

# other scorpaenids Stocks

## v4.66 (Nov-03-2024)

Not present Present Preferred

Stock	B/Bmsy	Time Series Types			
		U/Umsy	B/Bmgt	U/Umgt	
1. ARGREENNEMS [Arabesque greenling Nemuro Strait]	TB SSB	ER F	TB SSB	ER F	
2. ARGREENNHOKK [Arabesque greenling North coast of Hokkaido]	TB SSB	ER F	TB SSB	ER F	
3. ARGREENSHOKK [Arabesque greenling South coast of Hokkaido]	TB SSB	ER F	TB SSB	ER F	
4. ATKABSAI [Atka mackerel Bering Sea and Aleutian Islands]	TB SSB	ER F	TB SSB	ER F	
5. ATKAGA [Atka mackerel Gulf of Alaska]	TB SSB	ER F	TB SSB	ER F	
6. CABEZNCAL [Cabezon Northern California]	TB SSB	ER F	TB SSB	ER F	
7. CABEZORECOAST [Cabezon Oregon Coast]	TB SSB	ER F	TB SSB	ER F	
8. CABEZSCAL [Cabezon Southern California]	TB SSB	ER F	TB SSB	ER F	
9. CABEZWASH [Cabezon Washington]	TB SSB	ER F	TB SSB	ER F	
10. CALSCORPSCAL [California scorpionfish Southern California]	TB SSB	ER F	TB SSB	ER F	
11. DEEPFLATHEADSE [Deepwater flathead Southeast Australia]	TB SSB	ER F	TB SSB	ER F	
12. GGURNIIIa-IV-VIId [Grey gurnard ICES 3a-4-7d]	TB SSB	ER F	TB SSB	ER F	
13. KELPGREENLINGORECOAST [Kelp greenling Oregon Coast]	TB SSB	ER F	TB SSB	ER F	
14. LINGCODNPCOAST [Lingcod Northern Pacific Coast]	TB SSB	ER F	TB SSB	ER F	
15. LINGCODSOG [Lingcod Strait of Georgia]	TB SSB	ER F	TB SSB	ER F	
16. LINGCODSPCOAST [Lingcod Southern Pacific Coast]	TB SSB	ER F	TB SSB	ER F	
17. LUMP3Pn4RS [Lumpfish Northern Gulf of St. Lawrence]	TB SSB	ER F	TB SSB	ER F	
18. PRGURNGUR3 [Pacific red gurnard New Zealand Area GUR 3]	TB SSB	ER F	TB SSB	ER F	
19. PRGURNGUR7 [Pacific red gurnard New Zealand Area GUR 7]	TB SSB	ER F	TB SSB	ER F	
20. RGURNNEATL [Red gurnard Northeast Atlantic]	TB SSB	ER F	TB SSB	ER F	
21. SABLEFEBSAIGA [Sablefish Eastern Bering Sea / Aleutian Islands / Gulf of Alaska]	TB SSB	ER F	TB SSB	ER F	
22. SABLEFPCAN [Sablefish Pacific Coast of Canada]	TB SSB	ER F	TB SSB	ER F	
23. SABLEFPCOAST [Sablefish Pacific Coast]	TB SSB	ER F	TB SSB	ER F	
24. TIGERFLATSE [Tiger flathead Southeast Australia]	TB SSB	ER F	TB SSB	ER F	

## Arabesque greenling Nemuro Strait [ARGREENNEMS]

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

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

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

**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



**Production\***



◆ Start Year   ◆ End Year   \* No Data

Arabesque greenling Nemuro Strait [ARGREENNEMS]

TB\*



SSB\*



TN \*



F\*



ER\*



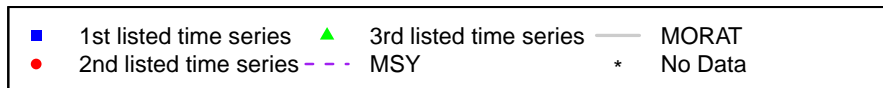
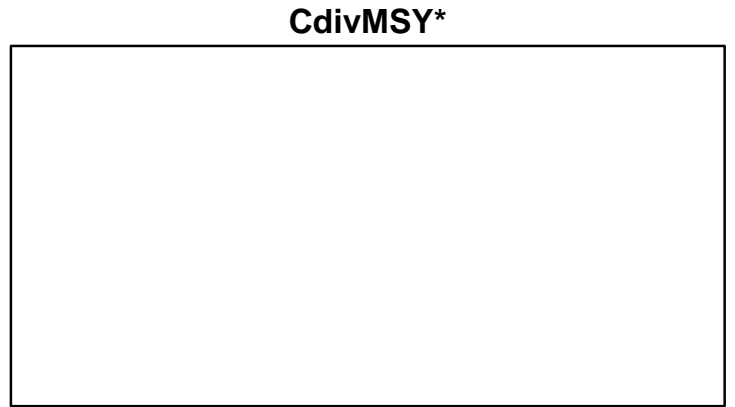
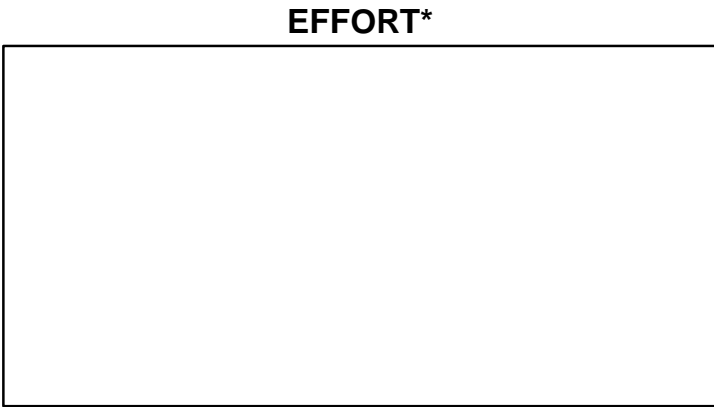
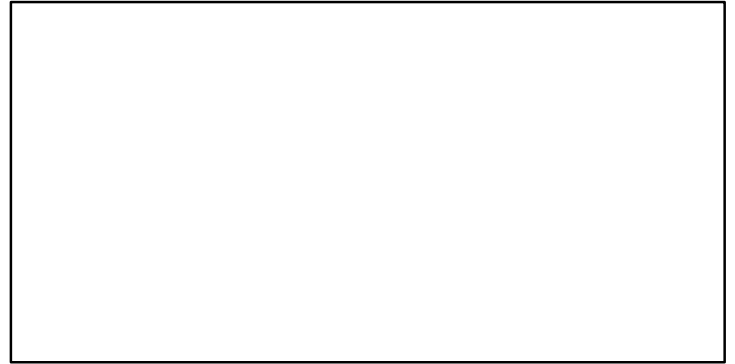
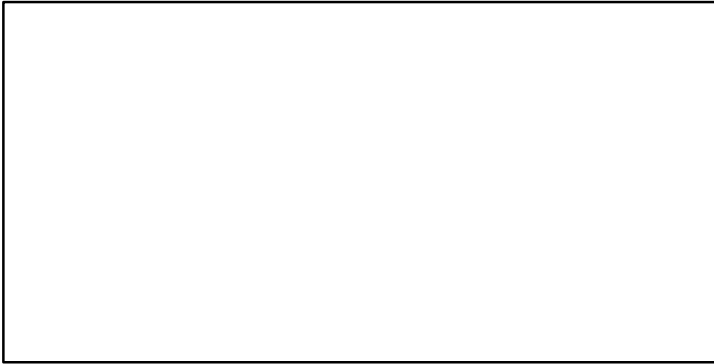
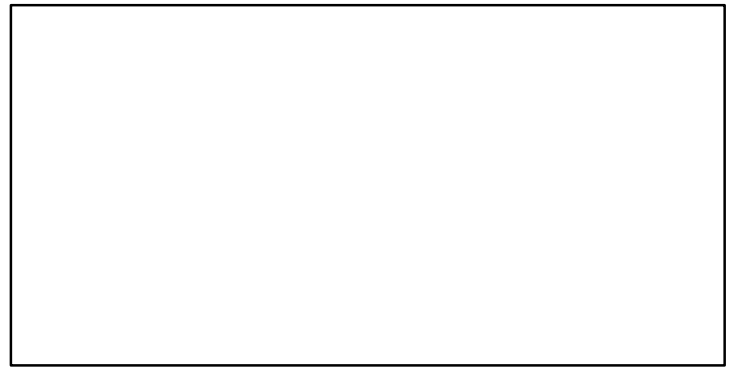
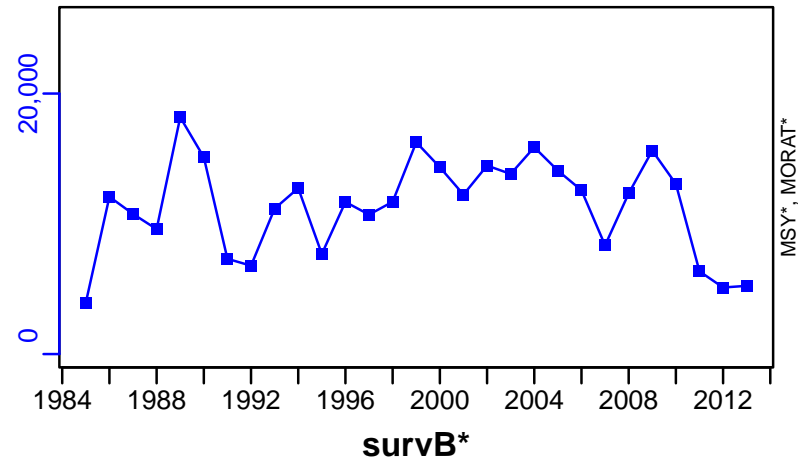
Recruits\*



# Arabesque greenling Nemuro Strait [ARGREENNEMS]

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

TAC\*, Cpair\*, Cadv\*



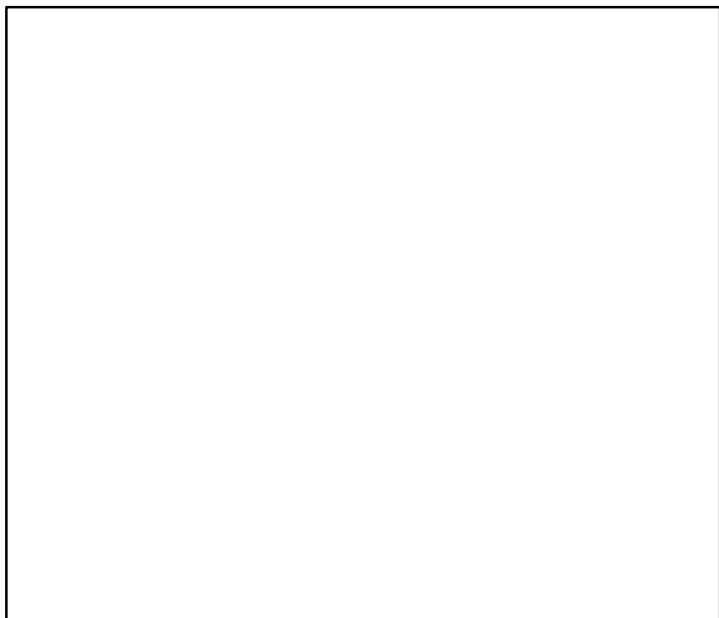
## Arabesque greenling North coast of Hokkaido [ARGREENNHOKK]

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

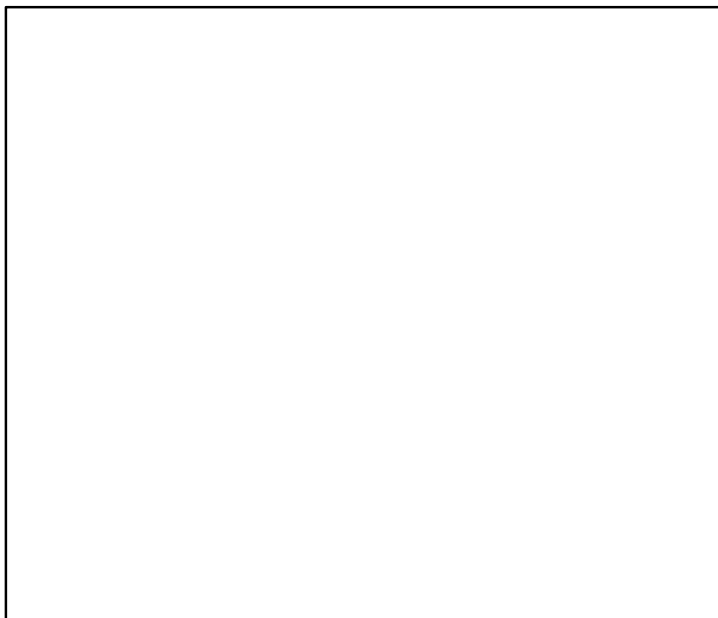
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

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

**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



**Production\***



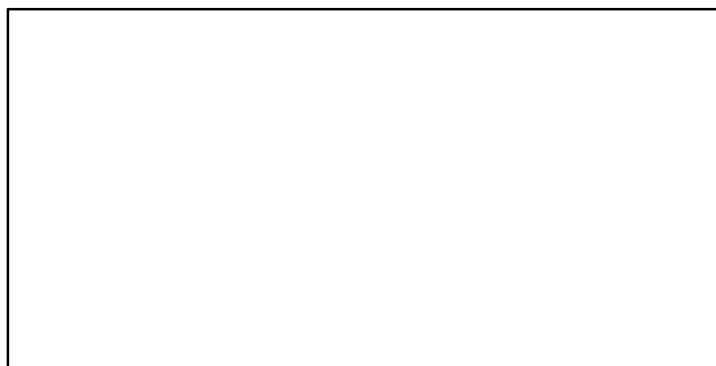
◆ Start Year ◆ End Year \* No Data

Arabesque greenling North coast of Hokkaido [ARGREENNHOKK]

**TB\***



**SSB\***



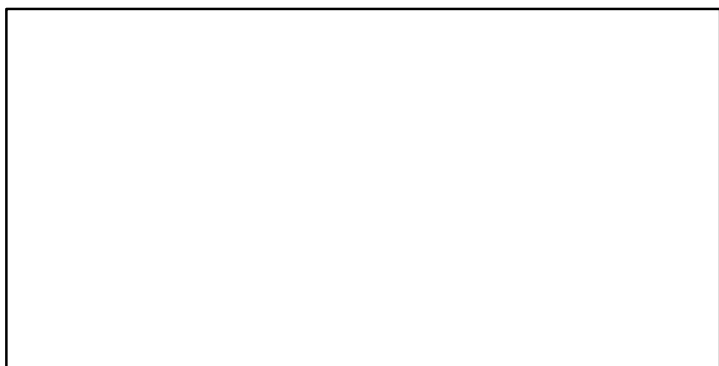
**TN \***



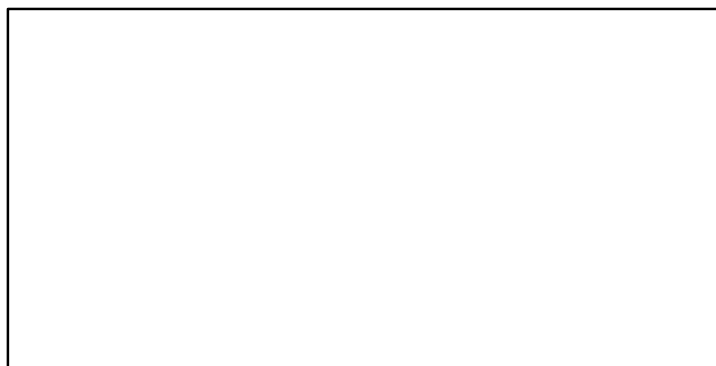
**F\***



**ER\***



**Recruits\***

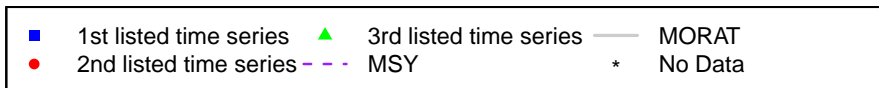
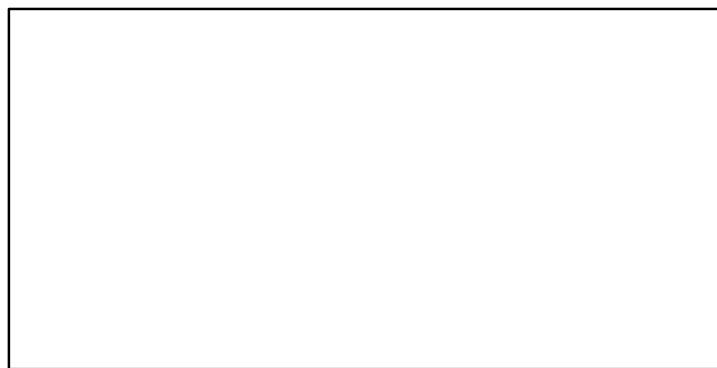
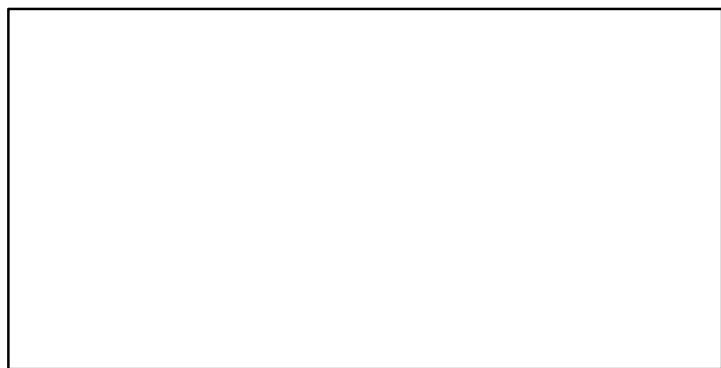
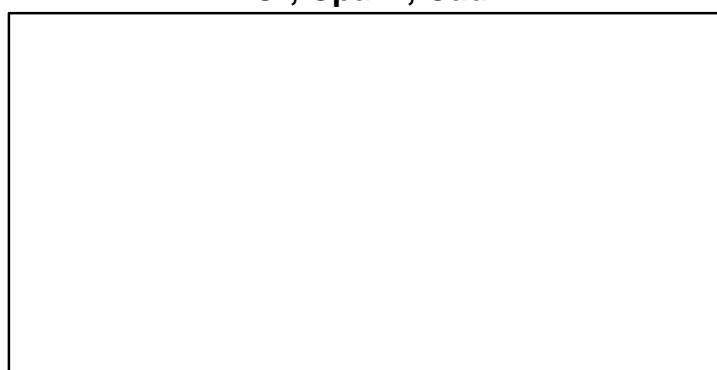
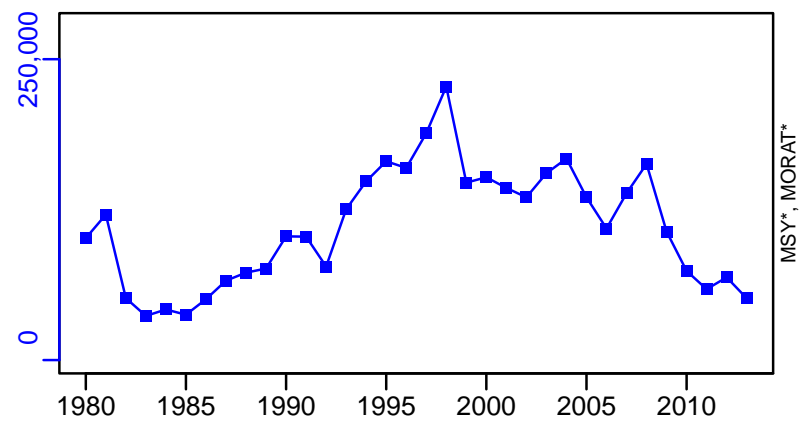




# Arabesque greenling North coast of Hokkaido [ARGREENNHOKK]

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

TAC\*, Cpair\*, Cadv\*



## Arabesque greenling South coast of Hokkaido [ARGREENSHOKK]

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

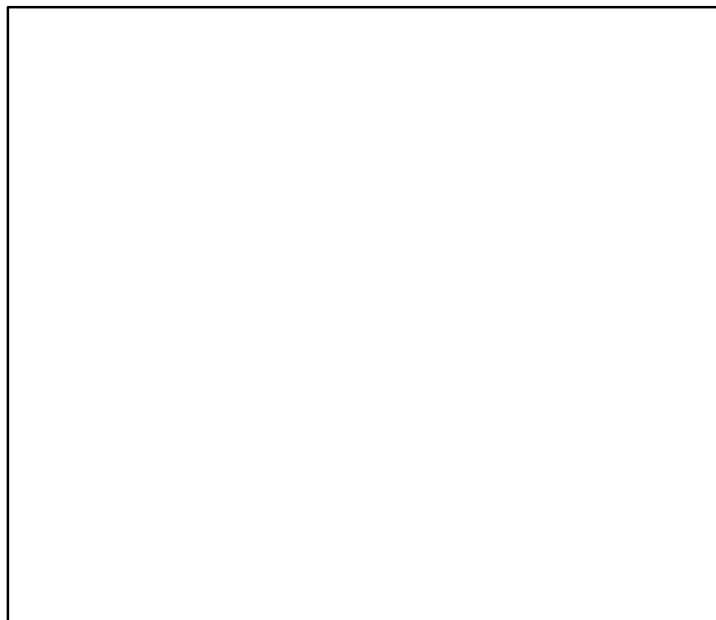
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

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

**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



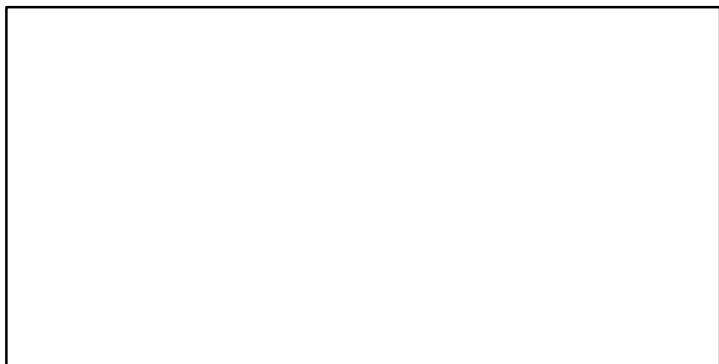
**Production\***



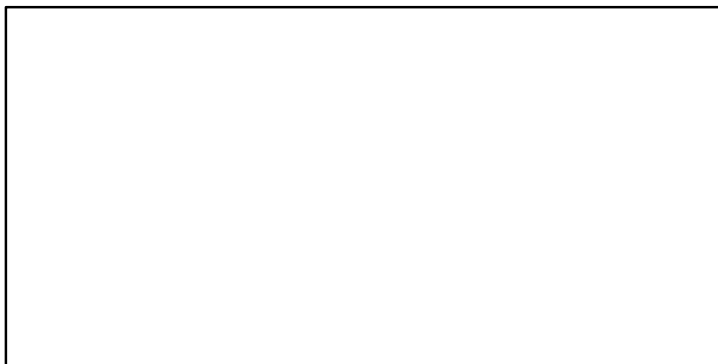
◆ Start Year ◆ End Year \* No Data

Arabesque greenling South coast of Hokkaido [ARGREENSHOKK]

**TB\***



**SSB\***



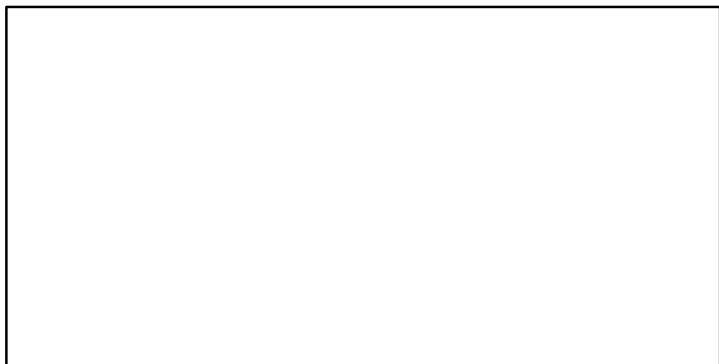
**TN \***



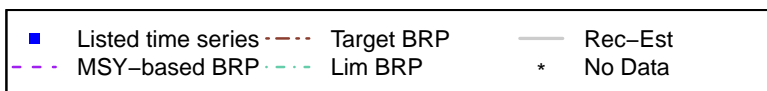
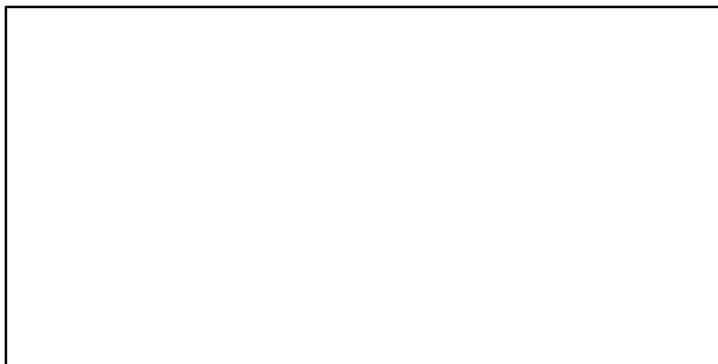
**F\***



**ER\***

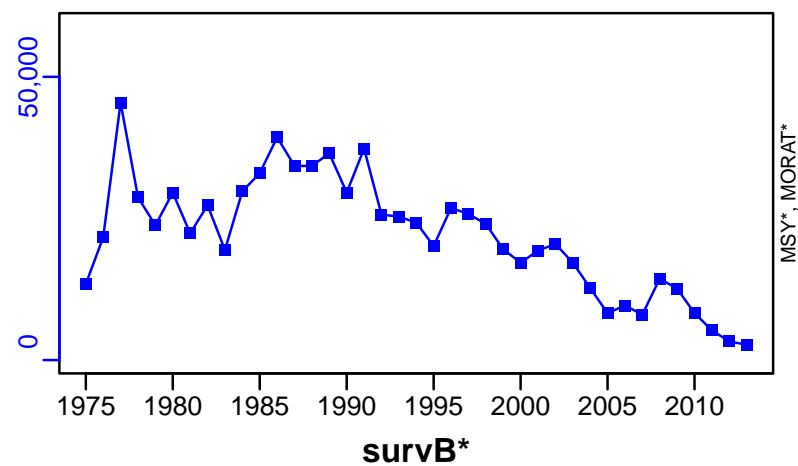


**Recruits\***



# Arabesque greenling South coast of Hokkaido [ARGREENSHOKK]

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



TAC\*, Cpair\*, Cadv\*



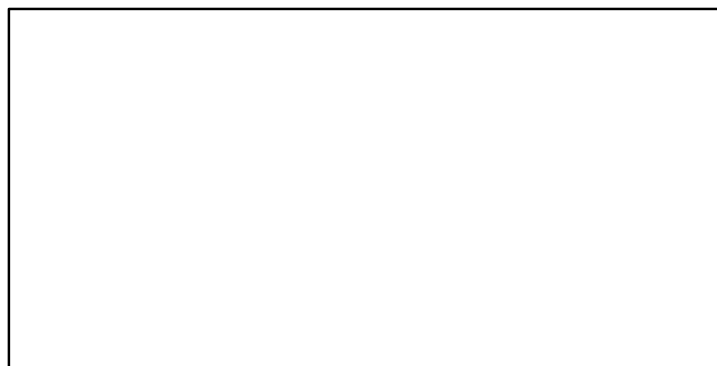
CPUE\*



EFFORT\*



CdivMSY\*



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

## Atka mackerel Bering Sea and Aleutian Islands [ATKABSAI]

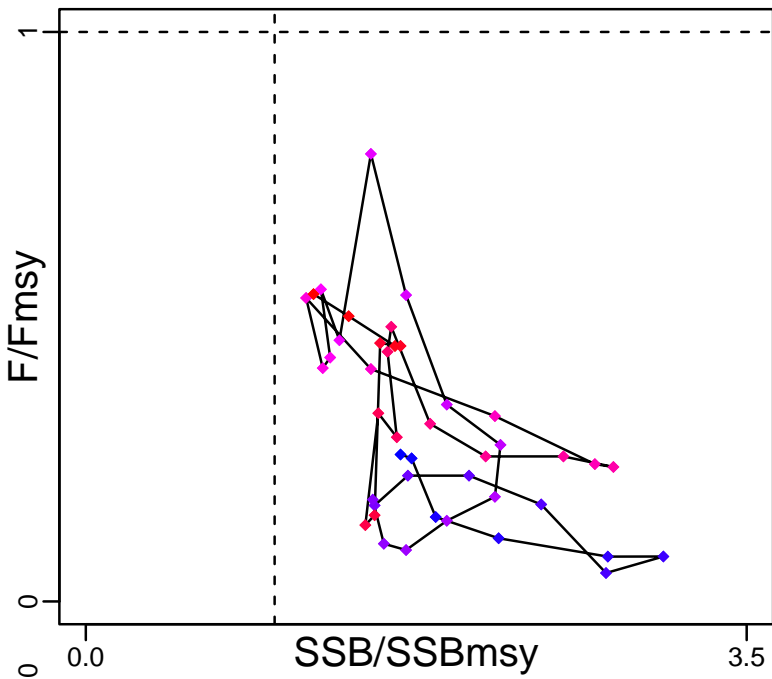
Metadata	
<b>Scientific Name</b>	Pleurogrammus monopterygius
<b>Current Assess ID</b>	AFSC-ATKABSAI-1977-2020-SISIMP2021-2
<b>Area</b>	Bering Sea and Aleutian Islands
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2011, 2016, 2017, 2018, 2015, 2019, 2020

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2020	102,000
<b>Fmsy</b>	Fmsy-1/yr	2020	0.593
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	M-1/yr	2011	0.3
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	Flim-1/yr	2020	0.464
<b>ERlim</b>	-	-	-

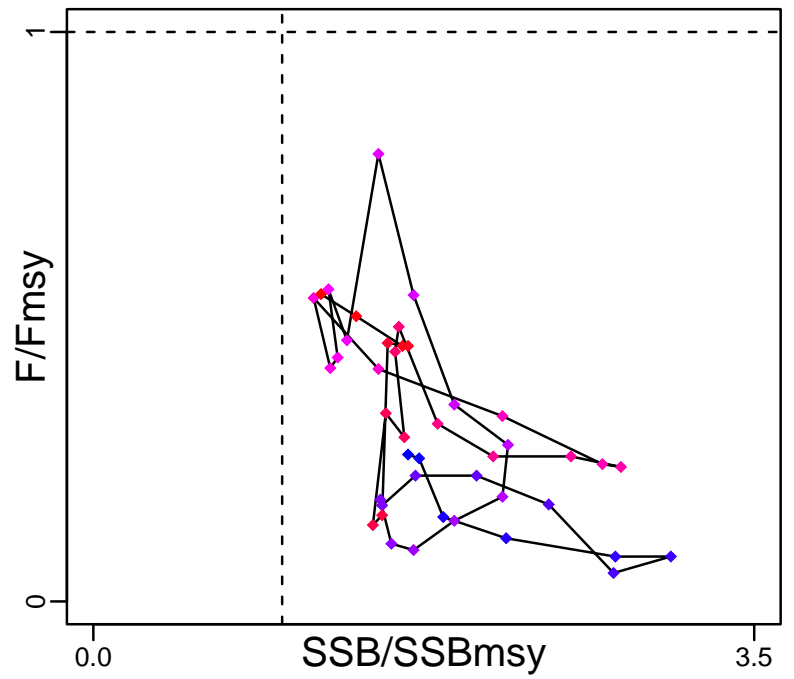
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	589,000	-	1+
<b>SSB</b>	SSB-MT	2020	114,000	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2020	$4.47 \times 10^8$	-	1
<b>F</b>	F-1/yr	2020	0.32	-	-
<b>ER</b>	ER-calc-ratio	2015	0.053	-	-
<b>TC</b>	TC-MT	2020	57,200		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2020	1.118		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2020	0.54		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Atka mackerel Bering Sea and Aleutian Islands [ATKABSAI]

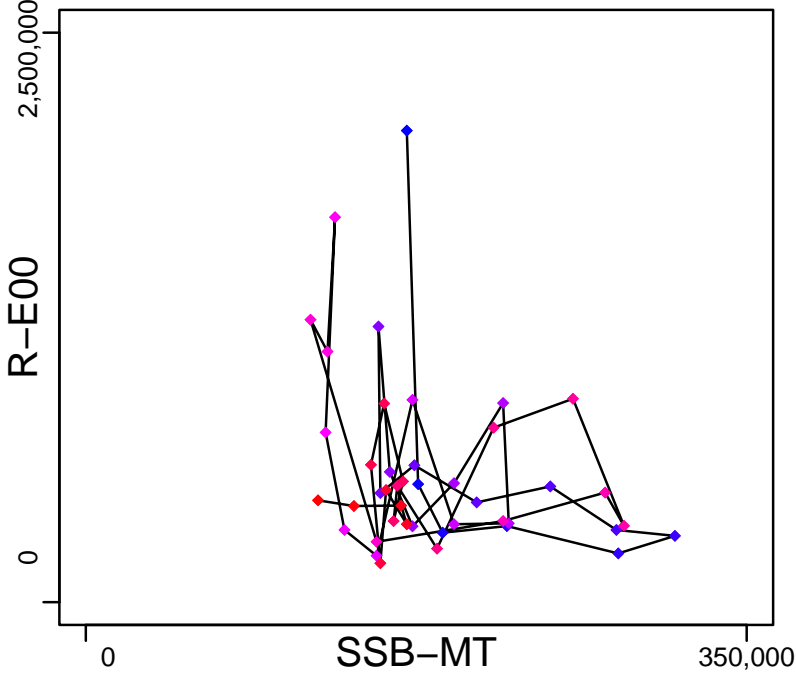
Kobe MSYpref (1977–2020–SISIMP2021–2)



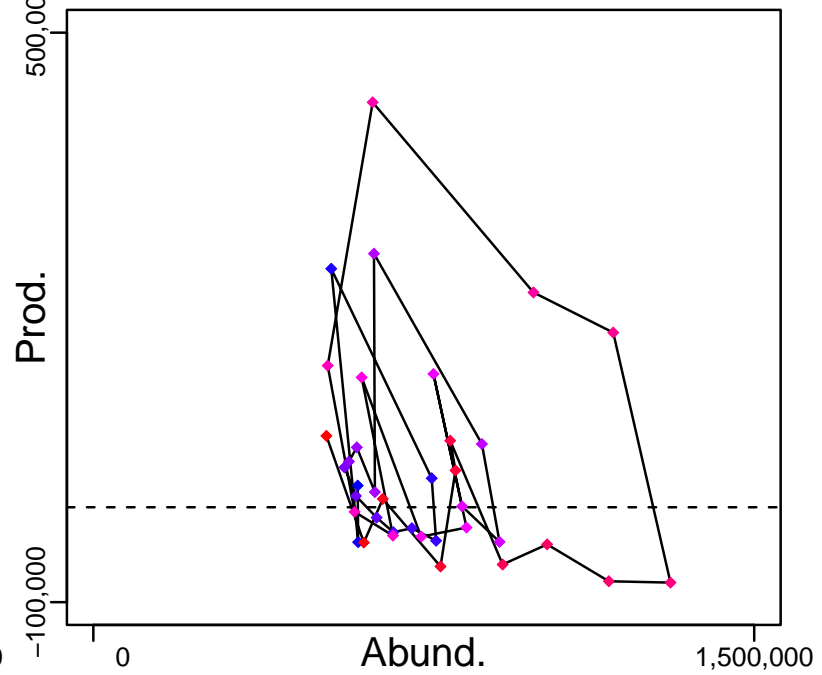
Kobe MGTpref (1977–2020–SISIMP2021–2)



Spawner Recruit (1977–2020–SISIMP2021–2)

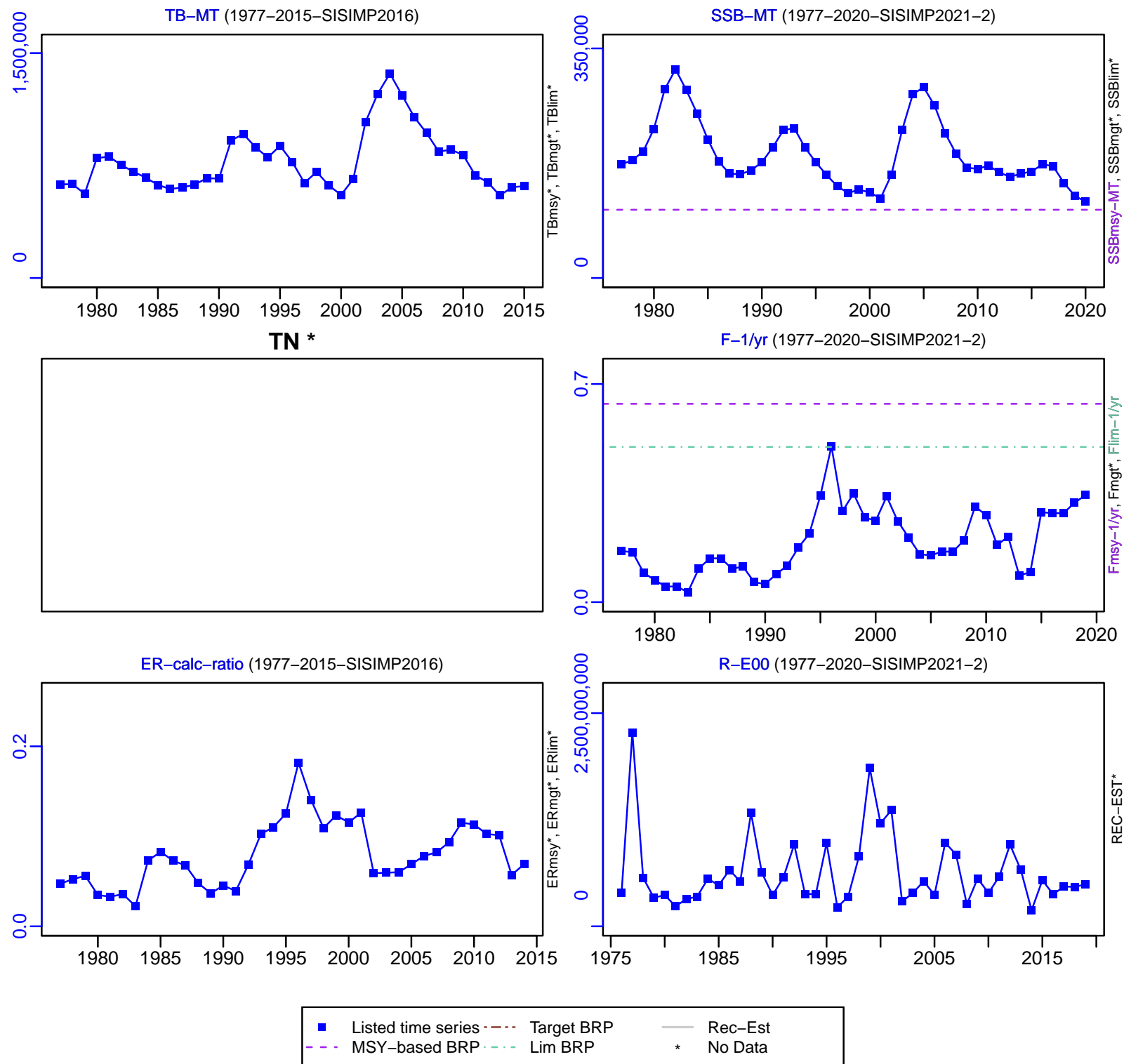


Production (1977–2015–SISIMP2016)



◆ Start Year ◆ End Year \* No Data

# Atka mackerel Bering Sea and Aleutian Islands [ATKABSAI]

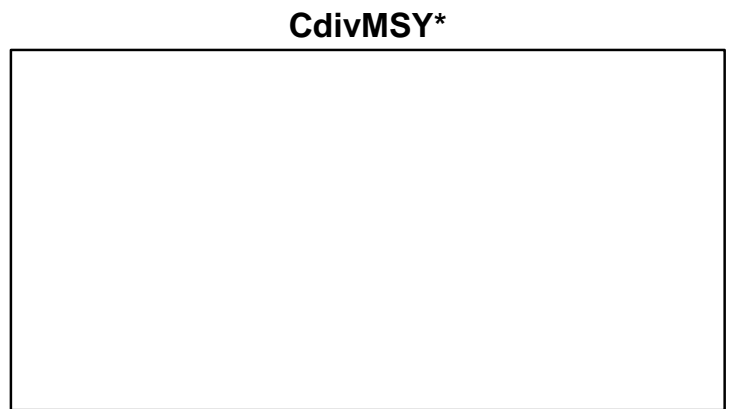
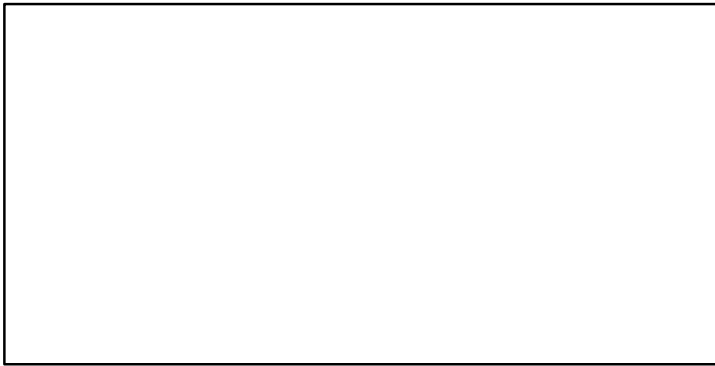
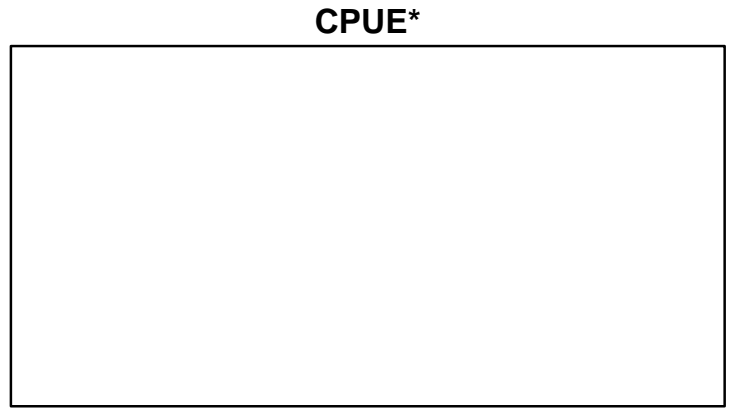
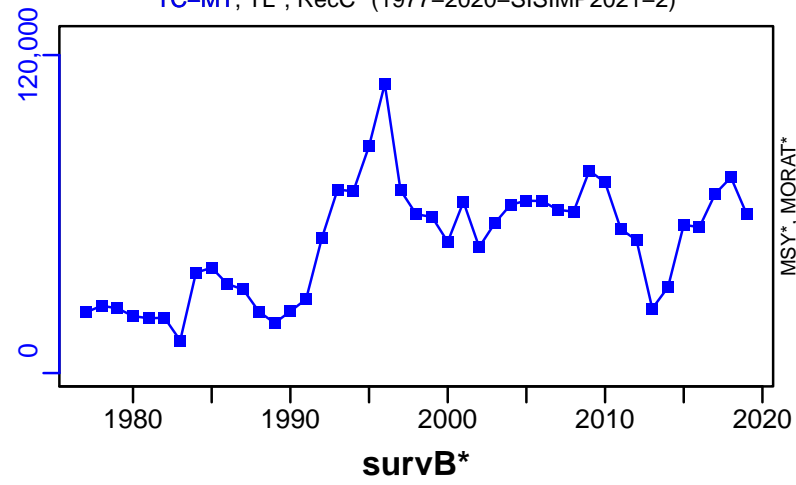




# Atka mackerel Bering Sea and Aleutian Islands [ATKABSAI]

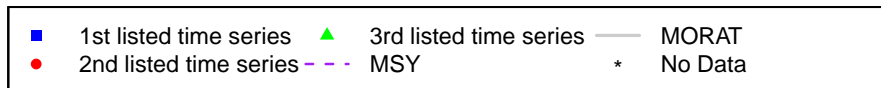
TC-MT, TL\*, RecC\* (1977-2020-SISIMP2021-2)

