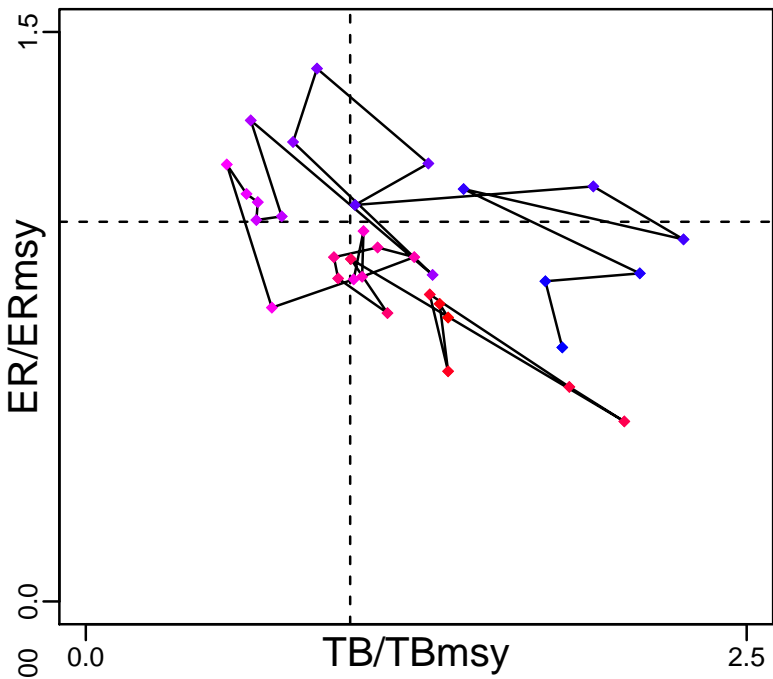
Metadata	
Scientific Name	Engraulis japonicus
Current Assess ID	FAFRFJ-JANCHOSETO-1955-2013-JPNIMP2016
Area	Inland Sea of Japan
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013

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

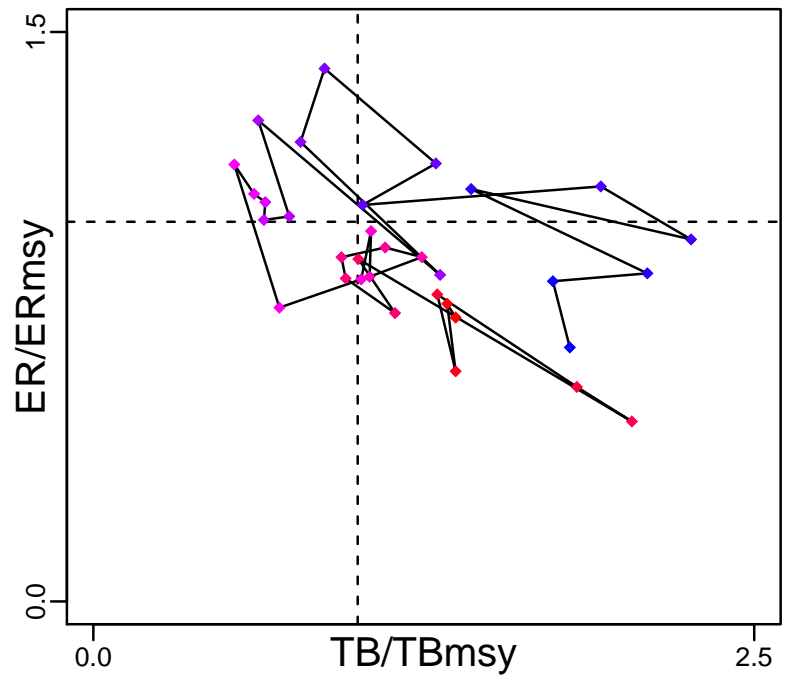
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	257,000	-	0
SSB	SSB-MT	2013	70,000	Both	0.4166667
TN	-	-	-	-	-
R	R-E00	2013	3.91×10^{11}	-	0
F	-	-	-	-	-
ER	ER-calc-ratio	2013	0.277	-	-
TC	TC-MT	2013	71,300		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-MT	2013	1.37		
SSB/SSBmsy	-	-	-		
F/Fmsy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

Japanese anchovy Inland Sea of Japan [JANCHOSETO]

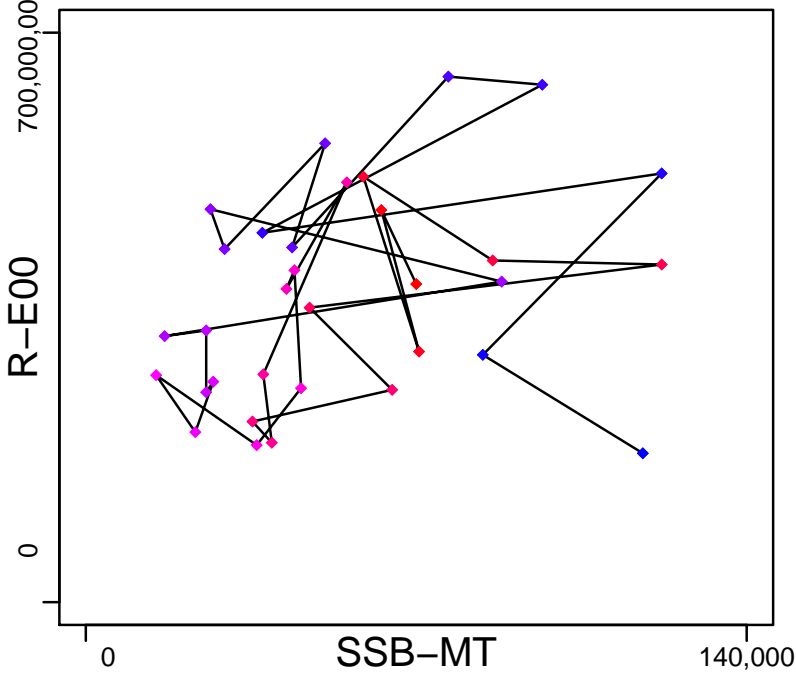
Kobe MSYpref (1955–2013–JPNIMP2016)



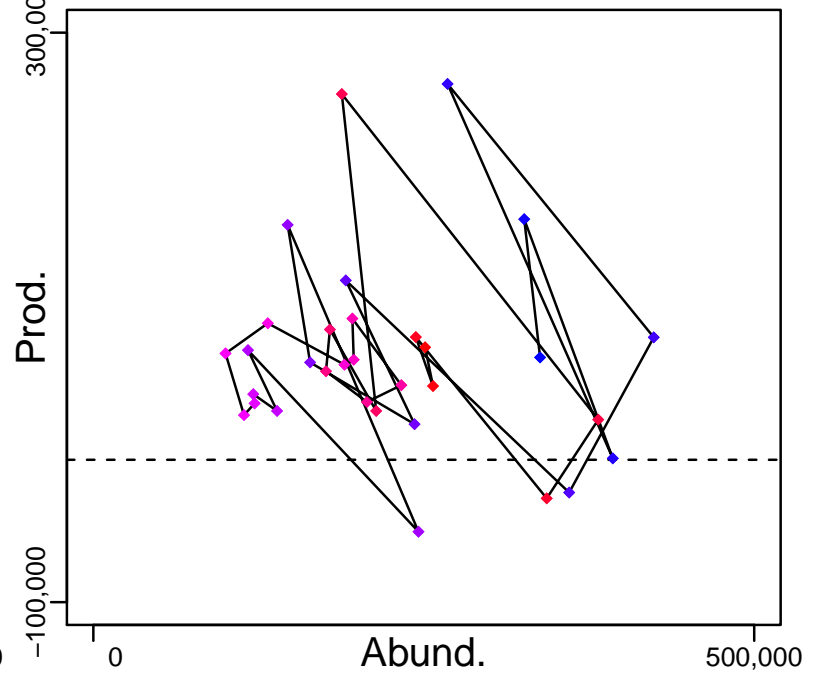
Kobe MGTpref (1955–2013–JPNIMP2016)



Spawner Recruit (1955–2013–JPNIMP2016)



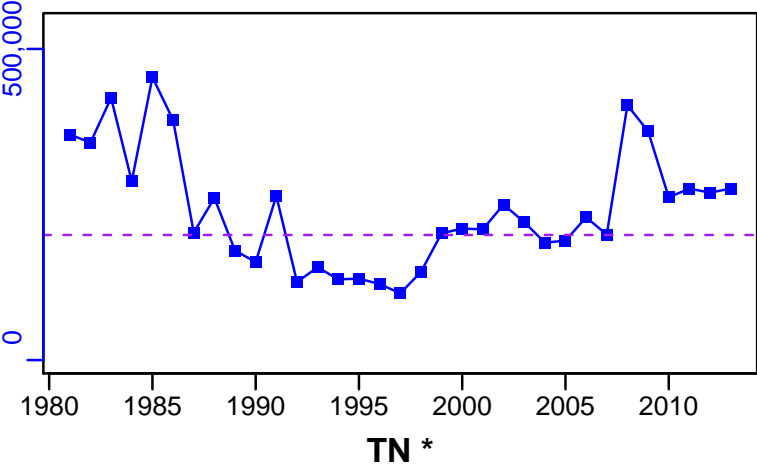
Production (1955–2013–JPNIMP2016)



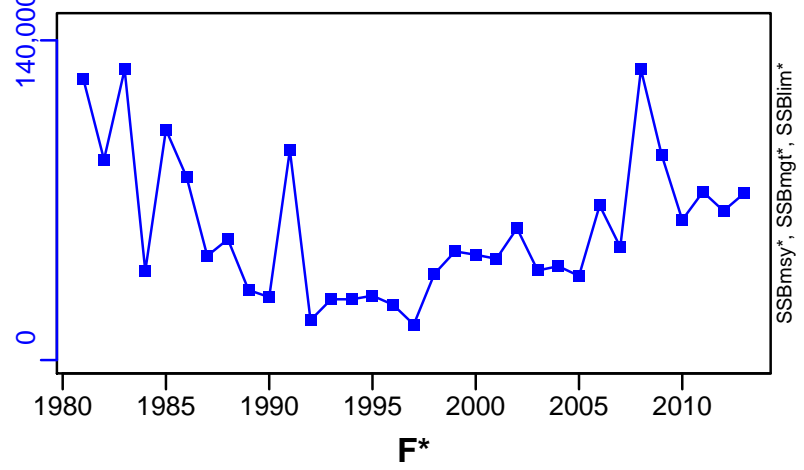
◆ Start Year ◆ End Year * No Data

Japanese anchovy Inland Sea of Japan [JANCHOSETO]

TB-MT (1955-2013-JPNIMP2016)

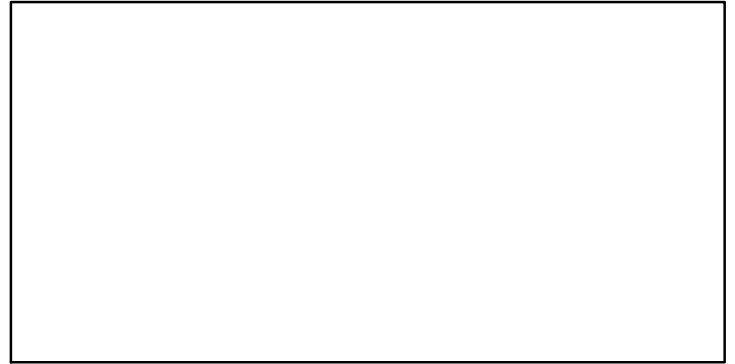
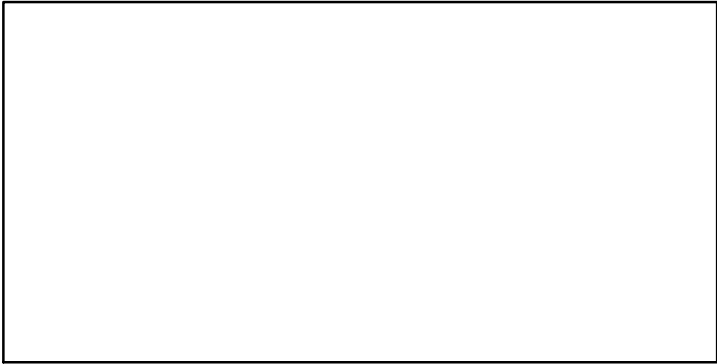


SSB-MT (1955-2013-JPNIMP2016)

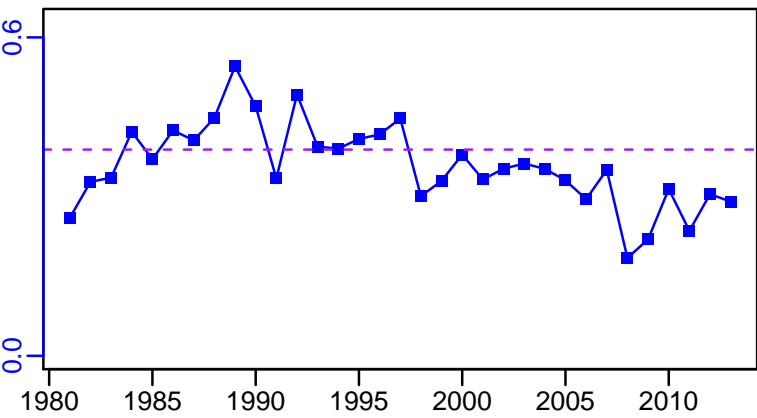


TN *

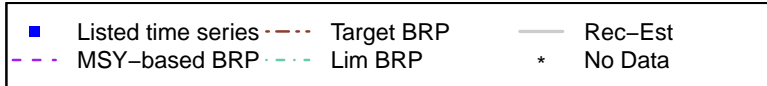
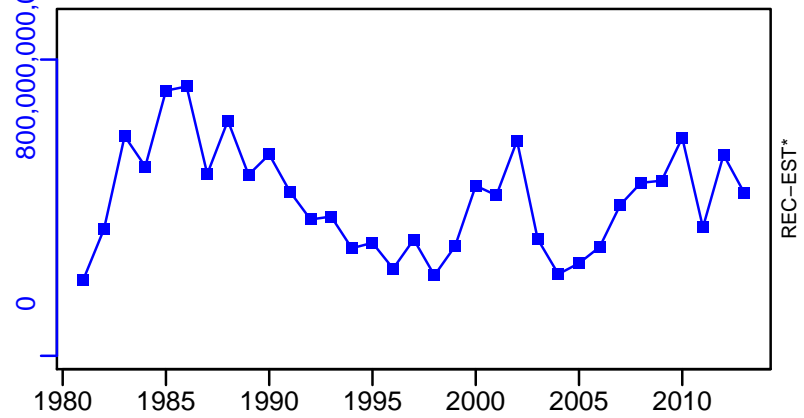
F*



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

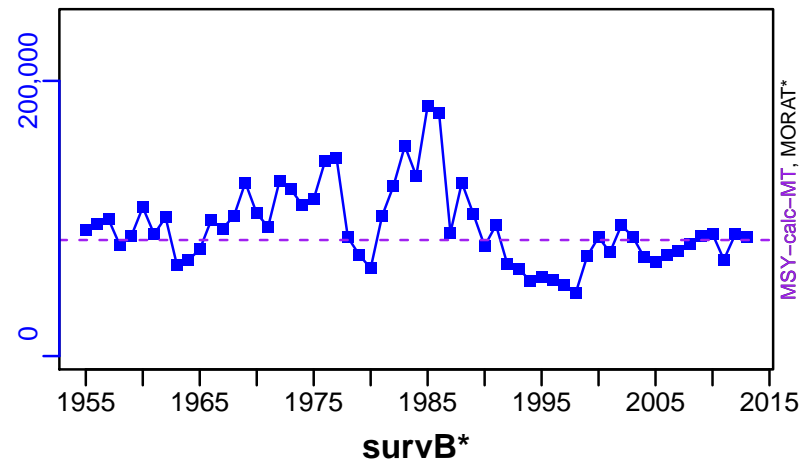


R-E00 (1955-2013-JPNIMP2016)



Japanese anchovy Inland Sea of Japan [JANCHOSETO]

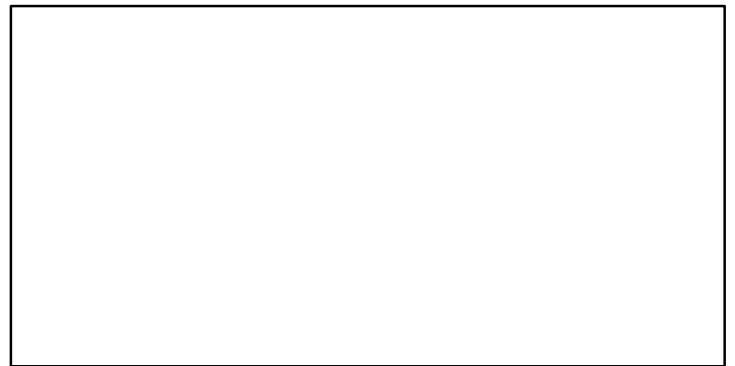
TC-MT, TL*, RecC* (1955-2013-JPNIMP2016)



TAC*, Cpair*, Cadv*



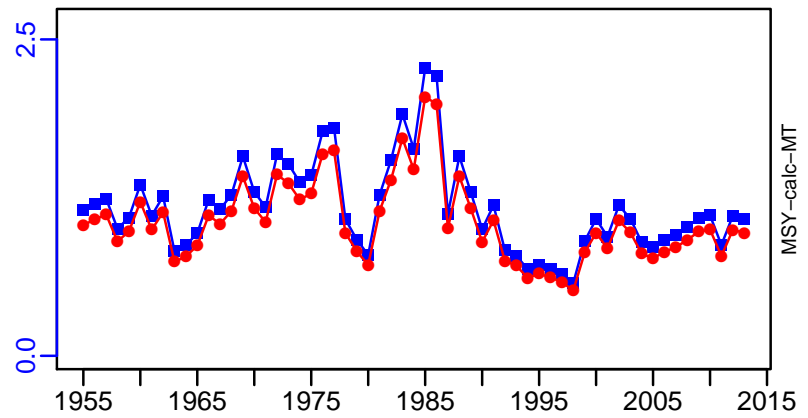
CPUE*



EFFORT*



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



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

Japanese anchovy Tsushima Strait [JANCHOTSST]

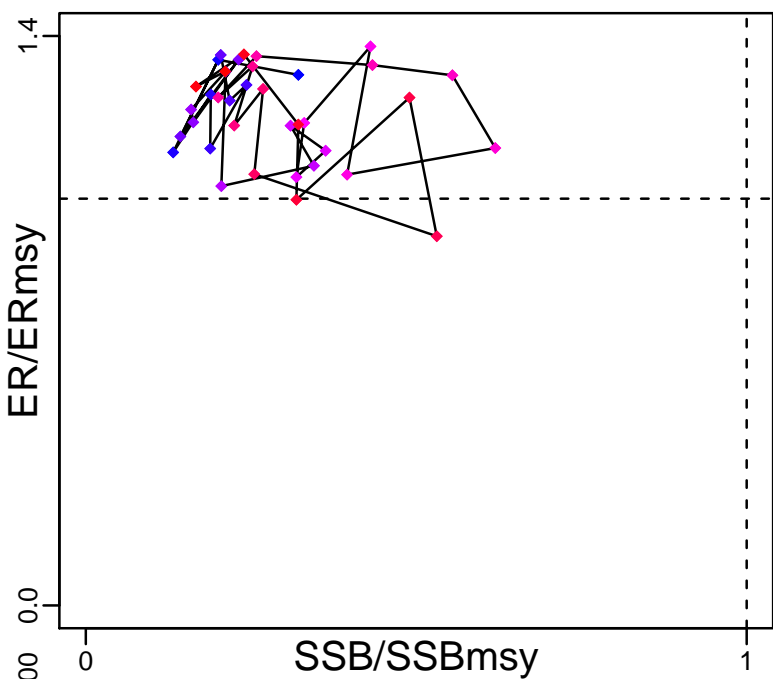
Metadata	
Scientific Name	Engraulis japonicus
Current Assess ID	FAFRFJ-JANCHOTSST-1976-2013-JPNIMP2016
Area	Tsushima Strait
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013

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

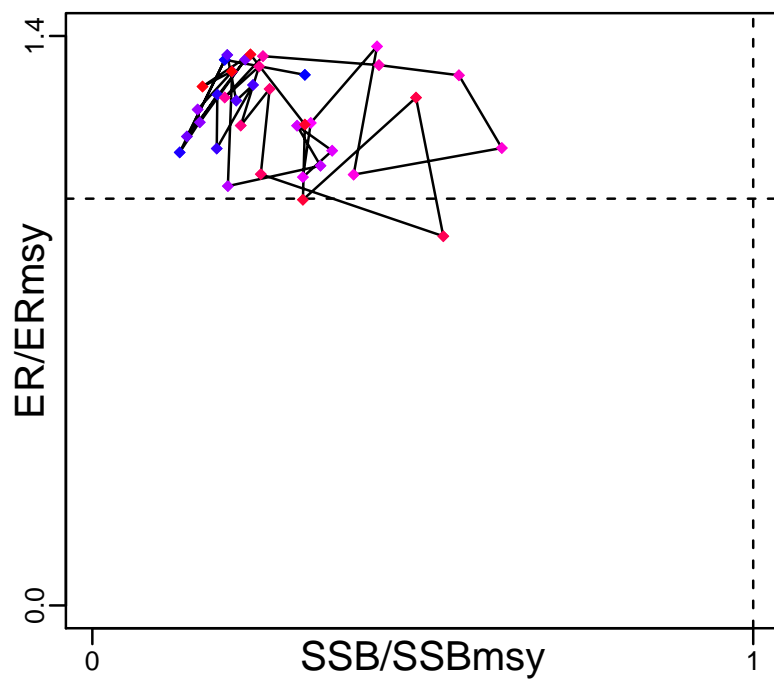
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	98,500	-	0
SSB	SSB-MT	2013	71,500	Both	1
TN	-	-	-	-	-
R	R-E00	2013	5.37×10^{10}	-	0
F	-	-	-	-	-
ER	ER-calc-ratio	2013	0.488	-	-
TC	TC-MT	2013	48,100		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2013	0.245		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013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

Japanese anchovy Tsushima Strait [JANCHOTSST]

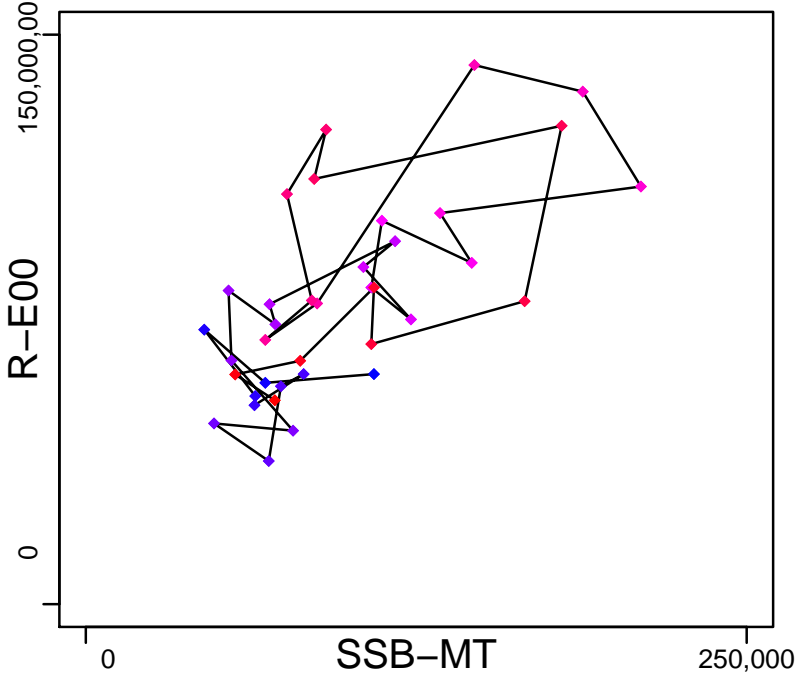
Kobe MSYpref (1976–2013–JPNIMP2016)



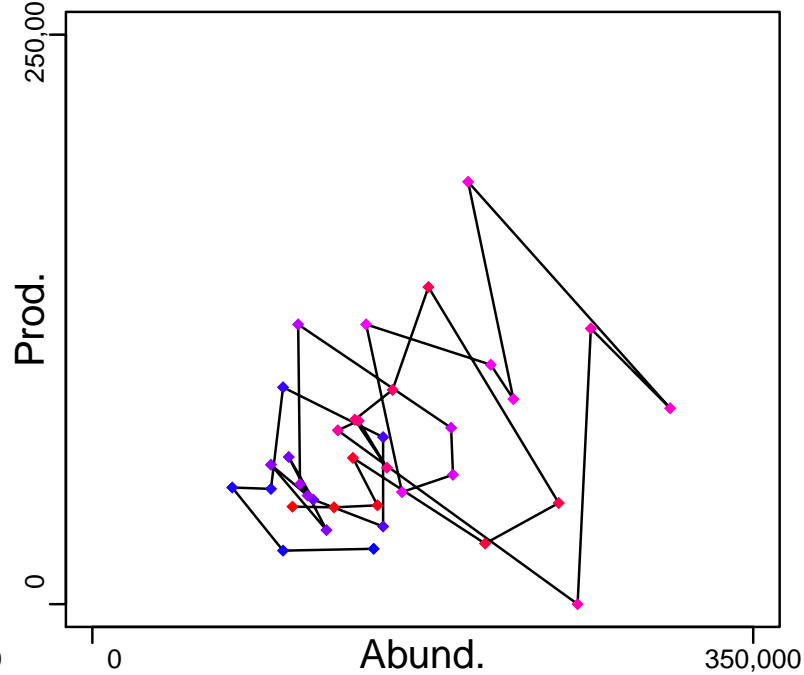
Kobe MGTpref (1976–2013–JPNIMP2016)



Spawner Recruit (1976–2013–JPNIMP2016)



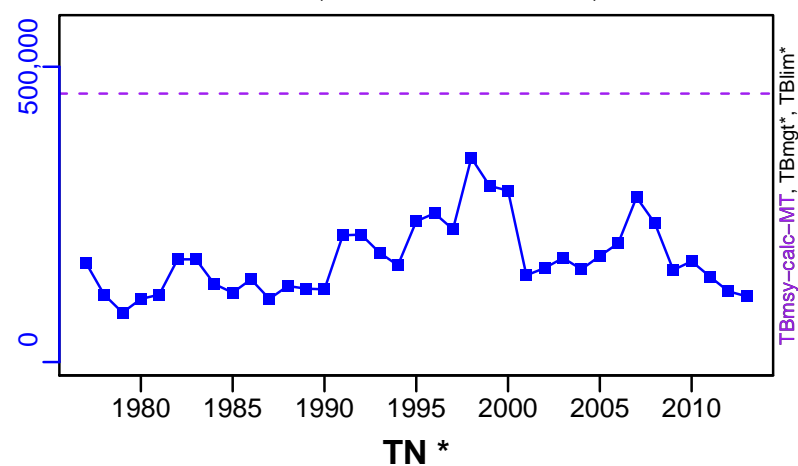
Production (1976–2013–JPNIMP2016)



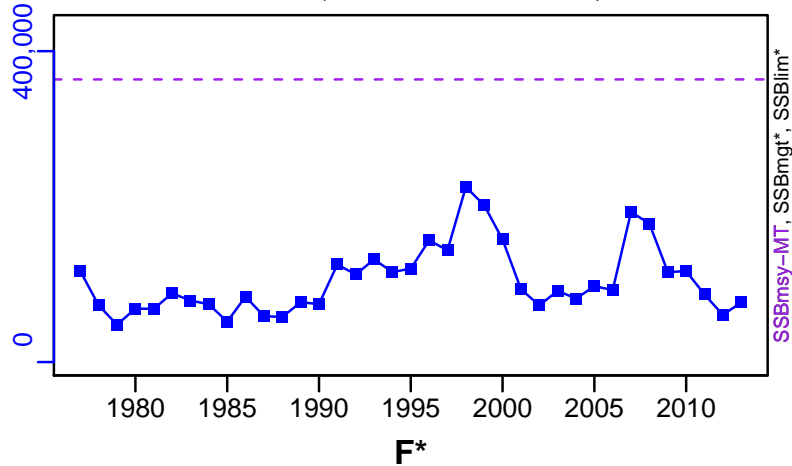
◆ Start Year ◆ End Year * No Data

Japanese anchovy Tsushima Strait [JANCHOTSST]

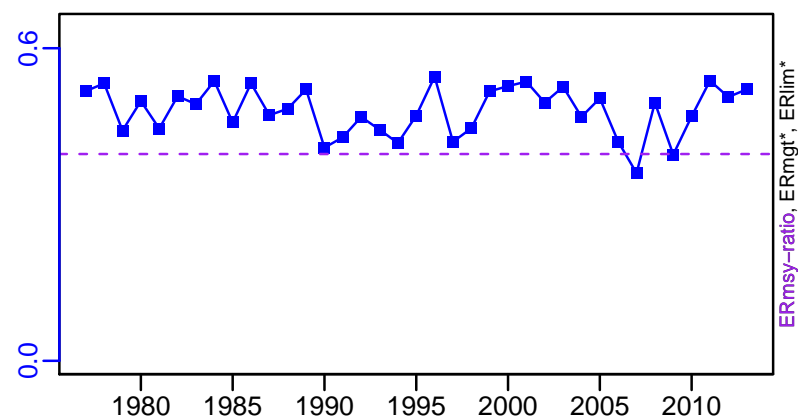
TB-MT (1976-2013-JPNIMP2016)



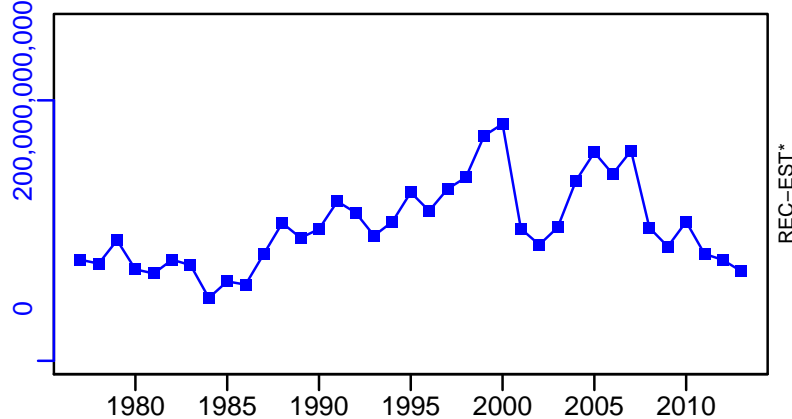
SSB-MT (1976-2013-JPNIMP2016)



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

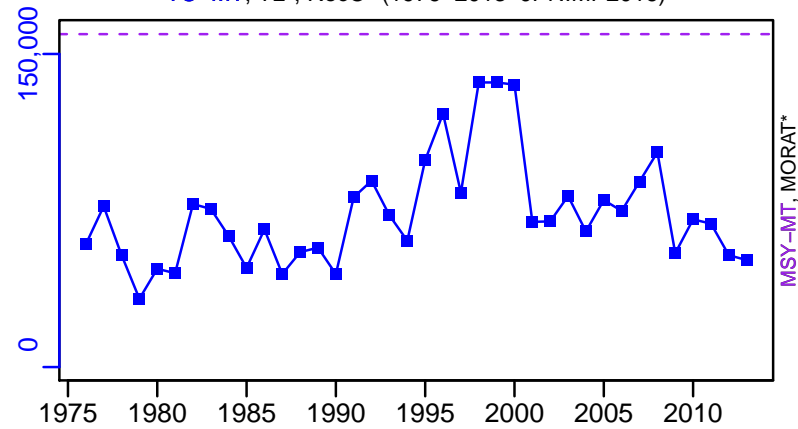


R-E00 (1976-2013-JPNIMP2016)



Japanese anchovy Tsushima Strait [JANCHOTSST]

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



TAC*, Cpair*, Cadv*



survB*



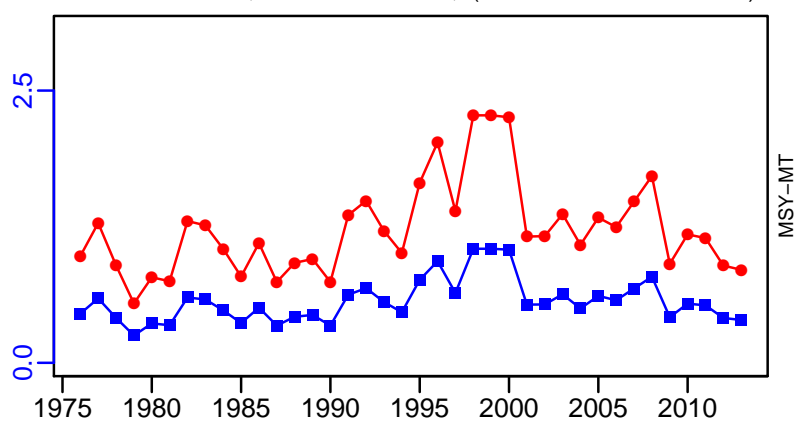
CPUE*



EFFORT*



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



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

Japanese flying squid Japan Autumn recruitment [JCSQUIDJPNAR]

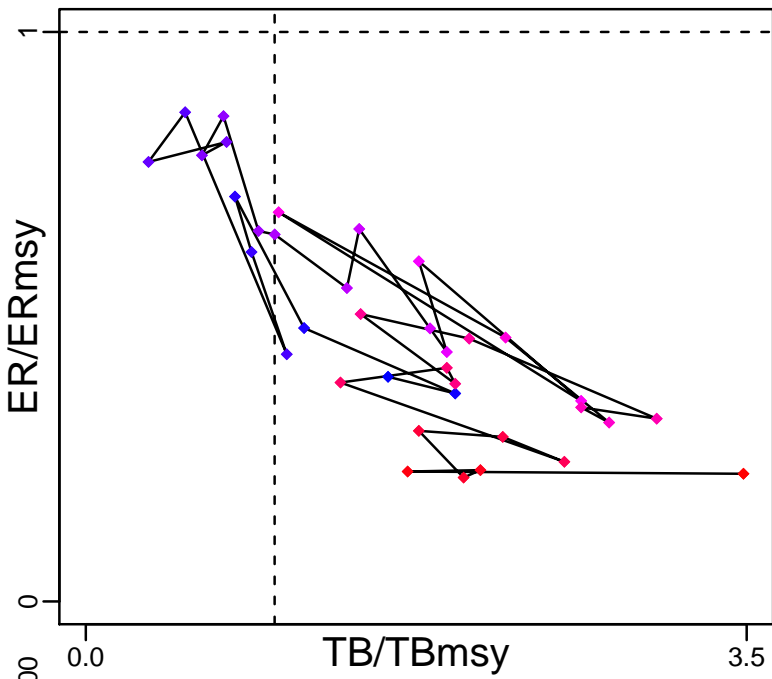
Metadata	
Scientific Name	Todarodes pacificus
Current Assess ID	FAFRFJ-JCSQUIDJPNAR-1979-2014-JPNIMP2016
Area	Japan Autumn recruitment
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2014

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

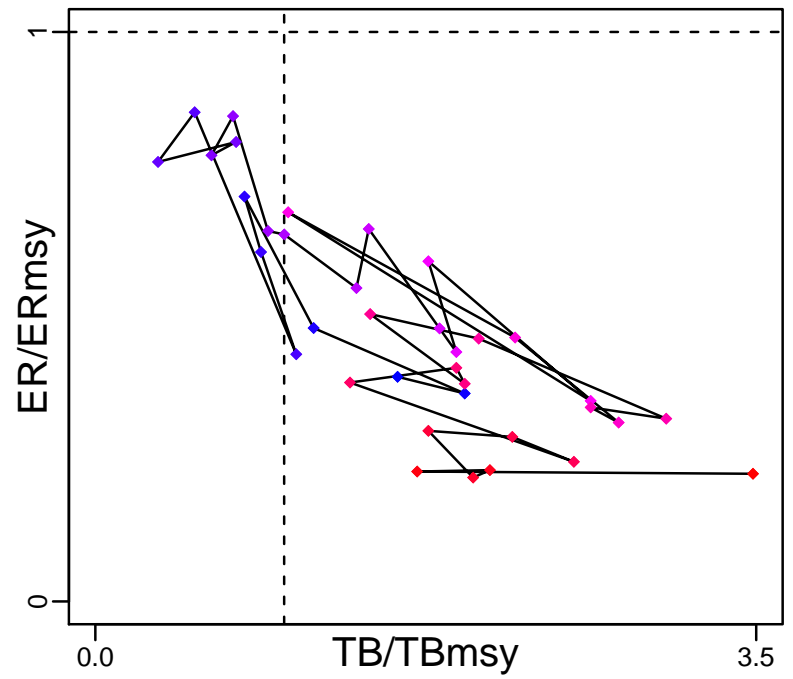
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2014	2,350,000	-	0.5
SSB	SSB-MT	2014	1,110,000	Both	0.5
TN	-	-	-	-	-
R	R-E00	2014	8.37×10^9	-	0.5
F	-	-	-	-	-
ER	ER-calc-ratio	2014	0.1	-	-
TC	TC-MT	2014	235,000		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-MT	2014	3.483		
SSB/SSBmsy	-	-	-		
F/Fmsy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

Japanese flying squid Japan Autumn recruitment [JCSQUIDJPNAR]

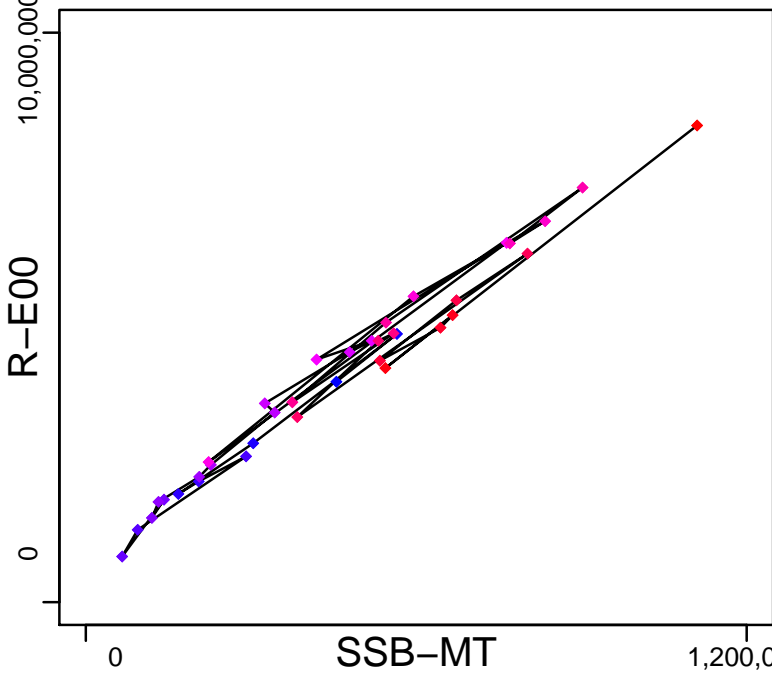
Kobe MSYpref (1979–2014–JPNIMP2016)



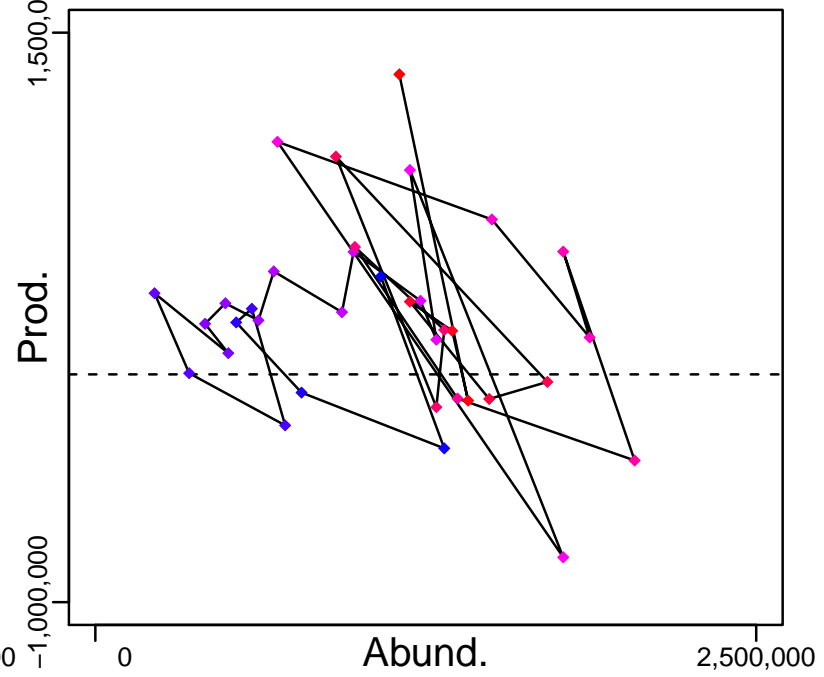
Kobe MGTpref (1979–2014–JPNIMP2016)



Spawner Recruit (1979–2014–JPNIMP2016)



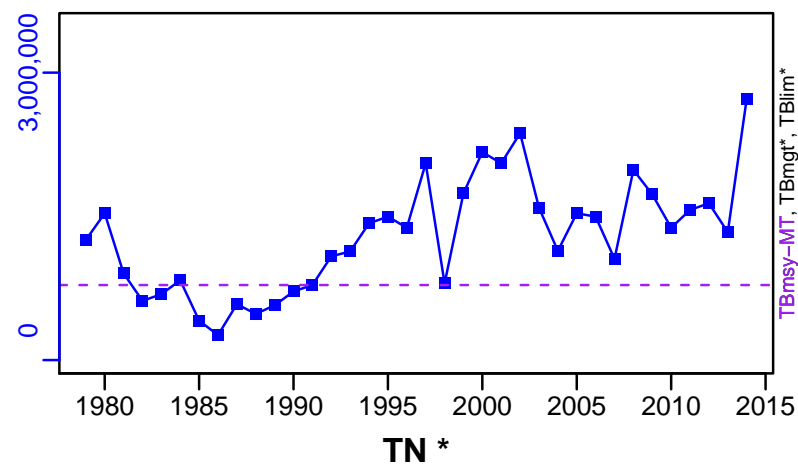
Production (1979–2014–JPNIMP2016)



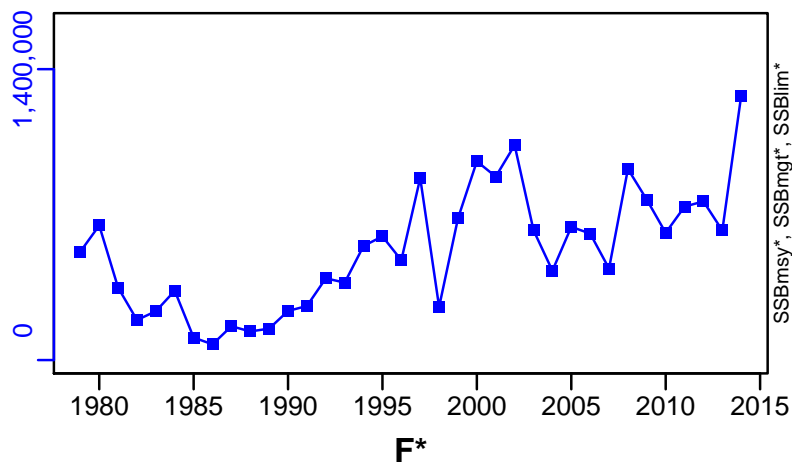
◆ Start Year ◆ End Year * No Data

Japanese flying squid Japan Autumn recruitment [JCSQUIDJPNAR]

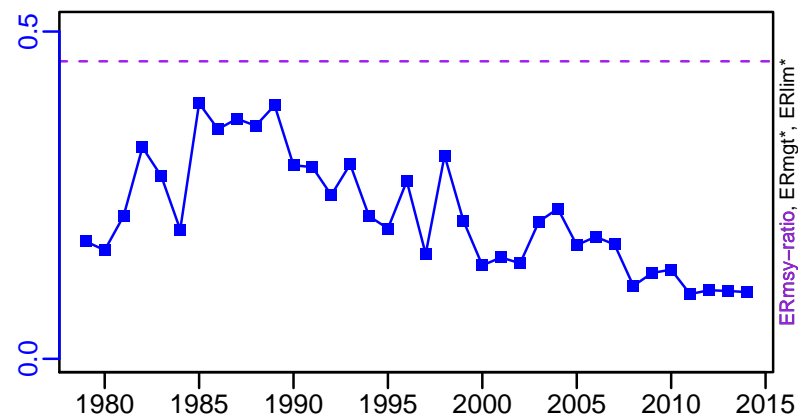
TB-MT (1979–2014–JPNIMP2016)



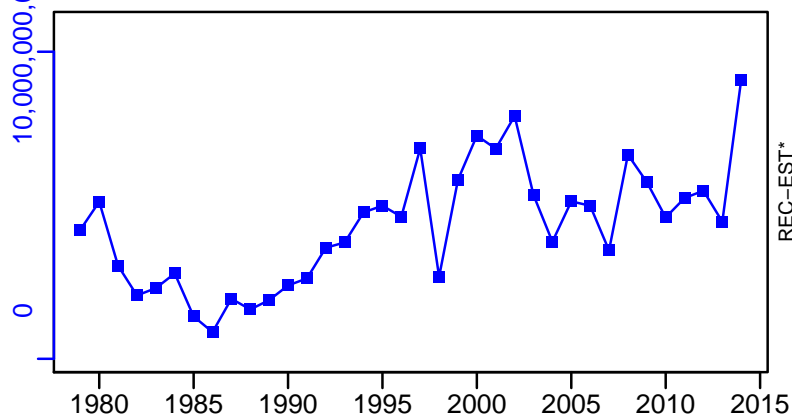
SSB-MT (1979–2014–JPNIMP2016)



ER-calc-ratio (1979–2014–JPNIMP2016)



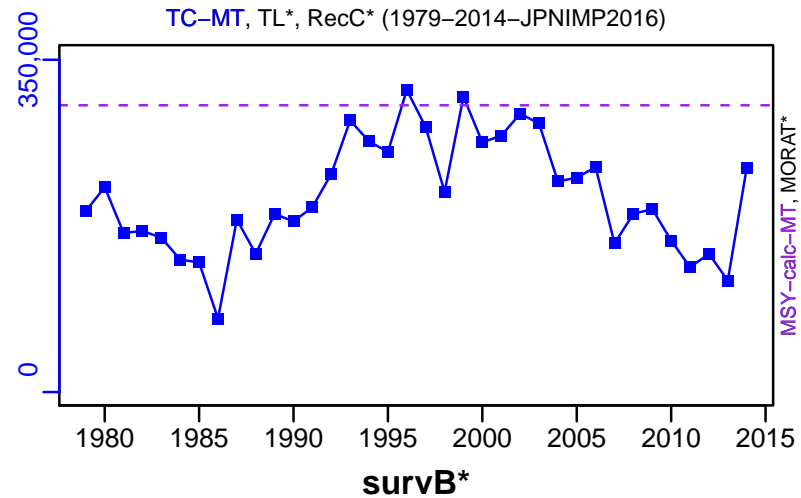
R-E00 (1979–2014–JPNIMP2016)



Japanese flying squid Japan Autumn recruitment [JCSQUIDJPNAR]

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

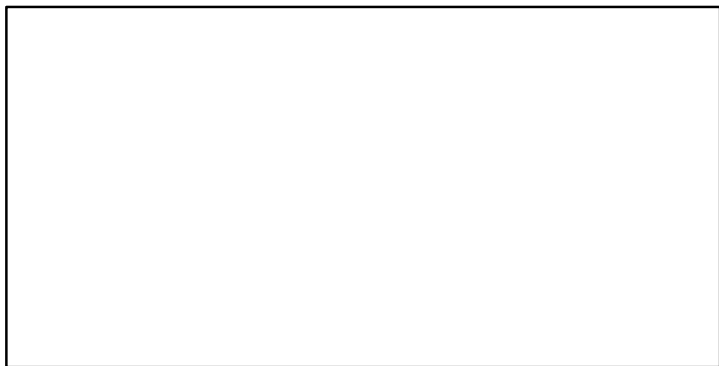
TAC*, Cpair*, Cadv*



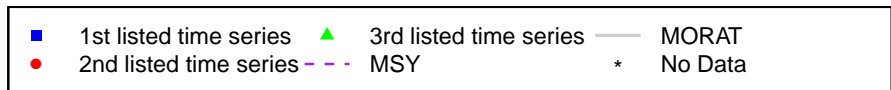
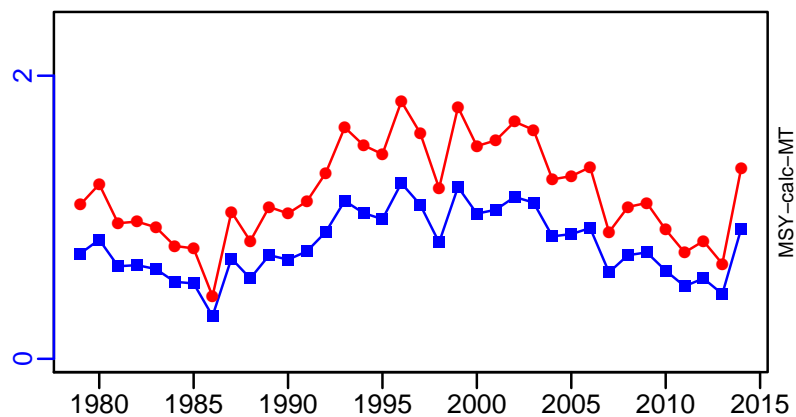
CPUE*



EFFORT*



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



Japanese flying squid Japan Winter recruitment [JCSQUIDJPNWR]

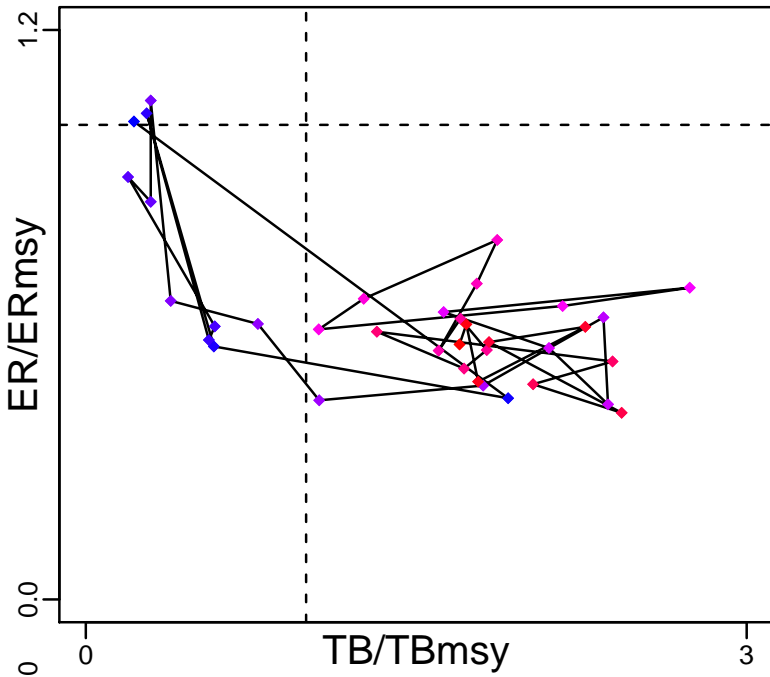
Metadata	
Scientific Name	Todarodes pacificus
Current Assess ID	FAFRFJ-JCSQUIDJPNWR-1979-2014-JPNIMP2016
Area	Japan Winter recruitment
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2014

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

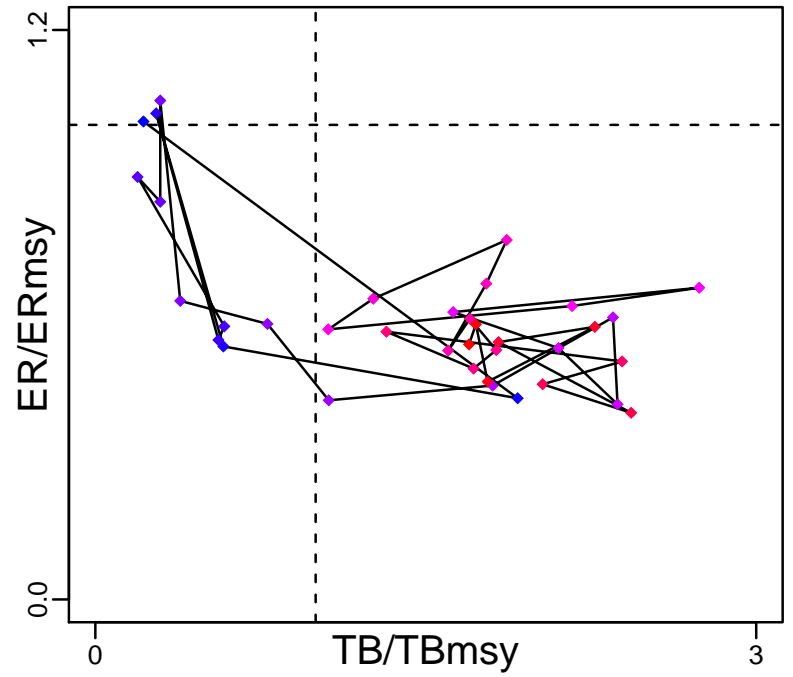
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2014	823,000	-	0.5
SSB	SSB-MT	2014	301,000	Both	0.5
TN	-	-	-	-	-
R	R-E00	2014	2.66×10^9	-	0.5
F	-	-	-	-	-
ER	ER-calc-ratio	2014	0.247	-	-
TC	TC-MT	2014	203,000		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-MT	2014	1.696		
SSB/SSBmsy	-	-	-		
F/Fmsy	-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

Japanese flying squid Japan Winter recruitment [JCSQUIDJPNWR]

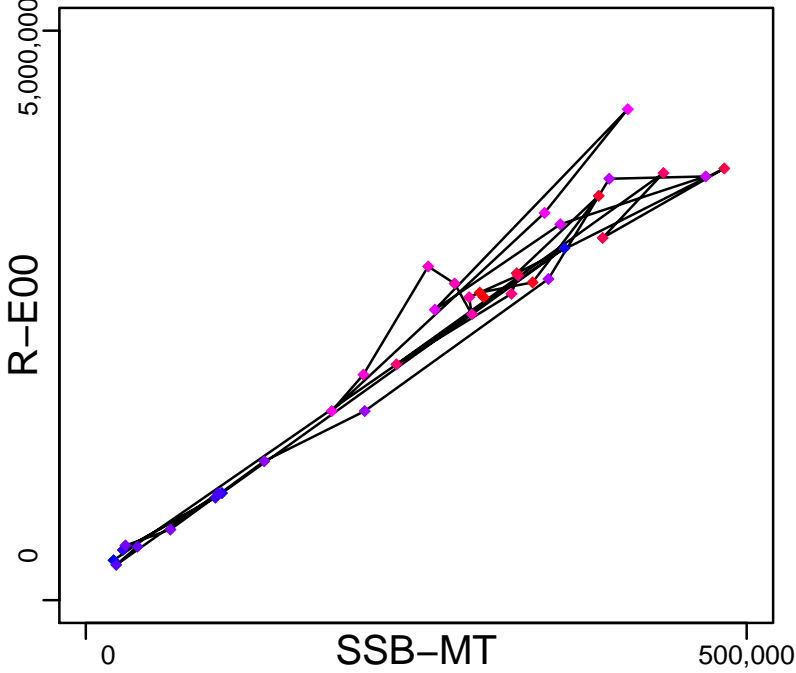
Kobe MSYpref (1979–2014–JPNIMP2016)



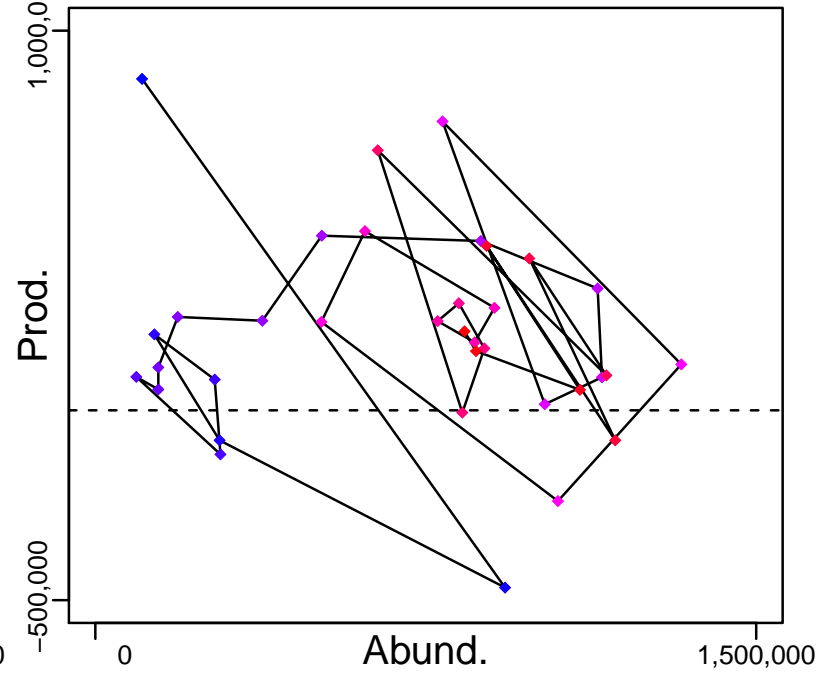
Kobe MGTpref (1979–2014–JPNIMP2016)



Spawner Recruit (1979–2014–JPNIMP2016)

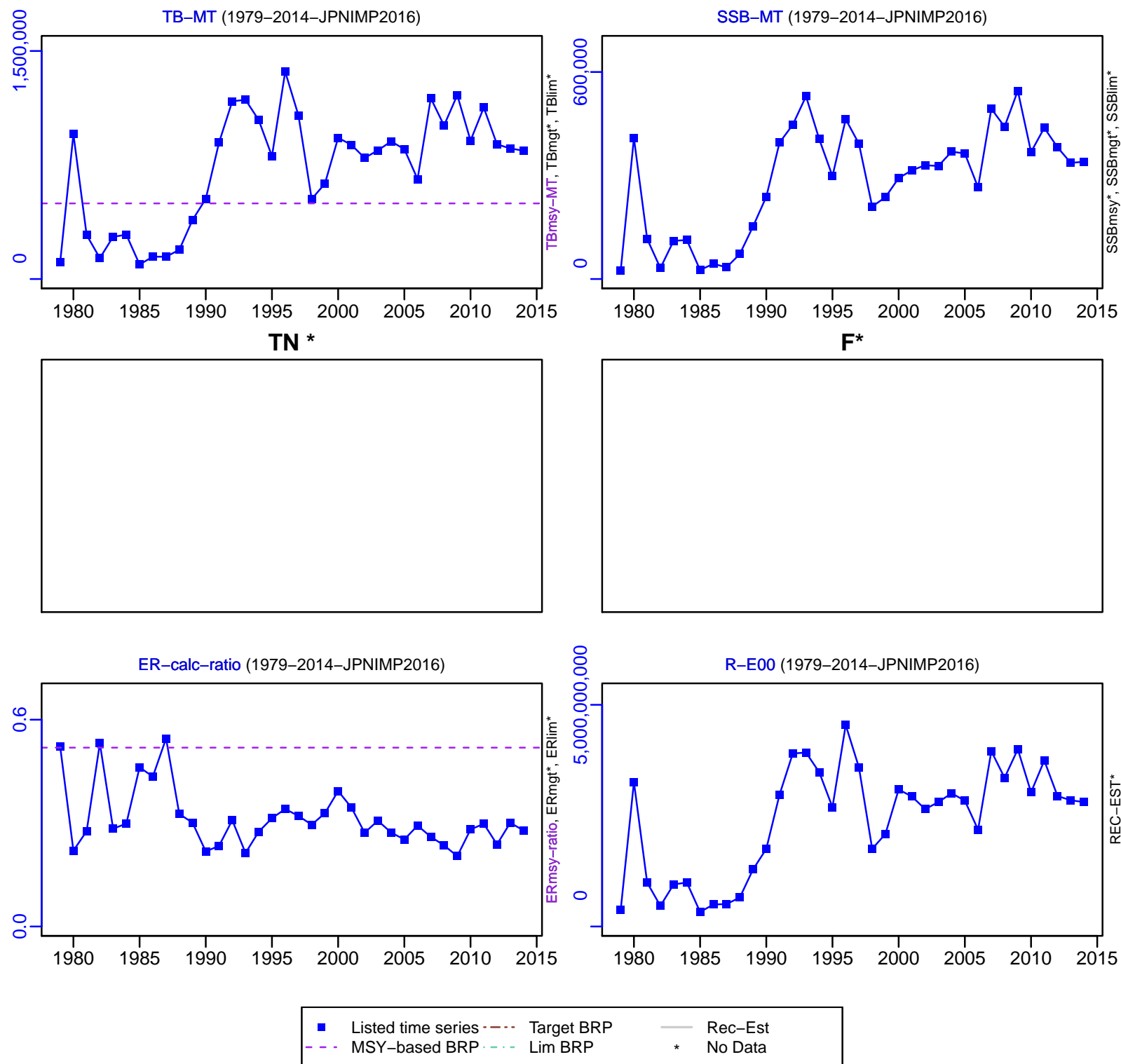


Production (1979–2014–JPNIMP2016)



◆ Start Year ◆ End Year * No Data

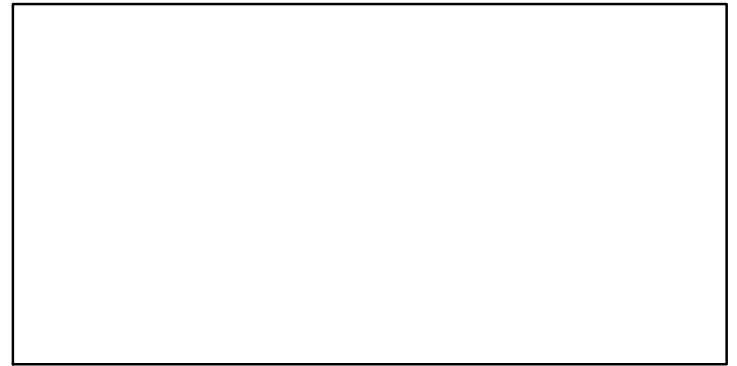
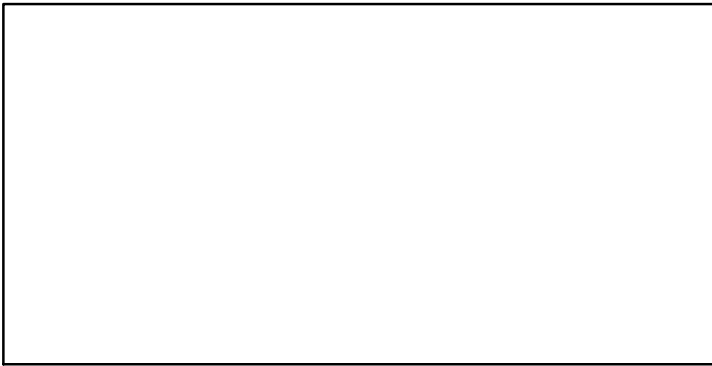
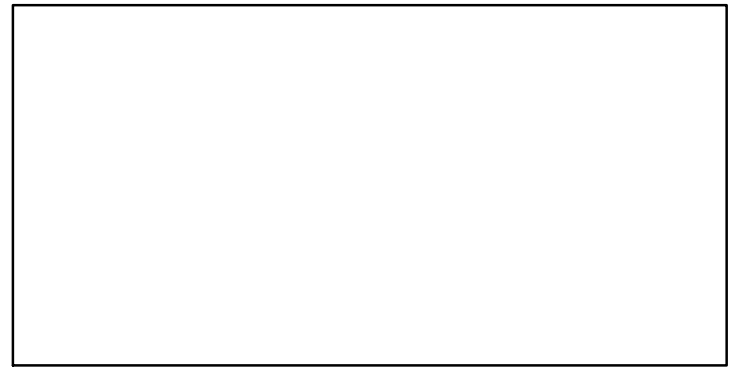
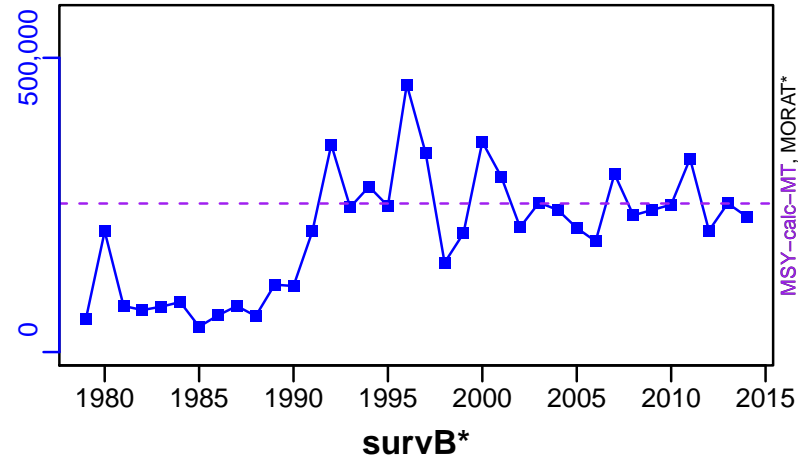
Japanese flying squid Japan Winter recruitment [JCSQUIDJPNWR]



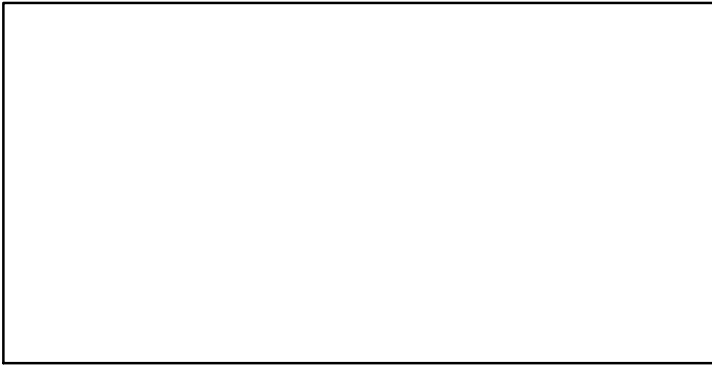
Japanese flying squid Japan Winter recruitment [JCSQUIDJPNWR]

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

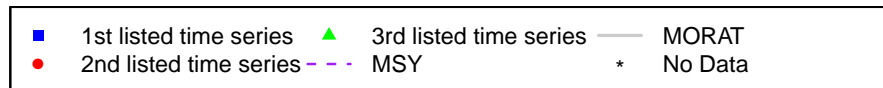
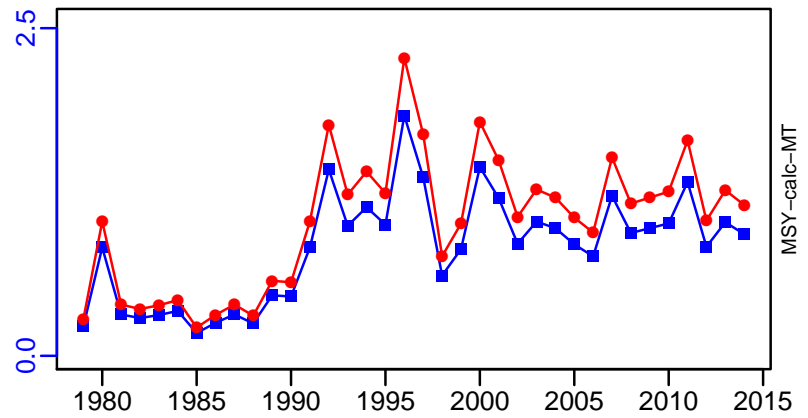
TAC*, Cpair*, Cadv*



EFFORT*



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



Japanese jack mackerel Pacific Coast of Japan [JMACKPJPN]

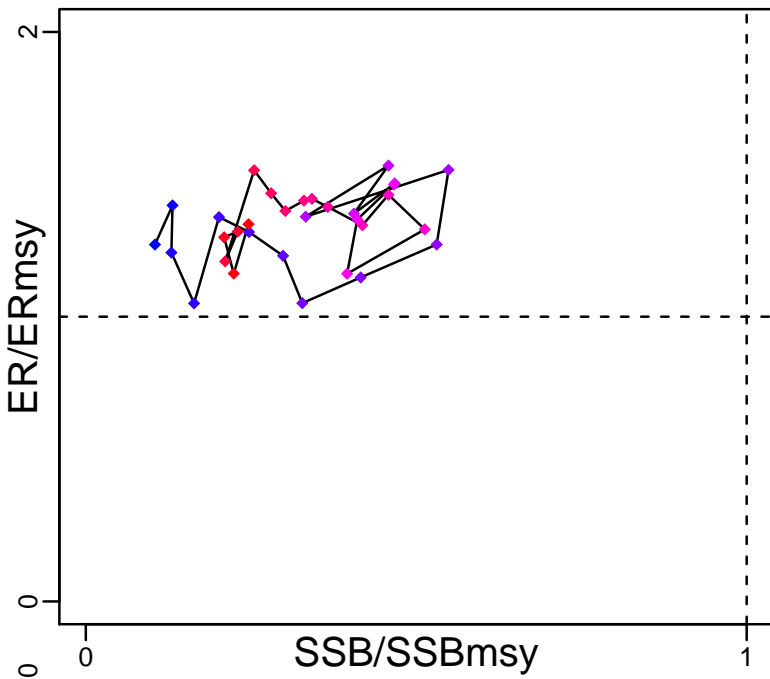
Metadata	
Scientific Name	Trachurus japonicus
Current Assess ID	FAFRFJ-JMACKPJPN-1982-2013-JPNIMP2016
Area	Pacific Coast of Japan
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2009, 2013

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

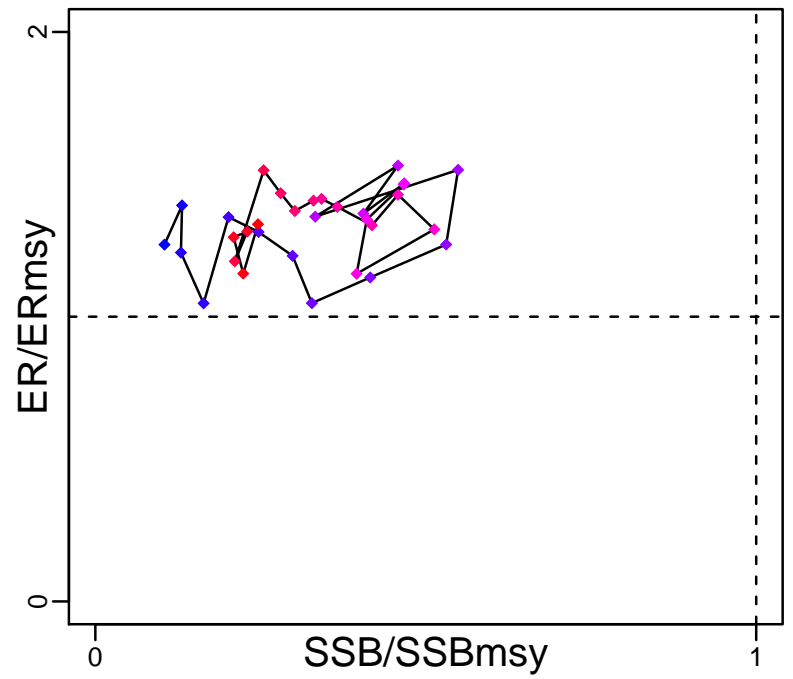
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	61,100	-	0
SSB	SSB-MT	2013	28,700	Both	1
TN	-	-	-	-	-
R	R-E00	2013	5.55×10^8	-	0
F	F-1/yr	2009	1.26	Both	0 to 2
ER	ER-calc-ratio	2013	0.452	-	-
TC	TC-MT	2013	27,600		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2013	0.294		
SSB/SSBmsy	SSB-MT/SSBmsy-MT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

Japanese jack mackerel Pacific Coast of Japan [JMACKPJPN]

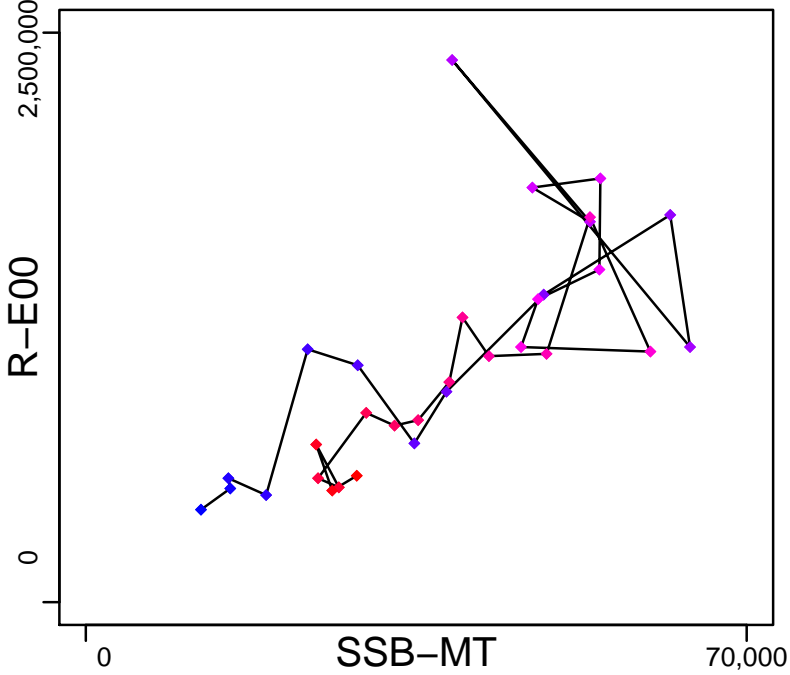
Kobe MSYpref (1982–2013–JPNIMP2016)



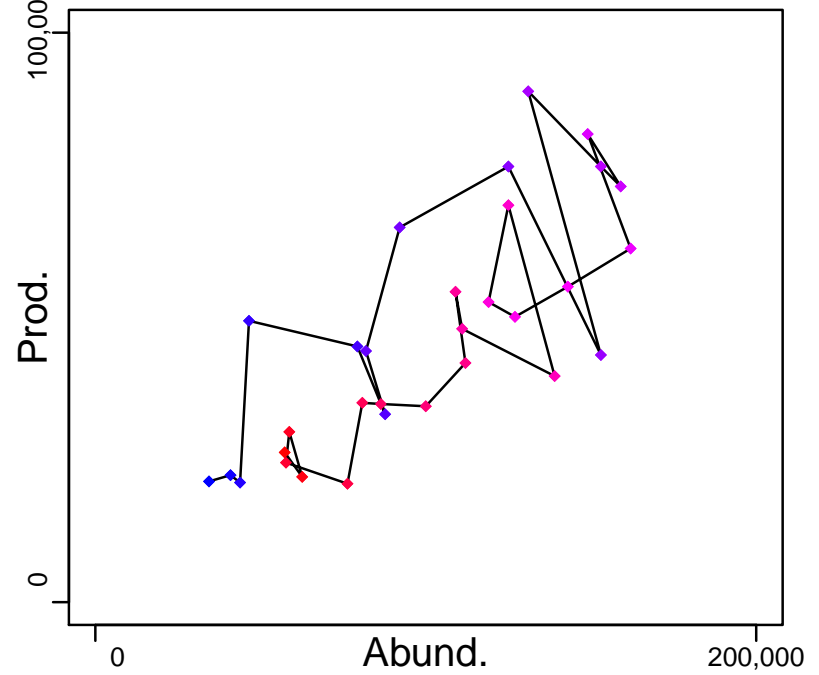
Kobe MGTpref (1982–2013–JPNIMP2016)



Spawner Recruit (1982–2013–JPNIMP2016)



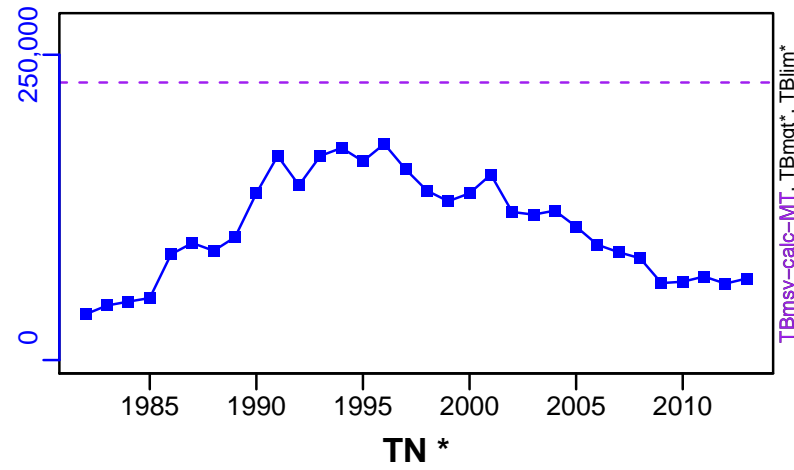
Production (1982–2013–JPNIMP2016)



