

South America Stocks

v4.491 (Jan-06-2020)

Not present Present Preferred

Stock	Time Series Types			
	B/Bmsy	U/Umsy	B/Bmgt	U/Umgmt
1. ACMACKSARG [Argentine chub mackerel Southern Argentina]	TB SSB	ER F	TB SSB	ER F
2. AFLONCH [Alfonsino Chile]	TB SSB	ER F	TB SSB	ER F
3. ARGANCHONARG [Argentine anchoita Northern Argentina]	TB SSB	ER F	TB SSB	ER F
4. ARGANCHOSARG [Argentine anchoita Southern Argentina]	TB SSB	ER F	TB SSB	ER F
5. ARGHAKENARG [Argentine hake Northern Argentina]	TB SSB	ER F	TB SSB	ER F
6. ARGHAKESARG [Argentine hake Southern Argentina]	TB SSB	ER F	TB SSB	ER F
7. BSQLOBSTERCSCH [Yellow squat lobster Central-Southern Chile]	TB SSB	ER F	TB SSB	ER F
8. BSQLOBSTERNCH [Yellow squat lobster Northern Chile]	TB SSB	ER F	TB SSB	ER F
9. CHERRCHVX [Chilean herring Central-Southern Chile]	TB SSB	ER F	TB SSB	ER F
10. CHTRACCH [Chilean jack mackerel Chilean EEZ and offshore]	TB SSB	ER F	TB SSB	ER F
11. CSARDCSCH [Chilean sardine Central-Southern Chile]	TB SSB	ER F	TB SSB	ER F
12. NSHRIMPCSCH [Nylon shrimp Central-Southern Chile]	TB SSB	ER F	TB SSB	ER F
13. NSHRIMPNCN [Nylon shrimp Northern Chile]	TB SSB	ER F	TB SSB	ER F
14. OROUGHYCH [Orange roughy Chile]	TB SSB	ER F	TB SSB	ER F
15. PANCHCCH [Peruvian anchoveta Central Chile]	TB SSB	ER F	TB SSB	ER F
16. PANCHCSCH [Peruvian anchoveta Central-Southern Chile]	TB SSB	ER F	TB SSB	ER F
17. PANCHNCHSP [Peruvian anchoveta Northern Chile Southern Peru]	TB SSB	ER F	TB SSB	ER F
18. PANCHPERUNC [Peruvian anchoveta North-Central Peruvian coast]	TB SSB	ER F	TB SSB	ER F
19. PATGRENADIERCH [Patagonian grenadier Central-Southern Chile]	TB SSB	ER F	TB SSB	ER F
20. PATGRENADIERSARG [Patagonian grenadier Southern Argentina]	TB SSB	ER F	TB SSB	ER F
21. PCEELARGS [Pink cusk eel Southern Argentina]	TB SSB	ER F	TB SSB	ER F
22. PCEELCSCH [Pink cusk eel Central-Southern Chile]	TB SSB	ER F	TB SSB	ER F
23. PCEELSCH [Pink cusk eel Southern Chile]	TB SSB	ER F	TB SSB	ER F
24. PTOOTHFISHCH [Patagonian toothfish South Chile Argentina]	TB SSB	ER F	TB SSB	ER F
25. RSQLOBSTERCSCH [Red squat lobster Central-Southern Chile]	TB SSB	ER F	TB SSB	ER F
26. RSQLOBSTERNCH [Red squat lobster Northern Chile]	TB SSB	ER F	TB SSB	ER F
27. SBREAMCH [Deepwater cardinalfish Chile]	TB SSB	ER F	TB SSB	ER F
28. SBWHITARGS [Southern blue whiting Southern Argentina]	TB SSB	ER F	TB SSB	ER F
29. SBWHITCH [Southern blue whiting Central-Southern Chile]	TB SSB	ER F	TB SSB	ER F
30. SOUTHHAKECH [Southern hake Central-Southern Chile]	TB SSB	ER F	TB SSB	ER F
31. SPHAKECH [South Pacific hake Central-Southern Chile]	TB SSB	ER F	TB SSB	ER F
32. SSARDCH [Southern sardine Central-Southern Chile]	TB SSB	ER F	TB SSB	ER F
33. YNOSESKACCSCH [Yellownose skate Central-Southern Chile]	TB SSB	ER F	TB SSB	ER F
34. YNOSESKASCH [Yellownose skate Southern Chile]	TB SSB	ER F	TB SSB	ER F

Argentine chub mackerel Southern Argentina [ACMACKSARG]

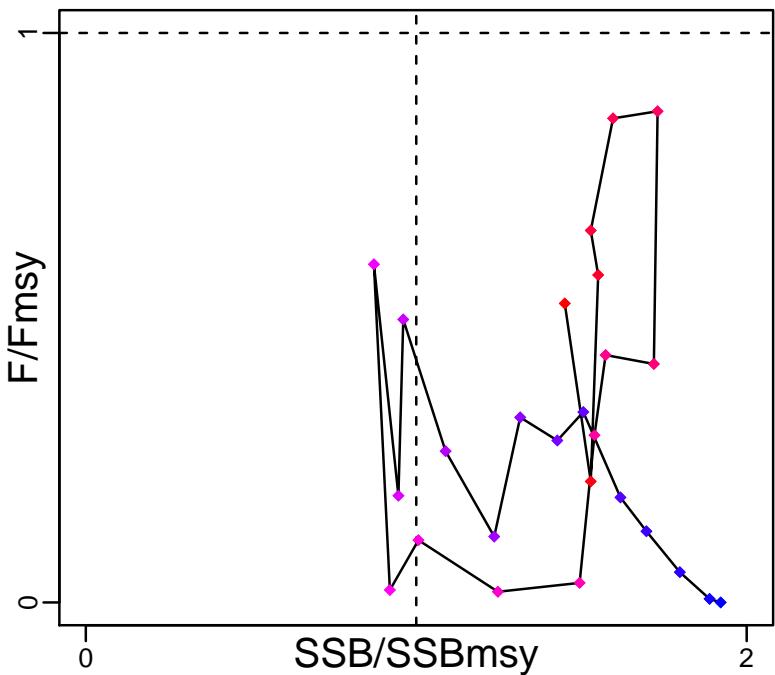
Metadata	
Scientific Name	Scomber colias
Current Assess ID	INIDEP-ACMACKSARG-1989-2016-BURATTI
Area	Southern Argentina
Management Authority	Consejo Federal Pesquero, Argentina national management
Assessor	Instituto Nacional de Investigacion y Desarrollo Pesquero
Asmts in RAM	2016

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-pr-MT	2016	89,000
Fmsy	Fmsy-pr-1/yr	2016	0.32
ERmsy	ERmsy-est-ratio	2016	0.075
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2016	89,000
Fmgt	Fmgt-1/yr	2016	0.32
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-est-MT	2016	8745
M	M-1/yr	2016	0.38
TBlim	-	-	-
SSBlim	SSBlim-MT	2016	59,000
Flim	Flim-1/yr	2016	0.81
ERlim	-	-	-

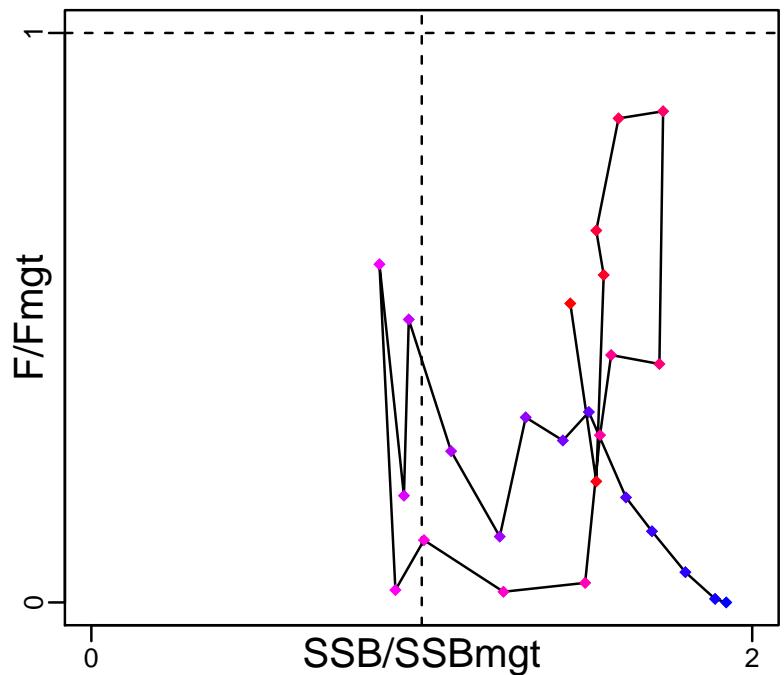
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2016	168,000	-	-	
SSB	SSB-MT	2016	129,000	Both	1 to 10	
TN	-	-	-	-	-	
R	R-E00	2016	2.58×10^8	Both	1	
F	F-1/yr	2016	0.168	Both	1 to 10	
ER	ER-calc-ratio	2016	0.096	Both	-	
TC	-	-	-			
TL	TL-MT	2016	9280			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/SSBmsy-pr-MT	2016	1.449			
F/Fmsy	F-1/yr/Fmsy-pr-1/yr	2016	0.525			
ER/ERmsy	ER-calc-ratio/ERmsy-est-ratio	2016	1.292			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2016	1.449			
F/Fmgt	F-1/yr/Fmgt-1/yr	2016	0.525			
ER/ERmgt	-	-	-			

Argentine chub mackerel Southern Argentina [ACMACKSARG]

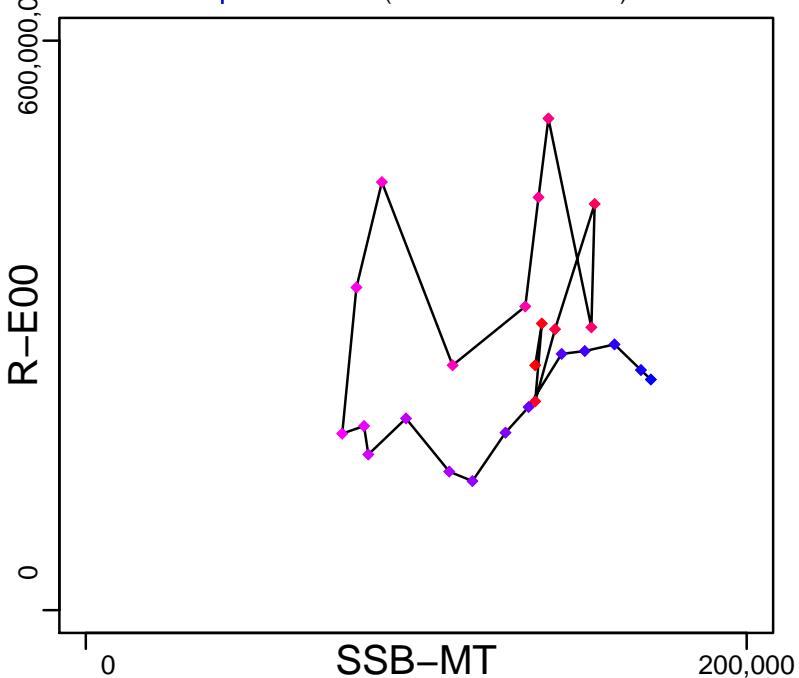
Kobe MSYpref (1989–2016–BURATTI)



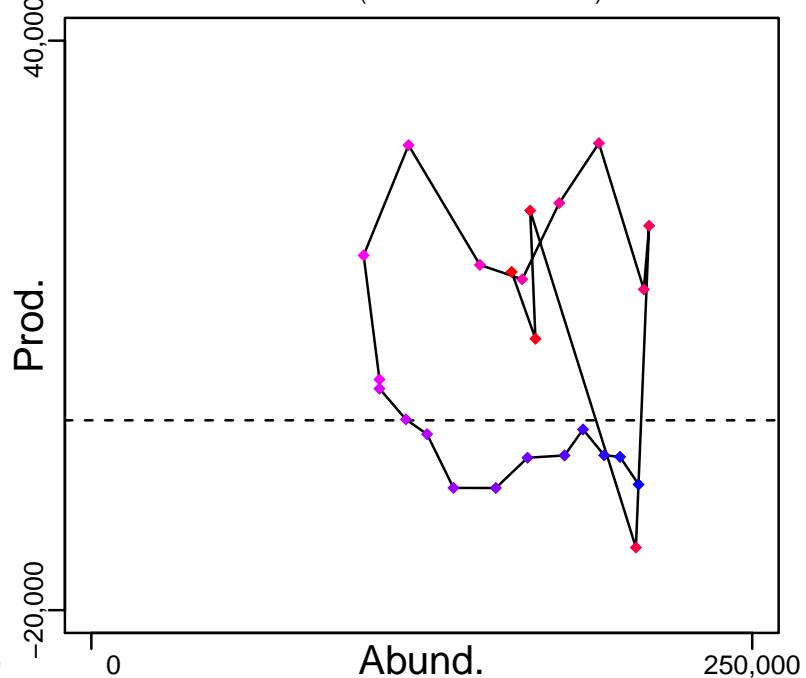
Kobe MGTpref (1989–2016–BURATTI)



Spawner Recruit (1989–2016–BURATTI)



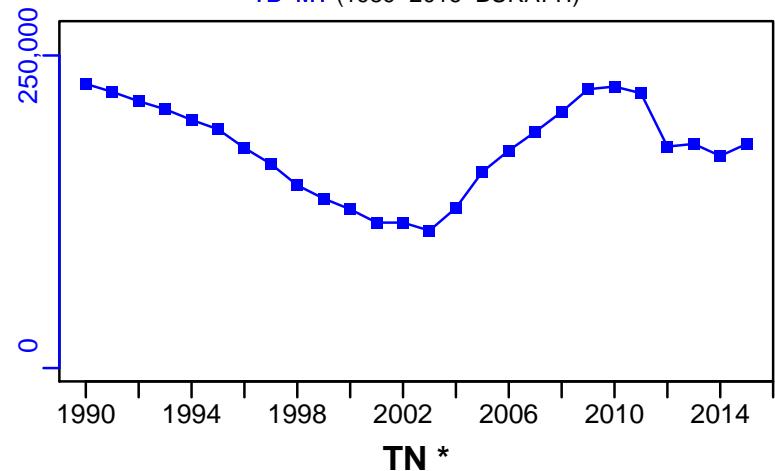
Production (1989–2016–BURATTI)



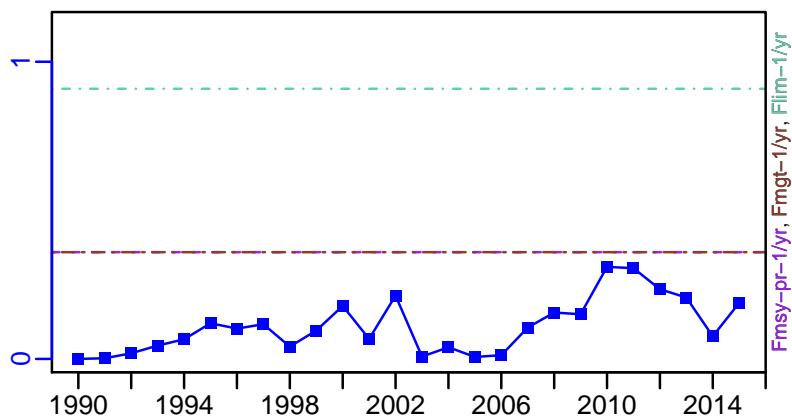
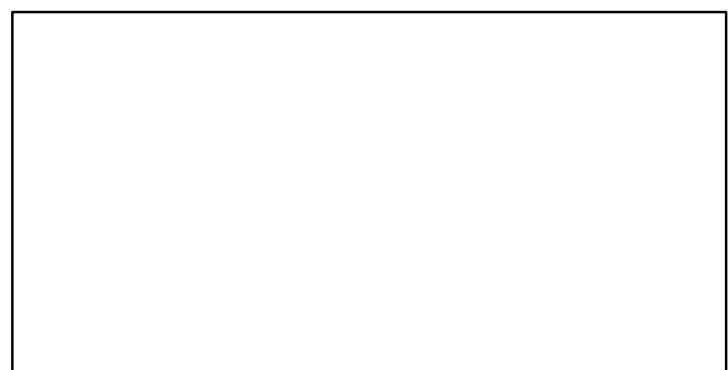
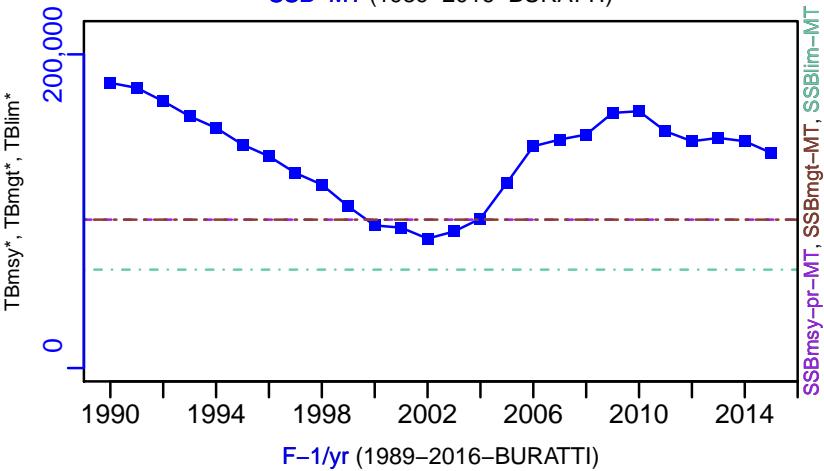
◆ Start Year ◆ End Year * No Data

Argentine chub mackerel Southern Argentina [ACMACKSARG]

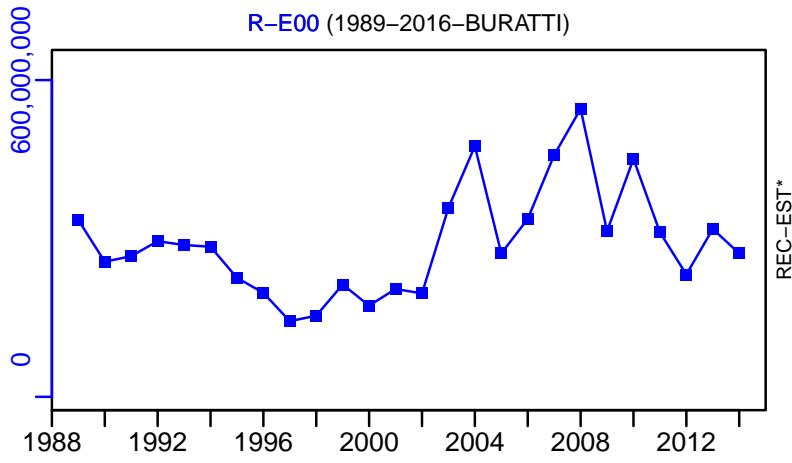
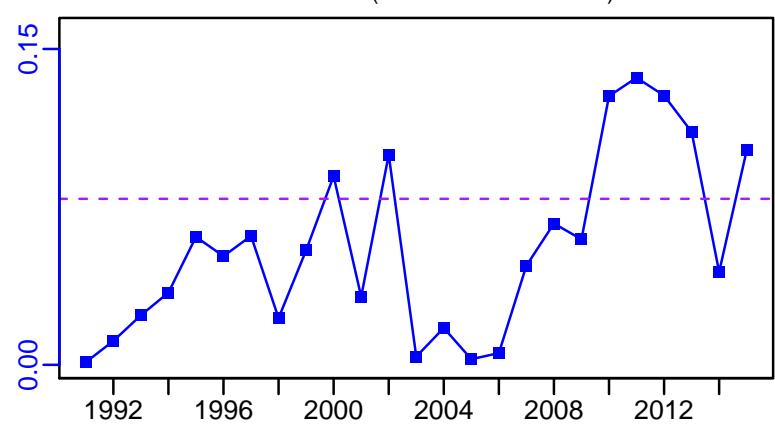
TB-MT (1989–2016–BURATTI)



SSB-MT (1989–2016–BURATTI)



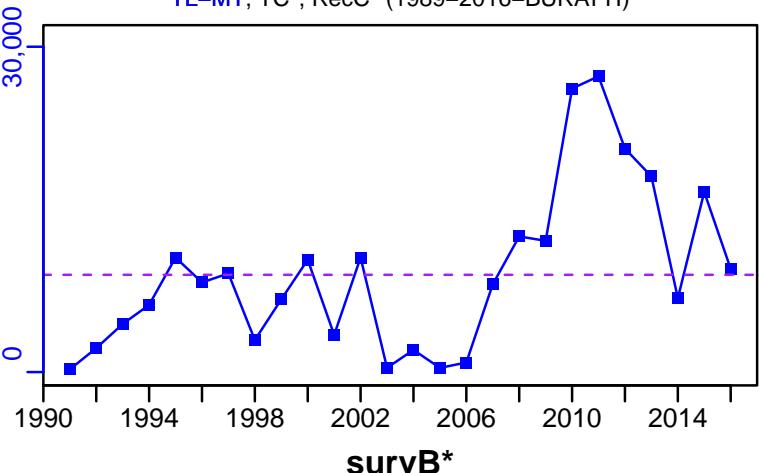
ER-calc-ratio (1989–2016–BURATTI)



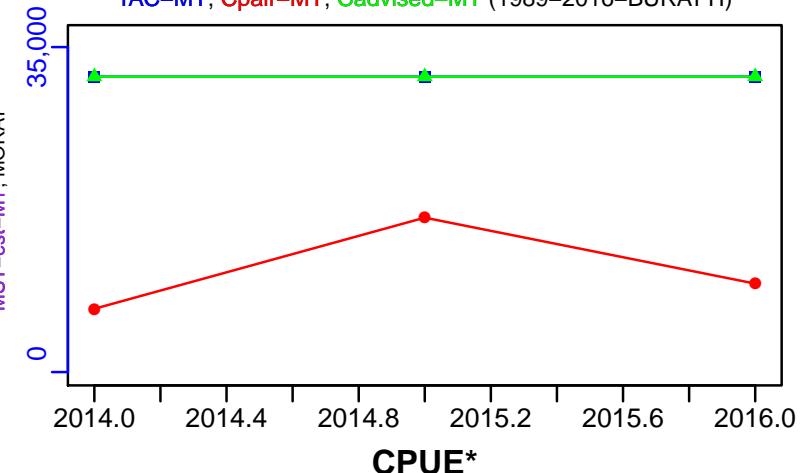
■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	--- Lim BRP	* No Data

Argentine chub mackerel Southern Argentina [ACMACKSARG]

TL-MT, TC*, RecC* (1989–2016–BURATTI)



TAC-MT, Cpair-MT, Cadvised-MT (1989–2016–BURATTI)



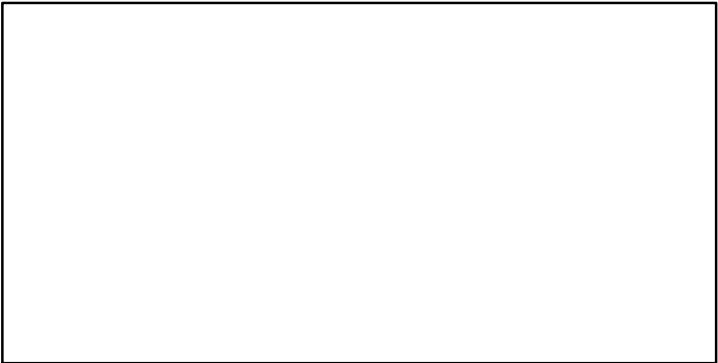
survB*



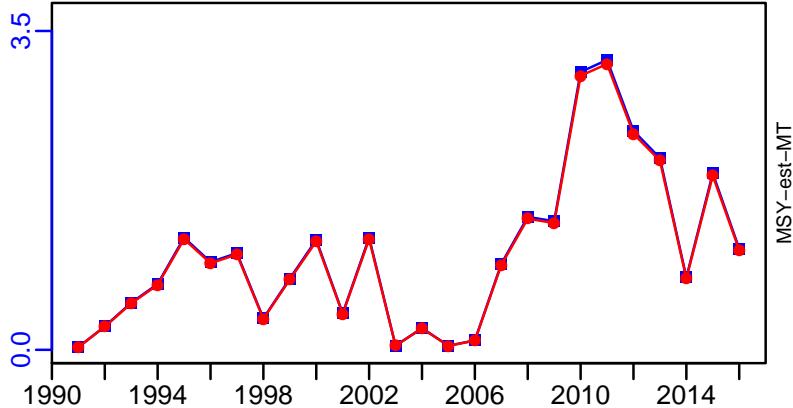
CPUE*



EFFORT*



TL-MT/MSY-est-MT, CdivMEANC-ratio, (1989–2016–BURATTI)



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

Alfonsino Chile [AFLONCH]

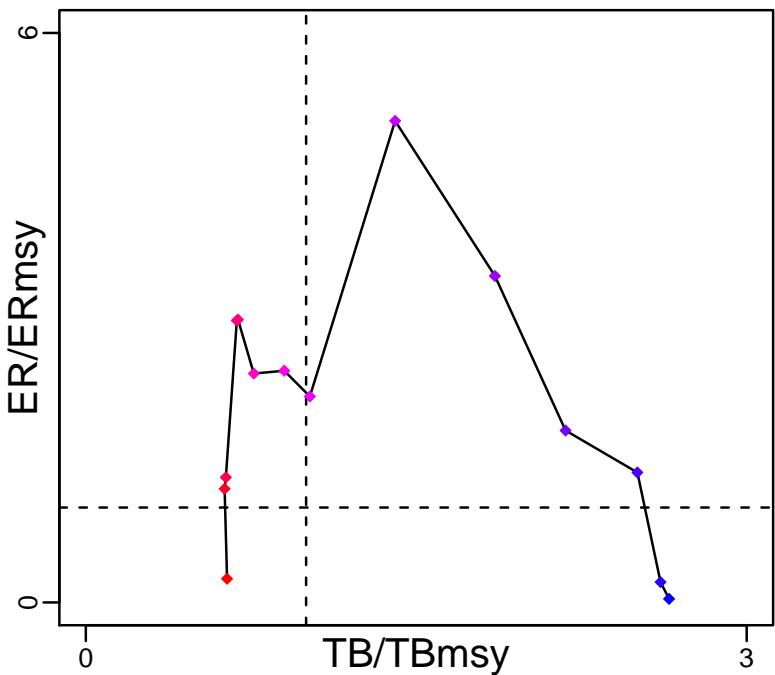
Metadata	
Scientific Name	Beryx splendens
Current Assess ID	SPRFMO-AFLONCH-1998-2011-CHING
Area	Chile
Management Authority	South Pacific Regional Fisheries Management Organization
Assessor	South Pacific Regional Fisheries Management Organization
Asmts in RAM	2011

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-est-MT	2011	18,091
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	ERmsy-est-ratio	2011	0.071
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-est-MT	2011	1278
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

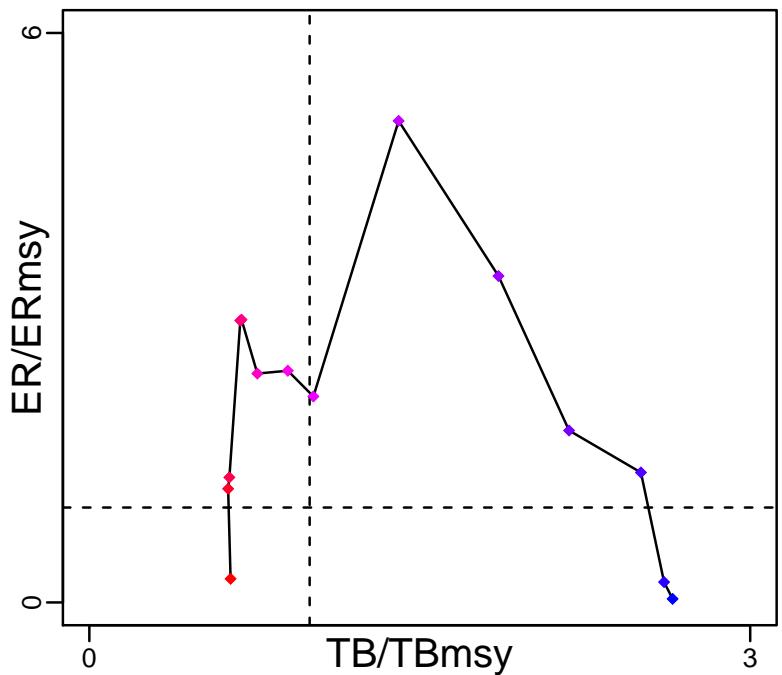
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2011	11,600	-	-	
SSB	SSB-MT	2011	944	-	-	
TN	-	-	-	-	-	
R	R-E00	2011	4370	-	-	
F	-	-	-	-	-	
ER	ER-calc-ratio	2011	0.018	-	-	
TC	-	-	-			
TL	TL-MT	2011	204			
TB/TBmsy	TB-MT/TBmsy-est-MT	2011	0.641			
SSB/SSBmsy	-	-	-			
F/Fmsy	-	-	-			
ER/ERmsy	ER-calc-ratio/ERmsy-est-ratio	2011	0.249			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Alfonsino Chile [AFLONCH]

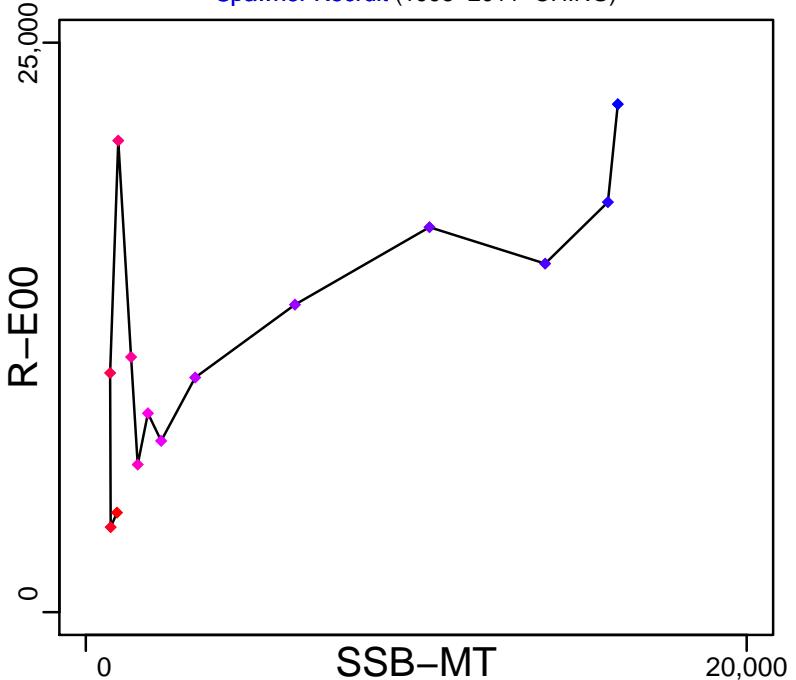
Kobe MSYpref (1998–2011–CHING)



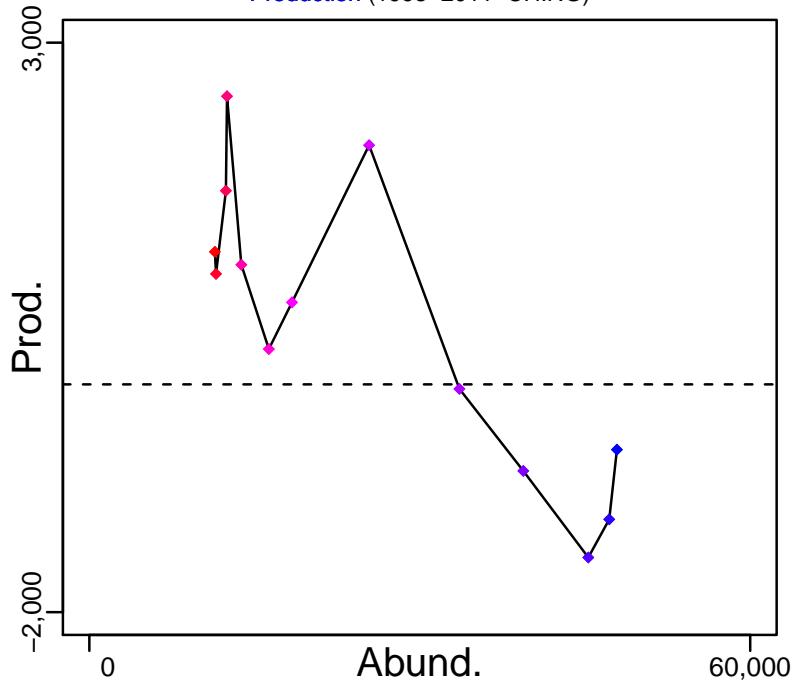
Kobe MGTPref (1998–2011–CHING)



Spawner Recruit (1998–2011–CHING)



Production (1998–2011–CHING)

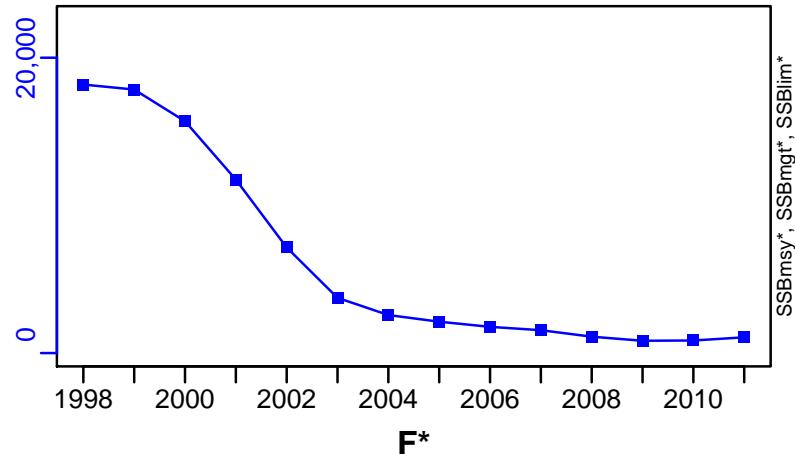
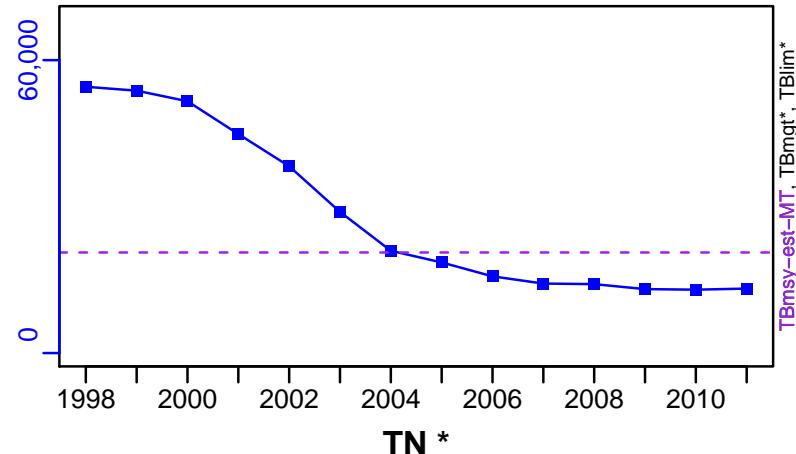


◆ Start Year ◆ End Year * No Data

Alfonsino Chile [AFLONCH]

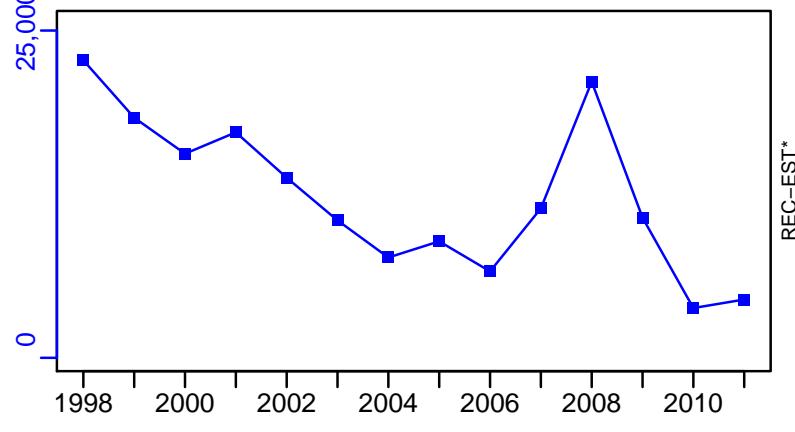
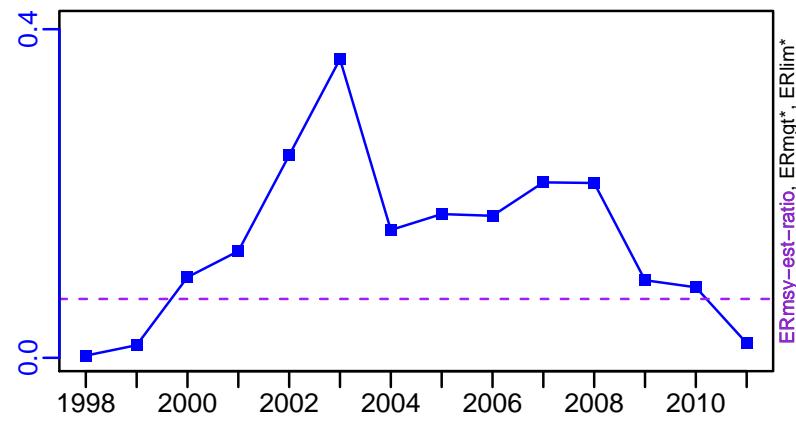
TB-MT (1998–2011-CHING)

SSB-MT (1998–2011-CHING)



ER-calc-ratio (1998–2011-CHING)

R-E00 (1998–2011-CHING)

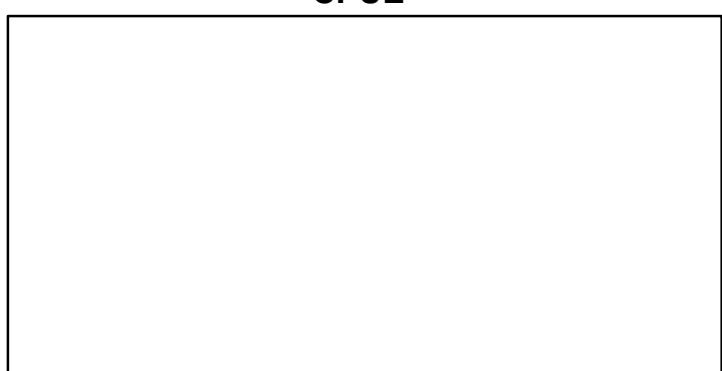
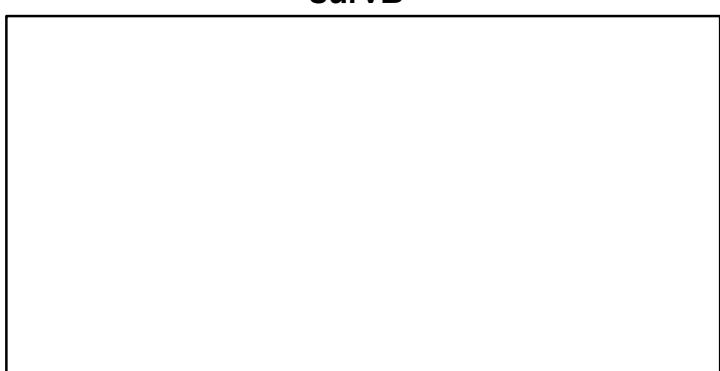
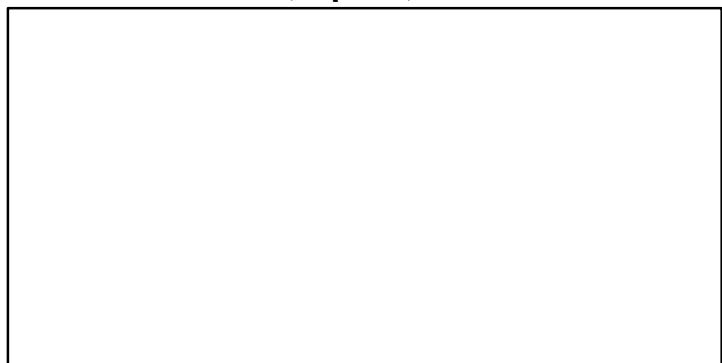
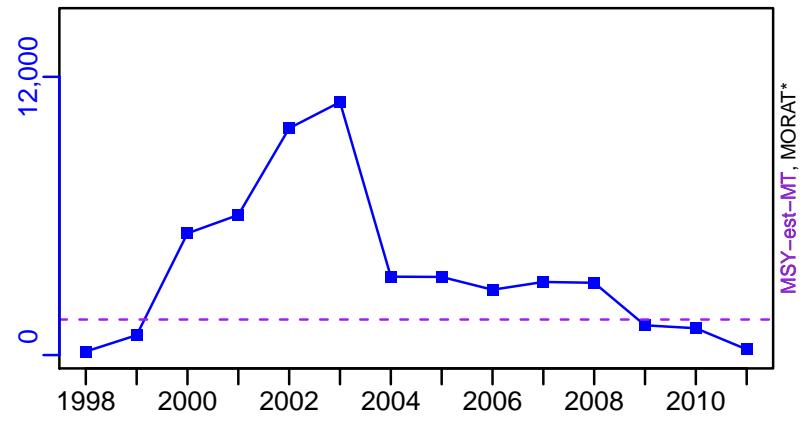


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	--- Lim BRP	* No Data

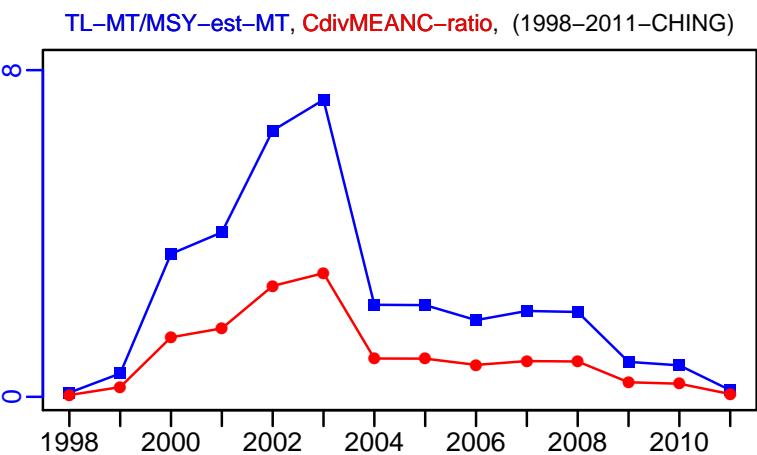
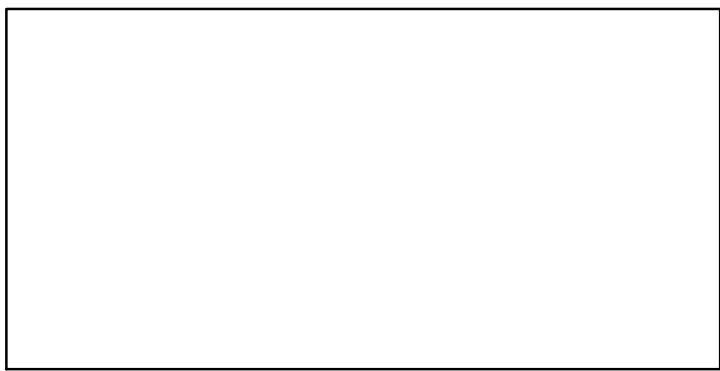
Alfonsino Chile [AFLONCH]

TL-MT, TC*, RecC* (1998–2011-CHING)

TAC*, Cpair*, Cadv*



EFFORT*



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

Argentine anchoita Northern Argentina [ARGANCHONARG]

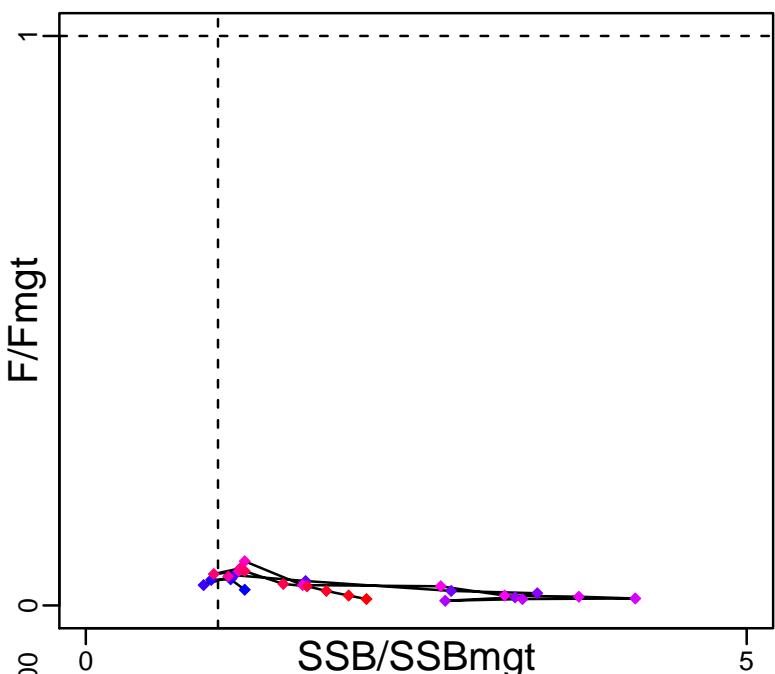
Metadata	
Scientific Name	Engraulis anchoita
Current Assess ID	INIDEP-ARGANCHONARG-1989-2016-PARMA
Area	Northern Argentina
Management Authority	Consejo Federal Pesquero, Argentina national management
Assessor	Instituto Nacional de Investigacion y Desarrollo Pesquero
Asmts in RAM	2007, 2015, 2016

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2007	1,047,948
SSBmsy	SSBmsy-MT	2007	748,152
Fmsy	Fmsy-1/yr	2007	0.19
ERmsy	ERmsy-ratio	2007	0.405
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2016	890,000
Fmgt	Fmgt-1/yr	2016	0.98
ERmgt	-	-	-
TB0	TB0-MT	2016	3,370,285
SSB0	SSB0-MT	2016	2,196,036
MSY	MSY-MT	2015	222,163
M	M-1/yr	2016	1.01
TBlim	-	-	-
SSBlim	SSBlim-MT	2016	293,000
Flim	Flim-1/yr	2016	4.4
ERlim	-	-	-

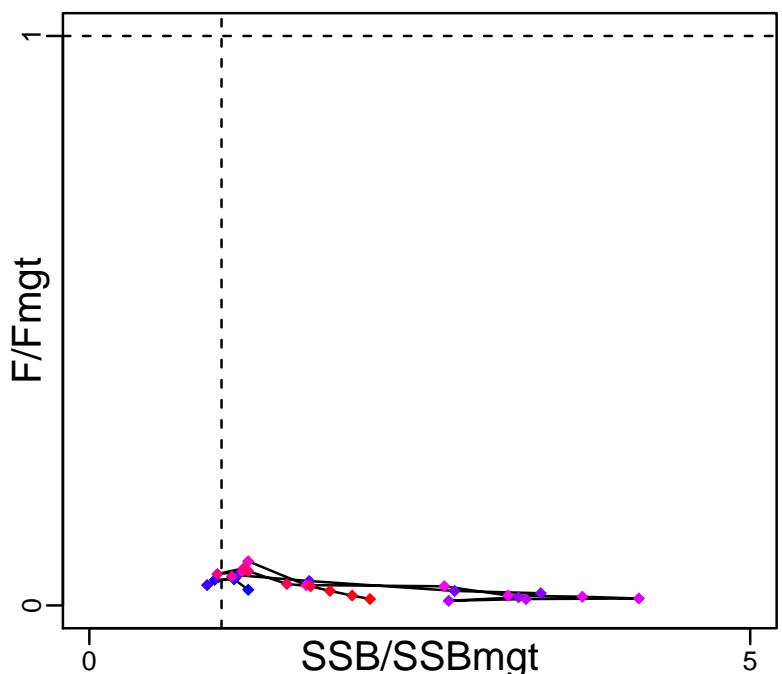
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2016	2,380,000	Both	1+	
SSB	SSB-MT	2016	1,890,000	Both	2+	
TN	-	-	-	-	-	
R	R-E00	2016	2.29×10^{11}	Both	1	
F	F-1/yr	2016	0.011	Both	-	
ER	ER-calc-ratio	2016	0.005	-	-	
TC	TC-MT	2016	12,500			
TL	TL-MT	2016	12,100			
TB/TBmsy	TB-MT/TBmsy-MT	2007	1.088			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2007	1.363			
F/Fmsy	F-1/yr/Fmsy-1/yr	2007	0.169			
ER/ERmsy	ER-ratio/ERmsy-ratio	2007	0.053			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2016	2.124			
F/Fmgt	F-1/yr/Fmgt-1/yr	2016	0.011			
ER/ERmgt	-	-	-			

Argentine anchovy Northern Argentina [ARGANCHONARG]

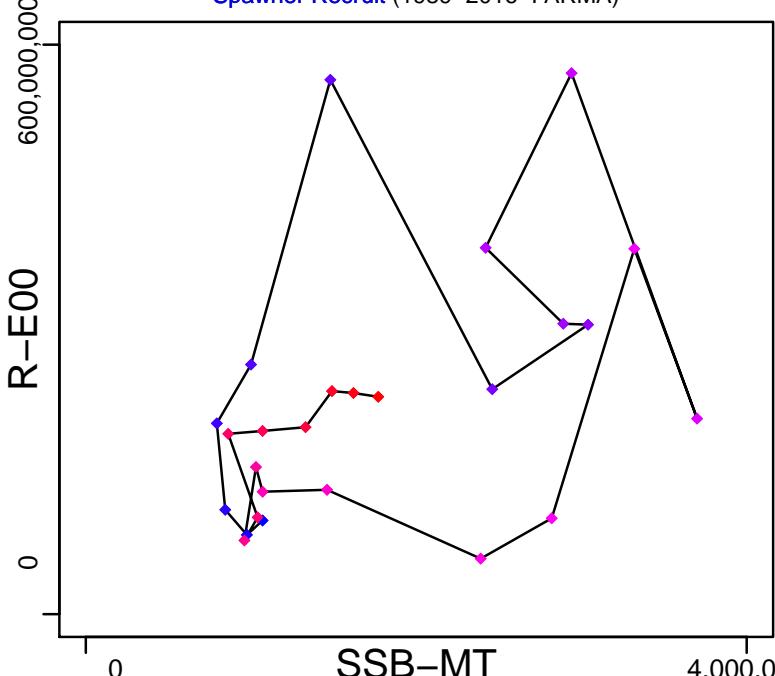
Kobe MSYpref (1989–2016–PARMA)



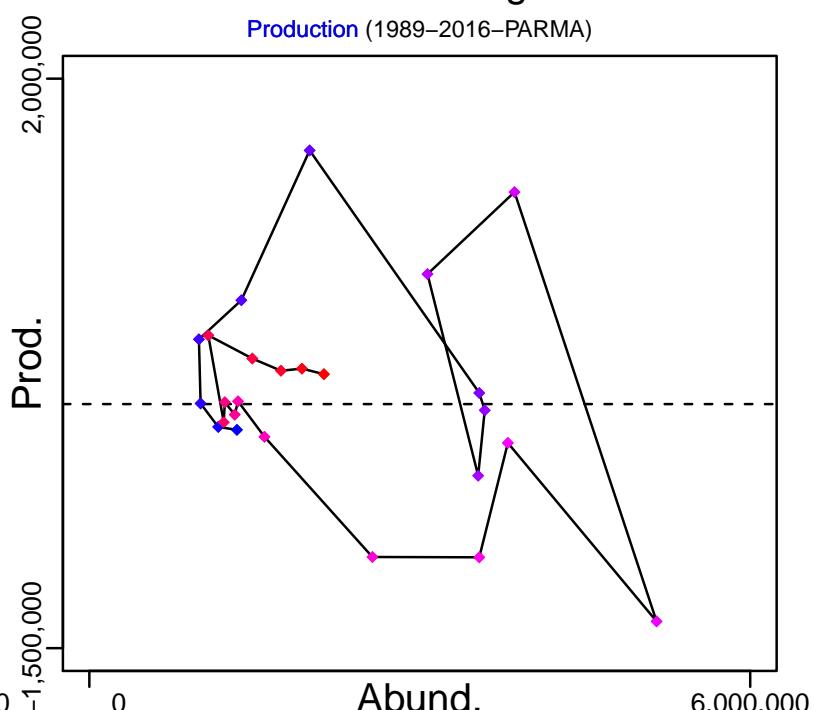
Kobe MGTPref (1989–2016–PARMA)



Spawner Recruit (1989–2016–PARMA)



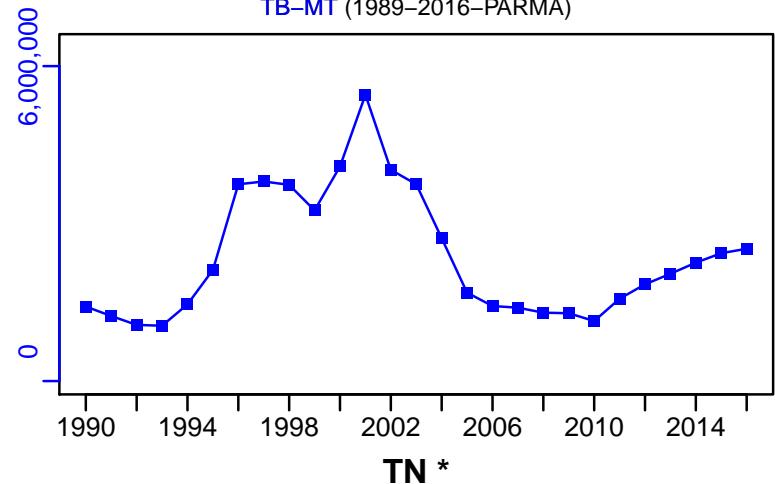
Production (1989–2016–PARMA)



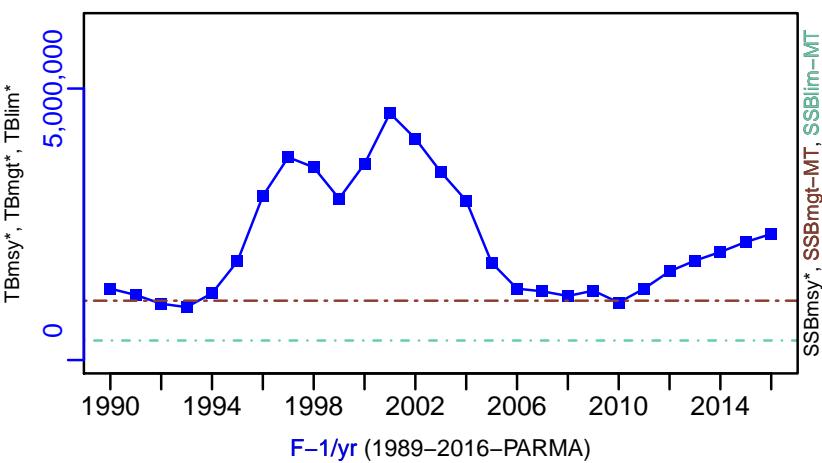
◆ Start Year ◆ End Year * No Data

Argentine anchovy Northern Argentina [ARGANCHONARG]

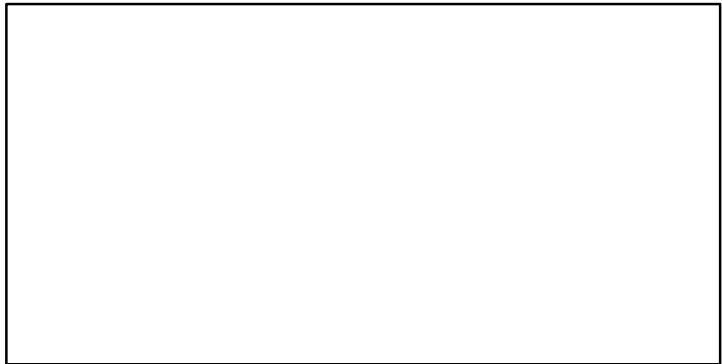
TB-MT (1989–2016-PARMA)



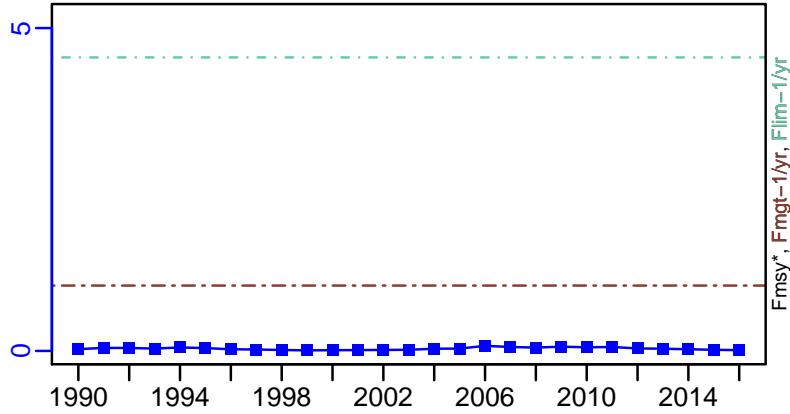
SSB-MT (1989–2016-PARMA)



