

# Russia Japan Stocks

## v4.44 (Dec-21-2018)

Not present Present Preferred

Stock	B/Bmsy	Time Series Types			
		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. WPOLLNAVAR [Walleye Pollock Navarinsky]	TB SSB	ER F	TB SSB	ER F
77. WPOLLNSO [Walleye pollock Northern Sea of Okhotsk]	TB SSB	ER F	TB SSB	ER F
78. WPOLLWBS [Walleye pollock Western Bering Sea]	TB SSB	ER F	TB SSB	ER F
79. WSCONGIMKB [Whitespotted conger Ise and Mikawa Bay]	TB SSB	ER F	TB SSB	ER F
80. YGSFISHNPAC [Yellow goosfish North Pacific]	TB SSB	ER F	TB SSB	ER F
81. YSFLOUNNHOKK [Yellow striped flounder North coast of Hokkaido]	TB SSB	ER F	TB SSB	ER F
82. YSFLOUNSOJ [Yellow striped flounder Sea of Japan]	TB SSB	ER F	TB SSB	ER F



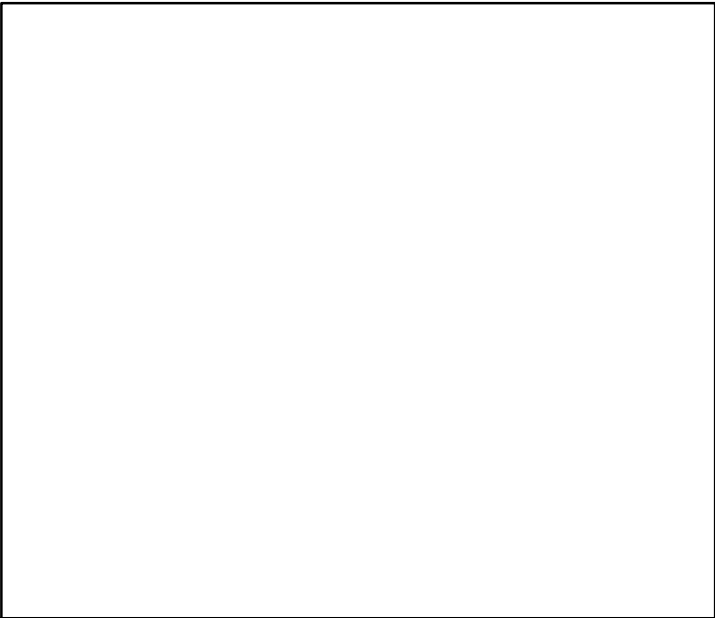
## Walleye pollock Nemuro Strait [APOLLNEMS]

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

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

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

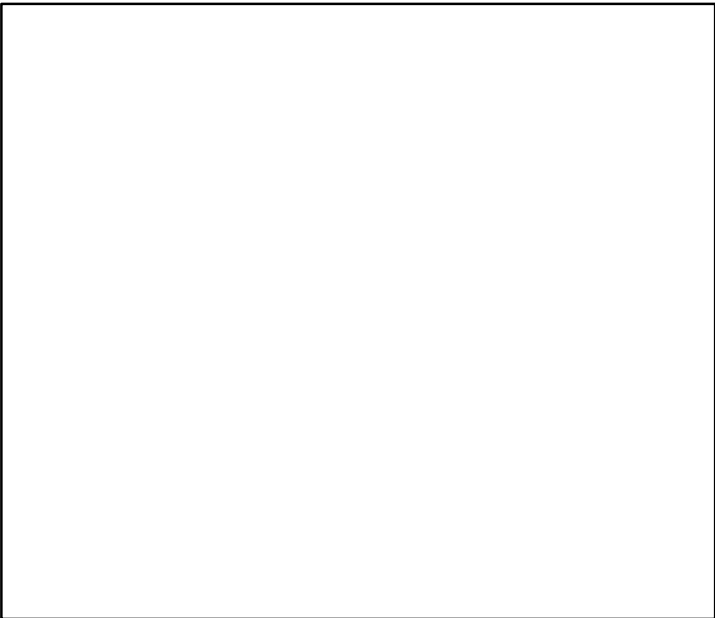
Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data

TB\*



SSB\*



TN \*



F\*



ER\*



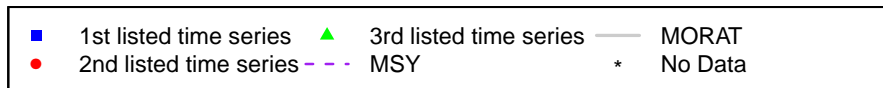
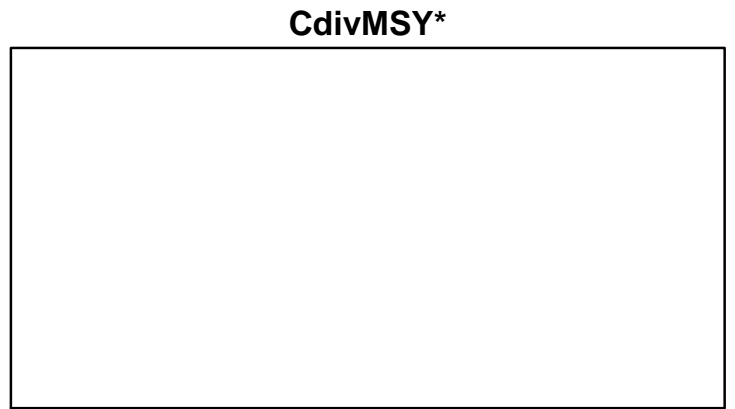
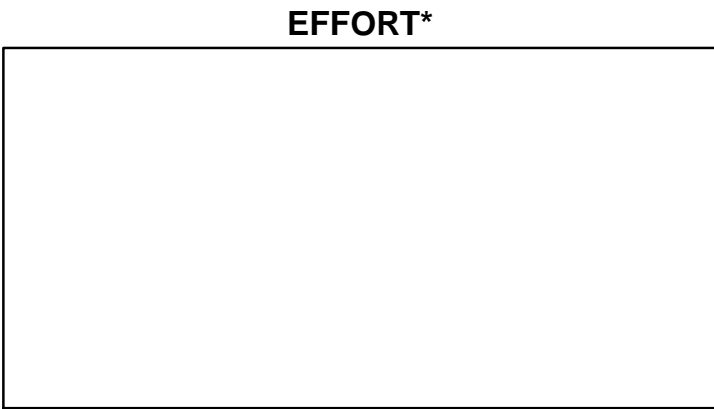
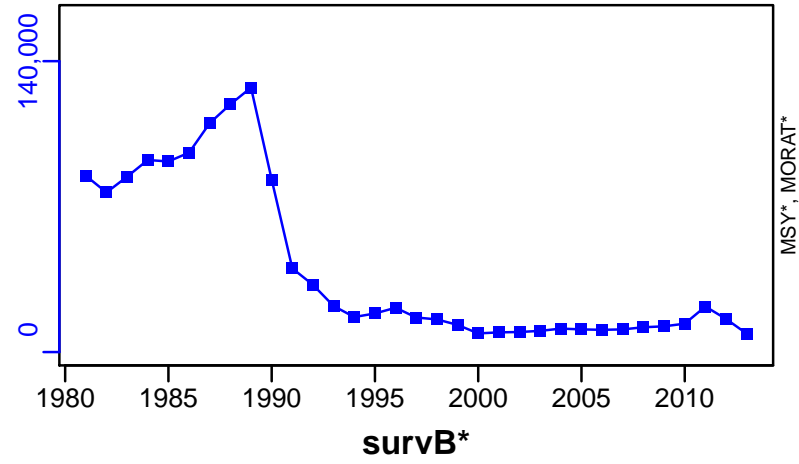
Recruits\*



# Walleye pollock Nemuro Strait [APOLLNEMS]

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

TAC\*, Cpair\*, Cadv\*



## Walleye pollock Sea of Japan North [APOLLNSJ]

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

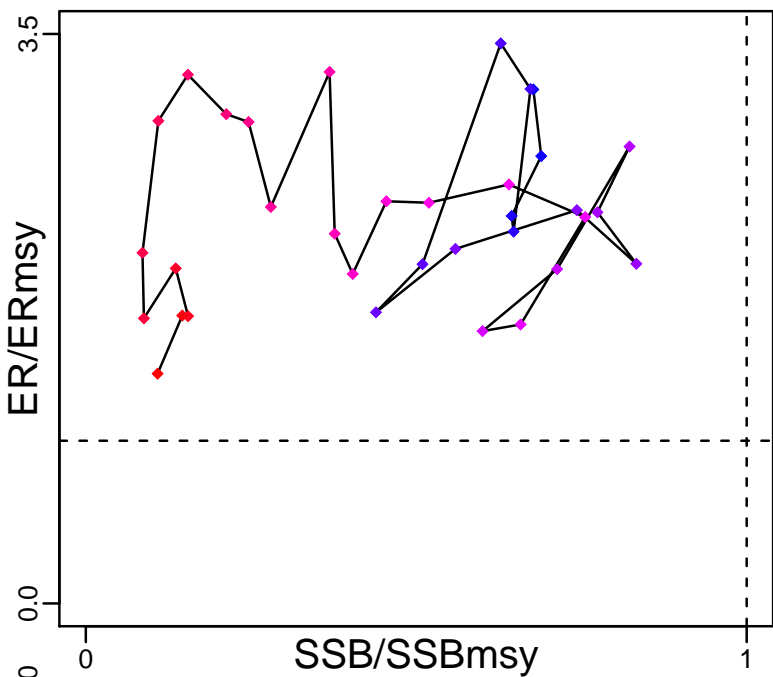
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2013	619,267
<b>SSBmsy</b>	SSBmsy-MT	2013	346,887
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2013	0.073
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	95,800	-	2
<b>SSB</b>	SSB-MT	2013	37,700	Both	4
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	$1.34 \times 10^8$	-	2
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0.103	-	-
<b>TC</b>	TC-MT	2013	9870		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2013	0.155		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.109		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	1.412		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

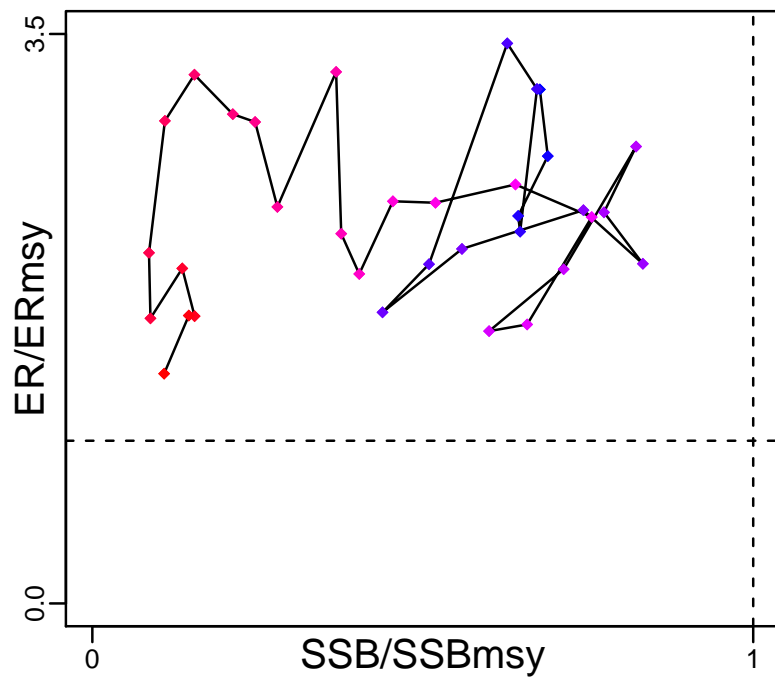


# Walleye pollock Sea of Japan North [APOLLNSJ]

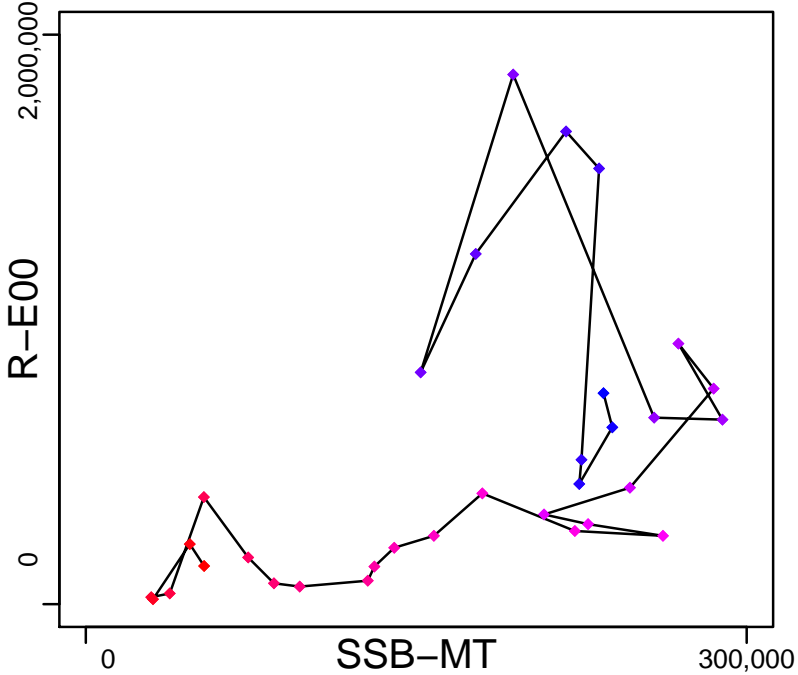
Kobe MSYpref (1970–2013–JPNIMP2016)



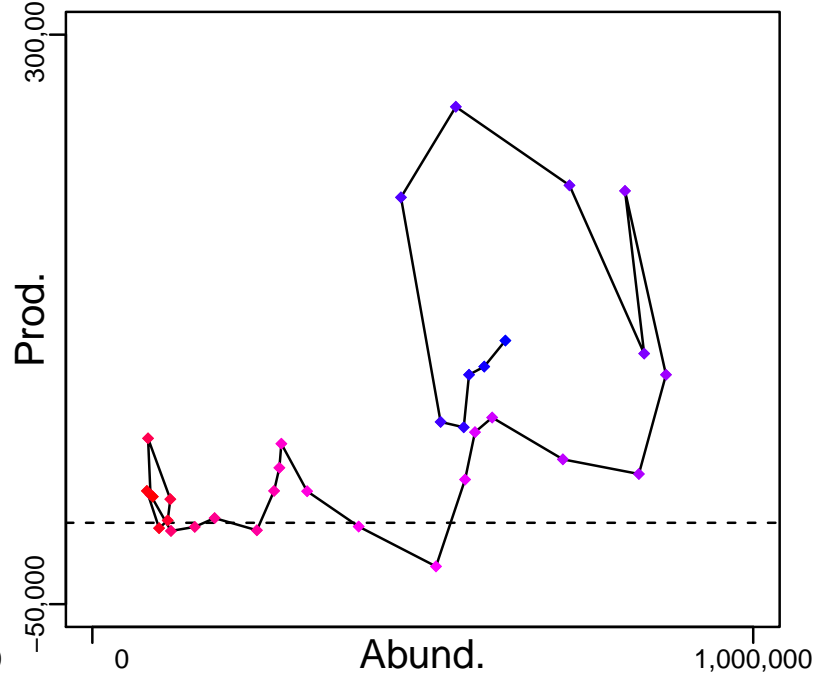
Kobe MGTpref (1970–2013–JPNIMP2016)



Spawner Recruit (1970–2013–JPNIMP2016)

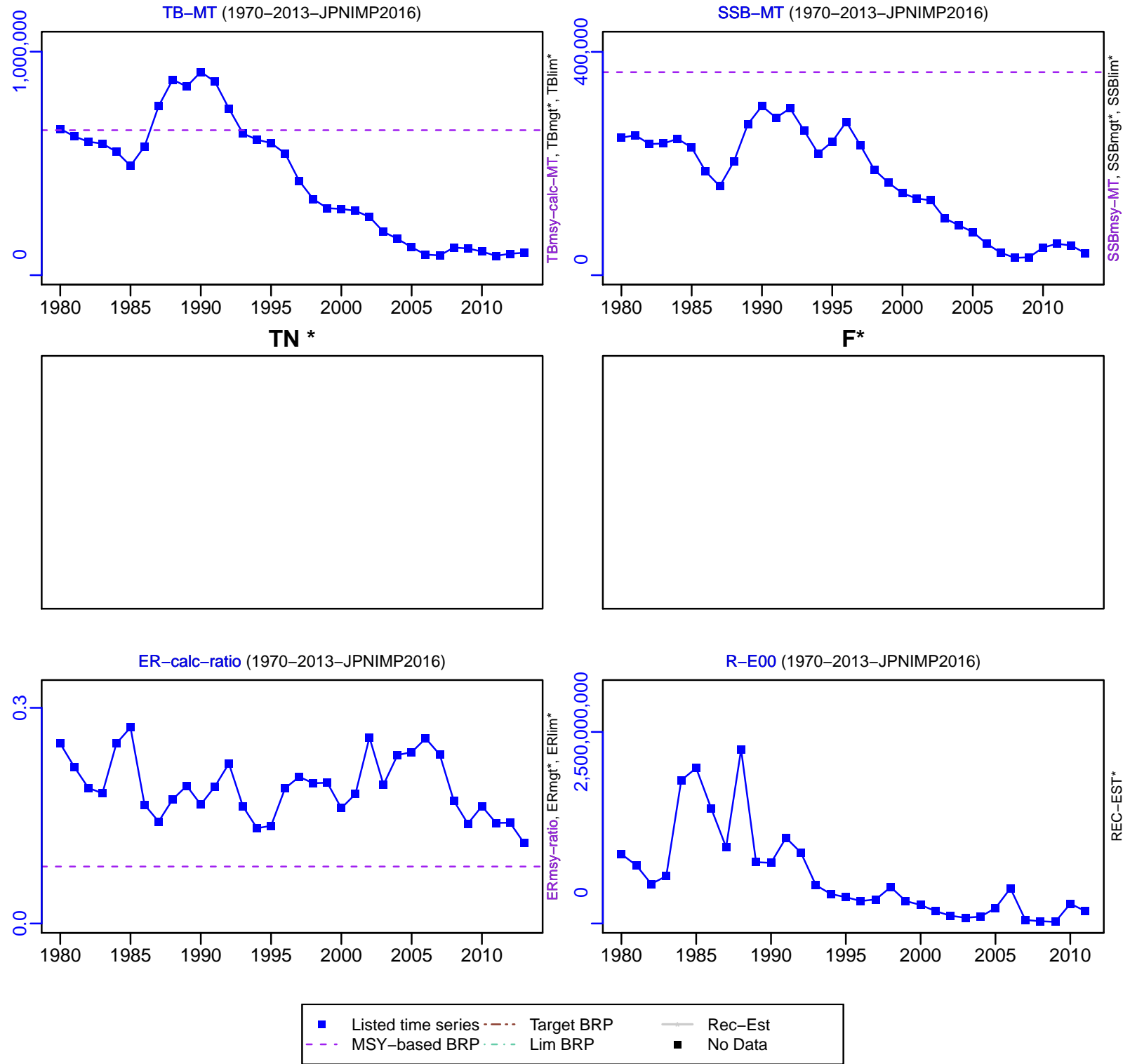


Production (1970–2013–JPNIMP2016)



◆ Start Year ◆ End Year \* No Data

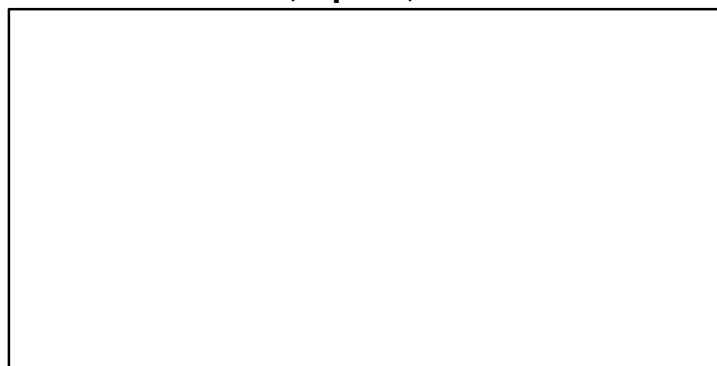
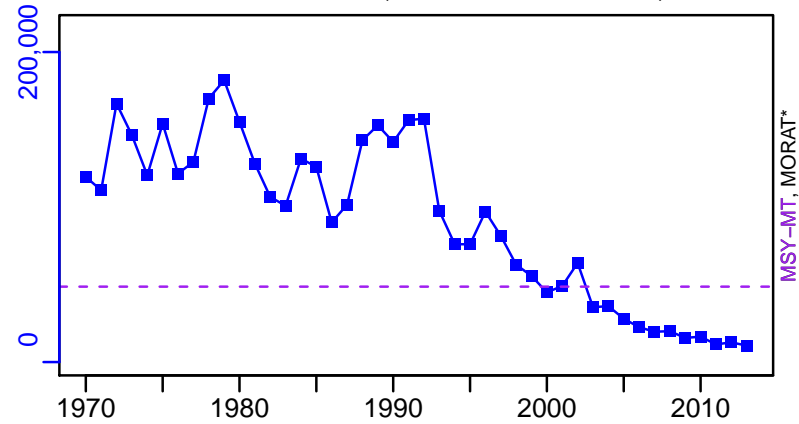
# Walleye pollock Sea of Japan North [APOLLNSJ]



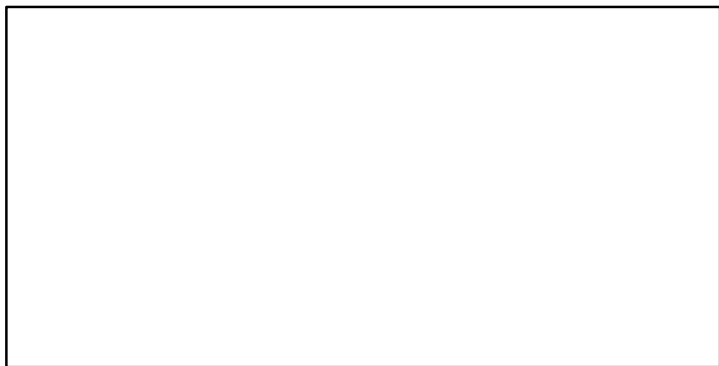
# Walleye pollock Sea of Japan North [APOLLNSJ]

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

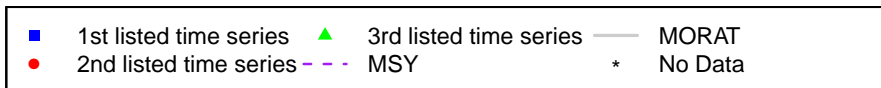
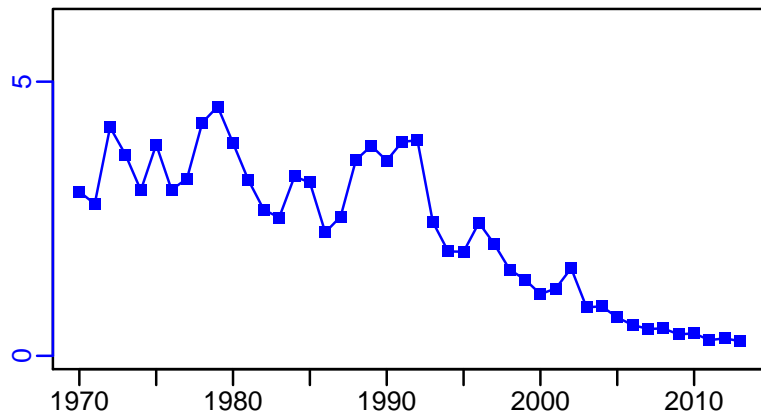
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1970-2013-JPNIMP2016)



## Walleye pollock Okhotsk Sea [APOLLOKS]

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

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

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

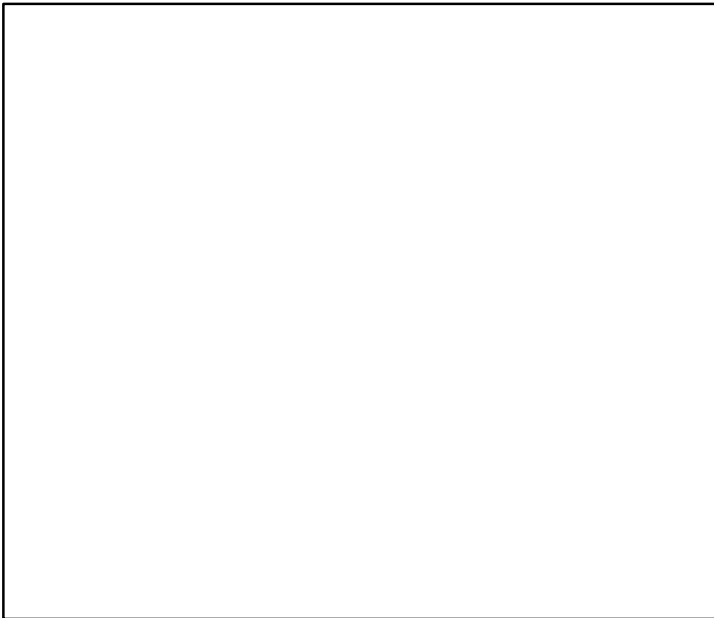
**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



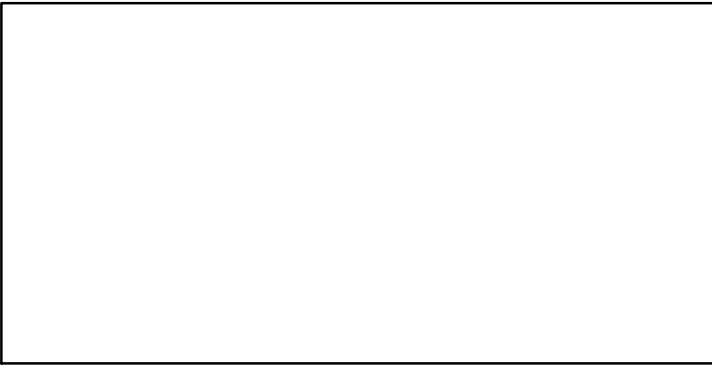
**Production\***



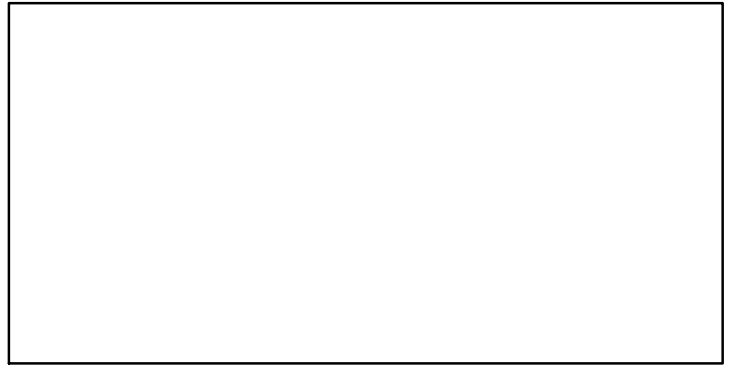
◆ Start Year   ◆ End Year   \* No Data

Walleye pollock Okhotsk Sea [APOLLOKS]

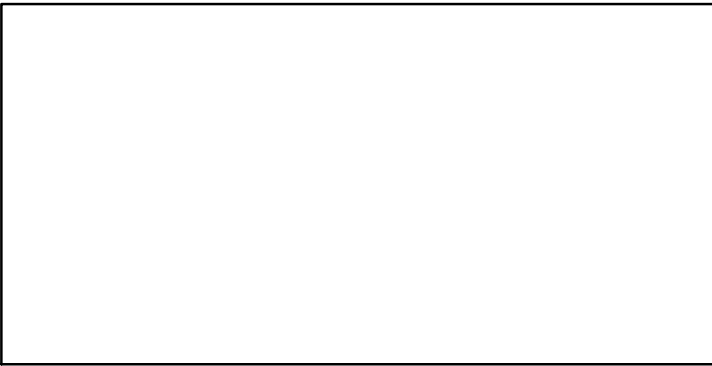
**TB\***



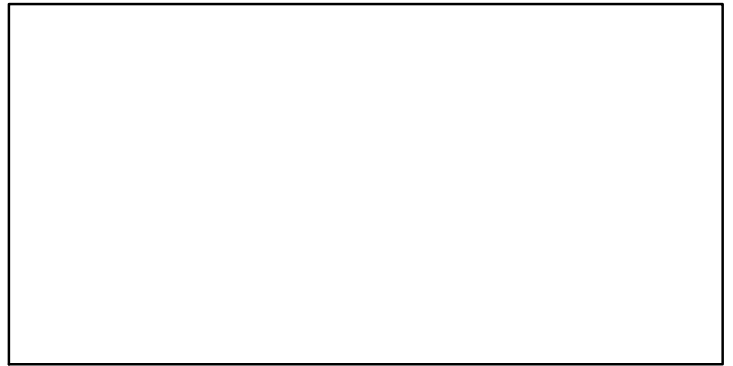
**SSB\***



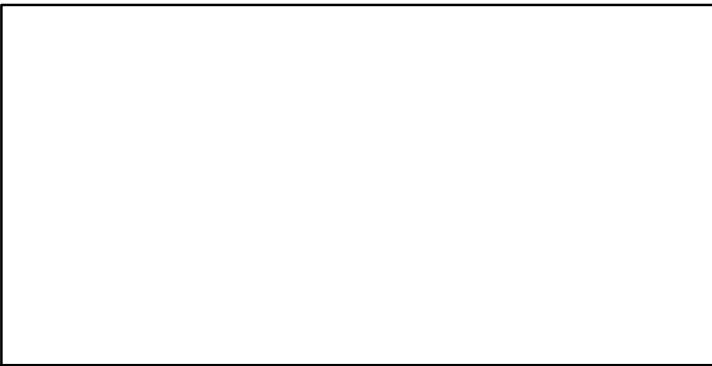
**TN \***



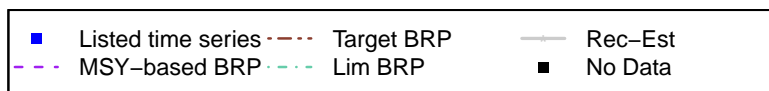
**F\***



**ER\***



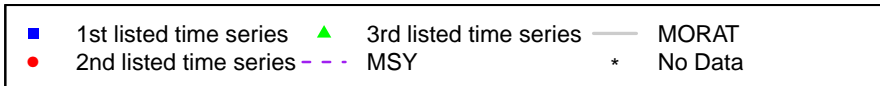
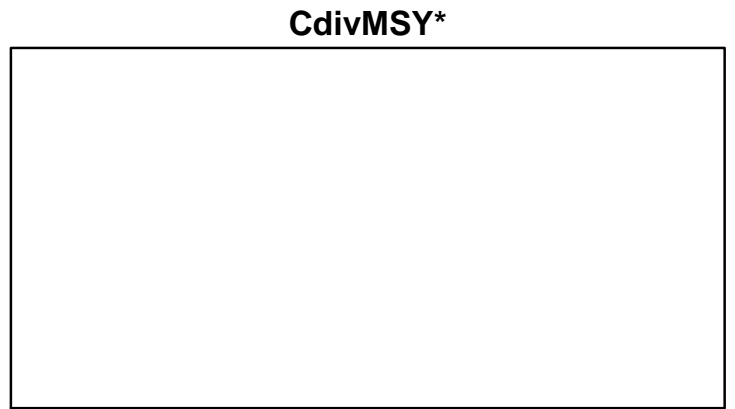
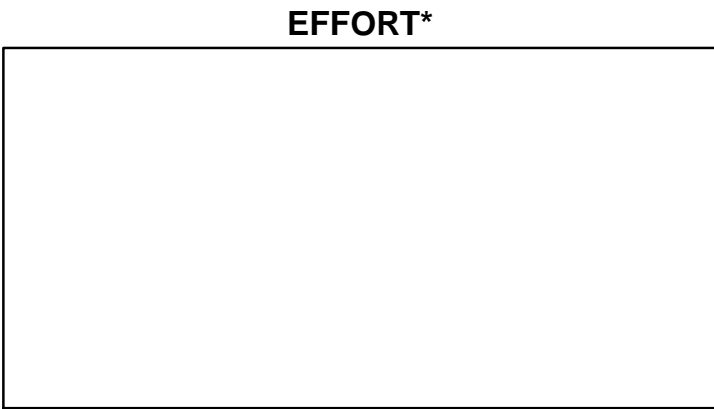
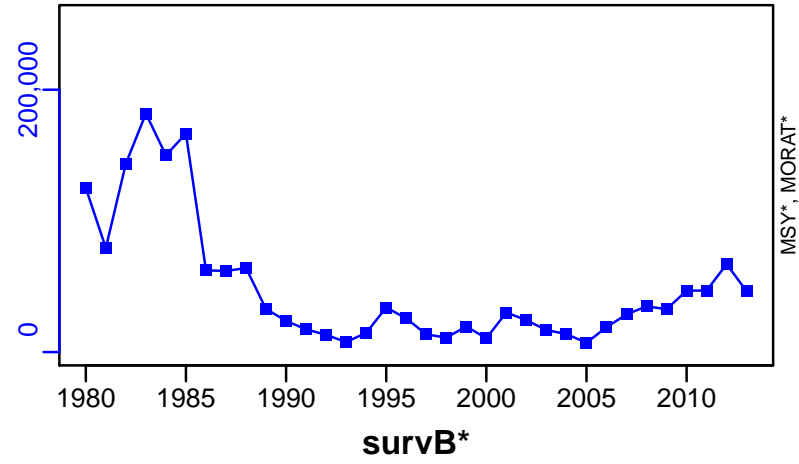
**Recruits\***



# Walleye pollock Okhotsk Sea [APOLLOKS]

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

TAC\*, Cpair\*, Cadv\*



## Walleye pollock Pacific Coast of Japan [APOLLJPJN]

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

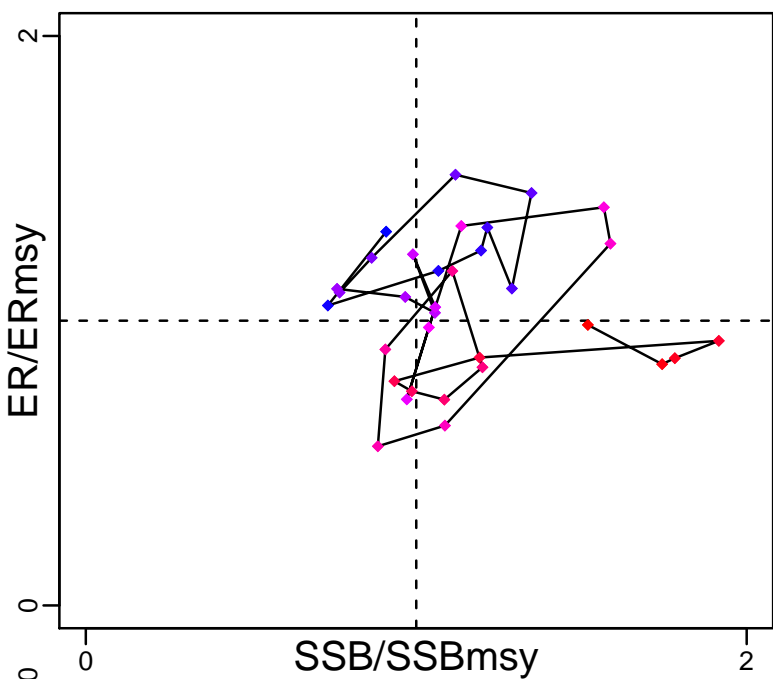
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2013	1,013,493
<b>SSBmsy</b>	SSBmsy-MT	2013	206,052
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2013	0.174
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT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

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

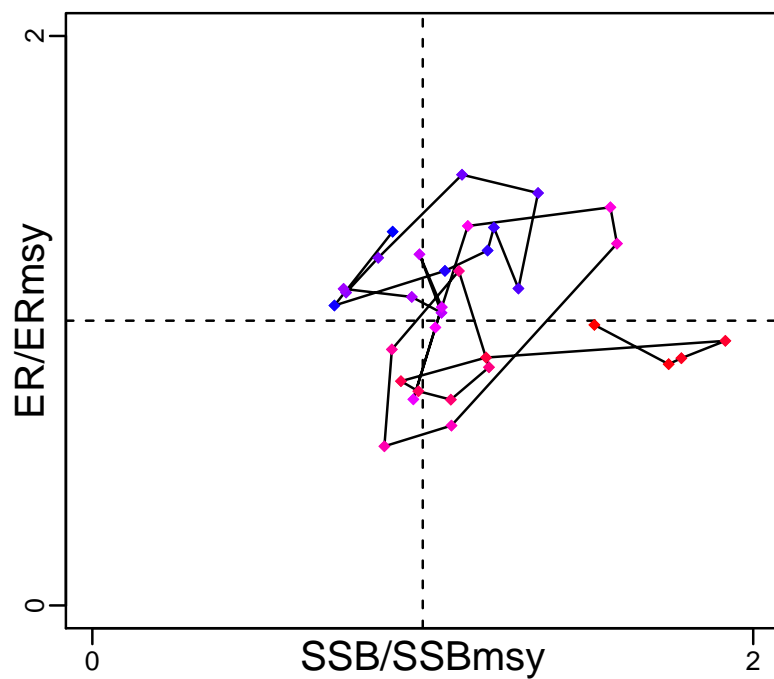


# Walleye pollock Pacific Coast of Japan [APOLLJPN]

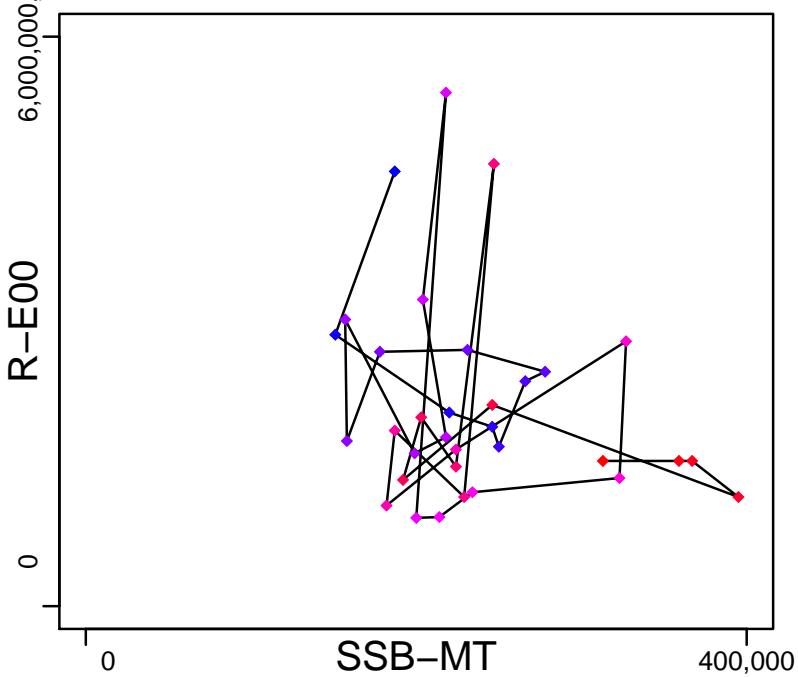
Kobe MSYpref (1975–2013–JPNIMP2016)



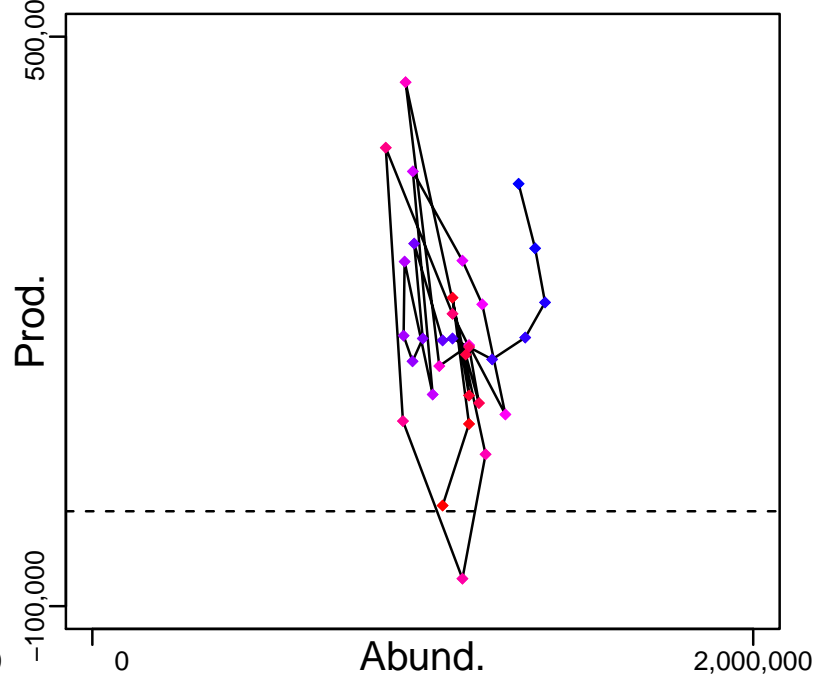
Kobe MGTpref (1975–2013–JPNIMP2016)



Spawner Recruit (1975–2013–JPNIMP2016)



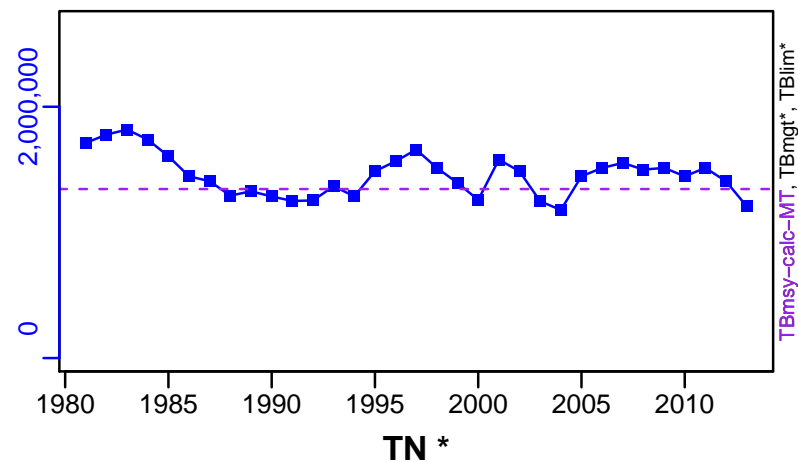
Production (1975–2013–JPNIMP2016)



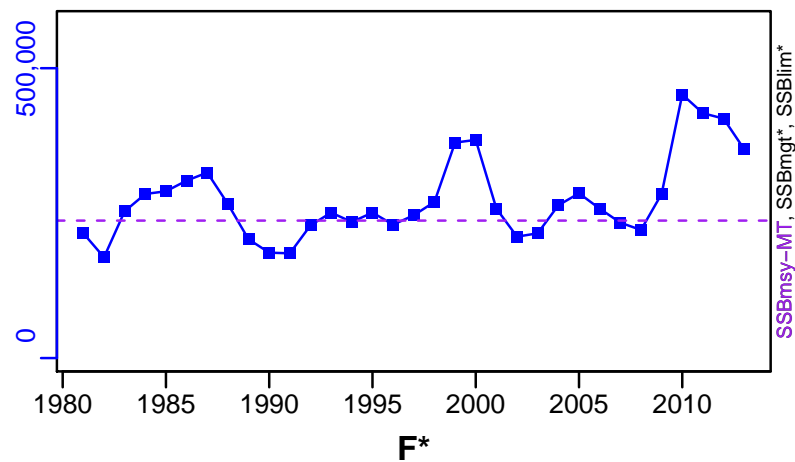
◆ Start Year ◆ End Year \* No Data

# Walleye pollock Pacific Coast of Japan [APOLLJPJN]

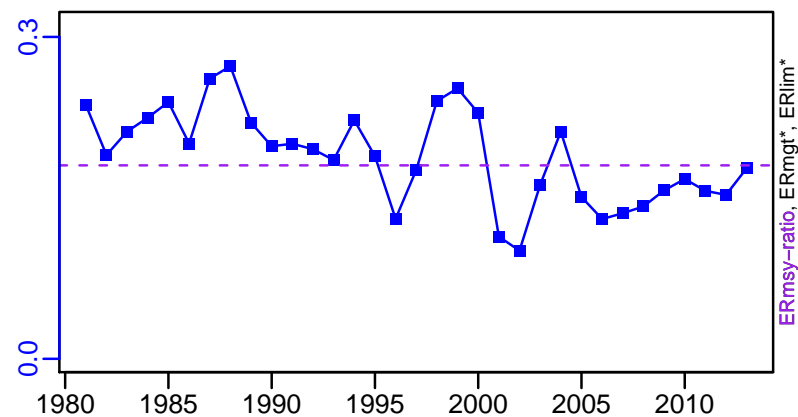
TB-MT (1975-2013-JPNIMP2016)



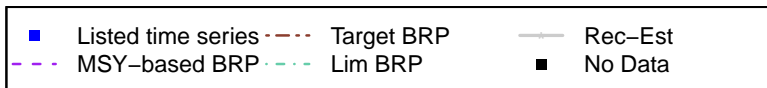
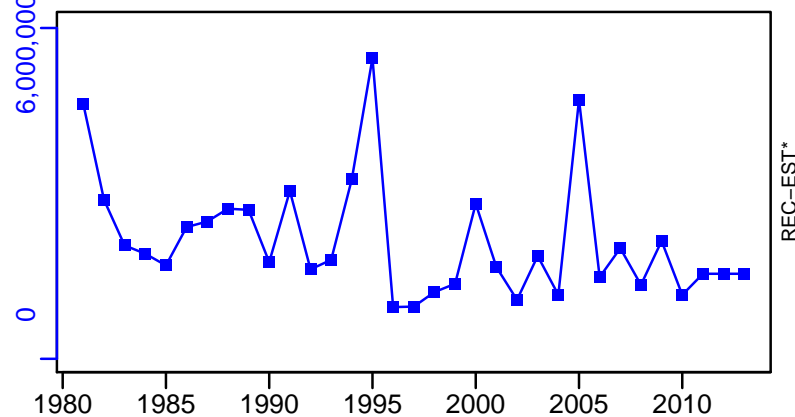
SSB-MT (1975-2013-JPNIMP2016)



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

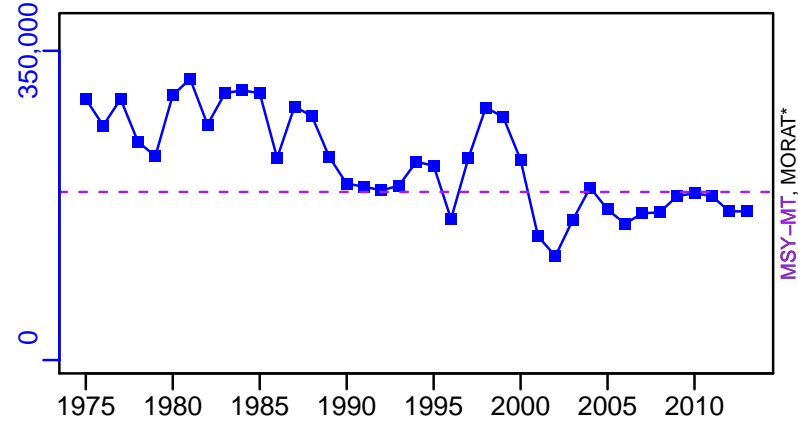


R-E00 (1975-2013-JPNIMP2016)



# Walleye pollock Pacific Coast of Japan [APOLLPJPN]

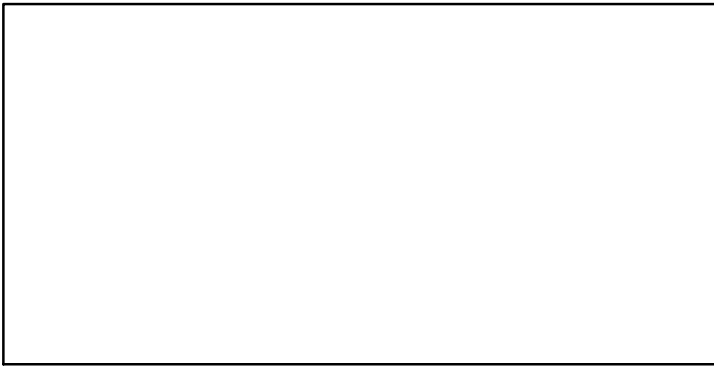
TC-MT, TL\*, RecC\* (1975–2013–JPNIMP2016)



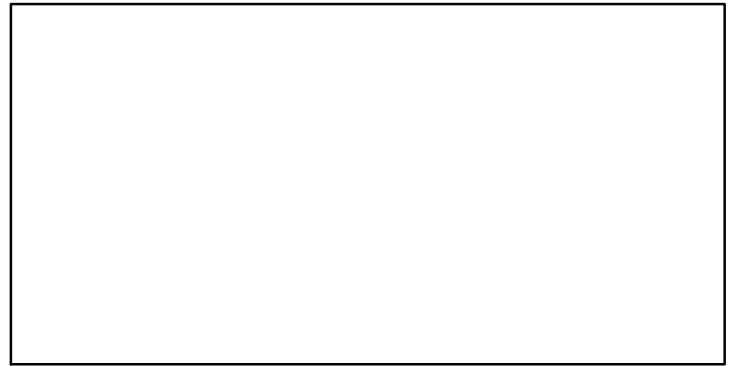
TAC\*, Cpair\*, Cadv\*



survB\*



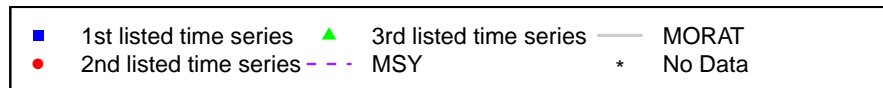
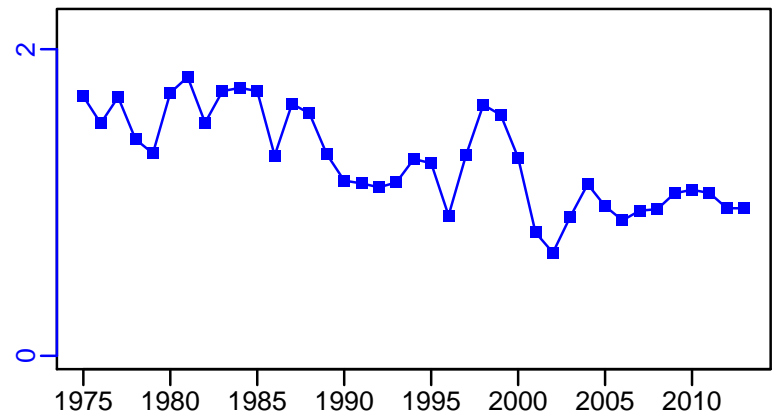
CPUE\*



EFFORT\*



CdivMSY-ratio (1975–2013–JPNIMP2016)



## Alaskan pink shrimp Sea of Japan [APSHRIMPSOJ]

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

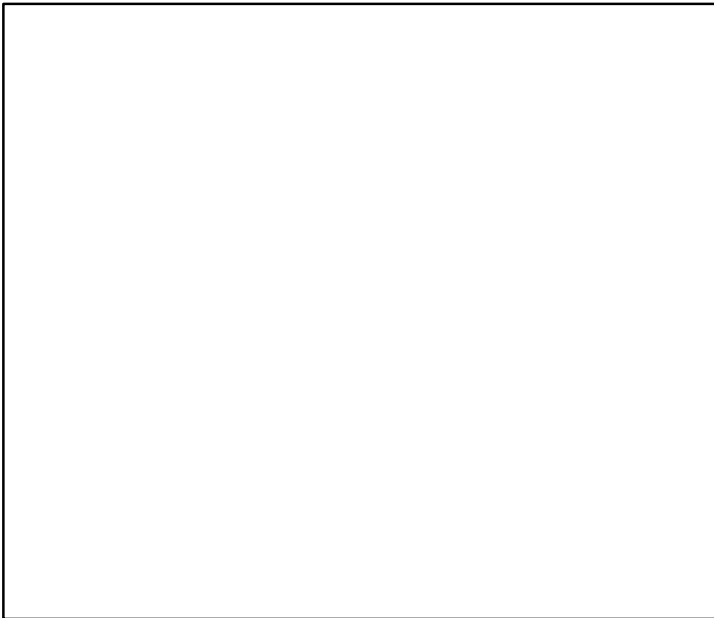
**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



**Production\***



◆ Start Year ◆ End Year \* No Data

Alaskan pink shrimp Sea of Japan [APSHRIMPSOJ]

TB\*



SSB\*



TN \*



F\*



ER\*



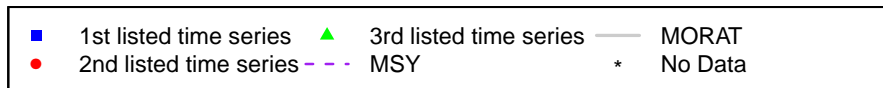
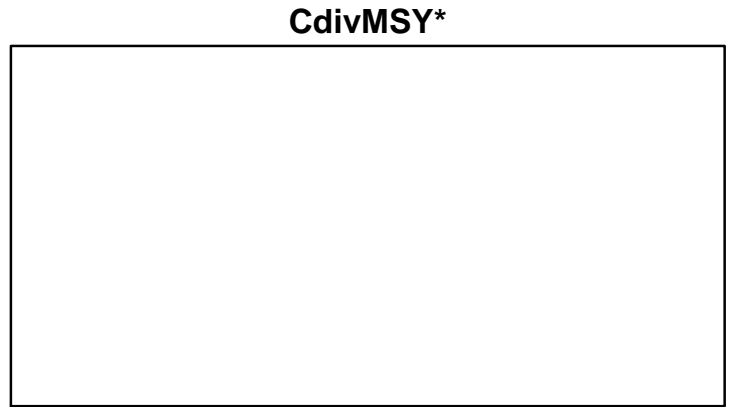
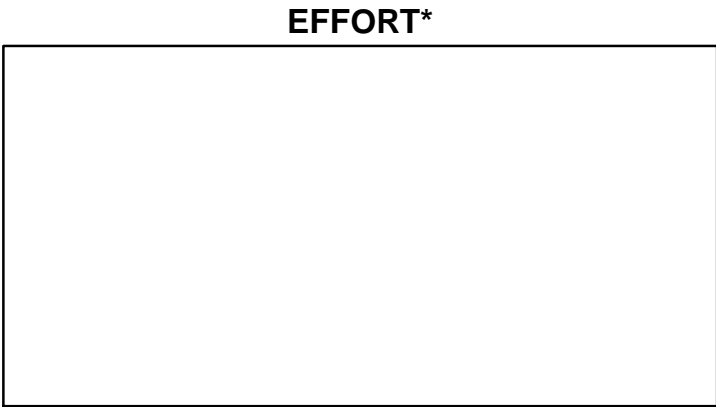
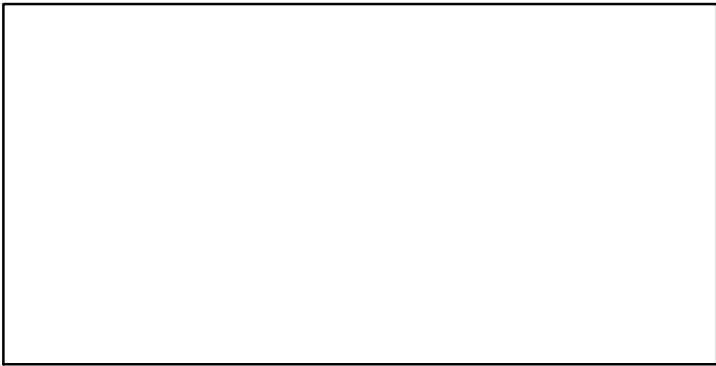
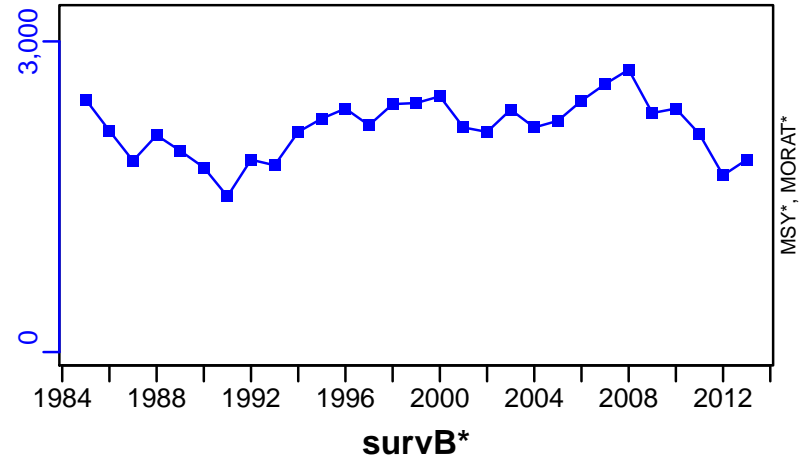
Recruits\*



# Alaskan pink shrimp Sea of Japan [APSHRIMPSOJ]

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

TAC\*, Cpair\*, Cadv\*



## Arabesque greenling Nemuro Strait [ARGREENNEMS]

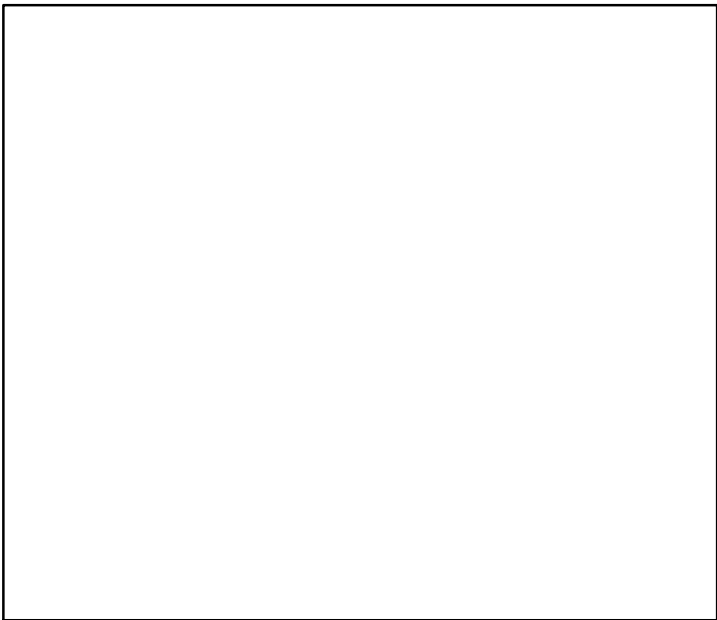
Metadata	
<b>Scientific Name</b>	Pleurogrammus azonus
<b>Current Assess ID</b>	FAFRFJ-ARGREENNEMS-1985-2013-JPNIMP2016
<b>Area</b>	Nemuro Strait
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>	2013

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	-	-	-		



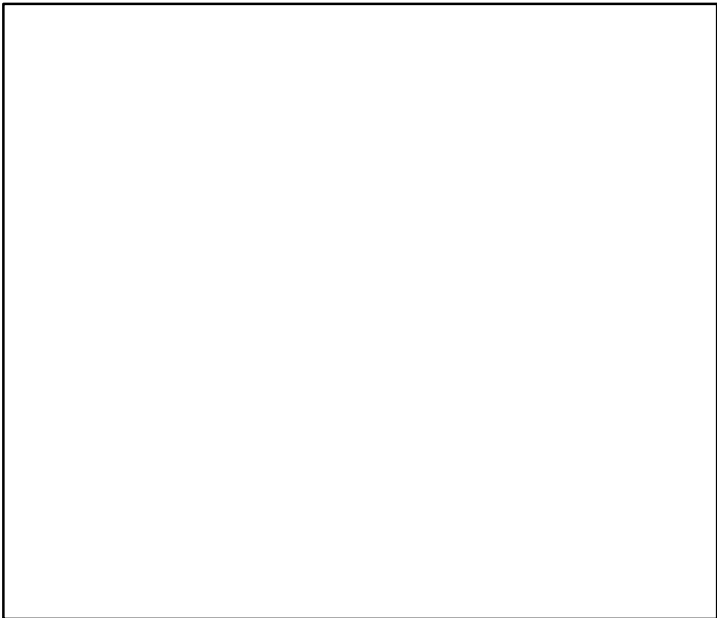
Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data

TB\*



SSB\*



TN \*



F\*



ER\*



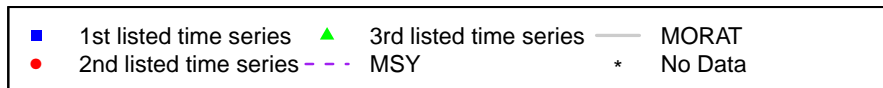
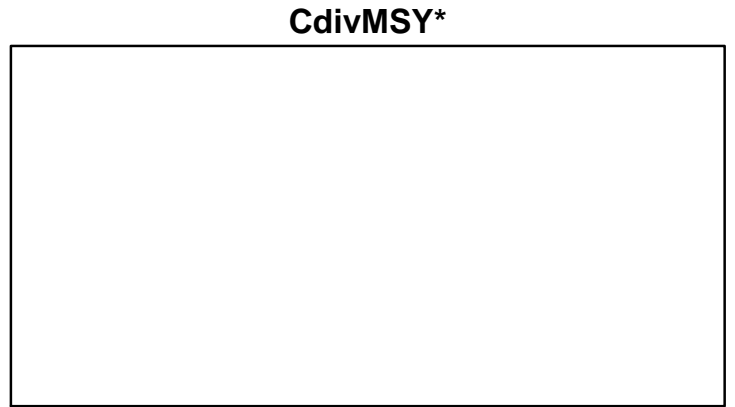
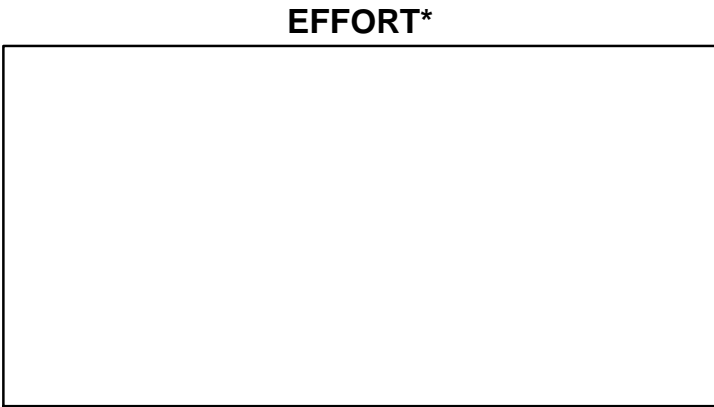
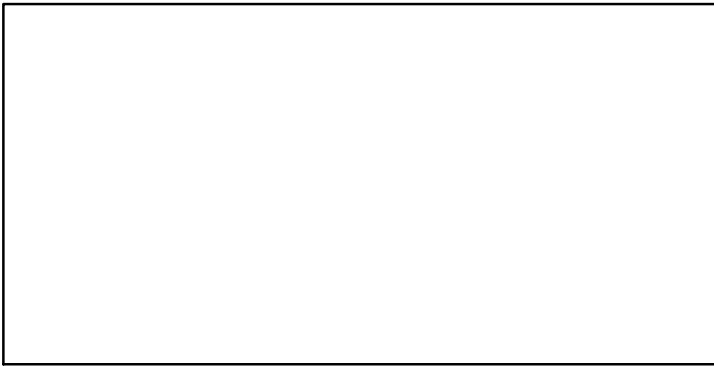
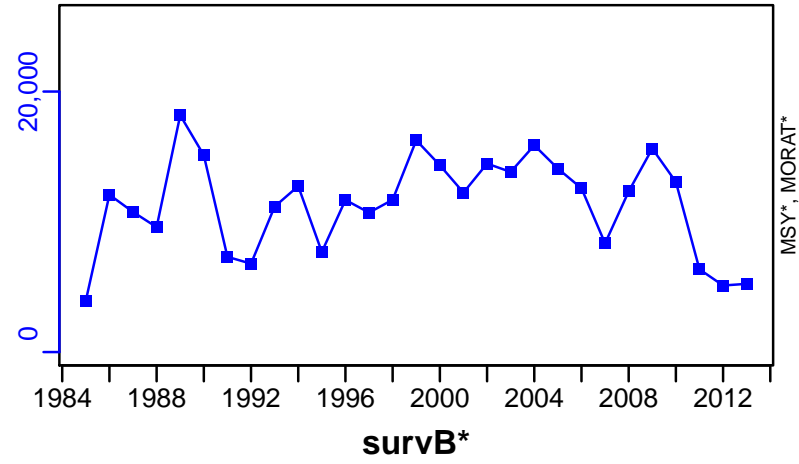
Recruits\*



# Arabesque greenling Nemuro Strait [ARGREENNEMS]

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

TAC\*, Cpair\*, Cadv\*



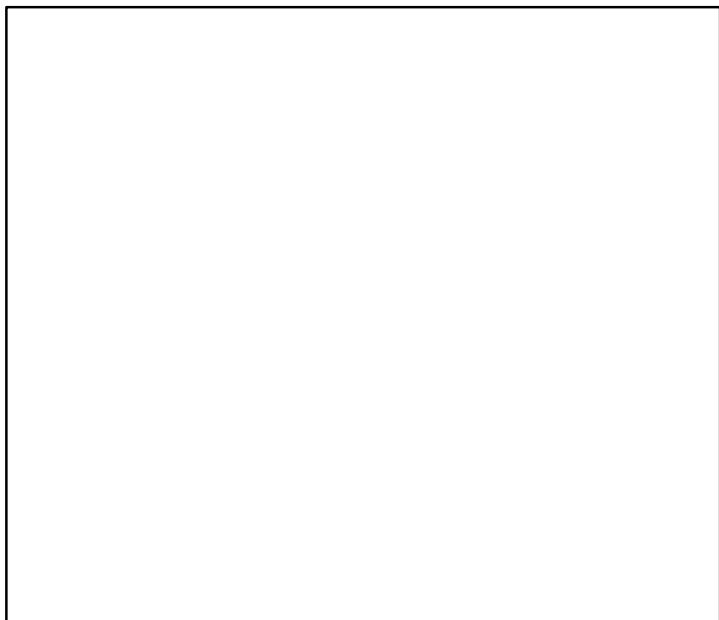
## Arabesque greenling North coast of Hokkaido [ARGREENNHOKK]

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

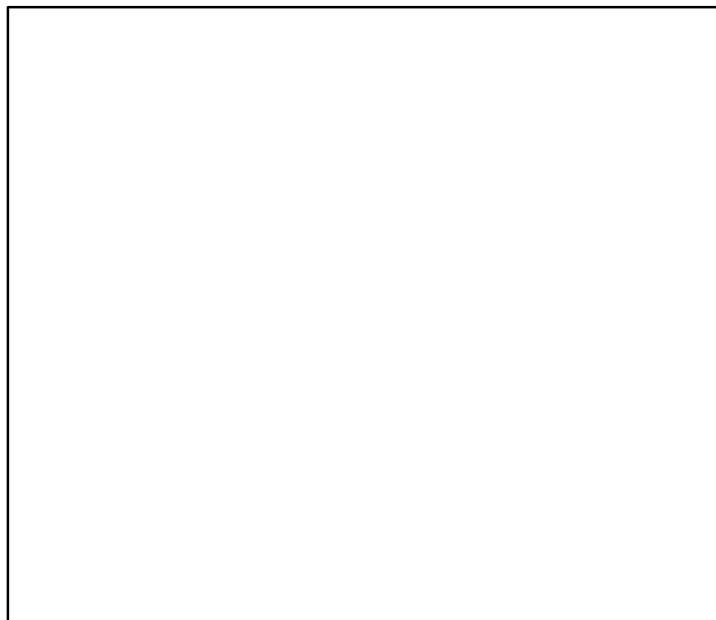
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

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\***



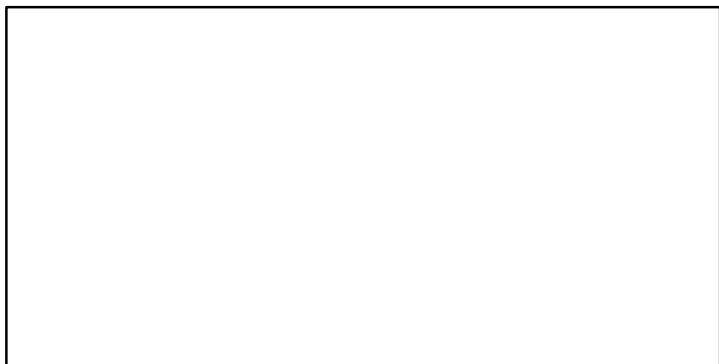
**Production\***



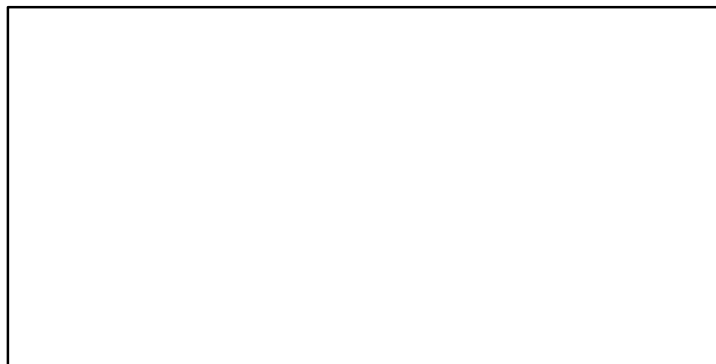
◆ Start Year ◆ End Year \* No Data

Arabesque greenling North coast of Hokkaido [ARGREENNHOKK]

**TB\***



**SSB\***



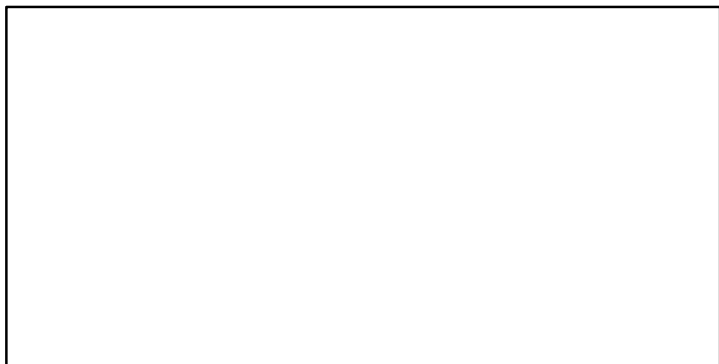
**TN \***



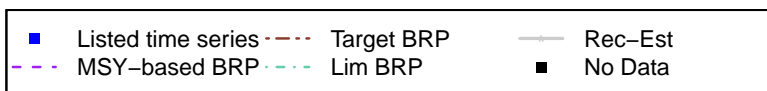
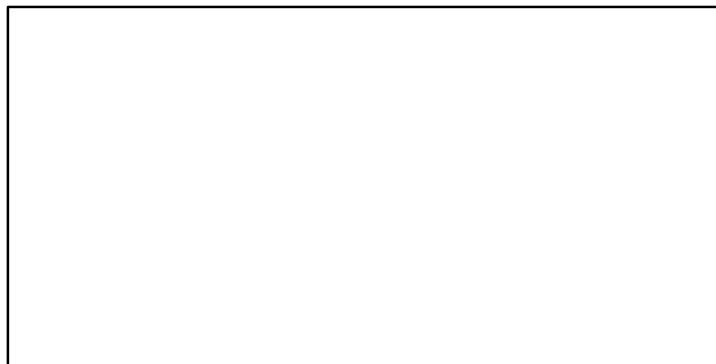
**F\***



**ER\***



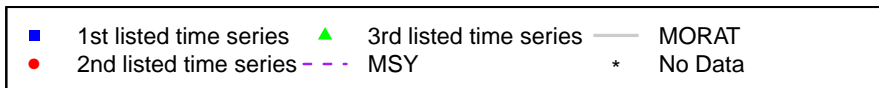
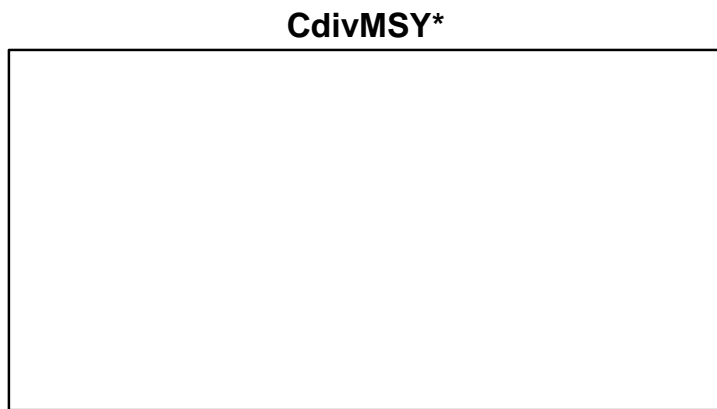
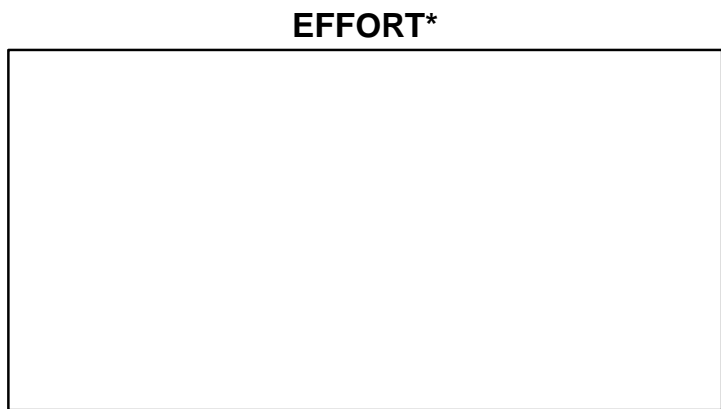
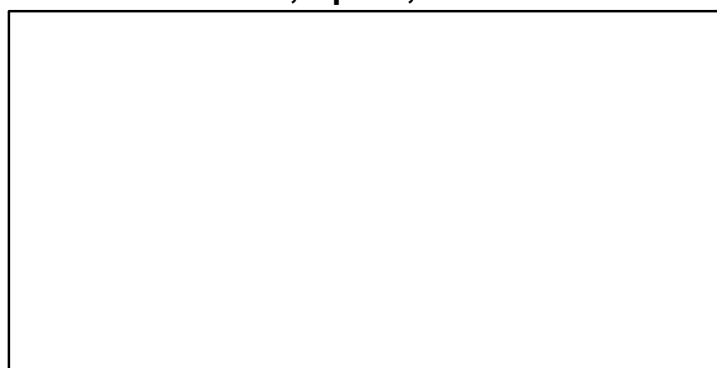
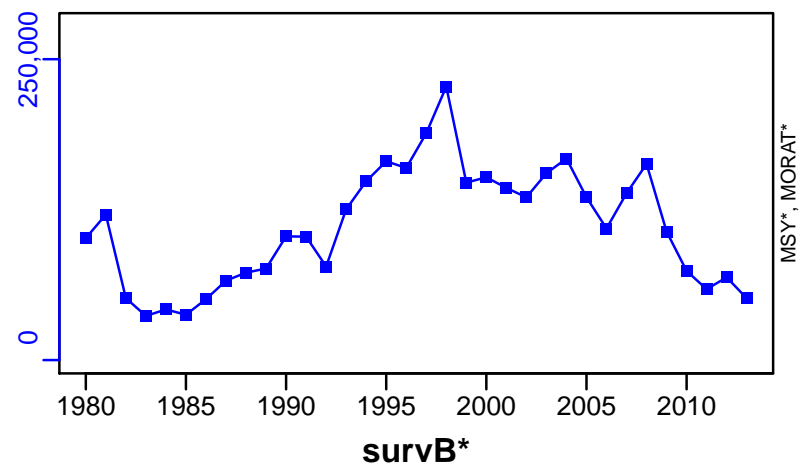
**Recruits\***



# Arabesque greenling North coast of Hokkaido [ARGREENNHOKK]

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

TAC\*, Cpair\*, Cadv\*



## Arabesque greenling South coast of Hokkaido [ARGREENSHOKK]

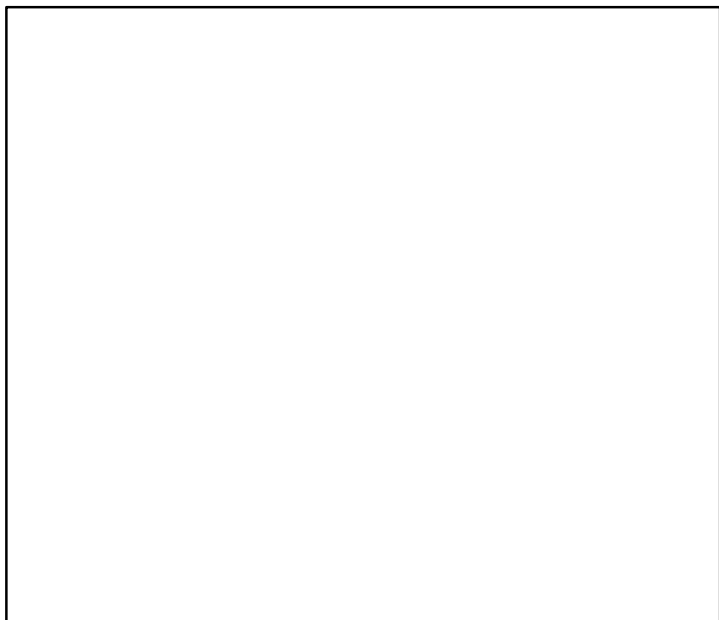
Metadata	
<b>Scientific Name</b>	Pleurogrammus azonus
<b>Current Assess ID</b>	FAFRFJ-ARGREENSHOKK-1975-2013-JPNIMP2016
<b>Area</b>	South coast of Hokkaido
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>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

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

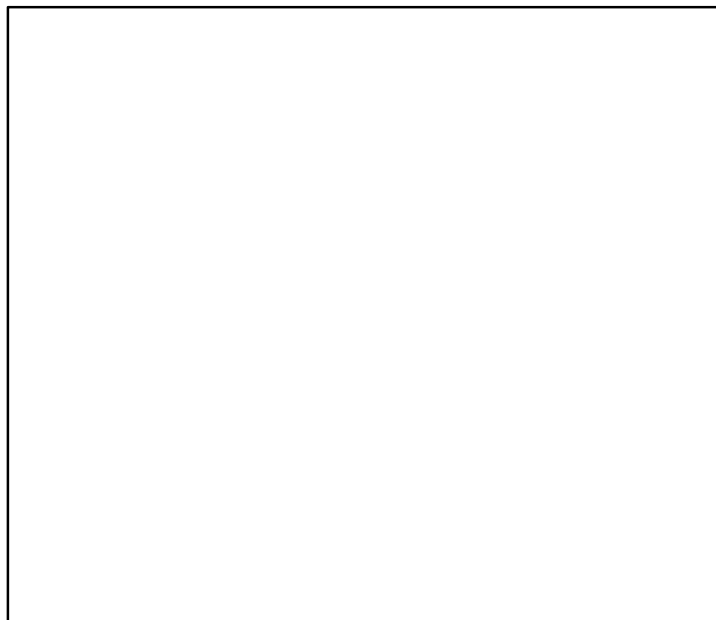
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2013	2300		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



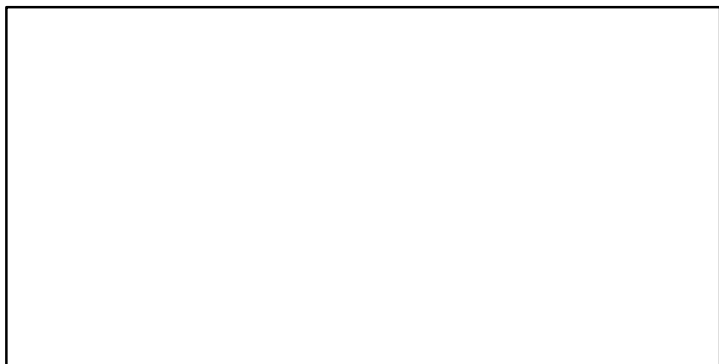
**Production\***



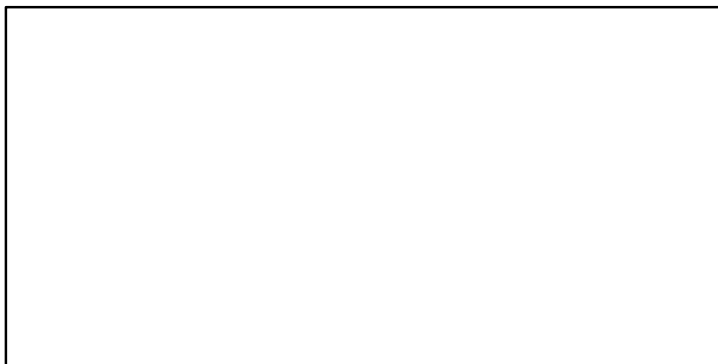
◆ Start Year   ◆ End Year   \* No Data

Arabesque greenling South coast of Hokkaido [ARGREENSHOKK]

**TB\***



**SSB\***



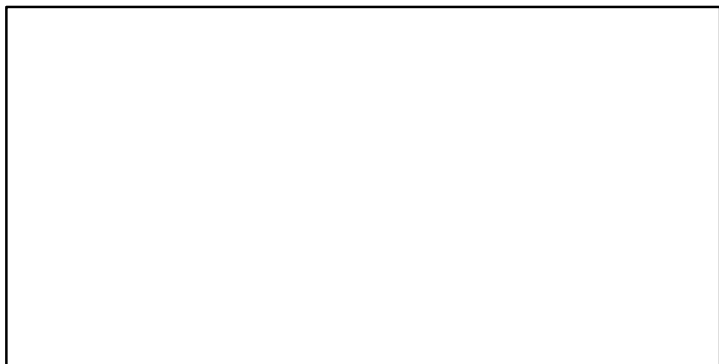
**TN \***



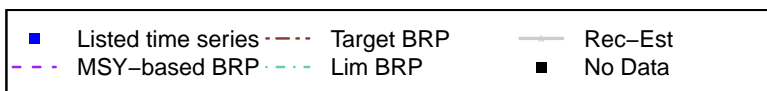
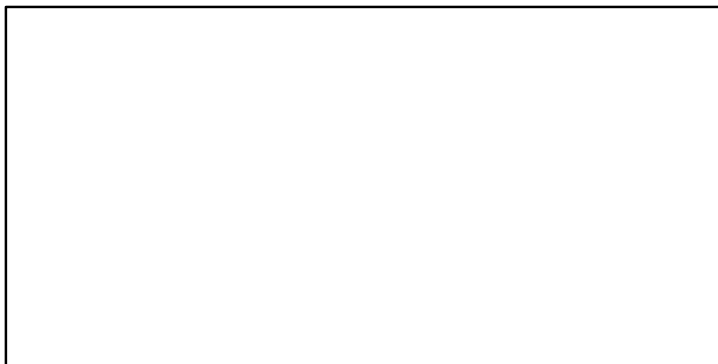
**F\***



**ER\***

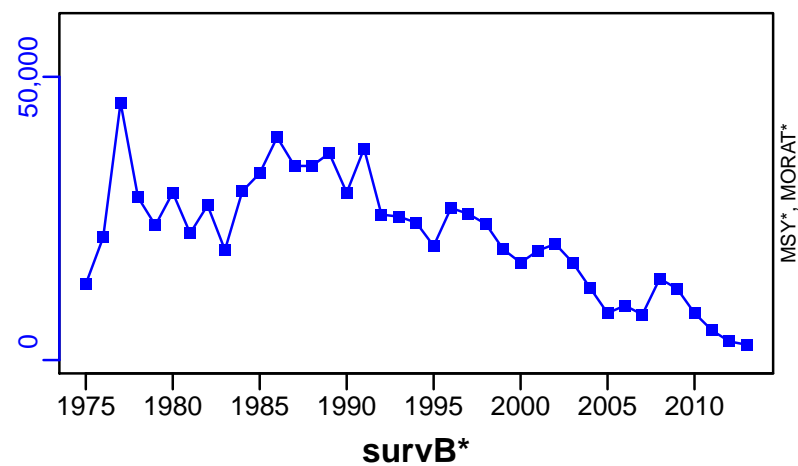


**Recruits\***

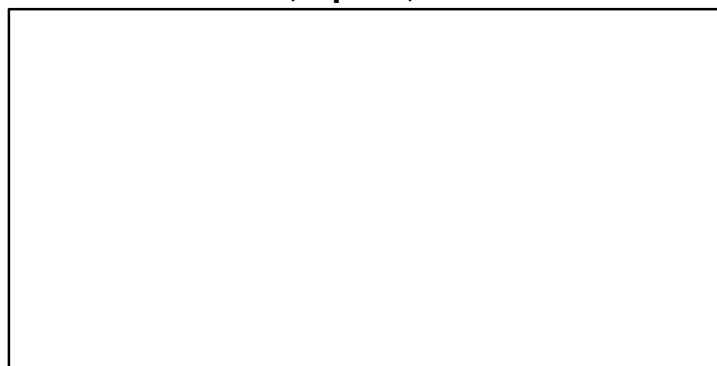


# Arabesque greenling South coast of Hokkaido [ARGREENSHOKK]

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



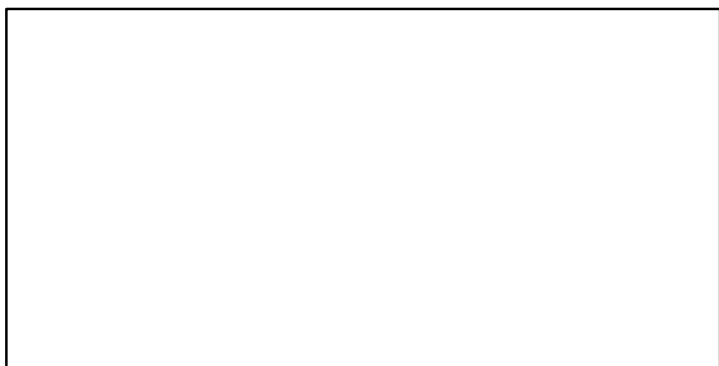
TAC\*, Cpair\*, Cadv\*



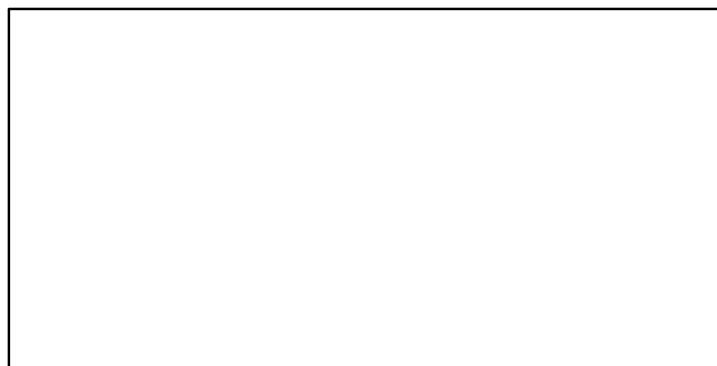
CPUE\*



EFFORT\*



CdivMSY\*



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

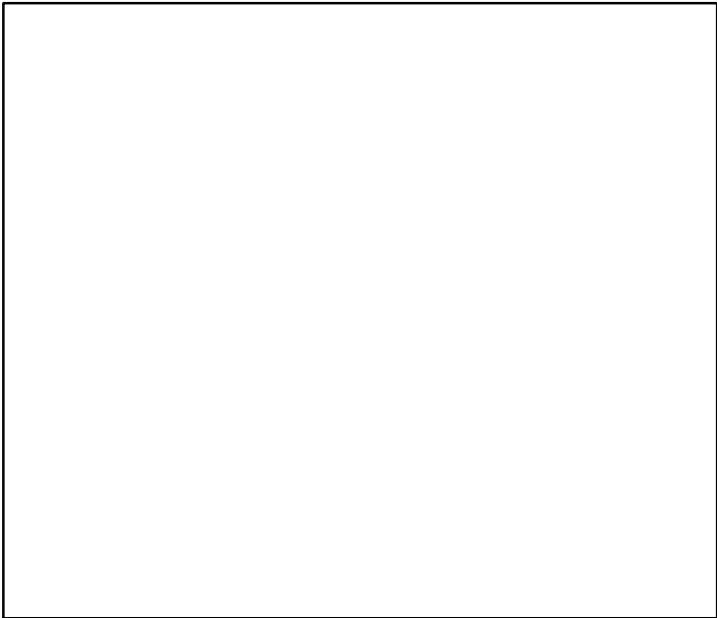
## Amberstripe scad East China Sea [ASCADECS]

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

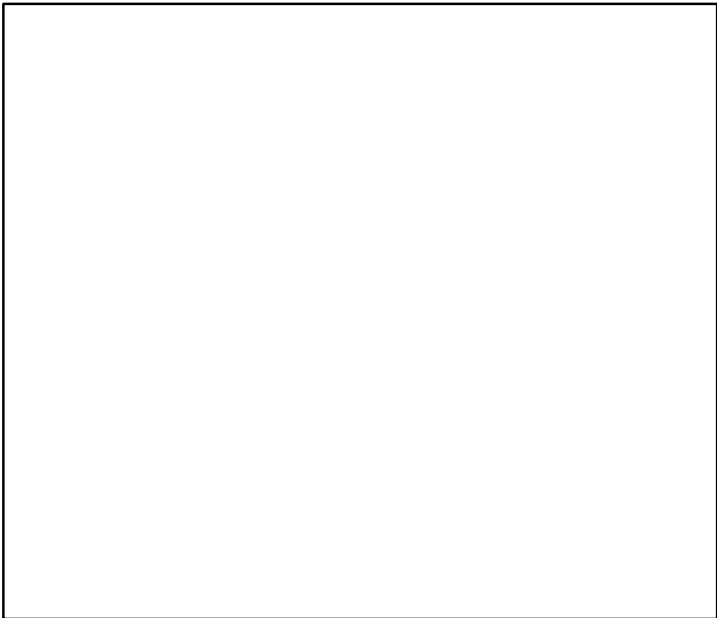
Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data

Amberstripe scad East China Sea [ASCADECS]

TB\*



SSB\*



TN \*



F\*



ER\*

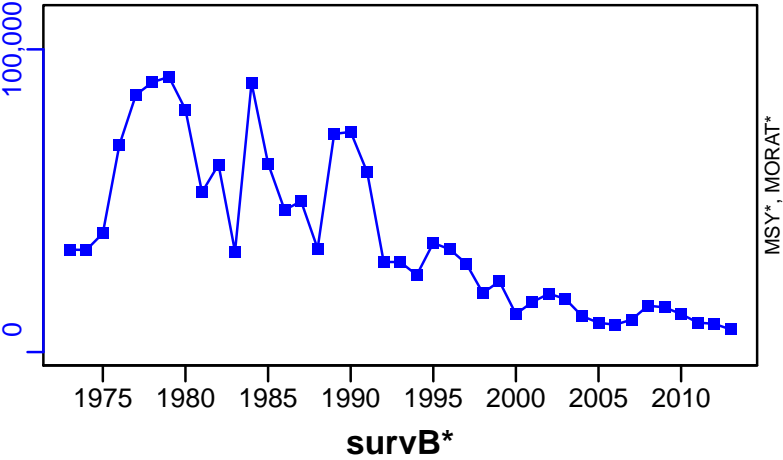


Recruits\*



Amberstripe scad East China Sea [ASCADECS]

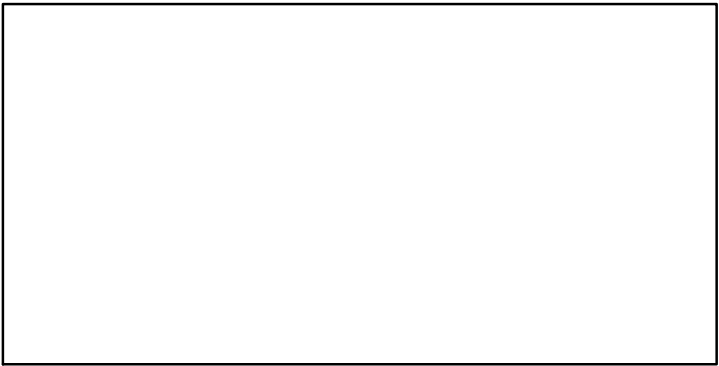
TC-MT, TL\*, RecC\* (1973-2013-JPNIMP2016)



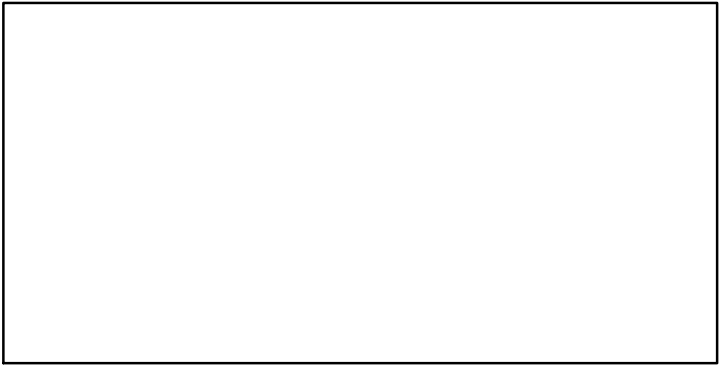
TAC\*, Cpair\*, Cadv\*



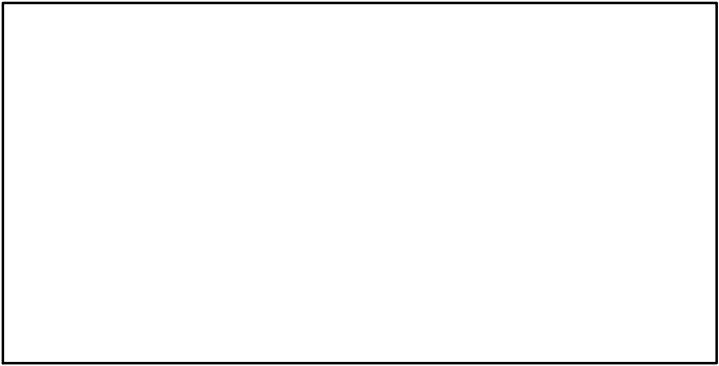
CPUE\*



EFFORT\*



CdivMSY\*



## Spotted mackerel East China Sea [BMACKECS]

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

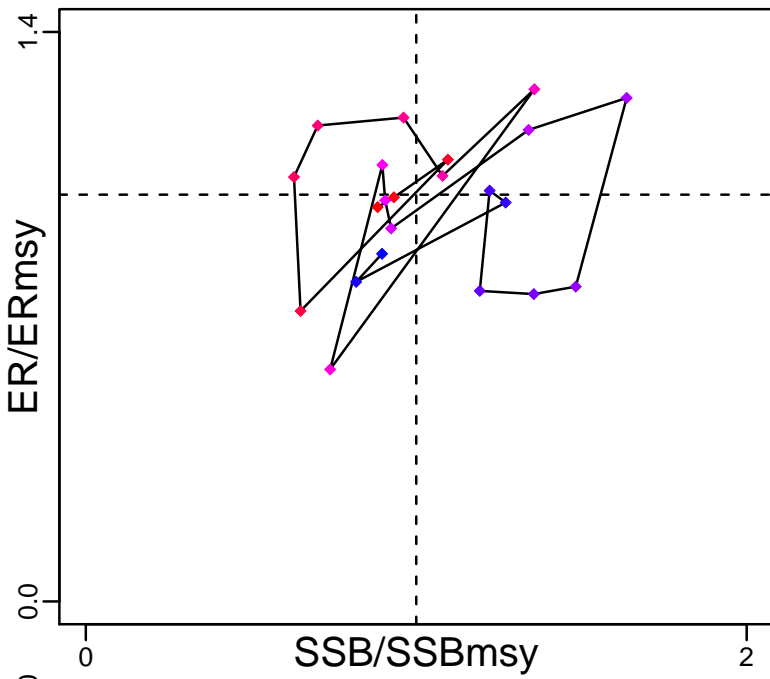
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2013	140,403
<b>SSBmsy</b>	SSBmsy-MT	2013	51,957
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2013	0.39
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	134,000	-	0
<b>SSB</b>	SSB-MT	2013	45,900	Both	1
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	$3.01 \times 10^8$	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0.378	-	-
<b>TC</b>	TC-MT	2013	50,600		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2013	0.954		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.883		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	0.969		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

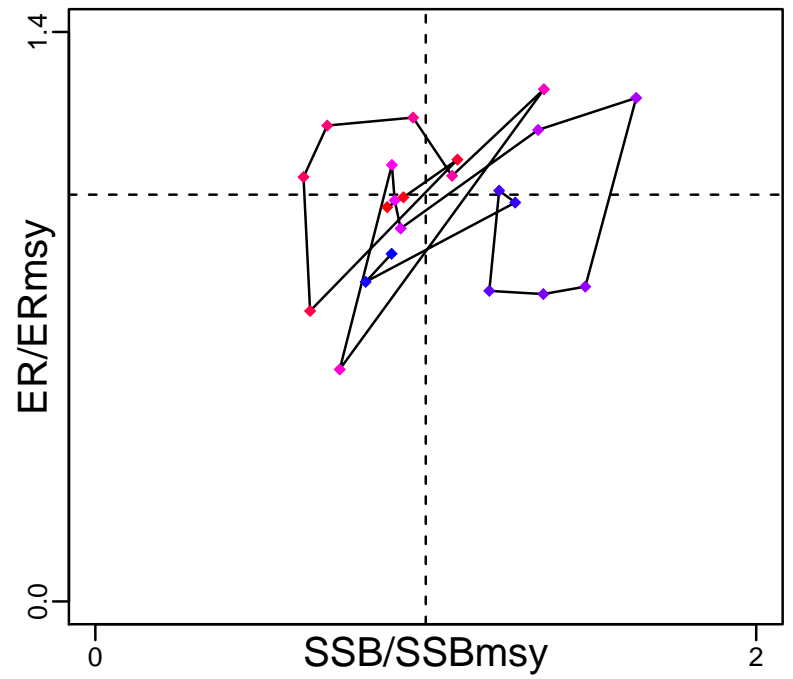


# Spotted mackerel East China Sea [BMACKECS]

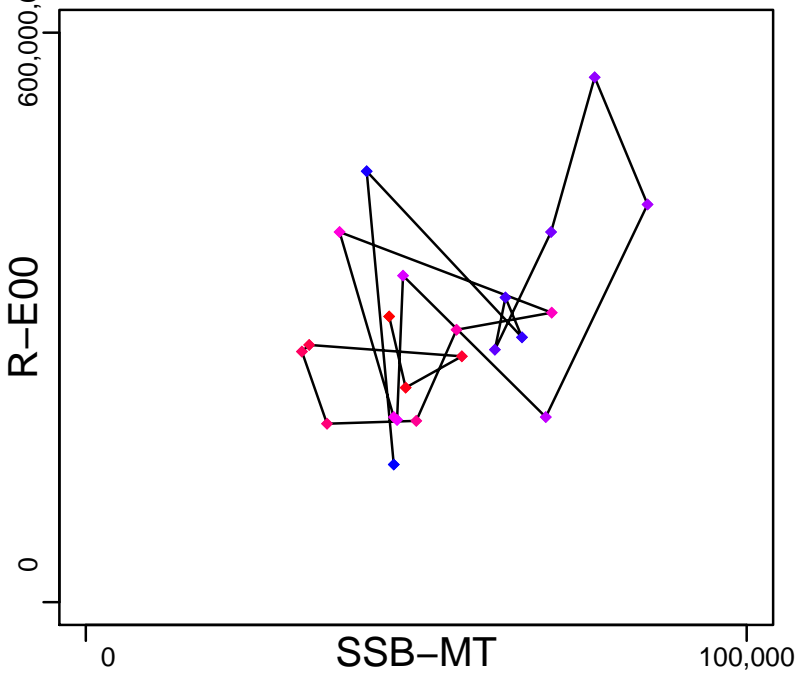
Kobe MSYpref (1992–2013–JPNIMP2016)



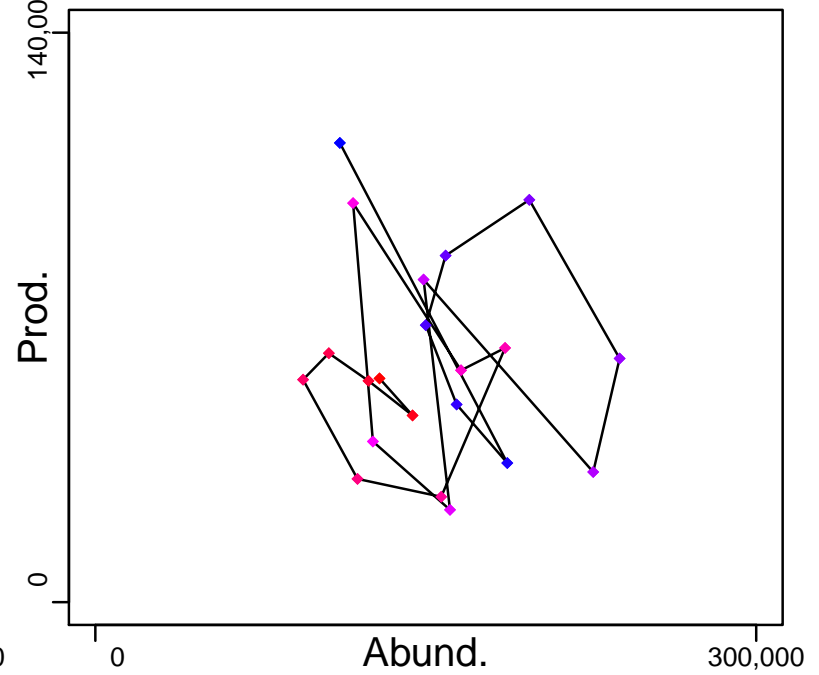
Kobe MGTpref (1992–2013–JPNIMP2016)



Spawner Recruit (1992–2013–JPNIMP2016)



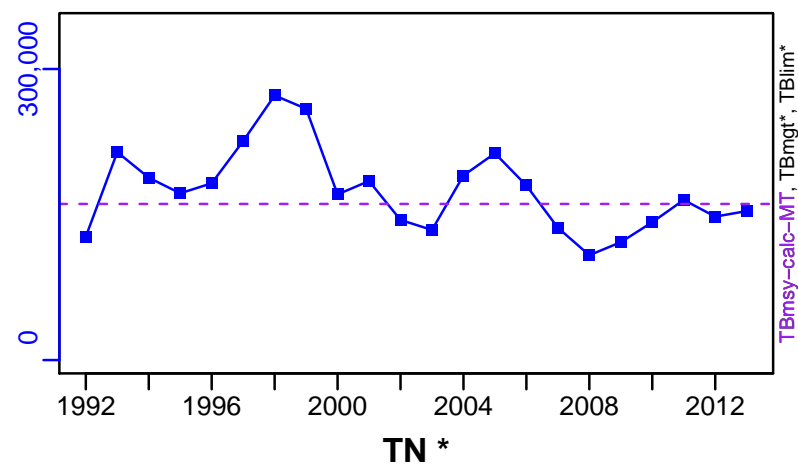
Production (1992–2013–JPNIMP2016)



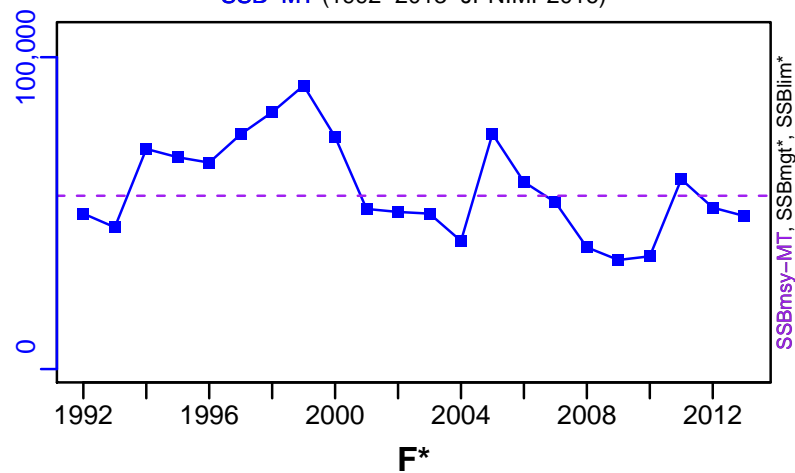
◆ Start Year ◆ End Year \* No Data

# Spotted mackerel East China Sea [BMACKECS]

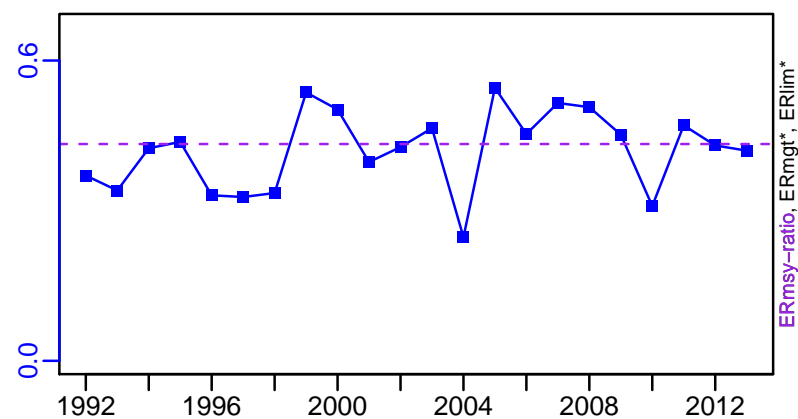
TB-MT (1992-2013-JPNIMP2016)



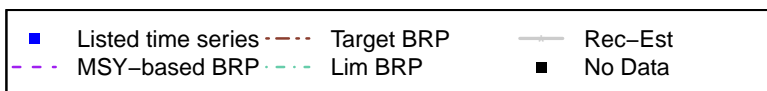
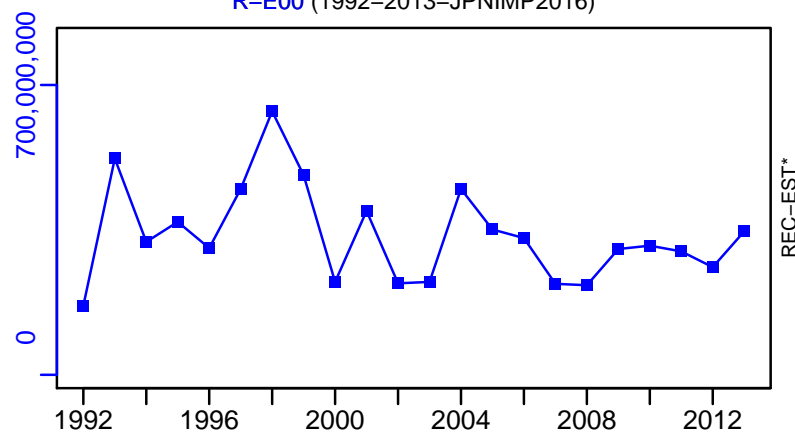
SSB-MT (1992-2013-JPNIMP2016)



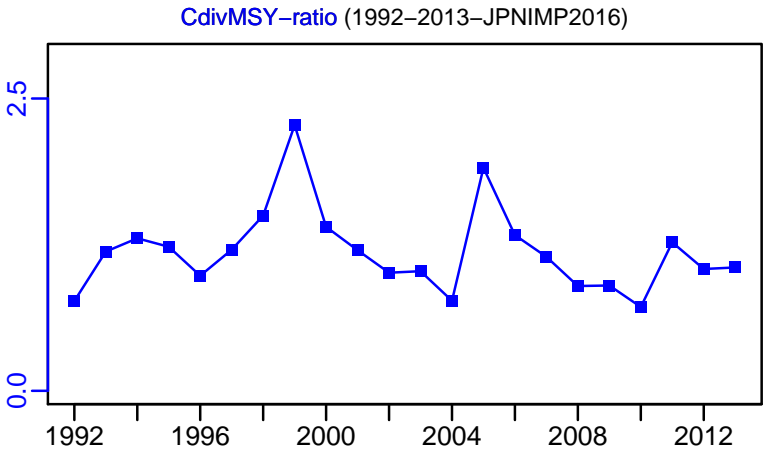
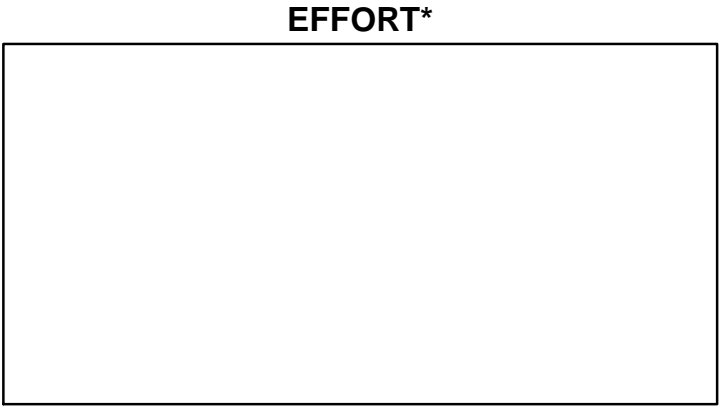
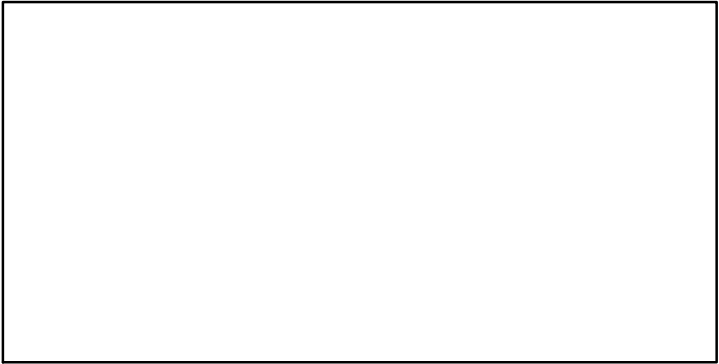
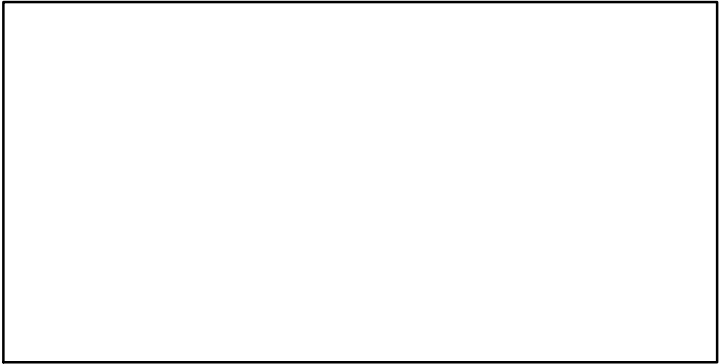
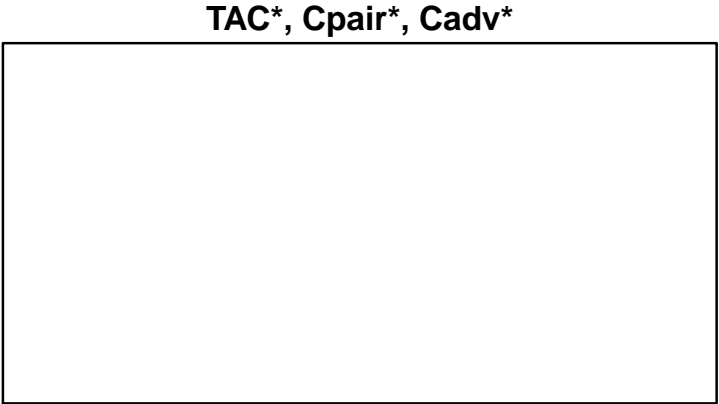
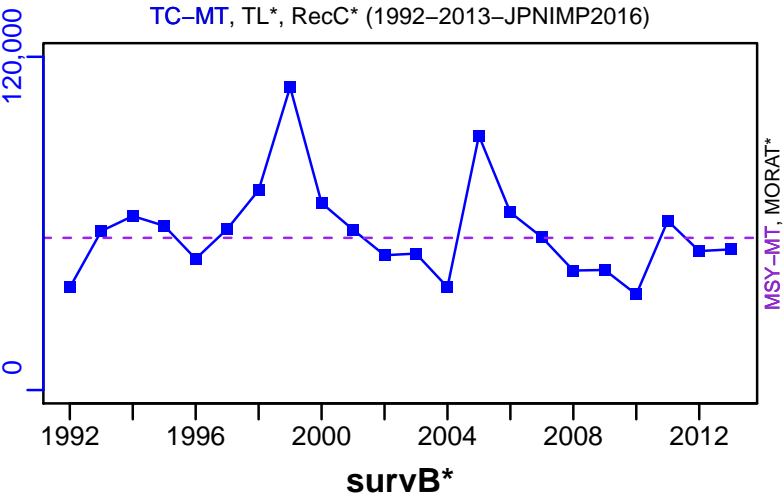
ER-calc-ratio (1992-2013-JPNIMP2016)



R-E00 (1992-2013-JPNIMP2016)



Spotted mackerel East China Sea [BMACKECS]



## Spotted mackerel Pacific Coast of Japan [BMACKPJPN]

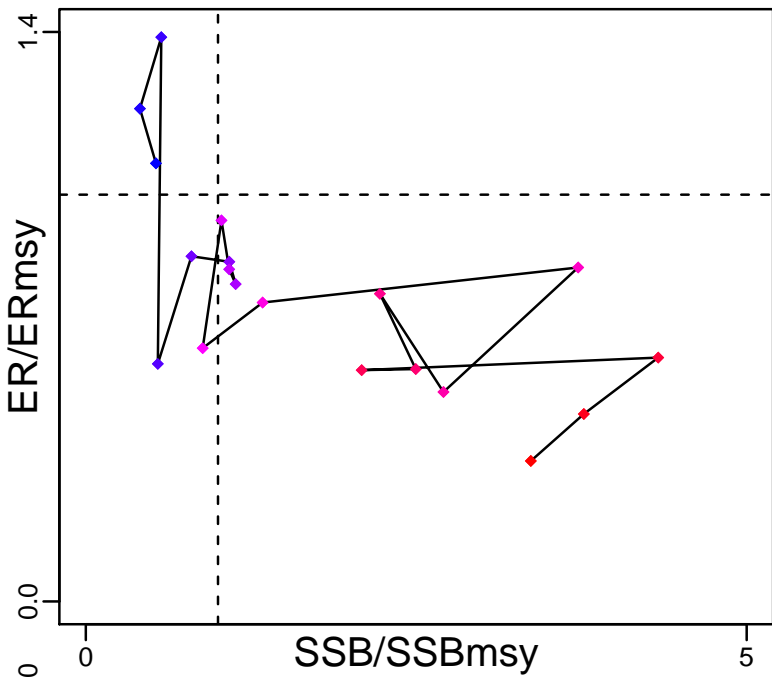
Metadata	
<b>Scientific Name</b>	Scomber australasicus
<b>Current Assess ID</b>	FAFRFJ-BMACKPJPN-1982-2013-JPNIMP2016
<b>Area</b>	Pacific Coast of Japan
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>	2013

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

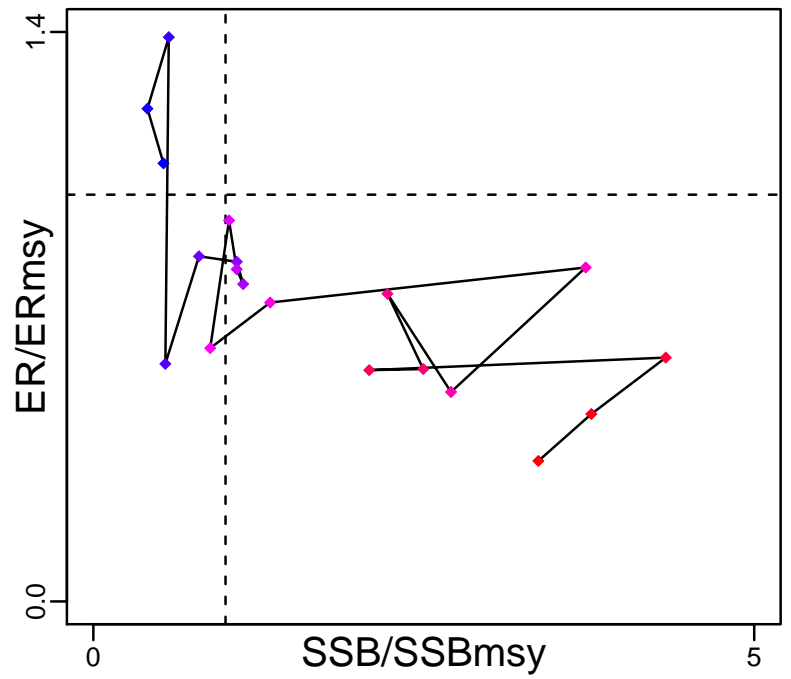
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	785,000	-	0
<b>SSB</b>	SSB-MT	2013	309,000	Both	2
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	$1.22 \times 10^9$	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0.136	-	-
<b>TC</b>	TC-MT	2013	107,000		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2013	2.122		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	3.367		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	0.345		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Spotted mackerel Pacific Coast of Japan [BMACKPJPN]

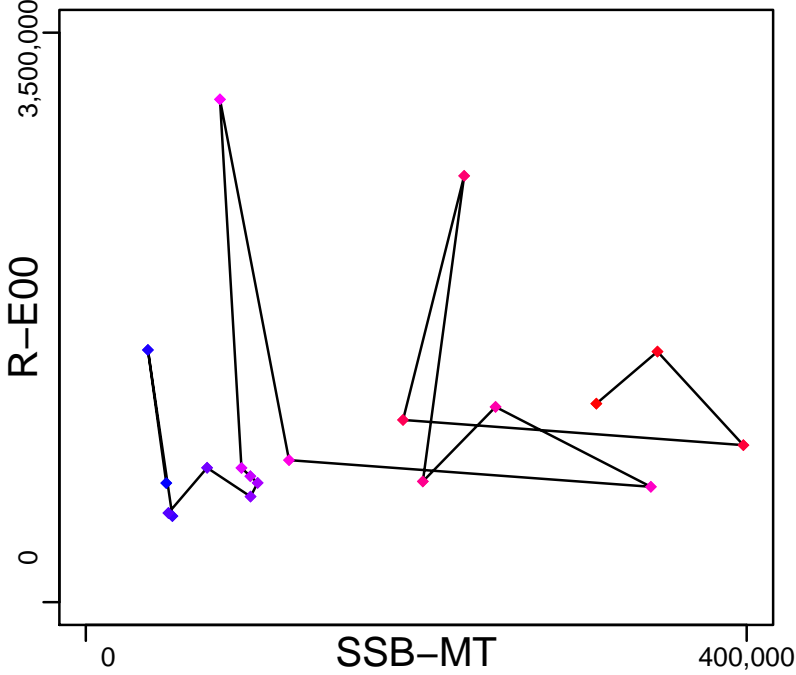
Kobe MSYpref (1982–2013–JPNIMP2016)



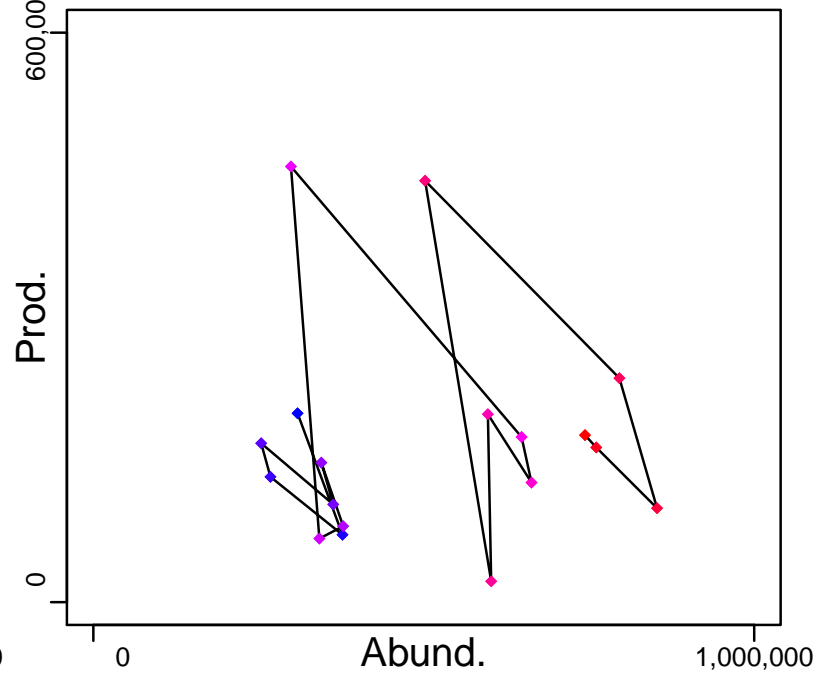
Kobe MGTpref (1982–2013–JPNIMP2016)



Spawner Recruit (1982–2013–JPNIMP2016)



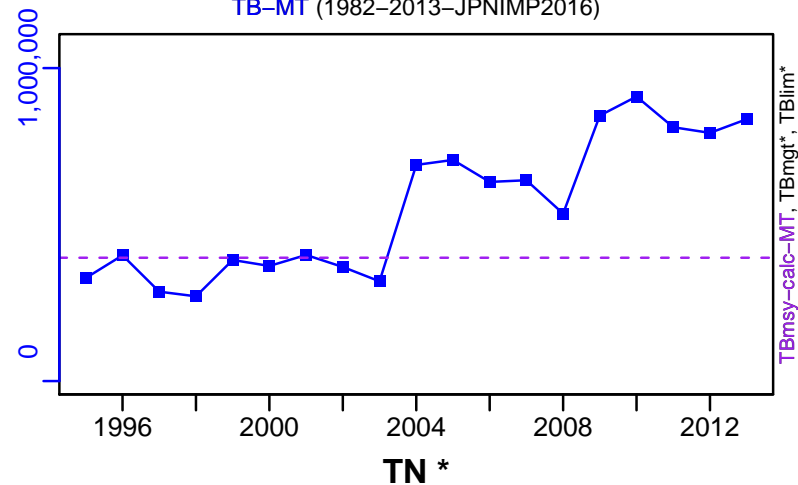
Production (1982–2013–JPNIMP2016)



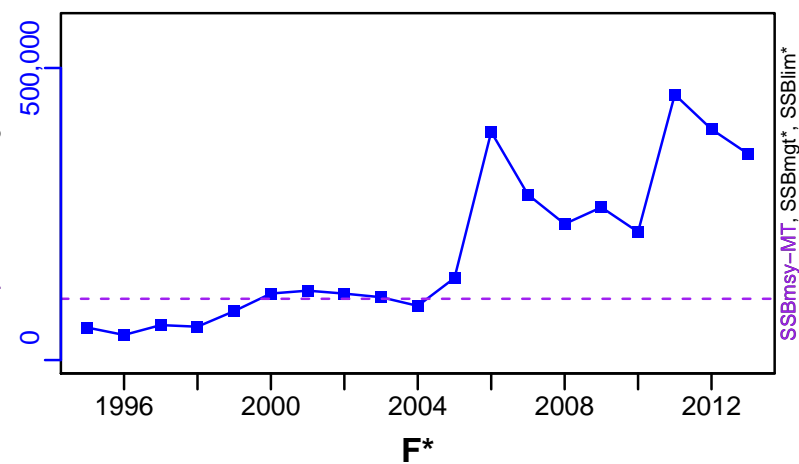
◆ Start Year ◆ End Year \* No Data

# Spotted mackerel Pacific Coast of Japan [BMACKPJPN]

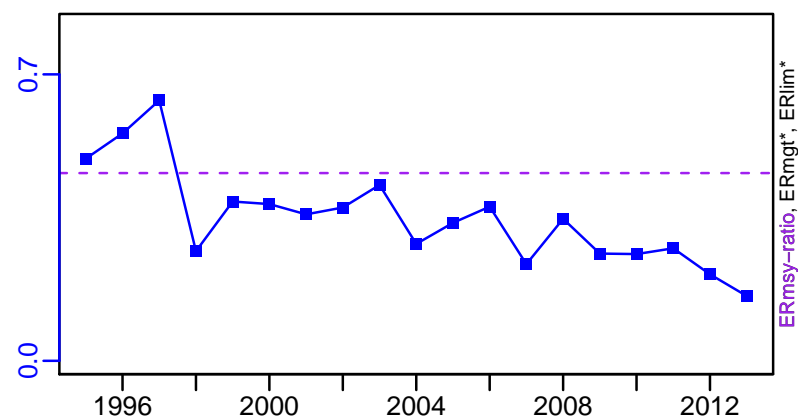
TB-MT (1982-2013-JPNIMP2016)



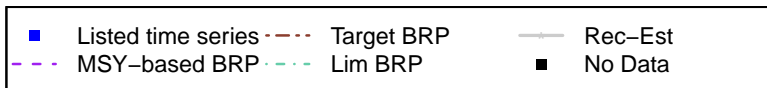
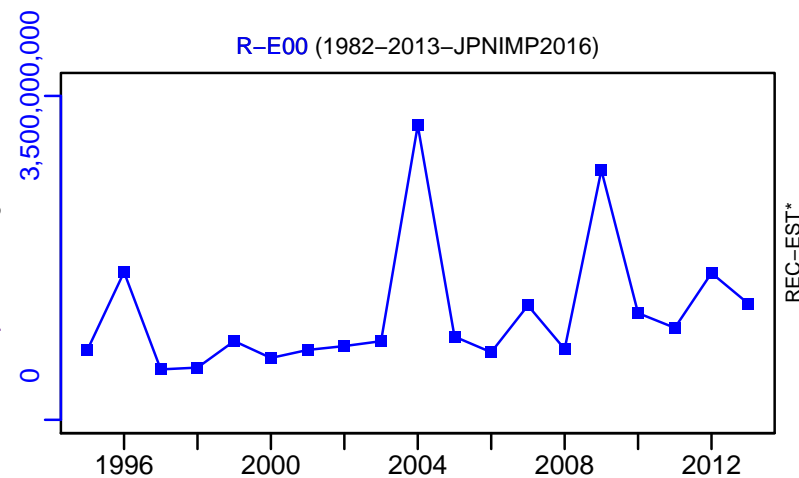
SSB-MT (1982-2013-JPNIMP2016)



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



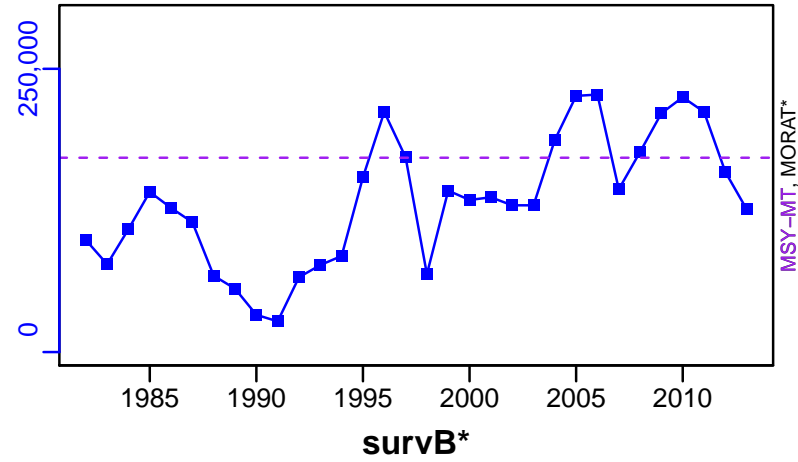
R-E00 (1982-2013-JPNIMP2016)



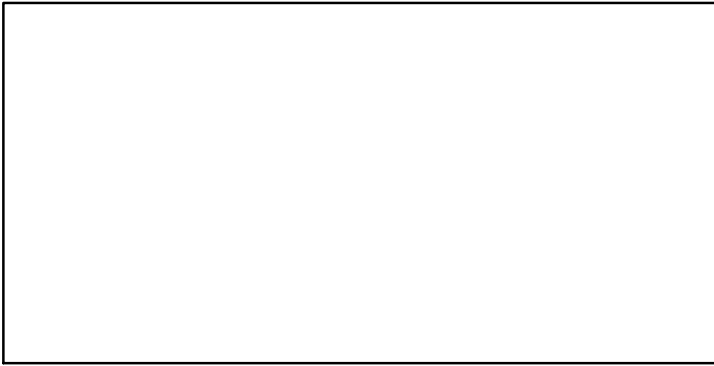
# Spotted mackerel Pacific Coast of Japan [BMACKPJPN]

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

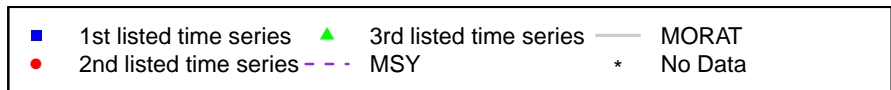
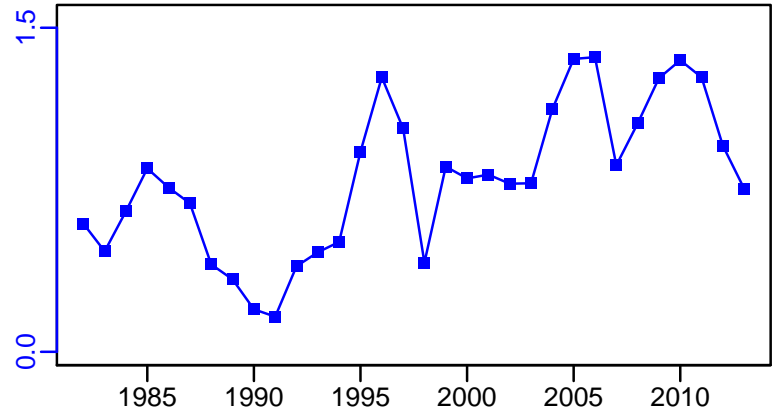
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1982-2013-JPNIMP2016)



## Yellow sea bream Sea of Japan [BRMSOJ]

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

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

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



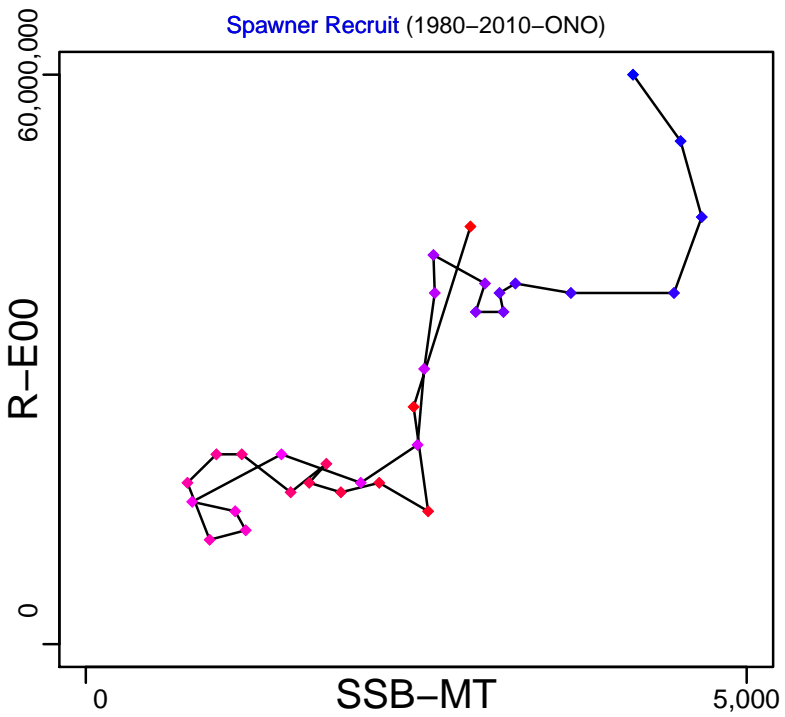
Kobe MSY\*



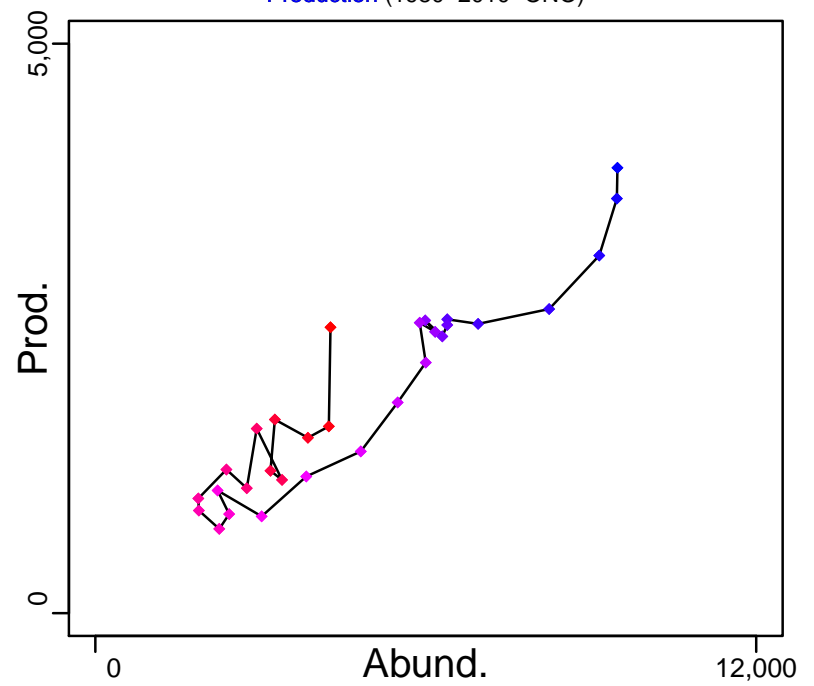
Kobe MGT\*



Spawner Recruit (1980–2010–ONO)



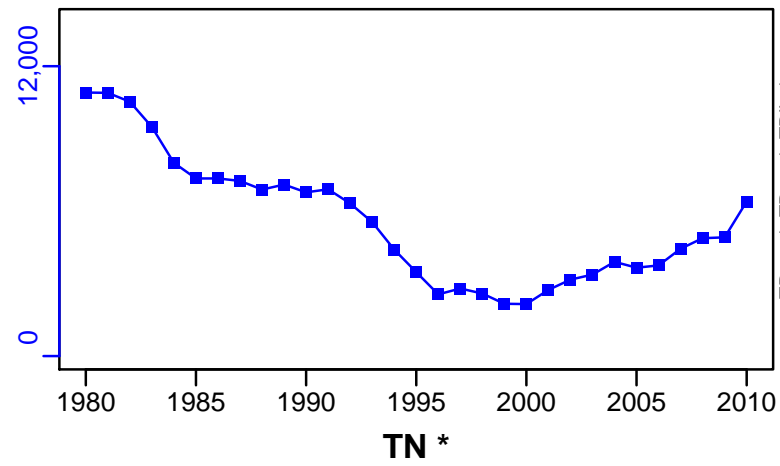
Production (1980–2010–ONO)



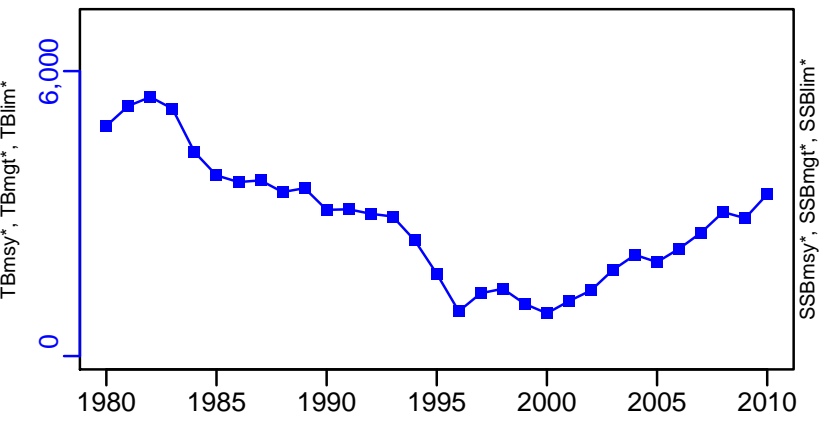
◆ Start Year ◆ End Year \* No Data

# Yellow sea bream Sea of Japan [BRMSOJ]

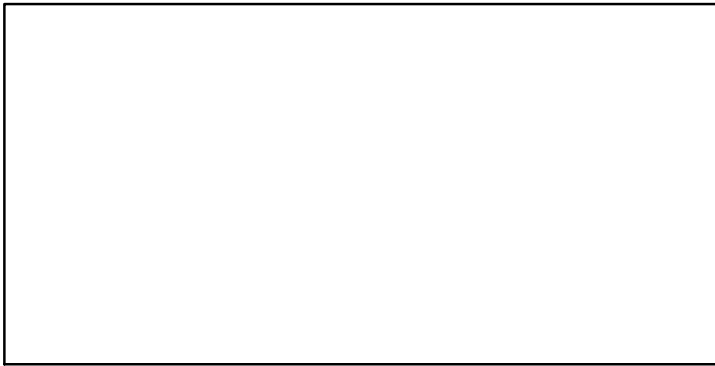
TB-MT (1980-2010-ONO)



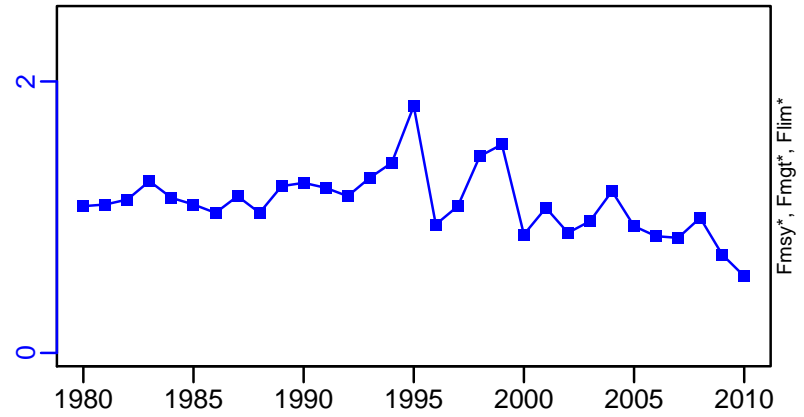
SSB-MT (1980-2010-ONO)