TAC\*, Cpair\*, Cadv\*



EFFORT\*

CdivMSY\*

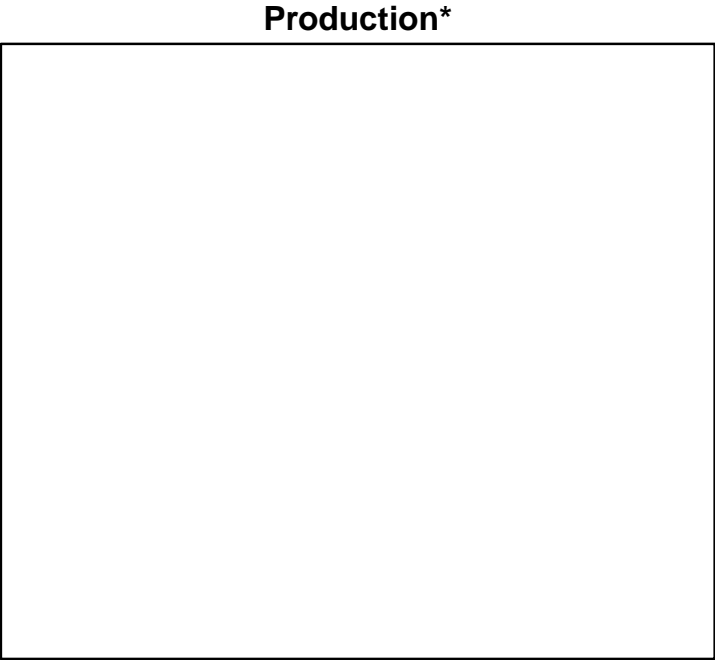
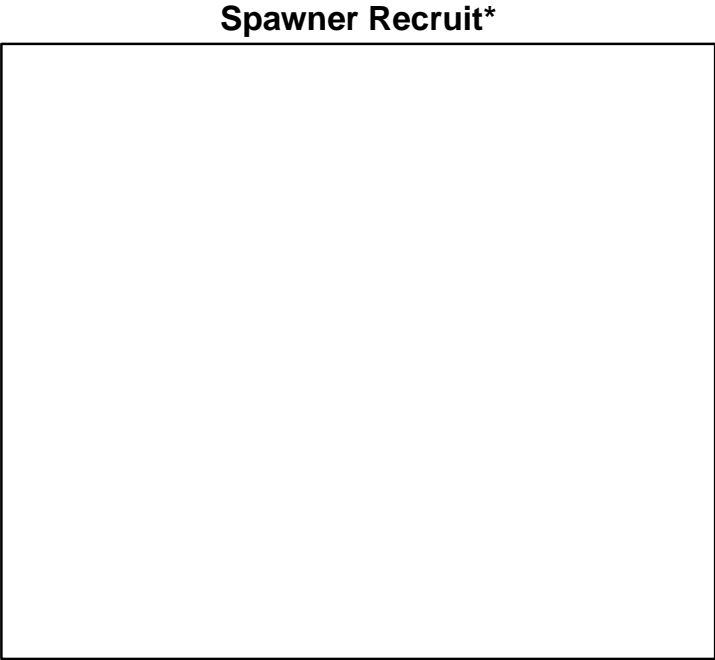
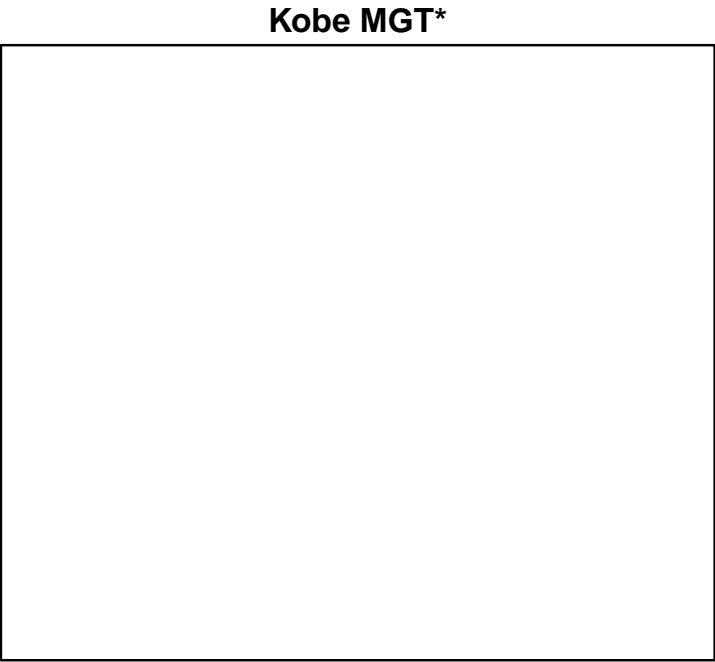
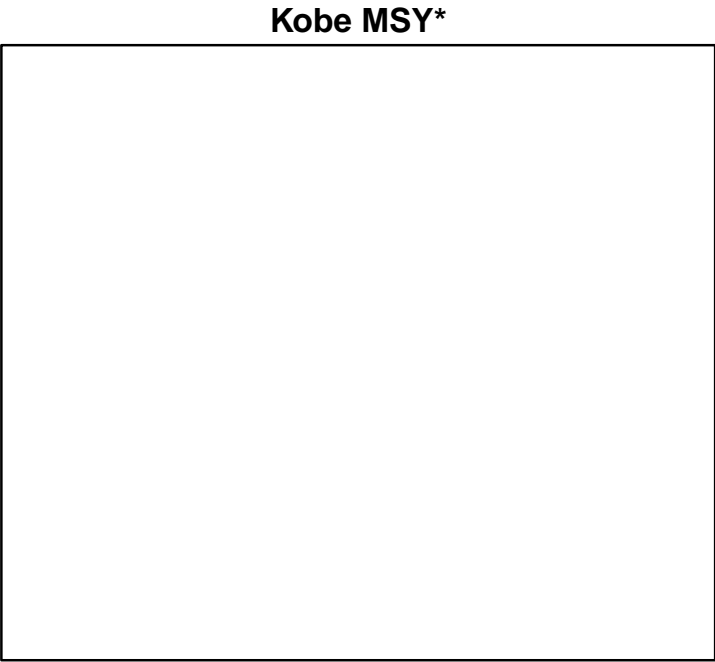


## Atka mackerel Gulf of Alaska [ATKAGA]

Metadata	
<b>Scientific Name</b>	Pleurogrammus monopterygius
<b>Current Assess ID</b>	AFSC-ATKAGA-1977-2015-SISIMP2021
<b>Area</b>	Gulf of Alaska
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2014, 2015

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	2015	1228		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



◆ Start Year   ♦ End Year   \* No Data

Atka mackerel Gulf of Alaska [ATKAGA]

TB\*



SSB\*



TN \*



F\*



ER\*



Recruits\*

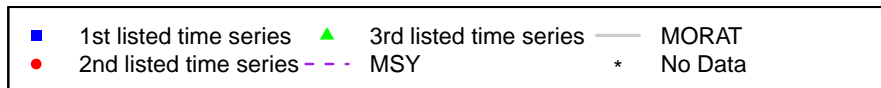
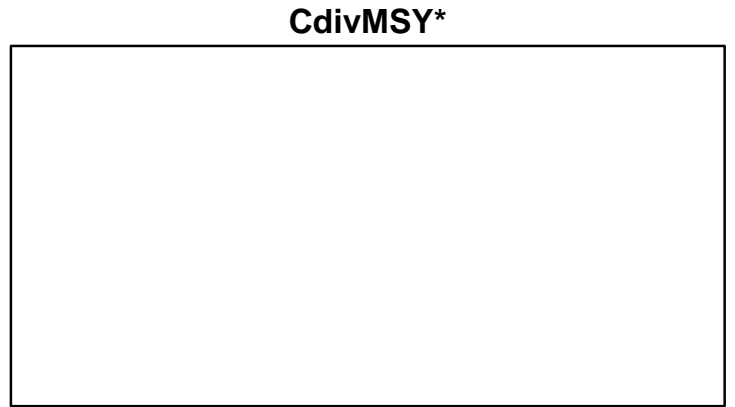
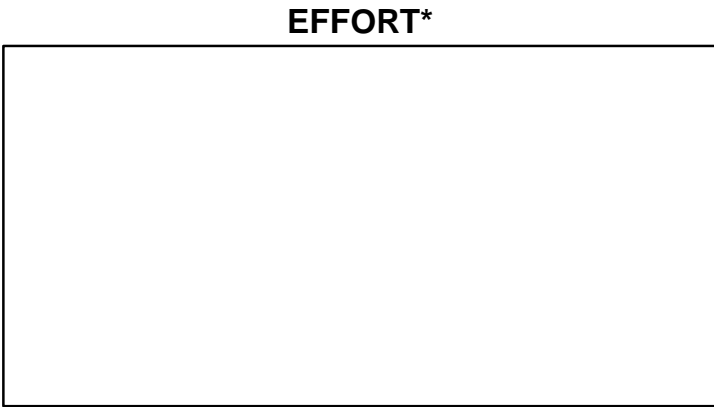
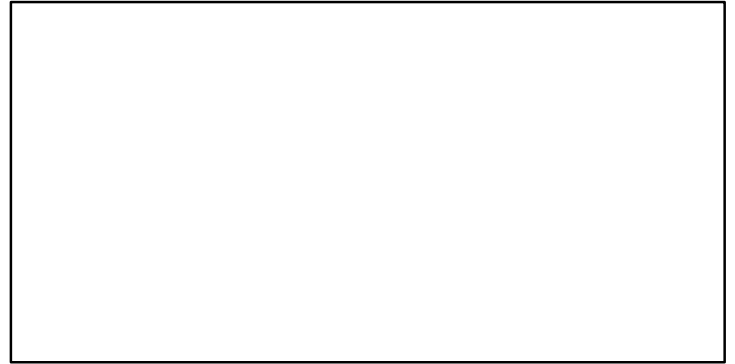
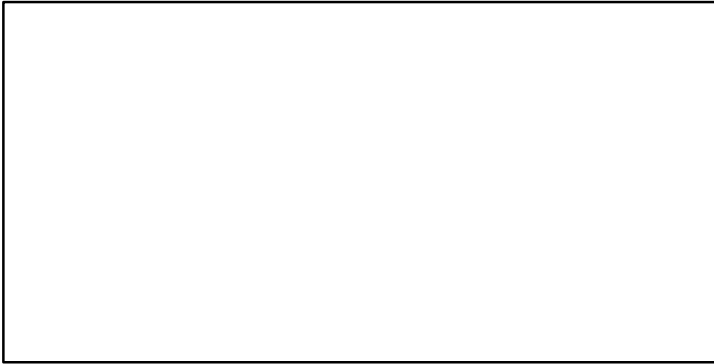
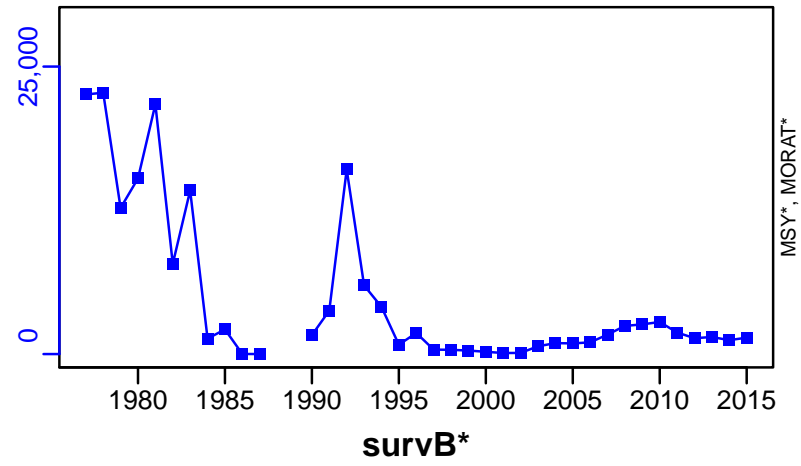


■ Listed time series	- - - Target BRP	— Rec-Est
- - - MSY-based BRP	· · · Lim BRP	* No Data

# Atka mackerel Gulf of Alaska [ATKAGA]

TC-MT, TL\*, RecC\* (1977-2015-SISIMP2021)

TAC\*, Cpair\*, Cadv\*



## Cabezon Northern California [CABEZNCAL]

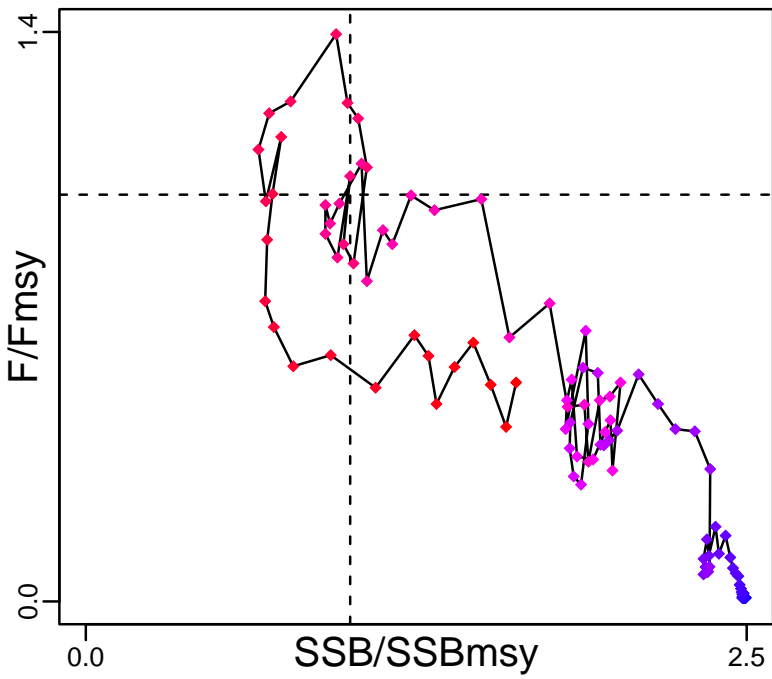
Metadata	
<b>Scientific Name</b>	Scorpaenichthys marmoratus
<b>Current Assess ID</b>	PFMC-CABEZNCAL-1916-2019-SISIMP2021-2
<b>Area</b>	Northern California
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Pacific Fishery Management Council
<b>Asmts in RAM</b>	2019, 2009

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2009	717
<b>SSBmsy</b>	SSBmsy-MT	2019	395
<b>Fmsy</b>	Fmsy-1/yr	2019	0.55
<b>ERmsy</b>	ERmsy-ratio	2009	0.18
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2009	1835
<b>SSB0</b>	SSB0-MT	2009	1036
<b>MSY</b>	MSY-MT	2019	116
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2019	247
<b>Flim</b>	Flim-1/yr	2019	0.55
<b>ERlim</b>	-	-	-

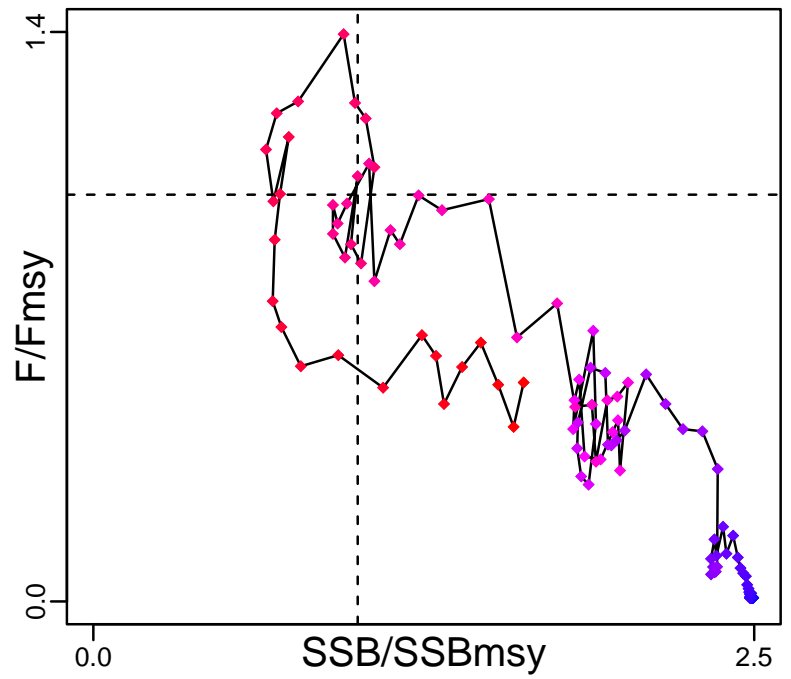
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2019	643	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2019	676,000	-	0
<b>F</b>	F-1/yr	2019	0.296	-	-
<b>ER</b>	ER-ratio	2009	0.04	-	-
<b>TC</b>	TC-MT	2019	69		
<b>TL</b>	TL-MT	2009	20		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2019	1.628		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2019	0.538		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2009	0.222		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Cabezon Northern California [CABEZNCAL]

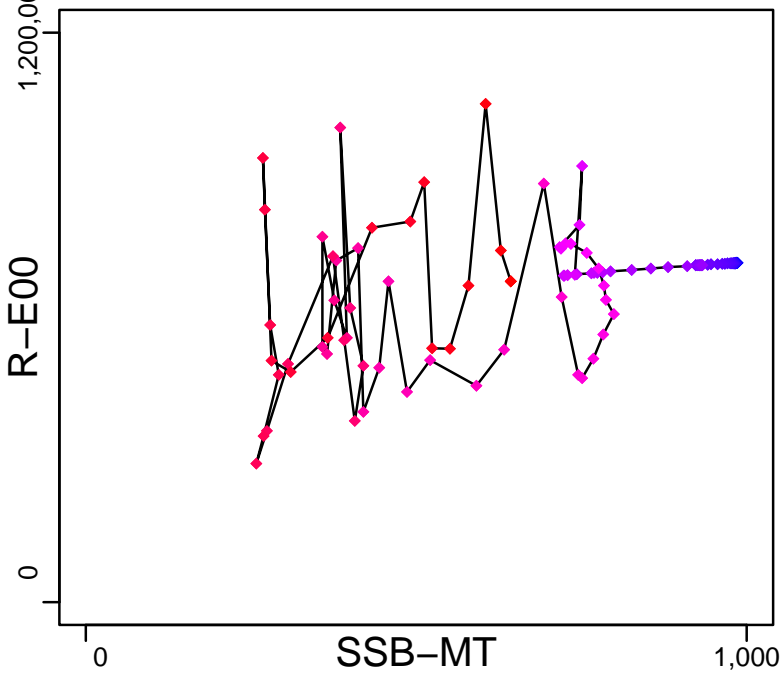
Kobe MSYpref (1916–2019–SISIMP2021–2)



Kobe MGTpref (1916–2019–SISIMP2021–2)



Spawner Recruit (1916–2019–SISIMP2021–2)



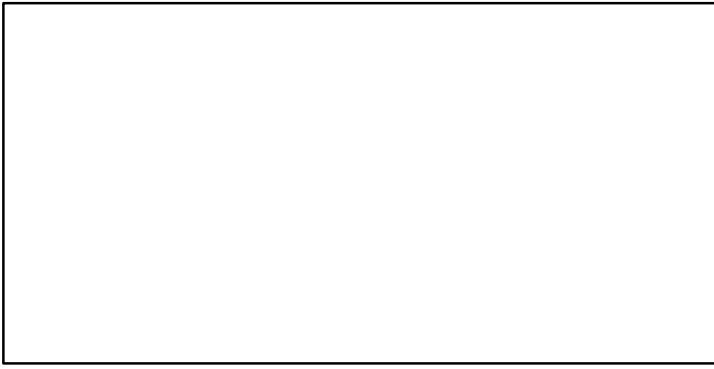
Production\*



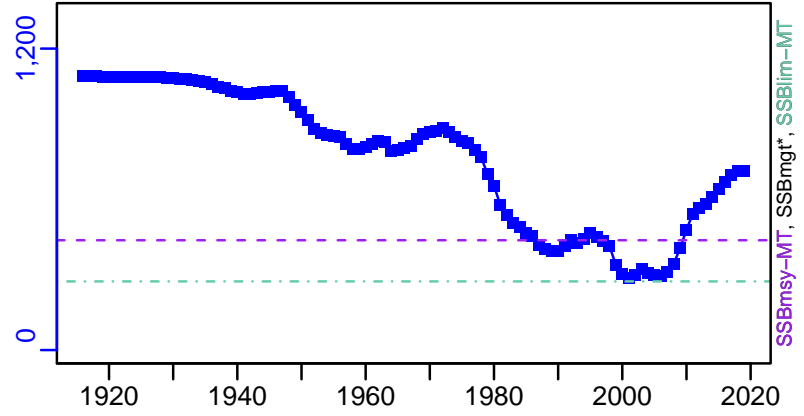
◆ Start Year ◆ End Year \* No Data

# Cabazon Northern California [CABEZNCAL]

TB\*



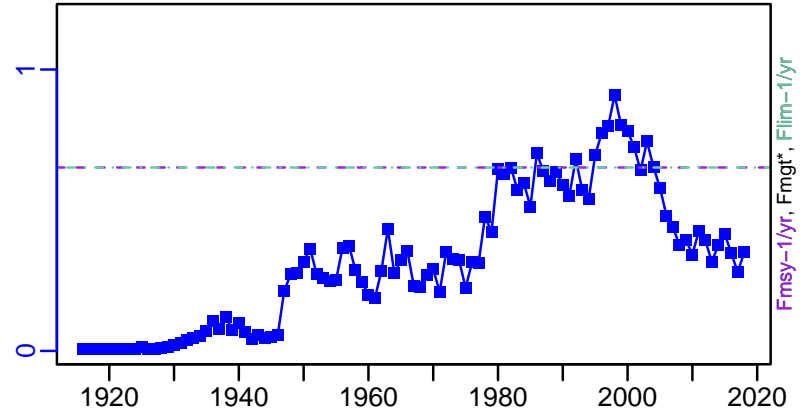
SSB-MT (1916-2019-SISIMP2021-2)



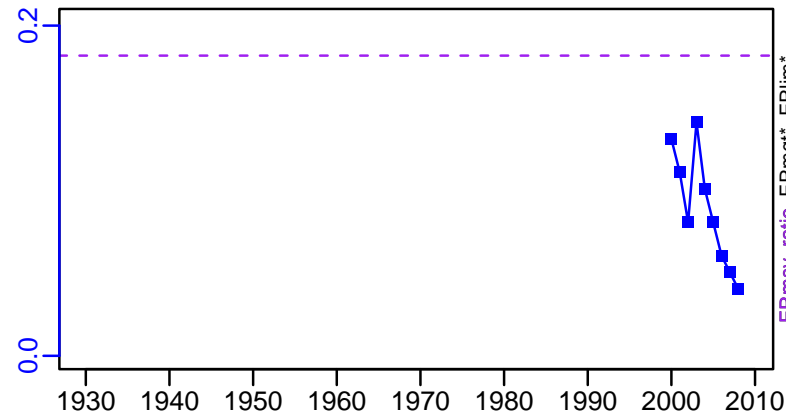
TN \*



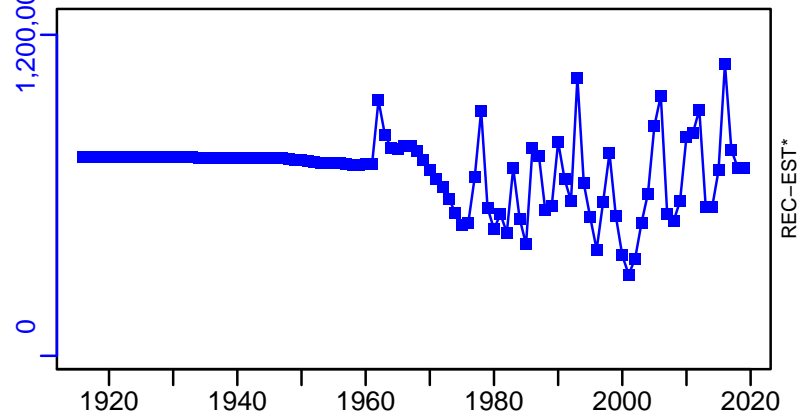
F-1/yr (1916-2019-SISIMP2021-2)



ER-ratio (1930-2009-CHING)



R-E00 (1916-2019-SISIMP2021-2)

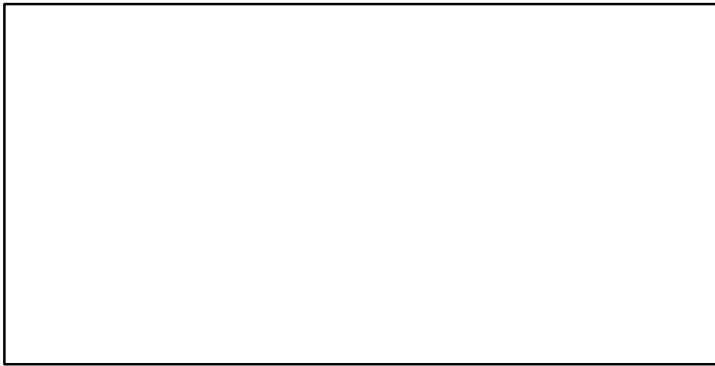
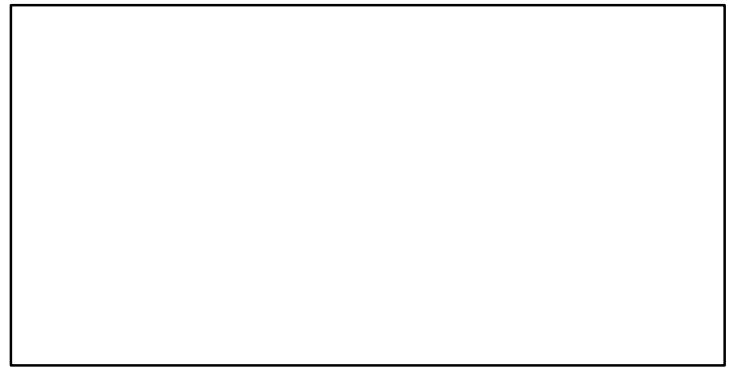
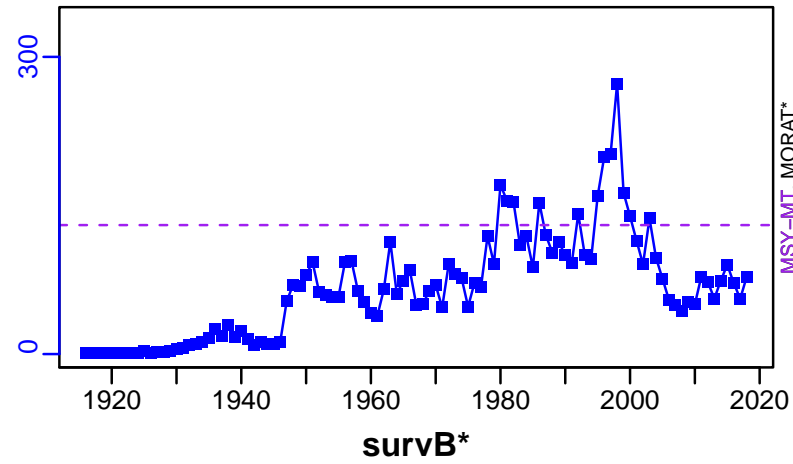




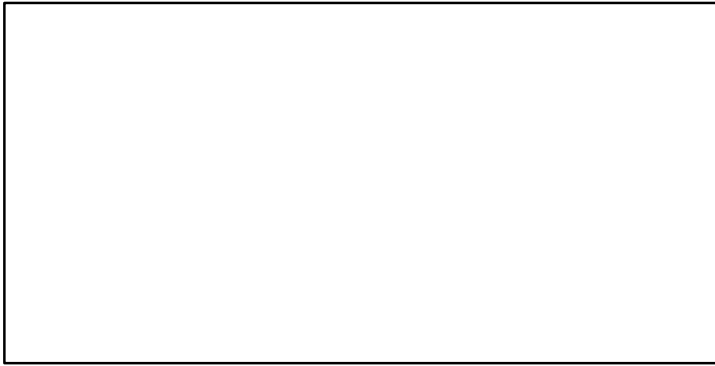
# Cabezon Northern California [CABEZNCAL]

TC-MT, TL\*, RecC\* (1916-2019-SISIMP2021-2)

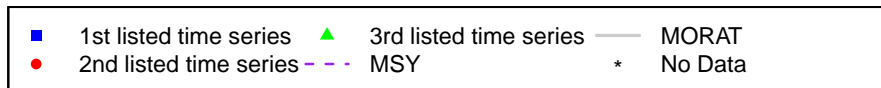
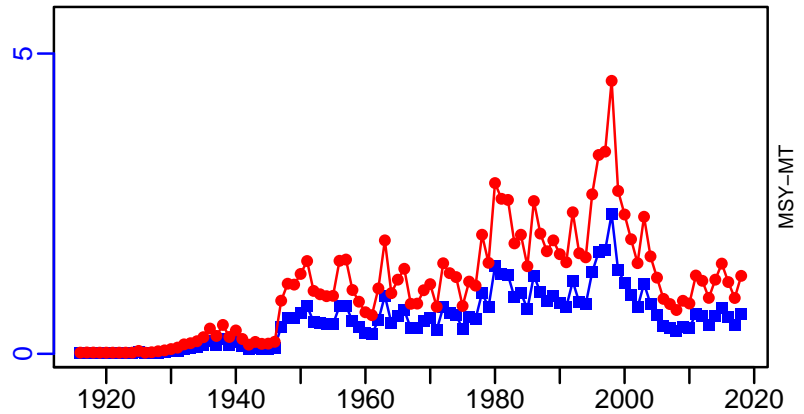
TAC\*, Cpair\*, Cadv\*



EFFORT\*



TC-MT/MSY-MT, CdivMEANC-ratio, (1916-2019-SISIMP2021-2)



## Cabezon Oregon Coast [CABEZORECOAST]

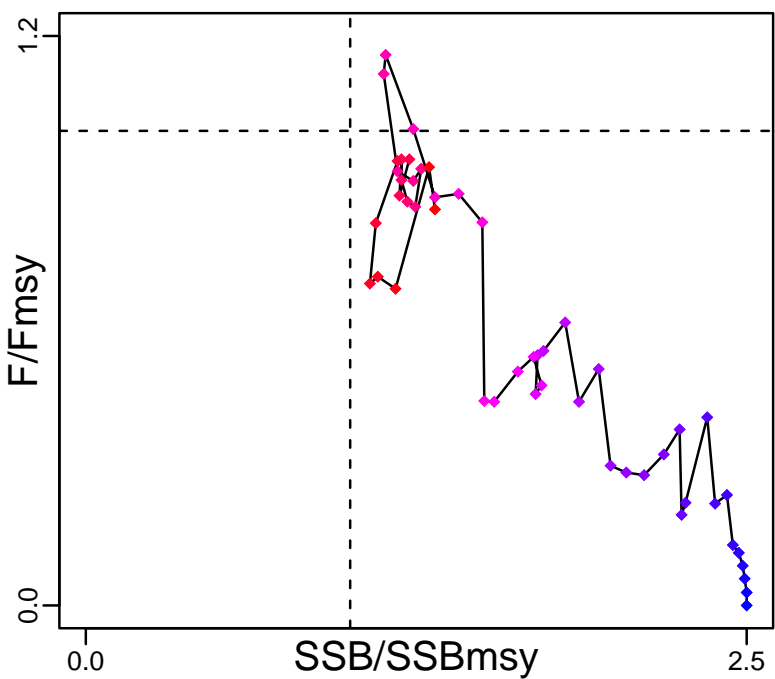
Metadata	
<b>Scientific Name</b>	Scorpaenichthys marmoratus
<b>Current Assess ID</b>	NWFSC-CABEZORECOAST-1970-2019-SISIMP2021-2
<b>Area</b>	Oregon Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northwest Fisheries Science Center
<b>Asmts in RAM</b>	2019, 2009

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2009	300
<b>SSBmsy</b>	SSBmsy-MT	2019	134
<b>Fmsy</b>	Fmsy-1/yr	2019	0.55
<b>ERmsy</b>	ERmsy-ratio	2009	0.16
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	SSB0-MT	2009	409
<b>MSY</b>	MSY-MT	2019	46
<b>M</b>	M-1/yr	2009	0.25
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2019	84
<b>Flim</b>	Flim-1/yr	2019	0.55
<b>ERlim</b>	-	-	-

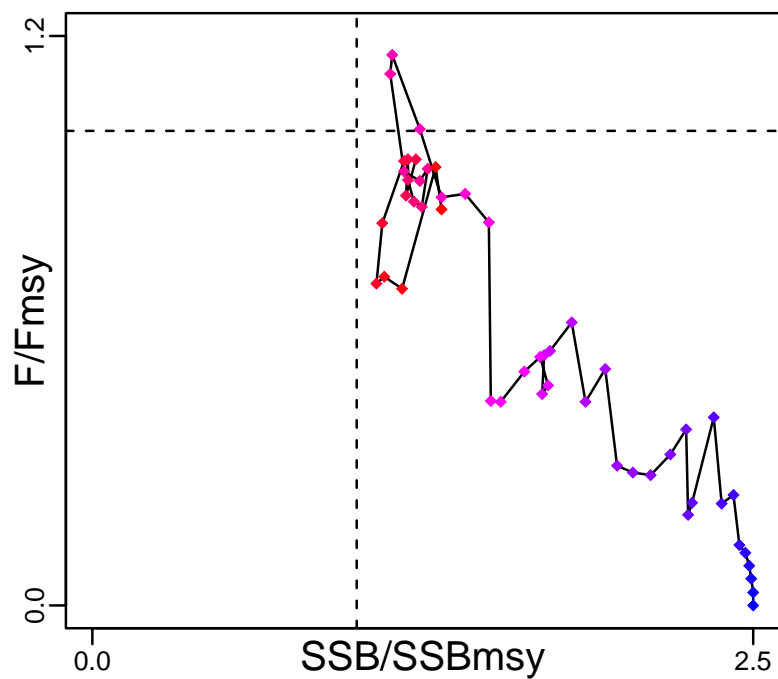
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2009	455	-	2+
<b>SSB</b>	SSB-MT	2019	177	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2019	98,000	-	0
<b>F</b>	F-1/yr	2019	0.459	-	-
<b>ER</b>	ER-calc-ratio	2009	0.089	-	-
<b>TC</b>	TC-MT	2019	45		
<b>TL</b>	TL-MT	2009	43		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2009	1.517		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2019	1.321		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2019	0.835		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2009	0.559		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Cabezon Oregon Coast [CABEZORECOAST]

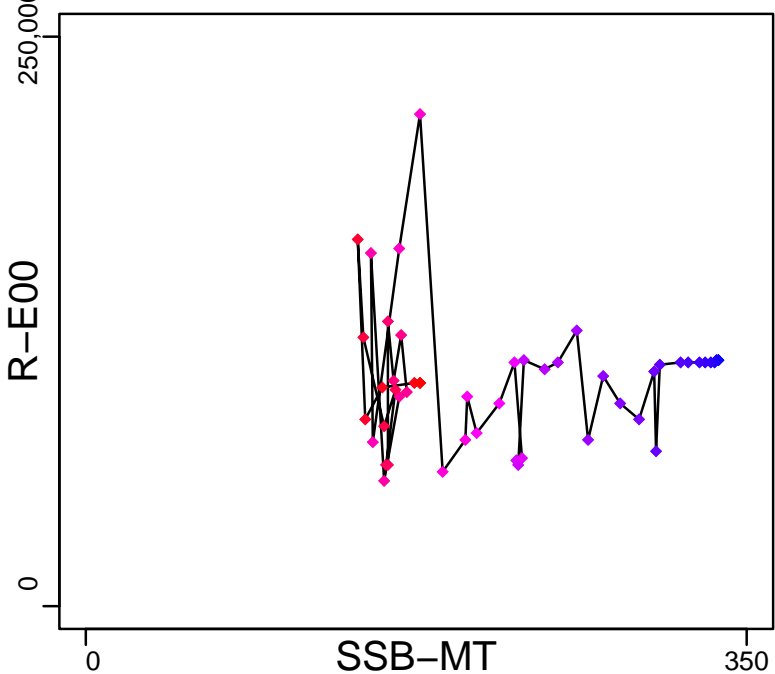
Kobe MSYpref (1970–2019–SISIMP2021–2)



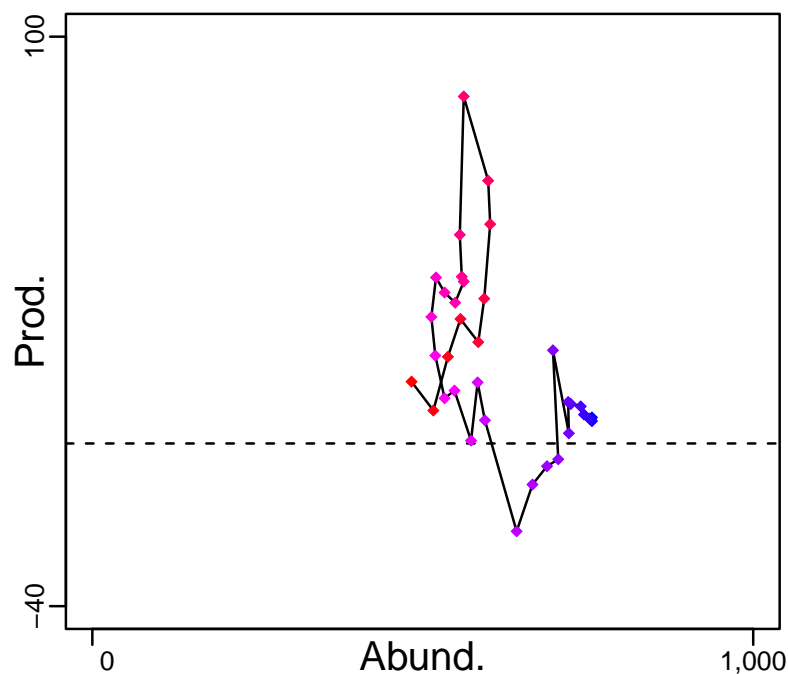
Kobe MGTpref (1970–2019–SISIMP2021–2)



Spawner Recruit (1970–2019–SISIMP2021–2)



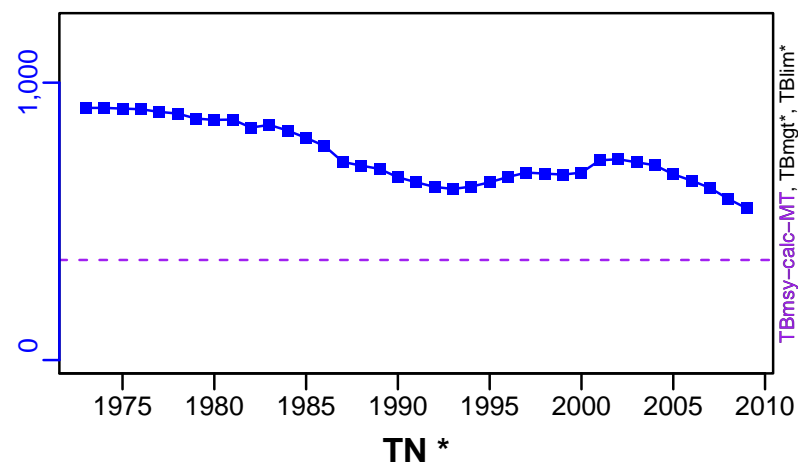
Production (1973–2009–STACHURA)



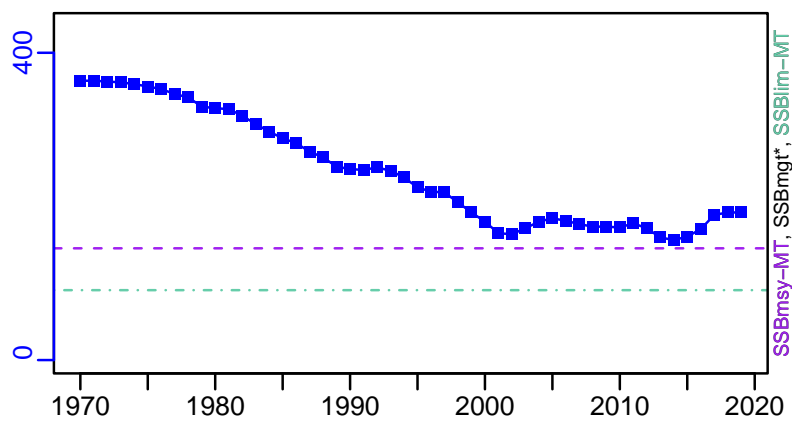
◆ Start Year ◆ End Year \* No Data

# Cabazon Oregon Coast [CABEZORECOAST]

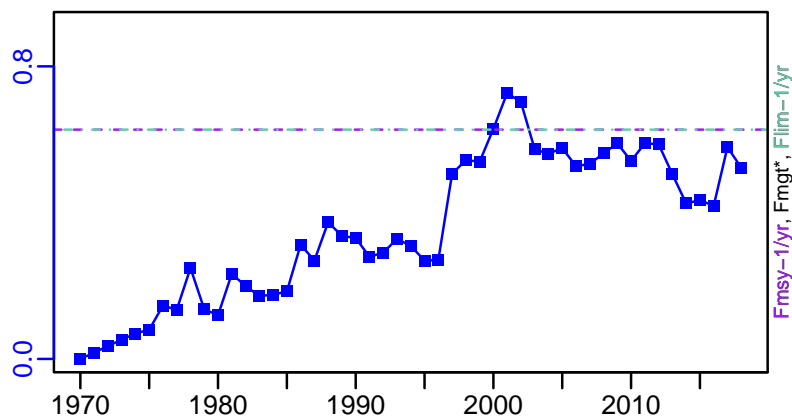
TB-MT (1973–2009–STACHURA)



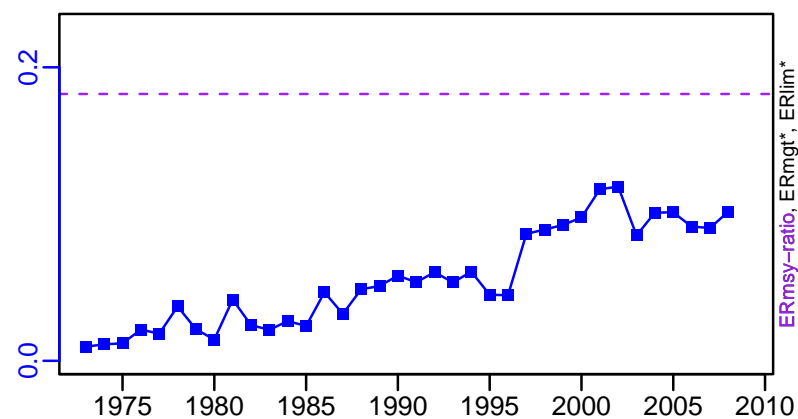
SSB-MT (1970–2019–SISIMP2021–2)



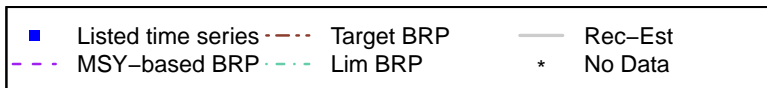
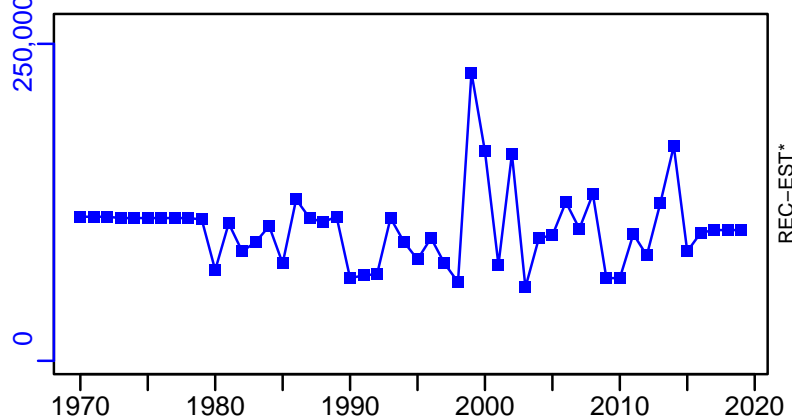
F-1/yr (1970–2019–SISIMP2021–2)



ER-calc-ratio (1973–2009–STACHURA)

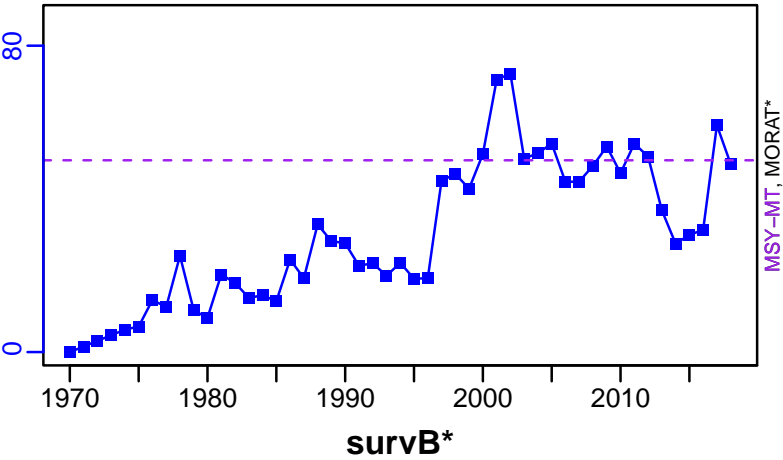


R-E00 (1970–2019–SISIMP2021–2)



Cabezon Oregon Coast [CABEZORECOAST]

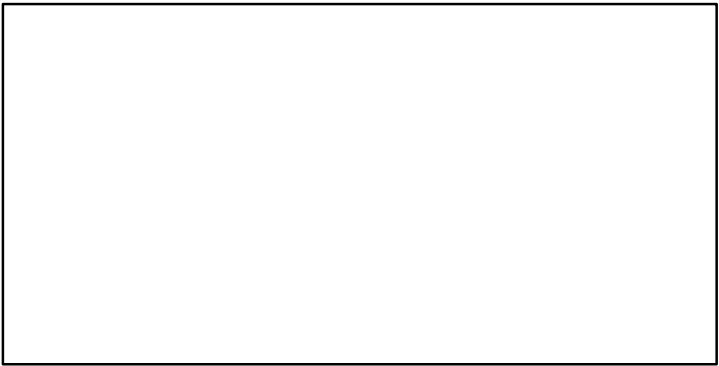
TC-MT, TL\*, RecC\* (1970-2019-SISIMP2021-2)



