other scorpaenids Stocks
v4.63 (Dec-07-2023)

Not present Present Preferred

Stock	Time Series Types			
	B/Bmsy	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. RGURNNEATL [Red gurnard Northeast Atlantic]	TB SSB	ER F	TB SSB	ER F
19. SABLEFEBSAIGA [Sablefish Eastern Bering Sea / Aleutian Islands / Gulf of Alaska]	TB SSB	ER F	TB SSB	ER F
20. SABLEFPCAN [Sablefish Pacific Coast of Canada]	TB SSB	ER F	TB SSB	ER F
21. SABLEFPCOAST [Sablefish Pacific Coast]	TB SSB	ER F	TB SSB	ER F
22. TIGERFLATSE [Tiger flathead Southeast Australia]	TB SSB	ER F	TB SSB	ER F

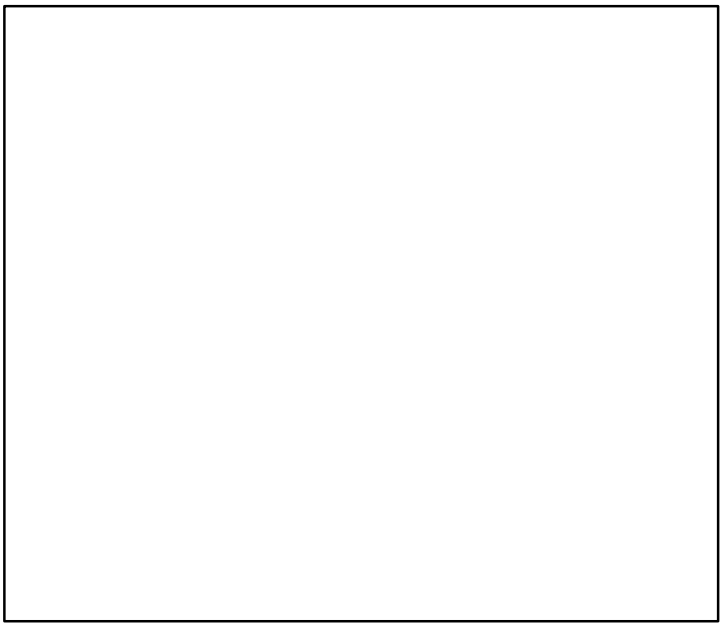
Arabesque greenling Nemuro Strait [ARGREENNEMS]

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

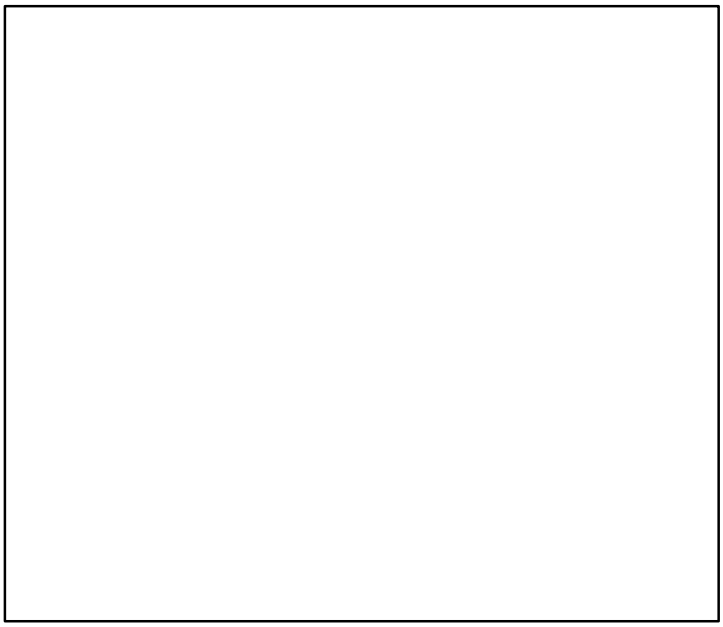
Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

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

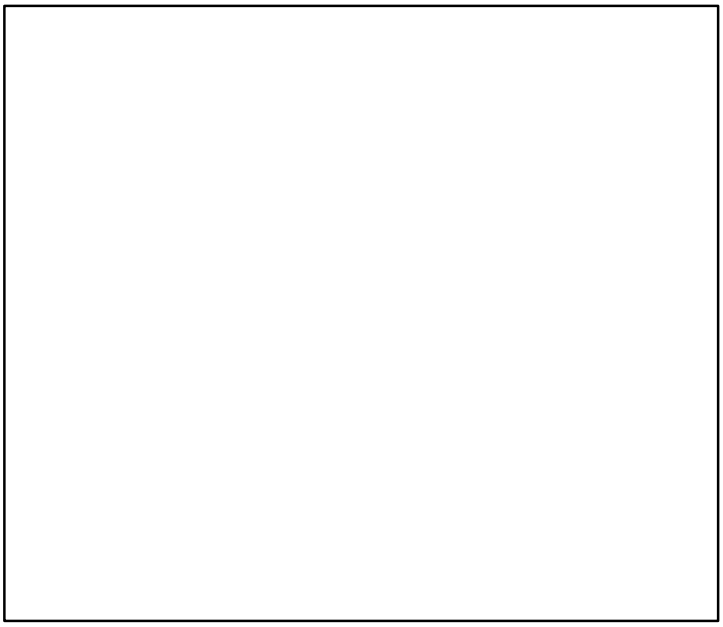
Kobe MSY*



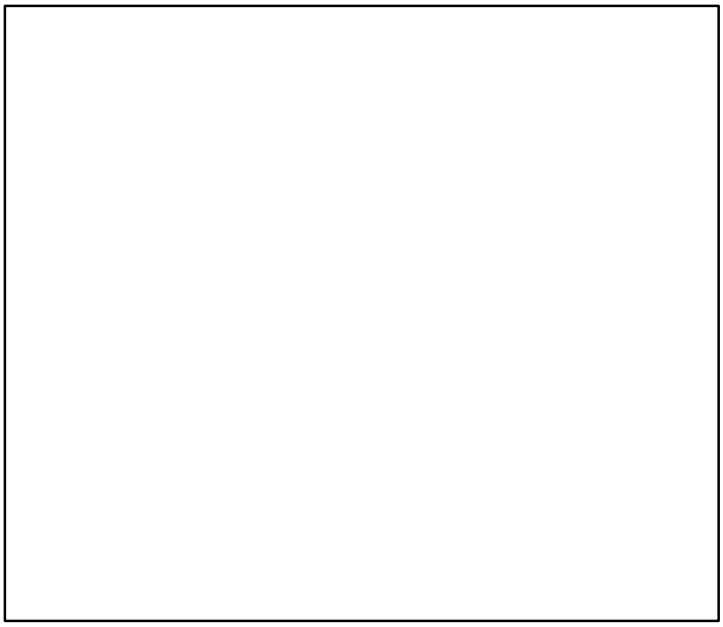
Kobe MGT*



Spawner Recruit*



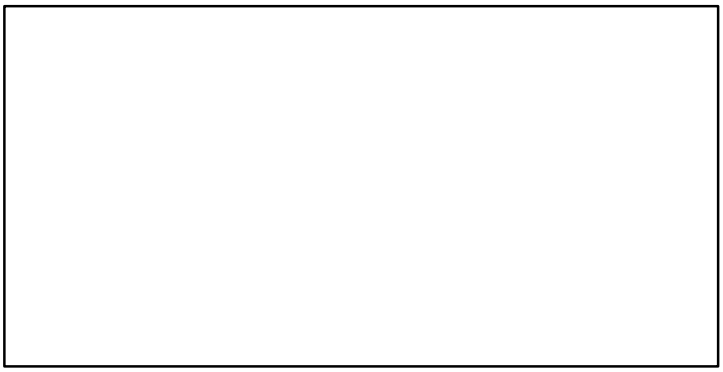
Production*



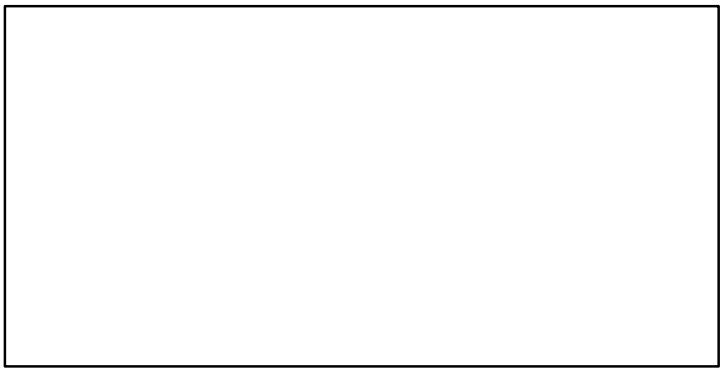
◆ Start Year ◆ End Year * No Data

Arabesque greenling Nemuro Strait [ARGREENNEMS]

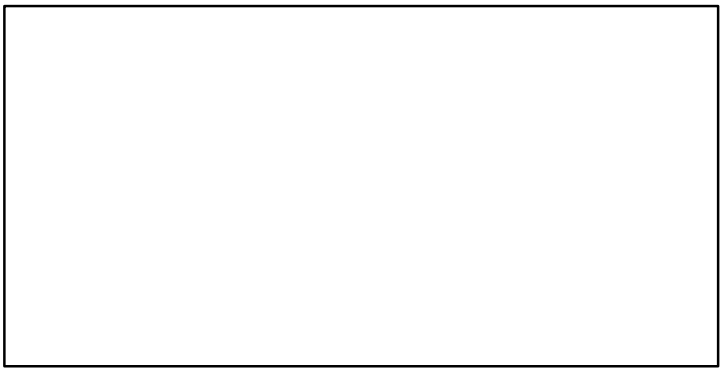
TB*



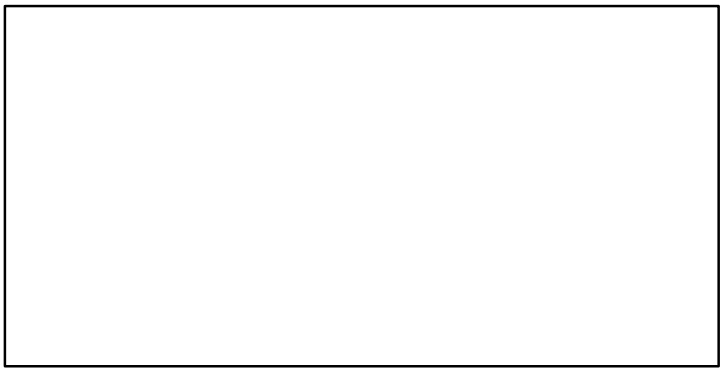
SSB*



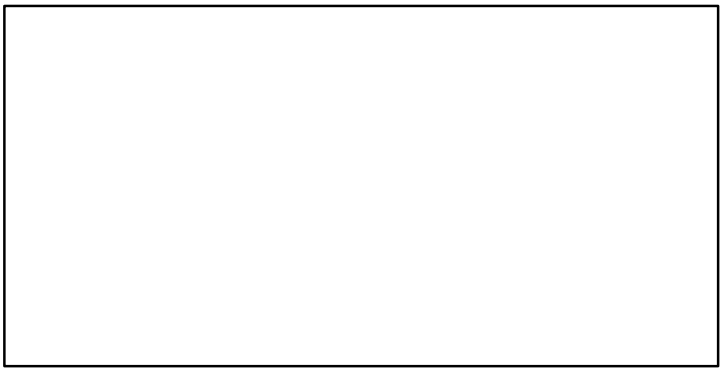
TN *



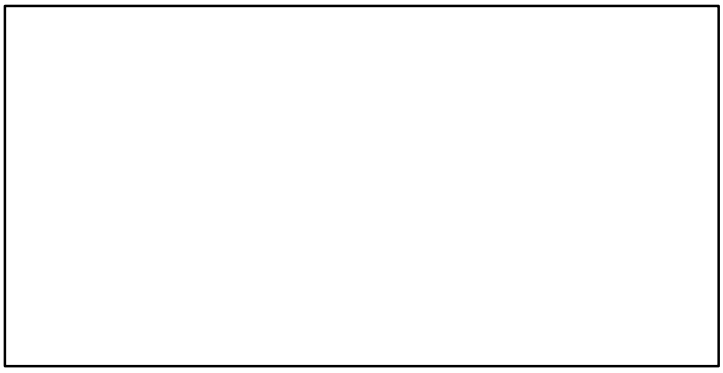
F*

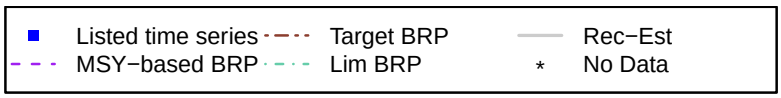


ER*

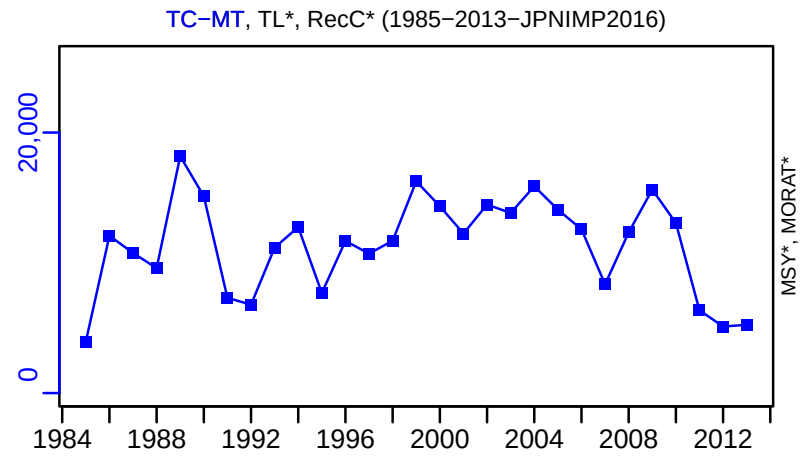


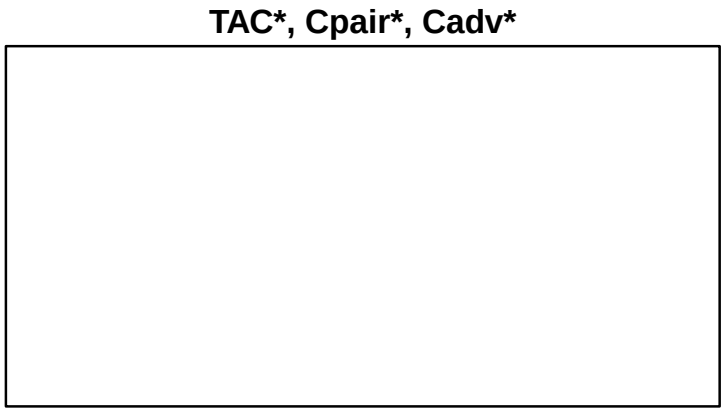
Recruits*

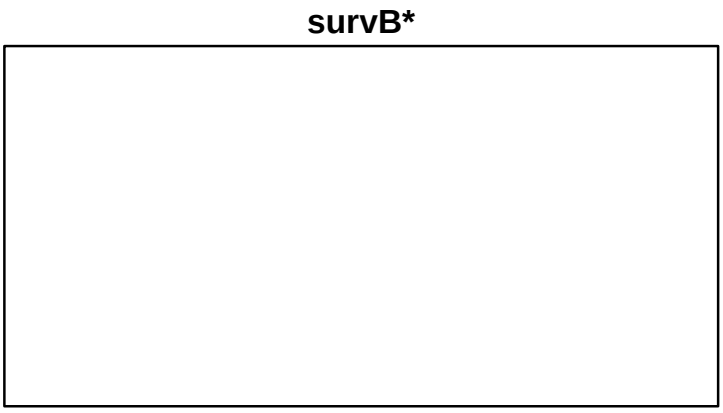


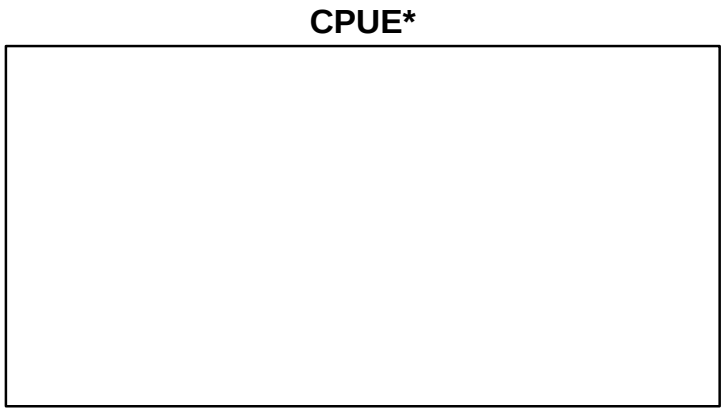


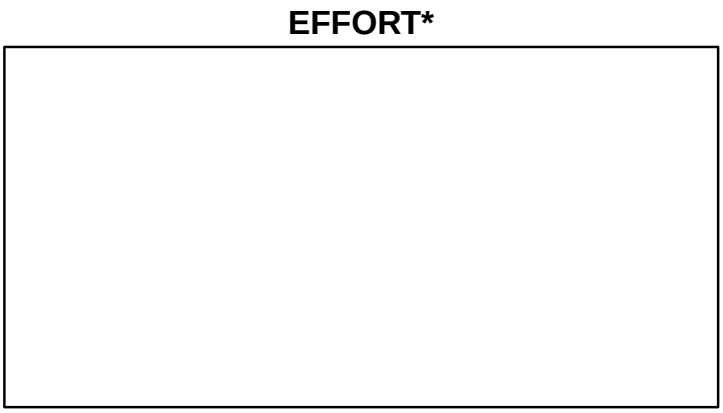
Arabesque greenling Nemuro Strait [ARGREENNEMS]

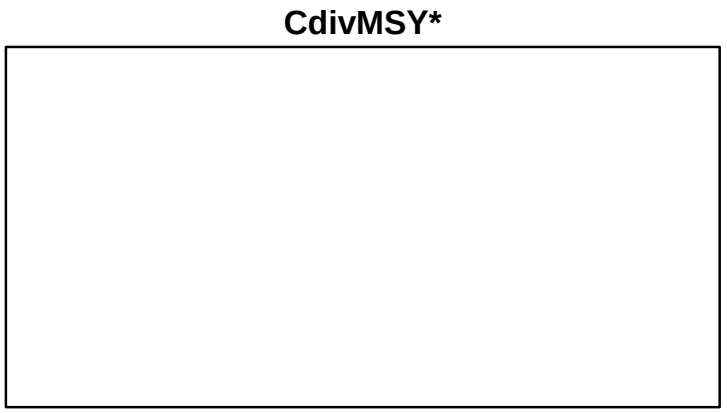


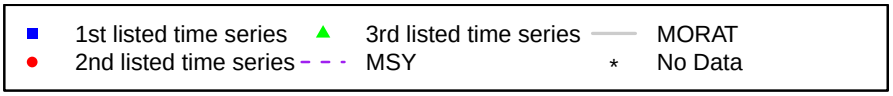












Arabesque greenling North coast of Hokkaido [ARGREENNHOKK]

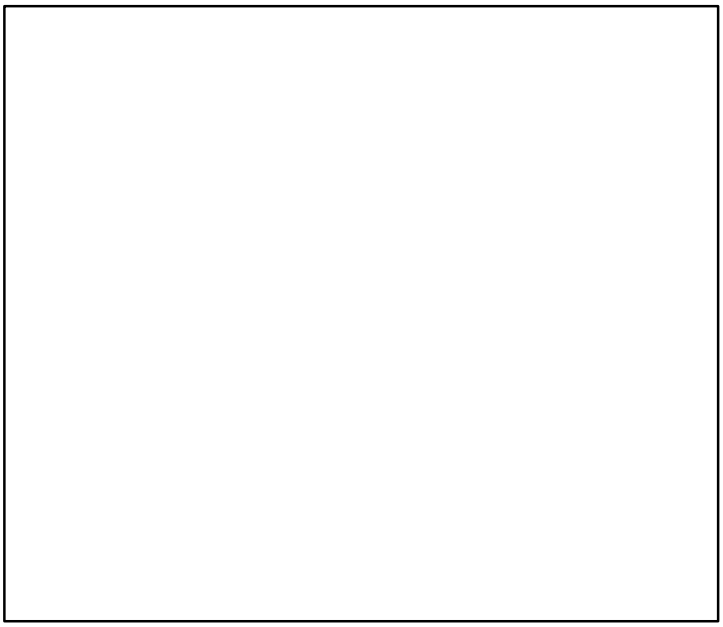
Metadata	
Scientific Name	Pleurogrammus azonus
Current Assess ID	FAFRFJ-ARGREENNHOKK-1980-2013-JPNIMP2016
Area	North coast of Hokkaido
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013

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

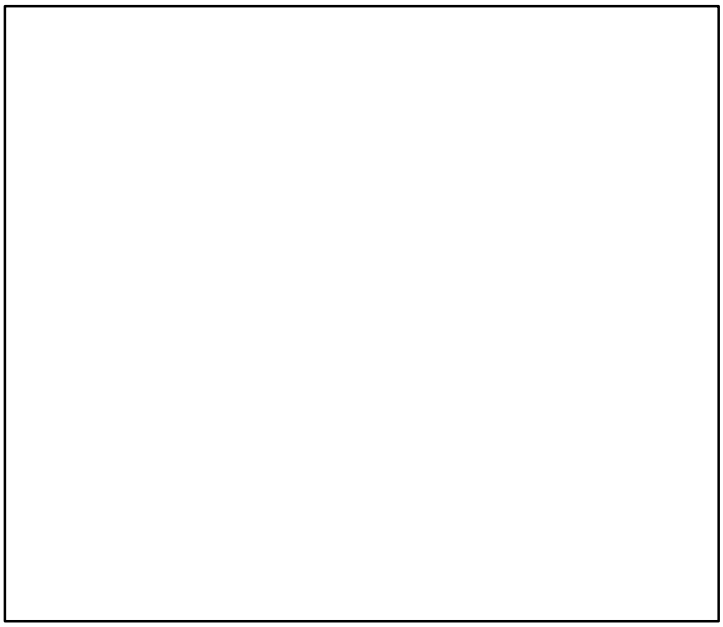
Time Series					
Type	**ID**	**Asmt Year**	**Curr Value**	**Sex**	**Age**
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2013	46,300		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-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

Arabesque greenling North coast of Hokkaido [ARGREENNHOKK]

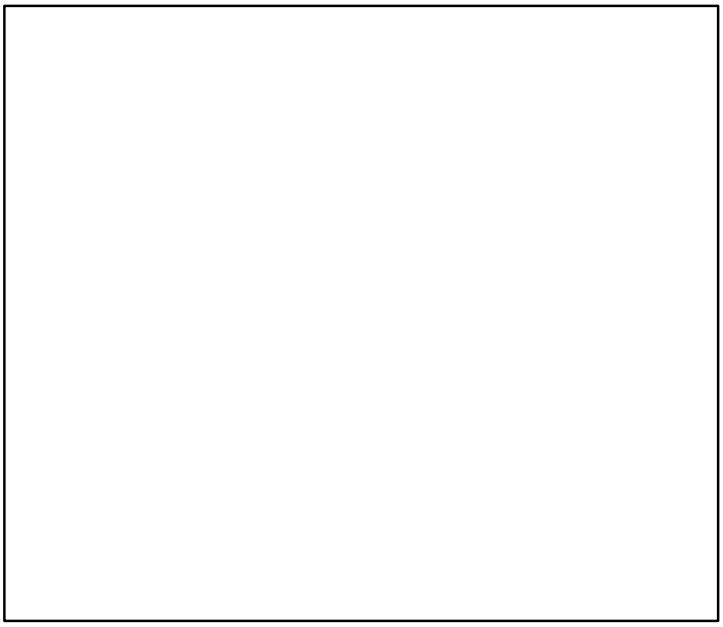
Kobe MSY*



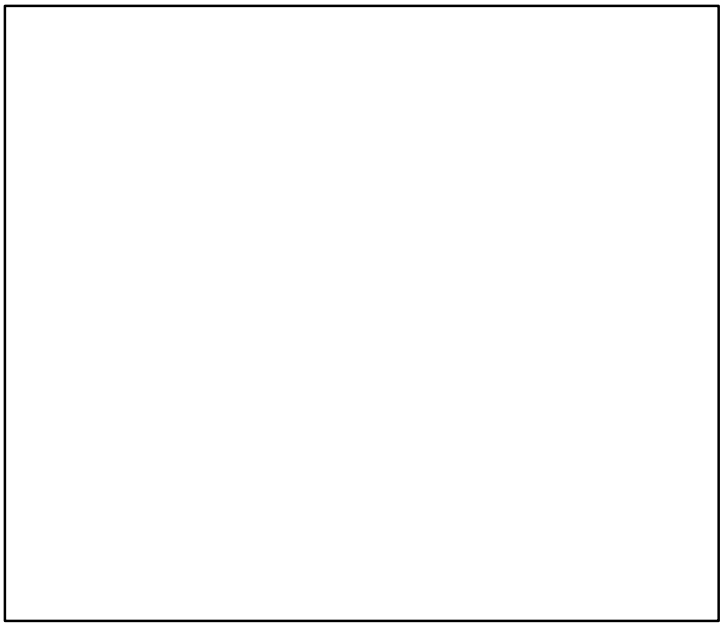
Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Arabesque greenling North coast of Hokkaido [ARGREENNHOKK]

TB*

SSB*

TN *

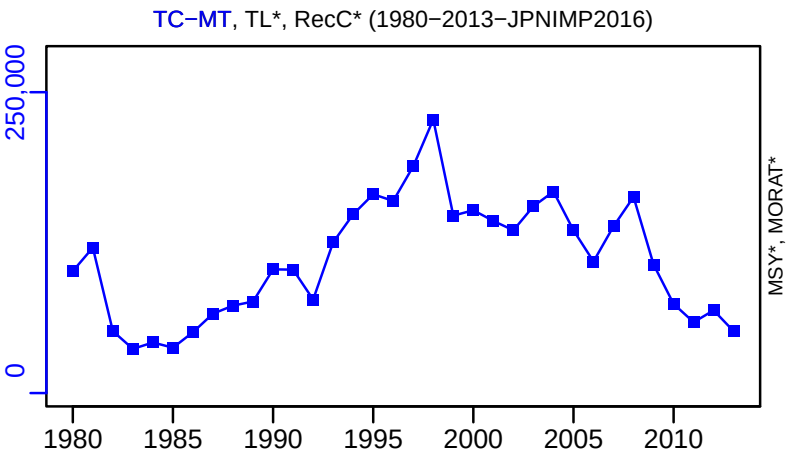
F*

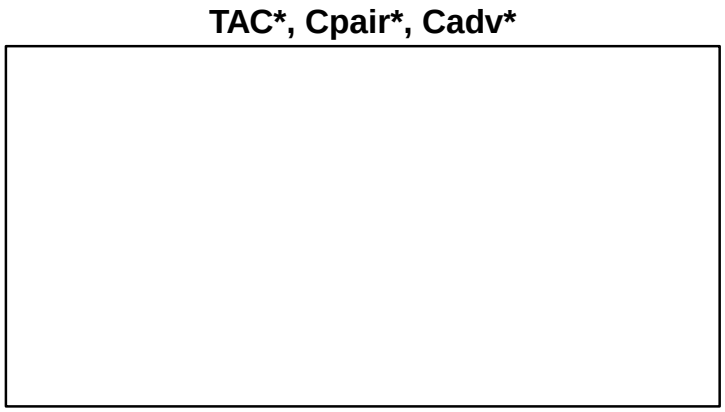
ER*

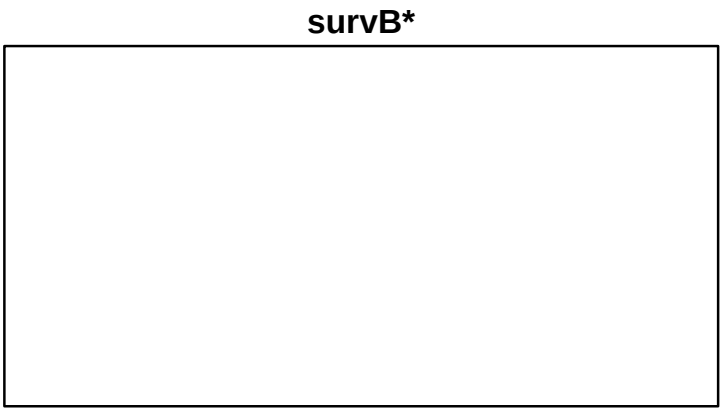
Recruits*

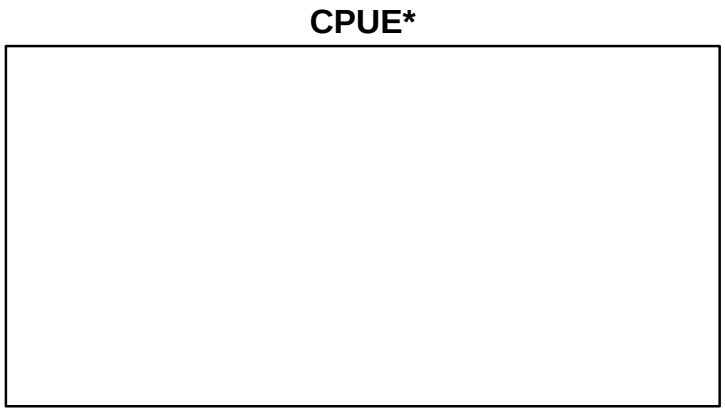
Listed time series
Target BRP
Rec−Est
MSY−based BRP
Lim BRP
No Data

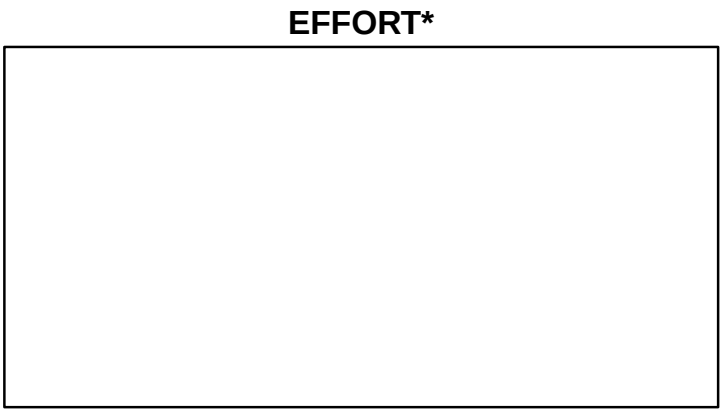
Arabesque greenling North coast of Hokkaido [ARGREENNHOKK]

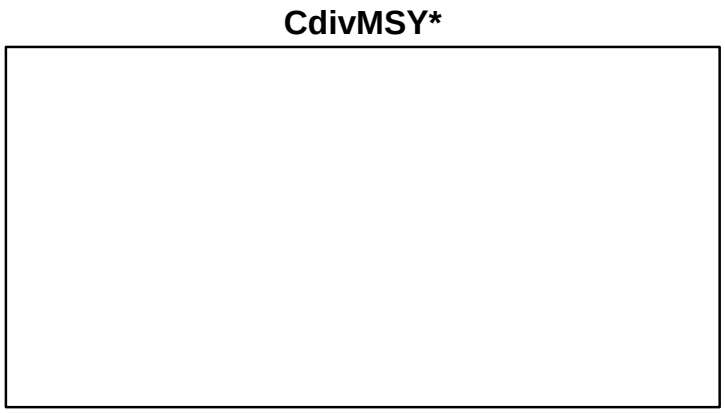


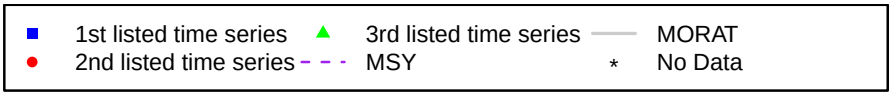












Arabesque greenling South coast of Hokkaido [ARGREENSHOKK]

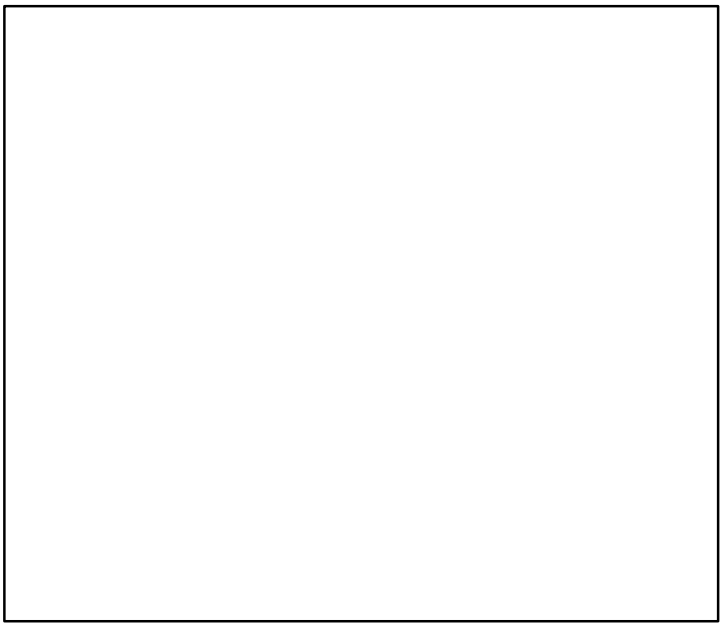
Metadata	
Scientific Name	Pleurogrammus azonus
Current Assess ID	FAFRFJ-ARGREENSHOKK-1975-2013-JPNIMP2016
Area	South coast of Hokkaido
Management Authority	Fisheries Agency of Japan
Assessor	Fisheries Agency and Fisheries Research Agency of Japan
Asmts in RAM	2013

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

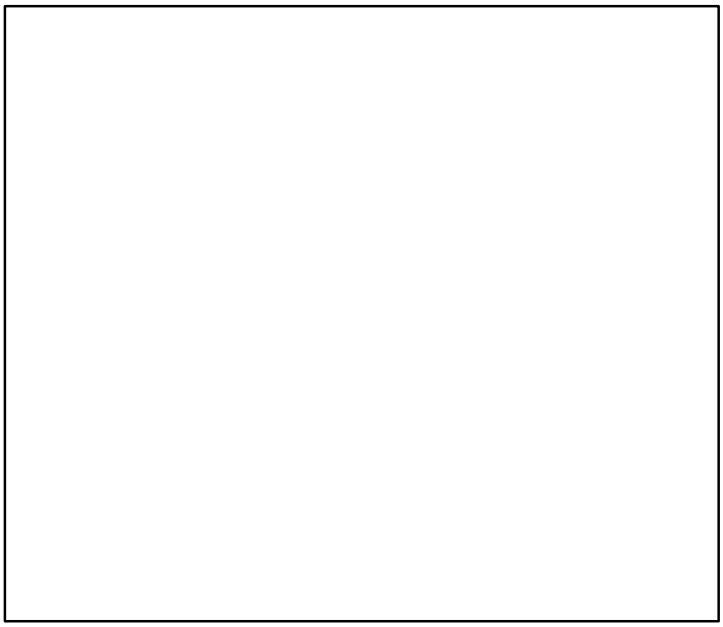
Time Series					
Type	**ID**	**Asmt Year**	**Curr Value**	**Sex**	**Age**
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2013	2300		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-	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

Arabesque greenling South coast of Hokkaido [ARGREENSHOKK]

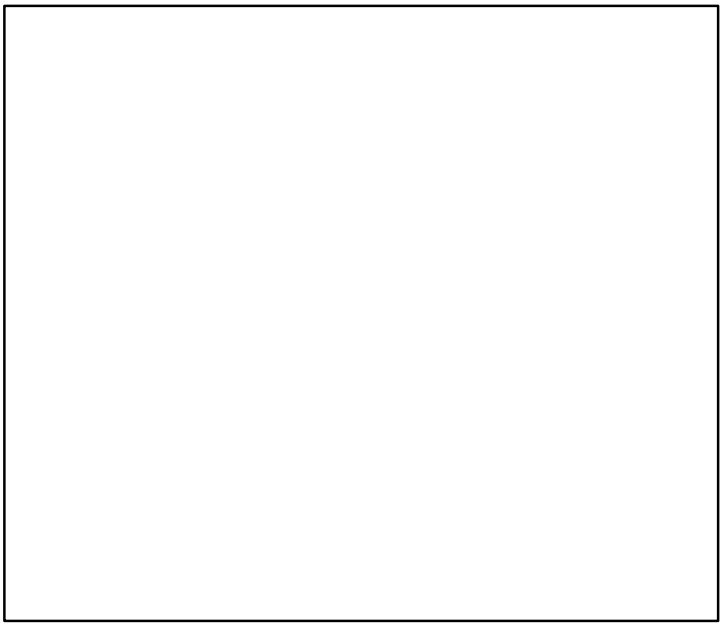
Kobe MSY*



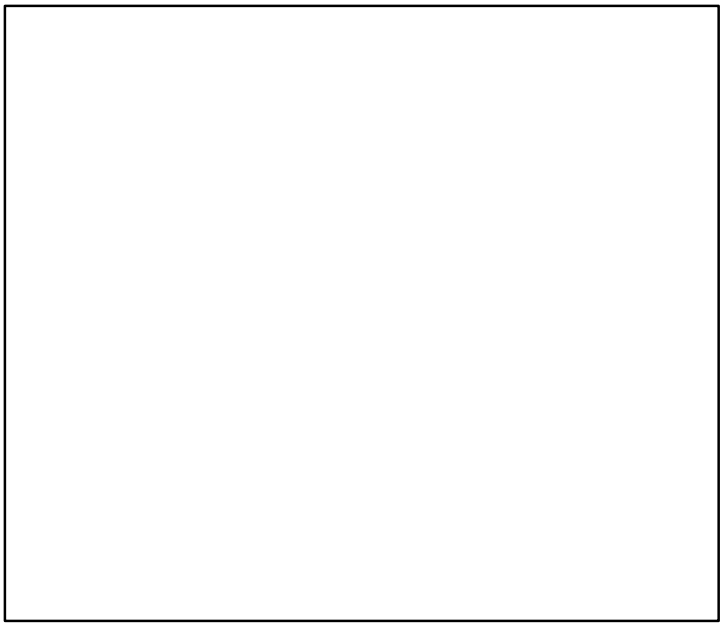
Kobe MGT*



Spawner Recruit*



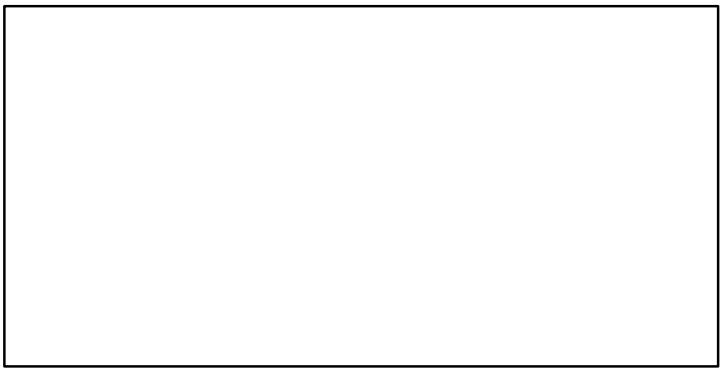
Production*



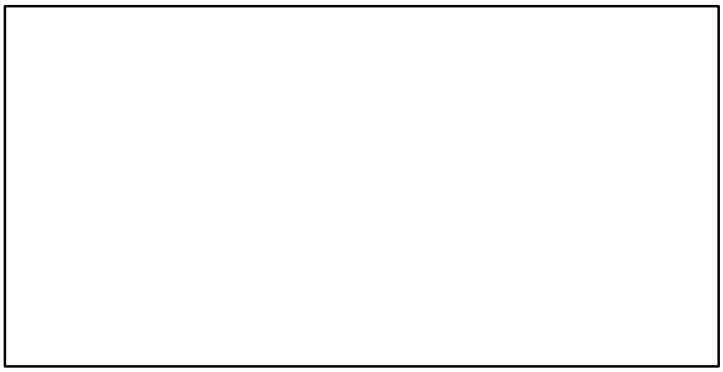
◆ Start Year ◆ End Year * No Data

Arabesque greenling South coast of Hokkaido [ARGREENSHOKK]