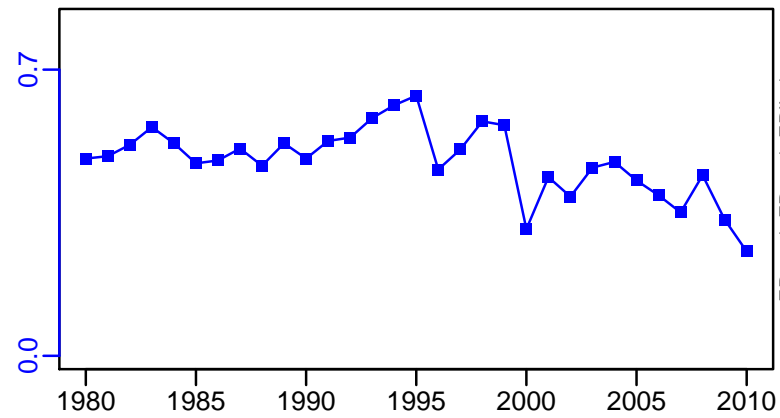
TN \*



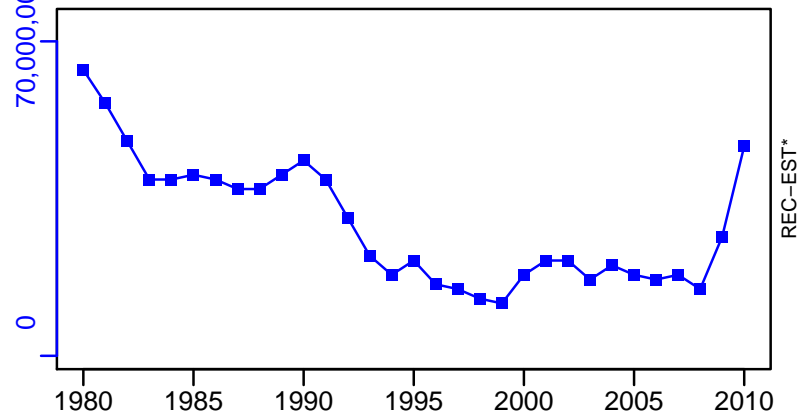
F-1/yr (1980-2010-ONO)



ER-ratio (1980-2010-ONO)



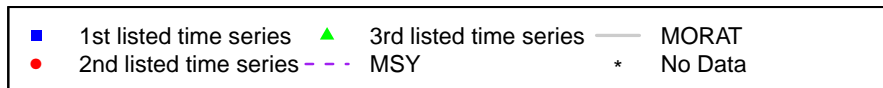
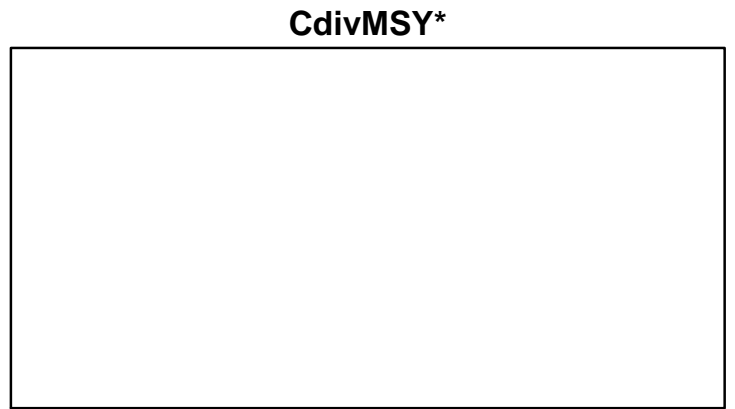
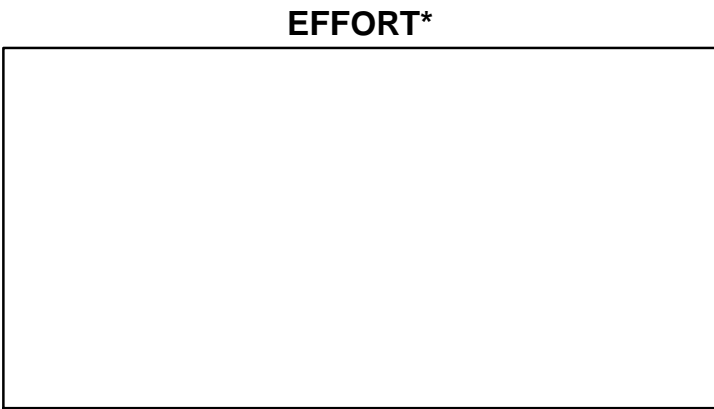
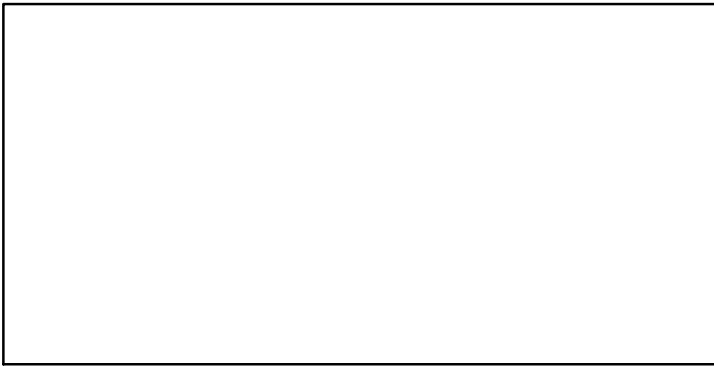
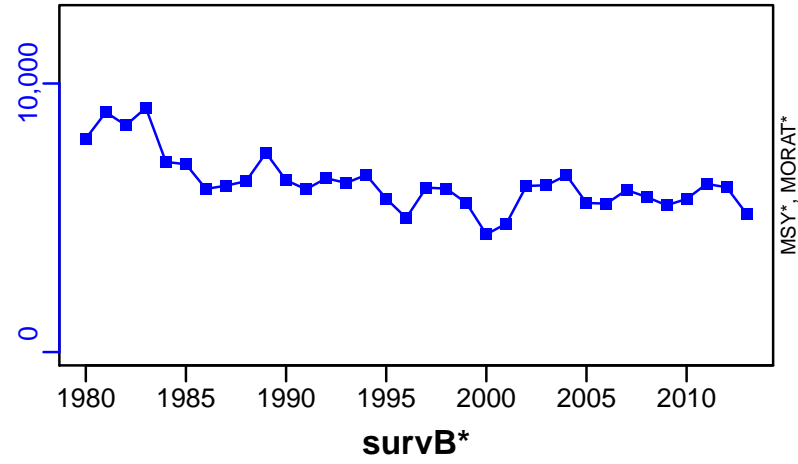
R-E00 (1980-2010-ONO)



# 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 [BSCRAPER SOJECS]

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

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

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

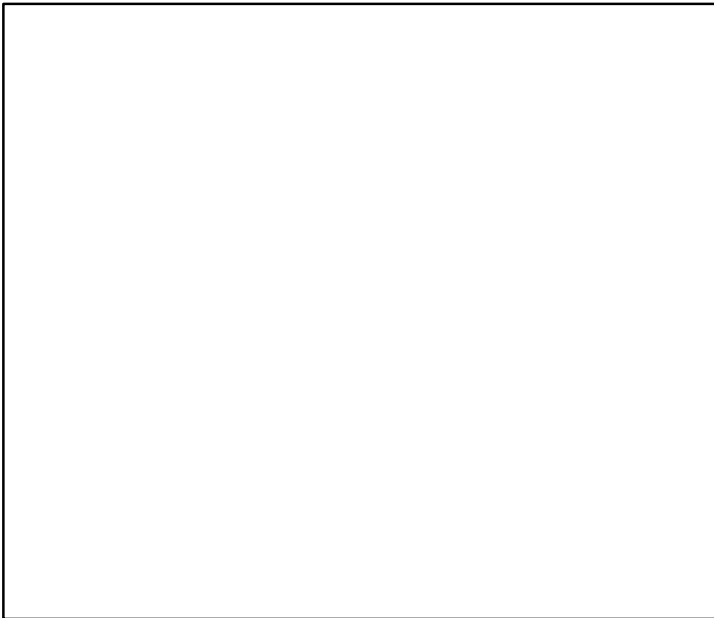
**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



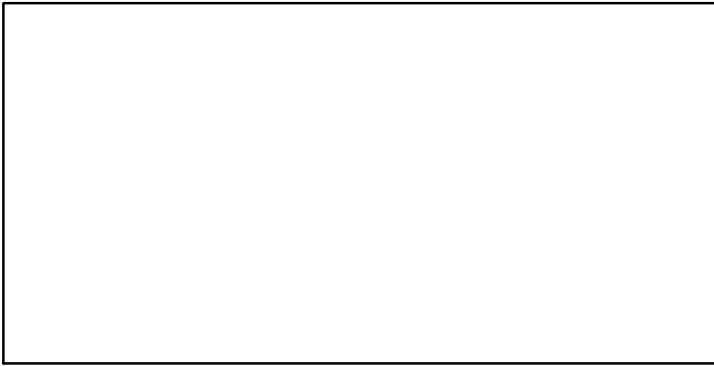
**Production\***



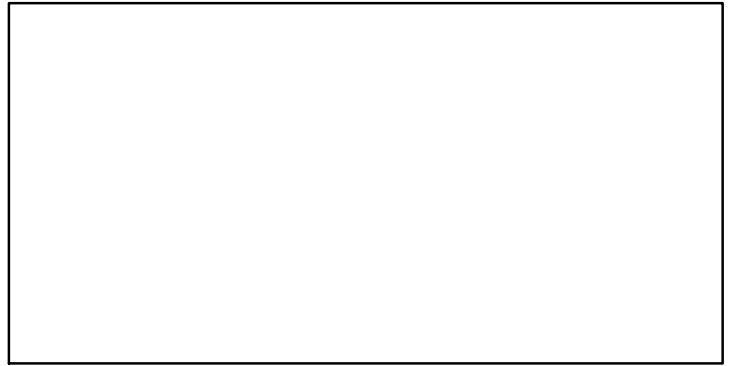
◆ Start Year ◆ End Year \* No Data

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

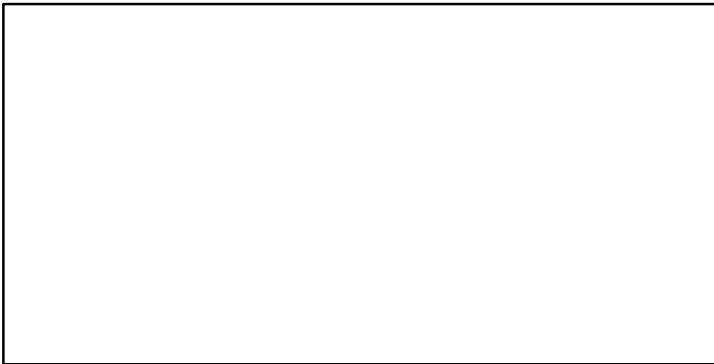
**TB\***



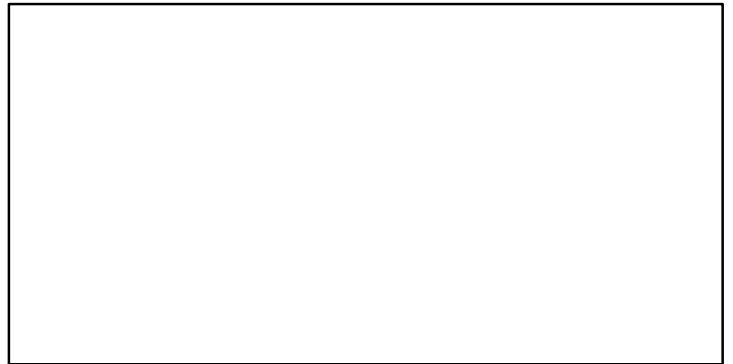
**SSB\***



**TN \***



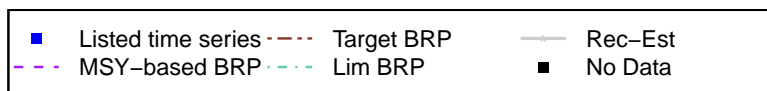
**F\***



**ER\***



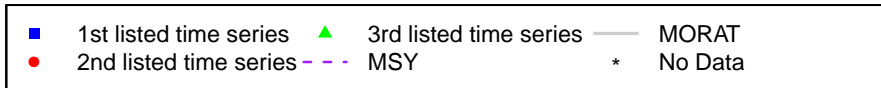
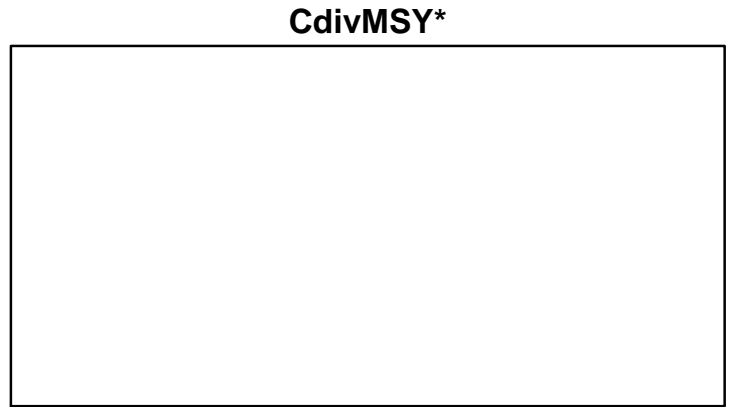
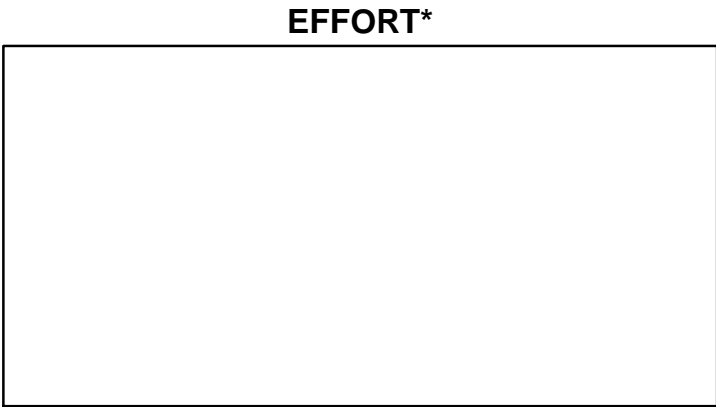
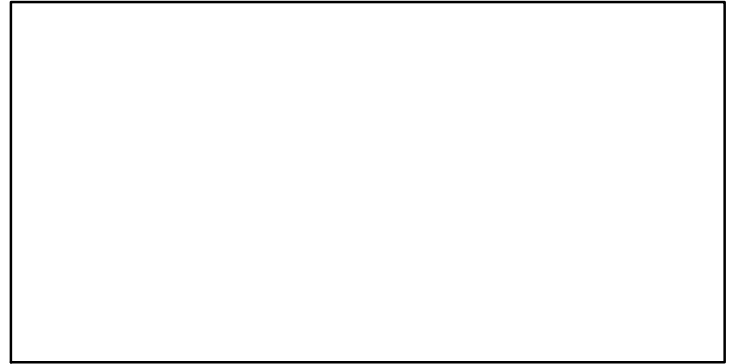
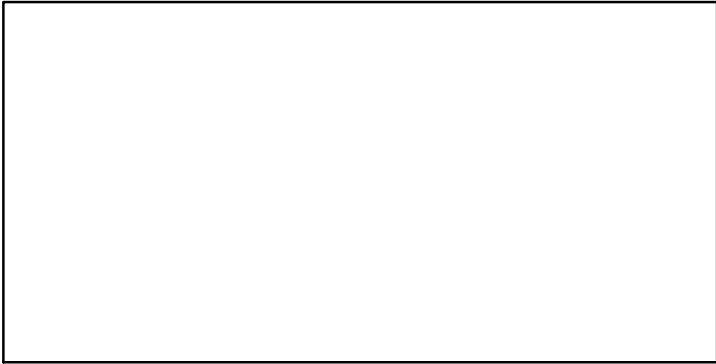
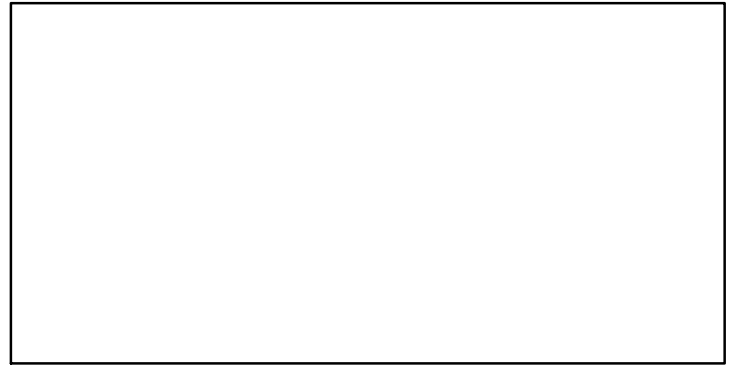
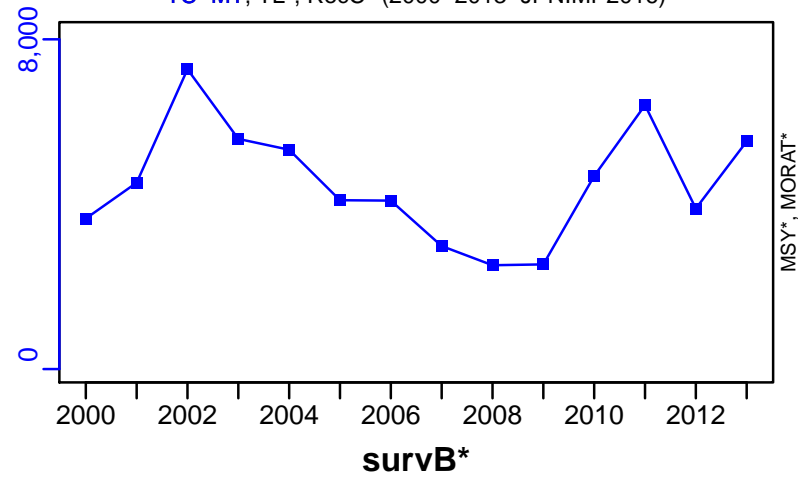
**Recruits\***



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

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

TAC\*, Cpair\*, Cadv\*



## Beni-zuwai crab Sea of Japan [BZCRABSOJ]

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



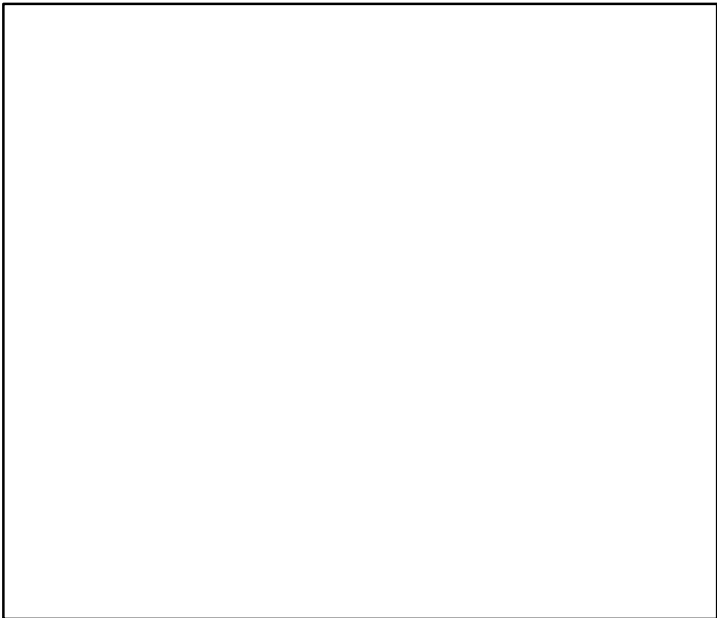
Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data

TB\*



SSB\*



TN \*



F\*



ER\*

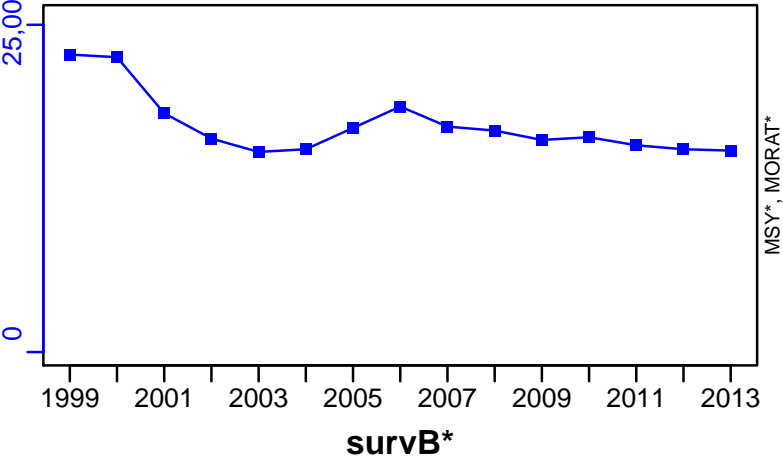


Recruits\*



Beni-zuwai crab Sea of Japan [BZCRABSOJ]

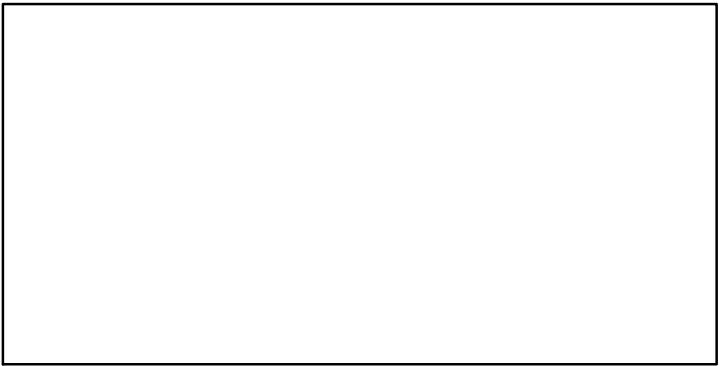
TC-MT, TL\*, RecC\* (1999-2013-JPNIMP2016)



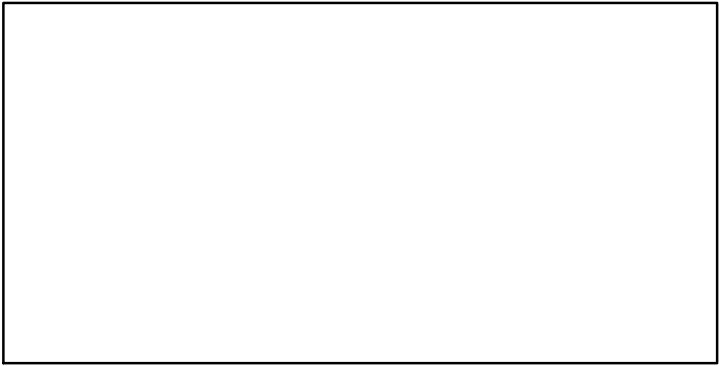
TAC\*, Cpair\*, Cadv\*



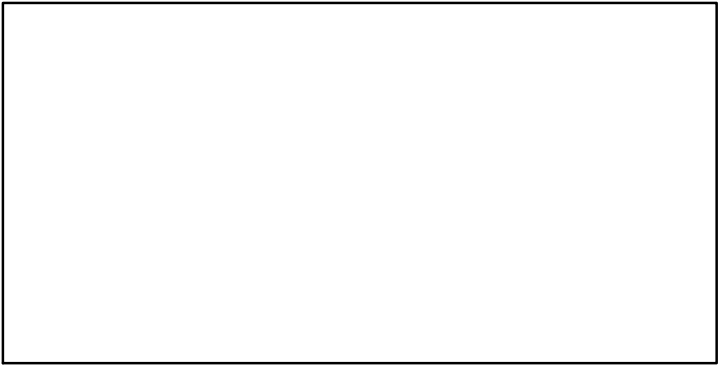
CPUE\*



EFFORT\*



CdivMSY\*



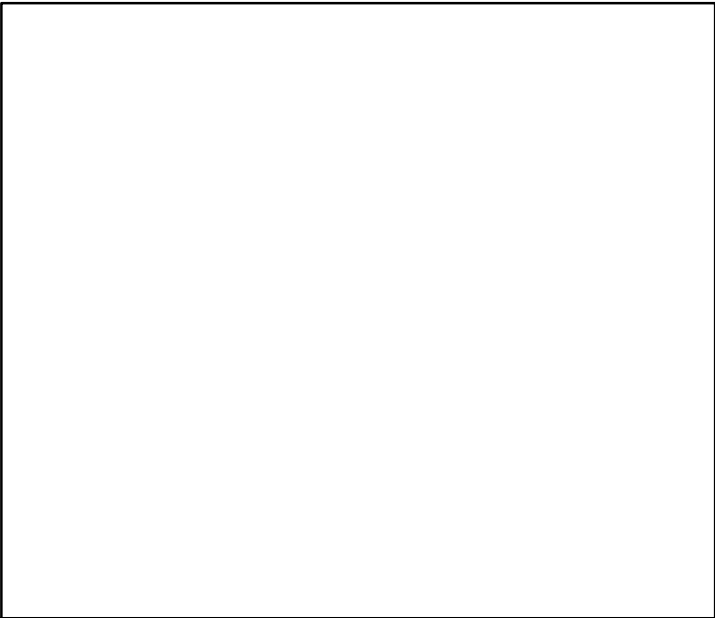
## Crimson jobfish Okinawa Islands [CJOBOKWI]

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

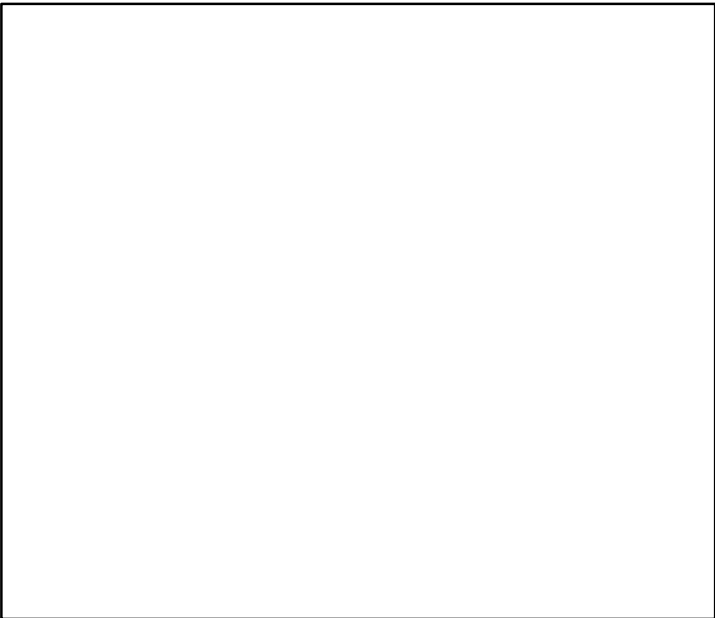
Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data

Crimson jobfish Okinawa Islands [CJOBOKWI]

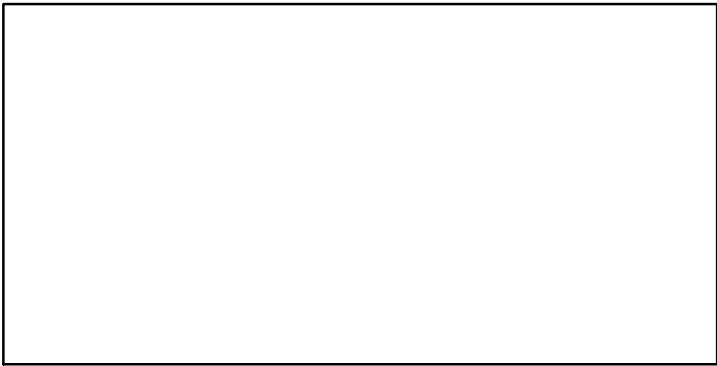
TB\*



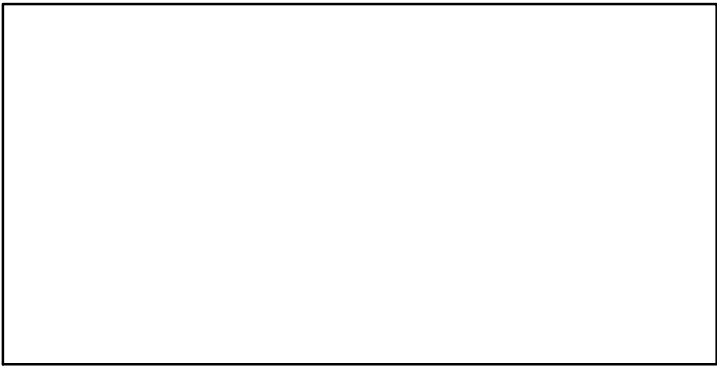
SSB\*



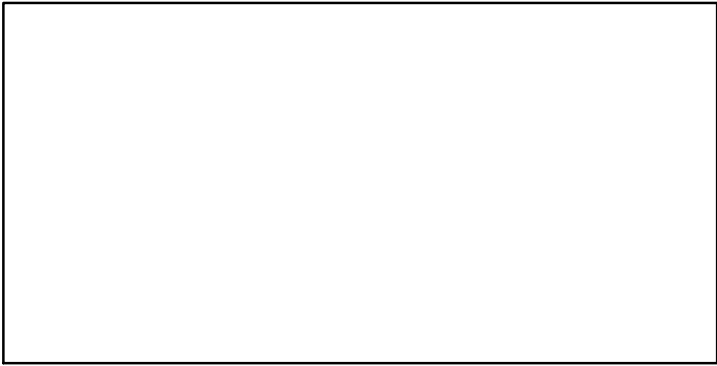
TN \*



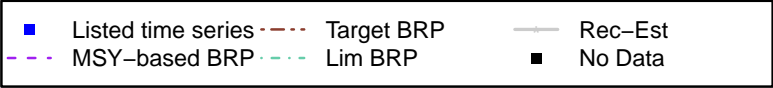
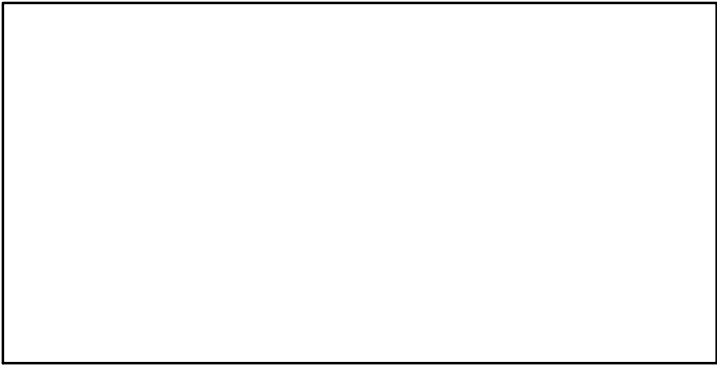
F\*



ER\*



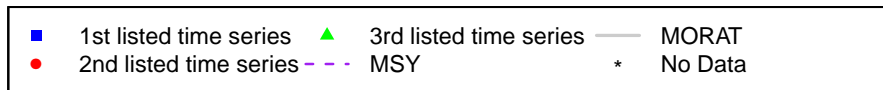
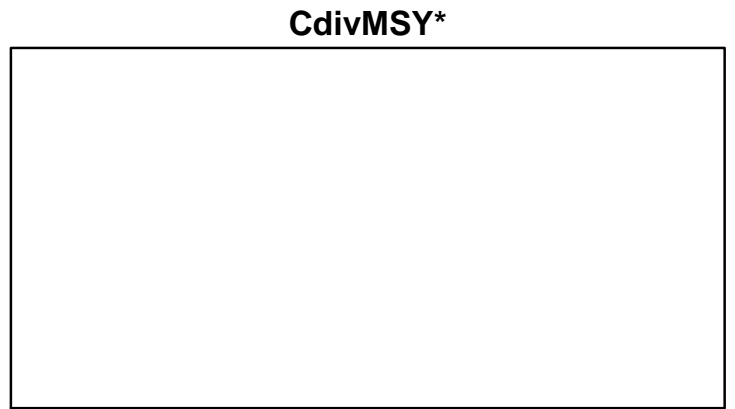
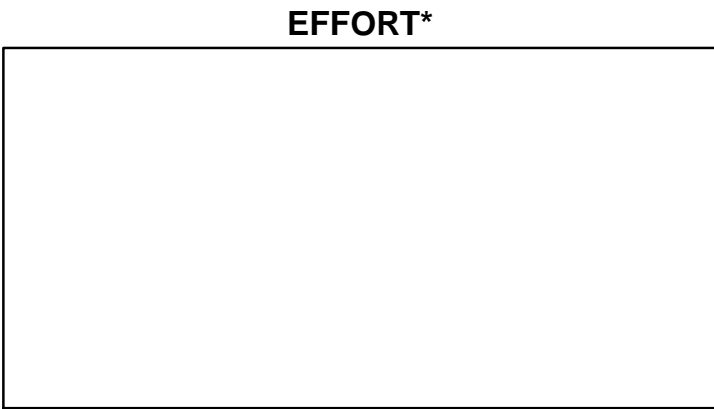
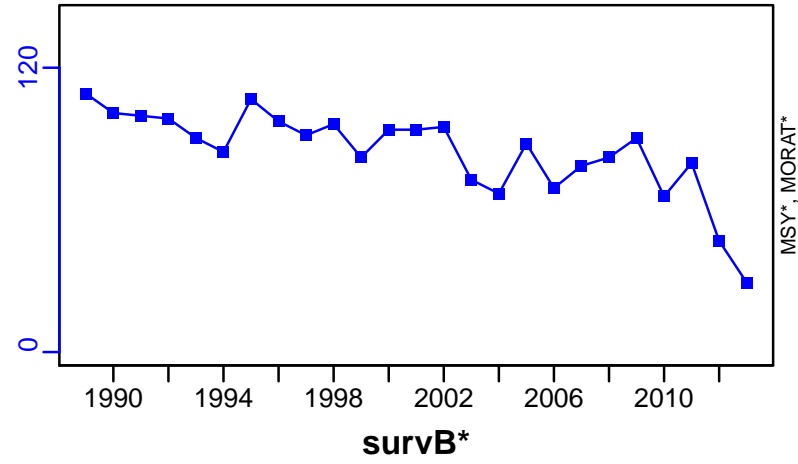
Recruits\*



# Crimson jobfish Okinawa Islands [CJOBOKWI]

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

TAC\*, Cpair\*, Cadv\*



## Chub mackerel Pacific Coast of Japan [CMACKPJPN]

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

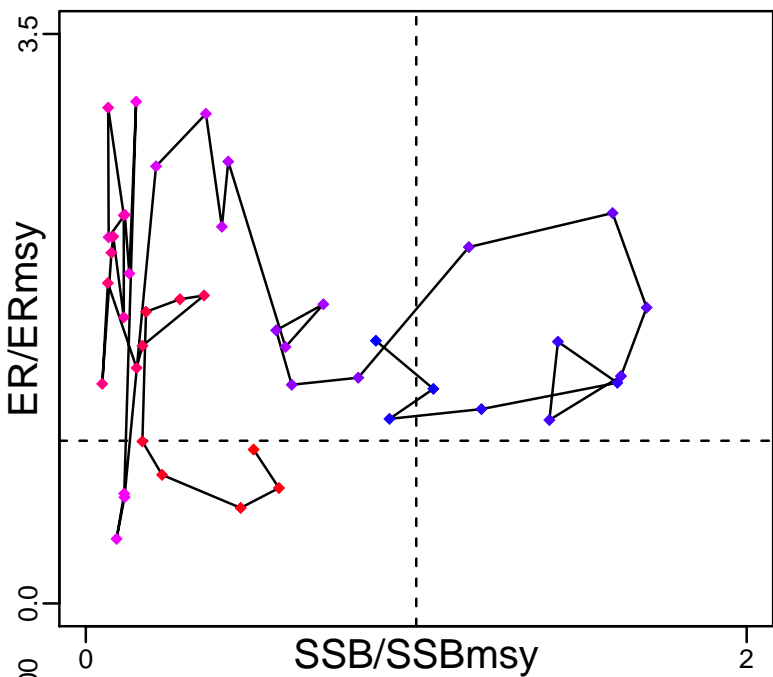
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2013	2,077,724
<b>SSBmsy</b>	SSBmsy-MT	2013	812,856
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2013	0.171
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT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

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

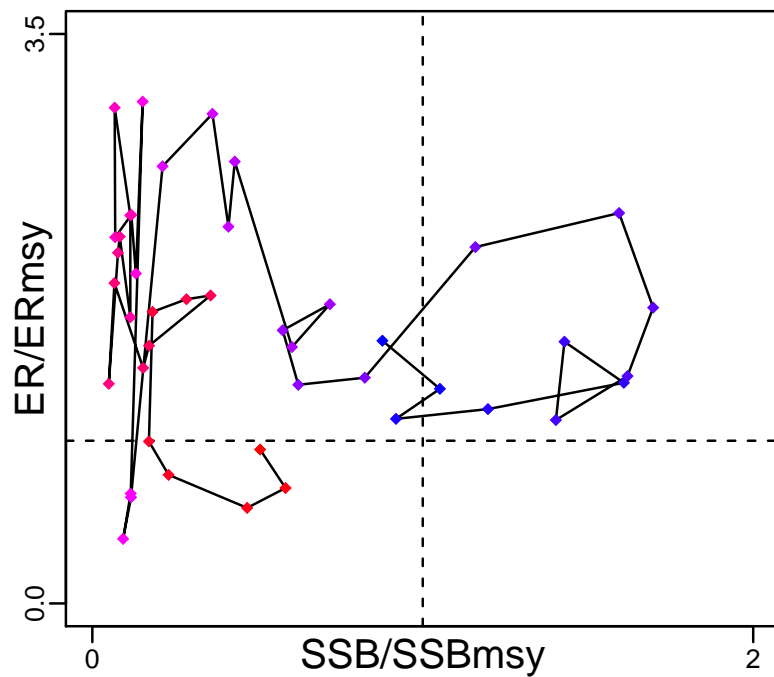


# Chub mackerel Pacific Coast of Japan [CMACKPJPN]

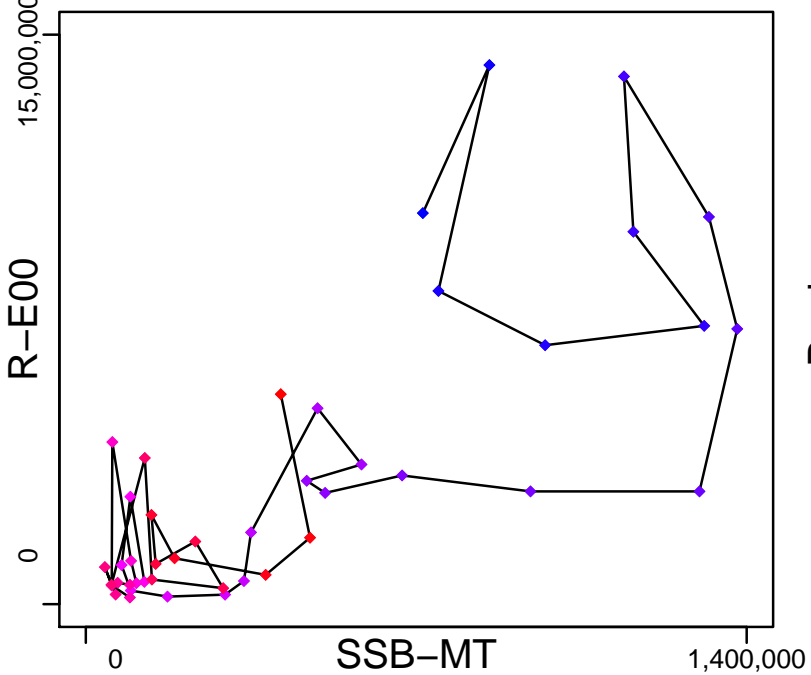
Kobe MSYpref (1970–2013–JPNIMP2016)



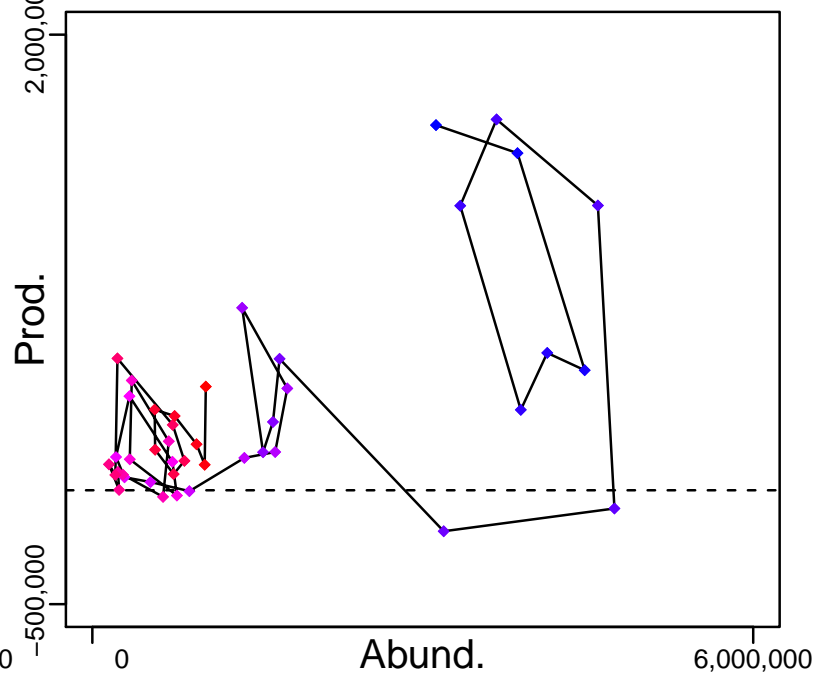
Kobe MGTpref (1970–2013–JPNIMP2016)



Spawner Recruit (1970–2013–JPNIMP2016)



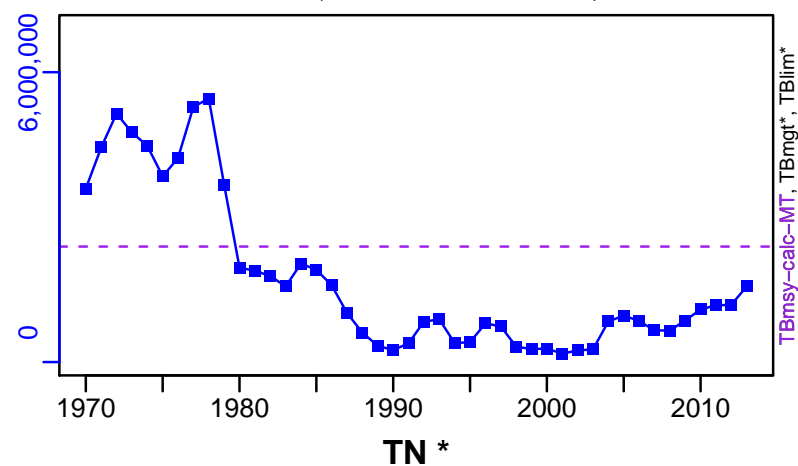
Production (1970–2013–JPNIMP2016)



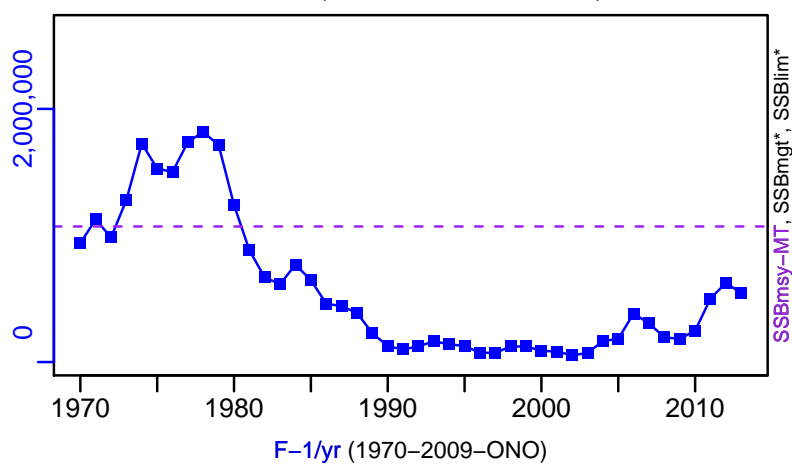
◆ Start Year ◆ End Year \* No Data

# Chub mackerel Pacific Coast of Japan [CMACKPJPN]

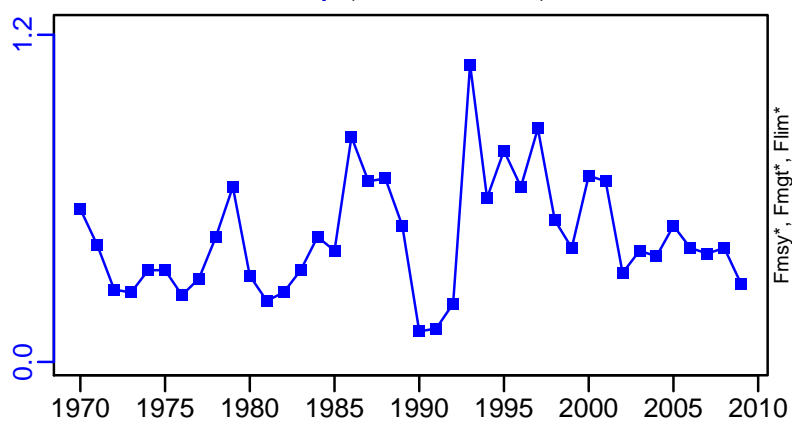
TB-MT (1970-2013-JPNIMP2016)



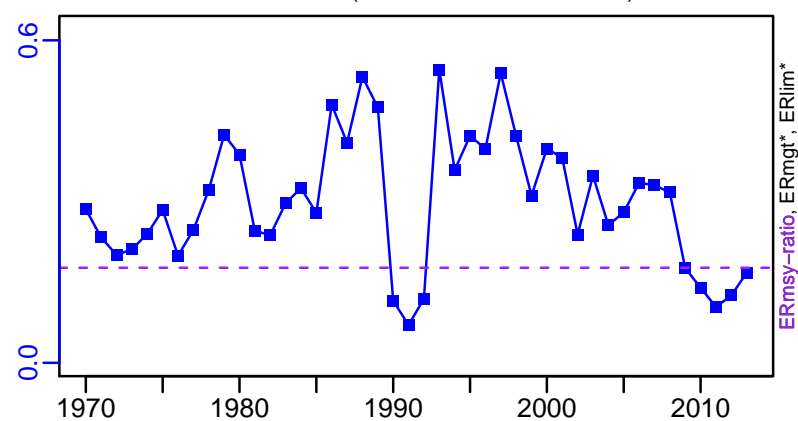
SSB-MT (1970-2013-JPNIMP2016)



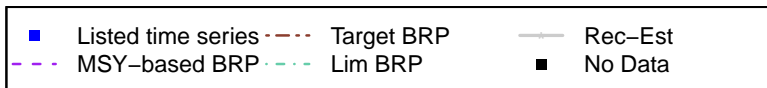
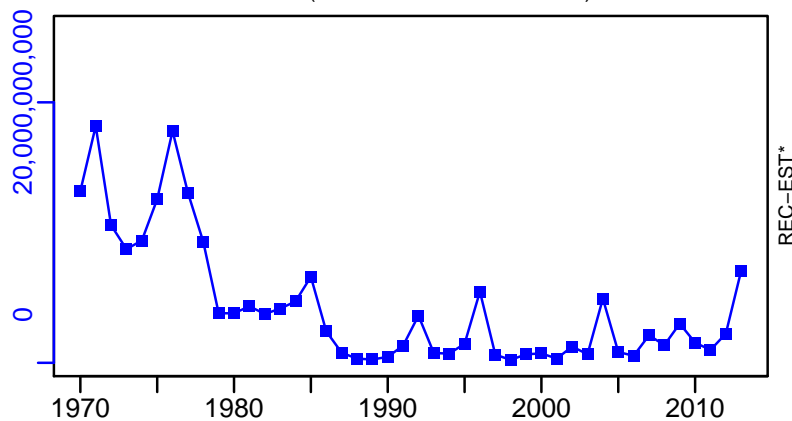
F-1/yr (1970-2009-ONO)



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



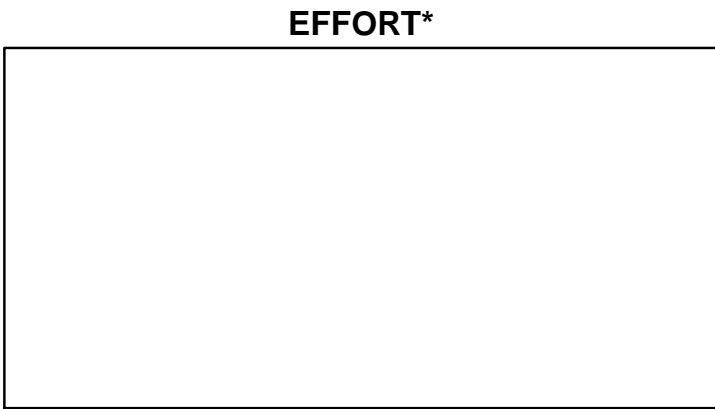
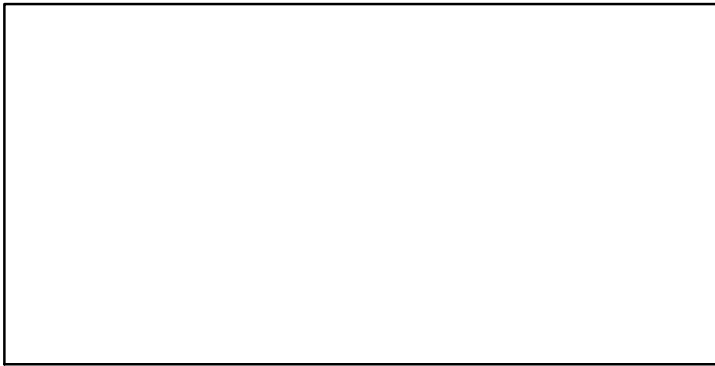
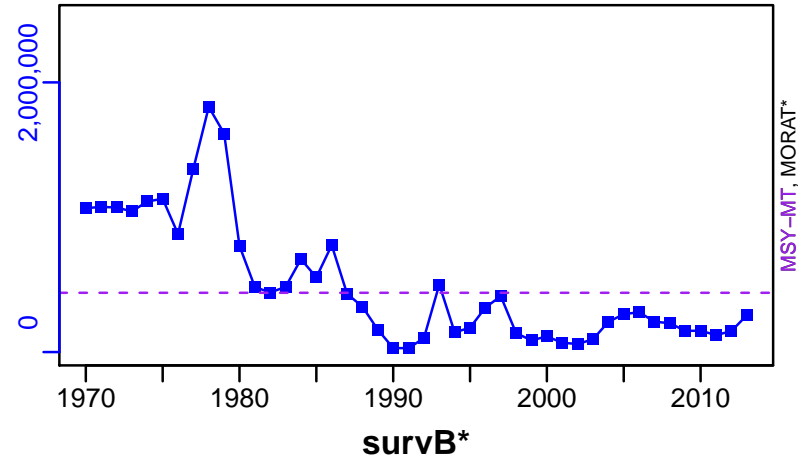
R-E00 (1970-2013-JPNIMP2016)



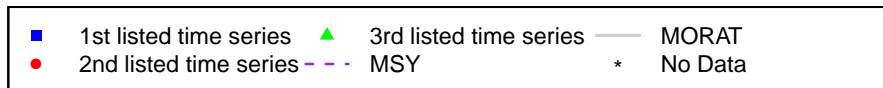
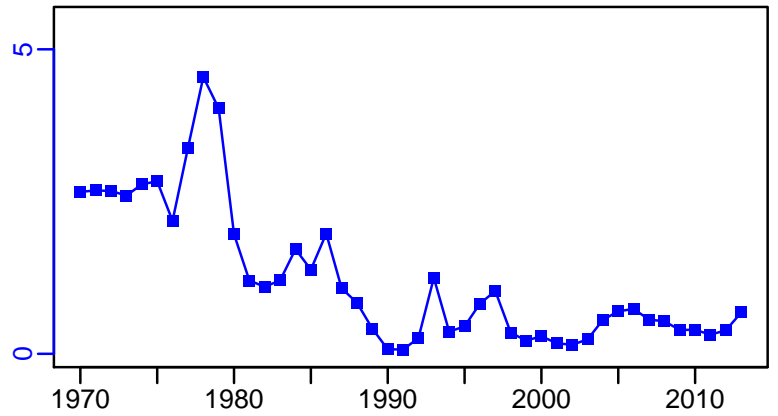
# Chub mackerel Pacific Coast of Japan [CMACKPJPN]

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

TAC\*, Cpair\*, Cadv\*



CdivMSY-ratio (1970-2013-JPNIMP2016)



## Chub mackerel Tsushima Strait [CMACKTSST]

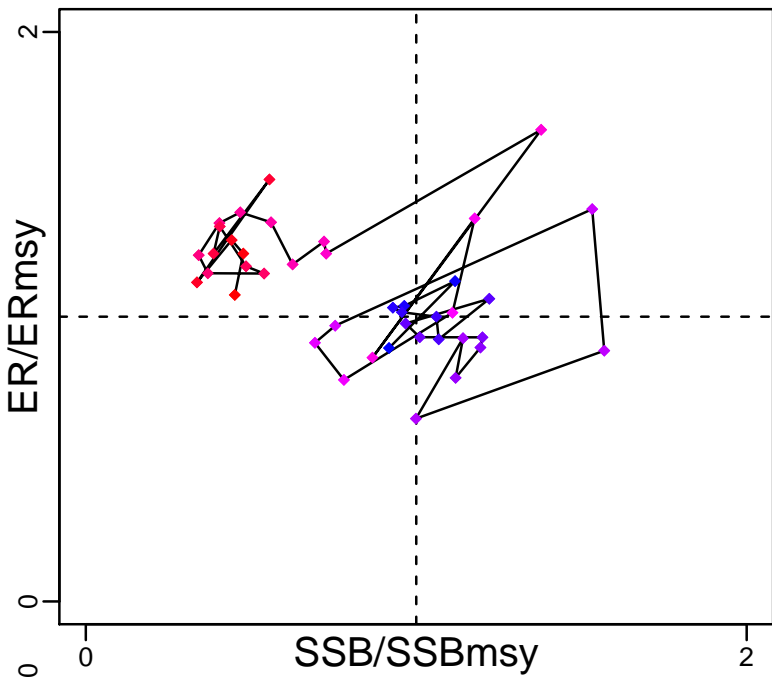
Metadata	
<b>Scientific Name</b>	Scomber japonicus
<b>Current Assess ID</b>	FAFRFJ-CMACKTSST-1973-2013-JPNIMP2016
<b>Area</b>	Tsushima Strait
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>	2013

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

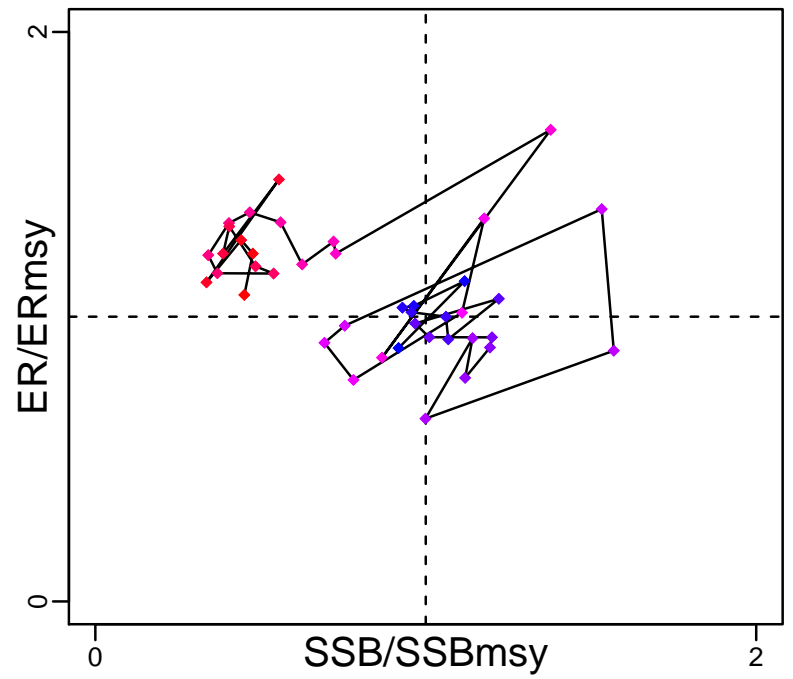
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	428,000	-	0
<b>SSB</b>	SSB-MT	2013	153,000	Both	1
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	$8.98 \times 10^8$	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0.39	-	-
<b>TC</b>	TC-MT	2013	167,000		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2013	0.476		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.451		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	1.076		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Chub mackerel Tsushima Strait [CMACKTSST]

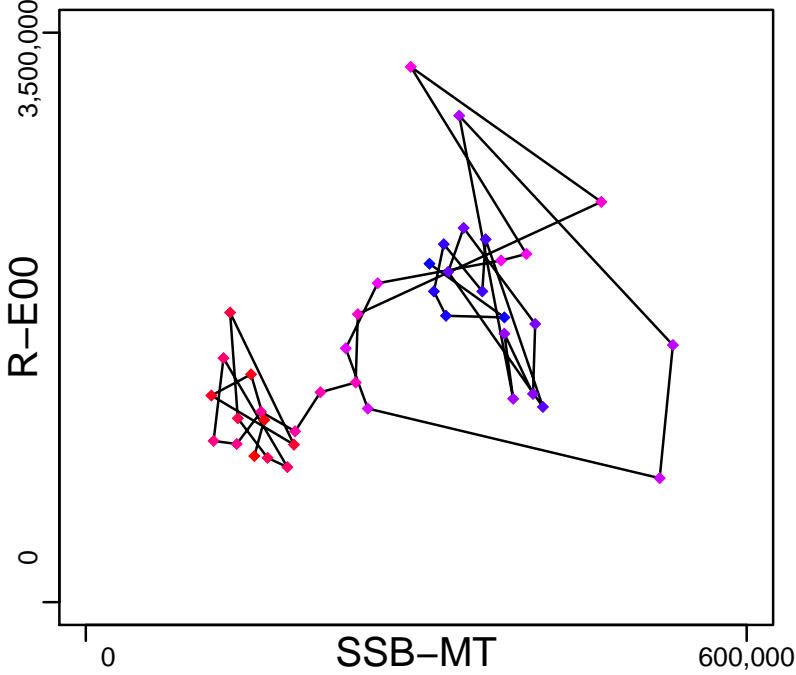
Kobe MSYpref (1973–2013–JPNIMP2016)



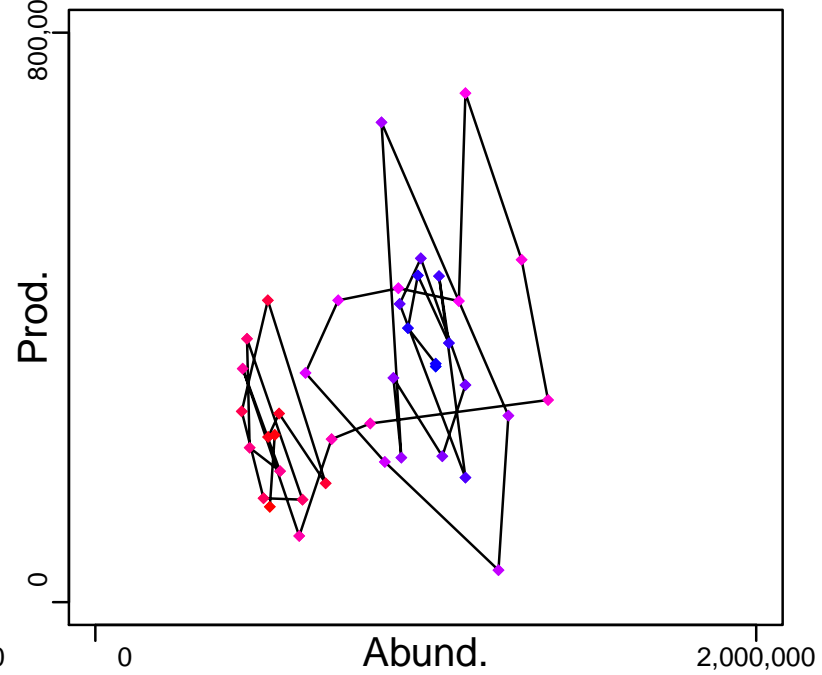
Kobe MGTpref (1973–2013–JPNIMP2016)



Spawner Recruit (1973–2013–JPNIMP2016)



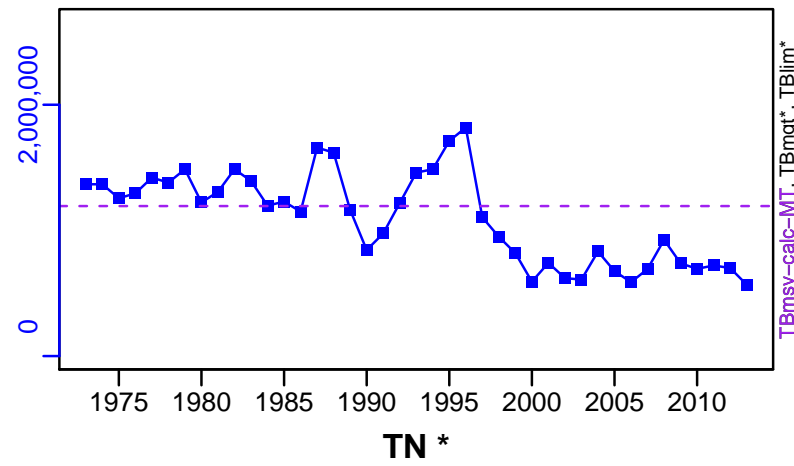
Production (1973–2013–JPNIMP2016)



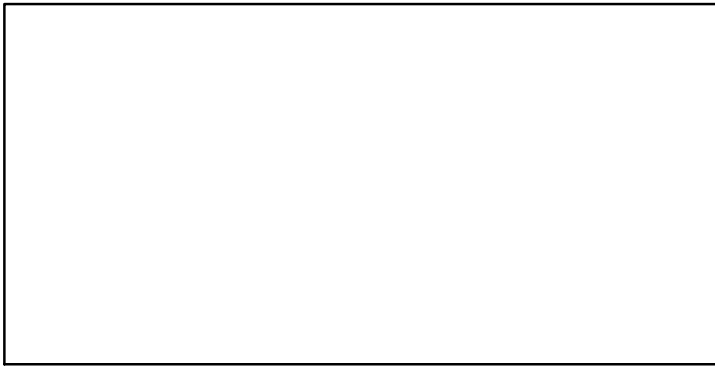
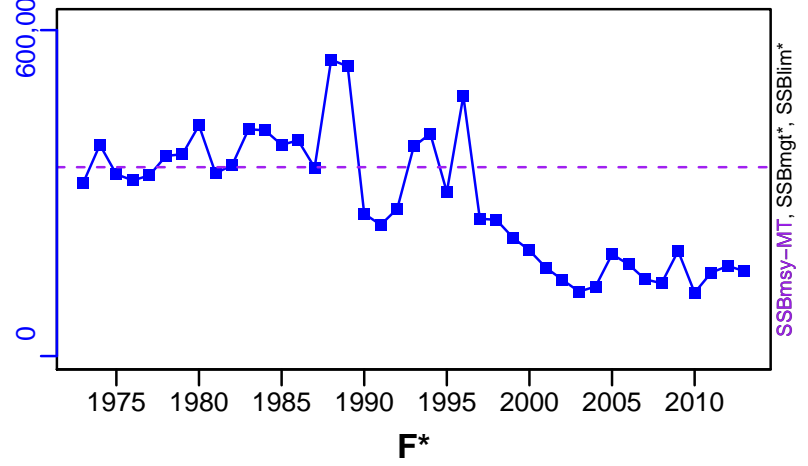
◆ Start Year ◆ End Year \* No Data

# Chub mackerel Tsushima Strait [CMACKTSST]

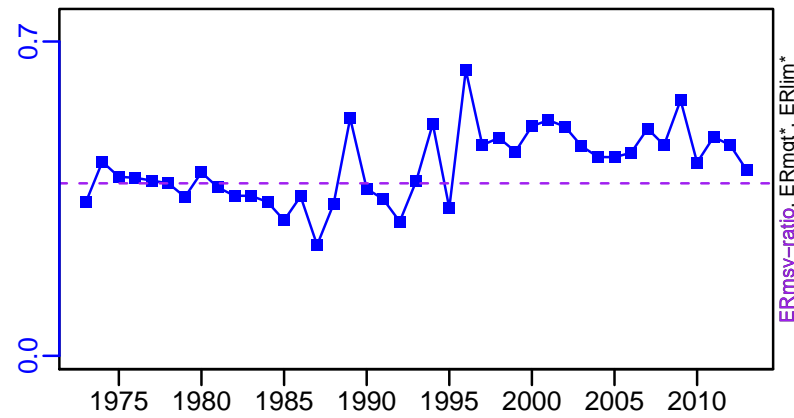
TB-MT (1973-2013-JPNIMP2016)



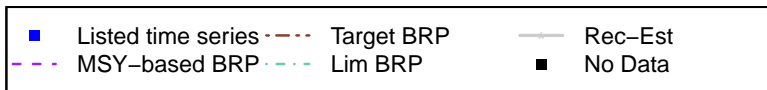
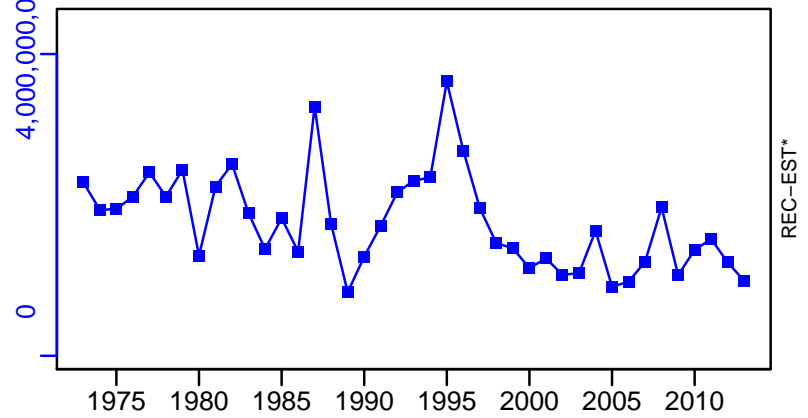
SSB-MT (1973-2013-JPNIMP2016)



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



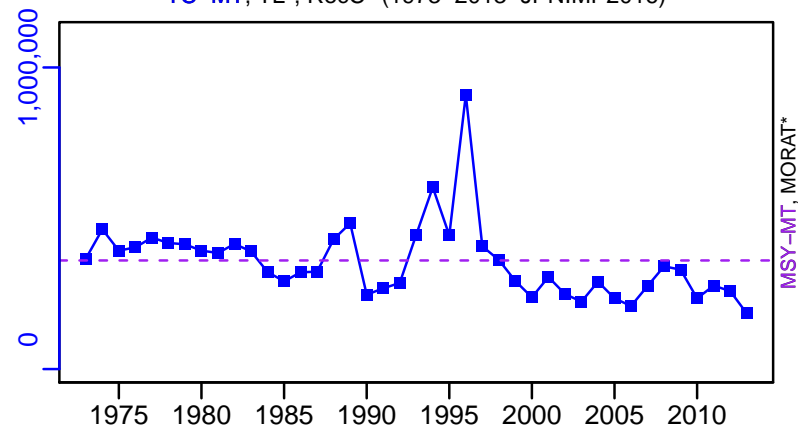
R-E00 (1973-2013-JPNIMP2016)



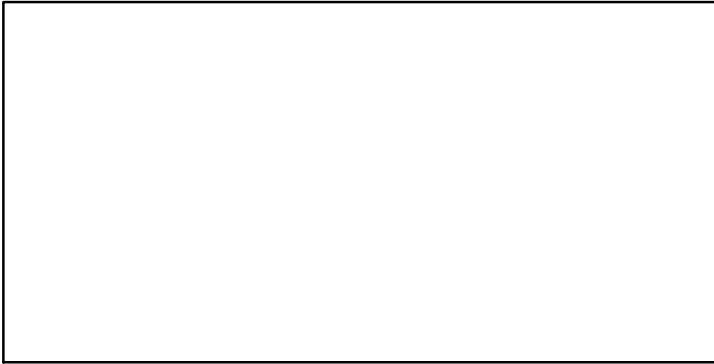
# Chub mackerel Tsushima Strait [CMACKTSST]

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

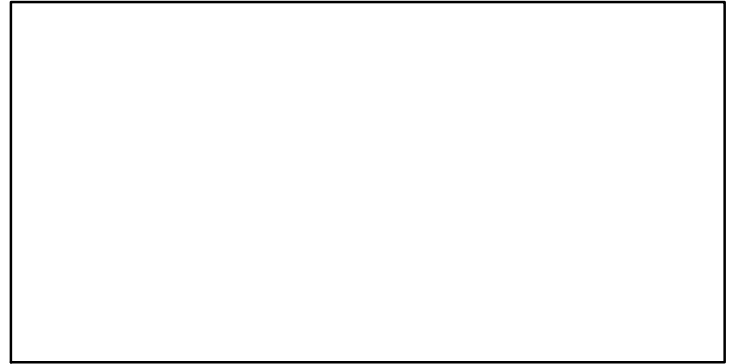
TAC\*, Cpair\*, Cadv\*



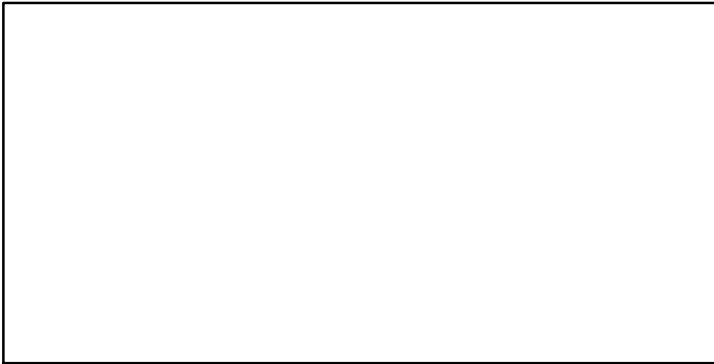
survB\*



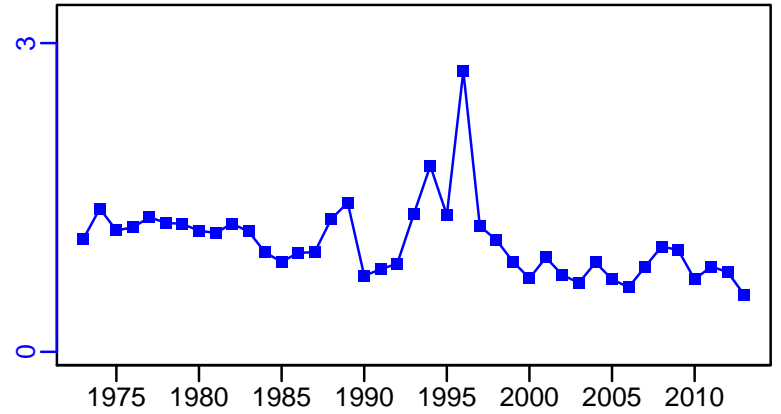
CPUE\*



EFFORT\*



CdivMSY-ratio (1973-2013-JPNIMP2016)



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

## Deep-sea smelt Pacific Ocean [DSSMELTPAC]

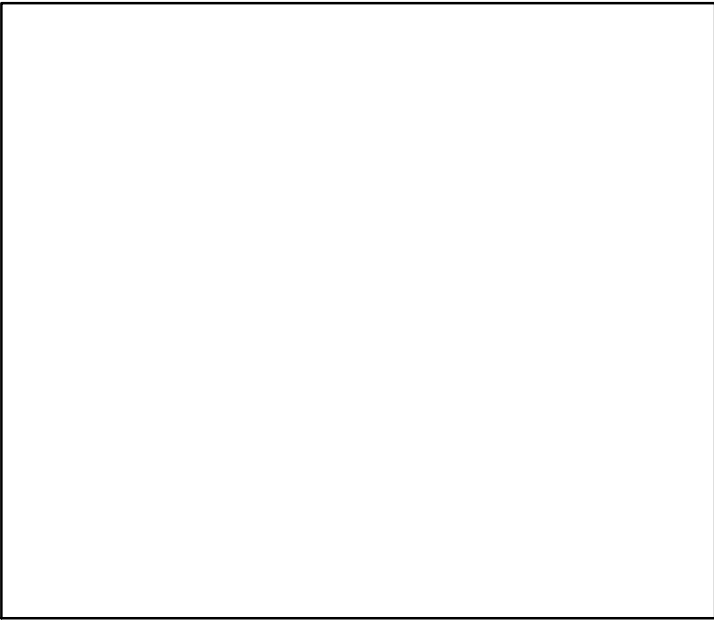
Metadata	
<b>Scientific Name</b>	Glossanodon semifasciatus
<b>Current Assess ID</b>	FAFRFJ-DSSMELTPAC-1980-2013-JPNIMP2016
<b>Area</b>	Pacific Ocean
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>	2013

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

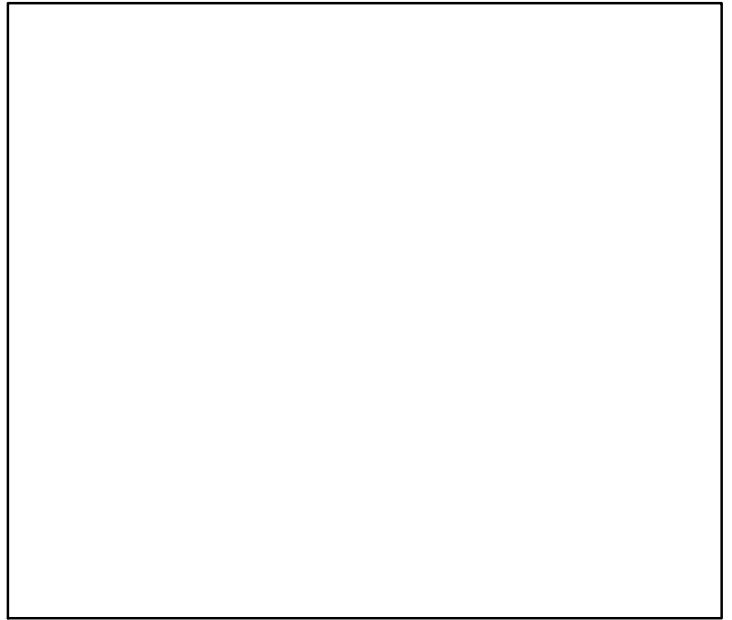
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2013	599		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



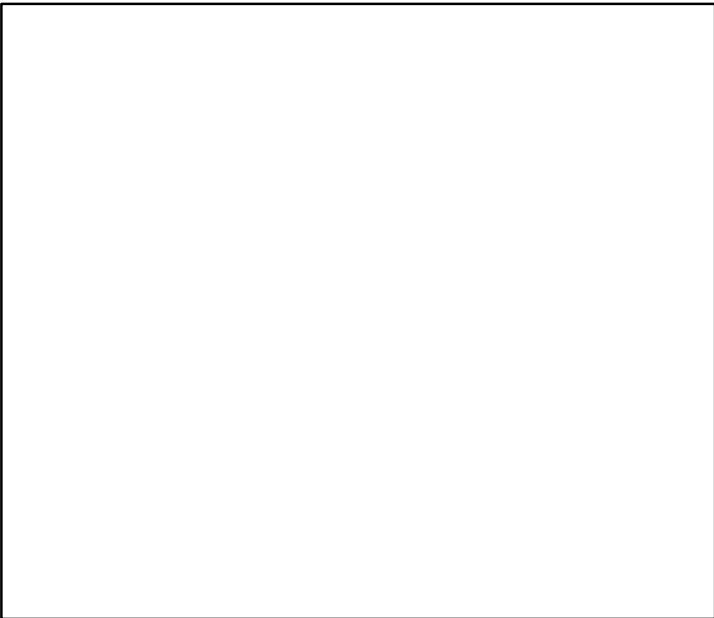
**Kobe MSY\***



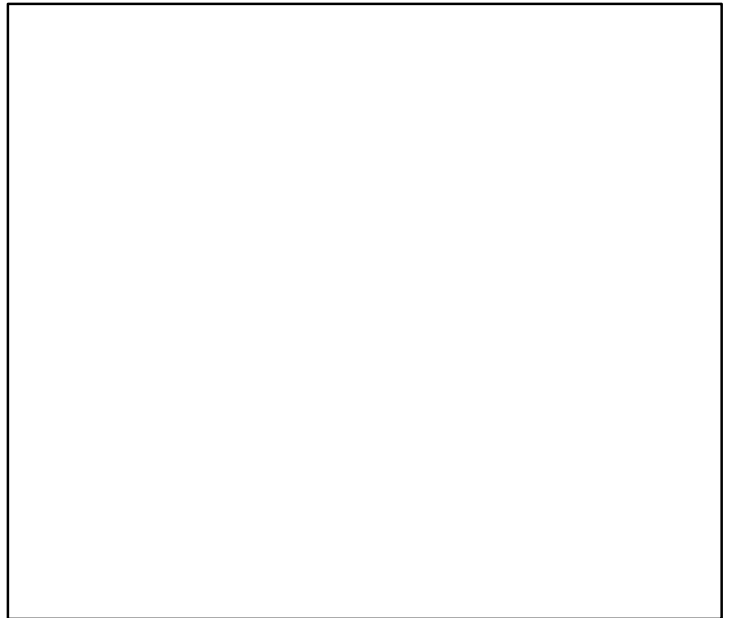
**Kobe MGT\***



**Spawner Recruit\***



**Production\***



◆ Start Year ◆ End Year \* No Data

Deep-sea smelt Pacific Ocean [DSSMELTPAC]

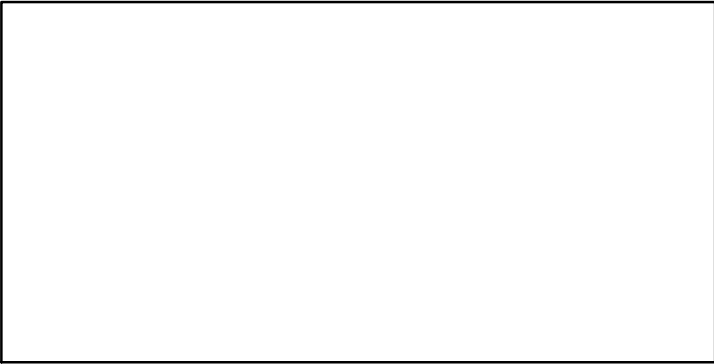
**TB\***



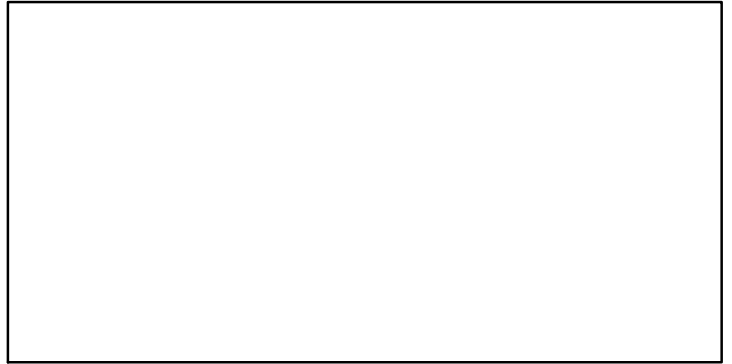
**SSB\***



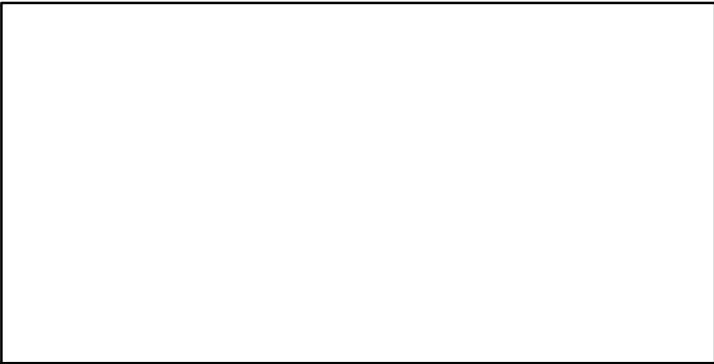
**TN \***



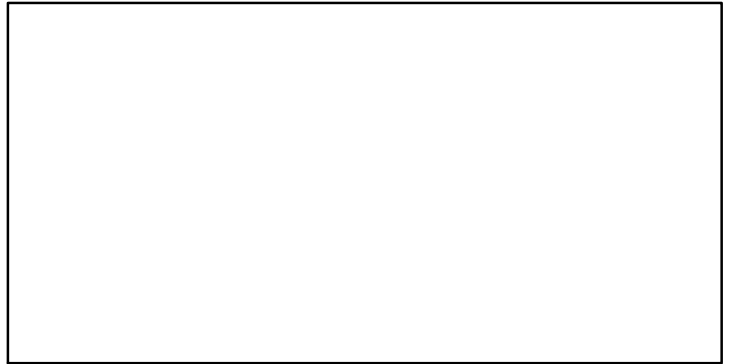
**F\***



**ER\***



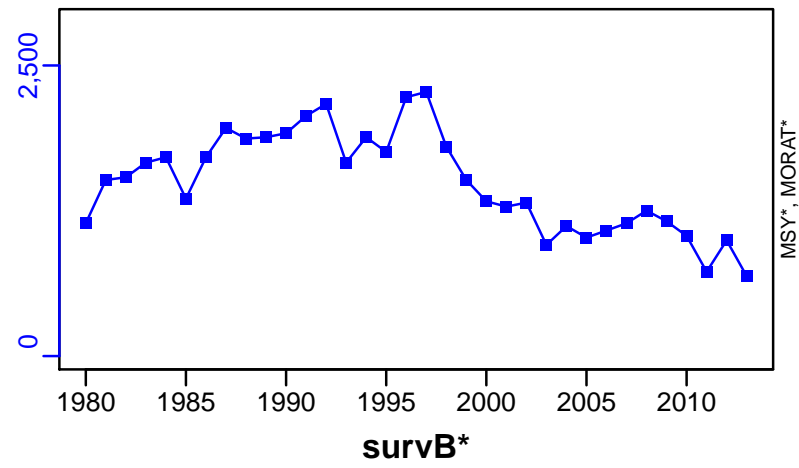
**Recruits\***



# Deep-sea smelt Pacific Ocean [DSSMELTPAC]

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

TAC\*, Cpair\*, Cadv\*



CPUE\*

EFFORT\*

CdivMSY\*

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

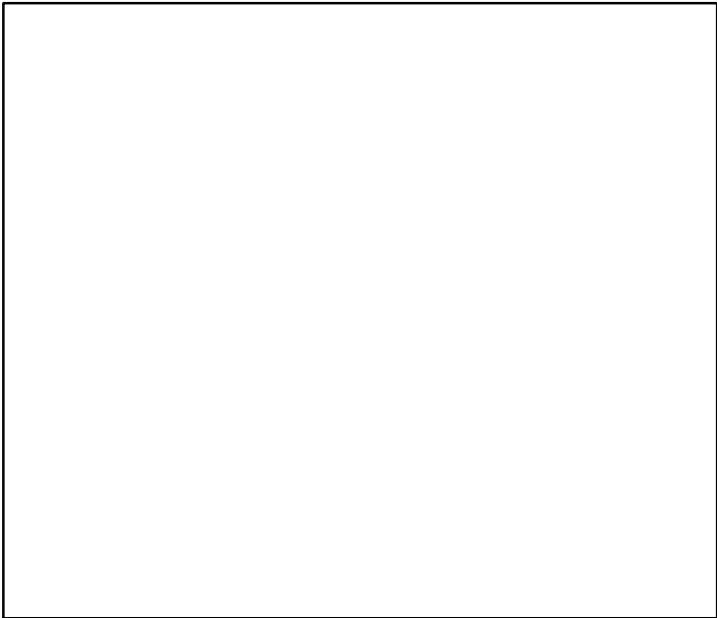
## Deep-sea smelt Sea of Japan [DSSMELTSOJ]

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

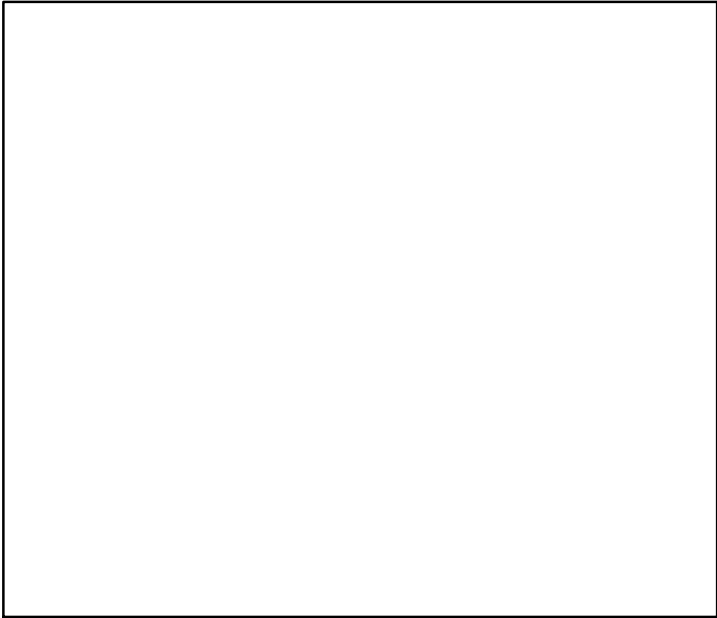
Kobe MSY\*



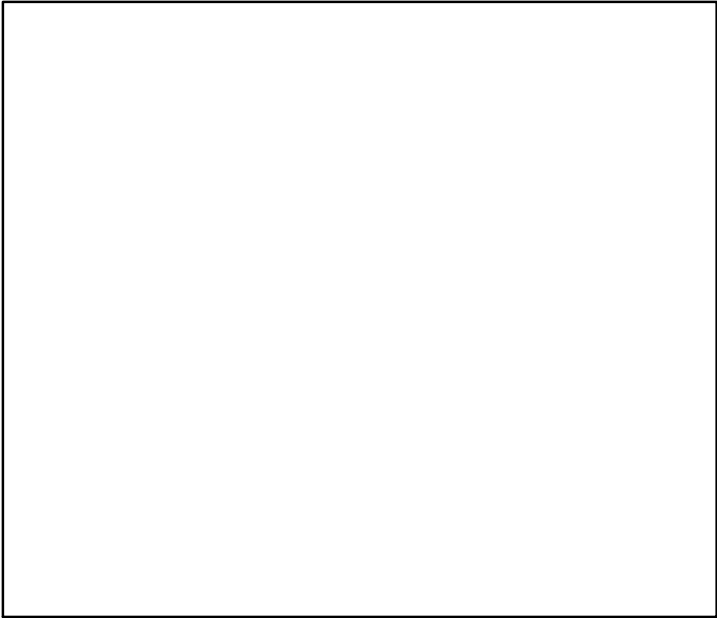
Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data

Deep-sea smelt Sea of Japan [DSSMELTSOJ]

TB\*



SSB\*



TN \*



F\*



ER\*



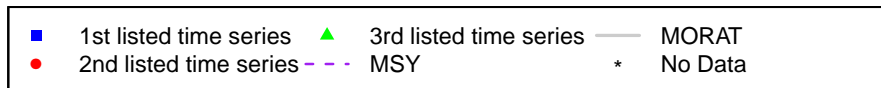
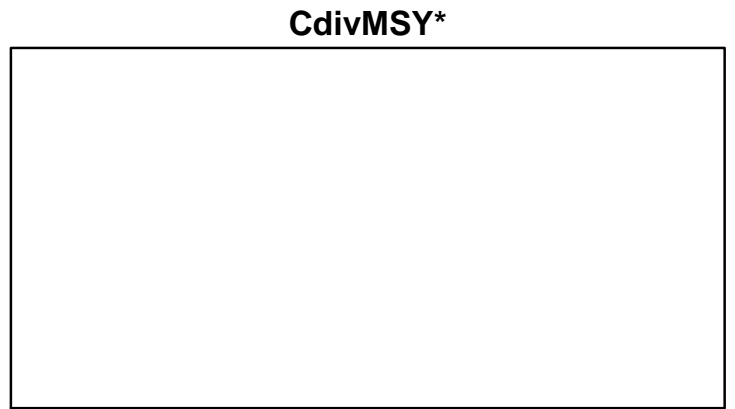
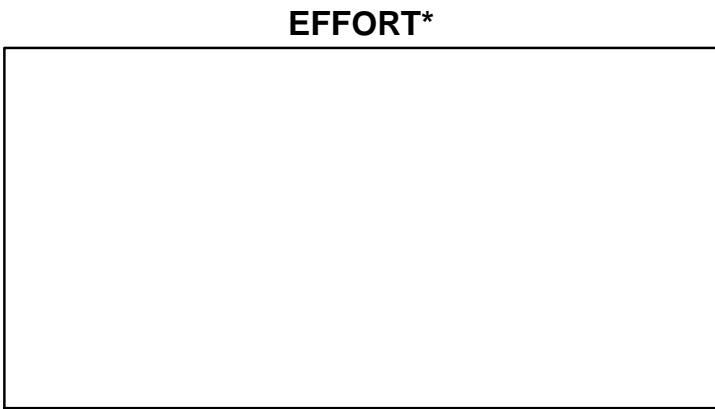
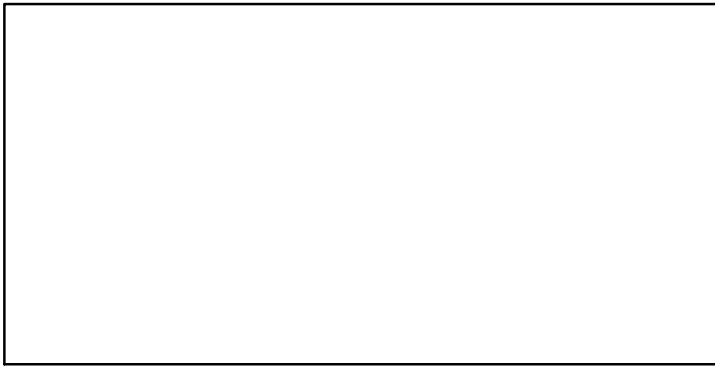
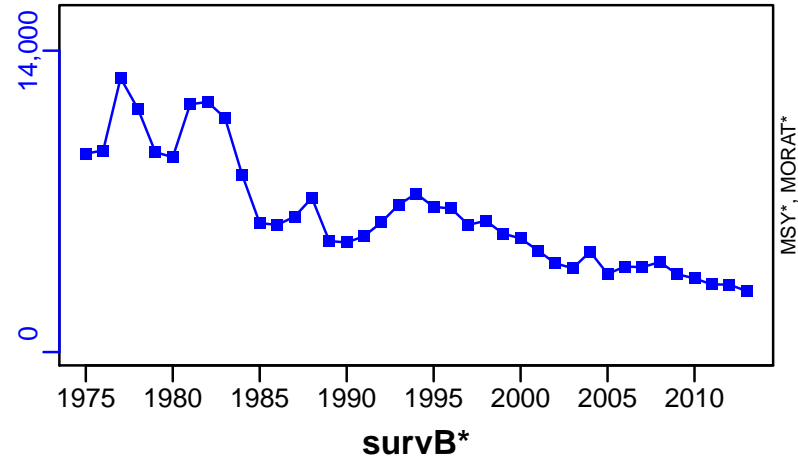
Recruits\*



# Deep-sea smelt Sea of Japan [DSSMELTSOJ]

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

TAC\*, Cpair\*, Cadv\*



## Flathead flounder Sea of Japan [FHFLOUNSOJ]

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



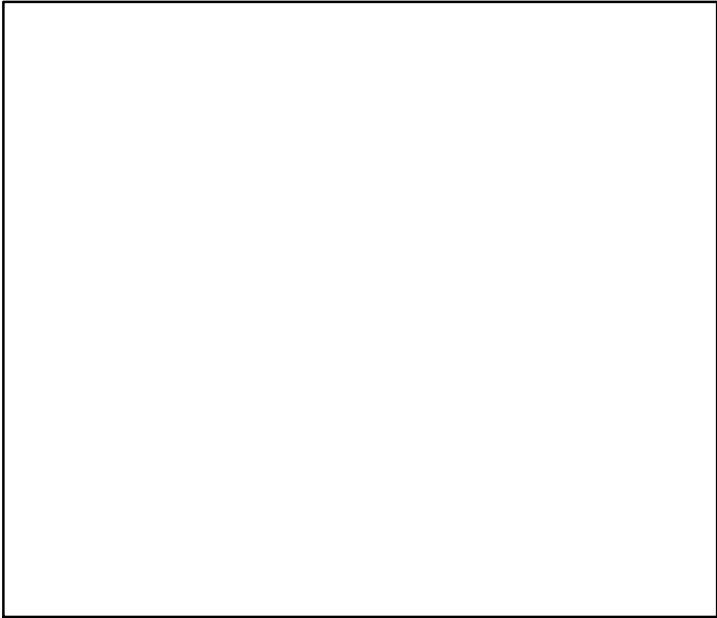
Kobe MSY\*



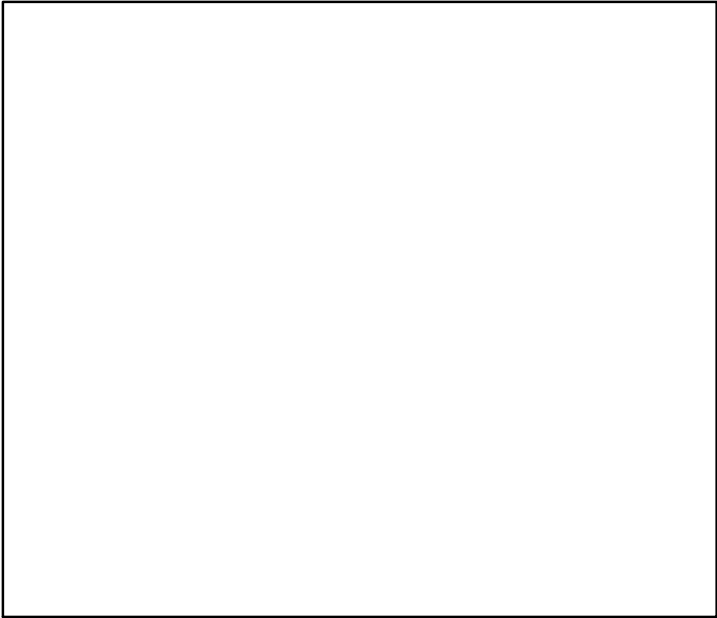
Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year ◆ End Year \* No Data

Flathead flounder Sea of Japan [FHFLOUNSOJ]

TB\*



SSB\*



TN \*



F\*



ER\*

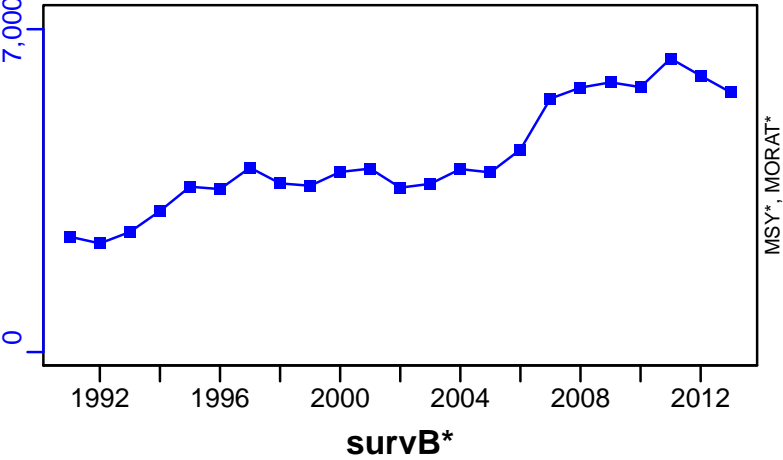


Recruits\*



Flathead flounder Sea of Japan [FHFLOUNSOJ]

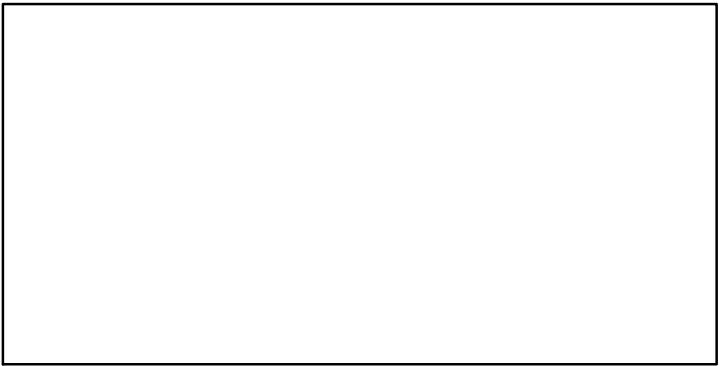
TC-MT, TL\*, RecC\* (1991-2013-JPNIMP2016)



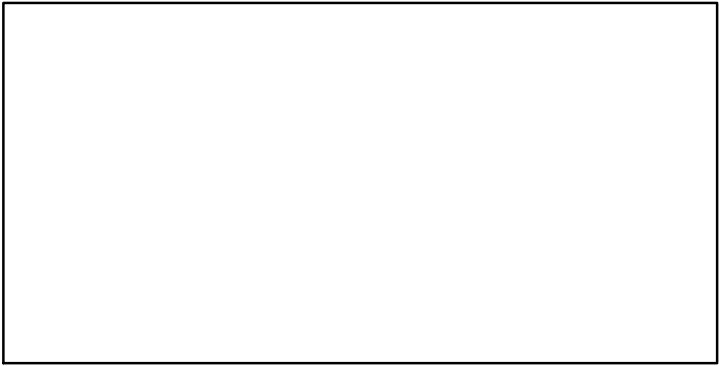
TAC\*, Cpair\*, Cadv\*



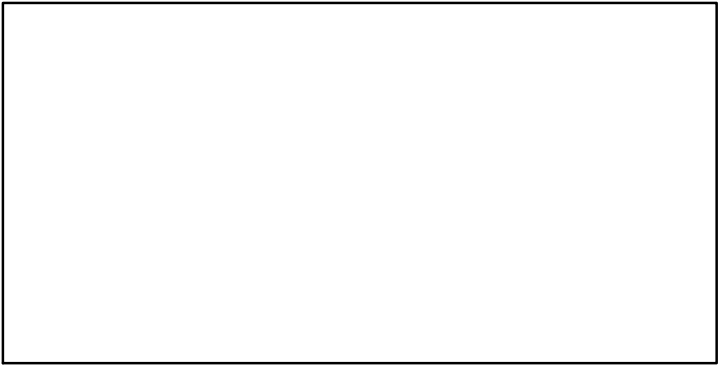
CPUE\*



EFFORT\*



CdivMSY\*



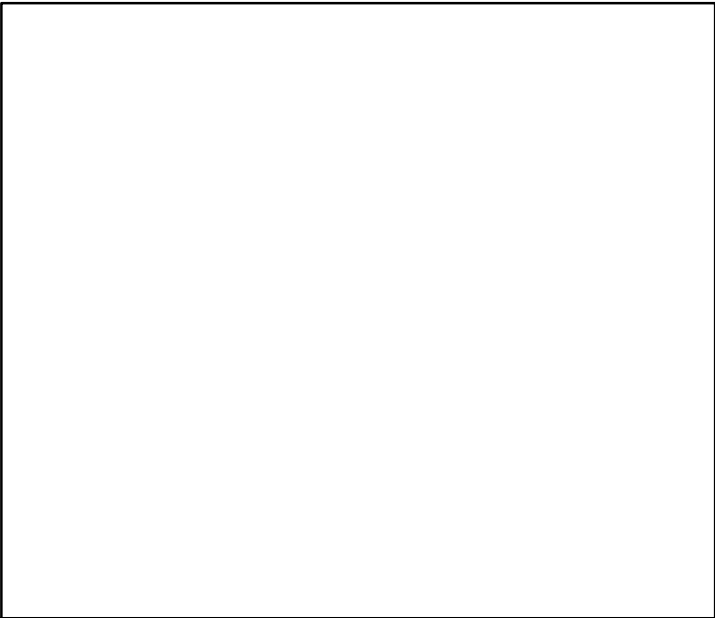
## Flame snapper Okinawa Islands [FSNAPOKWI]

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

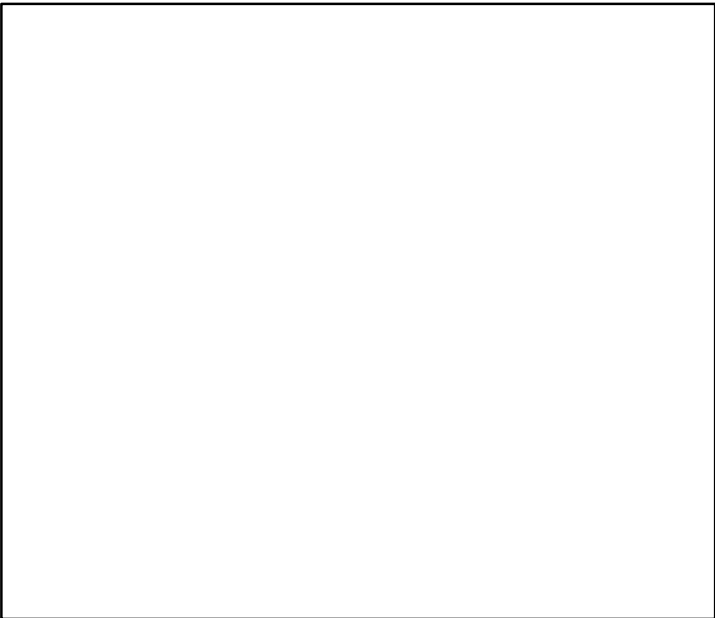
Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data

Flame snapper Okinawa Islands [FSNAPOKWI]

TB\*



SSB\*



TN \*



F\*



ER\*



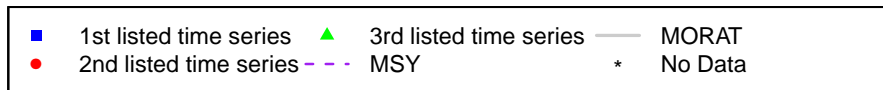
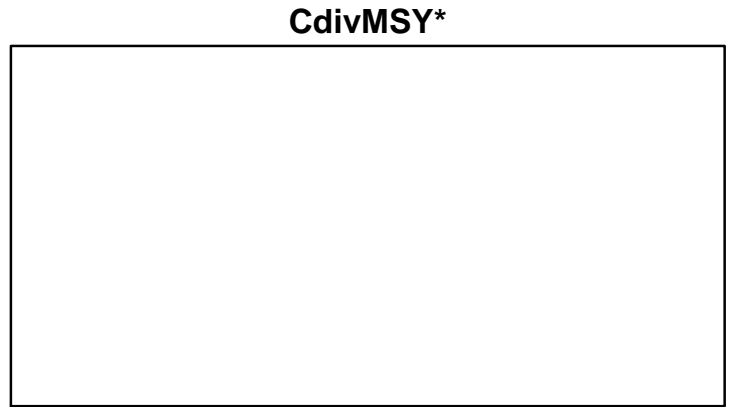
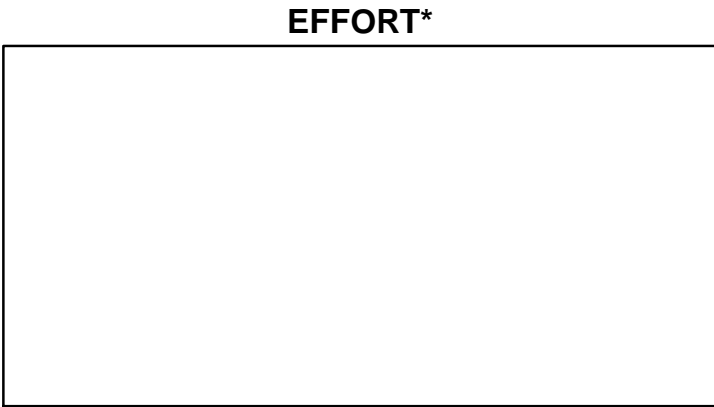
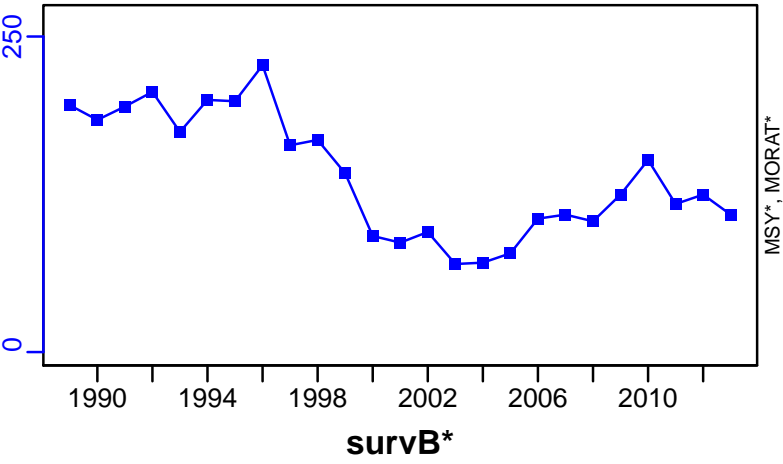
Recruits\*



# Flame snapper Okinawa Islands [FSNAPOKWI]

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

TAC\*, Cpair\*, Cadv\*



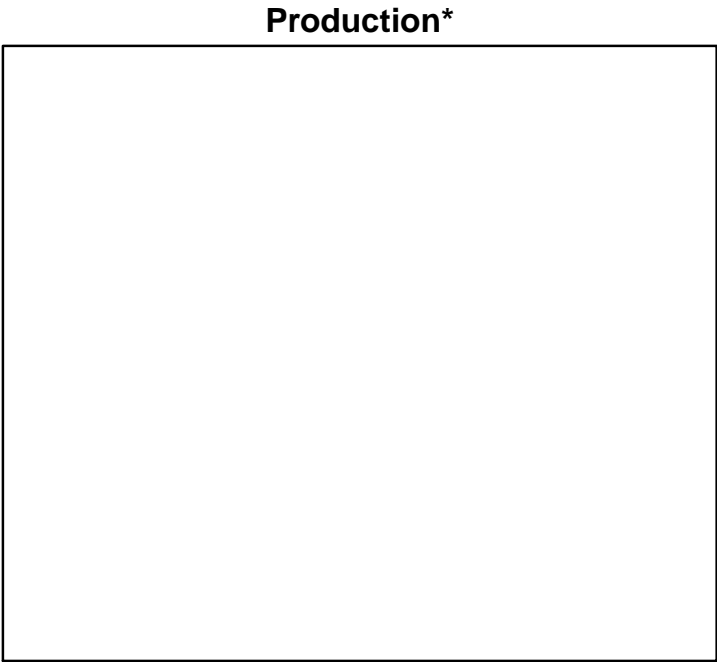
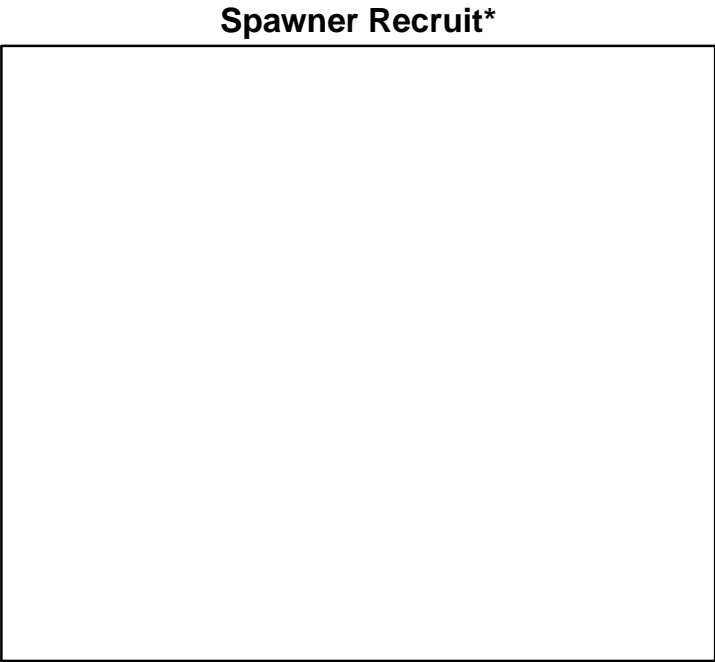
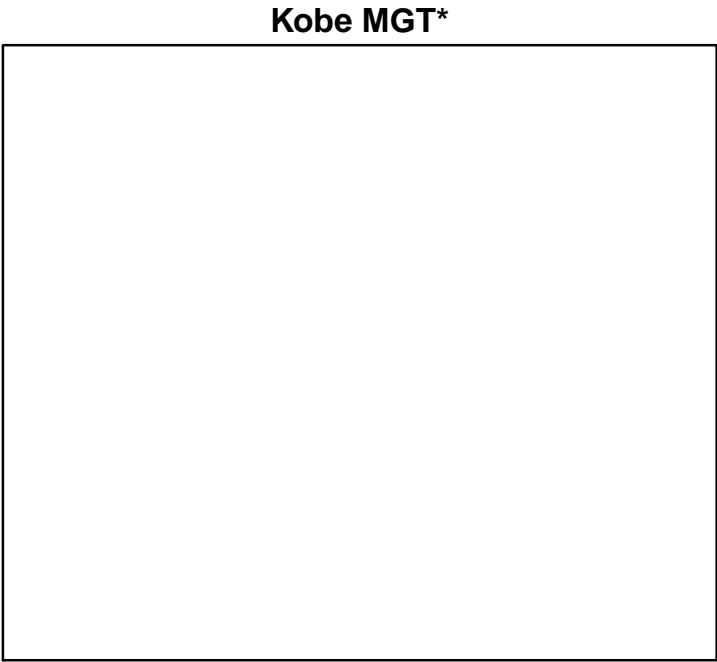
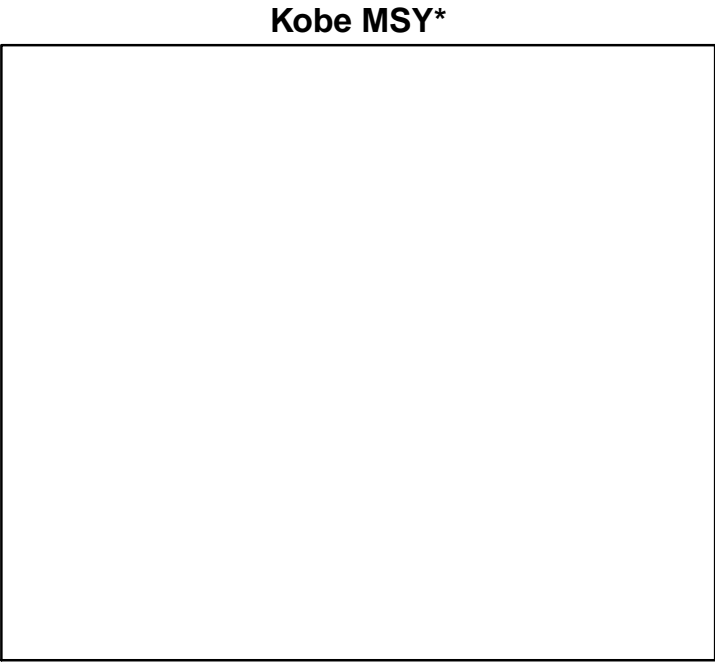
## Pacific herring Hokkaido [HERRHOKK]

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





◆ Start Year   ◆ End Year   \* No Data

Pacific herring Hokkaido [HERRHOKK]

TB\*



SSB\*



TN \*



F\*



ER\*

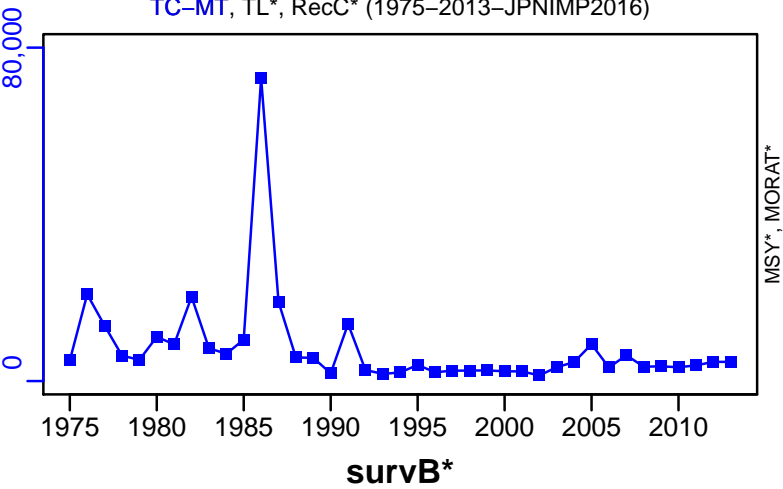


Recruits\*

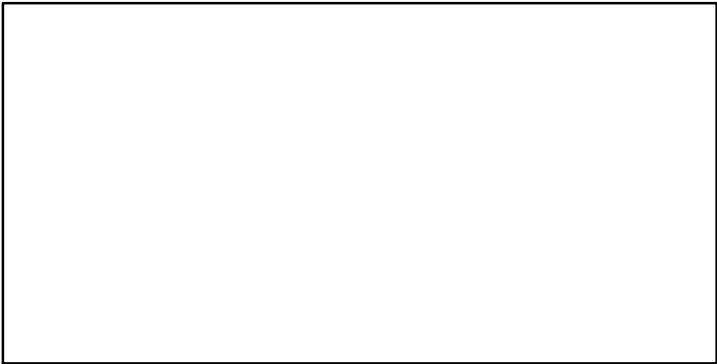


Pacific herring Hokkaido [HERRHOKK]

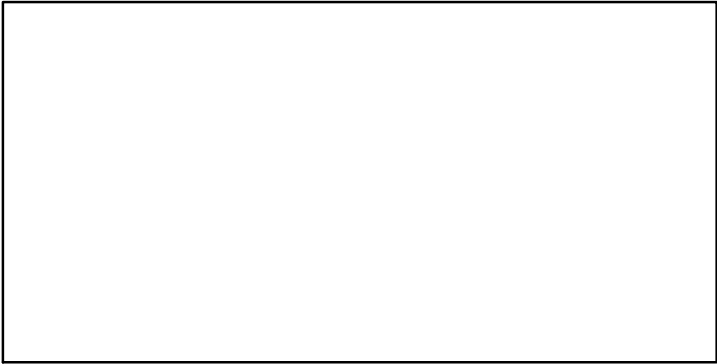
TC-MT, TL\*, RecC\* (1975-2013-JPNIMP2016)



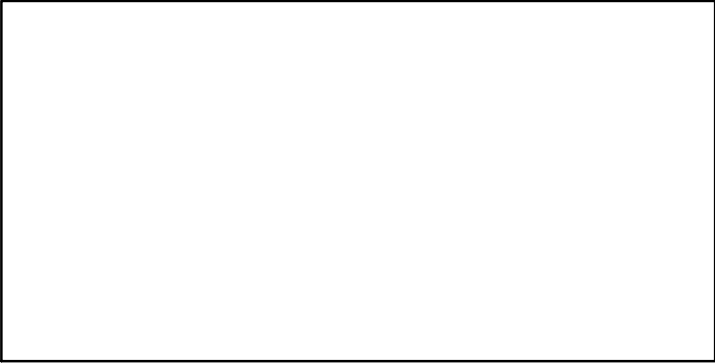
TAC\*, Cpair\*, Cadv\*



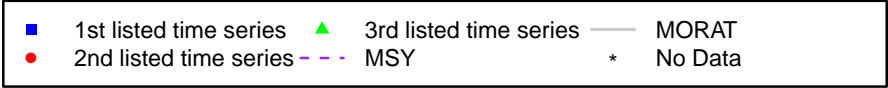
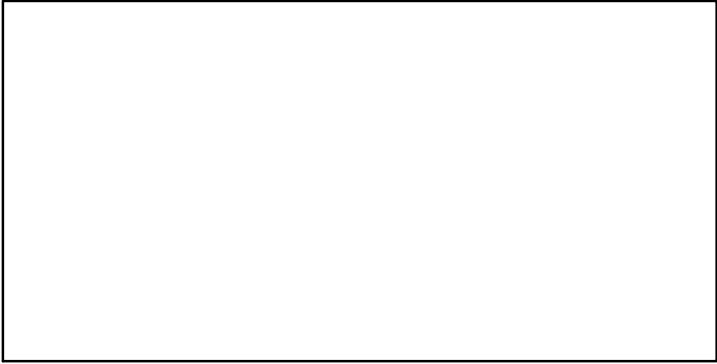
CPUE\*



EFFORT\*



CdivMSY\*



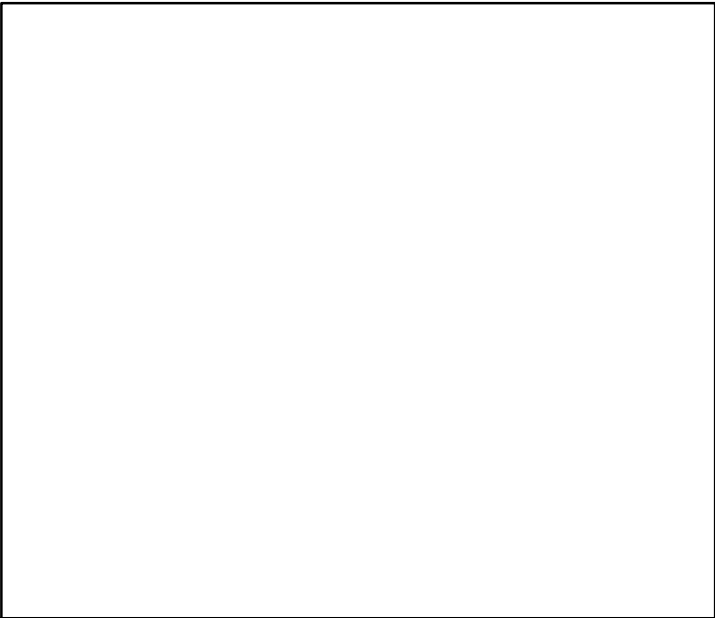
## Horsehead tilefish East China Sea [HHTILEECS]

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

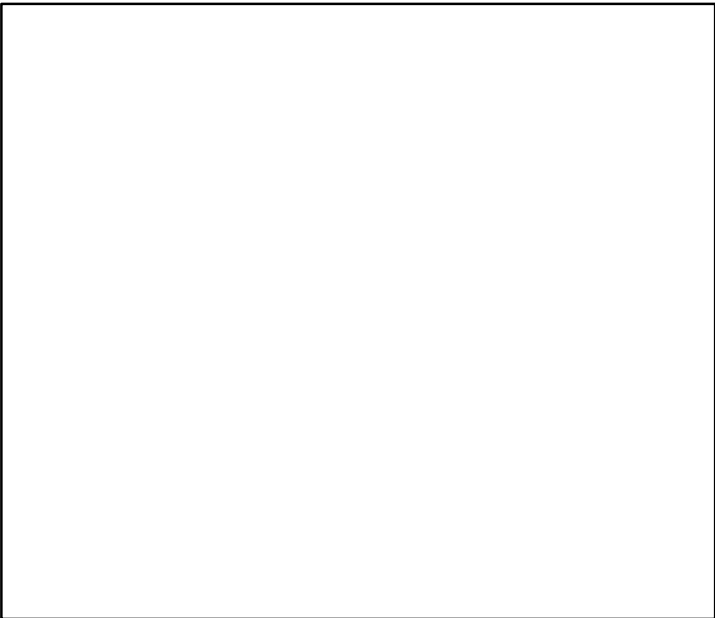
Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data

Horsehead tilefish East China Sea [HHTILEECS]

TB\*



SSB\*



TN \*



F\*



ER\*

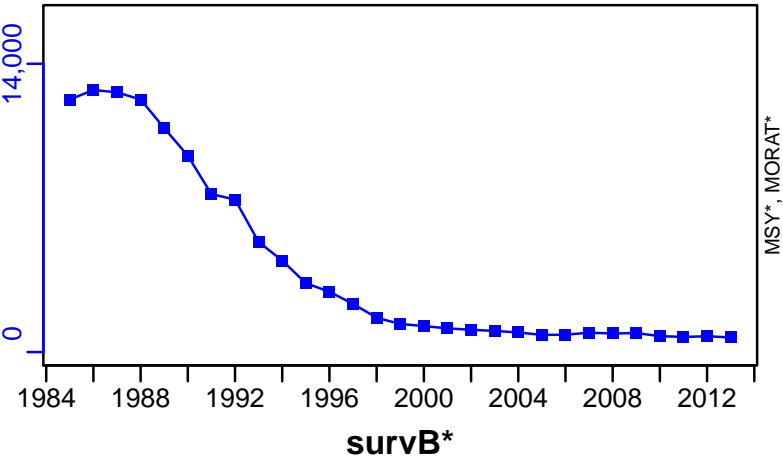


Recruits\*



Horsehead tilefish East China Sea [HHTILEECS]

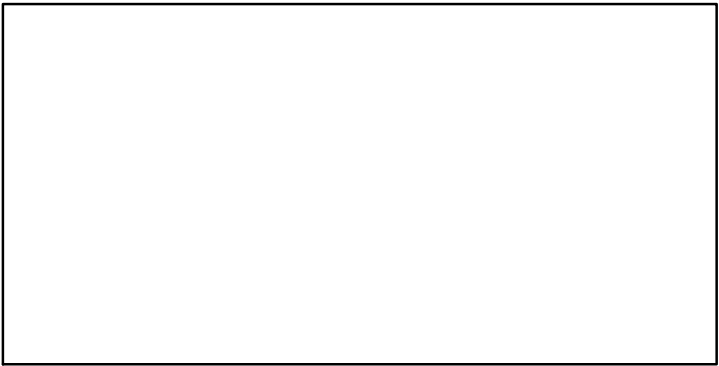
TC-MT, TL\*, RecC\* (1985-2013-JPNIMP2016)



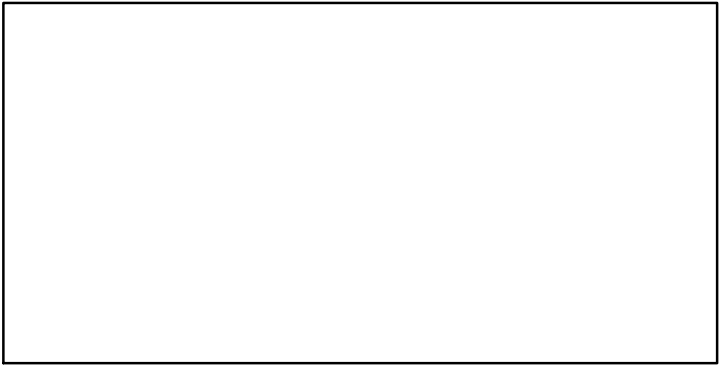
TAC\*, Cpair\*, Cadv\*



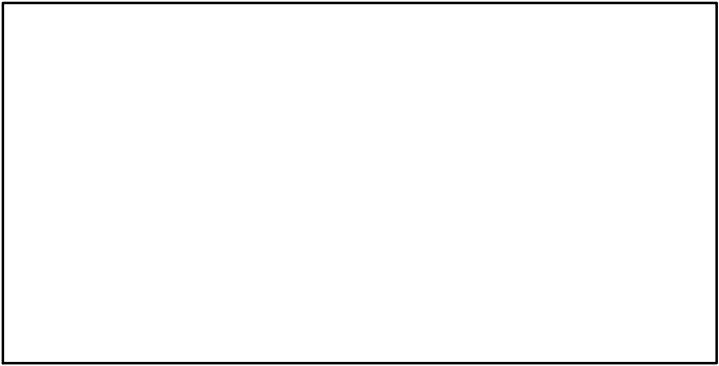
CPUE\*



EFFORT\*



CdivMSY\*



## Japanese amberjack Japan [JAMBERJPN]

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

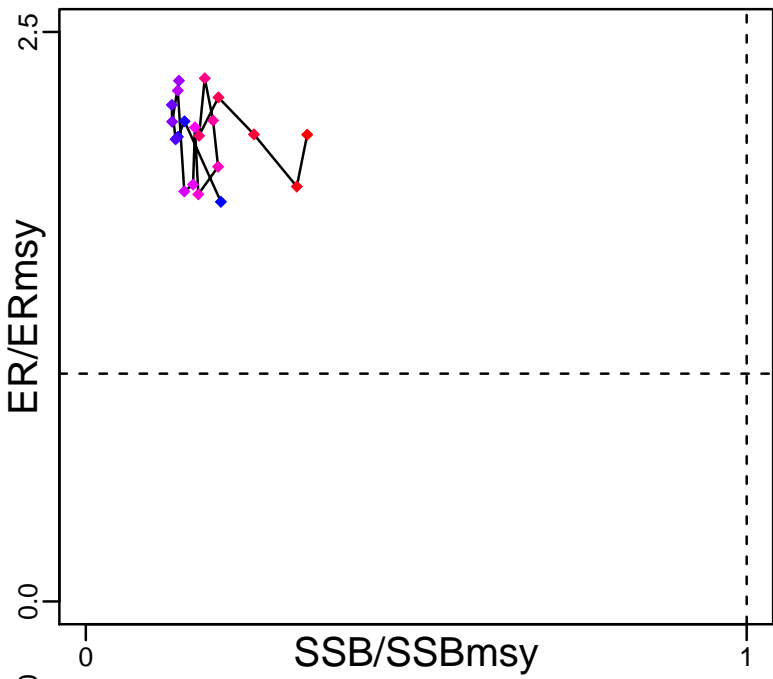
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2013	615,892
<b>SSBmsy</b>	SSBmsy-MT	2013	381,043
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2013	0.219
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	294,000	-	0
<b>SSB</b>	SSB-MT	2013	128,000	Both	2
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	$1.39 \times 10^8$	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0.449	-	-
<b>TC</b>	TC-MT	2013	132,000		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2013	0.477		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.335		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	2.049		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

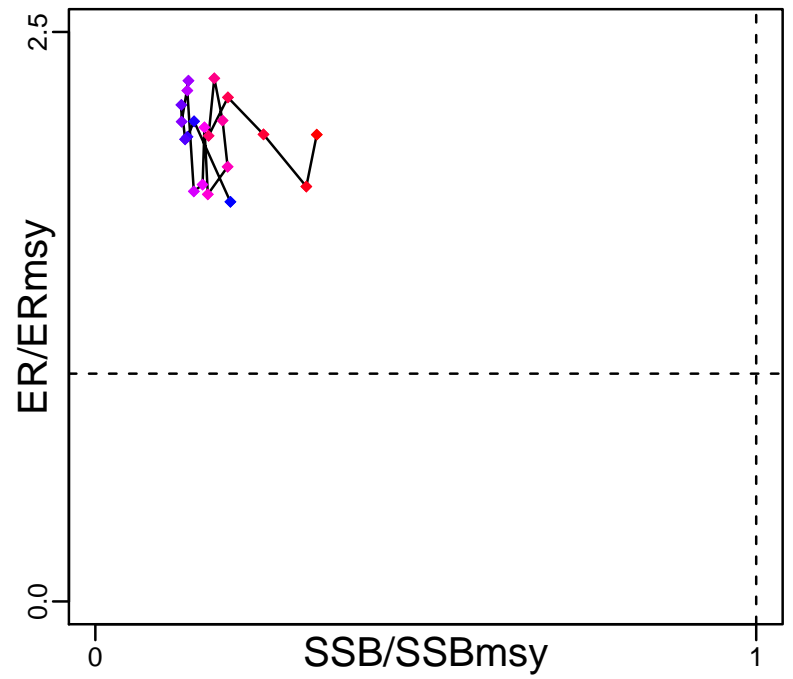


# Japanese amberjack Japan [JAMBERJPN]

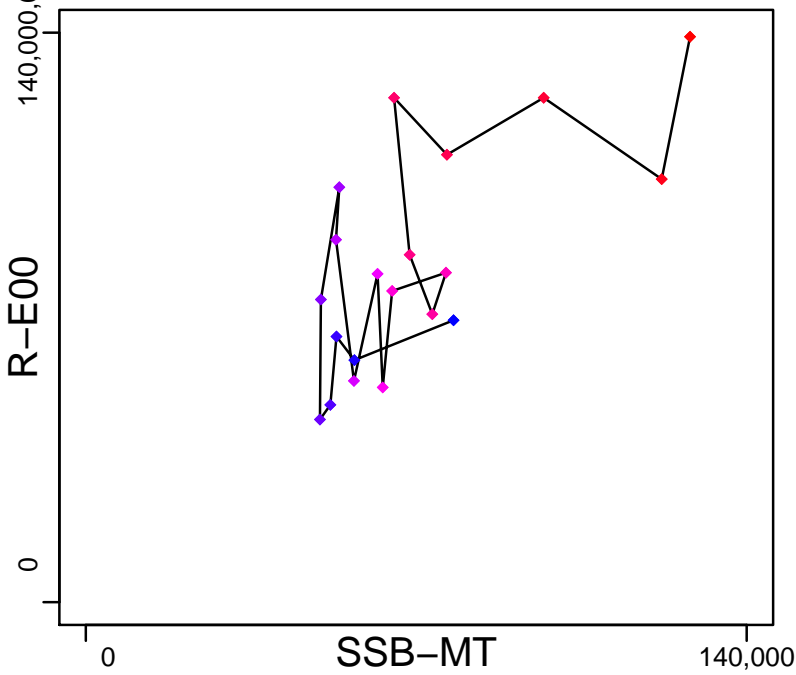
Kobe MSYpref (1952–2013–JPNIMP2016)



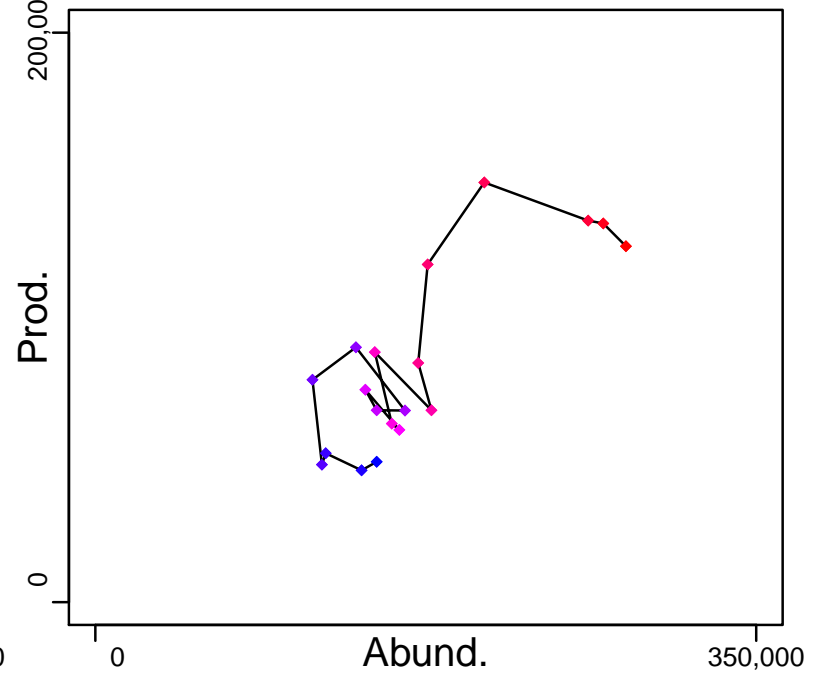
Kobe MGTpref (1952–2013–JPNIMP2016)



Spawner Recruit (1952–2013–JPNIMP2016)



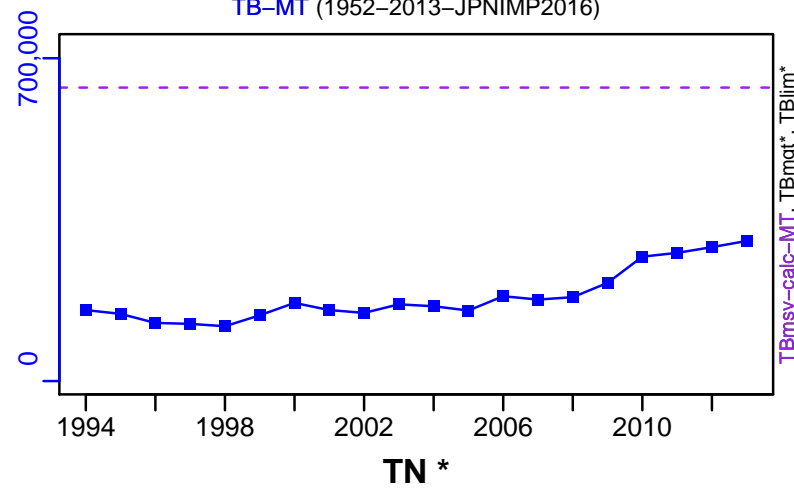
Production (1952–2013–JPNIMP2016)



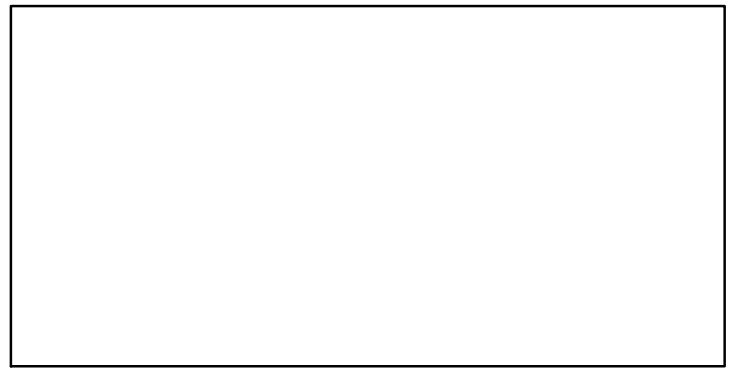
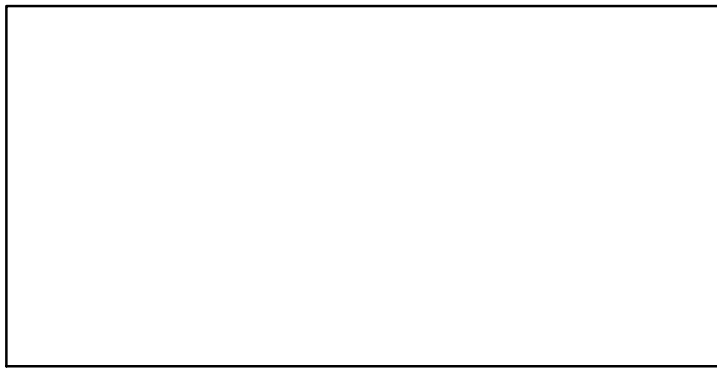
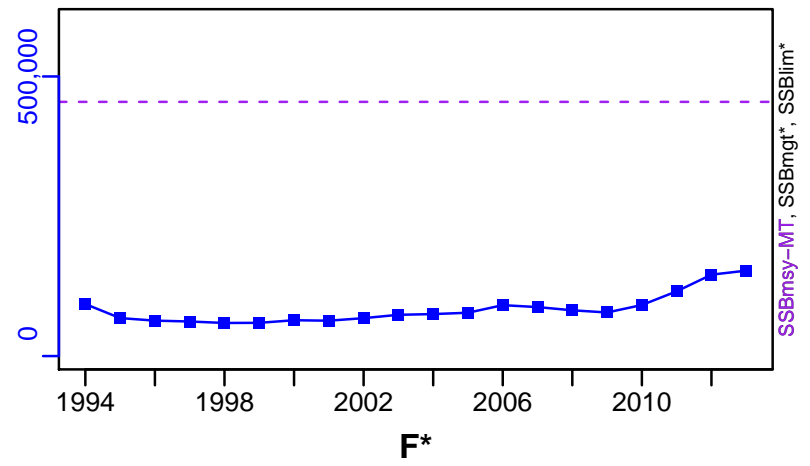
◆ Start Year ◆ End Year \* No Data

# Japanese amberjack Japan [JAMBERJPN]

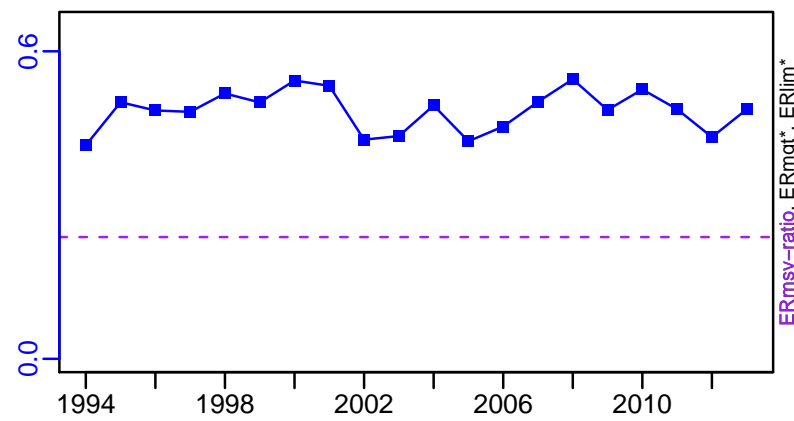
TB-MT (1952-2013-JPNIMP2016)



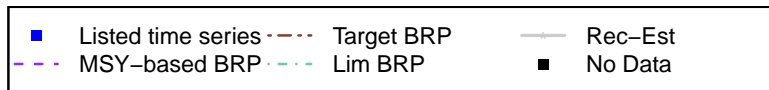
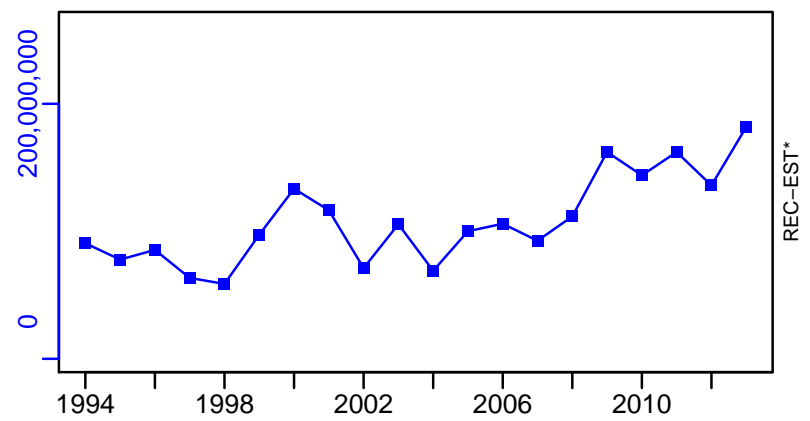
SSB-MT (1952-2013-JPNIMP2016)