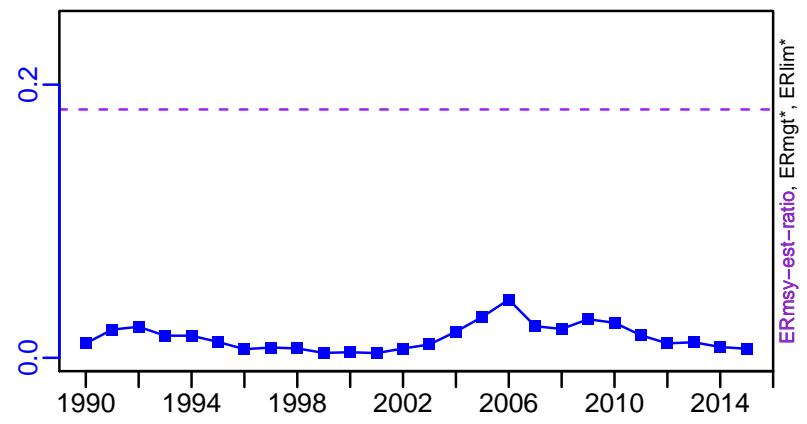
TN *



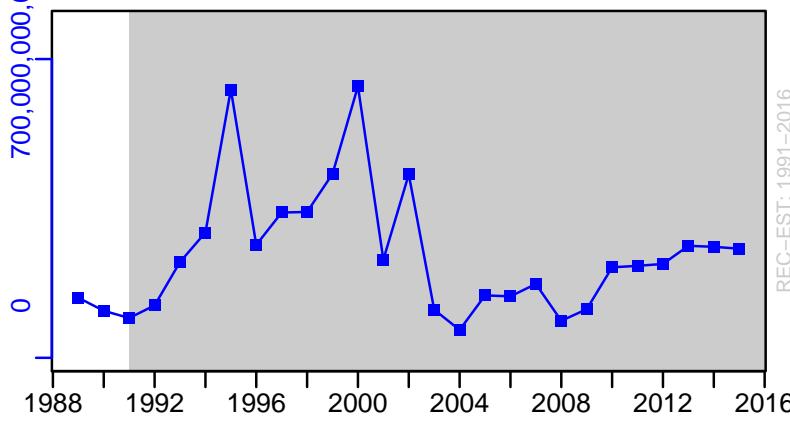
F-1/yr (1989–2016-PARMA)



ER-calc-ratio (1989–2016-PARMA)



R-E00 (1989–2016-PARMA)



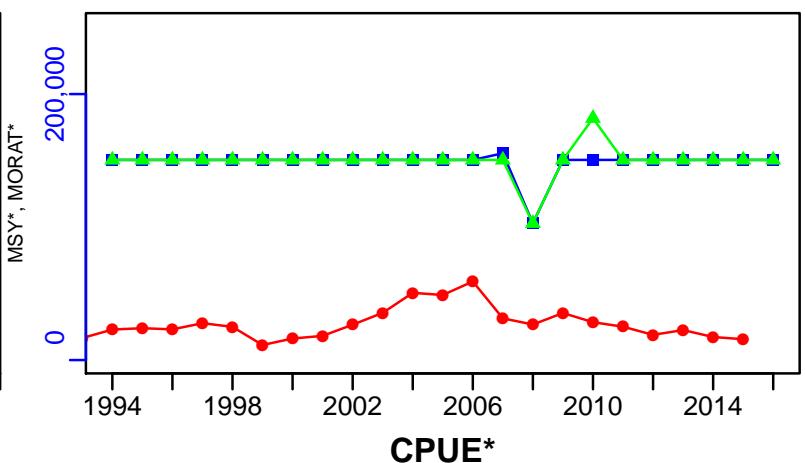
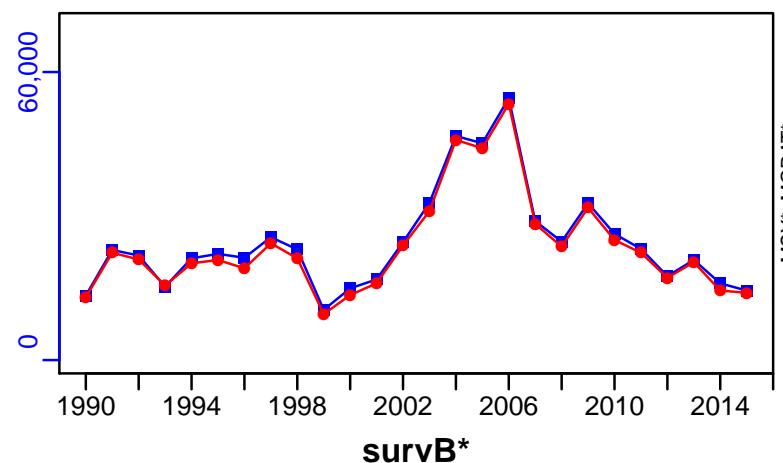
REC-EST: 1991–2016

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

Argentine anchovy Northern Argentina [ARGANCHONARG]

TC-MT, TL-MT, RecC* (1989–2016–PARMA)

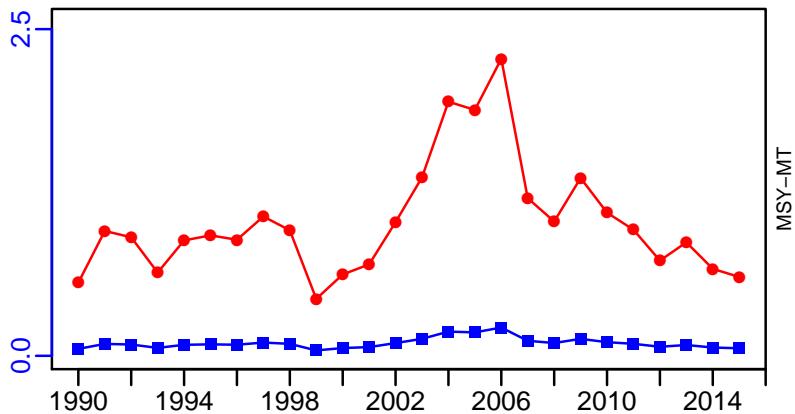
TAC-MT, Cpair-MT, Cadvised-MT (1989–2016–PARMA)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1989–2015–ORLANDO)



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

Argentine anchoita Southern Argentina [ARGANCHOSARG]

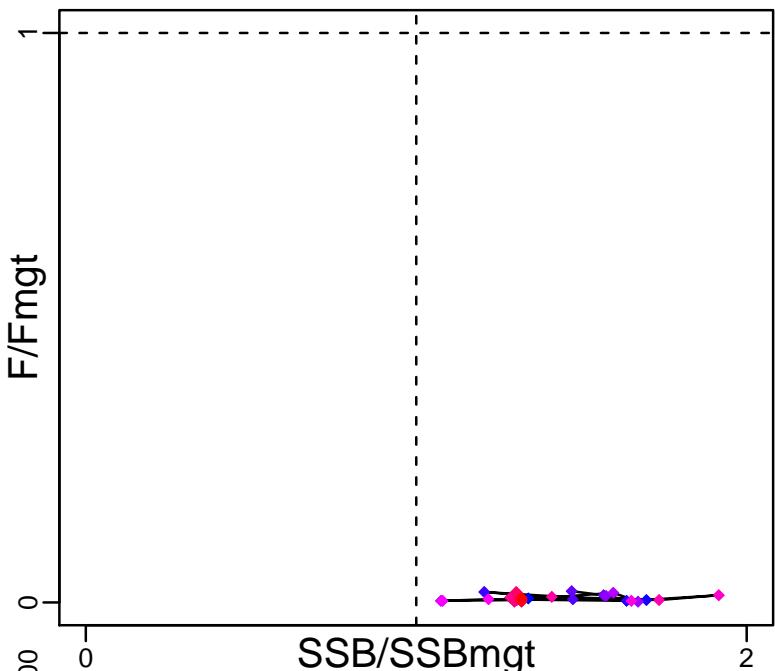
Metadata	
Scientific Name	Engraulis anchoita
Current Assess ID	INIDEP-ARGANCHOSARG-1989-2015-BURATTI
Area	Southern Argentina
Management Authority	Consejo Federal Pesquero, Argentina national management
Assessor	Instituto Nacional de Investigacion y Desarrollo Pesquero
Asmts in RAM	2015, 2007

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2007	733,419
SSBmsy	SSBmsy-MT	2007	298,839
Fmsy	Fmsy-1/yr	2007	0.17
ERmsy	ERmsy-ratio	2007	0.395
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2015	548,161
Fmgt	Fmgt-1/yr	2015	0.71
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2015	454,000
M	M-1/yr	2015	0.98
TBlim	TBlim-MT	2007	350,000
SSBlim	SSBlim-MT	2015	339,700
Flim	-	-	-
ERlim	-	-	-

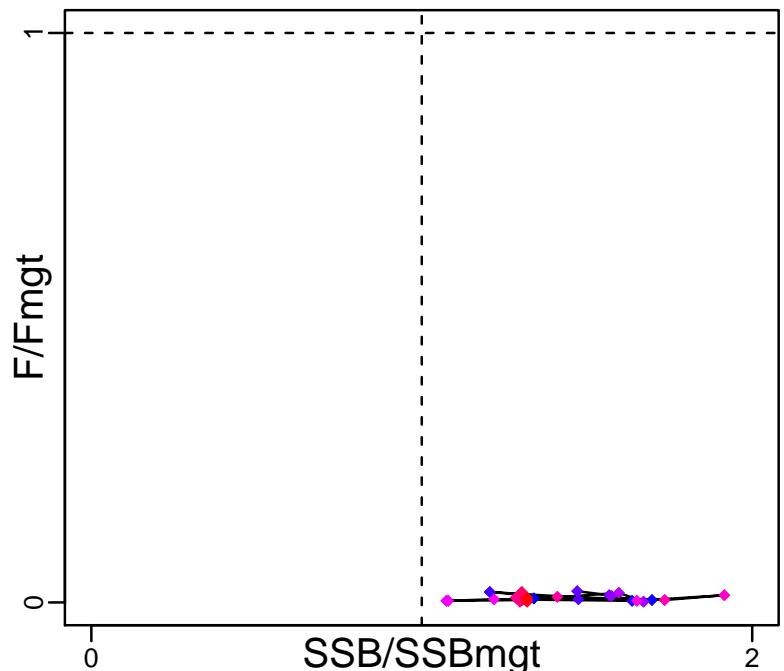
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2015	1,250,000	Both	1+	
SSB	SSB-MT	2015	723,000	Both	2+	
TN	-	-	-	-	-	
R	R-E00	2015	1.42×10^{11}	Both	1	
F	F-1/yr	2015	0.006	Both	1 to 6	
ER	ER-calc-ratio	2015	0.002	-	-	
TC	TC-MT	2015	2280			
TL	TL-MT	2015	2280			
TB/TBmsy	TB-MT/TBmsy-MT	2007	2.277			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2007	3.135			
F/Fmsy	F-1/yr/Fmsy-1/yr	2007	0.035			
ER/ERmsy	ER-ratio/ERmsy-ratio	2007	0.005			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2015	1.319			
F/Fmgt	F-1/yr/Fmgt-1/yr	2015	0.008			
ER/ERmgt	-	-	-			

Argentine anchovy Southern Argentina [ARGANCHOSARG]

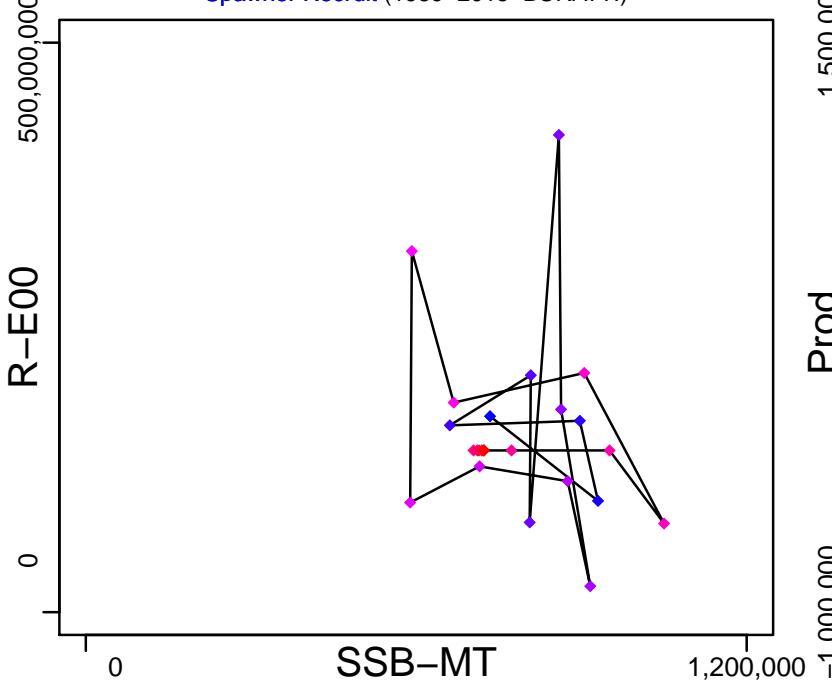
Kobe MSYpref (1989–2015–BURATTI)



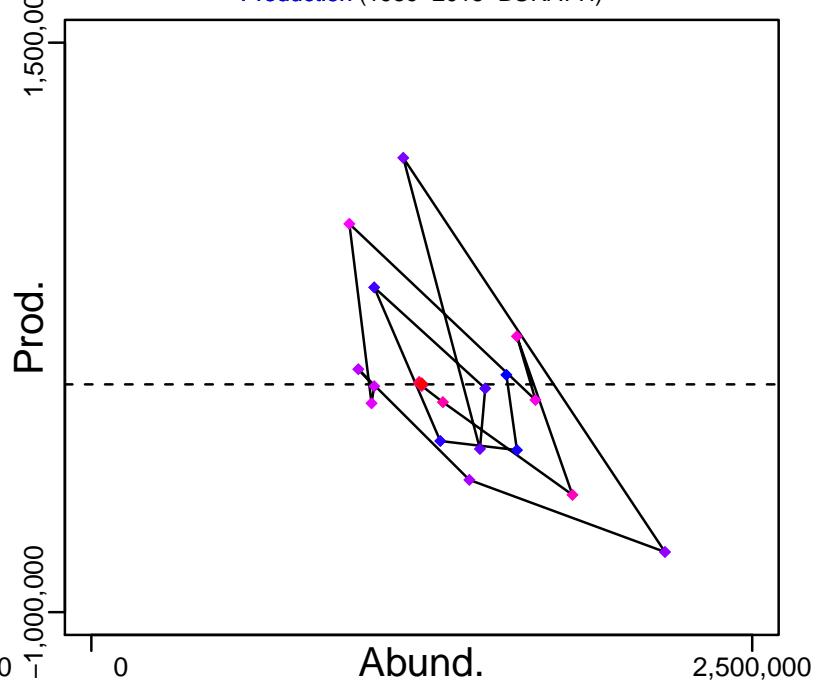
Kobe MGTpref (1989–2015–BURATTI)



Spawner Recruit (1989–2015–BURATTI)



Production (1989–2015–BURATTI)

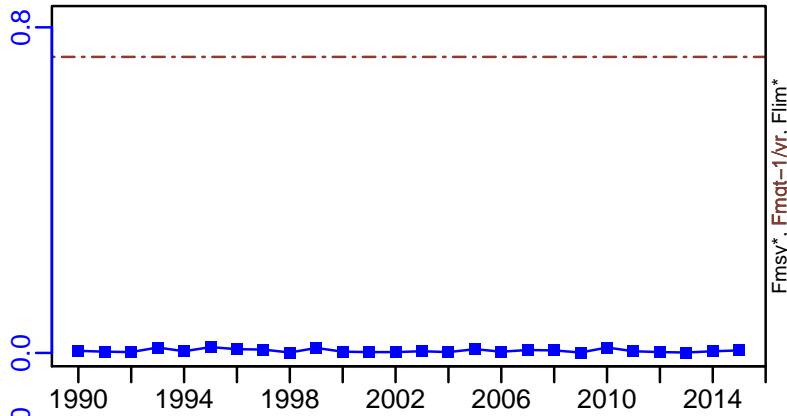
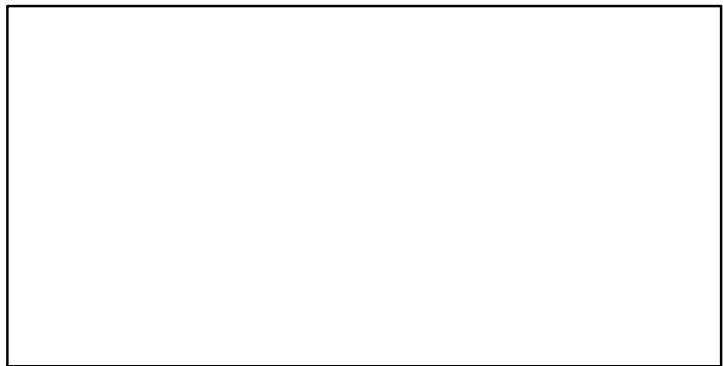
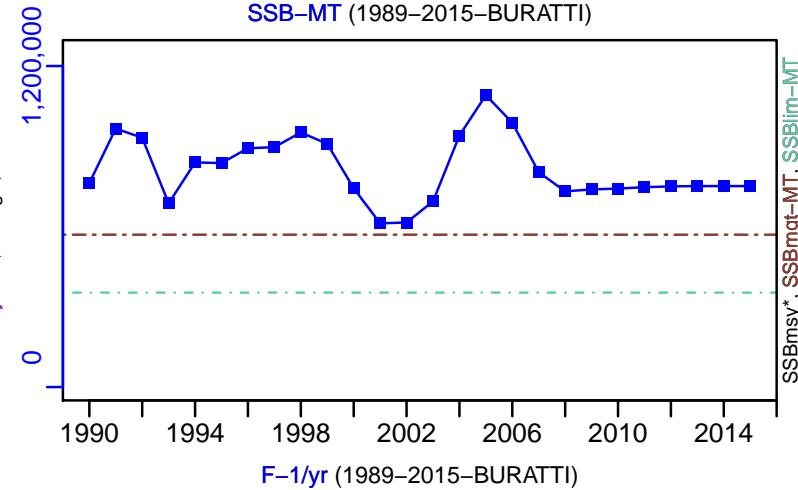
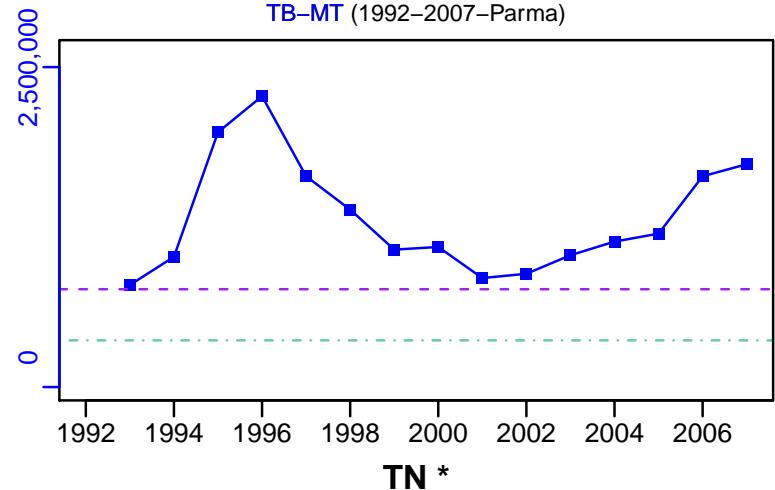


- | | | | |
|--------------|------------|---|---------|
| ◆ Start Year | ◆ End Year | * | No Data |
|--------------|------------|---|---------|

Argentine anchovy Southern Argentina [ARGANCHOSARG]

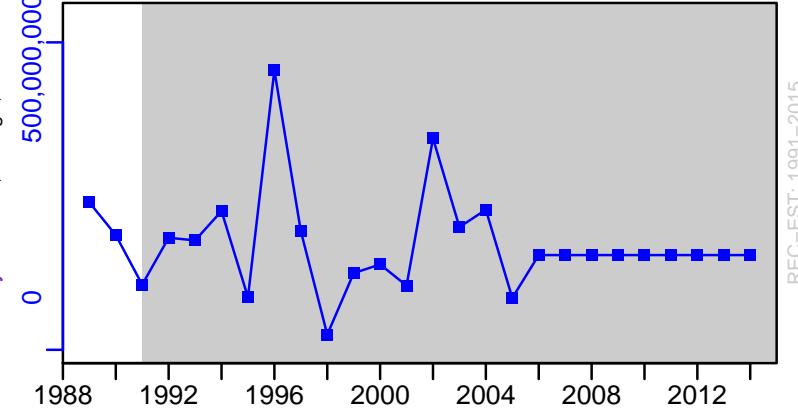
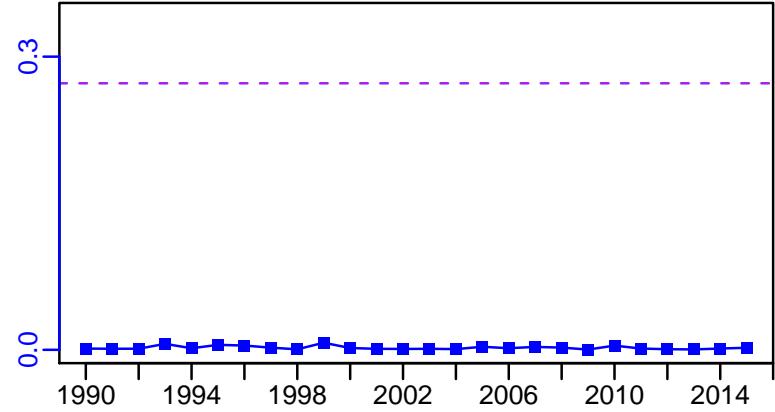
TB-MT (1992–2007–Parma)

SSB-MT (1989–2015–BURATTI)



ER-calc-ratio (1989–2015–BURATTI)

R-E00 (1989–2015–BURATTI)



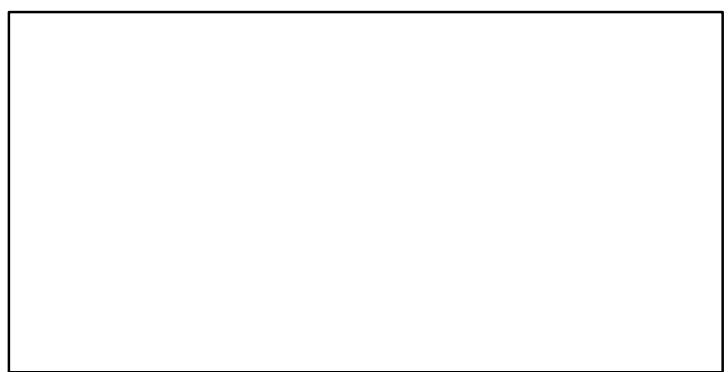
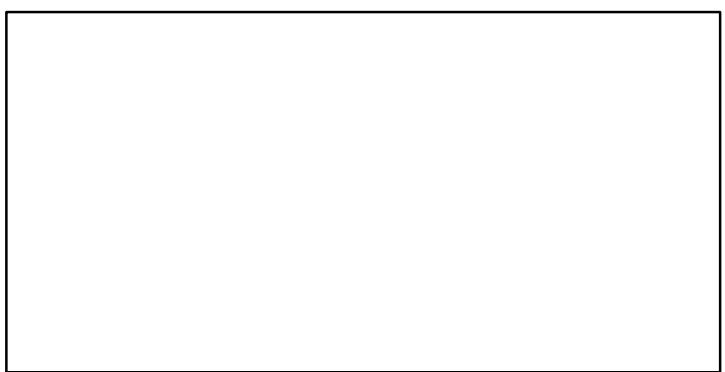
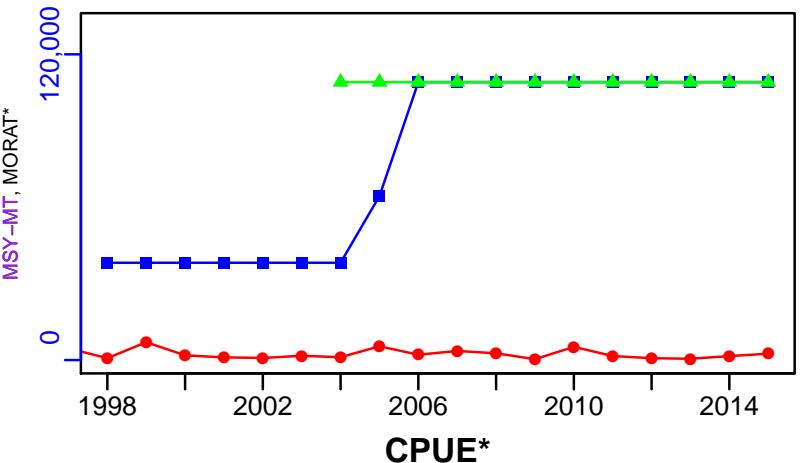
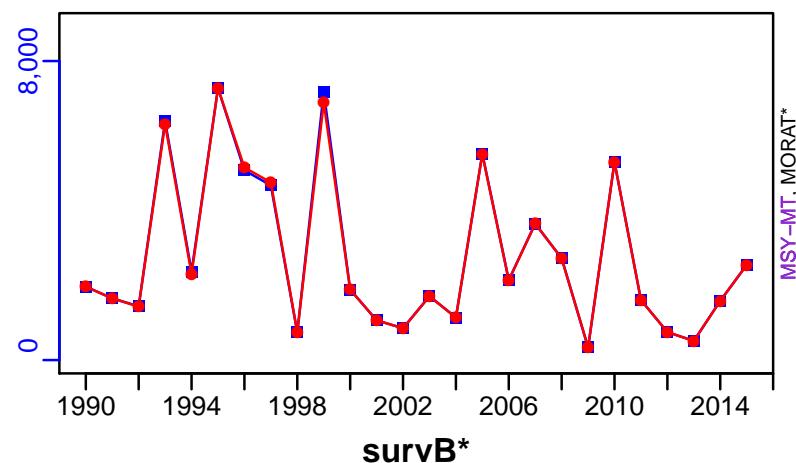
■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	— Lim BRP	* No Data

REC-EST: 1991–2015

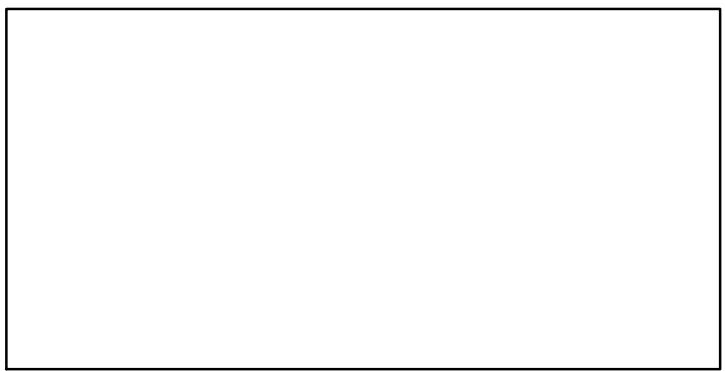
Argentine anchovy Southern Argentina [ARGANCHOSARG]

TC-MT, TL-MT, RecC* (1989–2015–BURATTI)

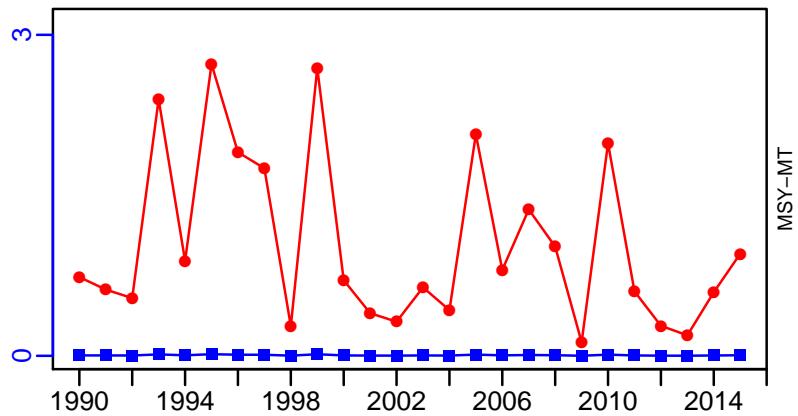
TAC-MT, Cpair-MT, Cadvised-MT (1989–2015–BURATTI)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1989–2015–BURATTI)



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

Argentine hake Northern Argentina [ARGHAKENARG]

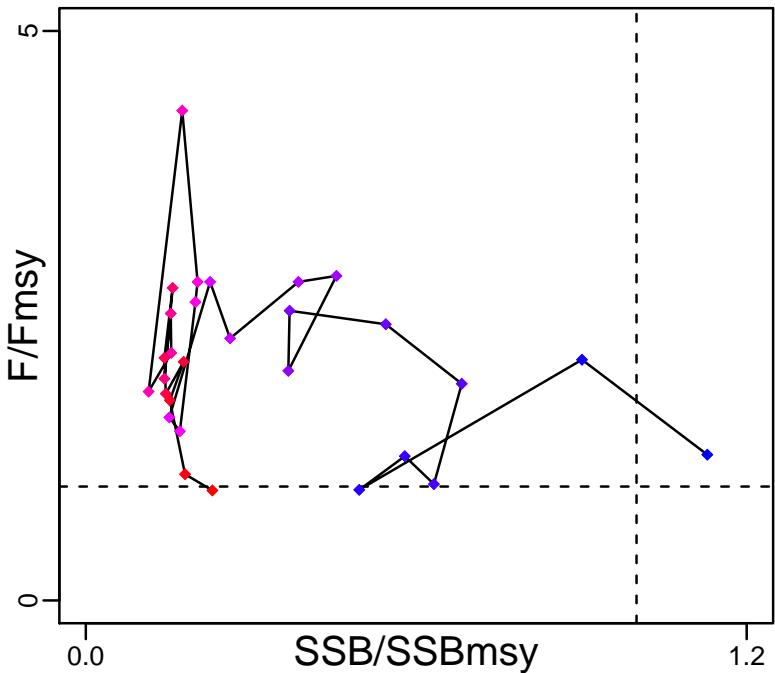
Metadata	
Scientific Name	Merluccius hubbsi
Current Assess ID	INIDEP-ARGHAKENARG-1985-2014-PARMA
Area	Northern Argentina
Management Authority	Consejo Federal Pesquero, Argentina national management
Assessor	Instituto Nacional de Investigacion y Desarrollo Pesquero
Asmts in RAM	2014, 2011

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-est-MT	2011	336,439
SSBmsy	SSBmsy-MT	2014	435,082
Fmsy	Fmsy-1/yr	2014	0.379
ERmsy	ERmsy-est-ratio	2014	0.194
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-est-MT	2014	146,013
M	M-1/yr	2014	0.3
TBlim	-	-	-
SSBlim	SSBlim-MT	2014	230,000
Flim	-	-	-
ERlim	-	-	-

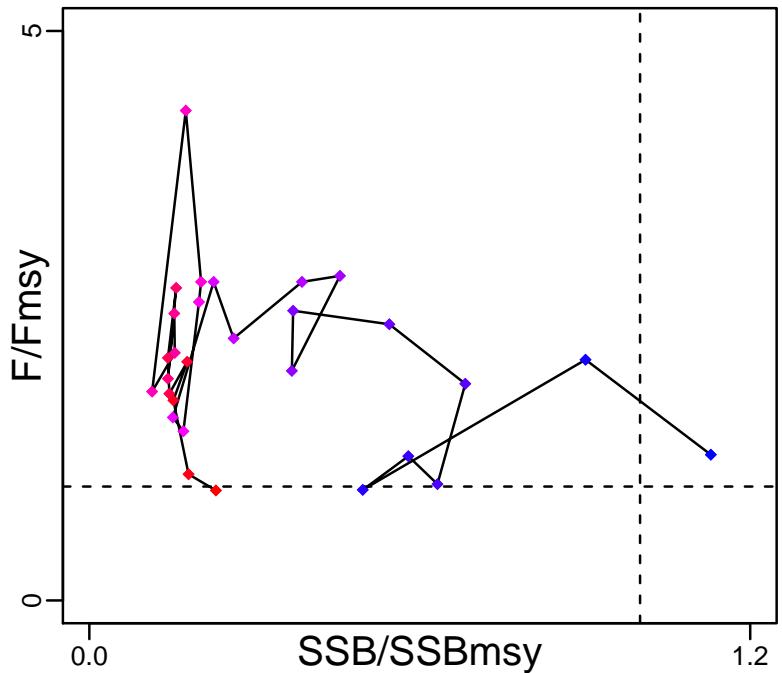
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2014	146,000	Both	-	
SSB	SSB-MT	2014	1×10^5	-	-	
TN	-	-	-	-	-	
R	R-E00	2014	3.22×10^8	-	-	
F	F-1/yr	2014	0.366	Both	3 to 6	
ER	ER-calc-ratio	2014	0.286	-	-	
TC	TC-MT	2014	41,800			
TL	-	-	-			
TB/TBmsy	TB-MT/TBmsy-est-MT	2011	0.395			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2014	0.23			
F/Fmsy	F-1/yr/Fmsy-1/yr	2014	0.966			
ER/ERmsy	ER-calc-ratio/ERmsy-est-ratio	2014	1.474			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Argentine hake Northern Argentina [ARGHAKENARG]

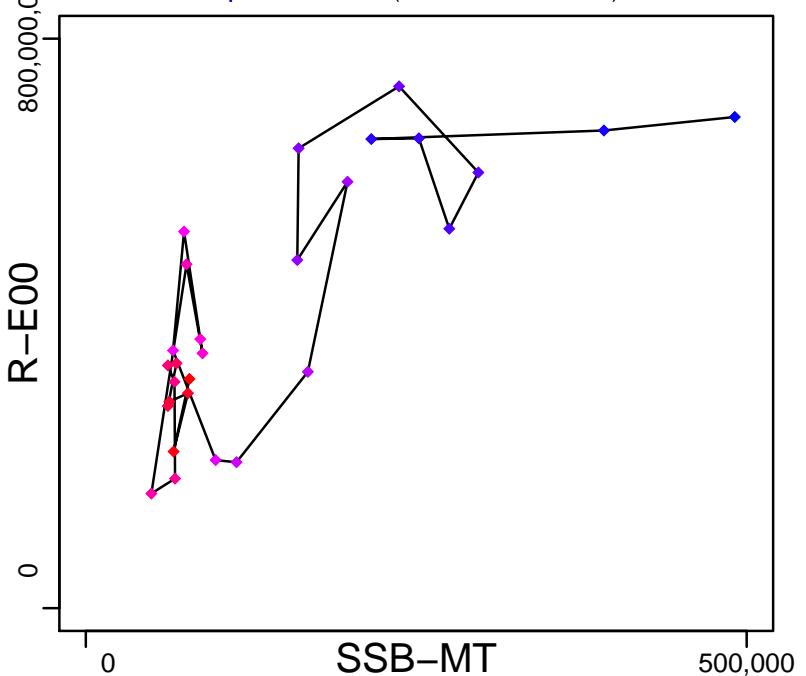
Kobe MSYpref (1985–2014–PARMA)



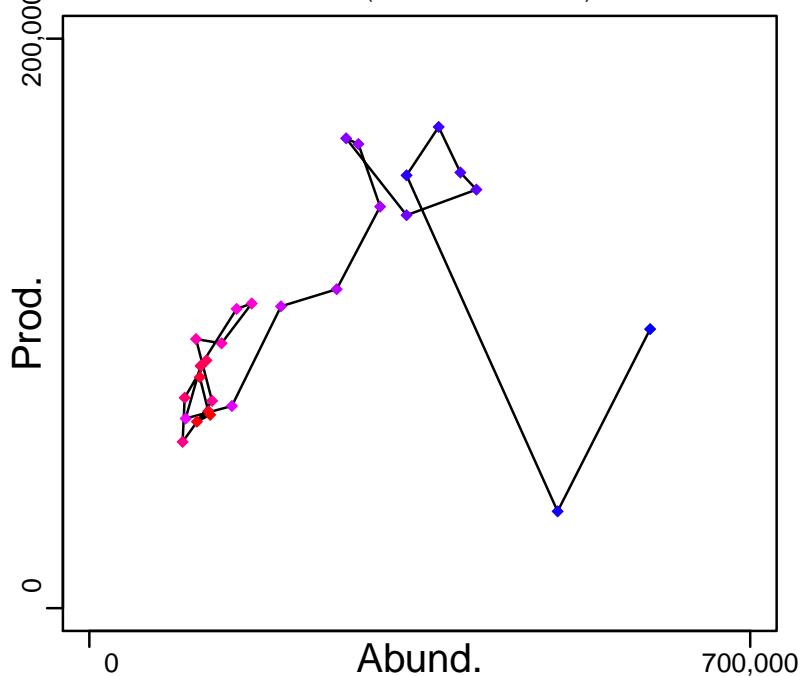
Kobe MGTPref (1985–2014–PARMA)



Spawner Recruit (1985–2014–PARMA)



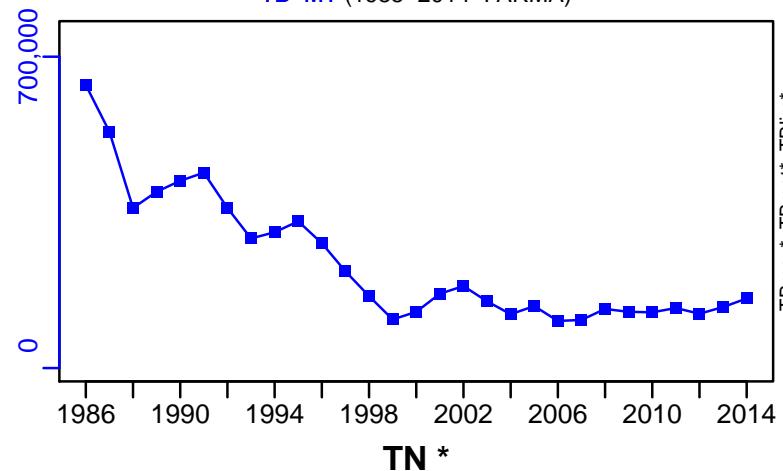
Production (1985–2014–PARMA)



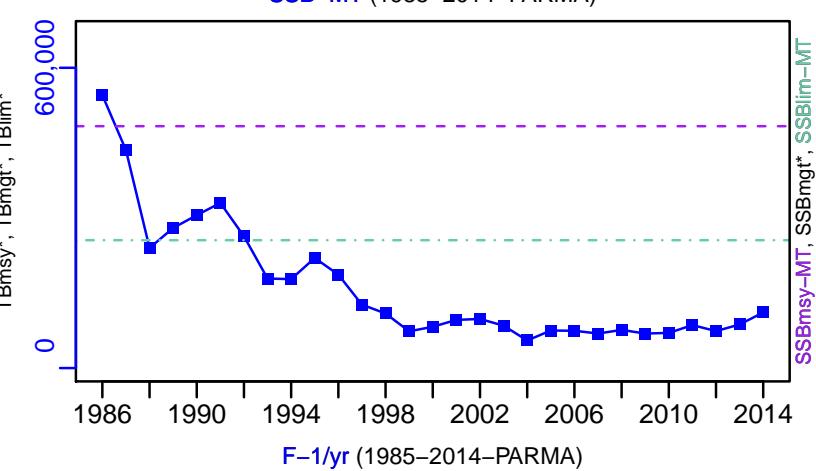
◆ Start Year ◆ End Year * No Data

Argentine hake Northern Argentina [ARGHAKENARG]

TB-MT (1985–2014-PARMA)



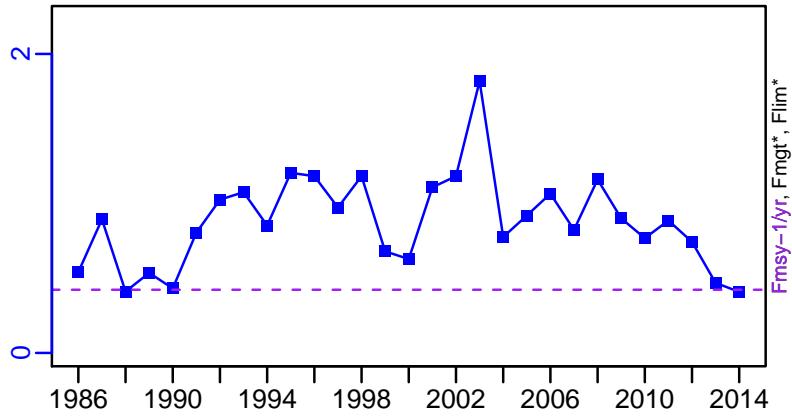
SSB-MT (1985–2014-PARMA)



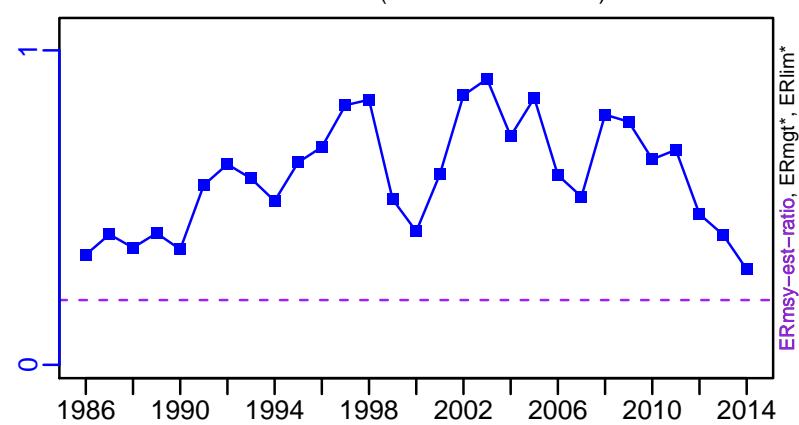
TN *



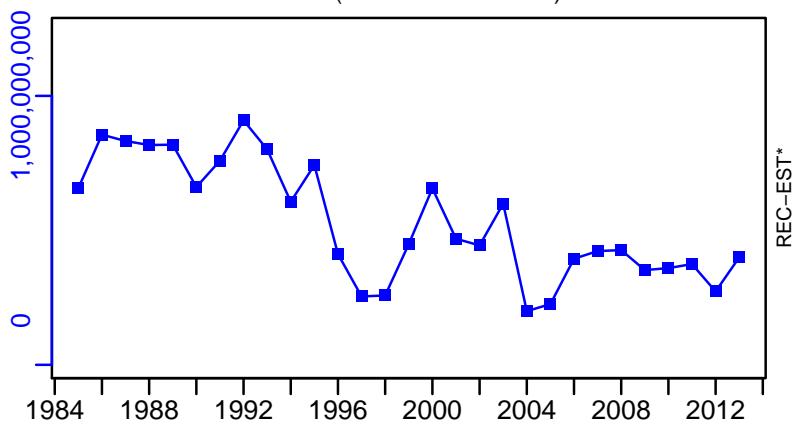
F-1/yr (1985–2014-PARMA)



ER-calc-ratio (1985–2014-PARMA)



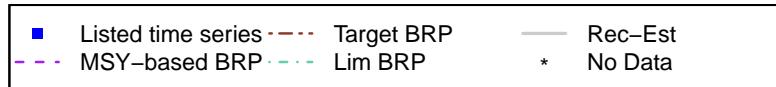
R-E00 (1985–2014-PARMA)



SSBmgt*-MT, SSBmgt*, SSBlim-MT

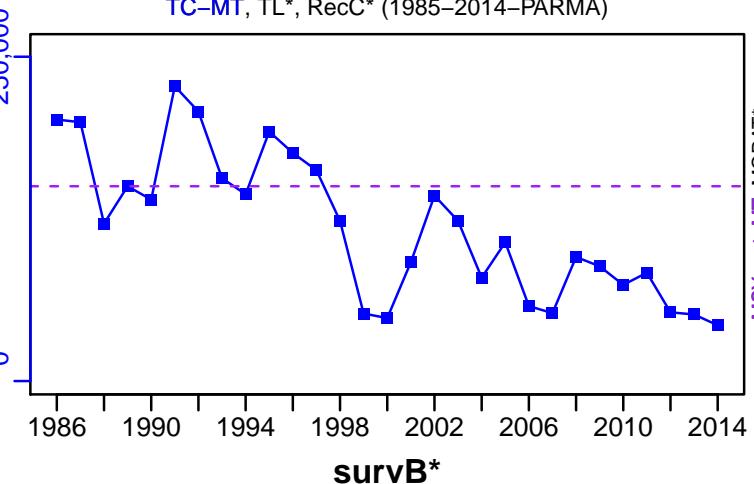
Fmgt*-1/yr, Fmgt*, Flim*

REC-EST*

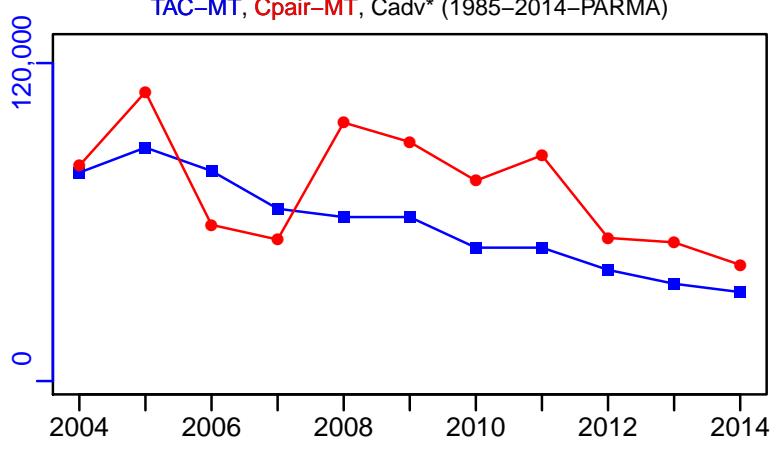


Argentine hake Northern Argentina [ARGHAKENARG]

TC-MT, TL*, RecC* (1985–2014-PARMA)



TAC-MT, Cpair-MT, Cadv* (1985–2014-PARMA)



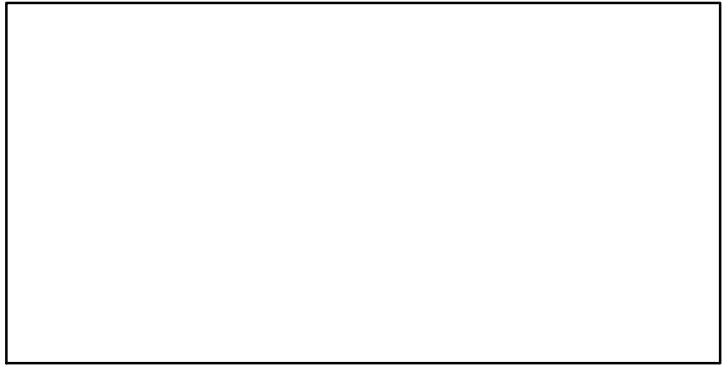
survB*



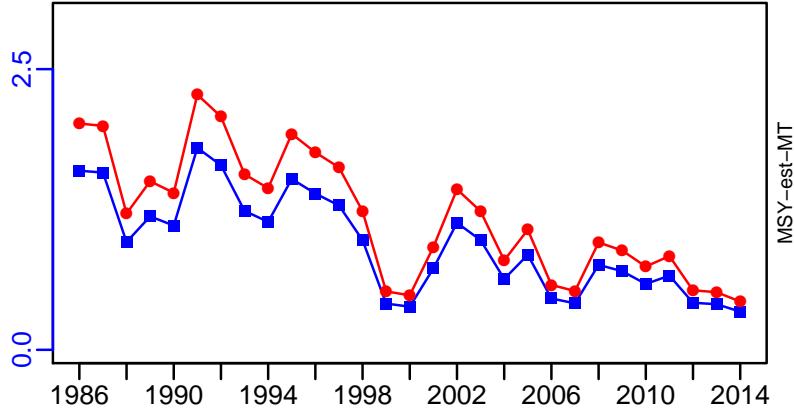
CPUE*



EFFORT*



TC-MT/MSY-est-MT, CdivMEANC-ratio, (1985–2014-PARMA)



MSY-est-MT

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

Argentine hake Southern Argentina [ARGHAKESARG]

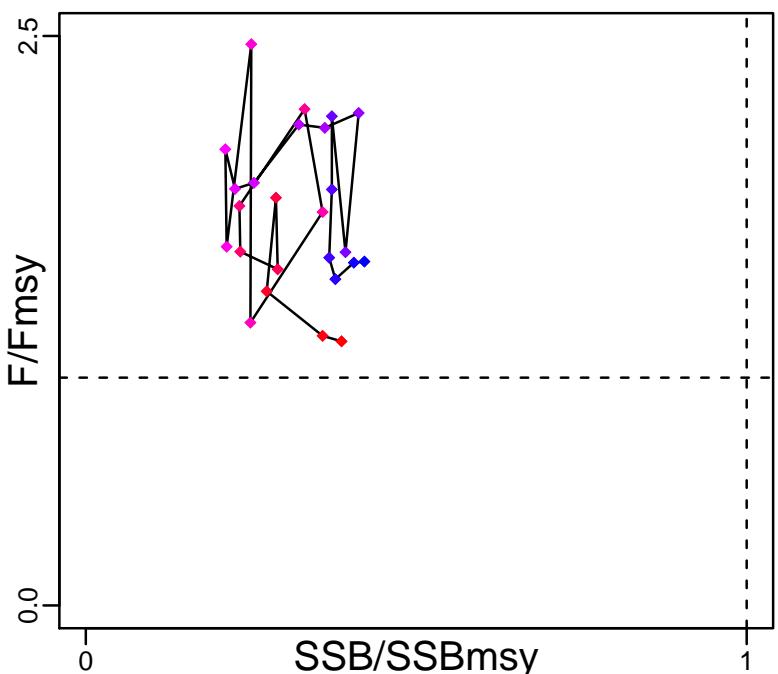
Metadata	
Scientific Name	Merluccius hubbsi
Current Assess ID	INIDEP-ARGHAKESARG-1986-2015-PARMA
Area	Southern Argentina
Management Authority	Consejo Federal Pesquero, Argentina national management
Assessor	Instituto Nacional de Investigacion y Desarrollo Pesquero
Asmts in RAM	2015, 2011

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2015	1,501,500
Fmsy	Fmsy-1/yr	2015	0.414
ERmsy	ERmsy-est-ratio	2015	0.202
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2015	6×10^5
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-est-MT	2015	522,793
M	M-1/yr	2015	0.3
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

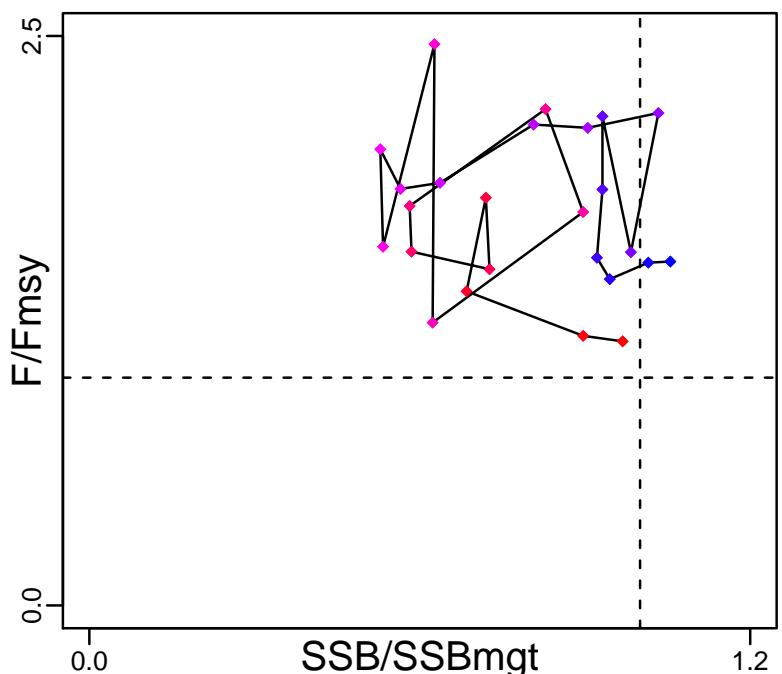
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2015	909,000	-	-	
SSB	SSB-MT	2015	581,000	-	-	
TN	-	-	-	-	-	
R	R-E00	2015	1,870,000	-	-	
F	F-1/yr	2015	0.48	Both	3 to 6	
ER	ER-ratio	2015	0.671	Both	-	
TC	TC-MT	2015	321,000			
TL	TL-MT	2015	294,000			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2015	0.387			
F/Fmsy	F-1/yr/Fmsy-1/yr	2015	1.159			
ER/ERmsy	ER-ratio/ERmsy-est-ratio	2015	3.328			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2015	0.968			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Argentine hake Southern Argentina [ARGHAKESARG]

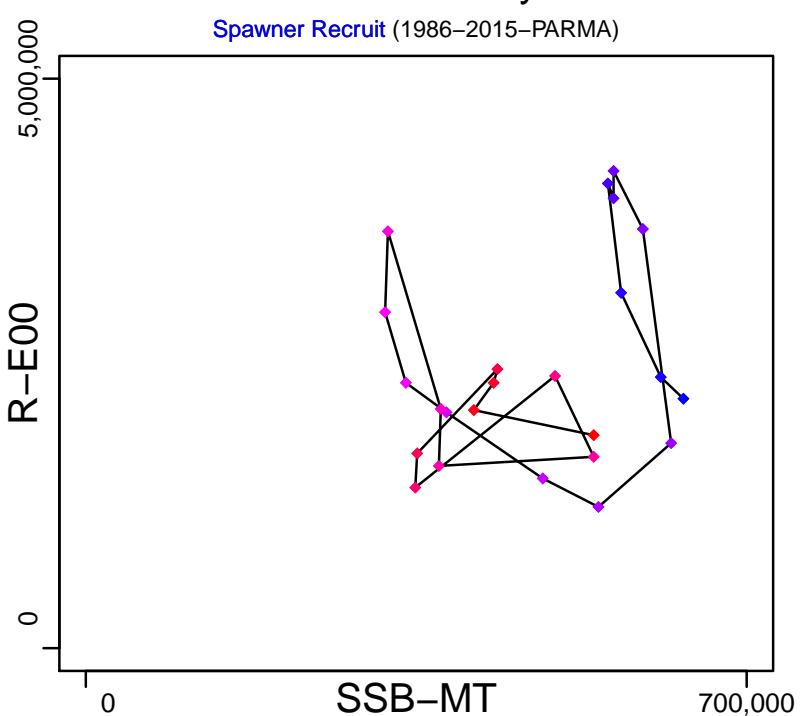
Kobe MSYpref (1986–2015–PARMA)



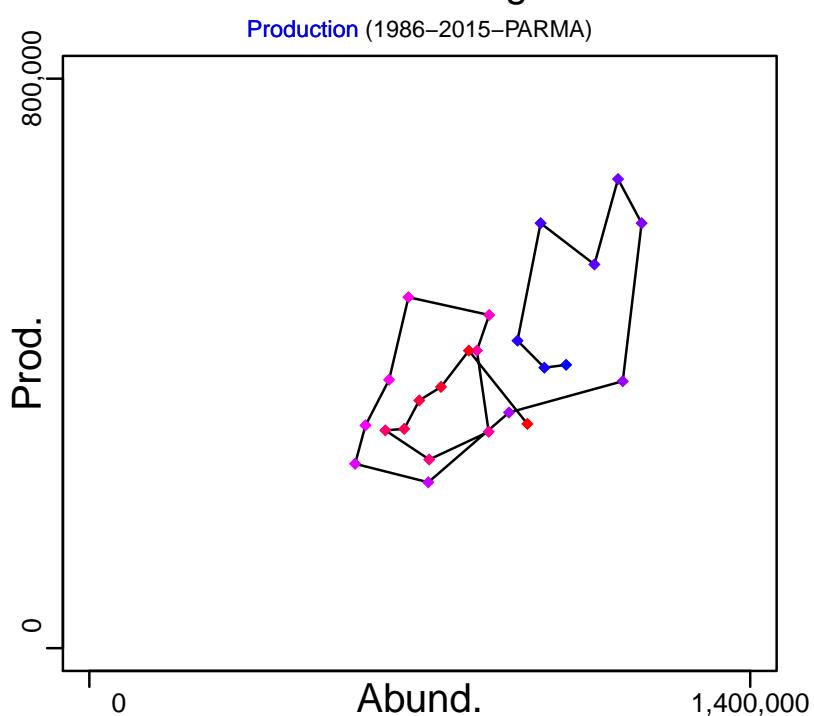
Kobe MGTPref (1986–2015–PARMA)



Spawner Recruit (1986–2015–PARMA)



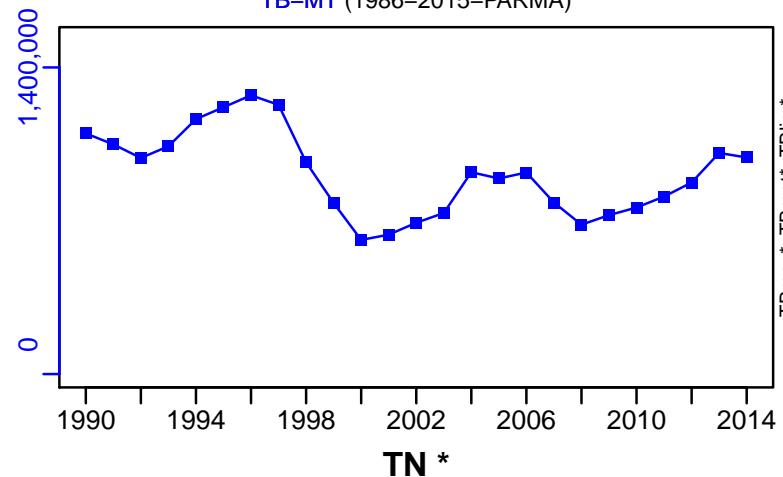
Production (1986–2015–PARMA)



