

# Russia Japan Stocks

## v4.25 (Dec-14-2017)

1. Walleye pollock Nemuro Strait [APOLLNEMS]
2. Walleye pollock Sea of Japan North [APOLLNSJ]
3. Walleye pollock Okhotsk Sea [APOLLOKS]
4. Walleye pollock Pacific Coast of Japan [APOLLPJPN]
5. Alaskan pink shrimp Sea of Japan [APSHRIMPJO]
6. Arabesque greenling Nemuro Strait [ARGREENNEMS]
7. Arabesque greenling North coast of Hokkaido [ARGREENNHOKK]
8. Arabesque greenling South coast of Hokkaido [ARGREENSHOKK]
9. Amberstripe scad East China Sea [ASCADECS]
10. Spotted mackerel East China Sea [BMACKECS]
11. Spotted mackerel Pacific Coast of Japan [BMACKPJPN]
12. Yellow sea bream Sea of Japan [BRMSOJ]
13. Black scraper Sea of Japan and East China Sea [BSCRAPERJOECS]
14. Beni-zuwai crab Sea of Japan [BZCRABSOJ]
15. Crimson jobfish Okinawa Islands [CJOBOKWI]
16. Chub mackerel Pacific Coast of Japan [CMACKPJPN]
17. Chub mackerel Tsushima Strait [CMACKTSST]
18. Deep-sea smelt Pacific Ocean [DSSMELTPAC]
19. Deep-sea smelt Sea of Japan [DSSMELTJO]
20. Flathead flounder Sea of Japan [FHFLOUNSOJ]
21. Flame snapper Okinawa Islands [FSNAPOKWI]
22. Pacific herring Hokkaido [HERRHOKK]
23. Horsehead tilefish East China Sea [HHTILEECS]
24. Japanese amberjack Japan [JAMBERJPN]
25. Japanese anchovy Pacific Coast of Japan [JANCHOPJPN]
26. Japanese anchovy Inland Sea of Japan [JANCHOSETO]
27. Japanese anchovy Tsushima Strait [JANCHOTSST]
28. Japanese flying squid Japan Autumn recruitment [JCSQUIDJPNAR]
29. Japanese flying squid Japan Winter recruitment [JCSQUIDJPNWR]
30. Japanese jack mackerel Pacific Coast of Japan [JMACKPJPN]
31. Japanese jack mackerel Tsushima Strait [JMACKTSST]
32. Japanese pufferfish Ise and Mikawa Bay [JPUFFIMKB]
33. Japanese pufferfish Sea of Japan and East China Sea and Seto Inland sea [JPUFFSOJECSSI]
34. Japanese snapper Okinawa Islands [JSNAPOKWI]
35. Kichiji rockfish North Pacific [KCROCKNPAC]
36. Kichiji rockfish Okhotsk Sea [KCROCKOKS]
37. Kichiji rockfish Southwestern coast of Hokkaido [KCROCKSWHOKK]
38. Longfin codling Pacific Ocean [LCODLINGPAC]
39. Largehead hairtail Sea of Japan and East China Sea [LHAIRTSOJECS]
40. Lavender jobfish Okinawa Islands [LJOBOKWI]
41. Japanese flounder East China Sea [OFLOUNECS]
42. Japanese flounder Sea of Japan North [OFLOUNNSJ]
43. Japanese flounder Pacific Ocean [OFLOUNPAC]
44. Japanese flounder Inland Sea of Japan [OFLOUNSETO]
45. Pacific cod Hokkaido [PCODHOKK]
46. Pacific cod North Pacific [PCODNPAC]
47. Pacific cod Sea of Japan [PCODSOJ]
48. Pointhead flounder North coast of Hokkaido [PHFLOUNNHOKK]
49. Pointhead flounder Sea of Japan [PHFLOUNSOJ]
50. Japanese sardine Pacific Coast of Japan [PILCHPJPN]

51. Japanese sardine Tsushima Strait [PILCHTSST]
52. Pacific sand lance Ise and Mikawa Bay [PSANDLIMKB]
53. Pacific sand lance Souya Strait [PSLANCESYS]
54. Red seabream East China Sea [RBRMECS]
55. Red seabream Inland Sea of Japan (East) [RBRMSETOE]
56. Red seabream Inland Sea of Japan (West) [RBRMSETOW]
57. Round herring Pacific Ocean [RHERRPAC]
58. Round herring Tsushima Strait [RHERRTSST]
59. Round-nose flounder Sea of Japan [RSFLOUNSOJ]
60. Roughscale sole North Pacific [RSSOLENPAC]
61. Pacific saury Northwest Pacific [SAURNWPAC]
62. Shako Ise and Mikawa Bay [SHAKOIMKB]
63. Snow crab Sea of Japan East [SNOWCRABESJ]
64. Snow crab Hokkaido [SNOWCRABHOKK]
65. Snow crab North Pacific [SNOWCRABNPAC]
66. Snow crab Okhotsk Sea [SNOWCRABOKS]
67. Snow crab Sea of Japan West [SNOWCRABWSJ]
68. Japanese Spanish mackerel East China Sea [SPANMACKECS]
69. Japanese Spanish mackerel Inland Sea of Japan [SPANMACKSETO]
70. Spear squid Pacific Ocean [SPSQUIDPAC]
71. Spear squid Tsushima warm current [SPSQUIDTSSTWC]
72. Sailfin sandfish Sea of Japan North [SSANDNSJ]
73. Sailfin sandfish Sea of Japan West [SSANDWSJ]
74. Swordtip squid Sea of Japan and East China Sea [STSQUIDSOJECS]
75. Willowy flounder North Pacific [WLFLOUNNPAC]
76. Walleye Pollock Navarinsky [WPOLLNAVAR]
77. Walleye pollock Northern Sea of Okhotsk [WPOLLNSO]
78. Walleye pollock Western Bering Sea [WPOLLWBS]
79. Whitespotted conger Ise and Mikawa Bay [WSCONGIMKB]
80. Yellow goosefish North Pacific [YGSFISHNPAC]
81. Yellow striped flounder North coast of Hokkaido [YSFLOUNNHOKK]
82. Yellow striped flounder Sea of Japan [YSFLOUNSOJ]

## Walleye pollock Nemuro Strait [APOLLNEMS]

Metadata	
<b>Scientific Name</b>	Theragra chalcogramma
<b>Current Assess ID</b>	FAJ-APOLLNEMS-1981-2013-JPNIMP2016
<b>Area</b>	Nemuro Strait
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries 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	7720		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data

TB\*



SSB\*



TN \*



F\*



ER\*



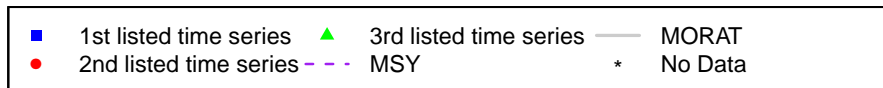
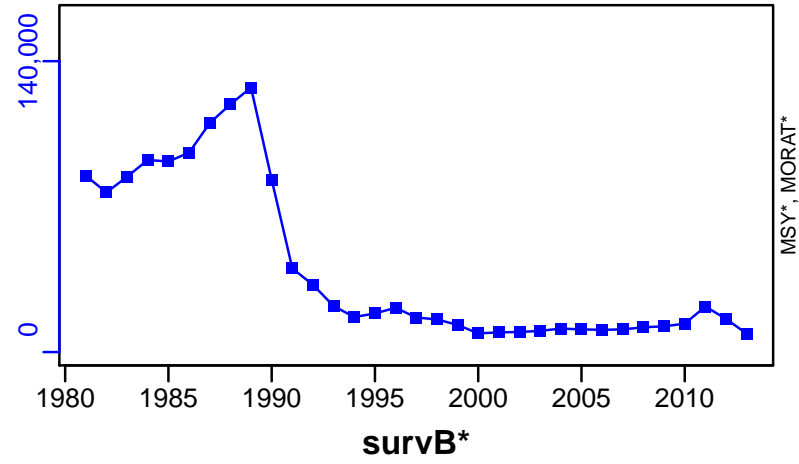
Recruits\*



# Walleye pollock Nemuro Strait [APOLLNEMS]

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

TAC\*, Cpair\*, Cadv\*



## Walleye pollock Sea of Japan North [APOLLNSJ]

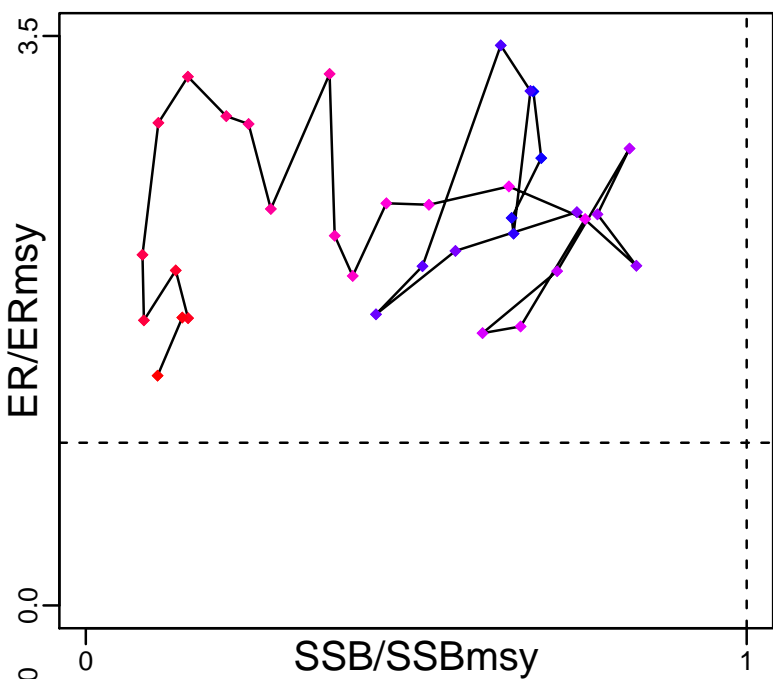
Metadata	
<b>Scientific Name</b>	Theragra chalcogramma
<b>Current Assess ID</b>	FAJ-APOLLNSJ-1970-2013-JPNIMP2016
<b>Area</b>	Sea of Japan North
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2013

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2013	346,887
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2013	0.07
<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>	-	-	-

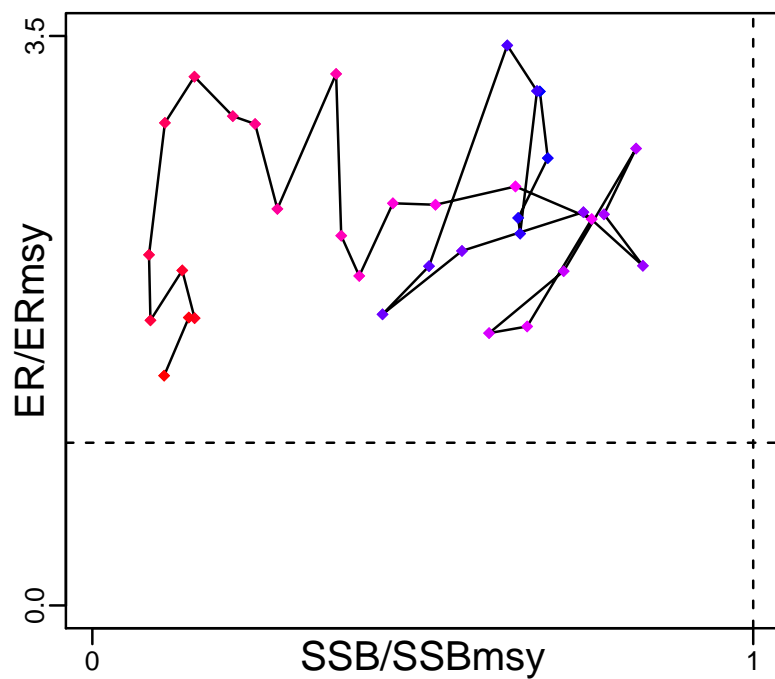
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	95,800	-	2
<b>SSB</b>	SSB-MT	2013	37,700	Both	4
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	$1.34 \times 10^8$	-	2
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0	-	-
<b>TC</b>	TC-MT	2013	9870		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.11		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	1.41		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Walleye pollock Sea of Japan North [APOLLNSJ]

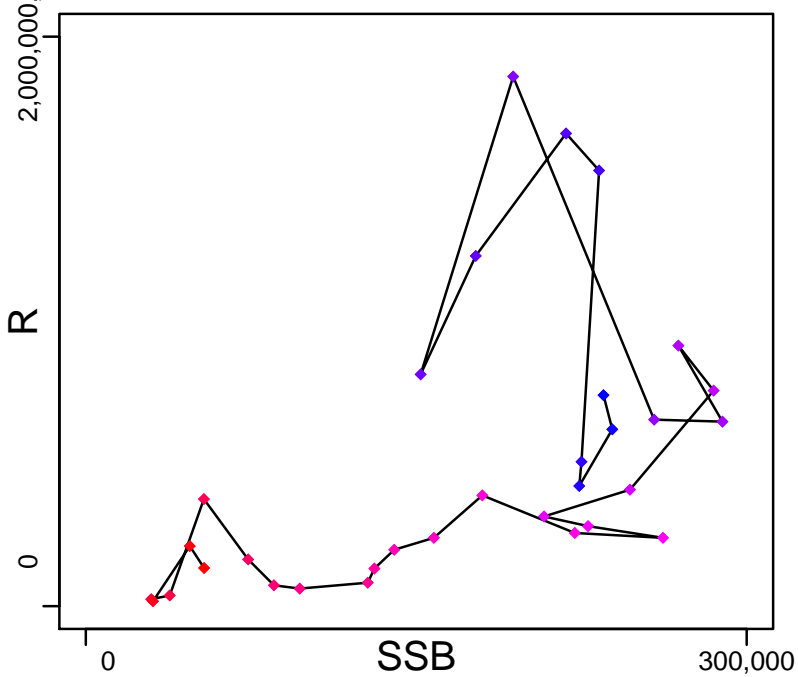
Kobe MSYpref (1970–2013–JPNIMP2016)



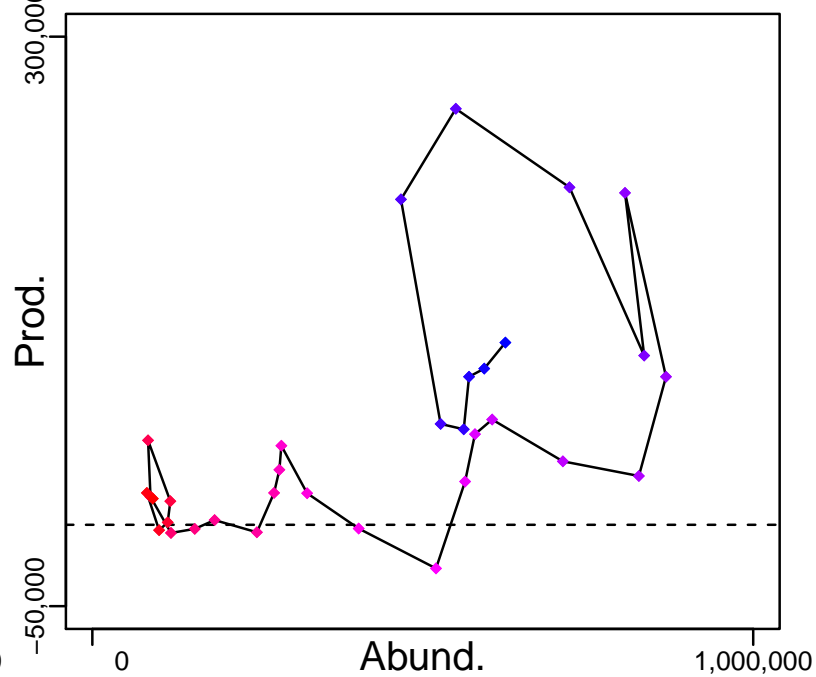
Kobe MGTpref (1970–2013–JPNIMP2016)



Spawner Recruit (1970–2013–JPNIMP2016)



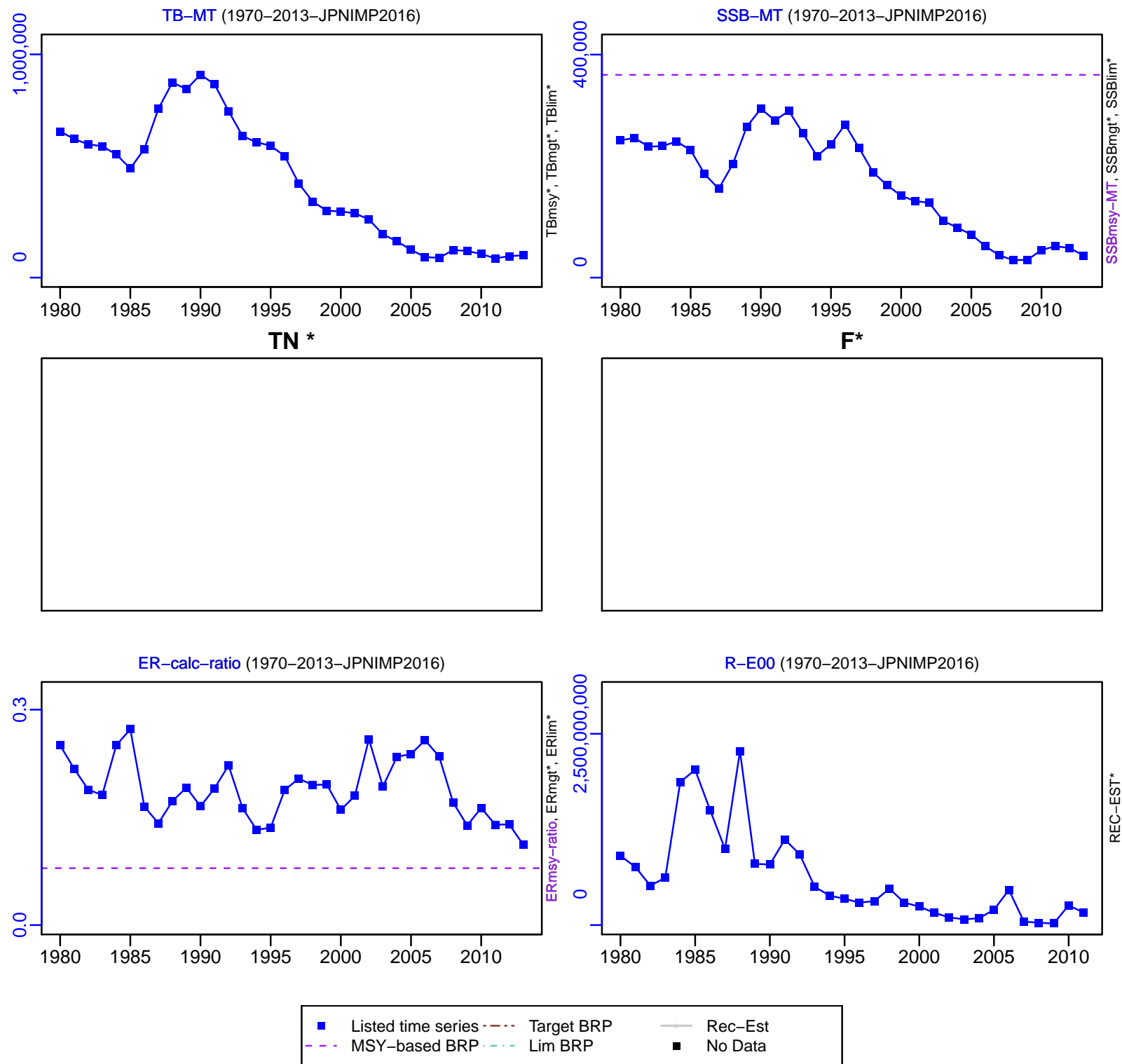
Production (1970–2013–JPNIMP2016)



◆ Start Year ◆ End Year \* No Data

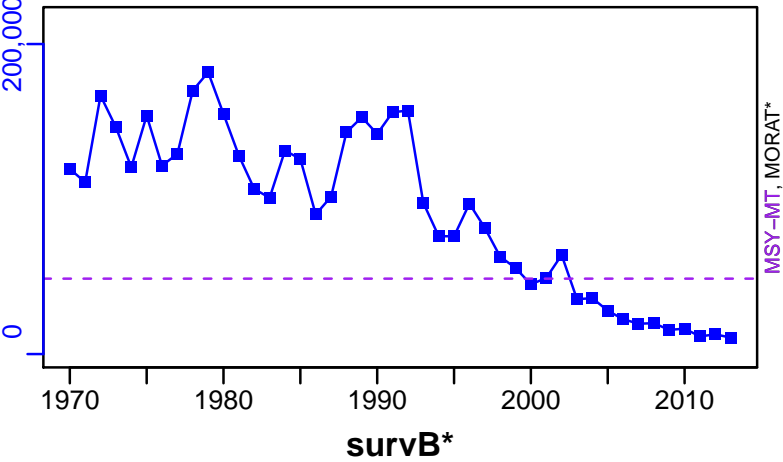


# Walleye pollock Sea of Japan North [APOLLNSJ]



Walleye pollock Sea of Japan North [APOLLNSJ]

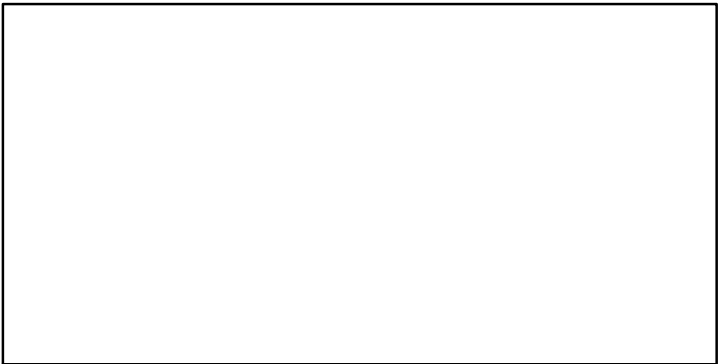
TC-MT, TL\*, RecC\* (1970-2013-JPNIMP2016)



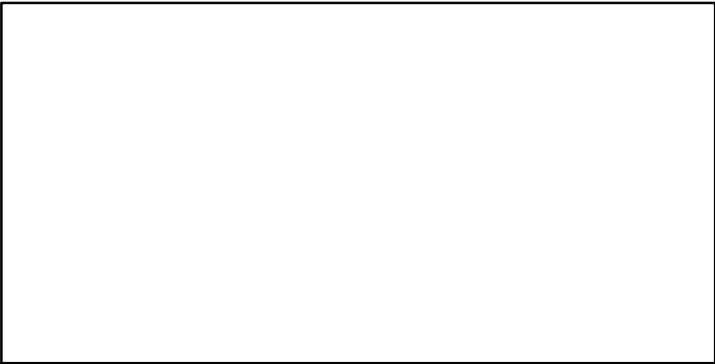
TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



## Walleye pollock Okhotsk Sea [APOLLOKS]

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



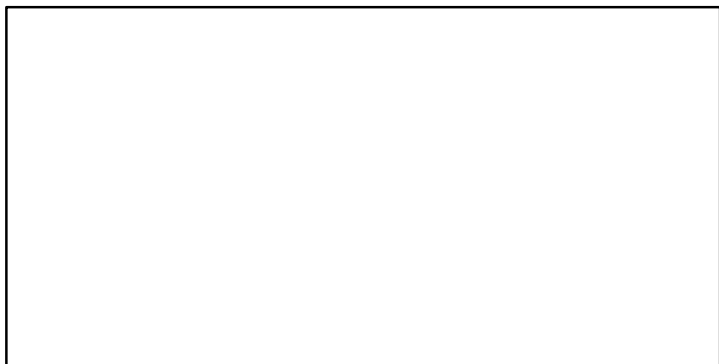
**Production\***



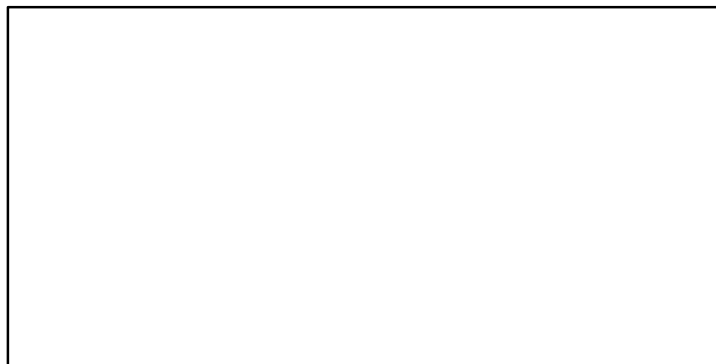
◆ Start Year   ◆ End Year   \* No Data

Walleye pollock Okhotsk Sea [APOLLOKS]

**TB\***



**SSB\***



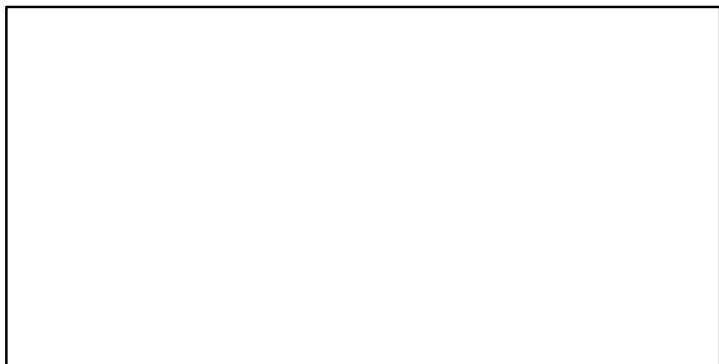
**TN \***



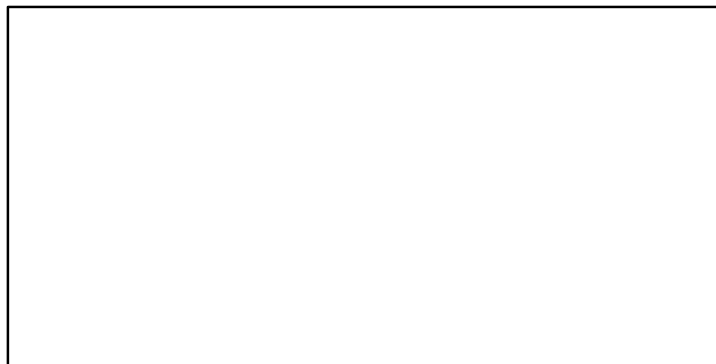
**F\***



**ER\***



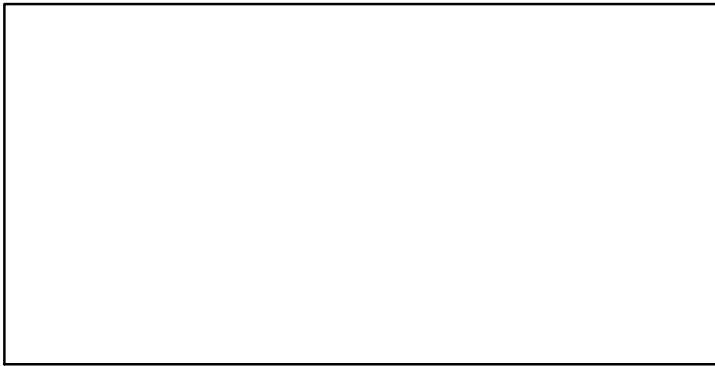
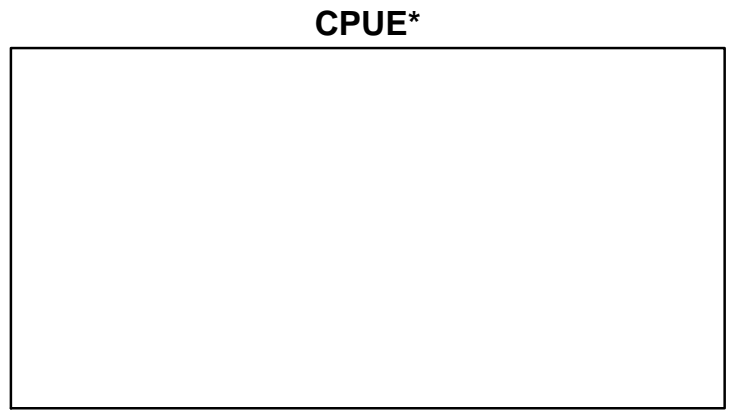
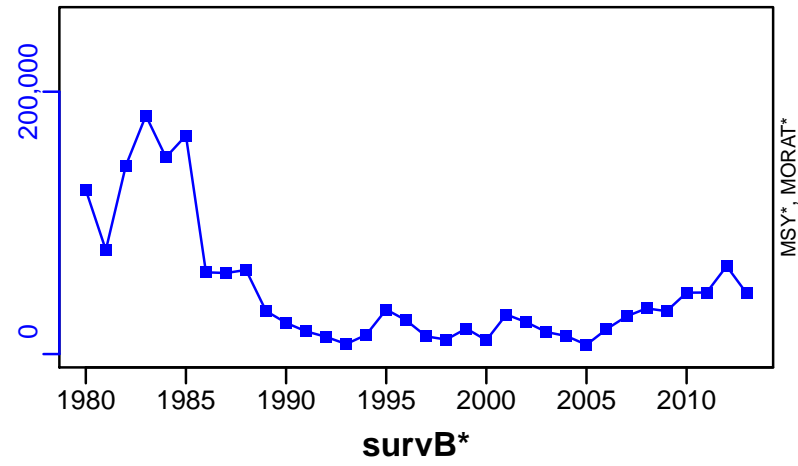
**Recruits\***



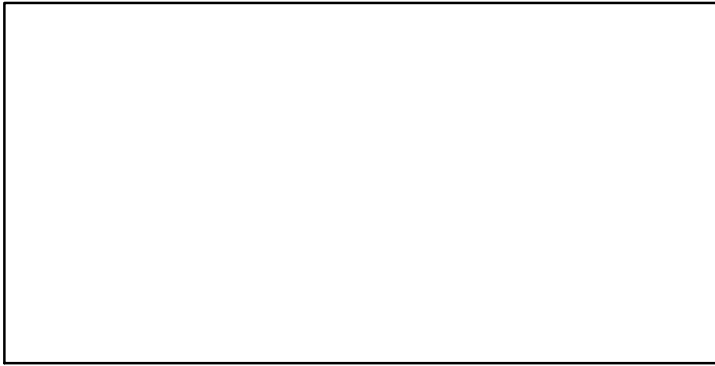
# Walleye pollock Okhotsk Sea [APOLLOKS]

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

TAC\*, Cpair\*, Cadv\*



EFFORT\*



## Walleye pollock Pacific Coast of Japan [APOLLPJPN]

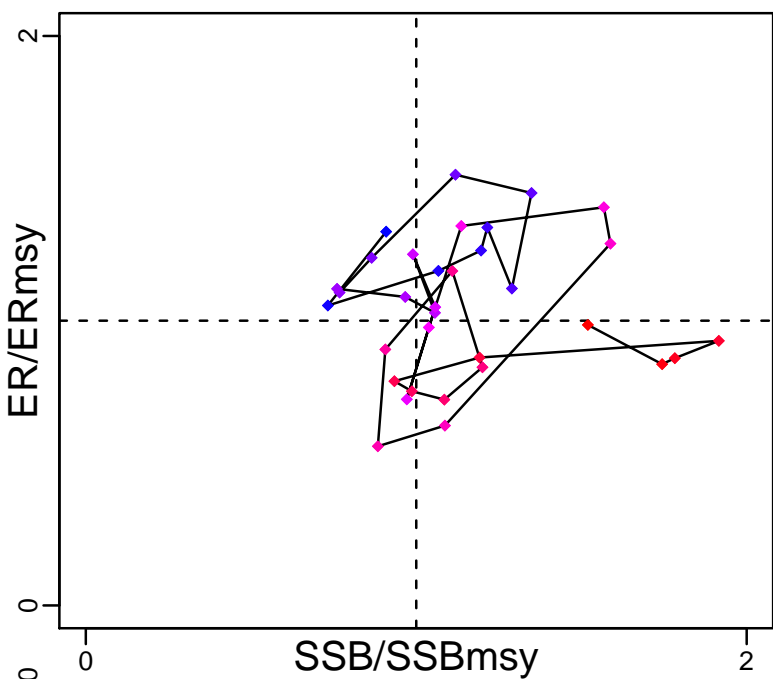
Metadata	
<b>Scientific Name</b>	Theragra chalcogramma
<b>Current Assess ID</b>	FAJ-APOLLPJPN-1975-2013-JPNIMP2016
<b>Area</b>	Pacific Coast of Japan
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2013, 2014

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2013	206,052
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2013	0.17
<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	2014	0.25
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

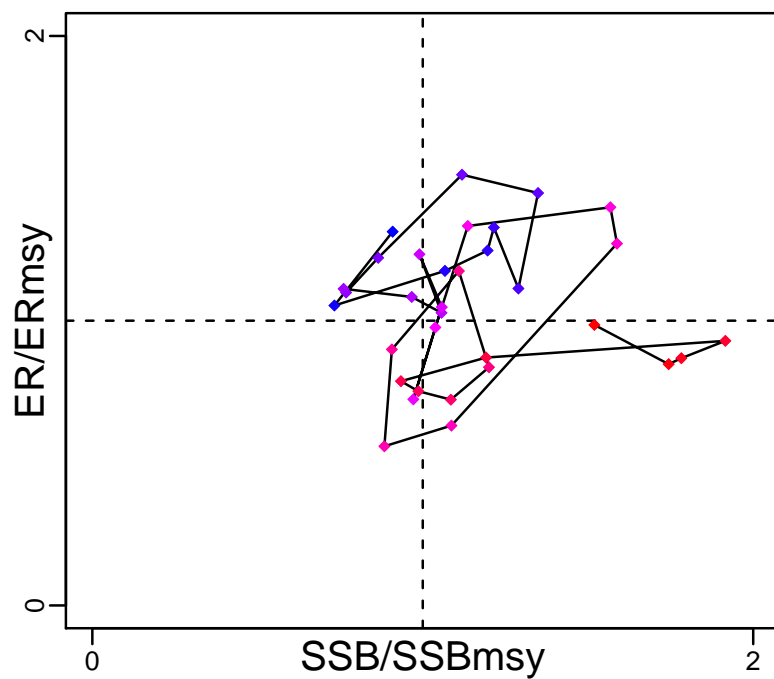
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2014	892,000	Both	0+
<b>SSB</b>	SSB-MT	2014	397,000	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2014	$1.57 \times 10^9$	Both	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2014	0	Both	0+
<b>TC</b>	TC-MT	2014	155,000		
<b>TL</b>	TL-MT	2014	155,000		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	1.52		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	0.99		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Walleye pollock Pacific Coast of Japan [APOLLJPN]

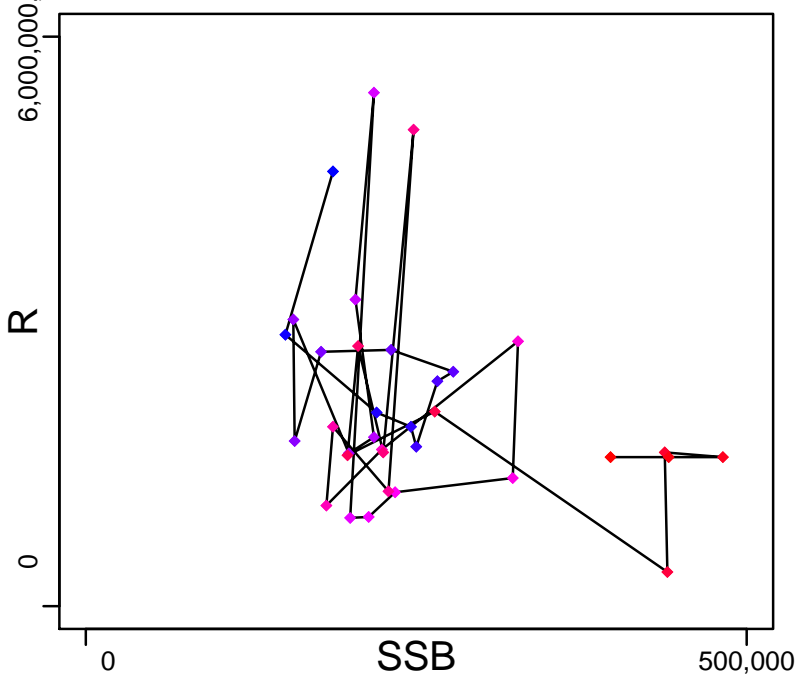
Kobe MSYpref (1975–2013–JPNIMP2016)



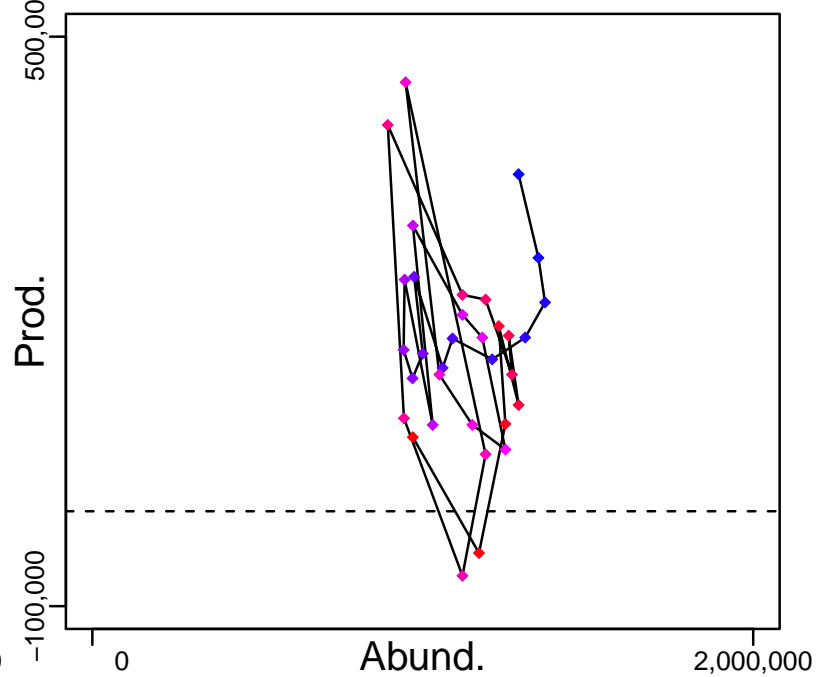
Kobe MGTpref (1975–2013–JPNIMP2016)



Spawner Recruit (1975–2014–KUROTA)



Production (1975–2014–KUROTA)

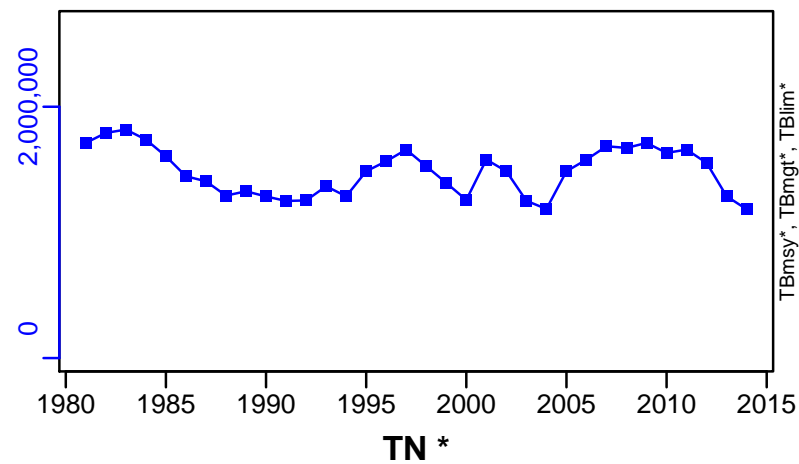


◆ Start Year ◆ End Year \* No Data

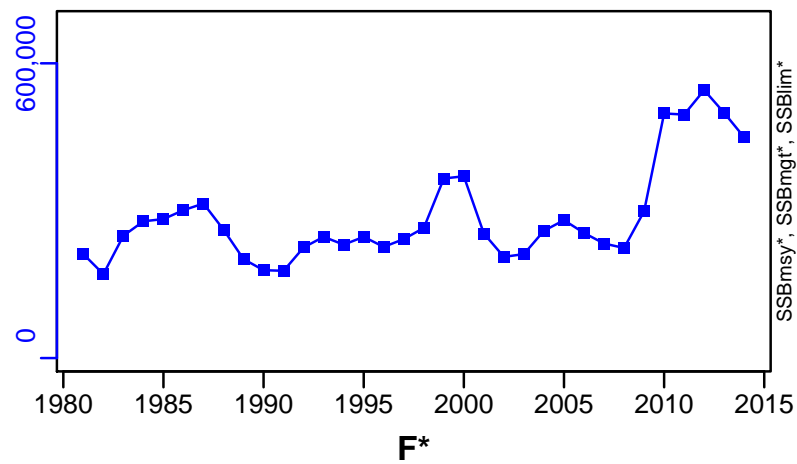


# Walleye pollock Pacific Coast of Japan [APOLLPJPN]

TB-MT (1975-2014-KUROTA)



SSB-MT (1975-2014-KUROTA)



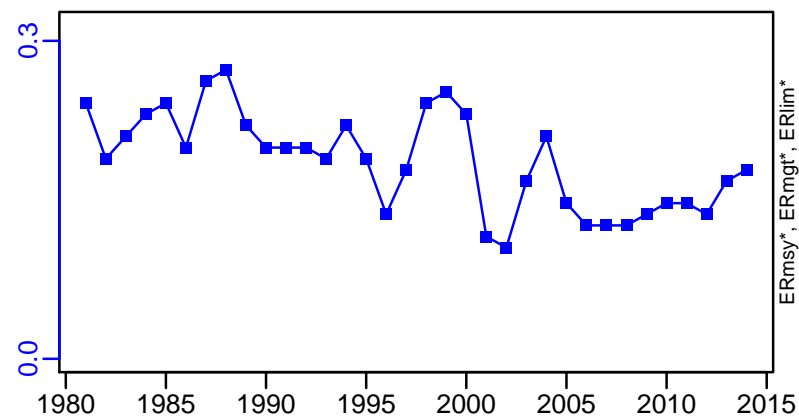
TN \*



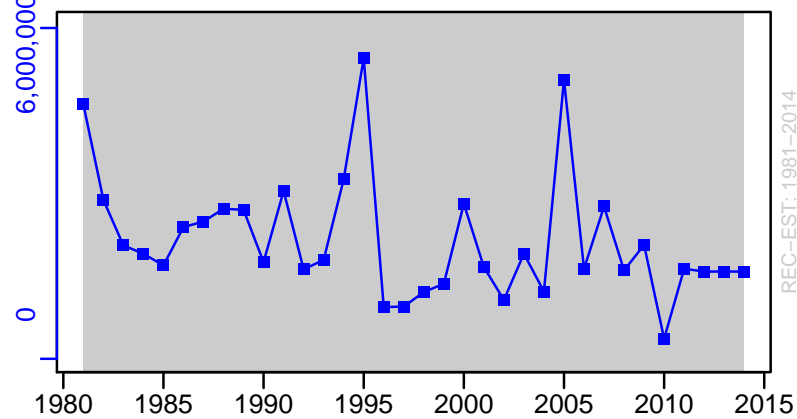
F\*



ER-ratio (1975-2014-KUROTA)

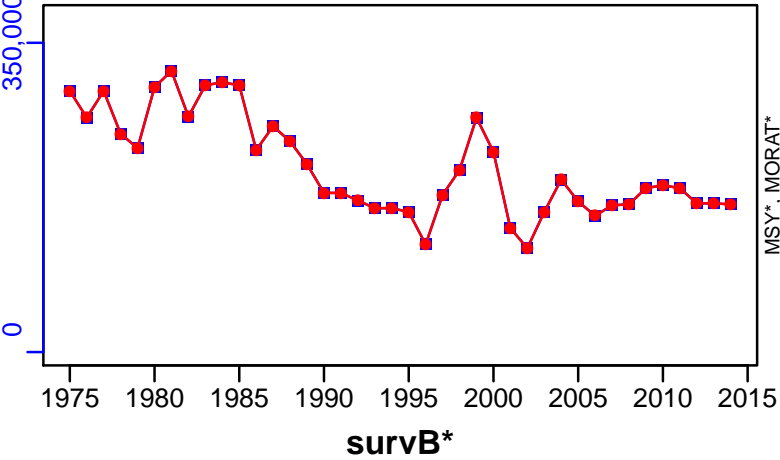


R-E00 (1975-2014-KUROTA)



Walleye pollock Pacific Coast of Japan [APOLLPJPN]

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



TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*

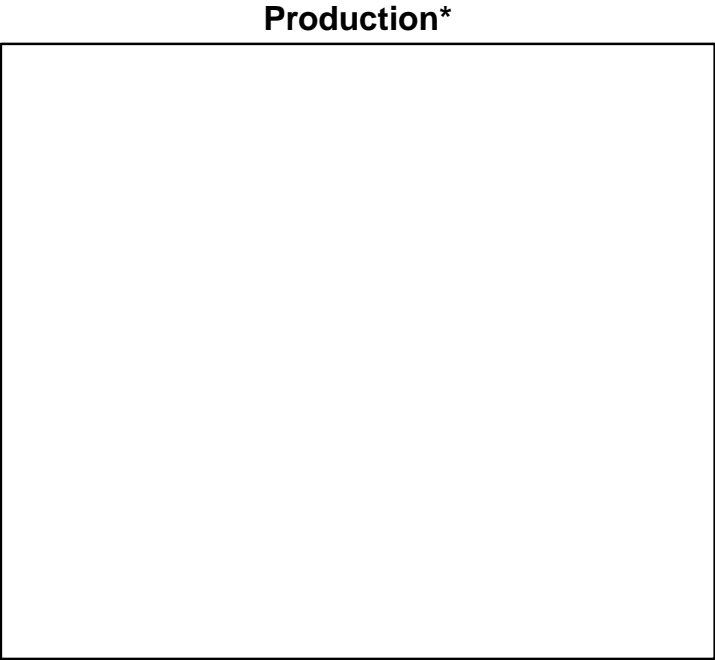
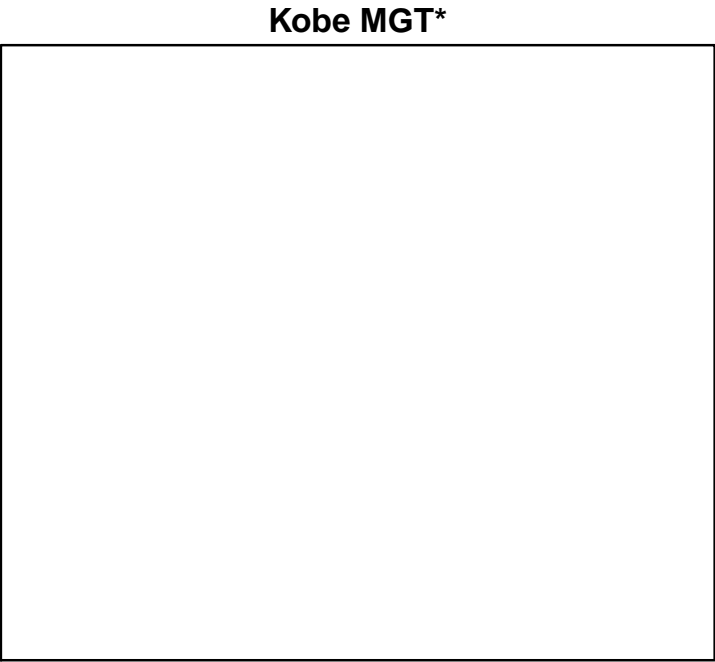


## Alaskan pink shrimp Sea of Japan [APSHRIMPSOJ]

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



◆ Start Year   ◆ End Year   \* No Data

Alaskan pink shrimp Sea of Japan [APSHRIMPSOJ]

TB\*



SSB\*



TN \*



F\*



ER\*



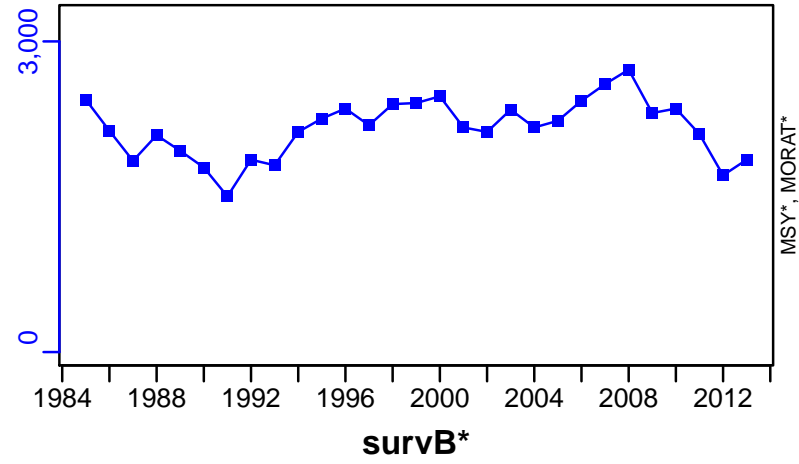
Recruits\*



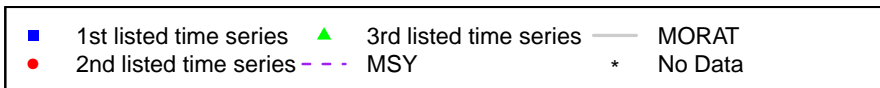
# Alaskan pink shrimp Sea of Japan [APSHRIMPSOJ]

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

TAC\*, Cpair\*, Cadv\*



EFFORT\*



## Arabesque greenling Nemuro Strait [ARGREENNEMS]

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



Arabesque greenling Nemuro Strait [ARGREENNEMS]

TB\*



SSB\*



TN \*



F\*



ER\*



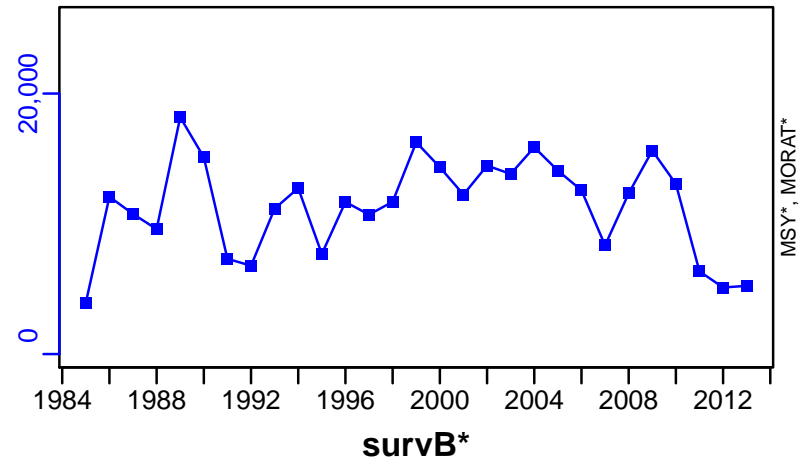
Recruits\*



# 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>	FAJ-ARGREENNHOKK-1980-2013-JPNIMP2016
<b>Area</b>	North coast of Hokkaido
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2013

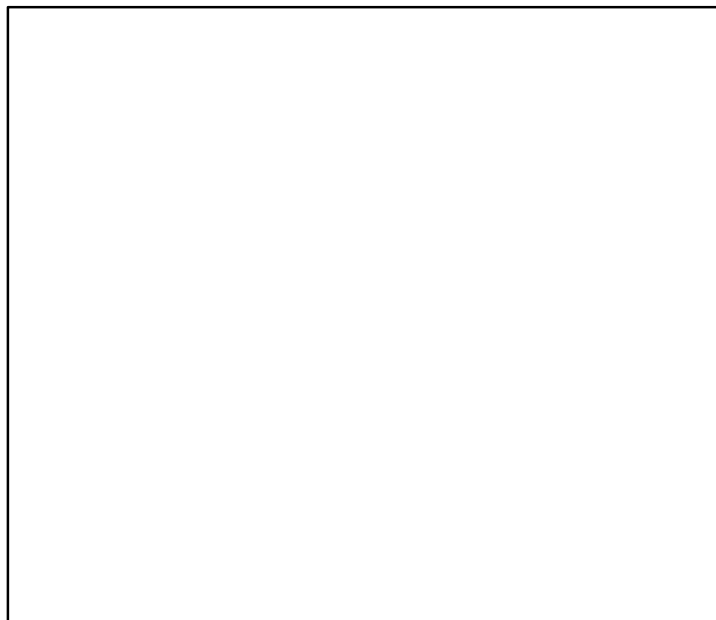
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

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\***



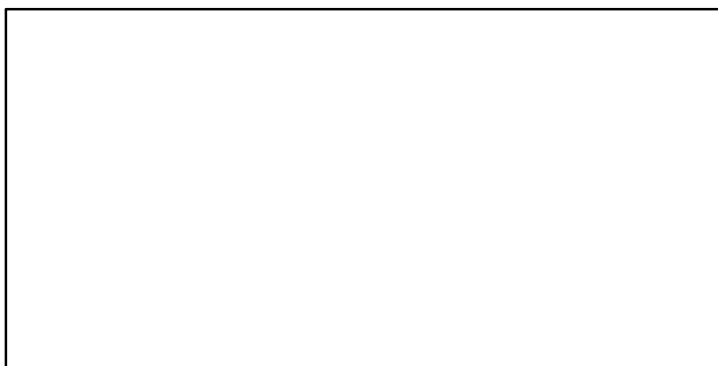
◆ Start Year ◆ End Year \* No Data

Arabesque greenling North coast of Hokkaido [ARGREENNHOKK]

**TB\***



**SSB\***



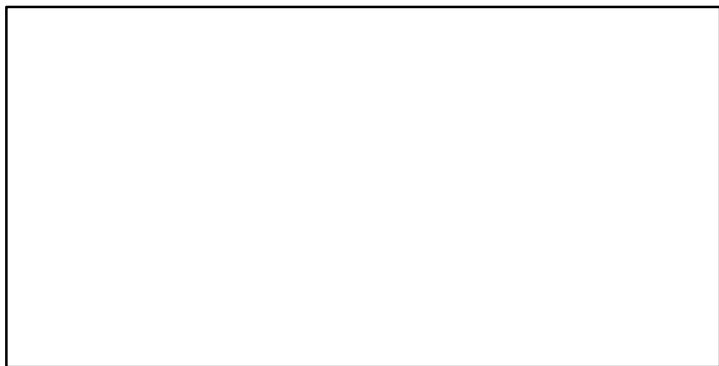
**TN \***



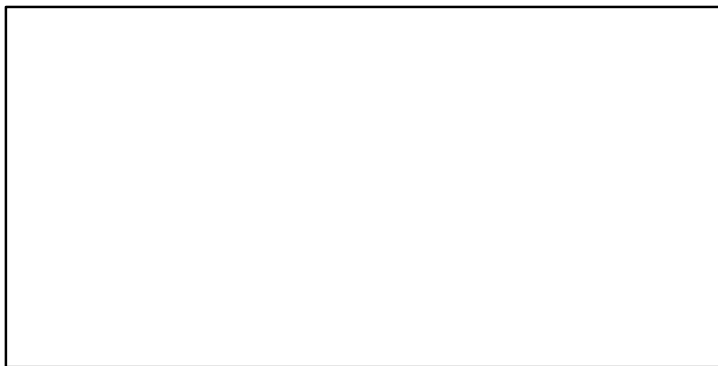
**F\***



**ER\***



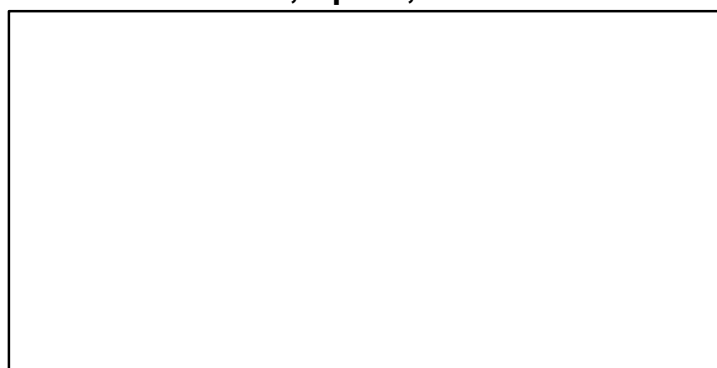
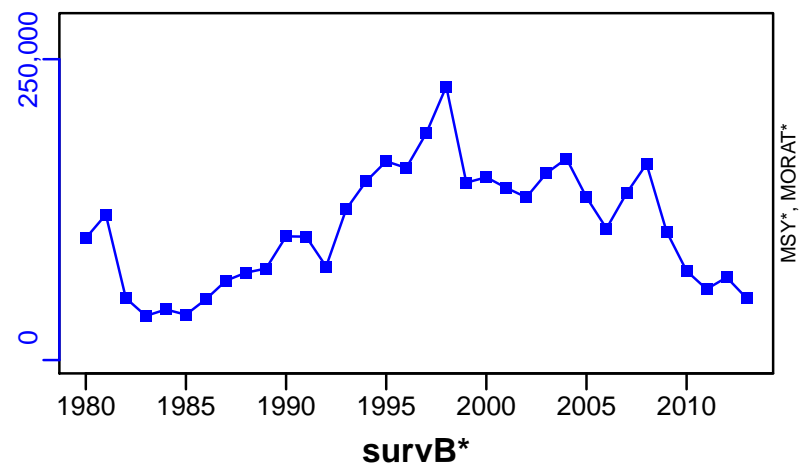
**Recruits\***



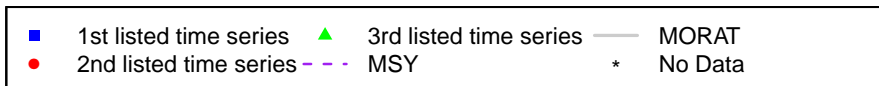
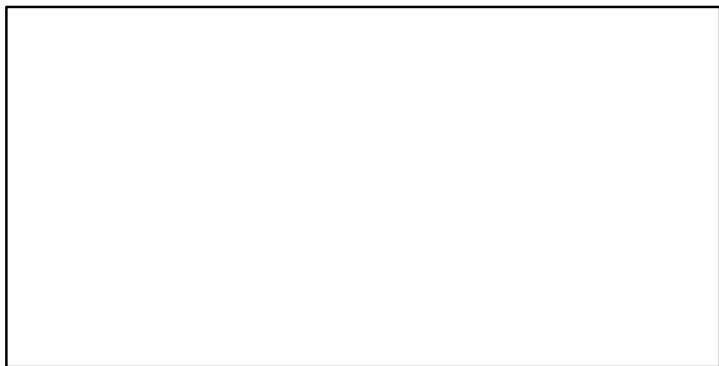
# Arabesque greenling North coast of Hokkaido [ARGREENNHOKK]

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

TAC\*, Cpair\*, Cadv\*



EFFORT\*



## Arabesque greenling South coast of Hokkaido [ARGREENSHOKK]

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

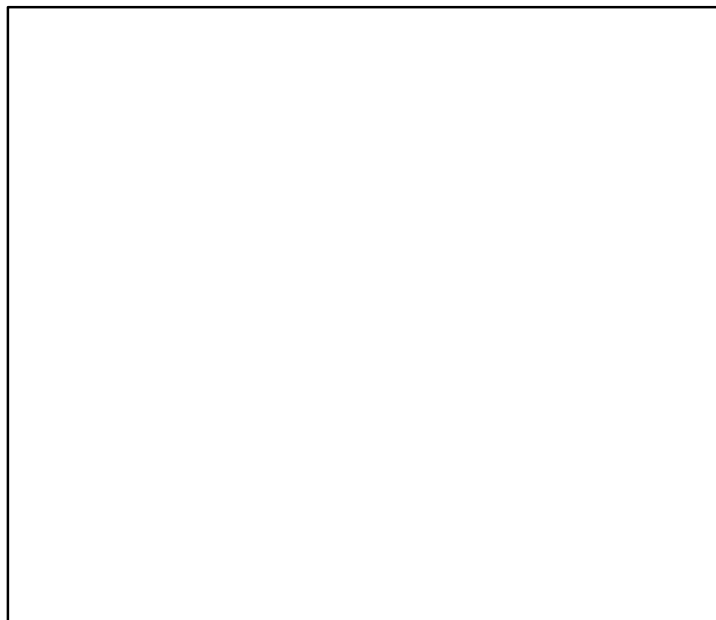
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

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\***



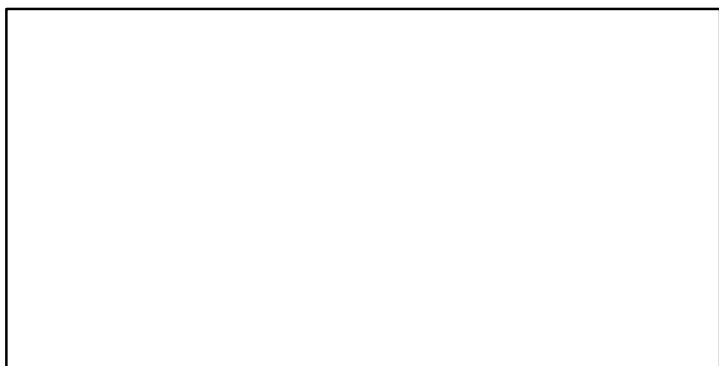
**TN \***



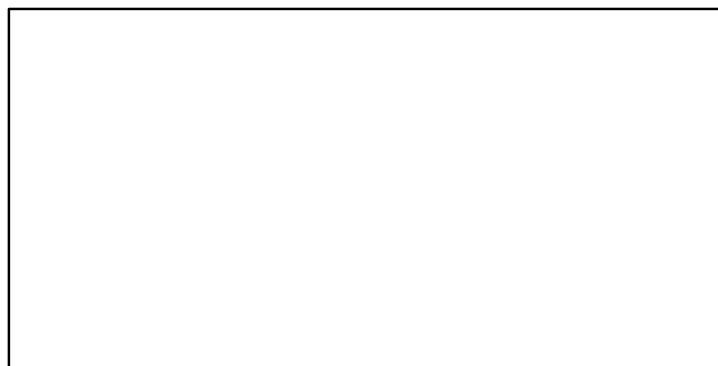
**F\***



**ER\***

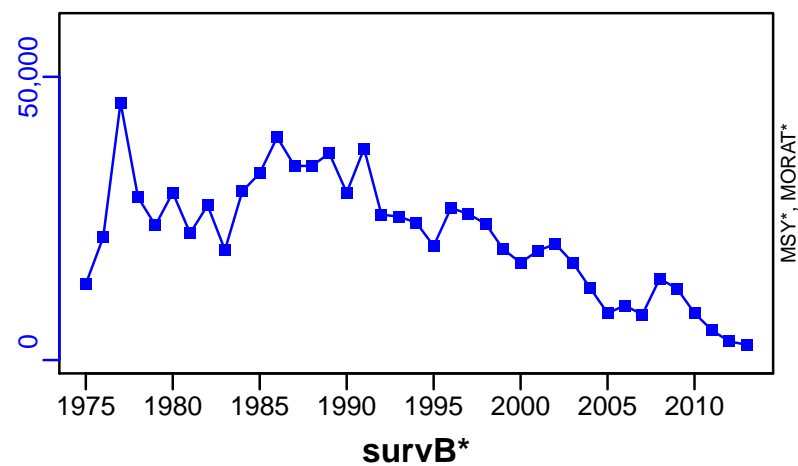


**Recruits\***



# Arabesque greenling South coast of Hokkaido [ARGREENSHOKK]

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



TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



■ 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>	FAJ-ASCADECS-1973-2013-JPNIMP2016
<b>Area</b>	East China Sea
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries 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	-	-	-		

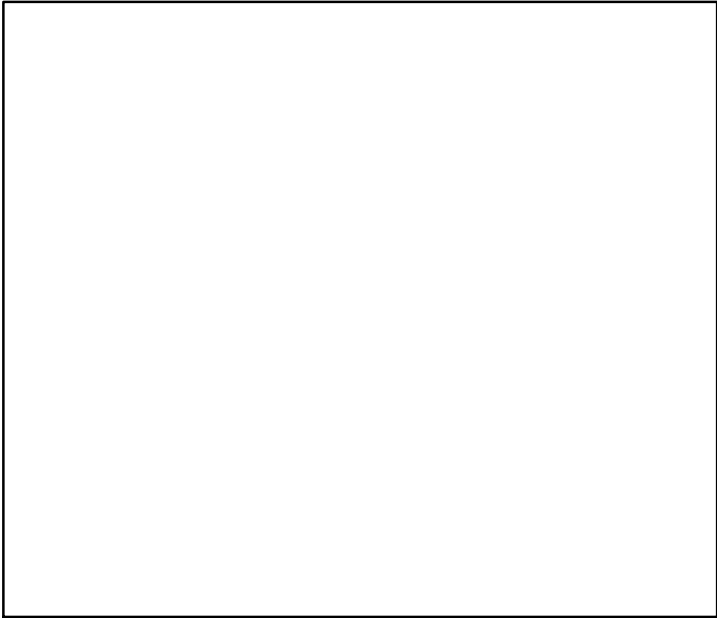
Kobe MSY\*



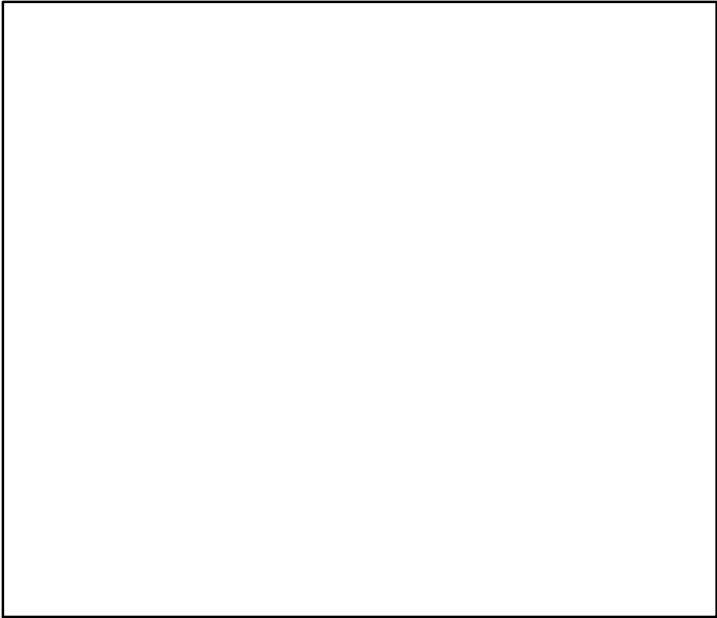
Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year ◆ End Year \* No Data

Amberstripe scad East China Sea [ASCADECS]

TB\*



SSB\*



TN \*



F\*



ER\*

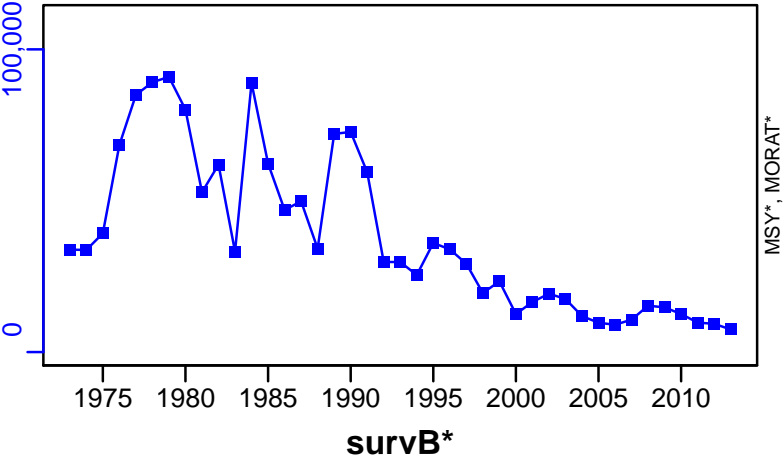


Recruits\*



Amberstripe scad East China Sea [ASCADECS]

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



TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



## Spotted mackerel East China Sea [BMACKECS]

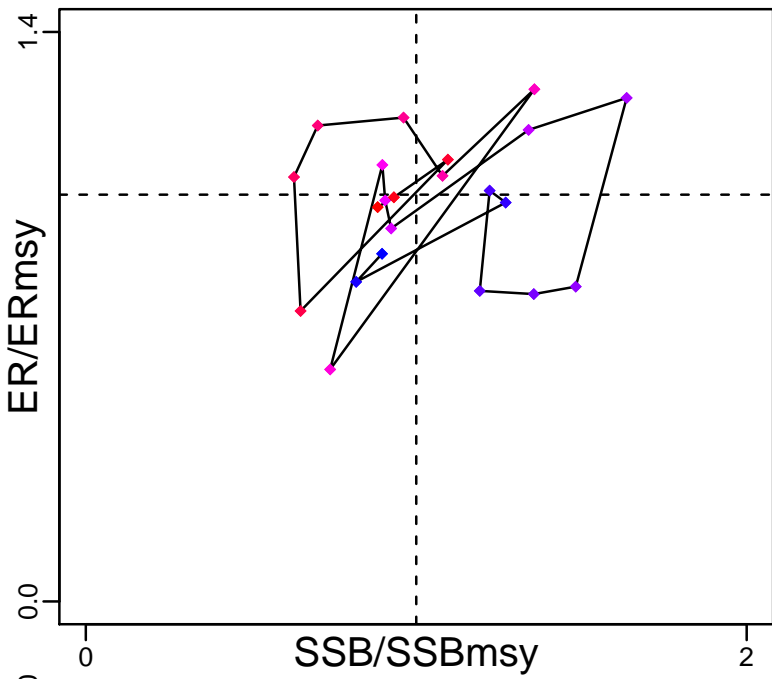
Metadata	
<b>Scientific Name</b>	Scomber australasicus
<b>Current Assess ID</b>	FAJ-BMACKECS-1992-2013-JPNIMP2016
<b>Area</b>	East China Sea
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2013, 2014

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<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	2014	0.4
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

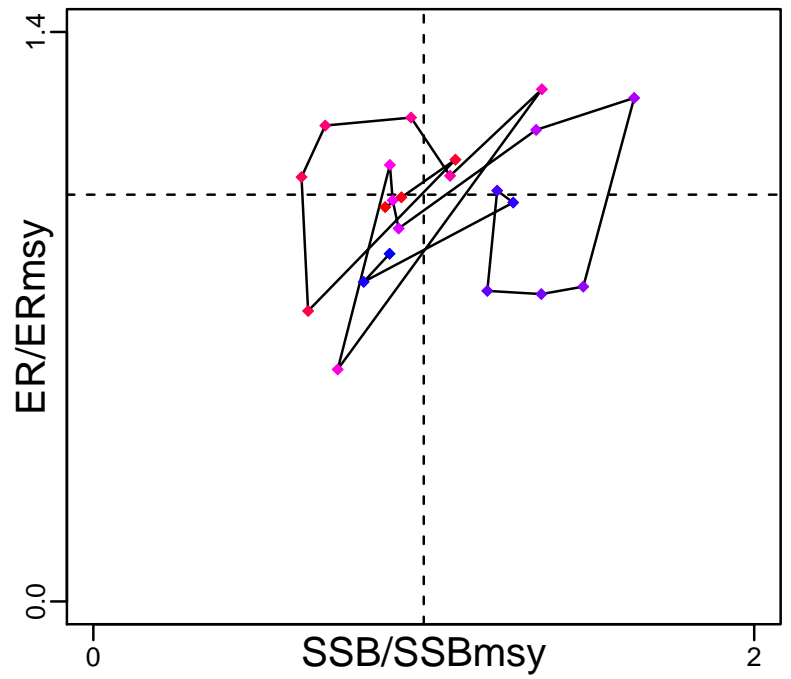
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2014	112,000	Both	0+
<b>SSB</b>	SSB-MT	2014	38,000	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2014	$2.66 \times 10^8$	Both	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2014	0	Both	0+
<b>TC</b>	TC-MT	2014	35,000		
<b>TL</b>	TL-MT	2014	35,000		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.88		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	0.97		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Spotted mackerel East China Sea [BMACKECS]

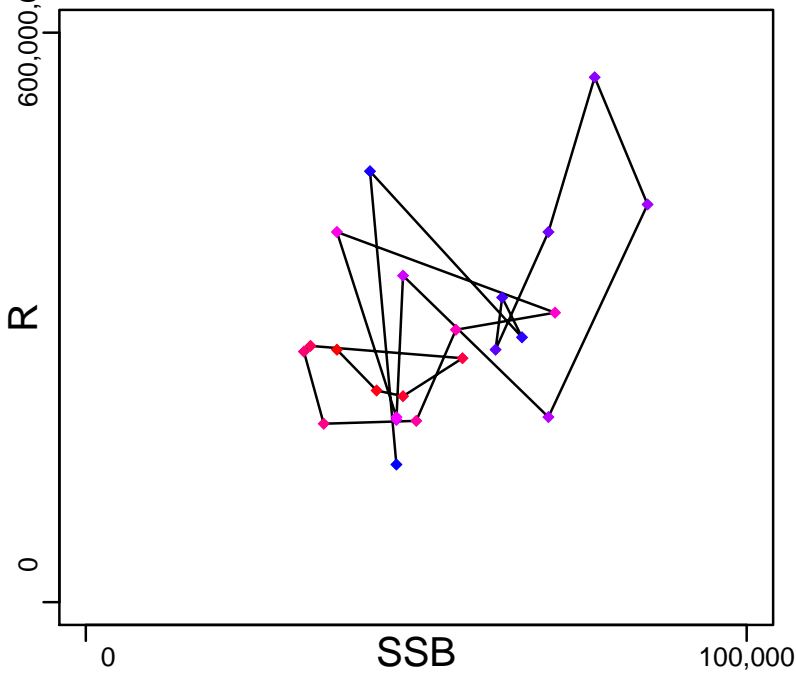
Kobe MSYpref (1992–2013–JPNIMP2016)



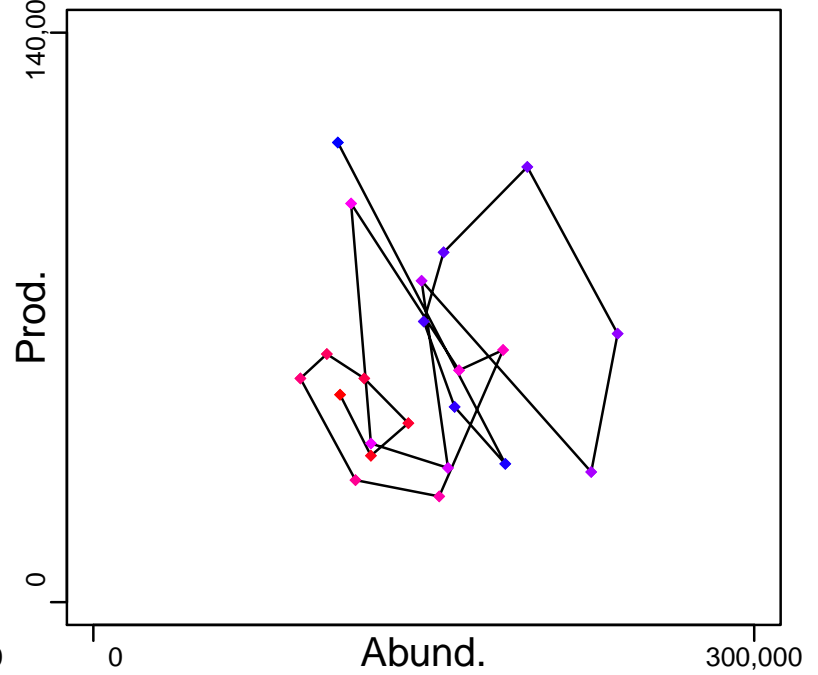
Kobe MGTpref (1992–2013–JPNIMP2016)



Spawner Recruit (1992–2014–KUROTA)



Production (1992–2014–KUROTA)

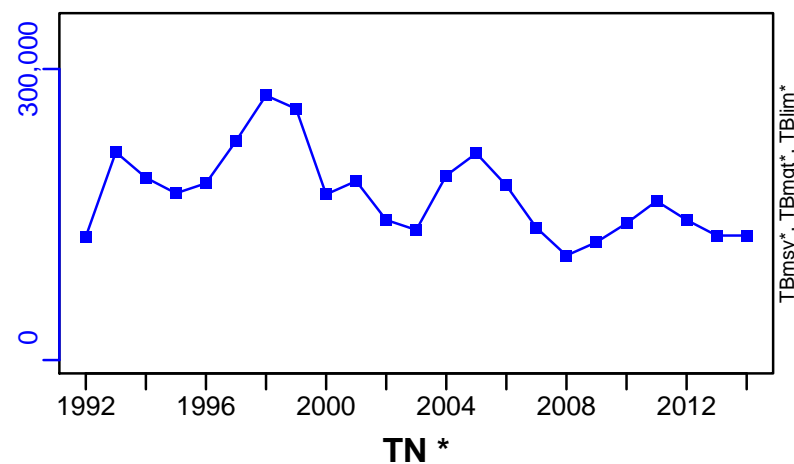


◆ Start Year ◆ End Year \* No Data

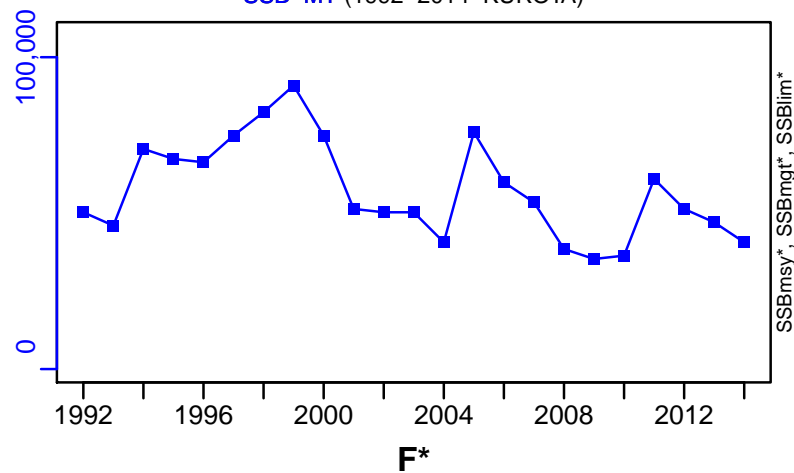


# Spotted mackerel East China Sea [BMACKECS]

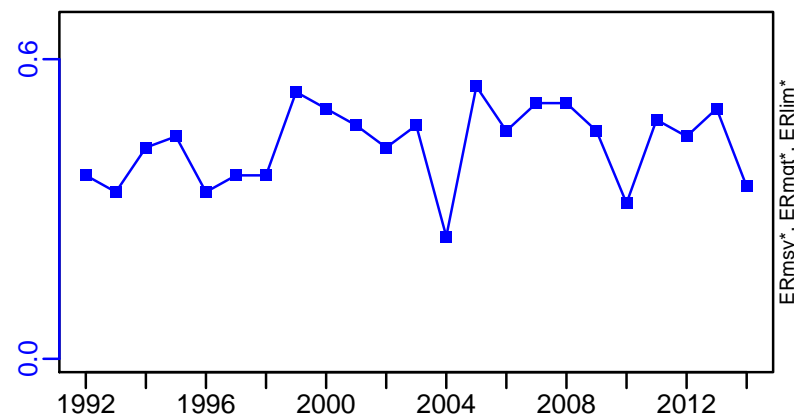
TB-MT (1992–2014–KUROTA)



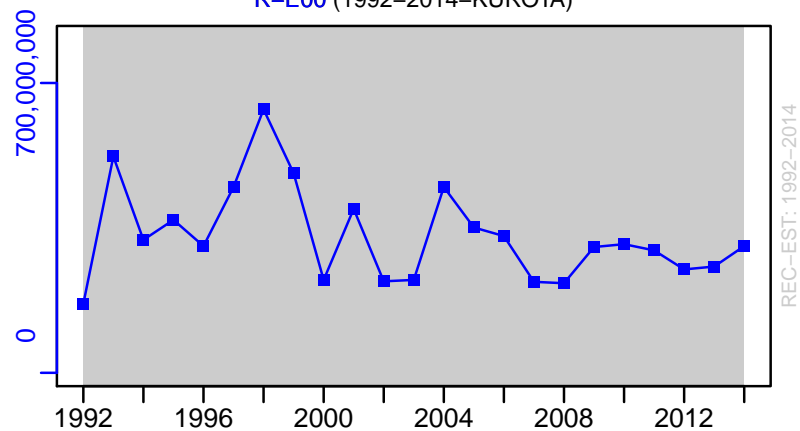
SSB-MT (1992–2014–KUROTA)



ER-ratio (1992–2014–KUROTA)

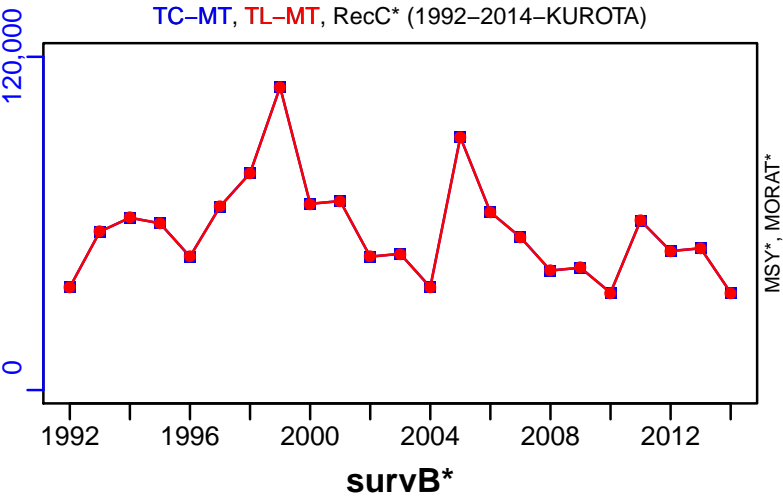


R-E00 (1992–2014–KUROTA)



Spotted mackerel East China Sea [BMACKECS]

TC-MT, TL-MT, RecC\* (1992-2014-KUROTA)



TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



## Spotted mackerel Pacific Coast of Japan [BMACKPJPN]

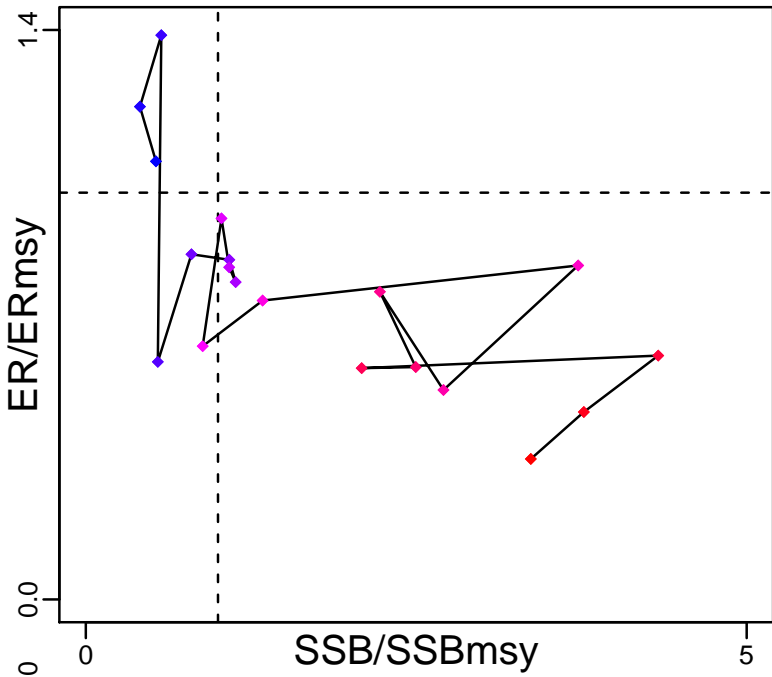
Metadata	
<b>Scientific Name</b>	Scomber australacius
<b>Current Assess ID</b>	FAJ-BMACKPJPN-1982-2013-JPNIMP2016
<b>Area</b>	Pacific Coast of Japan
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2013, 2014

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2013	91,814
<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	145,656
<b>M</b>	M-1/yr	2014	0.4
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

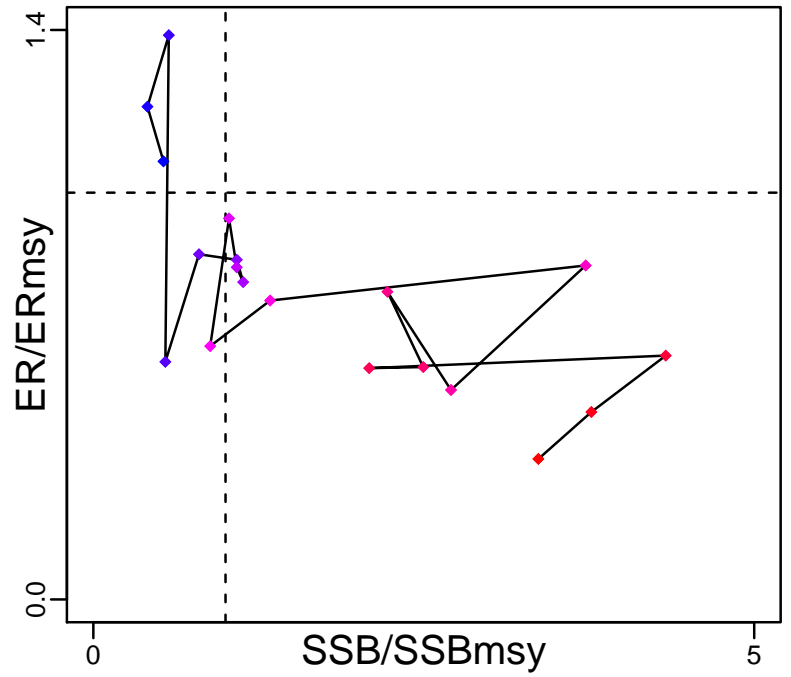
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2014	791,000	Both	0+
<b>SSB</b>	SSB-MT	2014	397,000	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2014	$1.36 \times 10^9$	Both	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2014	0	Both	0+
<b>TC</b>	TC-MT	2014	114,000		
<b>TL</b>	TL-MT	2014	114,000		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	3.37		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	0.35		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Spotted mackerel Pacific Coast of Japan [BMACKPJPN]

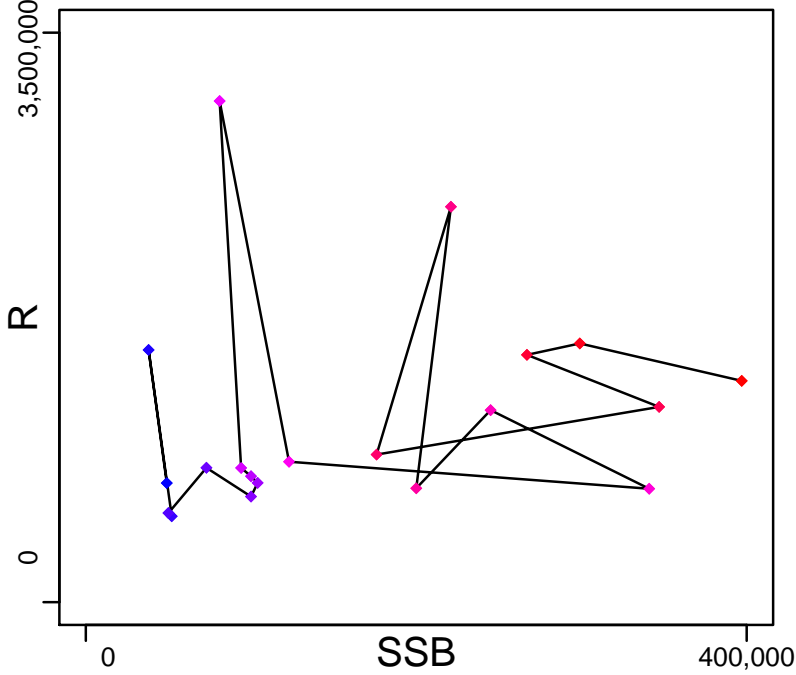
Kobe MSYpref (1982–2013–JPNIMP2016)



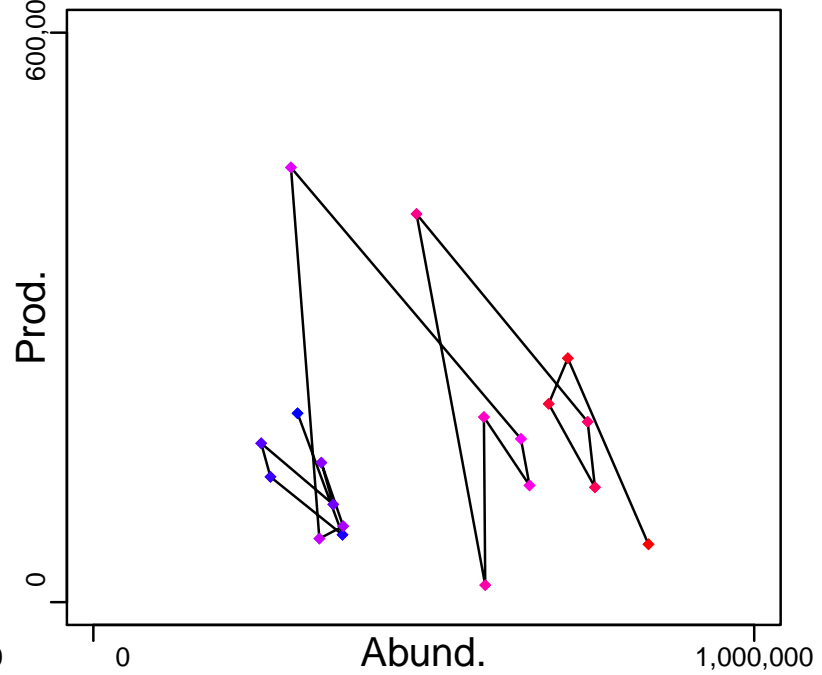
Kobe MGTpref (1982–2013–JPNIMP2016)



Spawner Recruit (1982–2014–KUROTA)



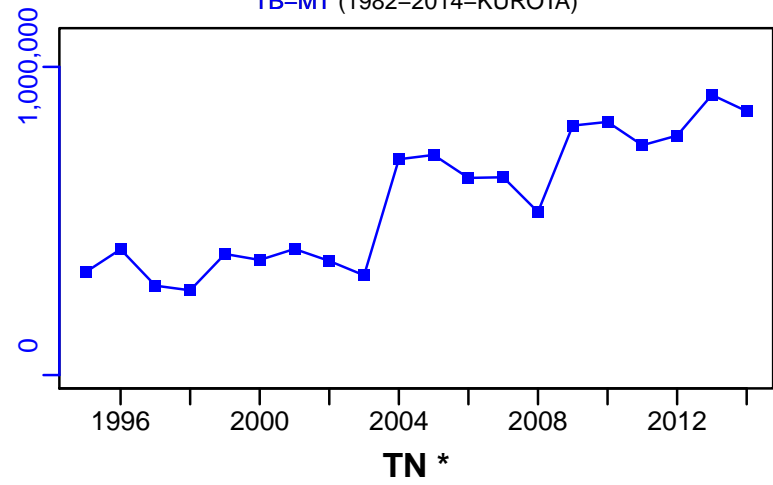
Production (1982–2014–KUROTA)



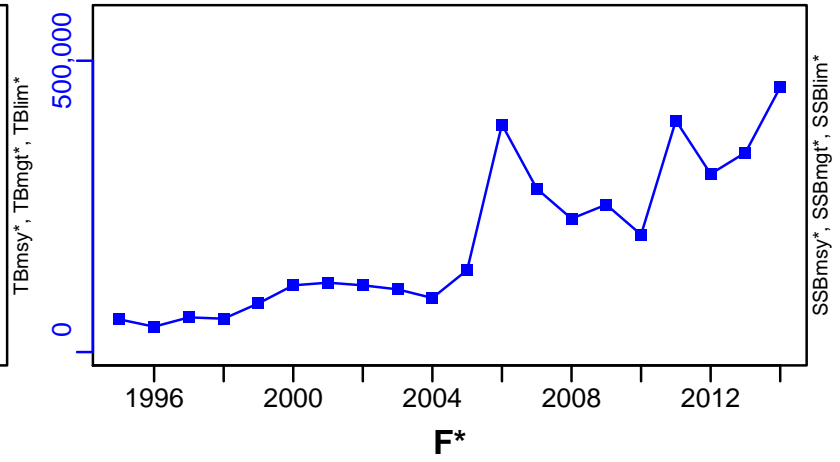
◆ Start Year ◆ End Year \* No Data

# Spotted mackerel Pacific Coast of Japan [BMACKPJPN]

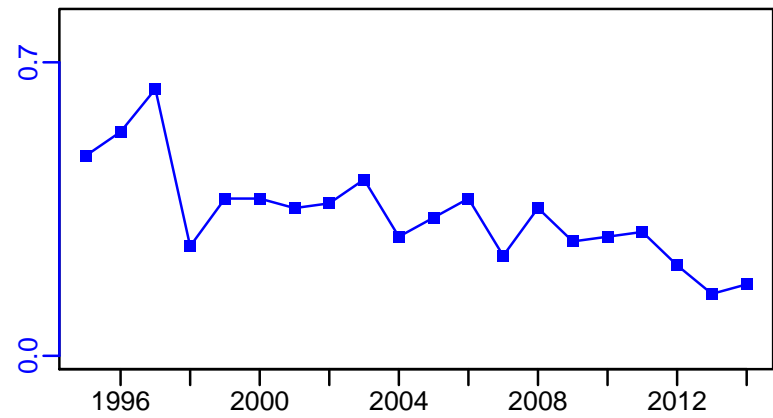
TB-MT (1982-2014-KUROTA)



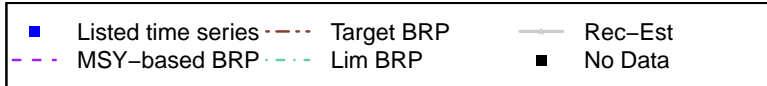
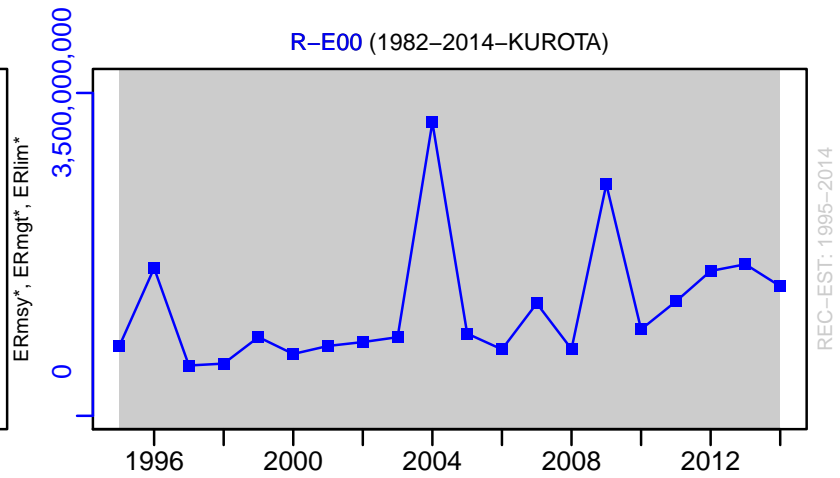
SSB-MT (1982-2014-KUROTA)



ER-ratio (1982-2014-KUROTA)

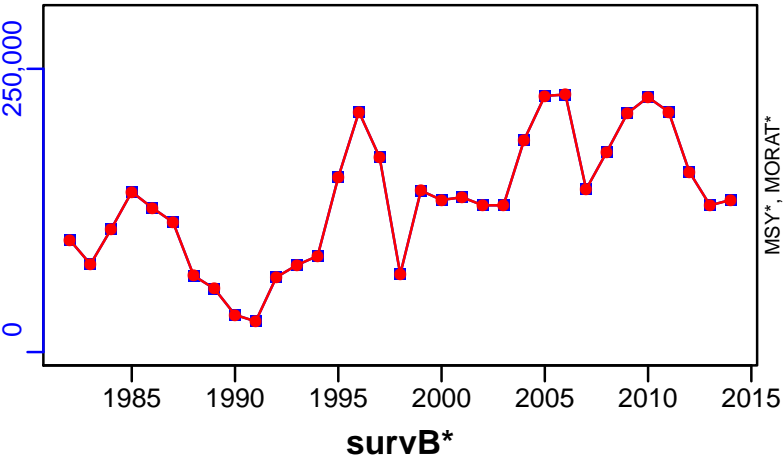


R-E00 (1982-2014-KUROTA)



Spotted mackerel Pacific Coast of Japan [BMACKPJPN]

TC-MT, TL-MT, RecC\* (1982-2014-KUROTA)



TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



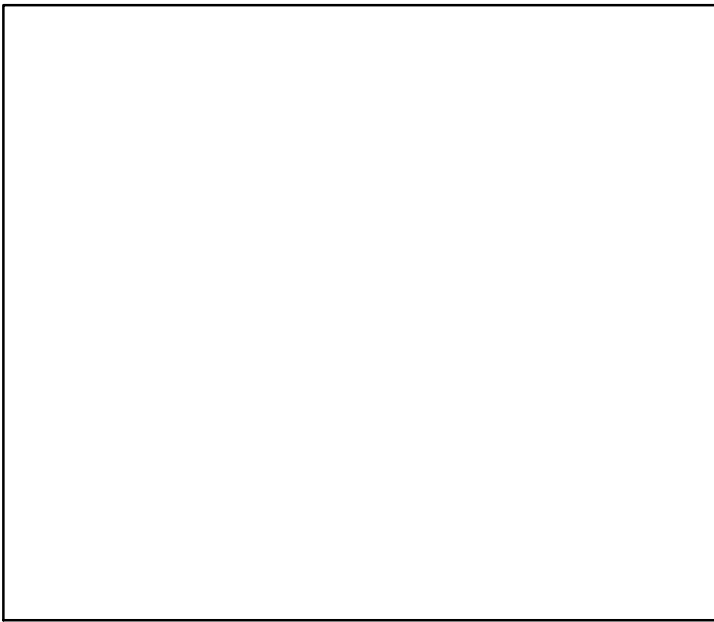
## Yellow sea bream Sea of Japan [BRMSOJ]