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



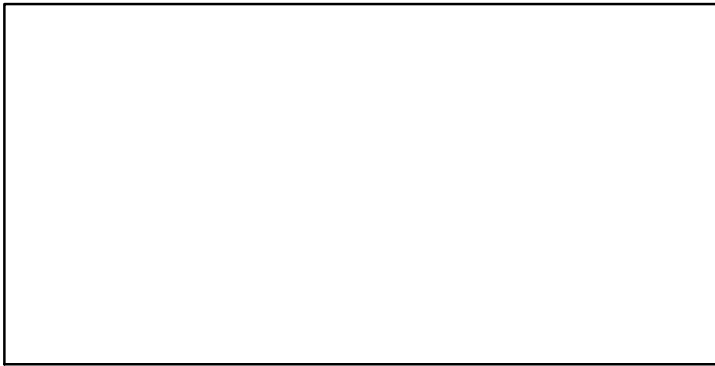
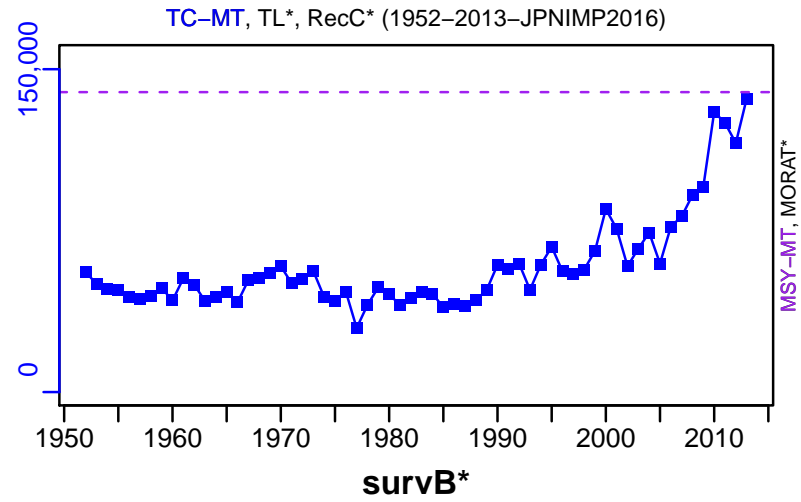
R-E00 (1952-2013-JPNIMP2016)



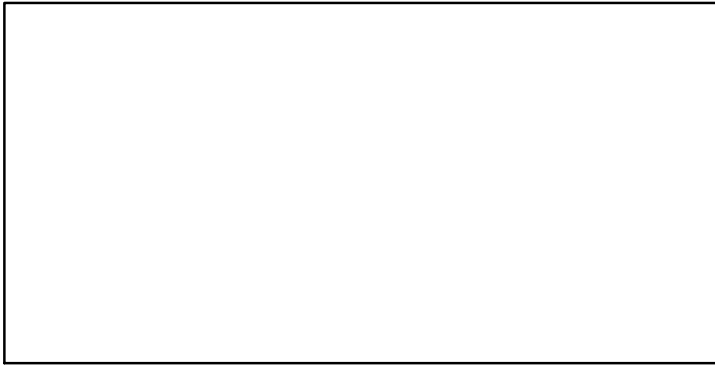
# Japanese amberjack Japan [JAMBERJPN]

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

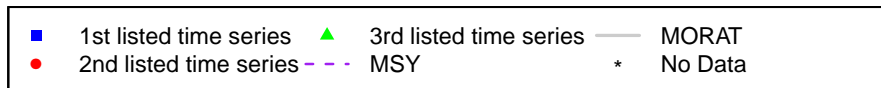
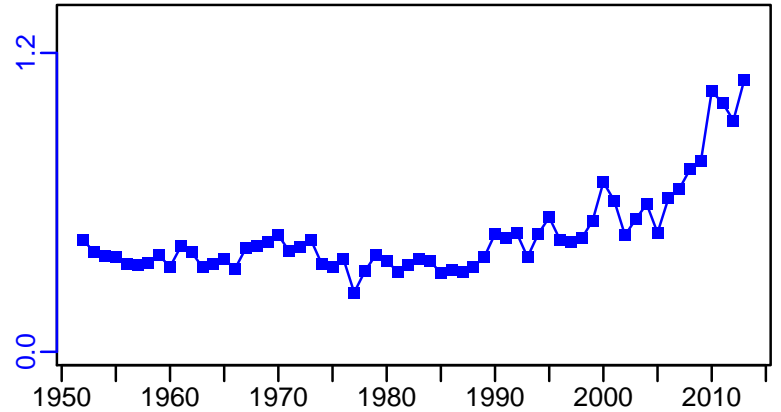
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1952-2013-JPNIMP2016)



## Japanese anchovy Pacific Coast of Japan [JANCHOPJPN]

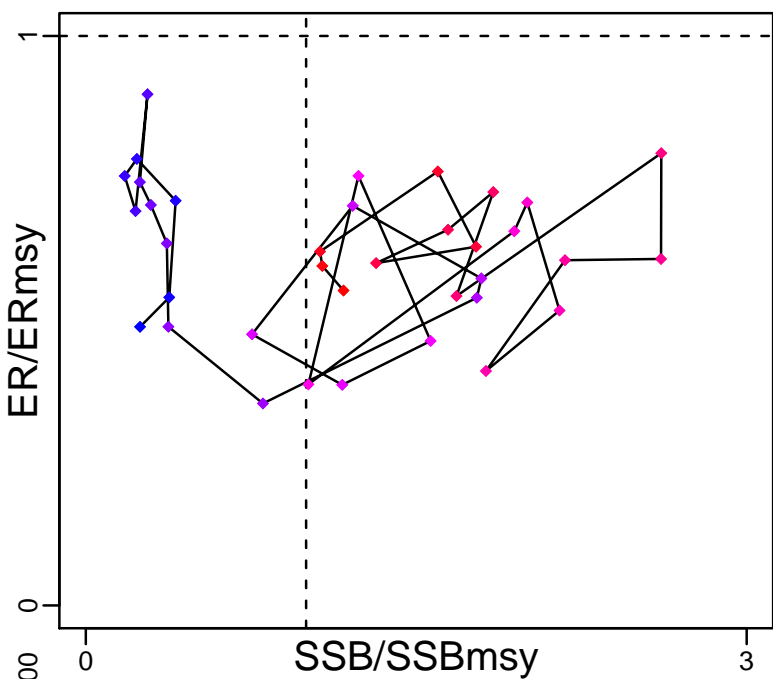
Metadata	
<b>Scientific Name</b>	Engraulis japonicus
<b>Current Assess ID</b>	FAFRFJ-JANCHOPJPN-1978-2013-JPNIMP2016
<b>Area</b>	Pacific Coast of Japan
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>	2013

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

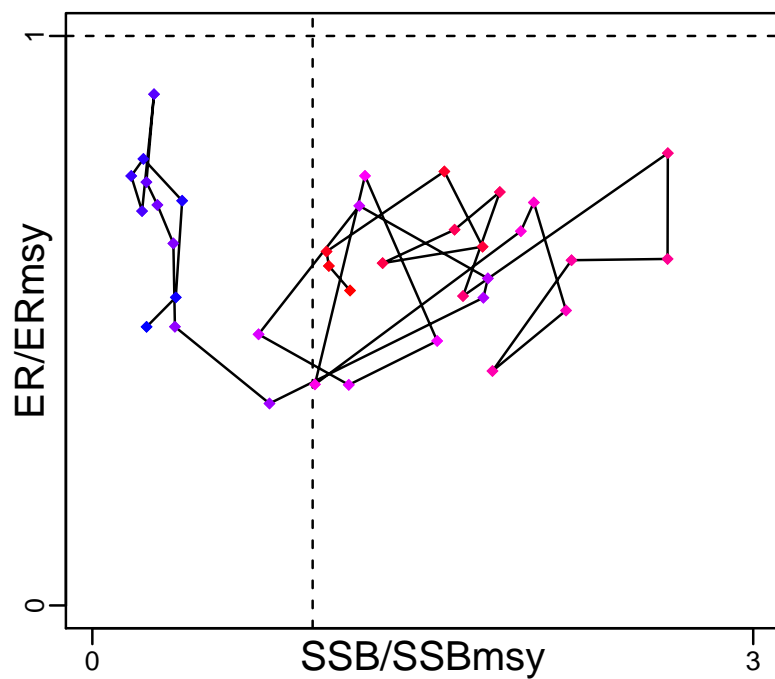
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	625,000	-	0
<b>SSB</b>	SSB-MT	2013	401,000	-	1
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	$8.02 \times 10^{10}$	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0.249	-	-
<b>TC</b>	TC-MT	2013	155,000		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2013	1.058		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	1.17		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	0.553		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Japanese anchovy Pacific Coast of Japan [JANCHOPJPN]

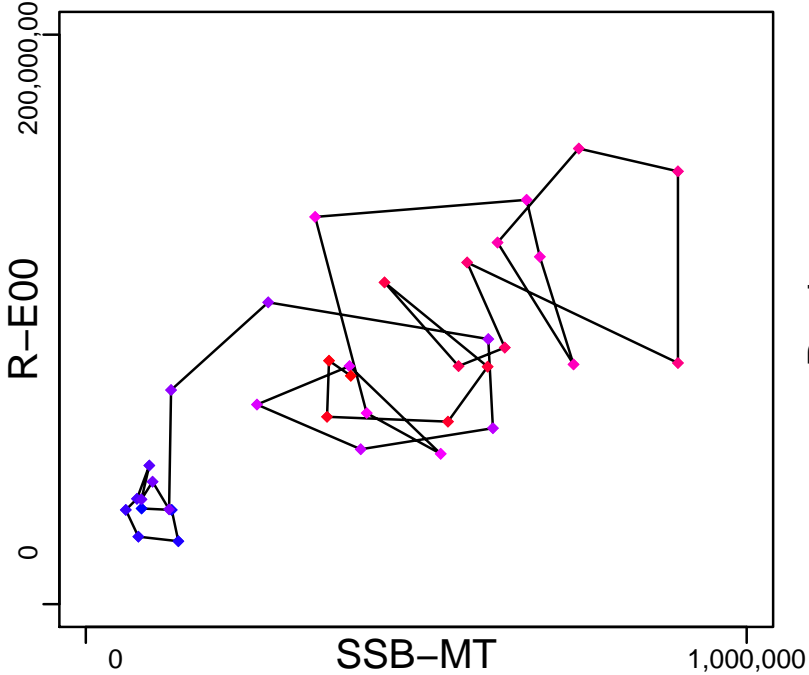
Kobe MSYpref (1978–2013–JPNIMP2016)



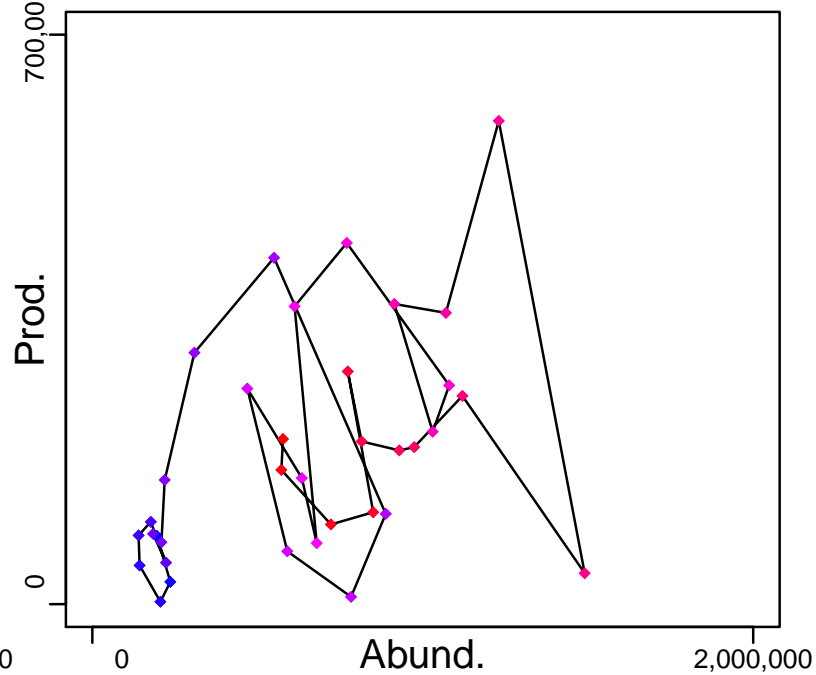
Kobe MGTpref (1978–2013–JPNIMP2016)



Spawner Recruit (1978–2013–JPNIMP2016)



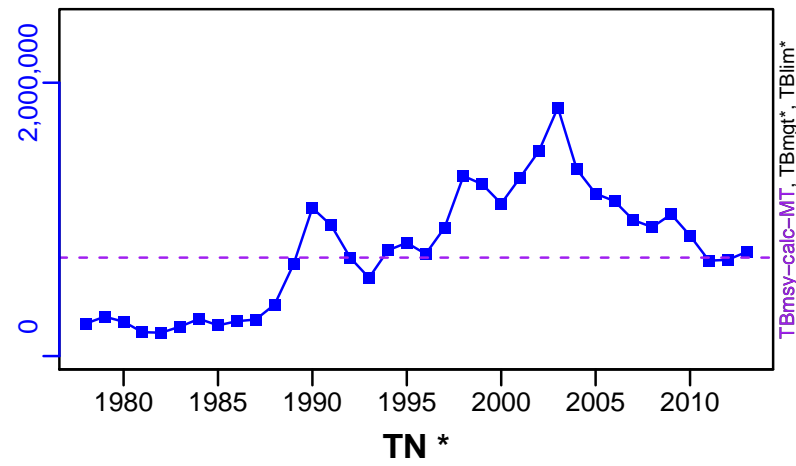
Production (1978–2013–JPNIMP2016)



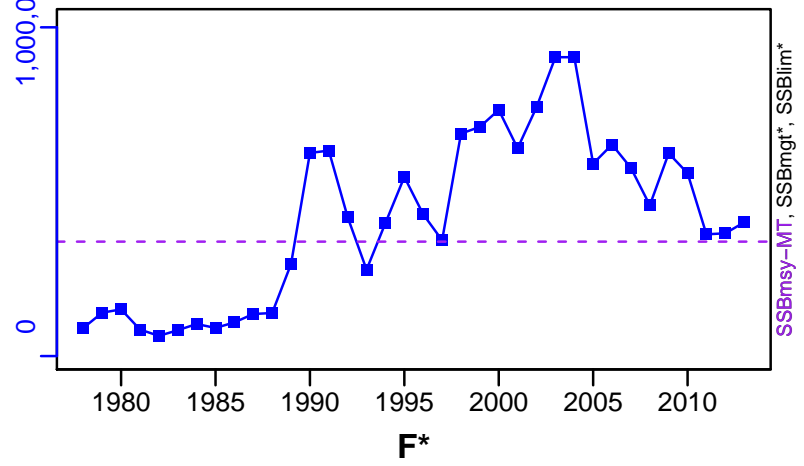
◆ Start Year ◆ End Year \* No Data

# Japanese anchovy Pacific Coast of Japan [JANCHOPJPN]

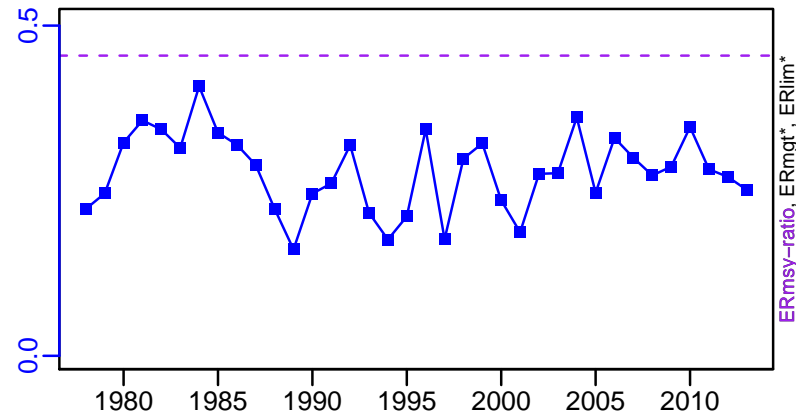
TB-MT (1978-2013-JPNIMP2016)



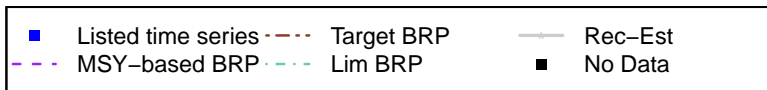
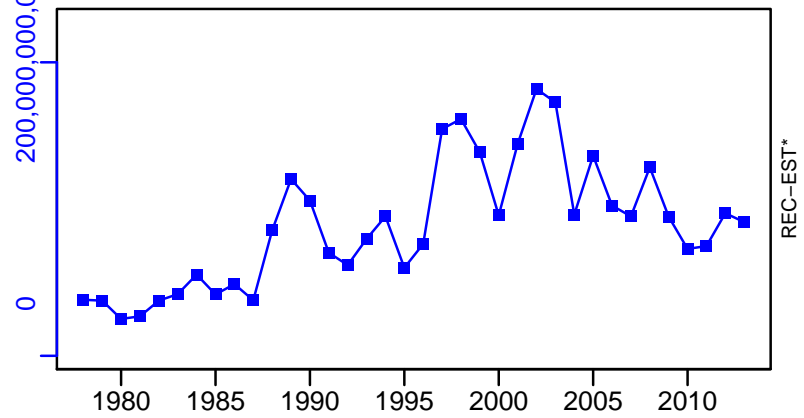
SSB-MT (1978-2013-JPNIMP2016)



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

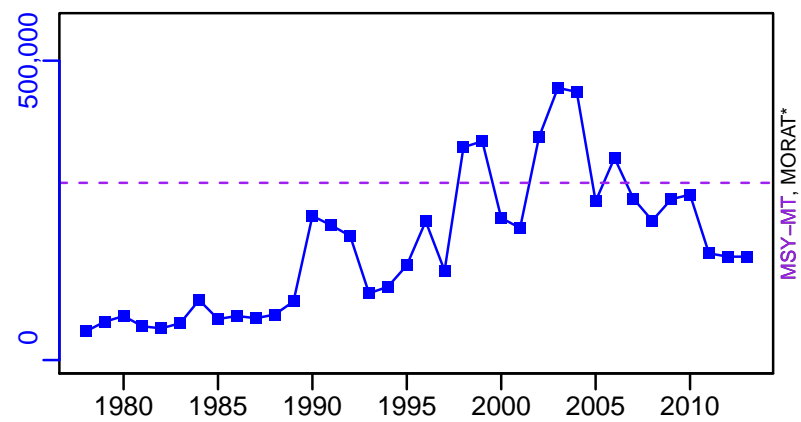


R-E00 (1978-2013-JPNIMP2016)

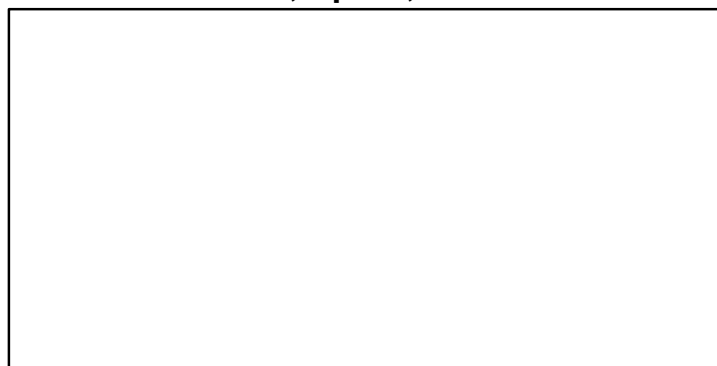


# Japanese anchovy Pacific Coast of Japan [JANCHOPJPN]

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



TAC\*, Cpair\*, Cadv\*



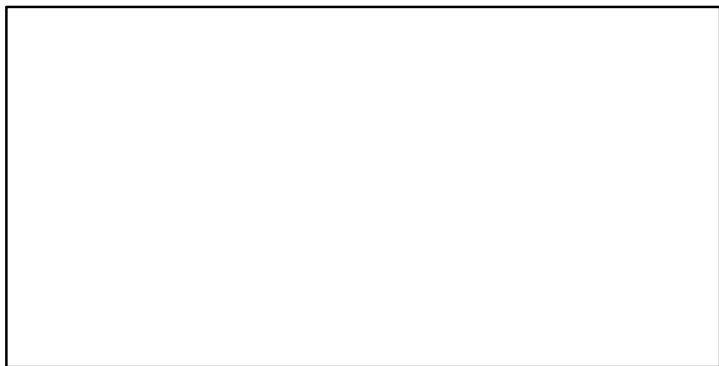
survB\*



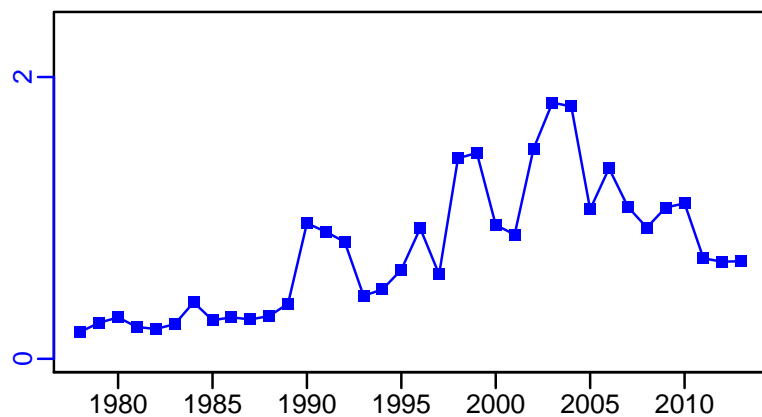
CPUE\*



EFFORT\*



CdivMSY-ratio (1978–2013–JPNIMP2016)



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

## Japanese anchovy Inland Sea of Japan [JANCHOSETO]

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

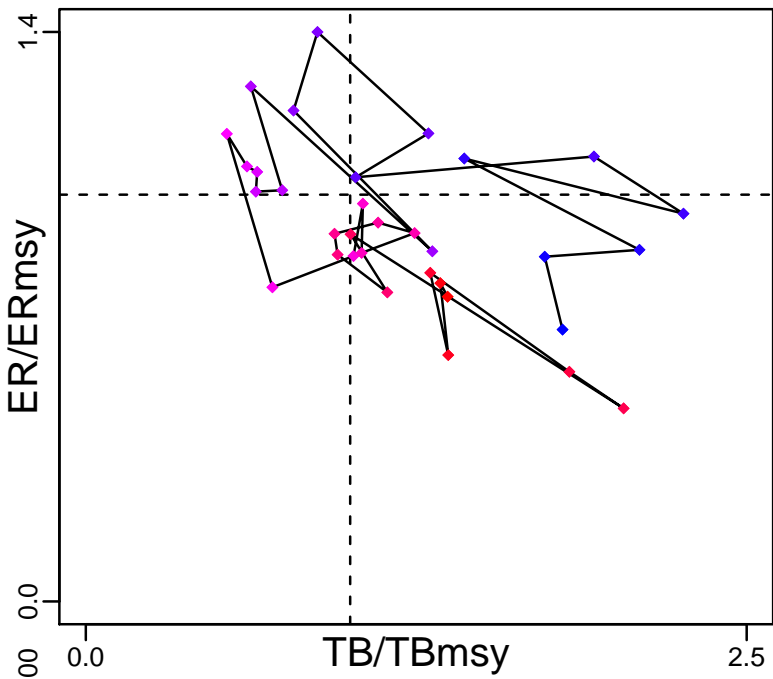
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-MT	2013	187,524
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2013	0.371
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-calc-MT	2013	69,571
<b>M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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	257,000	-	0
<b>SSB</b>	SSB-MT	2013	70,000	Both	0.4166667
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	$3.91 \times 10^{11}$	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0.278	-	-
<b>TC</b>	TC-MT	2013	71,300		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2013	1.369		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	0.749		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

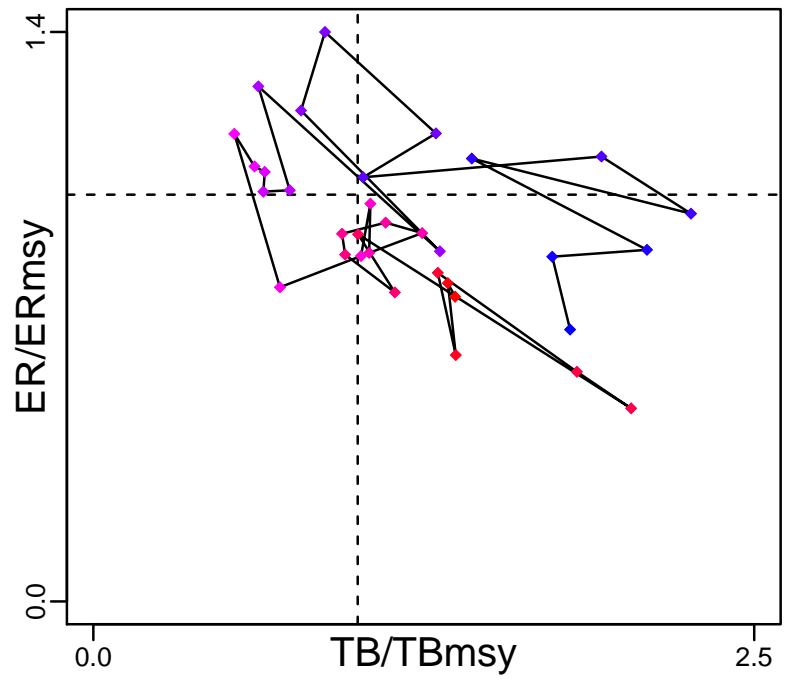


Japanese anchovy Inland Sea of Japan [JANCHOSETO]

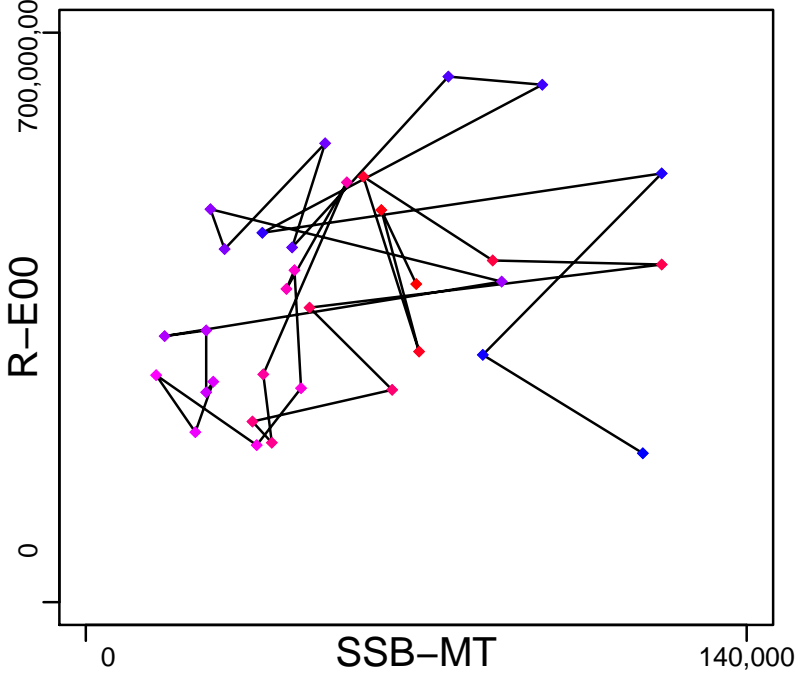
Kobe MSYpref (1955–2013–JPNIMP2016)



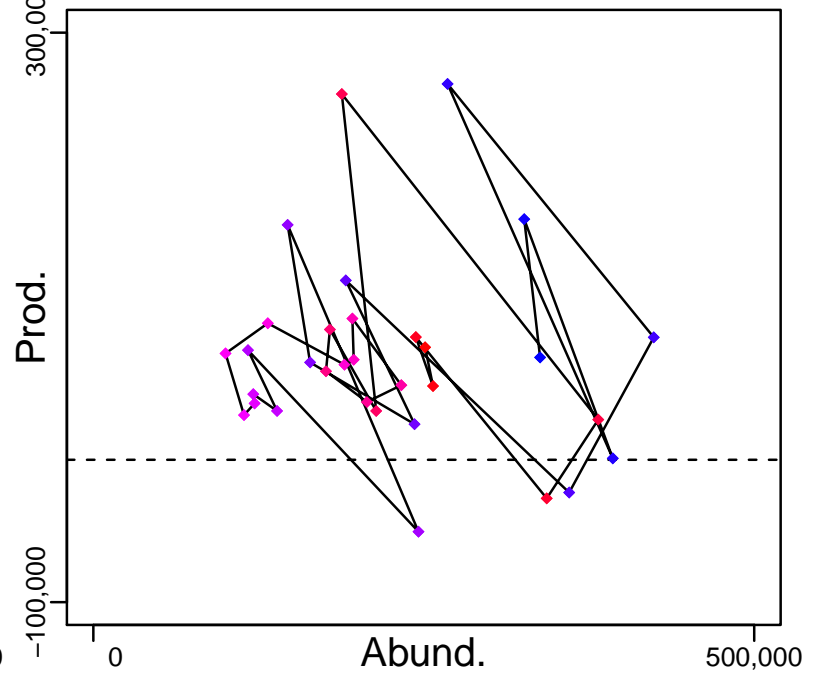
Kobe MGTpref (1955–2013–JPNIMP2016)



Spawner Recruit (1955–2013–JPNIMP2016)



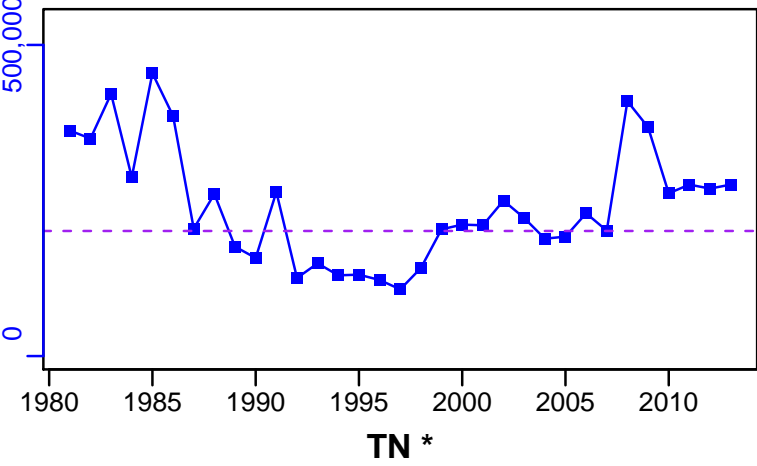
Production (1955–2013–JPNIMP2016)



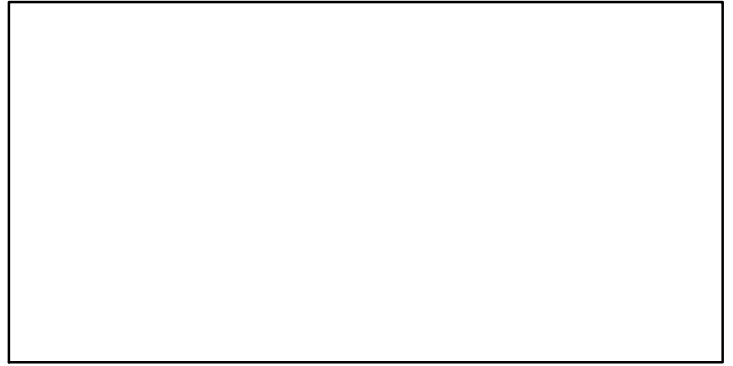
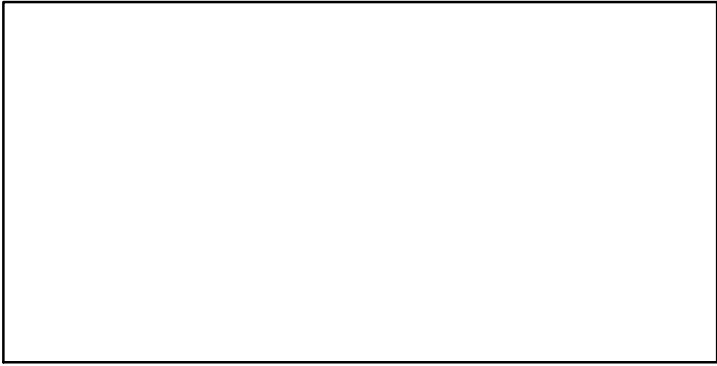
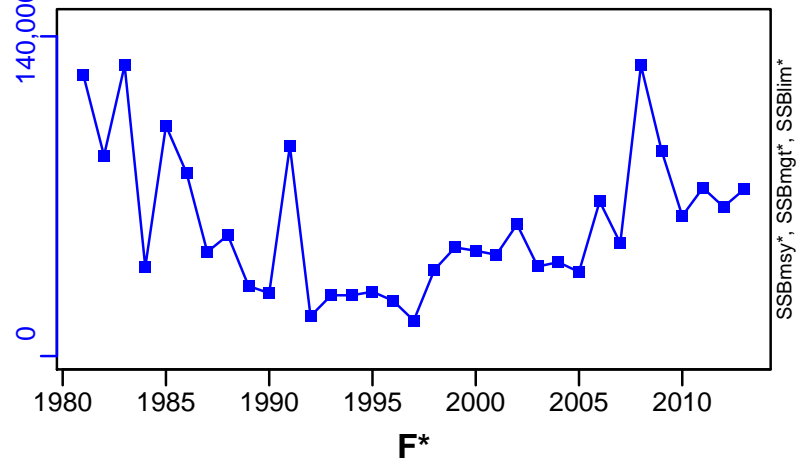
◆ Start Year ◆ End Year \* No Data

# Japanese anchovy Inland Sea of Japan [JANCHOSETO]

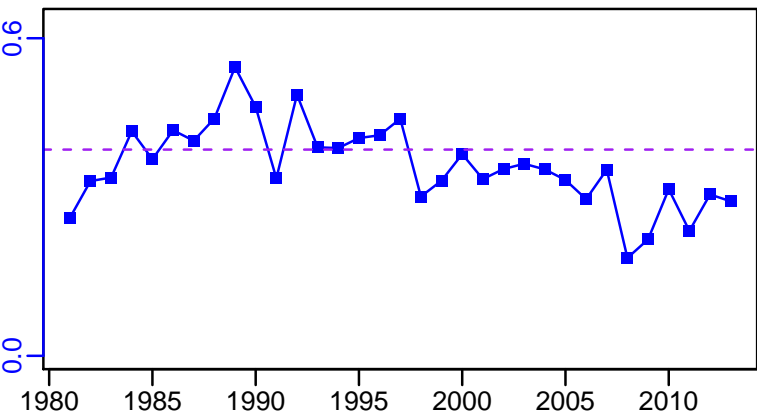
TB-MT (1955-2013-JPNIMP2016)



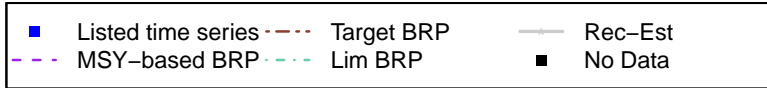
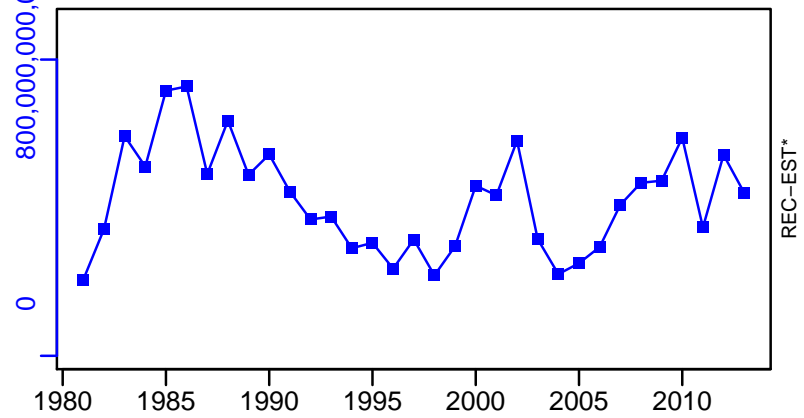
SSB-MT (1955-2013-JPNIMP2016)



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

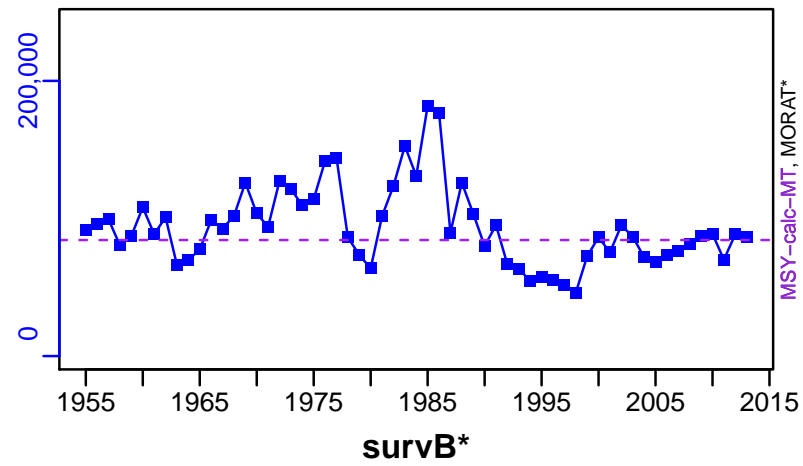


R-E00 (1955-2013-JPNIMP2016)

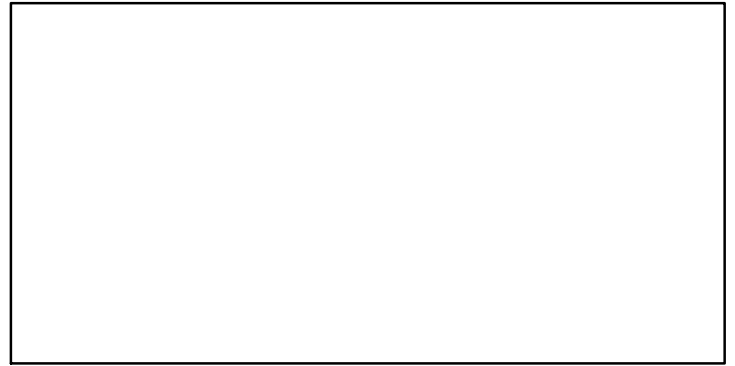


# Japanese anchovy Inland Sea of Japan [JANCHOSETO]

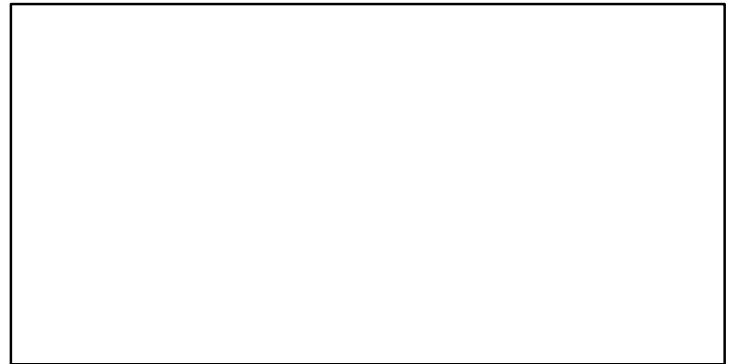
TC-MT, TL\*, RecC\* (1955-2013-JPNIMP2016)



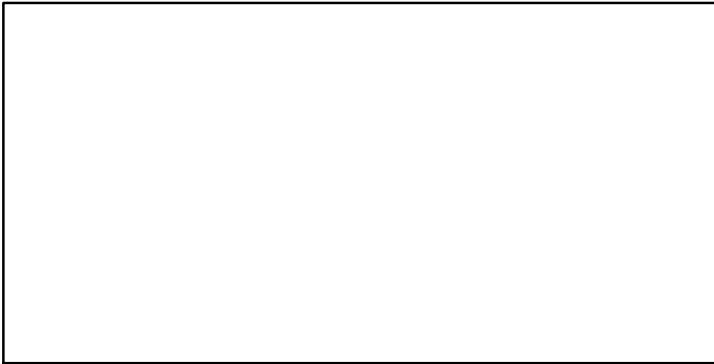
TAC\*, Cpair\*, Cadv\*



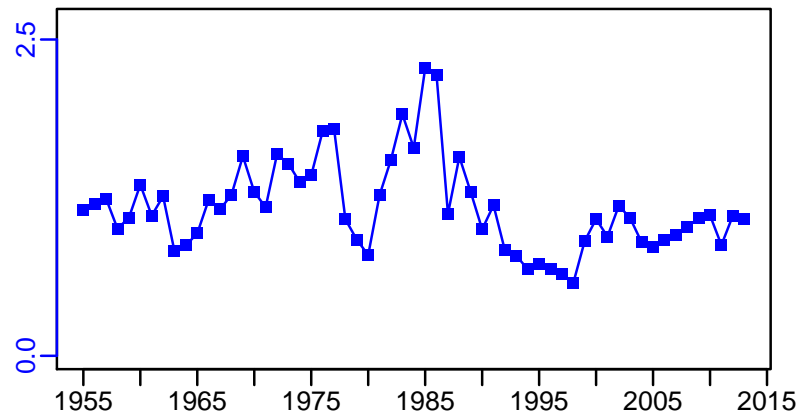
CPUE\*



EFFORT\*



CdivMSY-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]

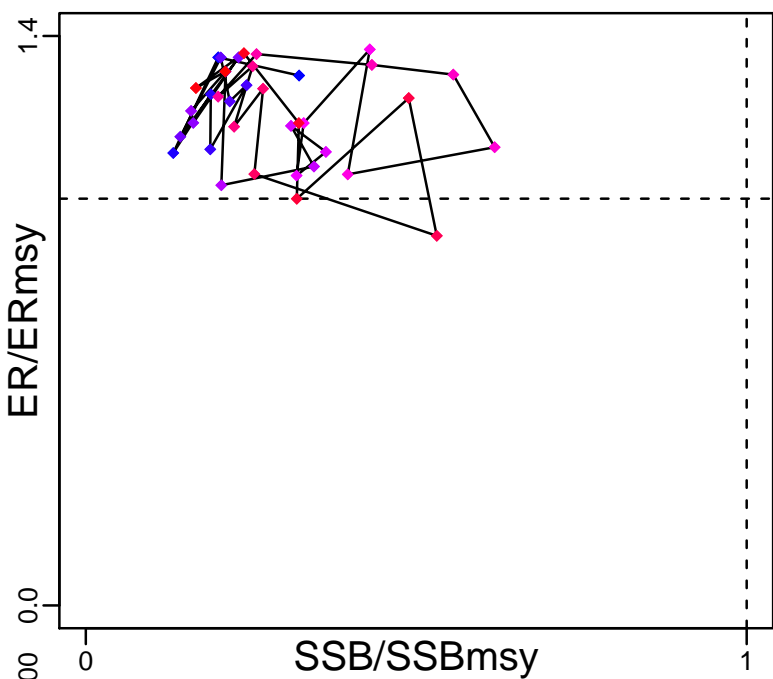
Metadata	
<b>Scientific Name</b>	Engraulis japonicus
<b>Current Assess ID</b>	FAFRFJ-JANCHOTSST-1976-2013-JPNIMP2016
<b>Area</b>	Tsushima Strait
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>	2013

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

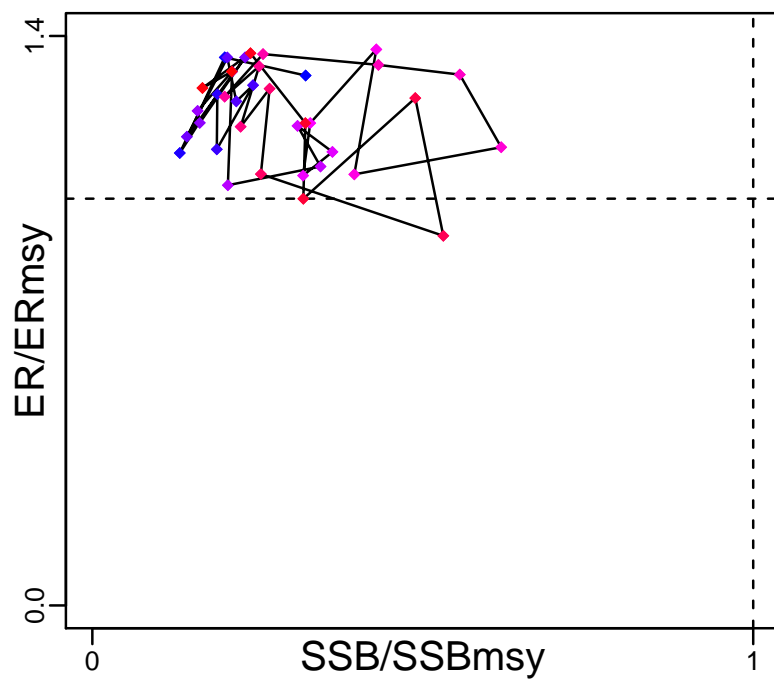
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	98,500	-	0
<b>SSB</b>	SSB-MT	2013	71,500	Both	1
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	$5.37 \times 10^{10}$	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0.488	-	-
<b>TC</b>	TC-MT	2013	48,100		
<b>TL</b>	-	-	-		
<b>TB/TBmsy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

# Japanese anchovy Tsushima Strait [JANCHOTSST]

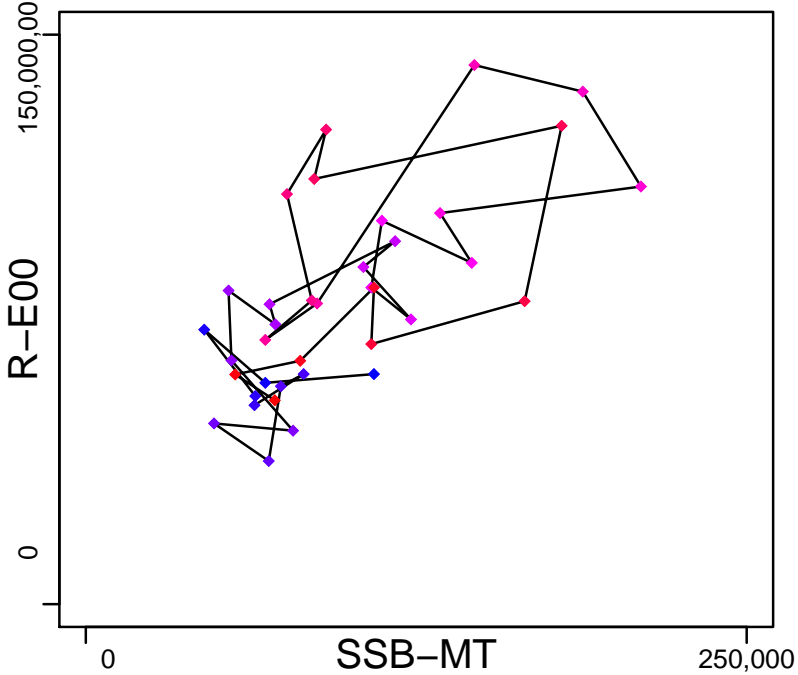
Kobe MSYpref (1976–2013–JPNIMP2016)



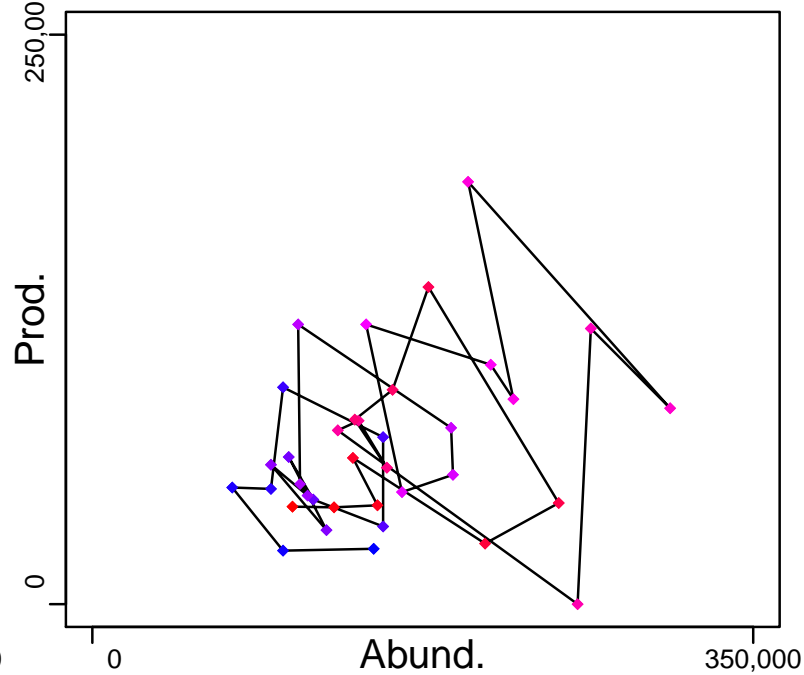
Kobe MGTpref (1976–2013–JPNIMP2016)



Spawner Recruit (1976–2013–JPNIMP2016)



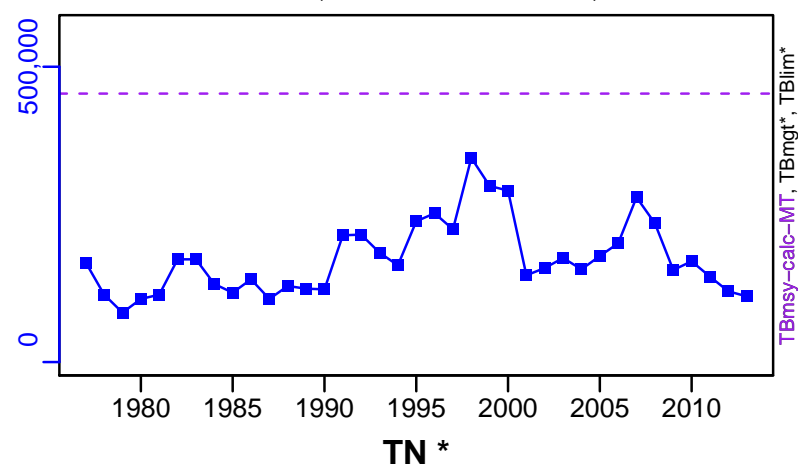
Production (1976–2013–JPNIMP2016)



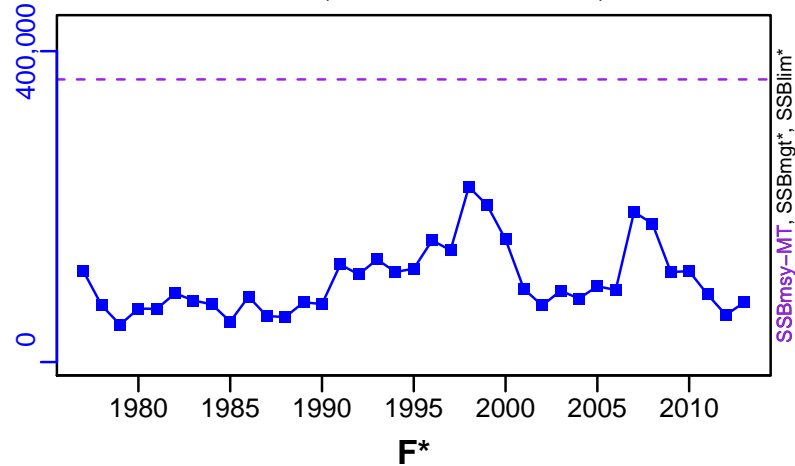
◆ Start Year ◆ End Year \* No Data

# Japanese anchovy Tsushima Strait [JANCHOTSST]

TB-MT (1976-2013-JPNIMP2016)



SSB-MT (1976-2013-JPNIMP2016)

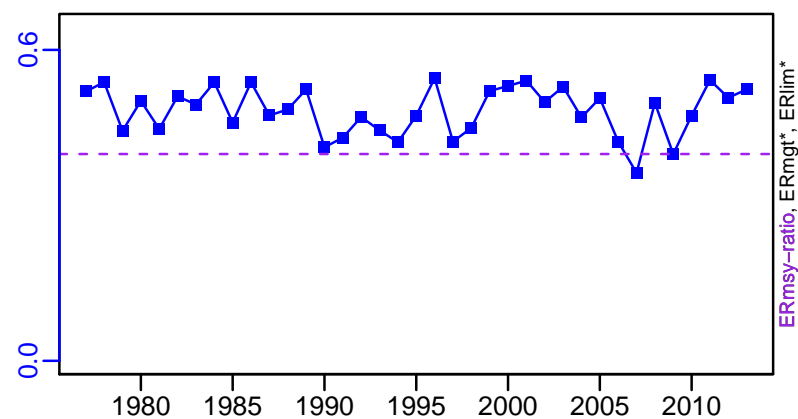


TN \*

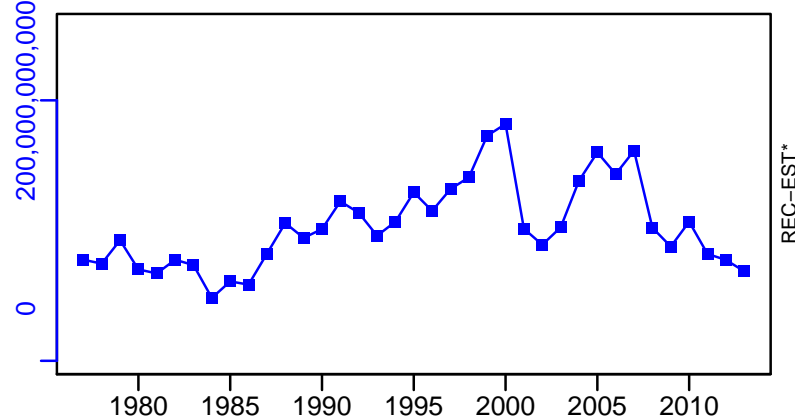
F\*



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



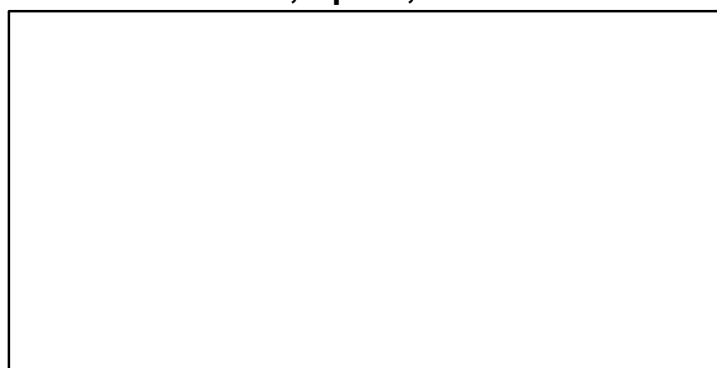
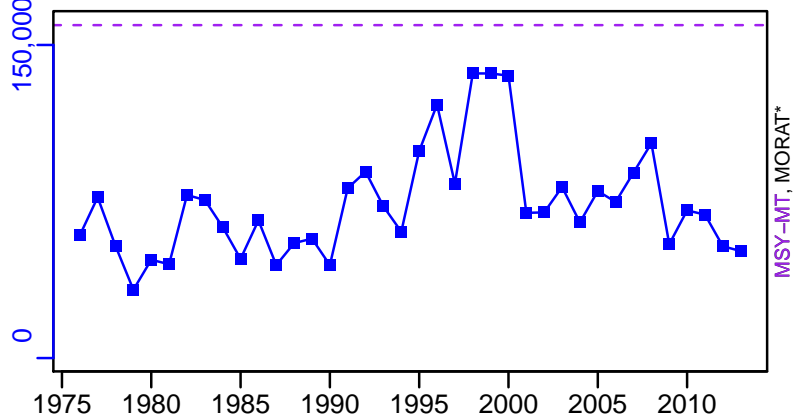
R-E00 (1976-2013-JPNIMP2016)



# Japanese anchovy Tsushima Strait [JANCHOTSST]

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

TAC\*, Cpair\*, Cadv\*



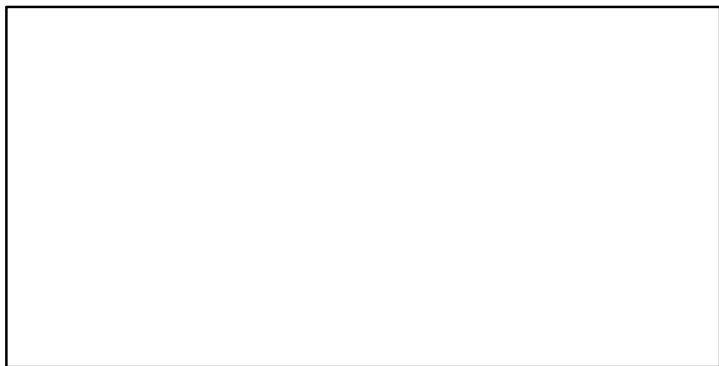
survB\*



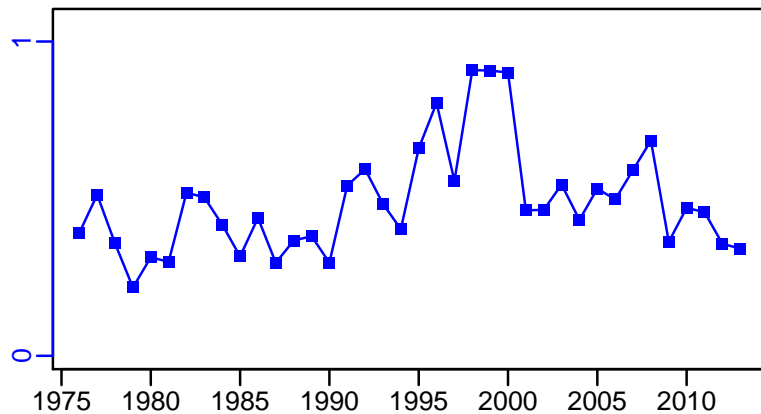
CPUE\*



EFFORT\*



CdivMSY-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 [JCSQUIDJPNA]

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

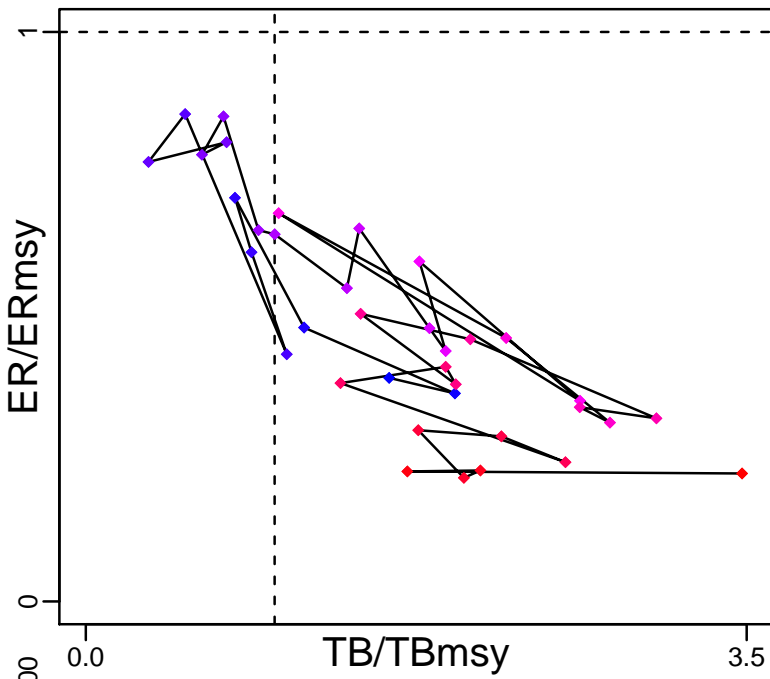
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-MT	2014	674,723
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2014	0.446
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-calc-MT	2014	300,926
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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2014	2,350,000	-	0.5
<b>SSB</b>	SSB-MT	2014	1,110,000	Both	0.5
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2014	$8.37 \times 10^9$	-	0.5
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2014	0.1	-	-
<b>TC</b>	TC-MT	2014	235,000		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2014	3.476		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2014	0.225		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

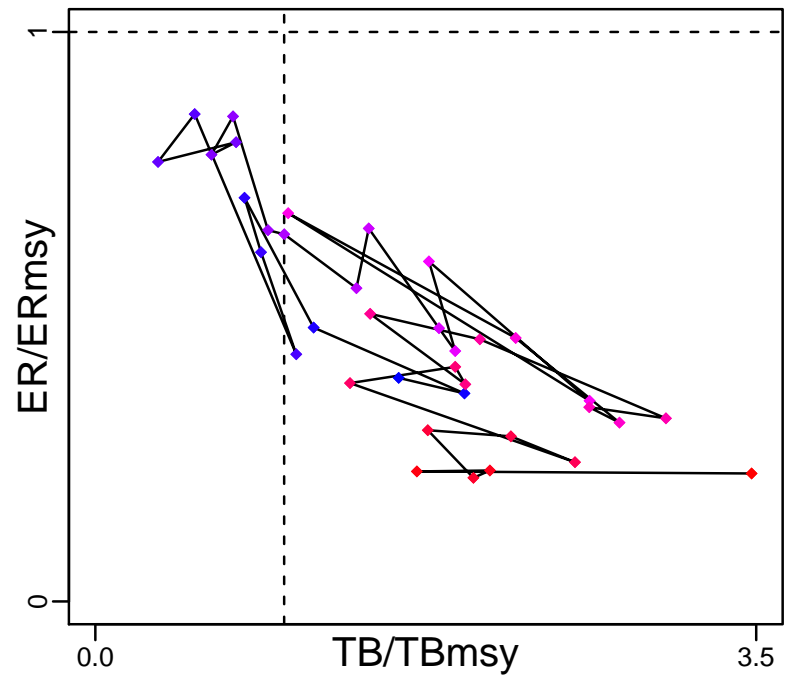


# Japanese flying squid Japan Autumn recruitment [JCSQUIDJPNAR]

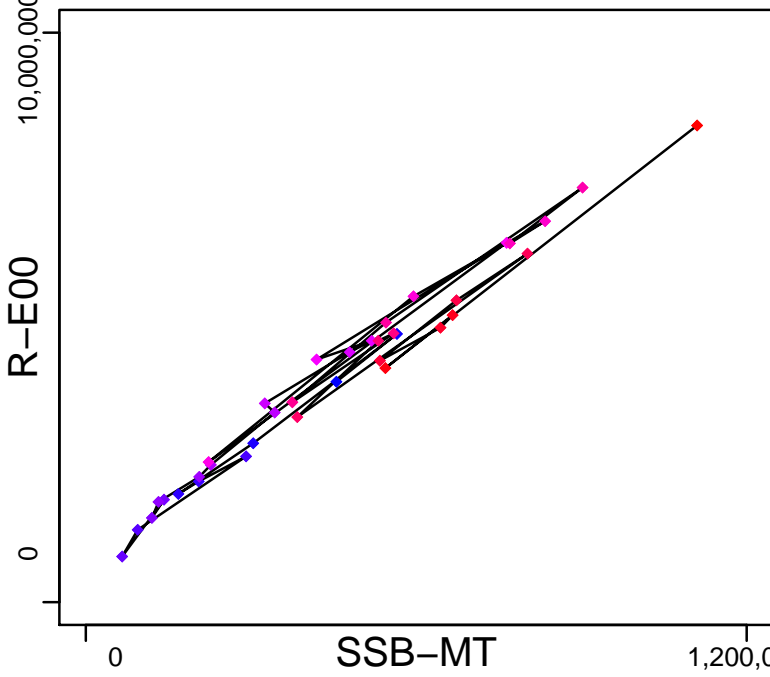
Kobe MSYpref (1979–2014–JPNIMP2016)



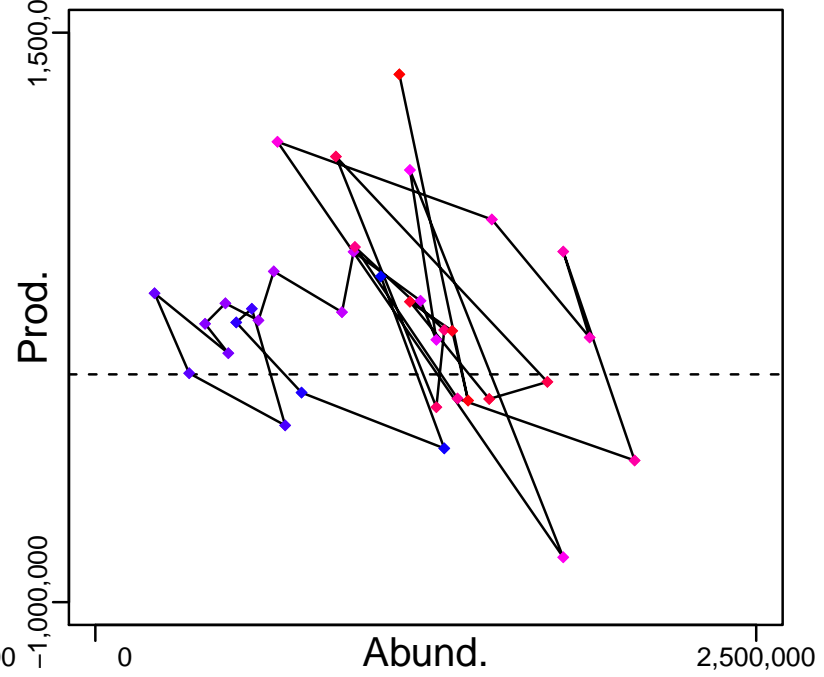
Kobe MGTpref (1979–2014–JPNIMP2016)



Spawner Recruit (1979–2014–JPNIMP2016)



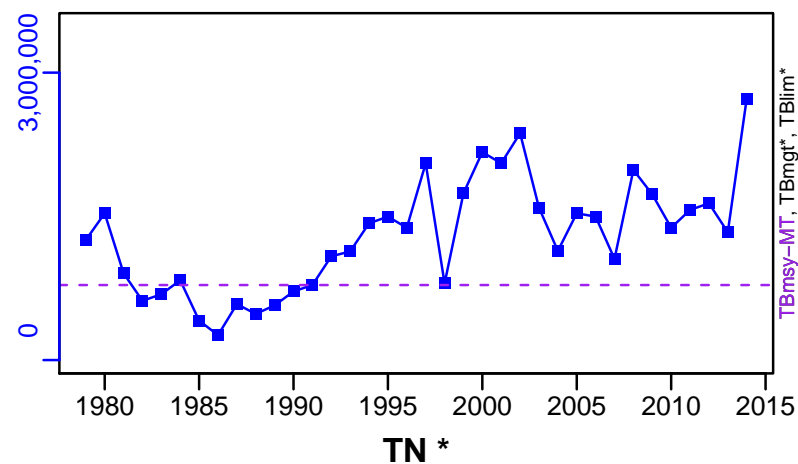
Production (1979–2014–JPNIMP2016)



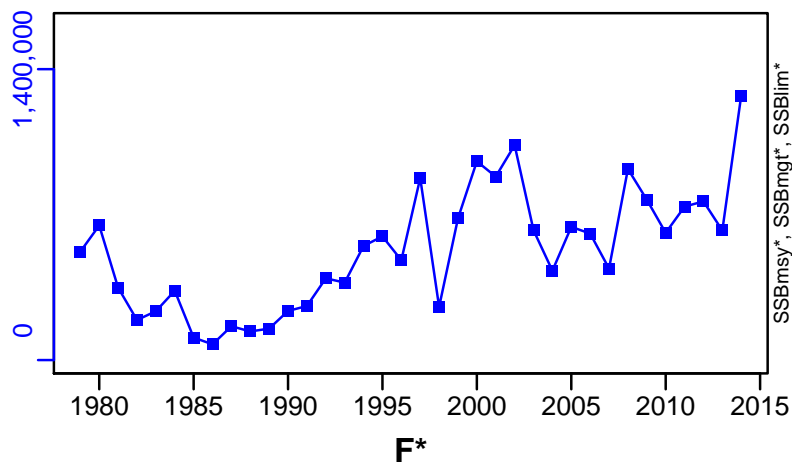
◆ Start Year ◆ End Year \* No Data

# Japanese flying squid Japan Autumn recruitment [JCSQUIDJPNAR]

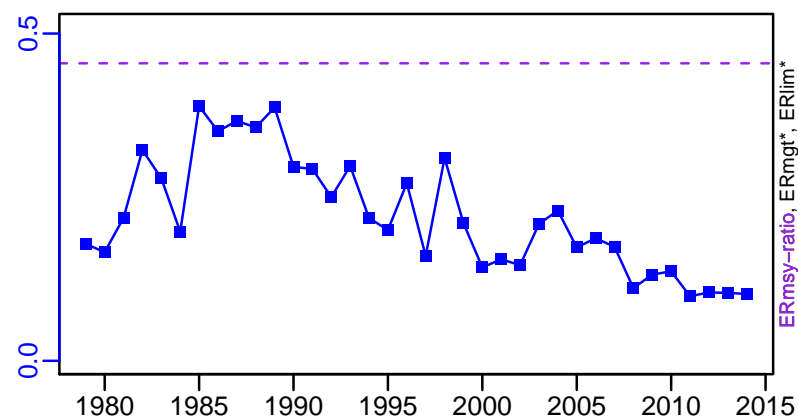
TB-MT (1979–2014–JPNIMP2016)



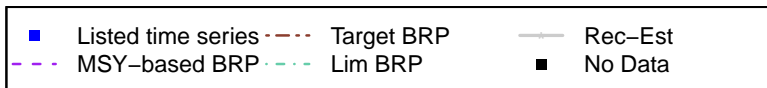
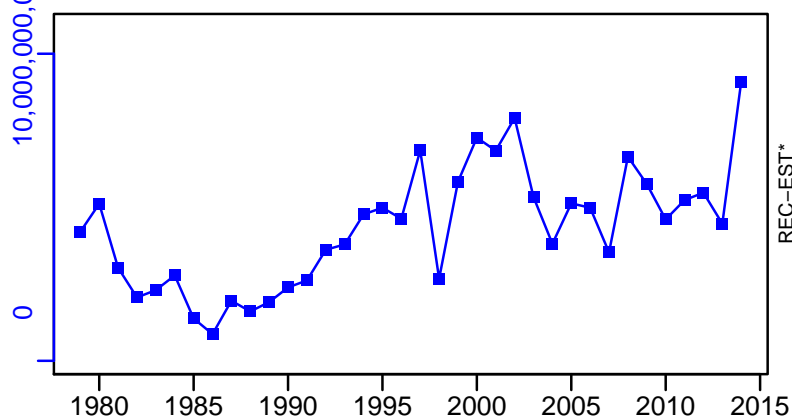
SSB-MT (1979–2014–JPNIMP2016)



ER-calc-ratio (1979–2014–JPNIMP2016)



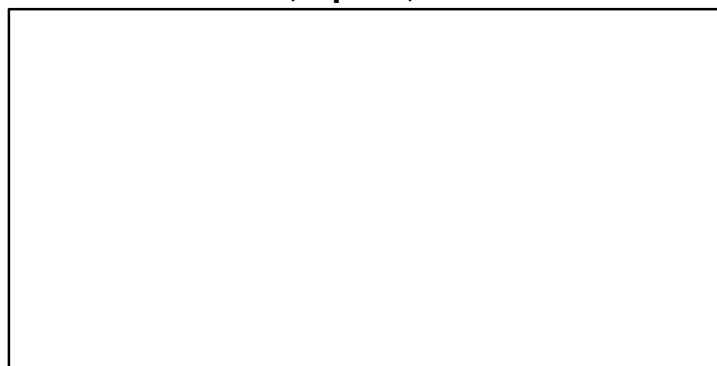
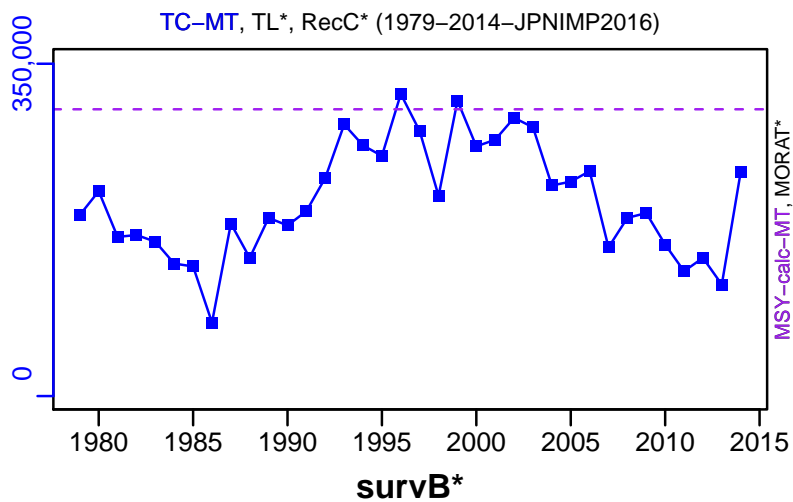
R-E00 (1979–2014–JPNIMP2016)



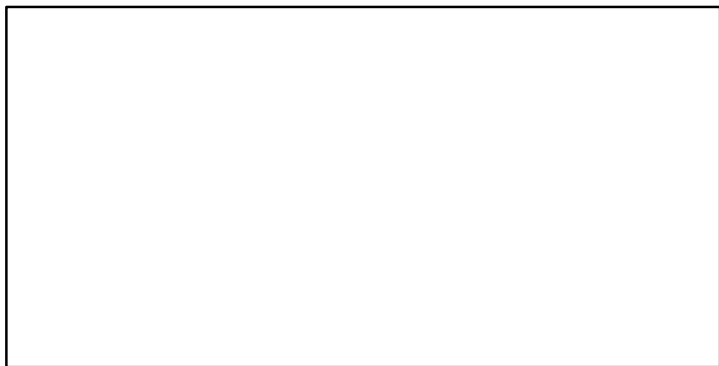
# Japanese flying squid Japan Autumn recruitment [JCSQUIDJPNAR]

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

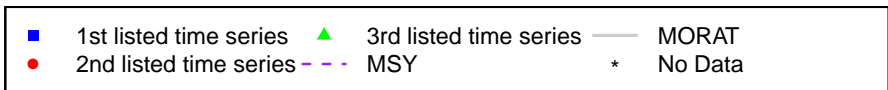
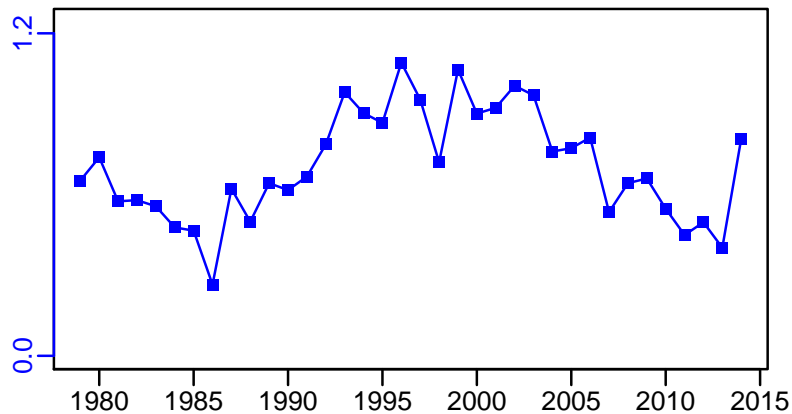
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1979-2014-JPNIMP2016)



## Japanese flying squid Japan Winter recruitment [JCSQUIDJPNWR]

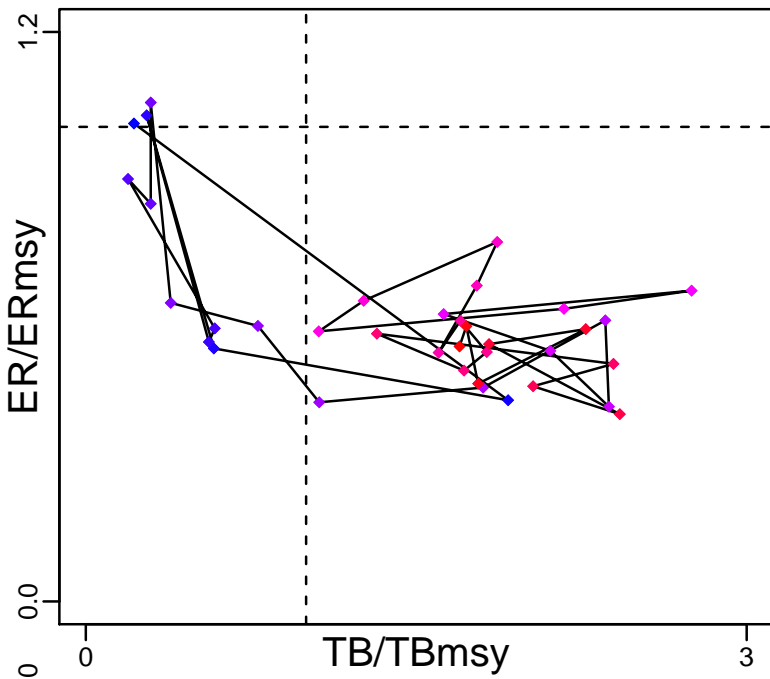
Metadata	
<b>Scientific Name</b>	Todarodes pacificus
<b>Current Assess ID</b>	FAFRFJ-JCSQUIDJPNWR-1979-2014-JPNIMP2016
<b>Area</b>	Japan Winter recruitment
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>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

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

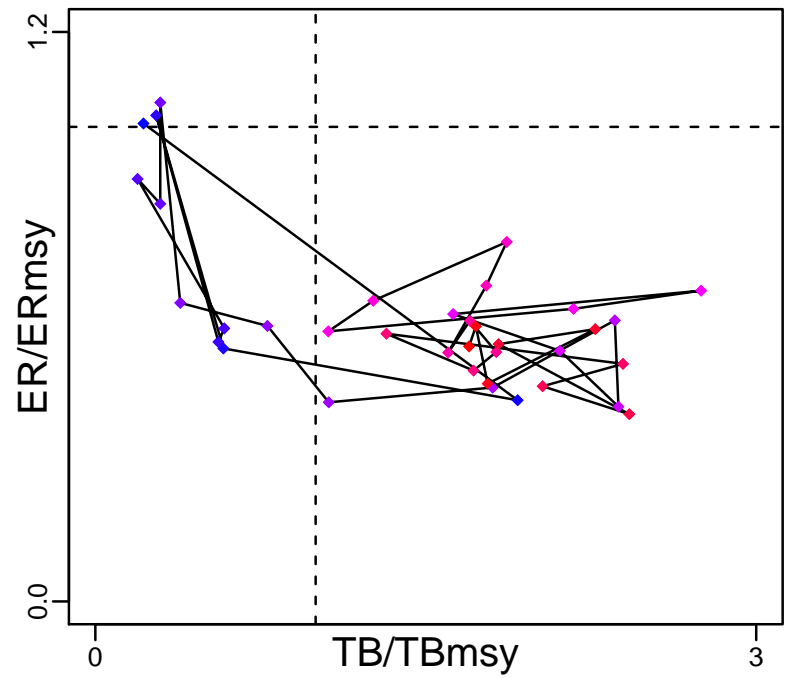
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2014	823,000	-	0.5
<b>SSB</b>	SSB-MT	2014	301,000	Both	0.5
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2014	$2.66 \times 10^9$	-	0.5
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2014	0.247	-	-
<b>TC</b>	TC-MT	2014	203,000		
<b>TL</b>	-	-	-		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

# Japanese flying squid Japan Winter recruitment [JCSQUIDJPNWR]

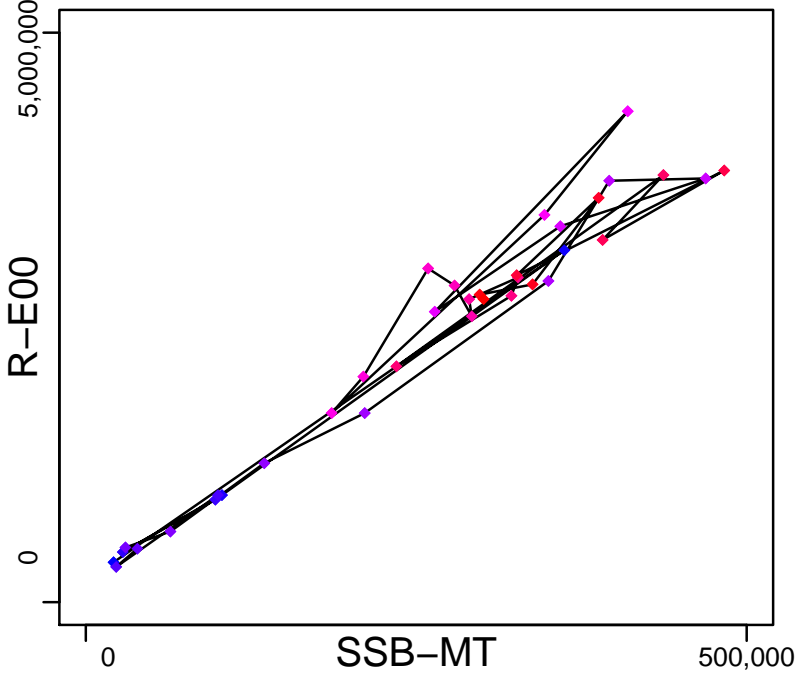
Kobe MSYpref (1979–2014–JPNIMP2016)



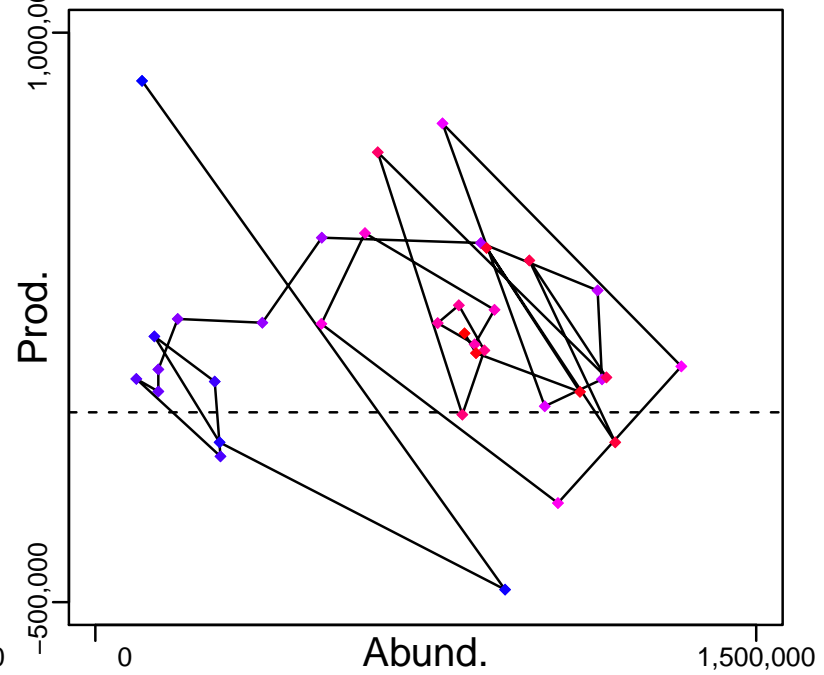
Kobe MGTpref (1979–2014–JPNIMP2016)



Spawner Recruit (1979–2014–JPNIMP2016)



Production (1979–2014–JPNIMP2016)

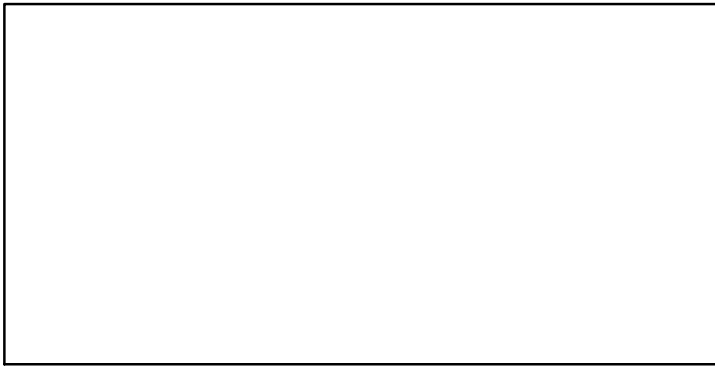
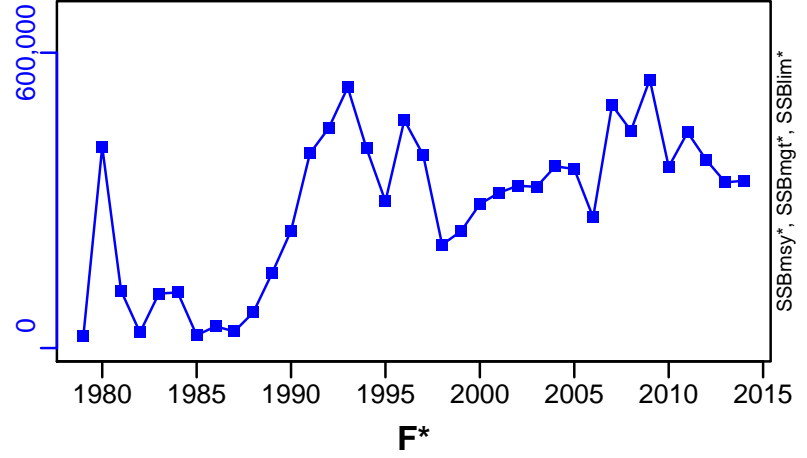
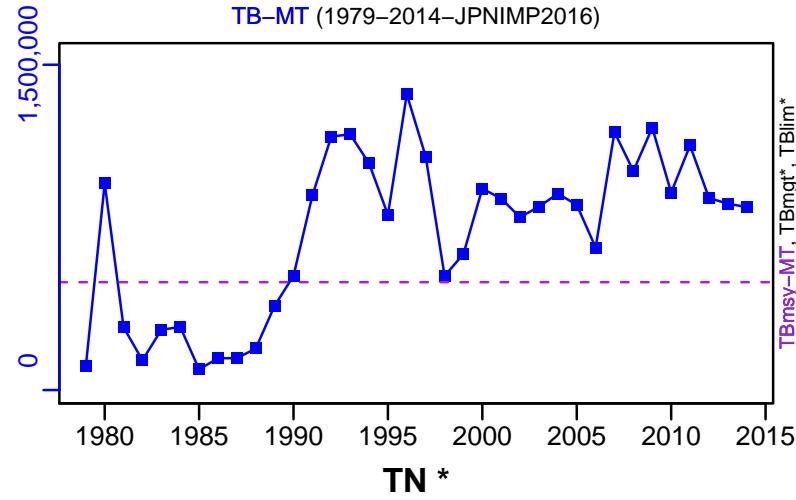


◆ Start Year ◆ End Year \* No Data

# Japanese flying squid Japan Winter recruitment [JCSQUIDJPNWR]

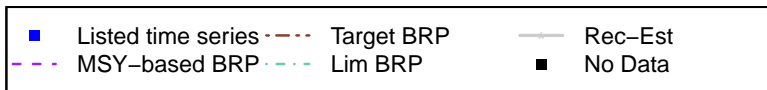
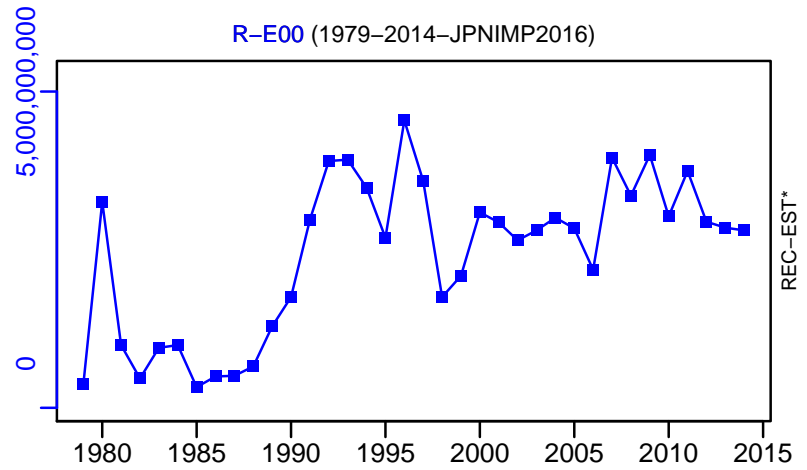
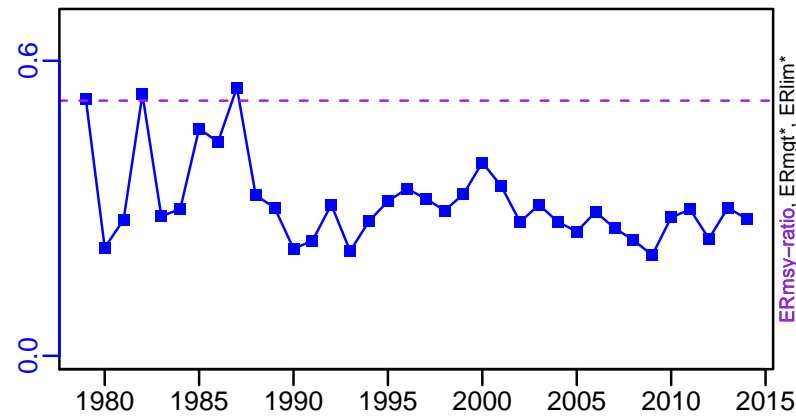
TB-MT (1979-2014-JPNIMP2016)

SSB-MT (1979-2014-JPNIMP2016)



ER-calc-ratio (1979-2014-JPNIMP2016)

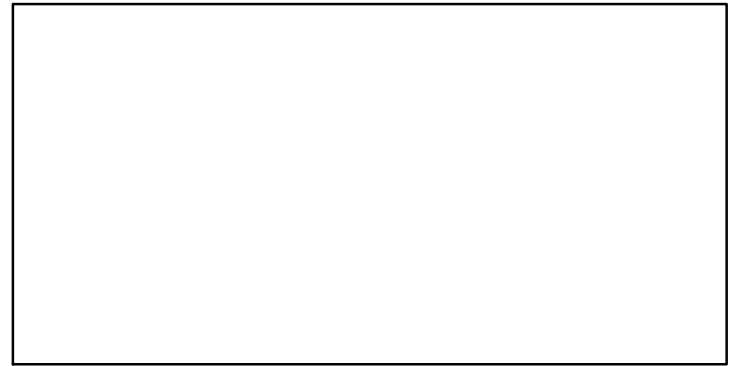
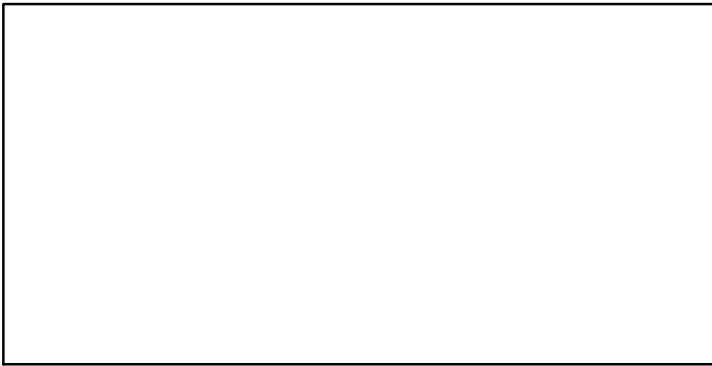
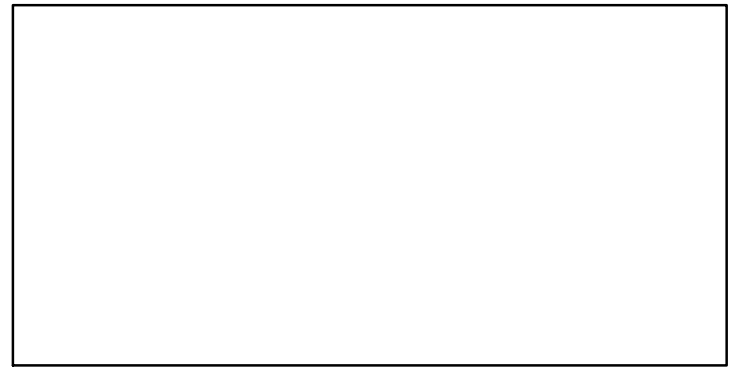
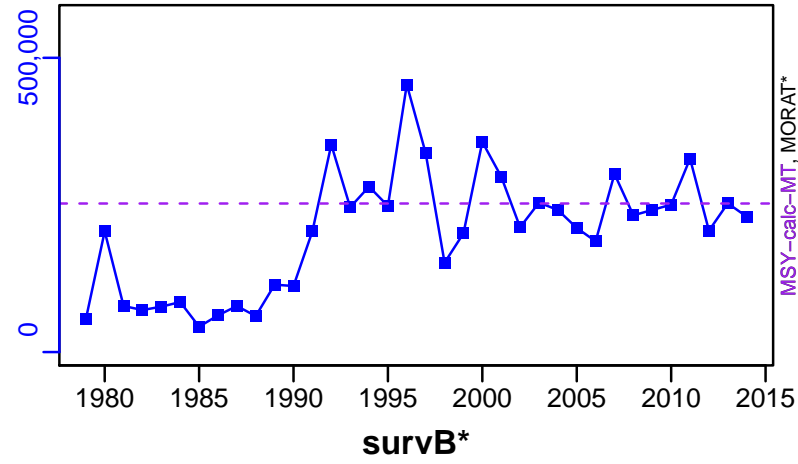
R-E00 (1979-2014-JPNIMP2016)



# Japanese flying squid Japan Winter recruitment [JCSQUIDJPNWR]

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

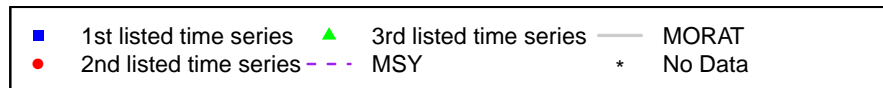
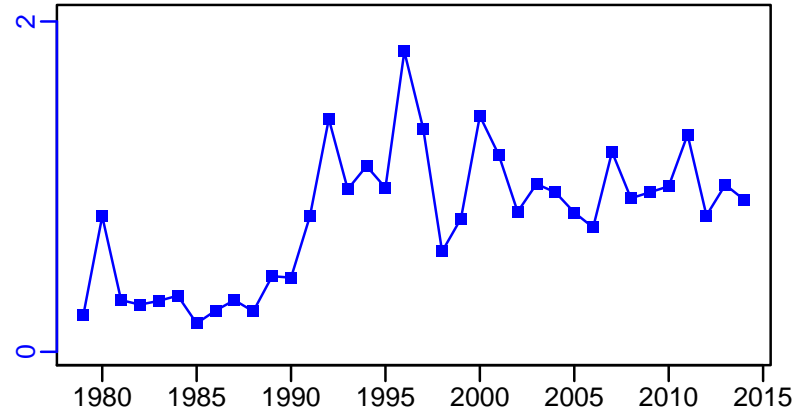
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1979-2014-JPNIMP2016)



## Japanese jack mackerel Pacific Coast of Japan [JMACKPJPN]

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

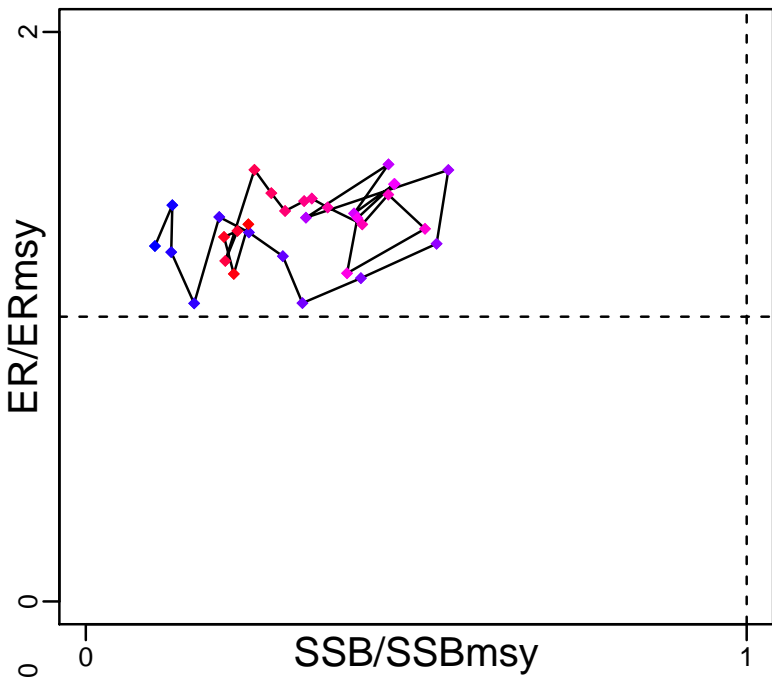
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2013	208,037
<b>SSBmsy</b>	SSBmsy-MT	2013	116,600
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2013	0.341
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT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

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

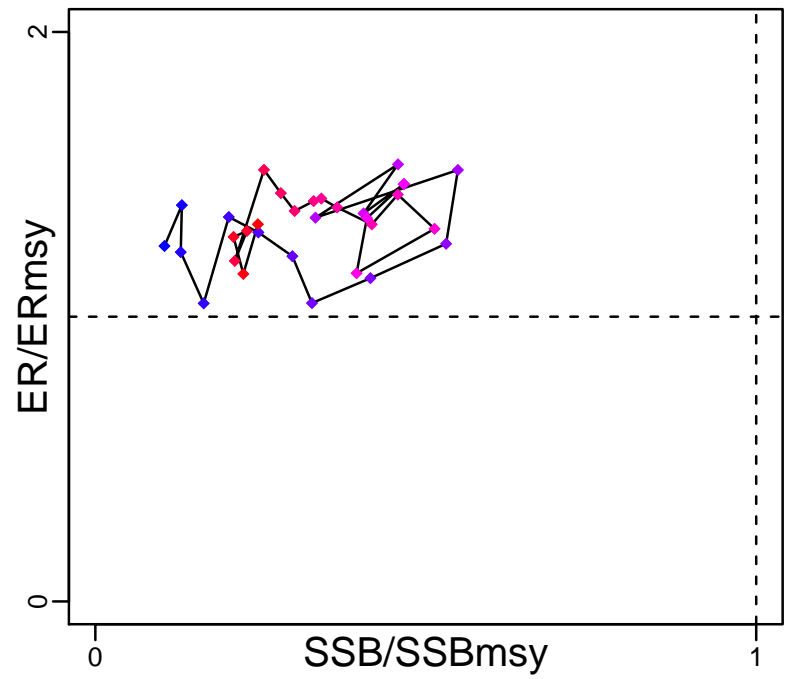


# Japanese jack mackerel Pacific Coast of Japan [JMACKPJPN]

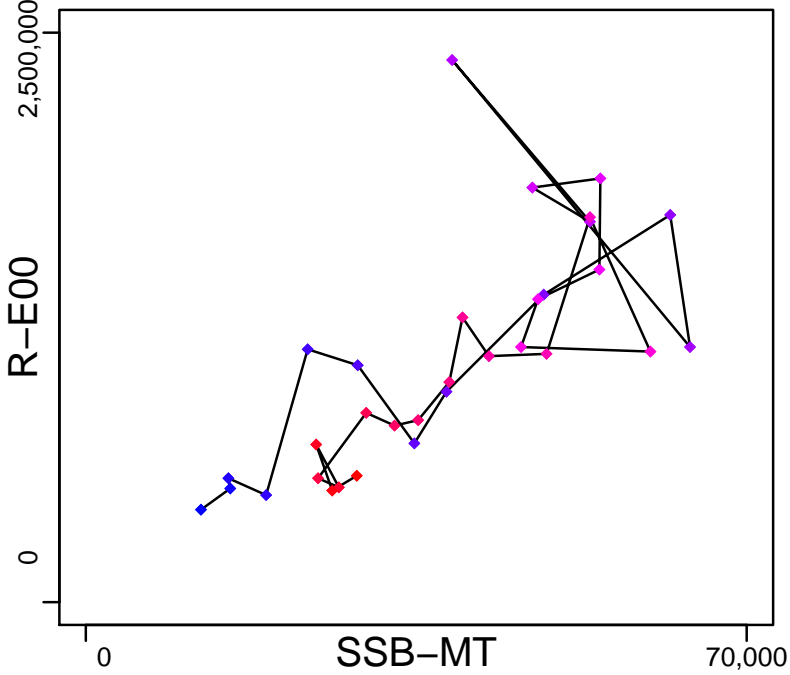
Kobe MSYpref (1982–2013–JPNIMP2016)



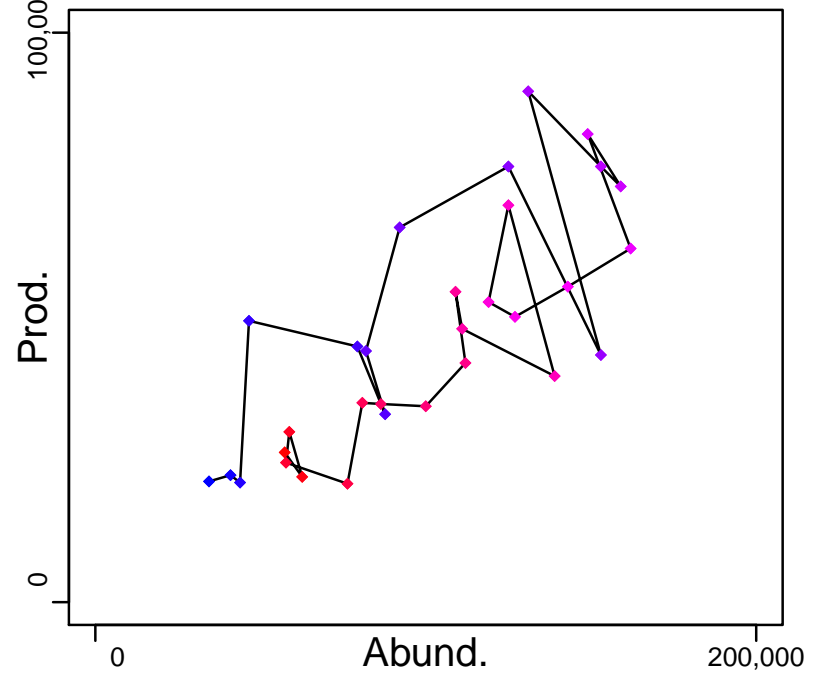
Kobe MGTpref (1982–2013–JPNIMP2016)



Spawner Recruit (1982–2013–JPNIMP2016)



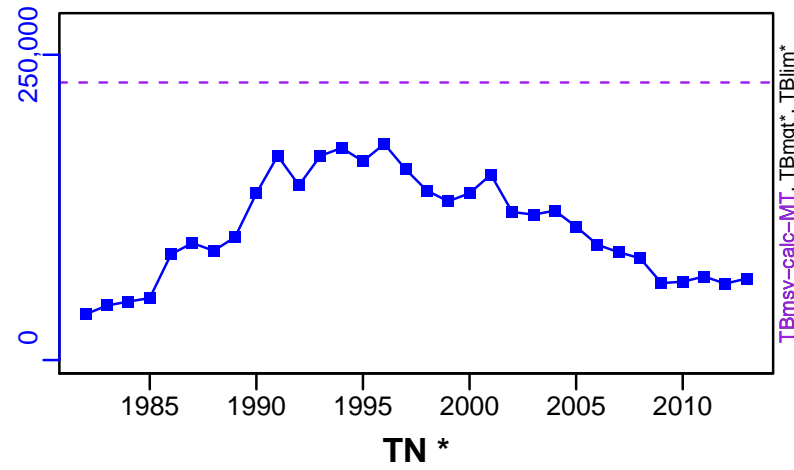
Production (1982–2013–JPNIMP2016)



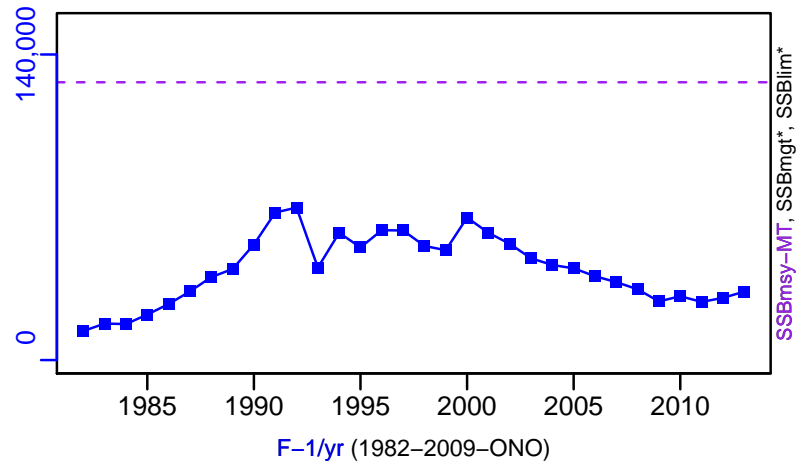
◆ Start Year ◆ End Year \* No Data

# Japanese jack mackerel Pacific Coast of Japan [JMACKPJPN]

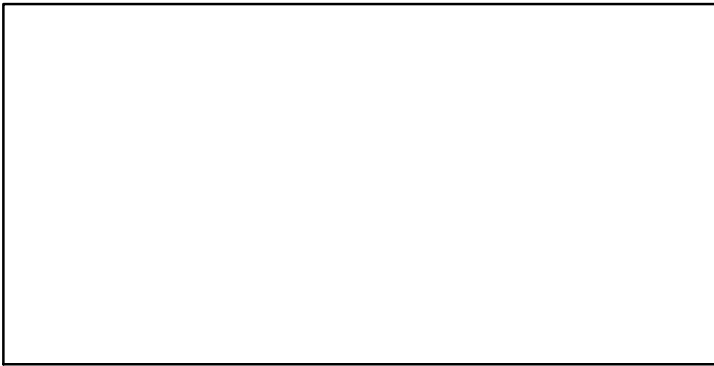
TB-MT (1982-2013-JPNIMP2016)



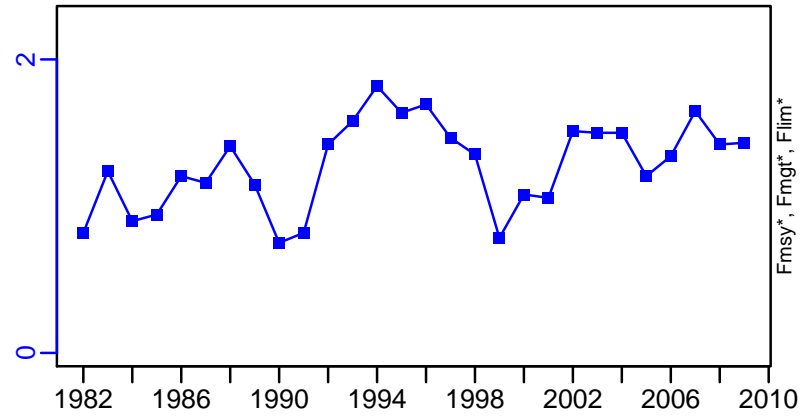
SSB-MT (1982-2013-JPNIMP2016)



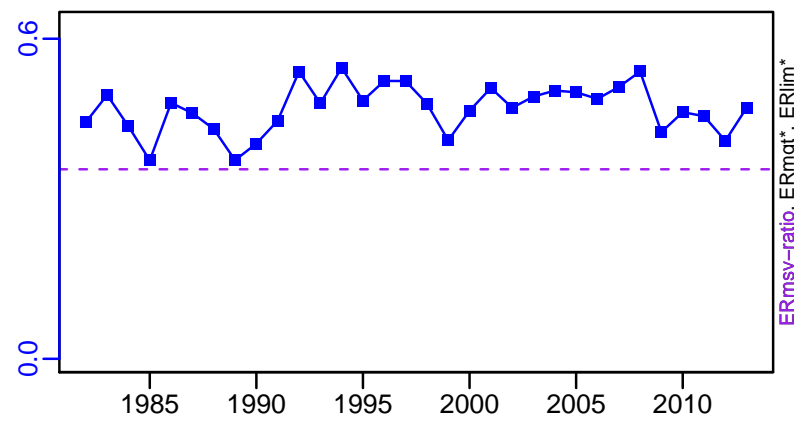
TN \*



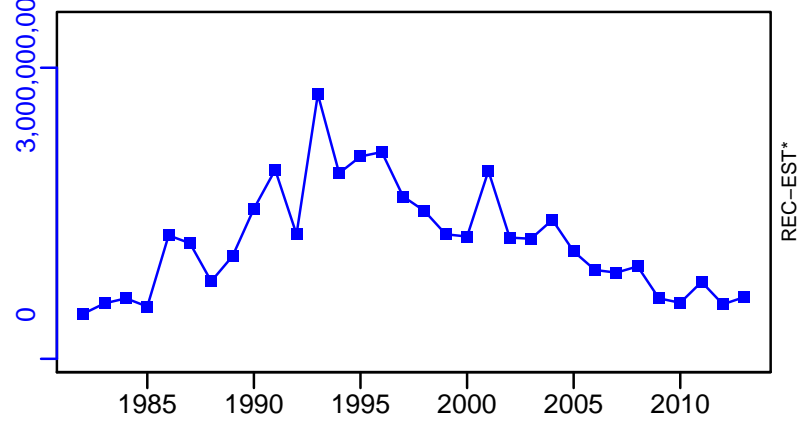
F-1/yr (1982-2009-ONO)



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



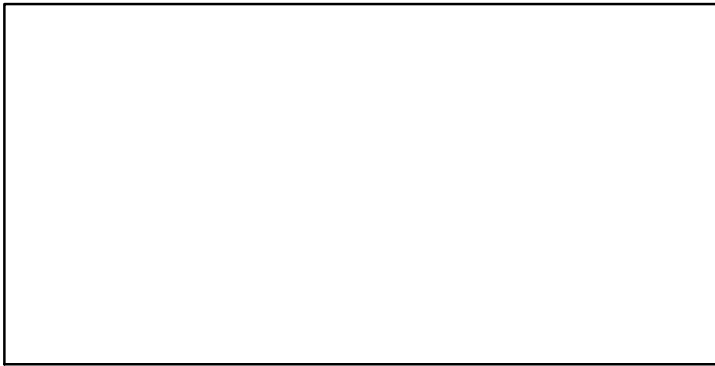
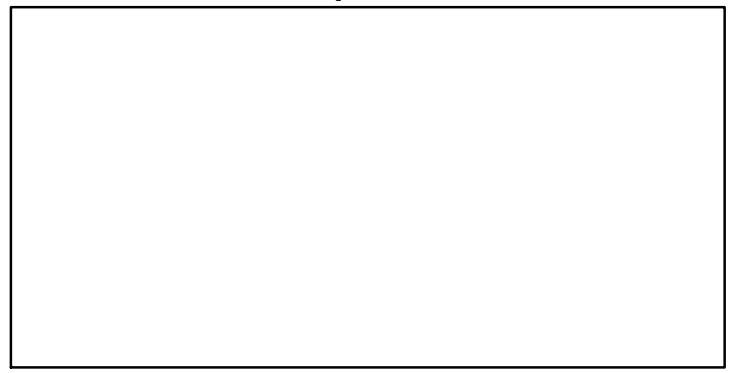
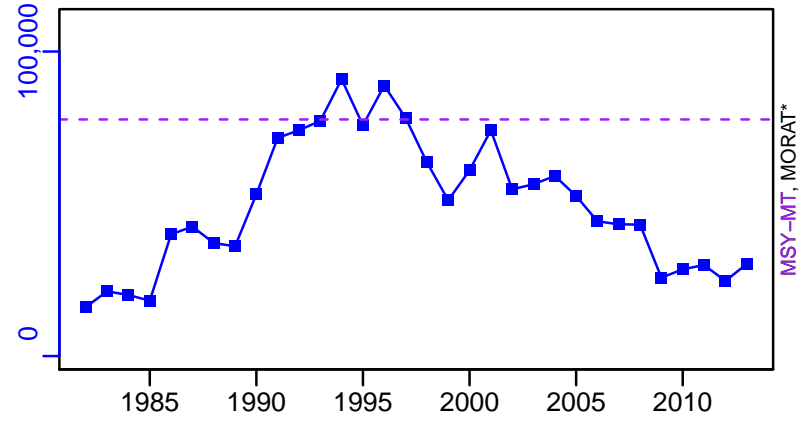
R-E00 (1982-2013-JPNIMP2016)



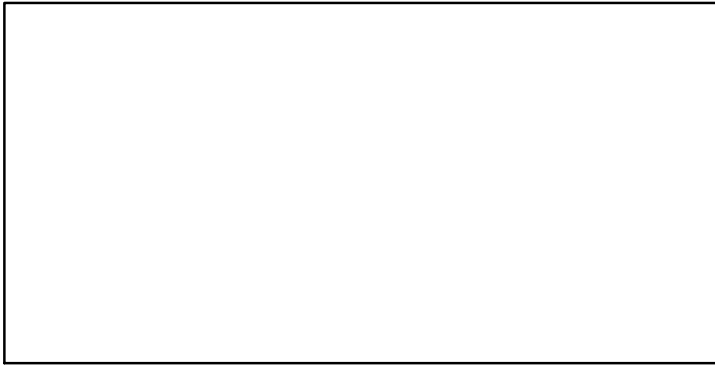
# Japanese jack mackerel Pacific Coast of Japan [JMACKPJPN]

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

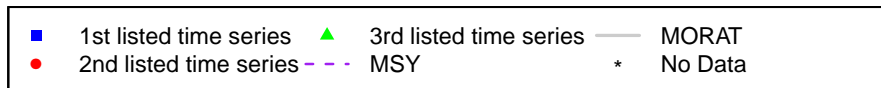
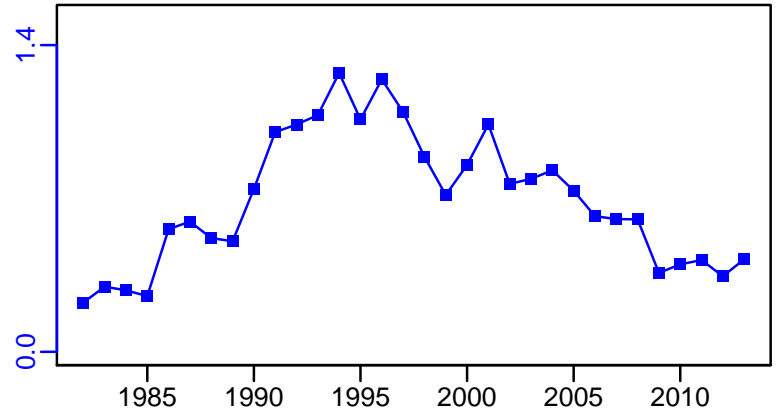
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1982-2013-JPNIMP2016)



## Japanese jack mackerel Tsushima Strait [JMACKTSST]

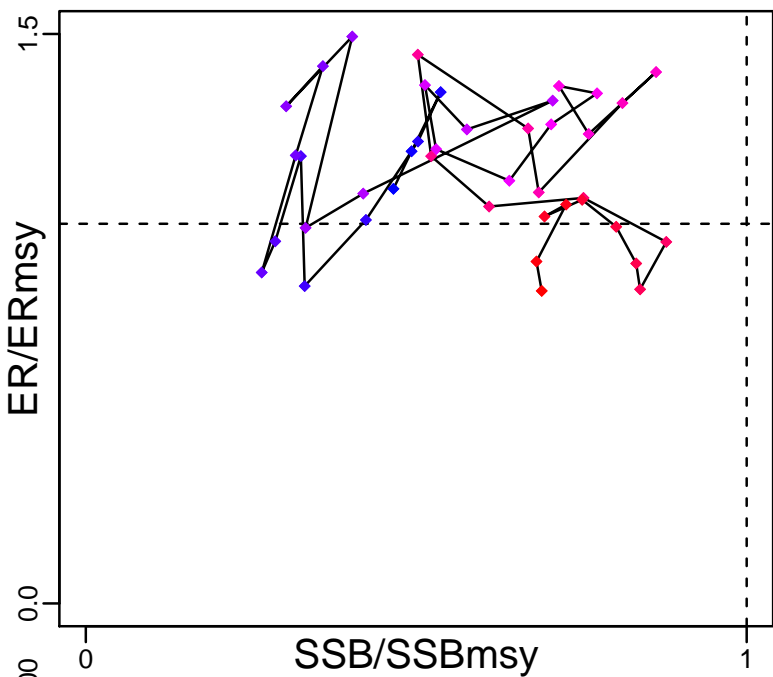
Metadata	
<b>Scientific Name</b>	Trachurus japonicus
<b>Current Assess ID</b>	FAFRFJ-JMACKTSST-1973-2013-JPNIMP2016
<b>Area</b>	Tsushima Strait
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>	2010, 2013

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

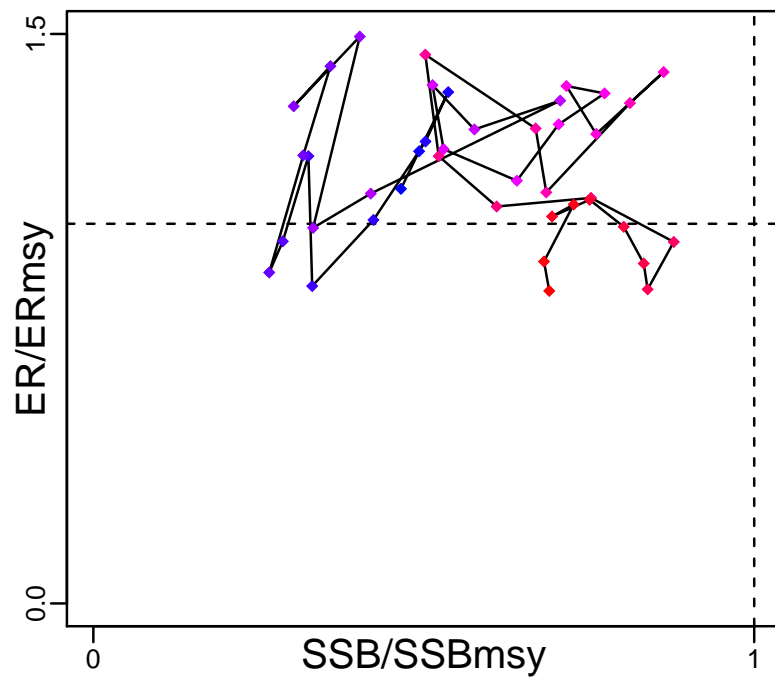
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	440,000	-	0
<b>SSB</b>	SSB-MT	2013	201,000	Both	1
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	$5.98 \times 10^9$	-	0
<b>F</b>	F-1/yr	2010	0.736	-	0 to 3
<b>ER</b>	ER-calc-ratio	2013	0.273	-	-
<b>TC</b>	TC-MT	2013	120,000		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2013	0.833		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.69		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	0.823		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Japanese jack mackerel Tsushima Strait [JMACKTSST]

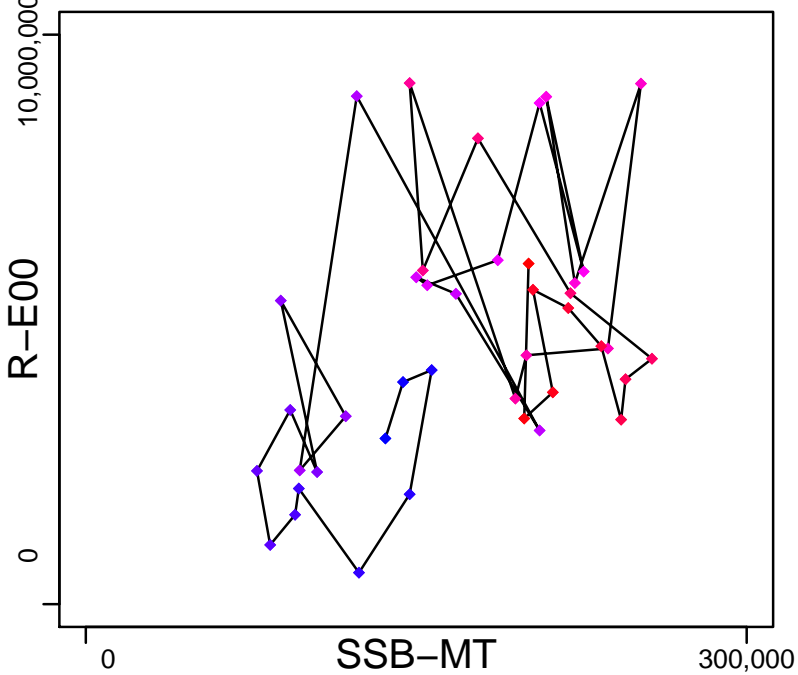
Kobe MSYpref (1973–2013–JPNIMP2016)



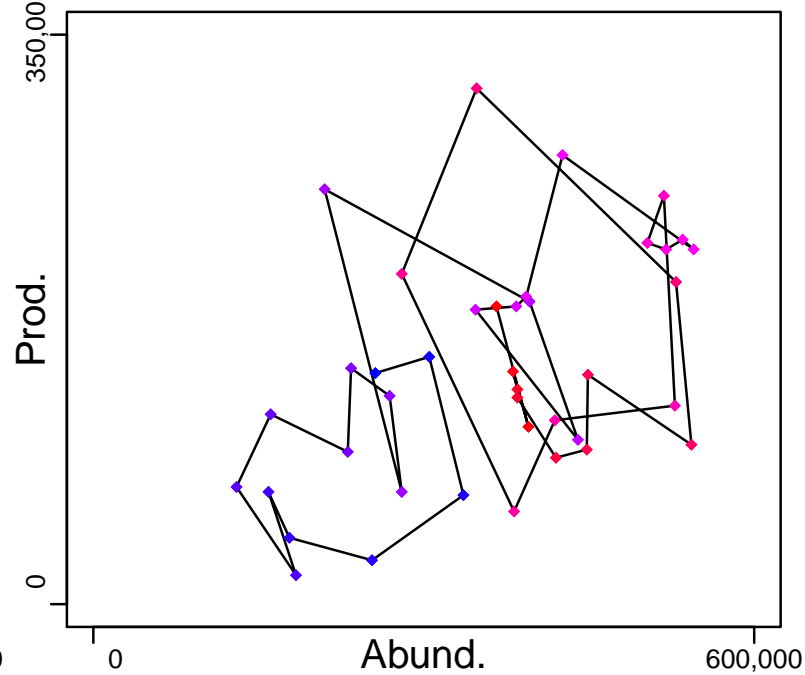
Kobe MGTpref (1973–2013–JPNIMP2016)



Spawner Recruit (1973–2013–JPNIMP2016)

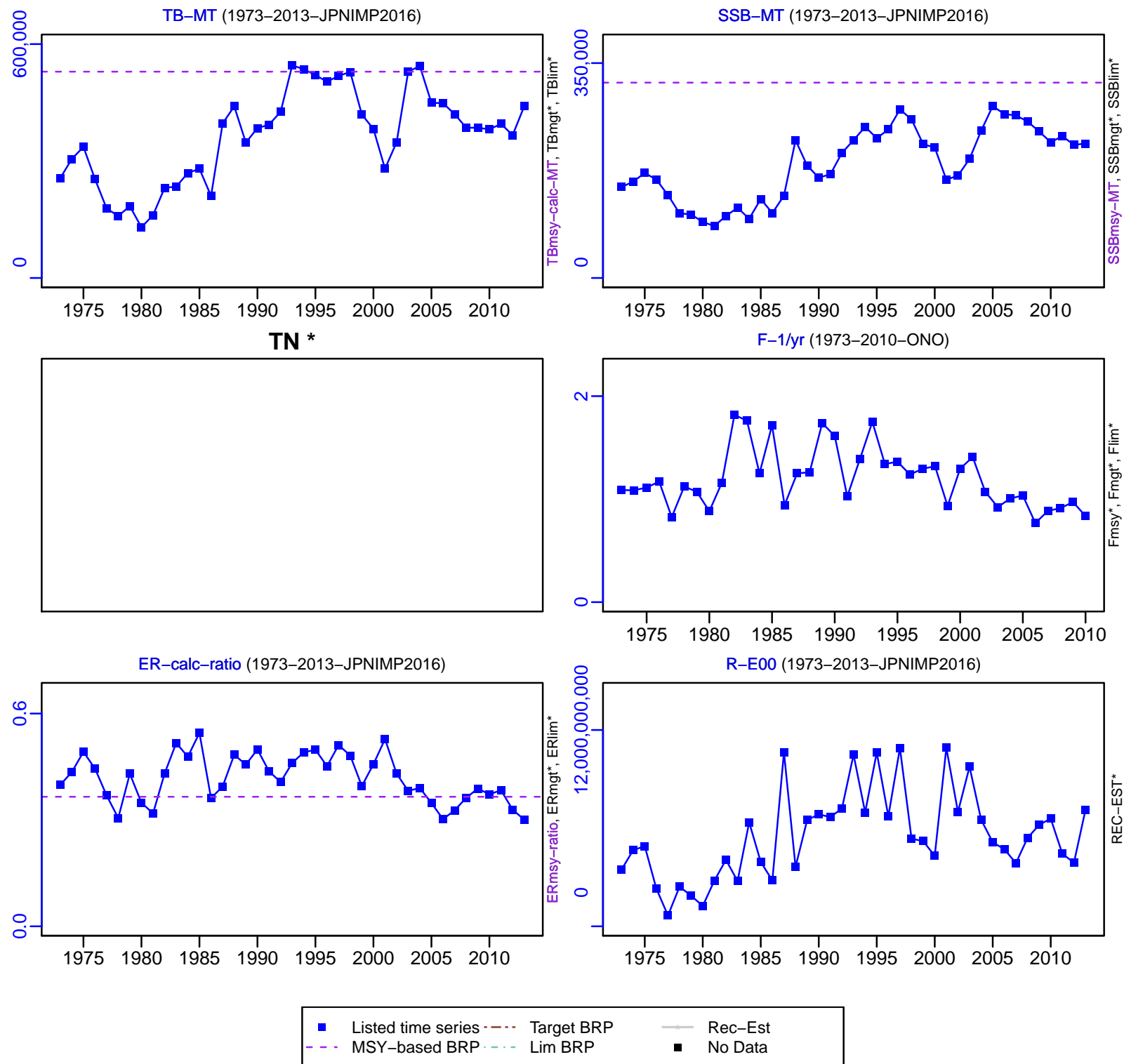


Production (1973–2013–JPNIMP2016)



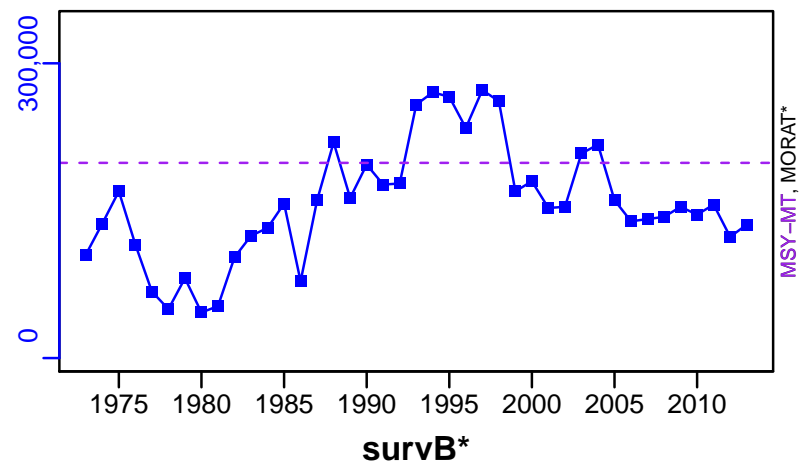
◆ Start Year ◆ End Year \* No Data

# Japanese jack mackerel Tsushima Strait [JMACKTSST]

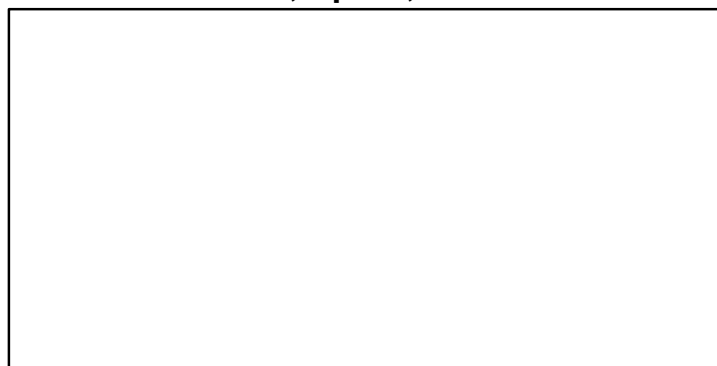


# Japanese jack mackerel Tsushima Strait [JMACKTSST]

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



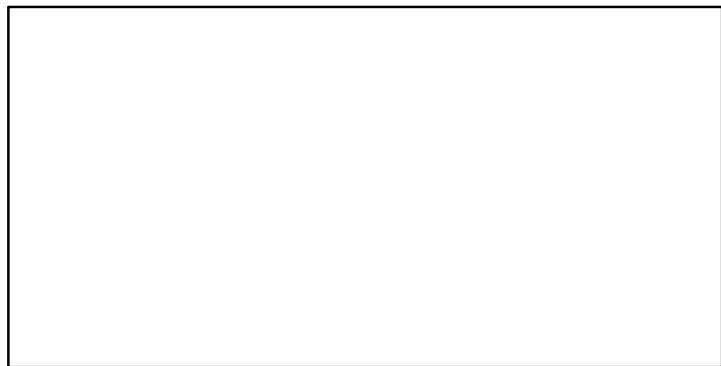
TAC\*, Cpair\*, Cadv\*



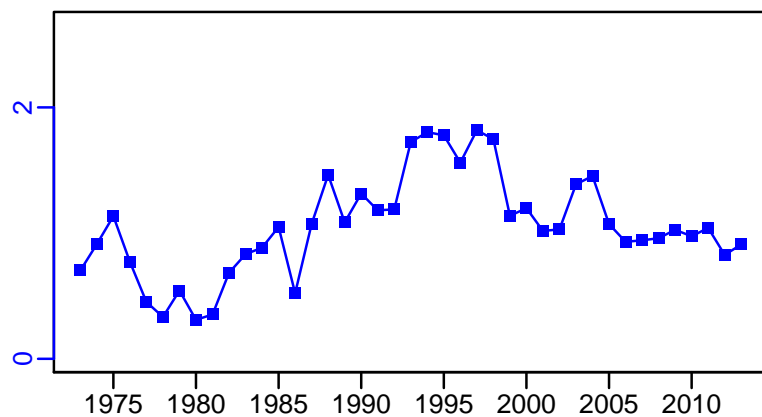
CPUE\*



EFFORT\*



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

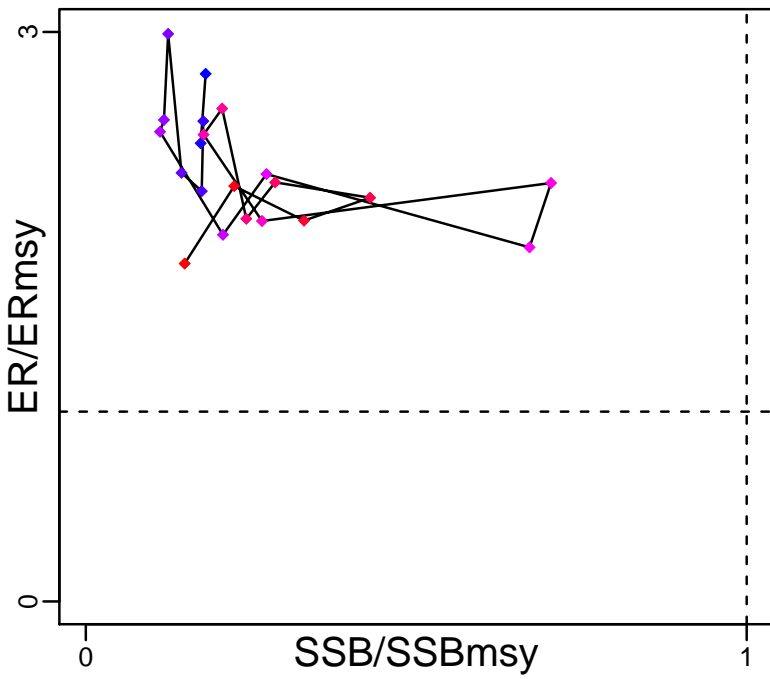
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2013	471
<b>SSBmsy</b>	SSBmsy-MT	2013	252
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2013	0.284
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2013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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	132	-	0
<b>SSB</b>	SSB-MT	2013	38	Both	2
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	119,000	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0.505	-	-
<b>TC</b>	TC-MT	2013	67		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2013	0.281		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.15		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	1.78		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

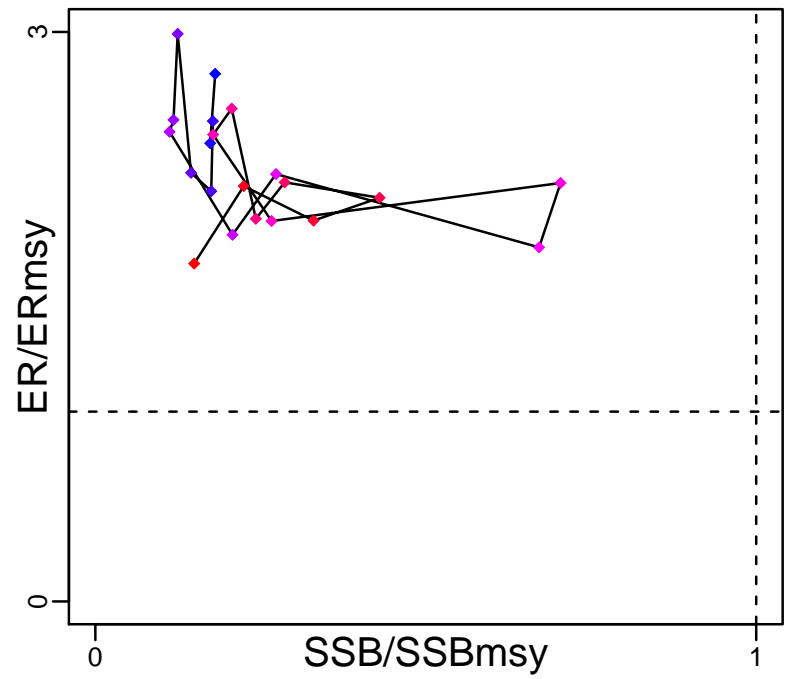


# Japanese pufferfish Ise and Mikawa Bay [JPUFFIMKB]

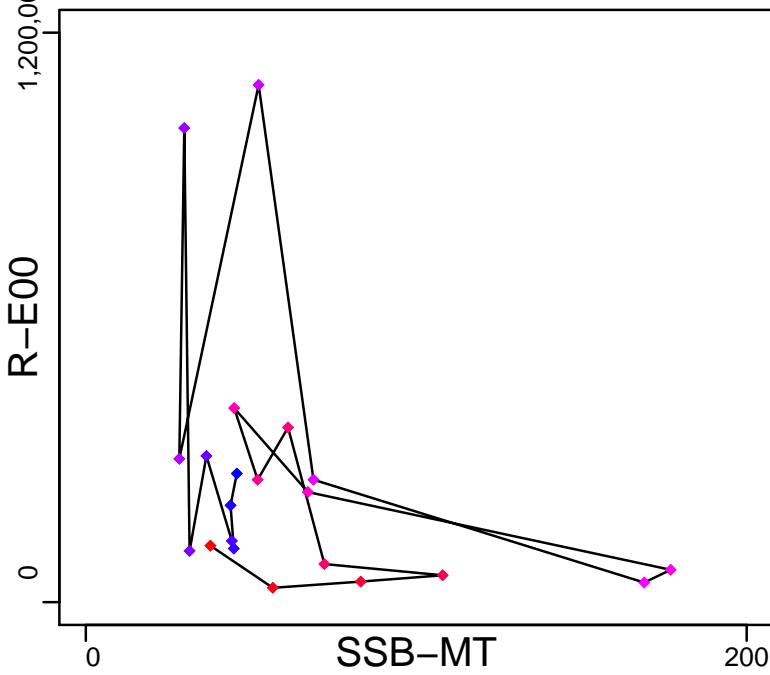
Kobe MSYpref (1993–2013–JPNIMP2016)



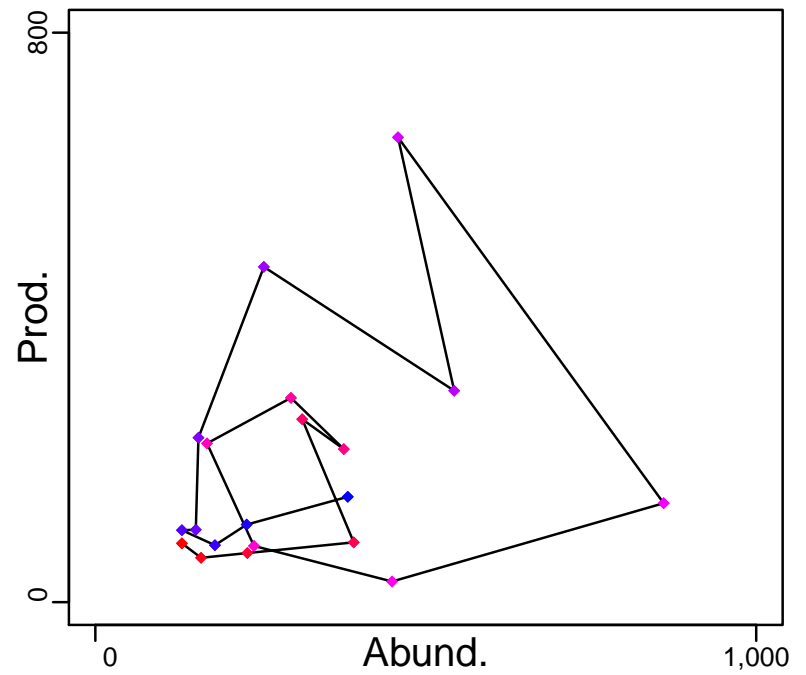
Kobe MGTpref (1993–2013–JPNIMP2016)