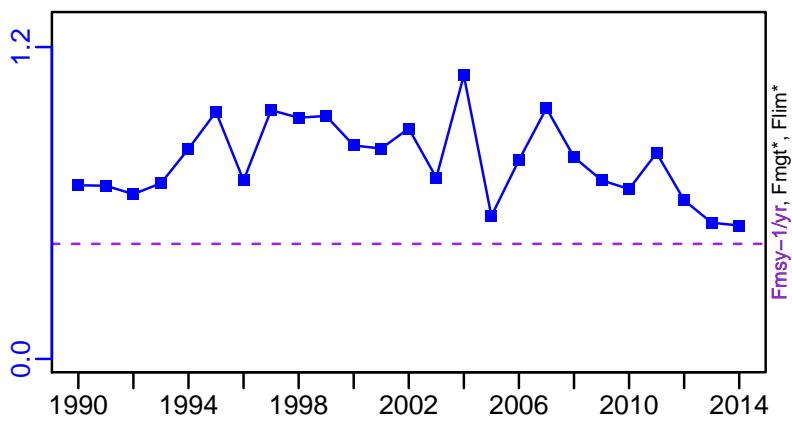
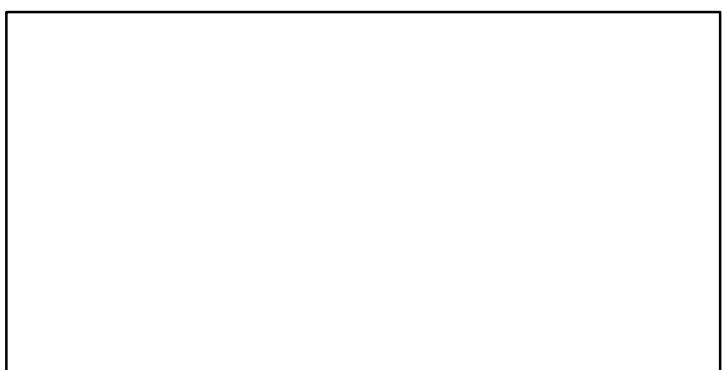
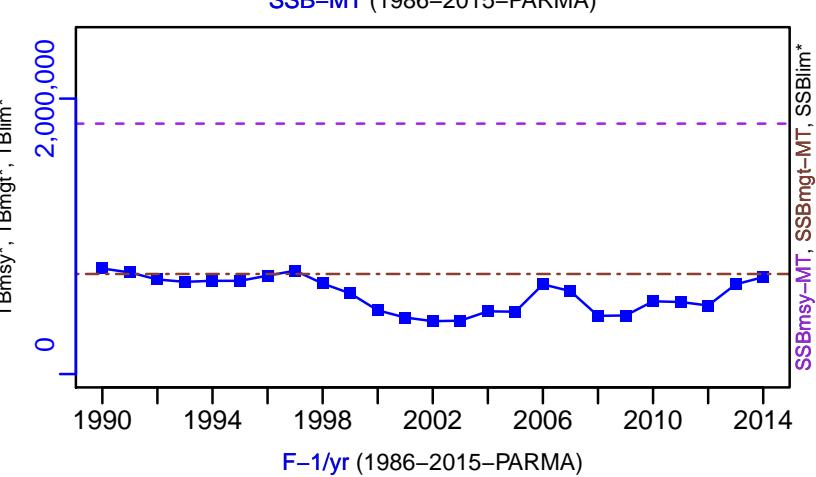
◆ Start Year ◆ End Year * No Data

Argentine hake Southern Argentina [ARGHAKESARG]

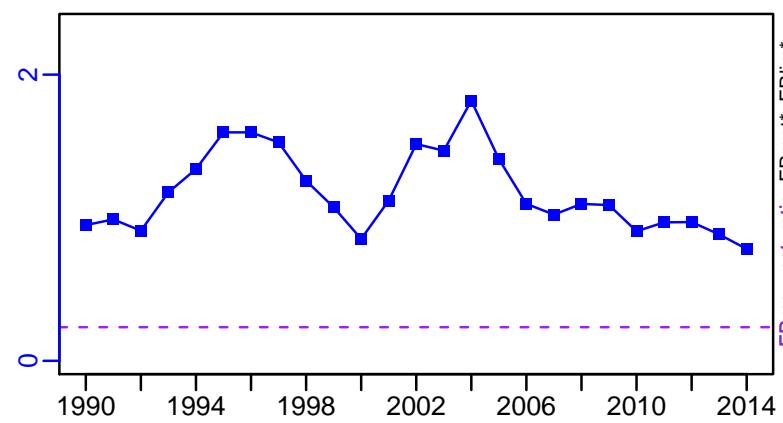
TB-MT (1986–2015-PARMA)



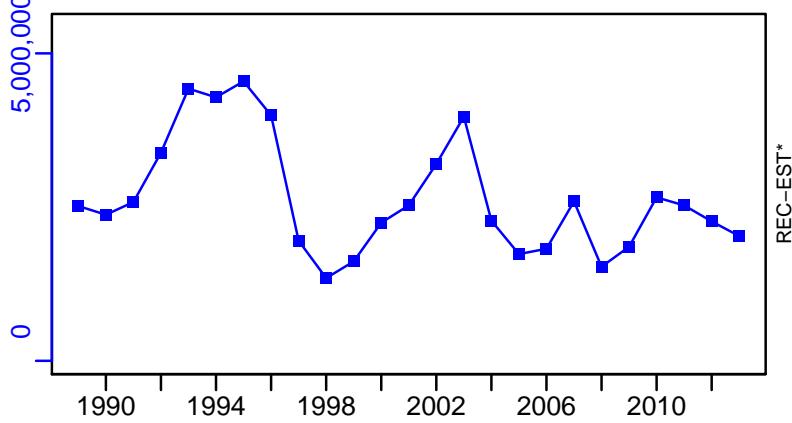
SSB-MT (1986–2015-PARMA)



ER-ratio (1986–2015-PARMA)



R-E00 (1986–2015-PARMA)

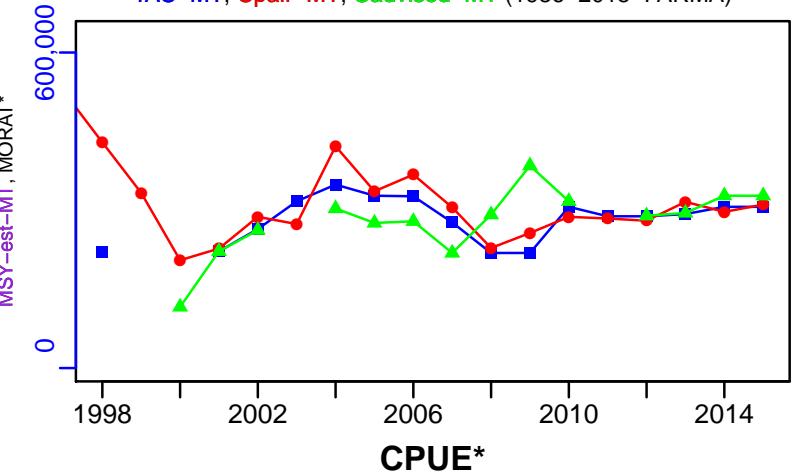
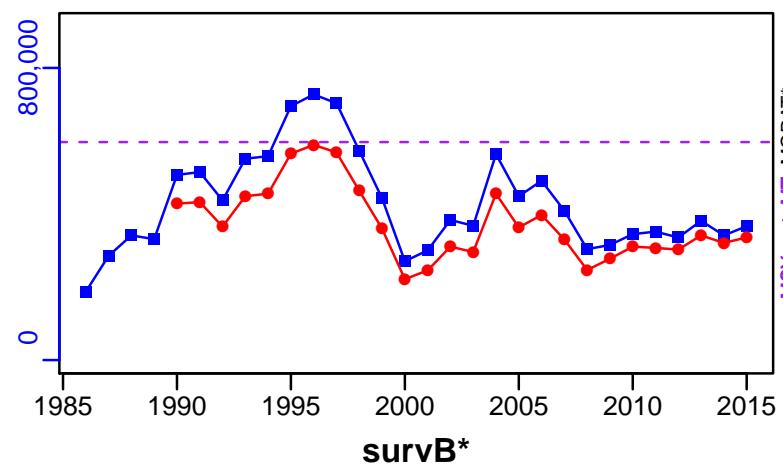


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	— Lim BRP	* No Data

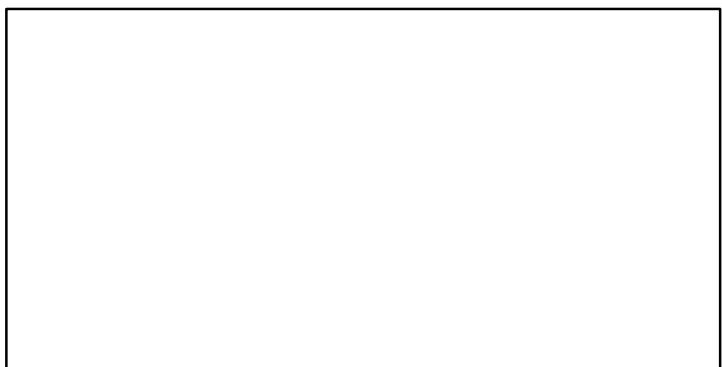
Argentine hake Southern Argentina [ARGHAKESARG]

TC-MT, TL-MT, RecC* (1986–2015-PARMA)

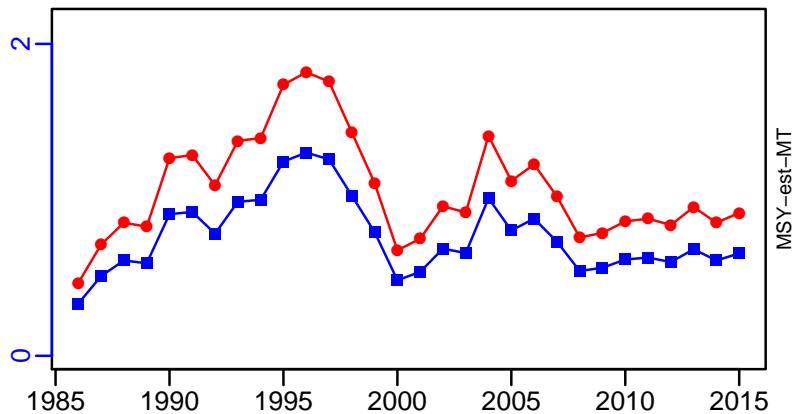
TAC-MT, Cpair-MT, Cadvised-MT (1986–2015-PARMA)



EFFORT*



TC-MT/MSY-est-MT, CdivMEANC-ratio, (1986–2015-PARMA)



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

Yellow squat lobster Central-Southern Chile [BSQLOBSTERCSCH]

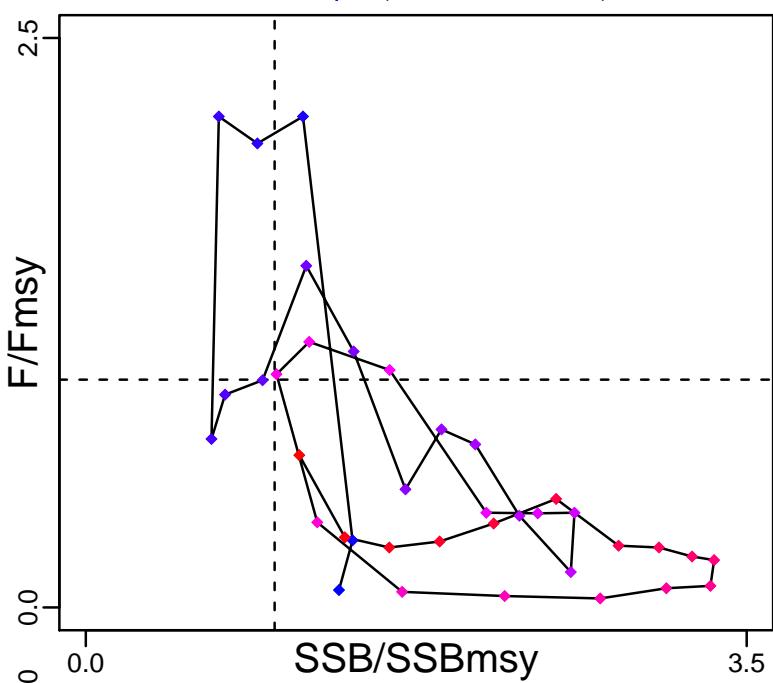
Metadata	
Scientific Name	Cervimunida johni
Current Assess ID	IFOPCH-BSQLOBSTERCSCH-1976-2015-PARMA
Area	Central-Southern Chile
Management Authority	Subsecretaria de Pesca
Assessor	Instituto de Fomento Pesquero - Chilean Fisheries Development Institute
Asmts in RAM	2015

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-pr-MT	2015	5139
Fmsy	Fmsy-pr-1/yr	2015	0.38
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2015	5139
Fmgt	Fmgt-1/yr	2015	0.38
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2015	0.3
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

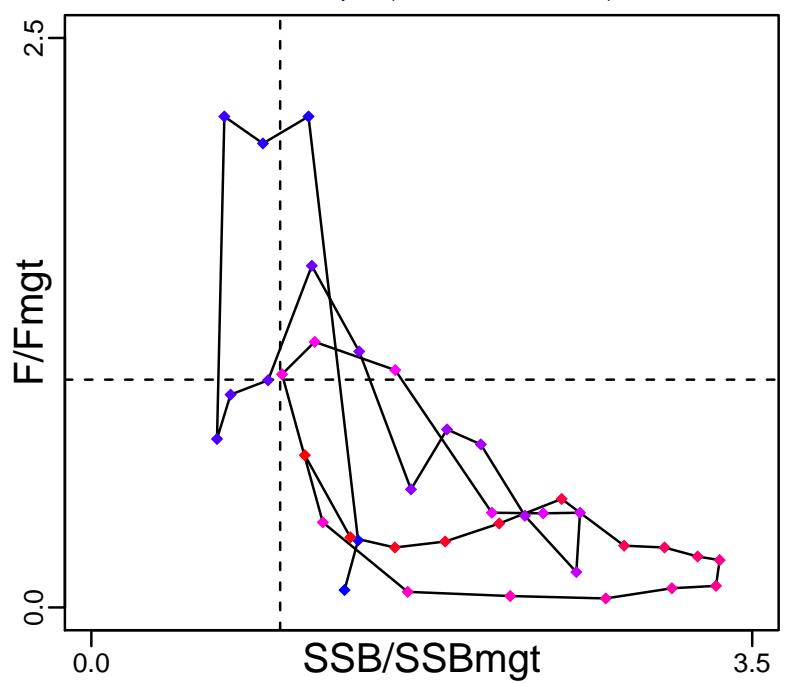
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2015	23,300	-	-	
SSB	SSB-MT	2015	5810	Females	-	
TN	-	-	-	-	-	
R	R-E00	2015	2.74×10^8	-	3	
F	F-1/yr	2015	0.254	-	-	
ER	ER-calc-ratio	2015	0.139	-	-	
TC	-	-	-			
TL	TL-MT	2015	3250			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/SSBmsy-pr-MT	2015	1.131			
F/Fmsy	F-1/yr/Fmsy-pr-1/yr	2015	0.668			
ER/ERmsy	-	-	-			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2015	1.131			
F/Fmgt	F-1/yr/Fmgt-1/yr	2015	0.668			
ER/ERmgt	-	-	-			

Yellow squat lobster Central–Southern Chile [BSQLOBSTERCSCH]

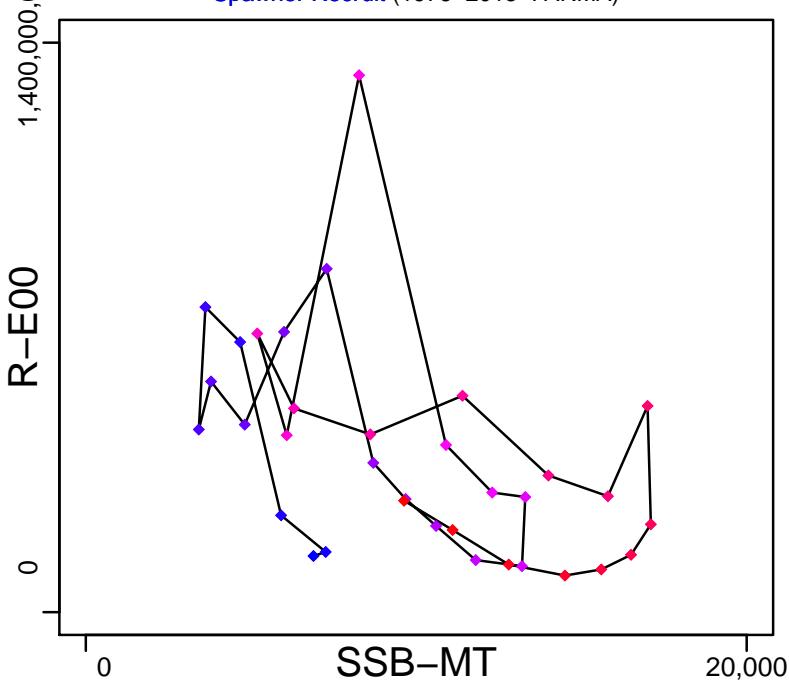
Kobe MSYpref (1976–2015–PARMA)



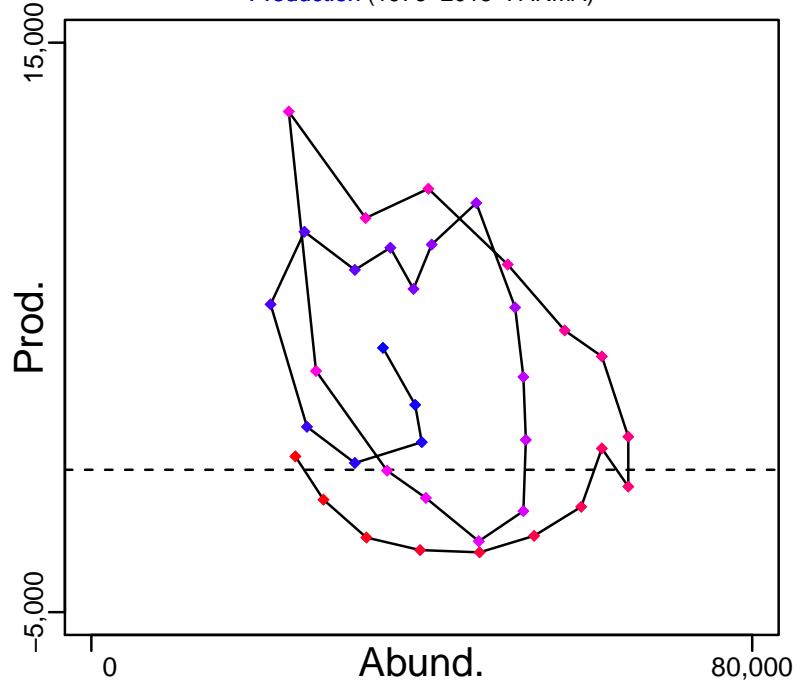
Kobe MGTPref (1976–2015–PARMA)



Spawner Recruit (1976–2015–PARMA)



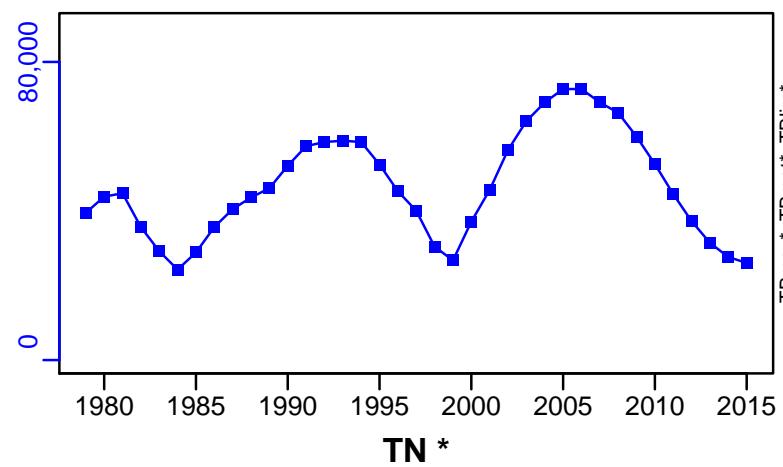
Production (1976–2015–PARMA)



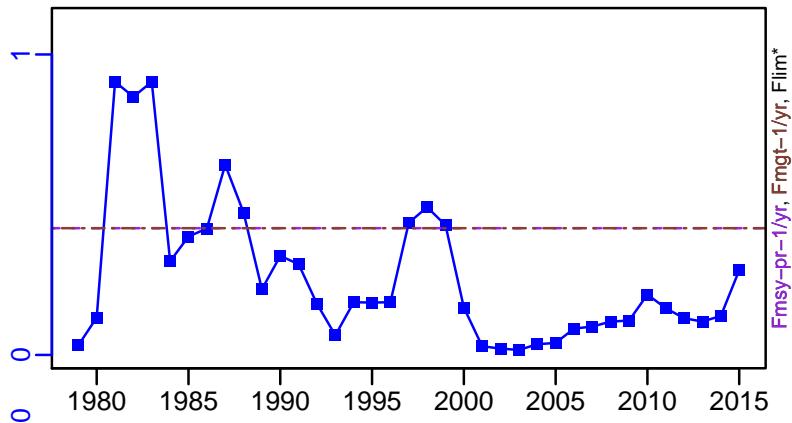
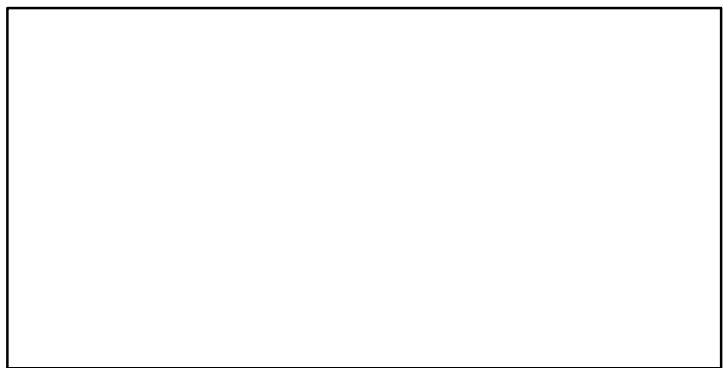
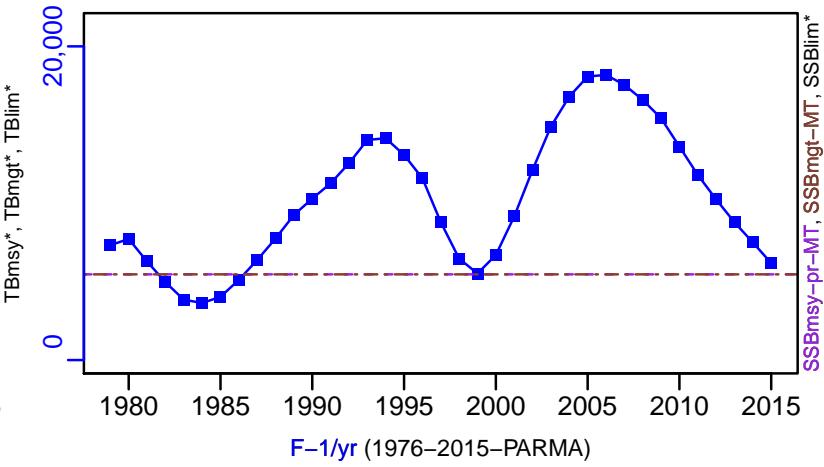
◆ Start Year ◆ End Year * No Data

Yellow squat lobster Central–Southern Chile [BSQLOBSTERCSCH]

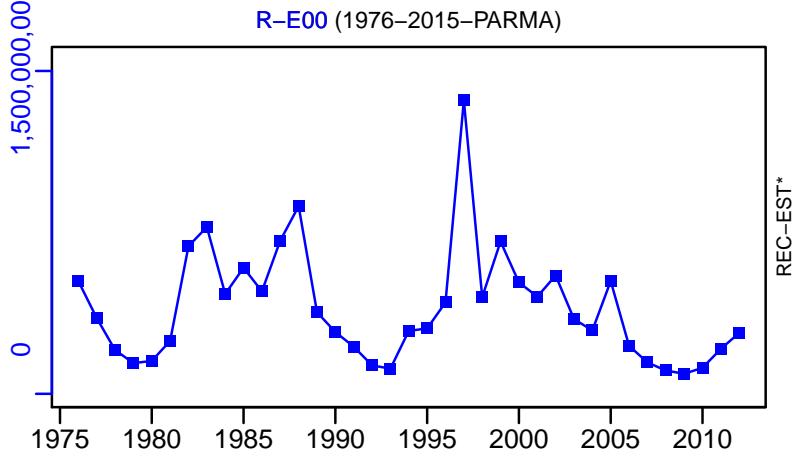
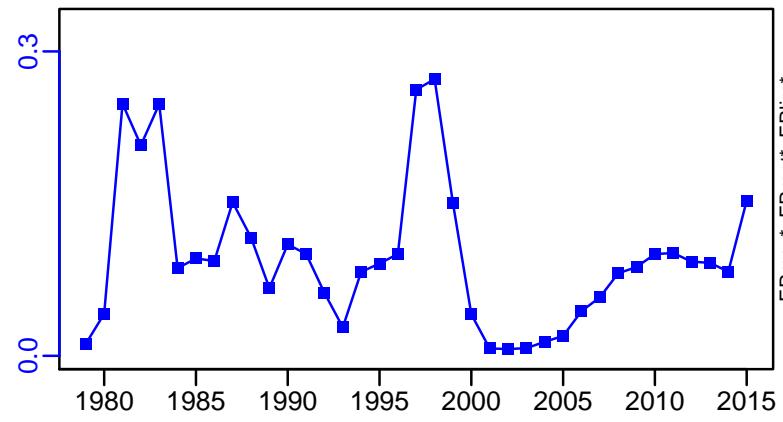
TB-MT (1976–2015-PARMA)



SSB-MT (1976–2015-PARMA)



ER-calc-ratio (1976–2015-PARMA)

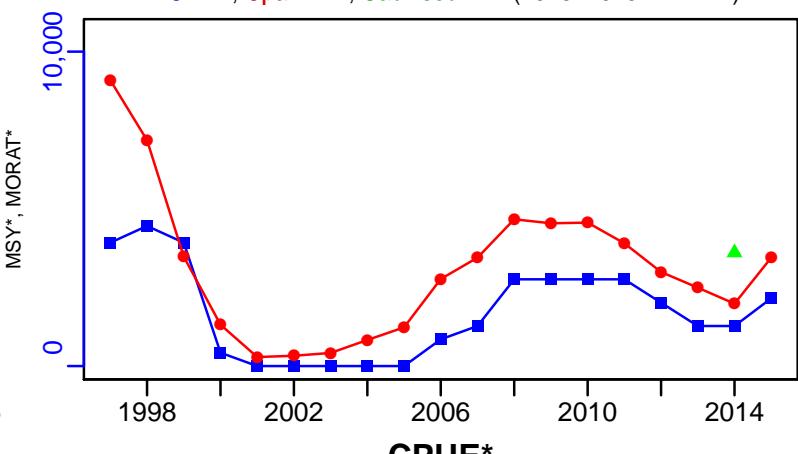
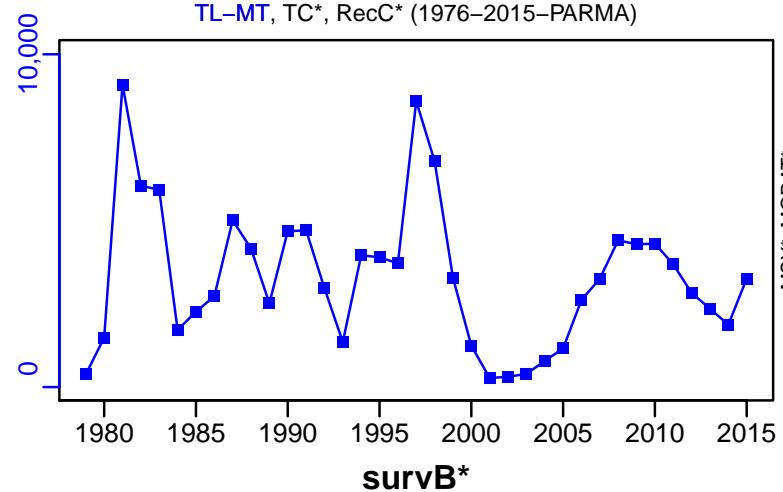


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	— Lim BRP	* No Data

Yellow squat lobster Central–Southern Chile [BSQLOBSTERCSCH]

TL–MT, TC*, RecC* (1976–2015–PARMA)

TAC–MT, Cpair–MT, Cadvised–MT (1976–2015–PARMA)



EFFORT*

CdivMSY*

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

Yellow squat lobster Northern Chile [BSQLOBSTERNCH]

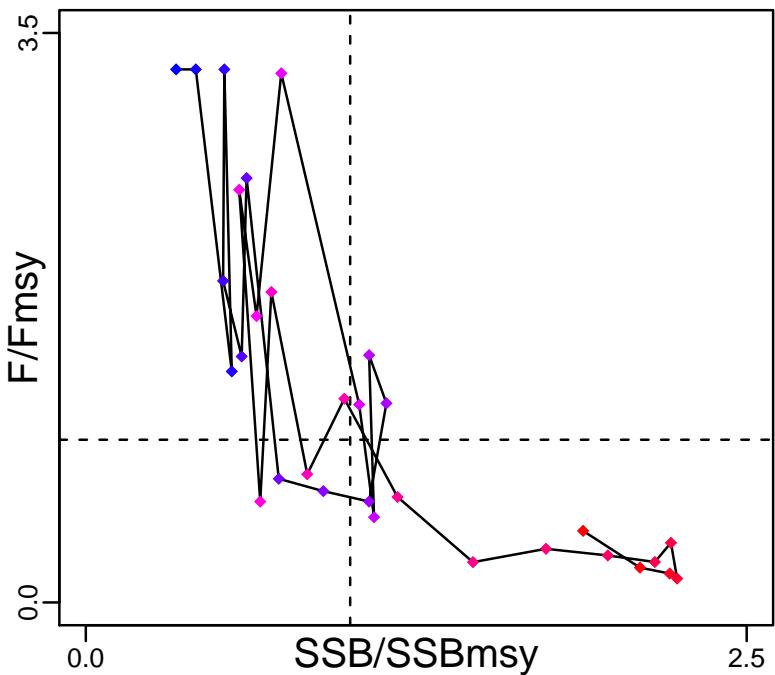
Metadata	
Scientific Name	Cervimunida johni
Current Assess ID	IFOPCH-BSQLOBSTERNCH-1982-2015-PARMA
Area	Northern Chile
Management Authority	Subsecretaria de Pesca
Assessor	Instituto de Fomento Pesquero - Chilean Fisheries Development Institute
Asmts in RAM	2015

Reference Points			
Type	ID	Asmt Year	Value
TBm sy	-	-	-
SSBm sy	SSBm sy-pr-MT	2015	2137
Fm sy	Fm sy-pr-1/yr	2015	0.25
ERm sy	-	-	-
TBm gt	-	-	-
SSBm gt	SSBm gt-MT	2015	2137
Fm gt	Fm gt-1/yr	2015	0.25
ERm gt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2015	0.3
TBl im	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

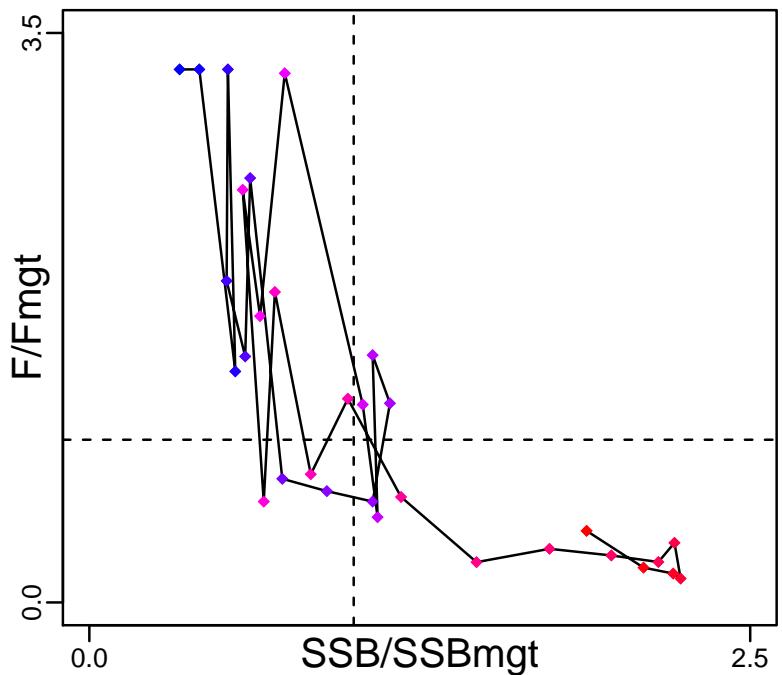
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2015	19,100	-	-	
SSB	SSB-MT	2015	4020	Females	-	
TN	-	-	-	-	-	
R	R-E00	2015	1.65×10^8	-	3	
F	F-1/yr	2015	0.11	-	-	
ER	ER-calc-ratio	2015	0.066	-	-	
TC	-	-	-			
TL	TL-MT	2015	1260			
TB/TBm sy	-	-	-			
SSB/SSBm sy	SSB-MT/SSBm sy-pr-MT	2015	1.881			
F/Fm sy	F-1/yr/Fm sy-pr-1/yr	2015	0.44			
ER/ERm sy	-	-	-			
TB/TBm gt	-	-	-			
SSB/SSBm gt	SSB-MT/SSBm gt-MT	2015	1.881			
F/Fm gt	F-1/yr/Fm gt-1/yr	2015	0.44			
ER/ERm gt	-	-	-			

Yellow squat lobster Northern Chile [BSQLOBSTERNCH]

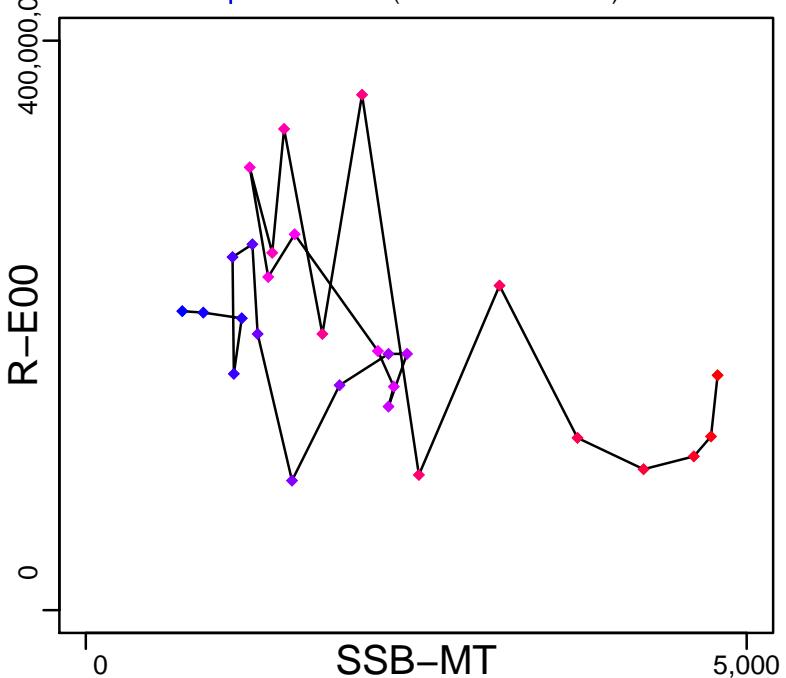
Kobe MSYpref (1982–2015–PARMA)



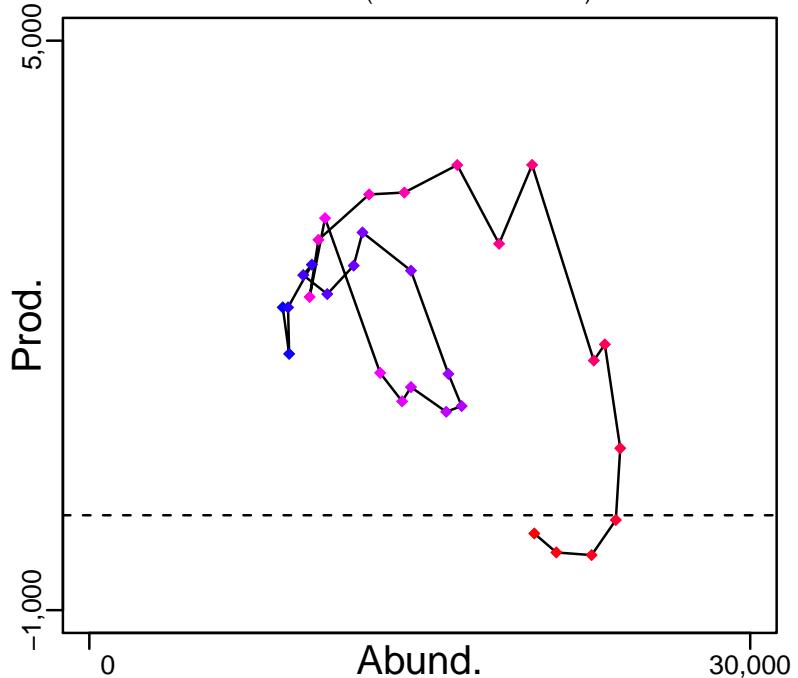
Kobe MGTPref (1982–2015–PARMA)



Spawner Recruit (1982–2015–PARMA)



Production (1982–2015–PARMA)

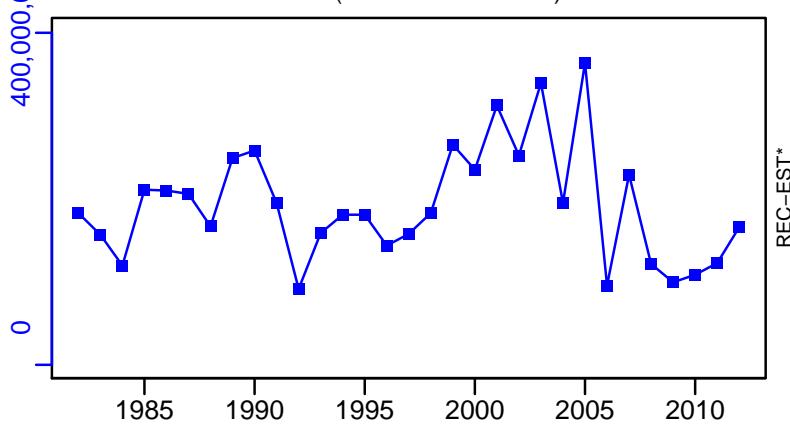
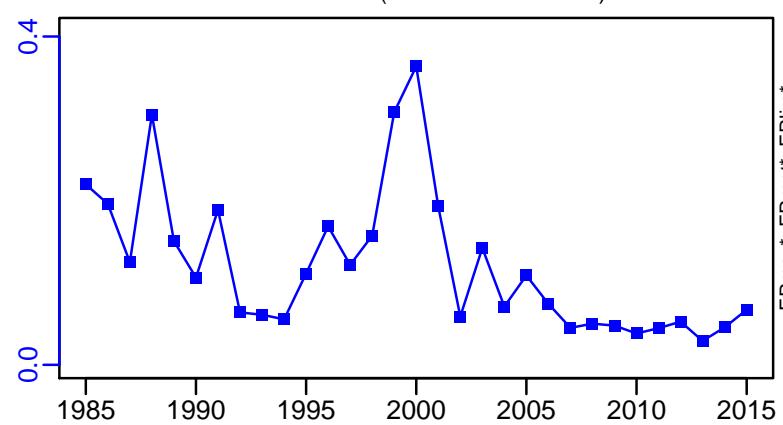
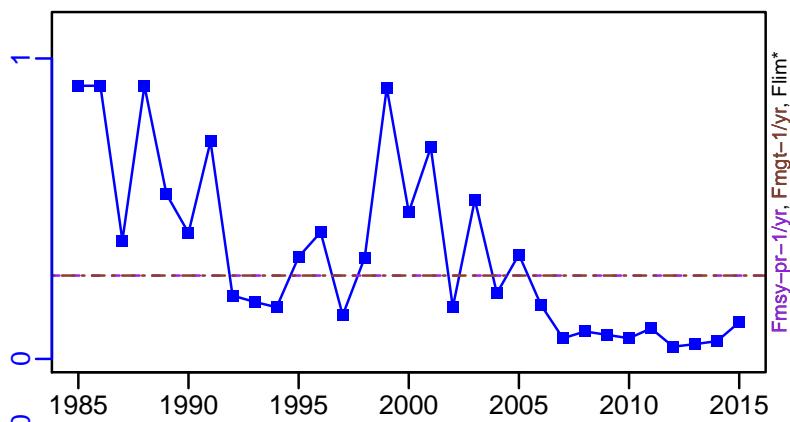
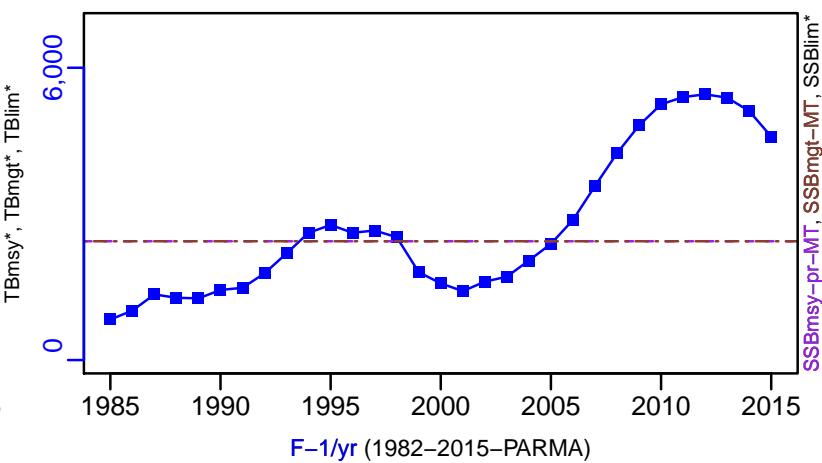
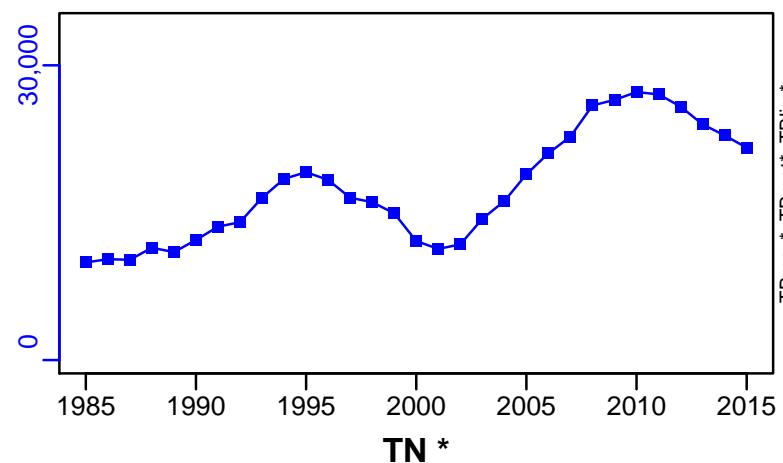


◆ Start Year	◆ End Year	*	No Data
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Yellow squat lobster Northern Chile [BSQLOBSTERNCH]

TB-MT (1982–2015-PARMA)

SSB-MT (1982–2015-PARMA)

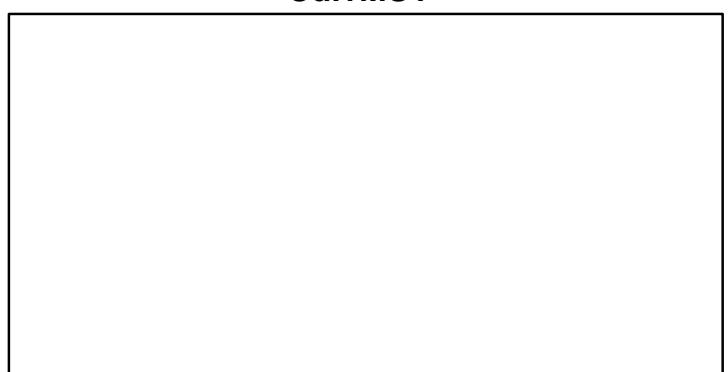
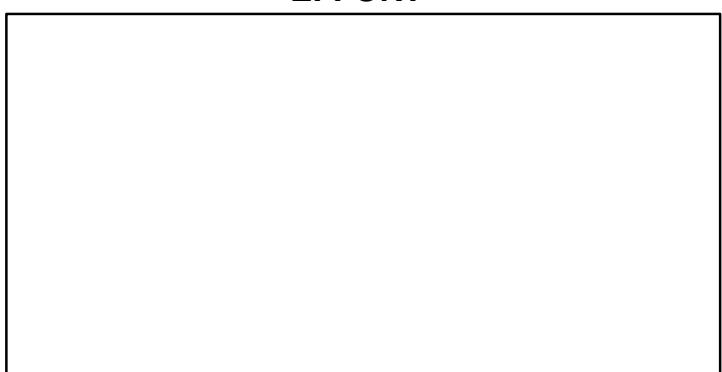
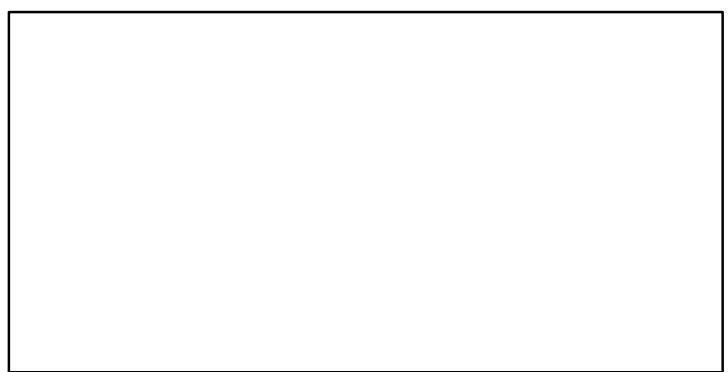
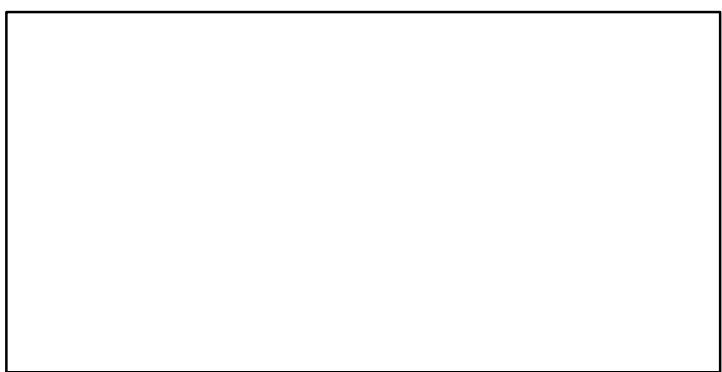
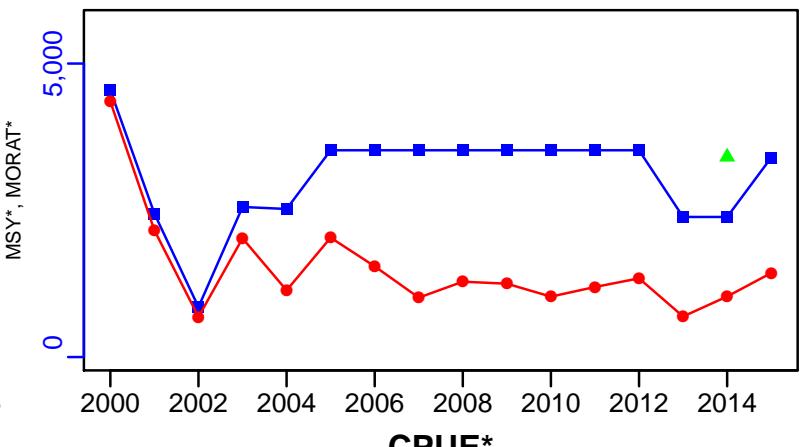
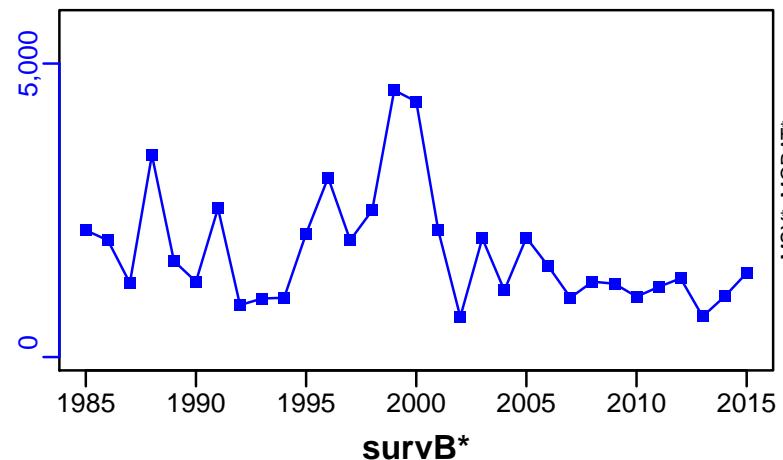


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	--- Lim BRP	* No Data

Yellow squat lobster Northern Chile [BSQLOBSTERNCH]

TL-MT, TC*, RecC* (1982–2015-PARMA)

TAC-MT, Cpair-MT, Cadvised-MT (1982–2015-PARMA)



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

Chilean herring Central-Southern Chile [CHERRCHVX]

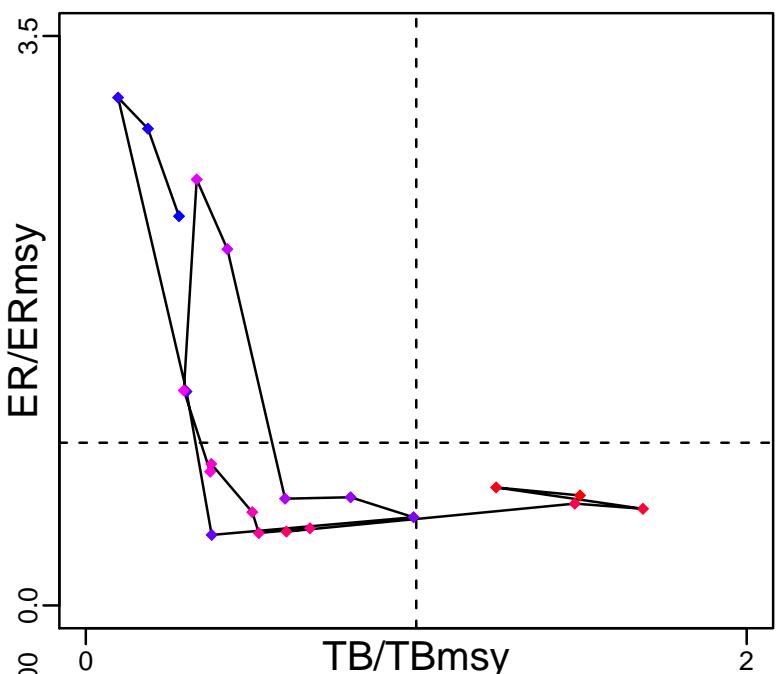
Metadata	
Scientific Name	Clupea bentincki
Current Assess ID	IFOPCH-CHERRCHVX-1960-2012-CHING
Area	Central-Southern Chile
Management Authority	Subsecretaria de Pesca
Assessor	Instituto de Fomento Pesquero - Chilean Fisheries Development Institute
Asmts in RAM	2012

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-est-MT	2012	2,520,608
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	ERmsy-est-ratio	2012	0.327
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-est-MT	2012	823,979
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

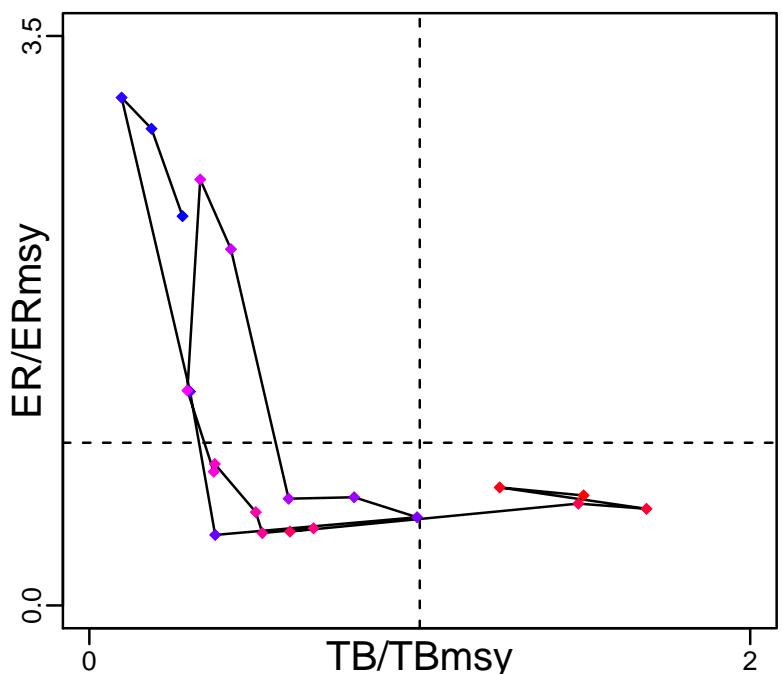
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2012	4,190,000	-	-	
SSB	SSB-MT	2012	1,620,000	-	-	
TN	-	-	-	-	-	
R	R-E00	2012	7.41×10^{10}	-	-	
F	F-1/yr	2012	0.262	-	-	
ER	ER-calc-ratio	2012	0.221	-	-	
TC	-	-	-			
TL	TL-MT	2012	833,000			
TB/TBmsy	TB-MT/TBmsy-est-MT	2012	1.662			
SSB/SSBmsy	-	-	-			
F/Fmsy	-	-	-			
ER/ERmsy	ER-calc-ratio/ERmsy-est-ratio	2012	0.676			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Chilean herring Central–Southern Chile [CHERRCHVX]

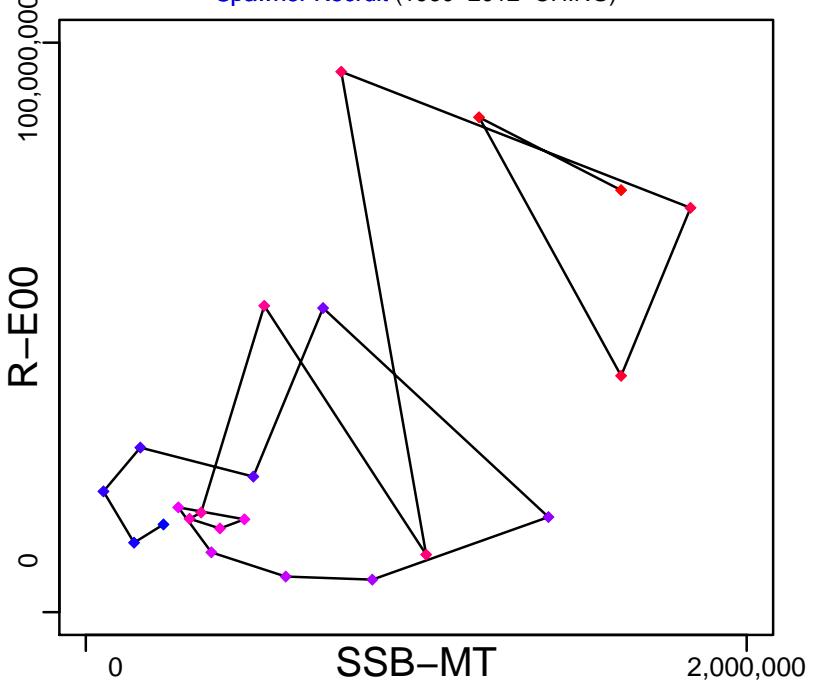
Kobe MSYpref (1960–2012–CHING)



Kobe MGTPref (1960–2012–CHING)



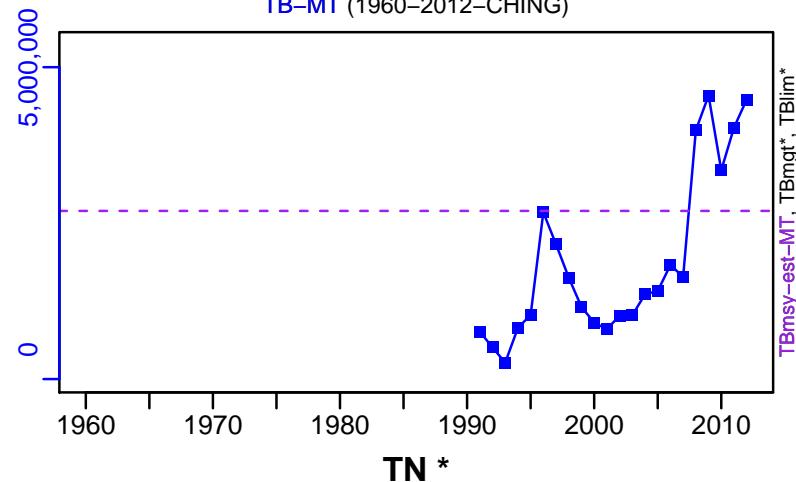
Spawner Recruit (1960–2012–CHING)