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

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

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

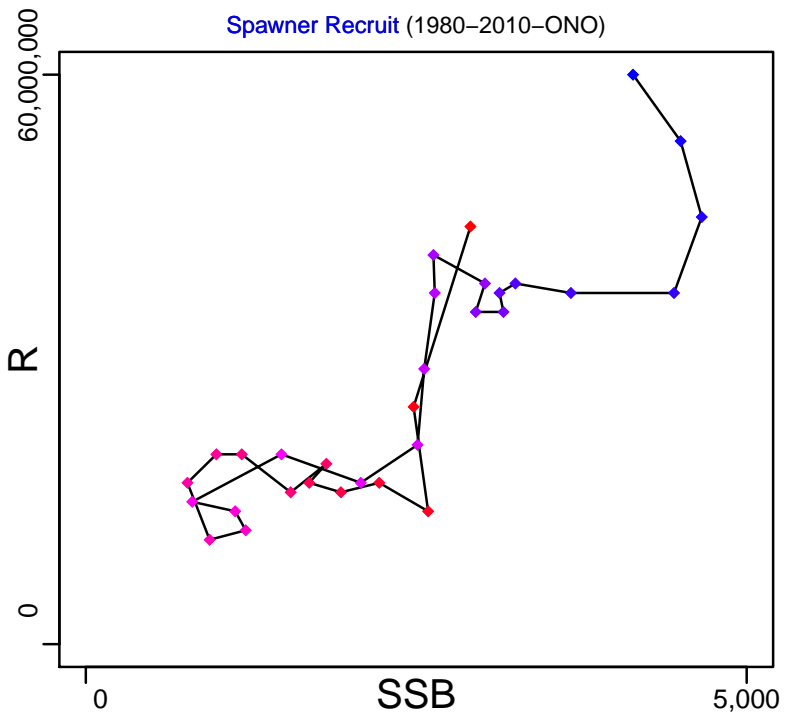
Kobe MSY\*



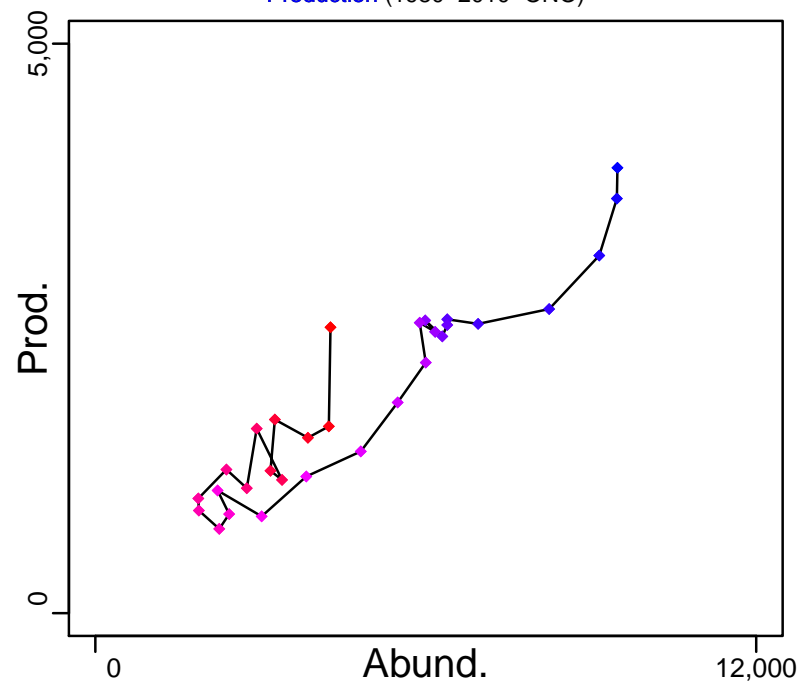
Kobe MGT\*



Spawner Recruit (1980–2010–ONO)



Production (1980–2010–ONO)

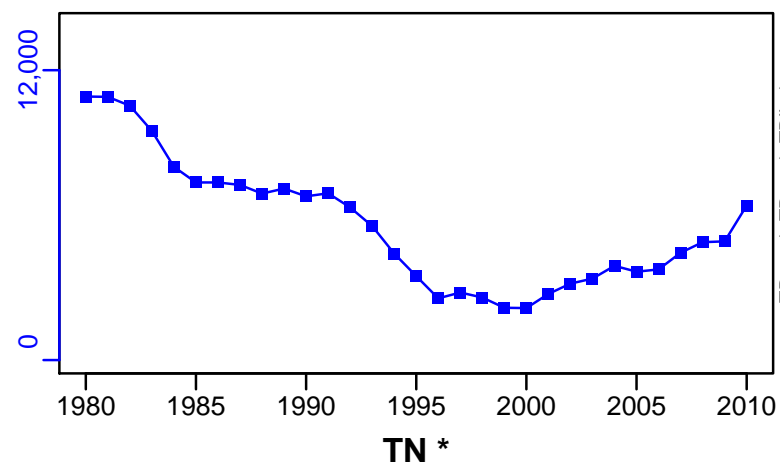


◆ Start Year ◆ End Year \* No Data

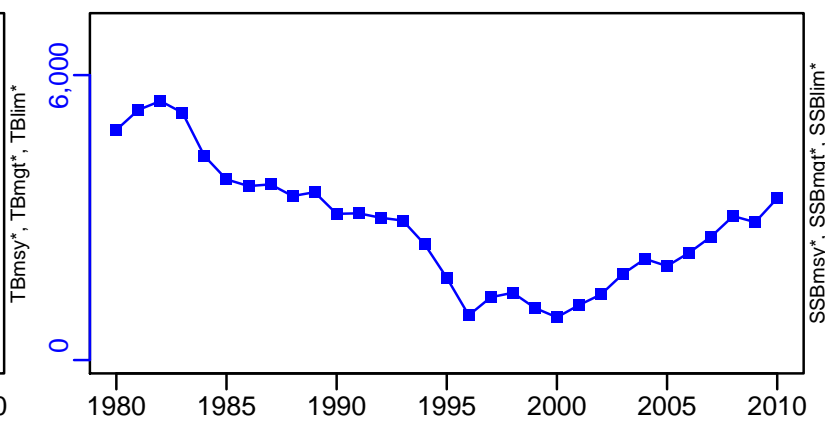


# Yellow sea bream Sea of Japan [BRMSOJ]

TB-MT (1980-2010-ONO)



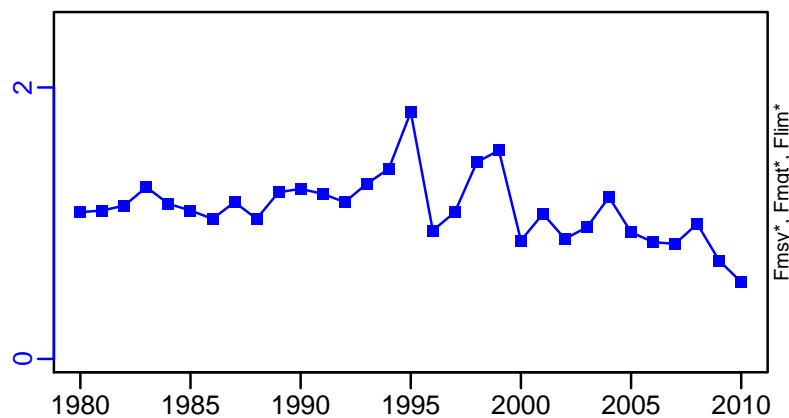
SSB-MT (1980-2010-ONO)



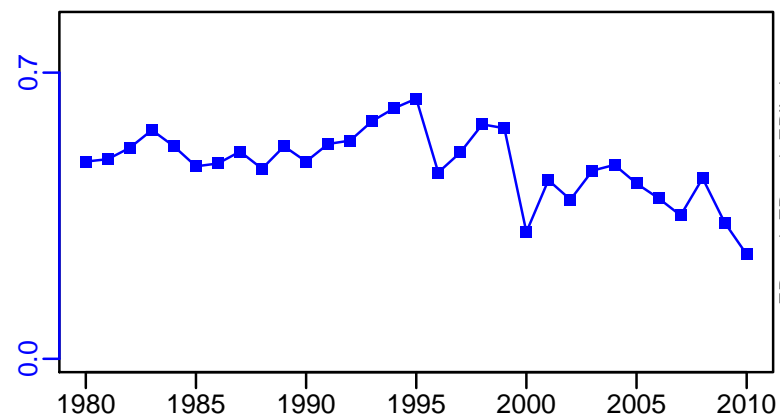
TN \*



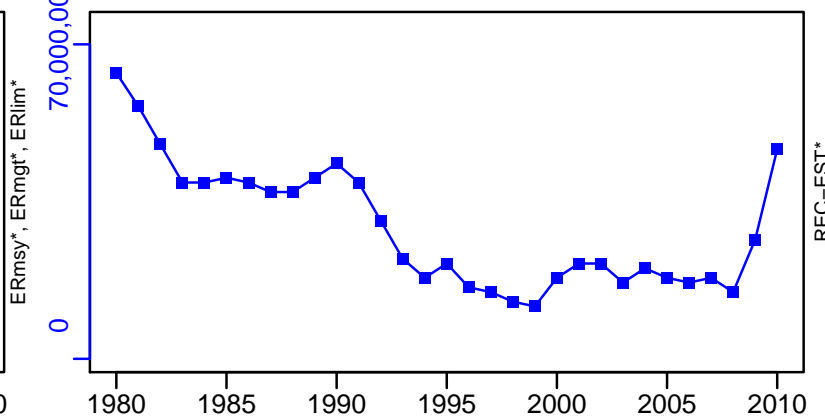
F-1/yr (1980-2010-ONO)



ER-ratio (1980-2010-ONO)



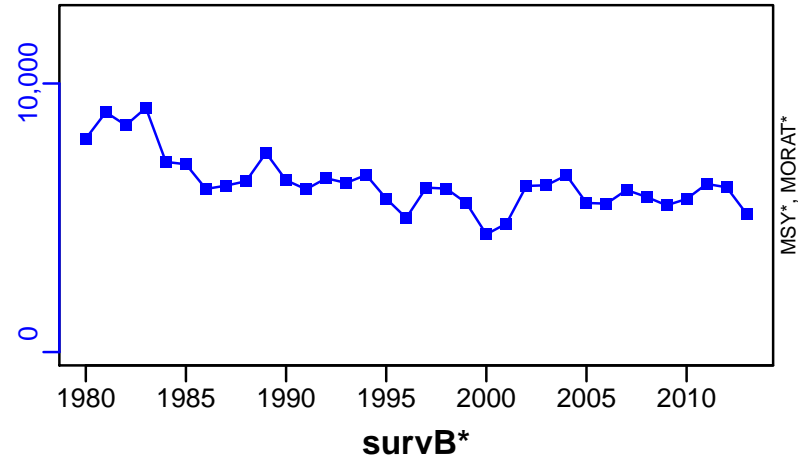
R-E00 (1980-2010-ONO)



# Yellow sea bream Sea of Japan [BRMSOJ]

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

TAC\*, Cpair\*, Cadv\*



EFFORT\*



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

Metadata	
<b>Scientific Name</b>	Thamnaconus modestus
<b>Current Assess ID</b>	FAJ-BSCRAPERSECS-2000-2013-JPNIMP2016
<b>Area</b>	Sea of Japan and East China Sea
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries 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\***



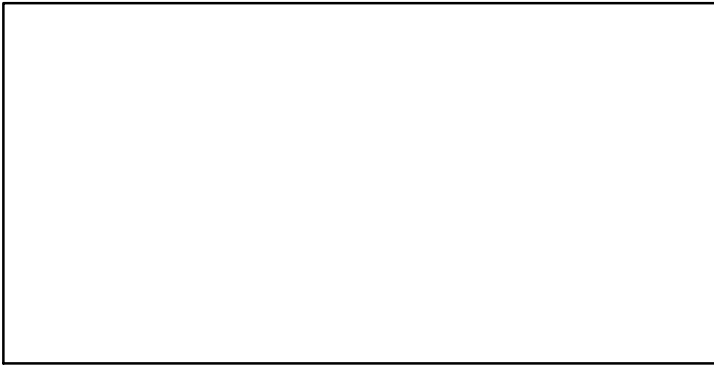
**Production\***



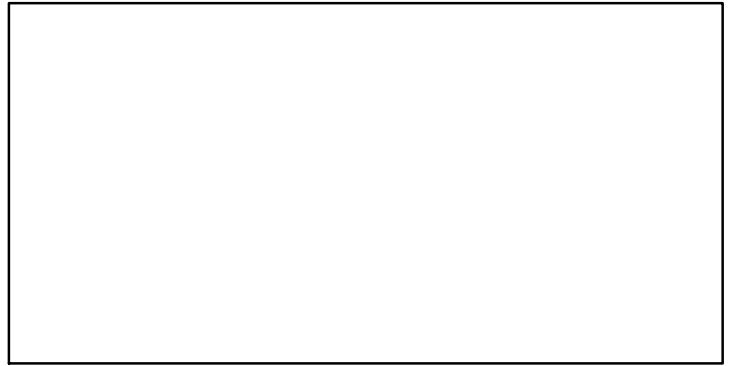
◆ Start Year ◆ End Year \* No Data

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

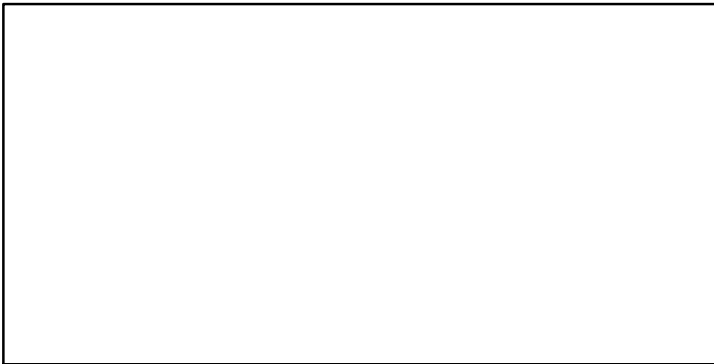
**TB\***



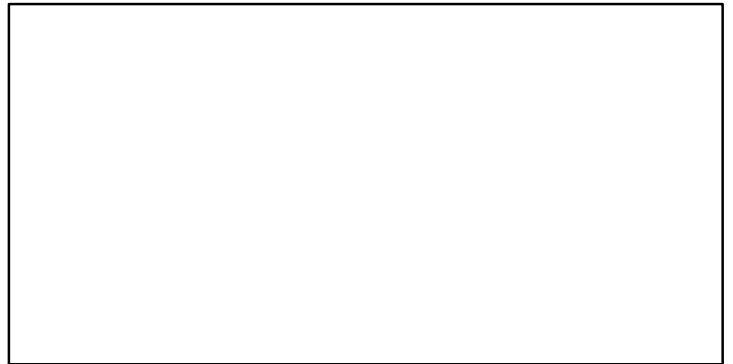
**SSB\***



**TN \***



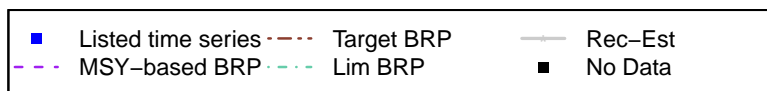
**F\***



**ER\***



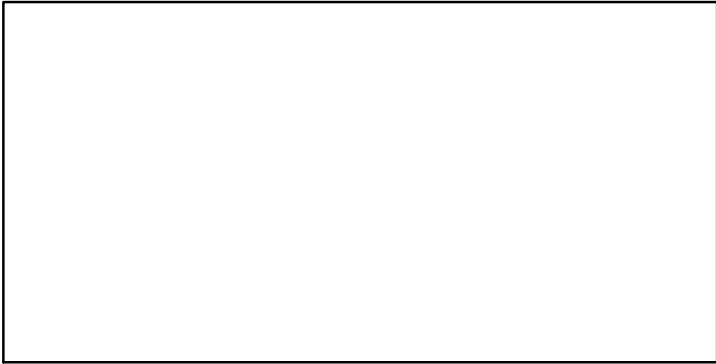
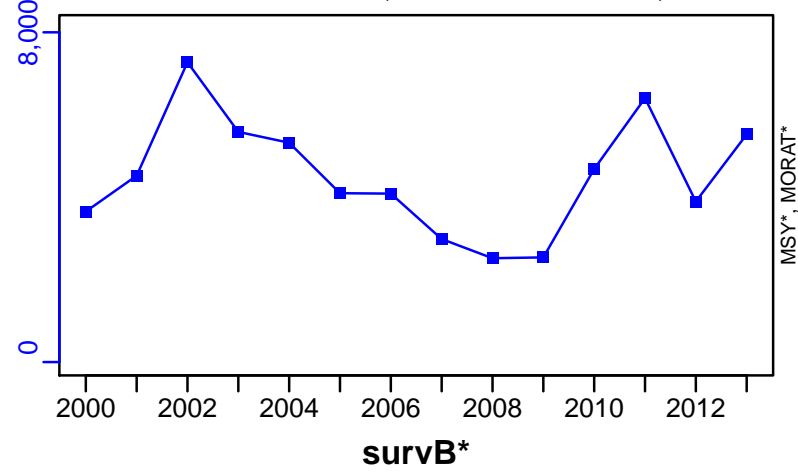
**Recruits\***



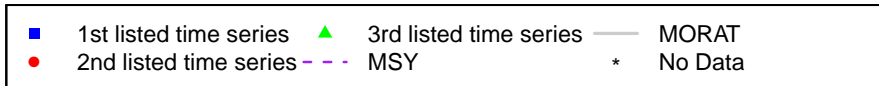
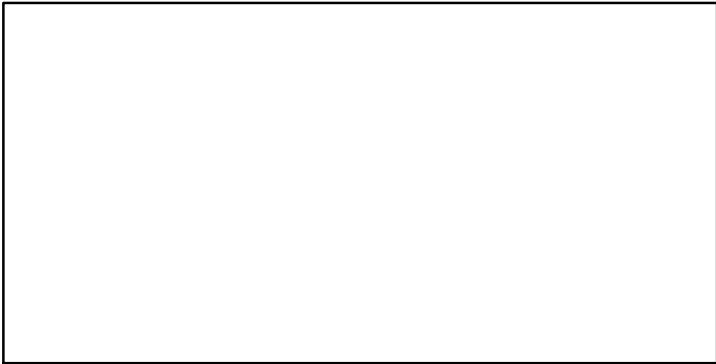
# Black scraper Sea of Japan and East China Sea [BSCRAPERSEJCS]

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

TAC\*, Cpair\*, Cadv\*



EFFORT\*

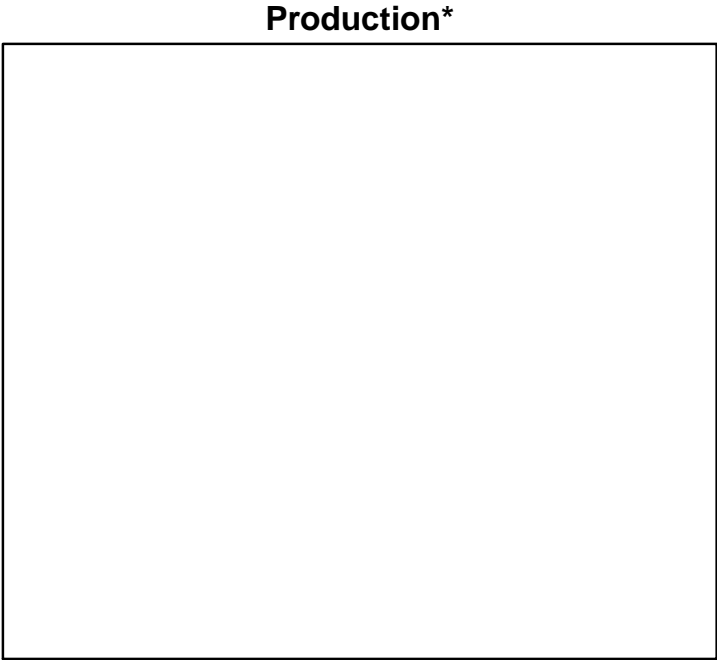
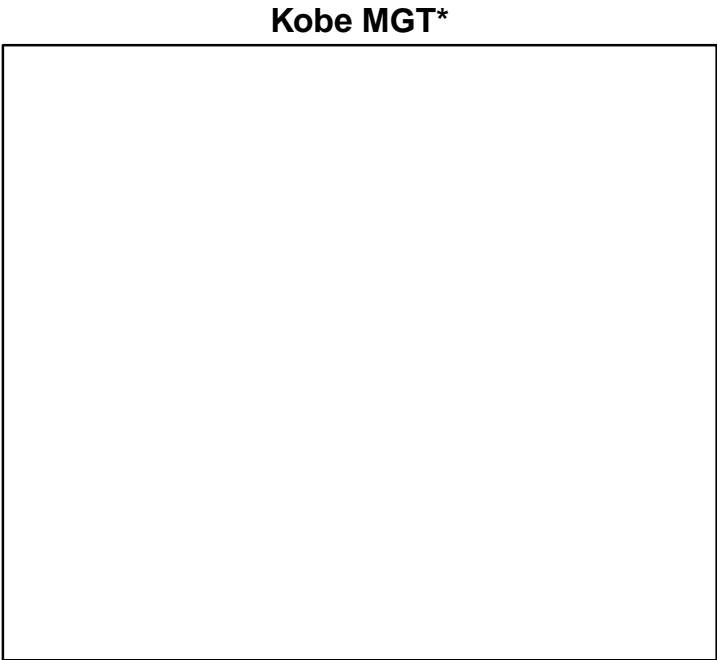
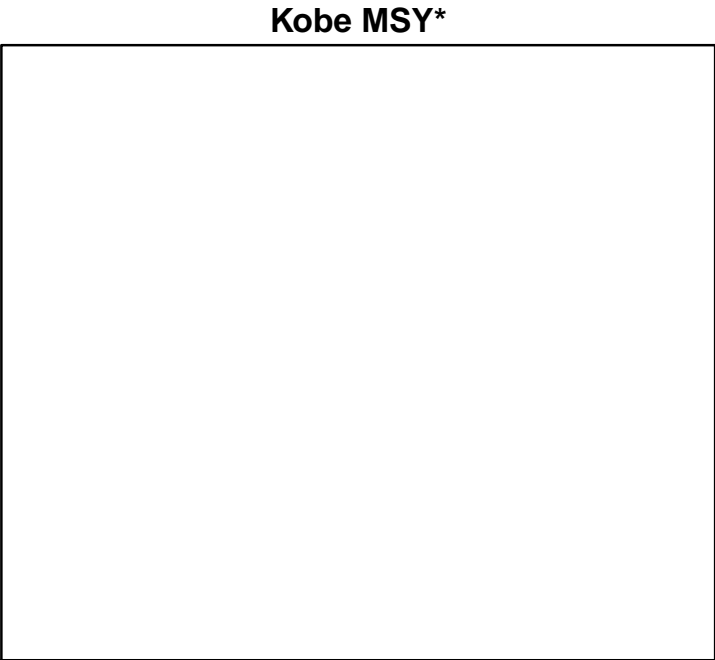


## Beni-zuwai crab Sea of Japan [BZCRABSOJ]

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



◆ Start Year   ◆ End Year   \* No Data



TB\*



SSB\*



TN \*



F\*



ER\*



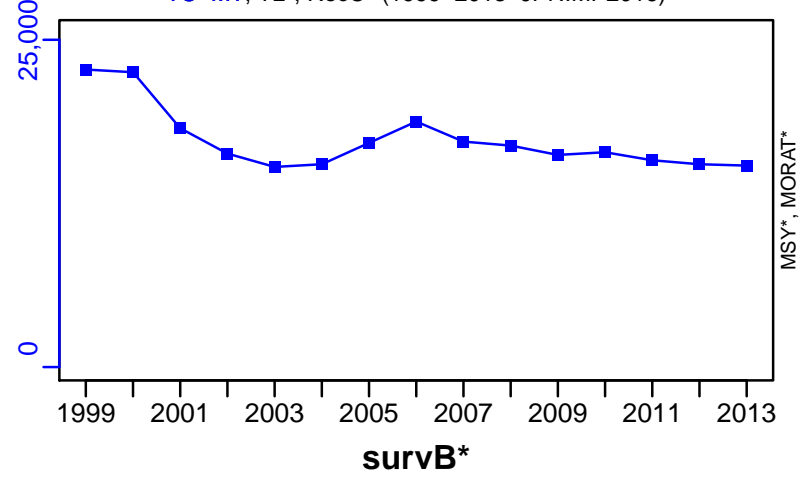
Recruits\*



# Beni-zuwai crab Sea of Japan [BZCRABSOJ]

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

TAC\*, Cpair\*, Cadv\*



EFFORT\*



## Crimson jobfish Okinawa Islands [CJOBOKWI]

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



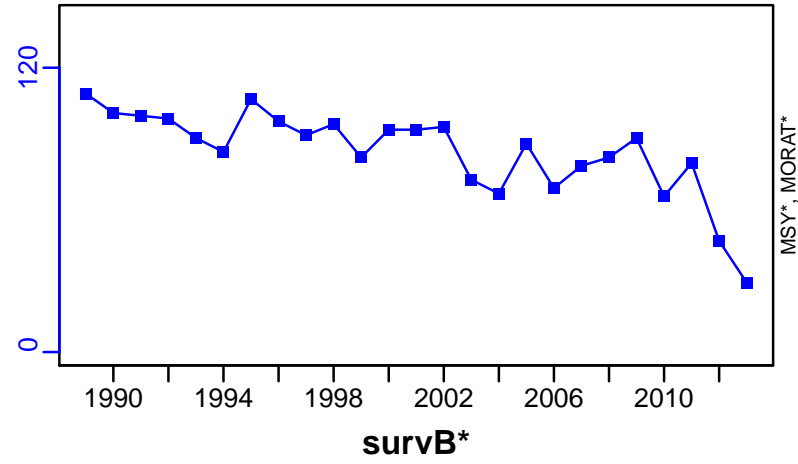
Recruits\*



# Crimson jobfish Okinawa Islands [CJOBOKWI]

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

TAC\*, Cpair\*, Cadv\*



EFFORT\*



## Chub mackerel Pacific Coast of Japan [CMACKPJPN]

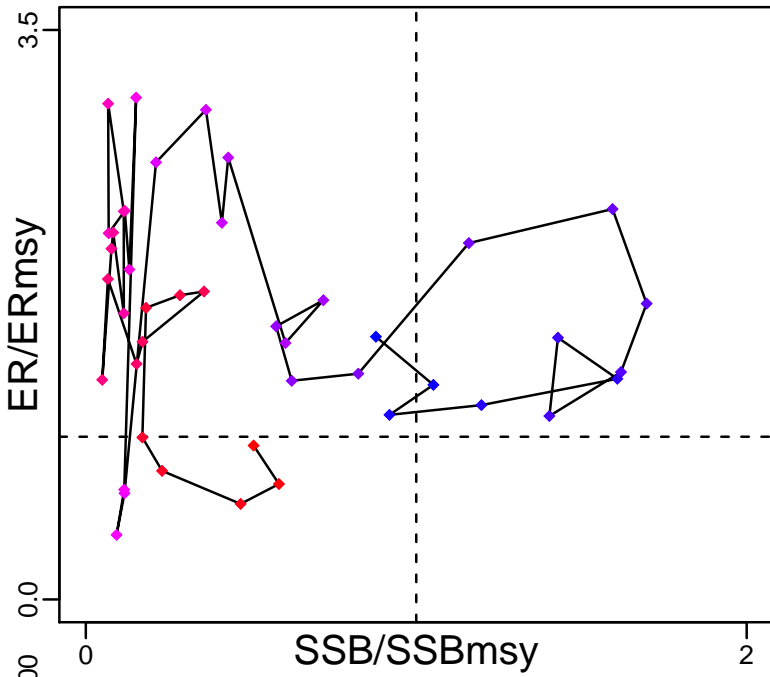
Metadata	
<b>Scientific Name</b>	Scomber japonicus
<b>Current Assess ID</b>	FAJ-CMACKPJPN-1970-2013-JPNIMP2016
<b>Area</b>	Pacific Coast of Japan
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2009, 2013

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2013	812,856
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2013	0.17
<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>	-	-	-

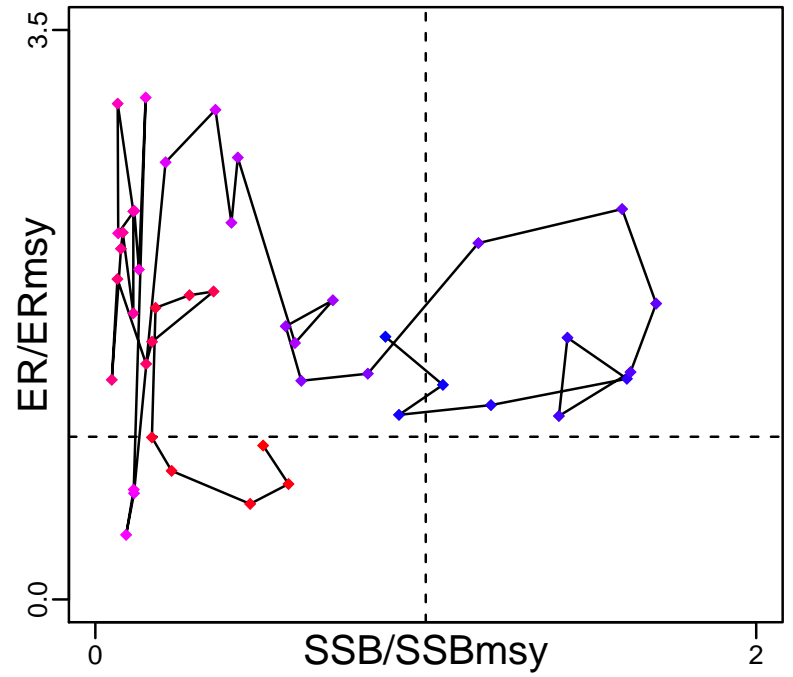
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	1,360,000	-	0
<b>SSB</b>	SSB-MT	2013	413,000	Both	2
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	$5.53 \times 10^9$	-	0
<b>F</b>	F-1/yr	2009	0	Both	0 to 5
<b>ER</b>	ER-calc-ratio	2013	0	-	-
<b>TC</b>	TC-MT	2013	220,000		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.51		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	0.95		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Chub mackerel Pacific Coast of Japan [CMACKPJPN]

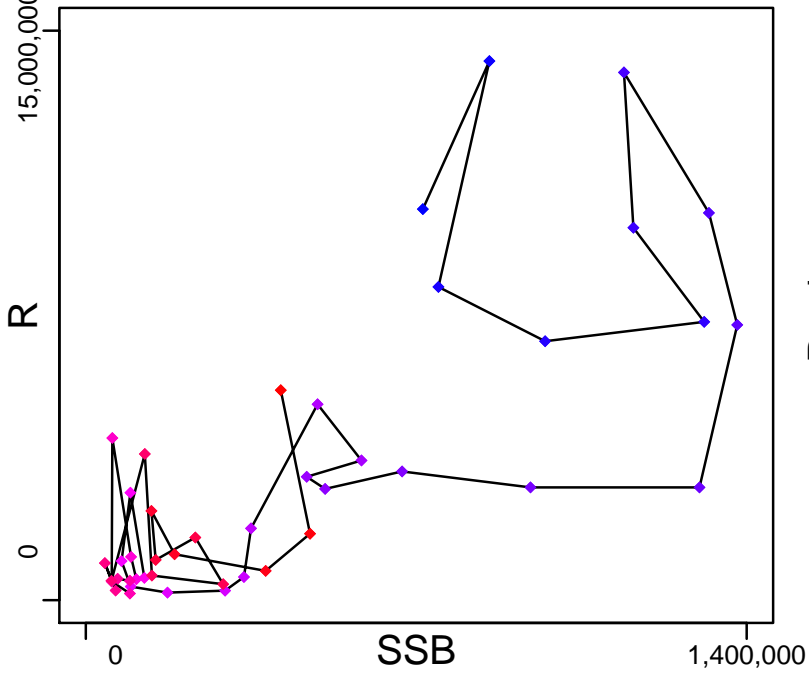
Kobe MSYpref (1970–2013–JPNIMP2016)



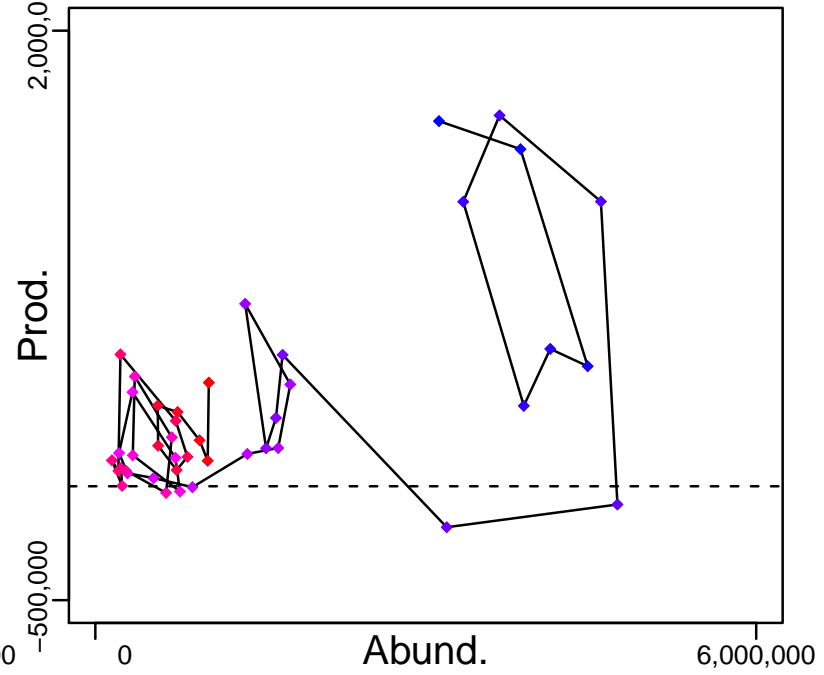
Kobe MGTpref (1970–2013–JPNIMP2016)



Spawner Recruit (1970–2013–JPNIMP2016)



Production (1970–2013–JPNIMP2016)

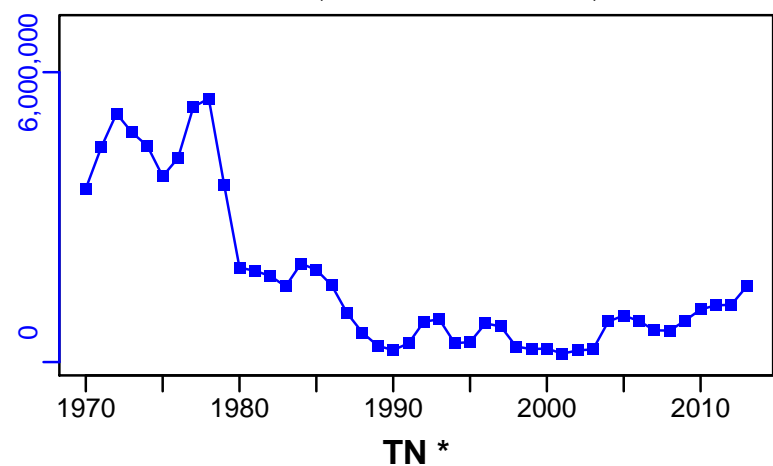


◆ Start Year ◆ End Year \* No Data

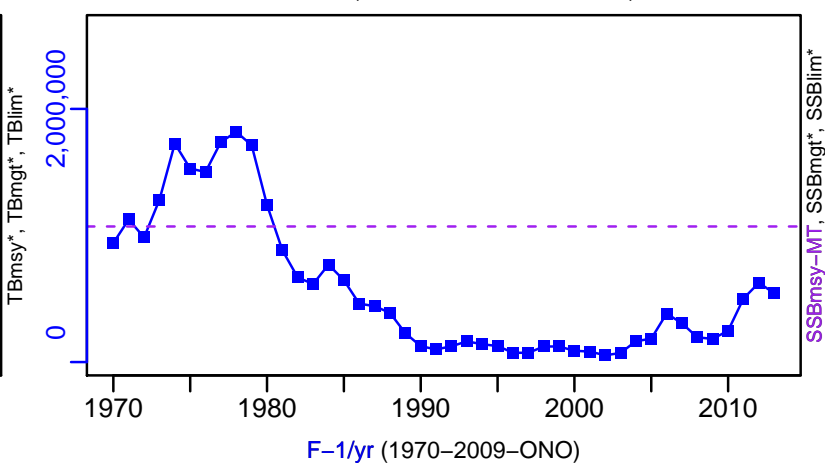


# Chub mackerel Pacific Coast of Japan [CMACKPJPN]

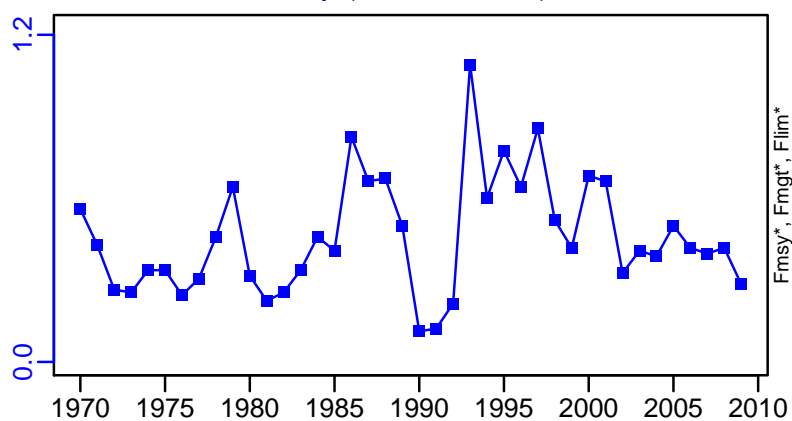
TB-MT (1970-2013-JPNIMP2016)



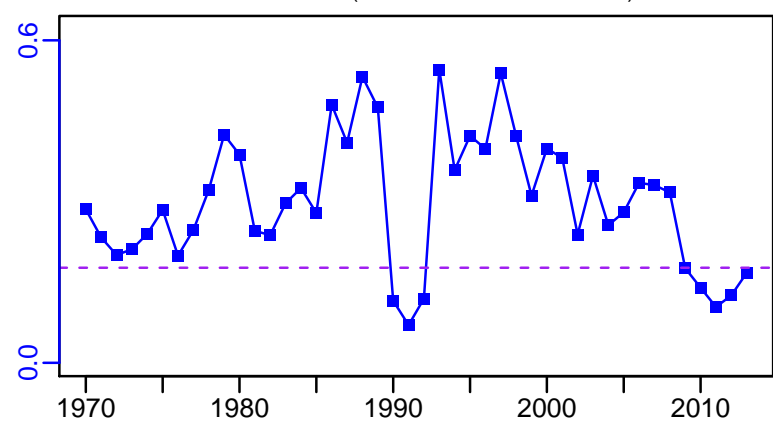
SSB-MT (1970-2013-JPNIMP2016)



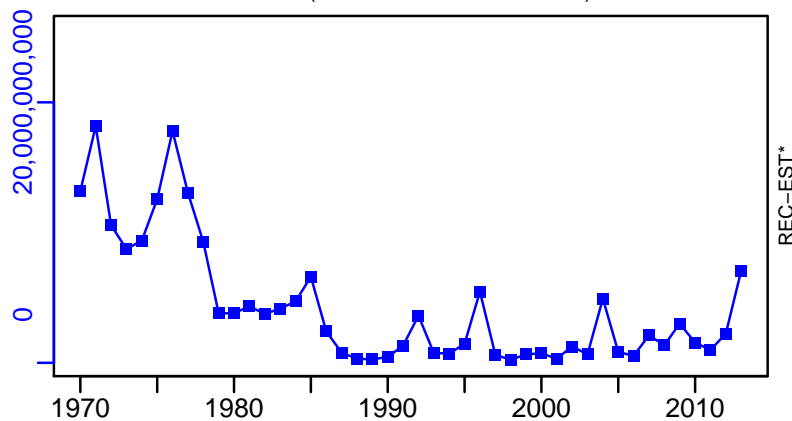
F-1/yr (1970-2009-ONO)



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

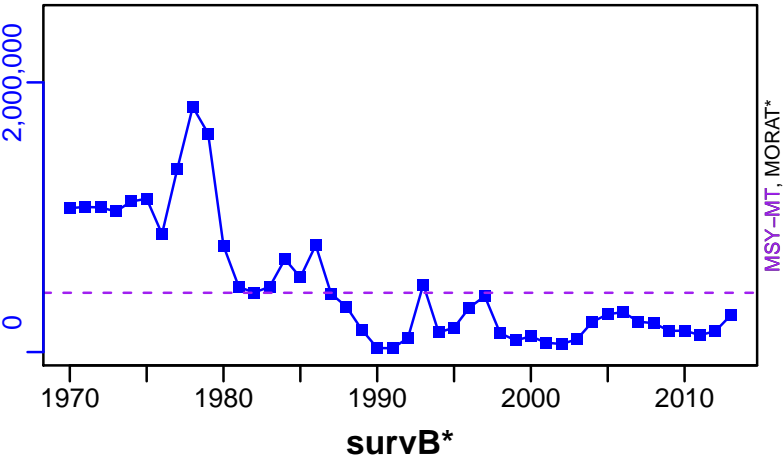


R-E00 (1970-2013-JPNIMP2016)



Chub mackerel Pacific Coast of Japan [CMACKPJPN]

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



TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



## Chub mackerel Tsushima Strait [CMACKTSST]

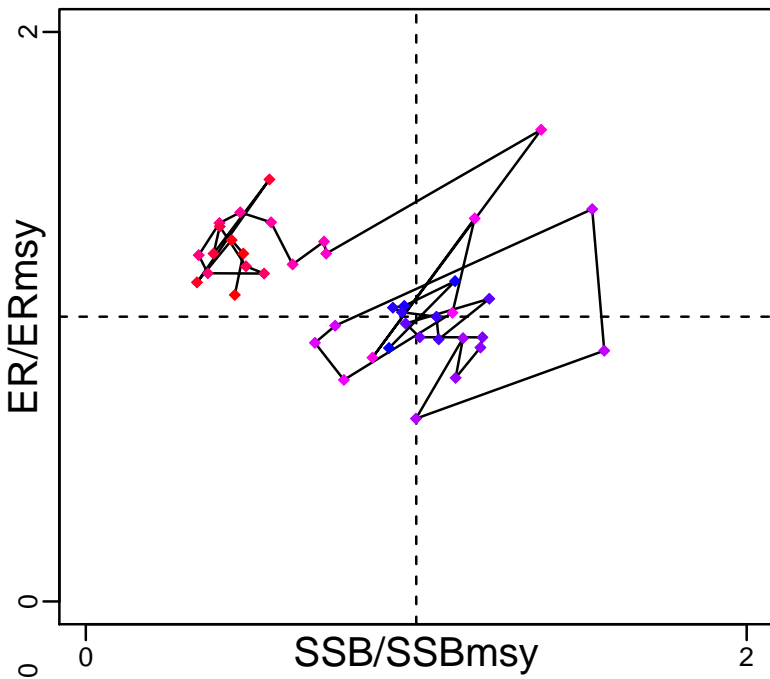
Metadata	
<b>Scientific Name</b>	Scomber japonicus
<b>Current Assess ID</b>	FAJ-CMACKTSST-1973-2013-JPNIMP2016
<b>Area</b>	Tsushima Strait
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2013, 2014

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2013	339,714
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2013	0.36
<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	2014	0.4
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2014	247,000
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

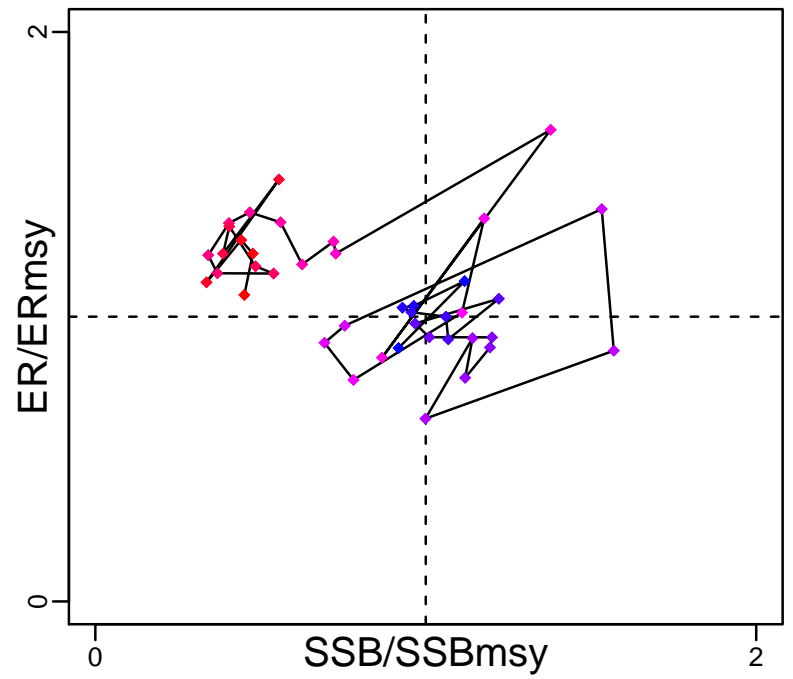
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2014	568,000	Both	0+
<b>SSB</b>	SSB-MT	2014	117,000	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2014	$1.49 \times 10^9$	Both	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2014	0	Both	0+
<b>TC</b>	TC-MT	2014	214,000		
<b>TL</b>	TL-MT	2014	214,000		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.45		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	1.08		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Chub mackerel Tsushima Strait [CMACKTSST]

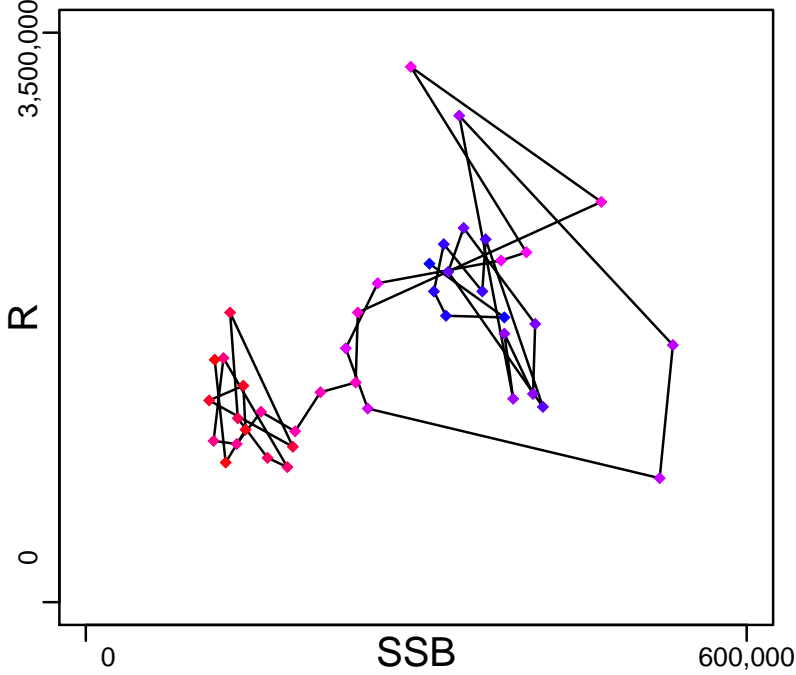
Kobe MSYpref (1973–2013–JPNIMP2016)



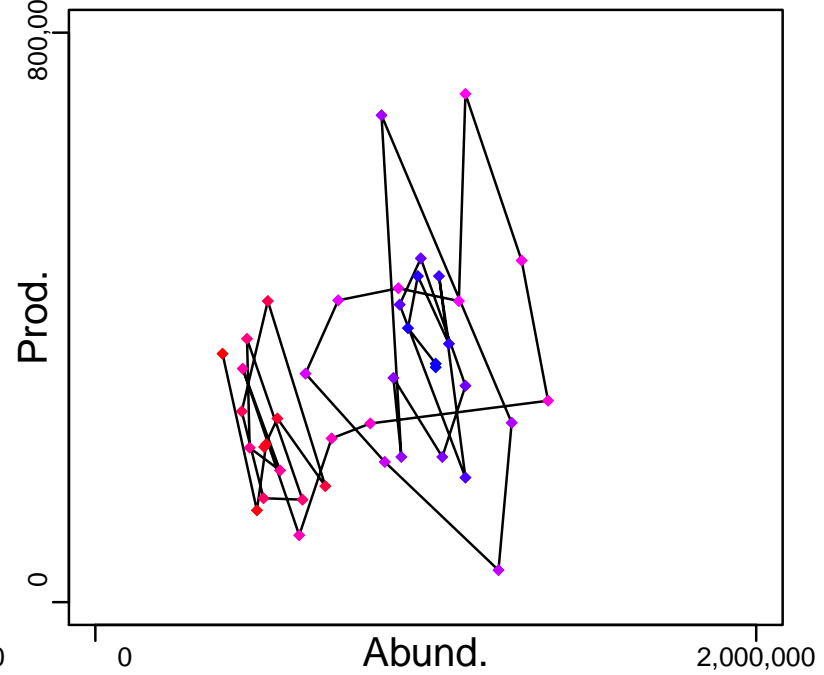
Kobe MGTpref (1973–2013–JPNIMP2016)



Spawner Recruit (1973–2014–KUROTA)



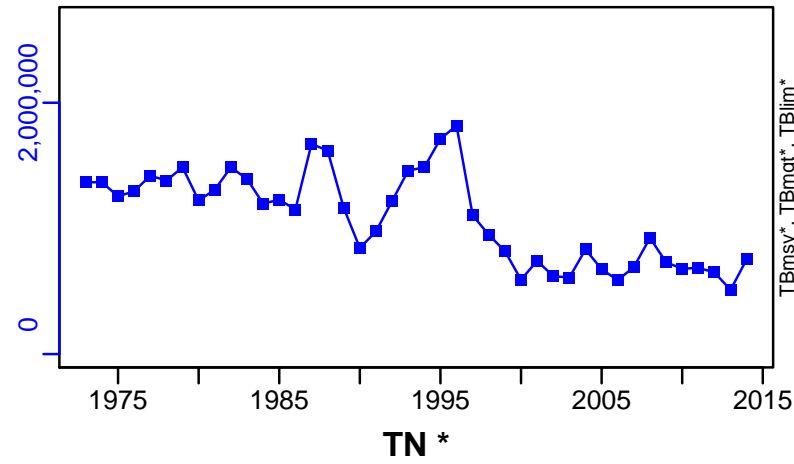
Production (1973–2014–KUROTA)



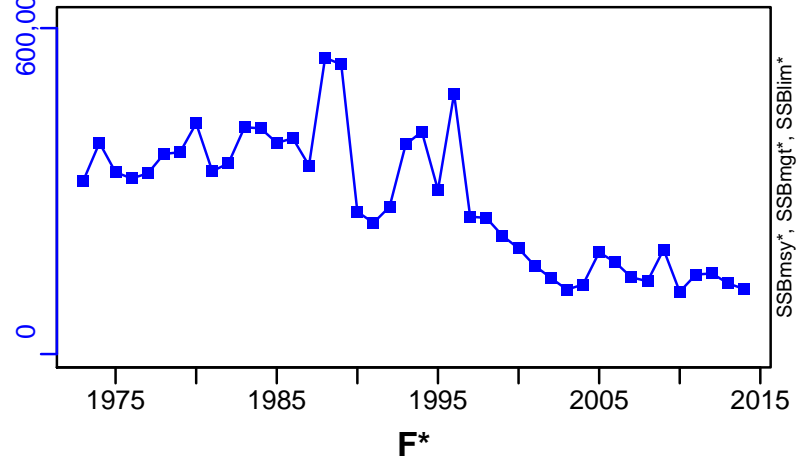
◆ Start Year ◆ End Year \* No Data

# Chub mackerel Tsushima Strait [CMACKTSST]

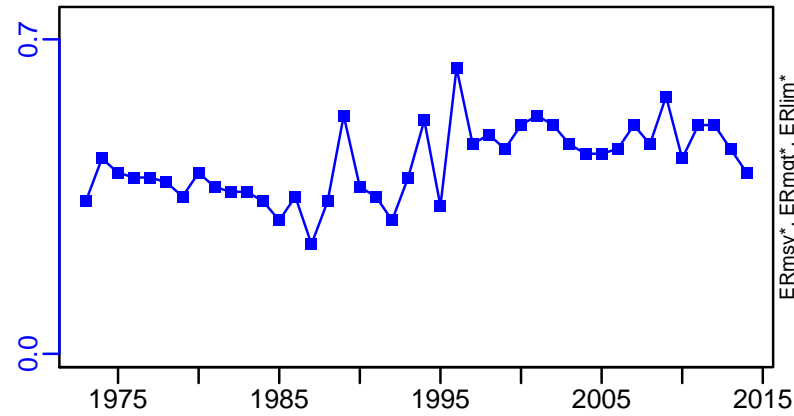
TB-MT (1973–2014–KUROTA)



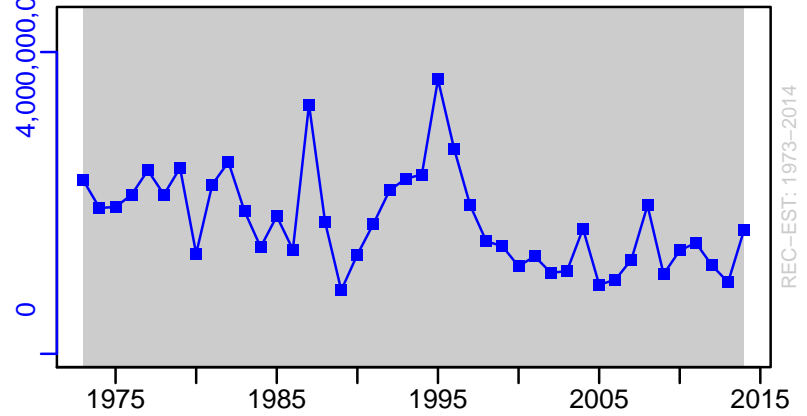
SSB-MT (1973–2014–KUROTA)



ER-ratio (1973–2014–KUROTA)



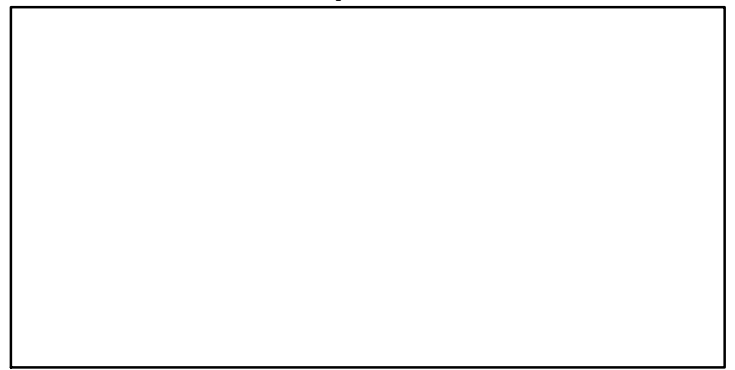
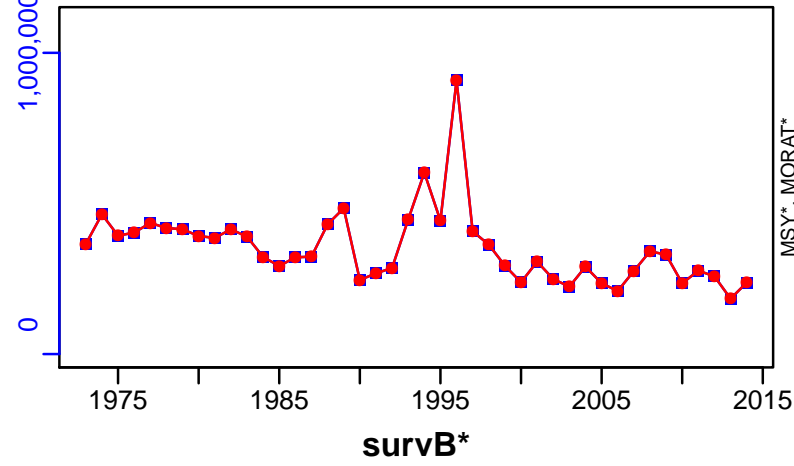
R-E00 (1973–2014–KUROTA)



# Chub mackerel Tsushima Strait [CMACKTSST]

TC-MT, TL-MT, RecC\* (1973-2014-KUROTA)

TAC\*, Cpair\*, Cadv\*



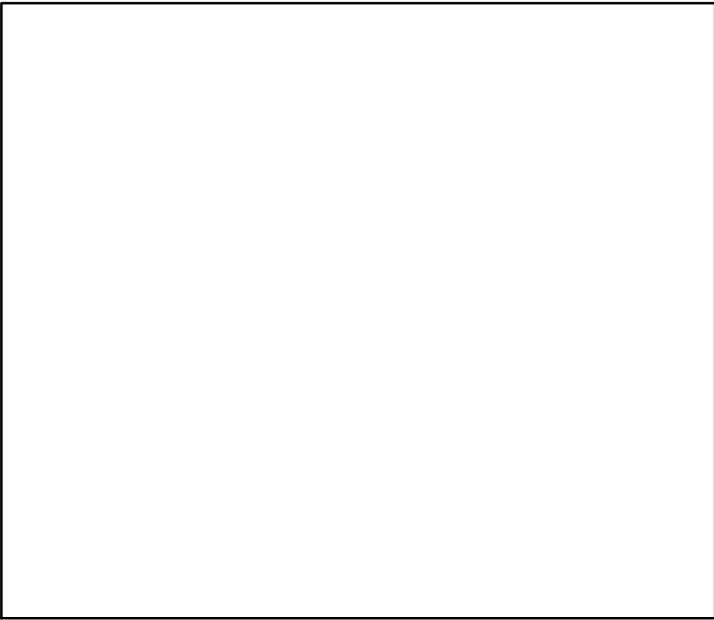
## Deep-sea smelt Pacific Ocean [DSSMELTPAC]

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

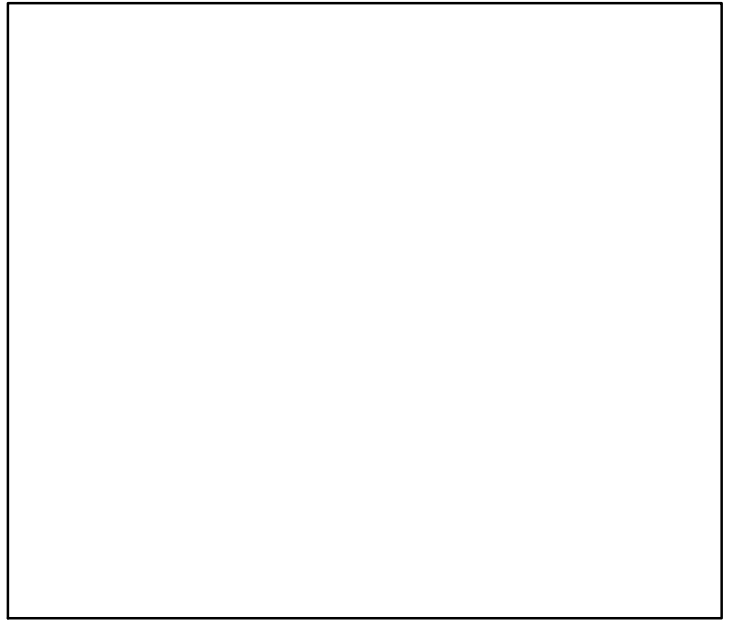
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

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	-	-	-		

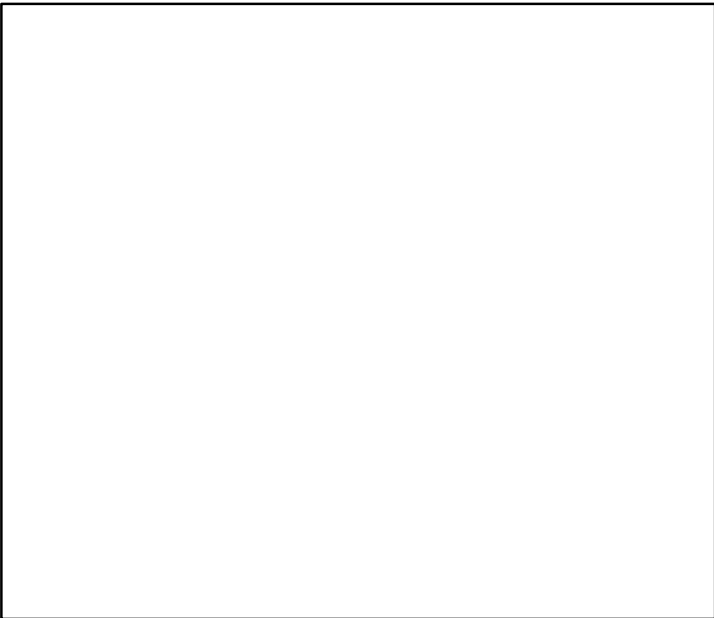
**Kobe MSY\***



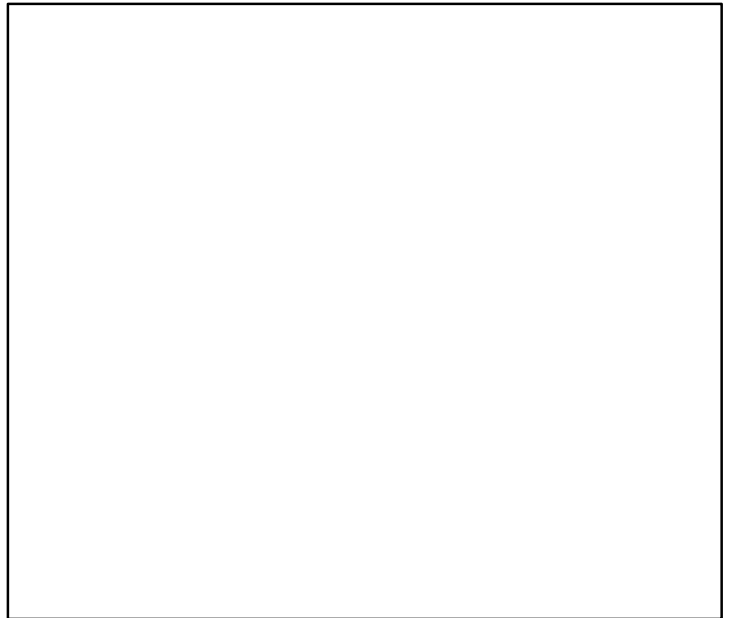
**Kobe MGT\***



**Spawner Recruit\***



**Production\***

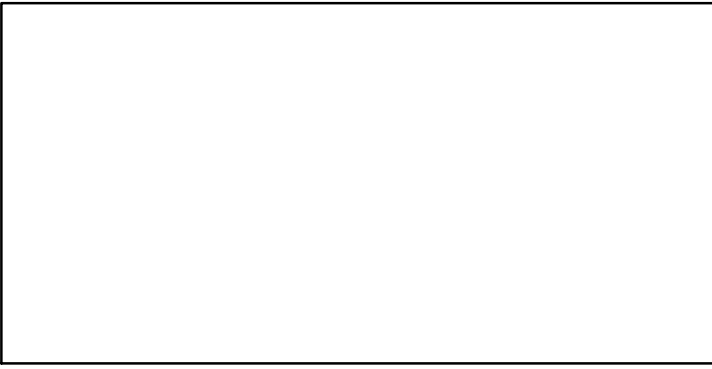


◆ Start Year ◆ End Year \* No Data



Deep-sea smelt Pacific Ocean [DSSMELTPAC]

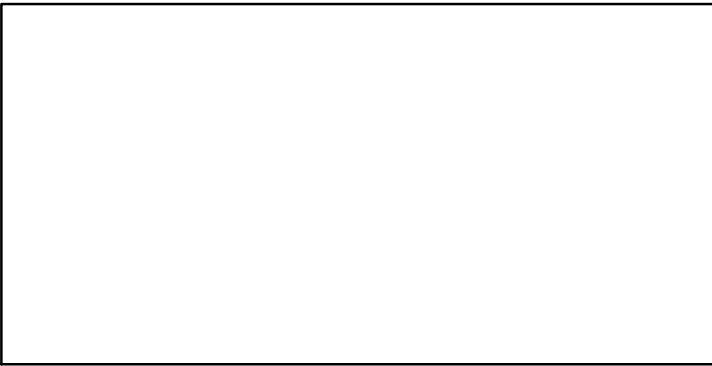
**TB\***



**SSB\***



**TN \***



**F\***



**ER\***



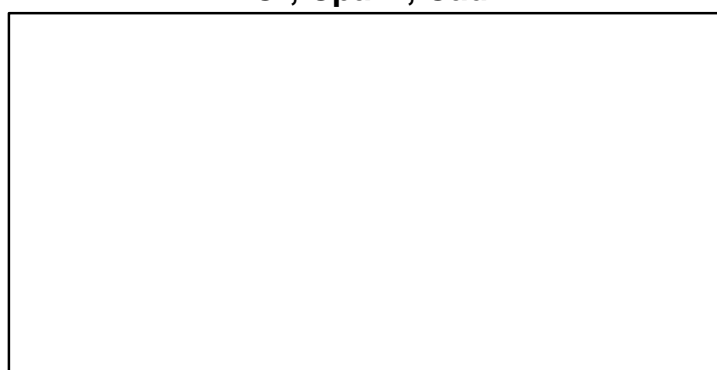
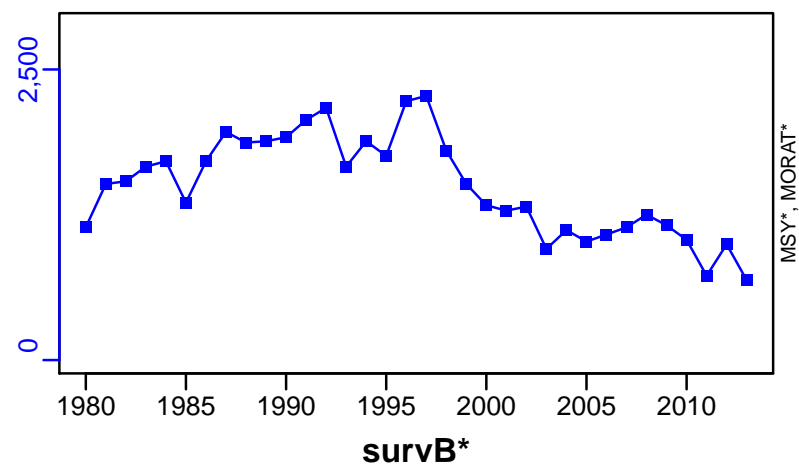
**Recruits\***



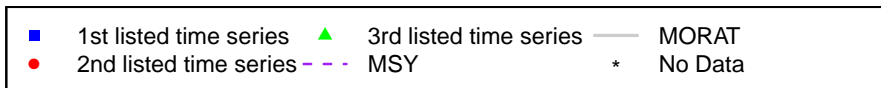
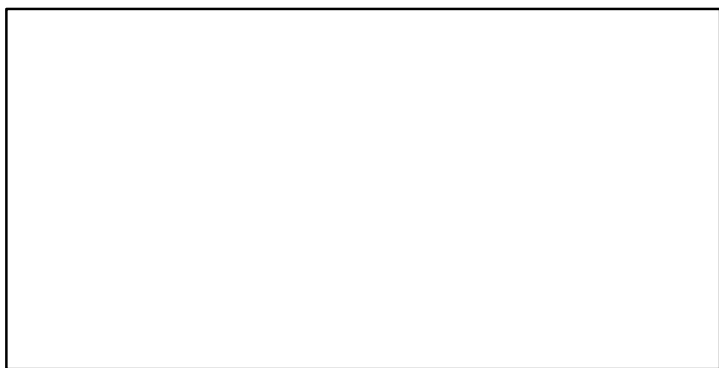
# Deep-sea smelt Pacific Ocean [DSSMELTPAC]

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

TAC\*, Cpair\*, Cadv\*



EFFORT\*



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

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

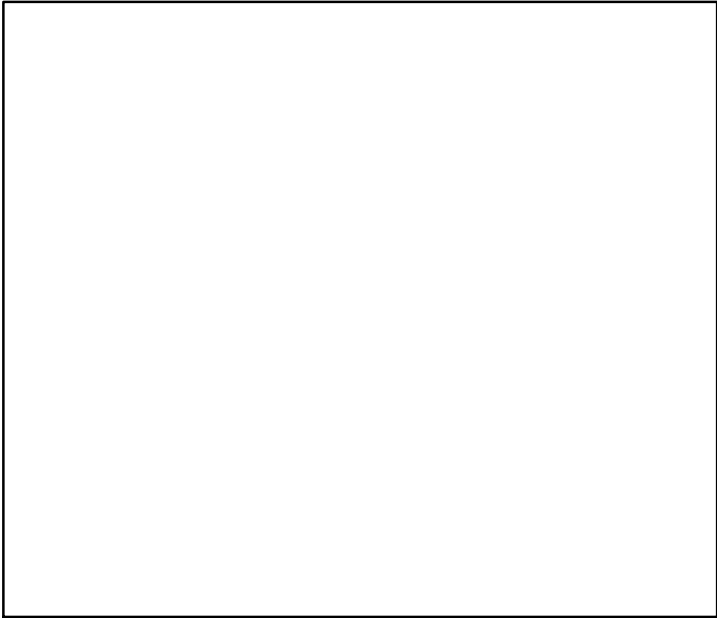
Kobe MSY\*



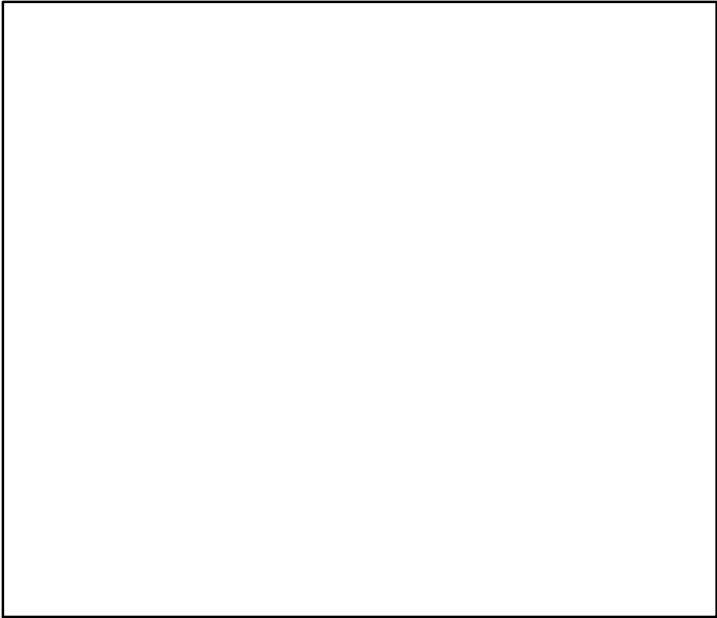
Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data

TB\*



SSB\*



TN \*



F\*



ER\*



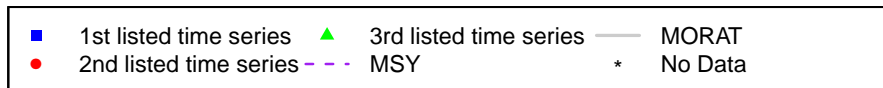
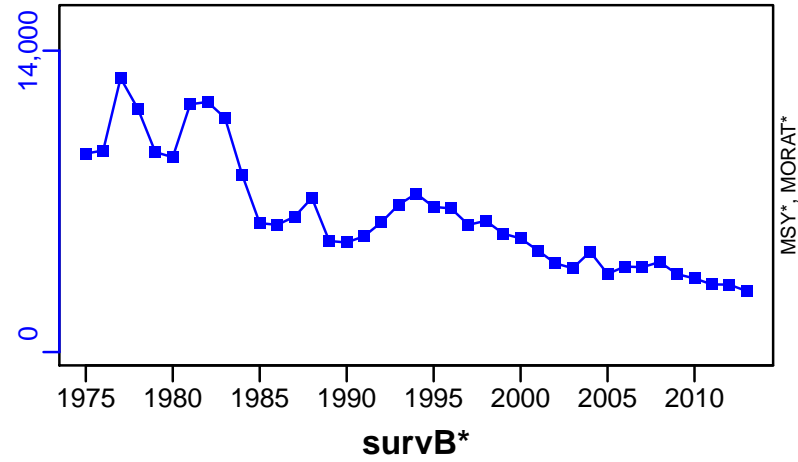
Recruits\*



# 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>	FAJ-FHFLOUNSOJ-1991-2013-JPNIMP2016
<b>Area</b>	Sea of Japan
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries 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\*

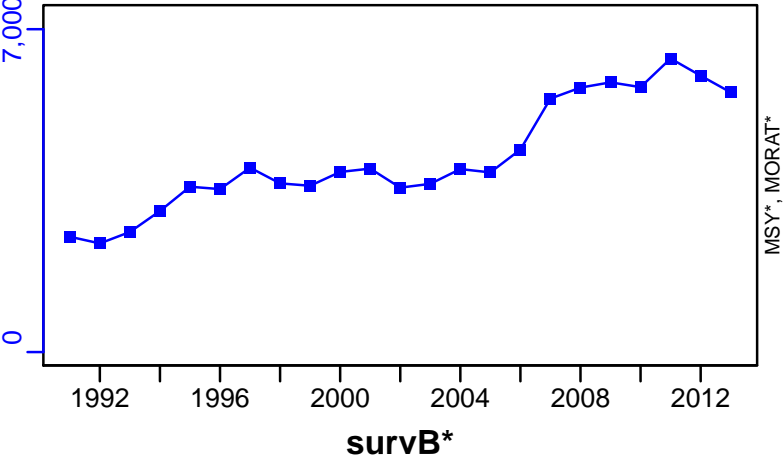


Recruits\*



Flathead flounder Sea of Japan [FHFLOUNSOJ]

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



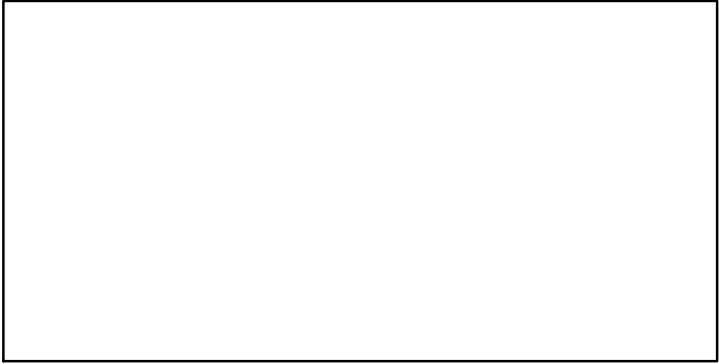
TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



## Flame snapper Okinawa Islands [FSNAPOKWI]

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

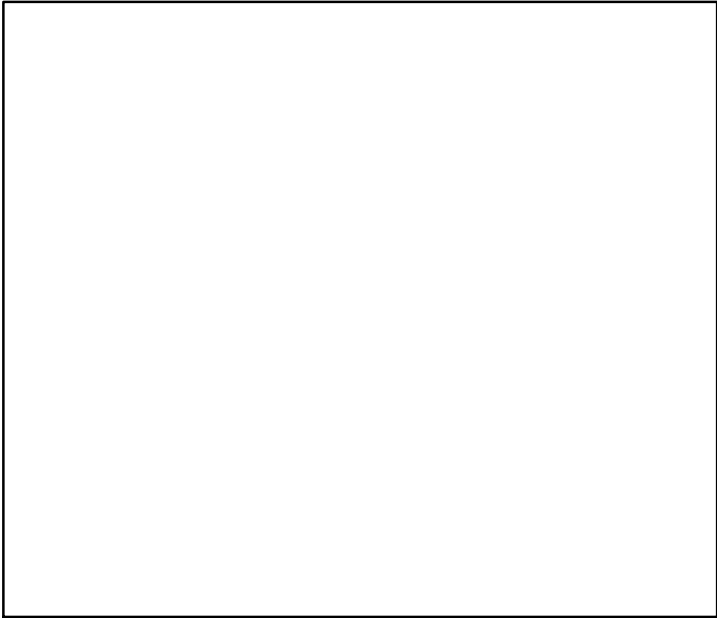
Kobe MSY\*



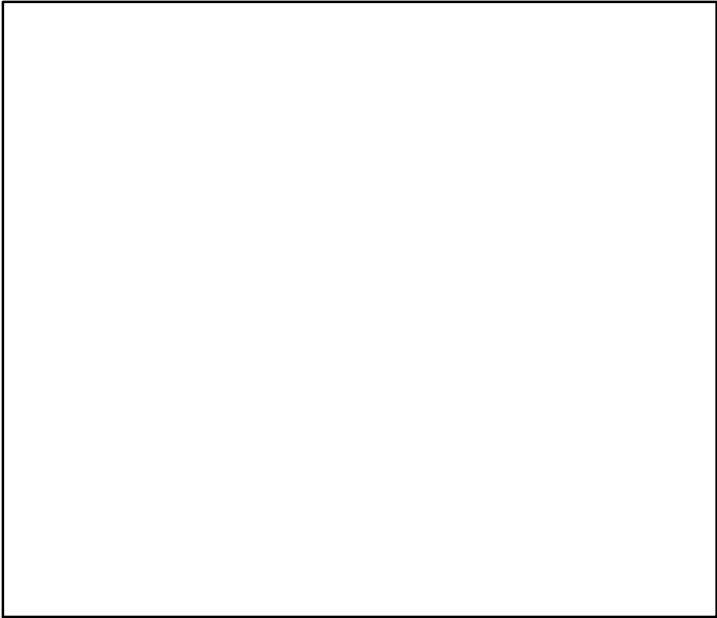
Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data

Flame snapper Okinawa Islands [FSNAPOKWI]

TB\*



SSB\*



TN \*



F\*



ER\*



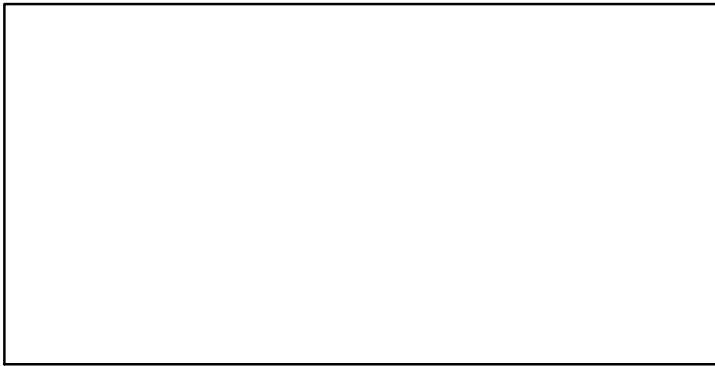
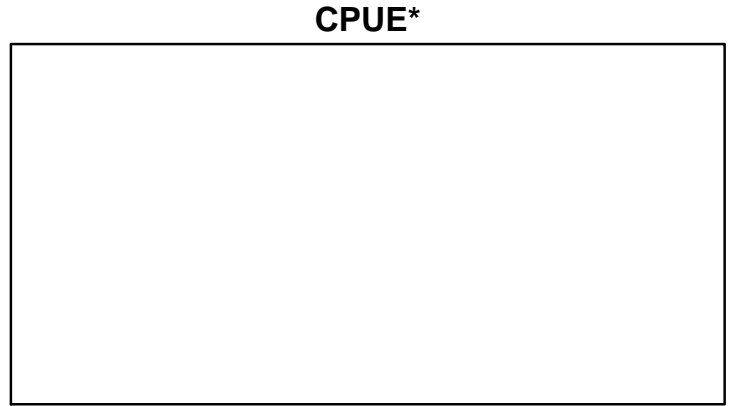
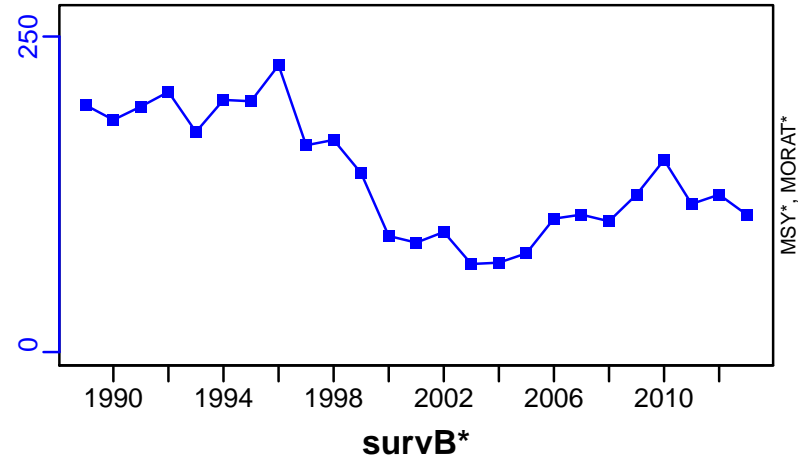
Recruits\*



# Flame snapper Okinawa Islands [FSNAPOKWI]

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

TAC\*, Cpair\*, Cadv\*



EFFORT\*



## Pacific herring Hokkaido [HERRHOKK]

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

Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data



Pacific herring Hokkaido [HERRHOKK]

TB\*



SSB\*



TN \*



F\*



ER\*

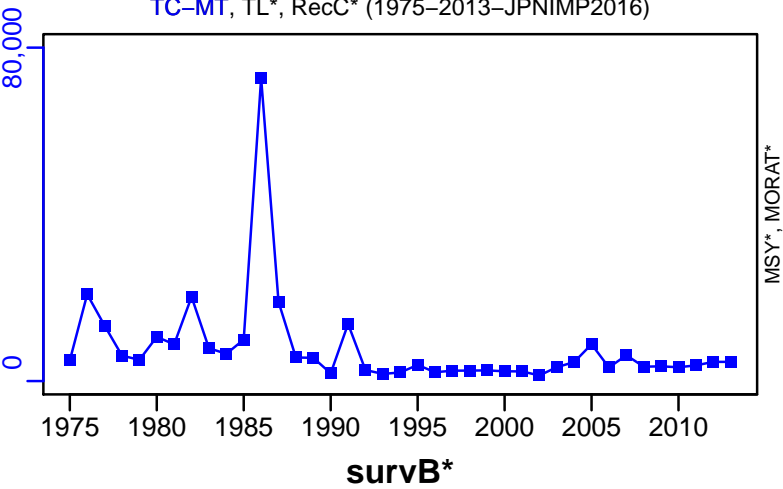


Recruits\*



Pacific herring Hokkaido [HERRHOKK]

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



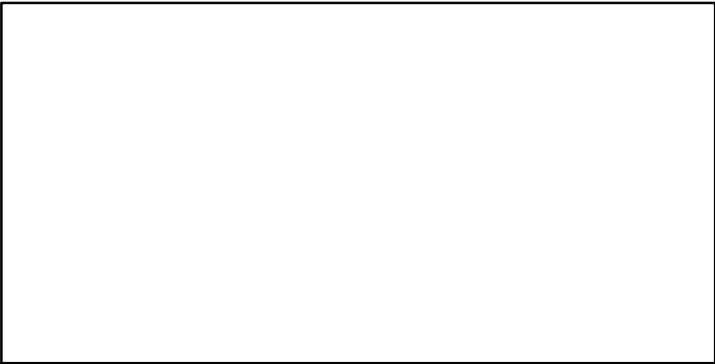
TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



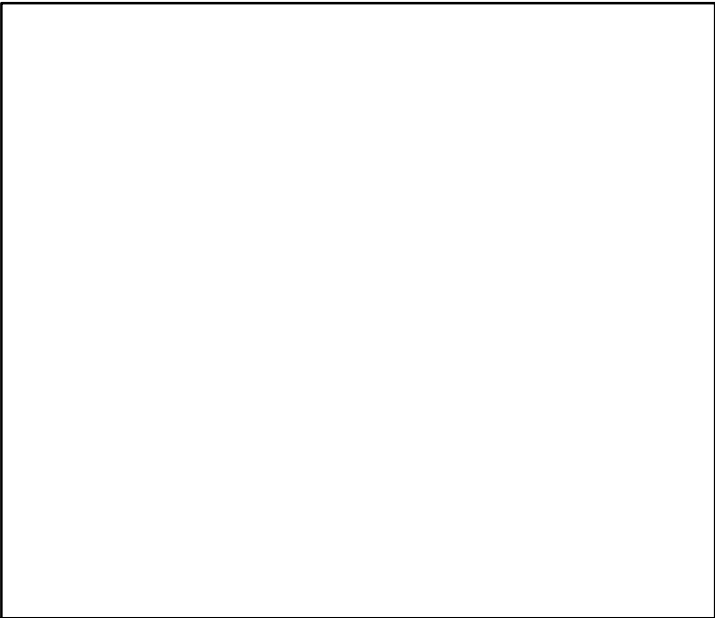
## Horsehead tilefish East China Sea [HHTILEECS]

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

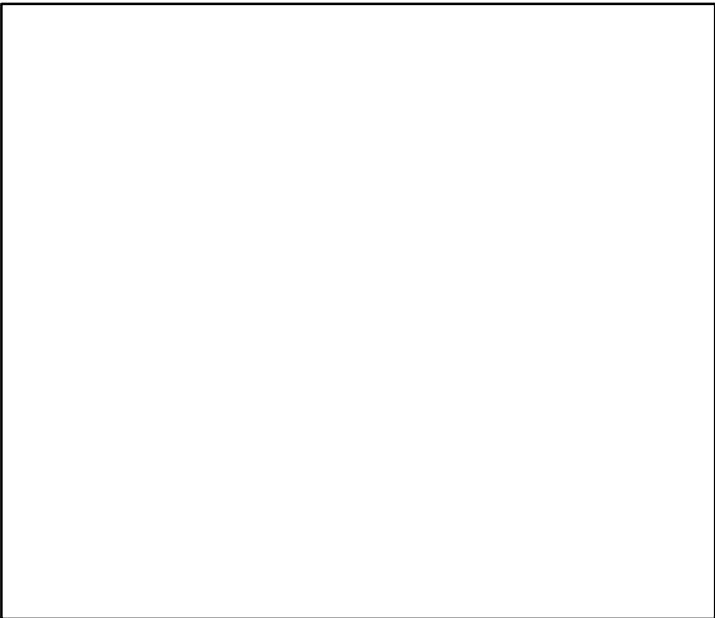
Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data

Horsehead tilefish East China Sea [HHTILEECS]

TB\*



SSB\*



TN \*



F\*



ER\*

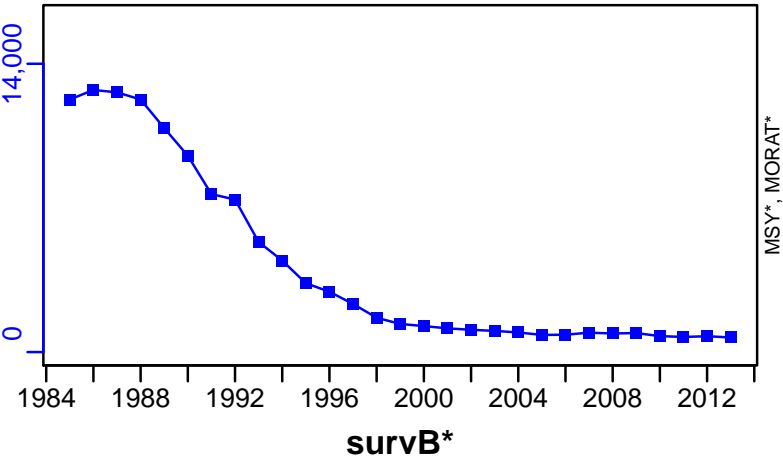


Recruits\*



Horsehead tilefish East China Sea [HHTILEECS]

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



TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



## Japanese amberjack Japan [JAMBERJPN]

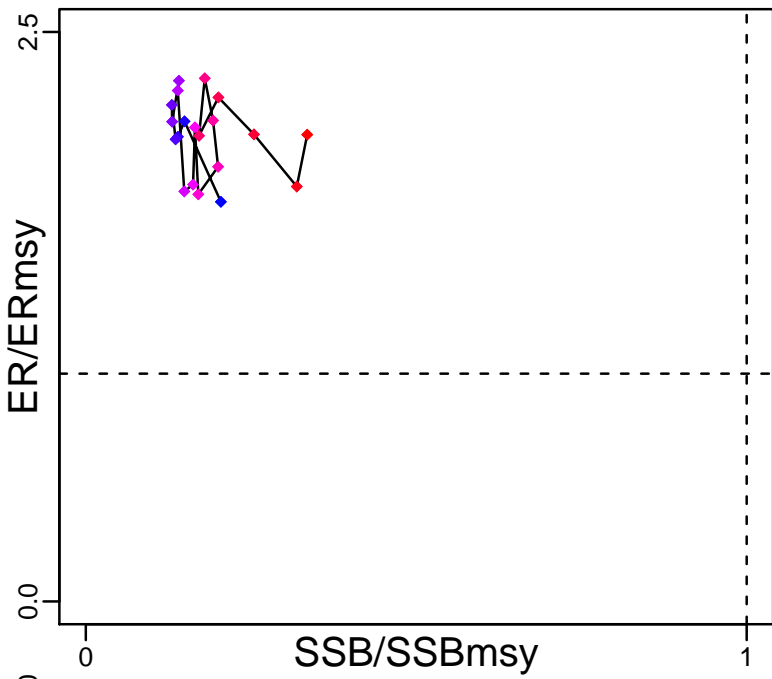
Metadata	
<b>Scientific Name</b>	Seriola quinqueradiata
<b>Current Assess ID</b>	FAJ-JAMBERJPN-1952-2013-JPNIMP2016
<b>Area</b>	Japan
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2013

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2013	381,043
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2013	0.22
<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>	-	-	-

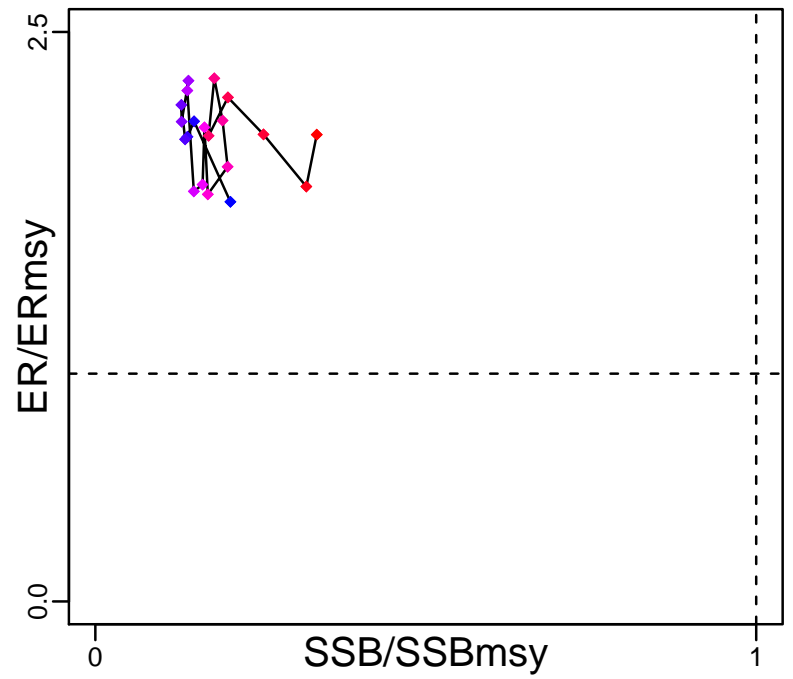
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	294,000	-	0
<b>SSB</b>	SSB-MT	2013	128,000	Both	2
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	$1.39 \times 10^8$	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0	-	-
<b>TC</b>	TC-MT	2013	132,000		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.34		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	2.05		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Japanese amberjack Japan [JAMBERJPN]

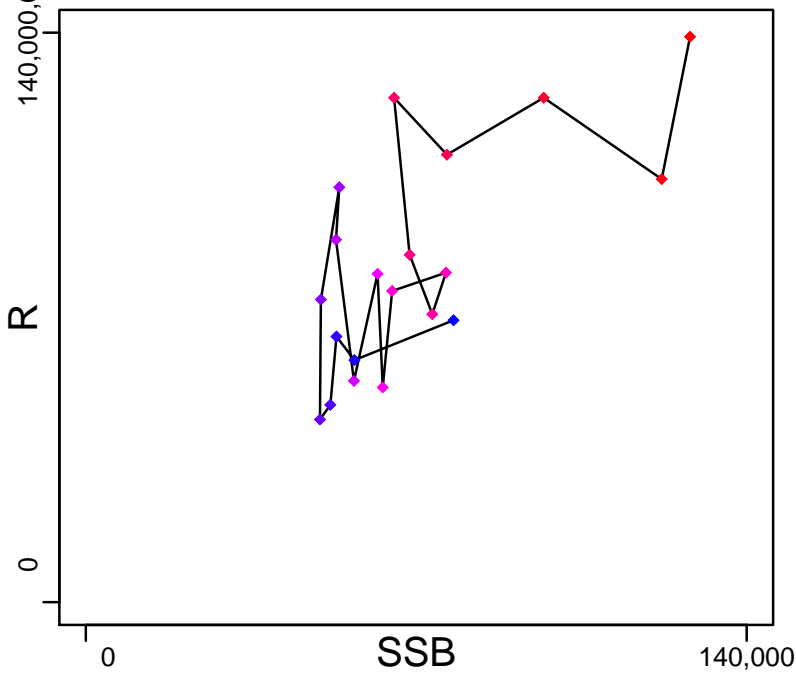
Kobe MSYpref (1952–2013–JPNIMP2016)



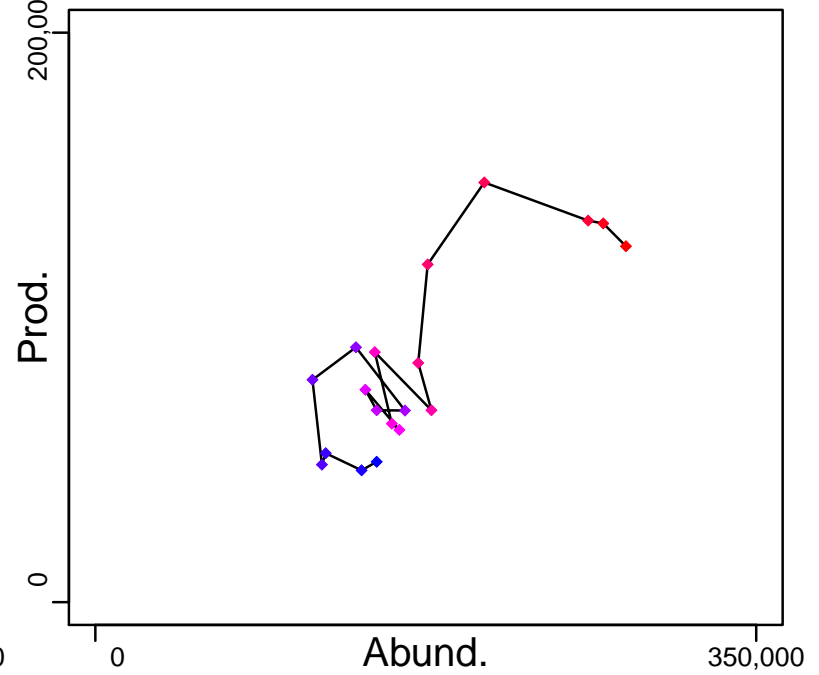
Kobe MGTpref (1952–2013–JPNIMP2016)



Spawner Recruit (1952–2013–JPNIMP2016)



Production (1952–2013–JPNIMP2016)

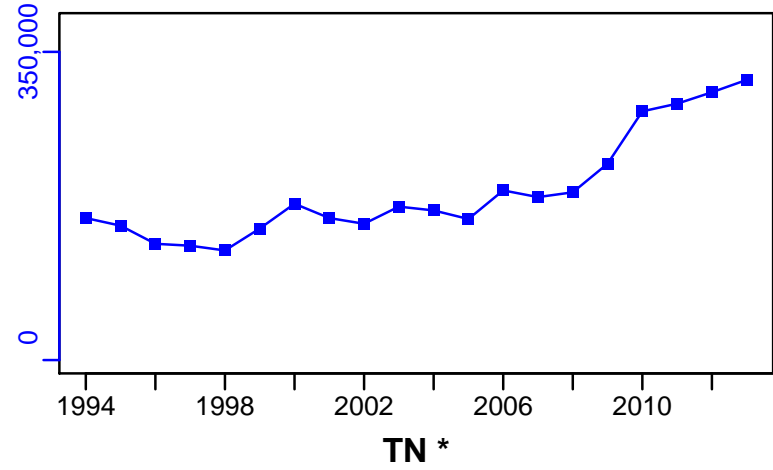


◆ Start Year ◆ End Year \* No Data

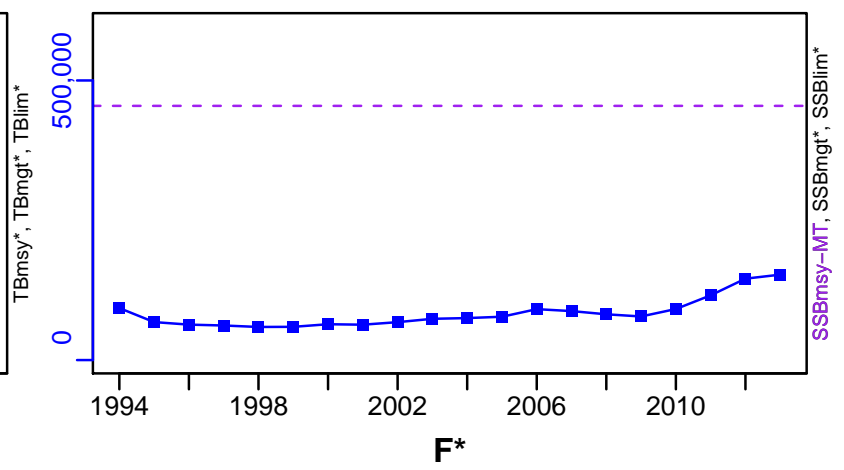


# Japanese amberjack Japan [JAMBERJPN]

TB-MT (1952-2013-JPNIMP2016)