Spawner Recruit (1993–2013–JPNIMP2016)



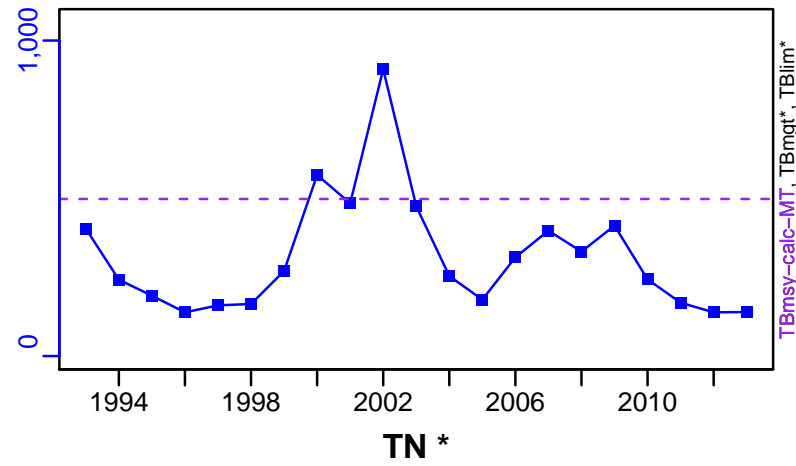
Production (1993–2013–JPNIMP2016)



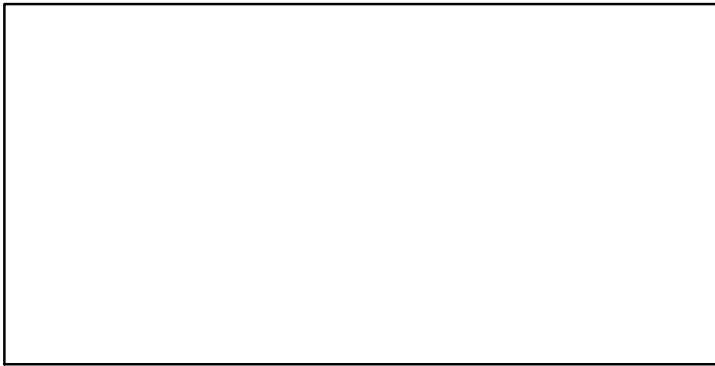
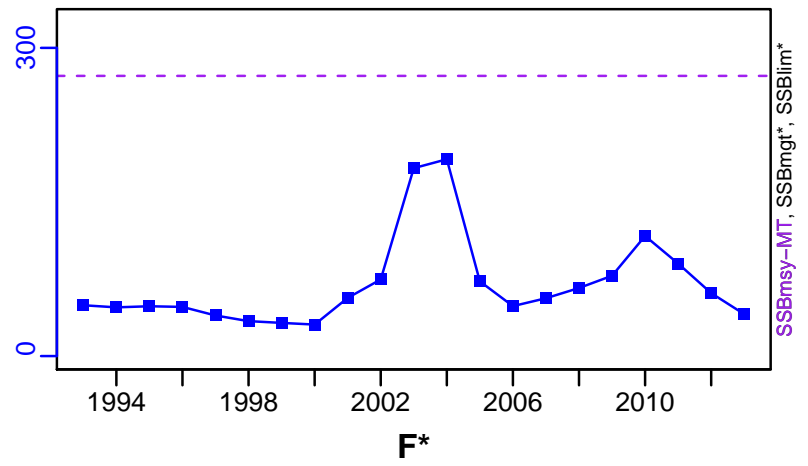
◆ Start Year ◆ End Year \* No Data

# Japanese pufferfish Ise and Mikawa Bay [JPUFFIMKB]

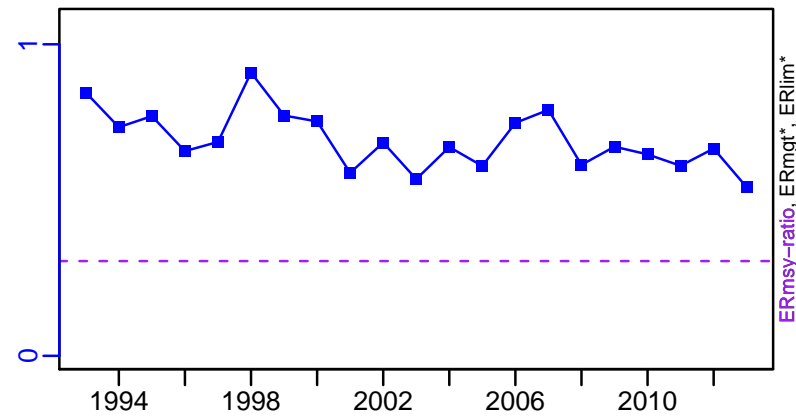
TB-MT (1993-2013-JPNIMP2016)



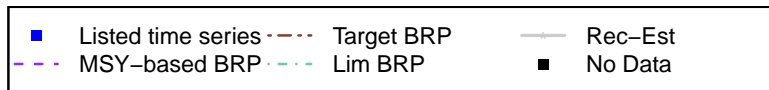
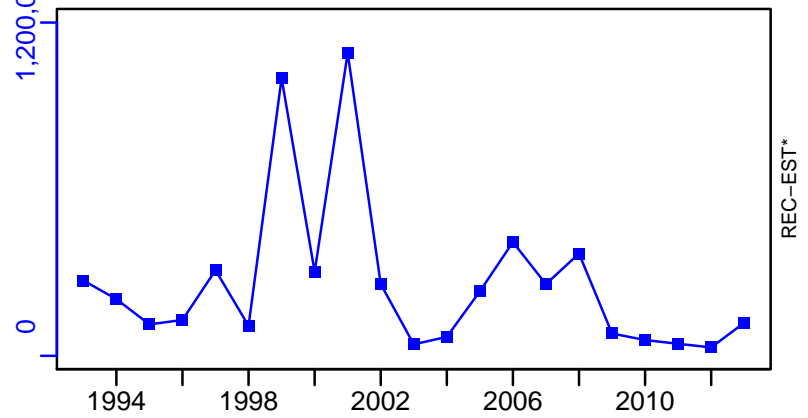
SSB-MT (1993-2013-JPNIMP2016)



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



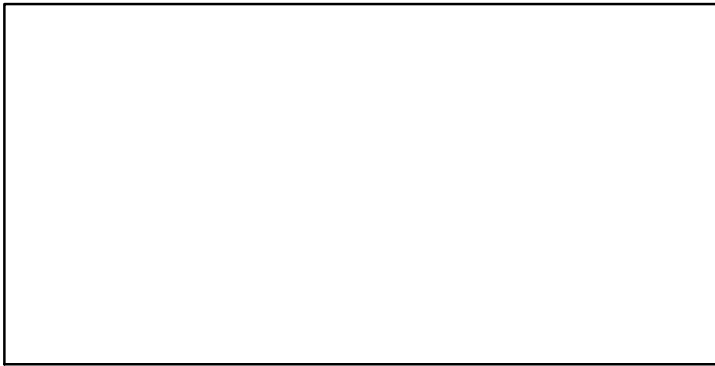
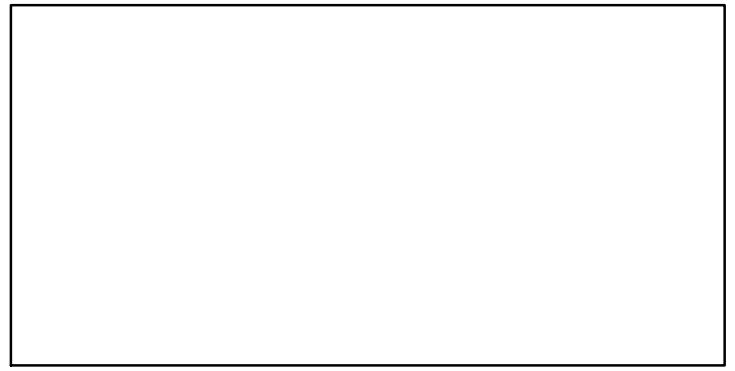
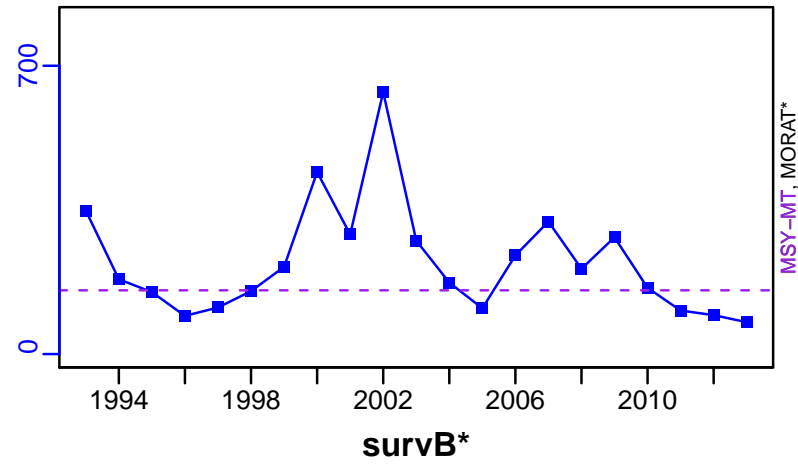
R-E00 (1993-2013-JPNIMP2016)



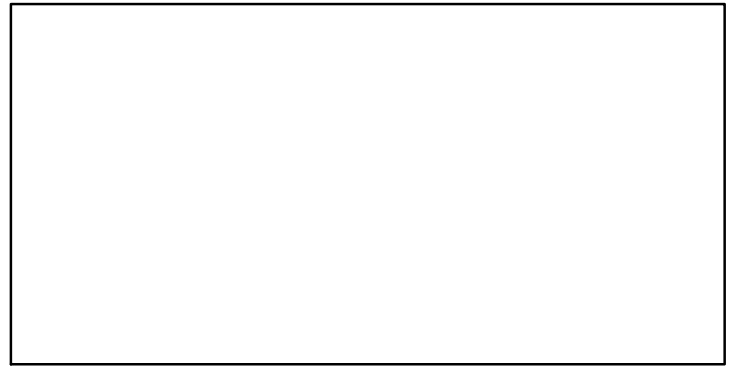
# Japanese pufferfish Ise and Mikawa Bay [JPUFFIMKB]

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

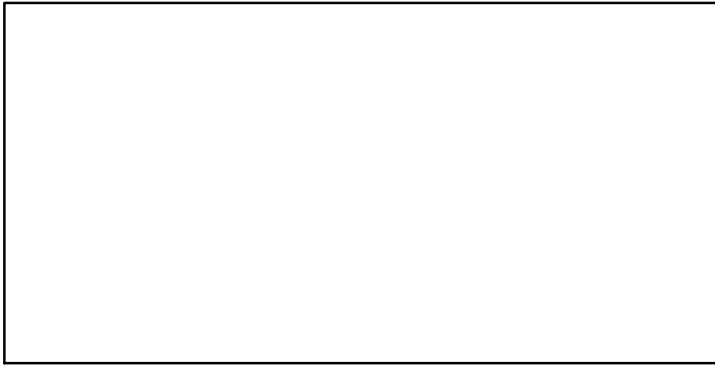
TAC\*, Cpair\*, Cadv\*



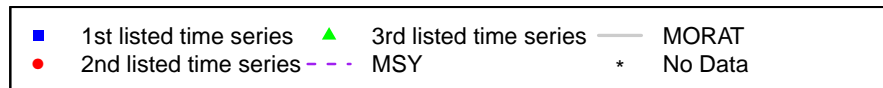
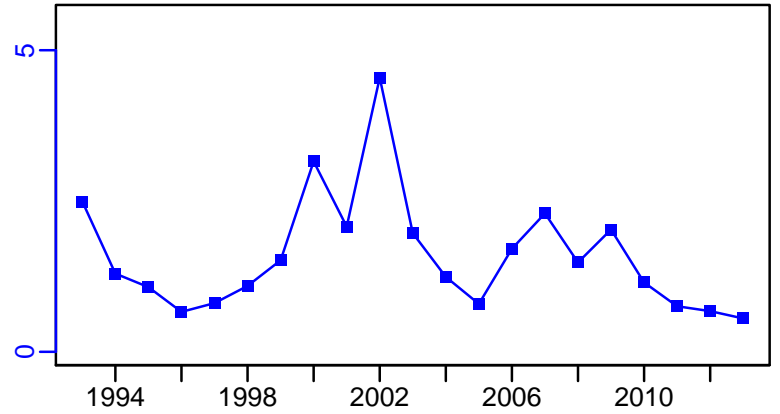
CPUE\*



EFFORT\*



CdivMSY-ratio (1993-2013-JPNIMP2016)



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

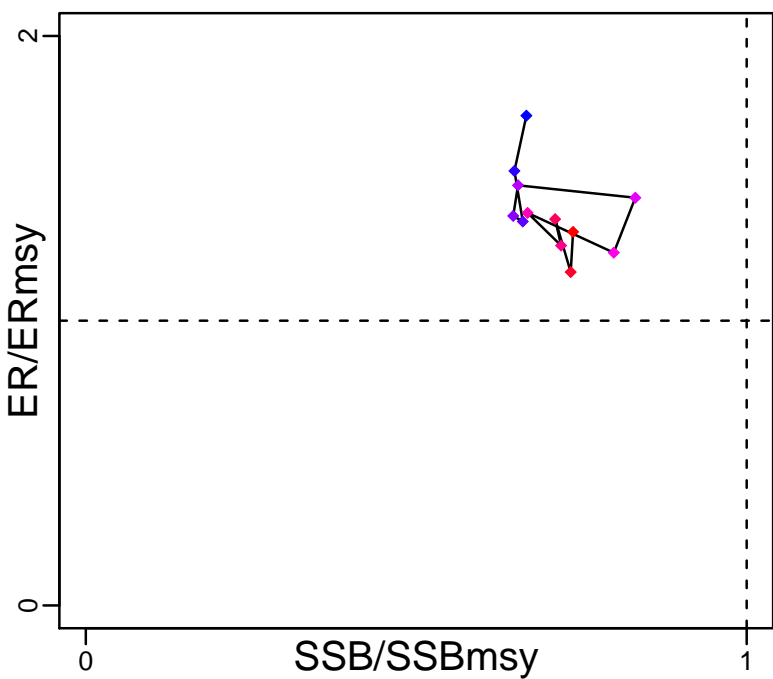
Metadata	
<b>Scientific Name</b>	Takifugu rubripes
<b>Current Assess ID</b>	FAFRFJ-JPUFFSOJECSSI-1993-2013-JPNIMP2016
<b>Area</b>	Sea of Japan and East China Sea and Seto Inland sea
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of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

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

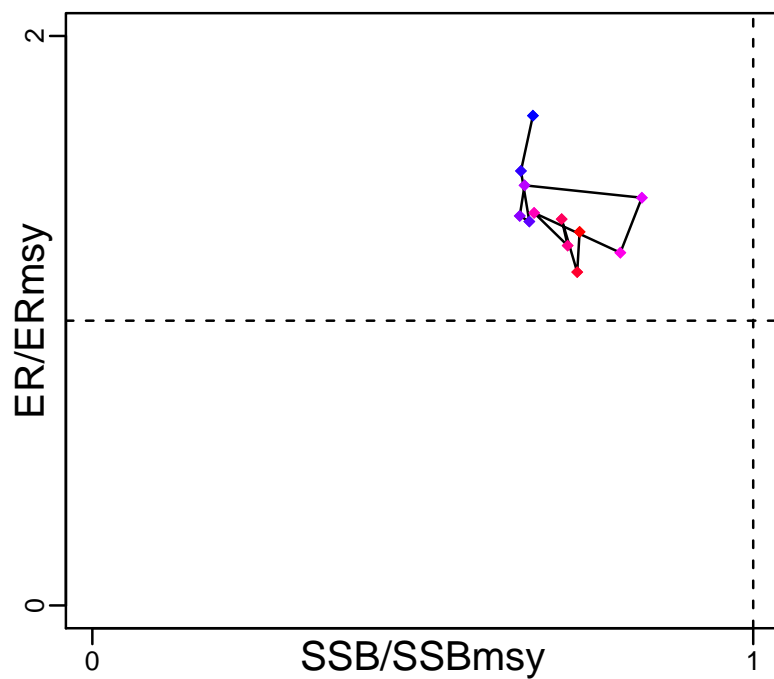
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	829	-	0
<b>SSB</b>	SSB-MT	2013	407	Both	3
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	203,000	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0.302	-	-
<b>TC</b>	TC-MT	2013	250		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2013	0.74		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.737		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	1.312		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

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

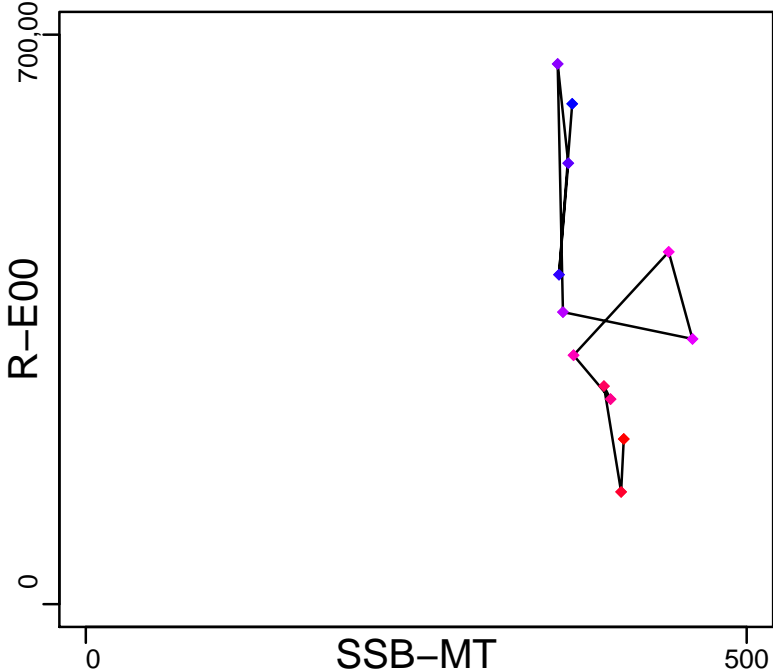
Kobe MSYpref (1993–2013–JPNIMP2016)



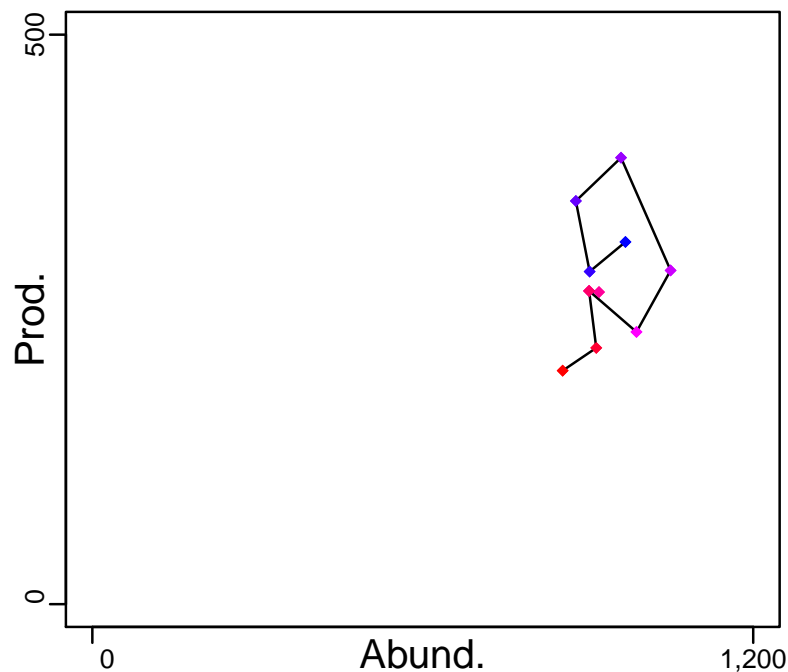
Kobe MGTpref (1993–2013–JPNIMP2016)



Spawner Recruit (1993–2013–JPNIMP2016)



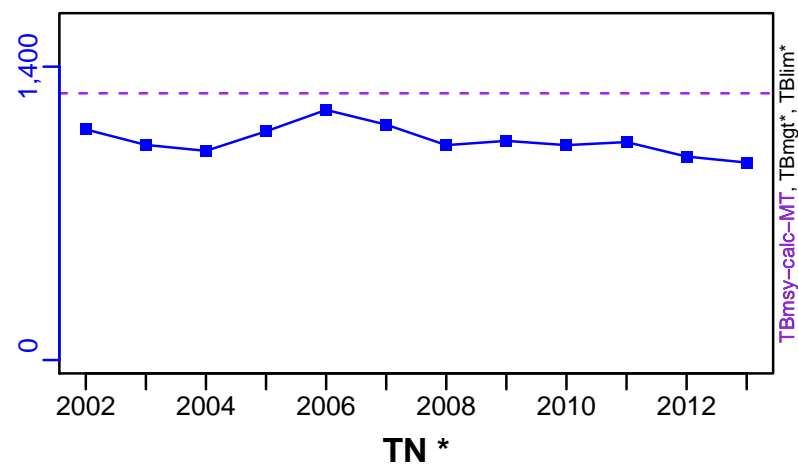
Production (1993–2013–JPNIMP2016)



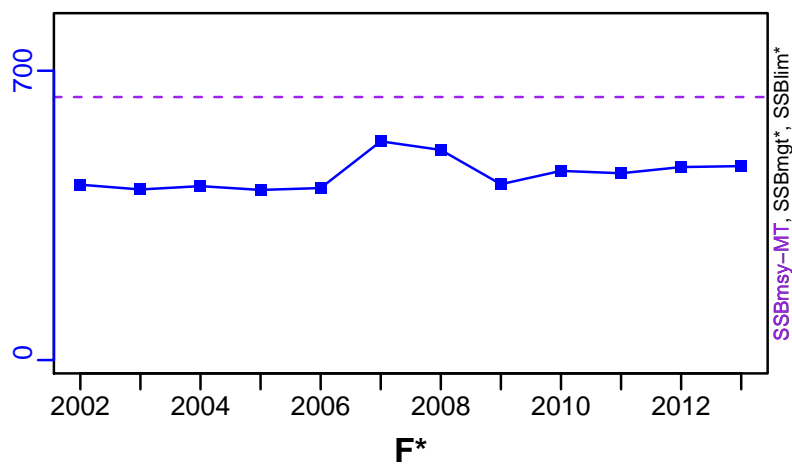
◆ Start Year ◆ End Year \* No Data

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

TB-MT (1993–2013–JPNIMP2016)



SSB-MT (1993–2013–JPNIMP2016)

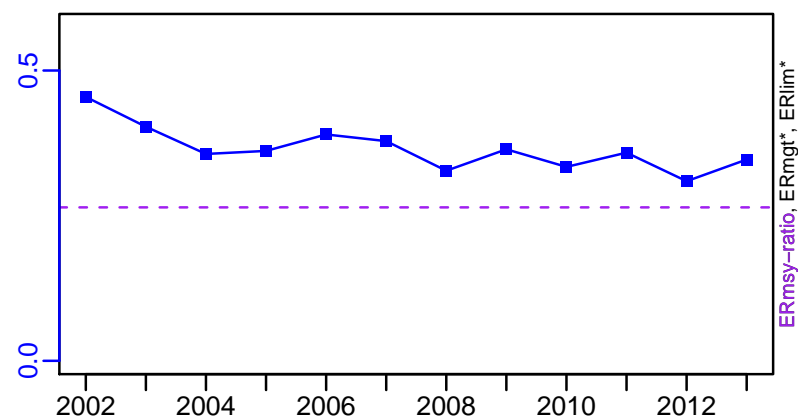


TN \*

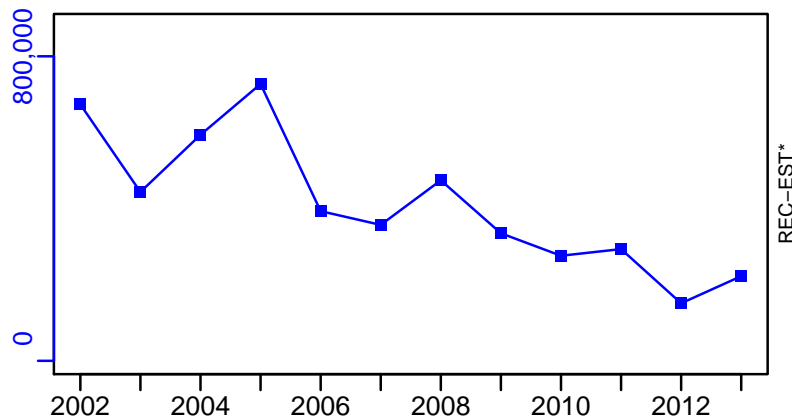
F\*



ER-calc-ratio (1993–2013–JPNIMP2016)

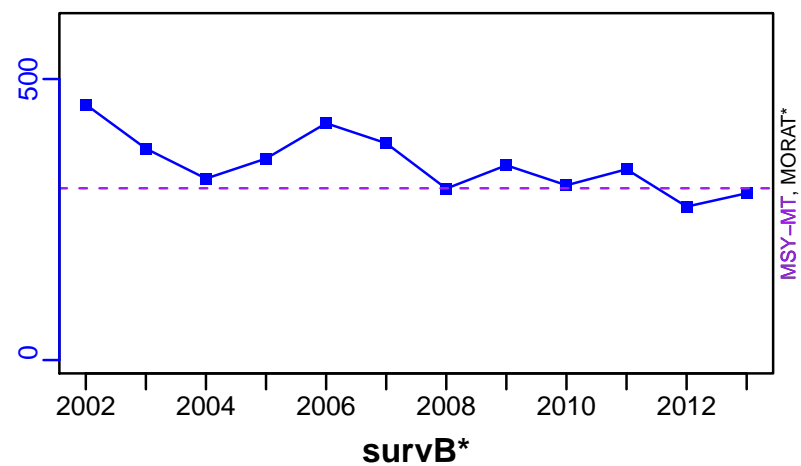


R-E00 (1993–2013–JPNIMP2016)

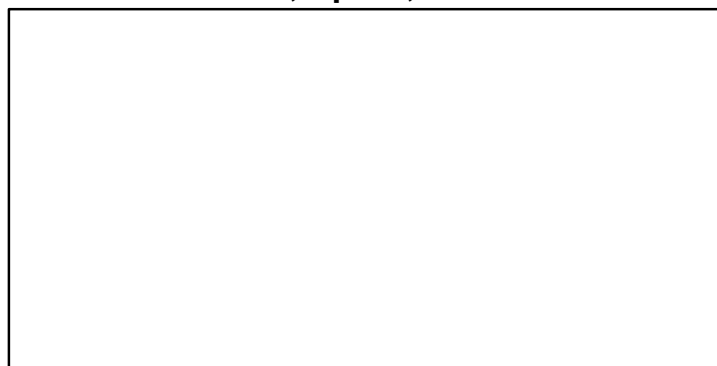


Japanese pufferfish Sea of Japan and East China Sea and Seto Inland sea [JPUFFSOJECSSI]

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



TAC\*, Cpair\*, Cadv\*



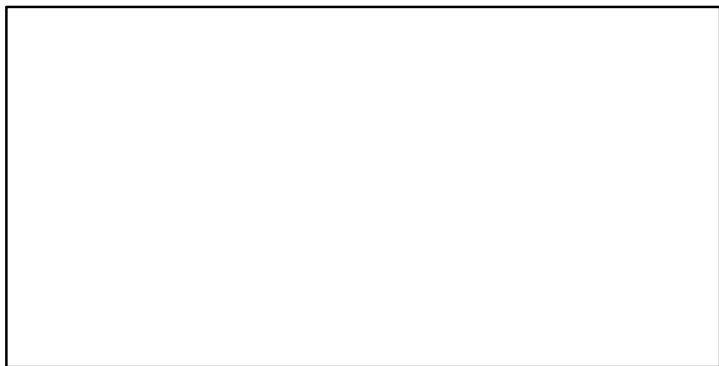
survB\*



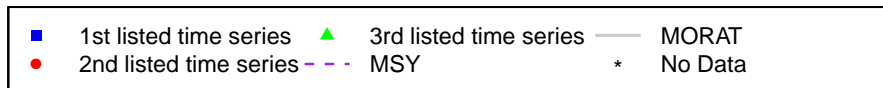
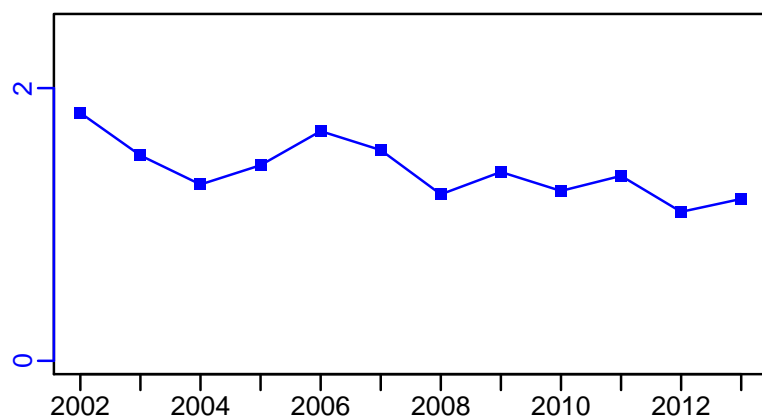
CPUE\*



EFFORT\*



CdivMSY-ratio (1993-2013-JPNIMP2016)



## Japanese snapper Okinawa Islands [JSNAPOKWI]

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



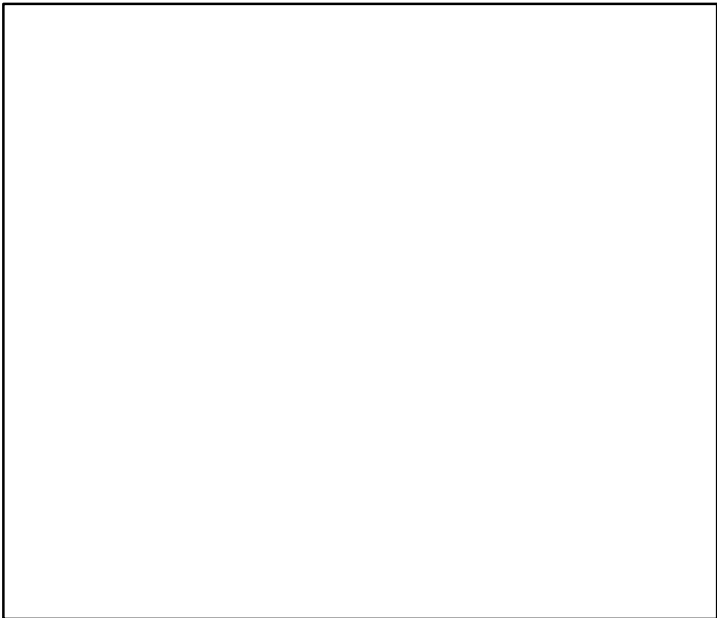
Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data

Japanese snapper Okinawa Islands [JSNAPOKWI]

TB\*



SSB\*



TN \*



F\*



ER\*

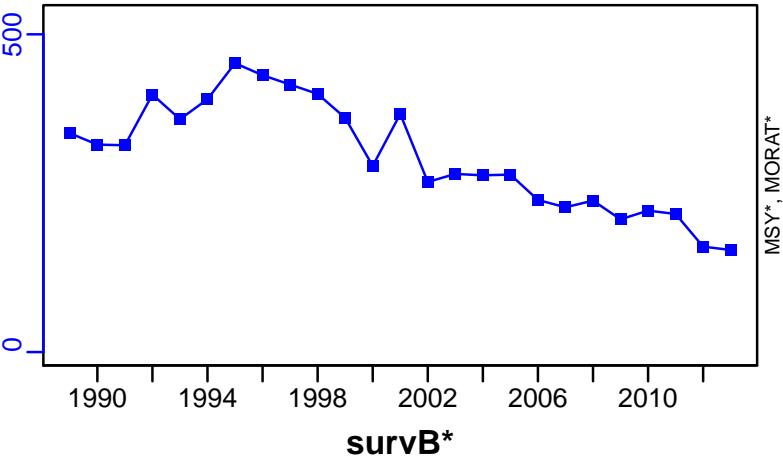


Recruits\*



Japanese snapper Okinawa Islands [JSNAPOKWI]

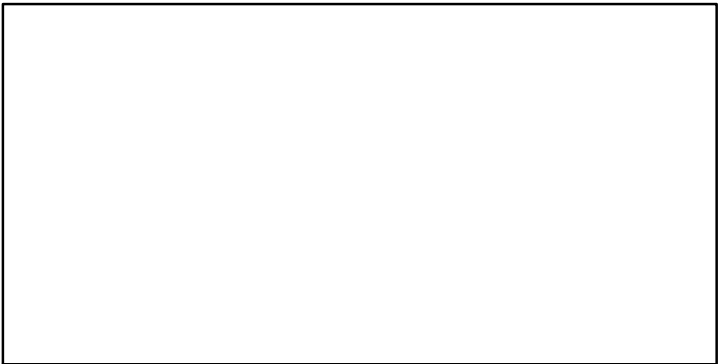
TC-MT, TL\*, RecC\* (1989-2013-JPNIMP2016)



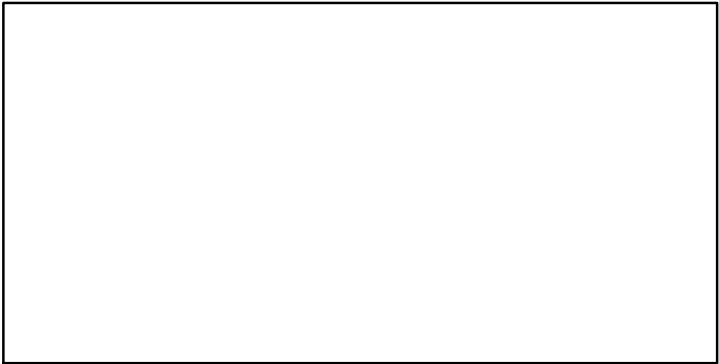
TAC\*, Cpair\*, Cadv\*



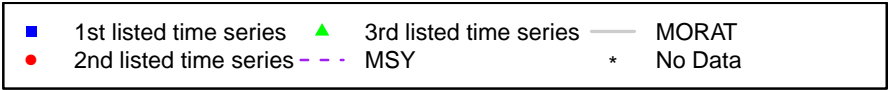
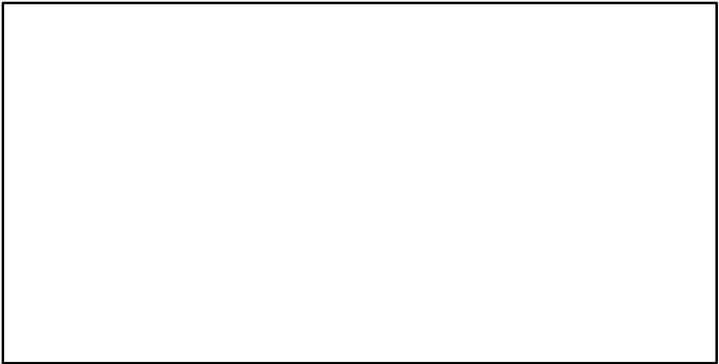
CPUE\*



EFFORT\*



CdivMSY\*



## Kichiji rockfish North Pacific [KCROCKNPAC]

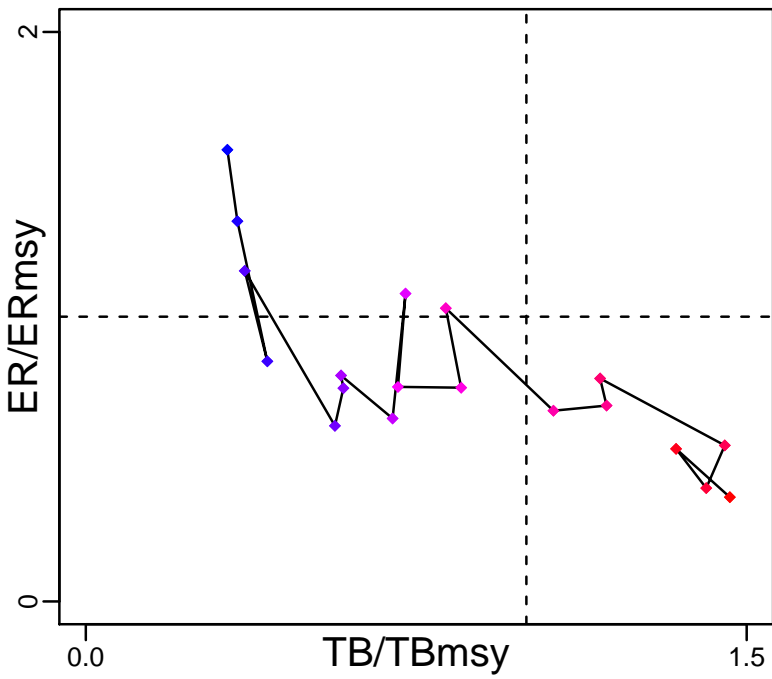
Metadata	
<b>Scientific Name</b>	Sebastolobus macrochir
<b>Current Assess ID</b>	FAFRFJ-KCROCKNPAC-1975-2013-JPNIMP2016
<b>Area</b>	North Pacific
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>	2013

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

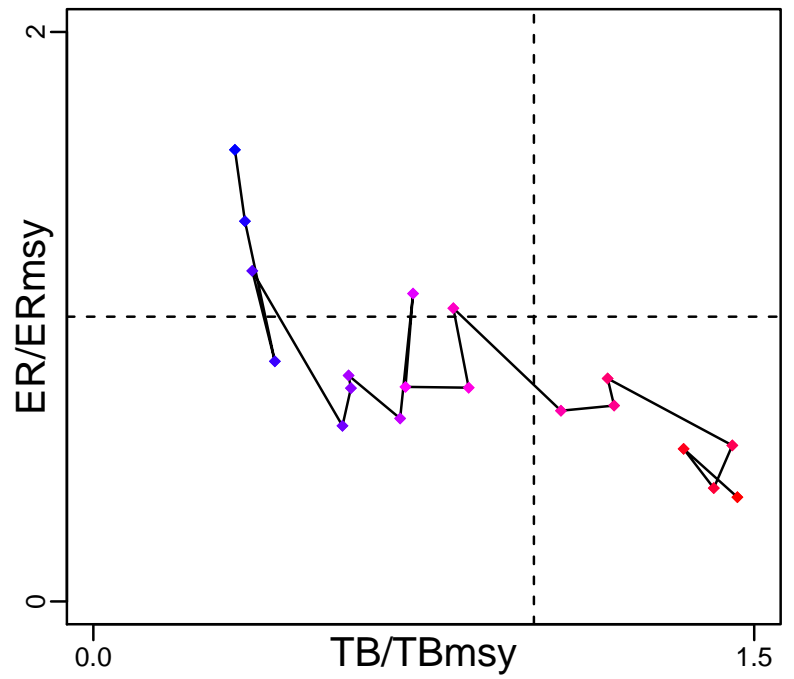
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	6470	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0.062	-	-
<b>TC</b>	TC-MT	2013	398		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2013	1.462		
<b>SSB/SSBmsy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

# Kichiji rockfish North Pacific [KCROCKNPAC]

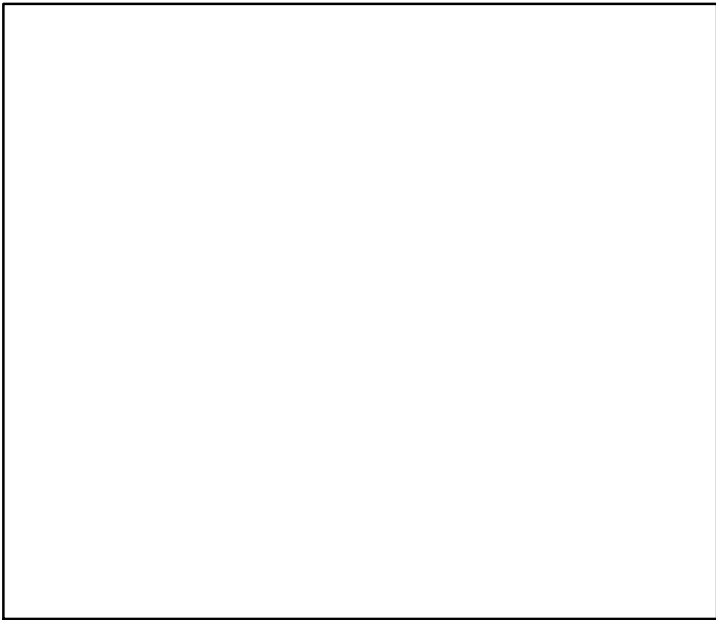
Kobe MSYpref (1975–2013–JPNIMP2016)



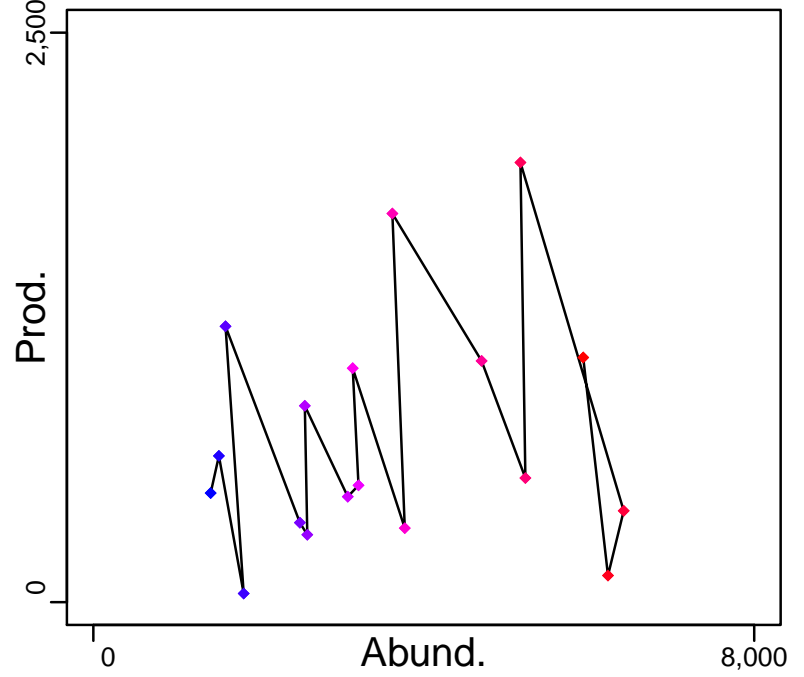
Kobe MGTpref (1975–2013–JPNIMP2016)



Spawner Recruit\*



Production (1975–2013–JPNIMP2016)

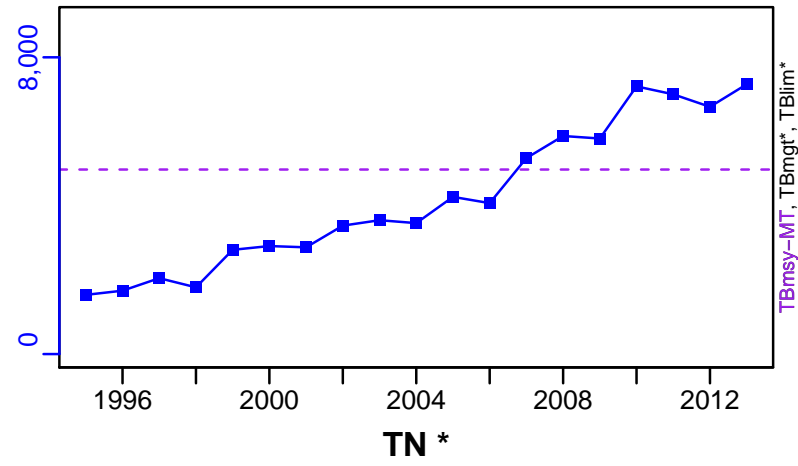


◆ Start Year ◆ End Year \* No Data

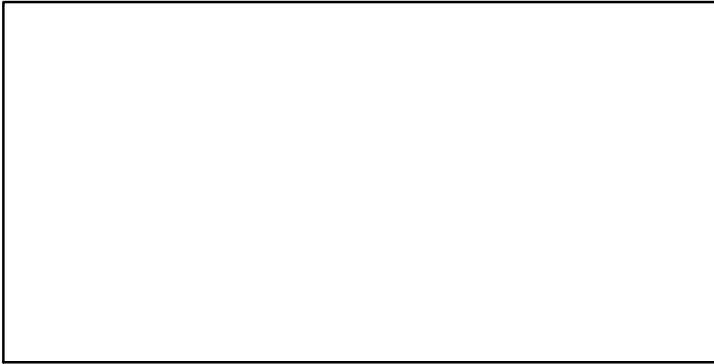
# Kichiji rockfish North Pacific [KCROCKNPAC]

TB-MT (1975-2013-JPNIMP2016)

SSB\*

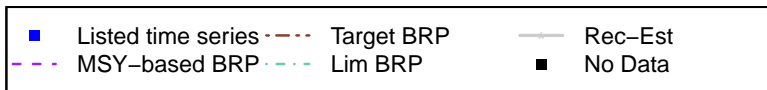
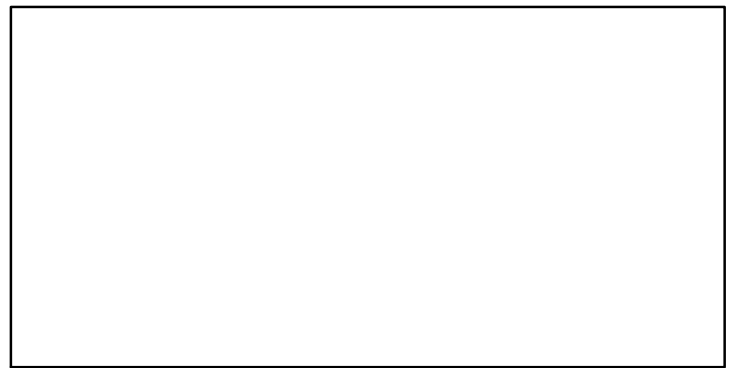
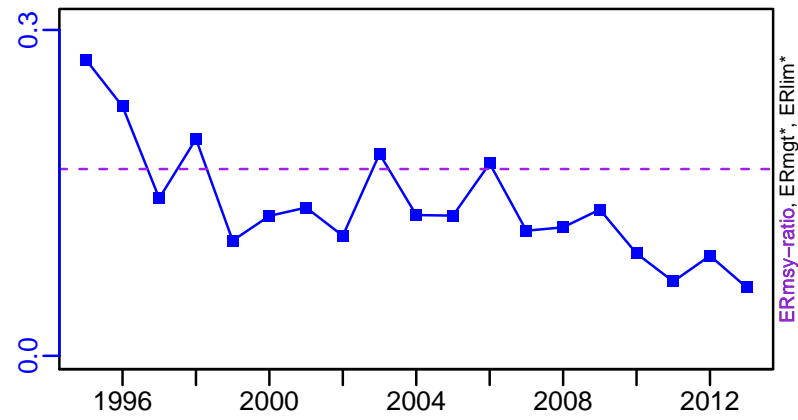


F\*



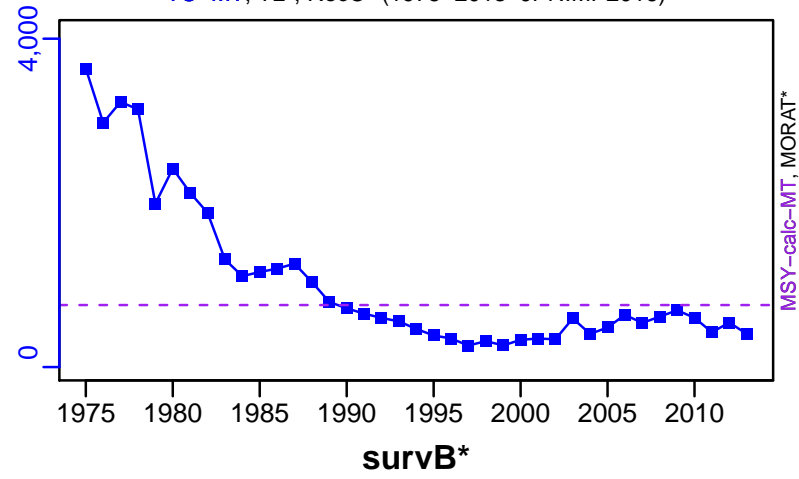
ER-calc-ratio (1975-2013-JPNIMP2016)

Recruits\*

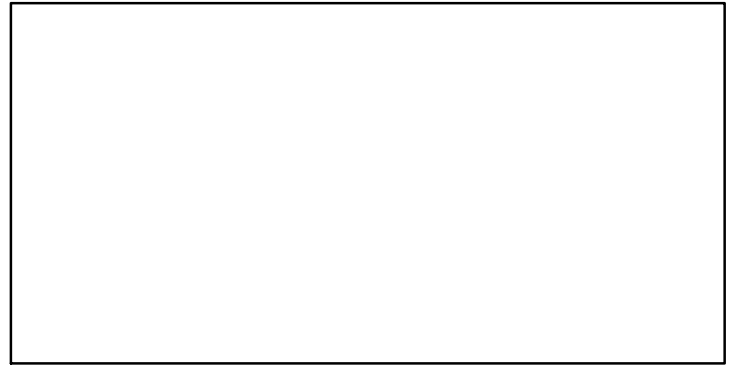


# Kichiji rockfish North Pacific [KCROCKNPAC]

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



TAC\*, Cpair\*, Cadv\*



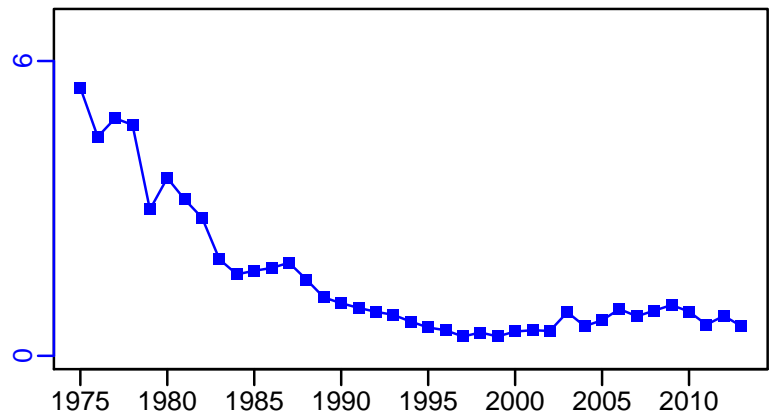
CPUE\*



EFFORT\*



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



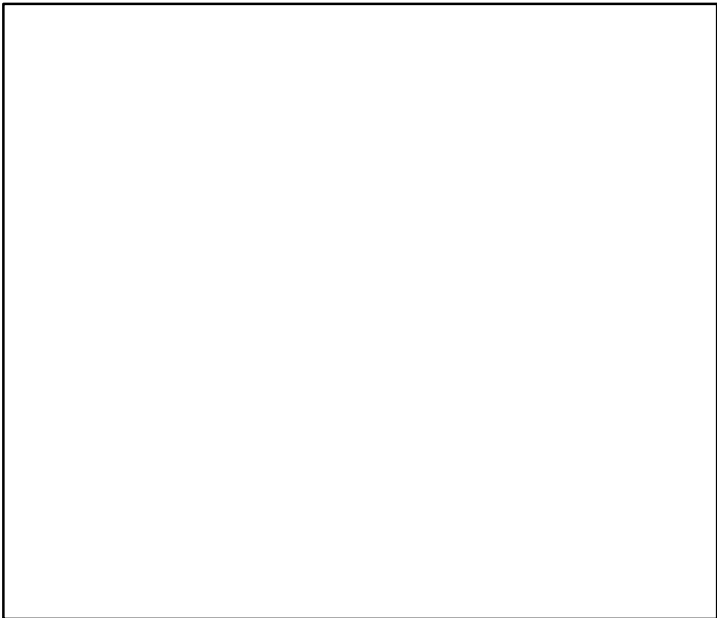
Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data

Kichiji rockfish Okhotsk Sea [KCROCKOKS]

TB\*



SSB\*



TN \*



F\*



ER\*



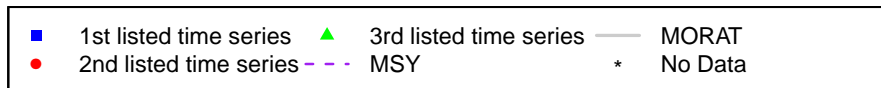
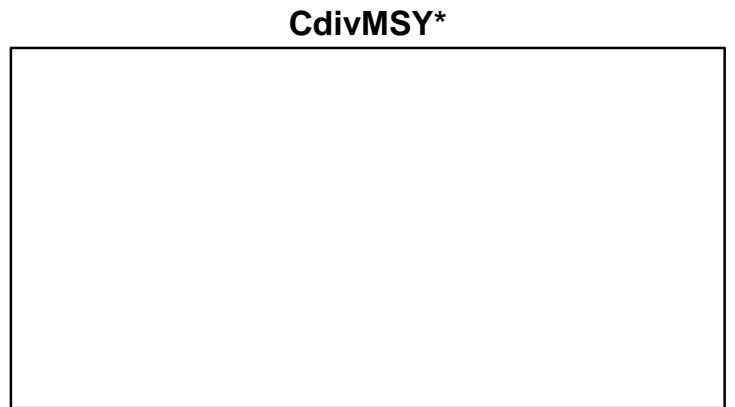
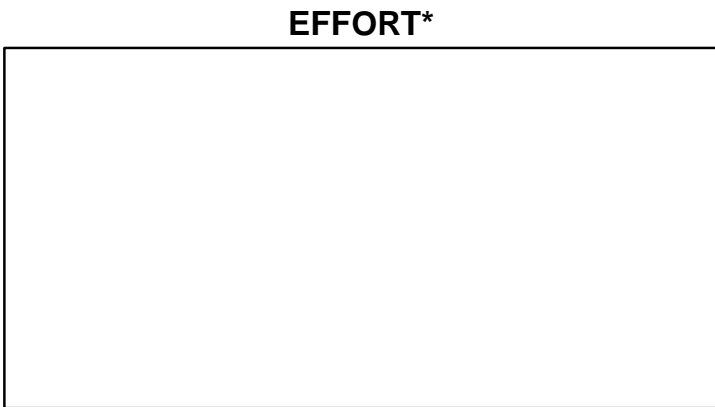
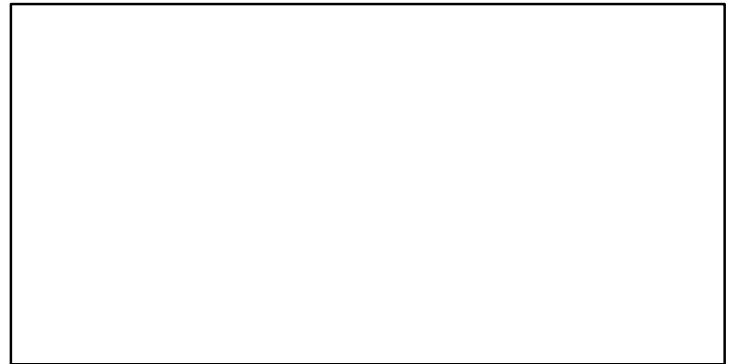
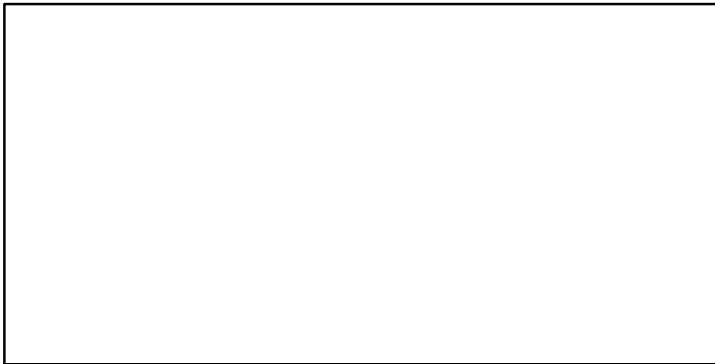
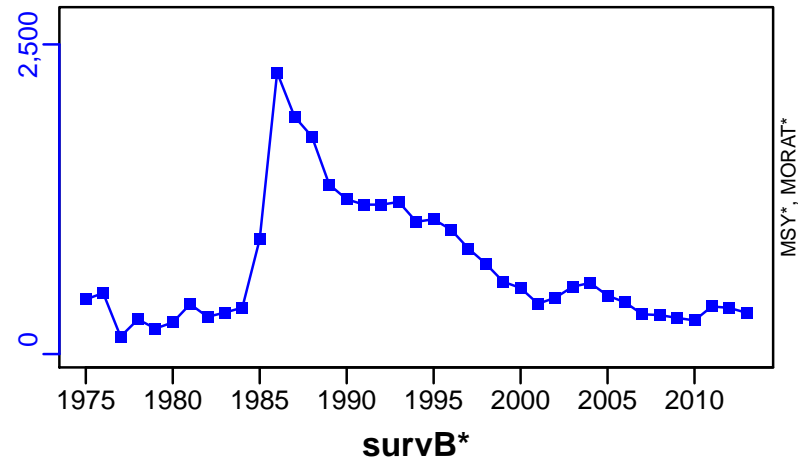
Recruits\*



# Kichiji rockfish Okhotsk Sea [KCROCKOKS]

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

TAC\*, Cpair\*, Cadv\*



# Kichiji rockfish Southwestern coast of Hokkaido [KCROCKSWHOKK]

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

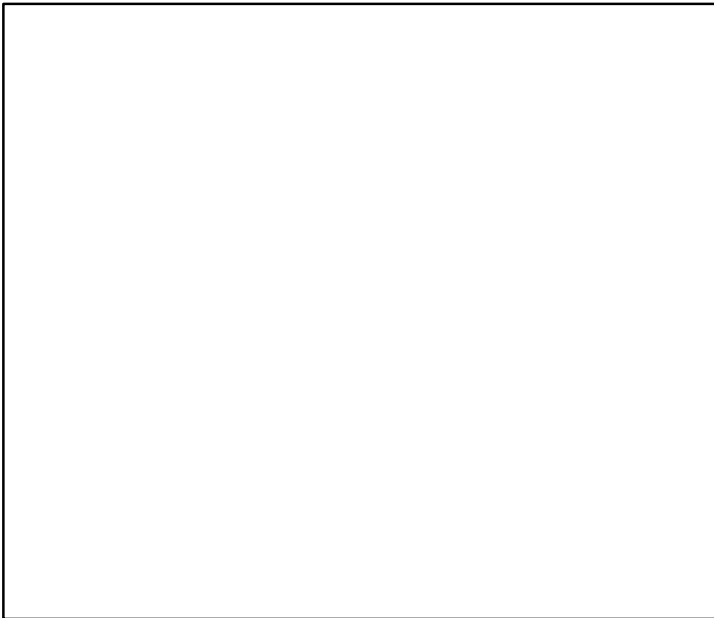
**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



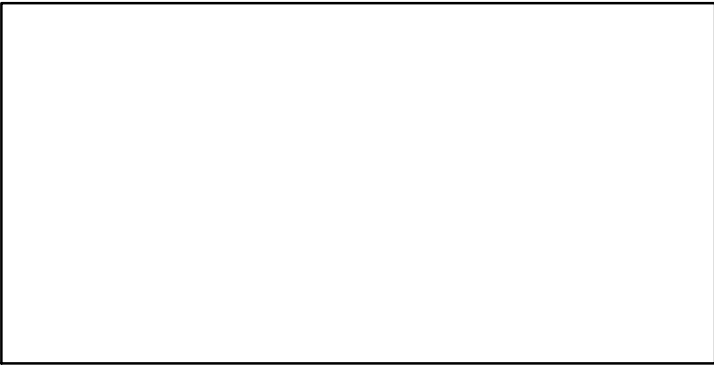
**Production\***



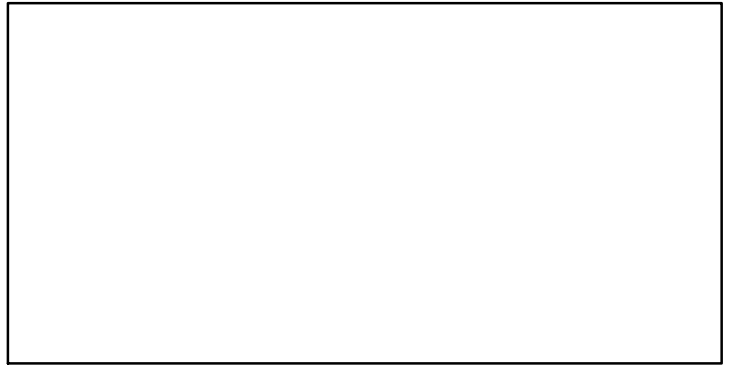
◆ Start Year ◆ End Year \* No Data

Kichiji rockfish Southwestern coast of Hokkaido [KCROCKSWHOKK]

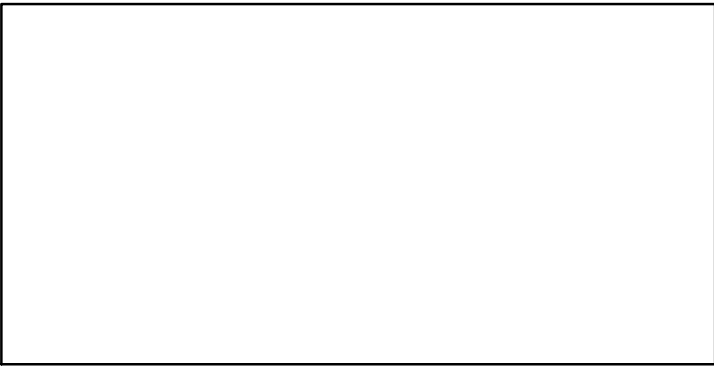
**TB\***



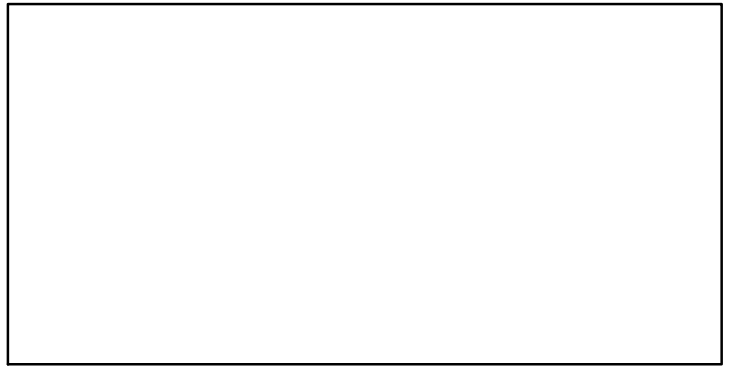
**SSB\***



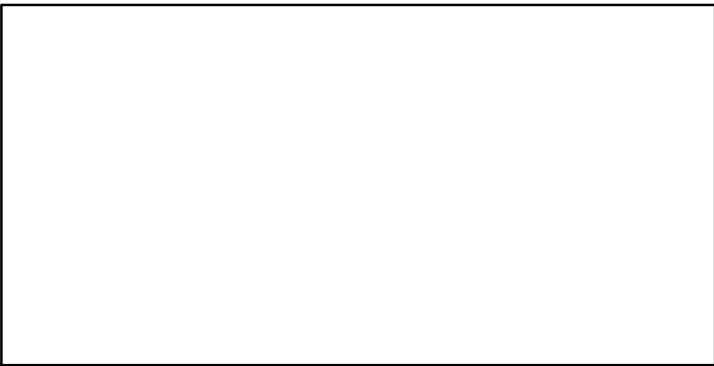
**TN \***



**F\***



**ER\***



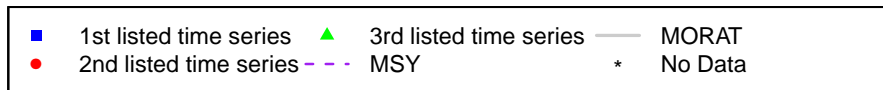
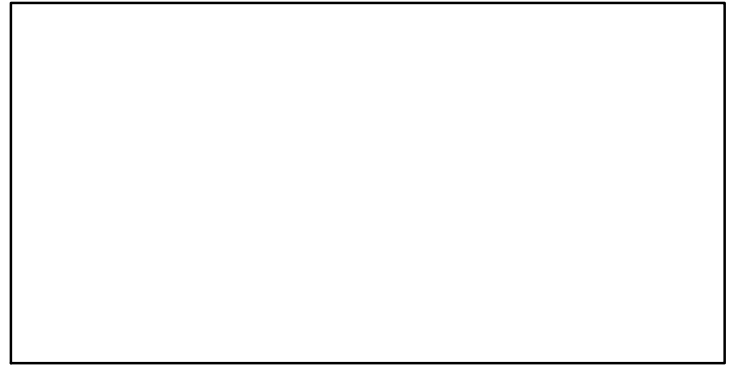
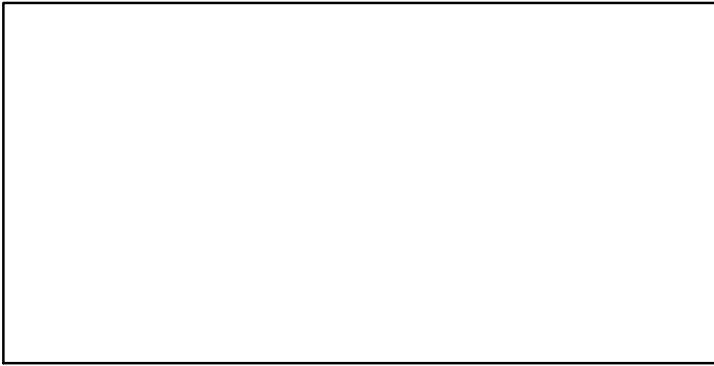
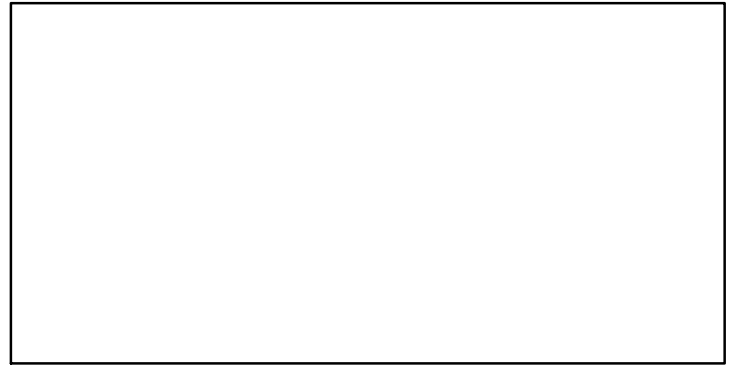
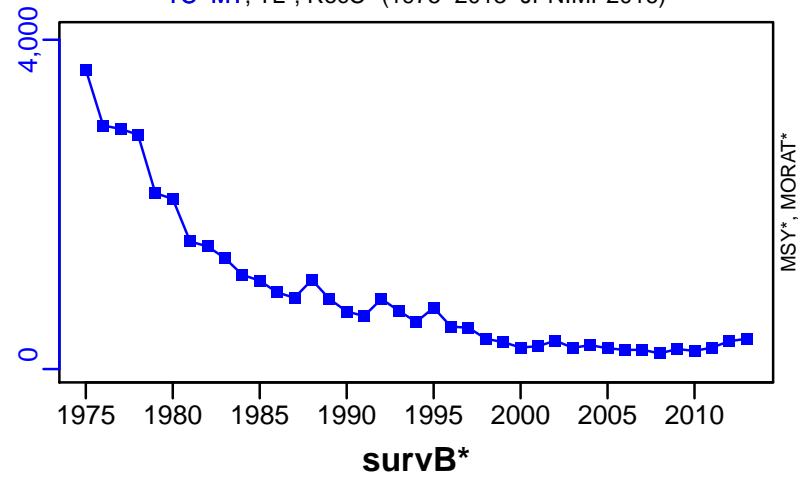
**Recruits\***



# Kichiji rockfish Southwestern coast of Hokkaido [KCROCKSWHOKK]

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

TAC\*, Cpair\*, Cadv\*



## Longfin codling Pacific Ocean [LCODLINGPAC]

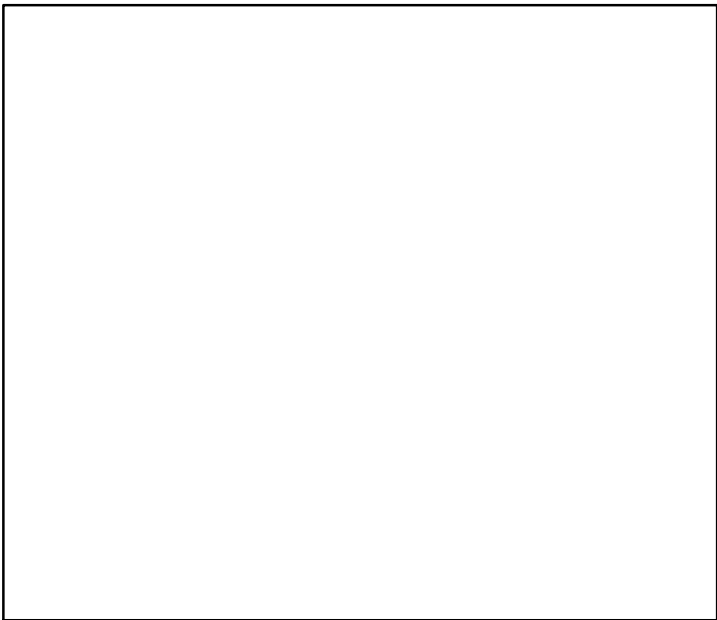
Metadata	
<b>Scientific Name</b>	Laemonema longipes
<b>Current Assess ID</b>	FAFRFJ-LCODLINGPAC-1989-2013-JPNIMP2016
<b>Area</b>	Pacific Ocean
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>	2013

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	-	-	-		



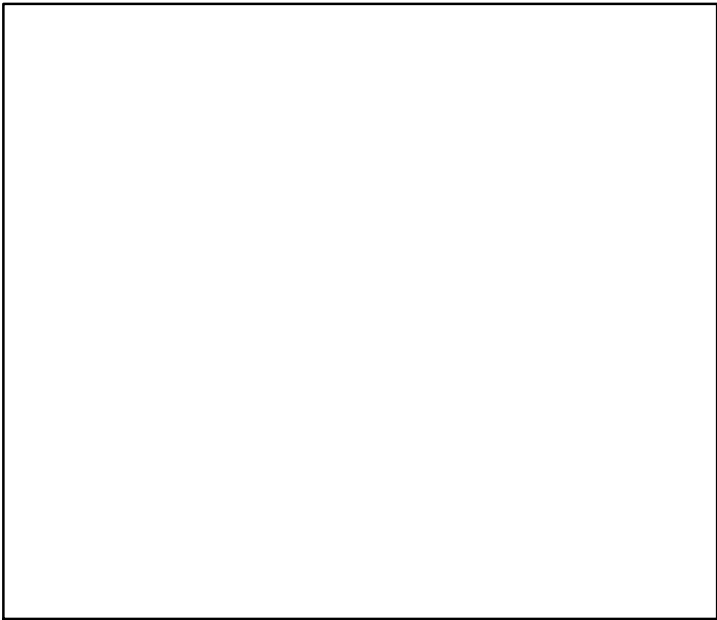
Kobe MSY\*



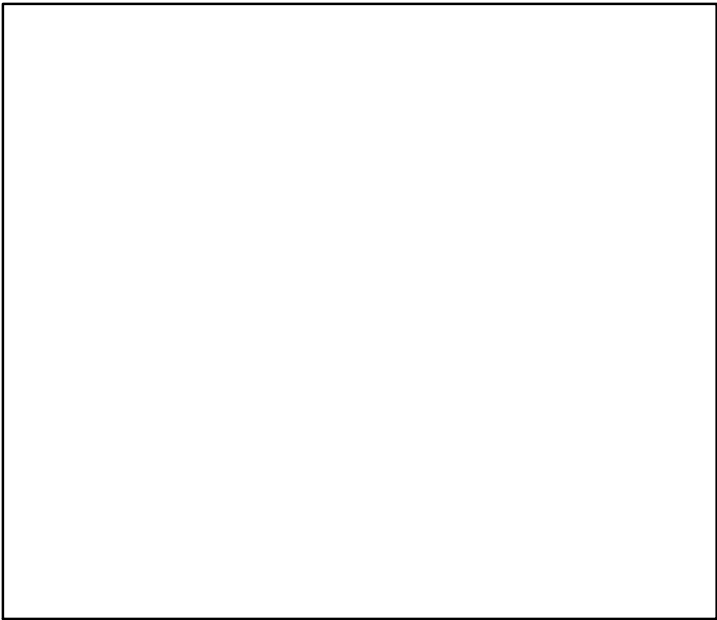
Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data

Longfin codling Pacific Ocean [LCODLINGPAC]

TB\*



SSB\*



TN \*



F\*



ER\*

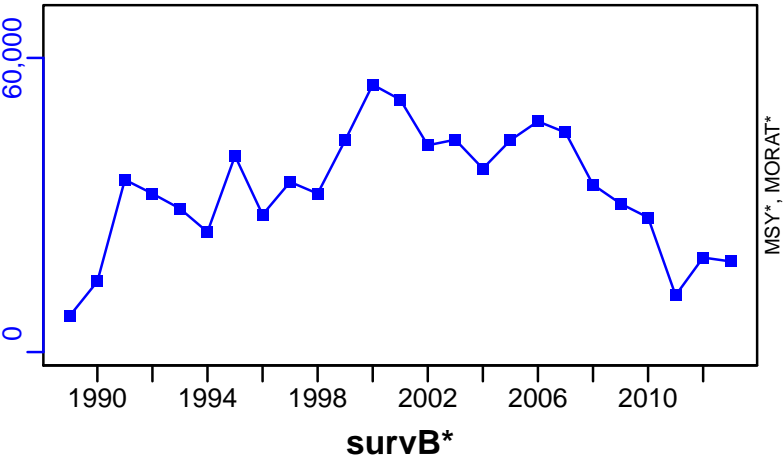


Recruits\*



Longfin codling Pacific Ocean [LCODLINGPAC]

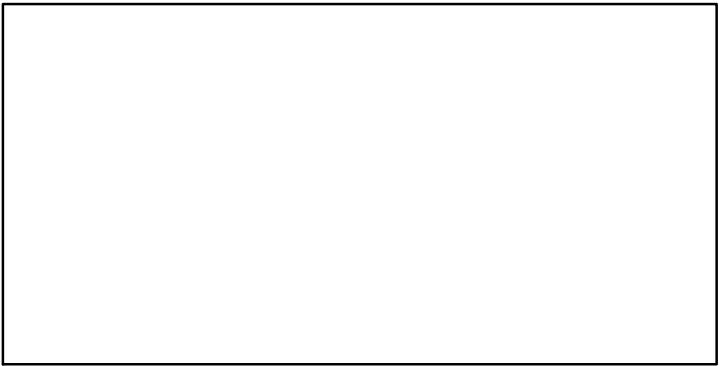
TC-MT, TL\*, RecC\* (1989–2013–JPNIMP2016)



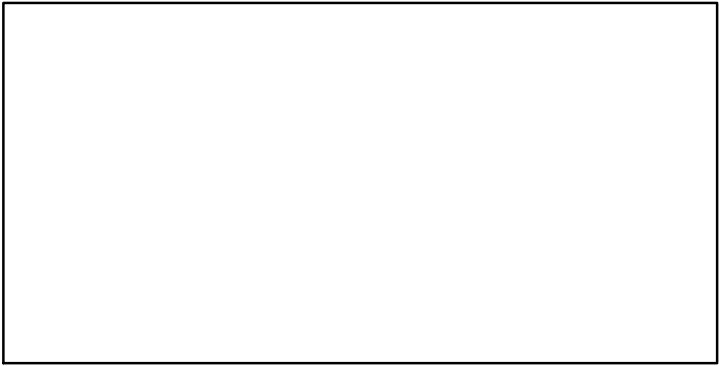
TAC\*, Cpair\*, Cadv\*



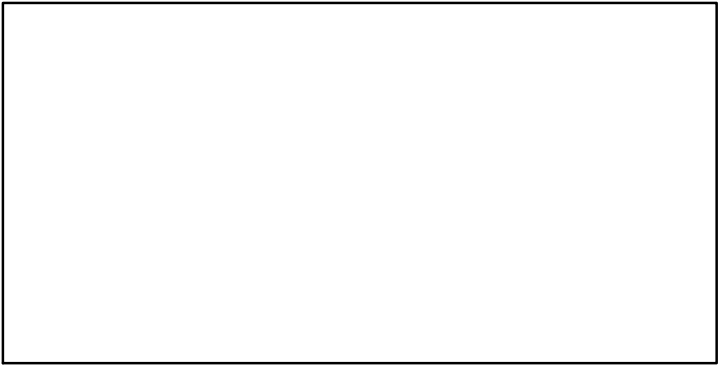
CPUE\*



EFFORT\*



CdivMSY\*



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

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

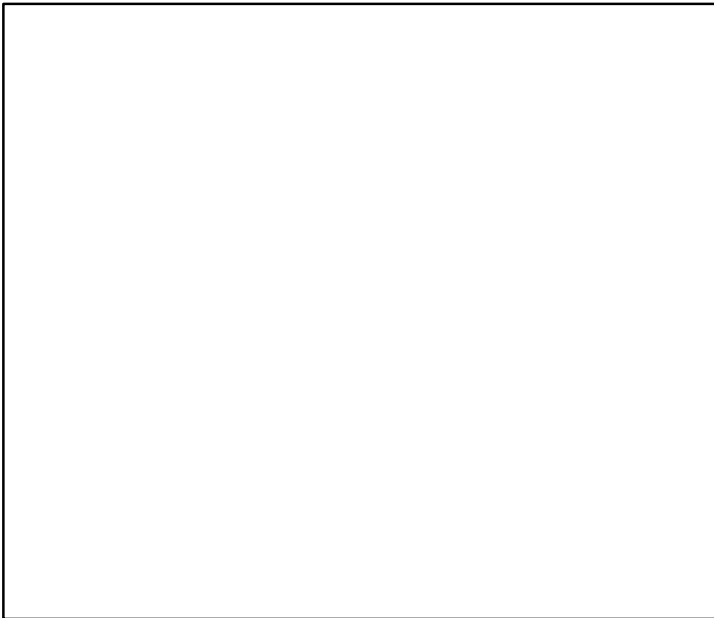
**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



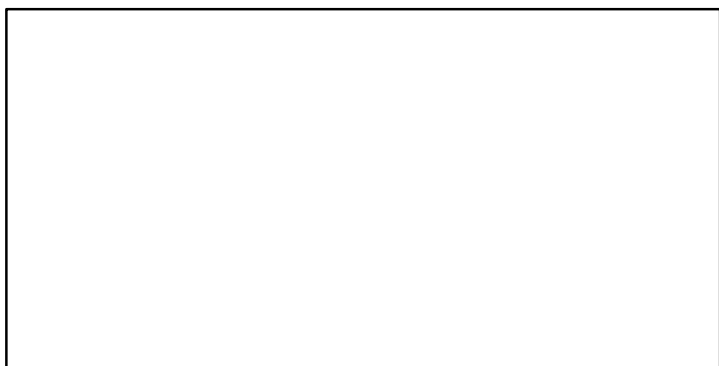
**Production\***



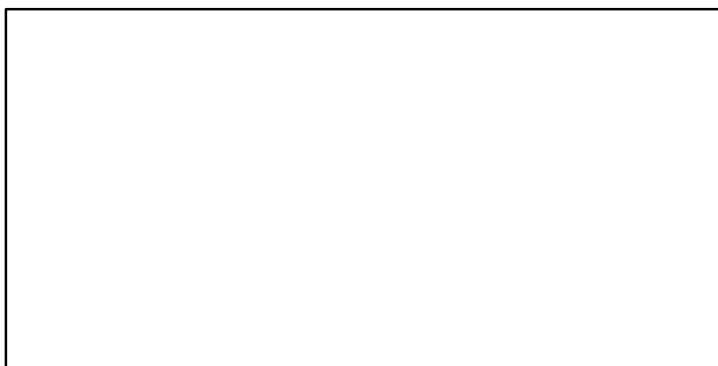
◆ Start Year ◆ End Year \* No Data

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

**TB\***



**SSB\***



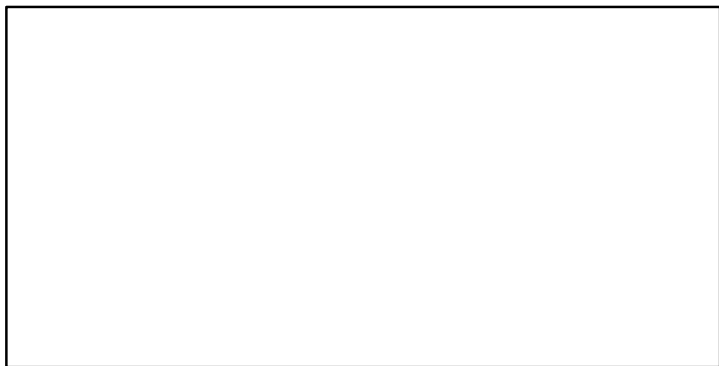
**TN \***



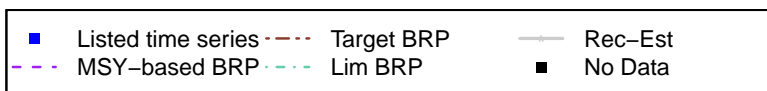
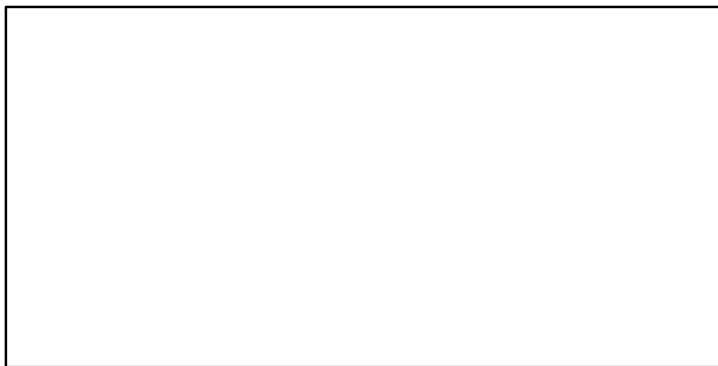
**F\***



**ER\***



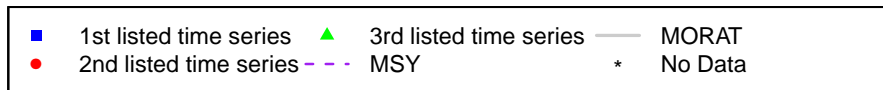
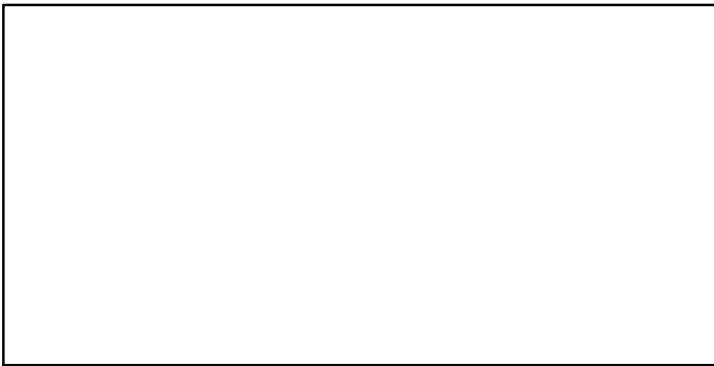
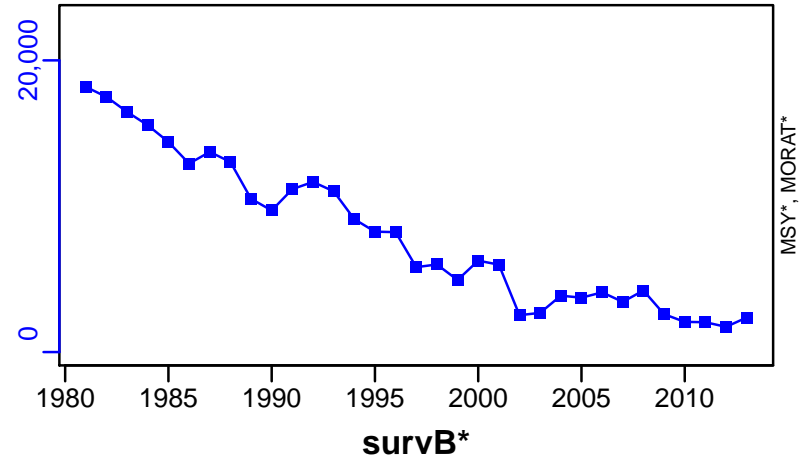
**Recruits\***



# 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]

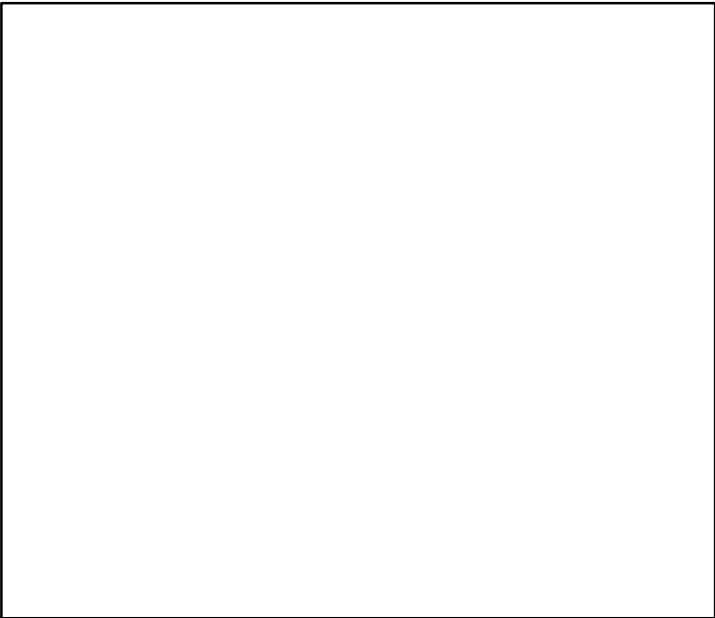
Metadata	
<b>Scientific Name</b>	Pristipomoides sieboldii
<b>Current Assess ID</b>	FAFRFJ-LJOBOKWI-1989-2013-JPNIMP2016
<b>Area</b>	Okinawa Islands
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>	2013

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

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



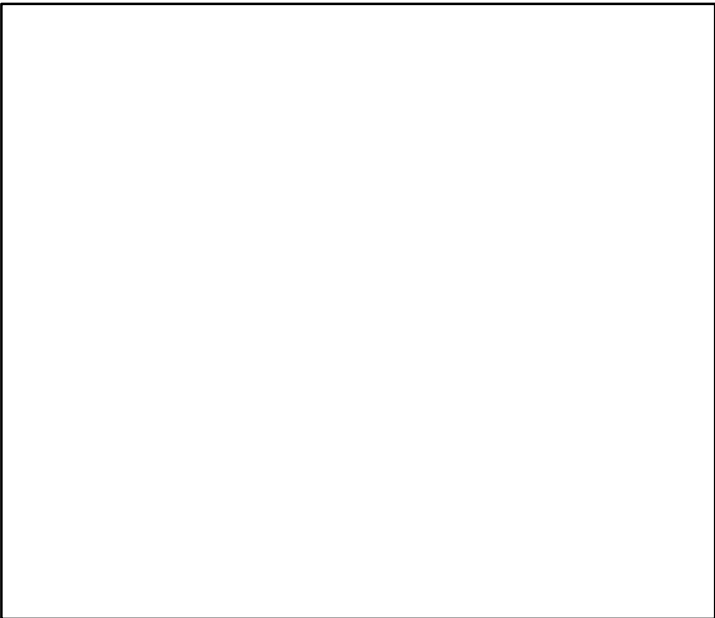
Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data

Lavender jobfish Okinawa Islands [LJOBOKWI]

TB\*



SSB\*



TN \*



F\*



ER\*

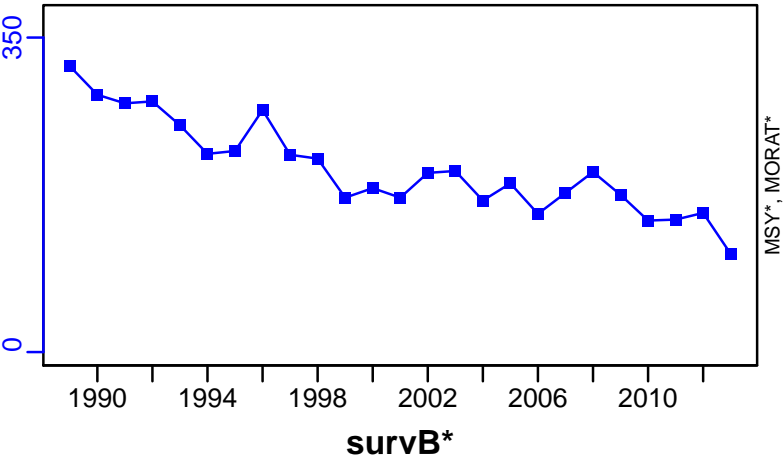


Recruits\*



Lavender jobfish Okinawa Islands [LJOBOKWI]

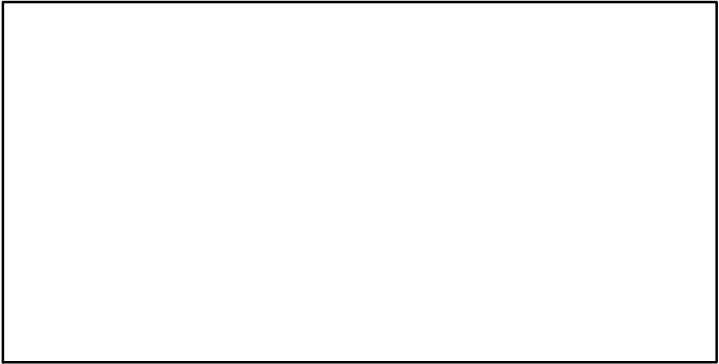
TC-MT, TL\*, RecC\* (1989-2013-JPNIMP2016)



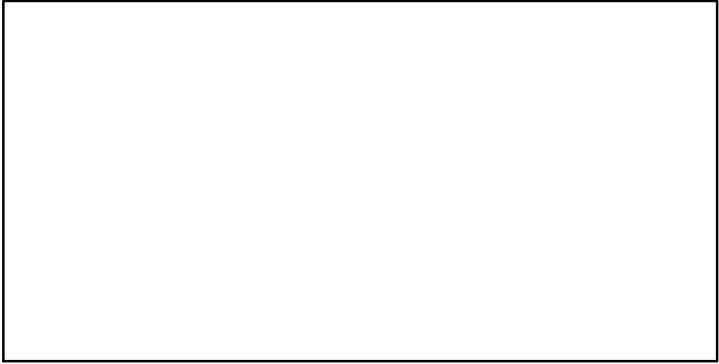
TAC\*, Cpair\*, Cadv\*



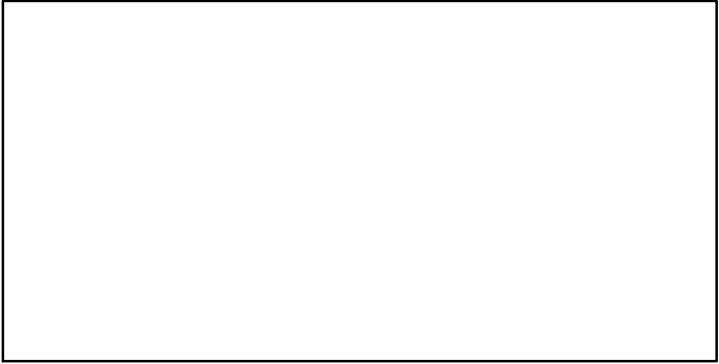
CPUE\*



EFFORT\*



CdivMSY\*



## Japanese flounder East China Sea [OFLOUNECS]

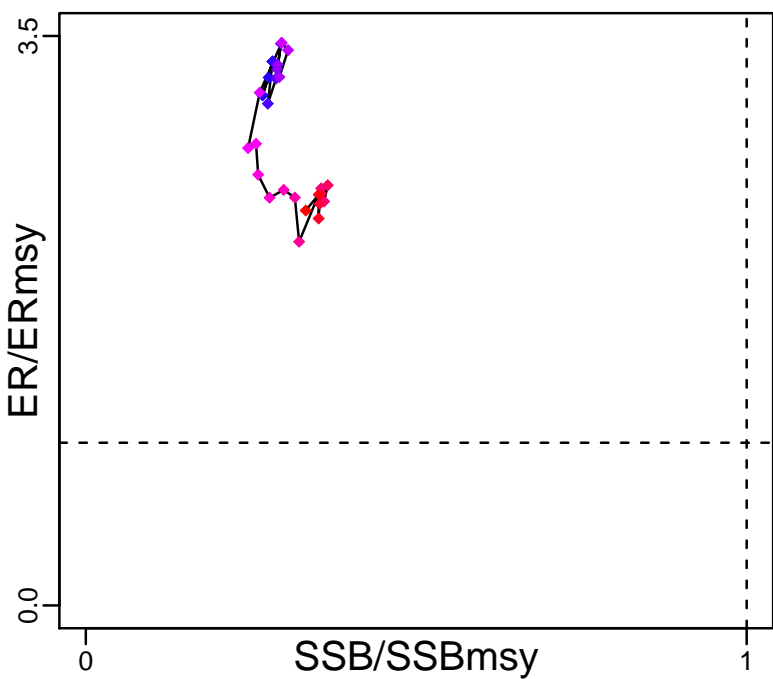
Metadata	
<b>Scientific Name</b>	Paralichthys olivaceus
<b>Current Assess ID</b>	FAFRFJ-OFLOUNECS-1975-2013-JPNIMP2016
<b>Area</b>	East China Sea
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>	2013, 2010

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

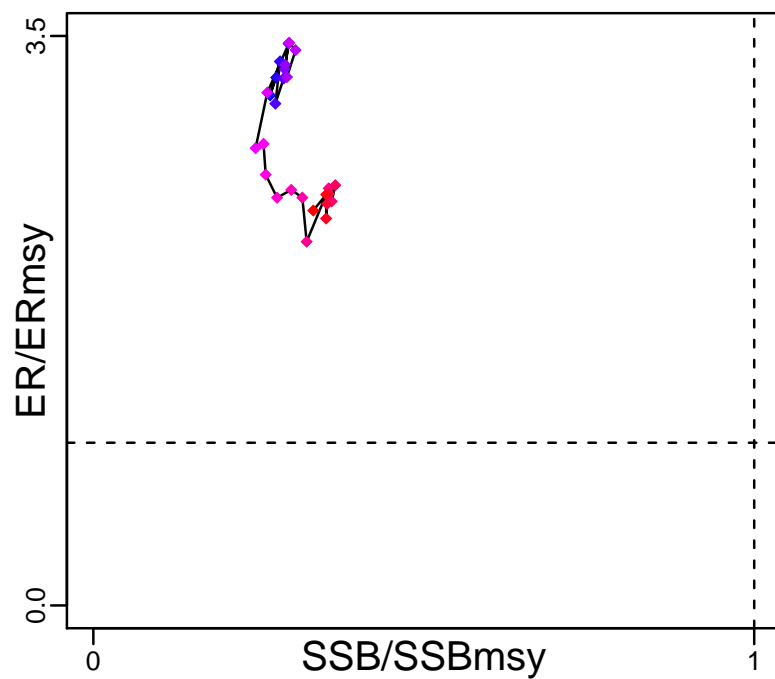
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	3170	-	1
<b>SSB</b>	SSB-MT	2013	2460	Both	2
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	1,290,000	-	0
<b>F</b>	F-1/yr	2010	0.59	-	0 to 7
<b>ER</b>	ER-calc-ratio	2013	0.367	-	-
<b>TC</b>	TC-MT	2013	1160		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2013	0.405		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.333		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	2.427		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Japanese flounder East China Sea [OFLOUNECS]

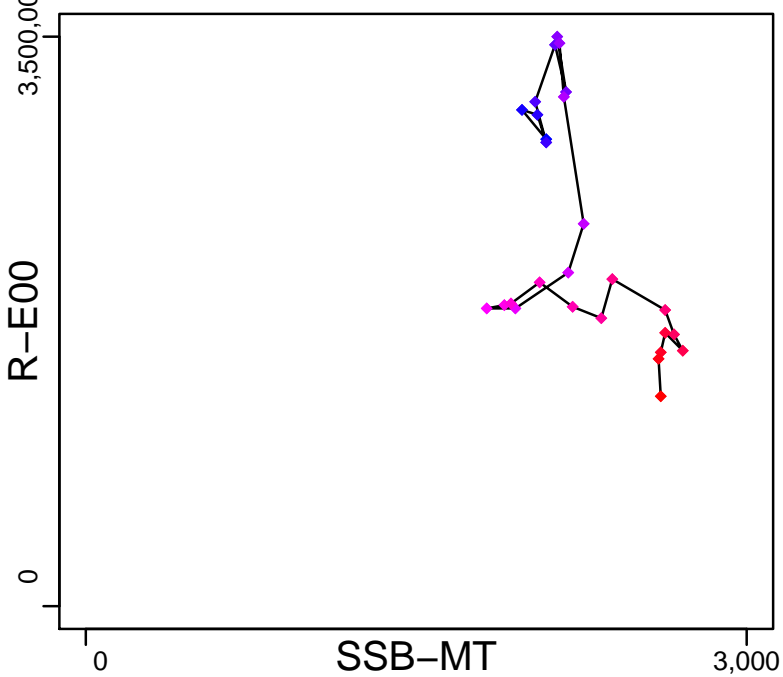
Kobe MSYpref (1975–2013–JPNIMP2016)



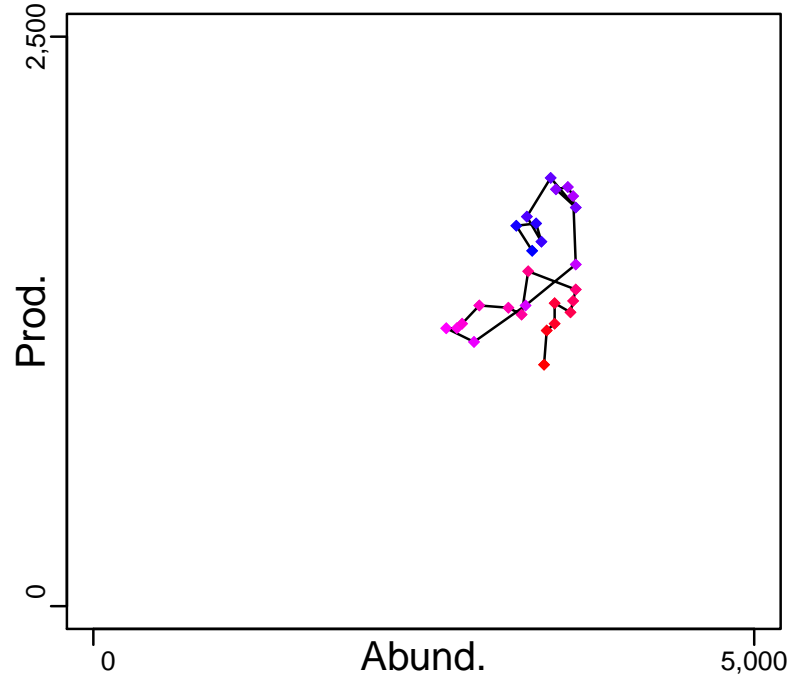
Kobe MGTpref (1975–2013–JPNIMP2016)



Spawner Recruit (1975–2013–JPNIMP2016)



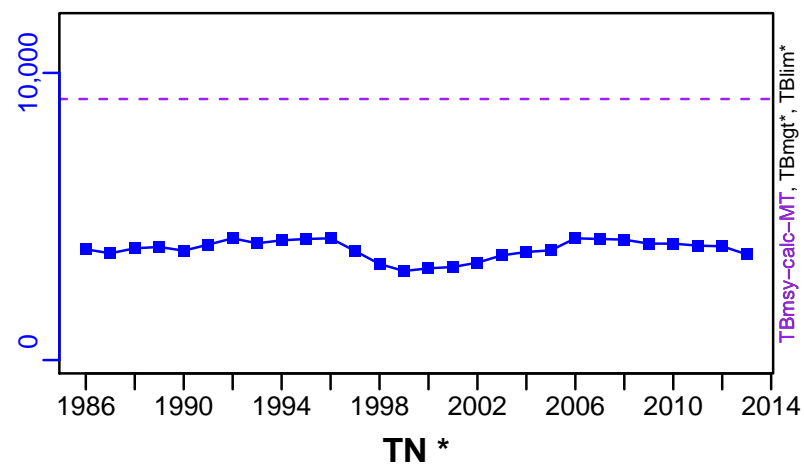
Production (1975–2013–JPNIMP2016)



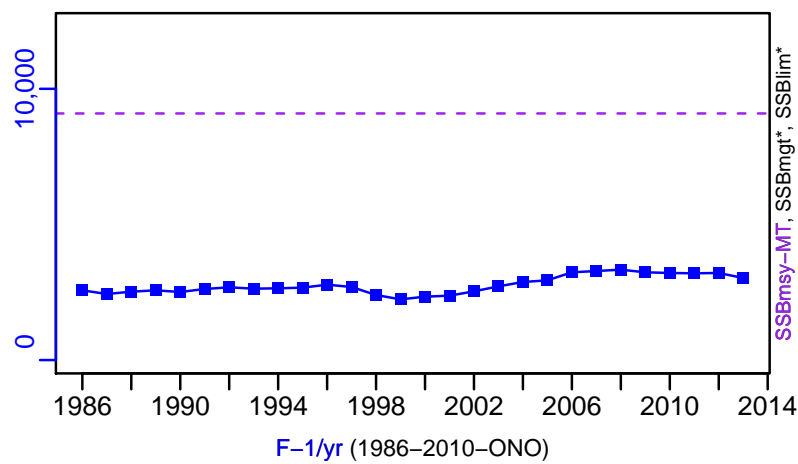
◆ Start Year ◆ End Year \* No Data

# Japanese flounder East China Sea [OFLOUNECS]

TB-MT (1975-2013-JPNIMP2016)



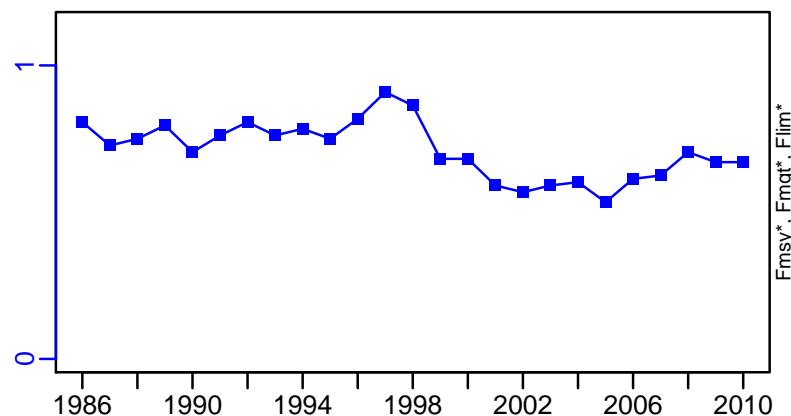
SSB-MT (1975-2013-JPNIMP2016)



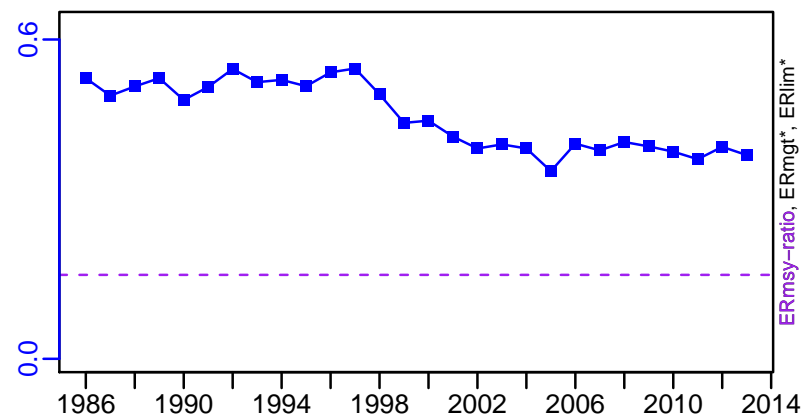
TN \*



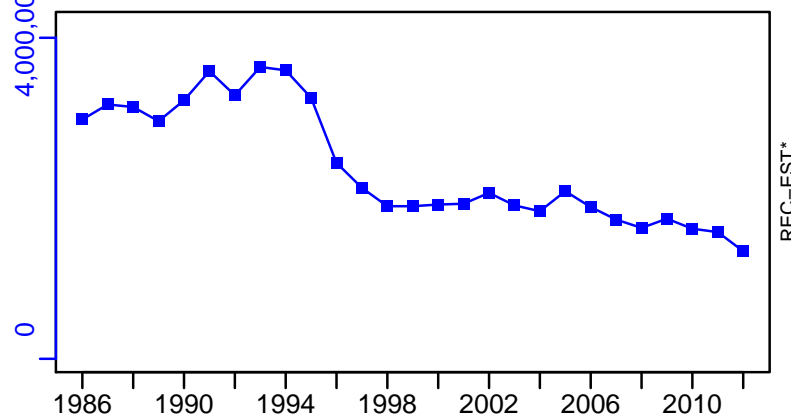
F-1/yr (1986-2010-ONO)



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

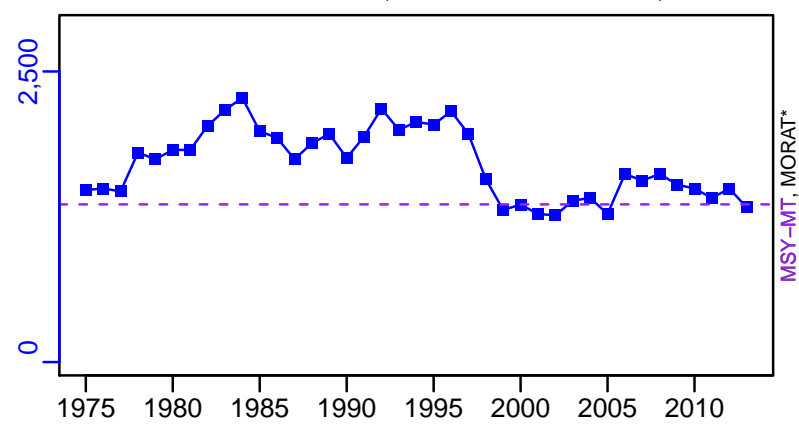


R-E00 (1975-2013-JPNIMP2016)

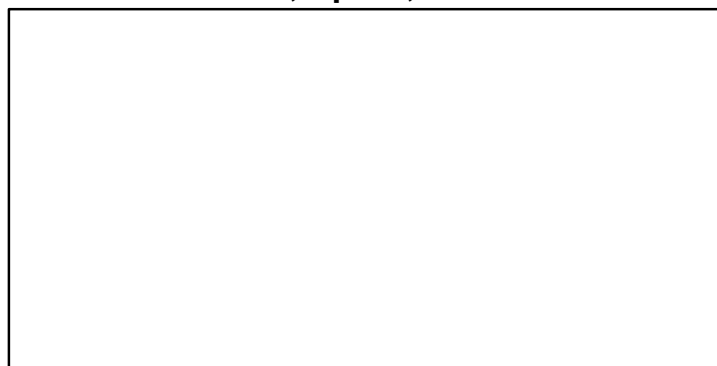


# Japanese flounder East China Sea [OFLOUNECS]

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



TAC\*, Cpair\*, Cadv\*



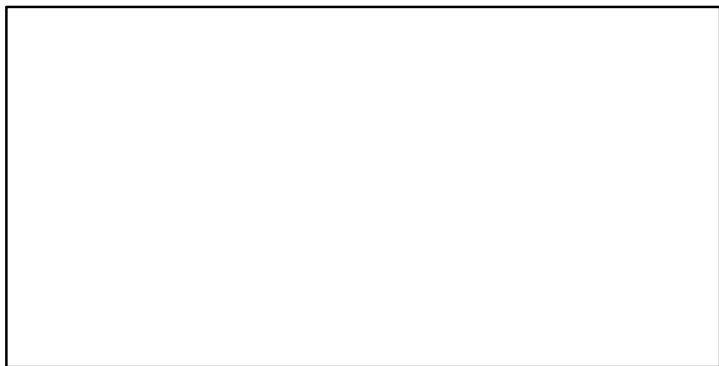
survB\*



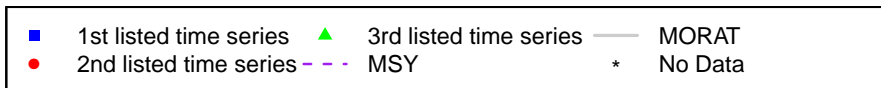
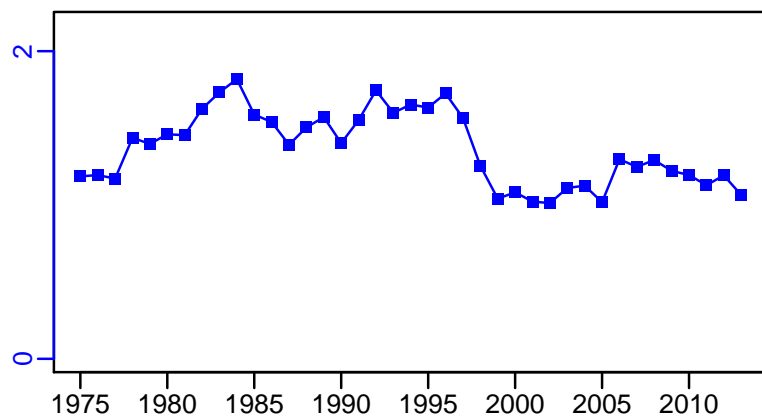
CPUE\*



EFFORT\*



CdivMSY-ratio (1975–2013–JPNIMP2016)



## Japanese flounder Sea of Japan North [OFLOUNNSJ]

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

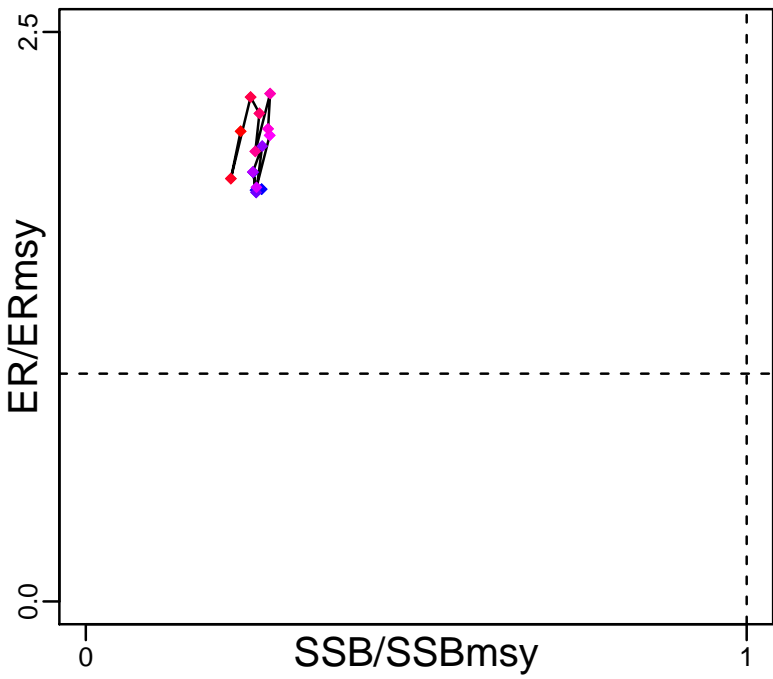
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2013	7172
<b>SSBmsy</b>	SSBmsy-MT	2013	6160
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2013	0.217
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2013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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	2210	-	1
<b>SSB</b>	SSB-MT	2013	1440	Both	2
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	1,990,000	-	1
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0.448	-	-
<b>TC</b>	TC-MT	2013	992		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2013	0.309		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.234		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	2.064		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

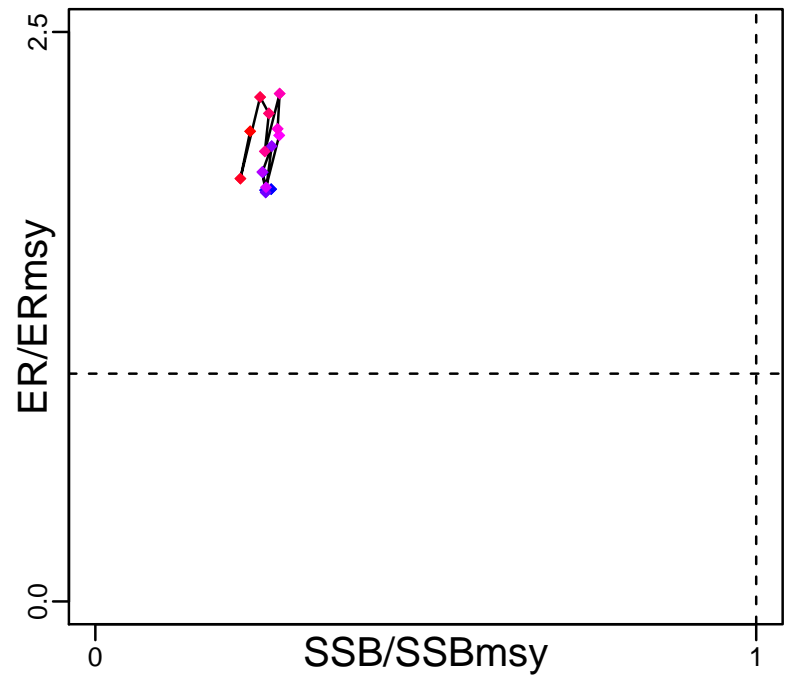


Japanese flounder Sea of Japan North [OFLOUNNSJ]

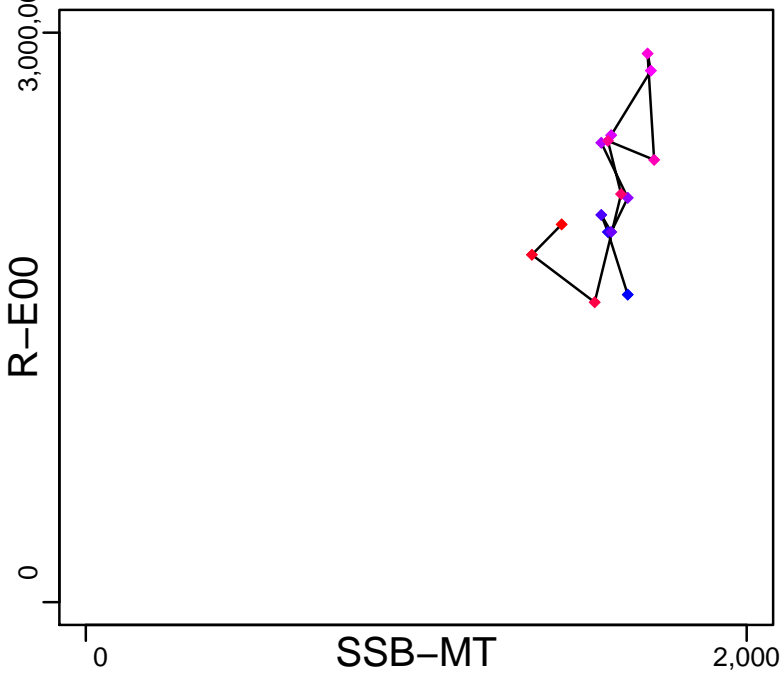
Kobe MSYpref (1970–2013–JPNIMP2016)



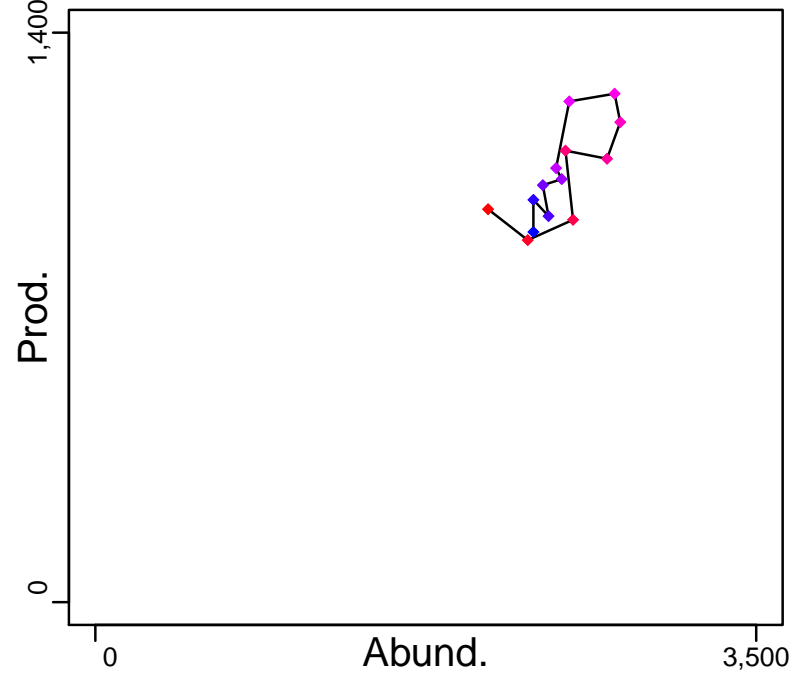
Kobe MGTpref (1970–2013–JPNIMP2016)



Spawner Recruit (1970–2013–JPNIMP2016)



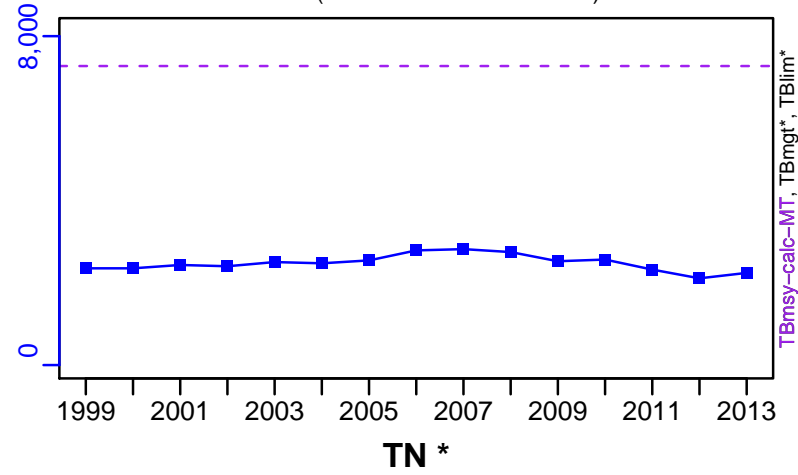
Production (1970–2013–JPNIMP2016)



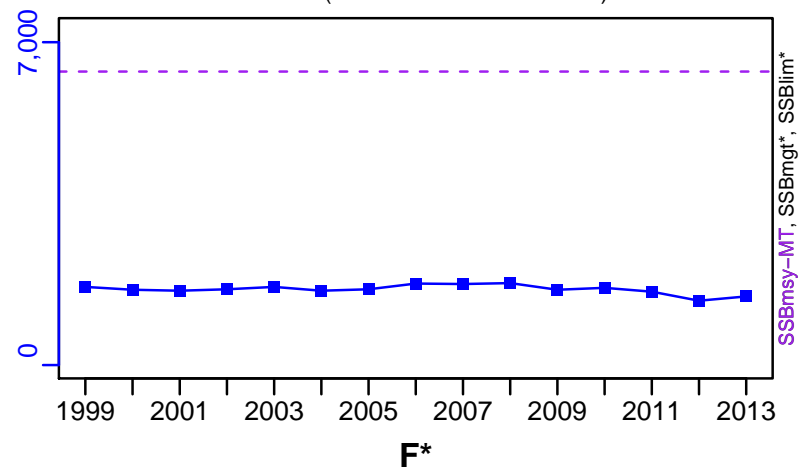
◆ Start Year ◆ End Year \* No Data

# Japanese flounder Sea of Japan North [OFLOUNNSJ]

TB-MT (1970-2013-JPNIMP2016)

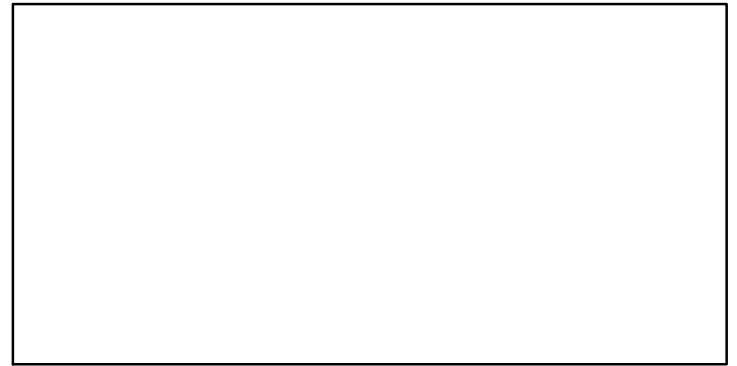
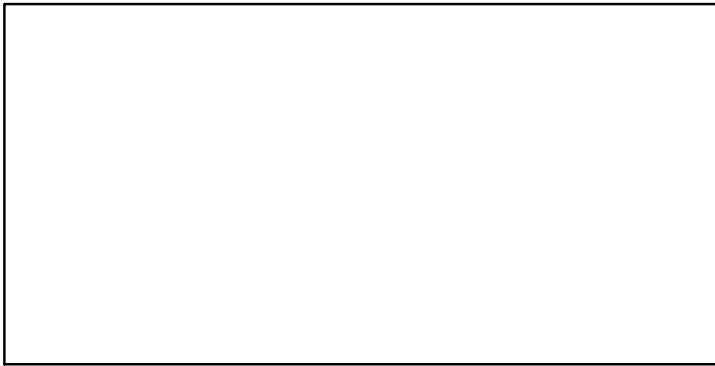


SSB-MT (1970-2013-JPNIMP2016)

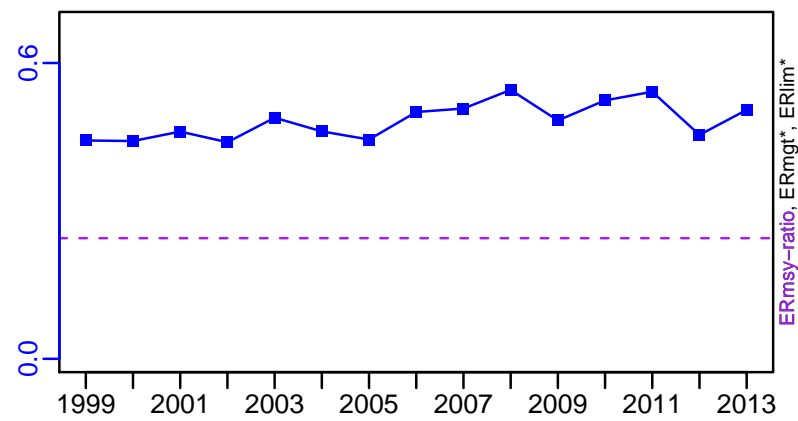


TN \*

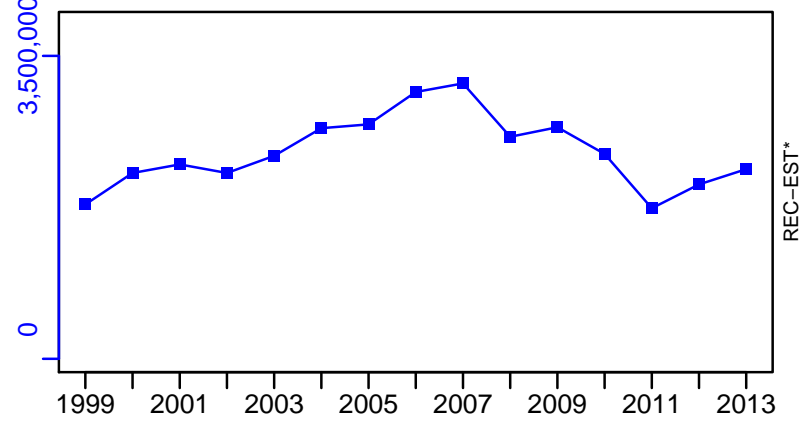
F\*



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



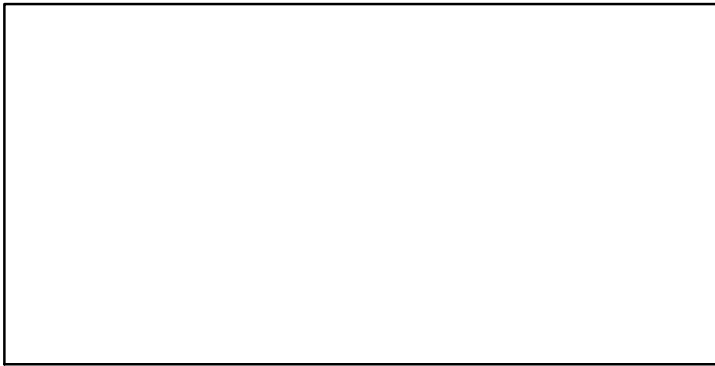
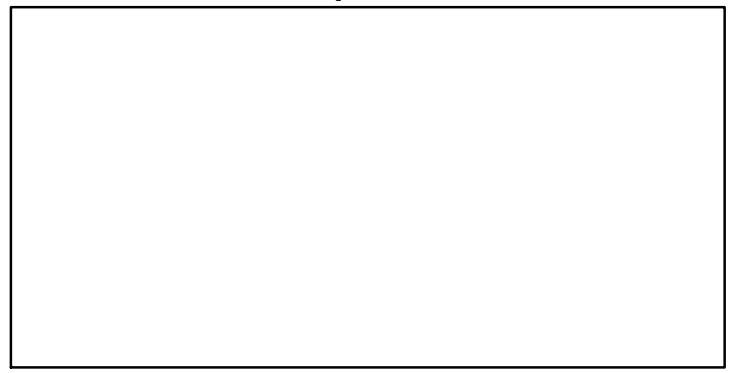
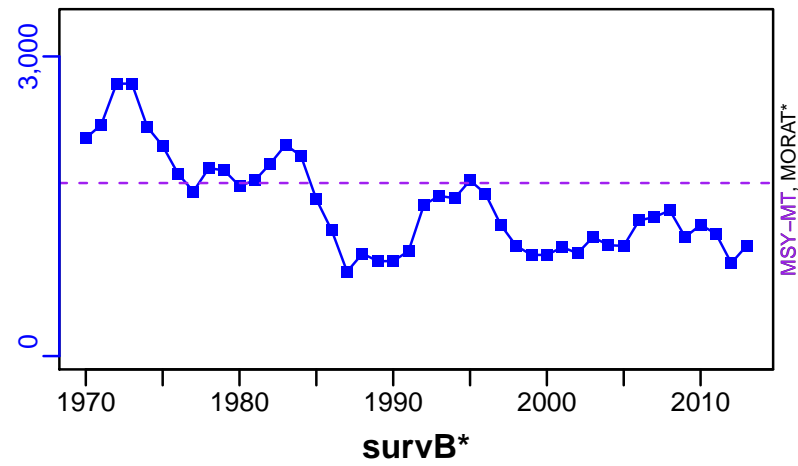
R-E00 (1970-2013-JPNIMP2016)



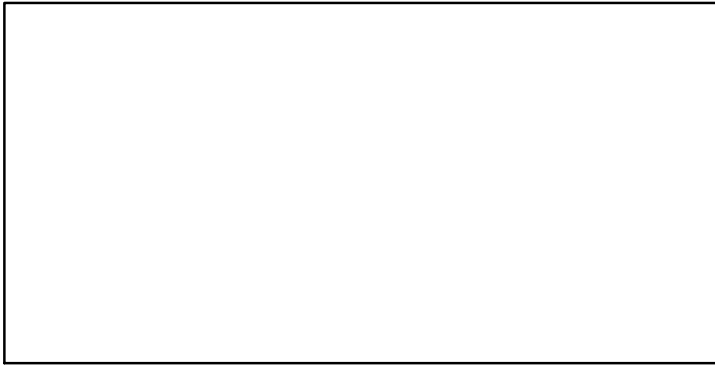
# Japanese flounder Sea of Japan North [OFLOUNNSJ]

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

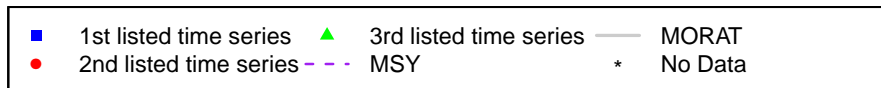
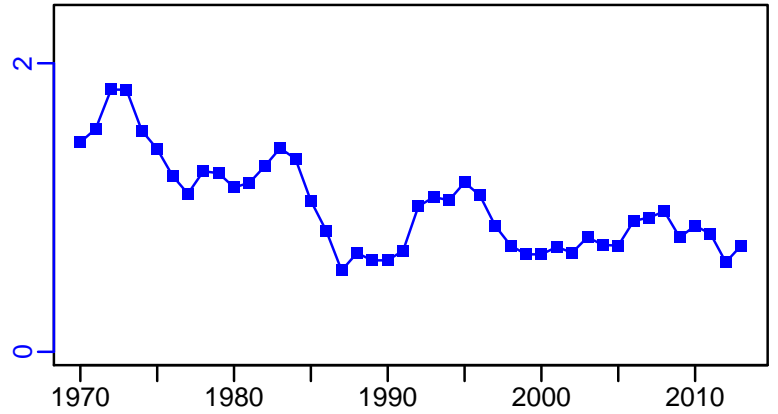
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1970-2013-JPNIMP2016)



## Japanese flounder Pacific Ocean [OFLOUNPAC]

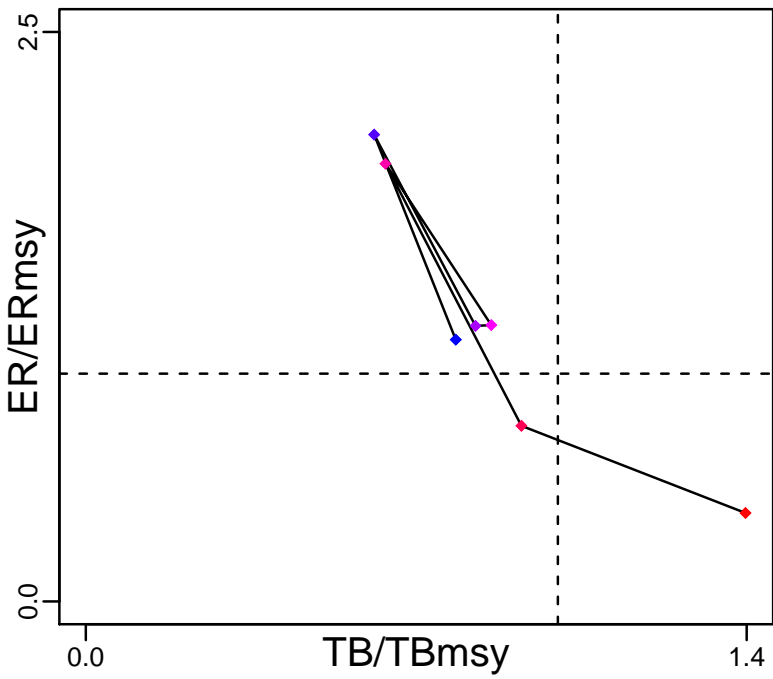
Metadata	
<b>Scientific Name</b>	Paralichthys olivaceus
<b>Current Assess ID</b>	FAFRFJ-OFLOUNPAC-1970-2013-JPNIMP2016
<b>Area</b>	Pacific Ocean
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>	2013, 2009

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

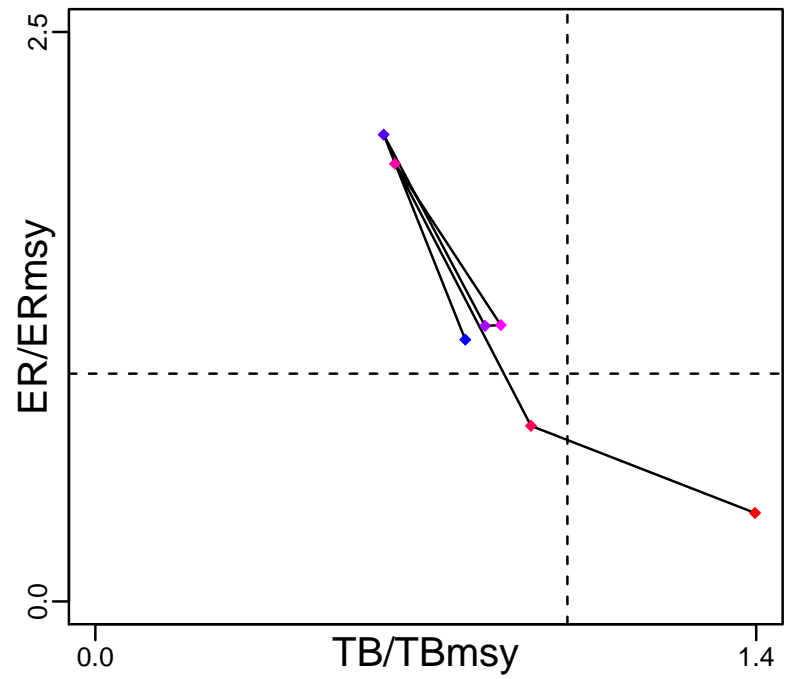
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	7190	-	1
<b>SSB</b>	SSB-MT	2013	1070	Both	3
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	1,940,000	-	1
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0.163	-	-
<b>TC</b>	TC-MT	2013	2380		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT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

# Japanese flounder Pacific Ocean [OFLOUNPAC]

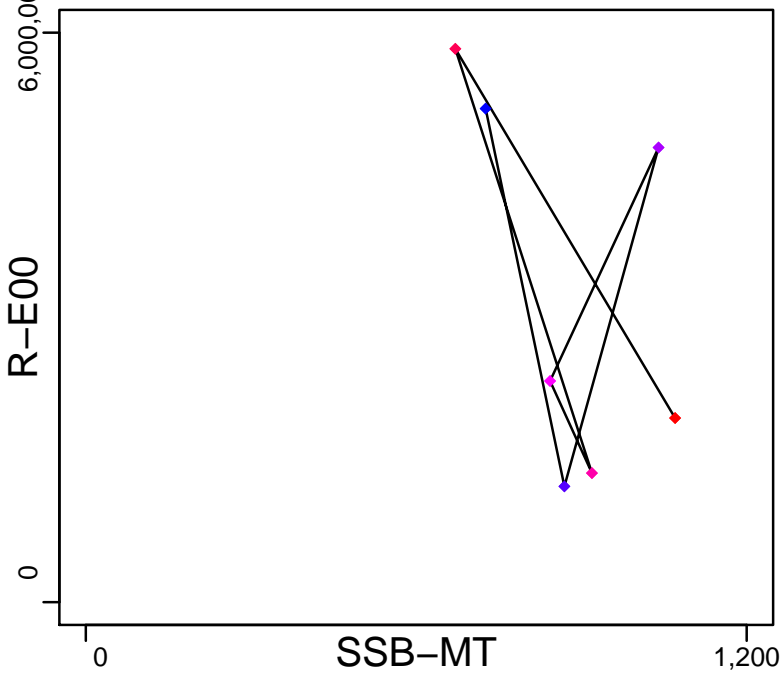
Kobe MSYpref (1970–2013–JPNIMP2016)



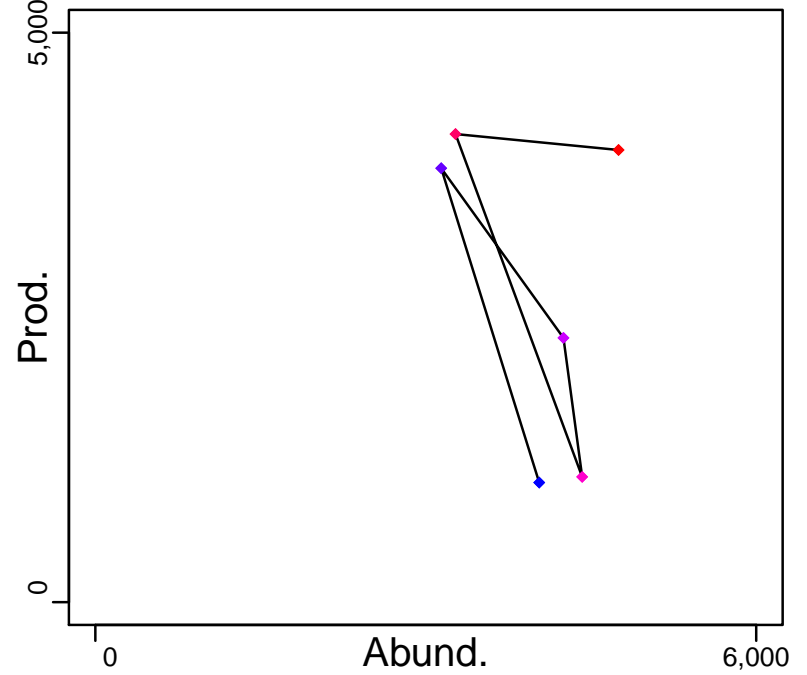
Kobe MGTpref (1970–2013–JPNIMP2016)



Spawner Recruit (1970–2013–JPNIMP2016)



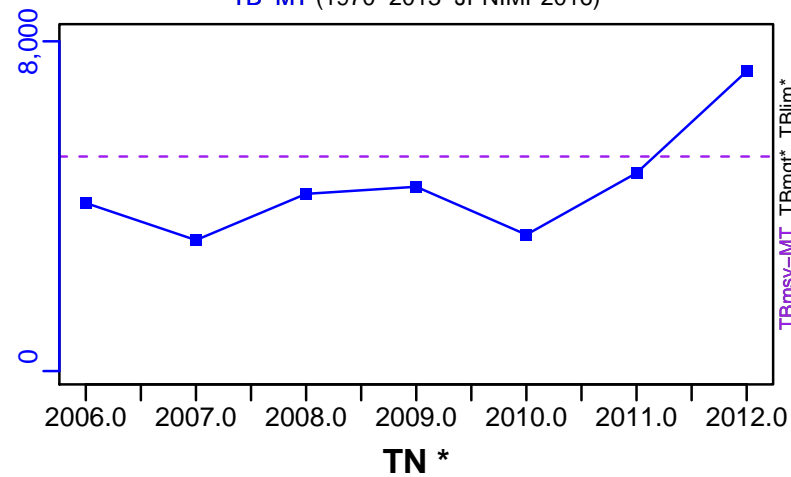
Production (1970–2013–JPNIMP2016)