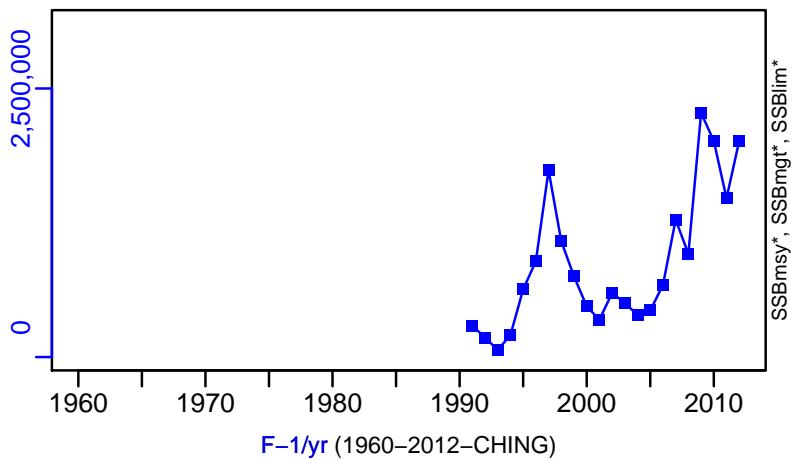
◆ Start Year ◆ End Year * No Data

Chilean herring Central–Southern Chile [CHERRCHVX]

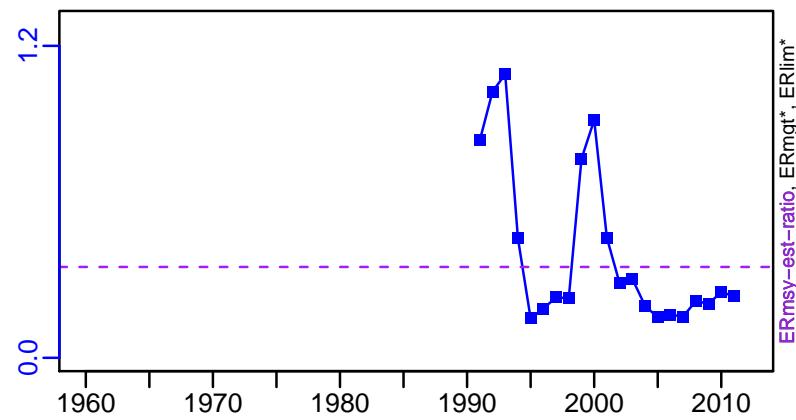
TB-MT (1960–2012-CHING)



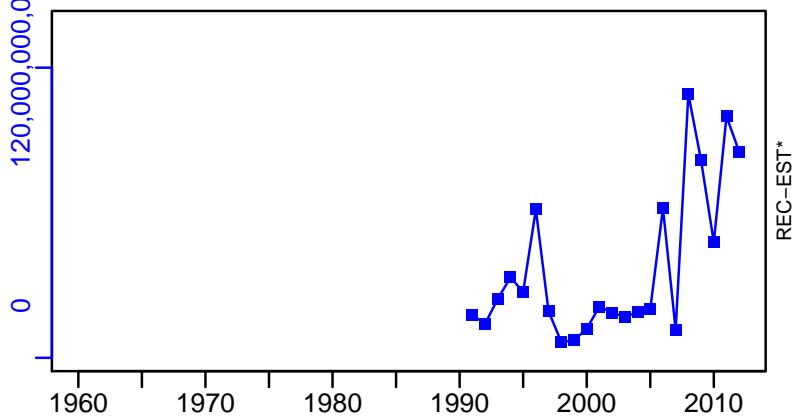
SSB-MT (1960–2012-CHING)



ER-calc-ratio (1960–2012-CHING)



R-E00 (1960–2012-CHING)

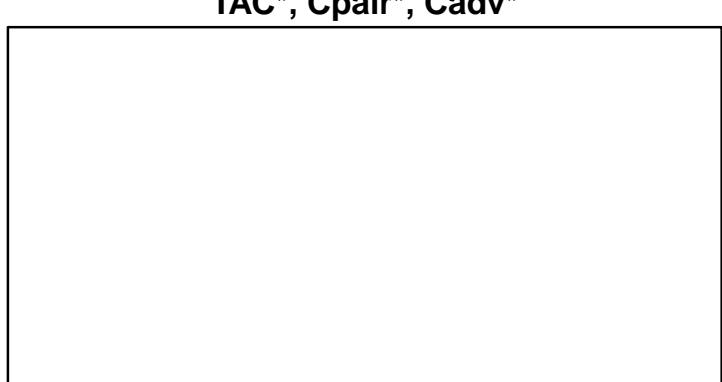
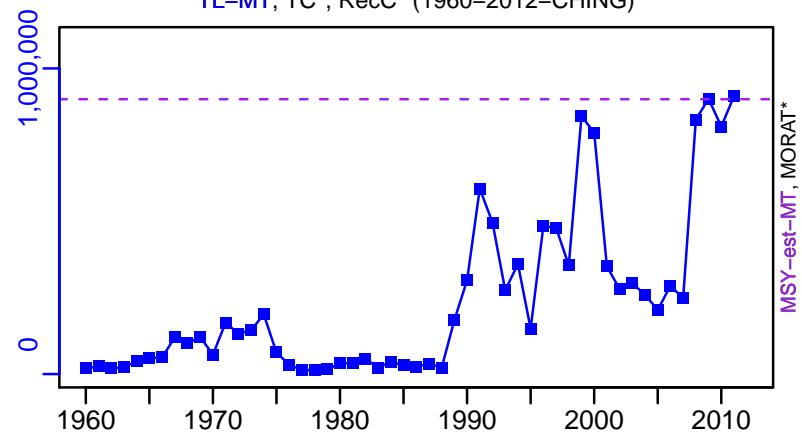


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	— Lim BRP	* No Data

Chilean herring Central–Southern Chile [CHERRCHVX]

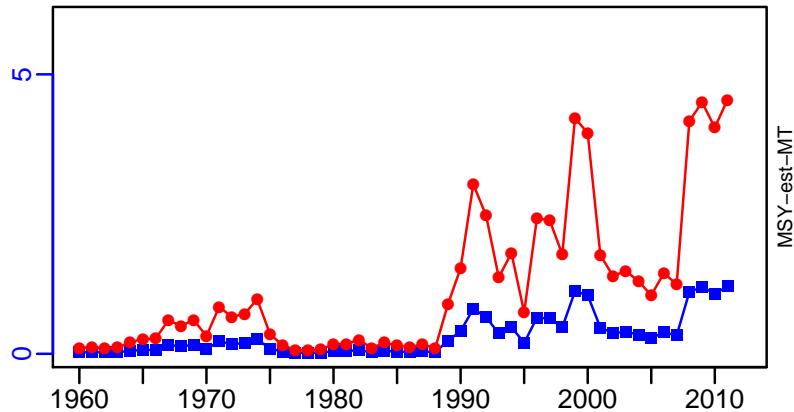
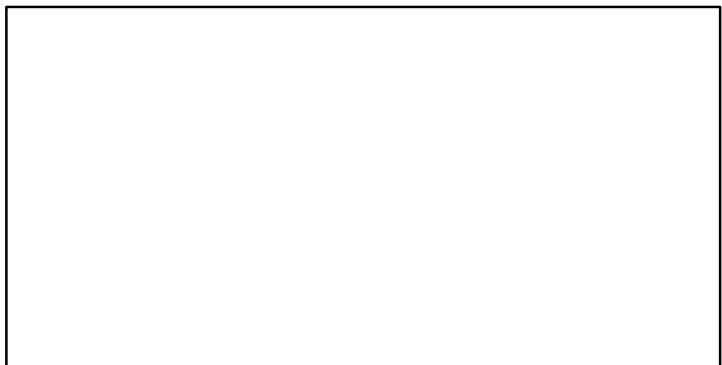
TL-MT, TC*, RecC* (1960–2012–CHING)

TAC*, Cpair*, Cadv*



EFFORT*

TL-MT/MSY-est-MT, CdivMEANC-ratio, (1960–2012–CHING)



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

Chilean jack mackerel Chilean EEZ and offshore [CHTRACCH]

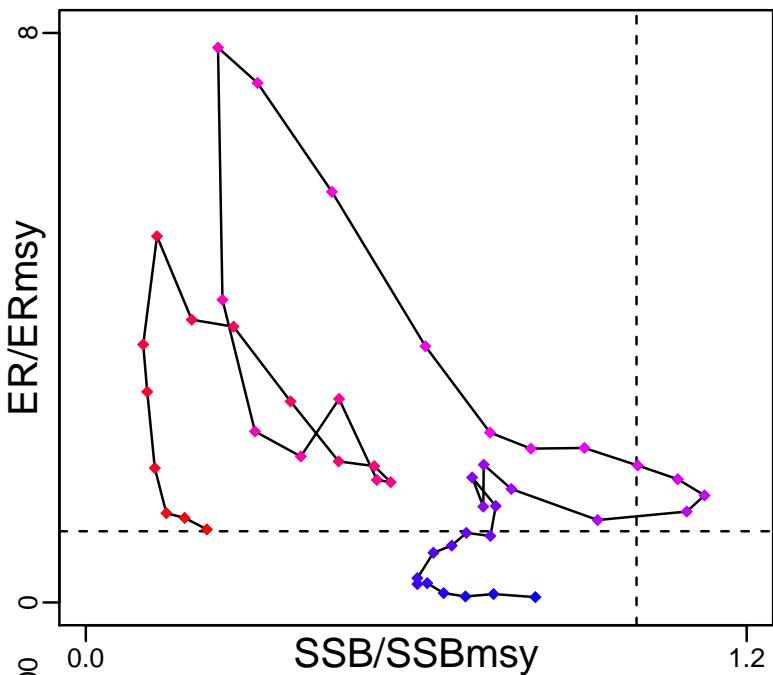
Metadata	
Scientific Name	Trachurus murphyi
Current Assess ID	SPRFMO-CHTRACCH-1969-2015-PARMA
Area	Chilean EEZ and offshore
Management Authority	South Pacific Regional Fisheries Management Organization
Assessor	South Pacific Regional Fisheries Management Organization
Asmts in RAM	2010, 2015

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-est-MT	2010	40,225,574
SSBmsy	SSBmsy-est-MT	2015	12,372,938
Fmsy	-	-	-
ERmsy	ERmsy-est-ratio	2015	0.08
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-est-MT	2015	1,924,146
M	M-1/yr	2015	0.23
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

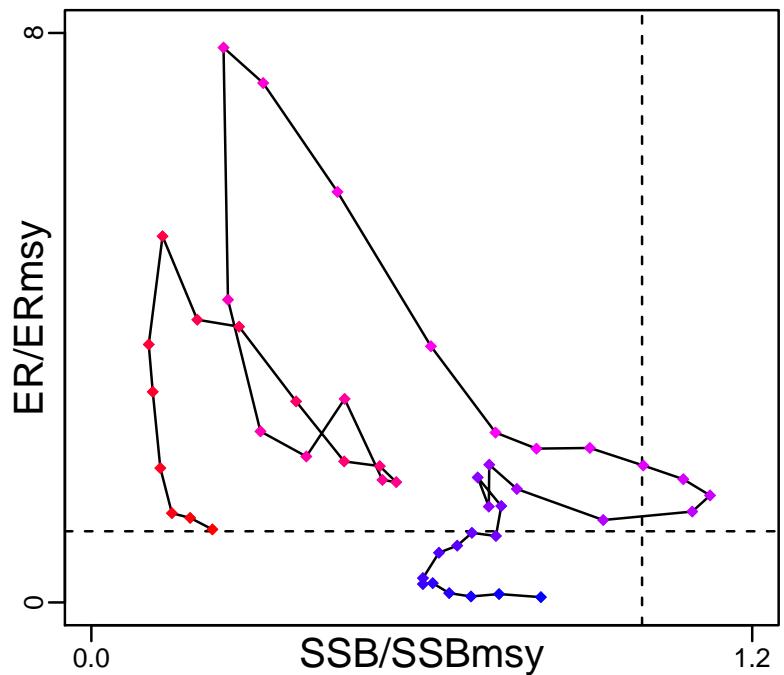
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2010	2,360,000	-	-	
SSB	SSB-MT	2015	2,720,000	-	-	
TN	-	-	-	-	-	
R	R-E00	2015	1.25×10^{10}	-	1	
F	F-1/yr	2015	0.18	-	1 to 12	
ER	ER-calc-ratio	2015	0.082	-	-	
TC	TC-MT	2015	434,000			
TL	TL-MT	2015	434,000			
TB/TBmsy	TB-MT/TBmsy-est-MT	2010	0.059			
SSB/SSBmsy	SSB-MT/SSBmsy-est-MT	2015	0.22			
F/Fmsy	-	-	-			
ER/ERmsy	ER-calc-ratio/ERmsy-est-ratio	2015	1.026			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Chilean jack mackerel Chilean EEZ and offshore [CHTRACCH]

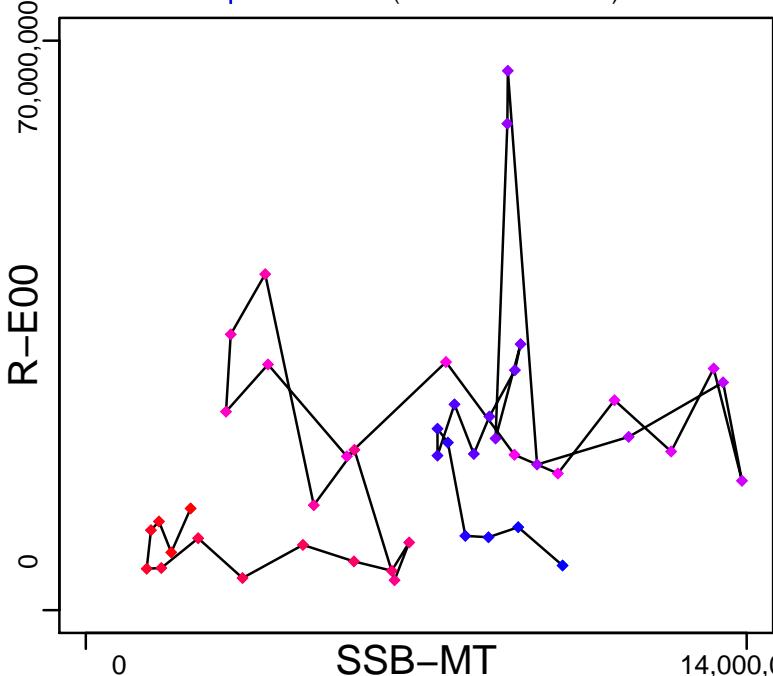
Kobe MSYpref (1969–2015–PARMA)



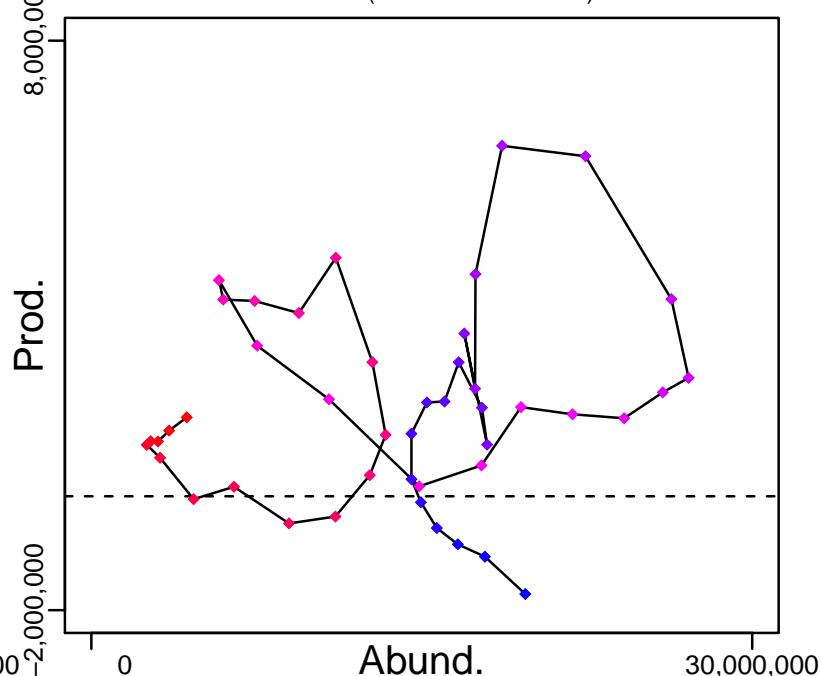
Kobe MGTPref (1969–2015–PARMA)



Spawner Recruit (1969–2015–PARMA)



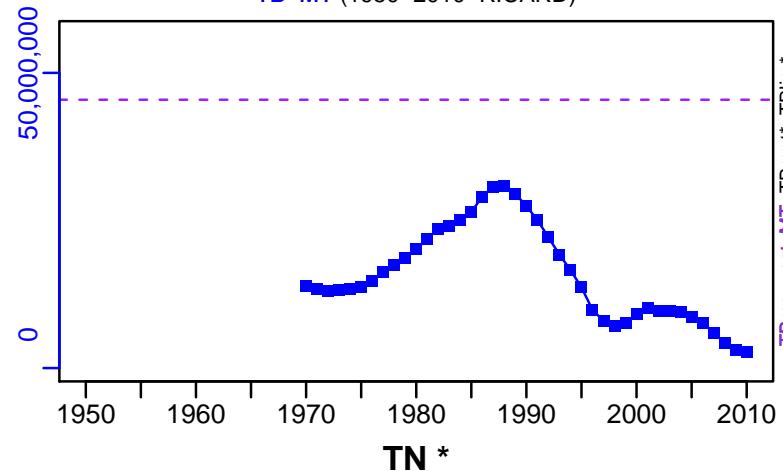
Production (1969–2015–PARMA)



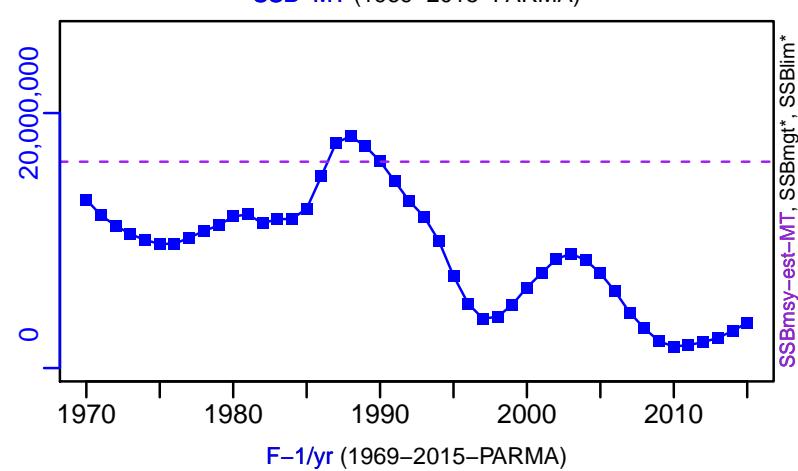
◆ Start Year ◆ End Year * No Data

Chilean jack mackerel Chilean EEZ and offshore [CHTRACCH]

TB-MT (1950–2010–RICARD)



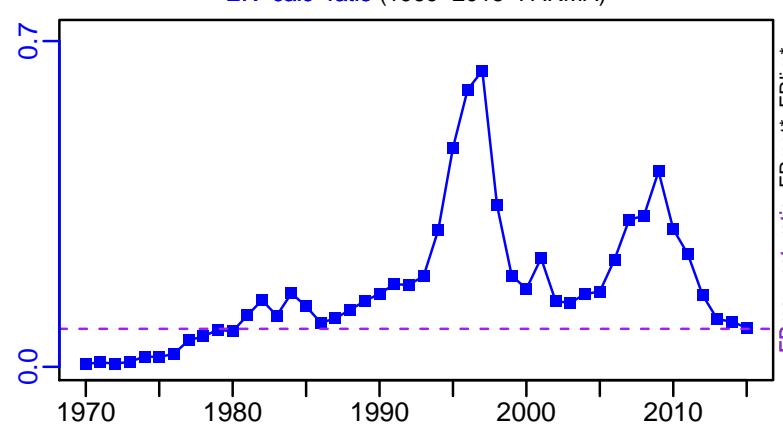
SSB-MT (1969–2015–PARMA)



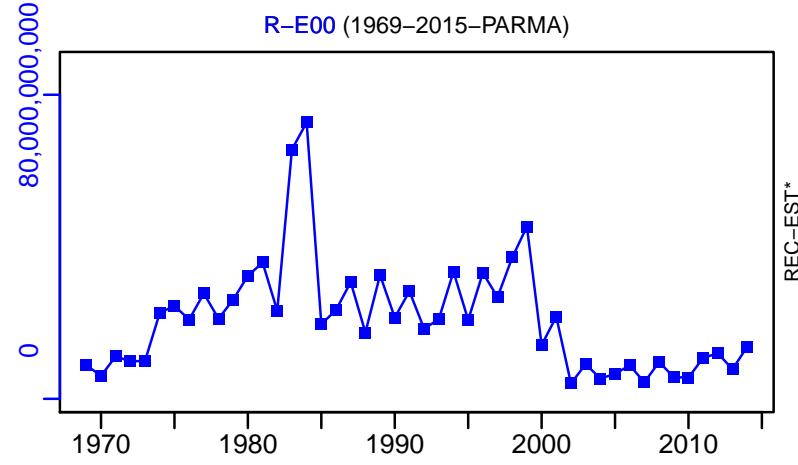
TN *

F-1/yr (1969–2015–PARMA)

ER-calc-ratio (1969–2015–PARMA)



R-E00 (1969–2015–PARMA)



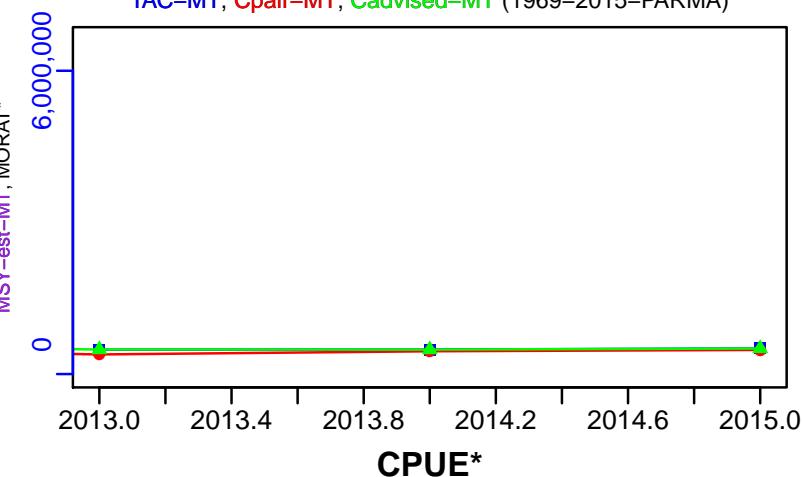
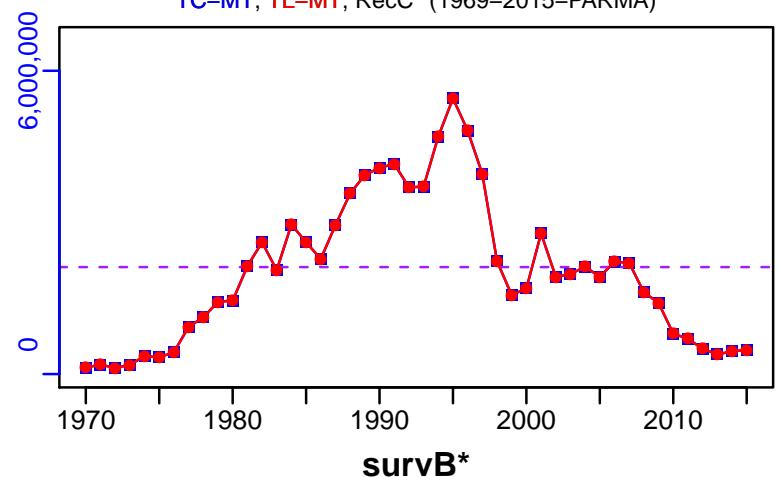
$\text{TBmsy-est-MT, TBmgt*, TBlim*}$, $\text{SSBmsy-est-MT, SSBmgt*, SSBlim*}$, $\text{Fmsy-est-MT, Fmgt*, Film*}$

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

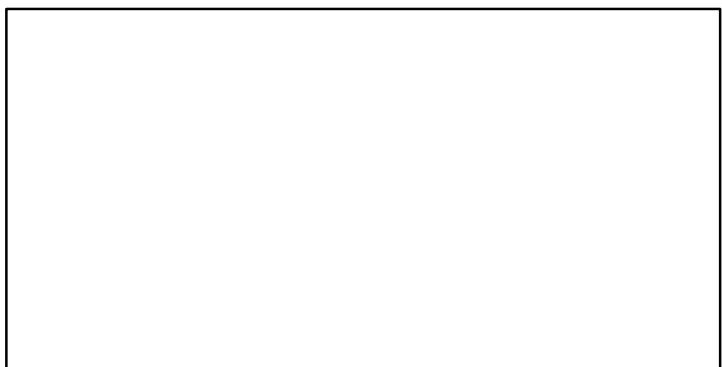
Chilean jack mackerel Chilean EEZ and offshore [CHTRACCH]

TC-MT, TL-MT, RecC* (1969–2015–PARMA)

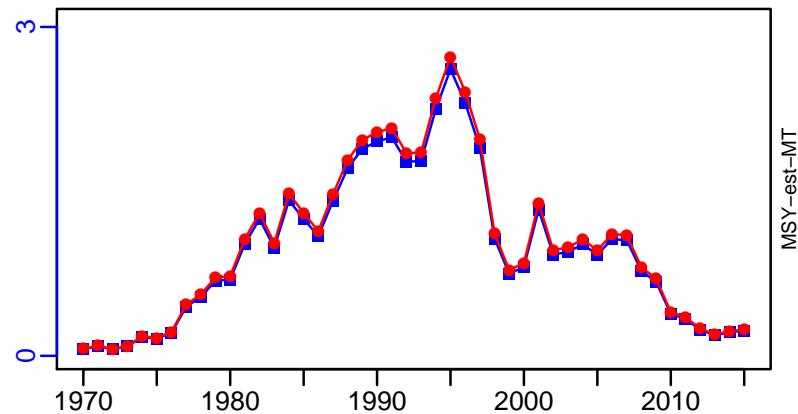
TAC-MT, Cpair-MT, Cadvised-MT (1969–2015–PARMA)



EFFORT*



TC-MT/MSY-est-MT, CdivMEANC-ratio, (1969–2015–PARMA)



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

Chilean sardine Central-Southern Chile [CSARDCSCH]

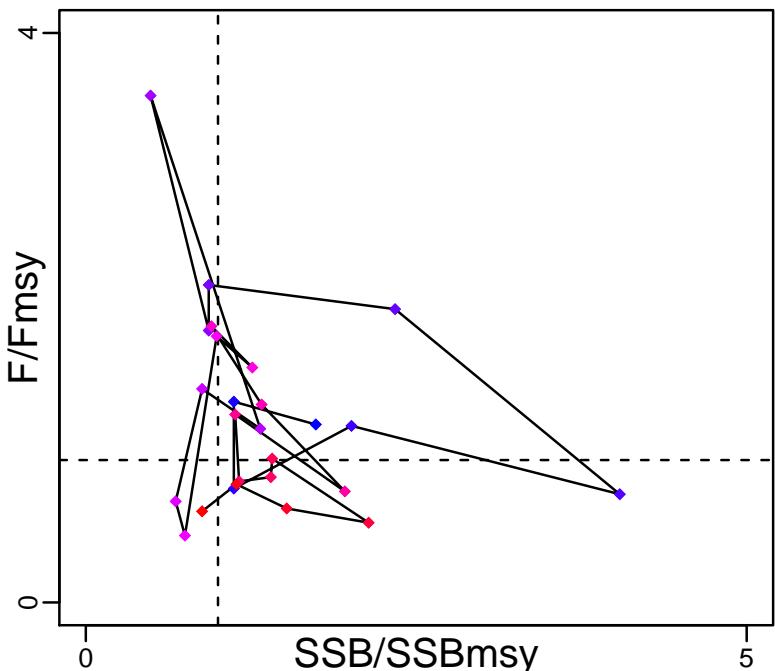
Metadata	
Scientific Name	Strangomera bentincki
Current Assess ID	IFOPCH-CSARDCSCH-1990-2015-PARMA
Area	Central-Southern Chile
Management Authority	Subsecretaria de Pesca
Assessor	Instituto de Fomento Pesquero - Chilean Fisheries Development Institute
Asmts in RAM	2015

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-extr-MT	2015	642,609
Fmsy	Fmsy-extr-1/yr	2015	0.325
ERmsy	ERmsy-est-ratio	2015	0.401
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2015	889,000
Fmgt	Fmgt-1/yr	2015	0.26
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-est-MT	2015	501,516
M	M-1/yr	2015	1
TBlim	-	-	-
SSBlim	SSBlim-MT	2015	444,000
Flim	-	-	-
ERlim	-	-	-

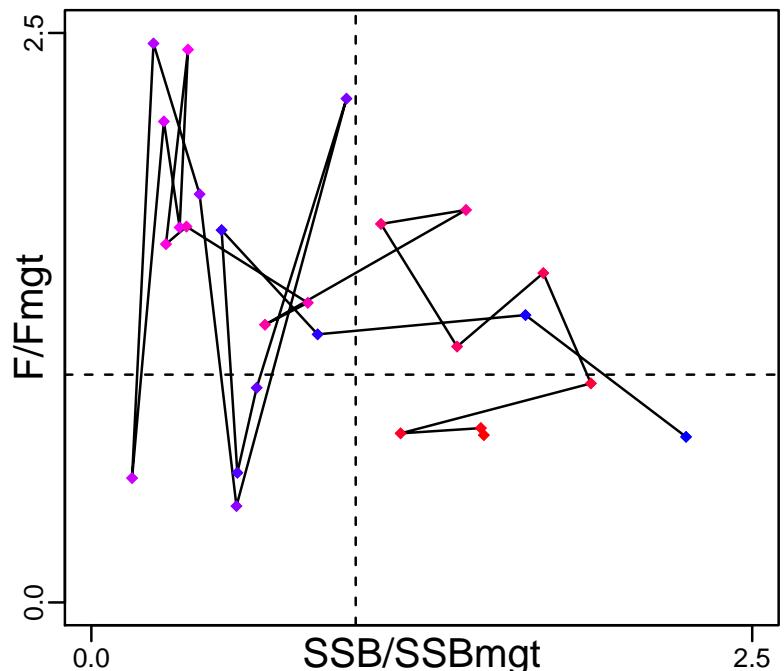
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2015	1,760,000	-	-	
SSB	SSB-MT	2015	1,320,000	-	-	
TN	-	-	-	-	-	
R	R-E00	2015	54,600	-	-	
F	F-1/yr	2015	0.191	-	-	
ER	ER-calc-ratio	2015	0.245	-	-	
TC	-	-	-			
TL	TL-MT	2015	431,000			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2015	0.88			
F/Fmsy	FdivFmsy-dimensionless	2015	0.64			
ER/ERmsy	ER-calc-ratio/ERmsy-est-ratio	2015	0.611			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2015	1.485			
F/Fmgt	F-1/yr/Fmgt-1/yr	2015	0.735			
ER/ERmgt	-	-	-			

Chilean sardine Central–Southern Chile [CSARDCSCH]

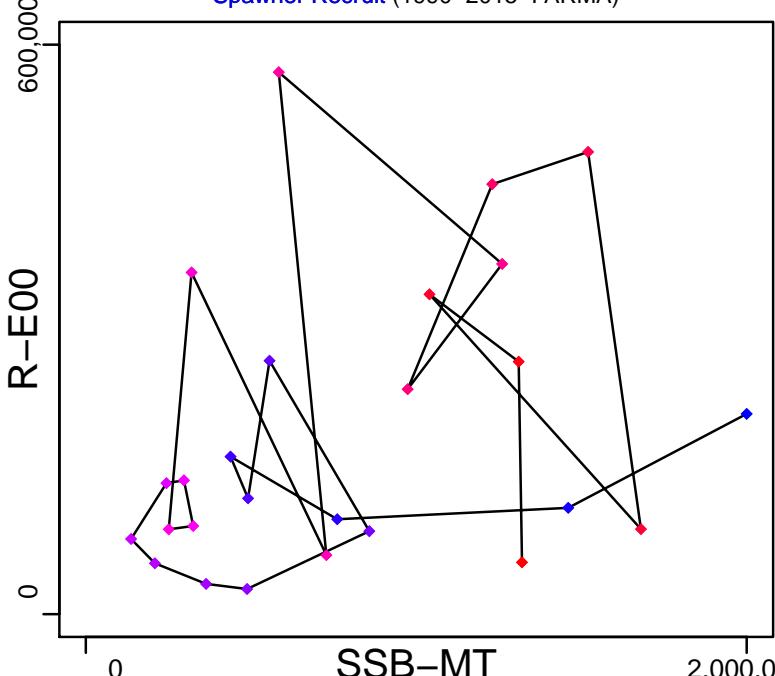
Kobe MSYpref (1990–2015–PARMA)



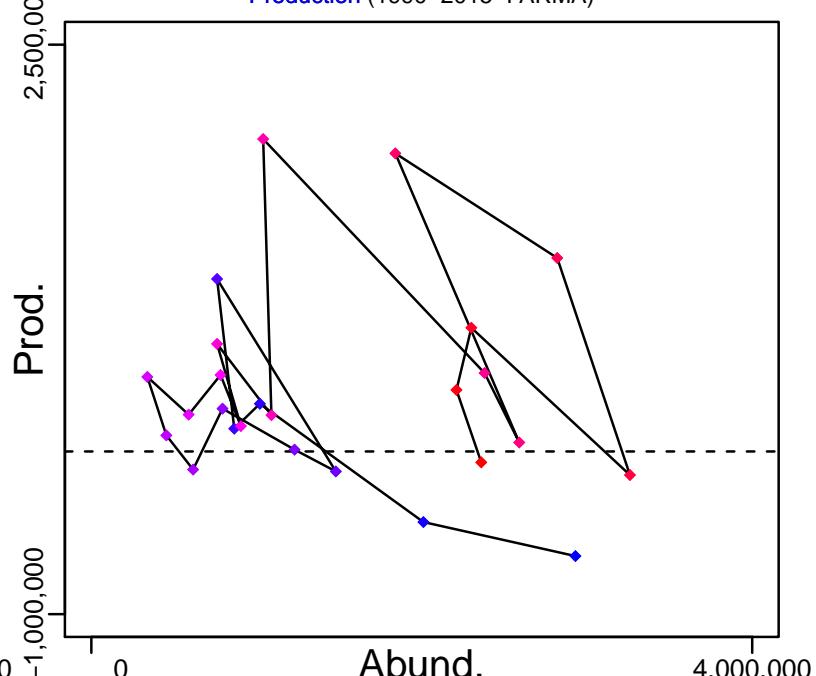
Kobe MGTPref (1990–2015–PARMA)



Spawner Recruit (1990–2015–PARMA)



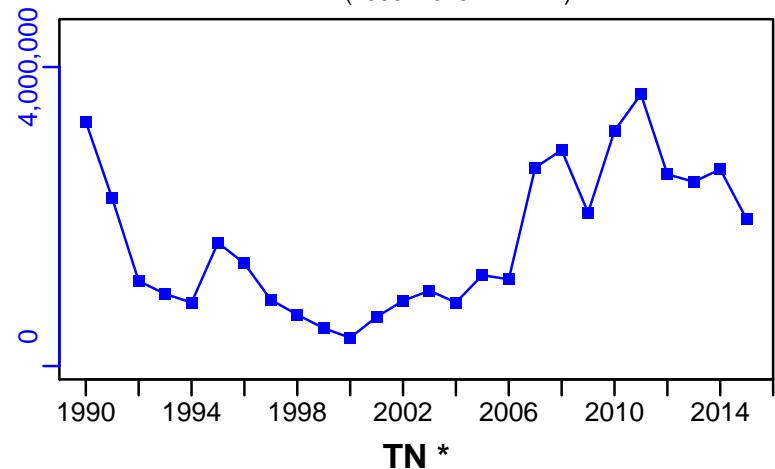
Production (1990–2015–PARMA)



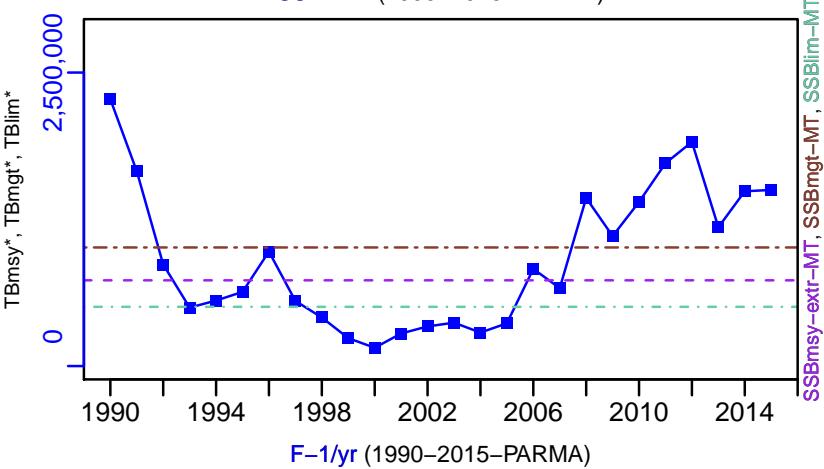
◆ Start Year ◆ End Year * No Data

Chilean sardine Central–Southern Chile [CSARDCSCH]

TB-MT (1990–2015-PARMA)



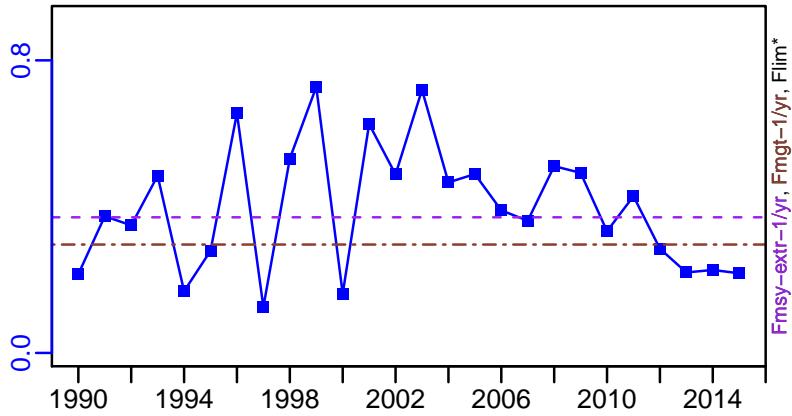
SSB-MT (1990–2015-PARMA)



TN *



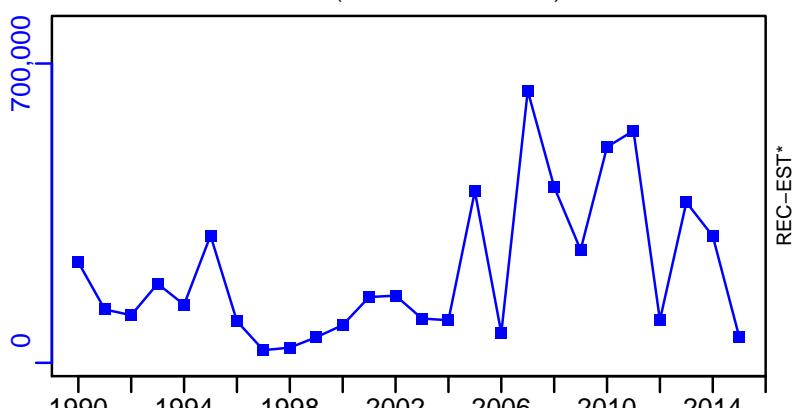
ER-calc-ratio (1990–2015-PARMA)



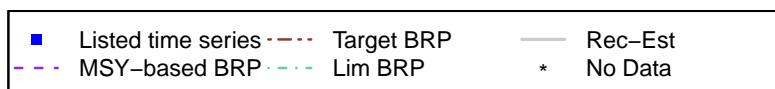
F_{mgt}-extr-/yr , F_{mgt}-1/yr , F_{lim}*

F_{mgt}-extr-/yr , F_{mgt}-1/yr , F_{lim}*

ER-calc-ratio (1990–2015-PARMA)



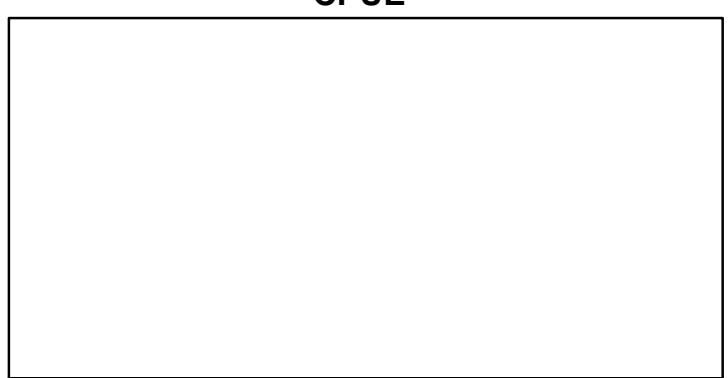
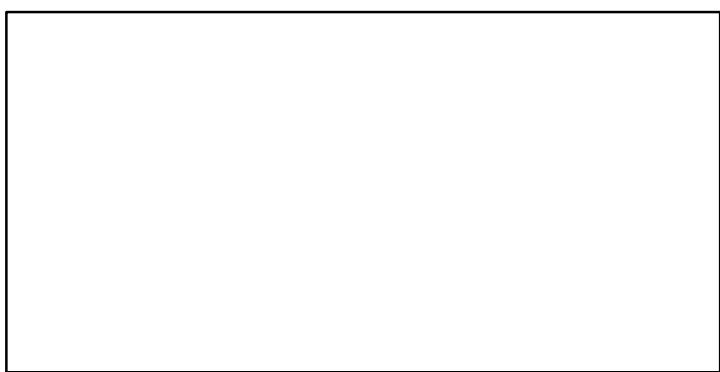
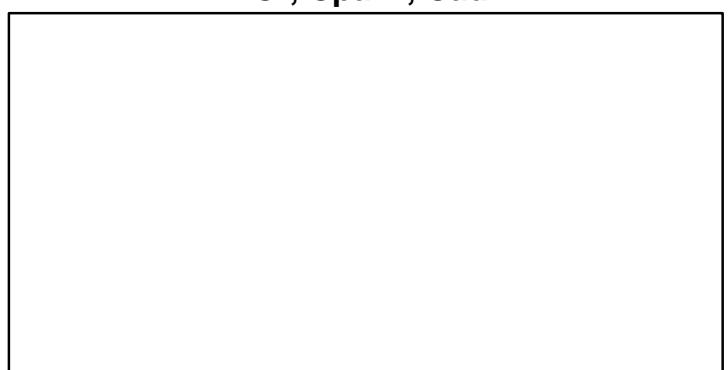
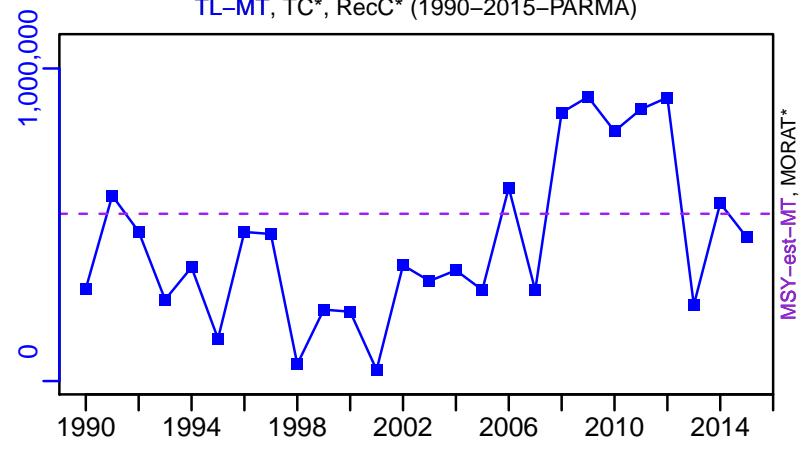
ER_{mgt}-est-ratio , ER_{mgt}* , ER_{lim}*



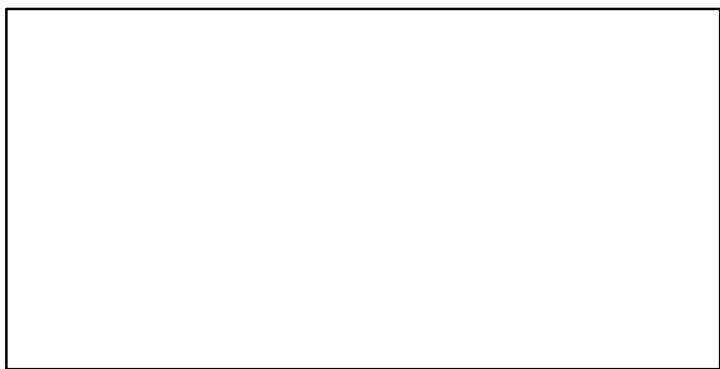
Chilean sardine Central–Southern Chile [CSARDCSCH]

TL–MT, TC*, RecC* (1990–2015–PARMA)

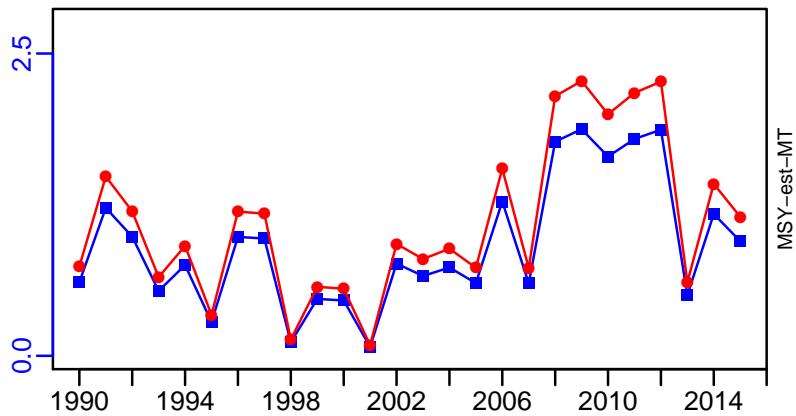
TAC*, Cpair*, Cadv*



EFFORT*



TL–MT/MSY–est–MT, CdivMEANC–ratio, (1990–2015–PARMA)



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

Nylon shrimp Central-Southern Chile [NSHRIMPCSCH]

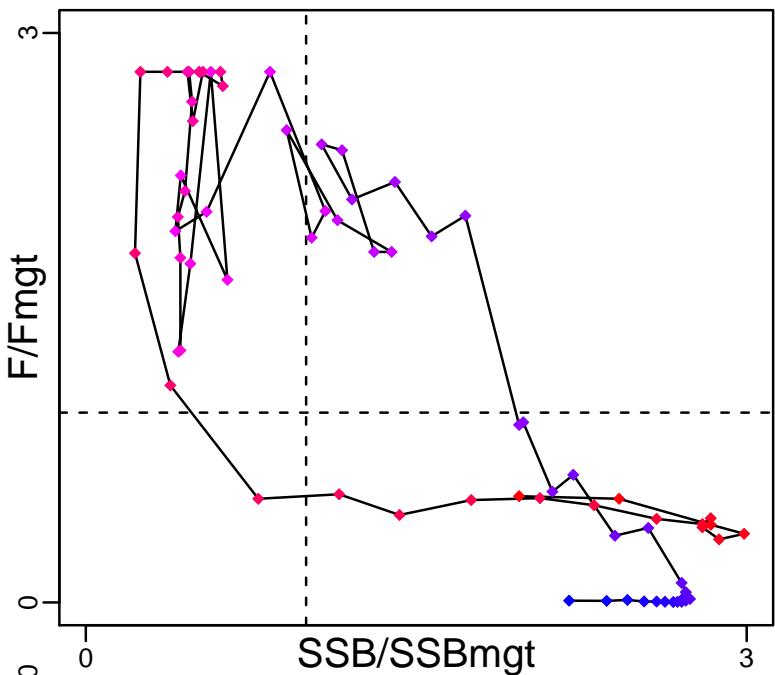
Metadata	
Scientific Name	Heterocarpus reedi
Current Assess ID	IFOPCH-NSHRIMPCSCH-1944-2016-PARMA
Area	Central-Southern Chile
Management Authority	Subsecretaria de Pesca
Assessor	Instituto de Fomento Pesquero - Chilean Fisheries Development Institute
Asmts in RAM	2016

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	ERmsy-est-ratio	2016	0.191
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2016	5287
Fmgt	Fmgt-1/yr	2016	0.293
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2016	11,750
MSY	-	-	-
M	M-1/yr	2016	0.36
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

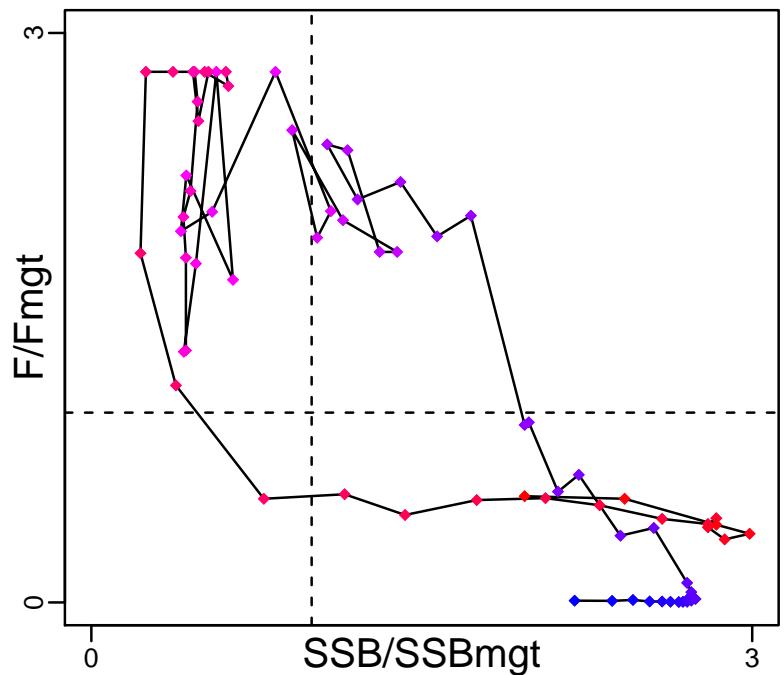
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2016	37,900	Both	-	
SSB	SSB-MT	2016	10,400	Females	1 to 6	
TN	-	-	-	-	-	
R	R-E00	2016	1.41×10^9	Females	1	
F	F-1/yr	2016	0.164	Females	-	
ER	ER-calc-ratio	2016	0.08	-	-	
TC	-	-	-			
TL	TL-MT	2016	3040			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/(SSB0-MT*0.368)	2016	2.405			
F/Fmsy	-	-	-			
ER/ERmsy	ER-calc-ratio/ERmsy-est-ratio	2016	0.421			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2016	1.967			
F/Fmgt	F-1/yr/Fmgt-1/yr	2016	0.56			
ER/ERmgt	-	-	-			

Nylon shrimp Central–Southern Chile [NSHRIMPCSCH]

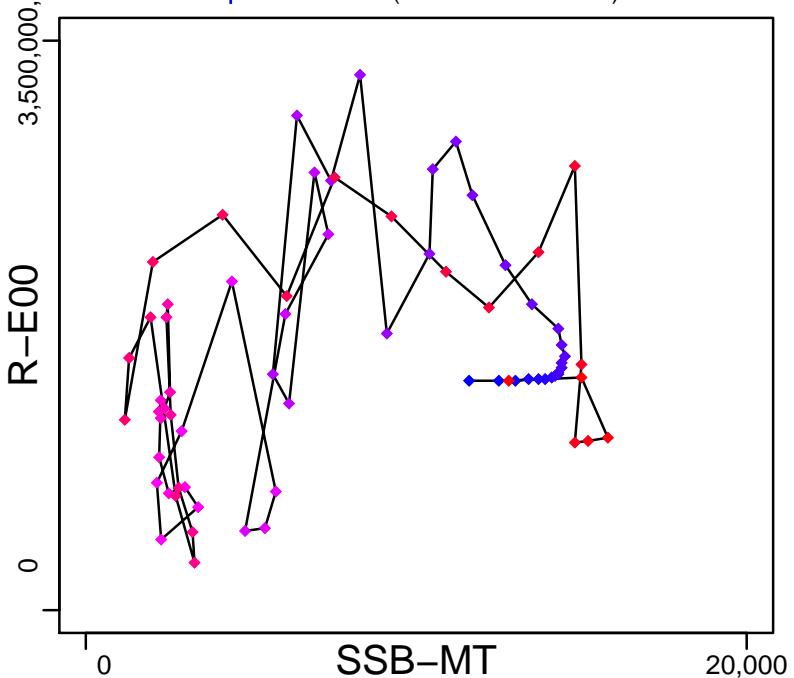
Kobe MSYpref (1944–2016–PARMA)



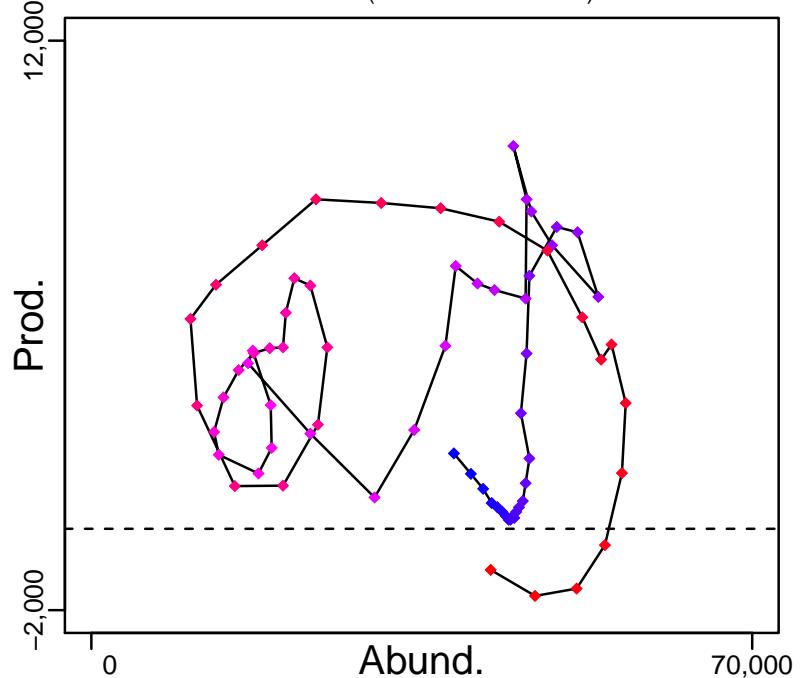
Kobe MGTPref (1944–2016–PARMA)



Spawner Recruit (1944–2016–PARMA)



Production (1944–2016–PARMA)