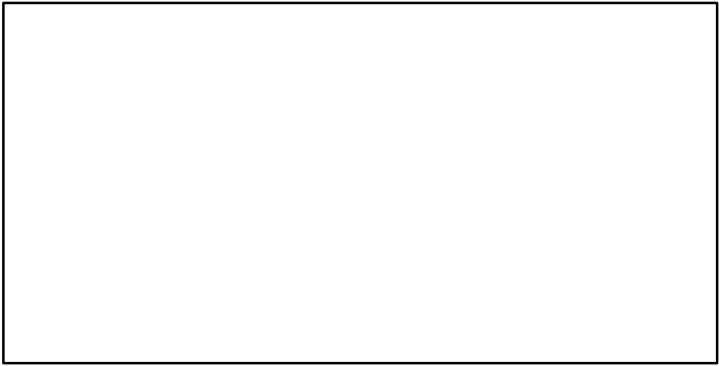
TAC\*, Cpair\*, Cadv\*



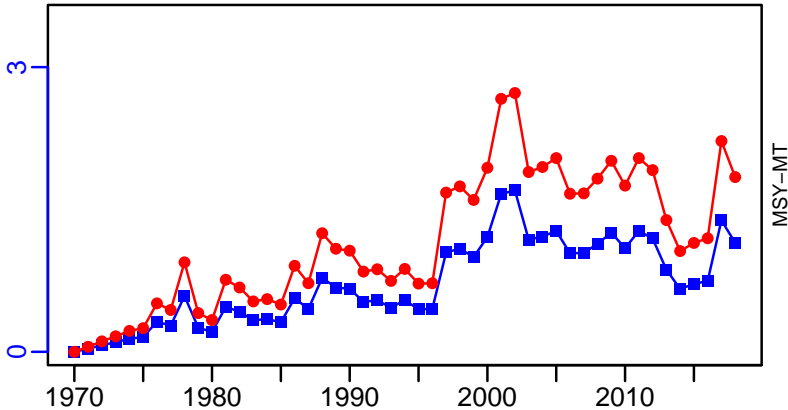
CPUE\*



EFFORT\*



TC-MT/MSY-MT, CdivMEANC-ratio, (1970-2019-SISIMP2021-2)



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

## Cabezon Southern California [CABEZSCAL]

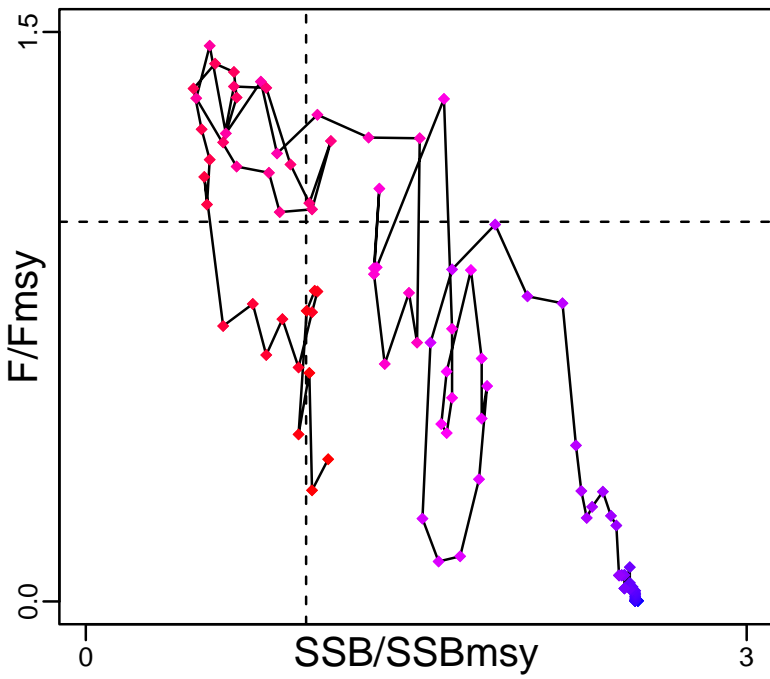
Metadata	
<b>Scientific Name</b>	Scorpaenichthys marmoratus
<b>Current Assess ID</b>	PFMC-CABEZSCAL-1916-2019-SISIMP2021-2
<b>Area</b>	Southern California
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Pacific Fishery Management Council
<b>Asmts in RAM</b>	2019, 2009

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2009	182
<b>SSBmsy</b>	SSBmsy-MT	2019	82
<b>Fmsy</b>	Fmsy-1/yr	2019	0.55
<b>ERmsy</b>	ERmsy-ratio	2009	0.165
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2009	470
<b>SSB0</b>	SSB0-MT	2009	263
<b>MSY</b>	MSY-MT	2019	17
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2019	51
<b>Flim</b>	Flim-1/yr	2019	0.55
<b>ERlim</b>	-	-	-

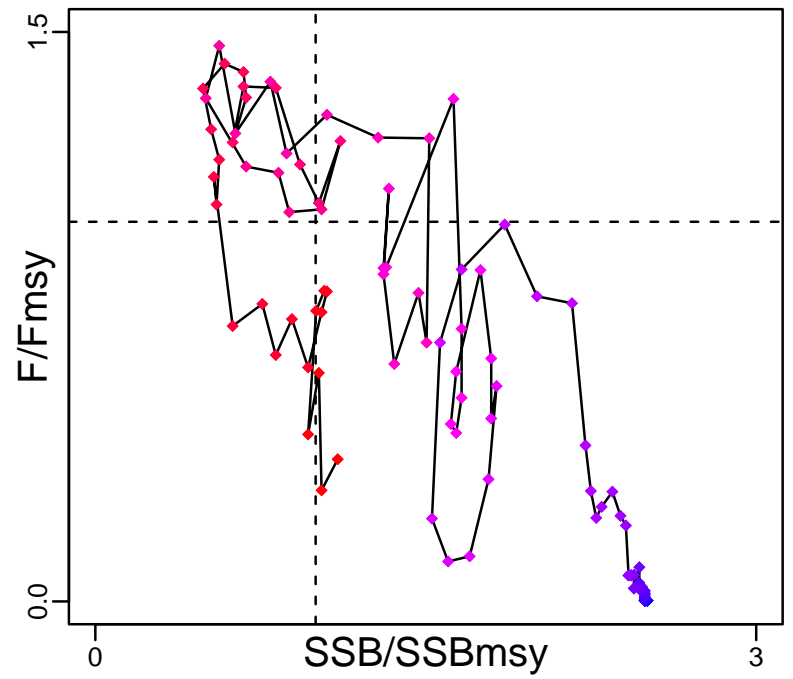
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2009	789	Both	2+
<b>SSB</b>	SSB-MT	2019	101	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2019	165,000	-	0
<b>F</b>	F-1/yr	2019	0.206	-	-
<b>ER</b>	ER-ratio	2009	0.03	-	-
<b>TC</b>	TC-MT	2019	5		
<b>TL</b>	TL-MT	2009	3.9		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2009	4.34		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2019	1.235		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2019	0.375		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2009	0.182		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Cabazon Southern California [CABEZSCAL]

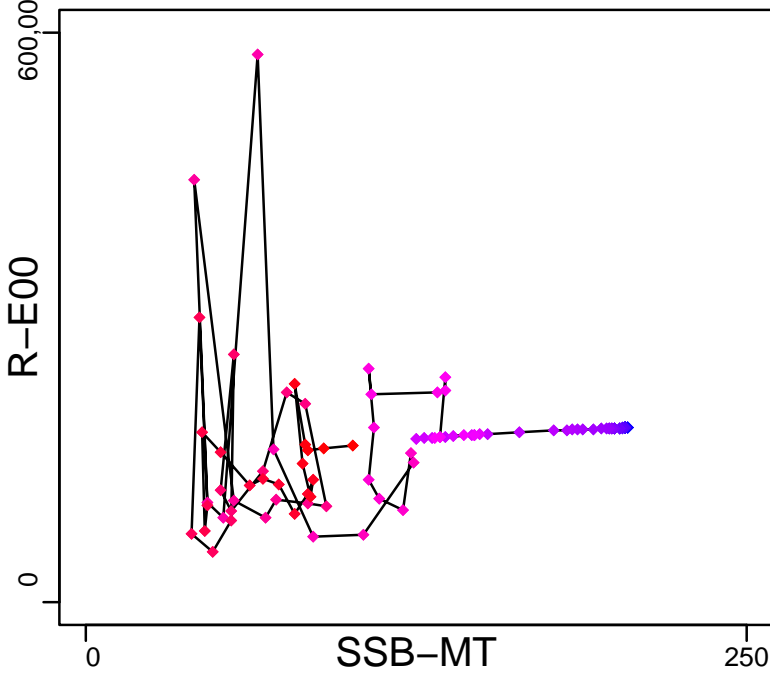
Kobe MSYpref (1916–2019–SISIMP2021–2)



Kobe MGTpref (1916–2019–SISIMP2021–2)



Spawner Recruit (1916–2019–SISIMP2021–2)



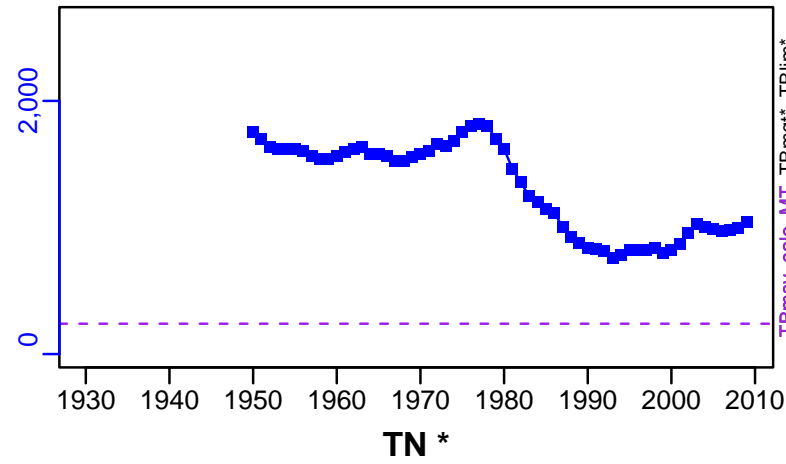
Production\*



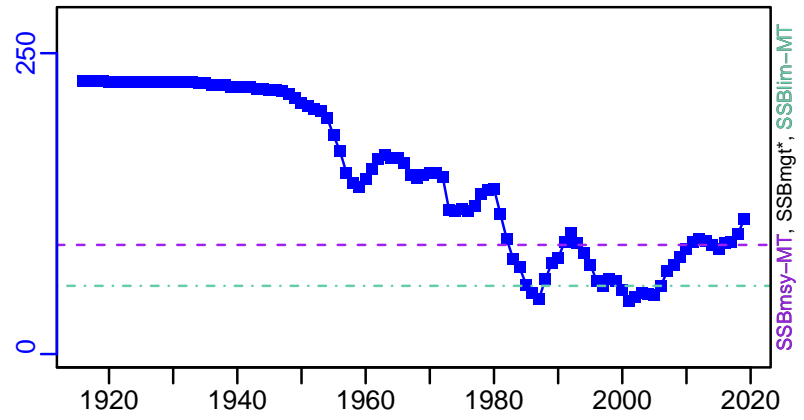
◆ Start Year ◆ End Year \* No Data

# Cabazon Southern California [CABEZSCAL]

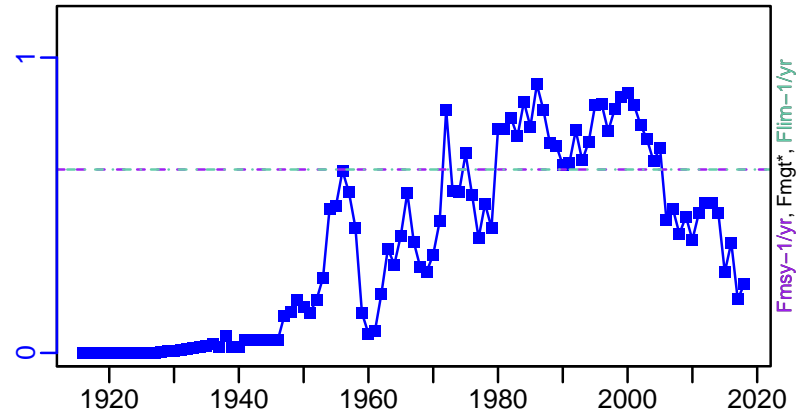
TB-MT (1930-2009-CHING)



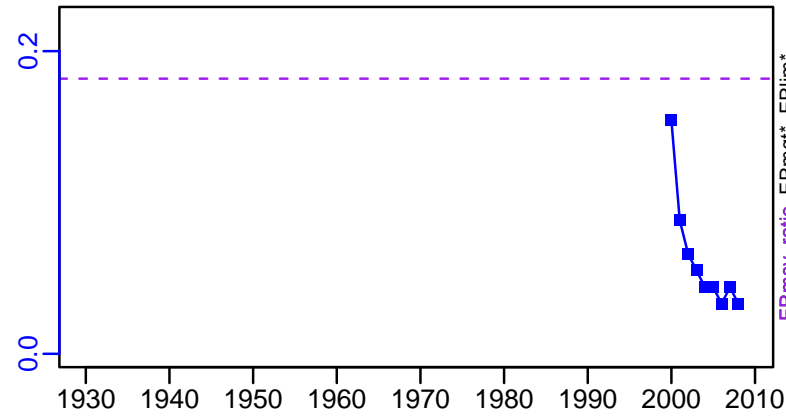
SSB-MT (1916-2019-SISIMP2021-2)



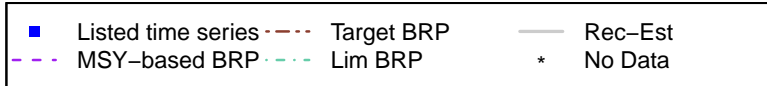
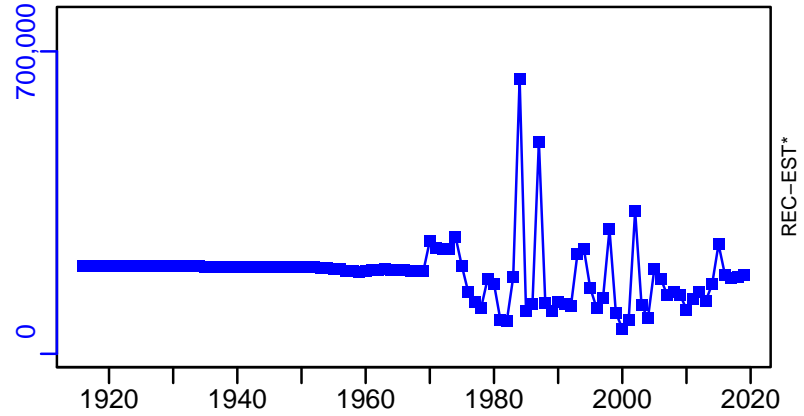
F-1/yr (1916-2019-SISIMP2021-2)



ER-ratio (1930-2009-CHING)



R-E00 (1916-2019-SISIMP2021-2)

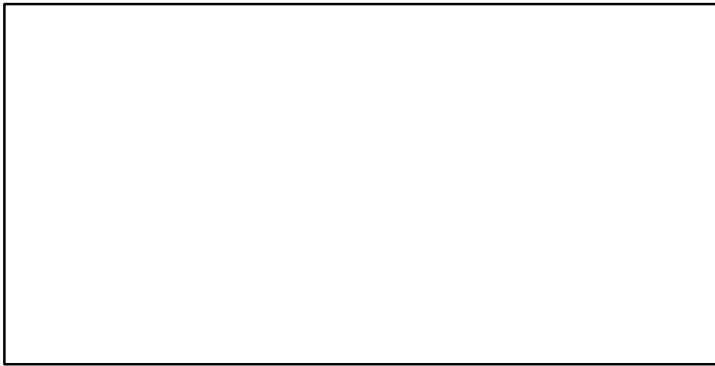
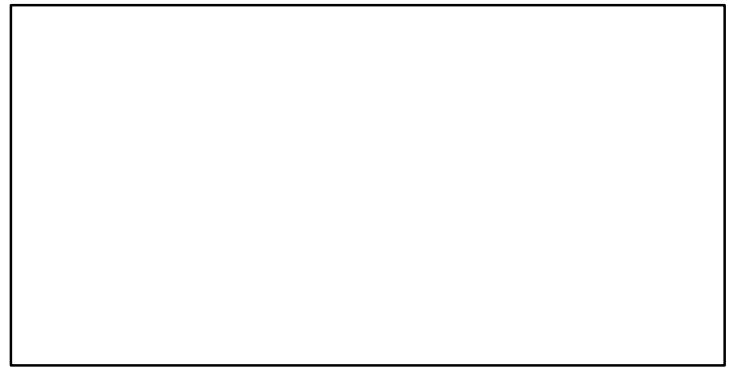
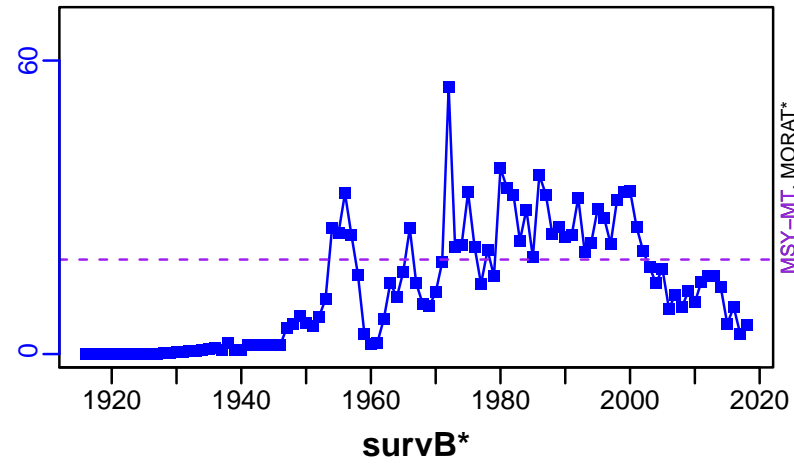




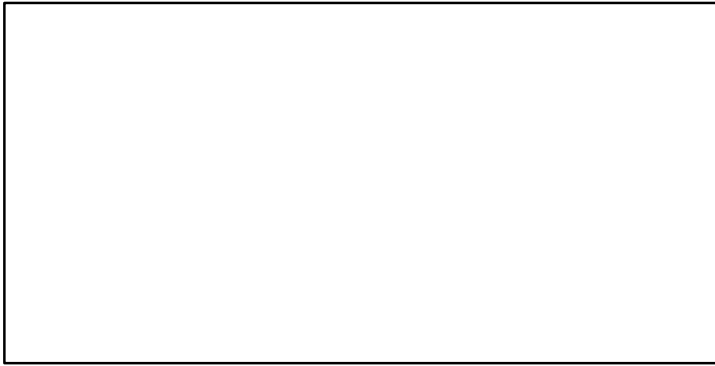
# Cabezon Southern California [CABEZSCAL]

TC-MT, TL\*, RecC\* (1916-2019-SISIMP2021-2)

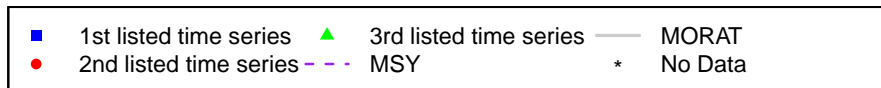
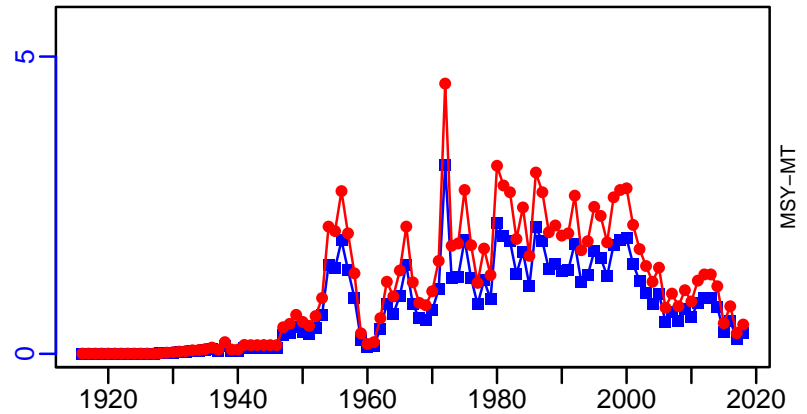
TAC\*, Cpair\*, Cadv\*



EFFORT\*



TC-MT/MSY-MT, CdivMEANC-ratio, (1916-2019-SISIMP2021-2)



## Cabezon Washington [CABEZWASH]

Metadata	
<b>Scientific Name</b>	Scorpaenichthys marmoratus
<b>Current Assess ID</b>	NWFSC-CABEZWASH-1963-2018-SISIMP2021-2
<b>Area</b>	Washington
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northwest Fisheries Science Center
<b>Asmts in RAM</b>	2016, 2018

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	2018	5		
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\*

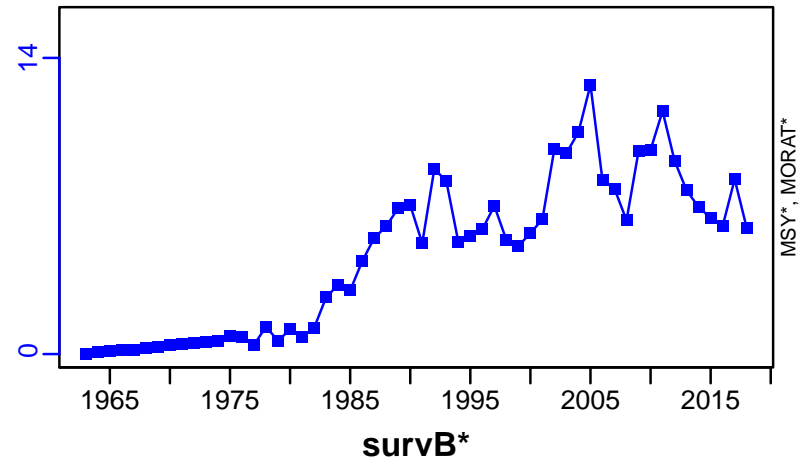


Recruits\*

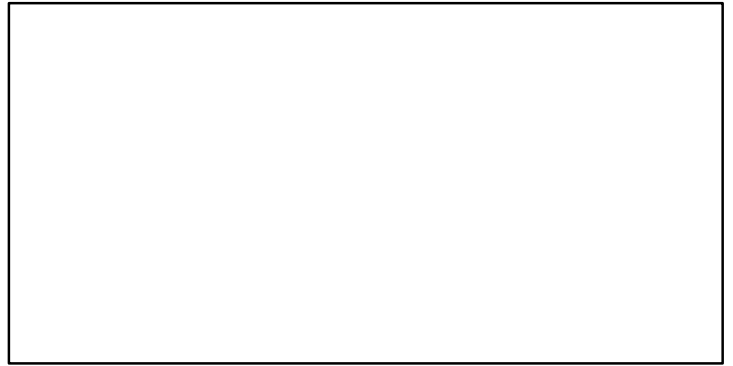


Cabezon Washington [CABEZWASH]

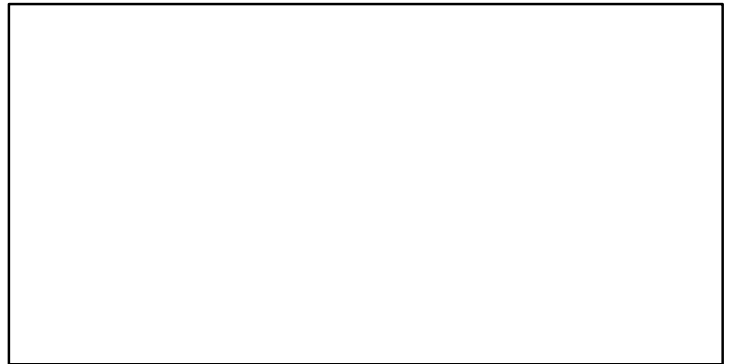
TC-MT, TL\*, RecC\* (1963-2018-SISIMP2021-2)



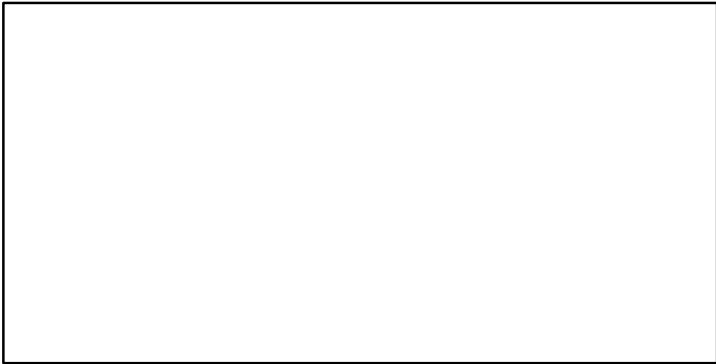
TAC\*, Cpair\*, Cadv\*



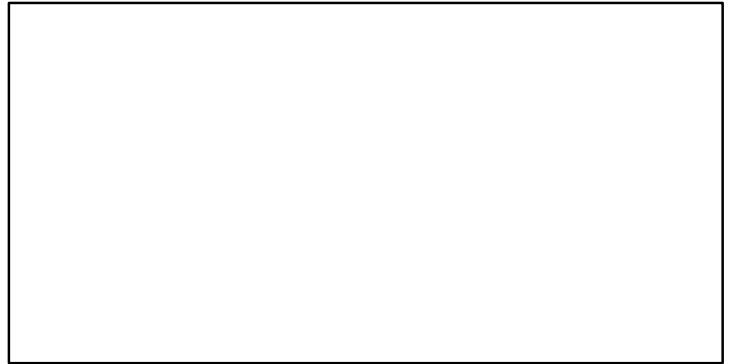
CPUE\*



EFFORT\*



CdivMSY\*



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

## California scorpionfish Southern California [CALSCORPSCAL]

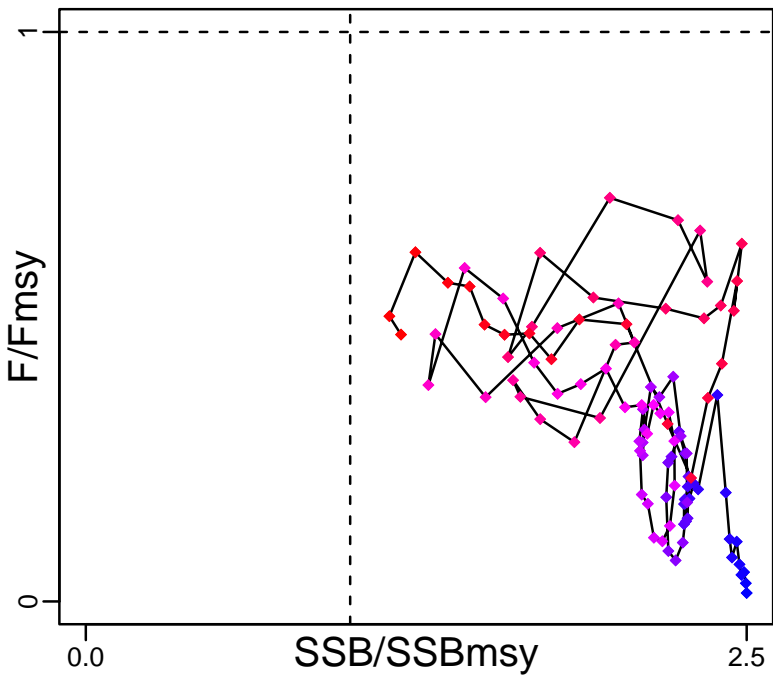
Metadata	
<b>Scientific Name</b>	Scorpaena guttata
<b>Current Assess ID</b>	SWFSC-CALSCORPSCAL-1916-2017-SISIMP2021
<b>Area</b>	Southern California
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southwest Fisheries Science Center
<b>Asmts in RAM</b>	2015, 2017, 2005

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2005	789
<b>SSBmsy</b>	SSBmsy-MT	2017	650
<b>Fmsy</b>	Fmsy-1/yr	2017	0.5
<b>ERmsy</b>	ERmsy-ratio	2005	0.161
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2005	2007
<b>SSB0</b>	SSB0-MT	2005	1024
<b>MSY</b>	MSY-MT	2017	247
<b>M</b>	M-1/yr	2005	0.25
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2017	406
<b>Flim</b>	Flim-1/yr	2017	0.5
<b>ERlim</b>	-	-	-

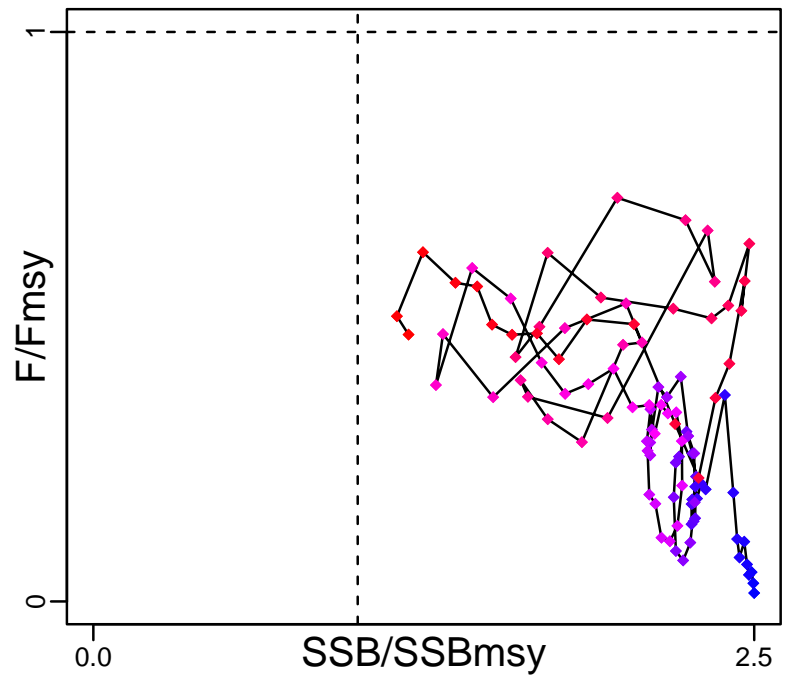
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2017	1915	-	-
<b>SSB</b>	SSB-MT	2017	882	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2017	3,343,810	-	0
<b>F</b>	F-1/yr	2017	0.234	-	-
<b>ER</b>	ER-calc-ratio	2017	0.043	-	-
<b>TC</b>	TC-MT	2017	74		
<b>TL</b>	TL-MT	2005	81		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2005	2.371		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2017	1.358		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2017	0.469		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2005	0.441		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# California scorpionfish Southern California [CALSCORPSCAL]

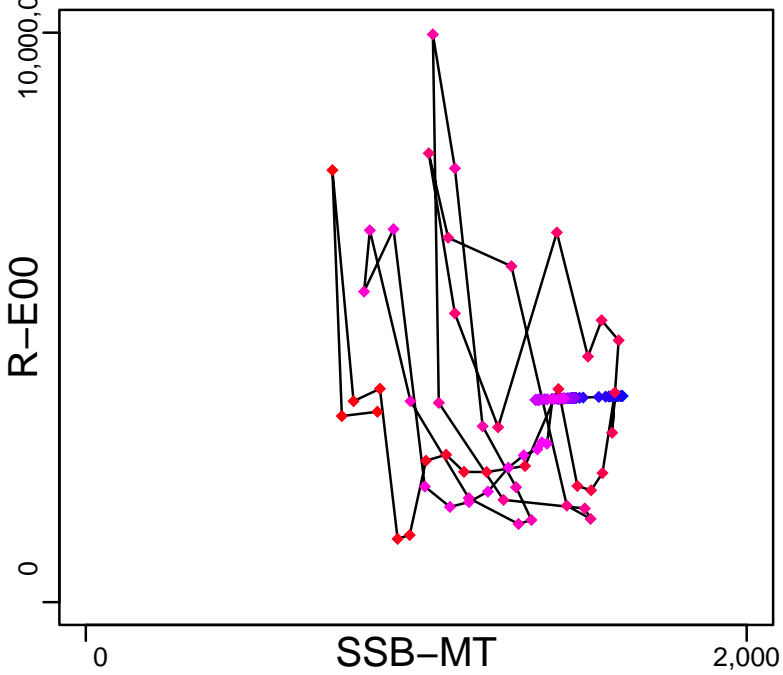
Kobe MSYpref (1916–2017–SISIMP2021)



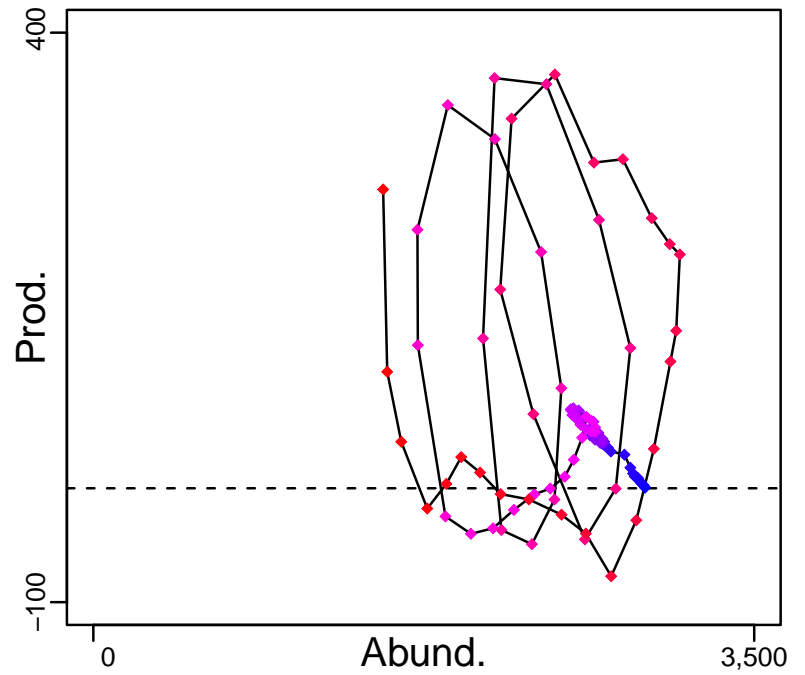
Kobe MGTpref (1916–2017–SISIMP2021)



Spawner Recruit (1916–2017–SISIMP2021)



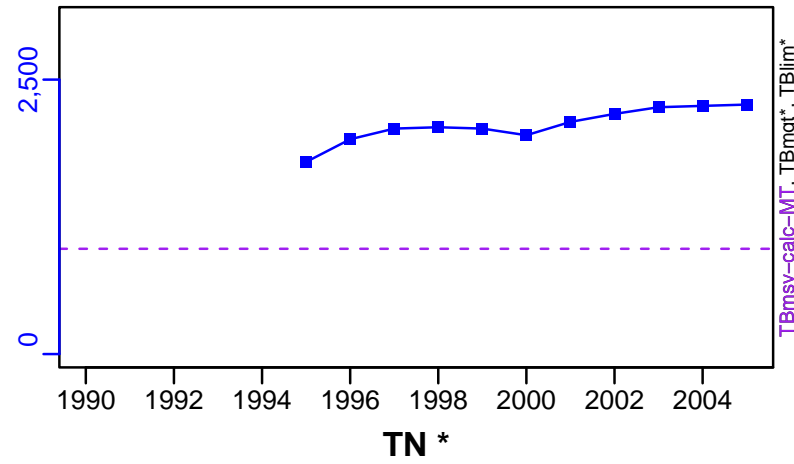
Production (1916–2017–SISIMP2021)



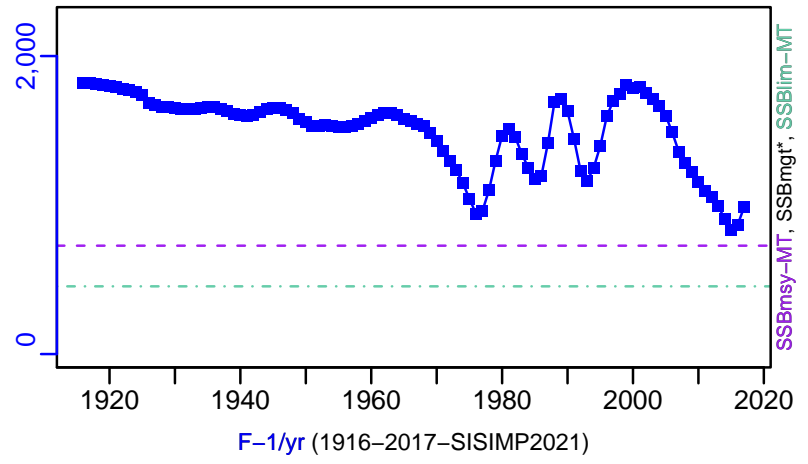
◆ Start Year ◆ End Year \* No Data

# California scorpionfish Southern California [CALSCORPSCAL]

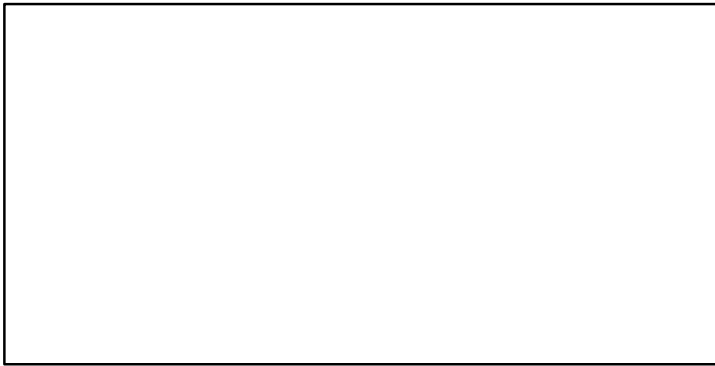
TB-MT (1990–2005–STANTON)



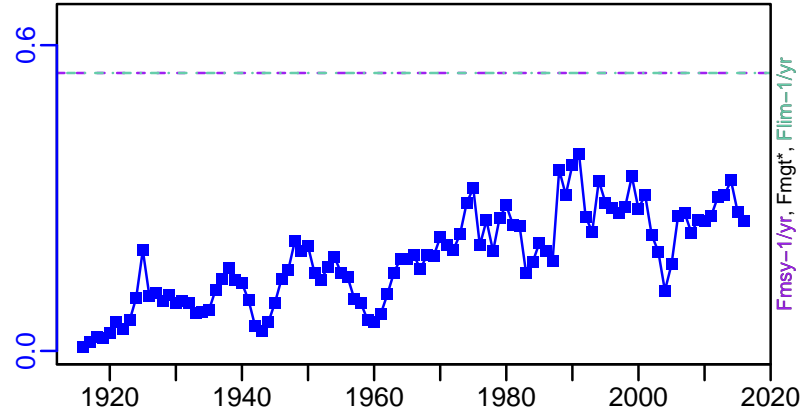
SSB-MT (1916–2017–SISIMP2021)



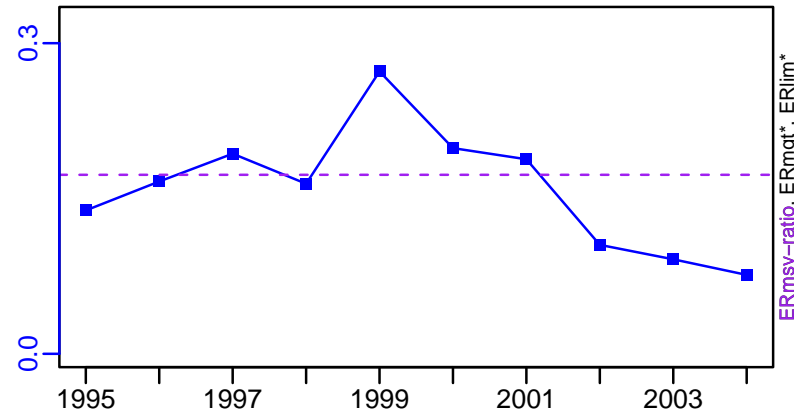
TN \*



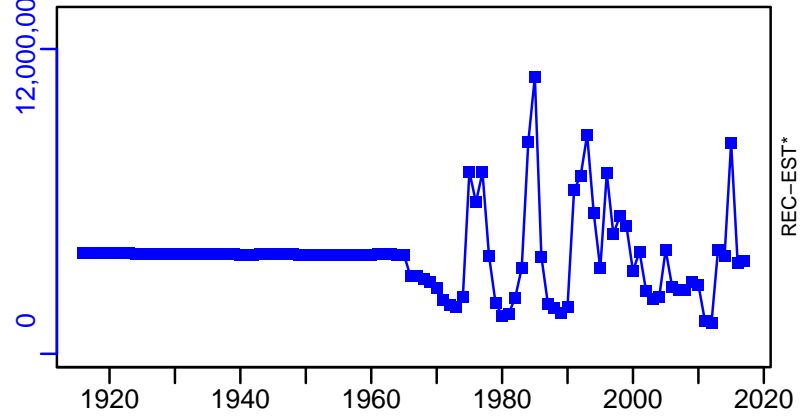
F-1/yr (1916–2017–SISIMP2021)



ER-ratio (1990–2005–STANTON)



R-E00 (1916–2017–SISIMP2021)

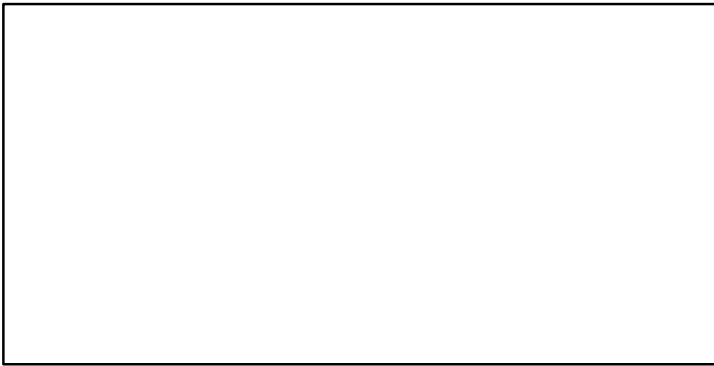
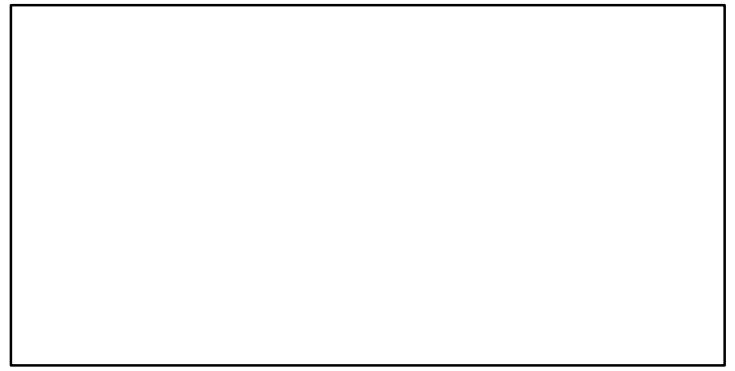
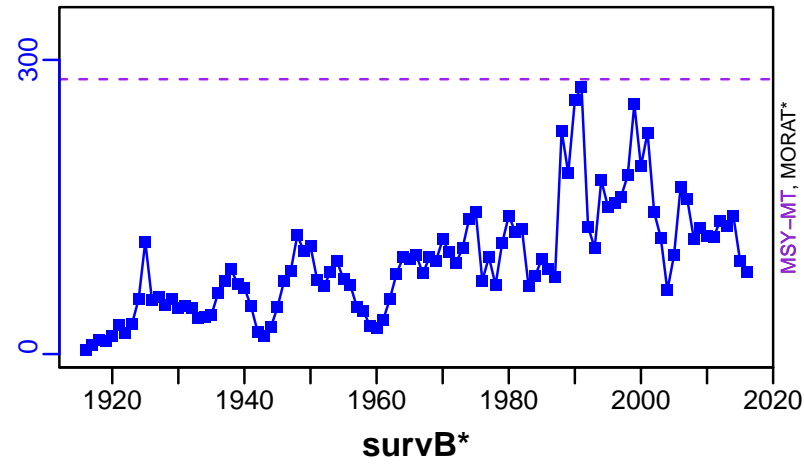




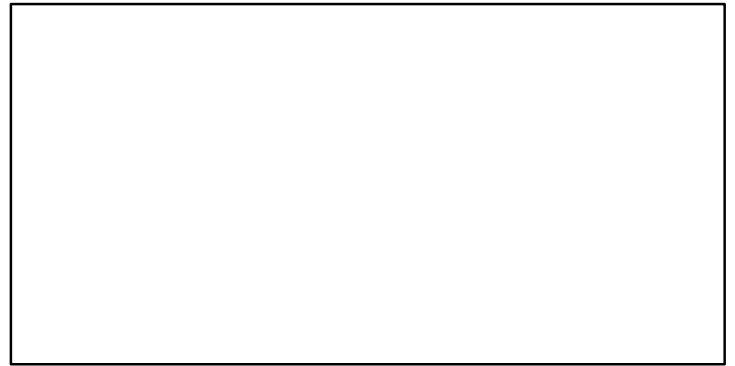
# California scorpionfish Southern California [CALSCORPSCAL]

TC-MT, TL\*, RecC\* (1916-2017-SISIMP2021)

TAC\*, Cpair\*, Cadv\*



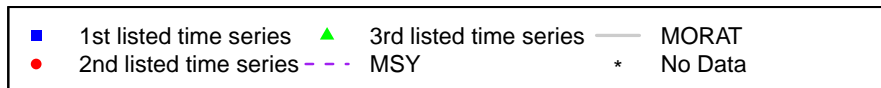
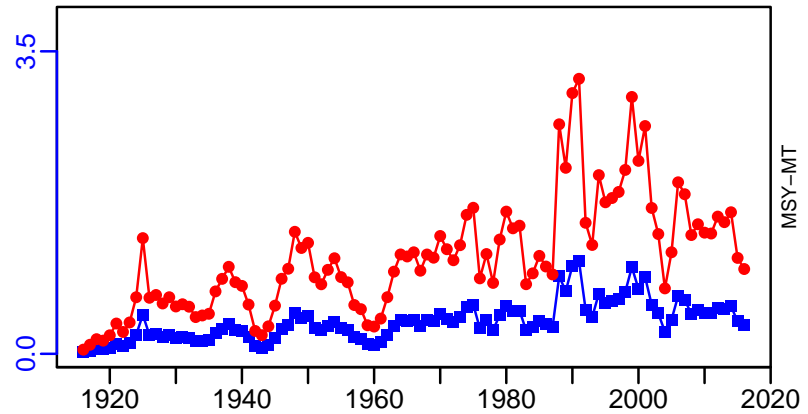
CPUE\*