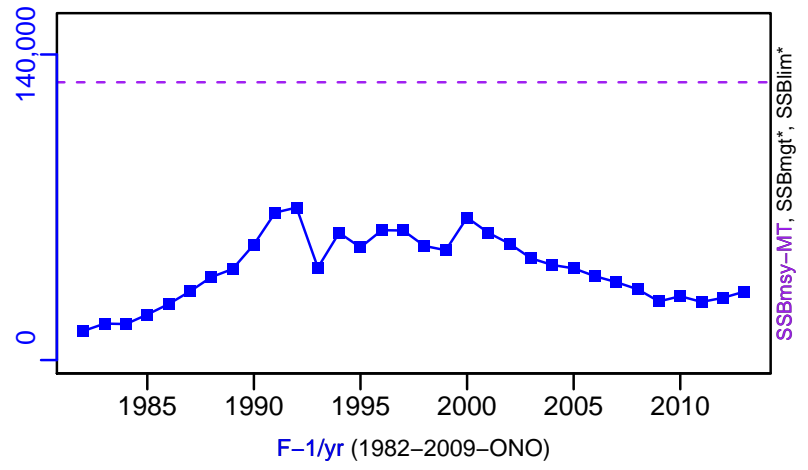
◆ Start Year ◆ End Year * No Data

Japanese jack mackerel Pacific Coast of Japan [JMACKPJPN]

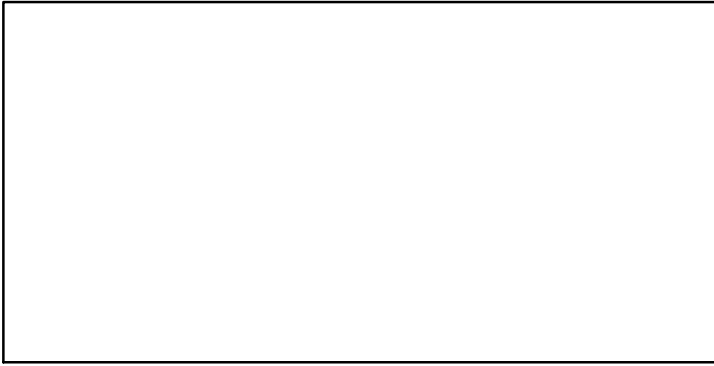
TB-MT (1982-2013-JPNIMP2016)



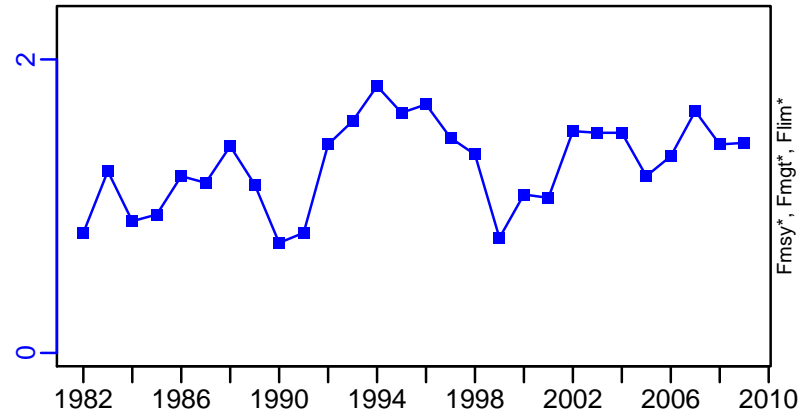
SSB-MT (1982-2013-JPNIMP2016)



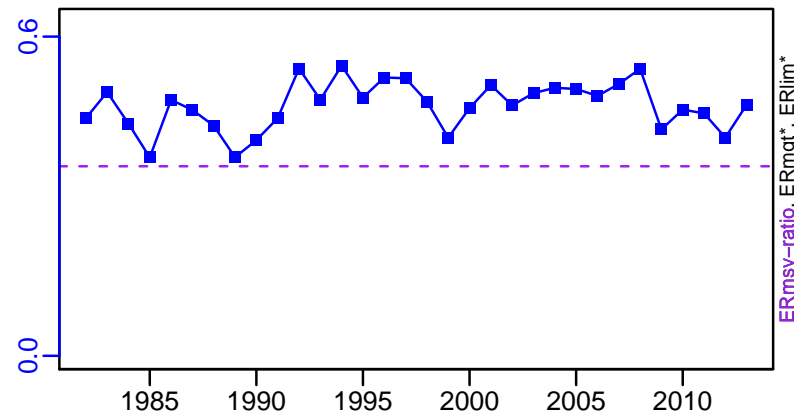
TN *



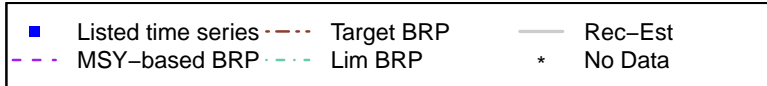
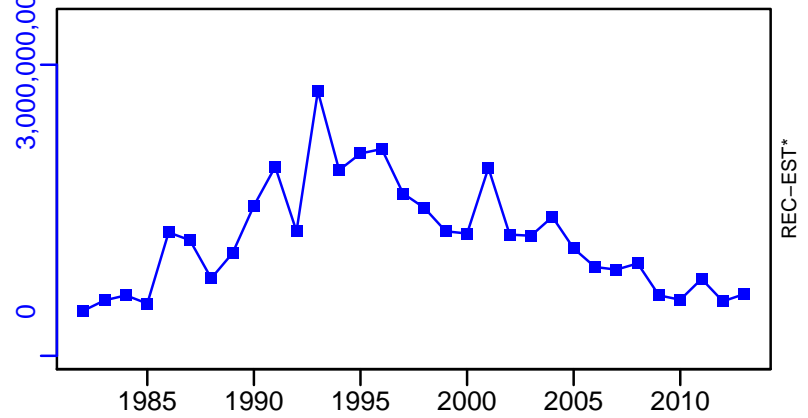
F-1/yr (1982-2009-ONO)



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



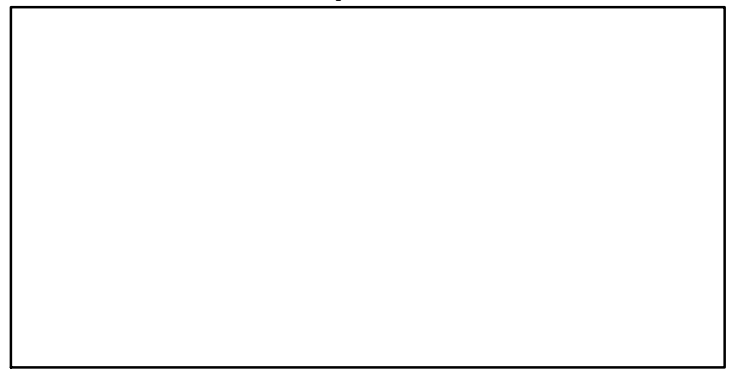
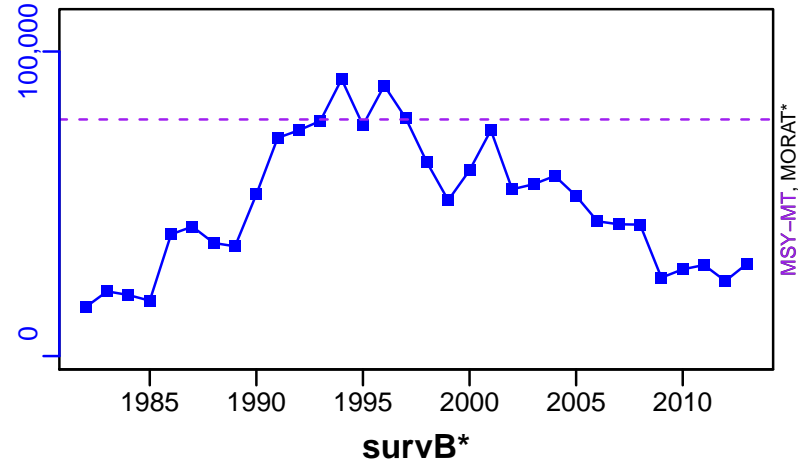
R-E00 (1982-2013-JPNIMP2016)



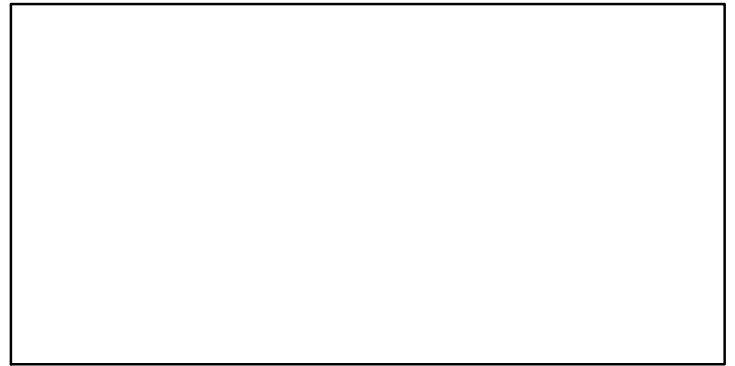
Japanese jack mackerel Pacific Coast of Japan [JMACKPJPN]

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

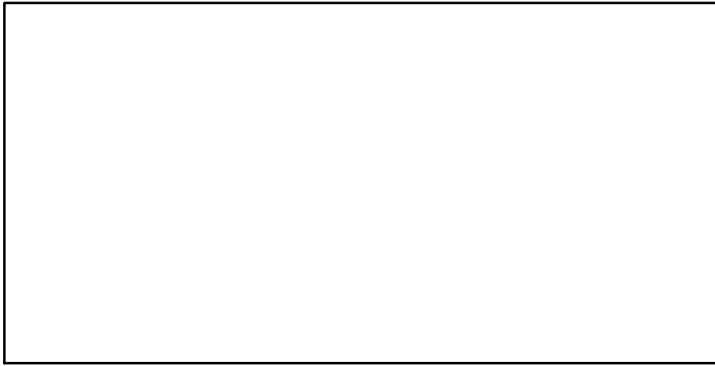
TAC*, Cpair*, Cadv*



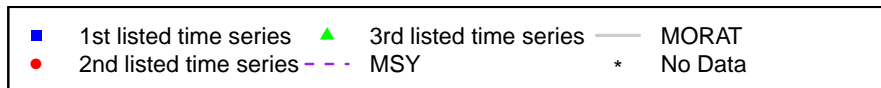
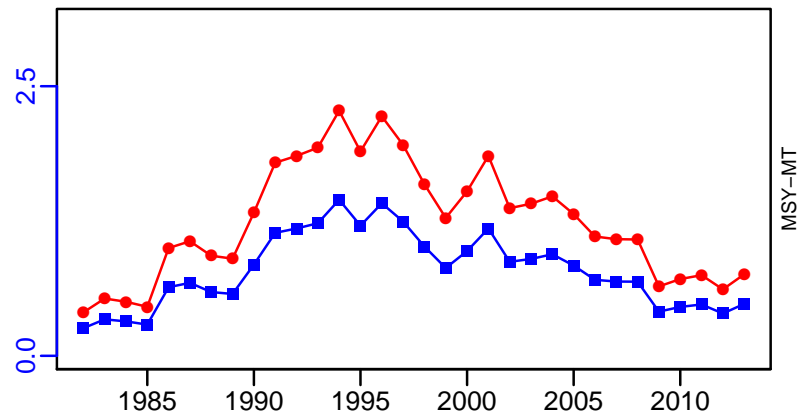
CPUE*



EFFORT*



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



Japanese jack mackerel Tsushima Strait [JMACKTSST]

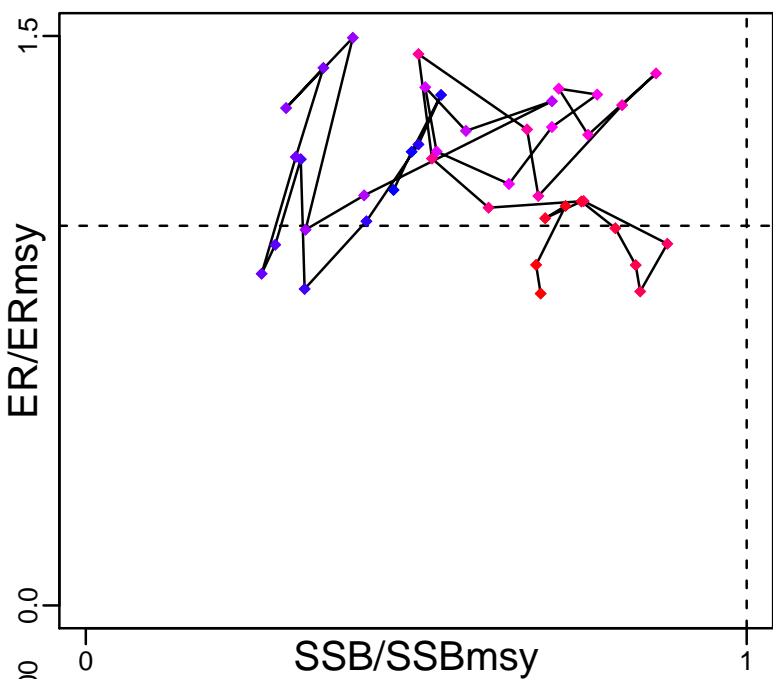
Metadata	
Scientific Name	Trachurus japonicus
Current Assess ID	FAFRFJ-JMACKTSST-1973-2013-JPNIMP2016
Area	Tsushima Strait
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2010, 2013

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

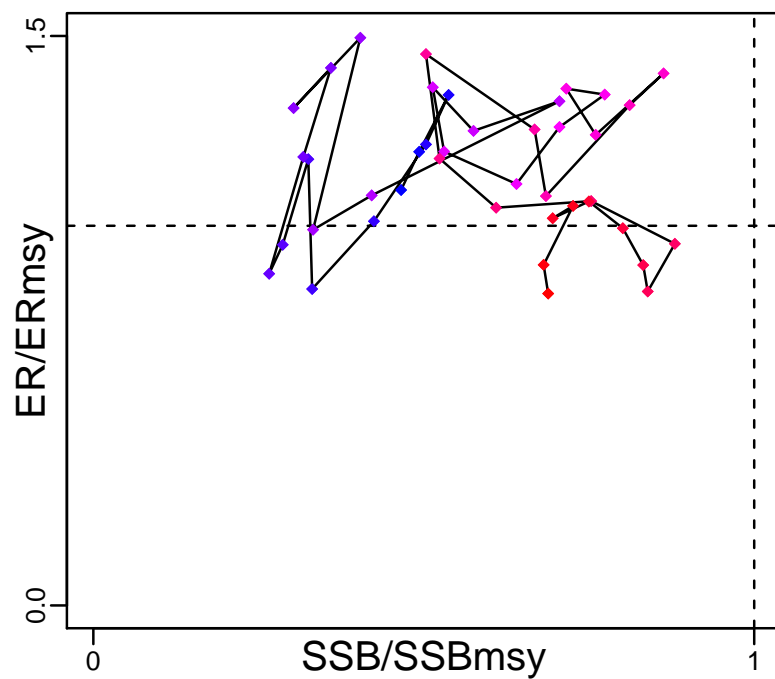
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	440,000	-	0
SSB	SSB-MT	2013	201,000	Both	1
TN	-	-	-	-	-
R	R-E00	2013	5.98×10^9	-	0
F	F-1/yr	2010	0.736	-	0 to 3
ER	ER-calc-ratio	2013	0.273	-	-
TC	TC-MT	2013	120,000		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2013	0.832		
SSB/SSBmsy	SSB-MT/SSBmsy-MT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

Japanese jack mackerel Tsushima Strait [JMACKTSST]

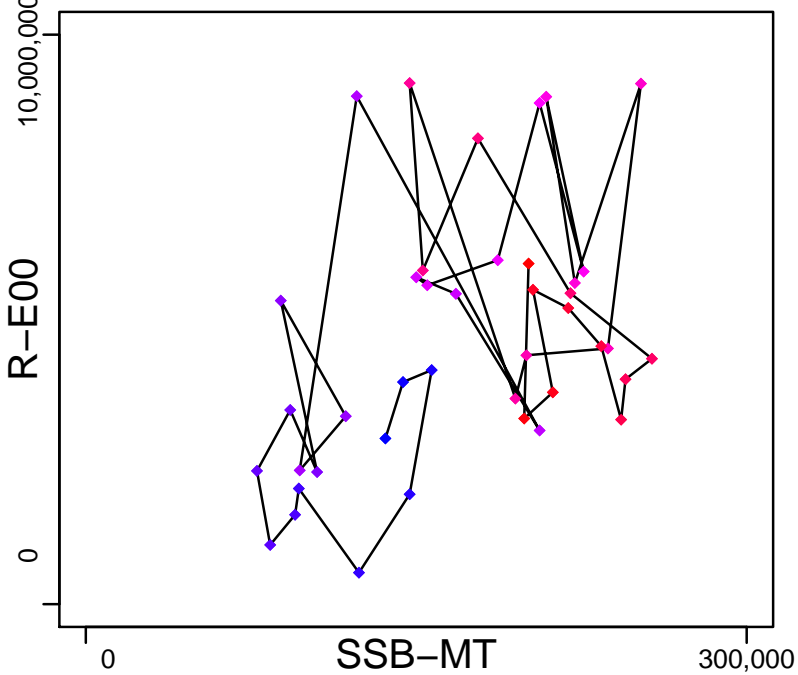
Kobe MSYpref (1973–2013–JPNIMP2016)



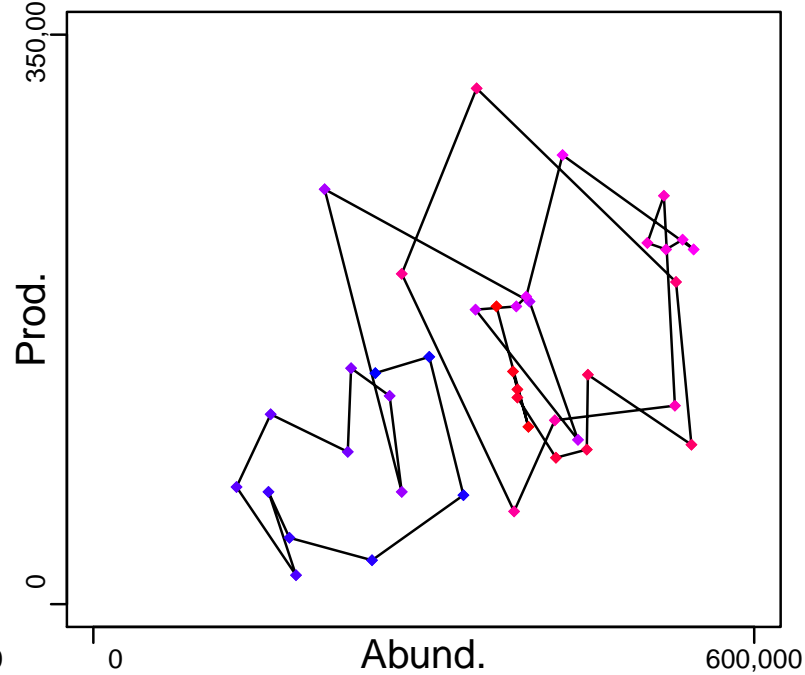
Kobe MGTpref (1973–2013–JPNIMP2016)



Spawner Recruit (1973–2013–JPNIMP2016)

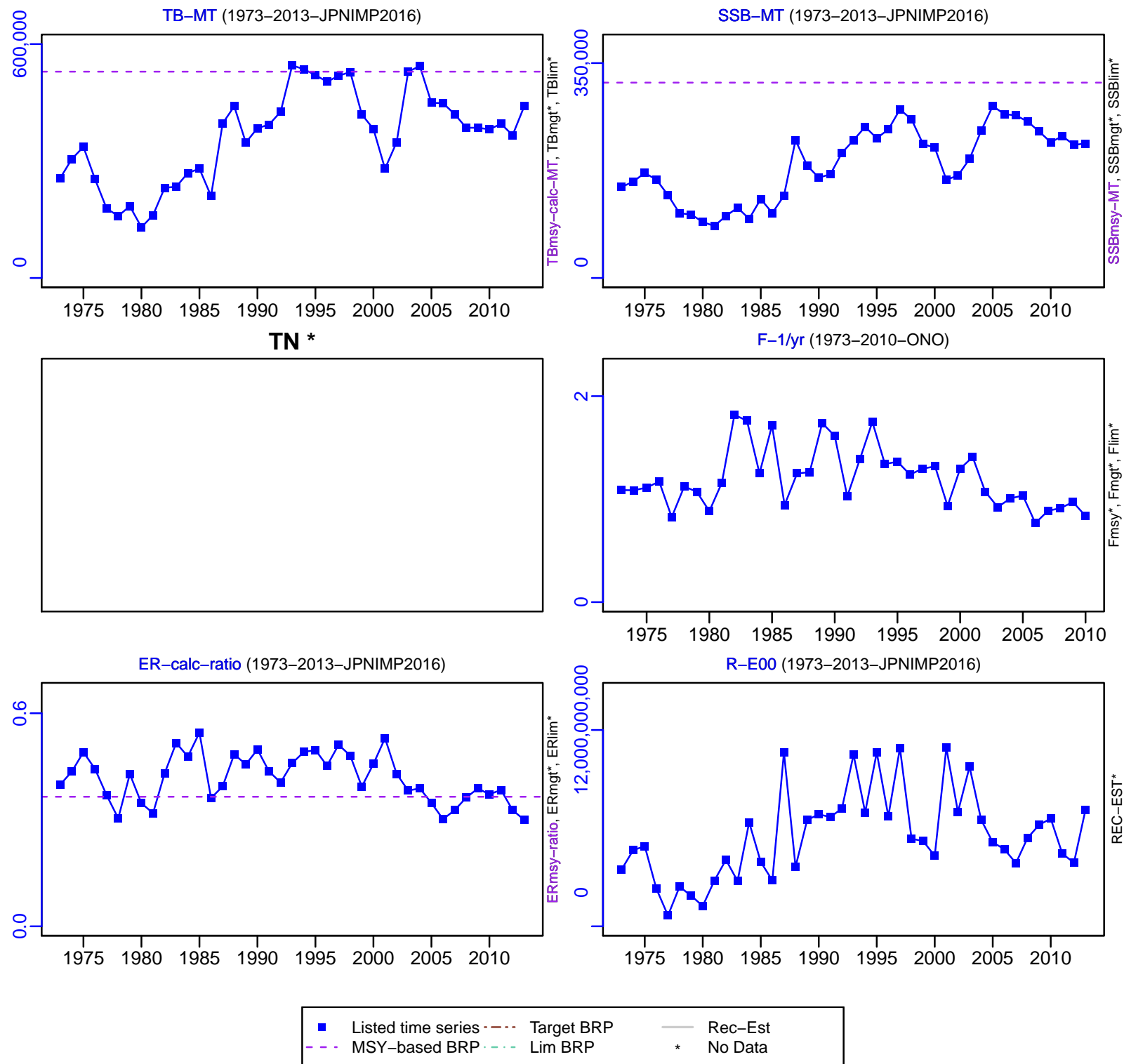


Production (1973–2013–JPNIMP2016)



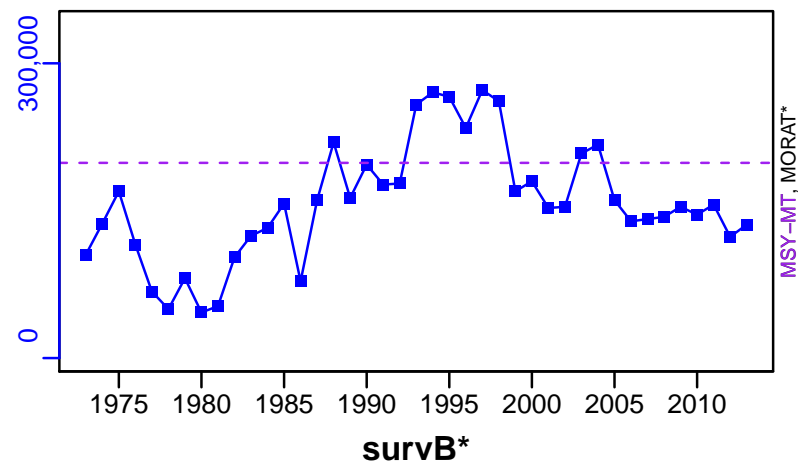
◆ Start Year ◆ End Year * No Data

Japanese jack mackerel Tsushima Strait [JMACKTSST]



Japanese jack mackerel Tsushima Strait [JMACKTSST]

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



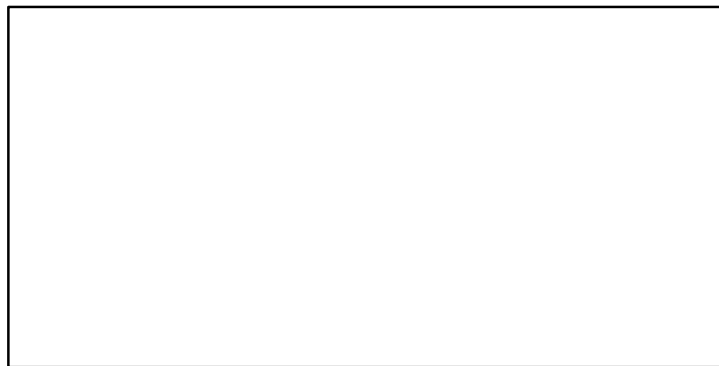
TAC*, Cpair*, Cadv*



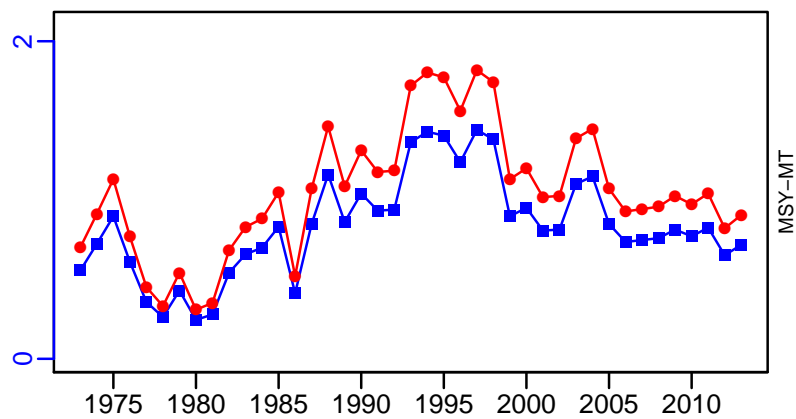
CPUE*



EFFORT*



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



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

Japanese pufferfish Ise and Mikawa Bay [JPUFFIMKB]

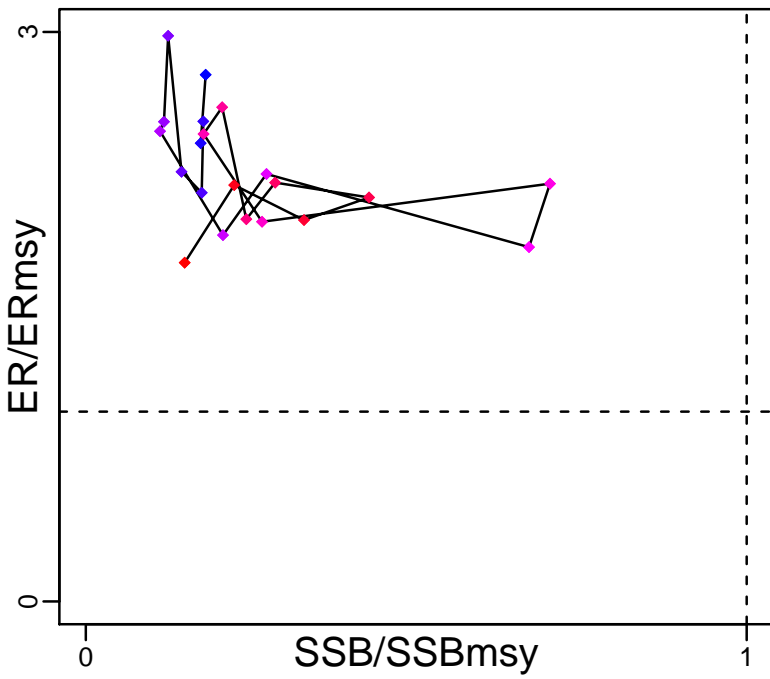
Metadata	
Scientific Name	Takifugu rubripes
Current Assess ID	FAFRFJ-JPUFFIMKB-1993-2013-JPNIMP2016
Area	Ise and Mikawa Bay
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013

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

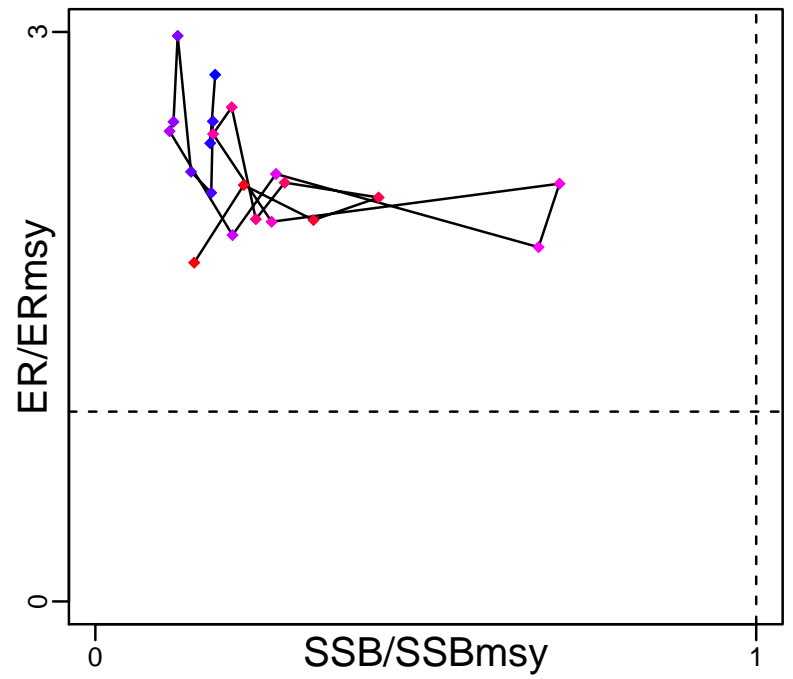
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	132	-	0
SSB	SSB-MT	2013	38	Both	2
TN	-	-	-	-	-
R	R-E00	2013	119,000	-	0
F	-	-	-	-	-
ER	ER-calc-ratio	2013	0.507	-	-
TC	TC-MT	2013	67		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2013	0.28		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013	0.15		
F/Fmsy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

Japanese pufferfish Ise and Mikawa Bay [JPUFFIMKB]

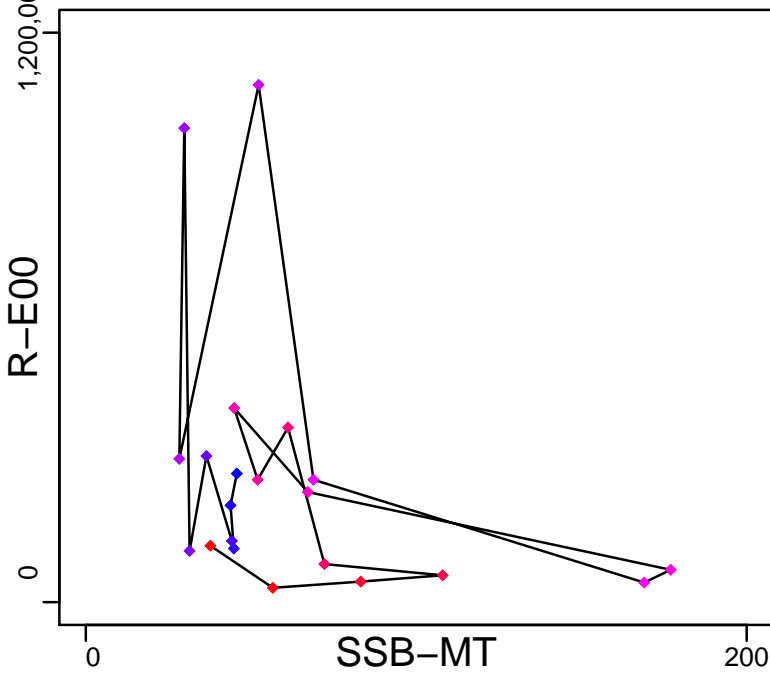
Kobe MSYpref (1993–2013–JPNIMP2016)



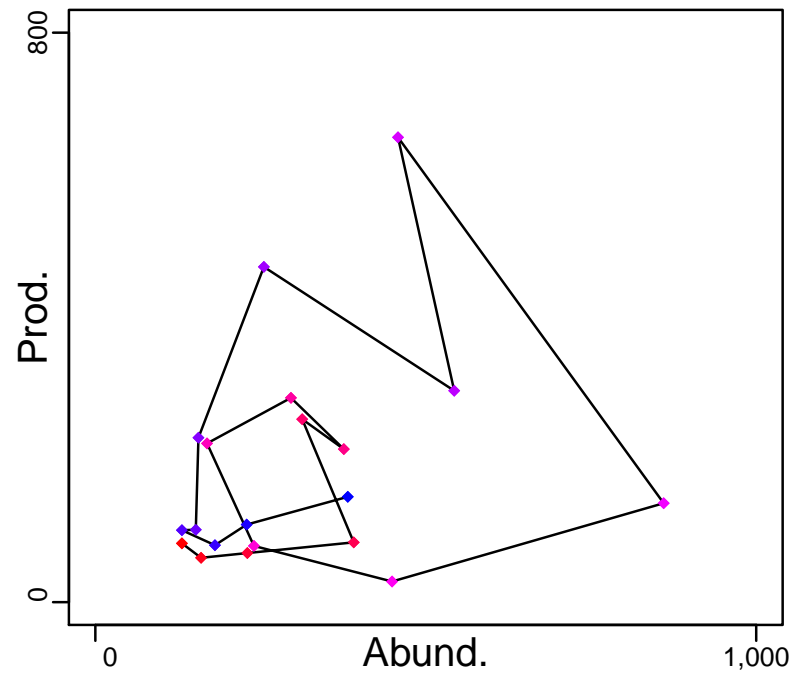
Kobe MGTpref (1993–2013–JPNIMP2016)



Spawner Recruit (1993–2013–JPNIMP2016)



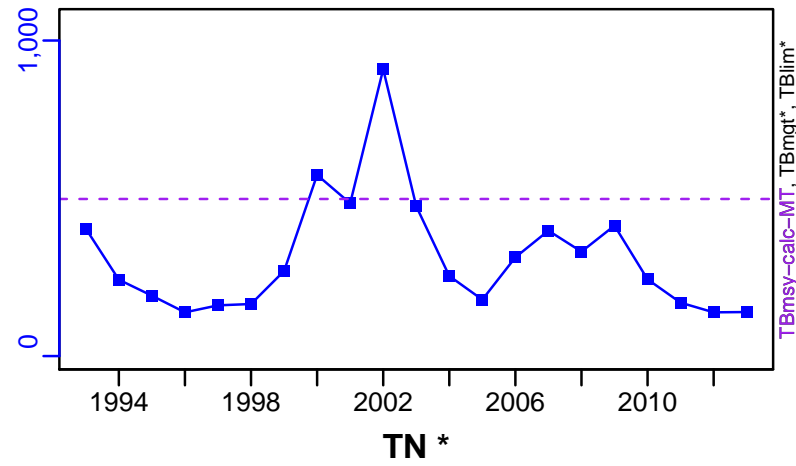
Production (1993–2013–JPNIMP2016)



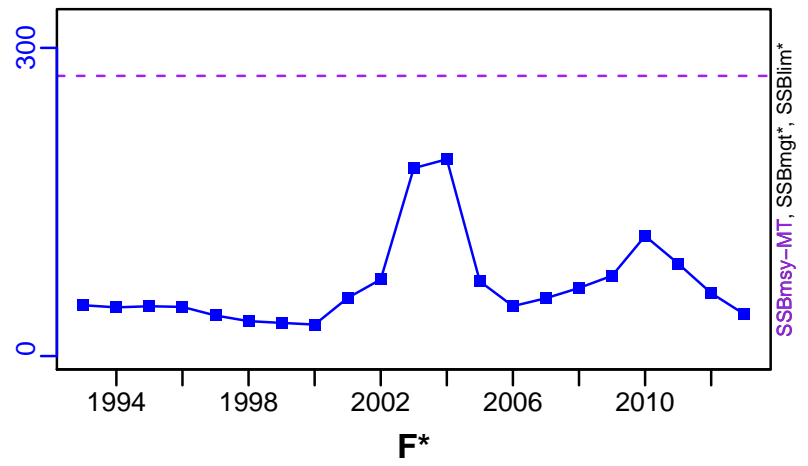
◆ Start Year ◆ End Year * No Data

Japanese pufferfish Ise and Mikawa Bay [JPUFFIMKB]

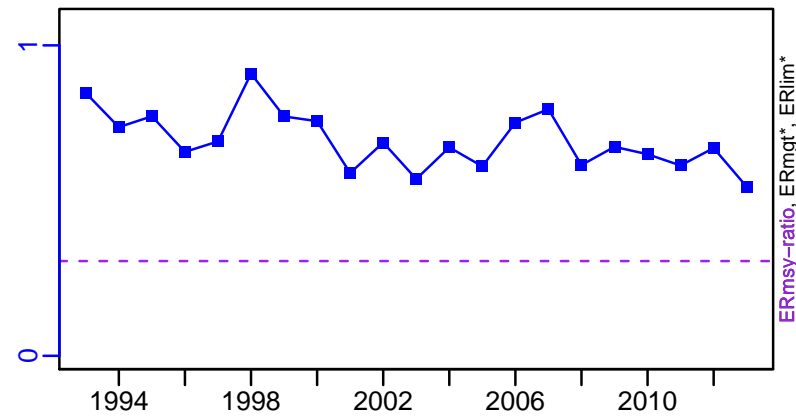
TB-MT (1993-2013-JPNIMP2016)



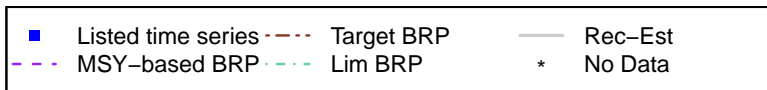
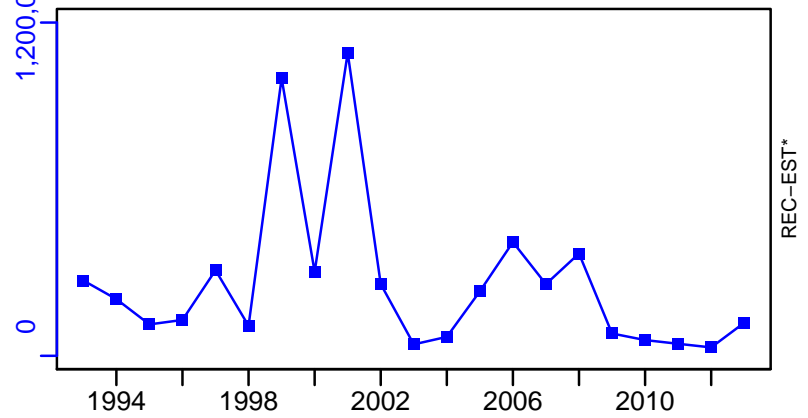
SSB-MT (1993-2013-JPNIMP2016)



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

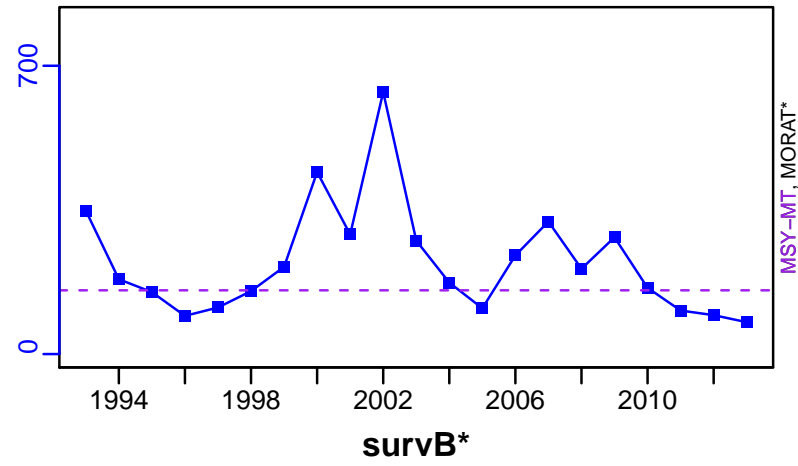


R-E00 (1993-2013-JPNIMP2016)



Japanese pufferfish Ise and Mikawa Bay [JPUFFIMKB]

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



TAC*, Cpair*, Cadv*



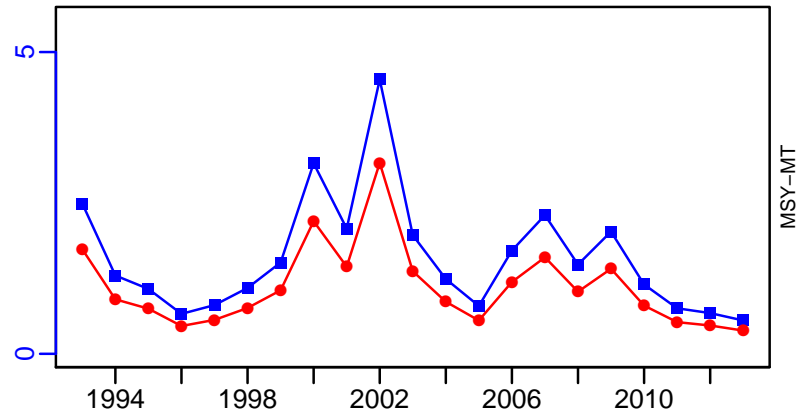
CPUE*



EFFORT*



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



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

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

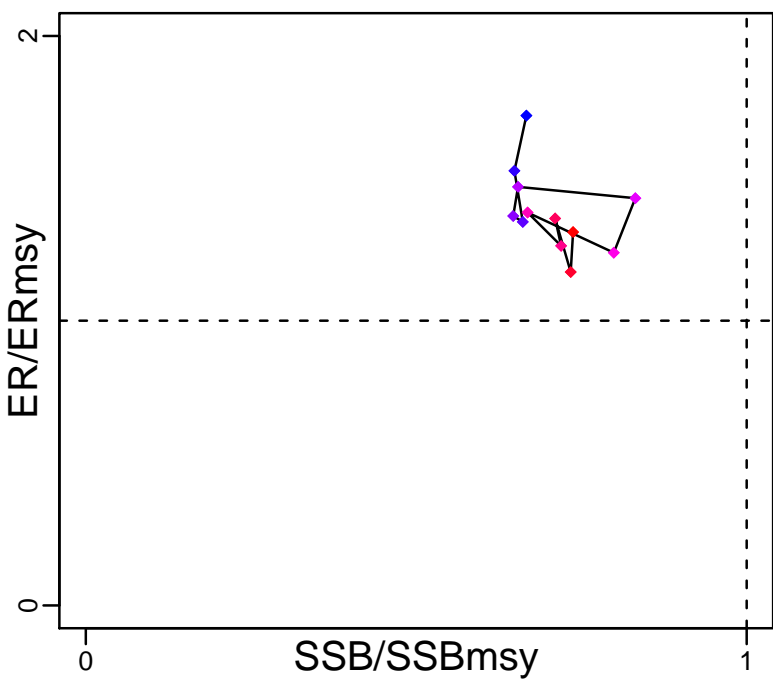
Metadata	
Scientific Name	Takifugu rubripes
Current Assess ID	FAFRFJ-JPUFFSOJECSSI-1993-2013-JPNIMP2016
Area	Sea of Japan and East China Sea and Seto Inland sea
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013

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

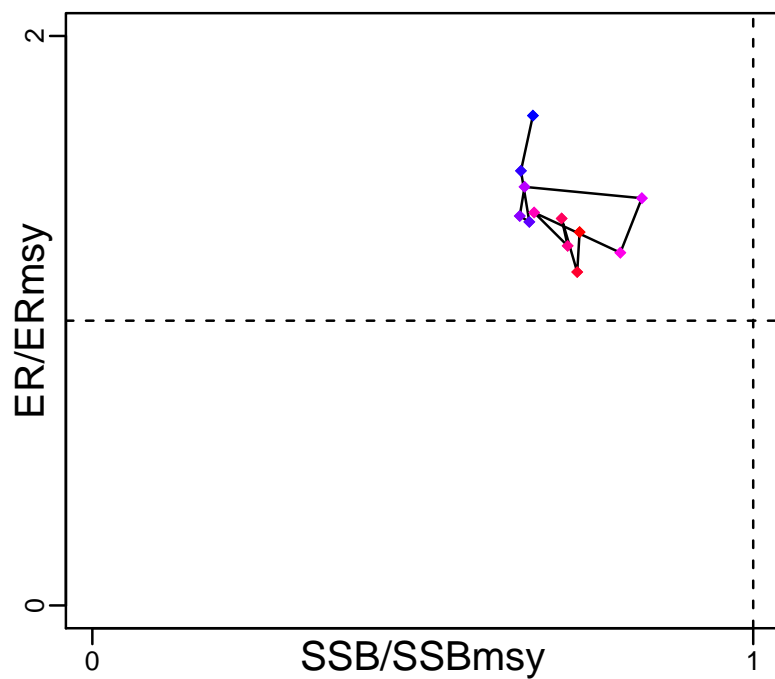
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	829	-	0
SSB	SSB-MT	2013	407	Both	3
TN	-	-	-	-	-
R	R-E00	2013	203,000	-	0
F	-	-	-	-	-
ER	ER-calc-ratio	2013	0.302	-	-
TC	TC-MT	2013	250		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2013	0.74		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013	0.737		
F/Fmsy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

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

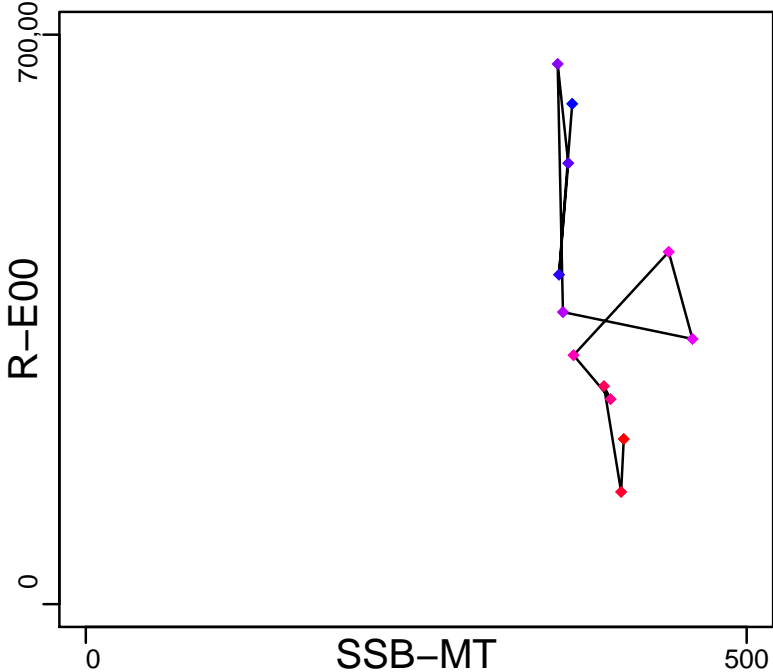
Kobe MSYpref (1993–2013–JPNIMP2016)



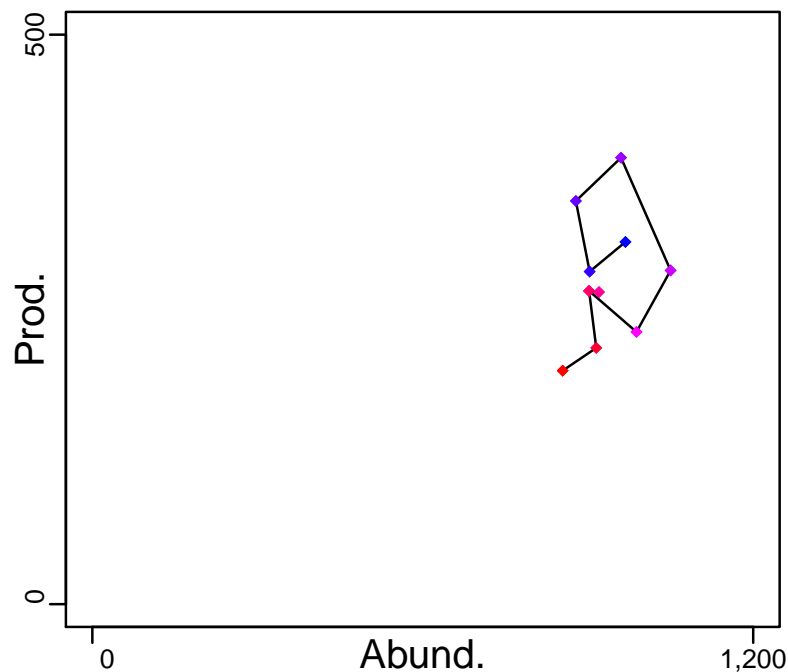
Kobe MGTpref (1993–2013–JPNIMP2016)



Spawner Recruit (1993–2013–JPNIMP2016)



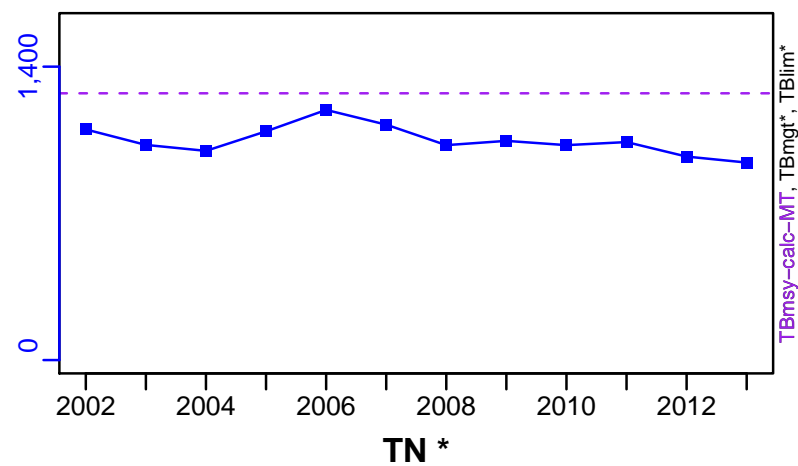
Production (1993–2013–JPNIMP2016)



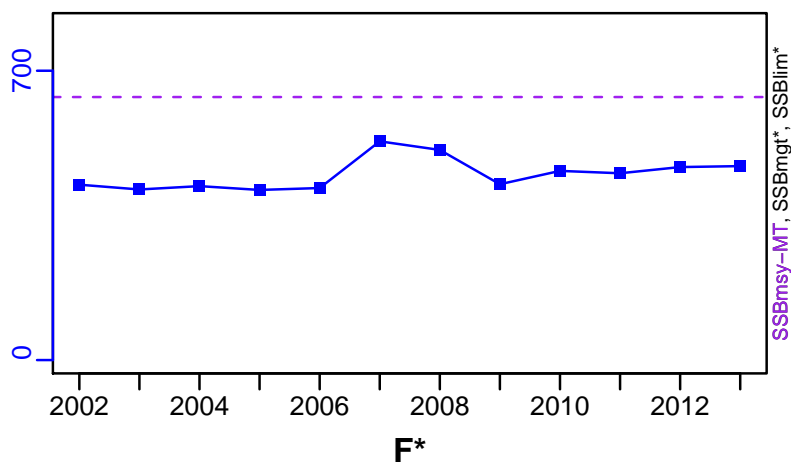
◆ Start Year ◆ End Year * No Data

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

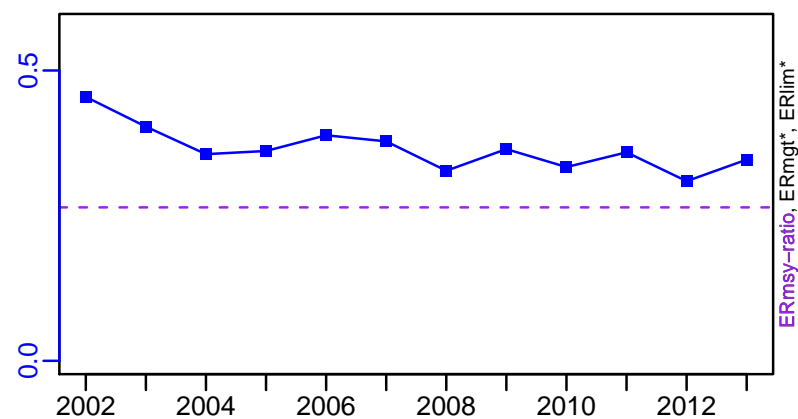
TB-MT (1993–2013–JPNIMP2016)



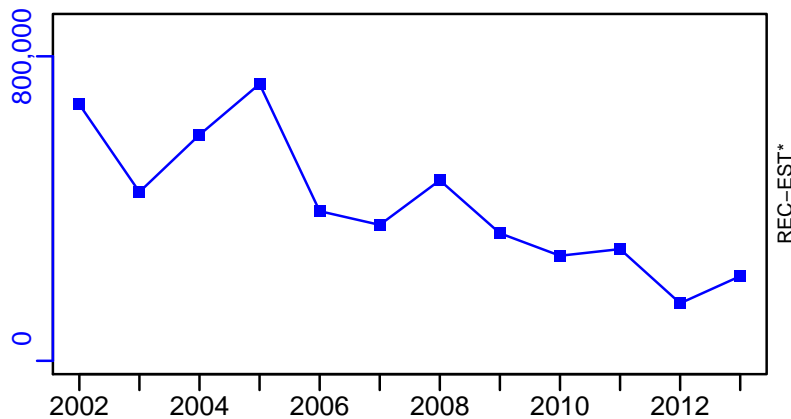
SSB-MT (1993–2013–JPNIMP2016)



ER-calc-ratio (1993–2013–JPNIMP2016)

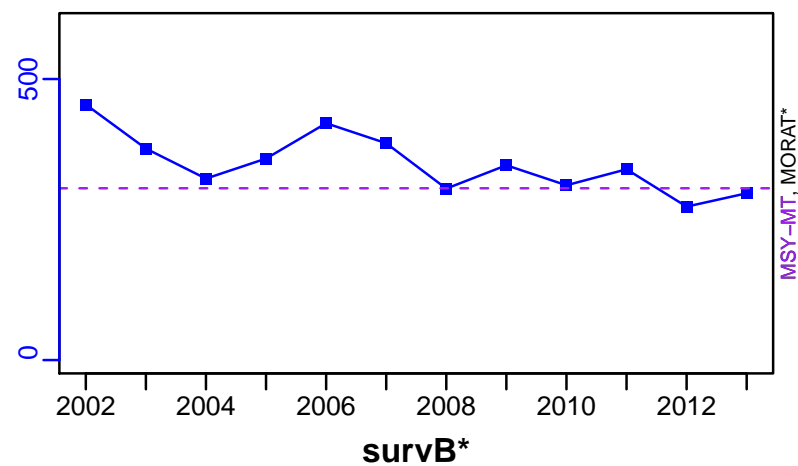


R-E00 (1993–2013–JPNIMP2016)



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

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



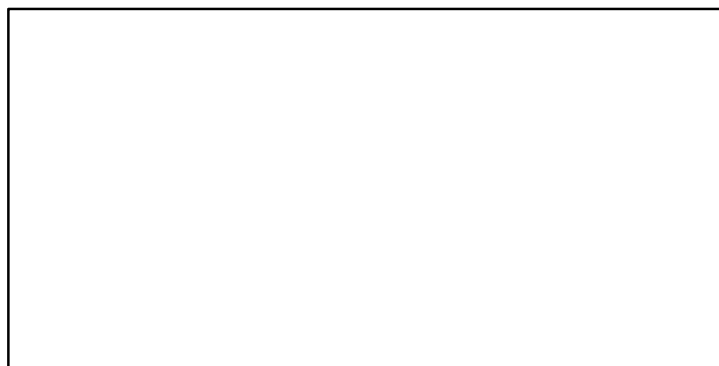
TAC*, Cpair*, Cadv*



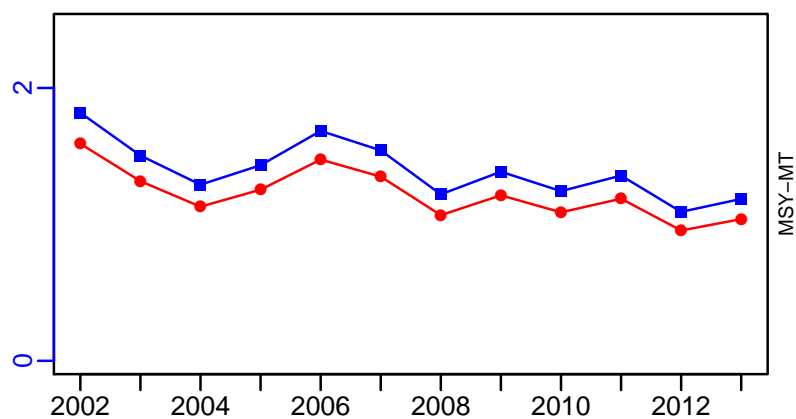
CPUE*



EFFORT*



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



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

Japanese snapper Okinawa Islands [JSNAPOKWI]

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

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

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

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Japanese snapper Okinawa Islands [JSNAPOKWI]

TB*



SSB*



TN *



F*



ER*

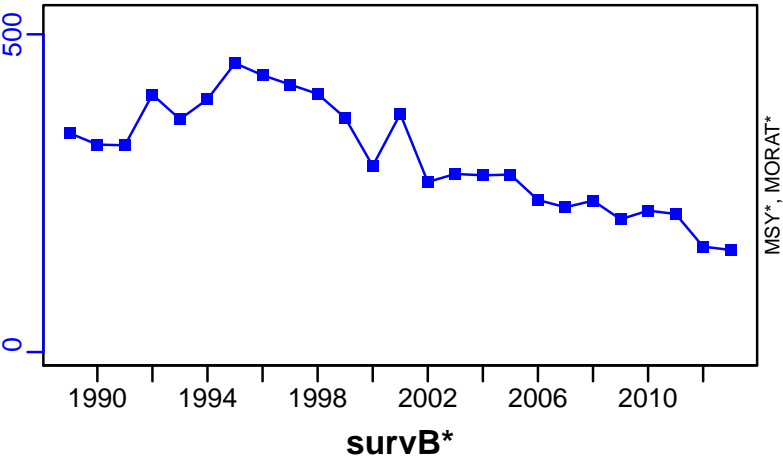


Recruits*



Japanese snapper Okinawa Islands [JSNAPOKWI]

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



TAC*, Cpair*, Cadv*



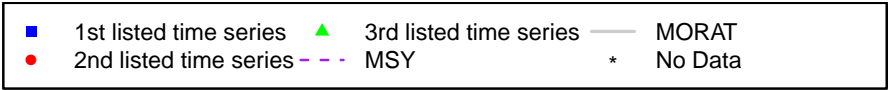
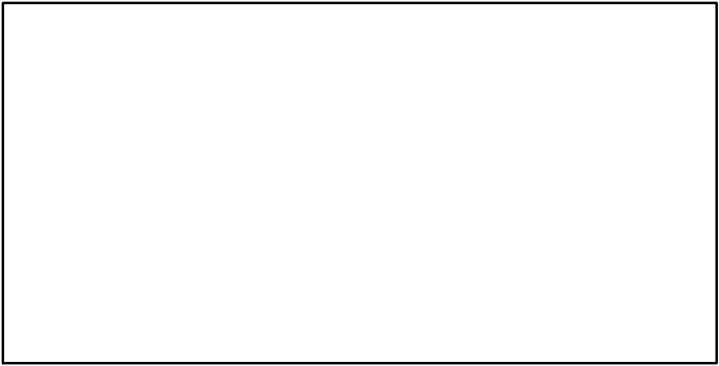
CPUE*



EFFORT*



CdivMSY*



Kichiji rockfish North Pacific [KCROCKNPAC]

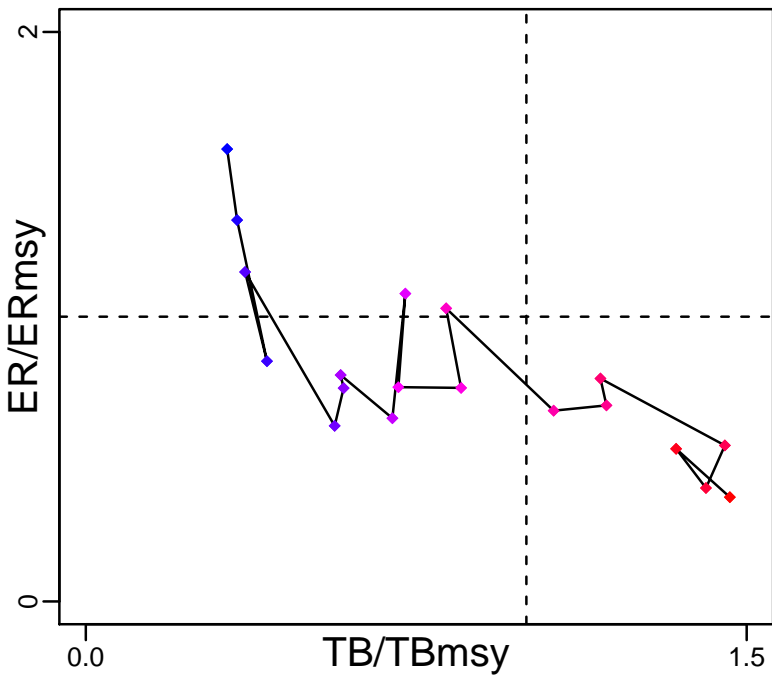
Metadata	
Scientific Name	Sebastes macrochir
Current Assess ID	FAFRFJ-KCROCKNPAC-1975-2013-JPNIMP2016
Area	North Pacific
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013

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

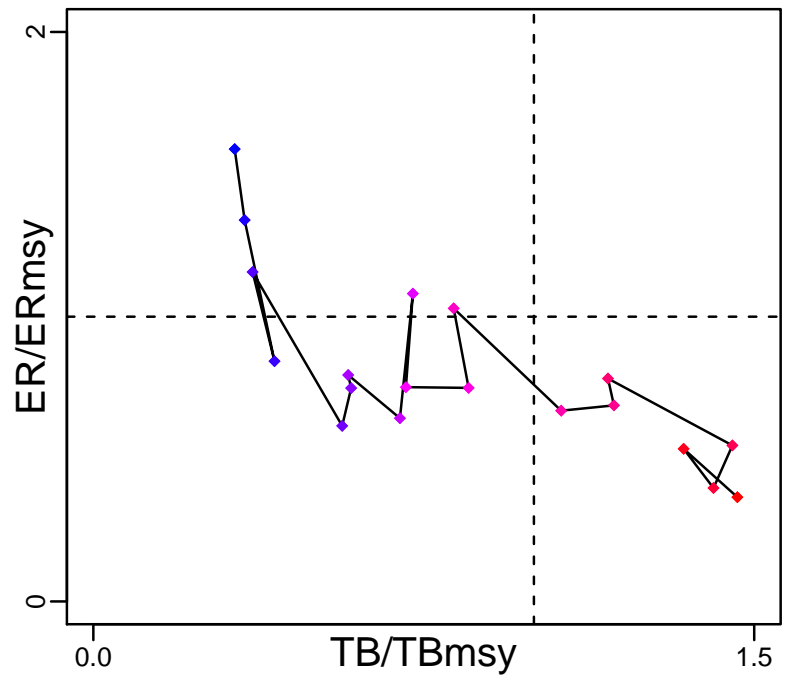
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	6470	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-calc-ratio	2013	0.062	-	-
TC	TC-MT	2013	398		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-MT	2013	1.462		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	ER-calc-ratio/ERmsy-ratio	2013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

Kichiji rockfish North Pacific [KCROCKNPAC]

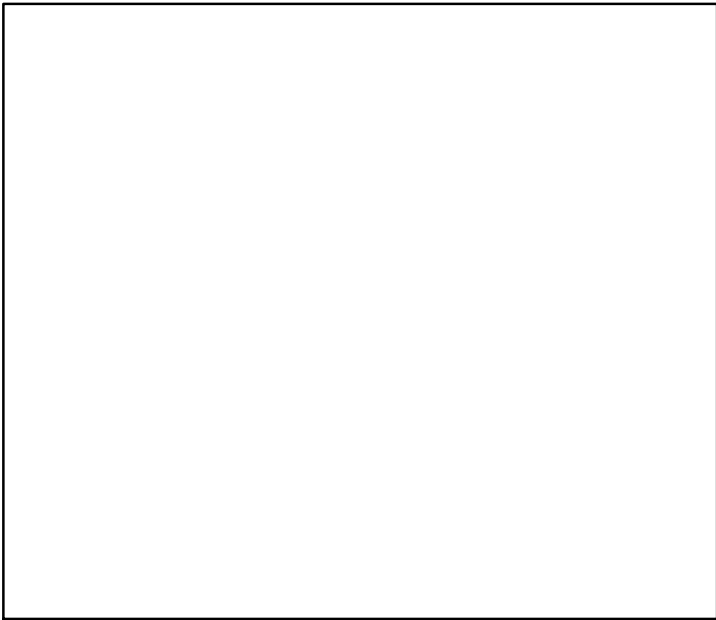
Kobe MSYpref (1975–2013–JPNIMP2016)



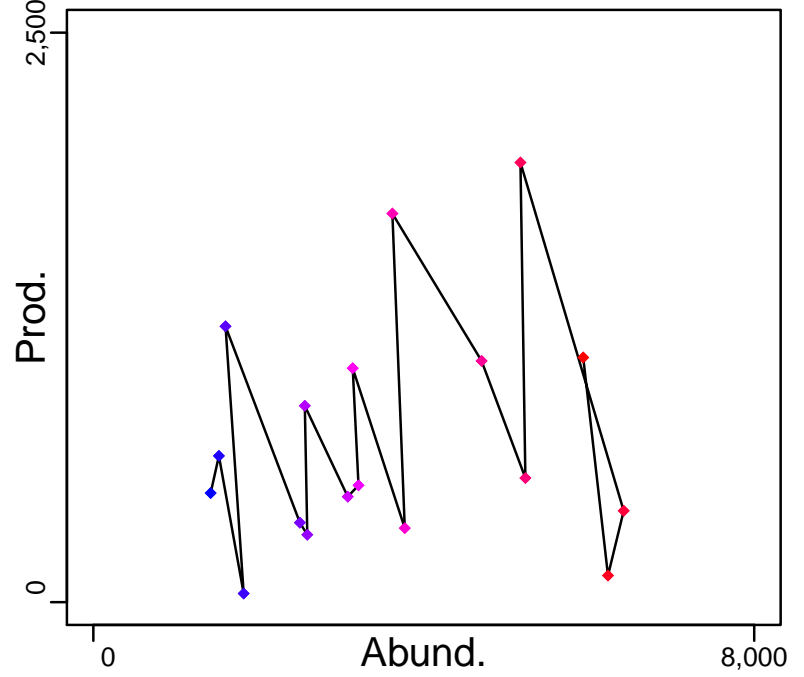
Kobe MGTpref (1975–2013–JPNIMP2016)



Spawner Recruit*



Production (1975–2013–JPNIMP2016)

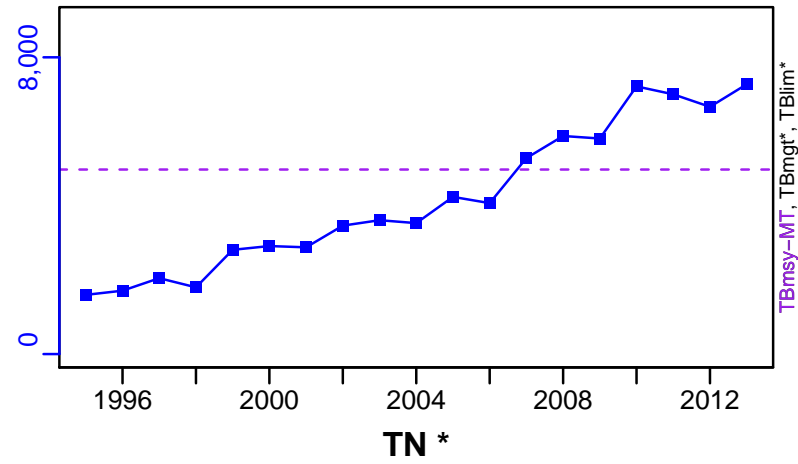


◆ Start Year ◆ End Year * No Data

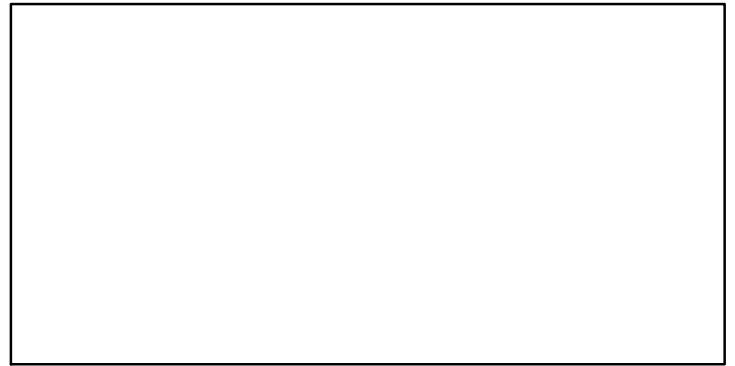
Kichiji rockfish North Pacific [KCROCKNPAC]

TB-MT (1975-2013-JPNIMP2016)

SSB*

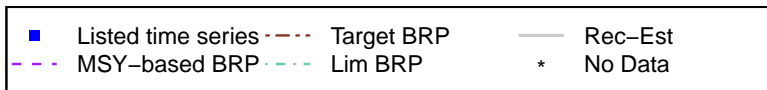
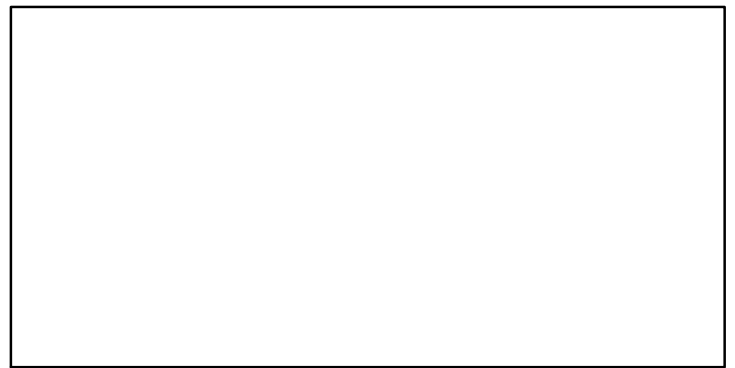
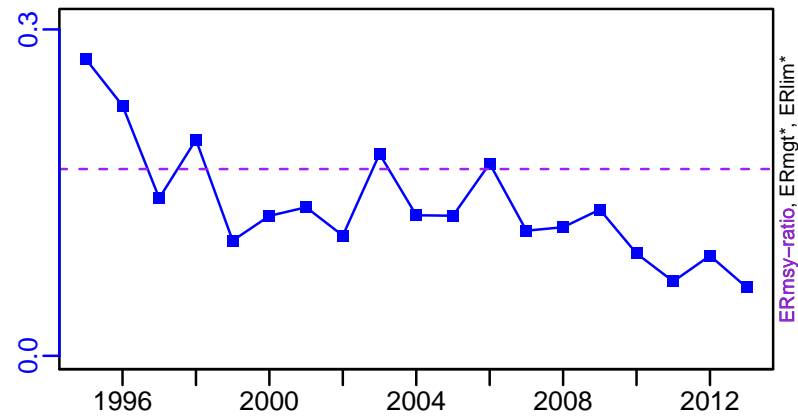


F*



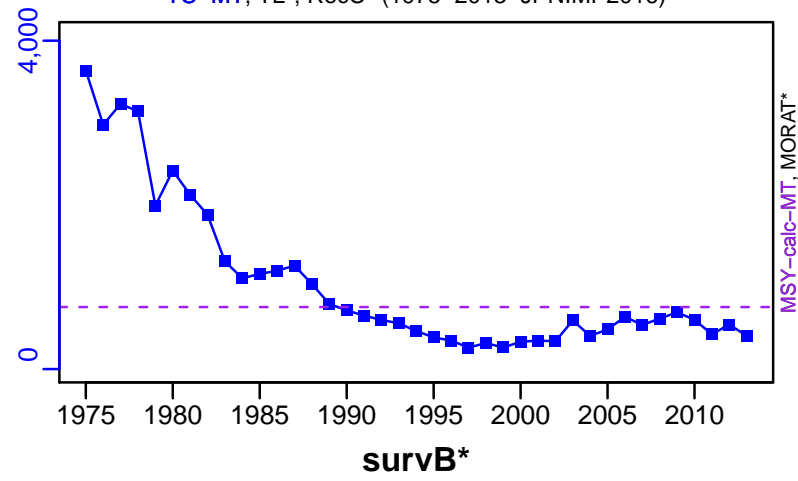
ER-calc-ratio (1975-2013-JPNIMP2016)

Recruits*



Kichiji rockfish North Pacific [KCROCKNPAC]

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



TAC*, Cpair*, Cadv*



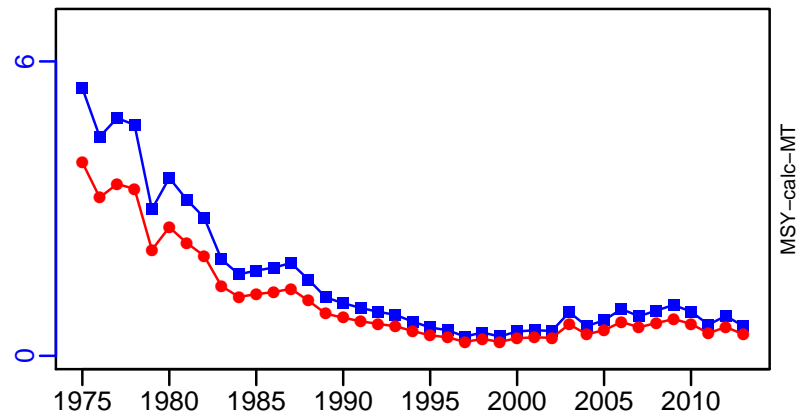
CPUE*



EFFORT*



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



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

Kichiji rockfish Okhotsk Sea [KCROCKOKS]

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

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

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

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Kichiji rockfish Okhotsk Sea [KCROCKOKS]

TB*



SSB*



TN *



F*



ER*



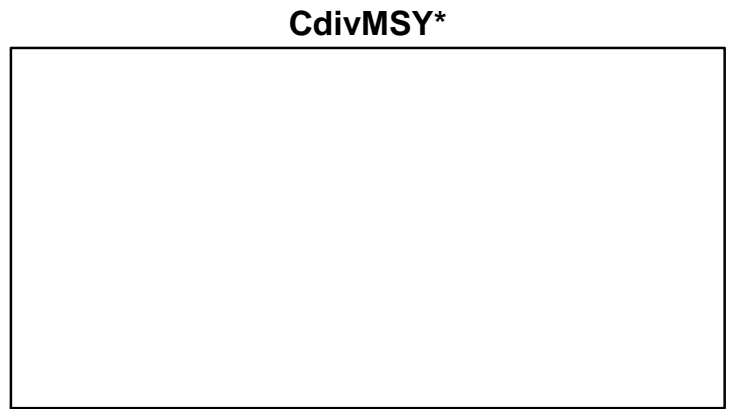
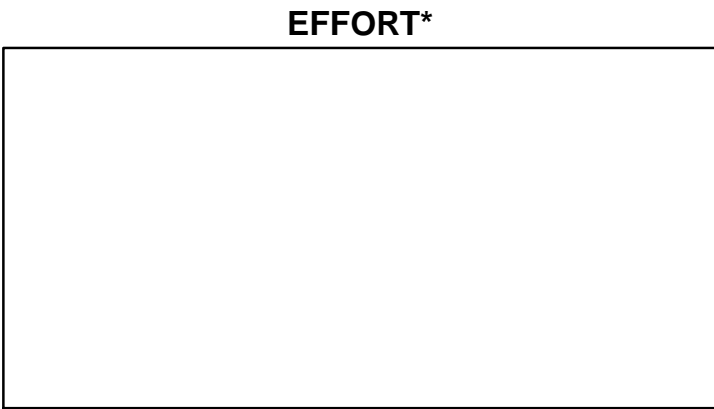
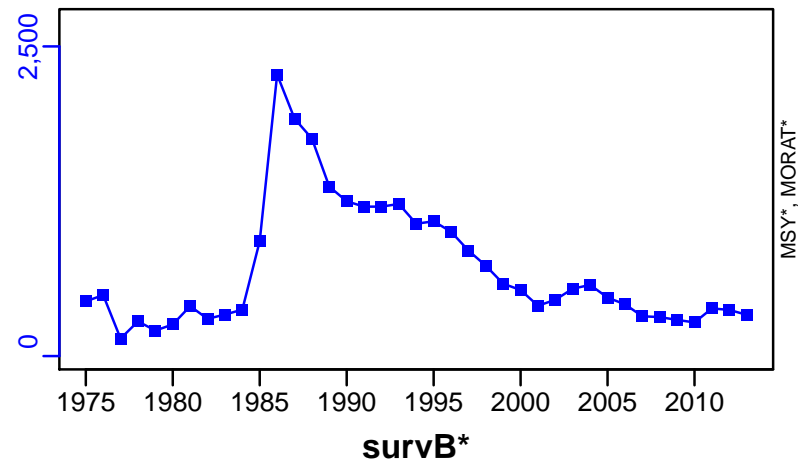
Recruits*