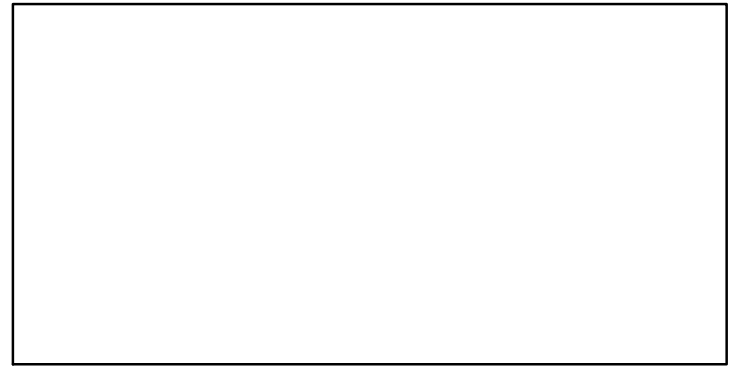
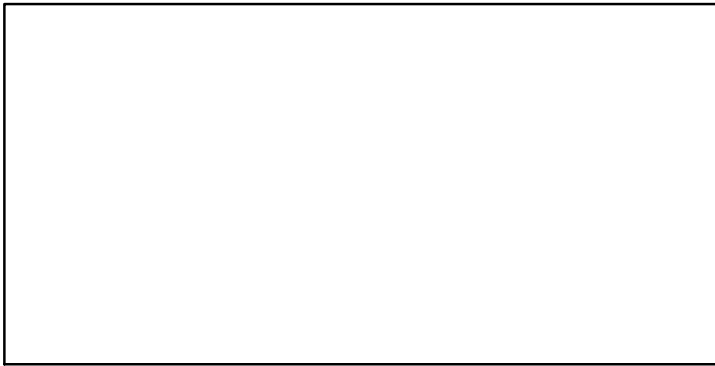


SSB-MT (1952-2013-JPNIMP2016)

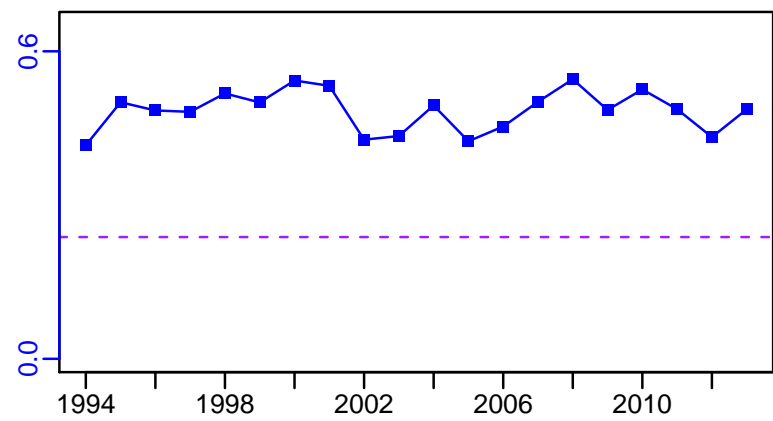


TN \*

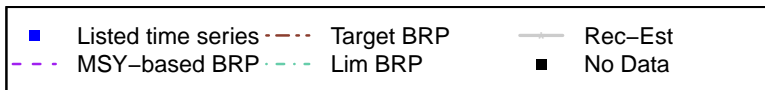
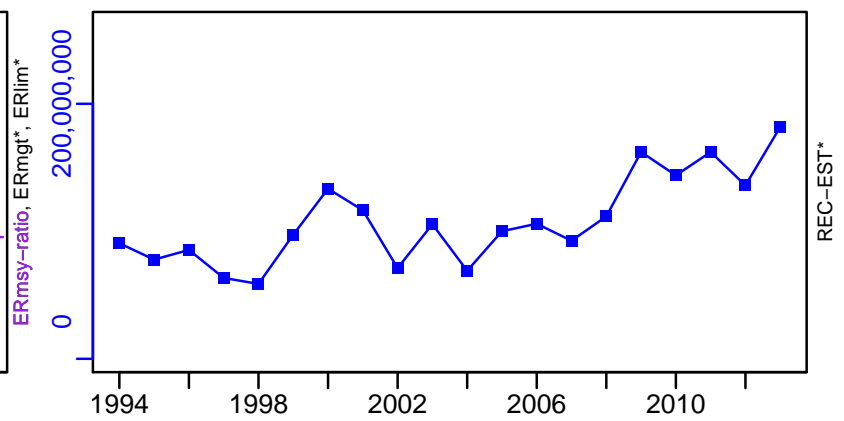
F\*



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



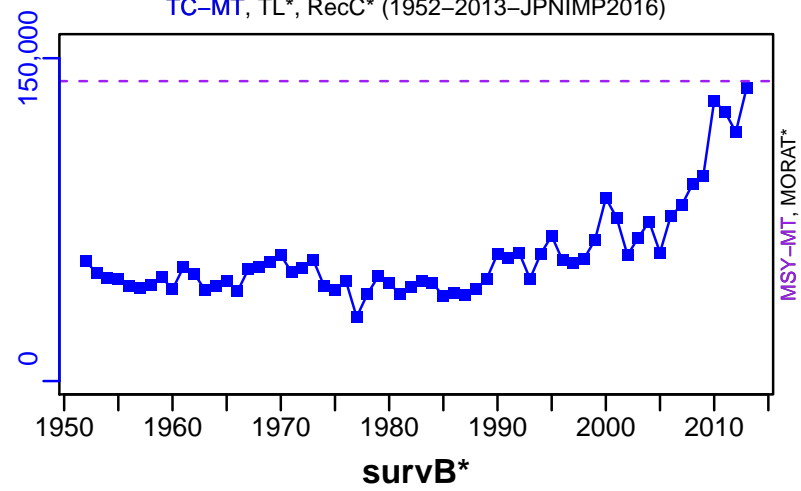
R-E00 (1952-2013-JPNIMP2016)



# Japanese amberjack Japan [JAMBERJPN]

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

TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



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

## Japanese anchovy Pacific Coast of Japan [JANCHOPJPN]

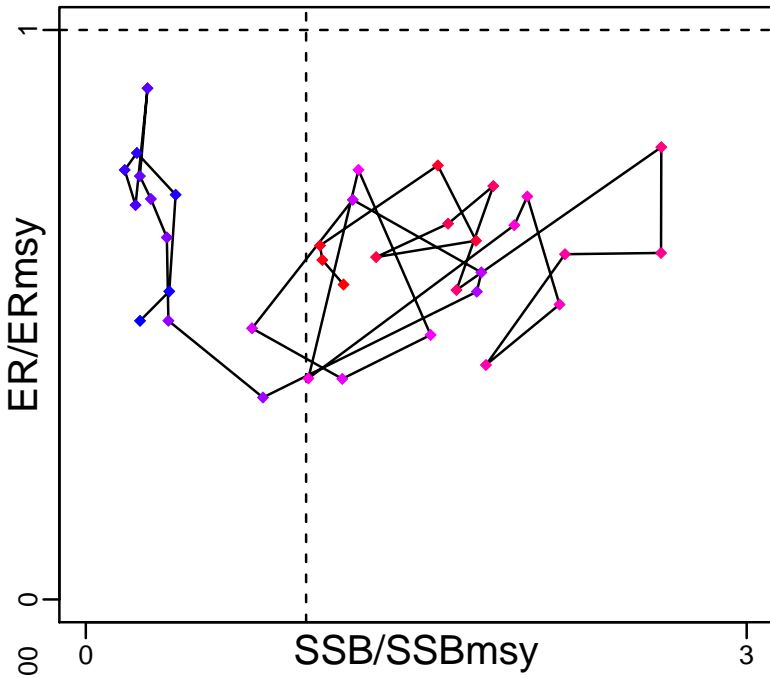
Metadata	
<b>Scientific Name</b>	Engraulis japonicus
<b>Current Assess ID</b>	FAJ-JANCHOPJPN-1978-2013-JPNIMP2016
<b>Area</b>	Pacific Coast of Japan
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2013, 2014

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<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	2014	1
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2014	130,000
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

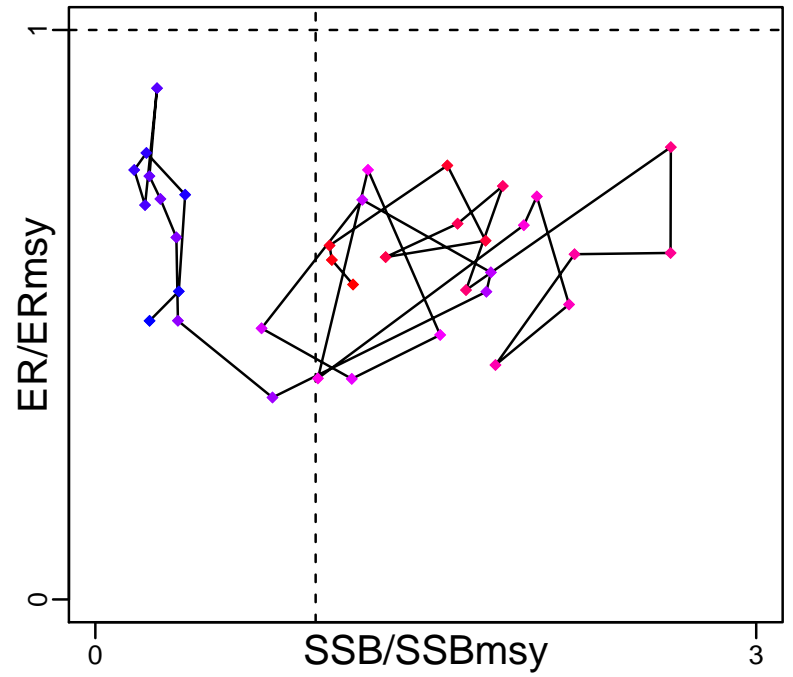
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2014	624,000	Both	0+
<b>SSB</b>	SSB-MT	2014	235,000	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2014	$1.33 \times 10^{11}$	Both	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2014	0	Both	0+
<b>TC</b>	TC-MT	2014	139,000		
<b>TL</b>	TL-MT	2014	139,000		
<b>TB/TBmsy</b>	-	-	-		
<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	0.55		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

Japanese anchovy Pacific Coast of Japan [JANCHOPJPN]

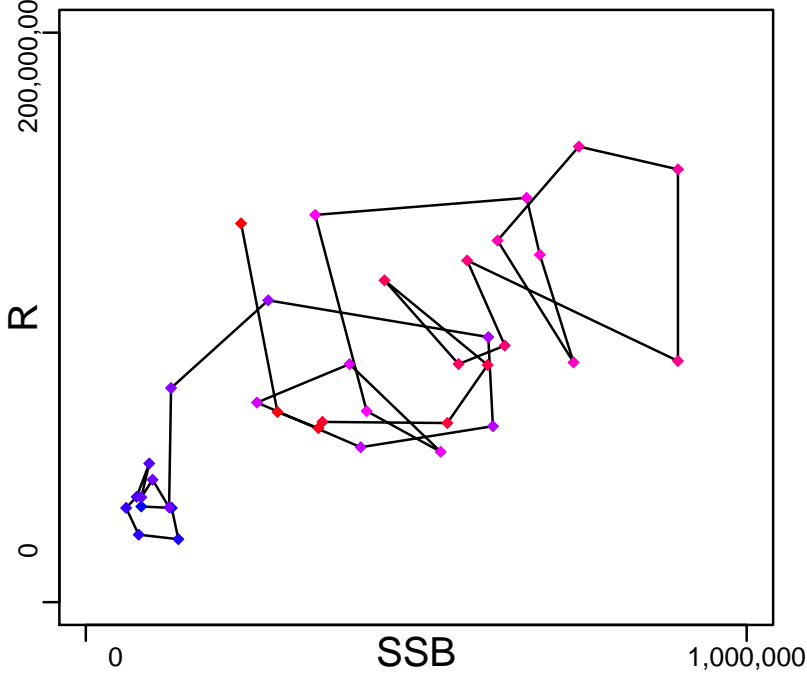
Kobe MSYpref (1978–2013–JPNIMP2016)



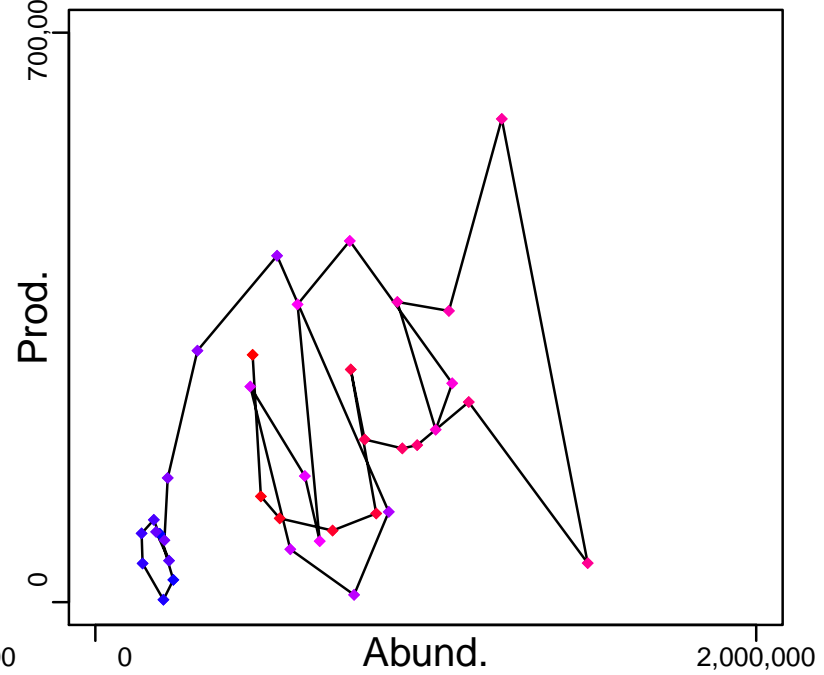
Kobe MGTpref (1978–2013–JPNIMP2016)



Spawner Recruit (1978–2014–KUROTA)



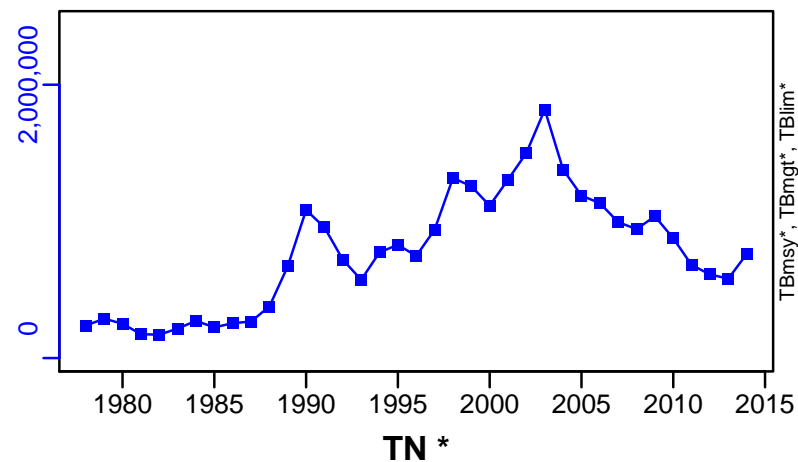
Production (1978–2014–KUROTA)



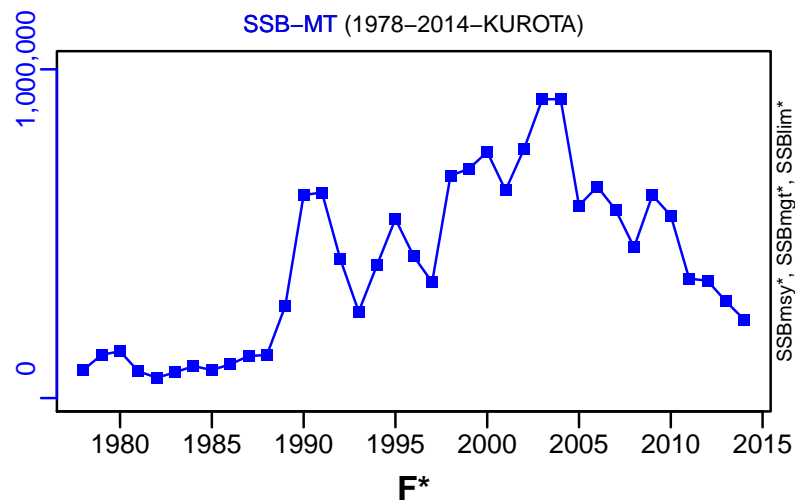
◆ Start Year ◆ End Year \* No Data

# Japanese anchovy Pacific Coast of Japan [JANCHOPJPN]

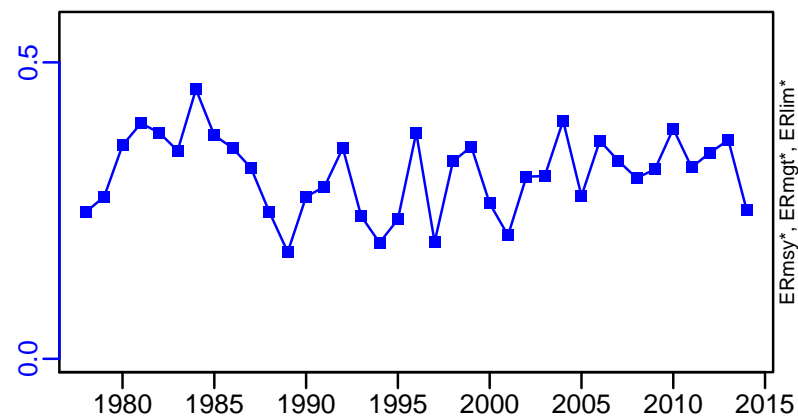
TB-MT (1978–2014–KUROTA)



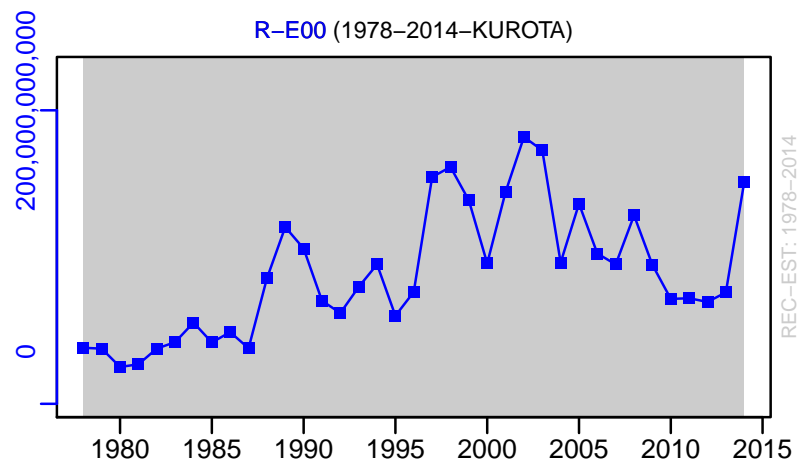
SSB-MT (1978–2014–KUROTA)



ER-ratio (1978–2014–KUROTA)



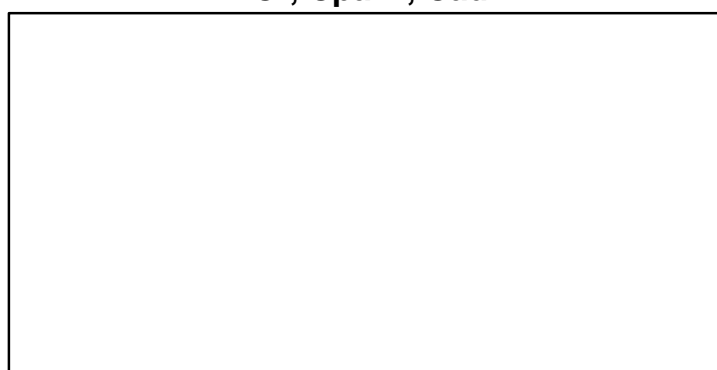
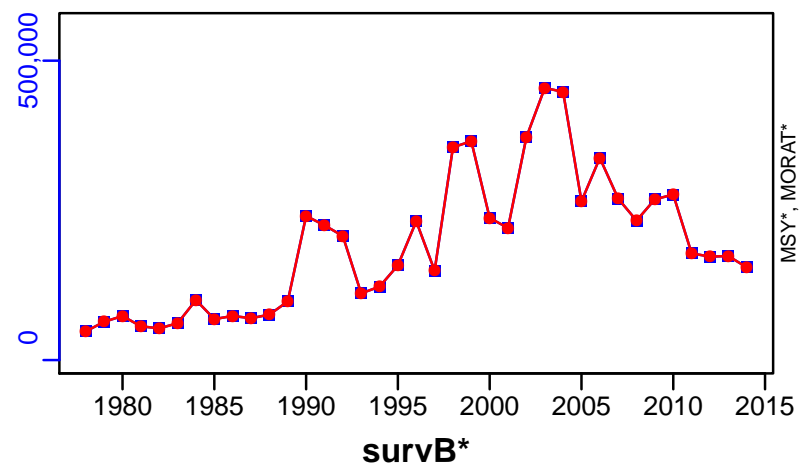
R-E00 (1978–2014–KUROTA)



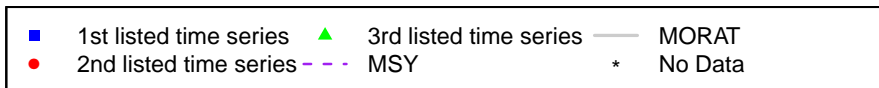
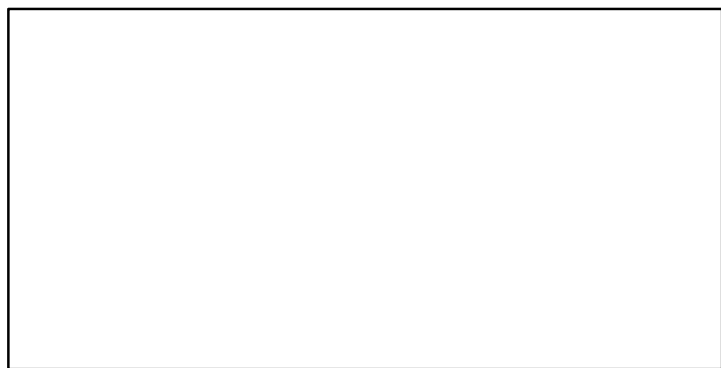
# Japanese anchovy Pacific Coast of Japan [JANCHOPJPN]

TC-MT, TL-MT, RecC\* (1978-2014-KUROTA)

TAC\*, Cpair\*, Cadv\*



EFFORT\*



## Japanese anchovy Inland Sea of Japan [JANCHOSETO]

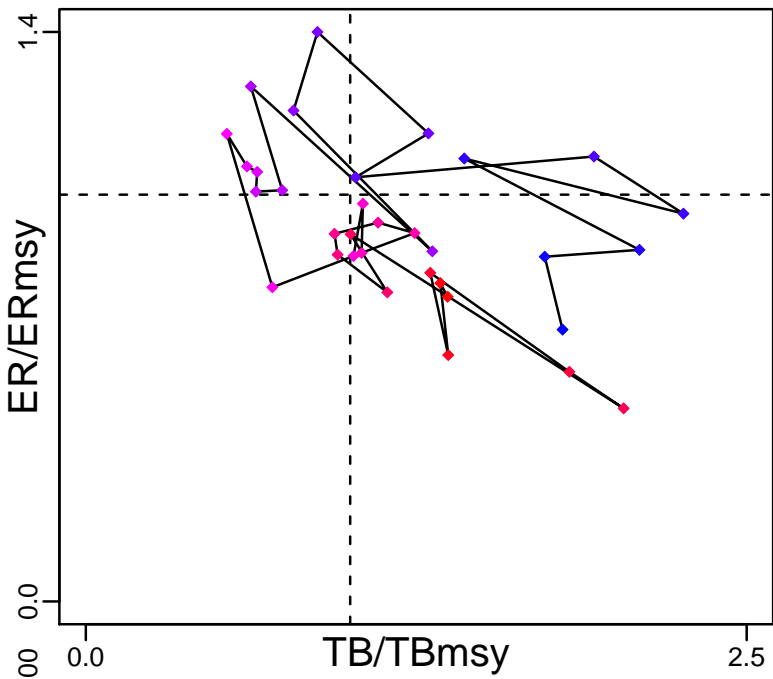
Metadata	
<b>Scientific Name</b>	Engraulis japonicus
<b>Current Assess ID</b>	FAJ-JANCHOSETO-1955-2013-JPNIMP2016
<b>Area</b>	Inland Sea of Japan
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2013, 2014

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	0.37
<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	2014	2.41
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2014	31,000
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

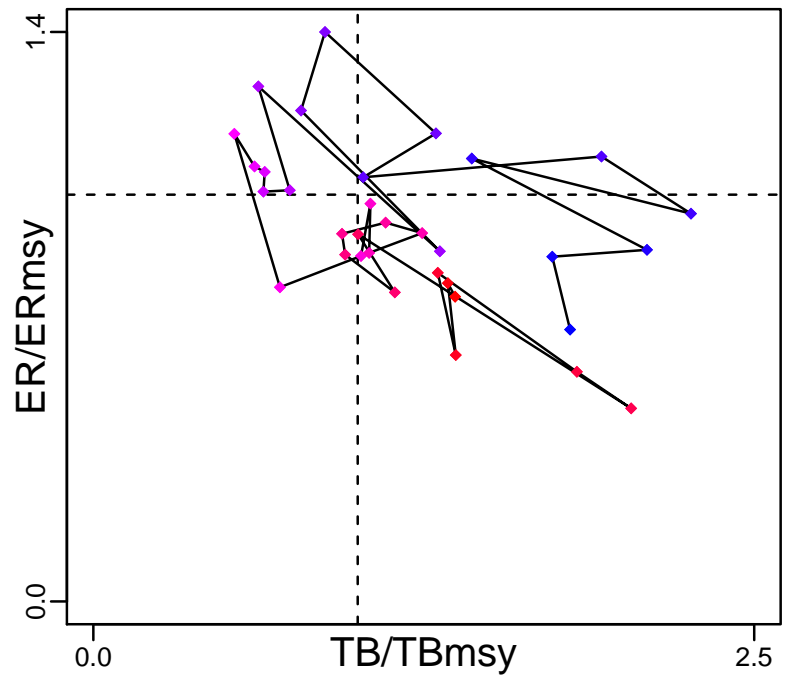
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2014	283,000	Both	0+
<b>SSB</b>	SSB-MT	2014	64,000	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2014	$3.63 \times 10^{11}$	Both	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2014	0	-	-
<b>TC</b>	TC-MT	2014	68,100		
<b>TL</b>	TL-MT	2014	68,100		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2013	1.37		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	0.75		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

Japanese anchovy Inland Sea of Japan [JANCHOSETO]

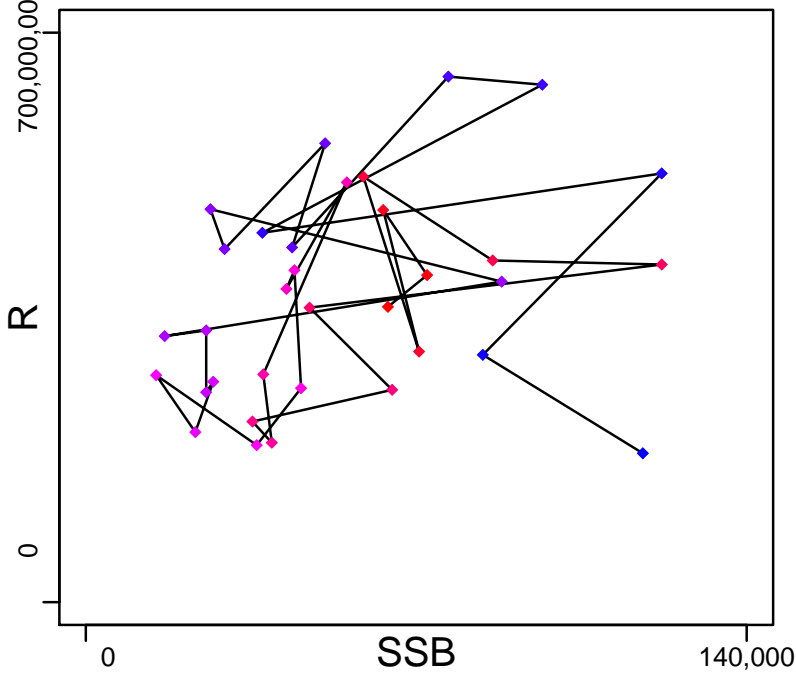
Kobe MSYpref (1955–2013–JPNIMP2016)



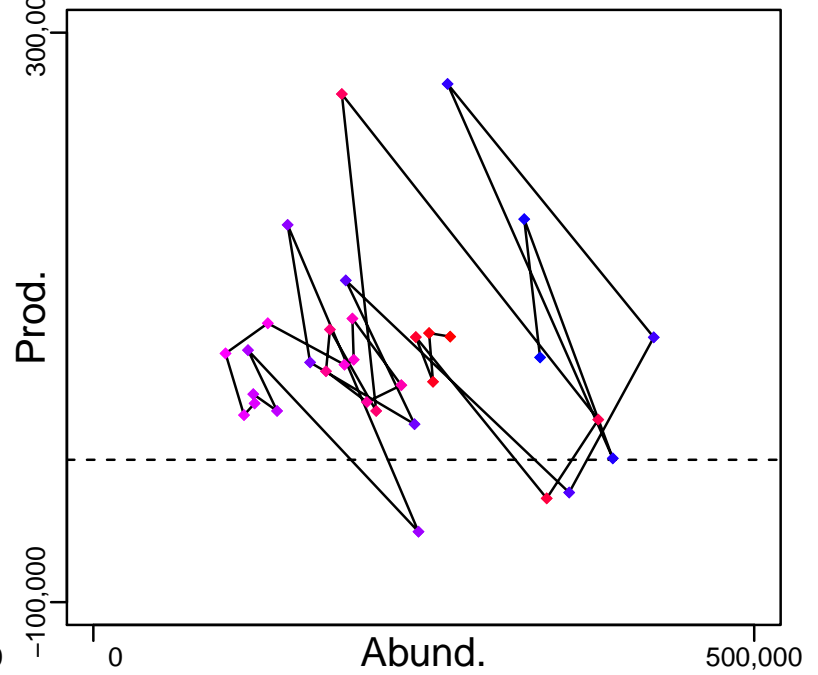
Kobe MGTpref (1955–2013–JPNIMP2016)



Spawner Recruit (1955–2014–KUROTA)



Production (1955–2014–KUROTA)

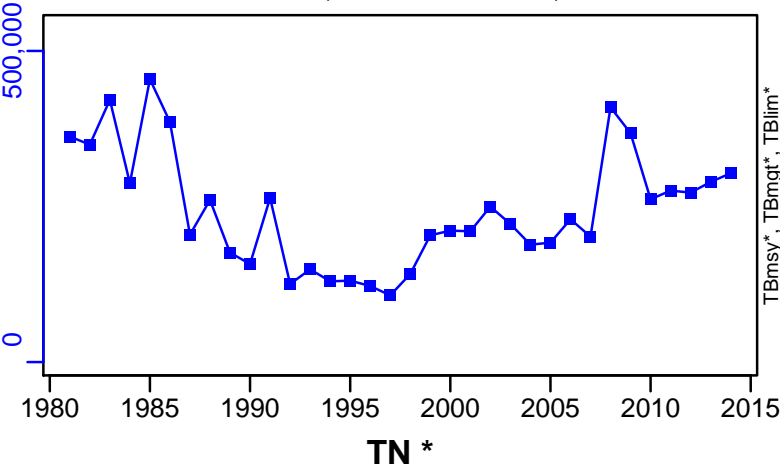


◆ Start Year ◆ End Year \* No Data

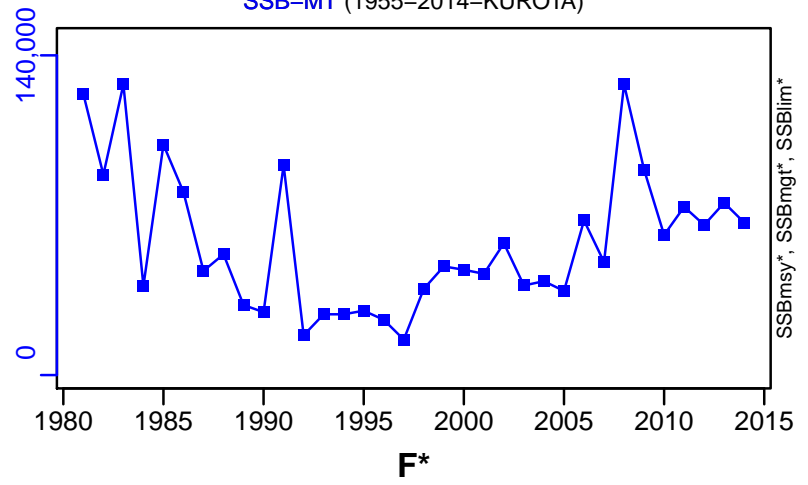


# Japanese anchovy Inland Sea of Japan [JANCHOSETO]

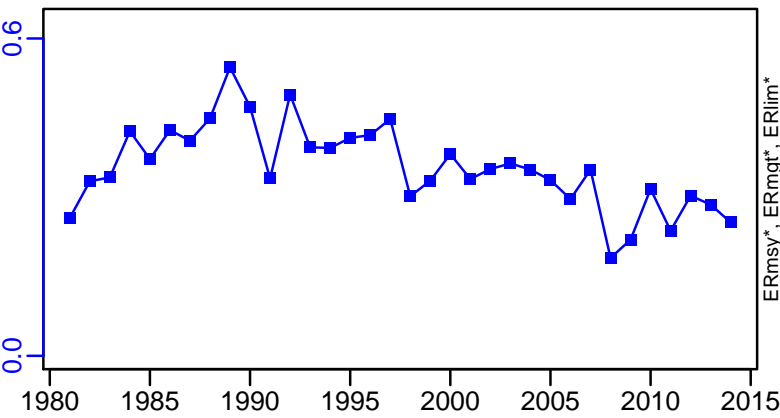
TB-MT (1955–2014–KUROTA)



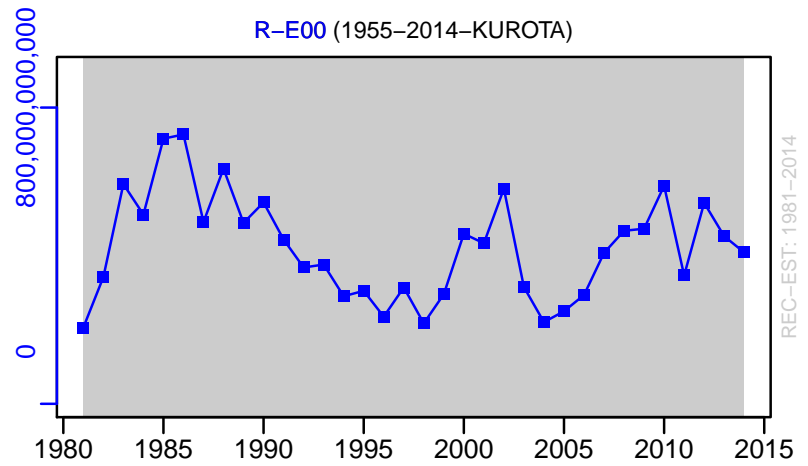
SSB-MT (1955–2014–KUROTA)



ER-ratio (1955–2014–KUROTA)



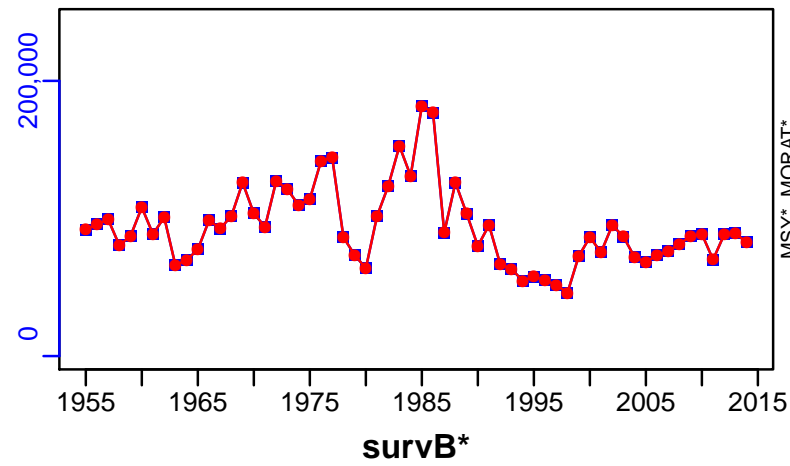
R-E00 (1955–2014–KUROTA)



# Japanese anchovy Inland Sea of Japan [JANCHOSETO]

TC-MT, TL-MT, RecC\* (1955–2014–KUROTA)

TAC\*, Cpair\*, Cadv\*



EFFORT\*



## Japanese anchovy Tsushima Strait [JANCHOTSST]

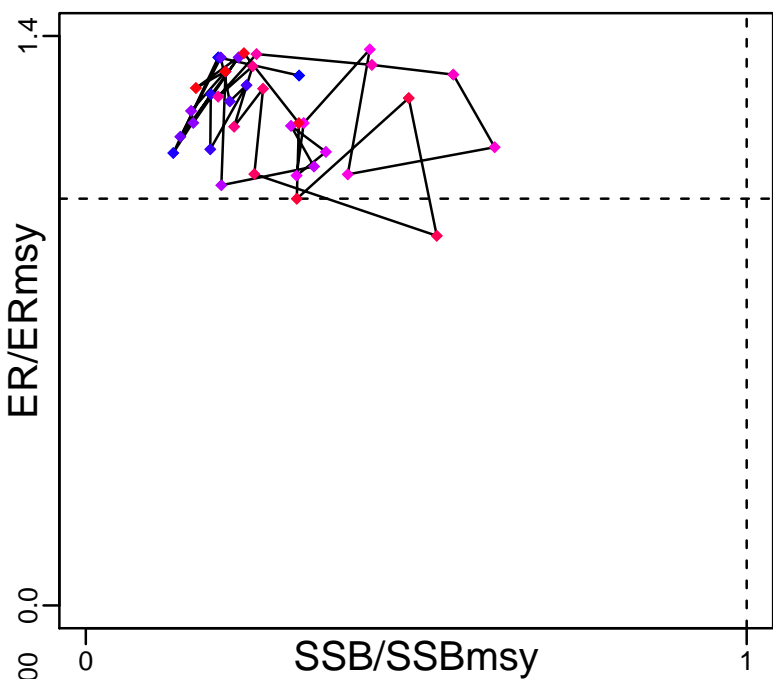
Metadata	
<b>Scientific Name</b>	Engraulis japonicus
<b>Current Assess ID</b>	FAJ-JANCHOTSST-1976-2013-JPNIMP2016
<b>Area</b>	Tsushima Strait
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2013, 2014

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2013	338,932
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2013	0.37
<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	2014	1
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2014	91,000
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

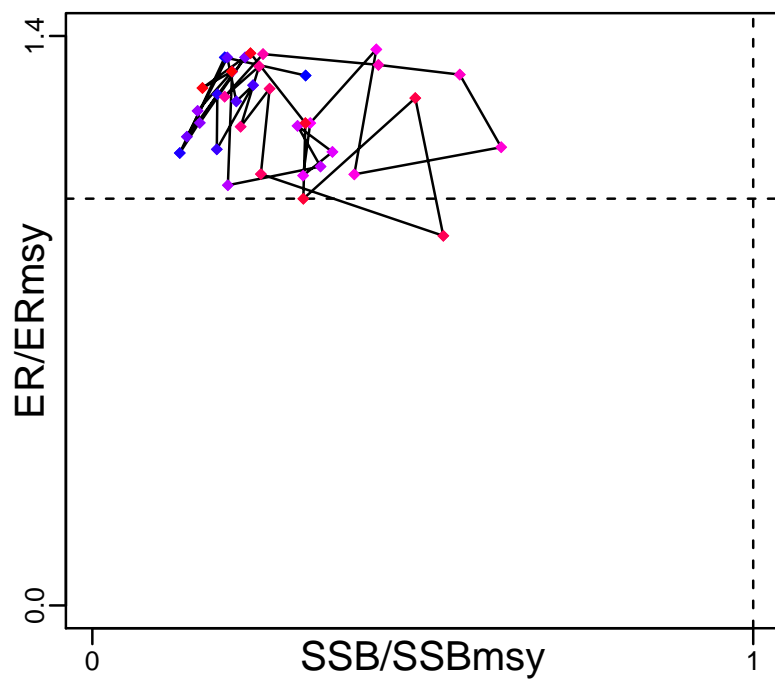
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2014	122,000	Both	0+
<b>SSB</b>	SSB-MT	2014	82,000	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2014	$5.61 \times 10^{10}$	Both	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2014	1	Both	0+
<b>TC</b>	TC-MT	2014	64,600		
<b>TL</b>	TL-MT	2014	64,600		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.21		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	1.31		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Japanese anchovy Tsushima Strait [JANCHOTSST]

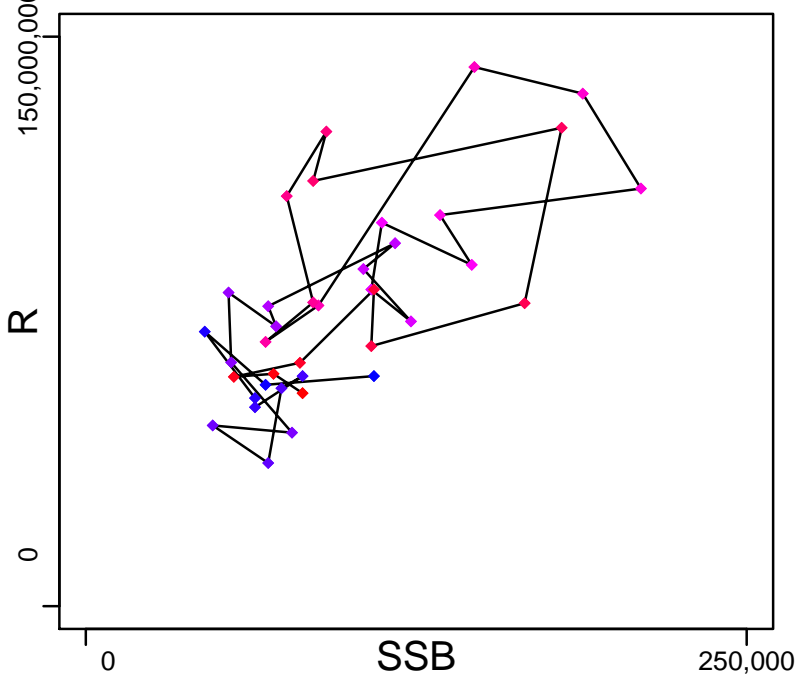
Kobe MSYpref (1976–2013–JPNIMP2016)



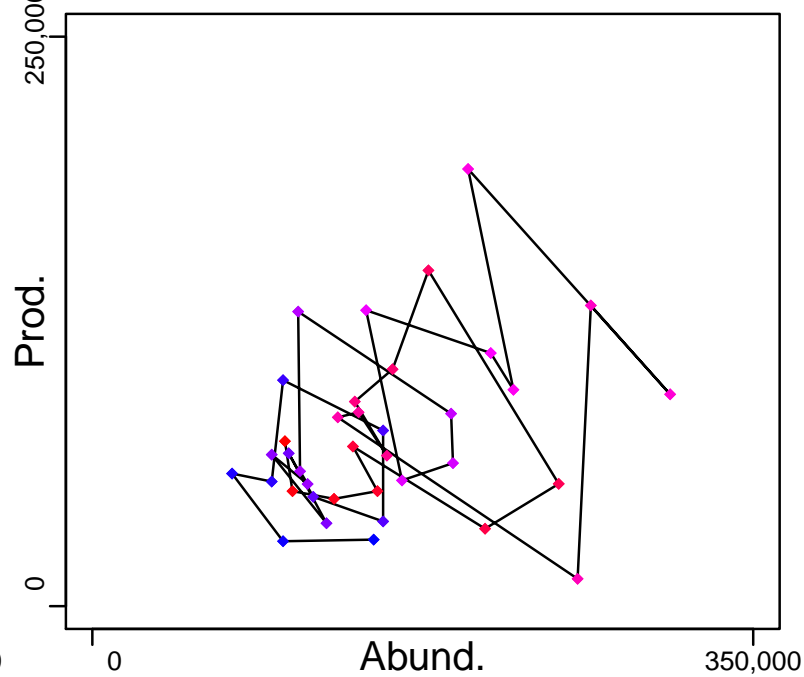
Kobe MGTpref (1976–2013–JPNIMP2016)



Spawner Recruit (1977–2014–KUROTA)



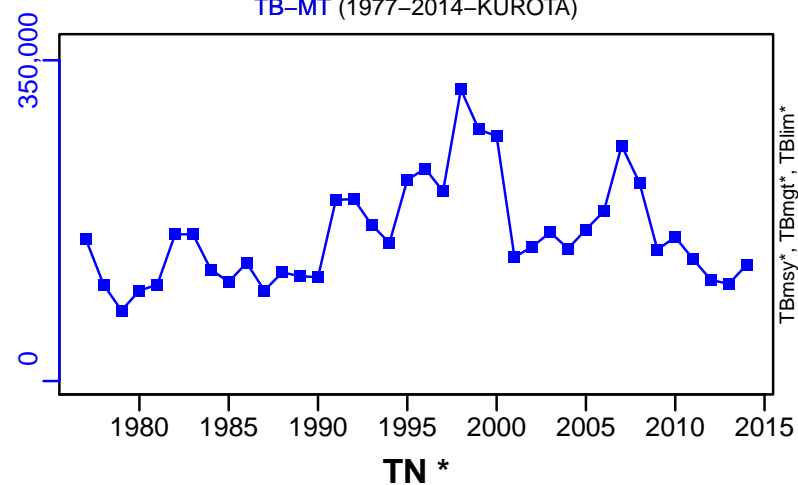
Production (1977–2014–KUROTA)



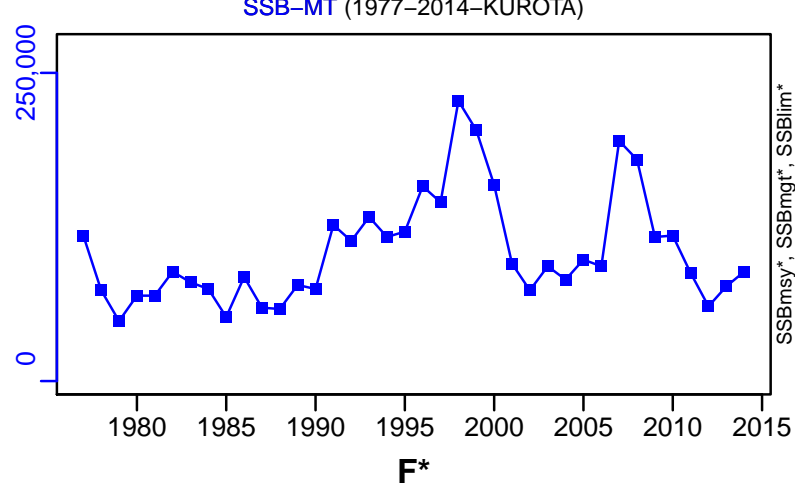
◆ Start Year ◆ End Year \* No Data

# Japanese anchovy Tsushima Strait [JANCHOTSST]

TB-MT (1977-2014-KUROTA)



SSB-MT (1977-2014-KUROTA)

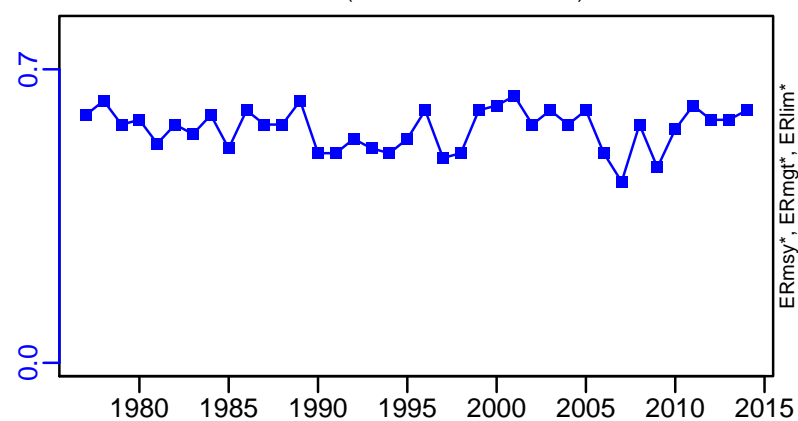


TN \*

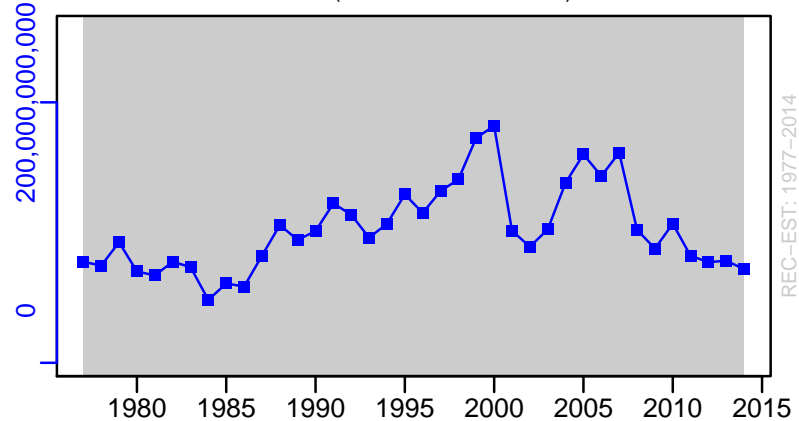
F\*



ER-ratio (1977-2014-KUROTA)



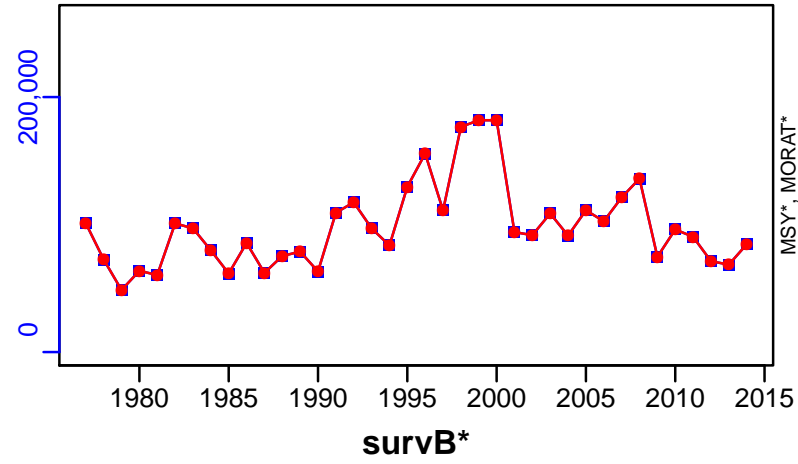
R-E00 (1977-2014-KUROTA)



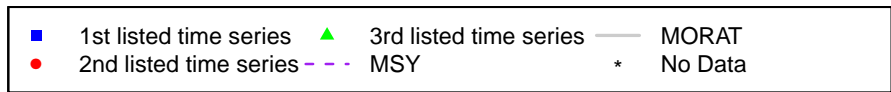
# Japanese anchovy Tsushima Strait [JANCHOTSST]

TC-MT, TL-MT, RecC\* (1977-2014-KUROTA)

TAC\*, Cpair\*, Cadv\*



EFFORT\*



## Japanese flying squid Japan Autumn recruitment [JCSQUIDJPNAR]

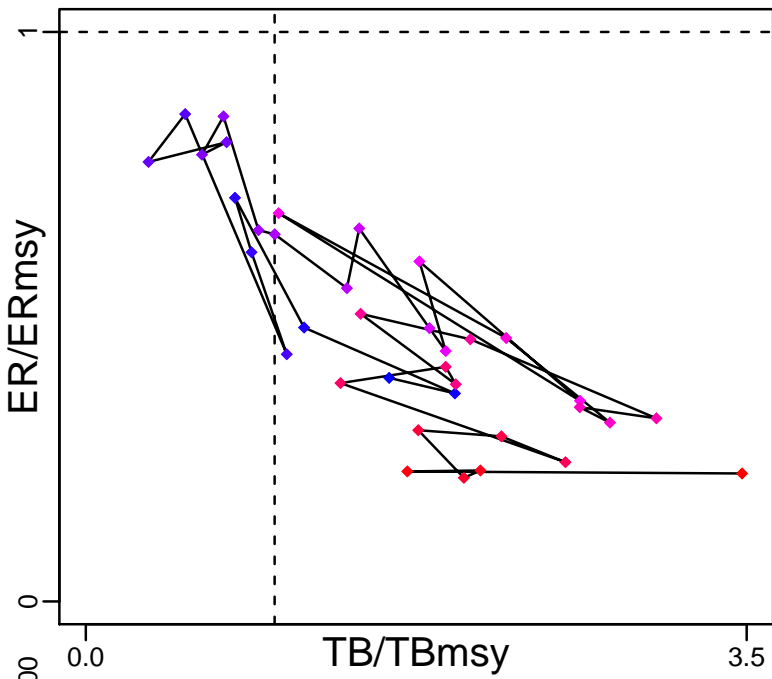
Metadata	
<b>Scientific Name</b>	Todarodes pacificus
<b>Current Assess ID</b>	FAJ-JCSQUIDJPNAR-1979-2014-JPNIMP2016
<b>Area</b>	Japan Autumn recruitment
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2014

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	0.45
<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>	-	-	-

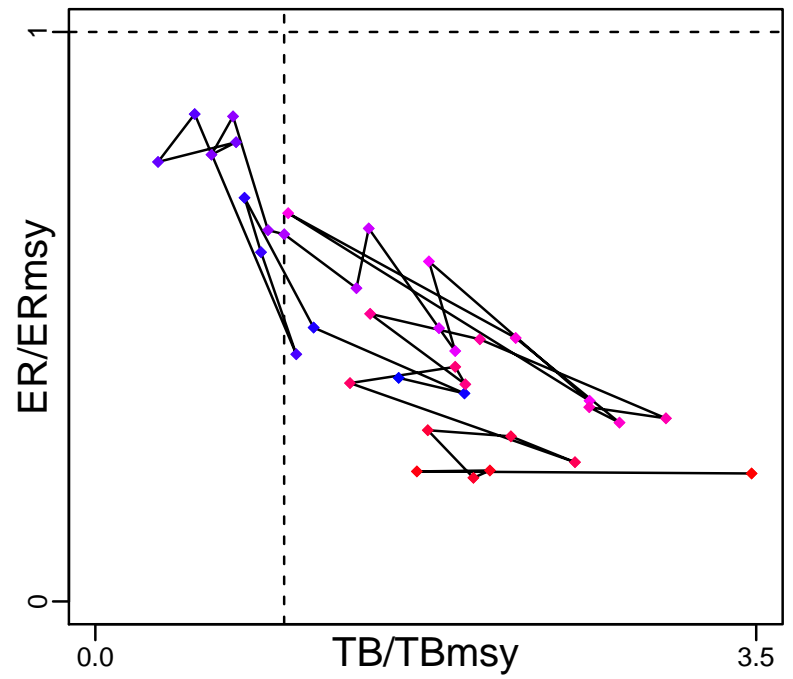
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2014	2,350,000	-	0.5
<b>SSB</b>	SSB-MT	2014	1,110,000	Both	0.5
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2014	$8.37 \times 10^9$	-	0.5
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2014	0	-	-
<b>TC</b>	TC-MT	2014	235,000		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2014	3.48		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2014	0.22		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Japanese flying squid Japan Autumn recruitment [JCSQUIDJPNAR]

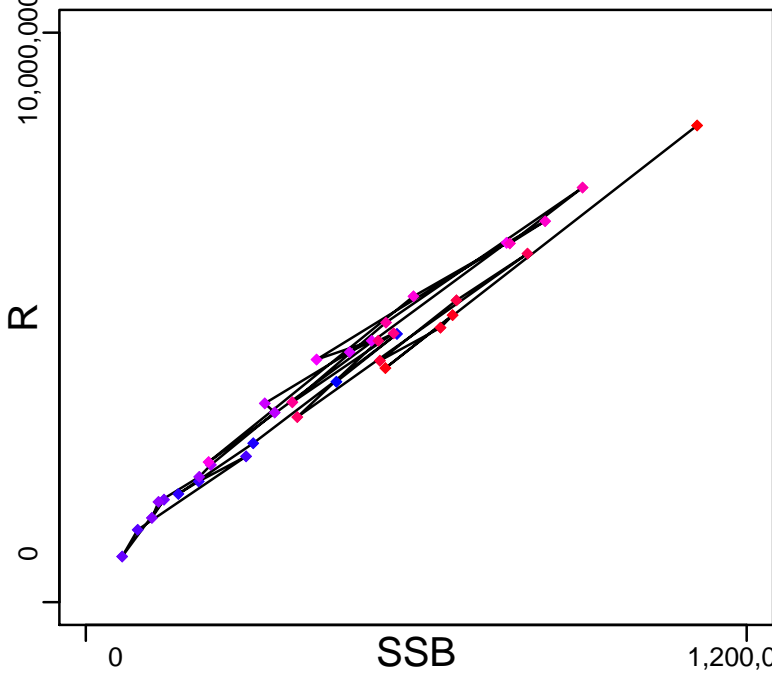
Kobe MSYpref (1979–2014–JPNIMP2016)



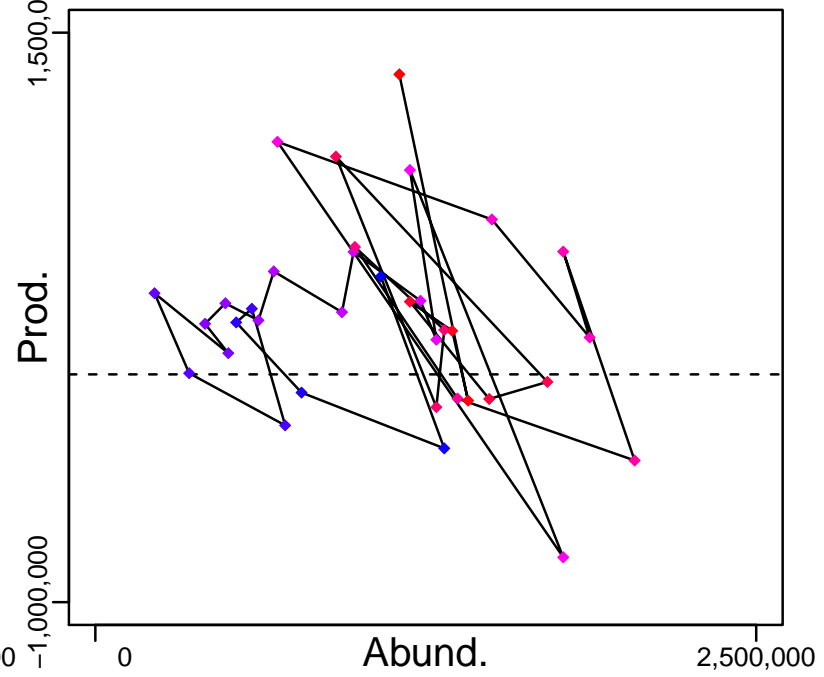
Kobe MGTpref (1979–2014–JPNIMP2016)



Spawner Recruit (1979–2014–JPNIMP2016)



Production (1979–2014–JPNIMP2016)

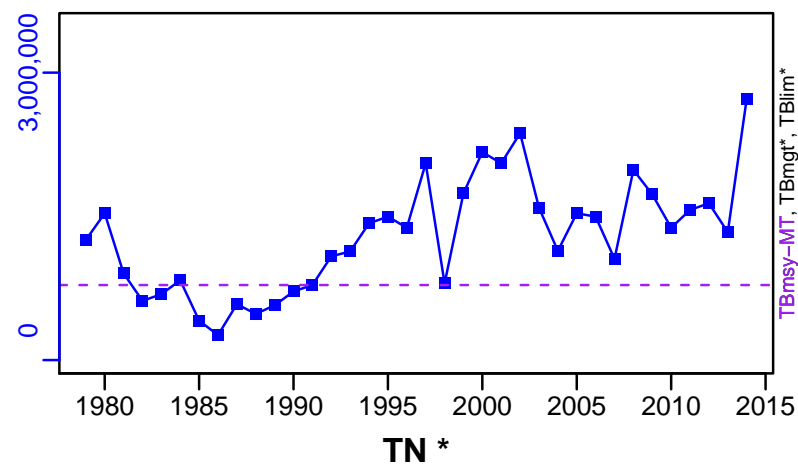


◆ Start Year ◆ End Year \* No Data

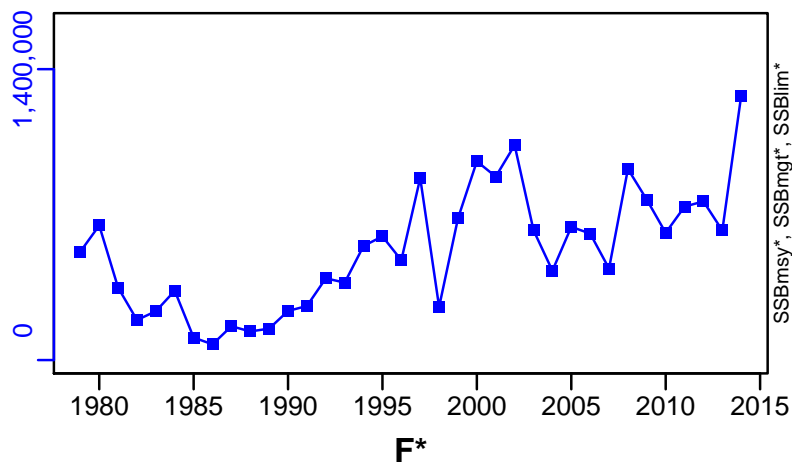


# Japanese flying squid Japan Autumn recruitment [JCSQUIDJPNAR]

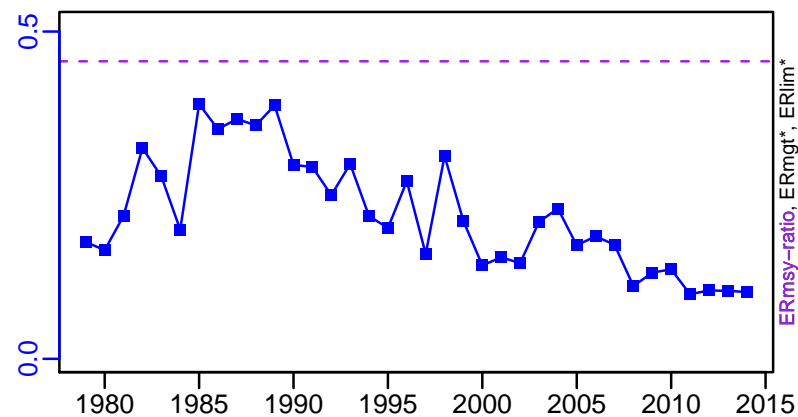
TB-MT (1979–2014–JPNIMP2016)



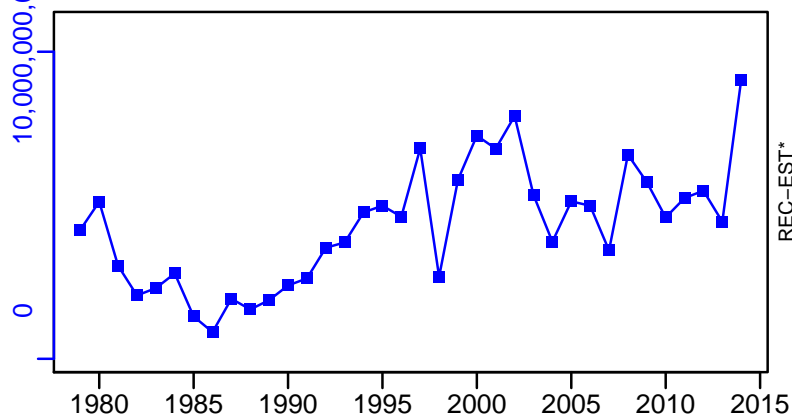
SSB-MT (1979–2014–JPNIMP2016)



ER-calc-ratio (1979–2014–JPNIMP2016)

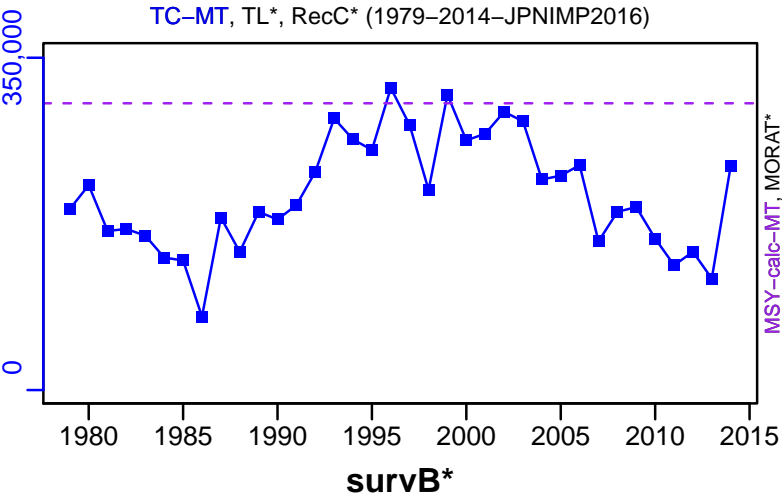


R-E00 (1979–2014–JPNIMP2016)



Japanese flying squid Japan Autumn recruitment [JCSQUIDJPNAR]

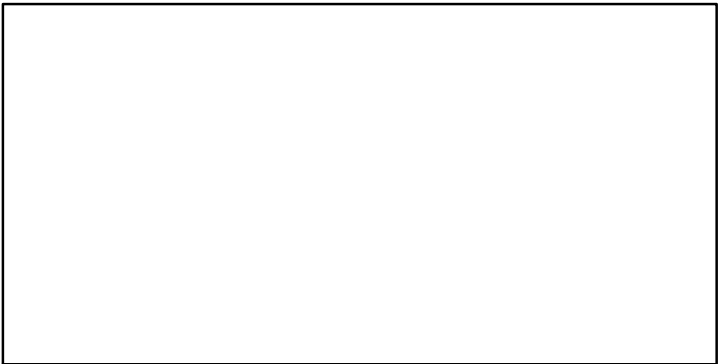
TC-MT, TL\*, RecC\* (1979-2014-JPNIMP2016)



TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



## Japanese flying squid Japan Winter recruitment [JCSQUIDJPNWR]

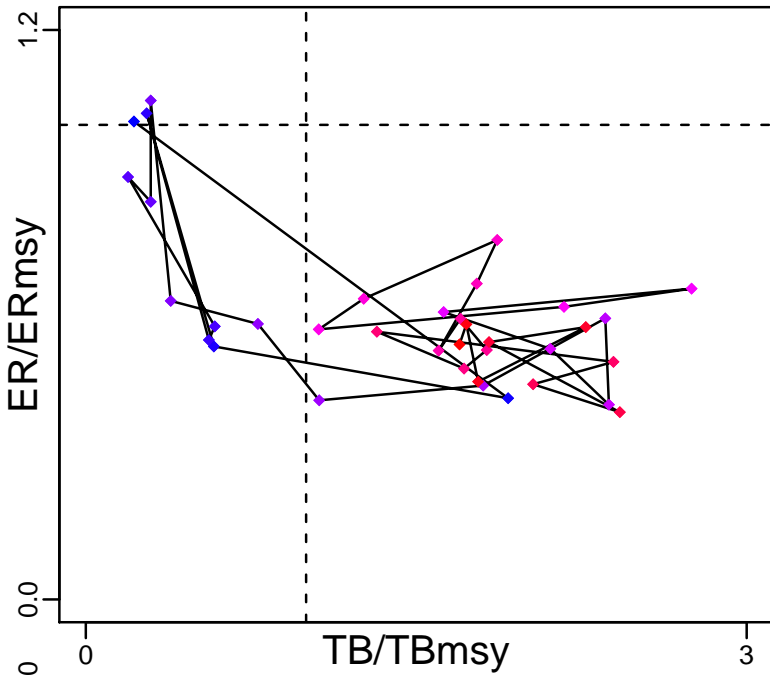
Metadata	
<b>Scientific Name</b>	Todarodes pacificus
<b>Current Assess ID</b>	FAJ-JCSQUIDJPNWR-1979-2014-JPNIMP2016
<b>Area</b>	Japan Winter recruitment
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2014

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2014	485,117
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2014	0.46
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-calc-MT	2014	222,669
M	M-1/yr	2014	1.2
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

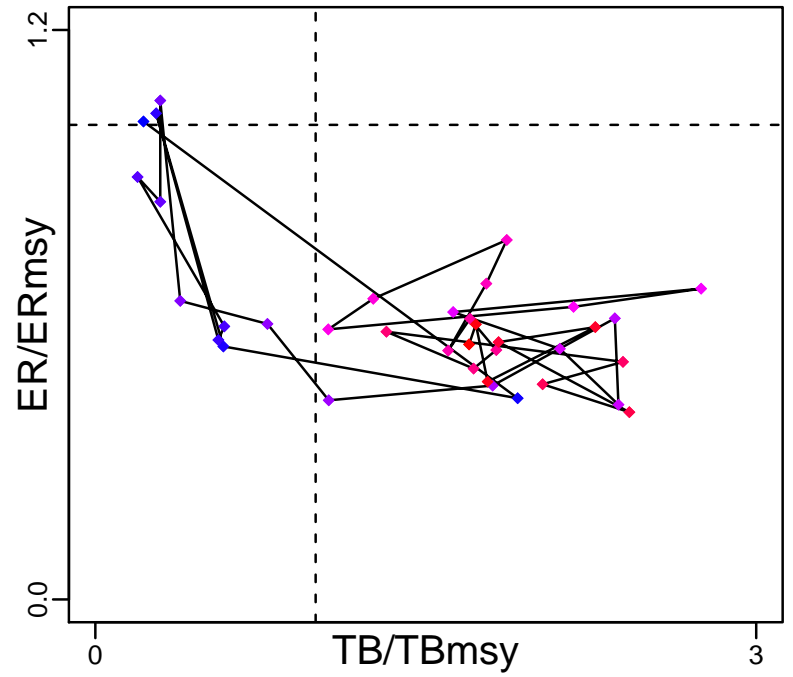
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2014	823,000	-	0.5
SSB	SSB-MT	2014	301,000	Both	0.5
TN	-	-	-	-	-
R	R-E00	2014	$2.66 \times 10^9$	-	0.5
F	-	-	-	-	-
ER	ER-calc-ratio	2014	0	-	-
TC	TC-MT	2014	203,000		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-MT	2014	1.7		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	ER-calc-ratio/ERmsy-ratio	2014	0.54		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

# Japanese flying squid Japan Winter recruitment [JCSQUIDJPNWR]

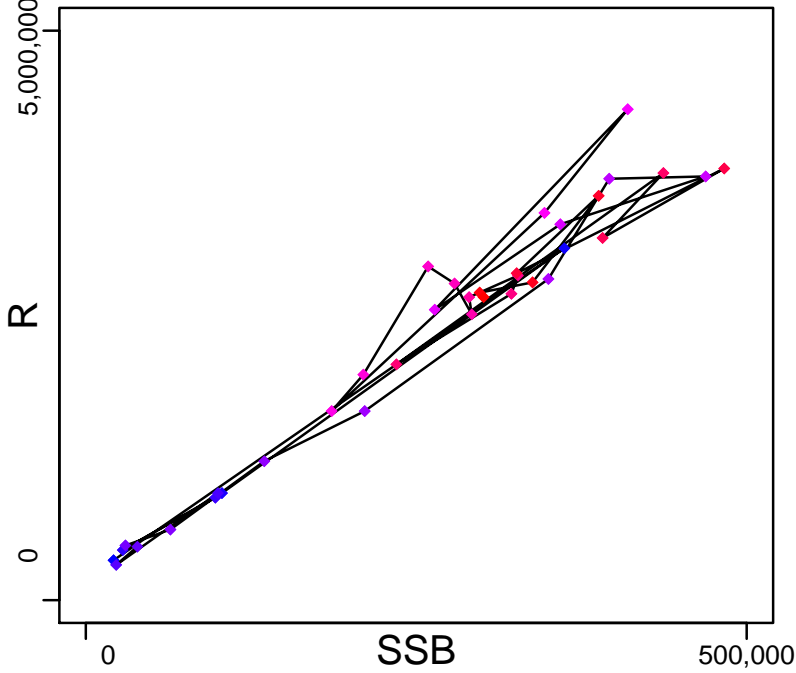
Kobe MSYpref (1979–2014–JPNIMP2016)



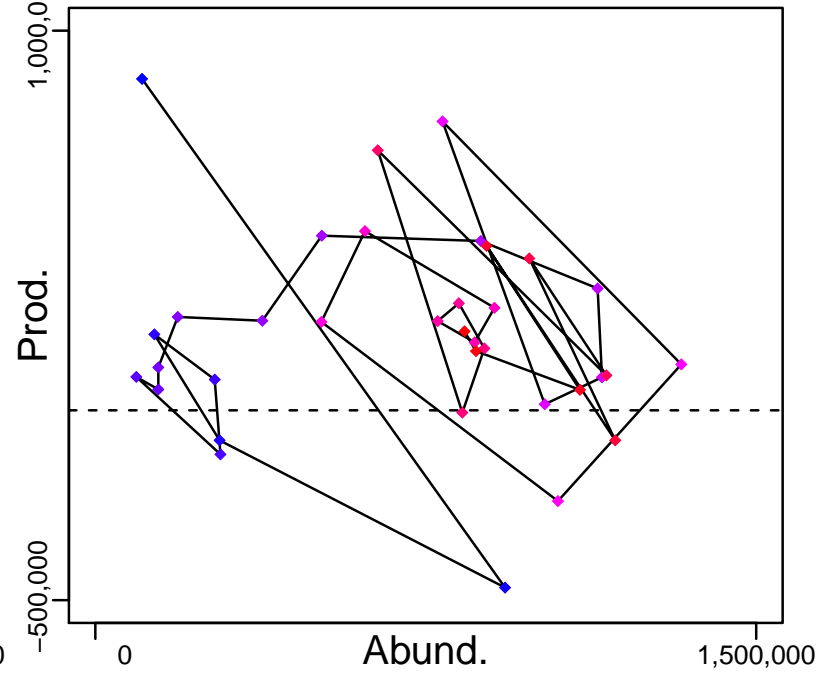
Kobe MGTpref (1979–2014–JPNIMP2016)



Spawner Recruit (1979–2014–JPNIMP2016)



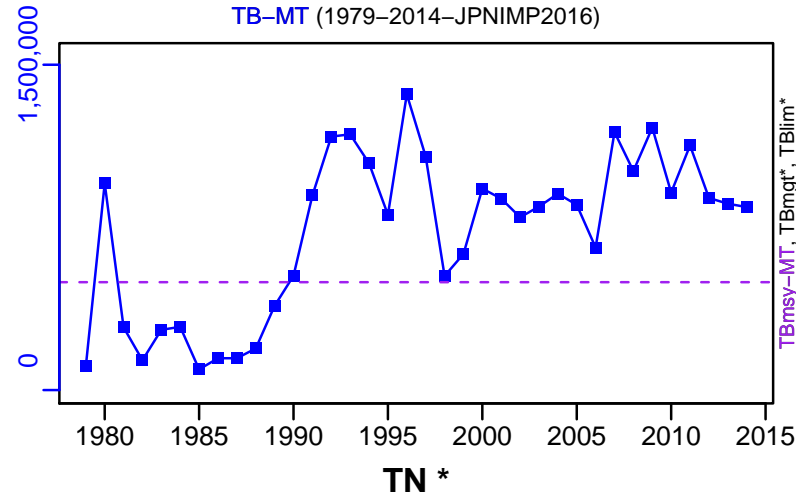
Production (1979–2014–JPNIMP2016)



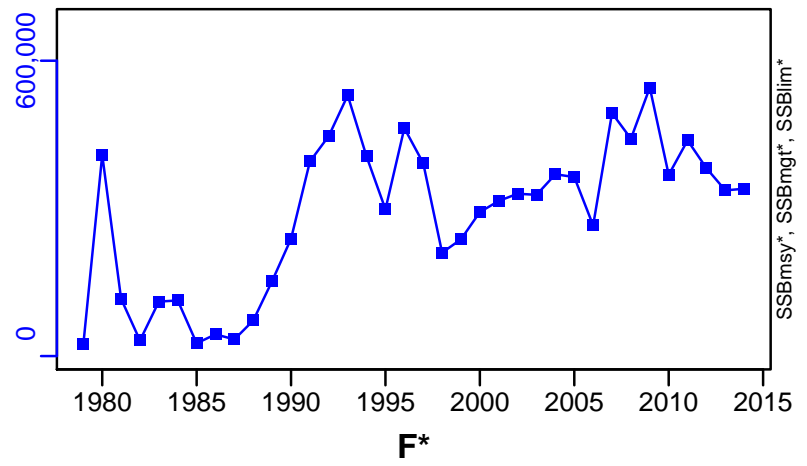
◆ Start Year ◆ End Year \* No Data

# Japanese flying squid Japan Winter recruitment [JCSQUIDJPNWR]

TB-MT (1979–2014–JPNIMP2016)

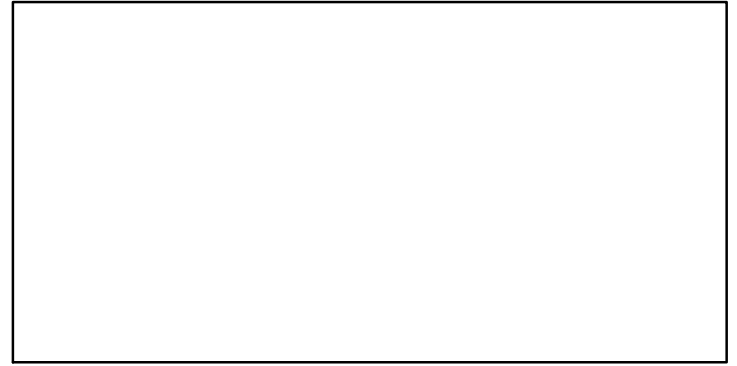
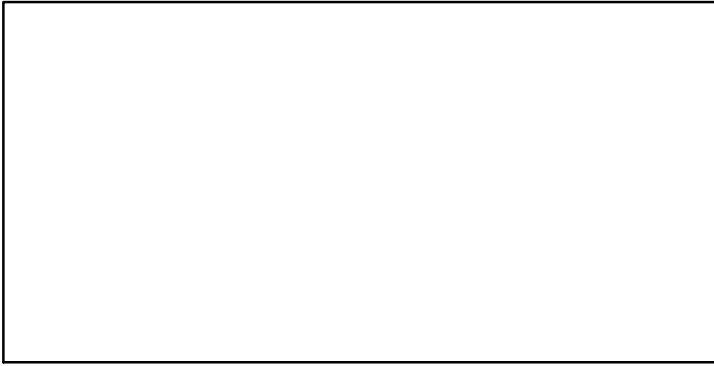


SSB-MT (1979–2014–JPNIMP2016)

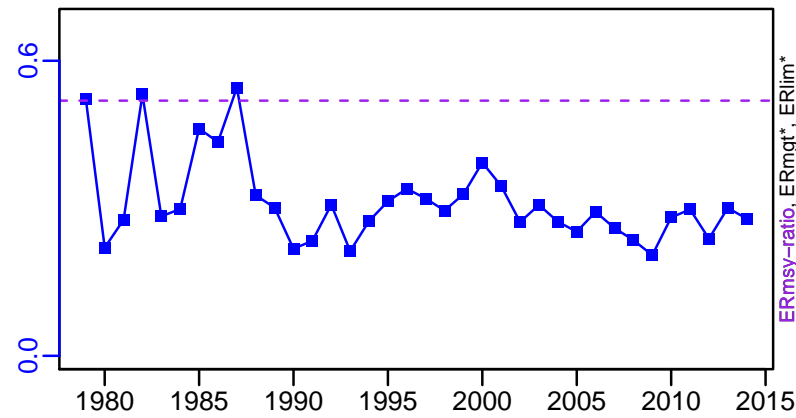


TN \*

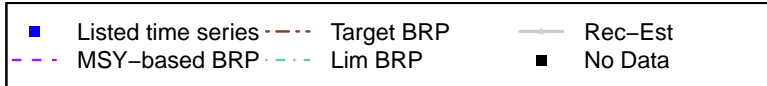
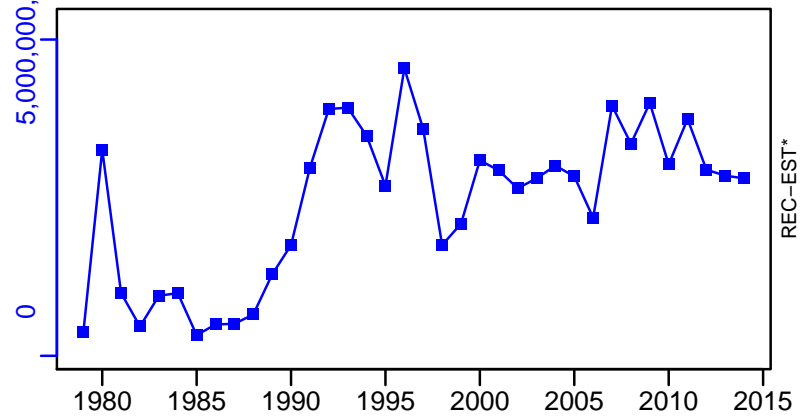
F\*



ER-calc-ratio (1979–2014–JPNIMP2016)



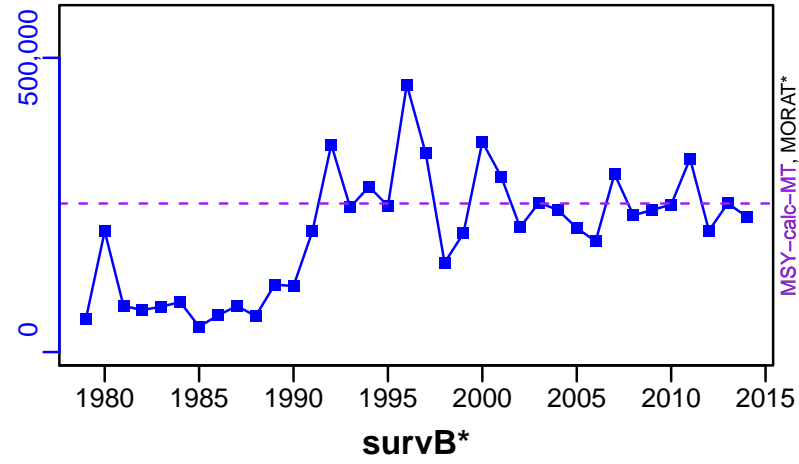
R-E00 (1979–2014–JPNIMP2016)



# Japanese flying squid Japan Winter recruitment [JCSQUIDJPNWR]

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

TAC\*, Cpair\*, Cadv\*



EFFORT\*



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

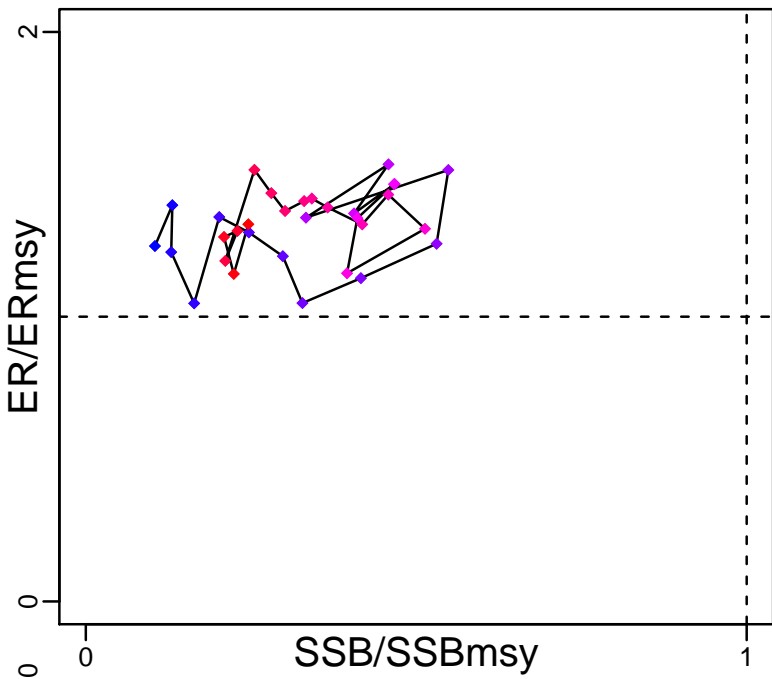
Metadata	
<b>Scientific Name</b>	Trachurus japonicus
<b>Current Assess ID</b>	FAJ-JMACKPJPN-1982-2013-JPNIMP2016
<b>Area</b>	Pacific Coast of Japan
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2009, 2013

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2013	116,600
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2013	0.34
<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>	-	-	-

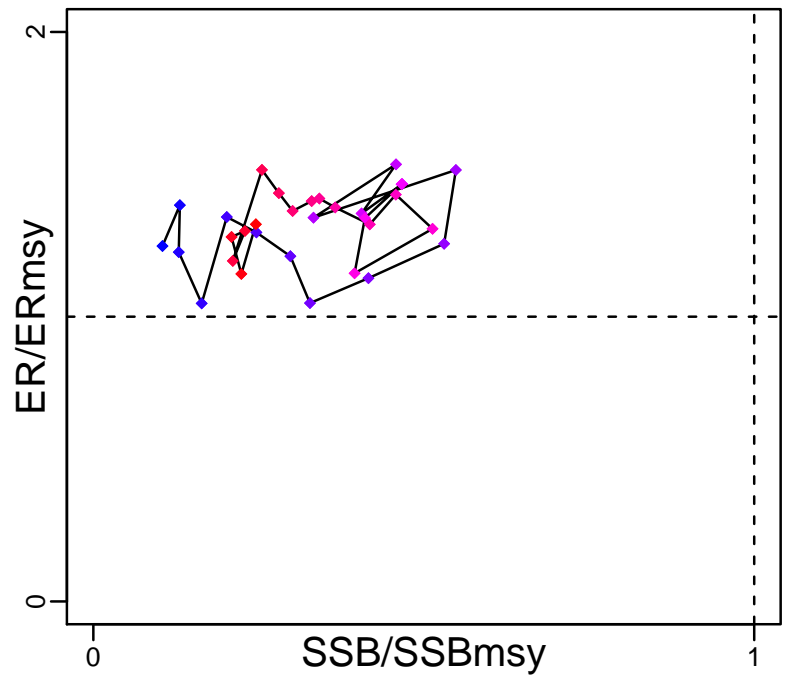
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	61,100	-	0
<b>SSB</b>	SSB-MT	2013	28,700	Both	1
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	$5.55 \times 10^8$	-	0
<b>F</b>	F-1/yr	2009	1	Both	0 to 2
<b>ER</b>	ER-calc-ratio	2013	0	-	-
<b>TC</b>	TC-MT	2013	27,600		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.25		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	1.32		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Japanese jack mackerel Pacific Coast of Japan [JMACKPJPN]

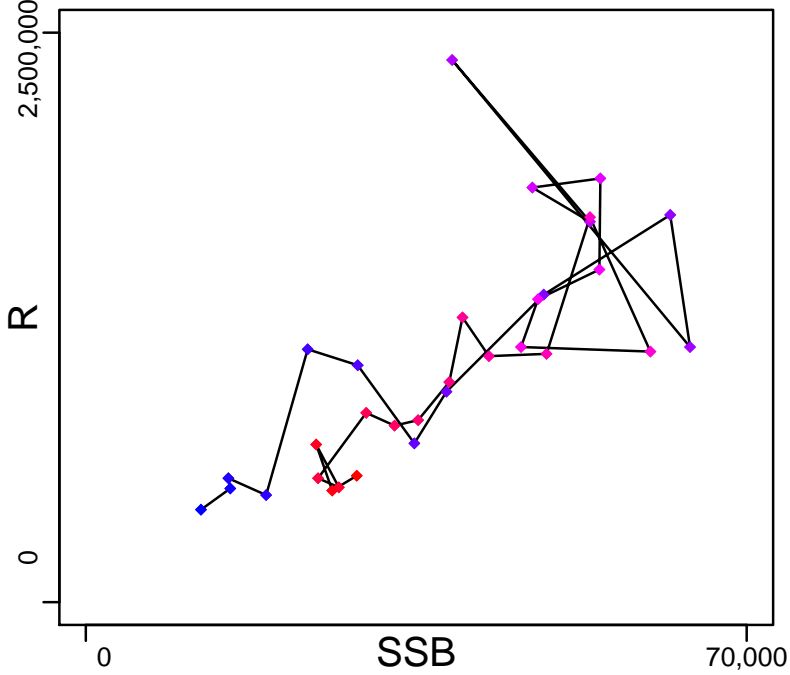
Kobe MSYpref (1982–2013–JPNIMP2016)



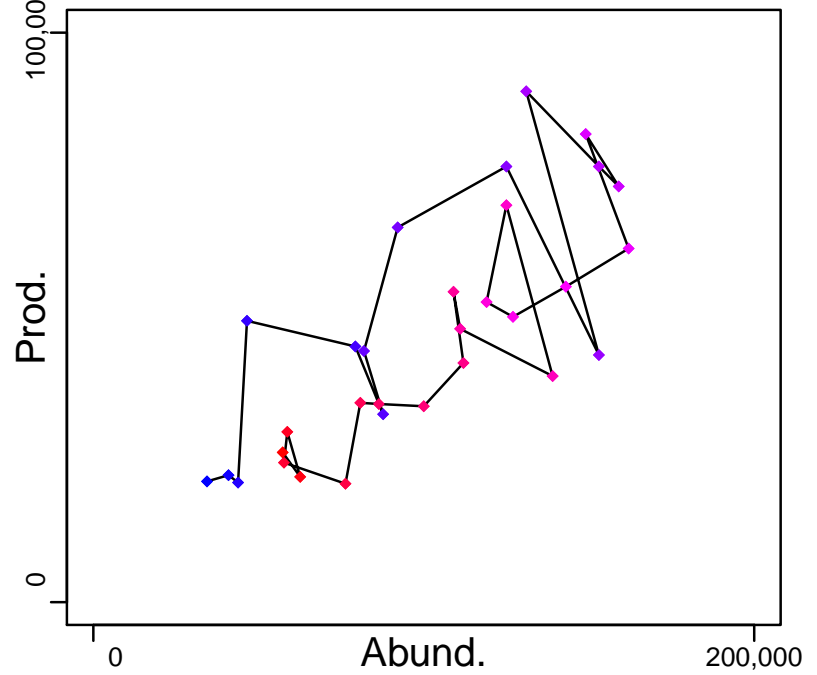
Kobe MGTpref (1982–2013–JPNIMP2016)



Spawner Recruit (1982–2013–JPNIMP2016)



Production (1982–2013–JPNIMP2016)

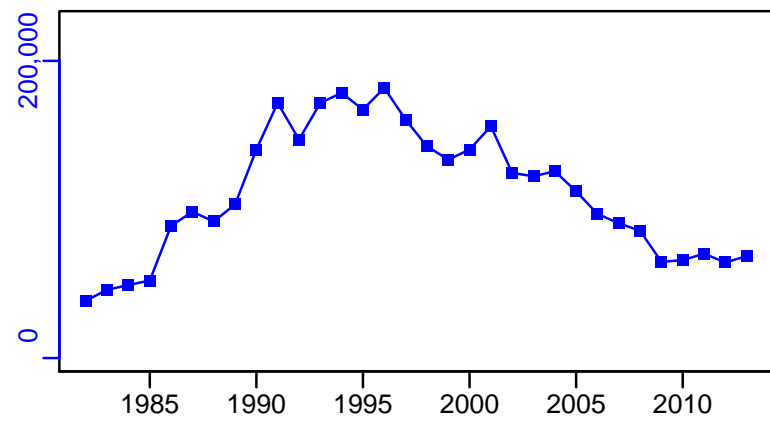


◆ Start Year ◆ End Year \* No Data

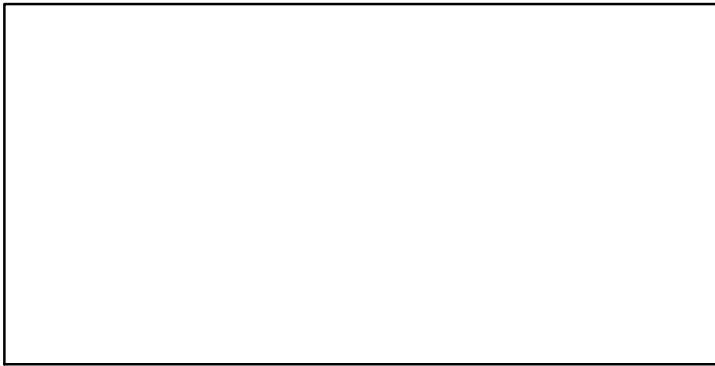


# Japanese jack mackerel Pacific Coast of Japan [JMACKPJPN]

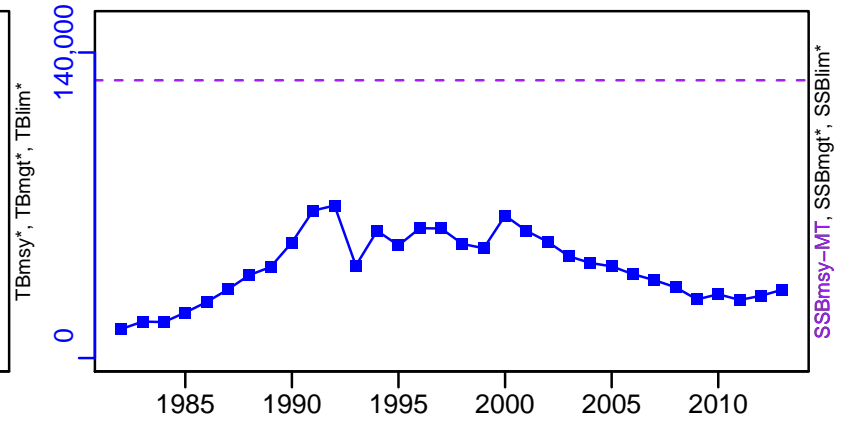
TB-MT (1982-2013-JPNIMP2016)



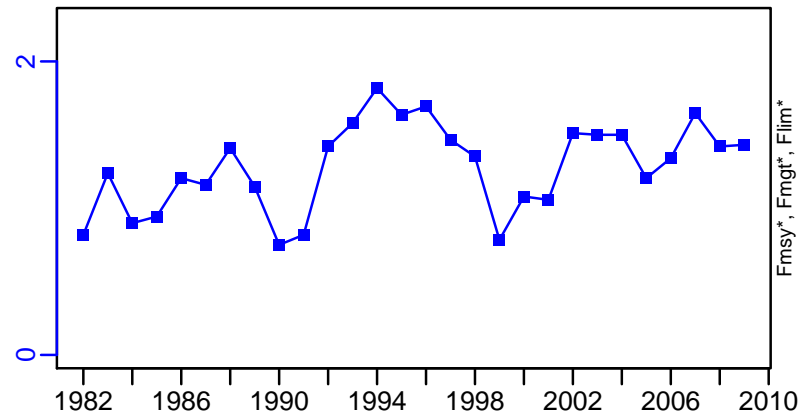
TN \*



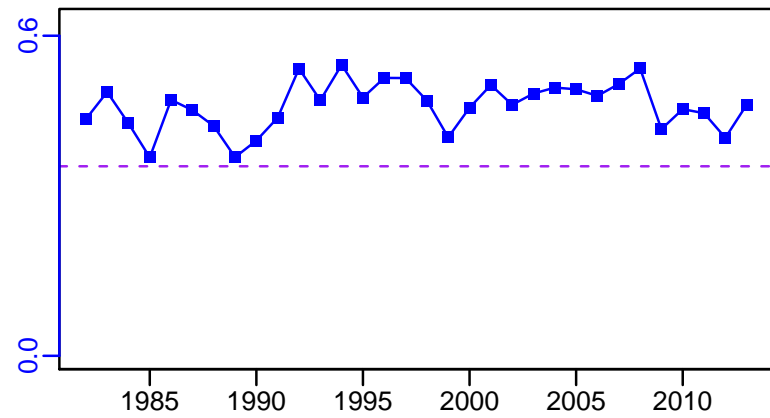
SSB-MT (1982-2013-JPNIMP2016)



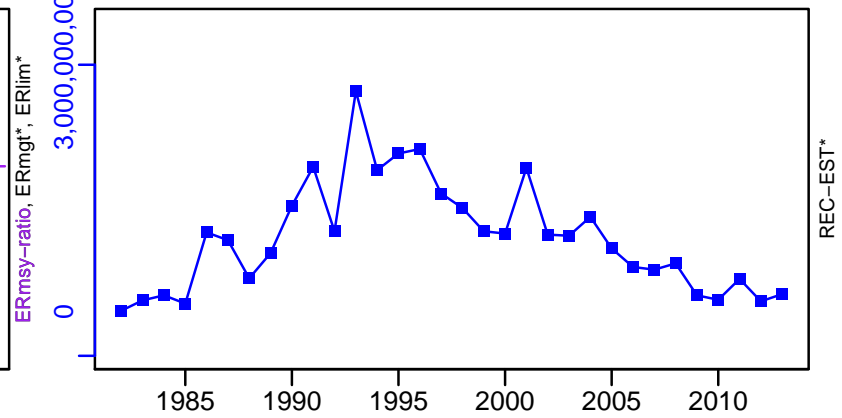
F-1/yr (1982-2009-ONO)



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



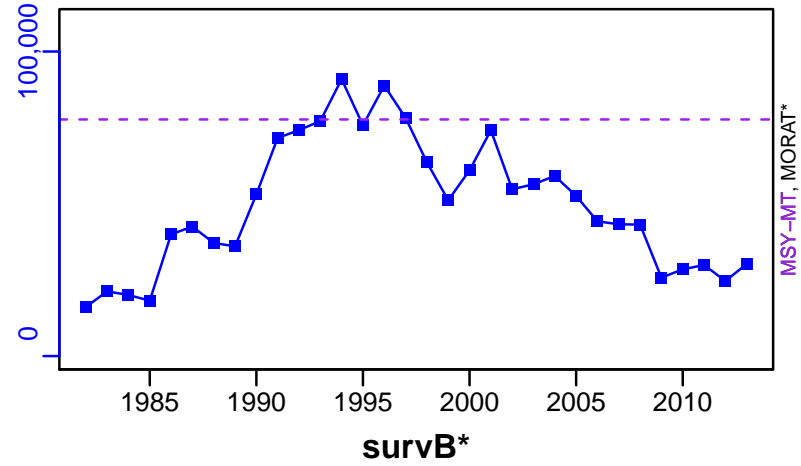
R-E00 (1982-2013-JPNIMP2016)