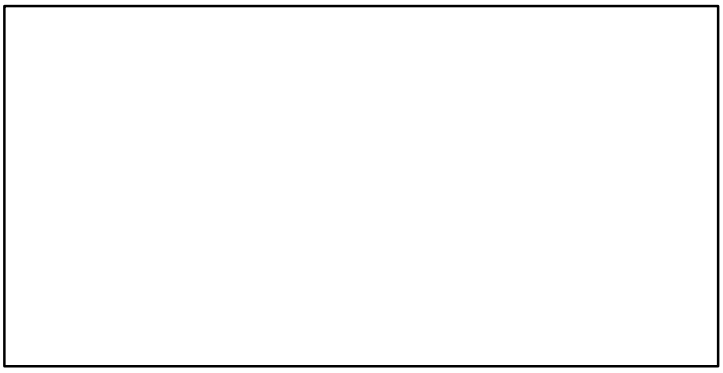
TB*



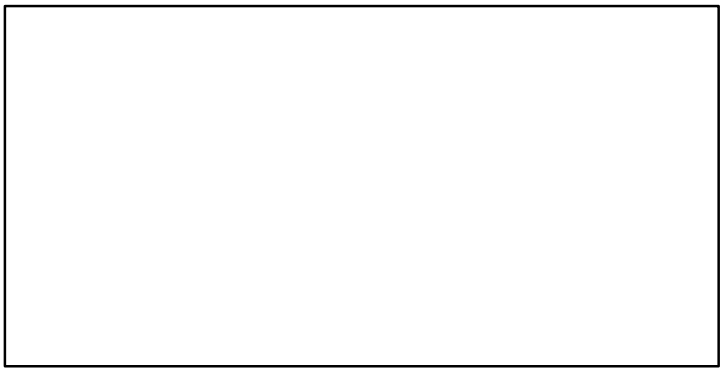
SSB*



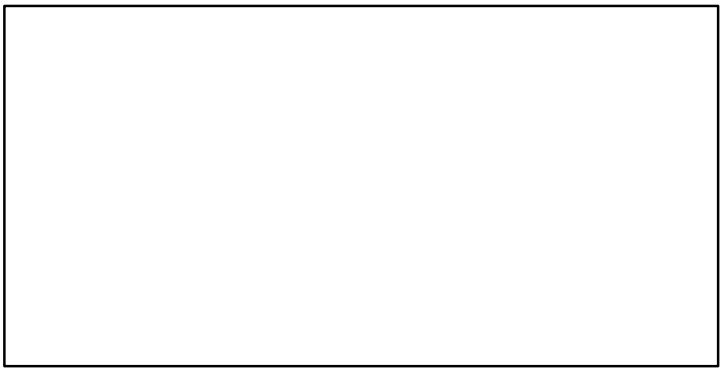
TN *



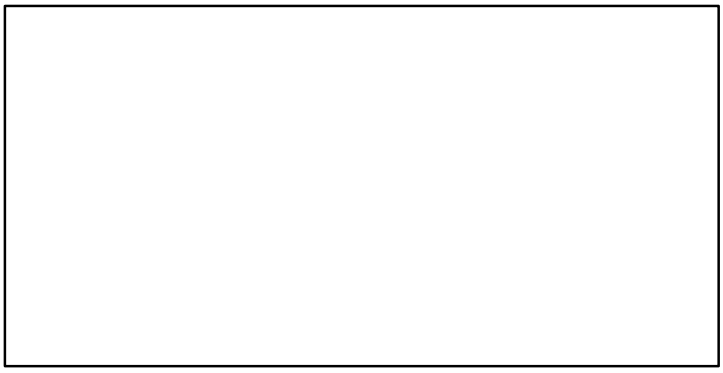
F*

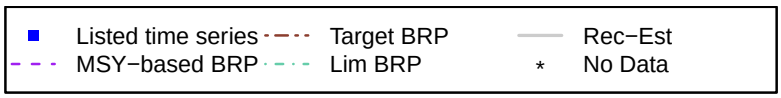


ER*



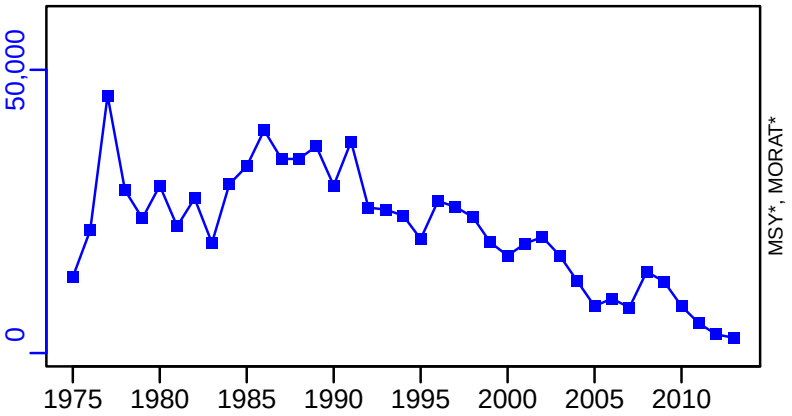
Recruits*





Arabesque greenling South coast of Hokkaido [ARGREENSHOKK]

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



TAC*, Cpair*, Cadv*

survB*

CPUE*

EFFORT*

CdivMSY*

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

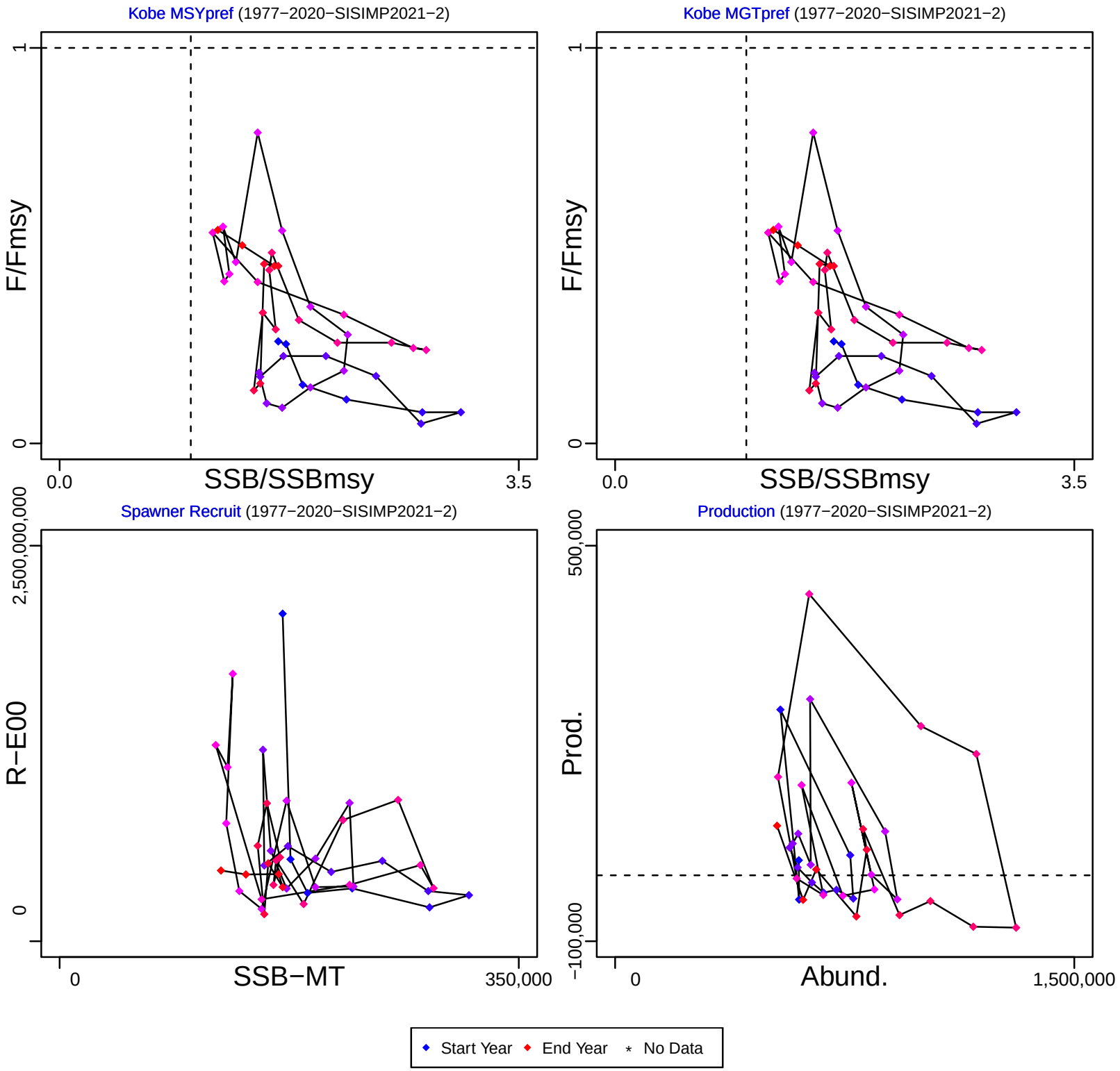
Atka mackerel Bering Sea and Aleutian Islands [ATKABSAI]

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

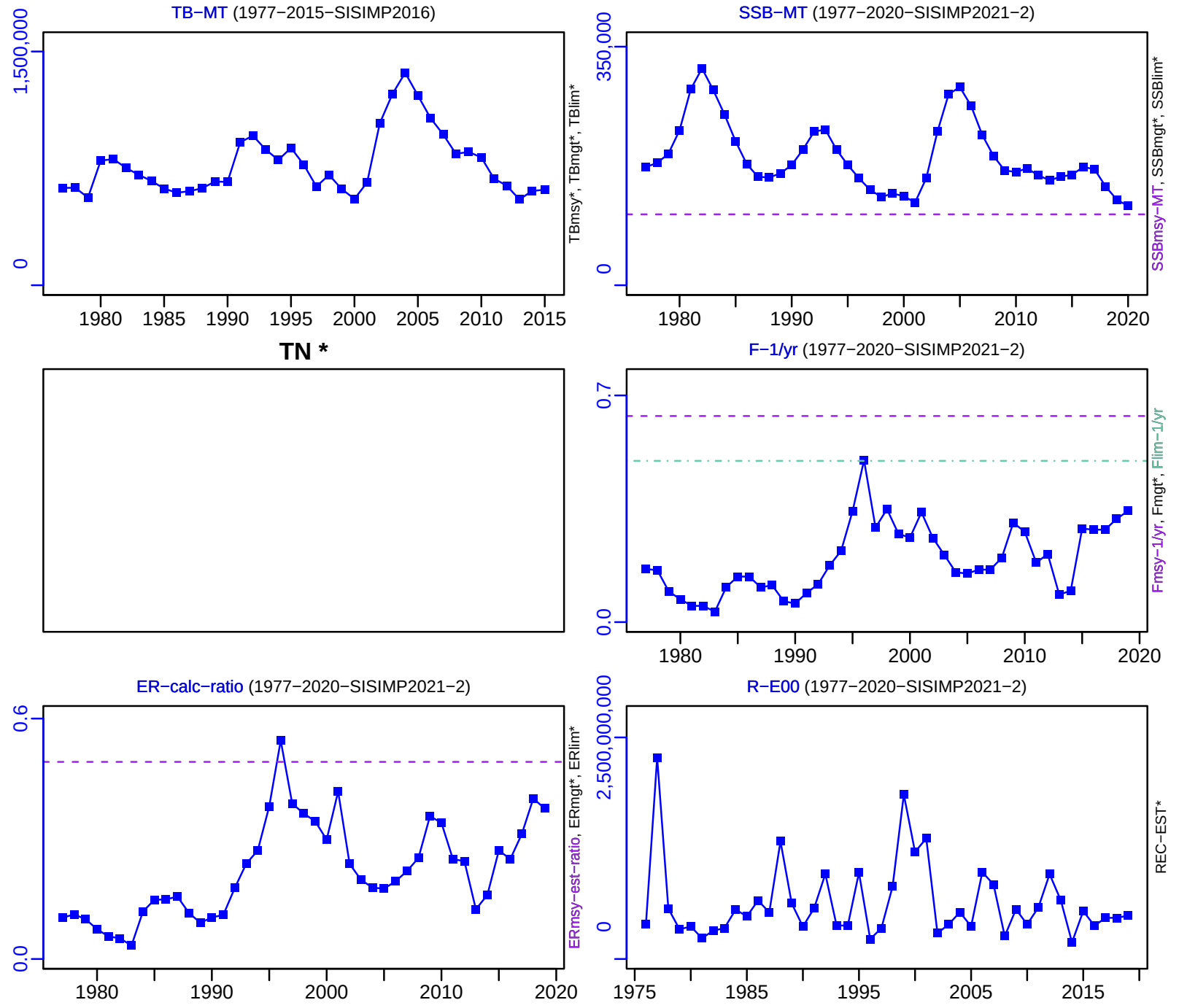
Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2020	$102{,}000$
Fmsy	Fmsy-1/yr	2020	0.593
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2011	0.3
TBlim	-	-	-
SSBlim	-	-	-
Flim	Flim-1/yr	2020	0.464
ERlim	-	-	-

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

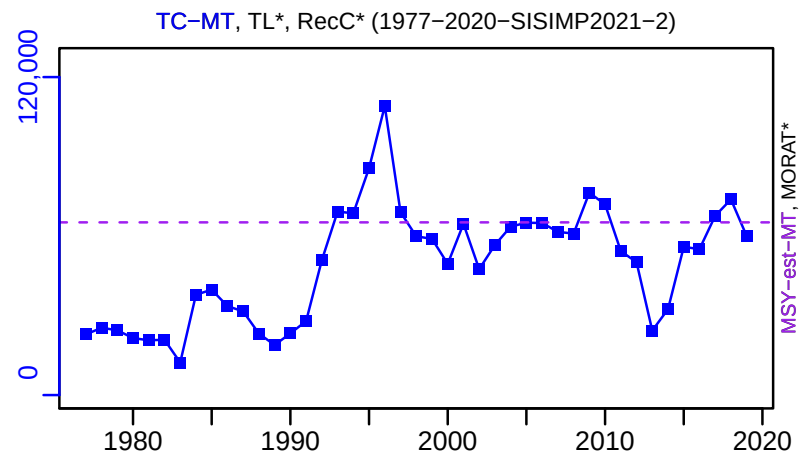
Atka mackerel Bering Sea and Aleutian Islands [ATKABSAI]

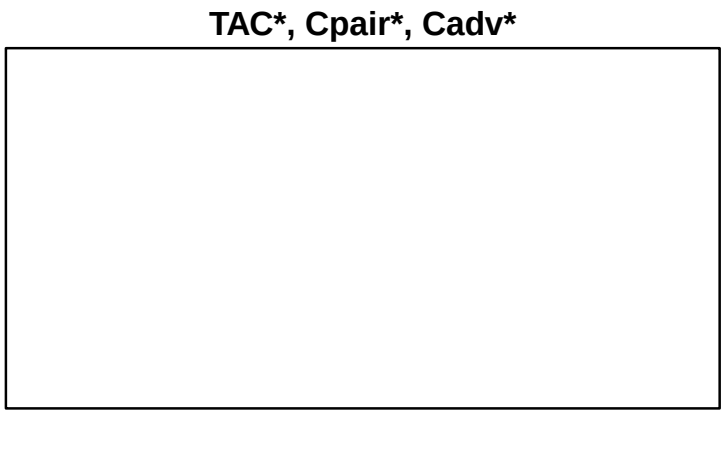


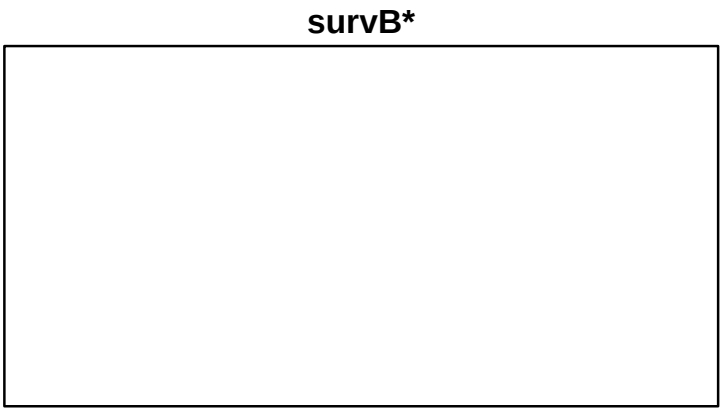
Atka mackerel Bering Sea and Aleutian Islands [ATKABSAI]

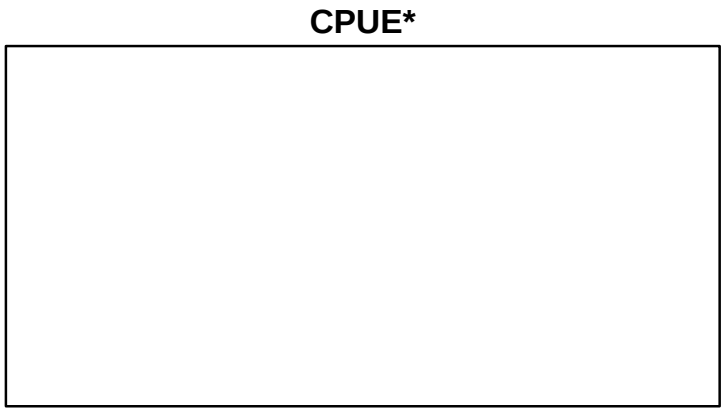


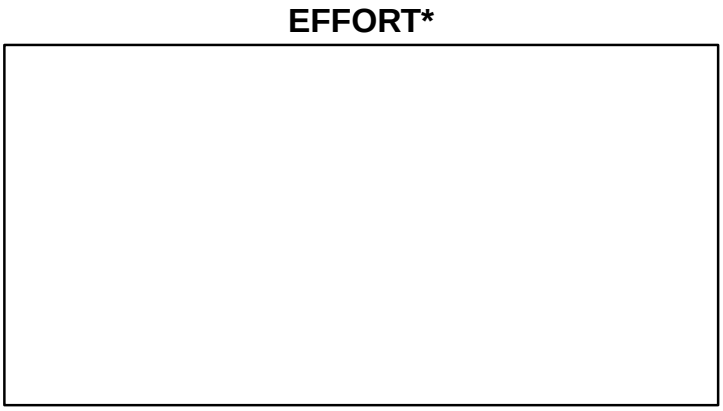
Atka mackerel Bering Sea and Aleutian Islands [ATKABSAI]

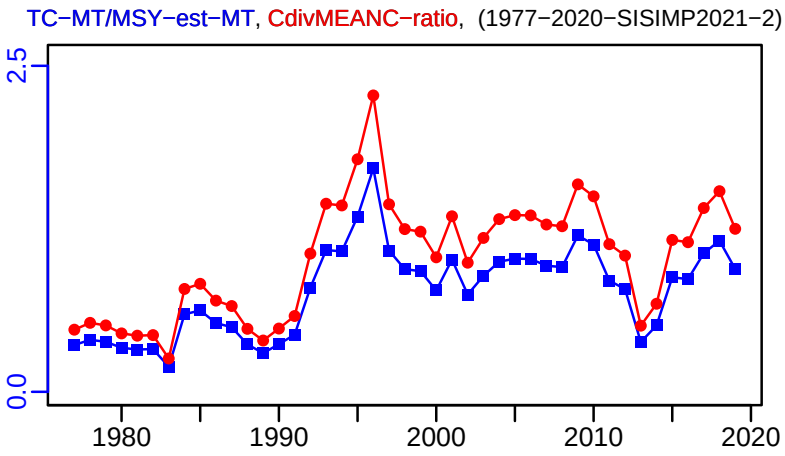


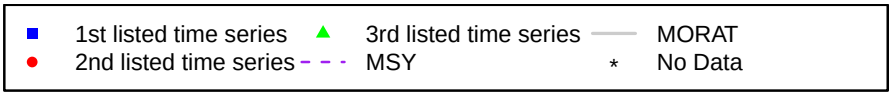












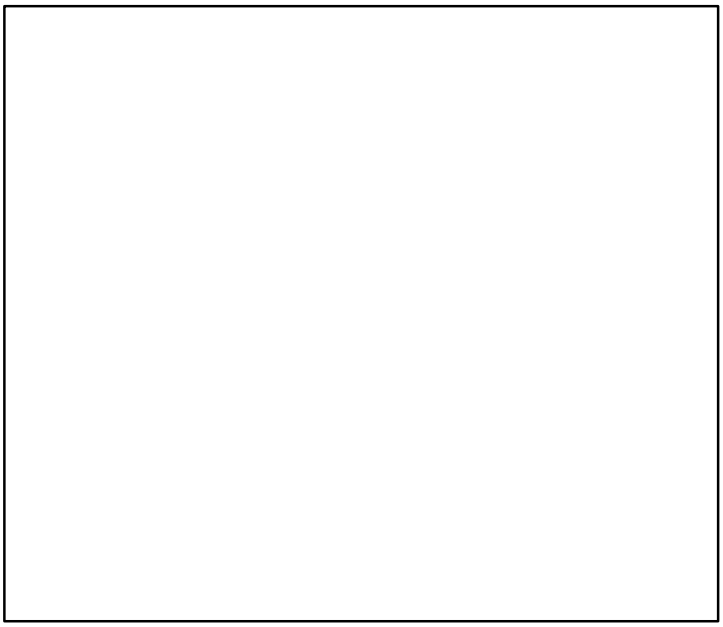
Atka mackerel Gulf of Alaska [ATKAGA]

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

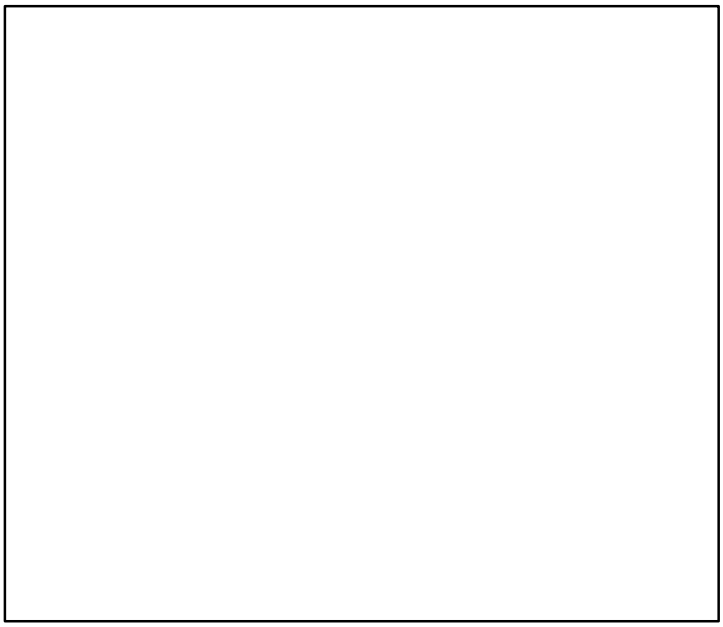
Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

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	-	-	-		

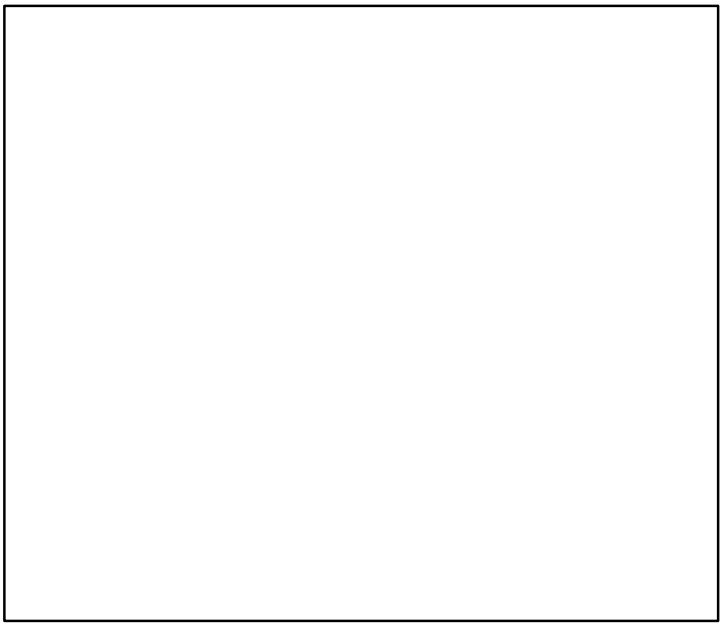
Kobe MSY*



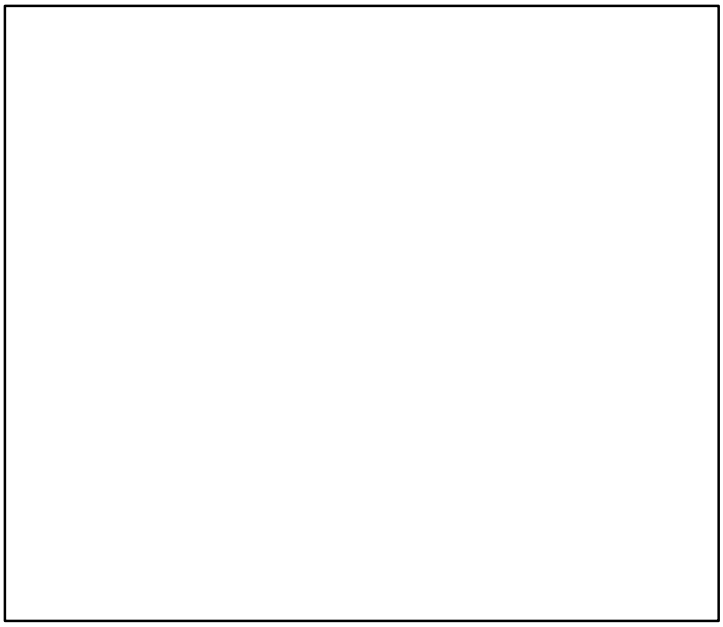
Kobe MGT*



Spawner Recruit*

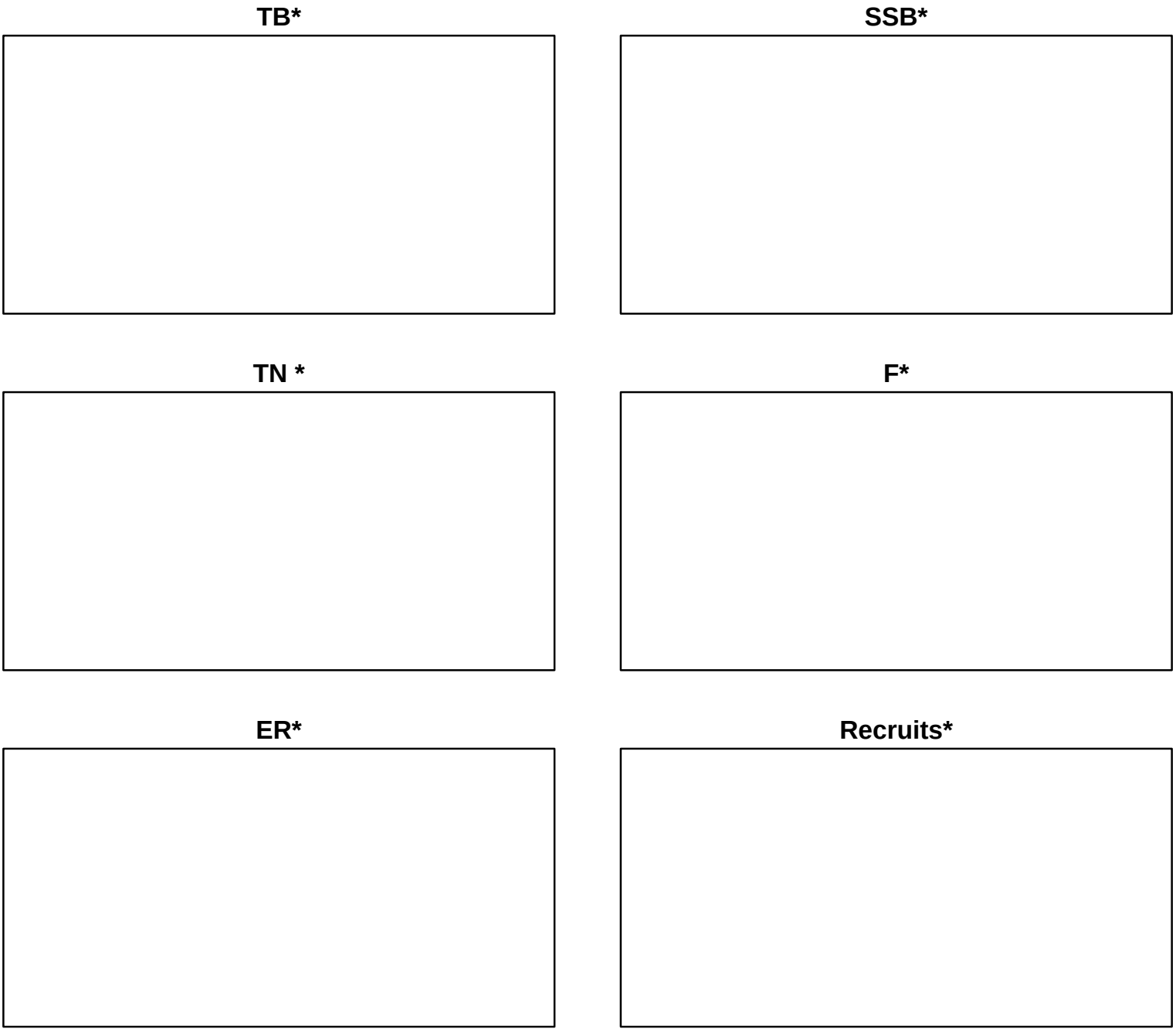


Production*

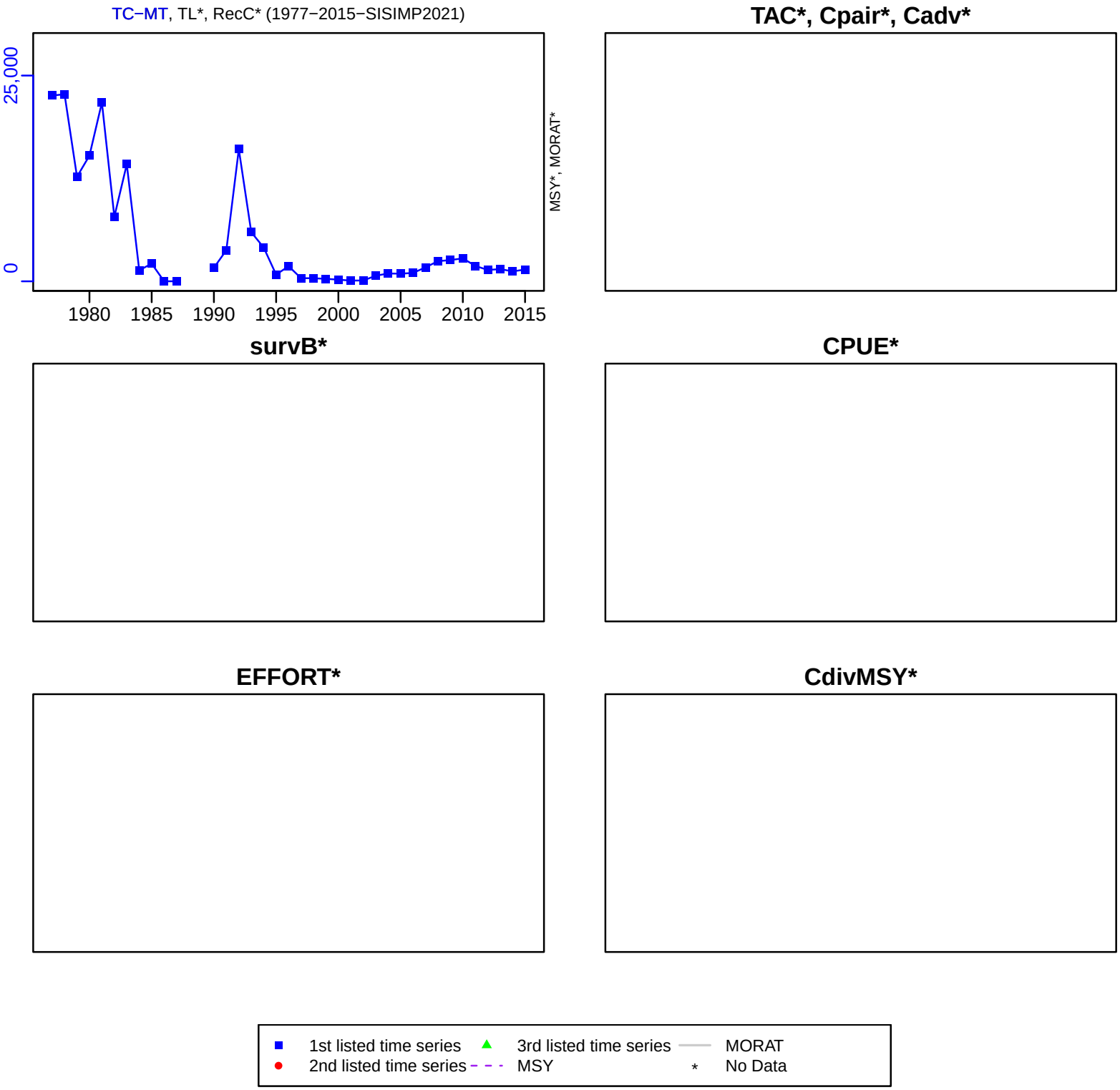


◆ Start Year ◆ End Year * No Data

Atka mackerel Gulf of Alaska [ATKAGA]



Atka mackerel Gulf of Alaska [ATKAGA]



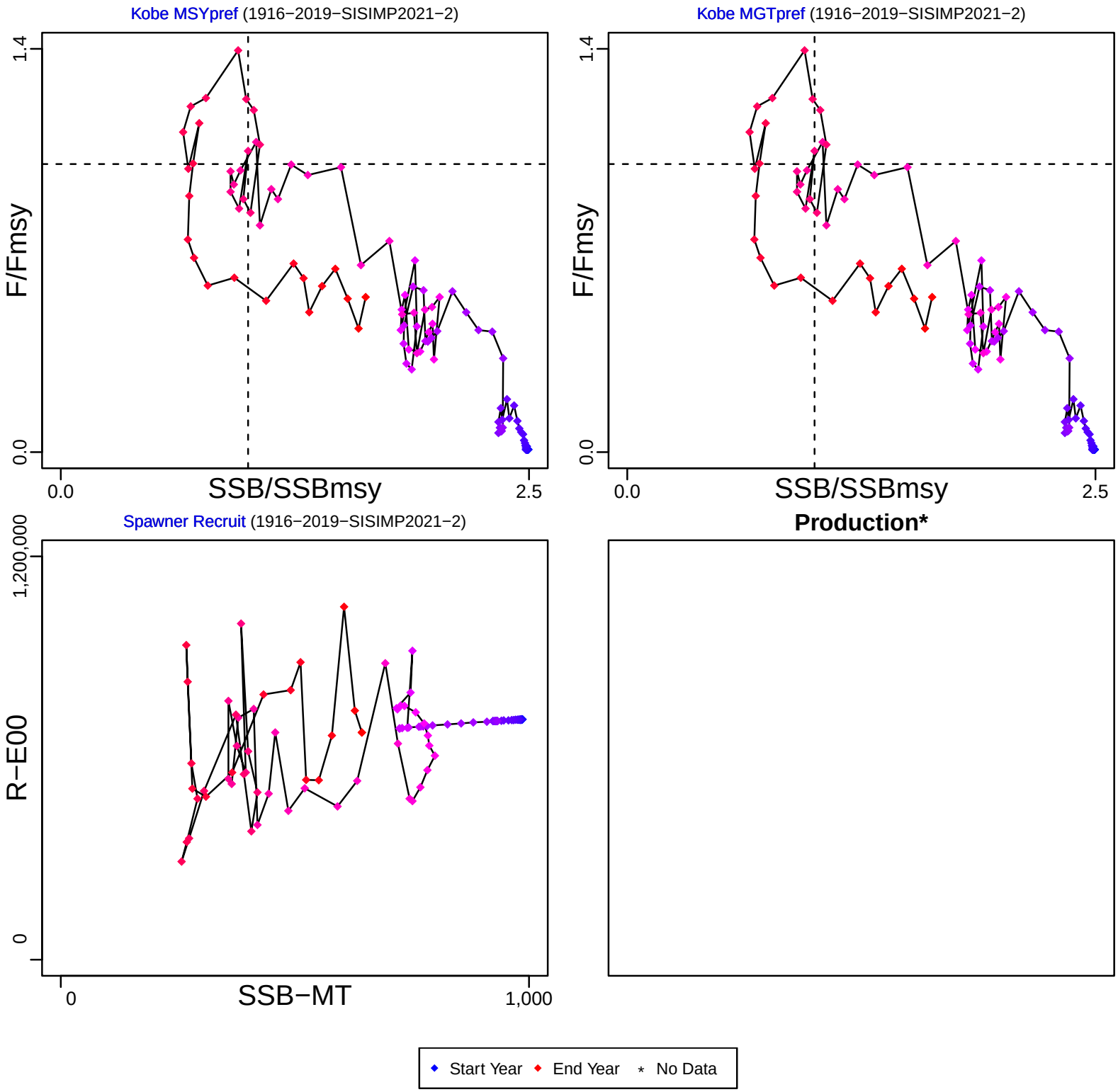
Cabezon Northern California [CABEZNCAL]