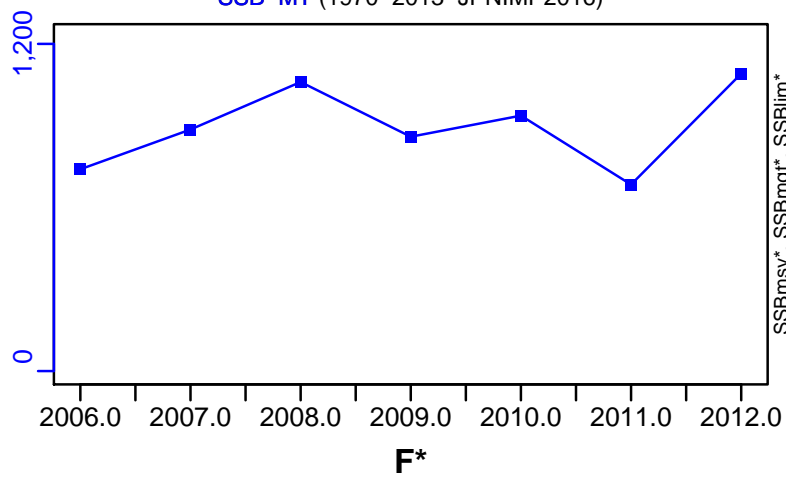
◆ Start Year ◆ End Year \* No Data

# Japanese flounder Pacific Ocean [OFLOUNPAC]

TB-MT (1970-2013-JPNIMP2016)



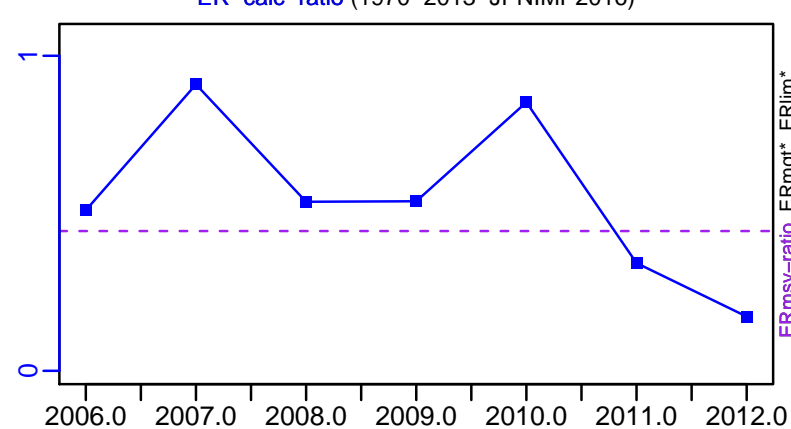
SSB-MT (1970-2013-JPNIMP2016)



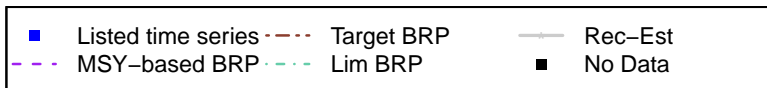
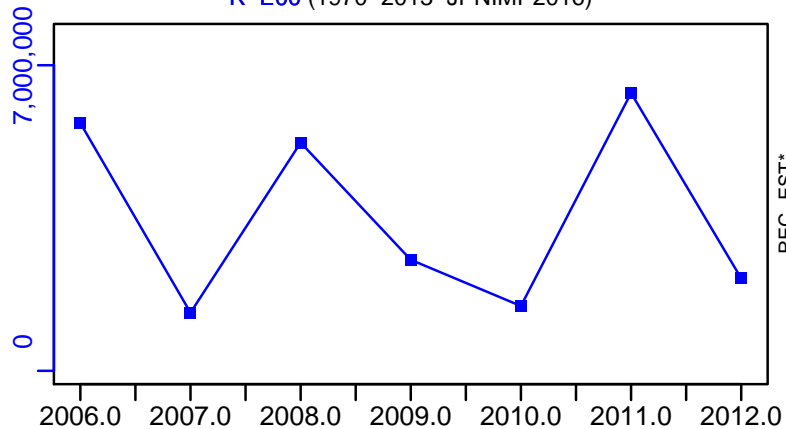
TN \*

F\*

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

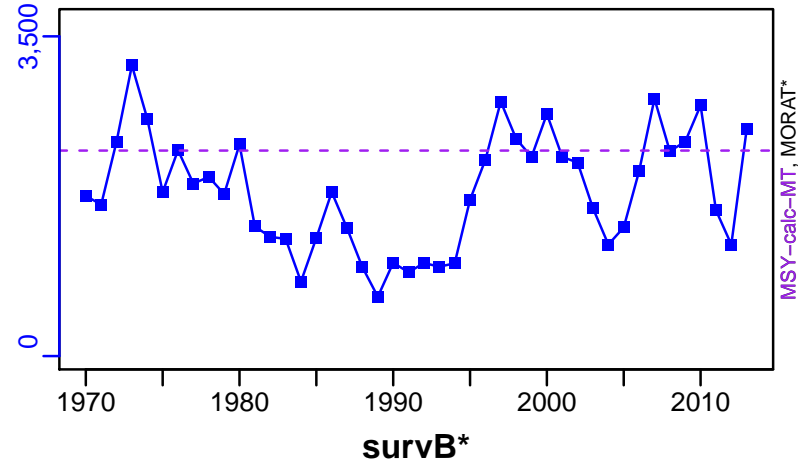


R-E00 (1970-2013-JPNIMP2016)



# Japanese flounder Pacific Ocean [OFLOUNPAC]

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



TAC\*, Cpair\*, Cadv\*



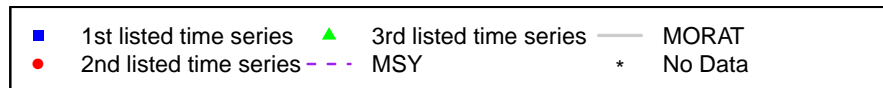
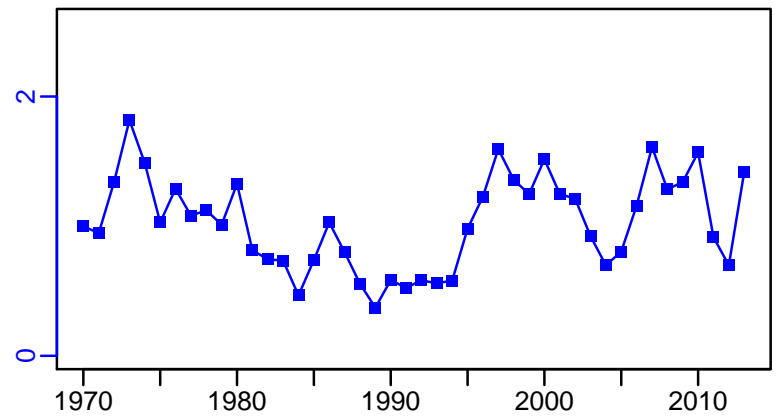
CPUE\*



EFFORT\*



CdivMSY-ratio (1970-2013-JPNIMP2016)



## Japanese flounder Inland Sea of Japan [OFLOUNSETO]

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

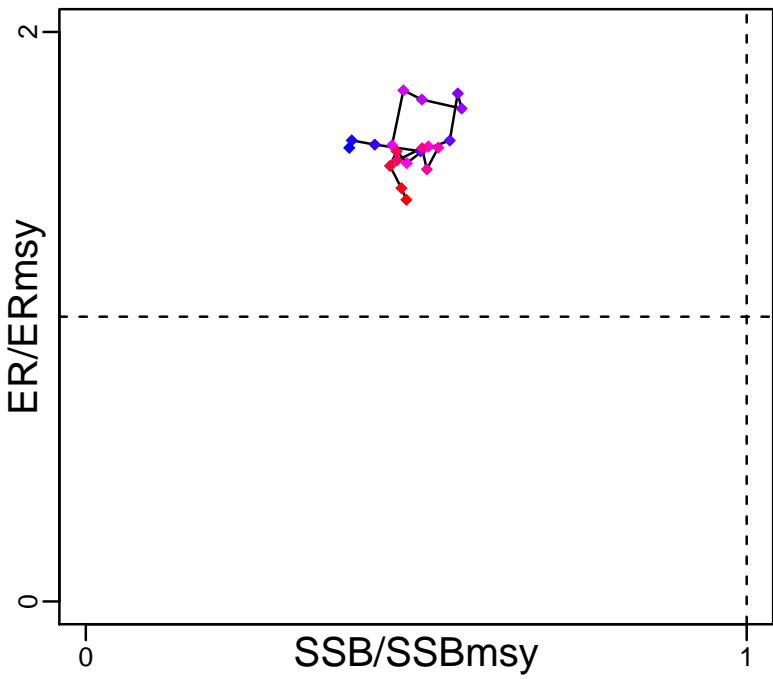
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2013	4012
<b>SSBmsy</b>	SSBmsy-MT	2013	2905
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2013	0.218
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2013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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	2170	-	0
<b>SSB</b>	SSB-MT	2013	1410	Both	2
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	897,000	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0.308	-	-
<b>TC</b>	TC-MT	2013	668		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2013	0.541		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.485		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	1.411		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

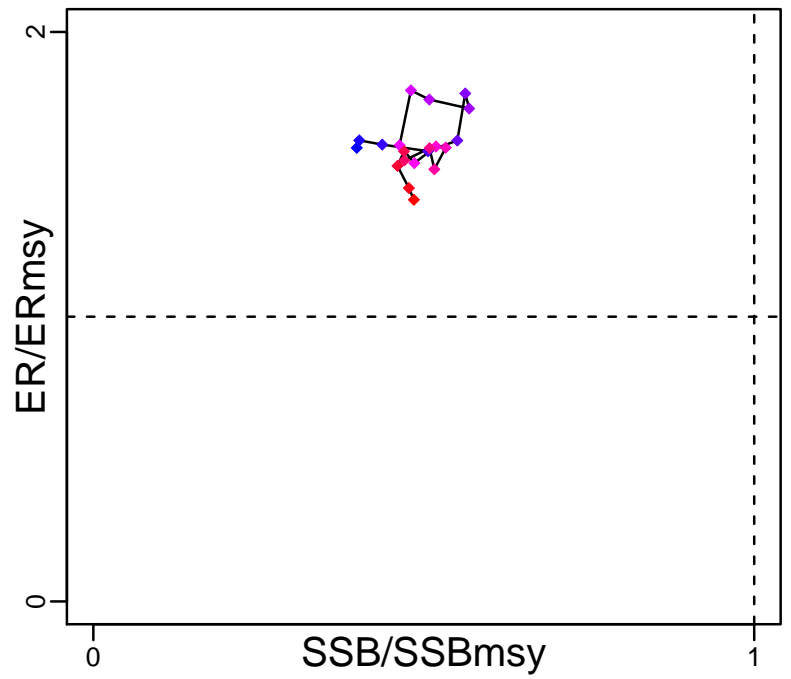


# Japanese flounder Inland Sea of Japan [OFLOUNSETO]

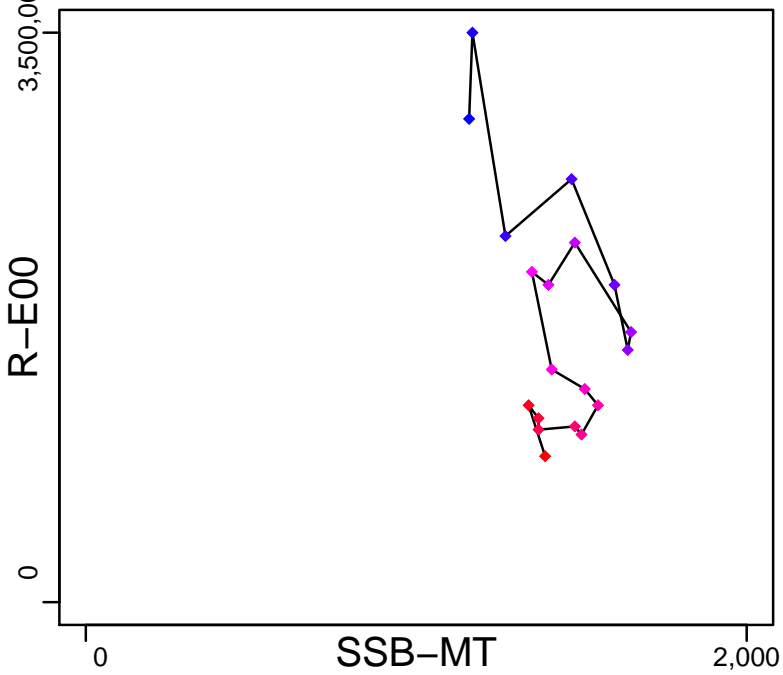
Kobe MSYpref (1965–2013–JPNIMP2016)



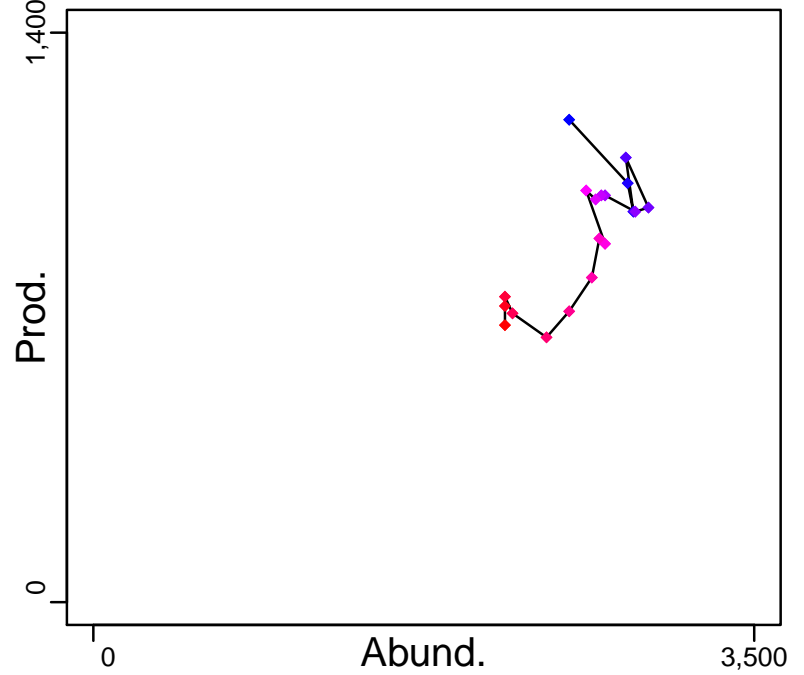
Kobe MGTpref (1965–2013–JPNIMP2016)



Spawner Recruit (1965–2013–JPNIMP2016)



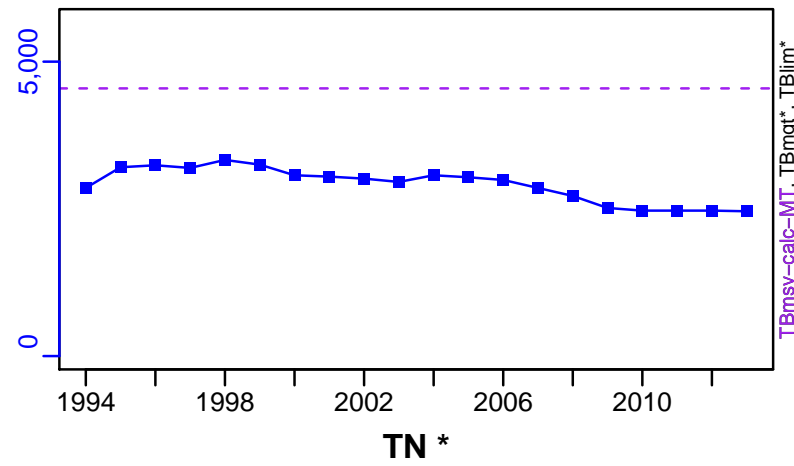
Production (1965–2013–JPNIMP2016)



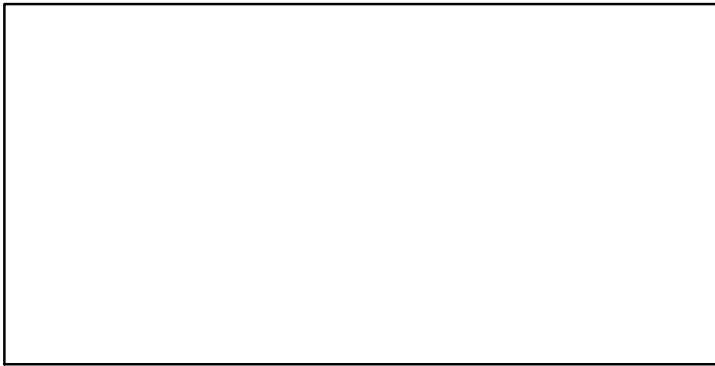
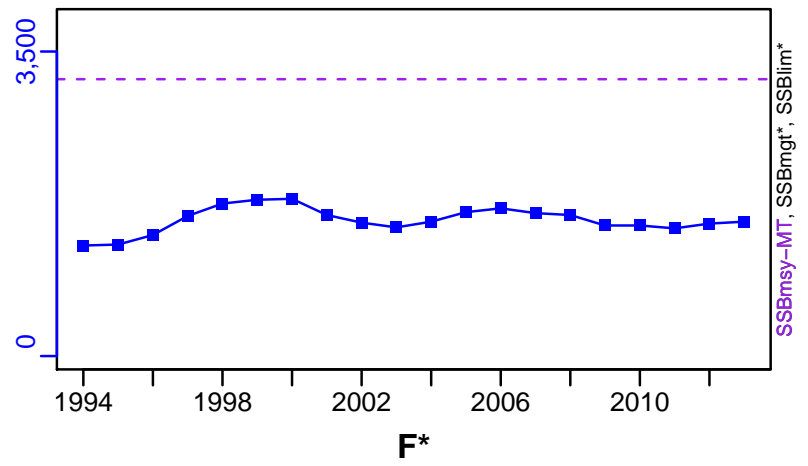
◆ Start Year ◆ End Year \* No Data

# Japanese flounder Inland Sea of Japan [OFLOUNSETO]

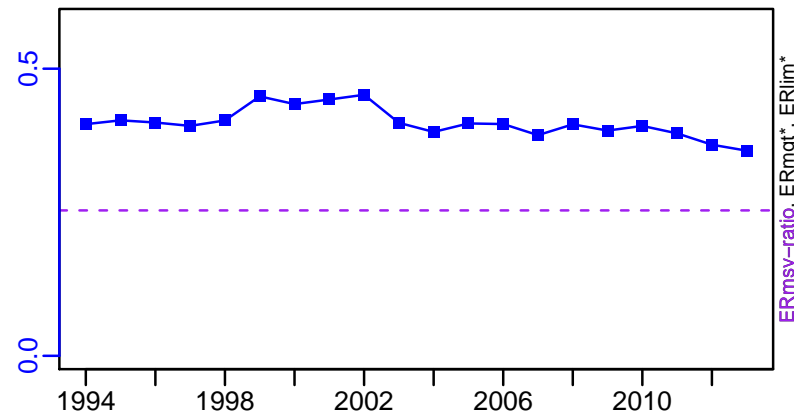
TB-MT (1965-2013-JPNIMP2016)



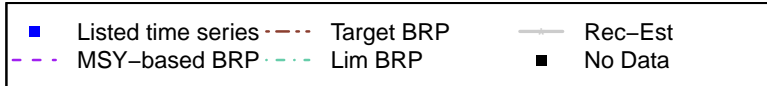
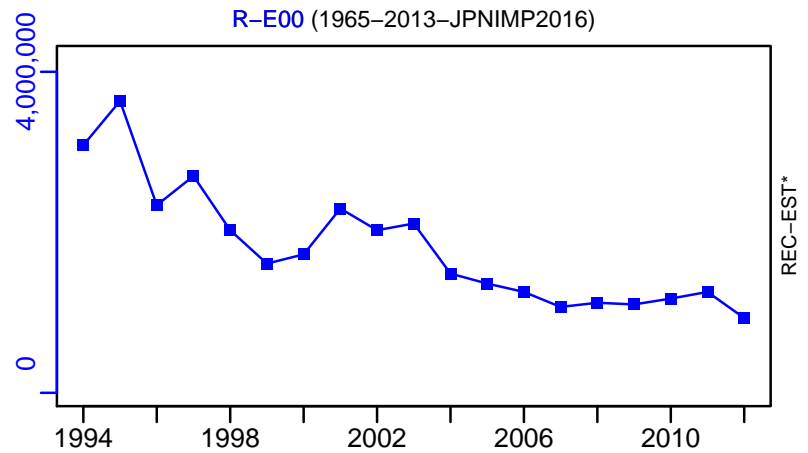
SSB-MT (1965-2013-JPNIMP2016)



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



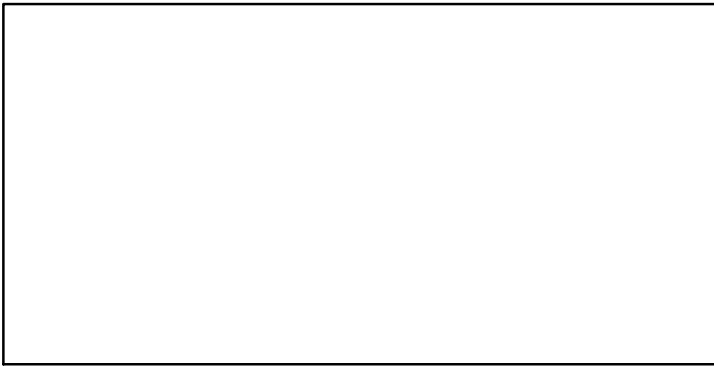
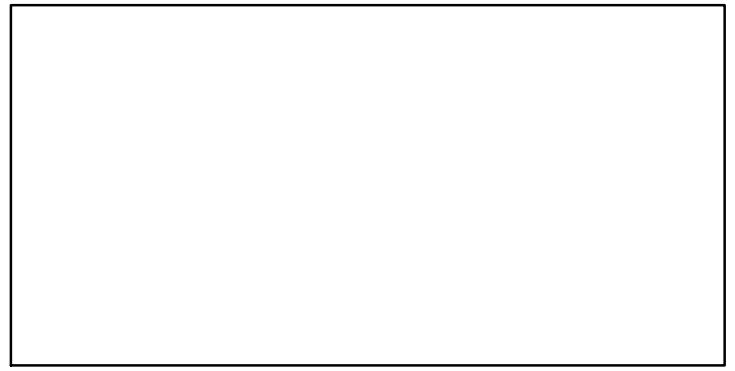
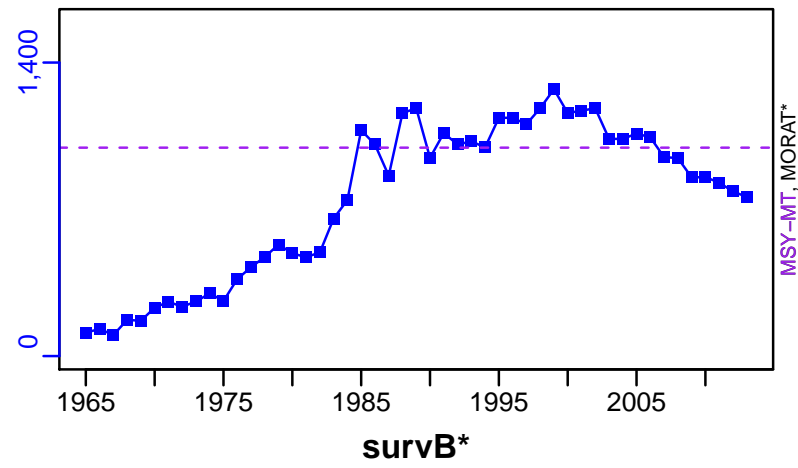
R-E00 (1965-2013-JPNIMP2016)



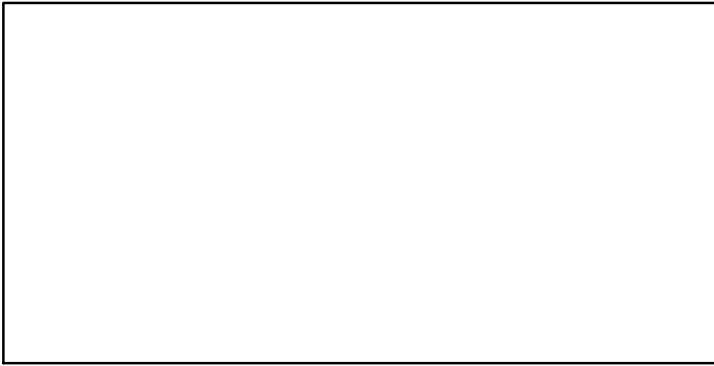
# Japanese flounder Inland Sea of Japan [OFLOUNSETO]

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

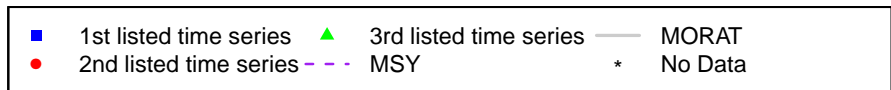
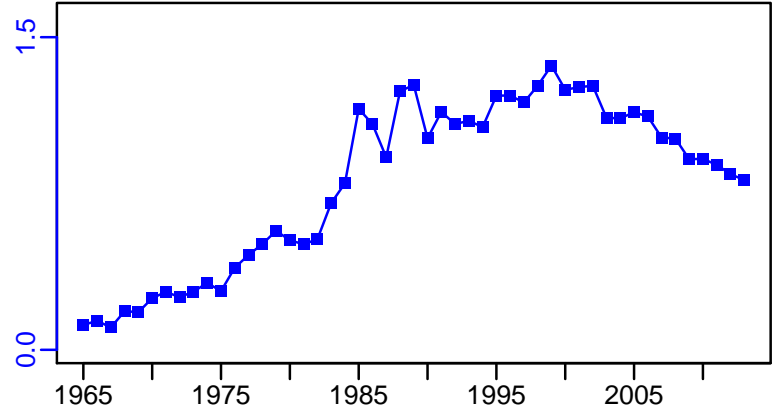
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1965-2013-JPNIMP2016)



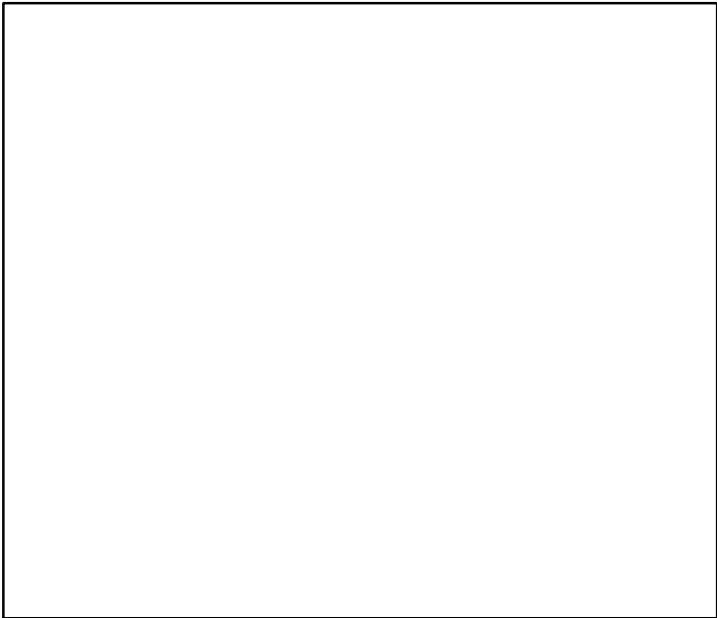
## Pacific cod Hokkaido [PCODHOKK]

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

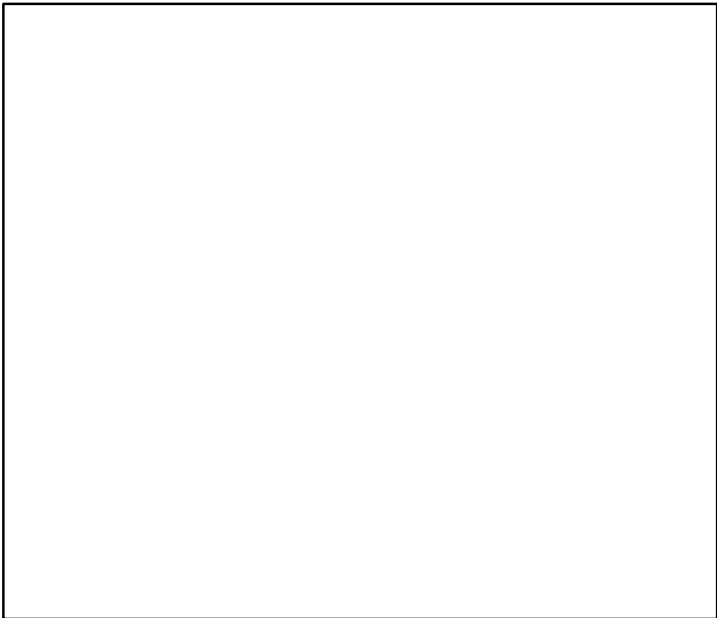
Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year    ◆ End Year    \* No Data

TB\*



SSB\*



TN \*



F\*



ER\*

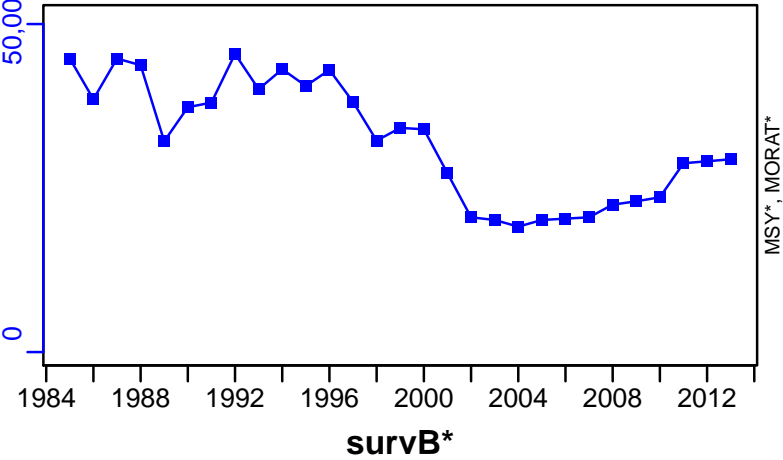


Recruits\*



Pacific cod Hokkaido [PCODHOKK]

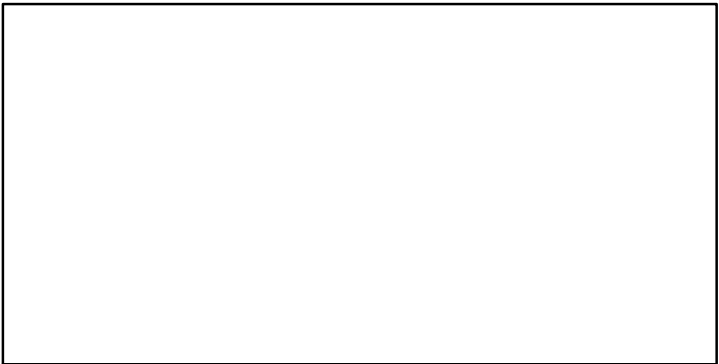
TC-MT, TL\*, RecC\* (1985-2013-JPNIMP2016)



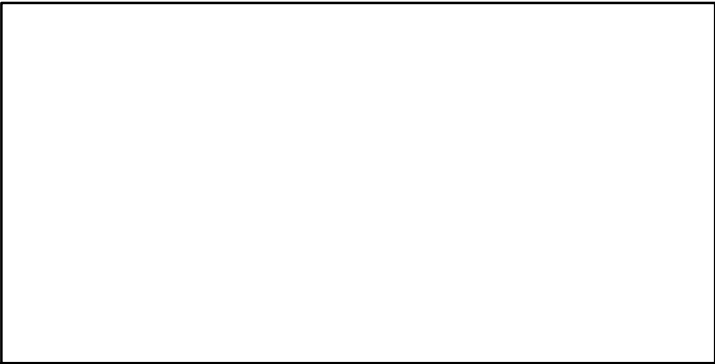
TAC\*, Cpair\*, Cadv\*



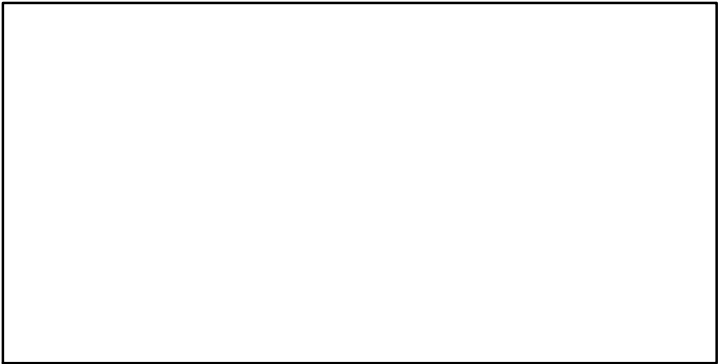
CPUE\*



EFFORT\*



CdivMSY\*



## Pacific cod North Pacific [PCODNPAC]

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

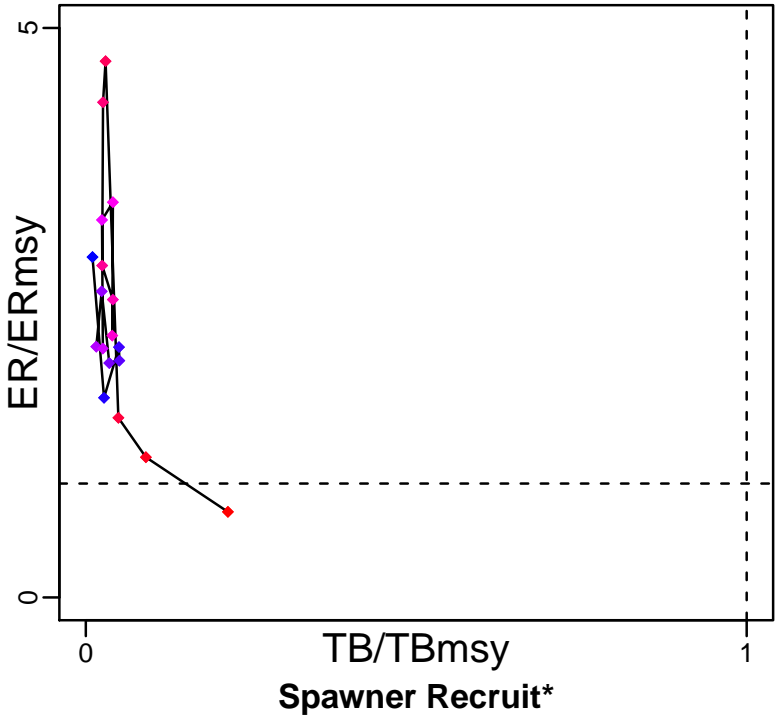
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-MT	2014	1,297,226
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2014	0.145
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-calc-MT	2014	188,098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

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

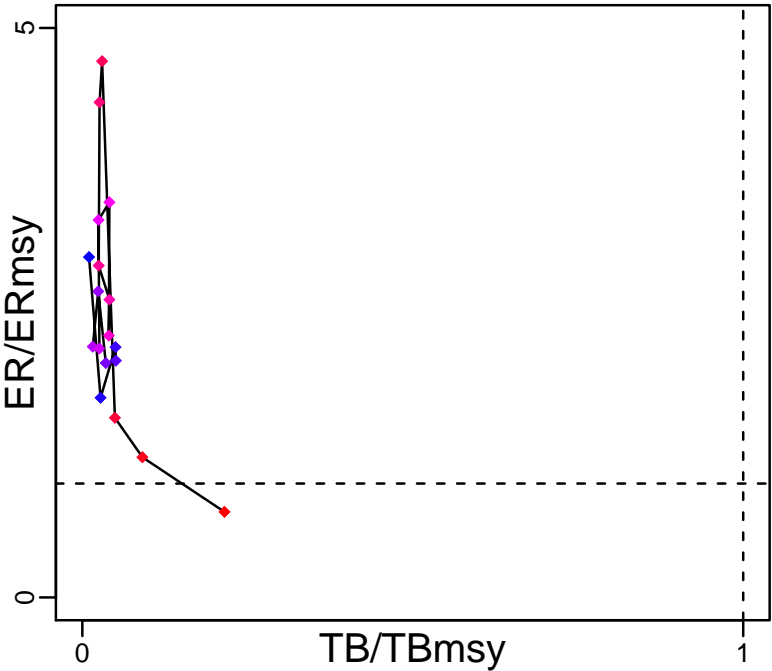


Pacific cod North Pacific [PCODNPAC]

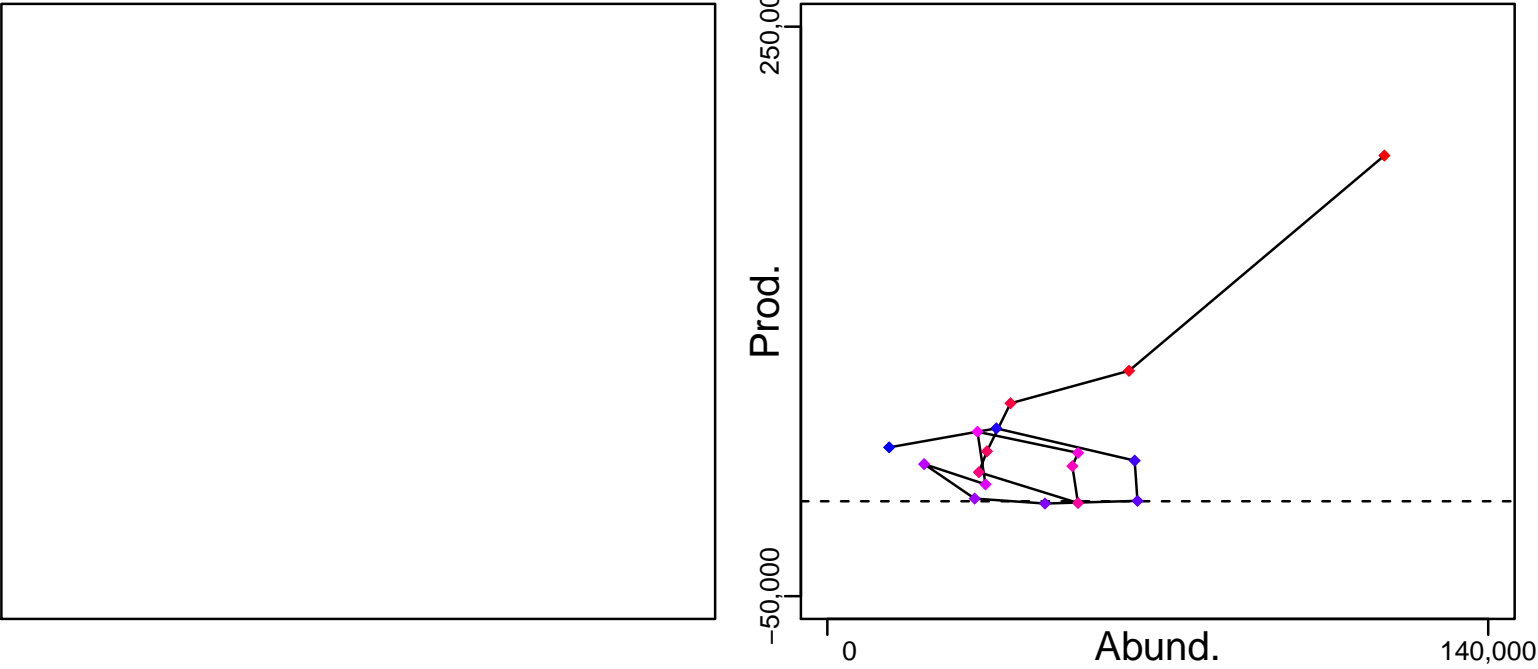
Kobe MSYpref (1975–2014–JPNIMP2016)



Kobe MGTpref (1975–2014–JPNIMP2016)



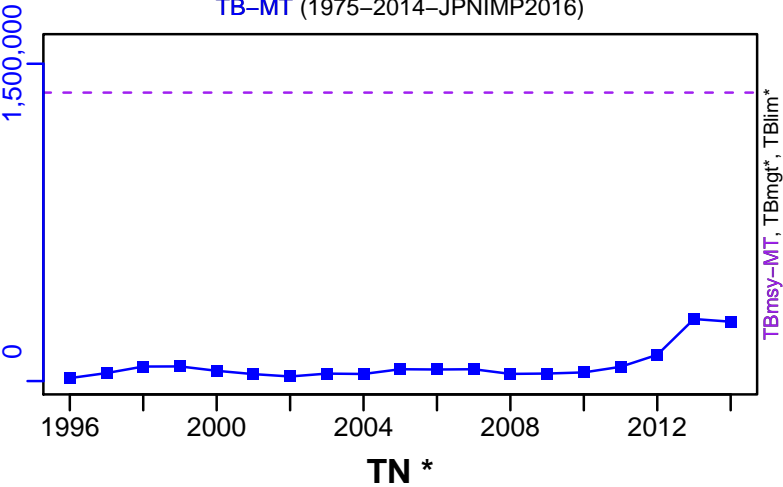
Production (1975–2014–JPNIMP2016)



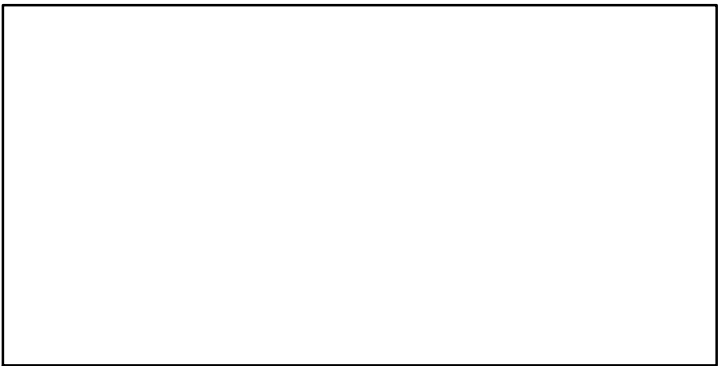
◆ Start Year ◆ End Year \* No Data

Pacific cod North Pacific [PCODNPAC]

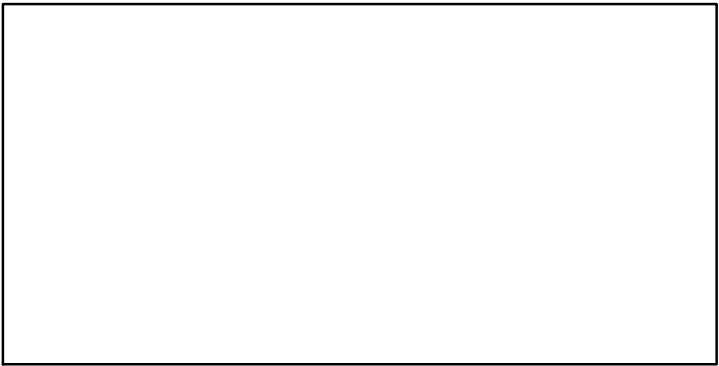
TB-MT (1975-2014-JPNIMP2016)



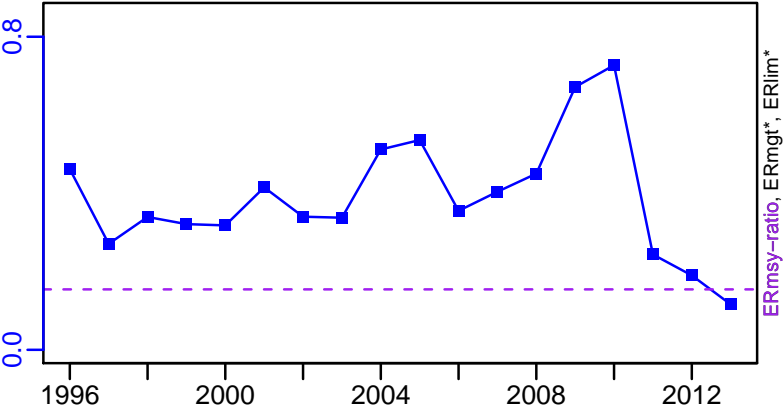
SSB\*



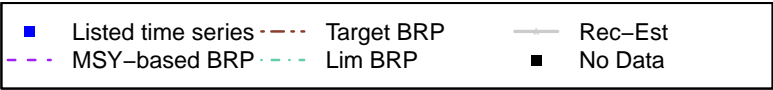
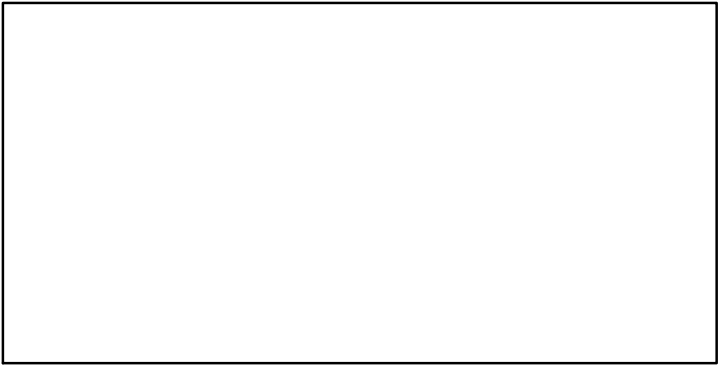
F\*



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

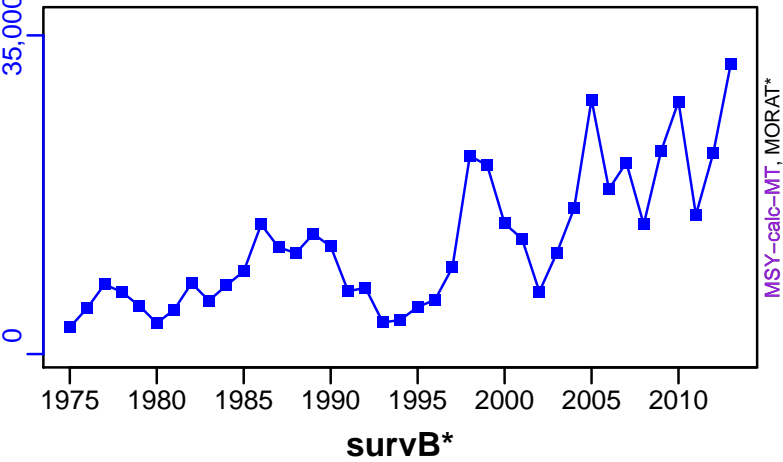


Recruits\*

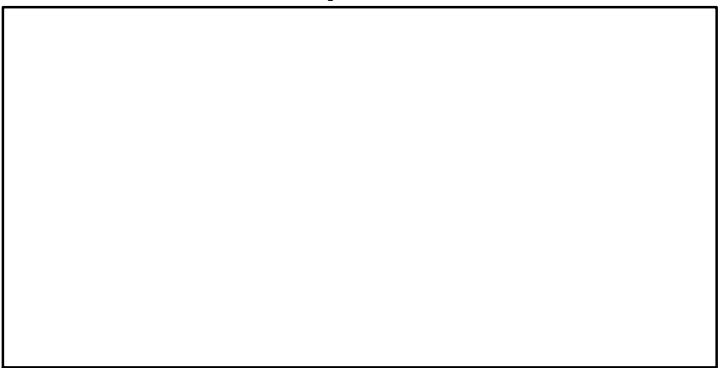


Pacific cod North Pacific [PCODNPAC]

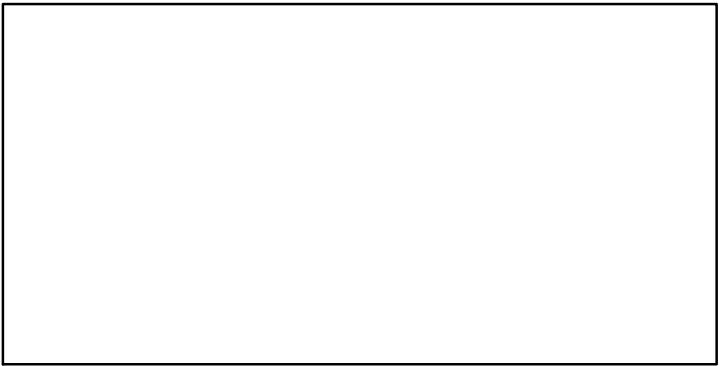
TC-MT, TL\*, RecC\* (1975-2014-JPNIMP2016)



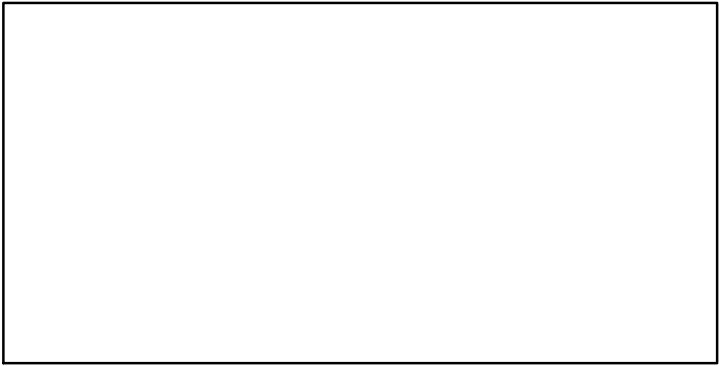
TAC\*, Cpair\*, Cadv\*



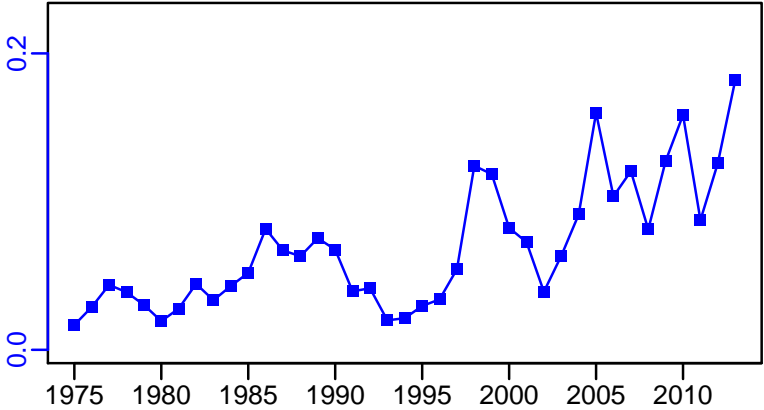
CPUE\*



EFFORT\*



CdivMSY-ratio (1975-2014-JPNIMP2016)



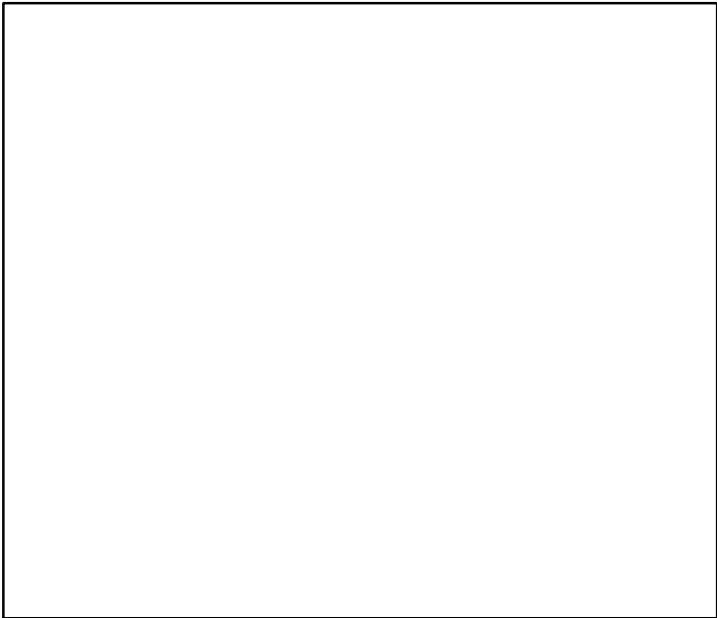
## Pacific cod Sea of Japan [PCODSOJ]

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

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

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

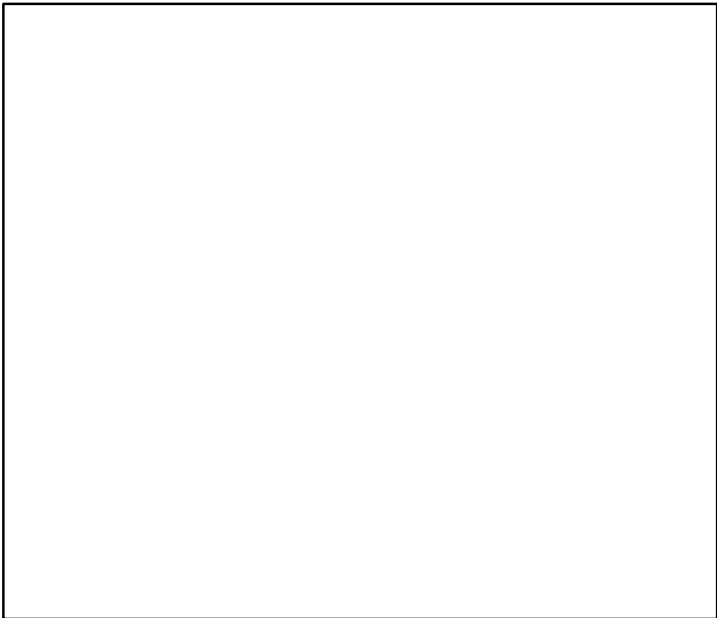
Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



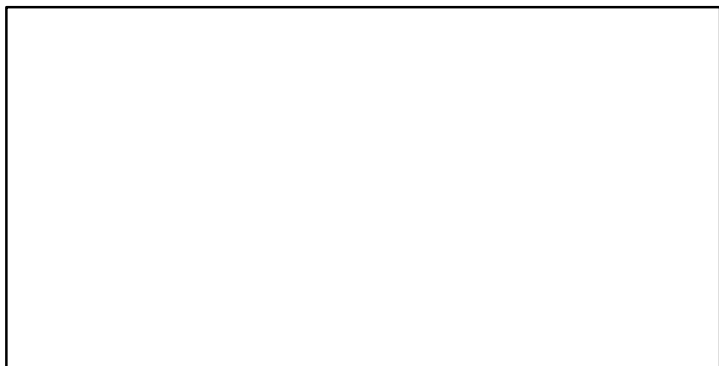
Production\*



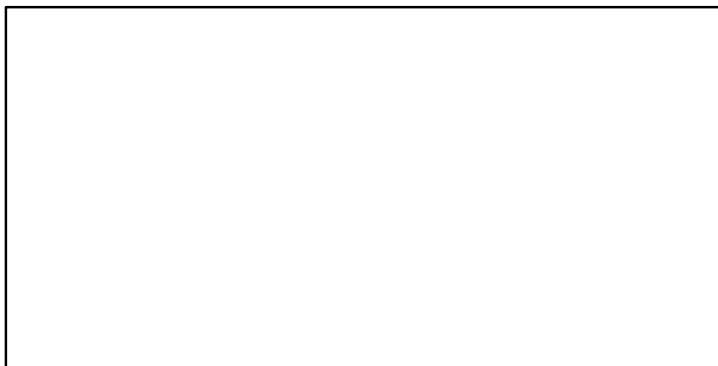
◆ Start Year   ◆ End Year   \* No Data

Pacific cod Sea of Japan [PCODSOJ]

**TB\***



**SSB\***



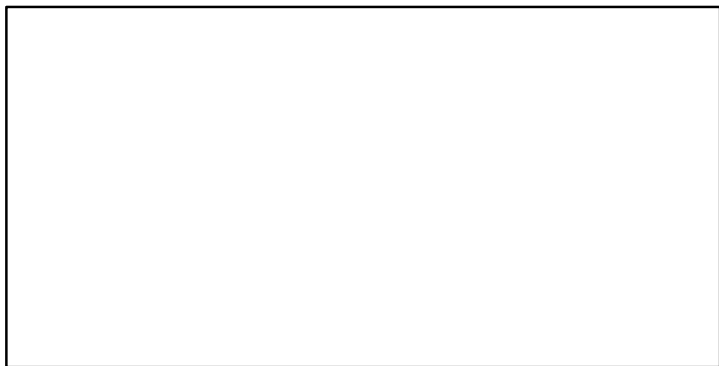
**TN \***



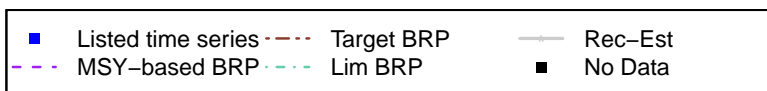
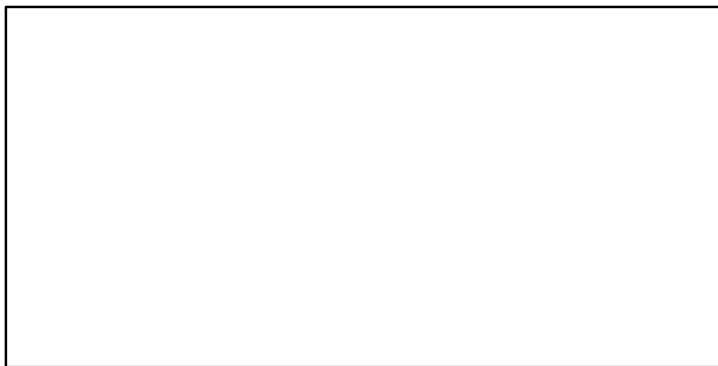
**F\***



**ER\***



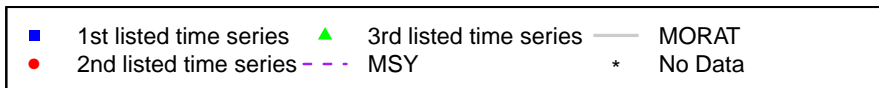
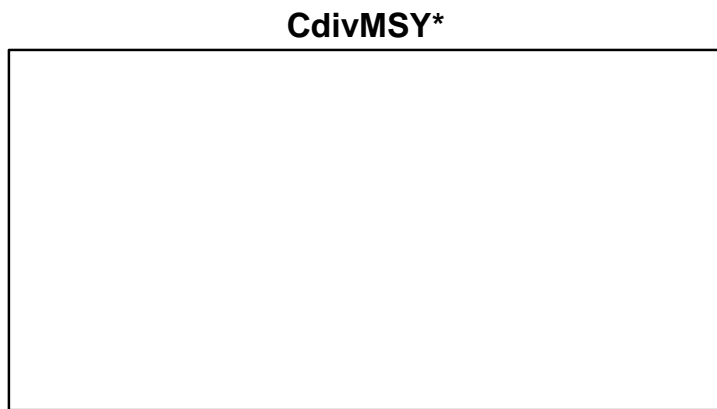
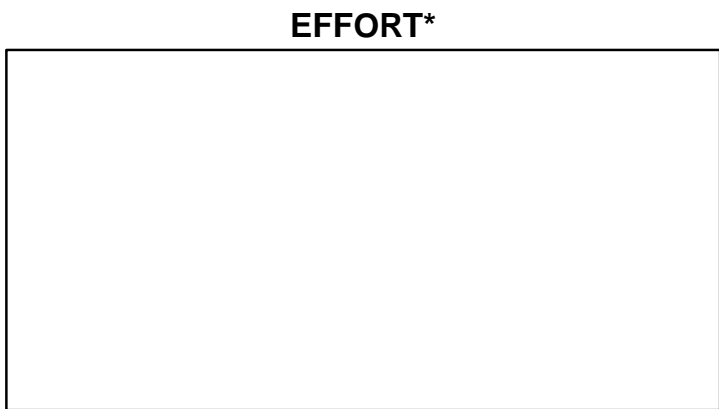
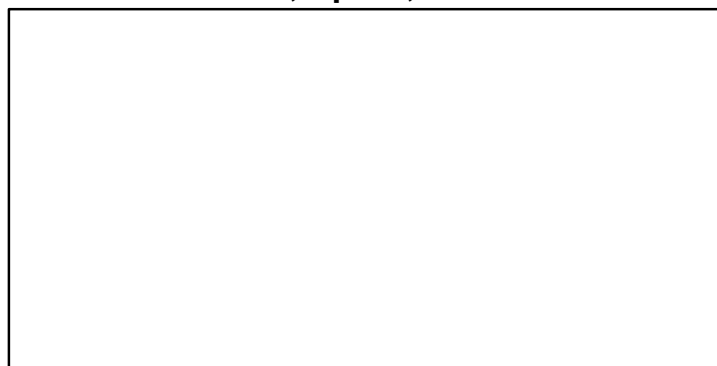
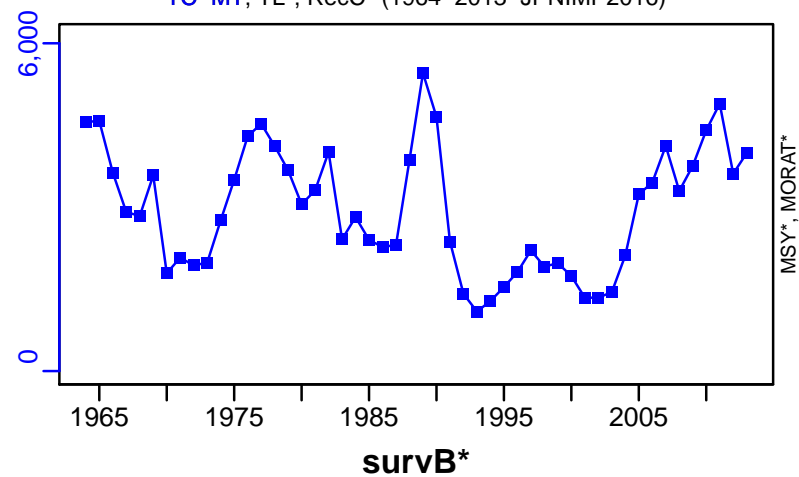
**Recruits\***



# Pacific cod Sea of Japan [PCODSOJ]

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

TAC\*, Cpair\*, Cadv\*



## Pointhead flounder North coast of Hokkaido [PHFLOUNNHOKK]

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



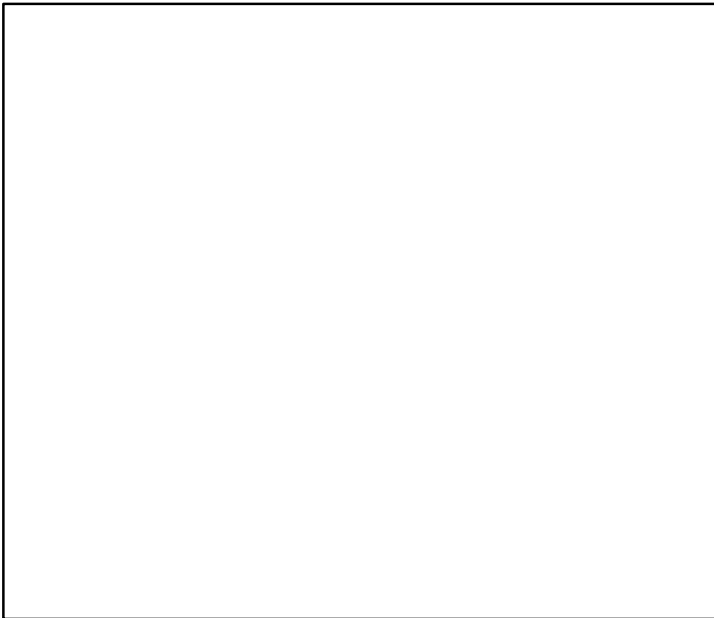
**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



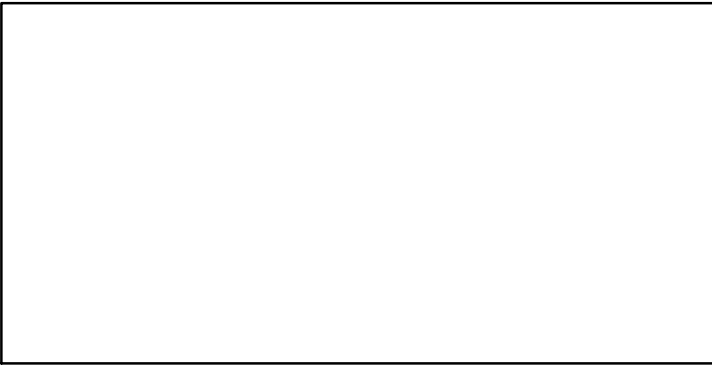
**Production\***



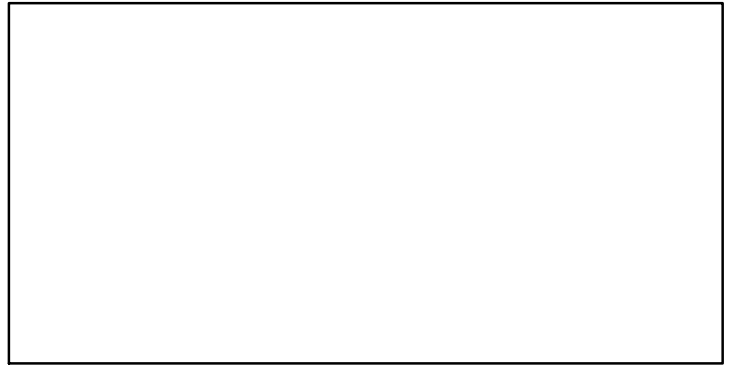
◆ Start Year   ◆ End Year   \* No Data

Pointhead flounder North coast of Hokkaido [PHFLOUNNHOKK]

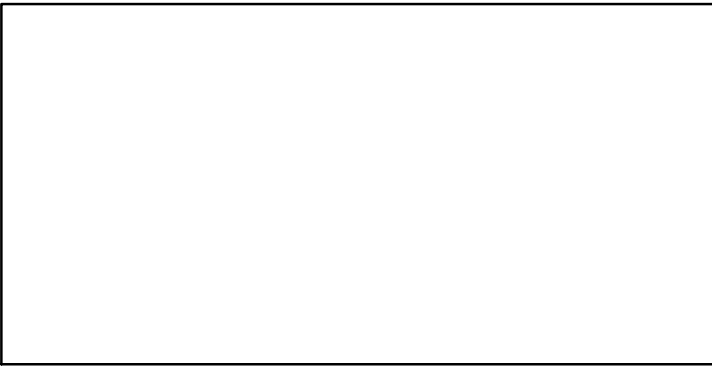
**TB\***



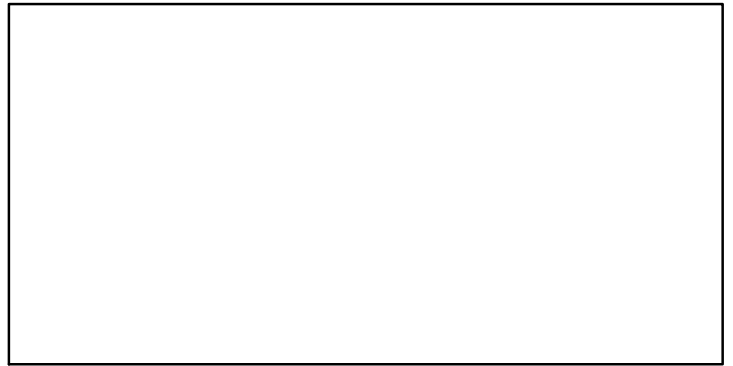
**SSB\***



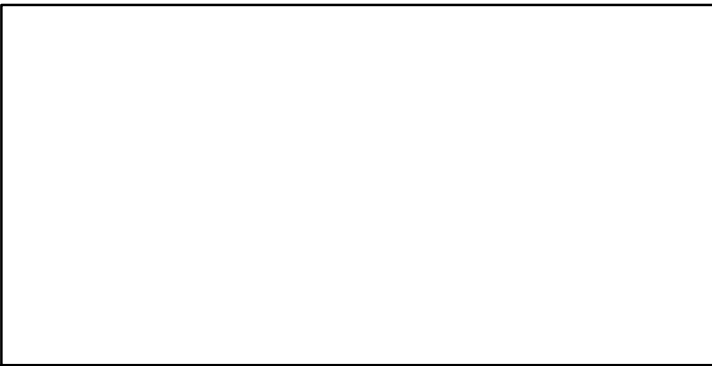
**TN \***



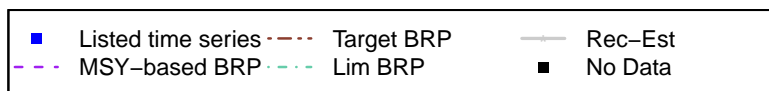
**F\***



**ER\***



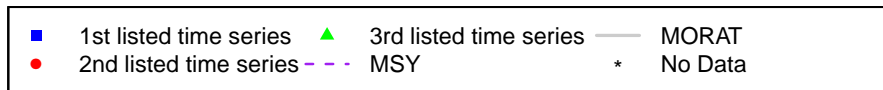
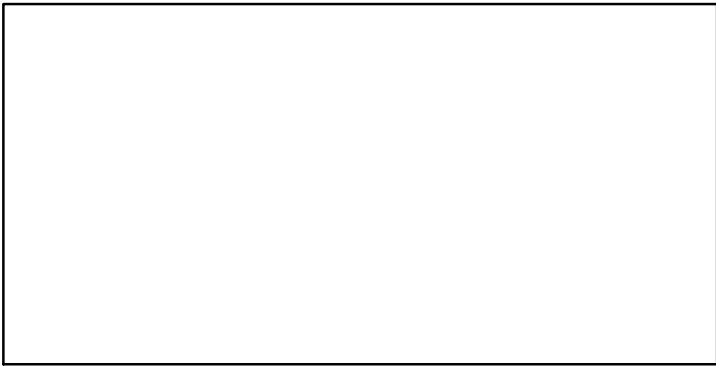
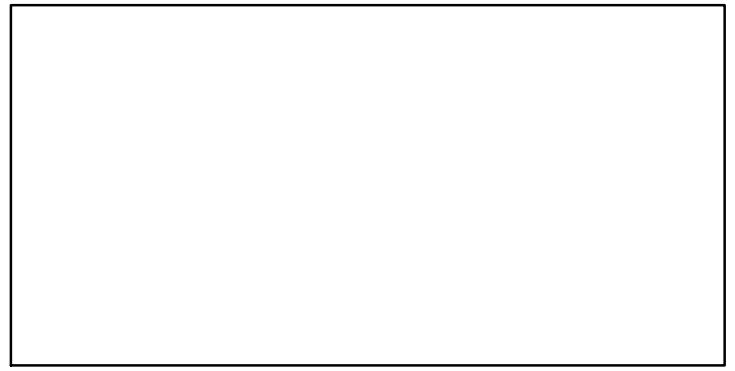
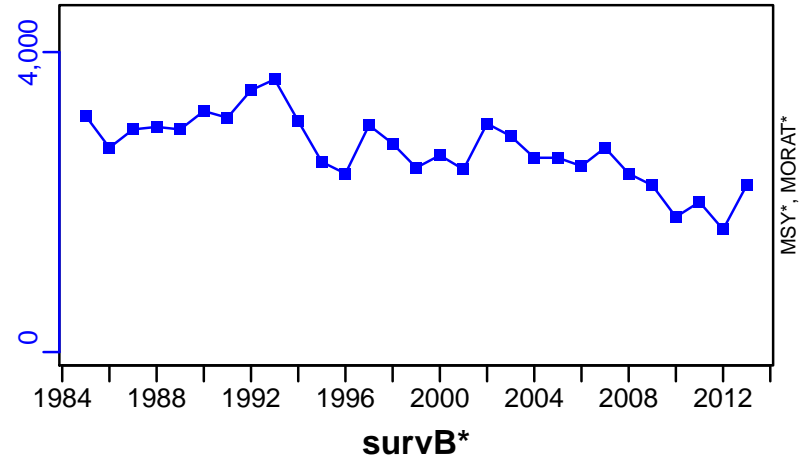
**Recruits\***



# Pointhead flounder North coast of Hokkaido [PHFLOUNNHOKK]

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

TAC\*, Cpair\*, Cadv\*



## Pointhead flounder Sea of Japan [PHFLOUNSOJ]

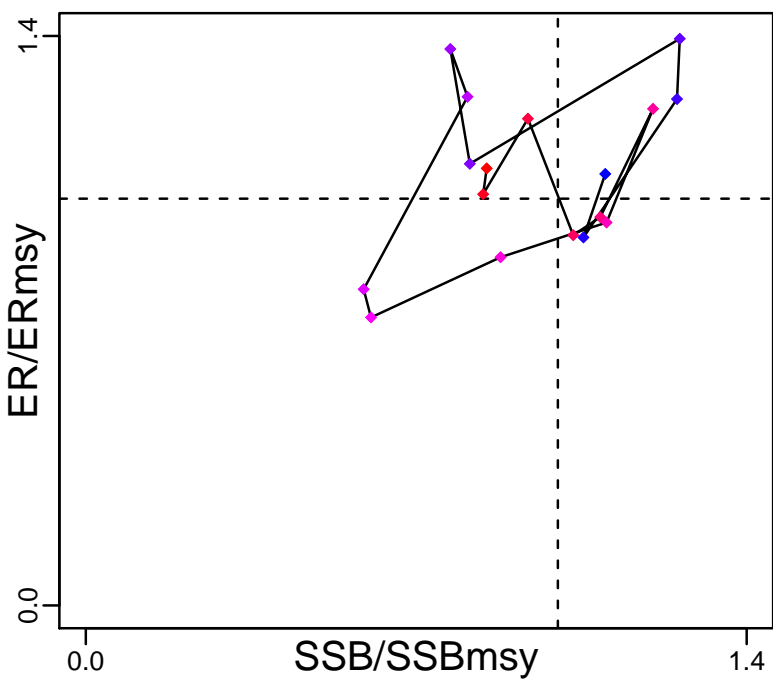
Metadata	
<b>Scientific Name</b>	Cleisthenes herzensteini
<b>Current Assess ID</b>	FAFRFJ-PHFLOUNSOJ-1966-2013-JPNIMP2016
<b>Area</b>	Sea of Japan
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>	2013

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

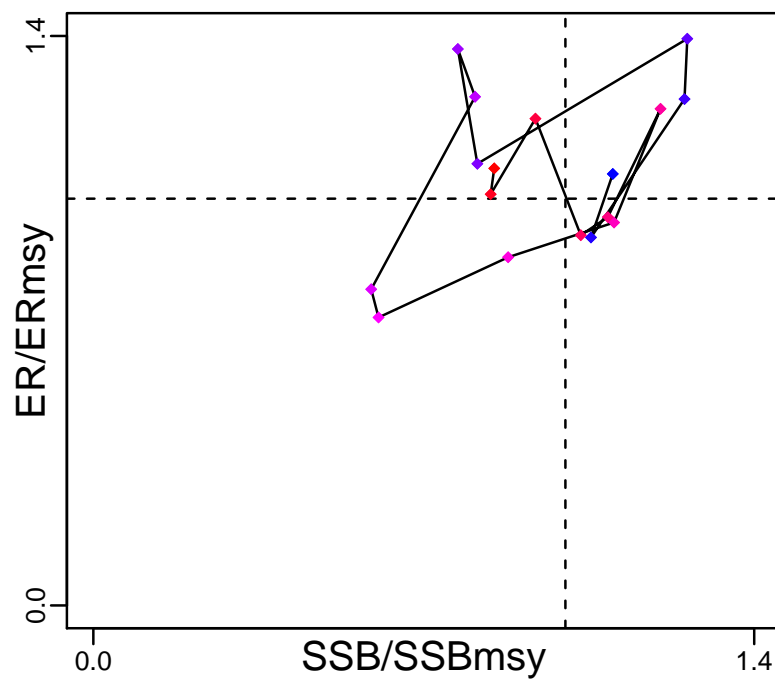
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	8850	-	1
<b>SSB</b>	SSB-MT	2013	3490	Both	3
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	$4.1 \times 10^7$	-	1
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0.343	-	-
<b>TC</b>	TC-MT	2013	3030		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2013	0.953		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.849		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	1.074		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Pointhead flounder Sea of Japan [PHFLOUNSOJ]

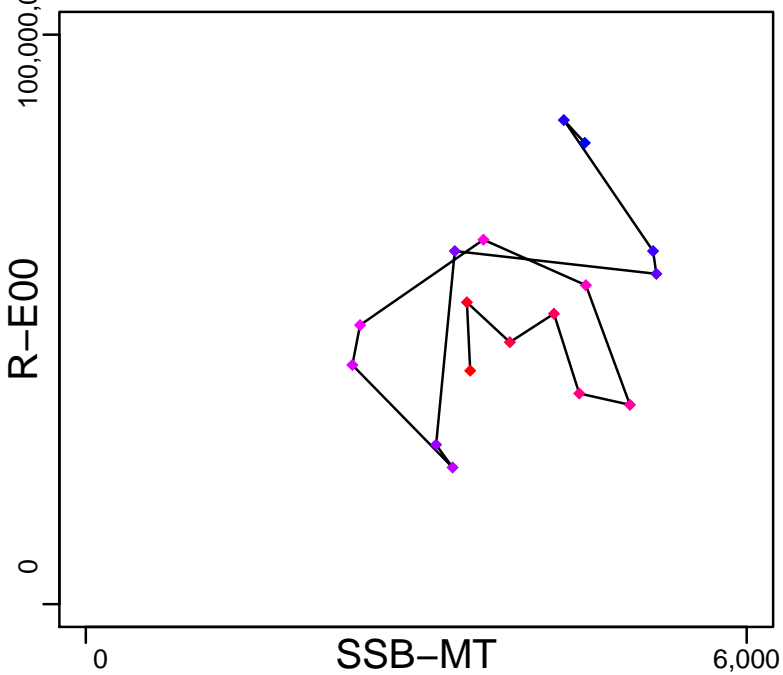
Kobe MSYpref (1966–2013–JPNIMP2016)



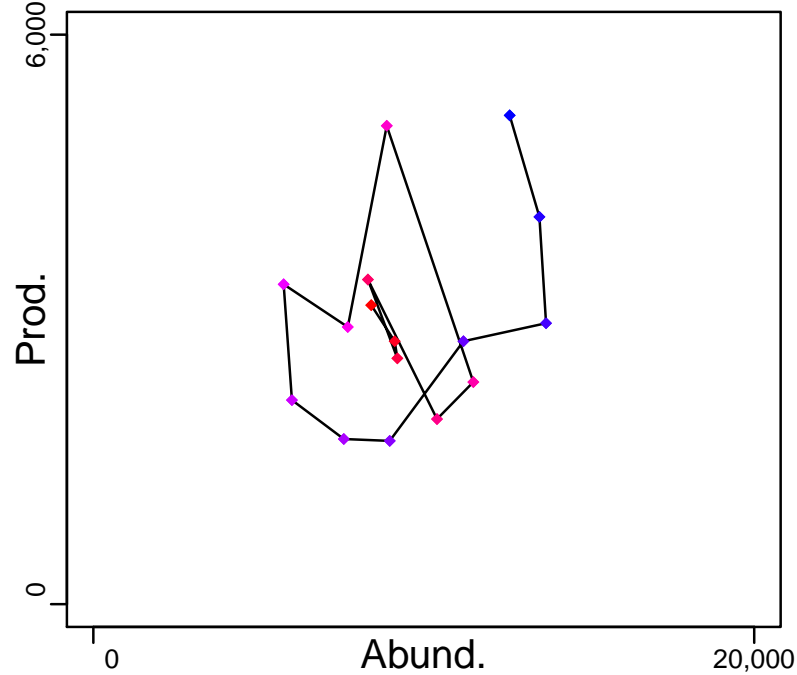
Kobe MGTpref (1966–2013–JPNIMP2016)



Spawner Recruit (1966–2013–JPNIMP2016)



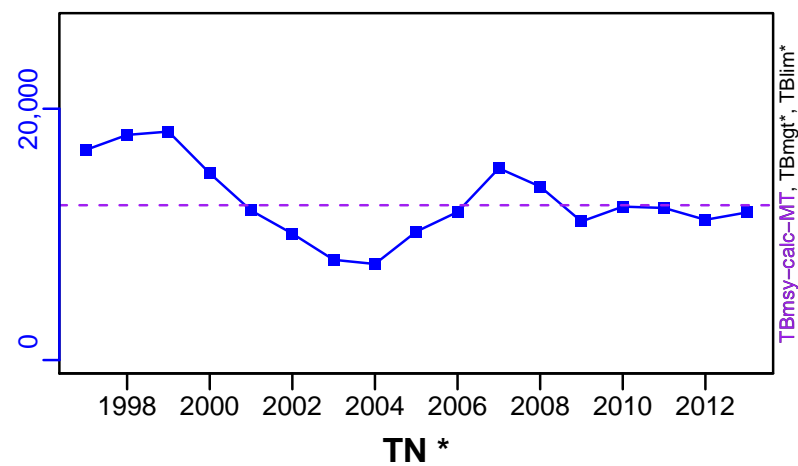
Production (1966–2013–JPNIMP2016)



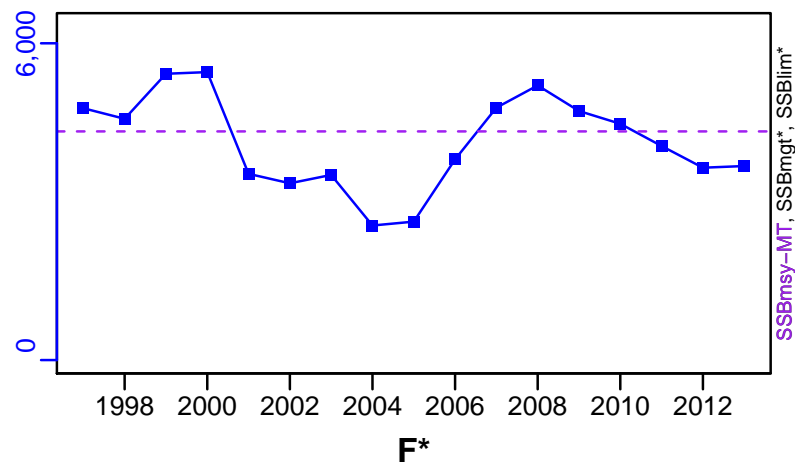
◆ Start Year ◆ End Year \* No Data

# Pointhead flounder Sea of Japan [PHFLOUNSOJ]

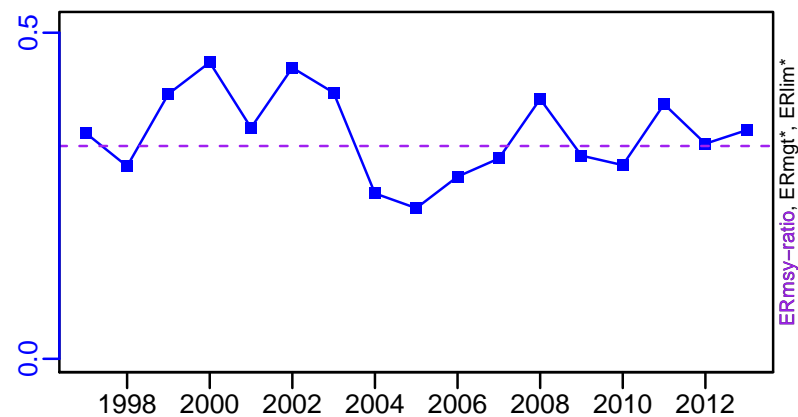
TB-MT (1966-2013-JPNIMP2016)



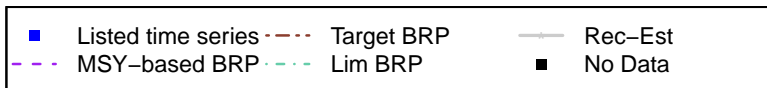
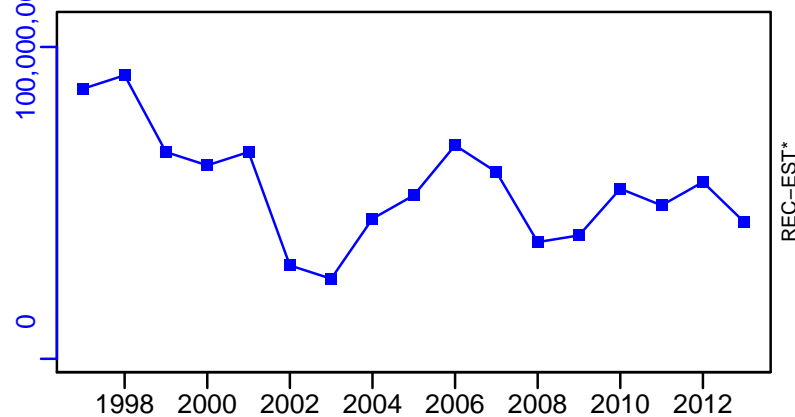
SSB-MT (1966-2013-JPNIMP2016)



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

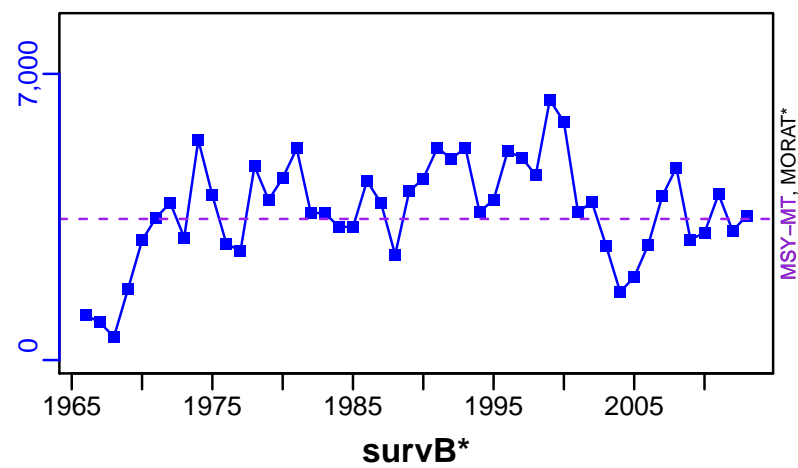


R-E00 (1966-2013-JPNIMP2016)

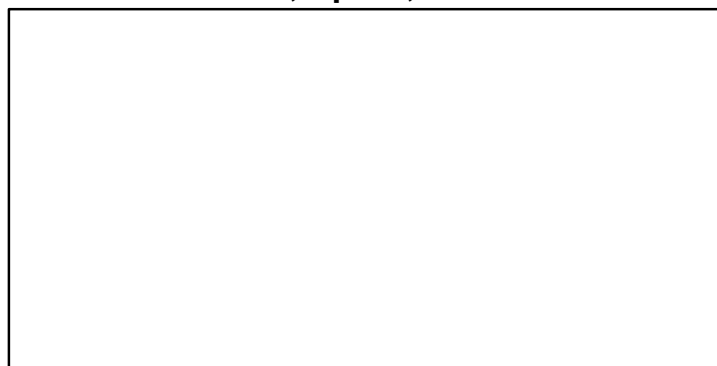


# Pointhead flounder Sea of Japan [PHFLOUNSOJ]

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



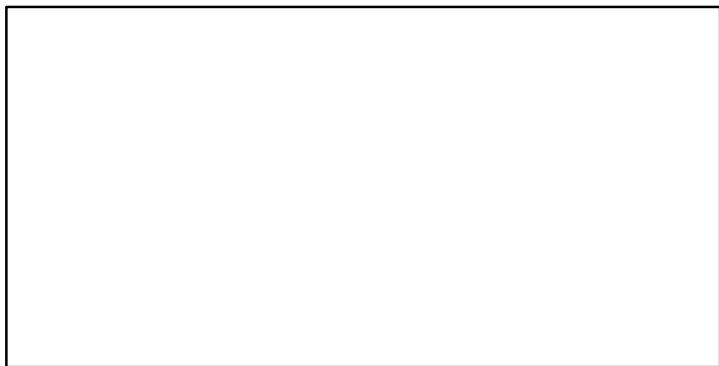
TAC\*, Cpair\*, Cadv\*



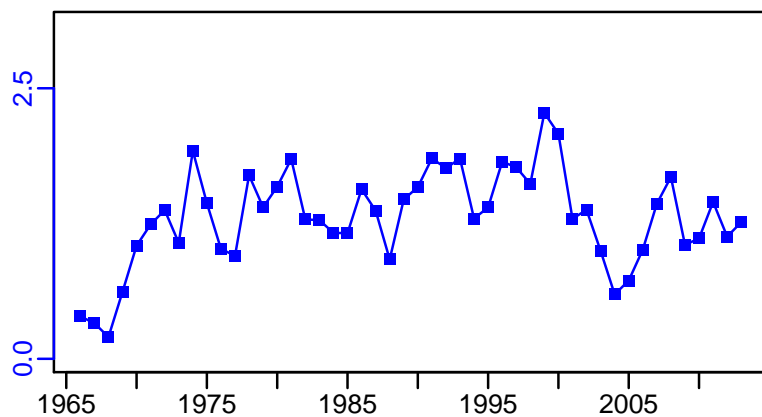
CPUE\*



EFFORT\*



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

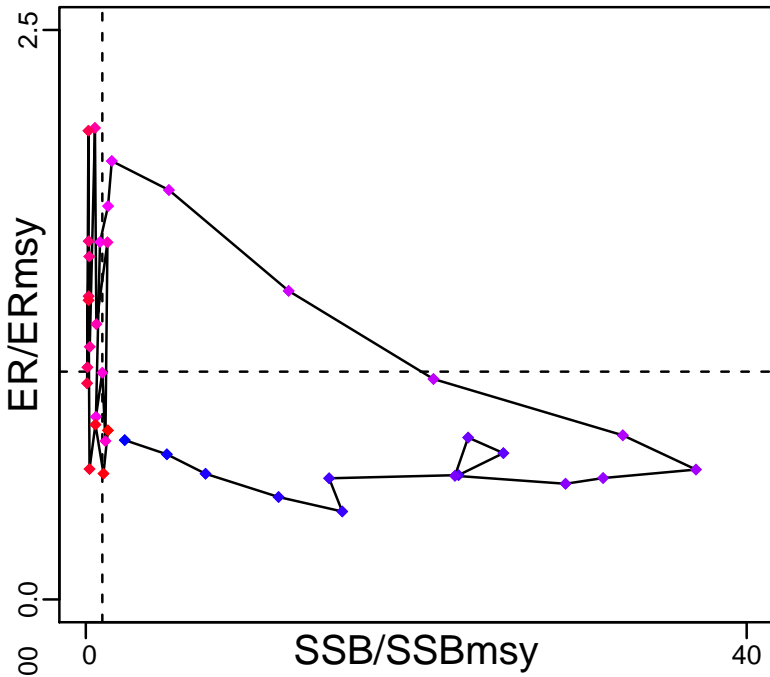
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2013	628,366
<b>SSBmsy</b>	SSBmsy-MT	2013	361,622
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2013	0.28
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	714,000	-	0
<b>SSB</b>	SSB-MT	2013	484,000	Both	1
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	$5.98 \times 10^9$	-	0
<b>F</b>	F-1/yr	2009	0.41	Both	0 to 4
<b>ER</b>	ER-calc-ratio	2013	0.208	-	-
<b>TC</b>	TC-MT	2013	148,000		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2013	1.136		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	1.337		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	0.742		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

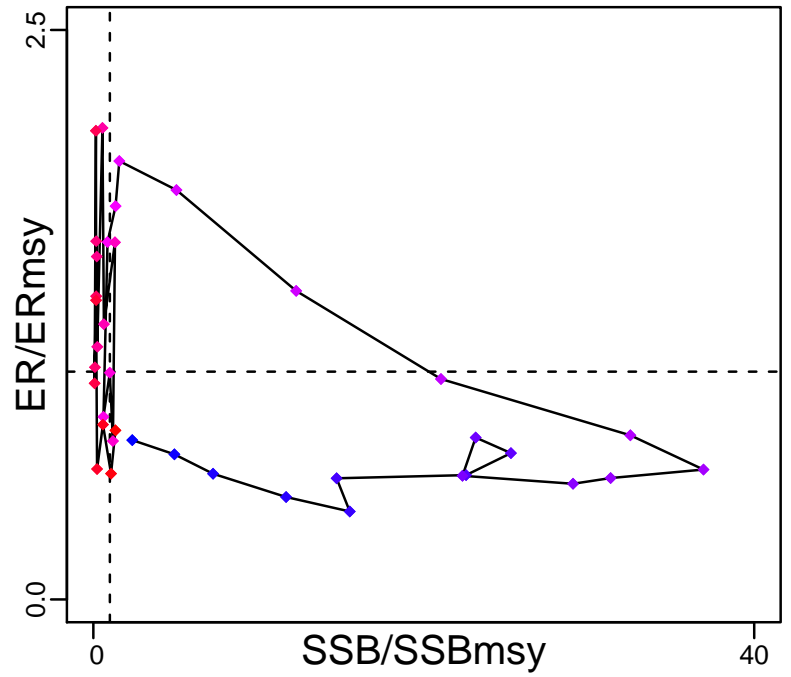


# Japanese sardine Pacific Coast of Japan [PILCHPJPN]

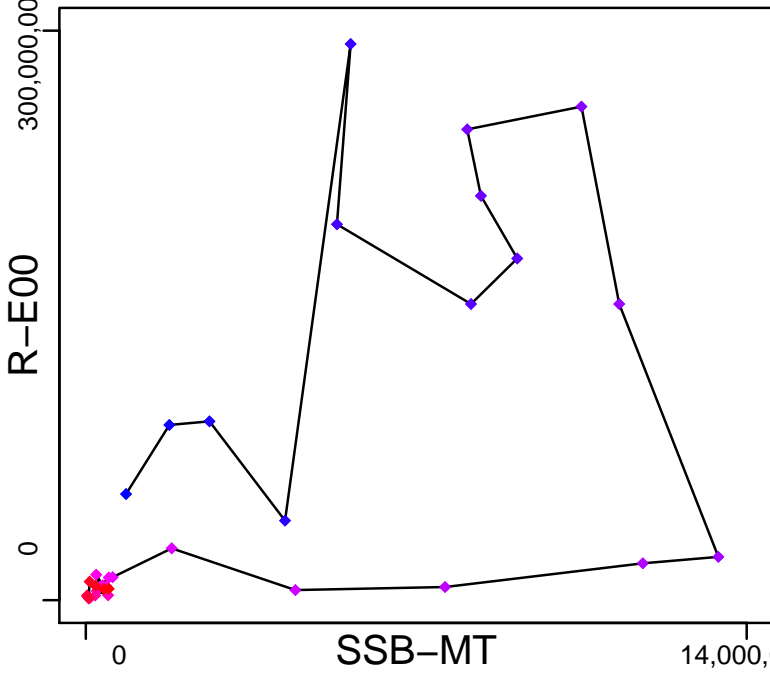
Kobe MSYpref (1975–2013–JPNIMP2016)



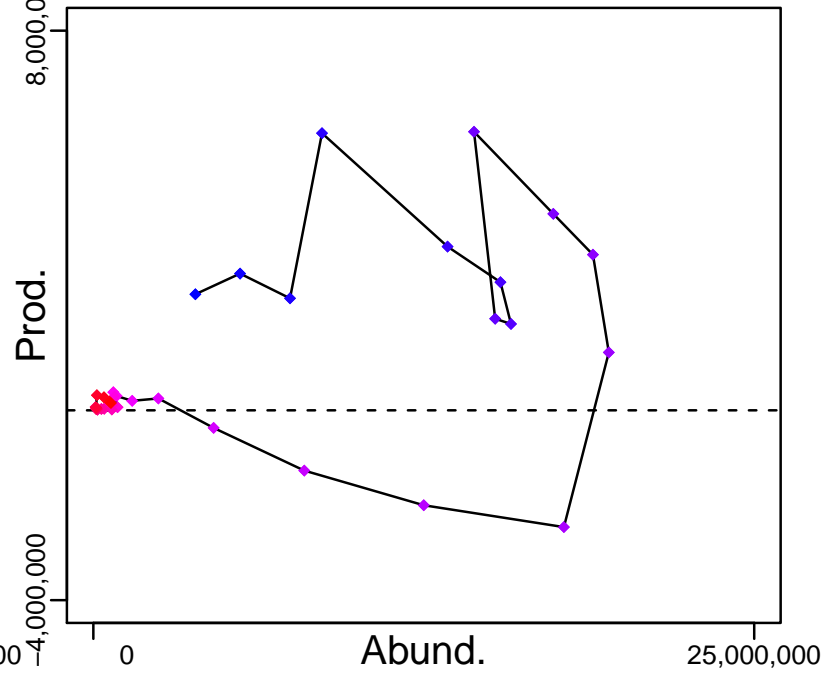
Kobe MGTpref (1975–2013–JPNIMP2016)



Spawner Recruit (1975–2013–JPNIMP2016)

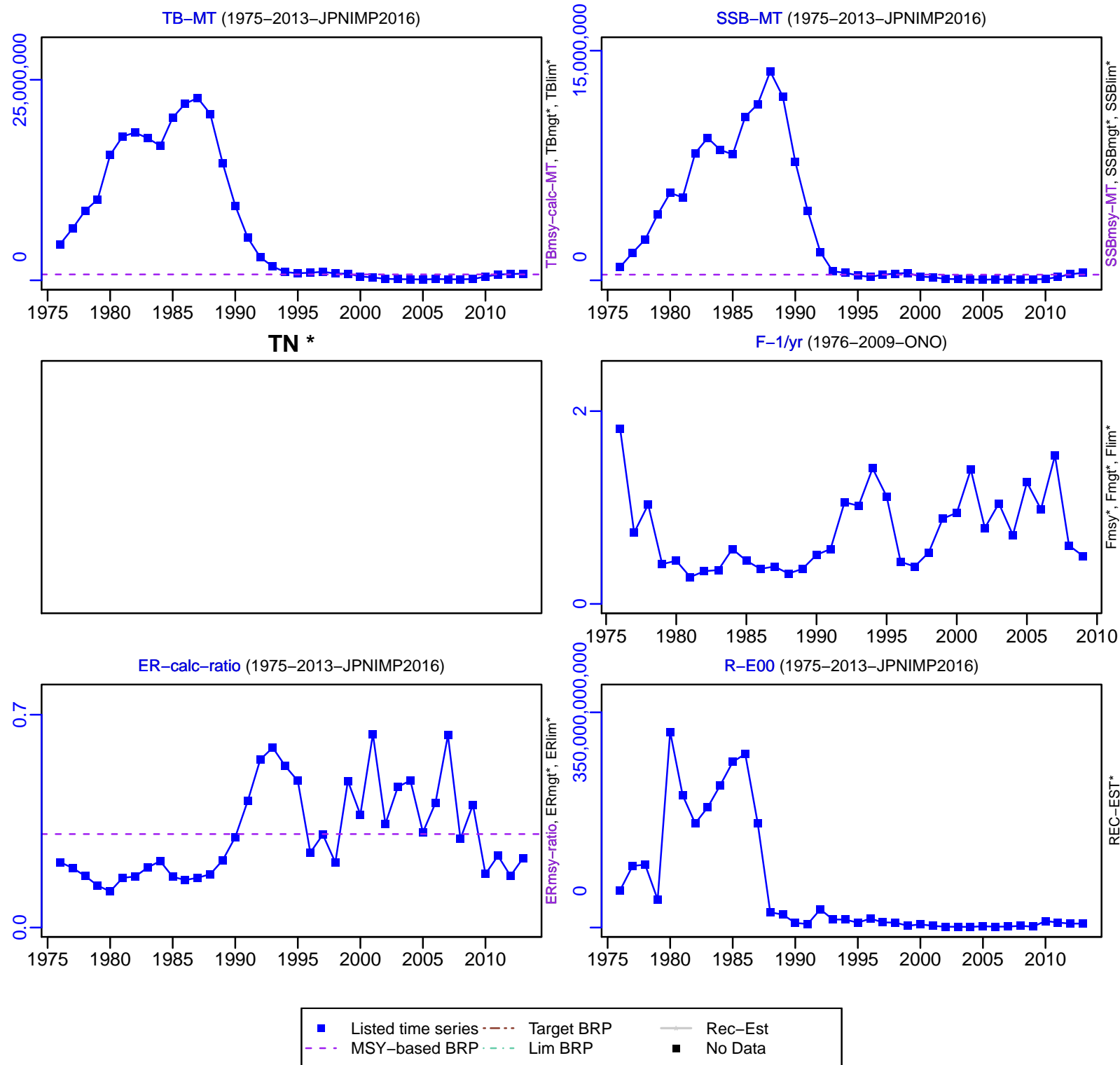


Production (1975–2013–JPNIMP2016)



◆ Start Year ◆ End Year \* No Data

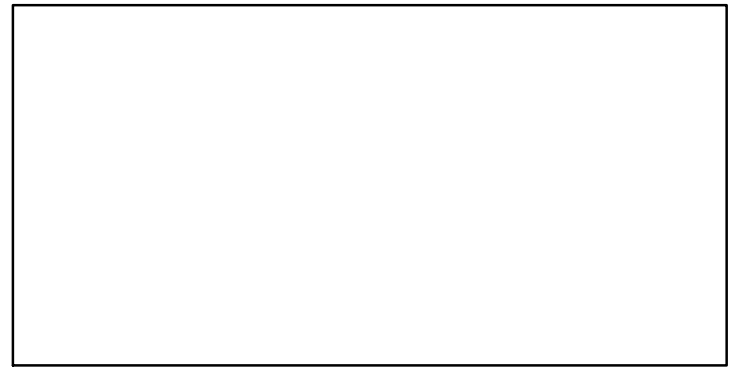
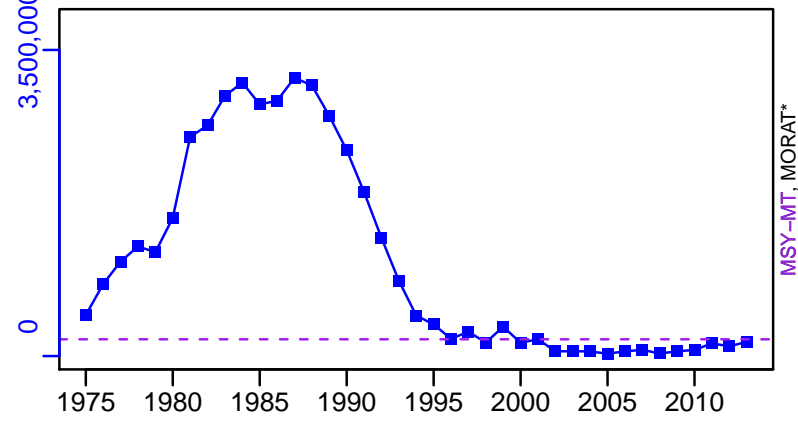
# Japanese sardine Pacific Coast of Japan [PILCHPJPN]



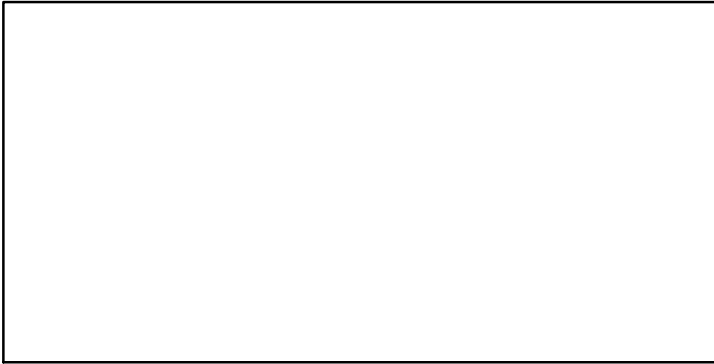
# Japanese sardine Pacific Coast of Japan [PILCHPJPN]

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

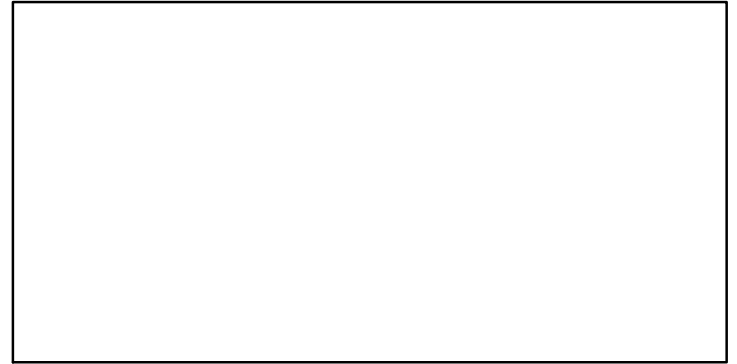
TAC\*, Cpair\*, Cadv\*



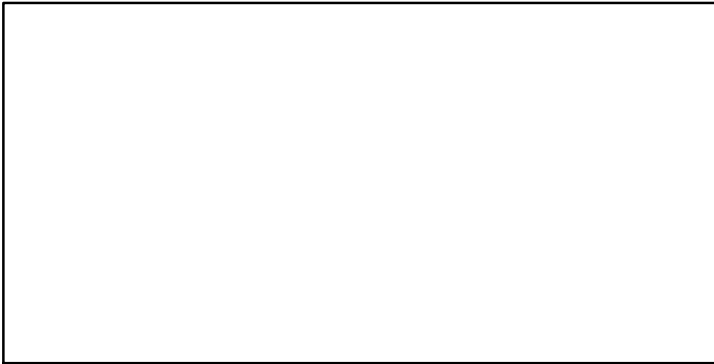
survB\*



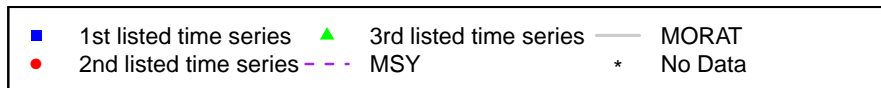
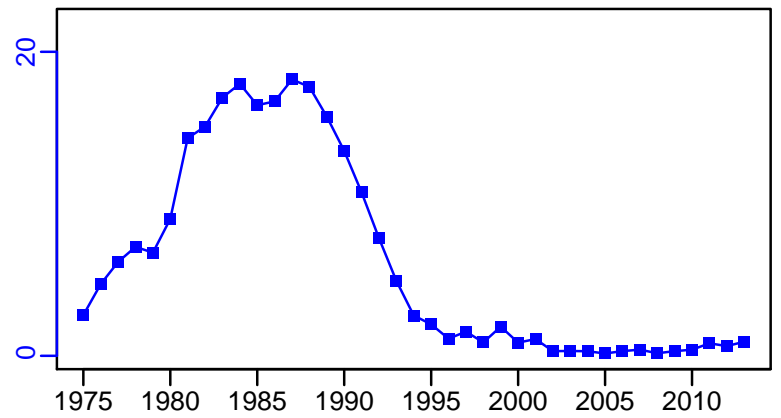
CPUE\*



EFFORT\*



CdivMSY-ratio (1975-2013-JPNIMP2016)



## Japanese sardine Tsushima Strait [PILCHTSST]

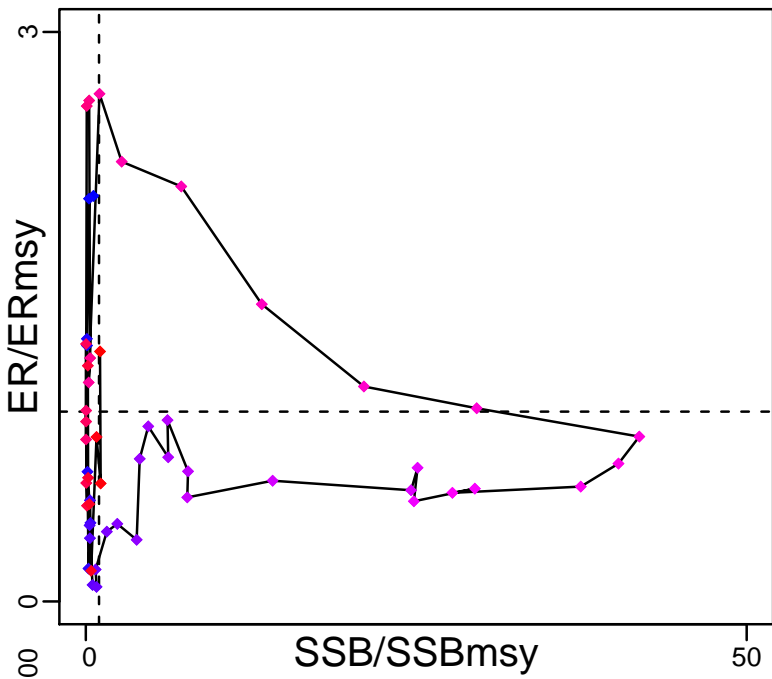
Metadata	
<b>Scientific Name</b>	Sardinops melanostictus
<b>Current Assess ID</b>	FAFRFJ-PILCHTSST-1960-2013-JPNIMP2016
<b>Area</b>	Tsushima Strait
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>	2010, 2013

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

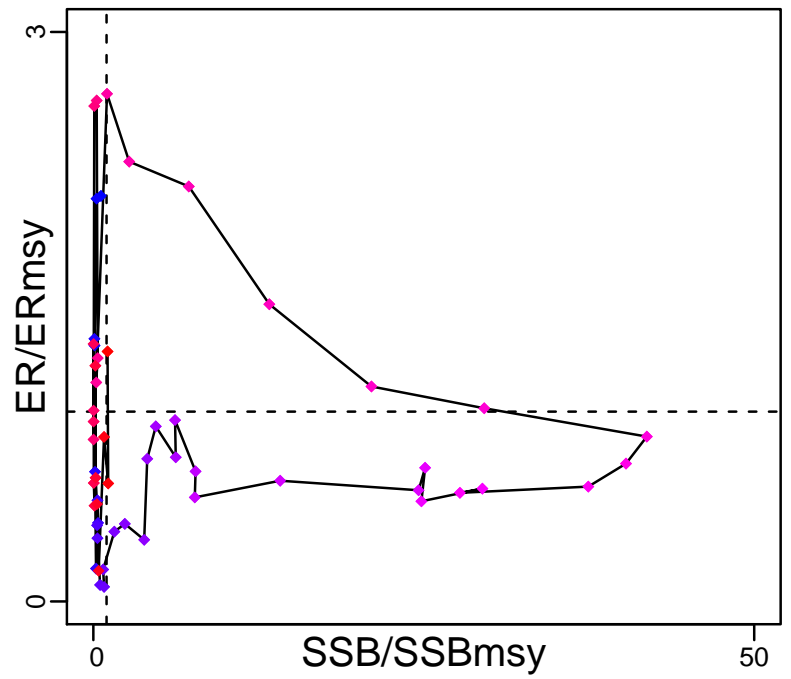
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	252,000	-	0
<b>SSB</b>	SSB-MT	2013	131,000	Both	1
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	$5.17 \times 10^9$	-	0.00E+00
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0.342	-	-
<b>TC</b>	TC-MT	2013	86,300		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2013	1.237		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	1.075		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	1.317		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Japanese sardine Tsushima Strait [PILCHTSST]

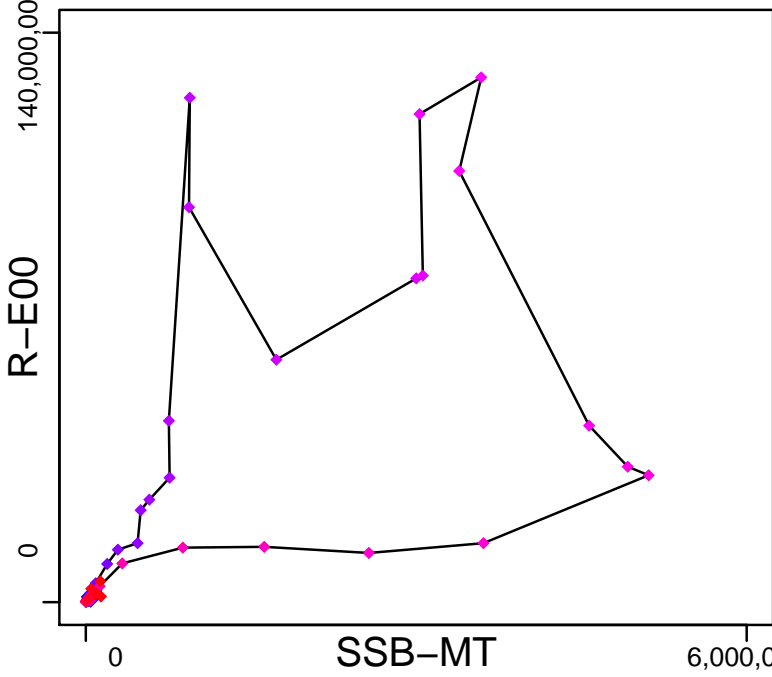
Kobe MSYpref (1960–2013–JPNIMP2016)



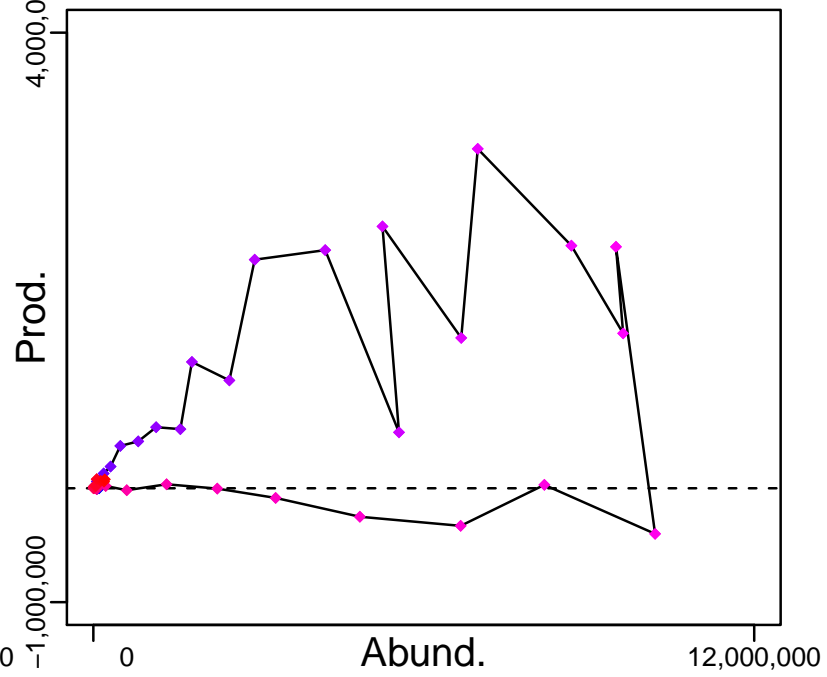
Kobe MGTpref (1960–2013–JPNIMP2016)



Spawner Recruit (1960–2013–JPNIMP2016)

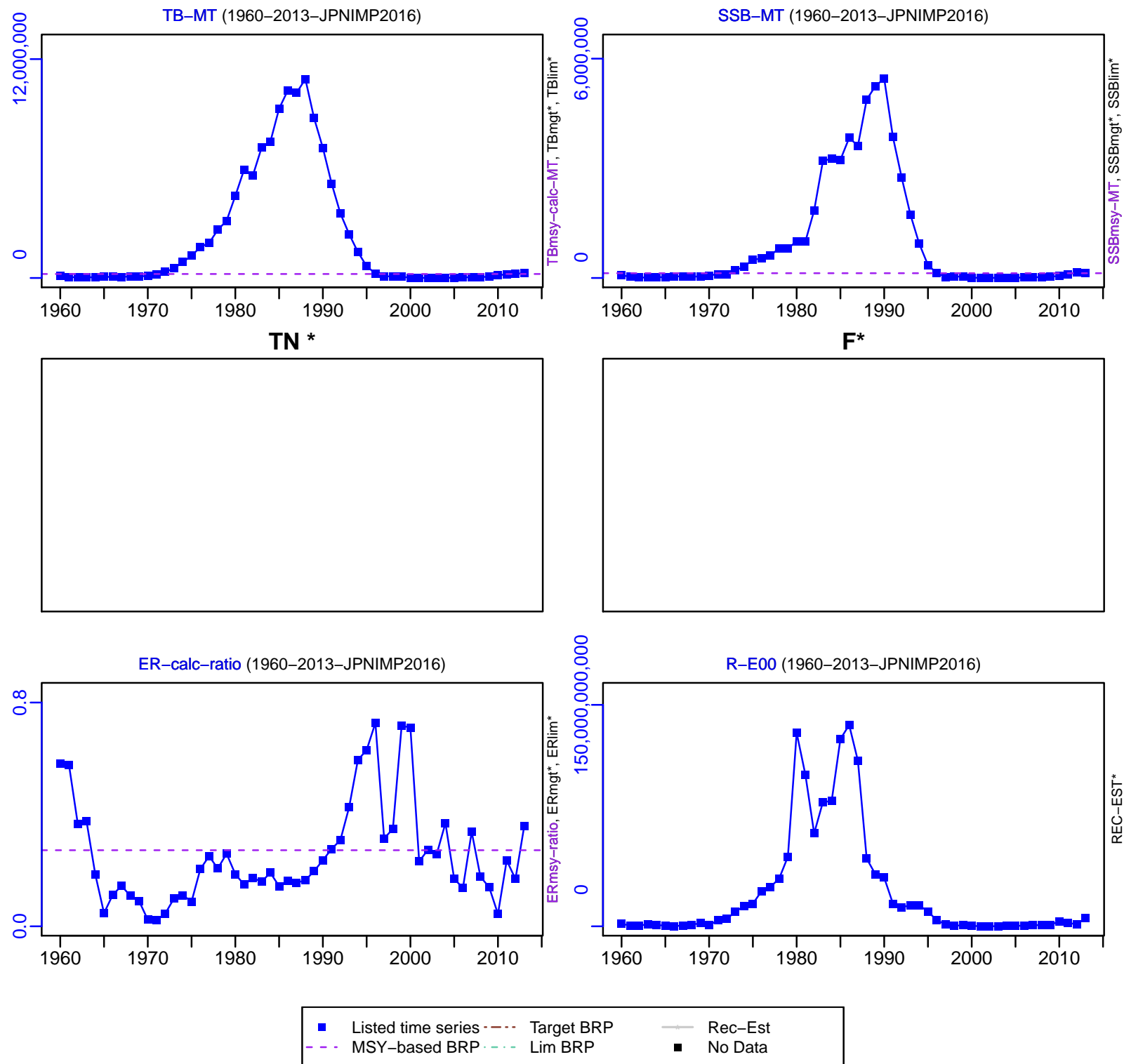


Production (1960–2013–JPNIMP2016)



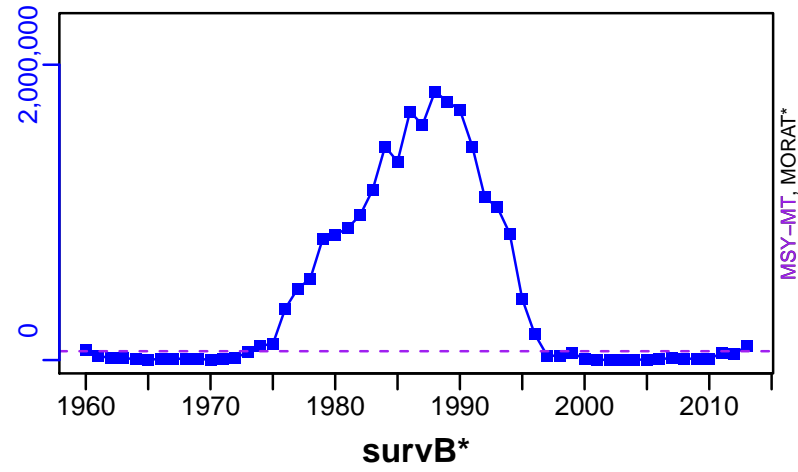
◆ Start Year ◆ End Year \* No Data

# Japanese sardine Tsushima Strait [PILCHTSST]

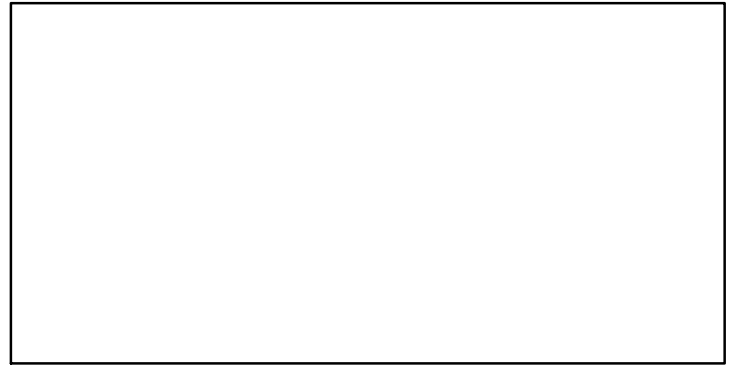


# Japanese sardine Tsushima Strait [PILCHTSST]

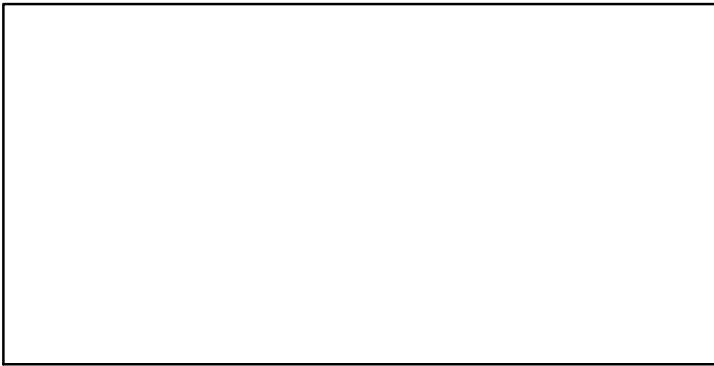
TC-MT, TL\*, RecC\* (1960–2013–JPNIMP2016)



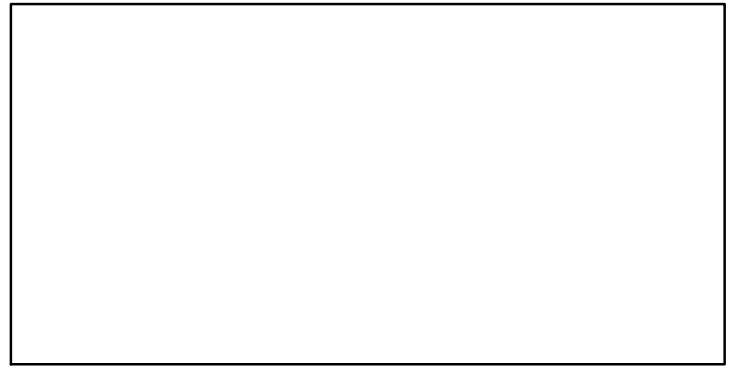
TAC\*, Cpair\*, Cadv\*



survB\*



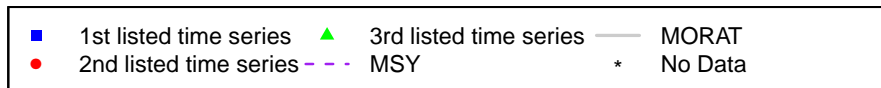
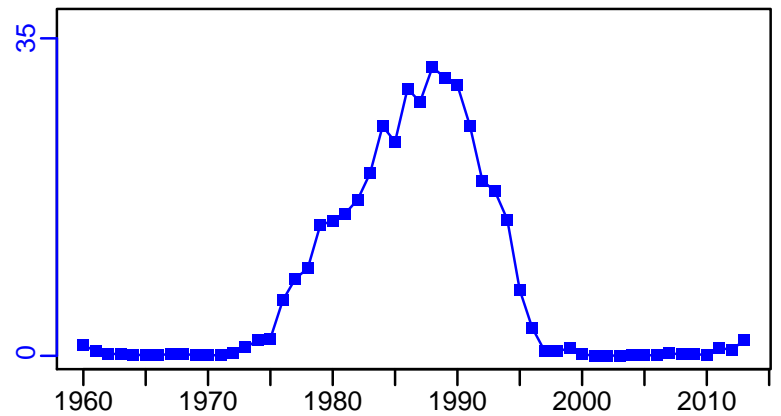
CPUE\*



EFFORT\*



CdivMSY-ratio (1960–2013–JPNIMP2016)



## Pacific sandlance Ise and Mikawa Bay [PSANDLIMKB]

Metadata	
<b>Scientific Name</b>	Ammodytes personatus
<b>Current Assess ID</b>	FAFRFJ-PSANDLIMKB-1979-2014-JPNIMP2016
<b>Area</b>	Ise and Mikawa Bay
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>	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	$2.92 \times 10^{10}$	-	-
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	-	-	-		



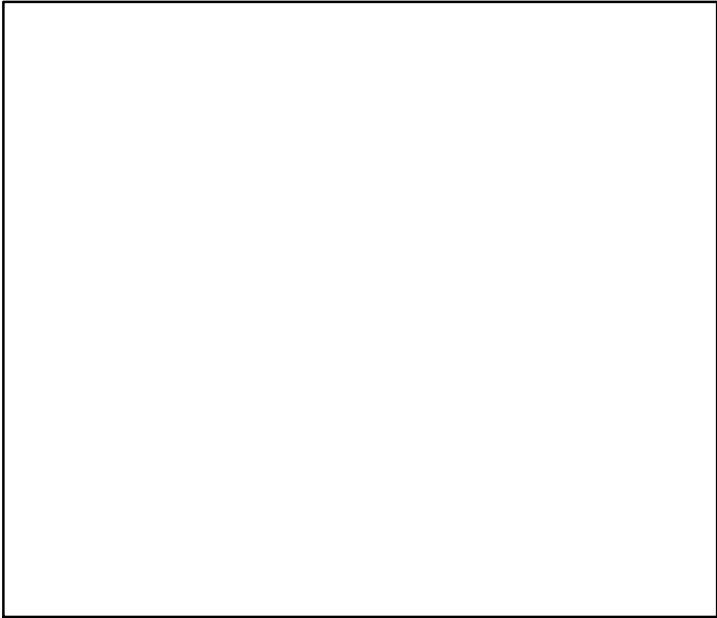
Kobe MSY\*



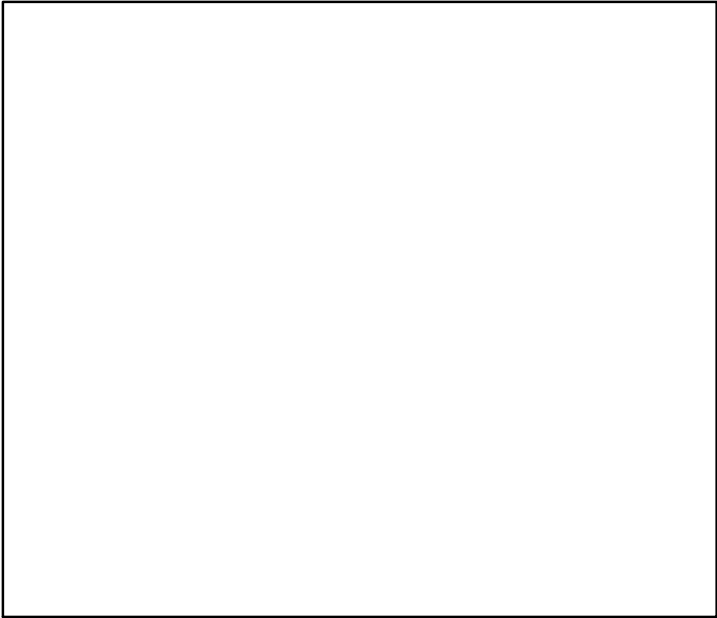
Kobe MGT\*



Spawner Recruit\*



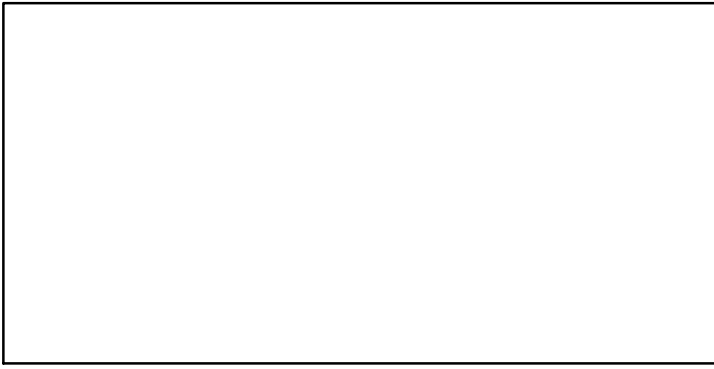
Production\*



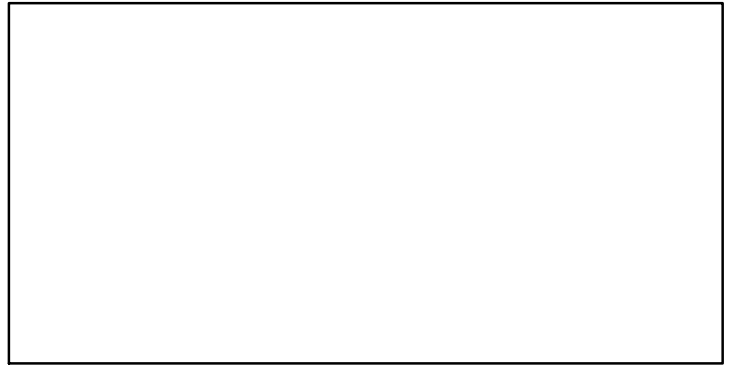
◆ Start Year   ◆ End Year   \* No Data

Pacific sandlance Ise and Mikawa Bay [PSANDLIMKB]

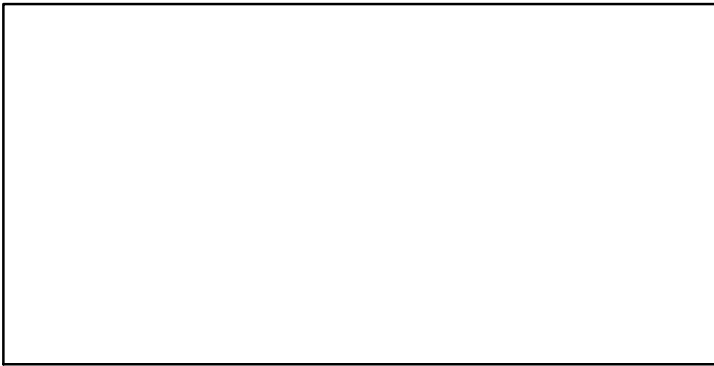
TB\*



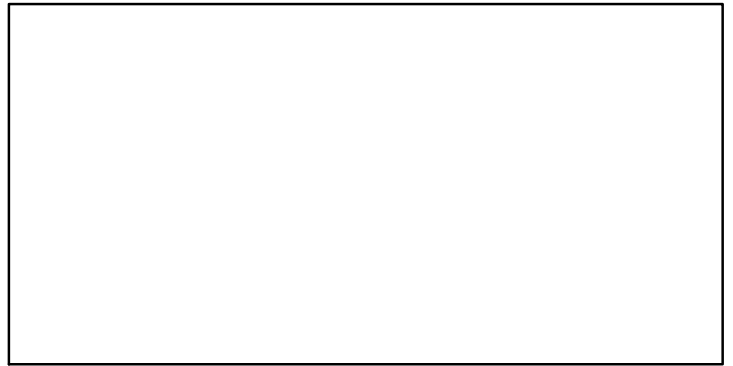
SSB\*



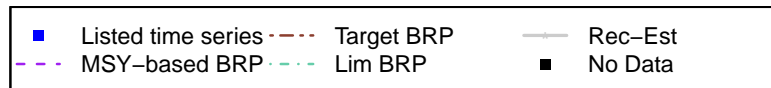
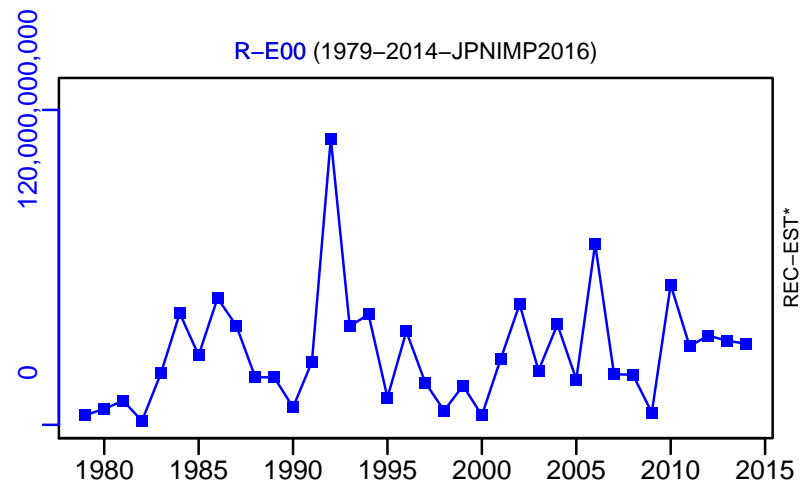
TN \*



F\*



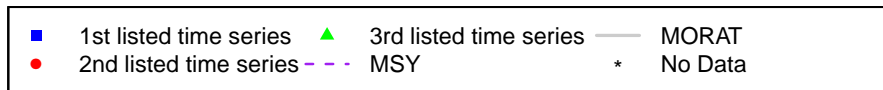
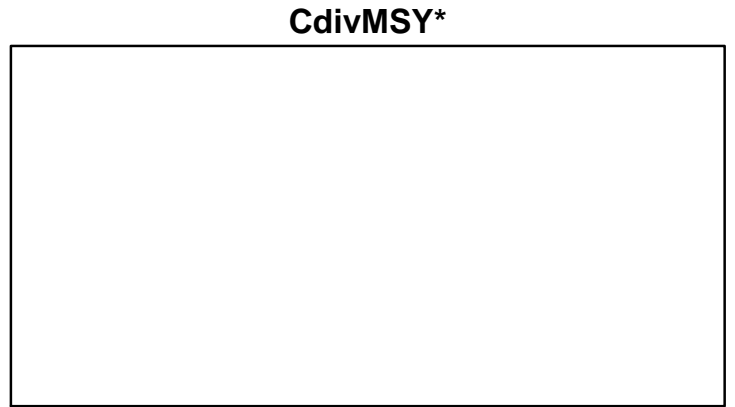
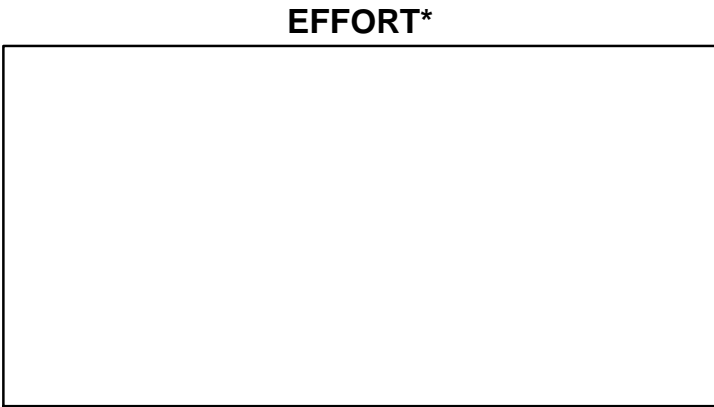
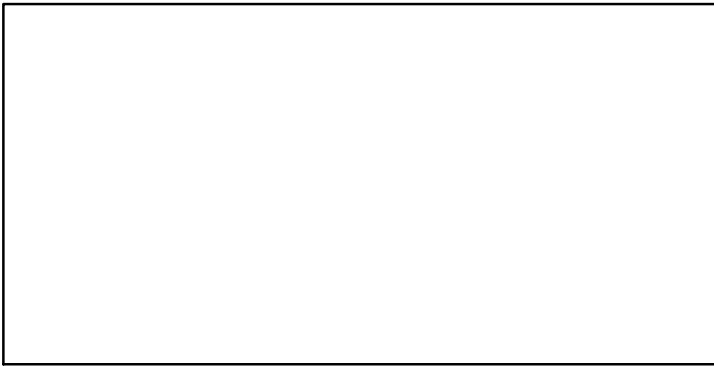
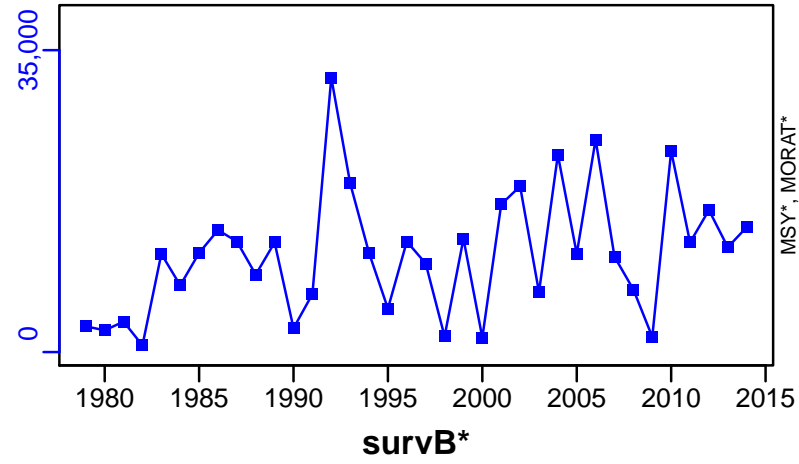
ER\*



# Pacific sand lance Ise and Mikawa Bay [PSANDLIMKB]

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

TAC\*, Cpair\*, Cadv\*



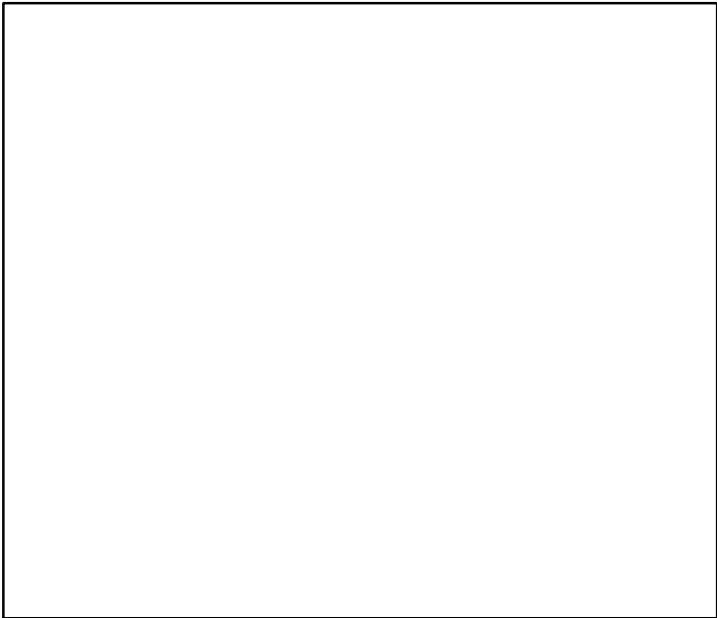
## Pacific sand lance Souya Strait [PSLANCESYS]