# Japanese jack mackerel Pacific Coast of Japan [JMACKPJPN]

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

TAC\*, Cpair\*, Cadv\*



EFFORT\*



## Japanese jack mackerel Tsushima Strait [JMACKTSST]

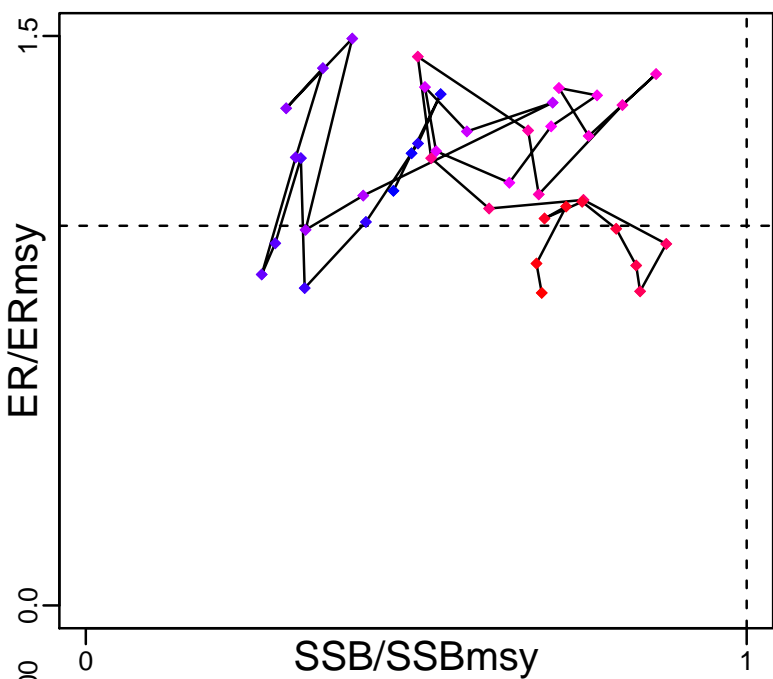
Metadata	
<b>Scientific Name</b>	Trachurus japonicus
<b>Current Assess ID</b>	FAJ-JMACKTSST-1973-2013-JPNIMP2016
<b>Area</b>	Tsushima Strait
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2010, 2013

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2013	292,056
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2013	0.33
<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>	-	-	-

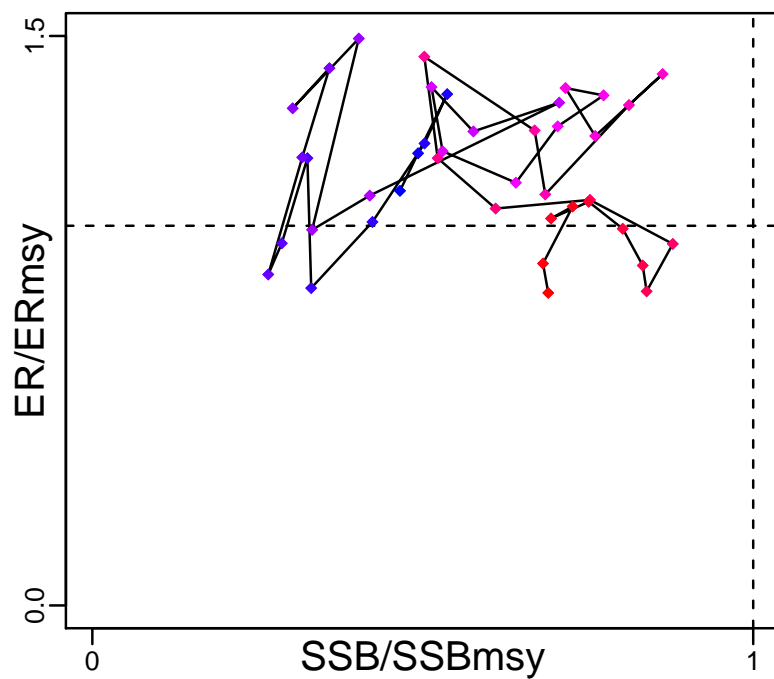
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	440,000	-	0
<b>SSB</b>	SSB-MT	2013	201,000	Both	1
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	$5.98 \times 10^9$	-	0
<b>F</b>	F-1/yr	2010	1	-	0 to 3
<b>ER</b>	ER-calc-ratio	2013	0	-	-
<b>TC</b>	TC-MT	2013	120,000		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<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	0.82		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Japanese jack mackerel Tsushima Strait [JMACKTSST]

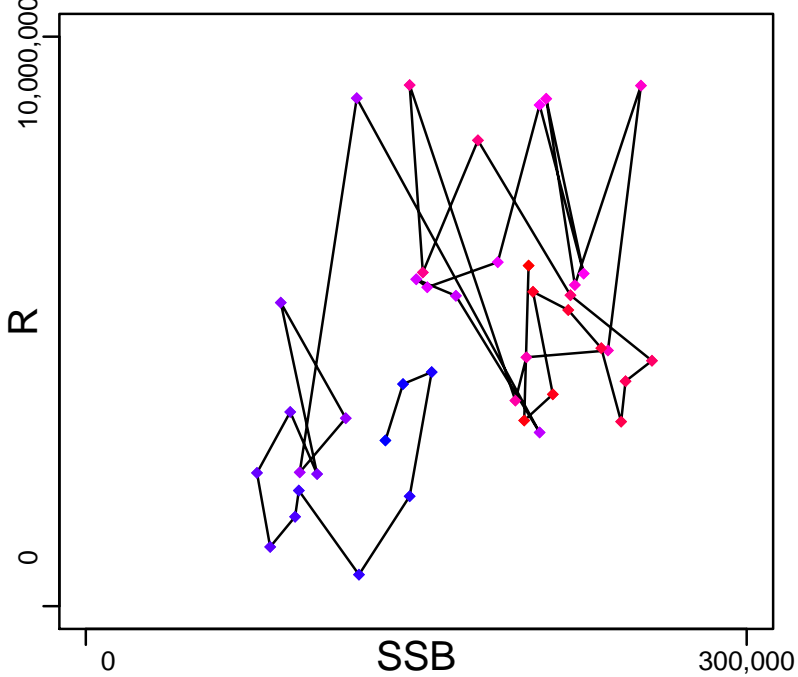
Kobe MSYpref (1973–2013–JPNIMP2016)



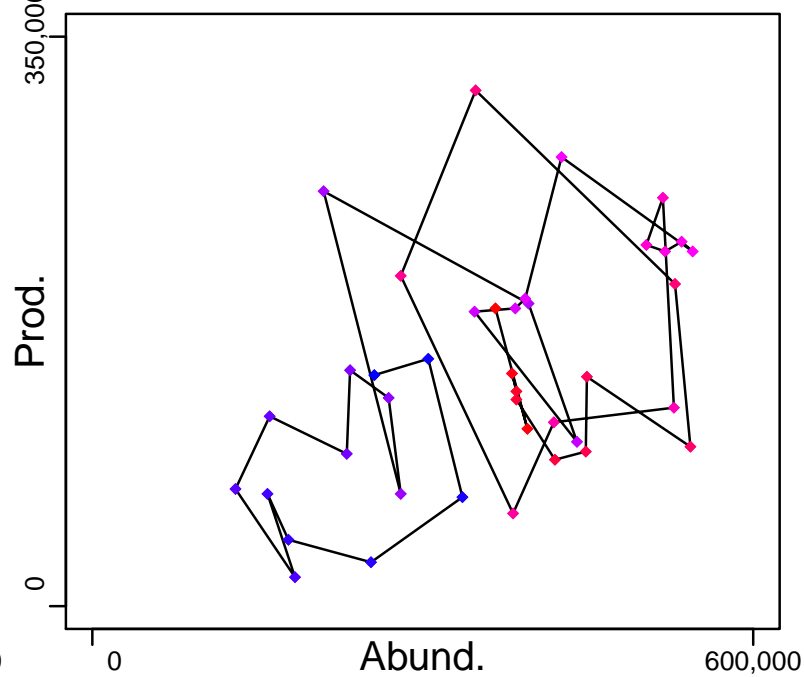
Kobe MGTpref (1973–2013–JPNIMP2016)



Spawner Recruit (1973–2013–JPNIMP2016)

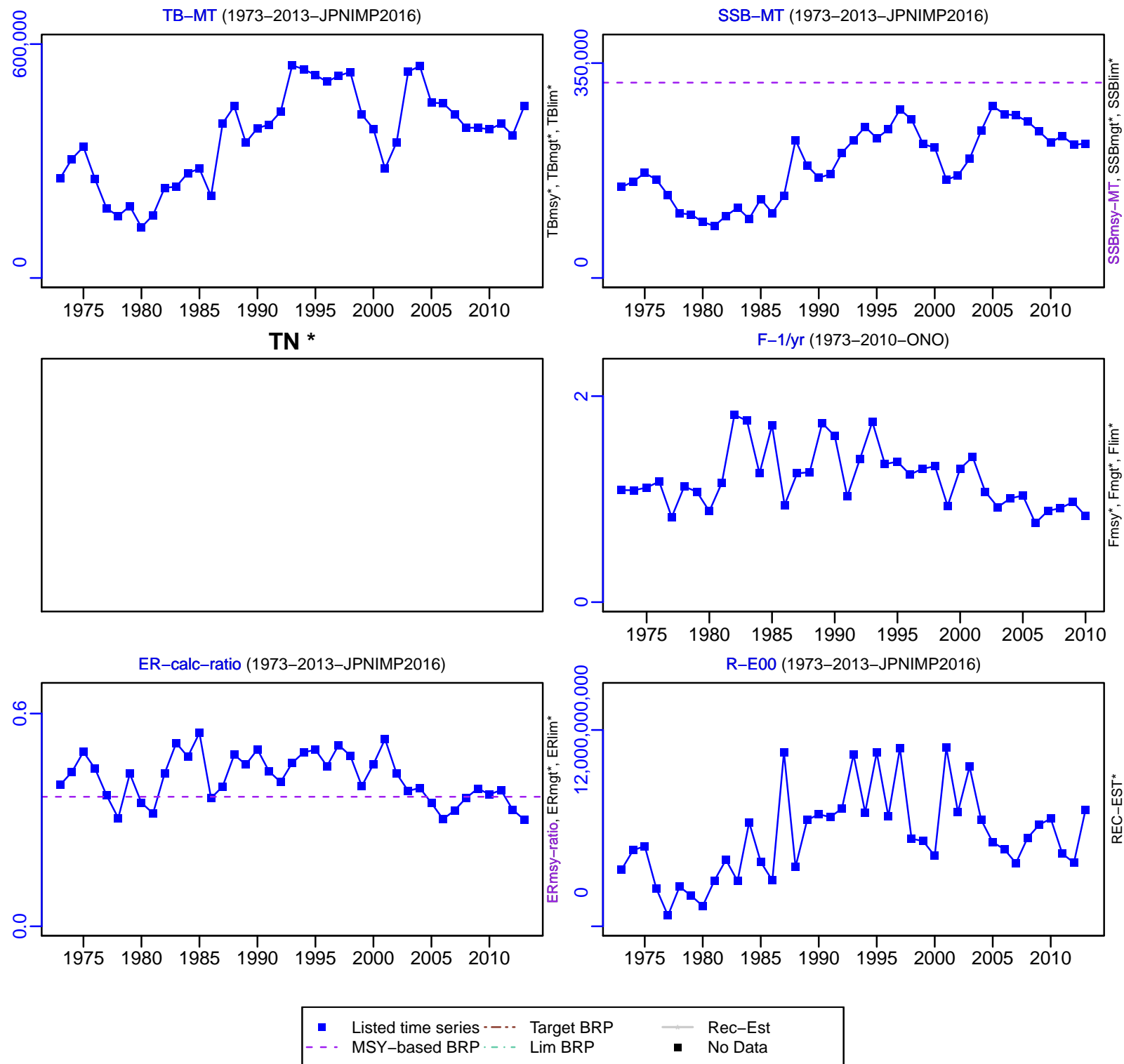


Production (1973–2013–JPNIMP2016)



◆ Start Year ◆ End Year \* No Data

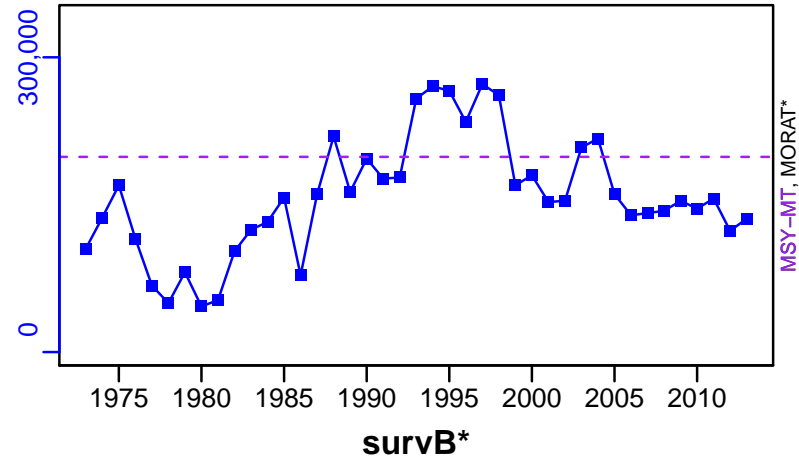
# Japanese jack mackerel Tsushima Strait [JMACKTSST]



# Japanese jack mackerel Tsushima Strait [JMACKTSST]

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

TAC\*, Cpair\*, Cadv\*



EFFORT\*



## Japanese pufferfish Ise and Mikawa Bay [JPUFFIMKB]

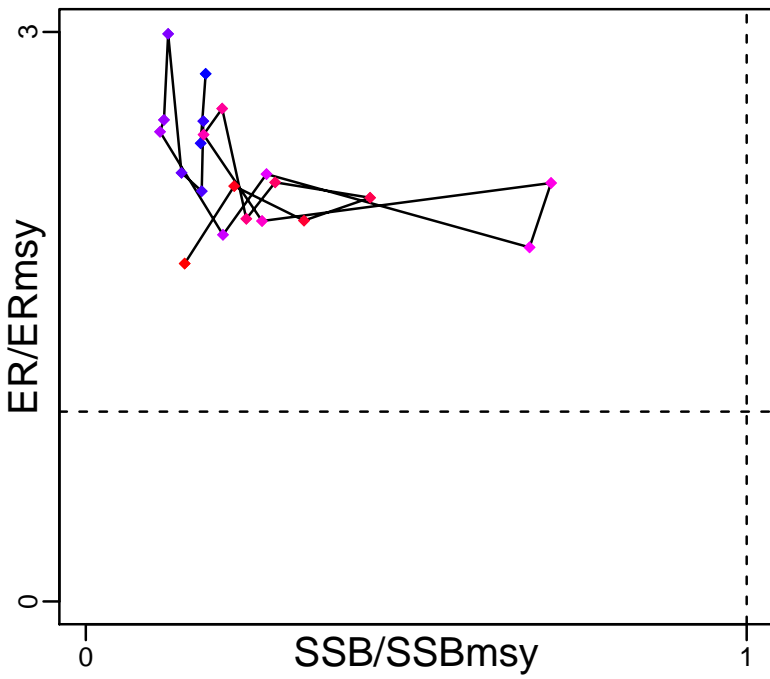
Metadata	
<b>Scientific Name</b>	Takifugu rubripes
<b>Current Assess ID</b>	FAJ-JPUFFIMKB-1993-2013-JPNIMP2016
<b>Area</b>	Ise and Mikawa Bay
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2013

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2013	252
<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	134
<b>M</b>	M-1/yr	2013	0.25
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

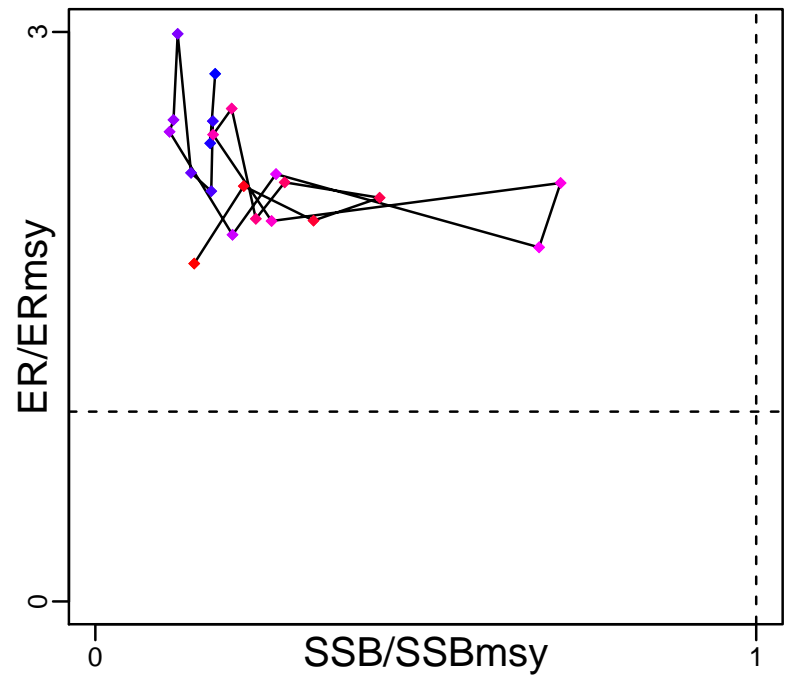
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	132	-	0
<b>SSB</b>	SSB-MT	2013	38	Both	2
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	119,000	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	1	-	-
<b>TC</b>	TC-MT	2013	66.9		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</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]

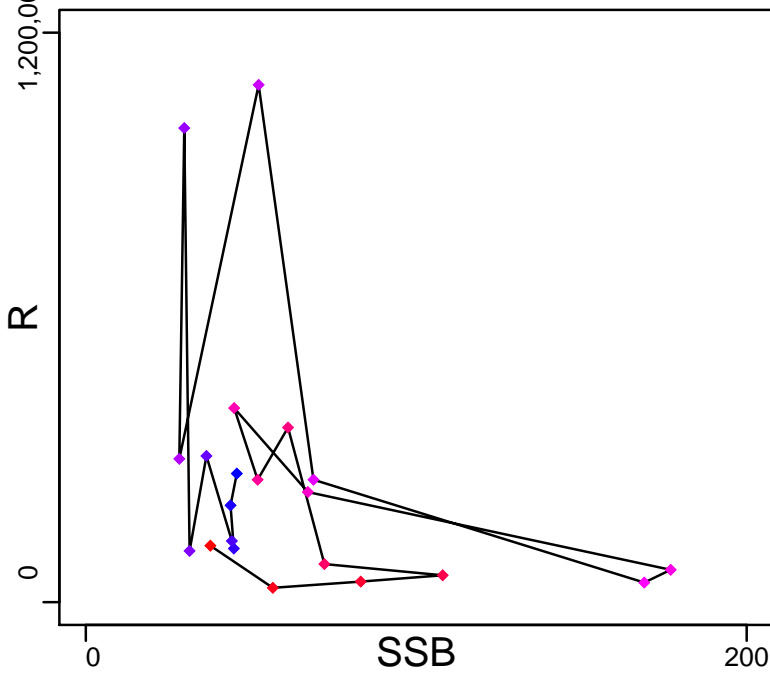
Kobe MSYpref (1993–2013–JPNIMP2016)



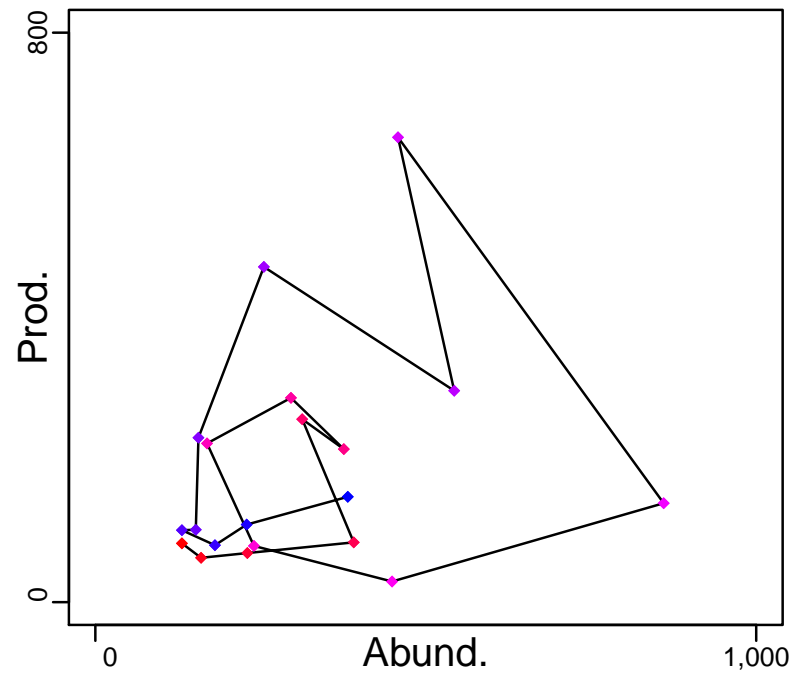
Kobe MGTpref (1993–2013–JPNIMP2016)



Spawner Recruit (1993–2013–JPNIMP2016)



Production (1993–2013–JPNIMP2016)

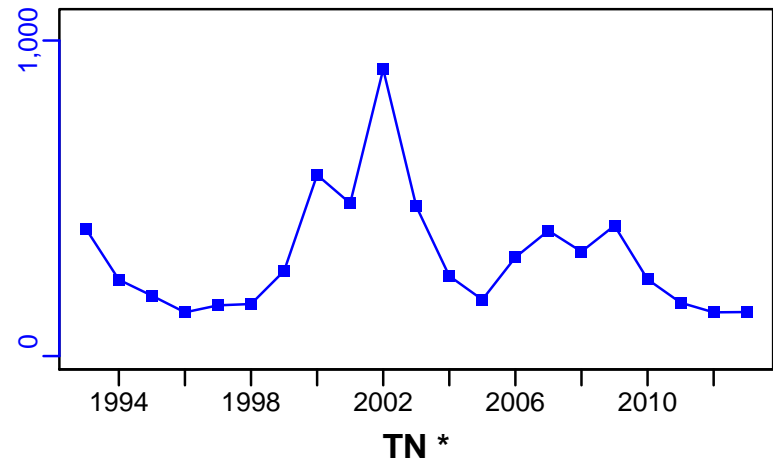


◆ Start Year ◆ End Year \* No Data

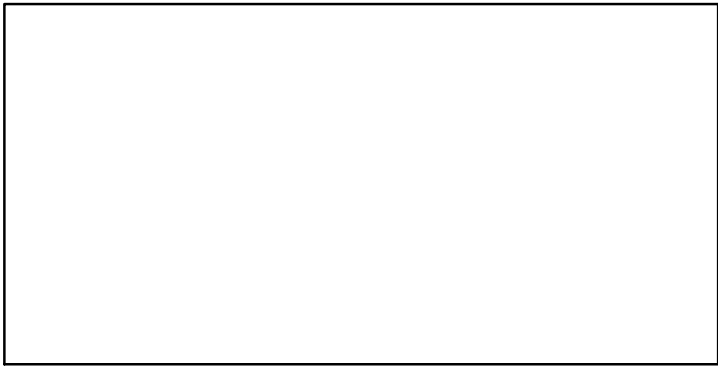
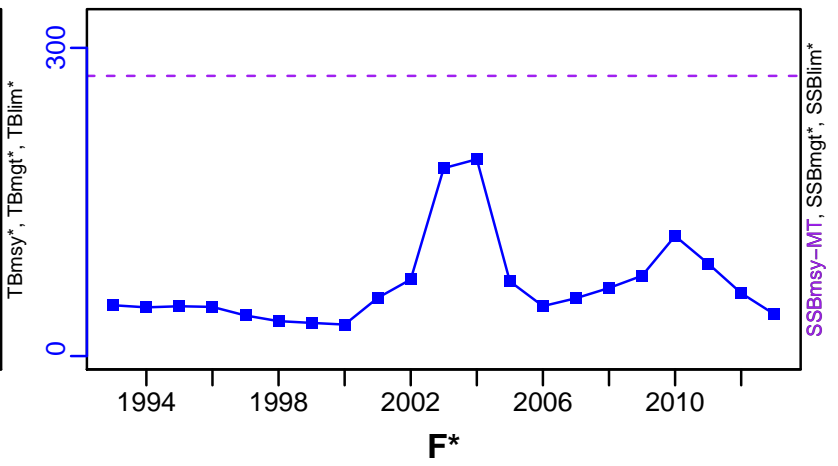


# Japanese pufferfish Ise and Mikawa Bay [JPUFFIMKB]

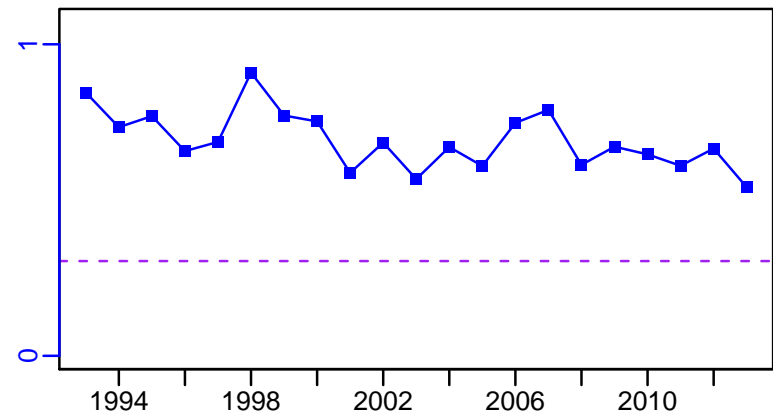
TB-MT (1993–2013–JPNIMP2016)



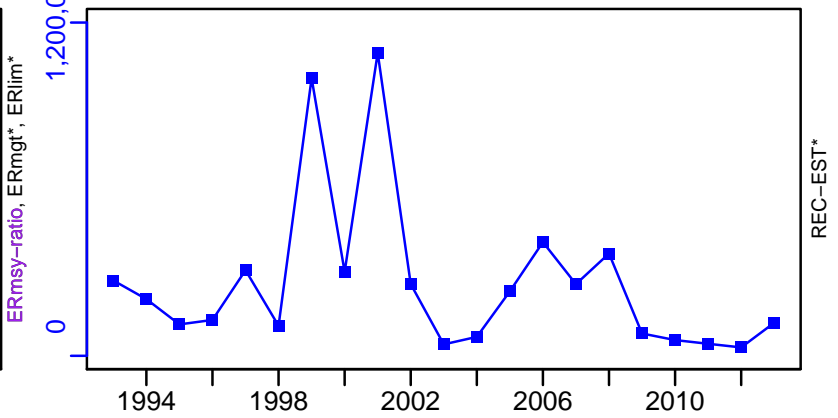
SSB-MT (1993–2013–JPNIMP2016)



ER-calc-ratio (1993–2013–JPNIMP2016)



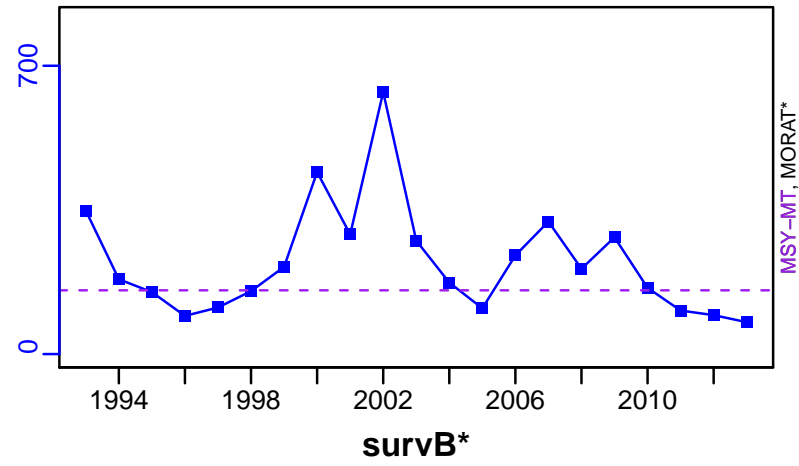
R-E00 (1993–2013–JPNIMP2016)



# Japanese pufferfish Ise and Mikawa Bay [JPUFFIMKB]

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

TAC\*, Cpair\*, Cadv\*



EFFORT\*



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

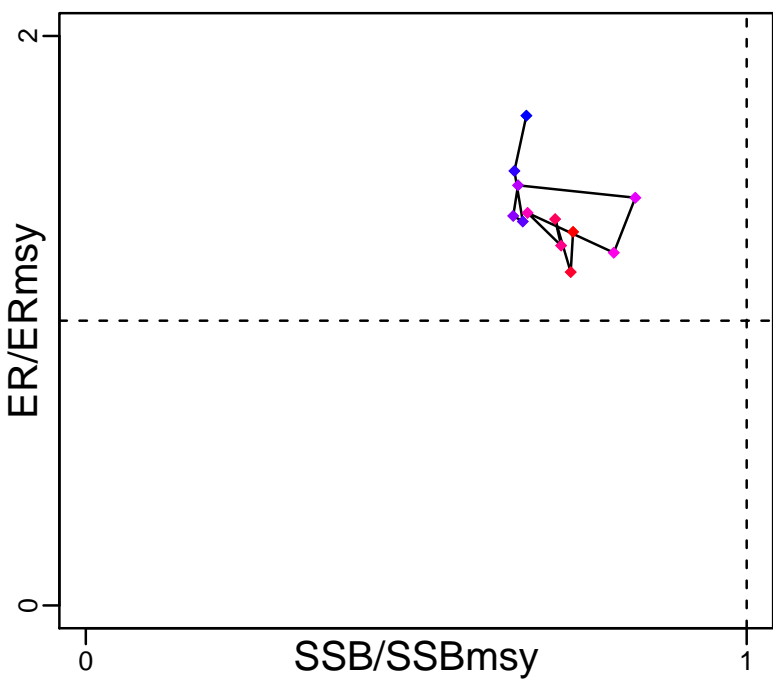
Metadata	
<b>Scientific Name</b>	Takifugu rubripes
<b>Current Assess ID</b>	FAJ-JPUFFSOJECSSI-1993-2013-JPNIMP2016
<b>Area</b>	Sea of Japan and East China Sea and Seto Inland sea
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan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

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<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>	-	-	-

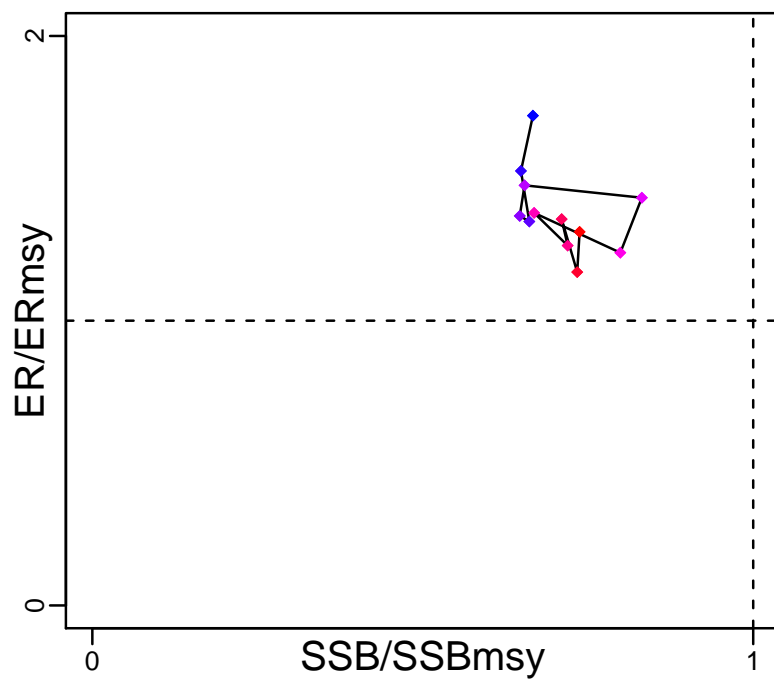
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	829	-	0
<b>SSB</b>	SSB-MT	2013	407	Both	3
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	203,000	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0	-	-
<b>TC</b>	TC-MT	2013	250		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.74		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	1.31		
<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]

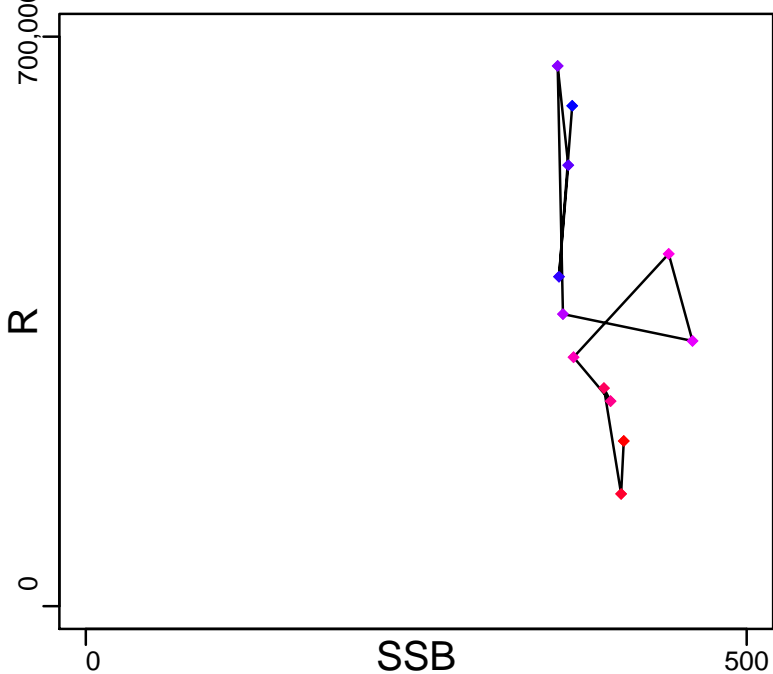
Kobe MSYpref (1993–2013–JPNIMP2016)



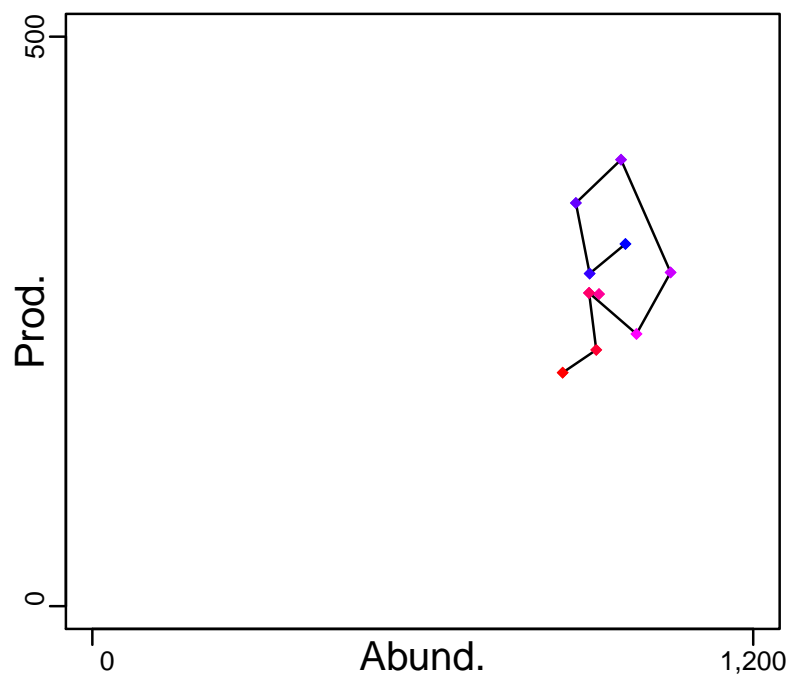
Kobe MGTpref (1993–2013–JPNIMP2016)



Spawner Recruit (1993–2013–JPNIMP2016)



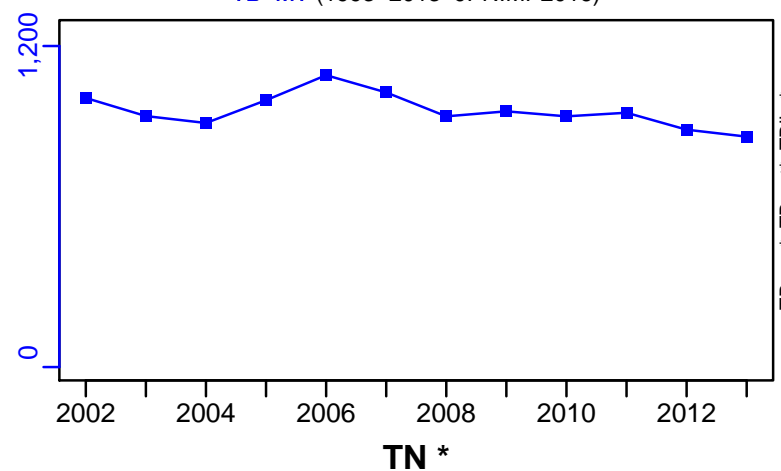
Production (1993–2013–JPNIMP2016)



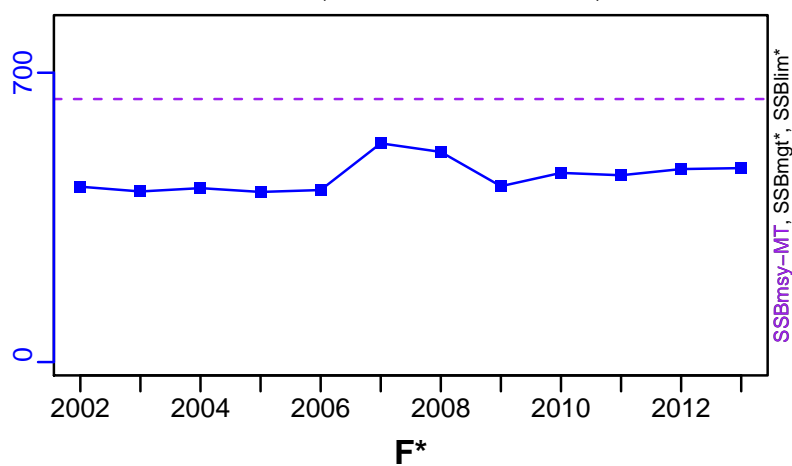
◆ Start Year ◆ End Year \* No Data

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

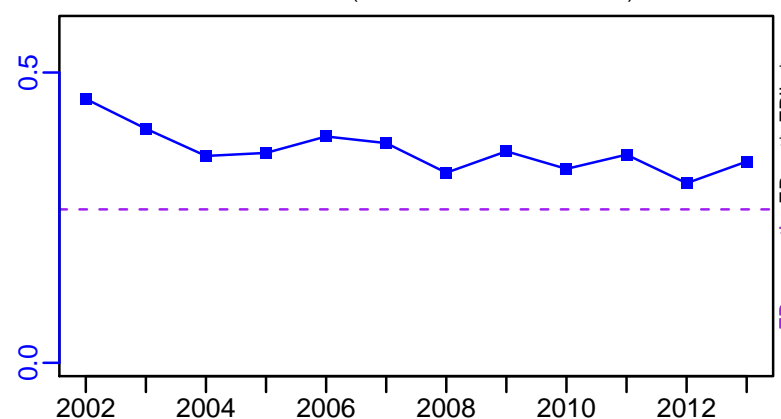
TB-MT (1993-2013-JPNIMP2016)



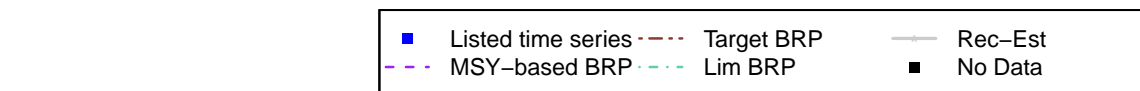
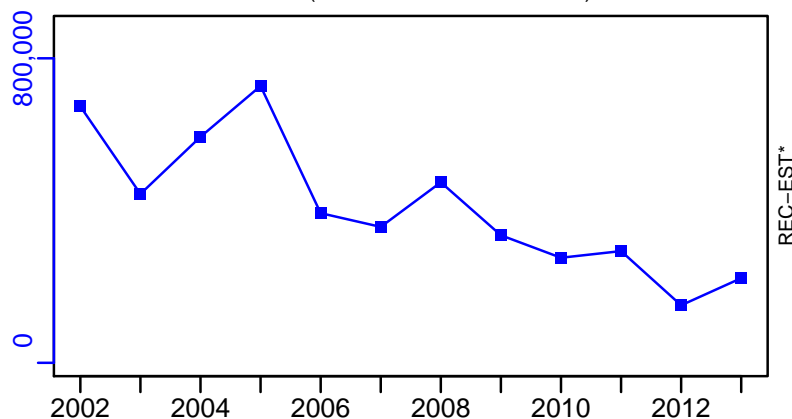
SSB-MT (1993-2013-JPNIMP2016)



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

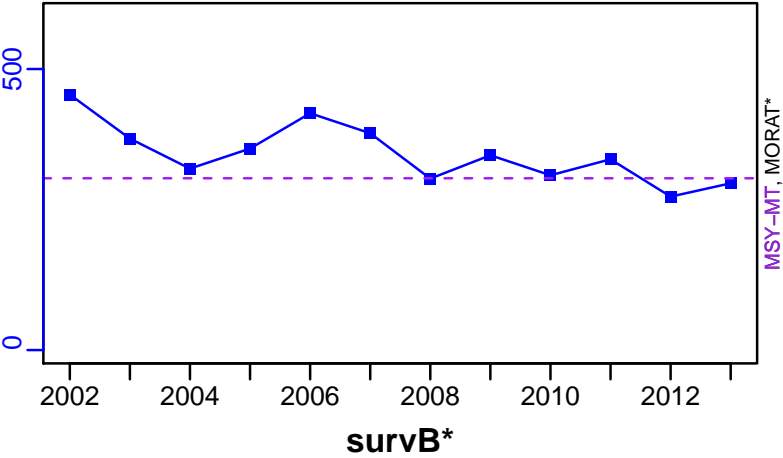


R-E00 (1993-2013-JPNIMP2016)



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

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



TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



■ 1st listed time series

● 2nd listed time series

▲ 3rd listed time series

- - MSY

— MORAT

\* No Data

## Japanese snapper Okinawa Islands [JSNAPOKWI]

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

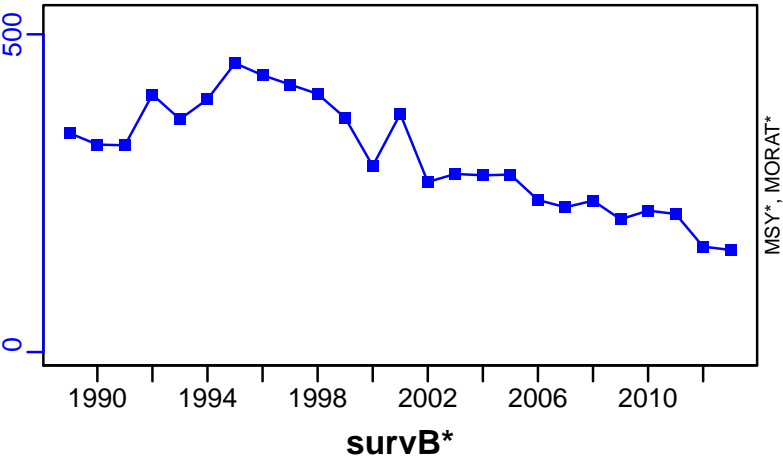


Recruits\*



Japanese snapper Okinawa Islands [JSNAPOKWI]

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



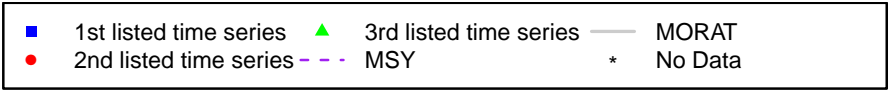
TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



## Kichiji rockfish North Pacific [KCROCKNPAC]

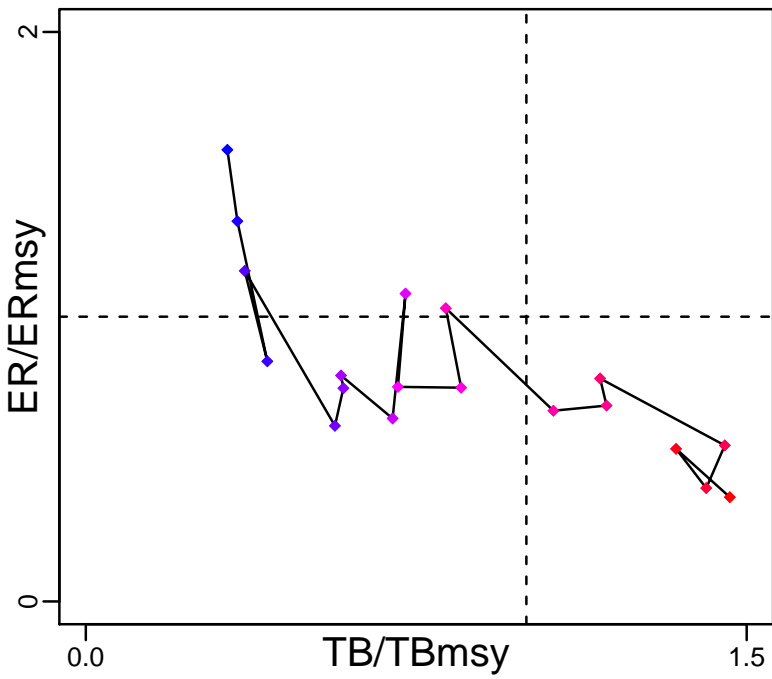
Metadata	
<b>Scientific Name</b>	Sebastolobus macrochir
<b>Current Assess ID</b>	FAJ-KCROCKNPAC-1975-2013-JPNIMP2016
<b>Area</b>	North Pacific
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2013

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	0.17
<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	0.12
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

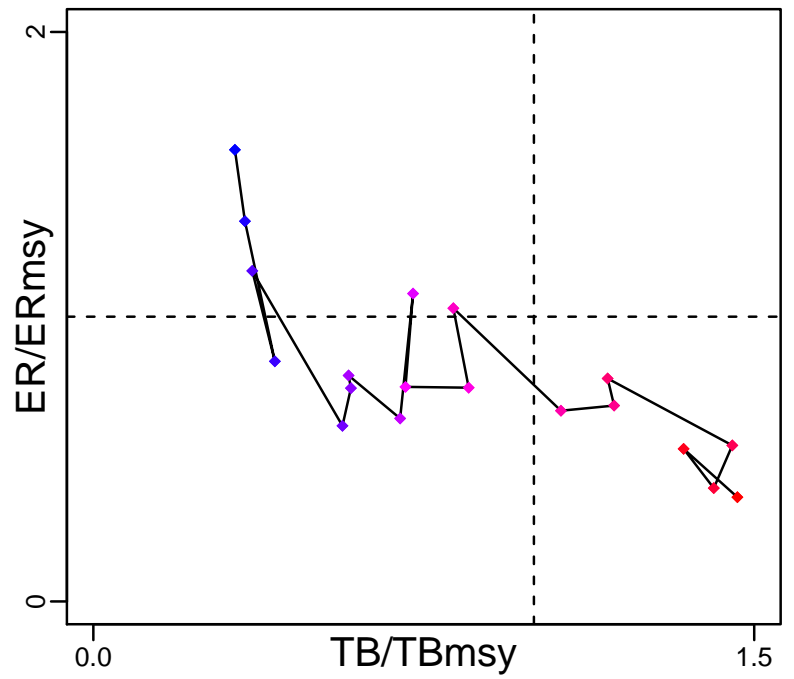
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	6470	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0	-	-
<b>TC</b>	TC-MT	2013	398		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2013	1.46		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	0.37		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Kichiji rockfish North Pacific [KCROCKNPAC]

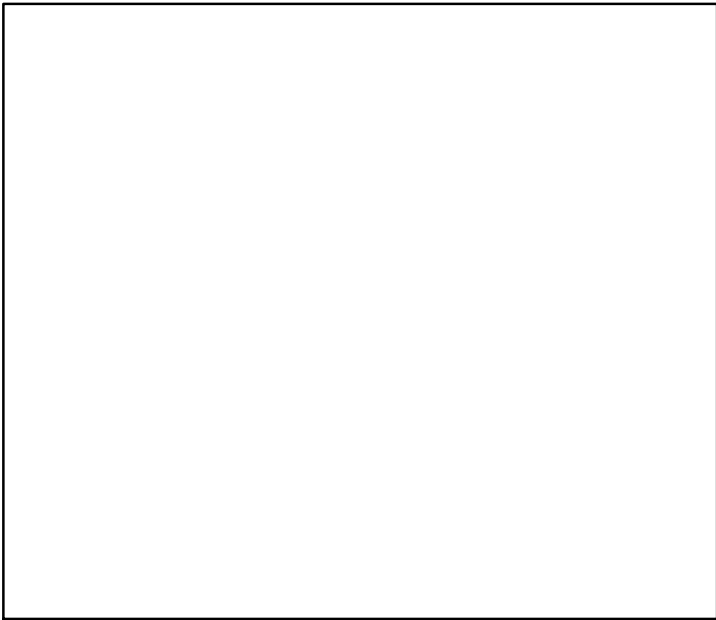
Kobe MSYpref (1975–2013–JPNIMP2016)



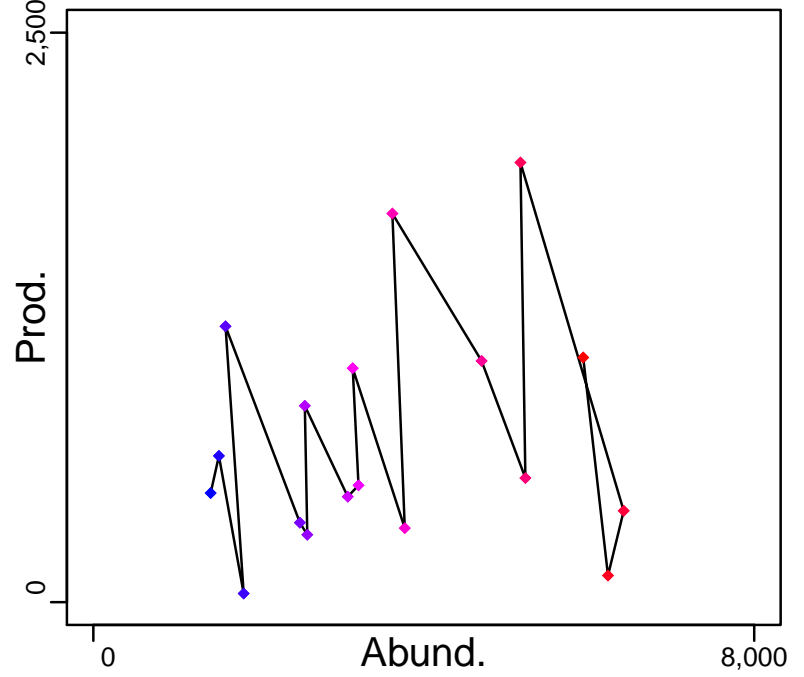
Kobe MGTpref (1975–2013–JPNIMP2016)



Spawner Recruit\*



Production (1975–2013–JPNIMP2016)

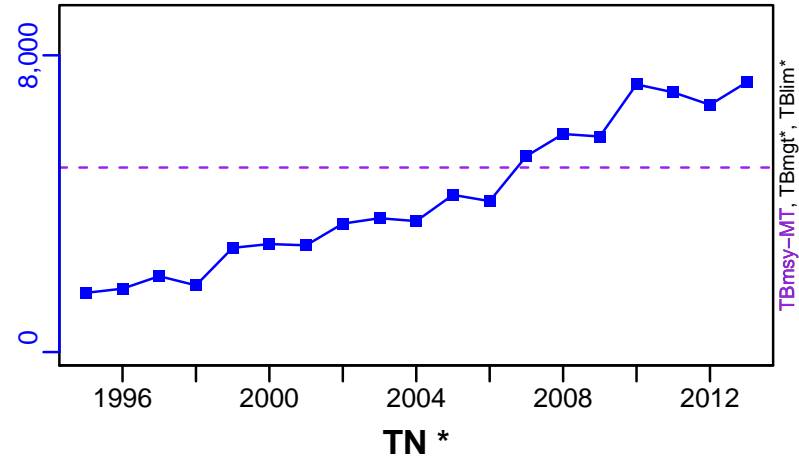


◆ Start Year ◆ End Year \* No Data

# Kichiji rockfish North Pacific [KCROCKNPAC]

TB-MT (1975-2013-JPNIMP2016)

SSB\*

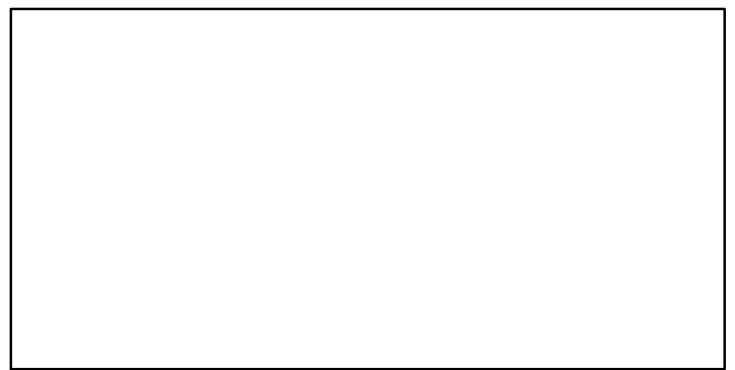
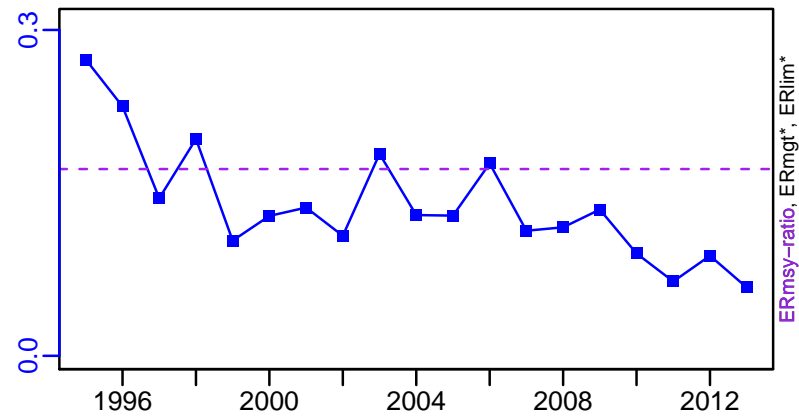


F\*



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

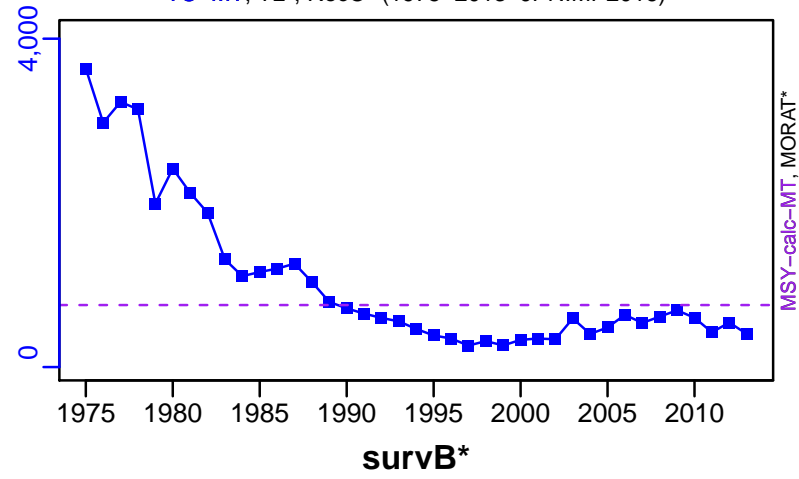
Recruits\*



# Kichiji rockfish North Pacific [KCROCKNPAC]

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

TAC\*, Cpair\*, Cadv\*



EFFORT\*



## Kichiji rockfish Okhotsk Sea [KCROCKOKS]

Metadata	
<b>Scientific Name</b>	Sebastolobus macrochir
<b>Current Assess ID</b>	FAJ-KCROCKOKS-1975-2013-JPNIMP2016
<b>Area</b>	Okhotsk Sea
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries 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\*



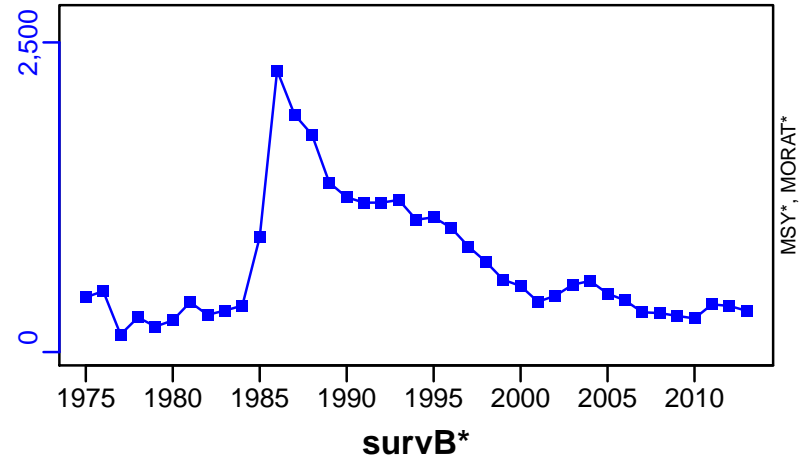
Recruits\*



# Kichiji rockfish Okhotsk Sea [KCROCKOKS]

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

TAC\*, Cpair\*, Cadv\*



EFFORT\*



# Kichiji rockfish Southwestern coast of Hokkaido [KCROCKSWHOKK]

Metadata	
<b>Scientific Name</b>	Sebastes macrochir
<b>Current Assess ID</b>	FAJ-KCROCKSWHOKK-1975-2013-JPNIMP2016
<b>Area</b>	Southwestern coast of Hokkaido
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries 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\***



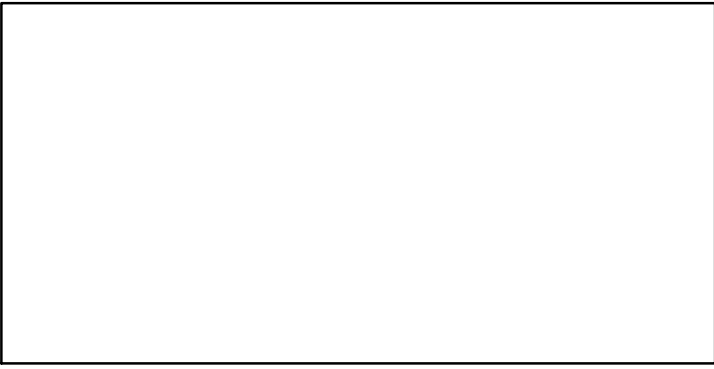
**Production\***



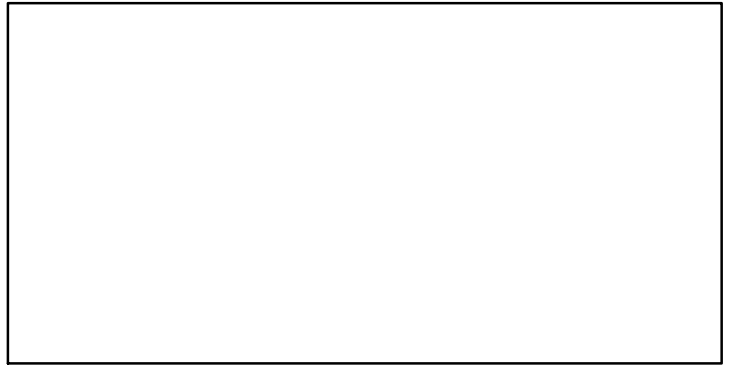
◆ Start Year ◆ End Year \* No Data

Kichiji rockfish Southwestern coast of Hokkaido [KCROCKSWHOKK]

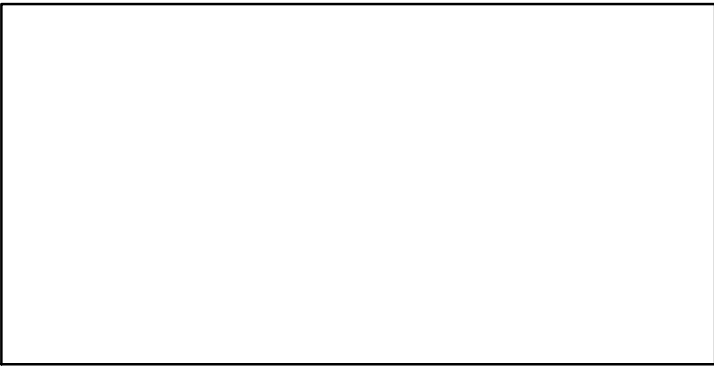
**TB\***



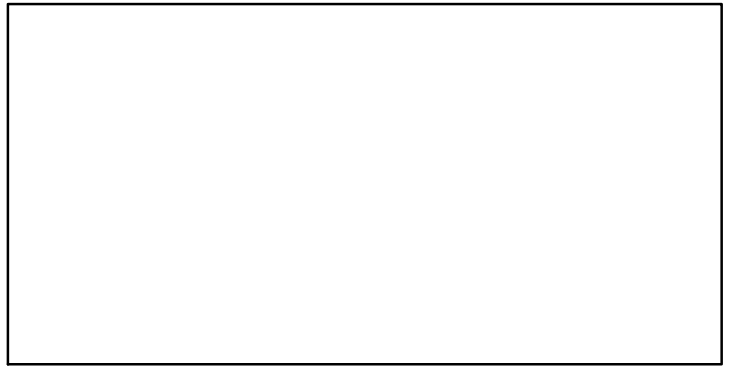
**SSB\***



**TN \***



**F\***



**ER\***



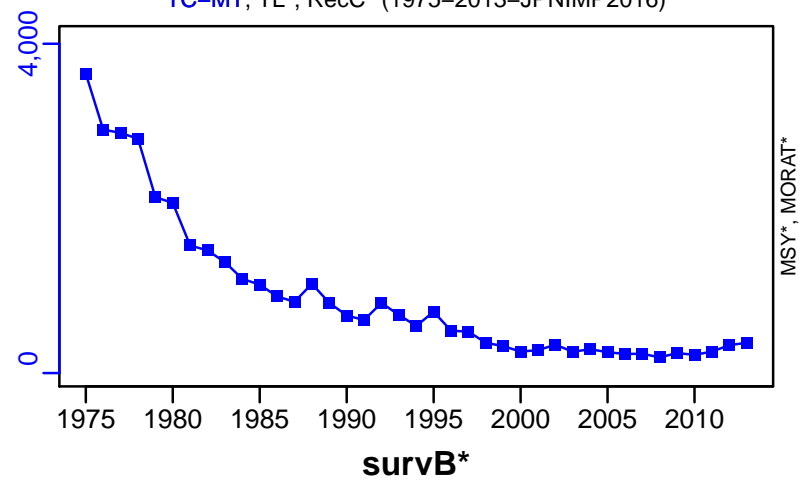
**Recruits\***



# Kichiji rockfish Southwestern coast of Hokkaido [KCROCKSWHOKK]

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

TAC\*, Cpair\*, Cadv\*



EFFORT\*



## Longfin codling Pacific Ocean [LCODLINGPAC]

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



TB\*



SSB\*



TN \*



F\*



ER\*

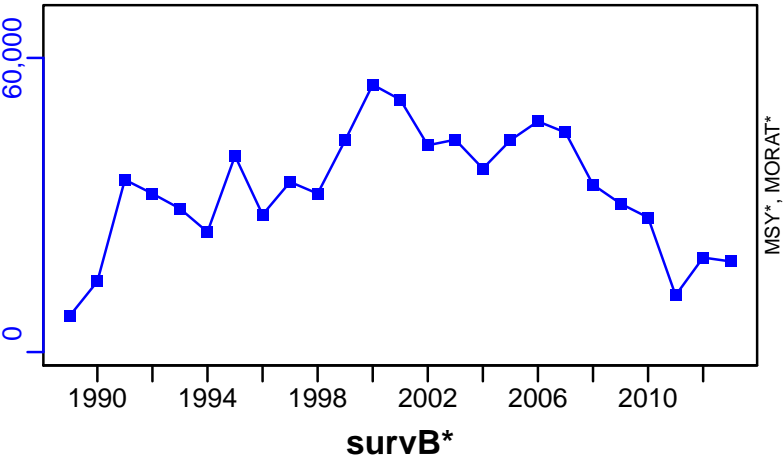


Recruits\*



Longfin codling Pacific Ocean [LCODLINGPAC]

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



TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



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

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



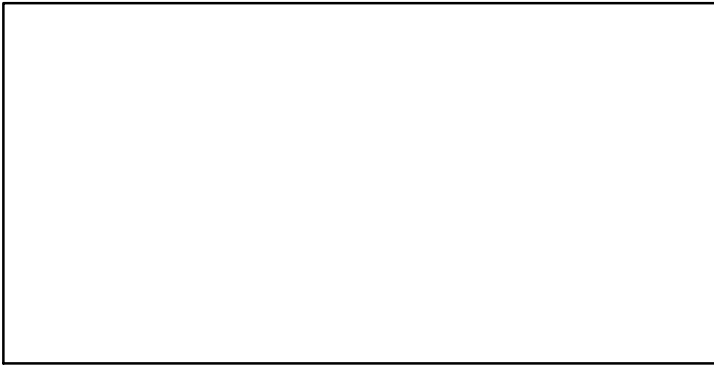
**Production\***



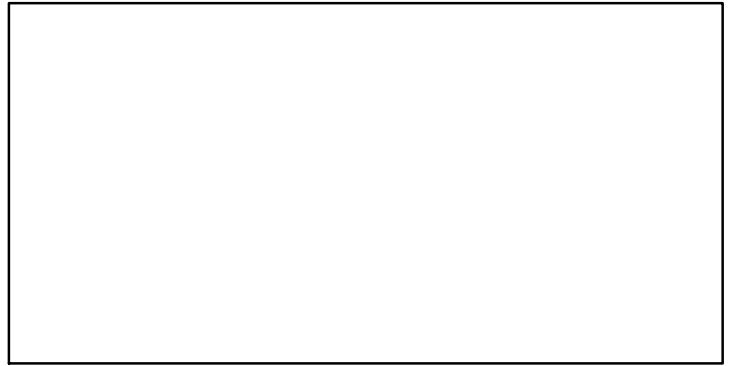
◆ Start Year ◆ End Year \* No Data

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

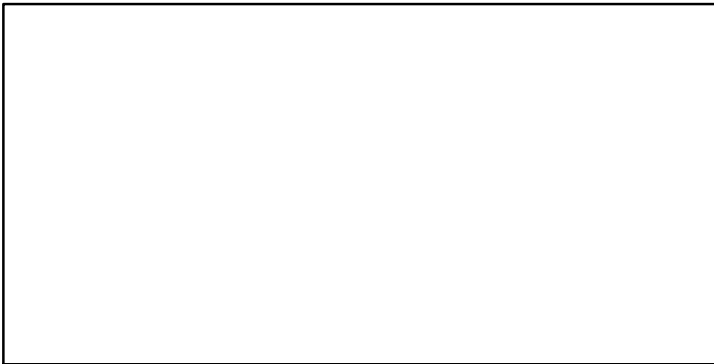
**TB\***



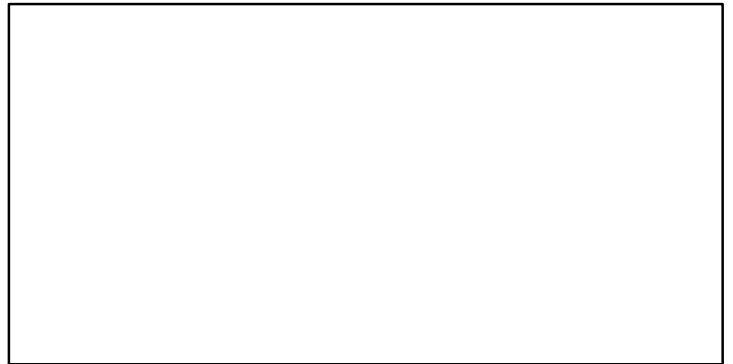
**SSB\***



**TN \***



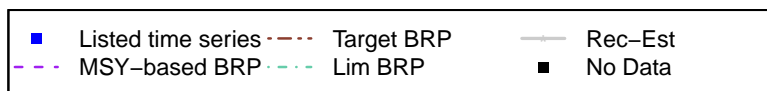
**F\***



**ER\***



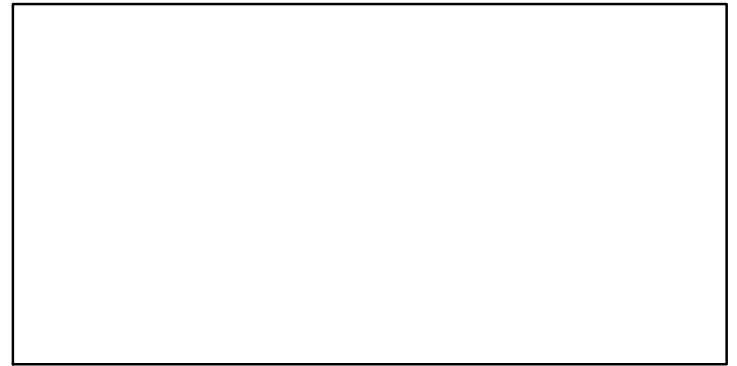
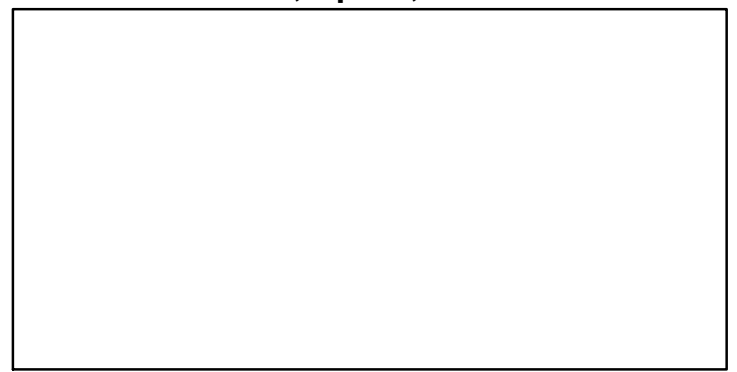
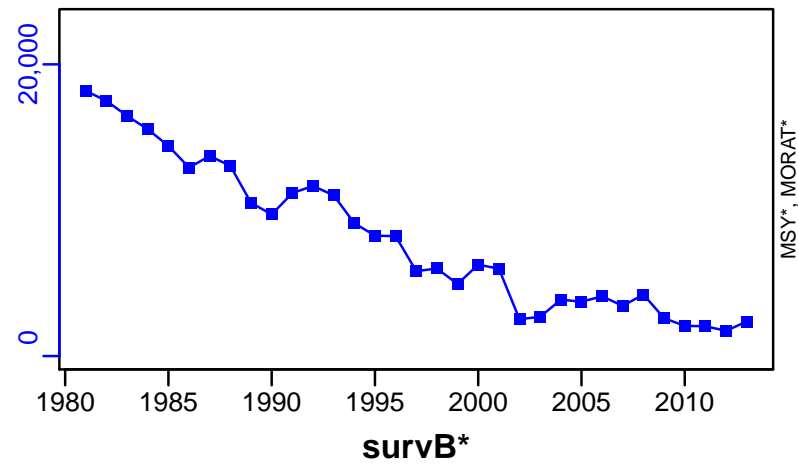
**Recruits\***



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

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

TAC\*, Cpair\*, Cadv\*



EFFORT\*



## Lavender jobfish Okinawa Islands [LJOBOKWI]

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

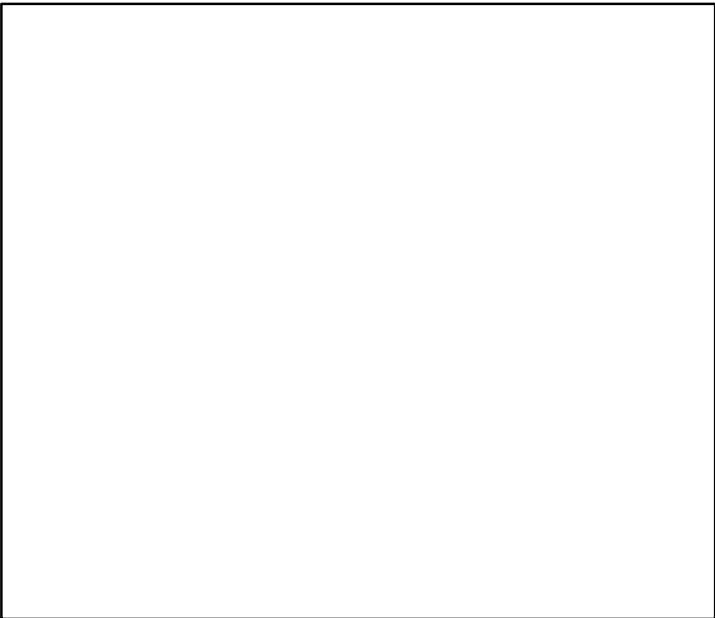
Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data



Lavender jobfish Okinawa Islands [LJOBOKWI]

TB\*



SSB\*



TN \*



F\*



ER\*

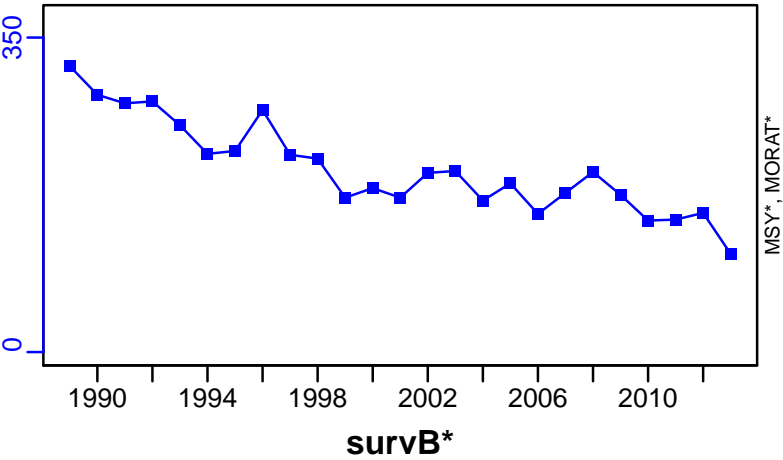


Recruits\*



Lavender jobfish Okinawa Islands [LJOBOKWI]

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



TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



## Japanese flounder East China Sea [OFLOUNECS]

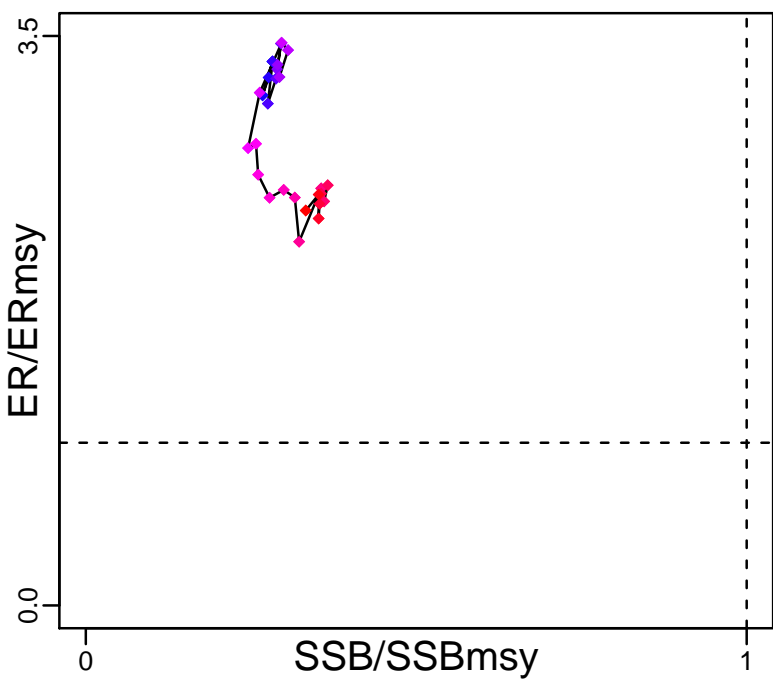
Metadata	
<b>Scientific Name</b>	Paralichthys olivaceus
<b>Current Assess ID</b>	FAJ-OFLOUNECS-1975-2013-JPNIMP2016
<b>Area</b>	East China Sea
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2013, 2010

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2013	7393
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2013	0.15
<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	0.21
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2010	2181
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

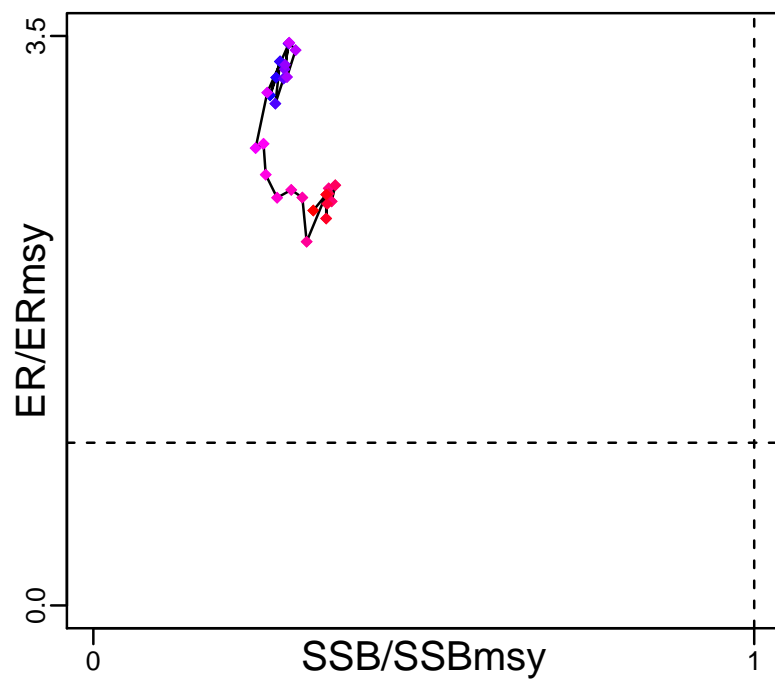
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	3170	-	1
<b>SSB</b>	SSB-MT	2013	2460	Both	2
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	1,290,000	-	0
<b>F</b>	F-1/yr	2010	1	-	0 to 7
<b>ER</b>	ER-calc-ratio	2013	0	-	-
<b>TC</b>	TC-MT	2013	1160		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.33		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	2.43		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Japanese flounder East China Sea [OFLOUNECS]

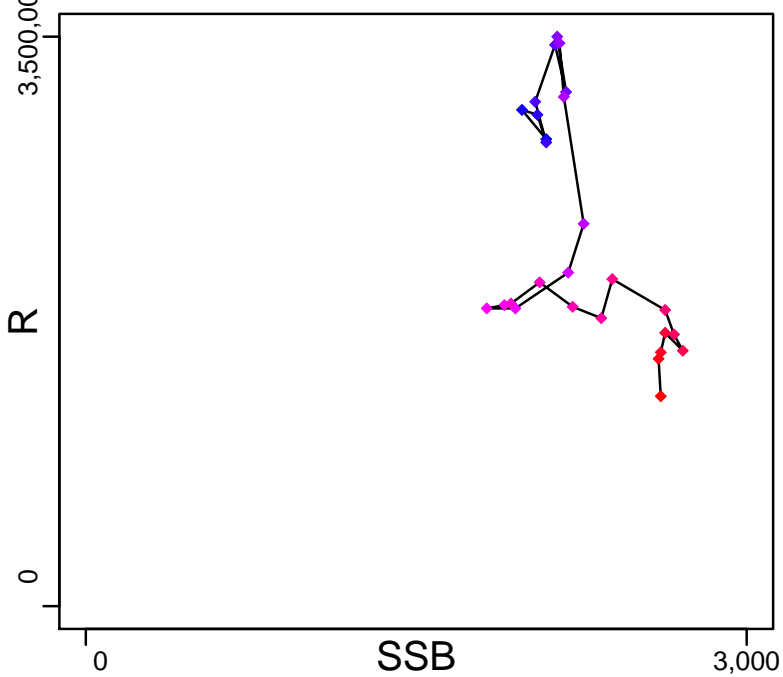
Kobe MSYpref (1975–2013–JPNIMP2016)



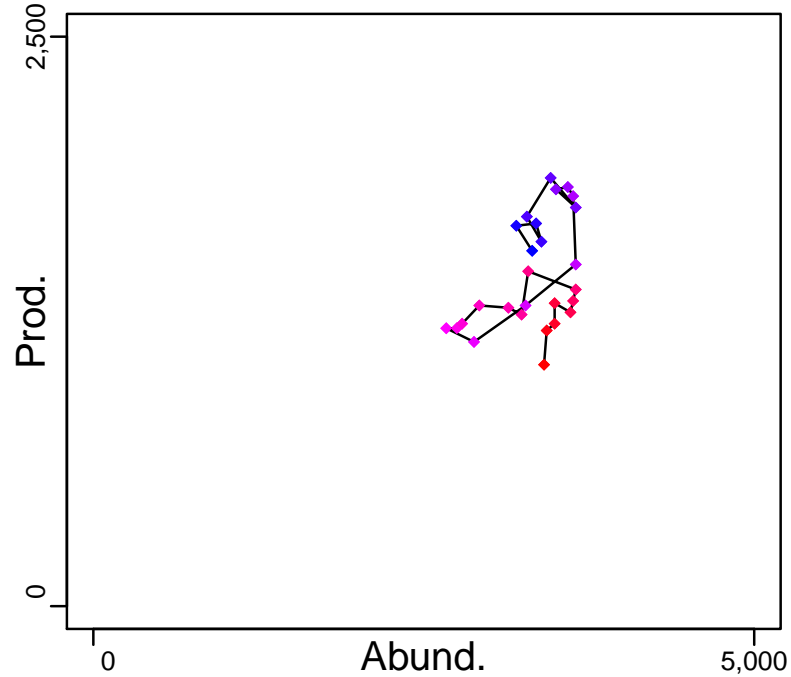
Kobe MGTpref (1975–2013–JPNIMP2016)



Spawner Recruit (1975–2013–JPNIMP2016)



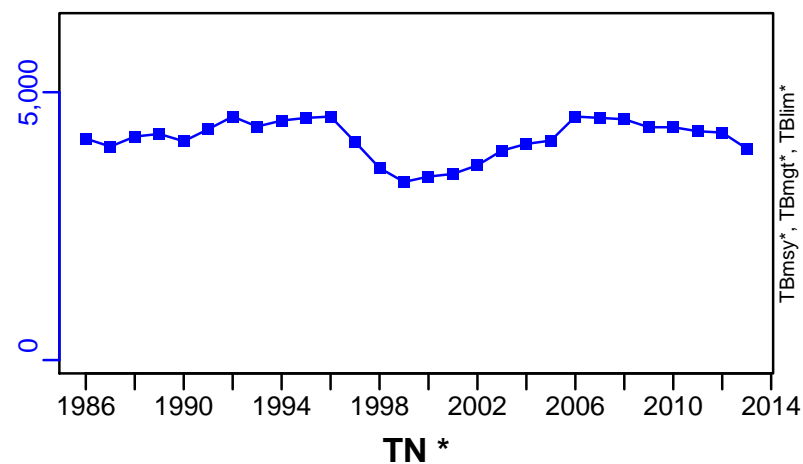
Production (1975–2013–JPNIMP2016)



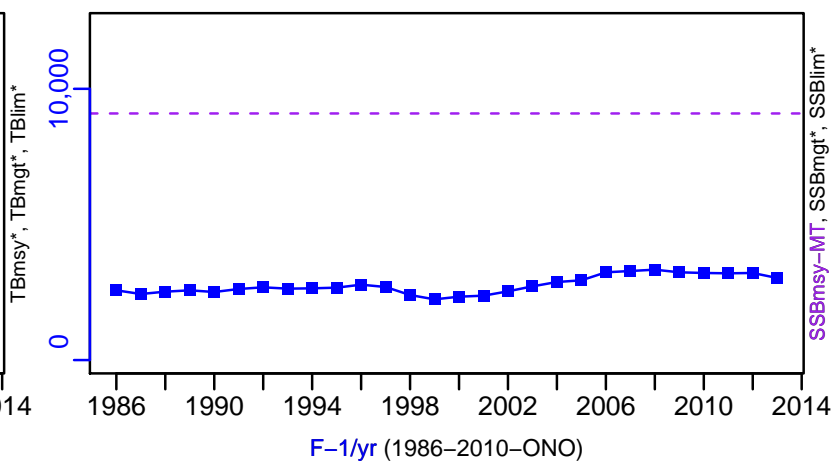
◆ Start Year ◆ End Year \* No Data

# Japanese flounder East China Sea [OFLOUNECs]

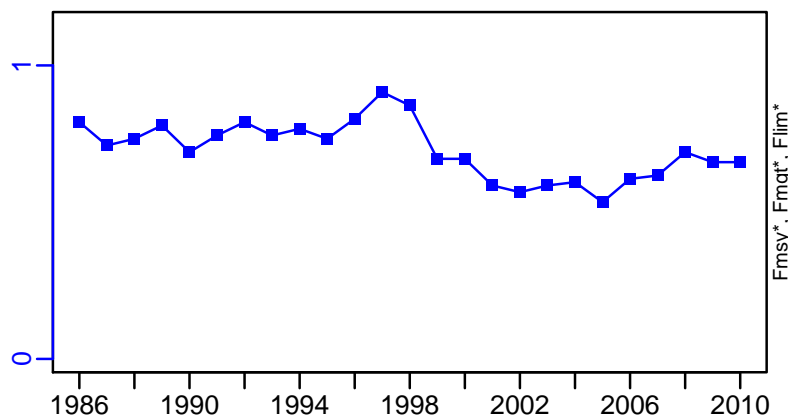
TB-MT (1975-2013-JPNIMP2016)



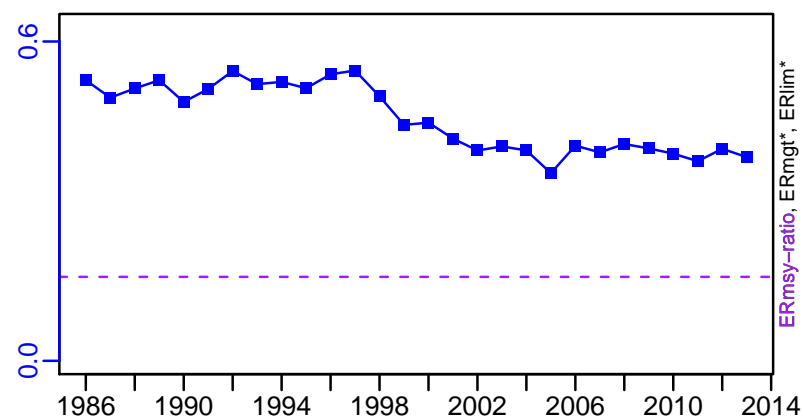
SSB-MT (1975-2013-JPNIMP2016)



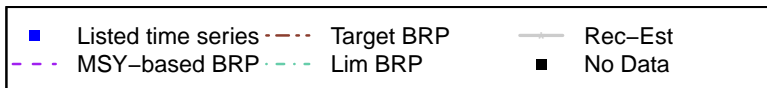
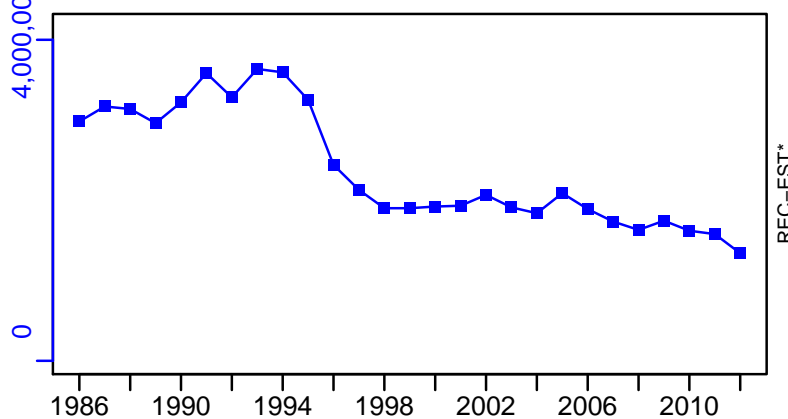
F-1/yr (1986-2010-ONO)



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

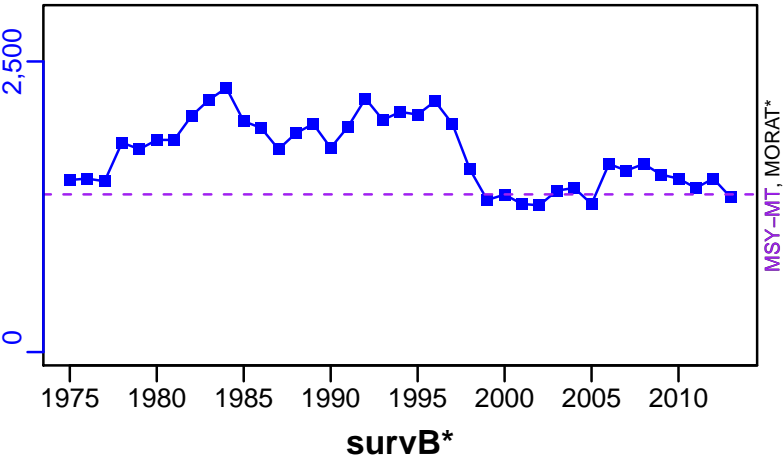


R-E00 (1975-2013-JPNIMP2016)



Japanese flounder East China Sea [OFLOUNECS]

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



TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



## Japanese flounder Sea of Japan North [OFLOUNNSJ]

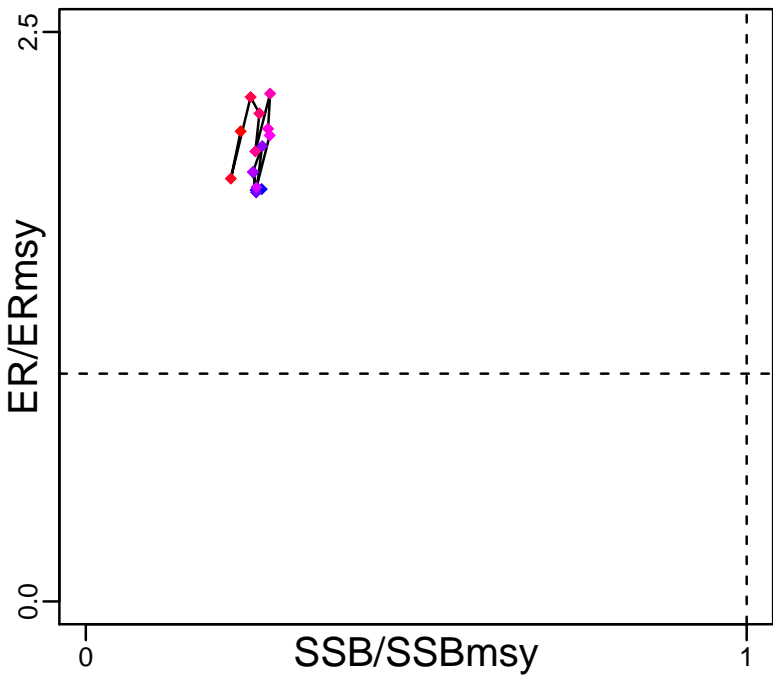
Metadata	
<b>Scientific Name</b>	Paralichthys olivaceus
<b>Current Assess ID</b>	FAJ-OFLOUNNSJ-1970-2013-JPNIMP2016
<b>Area</b>	Sea of Japan North
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2013, 2010

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2013	6160
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2013	0.22
<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>	-	-	-

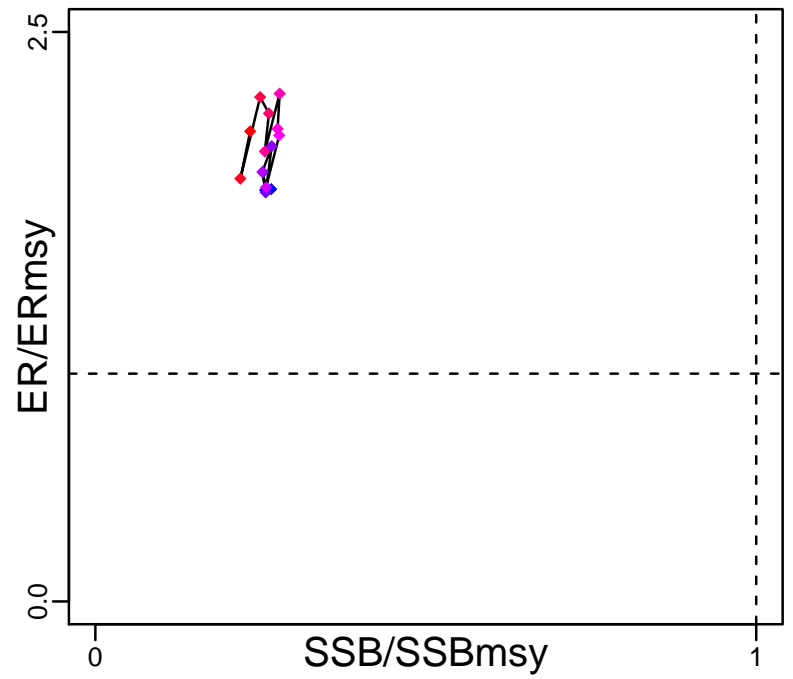
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	2210	-	1
<b>SSB</b>	SSB-MT	2013	1440	Both	2
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	1,990,000	-	1
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0	-	-
<b>TC</b>	TC-MT	2013	992		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.23		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	2.06		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

Japanese flounder Sea of Japan North [OFLOUNNSJ]

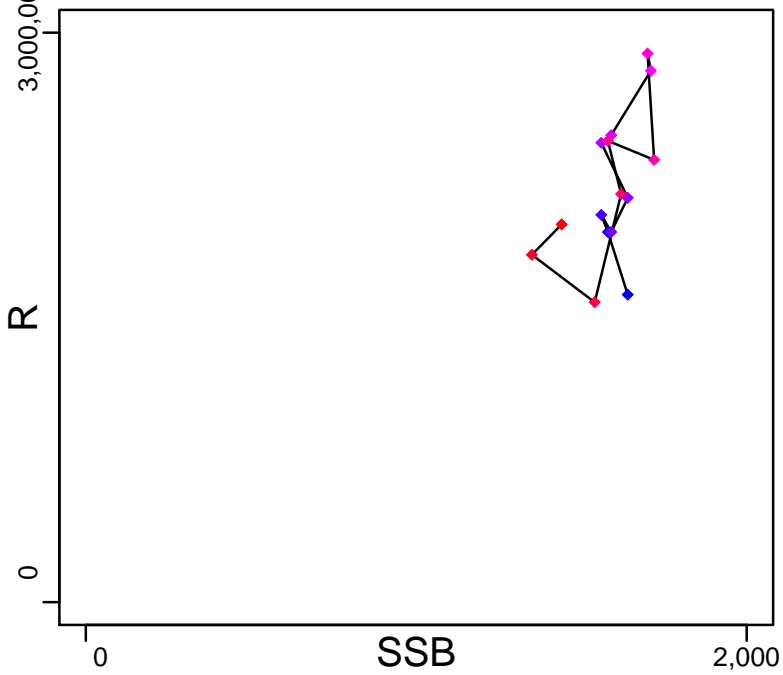
Kobe MSYpref (1970–2013–JPNIMP2016)



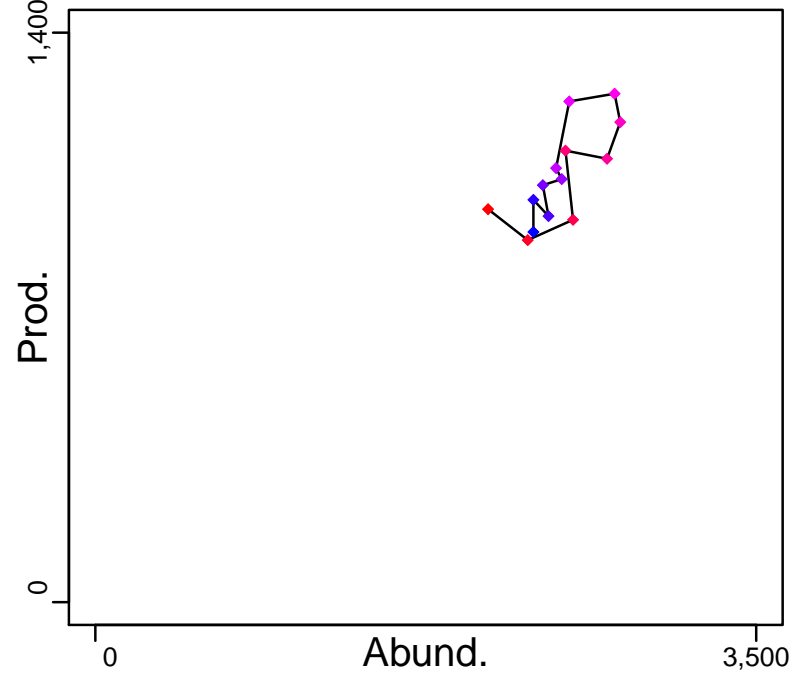
Kobe MGTpref (1970–2013–JPNIMP2016)



Spawner Recruit (1970–2013–JPNIMP2016)



Production (1970–2013–JPNIMP2016)