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

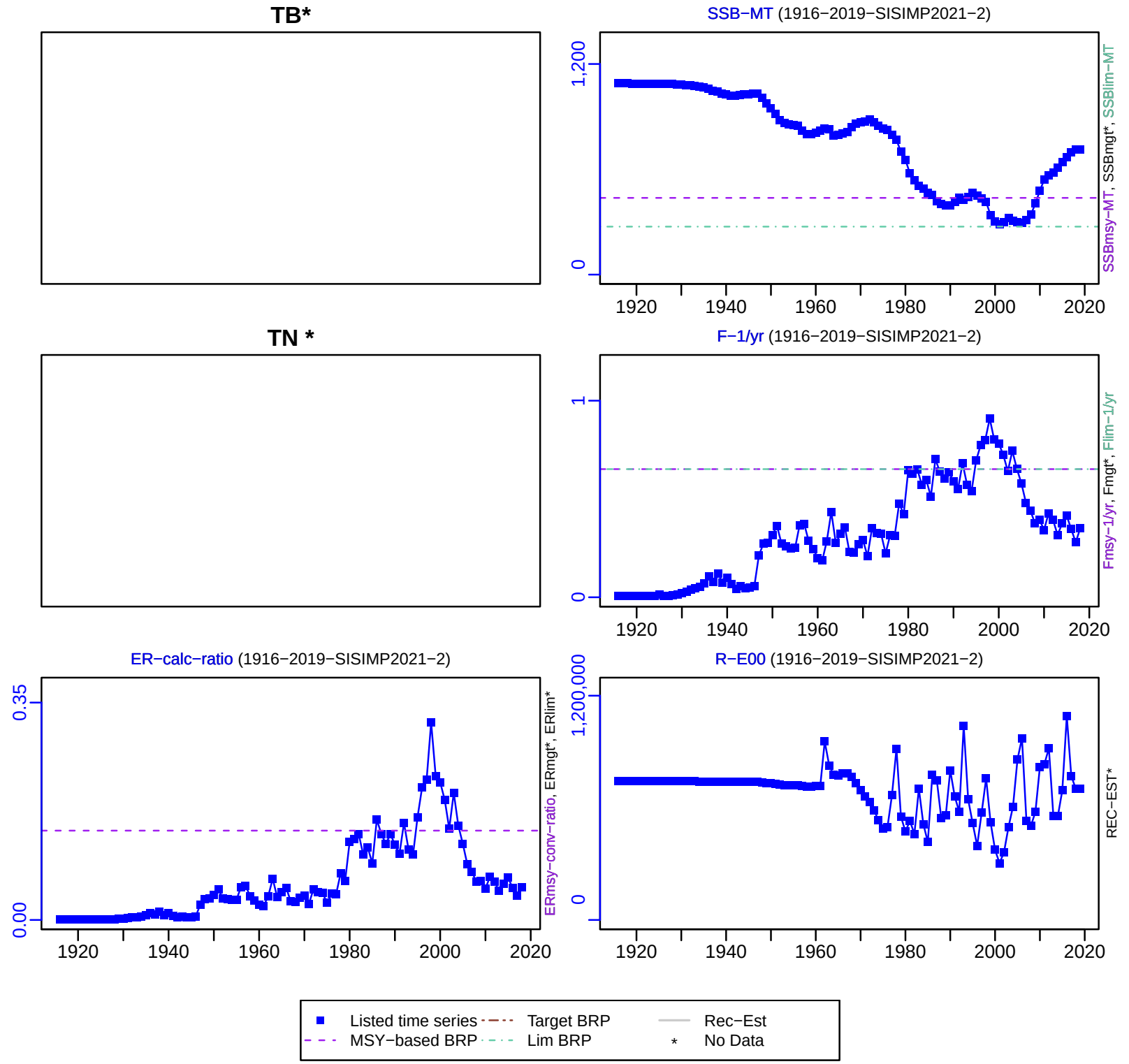
Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	TBmsy-calc-MT	2009	717
SSBmsy	SSBmsy-MT	2019	395
Fmsy	Fmsy-1/yr	2019	0.55
ERmsy	ERmsy-ratio	2009	0.18
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	TB0-MT	2009	1835
SSB0	SSB0-MT	2009	1036
MSY	MSY-MT	2019	116
M	-	-	-
TBlim	-	-	-
SSBlim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

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

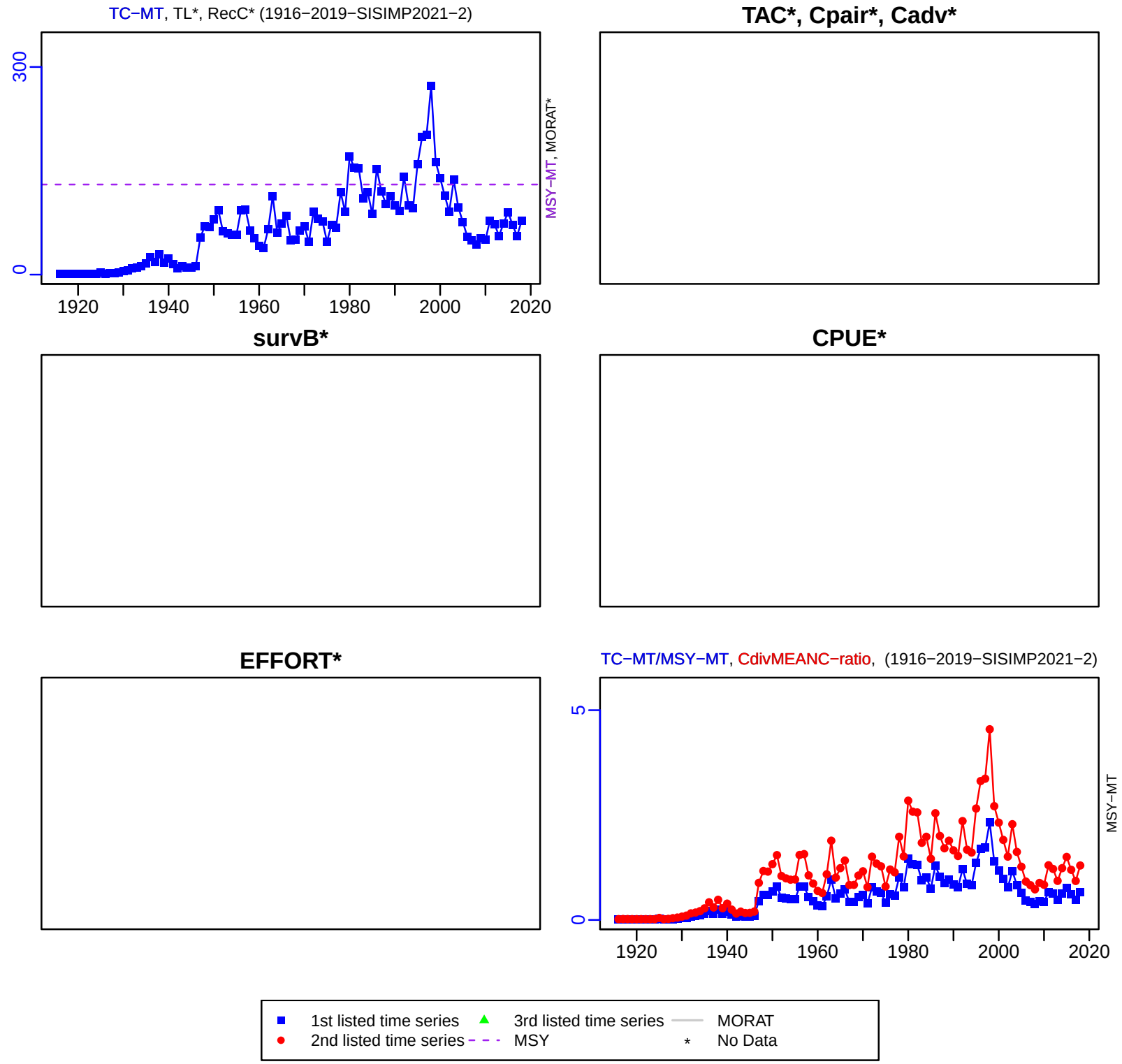
Cabezon Northern California [CABEZNCAL]



Cabezon Northern California [CABEZNCAL]



Cabezon Northern California [CABEZNCAL]



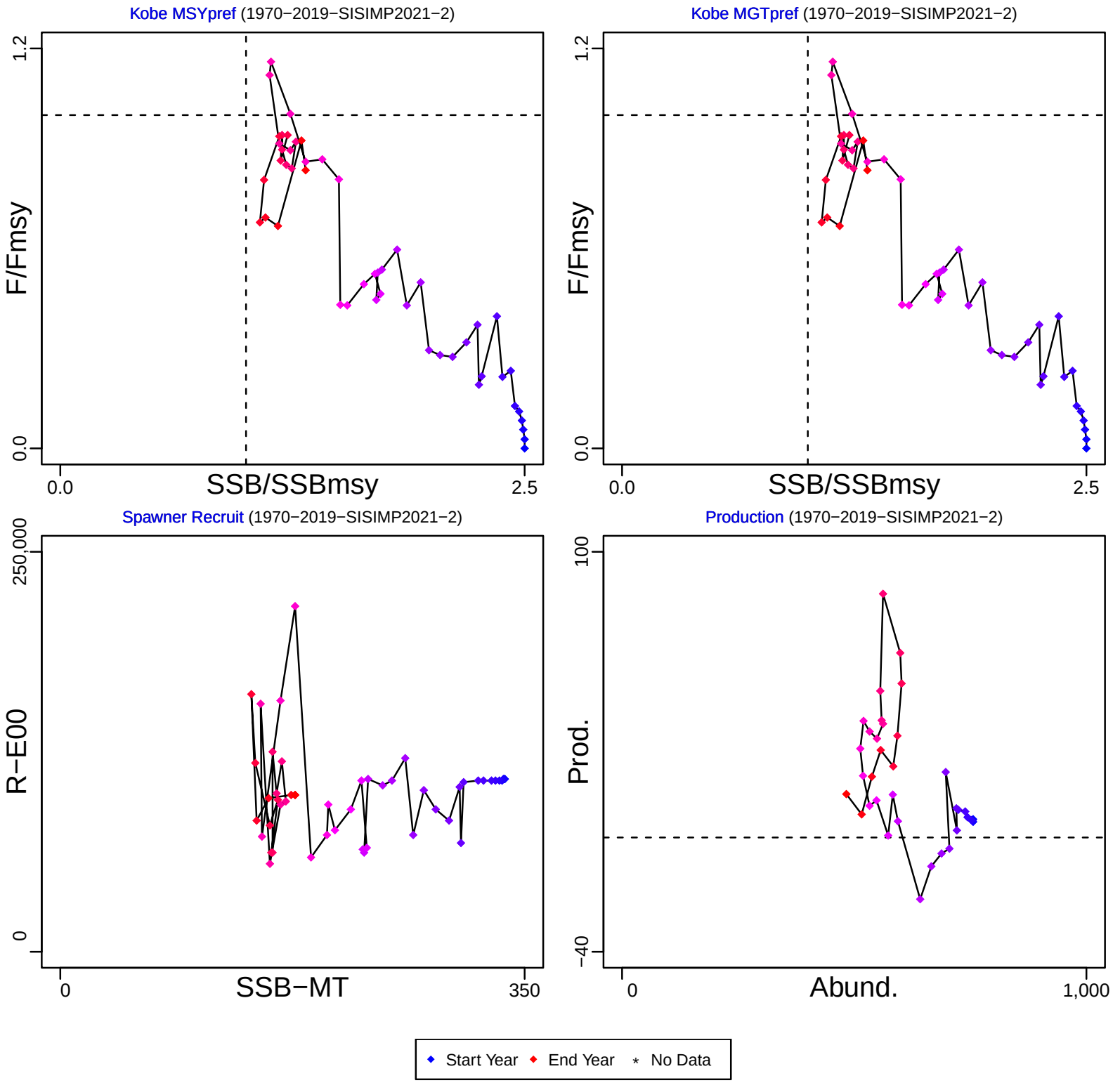
Cabezon Oregon Coast [CABEZORECOAST]

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

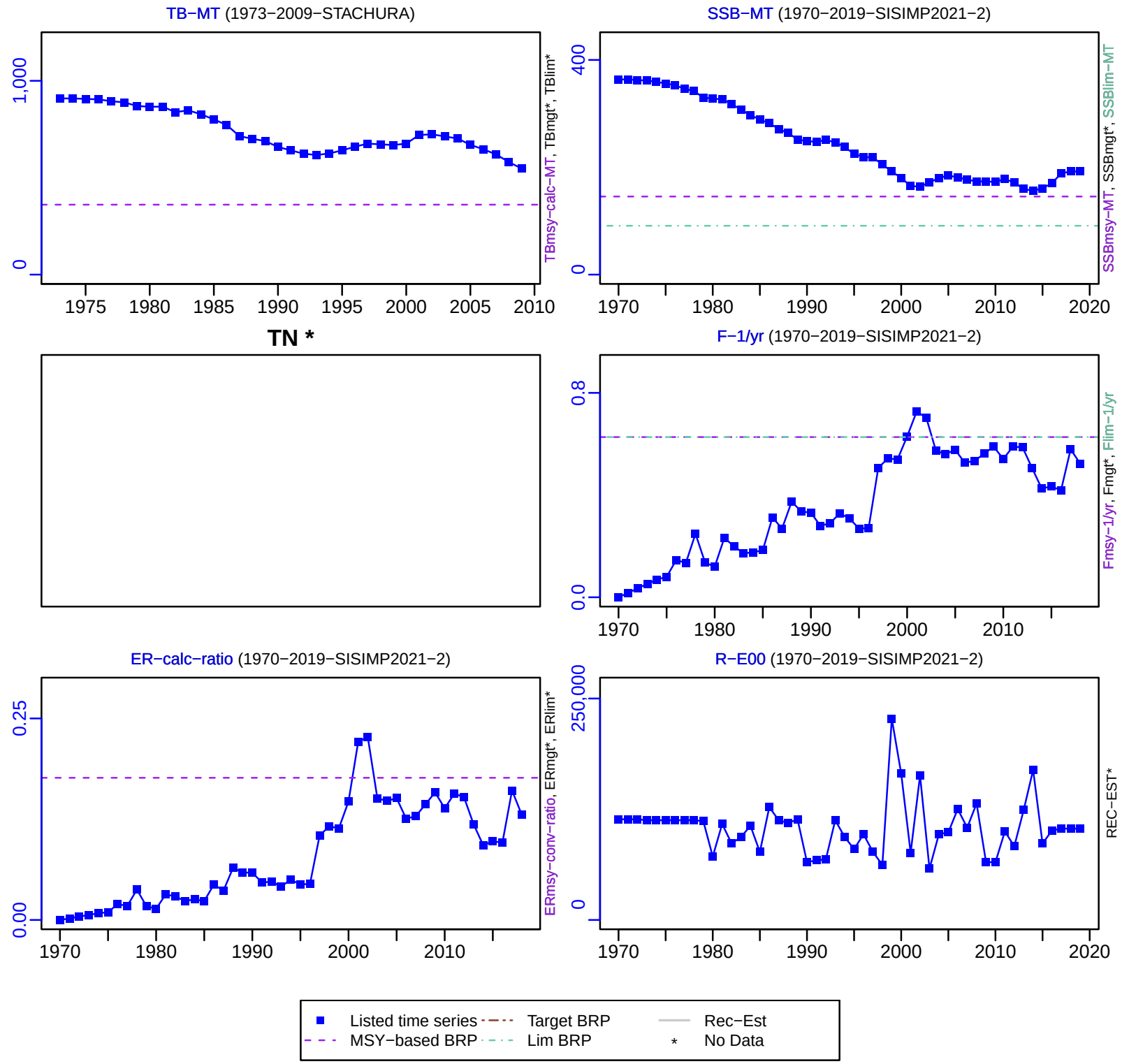
Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	TBmsy-calc-MT	2009	300
SSBmsy	SSBmsy-MT	2019	134
Fmsy	Fmsy-1/yr	2019	0.55
ERmsy	ERmsy-ratio	2009	0.16
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2009	409
MSY	MSY-MT	2019	46
M	M-1/yr	2009	0.25
TBlim	-	-	-
SSBlim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

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

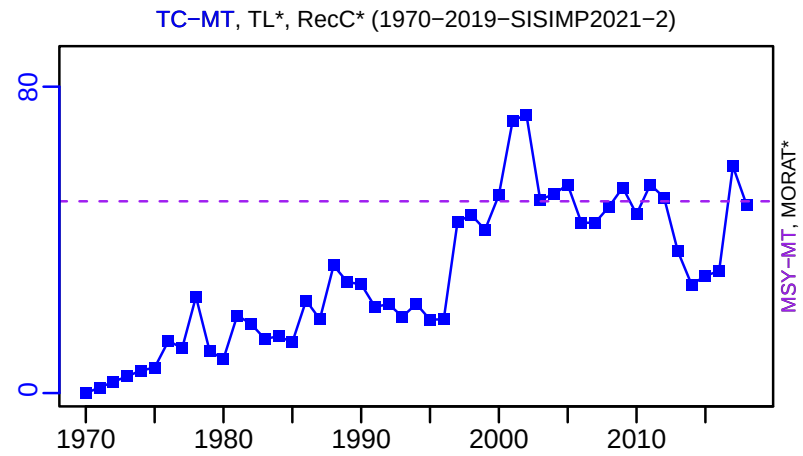
Cabezon Oregon Coast [CABEZORECOAST]

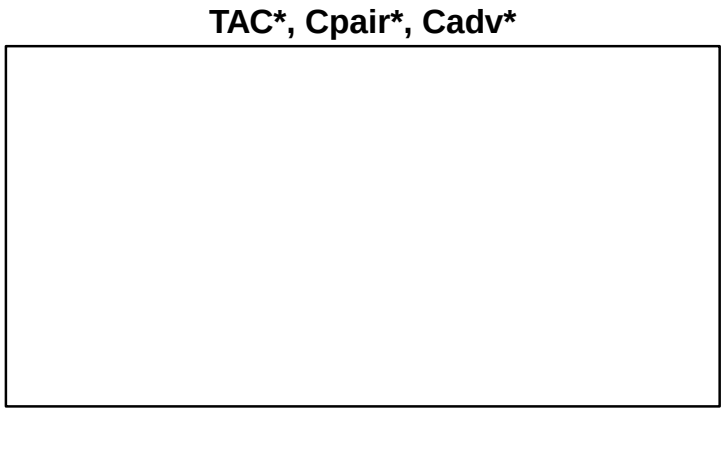


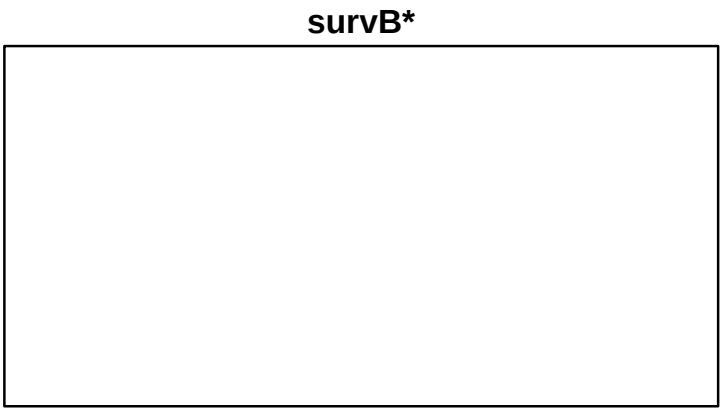
Cabezon Oregon Coast [CABEZORECOAST]

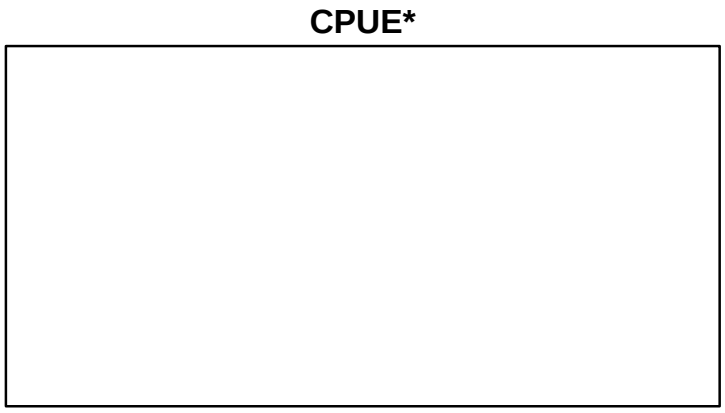


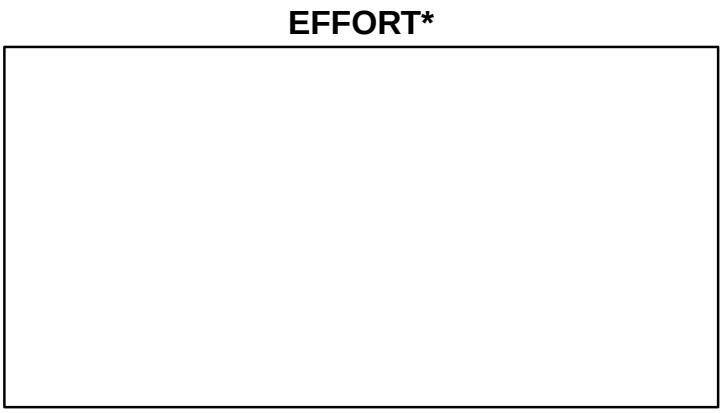
Cabezon Oregon Coast [CABEZORECOAST]

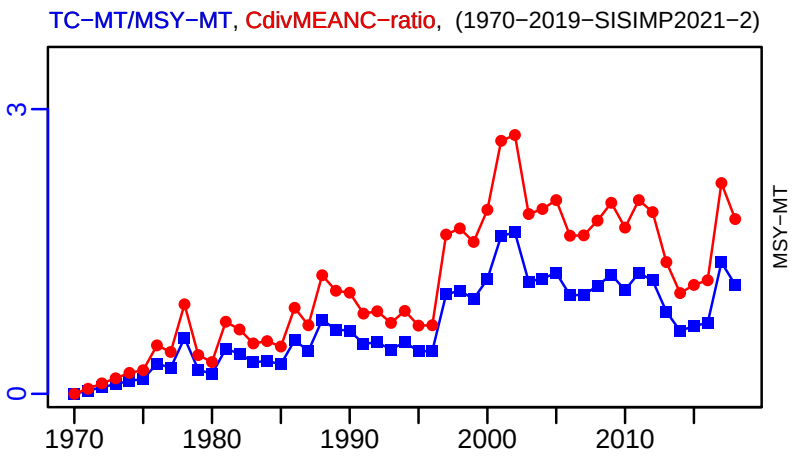


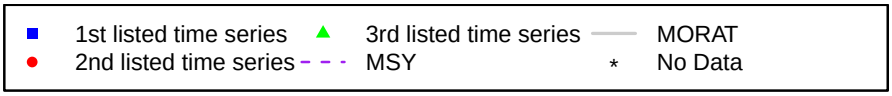












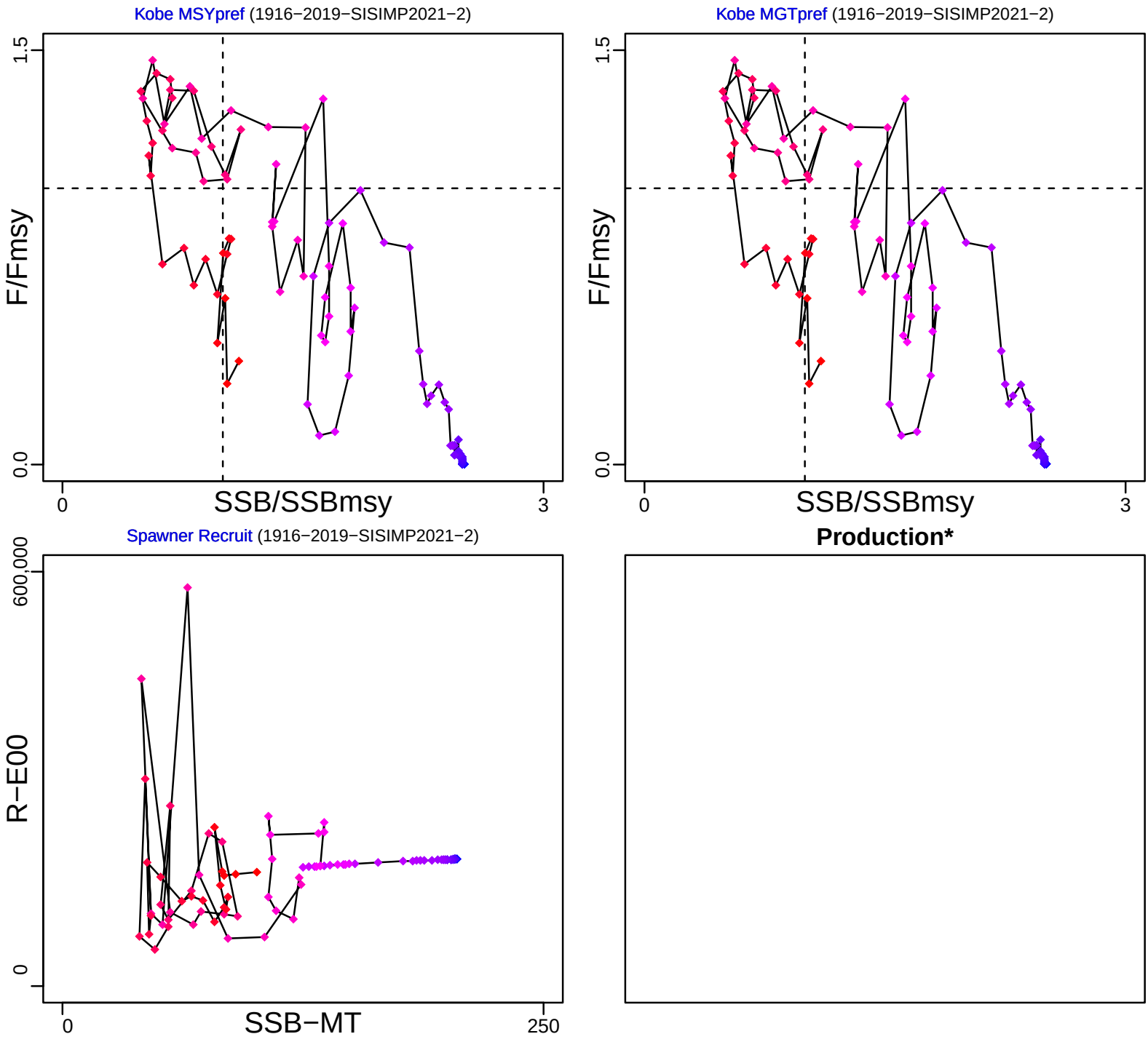
Cabezon Southern California [CABEZSCAL]

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

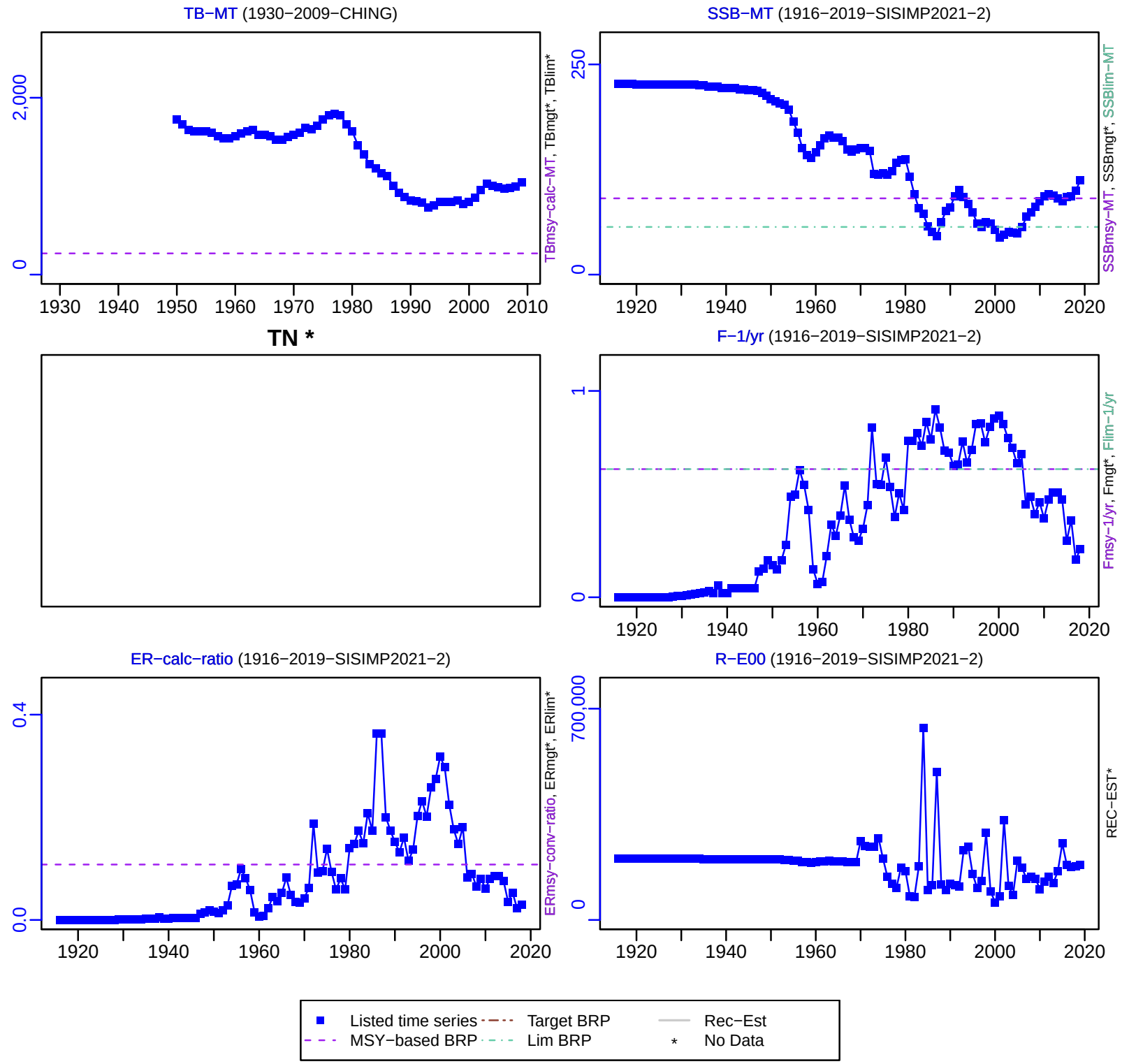
Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	TBmsy-calc-MT	2009	182
SSBmsy	SSBmsy-MT	2019	82
Fmsy	Fmsy-1/yr	2019	0.55
ERmsy	ERmsy-ratio	2009	0.165
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	TB0-MT	2009	470
SSB0	SSB0-MT	2009	263
MSY	MSY-MT	2019	17
M	-	-	-
TBlim	-	-	-
SSBlim	SSBlim-MT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

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

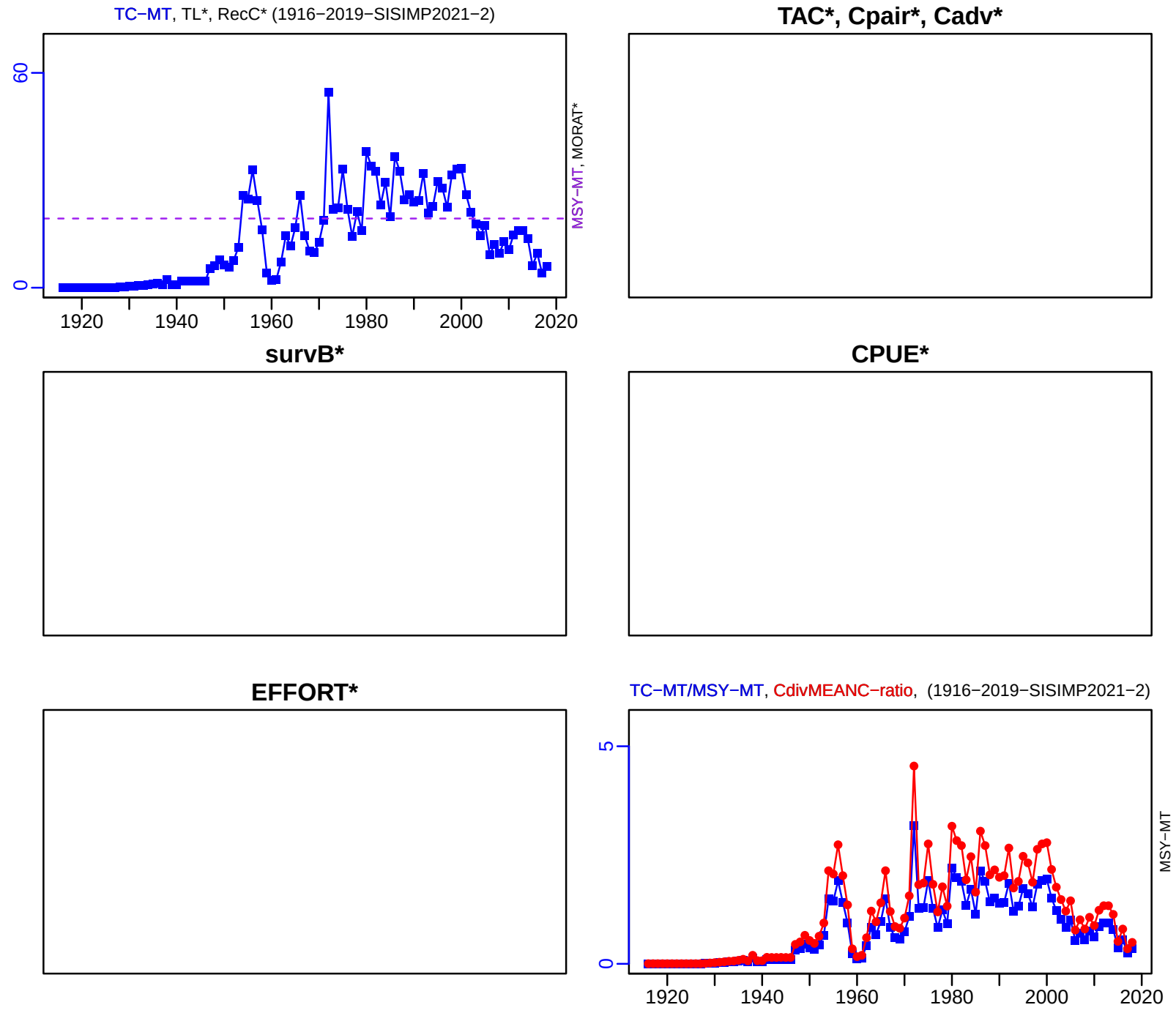
Cabezon Southern California [CABEZSCAL]



Cabezon Southern California [CABEZSCAL]



Cabezon Southern California [CABEZSCAL]



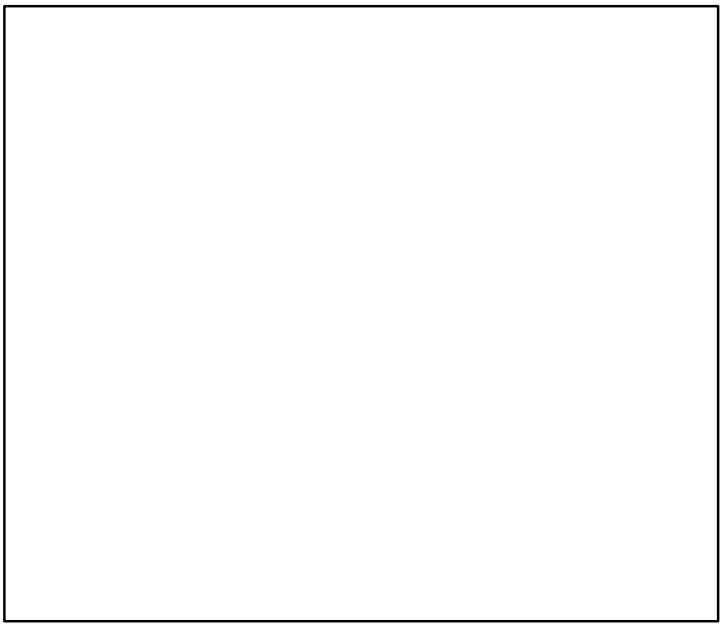
Cabezon Washington [CABEZWASH]

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

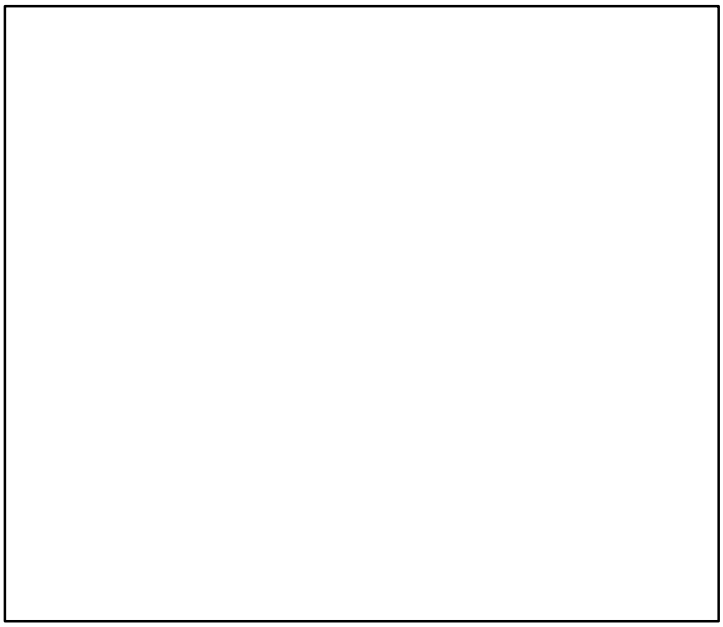
Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