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

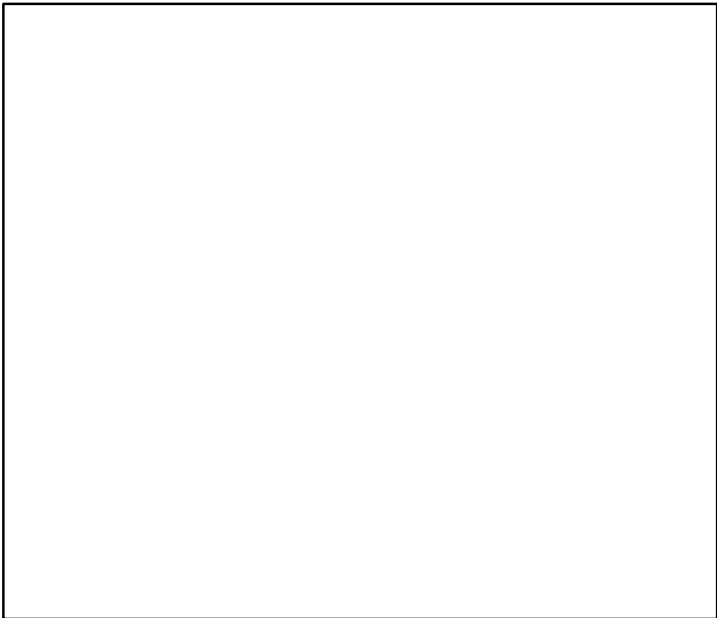
Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data

Pacific sand lance Souya Strait [PSLANCESYS]

TB\*



SSB\*



TN \*



F\*



ER\*

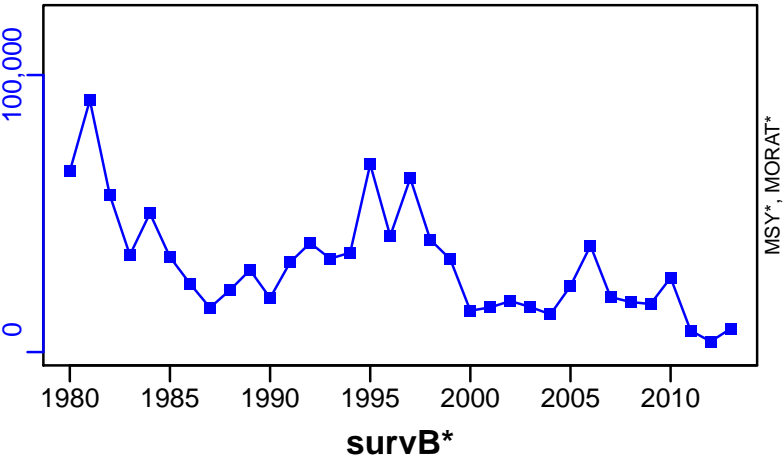


Recruits\*



Pacific sand lance Souya Strait [PSLANCESYS]

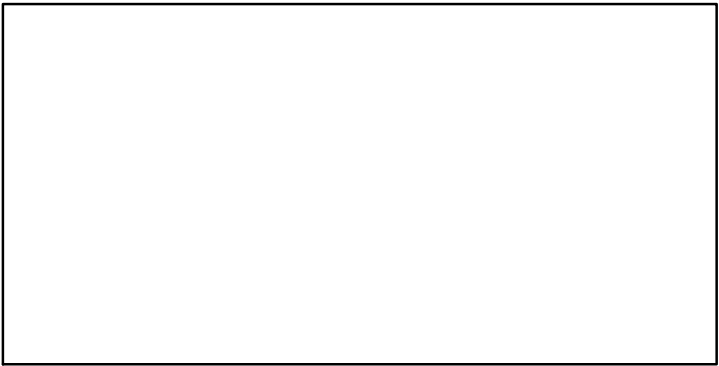
TC-MT, TL\*, RecC\* (1980-2013-JPNIMP2016)



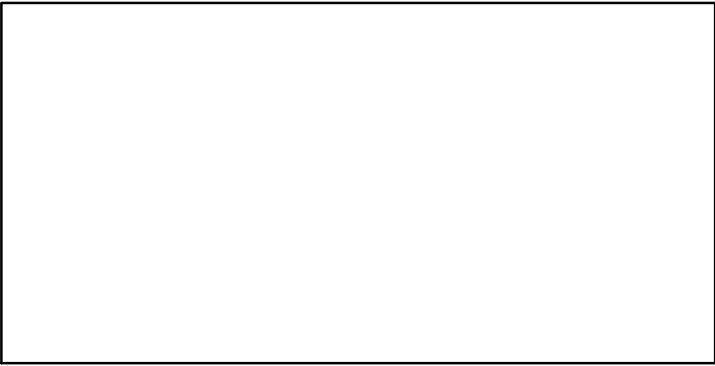
TAC\*, Cpair\*, Cadv\*



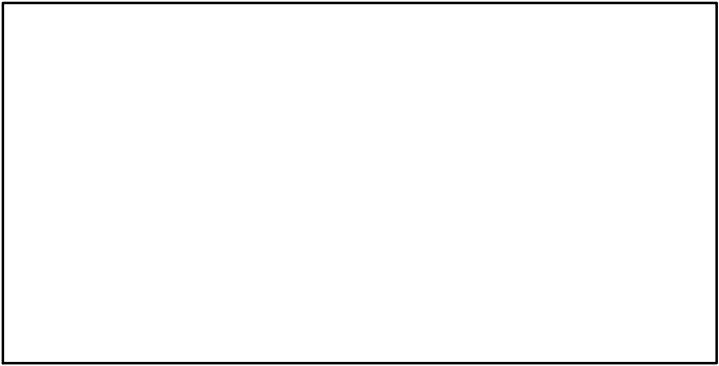
CPUE\*



EFFORT\*



CdivMSY\*



## Red seabream East China Sea [RBRMECS]

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

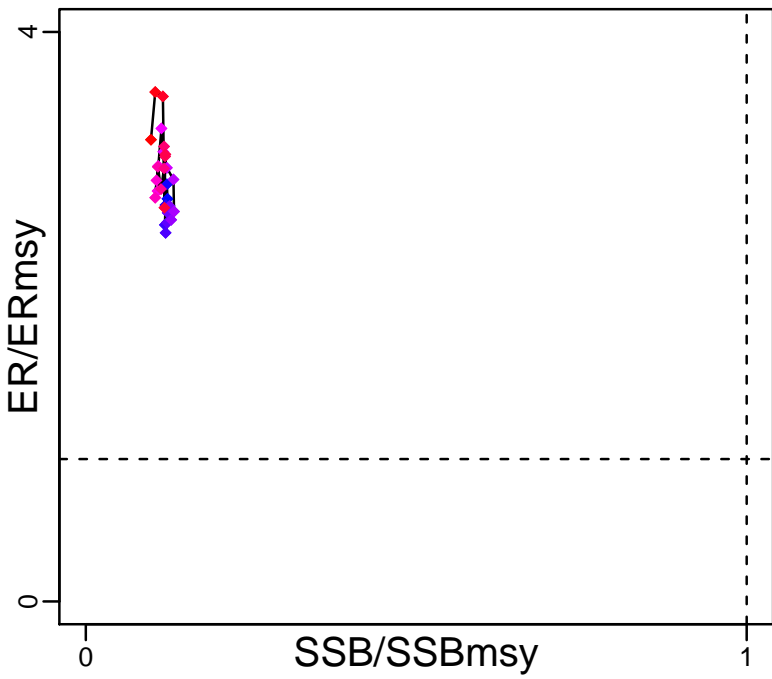
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2013	96,880
<b>SSBmsy</b>	SSBmsy-MT	2013	87,132
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2013	0.12
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	14,200	-	1
<b>SSB</b>	SSB-MT	2013	8590	Both	3
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	10,800,000	-	1
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0.389	-	-
<b>TC</b>	TC-MT	2013	5520		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2013	0.147		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.099		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	3.243		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

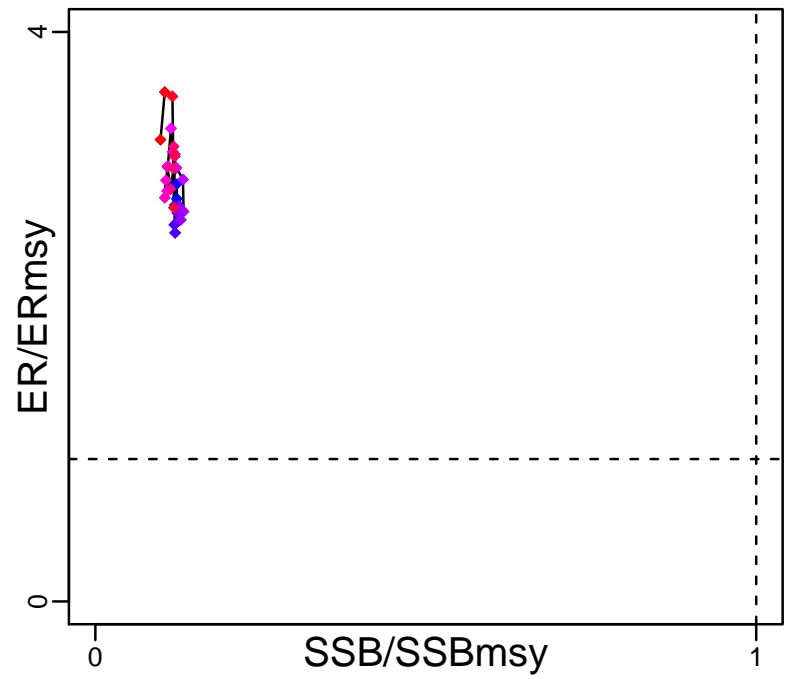


# Red seabream East China Sea [RBRMECS]

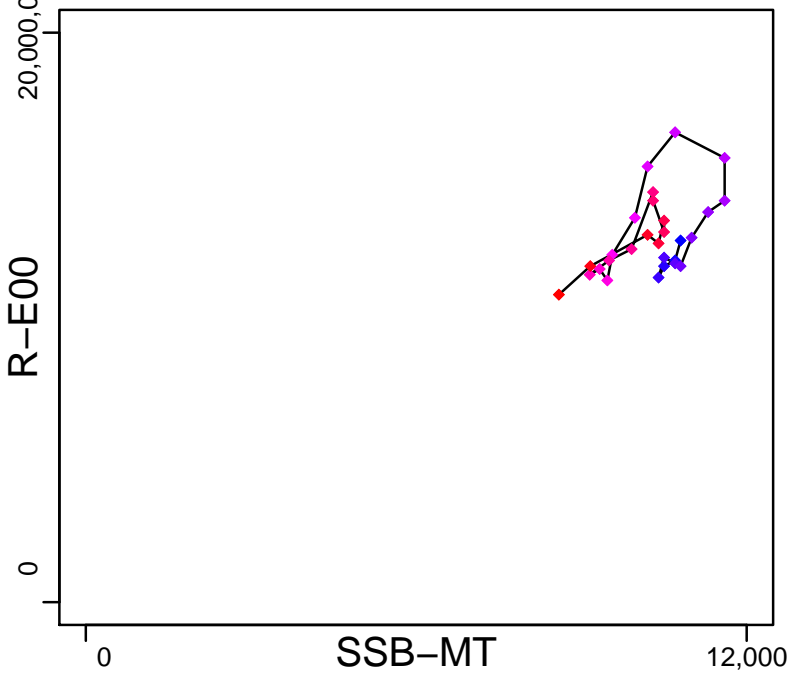
Kobe MSYpref (1969–2013–JPNIMP2016)



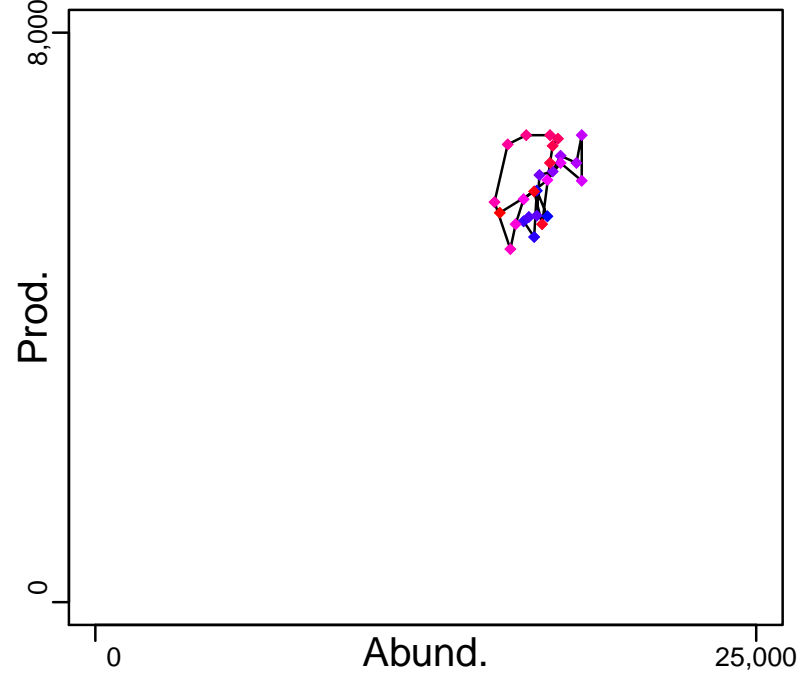
Kobe MGTpref (1969–2013–JPNIMP2016)



Spawner Recruit (1969–2013–JPNIMP2016)



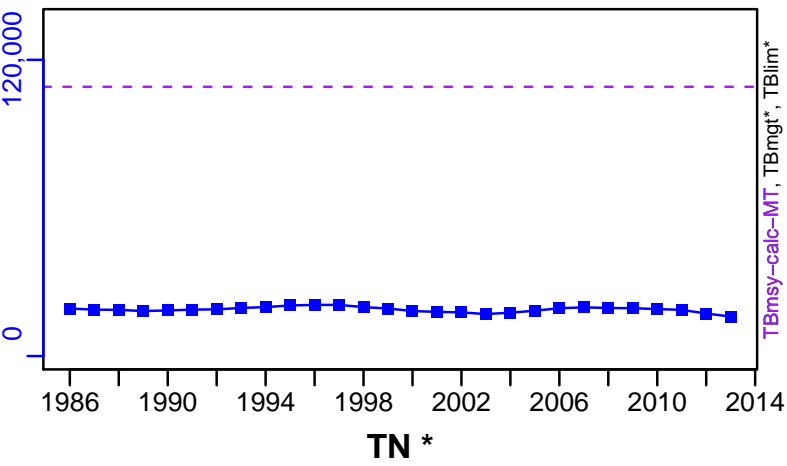
Production (1969–2013–JPNIMP2016)



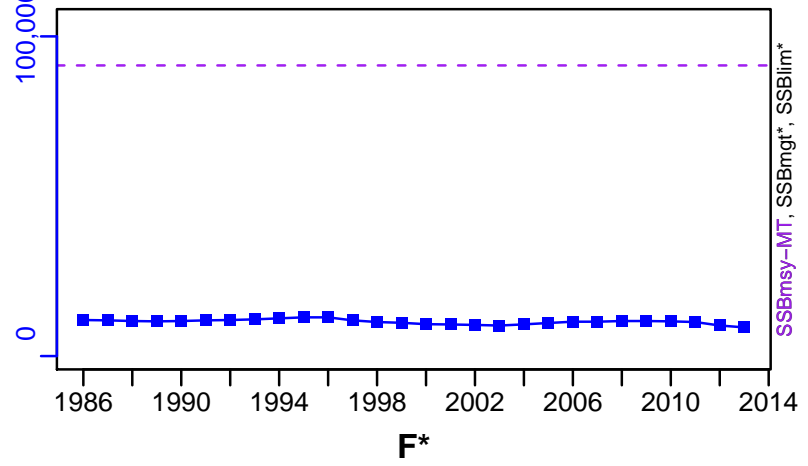
◆ Start Year ◆ End Year \* No Data

# Red seabream East China Sea [RBRMECS]

TB-MT (1969-2013-JPNIMP2016)



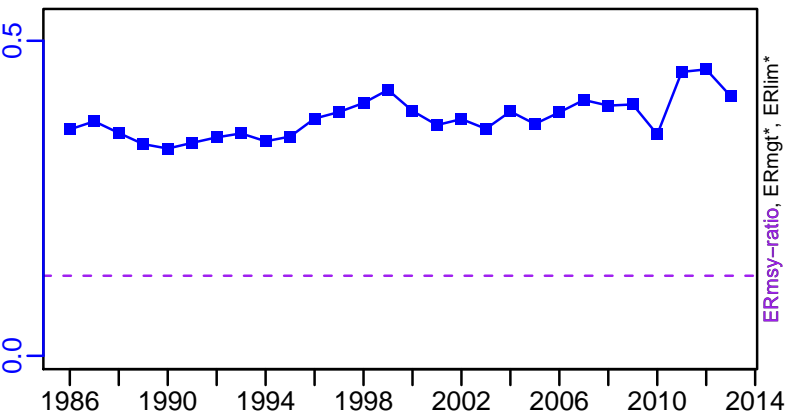
SSB-MT (1969-2013-JPNIMP2016)



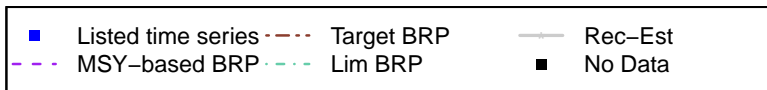
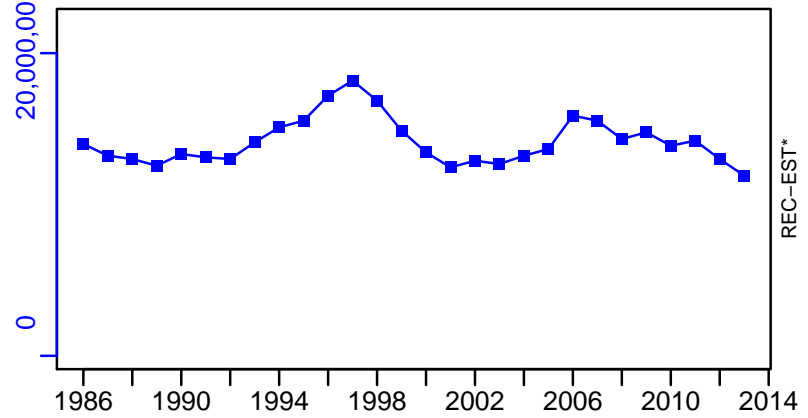
TN \*

F\*

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



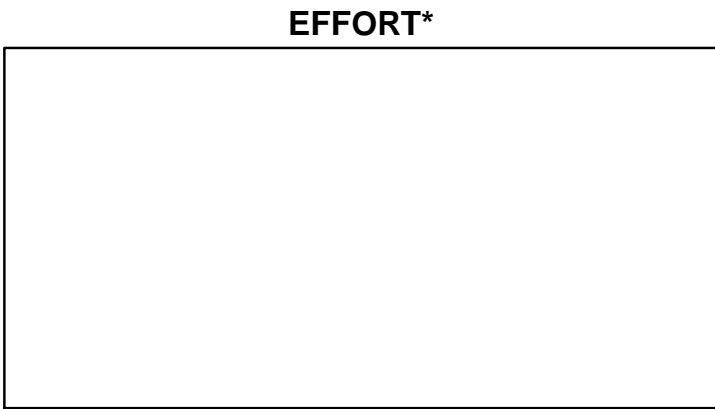
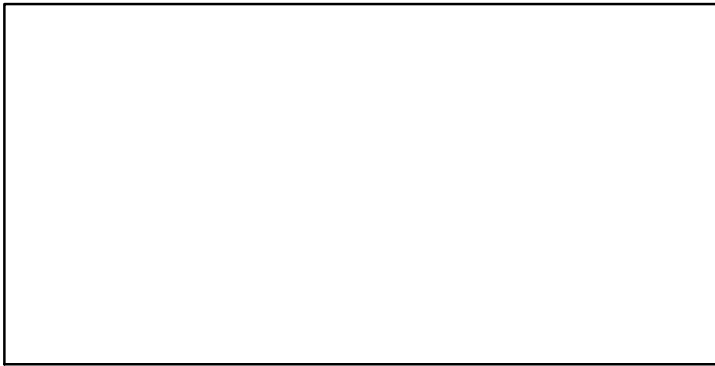
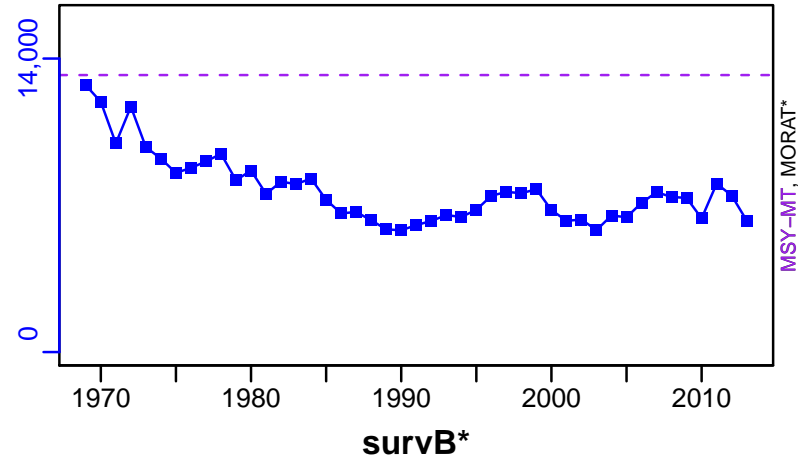
R-E00 (1969-2013-JPNIMP2016)



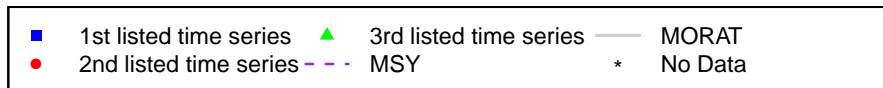
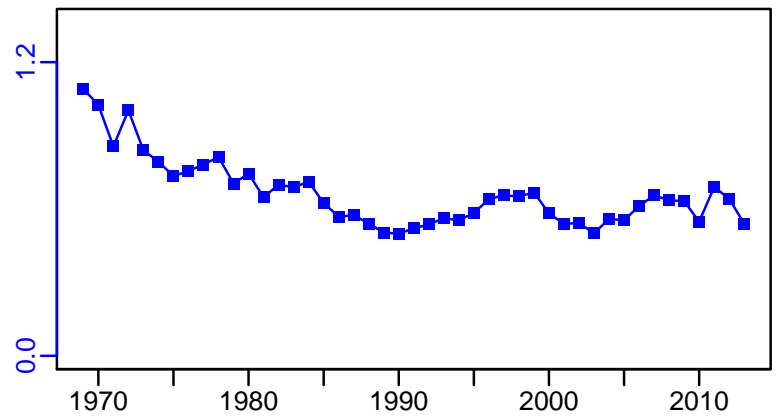
# Red seabream East China Sea [RBRMECS]

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

TAC\*, Cpair\*, Cadv\*



CdivMSY-ratio (1969–2013–JPNIMP2016)



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

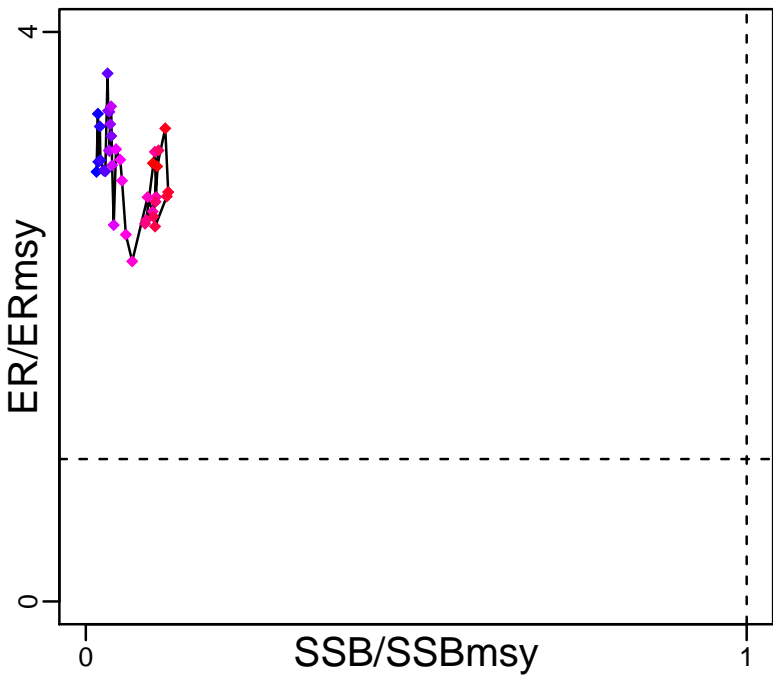
Metadata	
<b>Scientific Name</b>	Pagrus major
<b>Current Assess ID</b>	FAFRFJ-RBRMSETOE-1977-2013-JPNIMP2016
<b>Area</b>	Inland Sea of Japan (East)
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>	2010, 2013

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

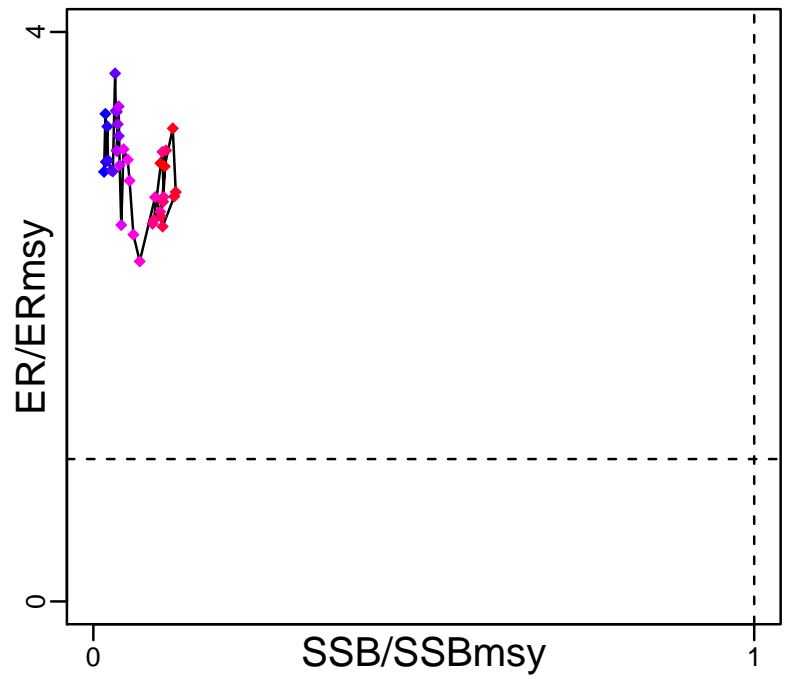
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	4030	-	0
<b>SSB</b>	SSB-MT	2013	1680	Both	3
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	8,730,000	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0.446	-	-
<b>TC</b>	TC-MT	2013	1800		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2013	0.188		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.102		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	3.078		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

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

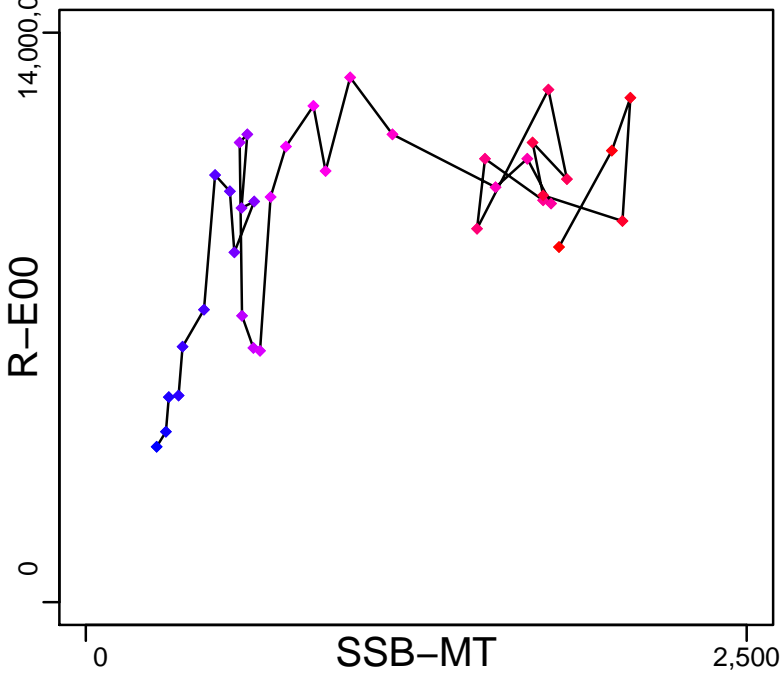
Kobe MSYpref (1977–2013–JPNIMP2016)



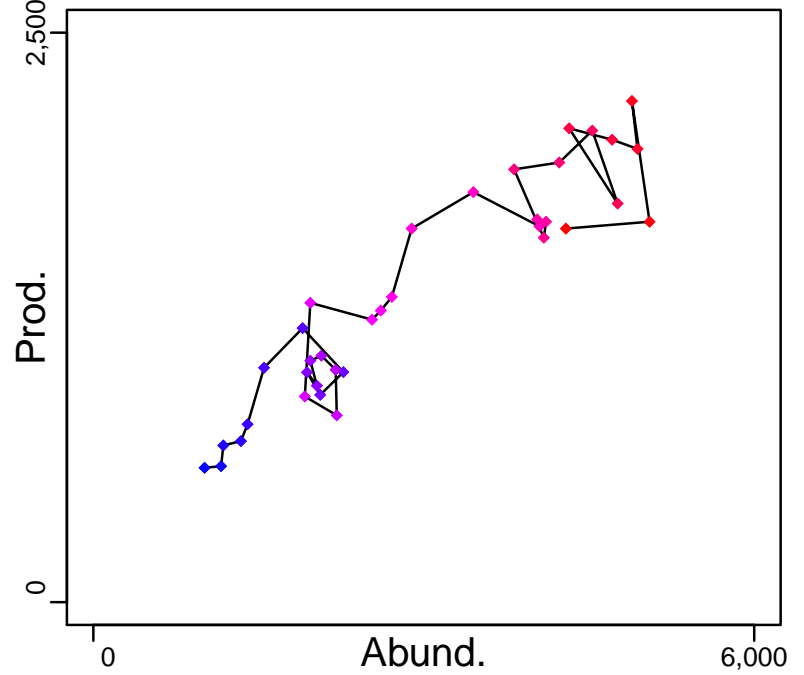
Kobe MGTpref (1977–2013–JPNIMP2016)



Spawner Recruit (1977–2013–JPNIMP2016)



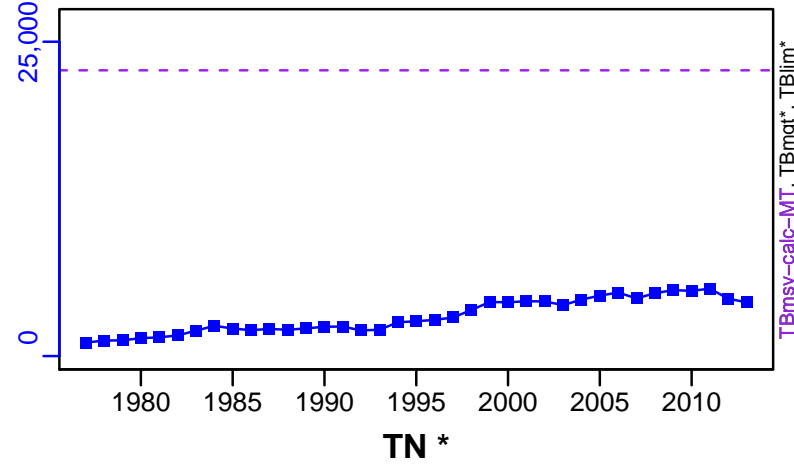
Production (1977–2013–JPNIMP2016)



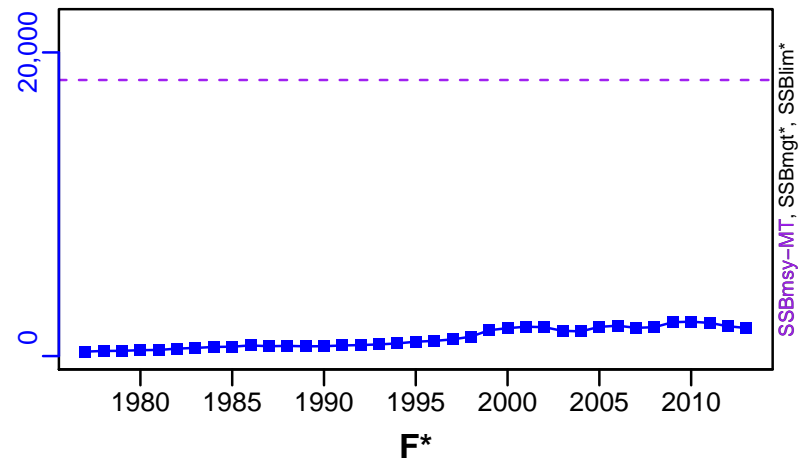
◆ Start Year ◆ End Year \* No Data

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

TB-MT (1977-2013-JPNIMP2016)

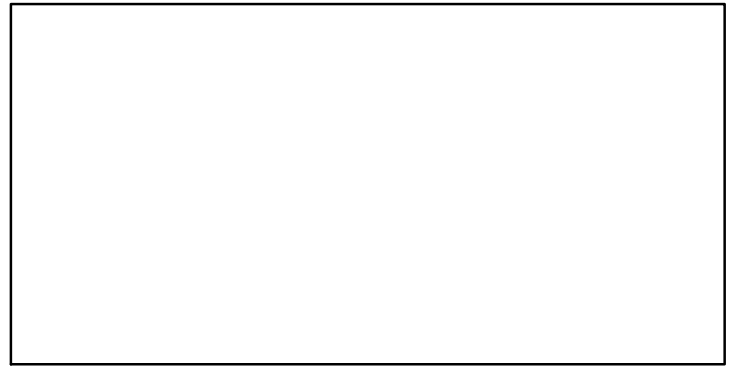
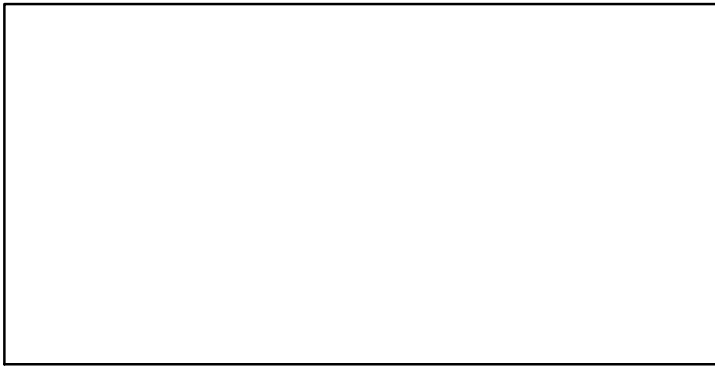


SSB-MT (1977-2013-JPNIMP2016)

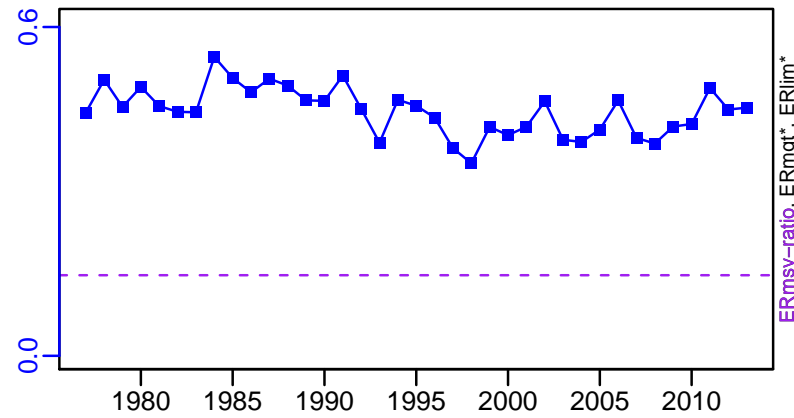


TN \*

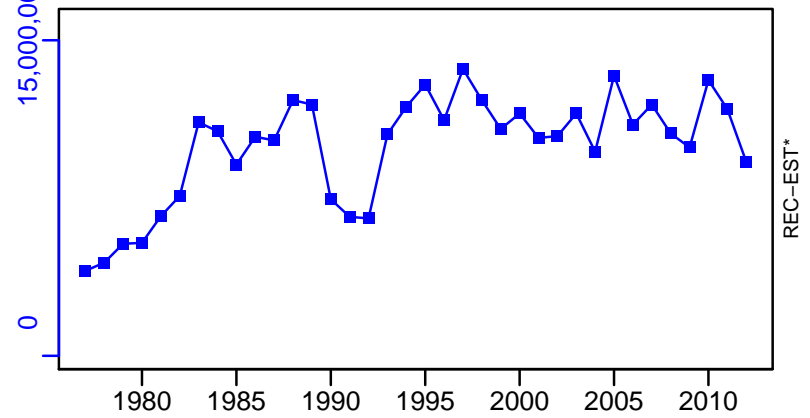
F\*



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



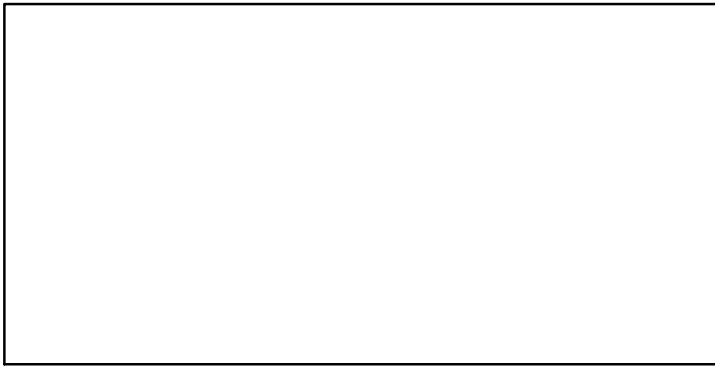
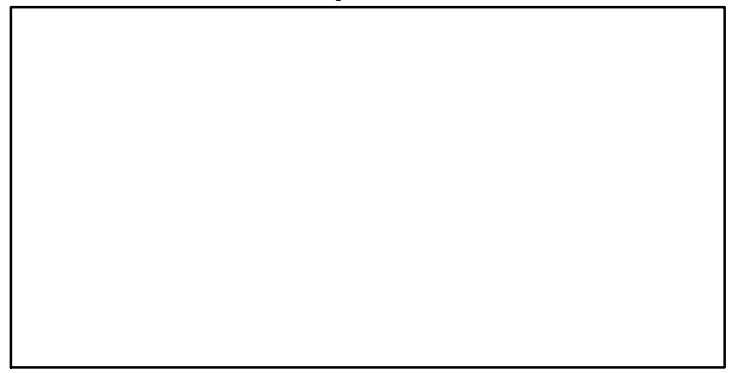
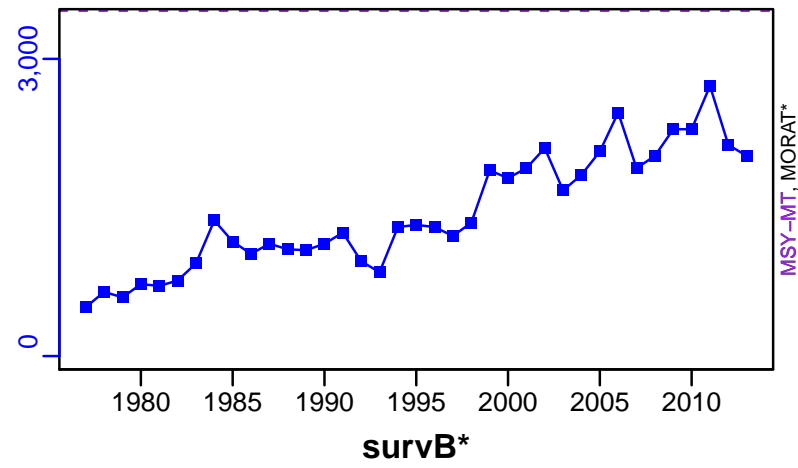
R-E00 (1977-2013-JPNIMP2016)



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

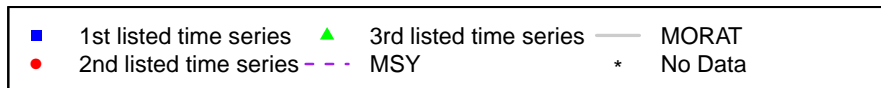
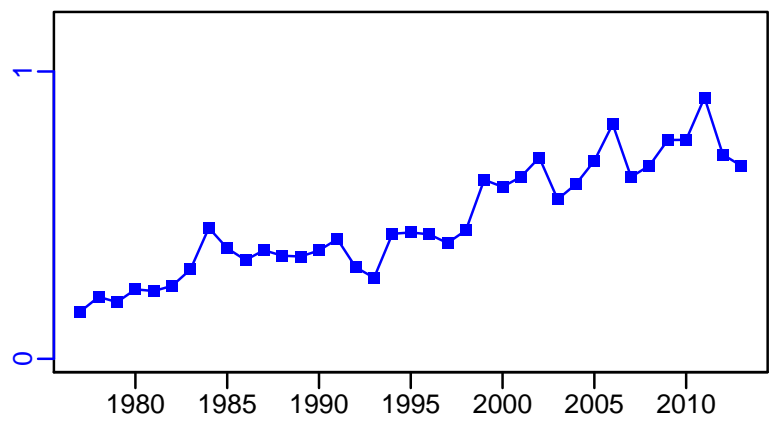
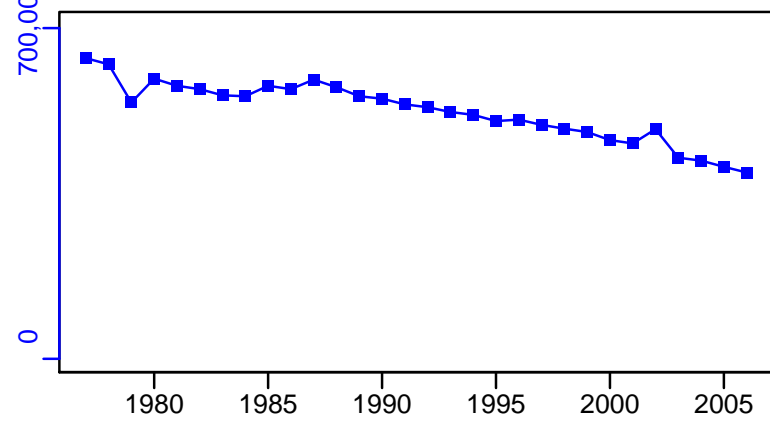
TC-MT, TL\*, RecC\* (1977-2013-JPNIMP2016)

TAC\*, Cpair\*, Cadv\*



EFFORT-nominal (1977-2010-ONO)

CdivMSY-ratio (1977-2013-JPNIMP2016)



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

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

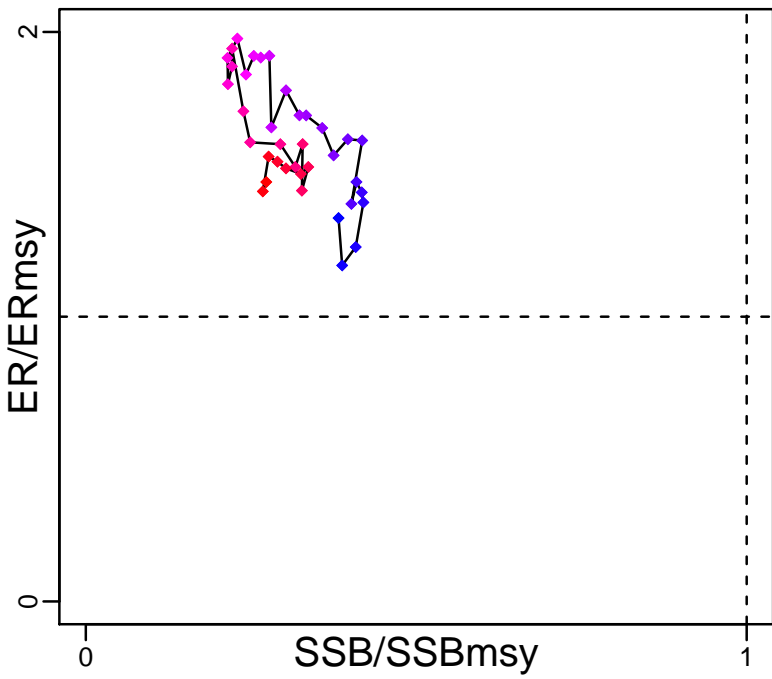
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2013	24,122
<b>SSBmsy</b>	SSBmsy-MT	2013	18,103
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2013	0.173
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	8620	-	0
<b>SSB</b>	SSB-MT	2013	4940	Both	3
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	8,300,000	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0.255	-	-
<b>TC</b>	TC-MT	2013	2200		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2013	0.358		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.273		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	1.473		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

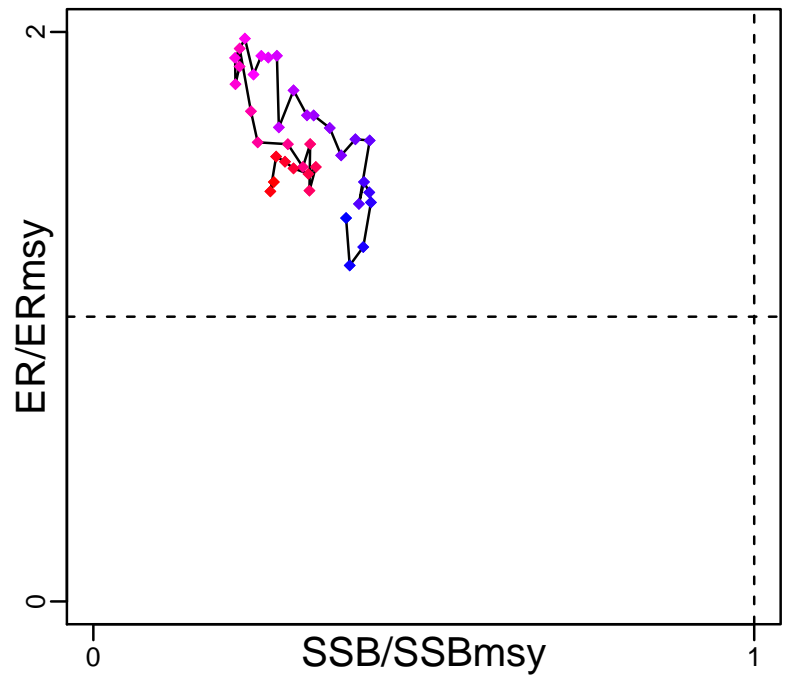


# Red seabream Inland Sea of Japan (West) [RBRMSETOW]

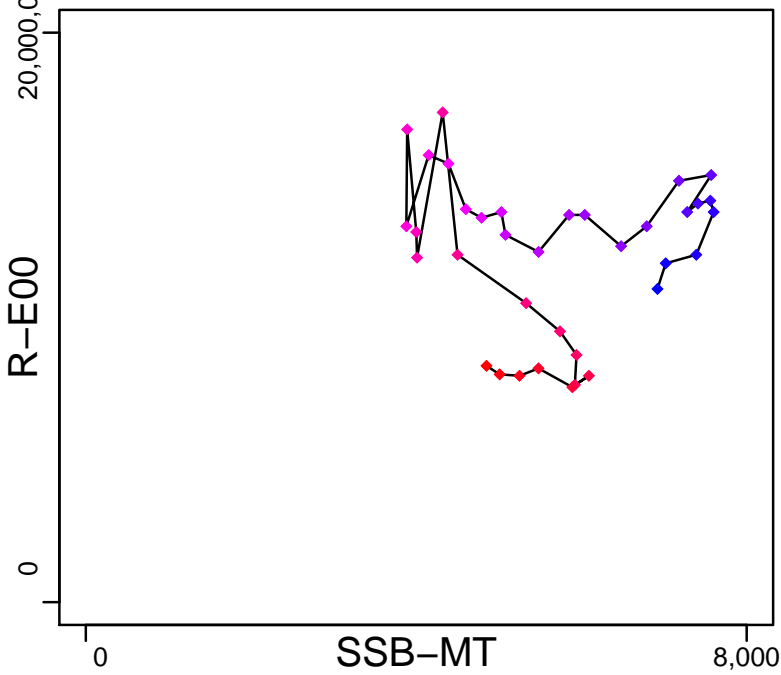
Kobe MSYpref (1977–2013–JPNIMP2016)



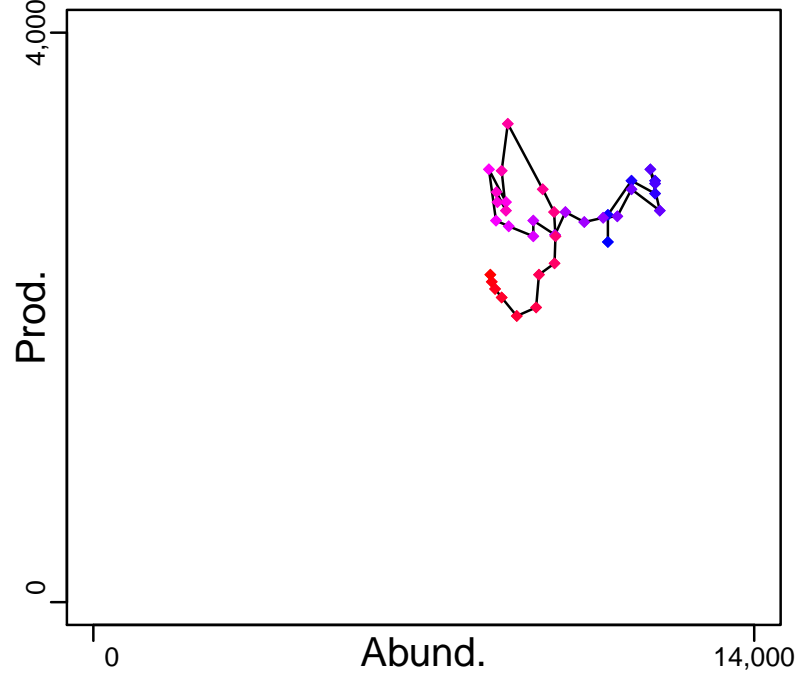
Kobe MGTpref (1977–2013–JPNIMP2016)



Spawner Recruit (1977–2013–JPNIMP2016)



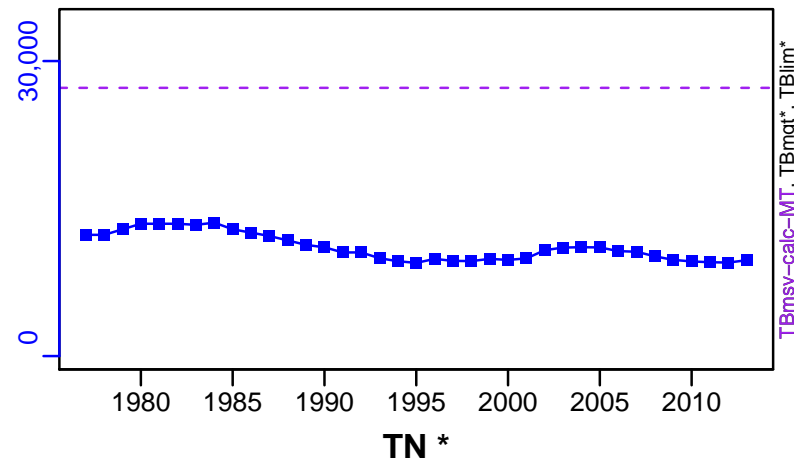
Production (1977–2013–JPNIMP2016)



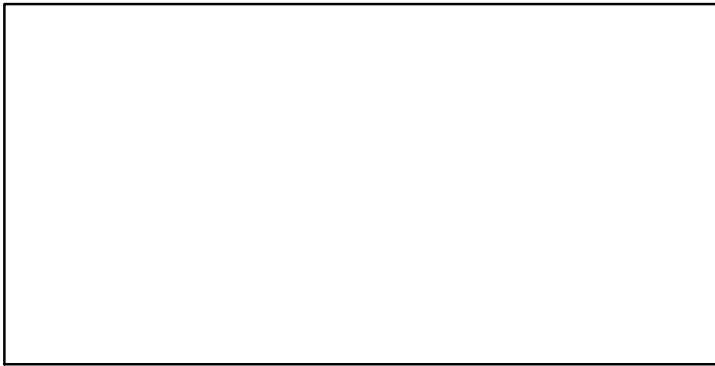
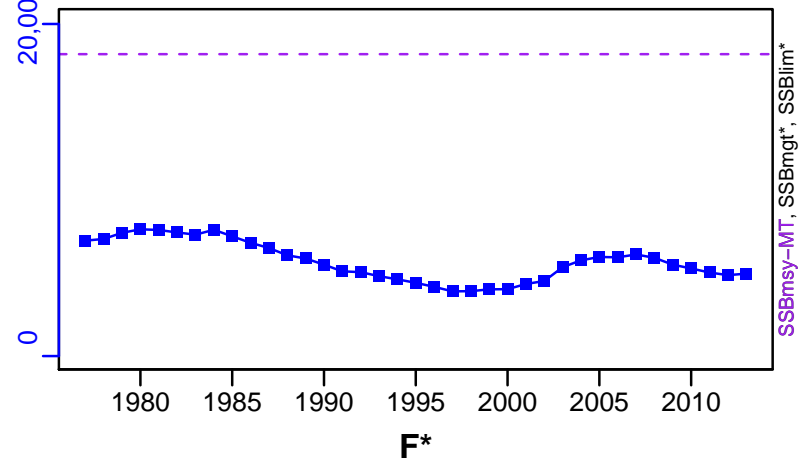
◆ Start Year ◆ End Year \* No Data

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

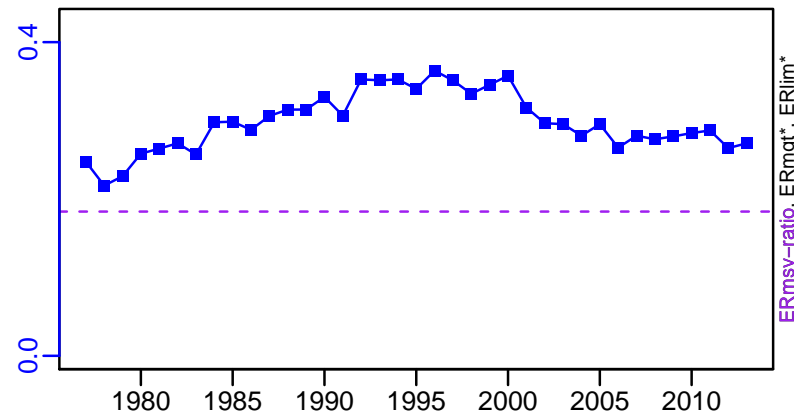
TB-MT (1977-2013-JPNIMP2016)



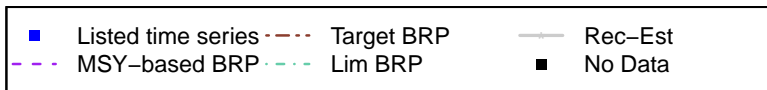
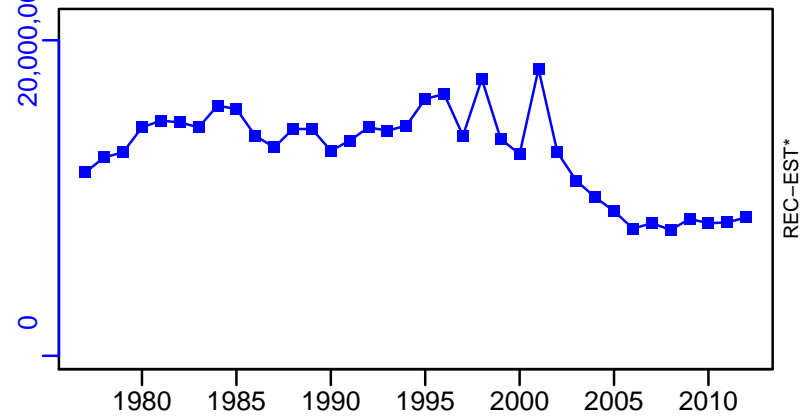
SSB-MT (1977-2013-JPNIMP2016)



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



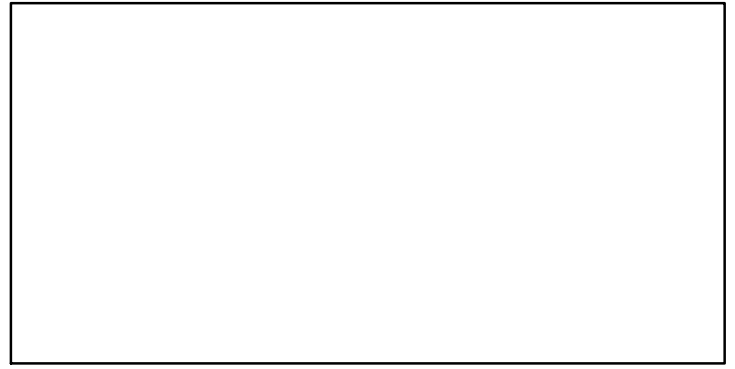
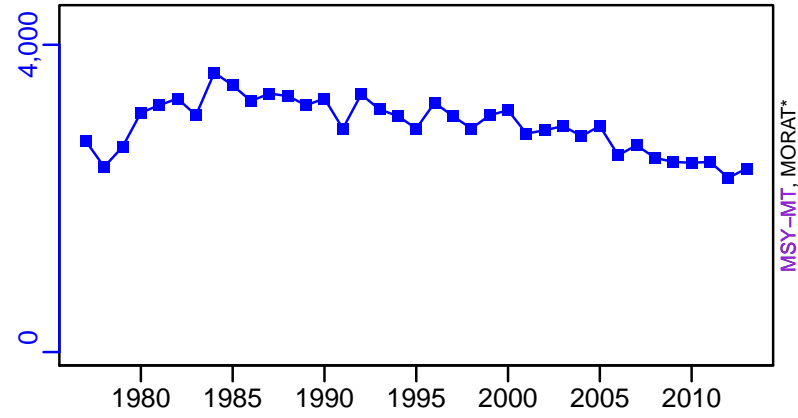
R-E00 (1977-2013-JPNIMP2016)



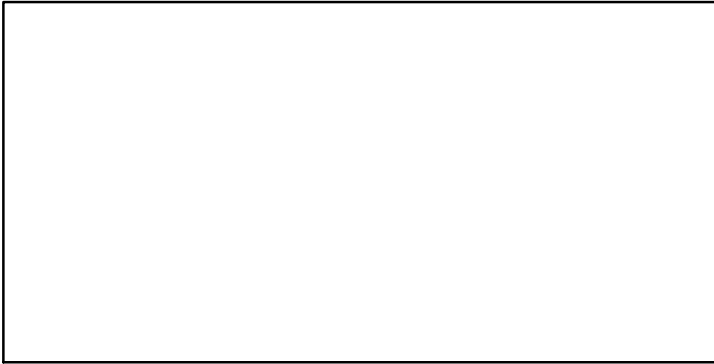
# Red seabream Inland Sea of Japan (West) [RBRMSETOW]

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

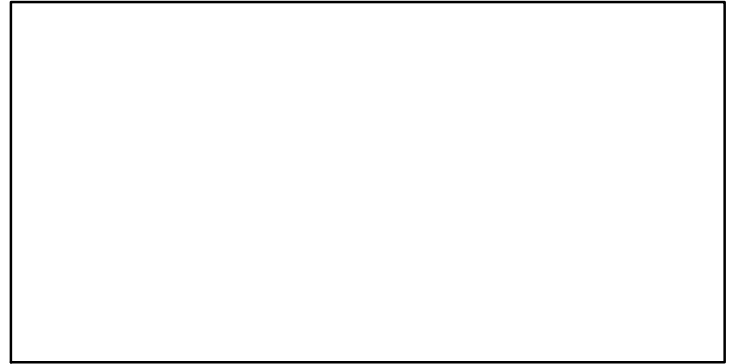
TAC\*, Cpair\*, Cadv\*



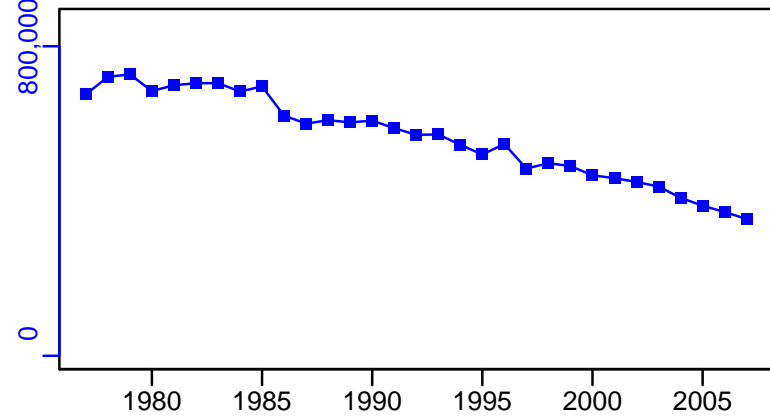
survB\*



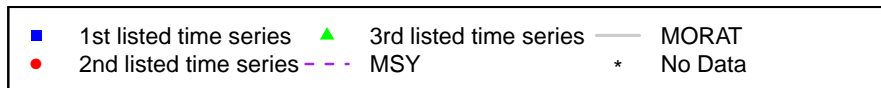
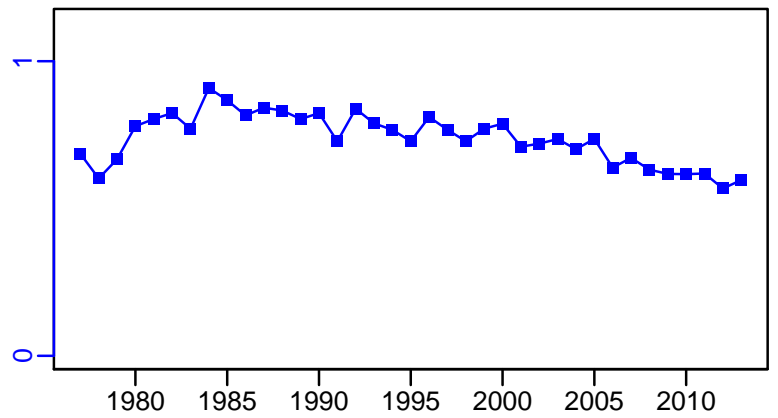
CPUE\*



EFFORT-nominal (1977-2010-ONO)



CdivMSY-ratio (1977-2013-JPNIMP2016)



## Round herring Pacific Ocean [RHERRPAC]

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

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

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

Round herring Pacific Ocean [RHERRPAC]

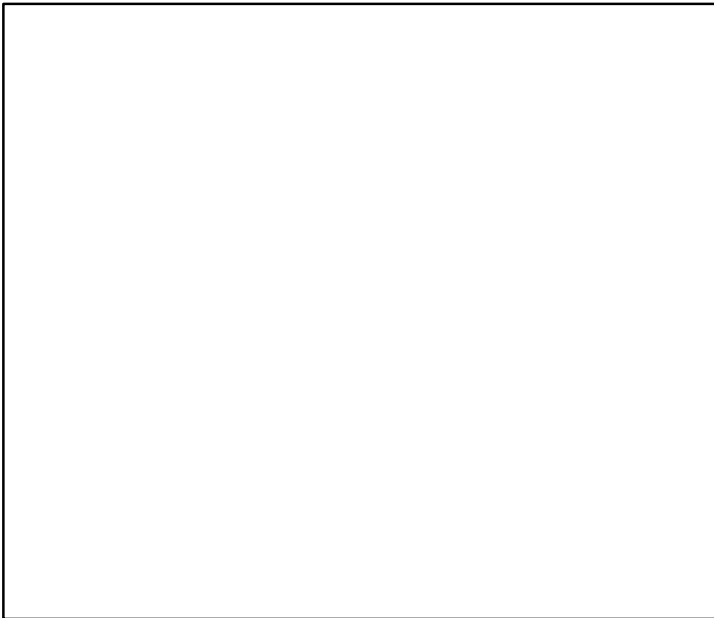
**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



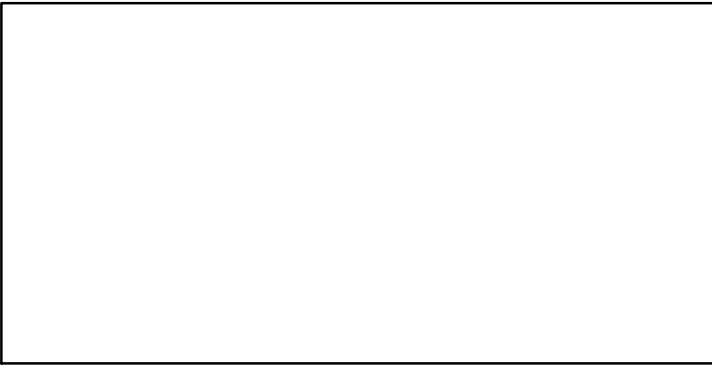
**Production\***



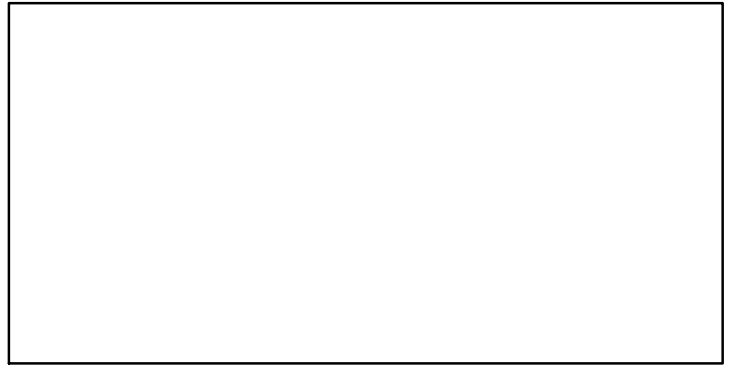
◆ Start Year   ◆ End Year   \* No Data

Round herring Pacific Ocean [RHERRPAC]

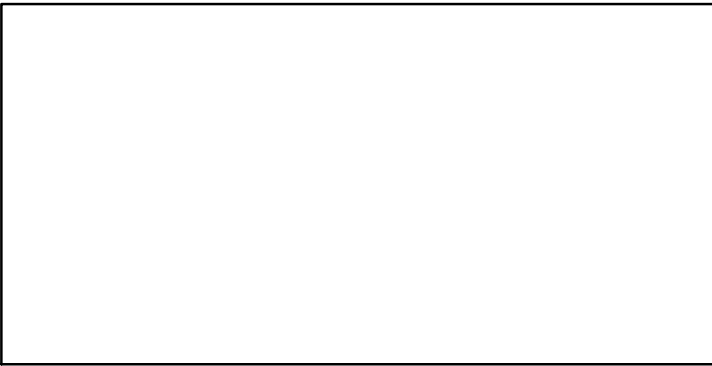
**TB\***



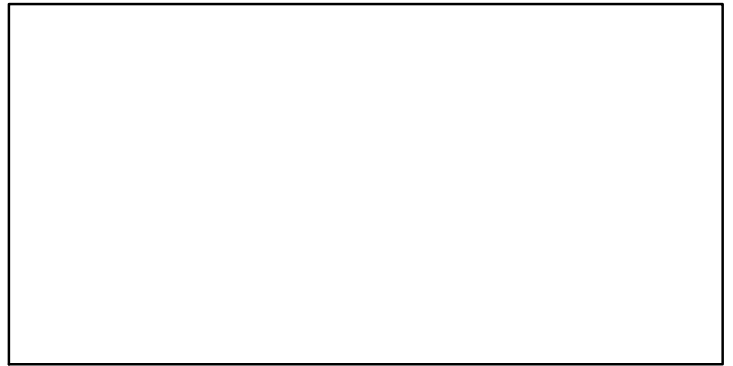
**SSB\***



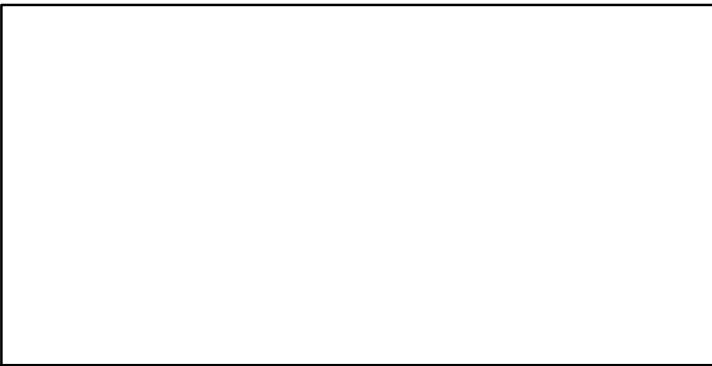
**TN \***



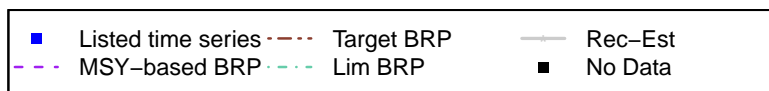
**F\***



**ER\***



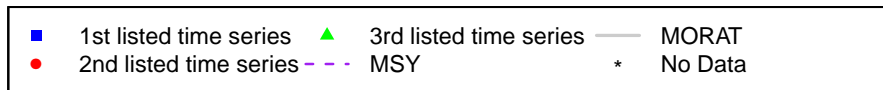
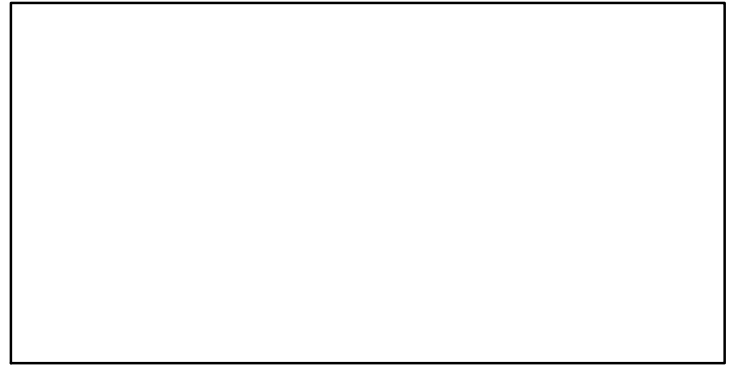
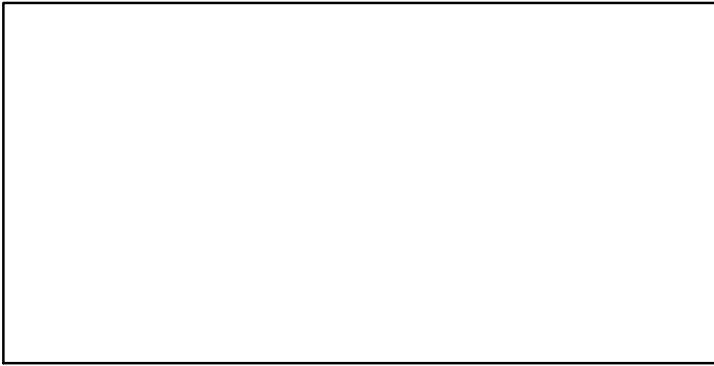
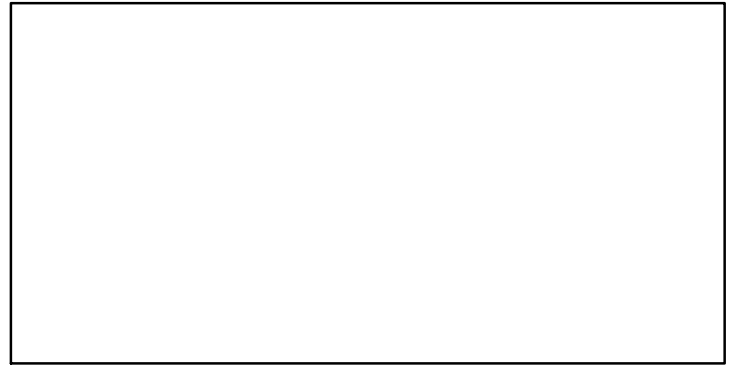
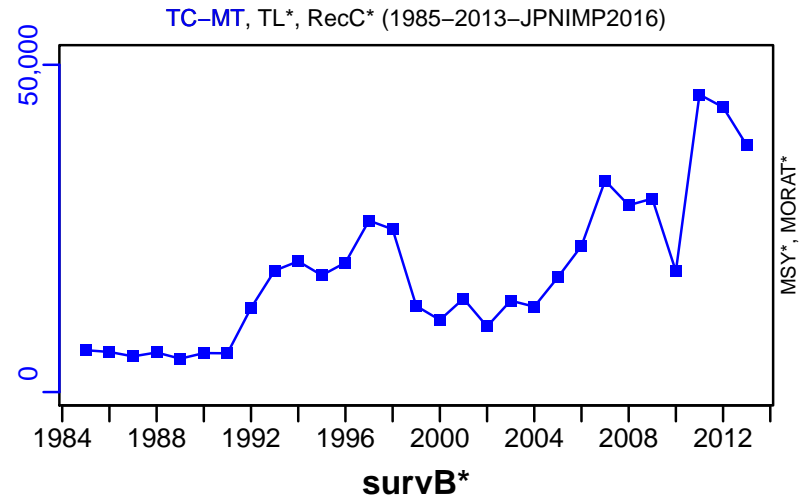
**Recruits\***



# Round herring Pacific Ocean [RHERRPAC]

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

TAC\*, Cpair\*, Cadv\*



## Round herring Tsushima Strait [RHERRTSST]

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

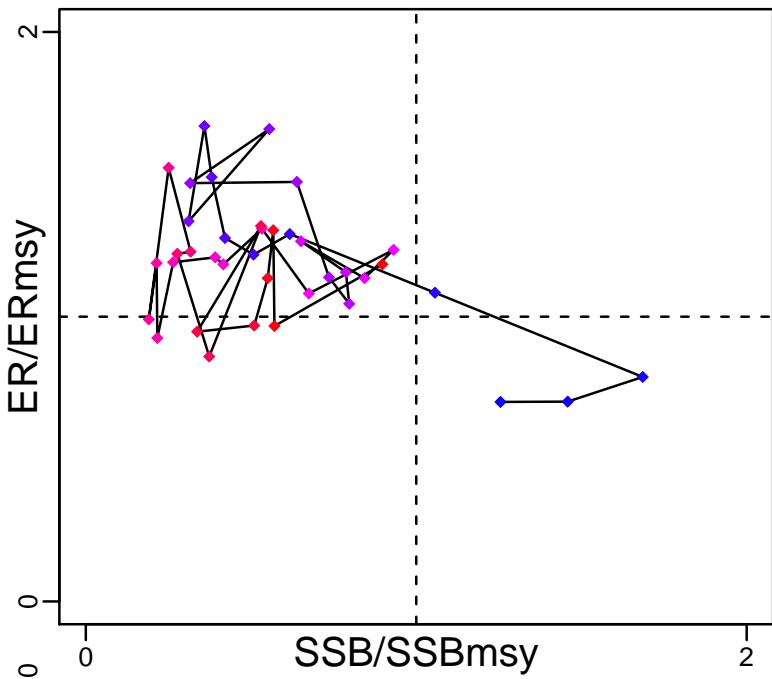
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2013	123,572
<b>SSBmsy</b>	SSBmsy-MT	2013	74,564
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2013	0.356
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	119,000	-	0
<b>SSB</b>	SSB-MT	2013	66,900	Both	1
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	$2.16 \times 10^9$	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0.421	-	-
<b>TC</b>	TC-MT	2013	50,100		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2013	0.963		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.897		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	1.184		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

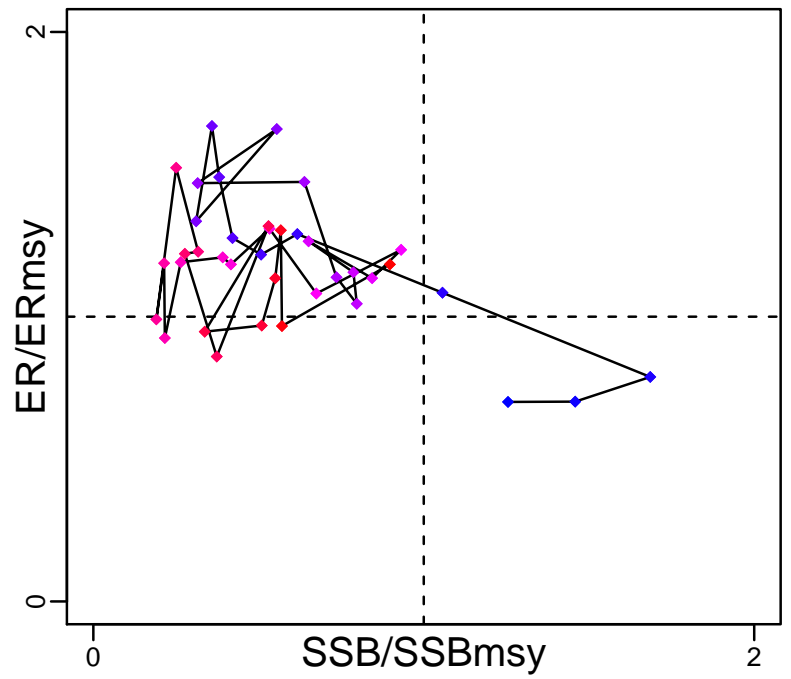


# Round herring Tsushima Strait [RHERTSST]

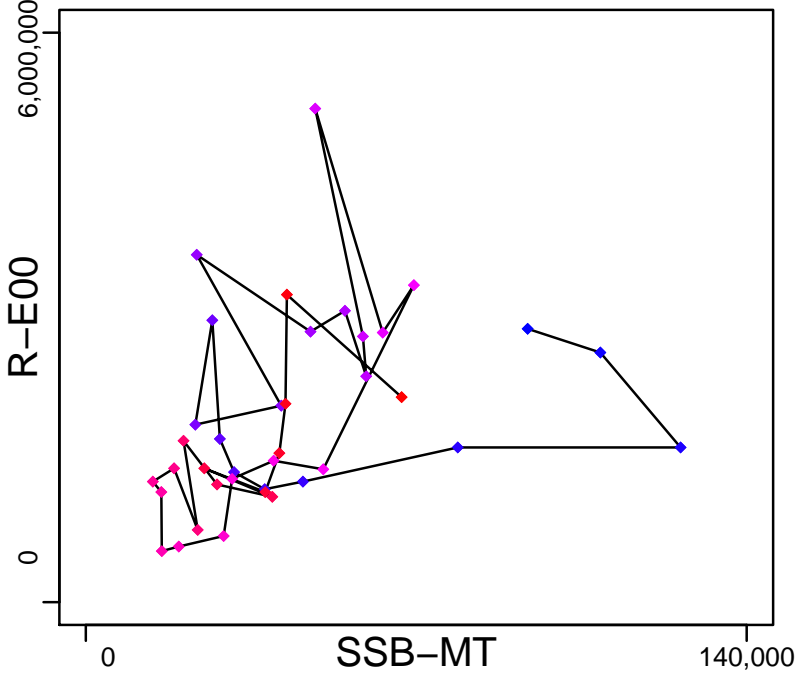
Kobe MSYpref (1976–2013–JPNIMP2016)



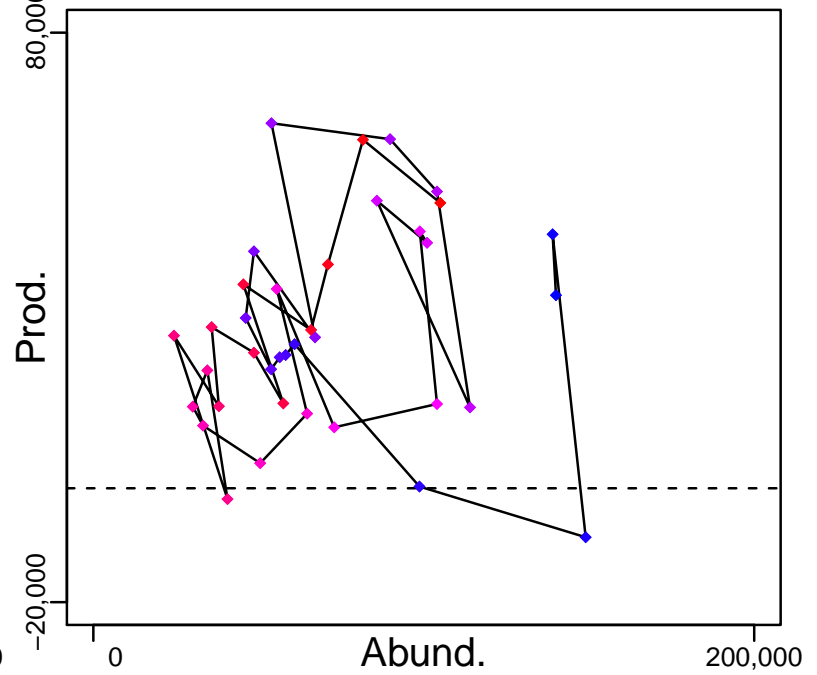
Kobe MGTpref (1976–2013–JPNIMP2016)



Spawner Recruit (1976–2013–JPNIMP2016)



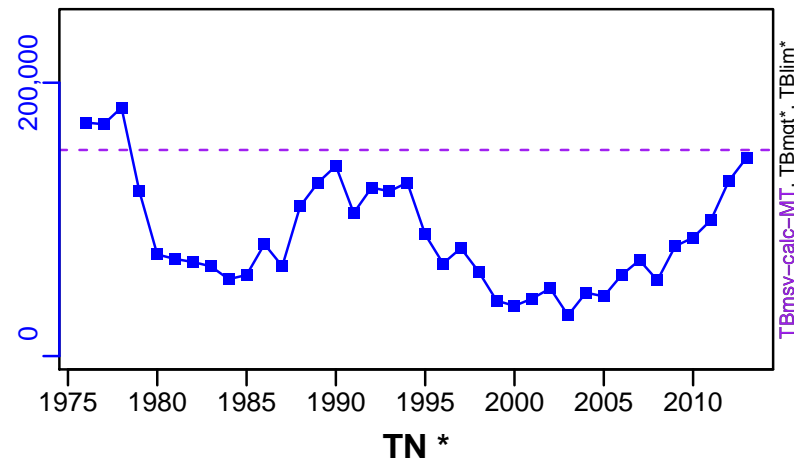
Production (1976–2013–JPNIMP2016)



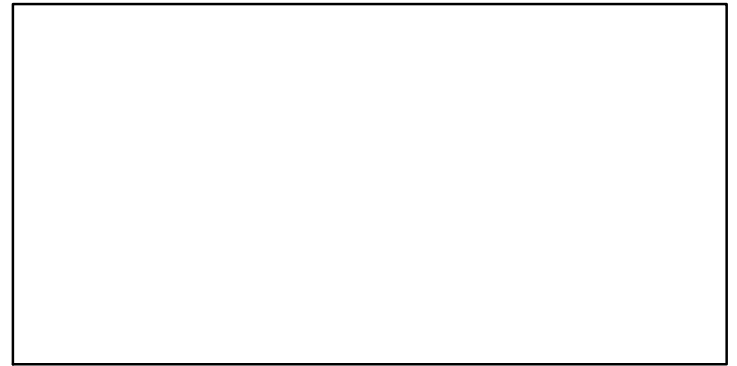
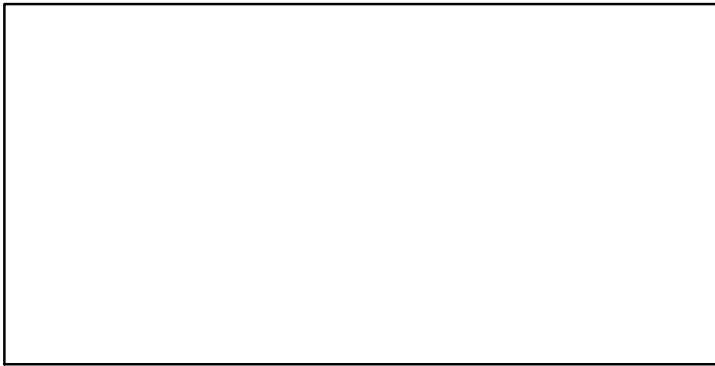
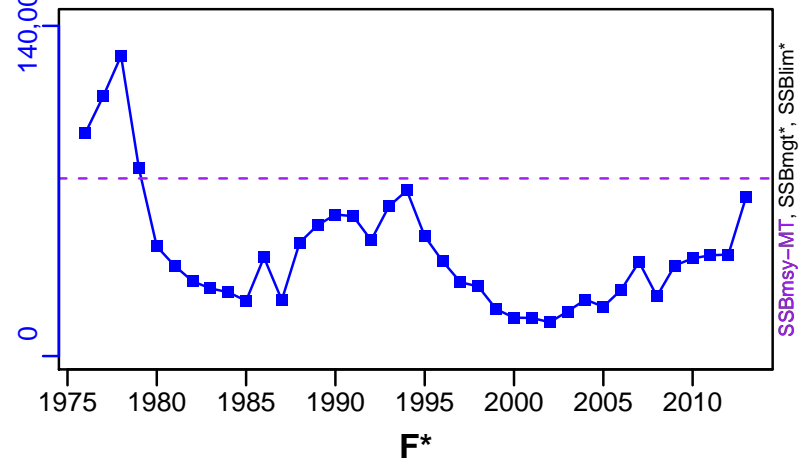
◆ Start Year ◆ End Year \* No Data

# Round herring Tsushima Strait [RHERTSST]

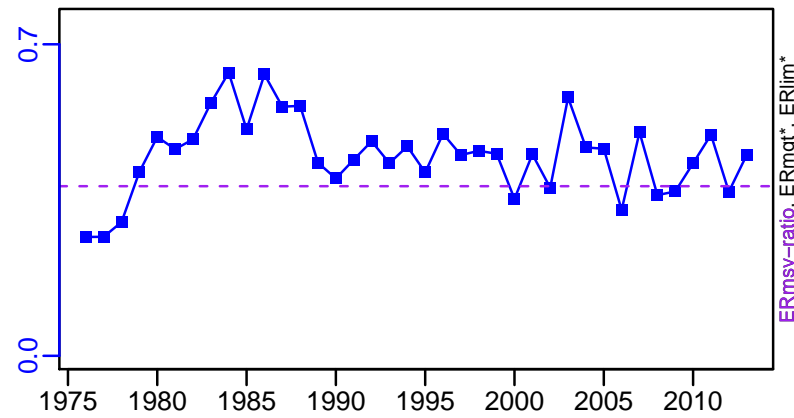
TB-MT (1976–2013–JPNIMP2016)



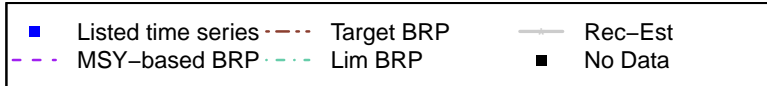
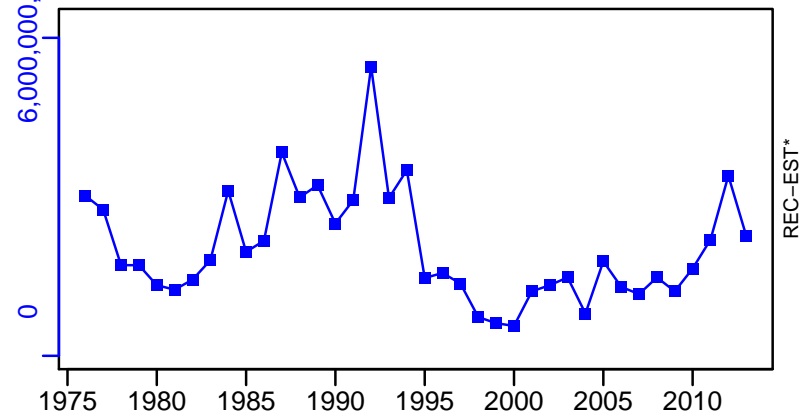
SSB-MT (1976–2013–JPNIMP2016)



ER-calc-ratio (1976–2013–JPNIMP2016)



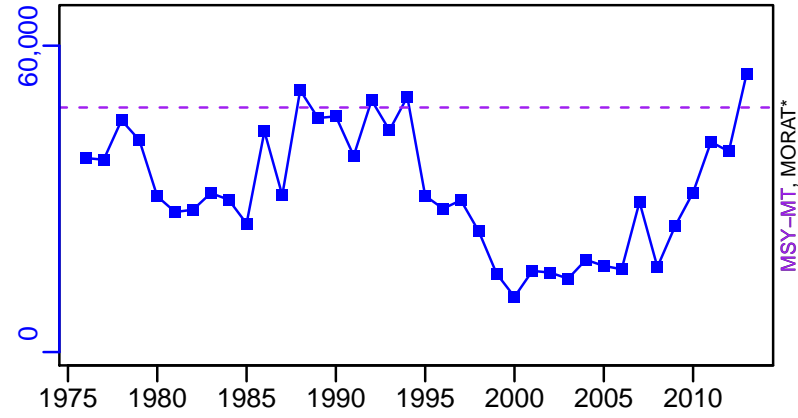
R-E00 (1976–2013–JPNIMP2016)



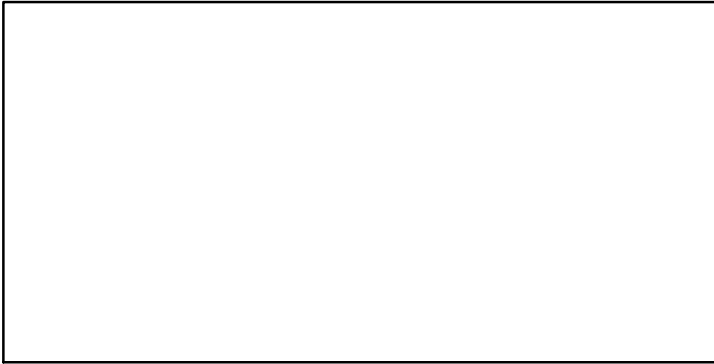
# Round herring Tsushima Strait [RHERTSST]

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

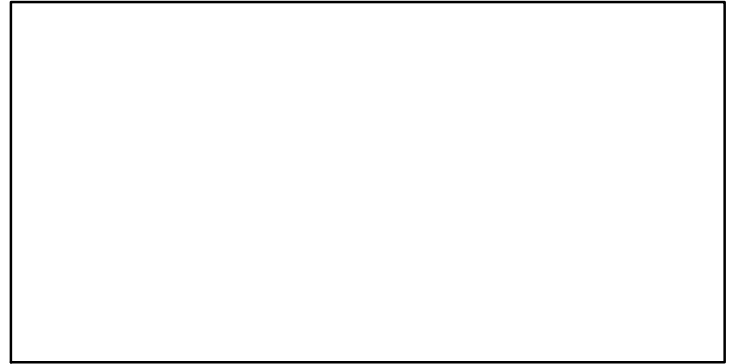
TAC\*, Cpair\*, Cadv\*



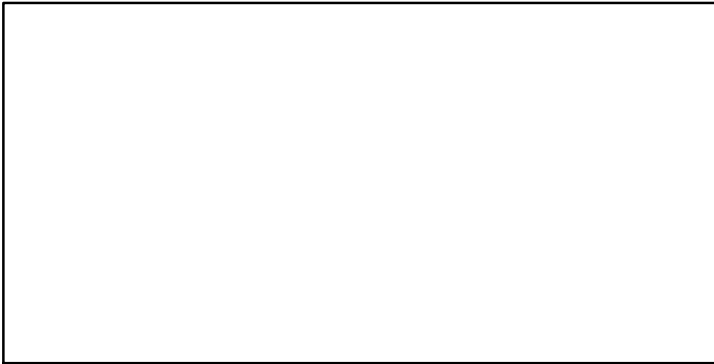
survB\*



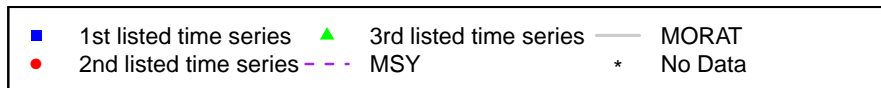
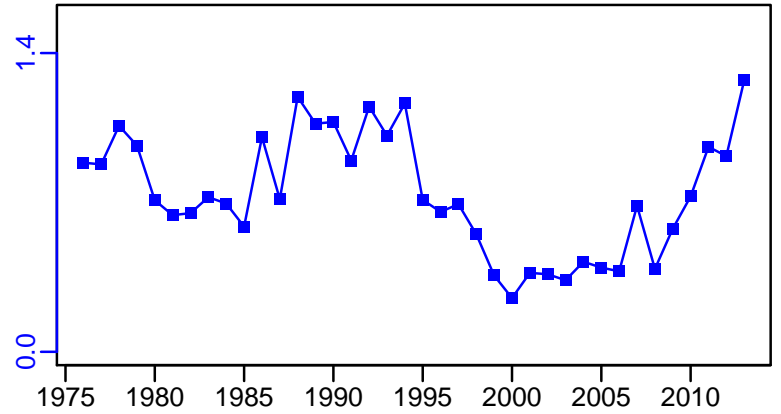
CPUE\*



EFFORT\*



CdivMSY-ratio (1976–2013–JPNIMP2016)



## Round-nose flounder Sea of Japan [RSFLOUNSOJ]

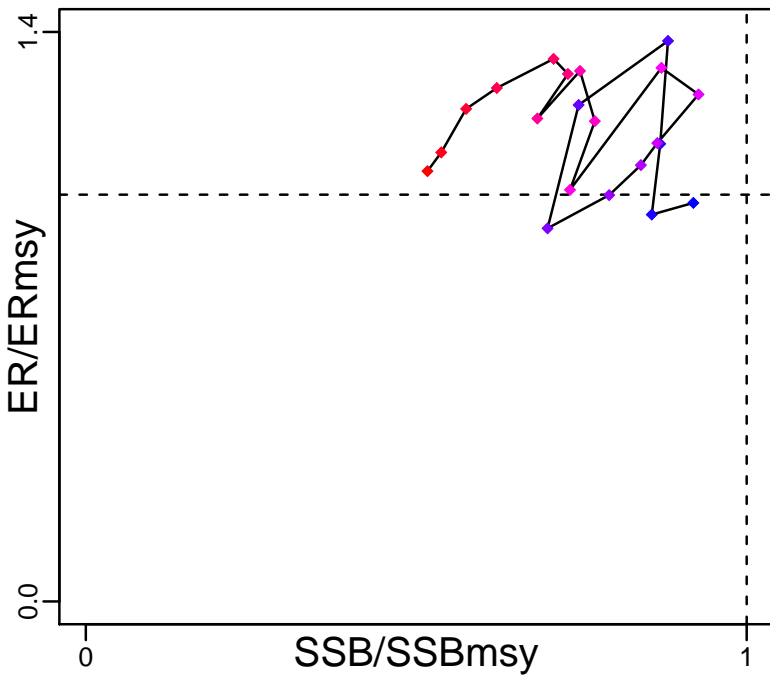
Metadata	
<b>Scientific Name</b>	Eopsetta grigorjewi
<b>Current Assess ID</b>	FAFRFJ-RSFLOUNSOJ-1966-2013-JPNIMP2016
<b>Area</b>	Sea of Japan
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>	2013

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

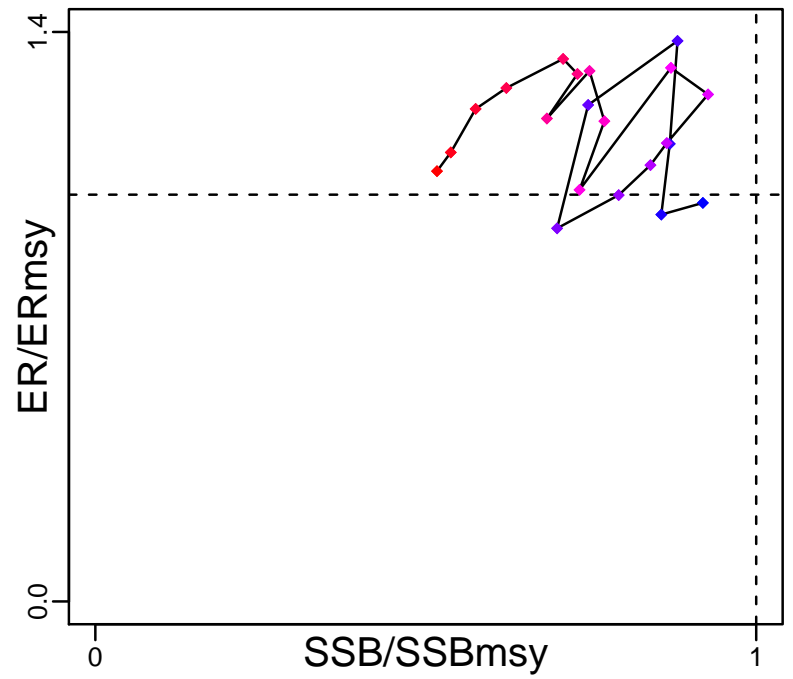
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	2740	-	1
<b>SSB</b>	SSB-MT	2013	1980	Both	3
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	15,100,000	-	1
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0.301	-	-
<b>TC</b>	TC-MT	2013	826		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT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

# Round-nose flounder Sea of Japan [RSFLOUNSOJ]

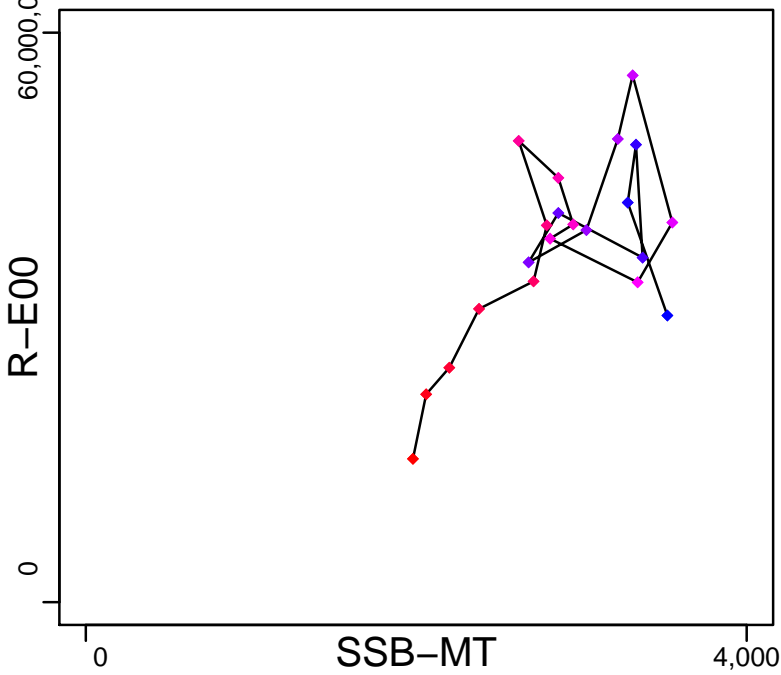
Kobe MSYpref (1966–2013–JPNIMP2016)



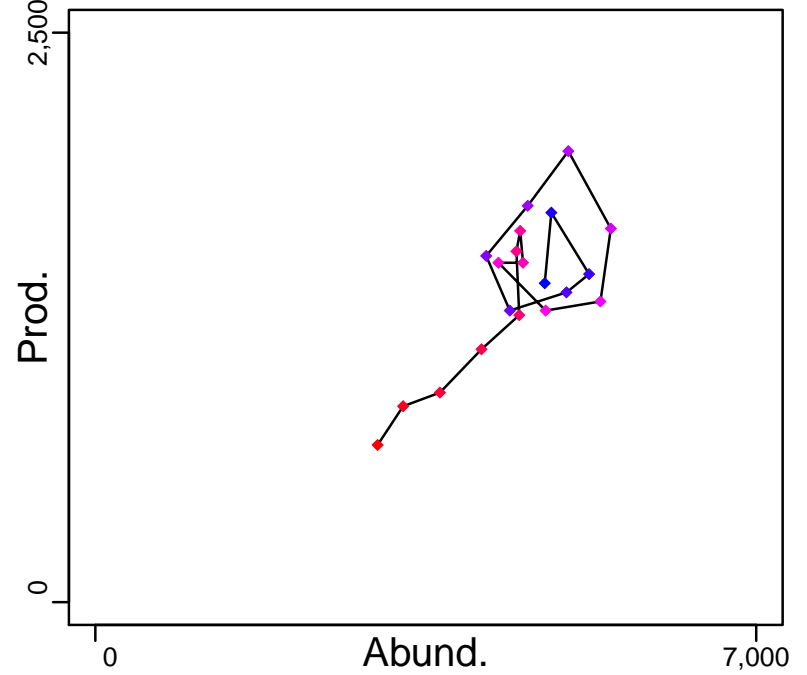
Kobe MGTpref (1966–2013–JPNIMP2016)



Spawner Recruit (1966–2013–JPNIMP2016)



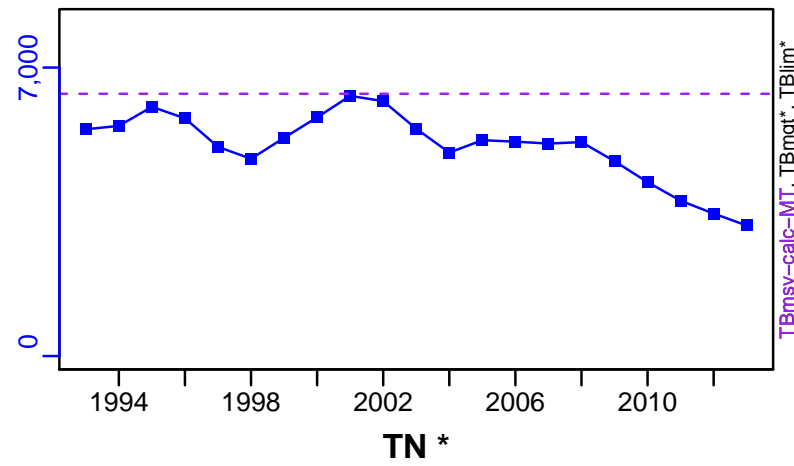
Production (1966–2013–JPNIMP2016)



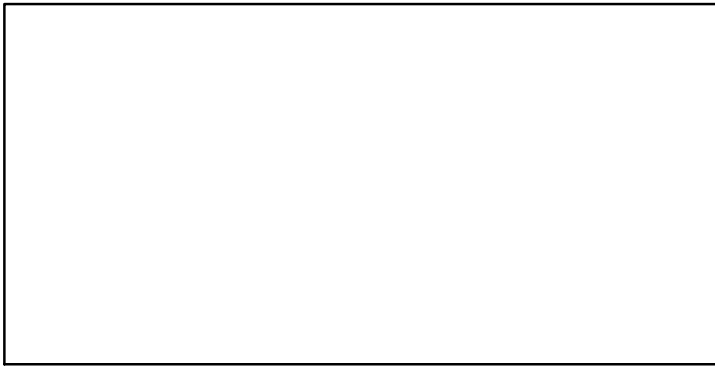
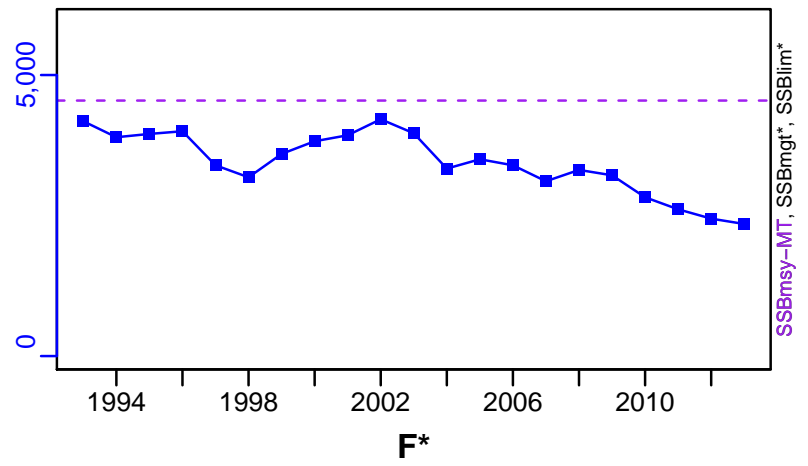
◆ Start Year ◆ End Year \* No Data

# Round-nose flounder Sea of Japan [RSFLOUNSOJ]

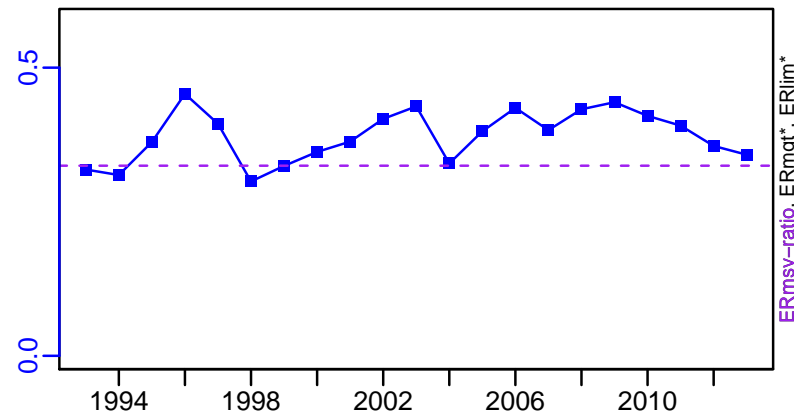
TB-MT (1966-2013-JPNIMP2016)



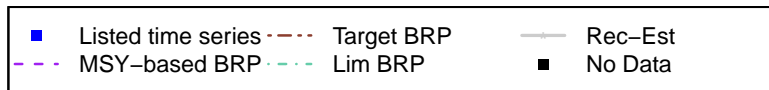
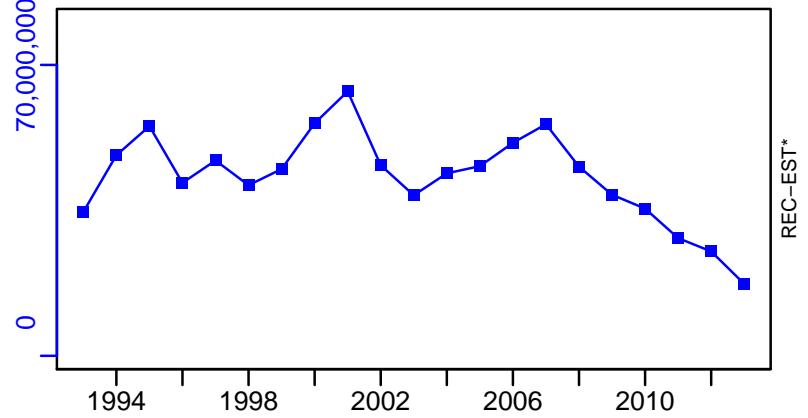
SSB-MT (1966-2013-JPNIMP2016)



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



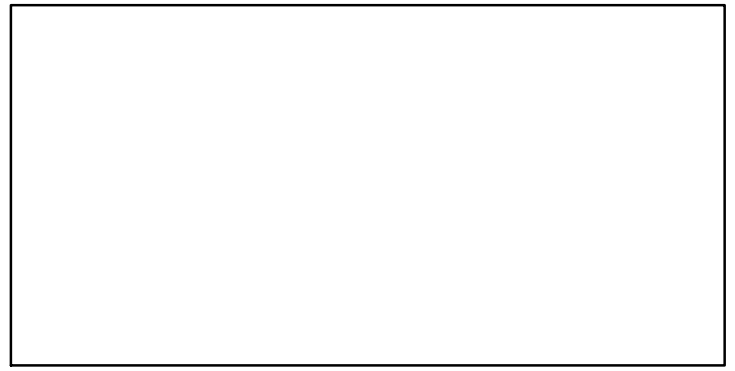
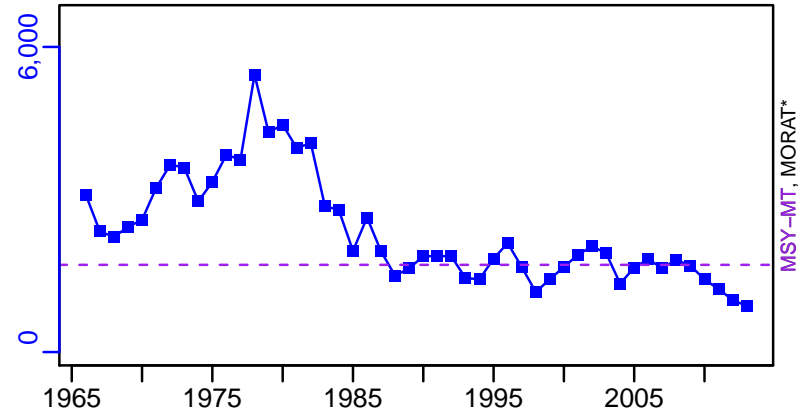
R-E00 (1966-2013-JPNIMP2016)



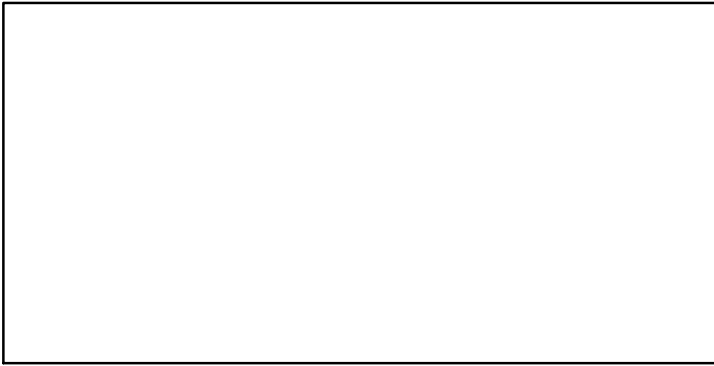
# Round-nose flounder Sea of Japan [RSFLOUNSOJ]

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

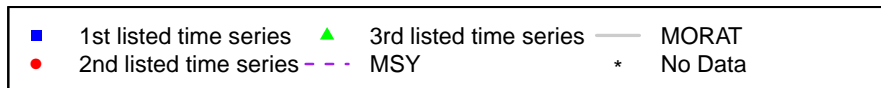
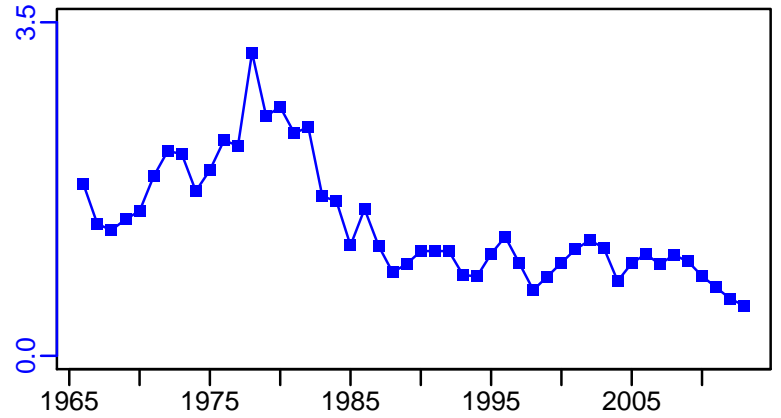
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1966–2013–JPNIMP2016)



## Roughscale sole North Pacific [RSSOLENPAC]

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



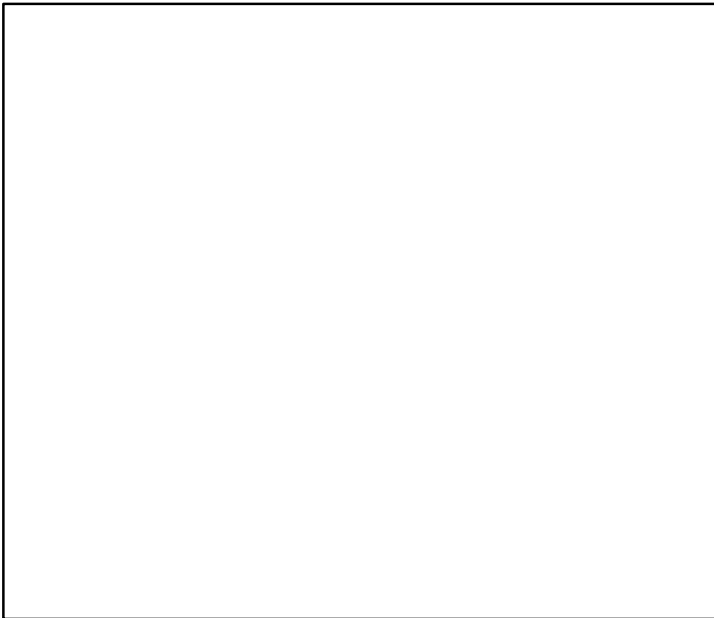
**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



**Production\***



◆ Start Year   ◆ End Year   \* No Data

Roughscale sole North Pacific [RSSOLENPAC]

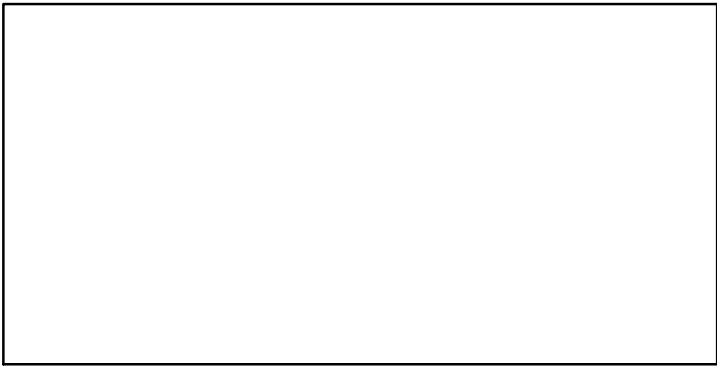
TB\*



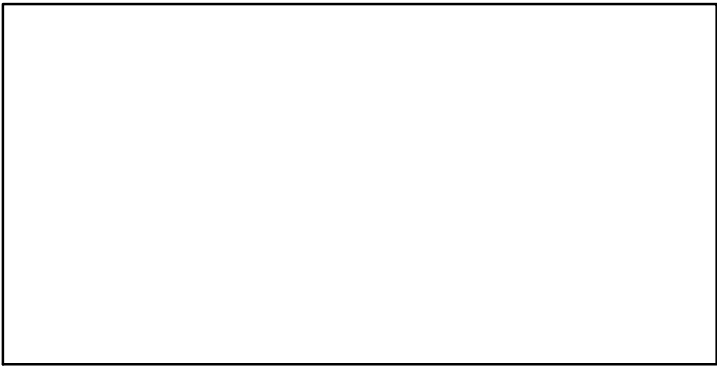
SSB\*



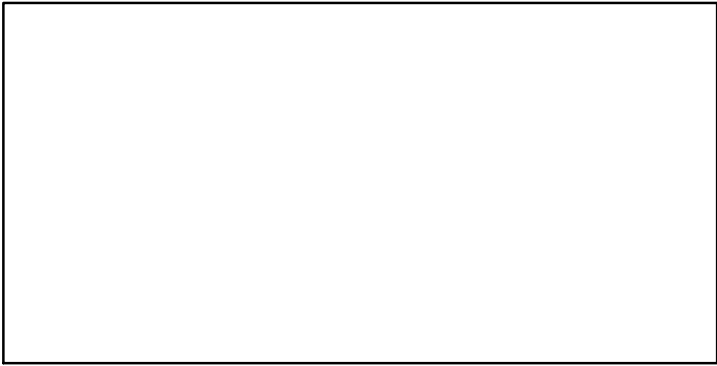
TN \*



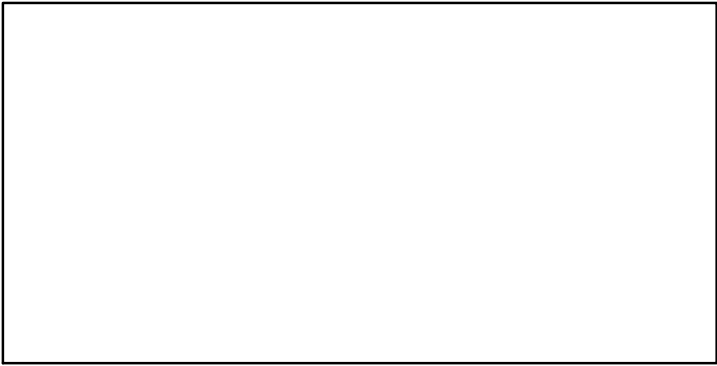
F\*



ER\*

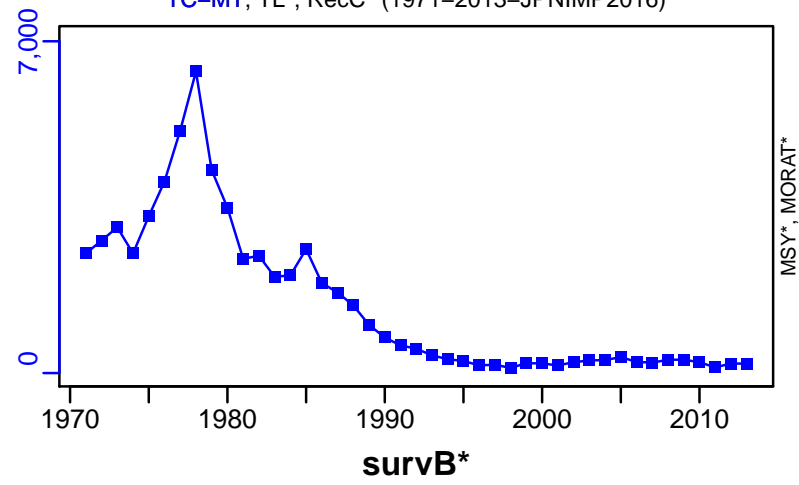


Recruits\*

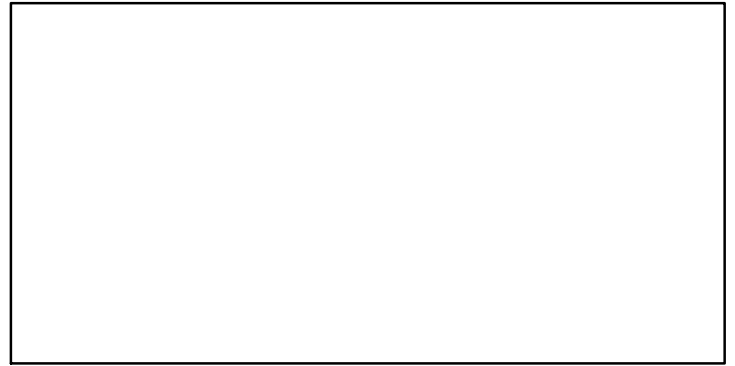


Roughscale sole North Pacific [RSSOLENPAC]

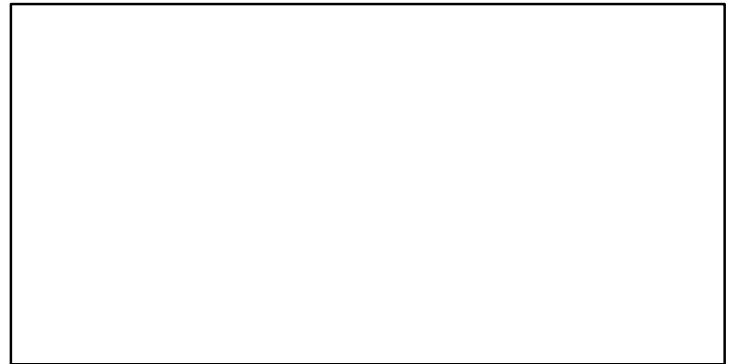
TC-MT, TL\*, RecC\* (1971-2013-JPNIMP2016)



TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



CdivMSY\*



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

## Pacific saury Northwest Pacific [SAURNWPAC]

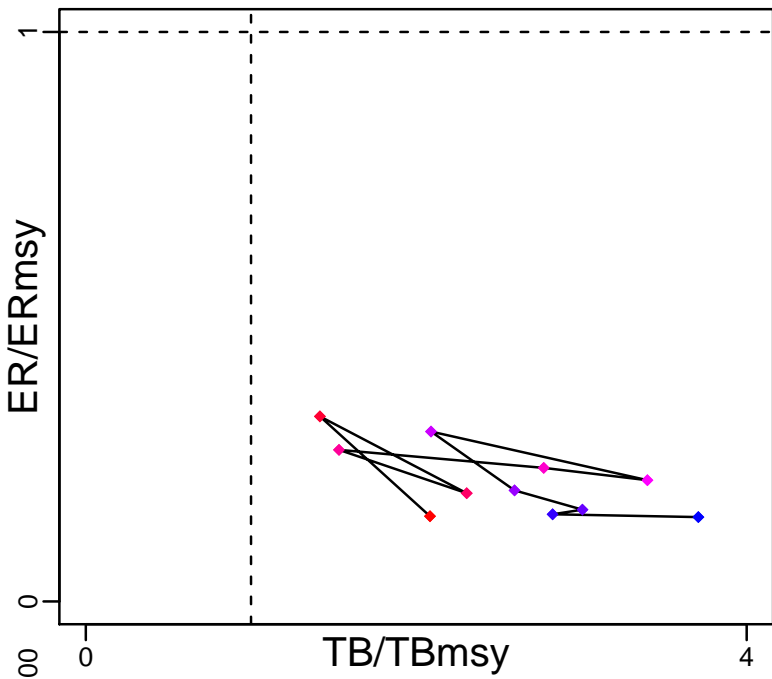
Metadata	
<b>Scientific Name</b>	Cololabis saira
<b>Current Assess ID</b>	FAFRFJ-SAURNWPAC-1980-2013-JPNIMP2016
<b>Area</b>	Northwest Pacific
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>	2010, 2013

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

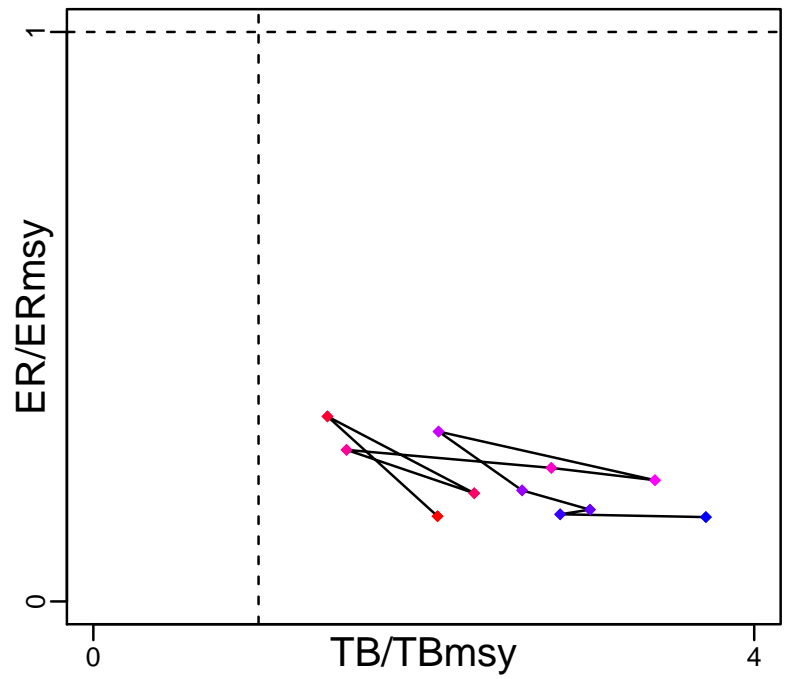
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	2,820,000	-	0
<b>SSB</b>	SSB-MT	2013	1,410,000	Both	1
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	$5.27 \times 10^{10}$	-	0
<b>F</b>	F-1/yr	2010	0.264	-	0 to 1
<b>ER</b>	ER-calc-ratio	2013	0.052	-	-
<b>TC</b>	TC-MT	2013	148,000		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2013	2.083		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	0.15		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Pacific saury Northwest Pacific [SAURNWPAC]

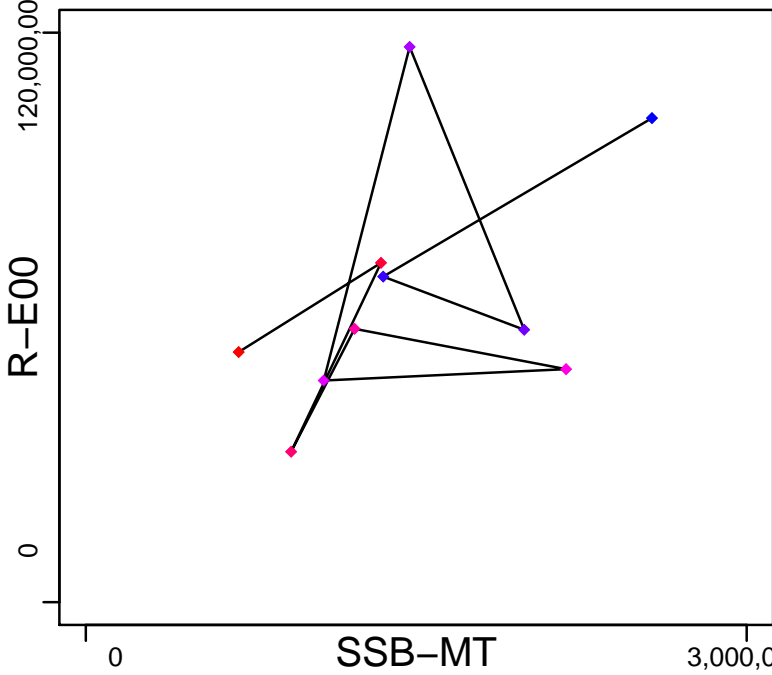
Kobe MSYpref (1980–2013–JPNIMP2016)



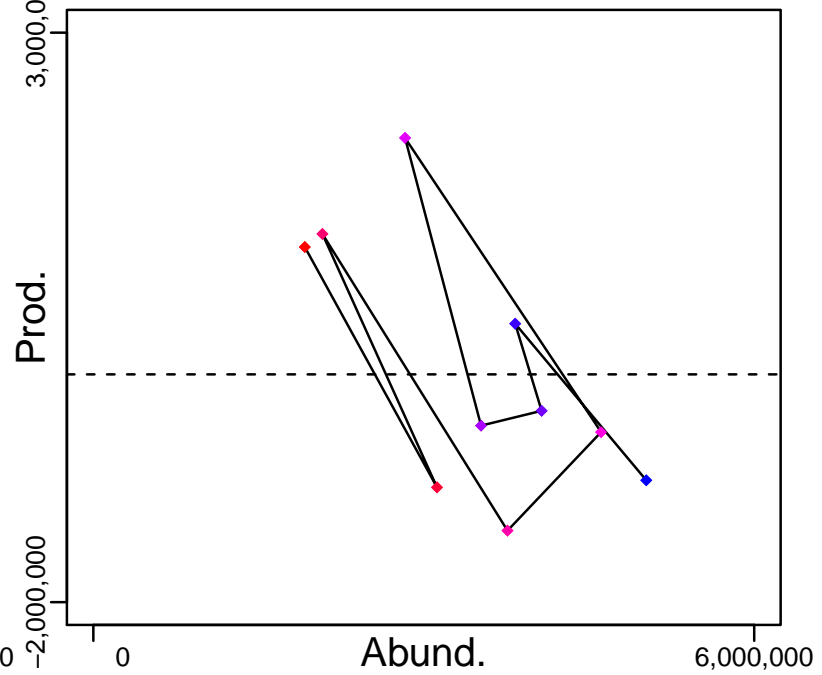
Kobe MGTpref (1980–2013–JPNIMP2016)



Spawner Recruit (1980–2013–JPNIMP2016)



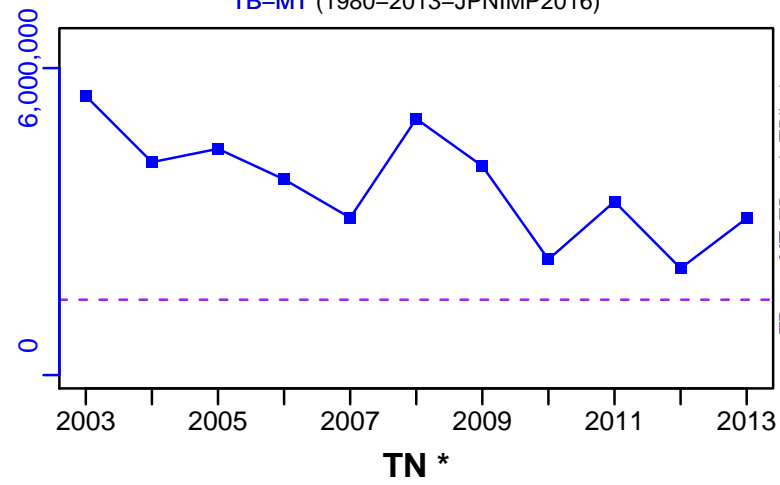
Production (1980–2013–JPNIMP2016)



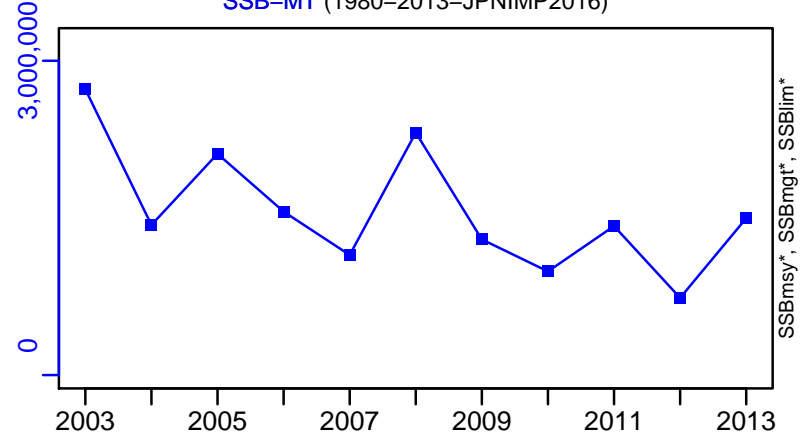
◆ Start Year ◆ End Year \* No Data

# Pacific saury Northwest Pacific [SAURNWPAC]

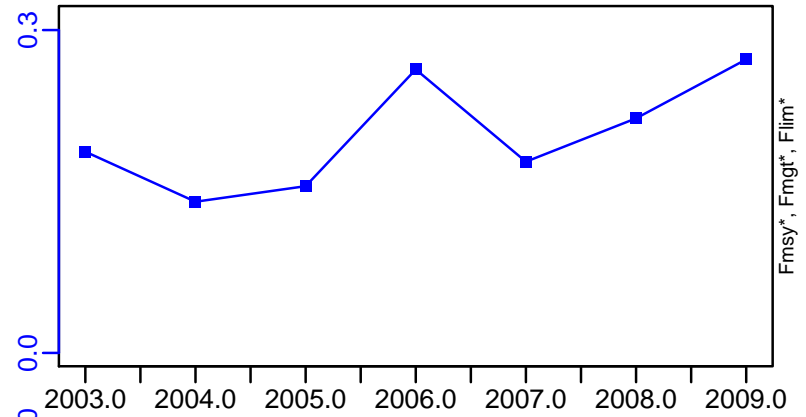
TB-MT (1980-2013-JPNIMP2016)



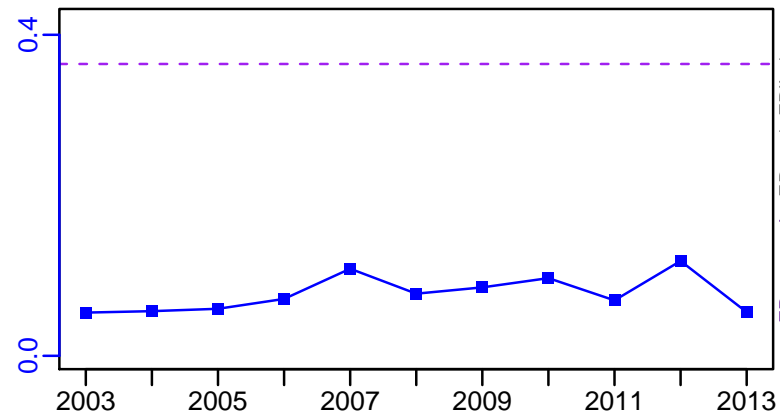
SSB-MT (1980-2013-JPNIMP2016)



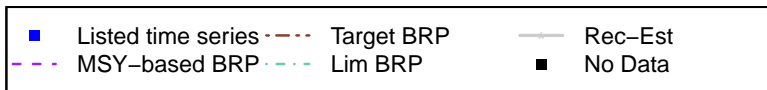
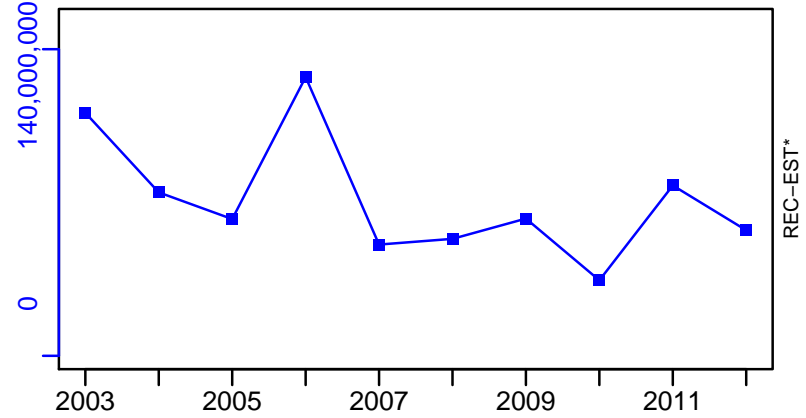
F-1/yr (1980-2010-ONO)



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



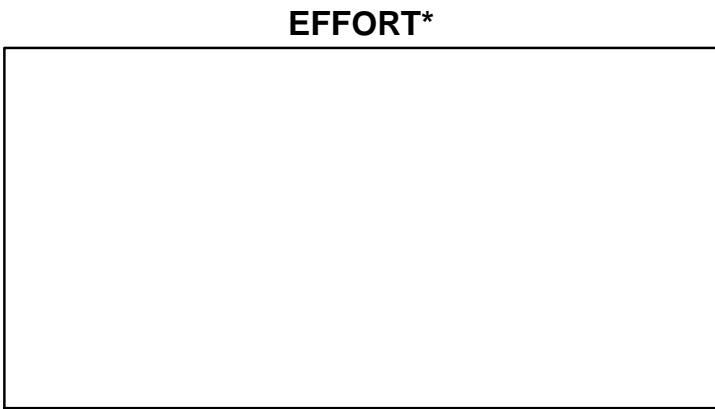
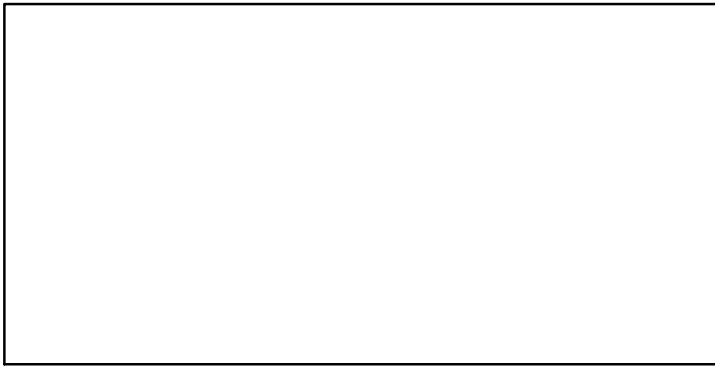
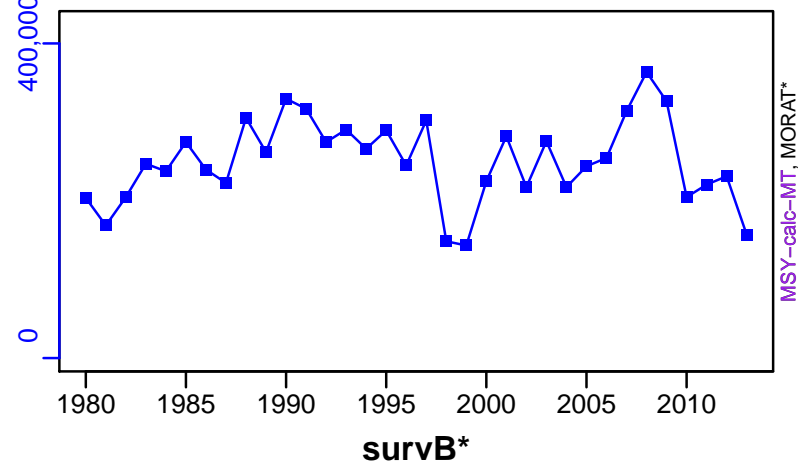
R-E00 (1980-2013-JPNIMP2016)



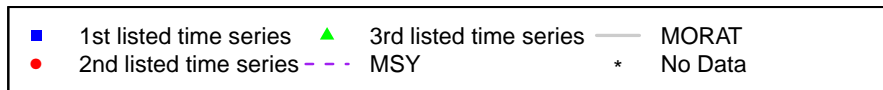
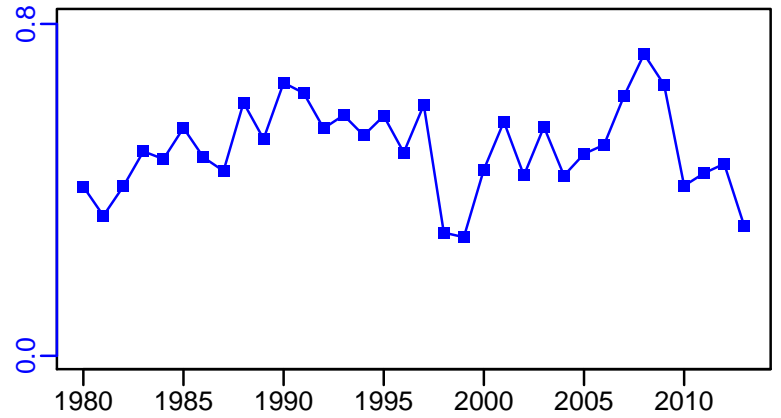
# Pacific saury Northwest Pacific [SAURNWPAC]