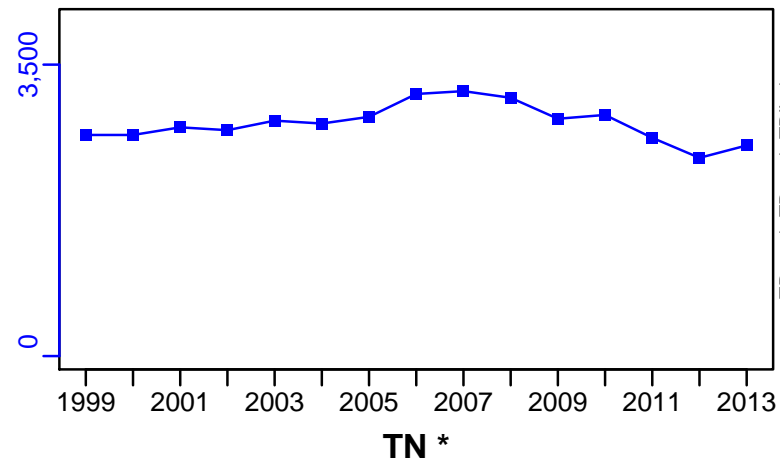


◆ Start Year ◆ End Year \* No Data

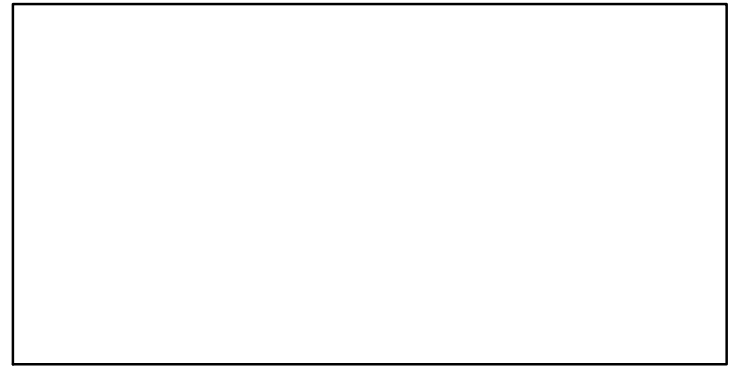
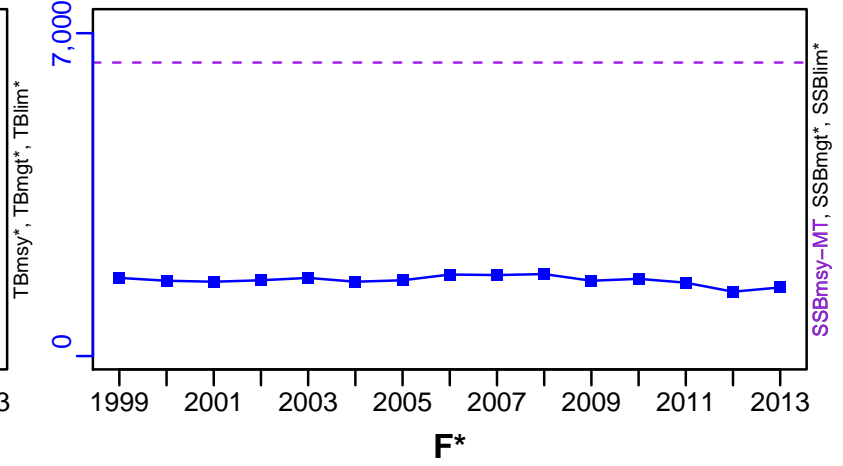


# Japanese flounder Sea of Japan North [OFLOUNNSJ]

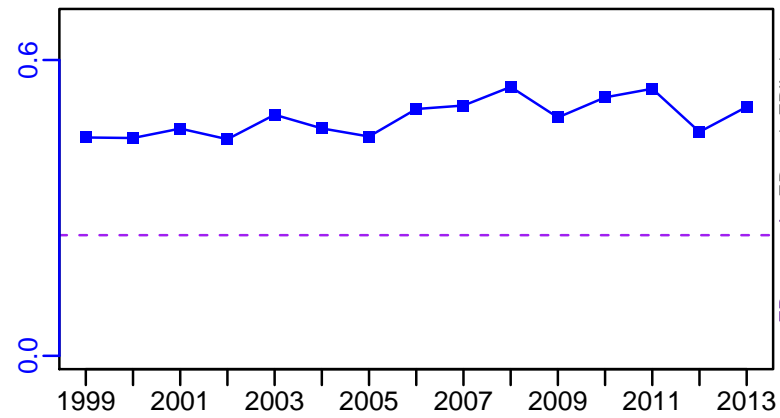
TB-MT (1970-2013-JPNIMP2016)



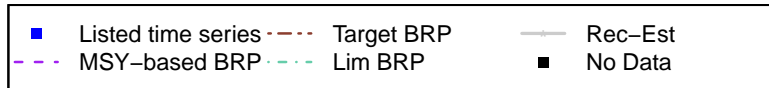
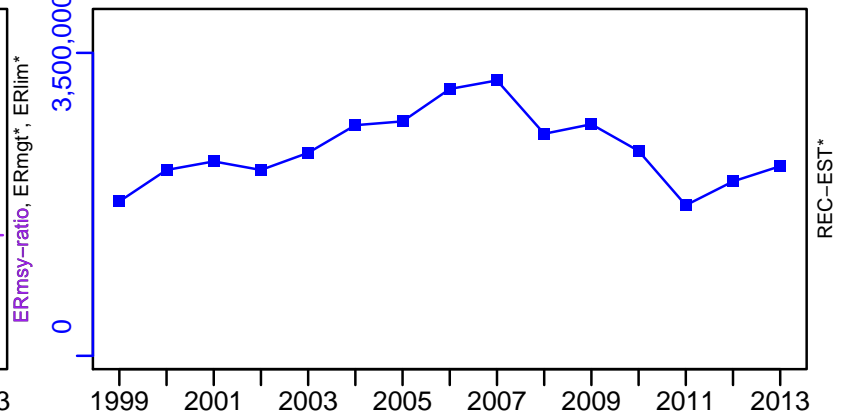
SSB-MT (1970-2013-JPNIMP2016)



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

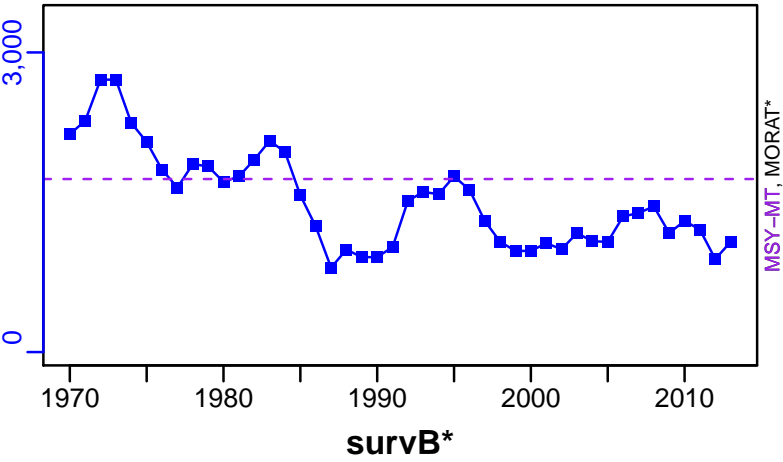


R-E00 (1970-2013-JPNIMP2016)



Japanese flounder Sea of Japan North [OFLOUNNSJ]

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



TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



## Japanese flounder Pacific Ocean [OFLOUNPAC]

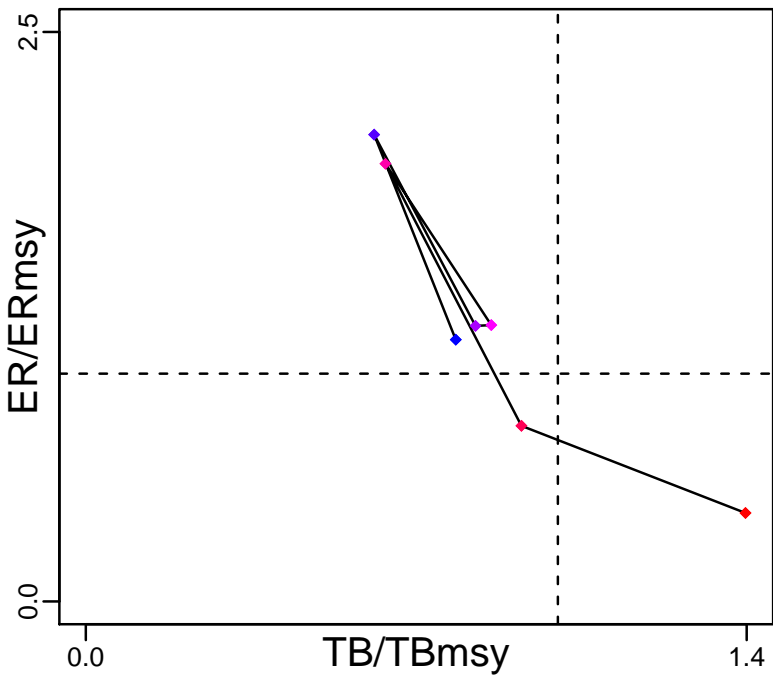
Metadata	
<b>Scientific Name</b>	Paralichthys olivaceus
<b>Current Assess ID</b>	FAJ-OFLOUNPAC-1970-2013-JPNIMP2016
<b>Area</b>	Pacific Ocean
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2013, 2009

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	0.42
<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>	-	-	-

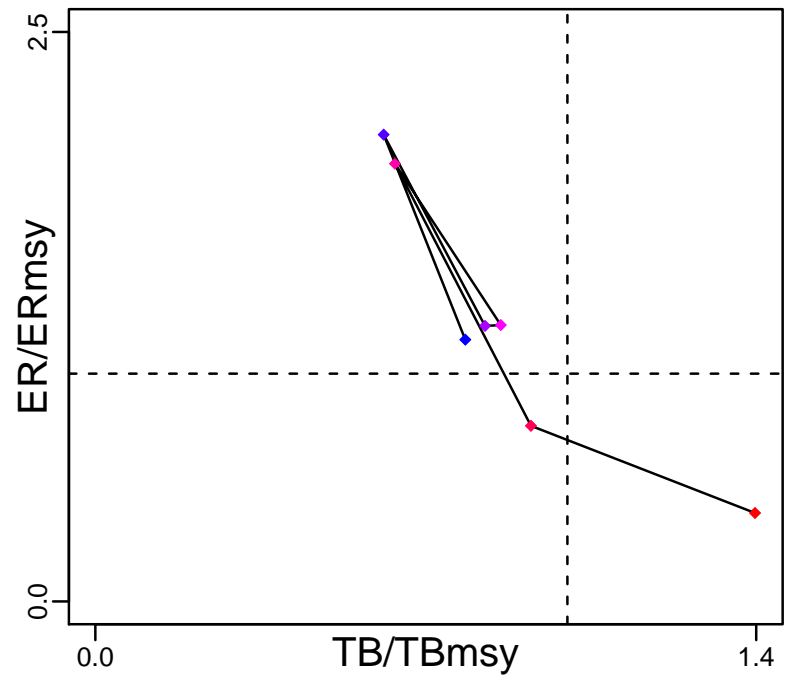
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	7190	-	1
<b>SSB</b>	SSB-MT	2013	1070	Both	3
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	1,940,000	-	1
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0	-	-
<b>TC</b>	TC-MT	2013	2380		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2013	1.4		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	0.39		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

Japanese flounder Pacific Ocean [OFLOUNPAC]

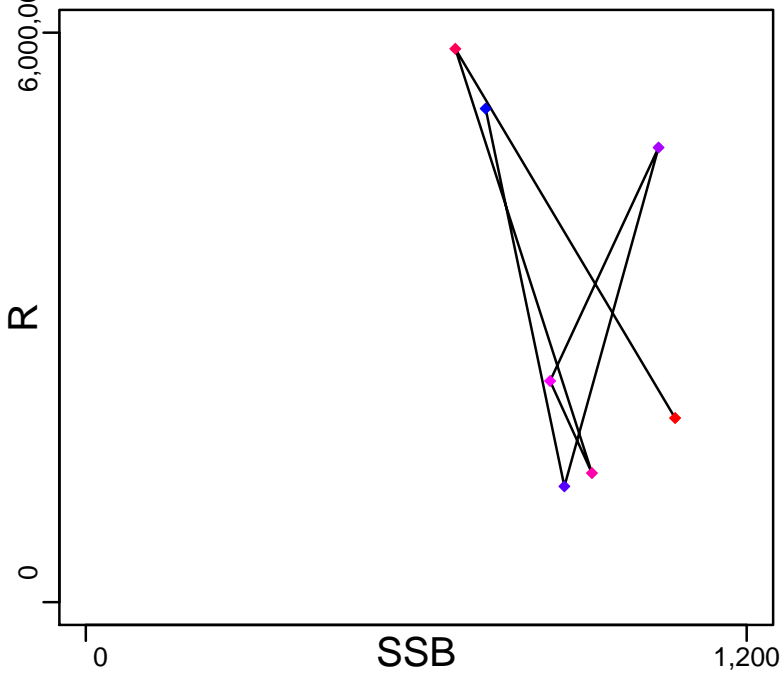
Kobe MSYpref (1970–2013–JPNIMP2016)



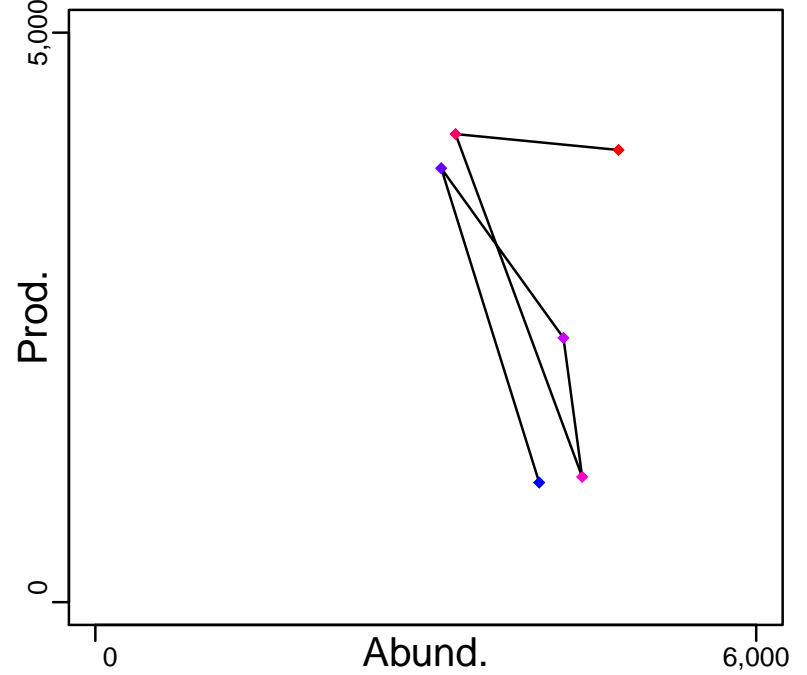
Kobe MGTpref (1970–2013–JPNIMP2016)



Spawner Recruit (1970–2013–JPNIMP2016)



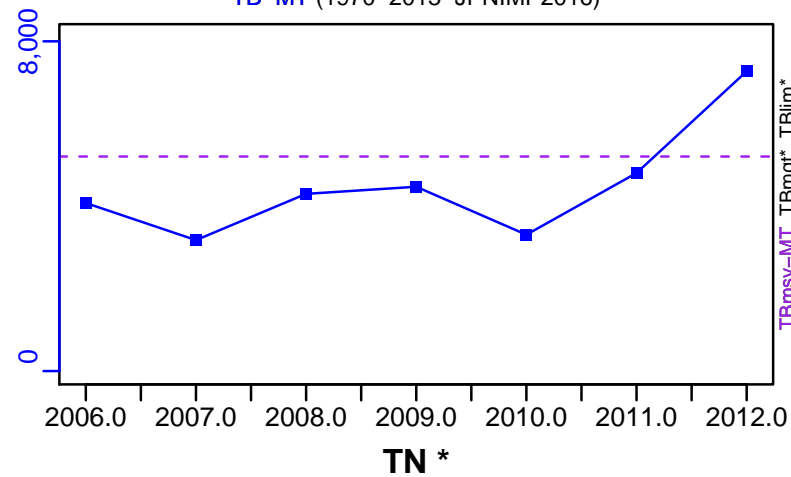
Production (1970–2013–JPNIMP2016)



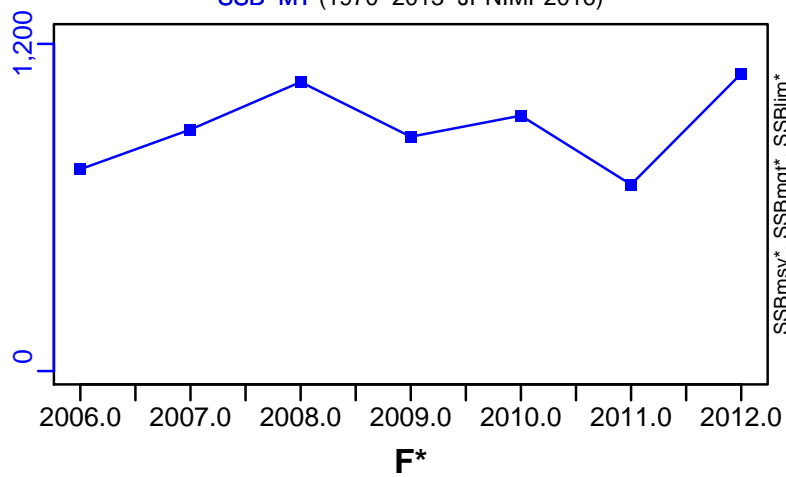
◆ Start Year ◆ End Year \* No Data

# Japanese flounder Pacific Ocean [OFLOUNPAC]

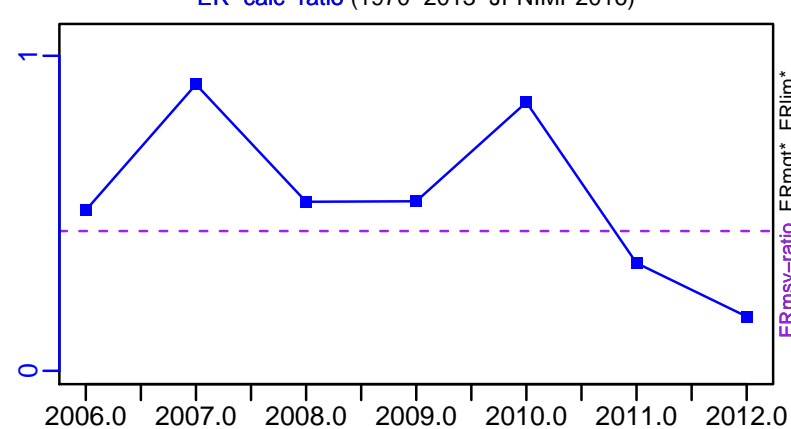
TB-MT (1970-2013-JPNIMP2016)



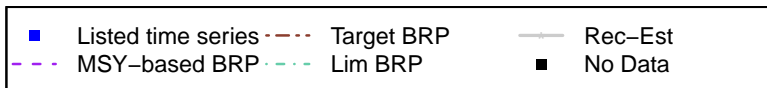
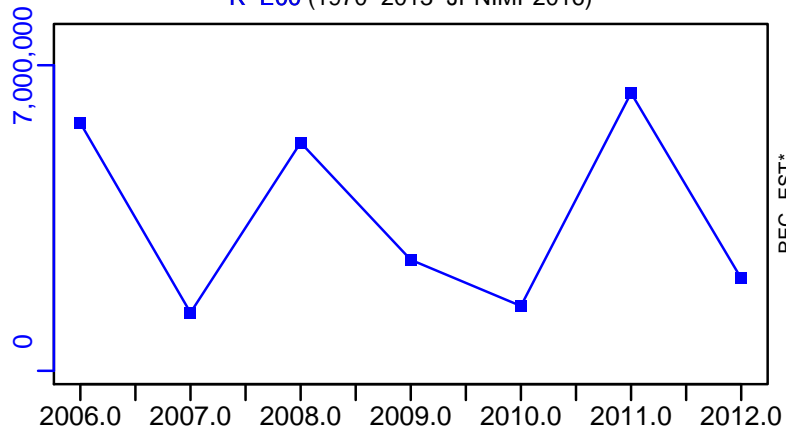
SSB-MT (1970-2013-JPNIMP2016)



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

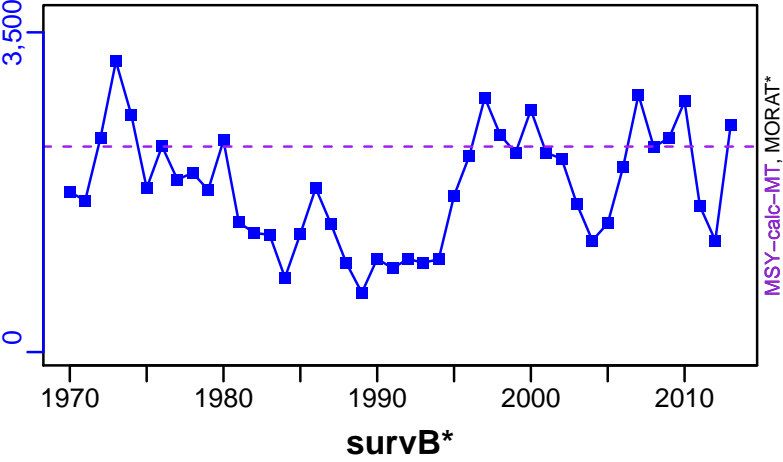


R-E00 (1970-2013-JPNIMP2016)



Japanese flounder Pacific Ocean [OFLOUNPAC]

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



TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



## Japanese flounder Inland Sea of Japan [OFLOUNSETO]

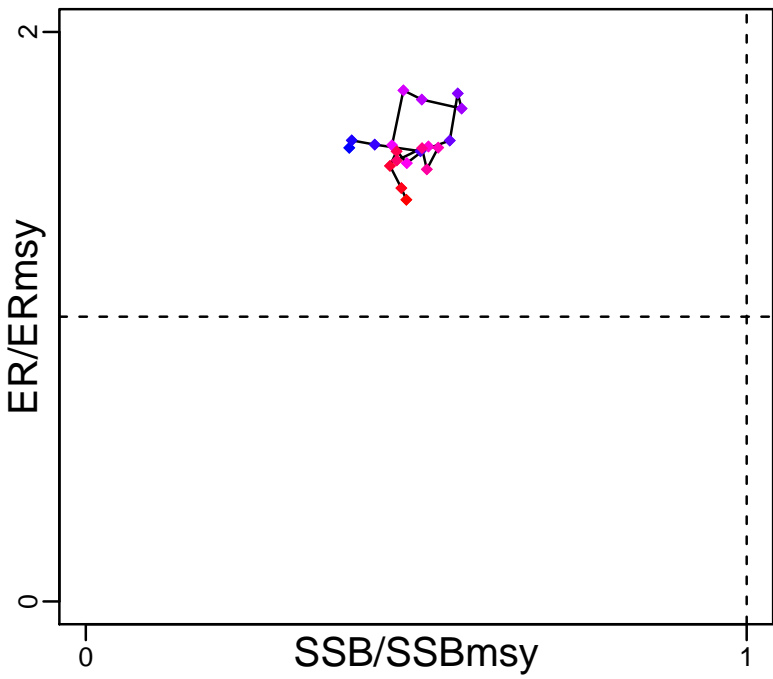
Metadata	
<b>Scientific Name</b>	Paralichthys olivaceus
<b>Current Assess ID</b>	FAJ-OFLOUNSETO-1965-2013-JPNIMP2016
<b>Area</b>	Inland Sea of Japan
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2013,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

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2013	2905
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2013	0.22
<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>	-	-	-

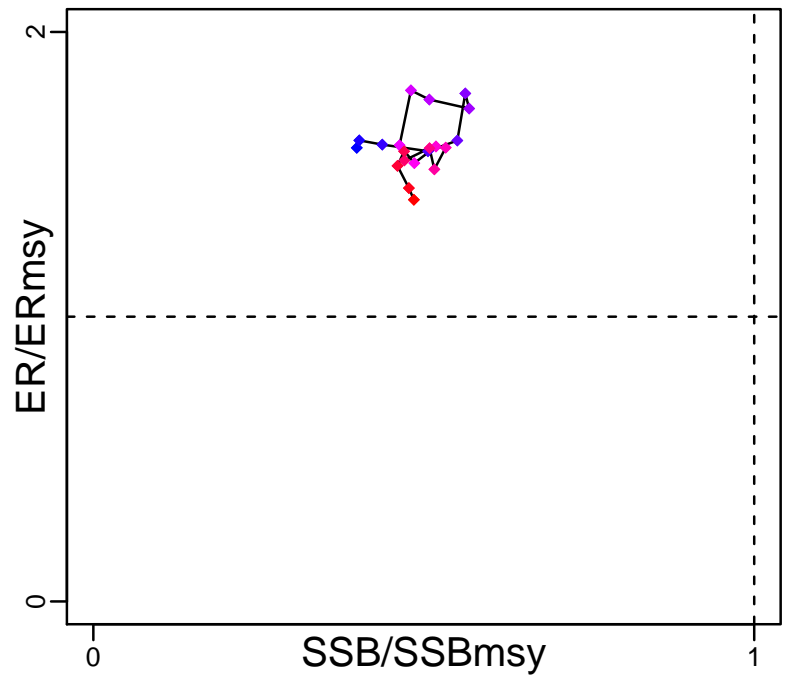
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	2170	-	0
<b>SSB</b>	SSB-MT	2013	1410	Both	2
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	897,000	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0	-	-
<b>TC</b>	TC-MT	2013	668		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.49		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	1.41		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

Japanese flounder Inland Sea of Japan [OFLOUNSETO]

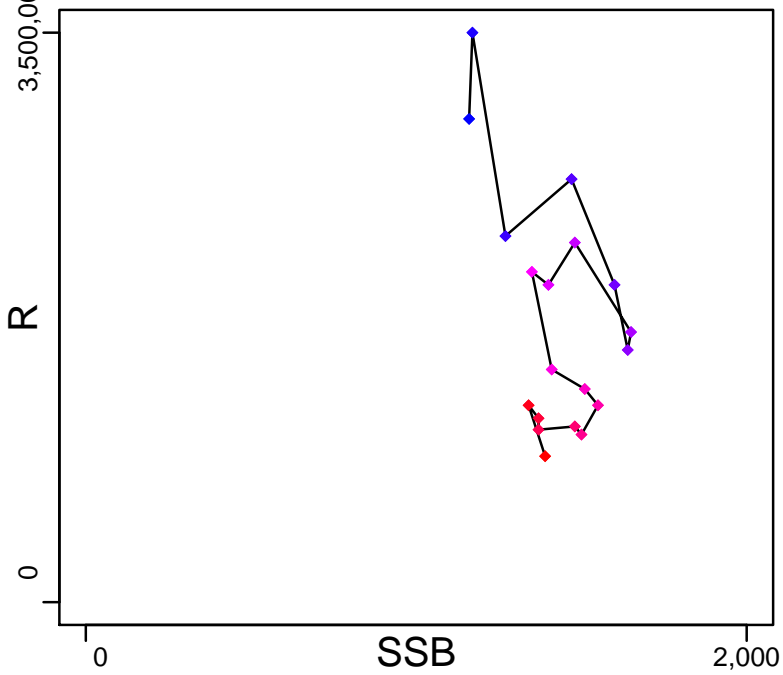
Kobe MSYpref (1965–2013–JPNIMP2016)



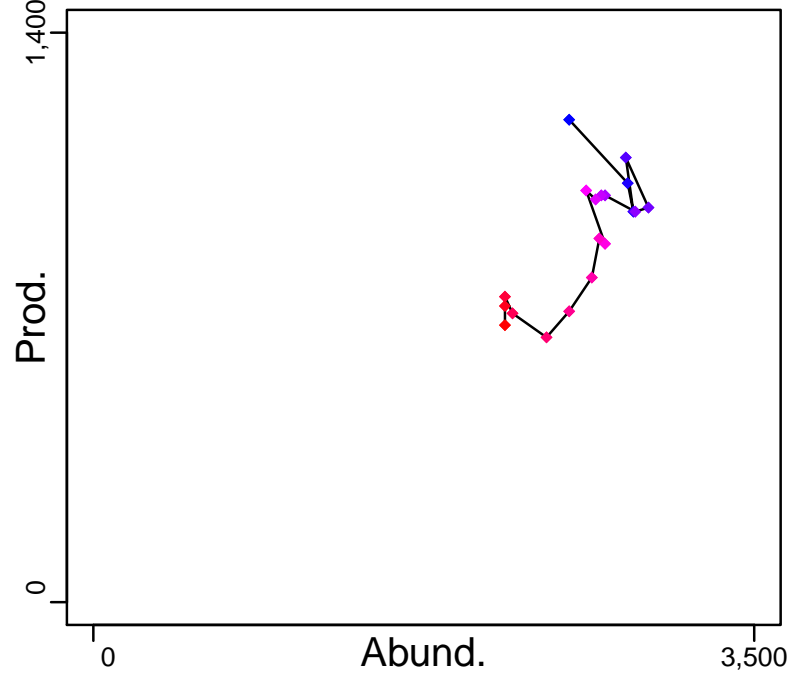
Kobe MGTpref (1965–2013–JPNIMP2016)



Spawner Recruit (1965–2013–JPNIMP2016)



Production (1965–2013–JPNIMP2016)

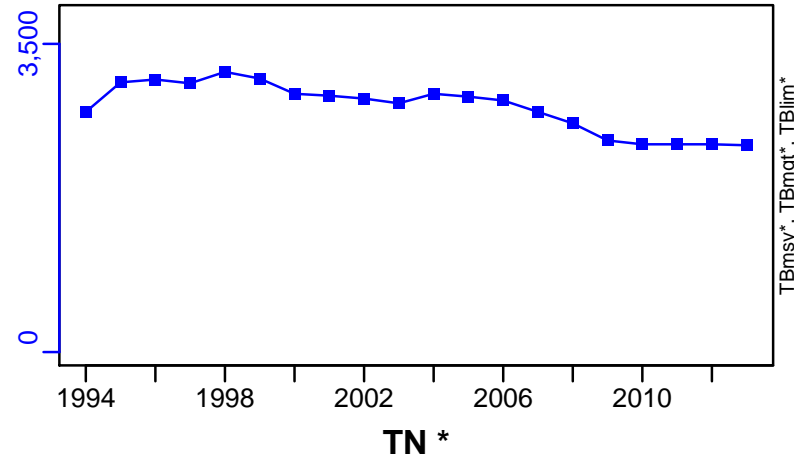


◆ Start Year ◆ End Year \* No Data

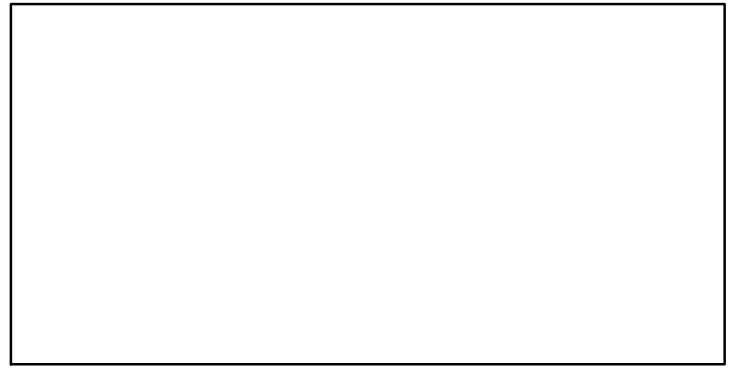
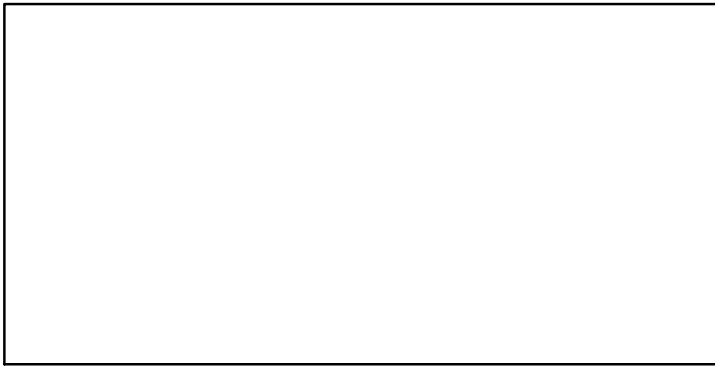
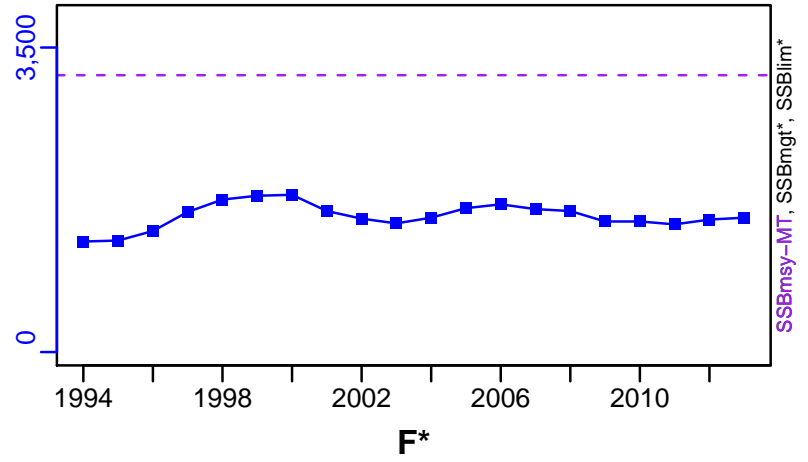


# Japanese flounder Inland Sea of Japan [OFLOUNSETO]

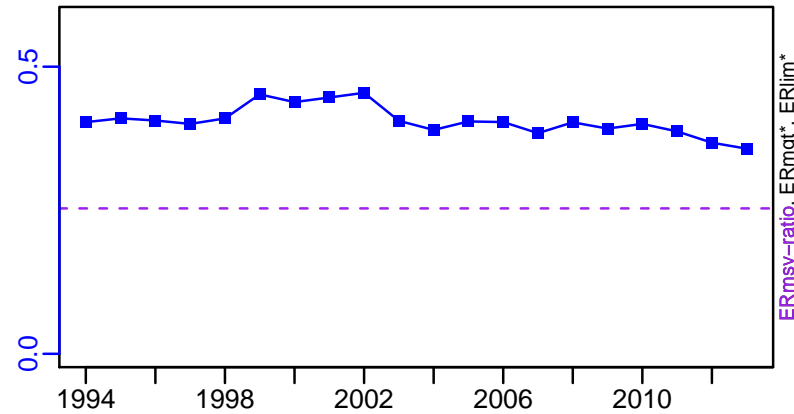
TB-MT (1965-2013-JPNIMP2016)



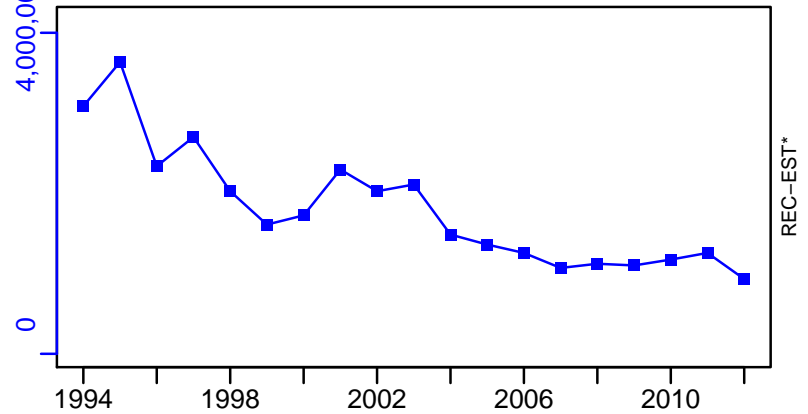
SSB-MT (1965-2013-JPNIMP2016)



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



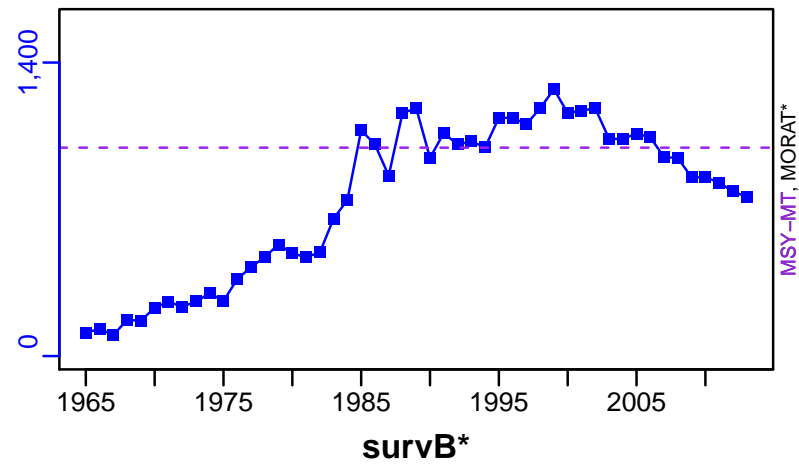
R-E00 (1965-2013-JPNIMP2016)



# Japanese flounder Inland Sea of Japan [OFLOUNSETO]

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

TAC\*, Cpair\*, Cadv\*



EFFORT\*



## Pacific cod Hokkaido [PCODHOKK]

Metadata	
<b>Scientific Name</b>	Gadus macrocephalus
<b>Current Assess ID</b>	FAJ-PCODHOKK-1985-2013-JPNIMP2016
<b>Area</b>	Hokkaido
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries 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	0.31
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	-	-	-		

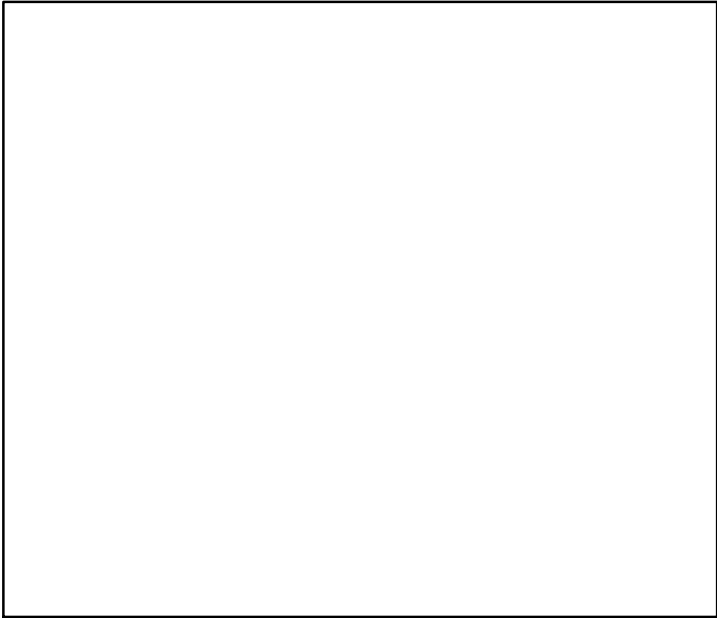
Kobe MSY\*



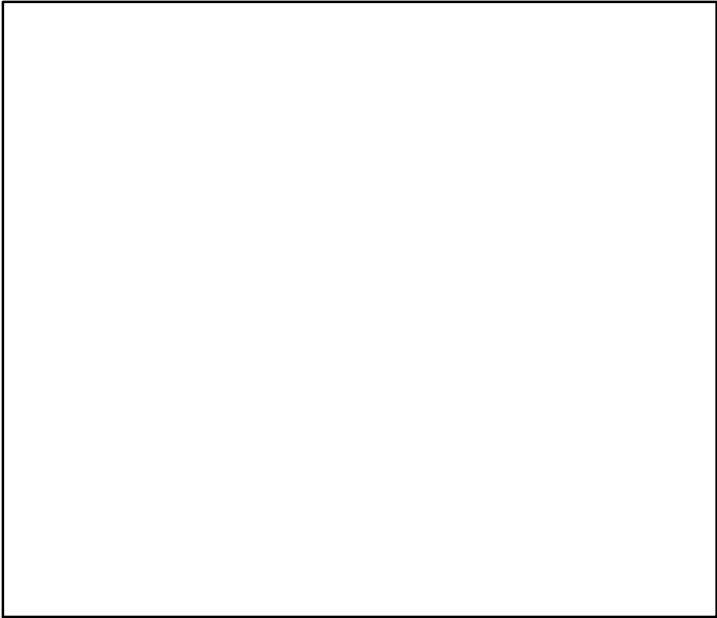
Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data

TB\*



SSB\*



TN \*



F\*



ER\*

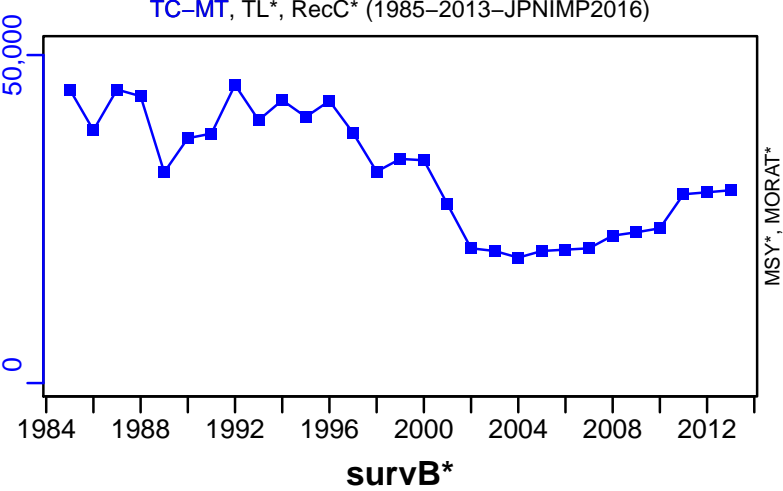


Recruits\*



Pacific cod Hokkaido [PCODHOKK]

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



TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



## Pacific cod North Pacific [PCODNPAC]

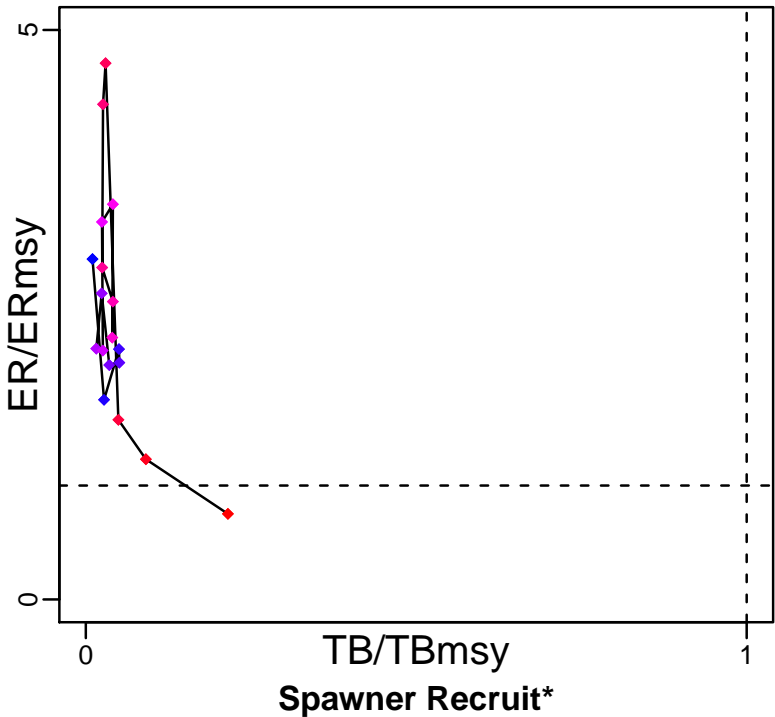
Metadata	
<b>Scientific Name</b>	Gadus macrocephalus
<b>Current Assess ID</b>	FAJ-PCODNPAC-1975-2014-JPNIMP2016
<b>Area</b>	North Pacific
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2014

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	0.14
<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	0.31
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

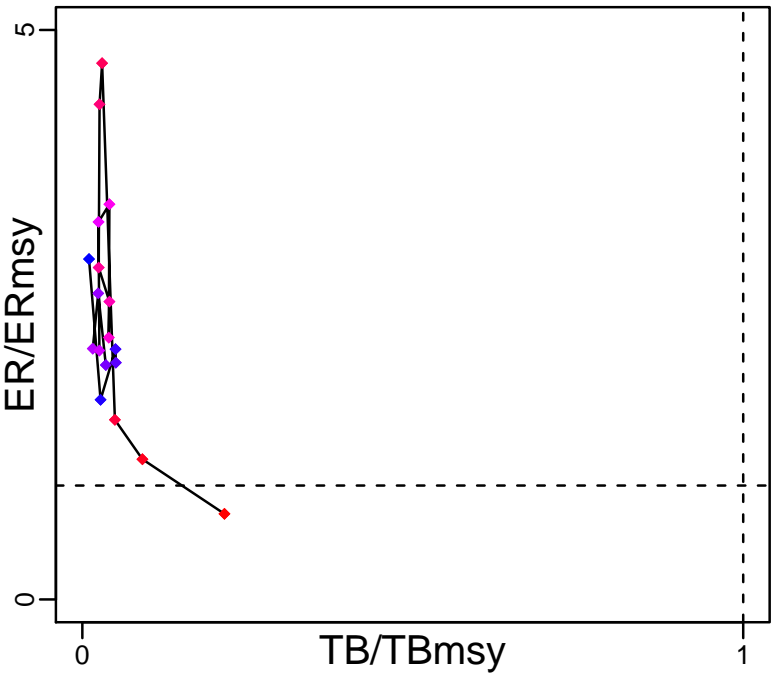
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2014	267,000	-	1
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2014	0	-	-
<b>TC</b>	TC-MT	2014	30,400		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2014	0.21		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2014	0.75		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

Pacific cod North Pacific [PCODNPAC]

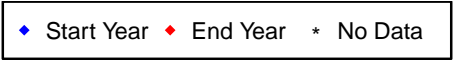
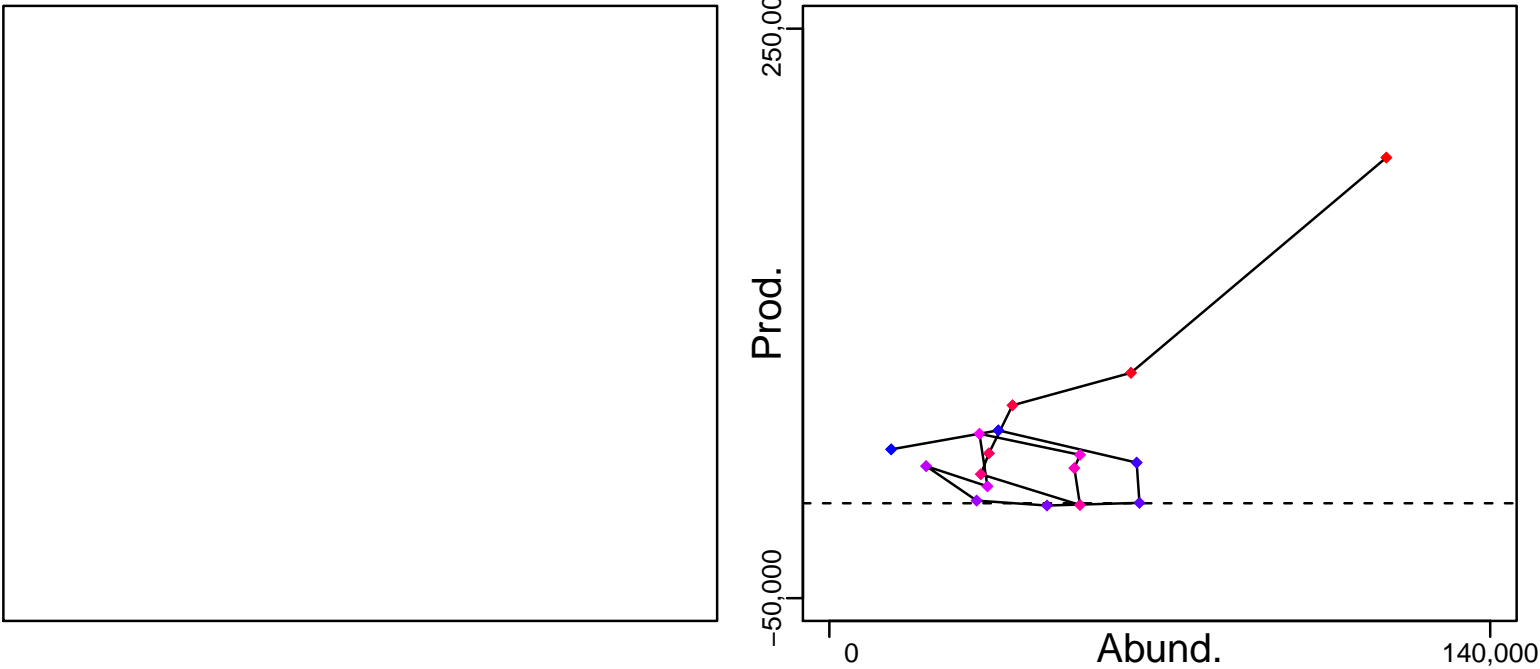
Kobe MSYpref (1975–2014–JPNIMP2016)



Kobe MGTpref (1975–2014–JPNIMP2016)



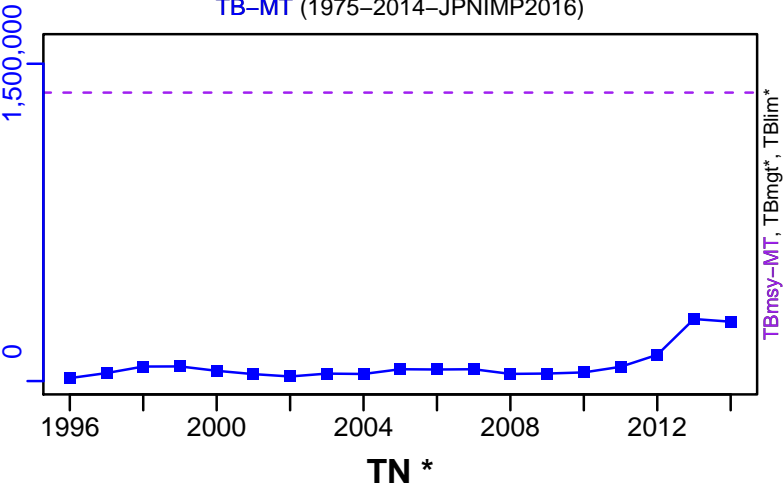
Production (1975–2014–JPNIMP2016)





Pacific cod North Pacific [PCODNPAC]

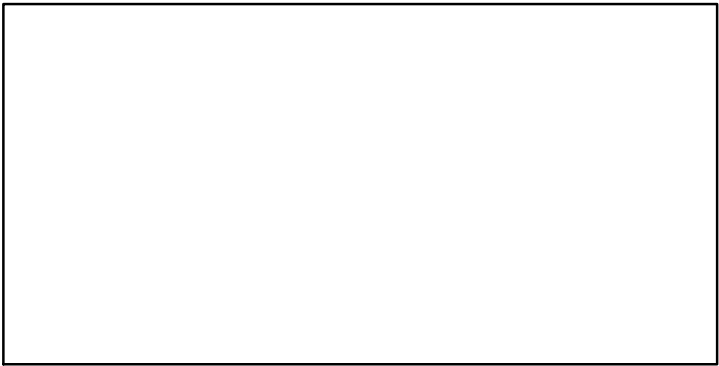
TB-MT (1975-2014-JPNIMP2016)



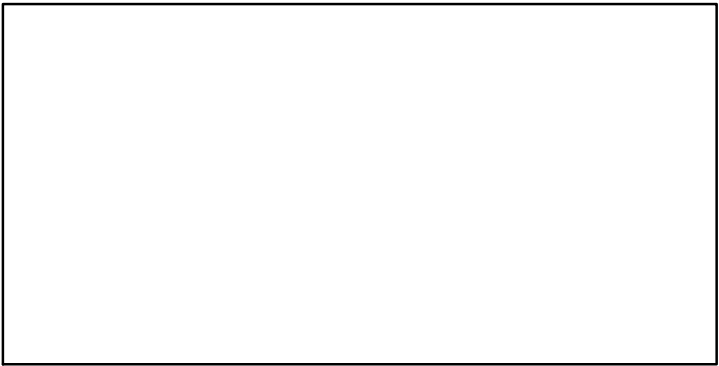
SSB\*



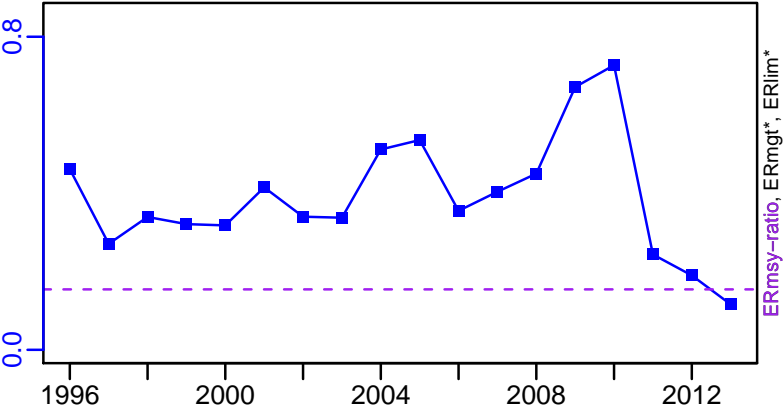
TN \*



F\*



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

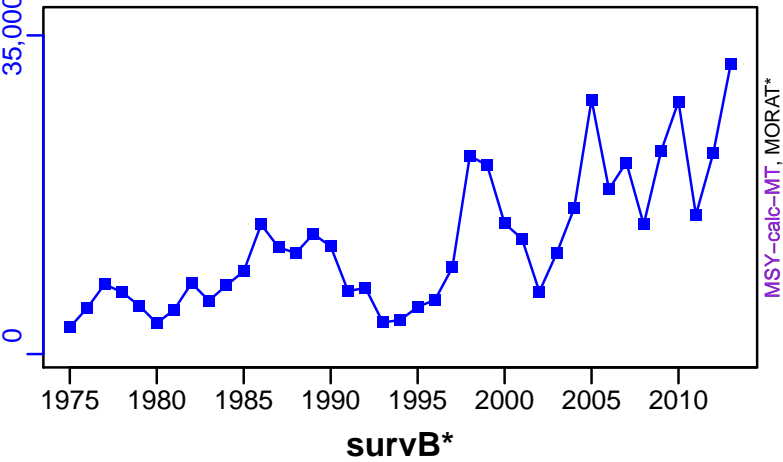


Recruits\*



Pacific cod North Pacific [PCODNPAC]

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



TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



## Pacific cod Sea of Japan [PCODSOJ]

Metadata	
<b>Scientific Name</b>	Gadus macrocephalus
<b>Current Assess ID</b>	FAJ-PCODSOJ-1964-2013-JPNIMP2016
<b>Area</b>	Sea of Japan
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries 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	0.31
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

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

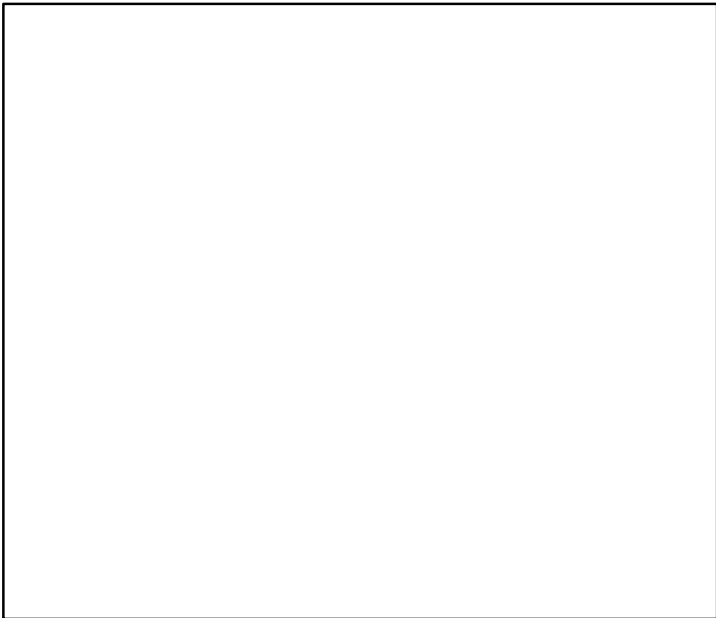
**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



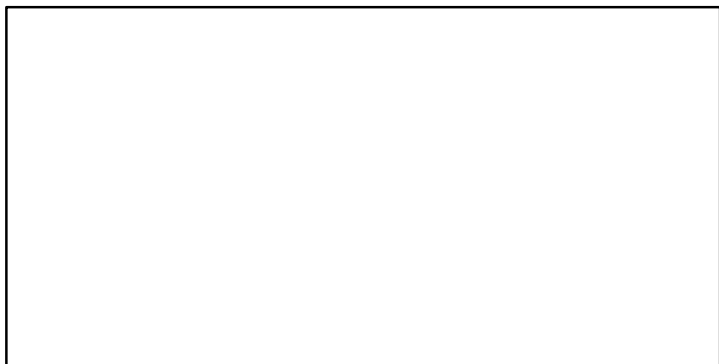
**Production\***



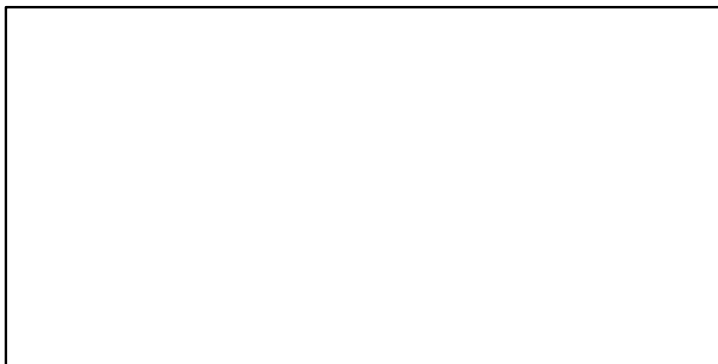
◆ Start Year    ◆ End Year    \* No Data

Pacific cod Sea of Japan [PCODSOJ]

**TB\***



**SSB\***



**TN \***



**F\***



**ER\***



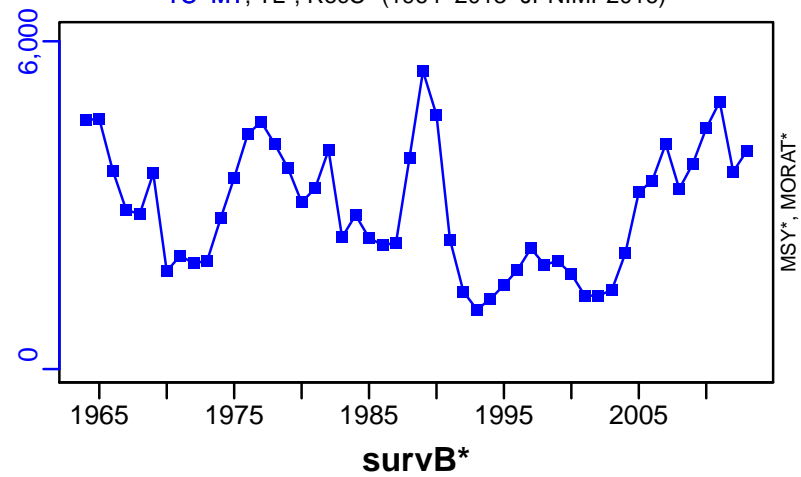
**Recruits\***



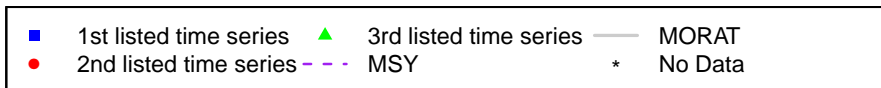
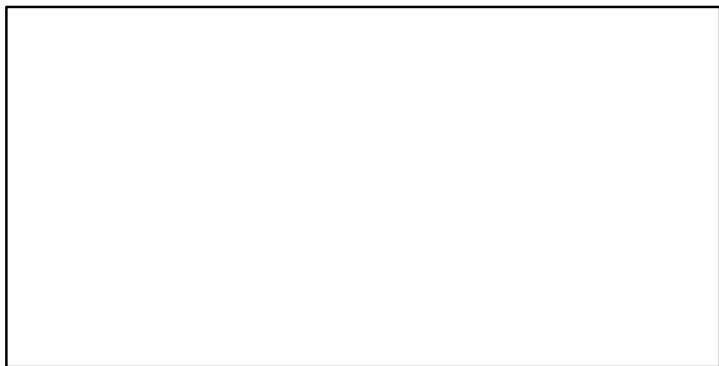
# Pacific cod Sea of Japan [PCODSOJ]

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

TAC\*, Cpair\*, Cadv\*



EFFORT\*



## Pointhead flounder North coast of Hokkaido [PHFLOUNNHOKK]

Metadata	
<b>Scientific Name</b>	Cleisthenes Herzensteini
<b>Current Assess ID</b>	FAJ-PHFLOUNNHOKK-1985-2013-JPNIMP2016
<b>Area</b>	North coast of Hokkaido
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries 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\***

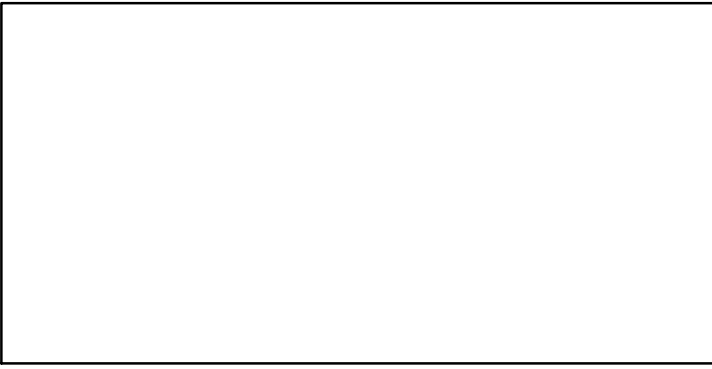


◆ Start Year    ◆ End Year    \* No Data



Pointhead flounder North coast of Hokkaido [PHFLOUNNHOKK]

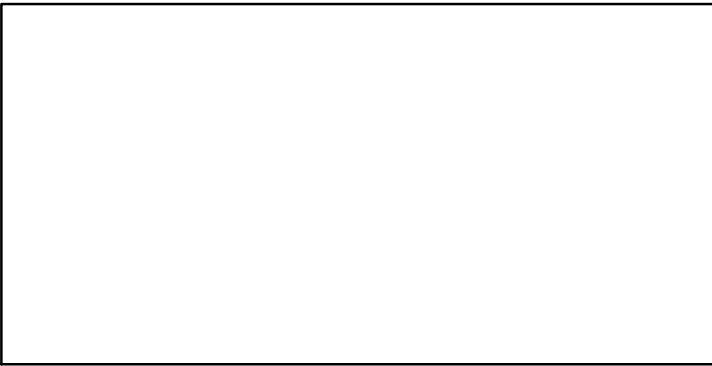
**TB\***



**SSB\***



**TN \***



**F\***



**ER\***



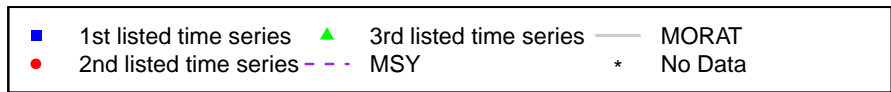
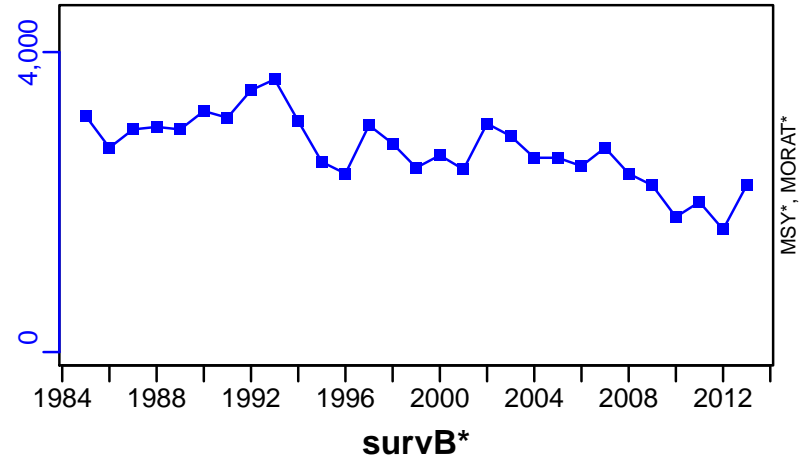
**Recruits\***



# Pointhead flounder North coast of Hokkaido [PHFLOUNNHOKK]

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

TAC\*, Cpair\*, Cadv\*



## Pointhead flounder Sea of Japan [PHFLOUNSOJ]

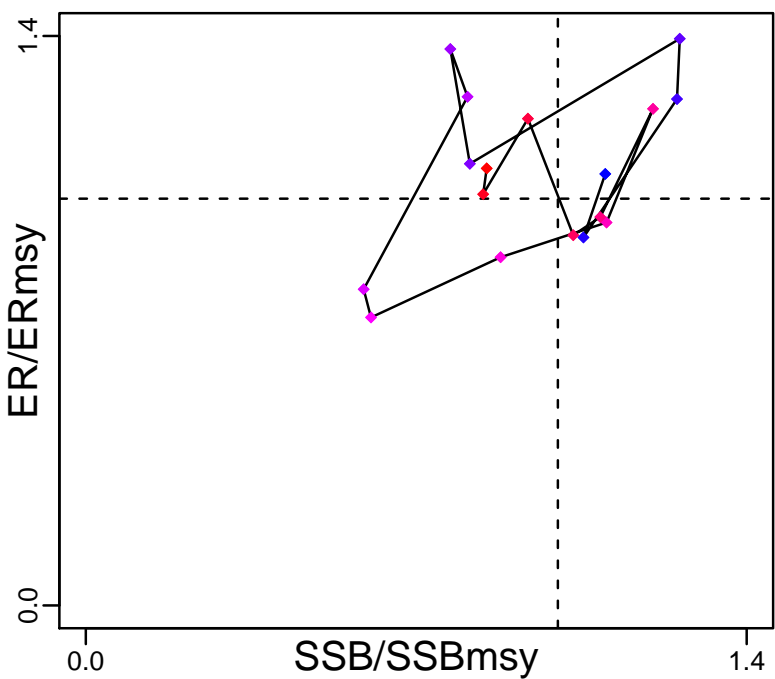
Metadata	
<b>Scientific Name</b>	Cleisthenes Herzensteini
<b>Current Assess ID</b>	FAJ-PHFLOUNSOJ-1966-2013-JPNIMP2016
<b>Area</b>	Sea of Japan
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2013

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2013	4113
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2013	0.32
<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>	-	-	-

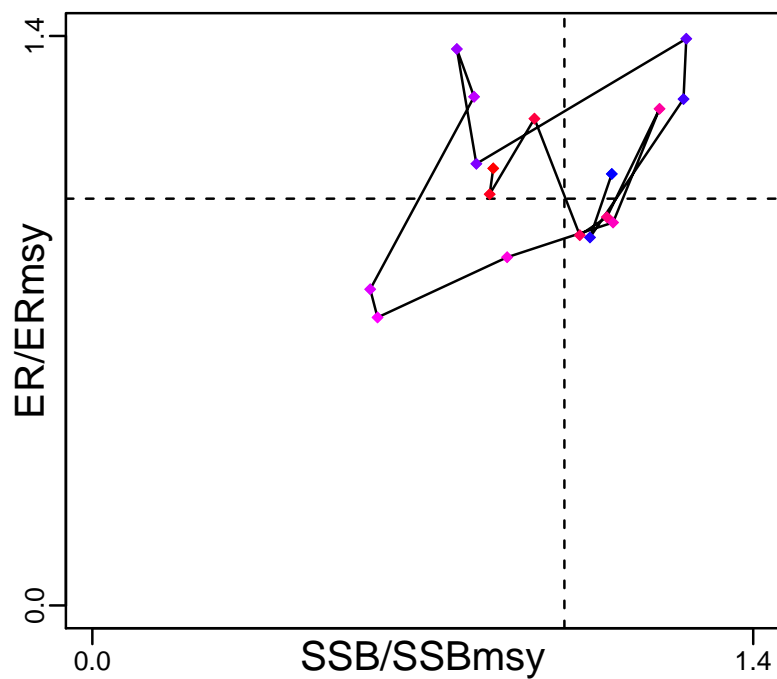
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	8850	-	1
<b>SSB</b>	SSB-MT	2013	3490	Both	3
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	$4.1 \times 10^7$	-	1
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0	-	-
<b>TC</b>	TC-MT	2013	3030		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.85		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	1.07		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Pointhead flounder Sea of Japan [PHFLOUNSOJ]

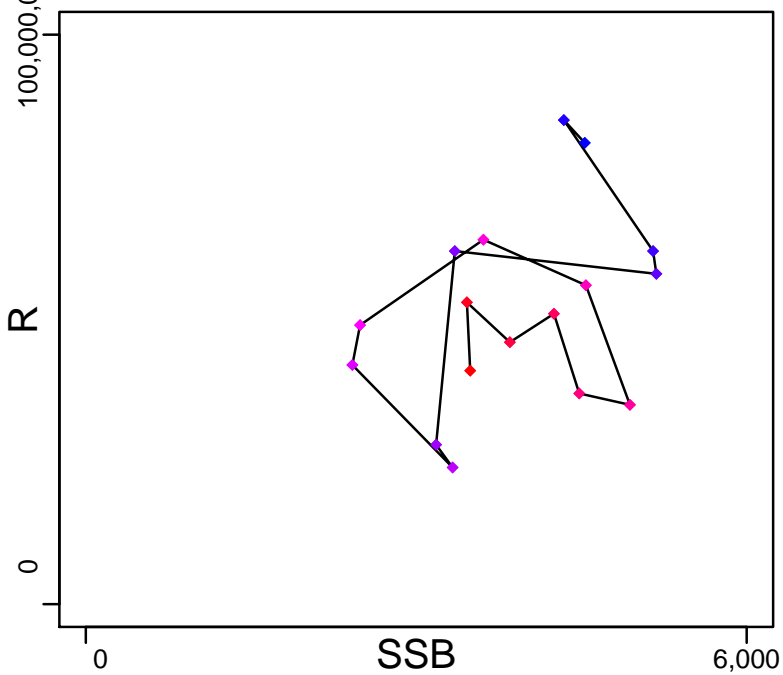
Kobe MSYpref (1966–2013–JPNIMP2016)



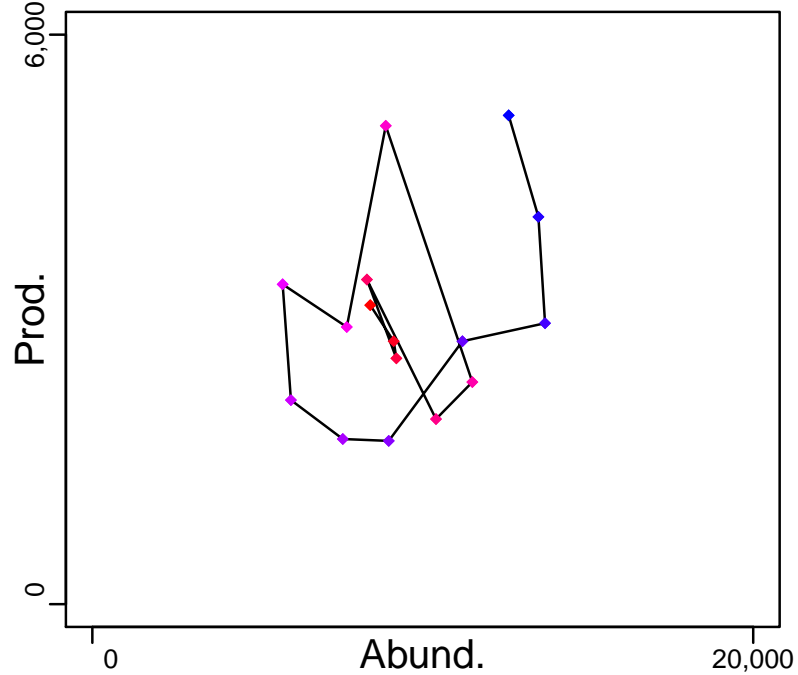
Kobe MGTpref (1966–2013–JPNIMP2016)



Spawner Recruit (1966–2013–JPNIMP2016)



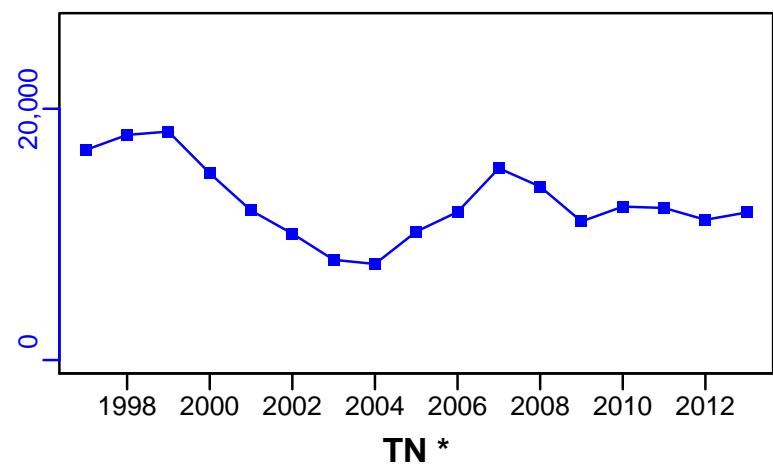
Production (1966–2013–JPNIMP2016)



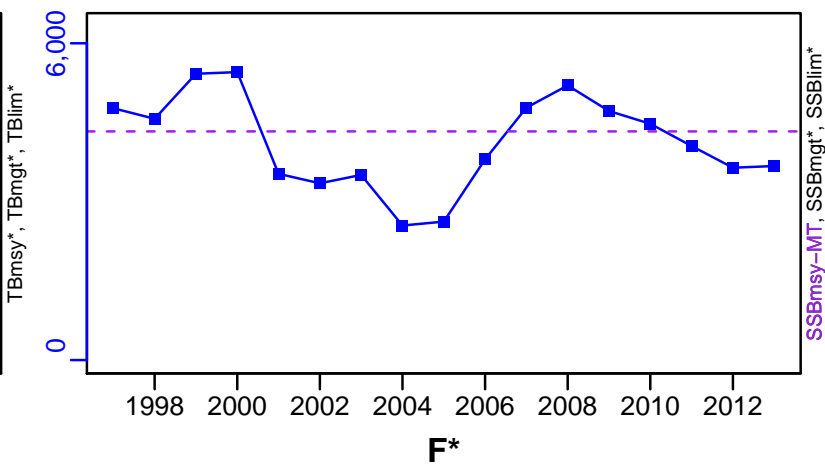
◆ Start Year ◆ End Year \* No Data

# Pointhead flounder Sea of Japan [PHFLOUNSOJ]

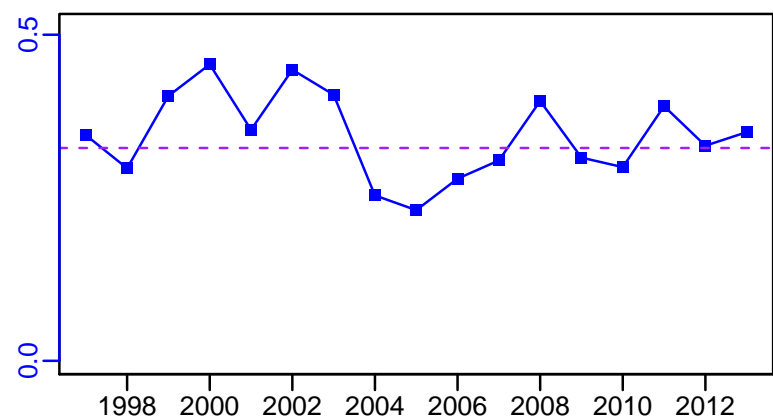
TB-MT (1966-2013-JPNIMP2016)



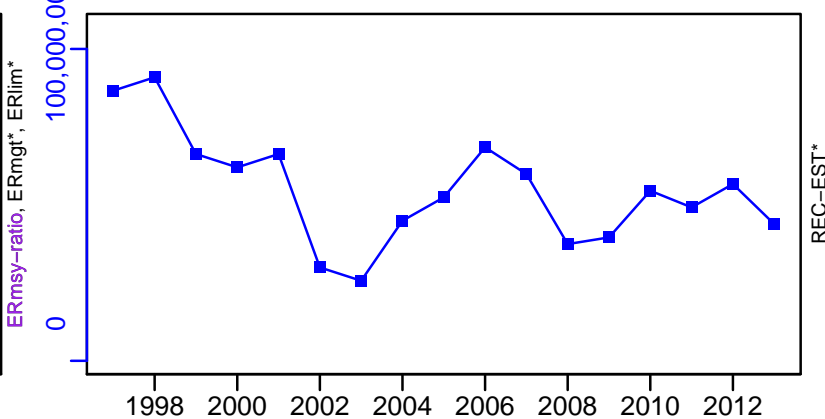
SSB-MT (1966-2013-JPNIMP2016)



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

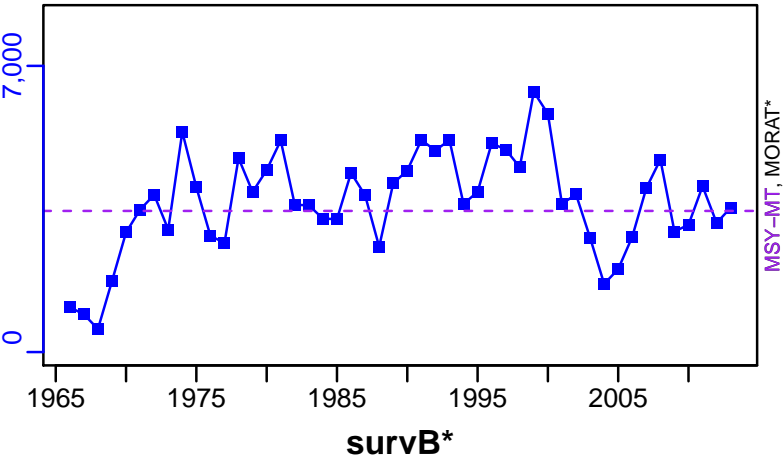


R-E00 (1966-2013-JPNIMP2016)



Pointhead flounder Sea of Japan [PHFLOUNSOJ]

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



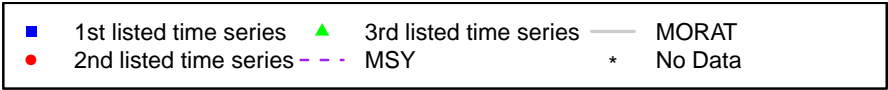
TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



## Japanese sardine Pacific Coast of Japan [PILCHPJPN]

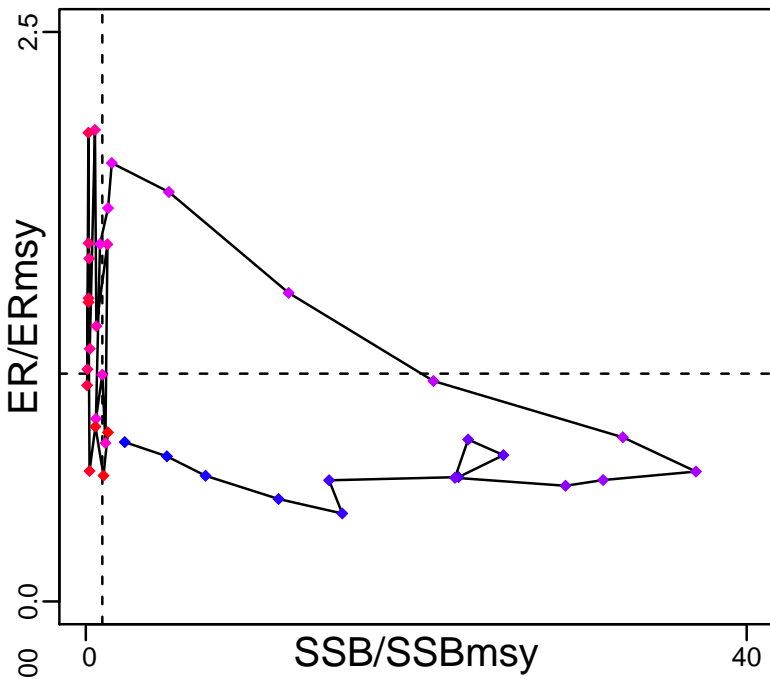
Metadata	
<b>Scientific Name</b>	Sardinops melanostictus
<b>Current Assess ID</b>	FAJ-PILCHPJPN-1975-2013-JPNIMP2016
<b>Area</b>	Pacific Coast of Japan
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2013,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

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<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>	-	-	-

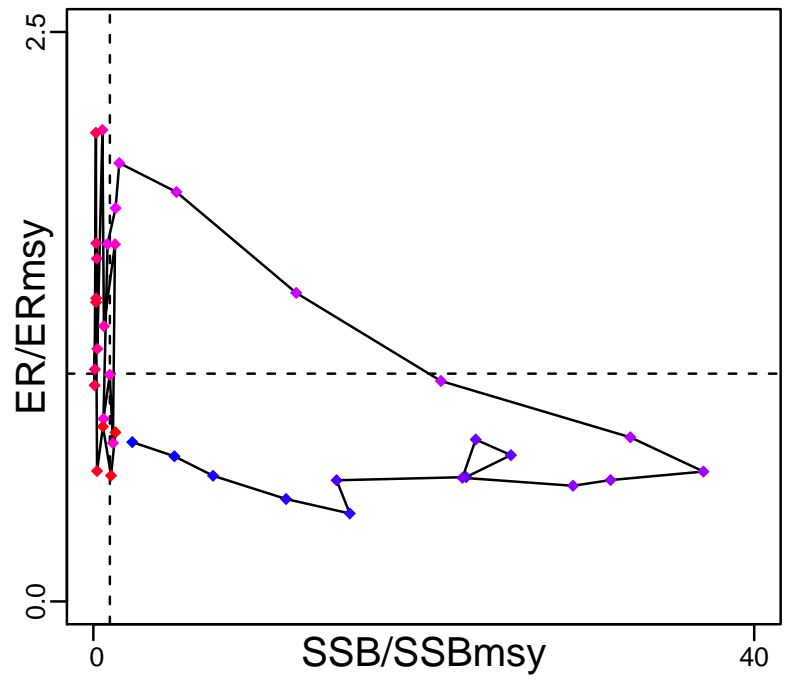
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	714,000	-	0
<b>SSB</b>	SSB-MT	2013	484,000	Both	1
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	$5.98 \times 10^9$	-	0
<b>F</b>	F-1/yr	2009	0	Both	0 to 4
<b>ER</b>	ER-calc-ratio	2013	0	-	-
<b>TC</b>	TC-MT	2013	148,000		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	1.34		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	0.74		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Japanese sardine Pacific Coast of Japan [PILCHPJPN]

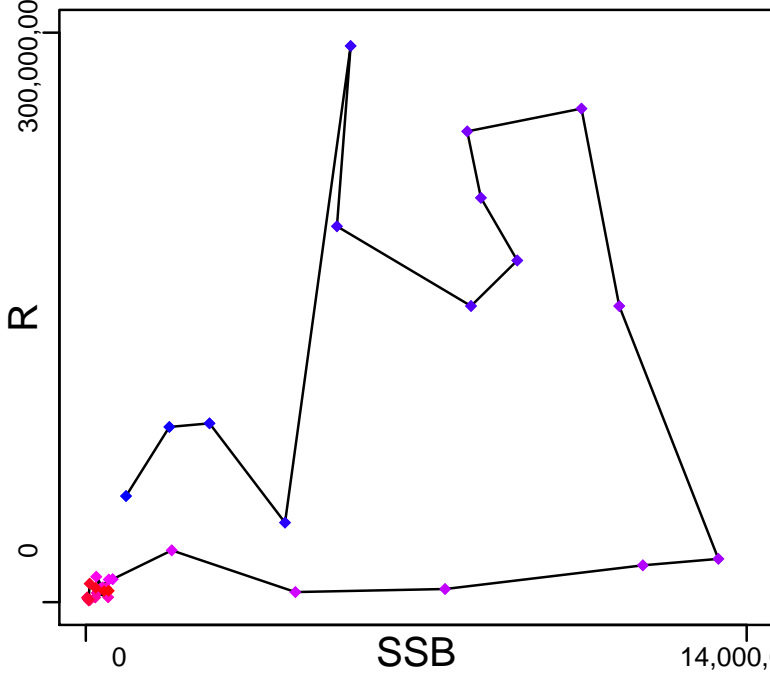
Kobe MSYpref (1975–2013–JPNIMP2016)



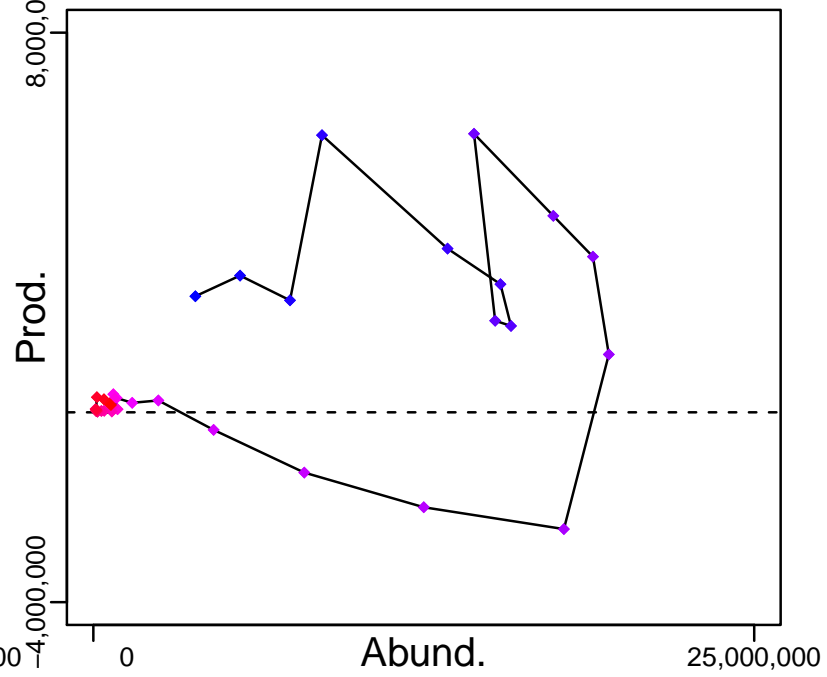
Kobe MGTpref (1975–2013–JPNIMP2016)



Spawner Recruit (1975–2013–JPNIMP2016)



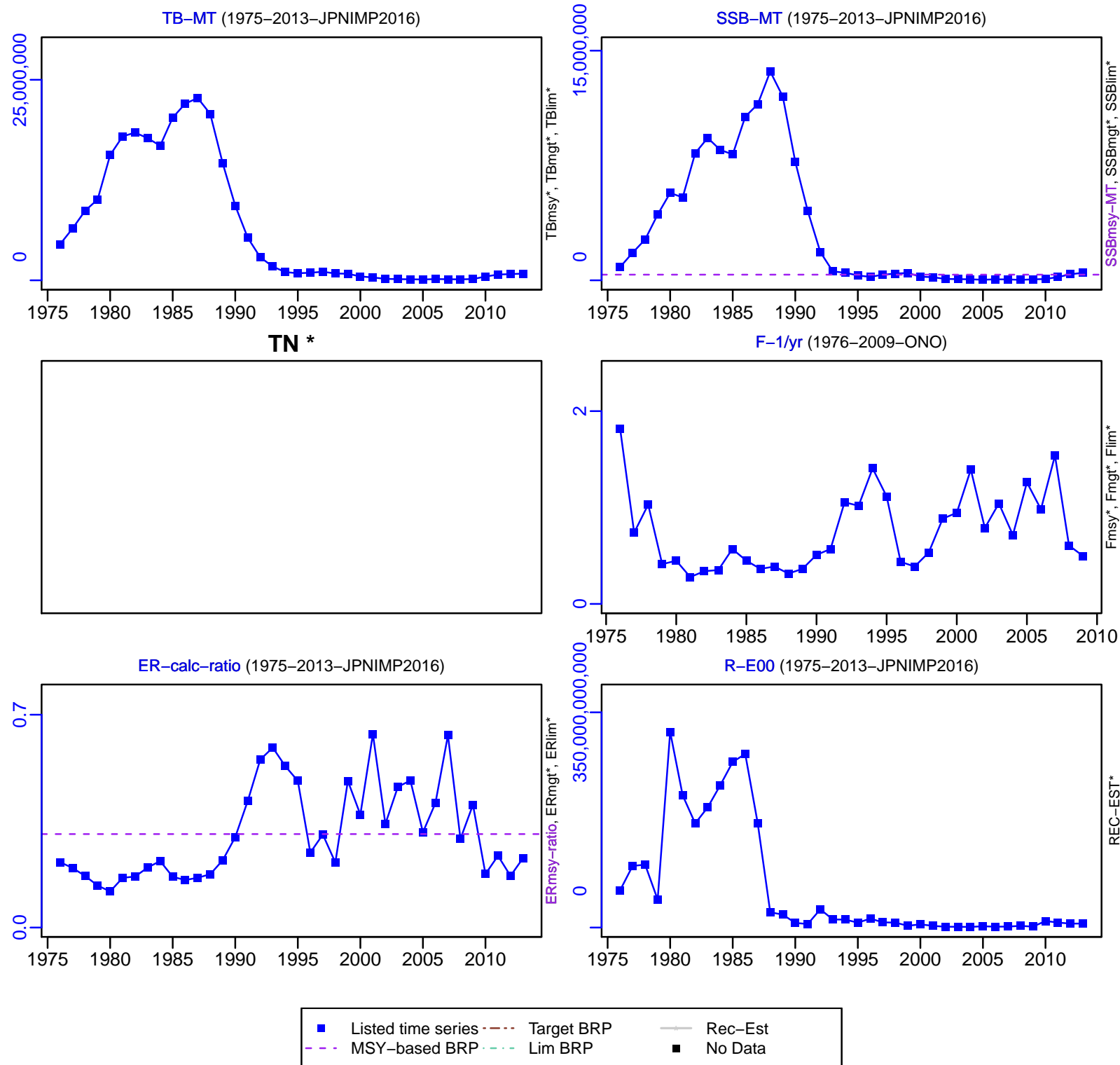
Production (1975–2013–JPNIMP2016)



◆ Start Year ◆ End Year \* No Data



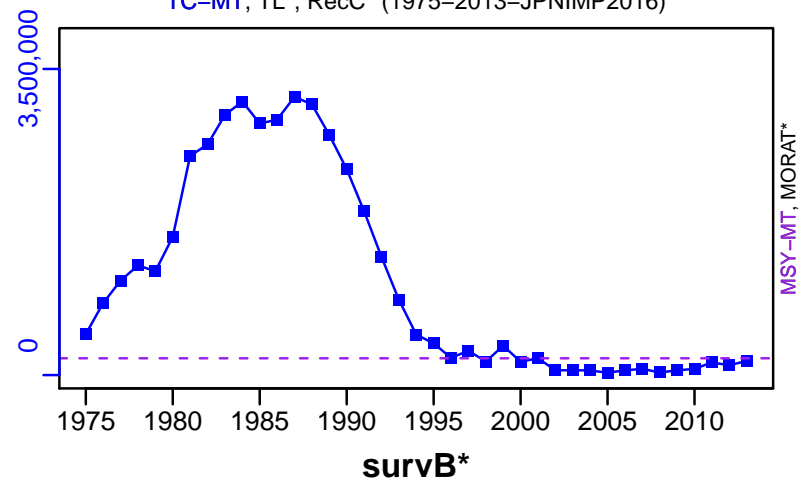
# Japanese sardine Pacific Coast of Japan [PILCHPJPN]



# Japanese sardine Pacific Coast of Japan [PILCHPJPN]

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

TAC\*, Cpair\*, Cadv\*



EFFORT\*



## Japanese sardine Tsushima Strait [PILCHTSST]

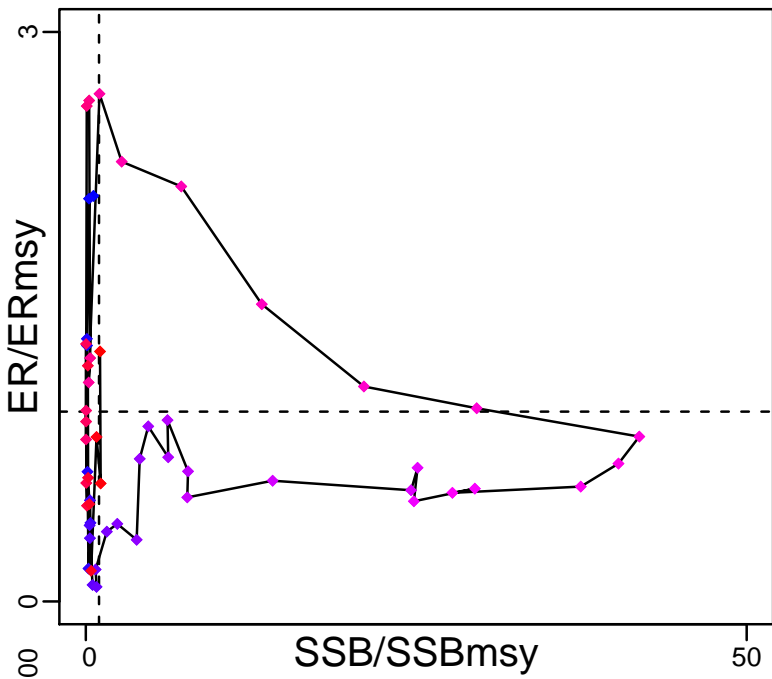
Metadata	
<b>Scientific Name</b>	Sardinops melanostictus
<b>Current Assess ID</b>	FAJ-PILCHTSST-1960-2013-JPNIMP2016
<b>Area</b>	Tsushima Strait
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2010, 2013

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<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>	-	-	-

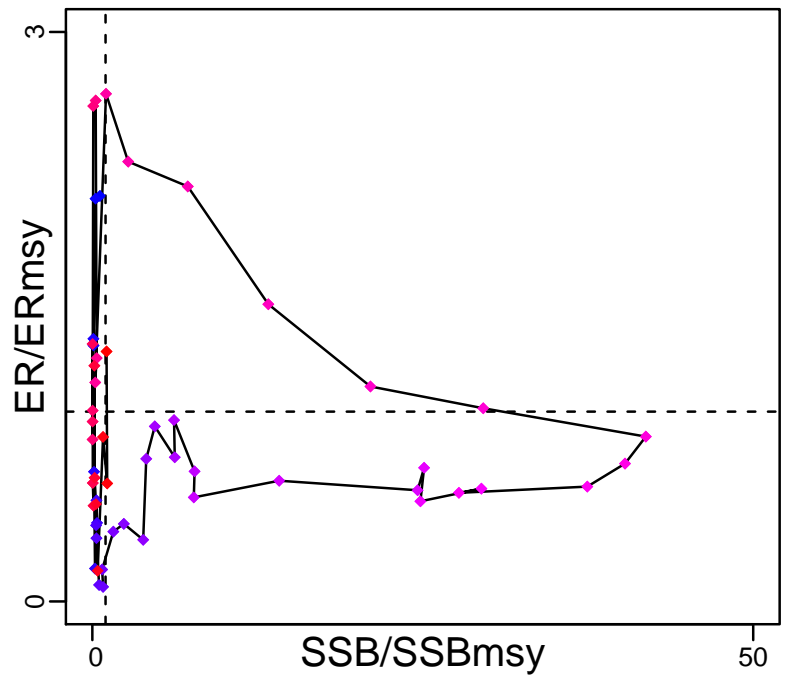
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	252,000	-	0
<b>SSB</b>	SSB-MT	2013	131,000	Both	1
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	$5.17 \times 10^9$	-	0.00E+00
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0	-	-
<b>TC</b>	TC-MT	2013	86,300		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	1.07		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	1.32		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Japanese sardine Tsushima Strait [PILCHTSST]

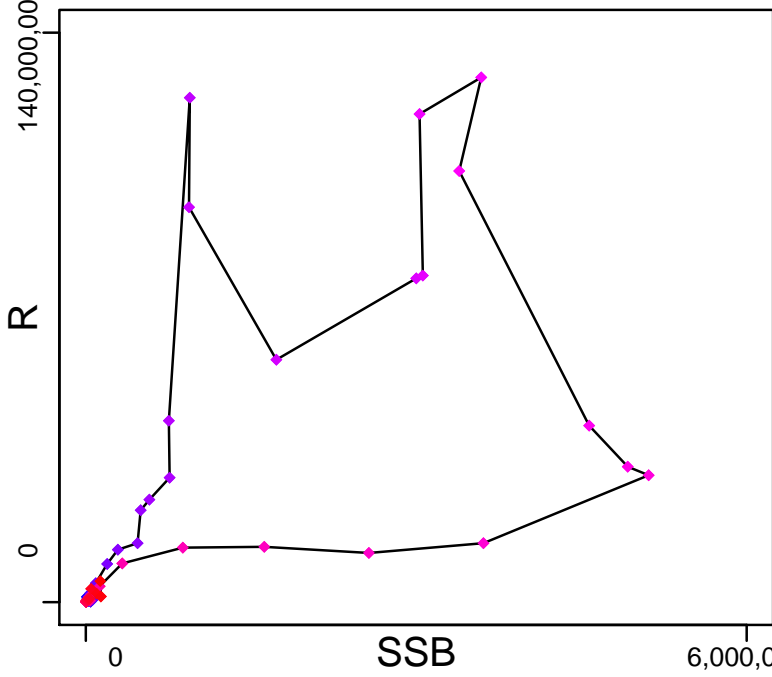
Kobe MSYpref (1960–2013–JPNIMP2016)



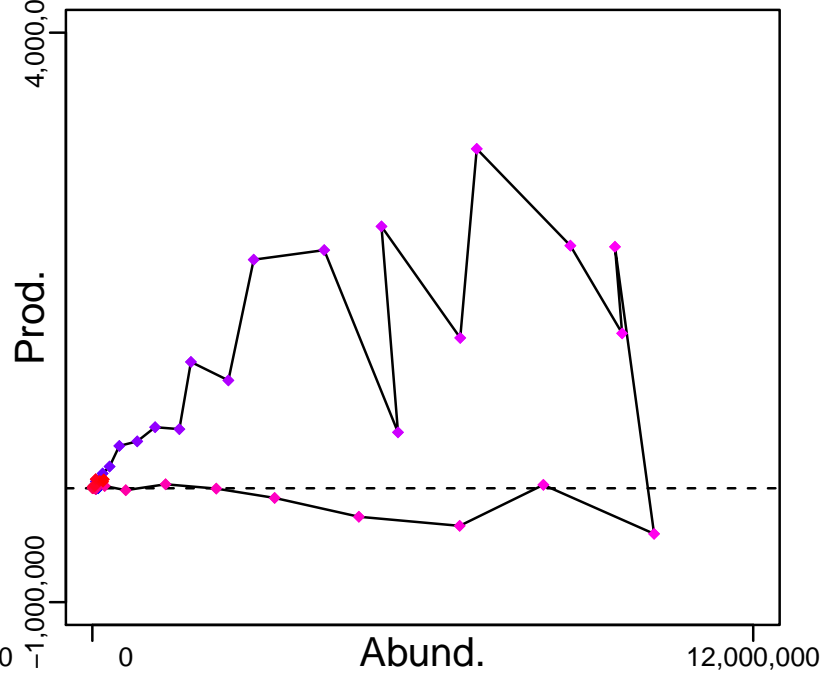
Kobe MGTpref (1960–2013–JPNIMP2016)