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	-	-	-		

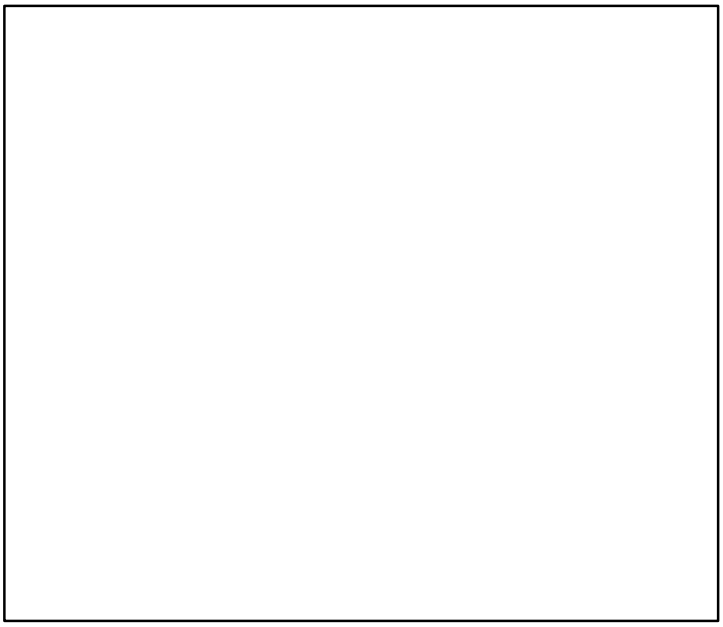
Kobe MSY*



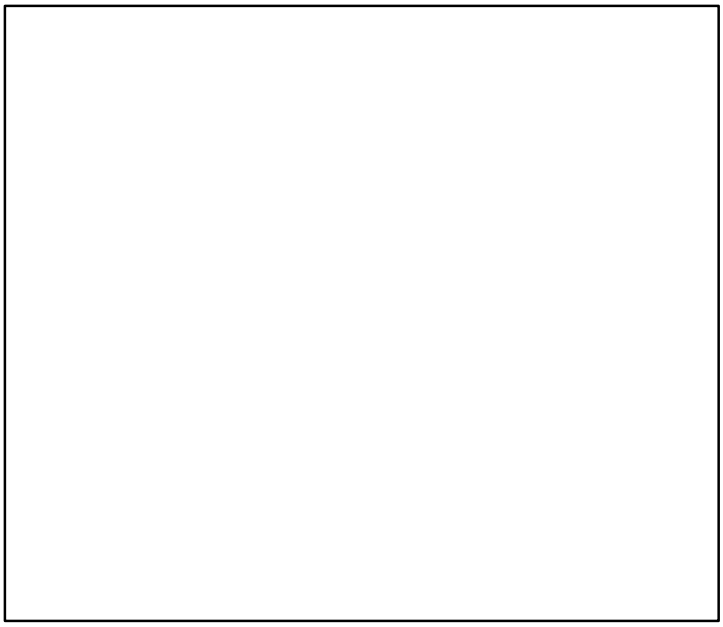
Kobe MGT*



Spawner Recruit*

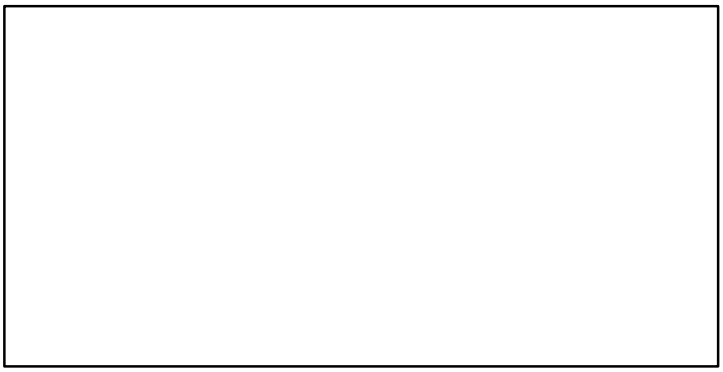


Production*

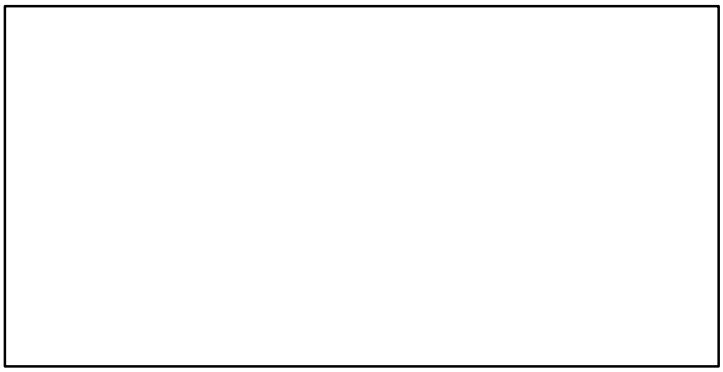


◆ Start Year ◆ End Year * No Data

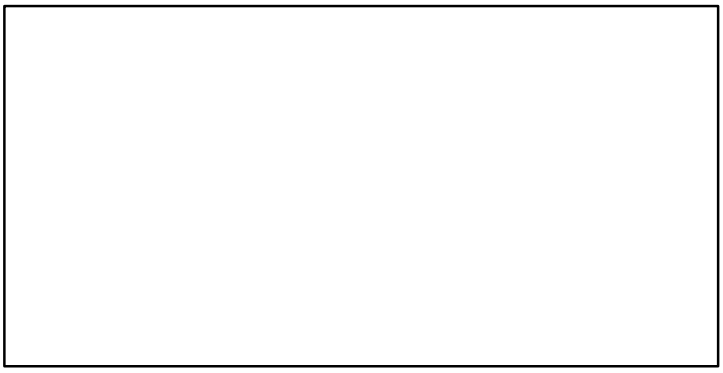
TB*



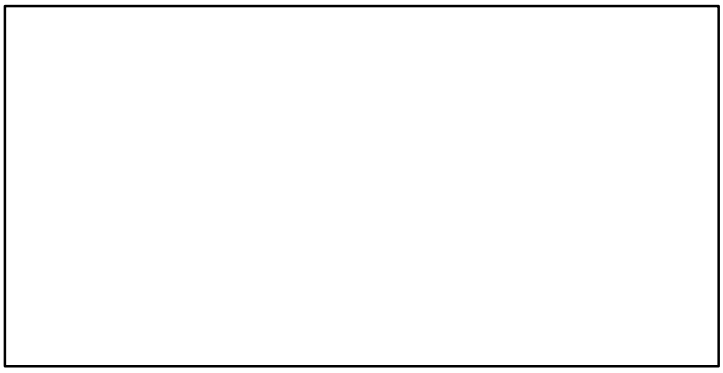
SSB*



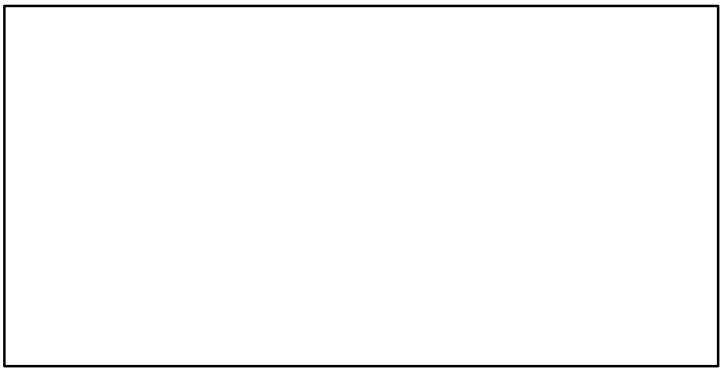
TN *



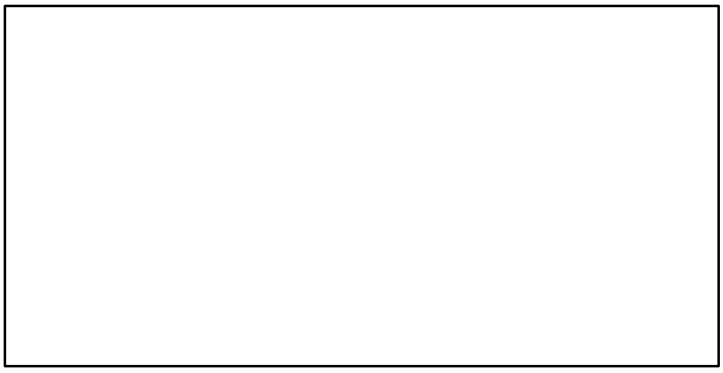
F*

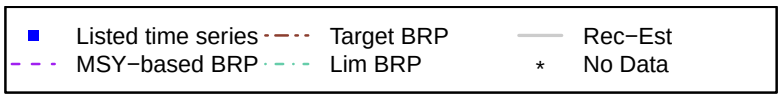


ER*

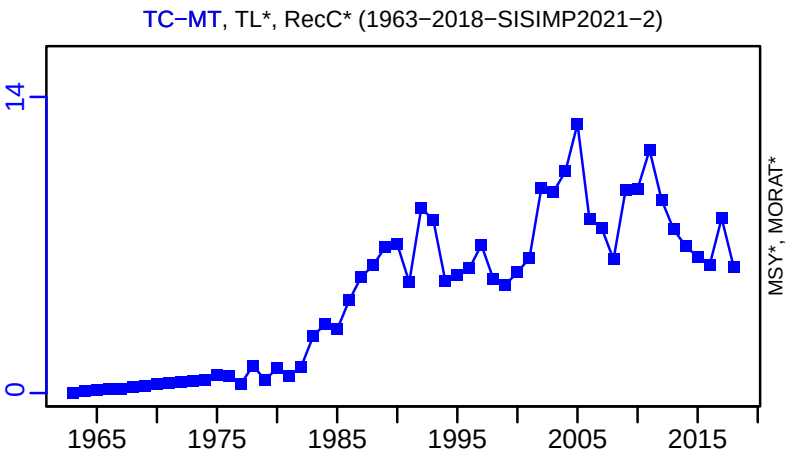


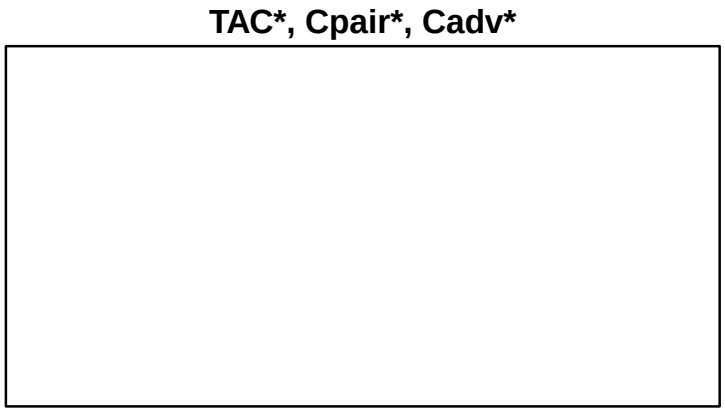
Recruits*

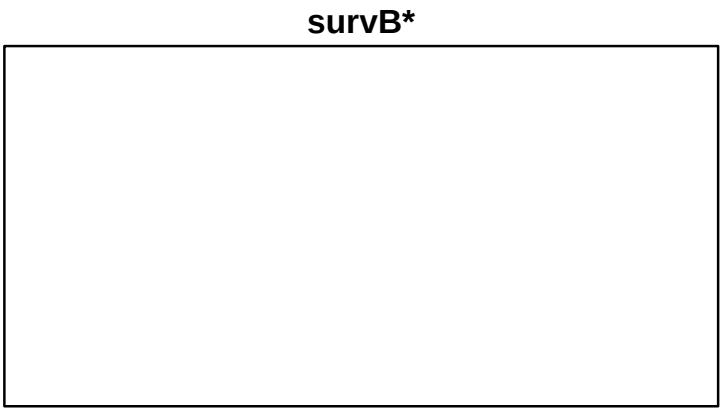


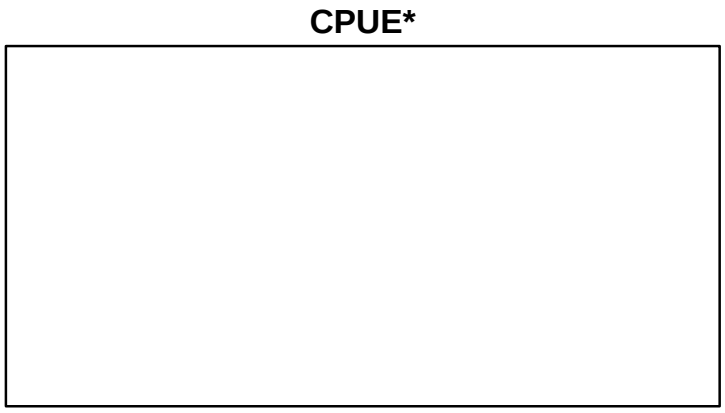


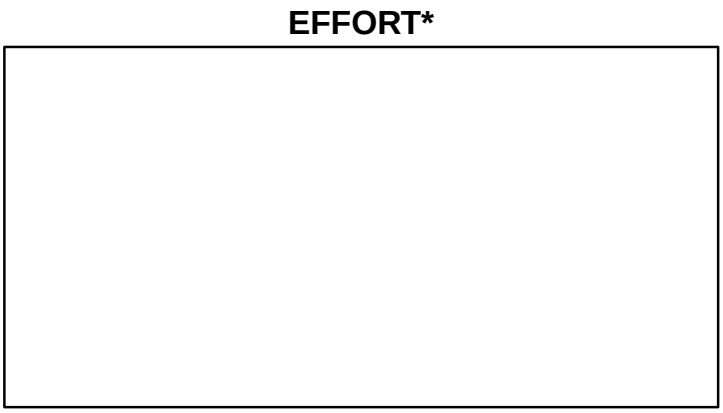
Cabezon Washington [CABEZWASH]

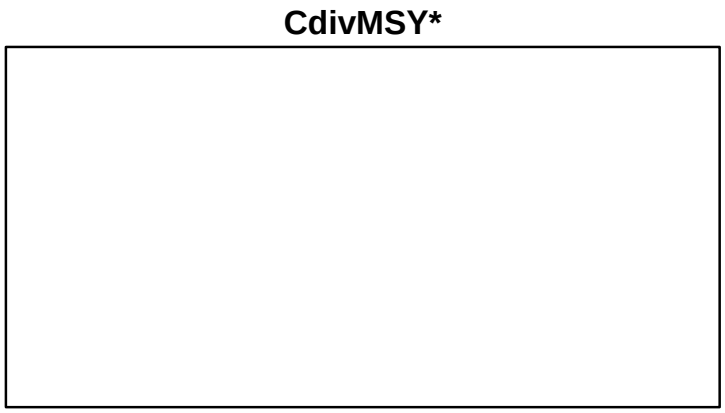


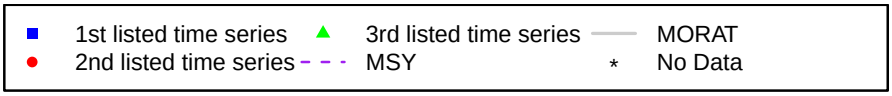












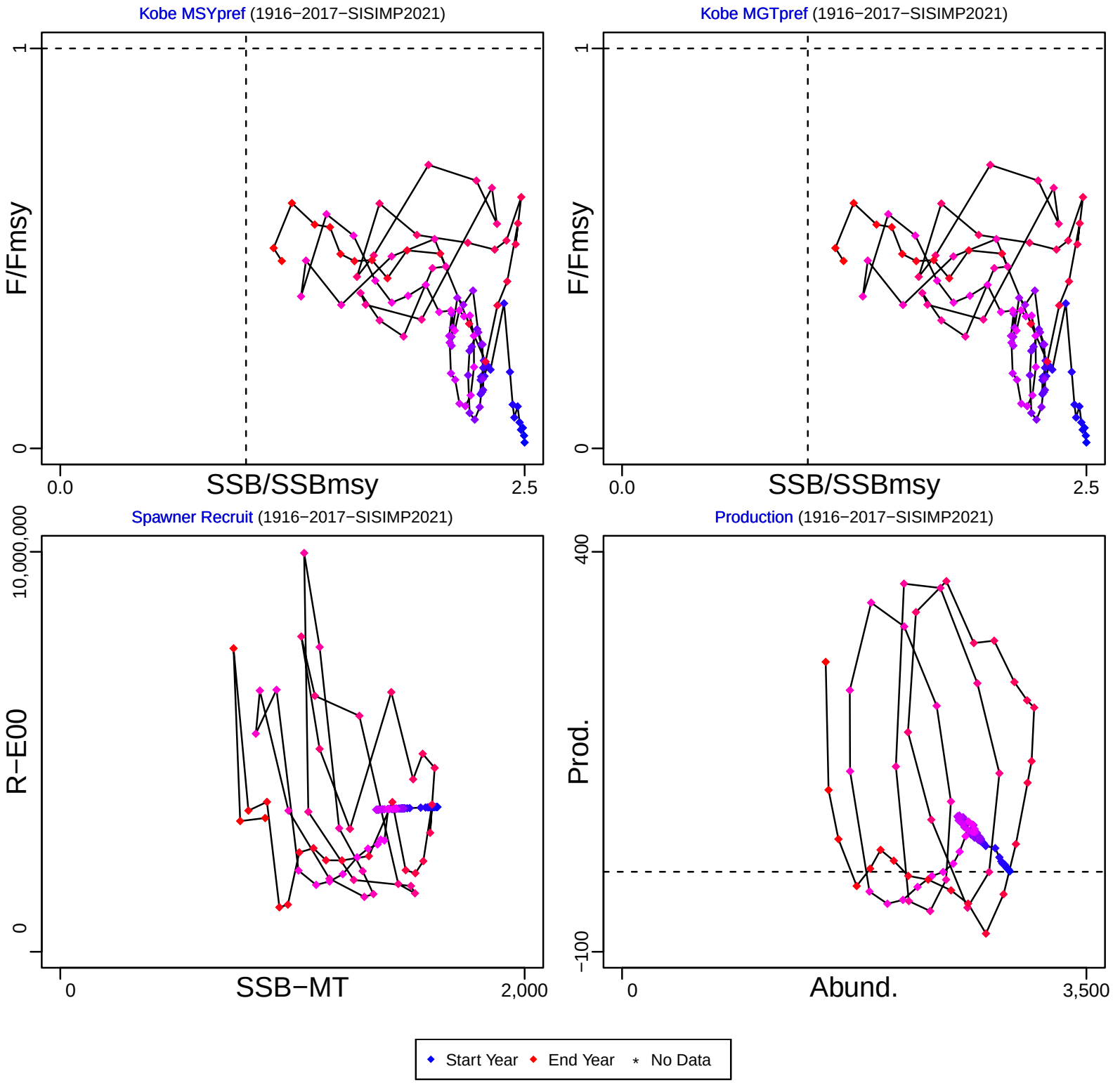
California scorpionfish Southern California [CALSCORPSCAL]

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

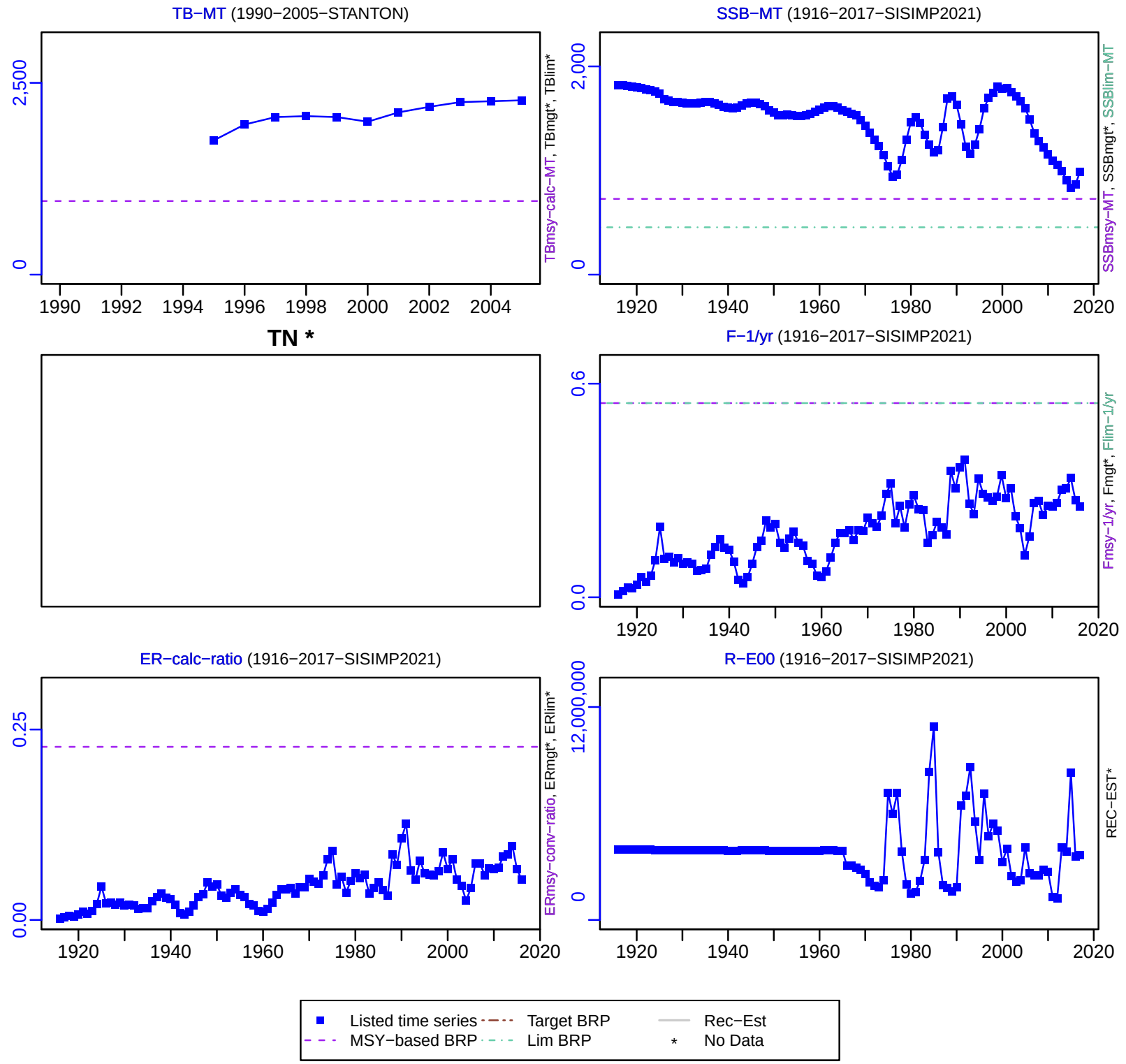
Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	TBmsy-calc-MT	2005	789
SSBmsy	SSBmsy-MT	2017	650
Fmsy	Fmsy-1/yr	2017	0.5
ERmsy	ERmsy-ratio	2005	0.161
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	TB0-MT	2005	2007
SSB0	SSB0-MT	2005	1024
MSY	MSY-MT	2017	247
M	M-1/yr	2005	0.25
TBlim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

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

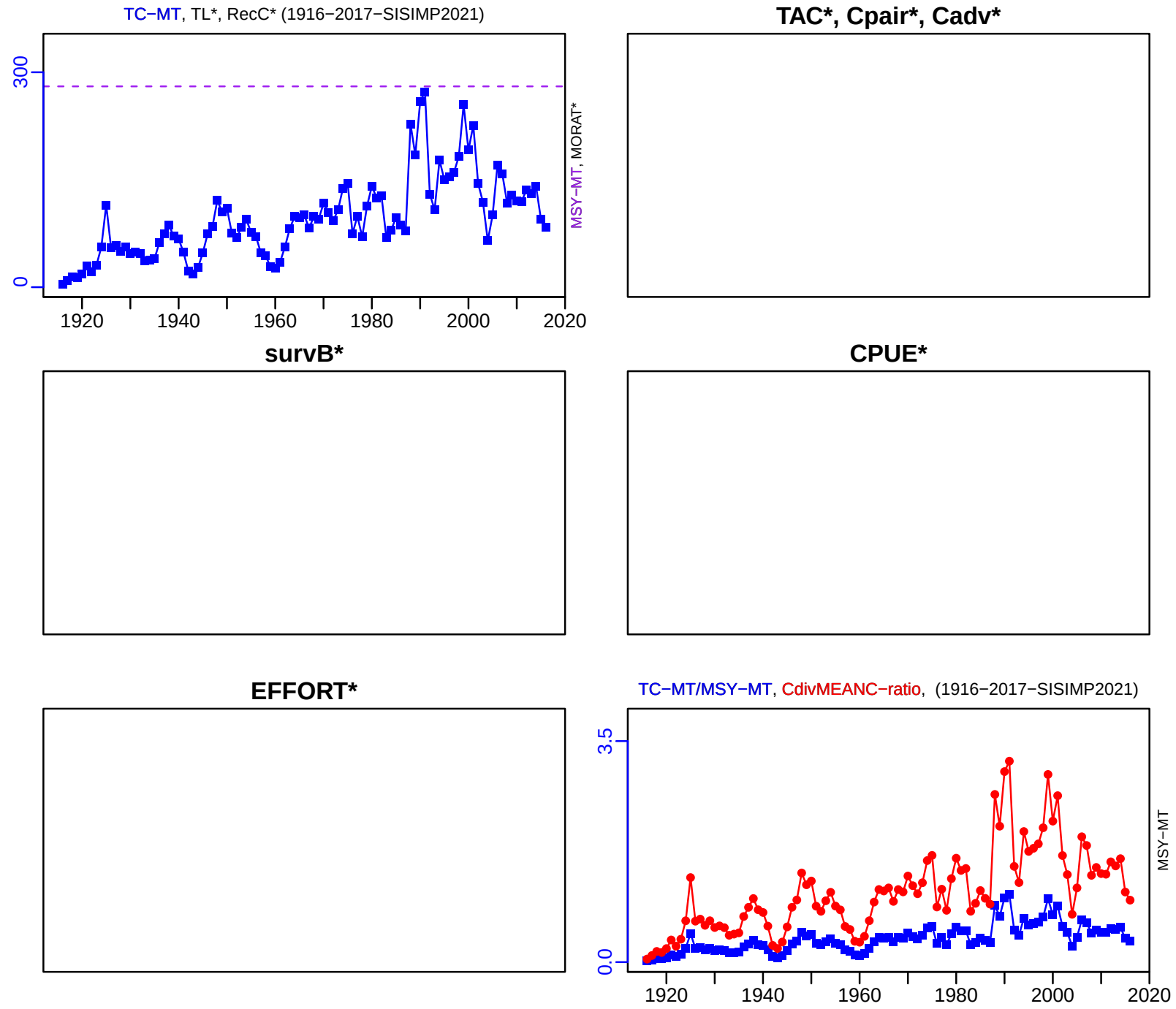
California scorpionfish Southern California [CALSCORPSCAL]



California scorpionfish Southern California [CALSCORPSCAL]



California scorpionfish Southern California [CALSCORPSCAL]



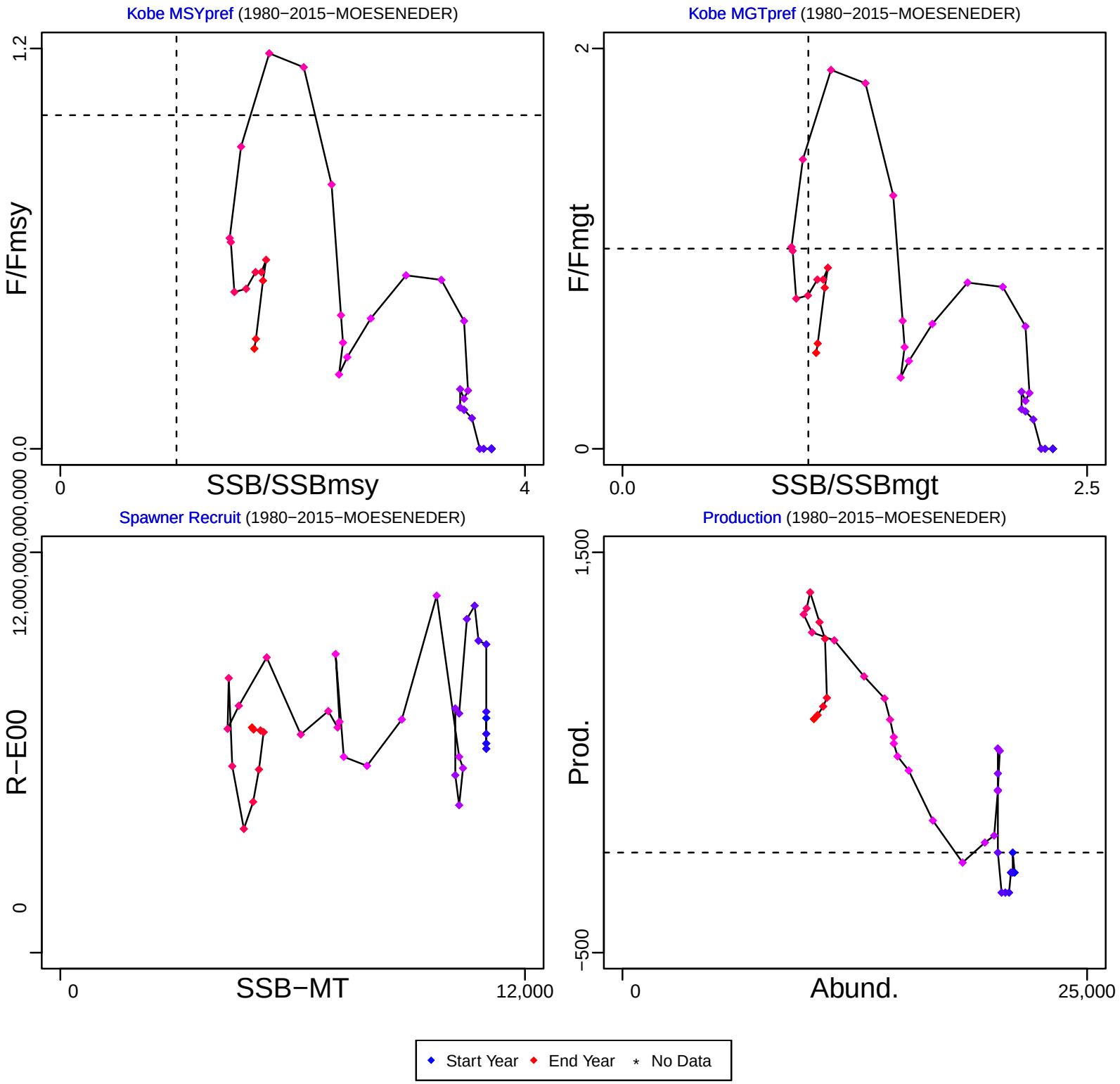
Deepwater flathead Southeast Australia [DEEPFLATHEADSE]

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

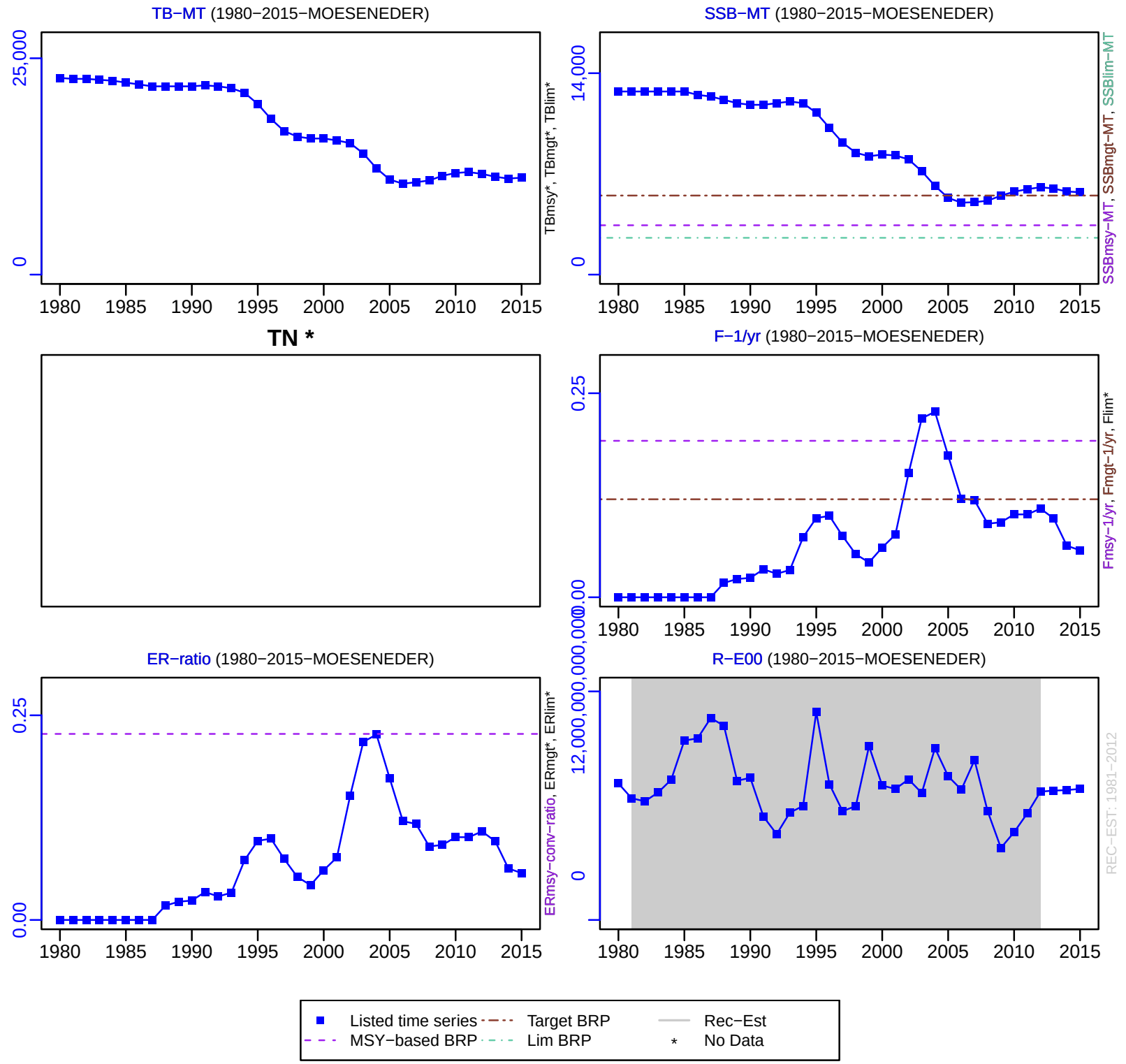
Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2015	2963
Fmsy	Fmsy-1/yr	2015	0.168
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2015	4750
Fmgt	Fmgt-1/yr	2015	0.105
ERmgt	-	-	-
TB0	TB0-MT	2015	21,058
SSB0	SSB0-MT	2015	11,046
MSY	MSY-MT	2015	1200
M	M-1/yr	2015	0.191
TBlim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

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

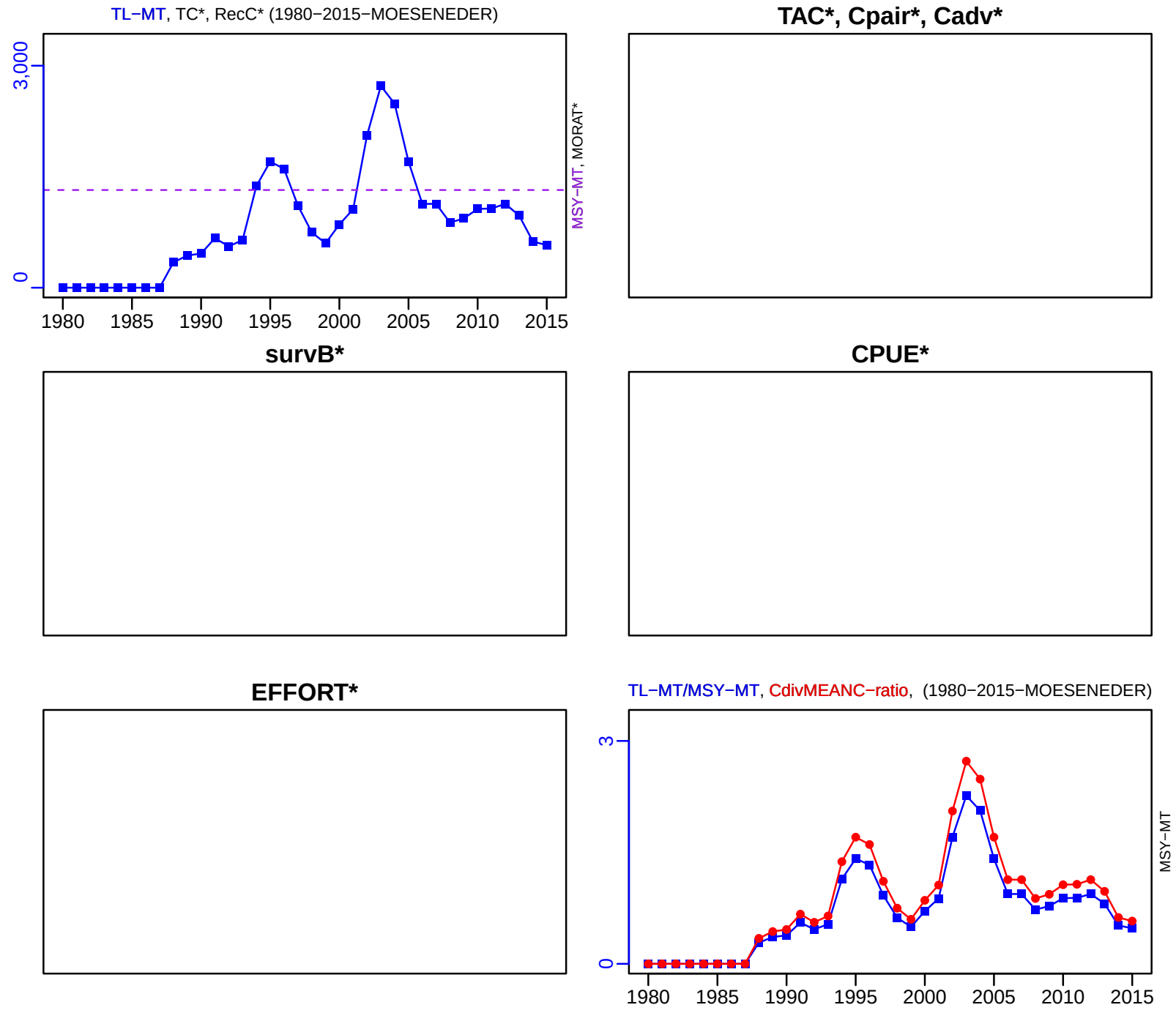
Deepwater flathead Southeast Australia [DEEPFLATHEADSE]



Deepwater flathead Southeast Australia [DEEPFLATHEADSE]



Deepwater flathead Southeast Australia [DEEPFLATHEADSE]



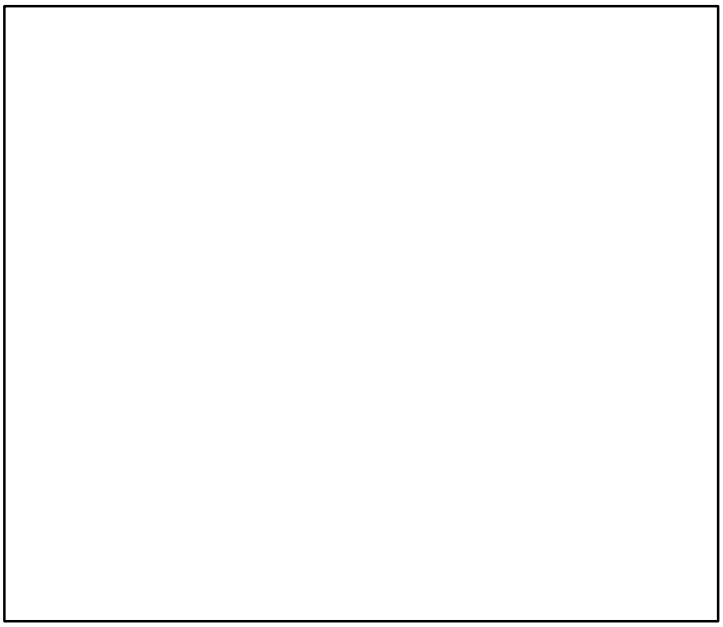
Grey gurnard ICES 3a-4-7d [GGURNIIIa-IV-VIId]