EFFORT\*



TC-MT/MSY-MT, CdivMEANC-ratio, (1916-2017-SISIMP2021)



## Deepwater flathead Southeast Australia [DEEPFLATHEADSE]

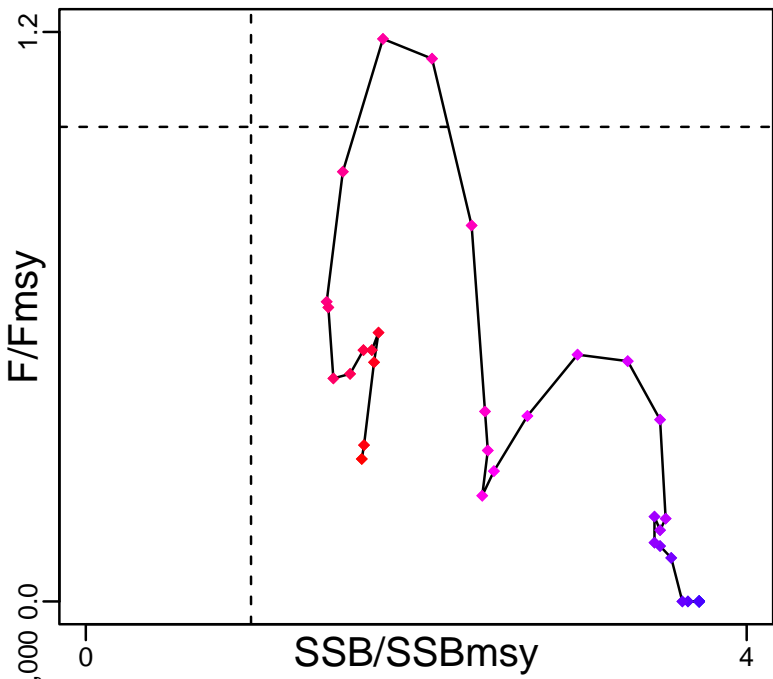
Metadata	
<b>Scientific Name</b>	Platycephalus conatus
<b>Current Assess ID</b>	CSIRO-DEEPFLATHEADSE-1980-2015-MOESENER
<b>Area</b>	Southeast Australia
<b>Management Authority</b>	Australian Fisheries Management Authority, Australia national management
<b>Assessor</b>	Commonwealth Scientific and Industrial Research Organization
<b>Asmts in RAM</b>	2007, 2015

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2015	2963
<b>Fmsy</b>	Fmsy-1/yr	2015	0.168
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2015	4750
<b>Fmgt</b>	Fmgt-1/yr	2015	0.105
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2015	21,058
<b>SSB0</b>	SSB0-MT	2015	11,046
<b>MSY</b>	MSY-MT	2015	1200
<b>M</b>	M-1/yr	2015	0.191
<b>TBlim</b>	TBlim-MT	2007	1369
<b>SSBlim</b>	SSBlim-MT	2015	2209
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

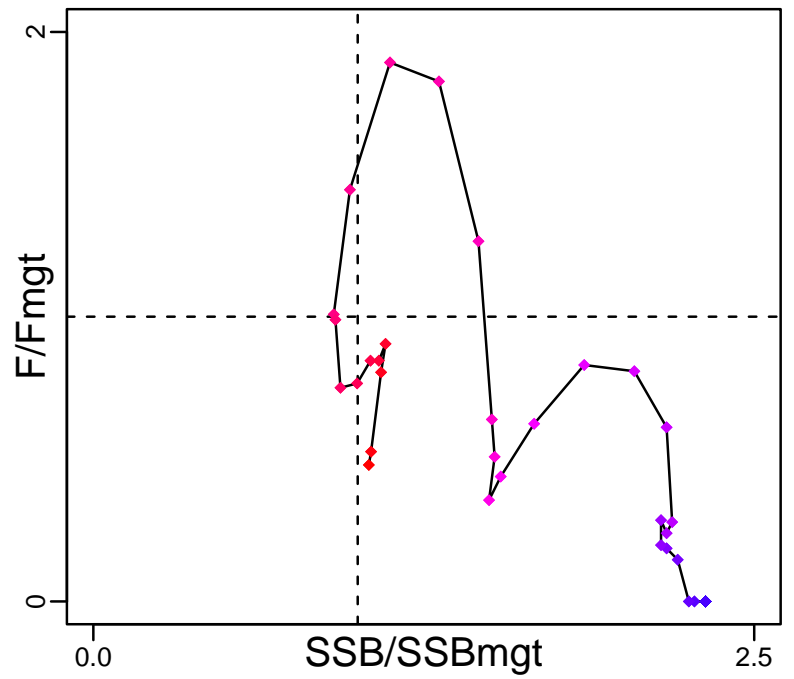
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	10,400	-	-
<b>SSB</b>	SSB-MT	2015	4950	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2015	$6.75 \times 10^{12}$	-	-
<b>F</b>	F-1/yr	2015	0.05	-	-
<b>ER</b>	ER-ratio	2015	0.05	-	-
<b>TC</b>	-	-	-		
<b>TL</b>	TL-MT	2015	523		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2015	1.67		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2015	0.3		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2015	1.042		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2015	0.479		
<b>ER/ERmgt</b>	-	-	-		

# Deepwater flathead Southeast Australia [DEEPFLATHEADSE]

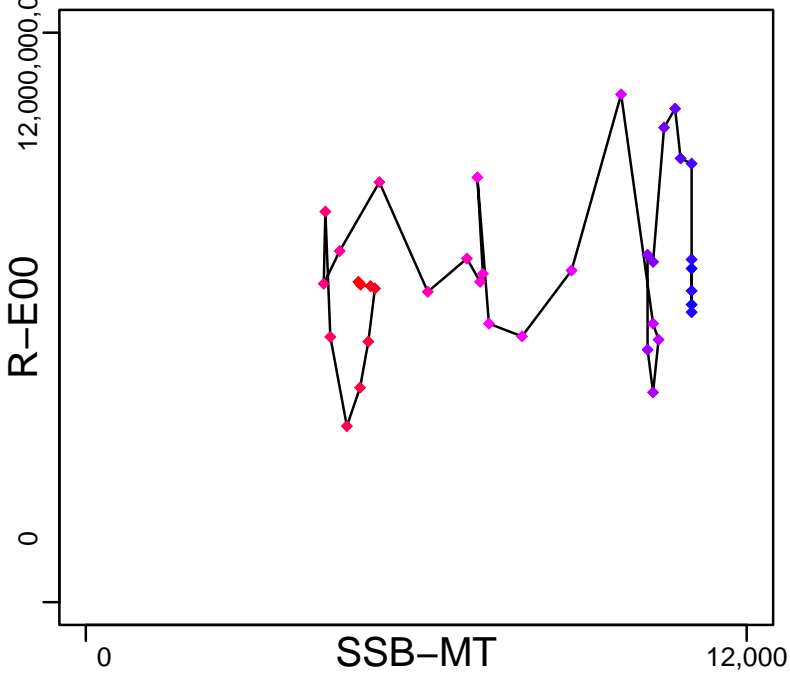
Kobe MSYpref (1980–2015–MOESENEDER)



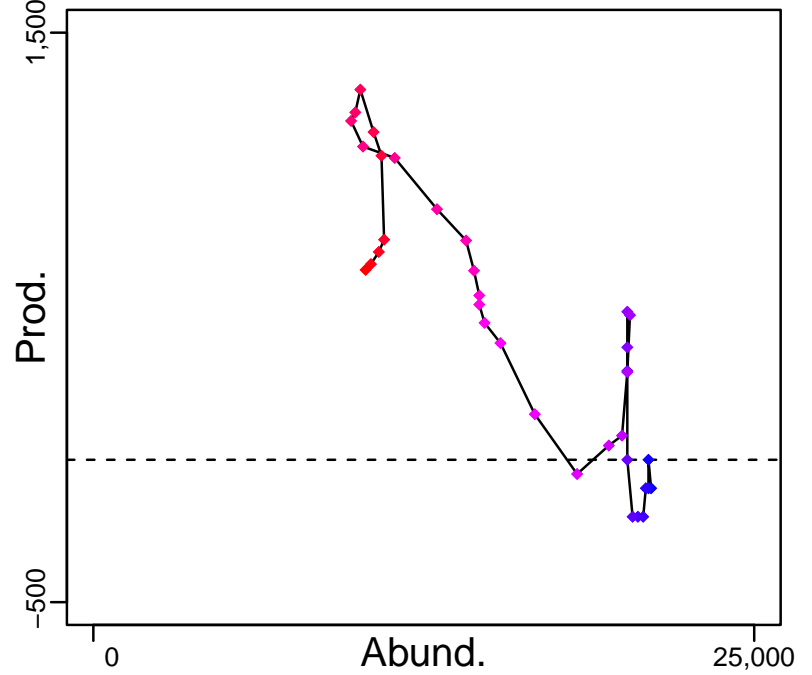
Kobe MGTpref (1980–2015–MOESENEDER)



Spawner Recruit (1980–2015–MOESENEDER)



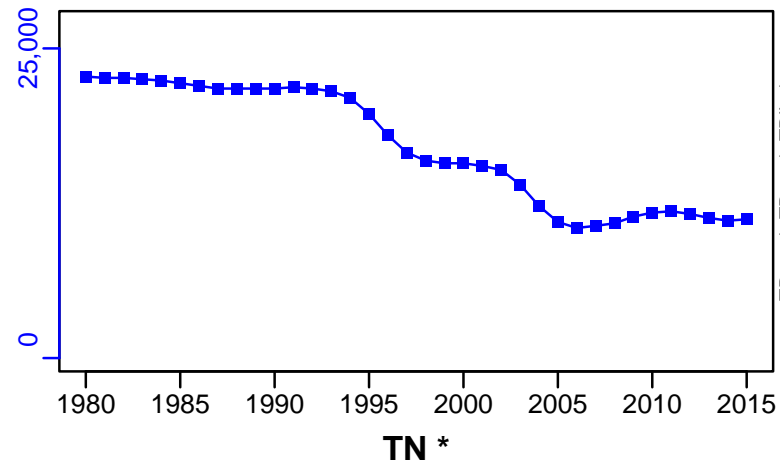
Production (1980–2015–MOESENEDER)



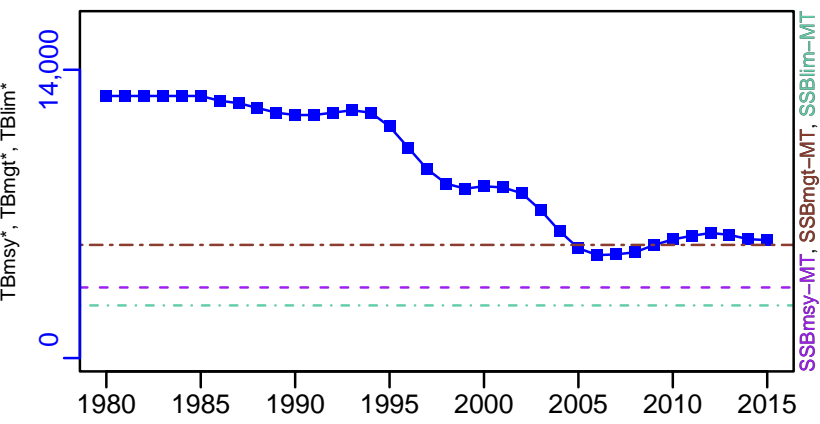
◆ Start Year ◆ End Year \* No Data

# Deepwater flathead Southeast Australia [DEEPFLATHEADSE]

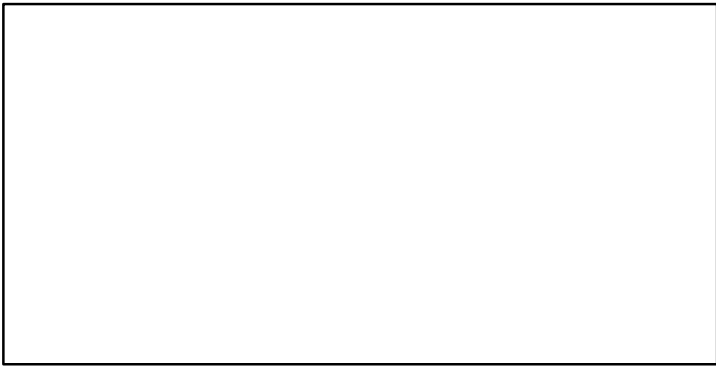
TB-MT (1980-2015-MOESENER)



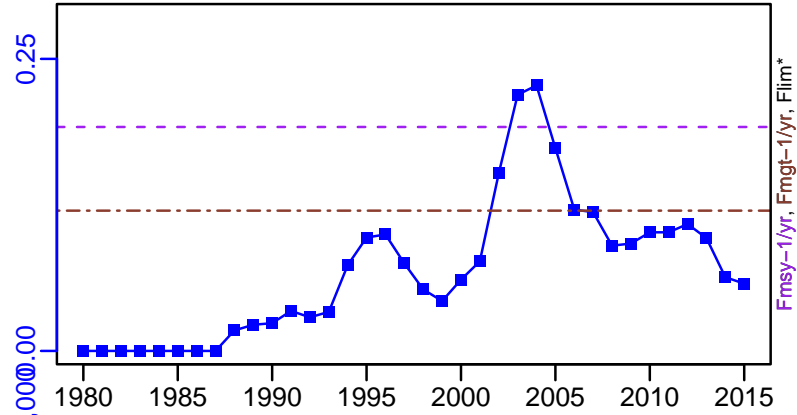
SSB-MT (1980-2015-MOESENER)



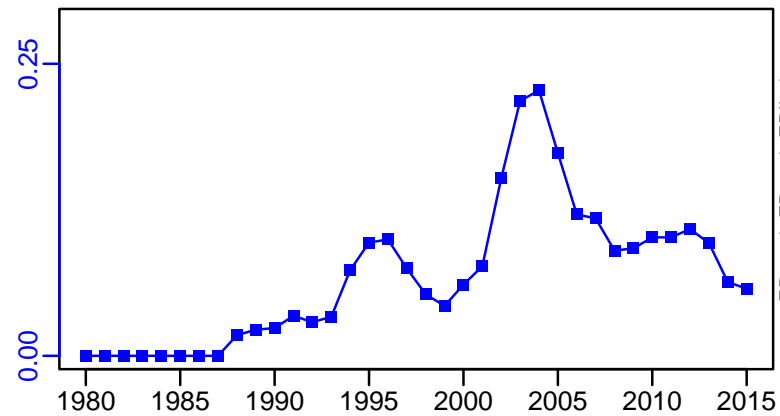
TN \*



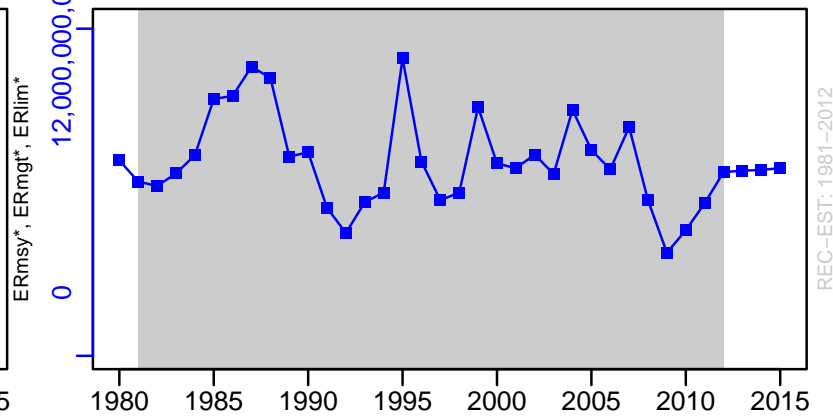
F-1/yr (1980-2015-MOESENER)



ER-ratio (1980-2015-MOESENER)



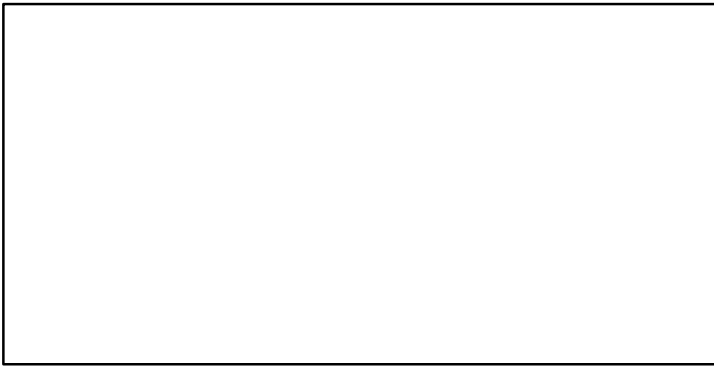
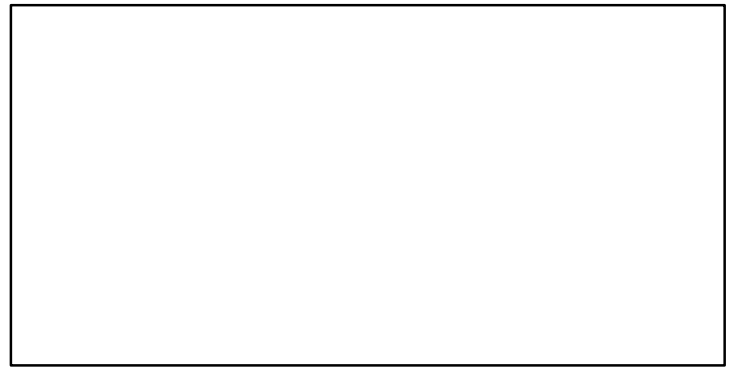
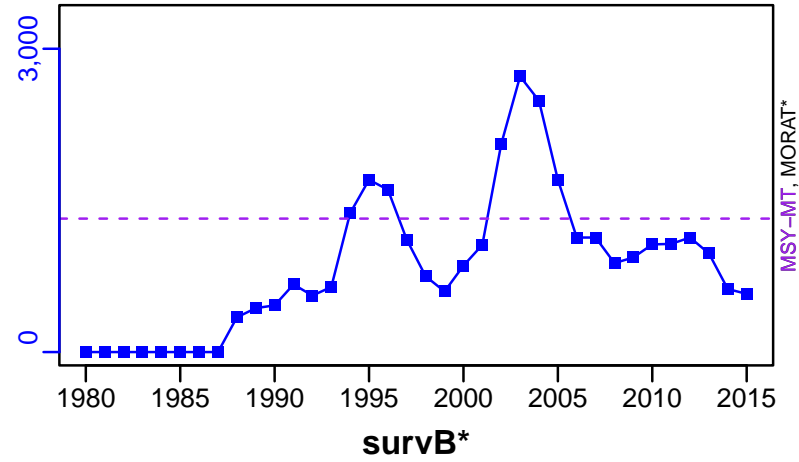
R-E00 (1980-2015-MOESENER)



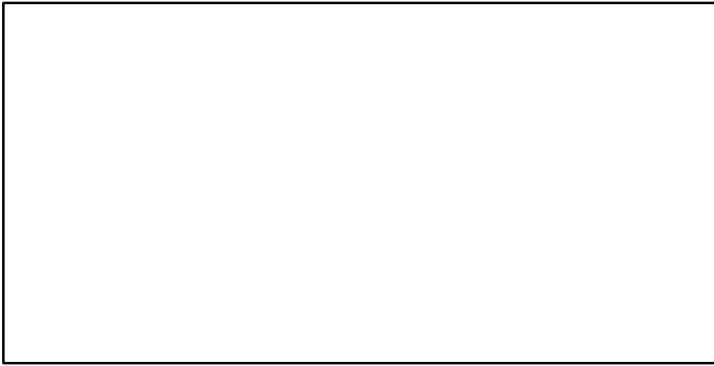
# Deepwater flathead Southeast Australia [DEEPFLATHEADSE]

TL-MT, TC\*, RecC\* (1980-2015-MOESENER)

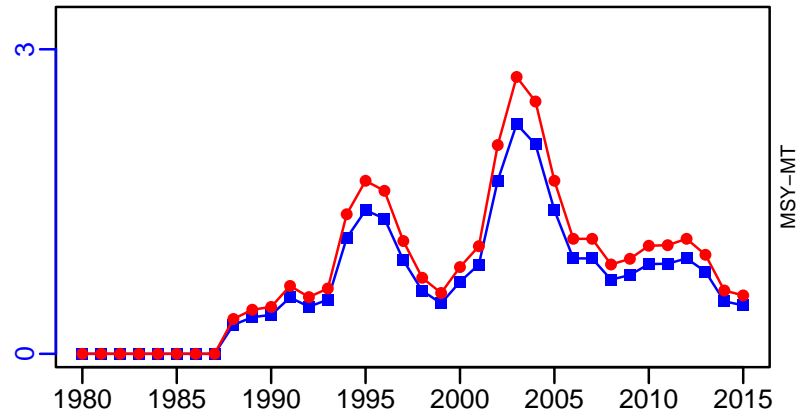
TAC\*, Cpair\*, Cadv\*



EFFORT\*



TL-MT/MSY-MT, CdivMEANC-ratio, (1980-2015-MOESENER)



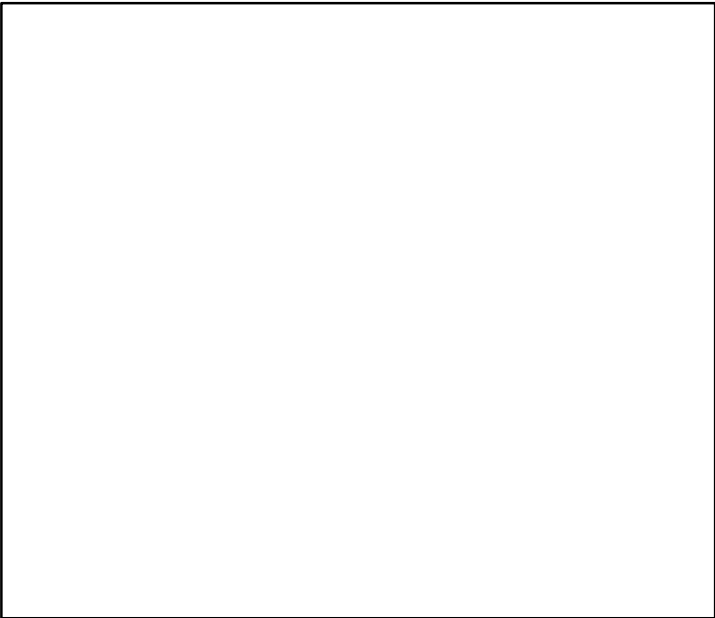
## Grey gurnard ICES 3a-4-7d [GGURNIIIa-IV-VIIId]

Metadata	
<b>Scientific Name</b>	Eutrigla gurnardus
<b>Current Assess ID</b>	WGNSSK-GGURNIIIa-IV-VIIId-1983-2020-ICESIMP2021-2
<b>Area</b>	ICES 3a-4-7d
<b>Management Authority</b>	International Council for the Exploration of the Sea
<b>Assessor</b>	Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak
<b>Asmts in RAM</b>	2016, 2017, 2020

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	2020	9280		
TL	TL-MT	2020	1710		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

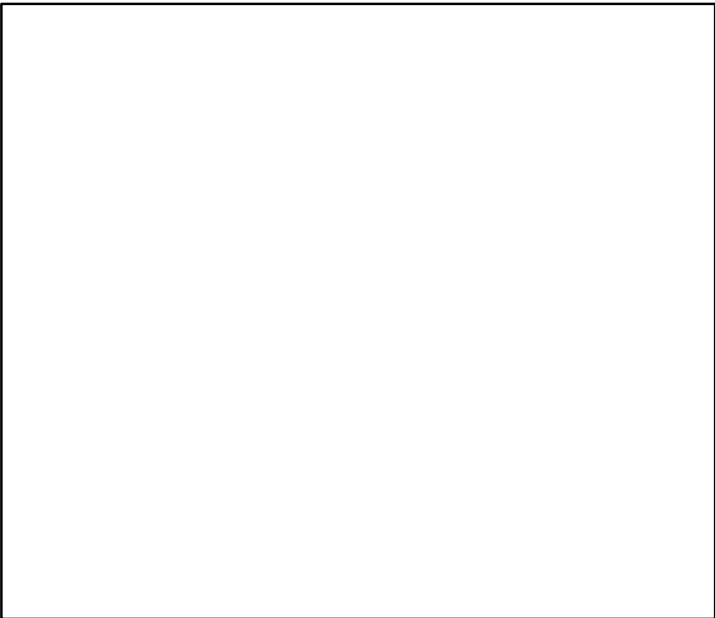
Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data

TB\*



SSB\*



TN \*



F\*



ER\*



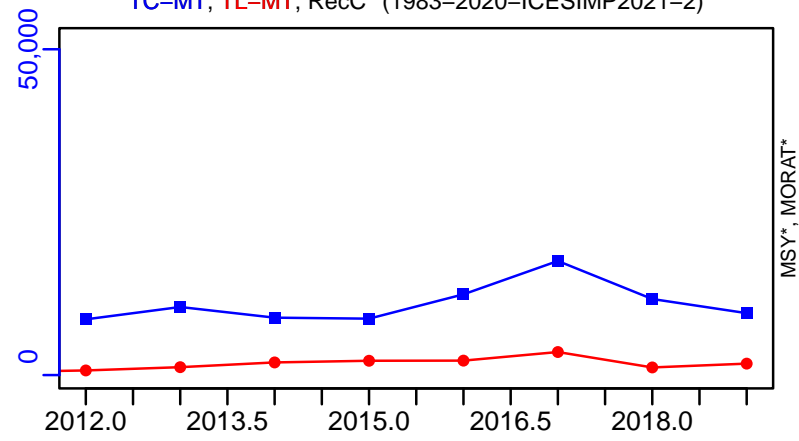
Recruits\*



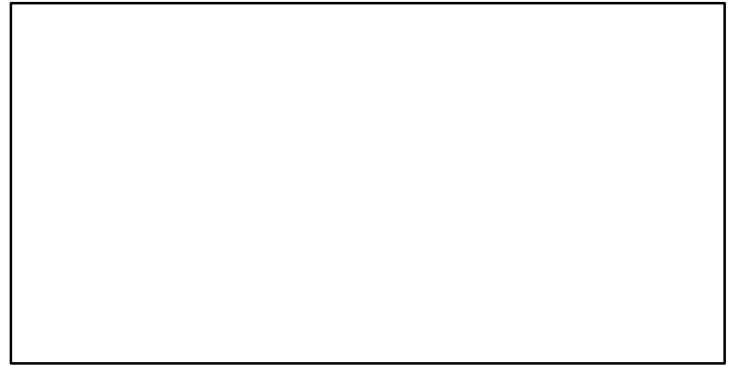


# Grey gurnard ICES 3a–4–7d [GGURNIIIa–IV–VIIId]

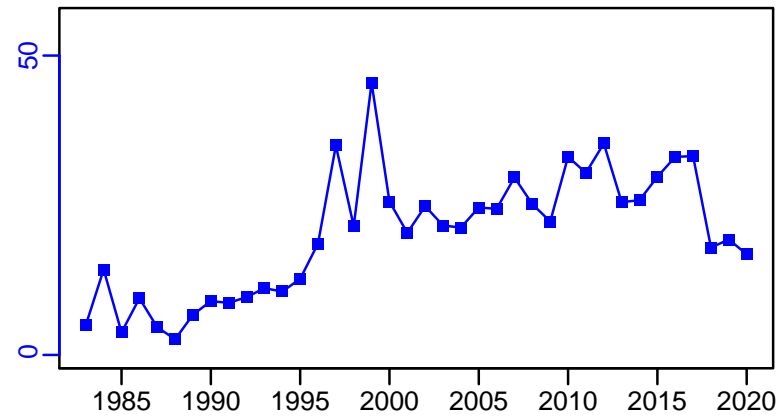
TC–MT, TL–MT, RecC\* (1983–2020–ICESIMP2021–2)



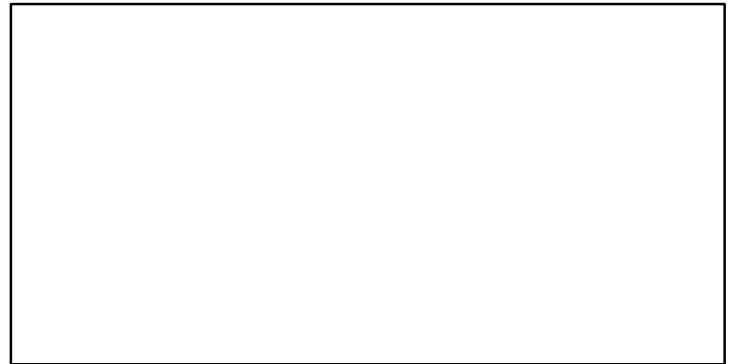
TAC\*, Cpair\*, Cadv\*



survB–index (1983–2020–ICESIMP2021–2)



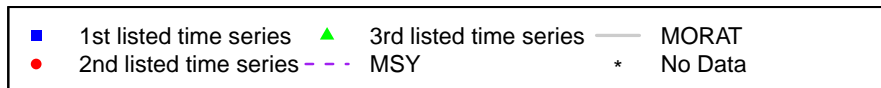
CPUE\*



EFFORT\*



CdivMSY\*



## Kelp greenling Oregon Coast [KELPGREENLINGORECOAST]

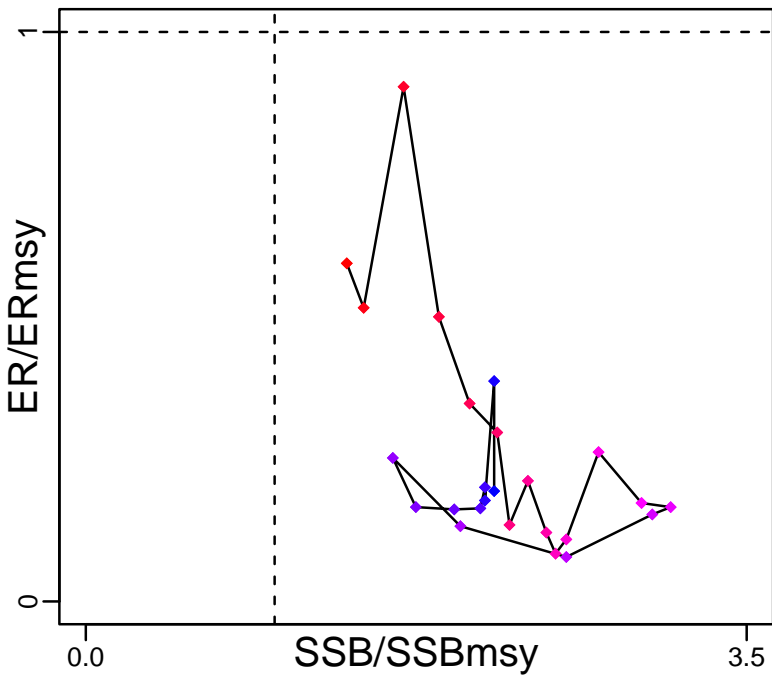
Metadata	
<b>Scientific Name</b>	Hexagrammos decagrammus
<b>Current Assess ID</b>	NWFSC-KELPGREENLINGORECOAST-1915-2015-SISIMP2016
<b>Area</b>	Oregon Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northwest Fisheries Science Center
<b>Asmts in RAM</b>	2015, 2005

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2005	656
<b>SSBmsy</b>	SSBmsy-MT	2015	159
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-pr-ratio	2005	0.125
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2005	1295
<b>SSB0</b>	SSB0-MT	2005	321
<b>MSY</b>	MSY-MT	2015	130
<b>M</b>	M-1/yr	2005	0.26
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2015	99
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

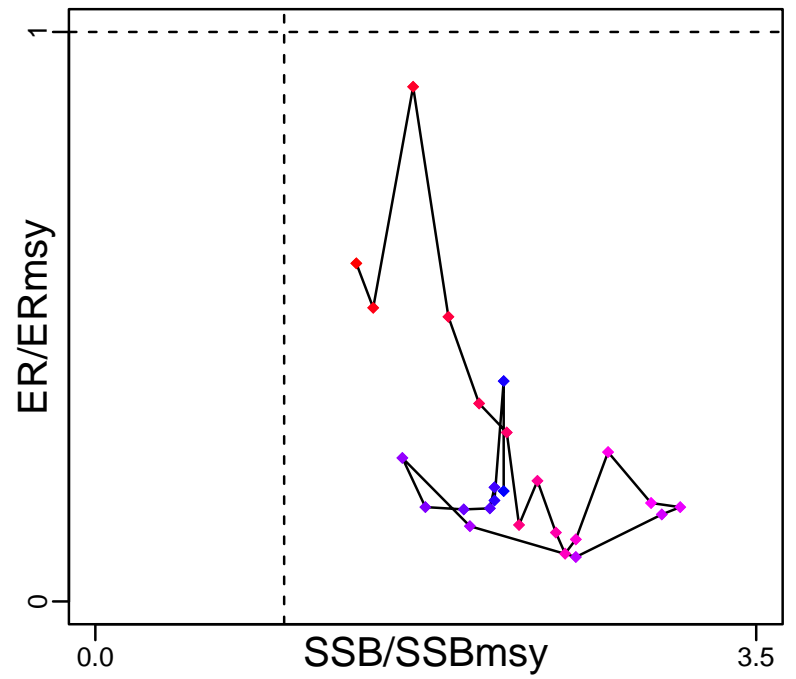
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	1130	-	0+
<b>SSB</b>	SSB-MT	2015	316	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2015	1,410,000	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2015	0.03	-	-
<b>TC</b>	TC-MT	2015	33		
<b>TL</b>	TL-MT	2005	52		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2005	0.951		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2015	1.99		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-pr-ratio	2005	0.594		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Kelp greenling Oregon Coast [KELPGREENLINGORECOAST]

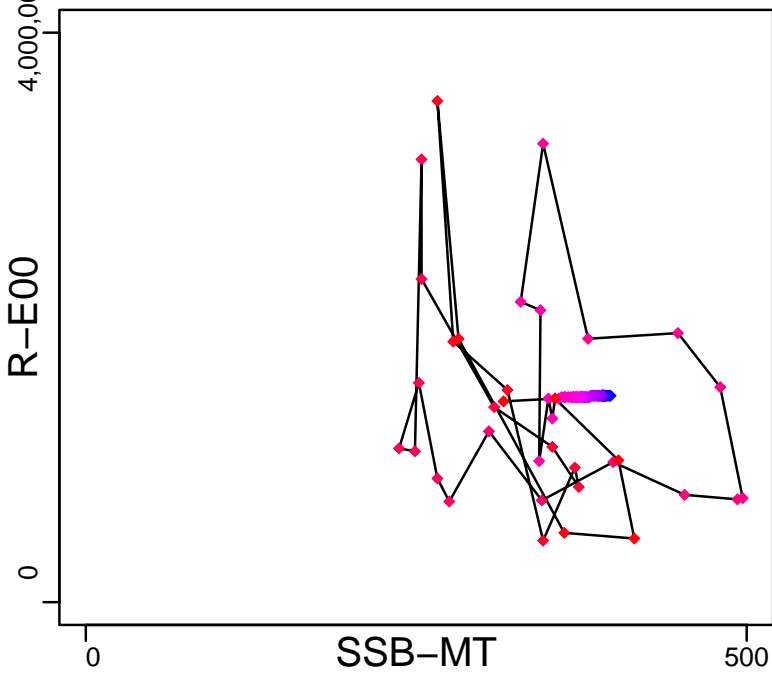
Kobe MSYpref (1979–2005–STANTON)



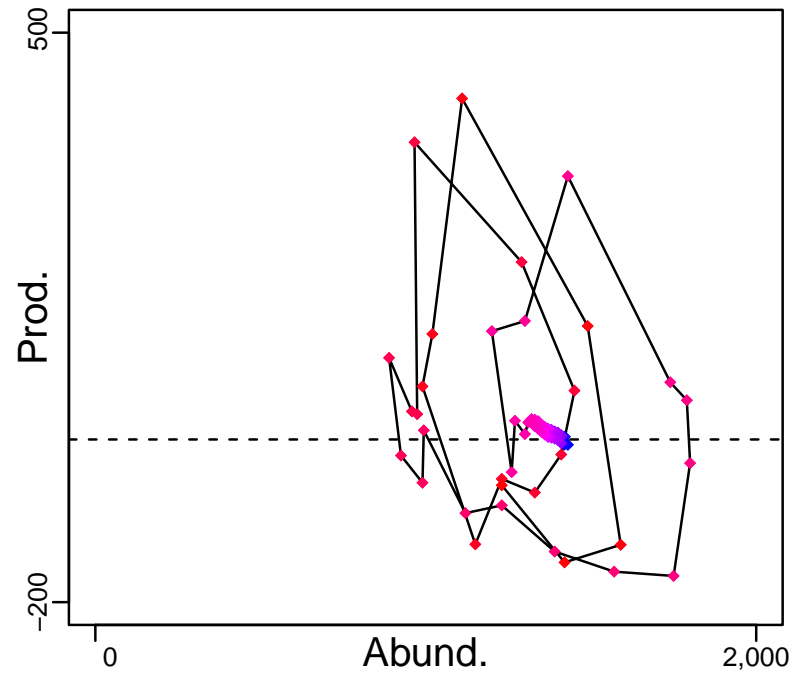
Kobe MGTpref (1979–2005–STANTON)



Spawner Recruit (1915–2015–SISIMP2016)



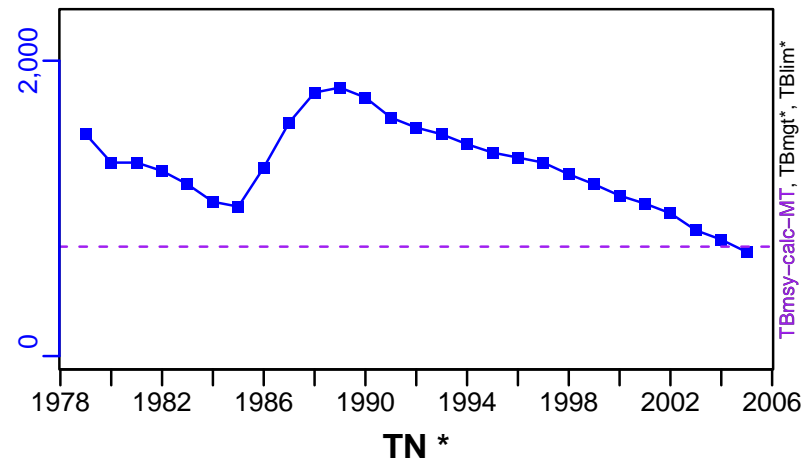
Production (1915–2015–SISIMP2016)



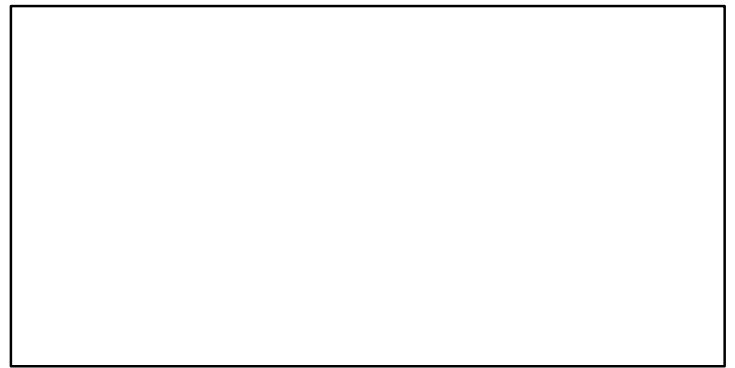
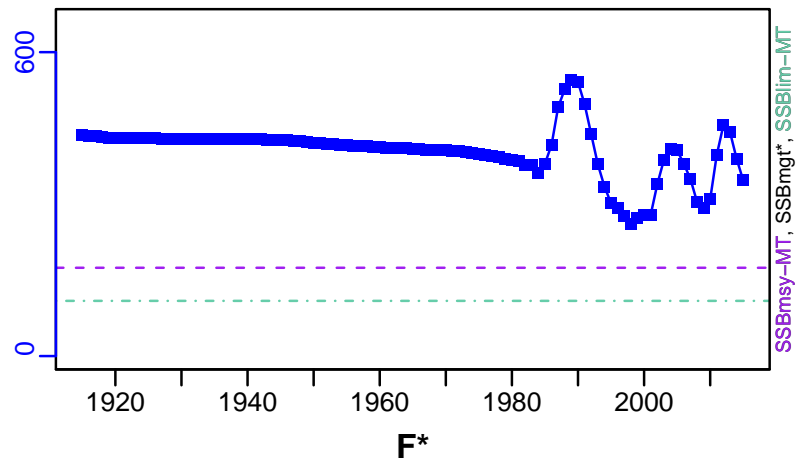
◆ Start Year ◆ End Year \* No Data

# Kelp greenling Oregon Coast [KELPGREENLINGORECOAST]

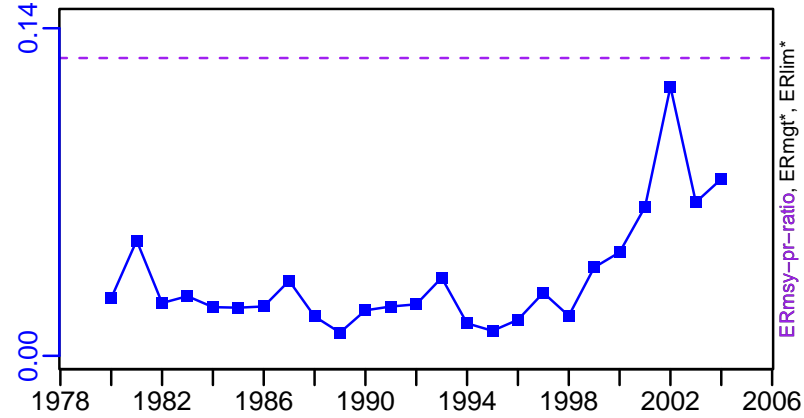
TB-MT (1979–2005–STANTON)



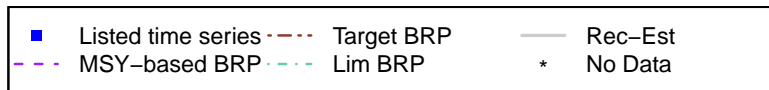
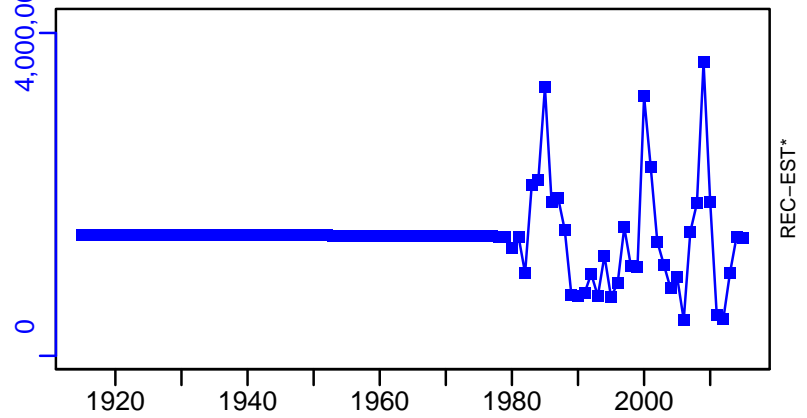
SSB-MT (1915–2015–SISIMP2016)



ER-calc-ratio (1979–2005–STANTON)



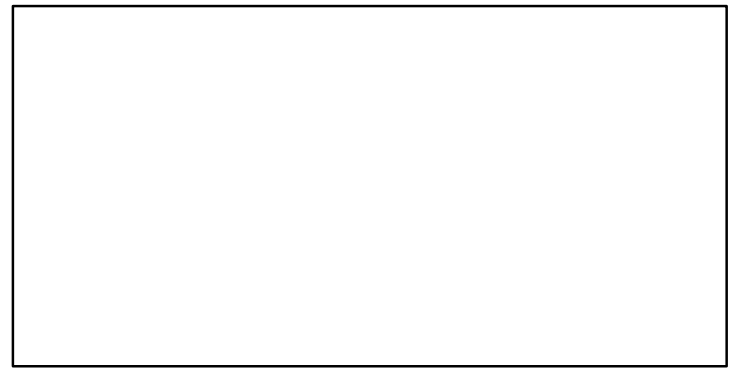
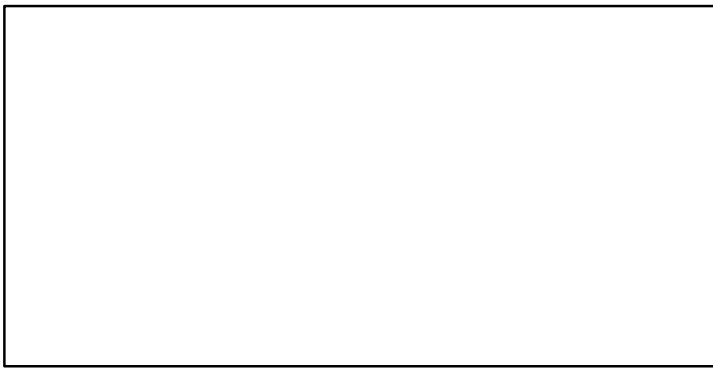
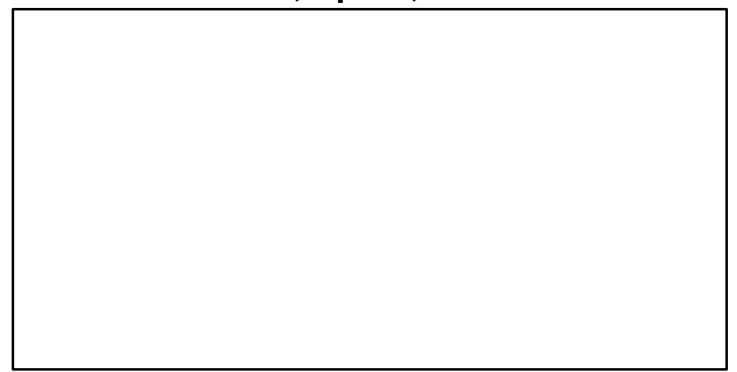
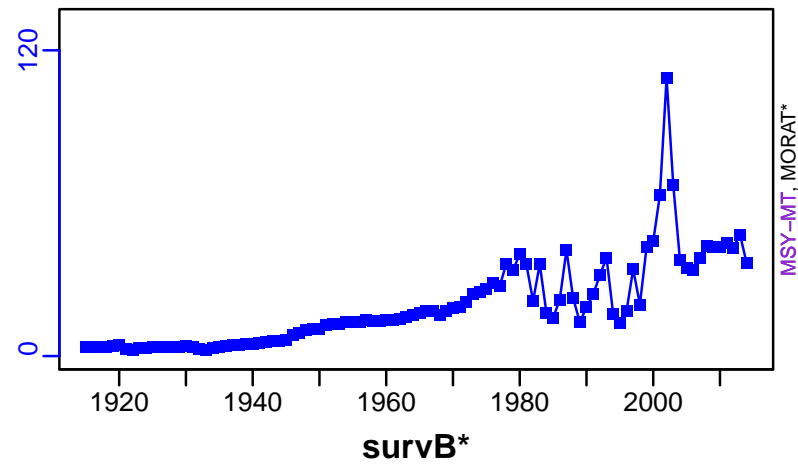
R-E00 (1915–2015–SISIMP2016)