Spawner Recruit (1960–2013–JPNIMP2016)

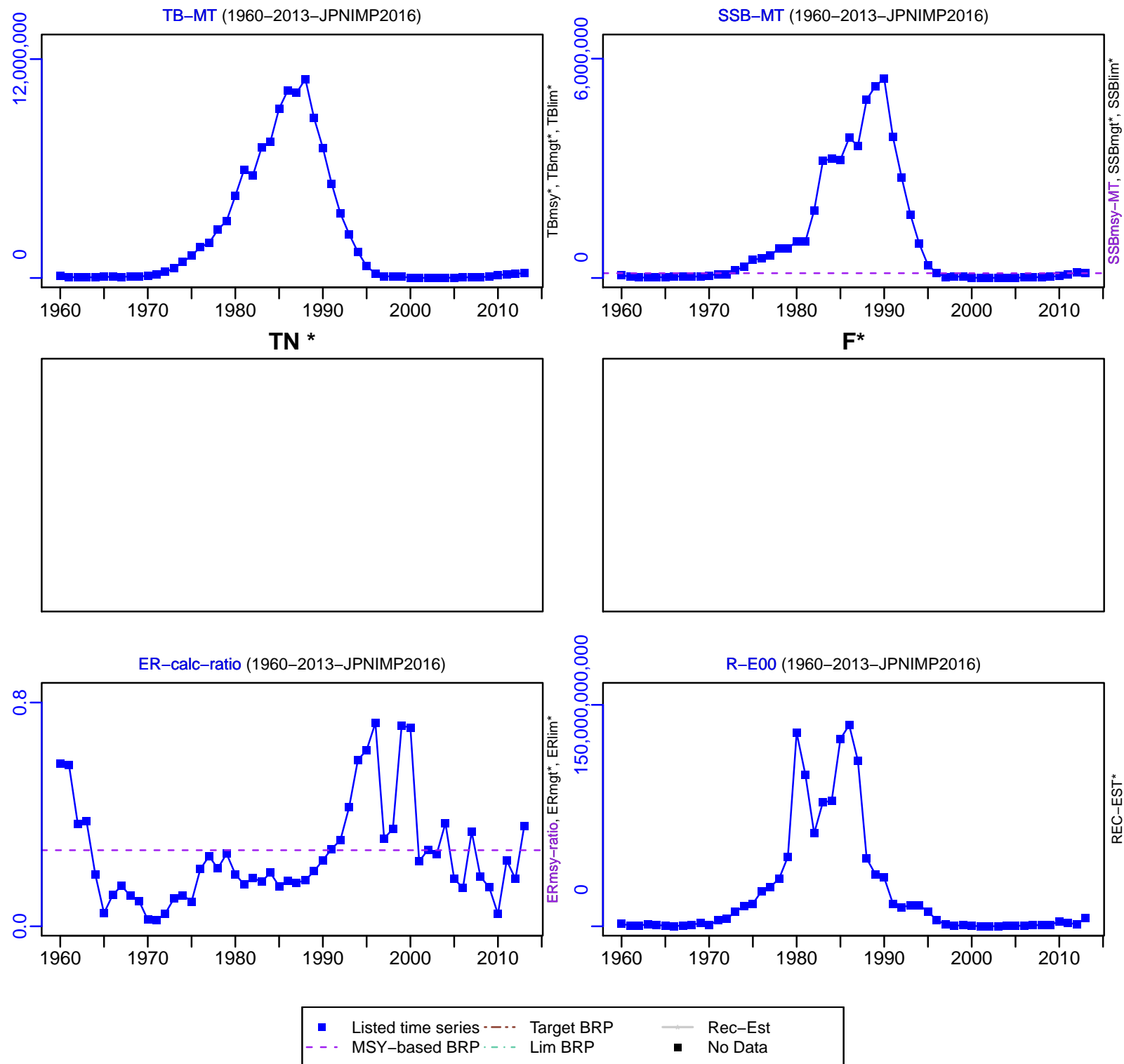


Production (1960–2013–JPNIMP2016)



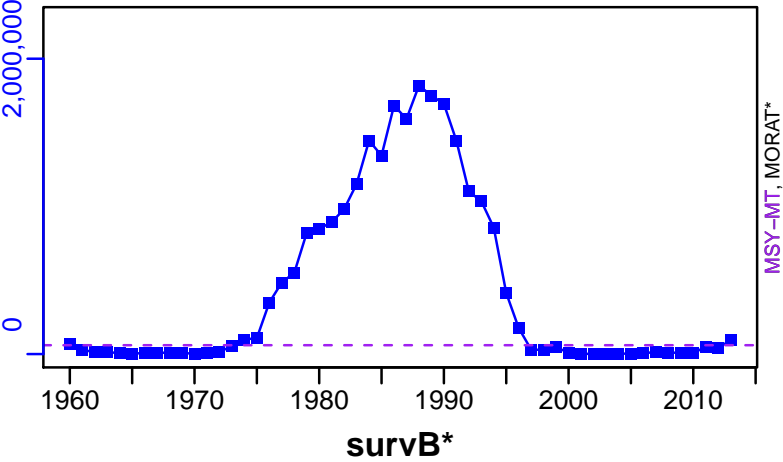
◆ Start Year ◆ End Year \* No Data

# Japanese sardine Tsushima Strait [PILCHTSST]

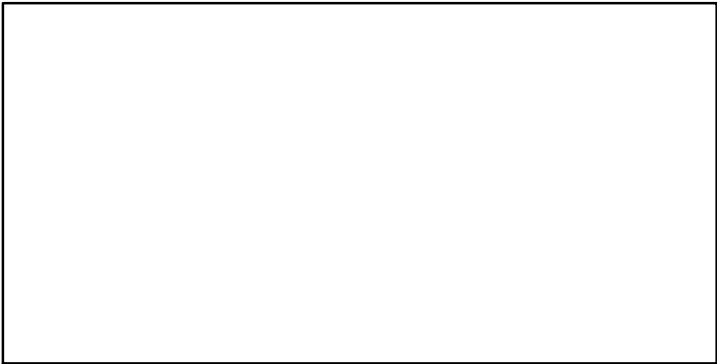


Japanese sardine Tsushima Strait [PILCHTSST]

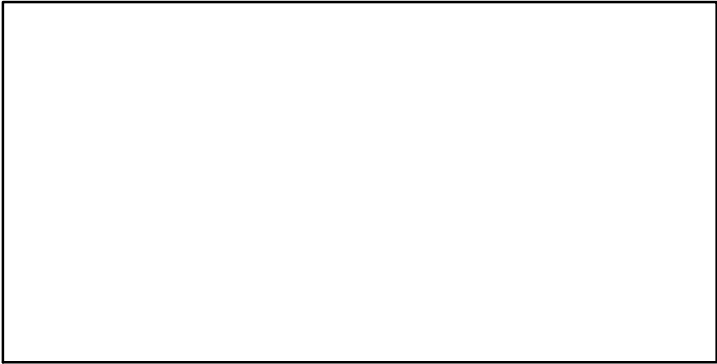
TC-MT, TL\*, RecC\* (1960-2013-JPNIMP2016)



TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



## Pacific sandlance Ise and Mikawa Bay [PSANDLIMKB]

Metadata	
<b>Scientific Name</b>	Ammodytes personatus
<b>Current Assess ID</b>	FAJ-PSANDLIMKB-1979-2014-JPNIMP2016
<b>Area</b>	Ise and Mikawa Bay
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries 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	-	-	-		

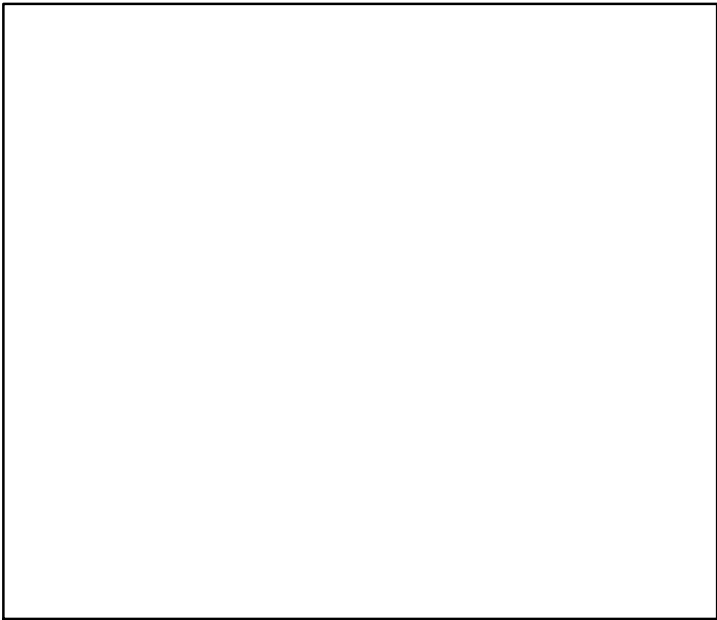
Kobe MSY\*



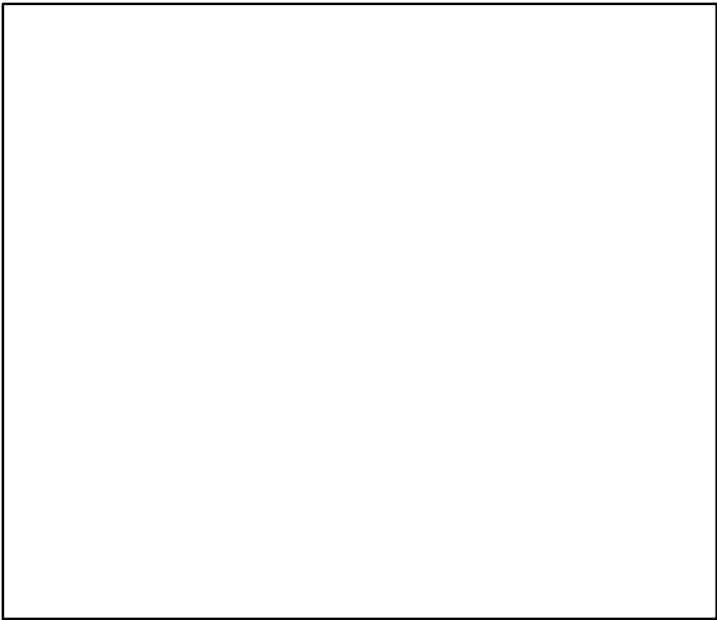
Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data



Pacific sandlance Ise and Mikawa Bay [PSANDLIMKB]

TB\*



SSB\*



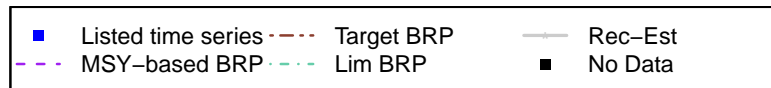
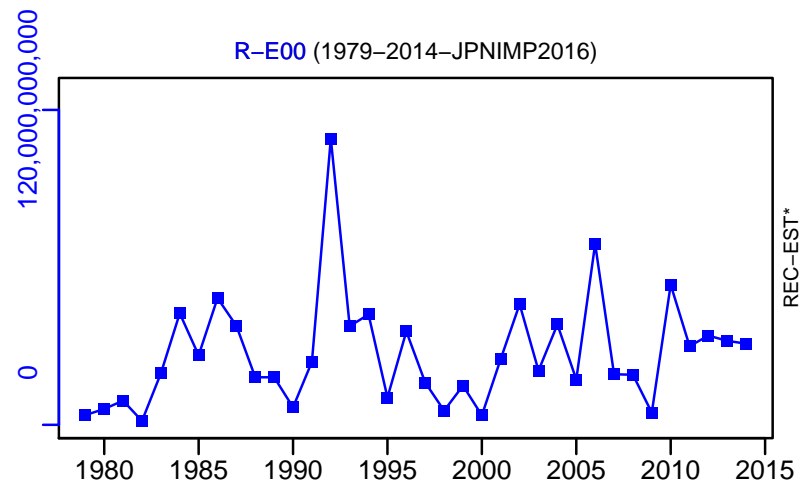
TN \*



F\*



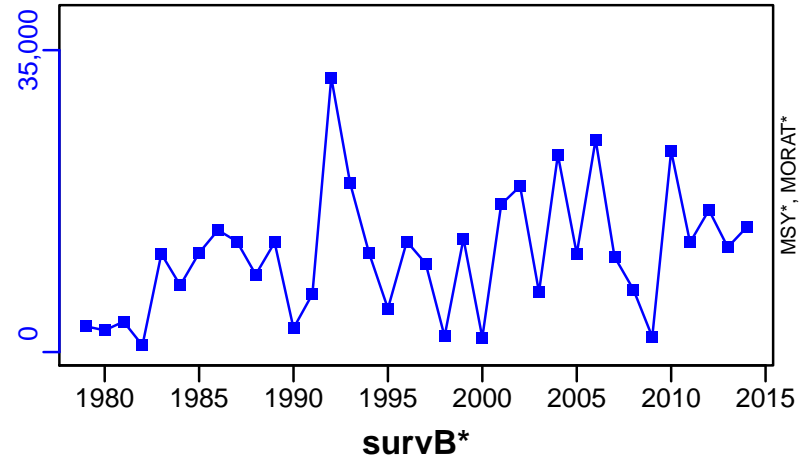
ER\*



# Pacific sand lance Ise and Mikawa Bay [PSANDLIMKB]

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

TAC\*, Cpair\*, Cadv\*



EFFORT\*



## Pacific sand lance Souya Strait [PSLANCESYS]

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

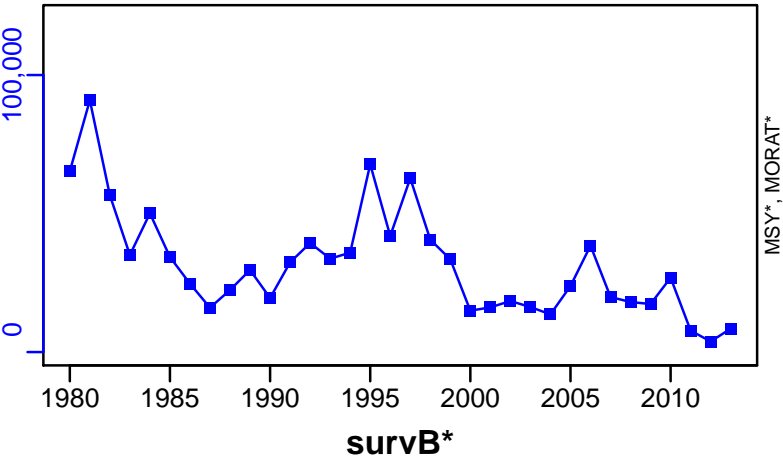


Recruits\*



Pacific sand lance Souya Strait [PSLANCESYS]

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



TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



## Red seabream East China Sea [RBRMECS]

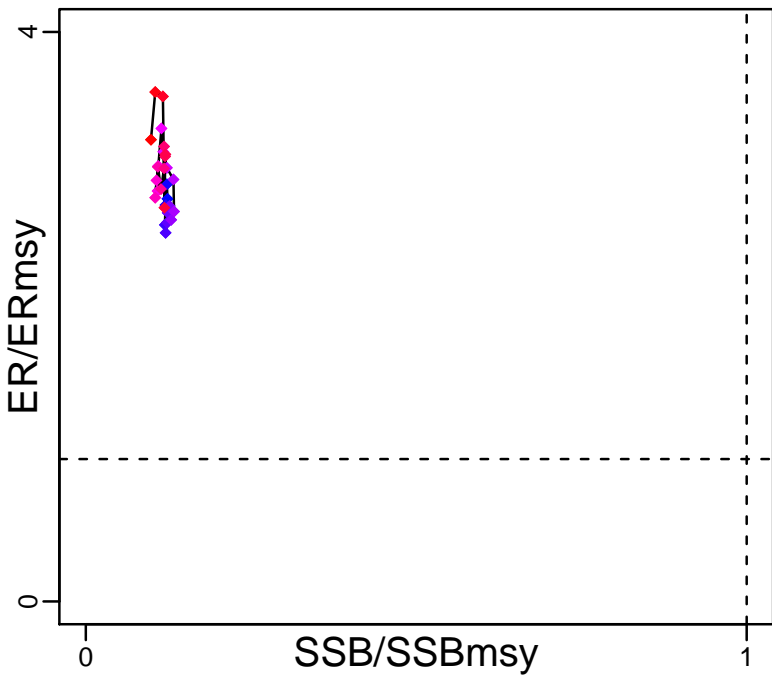
Metadata	
<b>Scientific Name</b>	Pagrus major
<b>Current Assess ID</b>	FAJ-RBRMECS-1969-2013-JPNIMP2016
<b>Area</b>	East China Sea
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2010, 2013

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<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	0.12
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2010	9900
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

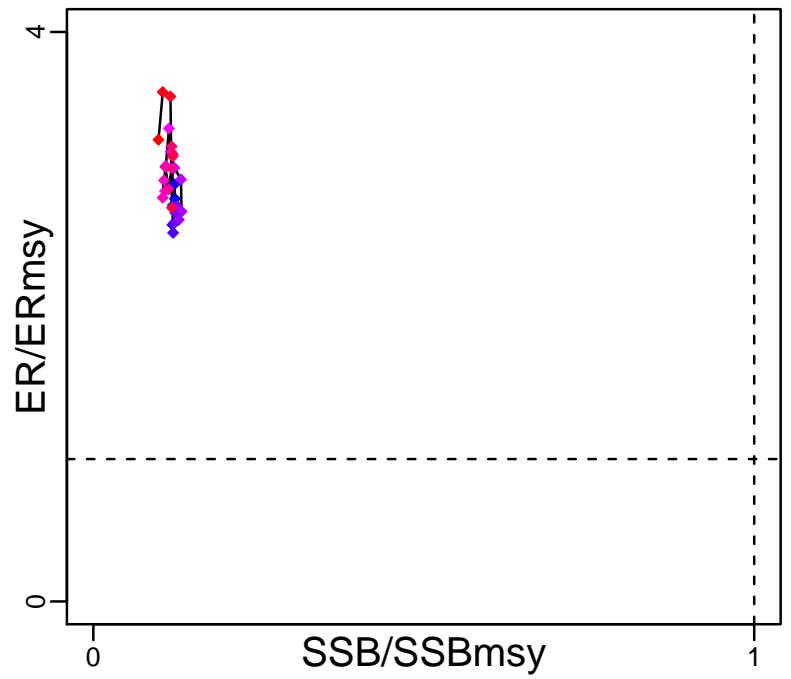
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	14,200	-	1
<b>SSB</b>	SSB-MT	2013	8590	Both	3
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	10,800,000	-	1
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0	-	-
<b>TC</b>	TC-MT	2013	5520		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.1		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	3.24		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Red seabream East China Sea [RBRMECS]

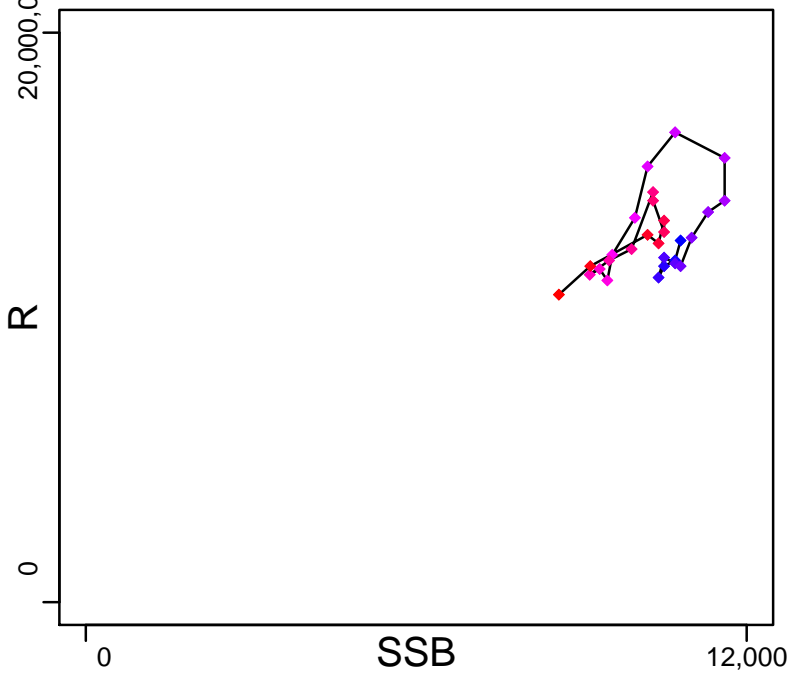
Kobe MSYpref (1969–2013–JPNIMP2016)



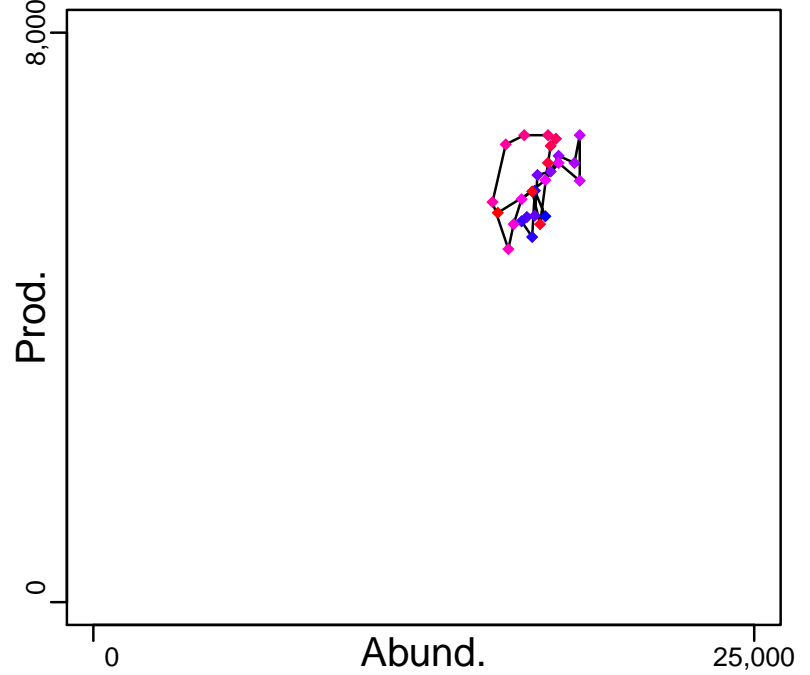
Kobe MGTpref (1969–2013–JPNIMP2016)



Spawner Recruit (1969–2013–JPNIMP2016)



Production (1969–2013–JPNIMP2016)

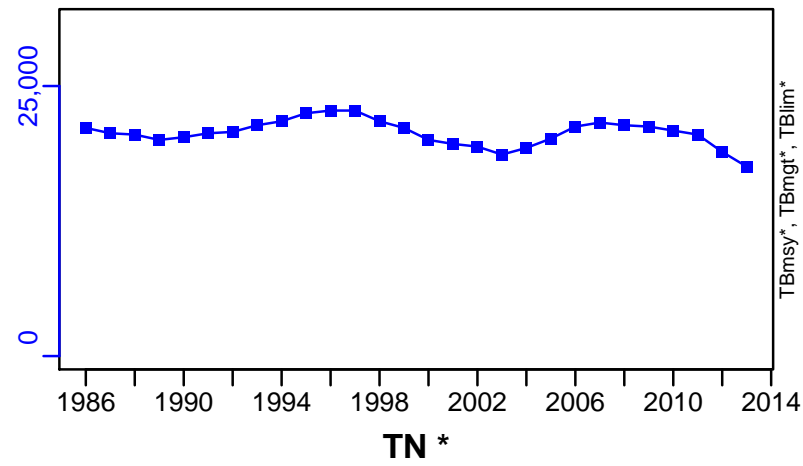


◆ Start Year ◆ End Year \* No Data

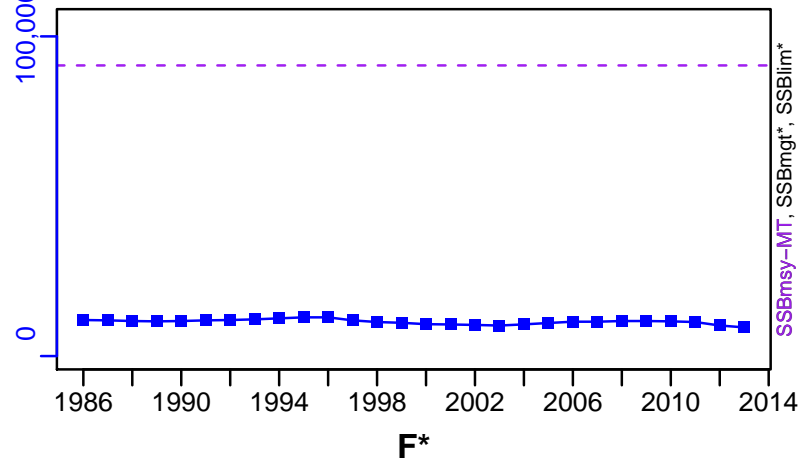


# Red seabream East China Sea [RBRMECS]

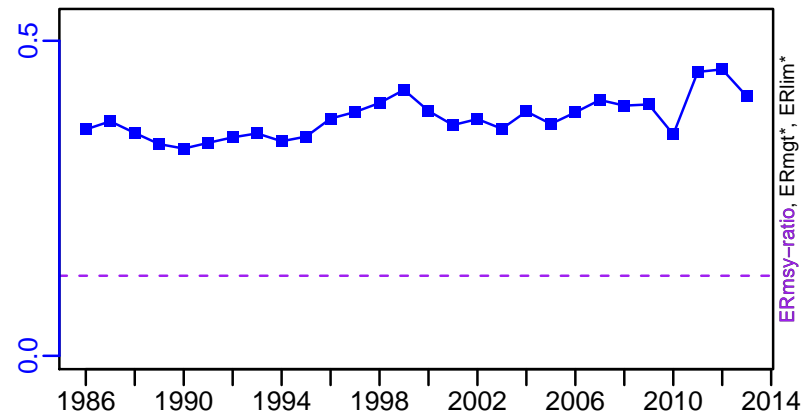
TB-MT (1969–2013–JPNIMP2016)



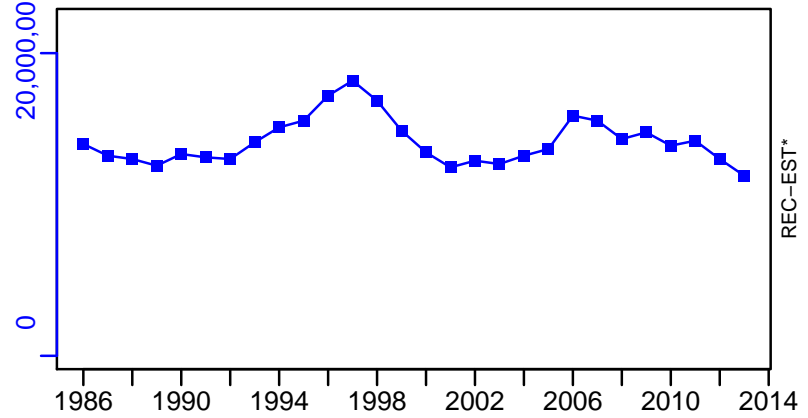
SSB-MT (1969–2013–JPNIMP2016)



ER-calc-ratio (1969–2013–JPNIMP2016)



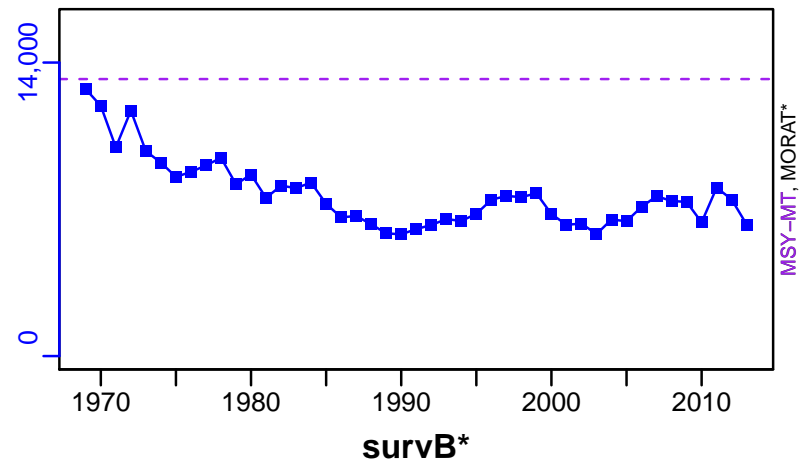
R-E00 (1969–2013–JPNIMP2016)



Red seabream East China Sea [RBRMECS]

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

TAC\*, Cpair\*, Cadv\*



EFFORT\*



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

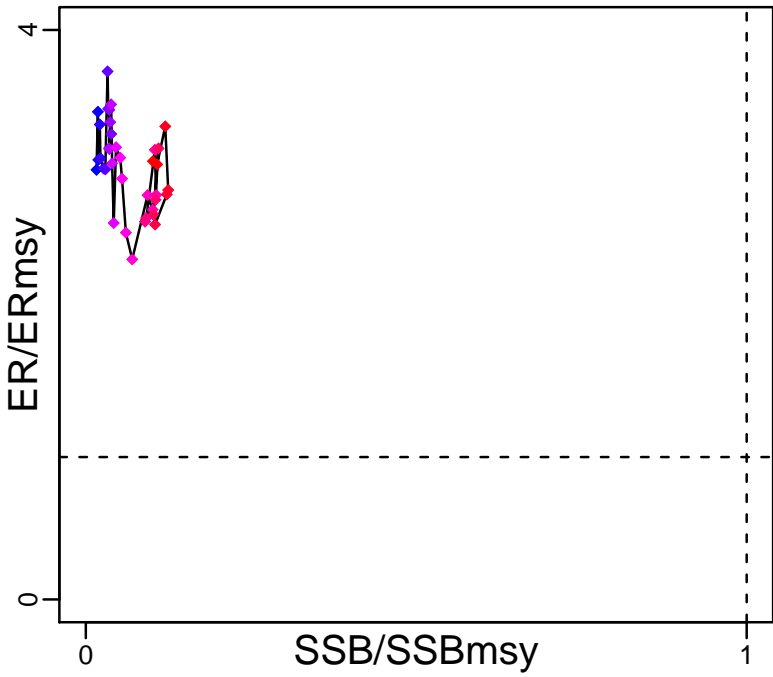
Metadata	
<b>Scientific Name</b>	Pagrus major
<b>Current Assess ID</b>	FAJ-RBRMSETOE-1977-2013-JPNIMP2016
<b>Area</b>	Inland Sea of Japan (East)
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2010, 2013

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2013	16,552
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2013	0.14
<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>	-	-	-

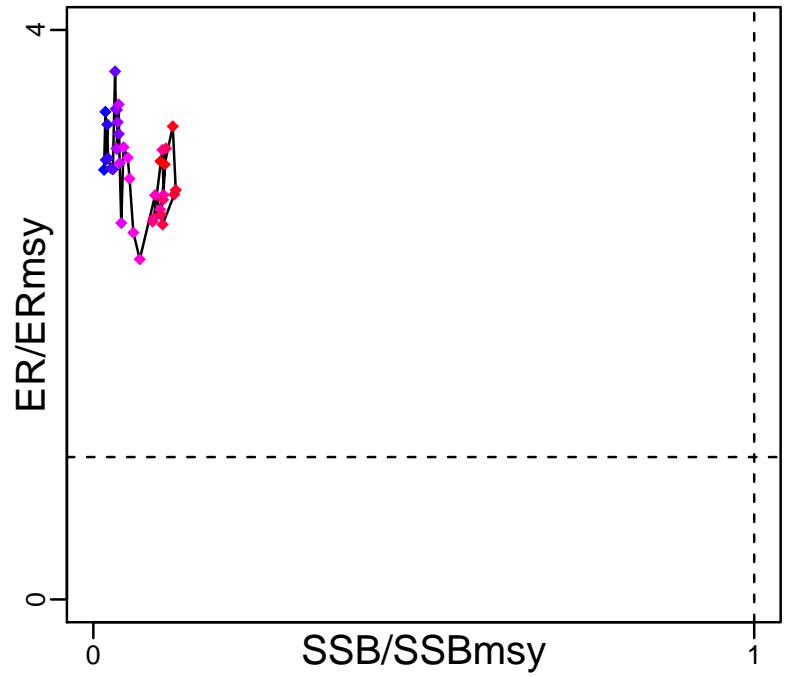
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	4030	-	0
<b>SSB</b>	SSB-MT	2013	1680	Both	3
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	8,730,000	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0	-	-
<b>TC</b>	TC-MT	2013	1800		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.1		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	3.08		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

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

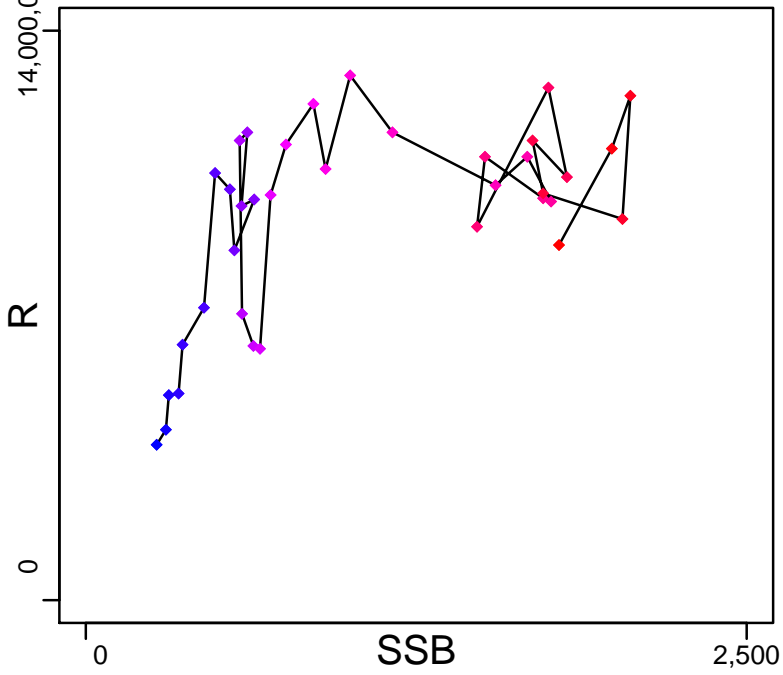
Kobe MSYpref (1977–2013–JPNIMP2016)



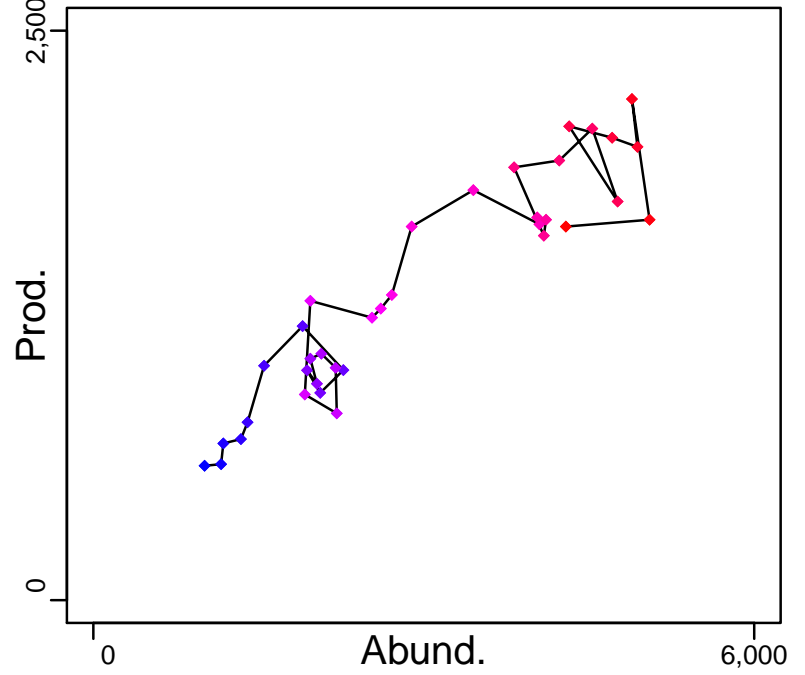
Kobe MGTpref (1977–2013–JPNIMP2016)



Spawner Recruit (1977–2013–JPNIMP2016)



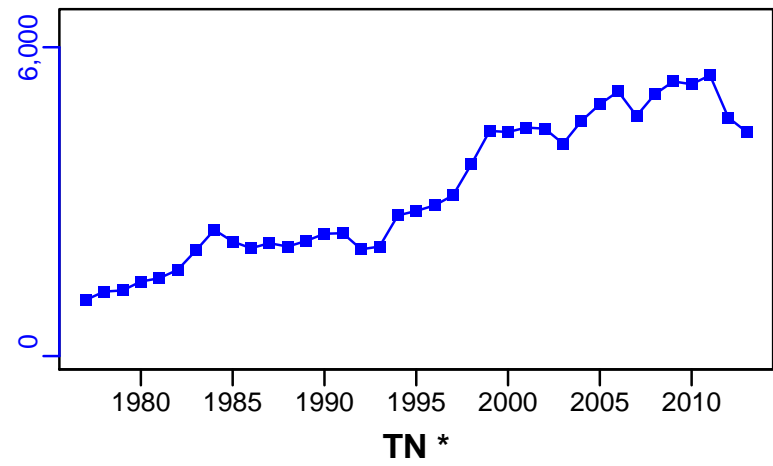
Production (1977–2013–JPNIMP2016)



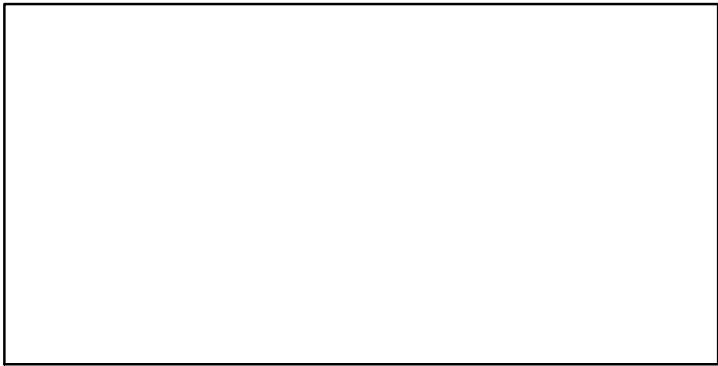
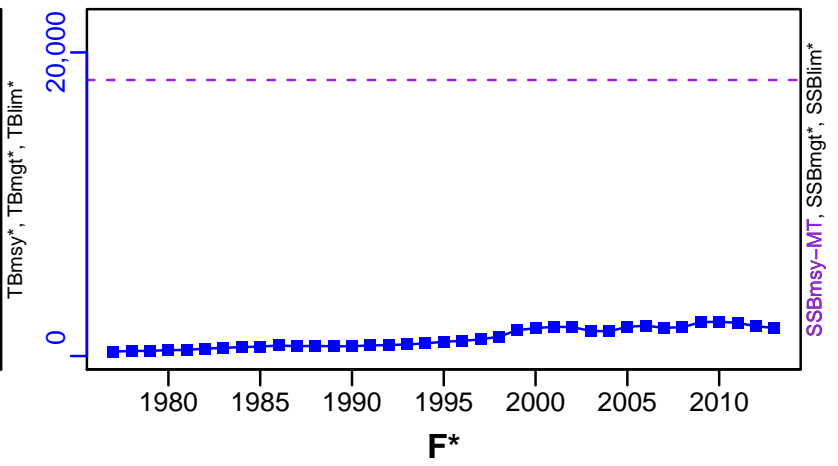
◆ Start Year ◆ End Year \* No Data

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

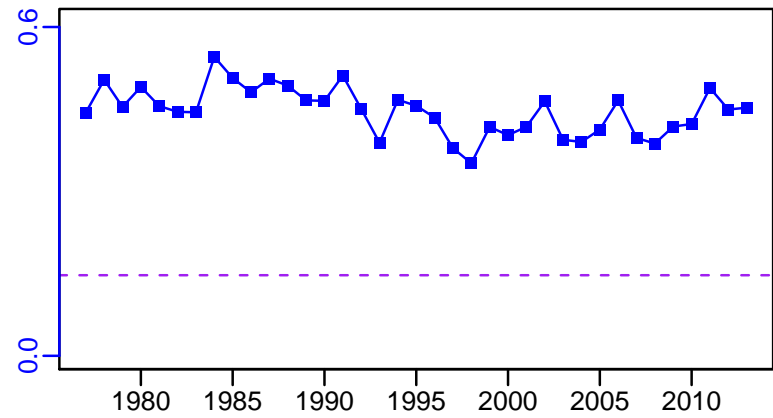
TB-MT (1977-2013-JPNIMP2016)



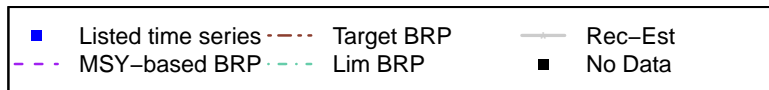
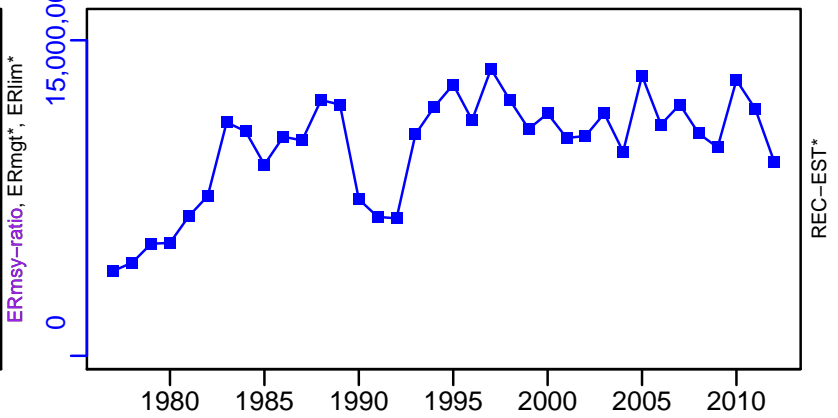
SSB-MT (1977-2013-JPNIMP2016)



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

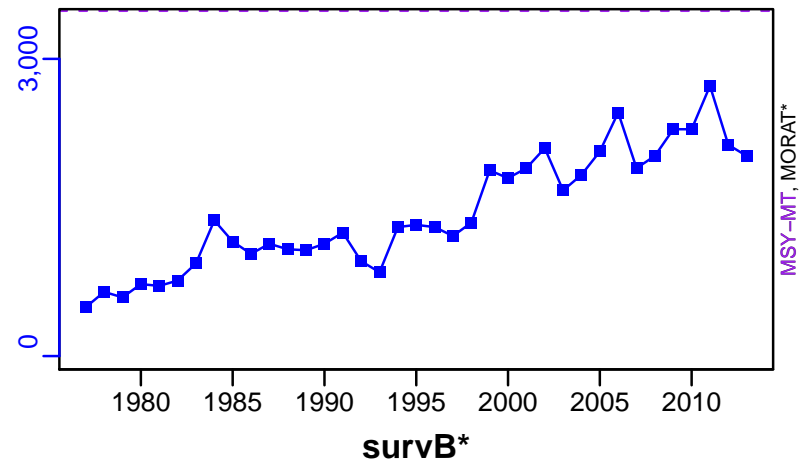


R-E00 (1977-2013-JPNIMP2016)



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

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



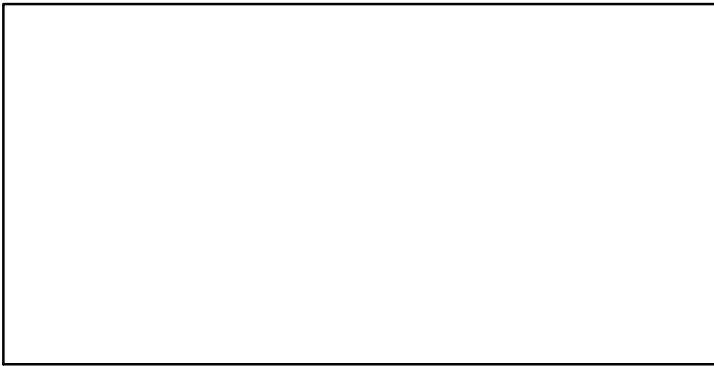
TAC\*, Cpair\*, Cadv\*



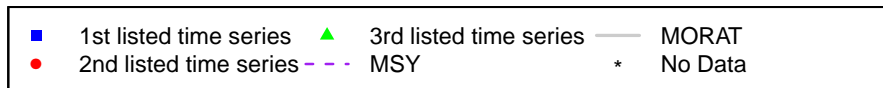
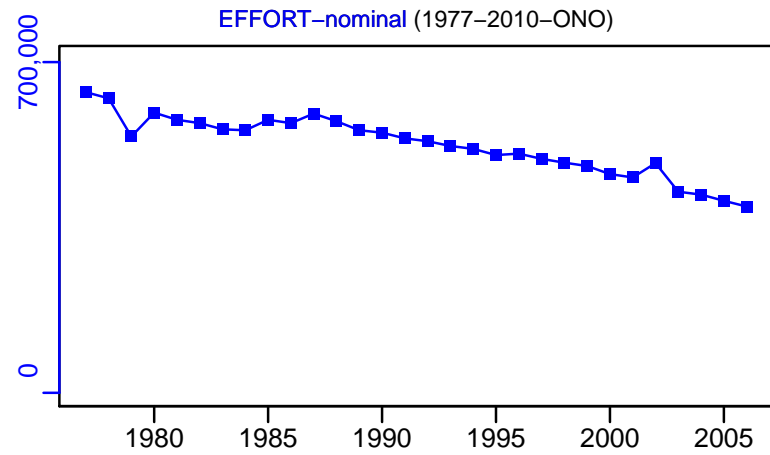
CPUE\*



survB\*



EFFORT-nominal (1977-2010-ONO)



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

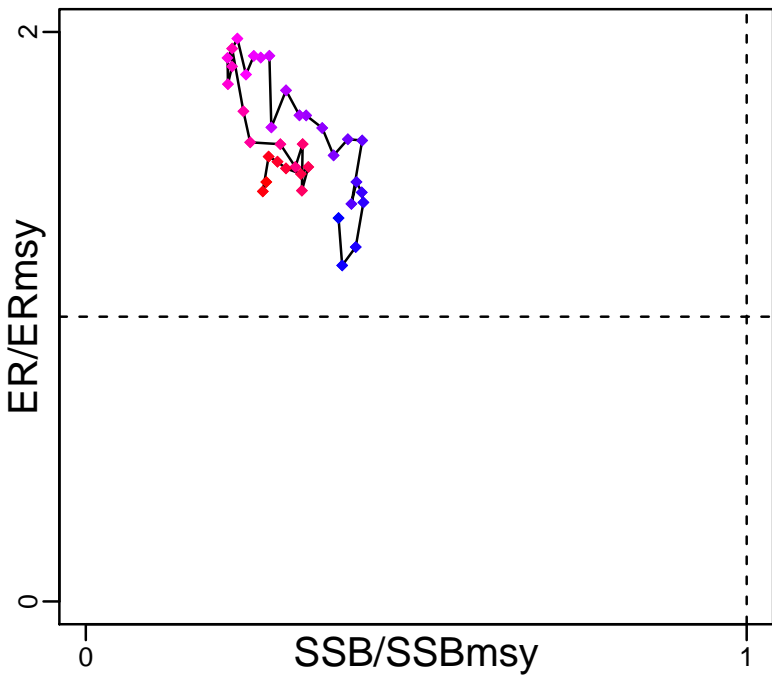
Metadata	
<b>Scientific Name</b>	Pagrus major
<b>Current Assess ID</b>	FAJ-RBRMSETOW-1977-2013-JPNIMP2016
<b>Area</b>	Inland Sea of Japan (West)
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2010, 2013

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2013	18,103
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2013	0.17
<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>	-	-	-

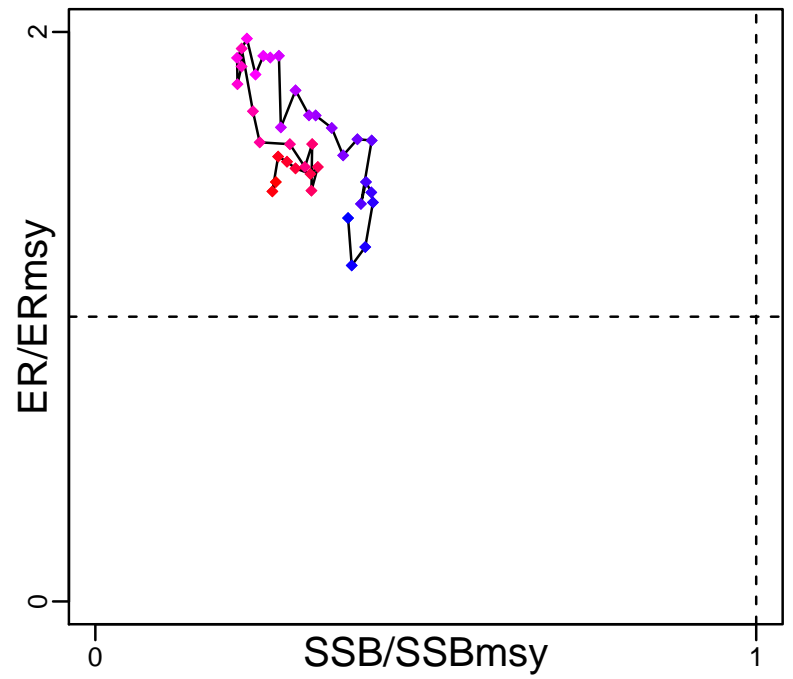
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	8620	-	0
<b>SSB</b>	SSB-MT	2013	4940	Both	3
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	8,300,000	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0	-	-
<b>TC</b>	TC-MT	2013	2200		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.27		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	1.47		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

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

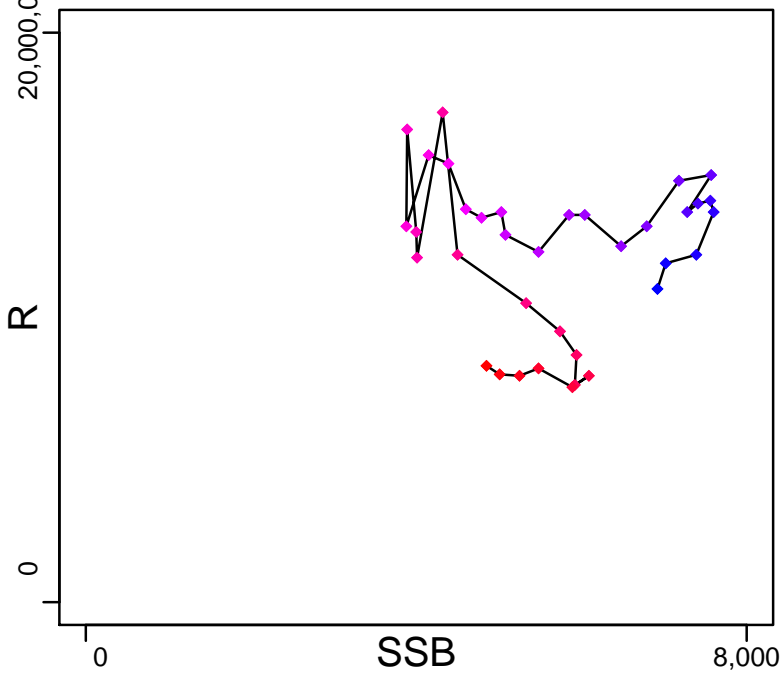
Kobe MSYpref (1977–2013–JPNIMP2016)



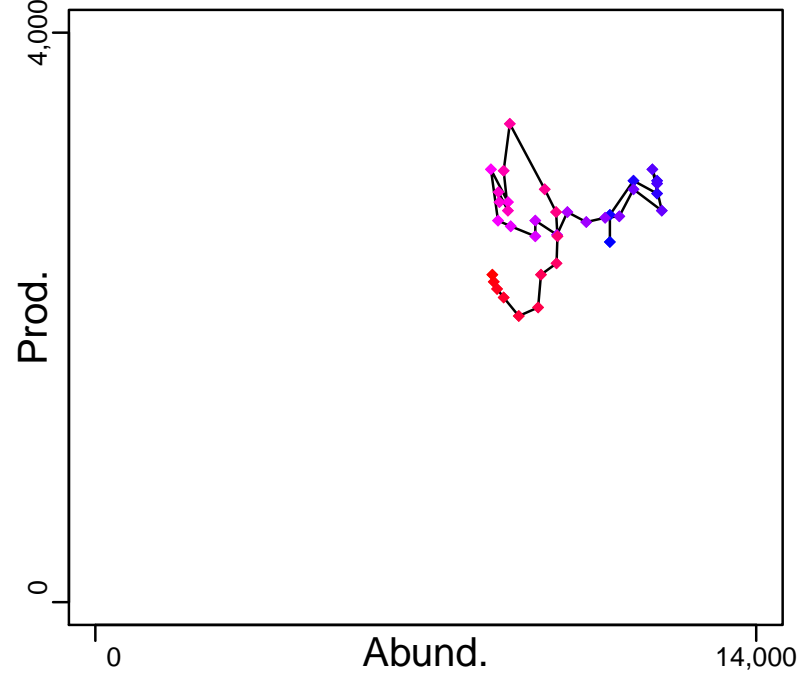
Kobe MGTpref (1977–2013–JPNIMP2016)



Spawner Recruit (1977–2013–JPNIMP2016)



Production (1977–2013–JPNIMP2016)

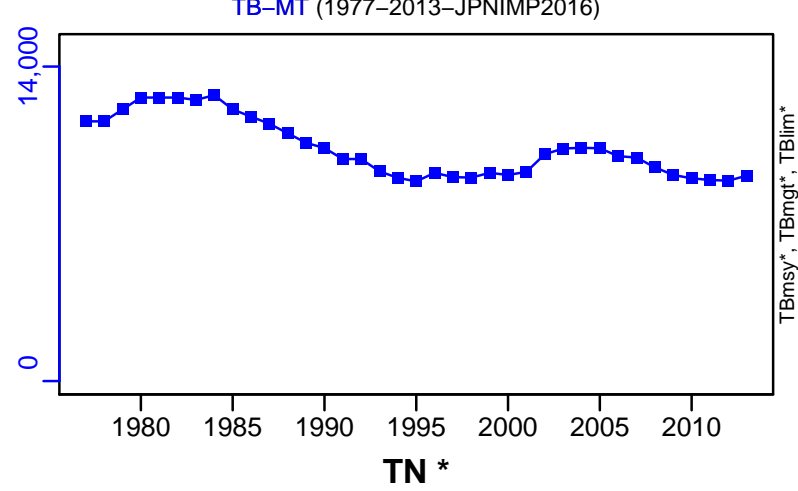


◆ Start Year ◆ End Year \* No Data

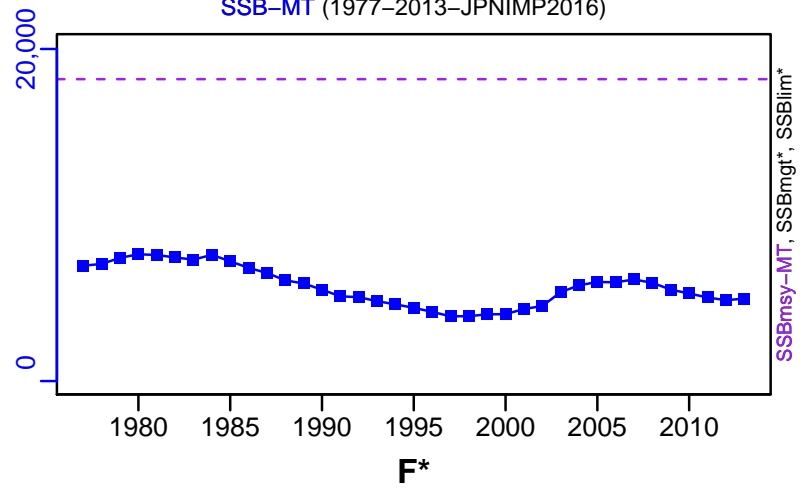


# Red seabream Inland Sea of Japan (West) [RBRMSETOW]

TB-MT (1977-2013-JPNIMP2016)

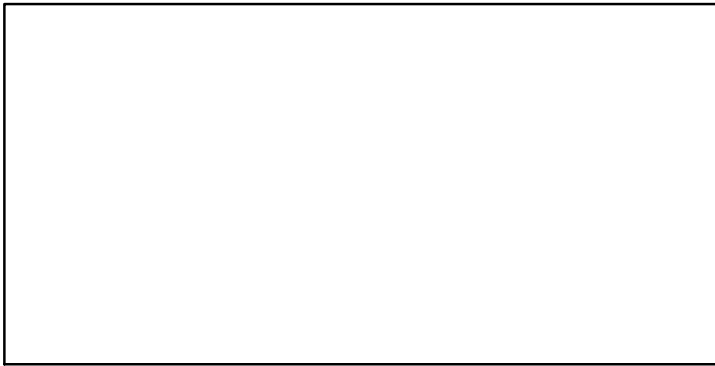


SSB-MT (1977-2013-JPNIMP2016)

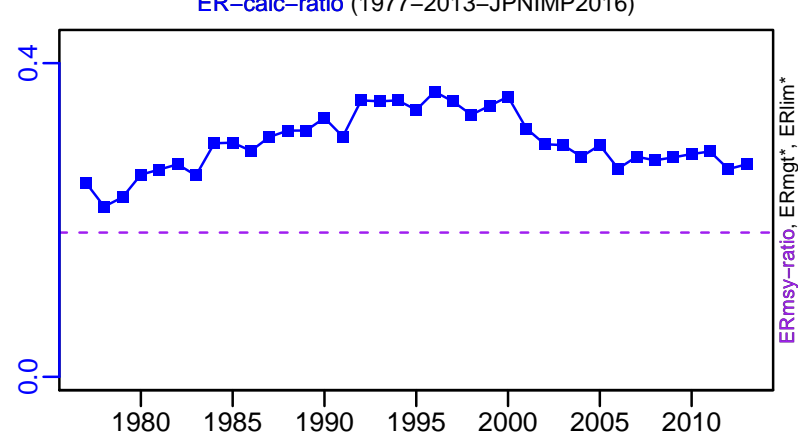


TN \*

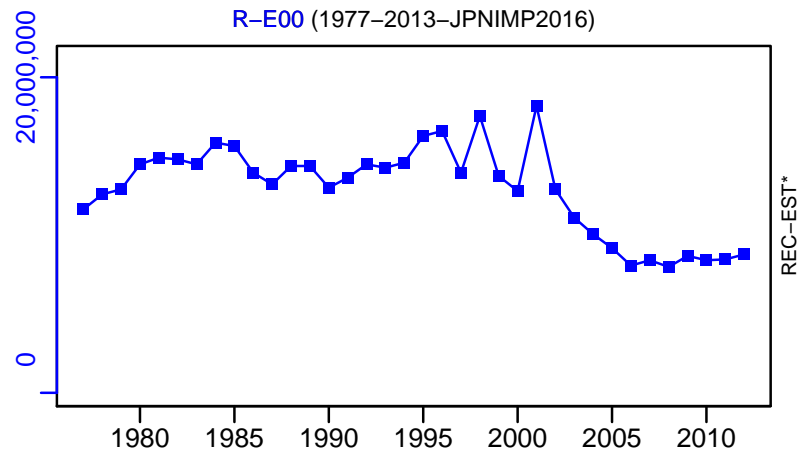
F\*



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



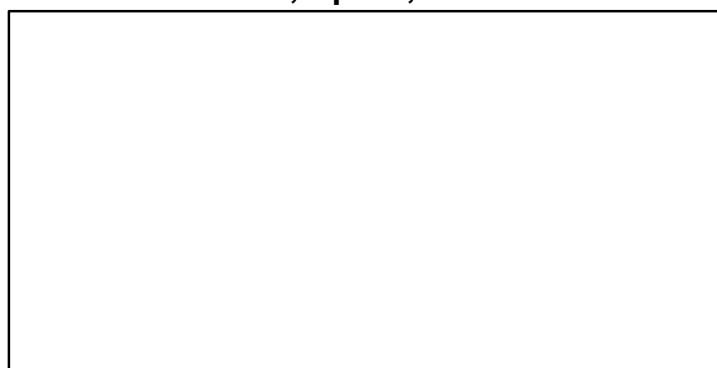
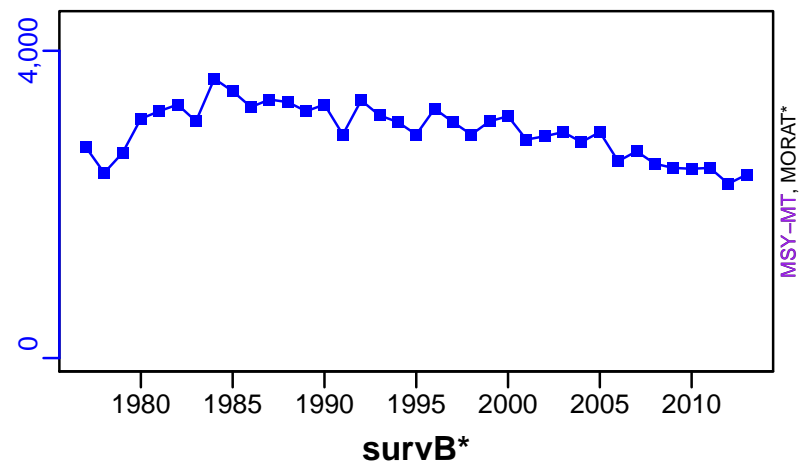
R-E00 (1977-2013-JPNIMP2016)



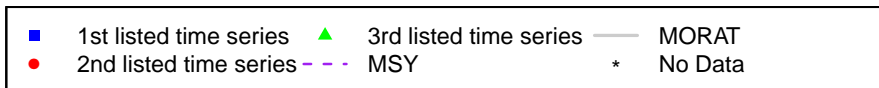
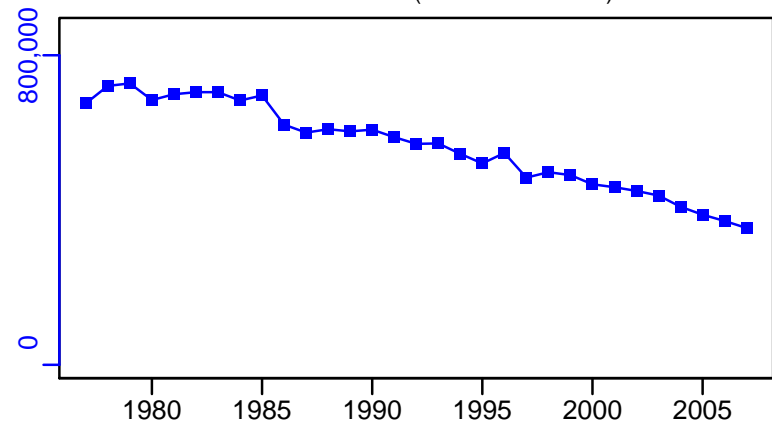
# Red seabream Inland Sea of Japan (West) [RBRMSETOW]

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

TAC\*, Cpair\*, Cadv\*



EFFORT-nominal (1977-2010-ONO)



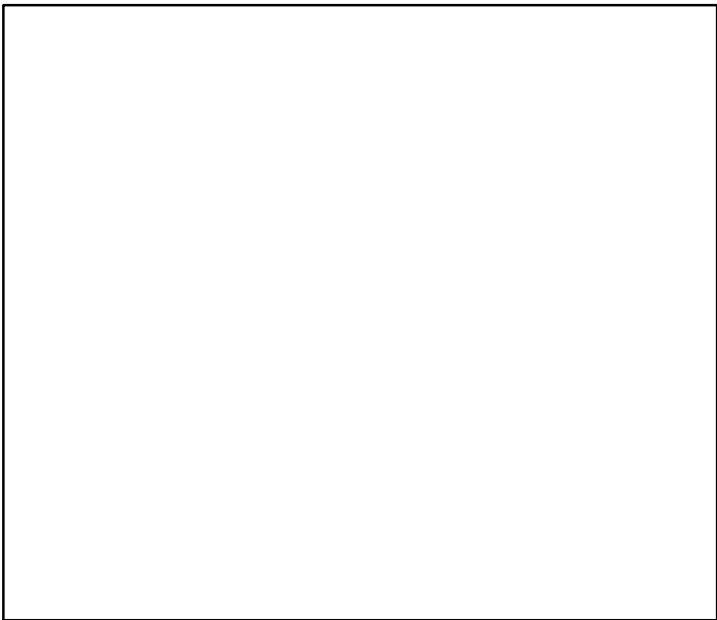
## Round herring Pacific Ocean [RHERRPAC]

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

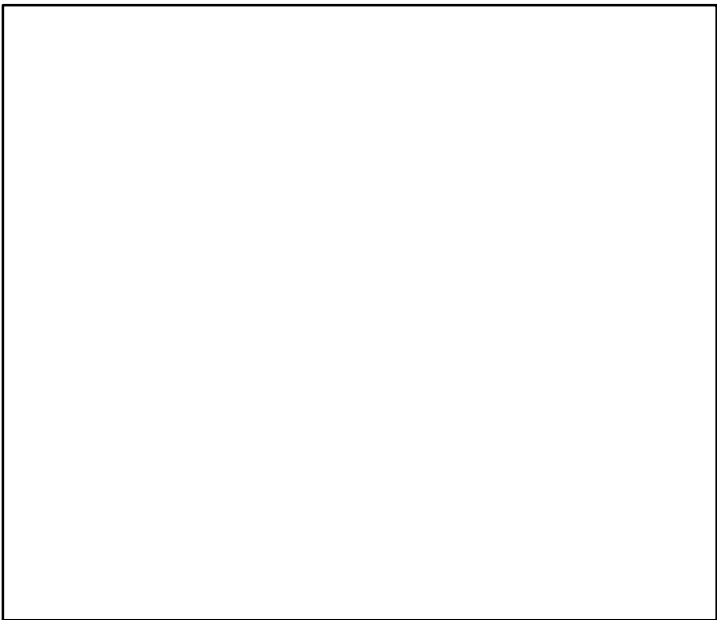
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2013	0.7
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

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

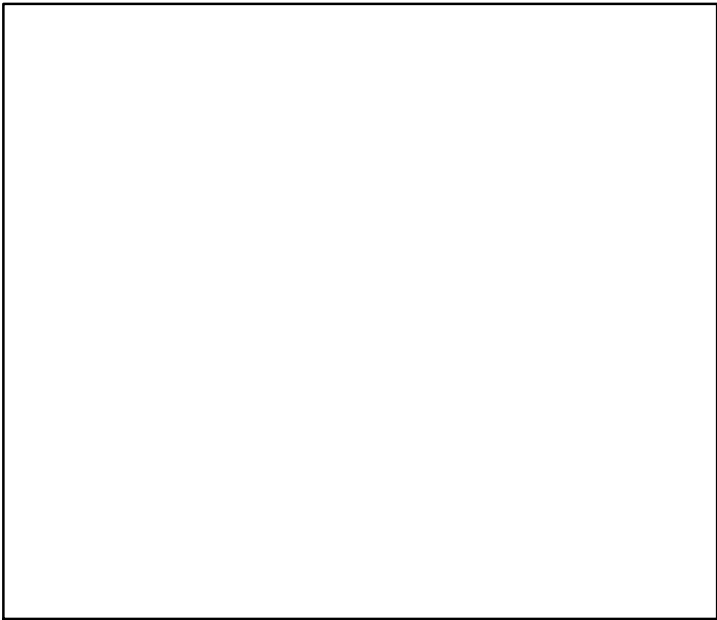
Kobe MSY\*



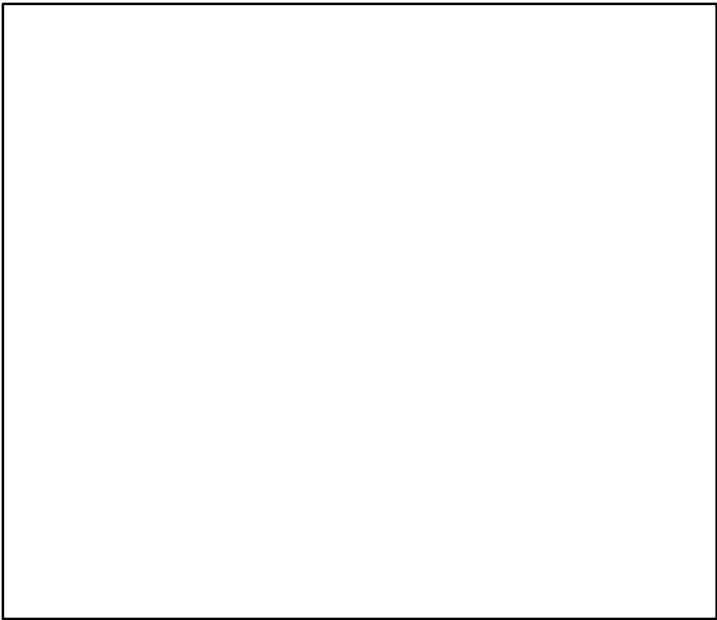
Kobe MGT\*



Spawner Recruit\*



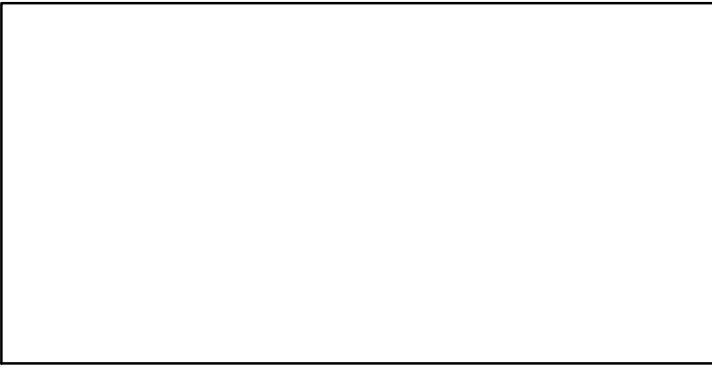
Production\*



◆ Start Year    ◆ End Year    \* No Data

Round herring Pacific Ocean [RHERRPAC]

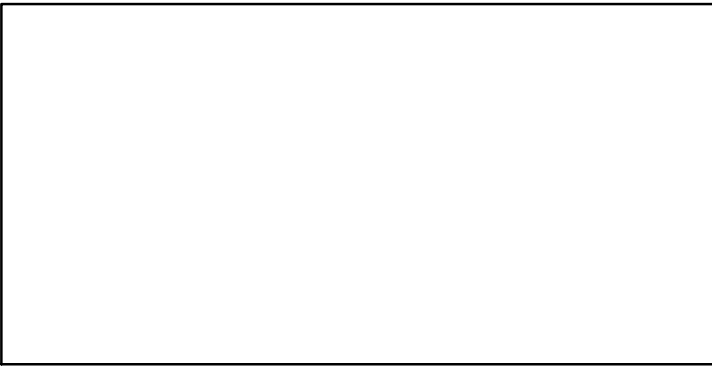
**TB\***



**SSB\***



**TN \***



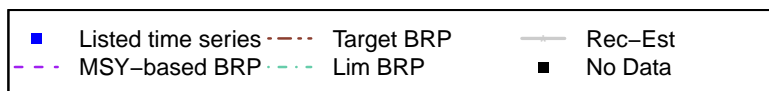
**F\***



**ER\***



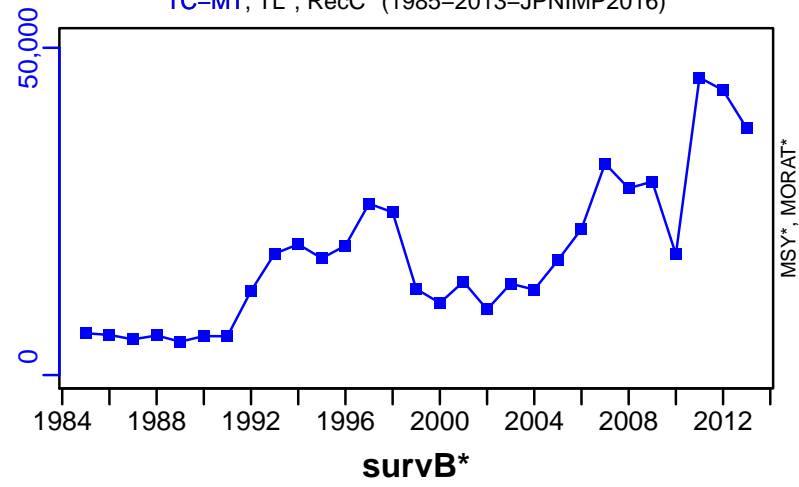
**Recruits\***



# Round herring Pacific Ocean [RHERRPAC]

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

TAC\*, Cpair\*, Cadv\*



EFFORT\*



## Round herring Tsushima Strait [RHERRTSST]

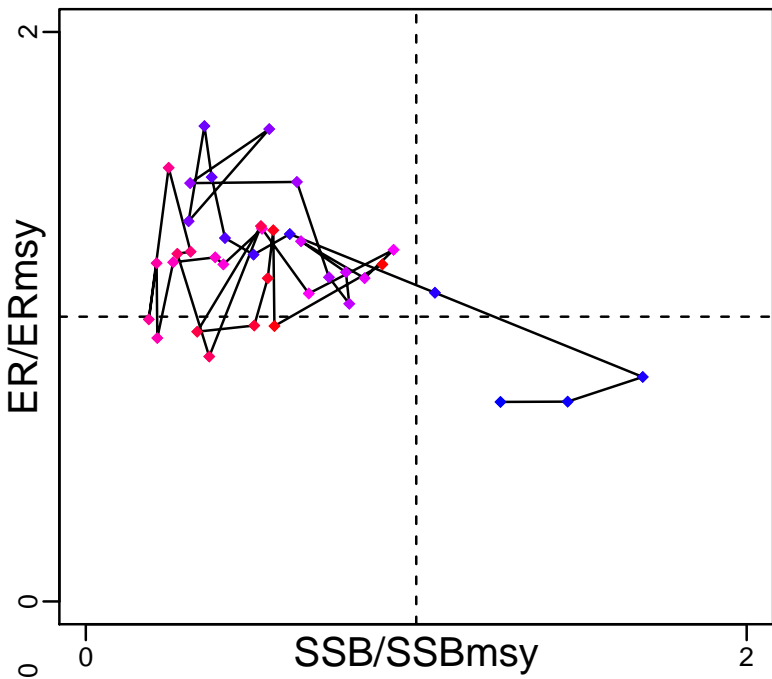
Metadata	
<b>Scientific Name</b>	Etrumeus teres
<b>Current Assess ID</b>	FAJ-RHERRTSST-1976-2013-JPNIMP2016
<b>Area</b>	Tsushima Strait
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2014, 2013

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2013	74,564
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2013	0.36
<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	2014	0.7
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2014	27,000
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

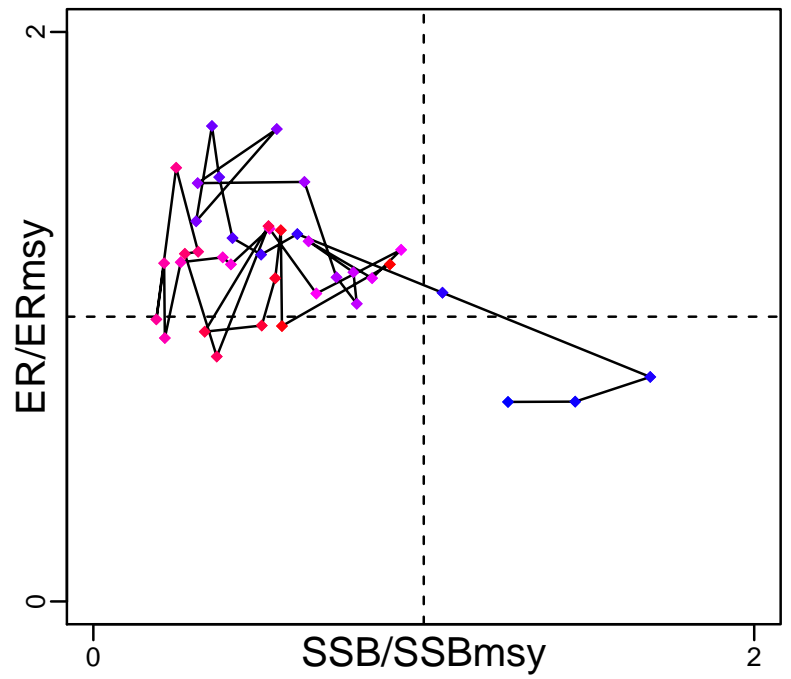
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2014	52,800	Both	0+
<b>SSB</b>	SSB-MT	2014	32,600	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2014	$1.19 \times 10^9$	Both	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2014	0	Both	0+
<b>TC</b>	TC-MT	2014	24,900		
<b>TL</b>	TL-MT	2014	24,900		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.9		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	1.18		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Round herring Tsushima Strait [RHERTSST]

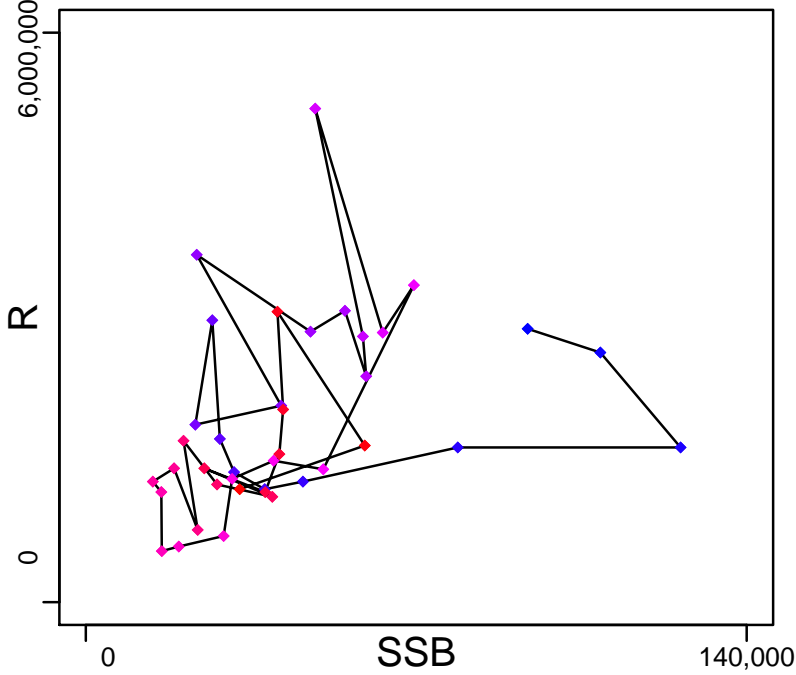
Kobe MSYpref (1976–2013–JPNIMP2016)



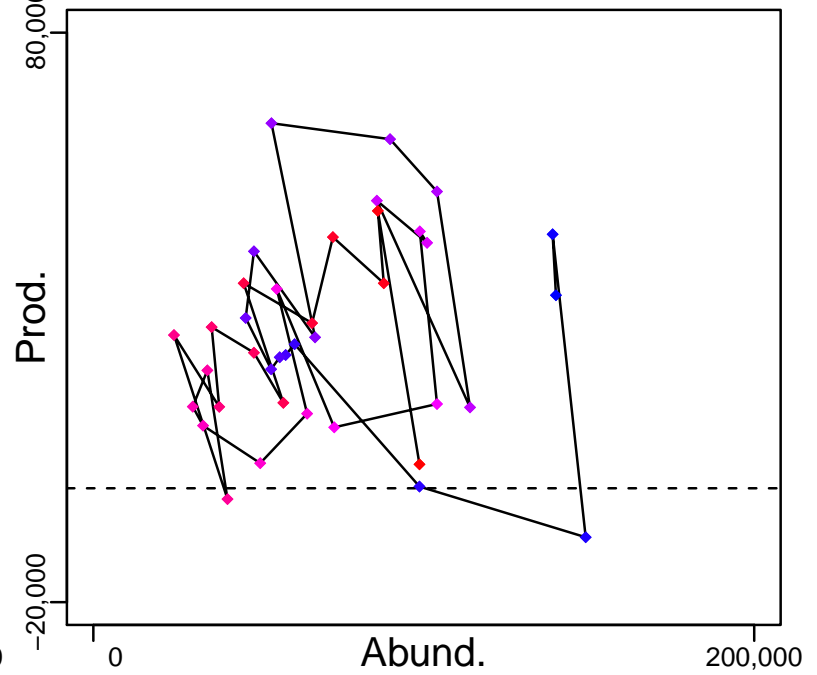
Kobe MGTpref (1976–2013–JPNIMP2016)



Spawner Recruit (1975–2014–KUROTA)



Production (1975–2014–KUROTA)

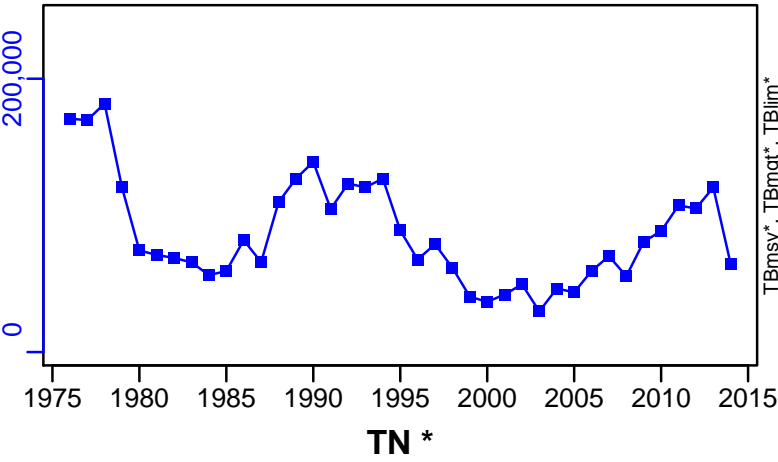


◆ Start Year ◆ End Year \* No Data

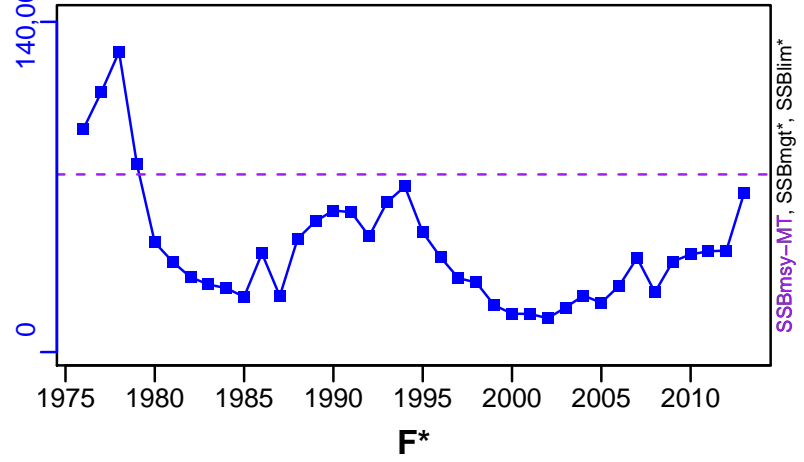


# Round herring Tsushima Strait [RHERTSST]

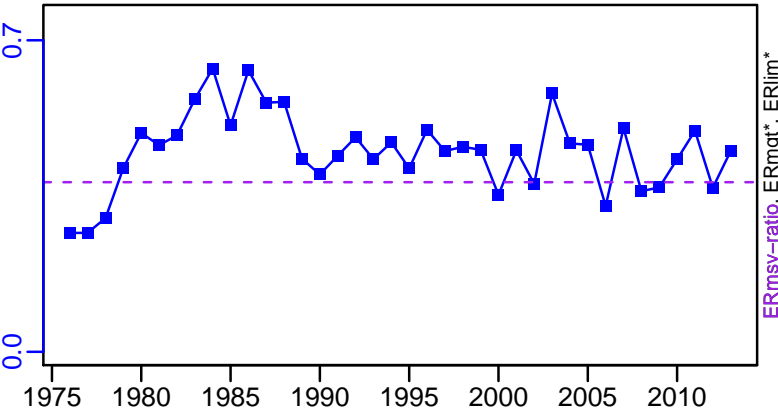
TB-MT (1975–2014–KUROTA)



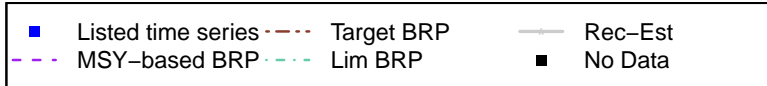
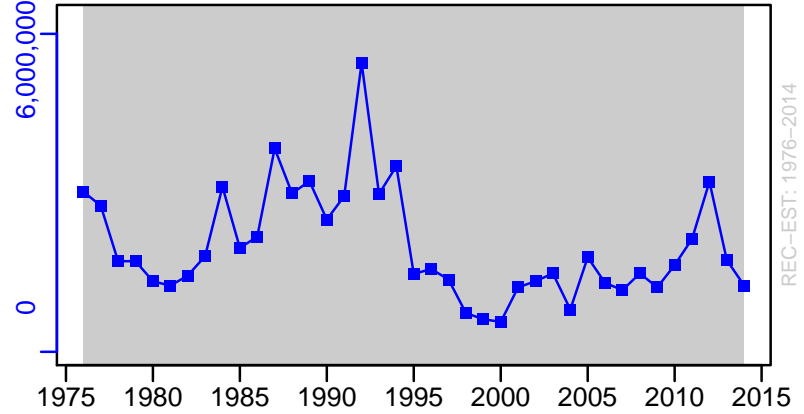
SSB-MT (1976–2013–JPNIMP2016)



ER-calc-ratio (1976–2013–JPNIMP2016)



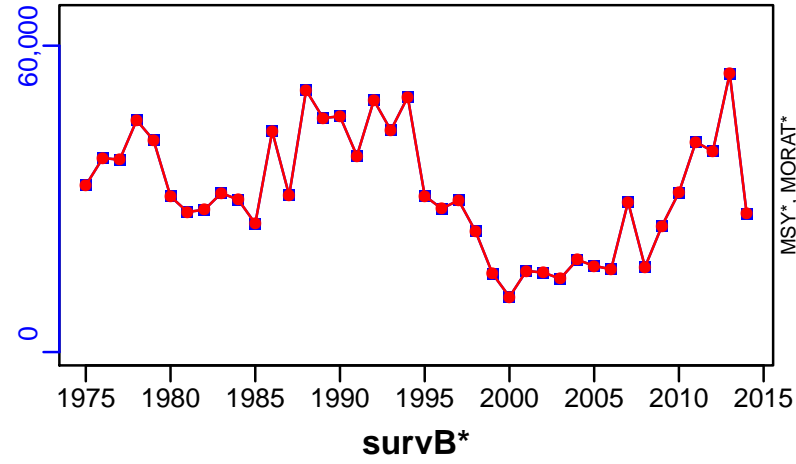
R-E00 (1975–2014–KUROTA)



# Round herring Tsushima Strait [RHERTSST]

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

TAC\*, Cpair\*, Cadv\*



CPUE\*

EFFORT\*

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

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

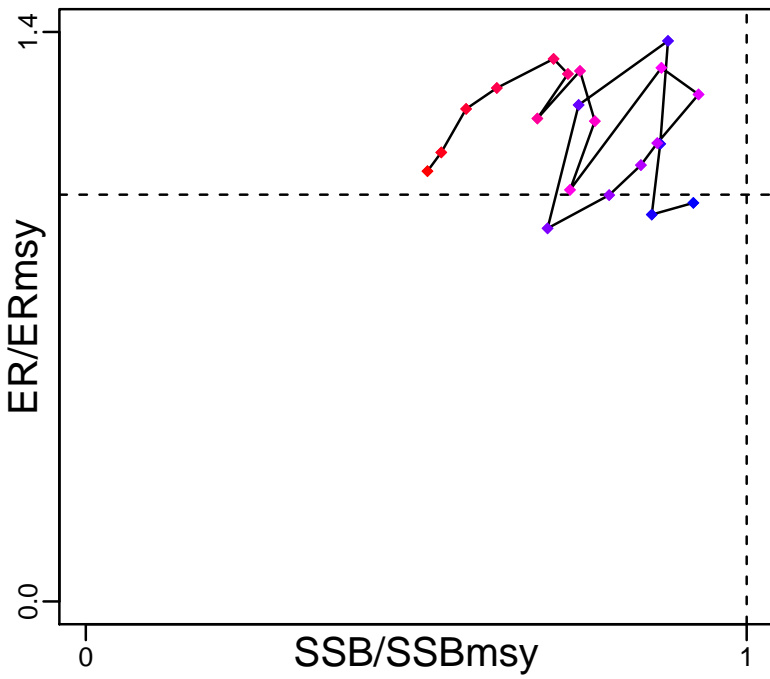
Metadata	
<b>Scientific Name</b>	Eopsetta grigorjewi
<b>Current Assess ID</b>	FAJ-RSFLOUNSOJ-1966-2013-JPNIMP2016
<b>Area</b>	Sea of Japan
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2013

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2013	3830
<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	1569
<b>M</b>	M-1/yr	2013	0.35
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

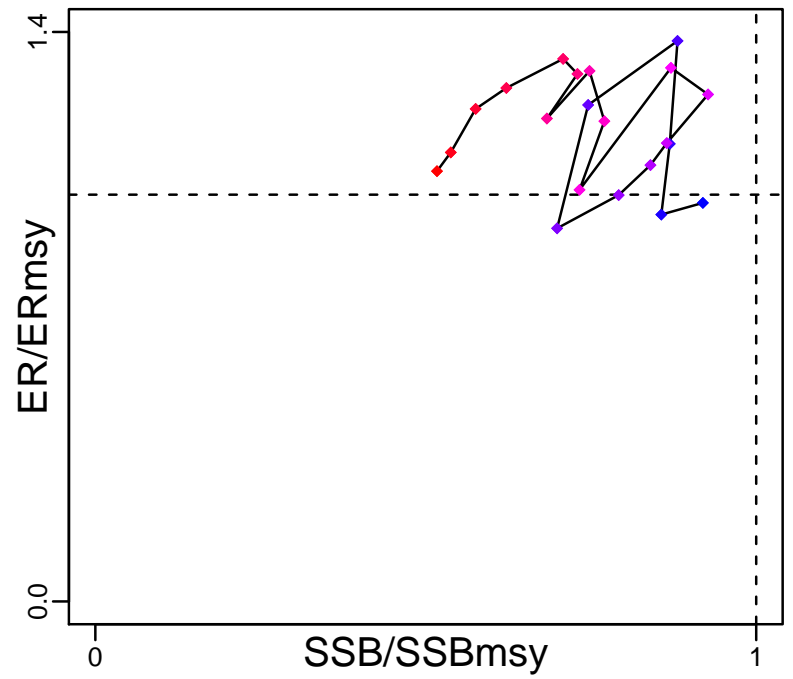
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	2740	-	1
<b>SSB</b>	SSB-MT	2013	1980	Both	3
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	15,100,000	-	1
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0	-	-
<b>TC</b>	TC-MT	2013	826		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	0.52		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	1.06		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Round-nose flounder Sea of Japan [RSFLOUNSOJ]

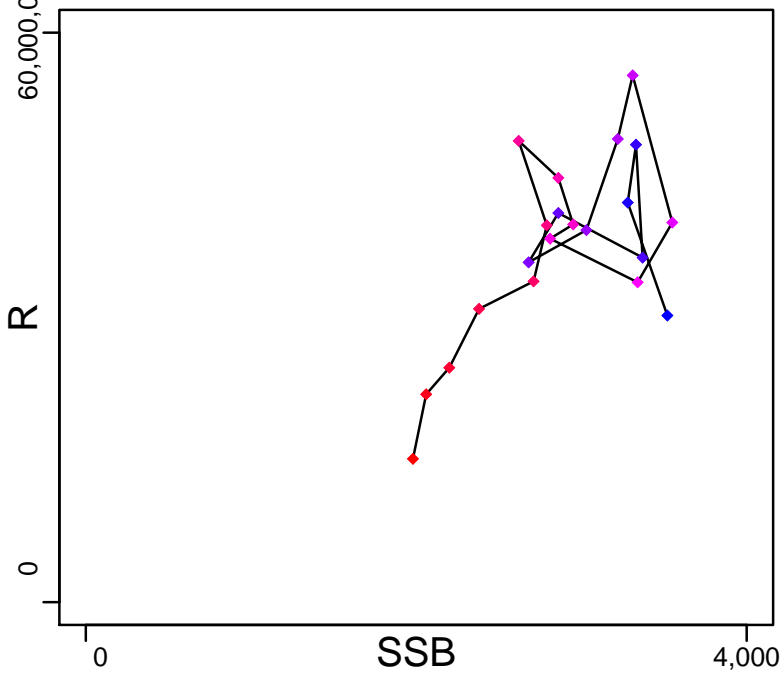
Kobe MSYpref (1966–2013–JPNIMP2016)



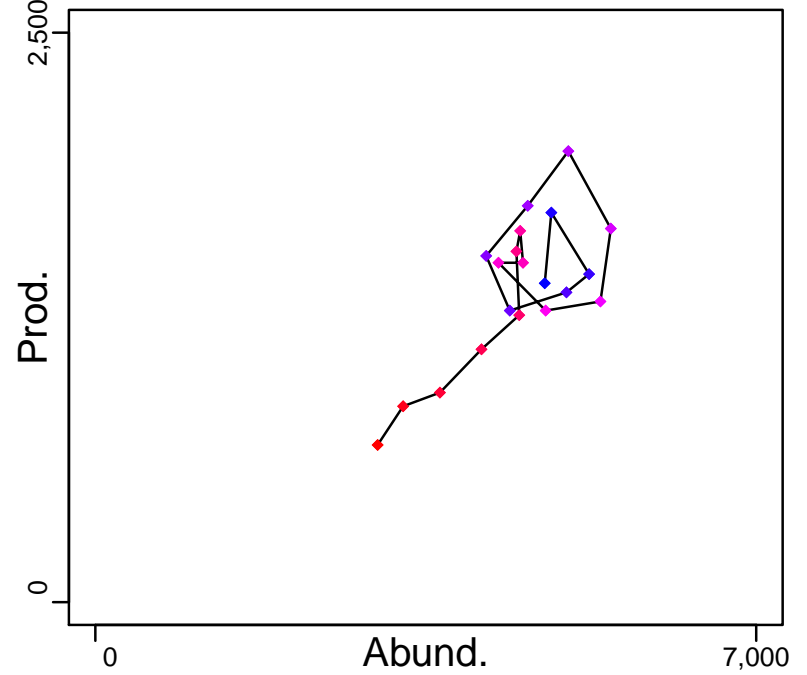
Kobe MGTpref (1966–2013–JPNIMP2016)



Spawner Recruit (1966–2013–JPNIMP2016)



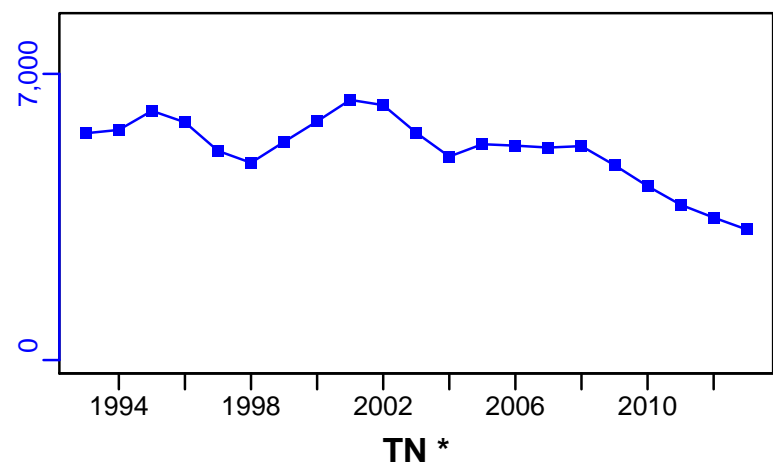
Production (1966–2013–JPNIMP2016)



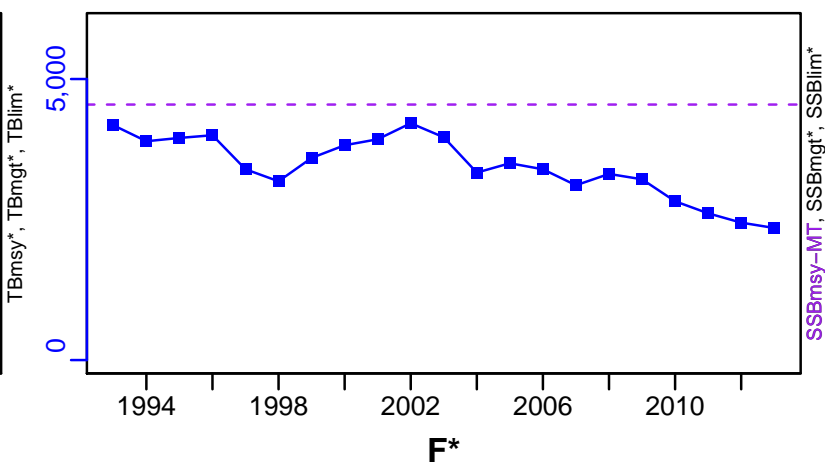
◆ Start Year ◆ End Year \* No Data

# Round-nose flounder Sea of Japan [RSFLOUNSOJ]

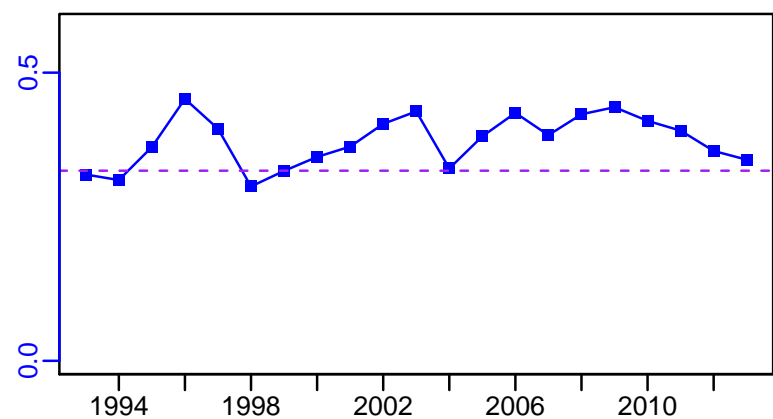
TB-MT (1966-2013-JPNIMP2016)