Kichiji rockfish Okhotsk Sea [KCROCKOKS]

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

TAC*, Cpair*, Cadv*



Kichiji rockfish Southwestern coast of Hokkaido [KCROCKSWHOKK]

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

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

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

Kobe MSY*



Kobe MGT*



Spawner Recruit*



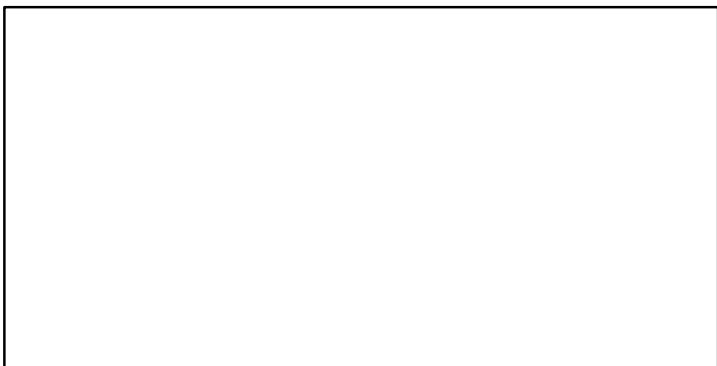
Production*



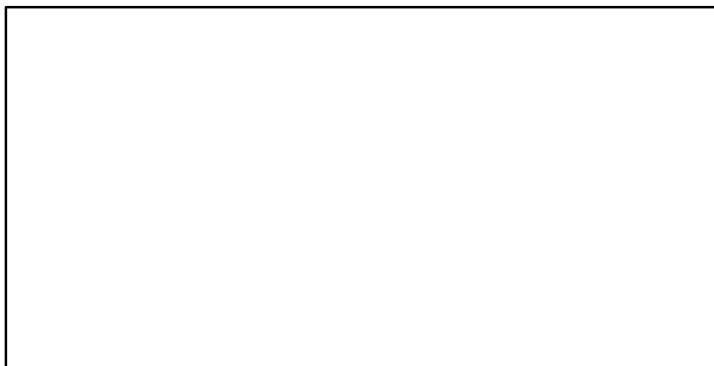
◆ Start Year ◆ End Year * No Data

Kichiji rockfish Southwestern coast of Hokkaido [KCROCKSWHOKK]

TB*



SSB*



TN *



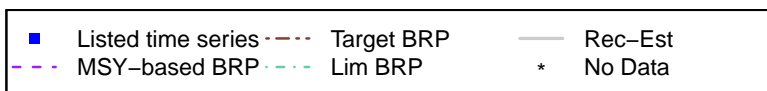
F*



ER*



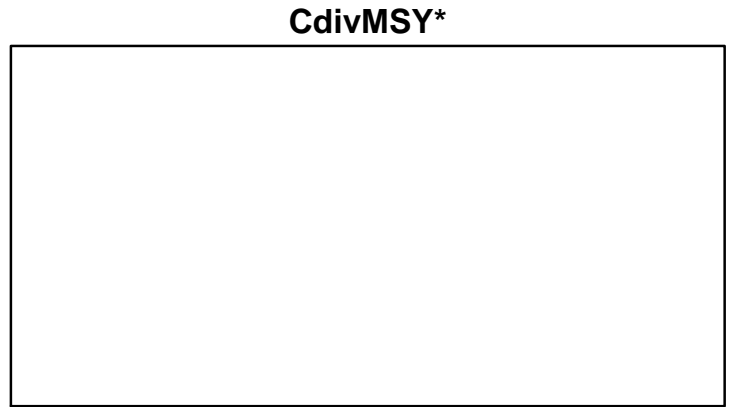
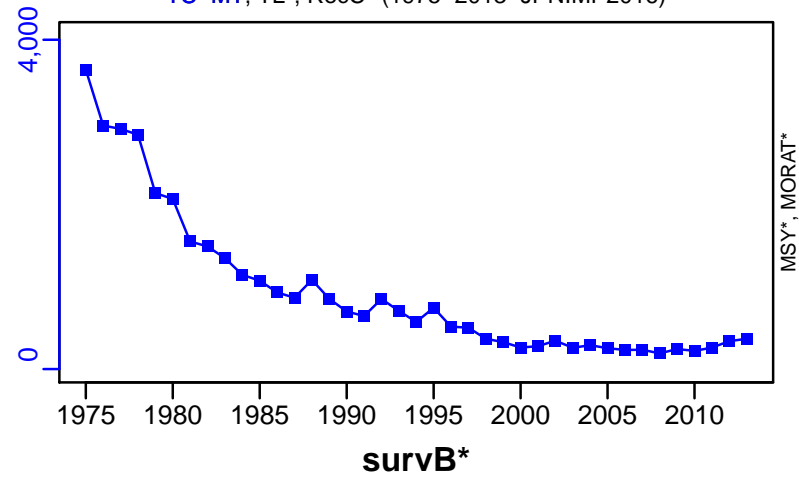
Recruits*



Kichiji rockfish Southwestern coast of Hokkaido [KCROCKSWHOKK]

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

TAC*, Cpair*, Cadv*



Longfin codling Pacific Ocean [LCODLINGPAC]

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

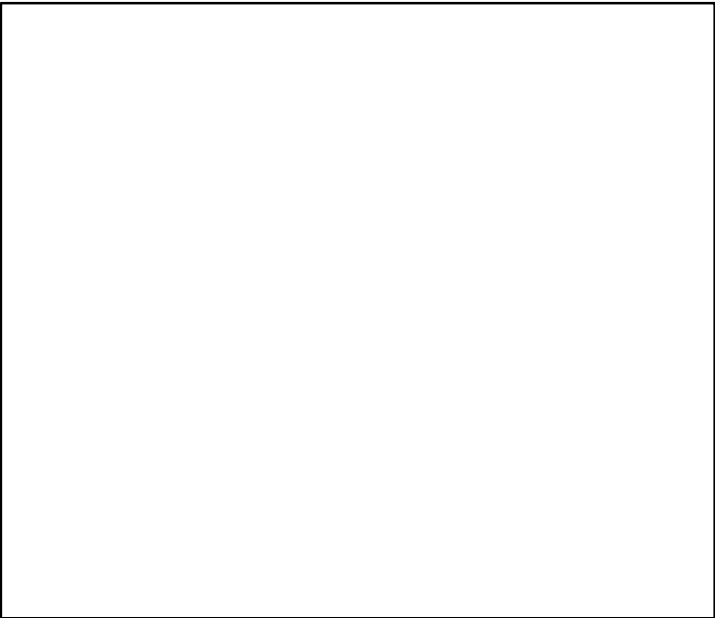
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

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

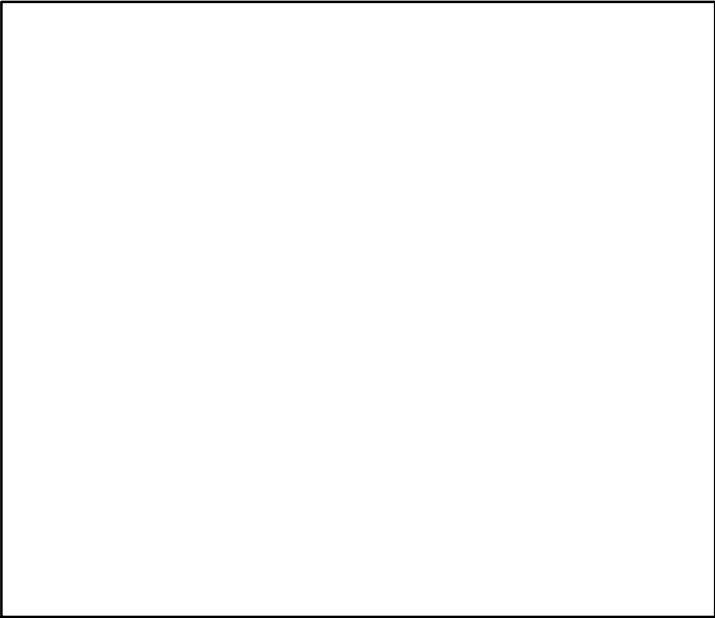
Kobe MSY*



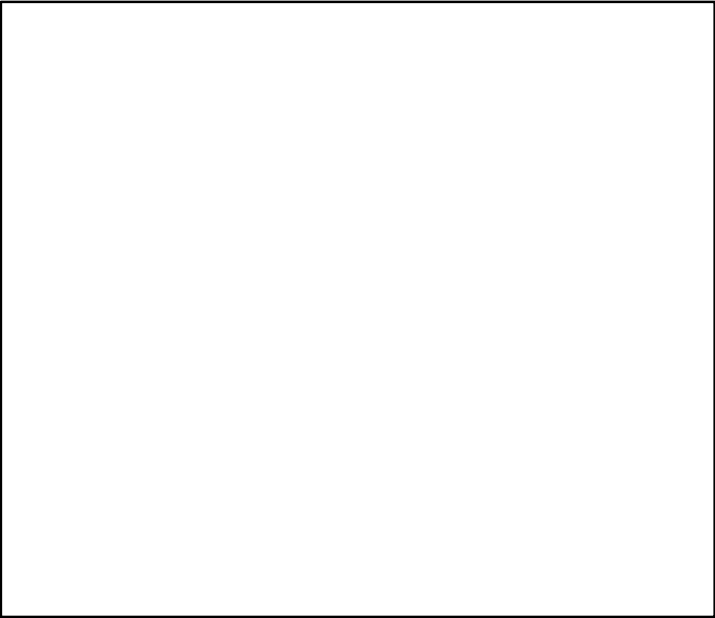
Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Longfin codling Pacific Ocean [LCODLINGPAC]

TB*



SSB*



TN *



F*



ER*



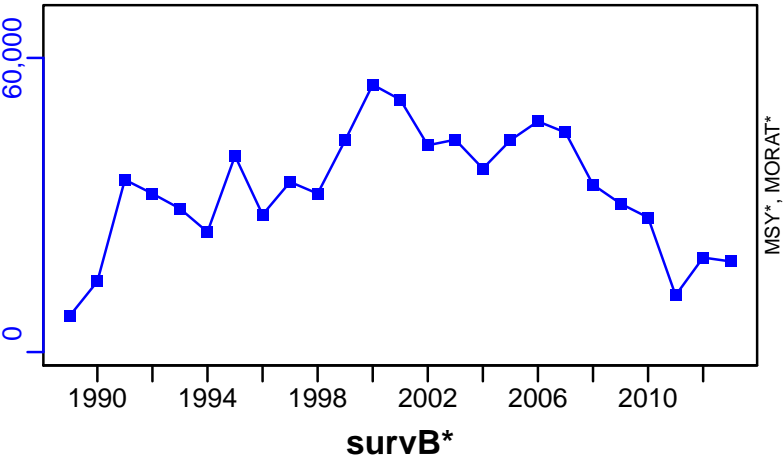
Recruits*



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

Longfin codling Pacific Ocean [LCODLINGPAC]

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



TAC*, Cpair*, Cadv*



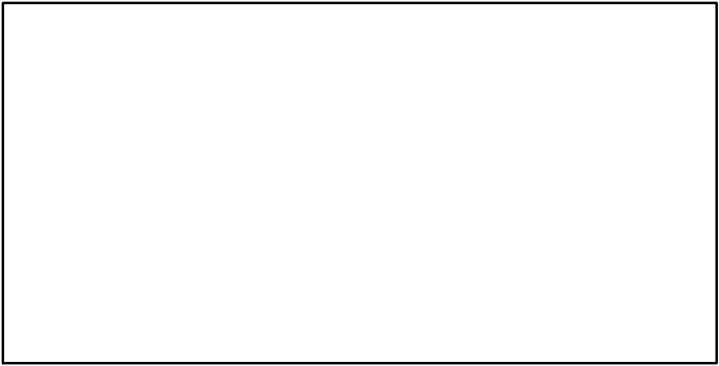
CPUE*



EFFORT*



CdivMSY*



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

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

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

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

Kobe MSY*



Kobe MGT*



Spawner Recruit*



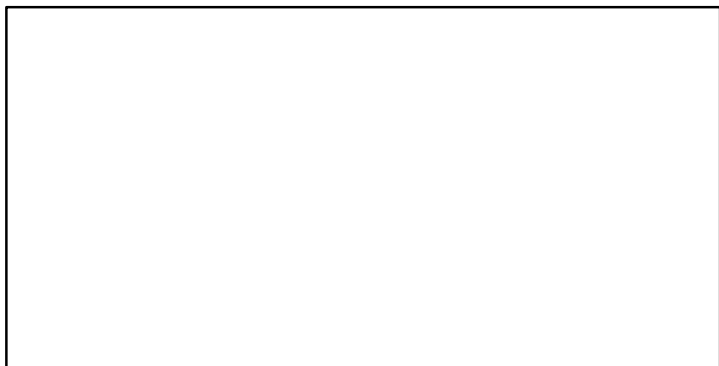
Production*



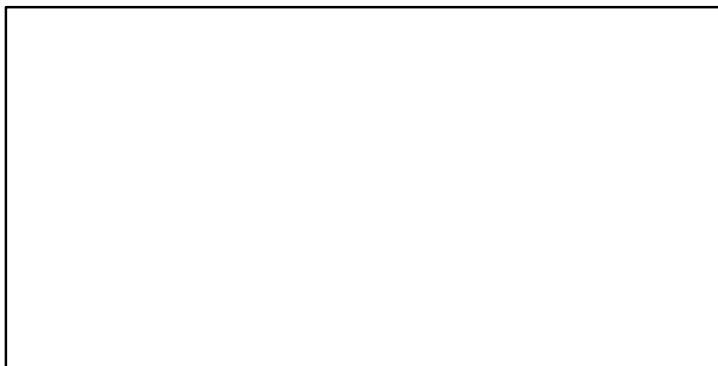
◆ Start Year ◆ End Year * No Data

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

TB*



SSB*



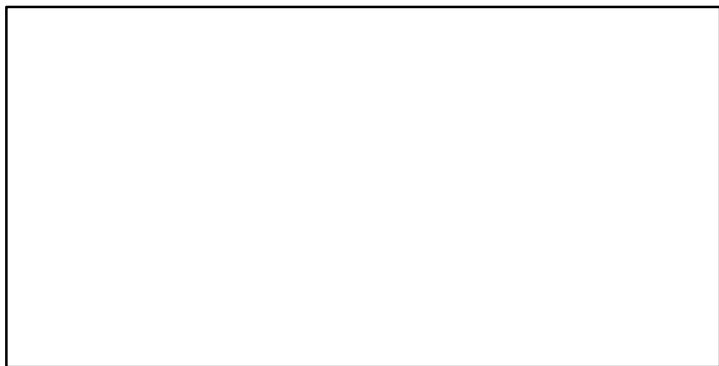
TN *



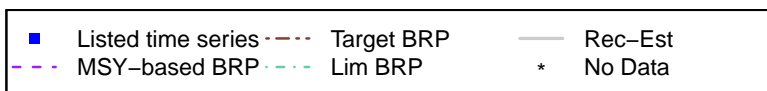
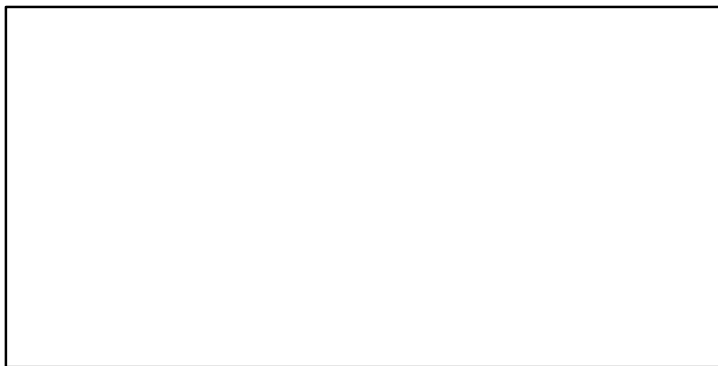
F*



ER*



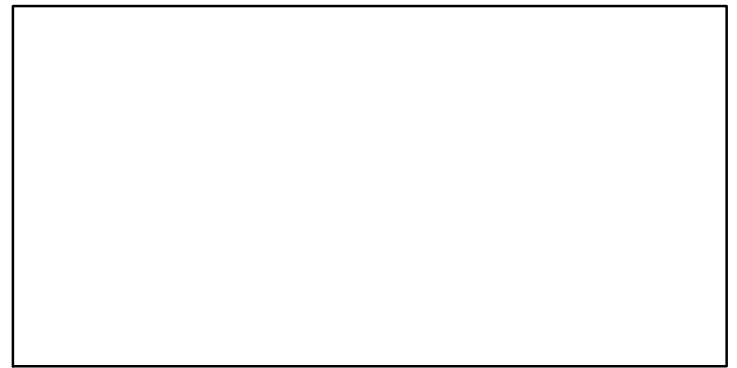
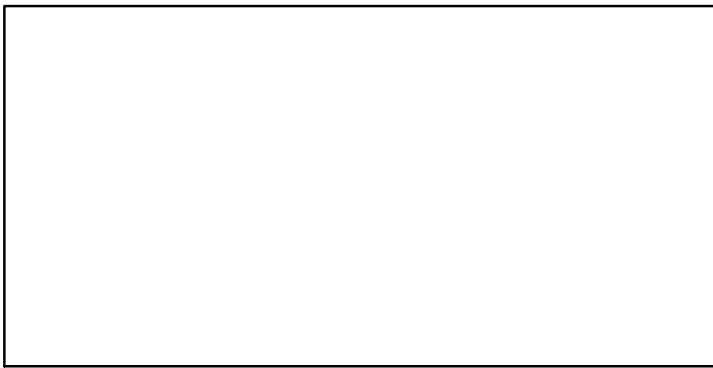
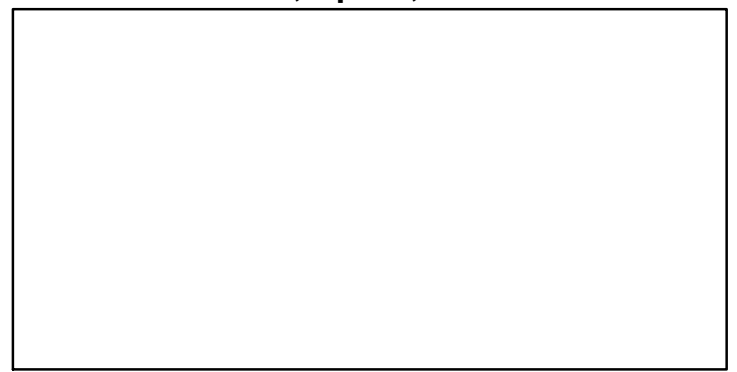
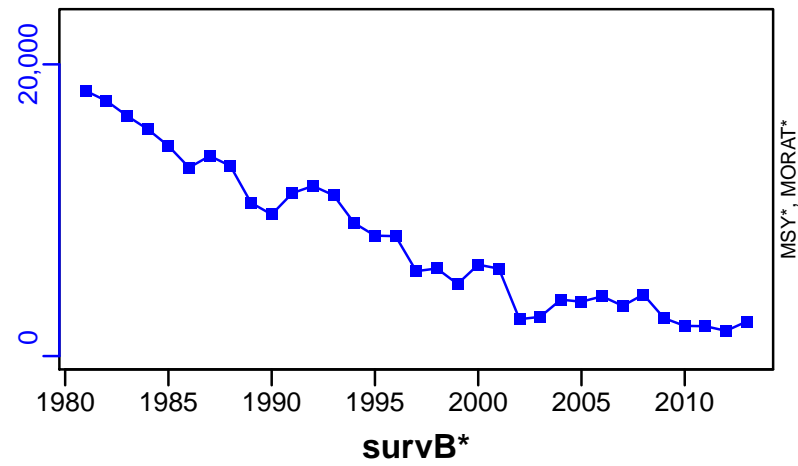
Recruits*



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

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

TAC*, Cpair*, Cadv*



Lavender jobfish Okinawa Islands [LJOBOKWI]

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

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

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

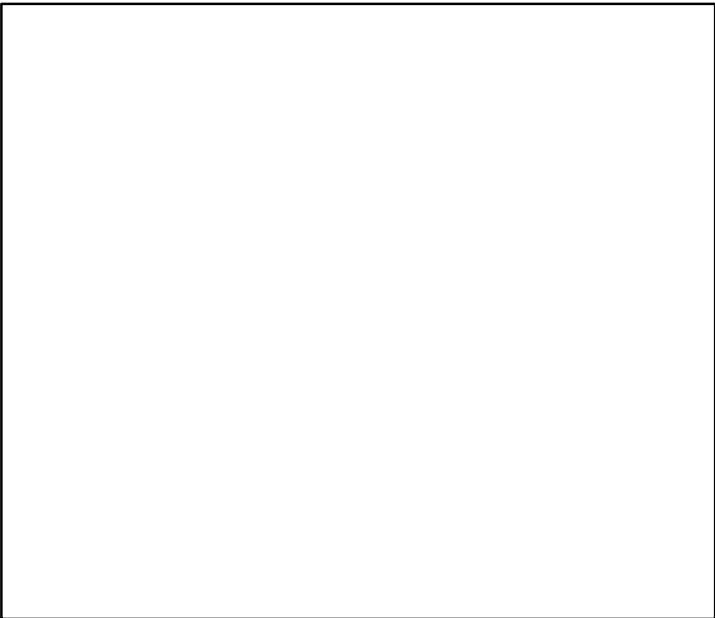
Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Lavender jobfish Okinawa Islands [LJOBOKWI]

TB*



SSB*



TN *



F*



ER*



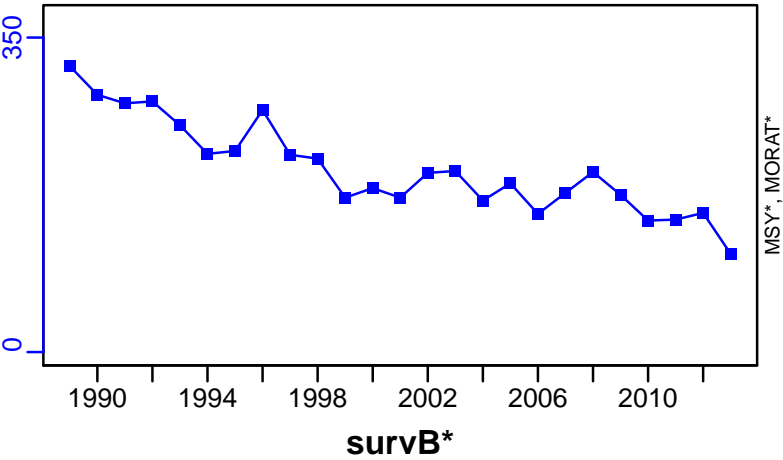
Recruits*



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

Lavender jobfish Okinawa Islands [LJOBOKWI]

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



TAC*, Cpair*, Cadv*



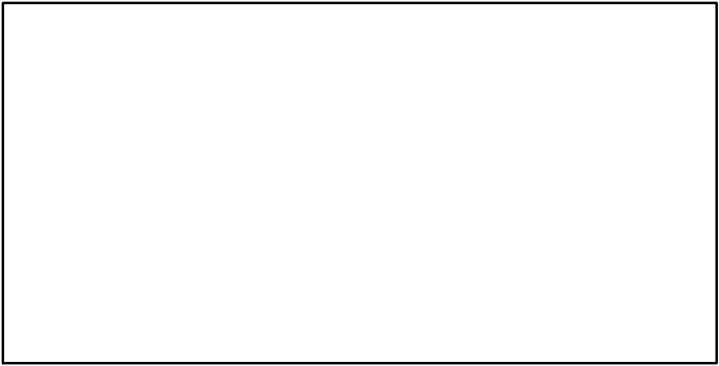
CPUE*



EFFORT*



CdivMSY*



Japanese flounder East China Sea [OFLOUNECS]

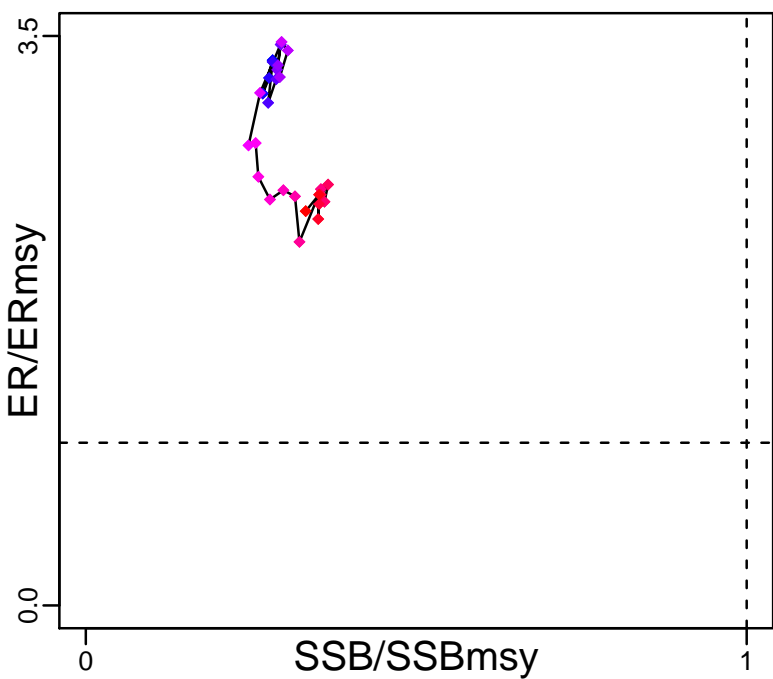
Metadata	
Scientific Name	Paralichthys olivaceus
Current Assess ID	FAFRFJ-OFLOUNECS-1975-2013-JPNIMP2016
Area	East China Sea
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013, 2010

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

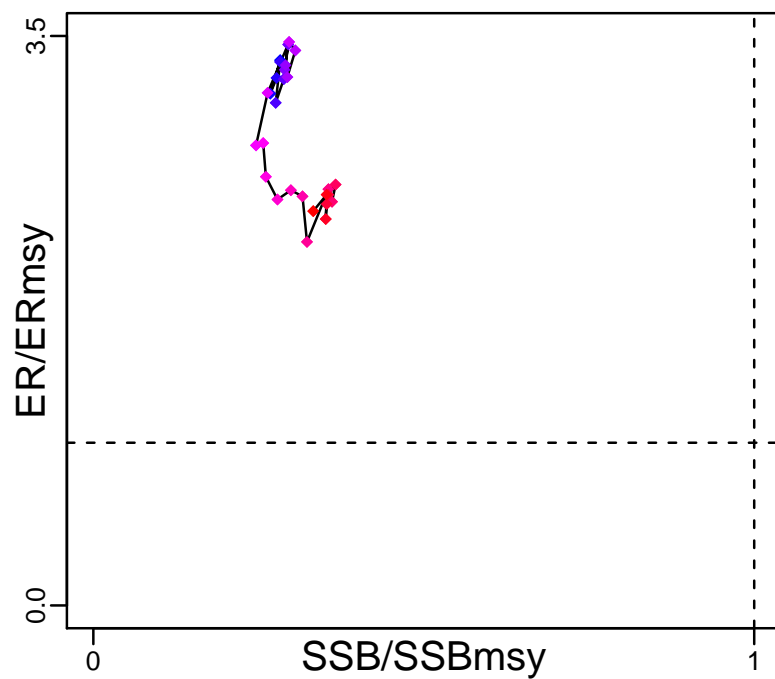
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	3170	-	1
SSB	SSB-MT	2013	2460	Both	2
TN	-	-	-	-	-
R	R-E00	2013	1,290,000	-	0
F	F-1/yr	2010	0.59	-	0 to 7
ER	ER-calc-ratio	2013	0.366	-	-
TC	TC-MT	2013	1160		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2013	0.405		
SSB/SSBmsy	SSB-MT/SSBmsy-MT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

Japanese flounder East China Sea [OFLOUNECS]

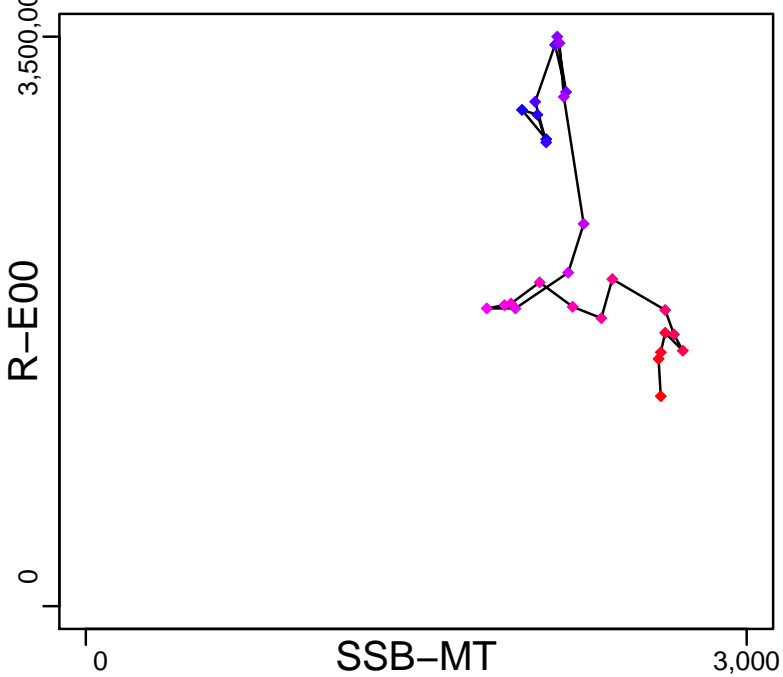
Kobe MSYpref (1975–2013–JPNIMP2016)



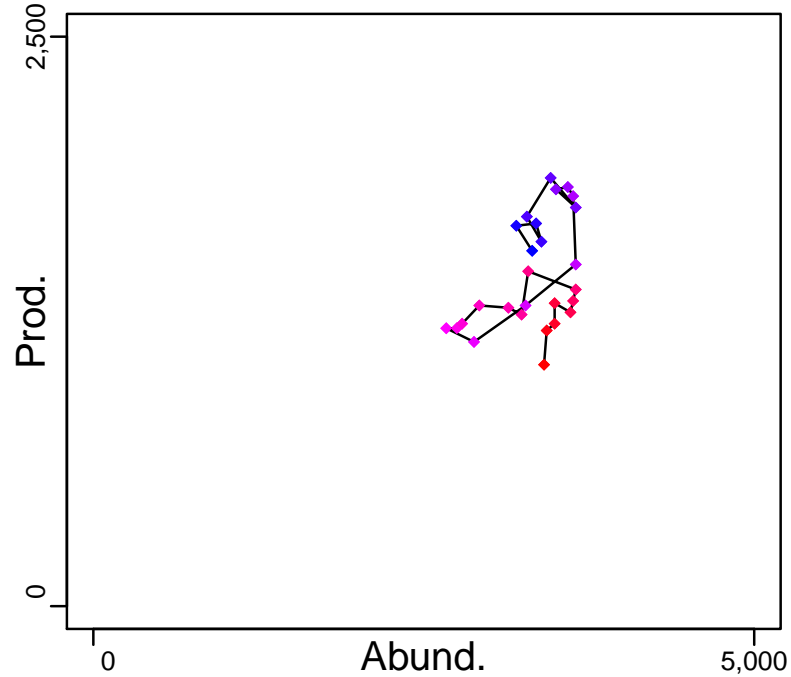
Kobe MGTpref (1975–2013–JPNIMP2016)



Spawner Recruit (1975–2013–JPNIMP2016)



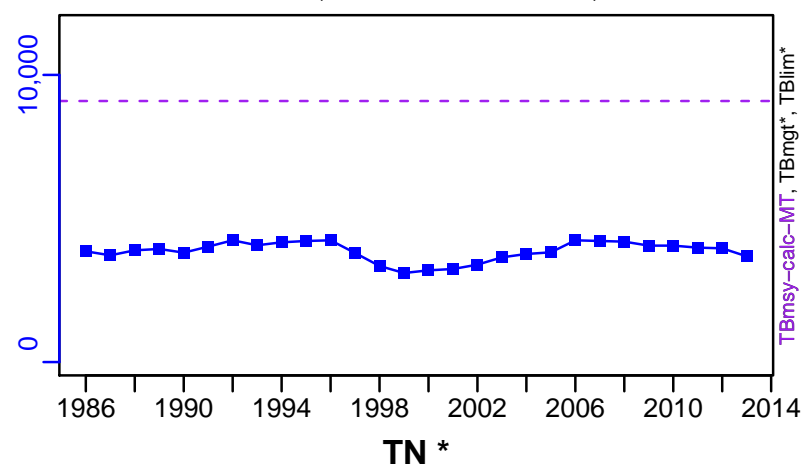
Production (1975–2013–JPNIMP2016)



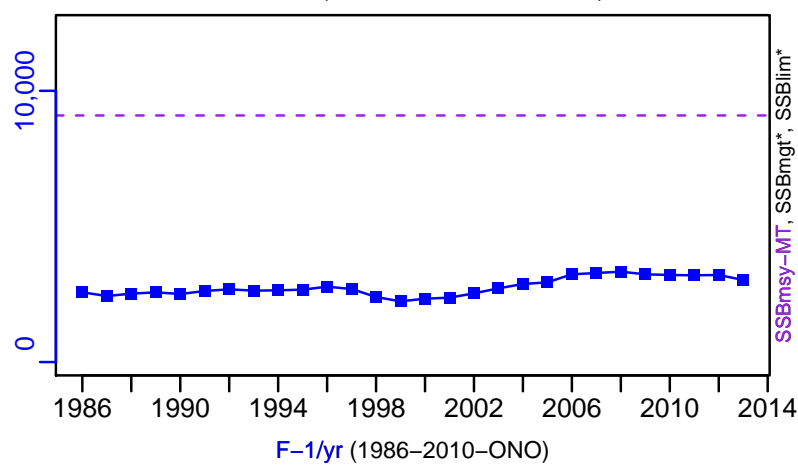
◆ Start Year ◆ End Year * No Data

Japanese flounder East China Sea [OFLOUNECS]

TB-MT (1975-2013-JPNIMP2016)



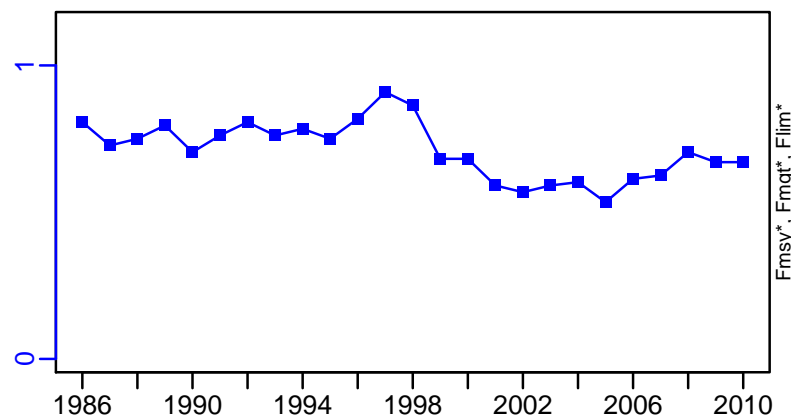
SSB-MT (1975-2013-JPNIMP2016)



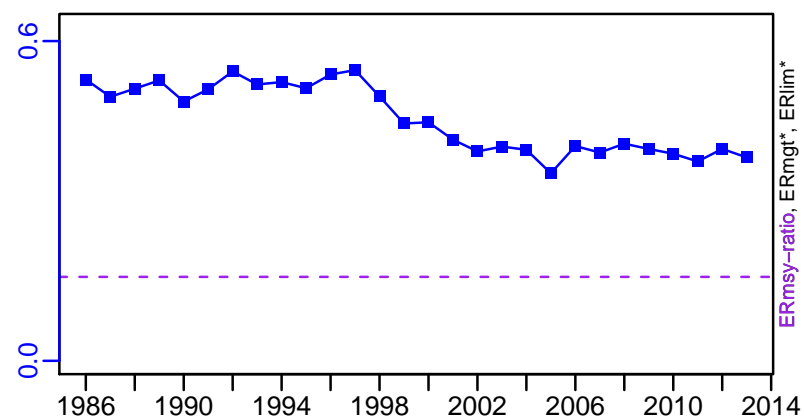
TN *



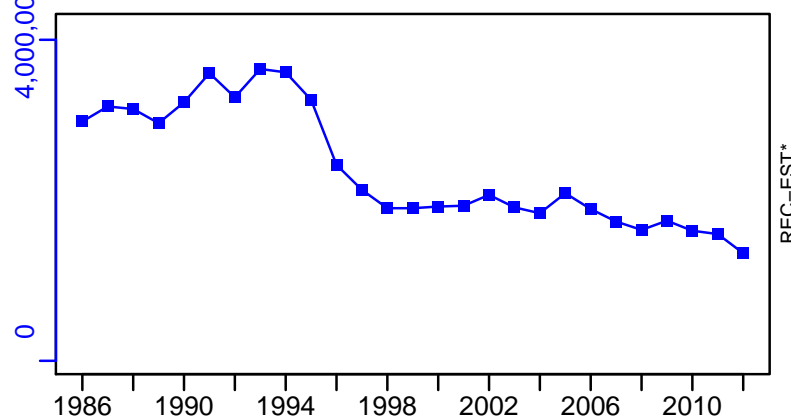
F-1/yr (1986-2010-ONO)



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

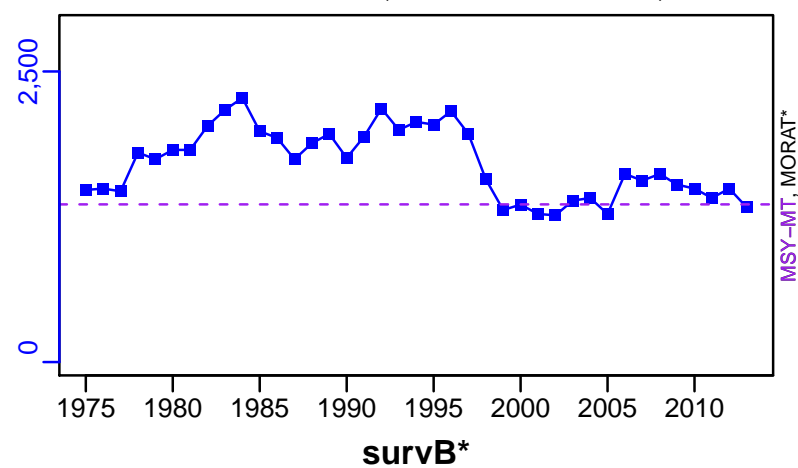


R-E00 (1975-2013-JPNIMP2016)



Japanese flounder East China Sea [OFLOUNECS]

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



TAC*, Cpair*, Cadv*



survB*



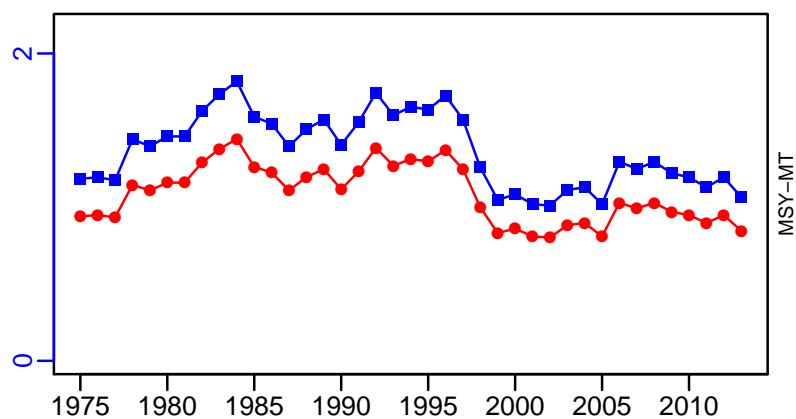
CPUE*



EFFORT*



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



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

Japanese flounder Sea of Japan North [OFLOUNNSJ]

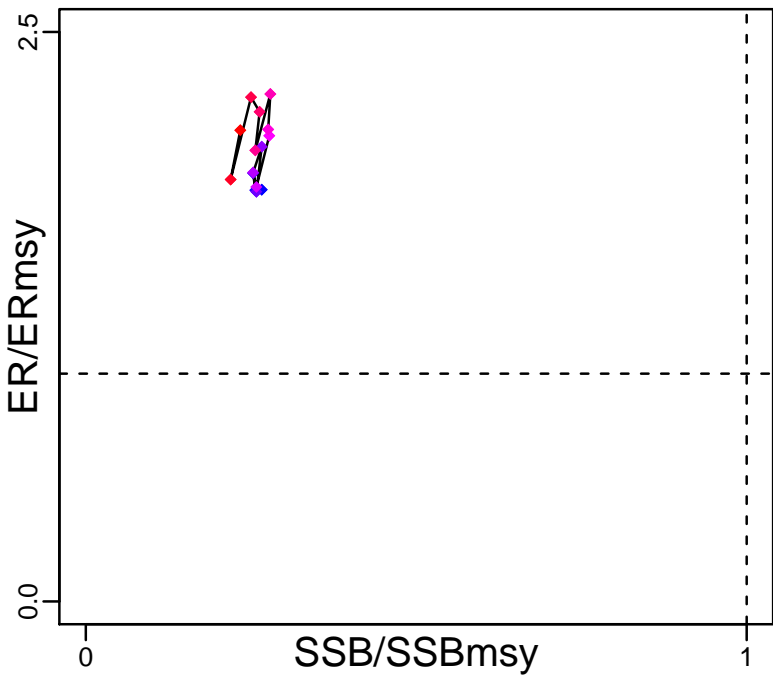
Metadata	
Scientific Name	Paralichthys olivaceus
Current Assess ID	FAFRFJ-OFLOUNNSJ-1970-2013-JPNIMP2016
Area	Sea of Japan North
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013, 2010

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

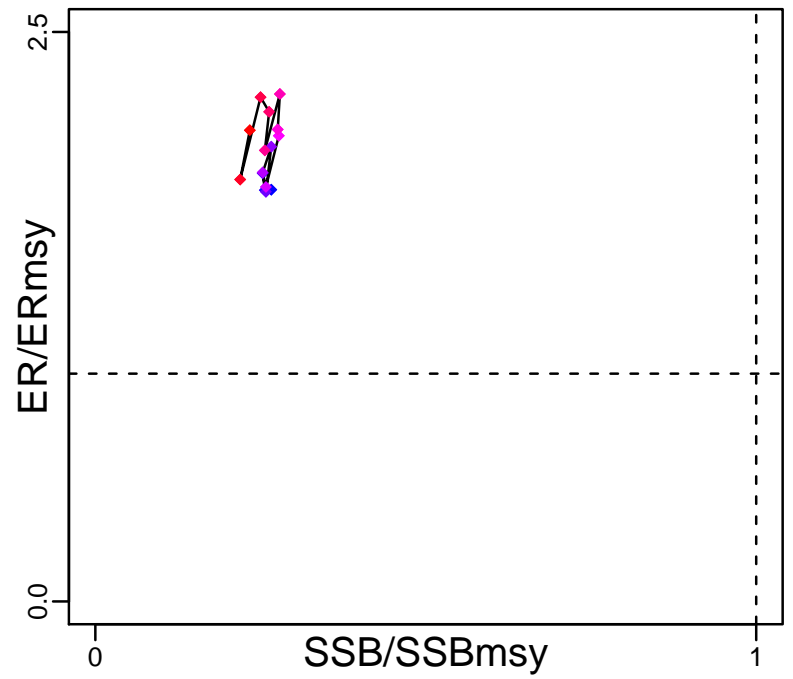
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	2210	-	1
SSB	SSB-MT	2013	1440	Both	2
TN	-	-	-	-	-
R	R-E00	2013	1,990,000	-	1
F	-	-	-	-	-
ER	ER-calc-ratio	2013	0.449	-	-
TC	TC-MT	2013	992		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2013	0.308		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013	0.234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

Japanese flounder Sea of Japan North [OFLOUNNSJ]

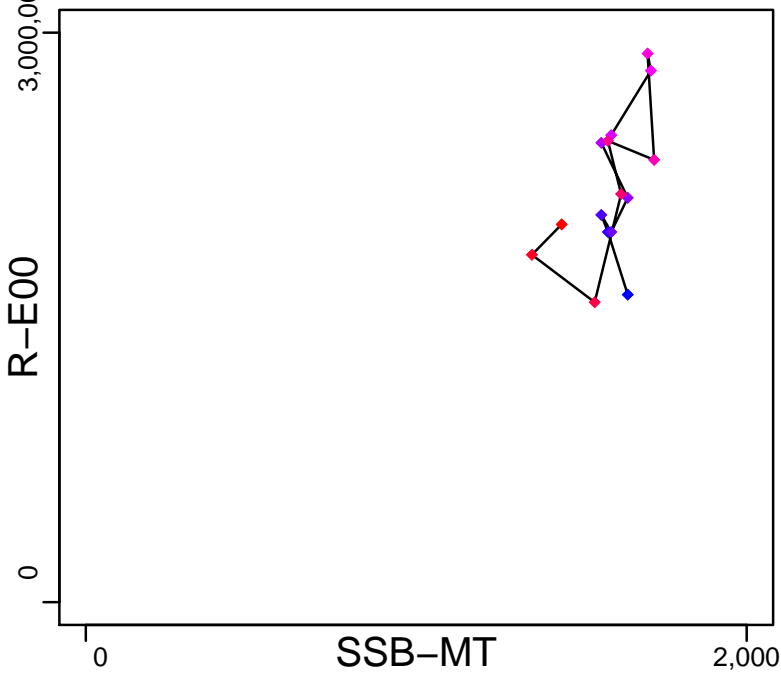
Kobe MSYpref (1970–2013–JPNIMP2016)



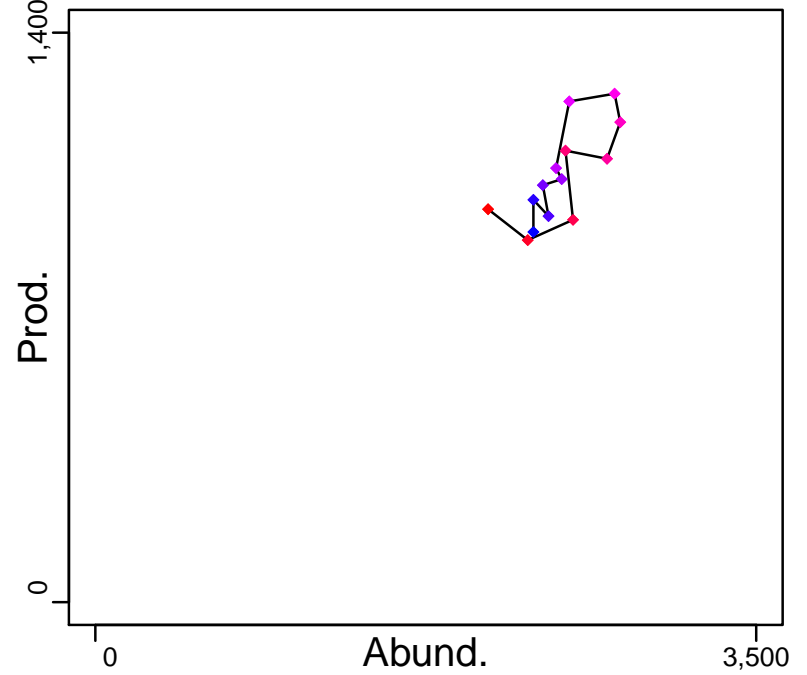
Kobe MGTpref (1970–2013–JPNIMP2016)



Spawner Recruit (1970–2013–JPNIMP2016)



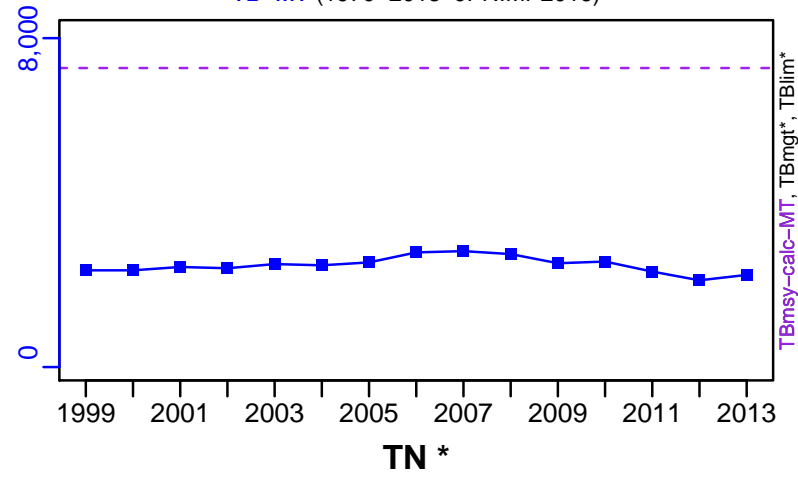
Production (1970–2013–JPNIMP2016)



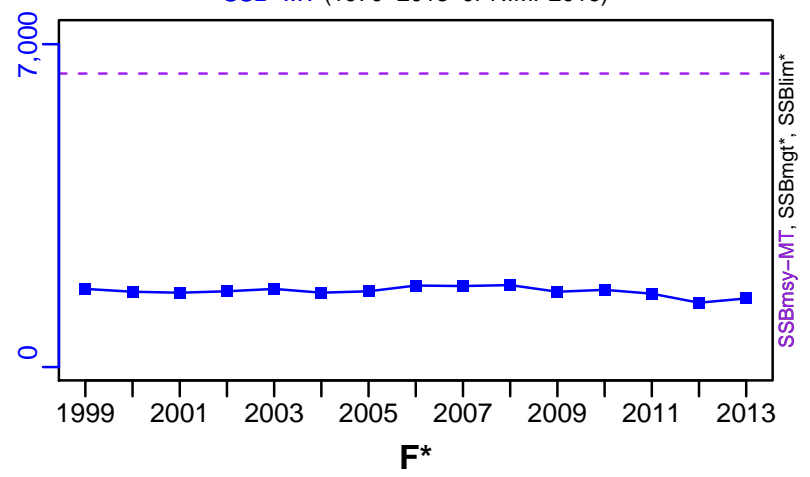
◆ Start Year ◆ End Year * No Data

Japanese flounder Sea of Japan North [OFLOUNNSJ]

TB-MT (1970-2013-JPNIMP2016)



SSB-MT (1970-2013-JPNIMP2016)



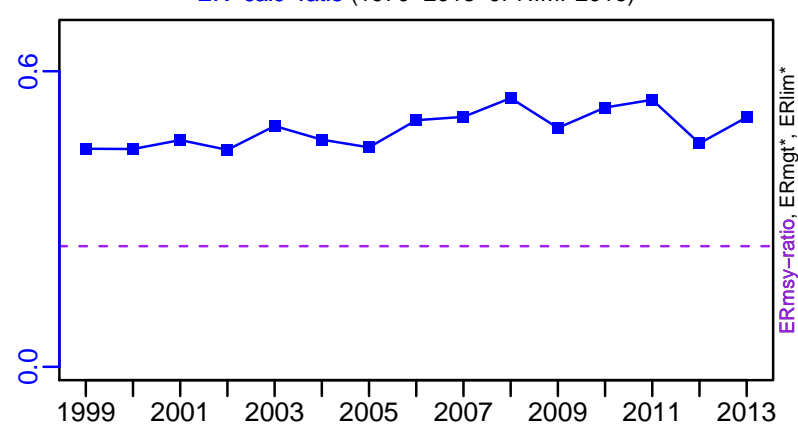
TN *



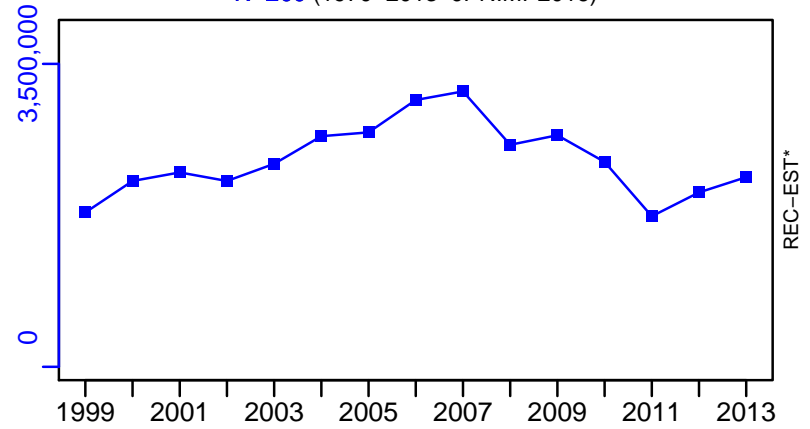
F*



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



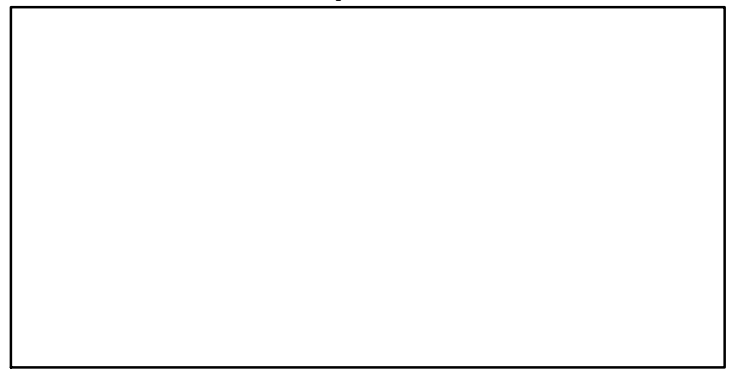
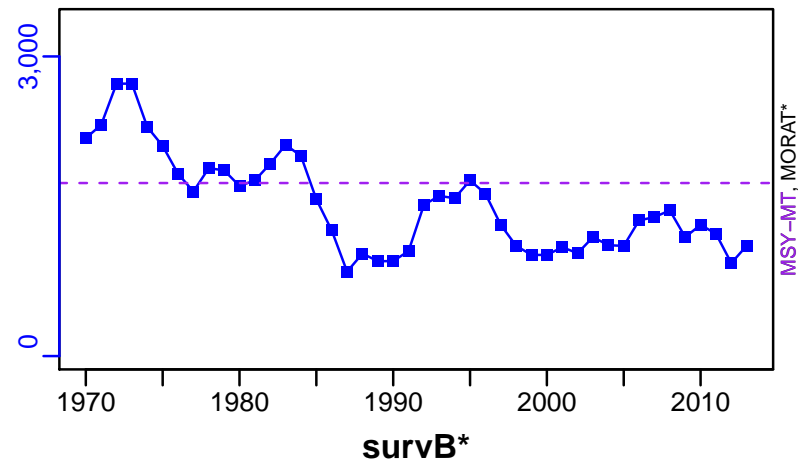
R-E00 (1970-2013-JPNIMP2016)



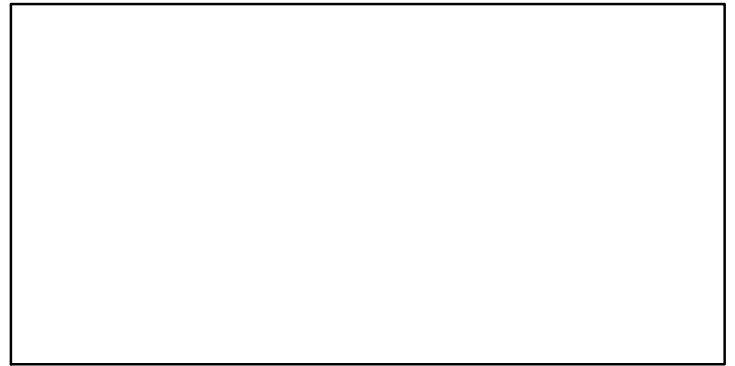
Japanese flounder Sea of Japan North [OFLOUNNSJ]

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

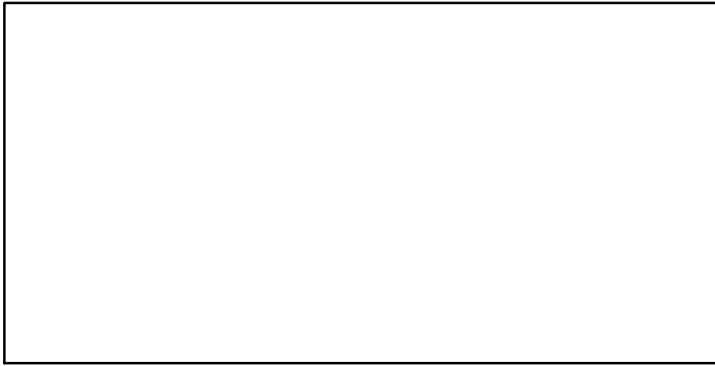
TAC*, Cpair*, Cadv*



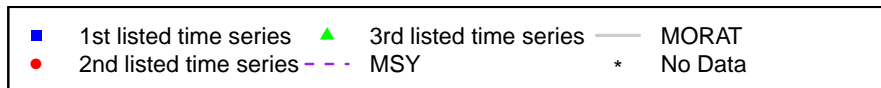
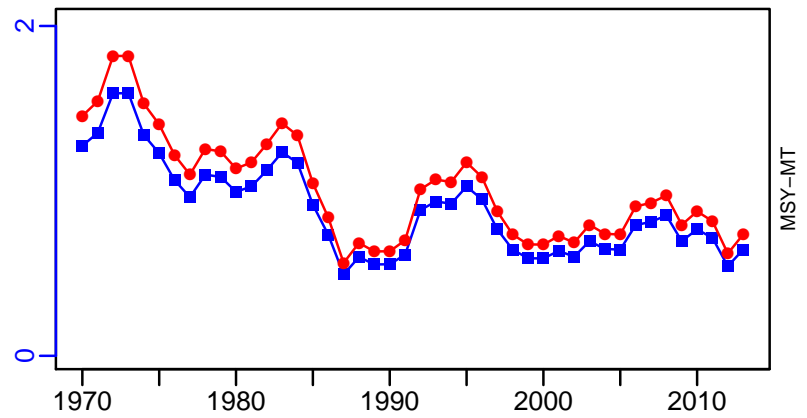
CPUE*



EFFORT*



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



Japanese flounder Pacific Ocean [OFLOUNPAC]

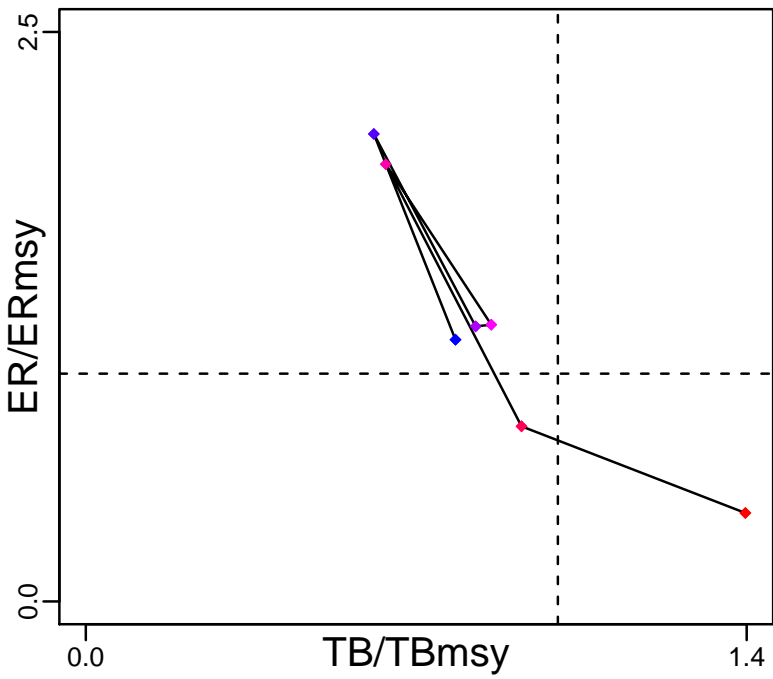
Metadata	
Scientific Name	Paralichthys olivaceus
Current Assess ID	FAFRFJ-OFLOUNPAC-1970-2013-JPNIMP2016
Area	Pacific Ocean
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013, 2009

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

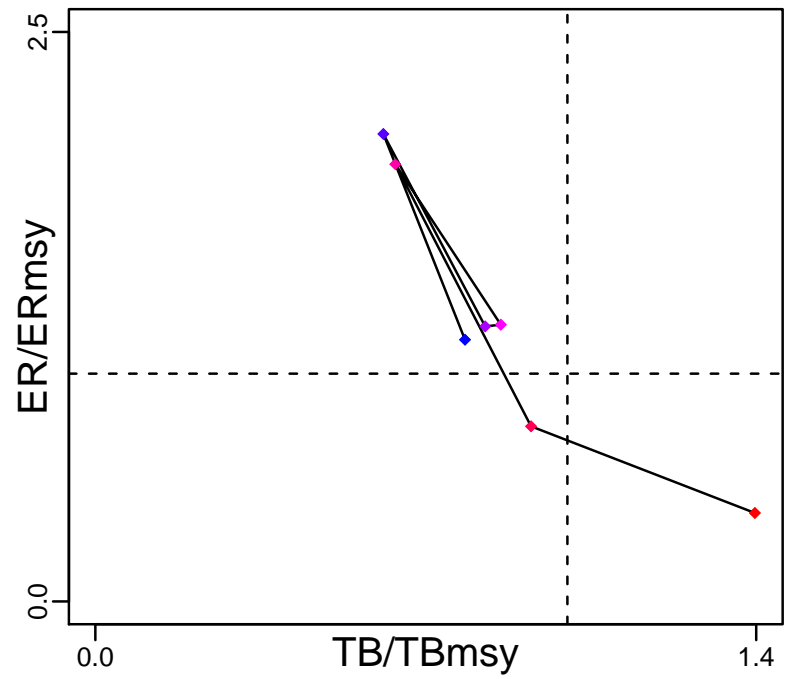
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	7190	-	1
SSB	SSB-MT	2013	1070	Both	3
TN	-	-	-	-	-
R	R-E00	2013	1,940,000	-	1
F	-	-	-	-	-
ER	ER-calc-ratio	2013	0.163	-	-
TC	TC-MT	2013	2380		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-MT	2013	1.397		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy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

Japanese flounder Pacific Ocean [OFLOUNPAC]

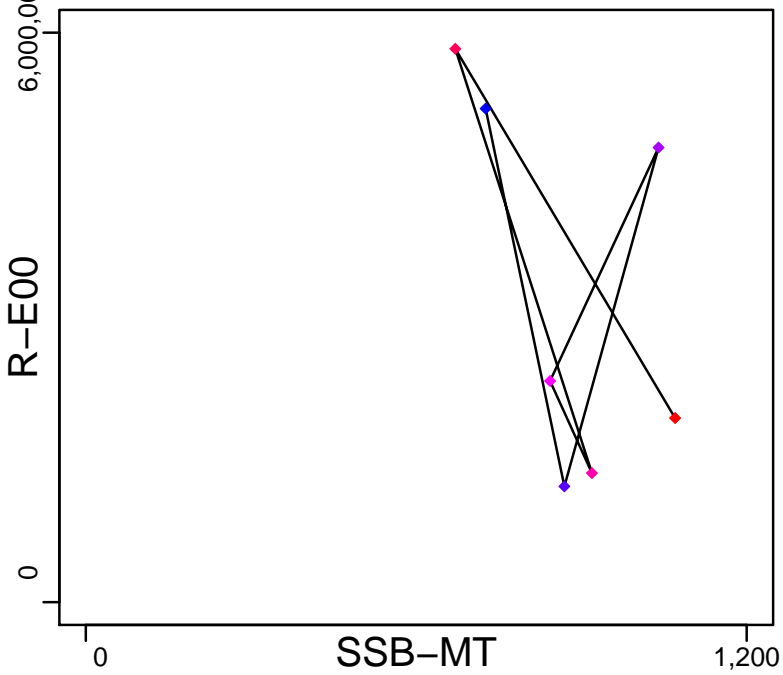
Kobe MSYpref (1970–2013–JPNIMP2016)



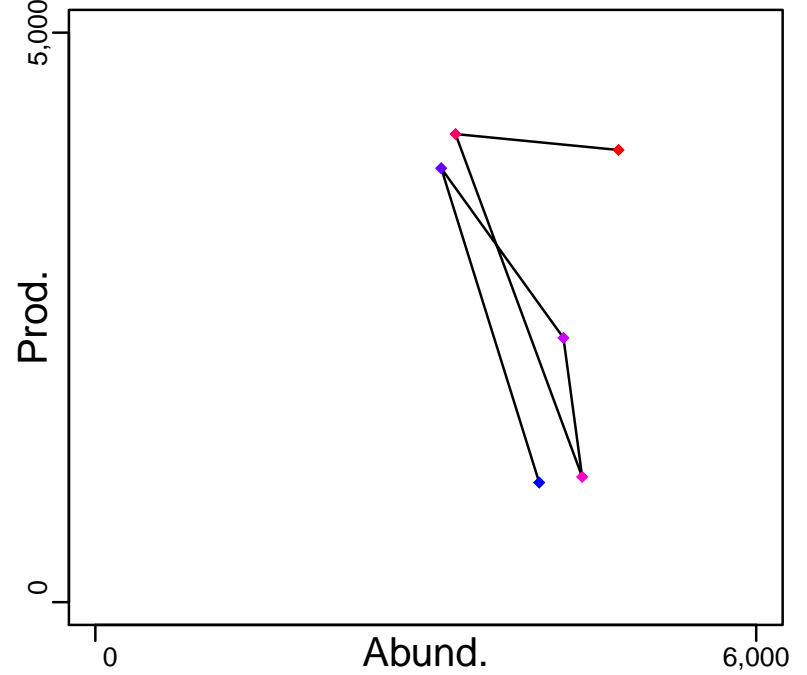
Kobe MGTpref (1970–2013–JPNIMP2016)



Spawner Recruit (1970–2013–JPNIMP2016)



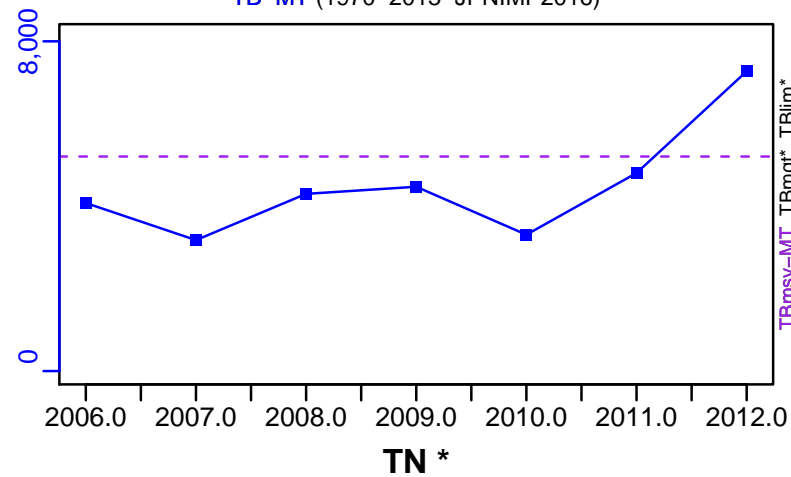
Production (1970–2013–JPNIMP2016)



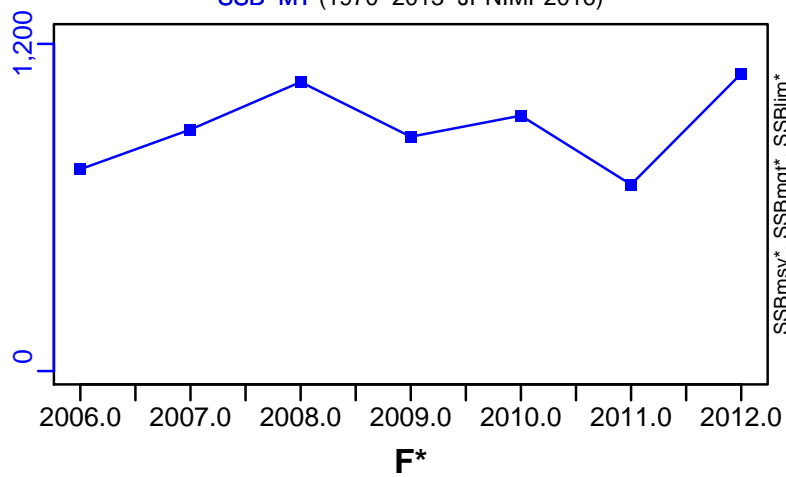
◆ Start Year ◆ End Year * No Data

Japanese flounder Pacific Ocean [OFLOUNPAC]

TB-MT (1970-2013-JPNIMP2016)



SSB-MT (1970-2013-JPNIMP2016)



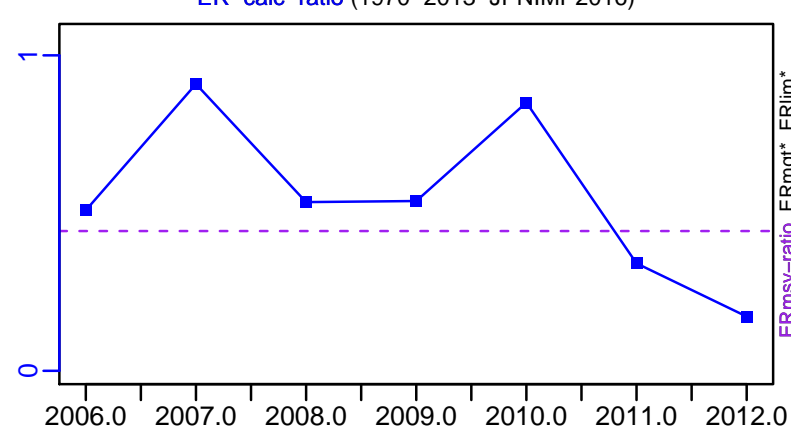
TN *



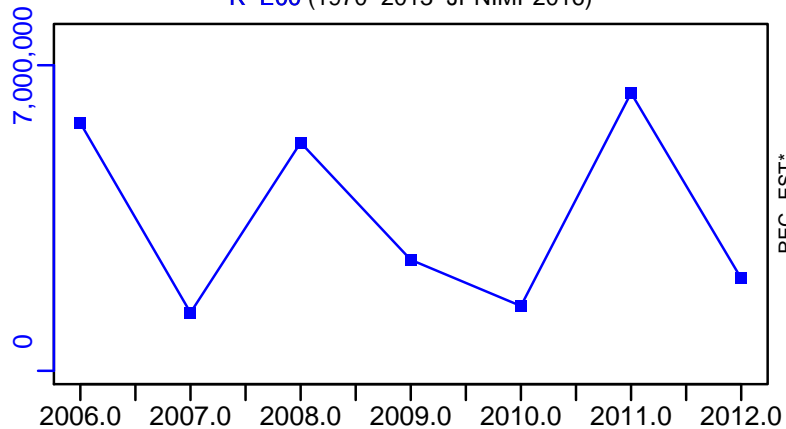
F*



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

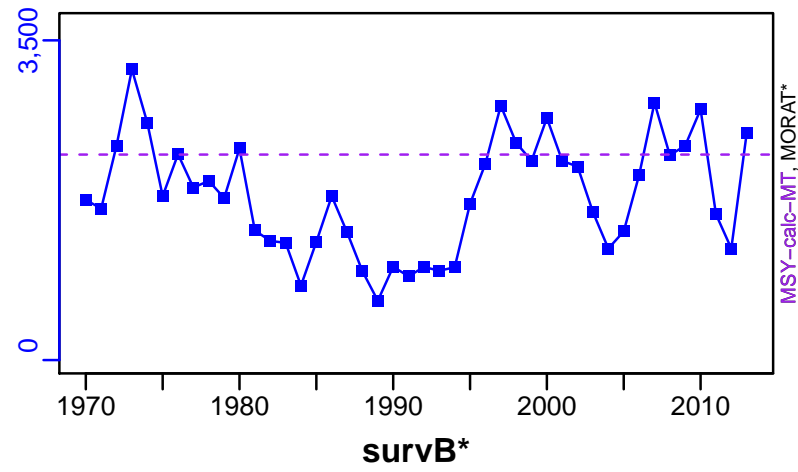


R-E00 (1970-2013-JPNIMP2016)



Japanese flounder Pacific Ocean [OFLOUNPAC]

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



TAC*, Cpair*, Cadv*



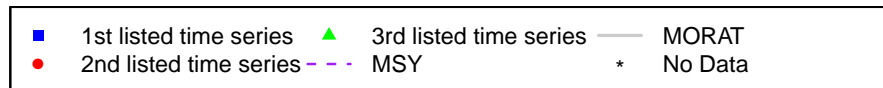
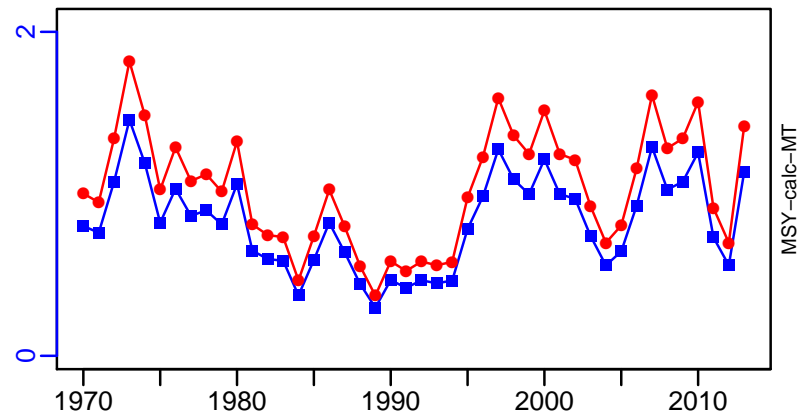
CPUE*



EFFORT*



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



Japanese flounder Inland Sea of Japan [OFLOUNSETO]

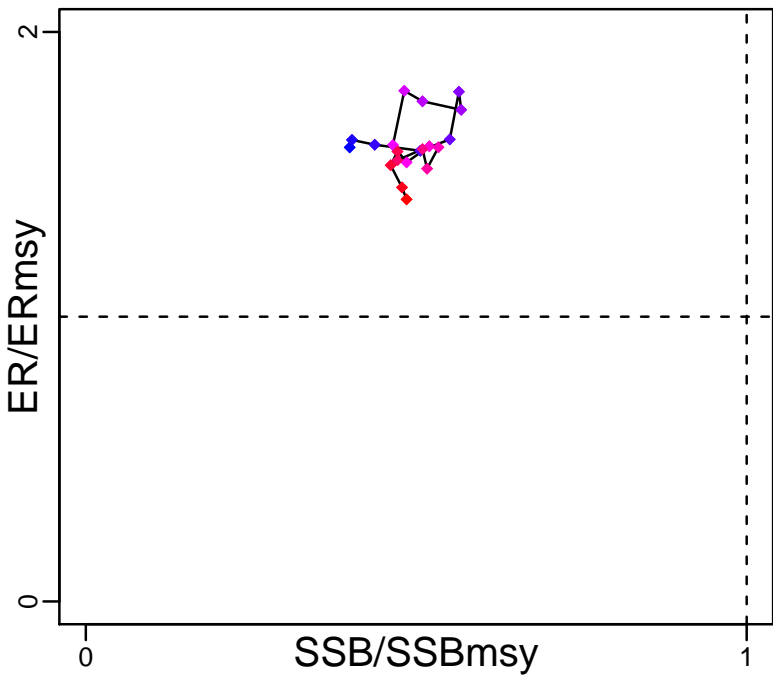
Metadata	
Scientific Name	Paralichthys olivaceus
Current Assess ID	FAFRFJ-OFLOUNSETO-1965-2013-JPNIMP2016
Area	Inland Sea of Japan
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013, 2010

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

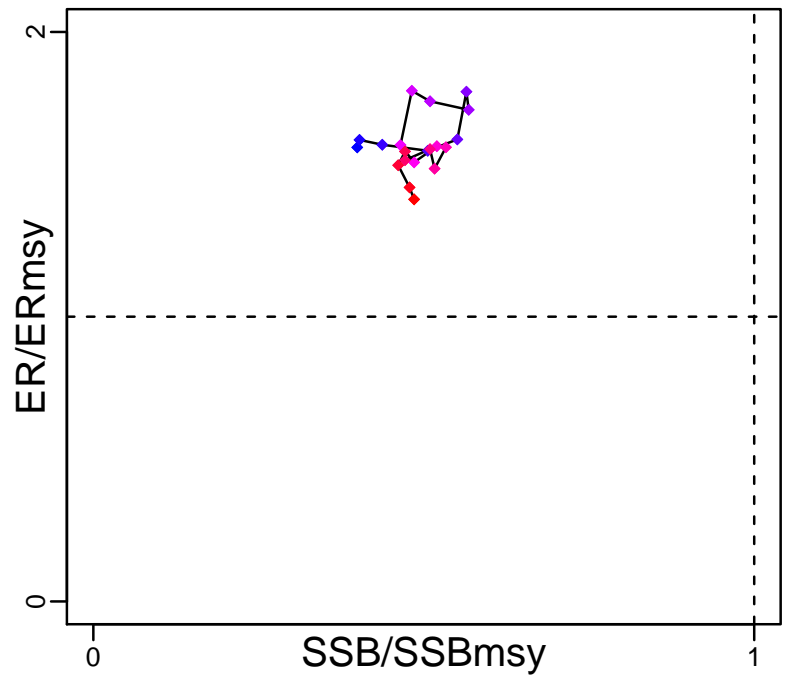
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	2170	-	0
SSB	SSB-MT	2013	1410	Both	2
TN	-	-	-	-	-
R	R-E00	2013	897,000	-	0
F	-	-	-	-	-
ER	ER-calc-ratio	2013	0.308	-	-
TC	TC-MT	2013	668		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2013	0.541		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013	0.485		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