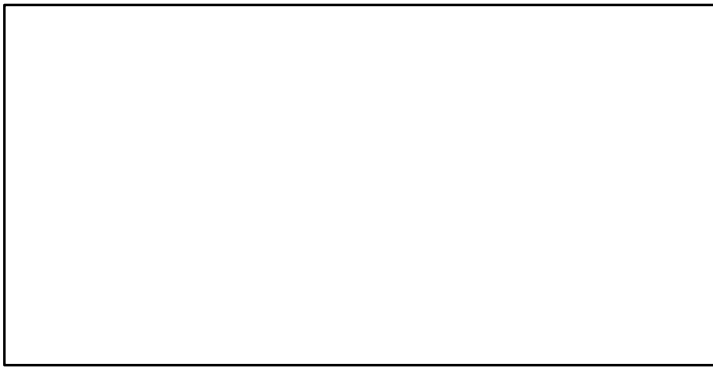
# Kelp greenling Oregon Coast [KELPGREENLINGORECOAST]

TC-MT, TL\*, RecC\* (1915-2015-SISIMP2016)

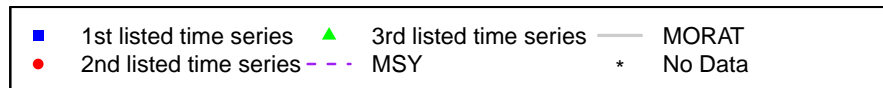
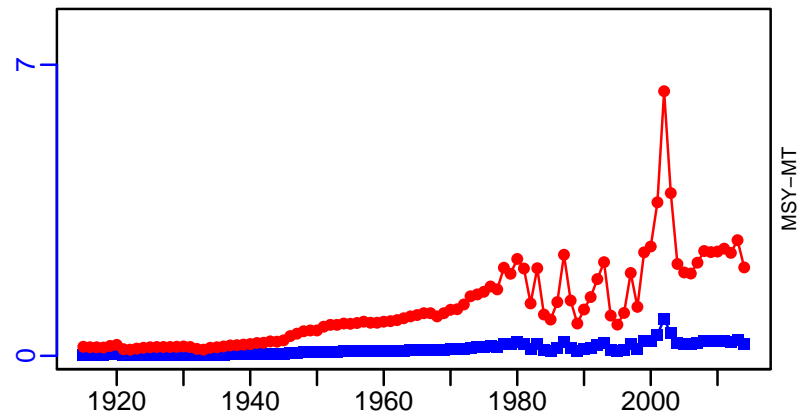
TAC\*, Cpair\*, Cadv\*



EFFORT\*



TC-MT/MSY-MT, CdivMEANC-ratio, (1915-2015-SISIMP2016)



## Lingcod Northern Pacific Coast [LINGCODNPCOAST]

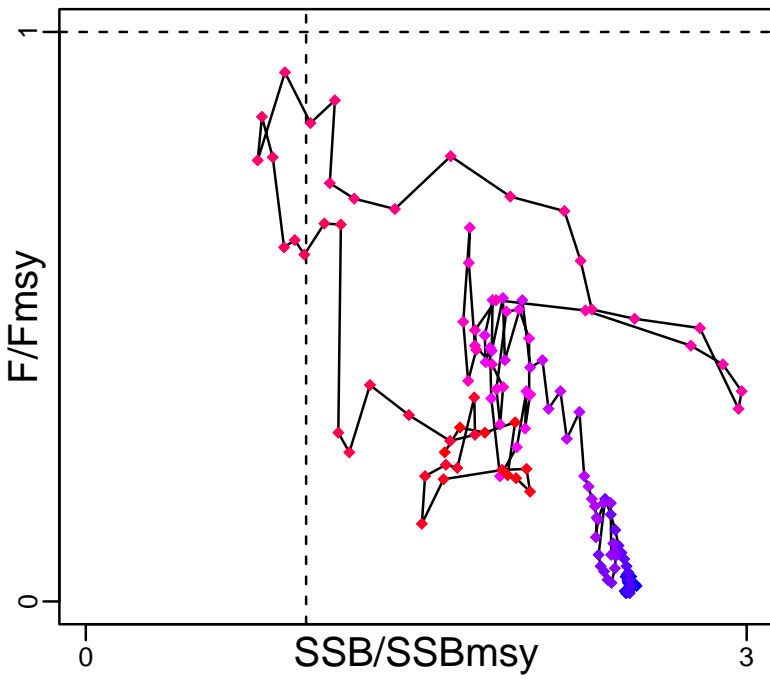
Metadata	
<b>Scientific Name</b>	Ophiodon elongatus
<b>Current Assess ID</b>	NWFSC-LINGCODNPCOAST-1889-2021-SISIMP2022
<b>Area</b>	Northern Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northwest Fisheries Science Center
<b>Asmts in RAM</b>	2017, 2019, 2021, 2009

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-MT	2009	12,386
<b>SSBmsy</b>	SSBmsy-MT	2021	6864
<b>Fmsy</b>	Fmsy-1/yr	2021	0.55
<b>ERmsy</b>	ERmsy-ratio	2009	0.14
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2009	44,536
<b>SSB0</b>	SSB0-MT	2009	33,075
<b>MSY</b>	MSY-MT	2021	3708
<b>M</b>	M-1/yr	2009	0.18
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2019	9490
<b>Flim</b>	Flim-1/yr	2019	0.55
<b>ERlim</b>	-	-	-

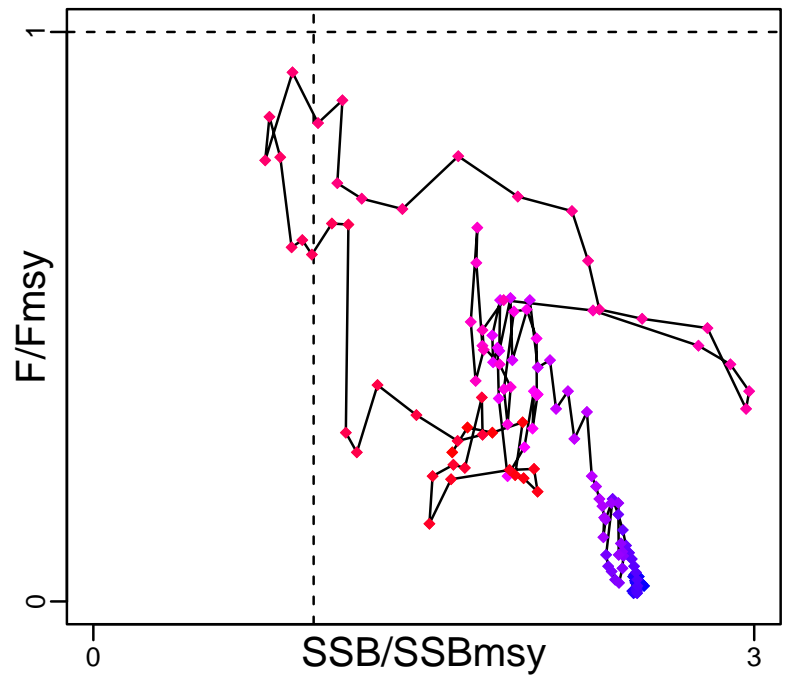
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2017	34,064	-	-
<b>SSB</b>	SSB-MT	2021	11,010	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2021	16,174,800	-	0
<b>F</b>	F-1/yr	2021	0.144	-	-
<b>ER</b>	ER-calc-ratio	2017	0.021	-	-
<b>TC</b>	TC-MT	2021	1200		
<b>TL</b>	TL-MT	2009	350		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2009	2.567		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2021	1.604		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2021	0.262		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2009	0.253		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Lingcod Northern Pacific Coast [LINGCODNPCOAST]

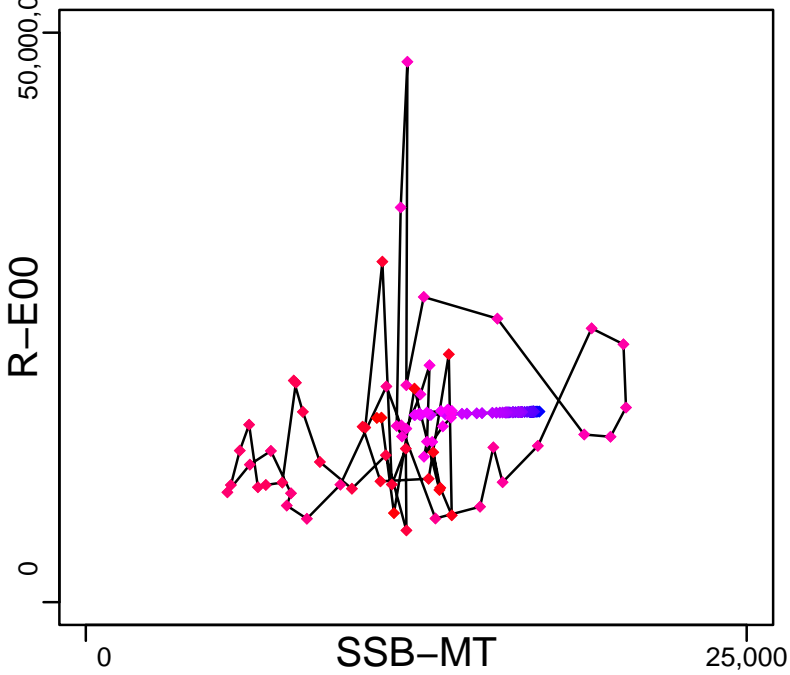
Kobe MSYpref (1889–2021–SISIMP2022)



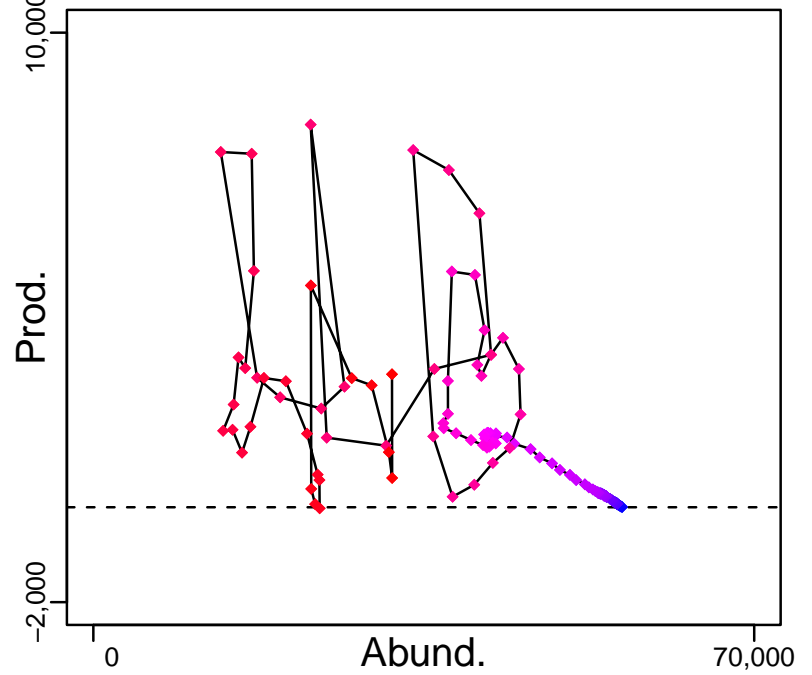
Kobe MGTpref (1889–2021–SISIMP2022)



Spawner Recruit (1889–2021–SISIMP2022)



Production (1889–2017–SISIMP2021)

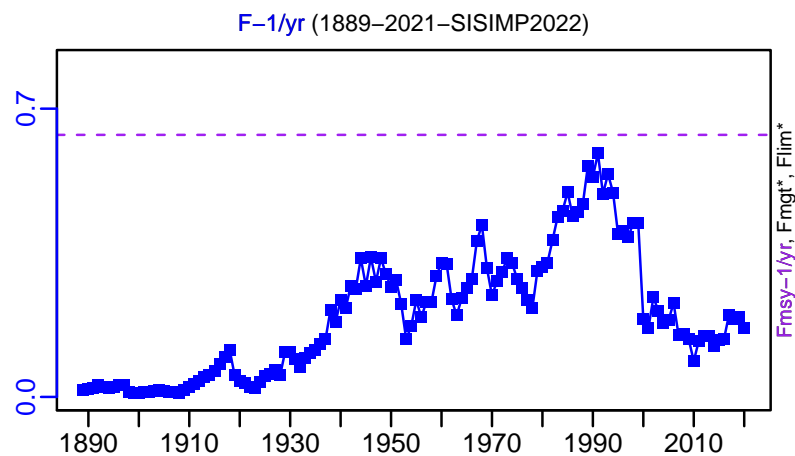
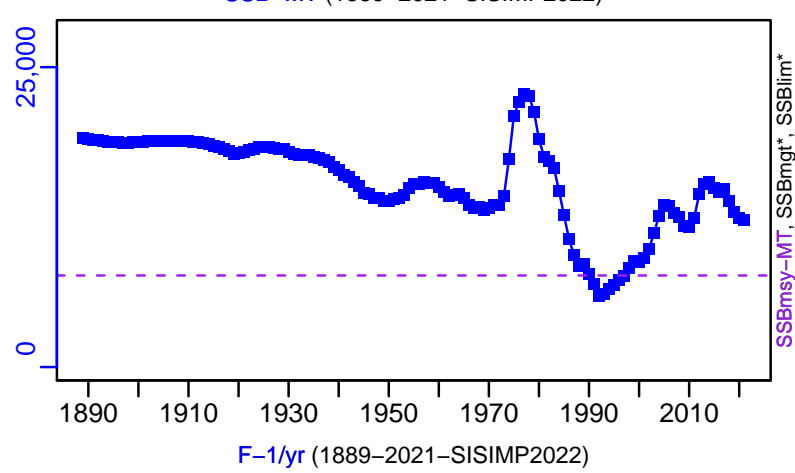
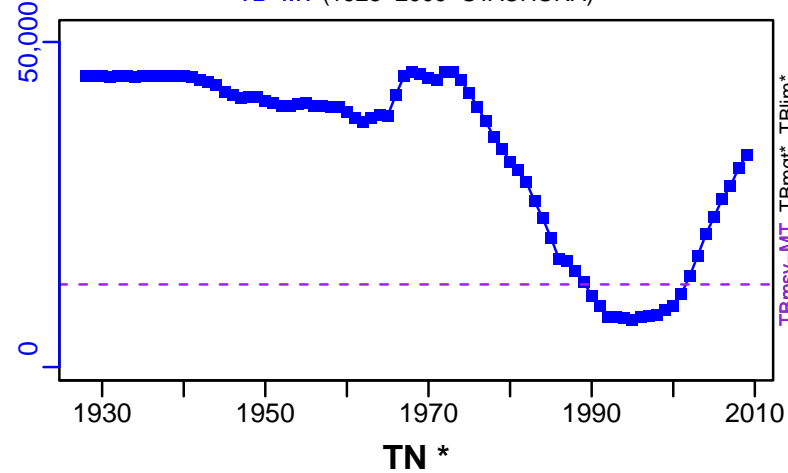


◆ Start Year ◆ End Year \* No Data

# Lingcod Northern Pacific Coast [LINGCODNPCOAST]

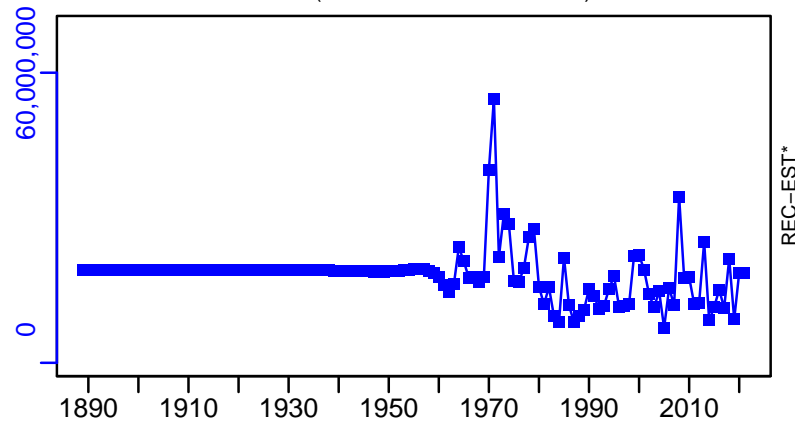
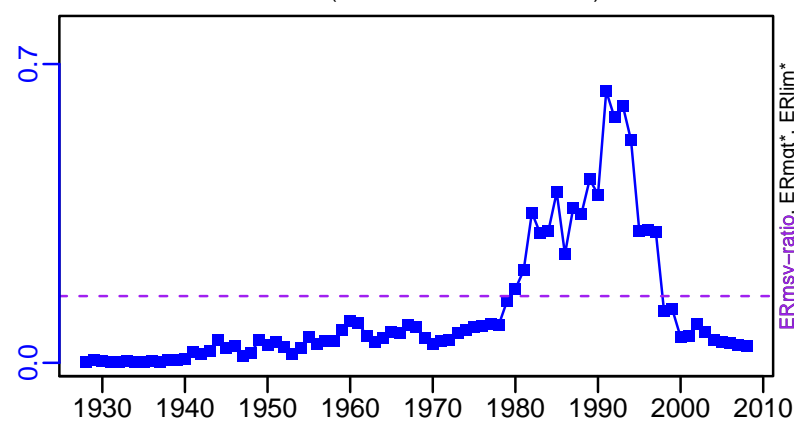
TB-MT (1928-2009-STACHURA)

SSB-MT (1889-2021-SISIMP2022)



ER-ratio (1928-2009-STACHURA)

R-E00 (1889-2021-SISIMP2022)

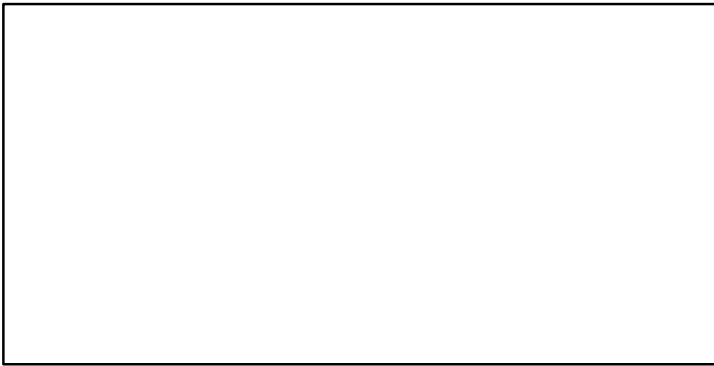
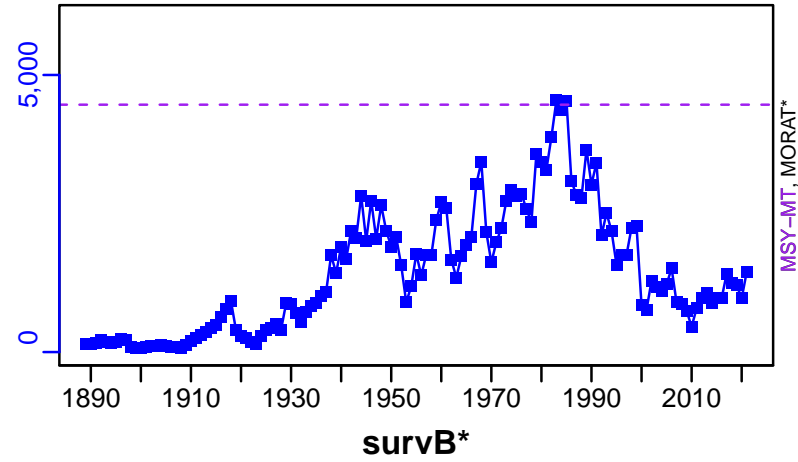




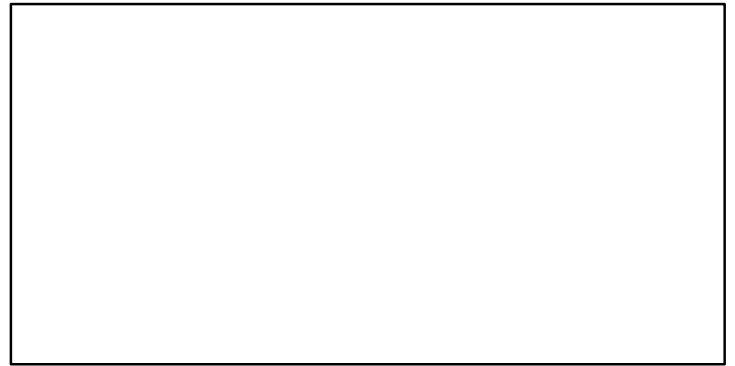
# Lingcod Northern Pacific Coast [LINGCODNPCOAST]

TC-MT, TL\*, RecC\* (1889-2021-SISIMP2022)

TAC\*, Cpair\*, Cadv\*



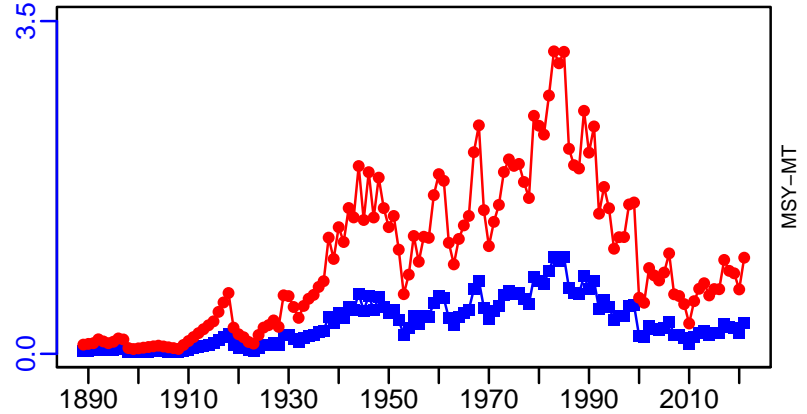
CPUE\*



EFFORT\*



TC-MT/MSY-MT, CdivMEANC-ratio, (1889-2021-SISIMP2022)



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

## Lingcod Strait of Georgia [LINGCODSOG]

Metadata	
<b>Scientific Name</b>	Ophiodon elongatus
<b>Current Assess ID</b>	DFO-PAC-LINGCODSOG-1927-2014-OSGOOD
<b>Area</b>	Strait of Georgia
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans - Pacific Region
<b>Asmts in RAM</b>	2014

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2014	15,924
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2014	12,739
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2014	763
<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>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2014	7120	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2014	44		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2014	0.447		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2014	0.559		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

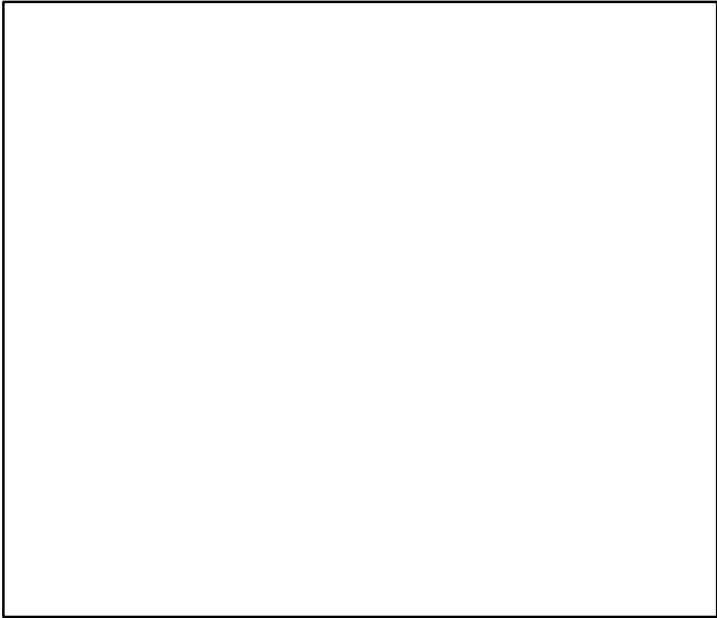
Kobe MSY\*



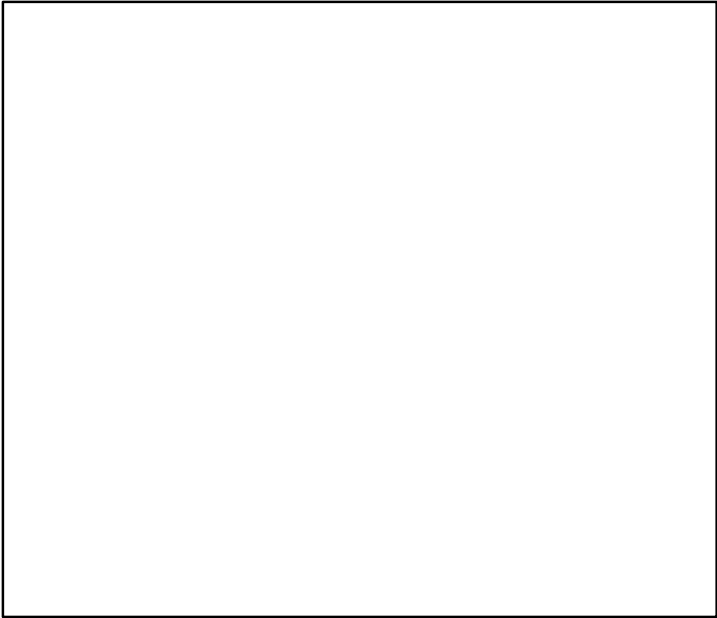
Kobe MGT\*



Spawner Recruit\*



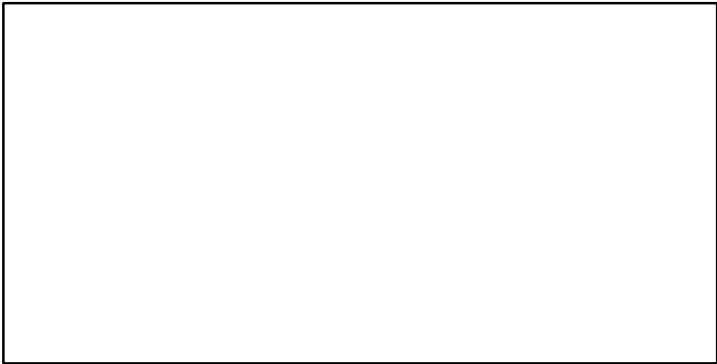
Production\*



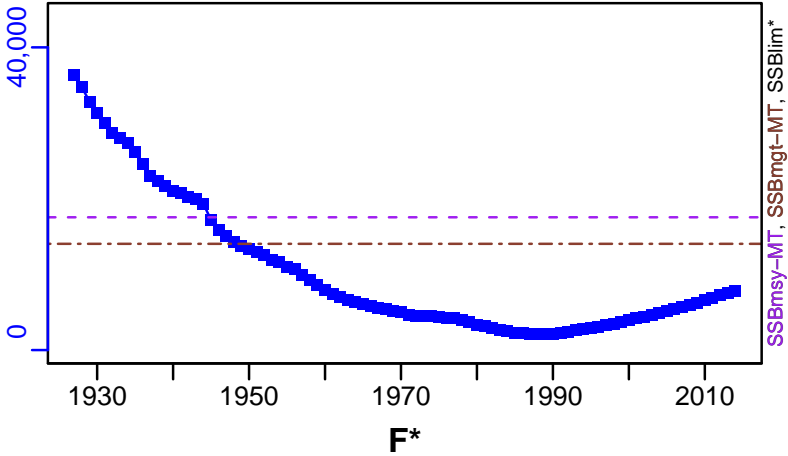
◆ Start Year   ◆ End Year   \* No Data

Lingcod Strait of Georgia [LINGCODSOG]

TB\*



SSB-MT (1927-2014-OSGOOD)



TN \*



F\*



ER\*

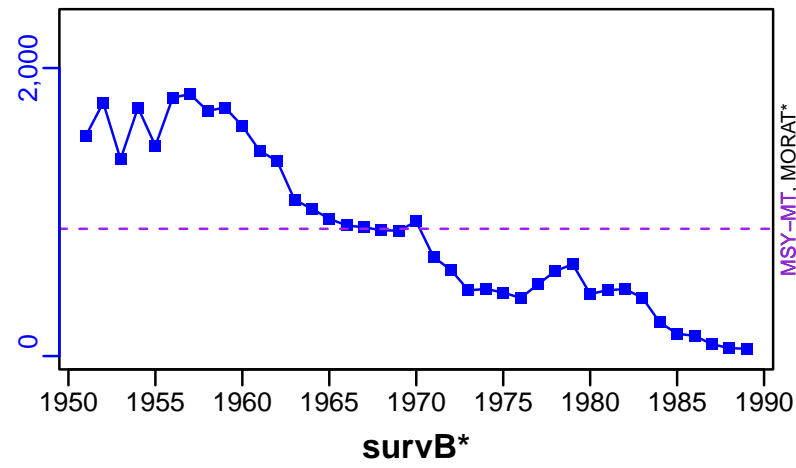


Recruits\*



# Lingcod Strait of Georgia [LINGCODSOG]

TC-MT, TL\*, RecC\* (1927-2014-OSGOOD)



TAC\*, Cpair\*, Cadv\*



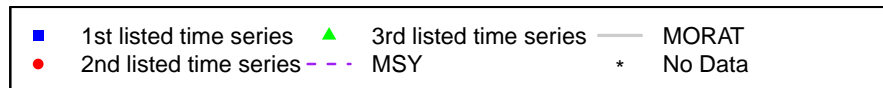
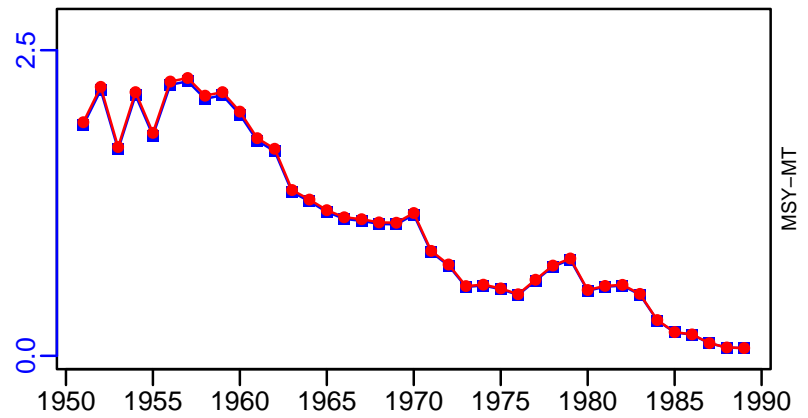
CPUE\*



EFFORT\*



TC-MT/MSY-MT, CdivMEANC-ratio, (1927-2014-OSGOOD)



## Lingcod Southern Pacific Coast [LINGCODSPCOAST]

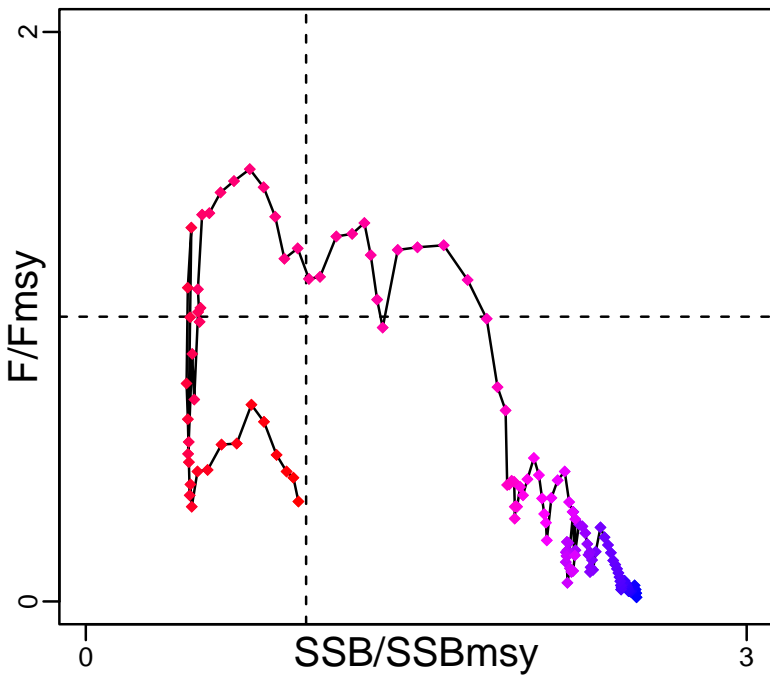
Metadata	
<b>Scientific Name</b>	Ophiodon elongatus
<b>Current Assess ID</b>	NWFSC-LINGCODSPCOAST-1889-2021-SISIMP2022
<b>Area</b>	Southern Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northwest Fisheries Science Center
<b>Asmts in RAM</b>	2017, 2019, 2021, 2009

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2009	16,291
<b>SSBmsy</b>	SSBmsy-MT	2021	10,577
<b>Fmsy</b>	Fmsy-1/yr	2021	0.55
<b>ERmsy</b>	ERmsy-ratio	2009	0.103
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	SSB0-MT	2009	25,311
<b>MSY</b>	MSY-MT	2021	815
<b>M</b>	M-1/yr	2009	0.18
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2019	5060
<b>Flim</b>	Flim-1/yr	2019	0.55
<b>ERlim</b>	-	-	-

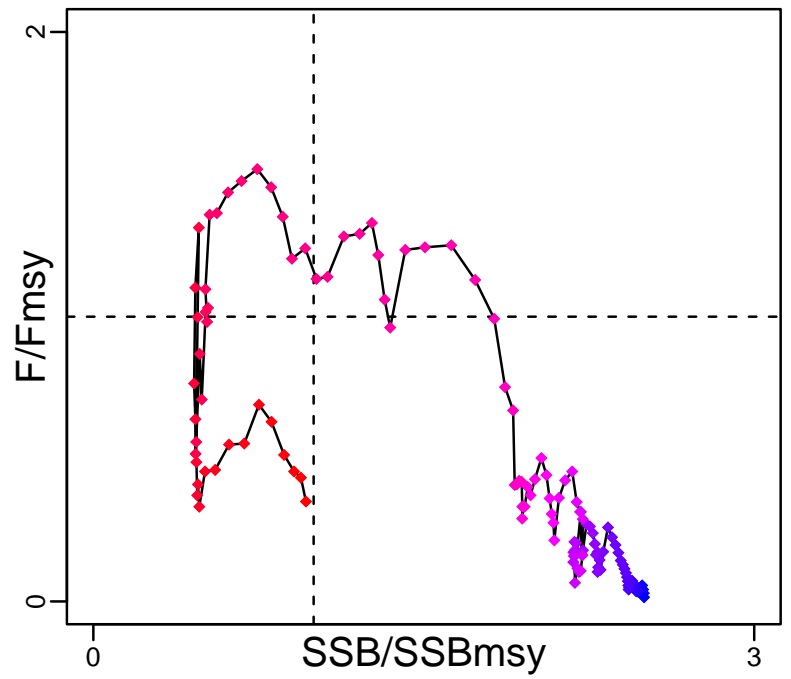
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2017	11,610	-	-
<b>SSB</b>	SSB-MT	2021	10,415	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2021	1,630,130	-	0
<b>F</b>	F-1/yr	2021	0.193	-	-
<b>ER</b>	ER-calc-ratio	2017	0.07	-	-
<b>TC</b>	TC-MT	2021	292		
<b>TL</b>	TL-MT	2009	171		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2009	1.897		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2021	0.985		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2021	0.351		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2009	0.093		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Lingcod Southern Pacific Coast [LINGCODSPCOAST]

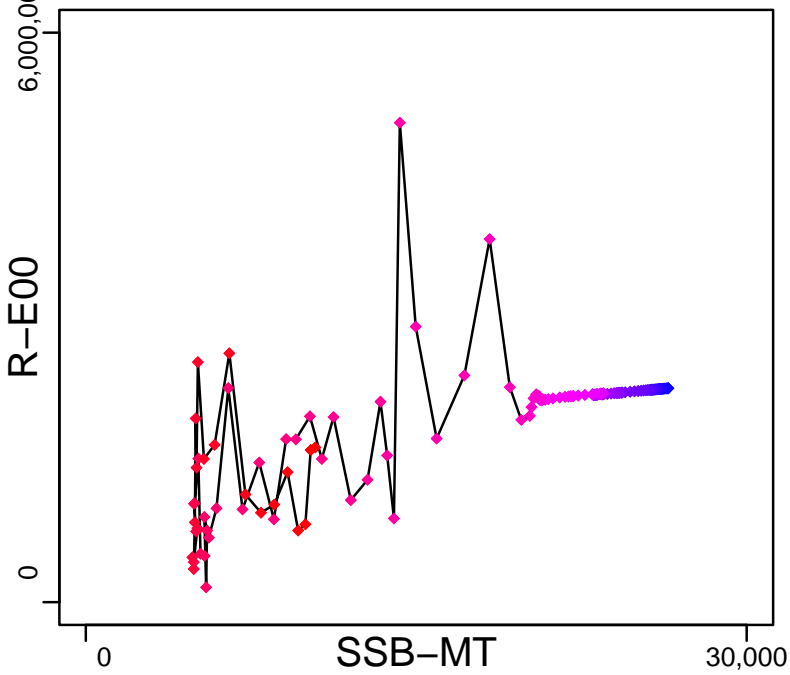
Kobe MSYpref (1889–2021–SISIMP2022)



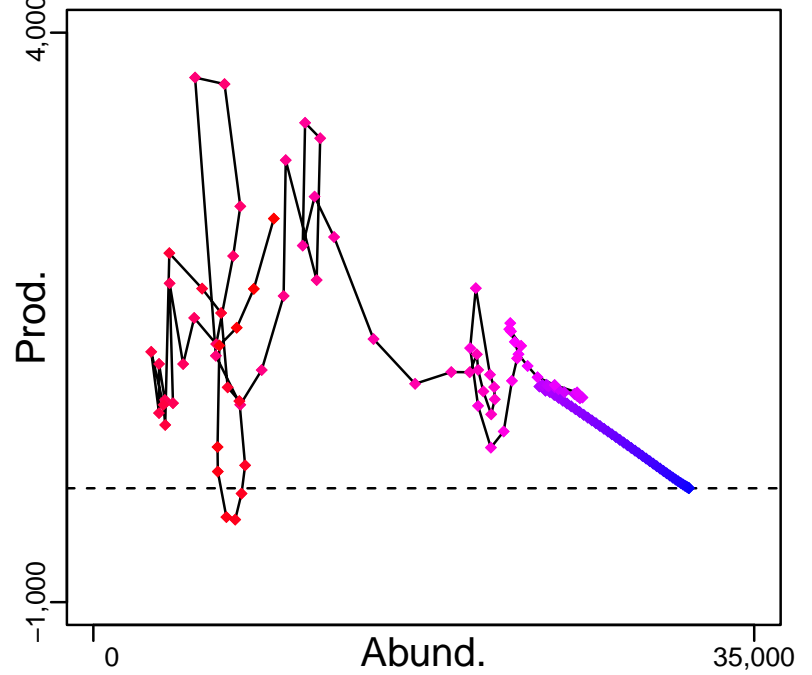
Kobe MGTpref (1889–2021–SISIMP2022)



Spawner Recruit (1889–2021–SISIMP2022)



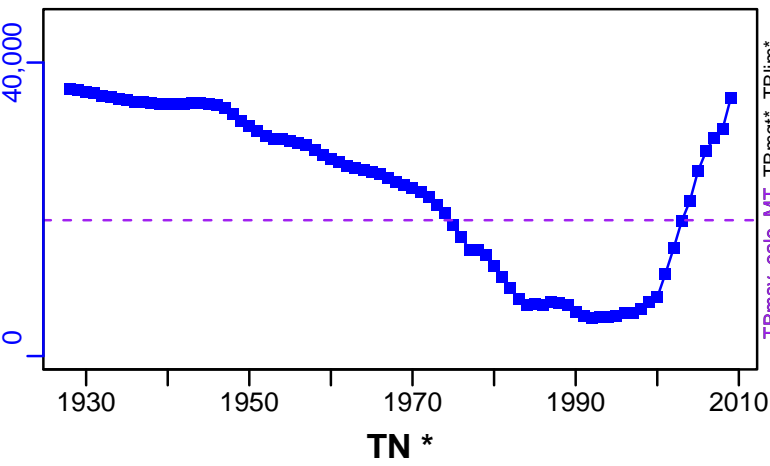
Production (1889–2017–SISIMP2021)



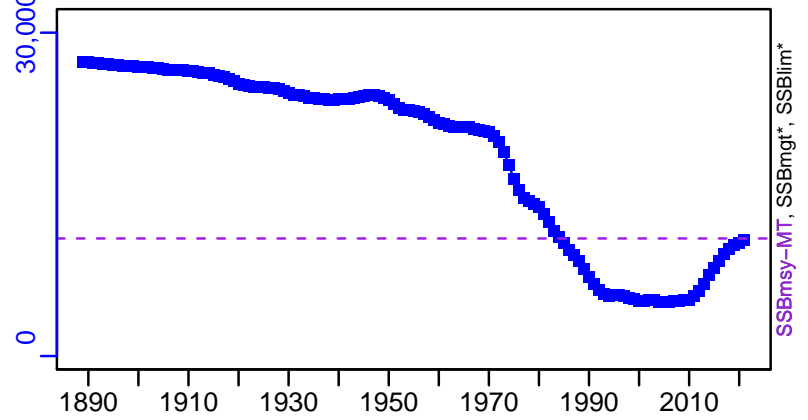
◆ Start Year ◆ End Year \* No Data

# Lingcod Southern Pacific Coast [LINGCODSPCOAST]

TB-MT (1928-2009-STACHURA)



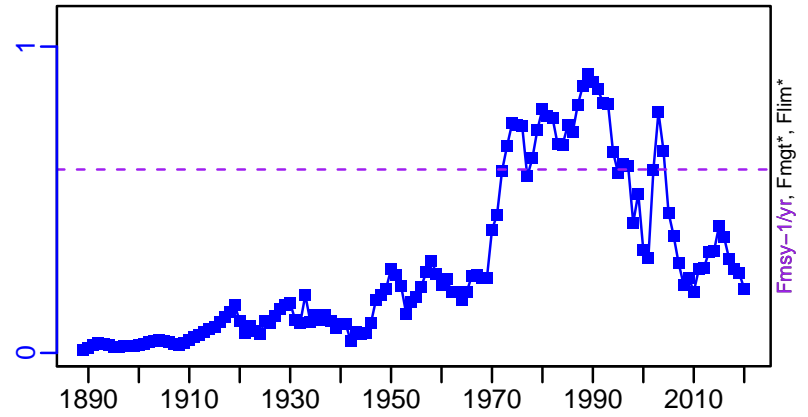
SSB-MT (1889-2021-SISIMP2022)



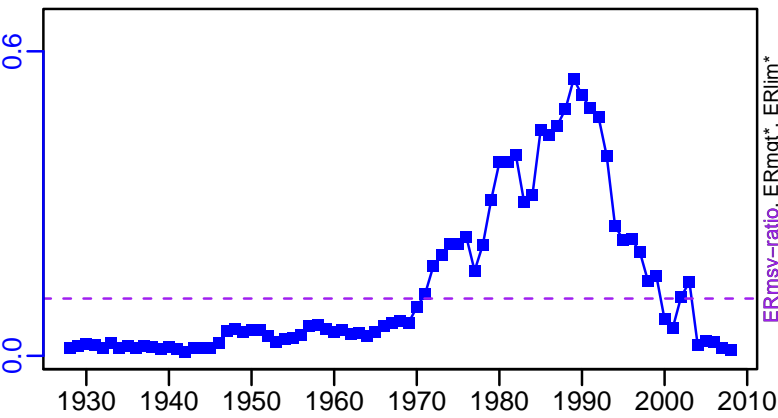
TN \*



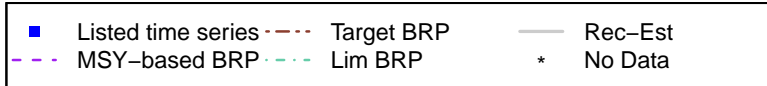
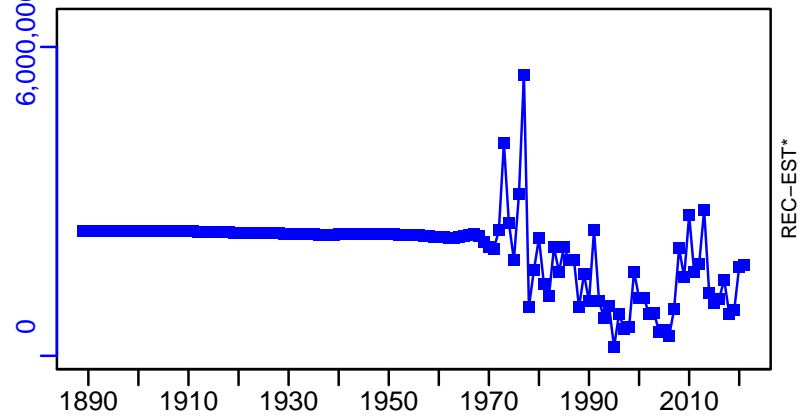
F-1/yr (1889-2021-SISIMP2022)