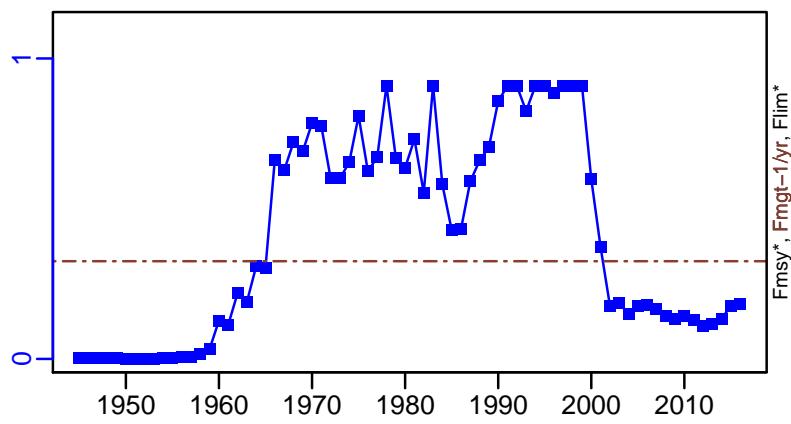
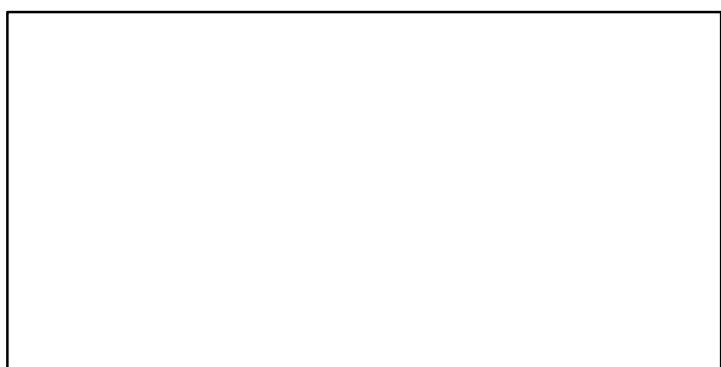
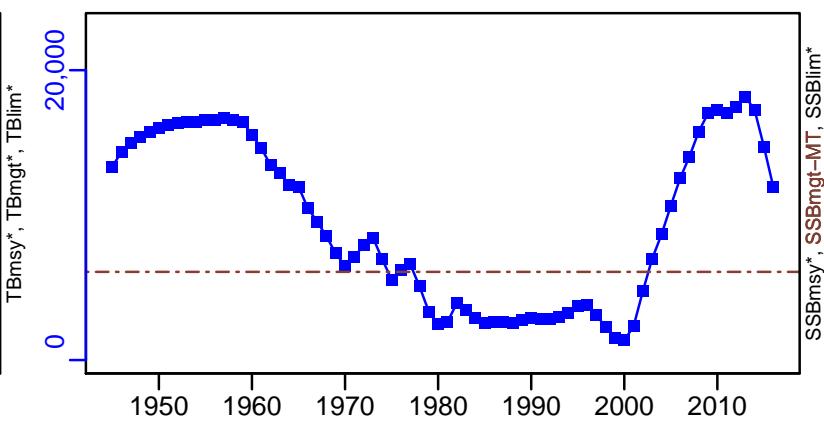
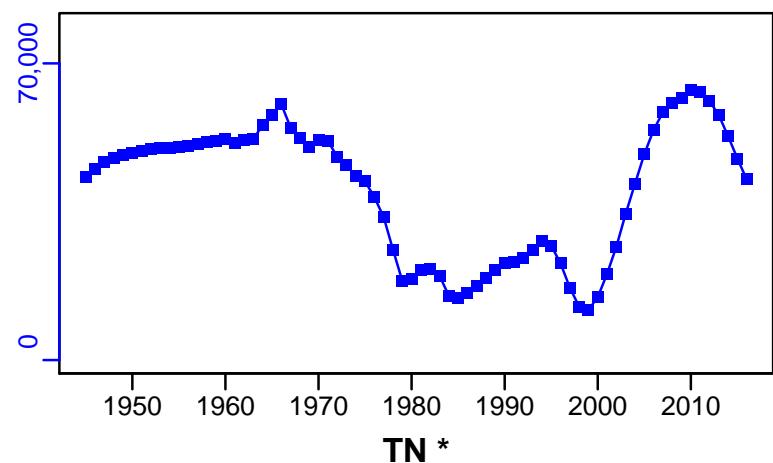


◆ Start Year ♦ End Year * No Data

Nylon shrimp Central–Southern Chile [NSHRIMPCSCH]

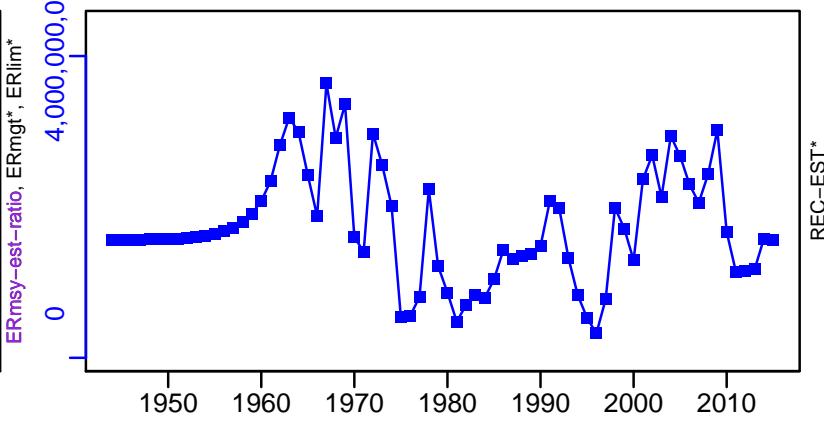
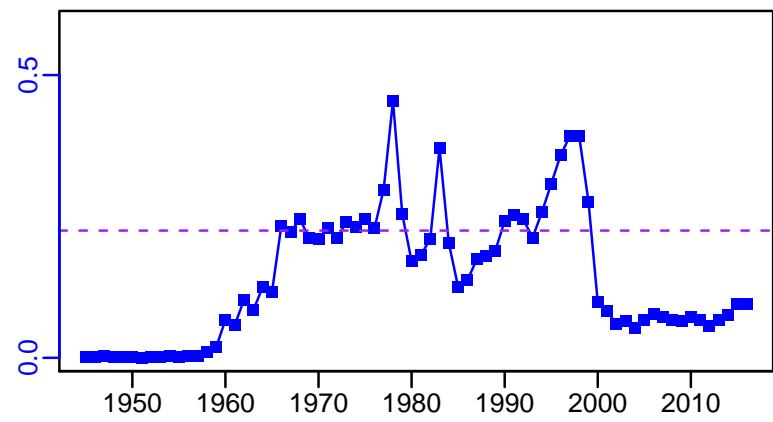
TB-MT (1944–2016-PARMA)

SSB-MT (1944–2016-PARMA)



ER-calc-ratio (1944–2016-PARMA)

R-E00 (1944–2016-PARMA)

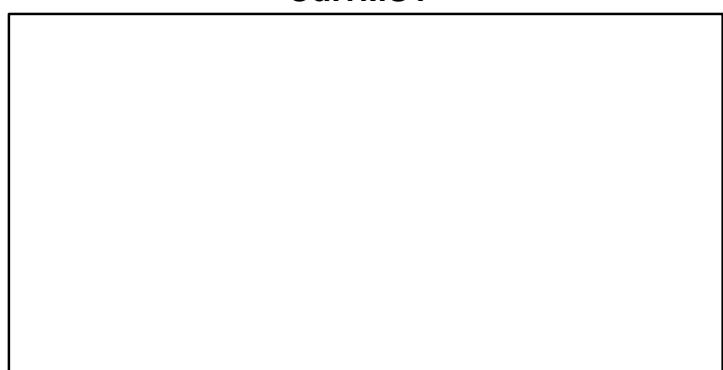
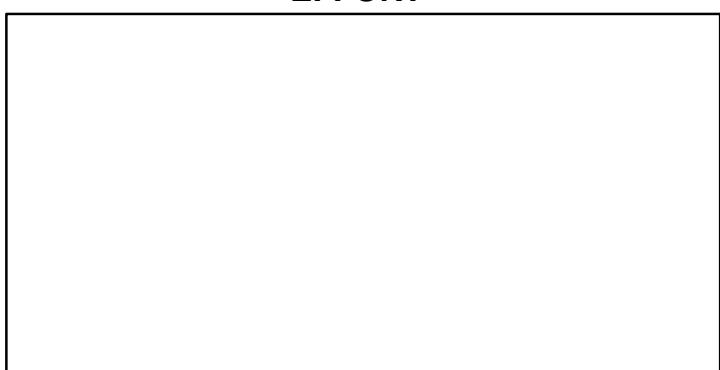
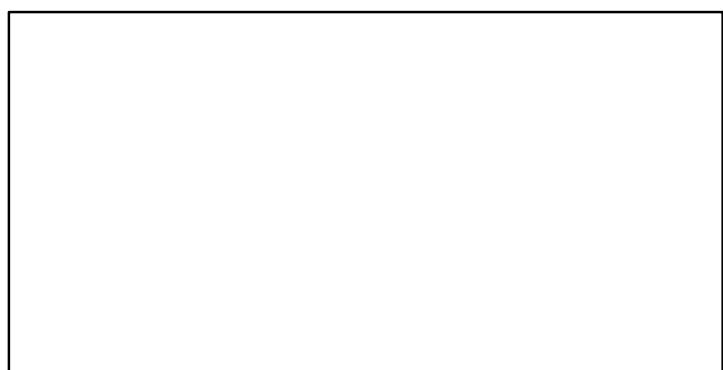
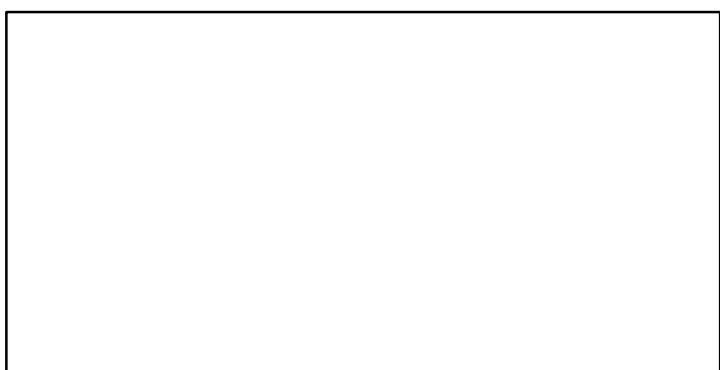
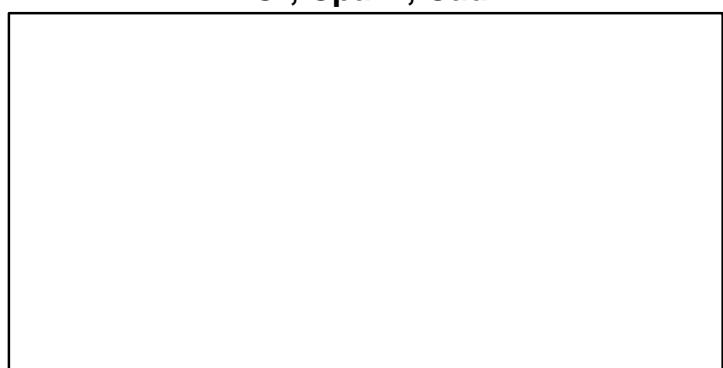
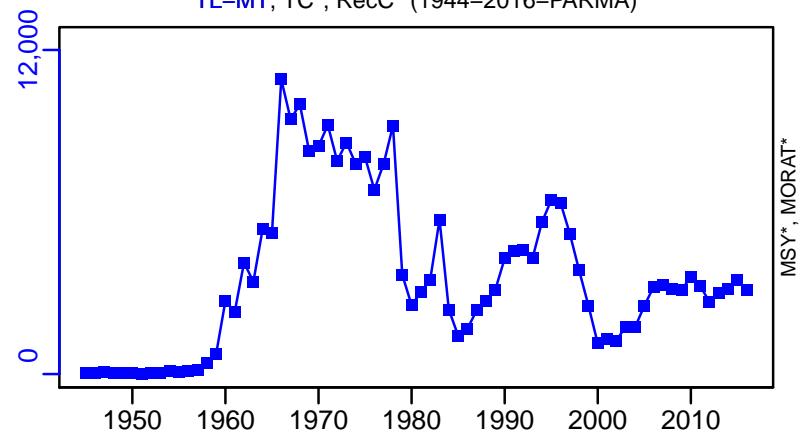


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	--- Lim BRP	* No Data

Nylon shrimp Central–Southern Chile [NSHRIMPCSCH]

TL-MT, TC*, RecC* (1944–2016-PARMA)

TAC*, Cpair*, Cadv*



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

Nylon shrimp Northern Chile [NSHRIMPNCH]

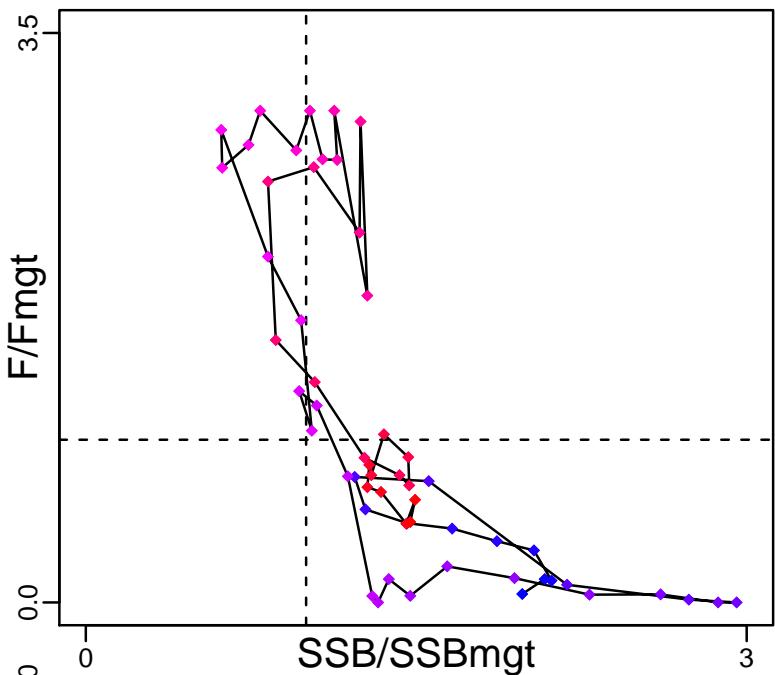
Metadata	
Scientific Name	Heterocarpus reedi
Current Assess ID	IFOPCH-NSHRIMPNCH-1960-2016-PARMA
Area	Northern Chile
Management Authority	Subsecretaria de Pesca
Assessor	Instituto de Fomento Pesquero - Chilean Fisheries Development Institute
Asmts in RAM	2016

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	ERmsy-est-ratio	2016	0.152
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2016	2261
Fmgt	Fmgt-1/yr	2016	0.271
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2016	5025
MSY	-	-	-
M	M-1/yr	2016	0.36
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

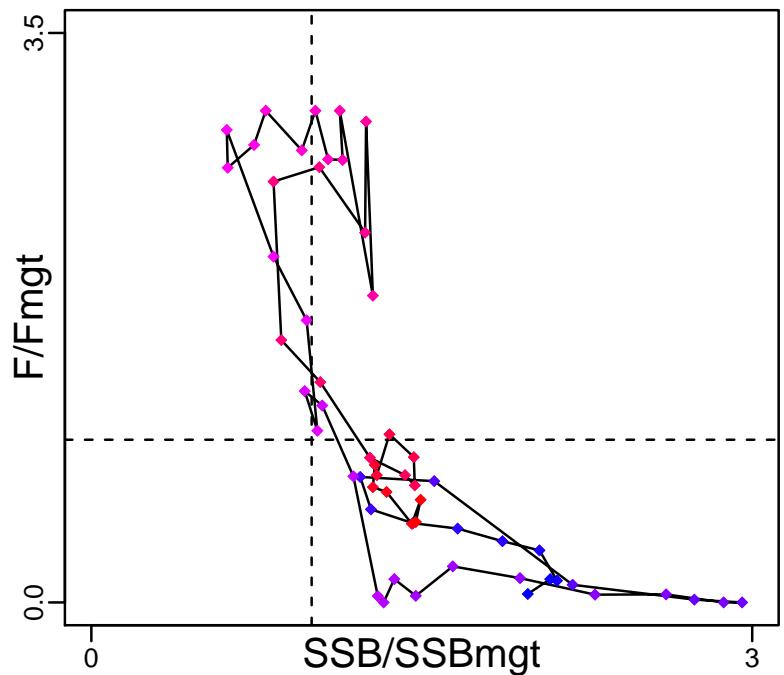
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2016	13,000	Both	-	
SSB	SSB-MT	2016	3330	Females	-	
TN	-	-	-	-	-	
R	R-E00	2016	6.26×10^8	Females	1	
F	F-1/yr	2016	0.134	Females	-	
ER	ER-calc-ratio	2016	0.062	-	-	
TC	-	-	-			
TL	TL-MT	2016	803			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/(SSB0-MT*0.368)	2016	1.801			
F/Fmsy	-	-	-			
ER/ERmsy	ER-calc-ratio/ERmsy-est-ratio	2016	0.407			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2016	1.473			
F/Fmgt	F-1/yr/Fmgt-1/yr	2016	0.494			
ER/ERmgt	-	-	-			

Nylon shrimp Northern Chile [NSHRIMPNCH]

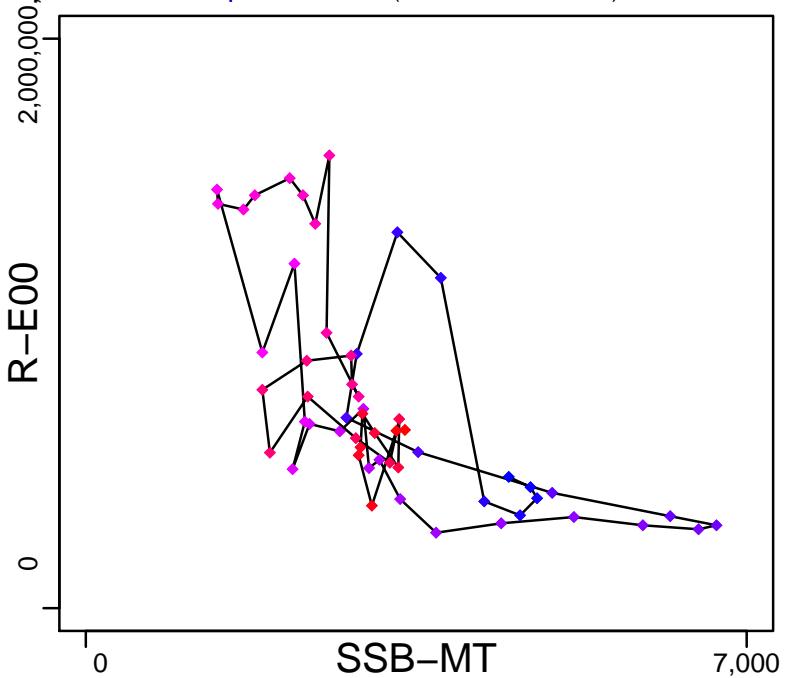
Kobe MSYpref (1960–2016–PARMA)



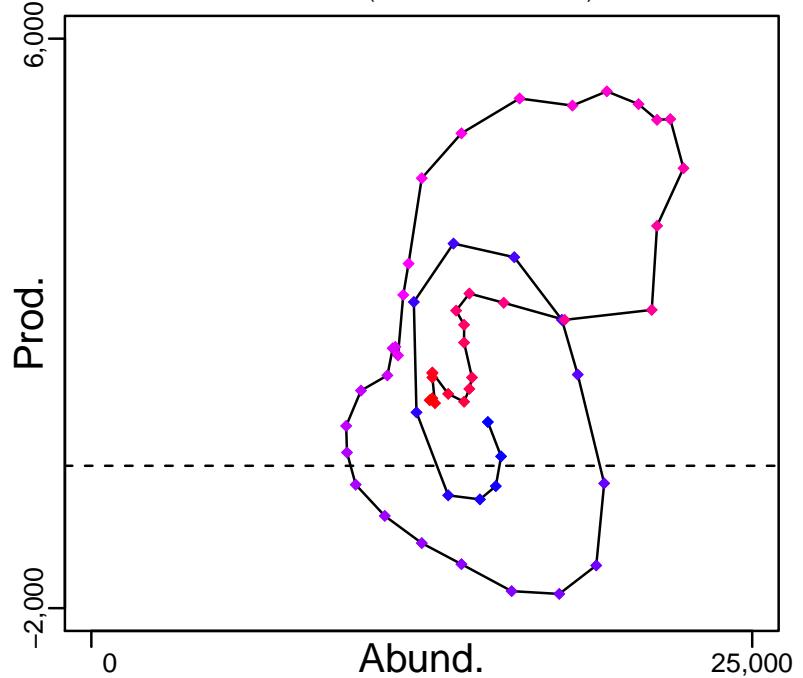
Kobe MGTPref (1960–2016–PARMA)



Spawner Recruit (1960–2016–PARMA)



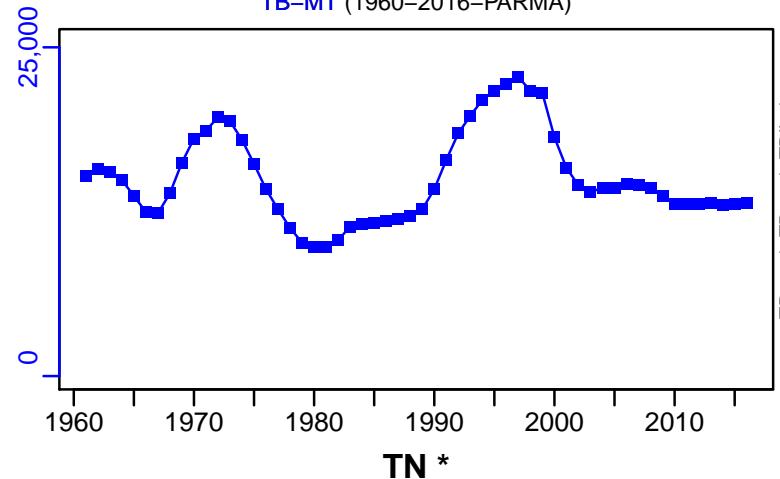
Production (1960–2016–PARMA)



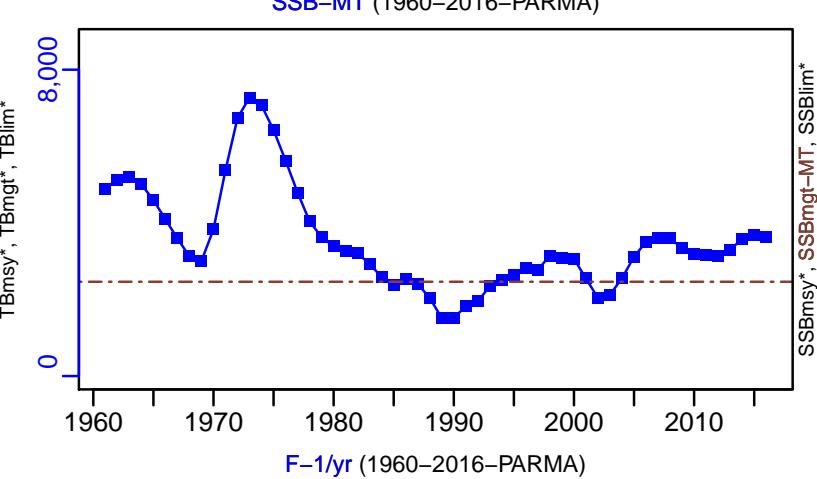
◆ Start Year	◆ End Year	*	No Data
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Nylon shrimp Northern Chile [NSHRIMPNCH]

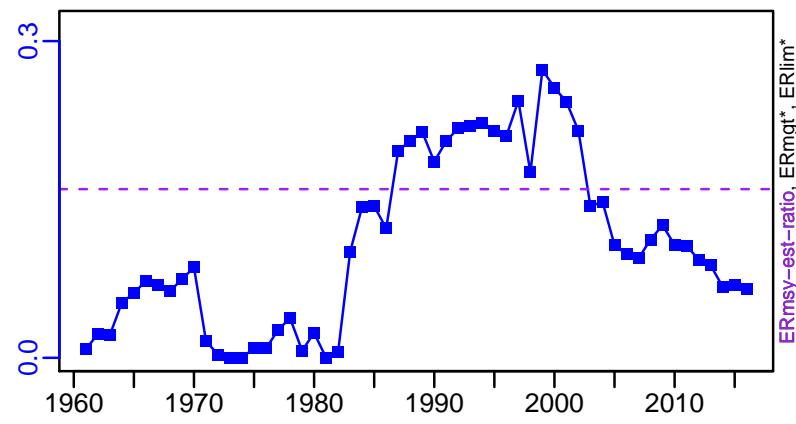
TB-MT (1960–2016-PARMA)



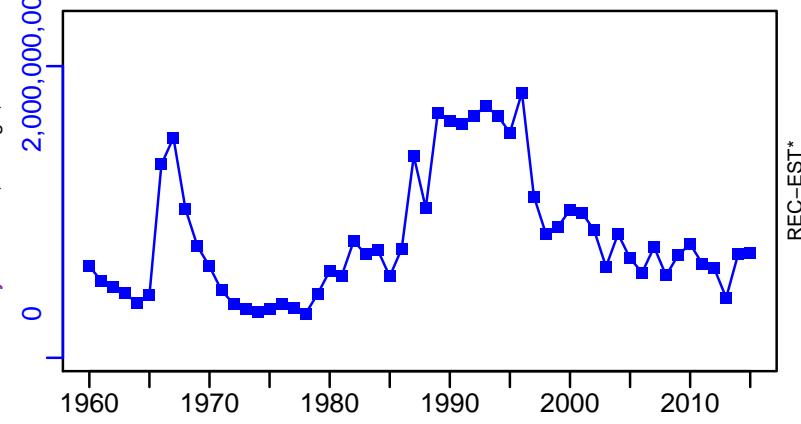
SSB-MT (1960–2016-PARMA)



ER-calc-ratio (1960–2016-PARMA)



R-E00 (1960–2016-PARMA)

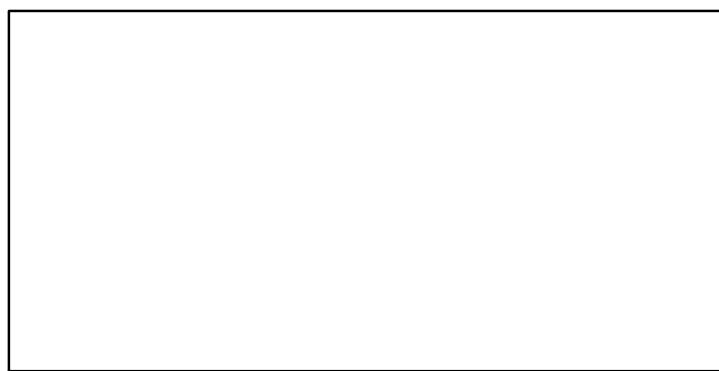
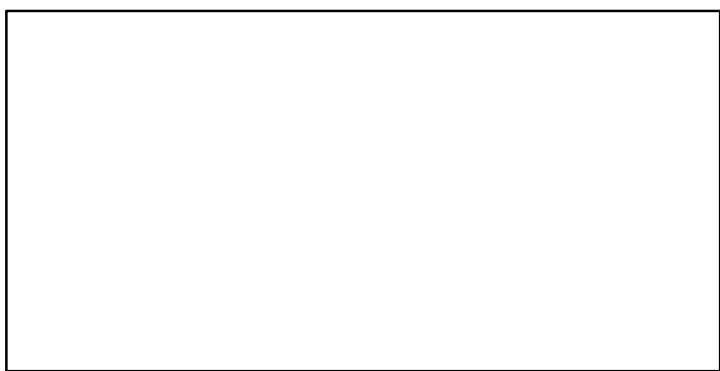
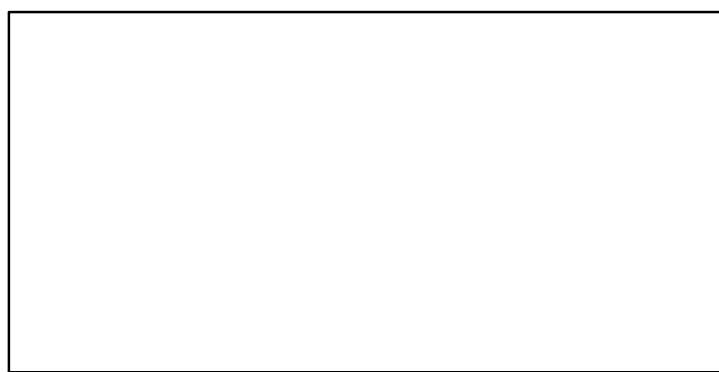
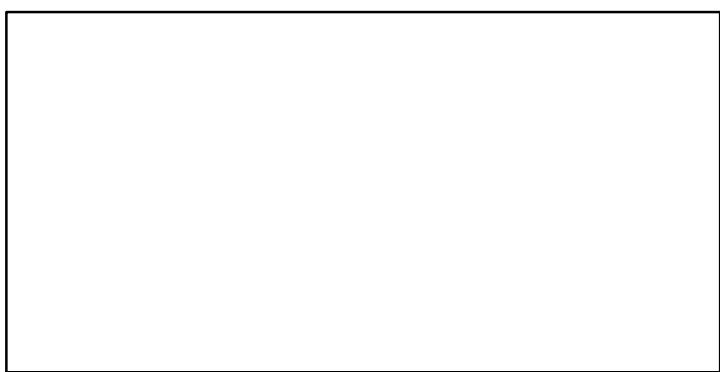
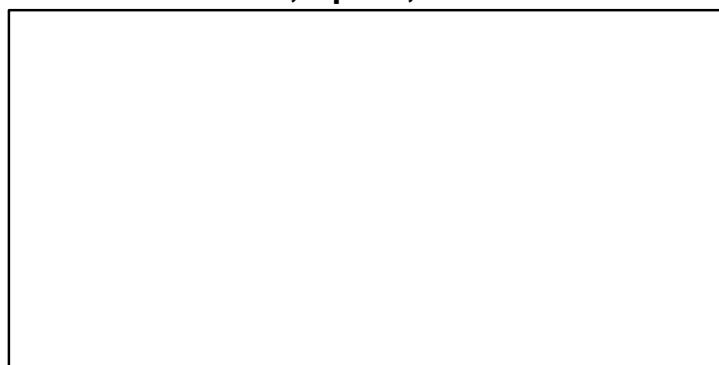
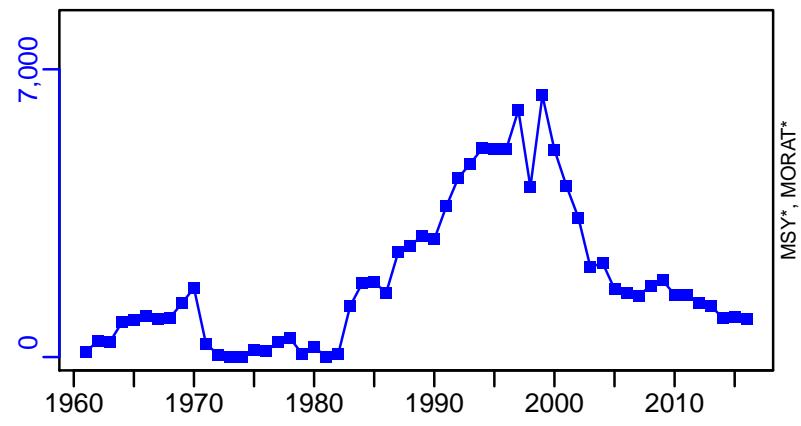


- | | | |
|----------------------|--------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| - - MSY-based BRP | - - Lim BRP | * No Data |

Nylon shrimp Northern Chile [NSHRIMPNCH]

TL-MT, TC*, RecC* (1960–2016-PARMA)

TAC*, Cpair*, Cadv*



Orange roughy Chile [OROUGHYCH]

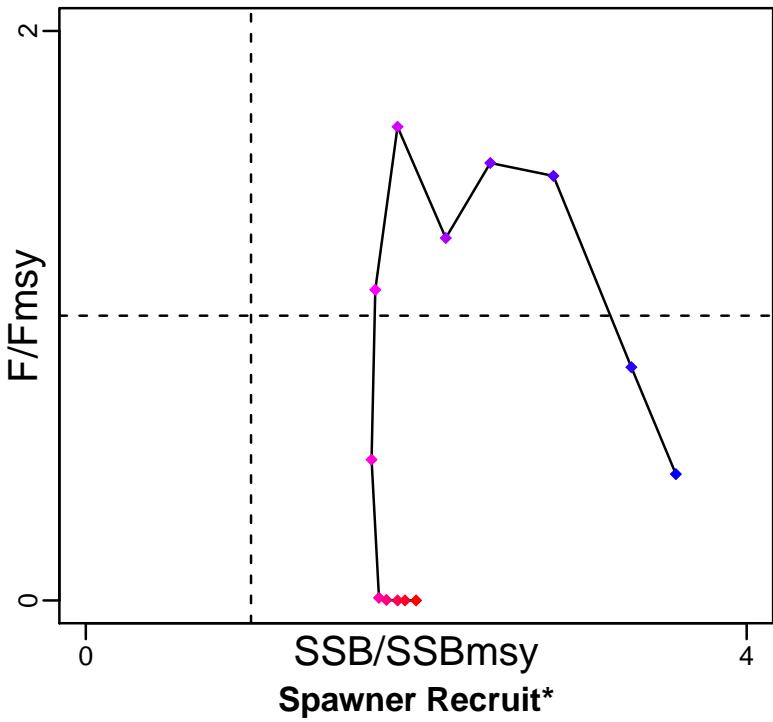
Metadata	
Scientific Name	Hoplostethus atlanticus
Current Assess ID	SPRFMO-OROUGHYCH-1999-2011-PARMA
Area	Chile
Management Authority	South Pacific Regional Fisheries Management Organization
Assessor	South Pacific Regional Fisheries Management Organization
Asmts in RAM	2011

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-pr-MT	2011	4452
Fmsy	Fmsy-1/yr	2011	0.11
ERmsy	ERmsy-est-ratio	2011	0.012
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-est-MT	2011	222
M	M-1/yr	2011	0.045
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

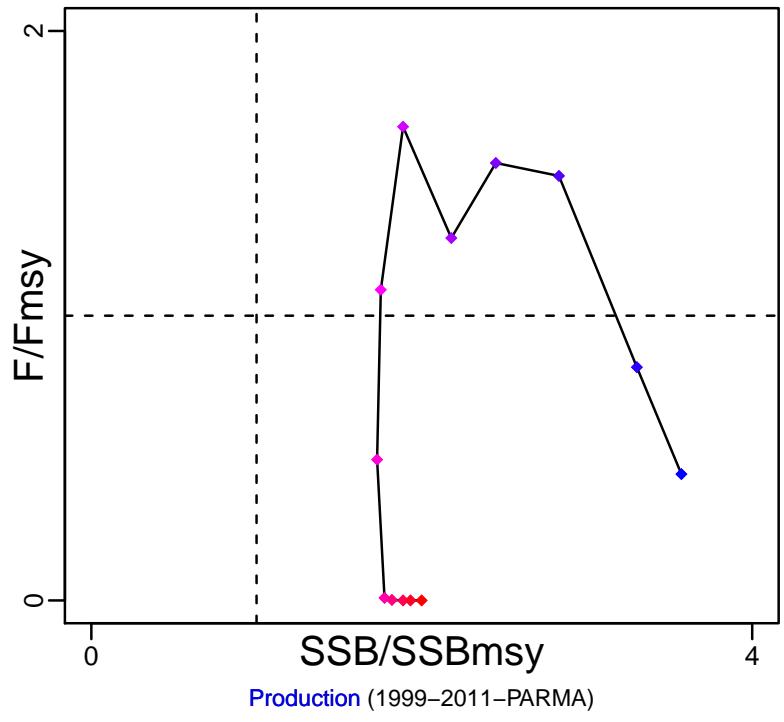
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2011	23,600	-	-	
SSB	SSB-MT	2011	8900	-	-	
TN	-	-	-	-	-	
R	-	-	-	-	-	
F	F-1/yr	2011	0	-	-	
ER	ER-calc-ratio	2011	0	-	-	
TC	TC-MT	2011	0			
TL	-	-	-			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/SSBmsy-pr-MT	2011	1.999			
F/Fmsy	F-1/yr/Fmsy-1/yr	2011	0			
ER/ERmsy	ER-calc-ratio/ERmsy-est-ratio	2011	0			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Orange roughy Chile [OROUGHYCH]

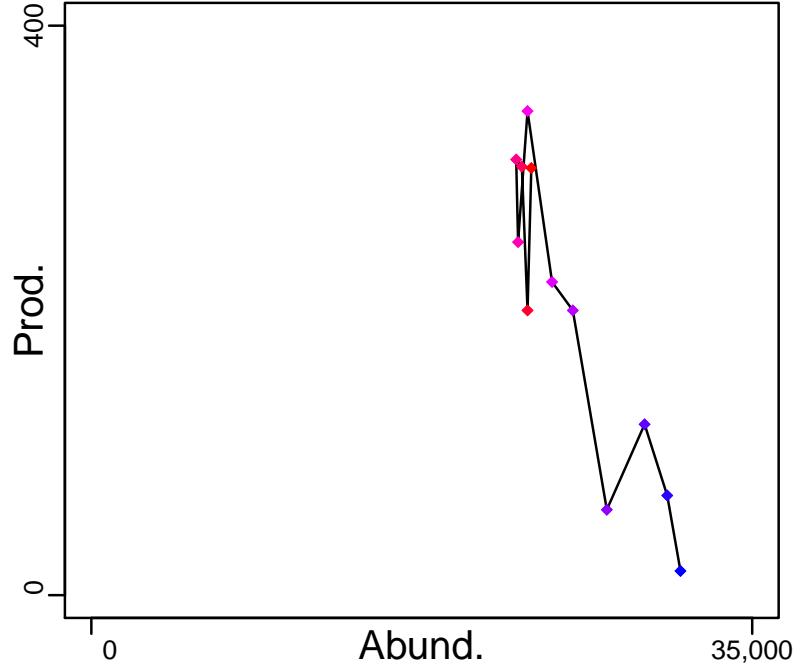
Kobe MSYpref (1999–2011–PARMA)



Kobe MGTPref (1999–2011–PARMA)



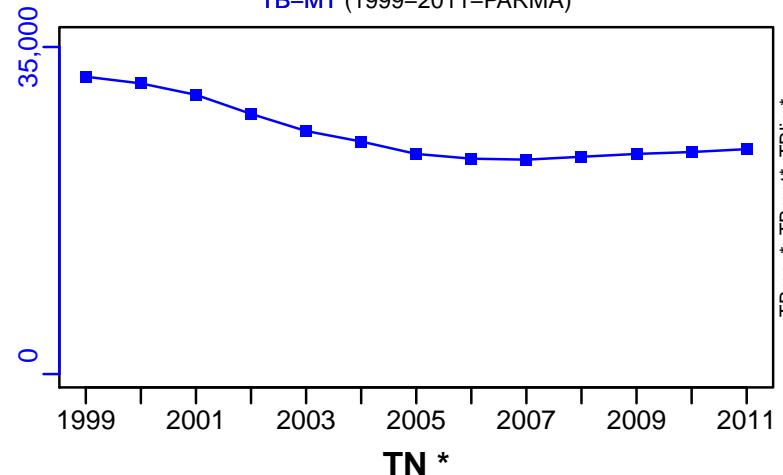
Production (1999–2011–PARMA)



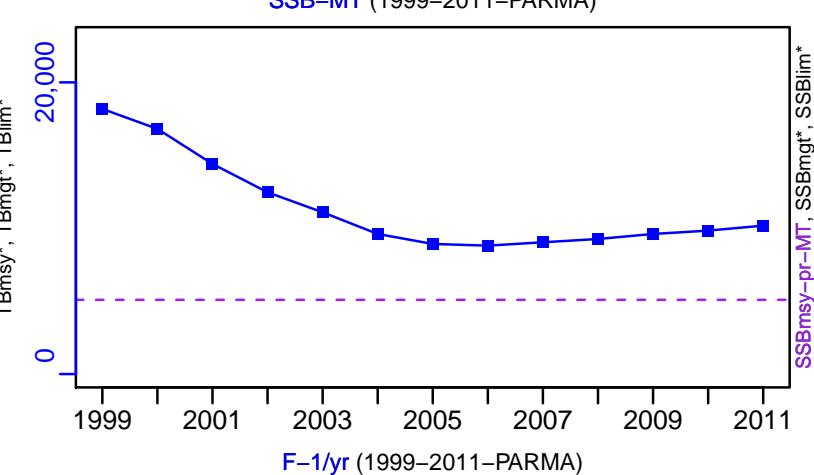
◆ Start Year ◆ End Year * No Data

Orange roughy Chile [OROUGHYCH]

TB-MT (1999–2011-PARMA)



SSB-MT (1999–2011-PARMA)



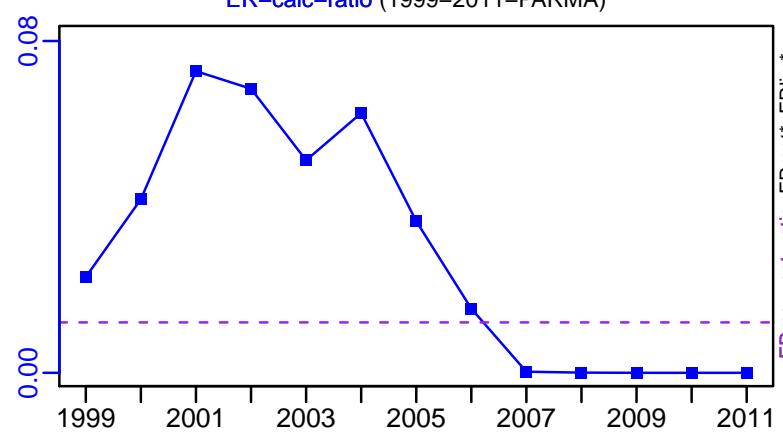
TN *

TB_ms_y* , TB_mgt*, TB_{lim}*

SSB_ms_y-pr-MT, SSB_mgt*, SSB_{lim}*

F_ms_y-1/yr, F_mgt*, F_{lim}*

ER-calc-ratio (1999–2011-PARMA)



Recruits*

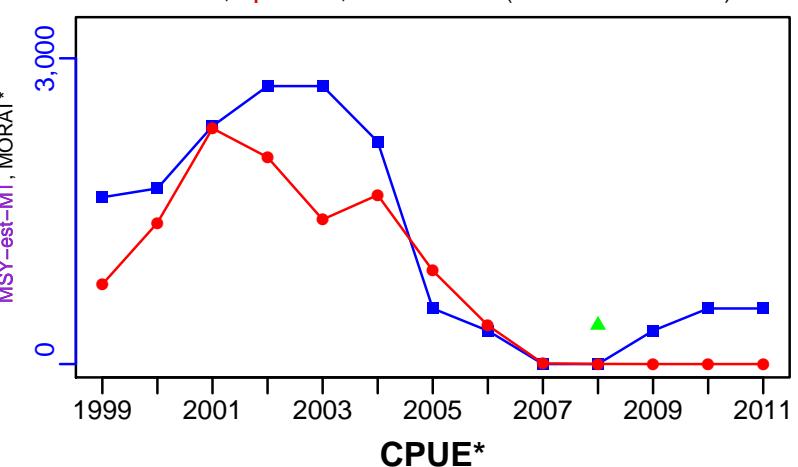
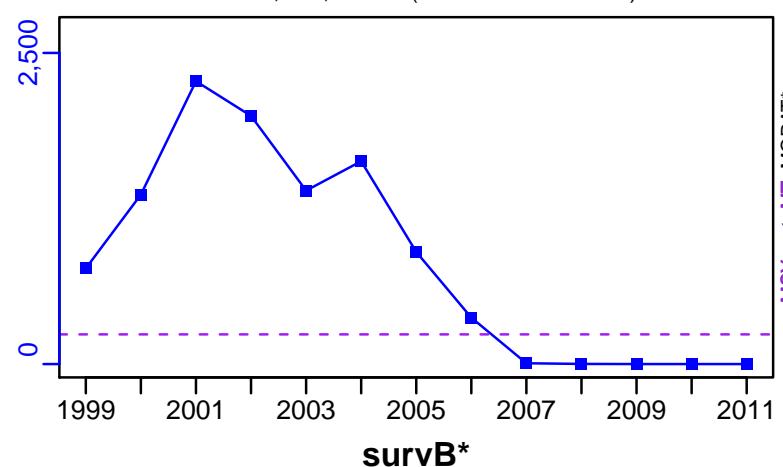
ER_ms_y-est-ratio, ER_mgt*, ER_{lim}*

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

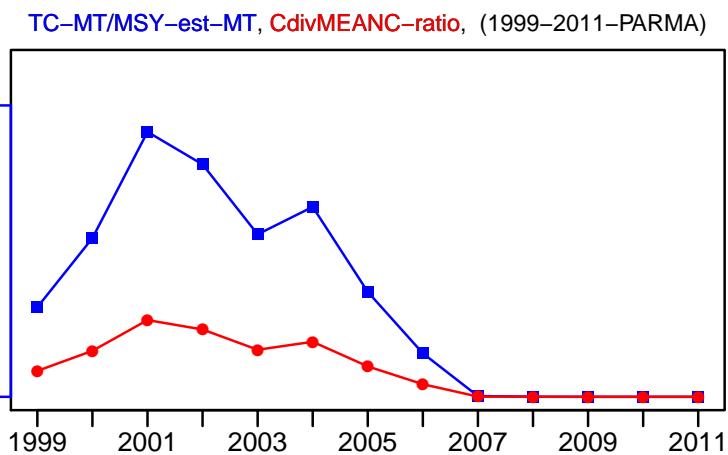
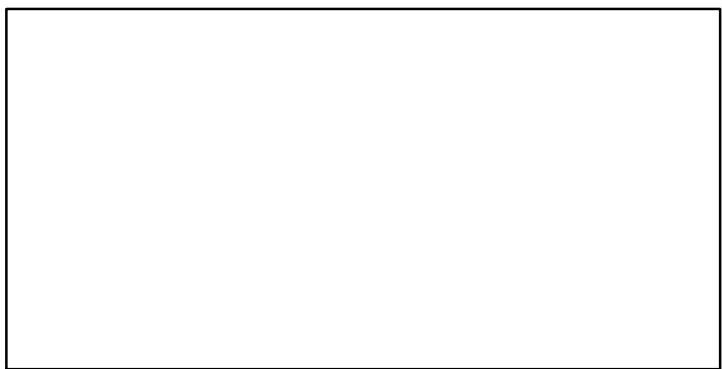
Orange roughy Chile [OROUGHYCH]

TC-MT, TL*, RecC* (1999–2011-PARMA)

TAC-MT, Cpair-MT, Cadvised-MT (1999–2011-PARMA)



EFFORT*



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

Peruvian anchoveta Central Chile [PANCHCCH]

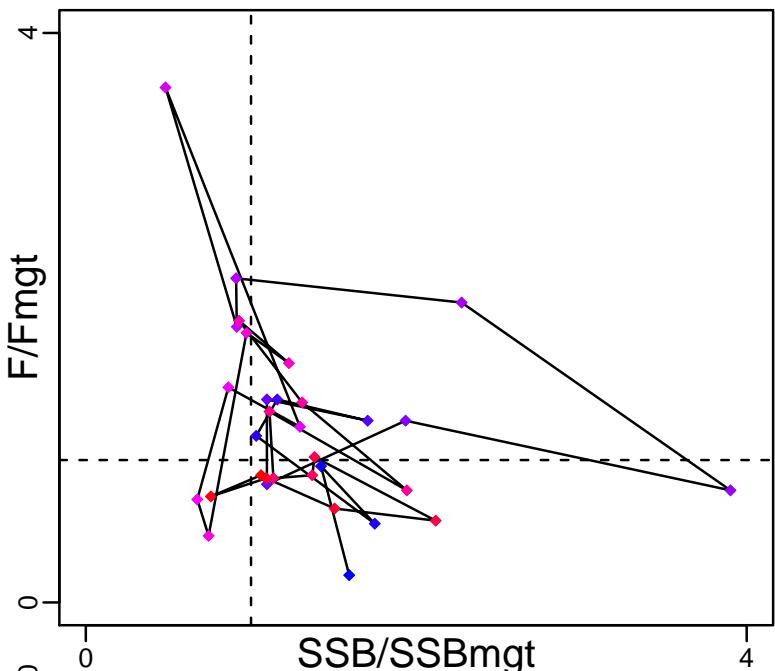
Metadata	
Scientific Name	Engraulis ringens
Current Assess ID	IFOPCH-PANCHCCH-1985-2016-PARMA
Area	Central Chile
Management Authority	Subsecretaria de Pesca
Assessor	Instituto de Fomento Pesquero - Chilean Fisheries Development Institute
Asmts in RAM	2016

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	ERmsy-est-ratio	2016	0.144
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2016	51,000
Fmgt	Fmgt-1/yr	2016	0.47
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2016	92,500
MSY	-	-	-
M	M-1/yr	2016	1.3
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

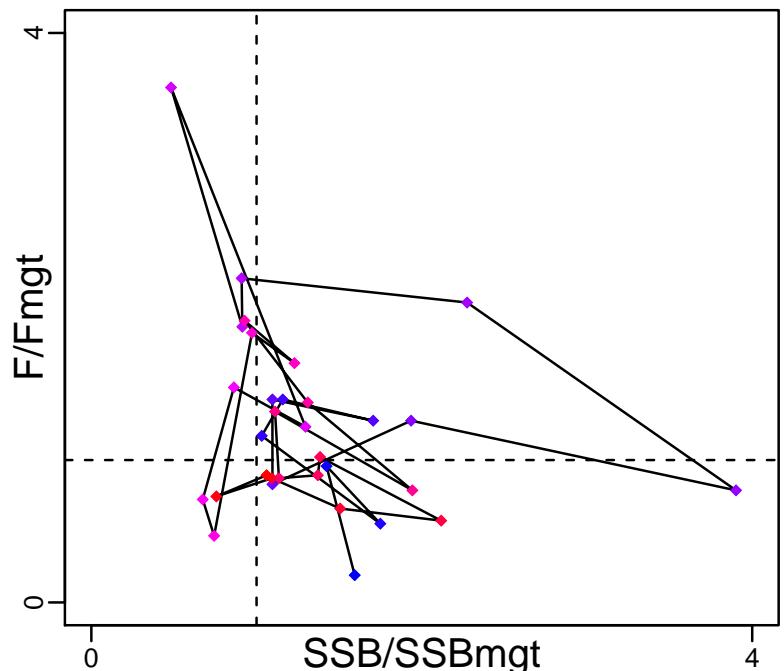
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2016	395,000	-	-	
SSB	SSB-MT	2016	54,100	-	-	
TN	-	-	-	-	-	
R	R-E00	2016	5.23×10^8	-	-	
F	F-1/yr	2016	0.42	-	-	
ER	ER-calc-ratio	2016	0.092	-	-	
TC	-	-	-			
TL	TL-MT	2016	36,400			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/(SSB0-MT*0.368)	2016	1.589			
F/Fmsy	-	-	-			
ER/ERmsy	ER-calc-ratio/ERmsy-est-ratio	2016	0.639			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2016	1.061			
F/Fmgt	F-1/yr/Fmgt-1/yr	2016	0.894			
ER/ERmgt	-	-	-			

Peruvian anchoveta Central Chile [PANCHCCH]

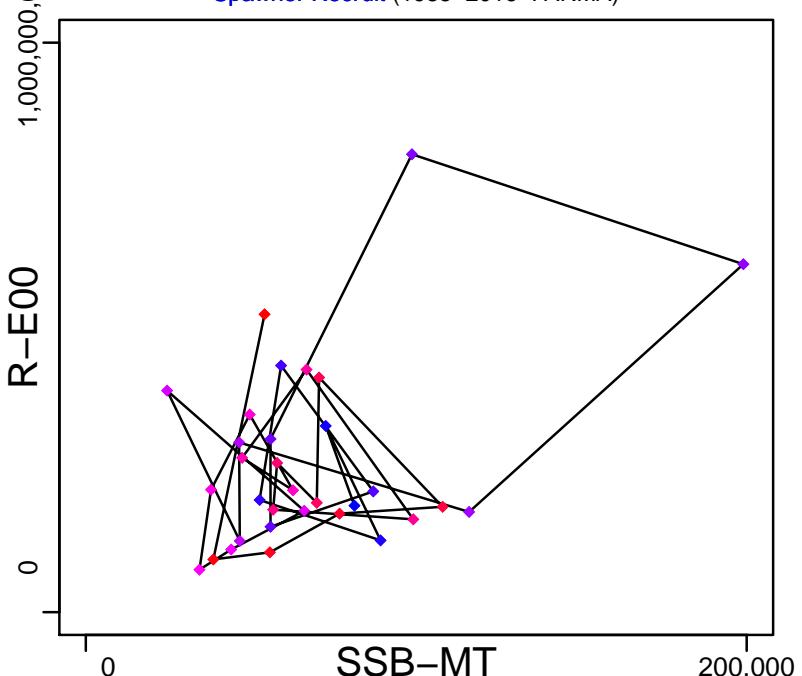
Kobe MSYpref (1985–2016–PARMA)



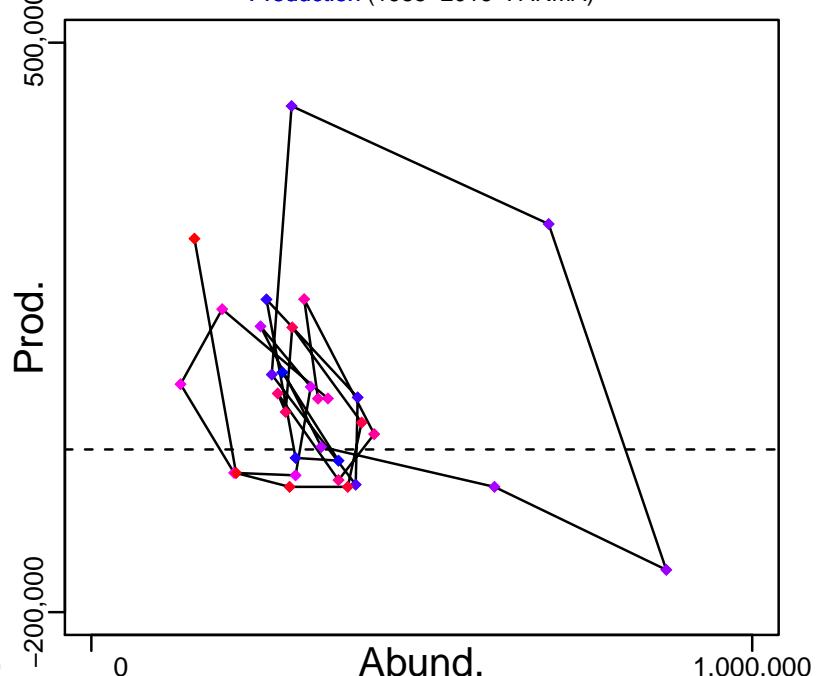
Kobe MGTPref (1985–2016–PARMA)



Spawner Recruit (1985–2016–PARMA)



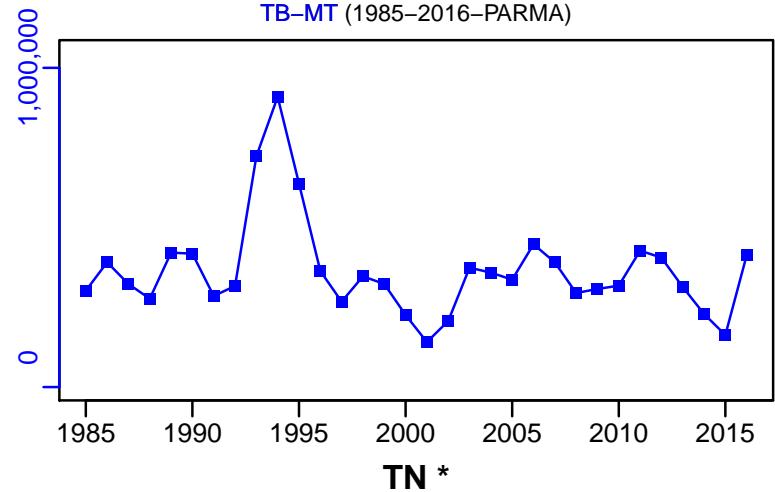
Production (1985–2016–PARMA)



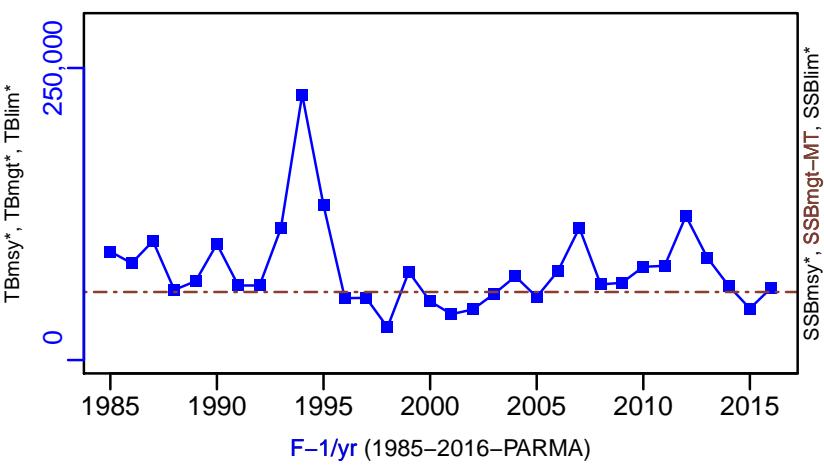
◆ Start Year ◆ End Year * No Data

Peruvian anchoveta Central Chile [PANCHCC]

TB-MT (1985–2016-PARMA)



SSB-MT (1985–2016-PARMA)