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

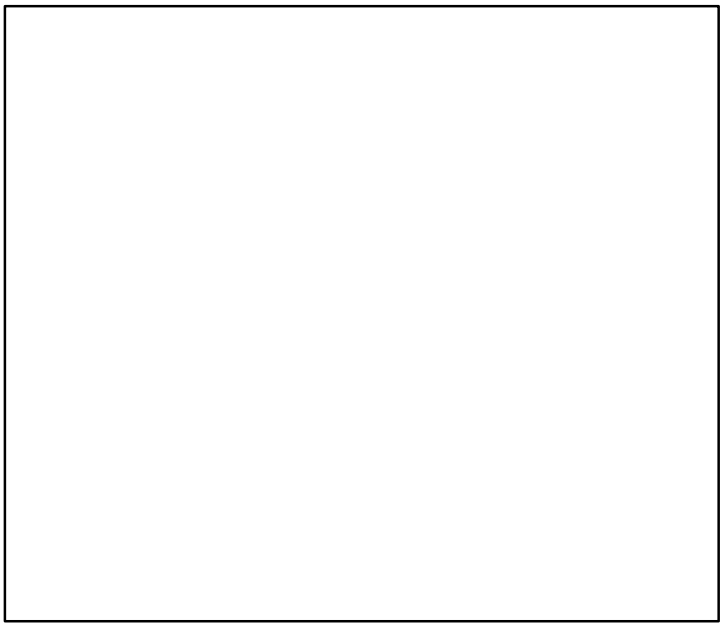
Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

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	-	-	-		

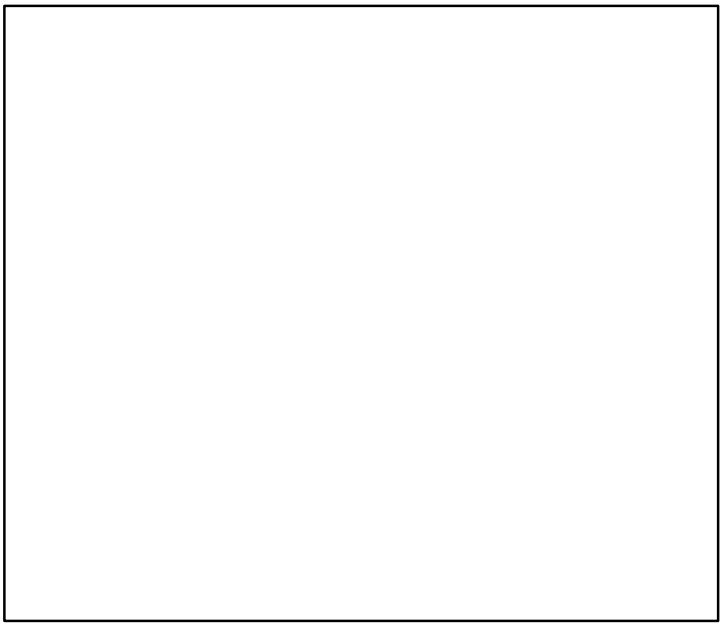
Kobe MSY*



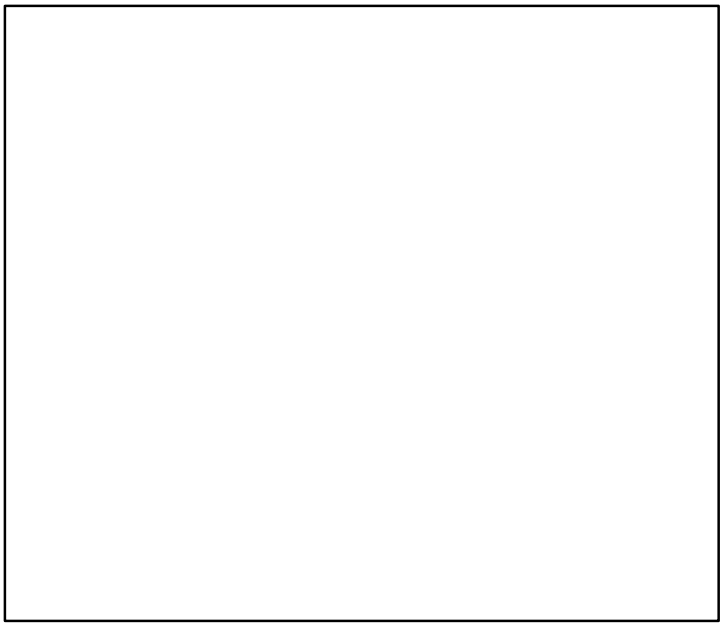
Kobe MGT*



Spawner Recruit*

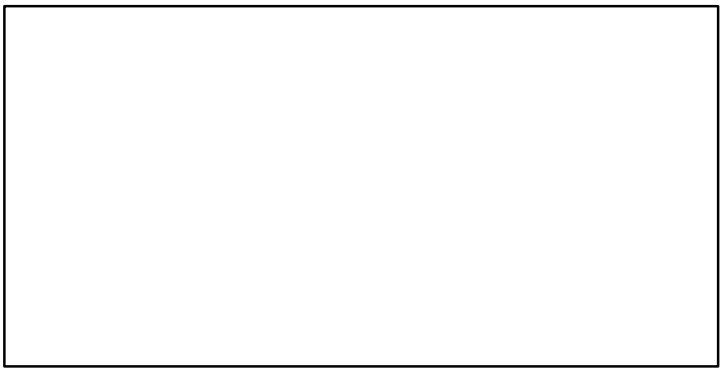


Production*

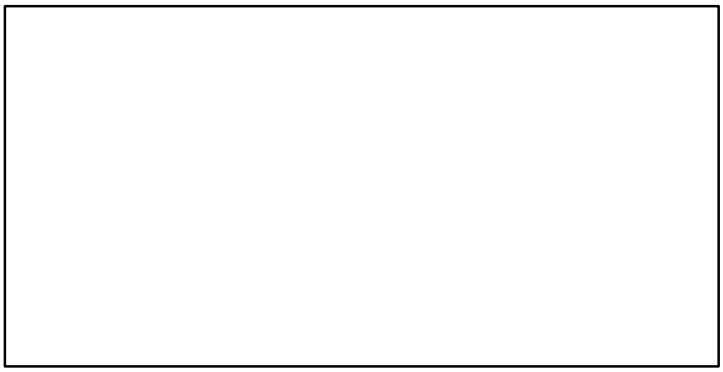


◆ Start Year ◆ End Year * No Data

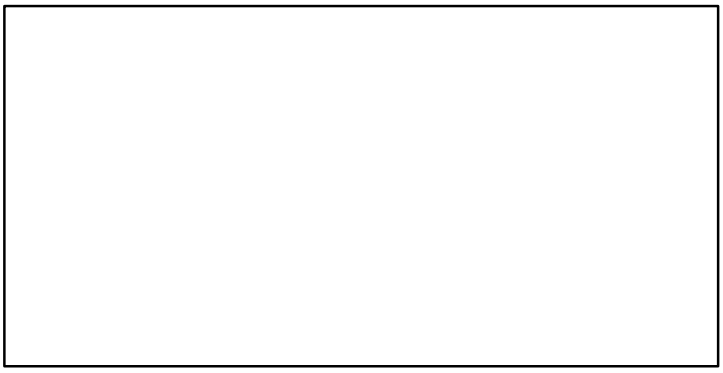
TB*



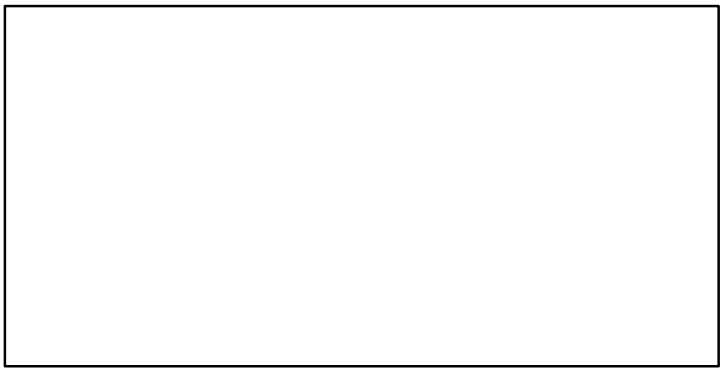
SSB*



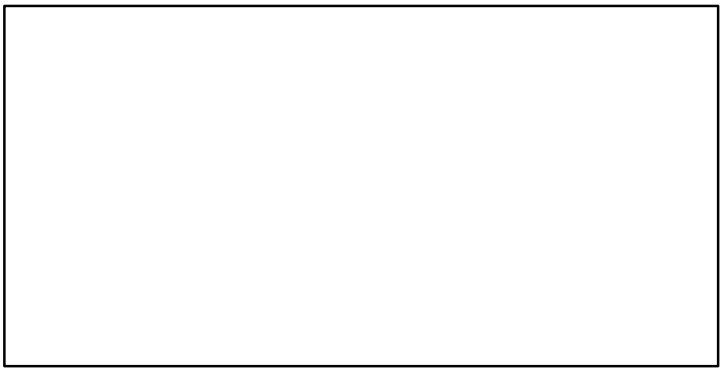
TN *



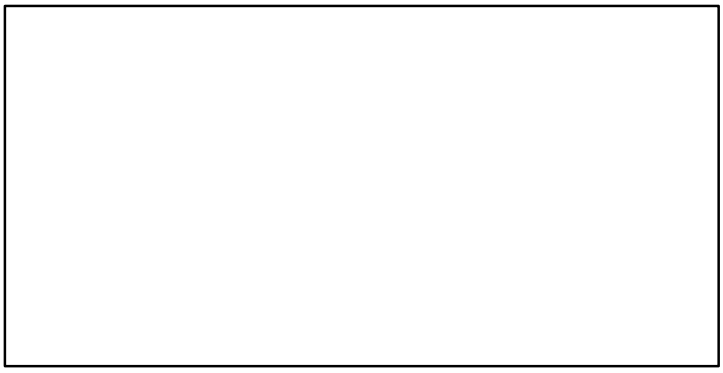
F*

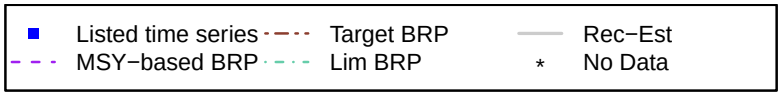


ER*

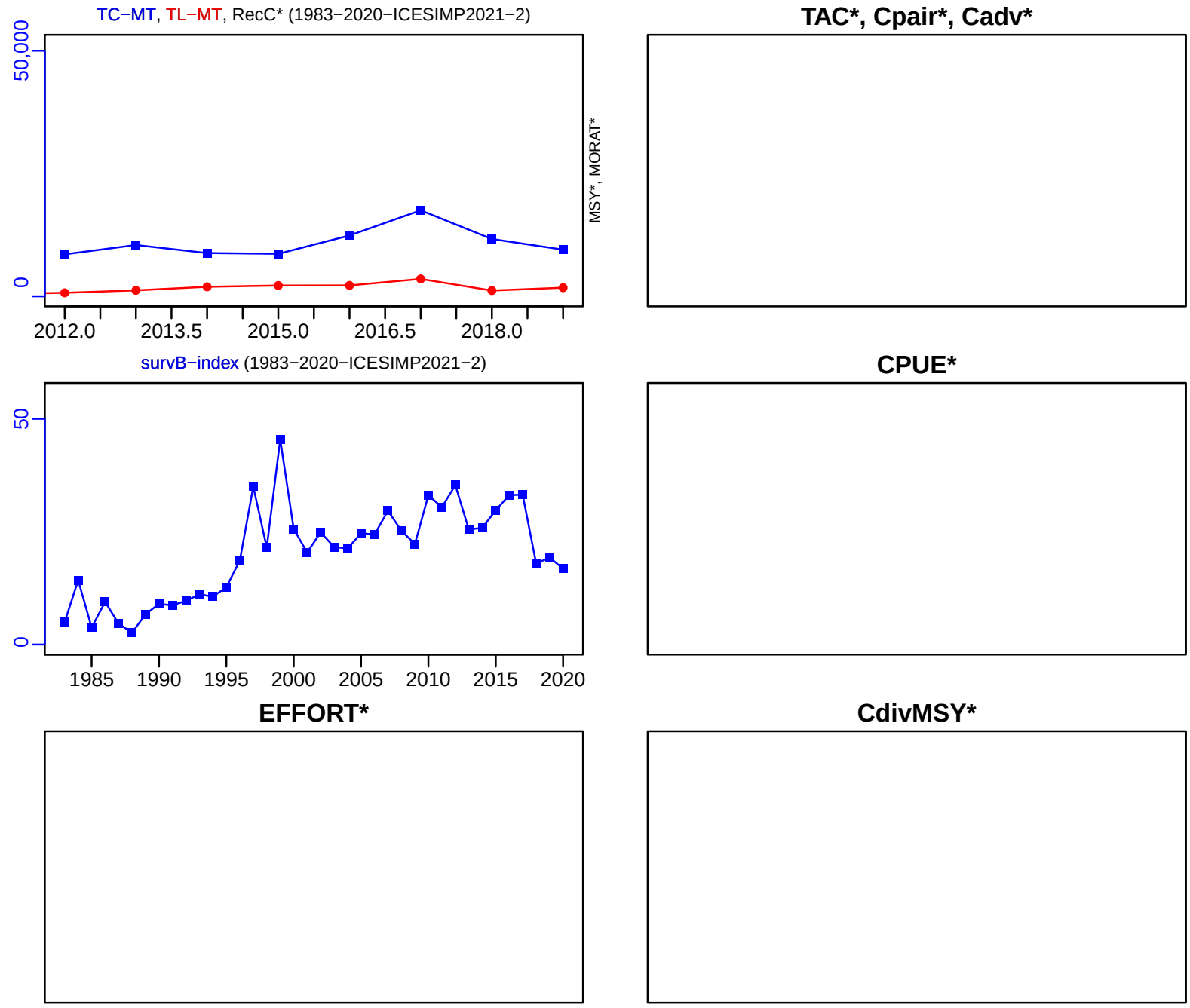


Recruits*





Grey gurnard ICES 3a−4−7d [GGURNIIIa−IV−VIId]



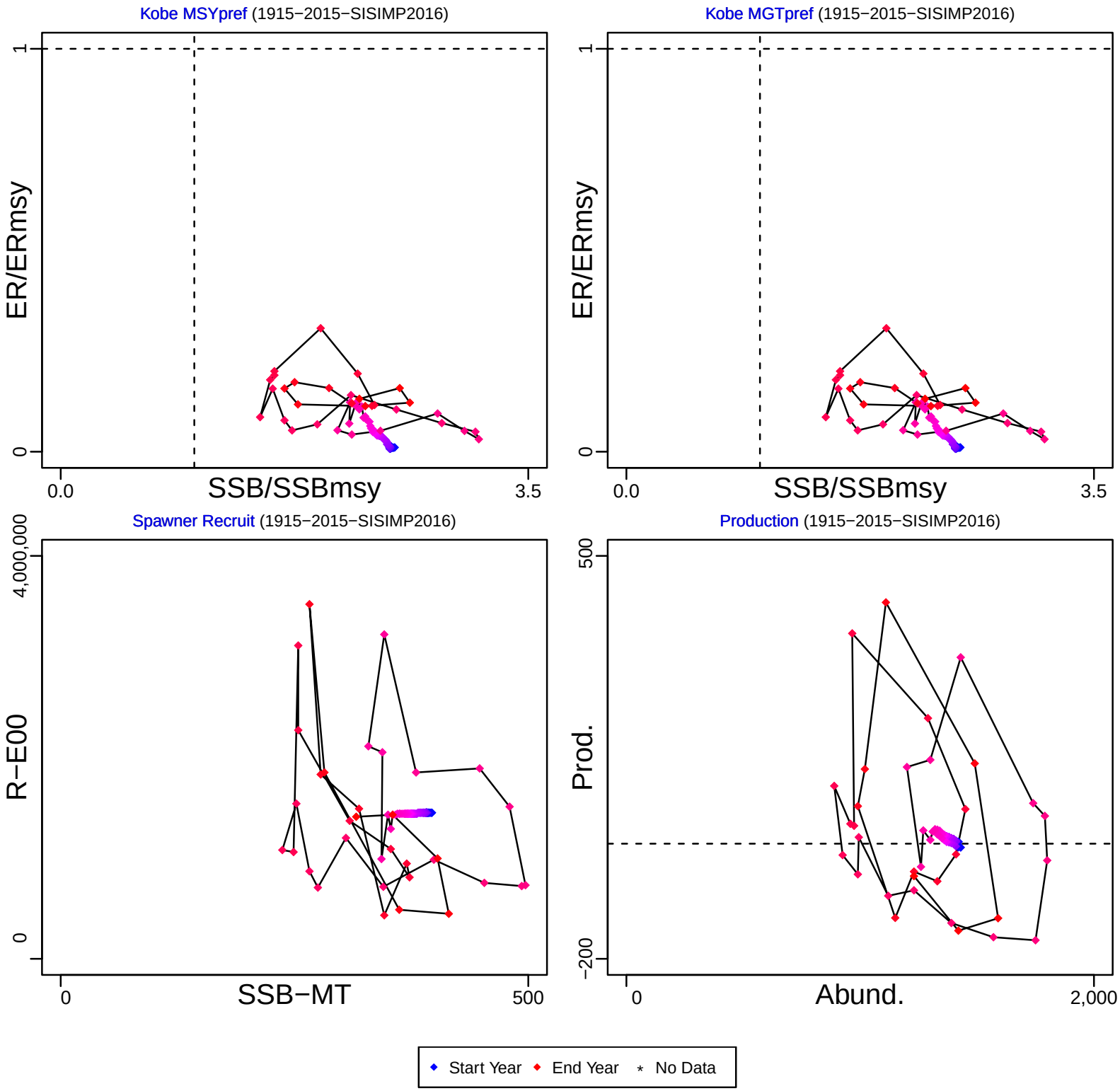
Kelp greenling Oregon Coast [KELPGREENLINGORECOAST]

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

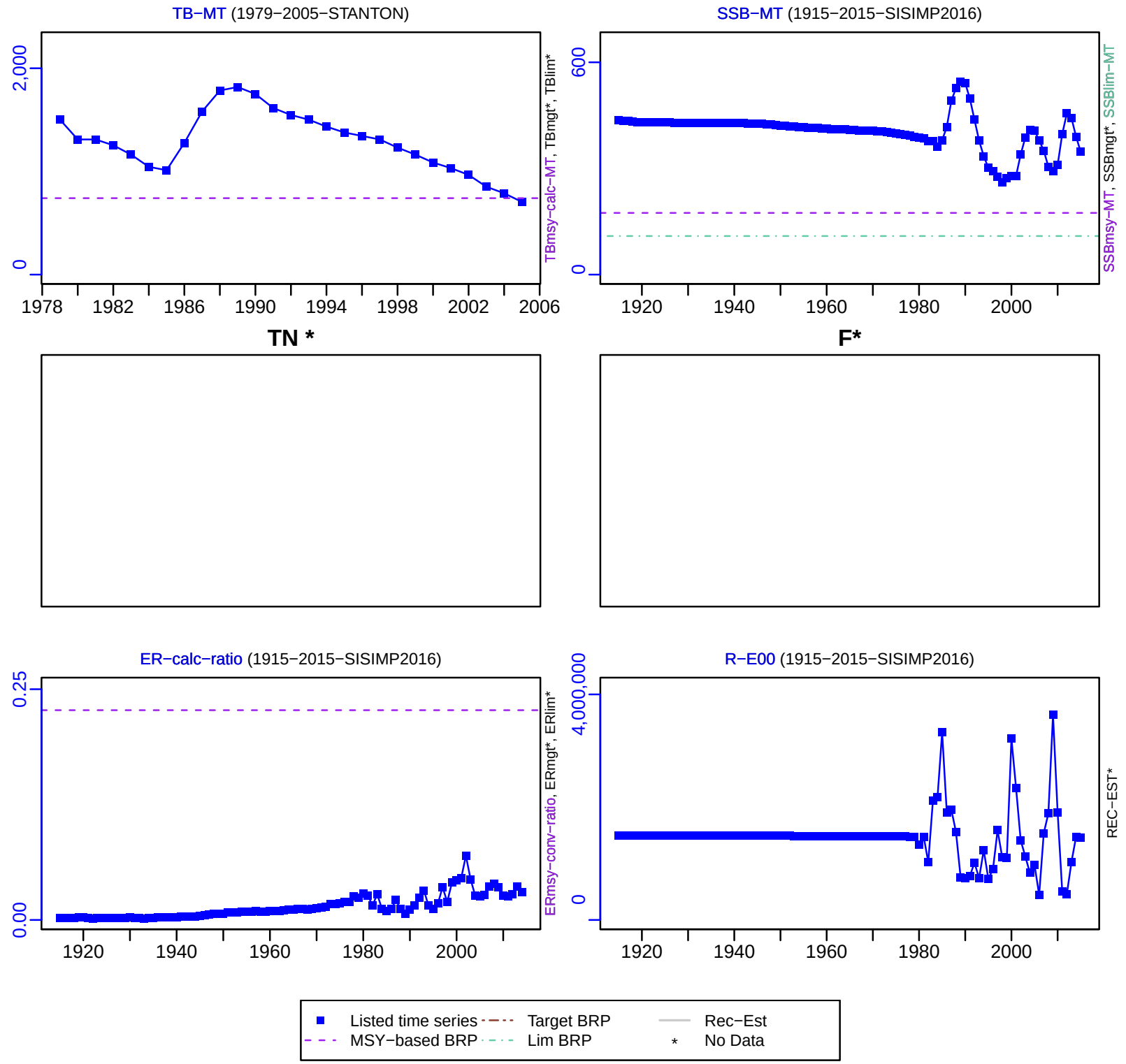
Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	TBmsy-calc-MT	2005	656
SSBmsy	SSBmsy-MT	2015	159
Fmsy	-	-	-
ERmsy	ERmsy-pr-ratio	2005	0.125
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	TB0-MT	2005	1295
SSB0	SSB0-MT	2005	321
MSY	MSY-MT	2015	130
M	M-1/yr	2005	0.26
TBlim	-	-	-
SSBlim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

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

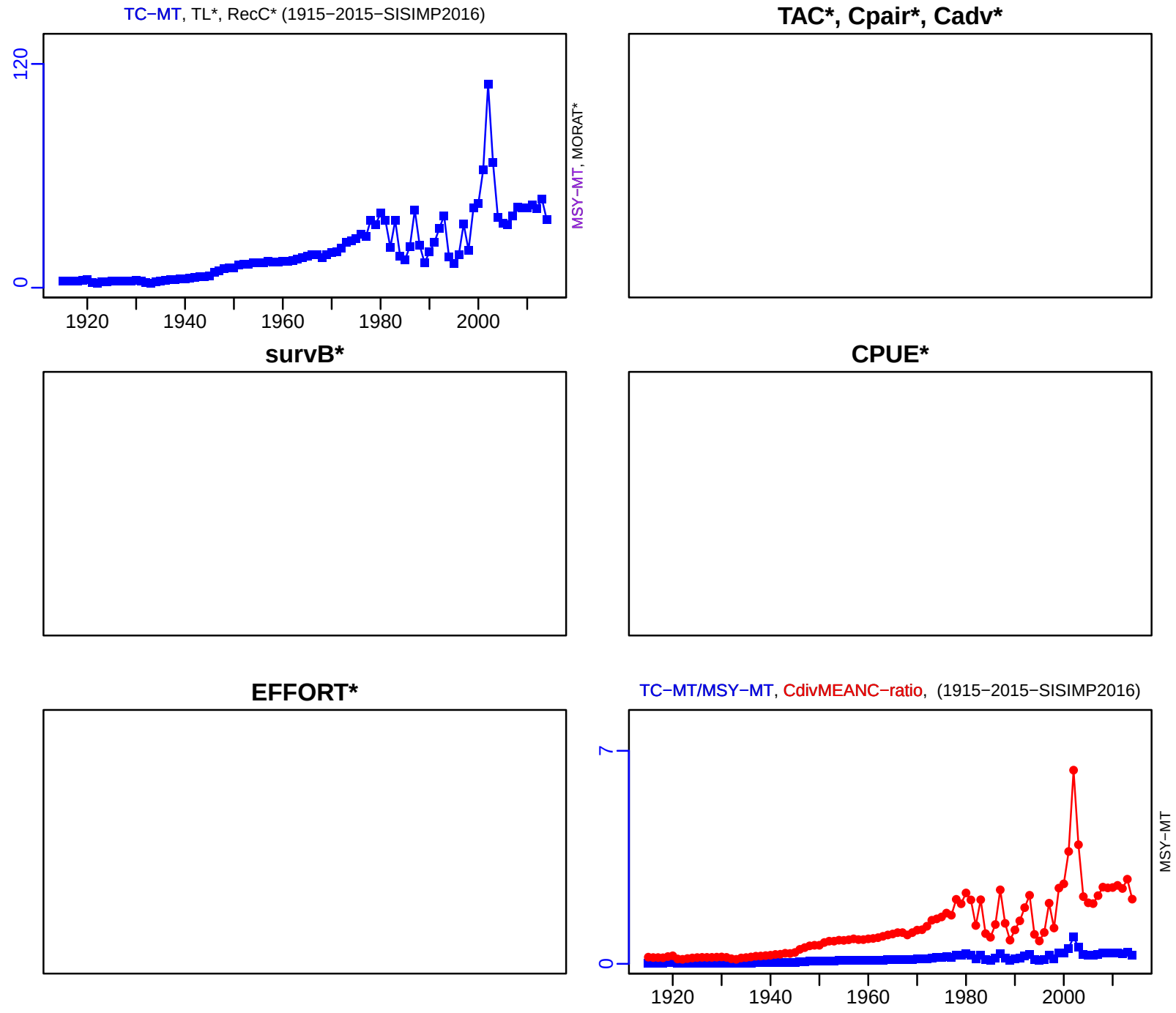
Kelp greenling Oregon Coast [KELPGREENLINGORECOAST]



Kelp greenling Oregon Coast [KELPGREENLINGORECOAST]



Kelp greenling Oregon Coast [KELPGREENLINGORECOAST]



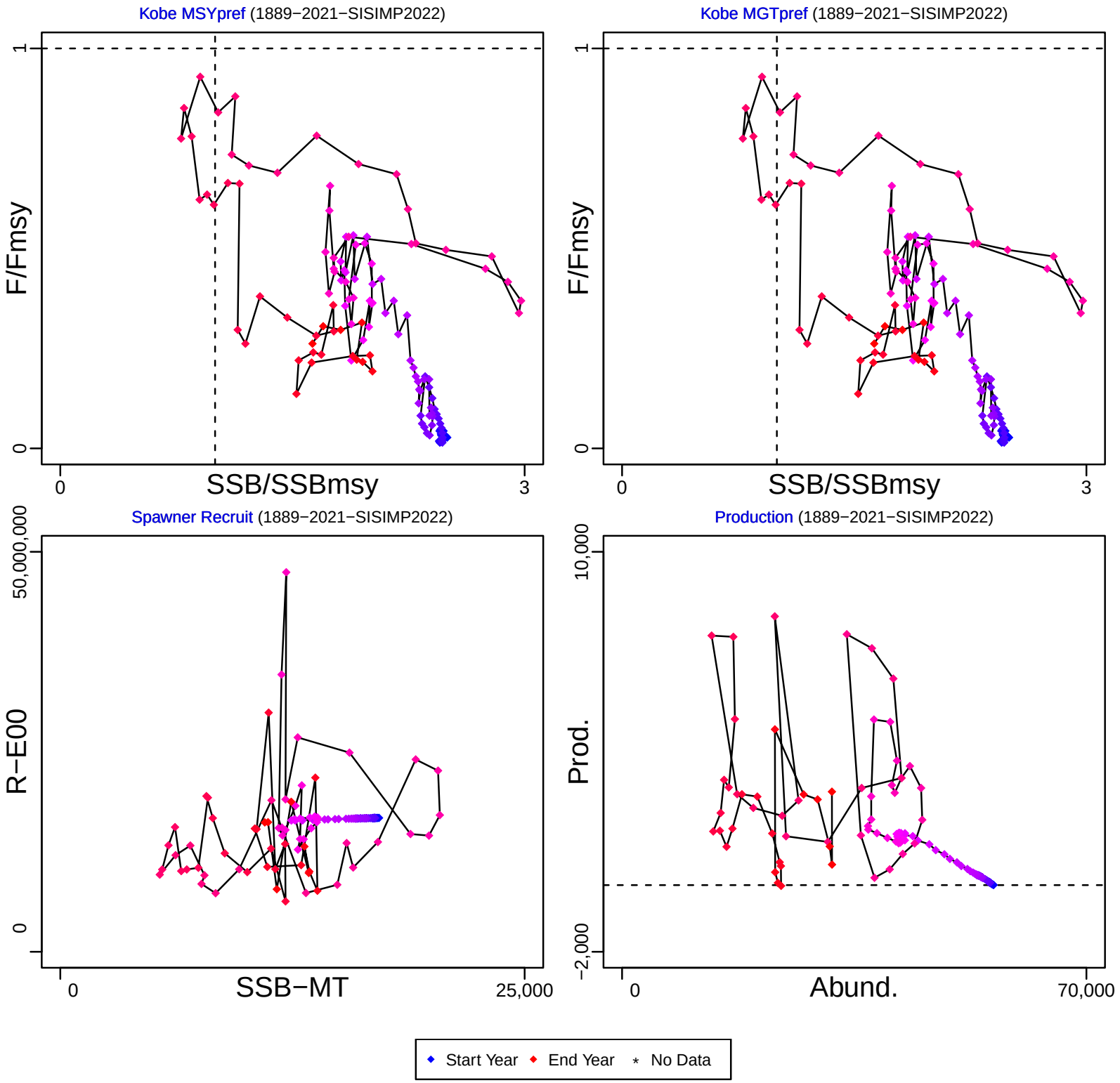
Lingcod Northern Pacific Coast [LINGCODNPCOAST]

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

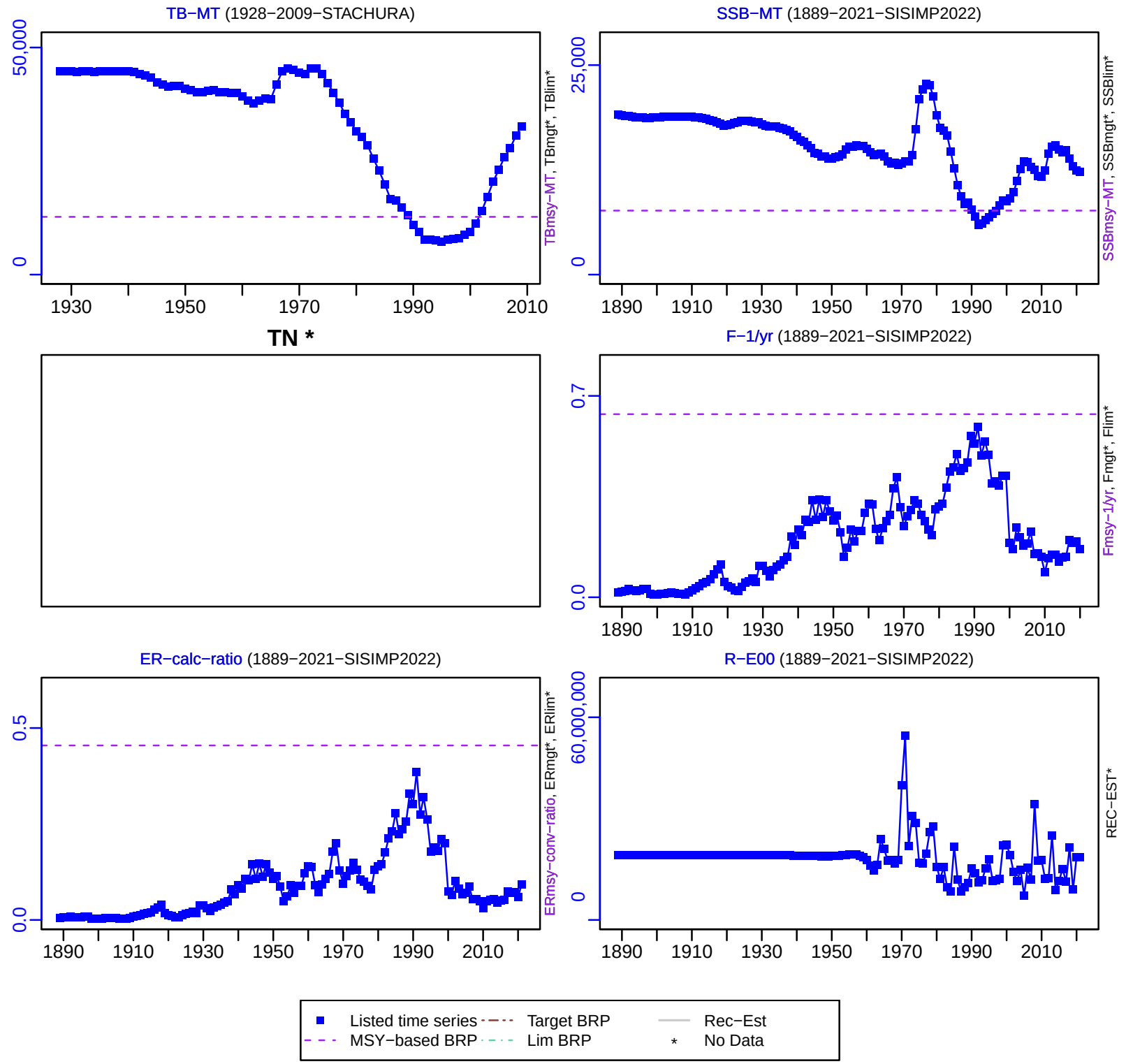
Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	TBmsy-MT	2009	12,386
SSBmsy	SSBmsy-MT	2021	6864
Fmsy	Fmsy-1/yr	2021	0.55
ERmsy	ERmsy-ratio	2009	0.14
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	TB0-MT	2009	44,536
SSB0	SSB0-MT	2009	33,075
MSY	MSY-MT	2021	3708
M	M-1/yr	2009	0.18
TBlim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

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

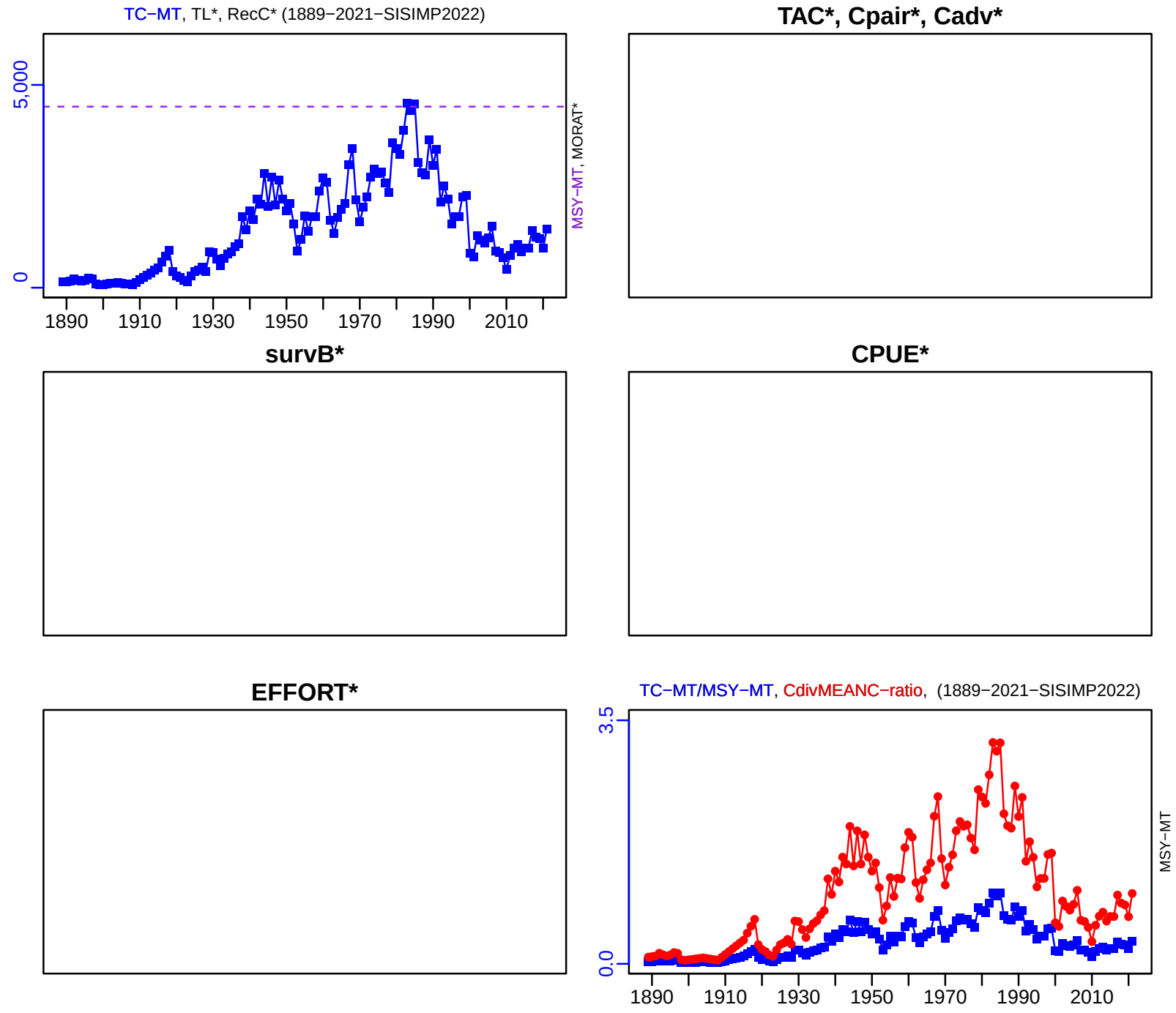
Lingcod Northern Pacific Coast [LINGCODNPCOAST]



Lingcod Northern Pacific Coast [LINGCODNPCOAST]



Lingcod Northern Pacific Coast [LINGCODNPCOAST]



Lingcod Strait of Georgia [LINGCODSOG]