ER-ratio (1928-2009-STACHURA)



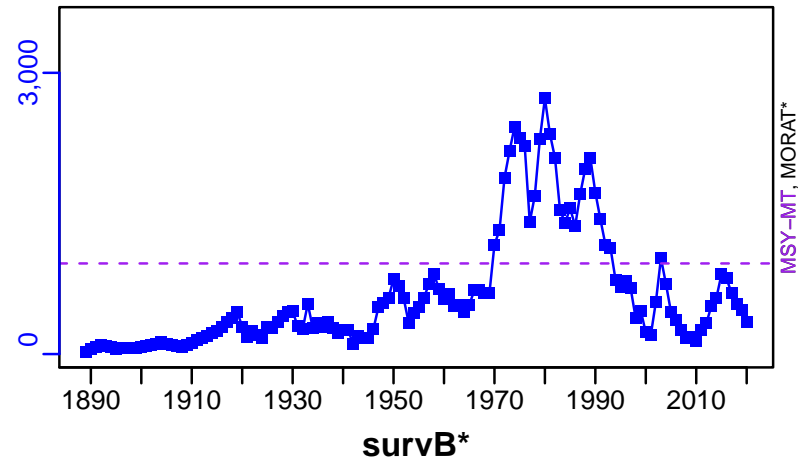
R-E00 (1889-2021-SISIMP2022)



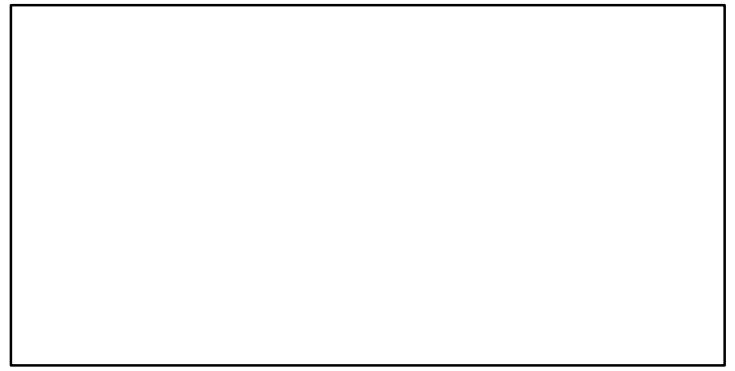


# Lingcod Southern Pacific Coast [LINGCODSPCOAST]

TC-MT, TL\*, RecC\* (1889-2021-SISIMP2022)



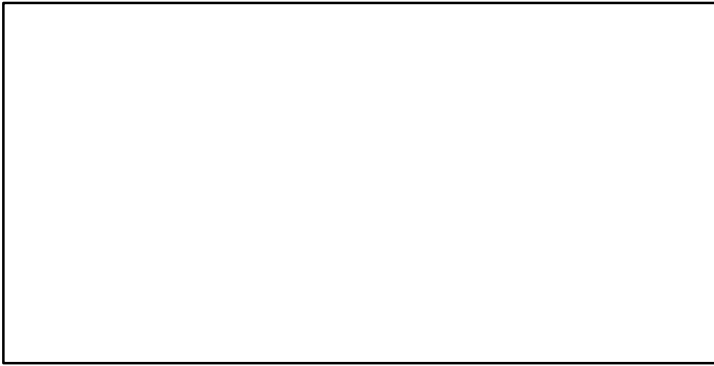
TAC\*, Cpair\*, Cadv\*



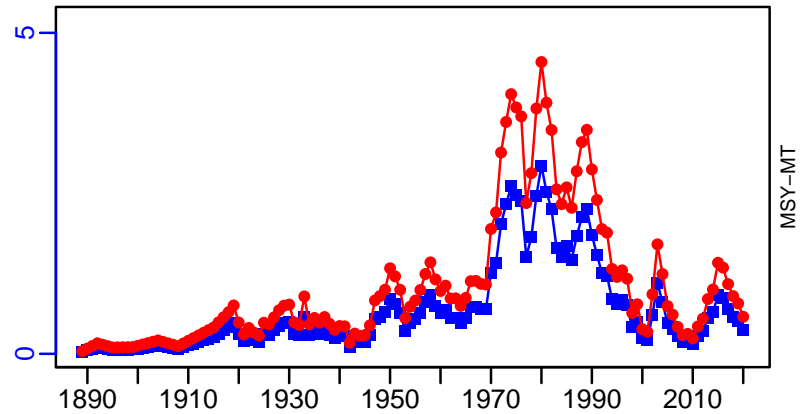
CPUE\*



EFFORT\*



TC-MT/MSY-MT, CdivMEANC-ratio, (1889-2021-SISIMP2022)



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

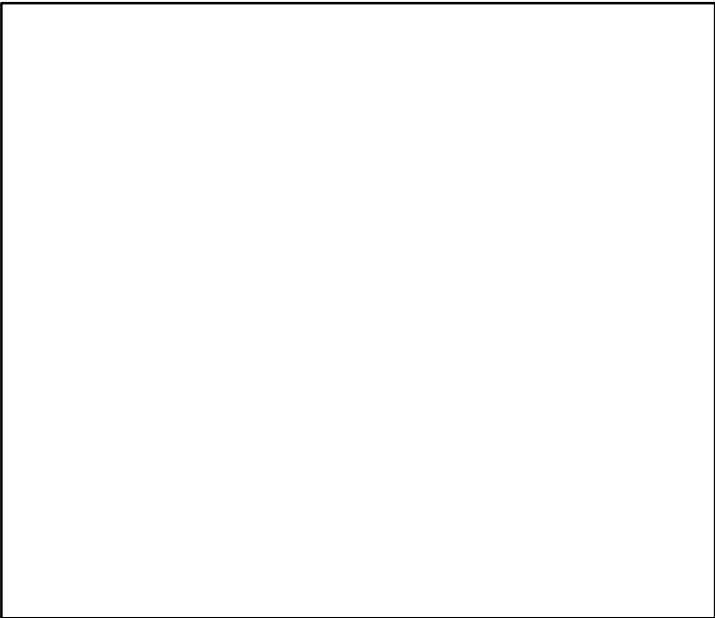
## Lumpfish Northern Gulf of St. Lawrence [LUMP3Pn4RS]

Metadata	
<b>Scientific Name</b>	Cyclopterus lumpus
<b>Current Assess ID</b>	DFO-QUE-LUMP3Pn4RS-1970-2015-ASHBROOK
<b>Area</b>	Northern Gulf of St. Lawrence
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans - Quebec Region
<b>Asmts in RAM</b>	2015

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	-	-	-		
TL	TL-MT	2015	36		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

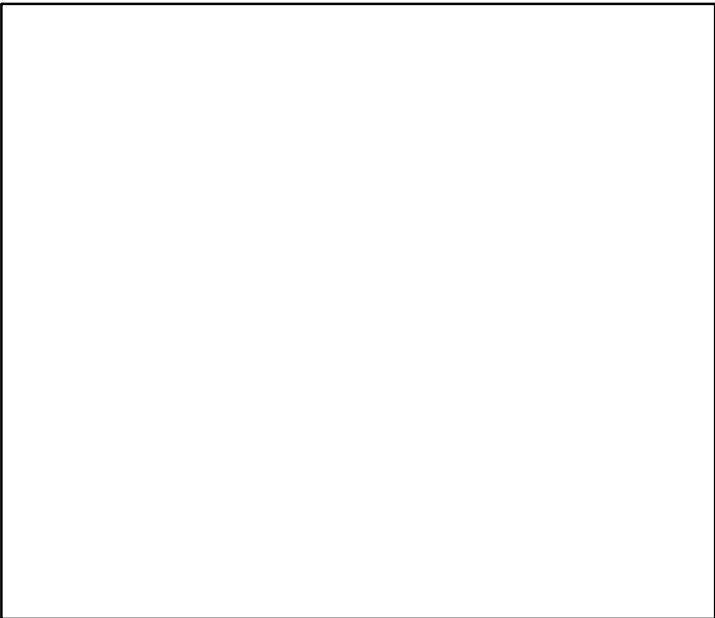
**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



**Production\***



◆ Start Year    ◆ End Year    \* No Data

Lumpfish Northern Gulf of St. Lawrence [LUMP3Pn4RS]

TB\*



SSB\*



TN \*



F\*



ER\*

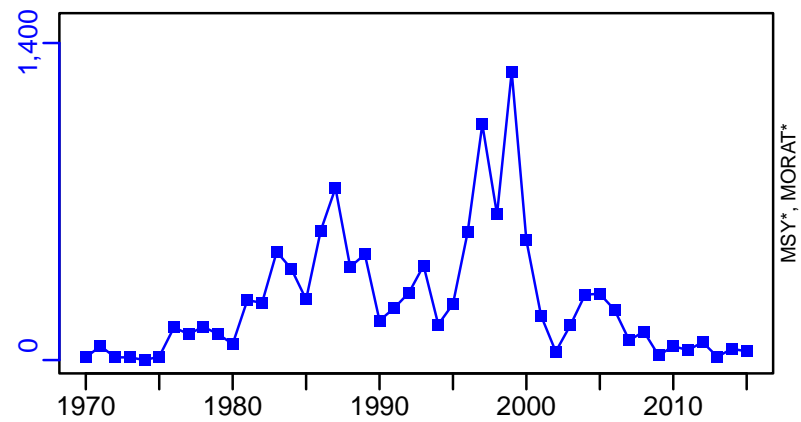


Recruits\*

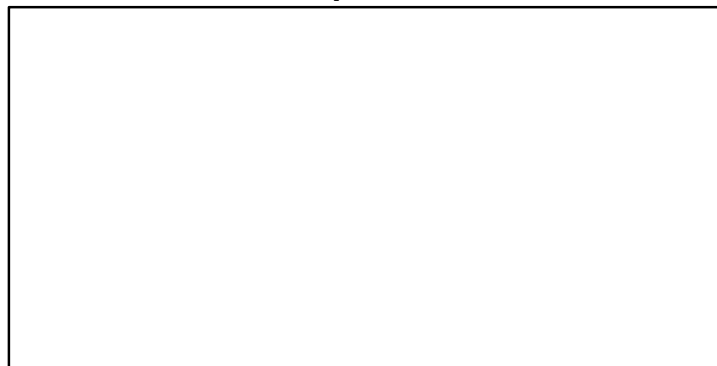


# Lumpfish Northern Gulf of St. Lawrence [LUMP3Pn4RS]

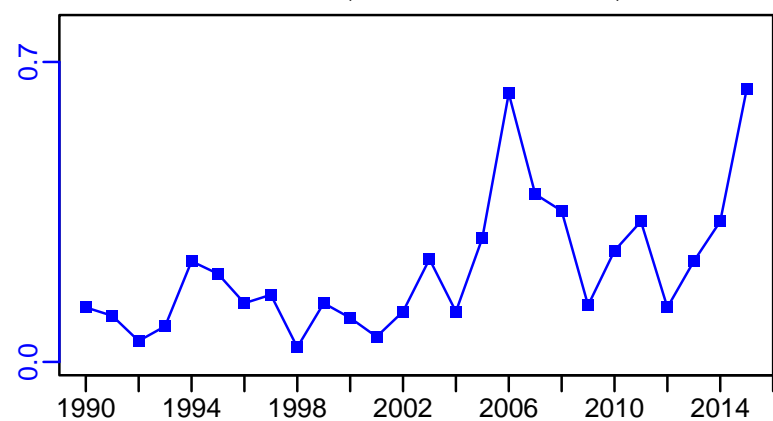
TL-MT, TC\*, RecC\* (1970-2015-ASHBROOK)



TAC\*, Cpair\*, Cadv\*



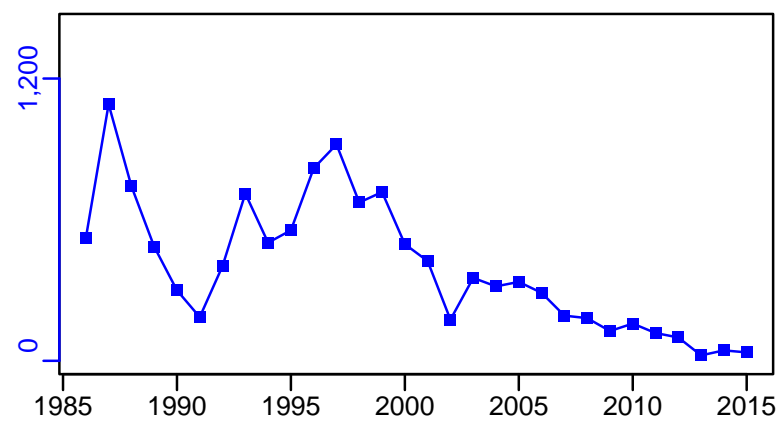
survB-index (1970-2015-ASHBROOK)



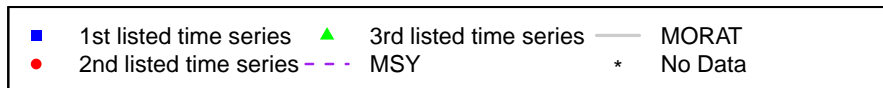
CPUE\*



EFFORT-fishers (1970-2015-ASHBROOK)



CdivMSY\*



## Pacific red gurnard New Zealand Area GUR 3 [PRGURNGUR3]

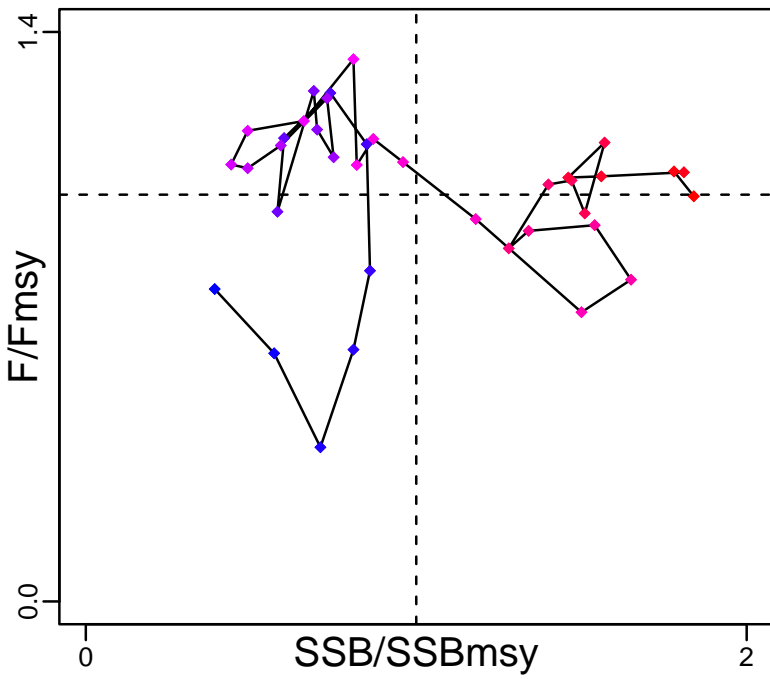
Metadata	
<b>Scientific Name</b>	Chelidonichthys kumu
<b>Current Assess ID</b>	NZMFishINSHOREWG-PRGURNGUR3-1985-2021-LANGLEY
<b>Area</b>	New Zealand Area GUR 7
<b>Management Authority</b>	Ministry of Fisheries, New Zealand national management
<b>Assessor</b>	Inshore Working Group
<b>Asmts in RAM</b>	2021

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-extr-MT	2021	2208
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2021	2207
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2021	986
<b>M</b>	M-1/yr	2021	0.29
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2021	1261
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

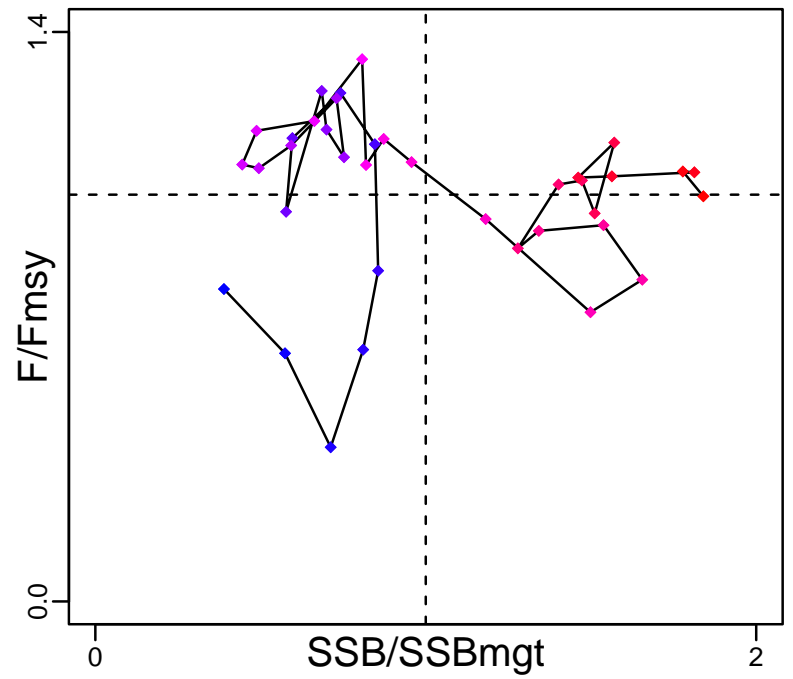
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2021	4061	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2021	6,626,810	Both	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2021	1691		
<b>TL</b>	TL-MT	2021	1691		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSBdivSSBmsy-dimensionless	2021	1.84		
<b>F/Fmsy</b>	FdivFmsy-dimensionless	2021	0.996		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2021	1.84		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Pacific red gurnard New Zealand Area GUR 3 [PRGURNGUR3]

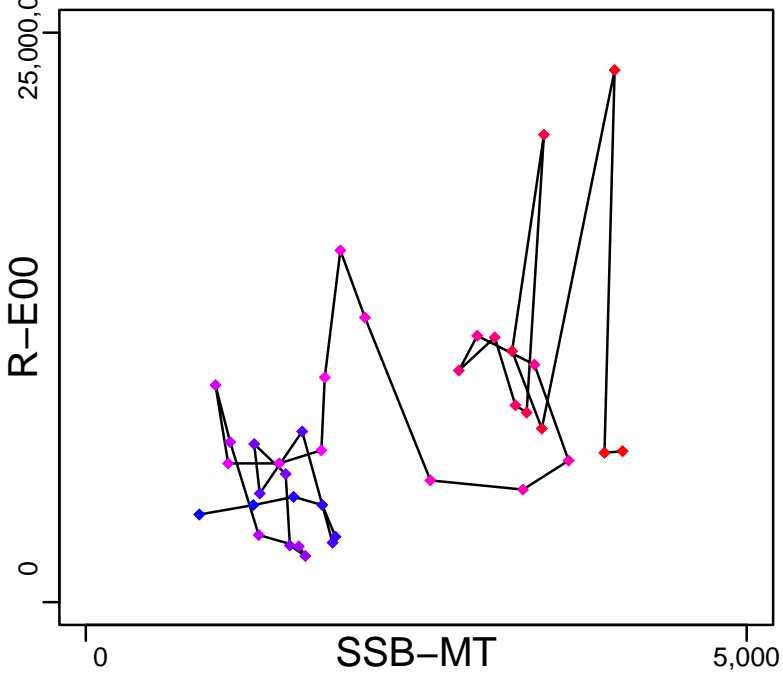
Kobe MSYpref (1985–2021–LANGLEY)



Kobe MGTpref (1985–2021–LANGLEY)



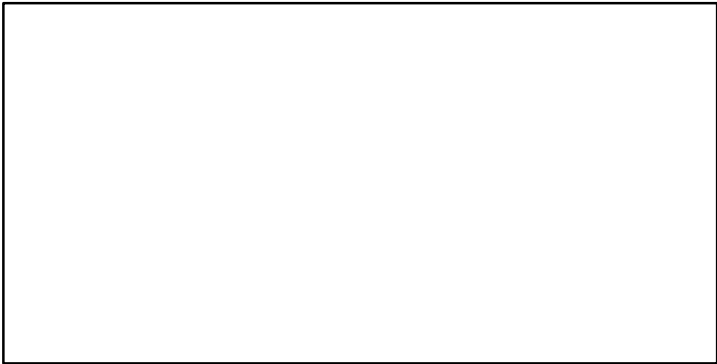
Spawner Recruit (1985–2021–LANGLEY)



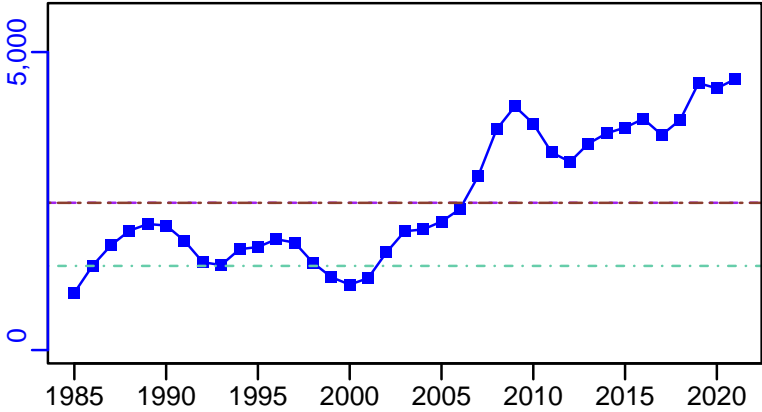
◆ Start Year ◆ End Year \* No Data

Pacific red gurnard New Zealand Area GUR 3 [PRGURNGUR3]

TB\*

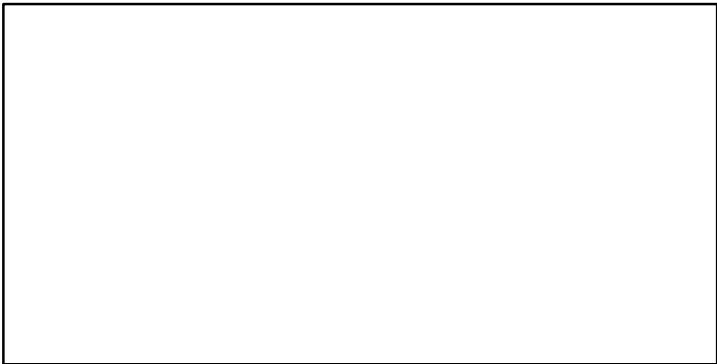


SSB-MT (1985-2021-LANGLEY)

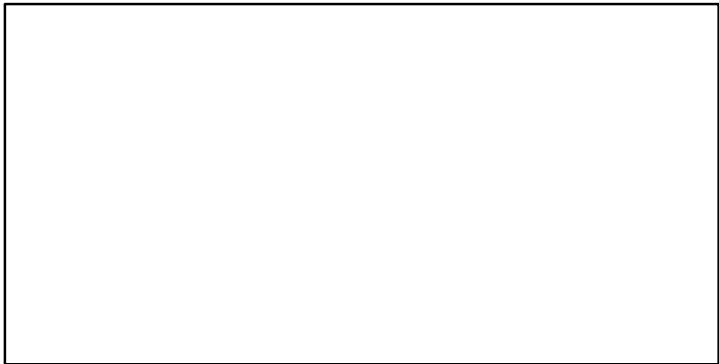


SSBmsy-extr-MT, SSBmgt-MT, SSBlim-MT

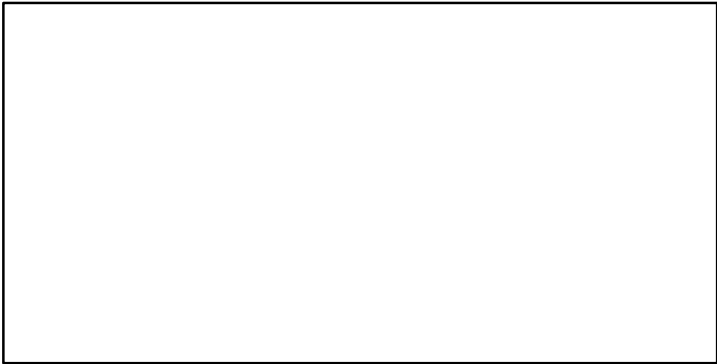
TN \*



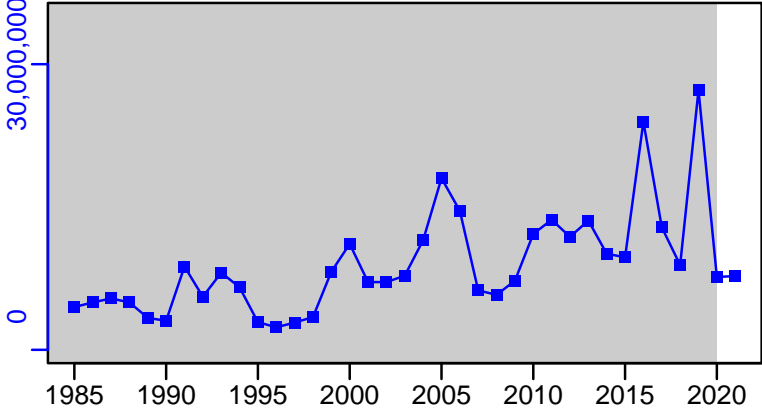
F\*



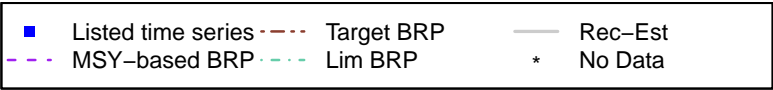
ER\*



R-E00 (1985-2021-LANGLEY)



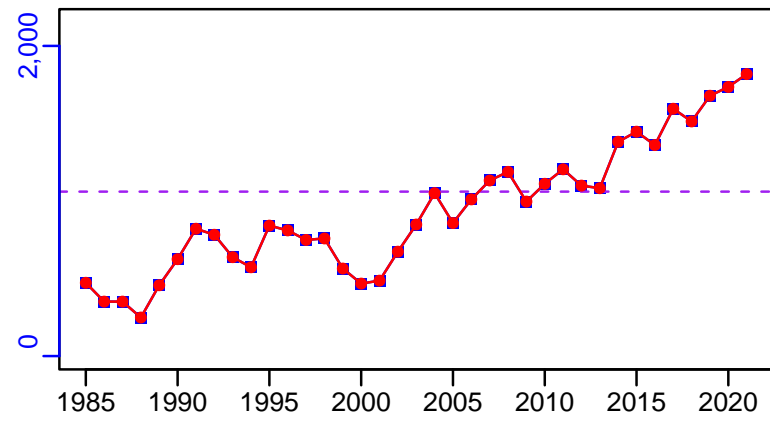
REC-EST: 1980-2020



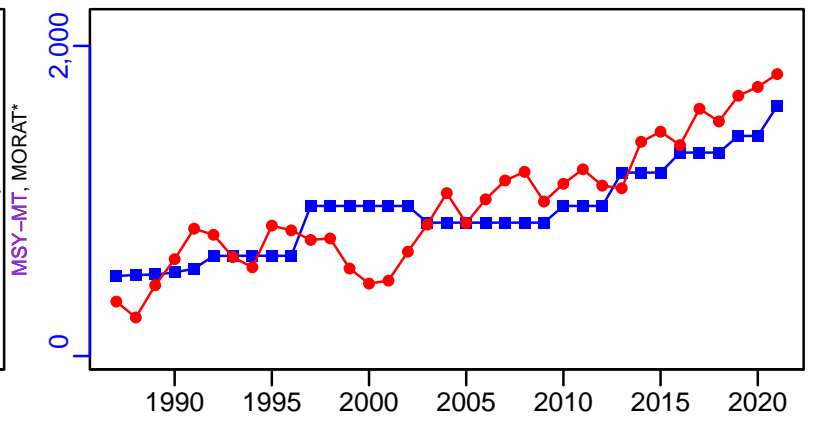


# Pacific red gurnard New Zealand Area GUR 3 [PRGURNGUR3]

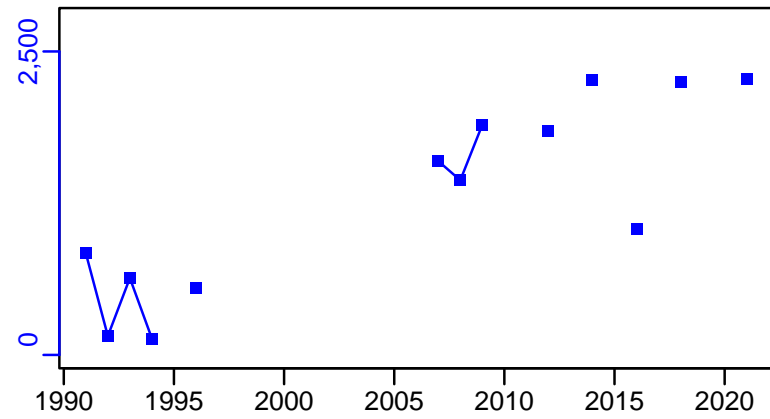
TC-MT, TL-MT, RecC\* (1985-2021-LANGLEY)



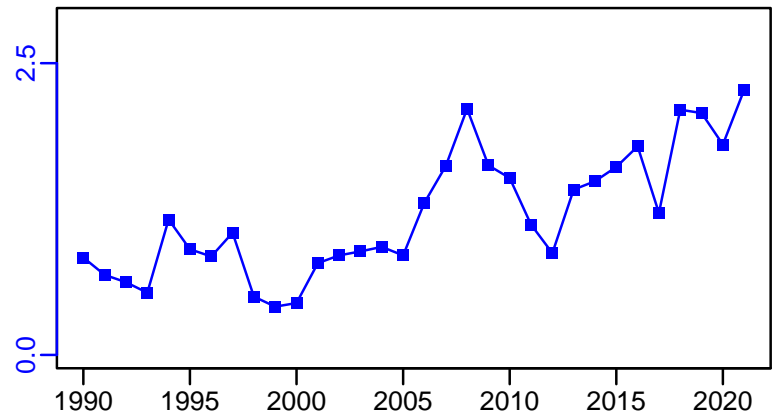
TAC-MT, Cpair-MT, Cadv\* (1985-2021-LANGLEY)



survB\_index-index (1985-2021-LANGLEY)



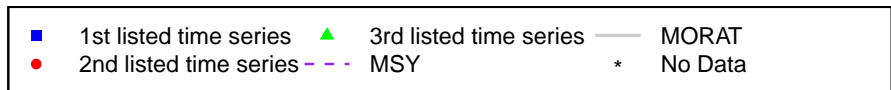
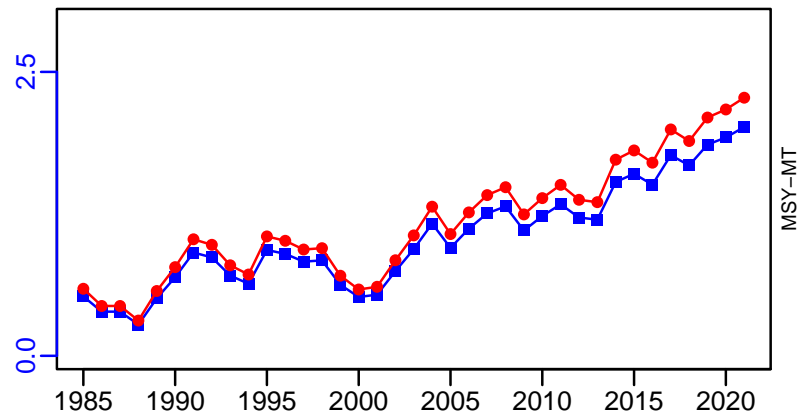
CPUE-index (1985-2021-LANGLEY)



**EFFORT\***



TC-MT/MSY-MT, CdivMEANC-ratio, (1985-2021-LANGLEY)



## Pacific red gurnard New Zealand Area GUR 7 [PRGURNGUR7]

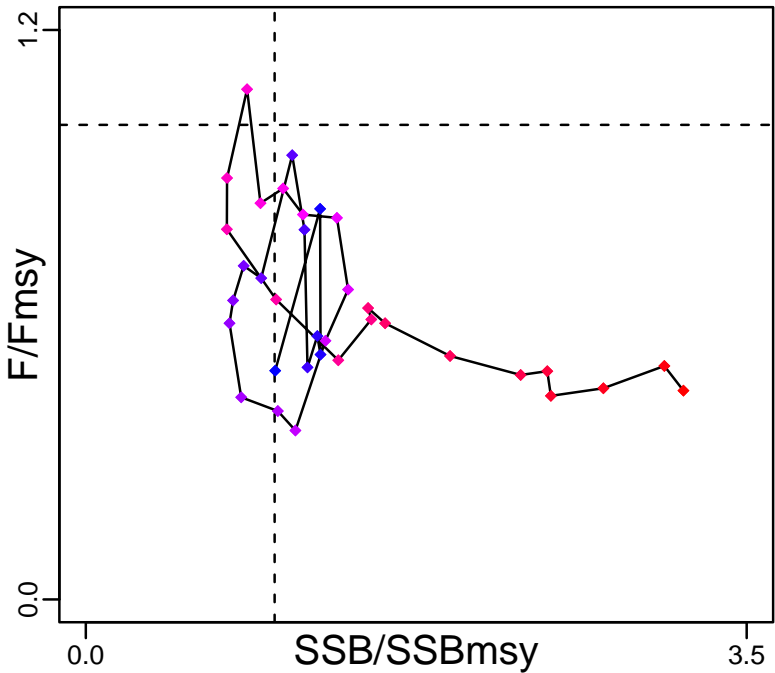
Metadata	
<b>Scientific Name</b>	Chelidonichthys kumu
<b>Current Assess ID</b>	NZMFishINSHOREWG-PRGURNGUR7-1987-2021-LANGLEY
<b>Area</b>	New Zealand Area GUR 7
<b>Management Authority</b>	Ministry of Fisheries, New Zealand national management
<b>Assessor</b>	Inshore Working Group
<b>Asmts in RAM</b>	2021

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-extr-MT	2021	1746
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2021	1747
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2021	953
<b>M</b>	M-1/yr	2021	0.31
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2021	998
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

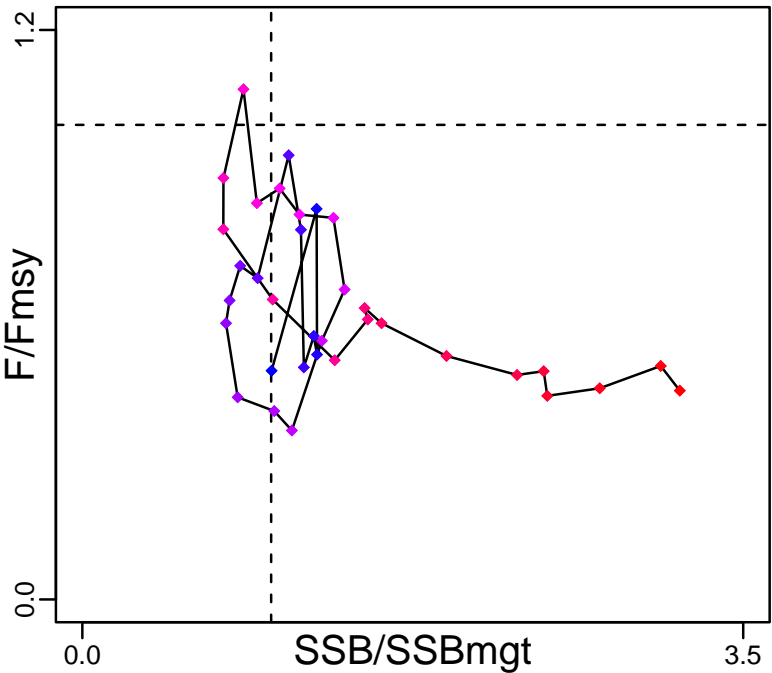
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2021	5528	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2021	7,614,530	Both	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2021	1073		
<b>TL</b>	TL-MT	2021	1073		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSBdivSSBmsy-dimensionless	2021	3.165		
<b>F/Fmsy</b>	FdivFmsy-dimensionless	2021	0.44		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2021	3.164		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

Pacific red gurnard New Zealand Area GUR 7 [PRGURNGUR7]

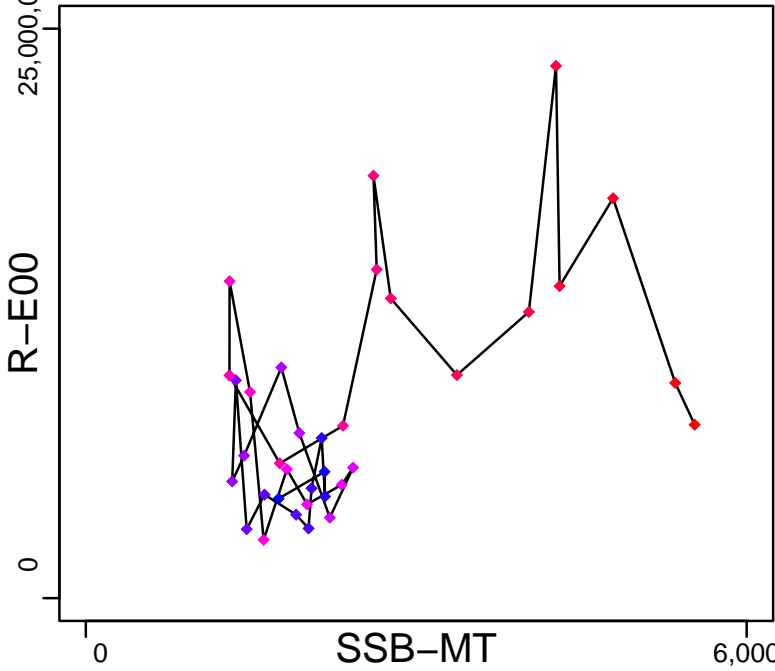
Kobe MSYpref (1987–2021–LANGLEY)



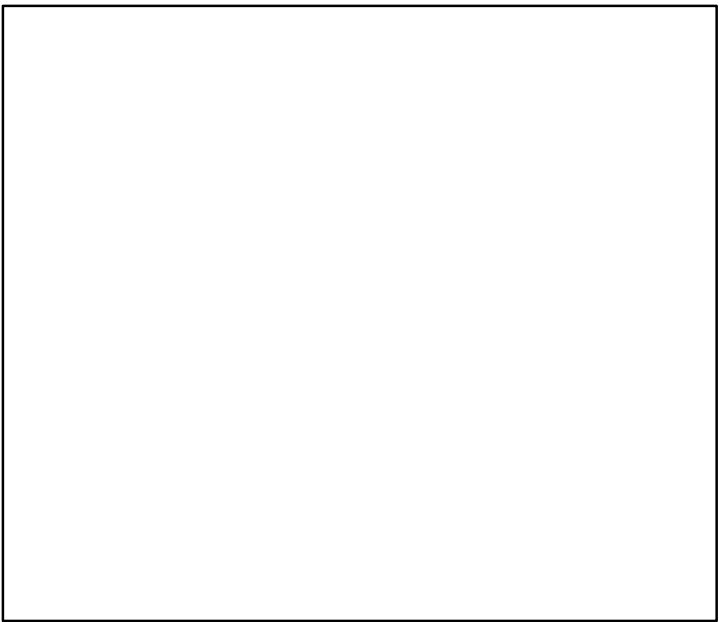
Kobe MGTpref (1987–2021–LANGLEY)



Spawner Recruit (1987–2021–LANGLEY)



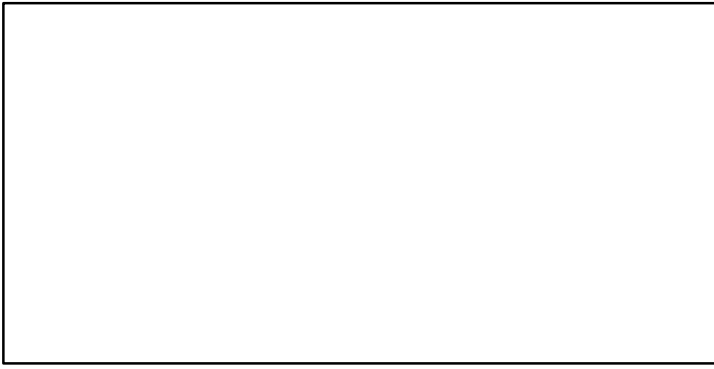
Production\*



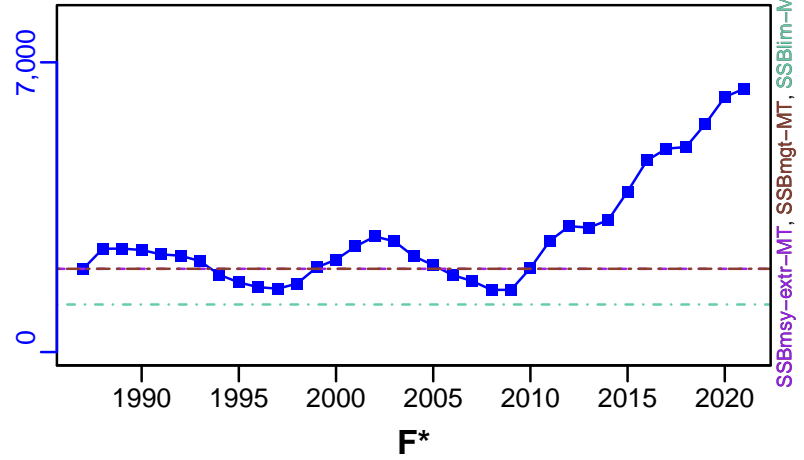
◆ Start Year ◆ End Year \* No Data

Pacific red gurnard New Zealand Area GUR 7 [PRGURNGUR7]

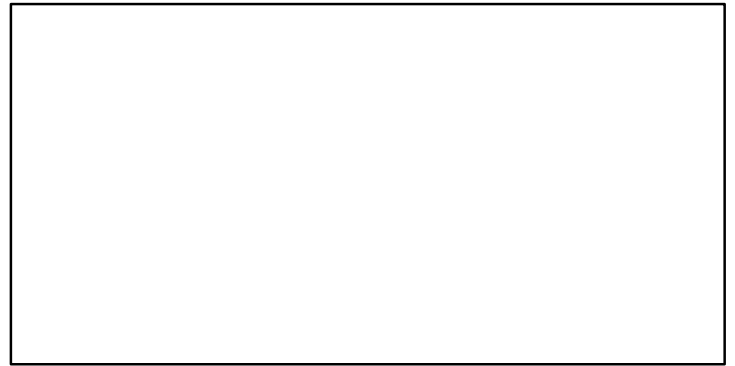
TB\*



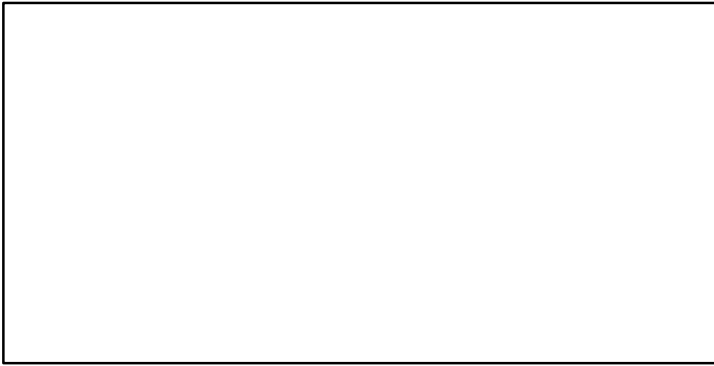
SSB-MT (1987-2021-LANGLEY)



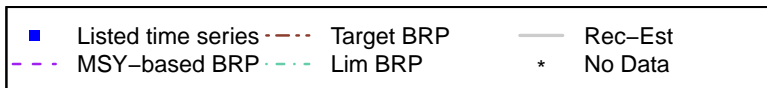
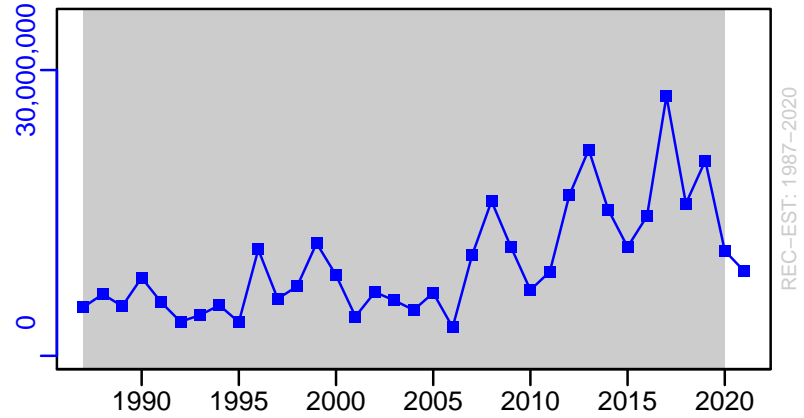
TN \*