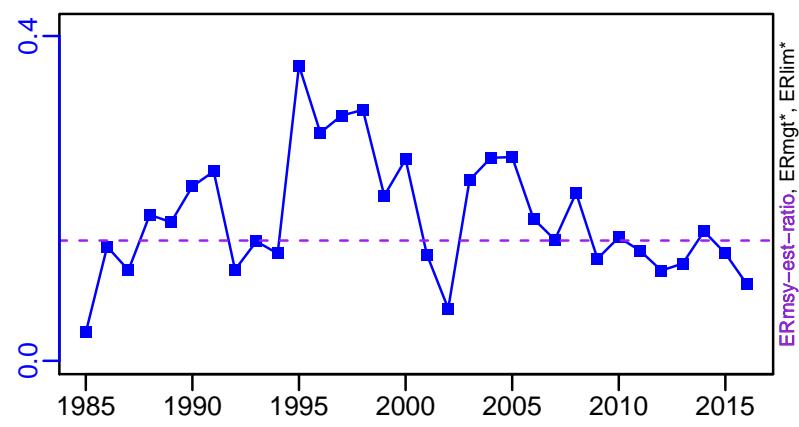


TN *

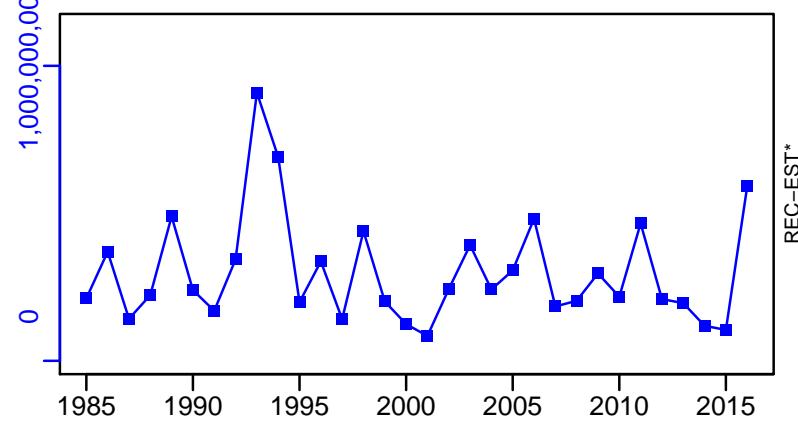
F-1/yr (1985–2016-PARMA)

SSB_ms^y, SSBB_{mgt}-MT, SSBLim*

ER-calc-ratio (1985–2016-PARMA)



R-E00 (1985–2016-PARMA)



Fms^y, Fmgt-1/yr, F_{lim}*

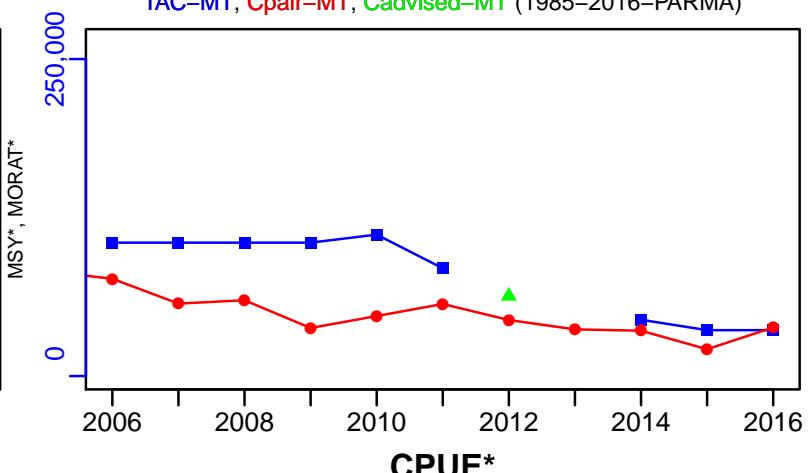
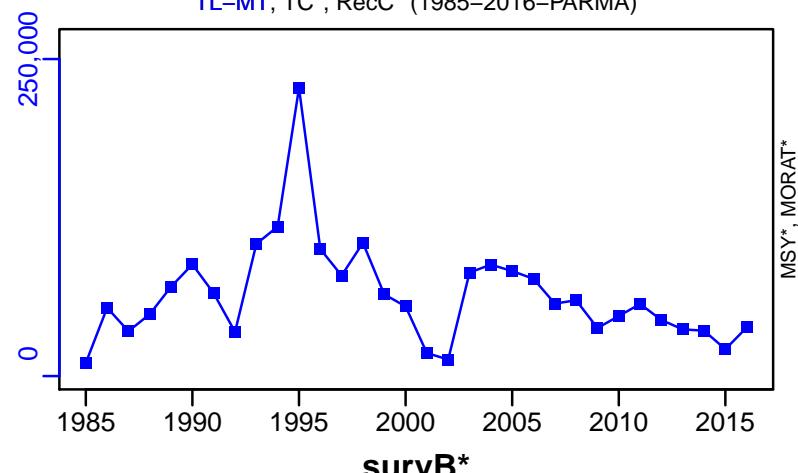
REC-EST*

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

Peruvian anchoveta Central Chile [PANCHCCH]

TL-MT, TC*, RecC* (1985–2016-PARMA)

TAC-MT, Cpair-MT, Cadvised-MT (1985–2016-PARMA)



EFFORT*

CdivMSY*

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

Peruvian anchoveta Central-Southern Chile [PANCHCSCH]

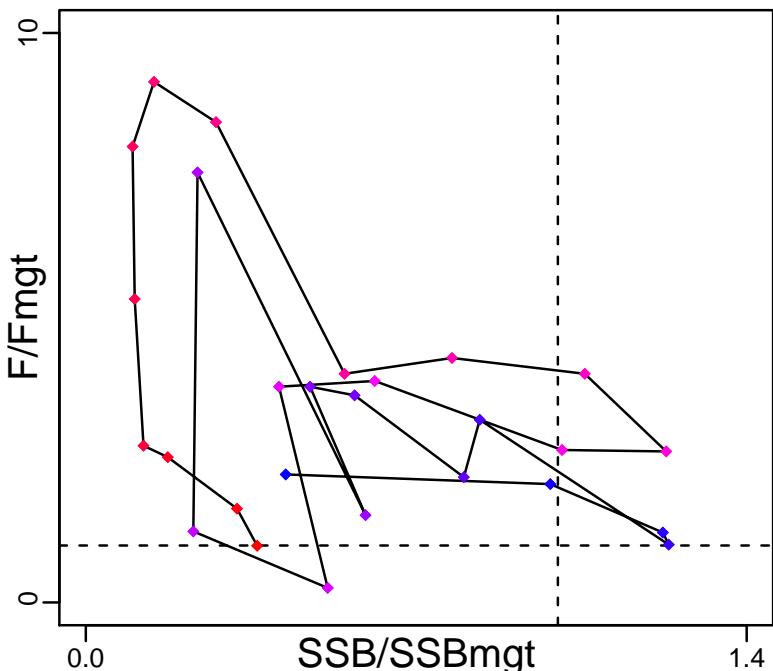
Metadata	
Scientific Name	Engraulis ringens
Current Assess ID	IFOPCH-PANCHCSCH-1990-2016-PARMA
Area	Central-Southern Chile
Management Authority	Subsecretaria de Pesca
Assessor	Instituto de Fomento Pesquero - Chilean Fisheries Development Institute
Asmts in RAM	2016

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	ERmsy-est-ratio	2016	0.26
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2016	562,000
Fmgt	Fmgt-1/yr	2016	0.396
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2016	0.7
TBlim	-	-	-
SSBlim	SSBlim-MT	2016	281,000
Flim	-	-	-
ERlim	-	-	-

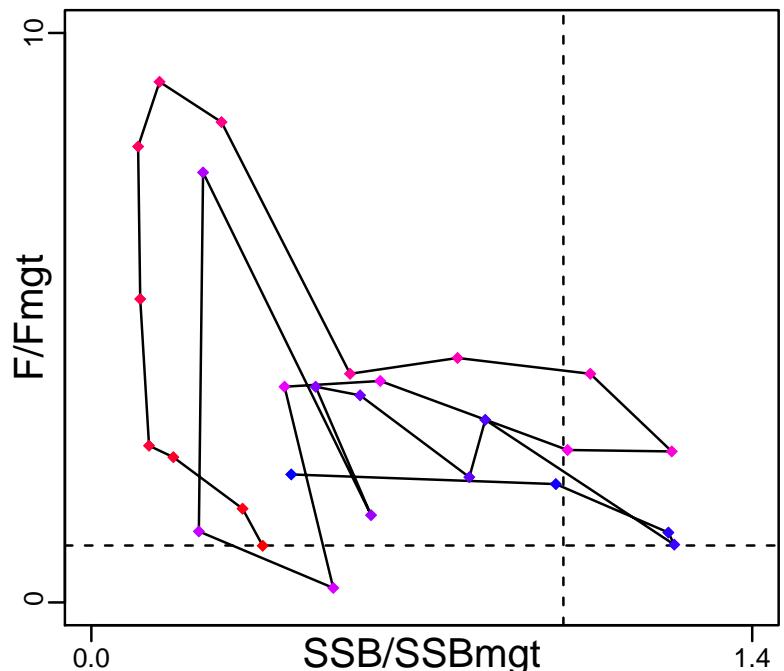
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2016	433,000	-	-	
SSB	SSB-MT	2016	204,000	-	-	
TN	-	-	-	-	-	
R	R-E00	2016	52,000	-	-	
F	F-1/yr	2016	0.394	-	-	
ER	ER-calc-ratio	2016	0.103	-	-	
TC	-	-	-			
TL	TL-MT	2016	44,600			
TB/TBmsy	-	-	-			
SSB/SSBmsy	-	-	-			
F/Fmsy	-	-	-			
ER/ERmsy	ER-calc-ratio/ERmsy-est-ratio	2016	0.396			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2016	0.363			
F/Fmgt	F-1/yr/Fmgt-1/yr	2016	0.995			
ER/ERmgt	-	-	-			

Peruvian anchoveta Central–Southern Chile [PANCHCSCH]

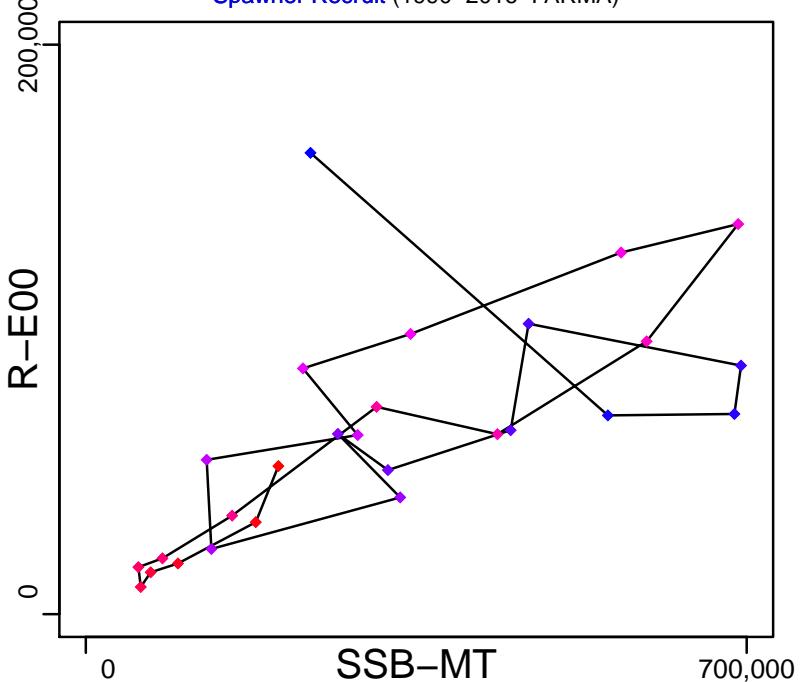
Kobe MSYpref (1990–2016–PARMA)



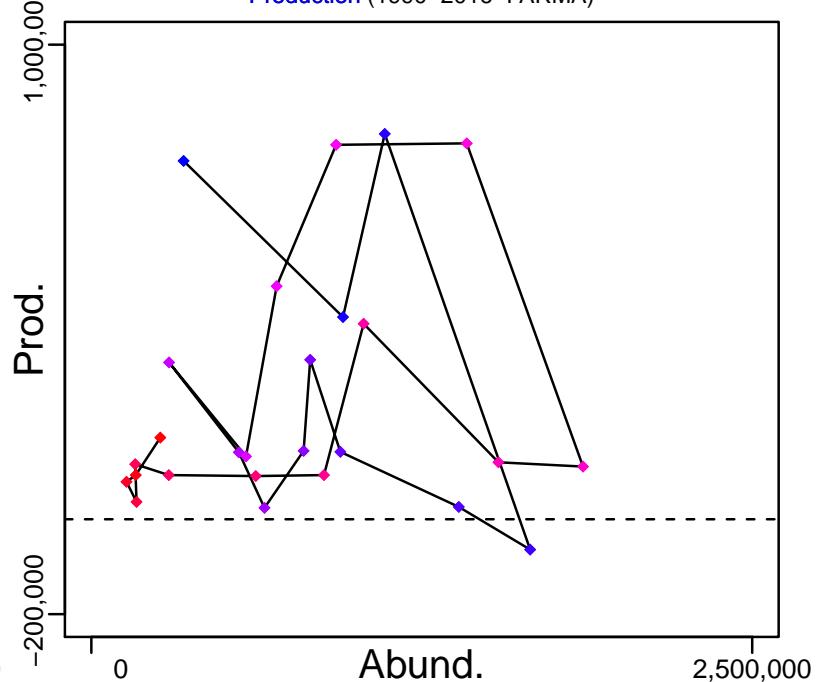
Kobe MGTPref (1990–2016–PARMA)



Spawner Recruit (1990–2016–PARMA)



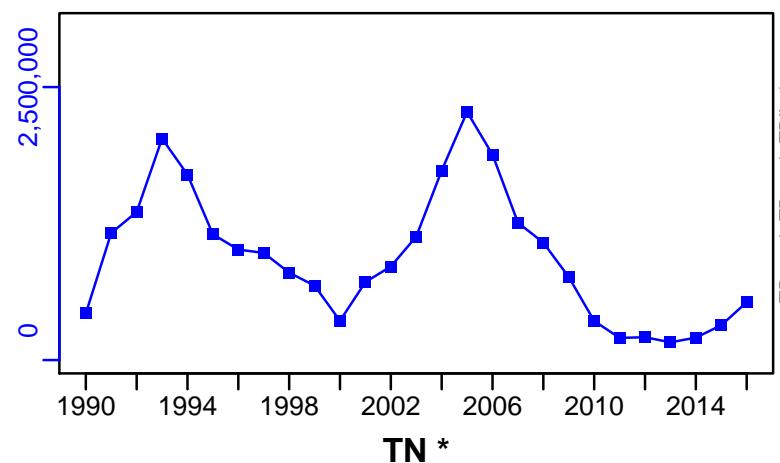
Production (1990–2016–PARMA)



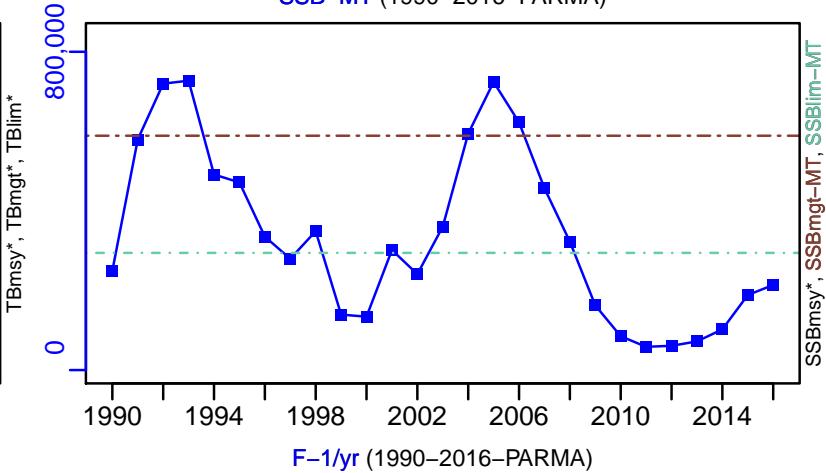
◆ Start Year ♦ End Year * No Data

Peruvian anchoveta Central–Southern Chile [PANCHCSCH]

TB-MT (1990–2016-PARMA)



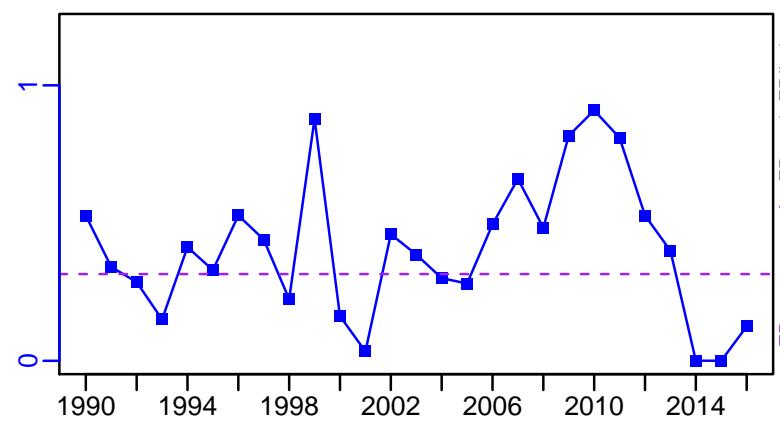
SSB-MT (1990–2016-PARMA)



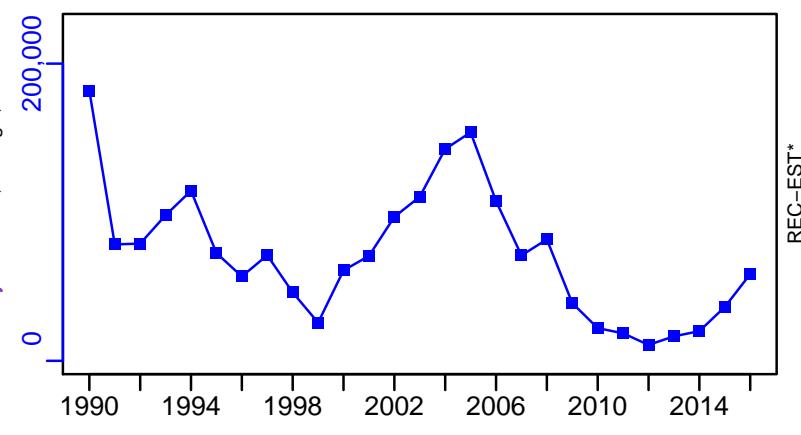
TN *



ER-calc-ratio (1990–2016-PARMA)



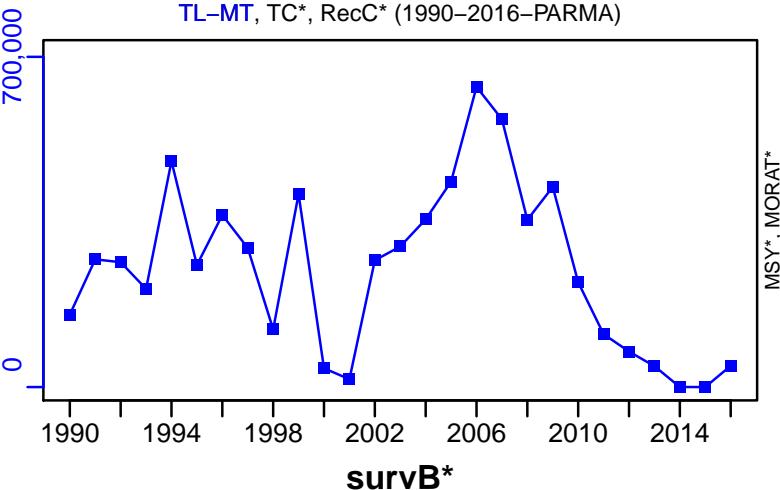
R-E00 (1990–2016-PARMA)



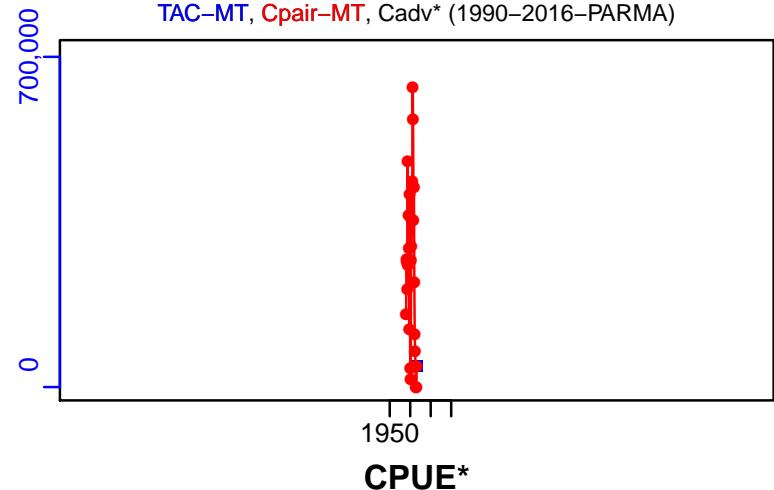
■ Listed time series	— Target BRP	— Rec-Est
- - MSY-based BRP	- - Lim BRP	* No Data

Peruvian anchoveta Central–Southern Chile [PANCHCSCH]

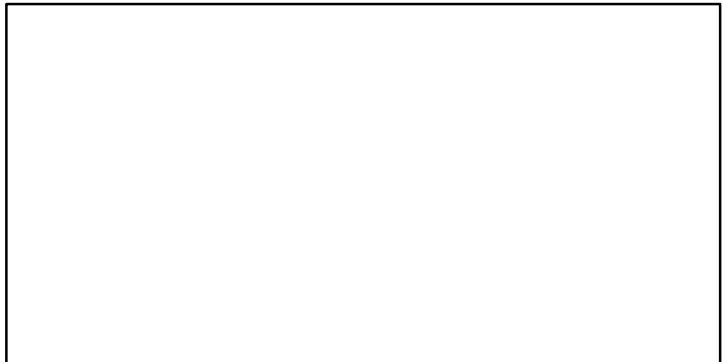
TL–MT, TC*, RecC* (1990–2016–PARMA)



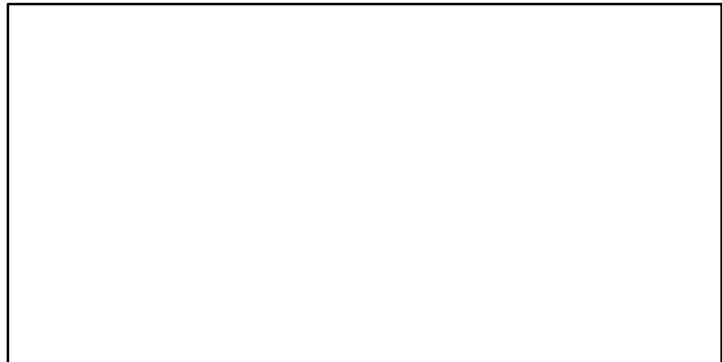
TAC–MT, Cpair–MT, Cadv* (1990–2016–PARMA)



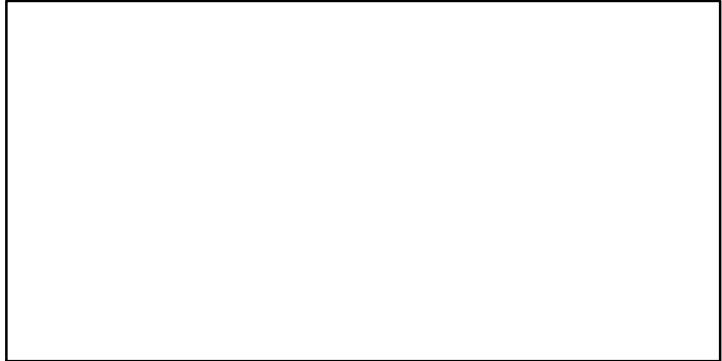
survB*



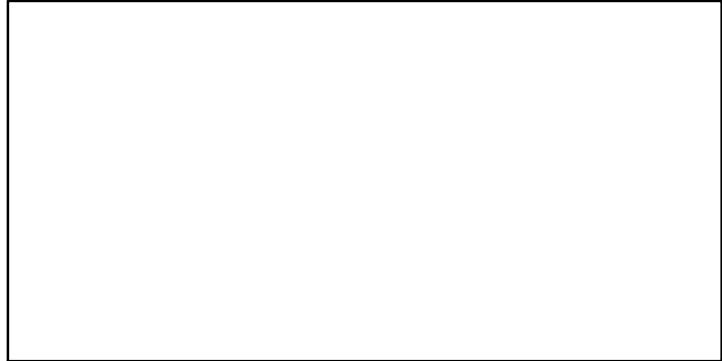
CPUE*



EFFORT*



CdivMSY*



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

Peruvian anchoveta Northern Chile Southern Peru [PANCHNCHSP]

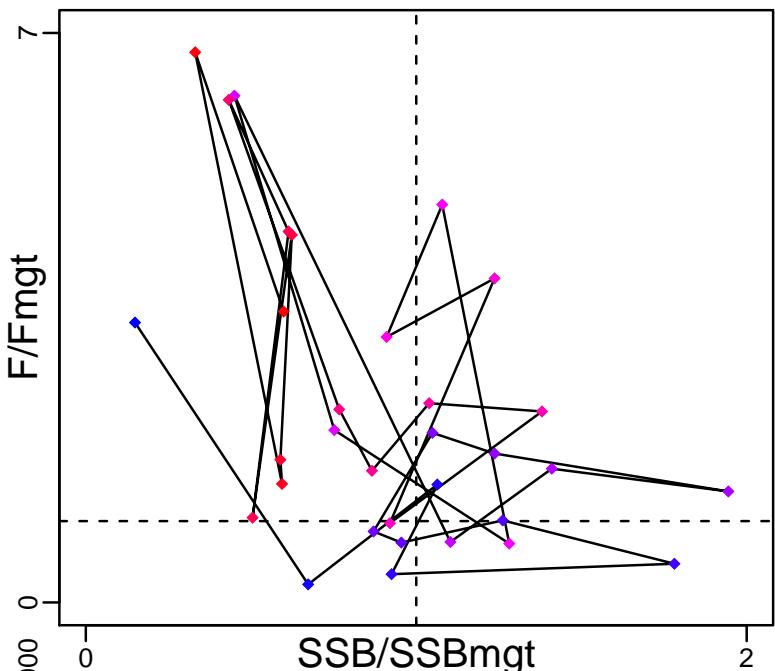
Metadata	
Scientific Name	Engraulis ringens
Current Assess ID	IFOPCH-PANCHNCHSP-1984-2015-PARMA
Area	Northern Chile Southern Peru
Management Authority	Subsecretaria de Pesca
Assessor	Instituto de Fomento Pesquero - Chilean Fisheries Development Institute
Asmts in RAM	2015

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	ERmsy-est-ratio	2015	0.268
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2015	2,021,000
Fmgt	Fmgt-1/yr	2015	1.18
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2015	1
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

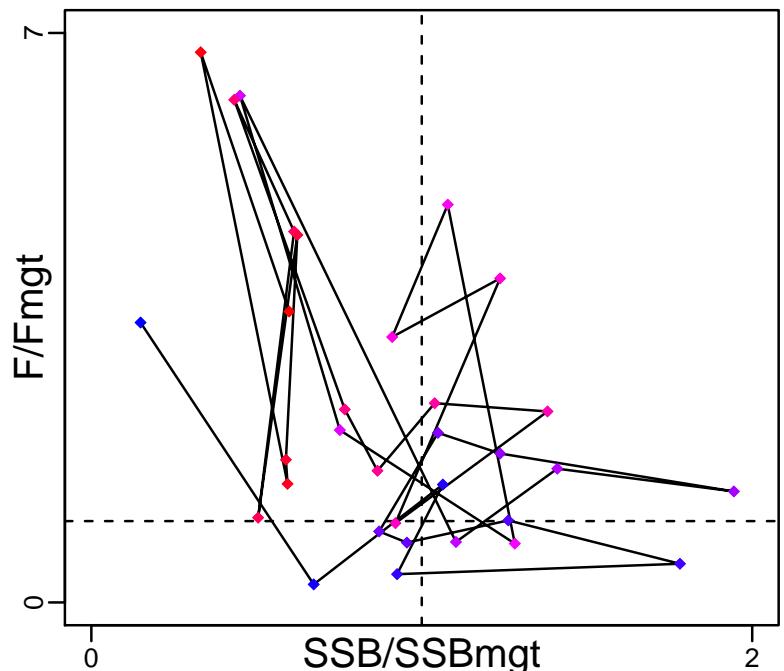
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2015	5,210,000	-	-	
SSB	SSB-MT	2015	1,210,000	-	-	
TN	-	-	-	-	-	
R	R-E00	2015	9.46×10^{11}	-	-	
F	F-1/yr	2015	4.22	-	-	
ER	ER-calc-ratio	2015	0.23	-	-	
TC	-	-	-			
TL	TL-MT	2015	1,200,000			
TB/TBmsy	-	-	-			
SSB/SSBmsy	-	-	-			
F/Fmsy	-	-	-			
ER/ERmsy	ER-calc-ratio/ERmsy-est-ratio	2015	0.86			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2015	0.599			
F/Fmgt	F-1/yr/Fmgt-1/yr	2015	3.576			
ER/ERmgt	-	-	-			

Peruvian anchoveta Northern Chile Southern Peru [PANCHNCHSP]

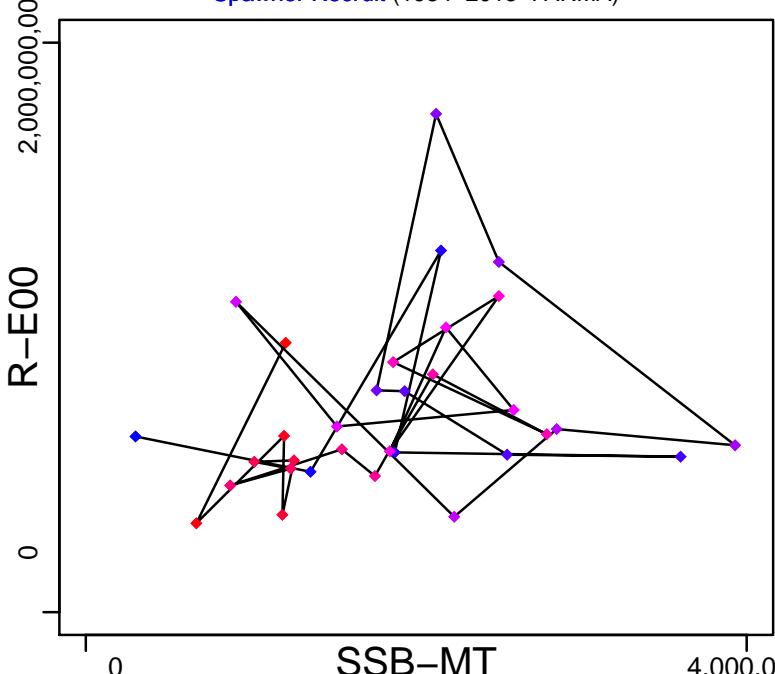
Kobe MSYpref (1984–2015–PARMA)



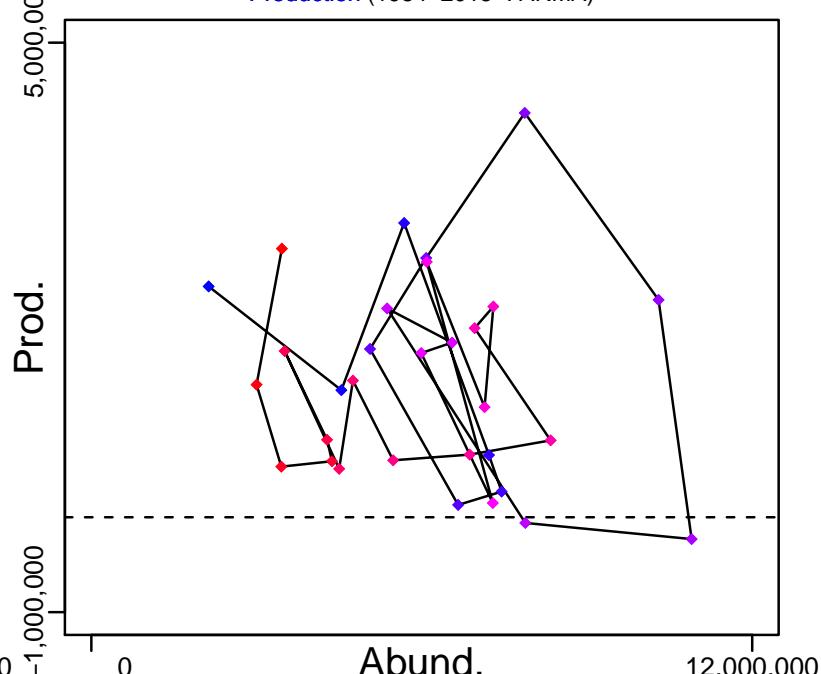
Kobe MGTPref (1984–2015–PARMA)



Spawner Recruit (1984–2015–PARMA)



Production (1984–2015–PARMA)

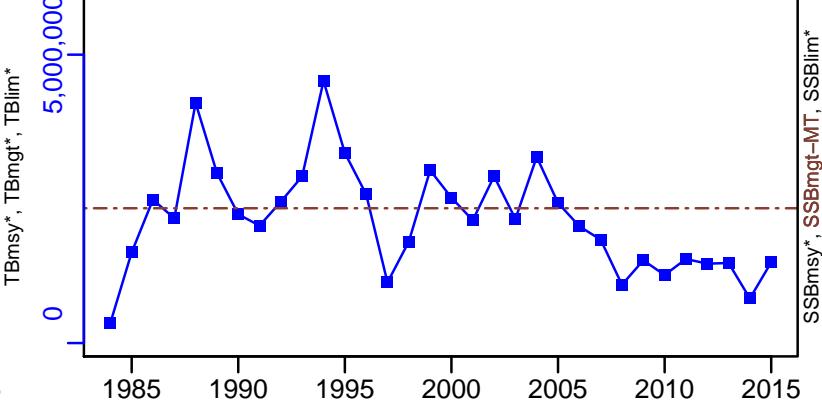
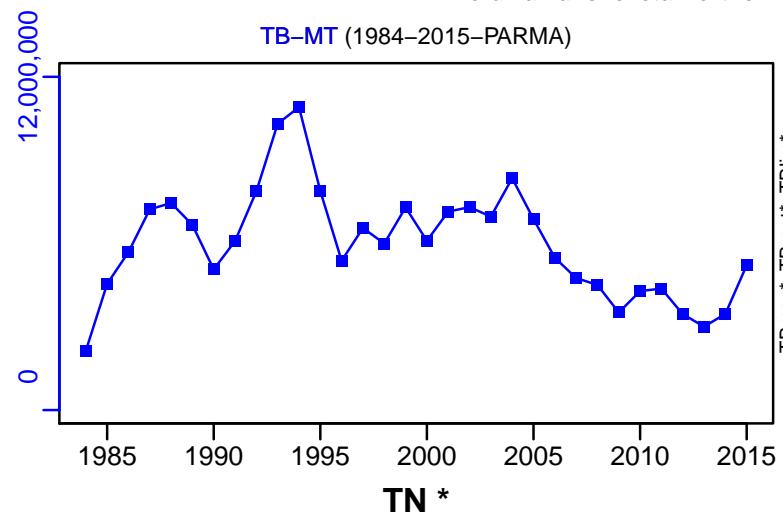


◆ Start Year ◆ End Year * No Data

Peruvian anchoveta Northern Chile Southern Peru [PANCHNCHSP]

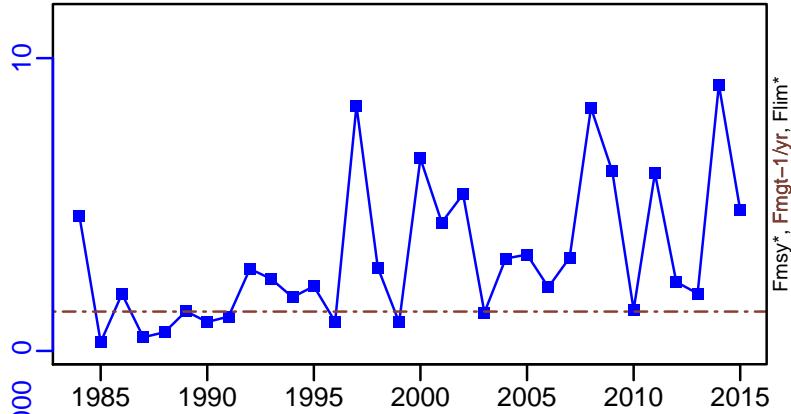
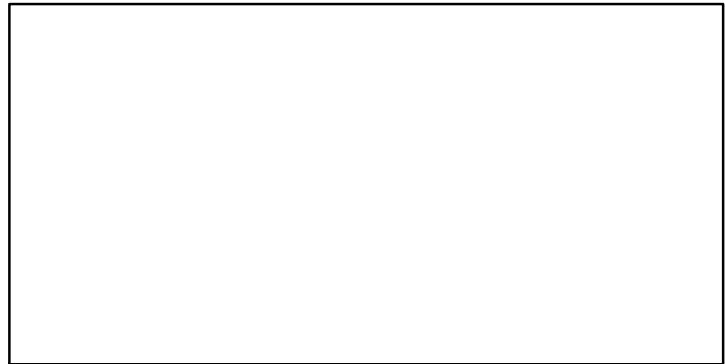
TB-MT (1984–2015-PARMA)

SSB-MT (1984–2015-PARMA)



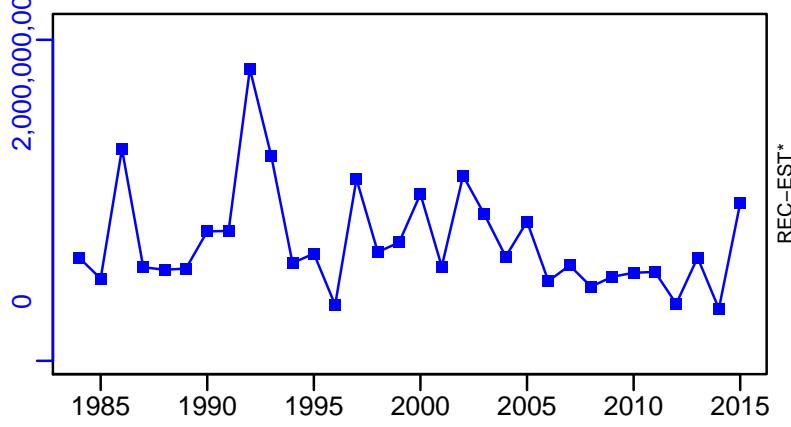
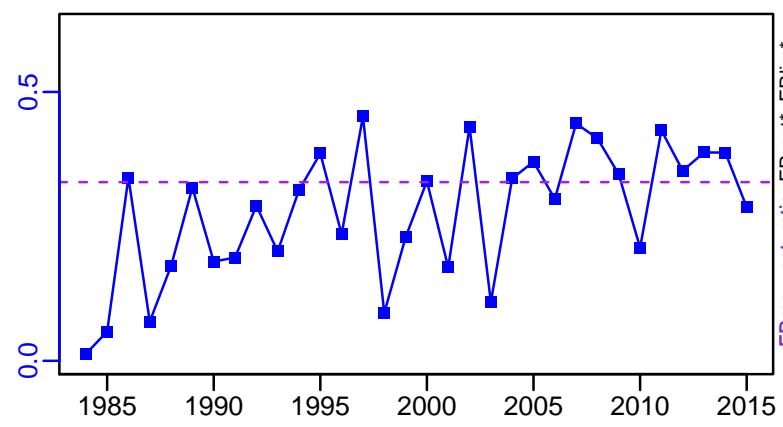
TN *

F-1/yr (1984–2015-PARMA)



ER-calc-ratio (1984–2015-PARMA)

R-E00 (1984–2015-PARMA)

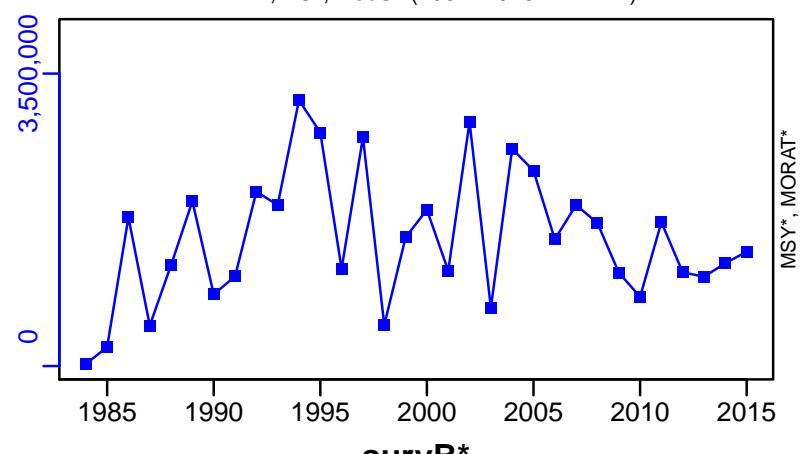


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - Lim BRP	* No Data

Peruvian anchoveta Northern Chile Southern Peru [PANCHNCHSP]

TL-MT, TC*, RecC* (1984–2015-PARMA)

TAC*, Cpair*, Cadv*



survB*



CPUE*



EFFORT*



CdivMSY*



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

Peruvian anchoveta North-Central Peruvian coast [PANCHPERUNC]

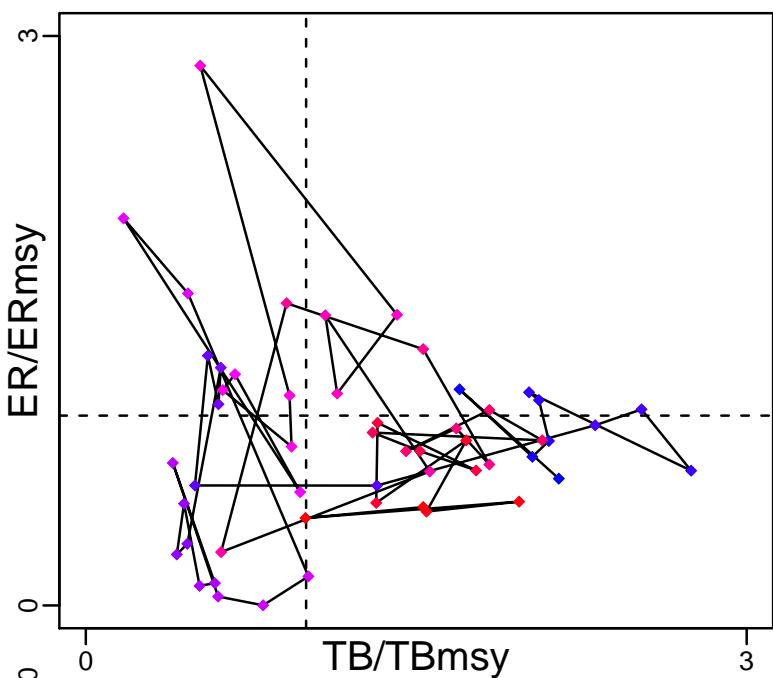
Metadata	
Scientific Name	Engraulis ringens
Current Assess ID	IMARPE-PANCHPERUNC-1959-2016-HILBORN
Area	North-Central Peruvian coast
Management Authority	Instituto del Mar del Peru, Peru national management
Assessor	Instituto del Mar del Peru
Asmts in RAM	2008, 2016

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-pr-MT	2016	6,660,000
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	ERmsy-est-ratio	2016	0.628
TBmgt	TBmgt-MT	2016	6,660,000
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-est-MT	2016	4,183,417
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

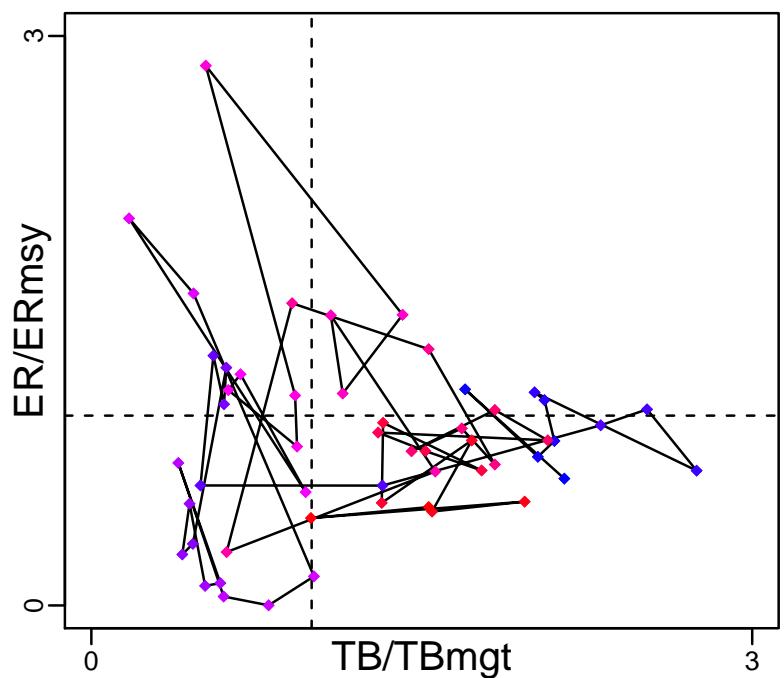
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2016	10,200,000	Both	-	
SSB	SSB-MT	2008	6,590,000	-	-	
TN	-	-	-	-	-	
R	R-E00	2016	1.81×10^8	Both	-	
F	F-1/yr	2008	0.588	-	-	
ER	ER-calc-ratio	2016	0.325	-	-	
TC	-	-	-			
TL	TL-MT	2016	2,540,000			
TB/TBmsy	TB-MT/TBmsy-pr-MT	2016	1.532			
SSB/SSBmsy	-	-	-			
F/Fmsy	-	-	-			
ER/ERmsy	ER-calc-ratio/ERmsy-est-ratio	2016	0.518			
TB/TBmgt	TB-MT/TBmgt-MT	2016	1.532			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Peruvian anchoveta North–Central Peruvian coast [PANCHPERUNC]

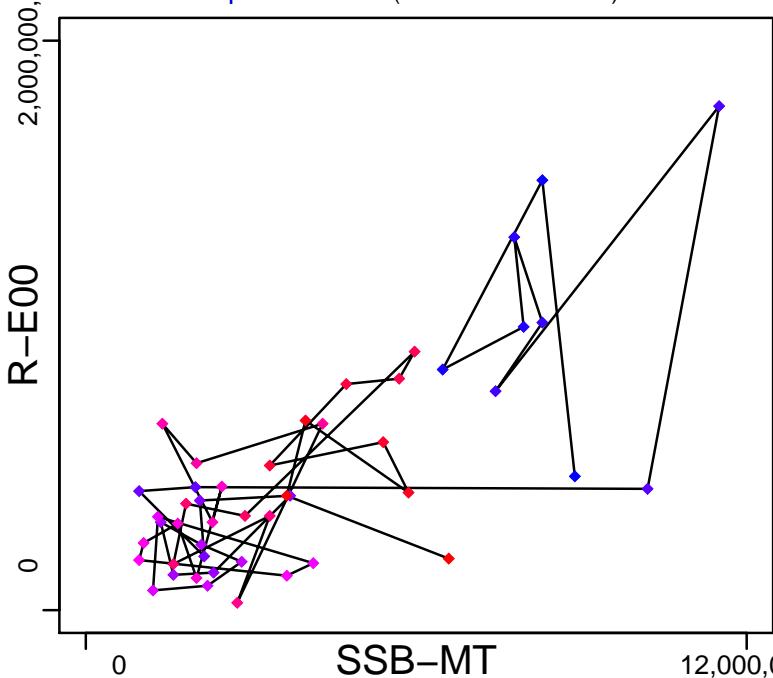
Kobe MSYpref (1959–2016–HILBORN)



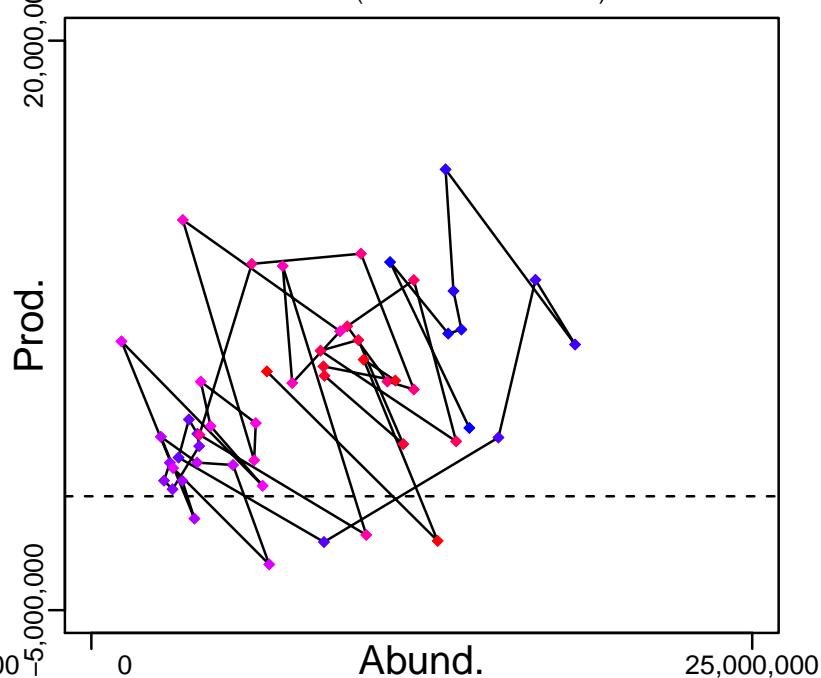
Kobe MGTpref (1959–2016–HILBORN)



Spawner Recruit (1959–2008–HIVELY)



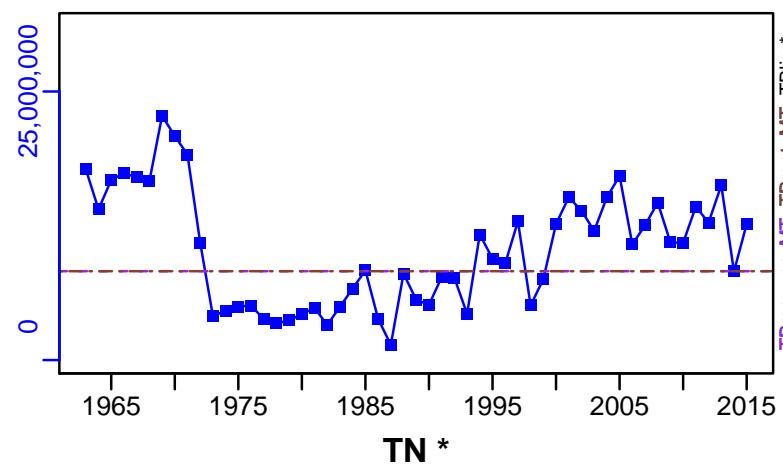
Production (1959–2016–HILBORN)



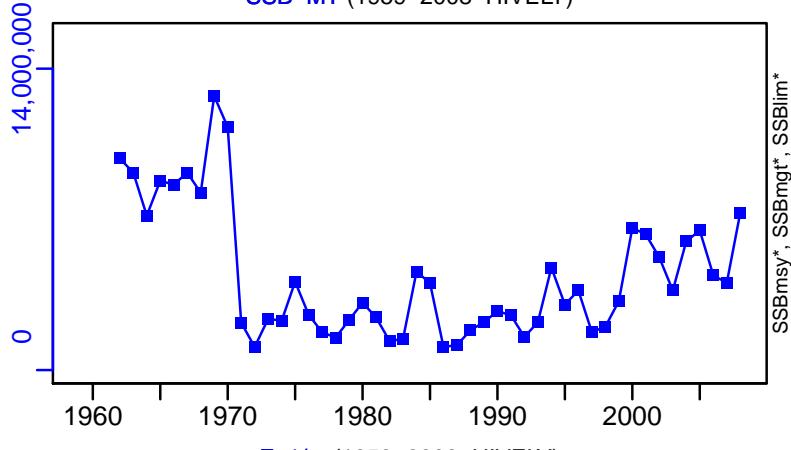
◆ Start Year ◆ End Year * No Data

Peruvian anchoveta North–Central Peruvian coast [PANCHPERUNC]

TB-MT (1959–2016–HILBORN)



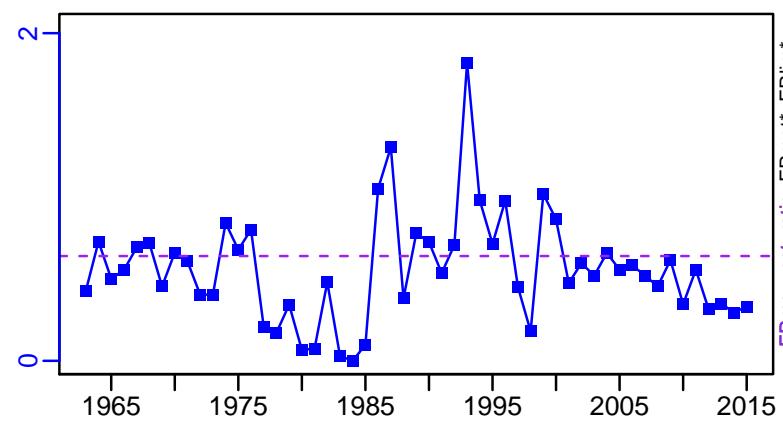
SSB-MT (1959–2008–HIVELY)



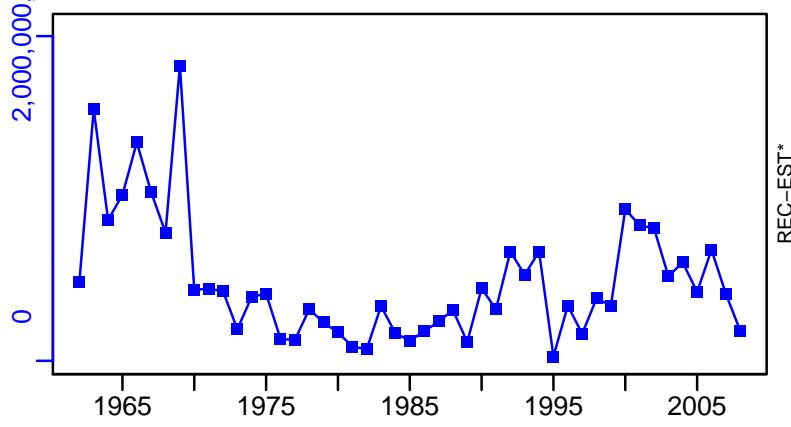
TN *



ER-calc-ratio (1959–2016–HILBORN)



R-E00 (1959–2016–HILBORN)



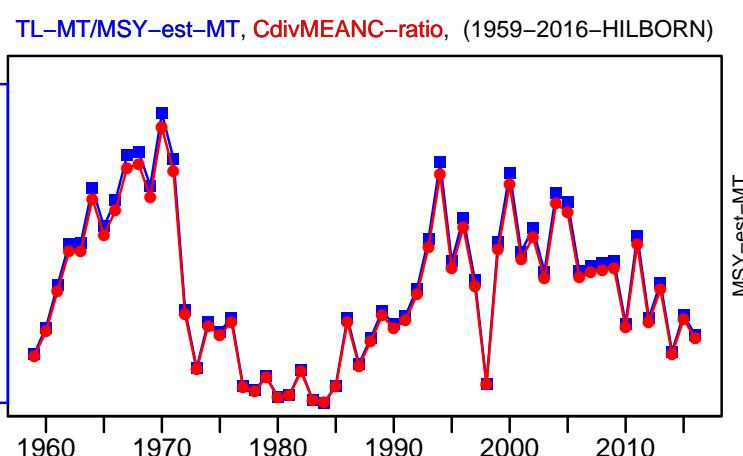
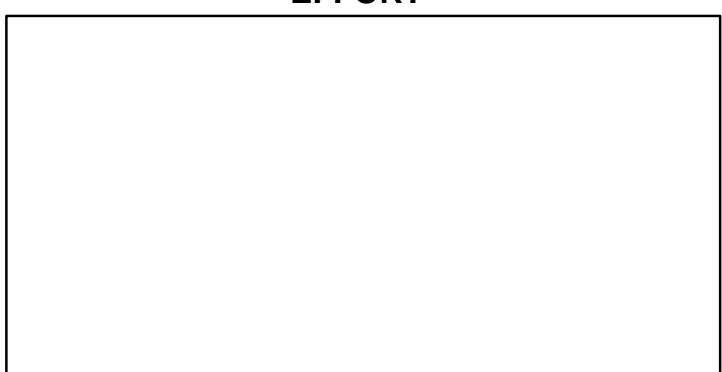
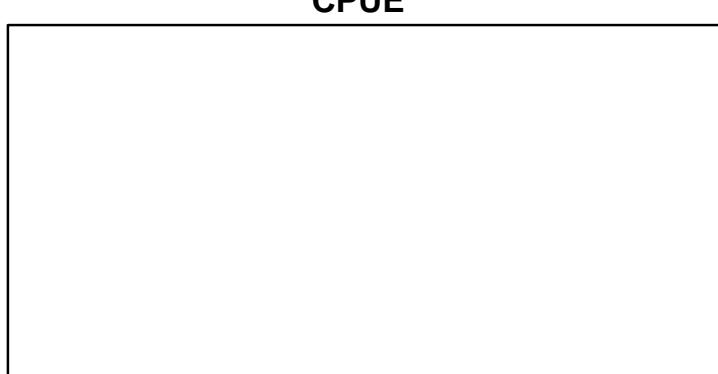
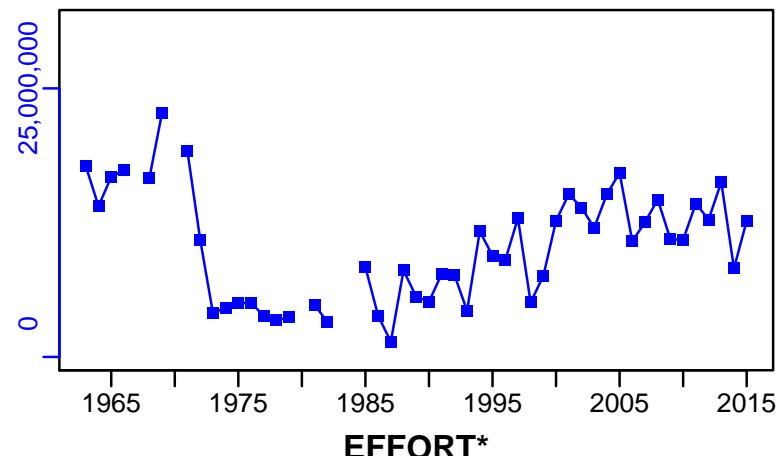
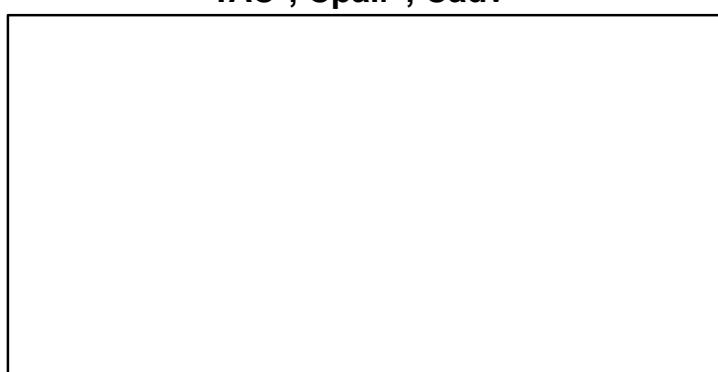
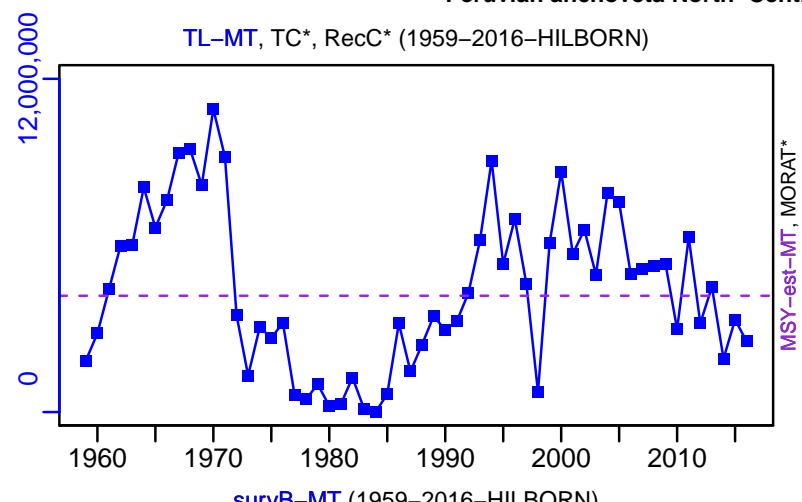
$F_{\text{msy}}^*, F_{\text{mgt}}^*, F_{\text{lim}}^*$