Japanese flounder Inland Sea of Japan [OFLOUNSETO]

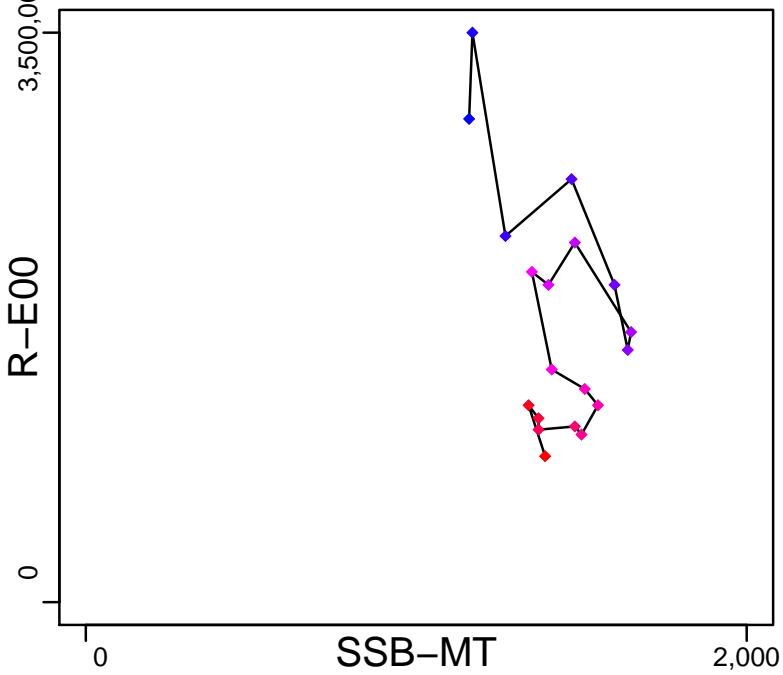
Kobe MSYpref (1965–2013–JPNIMP2016)



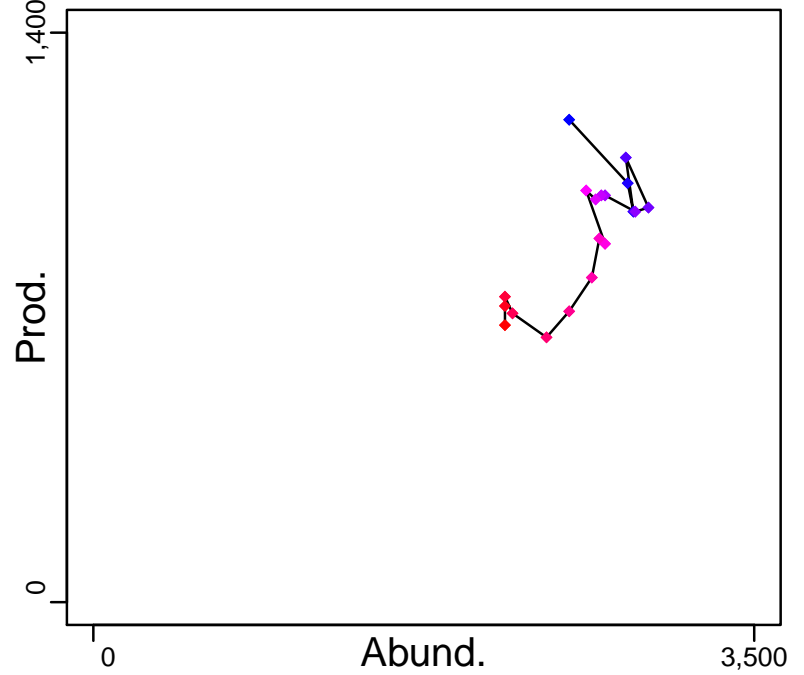
Kobe MGTpref (1965–2013–JPNIMP2016)



Spawner Recruit (1965–2013–JPNIMP2016)



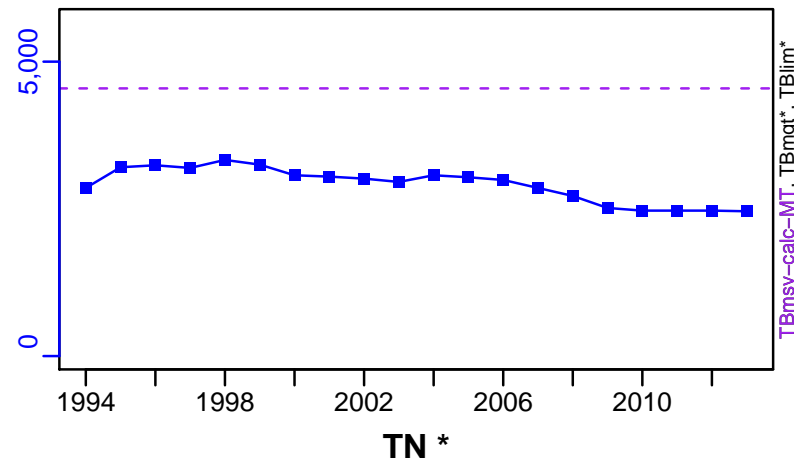
Production (1965–2013–JPNIMP2016)



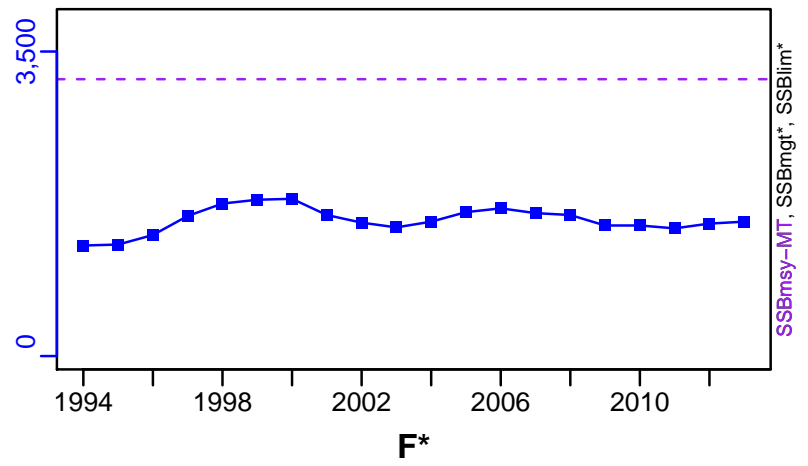
◆ Start Year ◆ End Year * No Data

Japanese flounder Inland Sea of Japan [OFLOUNSETO]

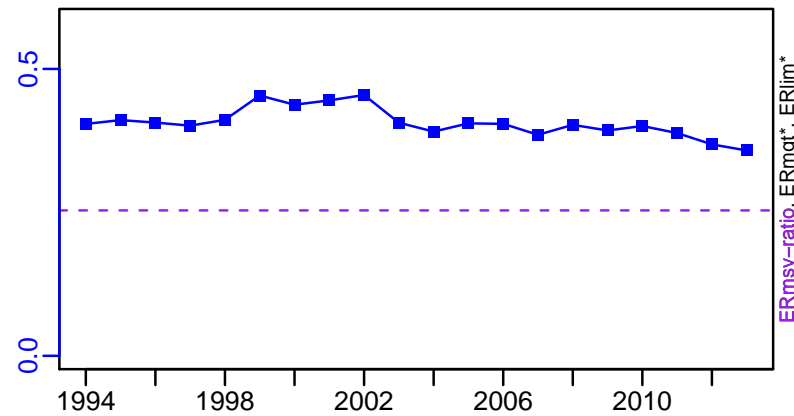
TB-MT (1965-2013-JPNIMP2016)



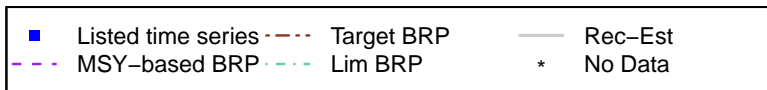
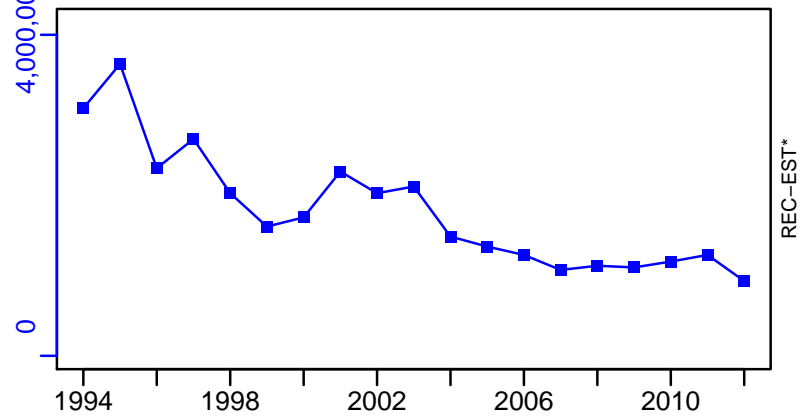
SSB-MT (1965-2013-JPNIMP2016)



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



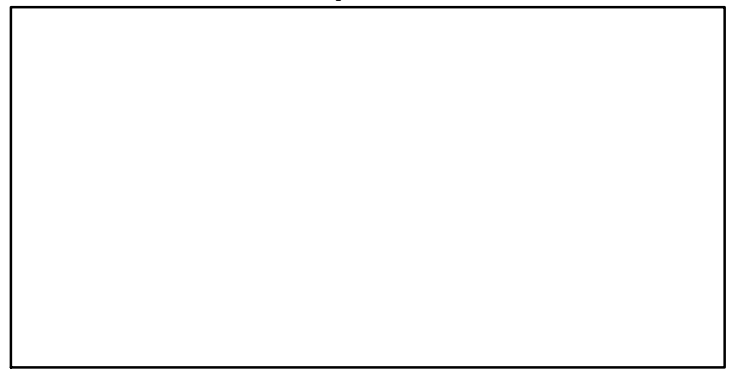
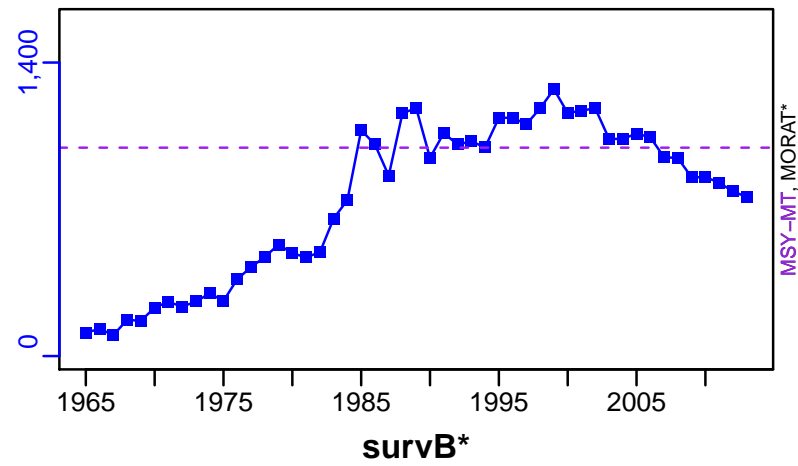
R-E00 (1965-2013-JPNIMP2016)



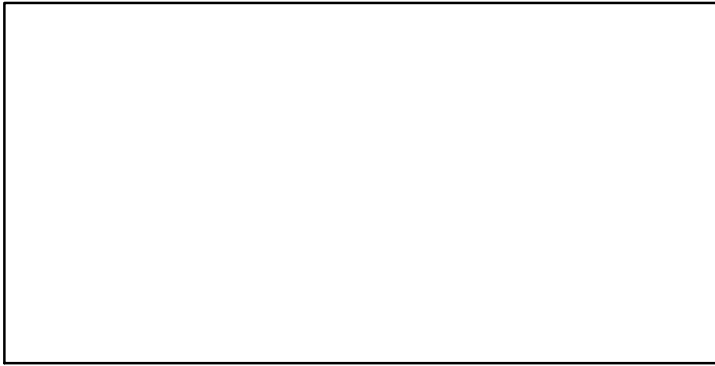
Japanese flounder Inland Sea of Japan [OFLOUNSETO]

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

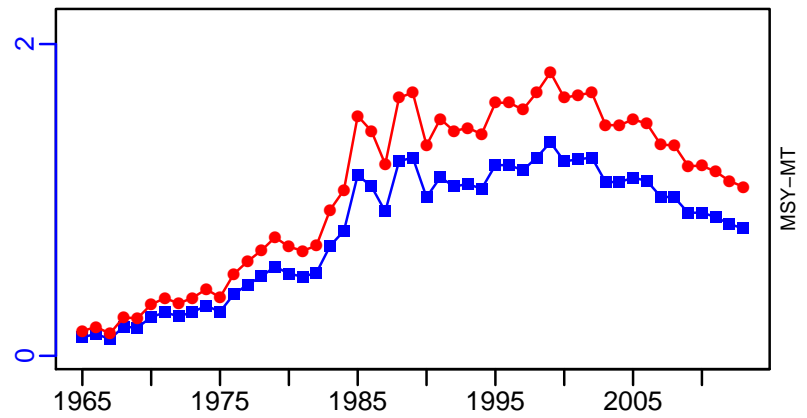
TAC*, Cpair*, Cadv*



EFFORT*



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



Pacific cod Hokkaido [PCODHOKK]

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

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

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

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

TB*



SSB*



TN *



F*



ER*

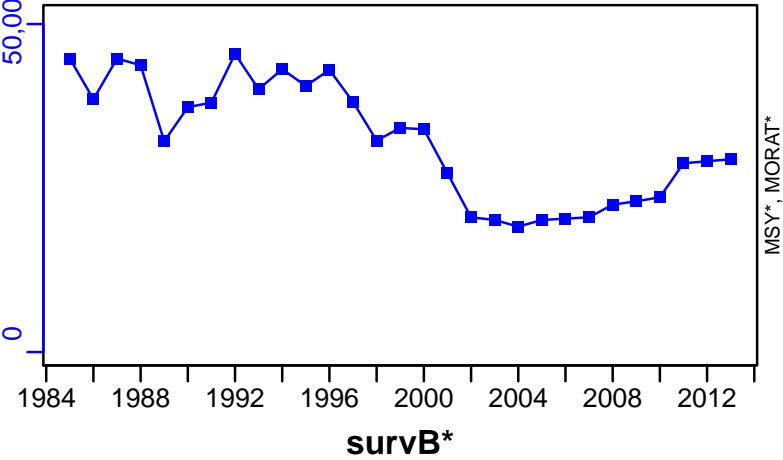


Recruits*



Pacific cod Hokkaido [PCODHOKK]

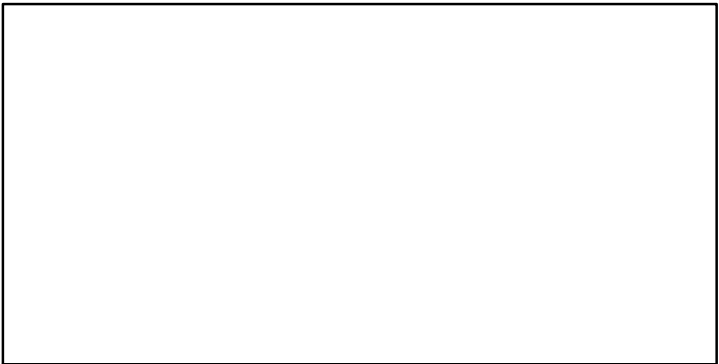
TC-MT, TL*, RecC* (1985-2013-JPNIMP2016)



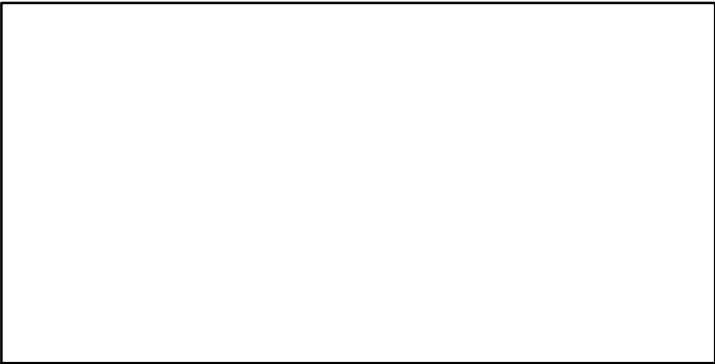
TAC*, Cpair*, Cadv*



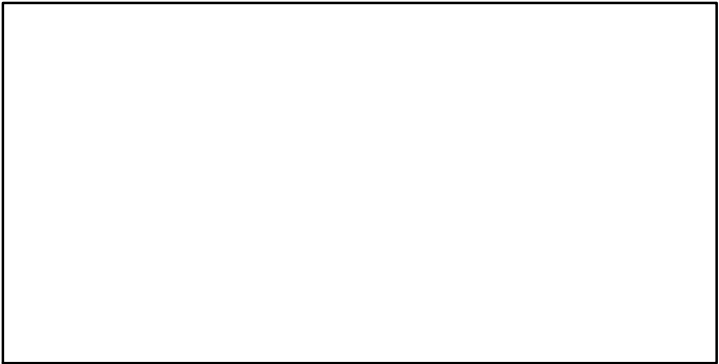
CPUE*



EFFORT*



CdivMSY*



Pacific cod North Pacific [PCODNPAC]

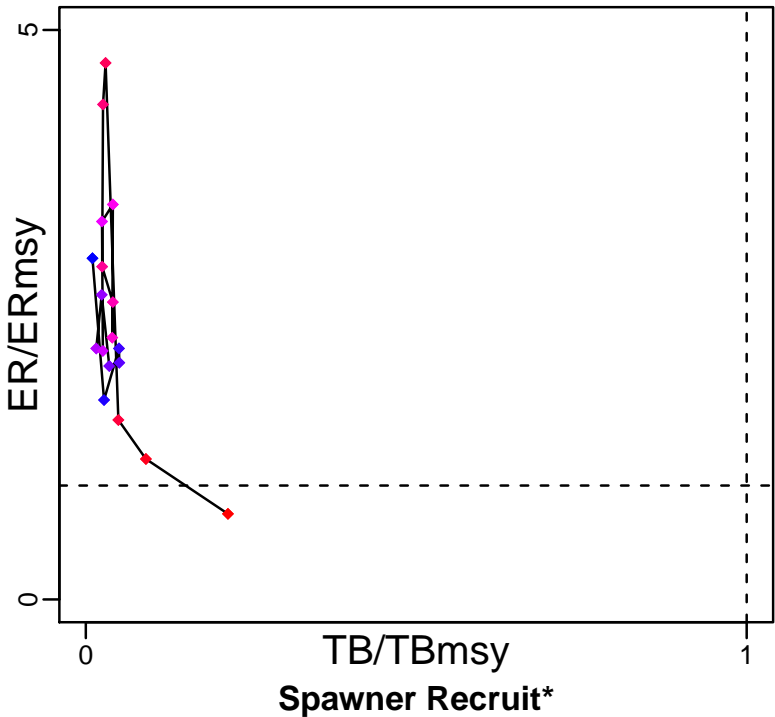
Metadata	
Scientific Name	Gadus macrocephalus
Current Assess ID	FAFRFJ-PCODNPAC-1975-2014-JPNIMP2016
Area	North Pacific
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2014

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

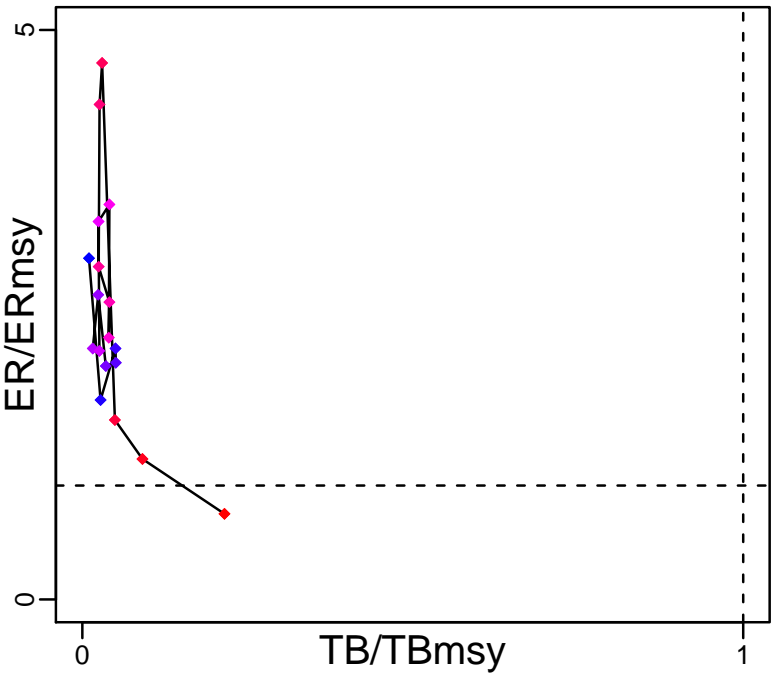
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2014	267,000	-	1
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-calc-ratio	2014	0.109	-	-
TC	TC-MT	2014	30,400		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-MT	2014	0.206		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	ER-calc-ratio/ERmsy-ratio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

Pacific cod North Pacific [PCODNPAC]

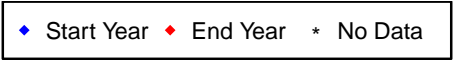
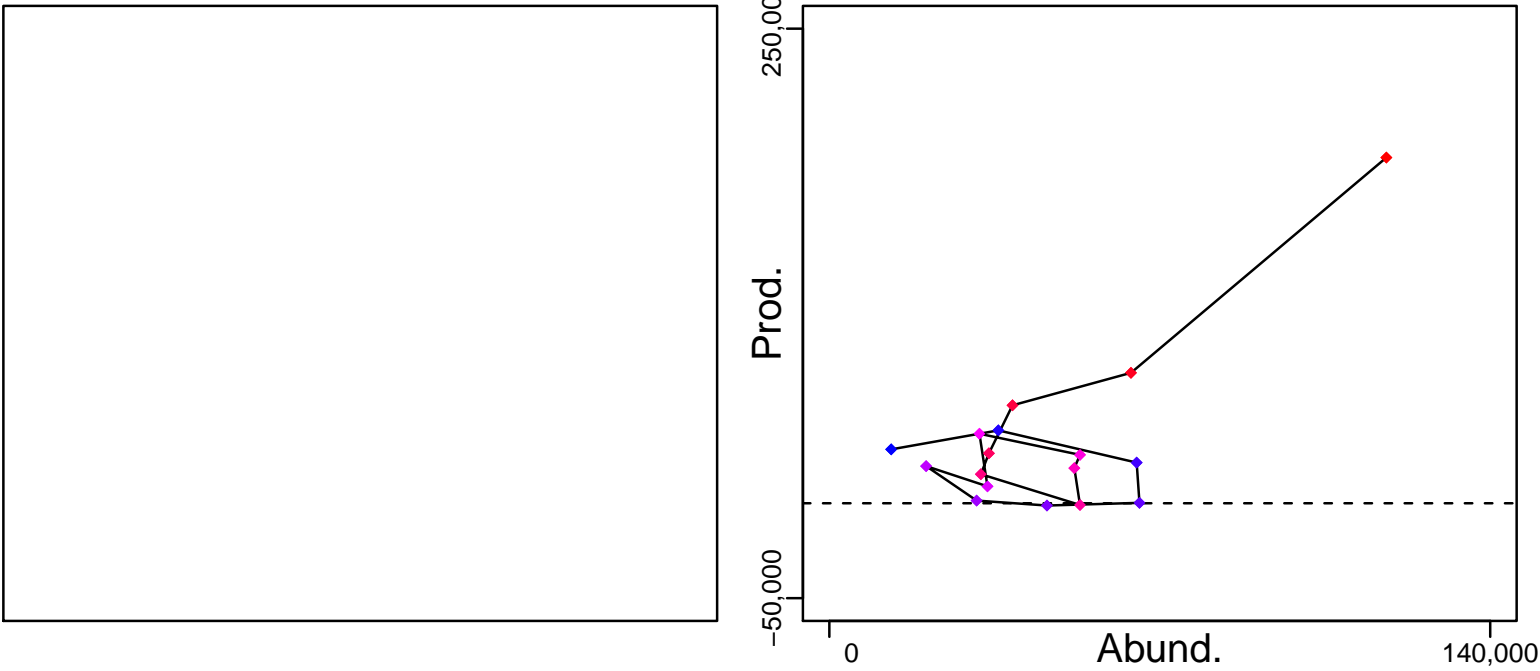
Kobe MSYpref (1975–2014–JPNIMP2016)



Kobe MGTpref (1975–2014–JPNIMP2016)

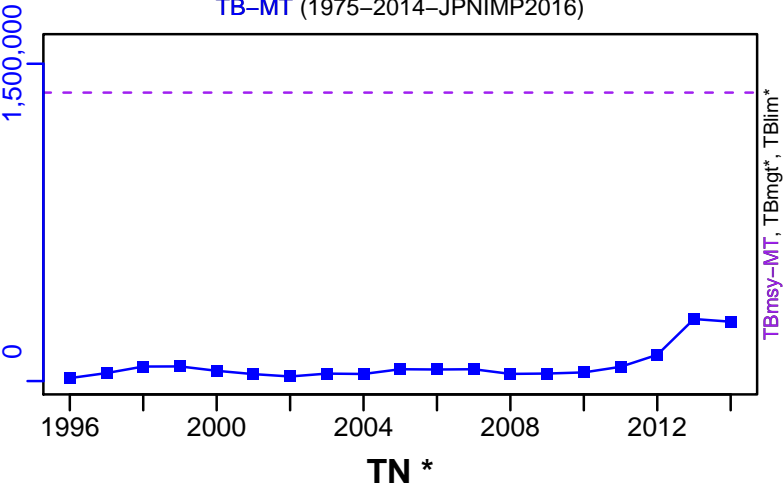


Production (1975–2014–JPNIMP2016)



Pacific cod North Pacific [PCODNPAC]

TB-MT (1975-2014-JPNIMP2016)



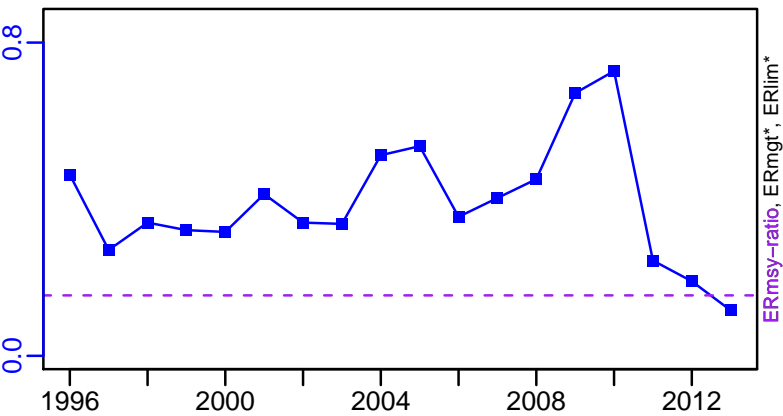
SSB*



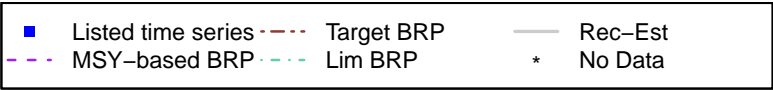
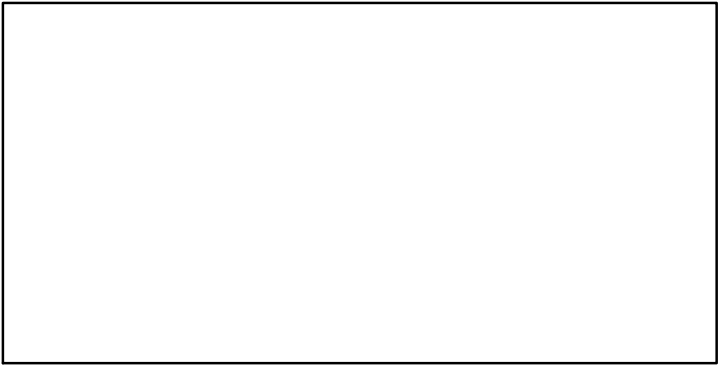
F*



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

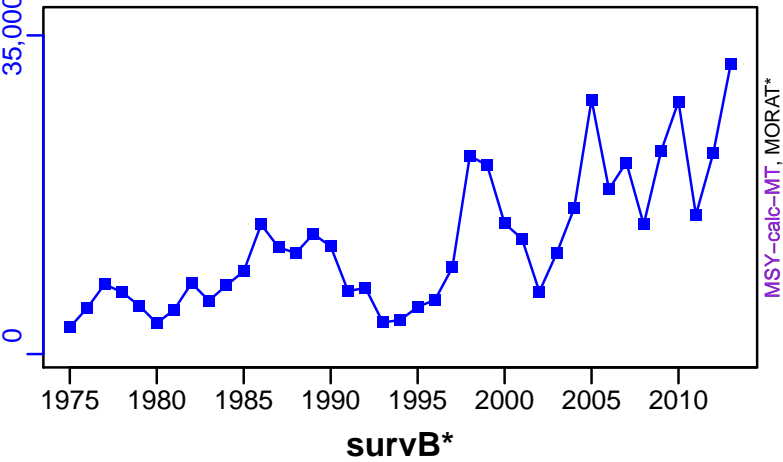


Recruits*

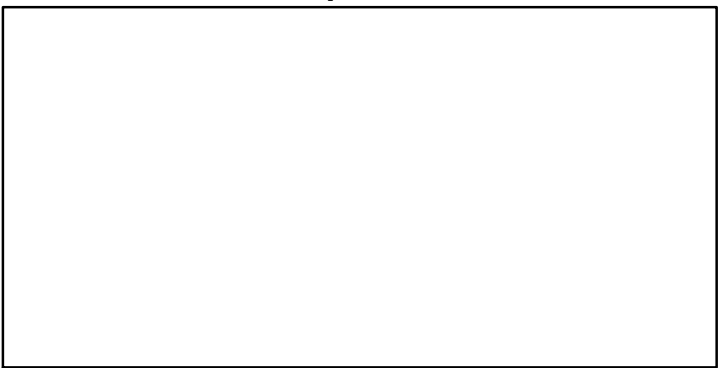


Pacific cod North Pacific [PCODNPAC]

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



TAC*, Cpair*, Cadv*



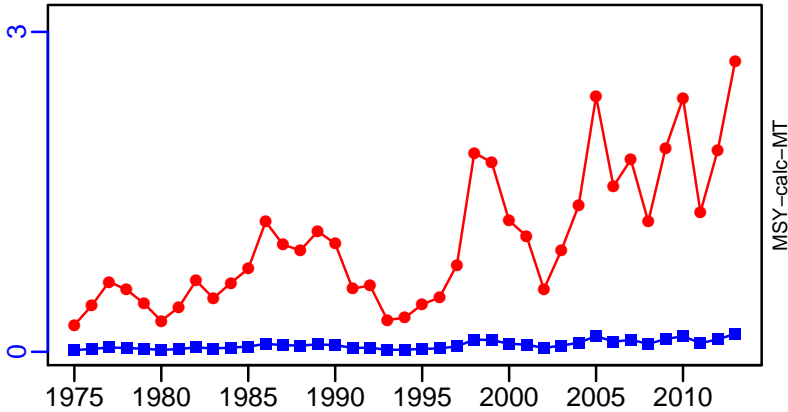
CPUE*



EFFORT*



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

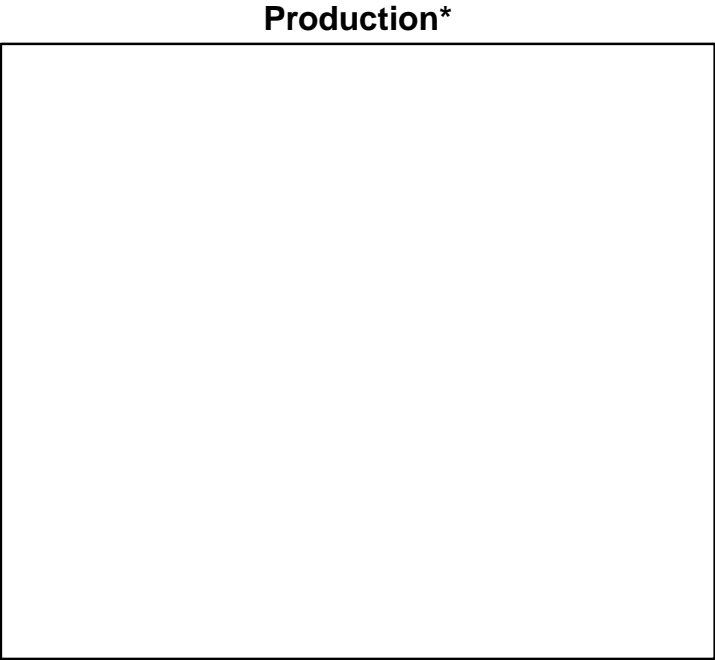
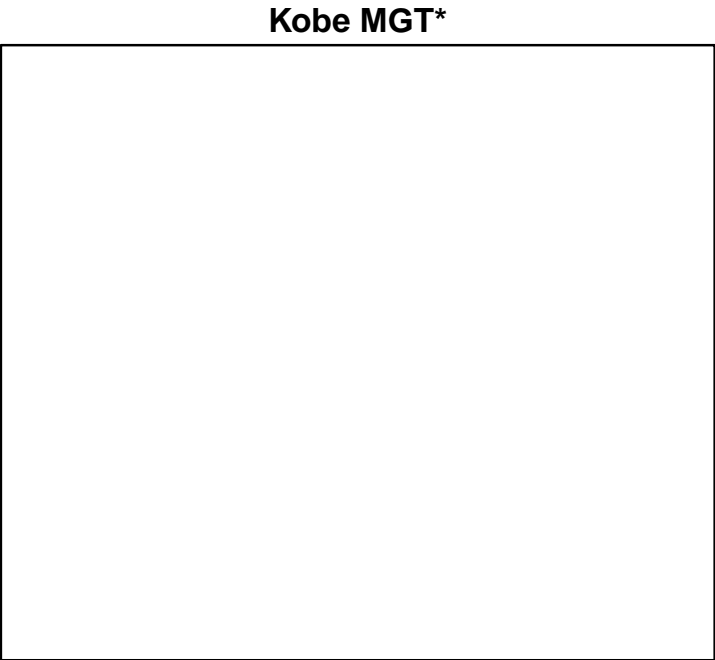
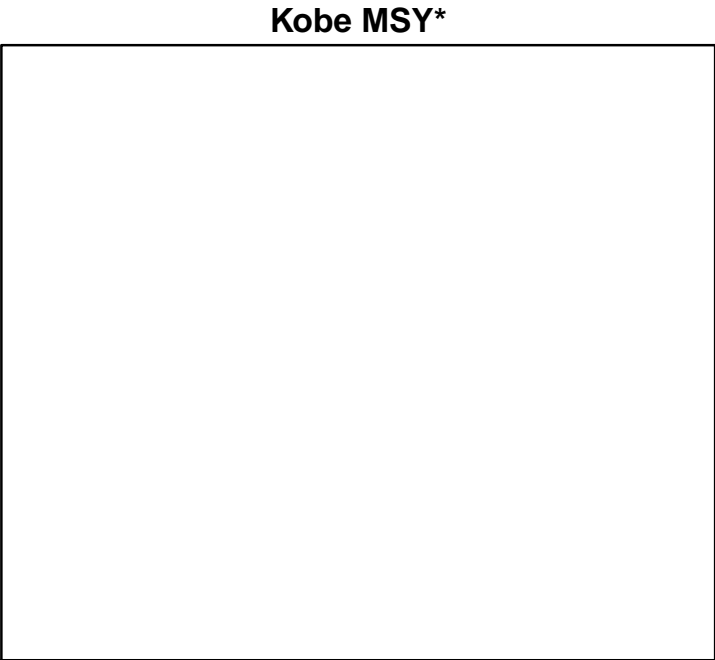


Pacific cod Sea of Japan [PCODSOJ]

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

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

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



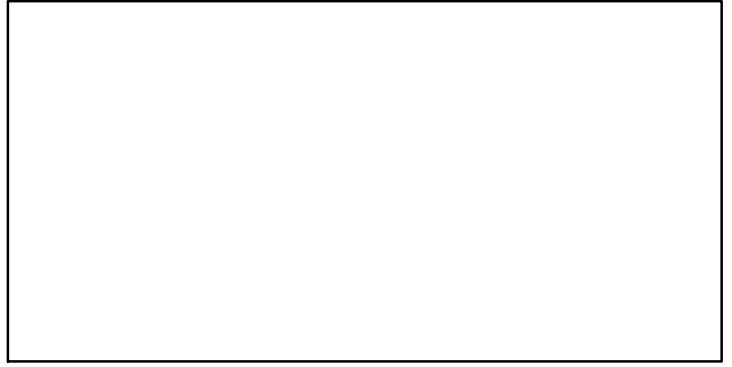
◆ Start Year ♦ End Year * No Data

Pacific cod Sea of Japan [PCODSOJ]

TB*



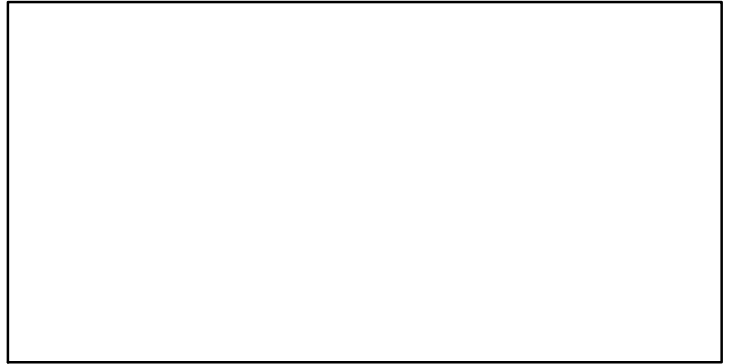
SSB*



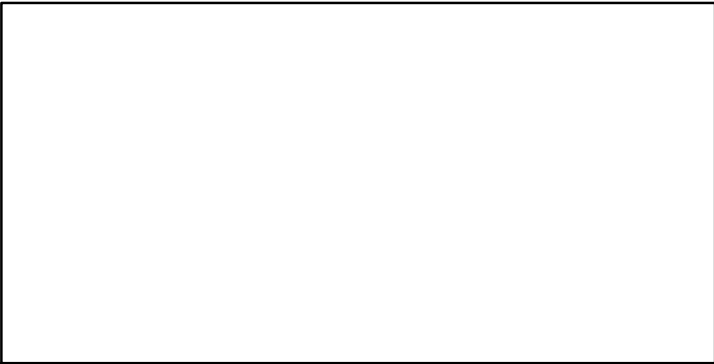
TN *



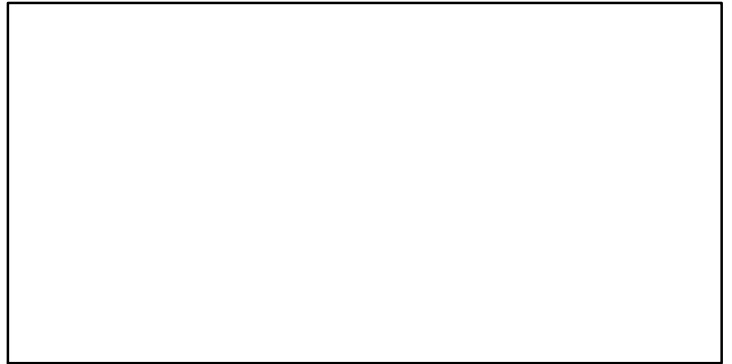
F*



ER*



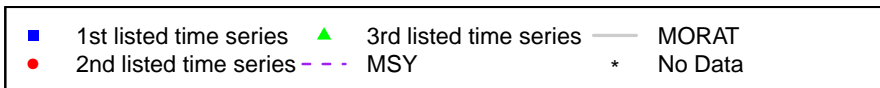
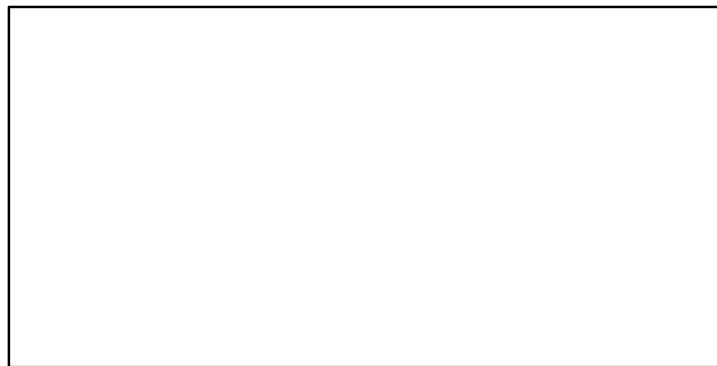
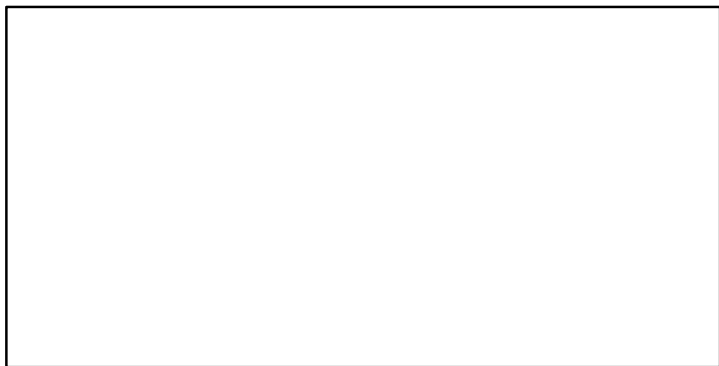
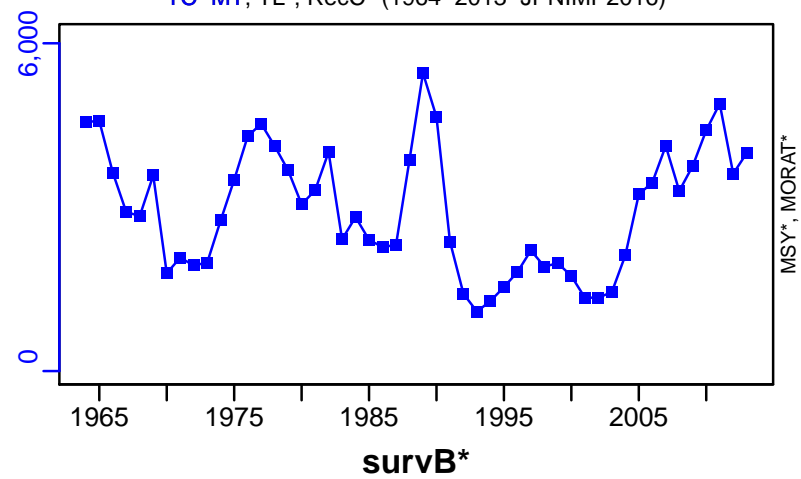
Recruits*



Pacific cod Sea of Japan [PCODSOJ]

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

TAC*, Cpair*, Cadv*



Pointhead flounder North coast of Hokkaido [PHFLOUNNHOKK]

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

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

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

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



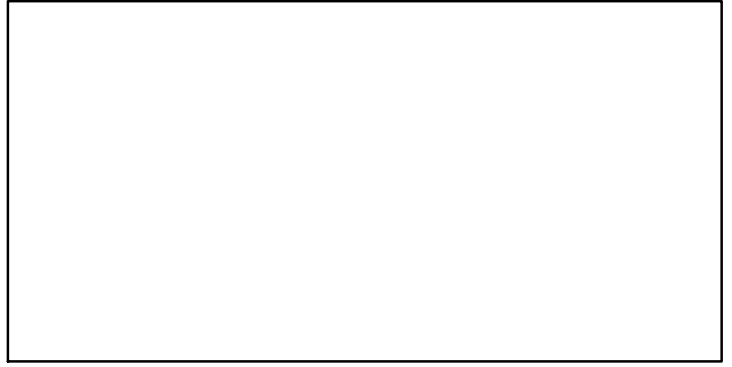
◆ Start Year ◆ End Year * No Data

Pointhead flounder North coast of Hokkaido [PHFLOUNNHOKK]

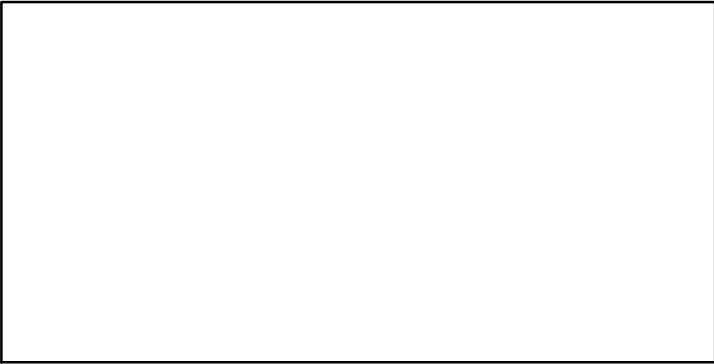
TB*



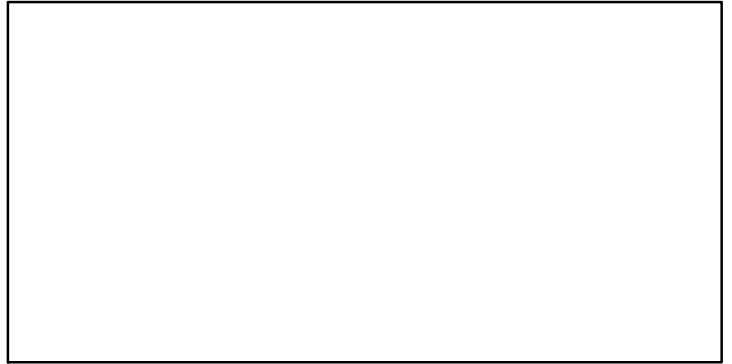
SSB*



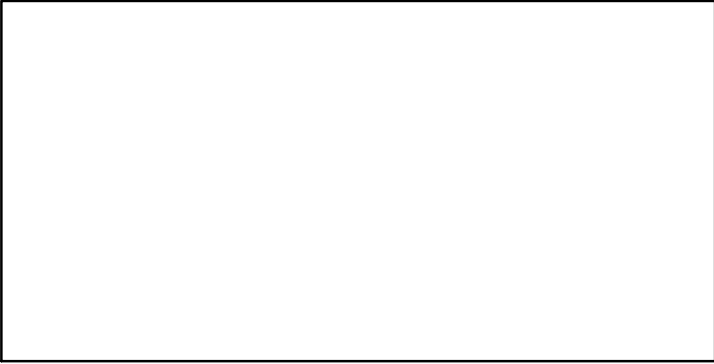
TN *



F*



ER*



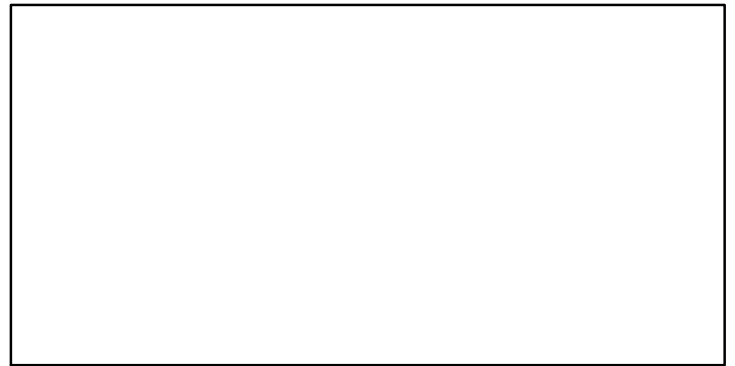
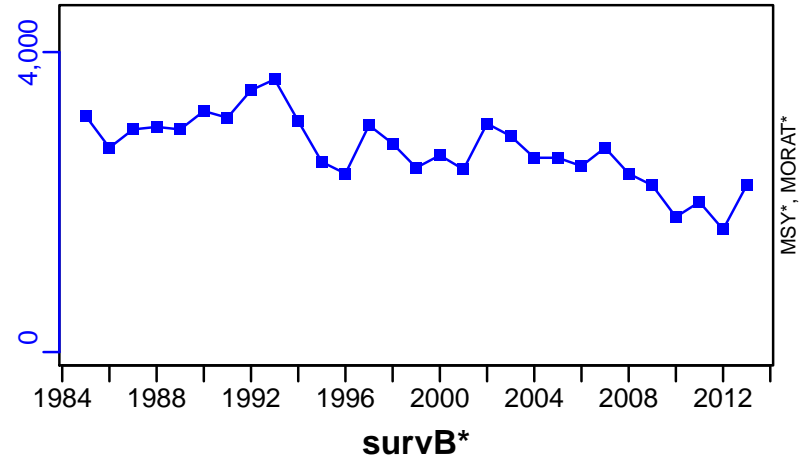
Recruits*



Pointhead flounder North coast of Hokkaido [PHFLOUNNHOKK]

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

TAC*, Cpair*, Cadv*



Pointhead flounder Sea of Japan [PHFLOUNSOJ]

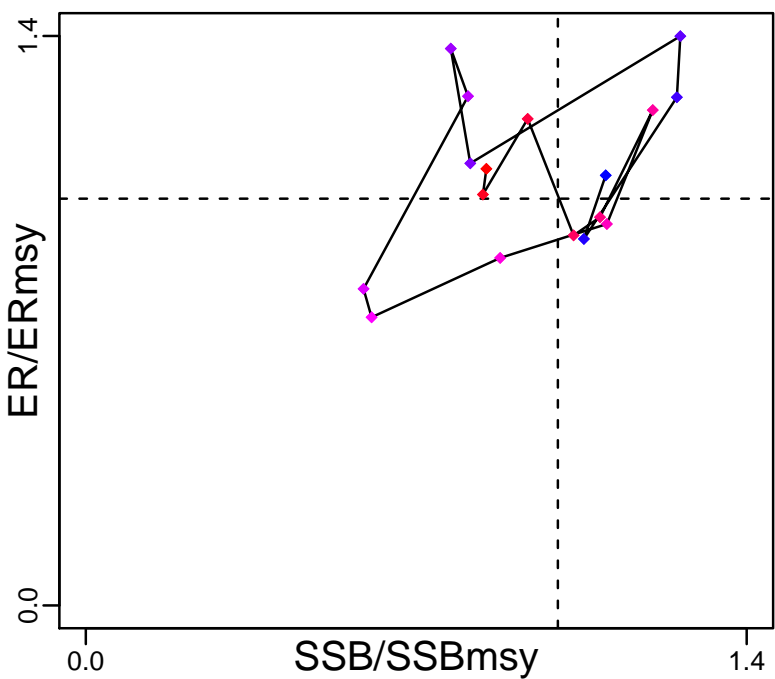
Metadata	
Scientific Name	Cleisthenes herzensteini
Current Assess ID	FAFRFJ-PHFLOUNSOJ-1966-2013-JPNIMP2016
Area	Sea of Japan
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013

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

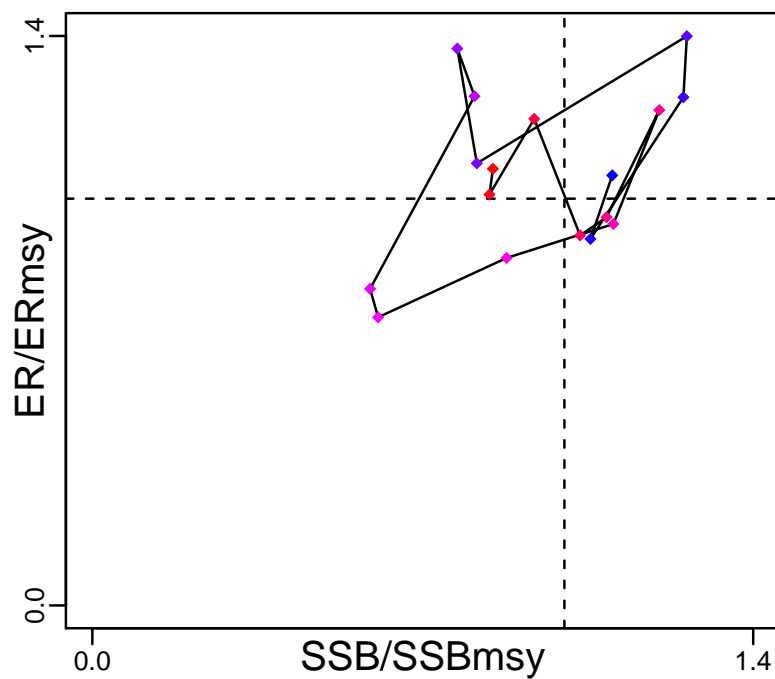
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	8850	-	1
SSB	SSB-MT	2013	3490	Both	3
TN	-	-	-	-	-
R	R-E00	2013	4.1×10^7	-	1
F	-	-	-	-	-
ER	ER-calc-ratio	2013	0.342	-	-
TC	TC-MT	2013	3030		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2013	0.953		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013	0.849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

Pointhead flounder Sea of Japan [PHFLOUNSOJ]

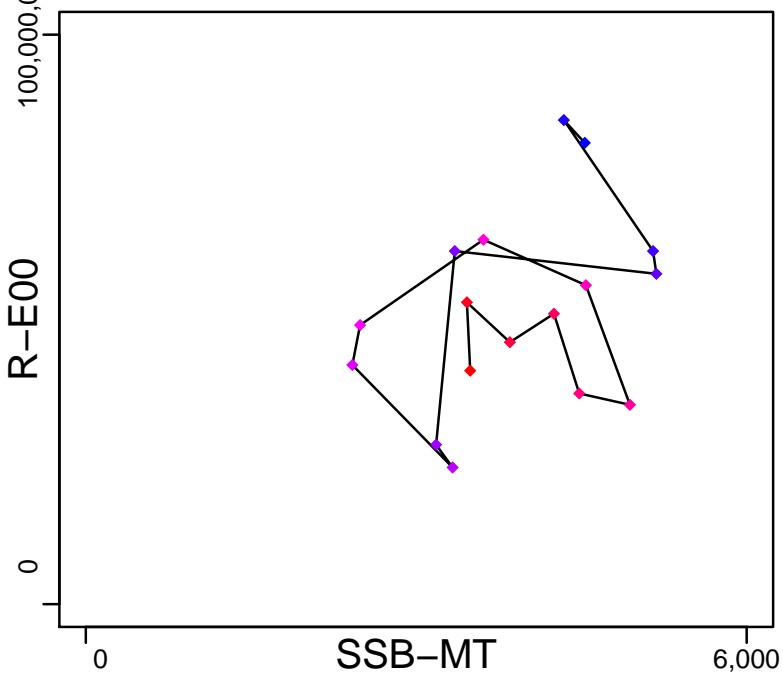
Kobe MSYpref (1966–2013–JPNIMP2016)



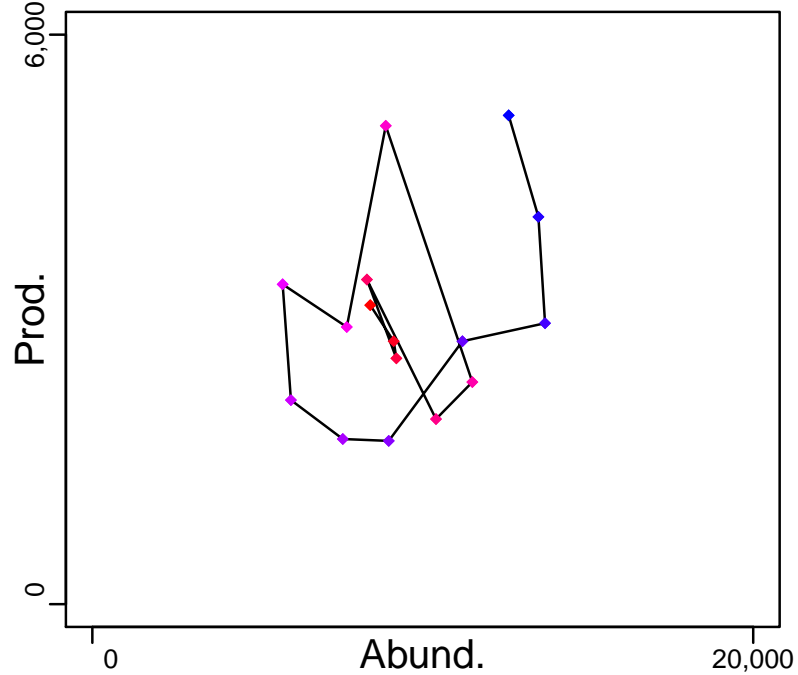
Kobe MGTpref (1966–2013–JPNIMP2016)



Spawner Recruit (1966–2013–JPNIMP2016)



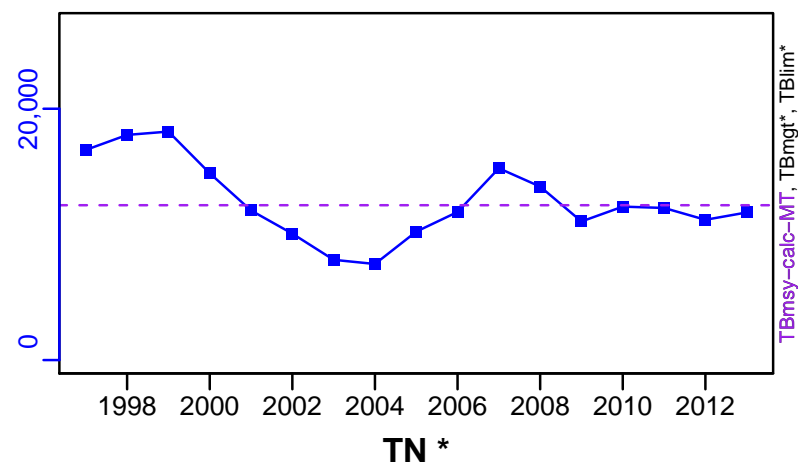
Production (1966–2013–JPNIMP2016)



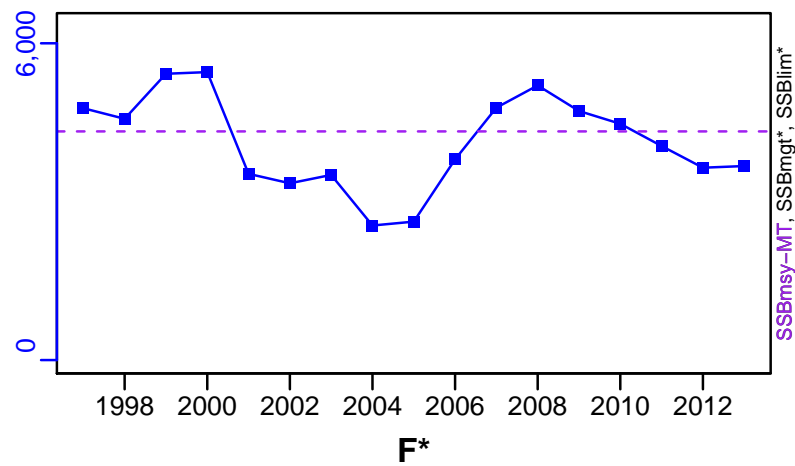
◆ Start Year ◆ End Year * No Data

Pointhead flounder Sea of Japan [PHFLOUNSOJ]

TB-MT (1966–2013–JPNIMP2016)



SSB-MT (1966–2013–JPNIMP2016)



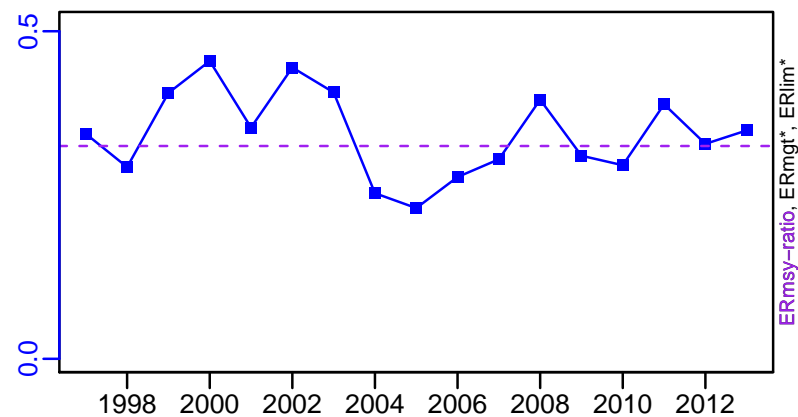
TN *



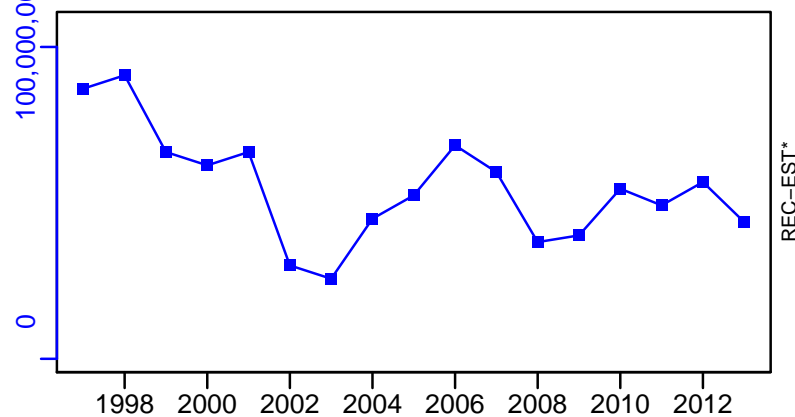
F*



ER-calc-ratio (1966–2013–JPNIMP2016)

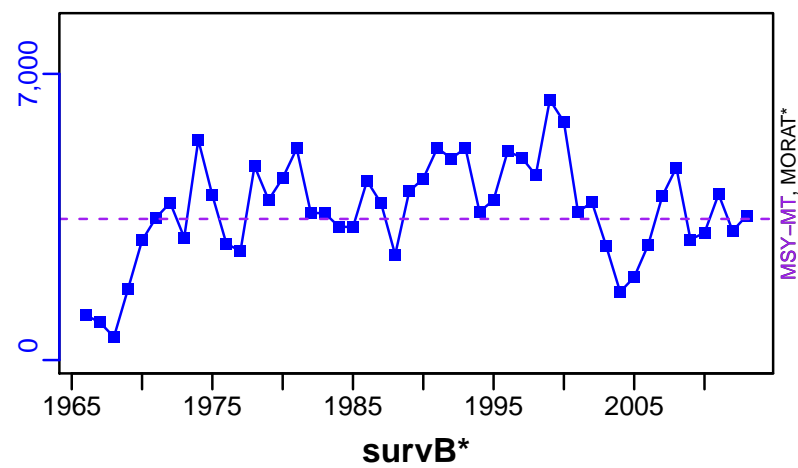


R-E00 (1966–2013–JPNIMP2016)



Pointhead flounder Sea of Japan [PHFLOUNSOJ]

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



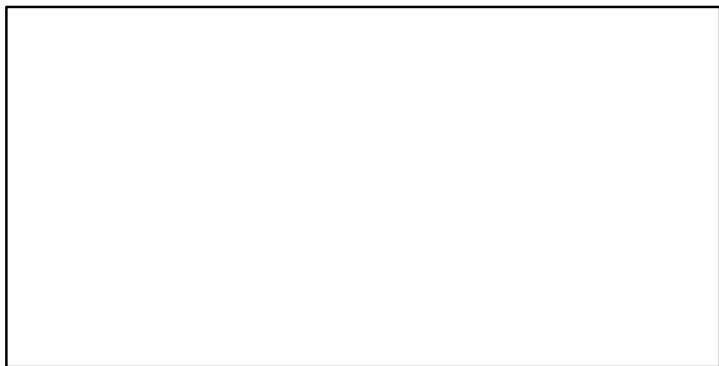
TAC*, Cpair*, Cadv*



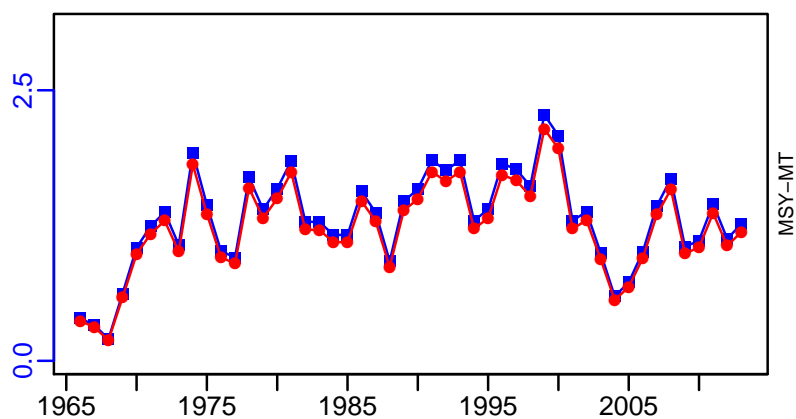
CPUE*



EFFORT*



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



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

Japanese sardine Pacific Coast of Japan [PILCHPJPN]

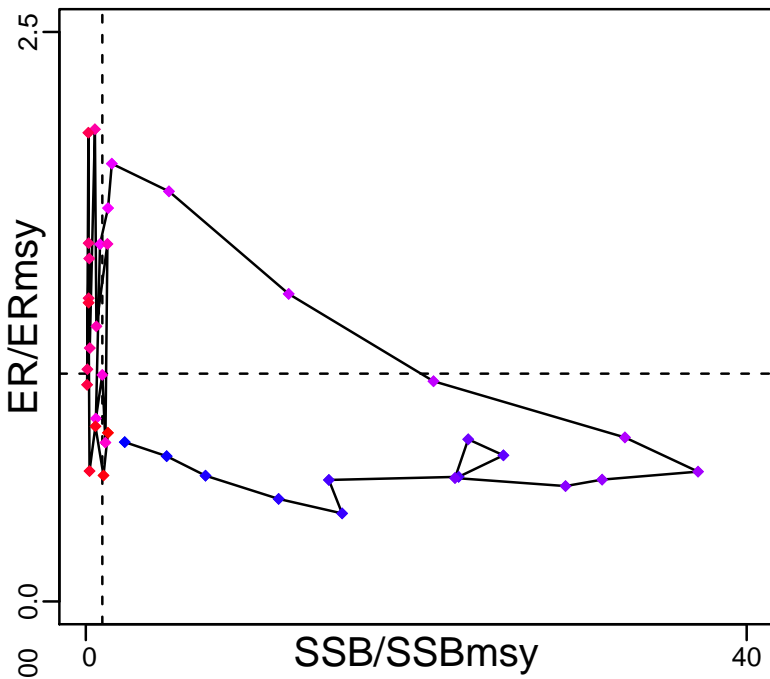
Metadata	
Scientific Name	Sardinops melanostictus
Current Assess ID	FAFRFJ-PILCHPJPN-1975-2013-JPNIMP2016
Area	Pacific Coast of Japan
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013, 2009

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

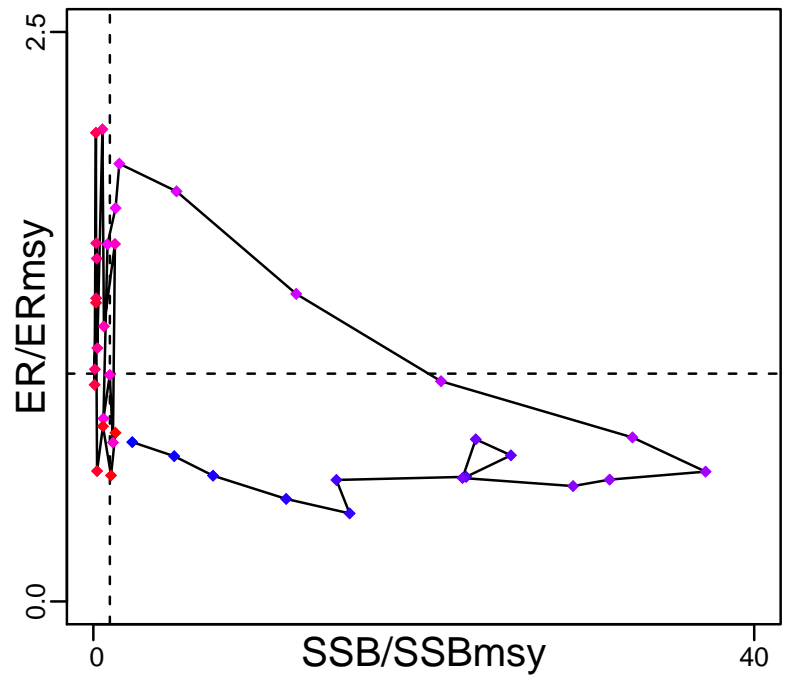
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	714,000	-	0
SSB	SSB-MT	2013	484,000	Both	1
TN	-	-	-	-	-
R	R-E00	2013	5.98×10^9	-	0
F	F-1/yr	2009	0.41	Both	0 to 4
ER	ER-calc-ratio	2013	0.207	-	-
TC	TC-MT	2013	148,000		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2013	1.136		
SSB/SSBmsy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

Japanese sardine Pacific Coast of Japan [PILCHPJPN]

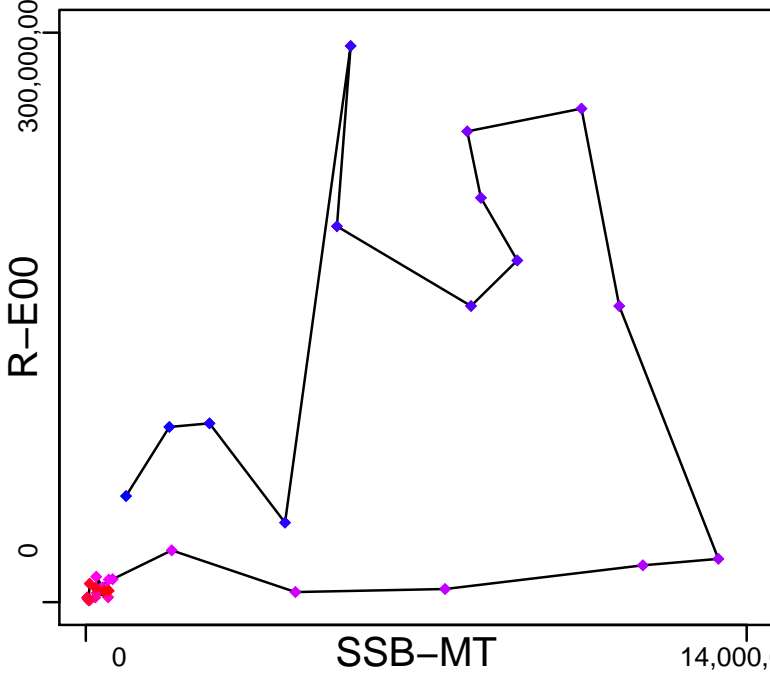
Kobe MSYpref (1975–2013–JPNIMP2016)



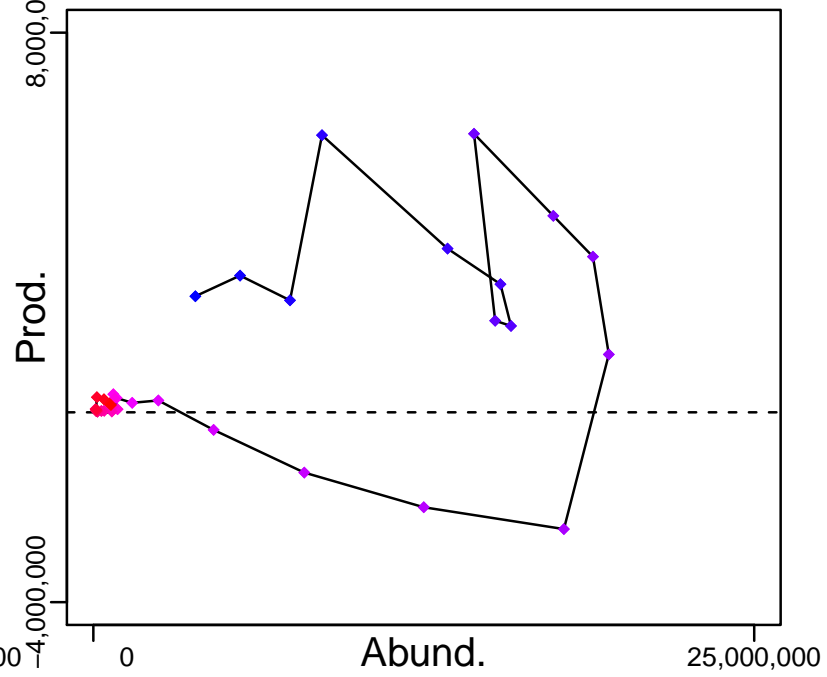
Kobe MGTpref (1975–2013–JPNIMP2016)



Spawner Recruit (1975–2013–JPNIMP2016)



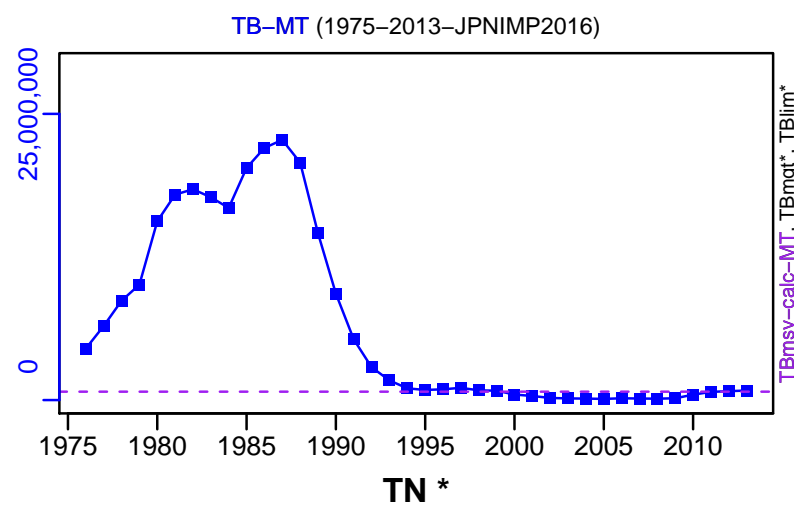
Production (1975–2013–JPNIMP2016)



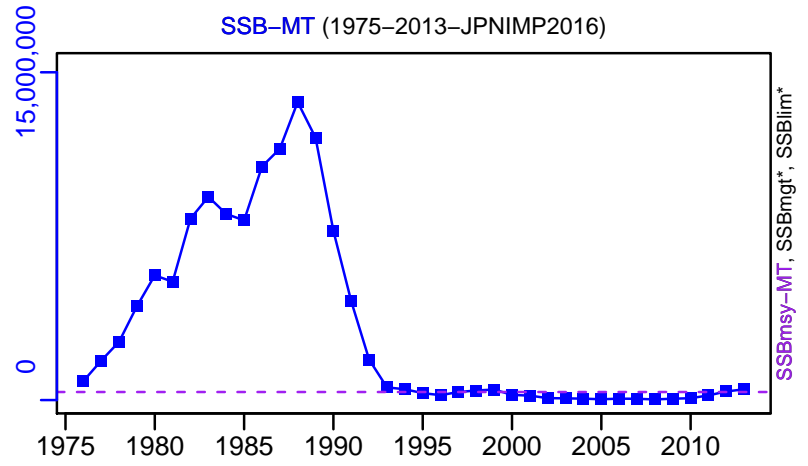
◆ Start Year ◆ End Year * No Data

Japanese sardine Pacific Coast of Japan [PILCHPJPN]

TB-MT (1975-2013-JPNIMP2016)

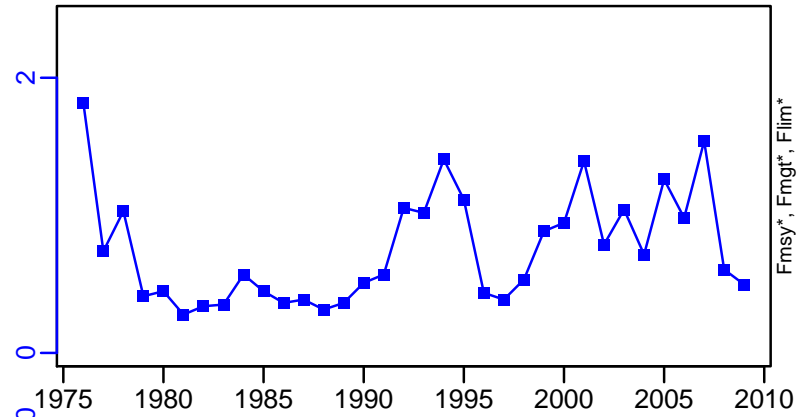


SSB-MT (1975-2013-JPNIMP2016)