ER\*

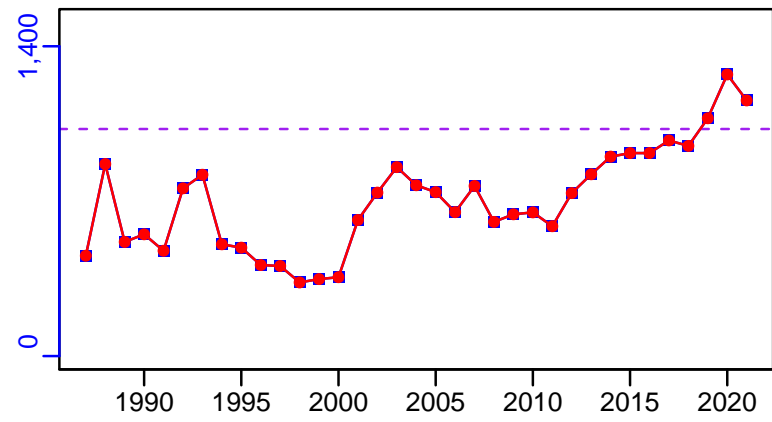


R-E00 (1987-2021-LANGLEY)

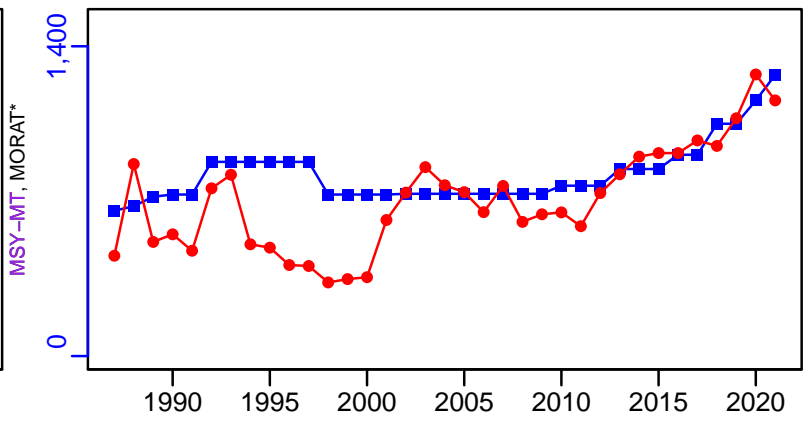


# Pacific red gurnard New Zealand Area GUR 7 [PRGURNGUR7]

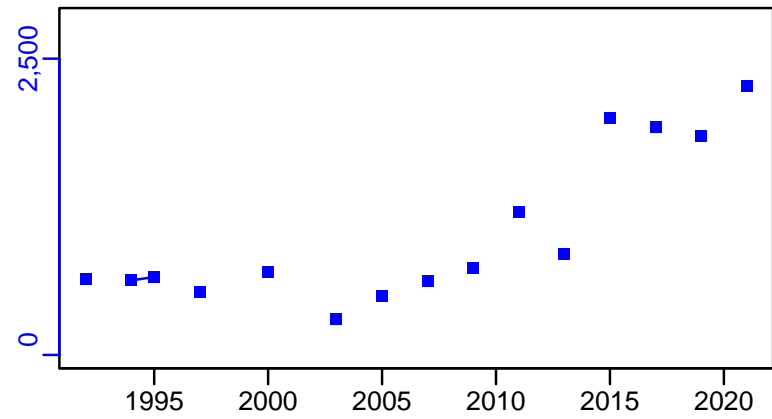
TC-MT, TL-MT, RecC\* (1987-2021-LANGLEY)



TAC-MT, Cpair-MT, Cadv\* (1987-2021-LANGLEY)



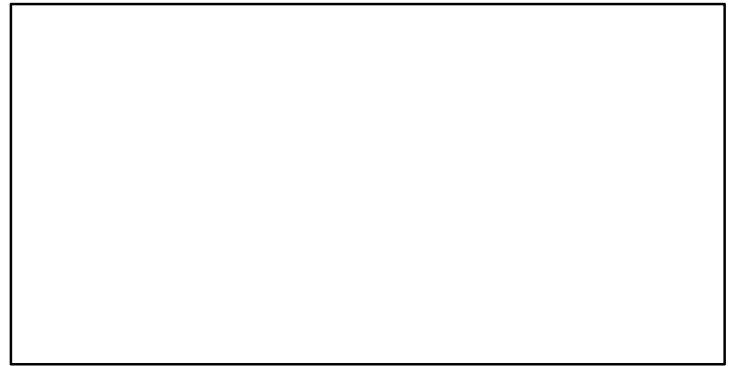
survB\_index-index (1987-2021-LANGLEY)



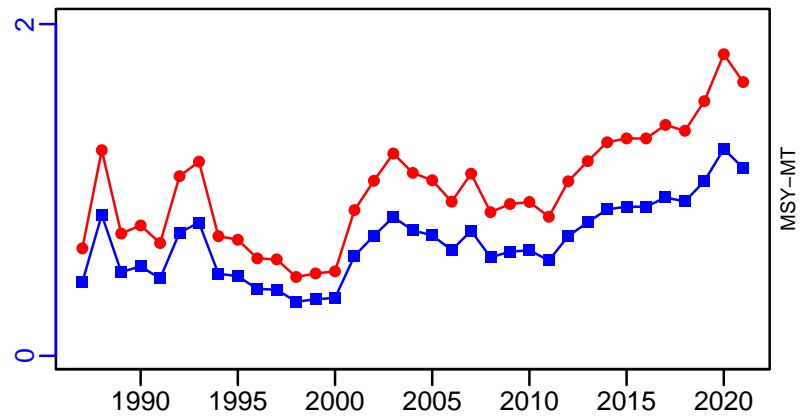
EFFORT\*



CPUE\*



TC-MT/MSY-MT, CdivMEANC-ratio, (1987-2021-LANGLEY)



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

## Red gurnard Northeast Atlantic [RGURNNEATL]

Metadata	
<b>Scientific Name</b>	Chelidonichthys cuculus
<b>Current Assess ID</b>	WGWIDE-RGURNNEATL-2006-2018-ICESIMP2021
<b>Area</b>	Northeast Atlantic
<b>Management Authority</b>	International Council for the Exploration of the Sea
<b>Assessor</b>	Working Group on Widely Distributed Stocks
<b>Asmts in RAM</b>	2014, 2016, 2018

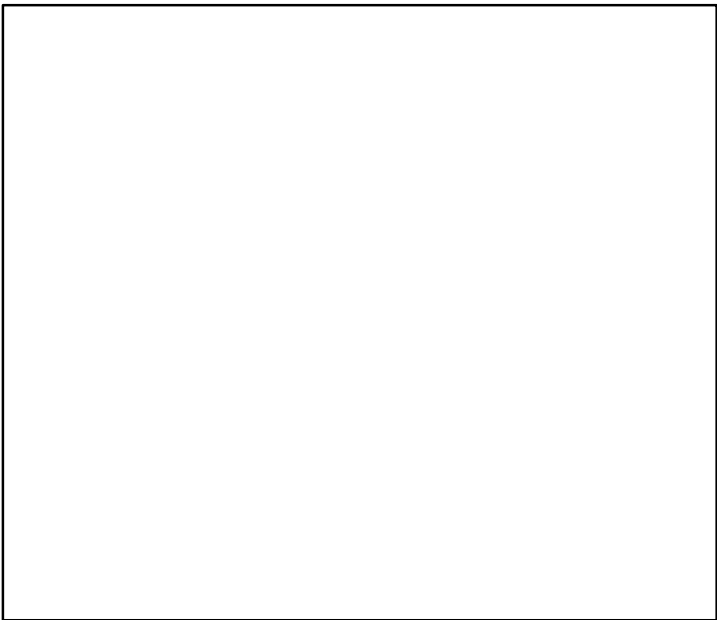
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	-	-	-		
TL	TL-MT	2018	4018		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

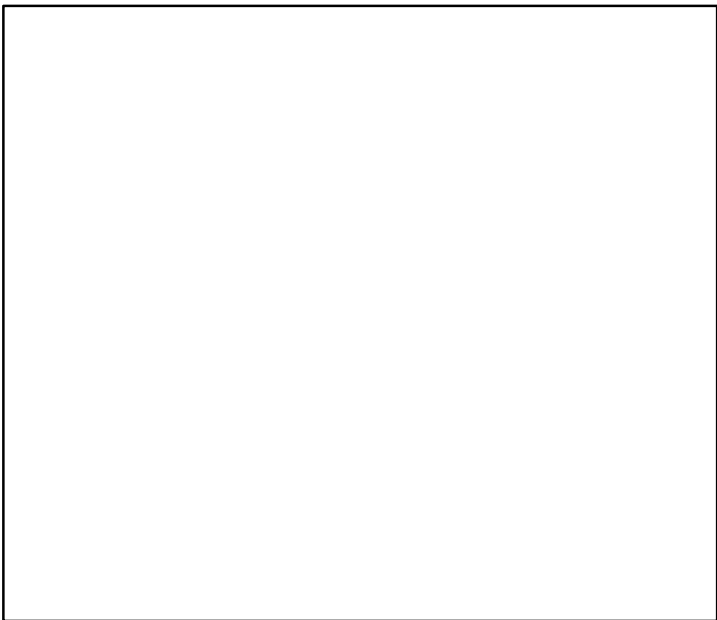
Kobe MSY\*



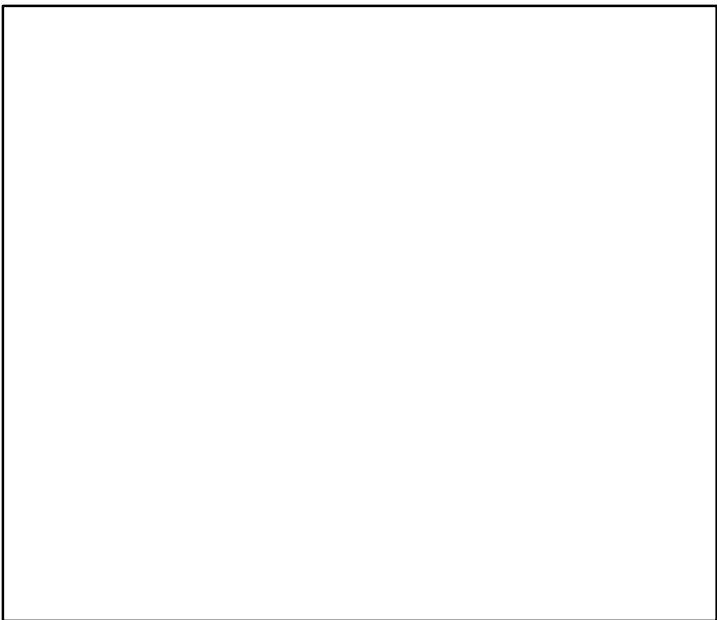
Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data

Red gurnard Northeast Atlantic [RGURNNEATL]

TB\*



SSB\*



TN \*



F\*



ER\*



Recruits\*

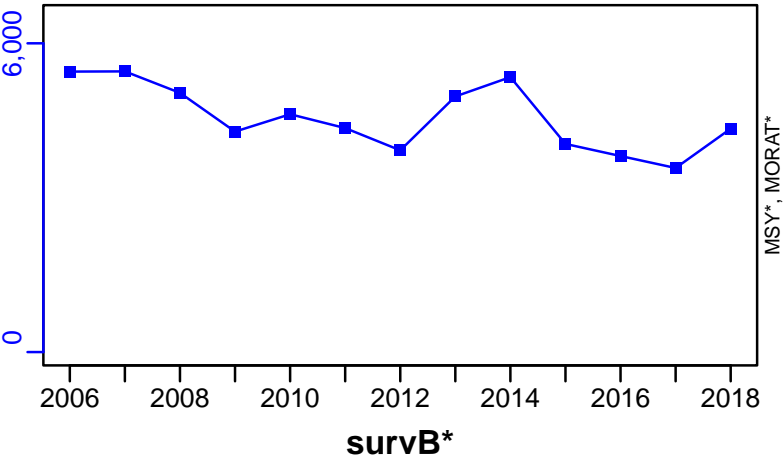


■ Listed time series	- - - Target BRP	— Rec-Est
- - - MSY-based BRP	· · · Lim BRP	* No Data



Red gurnard Northeast Atlantic [RGURNNEATL]

TL-MT, TC\*, RecC\* (2006–2018–ICESIMP2021)



TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



CdivMSY\*



**Sablefish Eastern Bering Sea / Aleutian Islands / Gulf of Alaska  
[SABLEFEBSAIGA]**

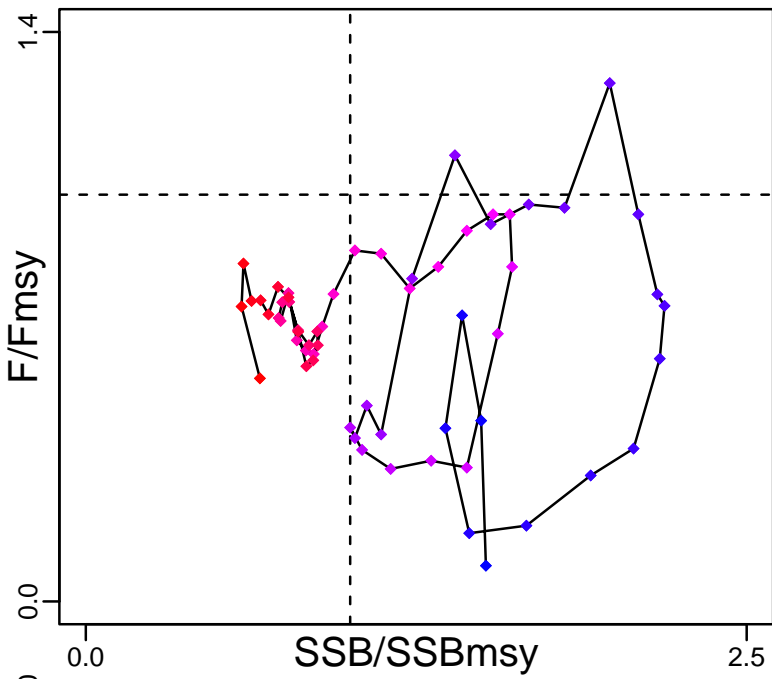
Metadata	
<b>Scientific Name</b>	Anoplopoma fimbria
<b>Current Assess ID</b>	AFSC-SABLEFEBSAIGA-1960-2020-SISIMP2021-2
<b>Area</b>	Eastern Bering Sea / Aleutian Islands / Gulf of Alaska
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2010, 2016, 2017, 2018, 2015, 2019, 2020

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2010	96,345
<b>SSBmsy</b>	SSBmsy-MT	2020	111,000
<b>Fmsy</b>	Fmsy-1/yr	2020	0.124
<b>ERmsy</b>	ERmsy-ratio	2010	0.197
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	SSB0-MT	2010	275,270
<b>MSY</b>	MSY-MT	2010	18,950
<b>M</b>	M-1/yr	2010	0.1
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2019	46,400
<b>Flim</b>	Flim-1/yr	2020	0.124
<b>ERlim</b>	-	-	-

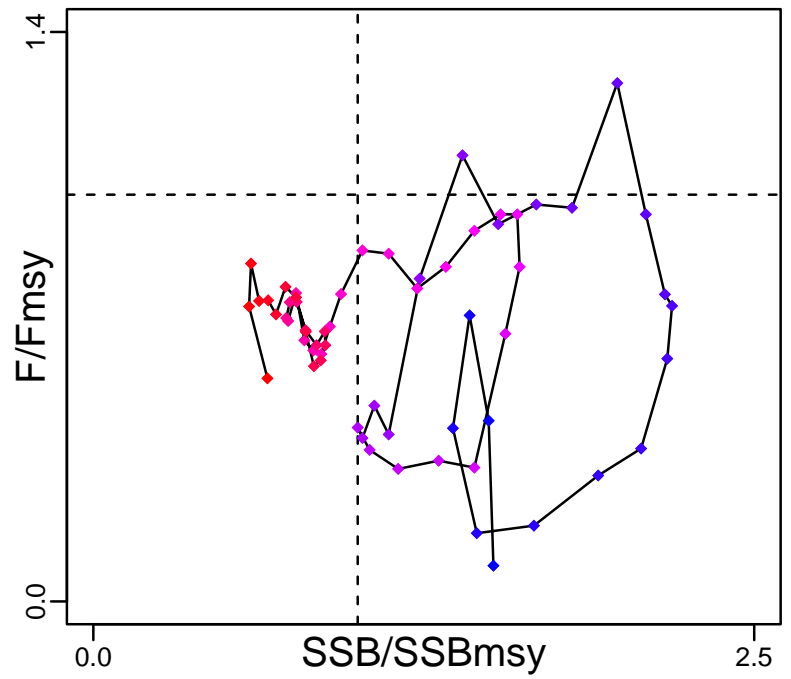
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	202,000	Both	2+
<b>SSB</b>	SSB-MT	2020	94,400	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2020	12,500,000	-	2
<b>F</b>	F-1/yr	2020	0.068	-	-
<b>ER</b>	ER-calc-ratio	2015	0.058	-	-
<b>TC</b>	TC-MT	2020	17,300		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2010	2.283		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2020	0.85		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2020	0.548		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2010	0.261		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

Sablefish Eastern Bering Sea / Aleutian Islands / Gulf of Alaska [SABLEFEBSAIGA]

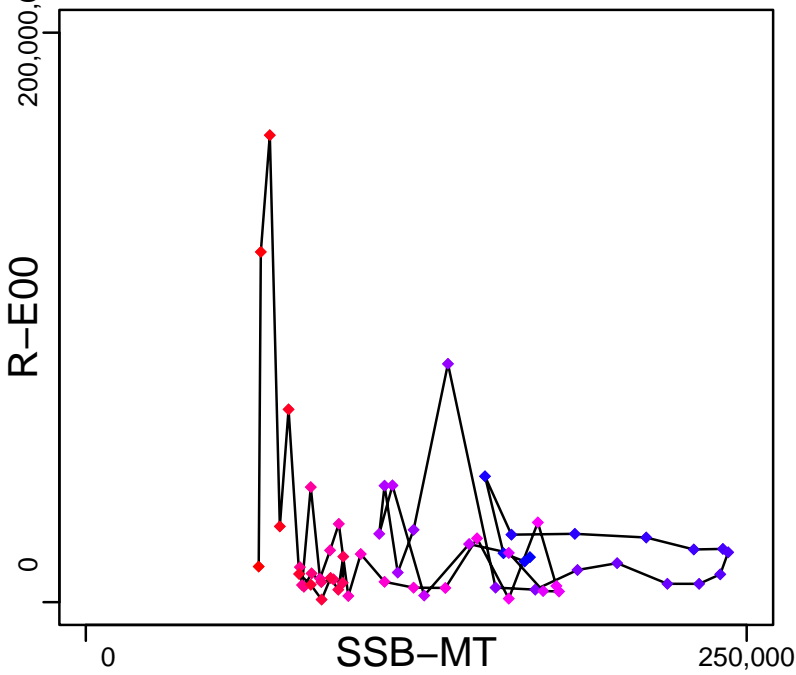
Kobe MSYpref (1960–2020–SISIMP2021–2)



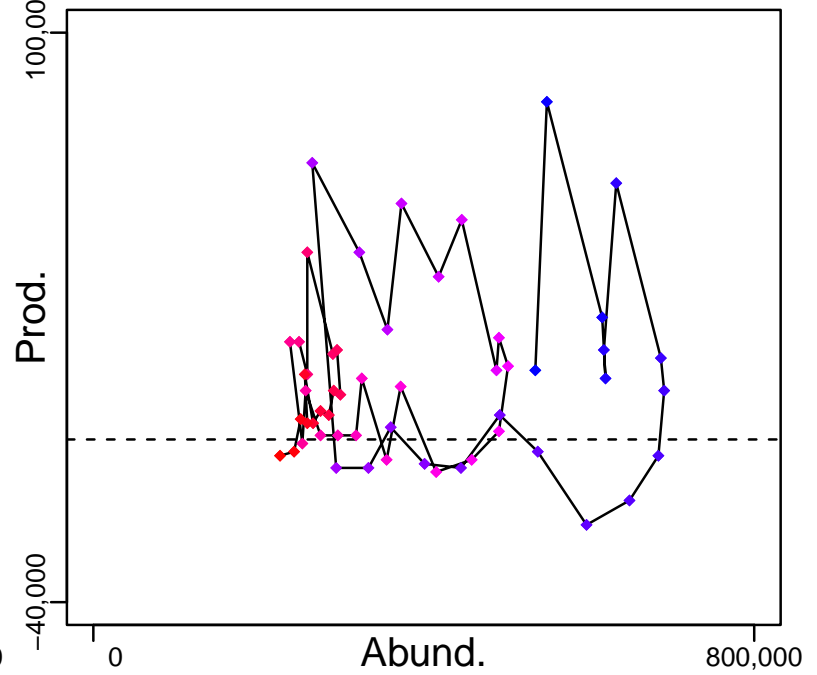
Kobe MGTpref (1960–2020–SISIMP2021–2)



Spawner Recruit (1960–2020–SISIMP2021–2)



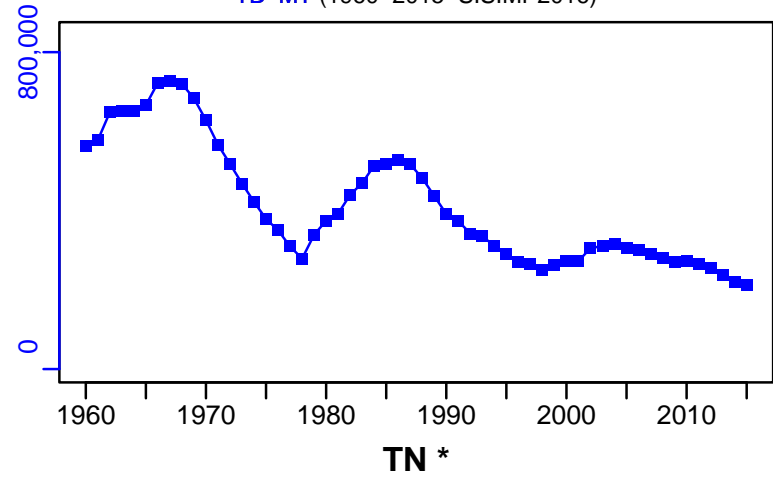
Production (1960–2015–SISIMP2016)



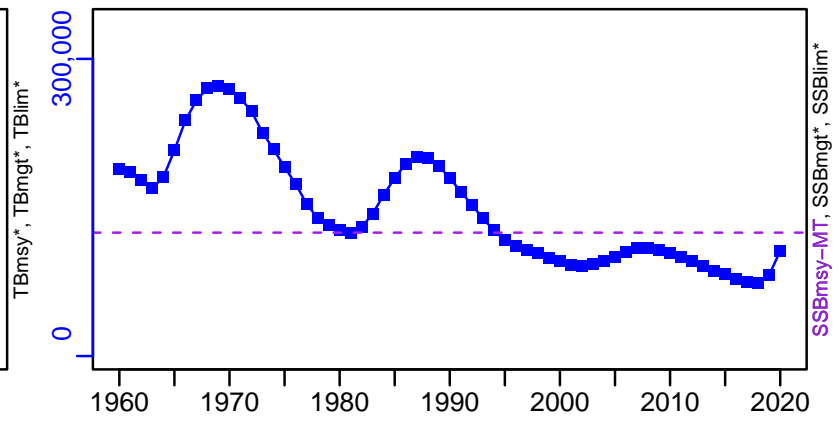
◆ Start Year ◆ End Year \* No Data

# Sablefish Eastern Bering Sea / Aleutian Islands / Gulf of Alaska [SABLEFEBSAIGA]

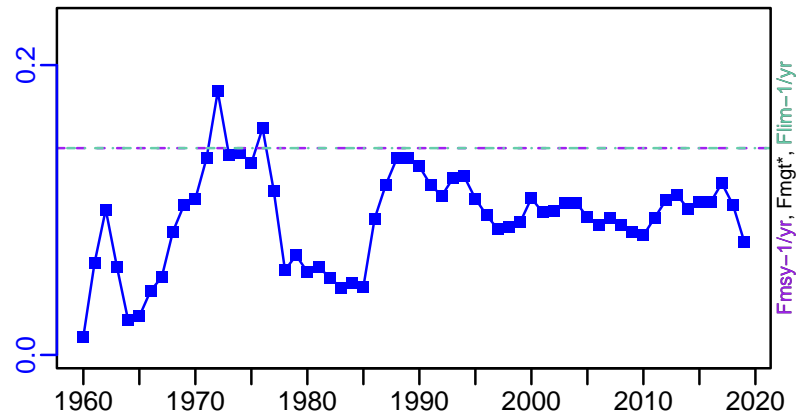
TB-MT (1960–2015–SISIMP2016)



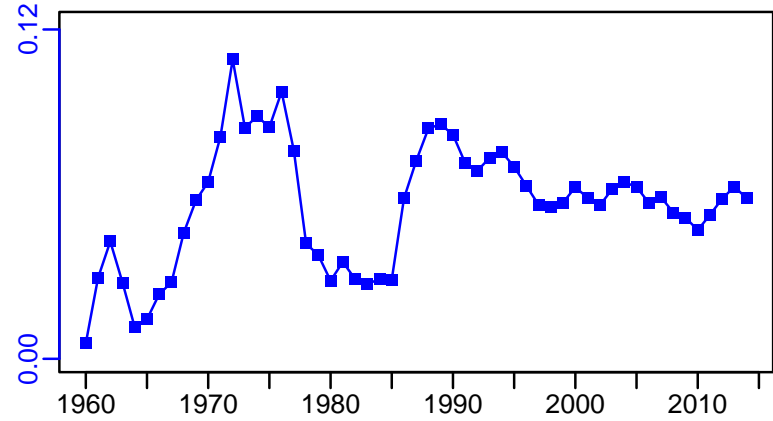
SSB-MT (1960–2020–SISIMP2021–2)



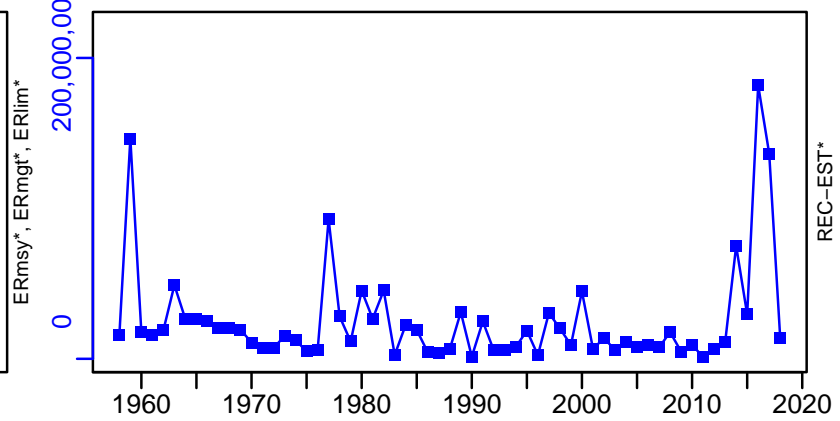
F-1/yr (1960–2020–SISIMP2021–2)



ER-calc-ratio (1960–2015–SISIMP2016)

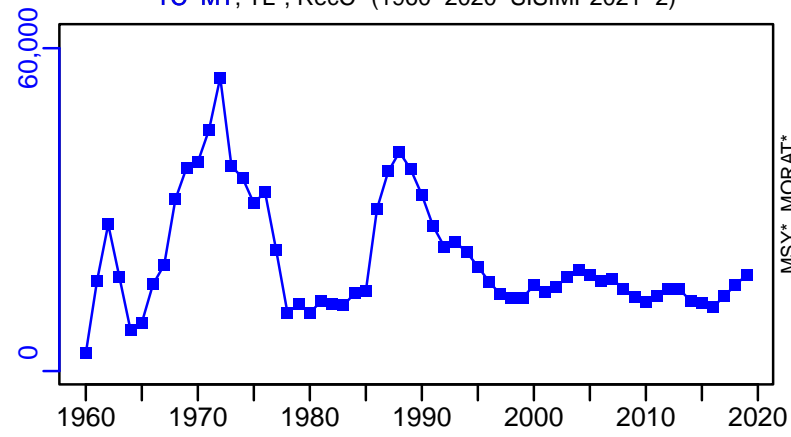


R-E00 (1960–2020–SISIMP2021–2)



Sablefish Eastern Bering Sea / Aleutian Islands / Gulf of Alaska [SABLEFEBSAIGA]

TC-MT, TL\*, RecC\* (1960-2020-SISIMP2021-2)



TAC\*, Cpair\*, Cadv\*



survB\*



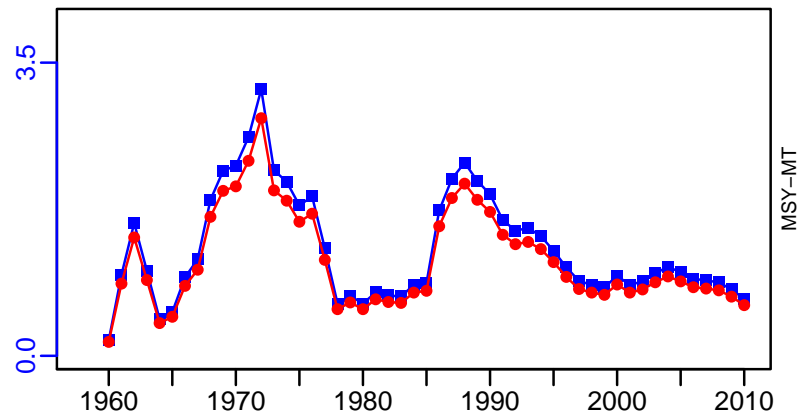
CPUE\*



EFFORT\*



TC-MT/MSY-MT, CdivMEANC-ratio, (1958-2010-STACHURA)



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

## Sablefish Pacific Coast of Canada [SABLEFPCAN]

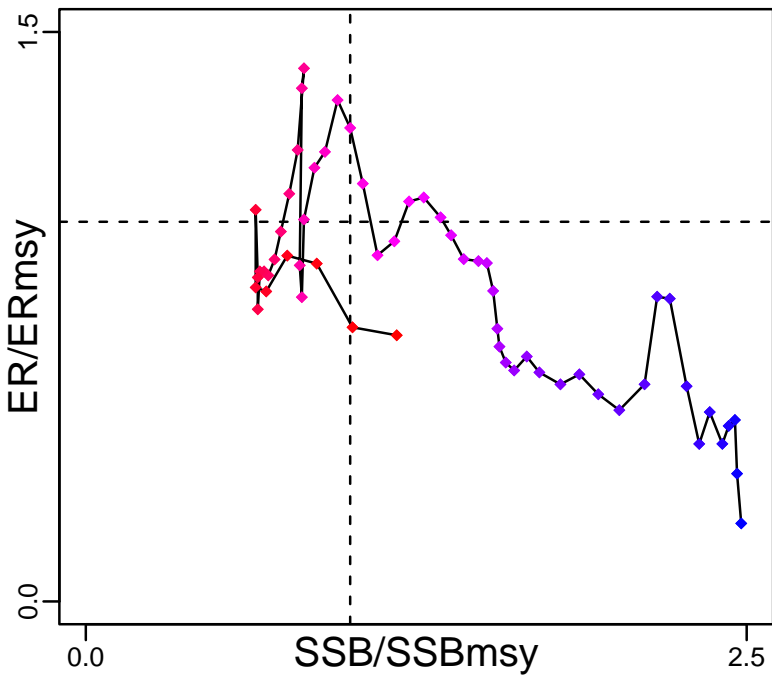
Metadata	
<b>Scientific Name</b>	Anoplopoma fimbria
<b>Current Assess ID</b>	DFO-PAC-SABLEFPCAN-1962-2021-HIVELY
<b>Area</b>	Pacific Coast of Canada
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans - Pacific Region
<b>Asmts in RAM</b>	2010, 2021

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2021	53,846
<b>SSBmsy</b>	SSBmsy-MT	2021	22,820
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2021	0.065
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	SSB0-MT	2010	114,770
<b>MSY</b>	MSY-MT	2021	3500
<b>M</b>	M-1/yr	2010	0.06
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

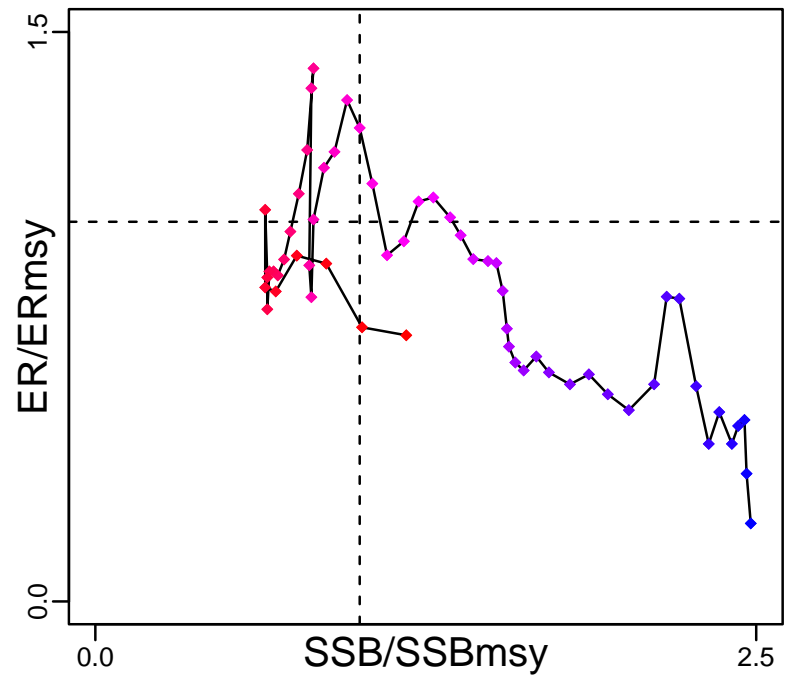
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2021	99,032	-	-
<b>SSB</b>	SSB-MT	2021	26,840	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2021	3,295,935	-	1
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2021	0.046	-	-
<b>TC</b>	-	-	-		
<b>TL</b>	TL-MT	2021	2910		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2021	1.839		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2021	1.176		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2021	0.701		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Sablefish Pacific Coast of Canada [SABLEFPCAN]

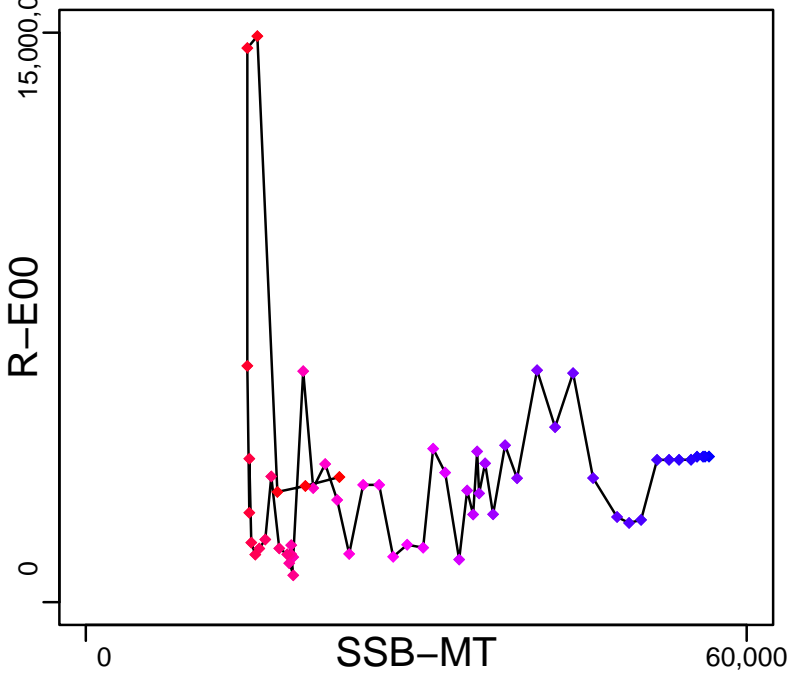
Kobe MSYpref (1962–2021–HIVELY)



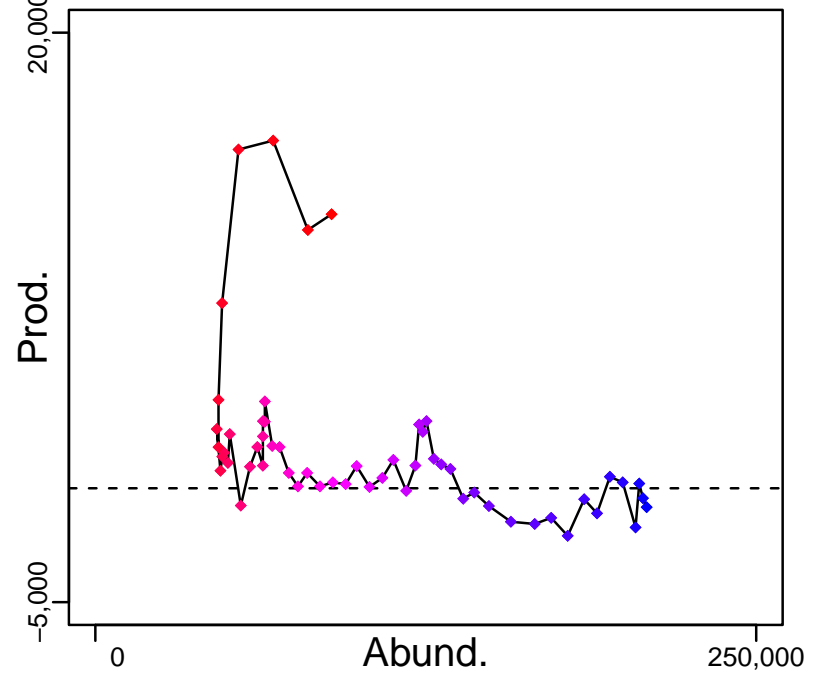
Kobe MGTpref (1962–2021–HIVELY)



Spawner Recruit (1962–2021–HIVELY)



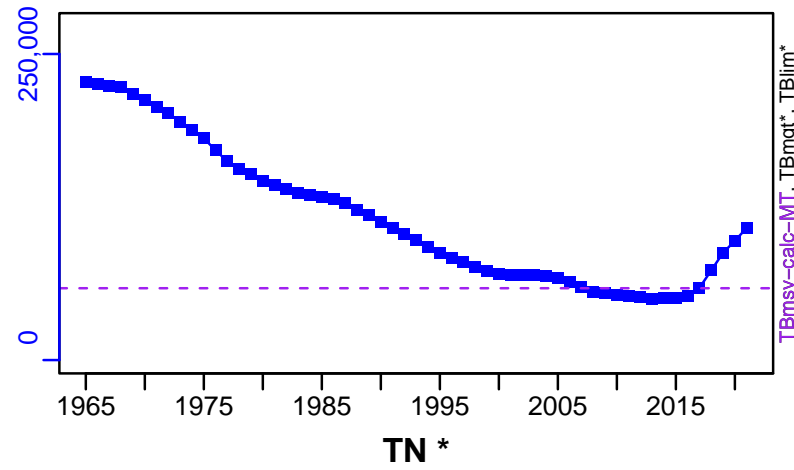
Production (1962–2021–HIVELY)



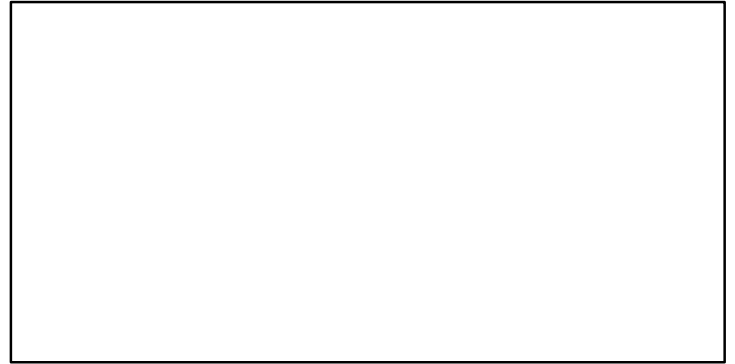
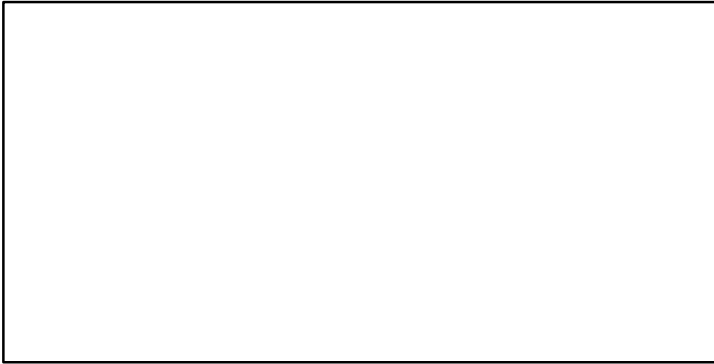
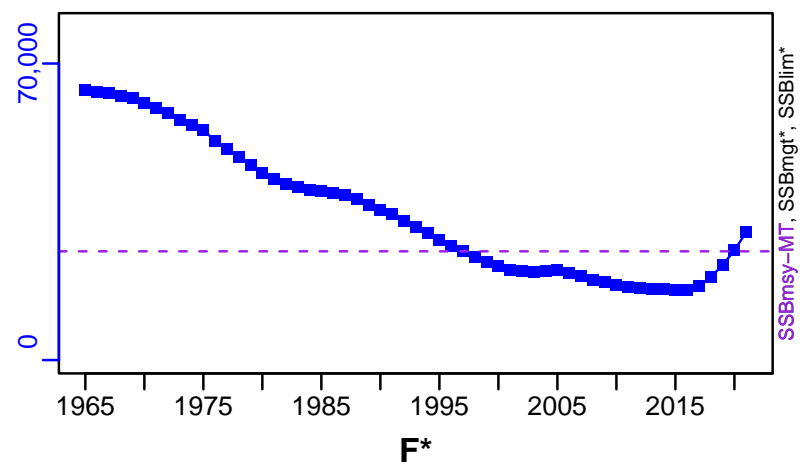
◆ Start Year ◆ End Year \* No Data

# Sablefish Pacific Coast of Canada [SABLEFPCAN]

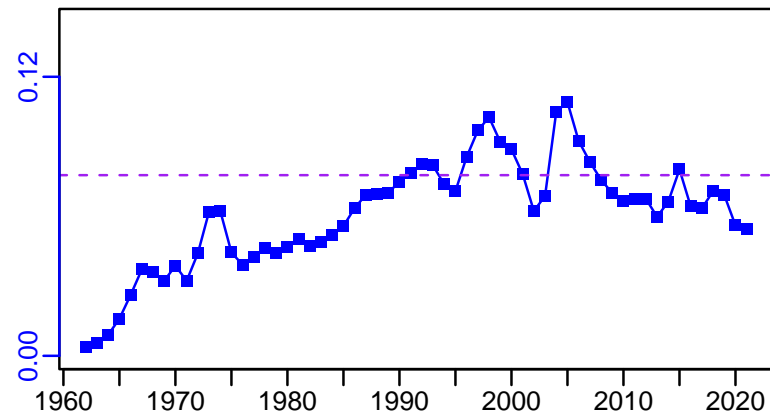
TB-MT (1962-2021-HIVELY)



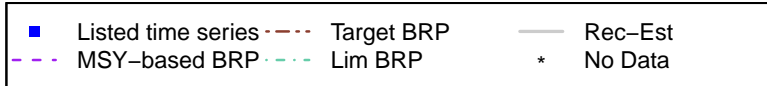
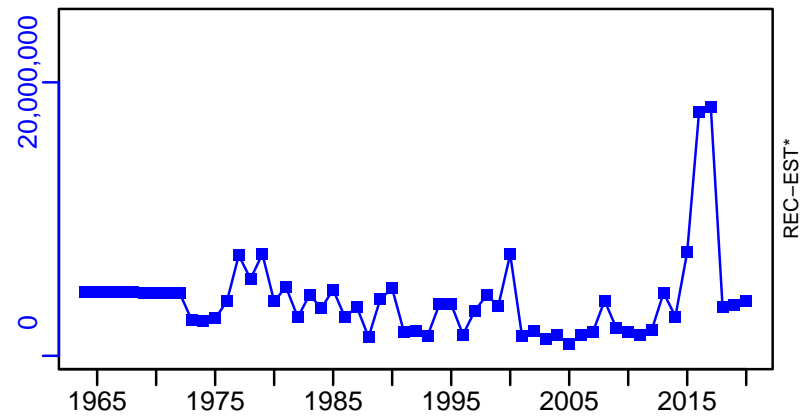
SSB-MT (1962-2021-HIVELY)



ER-ratio (1962-2021-HIVELY)



R-E00 (1962-2021-HIVELY)