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

Peruvian anchoveta North–Central Peruvian coast [PANCHPERUNC]

TL-MT, TC*, RecC* (1959–2016–HILBORN)

TAC*, Cpair*, Cadv*



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

Patagonian grenadier Central-Southern Chile [PATGRENADIERCH]

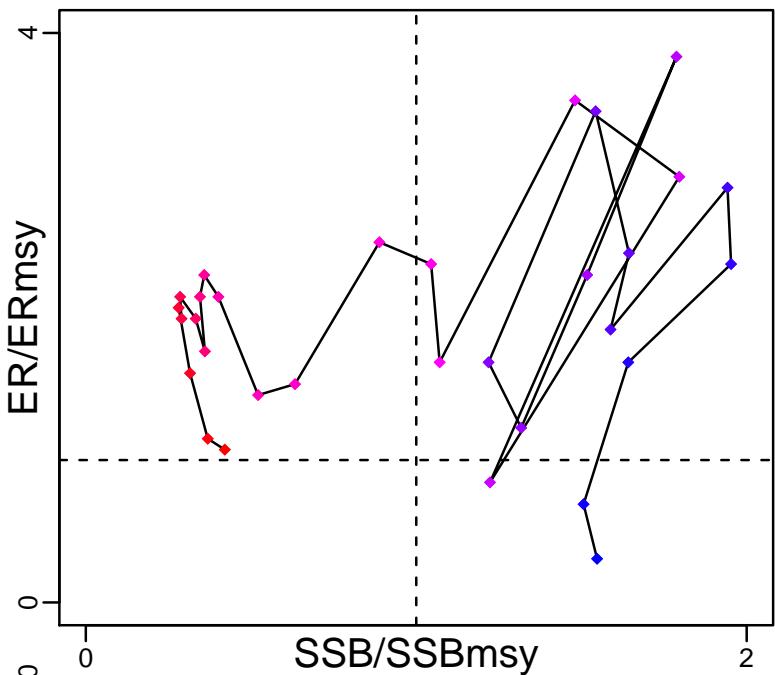
Metadata	
Scientific Name	Macruronus magellanicus
Current Assess ID	IFOPCH-PATGRENADIERCH-1977-2015-PAYA
Area	Central-Southern Chile
Management Authority	Subsecretaria de Pesca
Assessor	Instituto de Fomento Pesquero - Chilean Fisheries Development Institute
Asmts in RAM	2012, 2015

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-est-MT	2012	2,957,617
SSBmsy	SSBmsy-pr-MT	2015	466,000
Fmsy	-	-	-
ERmsy	ERmsy-est-ratio	2015	0.13
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-est-MT	2015	114,270
M	M-1/yr	2015	0.35
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

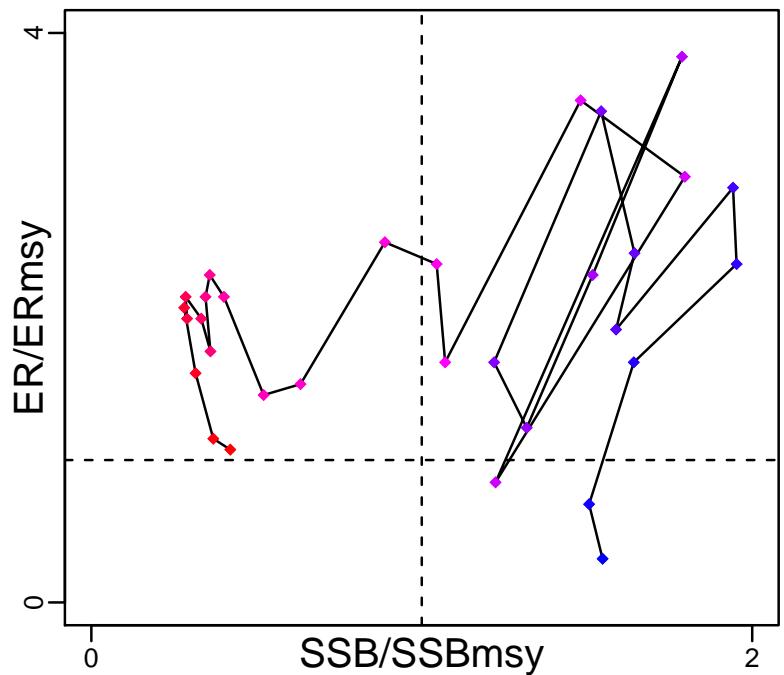
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2015	409,000	Both	-	
SSB	SSB-MT	2015	196,000	-	-	
TN	-	-	-	-	-	
R	R-E00	2015	6.52×10^8	-	-	
F	-	-	-	-	-	
ER	ER-ratio	2015	0.14	-	-	
TC	-	-	-			
TL	TL-MT	2015	39,100			
TB/TBmsy	TB-MT/TBmsy-est-MT	2012	0.134			
SSB/SSBmsy	SSB-MT/SSBmsy-pr-MT	2015	0.421			
F/Fmsy	-	-	-			
ER/ERmsy	ER-ratio/ERmsy-est-ratio	2015	1.073			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Patagonian grenadier Central–Southern Chile [PATGRENADIERCH]

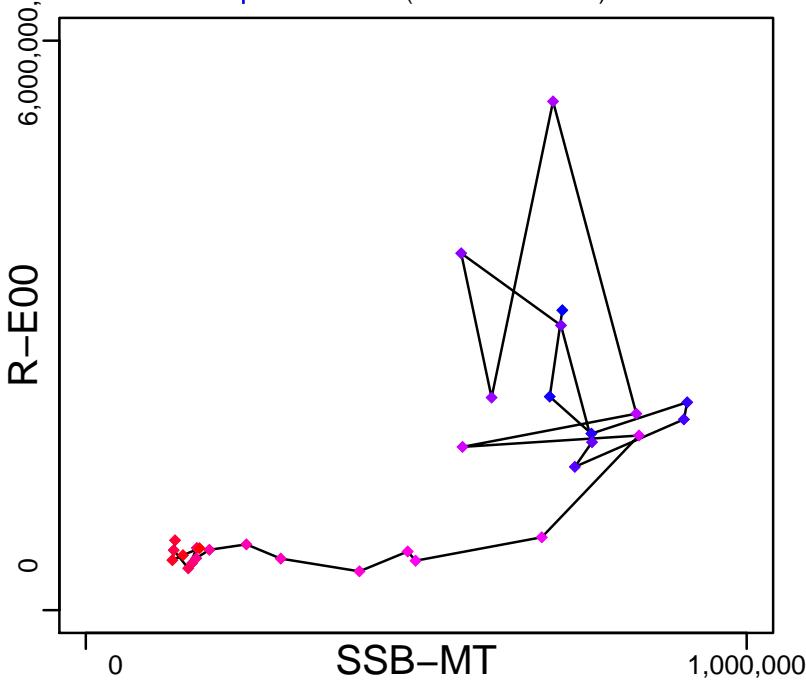
Kobe MSYpref (1977–2015–PAYA)



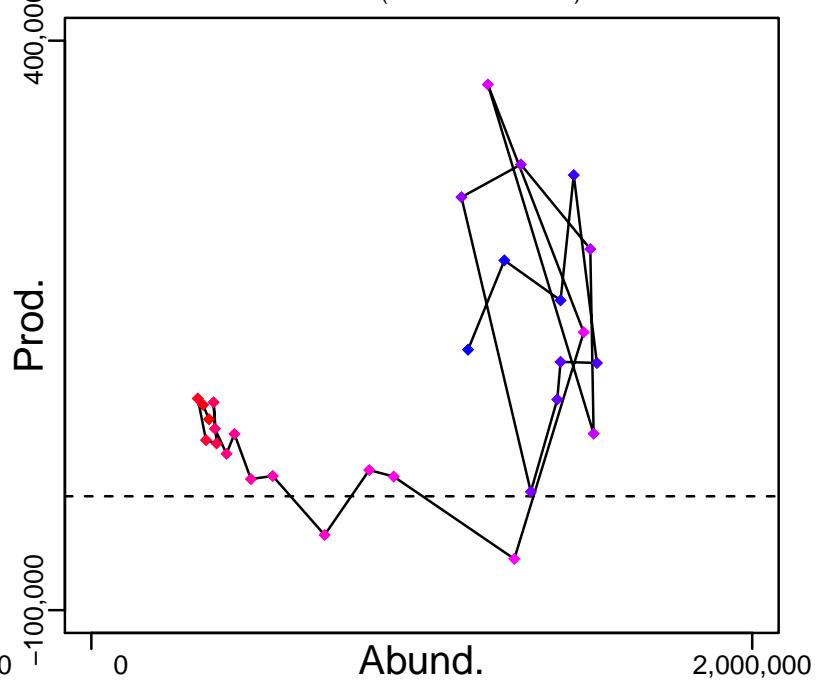
Kobe MGTpref (1977–2015–PAYA)



Spawner Recruit (1977–2015–PAYA)



Production (1977–2015–PAYA)

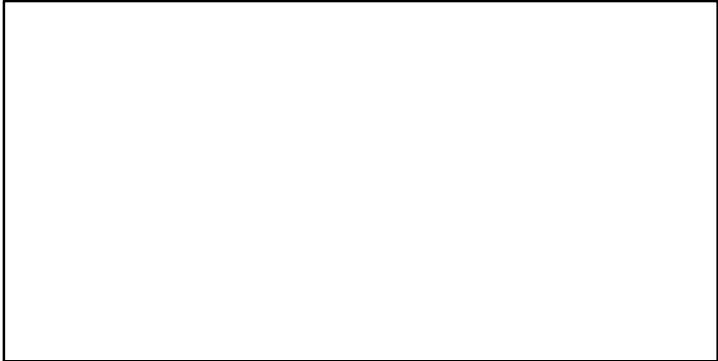
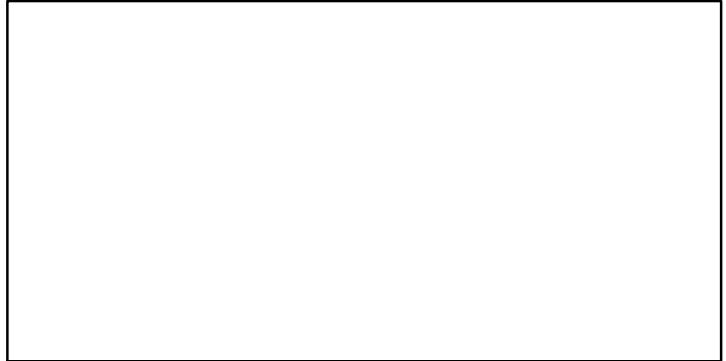
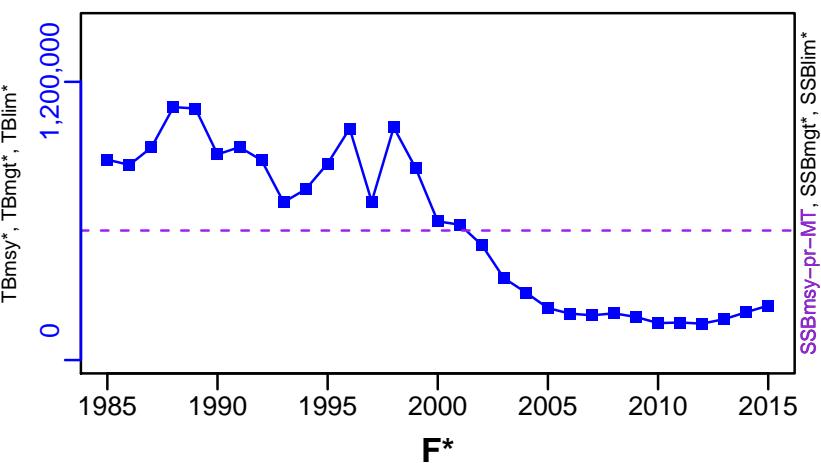
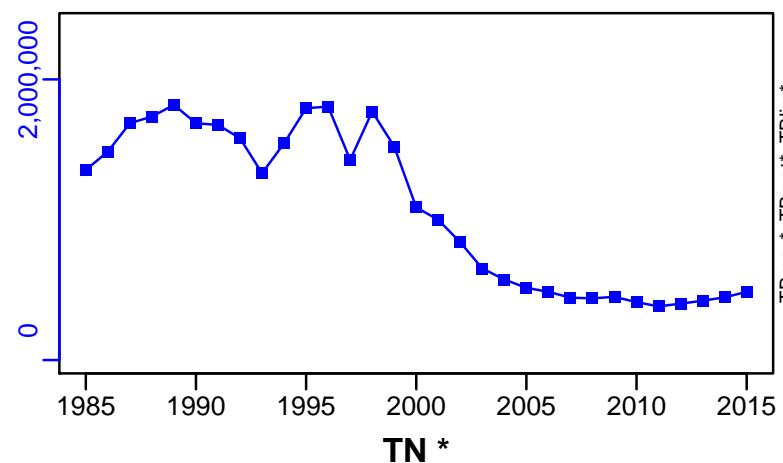


◆ Start Year ◆ End Year * No Data

Patagonian grenadier Central–Southern Chile [PATGRENADIERCH]

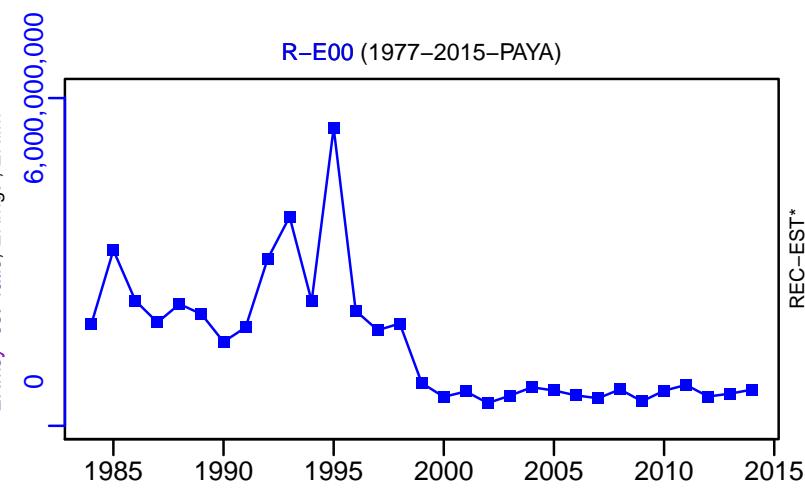
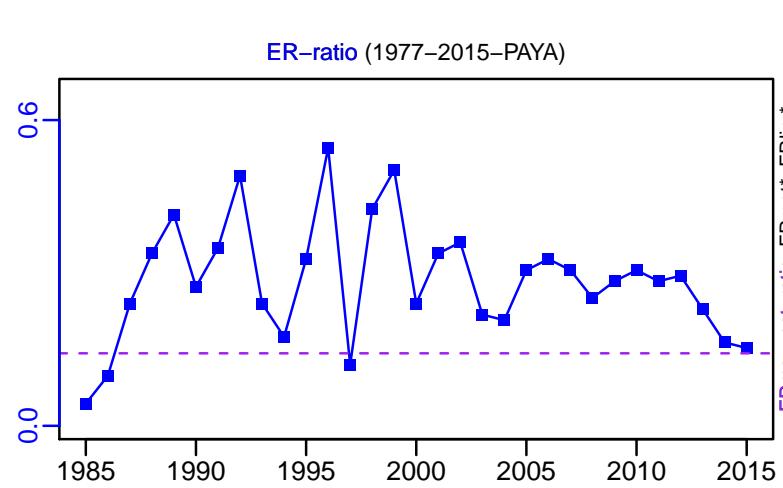
TB-MT (1977–2015–PAYA)

SSB-MT (1977–2015–PAYA)



ER-ratio (1977–2015–PAYA)

R-E00 (1977–2015–PAYA)

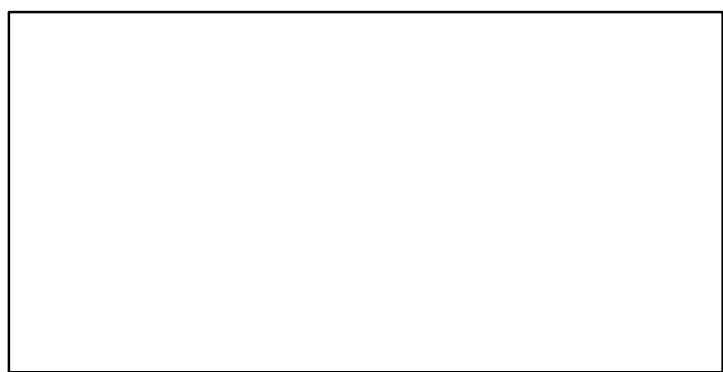
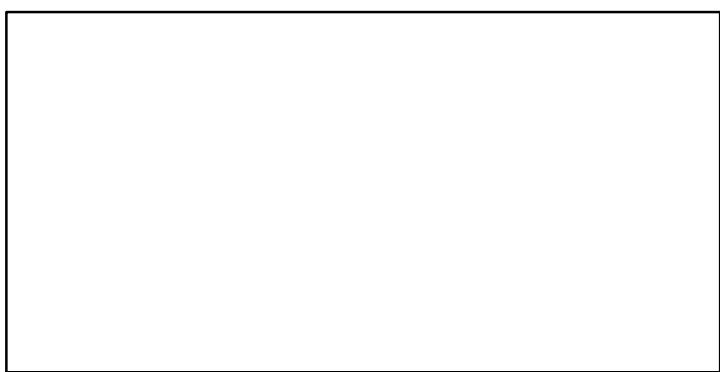
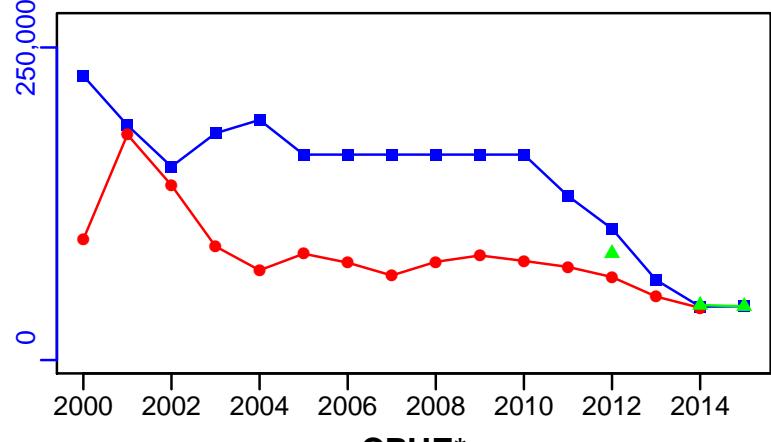
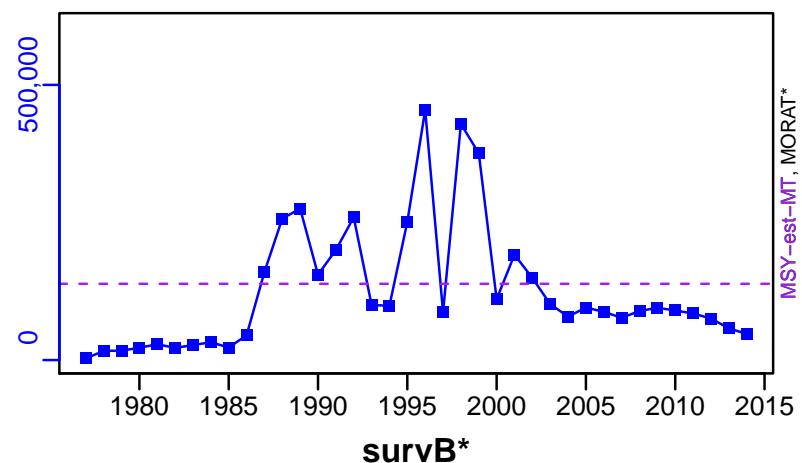


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	--- Lim BRP	* No Data

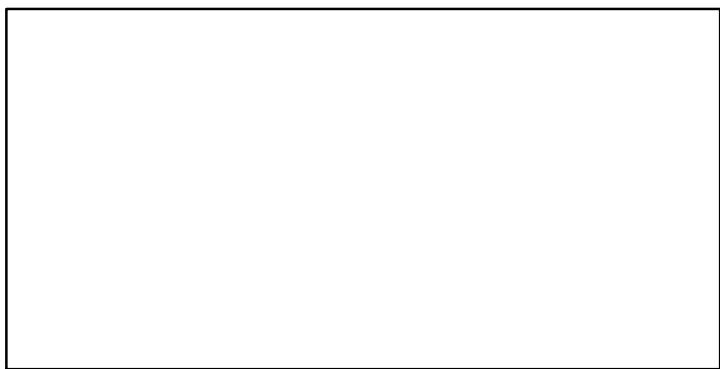
Patagonian grenadier Central–Southern Chile [PATGRENADIERCH]

TL-MT, TC*, RecC* (1977–2015-PAYA)

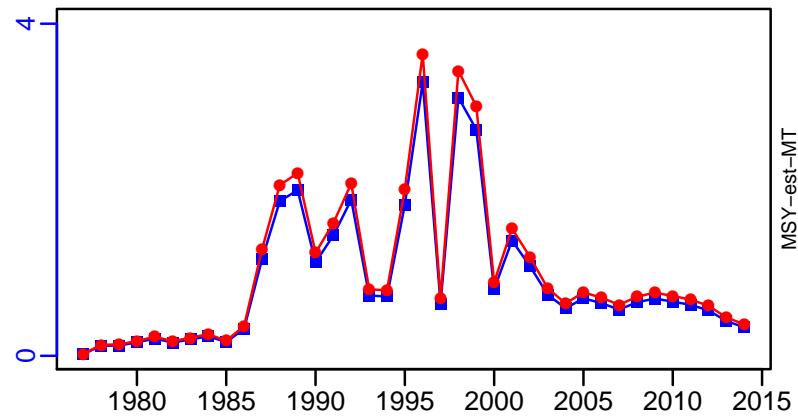
TAC-MT, Cpair-MT, Cadvised-MT (1977–2015-PAYA)



EFFORT*



TL-MT/MSY-est-MT, CdivMEANC-ratio, (1977–2015-PAYA)



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

Patagonian grenadier Southern Argentina [PATGRENADIERSARG]

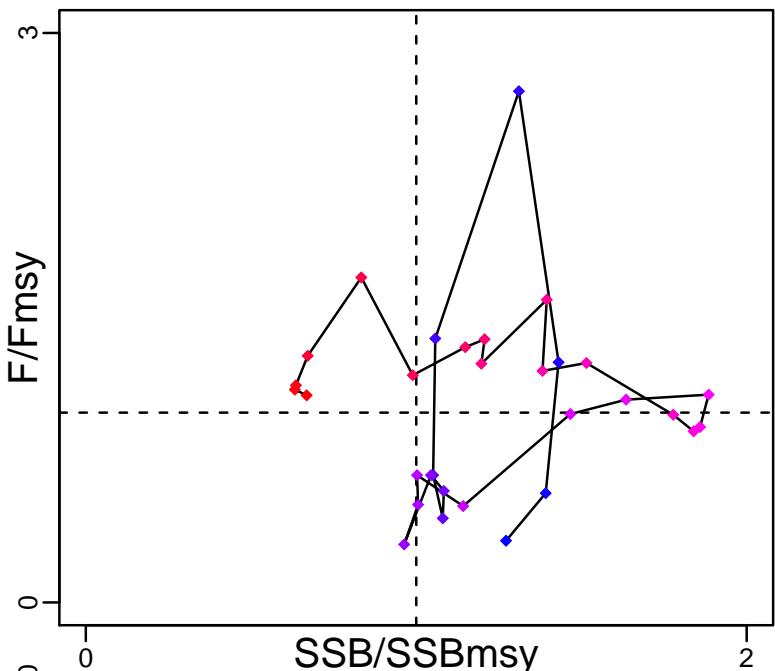
Metadata	
Scientific Name	Macruronus magellanicus
Current Assess ID	INIDEP-PATGRENADIERSARG-1983-2015-PARMA
Area	Southern Argentina
Management Authority	Consejo Federal Pesquero, Argentina national management
Assessor	Instituto Nacional de Investigacion y Desarrollo Pesquero
Asmts in RAM	2006, 2015

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2006	642,031
SSBmsy	SSBmsy-pr-MT	2015	308,244
Fmsy	Fmsy-pr-1/yr	2015	0.264
ERmsy	ERmsy-ratio	2006	0.206
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2015	492,240
MSY	MSY-MT	2006	132,131
M	M-1/yr	2015	0.35
TBlim	TBlim-MT	2006	415,041
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

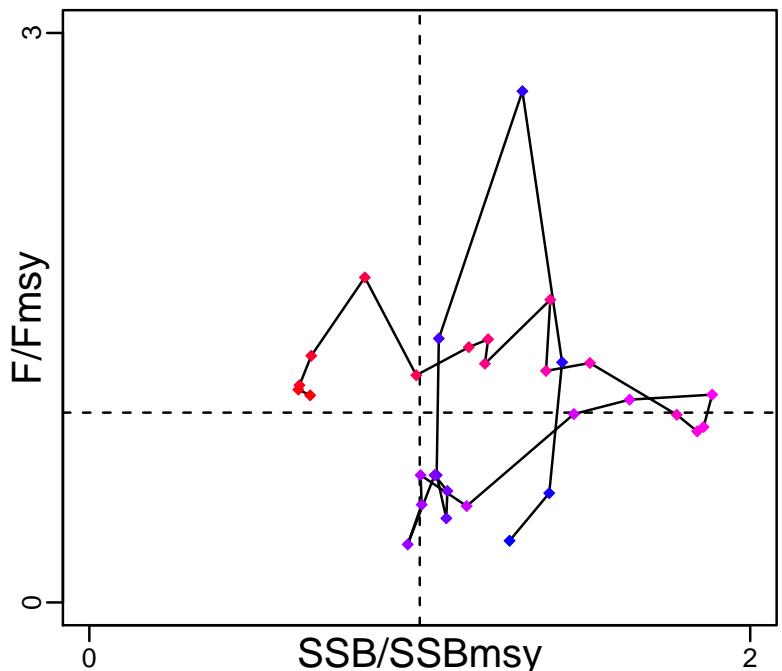
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2015	4×10^5	-	1+	
SSB	SSB-MT	2015	206,000	-	3+	
TN	-	-	-	-	-	
R	R-E00	2015	338,000	-	1	
F	F-1/yr	2015	0.288	-	4 to 11+	
ER	ER-calc-ratio	2015	0.176	-	-	
TC	TC-MT	2015	70,500			
TL	-	-	-			
TB/TBmsy	TB-MT/TBmsy-MT	2006	2.149			
SSB/SSBmsy	SSB-MT/SSBmsy-pr-MT	2015	0.668			
F/Fmsy	F-1/yr/Fmsy-pr-1/yr	2015	1.091			
ER/ERmsy	ER-ratio/ERmsy-ratio	2006	0.534			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Patagonian grenadier Southern Argentina [PATGRENADIERSARG]

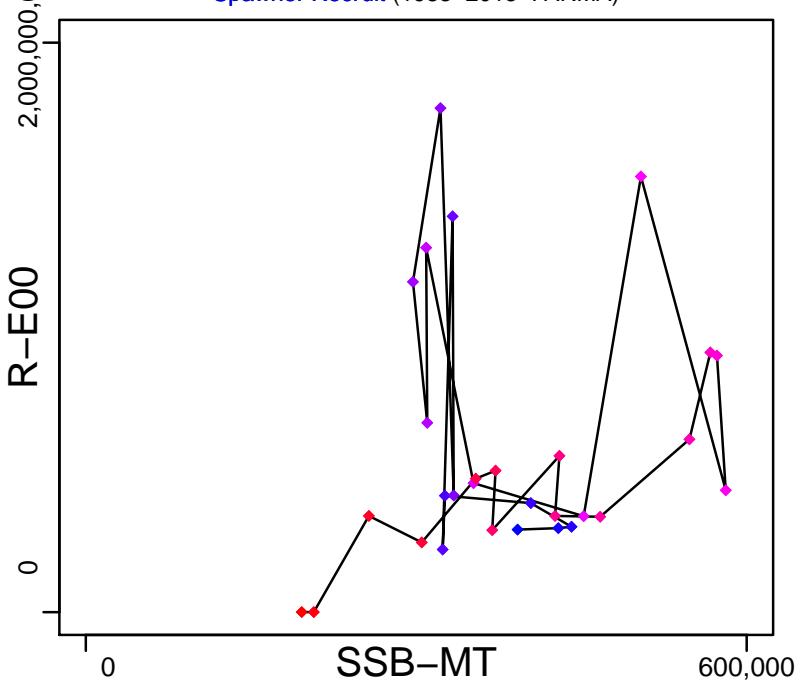
Kobe MSYref (1983–2015–PARMA)



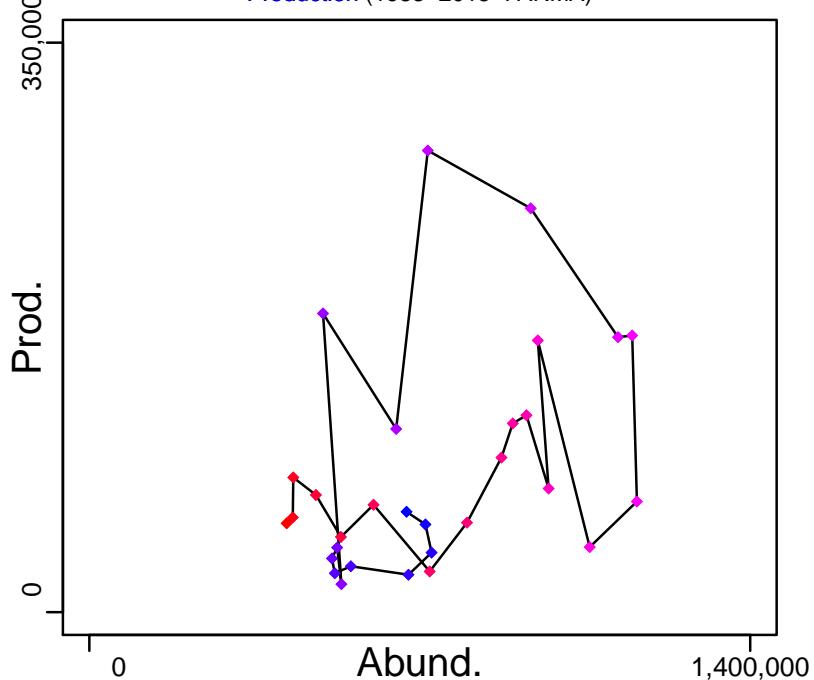
Kobe MGTPref (1983–2015–PARMA)



Spawner Recruit (1983–2015–PARMA)



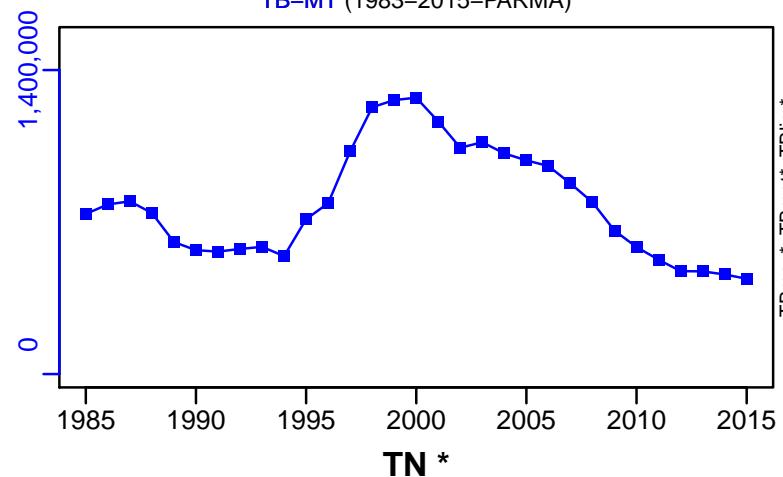
Production (1983–2015–PARMA)



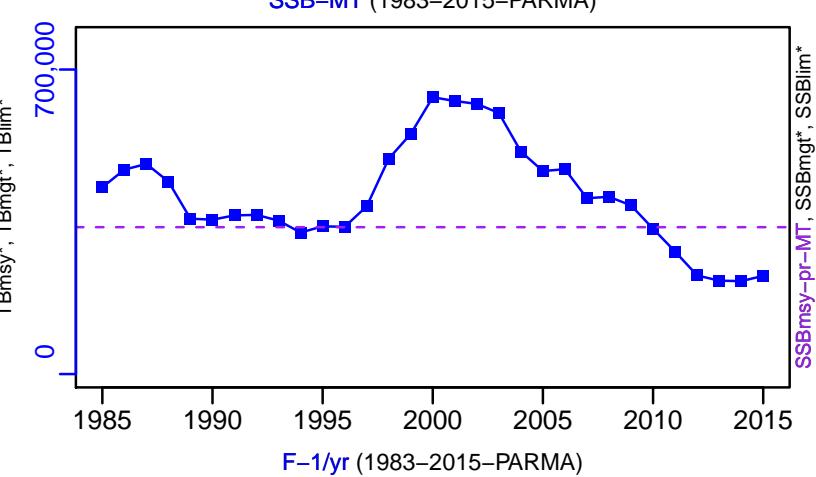
◆ Start Year ◆ End Year * No Data

Patagonian grenadier Southern Argentina [PATGRENADIERSARG]

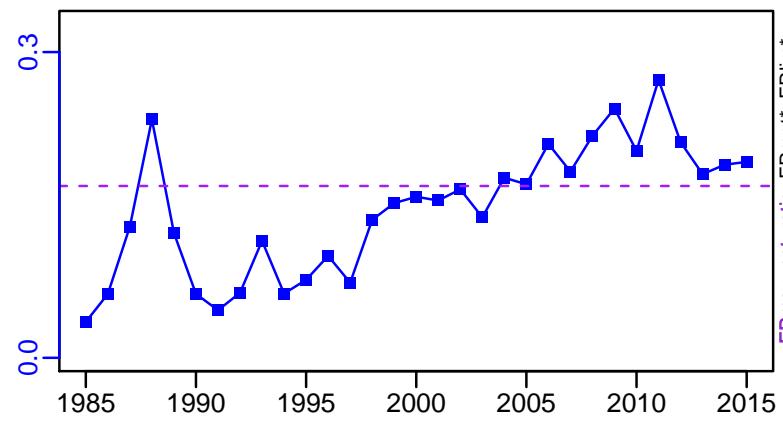
TB-MT (1983–2015-PARMA)



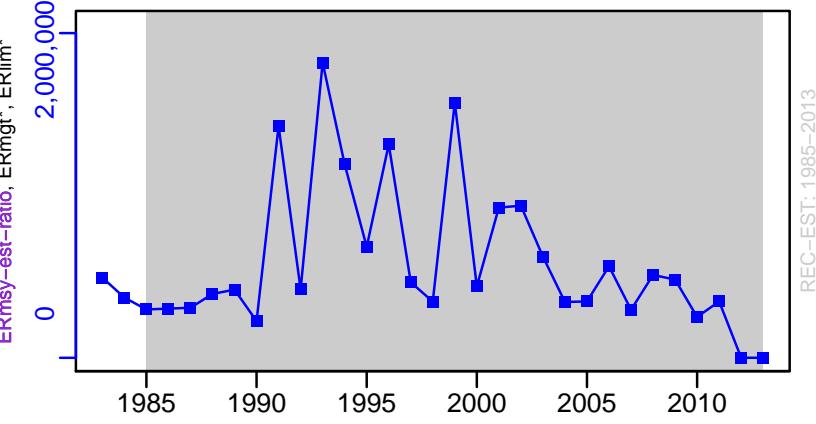
SSB-MT (1983–2015-PARMA)



ER-calc-ratio (1983–2015-PARMA)



R-E00 (1983–2015-PARMA)

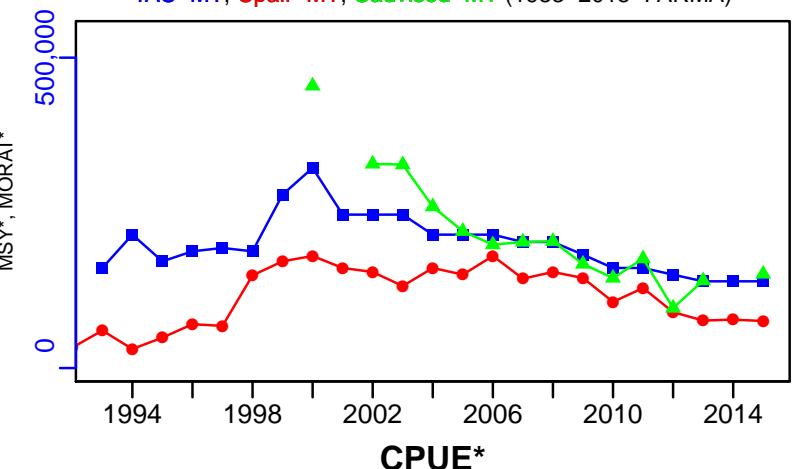
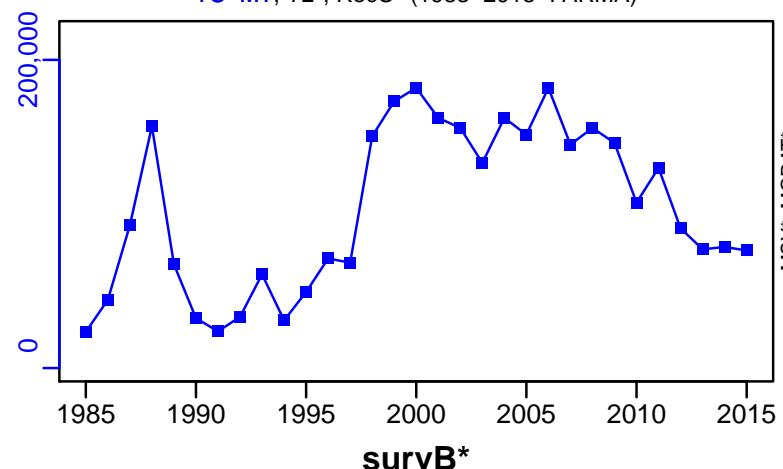


■ Listed time series	— Target BRP	— Rec-Est
- - MSY-based BRP	--- Lim BRP	* No Data

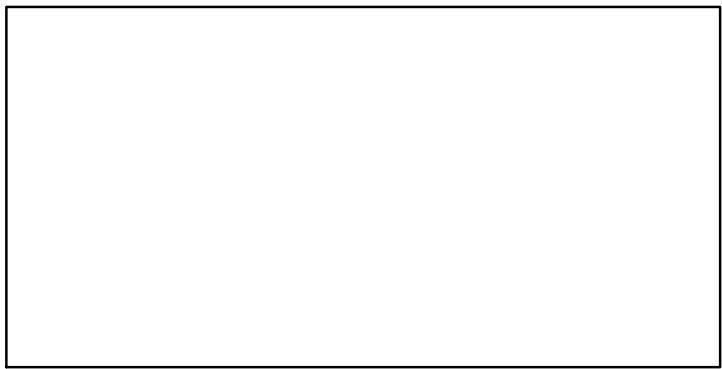
Patagonian grenadier Southern Argentina [PATGRENADIERSARG]

TC-MT, TL*, RecC* (1983–2015-PARMA)

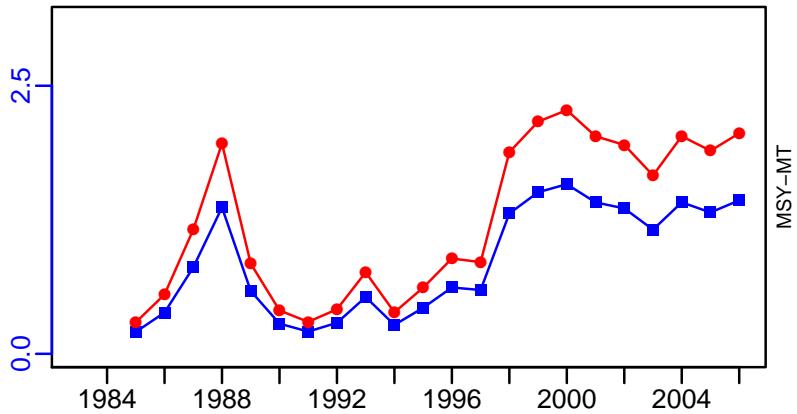
TAC-MT, Cpair-MT, Cadvised-MT (1983–2015-PARMA)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1983–2006–Parma)



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

Pink cusk eel Southern Argentina [PCEELARGS]

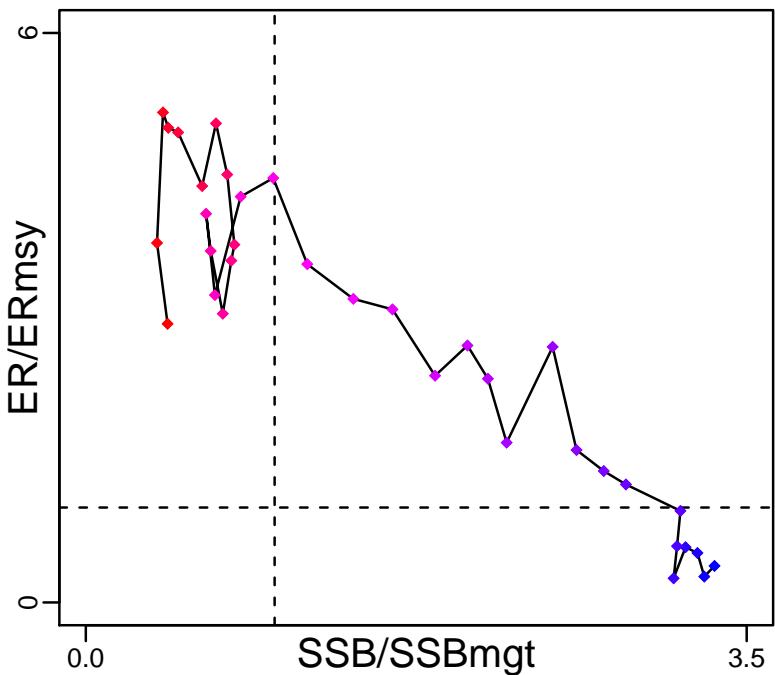
Metadata	
Scientific Name	Genypterus blacodes
Current Assess ID	INIDEP-PCEELARGS-1979-2014-CORDO
Area	Southern Argentina
Management Authority	Consejo Federal Pesquero, Argentina national management
Assessor	Instituto Nacional de Investigacion y Desarrollo Pesquero
Asmts in RAM	2014

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	ERmsy-est-ratio	2014	0.04
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2014	110,823
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2014	11,700
M	M-1/yr	2014	0.2
TBlim	-	-	-
SSBlim	SSBlim-MT	2014	73,882
Flim	-	-	-
ERlim	-	-	-

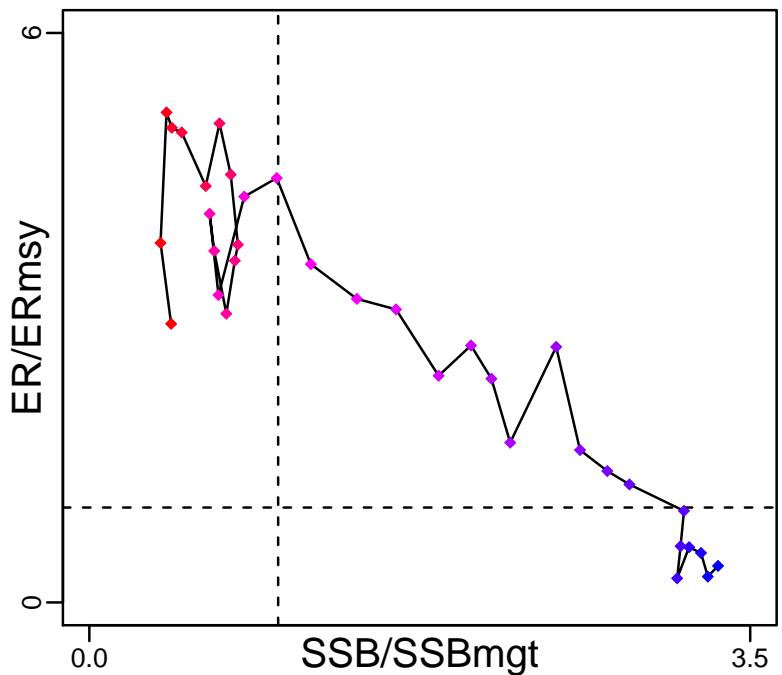
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2014	91,600	-	-	
SSB	SSB-MT	2014	48,000	-	-	
TN	-	-	-	-	-	
R	R-E00	2014	24,000	Both	1	
F	F-1/yr	2014	0.139	-	-	
ER	ER-calc-ratio	2014	0.117	-	-	
TC	TC-MT	2014	9480			
TL	-	-	-			
TB/TBmsy	-	-	-			
SSB/SSBmsy	-	-	-			
F/Fmsy	-	-	-			
ER/ERmsy	ER-calc-ratio/ERmsy-est-ratio	2014	2.935			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2014	0.433			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Pink cusk eel Southern Argentina [PCEELARGS]

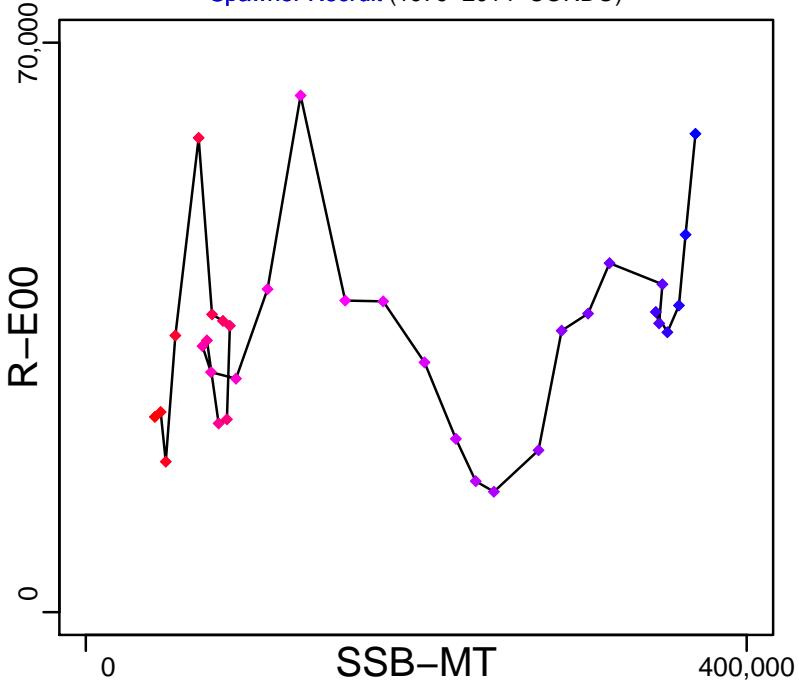
Kobe MSYpref (1979–2014–CORDO)



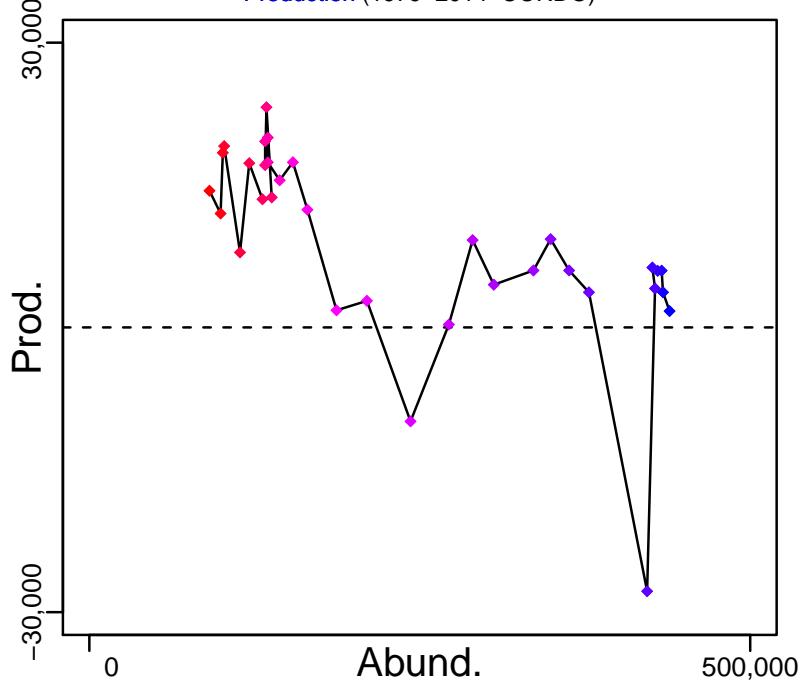
Kobe MGTPref (1979–2014–CORDO)



Spawner Recruit (1979–2014–CORDO)



Production (1979–2014–CORDO)

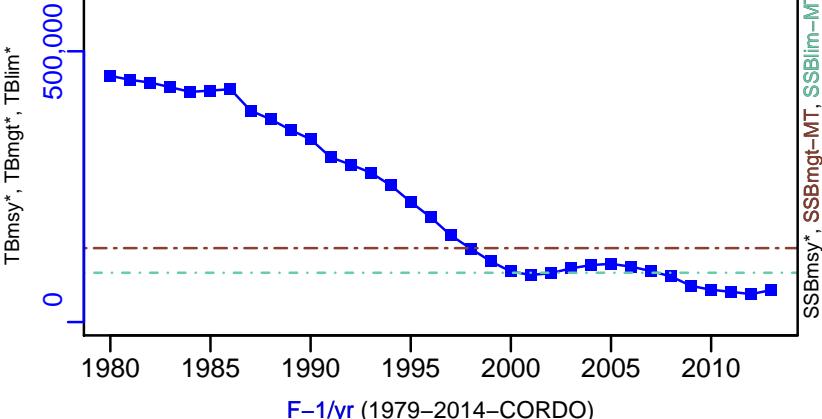
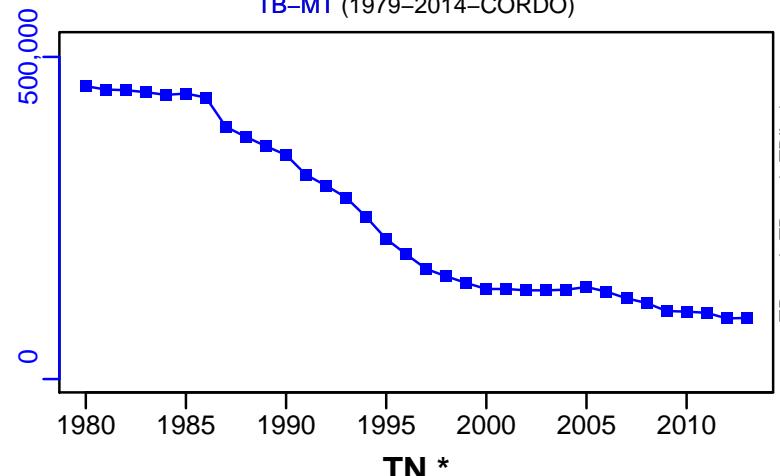


♦ Start Year ◆ End Year * No Data

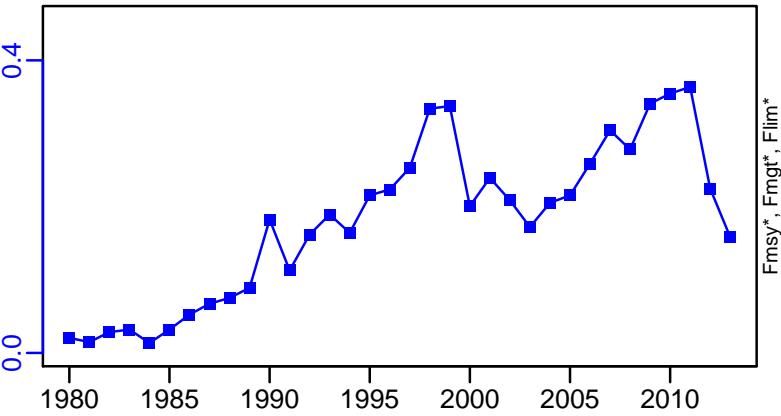
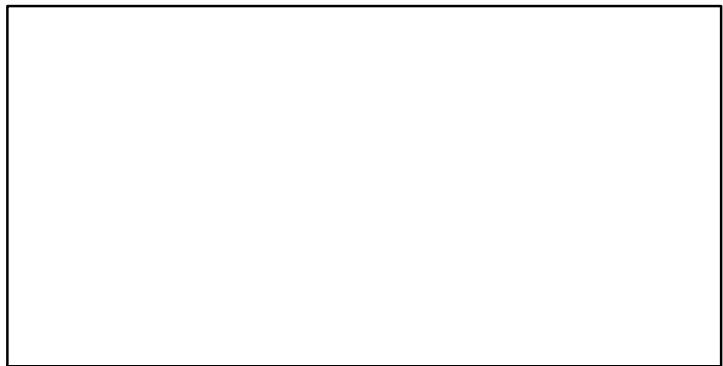
Pink cusk eel Southern Argentina [PCEELARGS]

TB-MT (1979–2014–CORDO)

SSB-MT (1979–2014–CORDO)

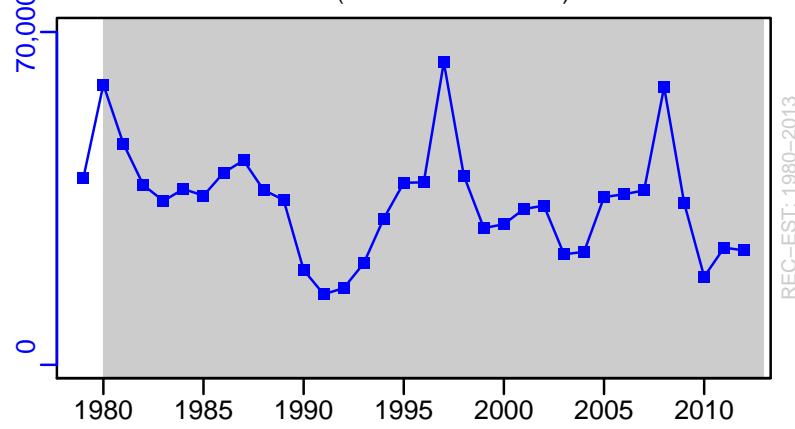
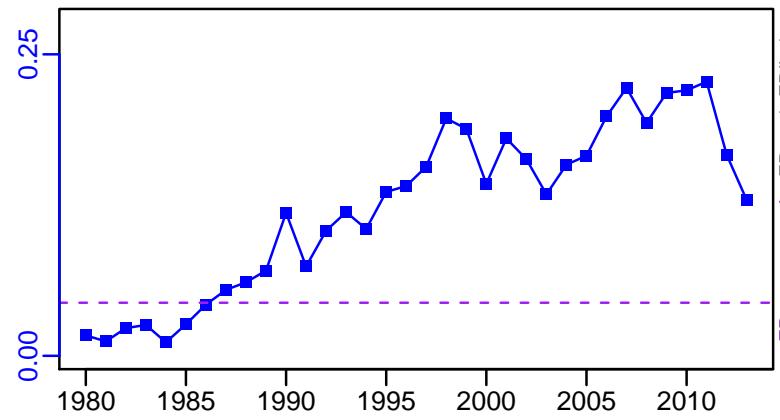