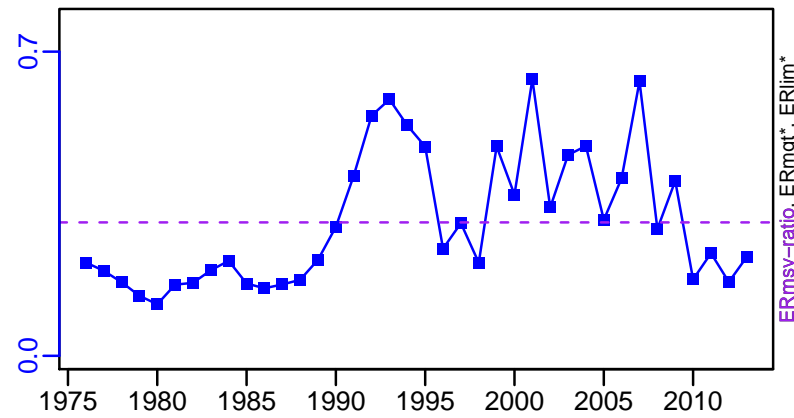


TN *

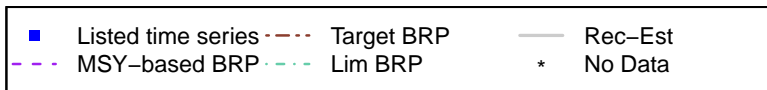
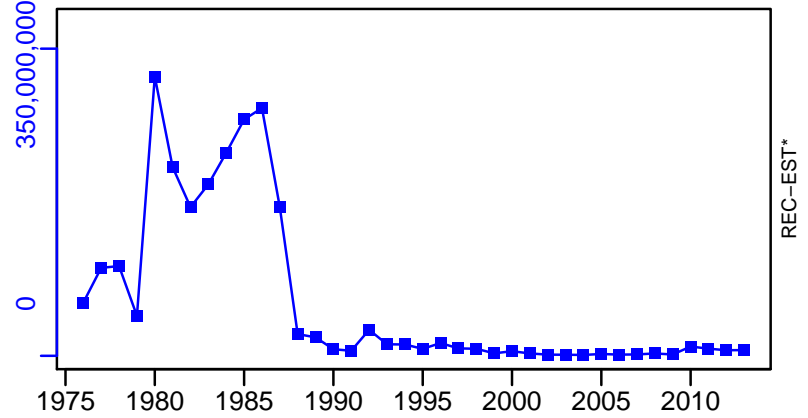
F-1/yr (1976-2009-ONO)



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

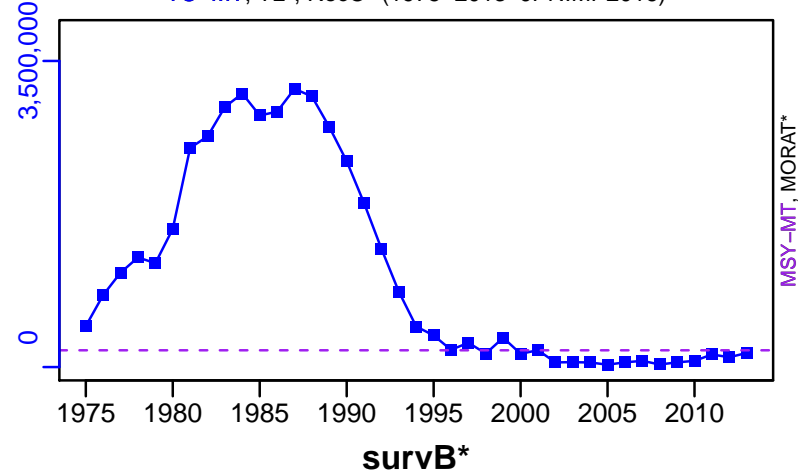


R-E00 (1975-2013-JPNIMP2016)



Japanese sardine Pacific Coast of Japan [PILCHPJPN]

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



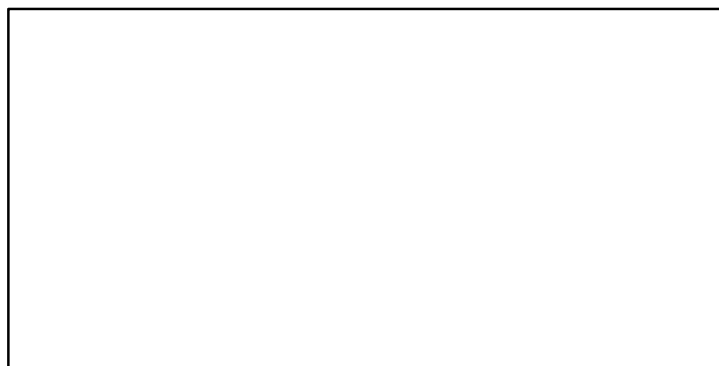
TAC*, Cpair*, Cadv*



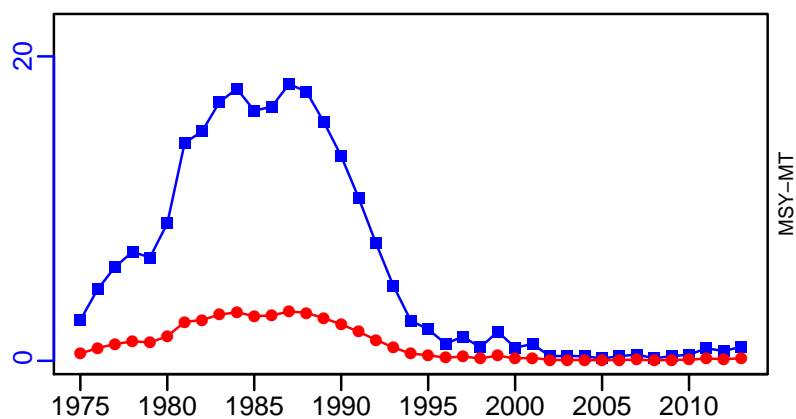
CPUE*



EFFORT*



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



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

Japanese sardine Tsushima Strait [PILCHTSST]

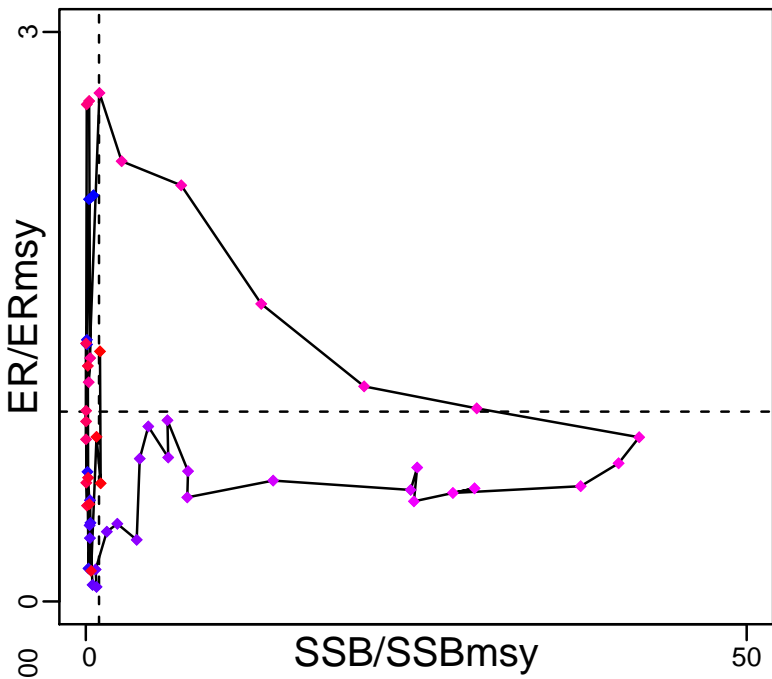
Metadata	
Scientific Name	Sardinops melanostictus
Current Assess ID	FAFRFJ-PILCHTSST-1960-2013-JPNIMP2016
Area	Tsushima Strait
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2010, 2013

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

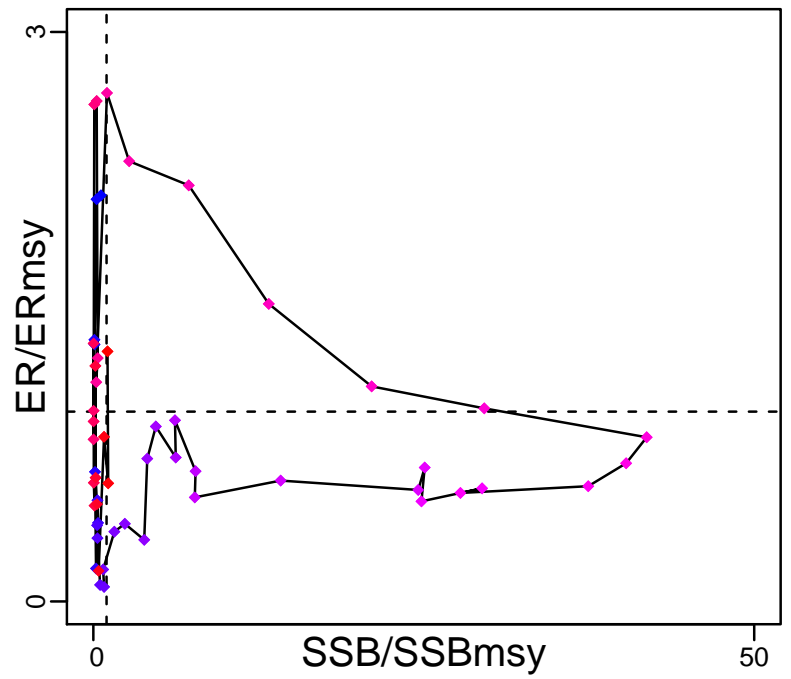
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	252,000	-	0
SSB	SSB-MT	2013	131,000	Both	1
TN	-	-	-	-	-
R	R-E00	2013	5.17×10^9	-	0.00E+00
F	-	-	-	-	-
ER	ER-calc-ratio	2013	0.342	-	-
TC	TC-MT	2013	86,300		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2013	1.236		
SSB/SSBmsy	SSB-MT/SSBmsy-MT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

Japanese sardine Tsushima Strait [PILCHTSST]

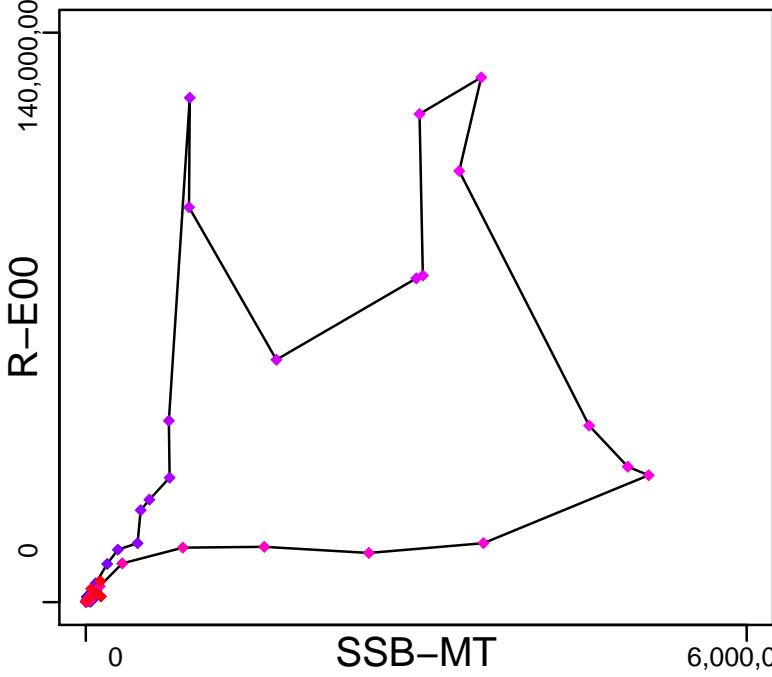
Kobe MSYpref (1960–2013–JPNIMP2016)



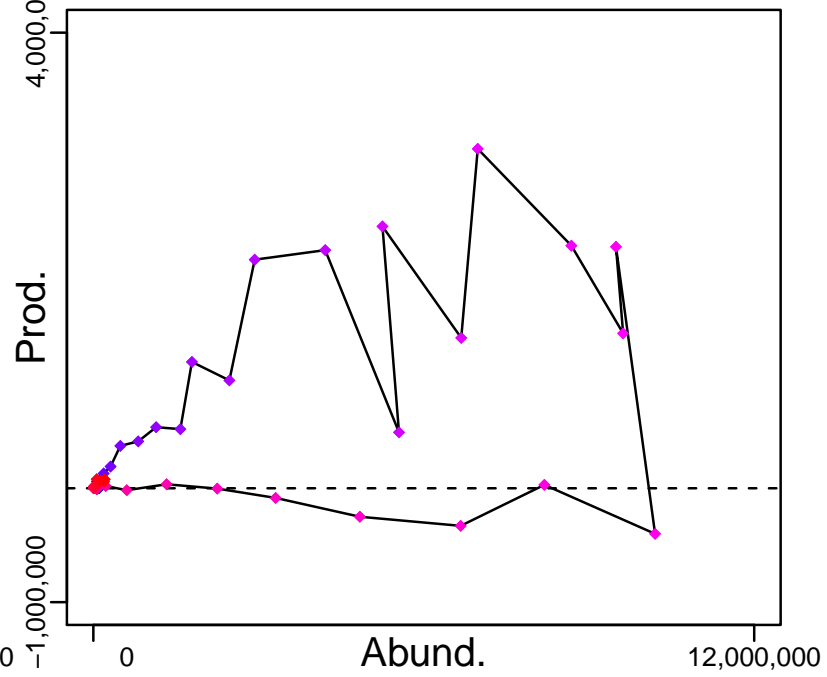
Kobe MGTpref (1960–2013–JPNIMP2016)



Spawner Recruit (1960–2013–JPNIMP2016)

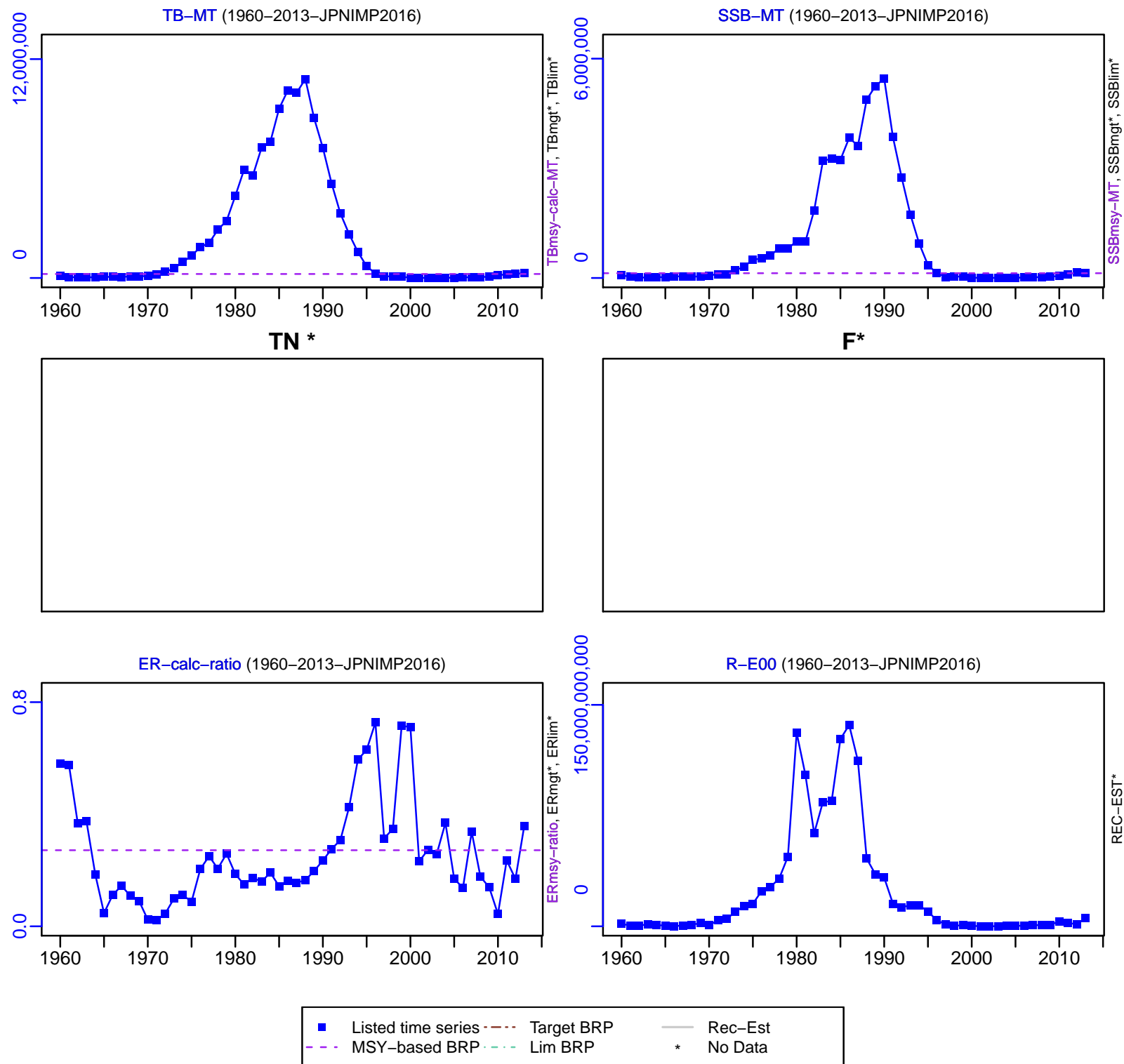


Production (1960–2013–JPNIMP2016)



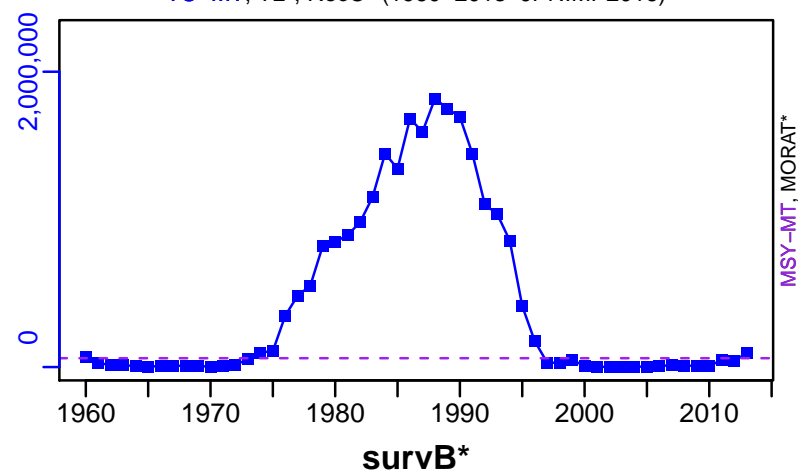
◆ Start Year ◆ End Year * No Data

Japanese sardine Tsushima Strait [PILCHTSST]



Japanese sardine Tsushima Strait [PILCHTSST]

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



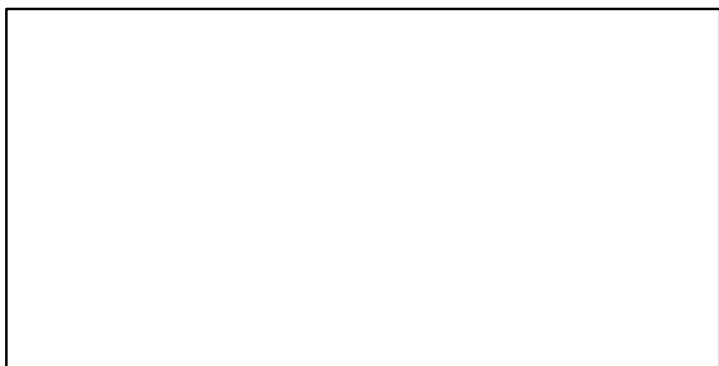
TAC*, Cpair*, Cadv*



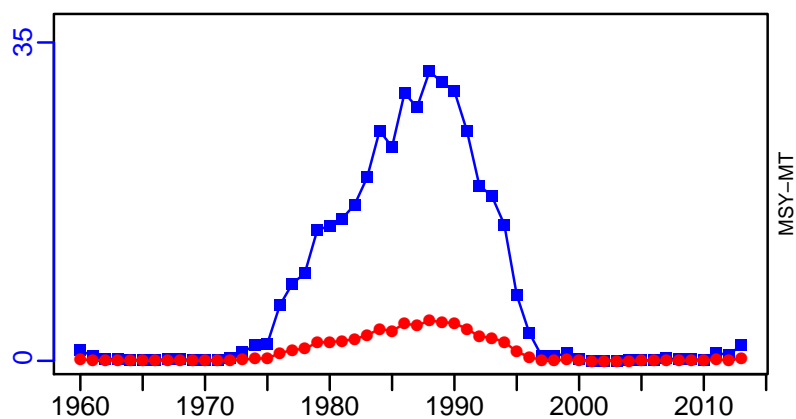
CPUE*



EFFORT*



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



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

Pacific sandlance Ise and Mikawa Bay [PSANDLIMKB]

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

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	R-E00	2014	2.92×10^{10}	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2014	13,100		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

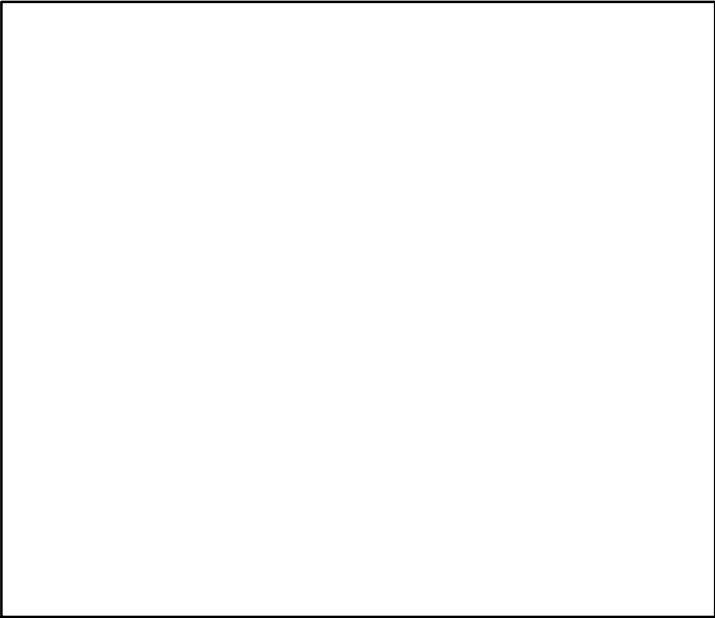
Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Pacific sandlance Ise and Mikawa Bay [PSANDLIMKB]

TB*



SSB*



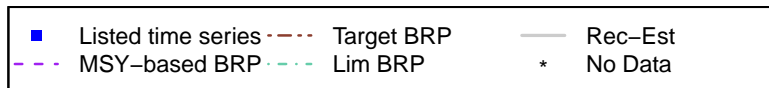
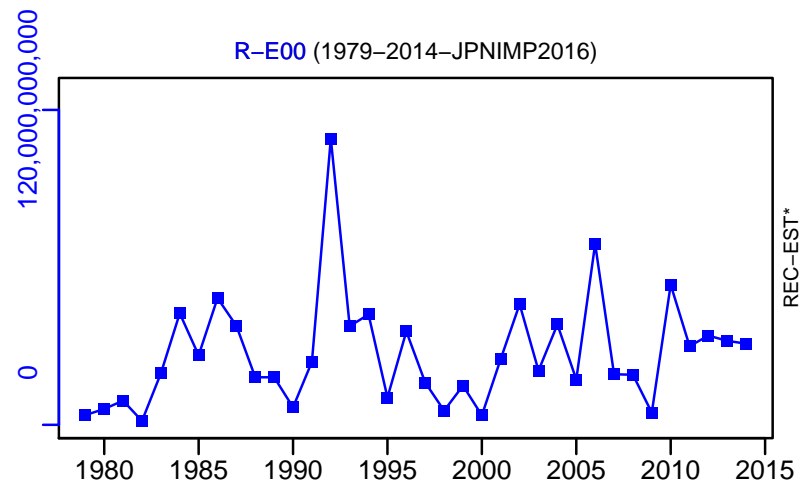
TN *



F*



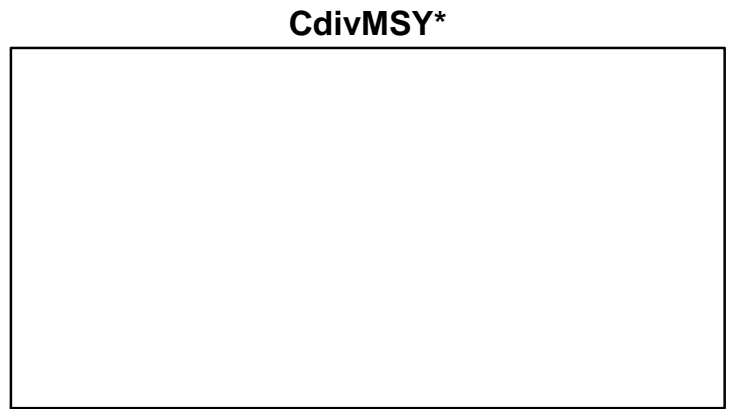
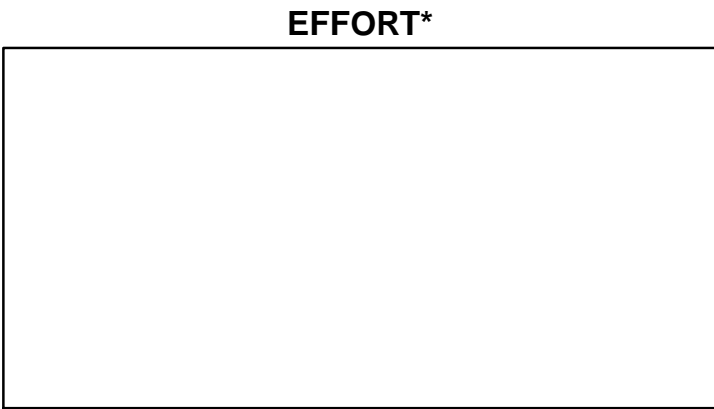
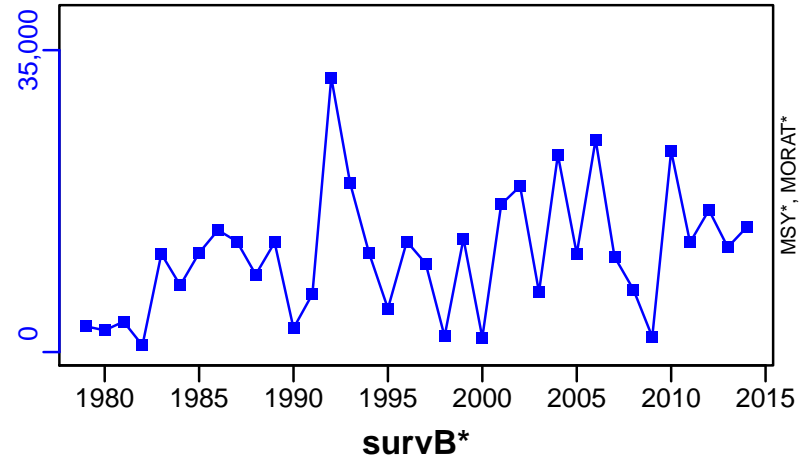
ER*



Pacific sand lance Ise and Mikawa Bay [PSANDLIMKB]

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

TAC*, Cpair*, Cadv*



Pacific sand lance Souya Strait [PSLANCESYS]

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

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

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

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Pacific sand lance Souya Strait [PSLANCESYS]

TB*



SSB*



TN *



F*



ER*

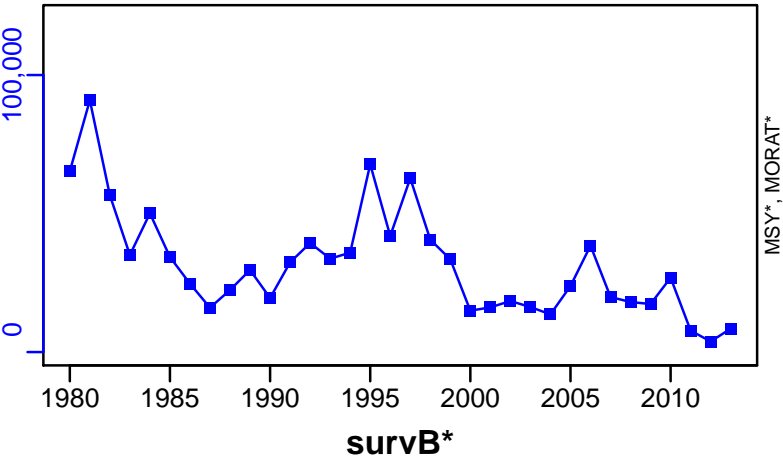


Recruits*



Pacific sand lance Souya Strait [PSLANCESYS]

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



TAC*, Cpair*, Cadv*



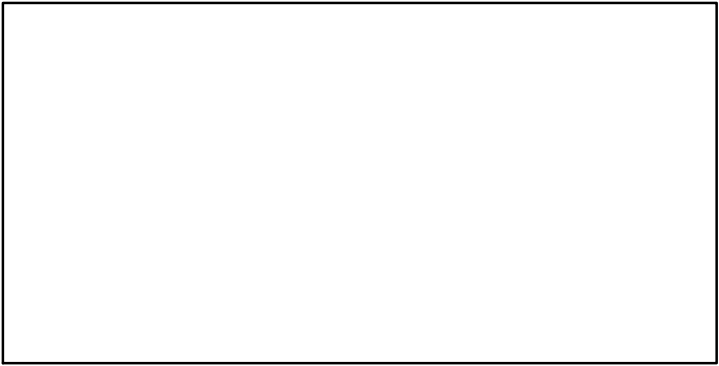
CPUE*



EFFORT*



CdivMSY*



Red seabream East China Sea [RBRMECS]

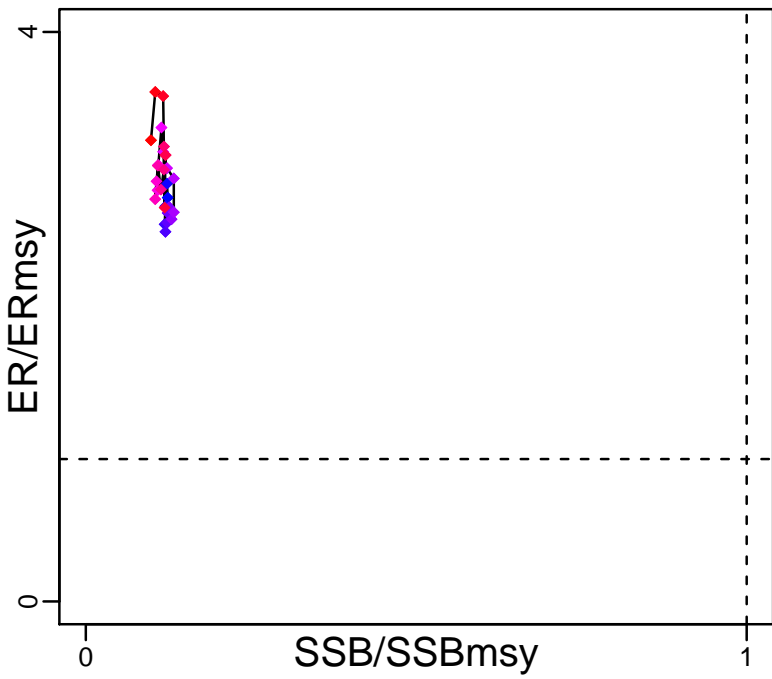
Metadata	
Scientific Name	Pagrus major
Current Assess ID	FAFRFJ-RBRMECS-1969-2013-JPNIMP2016
Area	East China Sea
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2010, 2013

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

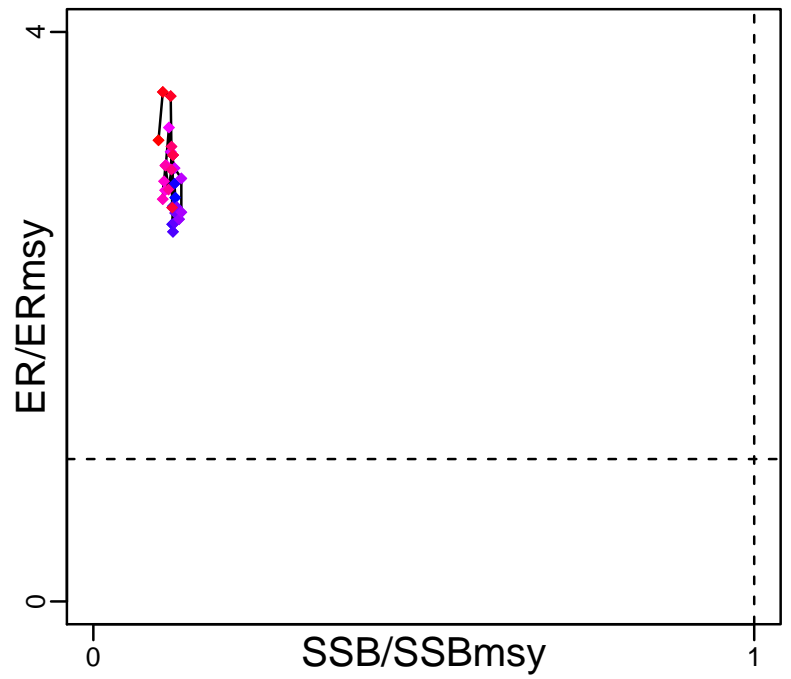
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	14,200	-	1
SSB	SSB-MT	2013	8590	Both	3
TN	-	-	-	-	-
R	R-E00	2013	10,800,000	-	1
F	-	-	-	-	-
ER	ER-calc-ratio	2013	0.389	-	-
TC	TC-MT	2013	5520		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2013	0.147		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013	0.099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

Red seabream East China Sea [RBRMECS]

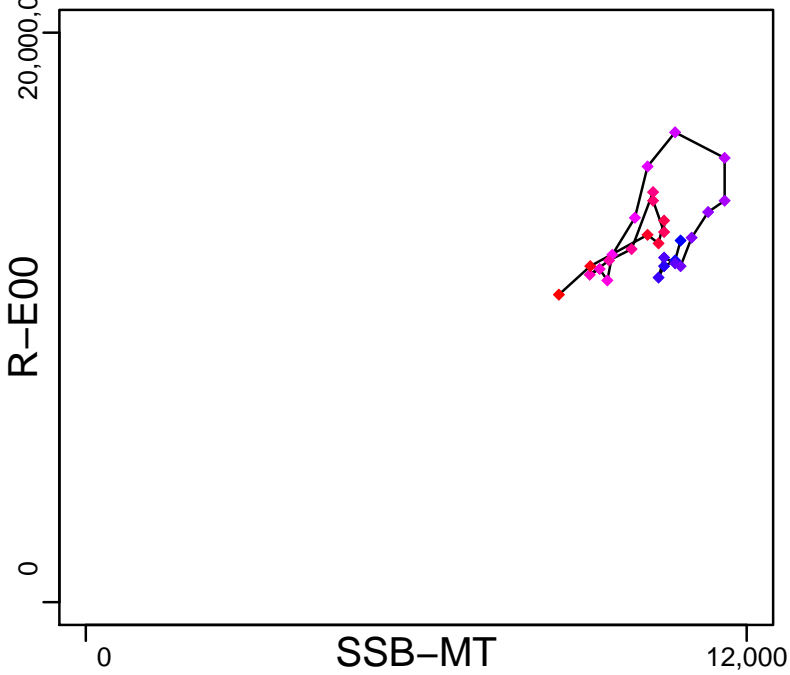
Kobe MSYpref (1969–2013–JPNIMP2016)



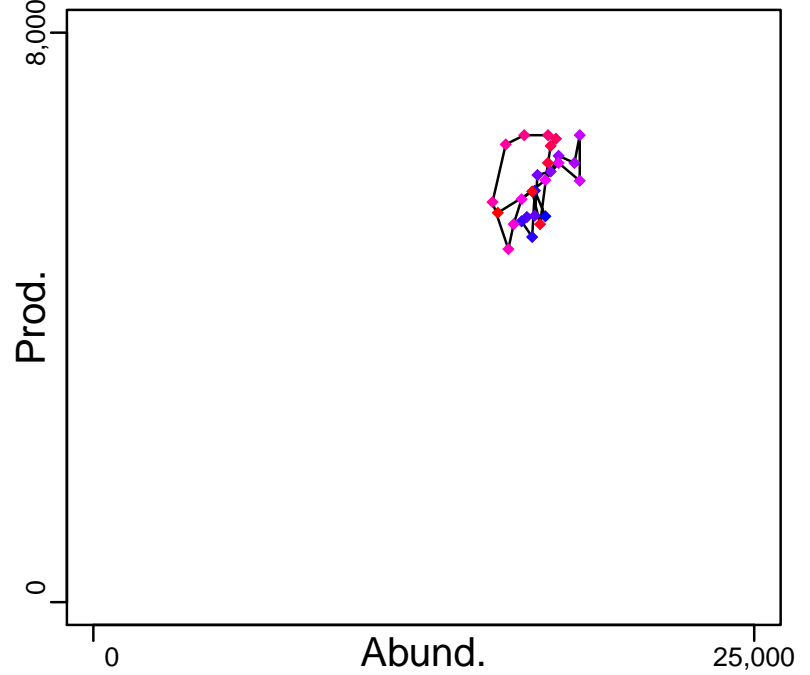
Kobe MGTpref (1969–2013–JPNIMP2016)



Spawner Recruit (1969–2013–JPNIMP2016)



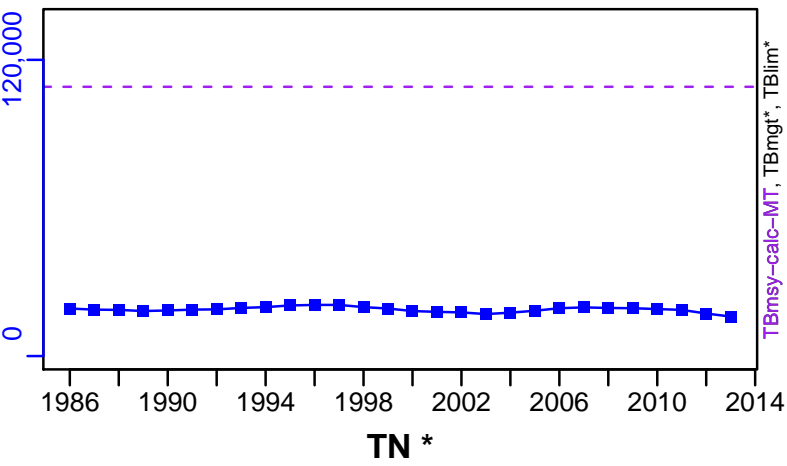
Production (1969–2013–JPNIMP2016)



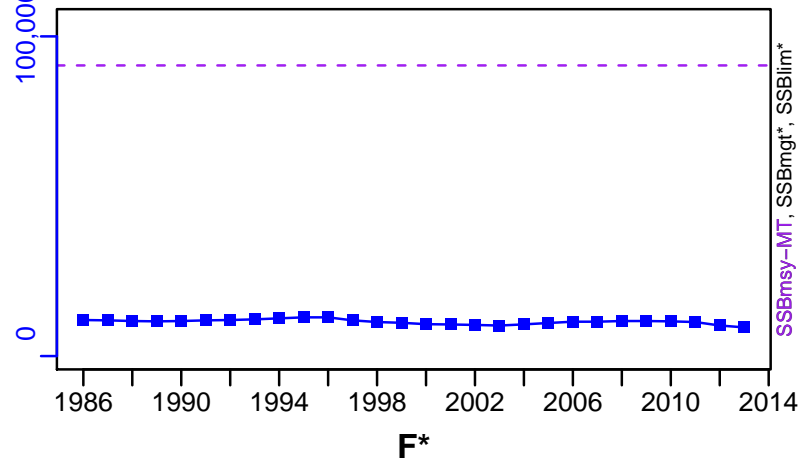
◆ Start Year ◆ End Year * No Data

Red seabream East China Sea [RBRMECS]

TB-MT (1969-2013-JPNIMP2016)



SSB-MT (1969-2013-JPNIMP2016)



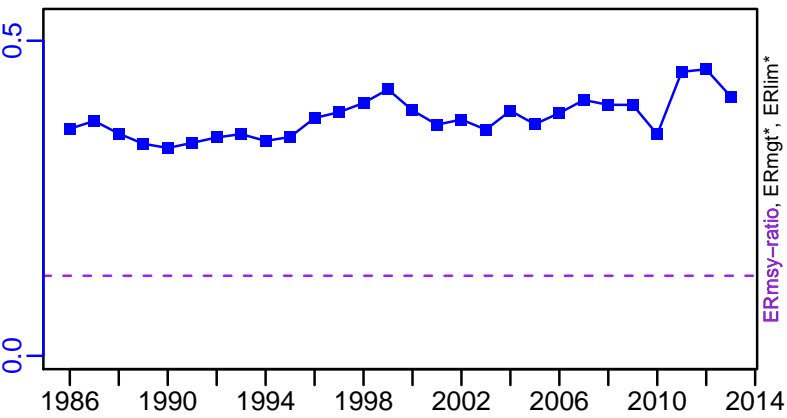
TN *



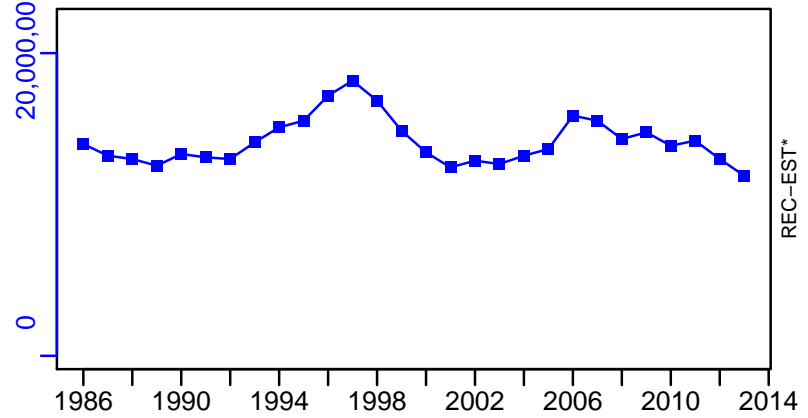
F*



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



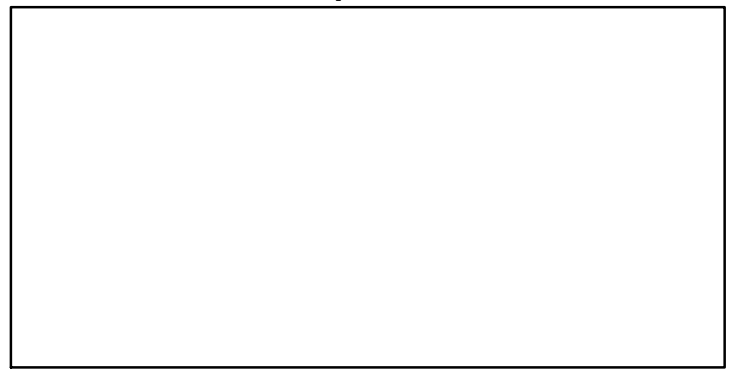
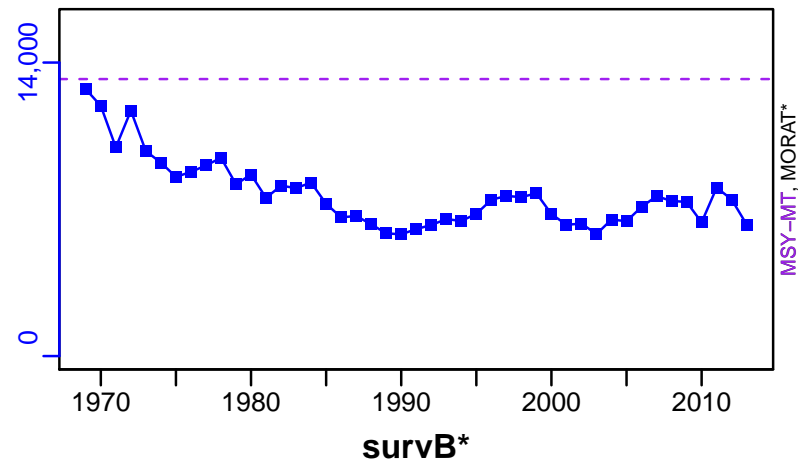
R-E00 (1969-2013-JPNIMP2016)



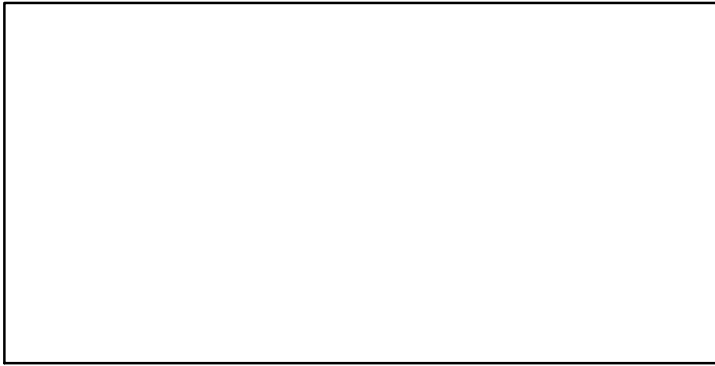
Red seabream East China Sea [RBRMECS]

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

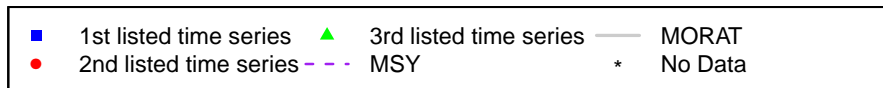
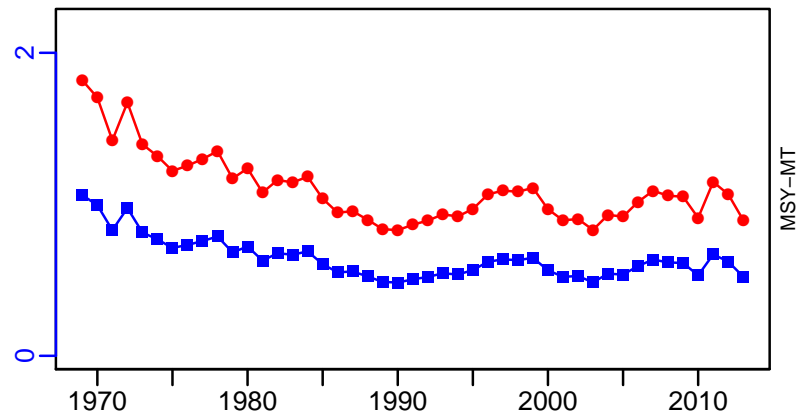
TAC*, Cpair*, Cadv*



EFFORT*



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



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

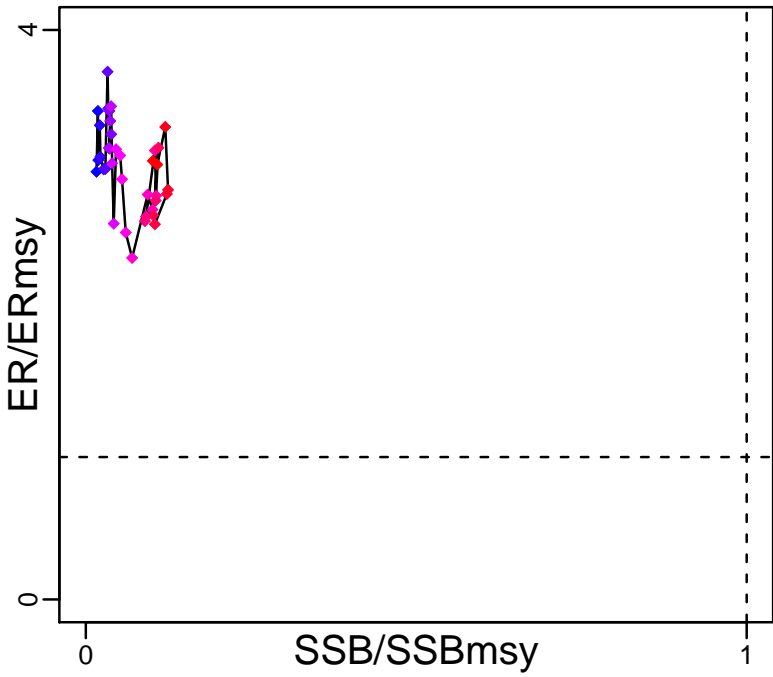
Metadata	
Scientific Name	Pagrus major
Current Assess ID	FAFRFJ-RBRMSETOE-1977-2013-JPNIMP2016
Area	Inland Sea of Japan (East)
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2010, 2013

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

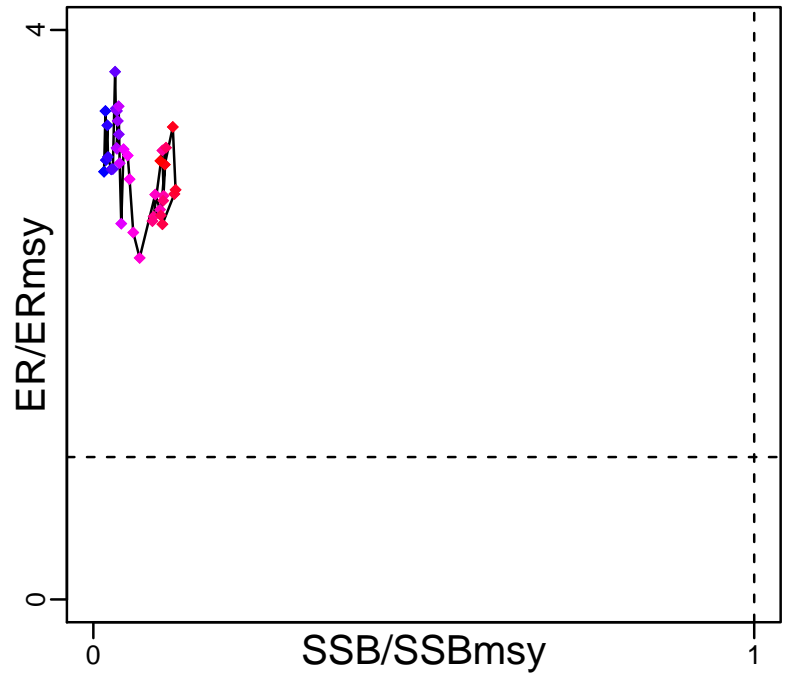
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	4030	-	0
SSB	SSB-MT	2013	1680	Both	3
TN	-	-	-	-	-
R	R-E00	2013	8,730,000	-	0
F	-	-	-	-	-
ER	ER-calc-ratio	2013	0.447	-	-
TC	TC-MT	2013	1800		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2013	0.188		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013	0.101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

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

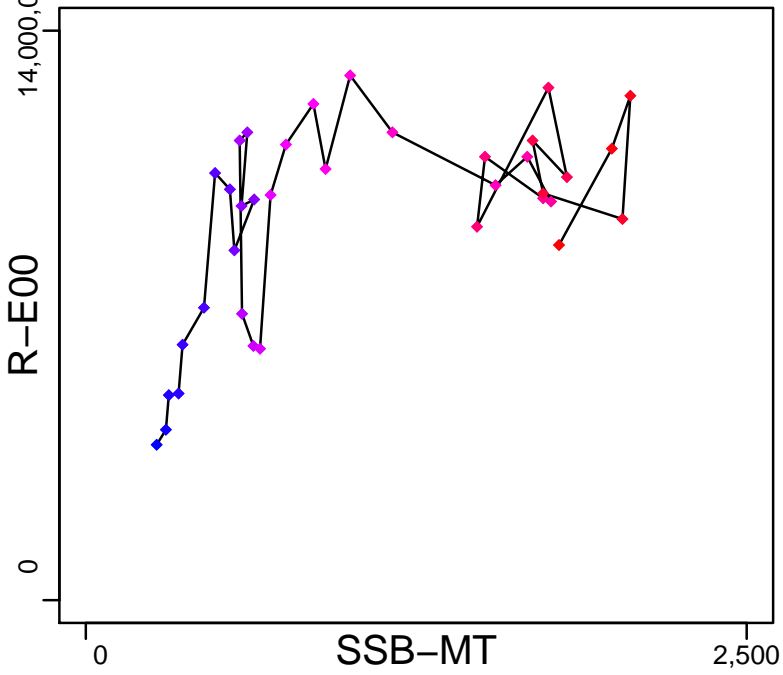
Kobe MSYpref (1977–2013–JPNIMP2016)



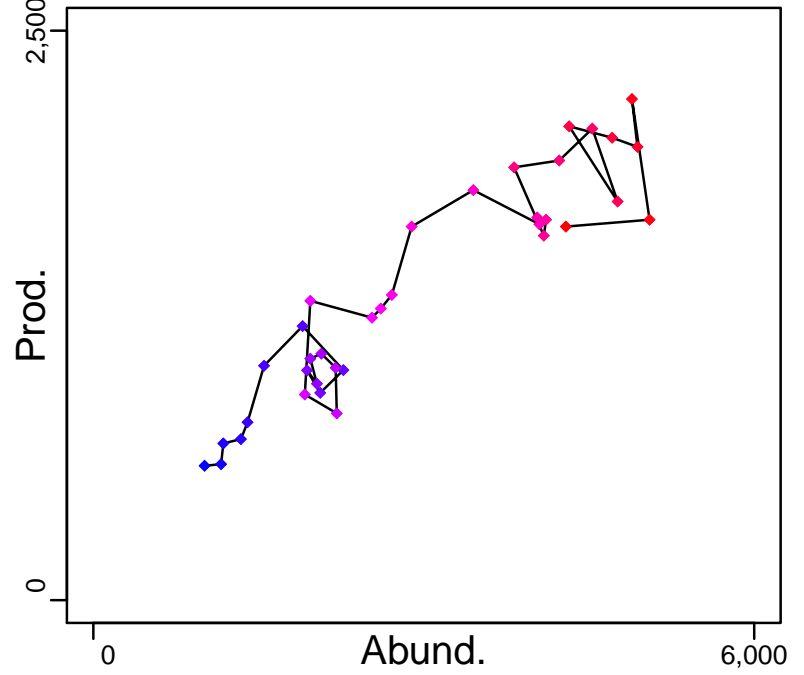
Kobe MGTpref (1977–2013–JPNIMP2016)



Spawner Recruit (1977–2013–JPNIMP2016)



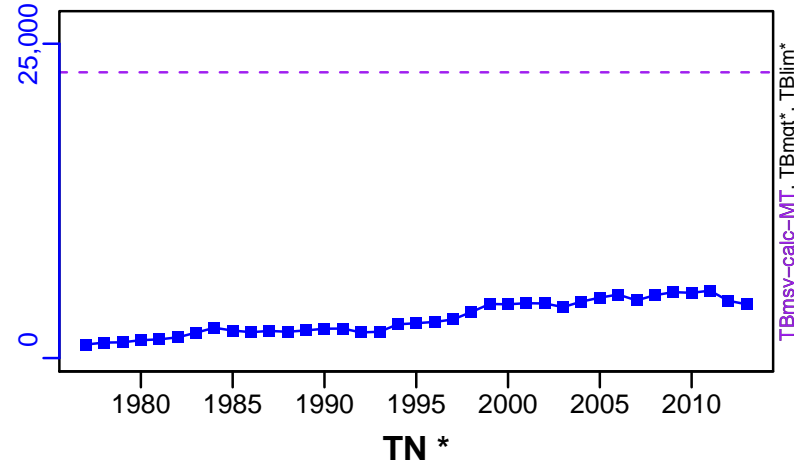
Production (1977–2013–JPNIMP2016)



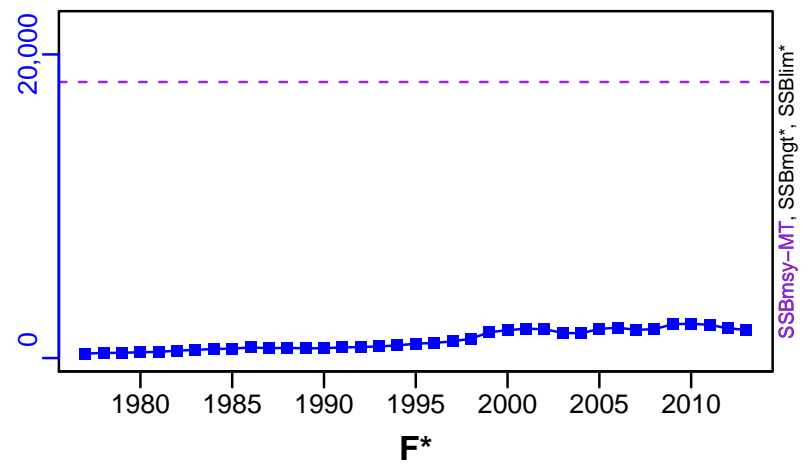
◆ Start Year ◆ End Year * No Data

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

TB-MT (1977-2013-JPNIMP2016)

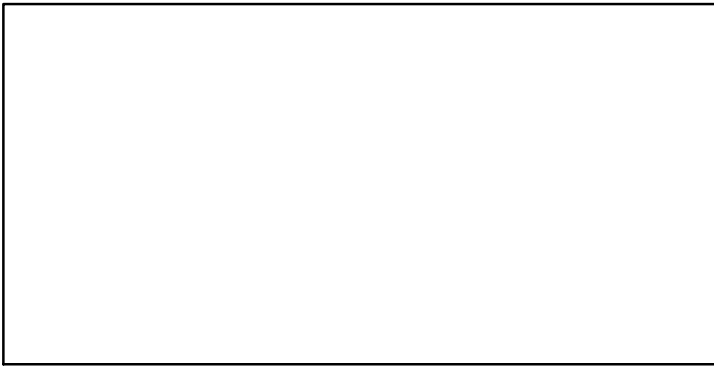


SSB-MT (1977-2013-JPNIMP2016)

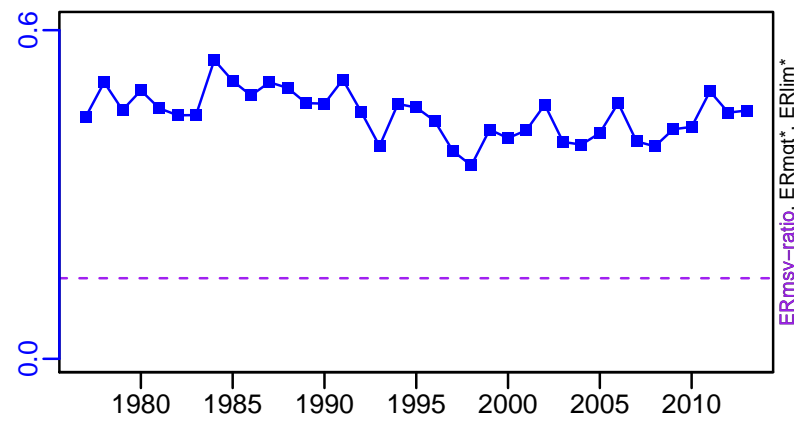


TN *

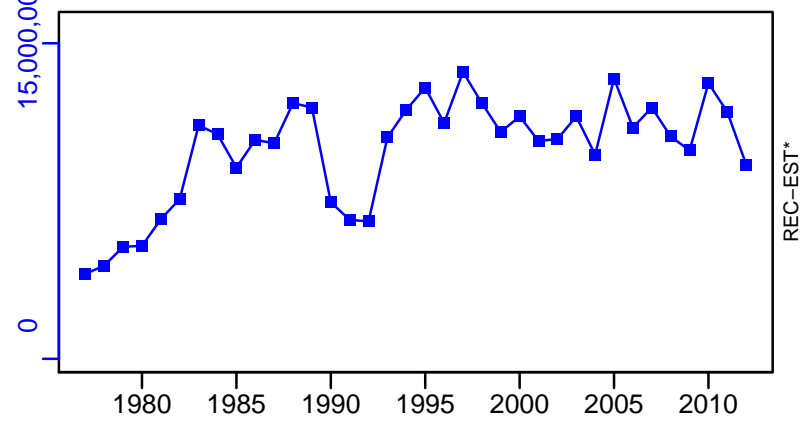
F*



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



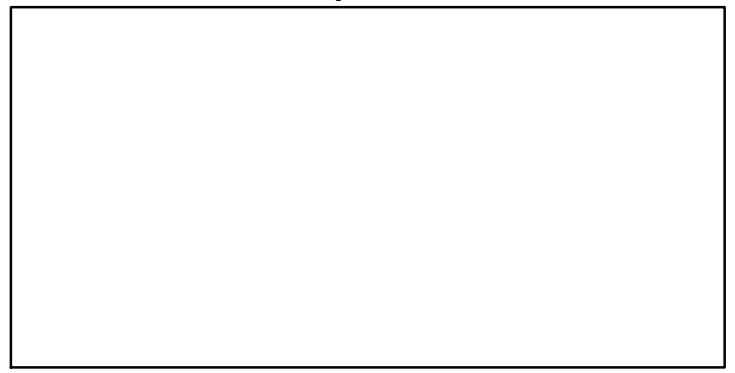
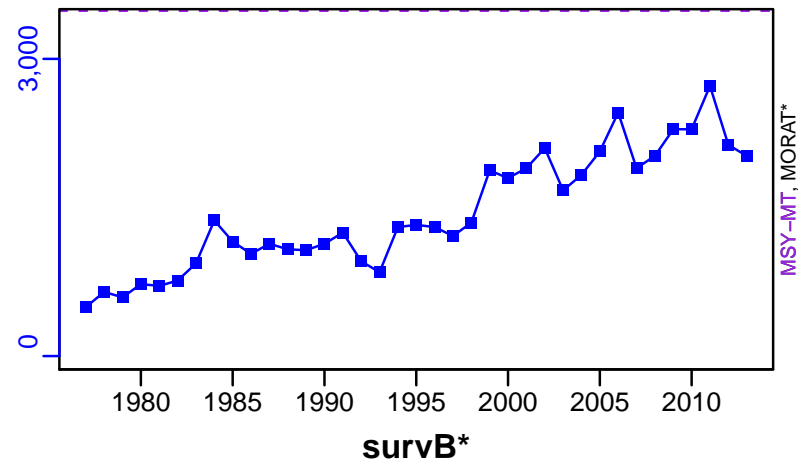
R-E00 (1977-2013-JPNIMP2016)



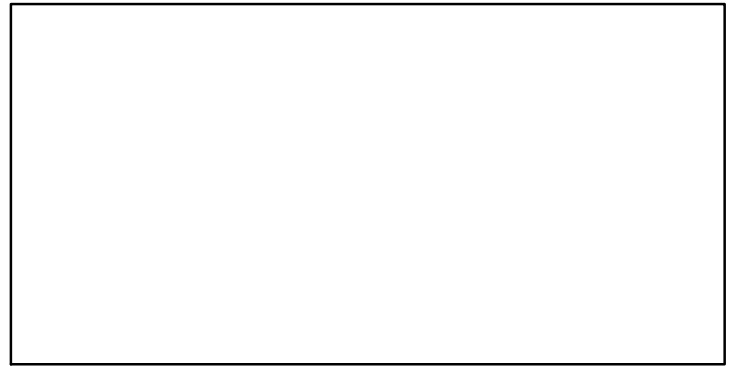
Red seabream Inland Sea of Japan (East) [RBRMSETOE]

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

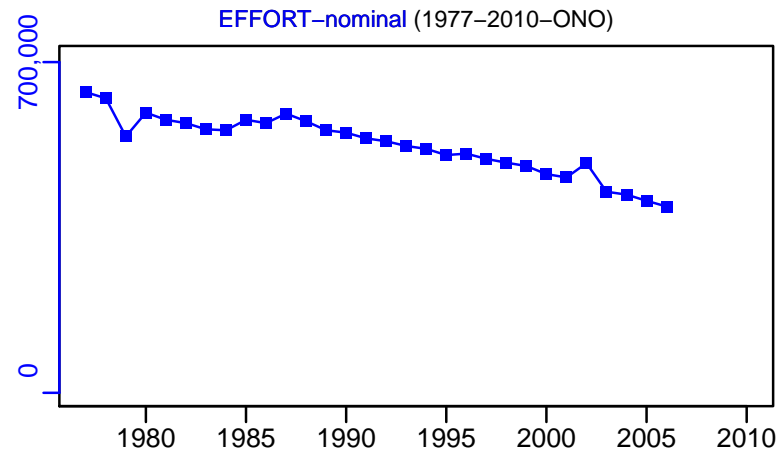
TAC*, Cpair*, Cadv*



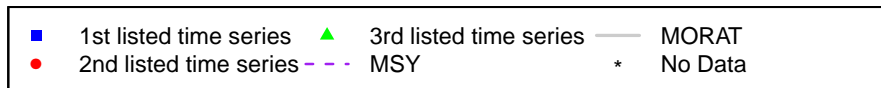
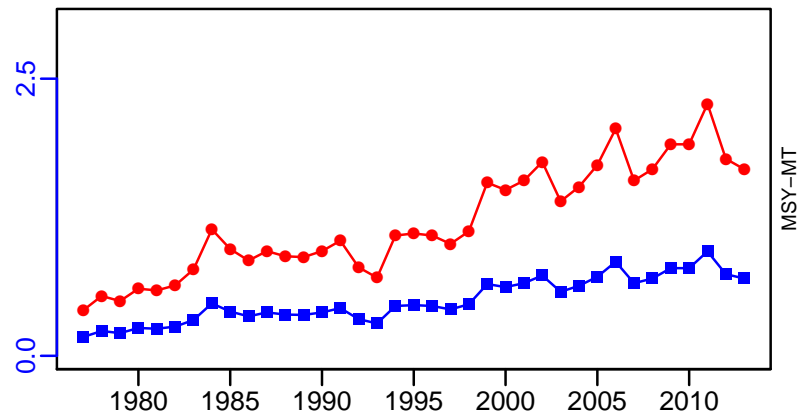
CPUE*



EFFORT-nominal (1977-2010-ONO)



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



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

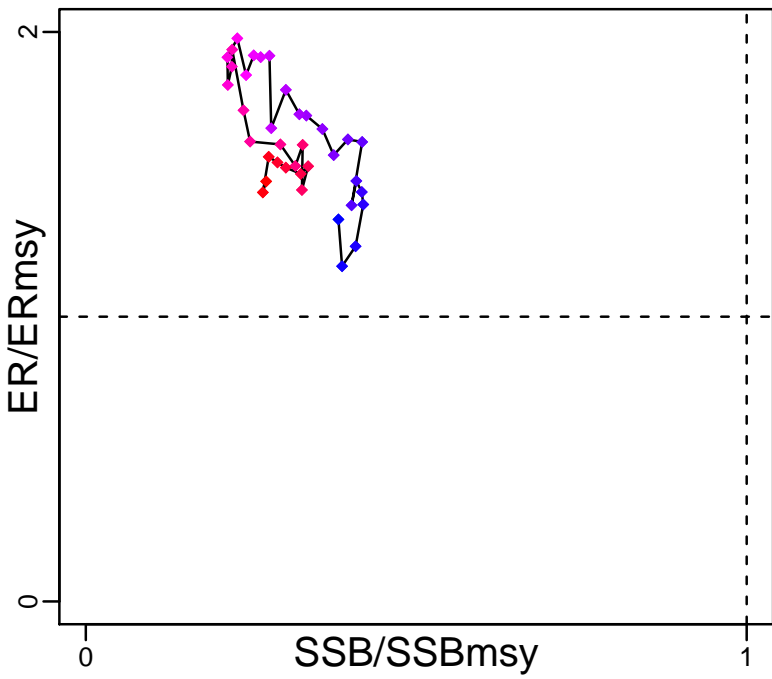
Metadata	
Scientific Name	Pagrus major
Current Assess ID	FAFRFJ-RBRMSETOW-1977-2013-JPNIMP2016
Area	Inland Sea of Japan (West)
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2010, 2013

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

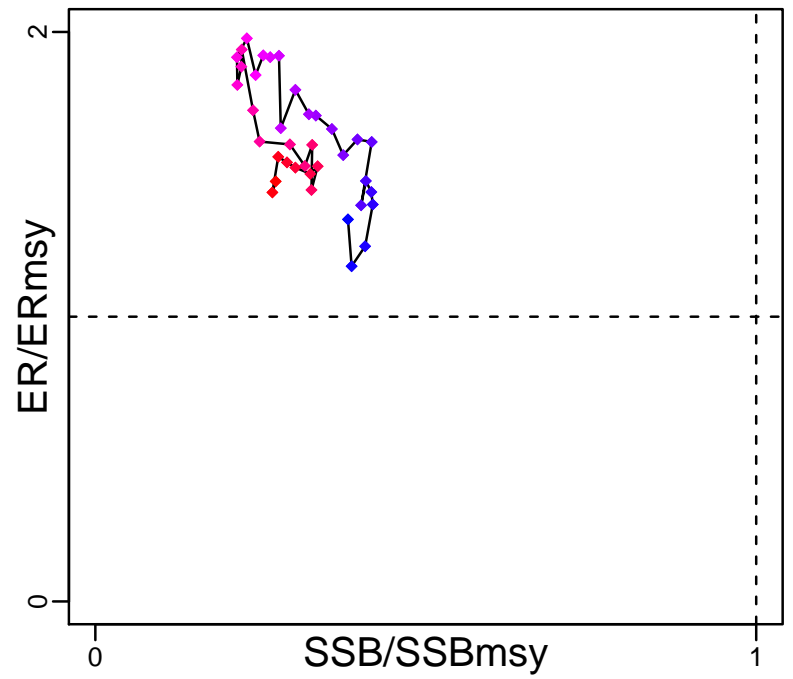
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	8620	-	0
SSB	SSB-MT	2013	4940	Both	3
TN	-	-	-	-	-
R	R-E00	2013	8,300,000	-	0
F	-	-	-	-	-
ER	ER-calc-ratio	2013	0.255	-	-
TC	TC-MT	2013	2200		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2013	0.357		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013	0.273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

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

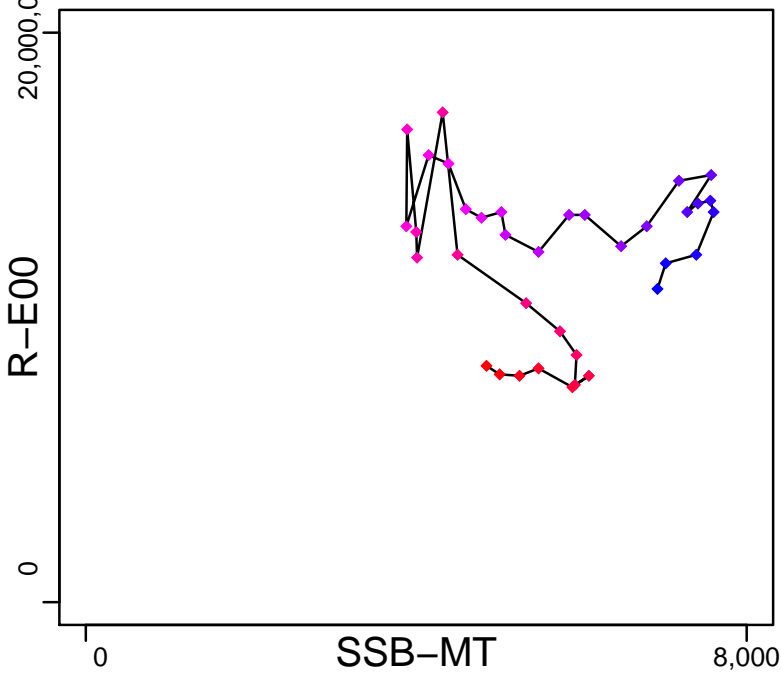
Kobe MSYpref (1977–2013–JPNIMP2016)



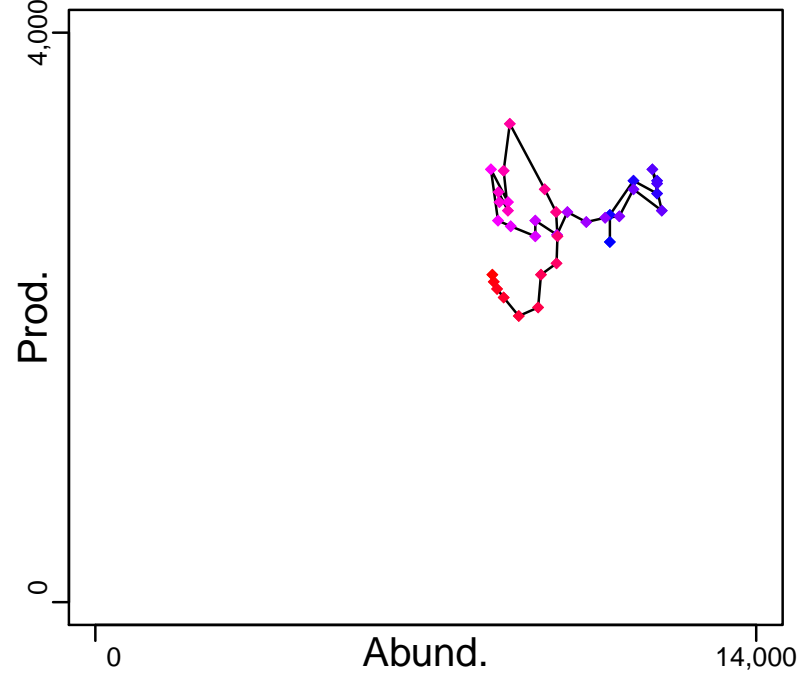
Kobe MGTpref (1977–2013–JPNIMP2016)



Spawner Recruit (1977–2013–JPNIMP2016)



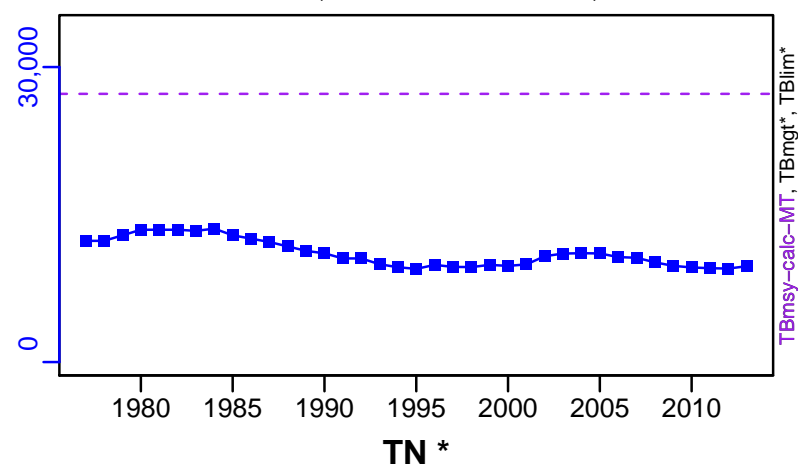
Production (1977–2013–JPNIMP2016)



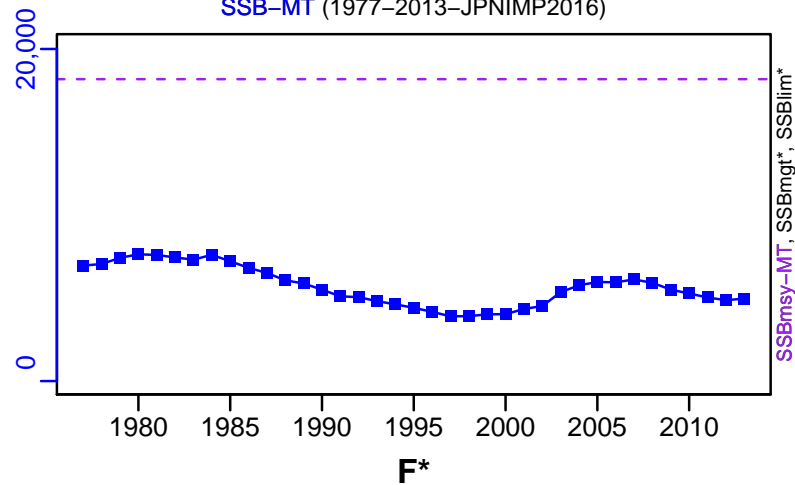
◆ Start Year ◆ End Year * No Data

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

TB-MT (1977-2013-JPNIMP2016)



SSB-MT (1977-2013-JPNIMP2016)