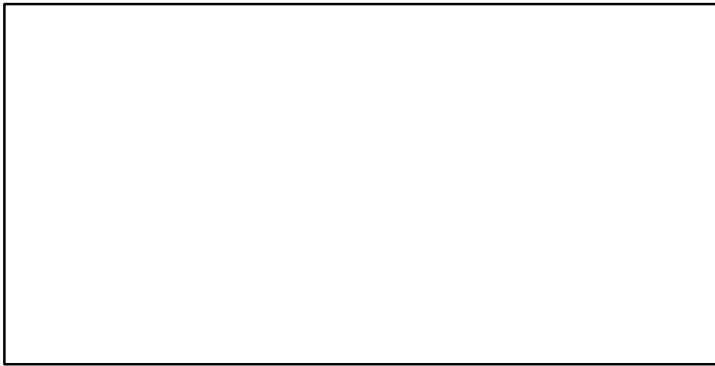
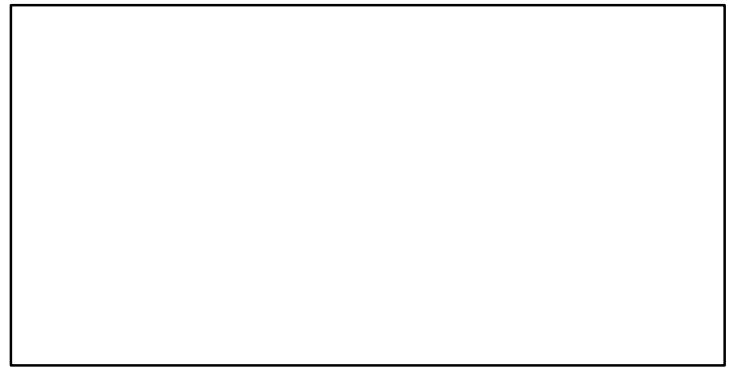
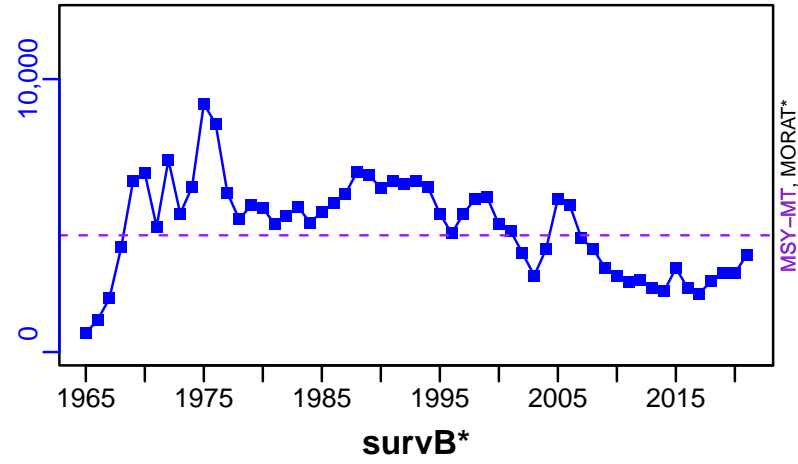




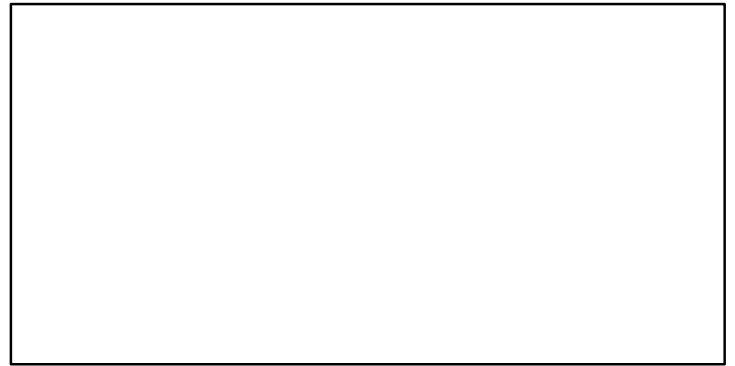
# Sablefish Pacific Coast of Canada [SABLEFPCAN]

TL-MT, TC\*, RecC\* (1962-2021-HIVELY)

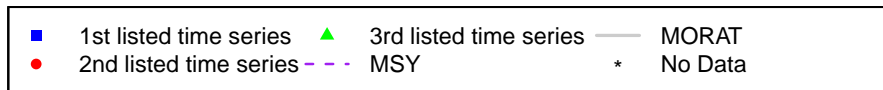
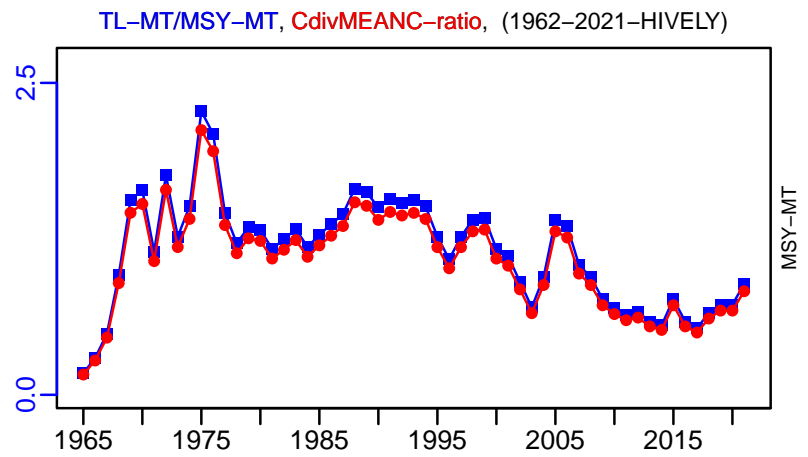
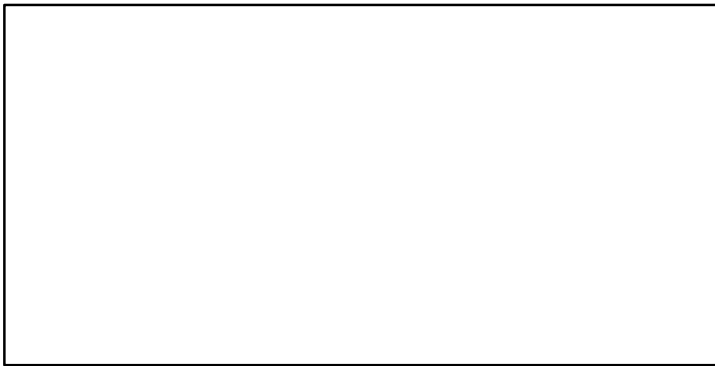
TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



## Sablefish Pacific Coast [SABLEFPCOAST]

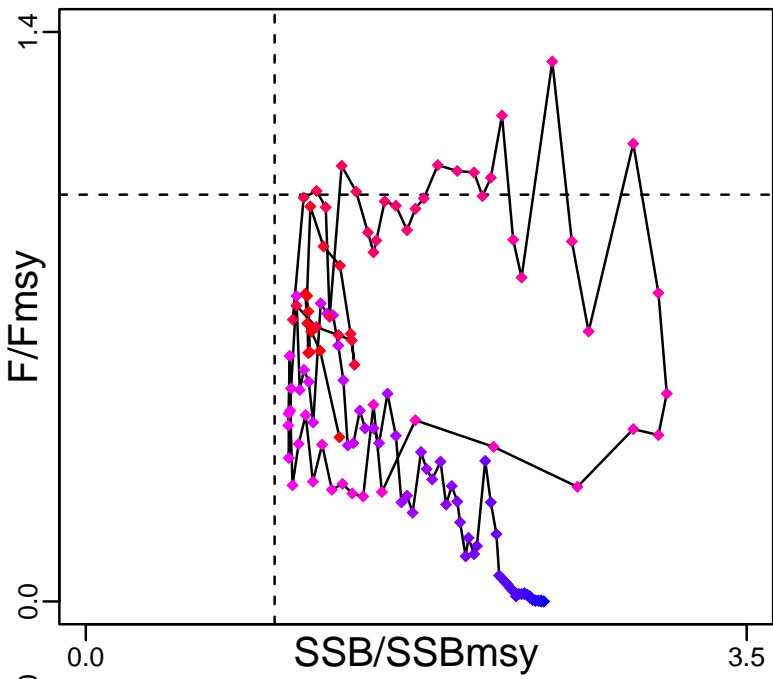
Metadata	
<b>Scientific Name</b>	Anoplopoma fimbria
<b>Current Assess ID</b>	NWFSC-SABLEFPCOAST-1890-2020-SISIMP2021-2
<b>Area</b>	Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northwest Fisheries Science Center
<b>Asmts in RAM</b>	2019, 2020, 2011, 2015

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2020	67,600
<b>Fmsy</b>	Fmsy-1/yr	2020	0.55
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2011	537,893
<b>SSB0</b>	SSB0-MT	2011	182,136
<b>MSY</b>	MSY-MT	2020	8210
<b>M</b>	M-1/yr	2011	0.08
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2020	42,200
<b>Flim</b>	Flim-1/yr	2020	0.55
<b>ERlim</b>	-	-	-

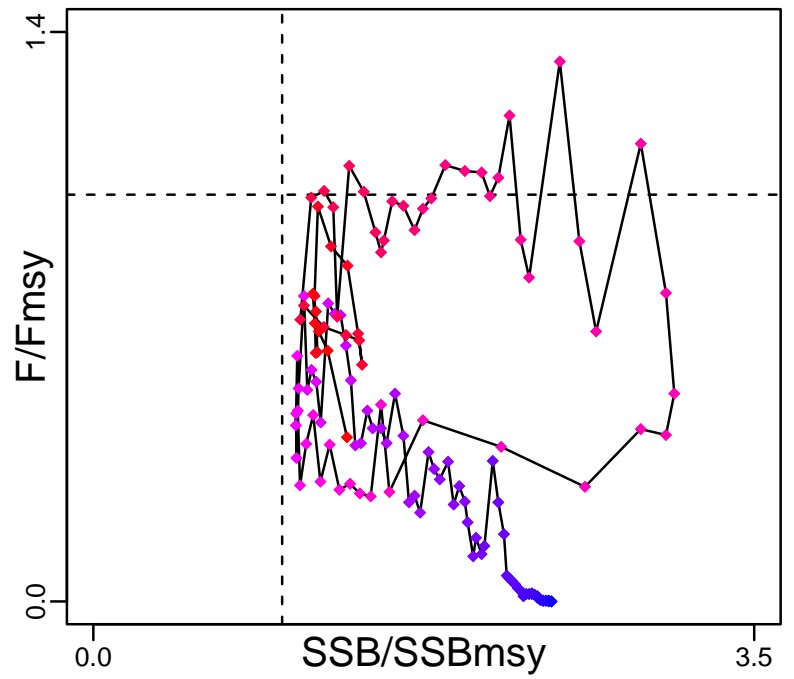
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	168,000	-	4+
<b>SSB</b>	SSB-MT	2020	90,800	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2020	12,500,000	-	0
<b>F</b>	F-1/yr	2020	0.222	-	-
<b>ER</b>	ER-calc-ratio	2015	0.026	-	-
<b>TC</b>	TC-MT	2020	3880		
<b>TL</b>	TL-MT	2011	6820		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2020	1.343		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2020	0.404		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Sablefish Pacific Coast [SABLEFPCOAST]

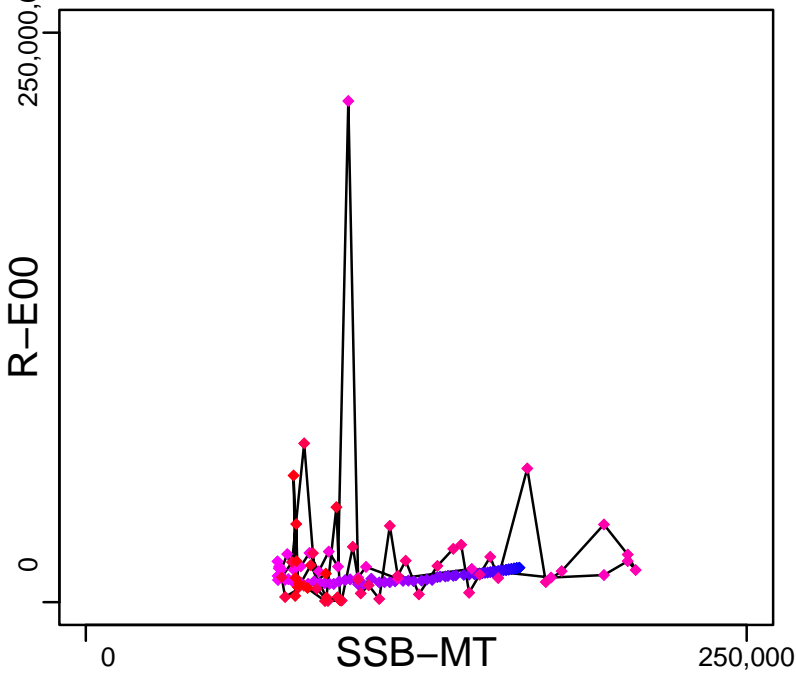
Kobe MSYpref (1890–2020–SISIMP2021–2)



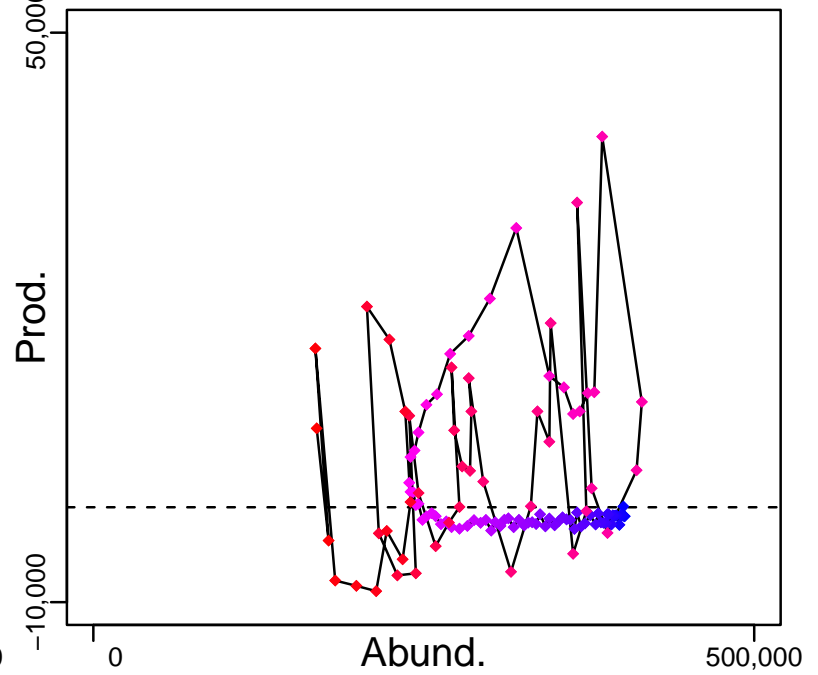
Kobe MGTpref (1890–2020–SISIMP2021–2)



Spawner Recruit (1890–2020–SISIMP2021–2)



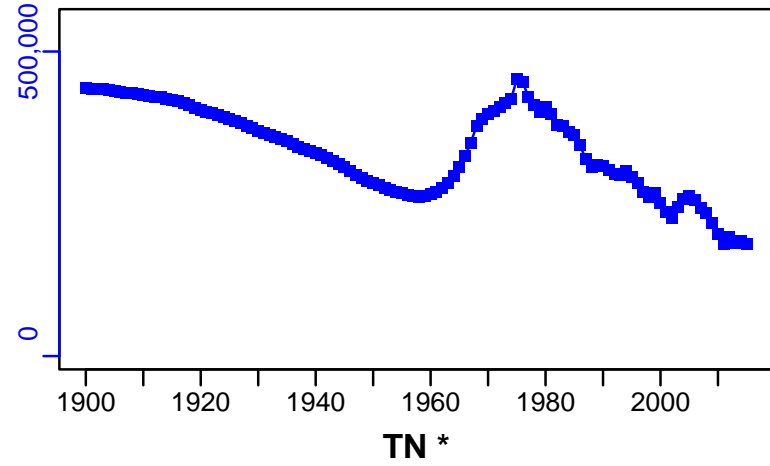
Production (1900–2015–SISIMP2016)



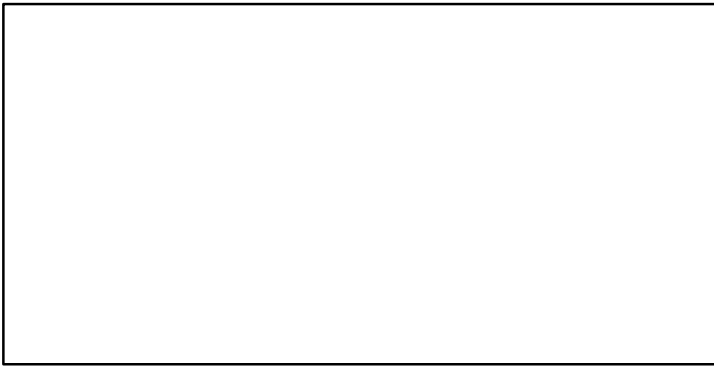
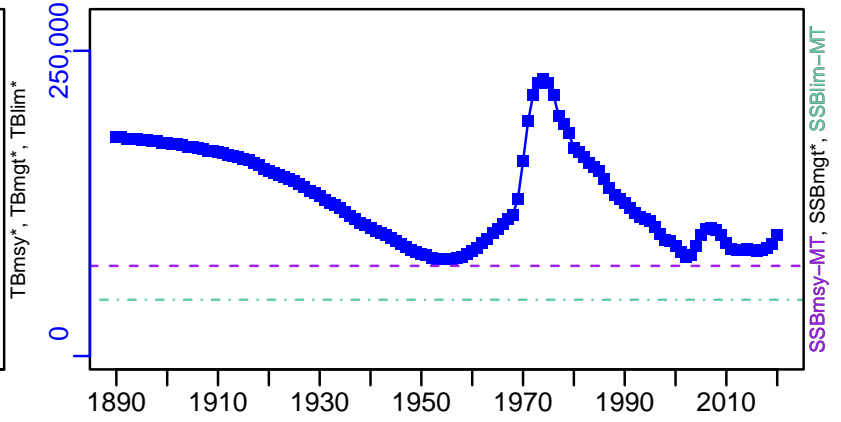
◆ Start Year ◆ End Year \* No Data

# Sablefish Pacific Coast [SABLEFPCOAST]

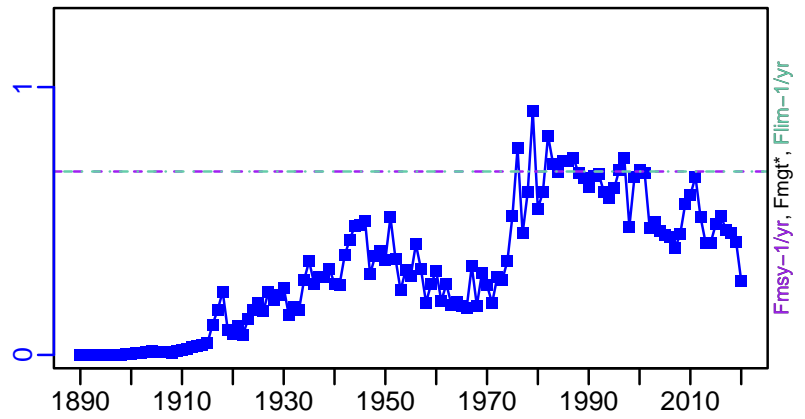
TB-MT (1900–2015–SISIMP2016)



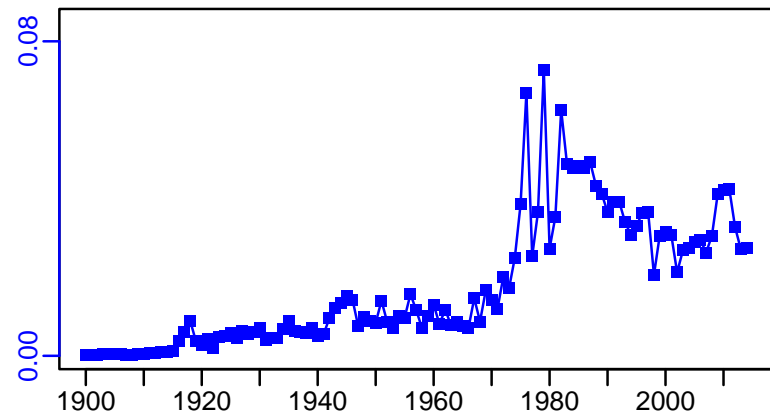
SSB-MT (1890–2020–SISIMP2021–2)



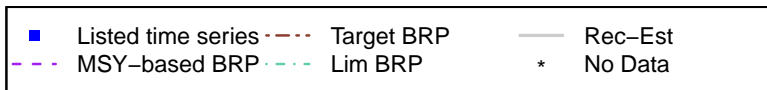
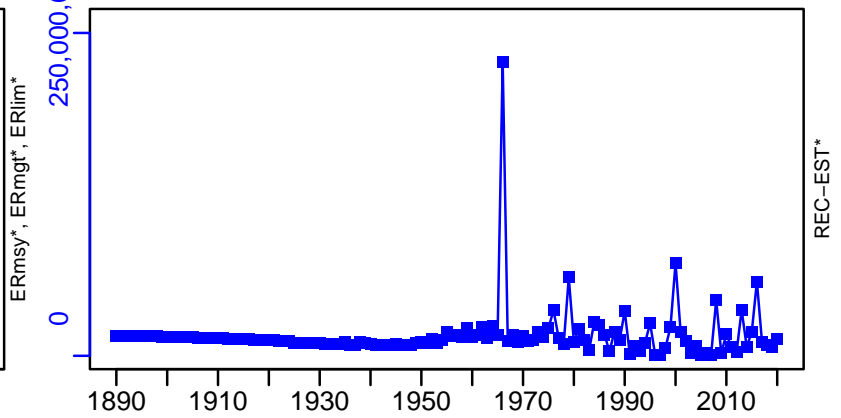
F-1/yr (1890–2020–SISIMP2021–2)



ER-calc-ratio (1900–2015–SISIMP2016)



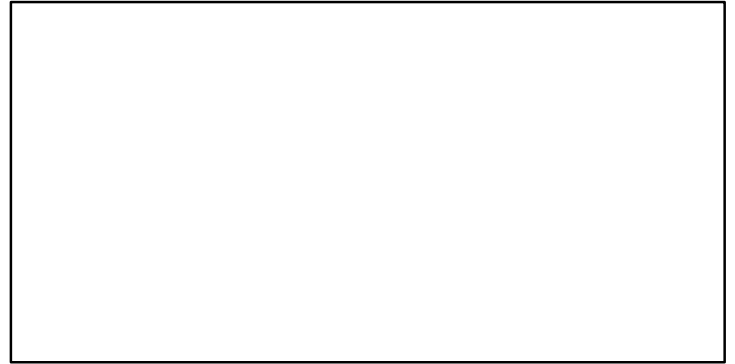
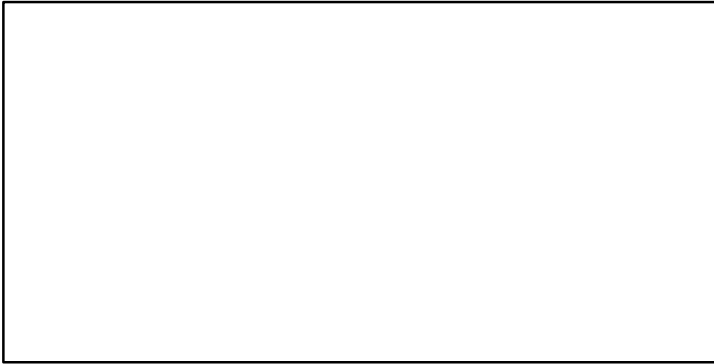
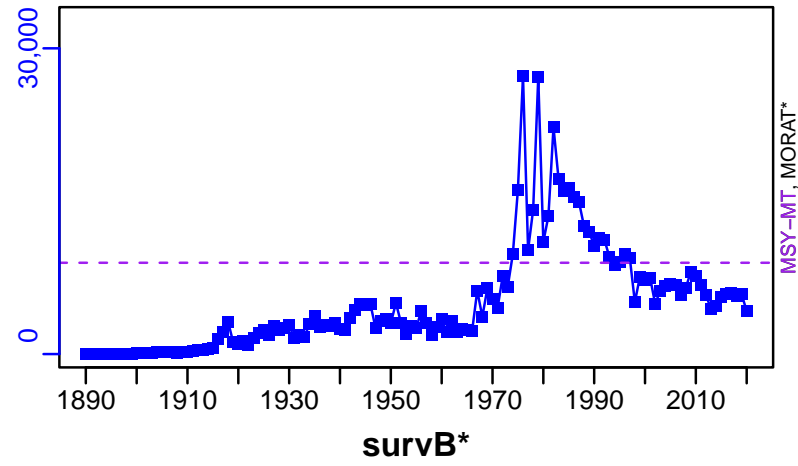
R-E00 (1890–2020–SISIMP2021–2)



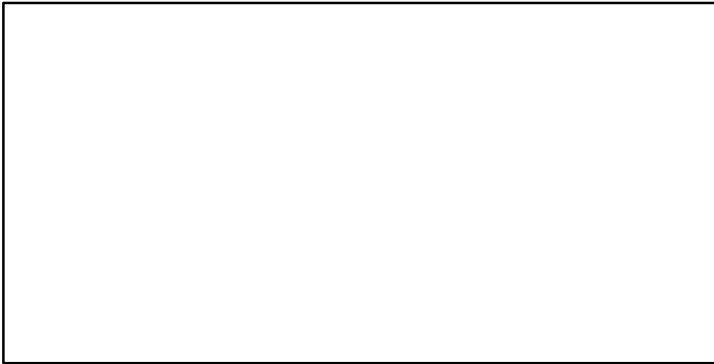
# Sablefish Pacific Coast [SABLEFPCOAST]

TC-MT, TL\*, RecC\* (1890-2020-SISIMP2021-2)

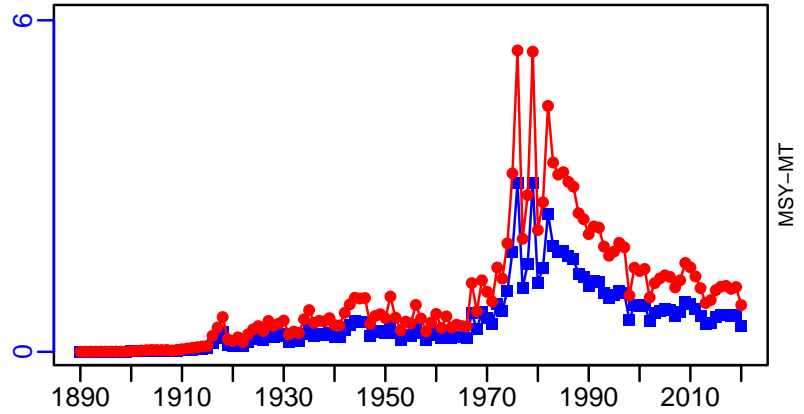
TAC\*, Cpair\*, Cadv\*



EFFORT\*



TC-MT/MSY-MT, CdivMEANC-ratio, (1890-2020-SISIMP2021-2)



## Tiger flathead Southeast Australia [TIGERFLATSE]

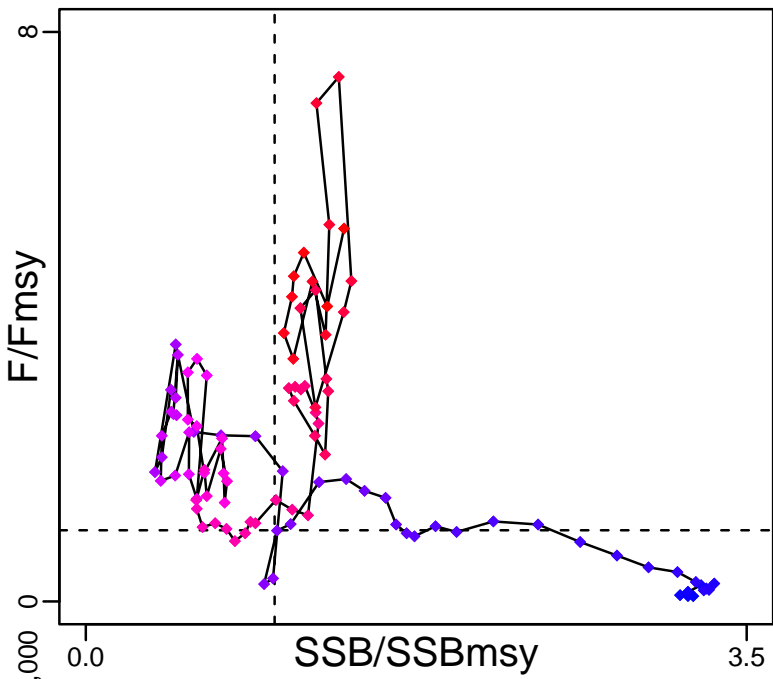
Metadata	
<b>Scientific Name</b>	Neoplatycephalus richardsoni
<b>Current Assess ID</b>	CSIRO-TIGERFLATSE-1915-2015-MOESENER
<b>Area</b>	Southeast Australia
<b>Management Authority</b>	Australian Fisheries Management Authority, Australia national management
<b>Assessor</b>	Commonwealth Scientific and Industrial Research Organization
<b>Asmts in RAM</b>	2006, 2015

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2015	7181
<b>Fmsy</b>	Fmsy-1/yr	2015	0.163
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2015	9240
<b>Fmgt</b>	Fmgt-1/yr	2015	0.754
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2015	45,431
<b>SSB0</b>	SSB0-MT	2015	23,100
<b>MSY</b>	MSY-MT	2015	2854
<b>M</b>	M-1/yr	2015	0.27
<b>TBlim</b>	TBlim-MT	2006	2546
<b>SSBlim</b>	SSBlim-MT	2015	4620
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

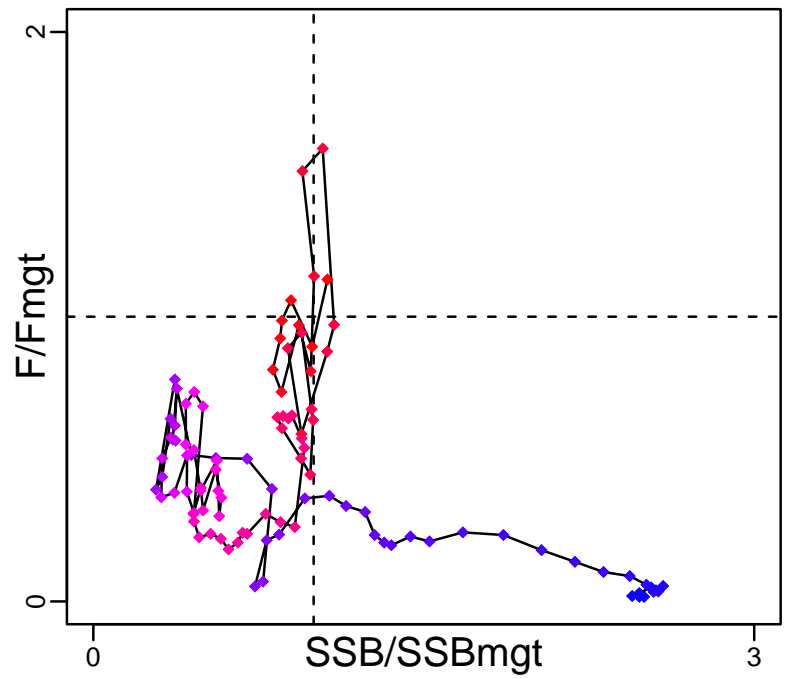
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	23,400	-	-
<b>SSB</b>	SSB-MT	2015	9820	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2015	$1.72 \times 10^{13}$	-	-
<b>F</b>	F-1/yr	2015	0.853	-	-
<b>ER</b>	ER-ratio	2015	0.14	-	-
<b>TC</b>	-	-	-		
<b>TL</b>	TL-MT	2015	3070		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2015	1.368		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2015	5.238		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2015	1.063		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2015	1.131		
<b>ER/ERmgt</b>	-	-	-		

# Tiger flathead Southeast Australia [TIGERFLATSE]

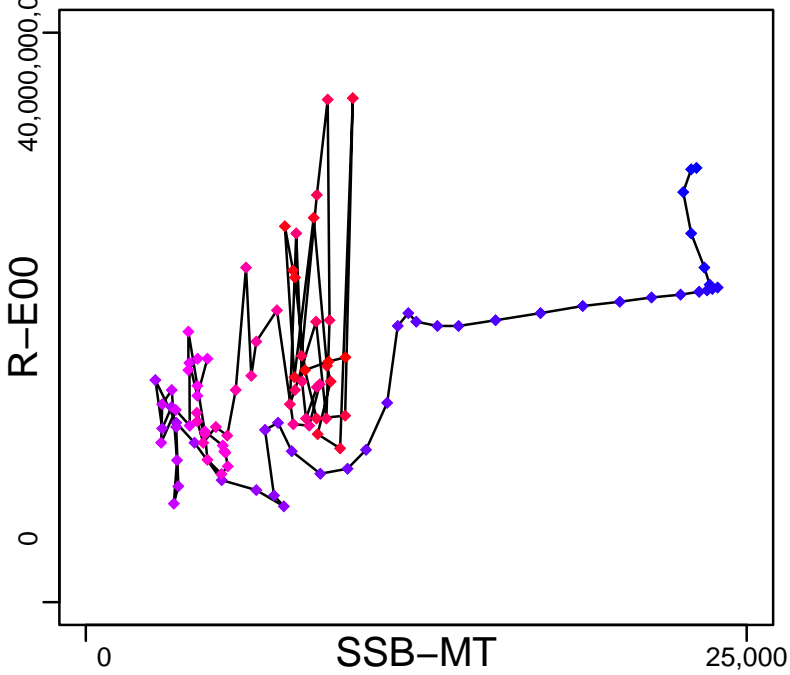
Kobe MSYpref (1915–2015–MOESENEDER)



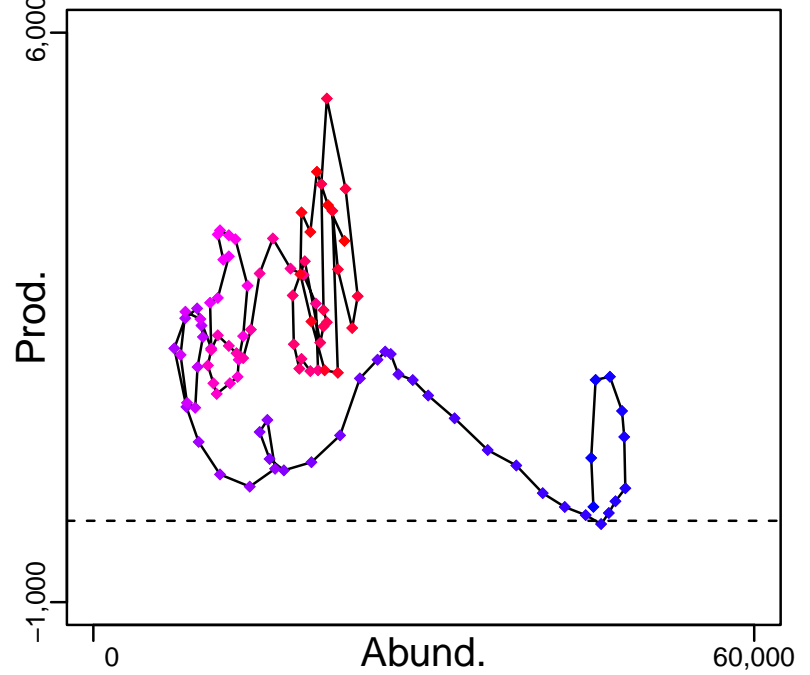
Kobe MGTpref (1915–2015–MOESENEDER)



Spawner Recruit (1915–2015–MOESENEDER)



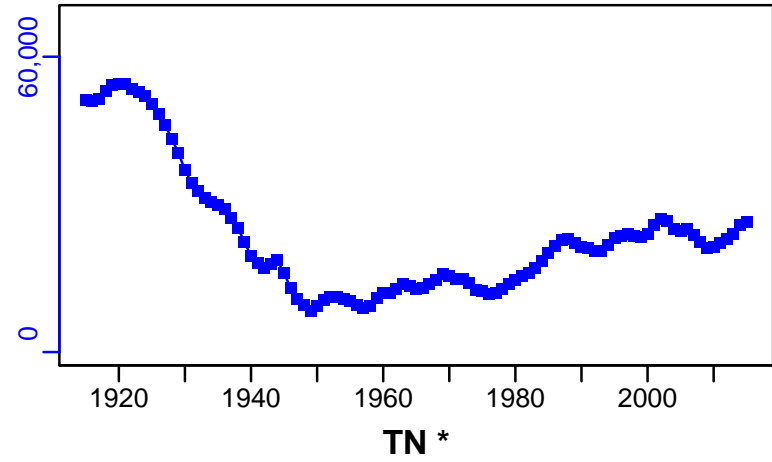
Production (1915–2015–MOESENEDER)



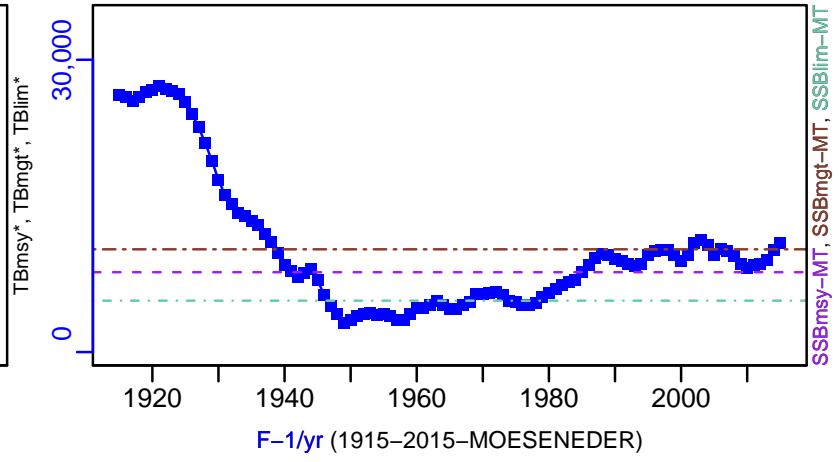
◆ Start Year ◆ End Year \* No Data

# Tiger flathead Southeast Australia [TIGERFLATSE]

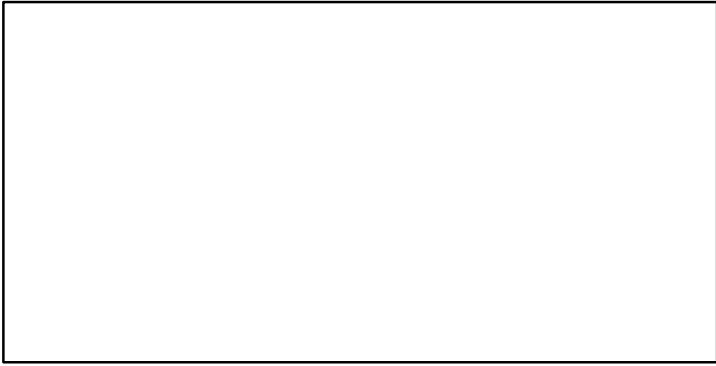
TB-MT (1915-2015-MOESENER)



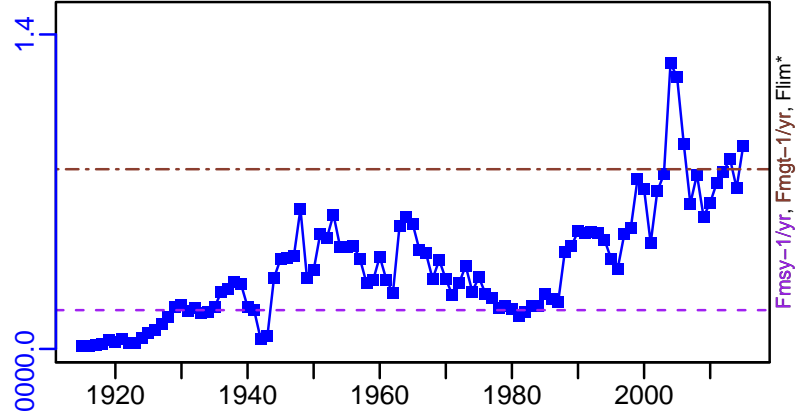
SSB-MT (1915-2015-MOESENER)



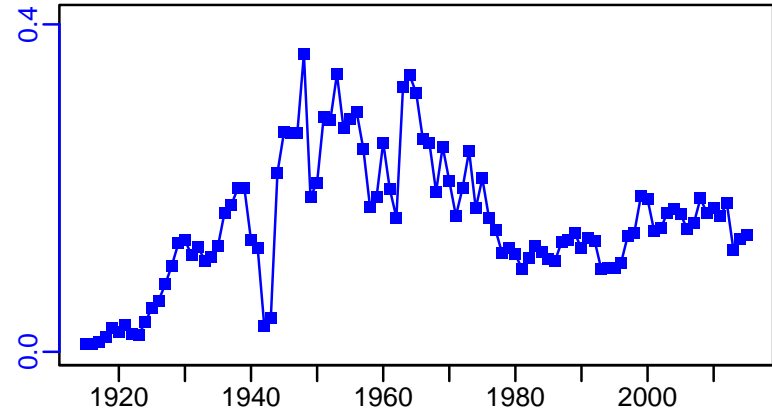
TN \*



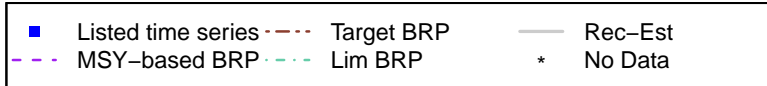
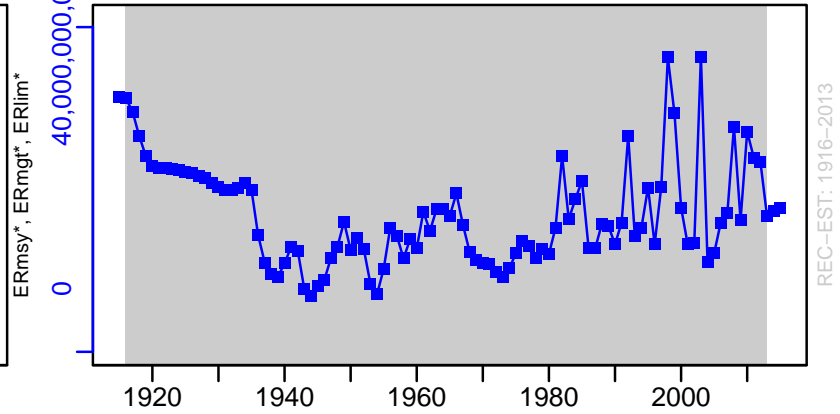
F-1/yr (1915-2015-MOESENER)



ER-ratio (1915-2015-MOESENER)



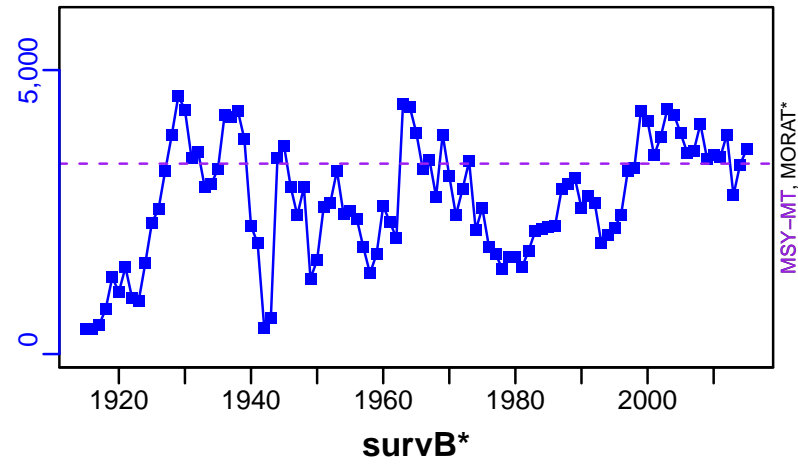
R-E00 (1915-2015-MOESENER)



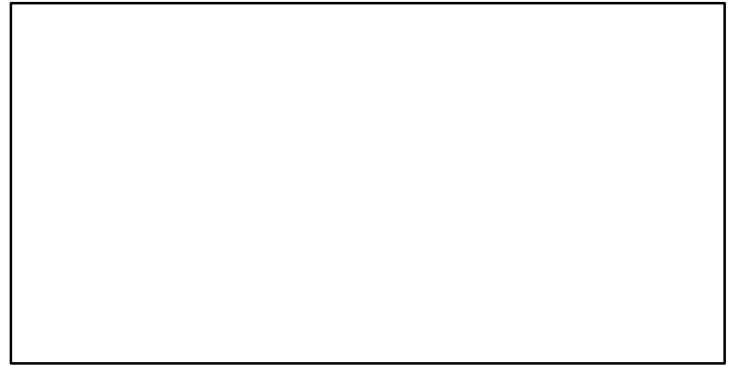


# Tiger flathead Southeast Australia [TIGERFLATSE]

TL-MT, TC\*, RecC\* (1915-2015-MOESENER)



TAC\*, Cpair\*, Cadv\*



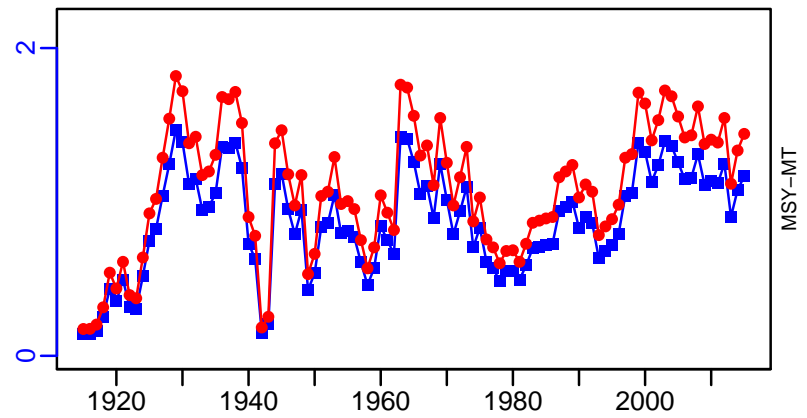
CPUE\*



EFFORT\*



TL-MT/MSY-MT, CdivMEANC-ratio, (1915-2015-MOESENER)



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