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

TAC\*, Cpair\*, Cadv\*



CdivMSY-ratio (1980-2013-JPNIMP2016)



## Shako Ise and Mikawa Bay [SHAKOIMKB]

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



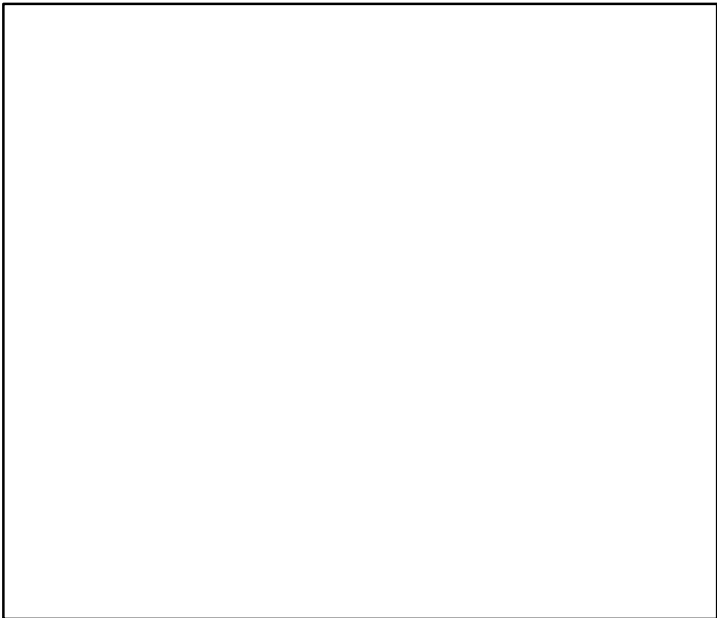
Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data

TB\*



SSB\*



TN \*



F\*



ER\*

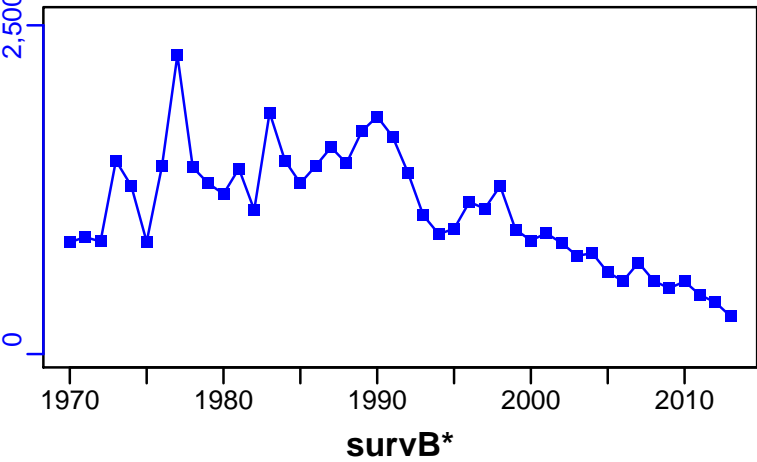


Recruits\*

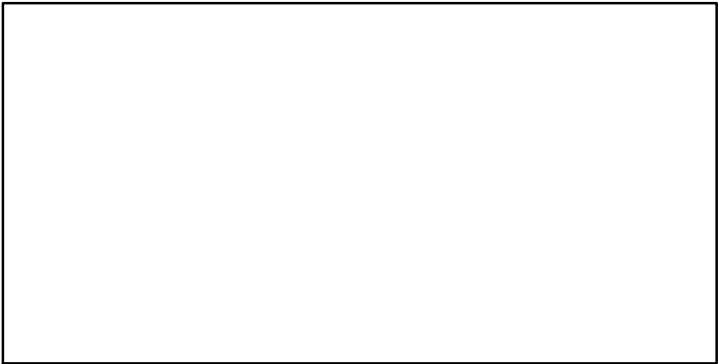


Shako Ise and Mikawa Bay [SHAKOIMKB]

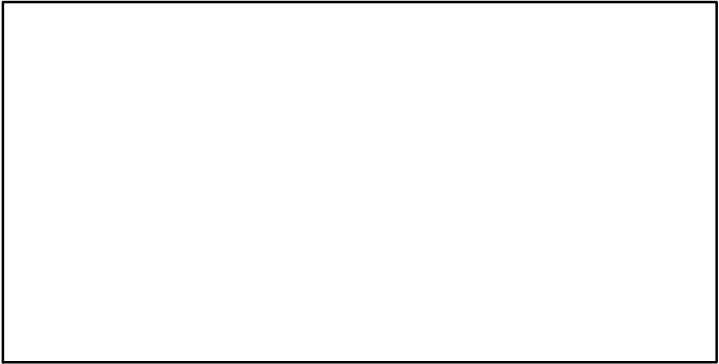
TC-MT, TL\*, RecC\* (1970-2013-JPNIMP2016)



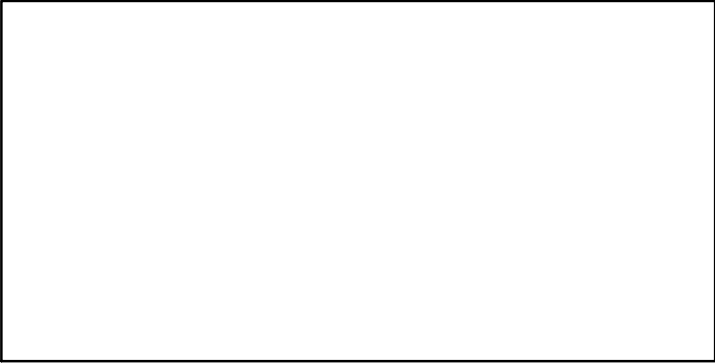
TAC\*, Cpair\*, Cadv\*



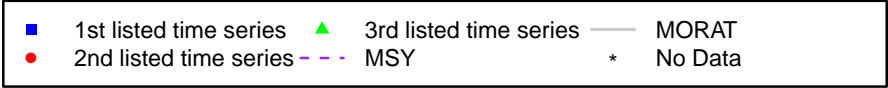
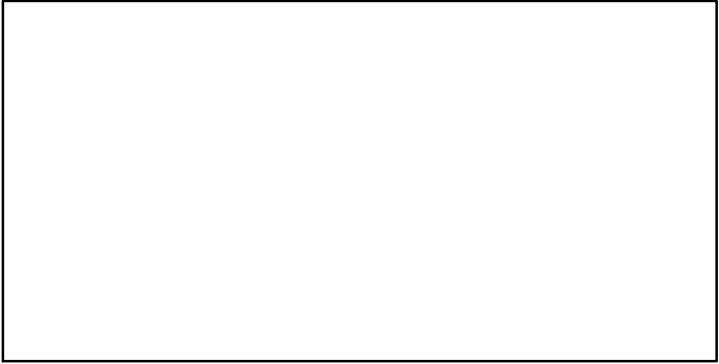
CPUE\*



EFFORT\*



CdivMSY\*



## Snow crab Sea of Japan East [SNOWCRABESJ]

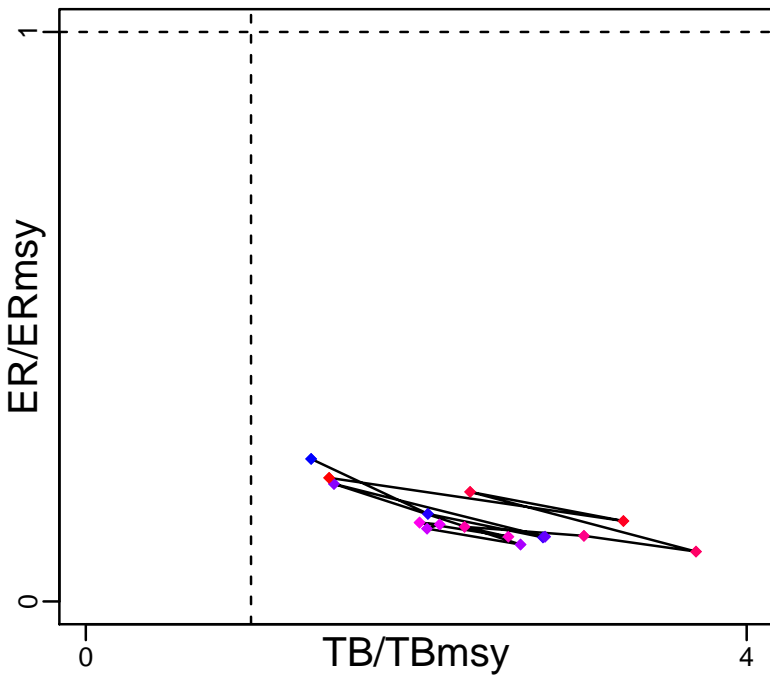
Metadata	
<b>Scientific Name</b>	Chionoecetes opilio
<b>Current Assess ID</b>	FAFRFJ-SNOWCRABESJ-1998-2014-JPNIMP2016
<b>Area</b>	Sea of Japan East
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>	2014

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

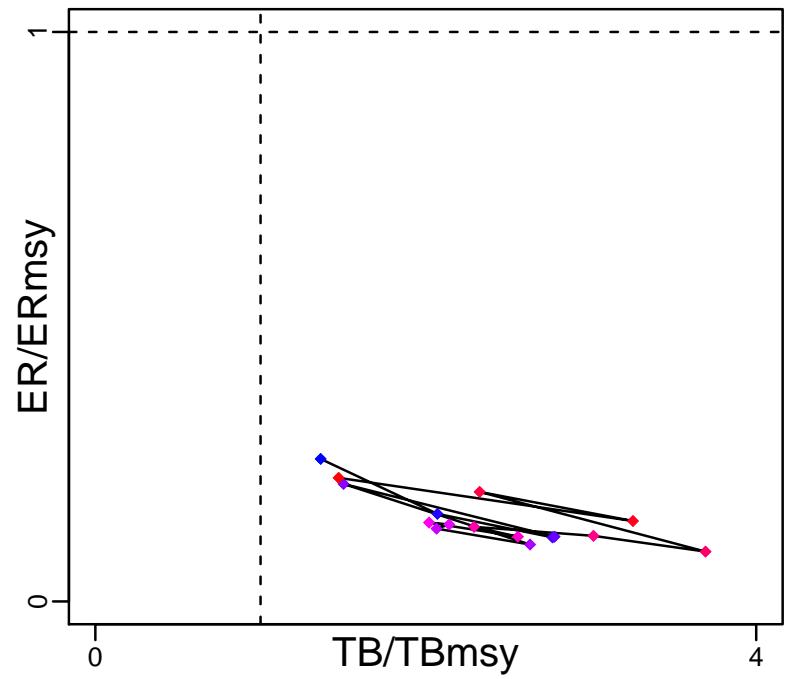
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2014	3280	-	6
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2014	0.151	-	-
<b>TC</b>	TC-MT	2014	265		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2014	2.753		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2014	0.217		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Snow crab Sea of Japan East [SNOWCRABESJ]

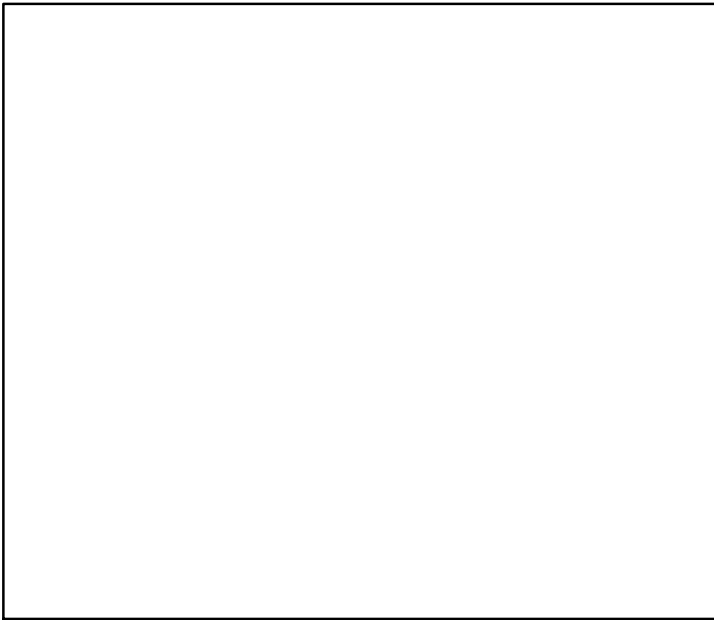
Kobe MSYpref (1998–2014–JPNIMP2016)



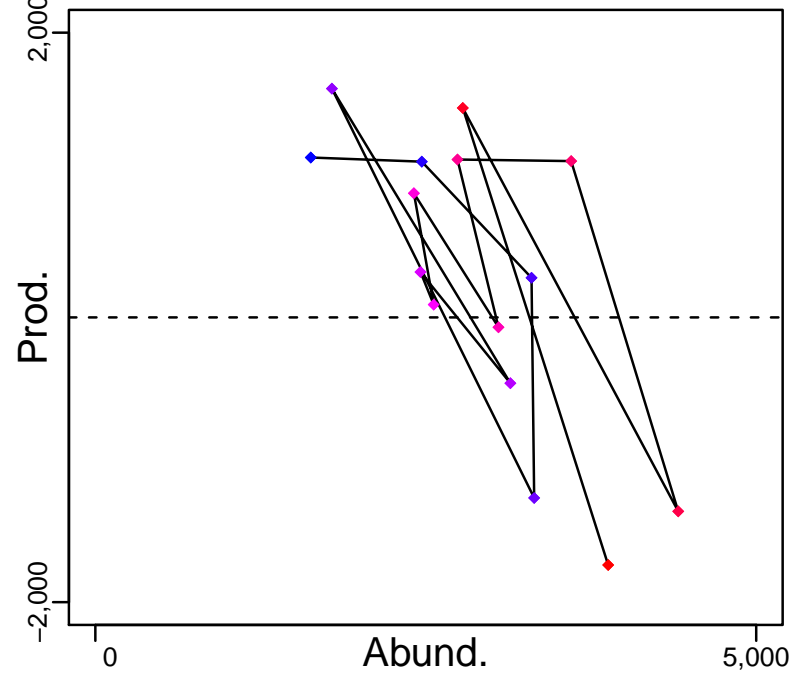
Kobe MGTpref (1998–2014–JPNIMP2016)



Spawner Recruit\*



Production (1998–2014–JPNIMP2016)

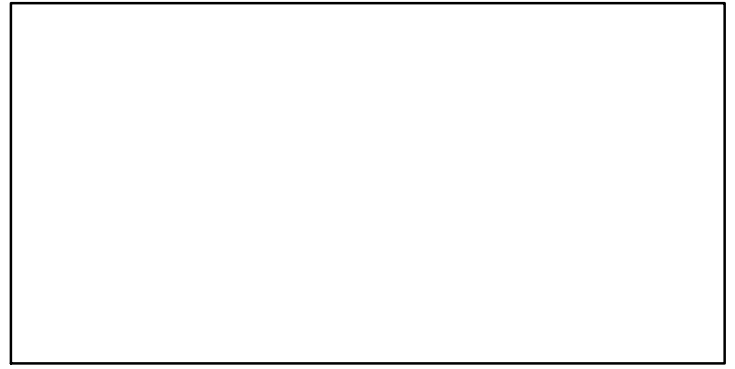
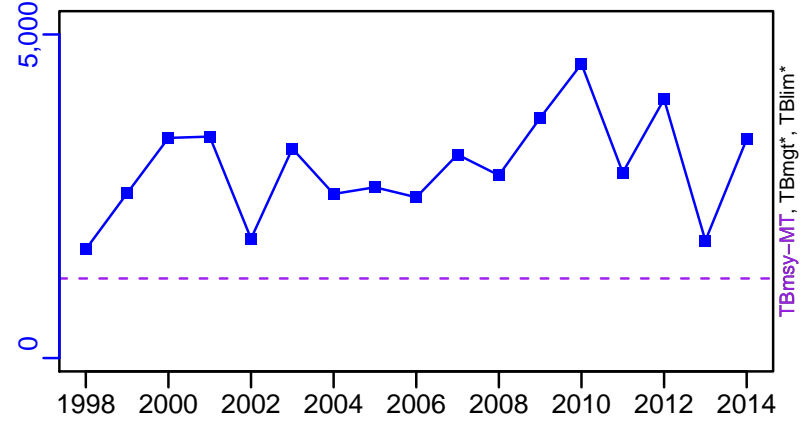


◆ Start Year ◆ End Year \* No Data

# Snow crab Sea of Japan East [SNOWCRABESJ]

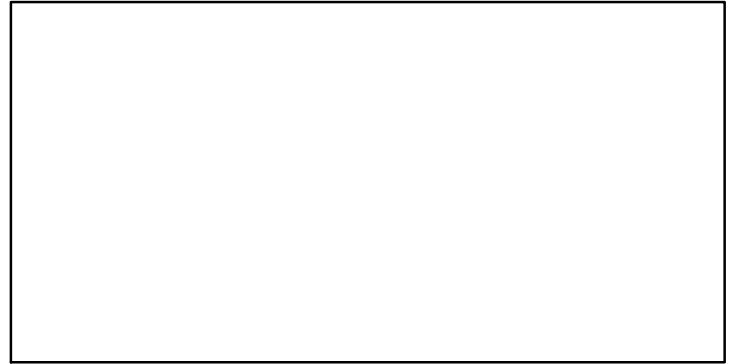
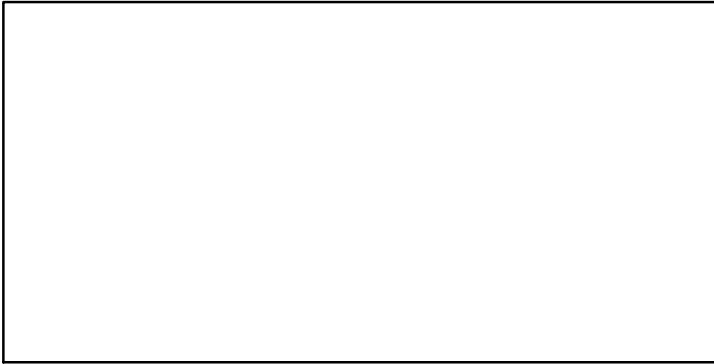
TB-MT (1998-2014-JPNIMP2016)

SSB\*



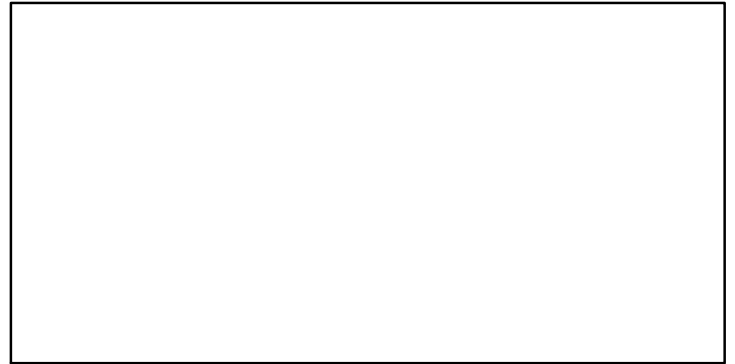
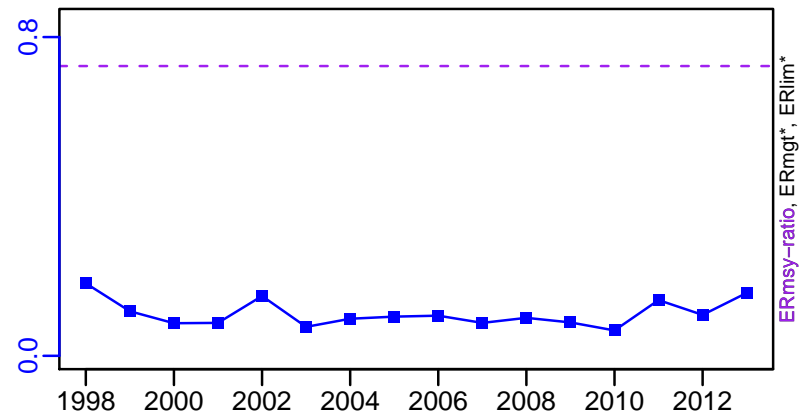
TN \*

F\*



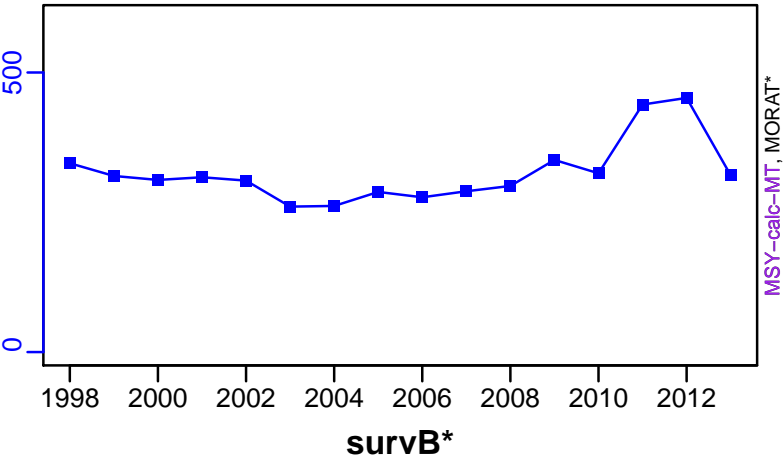
ER-calc-ratio (1998-2014-JPNIMP2016)

Recruits\*



Snow crab Sea of Japan East [SNOWCRABESJ]

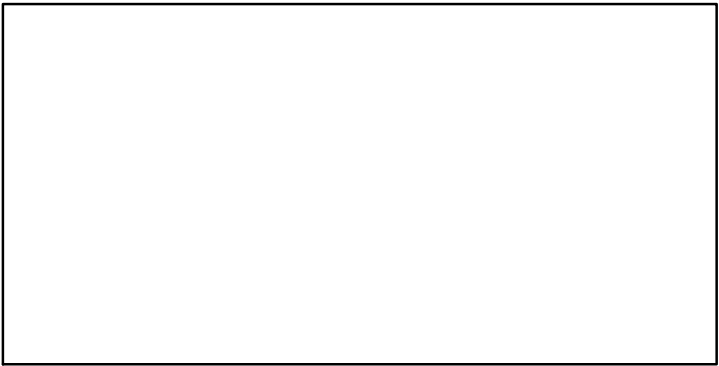
TC-MT, TL\*, RecC\* (1998-2014-JPNIMP2016)



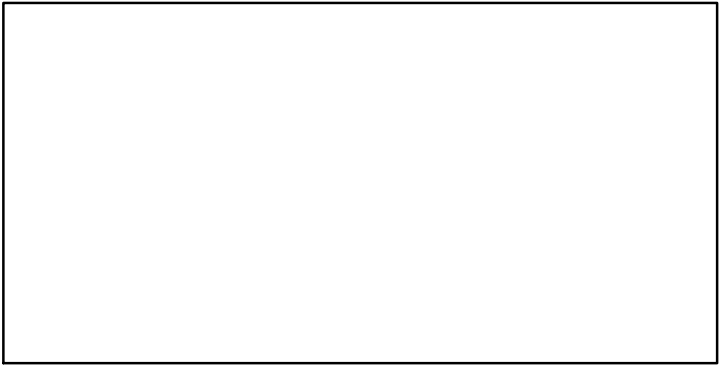
TAC\*, Cpair\*, Cadv\*



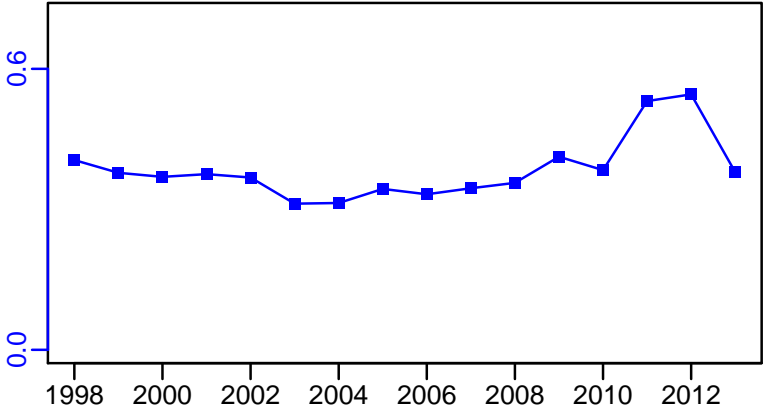
CPUE\*



EFFORT\*



CdivMSY-ratio (1998-2014-JPNIMP2016)



## Snow crab Hokkaido [SNOWCRABHOKK]

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



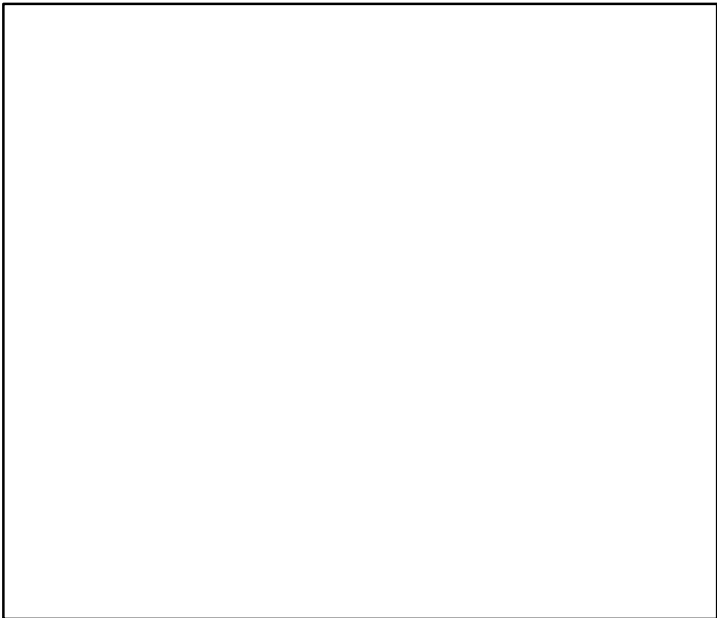
Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year ◆ End Year \* No Data

Snow crab Hokkaido [SNOWCRABHOKK]

TB\*



SSB\*



TN \*



F\*



ER\*

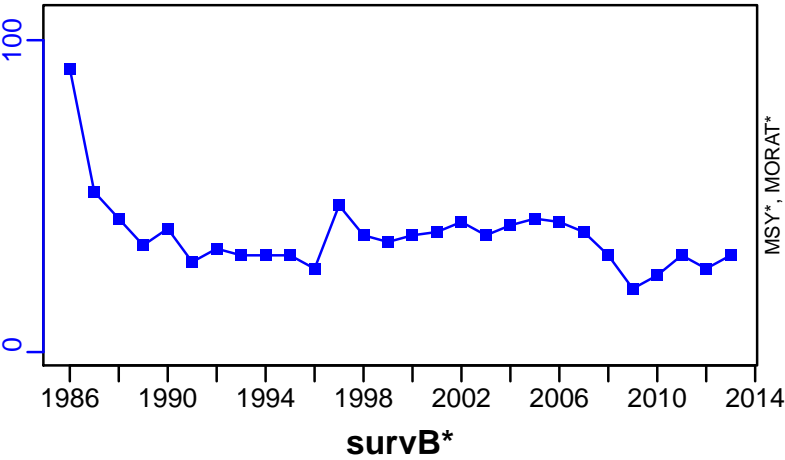


Recruits\*



Snow crab Hokkaido [SNOWCRABHOKK]

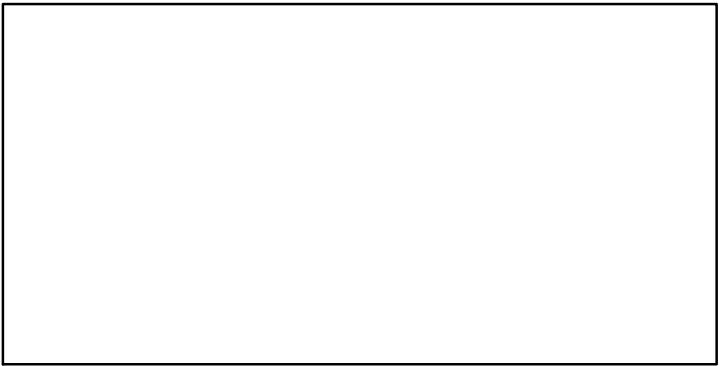
TC-MT, TL\*, RecC\* (1986-2013-JPNIMP2016)



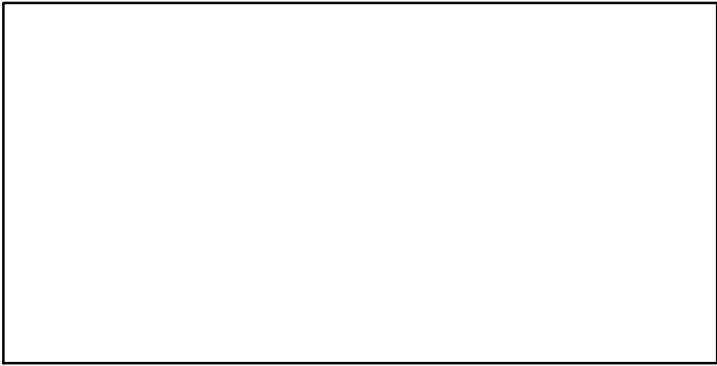
TAC\*, Cpair\*, Cadv\*



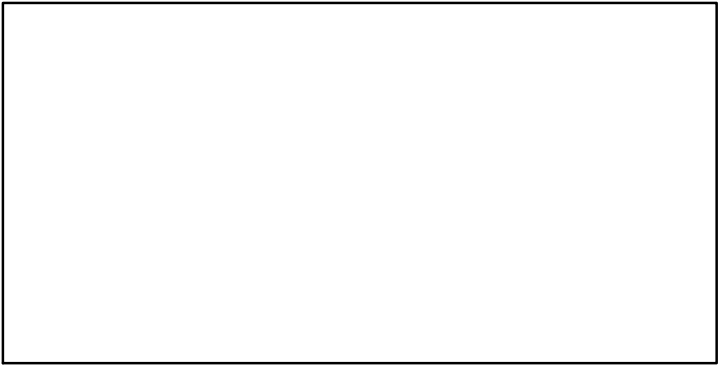
CPUE\*



EFFORT\*



CdivMSY\*



## Snow crab North Pacific [SNOWCRABNPAC]

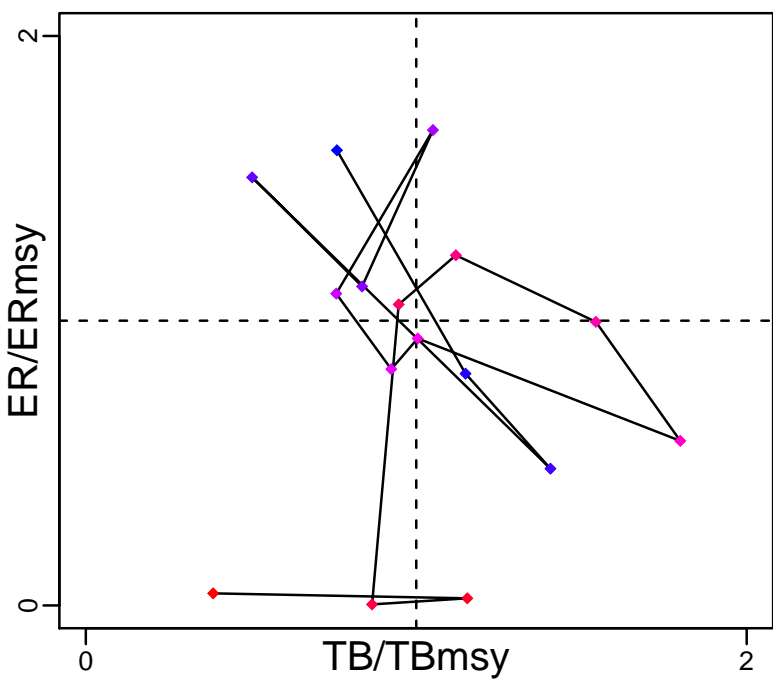
Metadata	
<b>Scientific Name</b>	Chionoecetes opilio
<b>Current Assess ID</b>	FAFRFJ-SNOWCRABNPAC-1992-2013-JPNIMP2016
<b>Area</b>	North Pacific
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>	2013

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

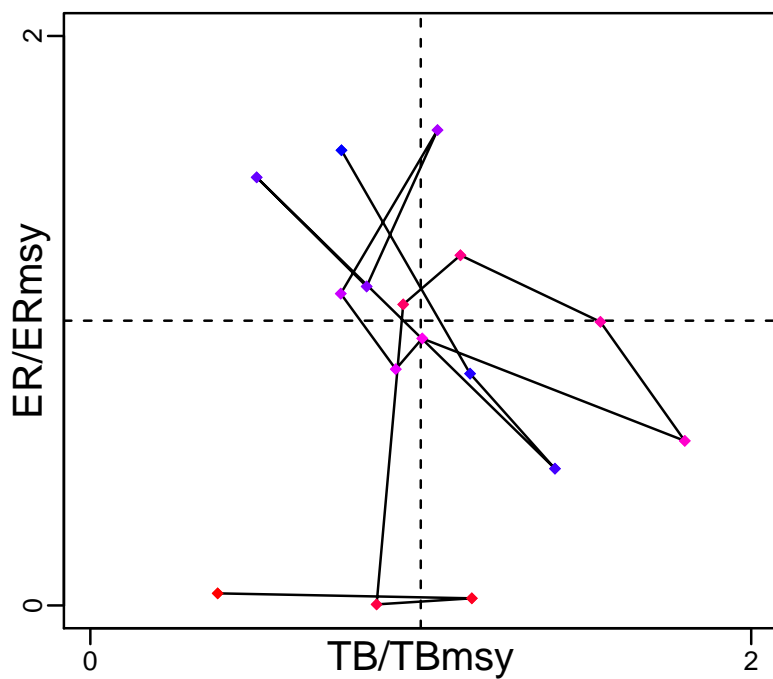
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	381	-	7
<b>SSB</b>	SSB-MT	2013	83	Females	8
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	2,620,000	-	7
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0.007	-	-
<b>TC</b>	TC-MT	2013	2.6		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2013	0.385		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	0.042		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Snow crab North Pacific [SNOWCRABNPAC]

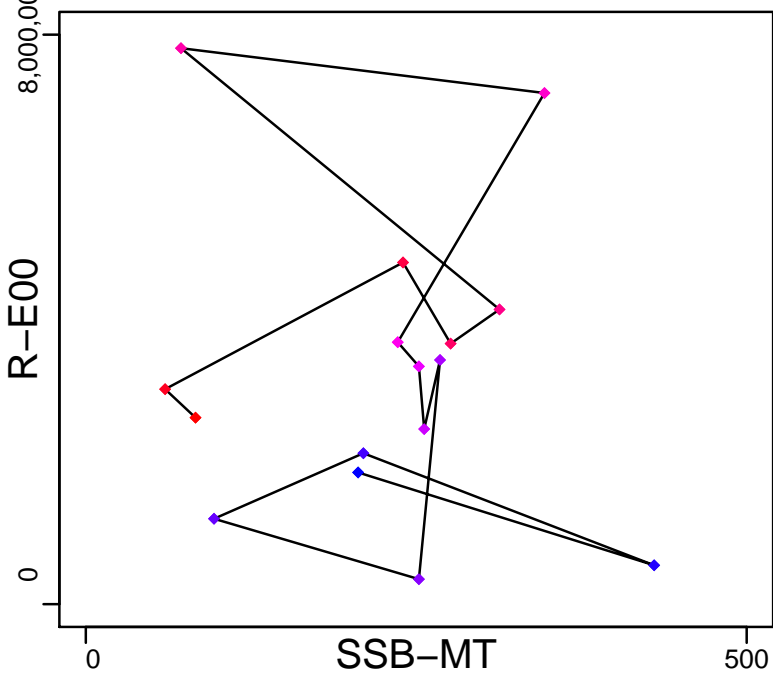
Kobe MSYpref (1992–2013–JPNIMP2016)



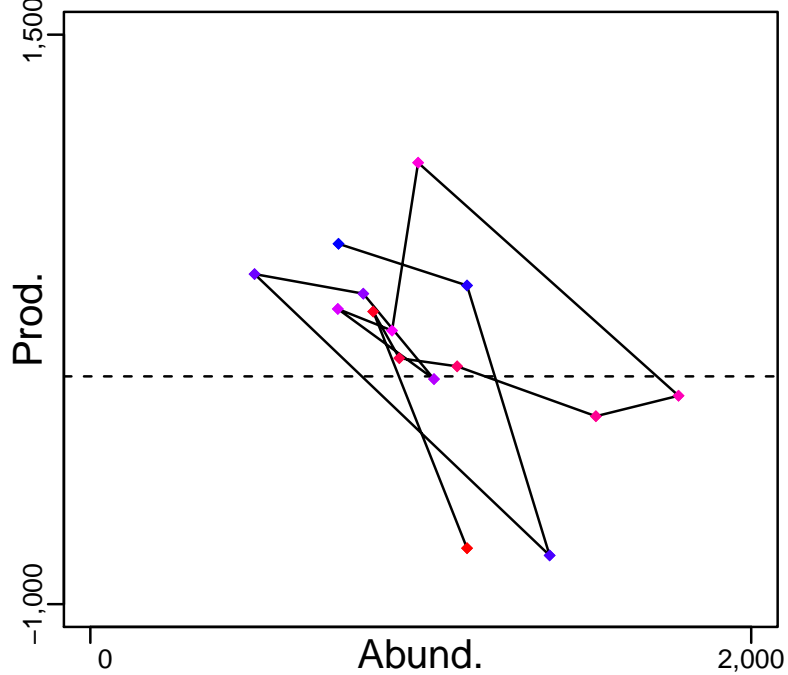
Kobe MGTpref (1992–2013–JPNIMP2016)



Spawner Recruit (1992–2013–JPNIMP2016)



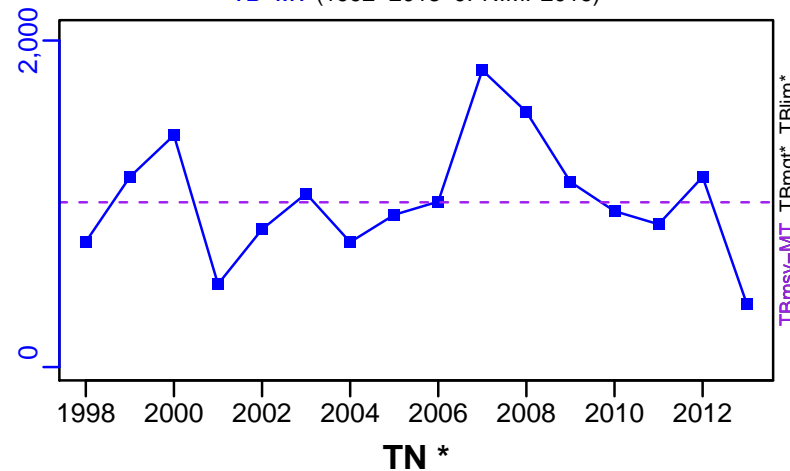
Production (1992–2013–JPNIMP2016)



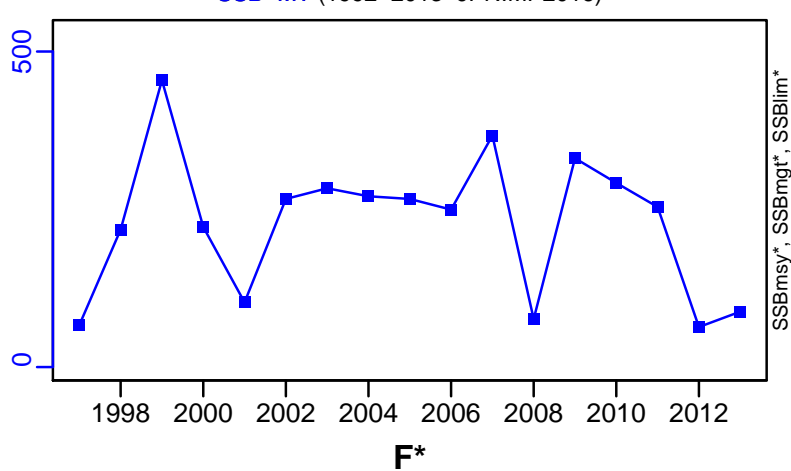
◆ Start Year ◆ End Year \* No Data

# Snow crab North Pacific [SNOWCRABNPAC]

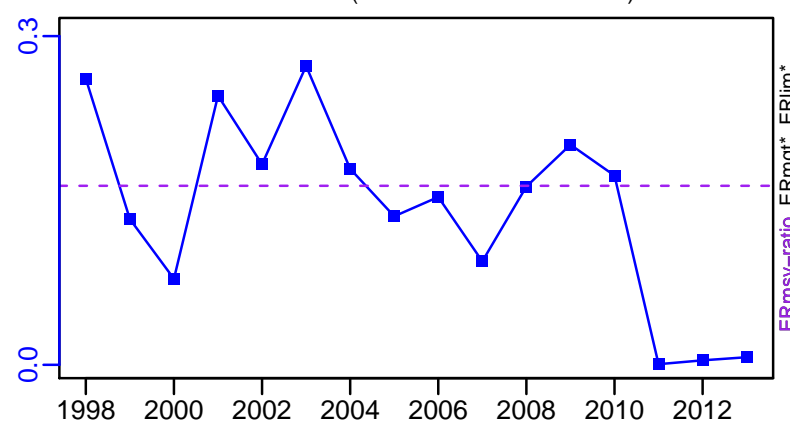
TB-MT (1992-2013-JPNIMP2016)



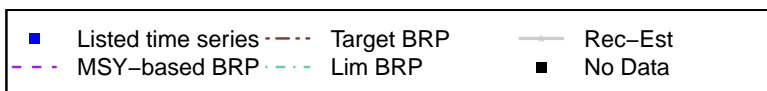
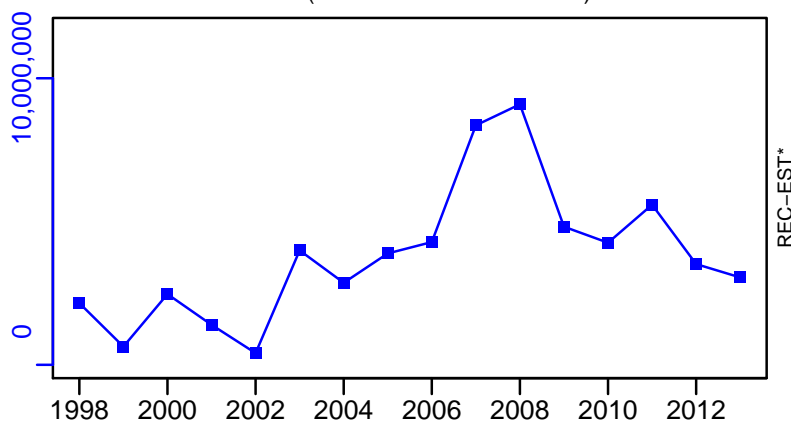
SSB-MT (1992-2013-JPNIMP2016)



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

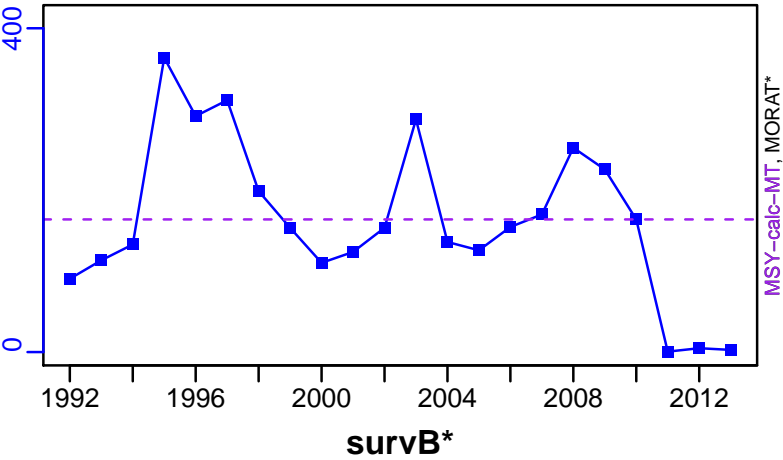


R-E00 (1992-2013-JPNIMP2016)



Snow crab North Pacific [SNOWCRABNPAC]

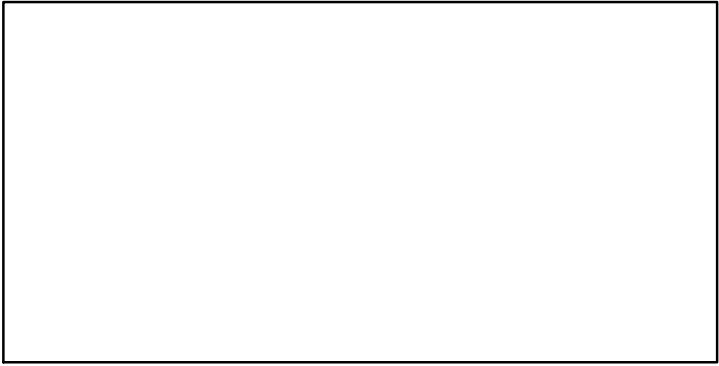
TC-MT, TL\*, RecC\* (1992-2013-JPNIMP2016)



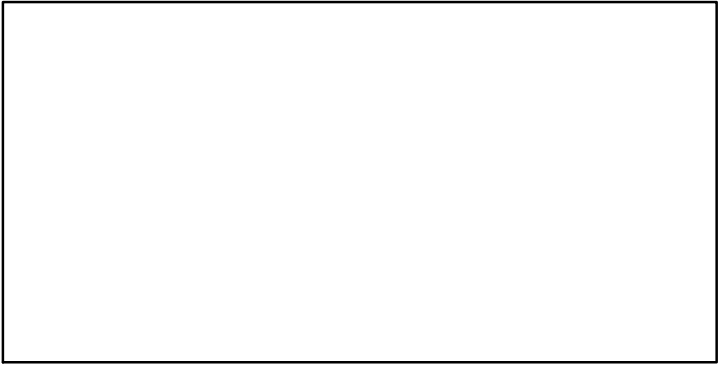
TAC\*, Cpair\*, Cadv\*



survB\*



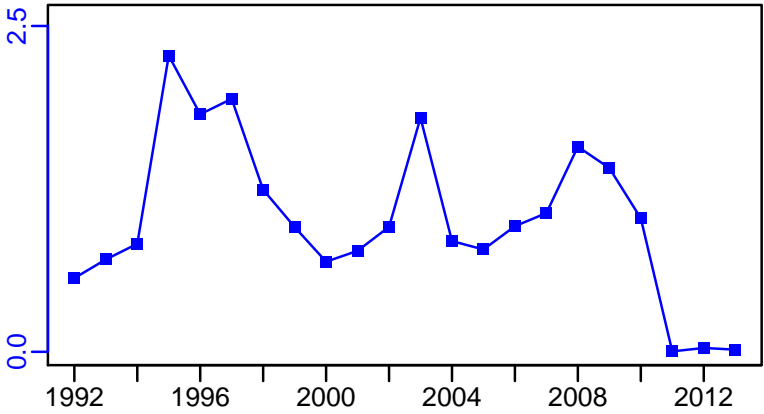
CPUE\*



EFFORT\*



CdivMSY-ratio (1992-2013-JPNIMP2016)



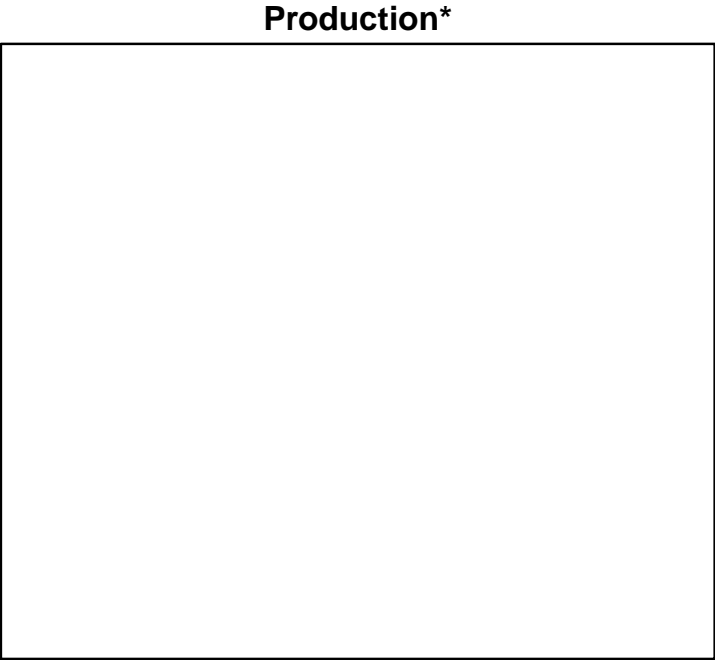
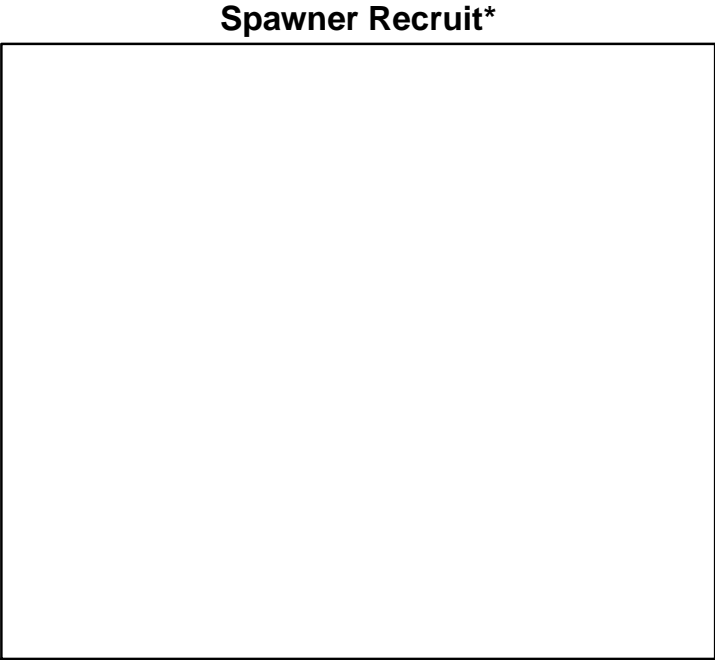
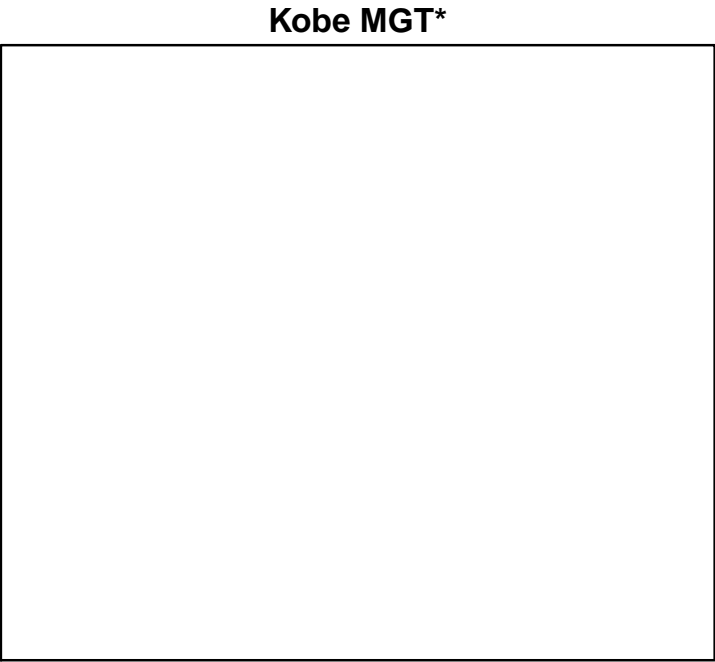
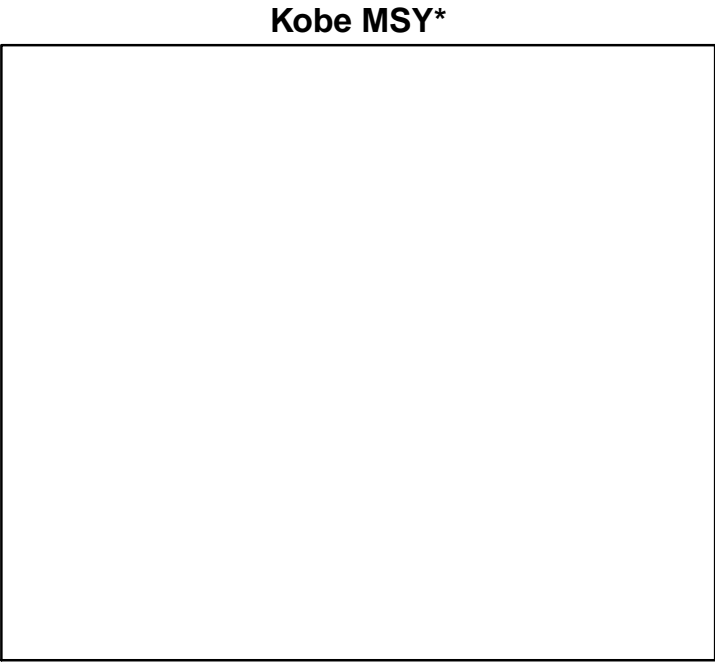
## Snow crab Okhotsk Sea [SNOWCRABOKS]

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

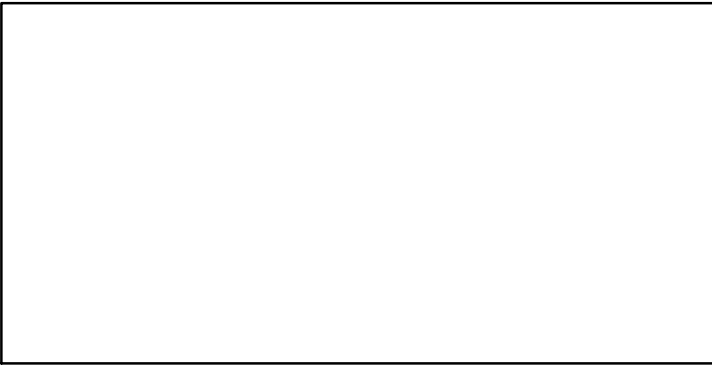




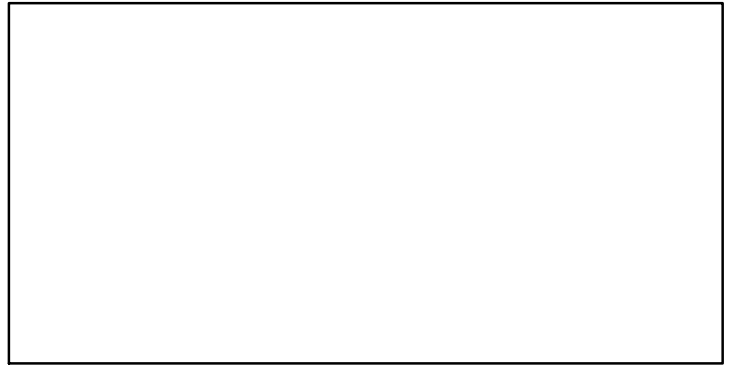
◆ Start Year   ◆ End Year   \* No Data

Snow crab Okhotsk Sea [SNOWCRABOKS]

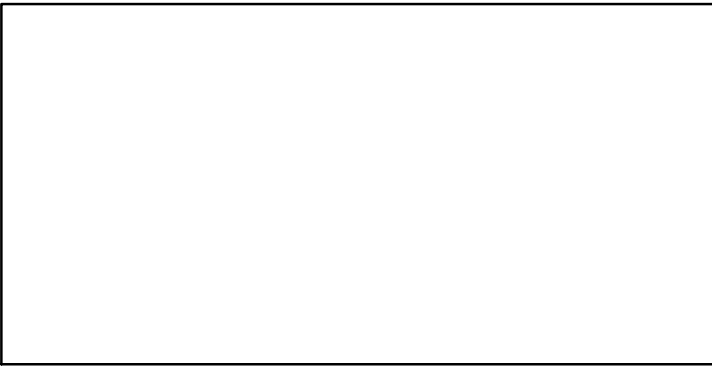
**TB\***



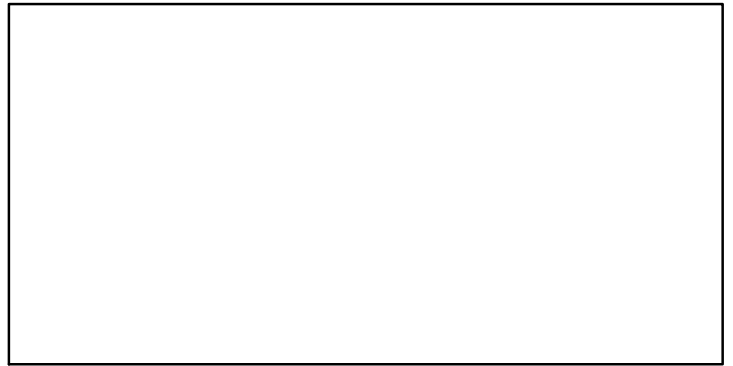
**SSB\***



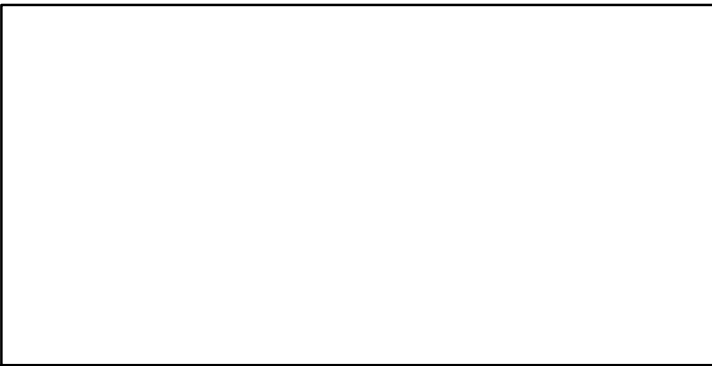
**TN \***



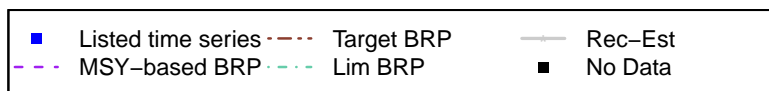
**F\***



**ER\***



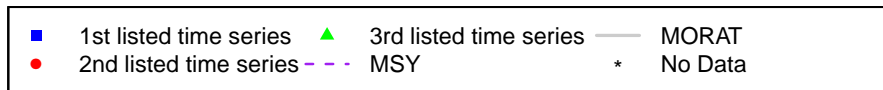
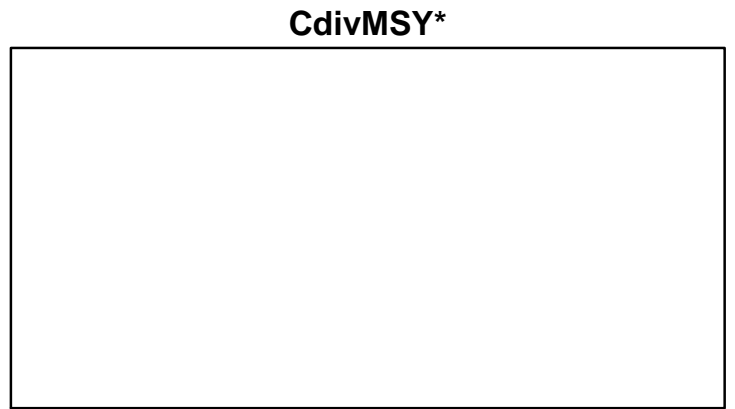
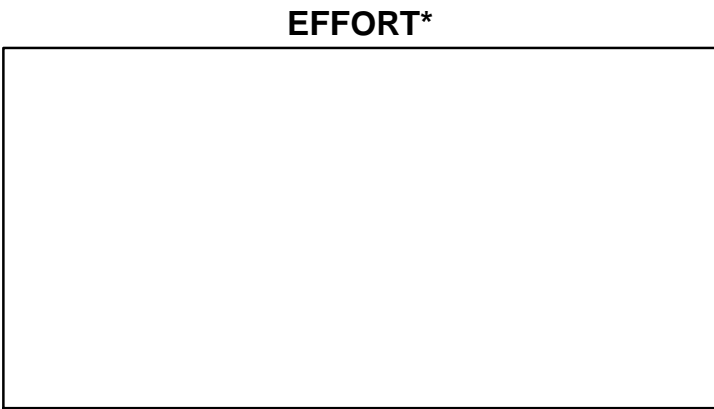
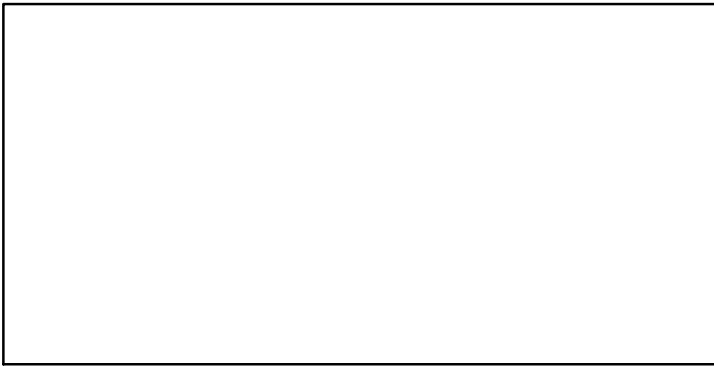
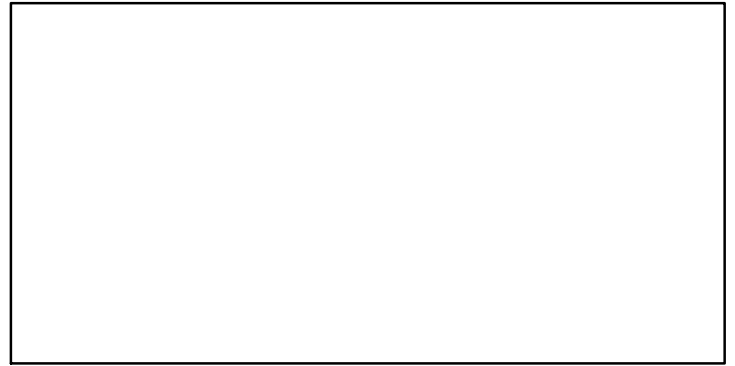
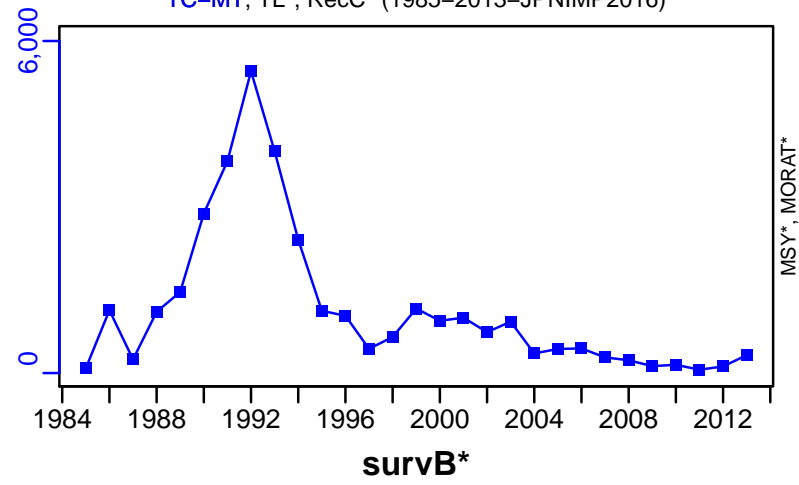
**Recruits\***



# Snow crab Okhotsk Sea [SNOWCRABOKS]

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

TAC\*, Cpair\*, Cadv\*



## Snow crab Sea of Japan West [SNOWCRABWSJ]

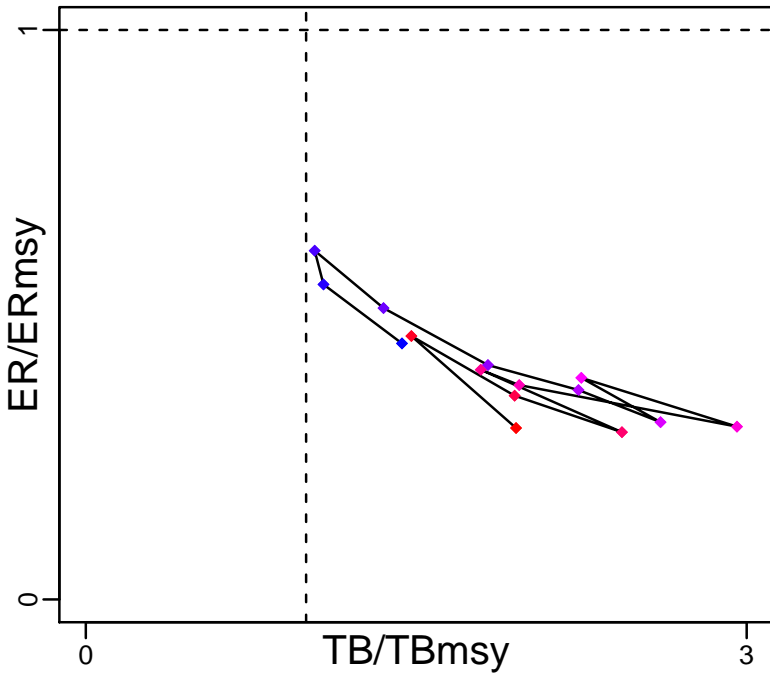
Metadata	
<b>Scientific Name</b>	Chionoecetes opilio
<b>Current Assess ID</b>	FAFRFJ-SNOWCRABWSJ-1999-2015-JPNIMP2016
<b>Area</b>	Sea of Japan West
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>	2015

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	14,700	-	6
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2015	0.144	-	-
<b>TC</b>	TC-MT	2015	3220		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2015	1.29		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2015	0.301		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

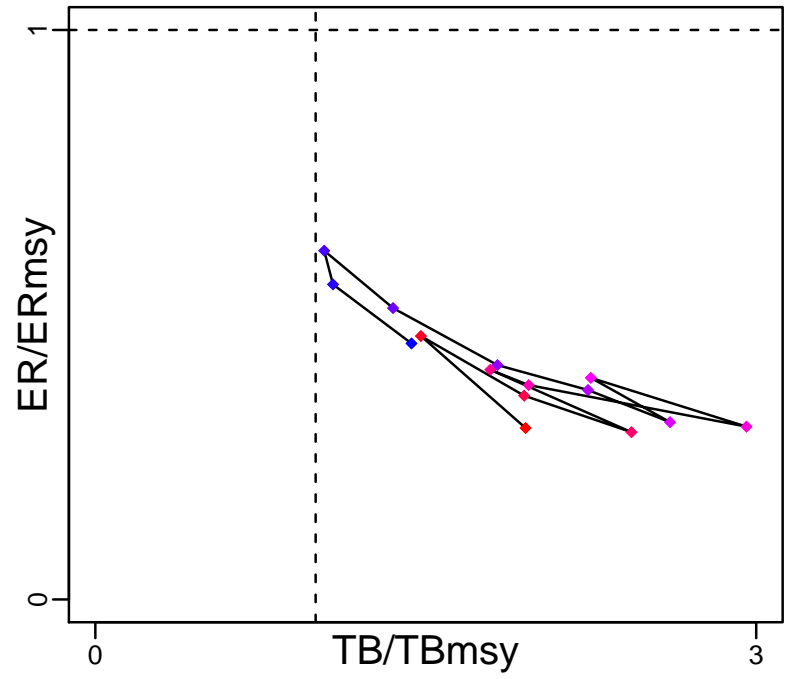
# Snow crab Sea of Japan West [SNOWCRABWSJ]

Kobe MSYpref (1999–2015–JPNIMP2016)

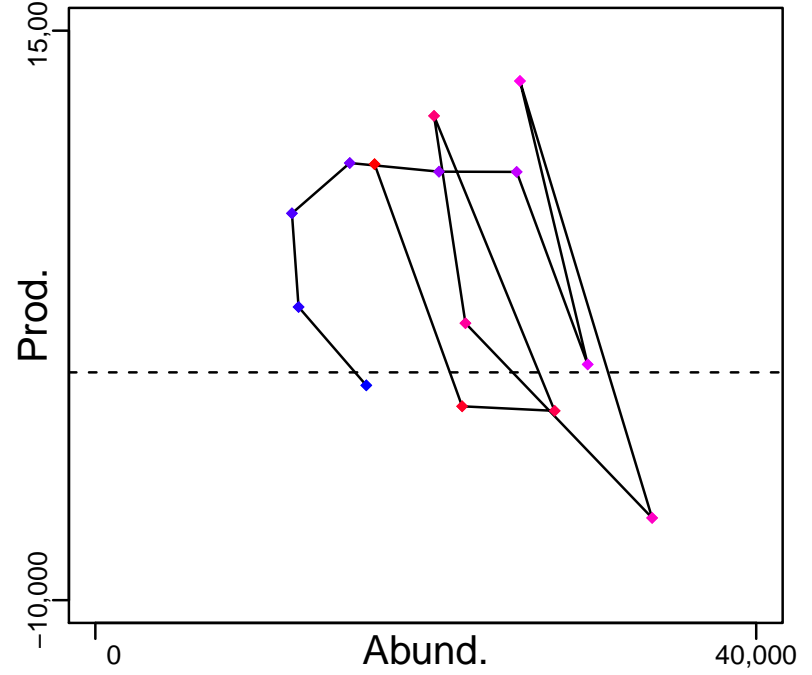


Spawner Recruit\*

Kobe MGTpref (1999–2015–JPNIMP2016)



Production (1999–2015–JPNIMP2016)

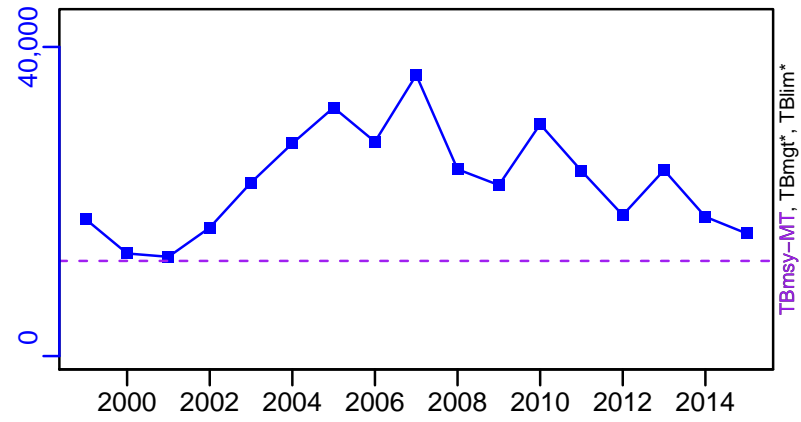


◆ Start Year ◆ End Year \* No Data

# Snow crab Sea of Japan West [SNOWCRABWSJ]

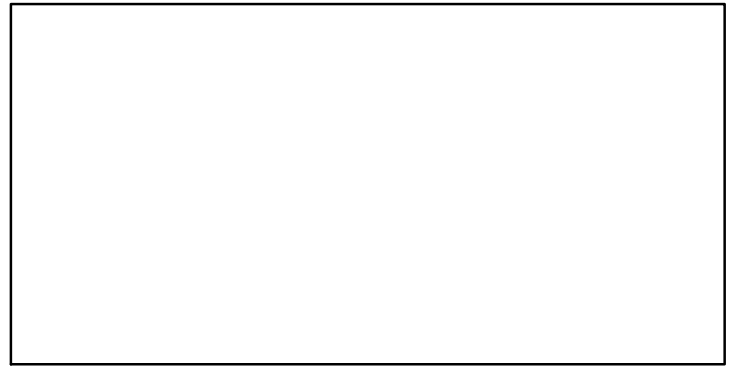
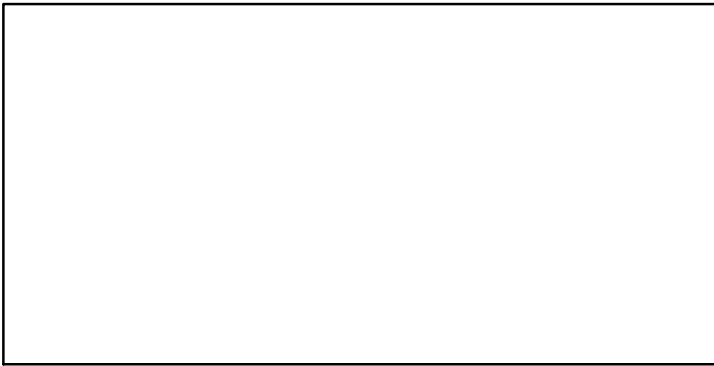
TB-MT (1999-2015-JPNIMP2016)

SSB\*



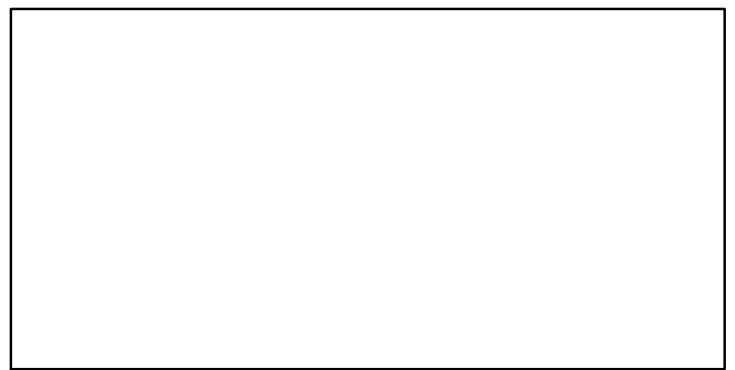
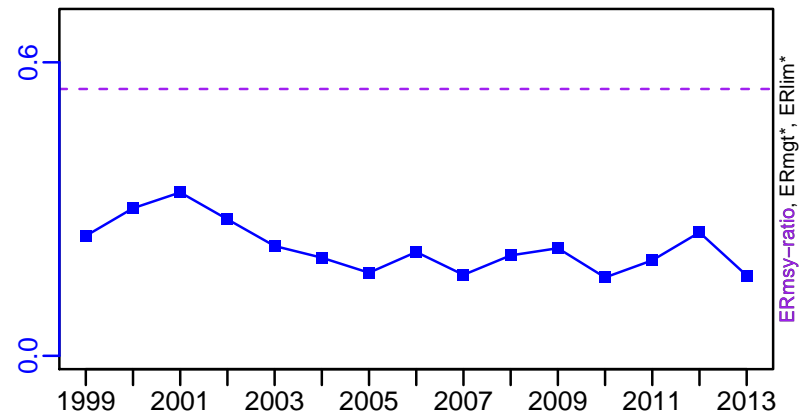
TN \*

F\*



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

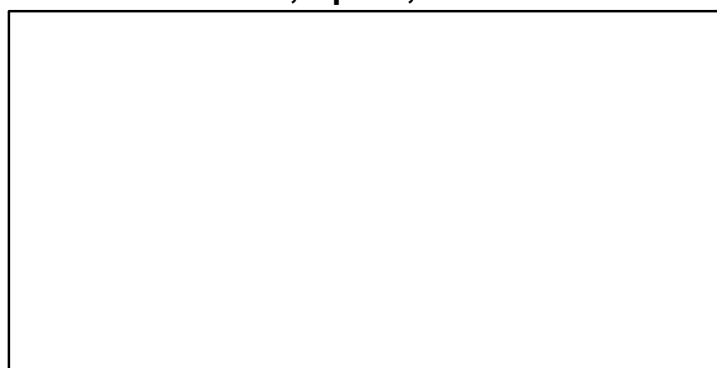
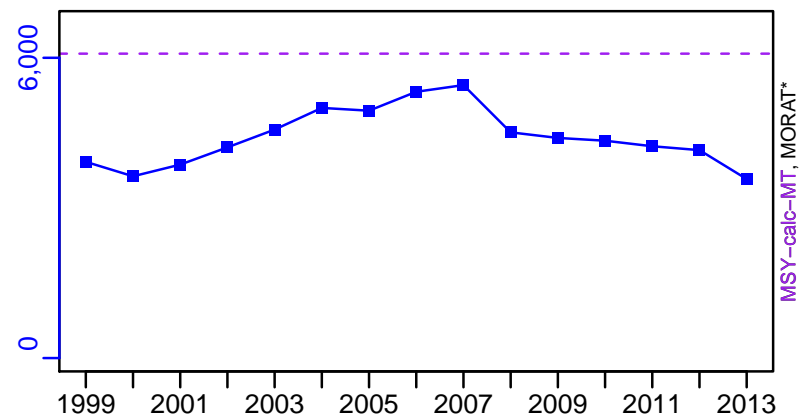
Recruits\*



# Snow crab Sea of Japan West [SNOWCRABWSJ]

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

TAC\*, Cpair\*, Cadv\*



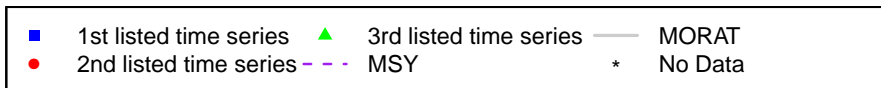
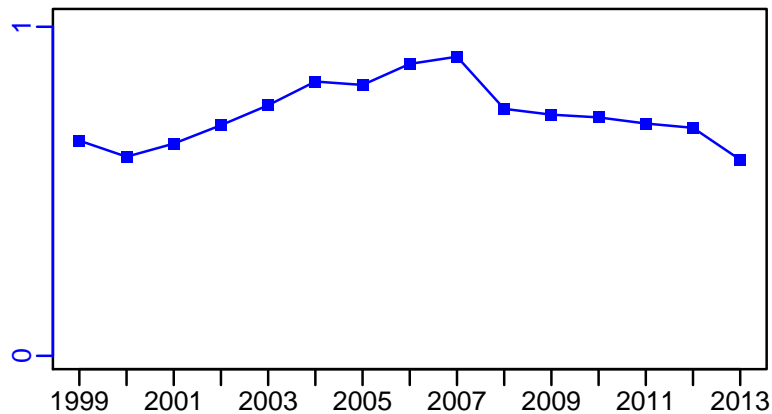
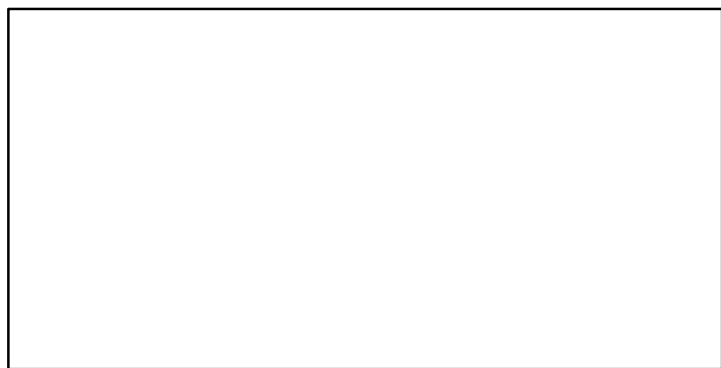
survB\*

CPUE\*



EFFORT\*

CdivMSY-ratio (1999–2015–JPNIMP2016)



## Japanese Spanish mackerel East China Sea [SPANMACKECS]

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

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

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



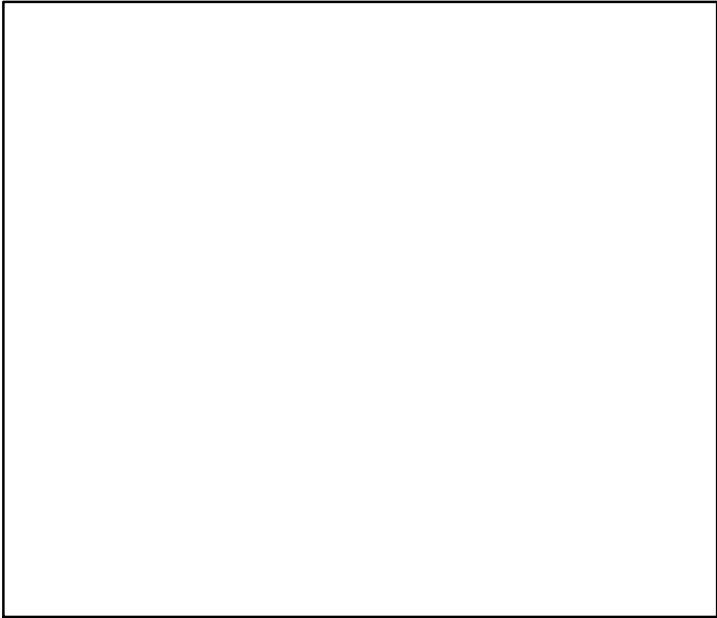
Kobe MSY\*



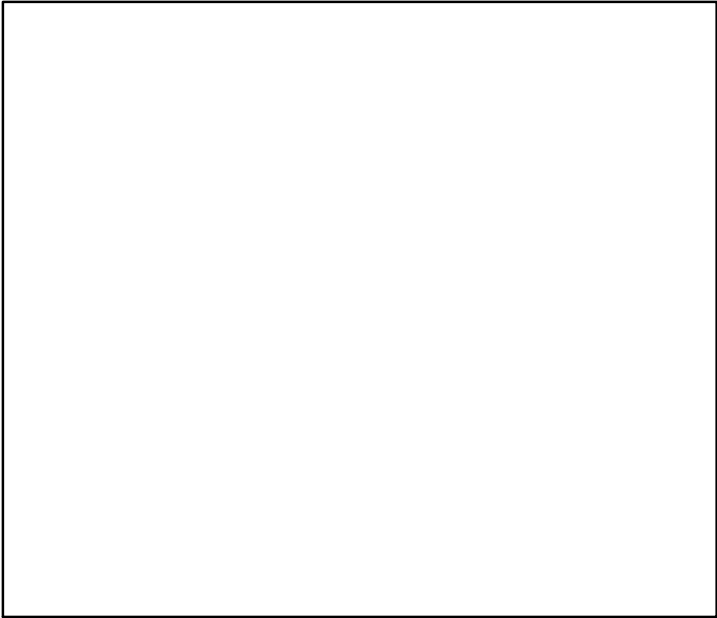
Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year    ◆ End Year    \* No Data

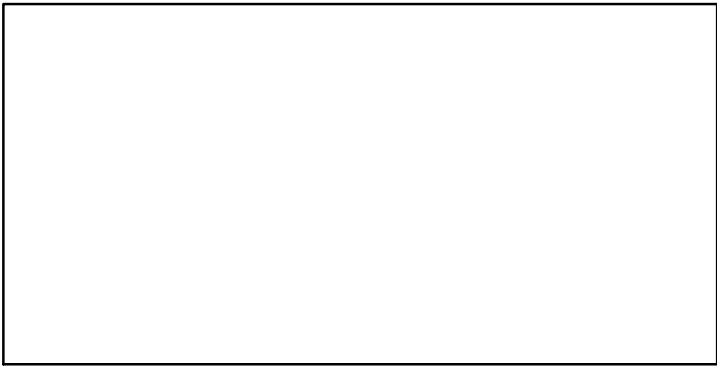
TB\*



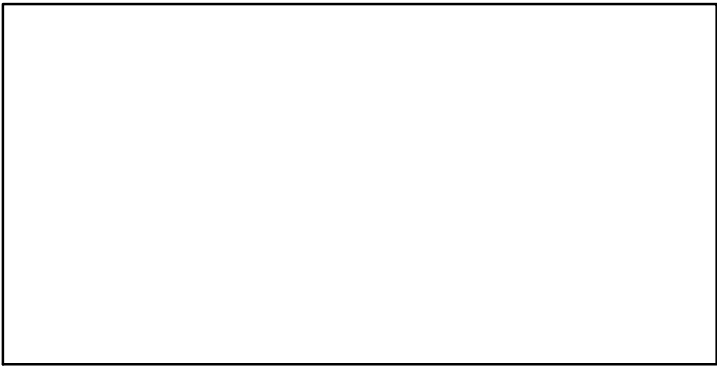
SSB\*



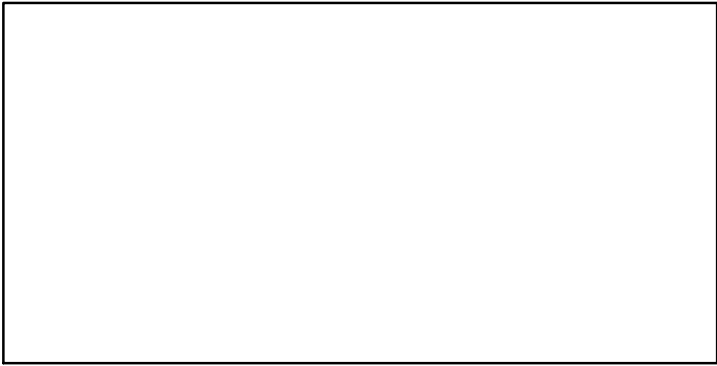
TN \*



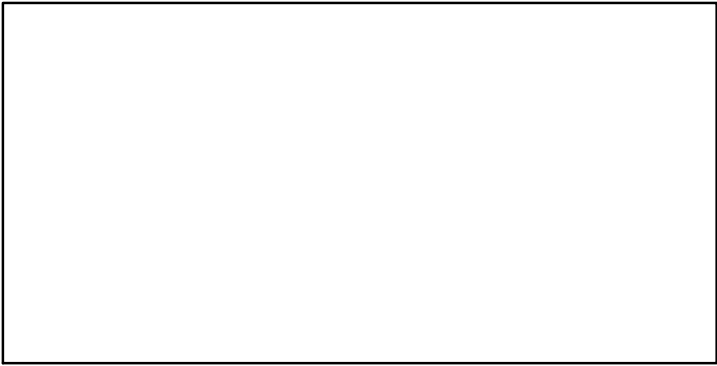
F\*



ER\*

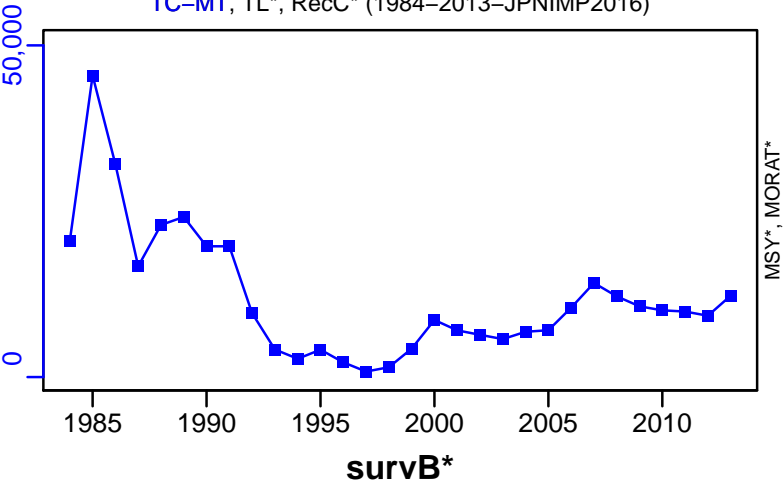


Recruits\*

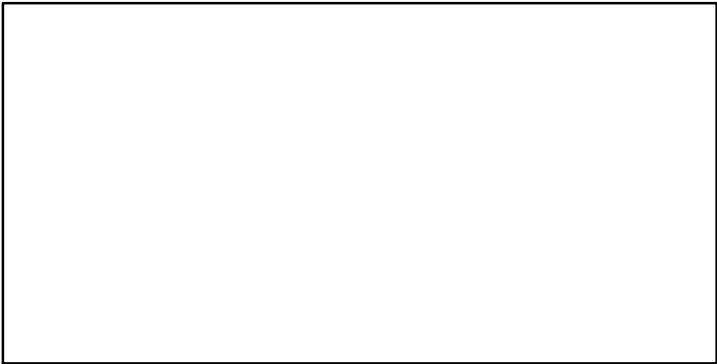


Japanese Spanish mackerel East China Sea [SPANMACK ECS]

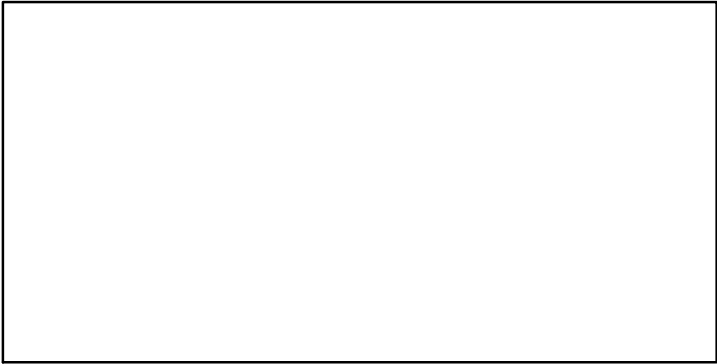
TC-MT, TL\*, RecC\* (1984-2013-JPNIMP2016)



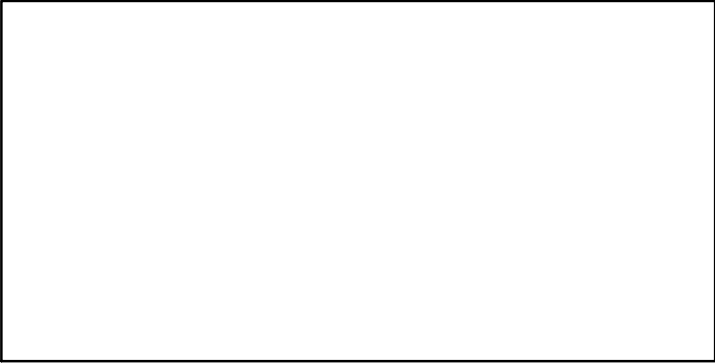
TAC\*, Cpair\*, Cadv\*



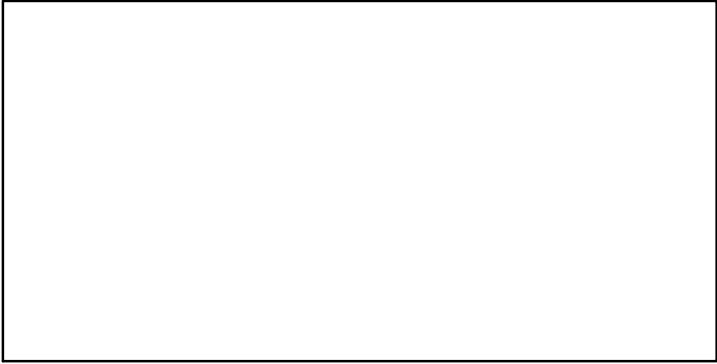
CPUE\*



EFFORT\*



CdivMSY\*



## Japanese Spanish mackerel Inland Sea of Japan [SPANMACKSETO]

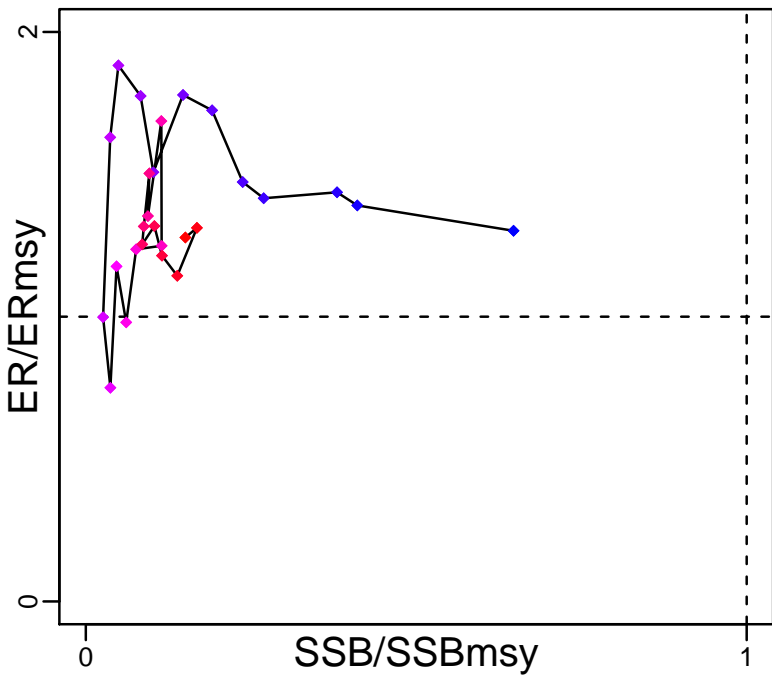
Metadata	
<b>Scientific Name</b>	Scomberomorus niphonius
<b>Current Assess ID</b>	FAFRFJ-SPANMACKSETO-1987-2013-JPNIMP2016
<b>Area</b>	Inland Sea of Japan
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>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

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

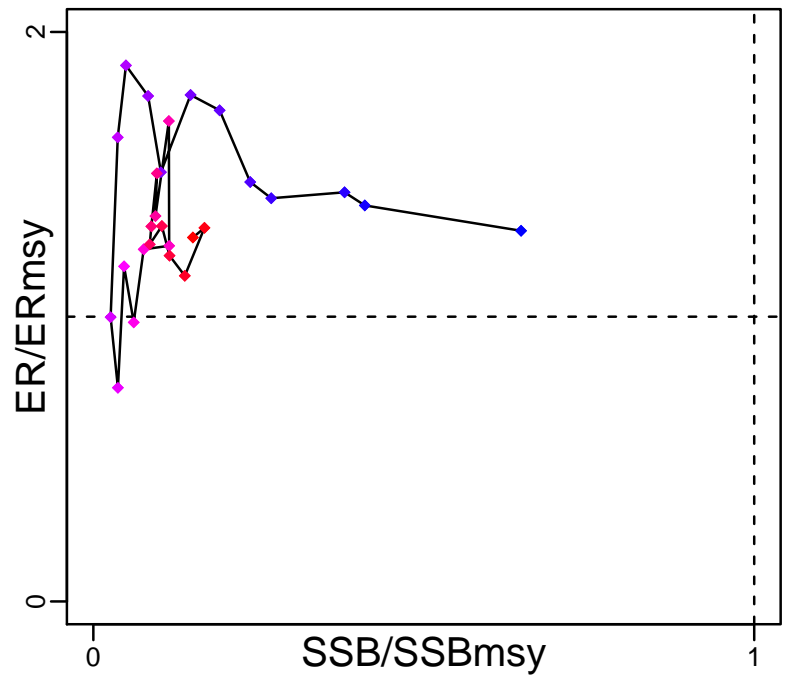
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	4930	-	0
<b>SSB</b>	SSB-MT	2013	2520	Both	1
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	1,410,000	-	0
<b>F</b>	F-1/yr	2010	0.93	-	0 to 5
<b>ER</b>	ER-calc-ratio	2013	0.362	-	-
<b>TC</b>	TC-MT	2013	1780		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2013	0.201		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.151		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	1.278		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Japanese Spanish mackerel Inland Sea of Japan [SPANMACKSETO]

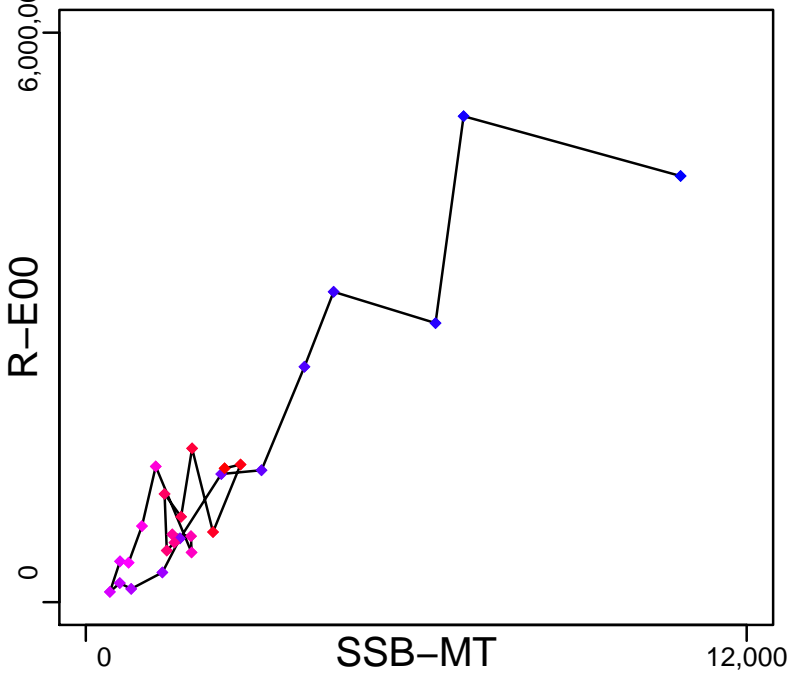
Kobe MSYpref (1987–2013–JPNIMP2016)



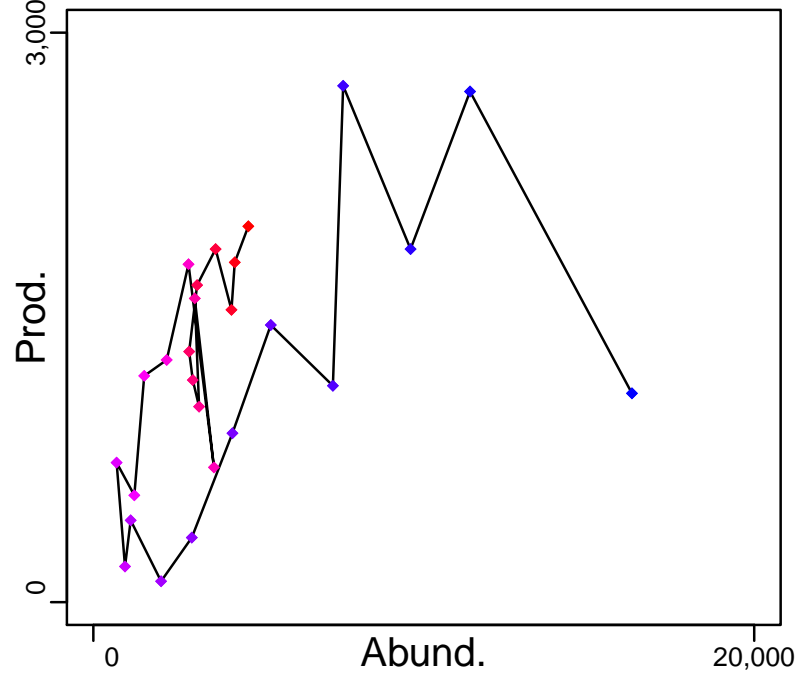
Kobe MGTpref (1987–2013–JPNIMP2016)



Spawner Recruit (1987–2013–JPNIMP2016)



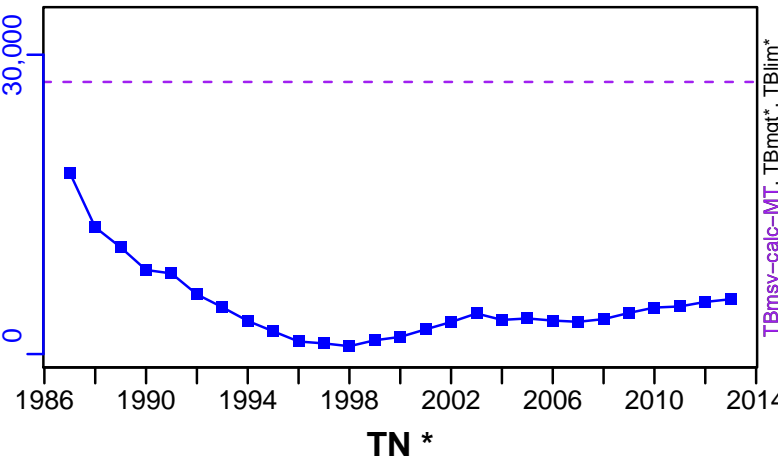
Production (1987–2013–JPNIMP2016)



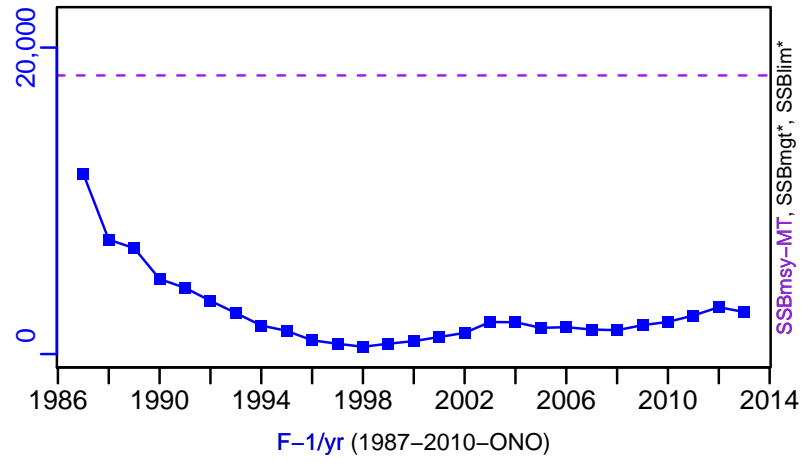
◆ Start Year ◆ End Year \* No Data

# Japanese Spanish mackerel Inland Sea of Japan [SPANMACKSETO]

TB-MT (1987-2013-JPNIMP2016)



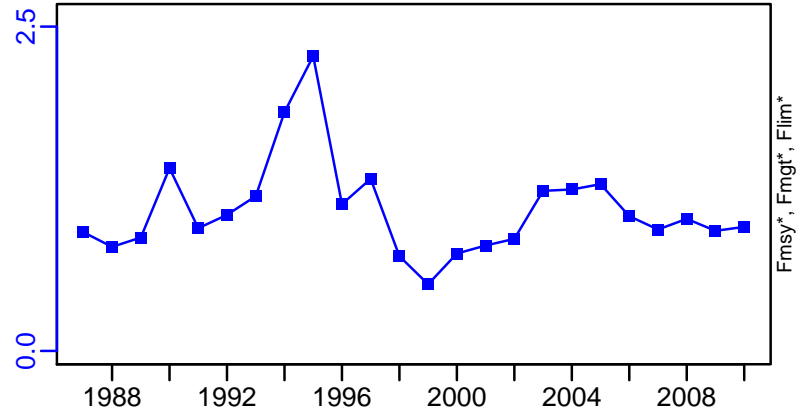
SSB-MT (1987-2013-JPNIMP2016)



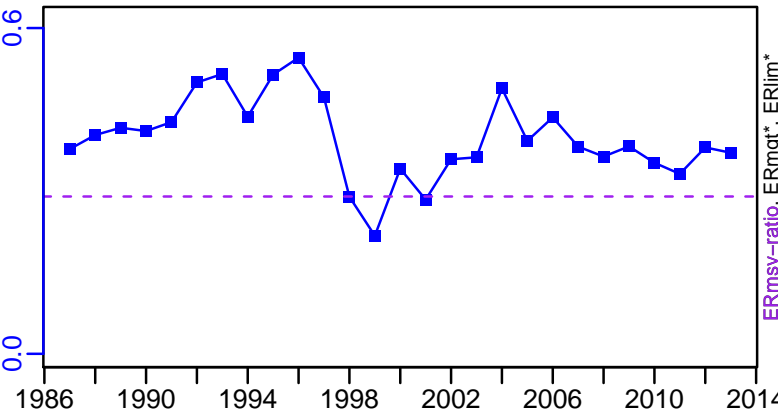
TN \*



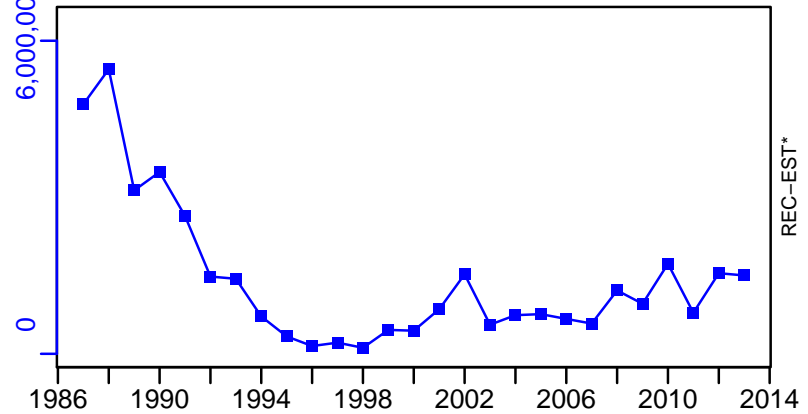
F-1/yr (1987-2010-ONO)



ER-calc-ratio (1987-2013-JPNIMP2016)



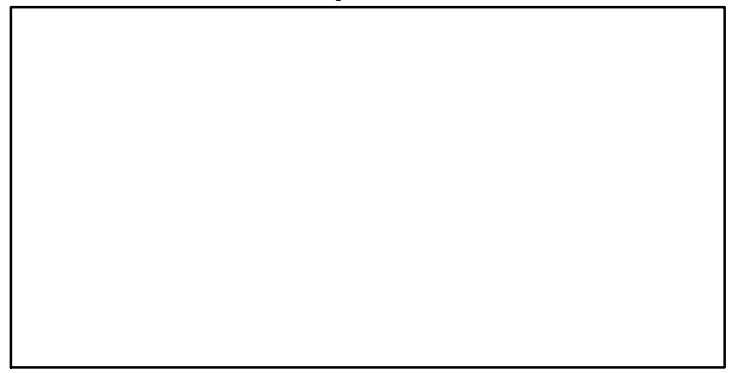
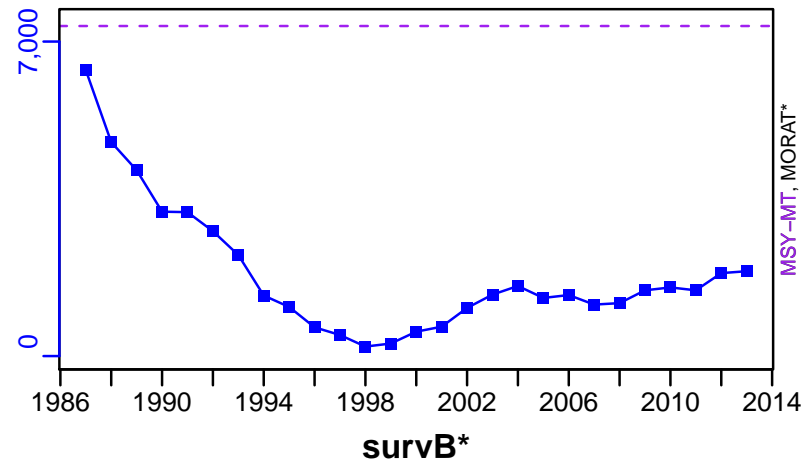
R-E00 (1987-2013-JPNIMP2016)



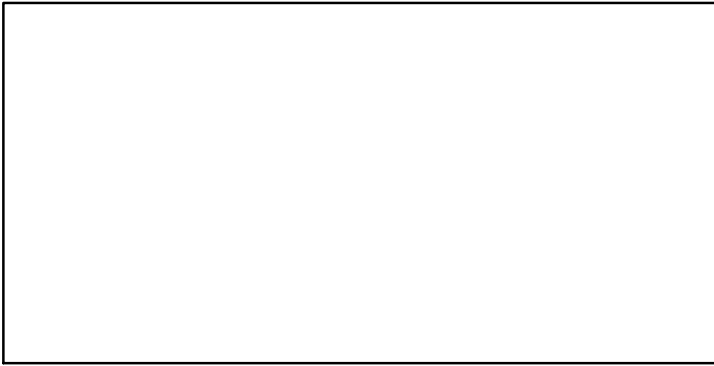
# Japanese Spanish mackerel Inland Sea of Japan [SPANMACKSETO]

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

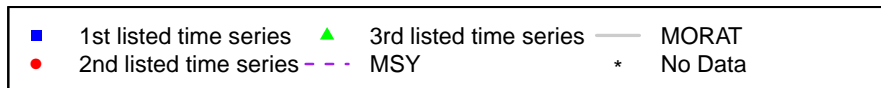
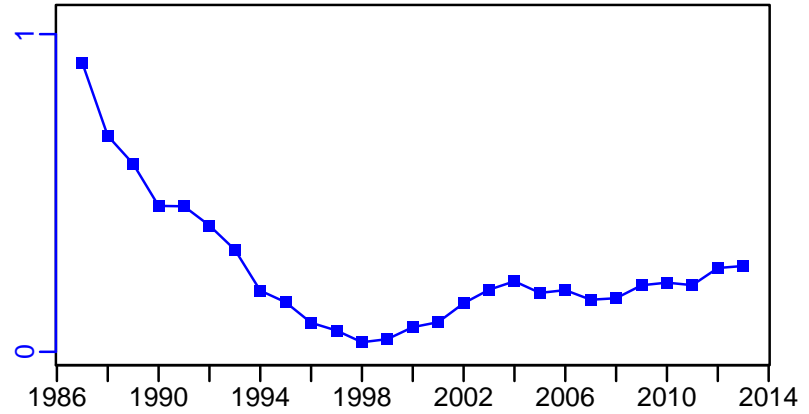
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1987-2013-JPNIMP2016)



## Spear squid Pacific Ocean [SPSQUIDPAC]

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



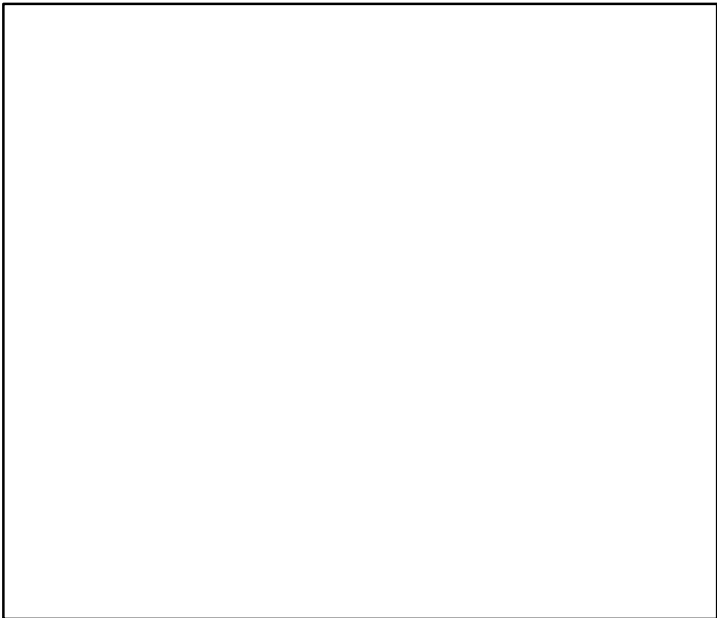
Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data

Spear squid Pacific Ocean [SPSQUIDPAC]

TB\*



SSB\*



TN \*



F\*



ER\*

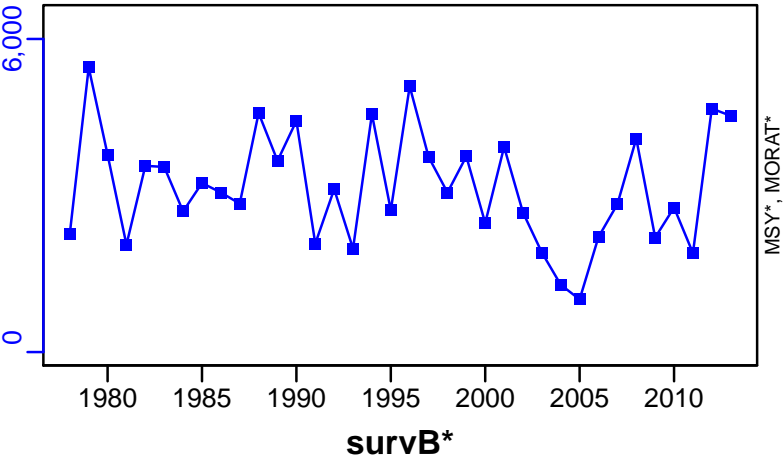


Recruits\*



Spear squid Pacific Ocean [SPSQUIDPAC]

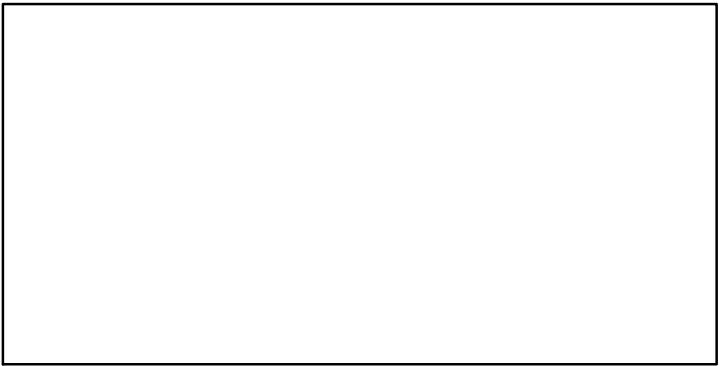
TC-MT, TL\*, RecC\* (1978-2013-JPNIMP2016)



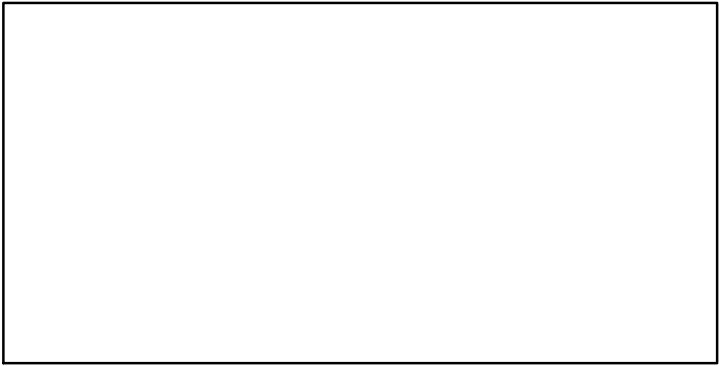
TAC\*, Cpair\*, Cadv\*



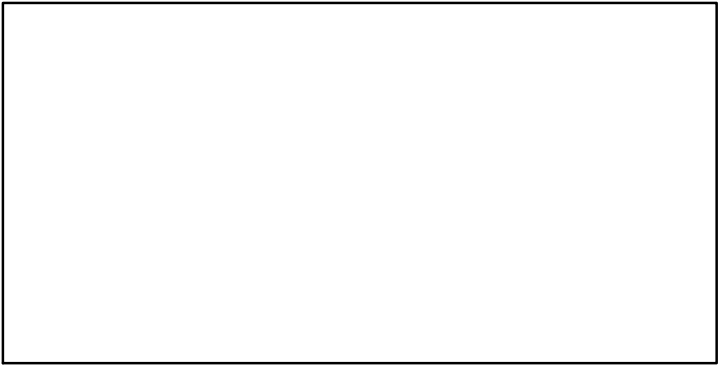
CPUE\*



EFFORT\*



CdivMSY\*



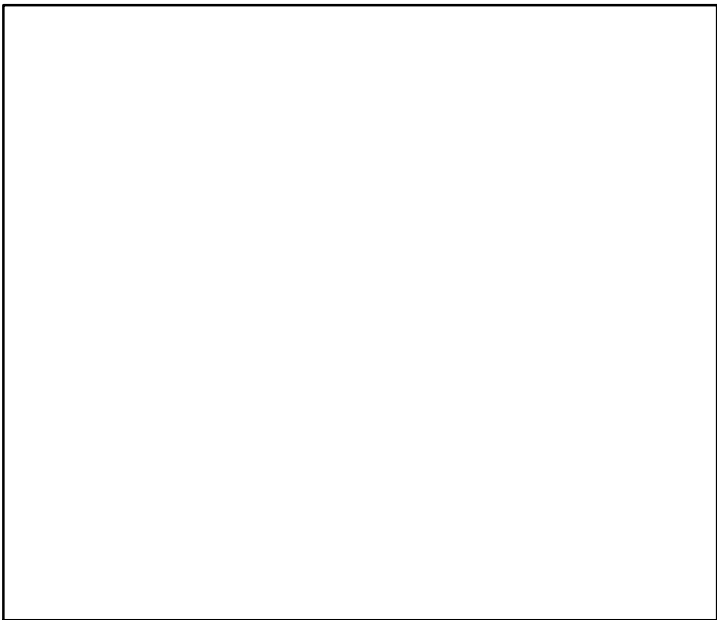
## Spear squid Tsushima warm current [SPSQUIDTSSTWC]

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

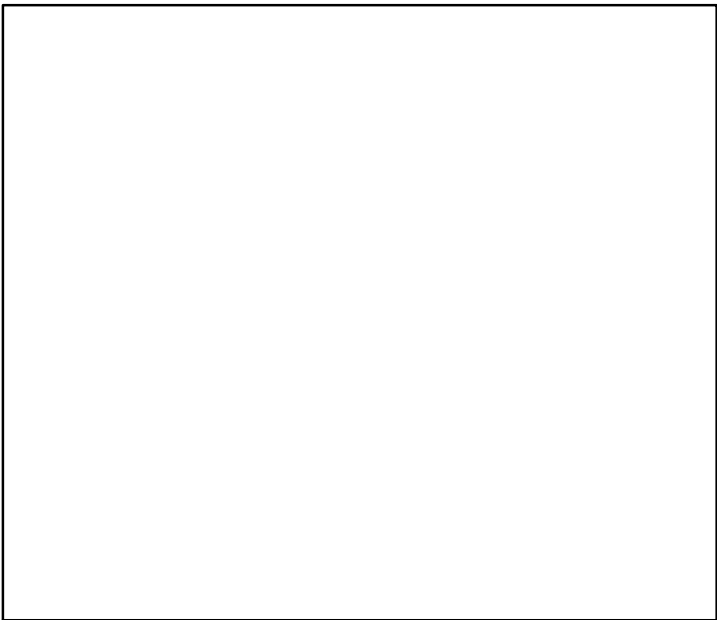
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

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	-	-	-		

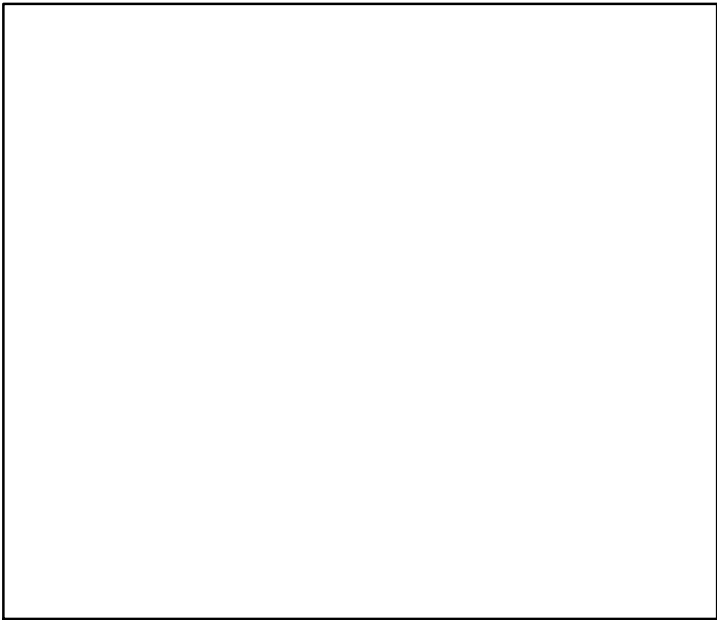
Kobe MSY\*



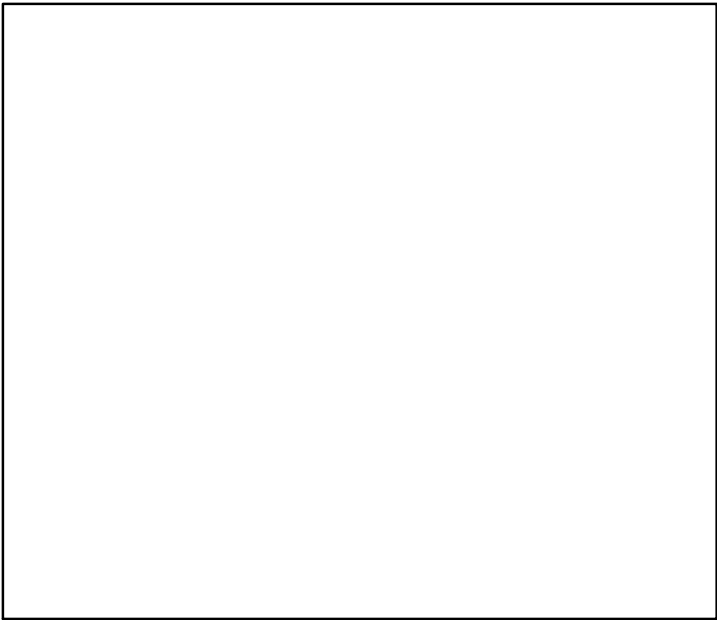
Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data

Spear squid Tsushima warm current [SPSQUIDTSSTWC]

TB\*



SSB\*



TN \*



F\*



ER\*



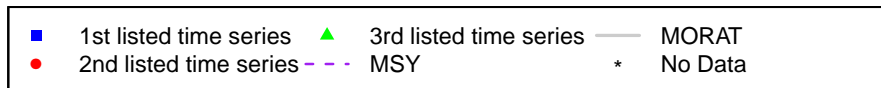
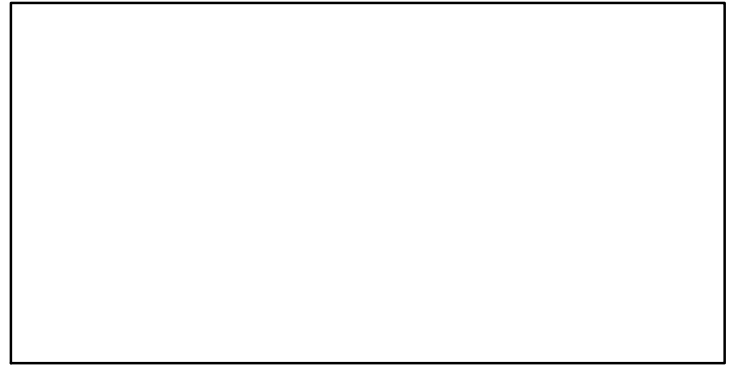
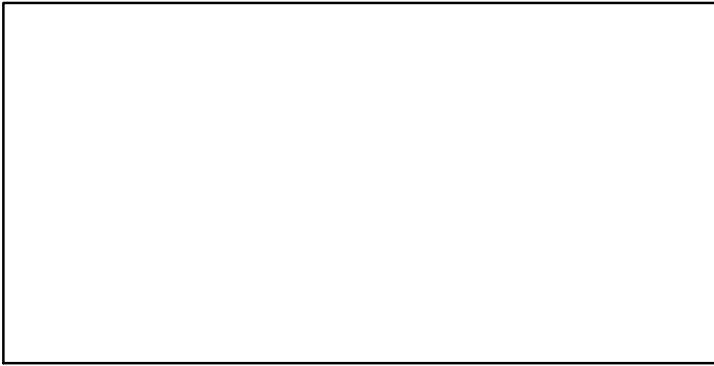
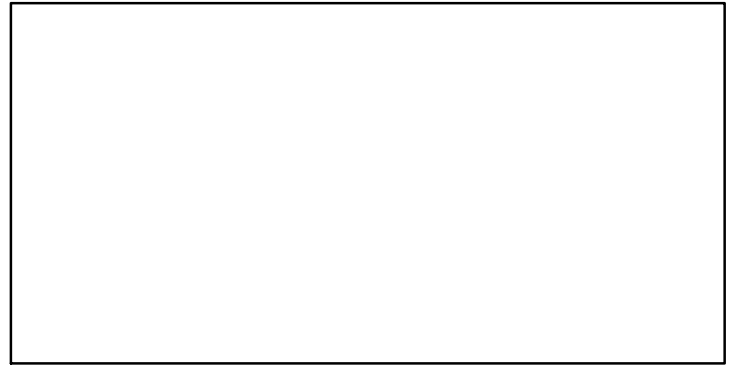
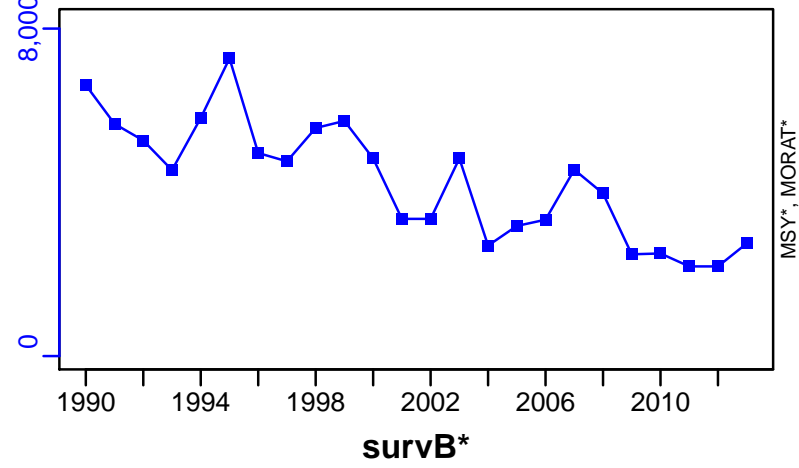
Recruits\*



# Spear squid Tsushima warm current [SPSQUIDTSSTWC]

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

TAC\*, Cpair\*, Cadv\*



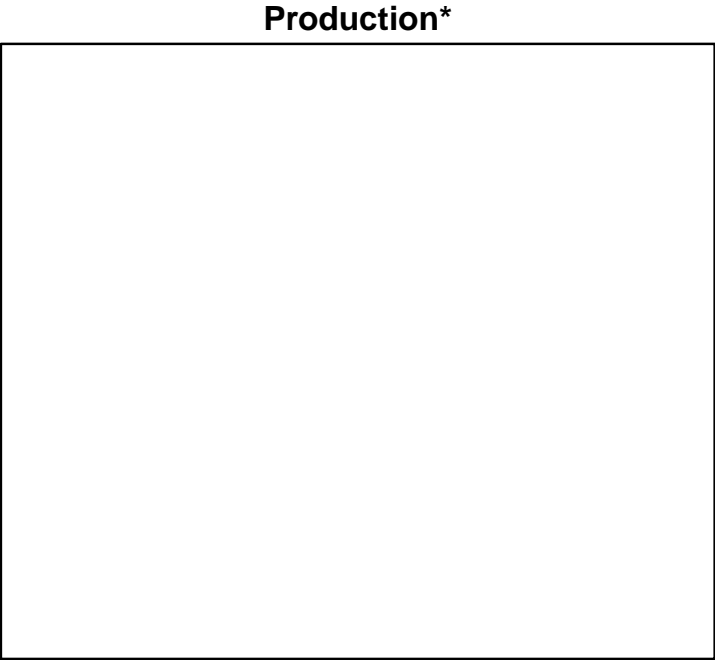
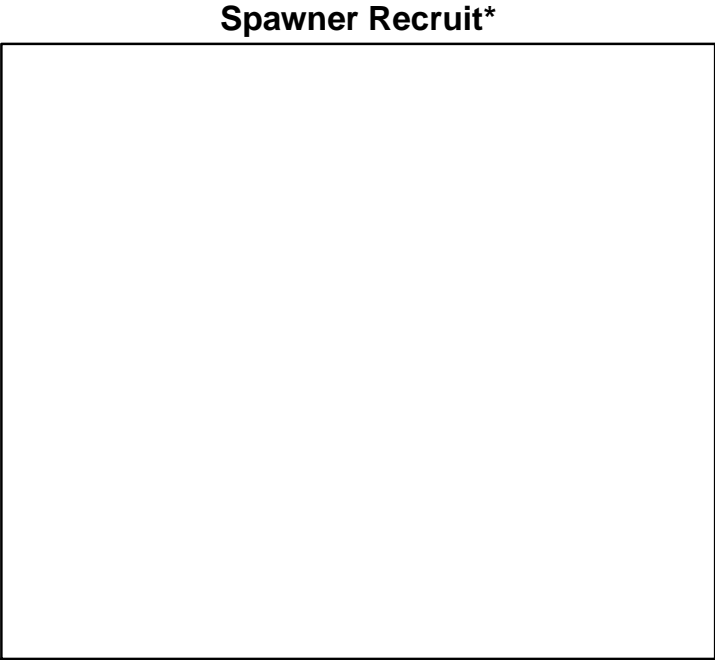
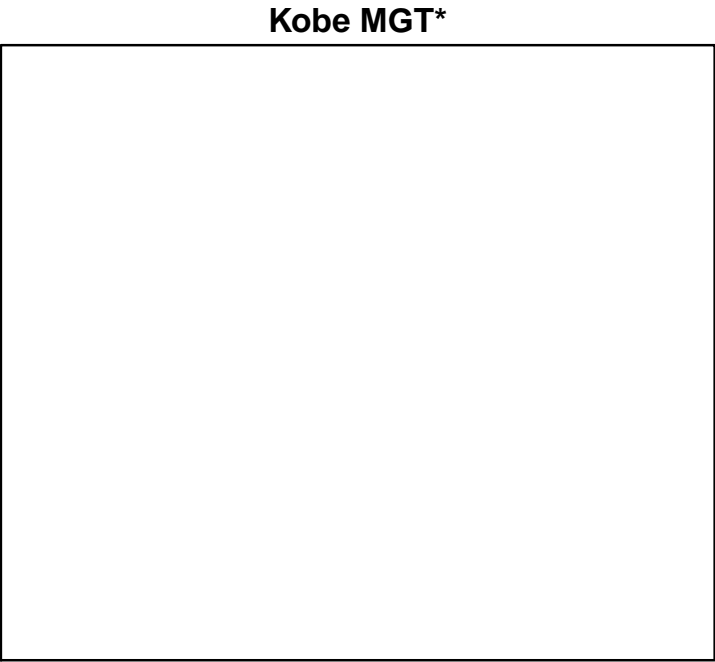
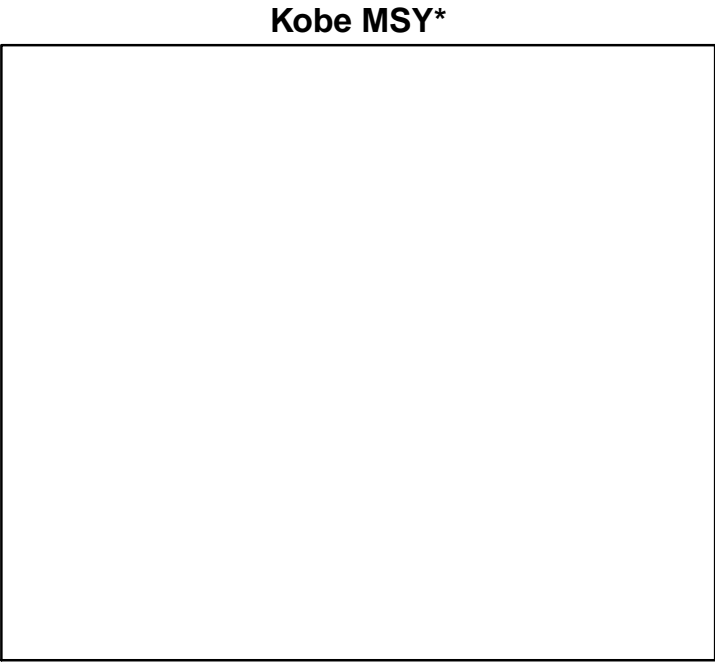
## Sailfin sandfish Sea of Japan North [SSANDNSJ]

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

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

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





◆ Start Year   ◆ End Year   \* No Data

TB\*



SSB\*



TN \*



F\*



ER\*

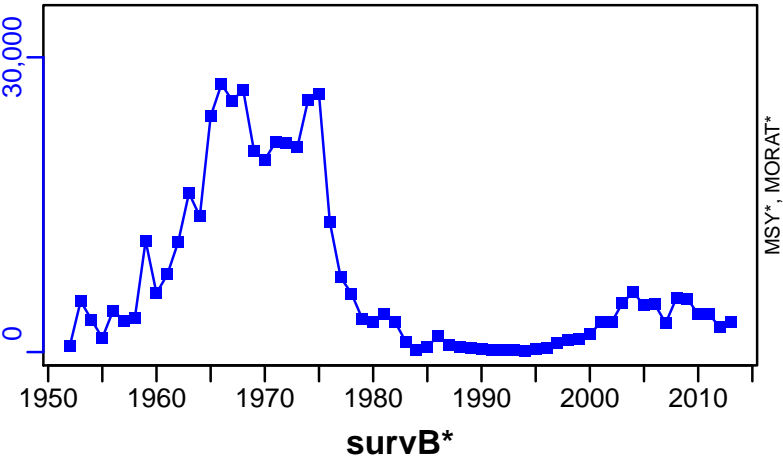


Recruits\*



Sailfin sandfish Sea of Japan North [SSANDNSJ]

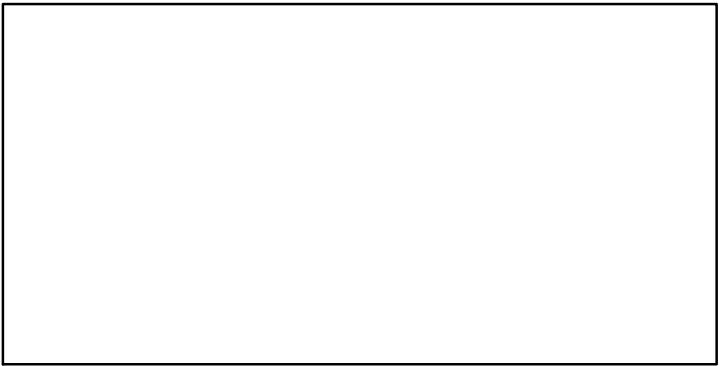
TC-MT, TL\*, RecC\* (1952-2013-JPNIMP2016)



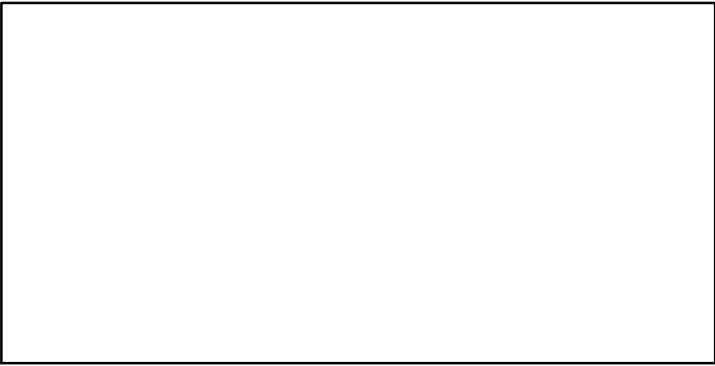
TAC\*, Cpair\*, Cadv\*



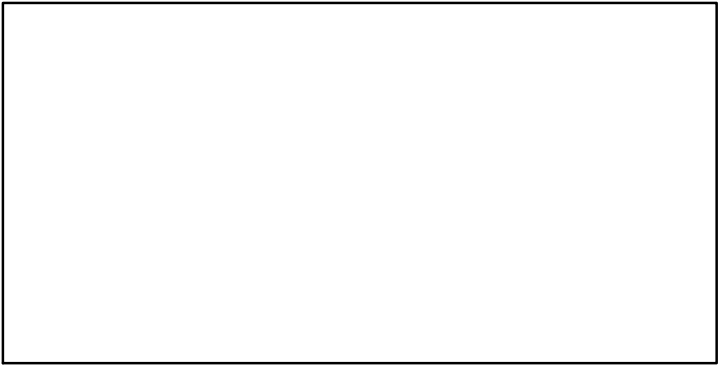
CPUE\*



EFFORT\*



CdivMSY\*



## Sailfin sandfish Sea of Japan West [SSANDWSJ]

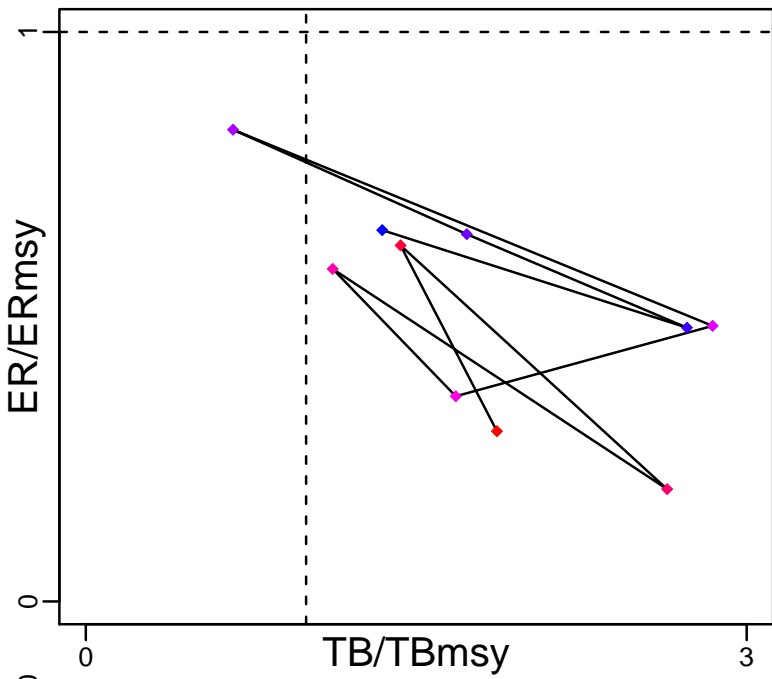
Metadata	
<b>Scientific Name</b>	Arctoscopus japonicus
<b>Current Assess ID</b>	FAFRFJ-SSANDWSJ-1970-2013-JPNIMP2016
<b>Area</b>	Sea of Japan West
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>	2013