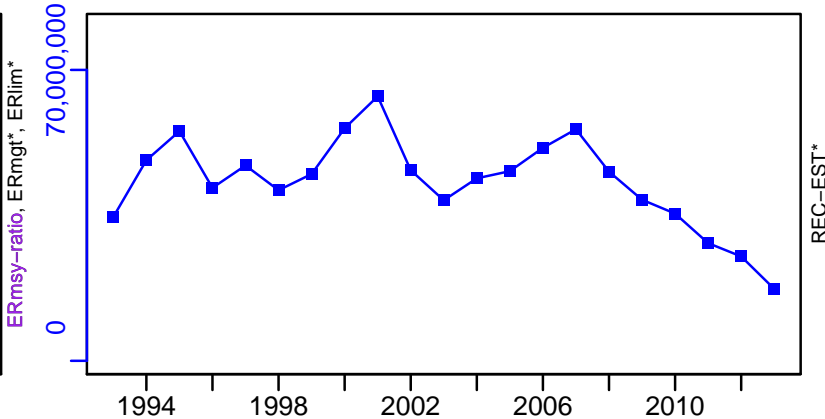
SSB-MT (1966-2013-JPNIMP2016)



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

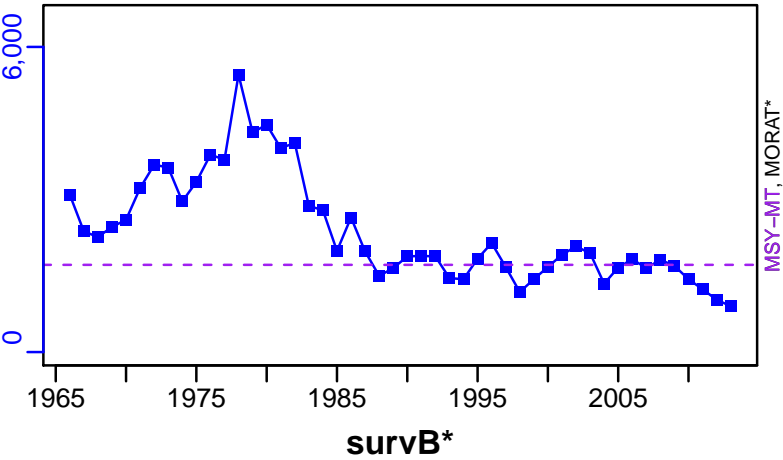


R-E00 (1966-2013-JPNIMP2016)



Round-nose flounder Sea of Japan [RSFLOUNSOJ]

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



TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



## Roughscale sole North Pacific [RSSOLENPAC]

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

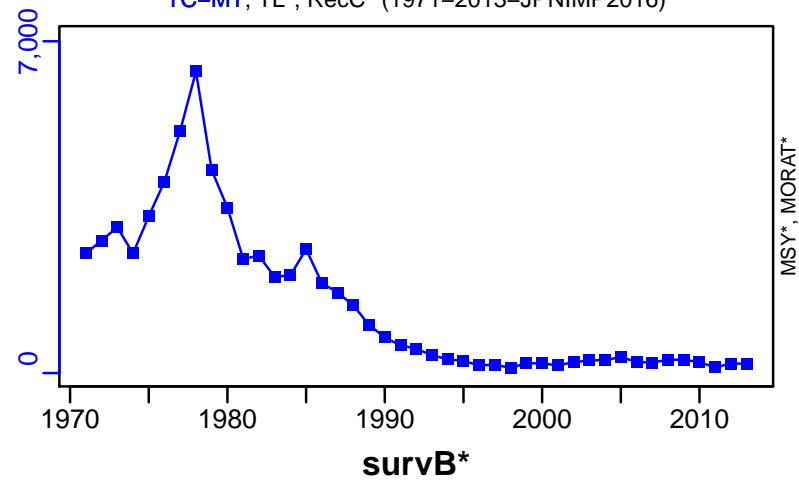


Recruits\*



Roughscale sole North Pacific [RSSOLENPAC]

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



TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



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

## Pacific saury Northwest Pacific [SAURNWPAC]

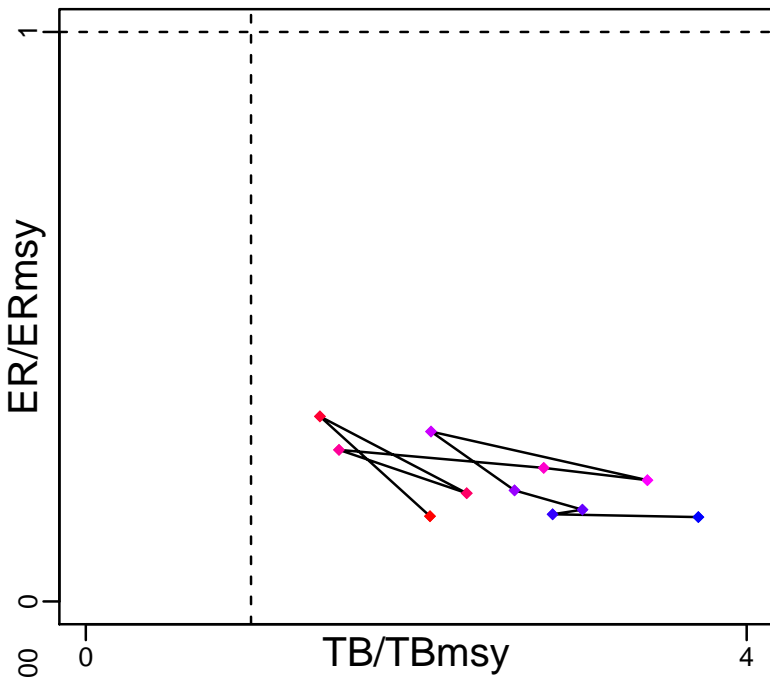
Metadata	
<b>Scientific Name</b>	Cololabis saira
<b>Current Assess ID</b>	FAJ-SAURNWPAC-1980-2013-JPNIMP2016
<b>Area</b>	Northwest Pacific
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2010, 2013

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>	-	-	-

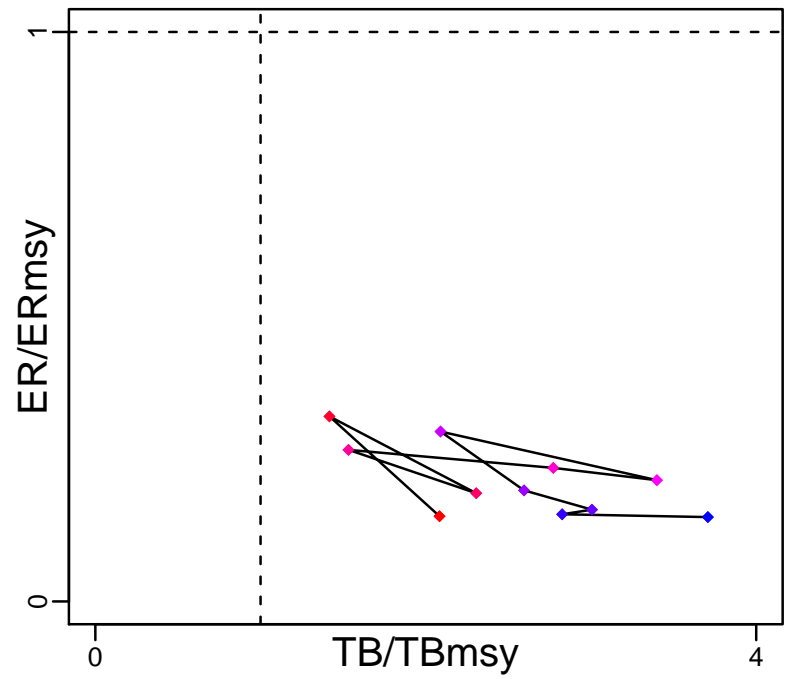
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	2,820,000	-	0
<b>SSB</b>	SSB-MT	2013	1,410,000	Both	1
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	$5.27 \times 10^{10}$	-	0
<b>F</b>	F-1/yr	2010	0	-	0 to 1
<b>ER</b>	ER-calc-ratio	2013	0	-	-
<b>TC</b>	TC-MT	2013	148,000		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2013	2.08		
<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]

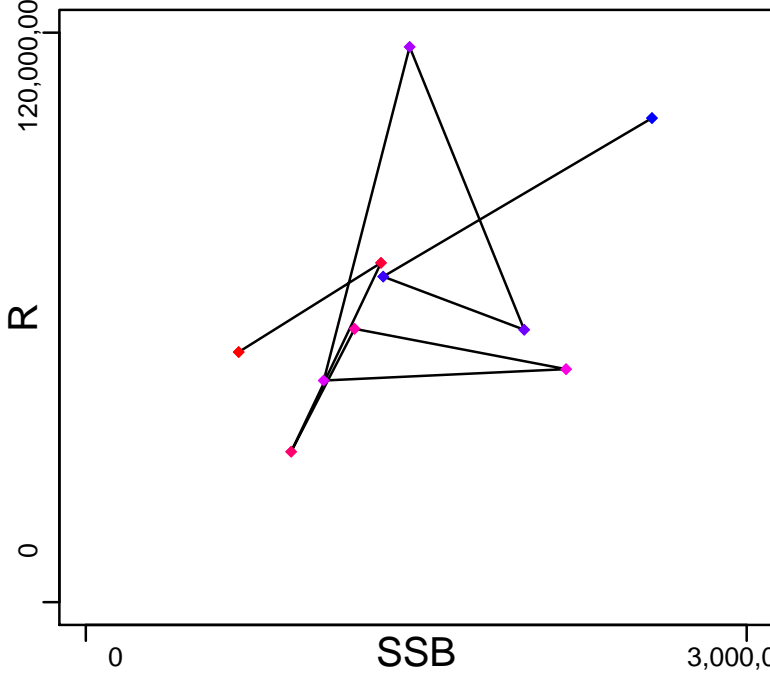
Kobe MSYpref (1980–2013–JPNIMP2016)



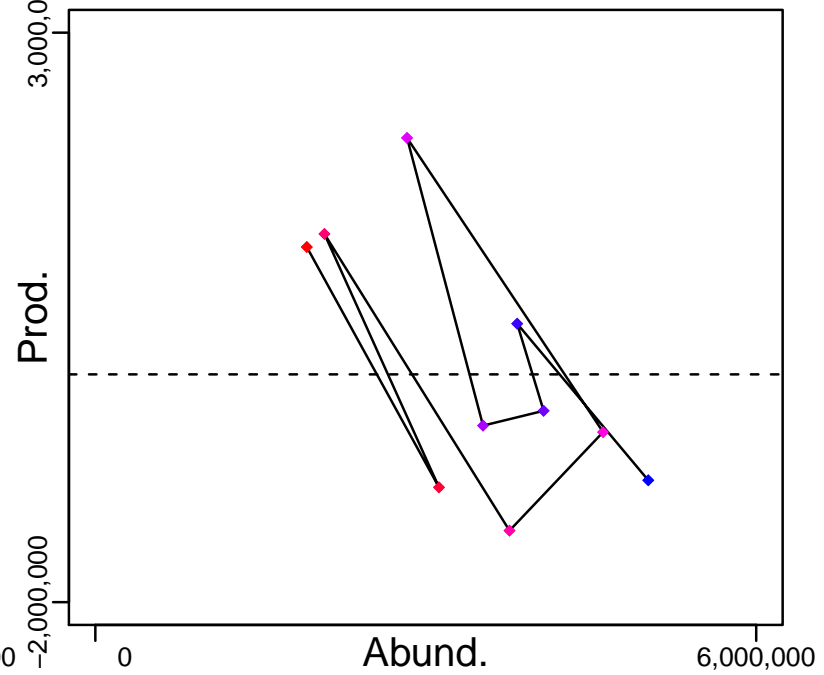
Kobe MGTpref (1980–2013–JPNIMP2016)



Spawner Recruit (1980–2013–JPNIMP2016)



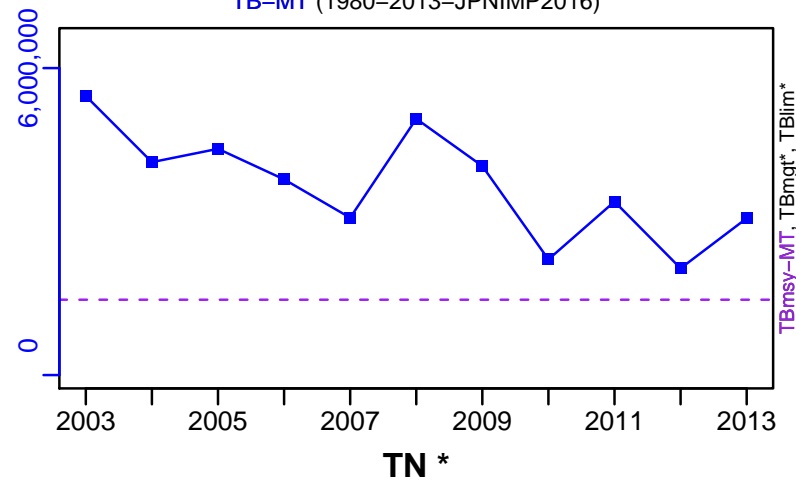
Production (1980–2013–JPNIMP2016)



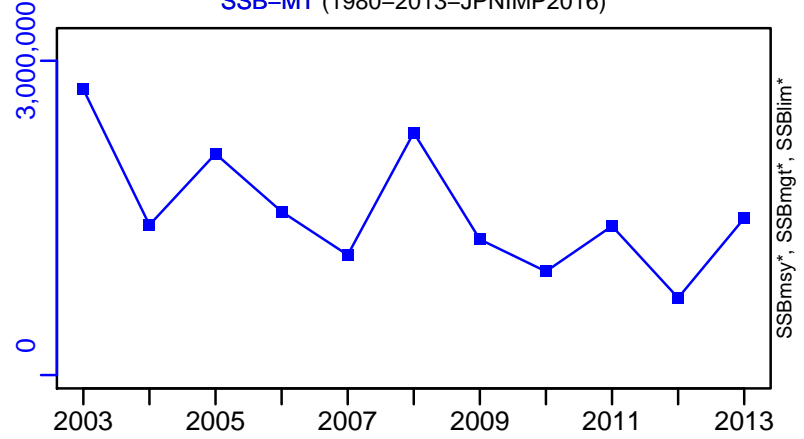
◆ Start Year ◆ End Year \* No Data

# Pacific saury Northwest Pacific [SAURNWPAC]

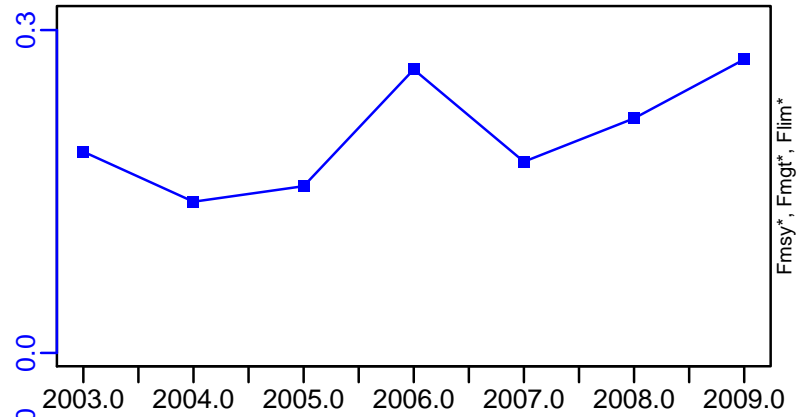
TB-MT (1980-2013-JPNIMP2016)



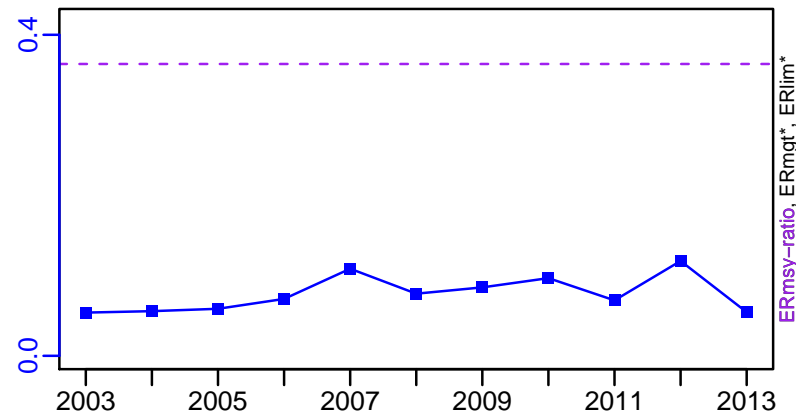
SSB-MT (1980-2013-JPNIMP2016)



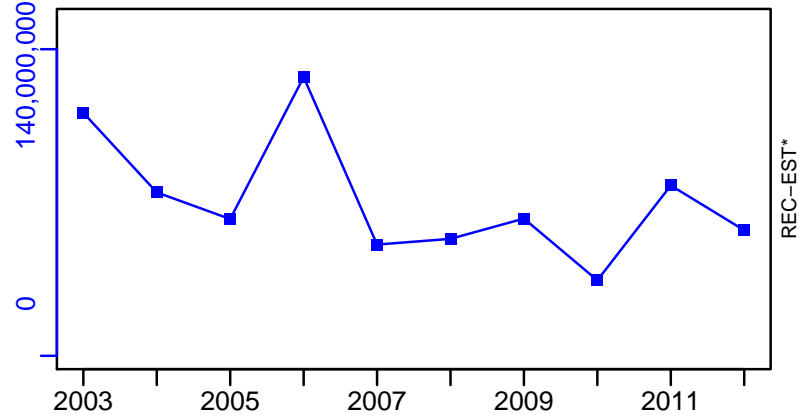
F-1/yr (1980-2010-ONO)



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



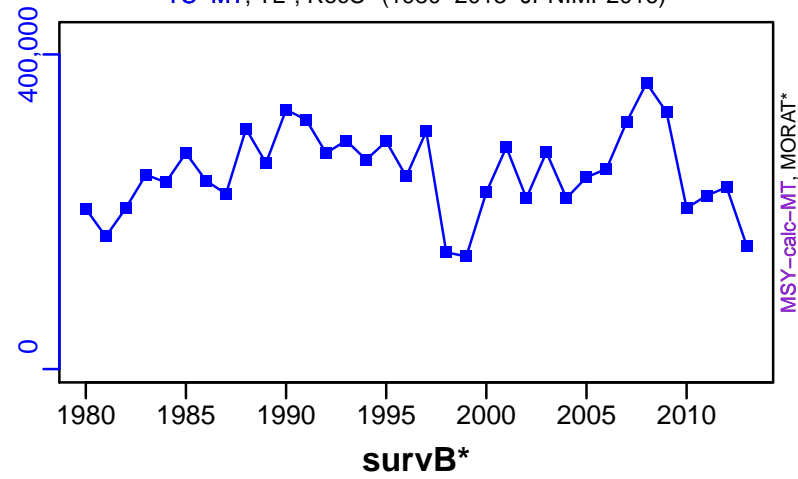
R-E00 (1980-2013-JPNIMP2016)



# Pacific saury Northwest Pacific [SAURNWPAC]

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

TAC\*, Cpair\*, Cadv\*



EFFORT\*



## Shako Ise and Mikawa Bay [SHAKOIMKB]

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

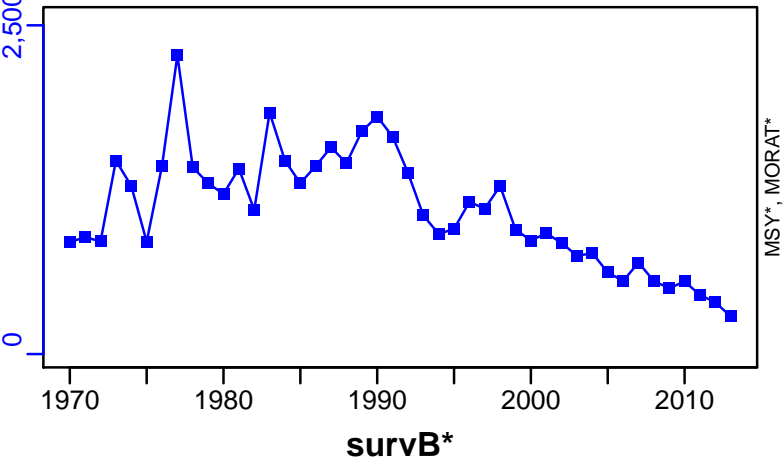


Recruits\*



Shako Ise and Mikawa Bay [SHAKOIMKB]

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



TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



## Snow crab Sea of Japan East [SNOWCRABESJ]

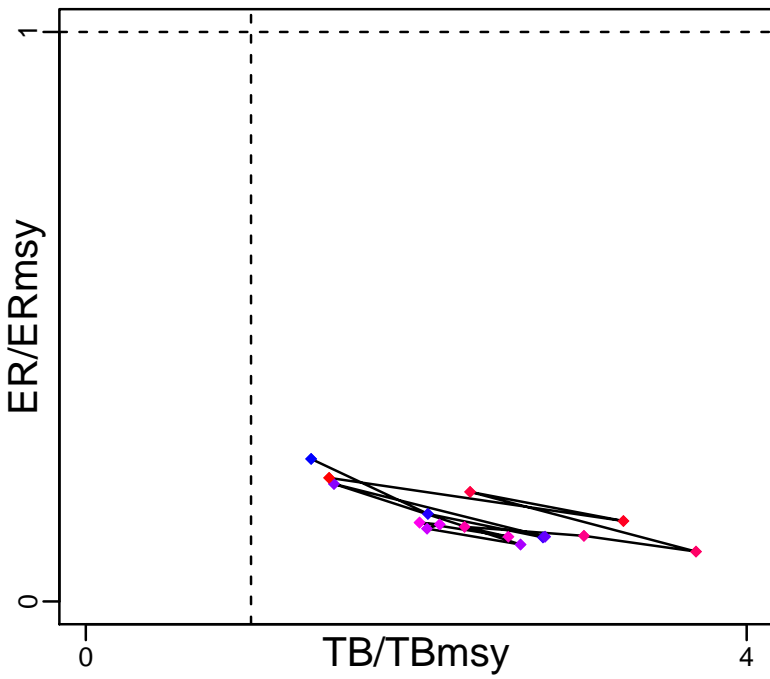
Metadata	
<b>Scientific Name</b>	Chionoecetes opilio
<b>Current Assess ID</b>	FAJ-SNOWCRABESJ-1998-2014-JPNIMP2016
<b>Area</b>	Sea of Japan East
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2014

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	0.7
<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>	-	-	-

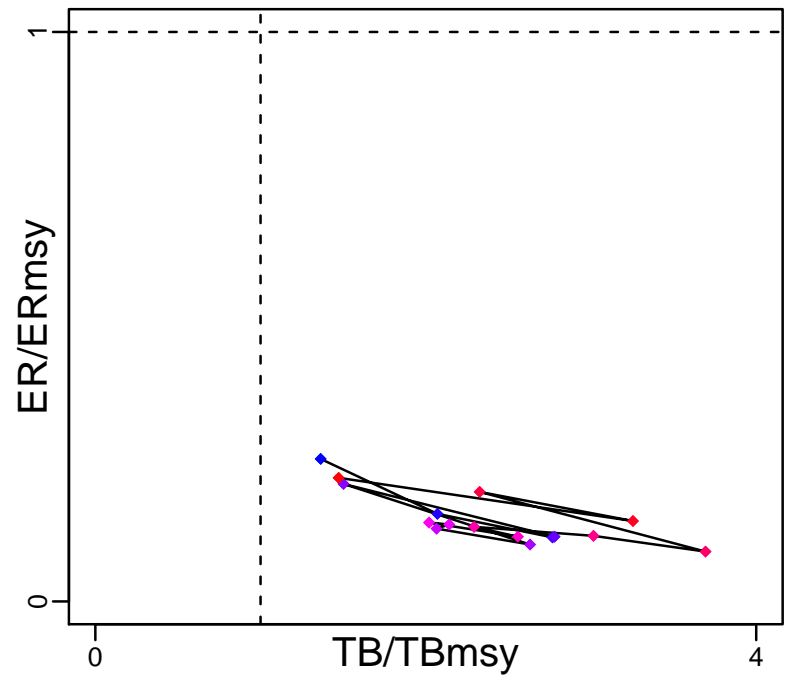
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2014	3280	-	6
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2014	0	-	-
<b>TC</b>	TC-MT	2014	265		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2014	2.75		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2014	0.22		
<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)



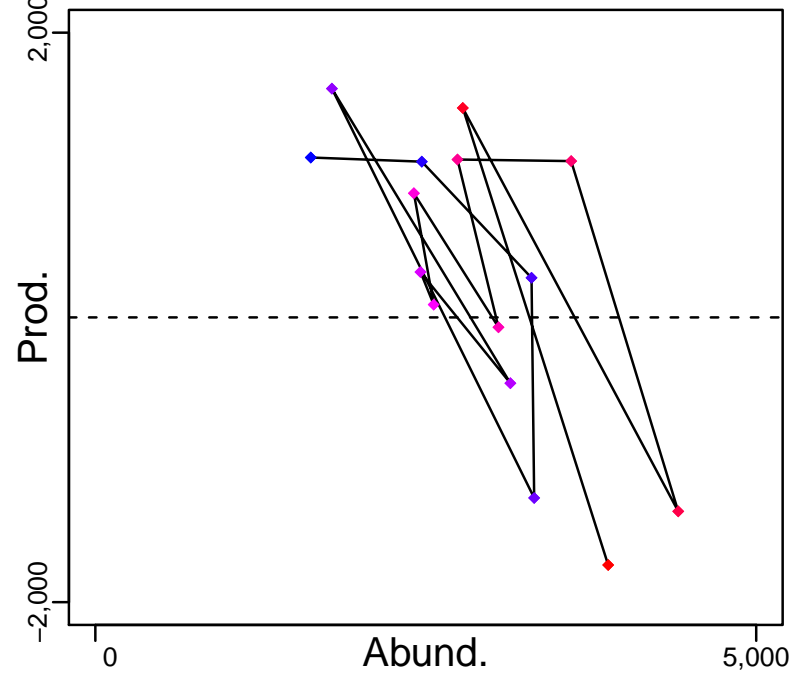
Kobe MGTpref (1998–2014–JPNIMP2016)



Spawner Recruit\*



Production (1998–2014–JPNIMP2016)

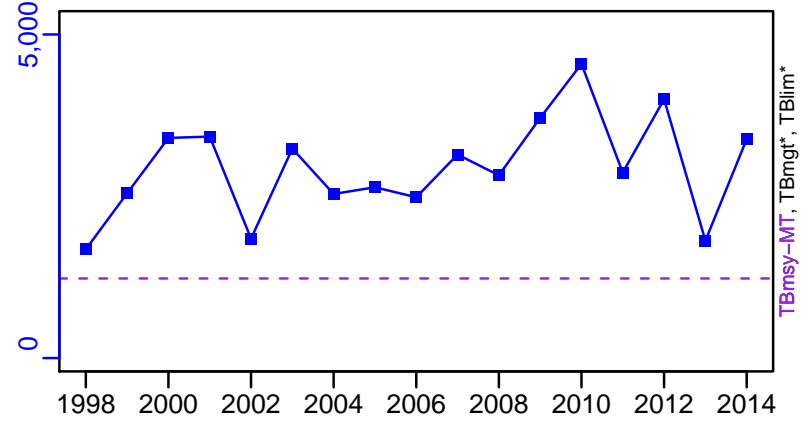


◆ Start Year ◆ End Year \* No Data

# Snow crab Sea of Japan East [SNOWCRABESJ]

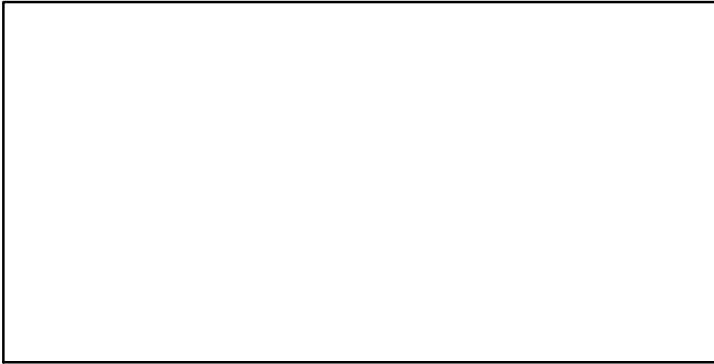
TB-MT (1998-2014-JPNIMP2016)

SSB\*



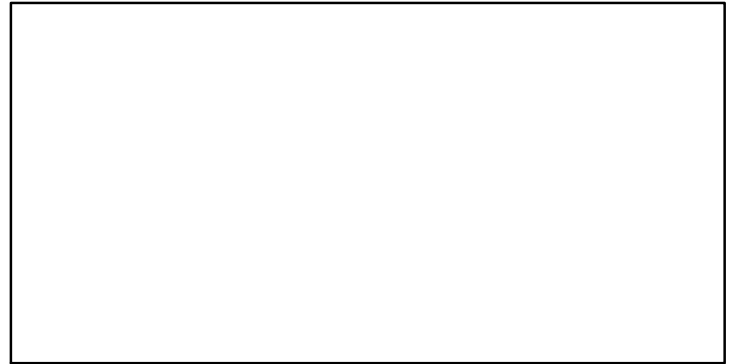
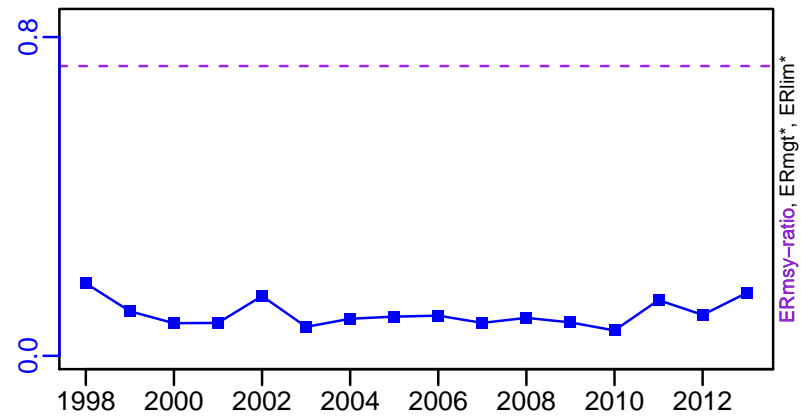
TN \*

F\*



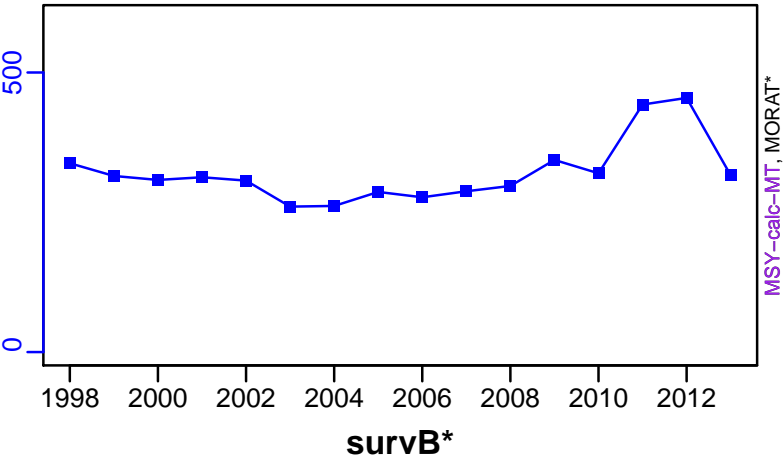
ER-calc-ratio (1998-2014-JPNIMP2016)

Recruits\*



Snow crab Sea of Japan East [SNOWCRABESJ]

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



TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



## Snow crab Hokkaido [SNOWCRABHOKK]

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



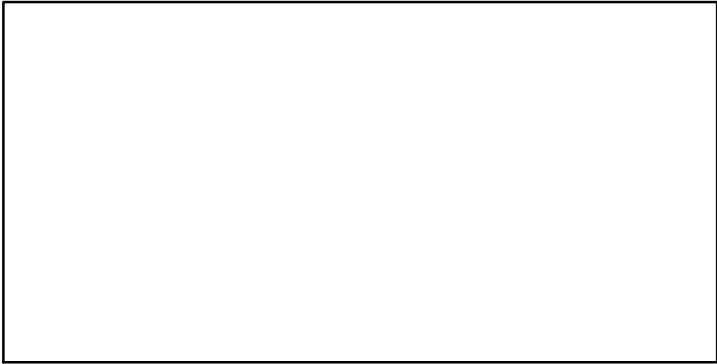
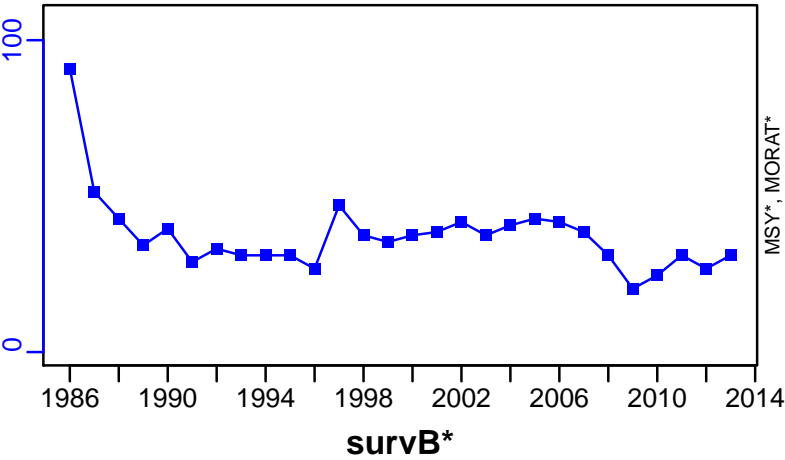
Recruits\*



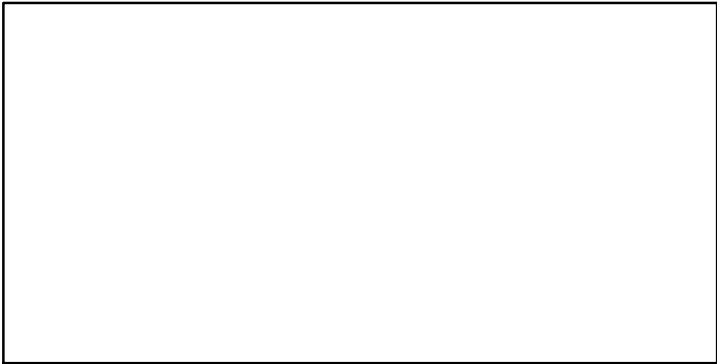
Snow crab Hokkaido [SNOWCRABHOKK]

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

TAC\*, Cpair\*, Cadv\*



EFFORT\*



## Snow crab North Pacific [SNOWCRABNPAC]

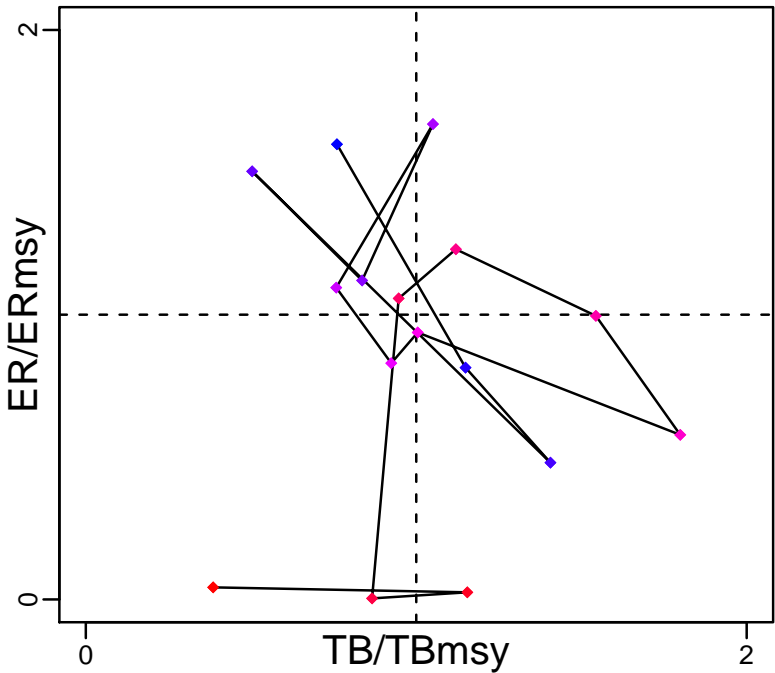
Metadata	
<b>Scientific Name</b>	Chionoecetes opilio
<b>Current Assess ID</b>	FAJ-SNOWCRABNPAC-1992-2013-JPNIMP2016
<b>Area</b>	North Pacific
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2013

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	0.16
<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>	-	-	-

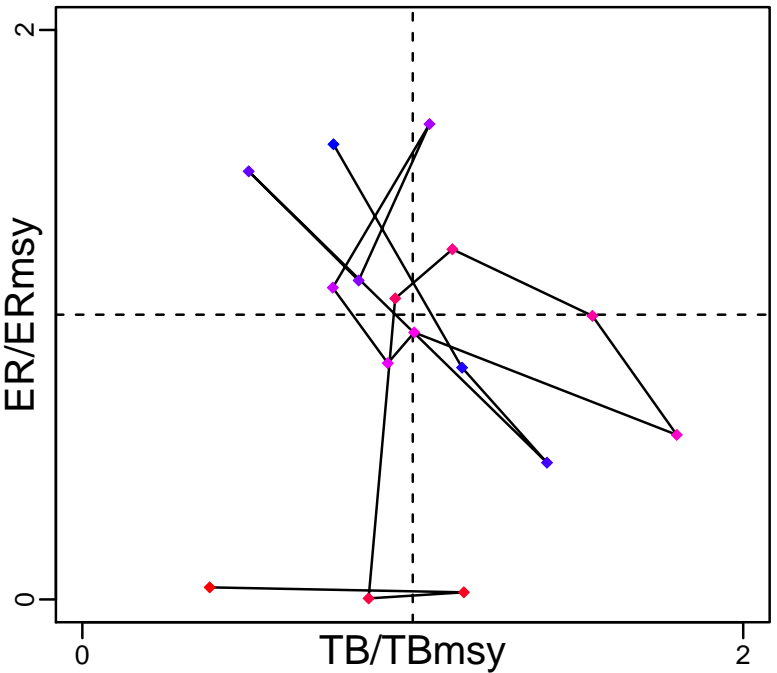
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	381	-	7
<b>SSB</b>	SSB-MT	2013	83	Females	8
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	2,620,000	-	7
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0	-	-
<b>TC</b>	TC-MT	2013	2.6		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2013	0.39		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	0.04		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

Snow crab North Pacific [SNOWCRABNPAC]

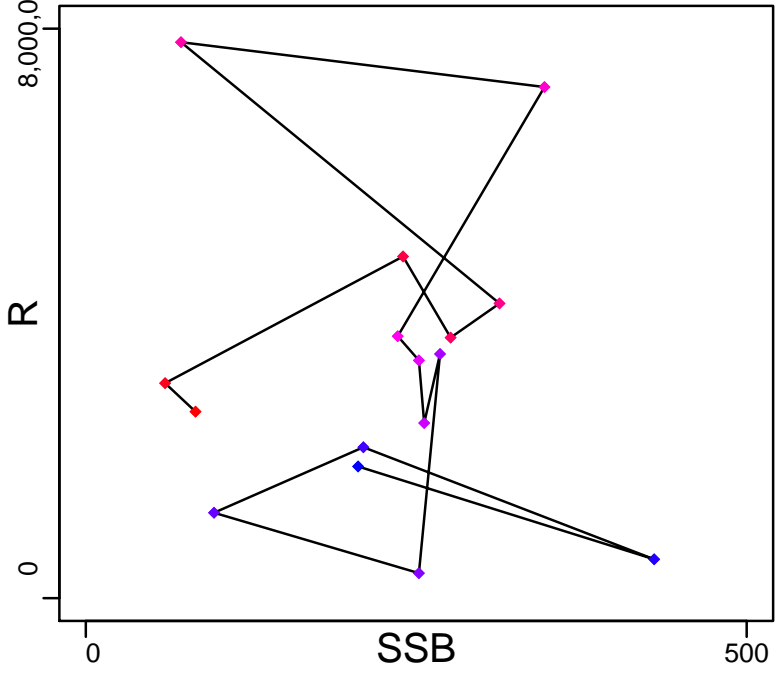
Kobe MSYpref (1992–2013–JPNIMP2016)



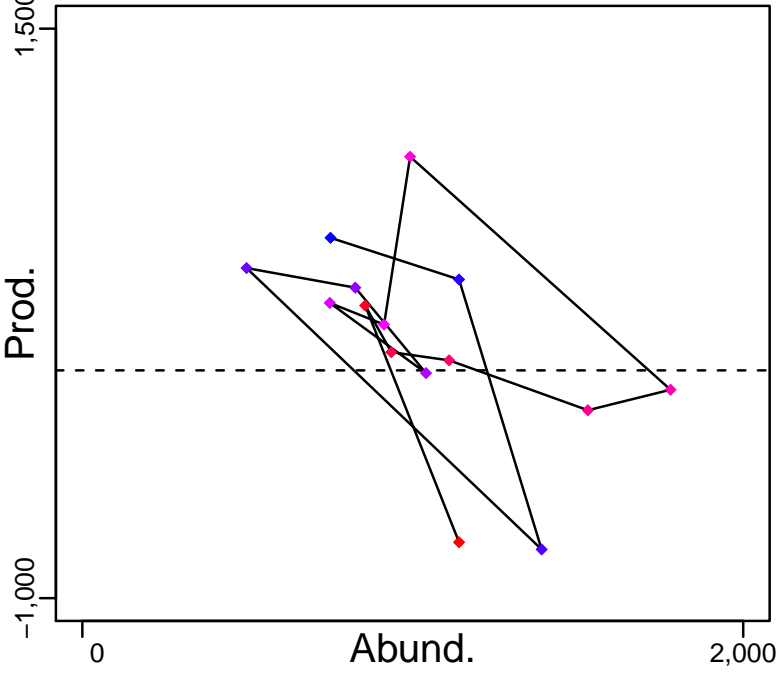
Kobe MGTpref (1992–2013–JPNIMP2016)



Spawner Recruit (1992–2013–JPNIMP2016)



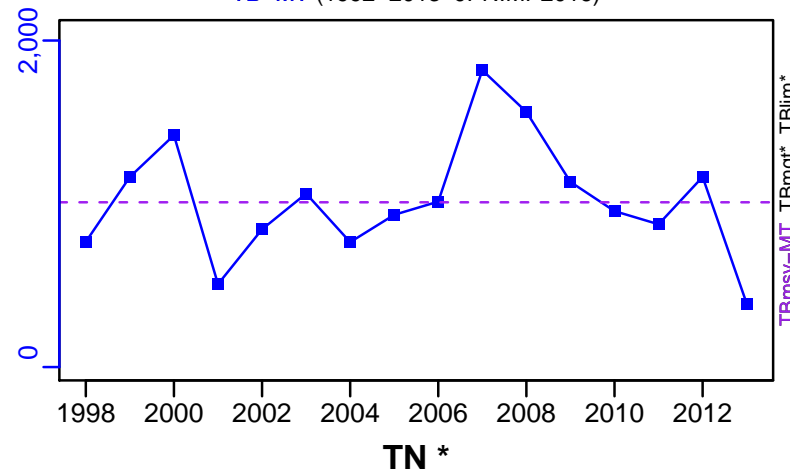
Production (1992–2013–JPNIMP2016)



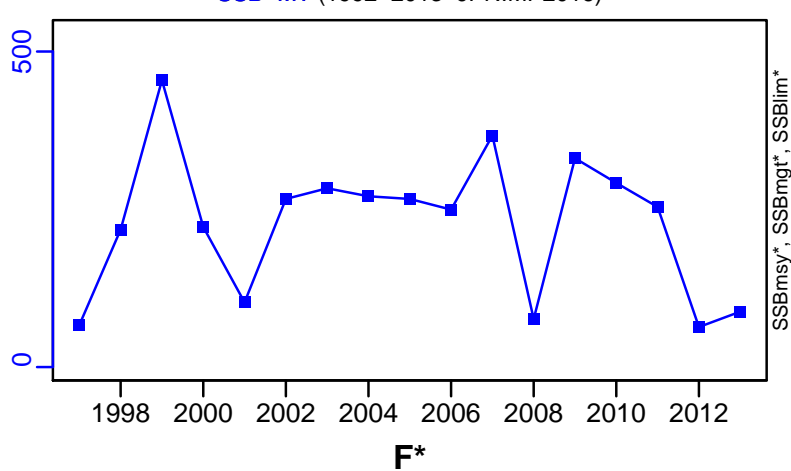
◆ Start Year ◆ End Year \* No Data

# Snow crab North Pacific [SNOWCRABNPAC]

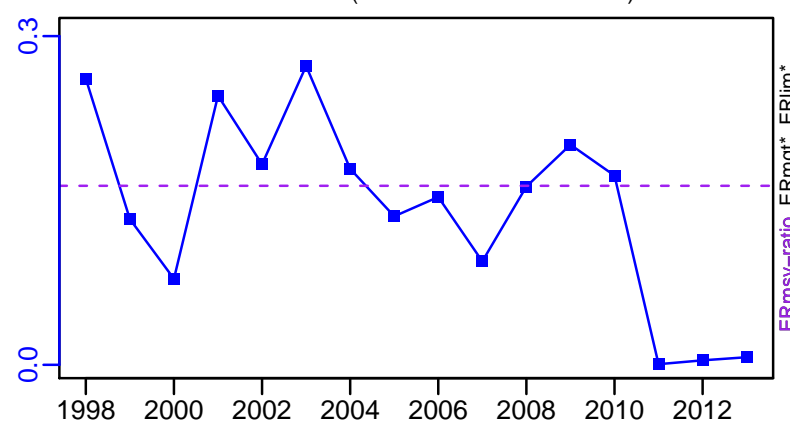
TB-MT (1992-2013-JPNIMP2016)



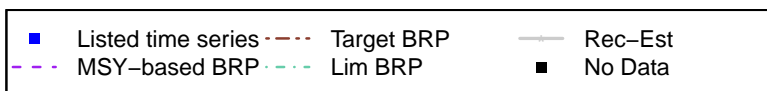
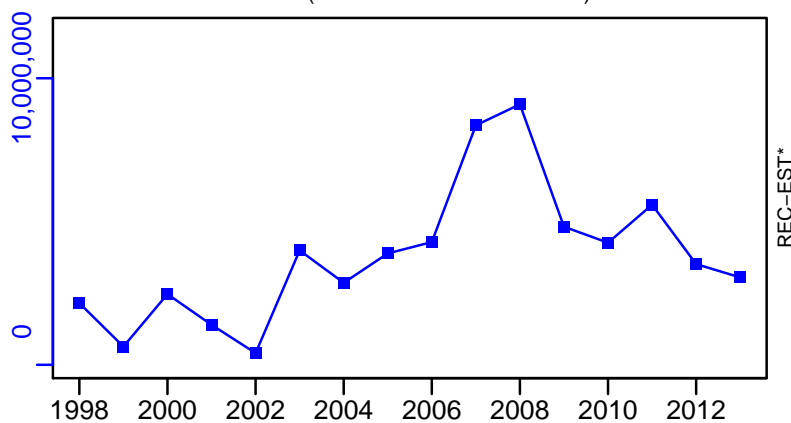
SSB-MT (1992-2013-JPNIMP2016)



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

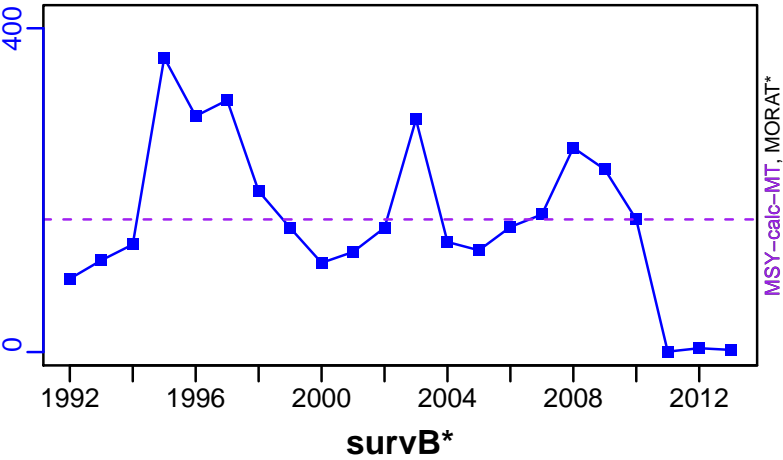


R-E00 (1992-2013-JPNIMP2016)



Snow crab North Pacific [SNOWCRABNPAC]

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



TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



## Snow crab Okhotsk Sea [SNOWCRABOKS]

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

**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



**Production\***



◆ Start Year   ◆ End Year   \* No Data



Snow crab Okhotsk Sea [SNOWCRABOKS]

**TB\***



**SSB\***



**TN \***



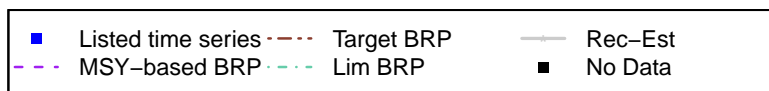
**F\***



**ER\***



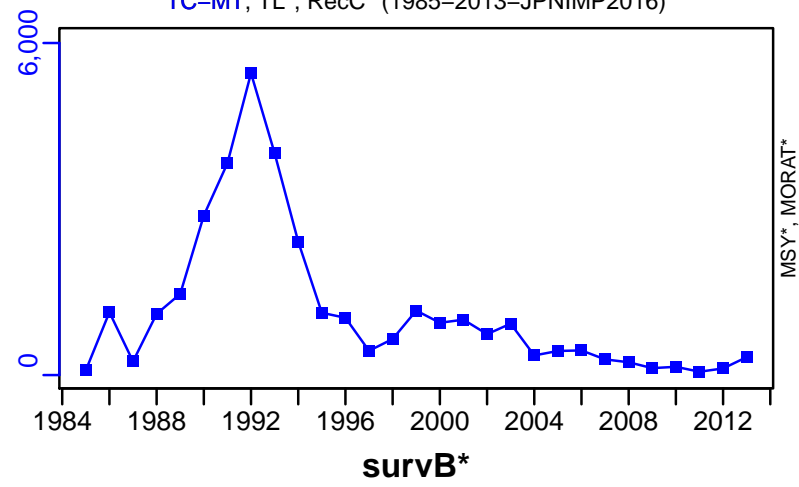
**Recruits\***



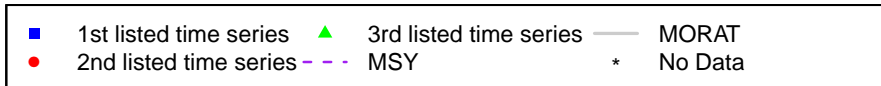
# Snow crab Okhotsk Sea [SNOWCRABOKS]

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

TAC\*, Cpair\*, Cadv\*



EFFORT\*



## Snow crab Sea of Japan West [SNOWCRABWSJ]

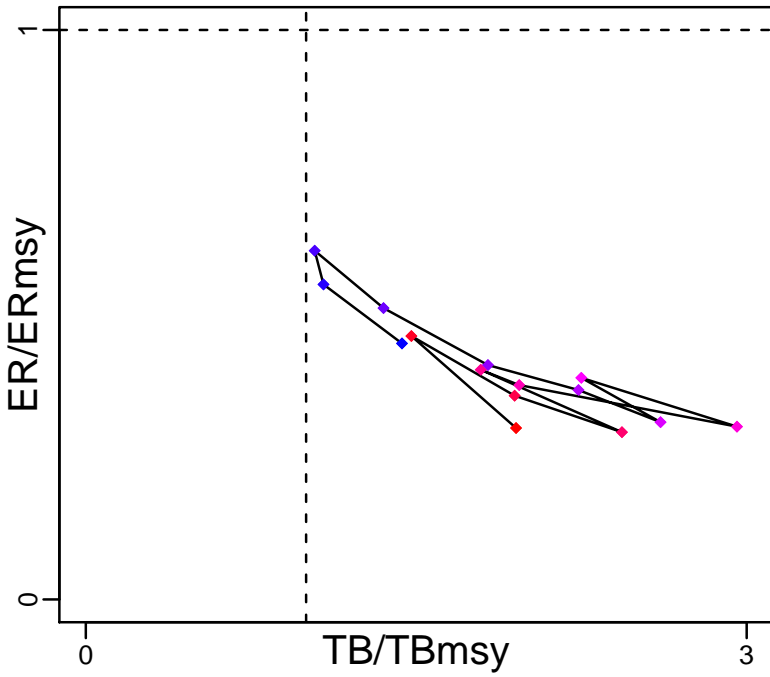
Metadata	
<b>Scientific Name</b>	Chionoecetes opilio
<b>Current Assess ID</b>	FAJ-SNOWCRABWSJ-1999-2015-JPNIMP2016
<b>Area</b>	Sea of Japan West
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2015

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	-	-
<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	0.3		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

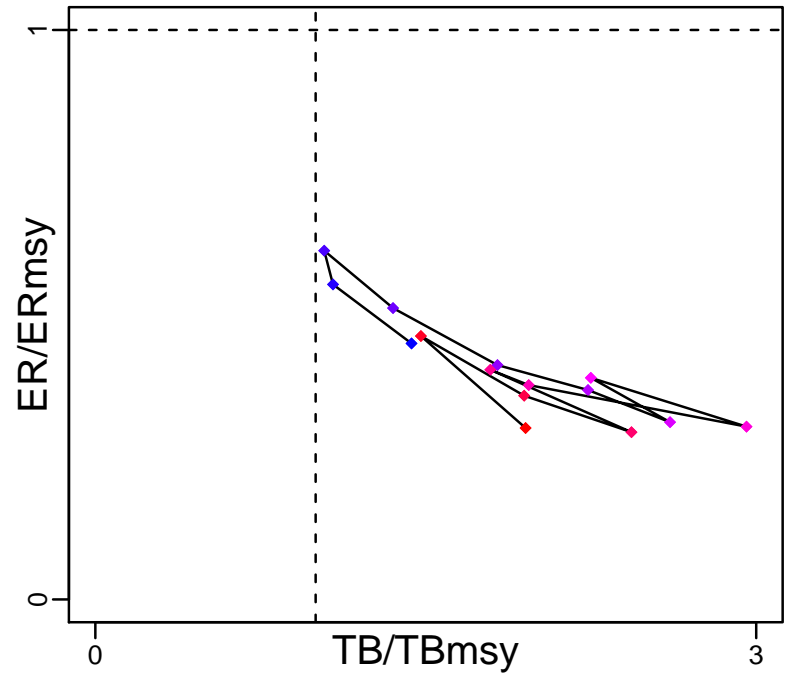
# Snow crab Sea of Japan West [SNOWCRABWSJ]

Kobe MSYpref (1999–2015–JPNIMP2016)

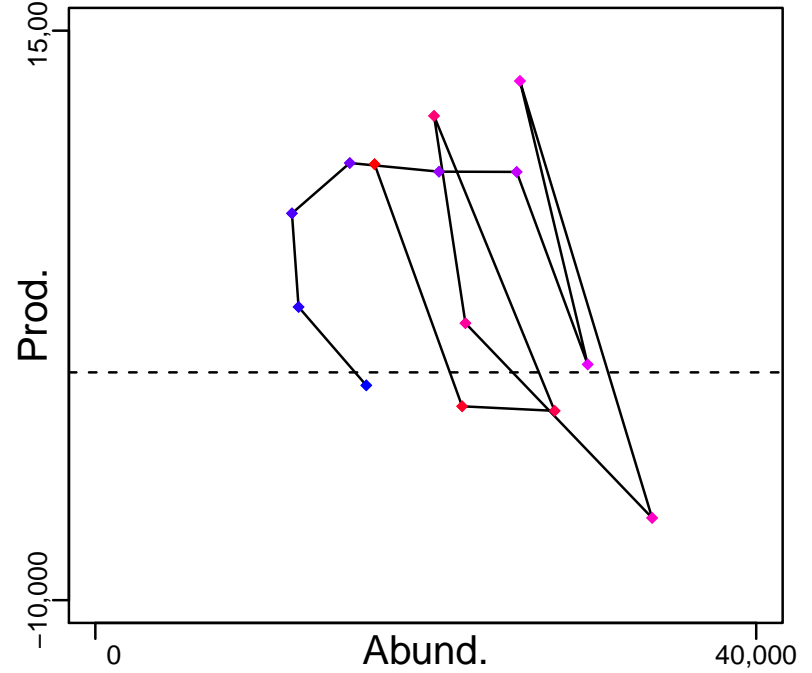


Spawner Recruit\*

Kobe MGTpref (1999–2015–JPNIMP2016)



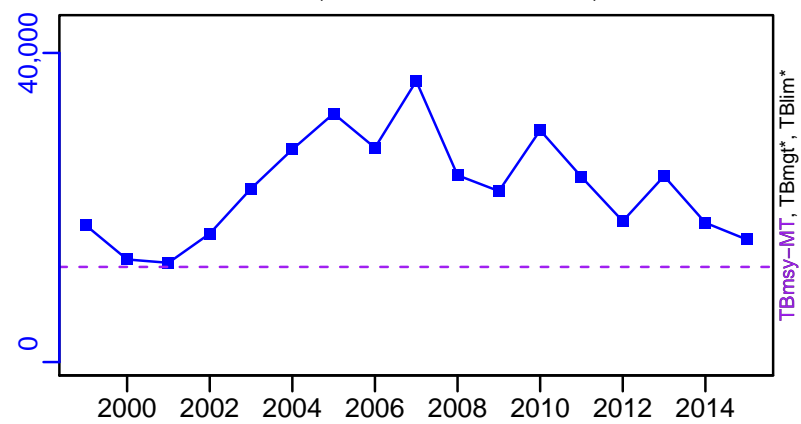
Production (1999–2015–JPNIMP2016)



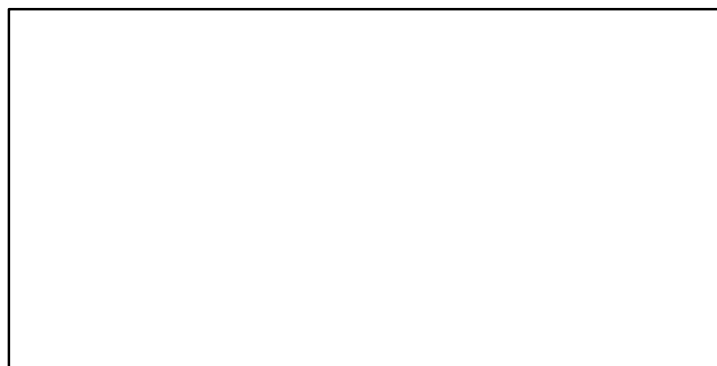
◆ Start Year ◆ End Year \* No Data

# Snow crab Sea of Japan West [SNOWCRABWSJ]

TB-MT (1999-2015-JPNIMP2016)



SSB\*



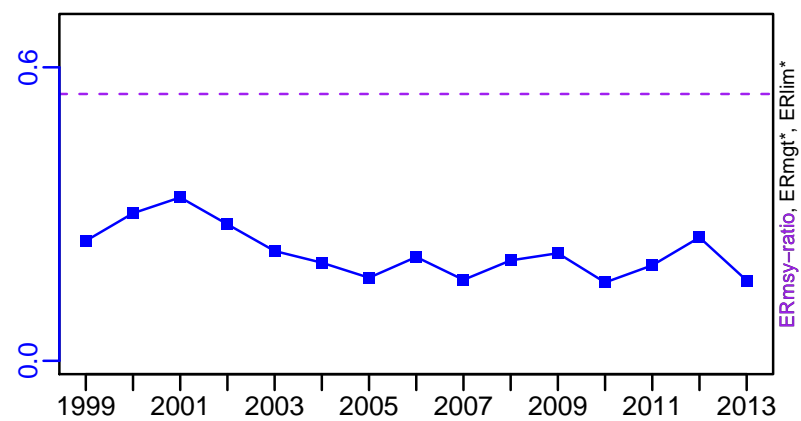
TN \*



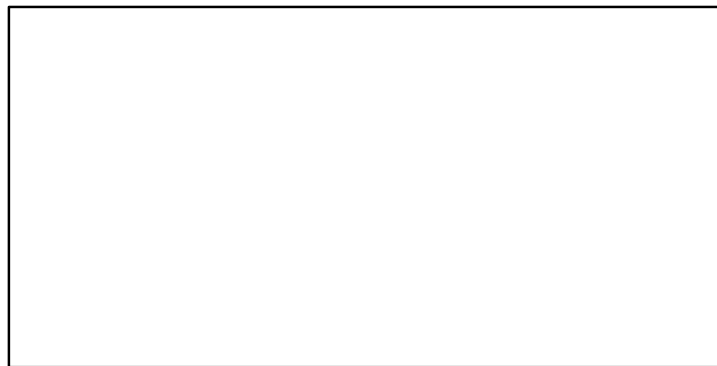
F\*



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



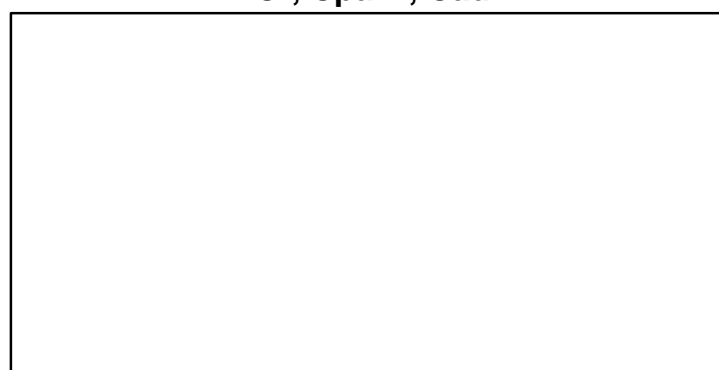
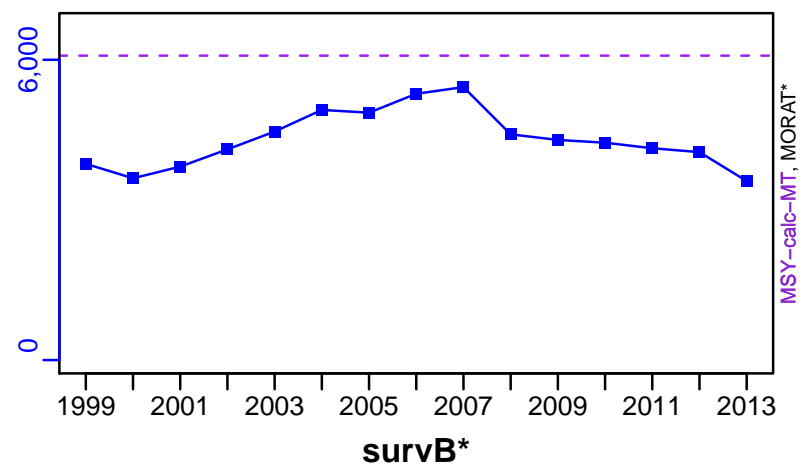
Recruits\*



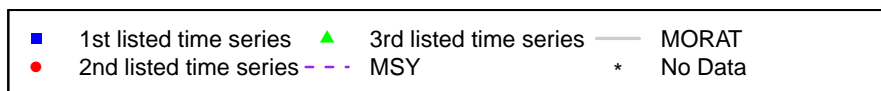
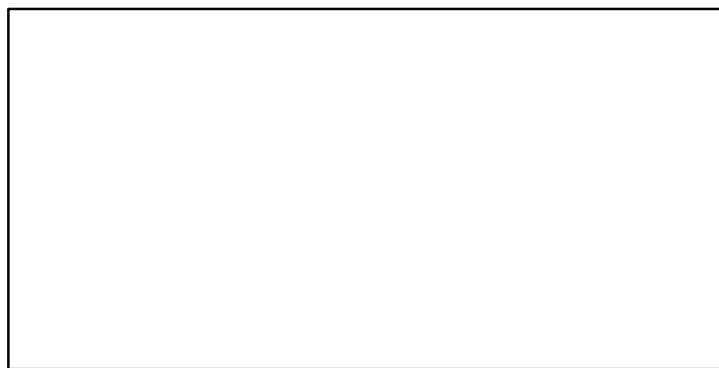
# Snow crab Sea of Japan West [SNOWCRABWSJ]

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

TAC\*, Cpair\*, Cadv\*



EFFORT\*



## Japanese Spanish mackerel East China Sea [SPANMACKECS]

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



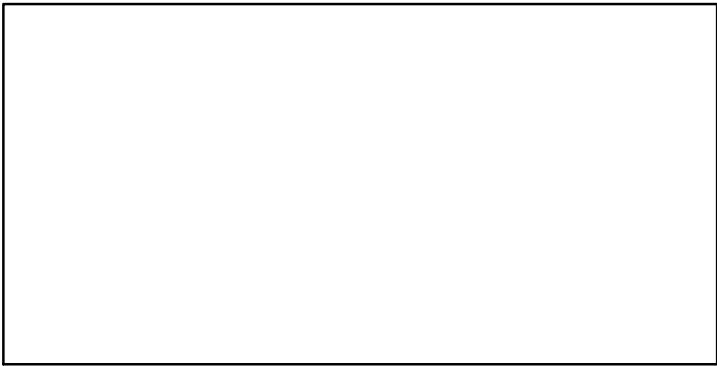
TB\*



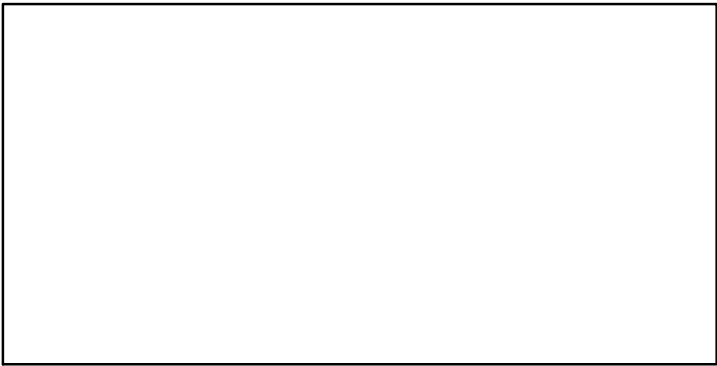
SSB\*



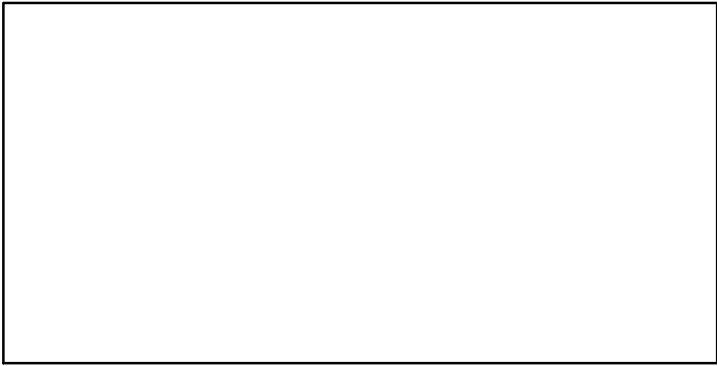
TN \*



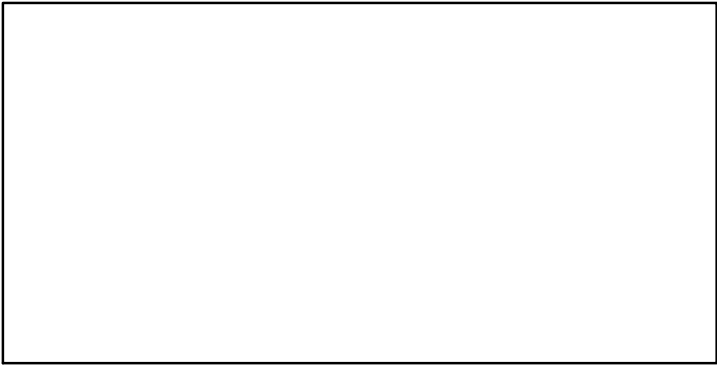
F\*



ER\*

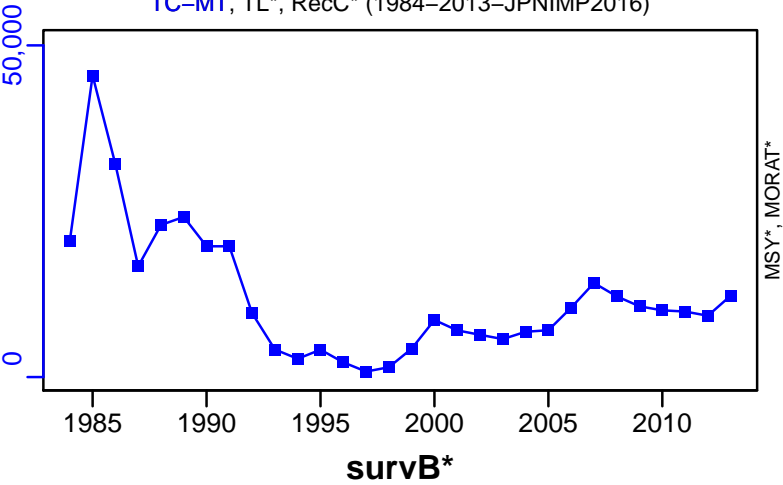


Recruits\*

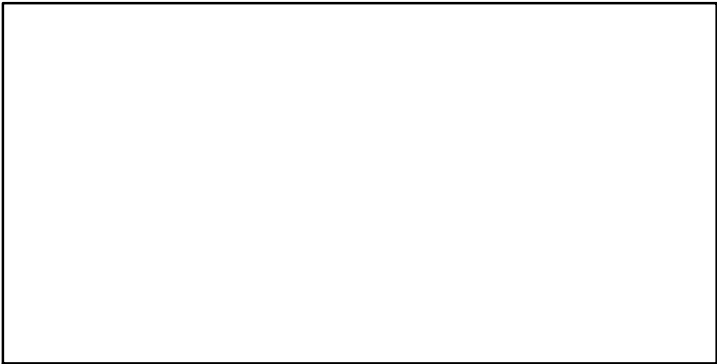


Japanese Spanish mackerel East China Sea [SPANMACK ECS]

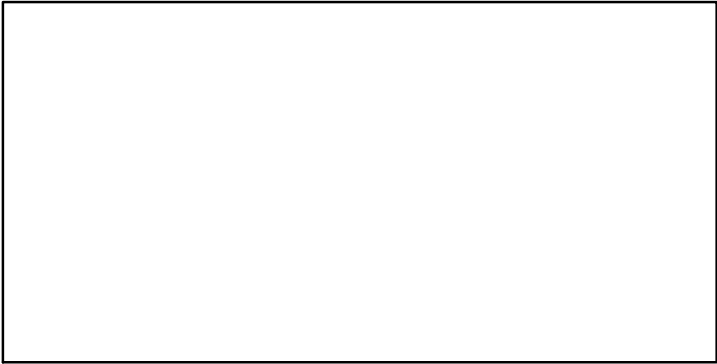
TC-MT, TL\*, RecC\* (1984-2013-JPNIMP2016)



TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



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

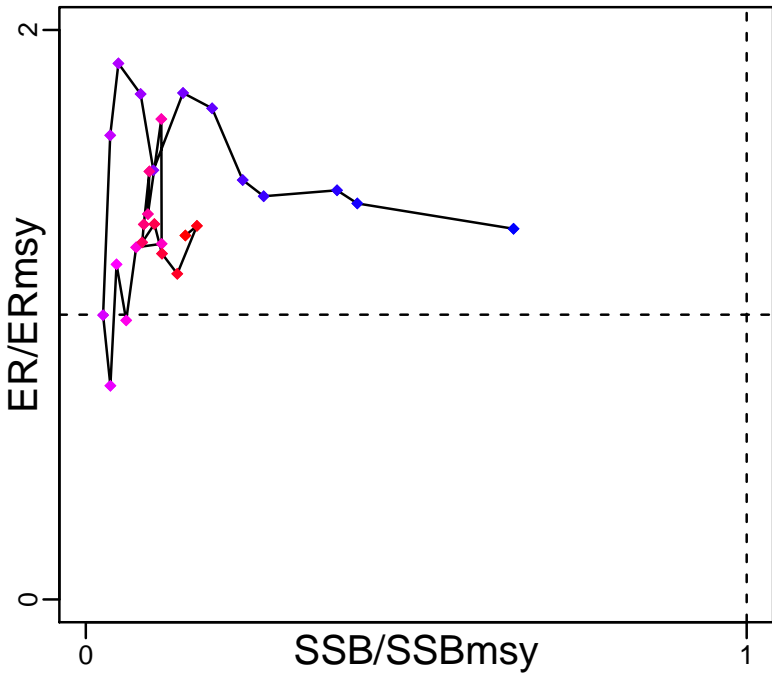
Metadata	
<b>Scientific Name</b>	Scomberomorus niphonius
<b>Current Assess ID</b>	FAJ-SPANMACKSETO-1987-2013-JPNIMP2016
<b>Area</b>	Inland Sea of Japan
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2010,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

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2013	16,707
<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	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>	-	-	-

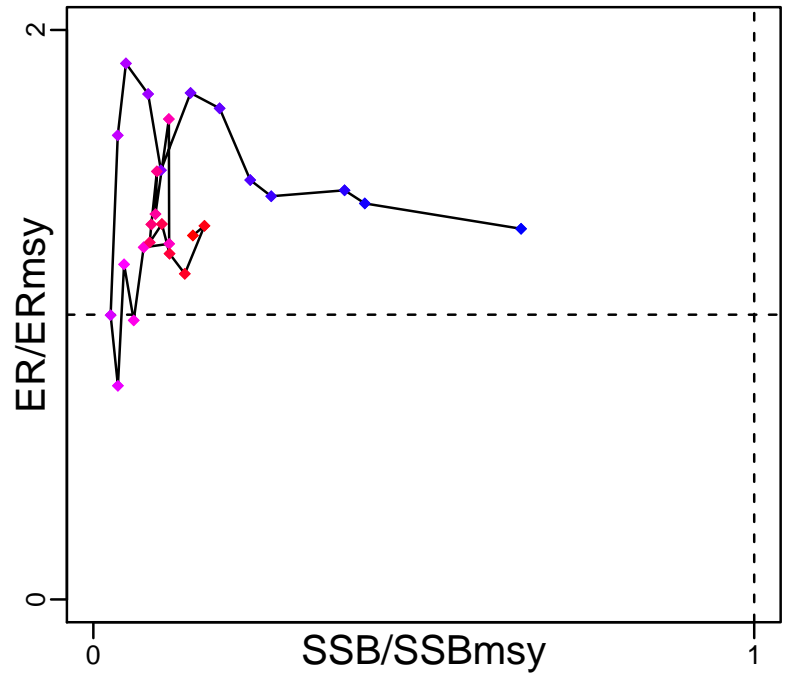
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	4930	-	0
<b>SSB</b>	SSB-MT	2013	2520	Both	1
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	1,410,000	-	0
<b>F</b>	F-1/yr	2010	1	-	0 to 5
<b>ER</b>	ER-calc-ratio	2013	0	-	-
<b>TC</b>	TC-MT	2013	1780		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<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	1.28		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Japanese Spanish mackerel Inland Sea of Japan [SPANMACKSETO]

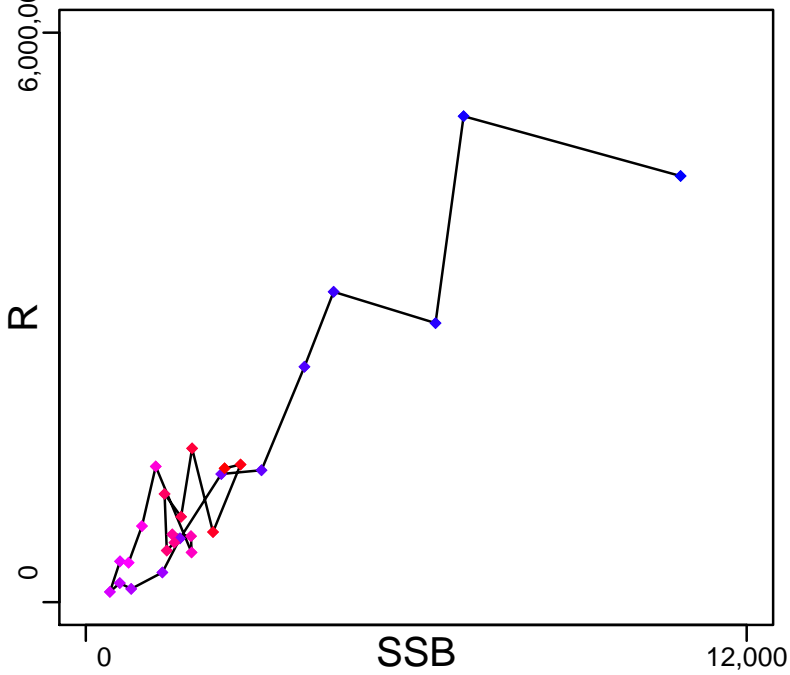
Kobe MSYpref (1987–2013–JPNIMP2016)



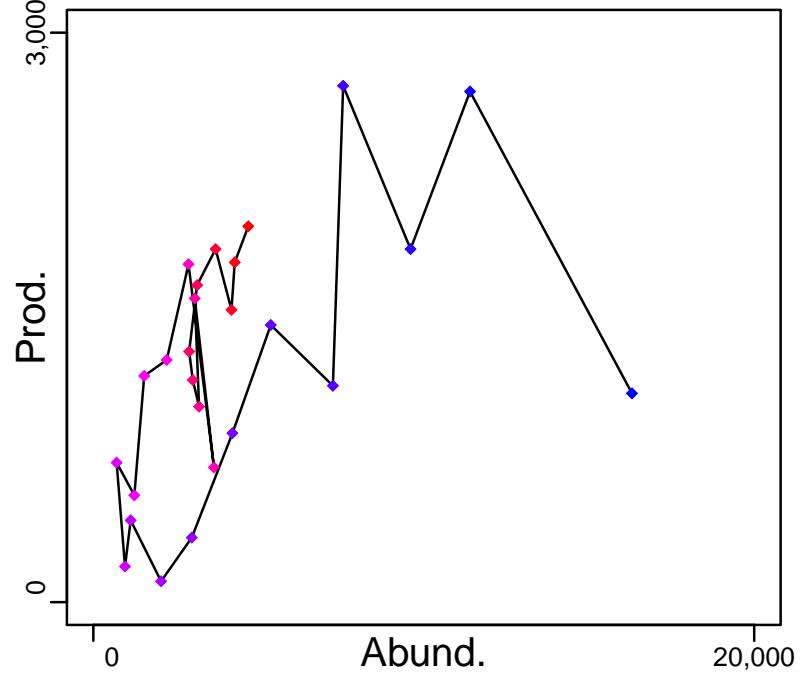
Kobe MGTpref (1987–2013–JPNIMP2016)



Spawner Recruit (1987–2013–JPNIMP2016)



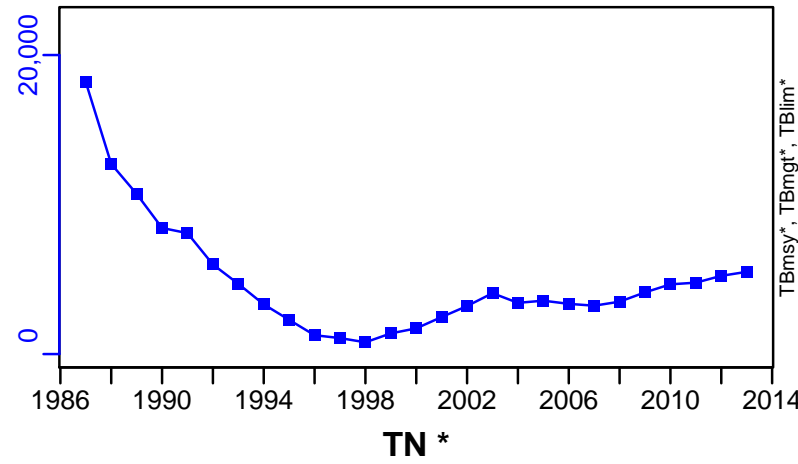
Production (1987–2013–JPNIMP2016)



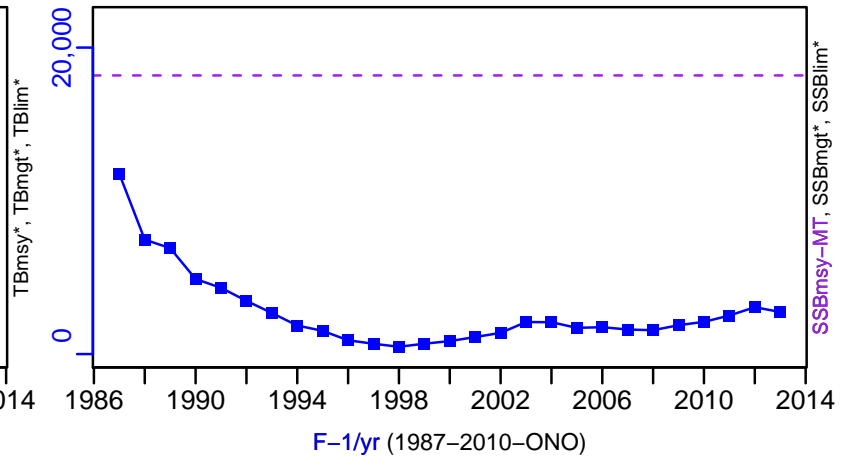
◆ Start Year ◆ End Year \* No Data

Japanese Spanish mackerel Inland Sea of Japan [SPANMACKSETO]

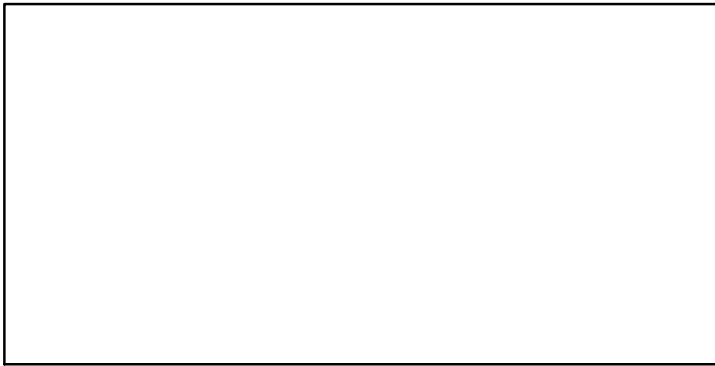
TB-MT (1987–2013–JPNIMP2016)



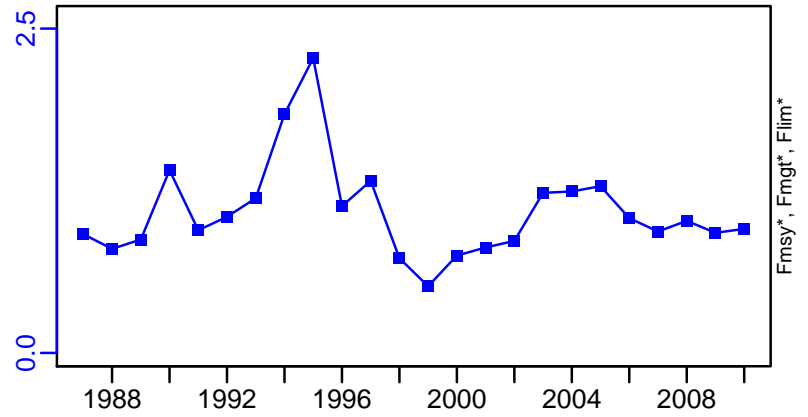
SSB-MT (1987–2013–JPNIMP2016)



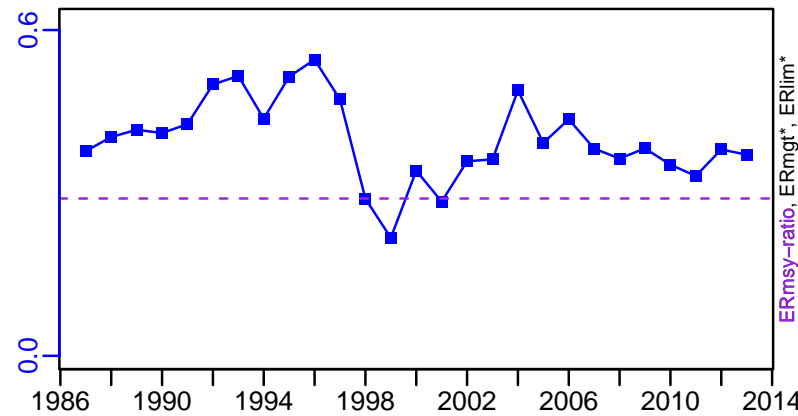
TN \*



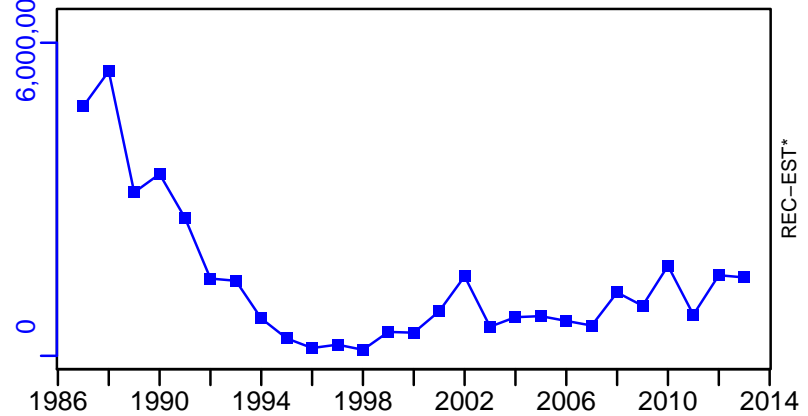
F-1/yr (1987–2010–ONO)



ER-calc-ratio (1987–2013–JPNIMP2016)

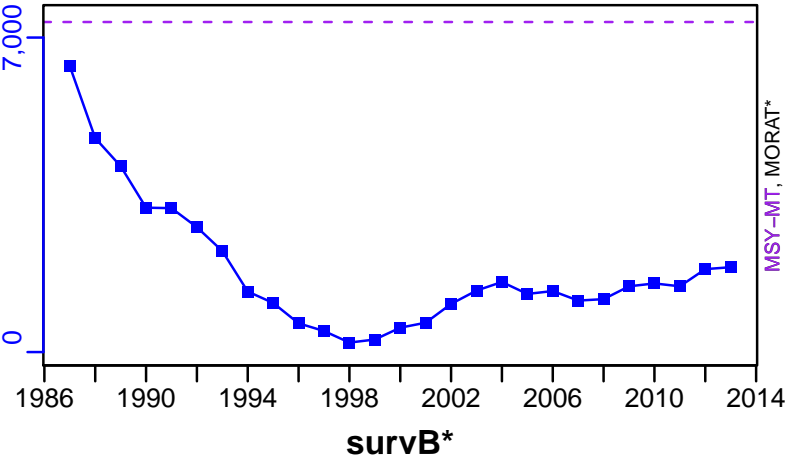


R-E00 (1987–2013–JPNIMP2016)



Japanese Spanish mackerel Inland Sea of Japan [SPANMACKSETO]

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



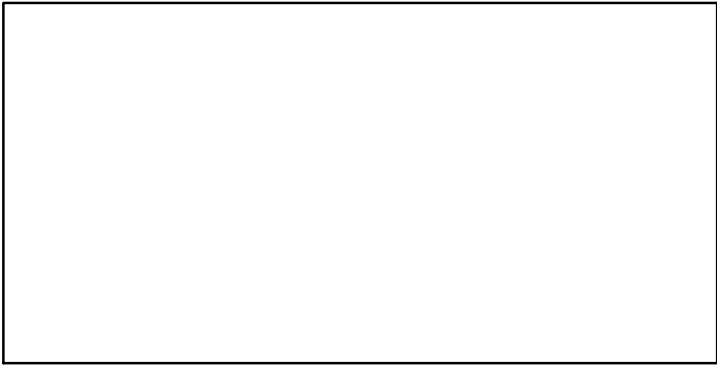
TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



## Spear squid Pacific Ocean [SPSQUIDPAC]

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

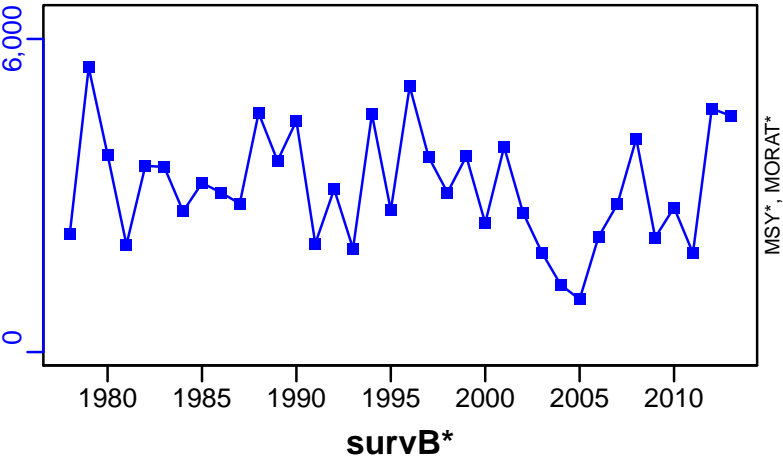


Recruits\*



Spear squid Pacific Ocean [SPSQUIDPAC]

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



TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



## Spear squid Tsushima warm current [SPSQUIDTSSTWC]

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

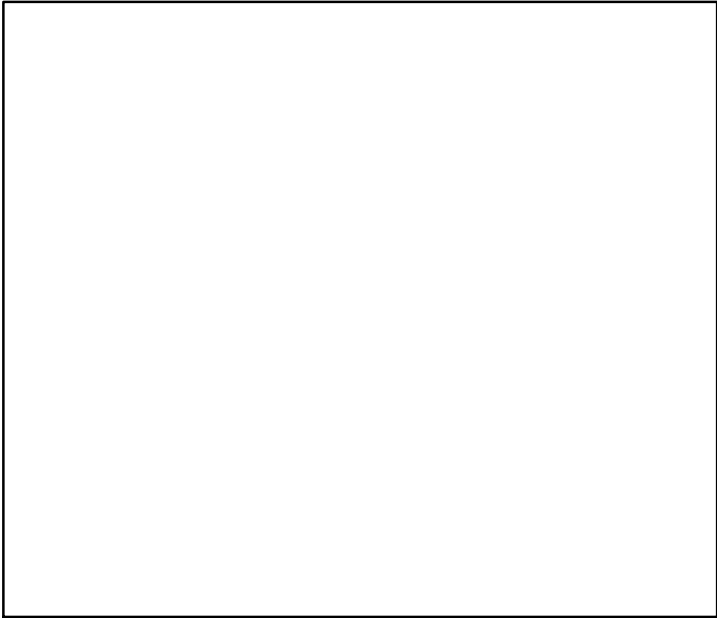
Kobe MSY\*



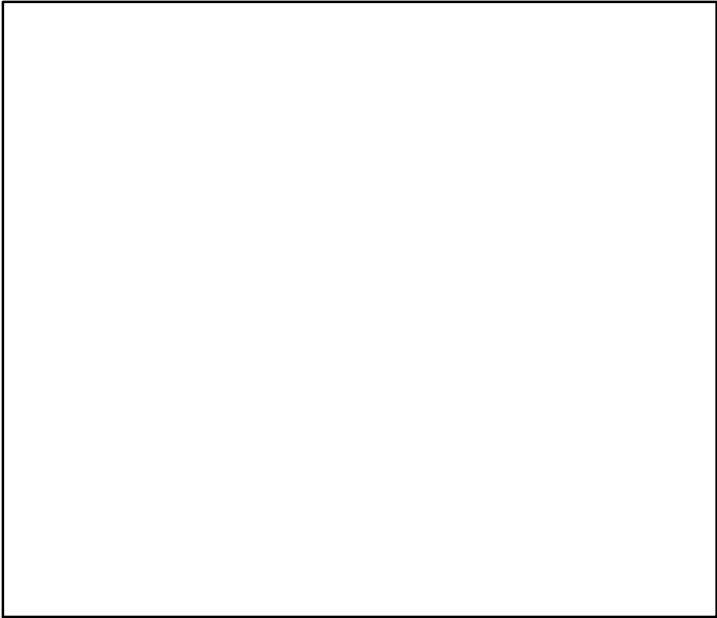
Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data

TB\*



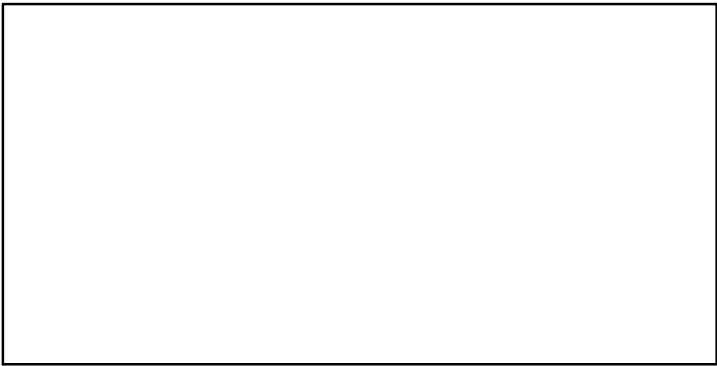
SSB\*



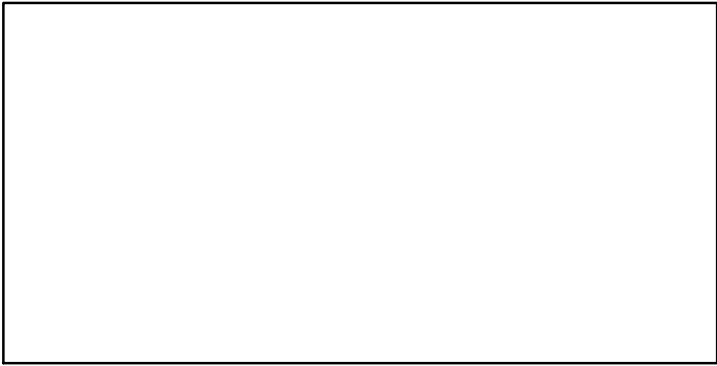
TN \*



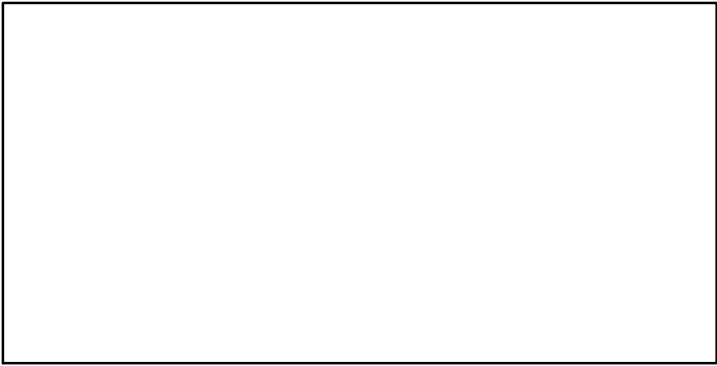
F\*



ER\*



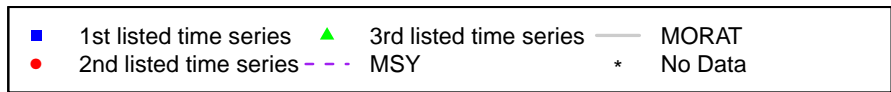
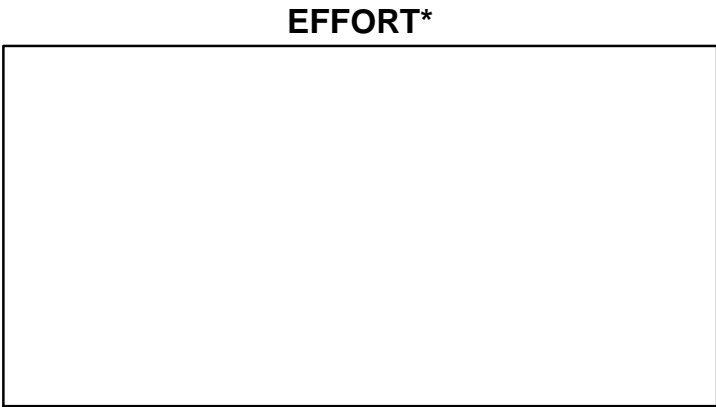
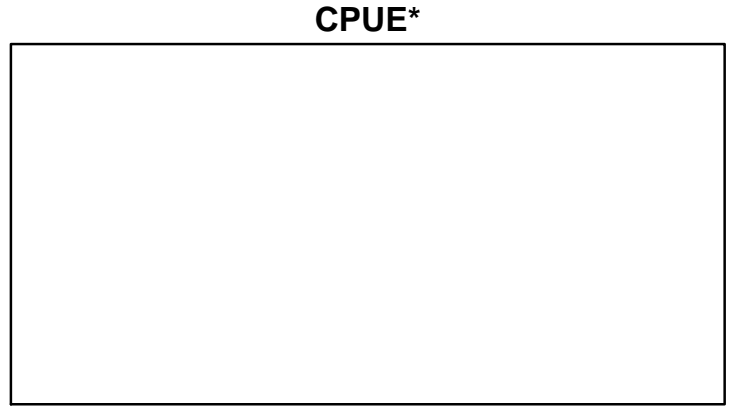
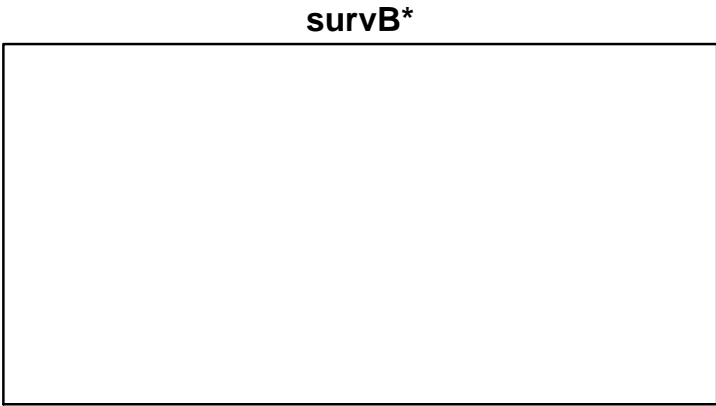
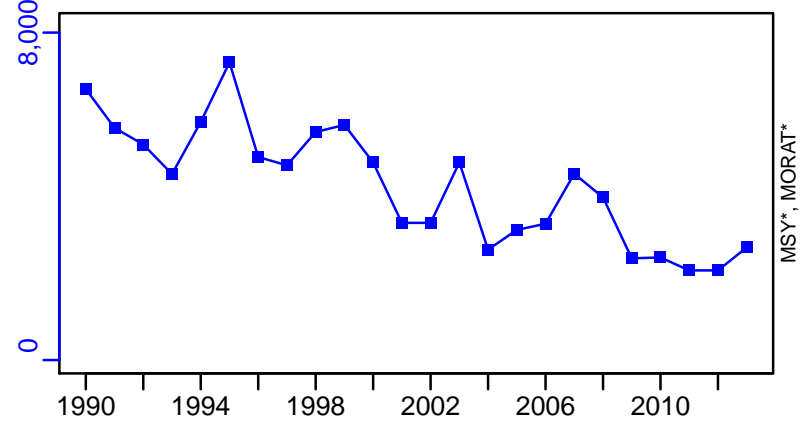
Recruits\*