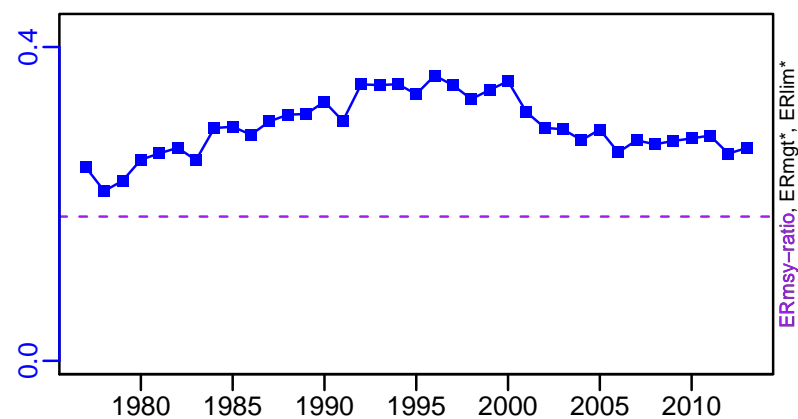


TN *

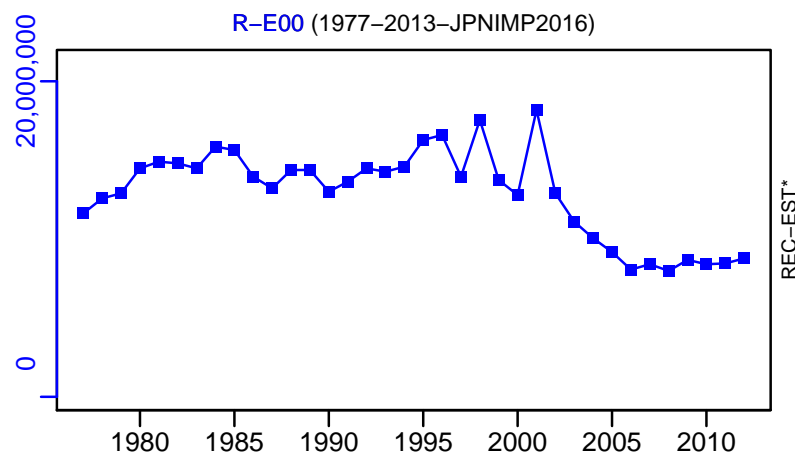
F*



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



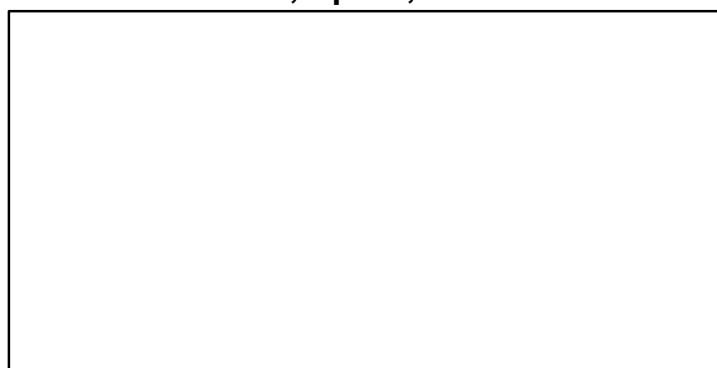
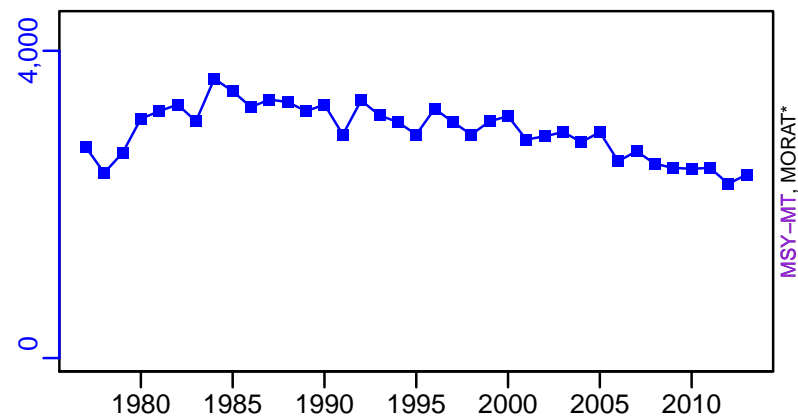
R-E00 (1977-2013-JPNIMP2016)



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

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

TAC*, Cpair*, Cadv*



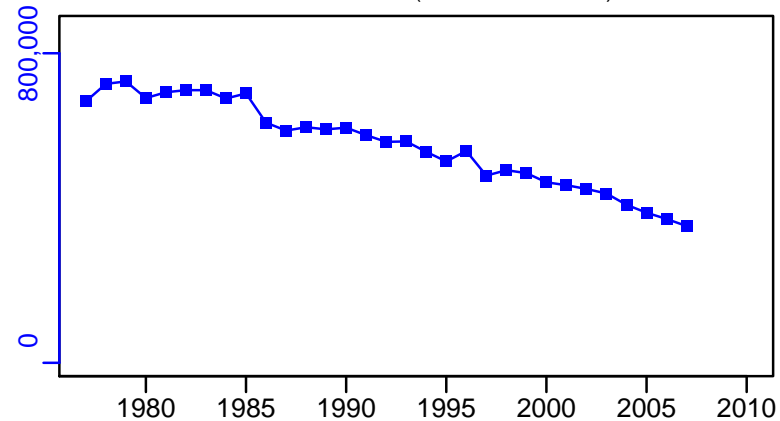
survB*



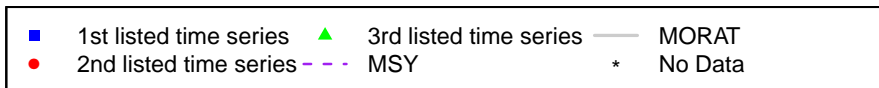
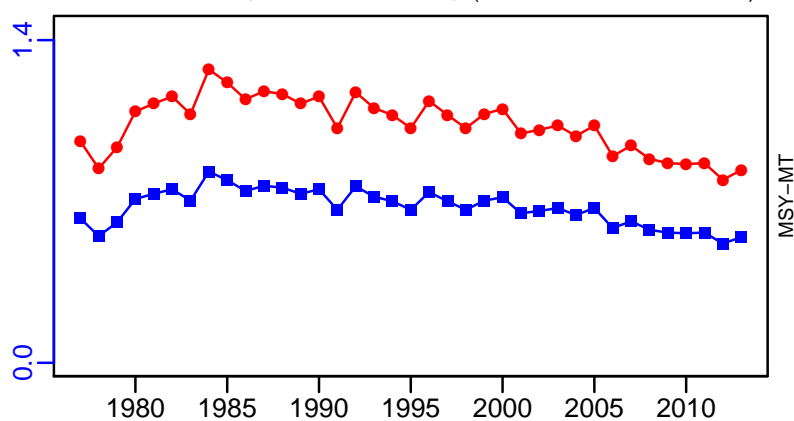
CPUE*



EFFORT-nominal (1977–2010–ONO)



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



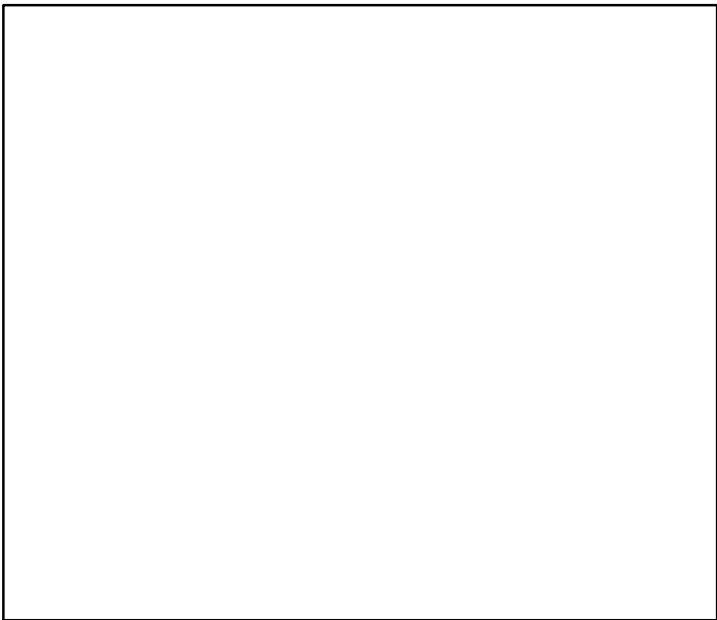
Round herring Pacific Ocean [RHERRPAC]

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

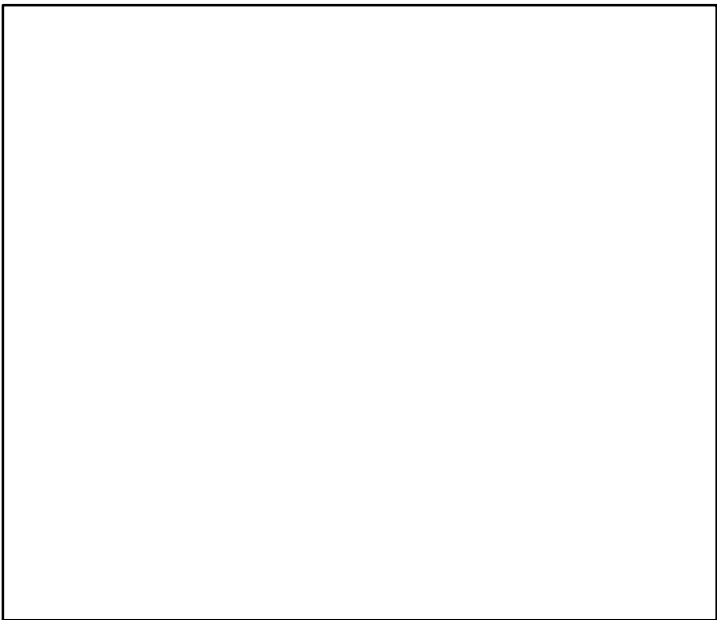
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2013	0.7
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

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

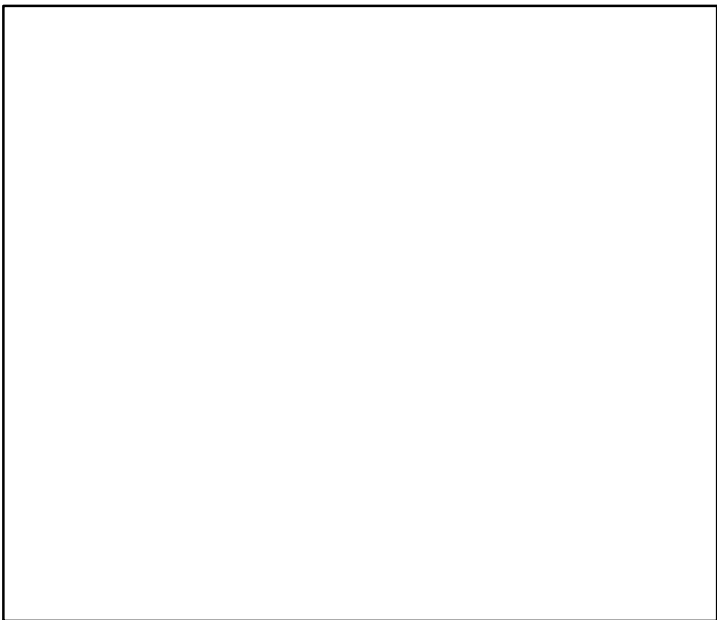
Kobe MSY*



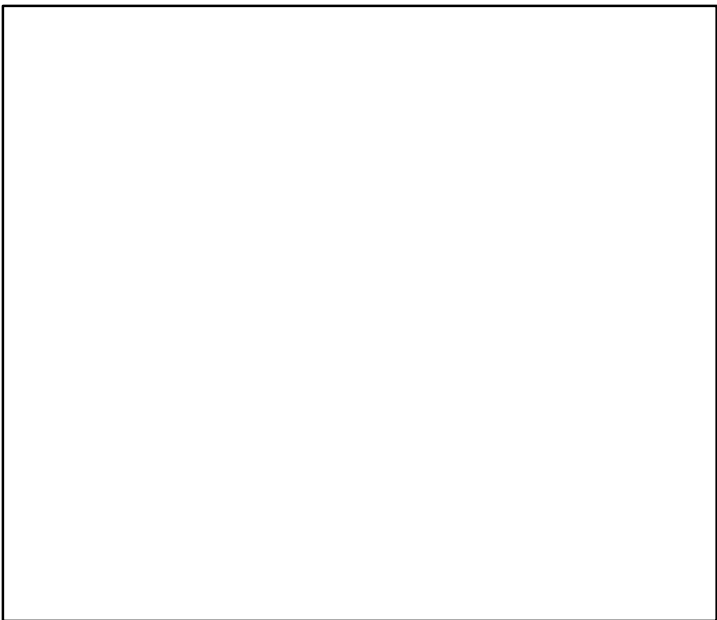
Kobe MGT*



Spawner Recruit*



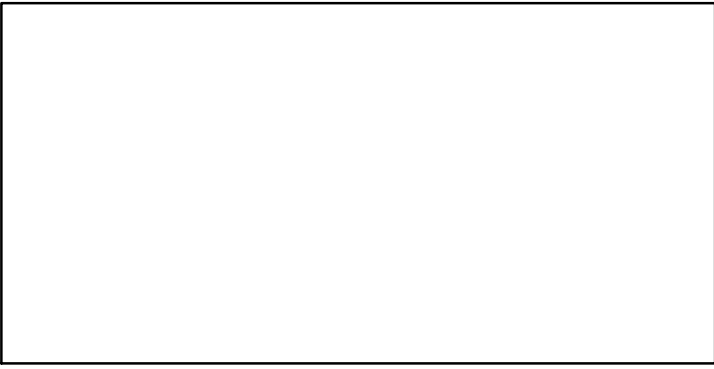
Production*



◆ Start Year ◆ End Year * No Data

Round herring Pacific Ocean [RHERRPAC]

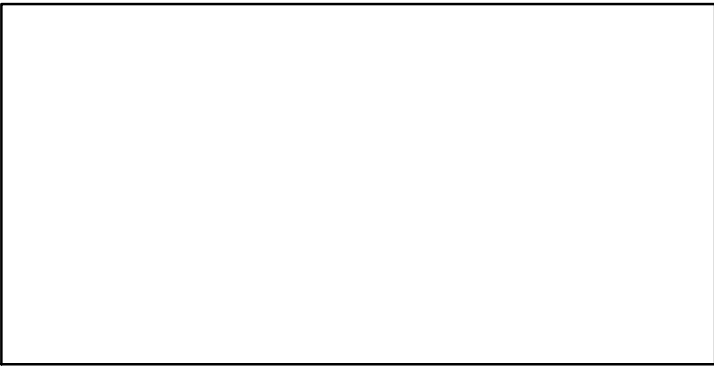
TB*



SSB*



TN *



F*



ER*



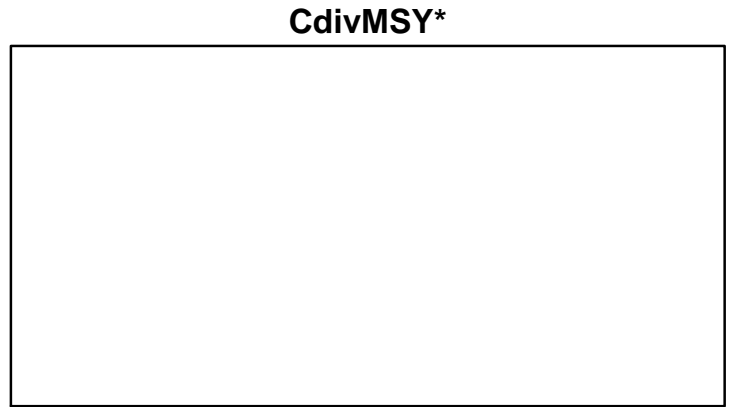
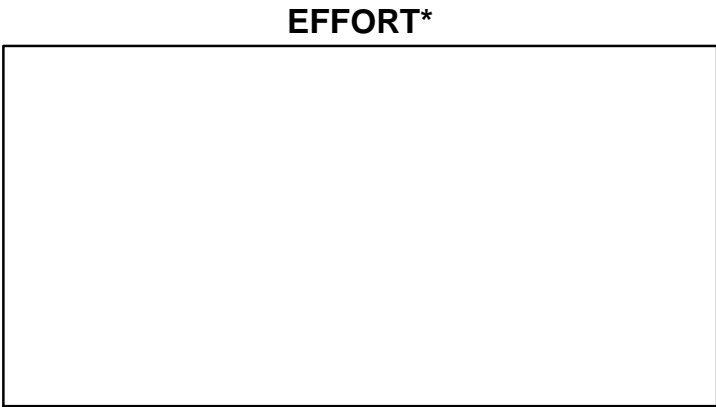
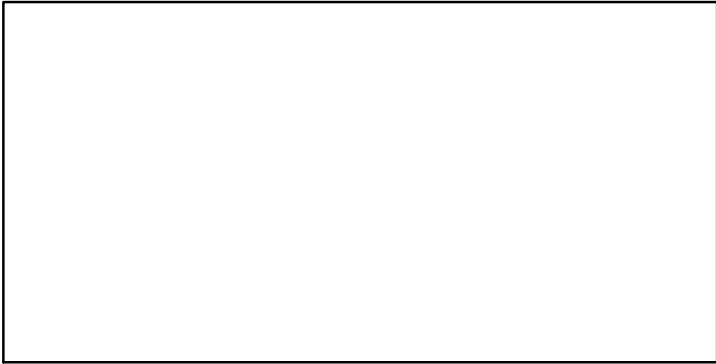
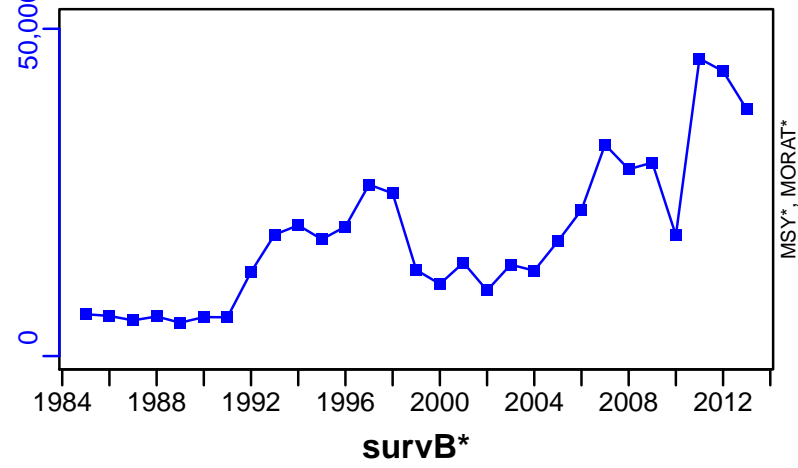
Recruits*



Round herring Pacific Ocean [RHERRPAC]

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

TAC*, Cpair*, Cadv*



Round herring Tsushima Strait [RHERRTSST]

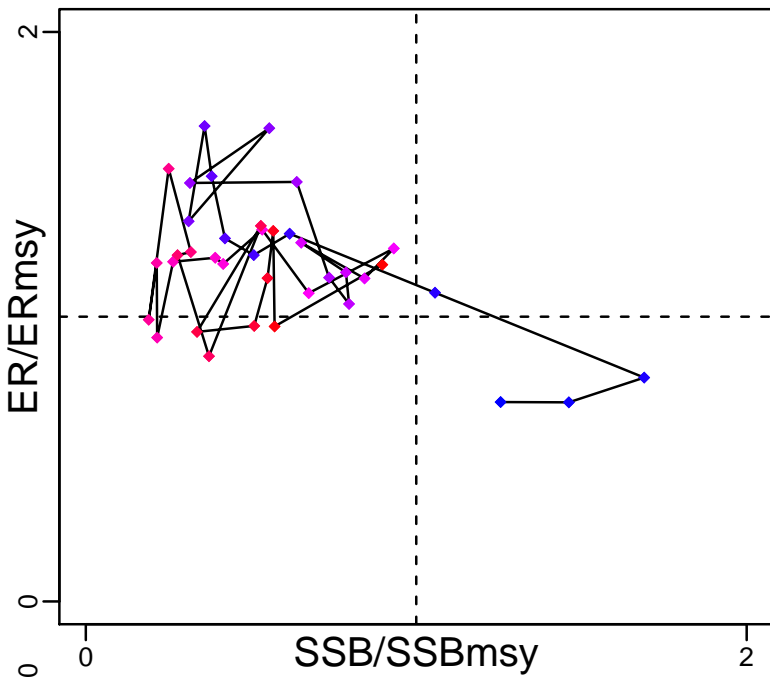
Metadata	
Scientific Name	Etrumeus teres
Current Assess ID	FAFRFJ-RHERRTSST-1976-2013-JPNIMP2016
Area	Tsushima Strait
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013

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

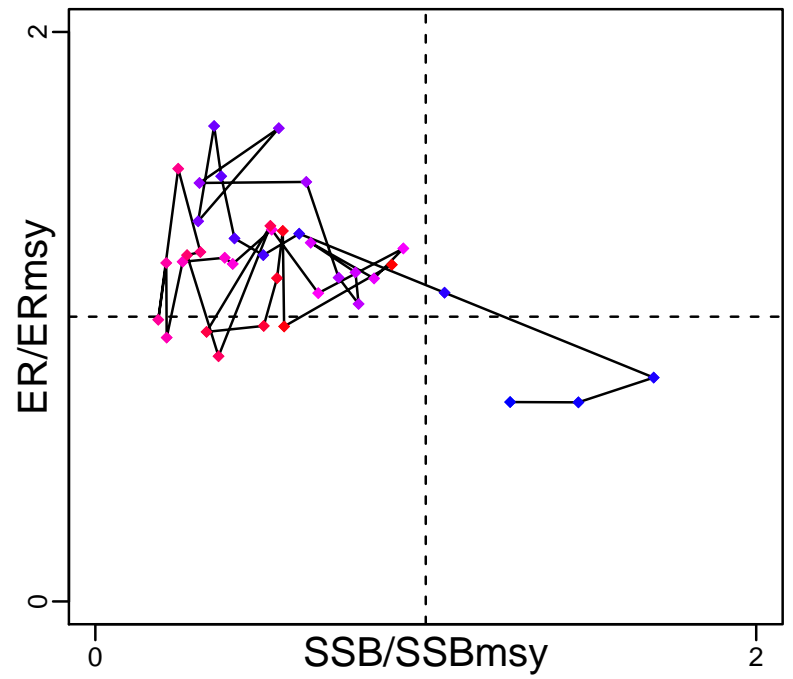
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	119,000	-	0
SSB	SSB-MT	2013	66,900	Both	1
TN	-	-	-	-	-
R	R-E00	2013	2.16×10^9	-	0
F	-	-	-	-	-
ER	ER-calc-ratio	2013	0.421	-	-
TC	TC-MT	2013	50,100		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2013	0.963		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013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

Round herring Tsushima Strait [RHERTSST]

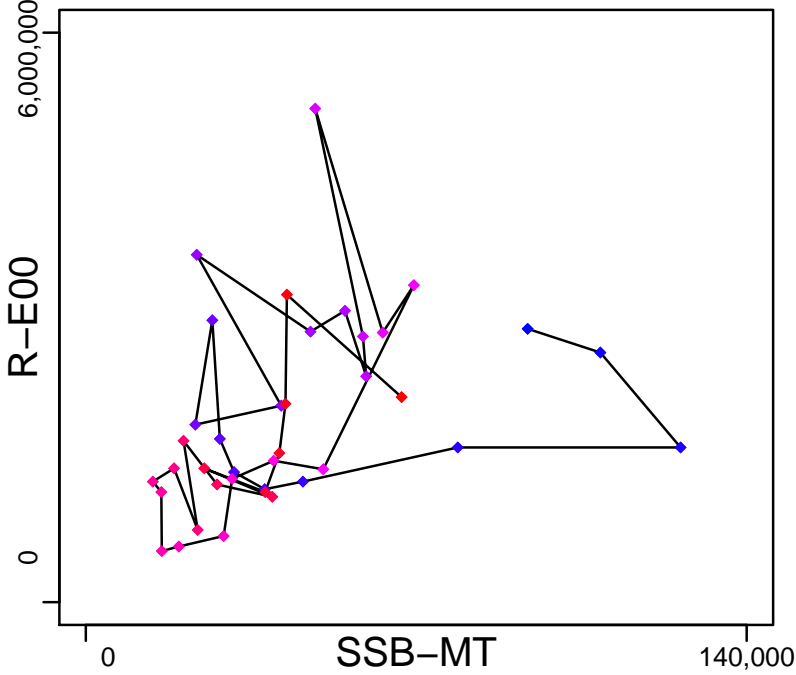
Kobe MSYpref (1976–2013–JPNIMP2016)



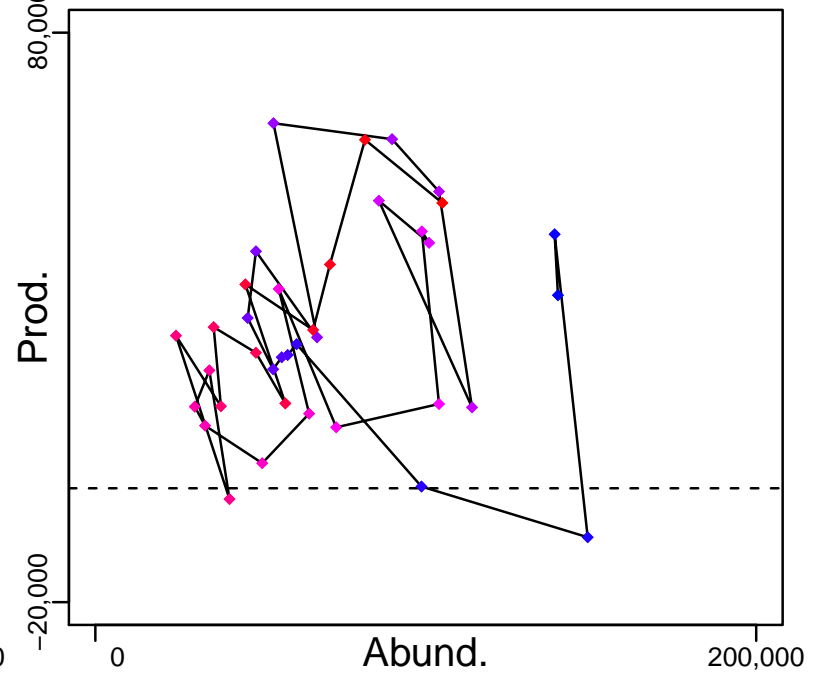
Kobe MGTpref (1976–2013–JPNIMP2016)



Spawner Recruit (1976–2013–JPNIMP2016)



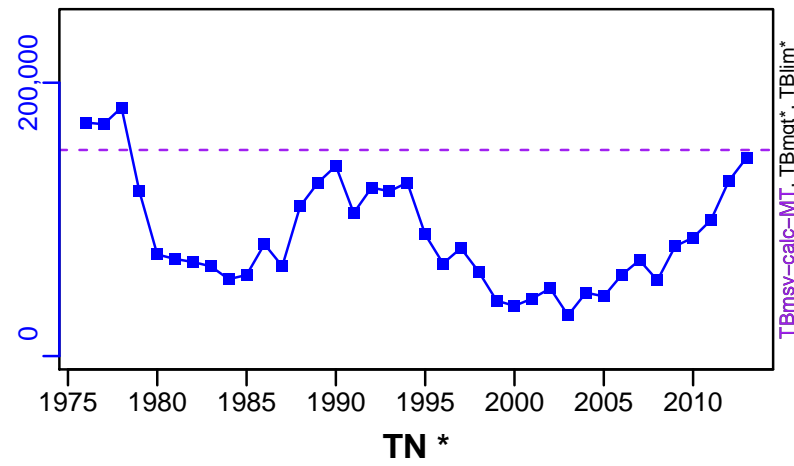
Production (1976–2013–JPNIMP2016)



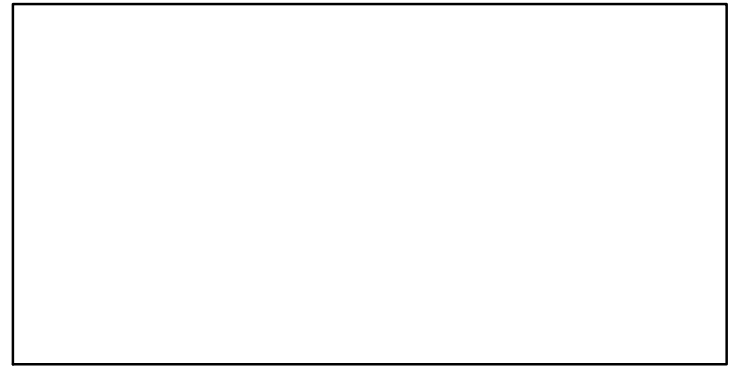
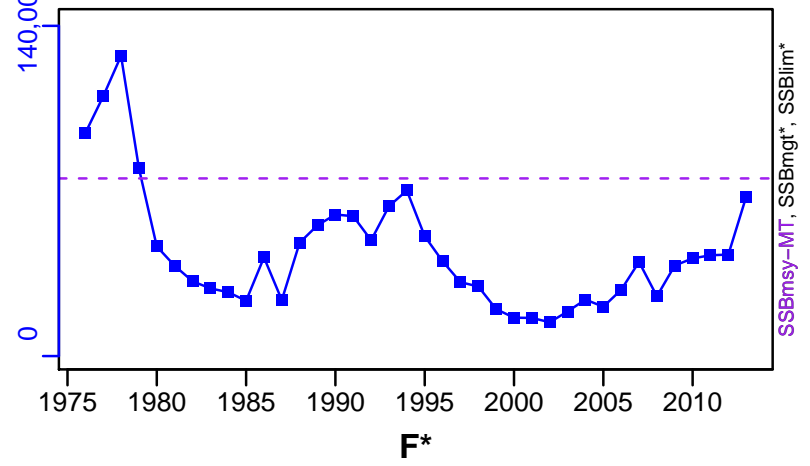
◆ Start Year ◆ End Year * No Data

Round herring Tsushima Strait [RHERTSST]

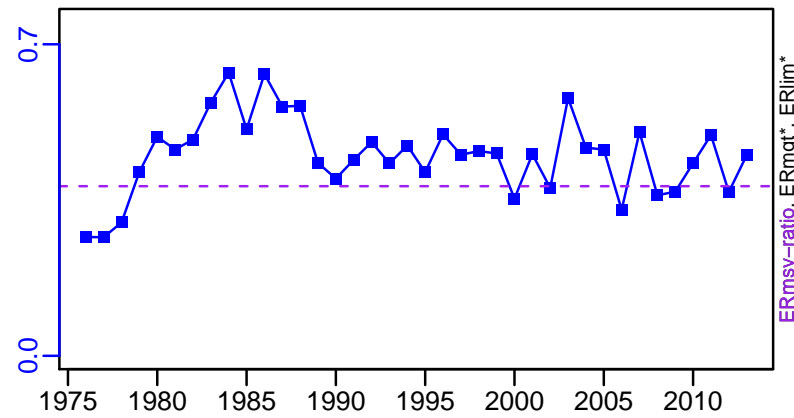
TB-MT (1976–2013–JPNIMP2016)



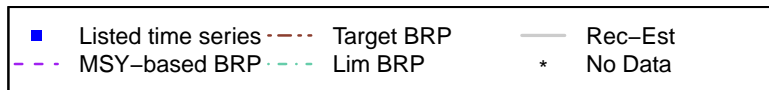
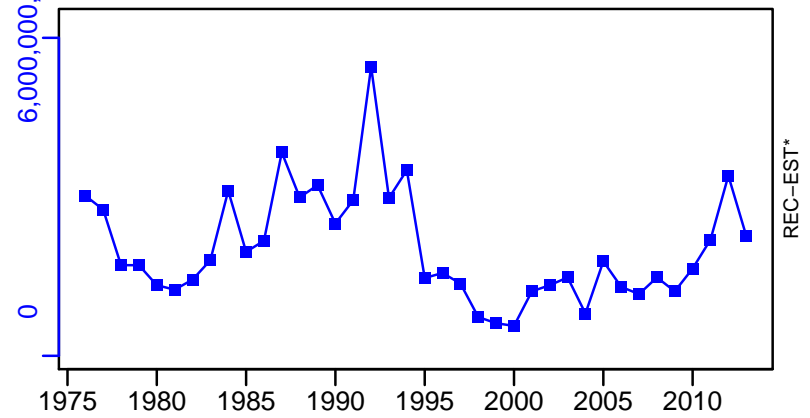
SSB-MT (1976–2013–JPNIMP2016)



ER-calc-ratio (1976–2013–JPNIMP2016)

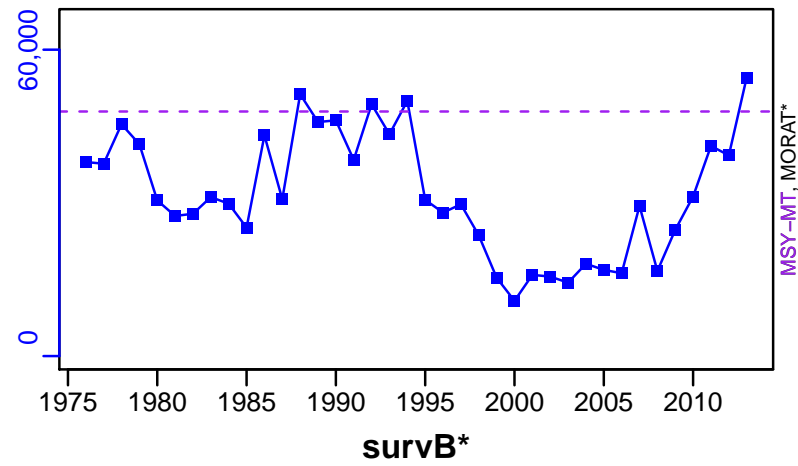


R-E00 (1976–2013–JPNIMP2016)



Round herring Tsushima Strait [RHERTSST]

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



TAC*, Cpair*, Cadv*



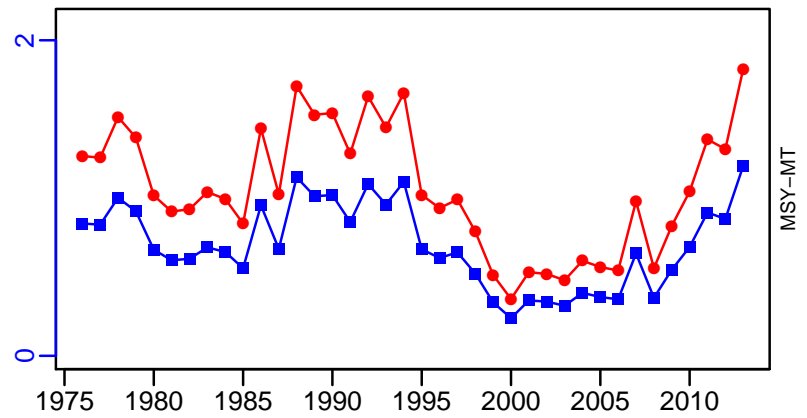
CPUE*



EFFORT*



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



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

Round nose flounder Sea of Japan [RSFLOUNSOJ]

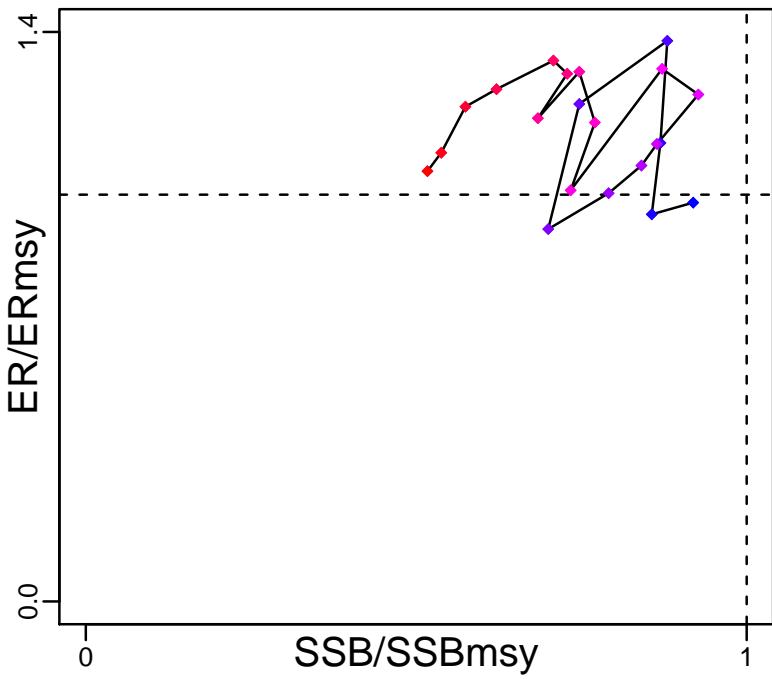
Metadata	
Scientific Name	Eopsetta grigorjewi
Current Assess ID	FAFRFJ-RSFLOUNSOJ-1966-2013-JPNIMP2016
Area	Sea of Japan
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013

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

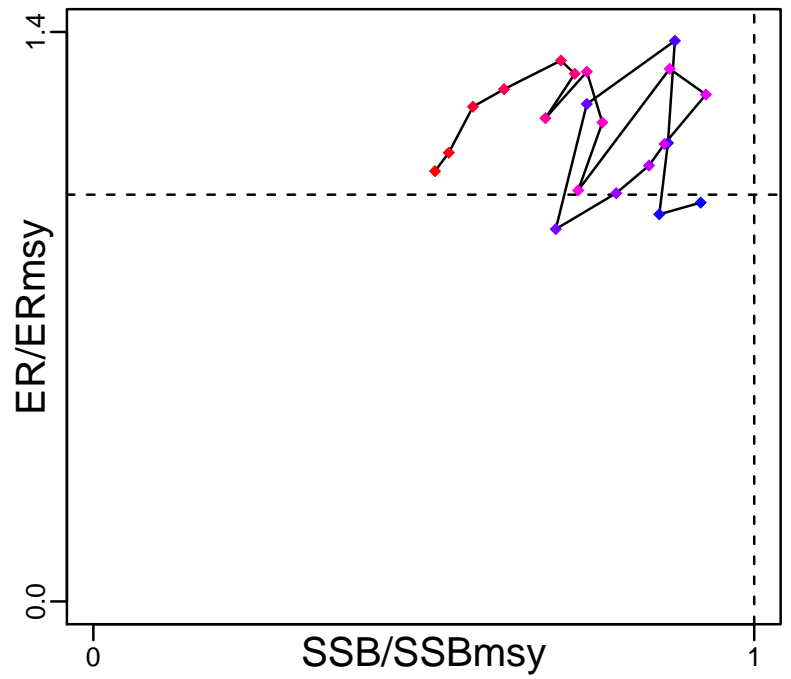
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	2740	-	1
SSB	SSB-MT	2013	1980	Both	3
TN	-	-	-	-	-
R	R-E00	2013	15,100,000	-	1
F	-	-	-	-	-
ER	ER-calc-ratio	2013	0.301	-	-
TC	TC-MT	2013	826		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2013	0.498		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013	0.517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

Round nose flounder Sea of Japan [RSFLOUNSOJ]

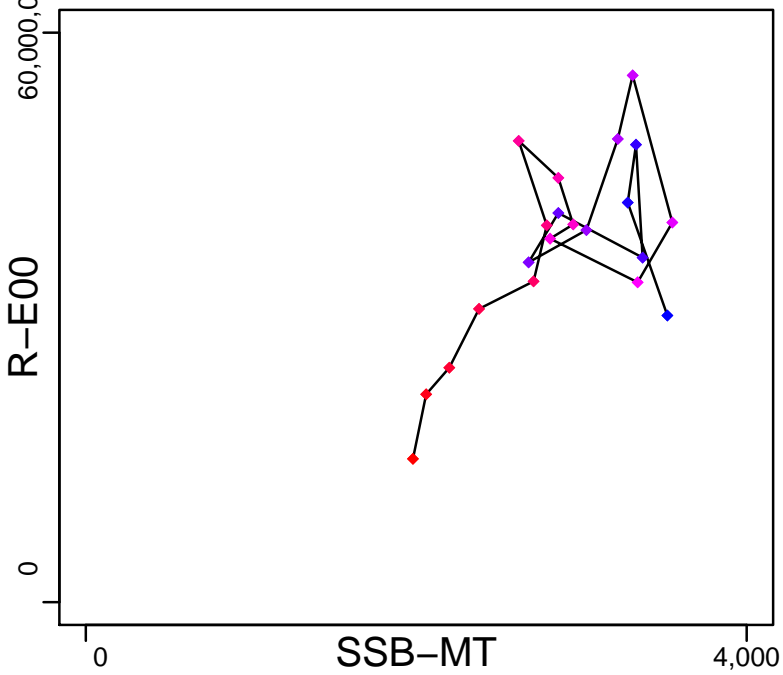
Kobe MSYpref (1966–2013–JPNIMP2016)



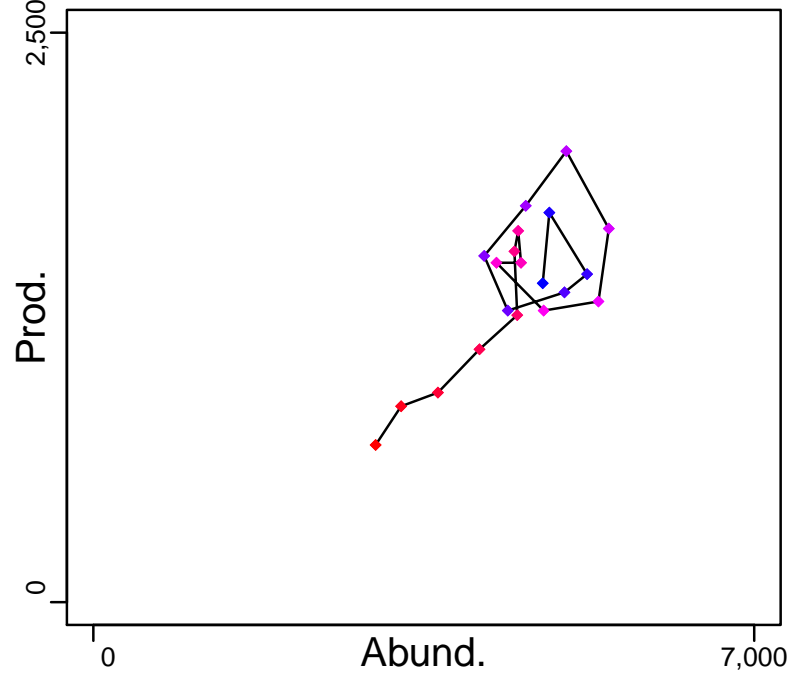
Kobe MGTpref (1966–2013–JPNIMP2016)



Spawner Recruit (1966–2013–JPNIMP2016)



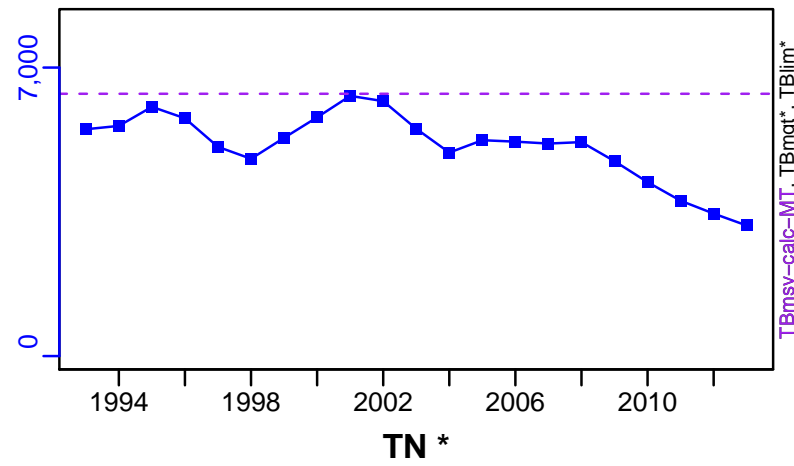
Production (1966–2013–JPNIMP2016)



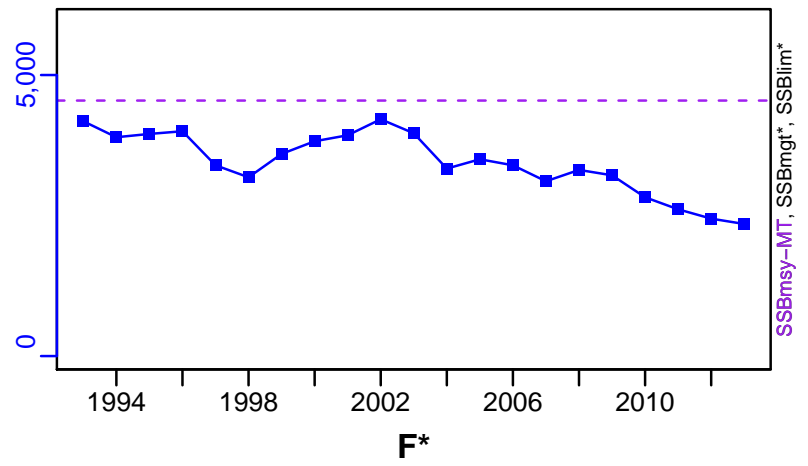
◆ Start Year ◆ End Year * No Data

Round nose flounder Sea of Japan [RSFLOUNSOJ]

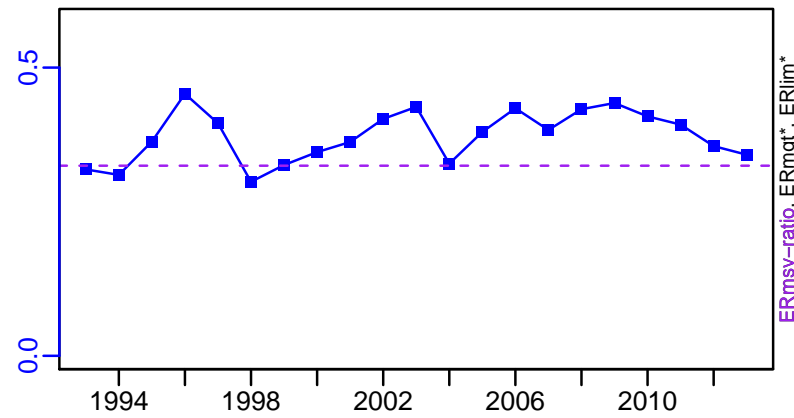
TB-MT (1966-2013-JPNIMP2016)



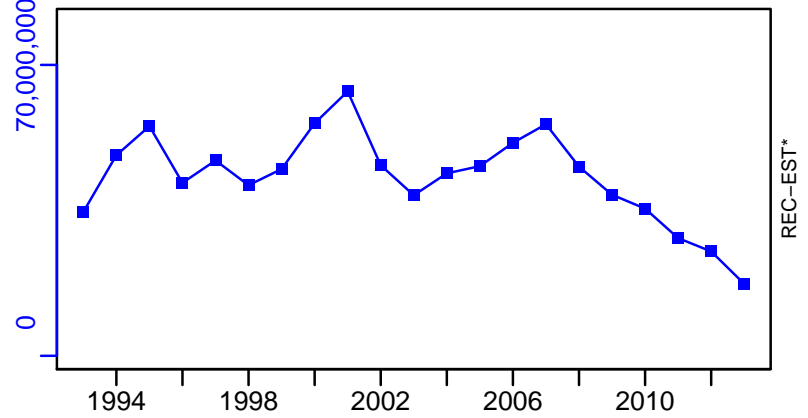
SSB-MT (1966-2013-JPNIMP2016)



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



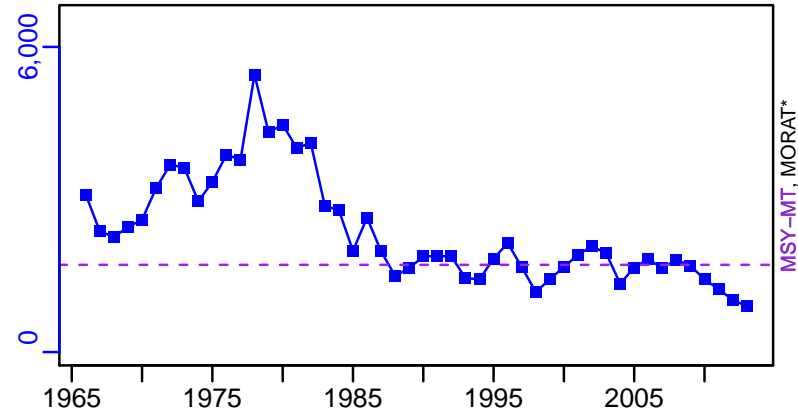
R-E00 (1966-2013-JPNIMP2016)



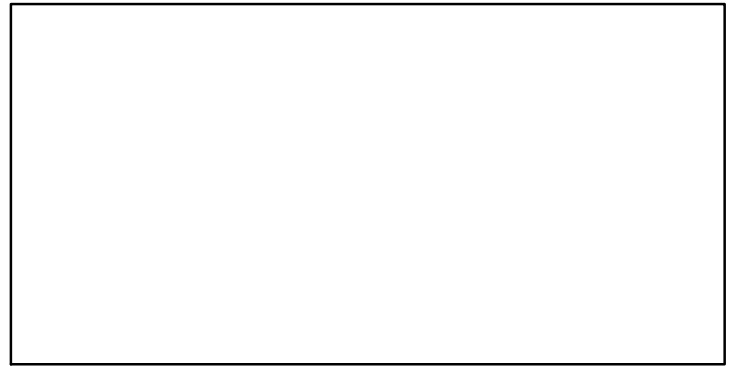
Round nose flounder Sea of Japan [RSFLOUNSOJ]

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

TAC*, Cpair*, Cadv*



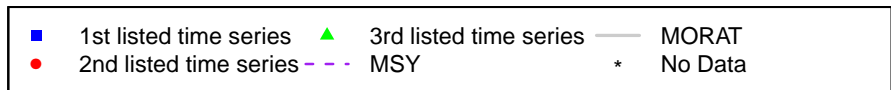
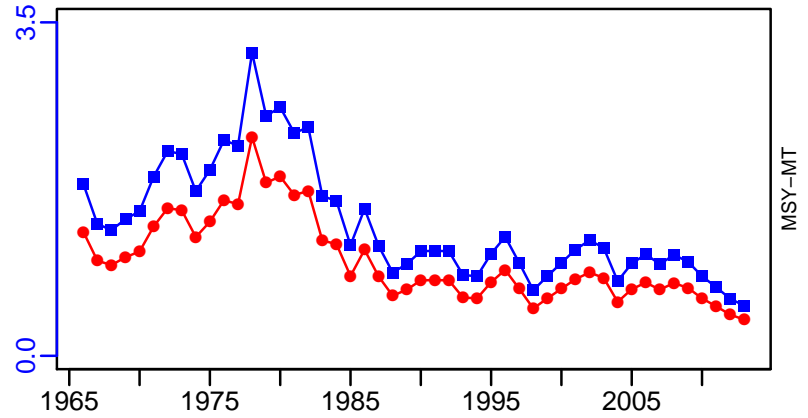
CPUE*



EFFORT*



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



Roughscale sole North Pacific [RSSOLENPAC]

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

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

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

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Roughscale sole North Pacific [RSSOLENPAC]

TB*



SSB*



TN *



F*



ER*



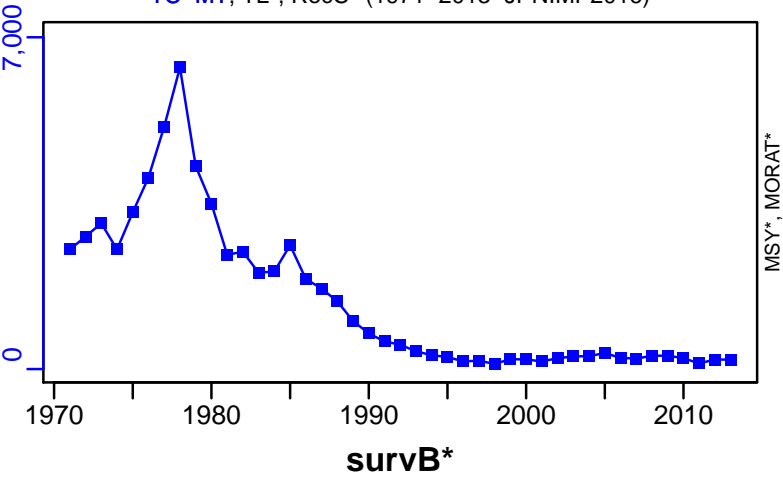
Recruits*



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

Roughscale sole North Pacific [RSSOLENPAC]

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



TAC*, Cpair*, Cadv*



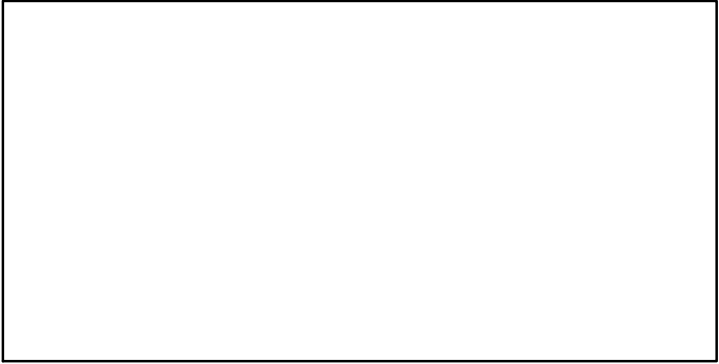
CPUE*



EFFORT*



CdivMSY*



Pacific saury Northwest Pacific [SAURNWPAC]

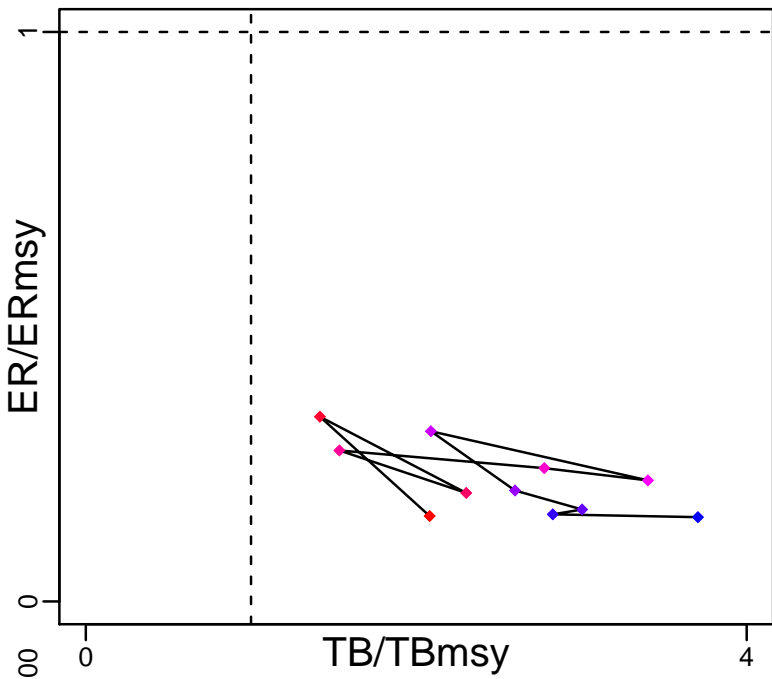
Metadata	
Scientific Name	Cololabis saira
Current Assess ID	FAFRFJ-SAURNWPAC-1980-2013-JPNIMP2016
Area	Northwest Pacific
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2010, 2013

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

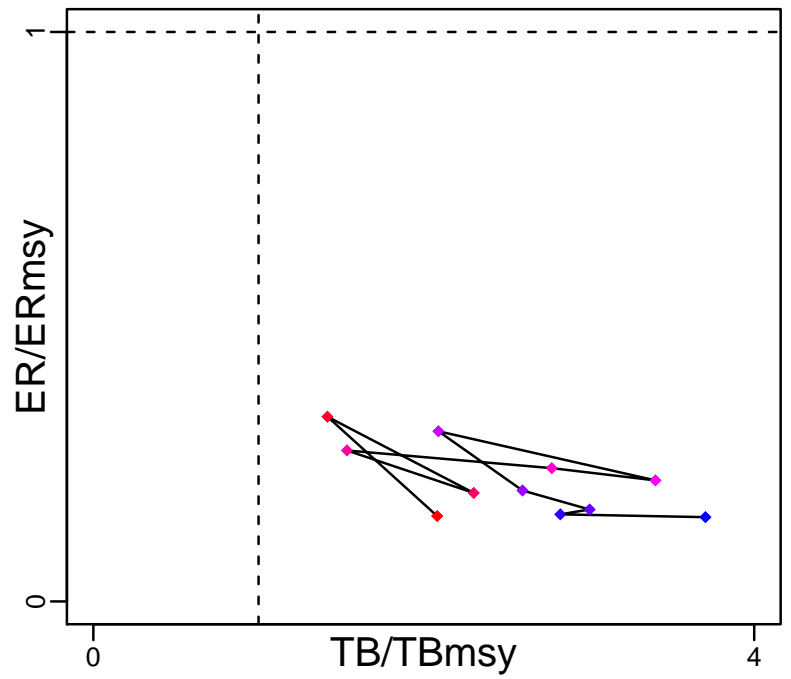
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	2,820,000	-	0
SSB	SSB-MT	2013	1,410,000	Both	1
TN	-	-	-	-	-
R	R-E00	2013	5.27×10^{10}	-	0
F	F-1/yr	2010	0.264	-	0 to 1
ER	ER-calc-ratio	2013	0.052	-	-
TC	TC-MT	2013	148,000		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-MT	2013	2.081		
SSB/SSBmsy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

Pacific saury Northwest Pacific [SAURNWPAC]

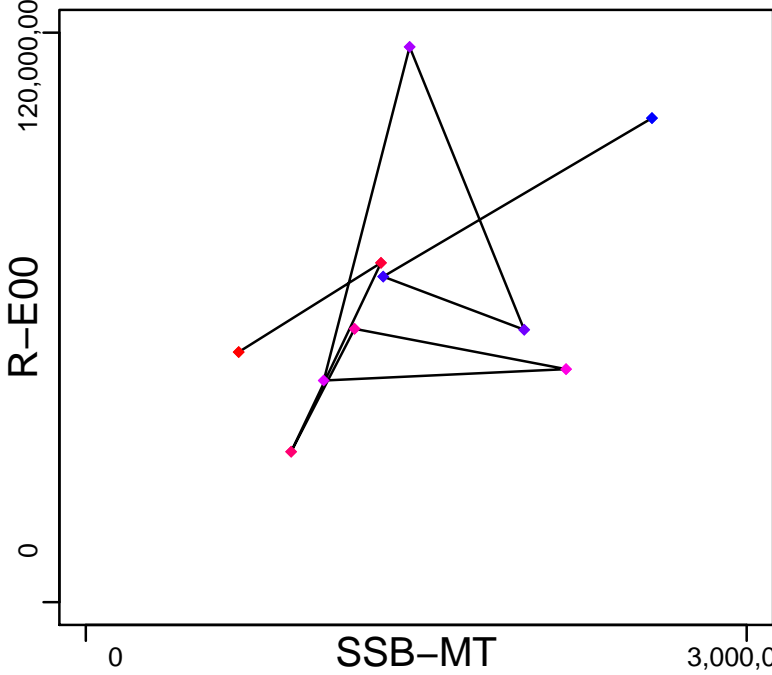
Kobe MSYpref (1980–2013–JPNIMP2016)



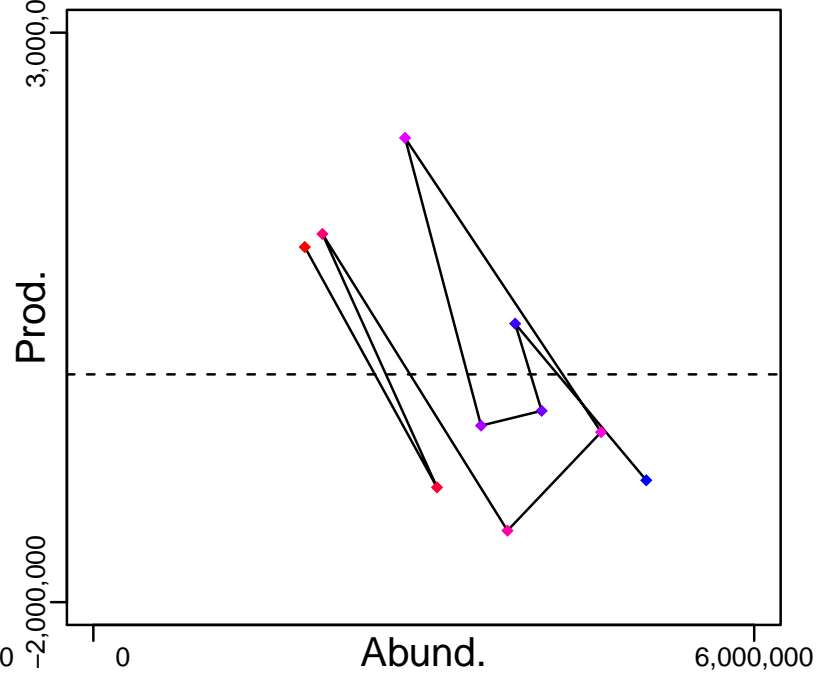
Kobe MGTpref (1980–2013–JPNIMP2016)



Spawner Recruit (1980–2013–JPNIMP2016)



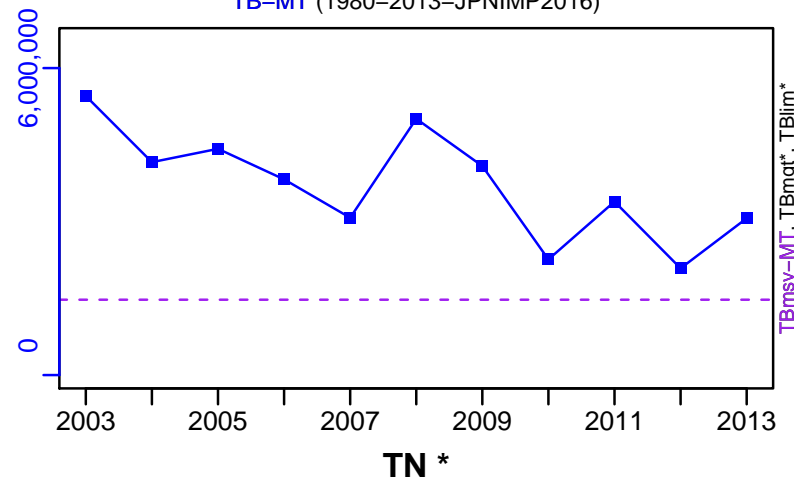
Production (1980–2013–JPNIMP2016)



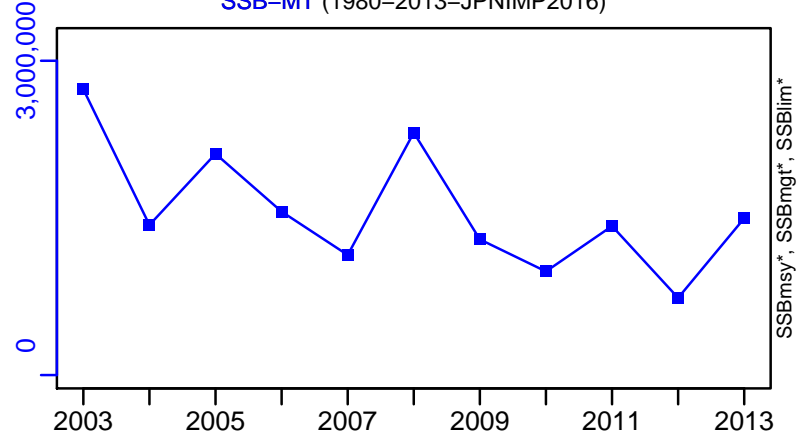
◆ Start Year ◆ End Year * No Data

Pacific saury Northwest Pacific [SAURNWPAC]

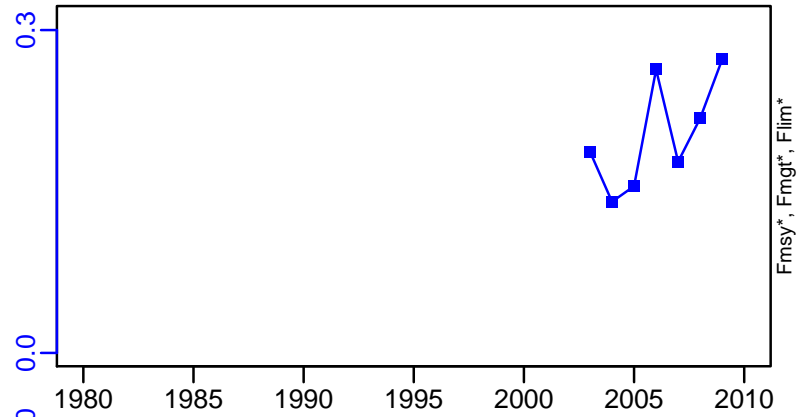
TB-MT (1980-2013-JPNIMP2016)



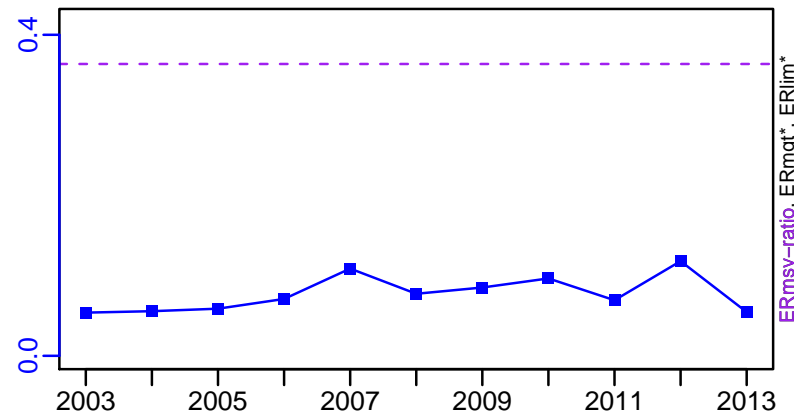
SSB-MT (1980-2013-JPNIMP2016)



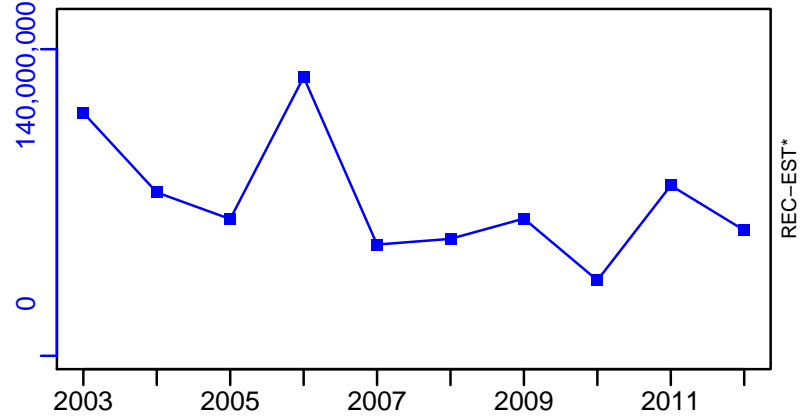
F-1/yr (1980-2010-ONO)



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



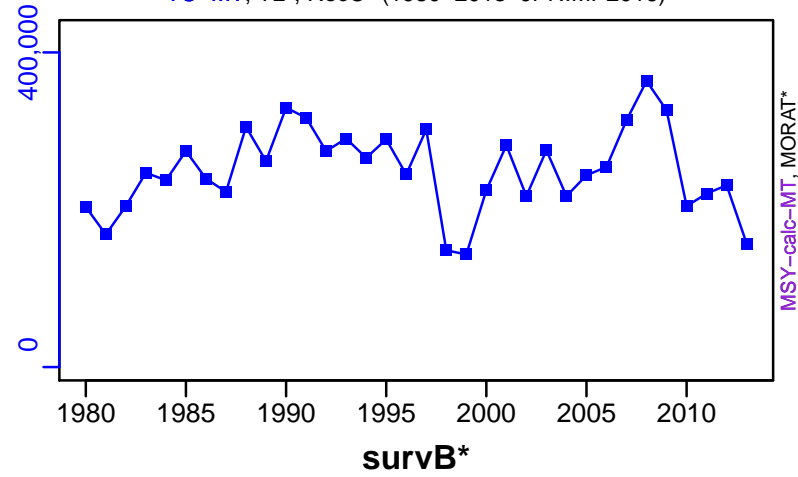
R-E00 (1980-2013-JPNIMP2016)



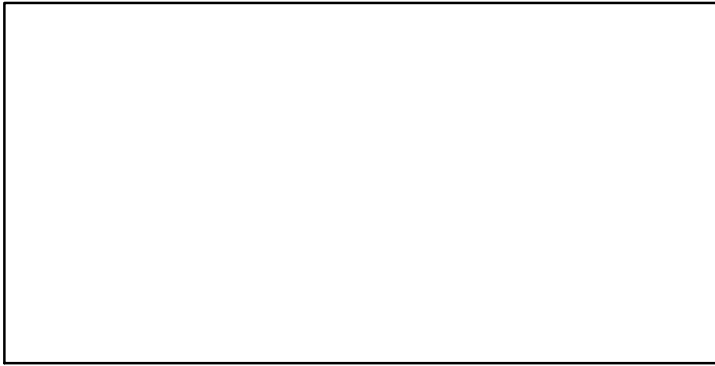
Pacific saury Northwest Pacific [SAURNWPAC]

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

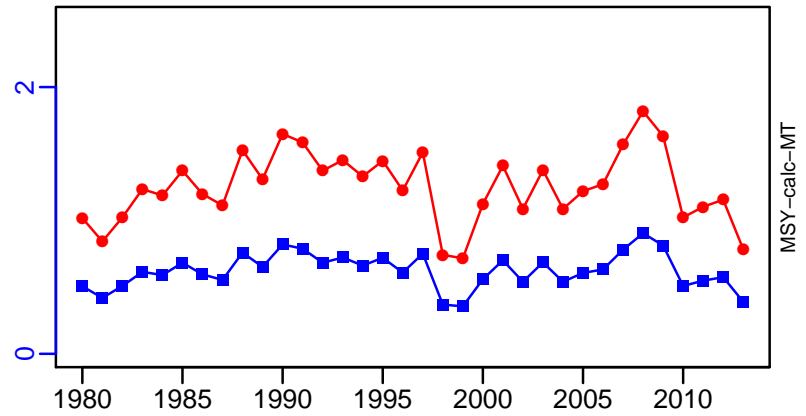
TAC*, Cpair*, Cadv*



EFFORT*



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



Shako Ise and Mikawa Bay [SHAKOIMKB]

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

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

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

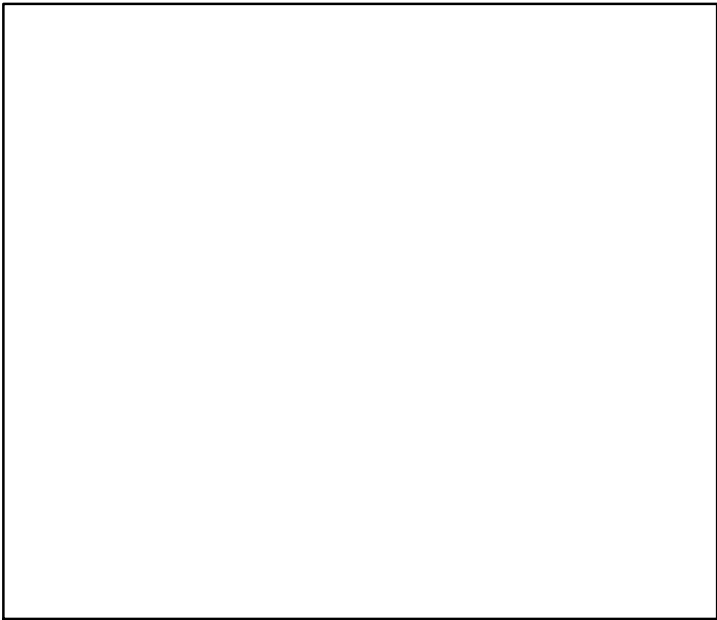
Kobe MSY*



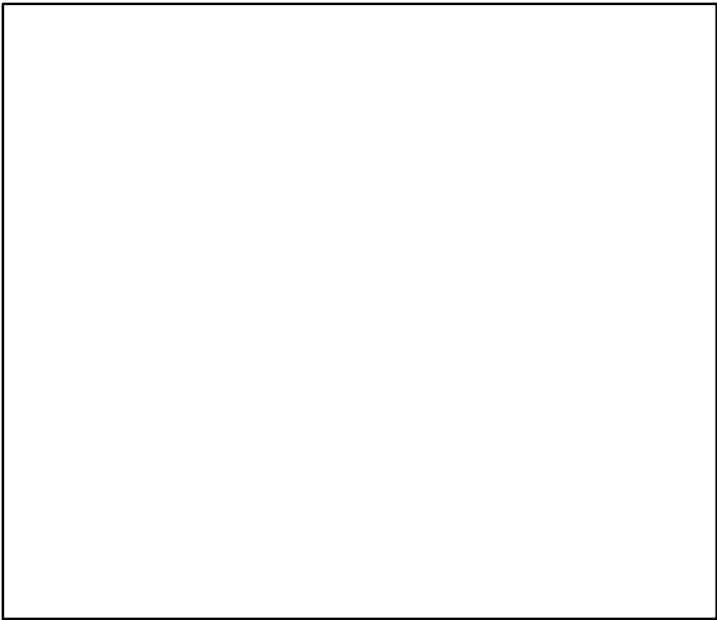
Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

TB*



SSB*



TN *



F*



ER*

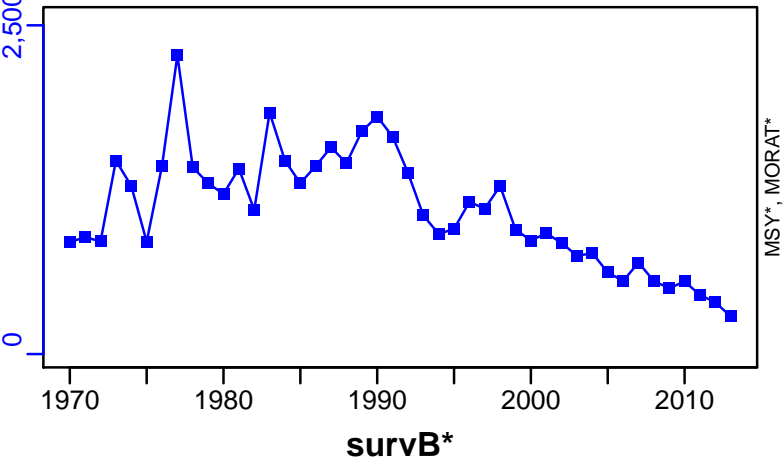


Recruits*



Shako Ise and Mikawa Bay [SHAKOIMKB]

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



TAC*, Cpair*, Cadv*



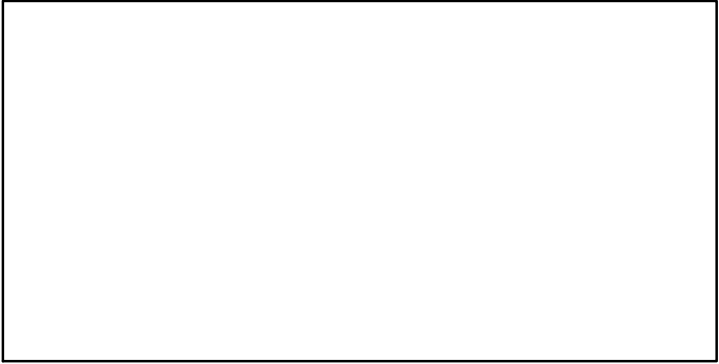
CPUE*



EFFORT*



CdivMSY*



Snow crab Sea of Japan East [SNOWCRABESJ]

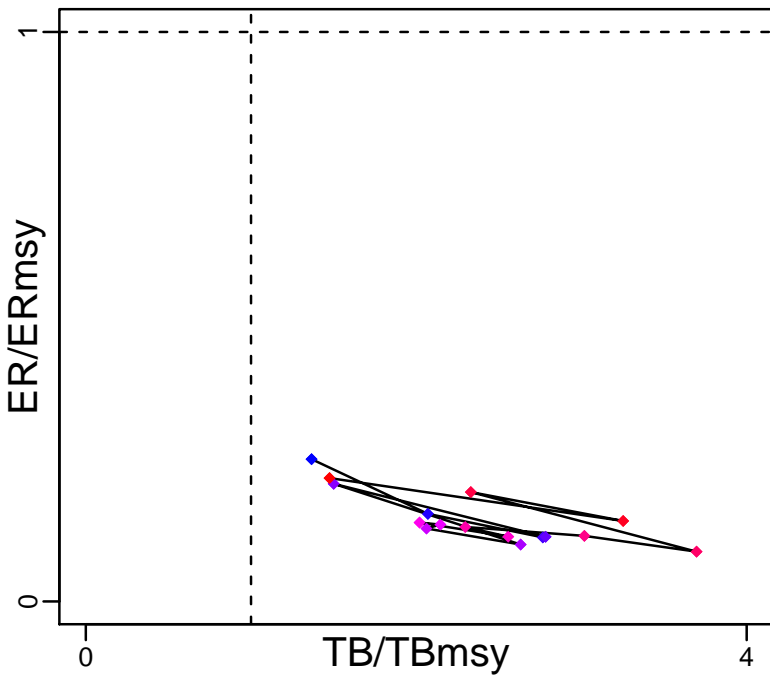
Metadata	
Scientific Name	Chionoecetes opilio
Current Assess ID	FAFRFJ-SNOWCRABESJ-1998-2014-JPNIMP2016
Area	Sea of Japan East
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2014