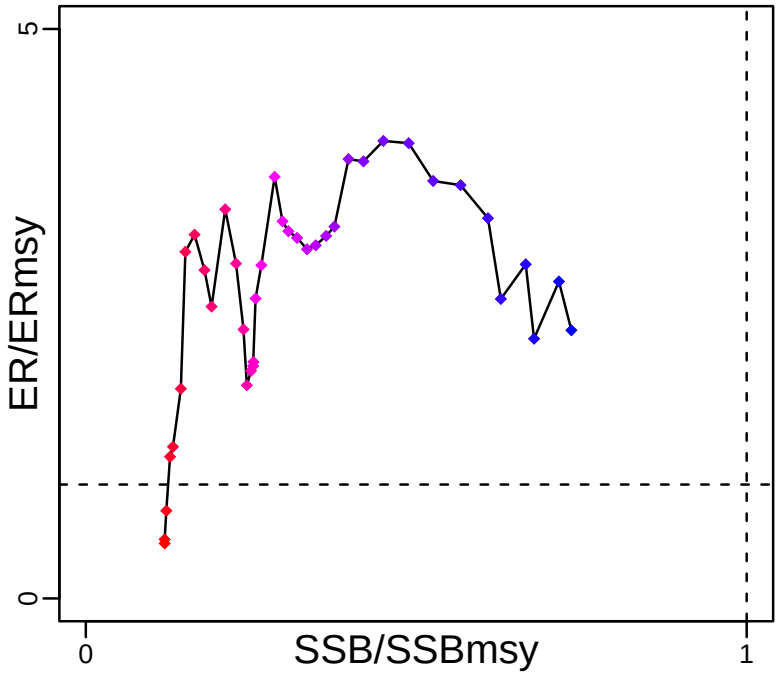
Metadata	
Scientific Name	Ophiodon elongatus
Current Assess ID	DFO-PAC-LINGCODSOG-1927-2014-OSGOOD
Area	Strait of Georgia
Management Authority	Department of Fisheries and Oceans, Canada national management
Assessor	Department of Fisheries and Oceans - Pacific Region
Asmts in RAM	2014

Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2014	15,924
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2014	12,739
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2014	763
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

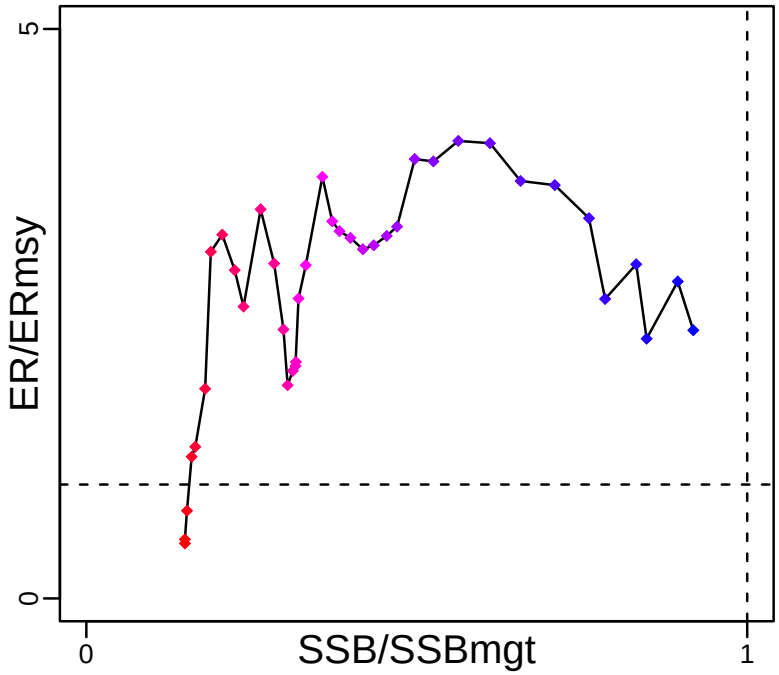
Time Series					
Type	**ID**	**Asmt Year**	**Curr Value**	**Sex**	**Age**
TB	-	-	-	-	-
SSB	SSB-MT	2014	7120	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2014	44		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2014	0.447		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2014	0.559		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Lingcod Strait of Georgia [LINGCODSOG]

Kobe MSYpref (1927−2014−OSGOOD)



Kobe MGTpref (1927−2014−OSGOOD)

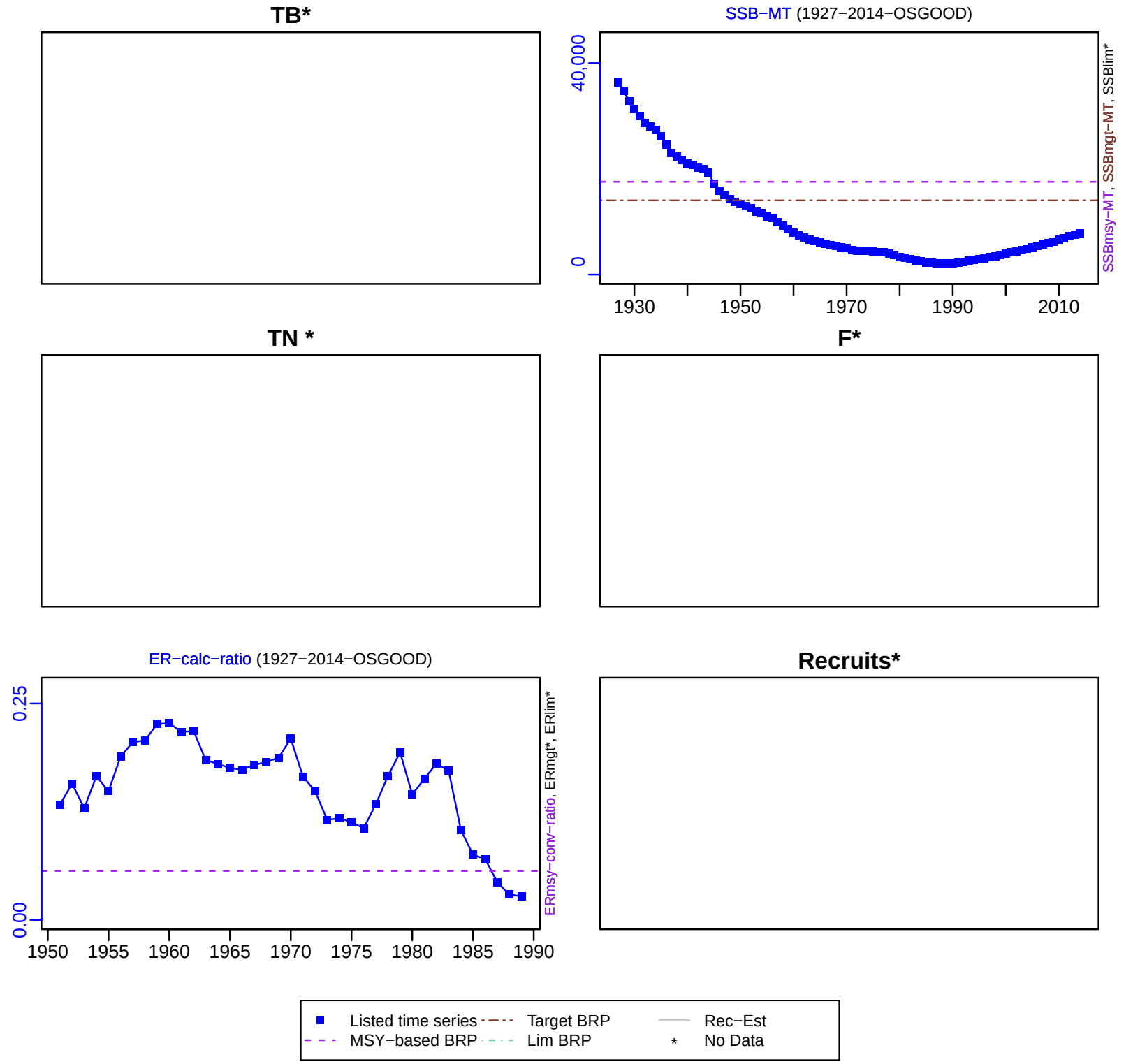


Spawner Recruit*

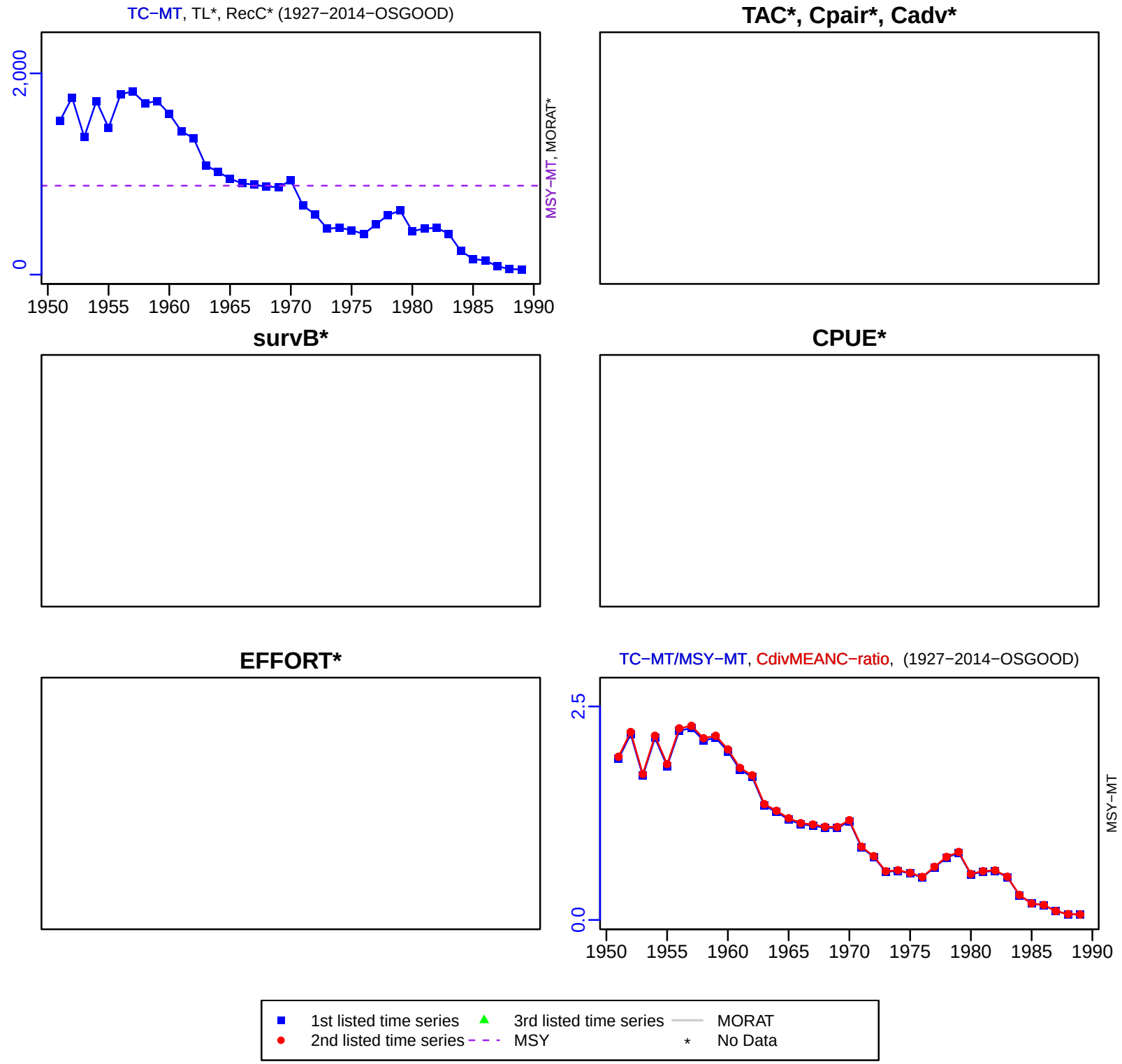
Production*

Start Year End Year No Data

Lingcod Strait of Georgia [LINGCODSOG]



Lingcod Strait of Georgia [LINGCODSOG]



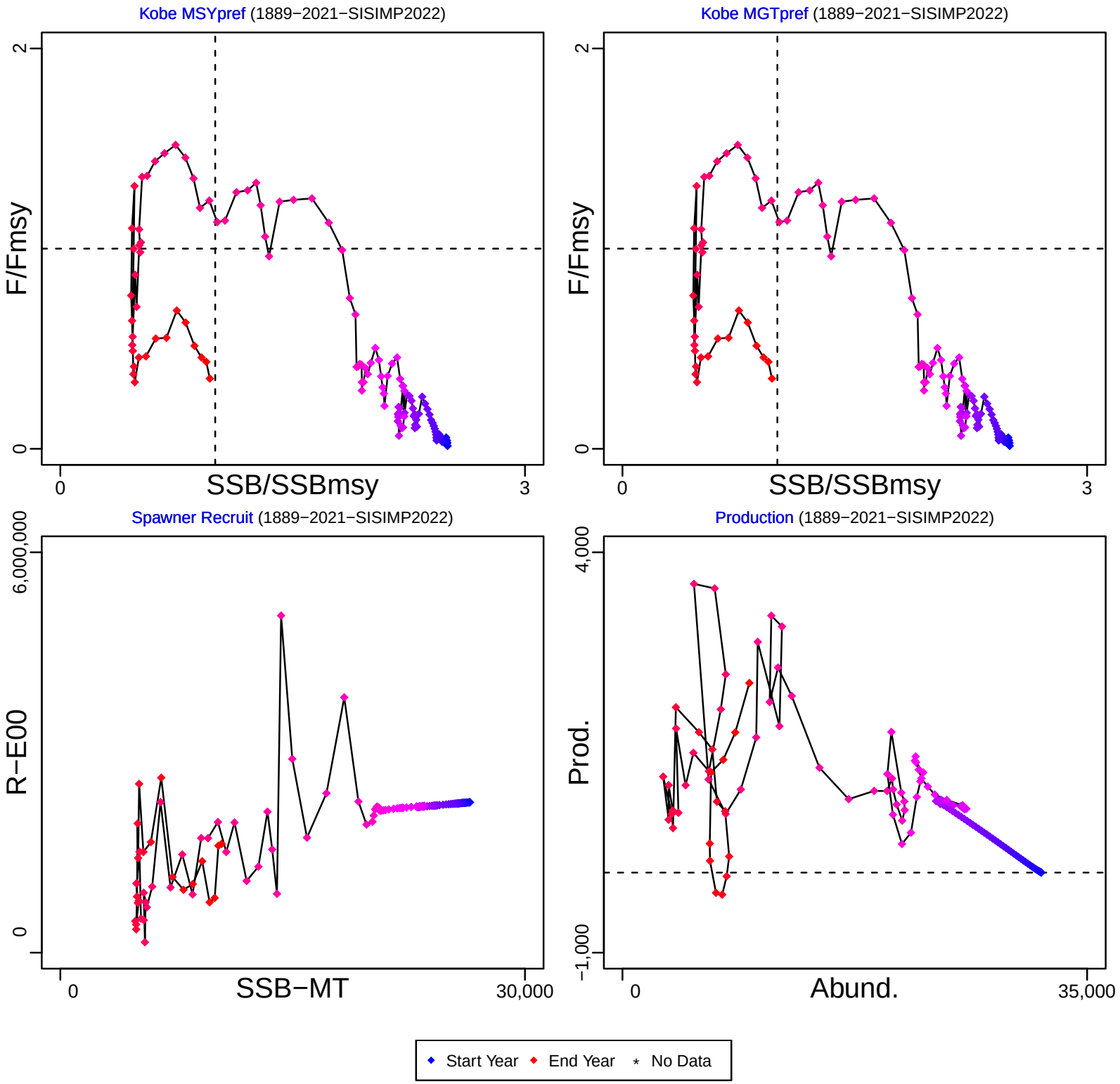
Lingcod Southern Pacific Coast [LINGCODSPCOAST]

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

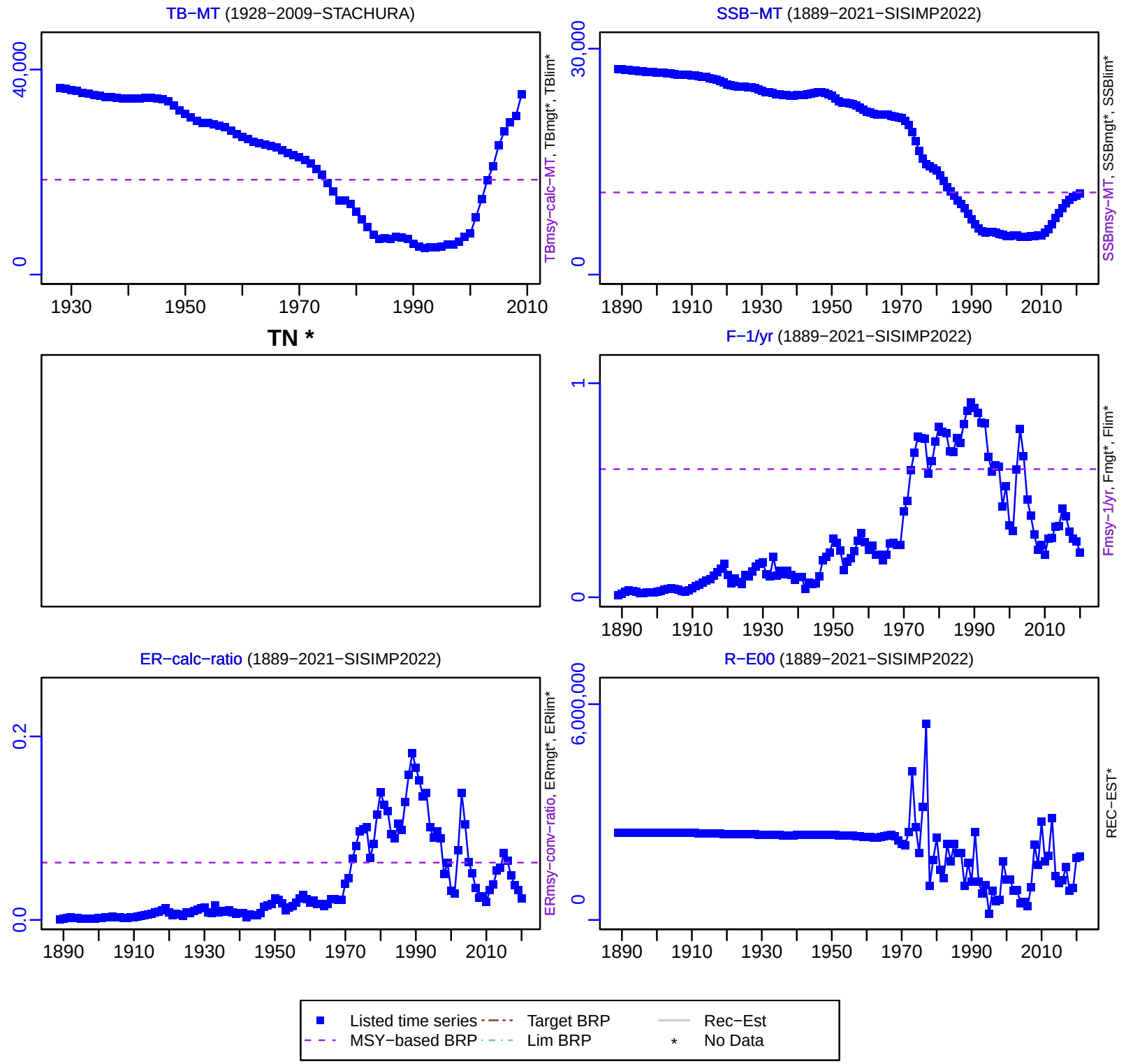
Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	TBmsy-calc-MT	2009	16,291
SSBmsy	SSBmsy-MT	2021	10,577
Fmsy	Fmsy-1/yr	2021	0.55
ERmsy	ERmsy-ratio	2009	0.103
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2009	25,311
MSY	MSY-MT	2021	815
M	M-1/yr	2009	0.18
TBlim	-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

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

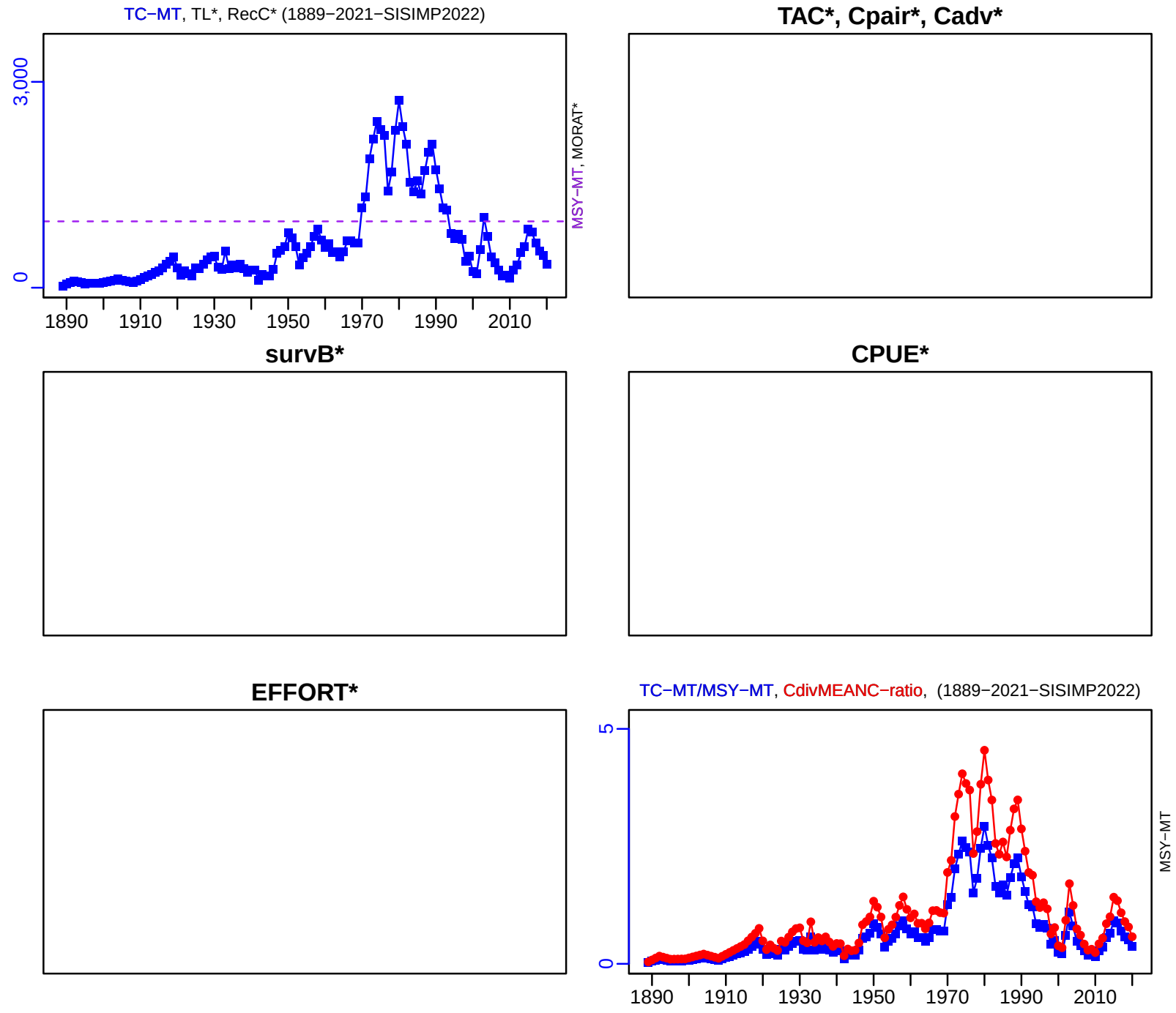
Lingcod Southern Pacific Coast [LINGCODSPCOAST]



Lingcod Southern Pacific Coast [LINGCODSPCOAST]



Lingcod Southern Pacific Coast [LINGCODSPCOAST]



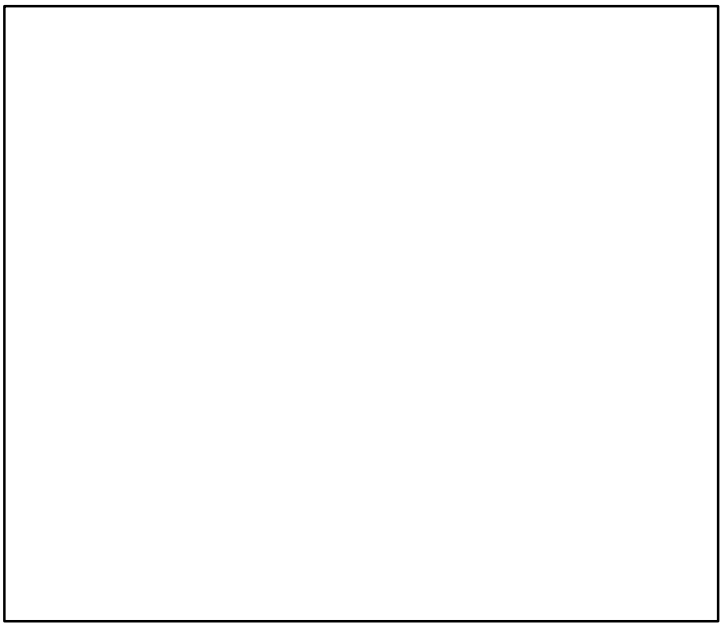
Lumpfish Northern Gulf of St. Lawrence [LUMP3Pn4RS]

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

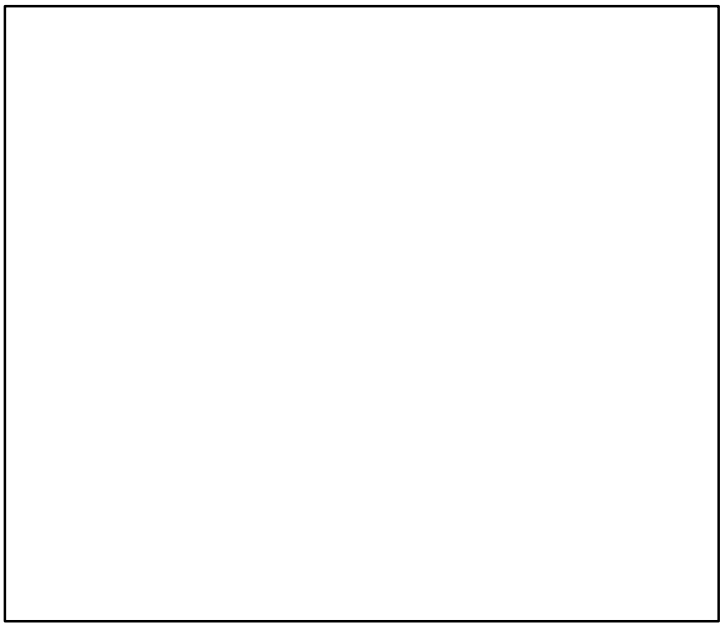
Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

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	-	-	-		

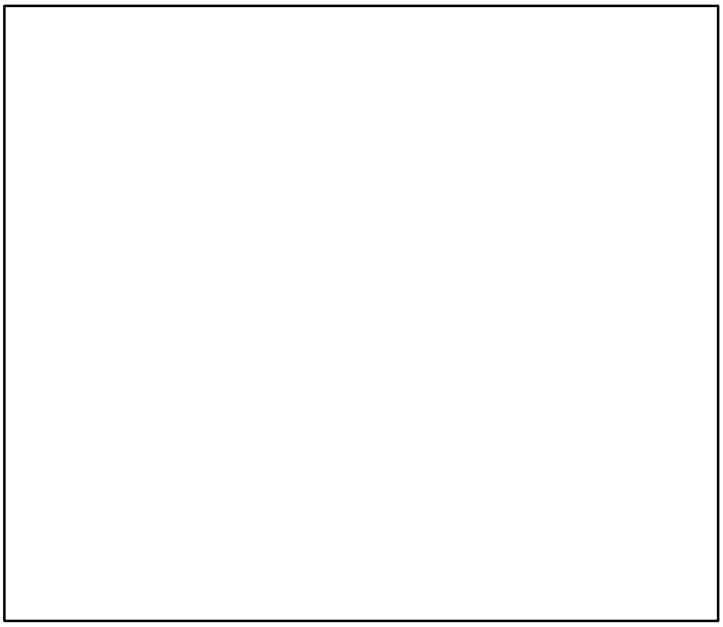
Kobe MSY*



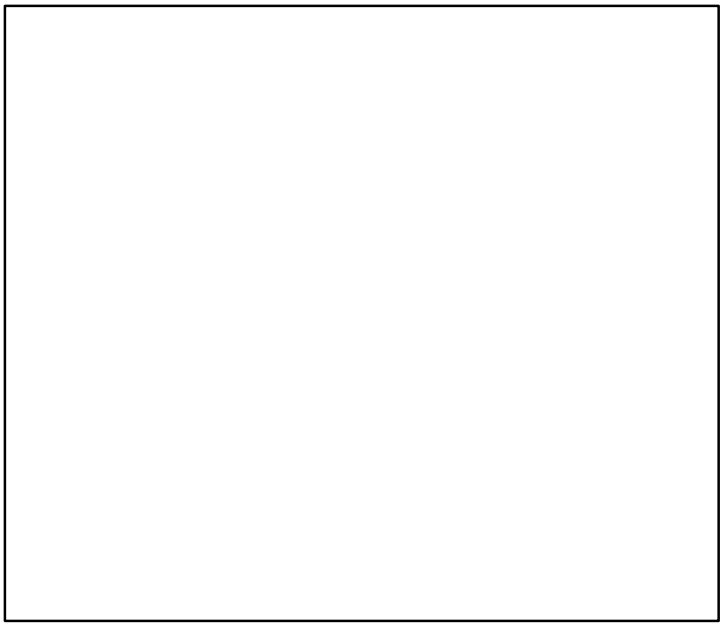
Kobe MGT*



Spawner Recruit*



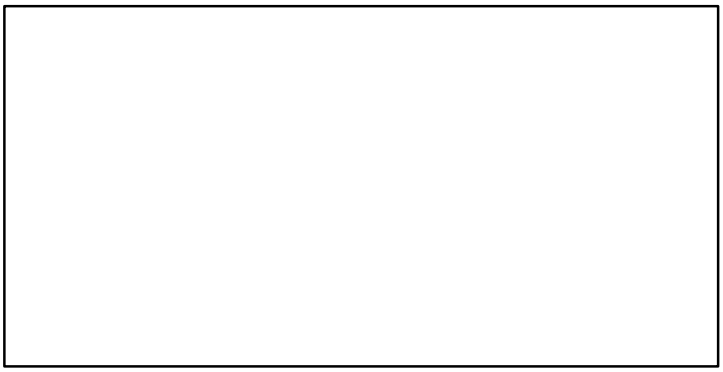
Production*



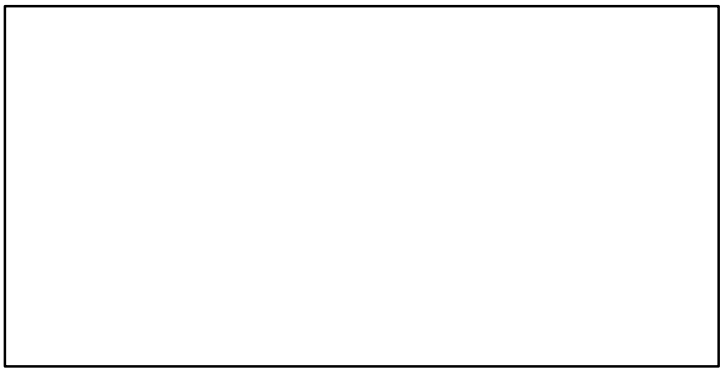
◆ Start Year ◆ End Year * No Data

Lumpfish Northern Gulf of St. Lawrence [LUMP3Pn4RS]

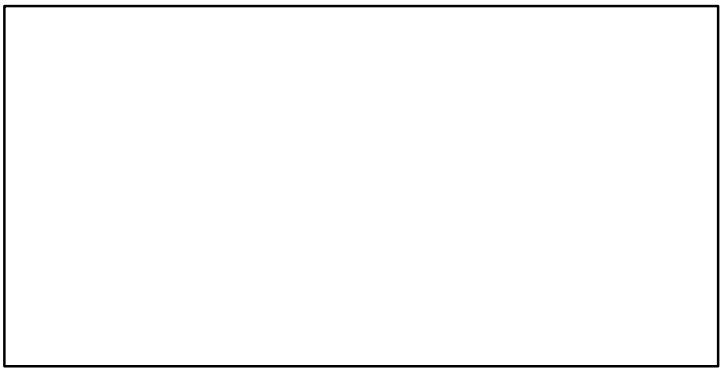
TB*



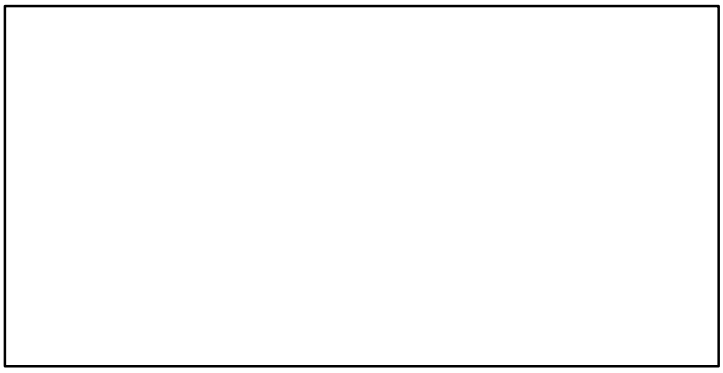
SSB*



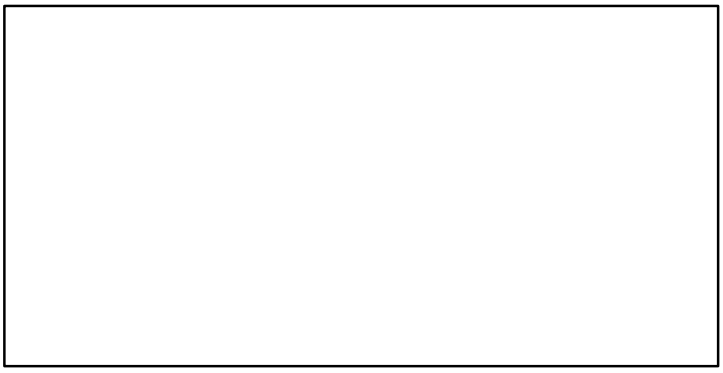
TN *



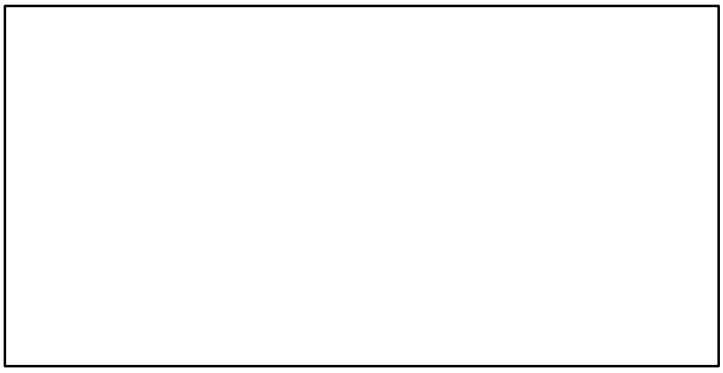
F*

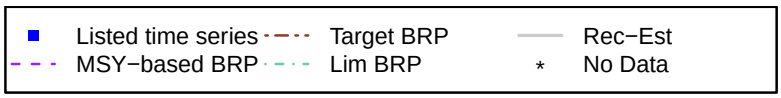


ER*

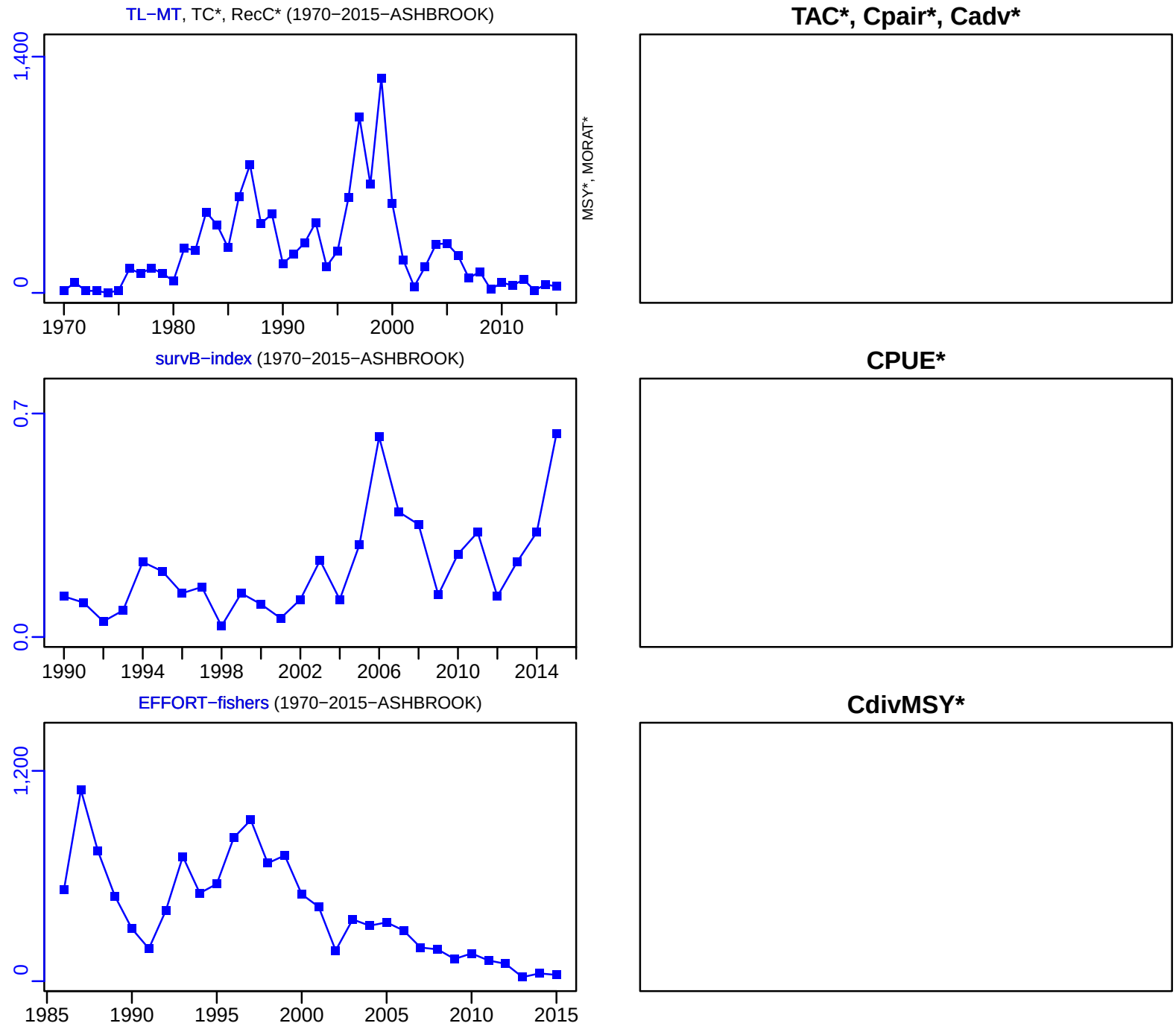


Recruits*





Lumpfish Northern Gulf of St. Lawrence [LUMP3Pn4RS]