# Spear squid Tsushima warm current [SPSQUIDTSSTWC]

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

TAC\*, Cpair\*, Cadv\*

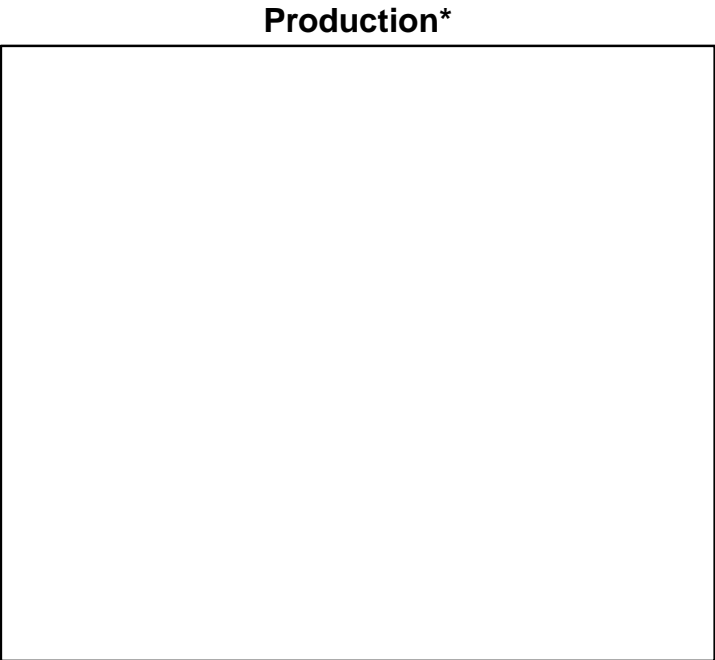
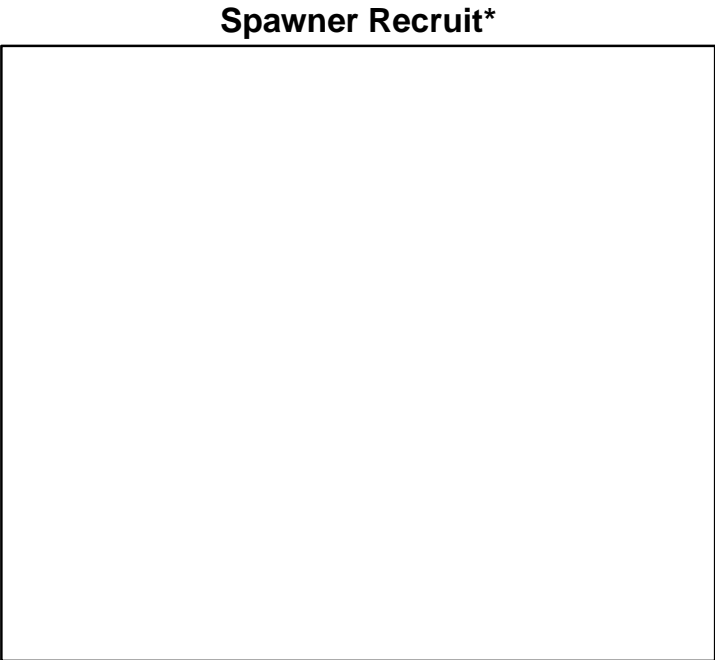
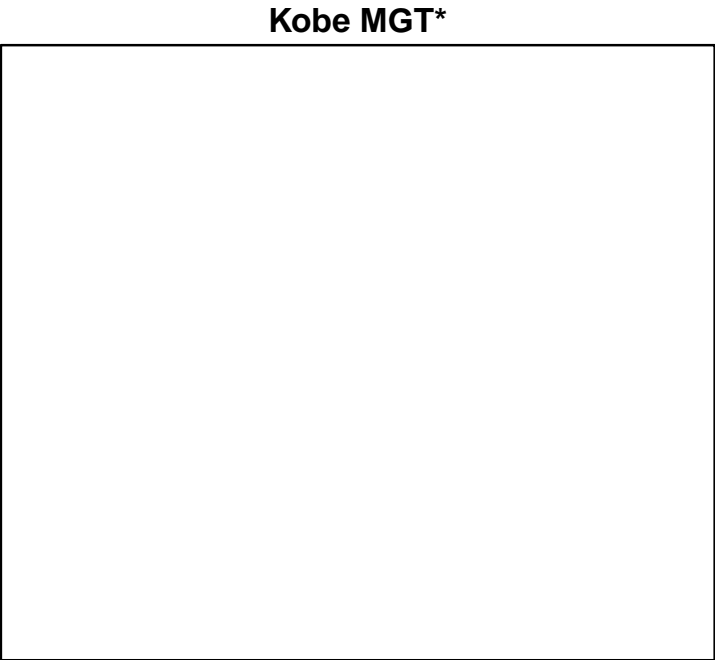
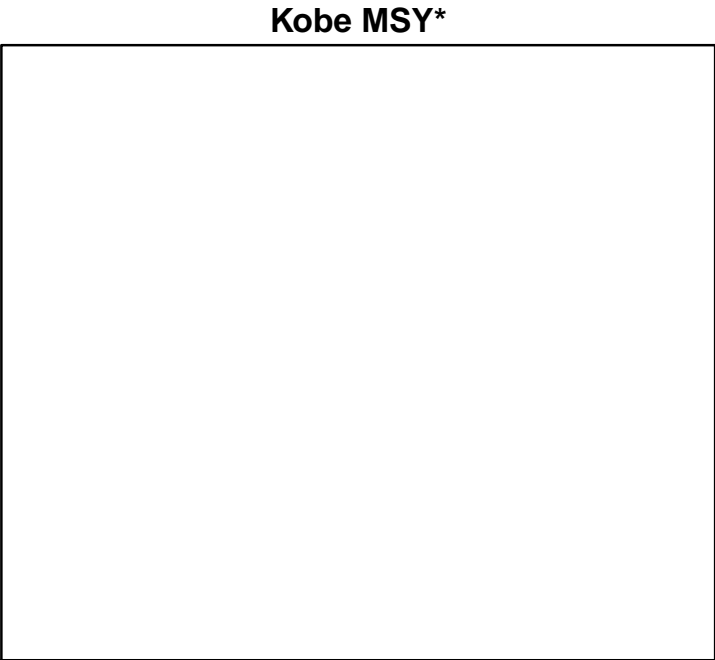


## Sailfin sandfish Sea of Japan North [SSANDNSJ]

Metadata	
<b>Scientific Name</b>	Arctoscopus japonicus
<b>Current Assess ID</b>	FAJ-SSANDNSJ-1952-2013-JPNIMP2016
<b>Area</b>	Sea of Japan North
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries 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	0.5
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

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



◆ Start Year   ◆ End Year   \* No Data



Sailfin sandfish Sea of Japan North [SSANDNSJ]

TB\*



SSB\*



TN \*



F\*



ER\*

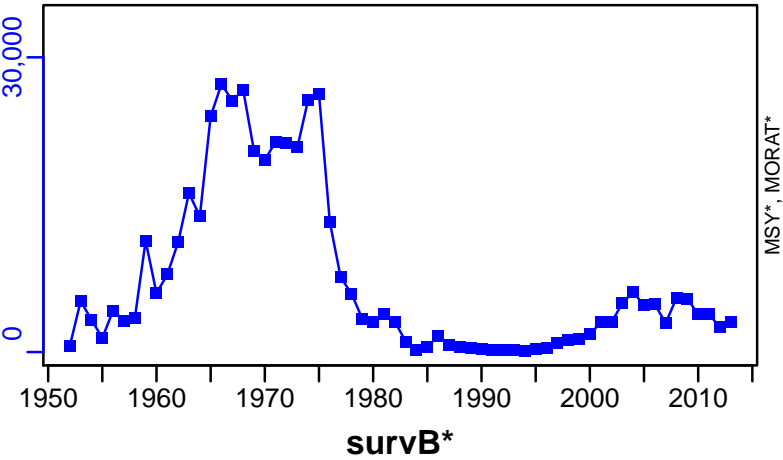


Recruits\*



Sailfin sandfish Sea of Japan North [SSANDNSJ]

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



TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



## Sailfin sandfish Sea of Japan West [SSANDWSJ]

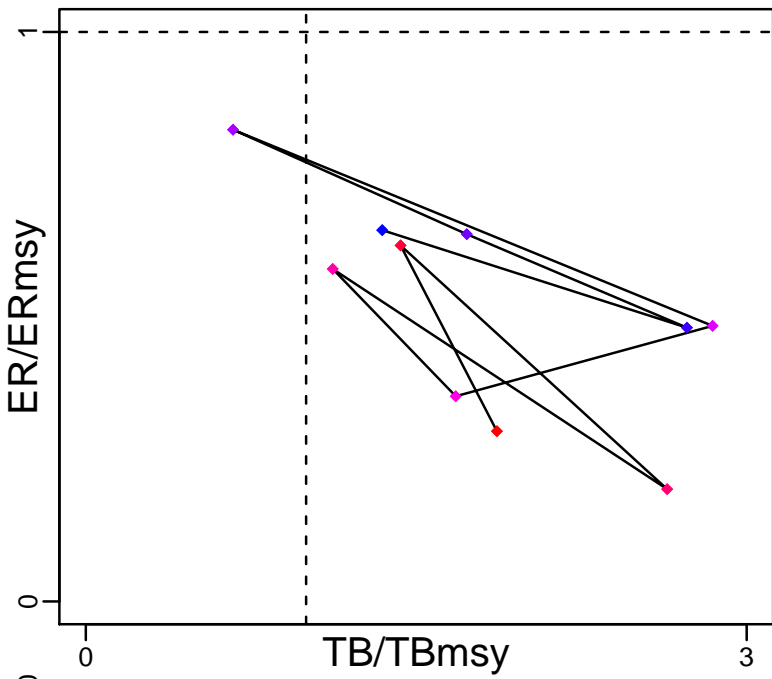
Metadata	
<b>Scientific Name</b>	Arctoscopus japonicus
<b>Current Assess ID</b>	FAJ-SSANDWSJ-1970-2013-JPNIMP2016
<b>Area</b>	Sea of Japan West
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2013

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	0.51
<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>	-	-	-

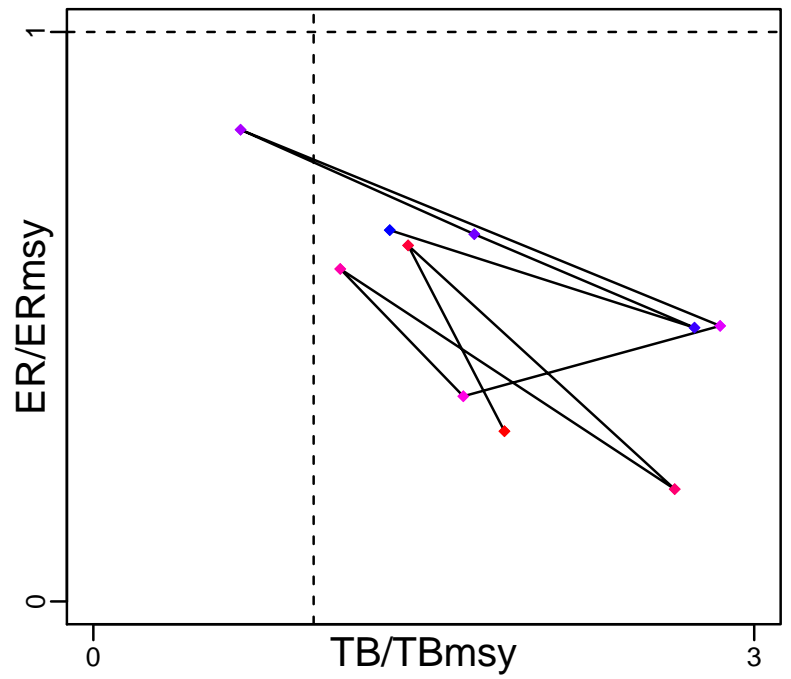
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	24,700	-	1
<b>SSB</b>	SSB-MT	2013	7850	Both	2
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	$5.76 \times 10^8$	-	1
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0	-	-
<b>TC</b>	TC-MT	2013	3730		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2013	1.87		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	0.3		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Sailfin sandfish Sea of Japan West [SSANDWSJ]

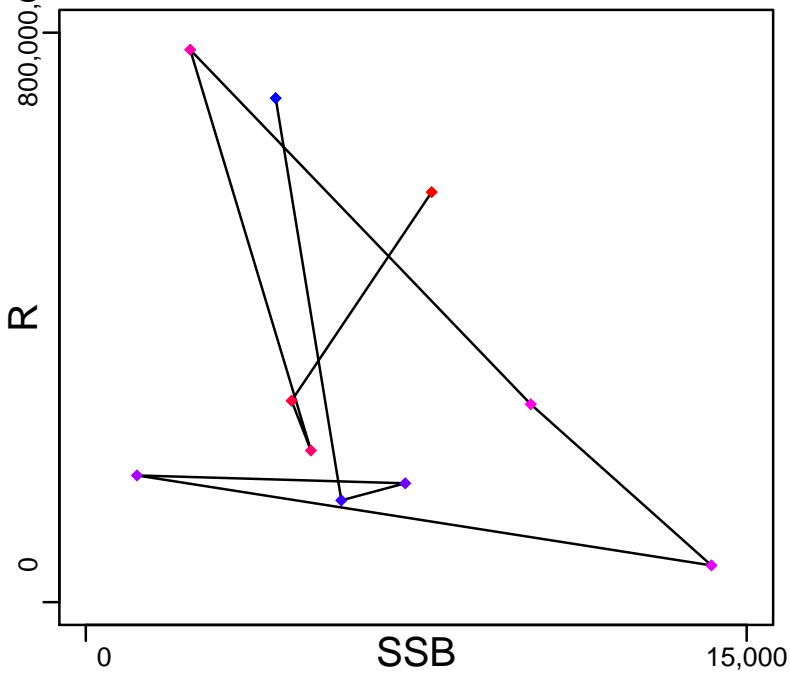
Kobe MSYpref (1970–2013–JPNIMP2016)



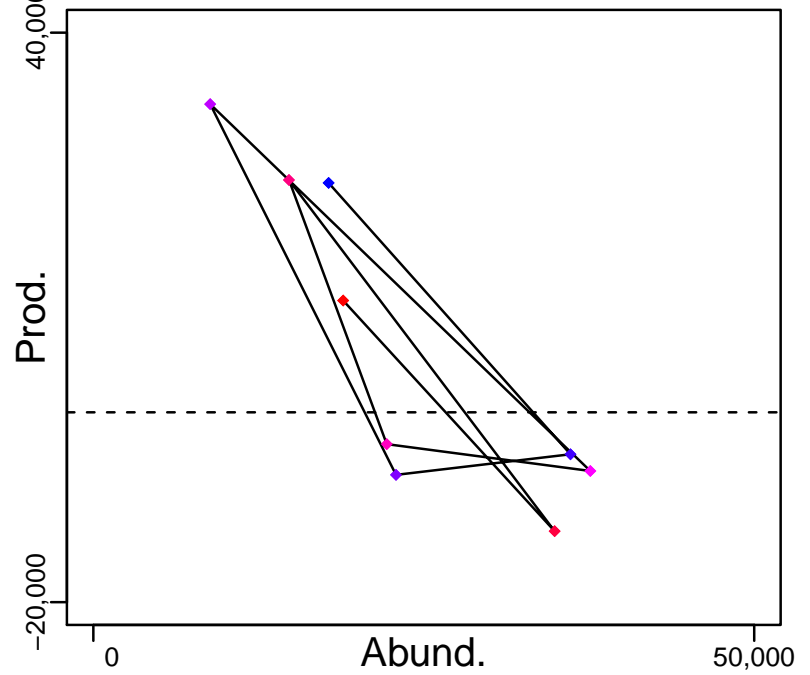
Kobe MGTpref (1970–2013–JPNIMP2016)



Spawner Recruit (1970–2013–JPNIMP2016)



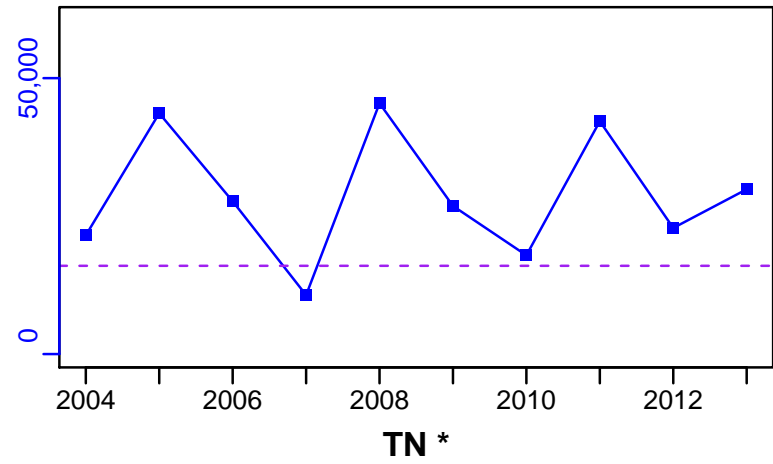
Production (1970–2013–JPNIMP2016)



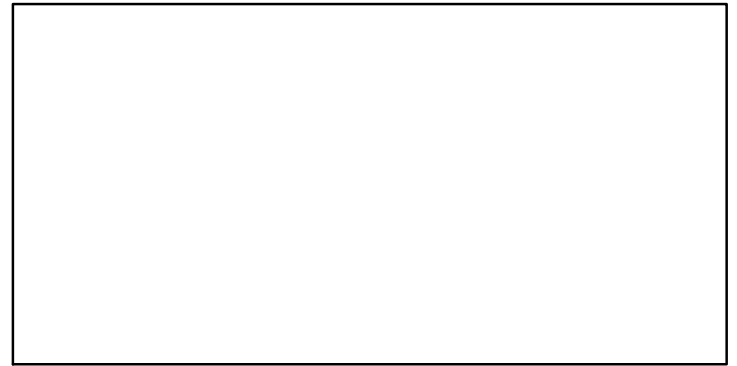
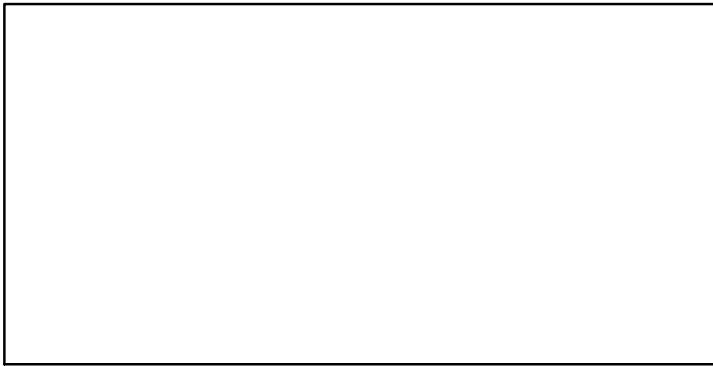
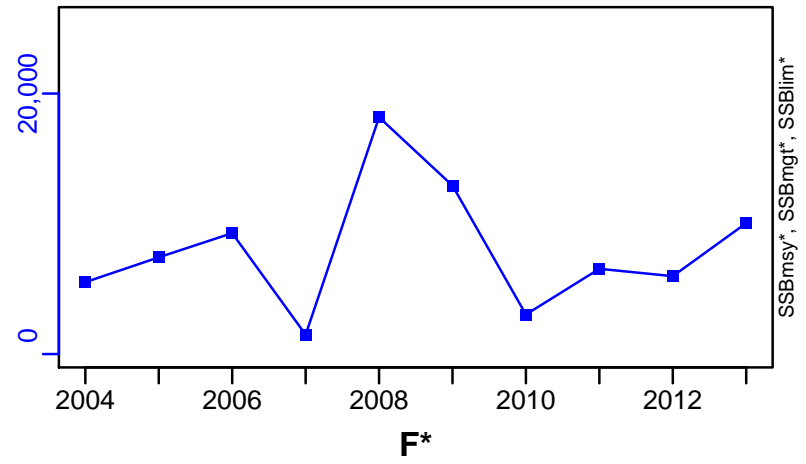
◆ Start Year ◆ End Year \* No Data

# Sailfin sandfish Sea of Japan West [SSANDWSJ]

TB-MT (1970-2013-JPNIMP2016)



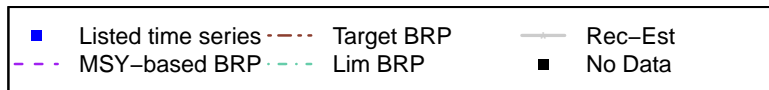
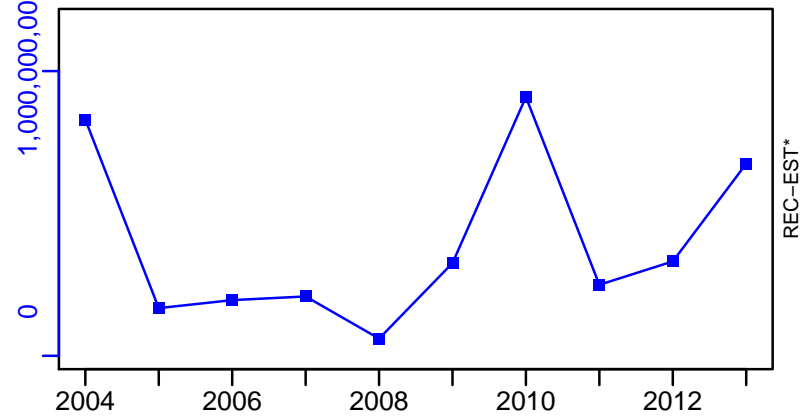
SSB-MT (1970-2013-JPNIMP2016)



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

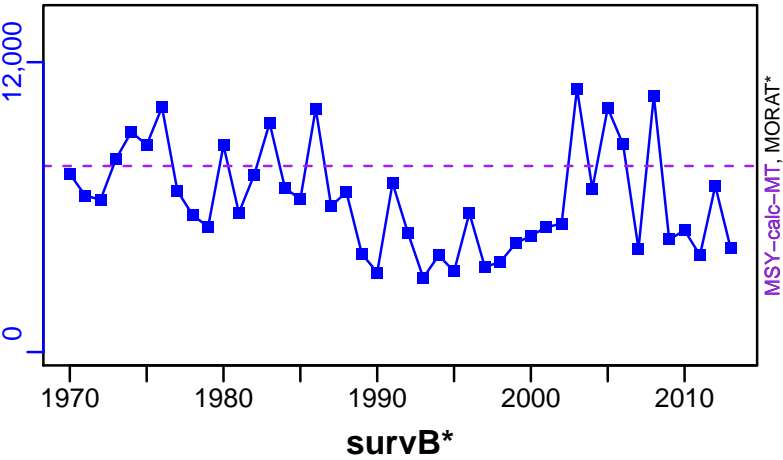


R-E00 (1970-2013-JPNIMP2016)



Sailfin sandfish Sea of Japan West [SSANDWSJ]

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



TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



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

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

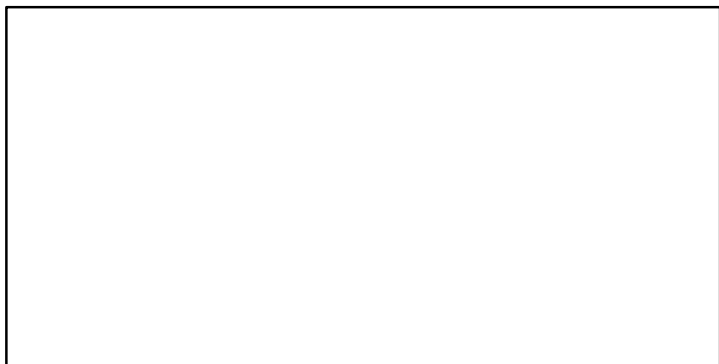


◆ Start Year ◆ End Year \* No Data

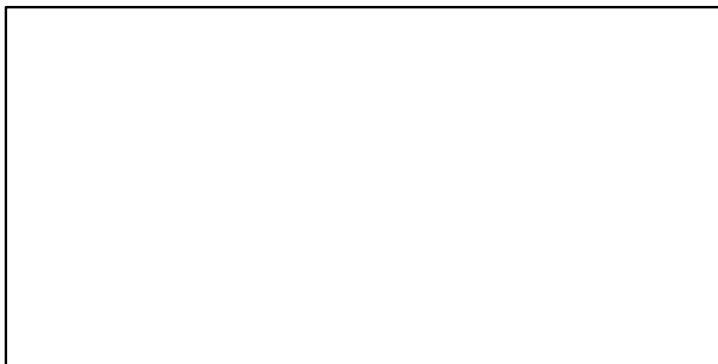


Swordtip squid Sea of Japan and East China Sea [STSQUIDSOJECS]

**TB\***



**SSB\***



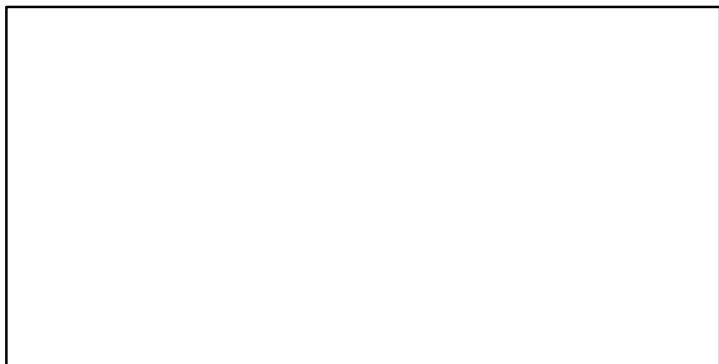
**TN \***



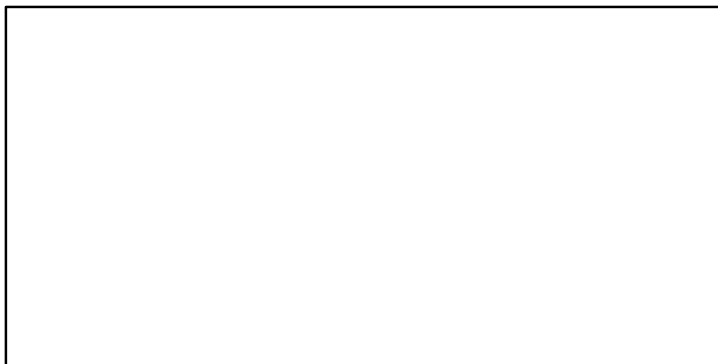
**F\***



**ER\***



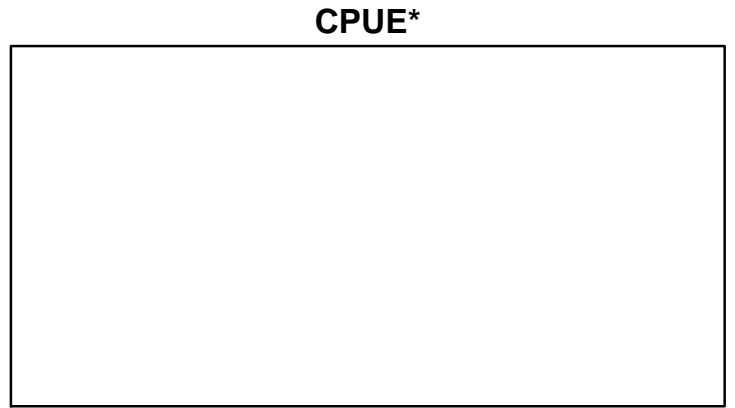
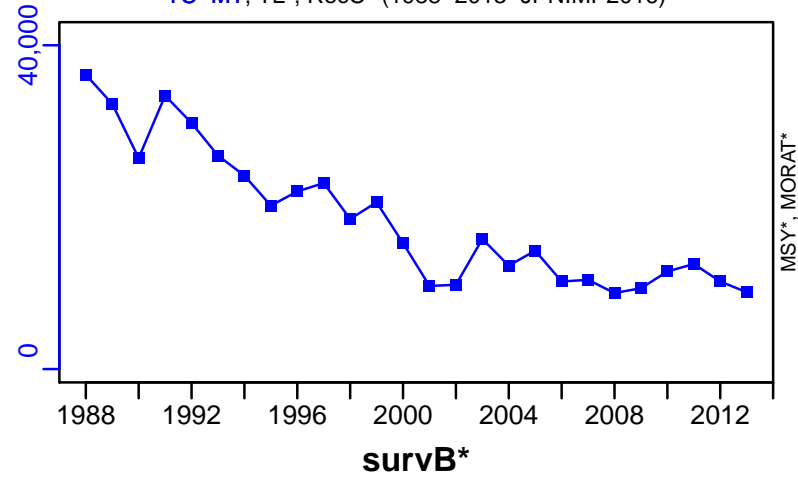
**Recruits\***



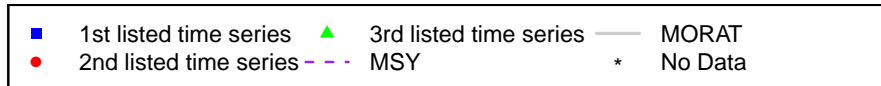
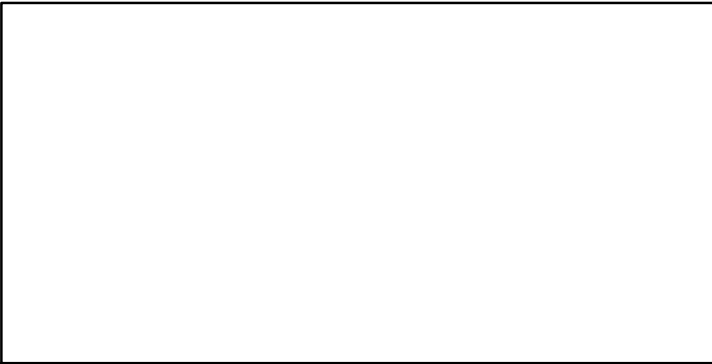
# Swordtip squid Sea of Japan and East China Sea [STSQUIDSOJECS]

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

TAC\*, Cpair\*, Cadv\*



EFFORT\*



## Willow flounder North Pacific [WLFLOUNNPAC]

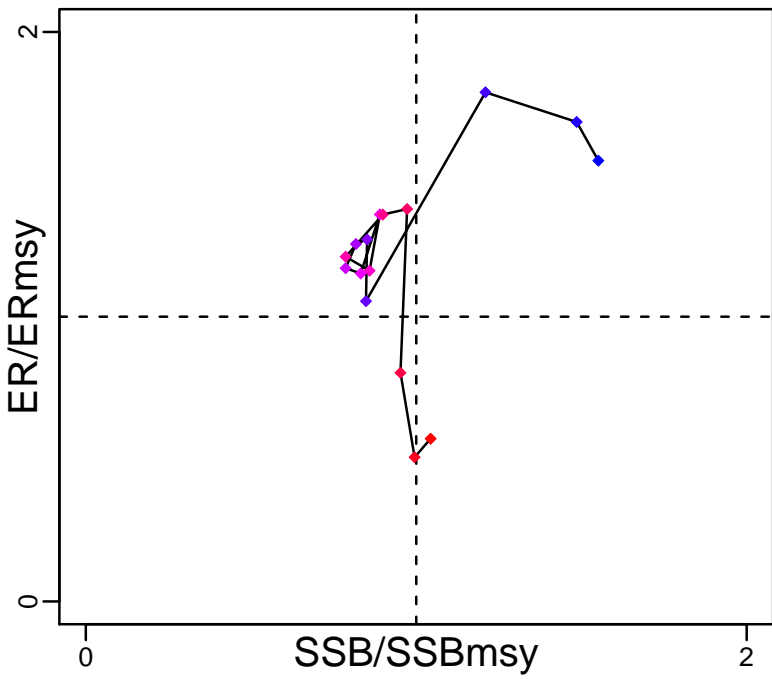
Metadata	
<b>Scientific Name</b>	Tanakius kitaharae
<b>Current Assess ID</b>	FAJ-WLFLOUNNPAC-1997-2013-JPNIMP2016
<b>Area</b>	North Pacific
<b>Management Authority</b>	Fisheries Agency and Fisheries Research Agency of Japan
<b>Assessor</b>	Fisheries Agency of Japan
<b>Asmts in RAM</b>	2013

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2013	536
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2013	0.21
<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>	-	-	-

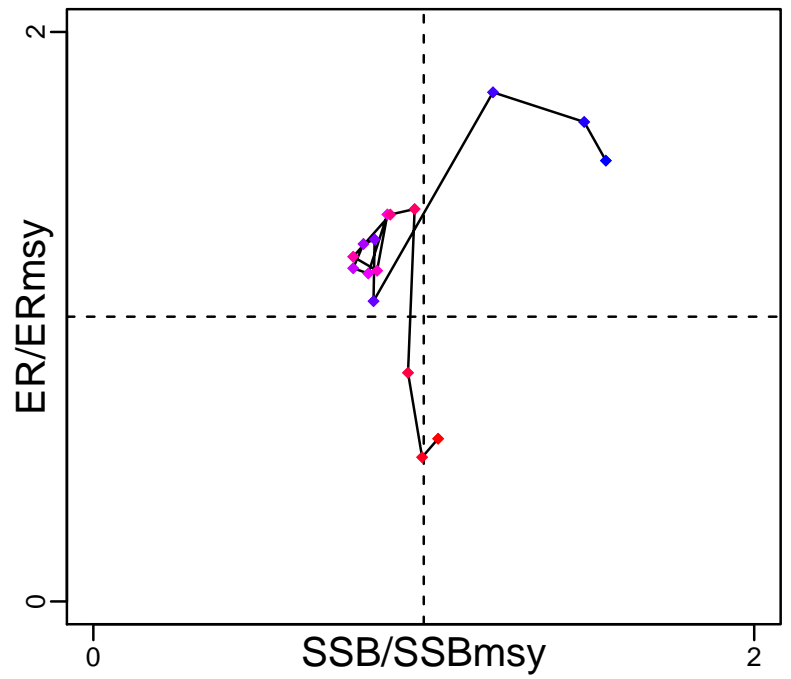
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	673	-	1
<b>SSB</b>	SSB-MT	2013	559	Both	3
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	2,270,000	-	1
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0	-	-
<b>TC</b>	TC-MT	2013	80		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	1.04		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2013	0.57		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Willowy flounder North Pacific [WLFLOUNNPAC]

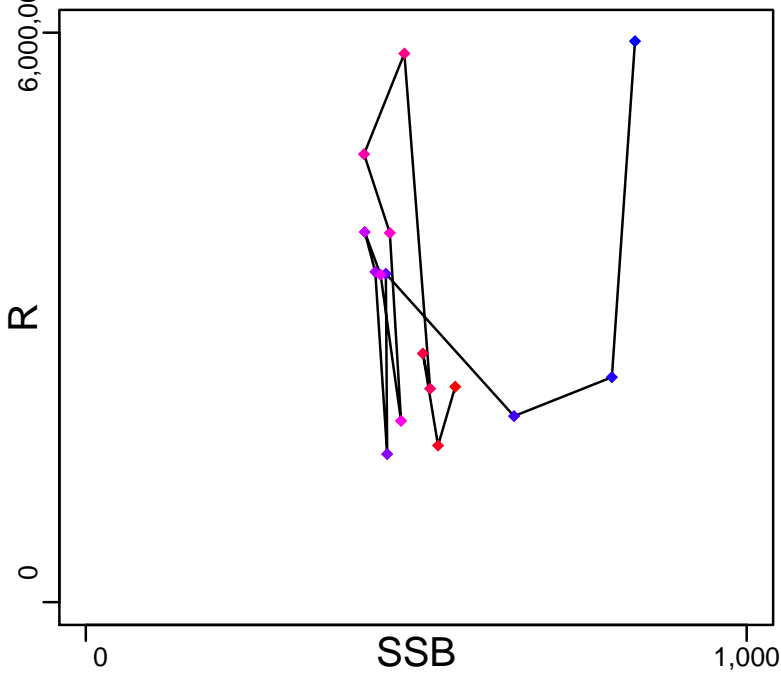
Kobe MSYpref (1997–2013–JPNIMP2016)



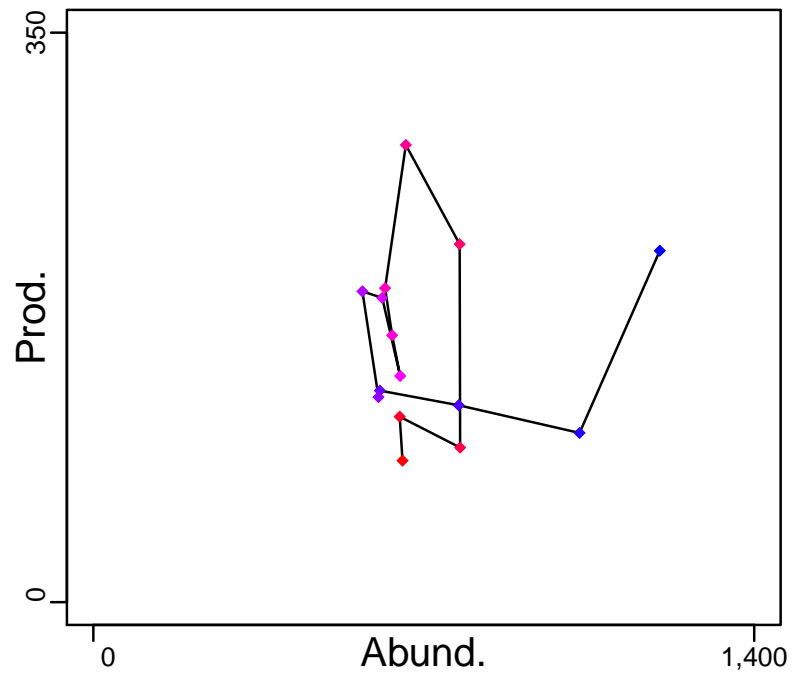
Kobe MGTpref (1997–2013–JPNIMP2016)



Spawner Recruit (1997–2013–JPNIMP2016)



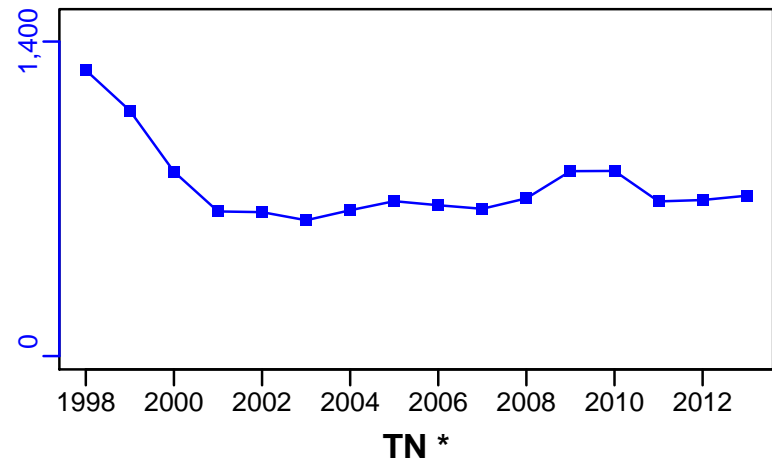
Production (1997–2013–JPNIMP2016)



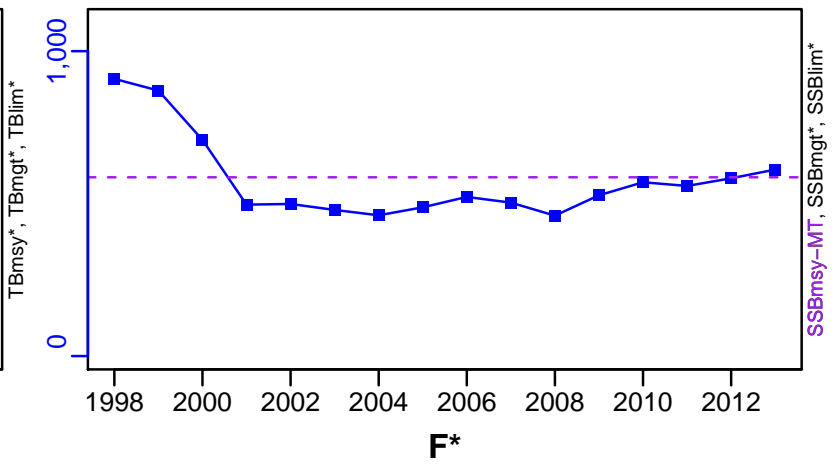
◆ Start Year ◆ End Year \* No Data

# Willow flounder North Pacific [WLFLOUNNPAC]

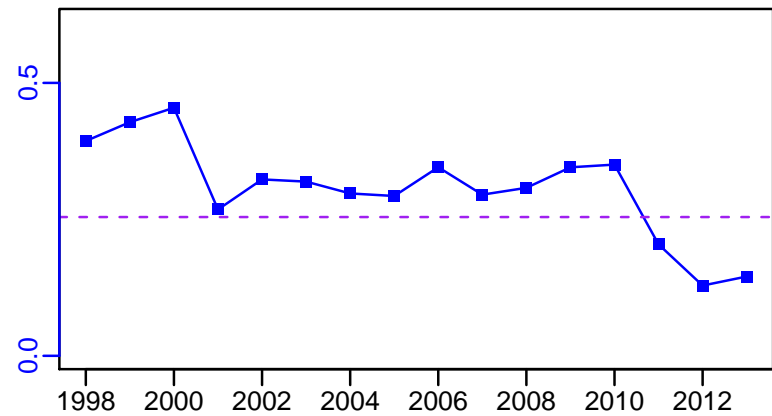
TB-MT (1997-2013-JPNIMP2016)



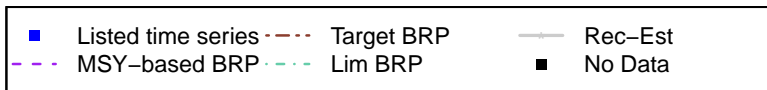
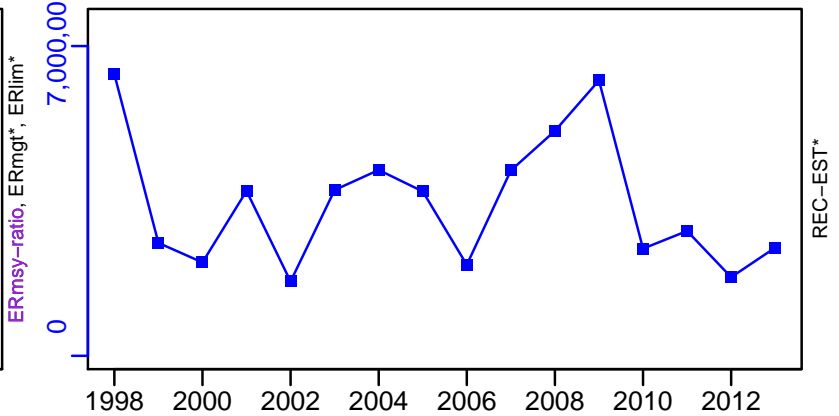
SSB-MT (1997-2013-JPNIMP2016)



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



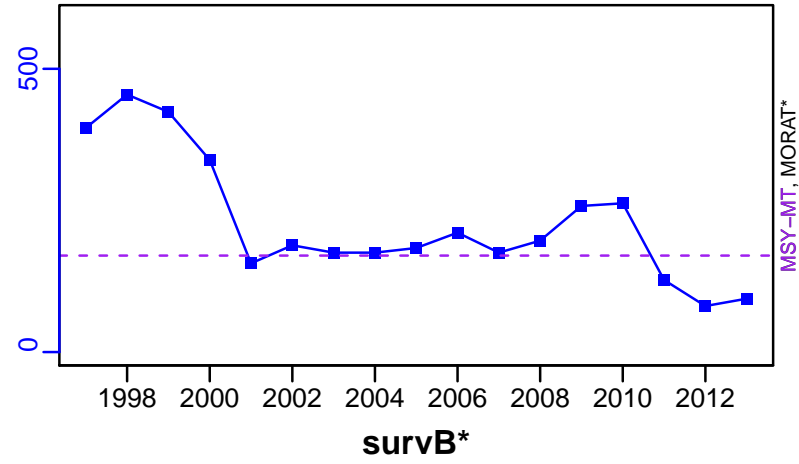
R-E00 (1997-2013-JPNIMP2016)



# Willowy flounder North Pacific [WLFLOUNNPAC]

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

TAC\*, Cpair\*, Cadv\*



EFFORT\*



## Walleye Pollock Navarinsky [WPOLLNAVAR]

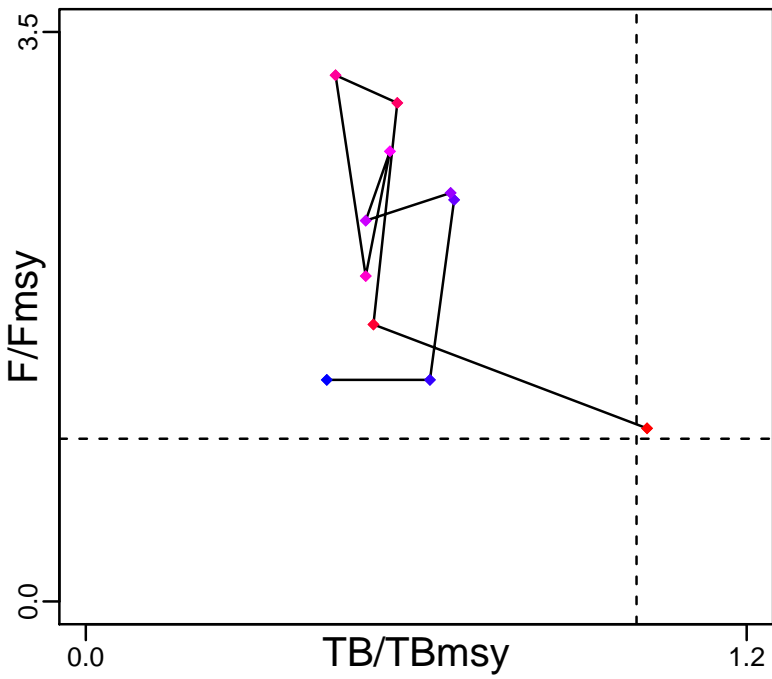
Metadata	
<b>Scientific Name</b>	Theragra chalcogramma
<b>Current Assess ID</b>	VNIRO-WPOLLNAVAR-1994-2004-JENSEN
<b>Area</b>	Navarinsky
<b>Management Authority</b>	Russian Federal Fisheries Agency, Russia national management
<b>Assessor</b>	Russian Federal Research Institute of Fisheries and Oceanography
<b>Asmts in RAM</b>	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	0.24
<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>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

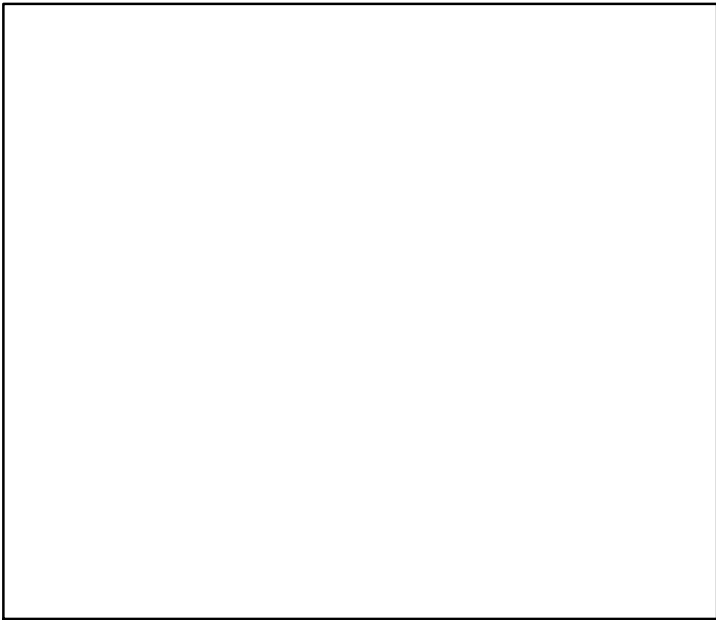
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2004	1,600,000	-	2+
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	F-1/yr	2004	0	-	3 to 6
<b>ER</b>	ER-ratio	2004	0	-	-
<b>TC</b>	TC-MT	2004	380,000		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2004	1.02		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2004	1.06		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Walleye Pollock Navarinsky [WPOLLNAVAR]

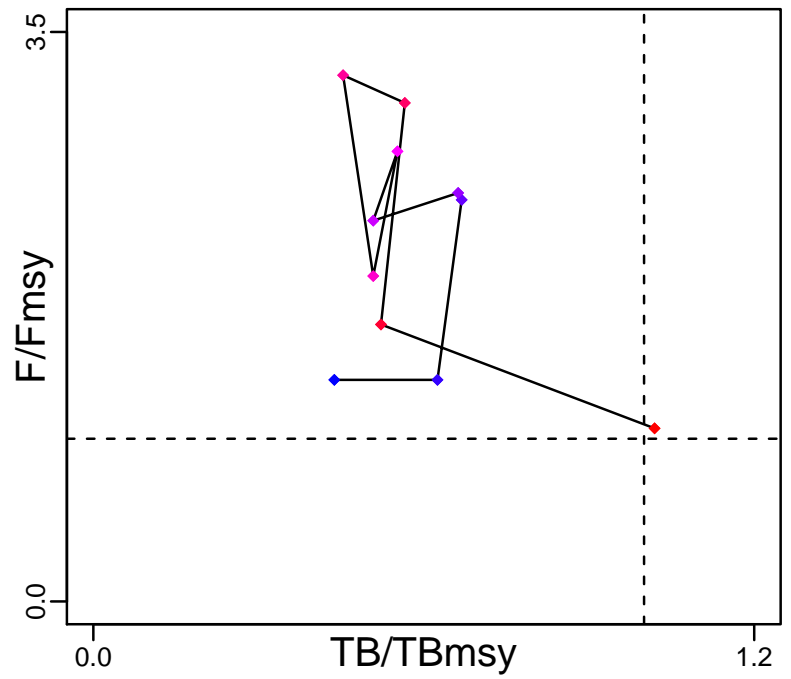
Kobe MSYpref (1994–2004–JENSEN)



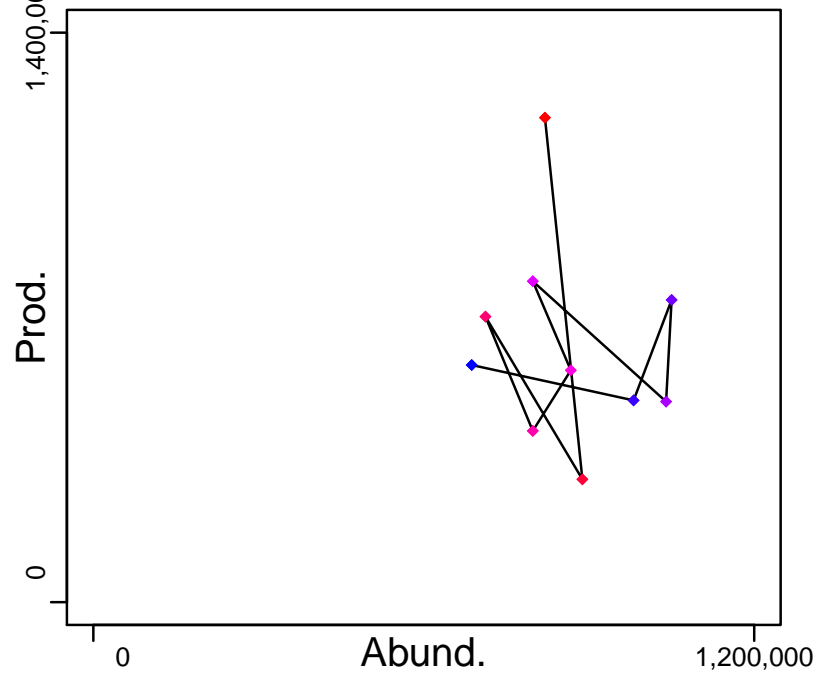
Spawner Recruit\*



Kobe MGTpref (1994–2004–JENSEN)



Production (1994–2004–JENSEN)

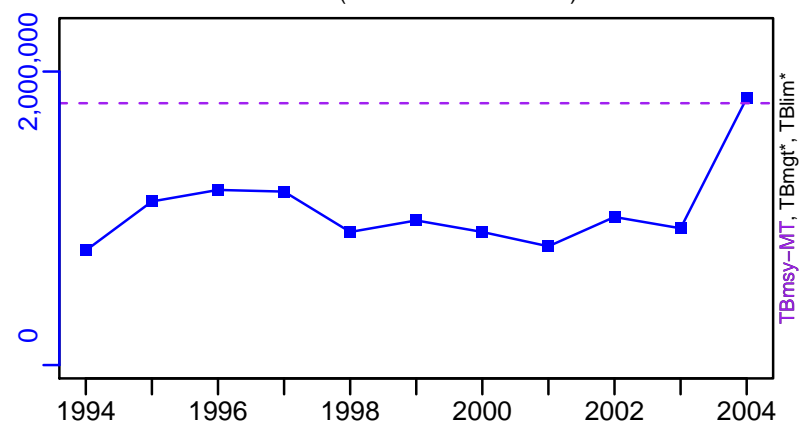


◆ Start Year ◆ End Year \* No Data

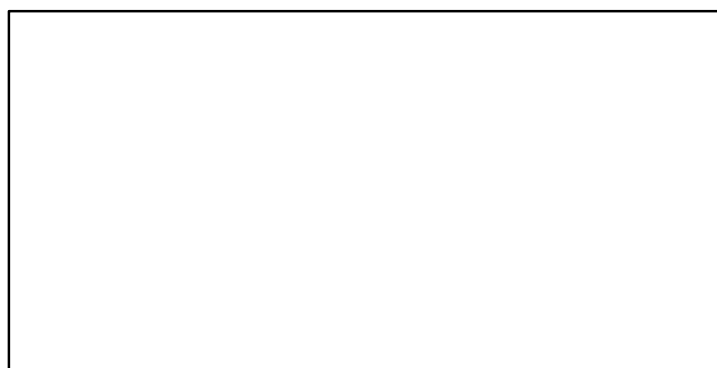


# Walleye Pollock Navarinsky [WPOLLNAVAR]

TB-MT (1994-2004-JENSEN)



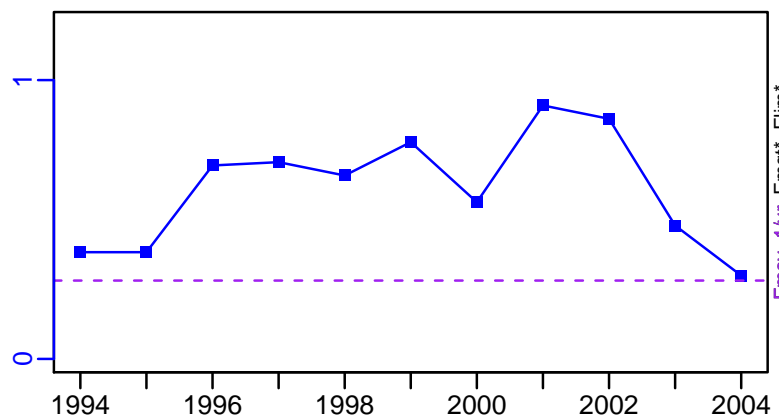
SSB\*



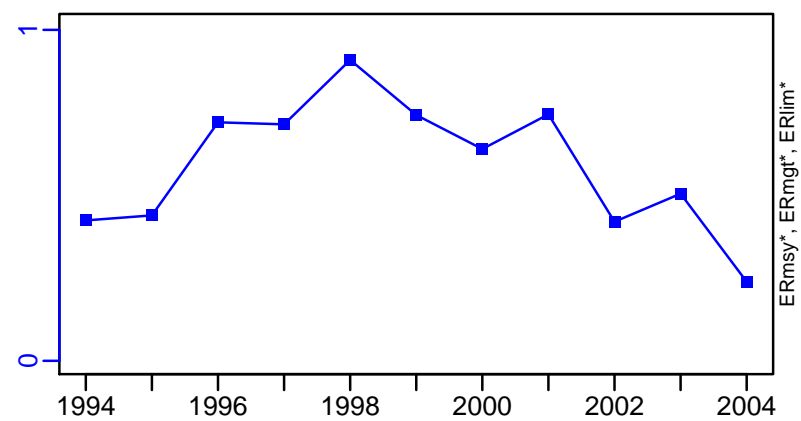
TN \*



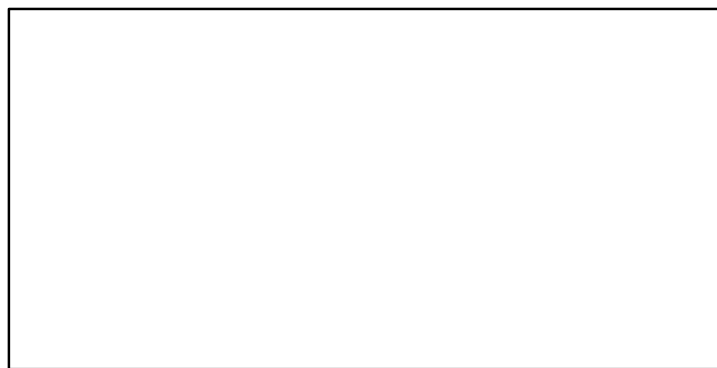
F-1/yr (1994-2004-JENSEN)



ER-ratio (1994-2004-JENSEN)

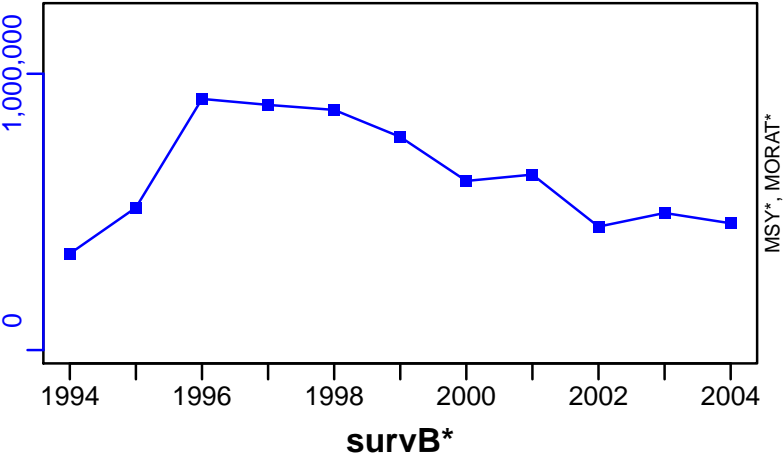


Recruits\*

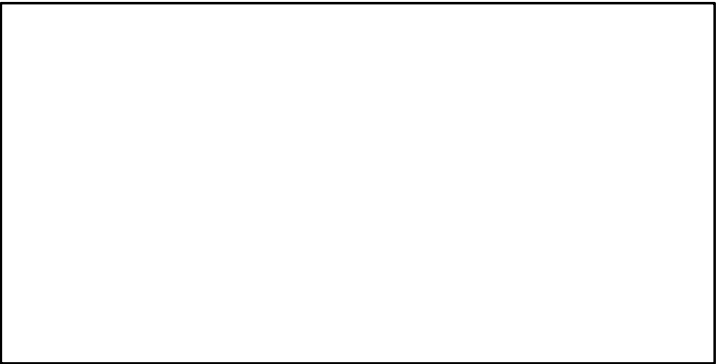


Walleye Pollock Navarinsky [WPOLLNAVAR]

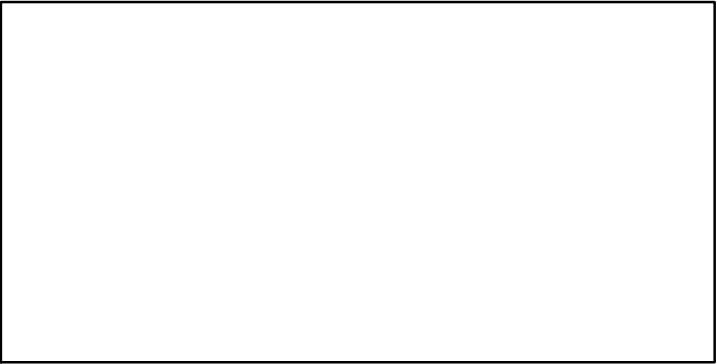
TC-MT, TL\*, RecC\* (1994-2004-JENSEN)



TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



## Walleye pollock Northern Sea of Okhotsk [WPOLLNSO]

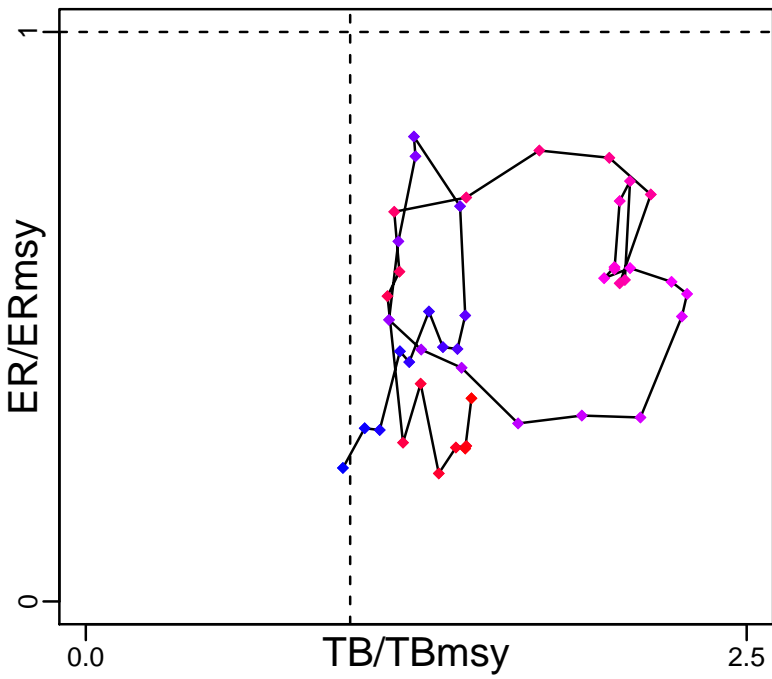
Metadata	
<b>Scientific Name</b>	Theragra chalcogramma
<b>Current Assess ID</b>	VNIRO-WPOLLNSO-1963-2012-CHING
<b>Area</b>	Northern Sea of Okhotsk
<b>Management Authority</b>	Russian Federal Fisheries Agency, Russia national management
<b>Assessor</b>	Russian Federal Research Institute of Fisheries and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

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	0.3
<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>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

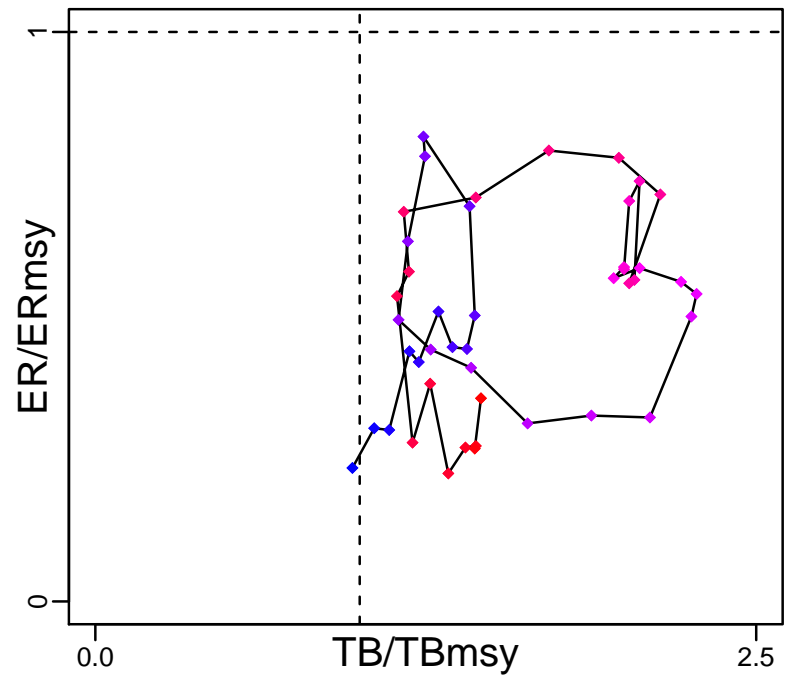
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2012	7,020,000	-	-
<b>SSB</b>	SSB-MT	2012	4,960,000	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2012	0	-	-
<b>TC</b>	TC-MT	2012	678,000	-	-
<b>TL</b>	-	-	-	-	-
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2012	1.38	-	-
<b>SSB/SSBmsy</b>	-	-	-	-	-
<b>F/Fmsy</b>	-	-	-	-	-
<b>ER/ERmsy</b>	ER-calc-ratio/Fmsy-1/yr	2012	0.36	-	-
<b>TB/TBmgt</b>	-	-	-	-	-
<b>SSB/SSBmgt</b>	-	-	-	-	-
<b>F/Fmgt</b>	-	-	-	-	-
<b>ER/ERmgt</b>	-	-	-	-	-

# Walleye pollock Northern Sea of Okhotsk [WPOLLNSO]

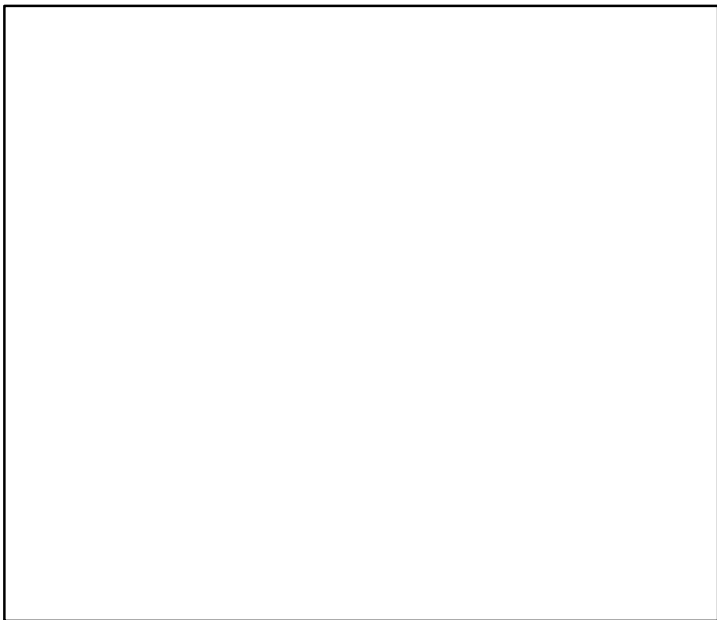
Kobe MSYpref (1963–2012–CHING)



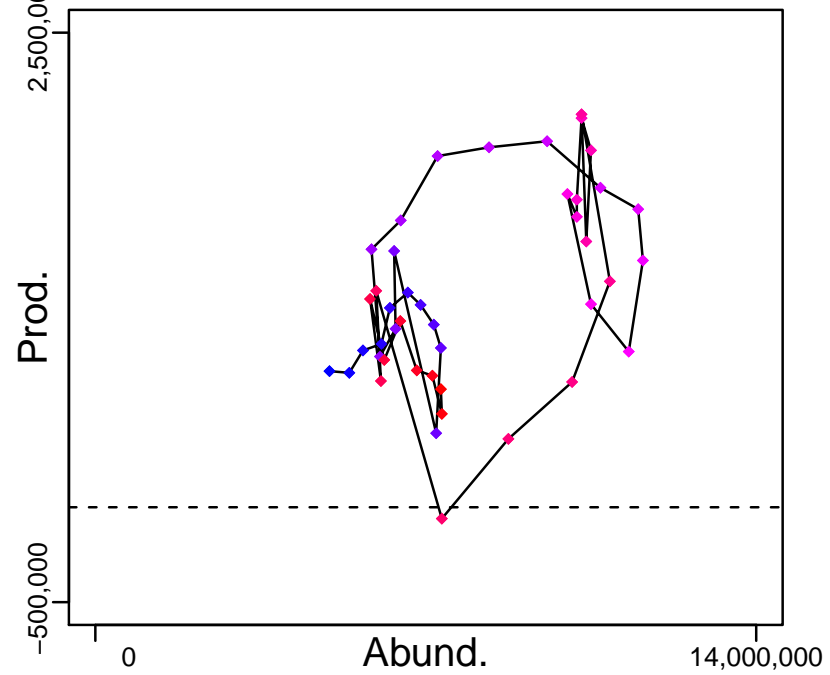
Kobe MGTpref (1963–2012–CHING)



Spawner Recruit\*



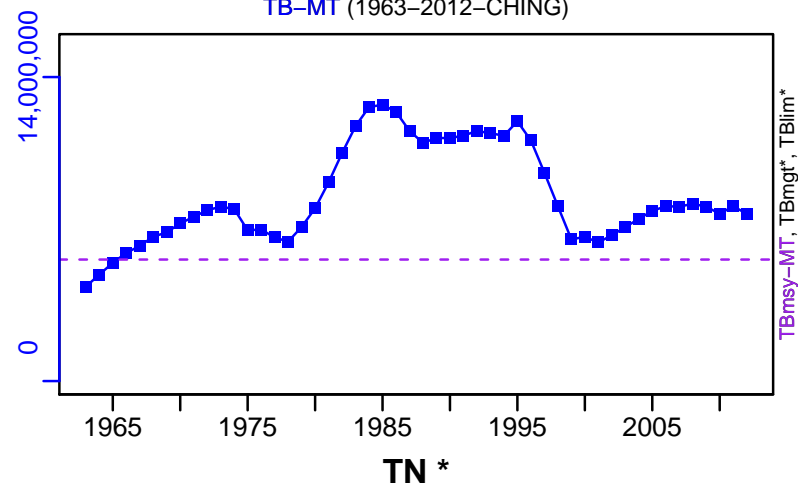
Production (1963–2012–CHING)



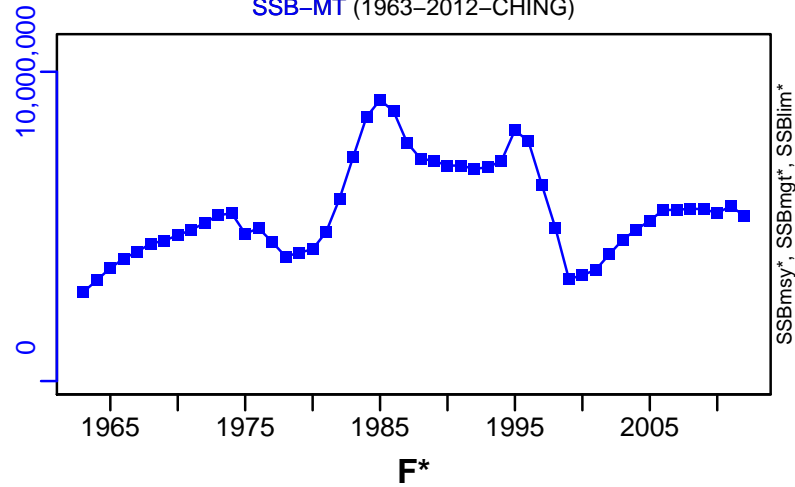
◆ Start Year ◆ End Year \* No Data

# Walleye pollock Northern Sea of Okhotsk [WPOLLNSO]

TB-MT (1963-2012-CHING)



SSB-MT (1963-2012-CHING)

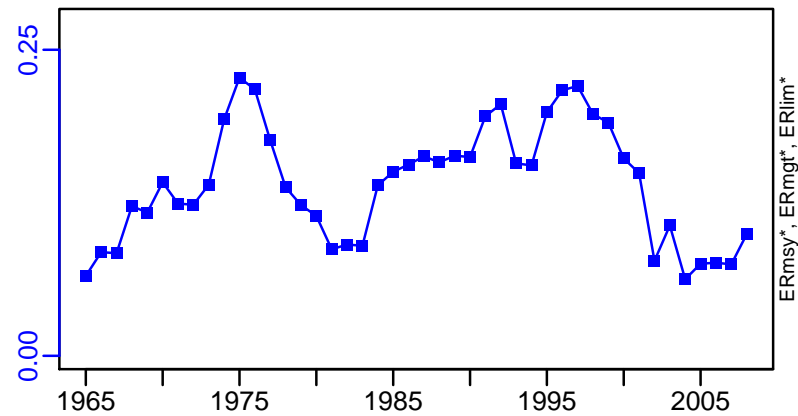


TN \*

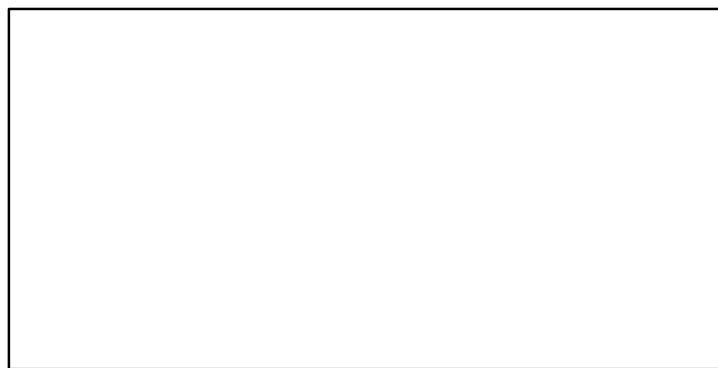
F\*



ER-calc-ratio (1963-2012-CHING)



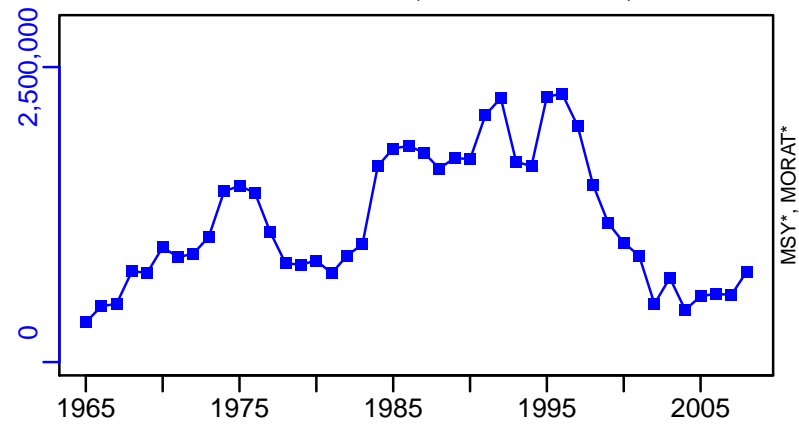
Recruits\*



Walleye pollock Northern Sea of Okhotsk [WPOLLNSO]

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

TAC\*, Cpair\*, Cadv\*



survB\*

CPUE\*

EFFORT\*

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

## Walleye pollock Western Bering Sea [WPOLLWBS]

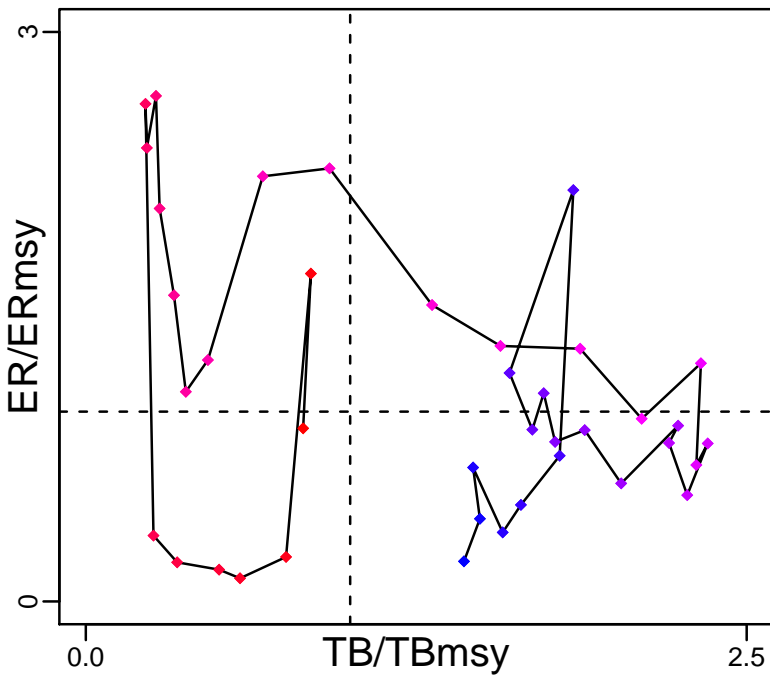
Metadata	
<b>Scientific Name</b>	Theragra chalcogramma
<b>Current Assess ID</b>	VNIRO-WPOLLWBS-1970-2008-CHING
<b>Area</b>	Western Bering Sea
<b>Management Authority</b>	Russian Federal Fisheries Agency, Russia national management
<b>Assessor</b>	Russian Federal Research Institute of Fisheries and Oceanography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

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	0.13
<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>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

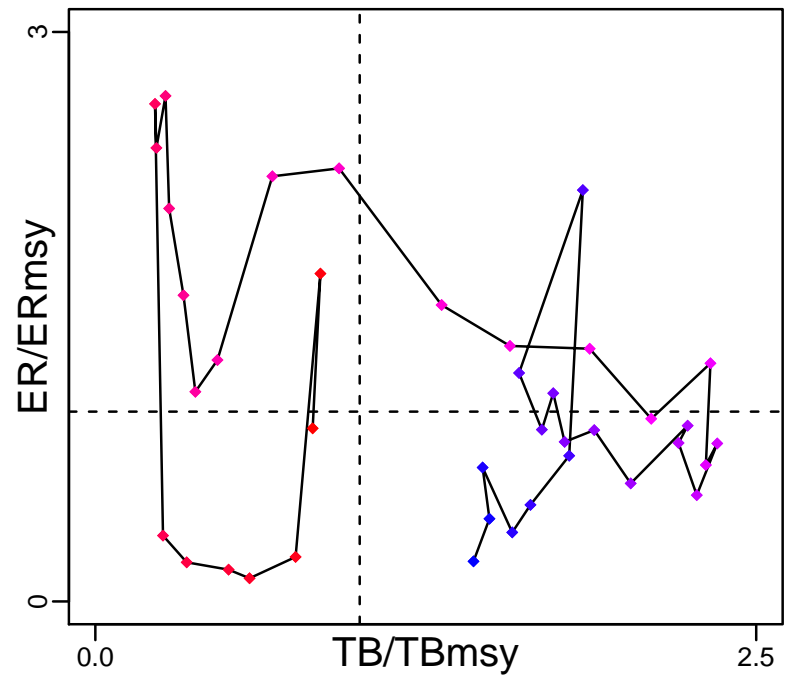
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2008	954,000	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2008	0	-	-
<b>TC</b>	TC-MT	2008	103,000	-	-
<b>TL</b>	-	-	-	-	-
<b>TB/TBmsy</b>	TB-MT/SSBmsy-MT	2008	0.82	-	-
<b>SSB/SSBmsy</b>	-	-	-	-	-
<b>F/Fmsy</b>	-	-	-	-	-
<b>ER/ERmsy</b>	ER-calc-ratio/Fmsy-1/yr	2008	0.91	-	-
<b>TB/TBmgt</b>	-	-	-	-	-
<b>SSB/SSBmgt</b>	-	-	-	-	-
<b>F/Fmgt</b>	-	-	-	-	-
<b>ER/ERmgt</b>	-	-	-	-	-

# Walleye pollock Western Bering Sea [WPOLLWBS]

Kobe MSYpref (1970–2008–CHING)



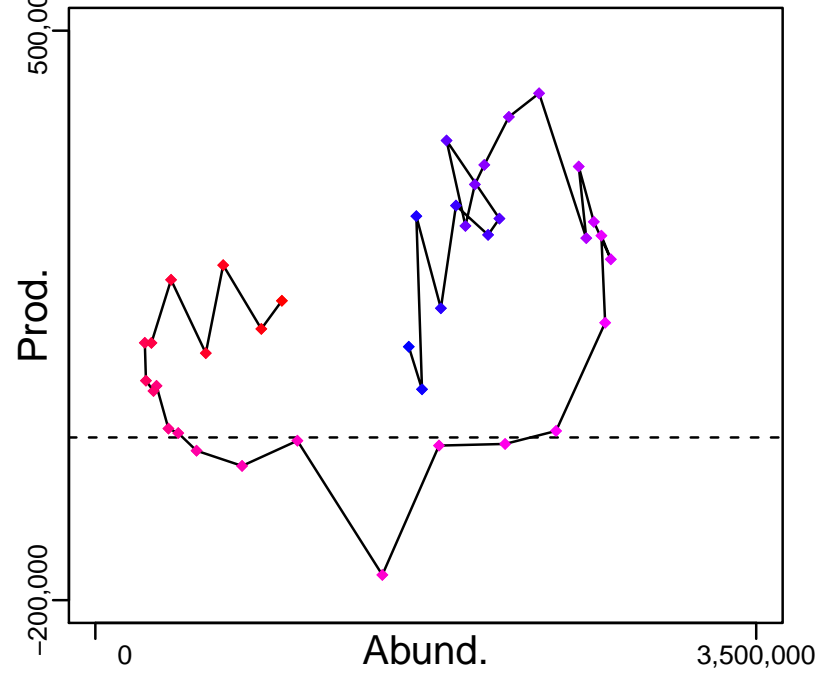
Kobe MGTpref (1970–2008–CHING)



Spawner Recruit\*



Production (1970–2008–CHING)

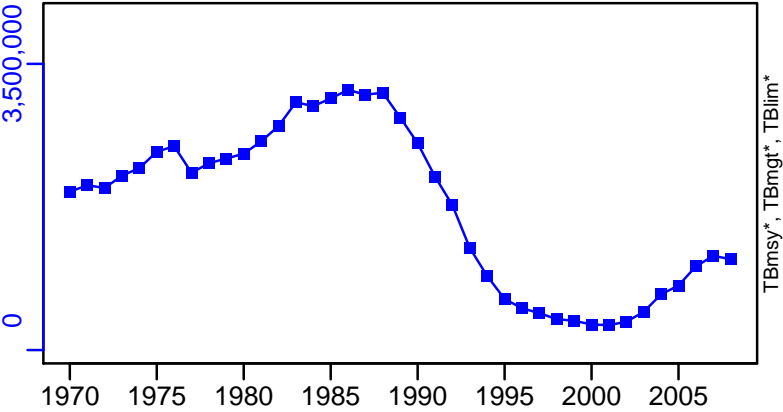


◆ Start Year ◆ End Year \* No Data



Walleye pollock Western Bering Sea [WPOLLWBS]

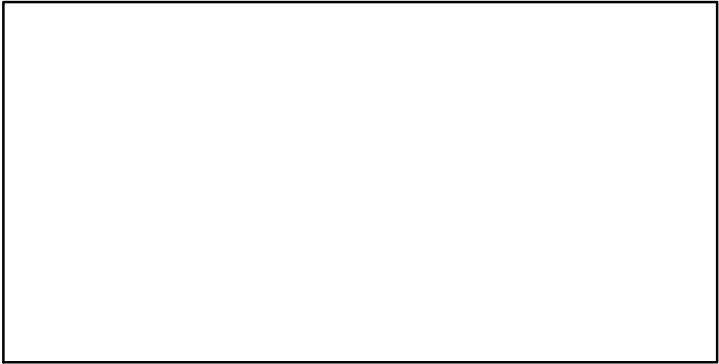
TB-MT (1970-2008-CHING)



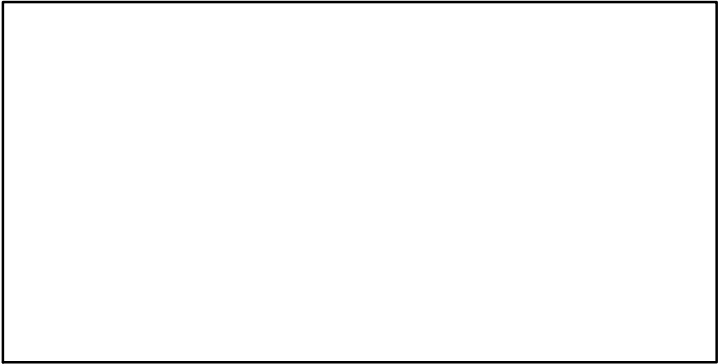
SSB\*



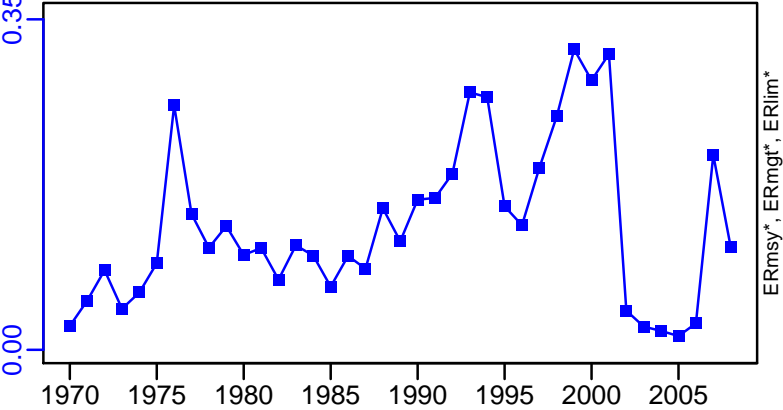
TN \*



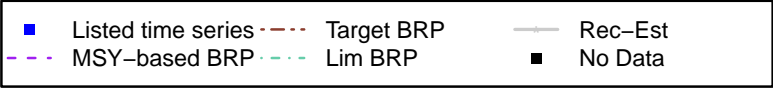
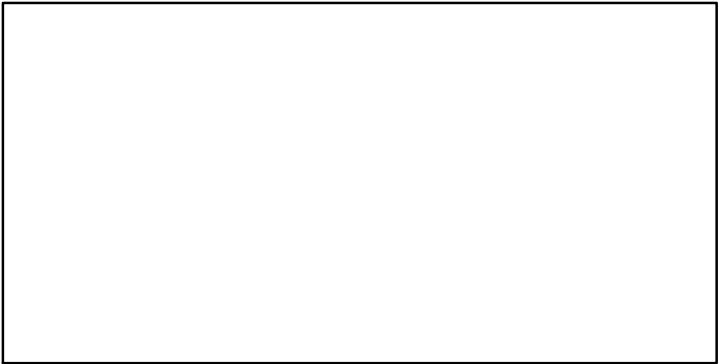
F\*



ER-calc-ratio (1970-2008-CHING)



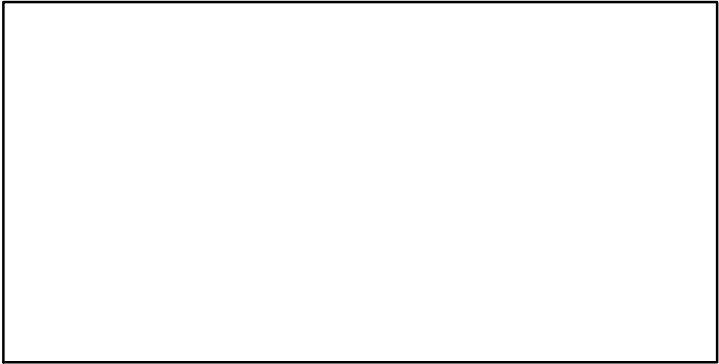
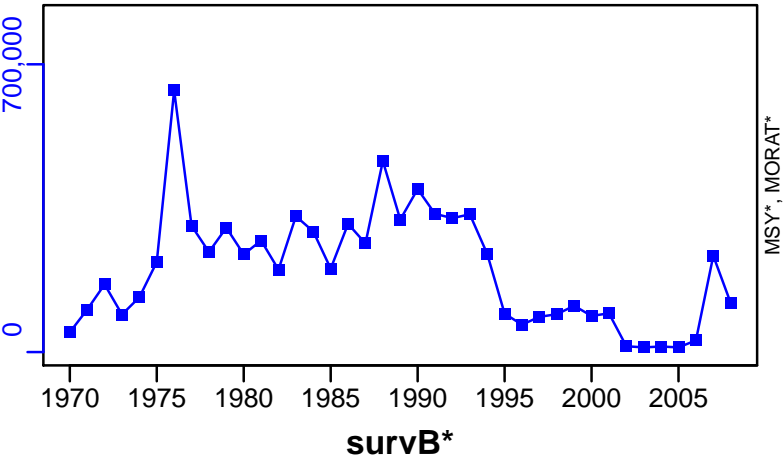
Recruits\*



Walleye pollock Western Bering Sea [WPOLLWBS]

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

TAC\*, Cpair\*, Cadv\*



EFFORT\*



## Whitespotted conger Ise and Mikawa Bay [WSCONGIMKB]

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



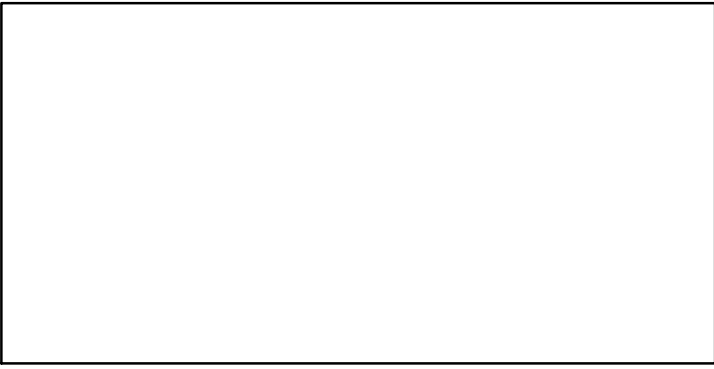
**Production\***



◆ Start Year ◆ End Year \* No Data

Whitespotted conger Ise and Mikawa Bay [WSCONGIMKB]

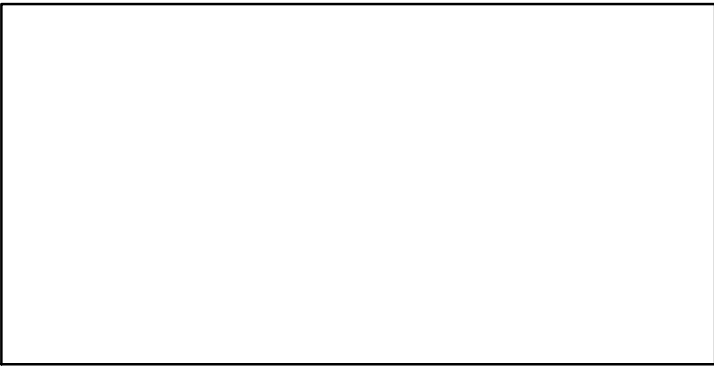
**TB\***



**SSB\***



**TN \***



**F\***



**ER\***



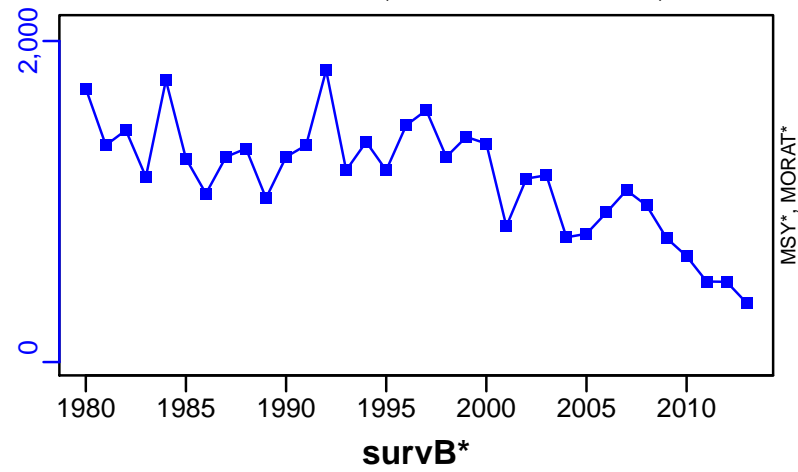
**Recruits\***



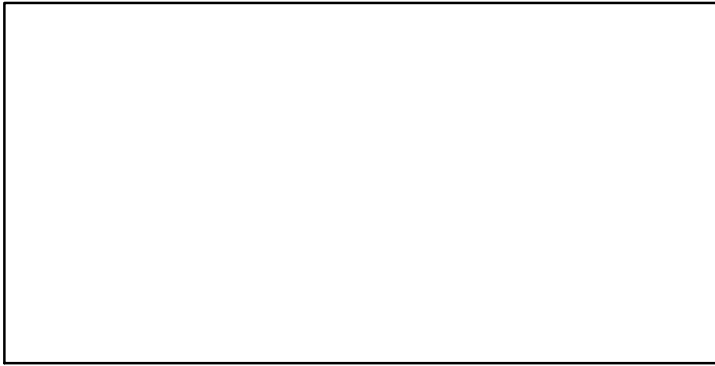
# Whitespotted conger Ise and Mikawa Bay [WSCONGIMKB]

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

TAC\*, Cpair\*, Cadv\*



EFFORT\*



## Yellow goosfish North Pacific [YGSFISHNPAC]

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

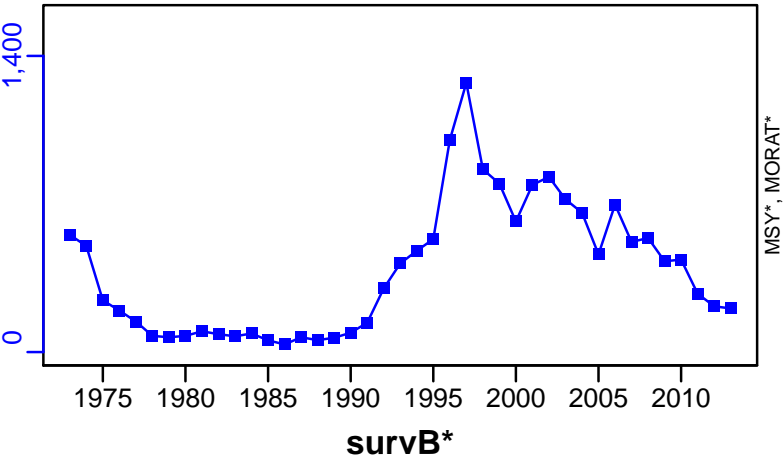


Recruits\*



Yellow goosfish North Pacific [YGSFISHNPAC]

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



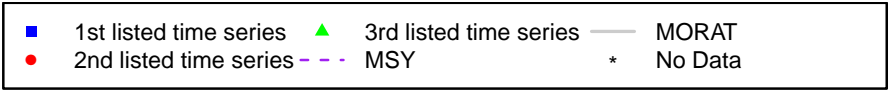
TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



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

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

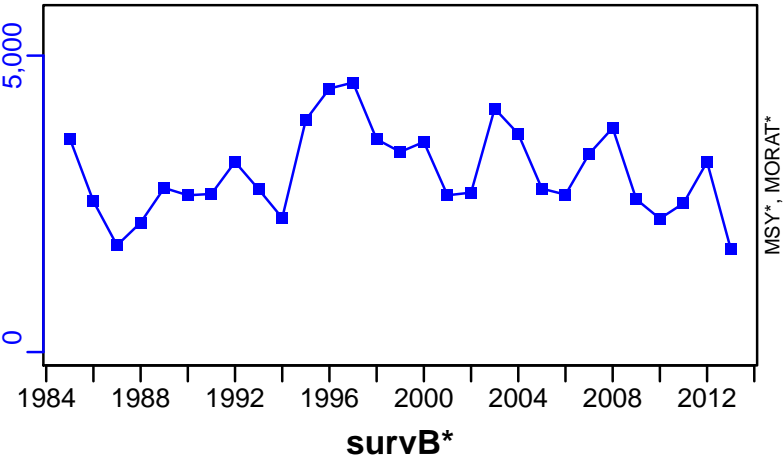


Recruits\*



Yellow striped flounder North coast of Hokkaido [YSFLOUNNHOKK]

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



TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



## Yellow striped flounder Sea of Japan [YSFLOUNSOJ]

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



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TB\*



SSB\*



TN \*



F\*



ER\*

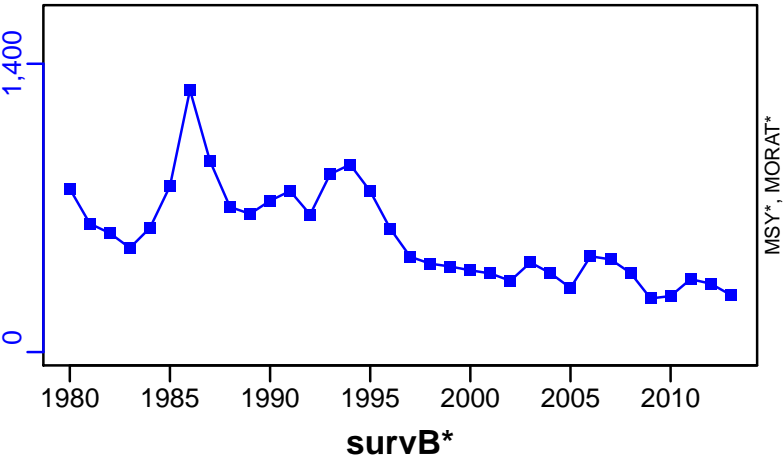


Recruits\*



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



TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*