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

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

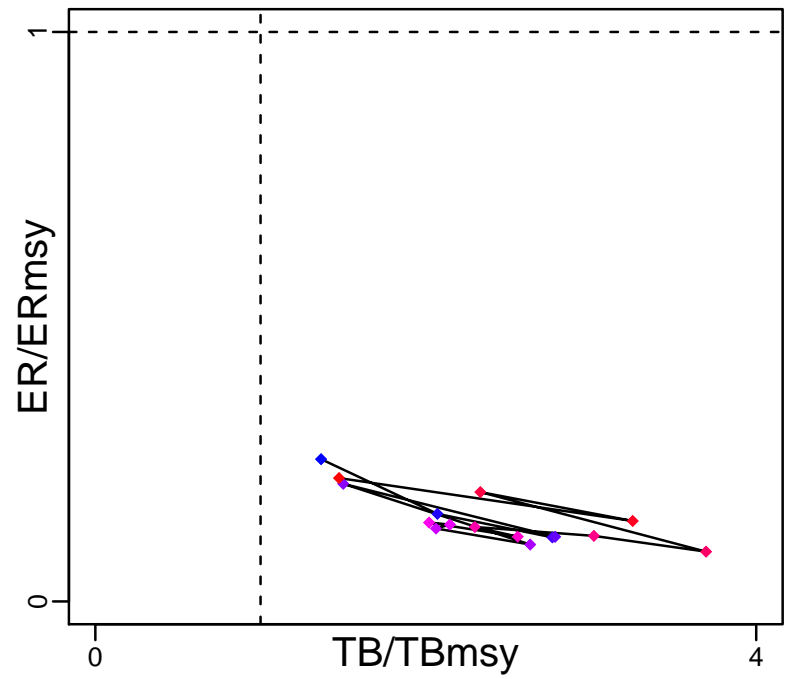
Snow crab Sea of Japan East [SNOWCRABESJ]

Kobe MSYpref (1998–2014–JPNIMP2016)

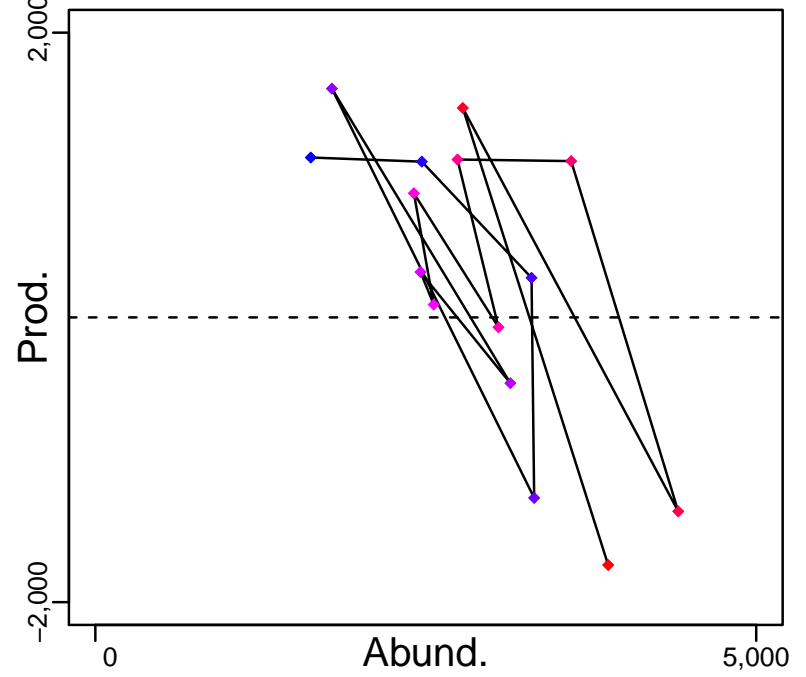


Spawner Recruit*

Kobe MGTpref (1998–2014–JPNIMP2016)



Production (1998–2014–JPNIMP2016)

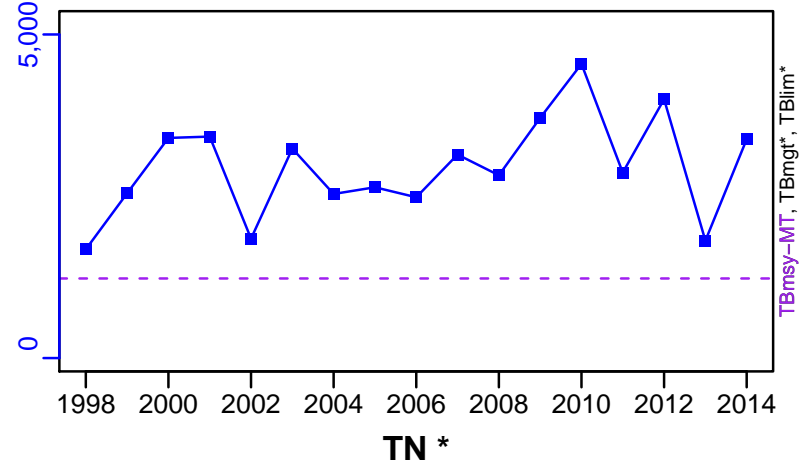


◆ Start Year ◆ End Year * No Data

Snow crab Sea of Japan East [SNOWCRABESJ]

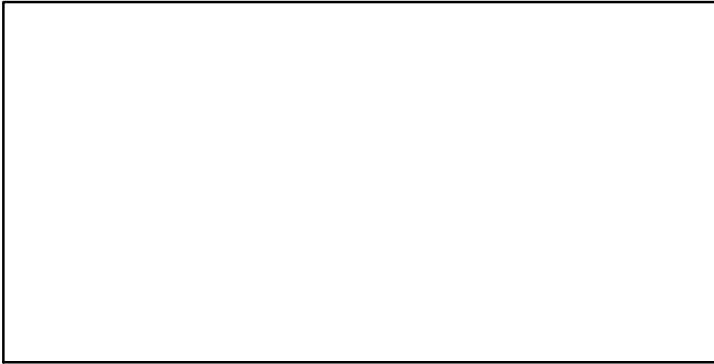
TB-MT (1998-2014-JPNIMP2016)

SSB*



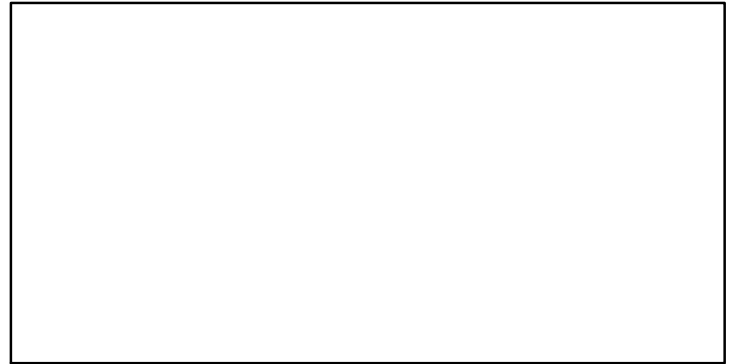
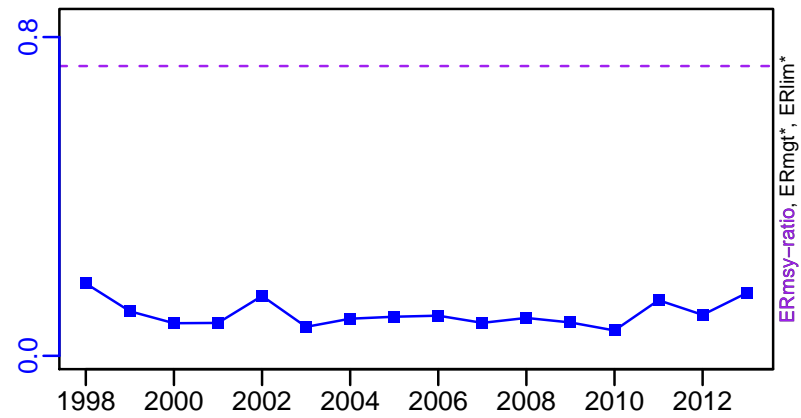
TN *

F*



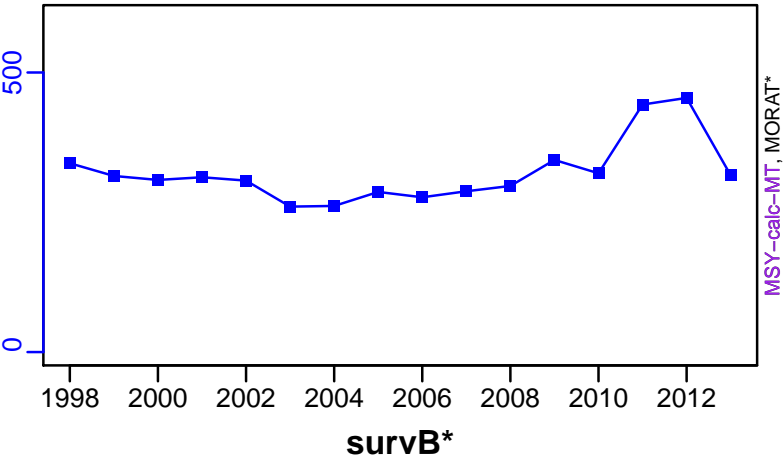
ER-calc-ratio (1998-2014-JPNIMP2016)

Recruits*



Snow crab Sea of Japan East [SNOWCRABESJ]

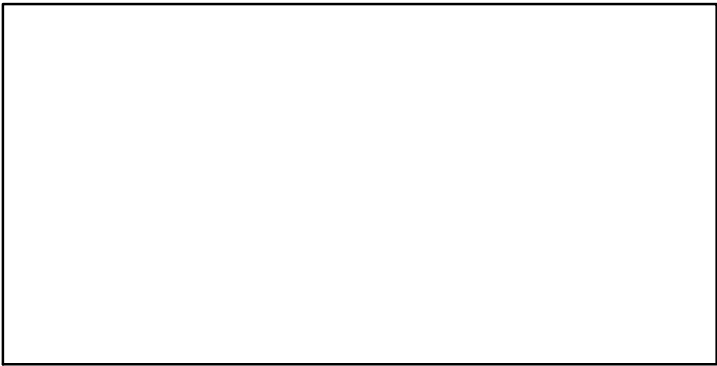
TC-MT, TL*, RecC* (1998–2014–JPNIMP2016)



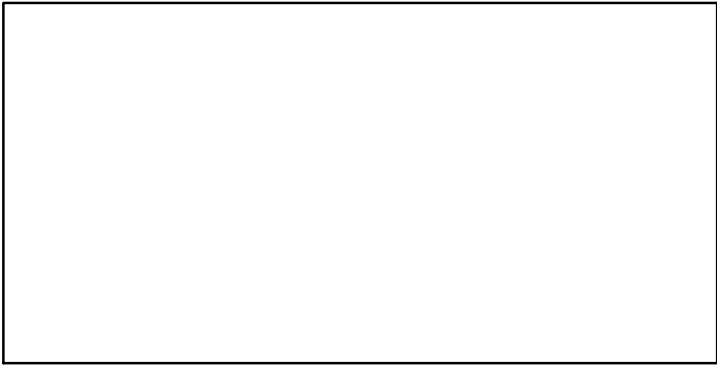
TAC*, Cpair*, Cadv*



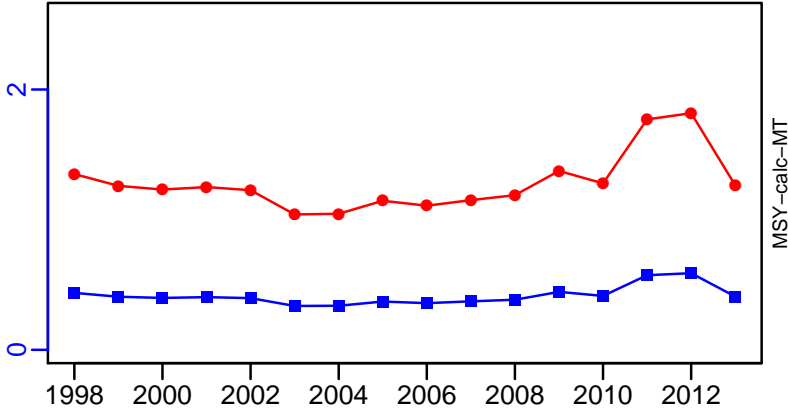
CPUE*



EFFORT*



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



Snow crab Hokkaido [SNOWCRABHOKK]

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

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

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

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Snow crab Hokkaido [SNOWCRABHOKK]

TB*



SSB*



TN *



F*



ER*

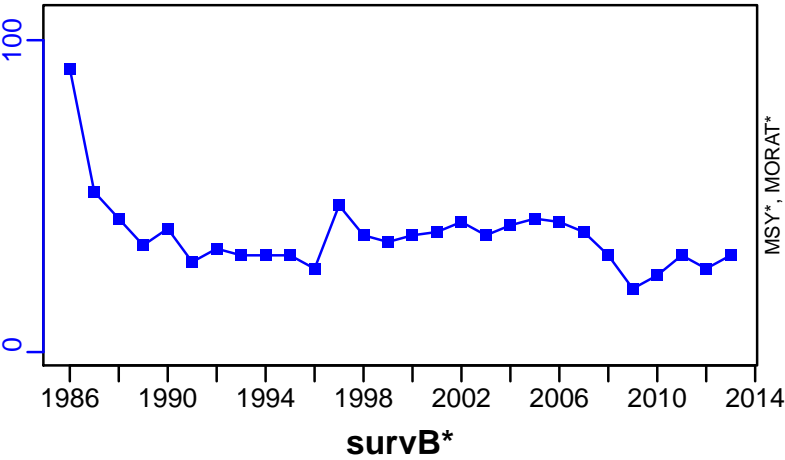


Recruits*



Snow crab Hokkaido [SNOWCRABHOKK]

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



TAC*, Cpair*, Cadv*



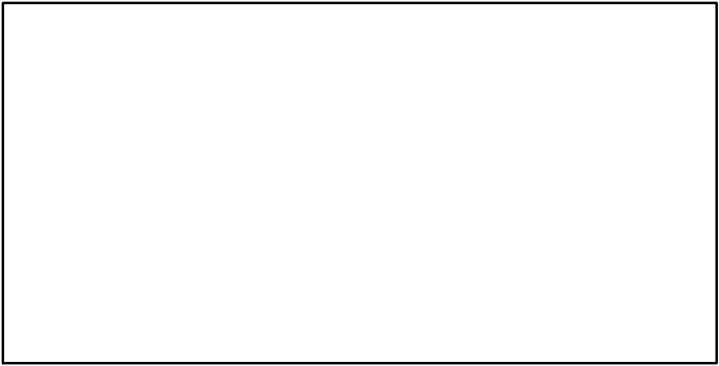
CPUE*



EFFORT*



CdivMSY*



Snow crab North Pacific [SNOWCRABNPAC]

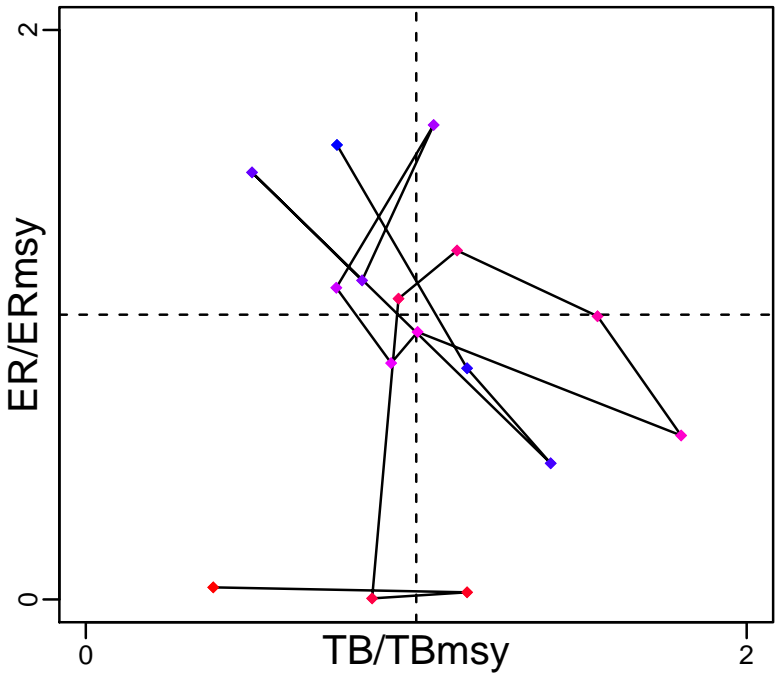
Metadata	
Scientific Name	Chionoecetes opilio
Current Assess ID	FAFRFJ-SNOWCRABNPAC-1992-2013-JPNIMP2016
Area	North Pacific
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013

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

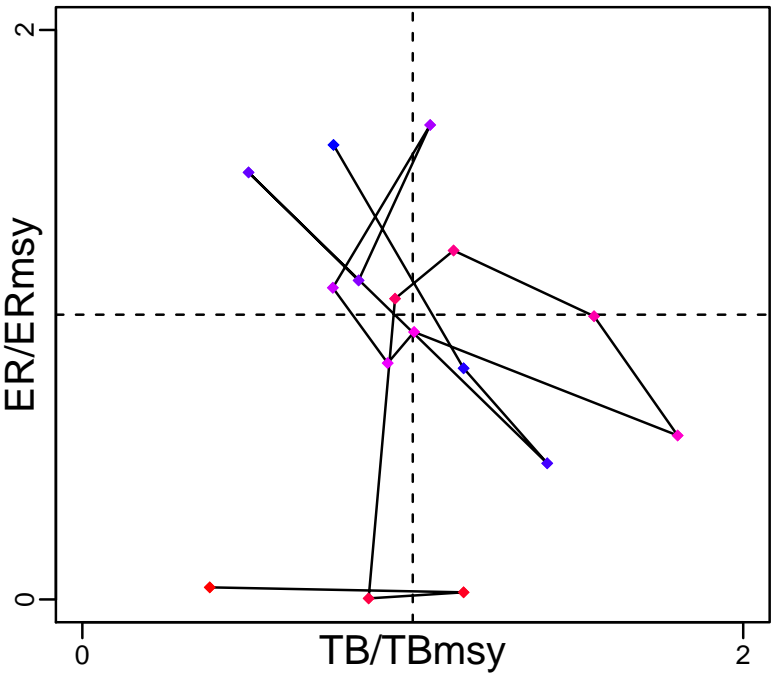
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	381	-	7
SSB	SSB-MT	2013	83	Females	8
TN	-	-	-	-	-
R	R-E00	2013	2,620,000	-	7
F	-	-	-	-	-
ER	ER-calc-ratio	2013	0.007	-	-
TC	TC-MT	2013	2.6		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-MT	2013	0.386		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	ER-calc-ratio/ERmsy-ratio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

Snow crab North Pacific [SNOWCRABNPAC]

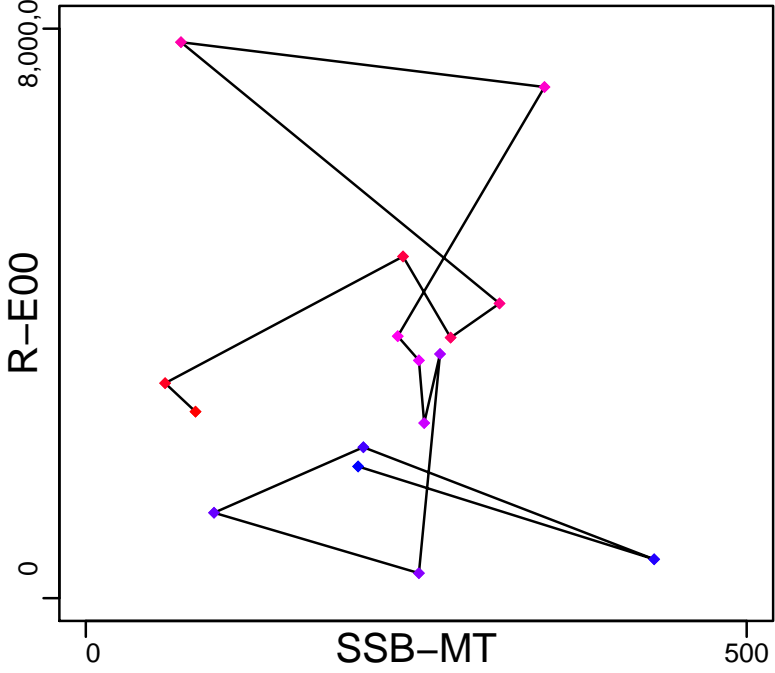
Kobe MSYpref (1992–2013–JPNIMP2016)



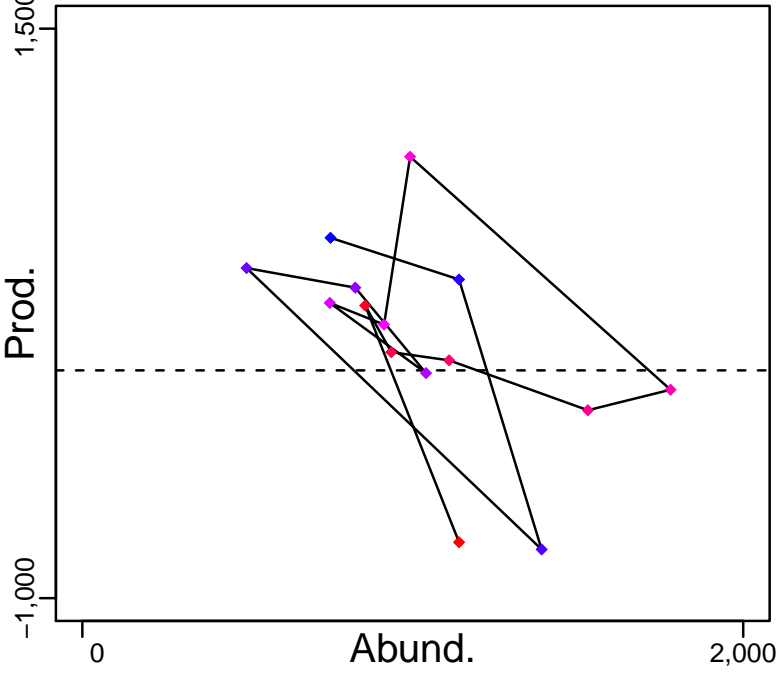
Kobe MGTpref (1992–2013–JPNIMP2016)



Spawner Recruit (1992–2013–JPNIMP2016)



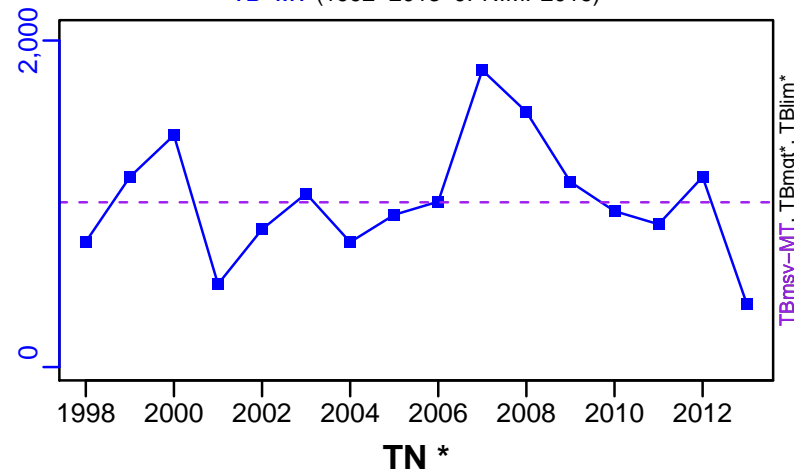
Production (1992–2013–JPNIMP2016)



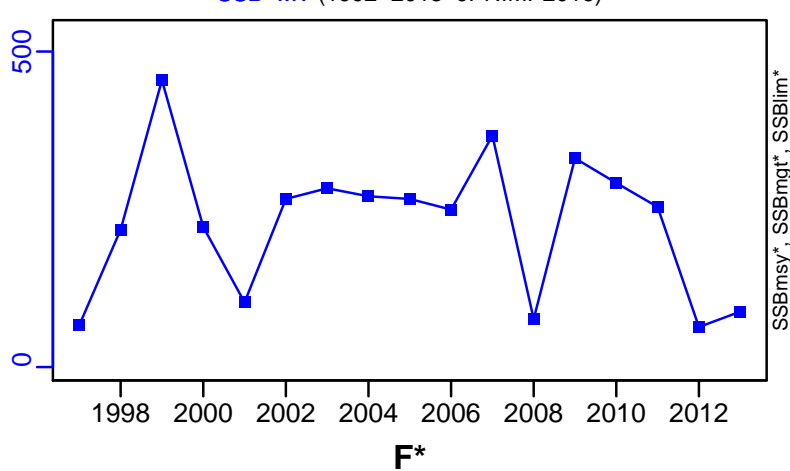
◆ Start Year ◆ End Year * No Data

Snow crab North Pacific [SNOWCRABNPAC]

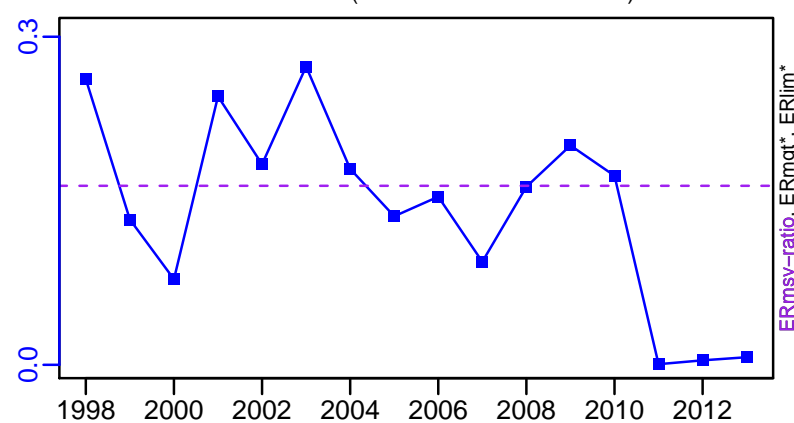
TB-MT (1992-2013-JPNIMP2016)



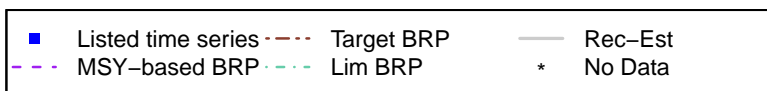
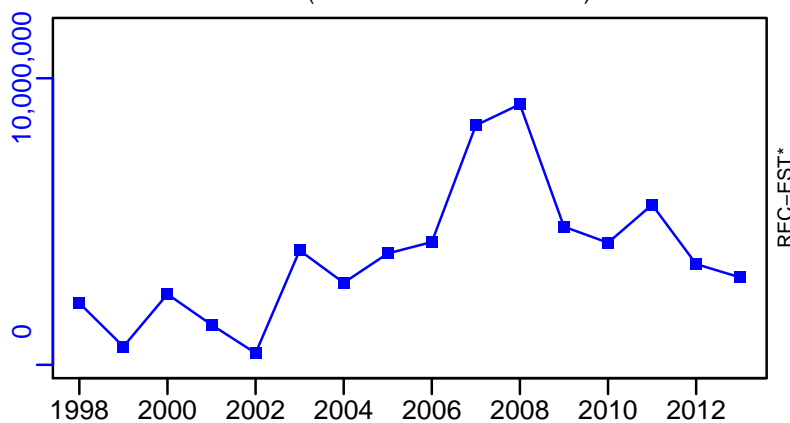
SSB-MT (1992-2013-JPNIMP2016)



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

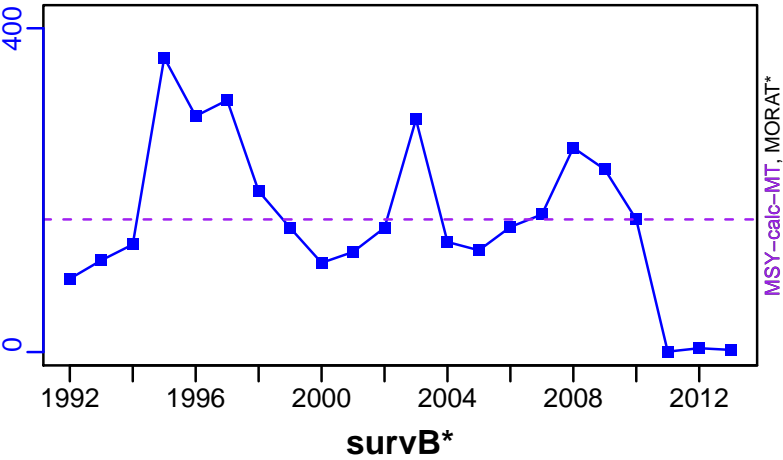


R-E00 (1992-2013-JPNIMP2016)



Snow crab North Pacific [SNOWCRABNPAC]

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



TAC*, Cpair*, Cadv*



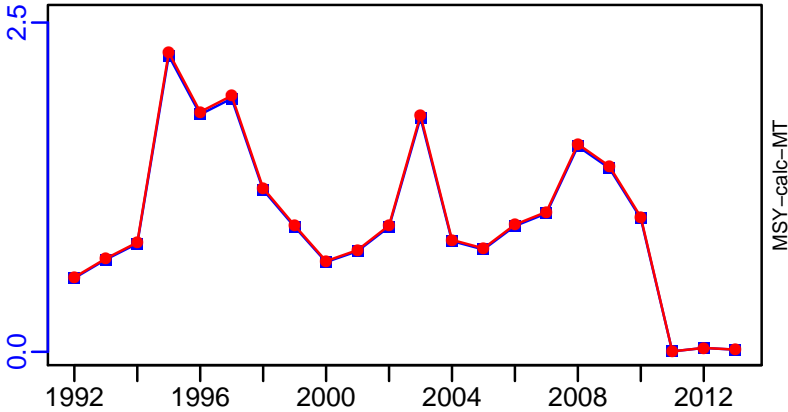
CPUE*



EFFORT*



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



Snow crab Okhotsk Sea [SNOWCRABOKS]

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

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

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

Kobe MSY*



Kobe MGT*



Spawner Recruit*



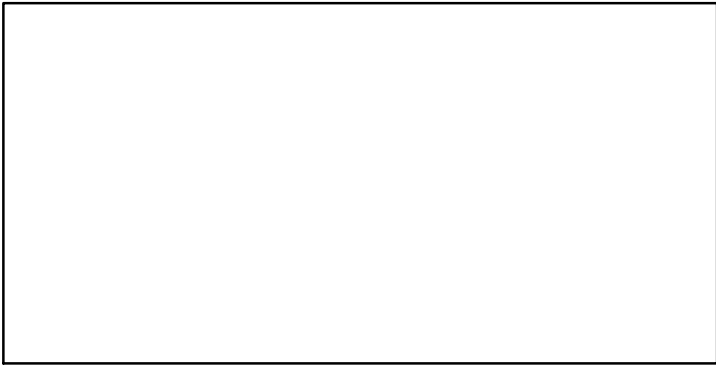
Production*



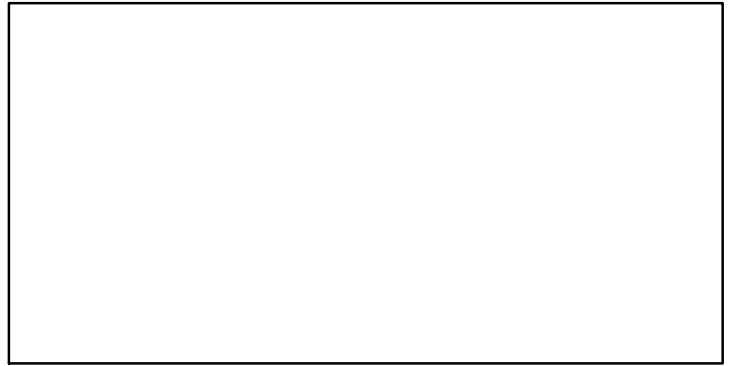
◆ Start Year ◆ End Year * No Data

Snow crab Okhotsk Sea [SNOWCRABOKS]

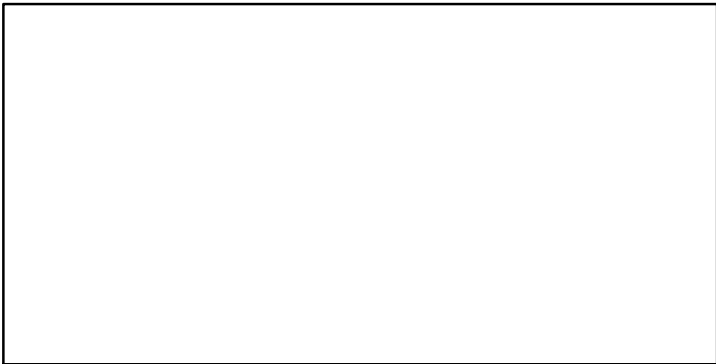
TB*



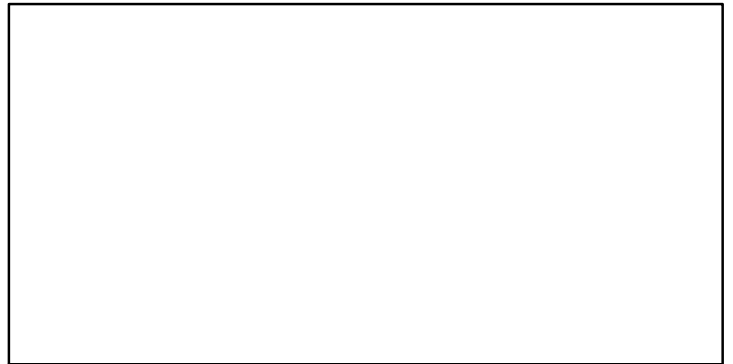
SSB*



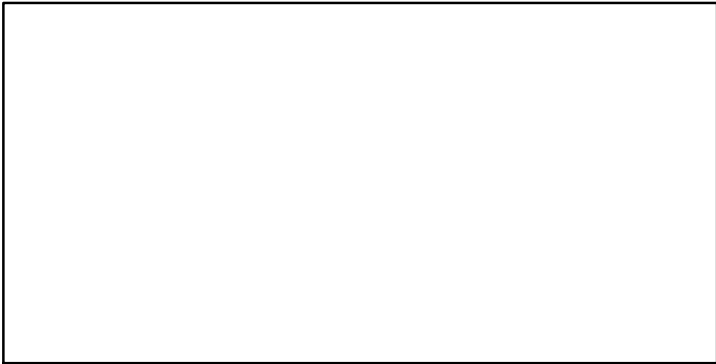
TN *



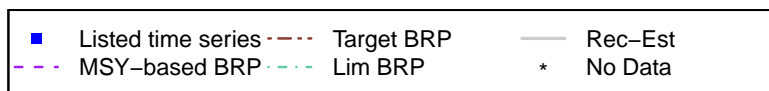
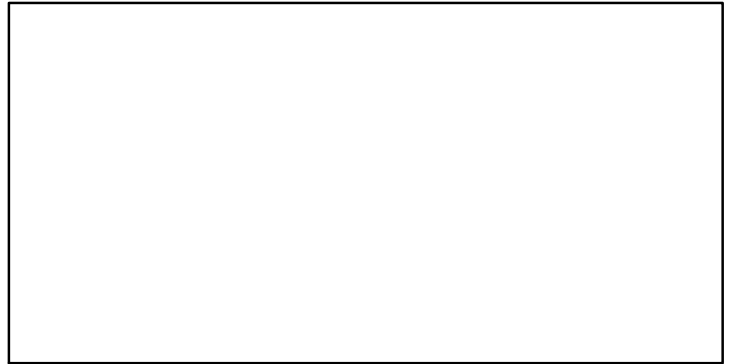
F*



ER*



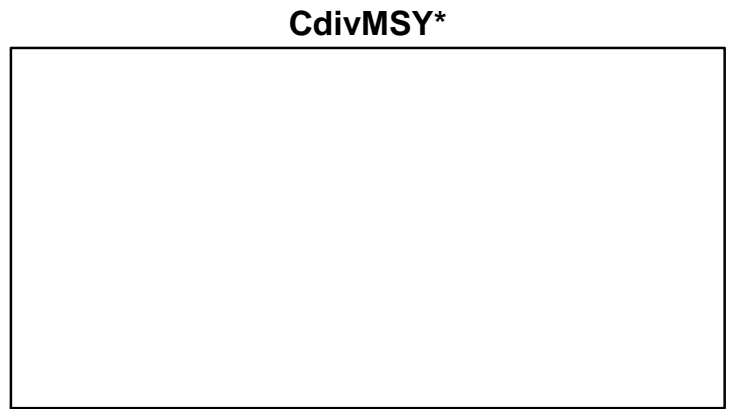
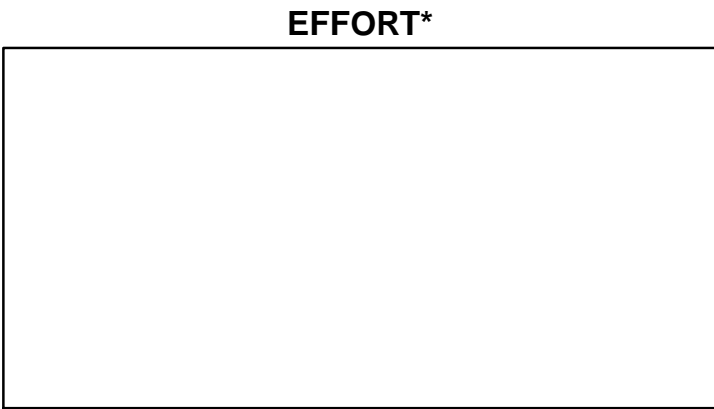
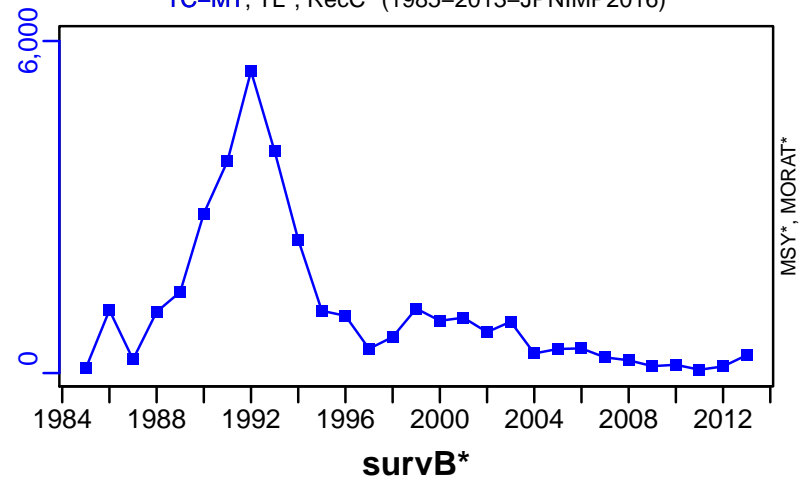
Recruits*



Snow crab Okhotsk Sea [SNOWCRABOKS]

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

TAC*, Cpair*, Cadv*



Snow crab Sea of Japan West [SNOWCRABWSJ]

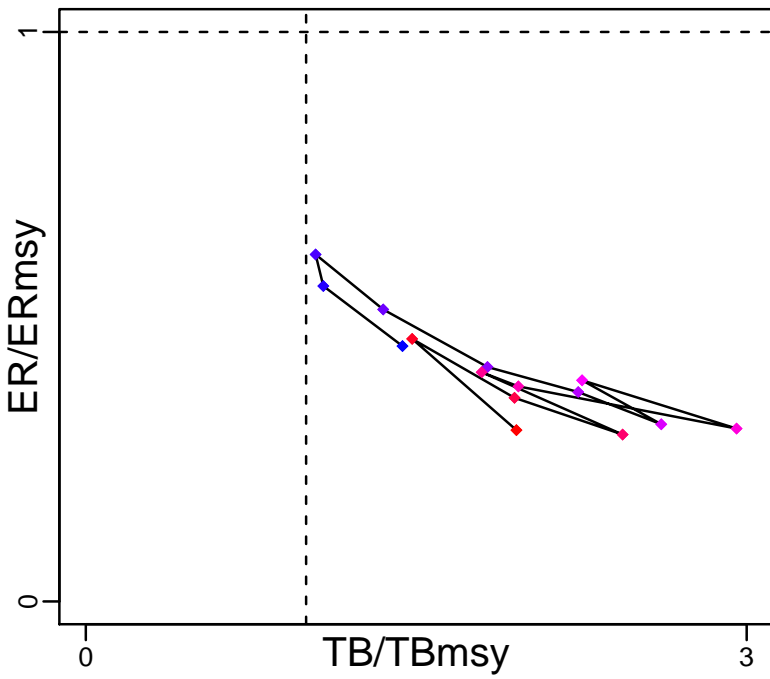
Metadata	
Scientific Name	Chionoecetes opilio
Current Assess ID	FAFRFJ-SNOWCRABWSJ-1999-2015-JPNIMP2016
Area	Sea of Japan West
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2015

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

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

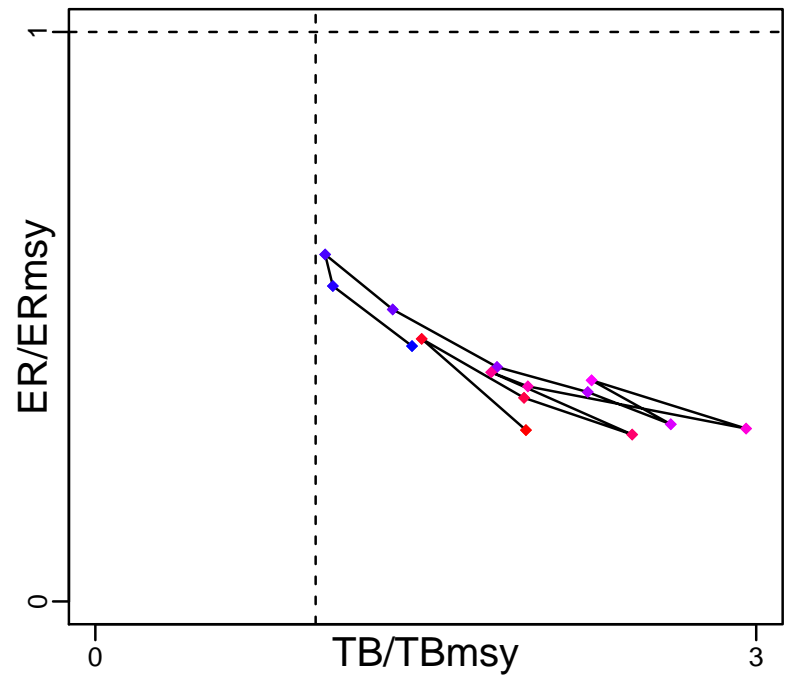
Snow crab Sea of Japan West [SNOWCRABWSJ]

Kobe MSYpref (1999–2015–JPNIMP2016)

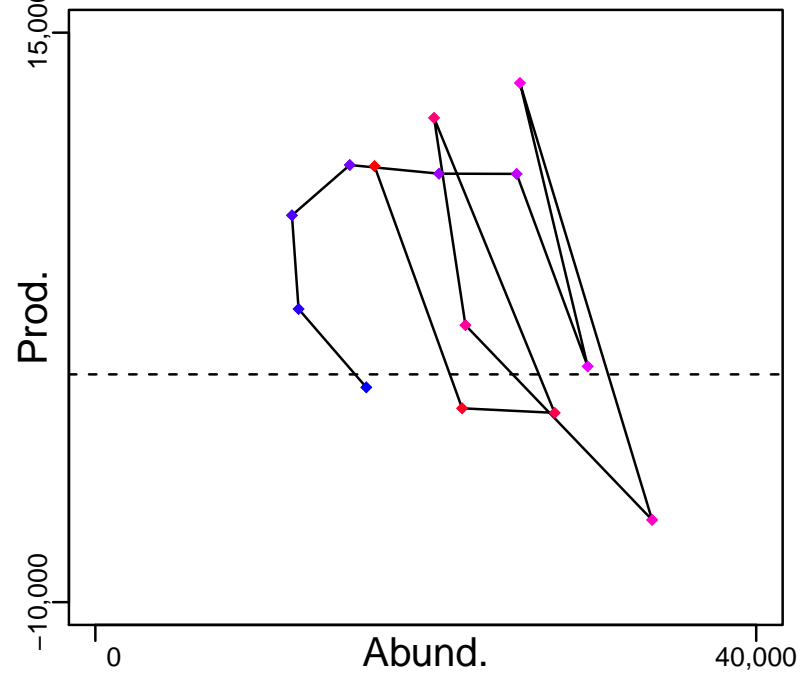


Spawner Recruit*

Kobe MGTpref (1999–2015–JPNIMP2016)



Production (1999–2015–JPNIMP2016)

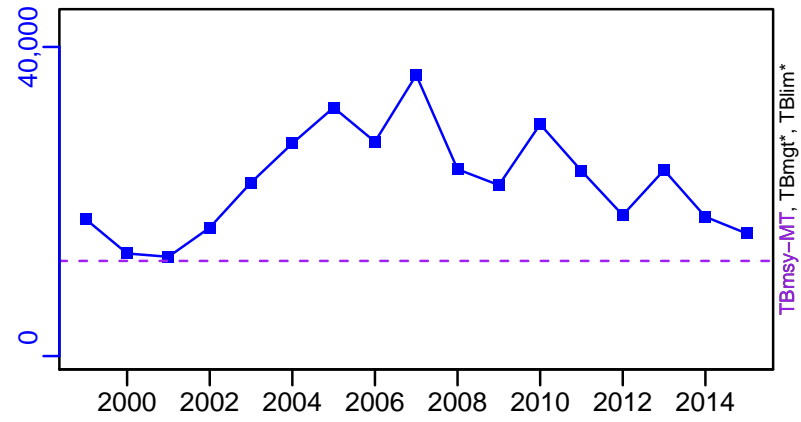


◆ Start Year ◆ End Year * No Data

Snow crab Sea of Japan West [SNOWCRABWSJ]

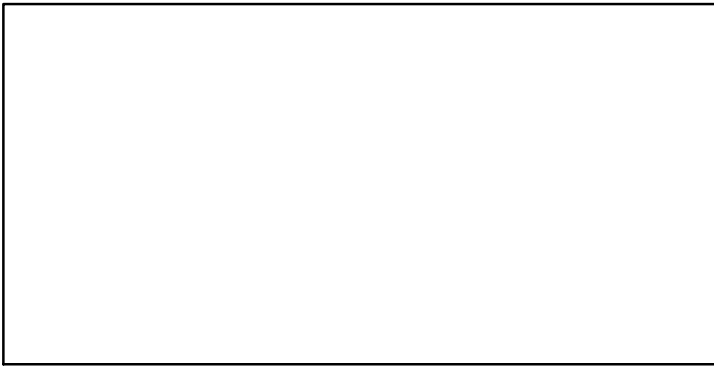
TB-MT (1999-2015-JPNIMP2016)

SSB*



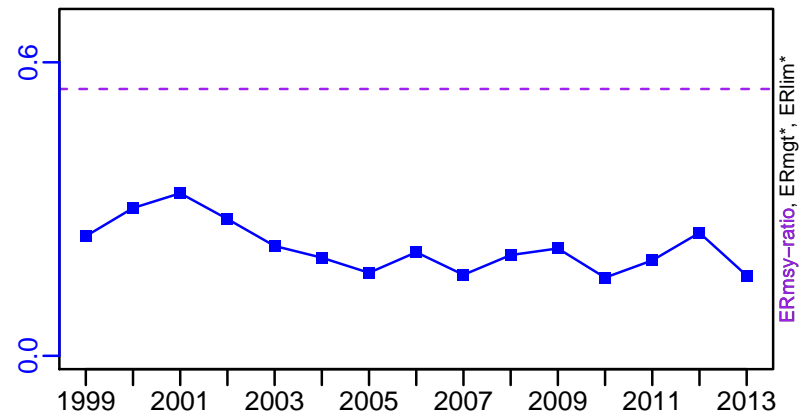
TN *

F*



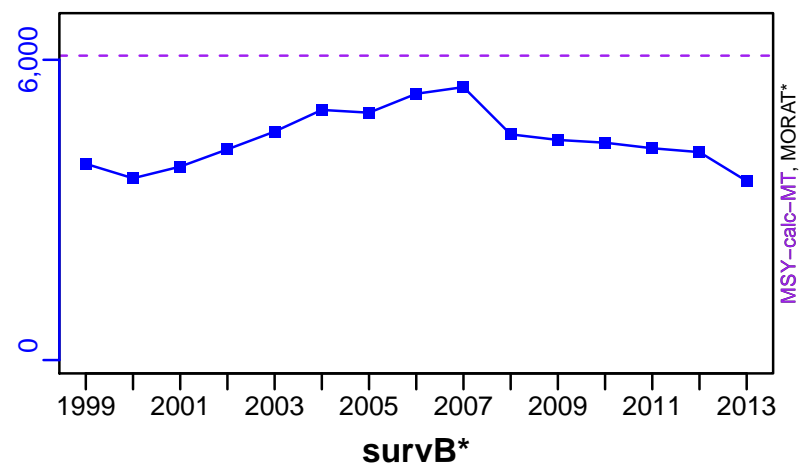
ER-calc-ratio (1999-2015-JPNIMP2016)

Recruits*



Snow crab Sea of Japan West [SNOWCRABWSJ]

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



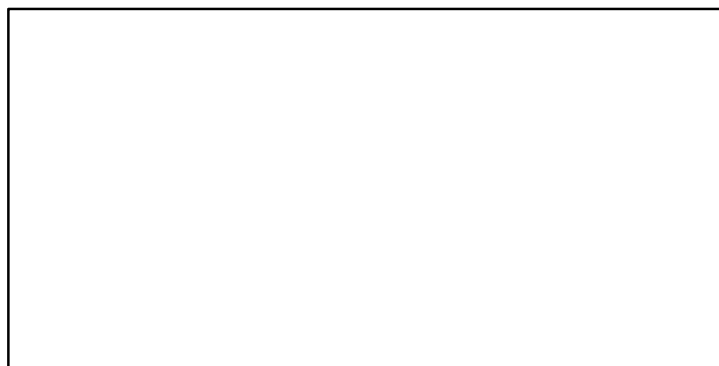
TAC*, Cpair*, Cadv*



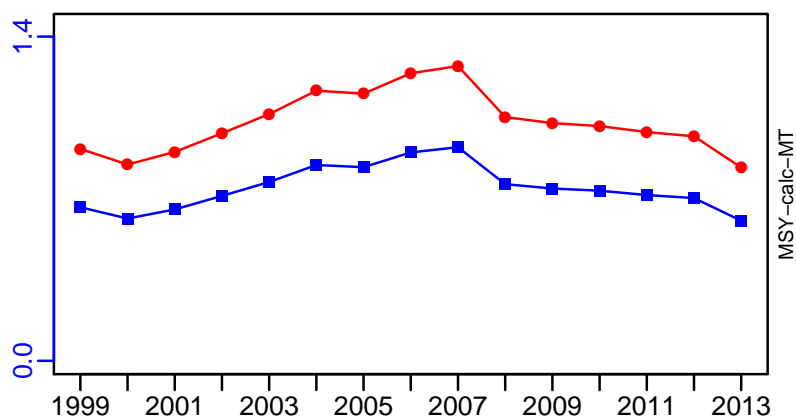
CPUE*



EFFORT*



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



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

Japanese Spanish mackerel East China Sea [SPANMACKECS]

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

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

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

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

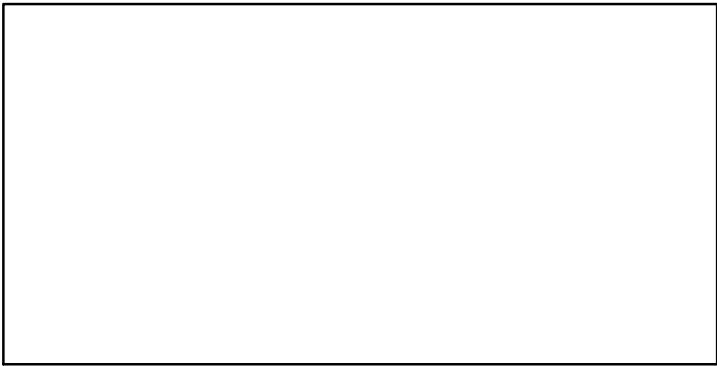
TB*



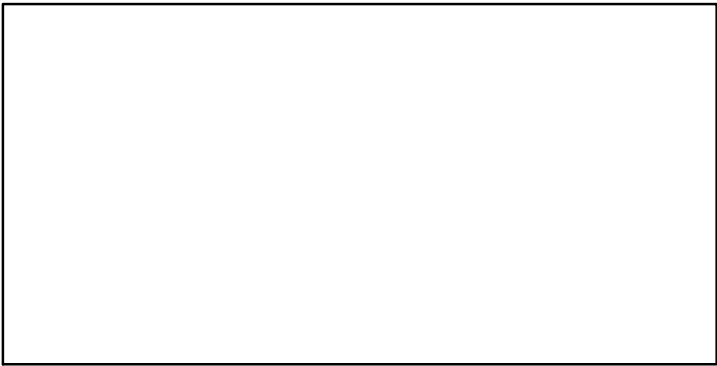
SSB*



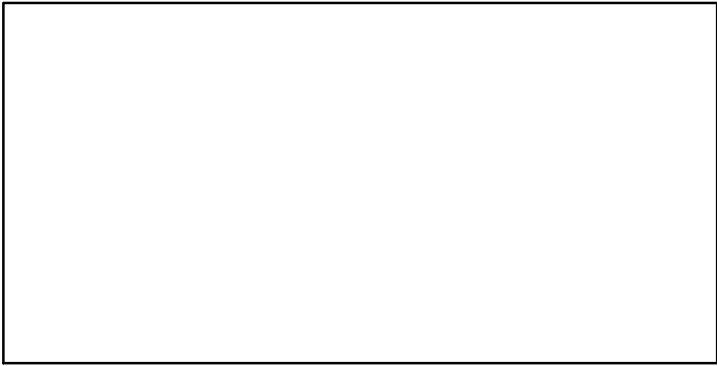
TN *



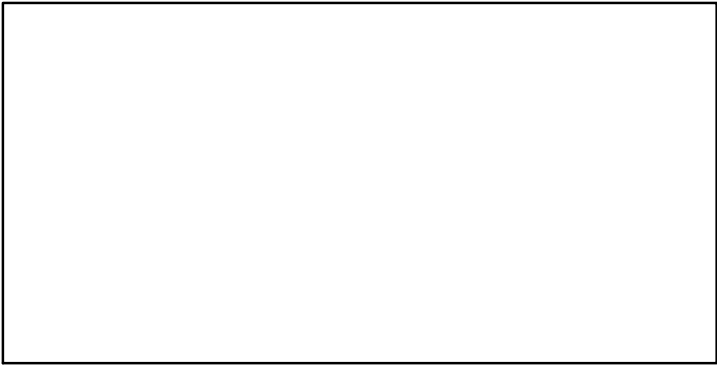
F*



ER*



Recruits*



■ Listed time series

- - - MSY-based BRP

- - - Target BRP

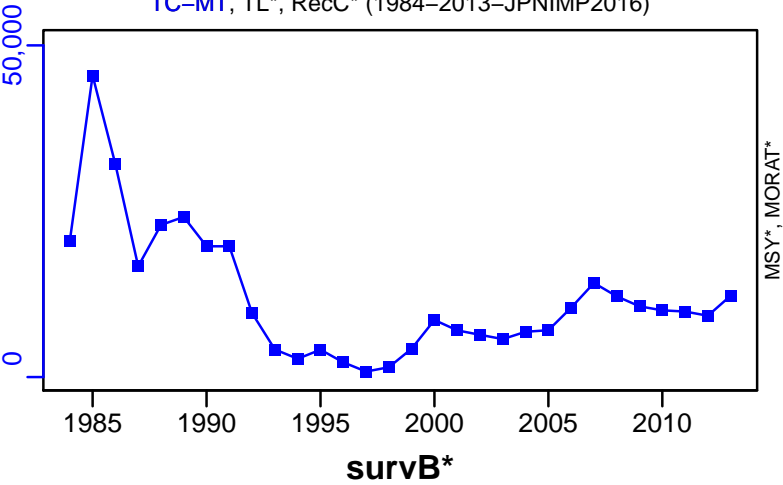
- · - · - Lim BRP

— Rec-Est

* No Data

Japanese Spanish mackerel East China Sea [SPANMACK ECS]

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



TAC*, Cpair*, Cadv*



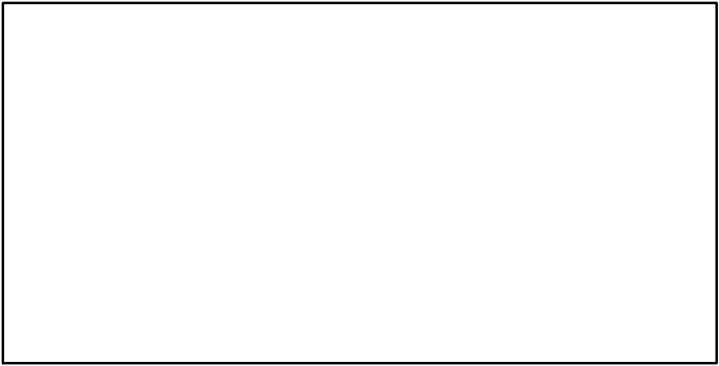
CPUE*



EFFORT*



CdivMSY*



Japanese Spanish mackerel Inland Sea of Japan [SPANMACKSETO]

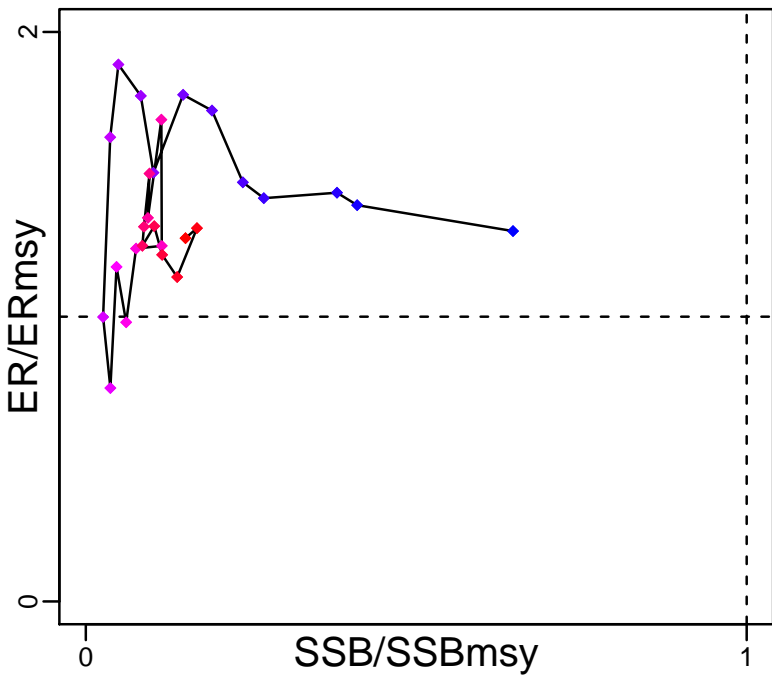
Metadata	
Scientific Name	Scomberomorus niphonius
Current Assess ID	FAFRFJ-SPANMACKSETO-1987-2013-JPNIMP2016
Area	Inland Sea of Japan
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2010, 2013

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

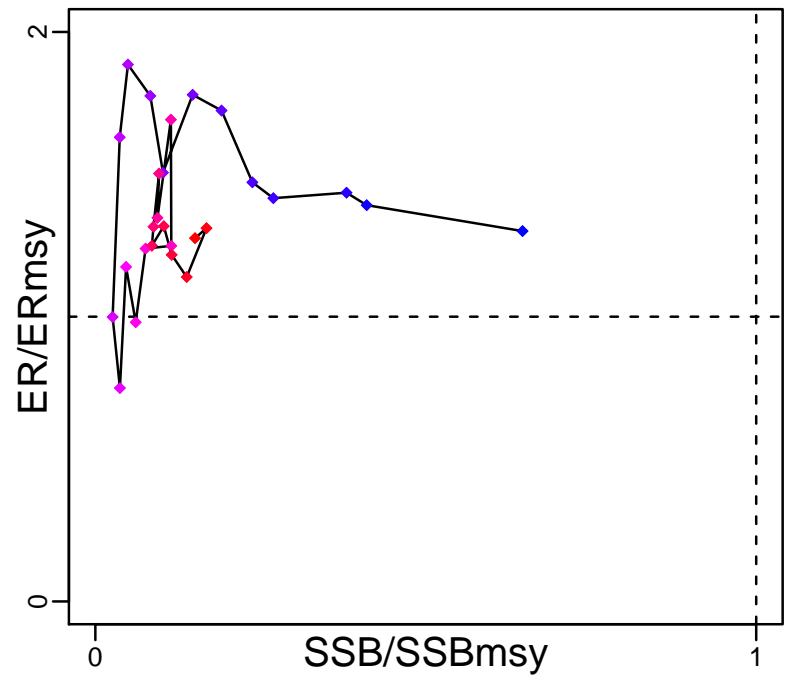
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	4930	-	0
SSB	SSB-MT	2013	2520	Both	1
TN	-	-	-	-	-
R	R-E00	2013	1,410,000	-	0
F	F-1/yr	2010	0.93	-	0 to 5
ER	ER-calc-ratio	2013	0.361	-	-
TC	TC-MT	2013	1780		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2013	0.201		
SSB/SSBmsy	SSB-MT/SSBmsy-MT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

Japanese Spanish mackerel Inland Sea of Japan [SPANMACKSETO]

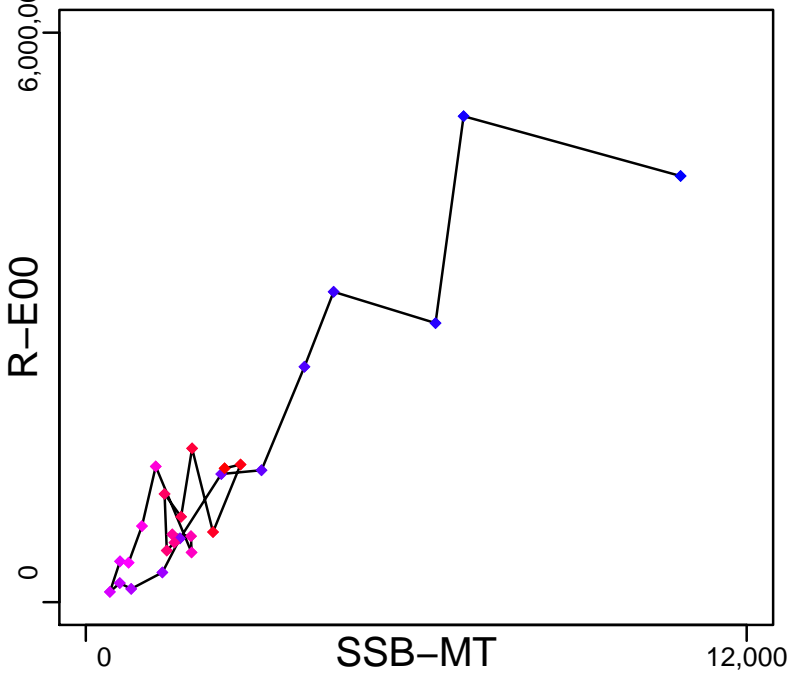
Kobe MSYpref (1987–2013–JPNIMP2016)



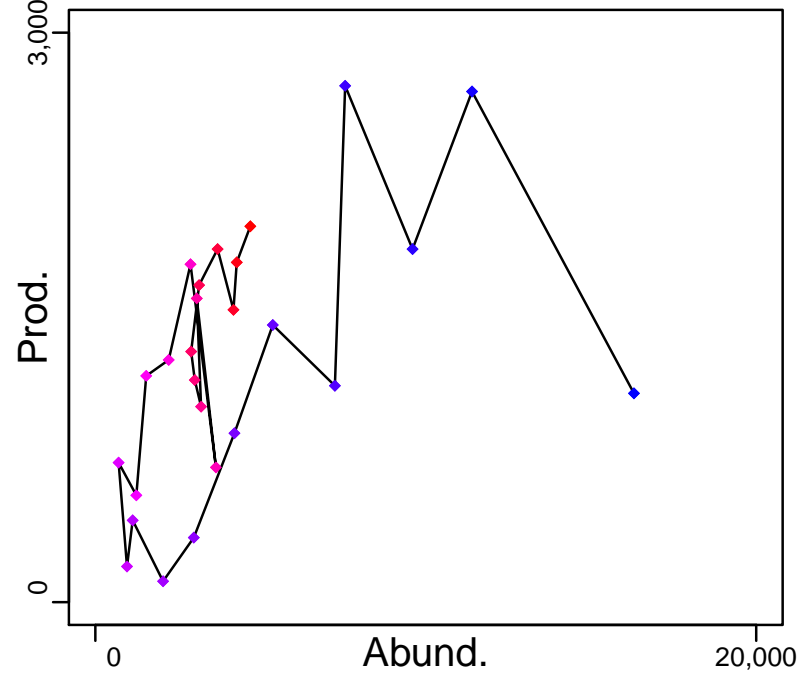
Kobe MGTpref (1987–2013–JPNIMP2016)



Spawner Recruit (1987–2013–JPNIMP2016)



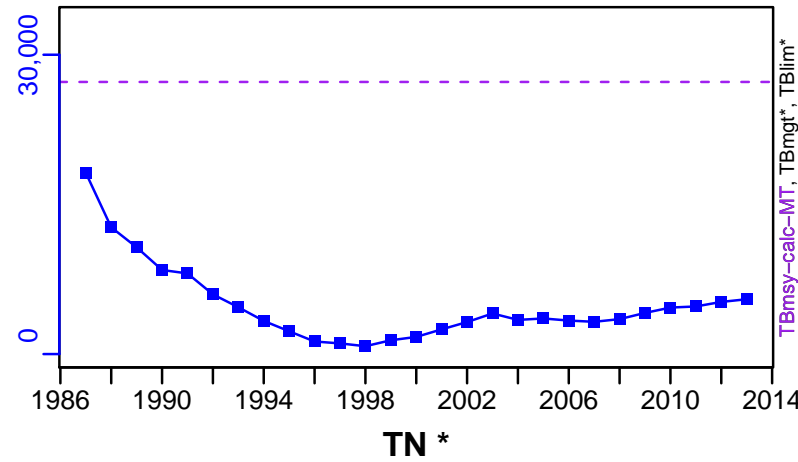
Production (1987–2013–JPNIMP2016)



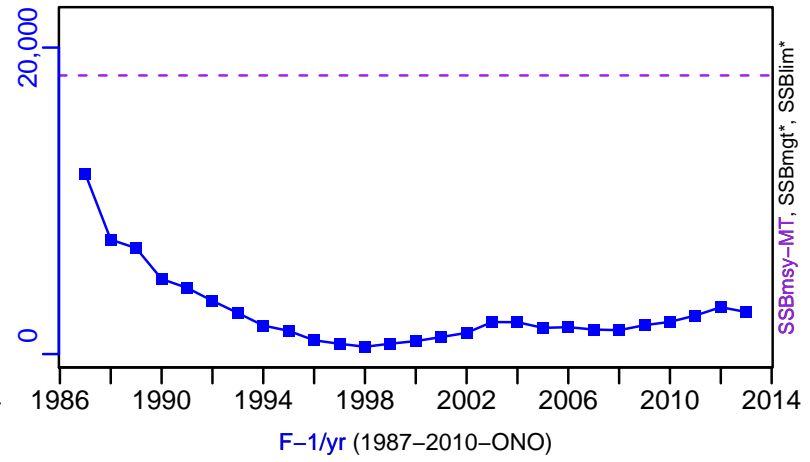
◆ Start Year ◆ End Year * No Data

Japanese Spanish mackerel Inland Sea of Japan [SPANMACKSETO]

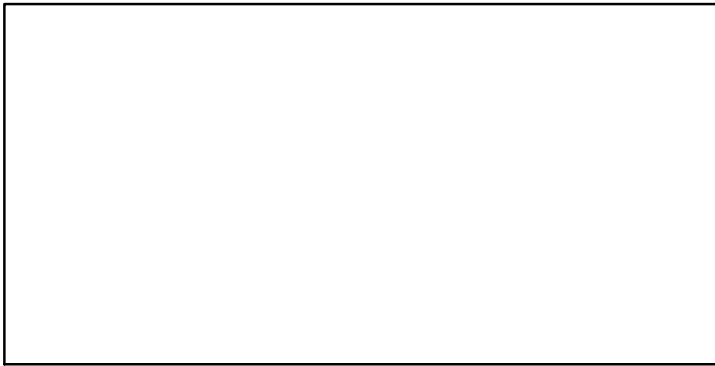
TB-MT (1987–2013–JPNIMP2016)



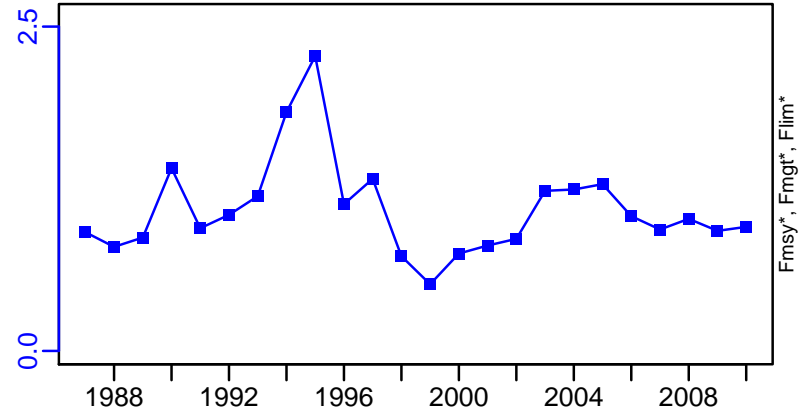
SSB-MT (1987–2013–JPNIMP2016)



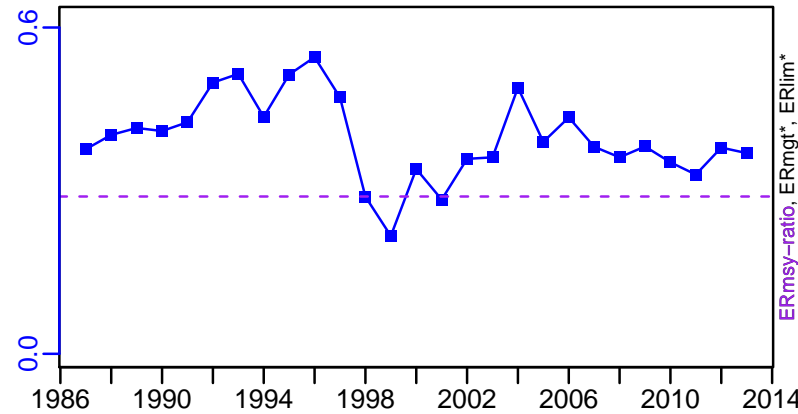
TN *



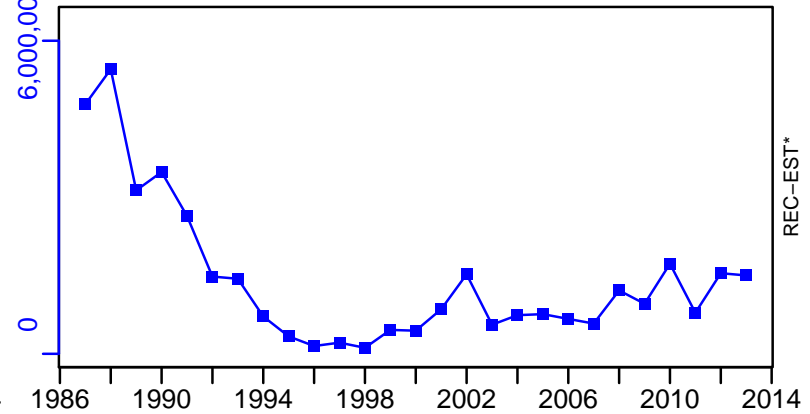
F-1/yr (1987–2010–ONO)



ER-calc-ratio (1987–2013–JPNIMP2016)

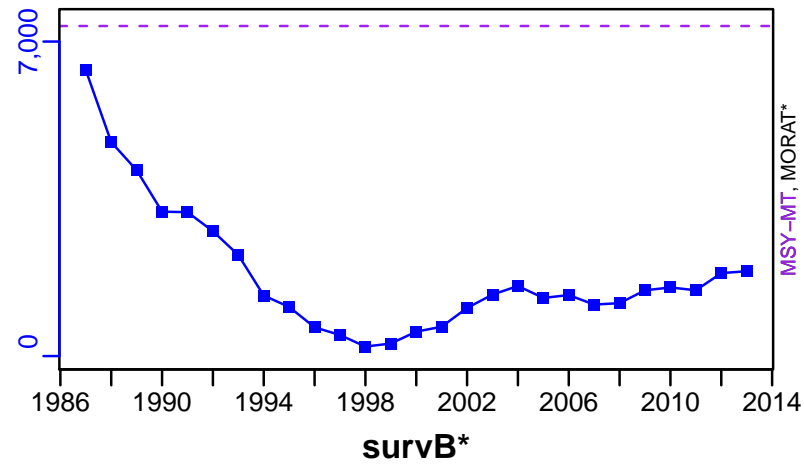


R-E00 (1987–2013–JPNIMP2016)



Japanese Spanish mackerel Inland Sea of Japan [SPANMACKSETO]

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



TAC*, Cpair*, Cadv*



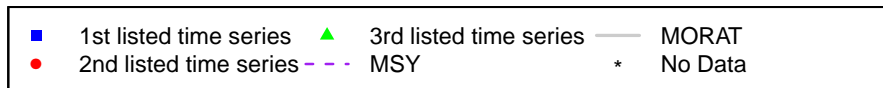
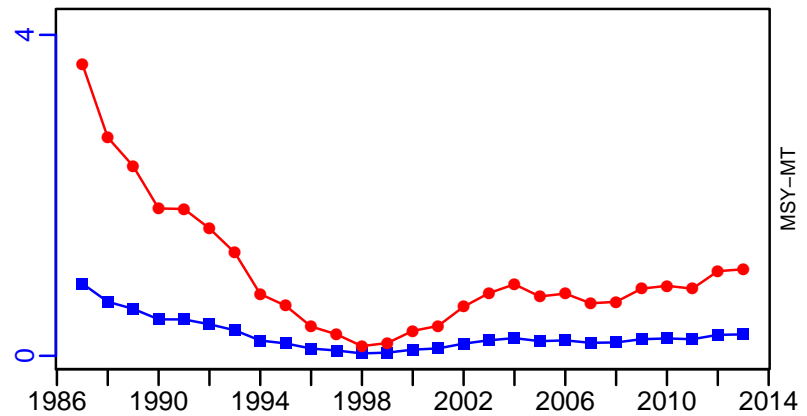
CPUE*



EFFORT*



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



Spear squid Pacific Ocean [SPSQUIDPAC]

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

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

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

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Spear squid Pacific Ocean [SPSQUIDPAC]

TB*



SSB*



TN *



F*



ER*

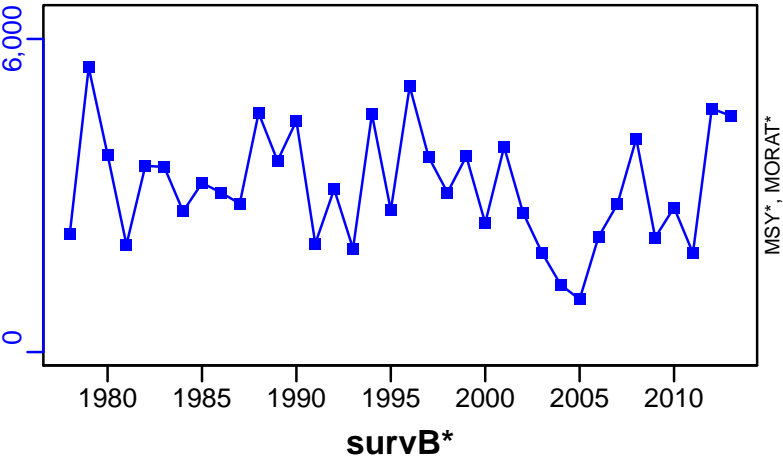


Recruits*



Spear squid Pacific Ocean [SPSQUIDPAC]