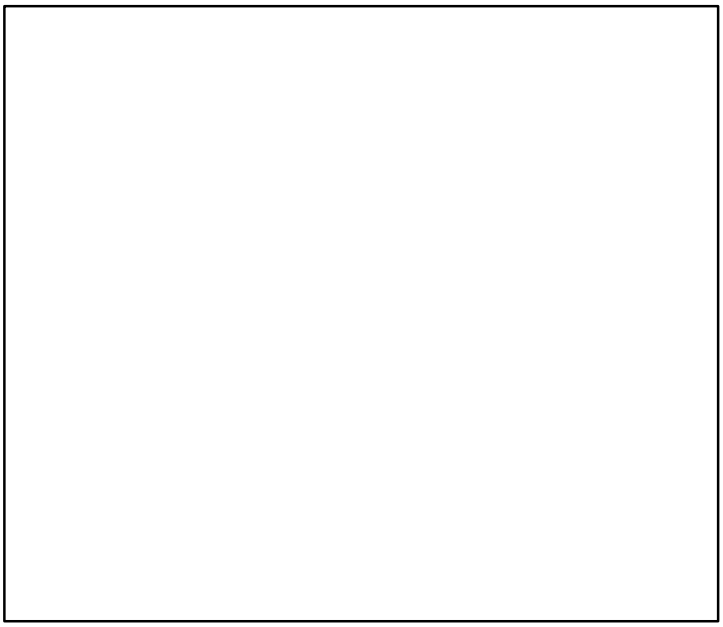
Red gurnard Northeast Atlantic [RGURNNEATL]

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

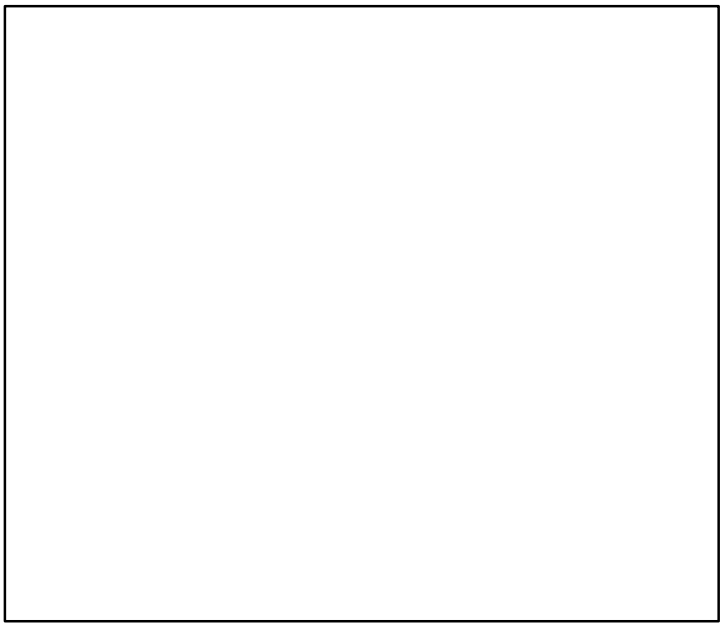
Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

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	-	-	-		

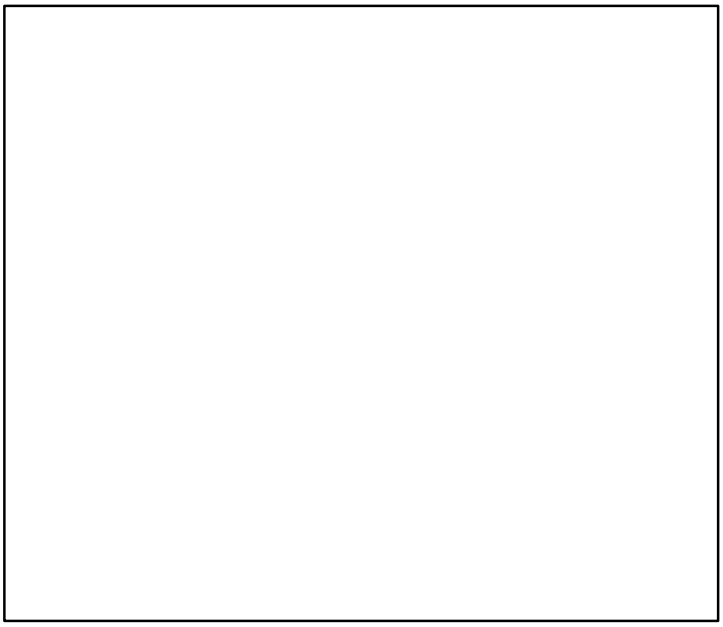
Kobe MSY*



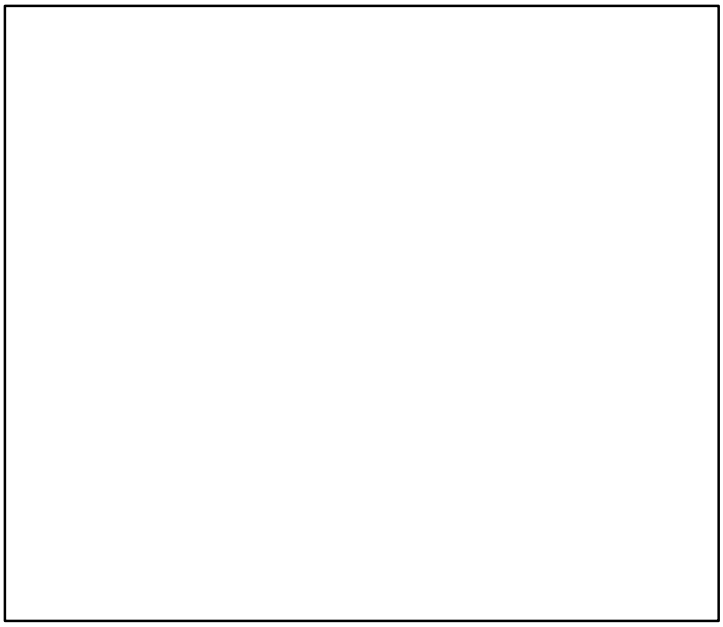
Kobe MGT*



Spawner Recruit*

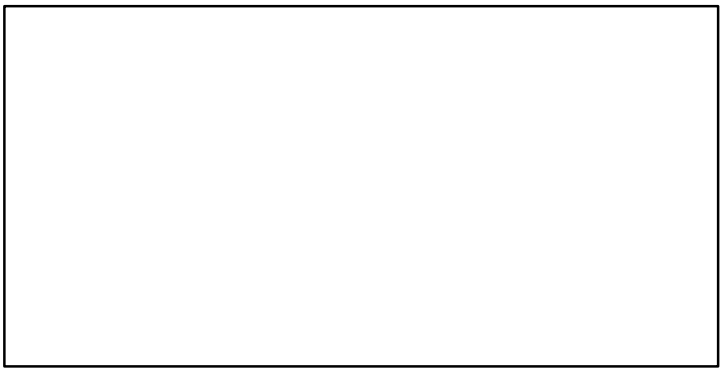


Production*

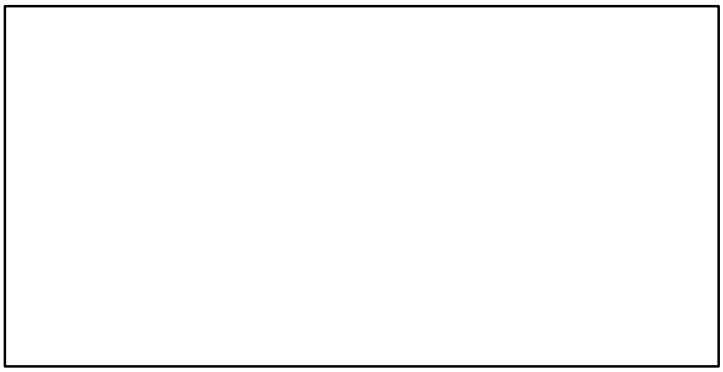


◆ Start Year ◆ End Year * No Data

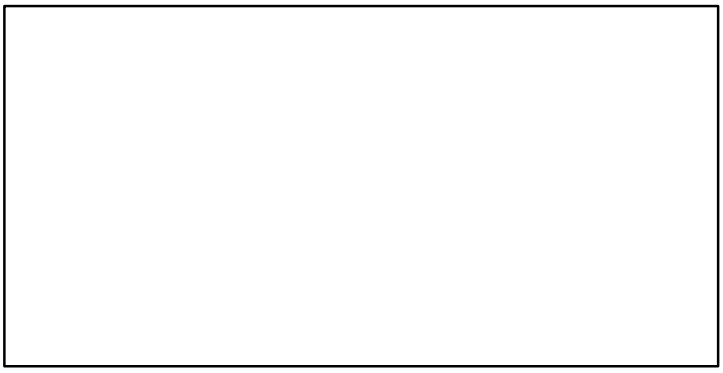
TB*



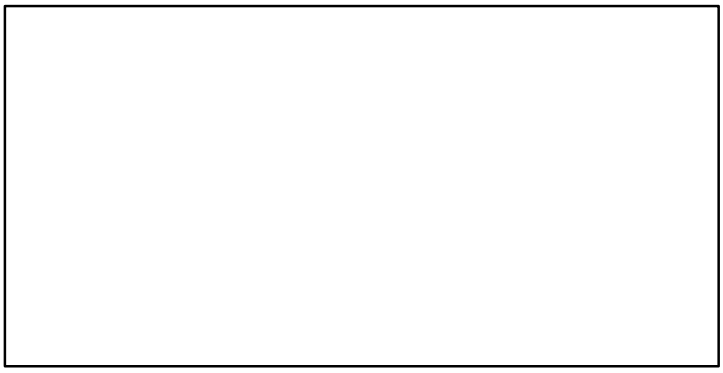
SSB*



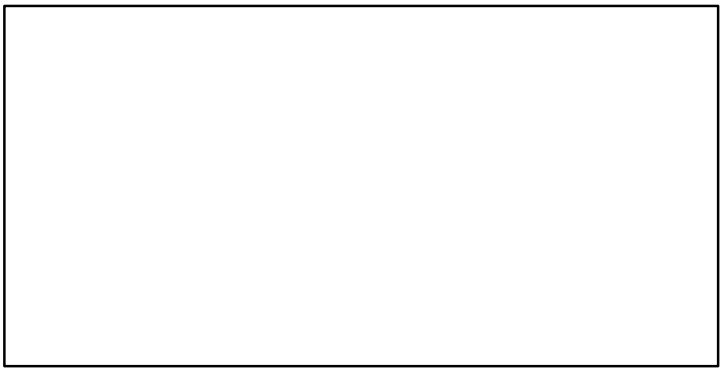
TN *



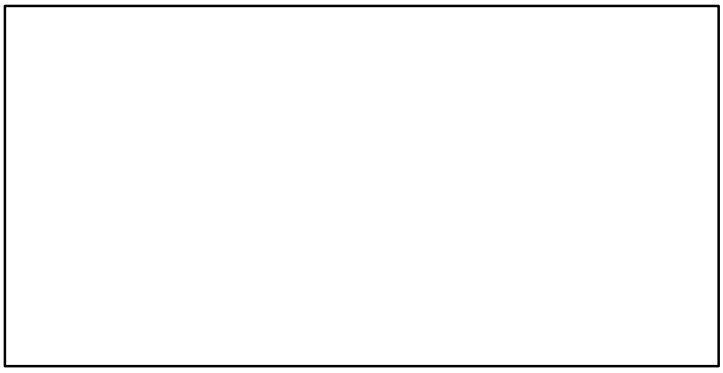
F*

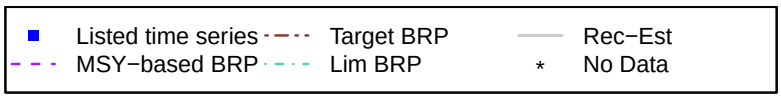


ER*

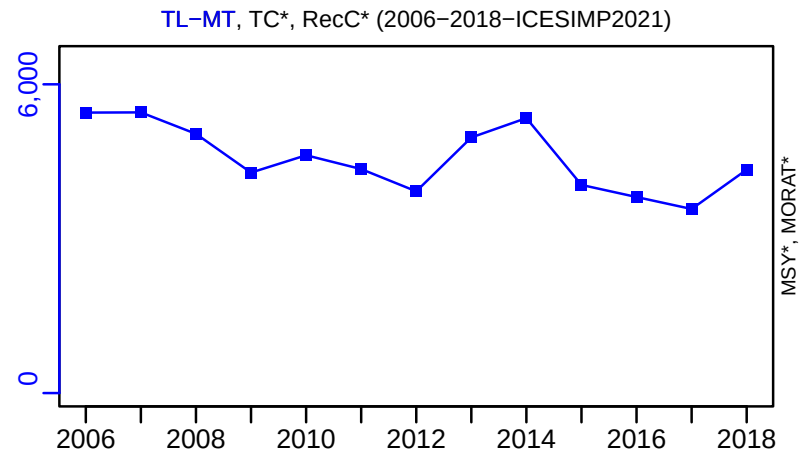


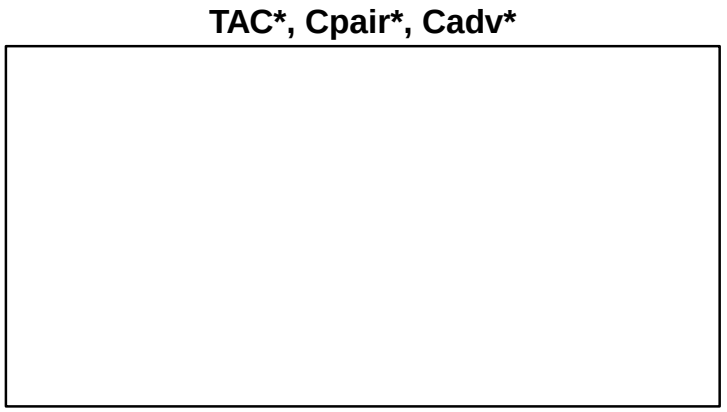
Recruits*

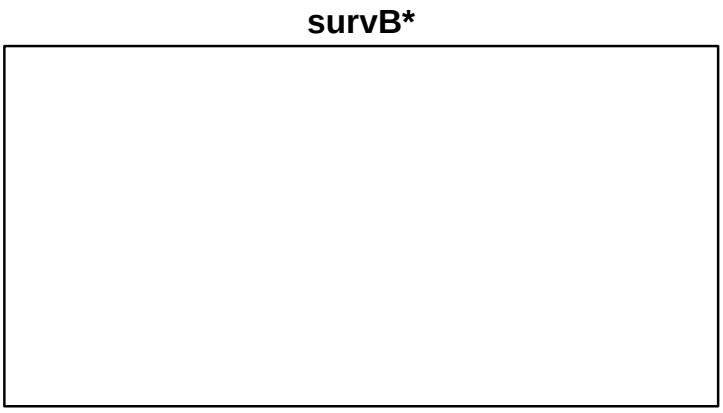


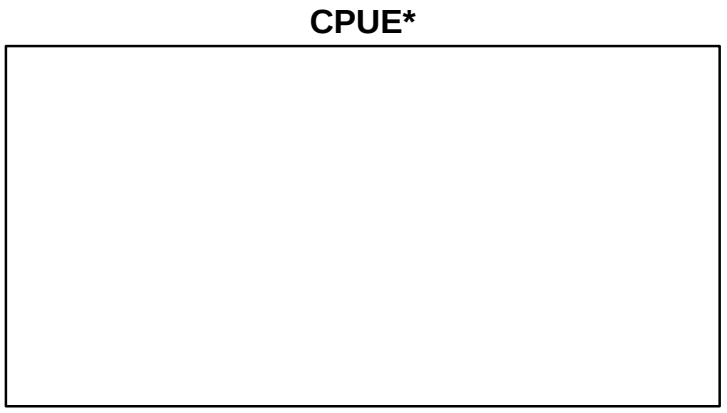


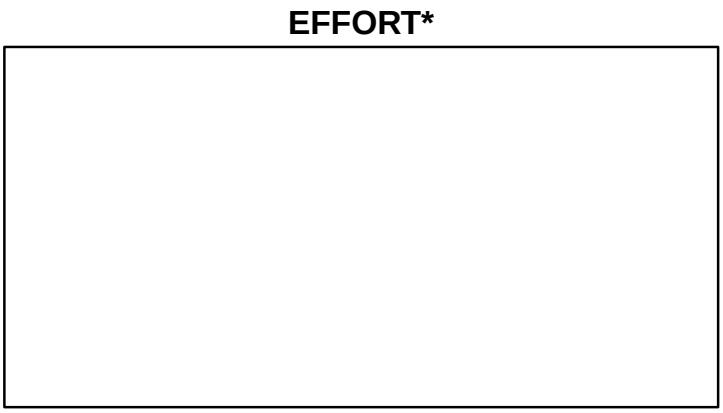
Red gurnard Northeast Atlantic [RGURNNEATL]

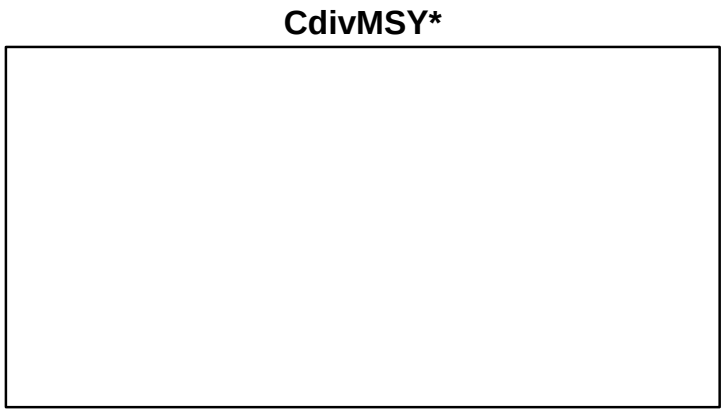


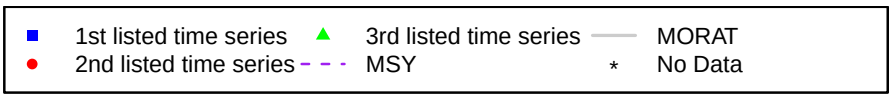












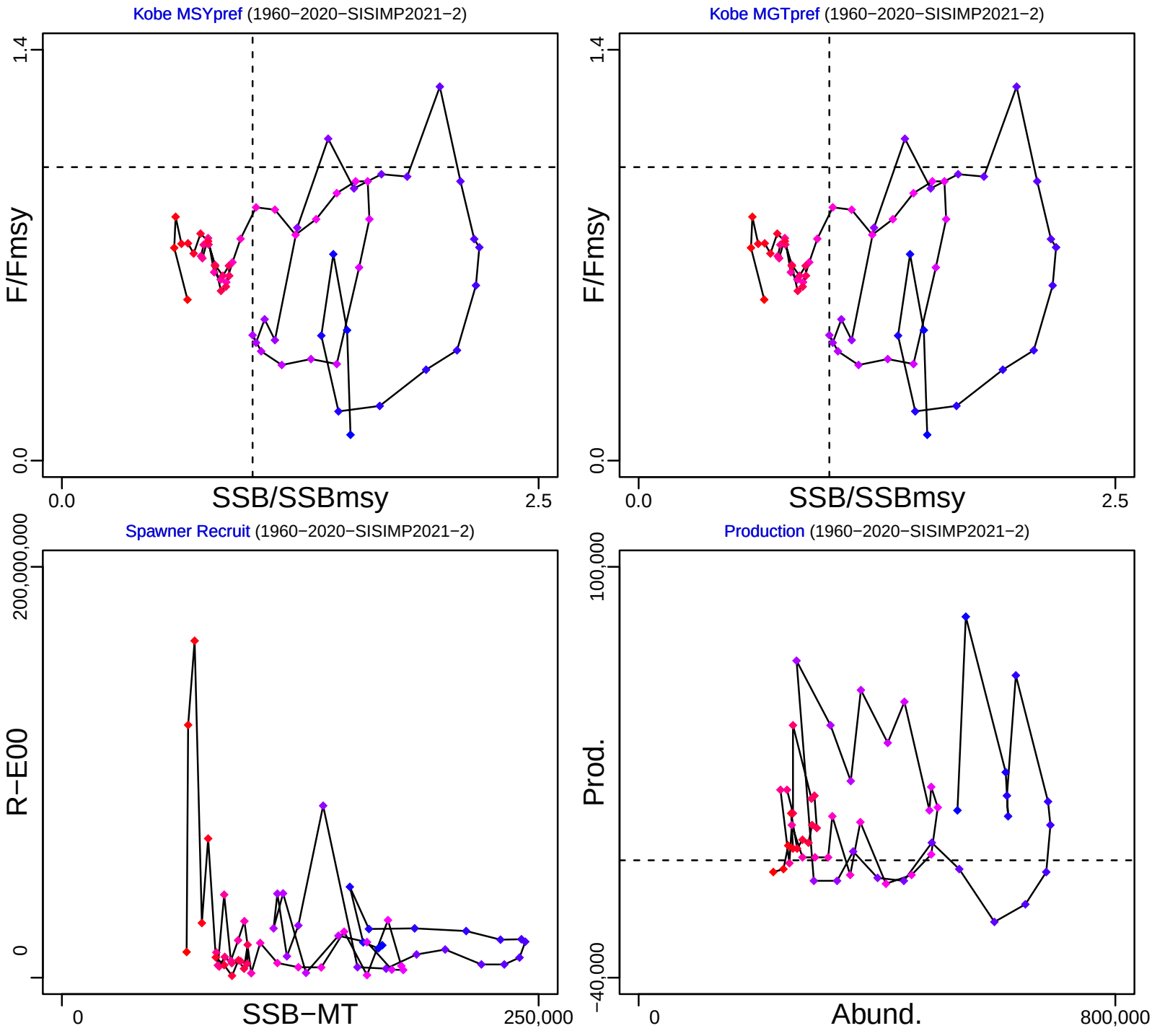
Sablefish Eastern Bering Sea / Aleutian Islands / Gulf of Alaska [SABLEFEBSAIGA]

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

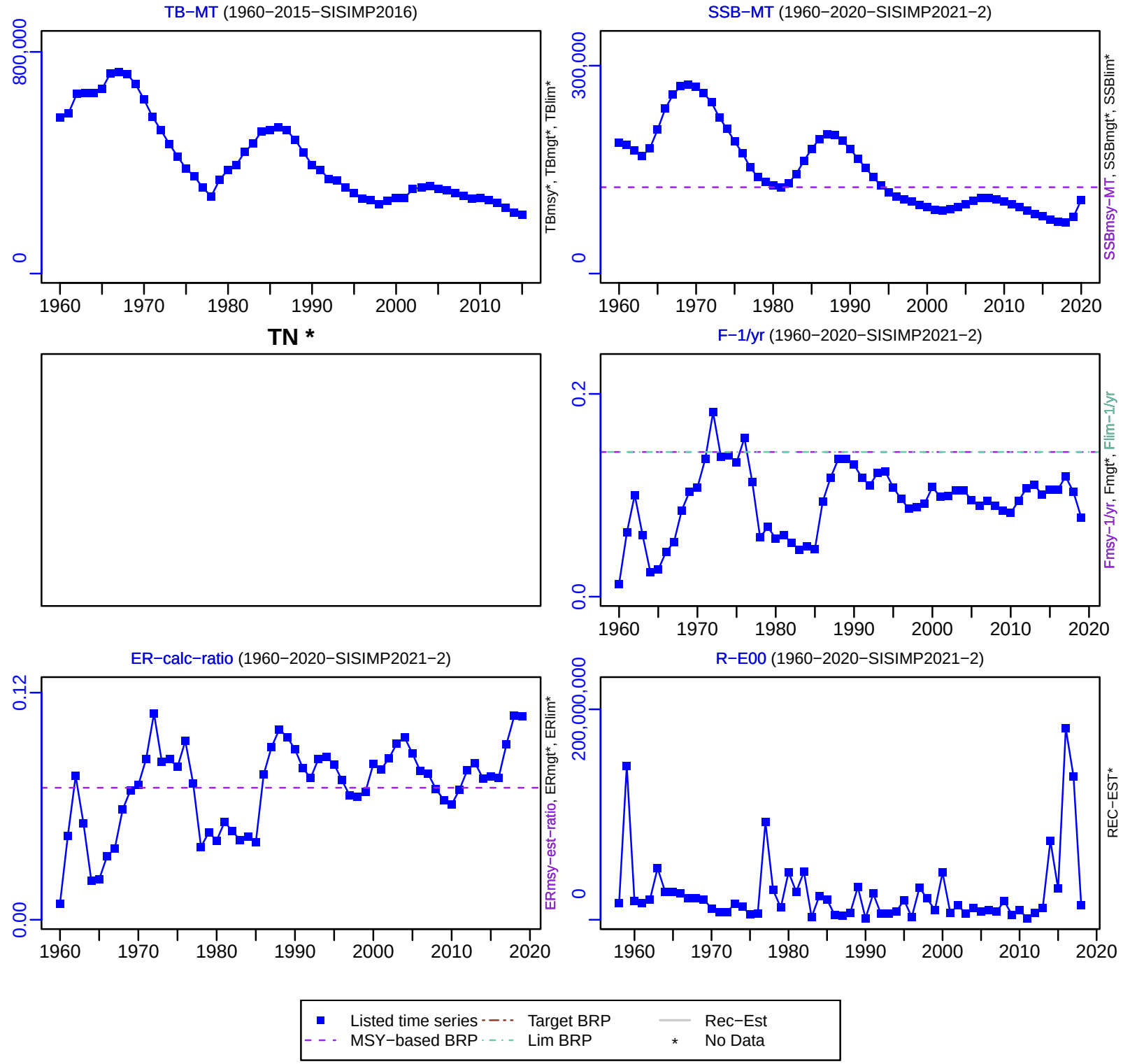
Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	TBmsy-calc-MT	2010	96,345
SSBmsy	SSBmsy-MT	2020	111,000
Fmsy	Fmsy-1/yr	2020	0.124
ERmsy	ERmsy-ratio	2010	0.197
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2010	275,270
MSY	MSY-MT	2010	18,950
M	M-1/yr	2010	0.1
TBlim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

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

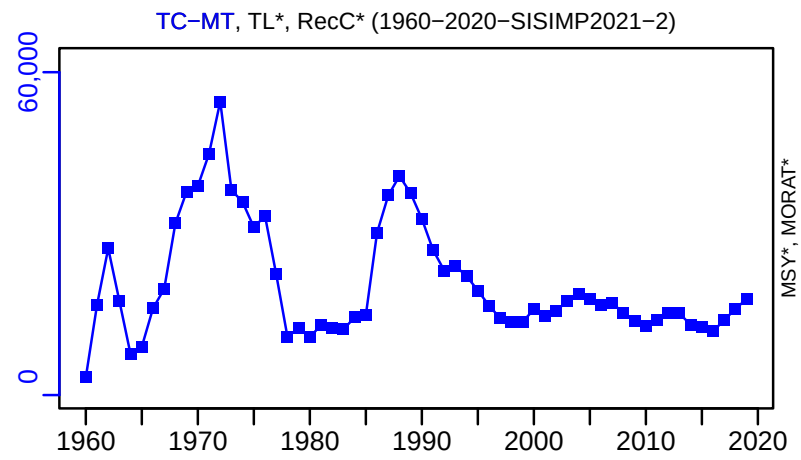
Sablefish Eastern Bering Sea / Aleutian Islands / Gulf of Alaska [SABLEFEBSAIGA]

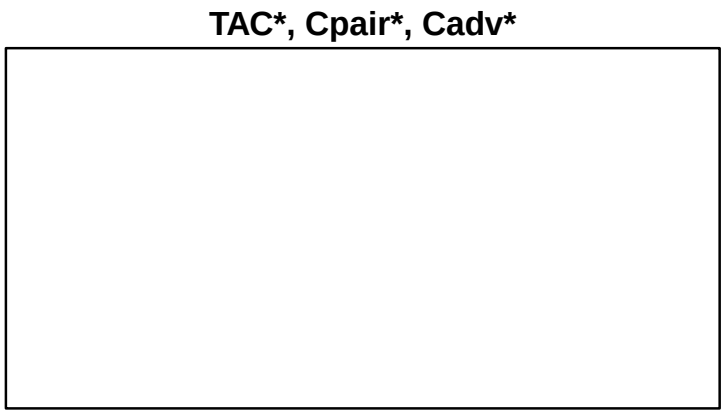


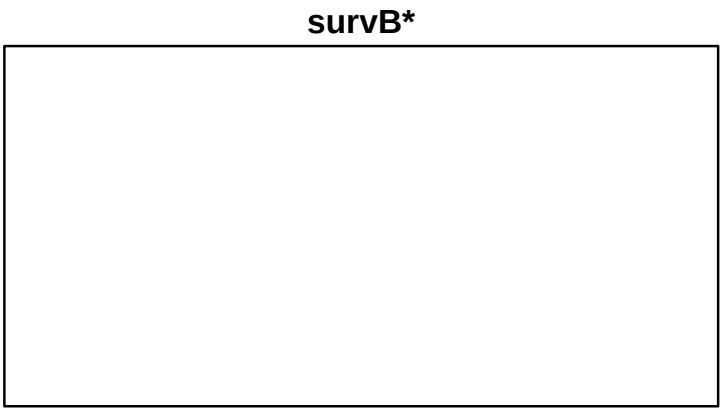
Sablefish Eastern Bering Sea / Aleutian Islands / Gulf of Alaska [SABLEFEBSAIGA]

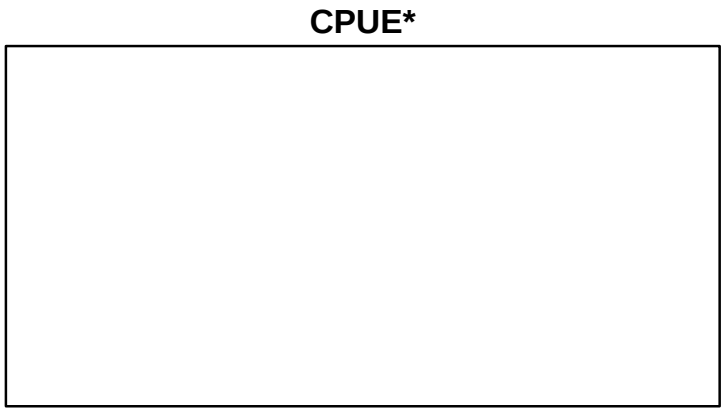


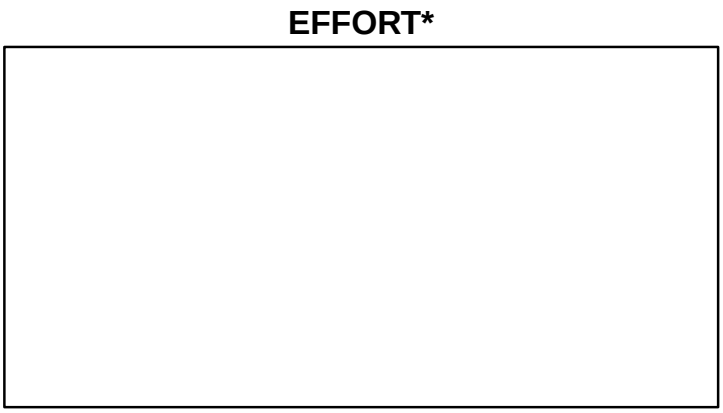
Sablefish Eastern Bering Sea / Aleutian Islands / Gulf of Alaska [SABLEFEBSAIGA]

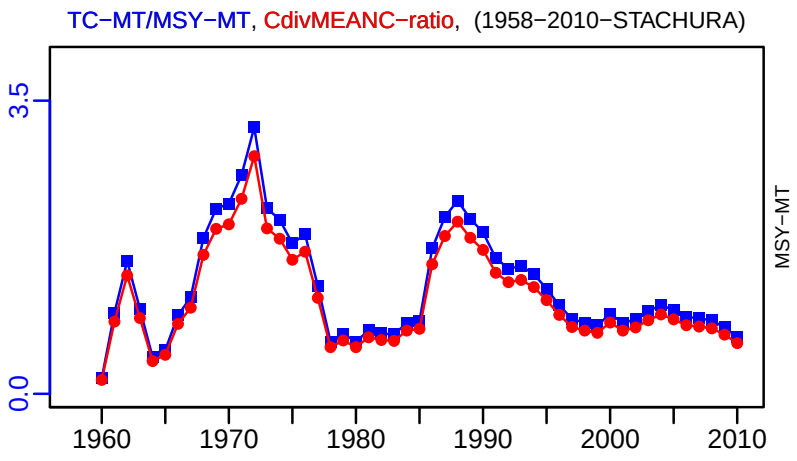


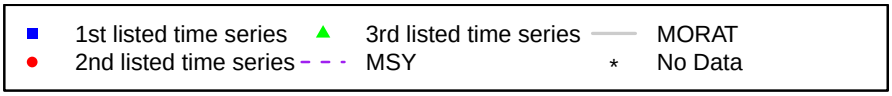












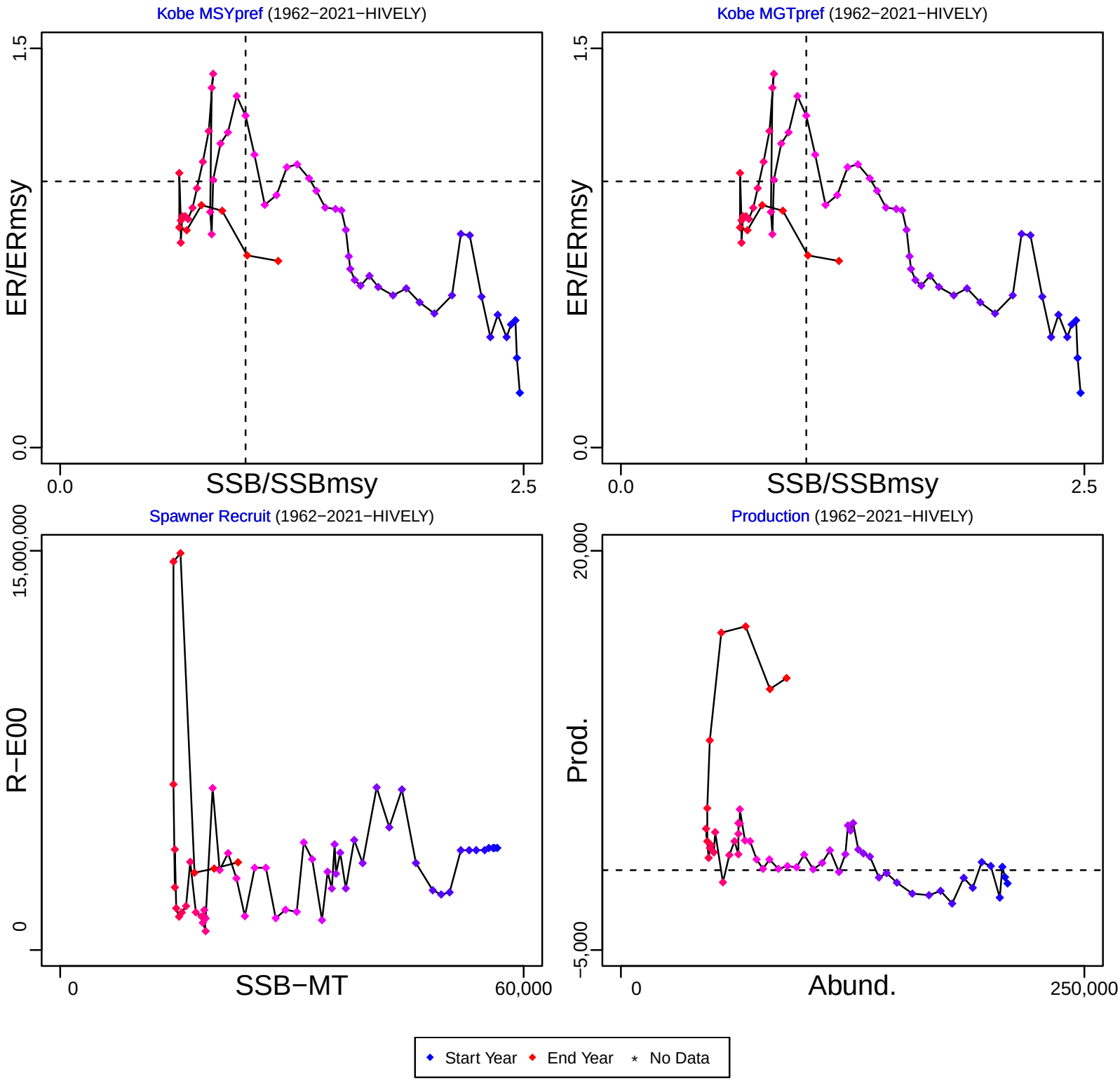
Sablefish Pacific Coast of Canada [SABLEFPCAN]

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

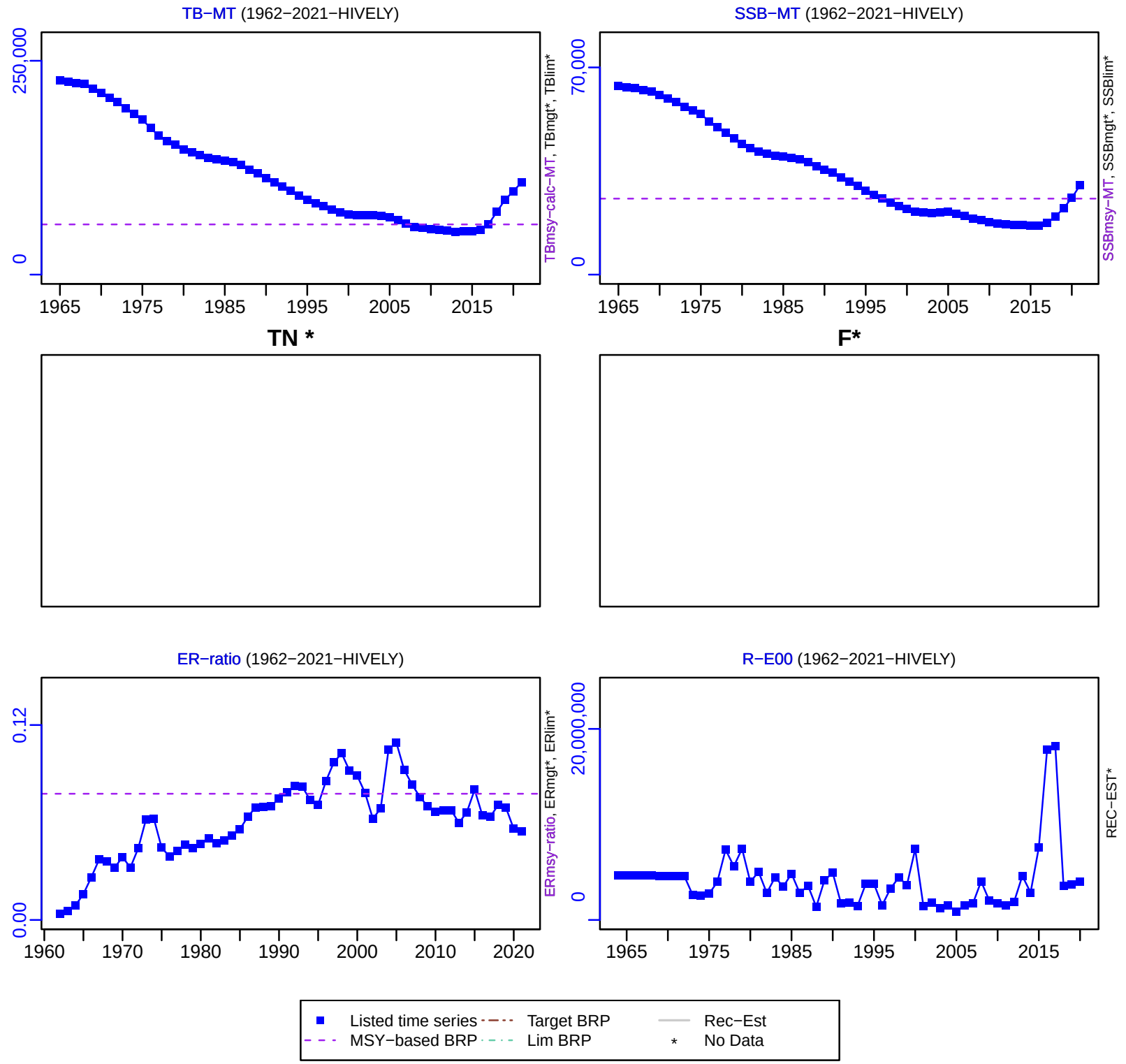
Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	TBmsy-calc-MT	2021	53,846
SSBmsy	SSBmsy-MT	2021	22,820
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2021	0.065
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2010	114,770
MSY	MSY-MT	2021	3500
M	M-1/yr	2010	0.06
TBlim	-	-	-
SSBlim	-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