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

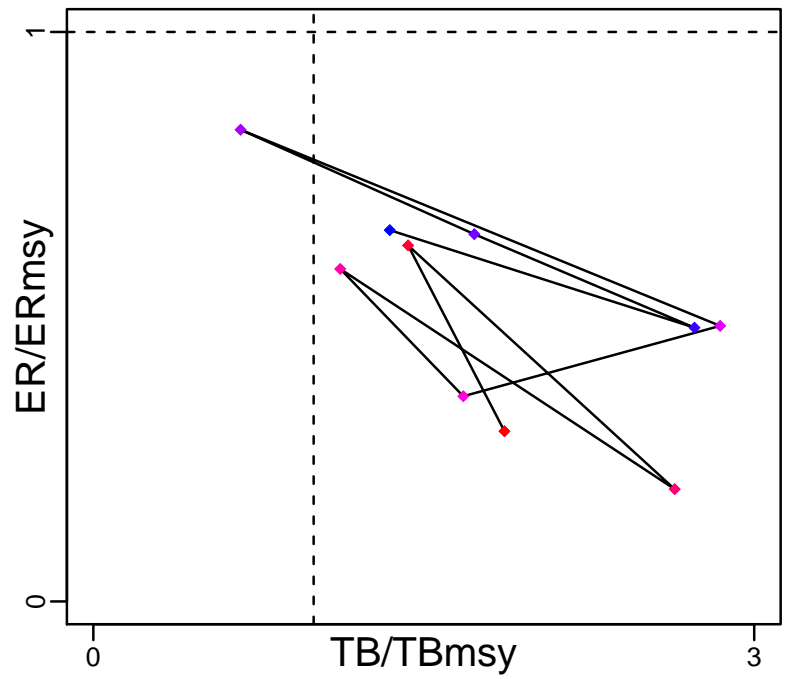
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	24,700	-	1
<b>SSB</b>	SSB-MT	2013	7850	Both	2
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	$5.76 \times 10^8$	-	1
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0.151	-	-
<b>TC</b>	TC-MT	2013	3730		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2013	1.866		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	0.299		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Sailfin sandfish Sea of Japan West [SSANDWSJ]

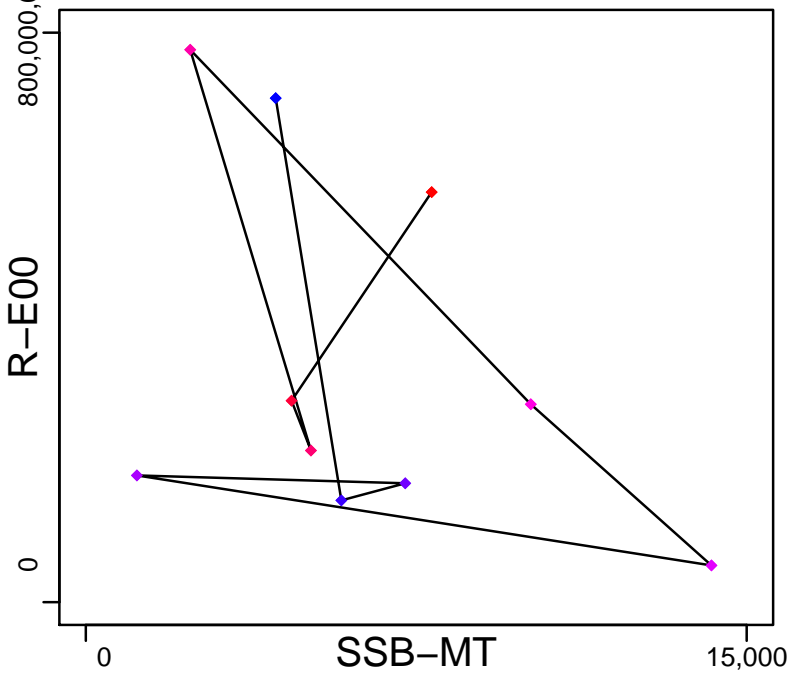
Kobe MSYpref (1970–2013–JPNIMP2016)



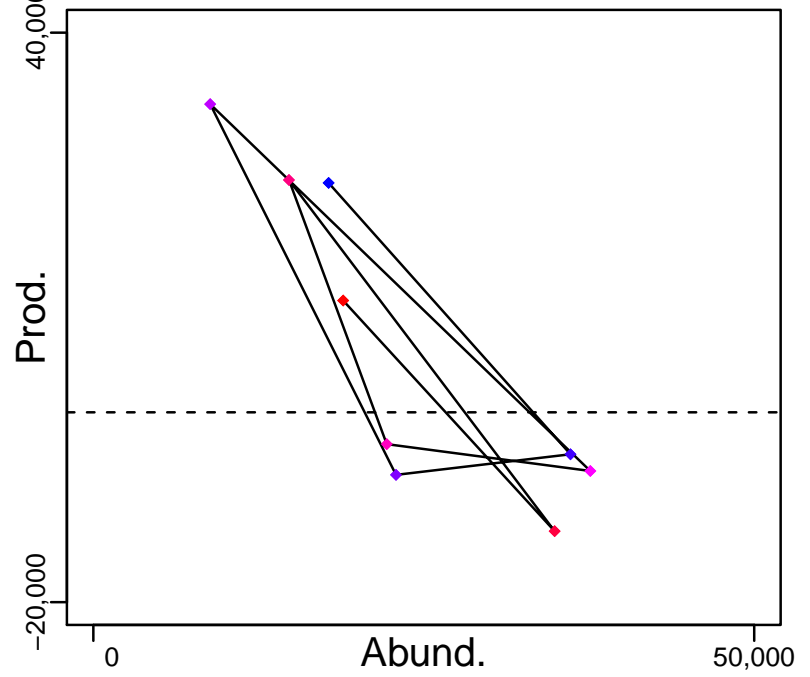
Kobe MGTpref (1970–2013–JPNIMP2016)



Spawner Recruit (1970–2013–JPNIMP2016)



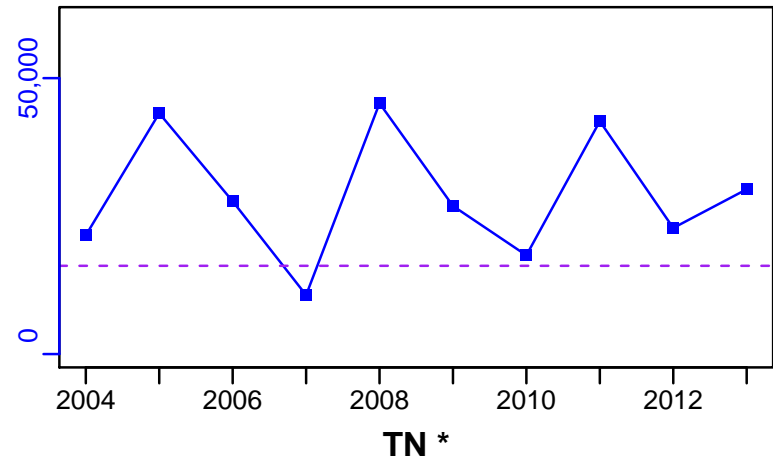
Production (1970–2013–JPNIMP2016)



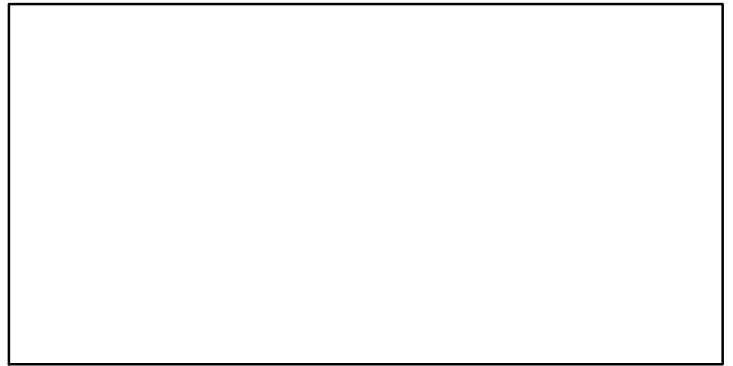
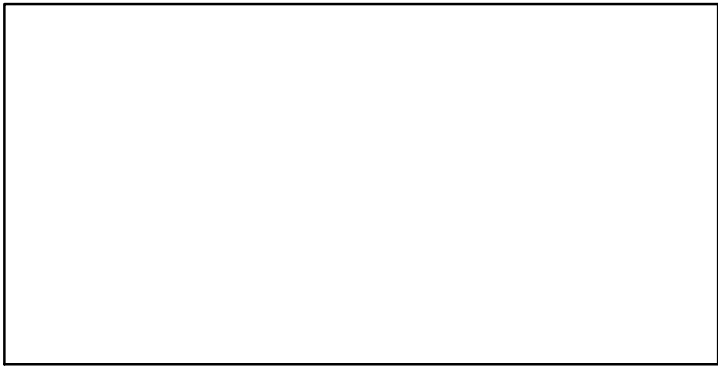
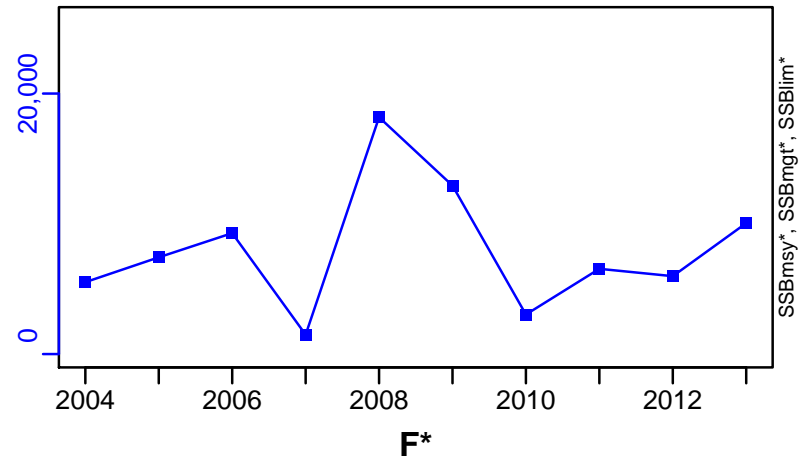
◆ Start Year ◆ End Year \* No Data

# Sailfin sandfish Sea of Japan West [SSANDWSJ]

TB-MT (1970-2013-JPNIMP2016)



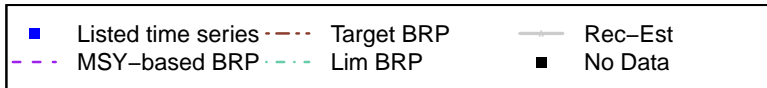
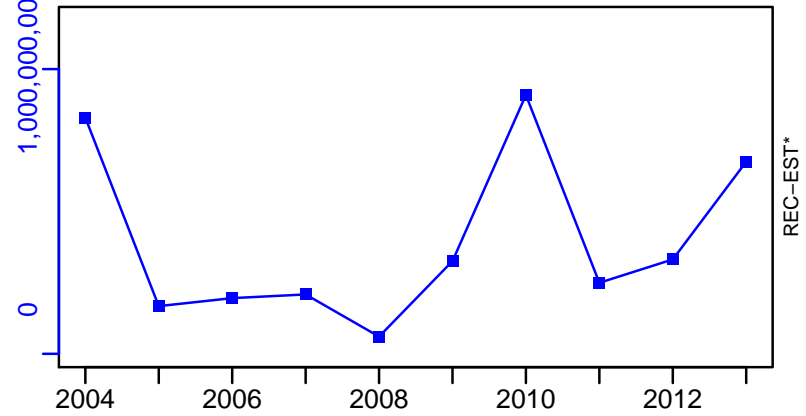
SSB-MT (1970-2013-JPNIMP2016)



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



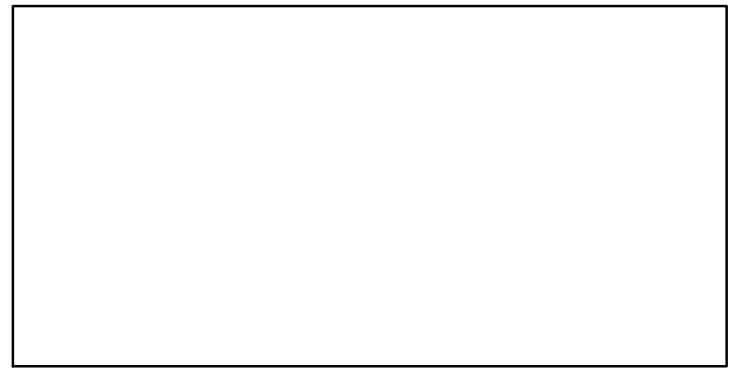
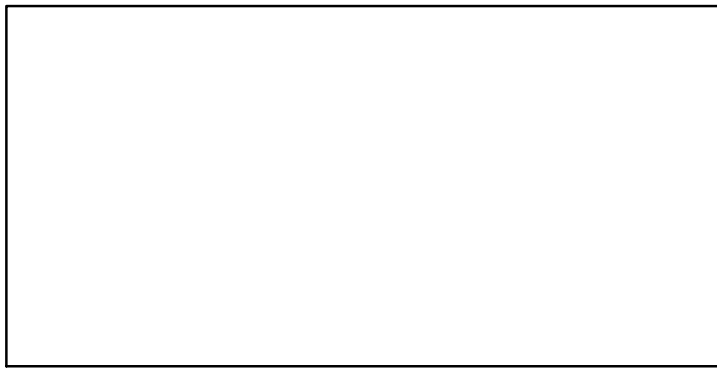
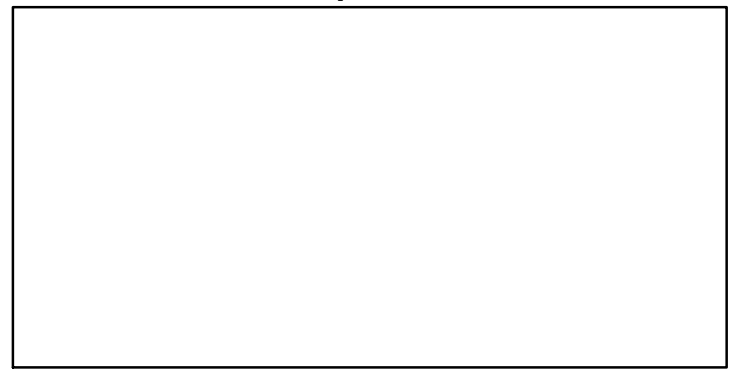
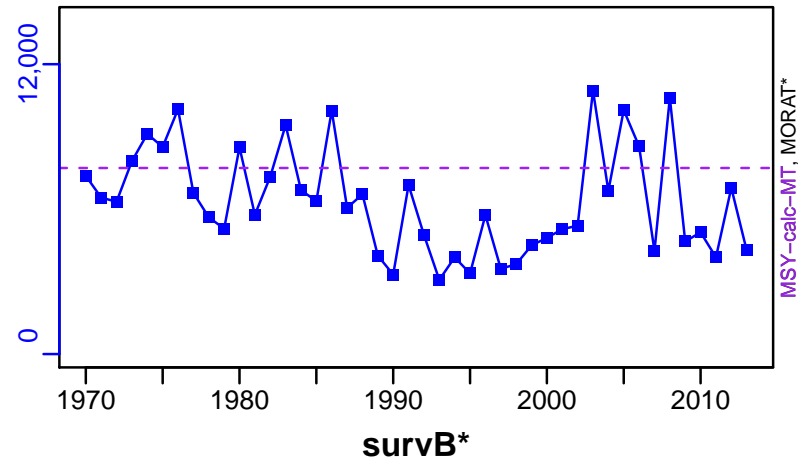
R-E00 (1970-2013-JPNIMP2016)



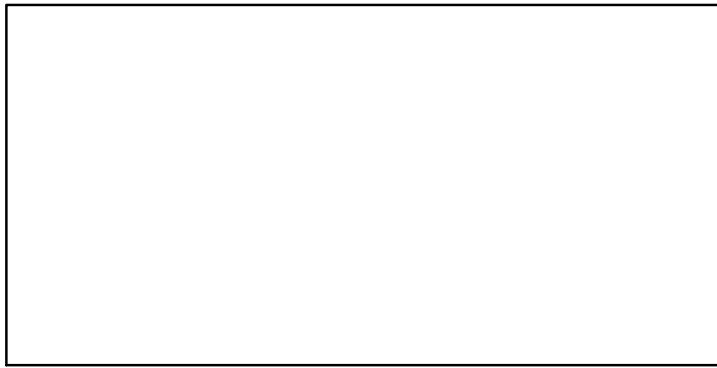
# Sailfin sandfish Sea of Japan West [SSANDWSJ]

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

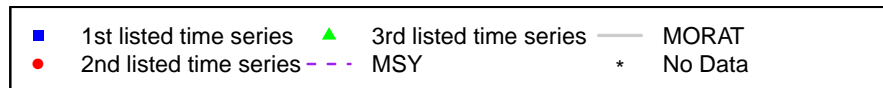
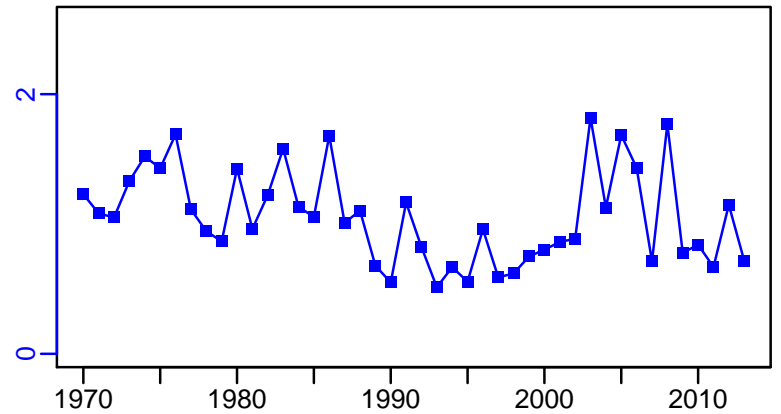
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1970–2013–JPNIMP2016)



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

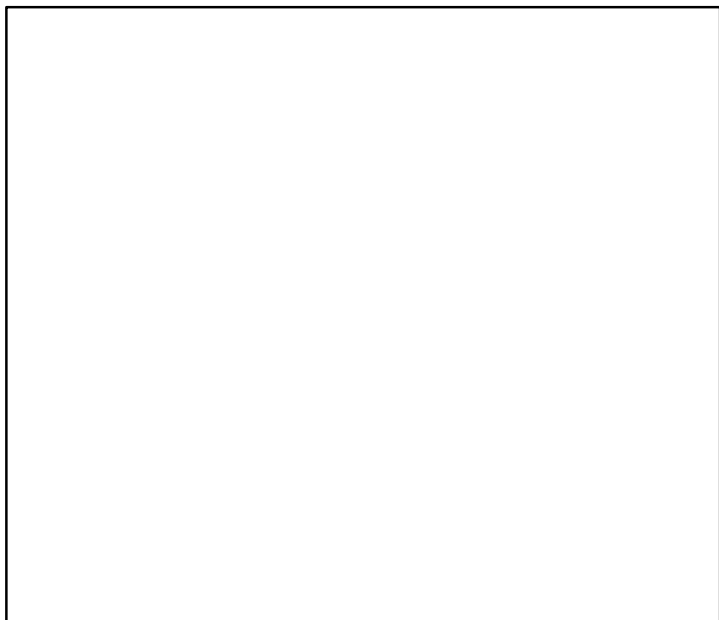
Metadata	
<b>Scientific Name</b>	Uroteuthis edulis
<b>Current Assess ID</b>	FAFRFJ-STSQUIDSOJECS-1988-2013-JPNIMP2016
<b>Area</b>	Sea of Japan and East China Sea
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM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

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

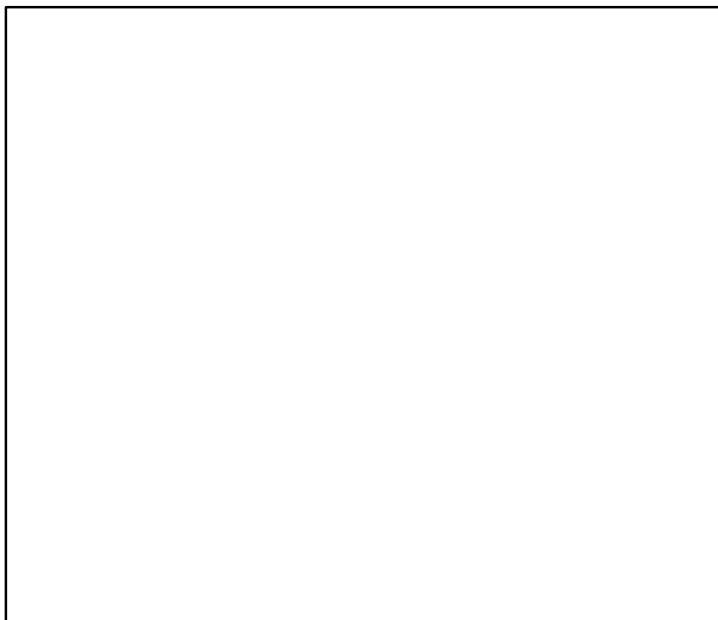
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2013	9220		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



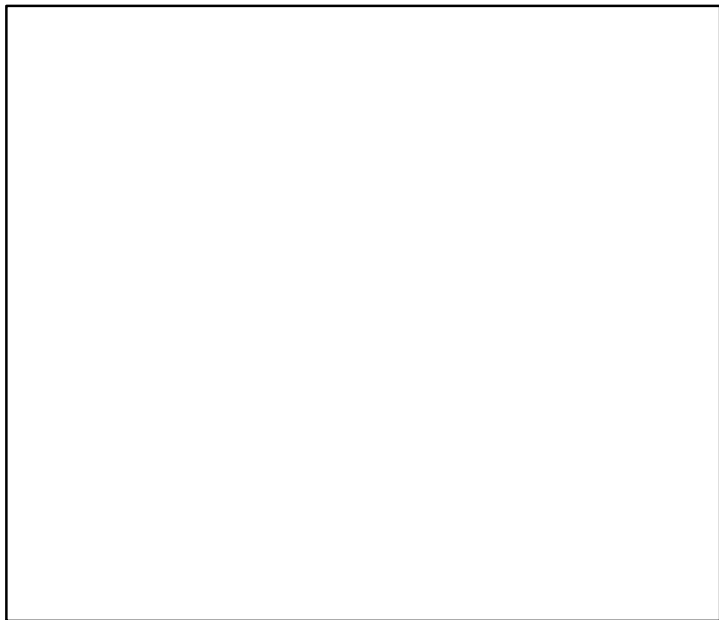
**Kobe MSY\***



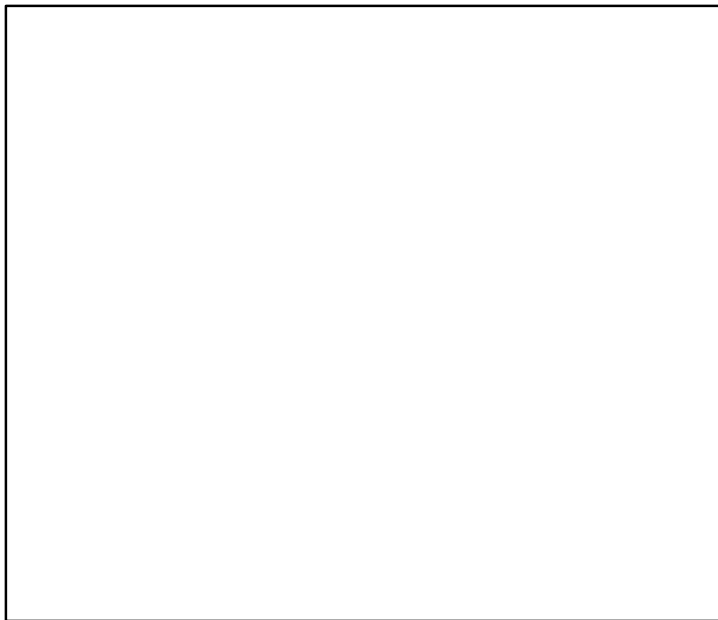
**Kobe MGT\***



**Spawner Recruit\***



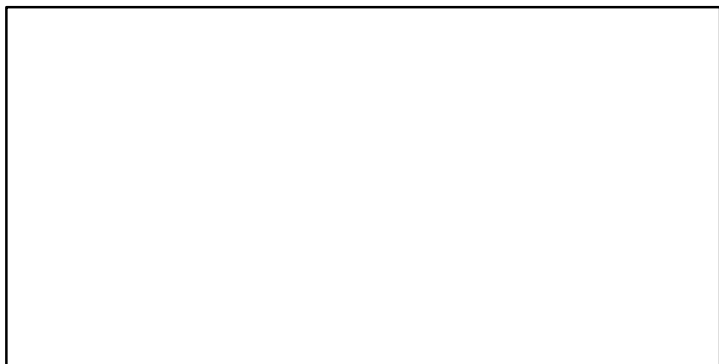
**Production\***



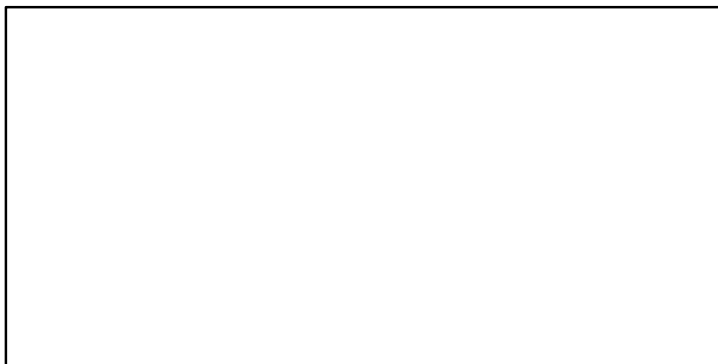
◆ Start Year ◆ End Year \* No Data

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

**TB\***



**SSB\***



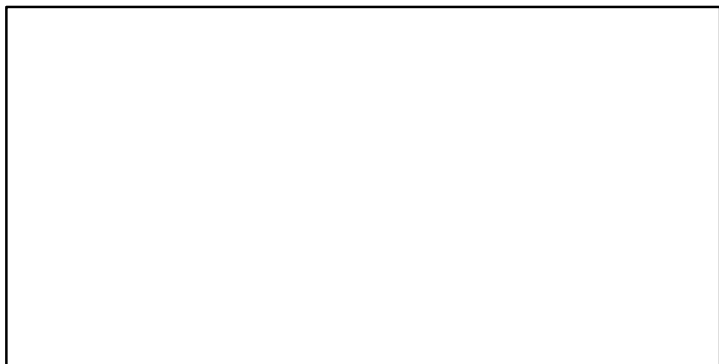
**TN \***



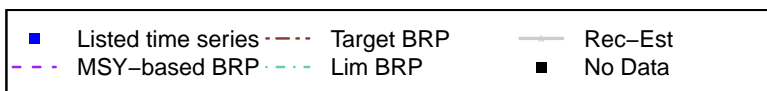
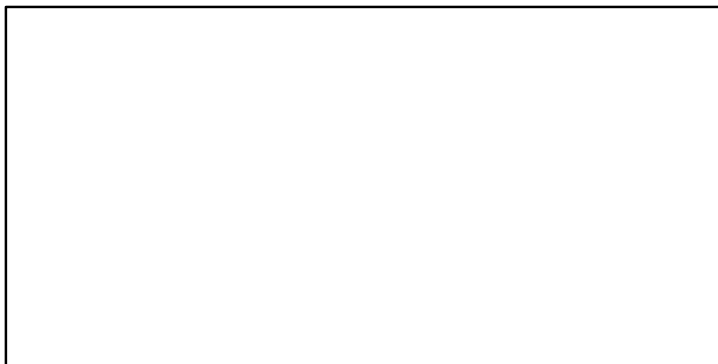
**F\***



**ER\***



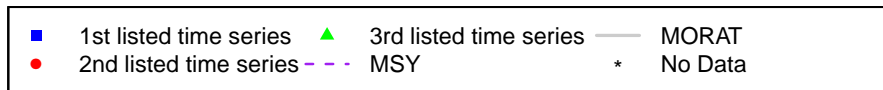
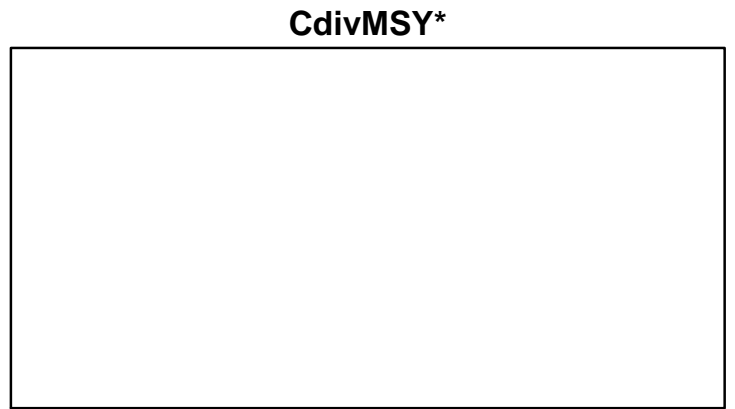
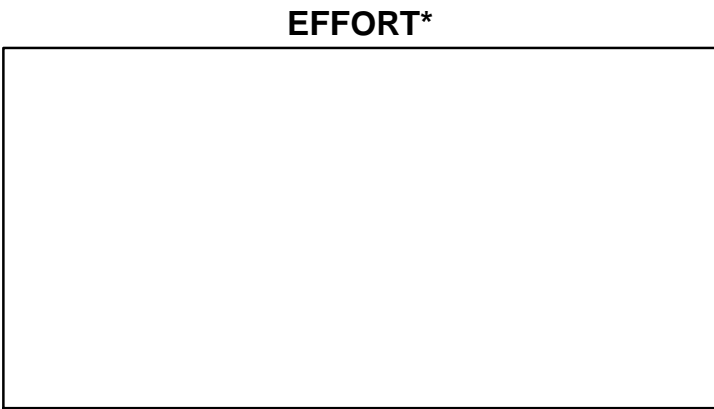
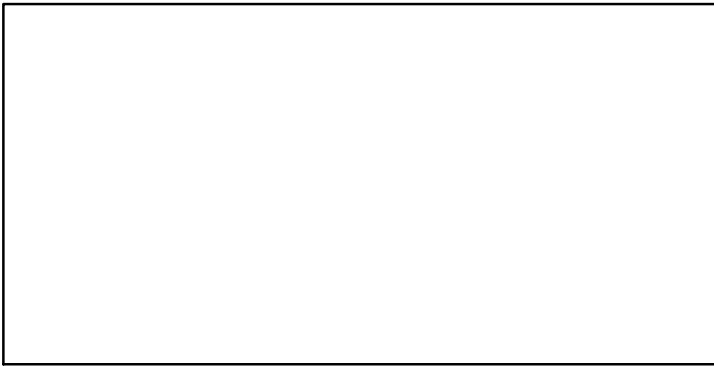
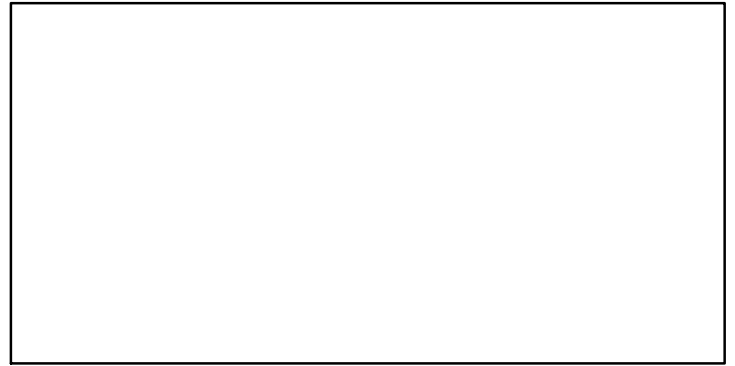
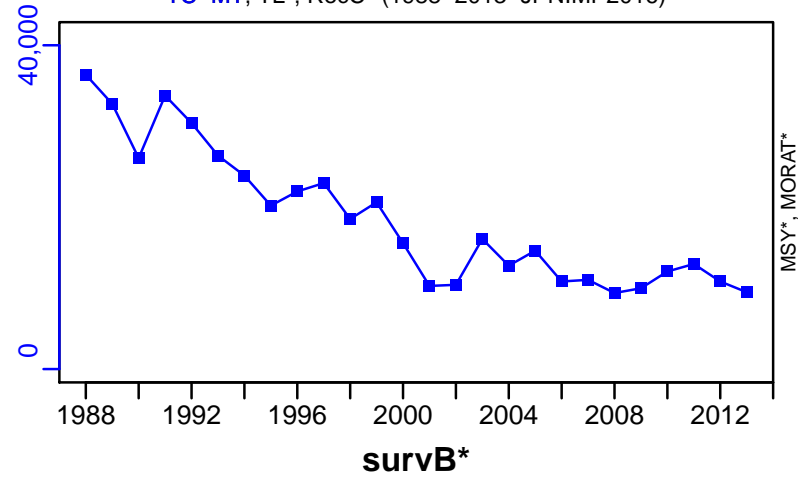
**Recruits\***



# 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]

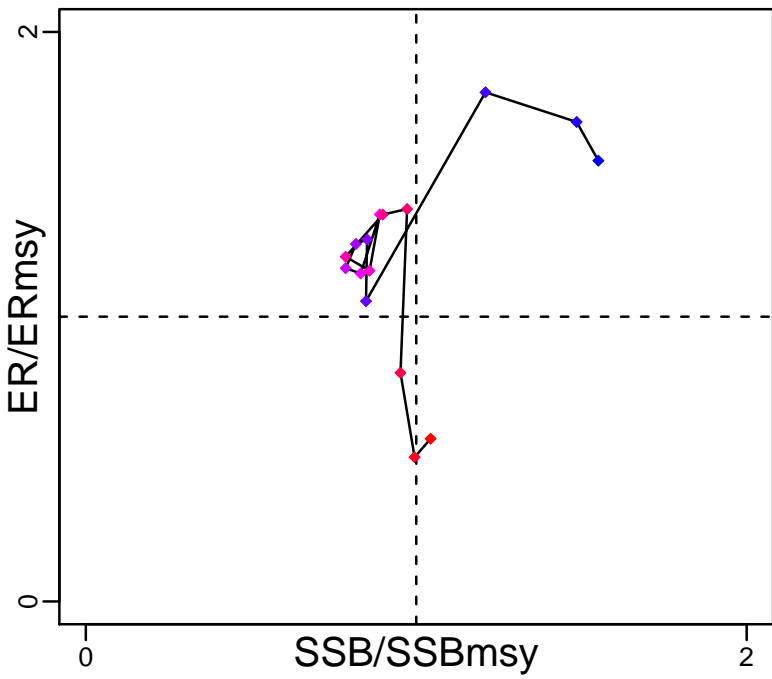
Metadata	
<b>Scientific Name</b>	Tanakius kitaharae
<b>Current Assess ID</b>	FAFRFJ-WLFLOUNNPAC-1997-2013-JPNIMP2016
<b>Area</b>	North Pacific
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>	2013

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

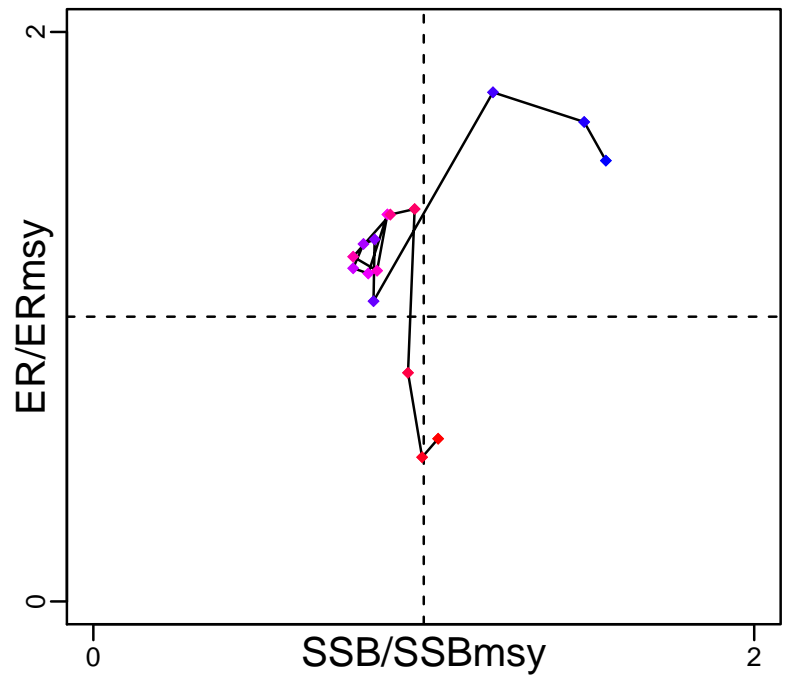
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	673	-	1
<b>SSB</b>	SSB-MT	2013	559	Both	3
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	2,270,000	-	1
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0.119	-	-
<b>TC</b>	TC-MT	2013	80		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2013	0.968		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	1.044		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	0.571		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Willowy flounder North Pacific [WLFLOUNNPAC]

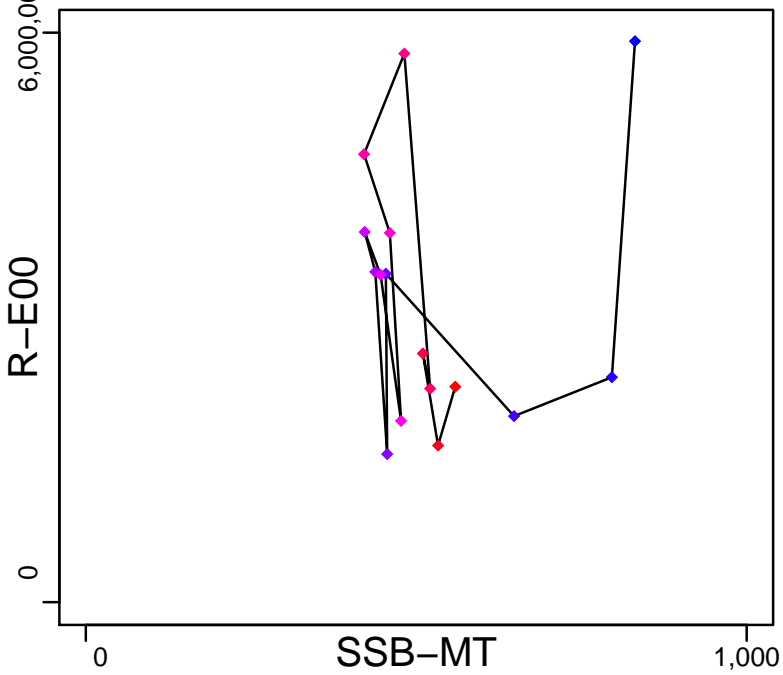
Kobe MSYpref (1997–2013–JPNIMP2016)



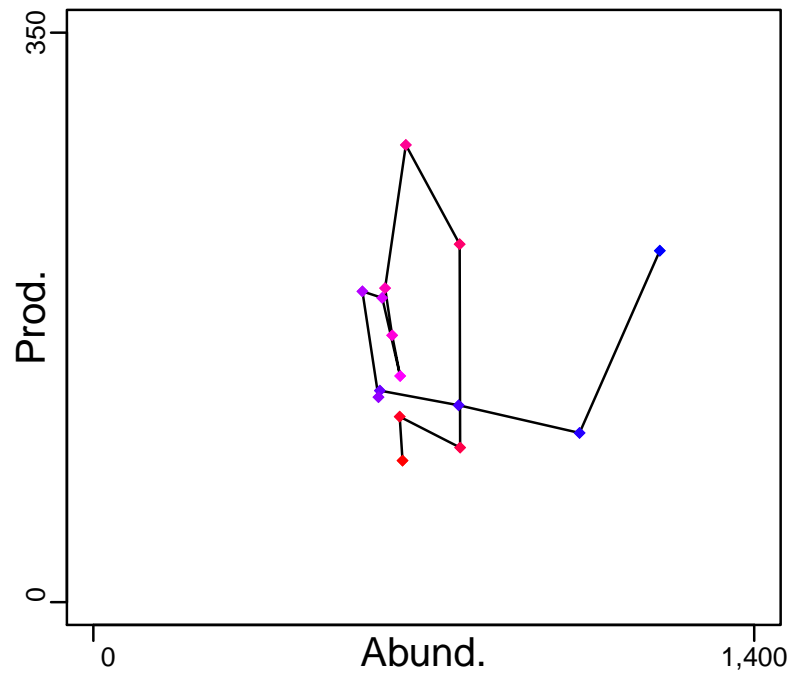
Kobe MGTpref (1997–2013–JPNIMP2016)



Spawner Recruit (1997–2013–JPNIMP2016)



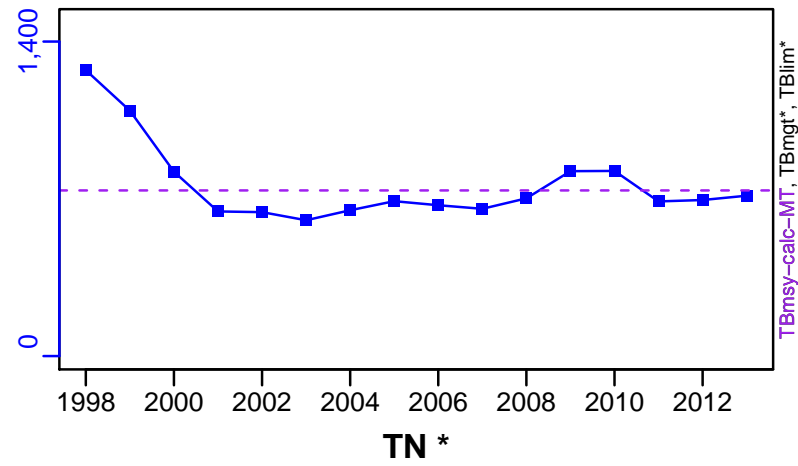
Production (1997–2013–JPNIMP2016)



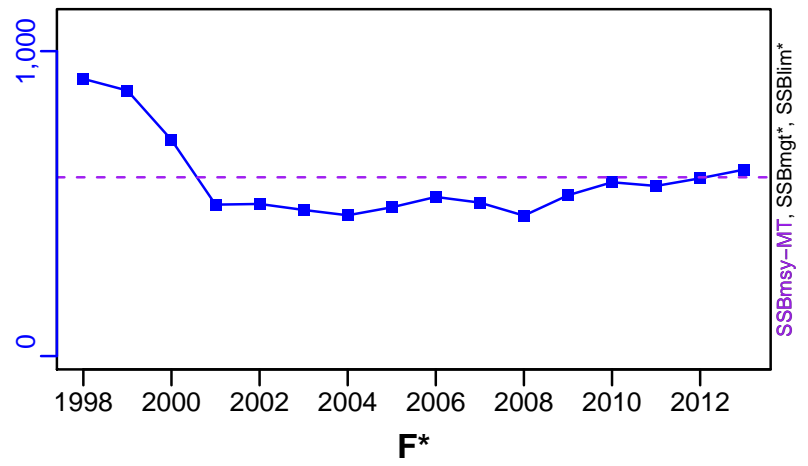
◆ Start Year ◆ End Year \* No Data

# Willowy flounder North Pacific [WLFLOUNNPAC]

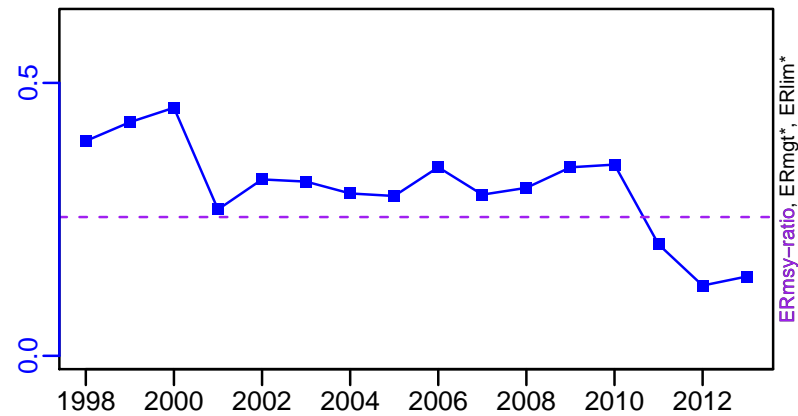
TB-MT (1997-2013-JPNIMP2016)



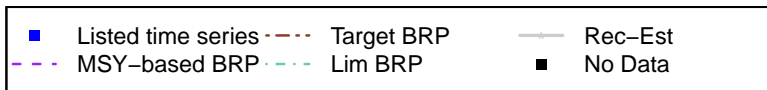
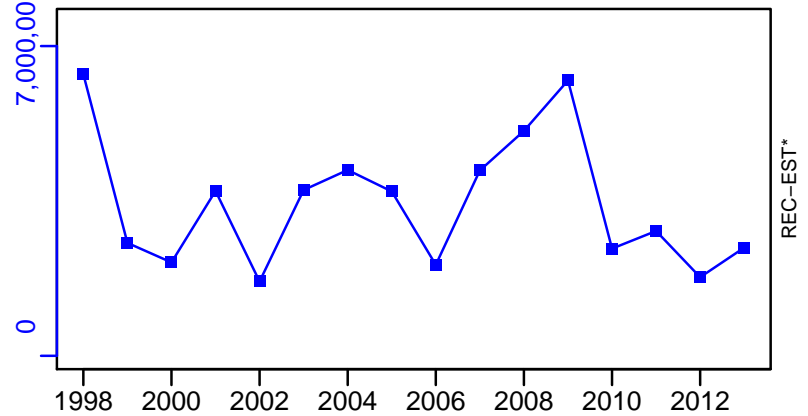
SSB-MT (1997-2013-JPNIMP2016)



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

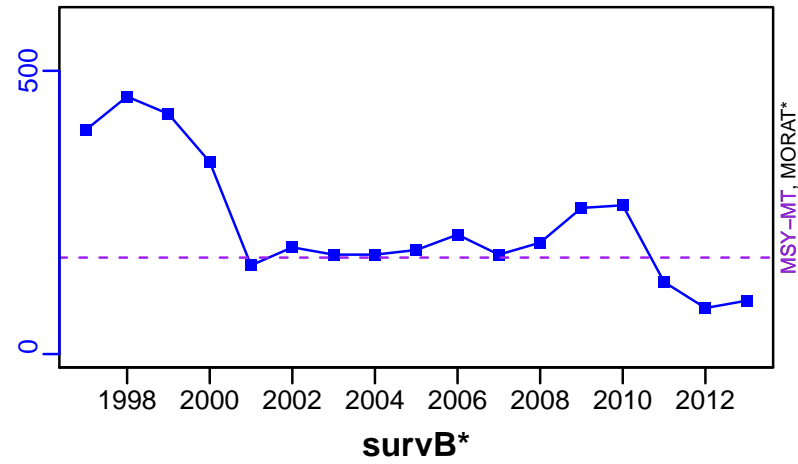


R-E00 (1997-2013-JPNIMP2016)

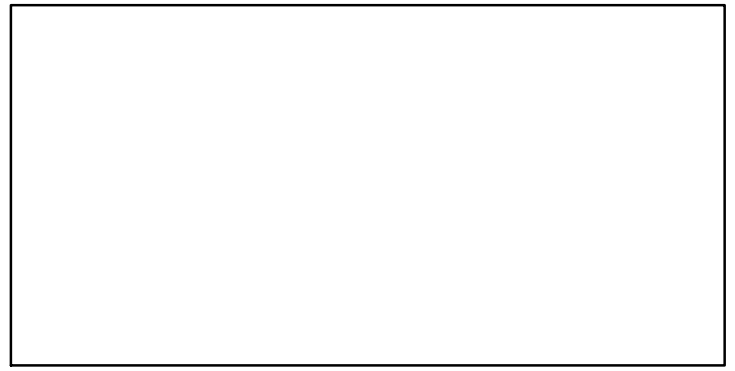


# Willowy flounder North Pacific [WLFLOUNNPAC]

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



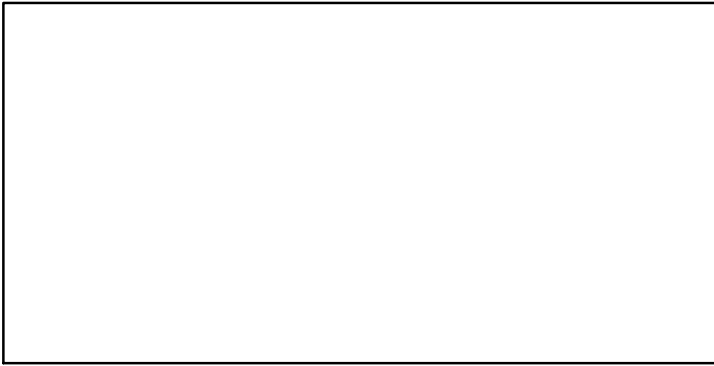
TAC\*, Cpair\*, Cadv\*



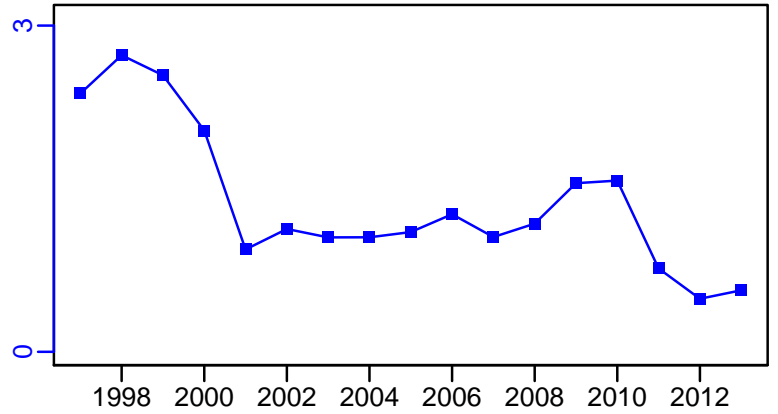
CPUE\*



EFFORT\*



CdivMSY-ratio (1997-2013-JPNIMP2016)



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

## Walleye Pollock Navarinsky [WPOLLNAVAR]

Metadata	
<b>Scientific Name</b>	Theragra chalcogramma
<b>Current Assess ID</b>	VNIRO-WPOLLNAVAR-1984-2015-ASHBROOK
<b>Area</b>	Navarinsky
<b>Management Authority</b>	Russian Federal Fisheries Agency, Russia national management
<b>Assessor</b>	Russian Federal Research Institute of Fisheries and Oceanography
<b>Asmts in RAM</b>	2015, 2004

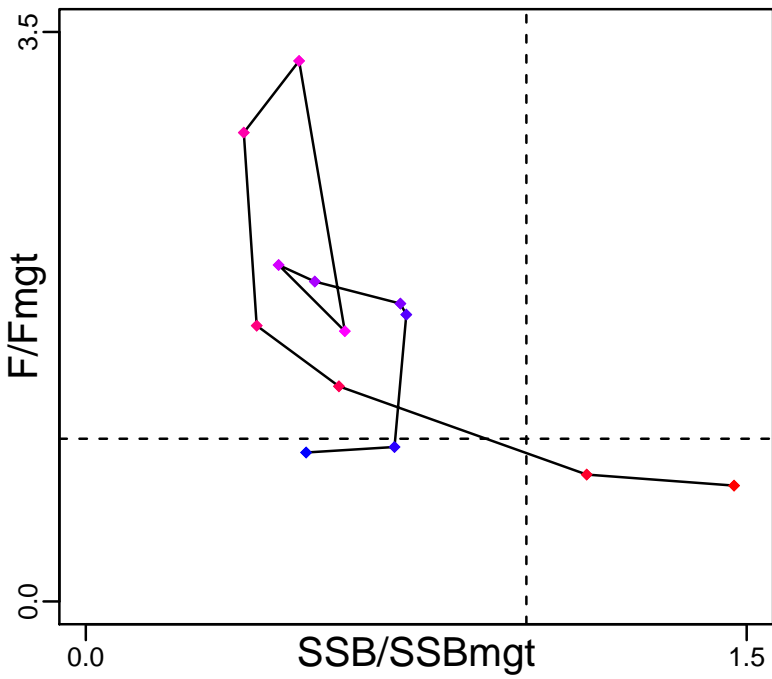
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-MT	2004	1,570,000
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	Fmsy-1/yr	2004	0.235
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2015	1,570,000
<b>Fmgt</b>	Fmgt-1/yr	2015	0.295
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2004	1,600,000	-	2+
<b>SSB</b>	SSB-MT	2015	1,910,000	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	F-1/yr	2015	0.21	-	2-10+
<b>ER</b>	ER-ratio	2004	0.237	-	-
<b>TC</b>	TC-MT	2004	380,000		
<b>TL</b>	TL-MT	2015	310,000		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2004	1.019		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2004	1.064		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2015	1.219		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2015	0.712		
<b>ER/ERmgt</b>	-	-	-		

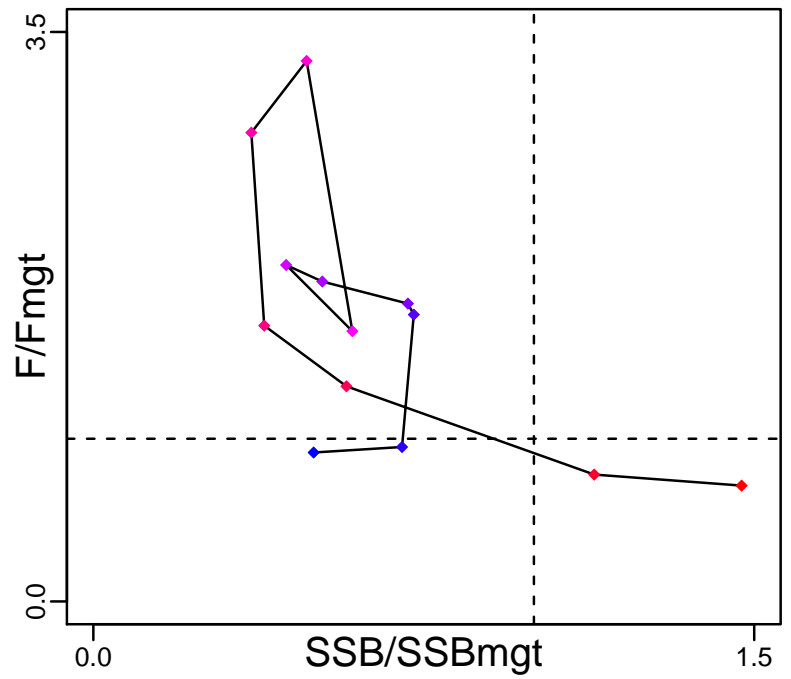


# Walleye Pollock Navarinsky [WPOLLNAVAR]

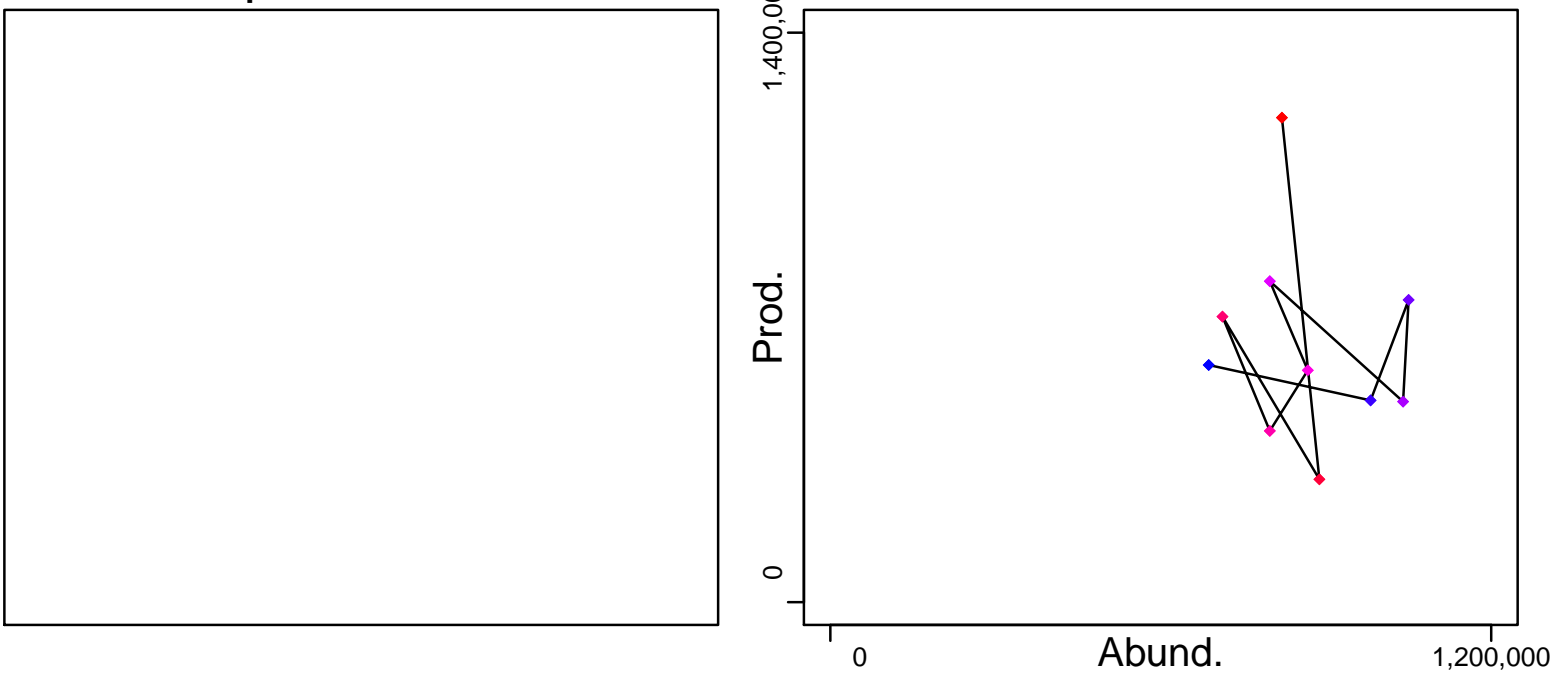
Kobe MSYpref (1984–2015–ASHBROOK)



Kobe MGTpref (1984–2015–ASHBROOK)



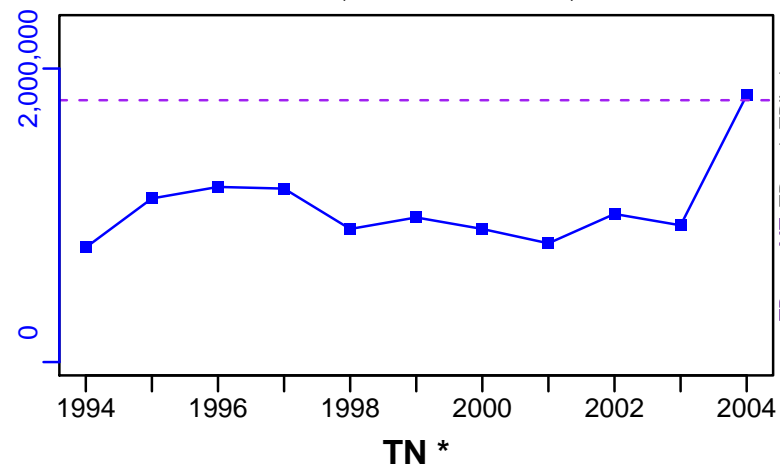
Production (1994–2004–JENSEN)



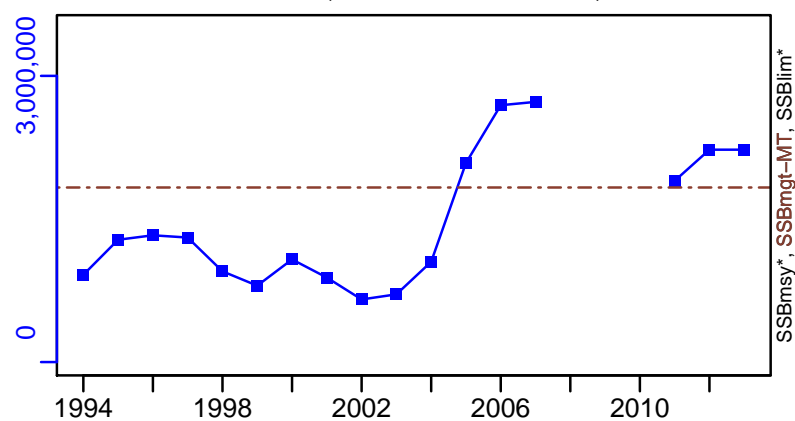
◆ Start Year ◆ End Year \* No Data

# Walleye Pollock Navarinsky [WPOLLNAVAR]

TB-MT (1994-2004-JENSEN)

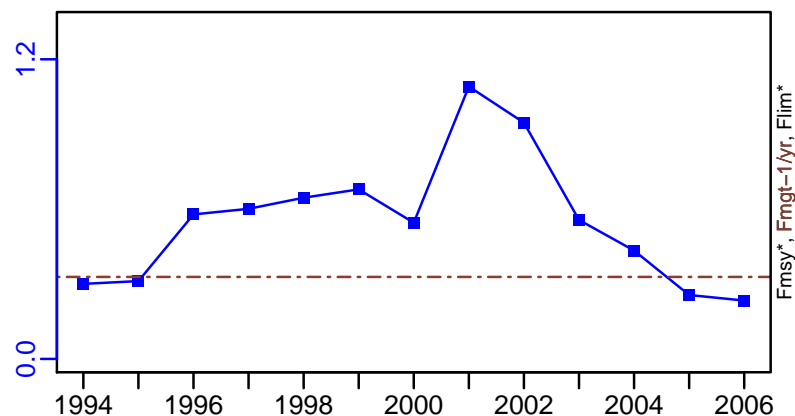


SSB-MT (1984-2015-ASHBROOK)



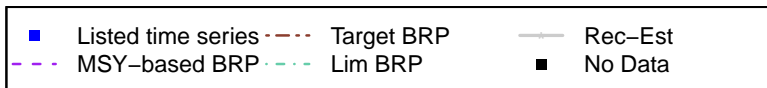
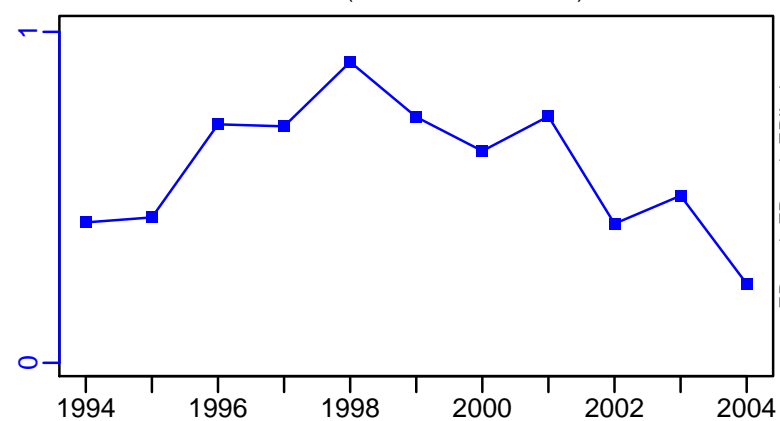
TN \*

F-1/yr (1984-2015-ASHBROOK)



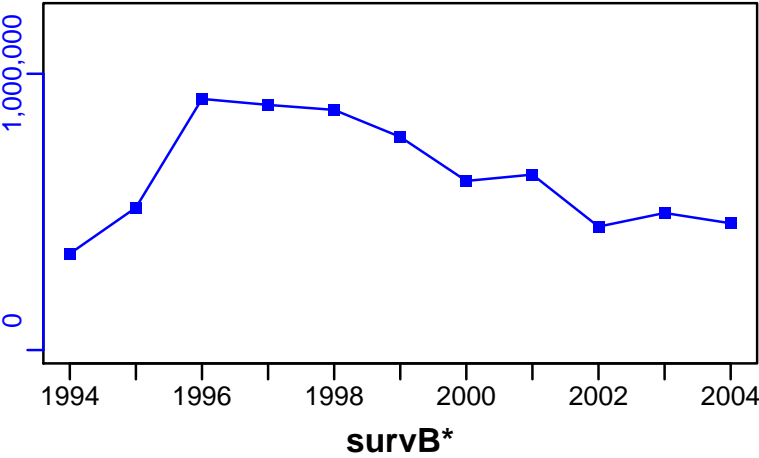
Recruits\*

ER-ratio (1994-2004-JENSEN)

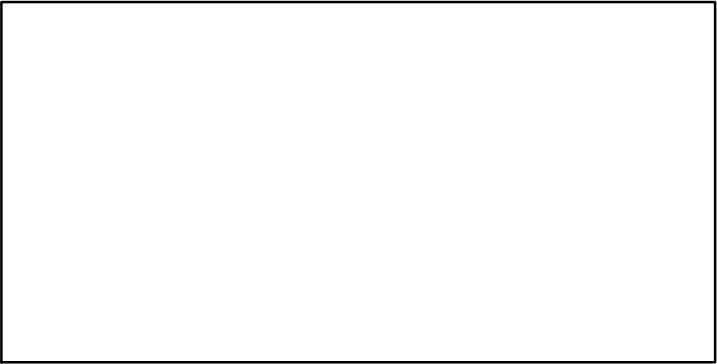
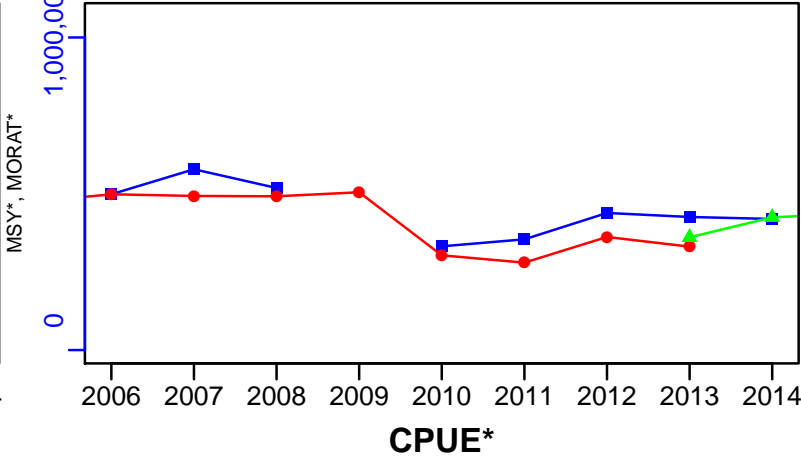


Walleye Pollock Navarinsky [WPOLLNAVAR]

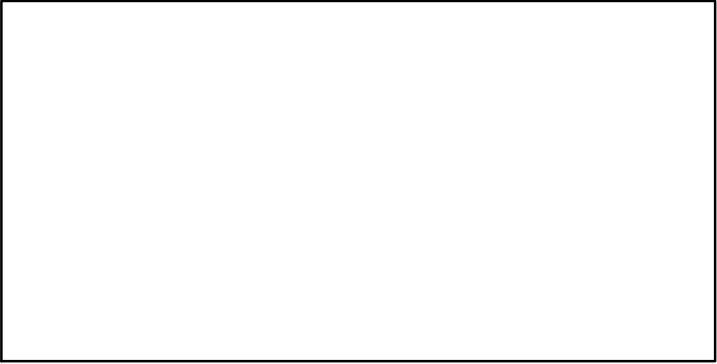
TC-MT, TL\*, RecC\* (1994-2004-JENSEN)



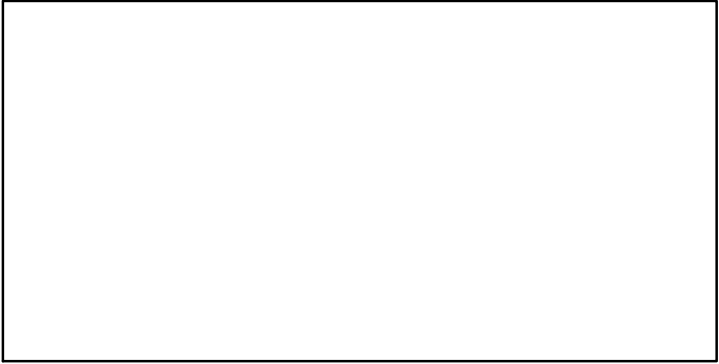
TAC-MT, Cpair-MT, Cadvised-MT (1984-2015-ASHBROOK)



EFFORT\*



CdivMSY\*



## Walleye pollock Northern Sea of Okhotsk [WPOLLNSO]

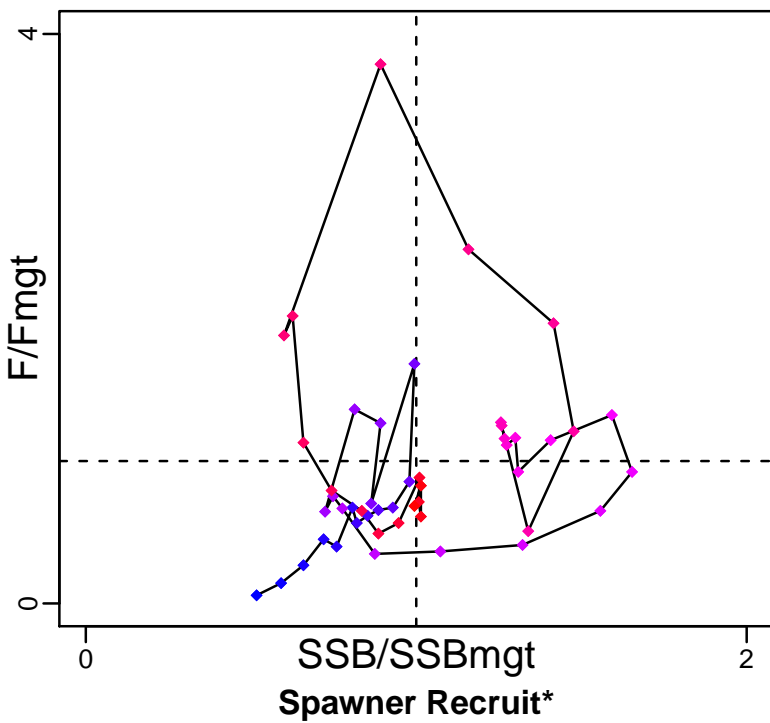
Metadata	
<b>Scientific Name</b>	Theragra chalcogramma
<b>Current Assess ID</b>	VNIRO-WPOLLNSO-1963-2017-ASHBROOK
<b>Area</b>	Northern Sea of Okhotsk
<b>Management Authority</b>	Russian Federal Fisheries Agency, Russia national management
<b>Assessor</b>	Russian Federal Research Institute of Fisheries and Oceanography
<b>Asmts in RAM</b>	2012, 2017

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-MT	2012	5,100,000
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	Fmsy-1/yr	2012	0.295
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2017	5,089,000
<b>Fmgt</b>	Fmgt-1/yr	2017	0.235
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2017	966,700
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	Flim-1/yr	2017	0.305
<b>ERlim</b>	-	-	-

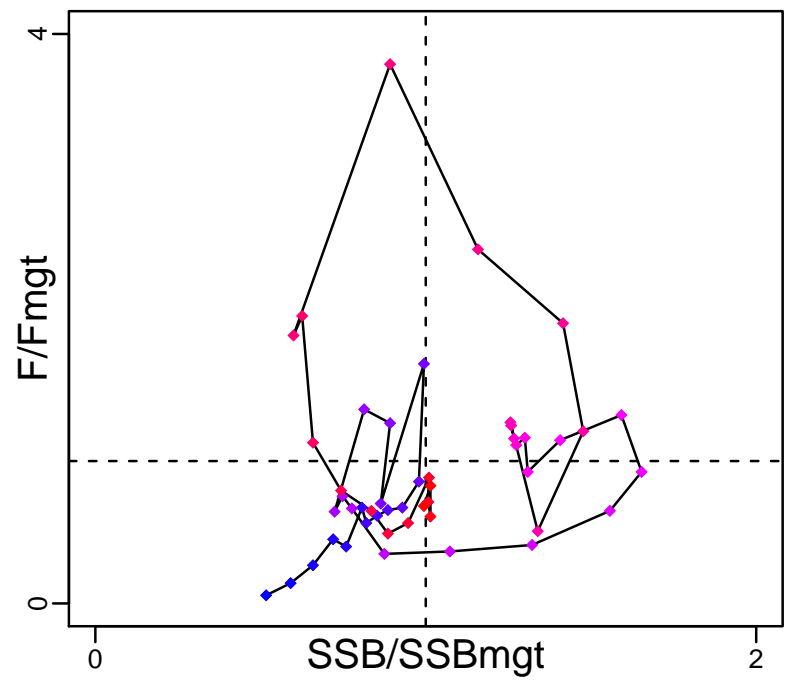
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2012	7,020,000	-	-
<b>SSB</b>	SSB-MT	2017	5,410,000	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	F-1/yr	2017	0.161	-	-
<b>ER</b>	ER-calc-ratio	2012	0.091	-	-
<b>TC</b>	TC-MT	2012	678,000		
<b>TL</b>	TL-MT	2017	883,000		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2012	1.376		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2017	1.063		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2017	0.685		
<b>ER/ERmgt</b>	-	-	-		

# Walleye pollock Northern Sea of Okhotsk [WPOLLNSO]

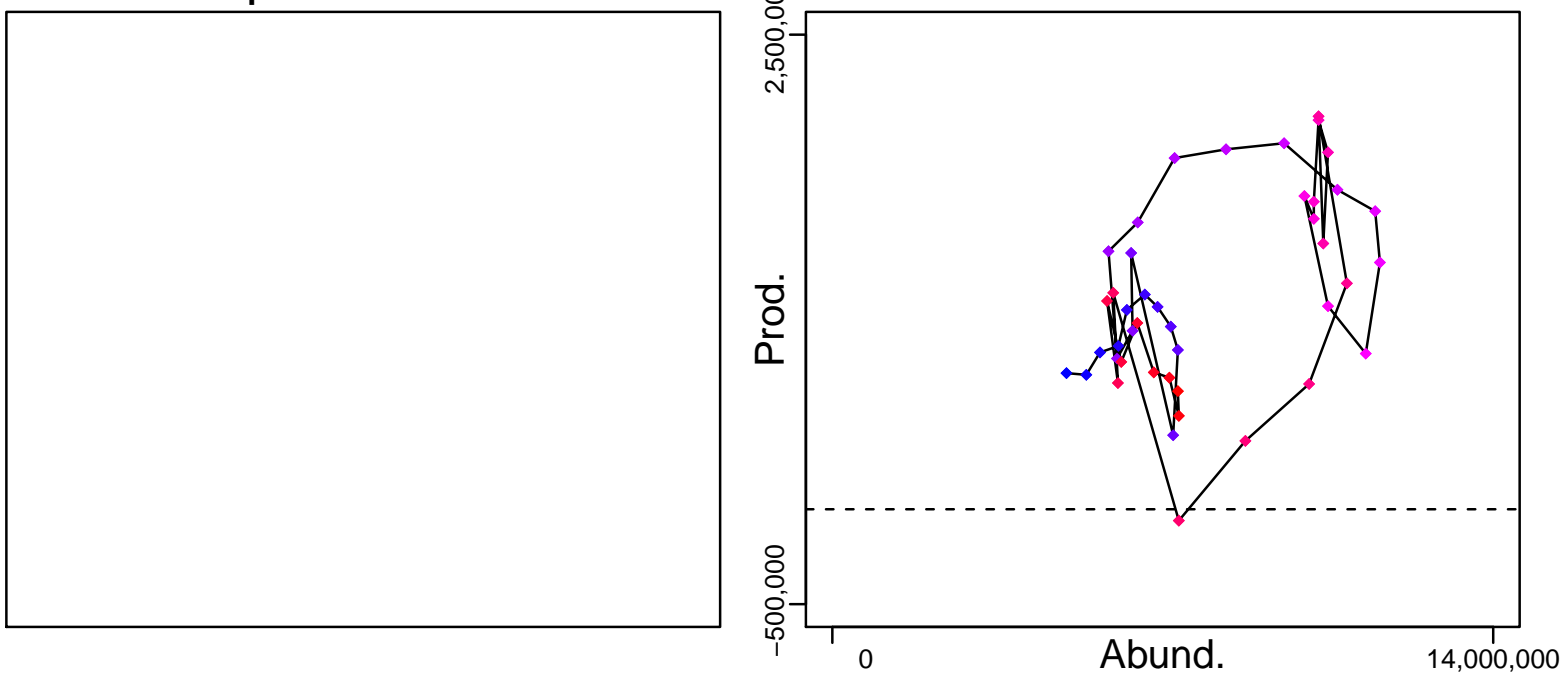
Kobe MSYpref (1963–2017–ASHBROOK)



Kobe MGTpref (1963–2017–ASHBROOK)

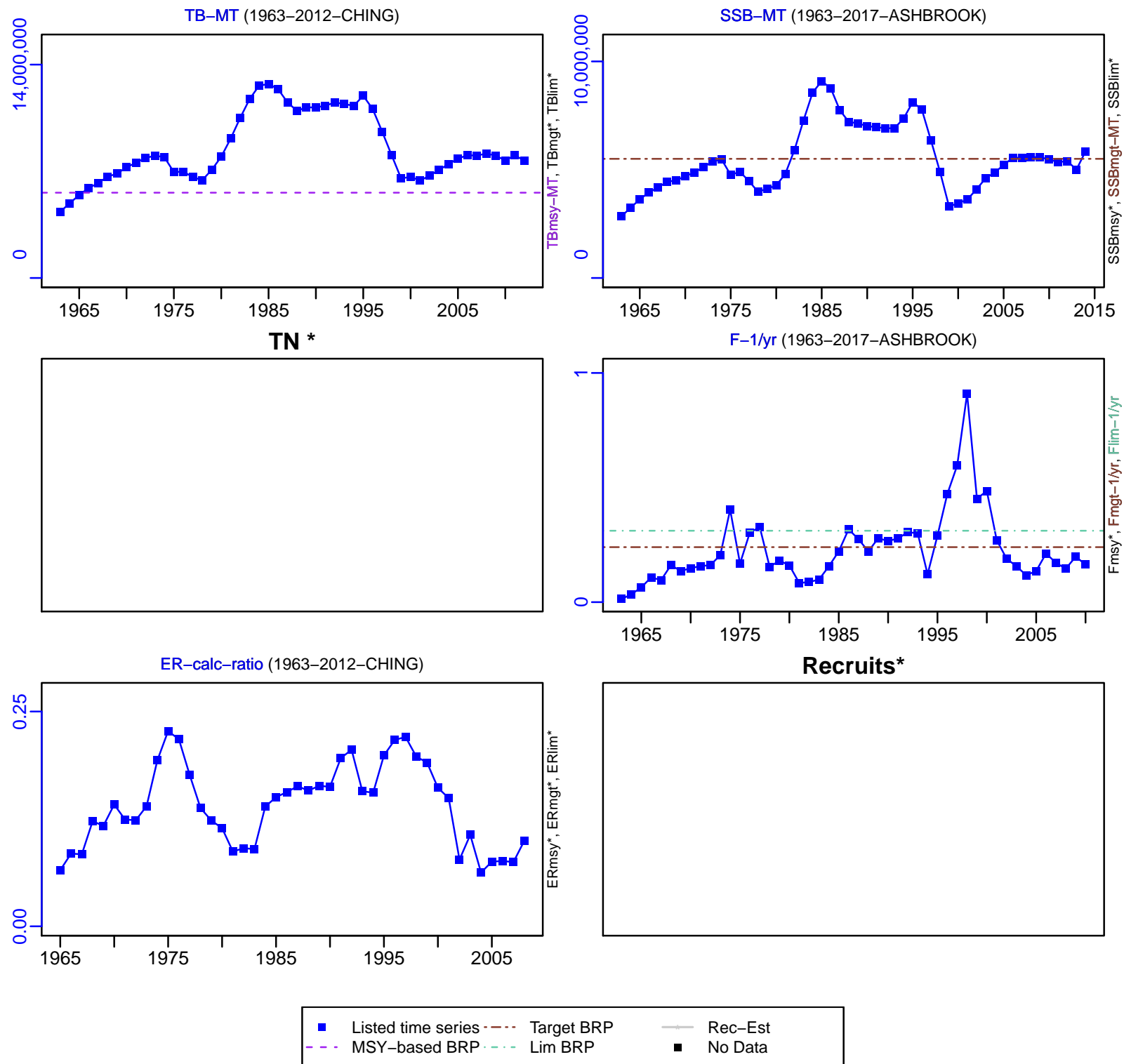


Production (1963–2012–CHING)



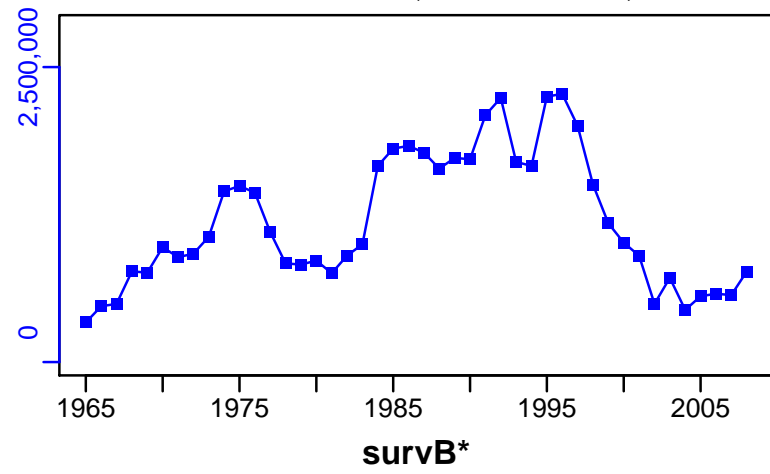
◆ Start Year ◆ End Year \* No Data

# Walleye pollock Northern Sea of Okhotsk [WPOLLNSO]

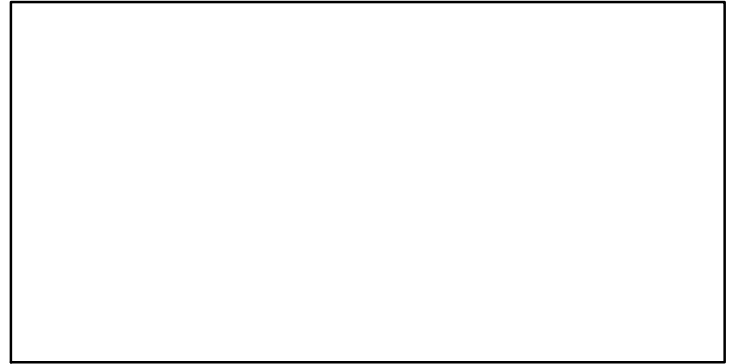
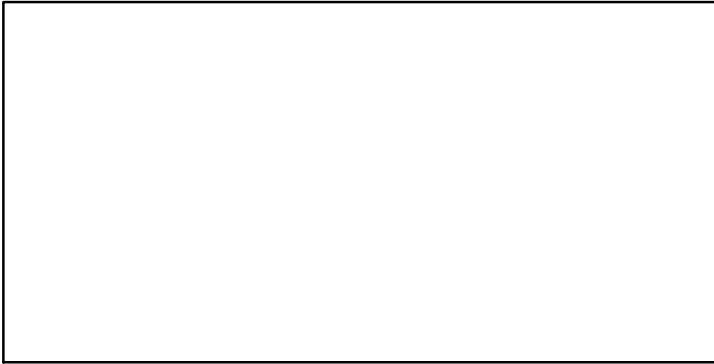
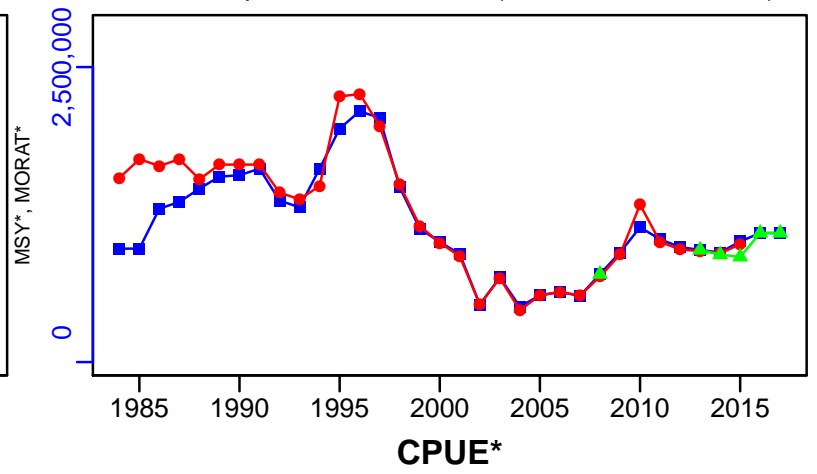


# Walleye pollock Northern Sea of Okhotsk [WPOLLNSO]

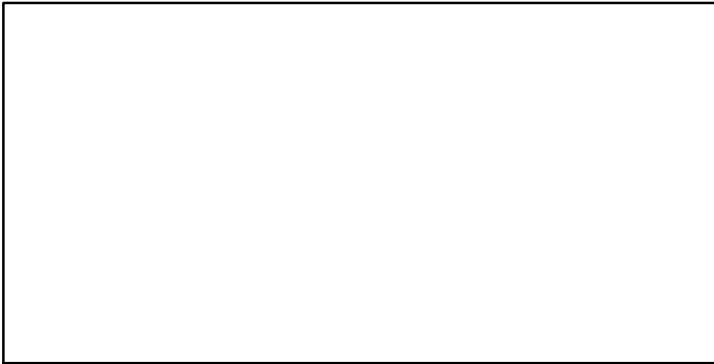
TC-MT, TL\*, RecC\* (1963–2012–CHING)



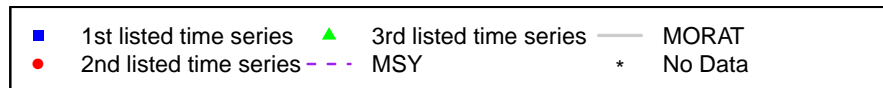
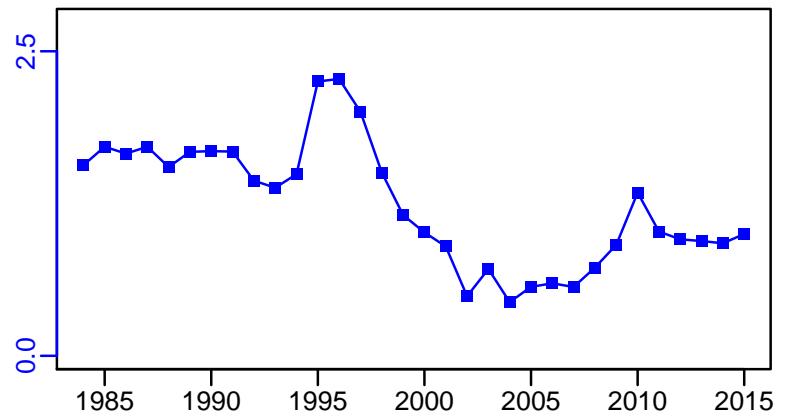
TAC-MT, Cpair-MT, Cadvised-MT (1963–2017–ASHBROOK)



EFFORT\*



CdivMSY-ratio (1963–2017–ASHBROOK)



## Walleye pollock Western Bering Sea [WPOLLWBS]

Metadata	
<b>Scientific Name</b>	Theragra chalcogramma
<b>Current Assess ID</b>	VNIRO-WPOLLWBS-1970-2016-ASHBROOK
<b>Area</b>	Western Bering Sea
<b>Management Authority</b>	Russian Federal Fisheries Agency, Russia national management
<b>Assessor</b>	Russian Federal Research Institute of Fisheries and Oceanography
<b>Asmts in RAM</b>	2008, 2016

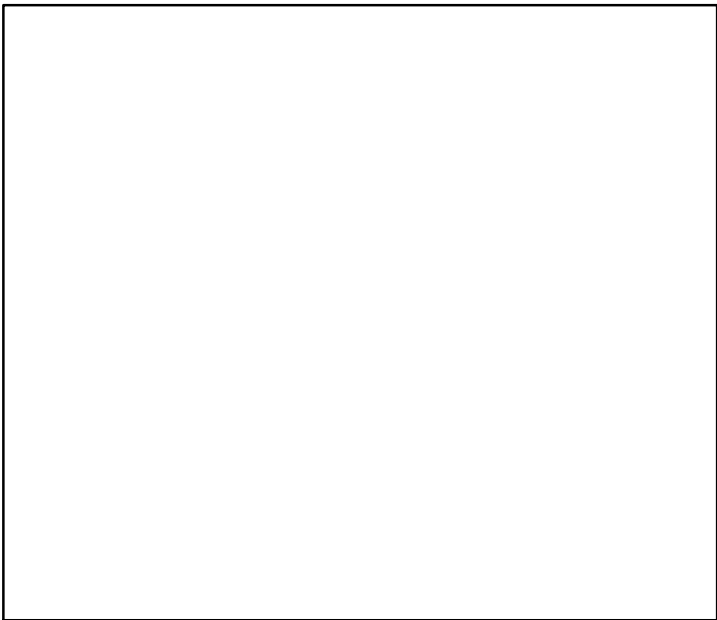
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2008	362,000
<b>Fmsy</b>	Fmsy-1/yr	2008	0.126
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2016	362,900
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2008	954,000	-	-
<b>SSB</b>	SSB-MT	2016	208,000	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2008	0.108	-	-
<b>TC</b>	TC-MT	2008	103,000		
<b>TL</b>	TL-MT	2016	15,100		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2016	0.573		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		



Walleye pollock Western Bering Sea [WPOLLWBS]

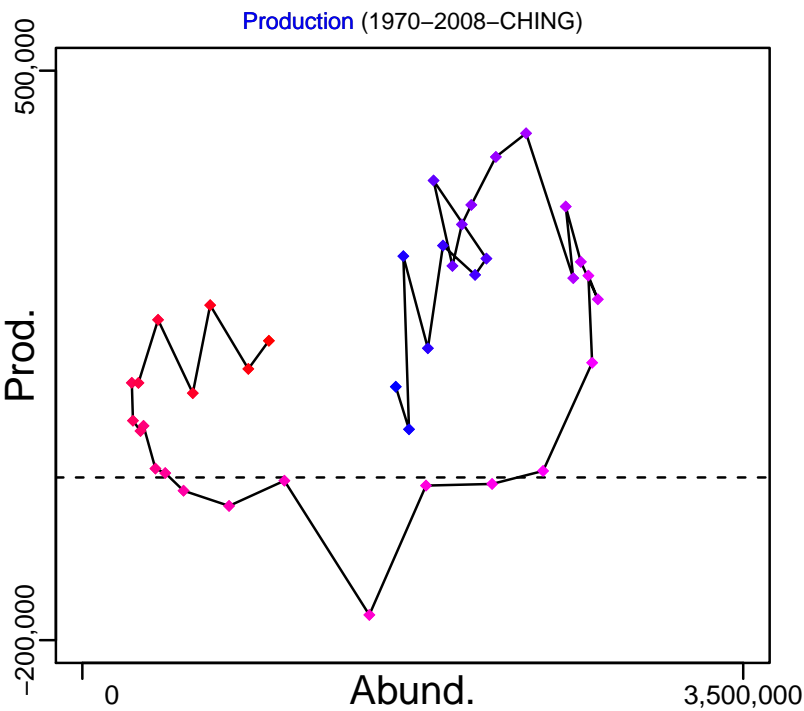
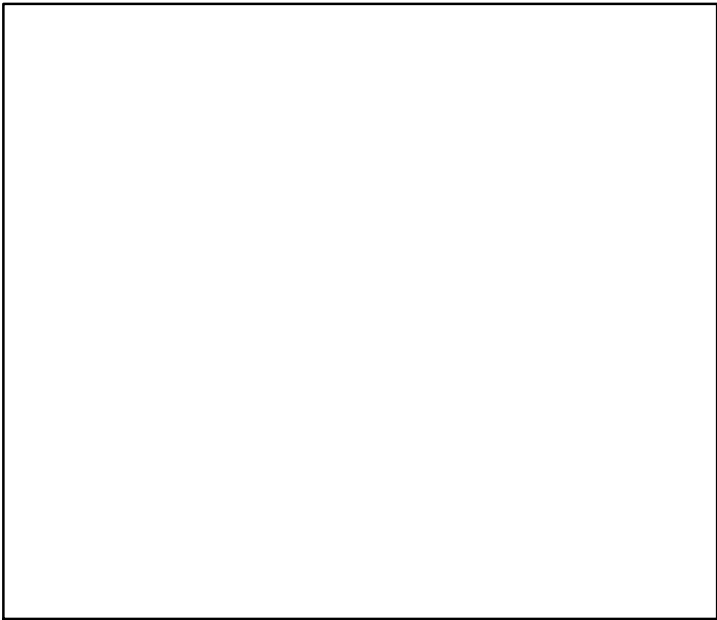
Kobe MSY\*



Kobe MGT\*



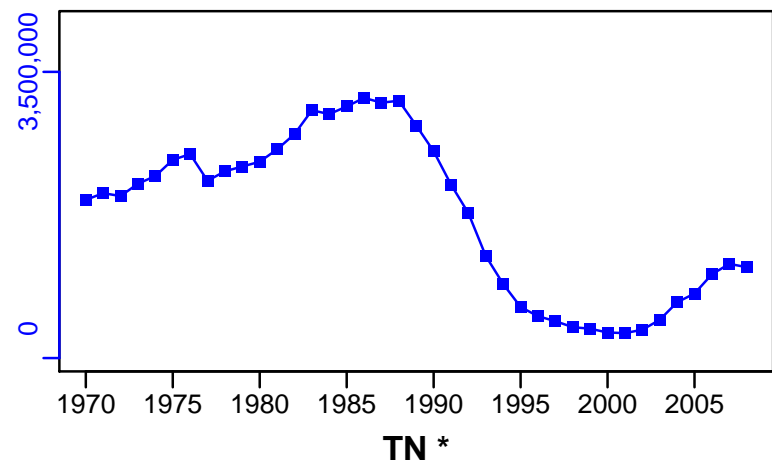
Spawner Recruit\*



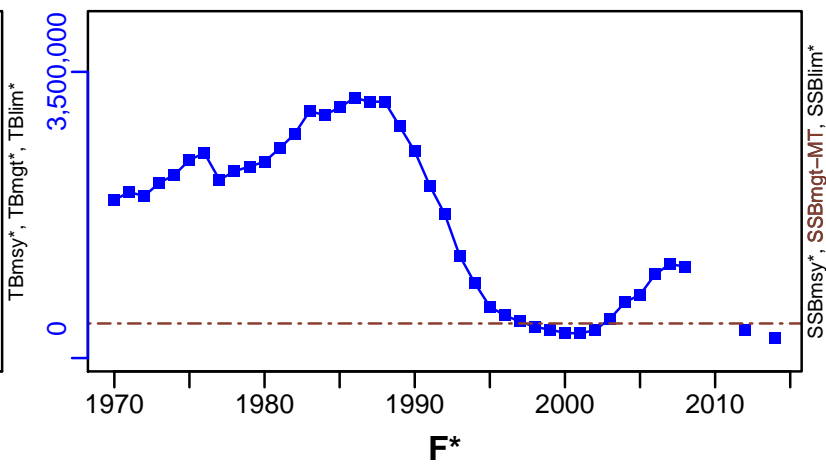
◆ Start Year ◆ End Year \* No Data

# Walleye pollock Western Bering Sea [WPOLLWBS]

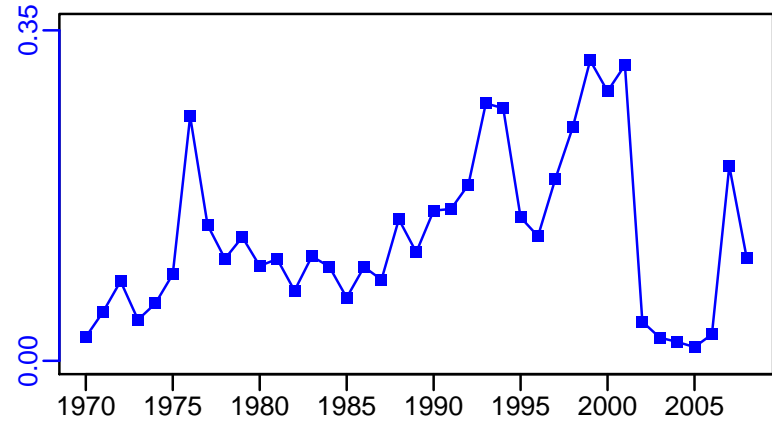
TB-MT (1970–2008–CHING)



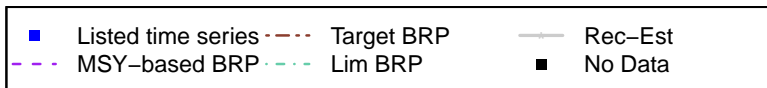
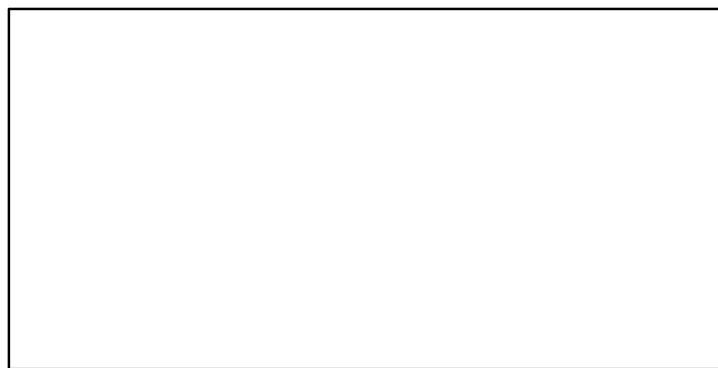
SSB-MT (1970–2016–ASHBROOK)



ER-calc-ratio (1970–2008–CHING)



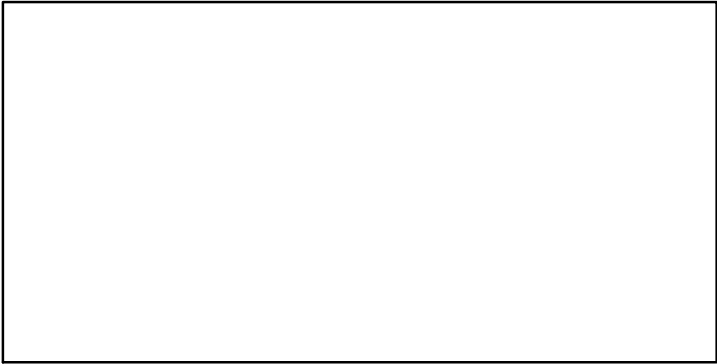
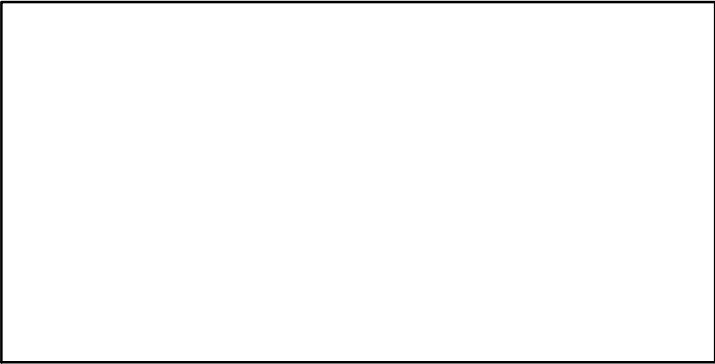
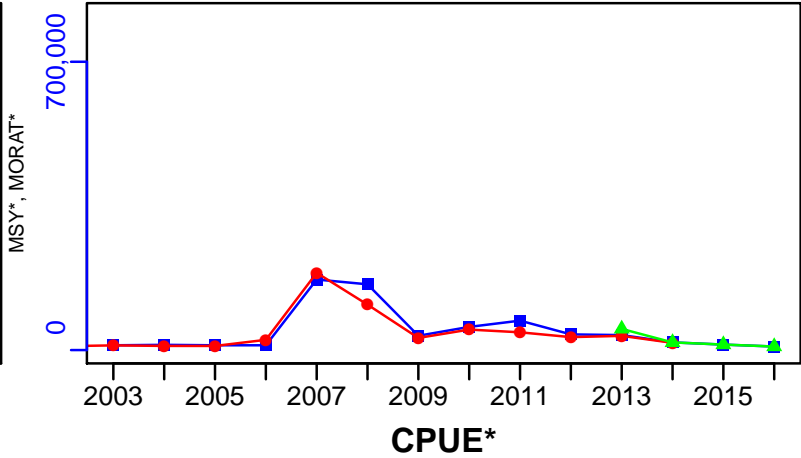
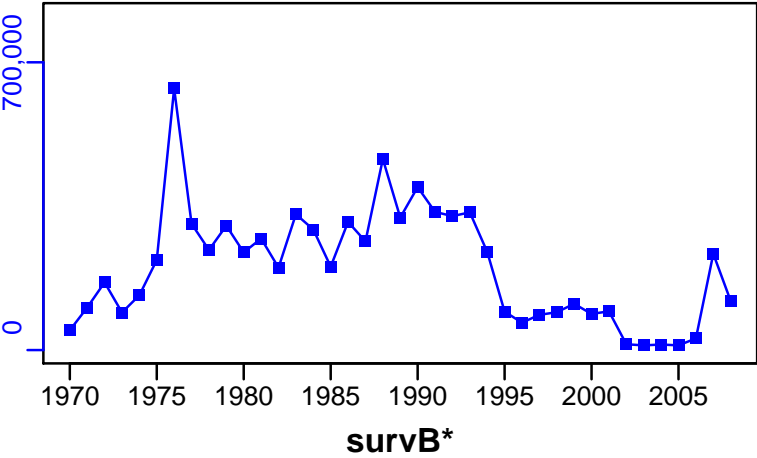
Recruits\*



Walleye pollock Western Bering Sea [WPOLLWBS]

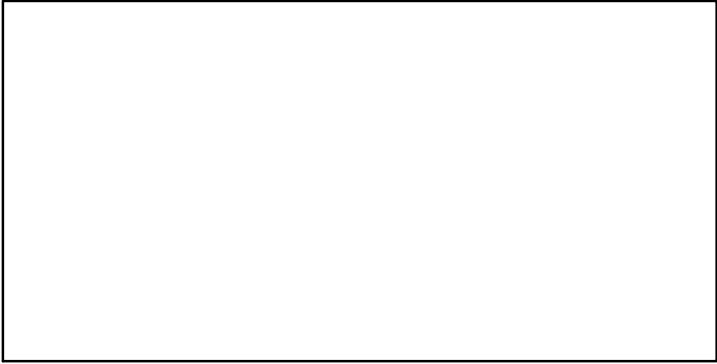
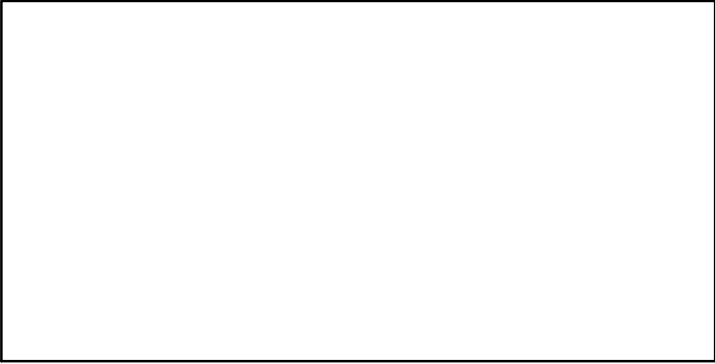
TC-MT, TL\*, RecC\* (1970-2008-CHING)

TAC-MT, Cpair-MT, Cadvised-MT (1970-2016-ASHBROOK)



EFFORT\*

CdivMSY\*



## Whitespotted conger Ise and Mikawa Bay [WSCONGIMKB]

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

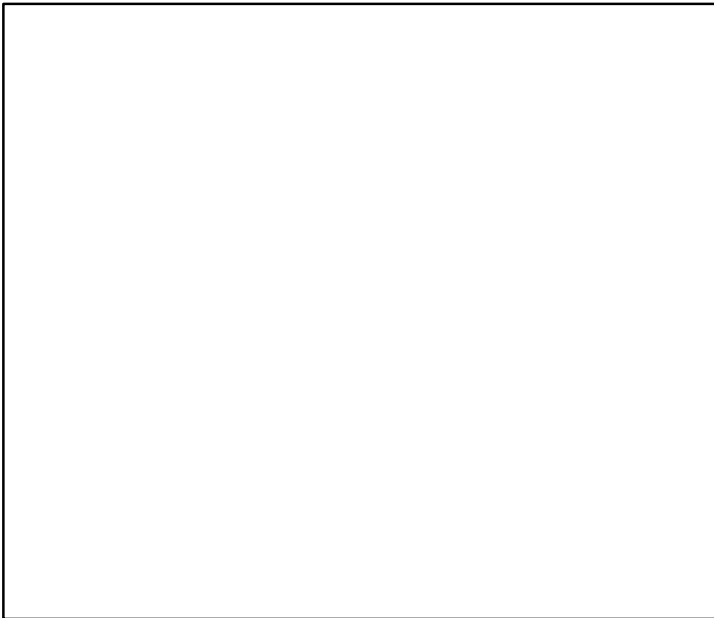
**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



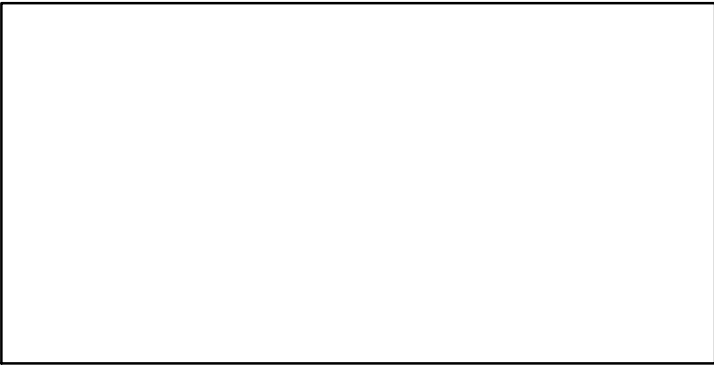
**Production\***



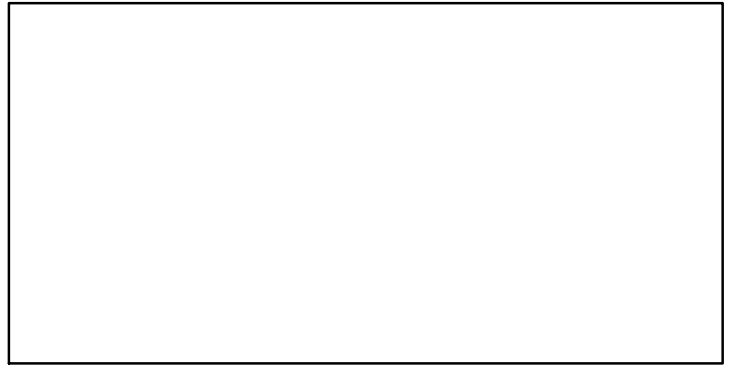
◆ Start Year ◆ End Year \* No Data

Whitespotted conger Ise and Mikawa Bay [WSCONGIMKB]

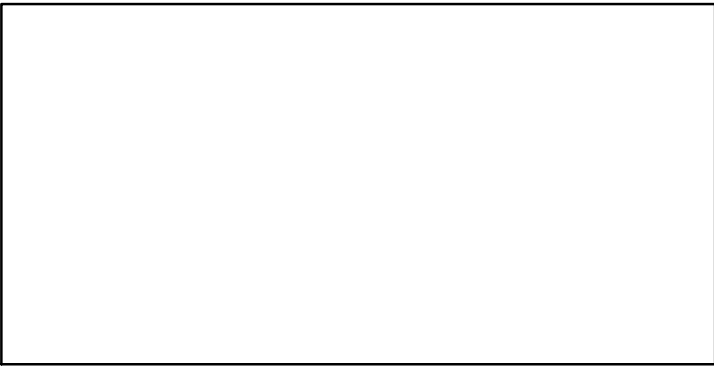
**TB\***



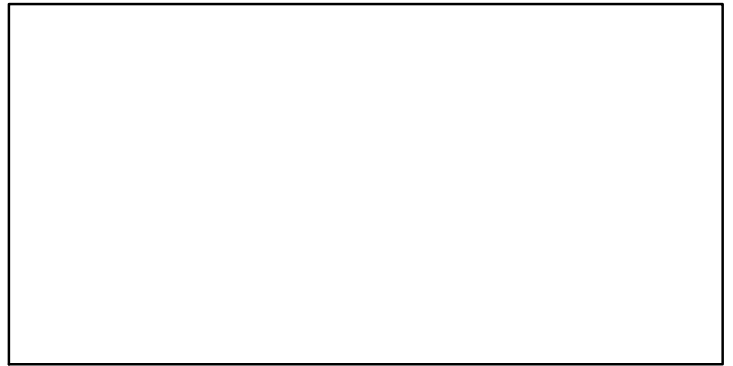
**SSB\***



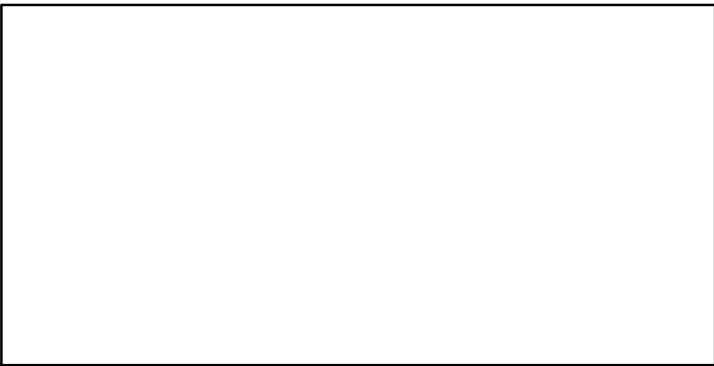
**TN \***



**F\***



**ER\***

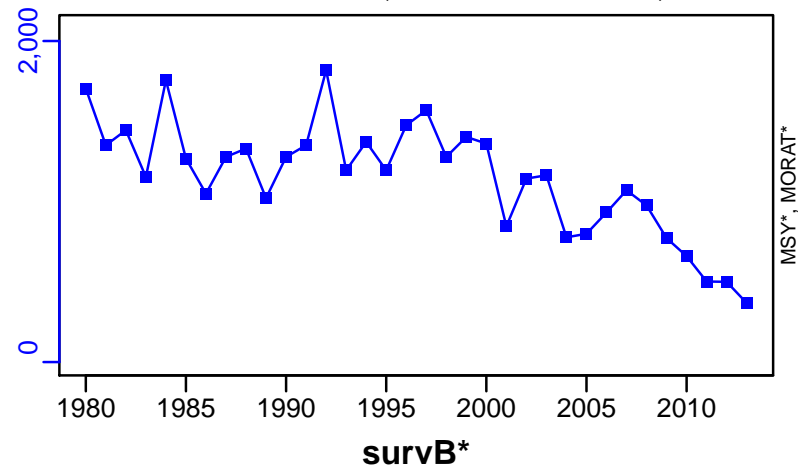


**Recruits\***

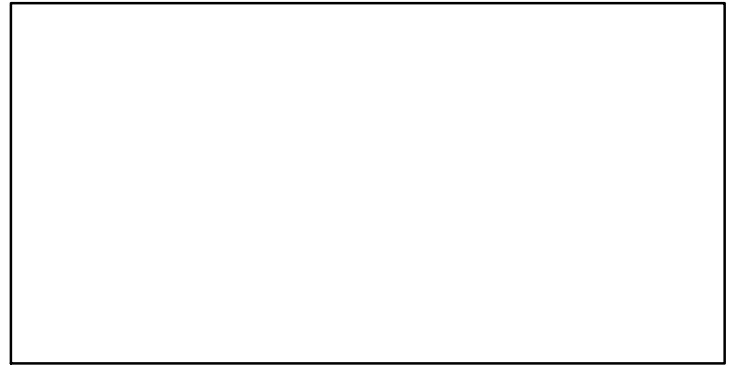


Whitespotted conger Ise and Mikawa Bay [WSCONGIMKB]

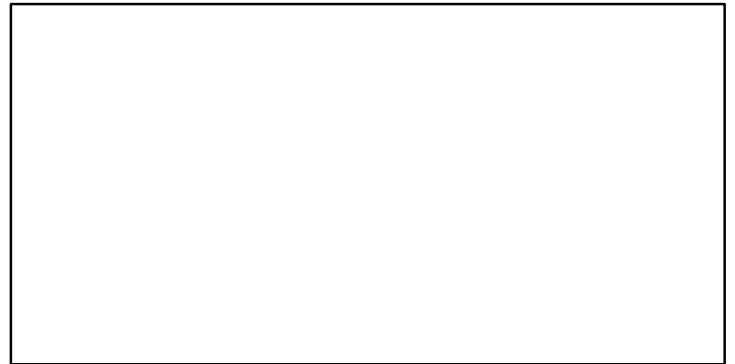
TC-MT, TL\*, RecC\* (1980–2013–JPNIMP2016)



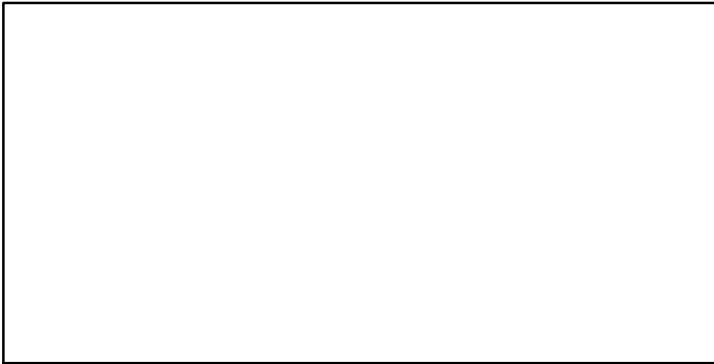
TAC\*, Cpair\*, Cadv\*



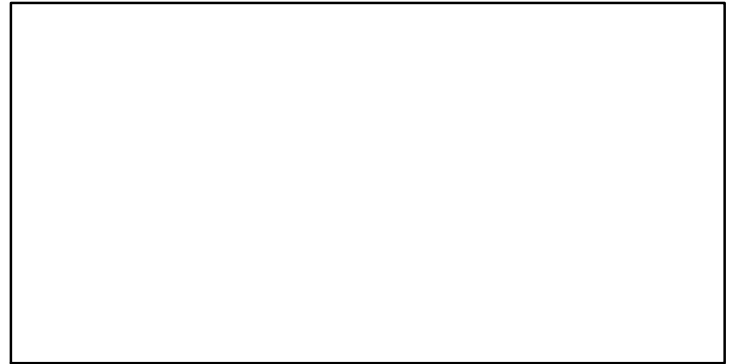
CPUE\*



EFFORT\*



CdivMSY\*



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

## Yellow goosfish North Pacific [YGSFISHNPAC]

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



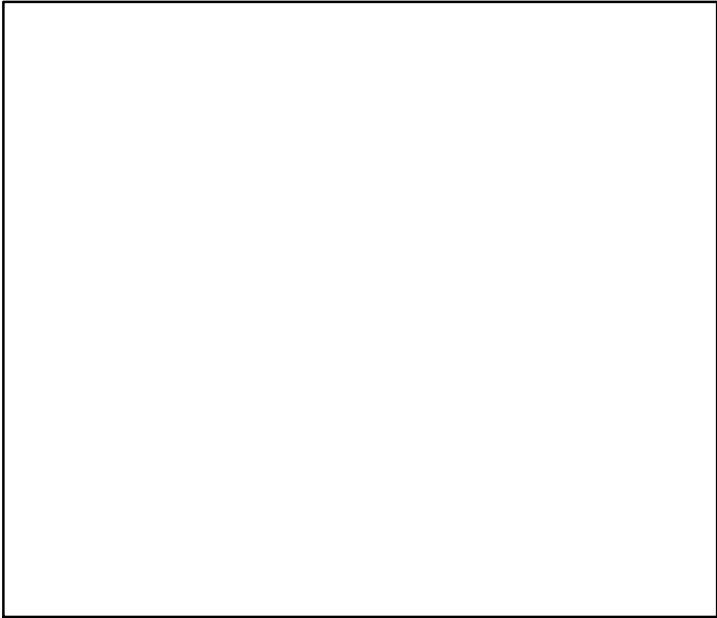
**Kobe MSY\***



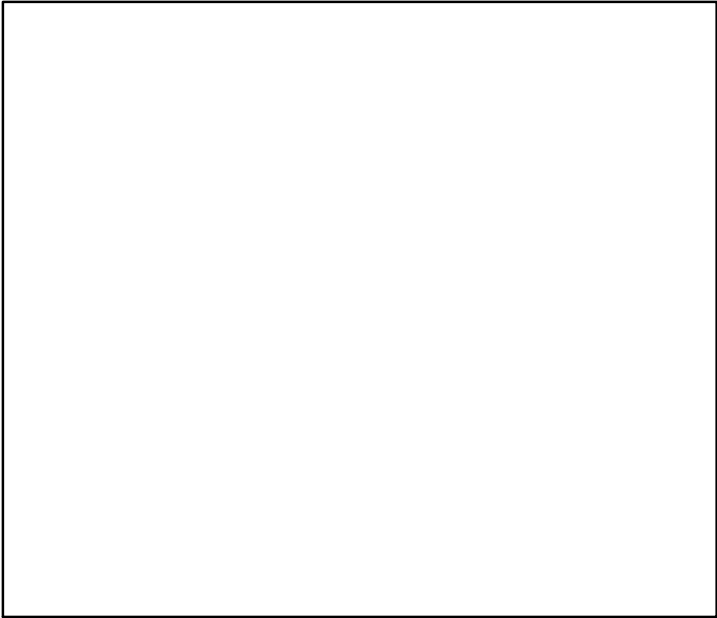
**Kobe MGT\***



**Spawner Recruit\***



**Production\***



◆ Start Year   ◆ End Year   \* No Data

Yellow goosefish North Pacific [YGSFISHNPAC]

TB\*



SSB\*



TN \*



F\*



ER\*

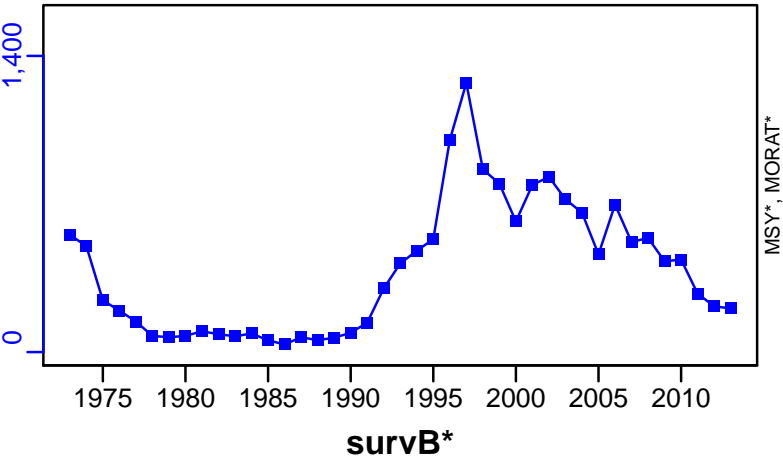


Recruits\*



Yellow goosfish North Pacific [YGSFISHNPAC]

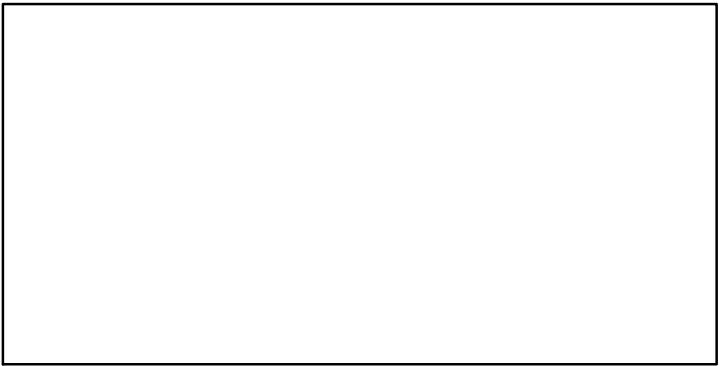
TC-MT, TL\*, RecC\* (1973-2013-JPNIMP2016)



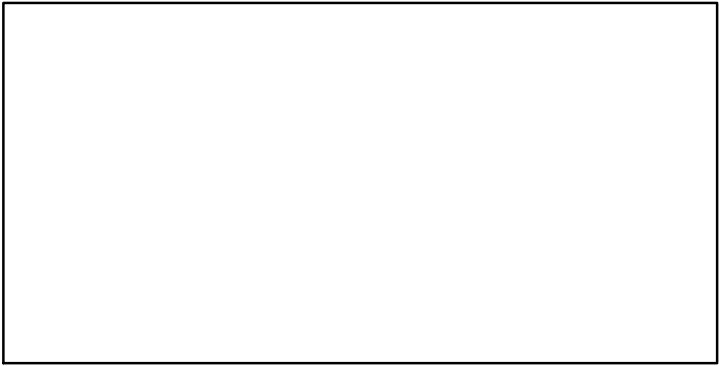
TAC\*, Cpair\*, Cadv\*



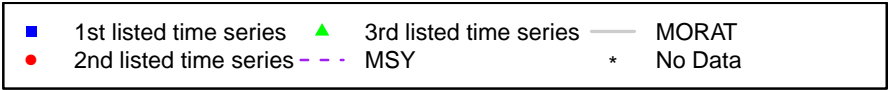
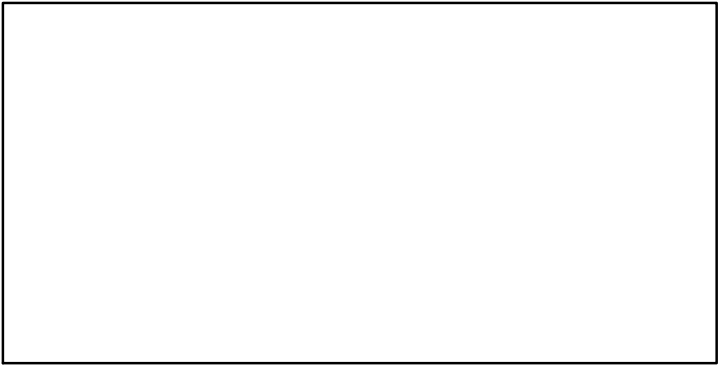
CPUE\*



EFFORT\*



CdivMSY\*



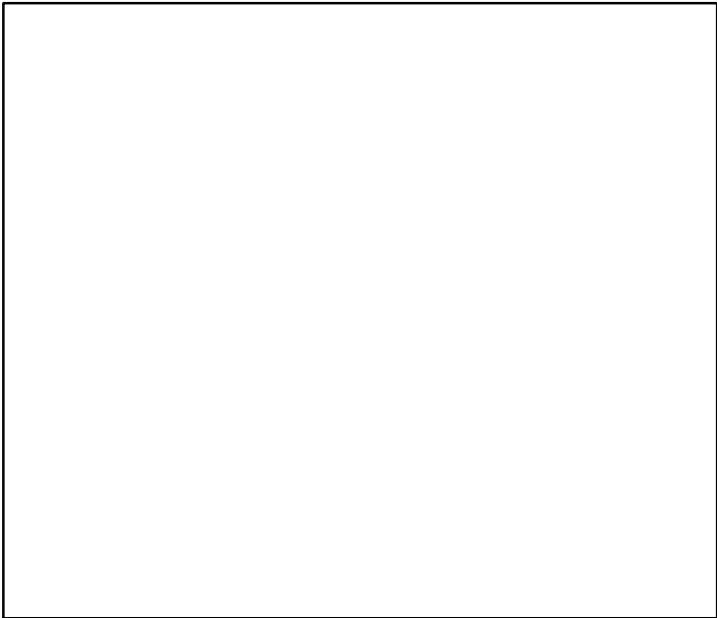
## Yellow striped flounder North coast of Hokkaido [YSFLOUNNHOKK]

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

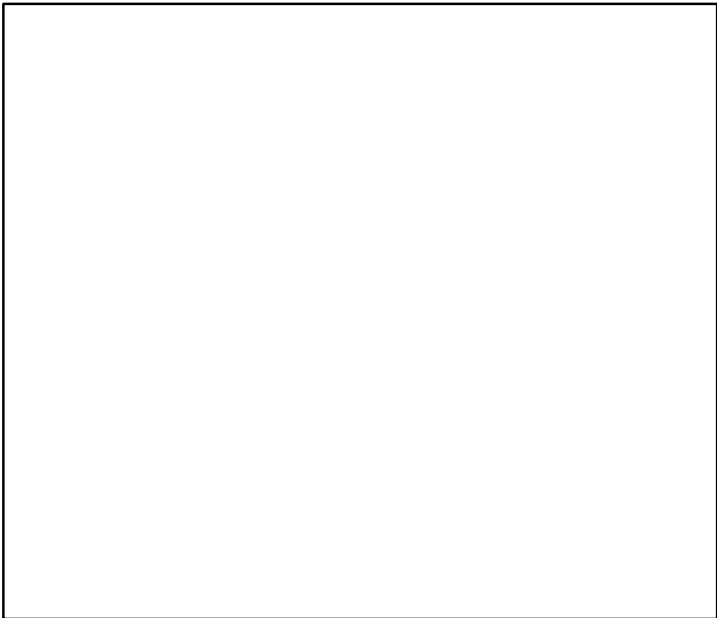
Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year ◆ End Year \* No Data

Yellow striped flounder North coast of Hokkaido [YSFLOUNNHOKK]

TB\*



SSB\*



TN \*



F\*



ER\*

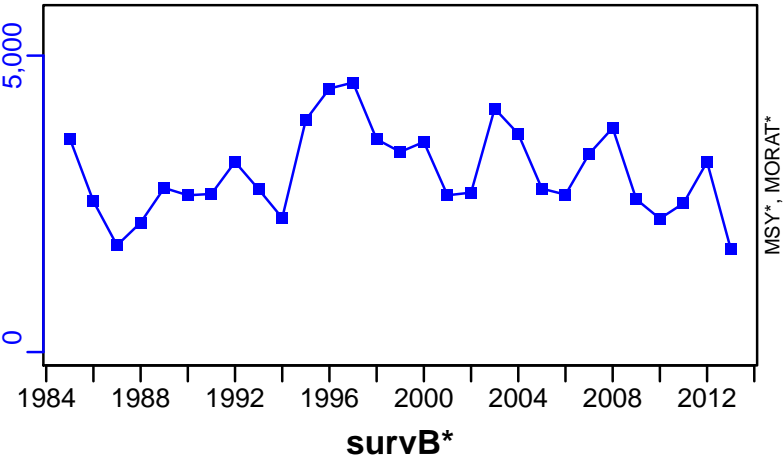


Recruits\*

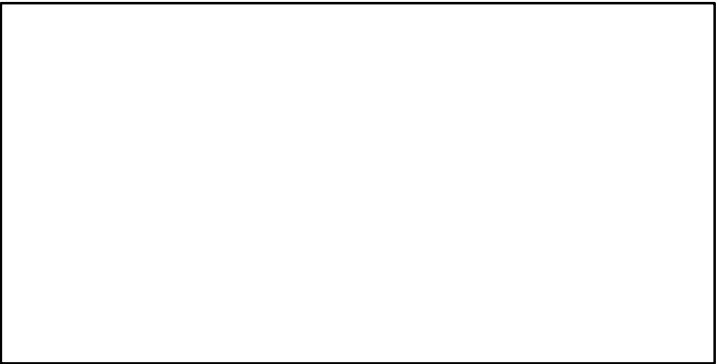


Yellow striped flounder North coast of Hokkaido [YSFLOUNNHOKK]

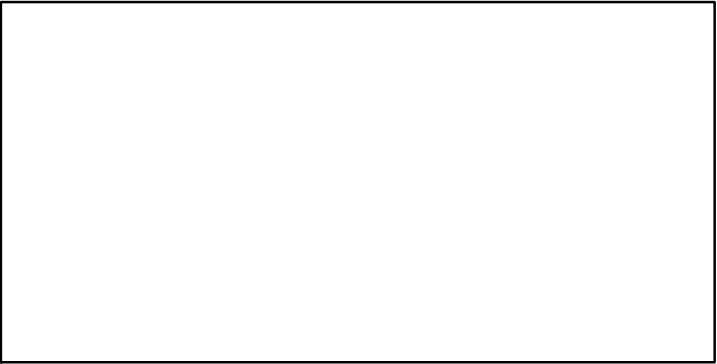
TC-MT, TL\*, RecC\* (1985-2013-JPNIMP2016)



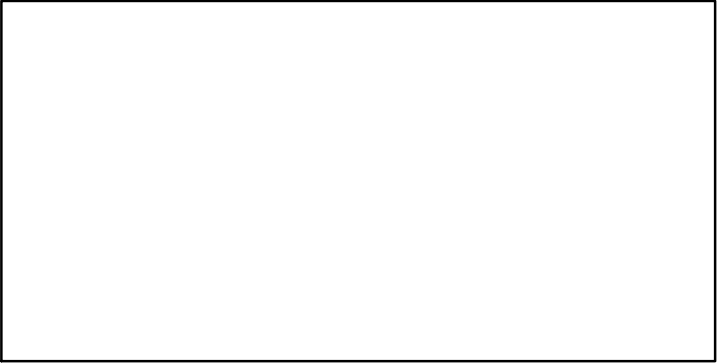
TAC\*, Cpair\*, Cadv\*



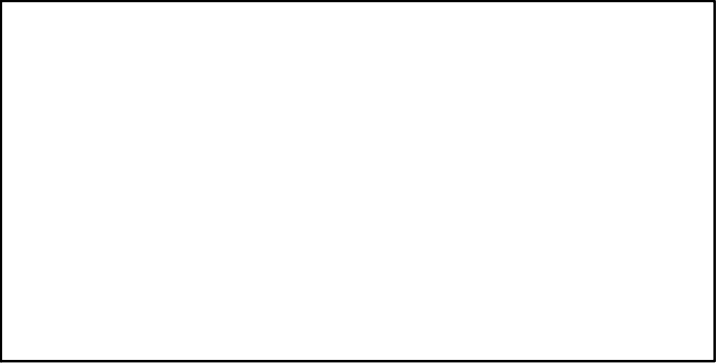
CPUE\*



EFFORT\*



CdivMSY\*



## Yellow striped flounder Sea of Japan [YSFLOUNSOJ]

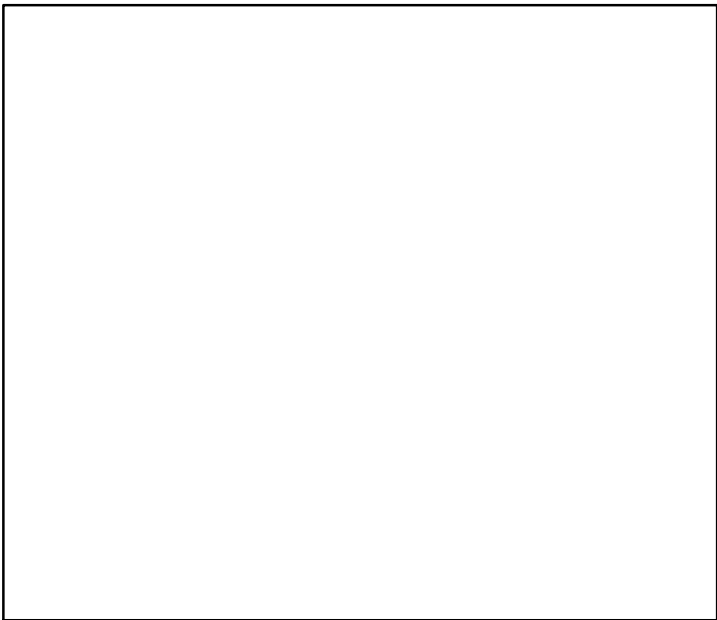
Metadata	
<b>Scientific Name</b>	Pseudopleuronectes herzensteini
<b>Current Assess ID</b>	FAFRFJ-YSFLOUNSOJ-1980-2013-JPNIMP2016
<b>Area</b>	Sea of Japan
<b>Management Authority</b>	Fisheries Agency of Japan
<b>Assessor</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Asmts in RAM</b>	2013

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	-	-	-		



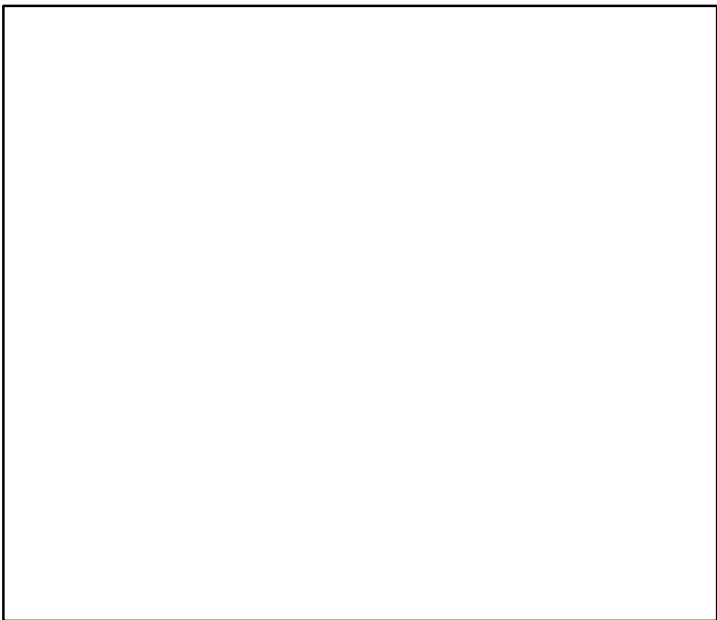
Kobe MSY\*



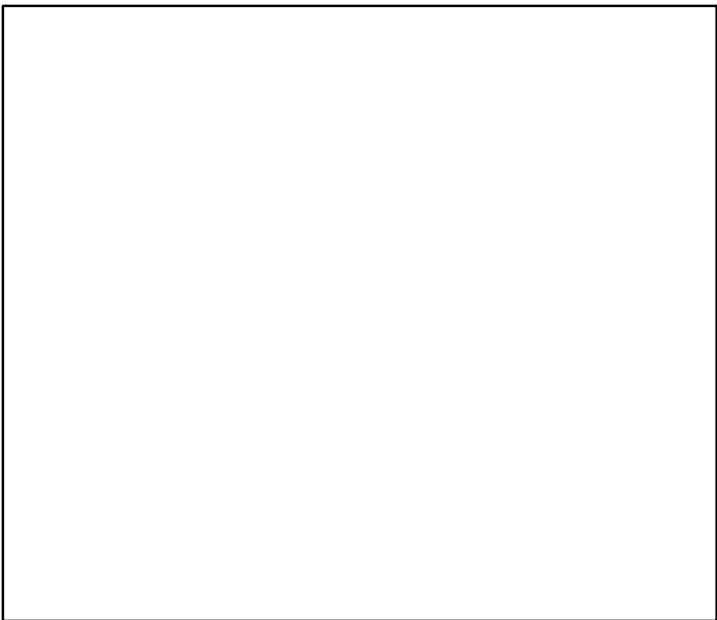
Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year ◆ End Year \* No Data

Yellow striped flounder Sea of Japan [YSFLOUNSOJ]

TB\*



SSB\*



TN \*



F\*



ER\*

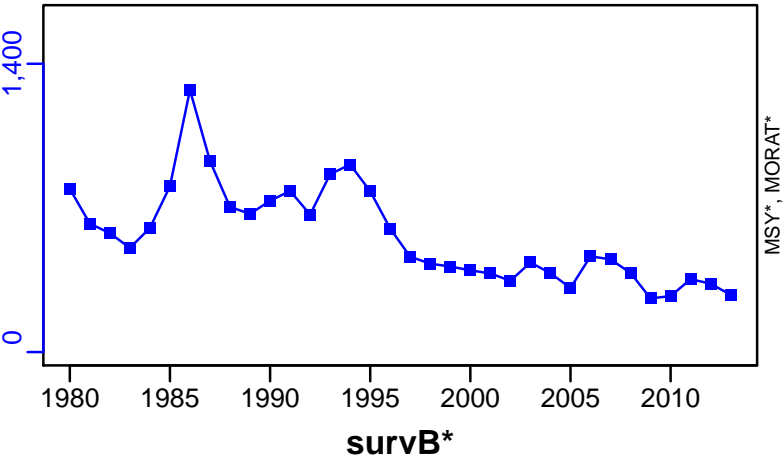


Recruits\*



Yellow striped flounder Sea of Japan [YSFLOUNSOJ]

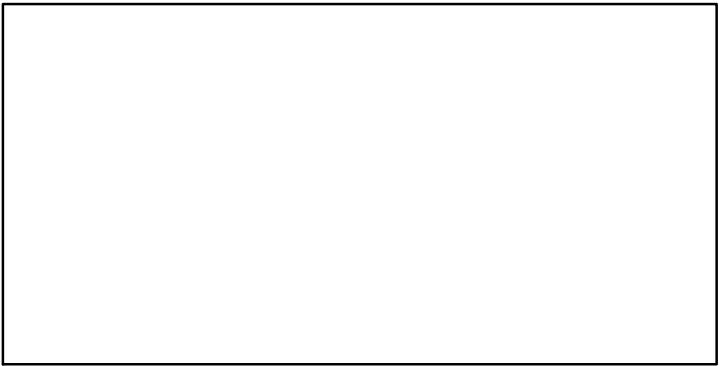
TC-MT, TL\*, RecC\* (1980-2013-JPNIMP2016)



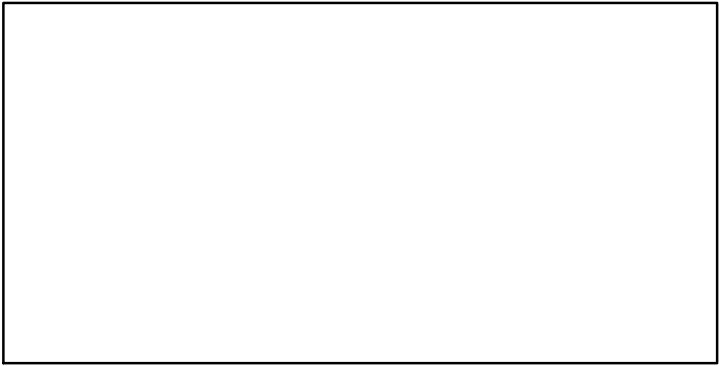
TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



CdivMSY\*