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



TAC*, Cpair*, Cadv*



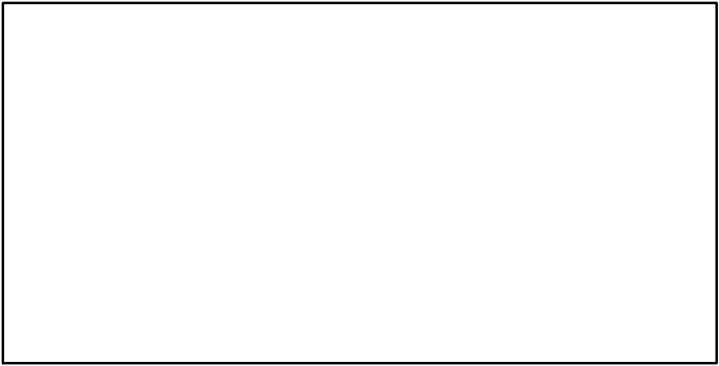
CPUE*



EFFORT*



CdivMSY*



Spear squid Tsushima warm current [SPSQUIDTSSTWC]

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

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

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

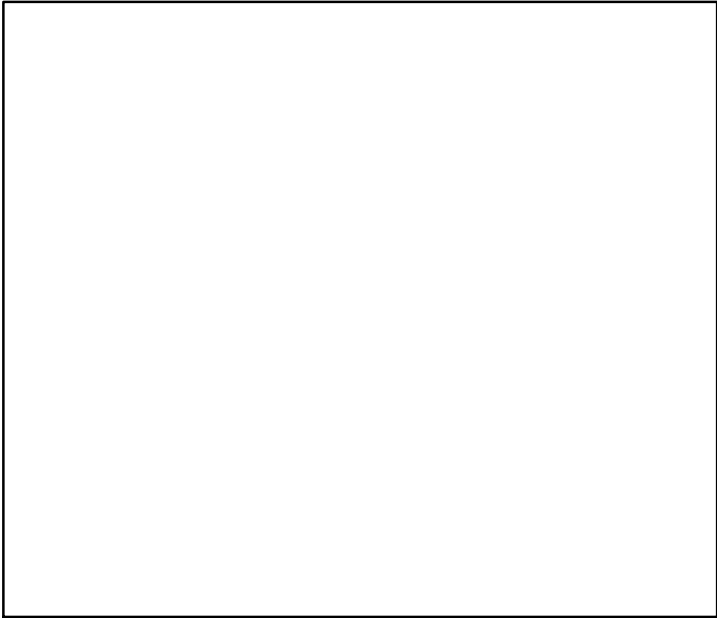
Kobe MSY*



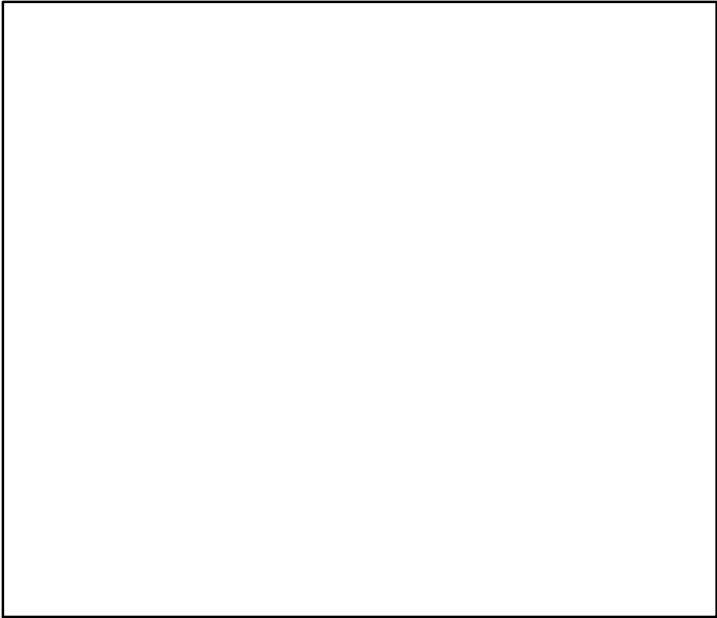
Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

TB*



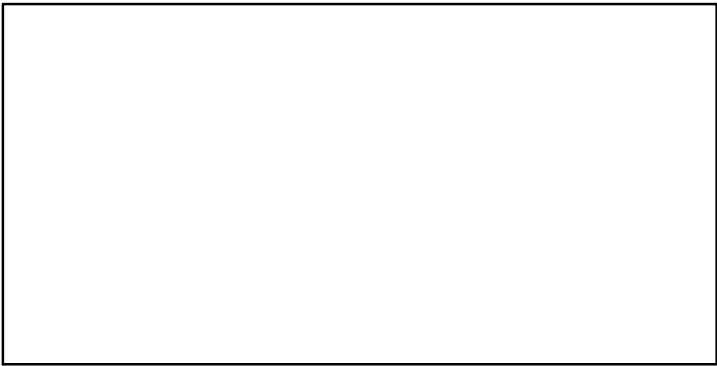
SSB*



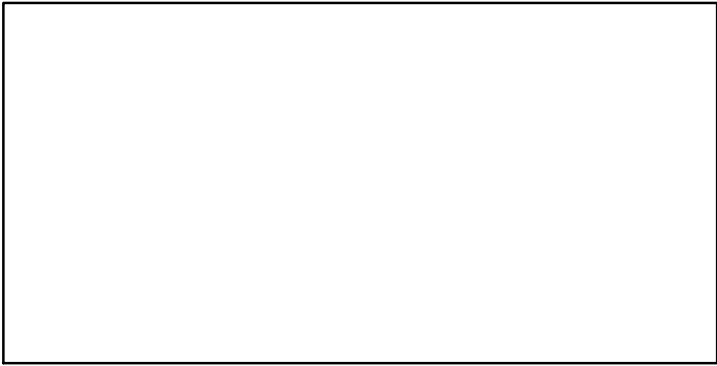
TN *



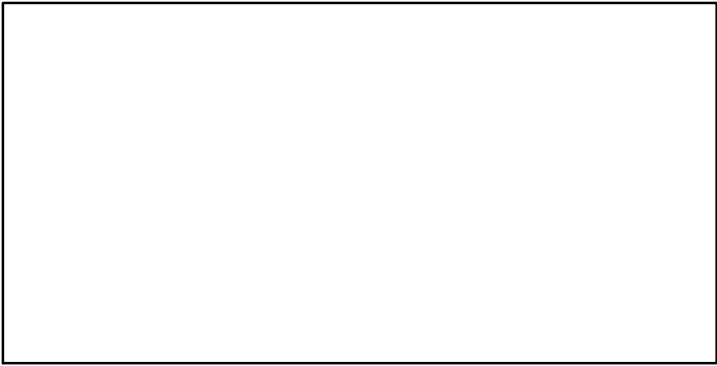
F*



ER*



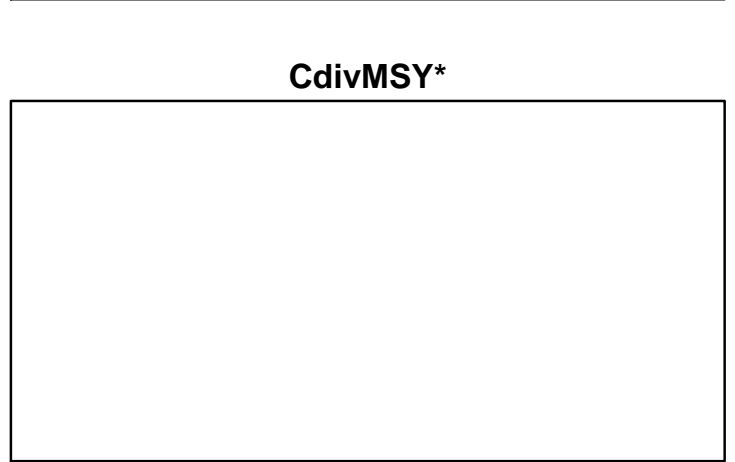
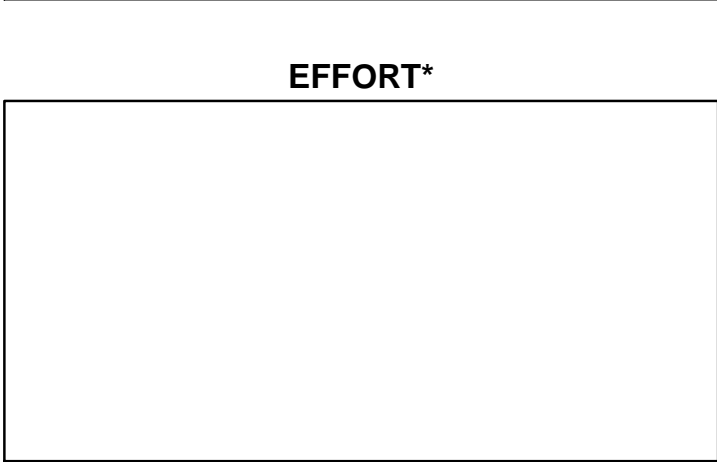
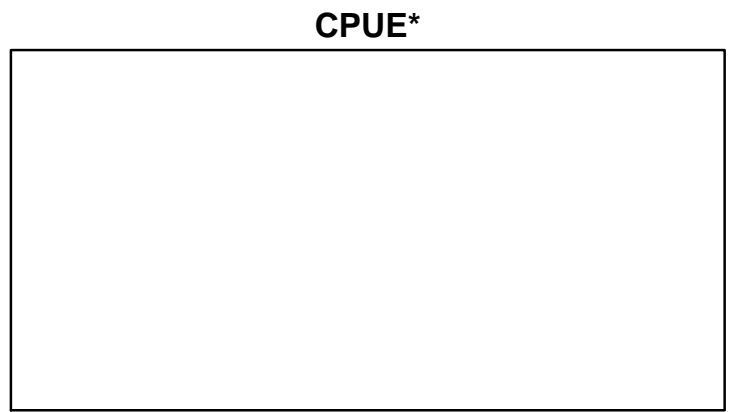
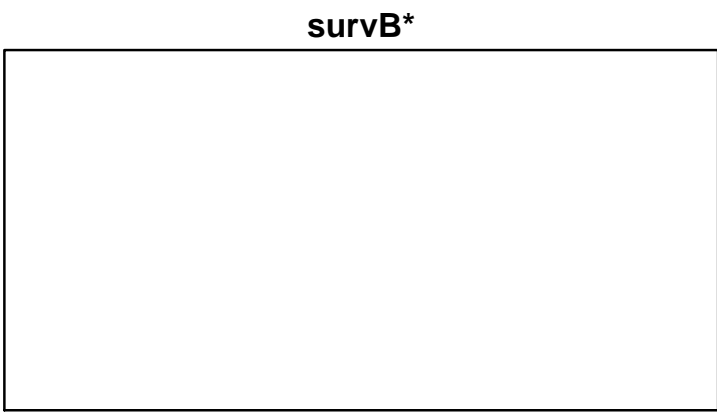
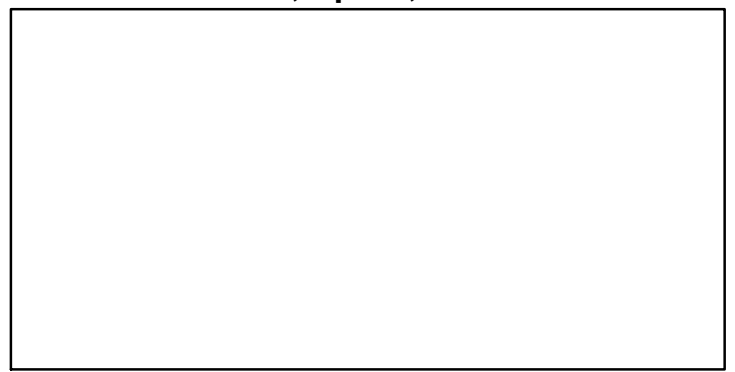
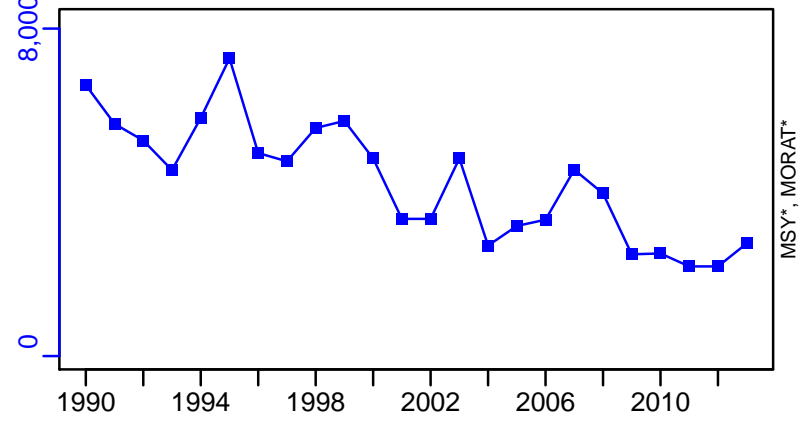
Recruits*



Spear squid Tsushima warm current [SPSQUIDTSSTWC]

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

TAC*, Cpair*, Cadv*



Sailfin sandfish Sea of Japan North [SSANDNSJ]

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

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

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

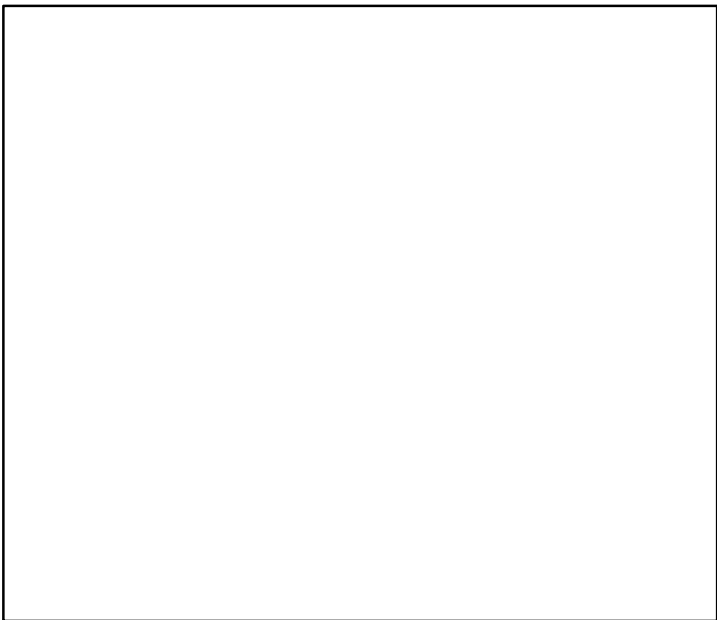
Kobe MSY*



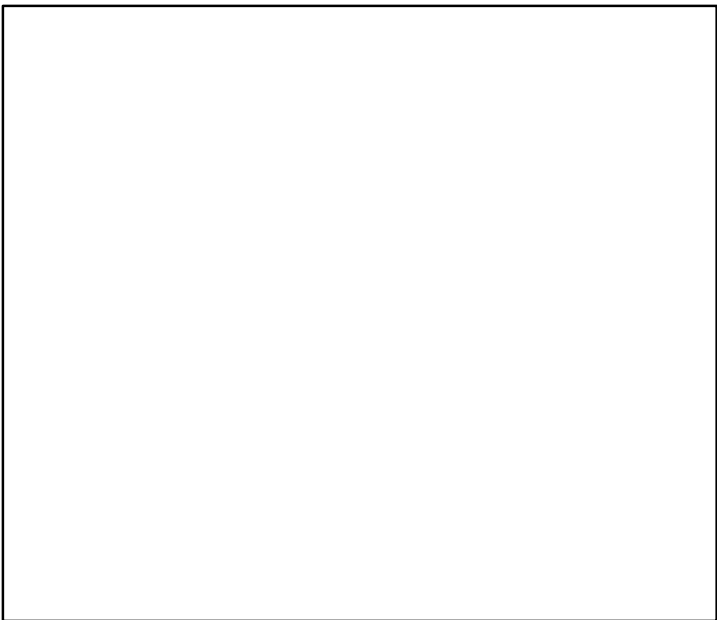
Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Sailfin sandfish Sea of Japan North [SSANDNSJ]

TB*



SSB*



TN *



F*



ER*

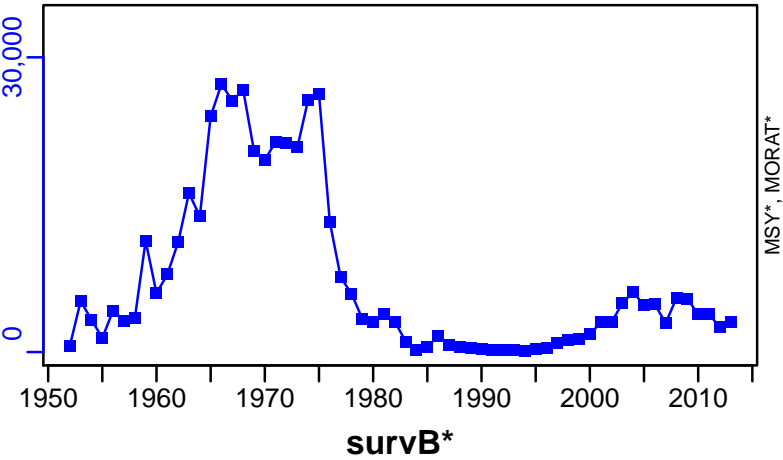


Recruits*



Sailfin sandfish Sea of Japan North [SSANDNSJ]

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



TAC*, Cpair*, Cadv*



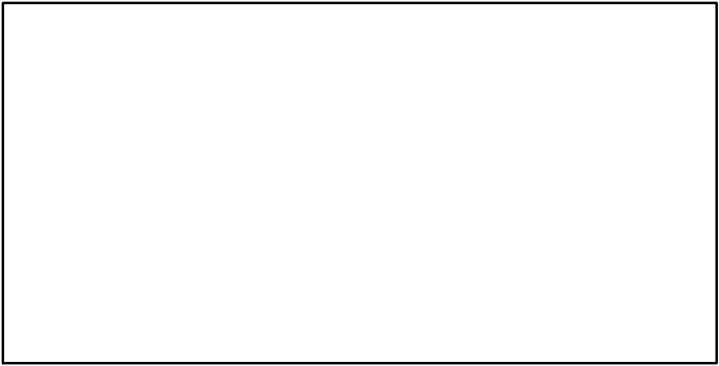
CPUE*



EFFORT*



CdivMSY*



Sailfin sandfish Sea of Japan West [SSANDWSJ]

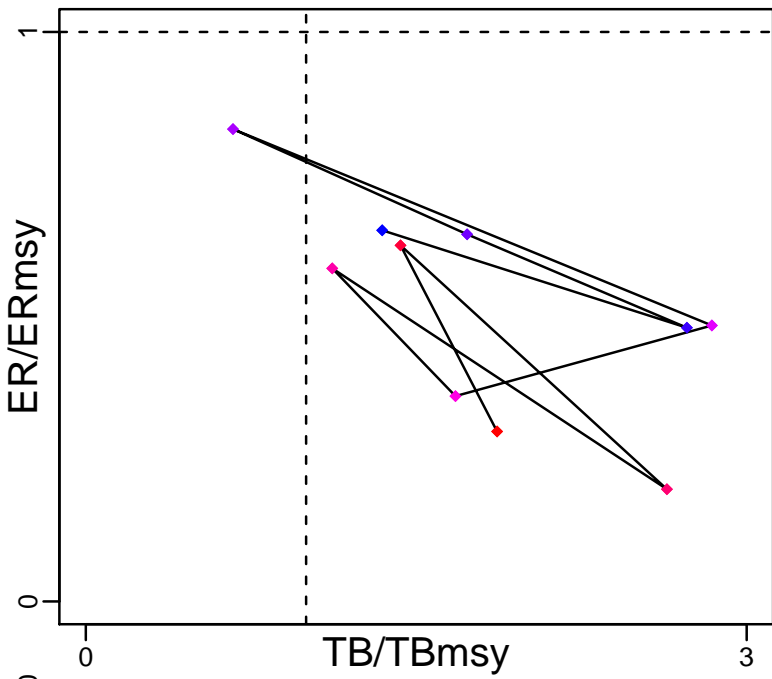
Metadata	
Scientific Name	Arctoscopus japonicus
Current Assess ID	FAFRFJ-SSANDWSJ-1970-2013-JPNIMP2016
Area	Sea of Japan West
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013

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

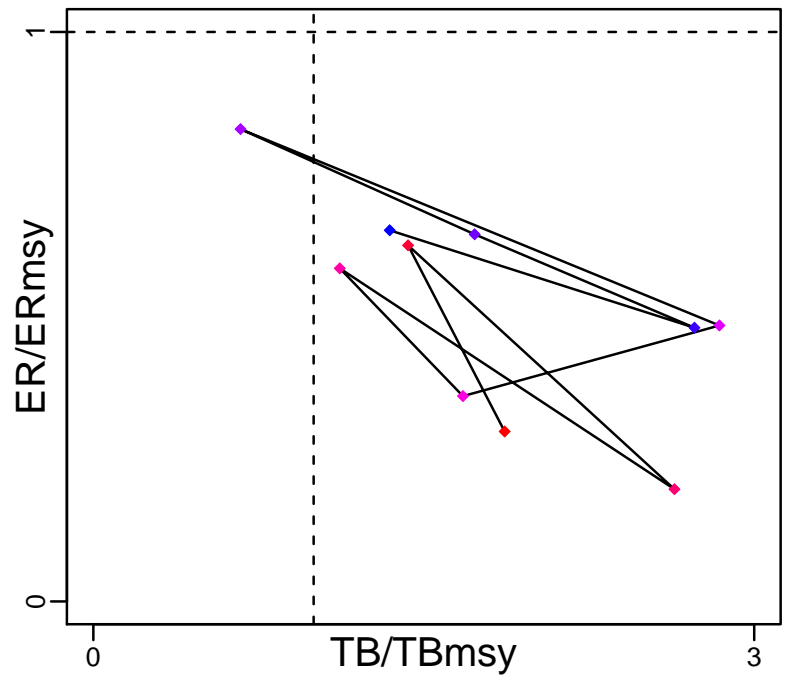
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	24,700	-	1
SSB	SSB-MT	2013	7850	Both	2
TN	-	-	-	-	-
R	R-E00	2013	5.76×10^8	-	1
F	-	-	-	-	-
ER	ER-calc-ratio	2013	0.151	-	-
TC	TC-MT	2013	3730		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-MT	2013	1.867		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy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

Sailfin sandfish Sea of Japan West [SSANDWSJ]

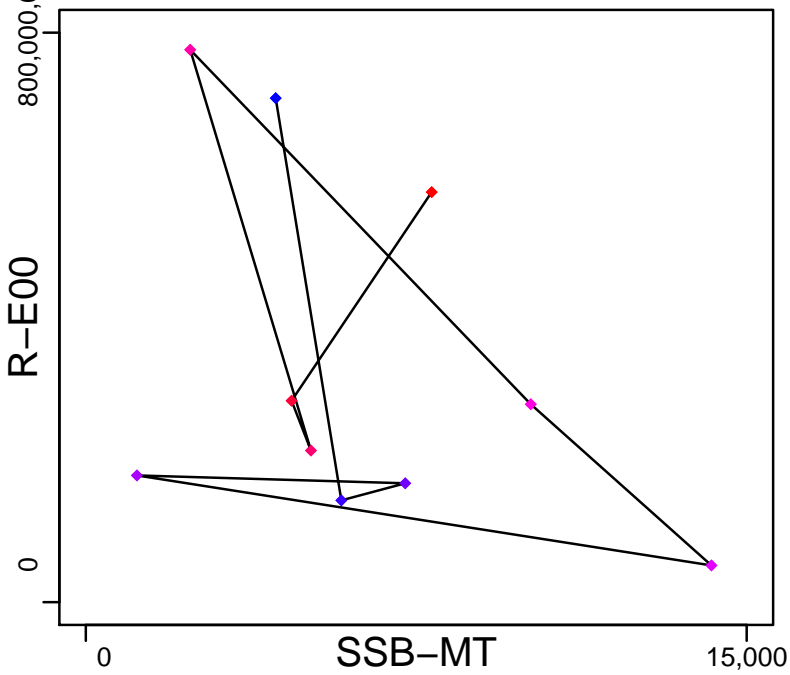
Kobe MSYpref (1970–2013–JPNIMP2016)



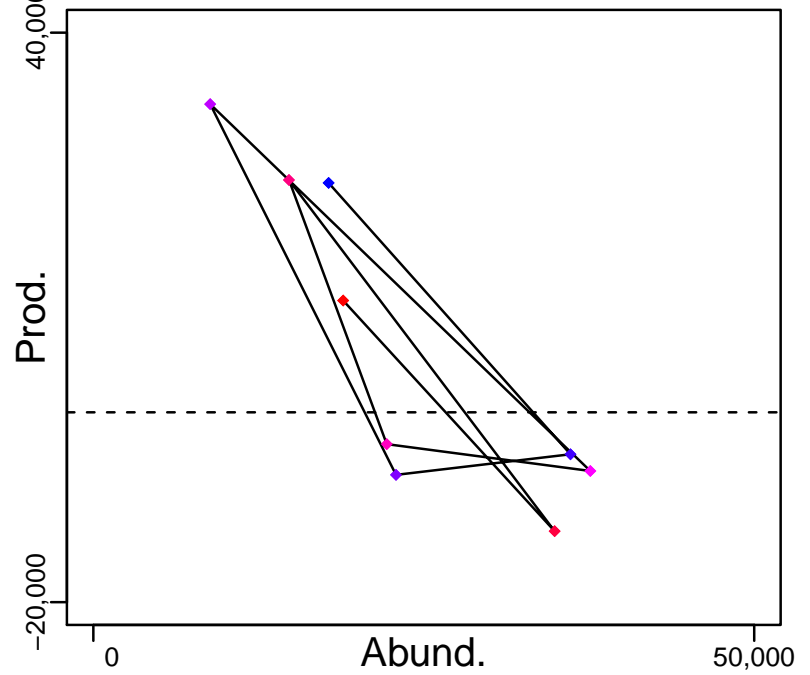
Kobe MGTpref (1970–2013–JPNIMP2016)



Spawner Recruit (1970–2013–JPNIMP2016)



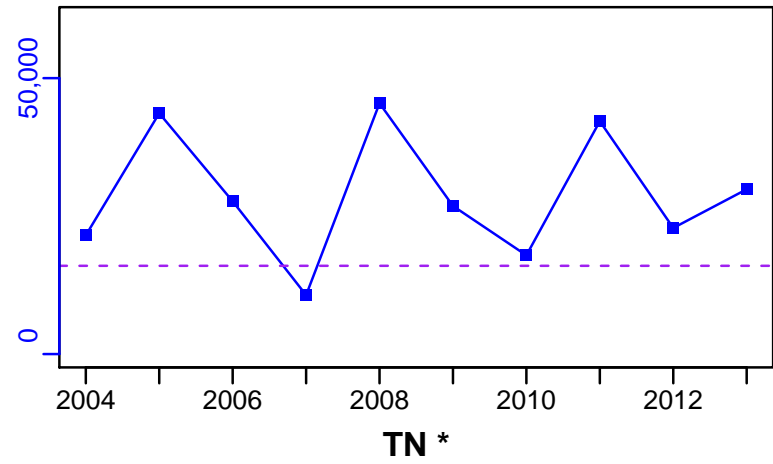
Production (1970–2013–JPNIMP2016)



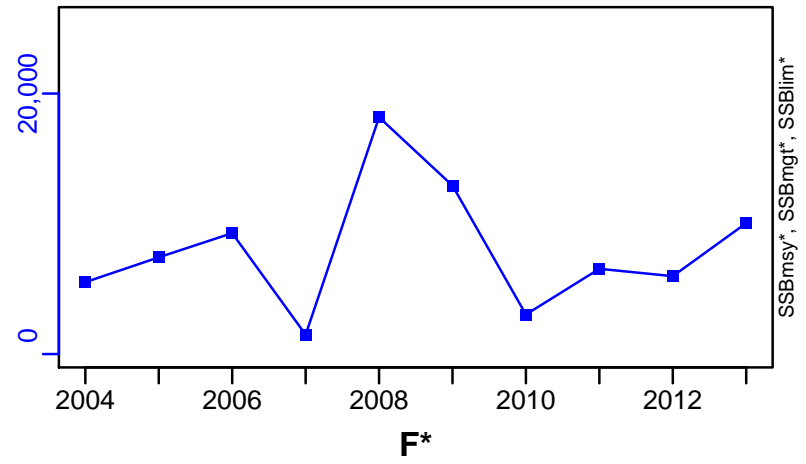
◆ Start Year ◆ End Year * No Data

Sailfin sandfish Sea of Japan West [SSANDWSJ]

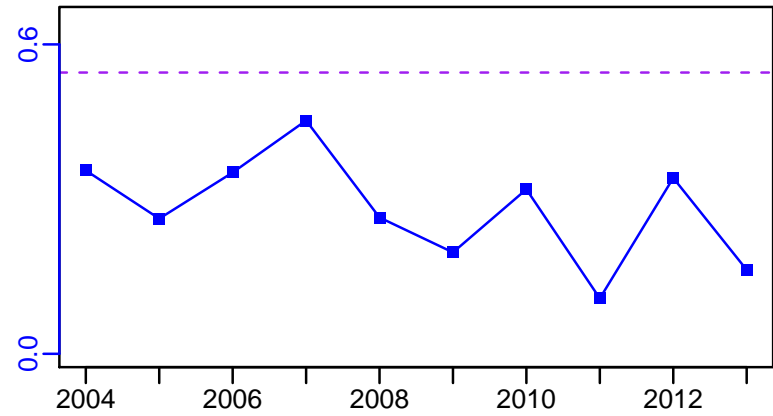
TB-MT (1970-2013-JPNIMP2016)



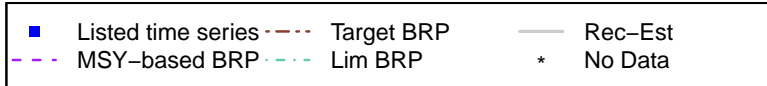
SSB-MT (1970-2013-JPNIMP2016)



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

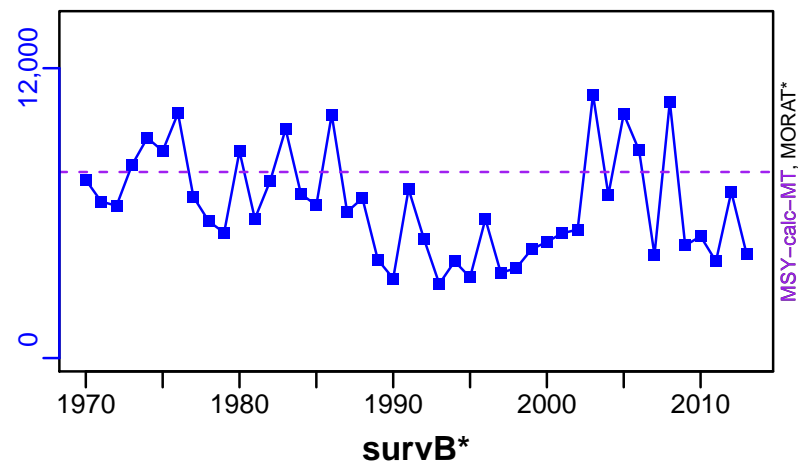


R-E00 (1970-2013-JPNIMP2016)



Sailfin sandfish Sea of Japan West [SSANDWSJ]

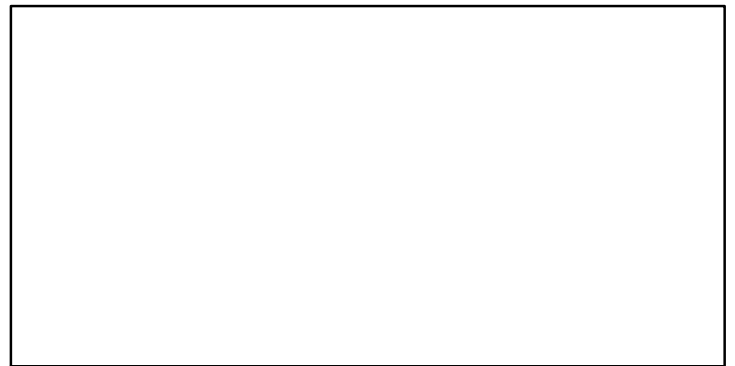
TC-MT, TL*, RecC* (1970-2013-JPNIMP2016)



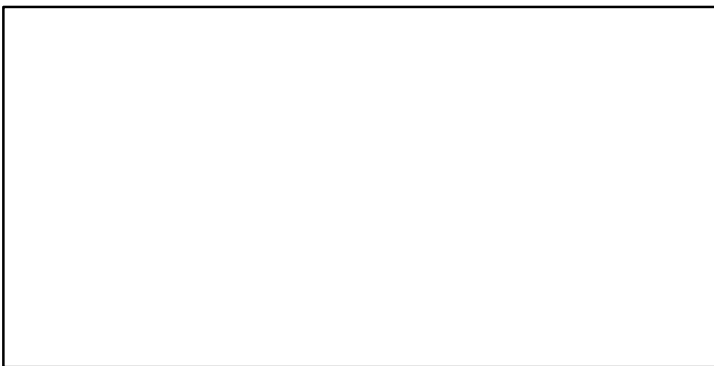
TAC*, Cpair*, Cadv*



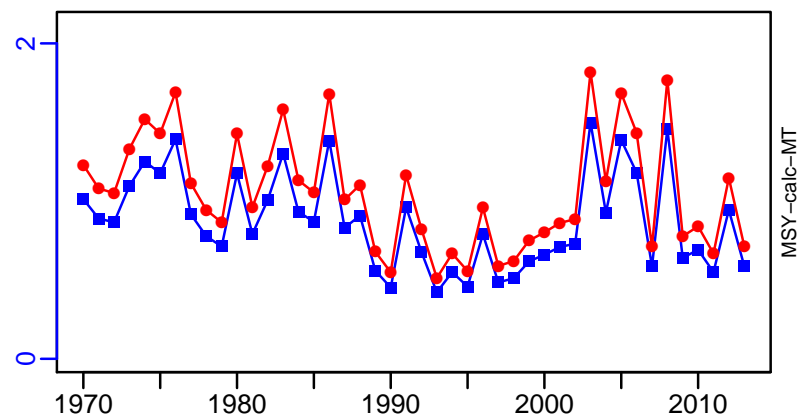
CPUE*



EFFORT*



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



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

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

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

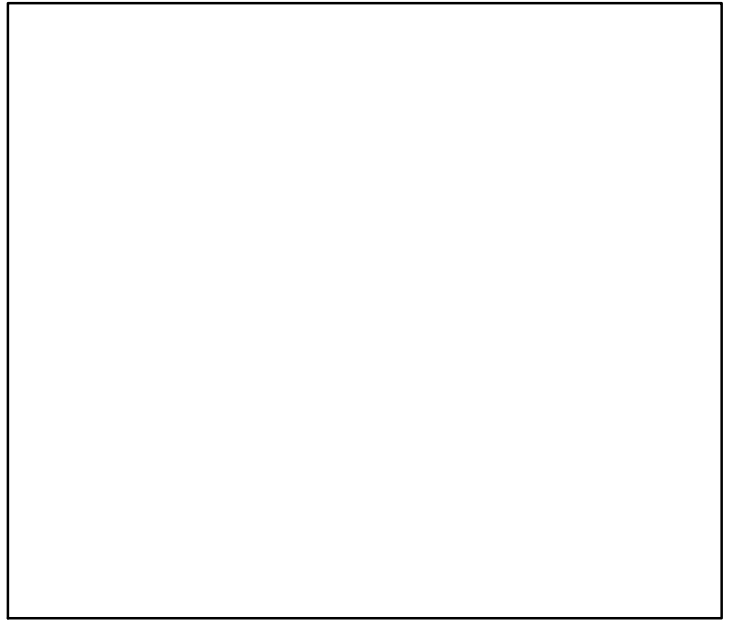
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

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

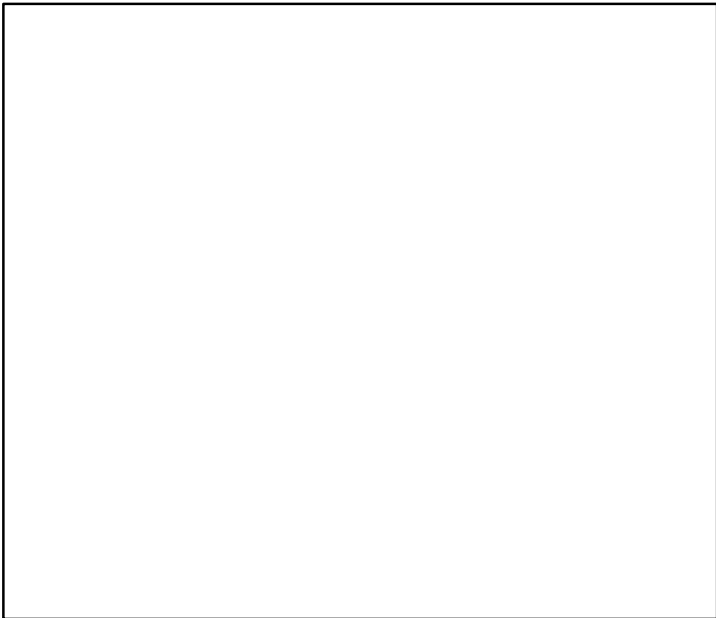
Kobe MSY*



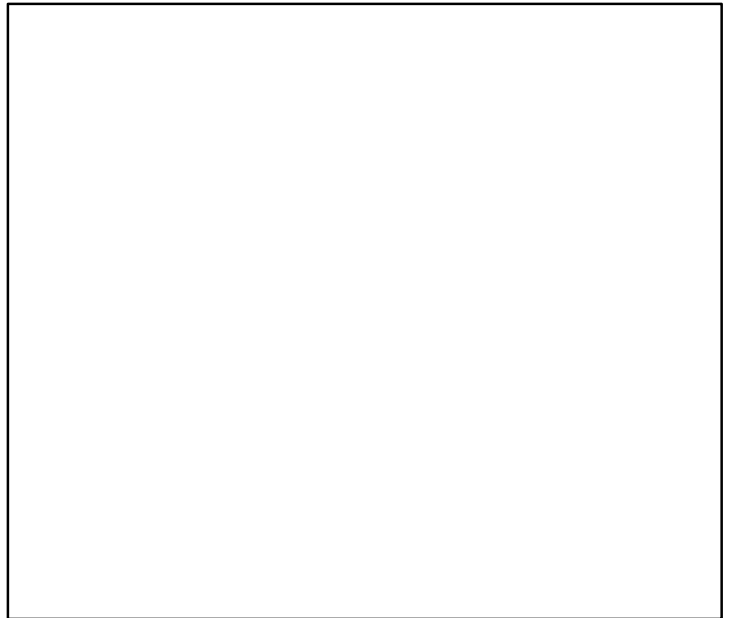
Kobe MGT*



Spawner Recruit*



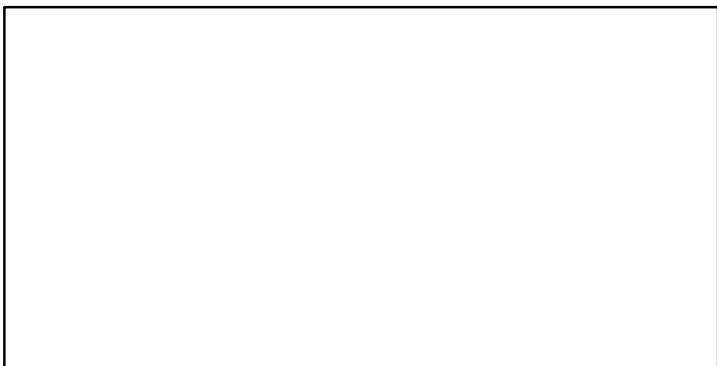
Production*



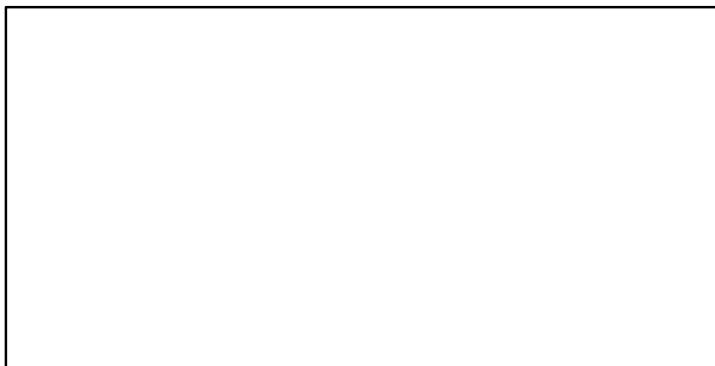
◆ Start Year ◆ End Year * No Data

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

TB*



SSB*



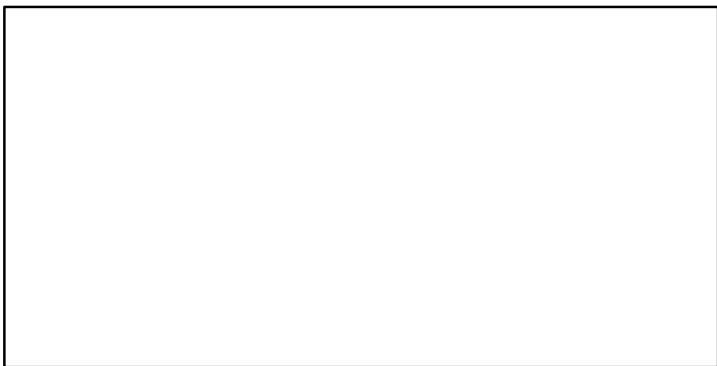
TN *



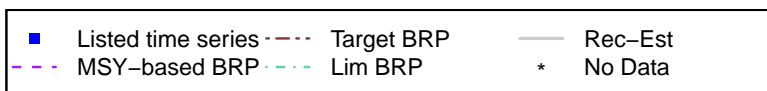
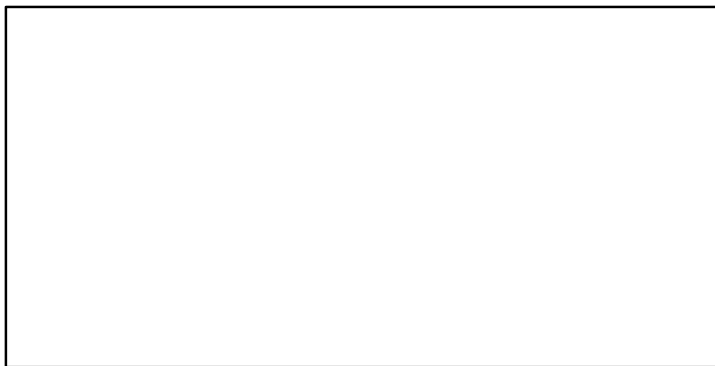
F*



ER*



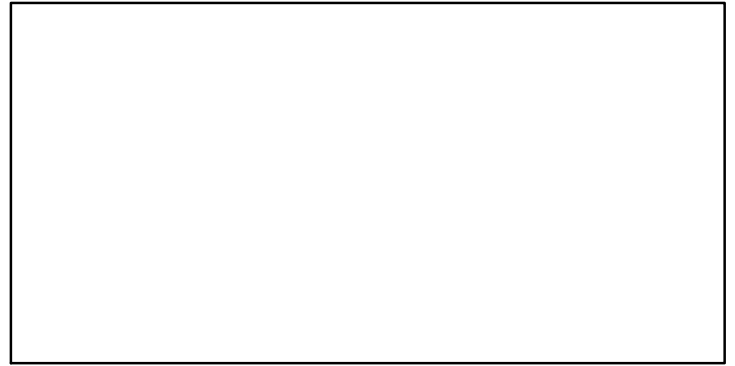
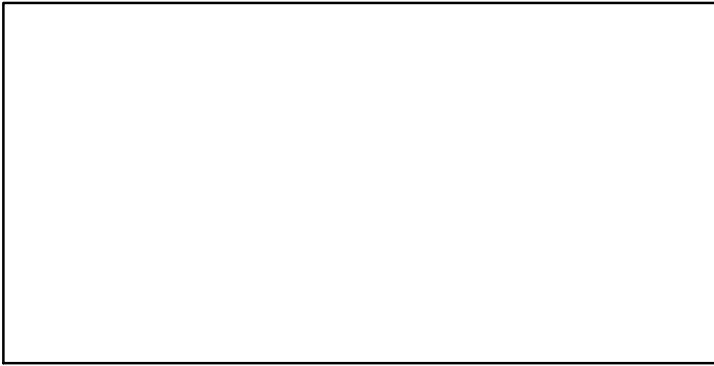
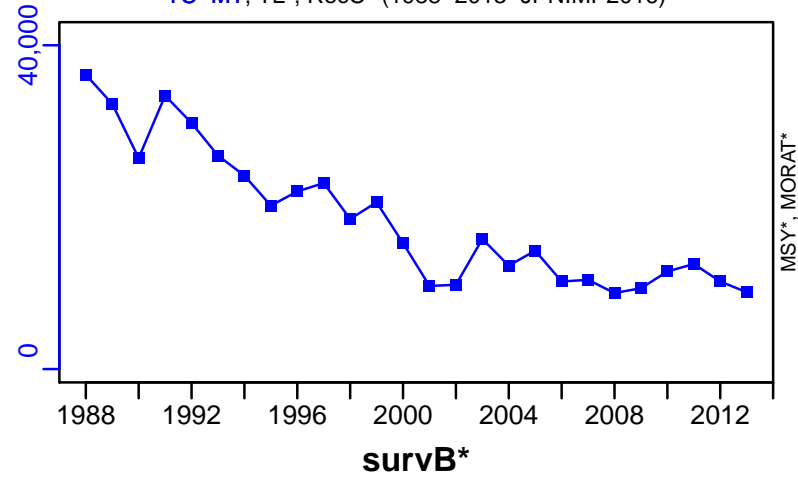
Recruits*



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

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

TAC*, Cpair*, Cadv*



Willow flounder North Pacific [WLFLOUNNPAC]

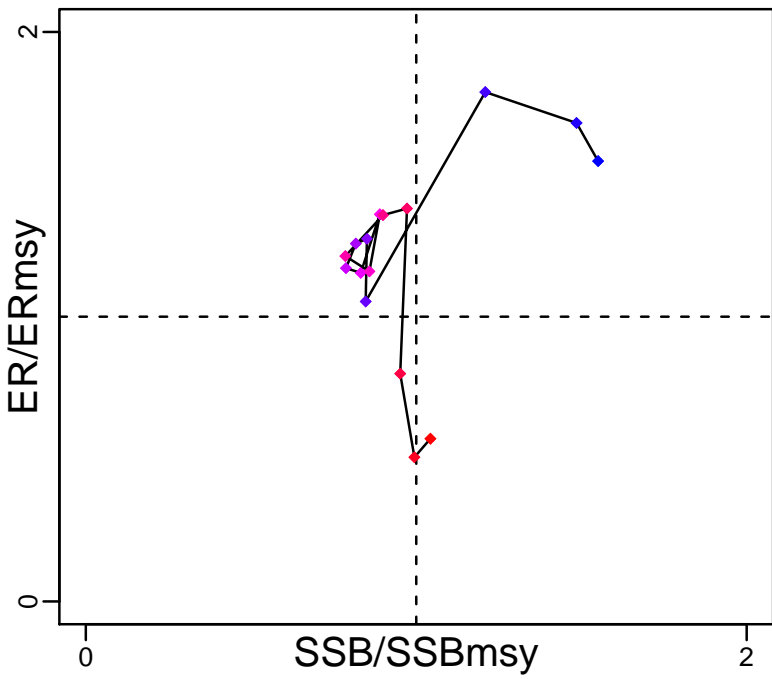
Metadata	
Scientific Name	Tanakius kitaharae
Current Assess ID	FAFRFJ-WLFLOUNNPAC-1997-2013-JPNIMP2016
Area	North Pacific
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013

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

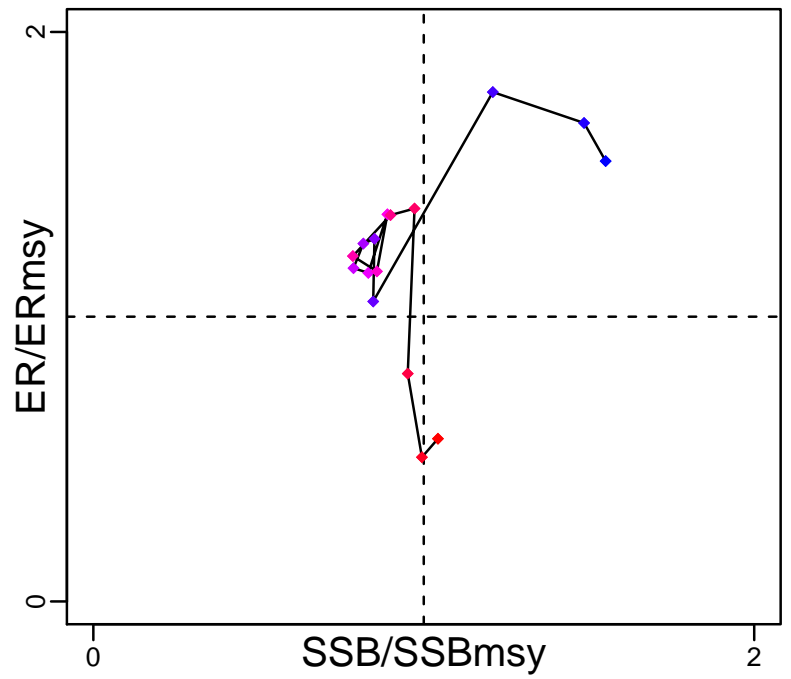
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	673	-	1
SSB	SSB-MT	2013	559	Both	3
TN	-	-	-	-	-
R	R-E00	2013	2,270,000	-	1
F	-	-	-	-	-
ER	ER-calc-ratio	2013	0.119	-	-
TC	TC-MT	2013	80		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2013	0.968		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013	1.043		
F/Fmsy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

Willowy flounder North Pacific [WLFLOUNNPAC]

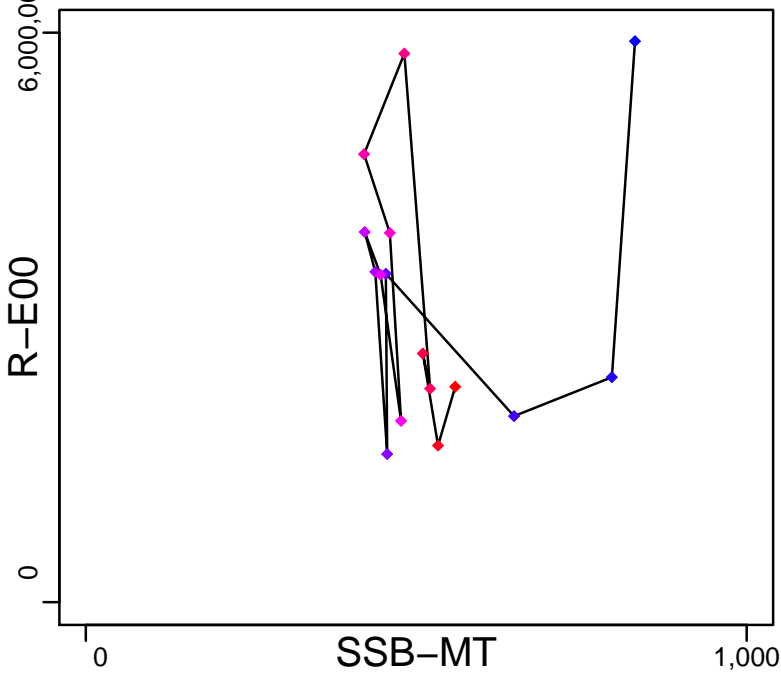
Kobe MSYpref (1997–2013–JPNIMP2016)



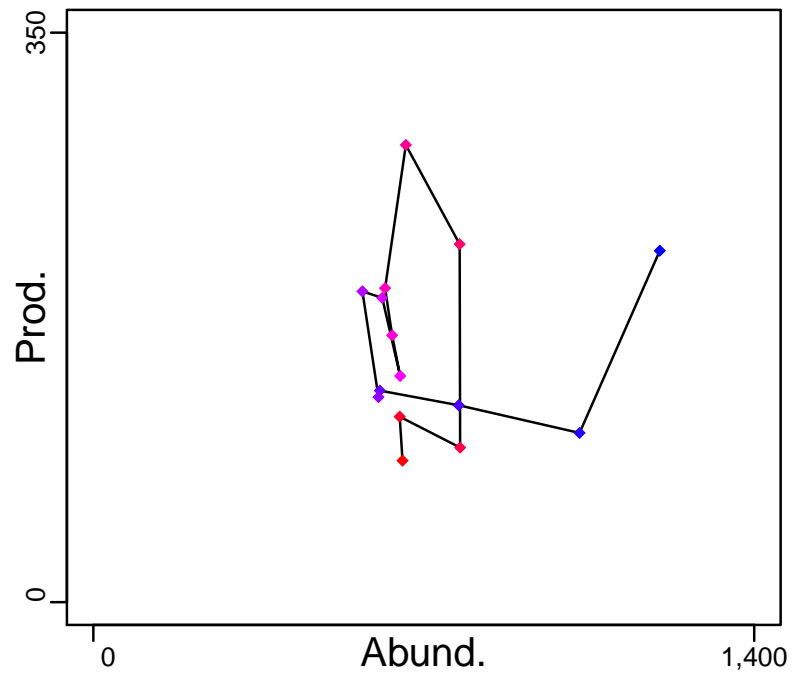
Kobe MGTpref (1997–2013–JPNIMP2016)



Spawner Recruit (1997–2013–JPNIMP2016)



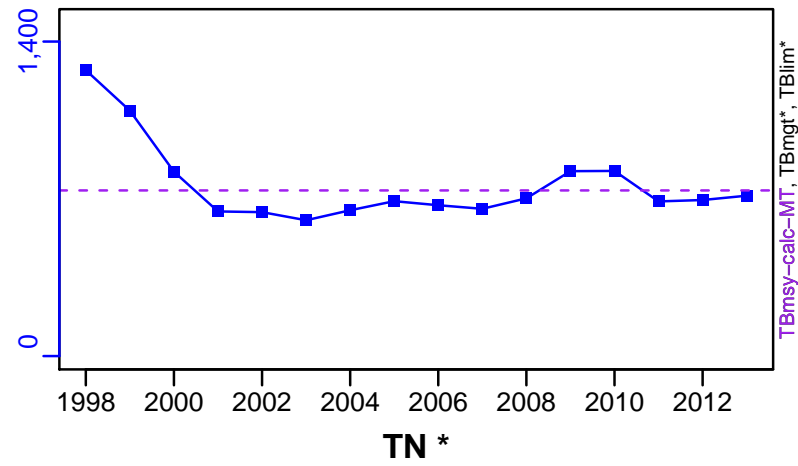
Production (1997–2013–JPNIMP2016)



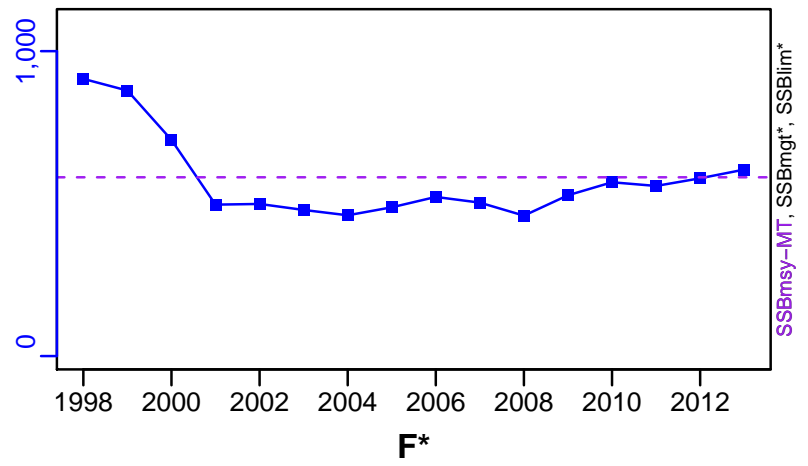
◆ Start Year ◆ End Year * No Data

Willow flounder North Pacific [WLFLOUNNPAC]

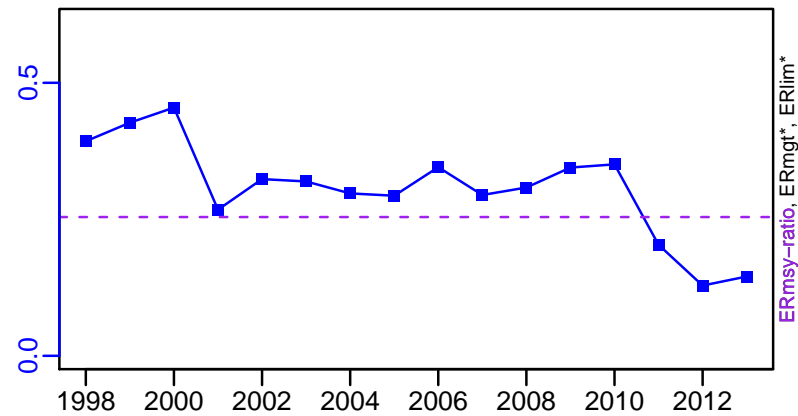
TB-MT (1997-2013-JPNIMP2016)



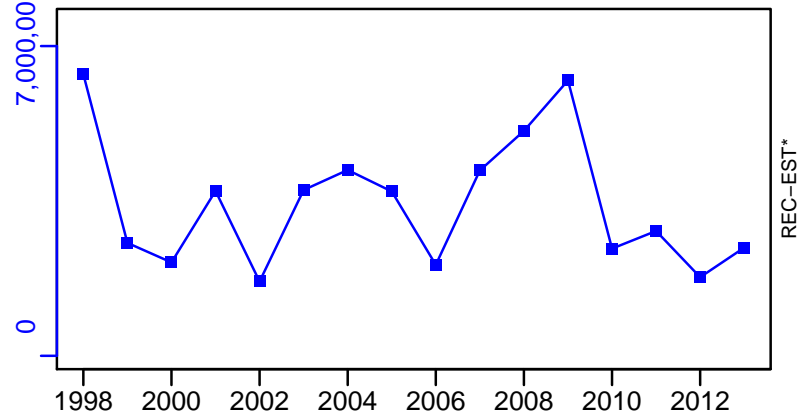
SSB-MT (1997-2013-JPNIMP2016)



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

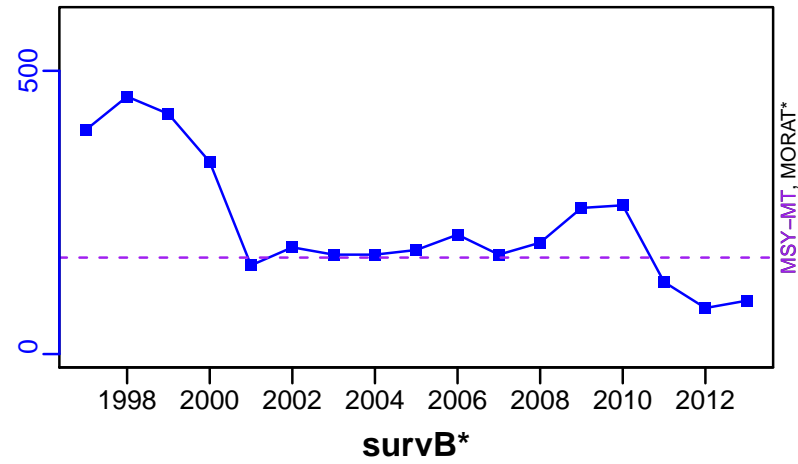


R-E00 (1997-2013-JPNIMP2016)



Willowy flounder North Pacific [WLFLOUNNPAC]

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



TAC*, Cpair*, Cadv*



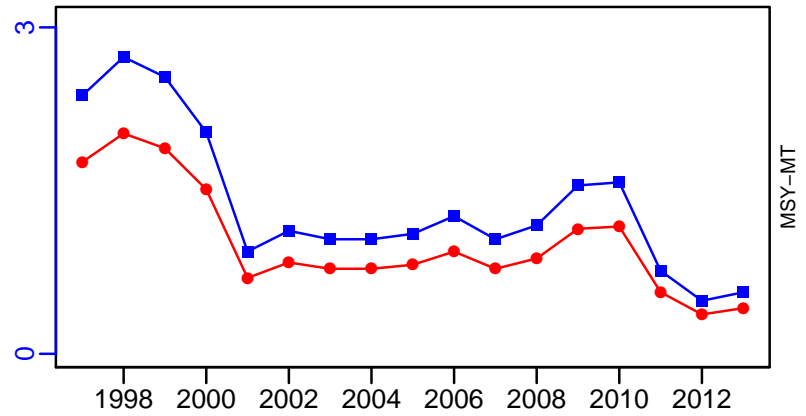
CPUE*



EFFORT*



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



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

Whitespotted conger Ise and Mikawa Bay [WSCONGIMKB]

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

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

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

Kobe MSY*



Kobe MGT*



Spawner Recruit*



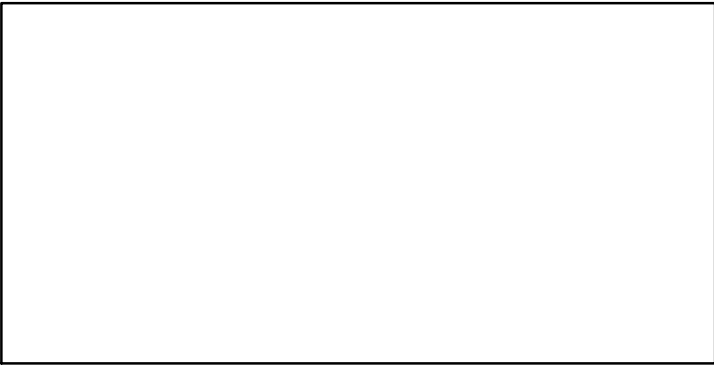
Production*



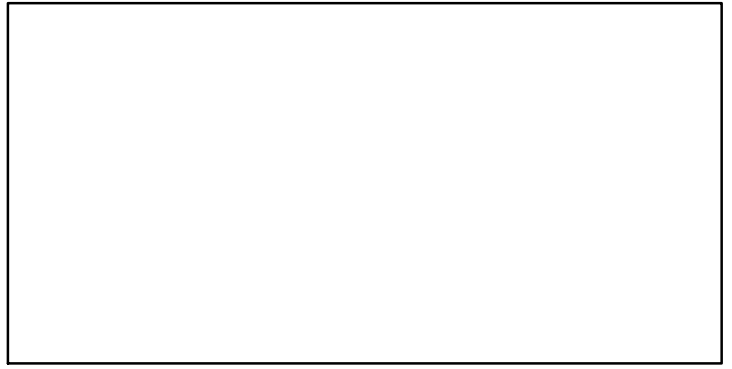
◆ Start Year ◆ End Year * No Data

Whitespotted conger Ise and Mikawa Bay [WSCONGIMKB]

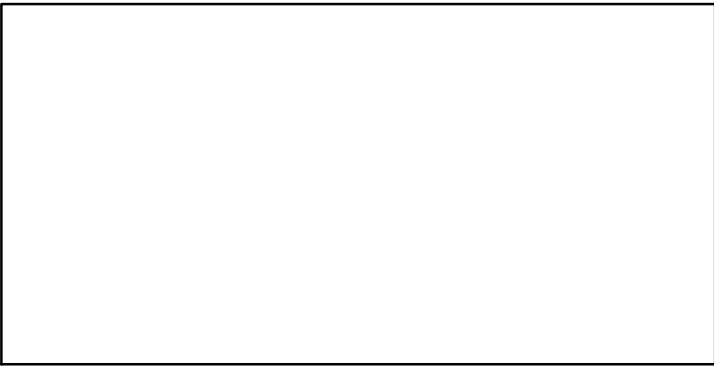
TB*



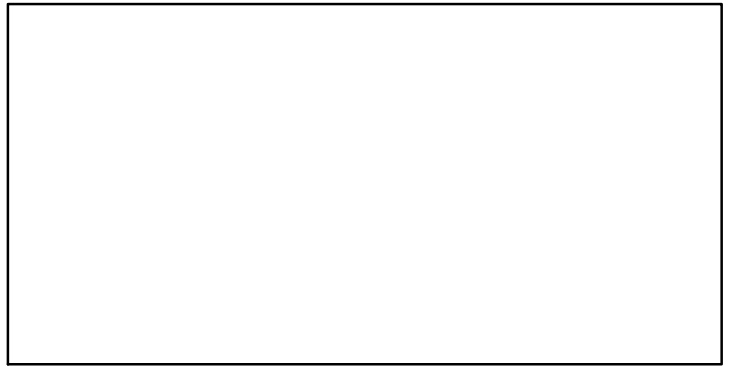
SSB*



TN *



F*



ER*



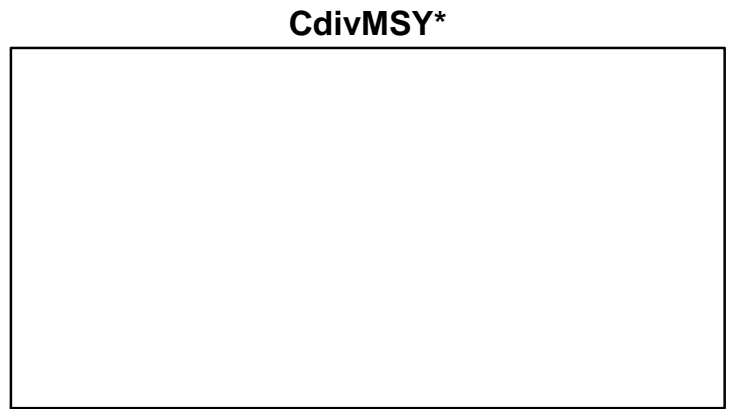
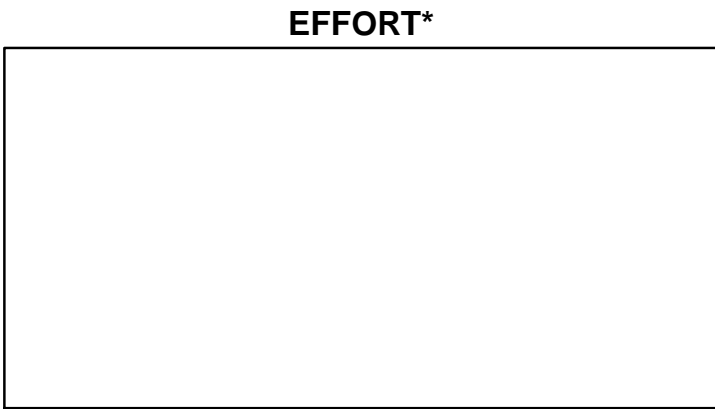
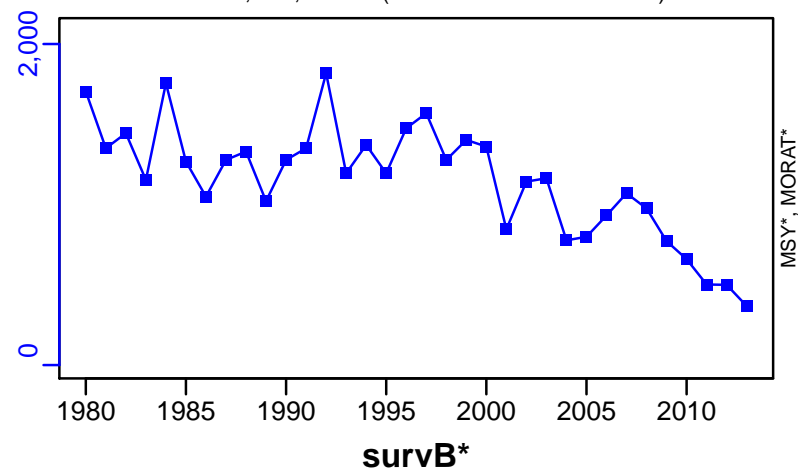
Recruits*



Whitespotted conger Ise and Mikawa Bay [WSCONGIMKB]

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

TAC*, Cpair*, Cadv*



Yellow goosfish North Pacific [YGSFISHNPAC]

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

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

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

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Yellow goosefish North Pacific [YGSFISHNPAC]

TB*



SSB*



TN *



F*



ER*

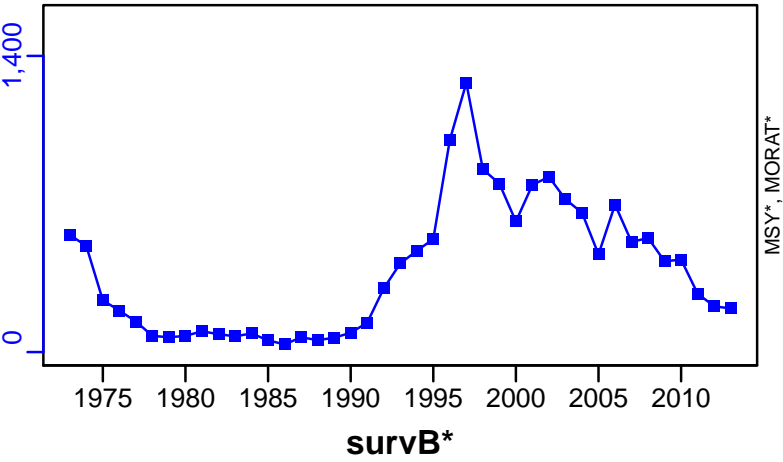


Recruits*



Yellow goosfish North Pacific [YGSFISHNPAC]

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



TAC*, Cpair*, Cadv*



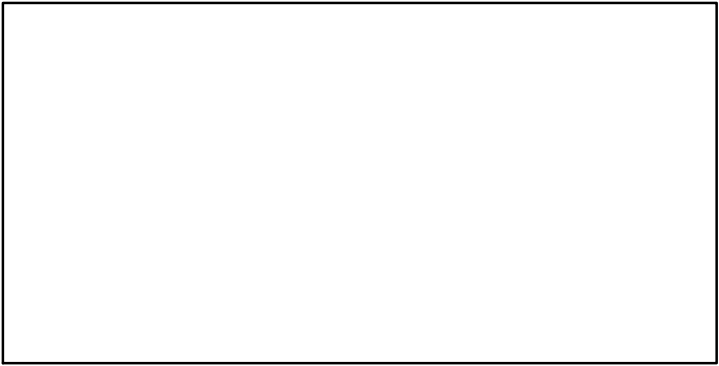
CPUE*



EFFORT*



CdivMSY*



Yellow striped flounder North coast of Hokkaido [YSFLOUNNHOKK]

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

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

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

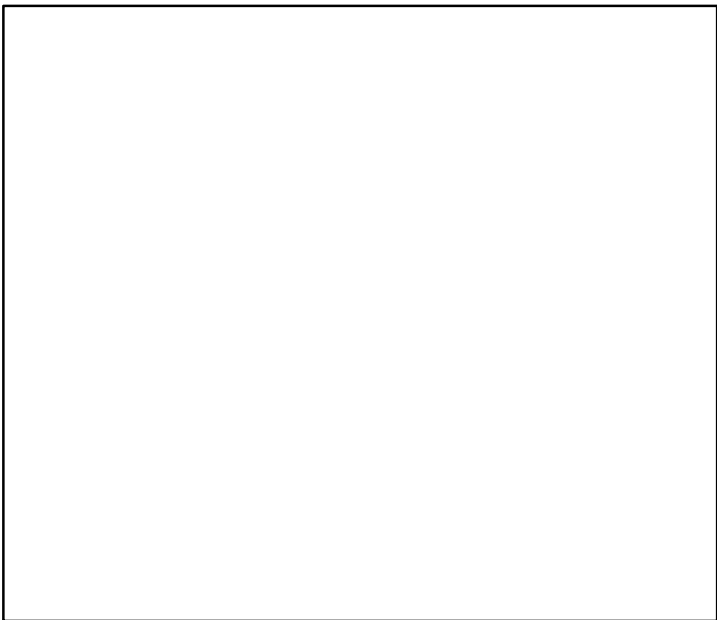
Kobe MSY*



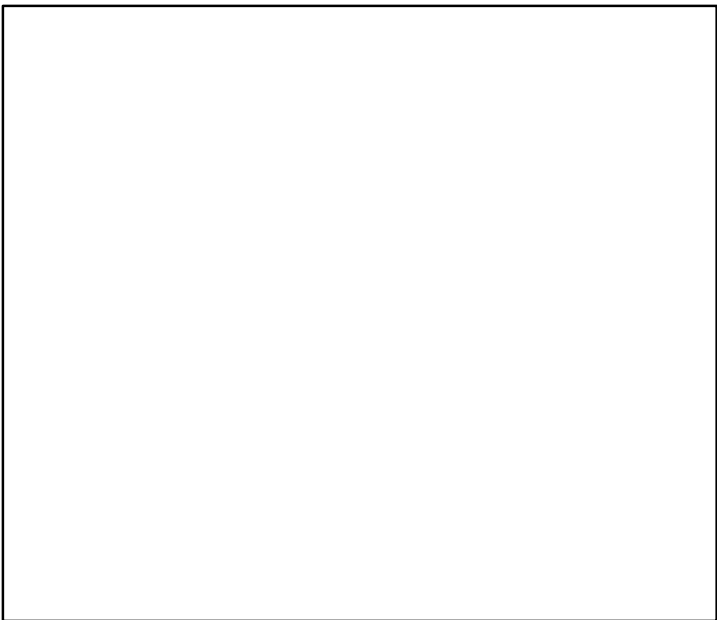
Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Yellow striped flounder North coast of Hokkaido [YSFLOUNNHOKK]

TB*



SSB*



TN *



F*



ER*

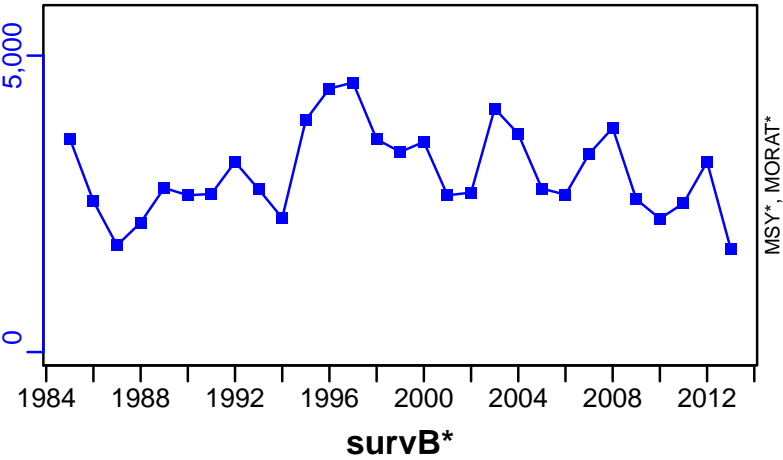


Recruits*



Yellow striped flounder North coast of Hokkaido [YSFLOUNNHOKK]

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



TAC*, Cpair*, Cadv*



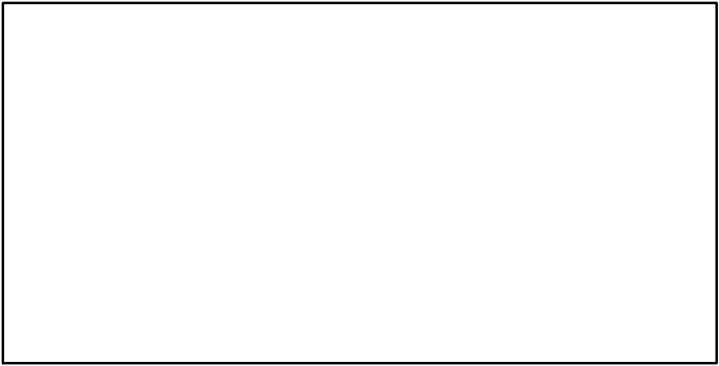
CPUE*



EFFORT*



CdivMSY*



Yellow striped flounder Sea of Japan [YSFLOUNSOJ]

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

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

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

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Yellow striped flounder Sea of Japan [YSFLOUNSOJ]

TB*



SSB*



TN *



F*



ER*

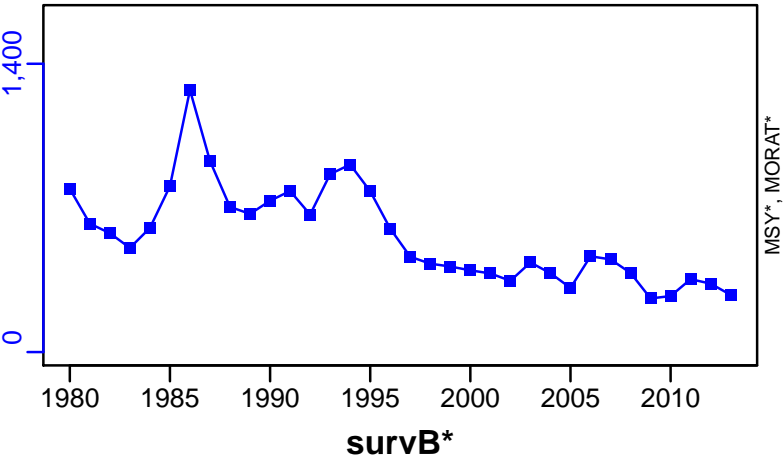


Recruits*



Yellow striped flounder Sea of Japan [YSFLOUNSOJ]

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



TAC*, Cpair*, Cadv*



CPUE*



EFFORT*



CdivMSY*