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

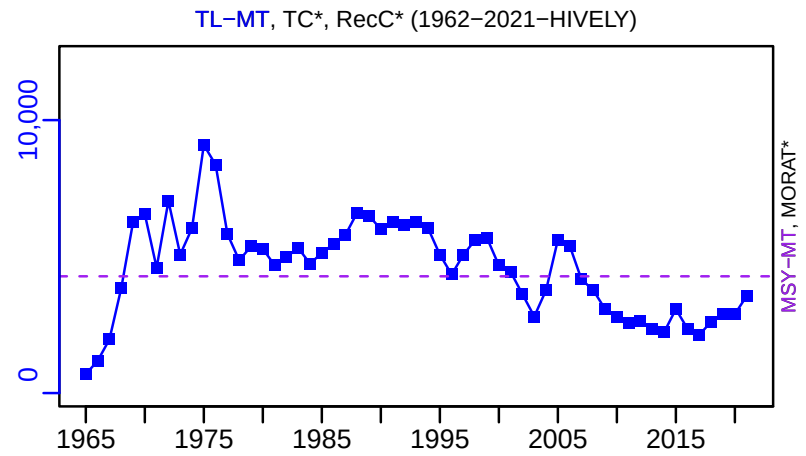
Sablefish Pacific Coast of Canada [SABLEFPCAN]

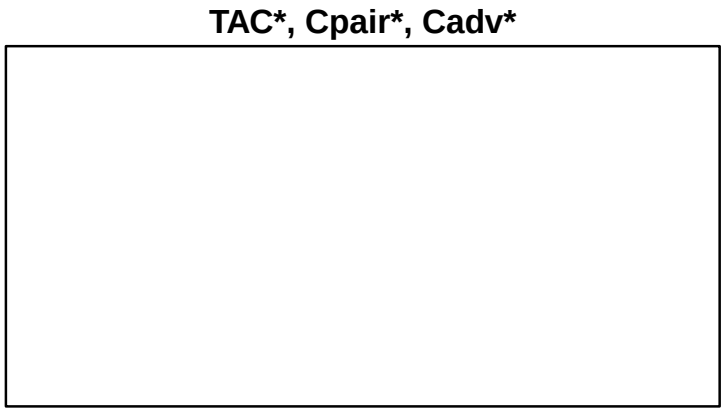


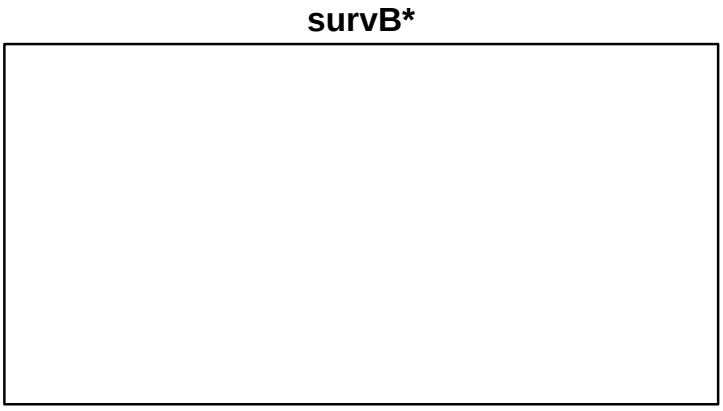
Sablefish Pacific Coast of Canada [SABLEFPCAN]

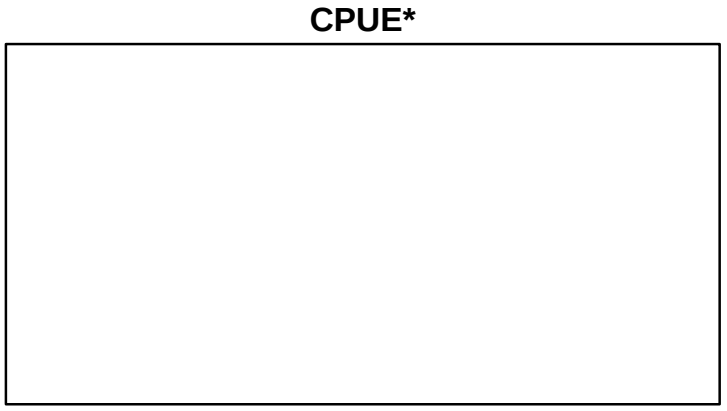


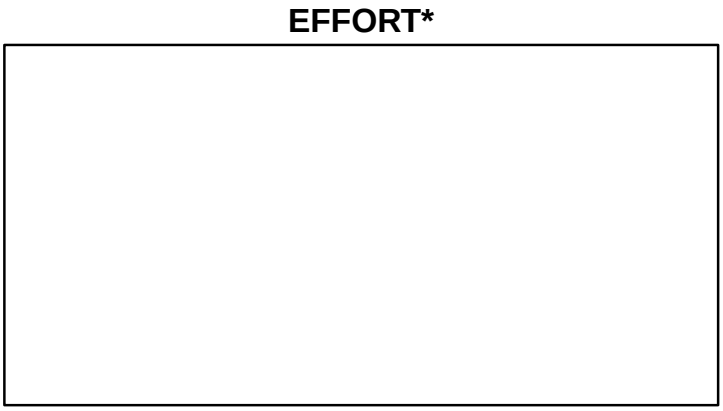
Sablefish Pacific Coast of Canada [SABLEFPCAN]

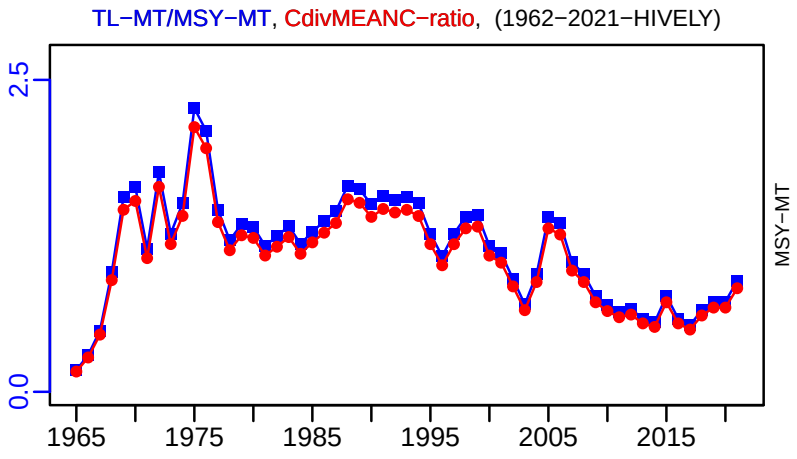


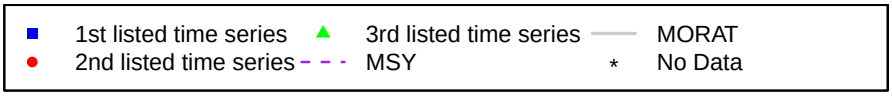












Sablefish Pacific Coast [SABLEFPCOAST]

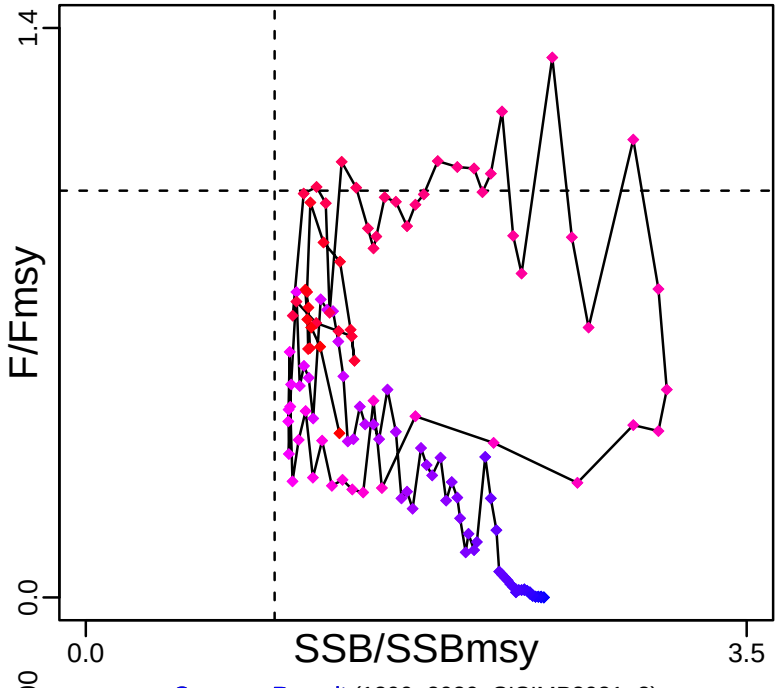
Metadata	
Scientific Name	Anoplopoma fimbria
Current Assess ID	NWFSC-SABLEFPCOAST-1890-2020-SISIMP2021-2
Area	Pacific Coast
Management Authority	National Marine Fisheries Service, US national management
Assessor	Northwest Fisheries Science Center
Asmts in RAM	2019, 2020, 2011, 2015

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

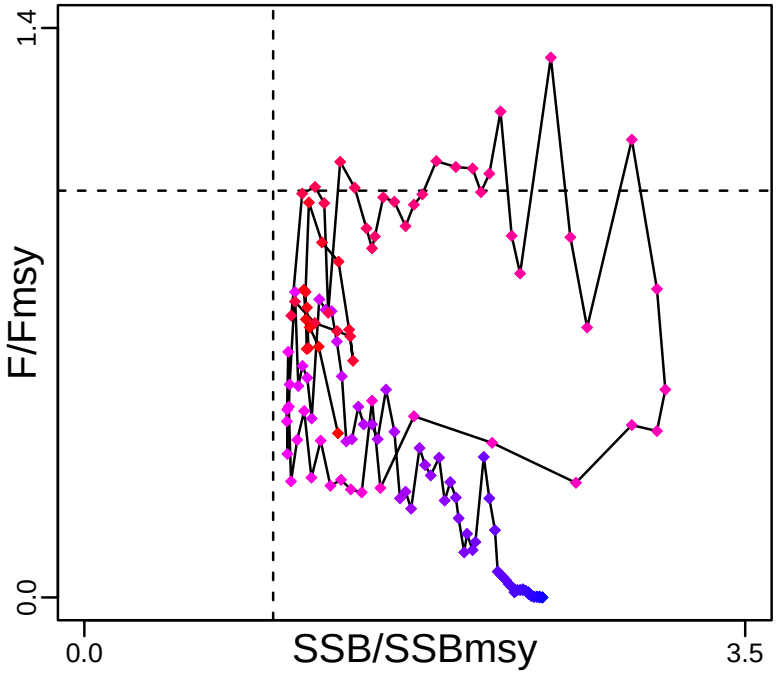
Time Series					
Type	**ID**	**Asmt Year**	**Curr Value**	**Sex**	**Age**
TB	TB-MT	2015	168,000	-	4+
SSB	SSB-MT	2020	90,800	-	-
TN	-	-	-	-	-
R	R-E00	2020	12,500,000	-	0
F	F-1/yr	2020	0.222	-	-
ER	ER-calc-ratio	2015	0.026	-	-
TC	TC-MT	2020	3880		
TL	TL-MT	2011	6820		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT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

Sablefish Pacific Coast [SABLEFPCOAST]

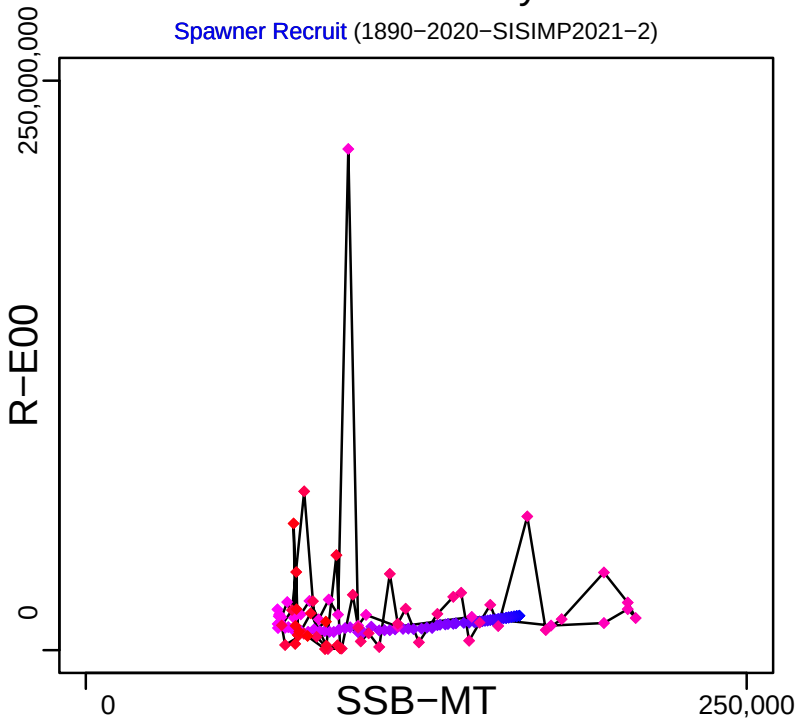
Kobe MSYpref (1890−2020−SISIMP2021−2)



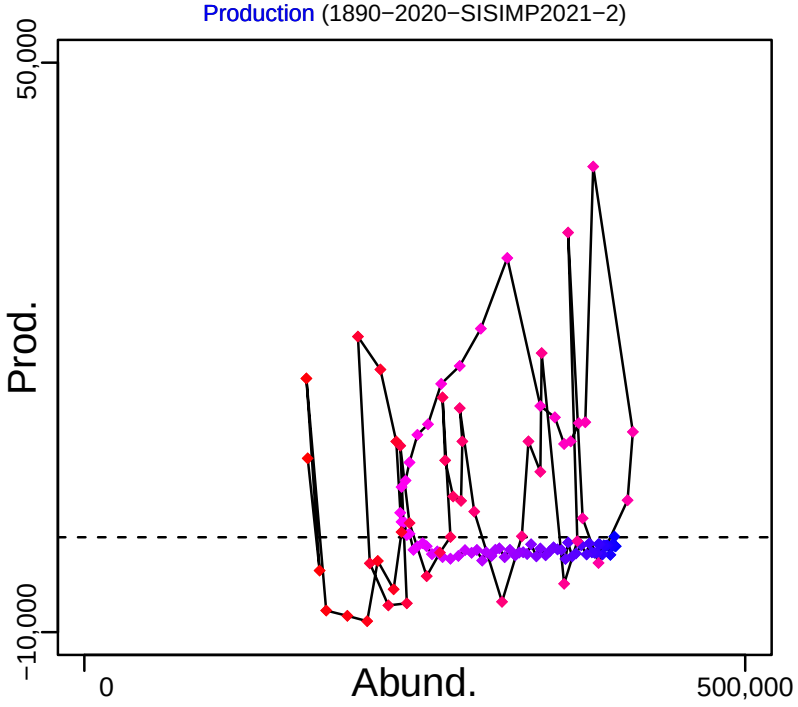
Kobe MGTpref (1890−2020−SISIMP2021−2)



Spawner Recruit (1890−2020−SISIMP2021−2)

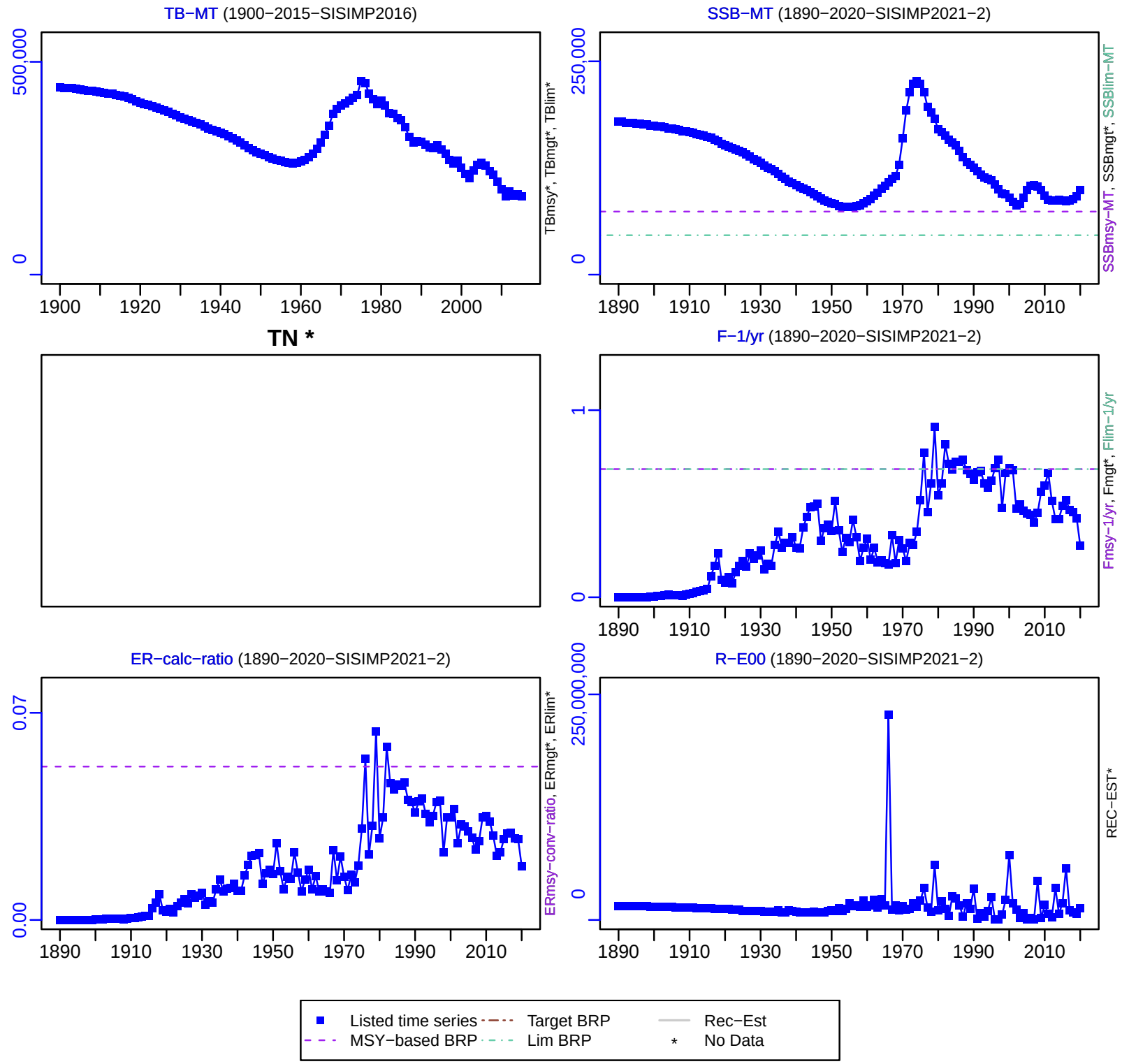


Production (1890−2020−SISIMP2021−2)



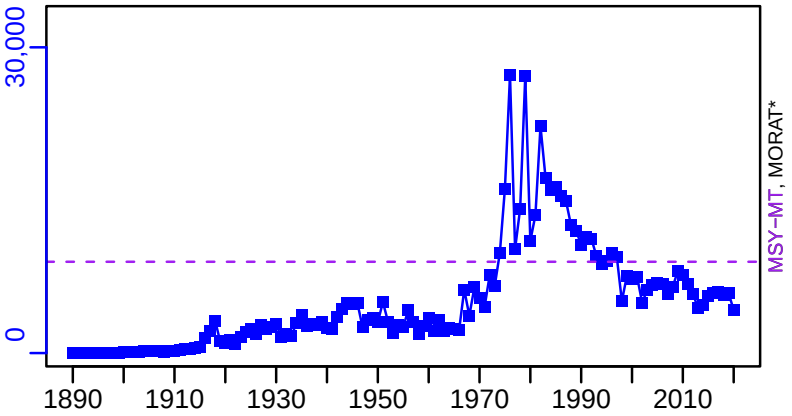
Start Year End Year No Data

Sablefish Pacific Coast [SABLEFPCOAST]

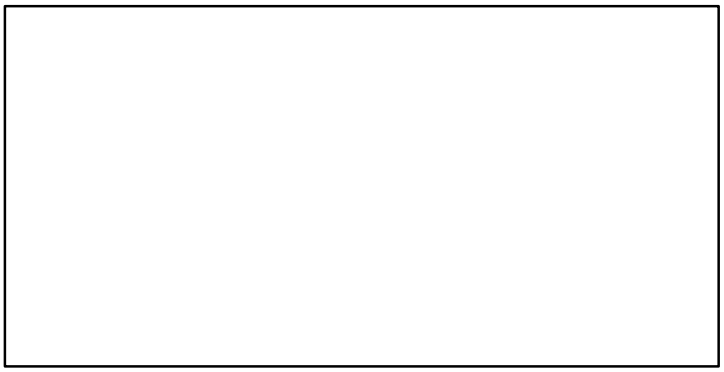


Sablefish Pacific Coast [SABLEFPCOAST]

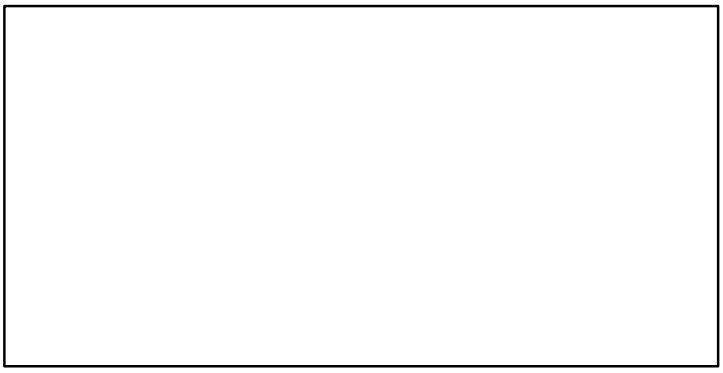
TC−MT, TL*, RecC* (1890−2020−SISIMP2021−2)



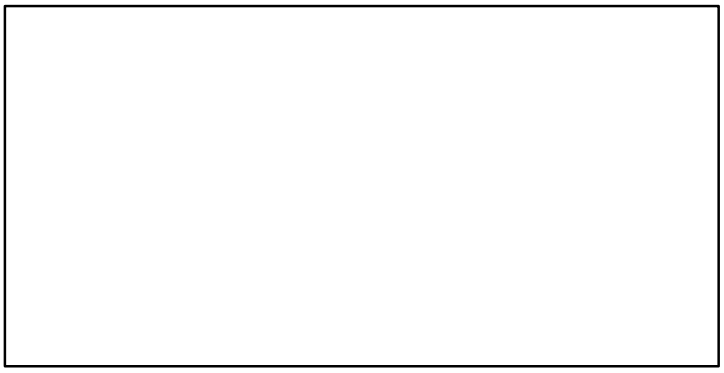
TAC*, Cpair*, Cadv*



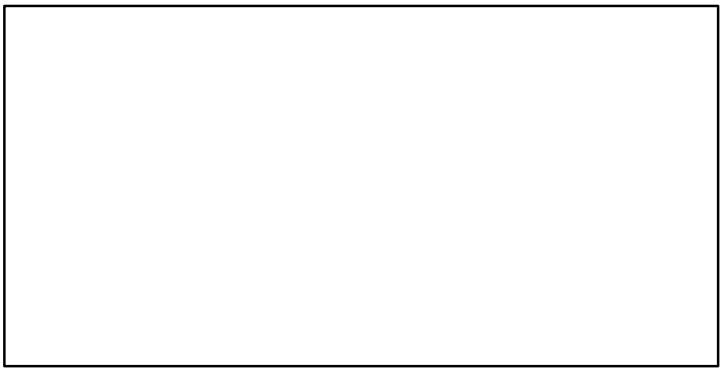
survB*



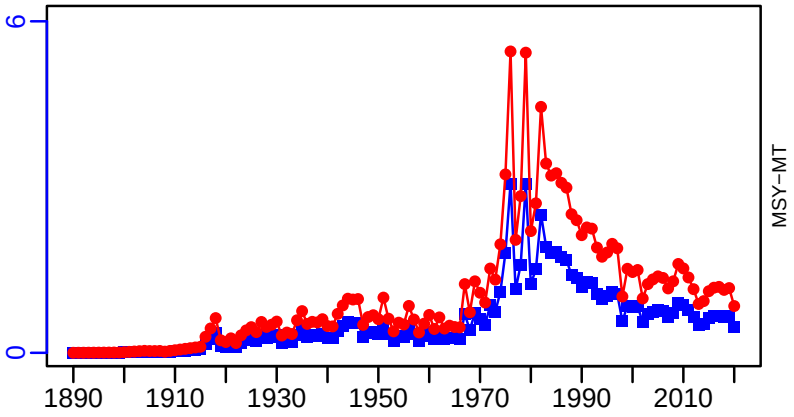
CPUE*

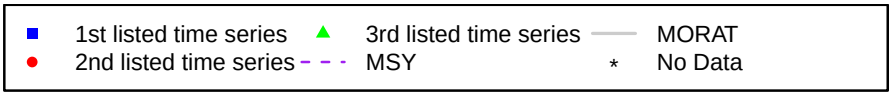


EFFORT*



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





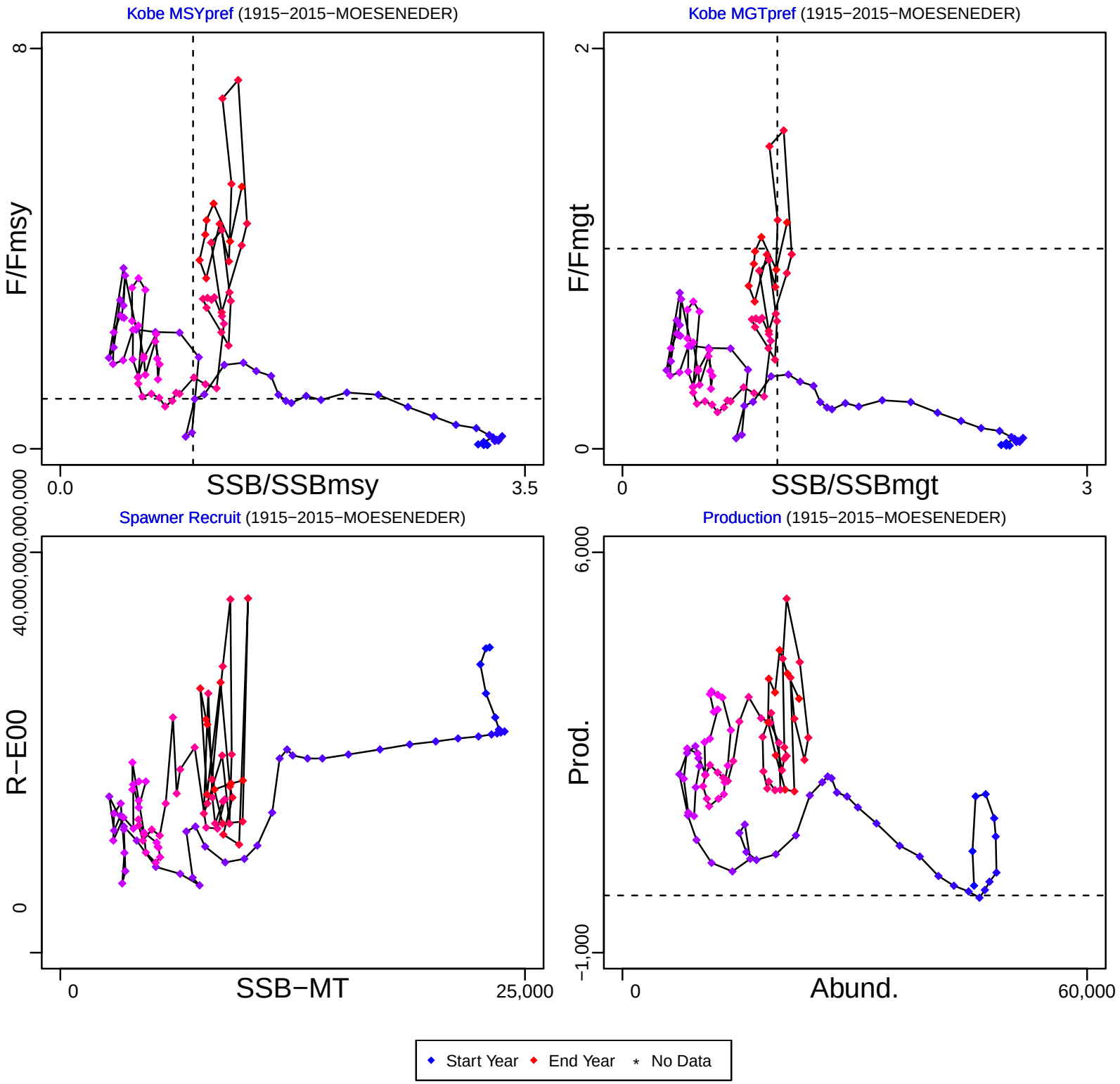
Tiger flathead Southeast Australia [TIGERFLATSE]

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

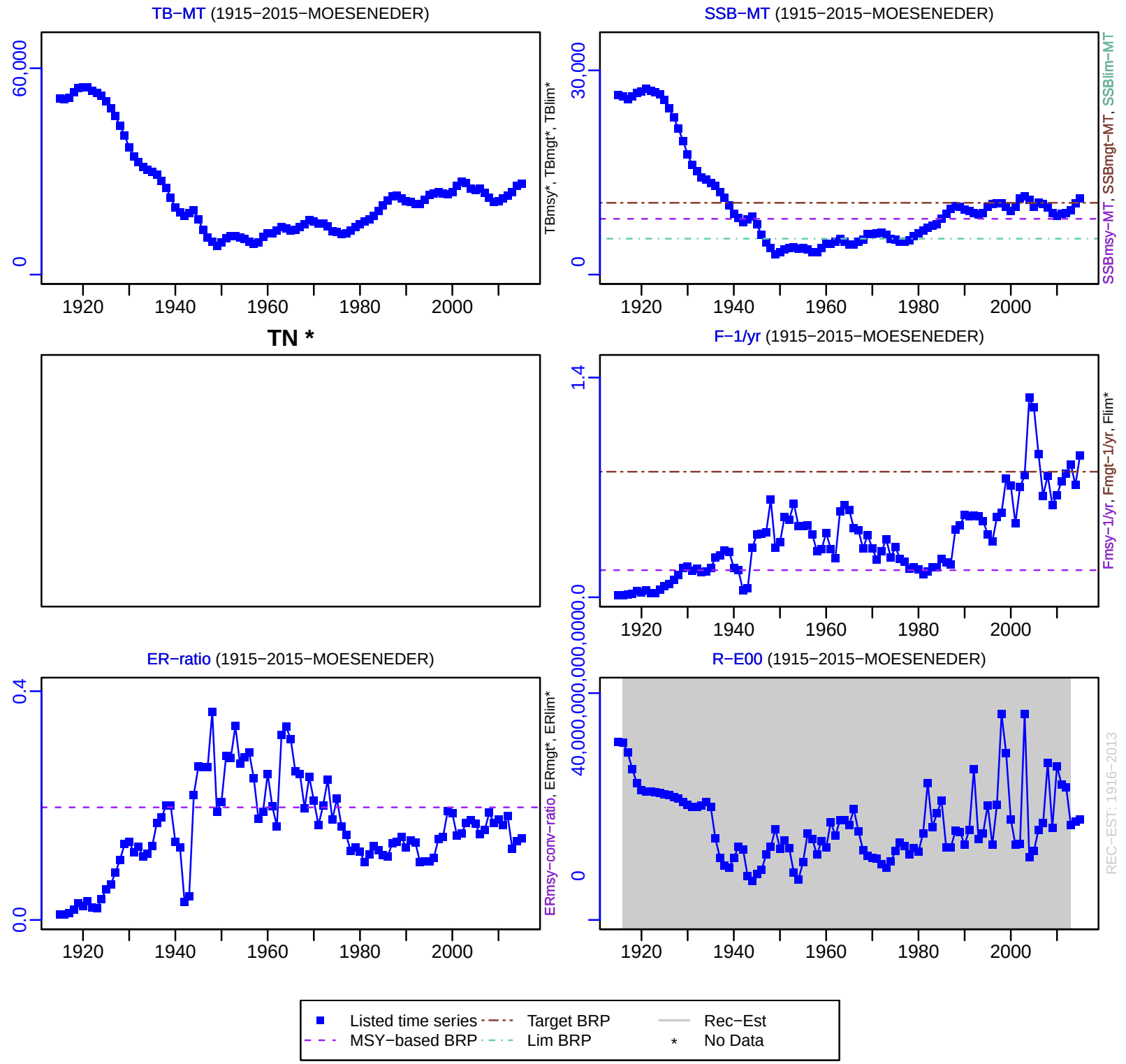
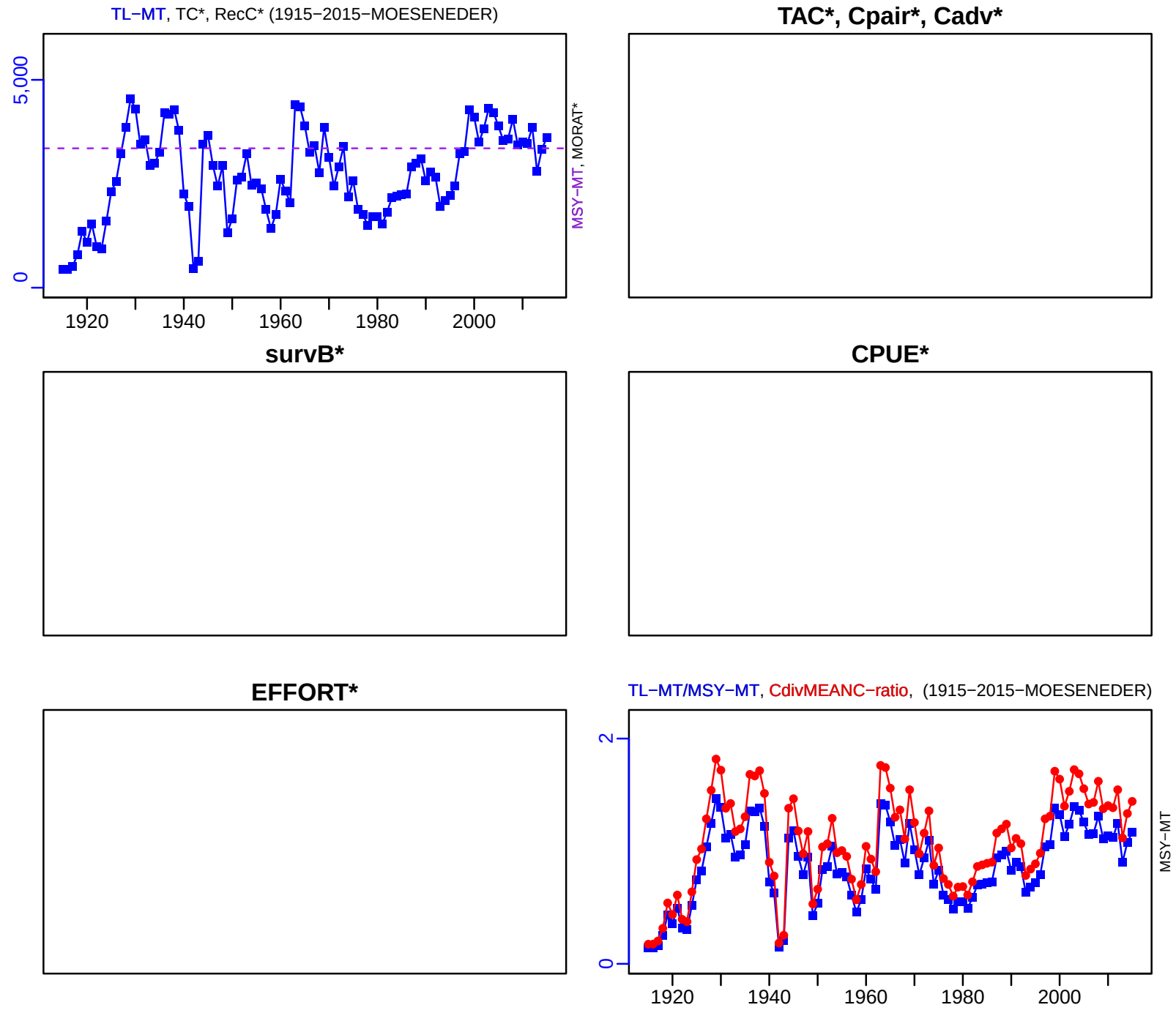
Reference Points			
Type	**ID**	**Asmt Year**	**Value**
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2015	7181
Fmsy	Fmsy-1/yr	2015	0.163
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2015	9240
Fmgt	Fmgt-1/yr	2015	0.754
ERmgt	-	-	-
TB0	TB0-MT	2015	$45{,}431$
SSB0	SSB0-MT	2015	$23{,}100$
MSY	MSY-MT	2015	2854
M	M-1/yr	2015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

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

Tiger flathead Southeast Australia [TIGERFLATSE]



Tiger flathead Southeast Australia [TIGERFLATSE]



Tiger flathead Southeast Australia [TIGERFLATSE]