TN *



ER-calc-ratio (1979–2014–CORDO)

R-E00 (1979–2014–CORDO)



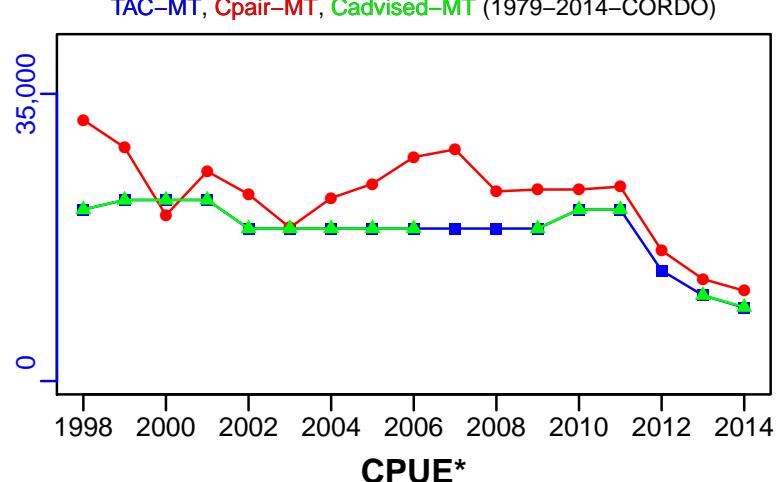
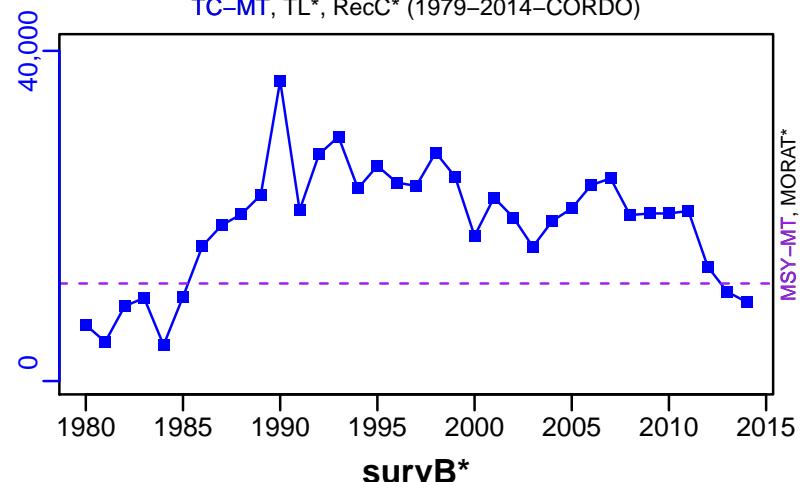
REC-EST: 1980–2013



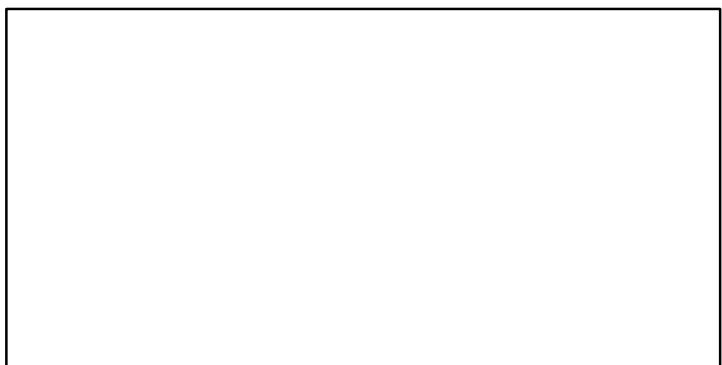
Pink cusk eel Southern Argentina [PCEELARGS]

TC-MT, TL*, RecC* (1979–2014–CORDO)

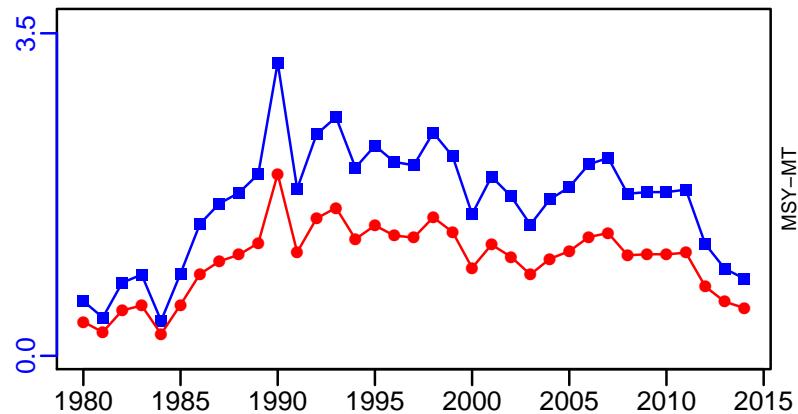
TAC-MT, Cpair-MT, Cadvised-MT (1979–2014–CORDO)



EFFORT*



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



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

Pink cusk eel Central-Southern Chile [PCEELCSCH]

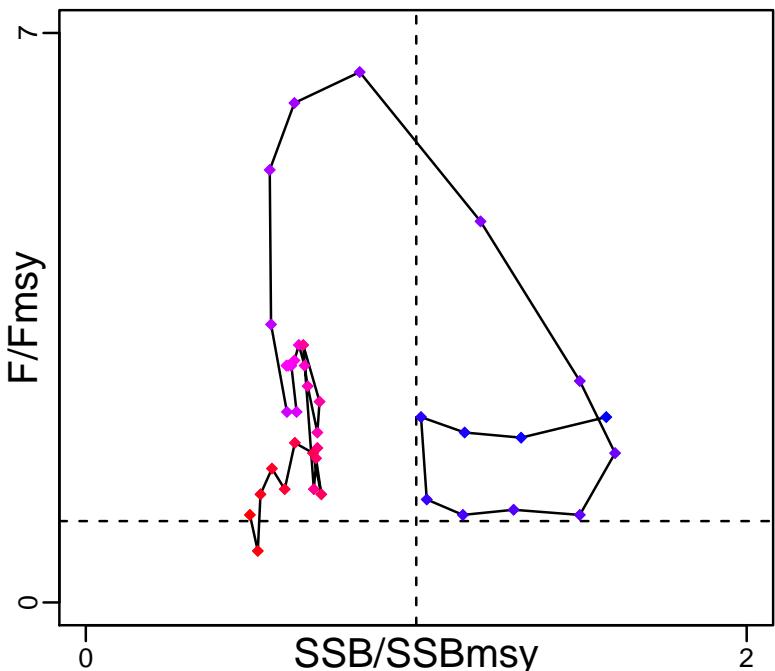
Metadata	
Scientific Name	Genypterus blacodes
Current Assess ID	IFOPCH-PCEELCSCH-1975-2015-PARMA
Area	Central-Southern Chile
Management Authority	Subsecretaria de Pesca
Assessor	Instituto de Fomento Pesquero - Chilean Fisheries Development Institute
Asmts in RAM	2015

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-pr-MT	2015	7492
Fmsy	Fmsy-pr-1/yr	2015	0.158
ERrmsy	ERrmsy-est-ratio	2015	0.139
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2015	18,700
MSY	MSY-est-MT	2015	2994
M	M-1/yr	2015	0.27
TBlim	-	-	-
SSBlim	SSBlim-MT	2015	3746
Flim	-	-	-
ERlim	-	-	-

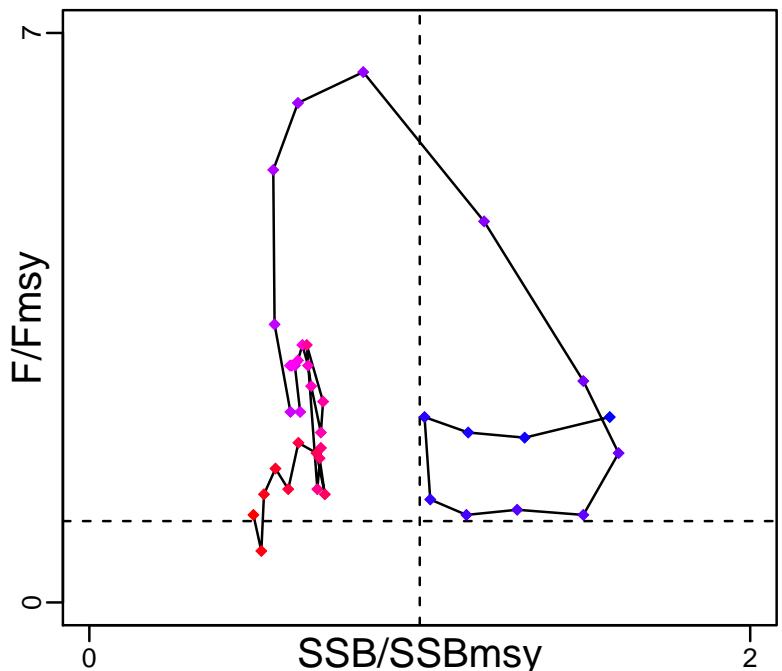
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2015	12,000	-	-	
SSB	SSB-MT	2015	3720	-	-	
TN	-	-	-	-	-	
R	R-E00	2015	4,150,000	-	3	
F	F-1/yr	2015	0.17	-	-	
ER	ER-calc-ratio	2015	0.069	-	-	
TC	-	-	-			
TL	TL-MT	2015	833			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/SSBmsy-pr-MT	2015	0.497			
F/Fmsy	F-1/yr/Fmsy-pr-1/yr	2015	1.076			
ER/ERrmsy	ER-calc-ratio/ERrmsy-est-ratio	2015	0.501			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Pink cusk eel Central–Southern Chile [PCEELCSCH]

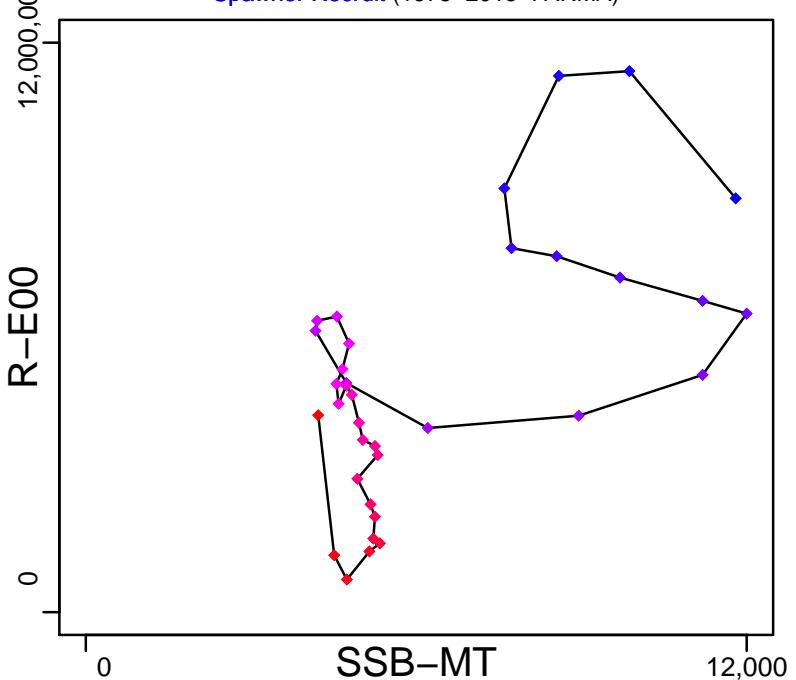
Kobe MSYref (1975–2015–PARMA)



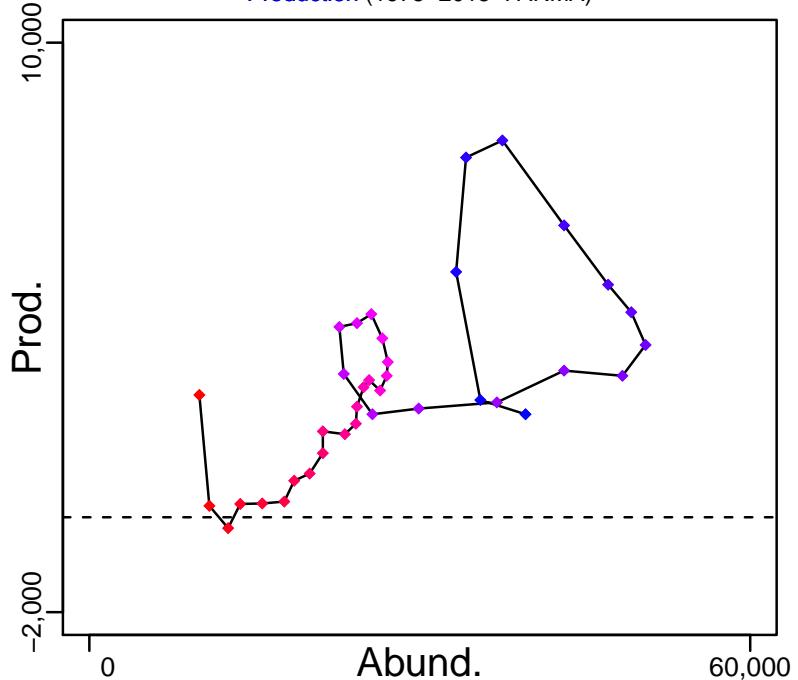
Kobe MGTPref (1975–2015–PARMA)



Spawner Recruit (1975–2015–PARMA)



Production (1975–2015–PARMA)

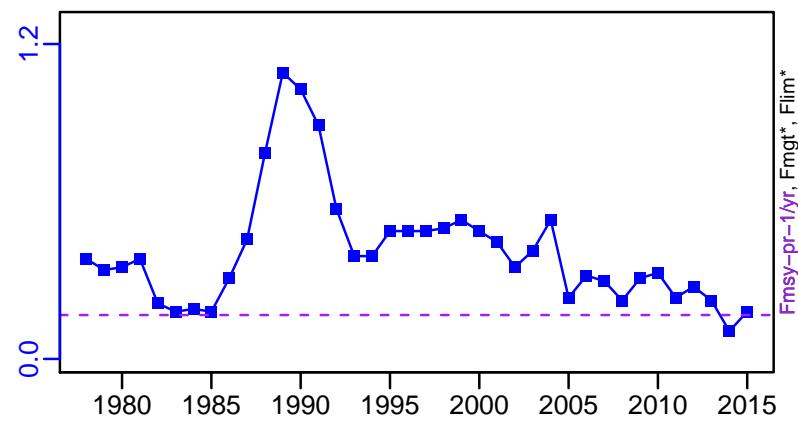
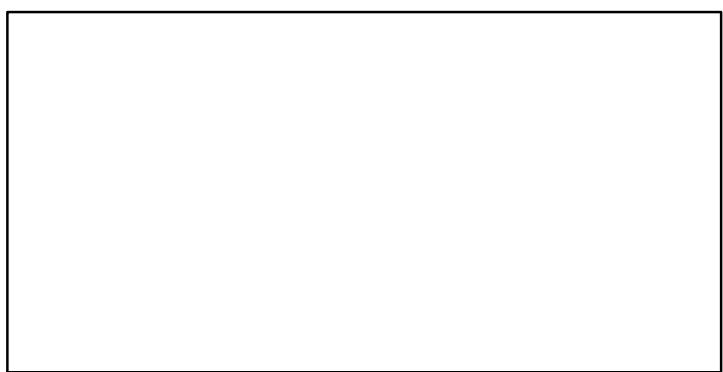
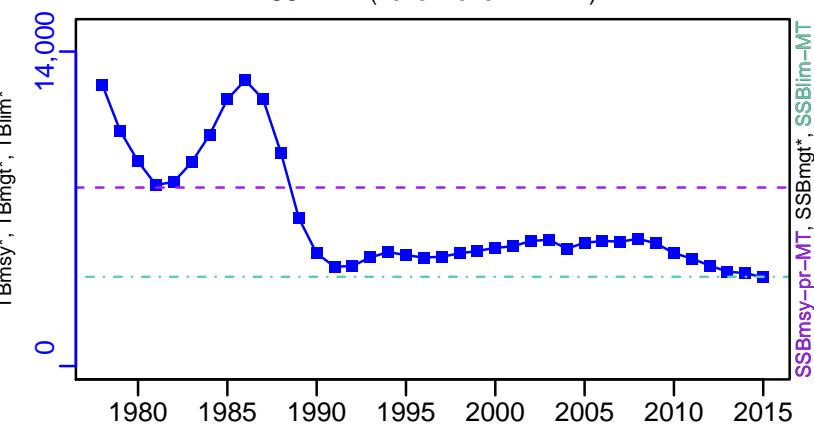
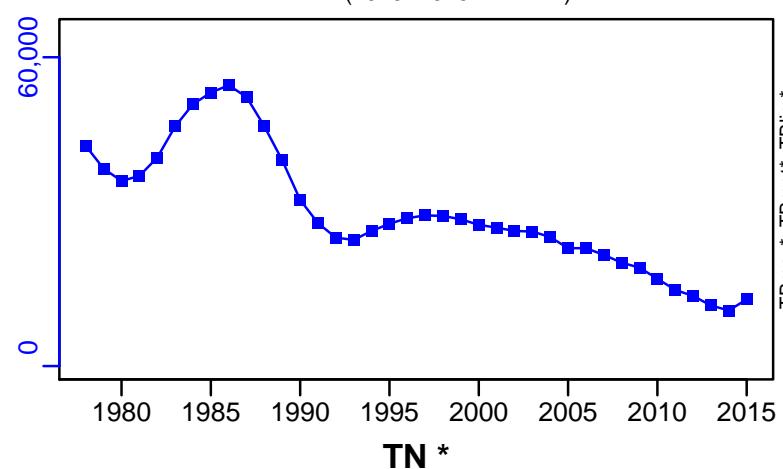


◆ Start Year ◆ End Year * No Data

Pink cusk eel Central–Southern Chile [PCEELCSCH]

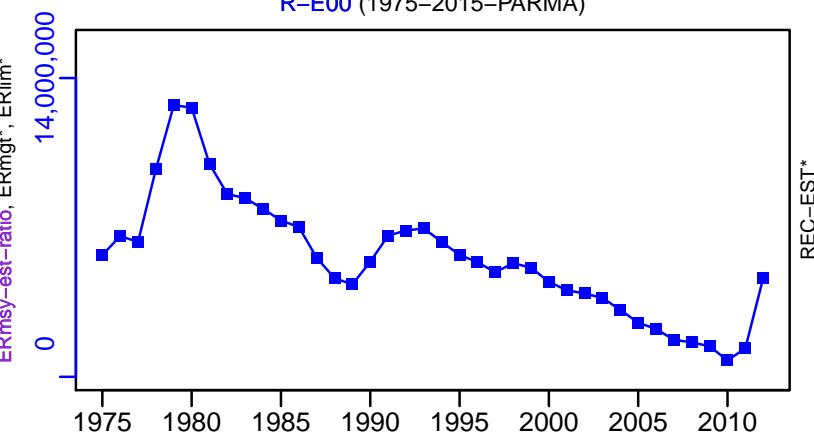
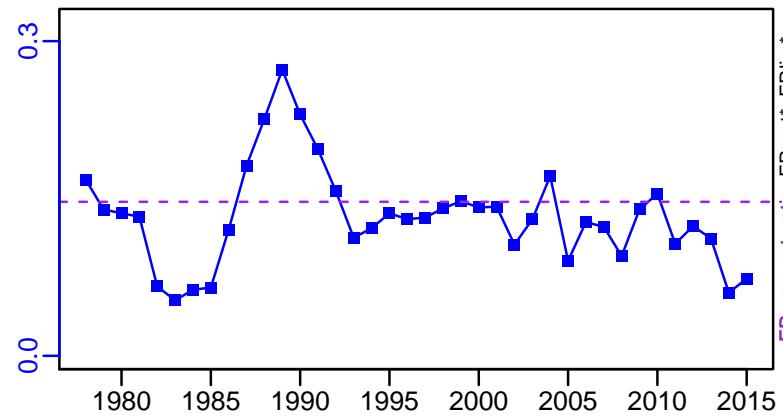
TB-MT (1975–2015-PARMA)

SSB-MT (1975–2015-PARMA)



ER-calc-ratio (1975–2015-PARMA)

R-E00 (1975–2015-PARMA)

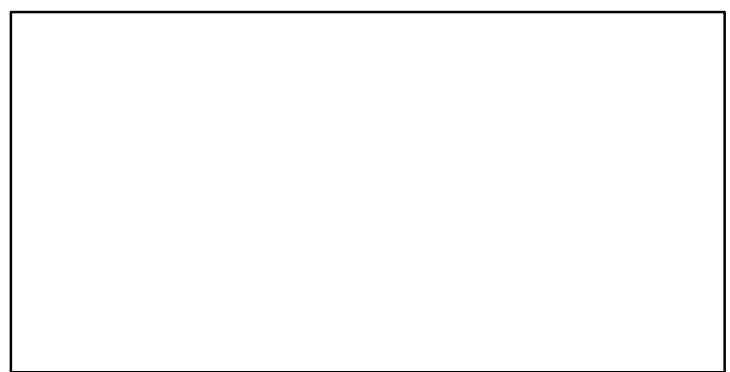
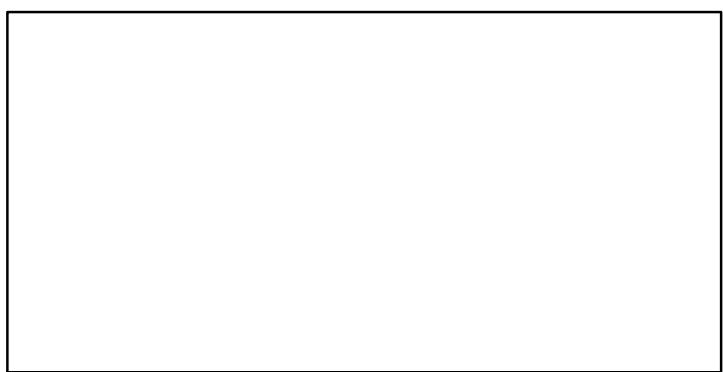
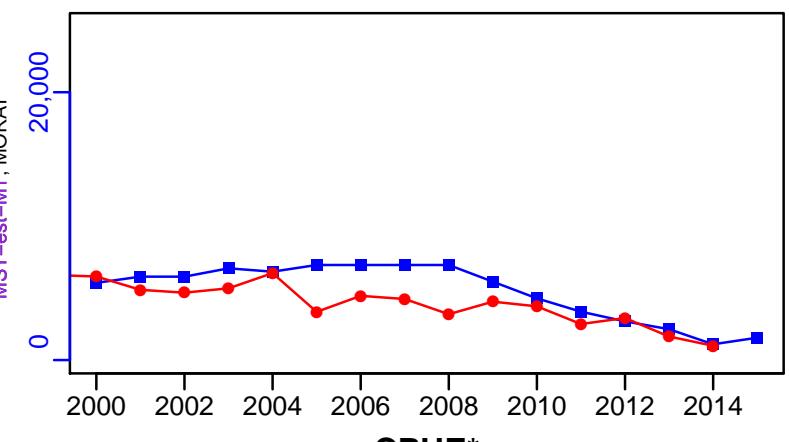
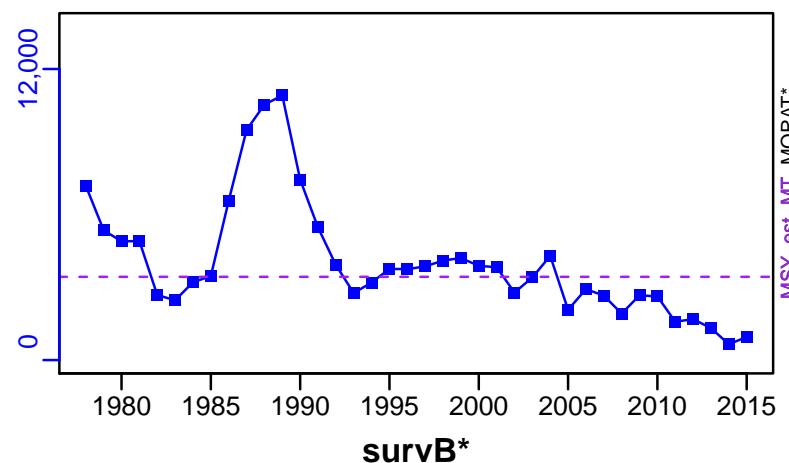


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	--- Lim BRP	* No Data

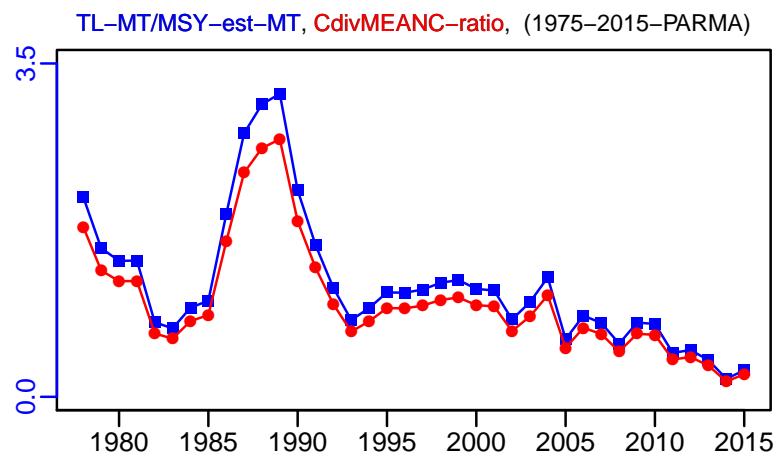
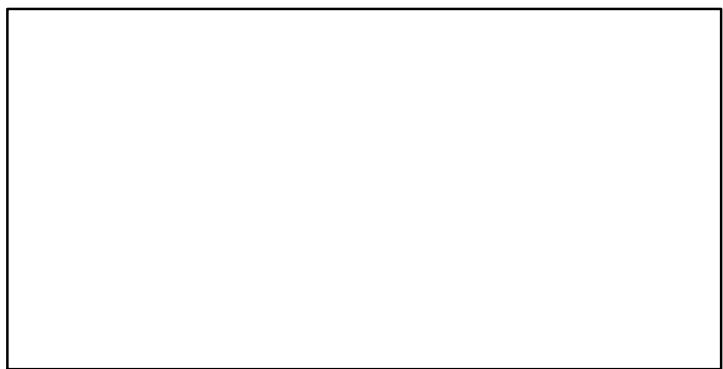
Pink cusk eel Central–Southern Chile [PCEELCSCH]

TL–MT, TC*, RecC* (1975–2015–PARMA)

TAC–MT, Cpair–MT, Cadv* (1975–2015–PARMA)



EFFORT*



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

Pink cusk eel Southern Chile [PCEELSCH]

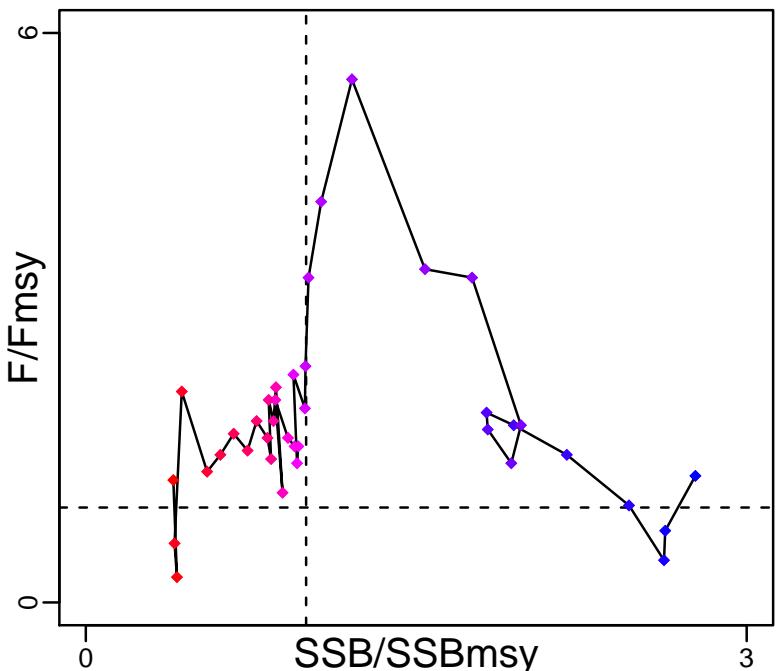
Metadata	
Scientific Name	Genypterus blacodes
Current Assess ID	IFOPCH-PCEELSCH-1975-2015-PARMA
Area	Southern Chile
Management Authority	Subsecretaria de Pesca
Assessor	Instituto de Fomento Pesquero - Chilean Fisheries Development Institute
Asmts in RAM	2015

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-pr-MT	2015	3650
Fmsy	Fmsy-pr-1/yr	2015	0.225
ERmsy	ERmsy-est-ratio	2015	0.089
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2015	18,700
MSY	MSY-est-MT	2015	909
M	M-1/yr	2015	0.23
TBlim	-	-	-
SSBlim	SSBlim-MT	2015	1825
Flim	-	-	-
ERlim	-	-	-

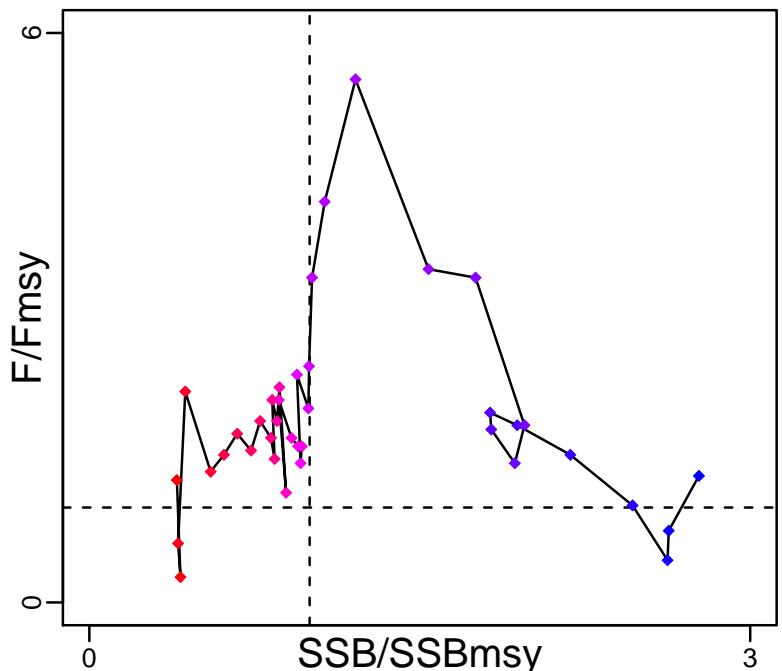
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2015	5410	-	-	
SSB	SSB-MT	2015	1450	-	-	
TN	-	-	-	-	-	
R	R-E00	2015	1,980,000	-	3	
F	F-1/yr	2015	0.29	-	-	
ER	ER-calc-ratio	2015	0.087	-	-	
TC	-	-	-			
TL	TL-MT	2015	472			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/SSBmsy-pr-MT	2015	0.397			
F/Fmsy	F-1/yr/Fmsy-pr-1/yr	2015	1.289			
ER/ERmsy	ER-calc-ratio/ERmsy-est-ratio	2015	0.975			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Pink cusk eel Southern Chile [PCEELSCH]

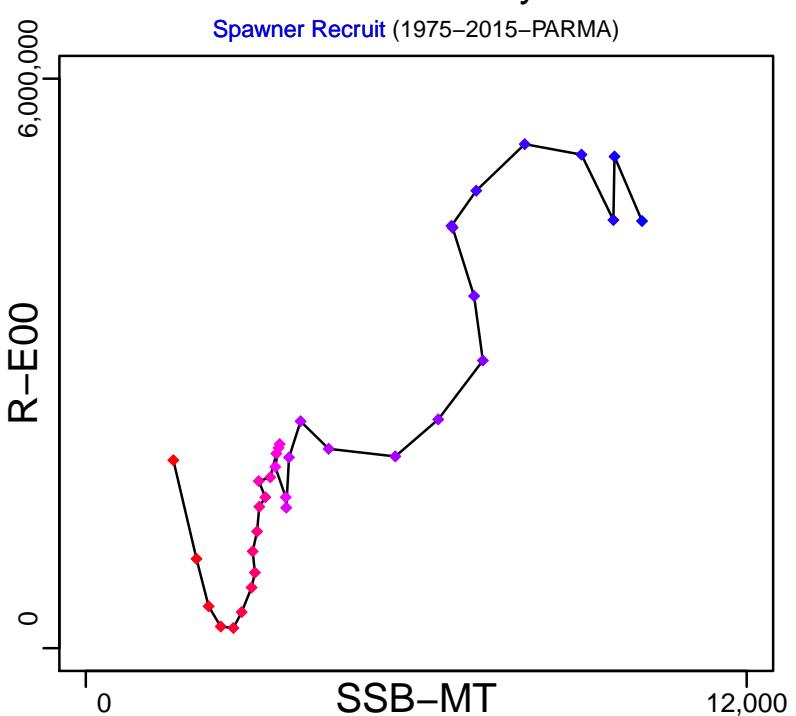
Kobe MSYpref (1975–2015–PARMA)



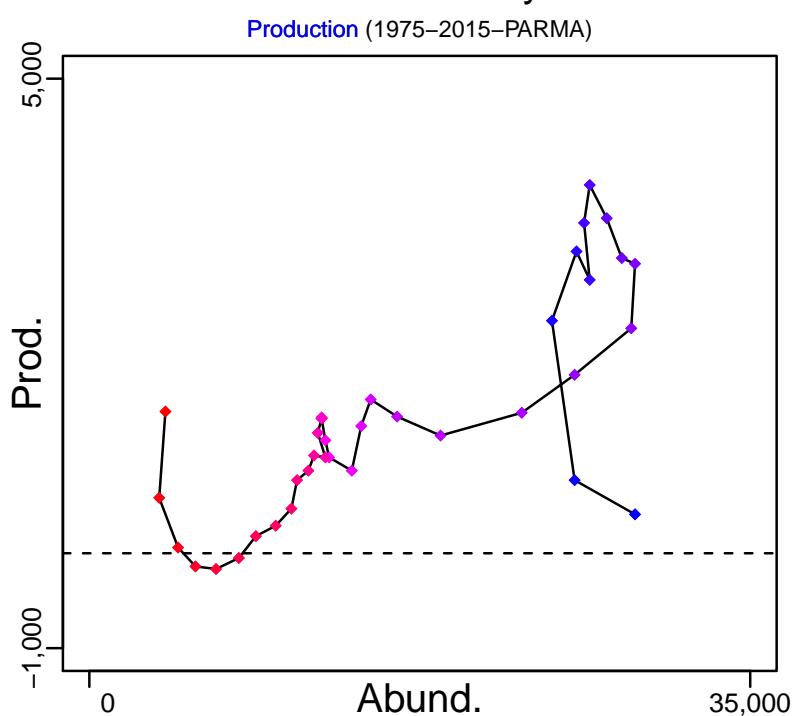
Kobe MGTPref (1975–2015–PARMA)



Spawner Recruit (1975–2015–PARMA)



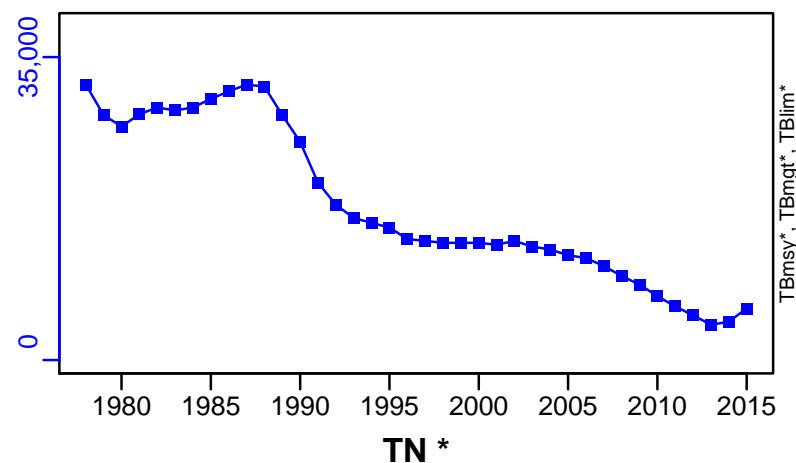
Production (1975–2015–PARMA)



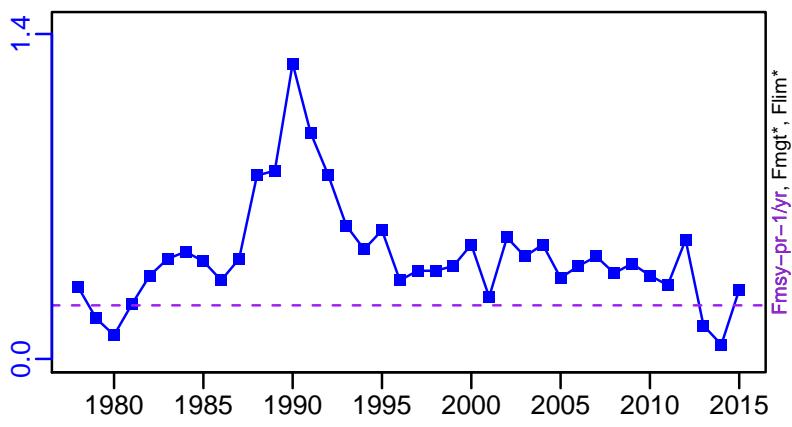
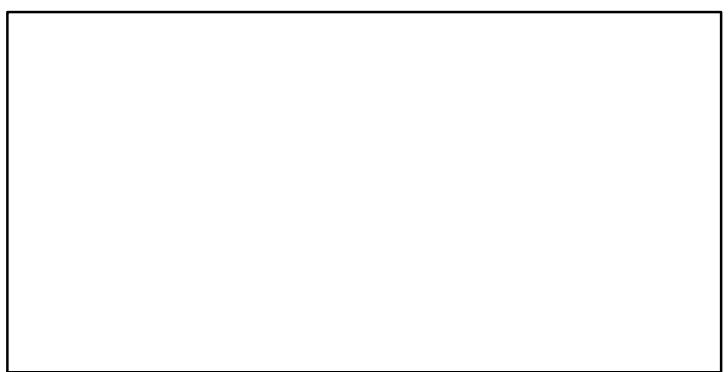
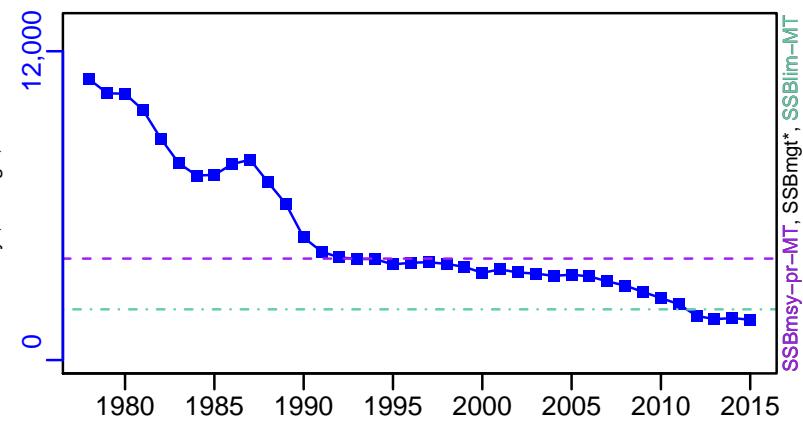
◆ Start Year ◆ End Year * No Data

Pink cusk eel Southern Chile [PCEEL SCH]

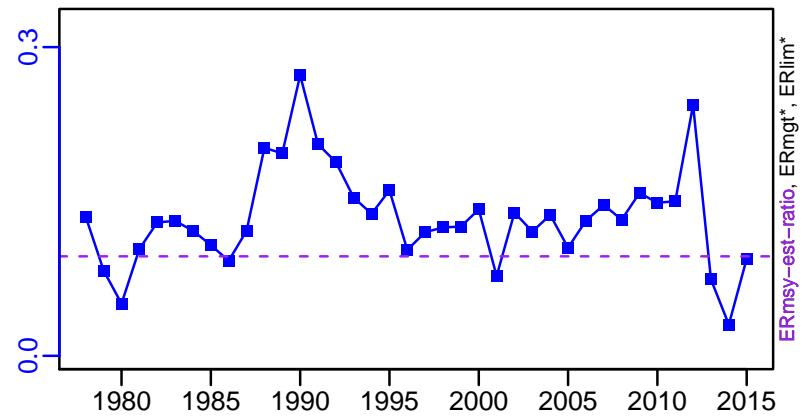
TB-MT (1975–2015-PARMA)



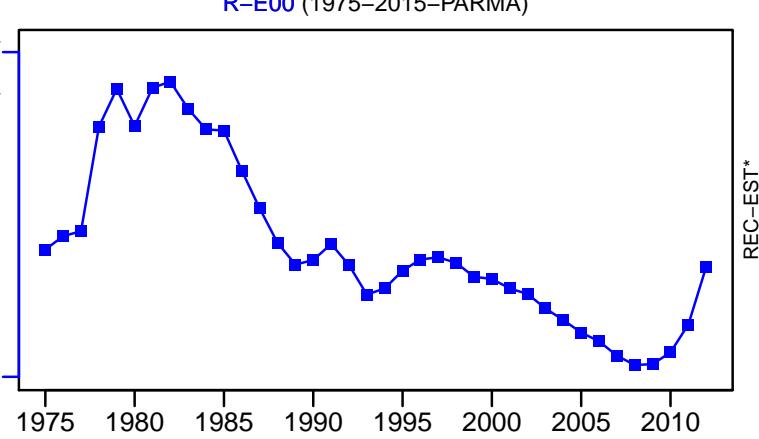
SSB-MT (1975–2015-PARMA)



ER-calc-ratio (1975–2015-PARMA)



R-E00 (1975–2015-PARMA)

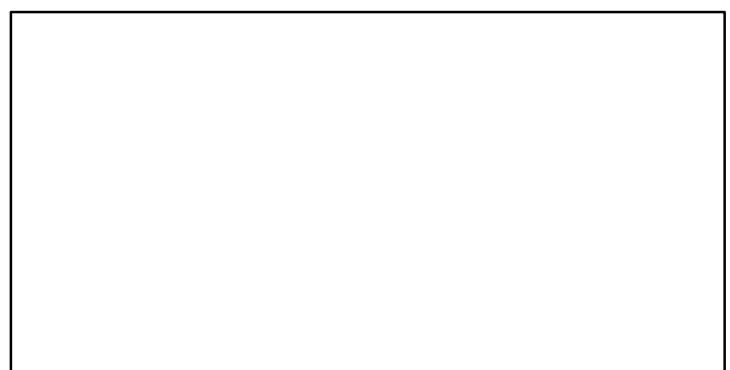
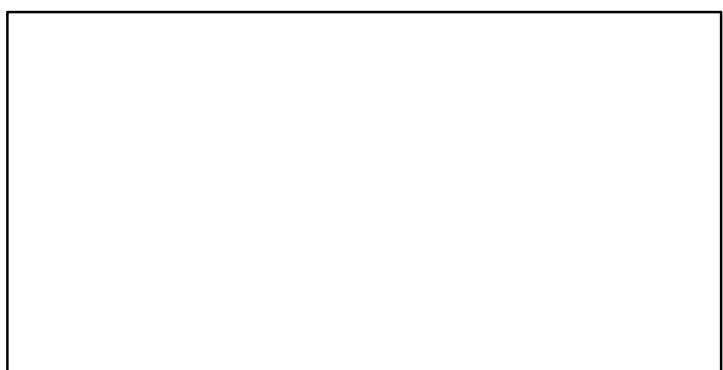
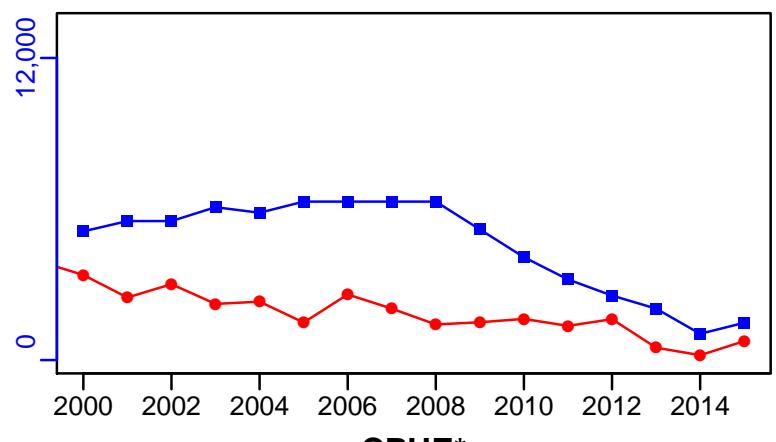
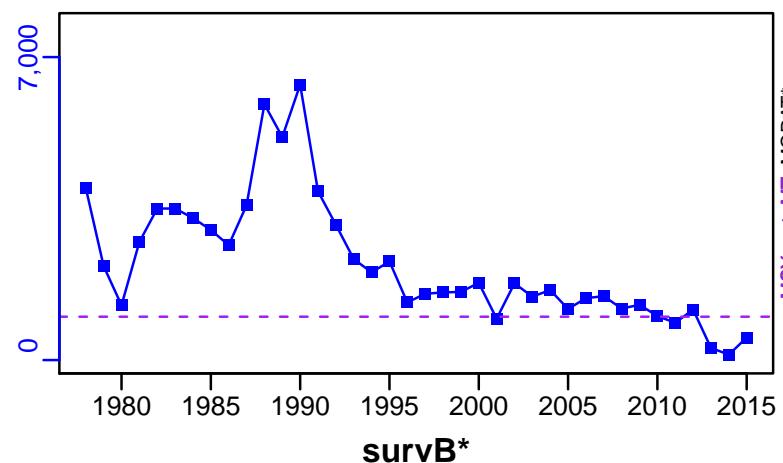


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - - Lim BRP	* No Data

Pink cusk eel Southern Chile [PCEELSCH]

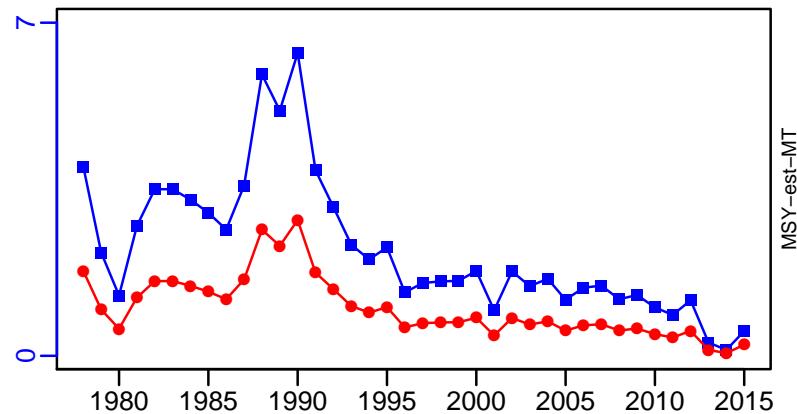
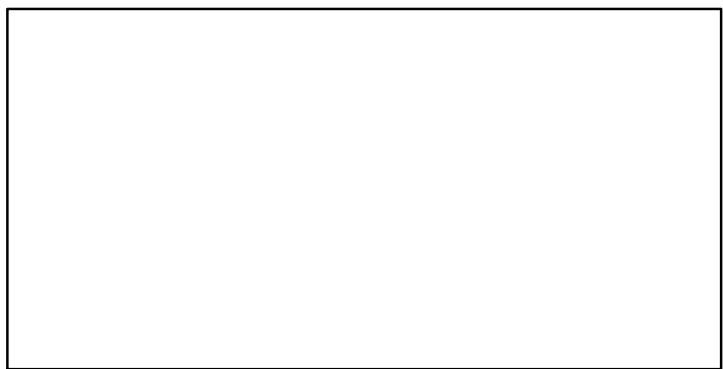
TL-MT, TC*, RecC* (1975–2015-PARMA)

TAC-MT, Cpair-MT, Cadv* (1975–2015-PARMA)



EFFORT*

TL-MT/MSY-est-MT, CdivMEANC-ratio, (1975–2015-PARMA)



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

Patagonian toothfish South Chile Argentina [PTOOTHFISHCH]

Metadata	
Scientific Name	Dissostichus eleginoides
Current Assess ID	IFP-PTOOTHFISHCH-1975-2014-TASCHERI
Area	South Chile Argentina
Management Authority	Separate management by Chile (SUBPESCA) and Argentina (CFP)
Assessor	Instituto de Fomento Pesquero - Chilean Fisheries Development Institute
Asmts in RAM	2014, 2011

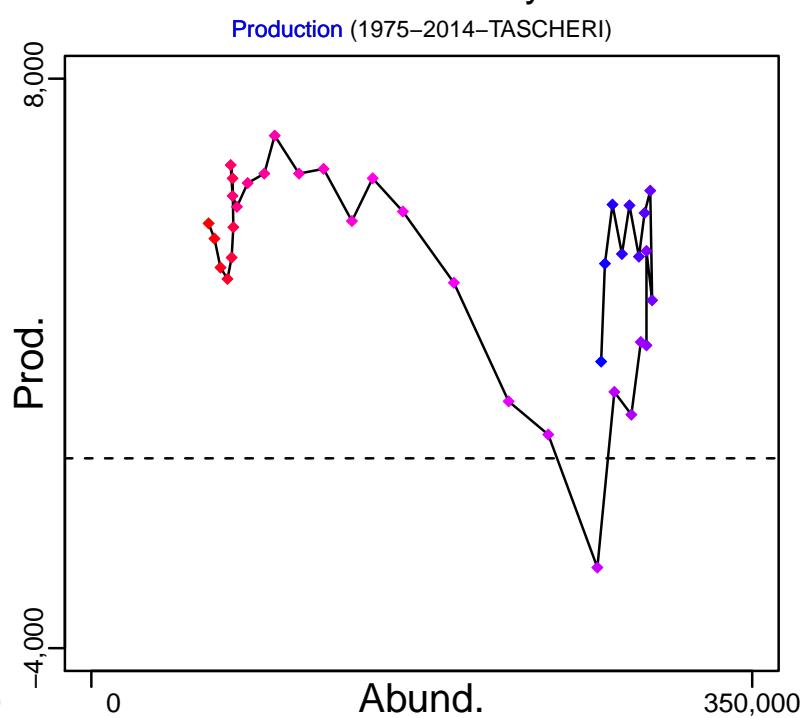
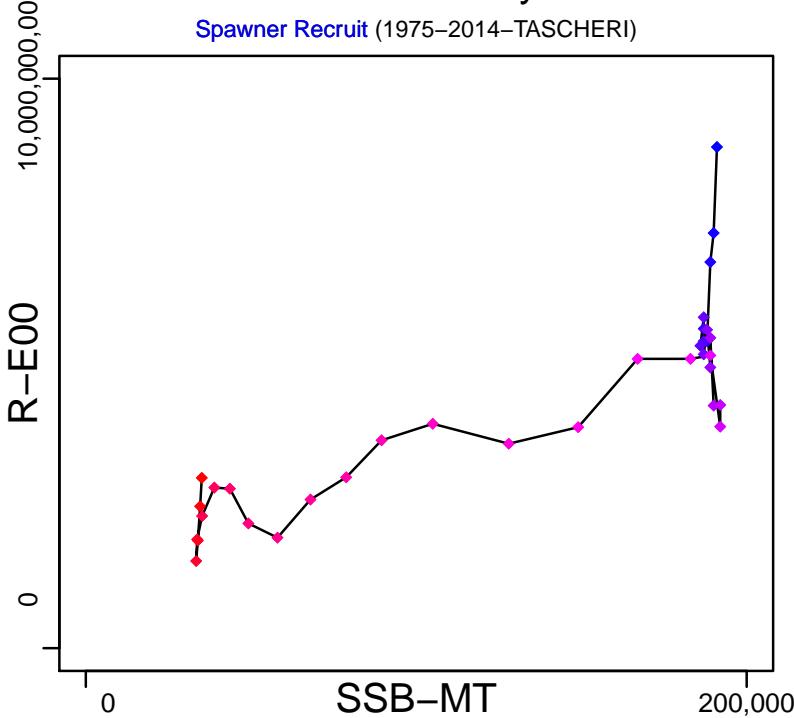
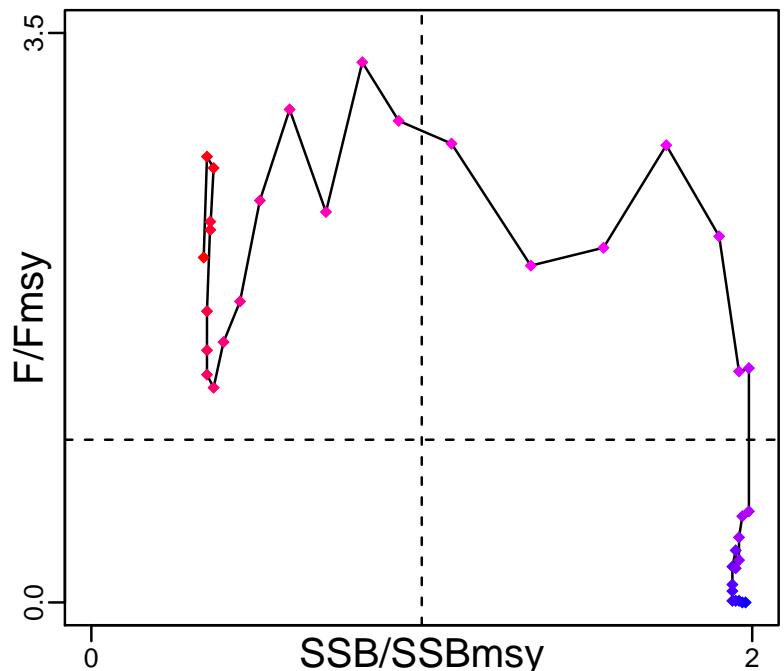
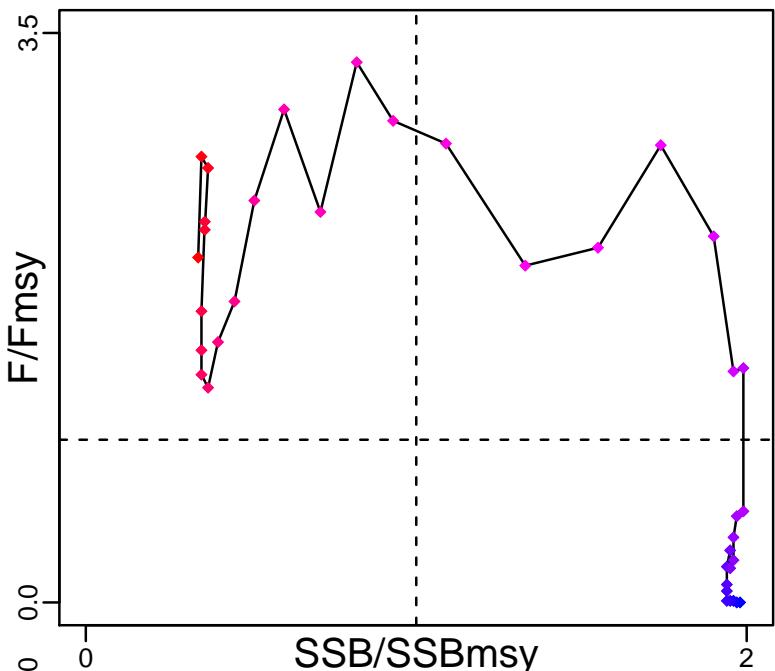
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-est-MT	2011	54,440
SSBmsy	SSBmsy-pr-MT	2014	96,304
Fmsy	Fmsy-pr-1/yr	2014	0.073
ERmsy	ERmsy-est-ratio	2014	0.04
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-est-MT	2014	5512
M	M-1/yr	2014	0.15
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2014	59,800	-	-	
SSB	SSB-MT	2014	32,600	-	3 to 30+	
TN	-	-	-	-	-	
R	R-E00	2014	2.99×10^9	-	3	
F	F-1/yr	2014	0.15	-	-	
ER	ER-ratio	2014	0.13	-	-	
TC	-	-	-			
TL	TL-MT	2014	6100			
TB/TBmsy	TB-MT/TBmsy-est-MT	2011	0.325			
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2014	0.34			
F/Fmsy	FdivFmsy-dimensionless	2014	2.12			
ER/ERmsy	ER-ratio/ERmsy-est-ratio	2014	3.291			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Patagonian toothfish South Chile Argentina [PTOOTHFISHCH]

Kobe MSYpref (1975–2014–TASCHERI)

Kobe MGTpref (1975–2014–TASCHERI)

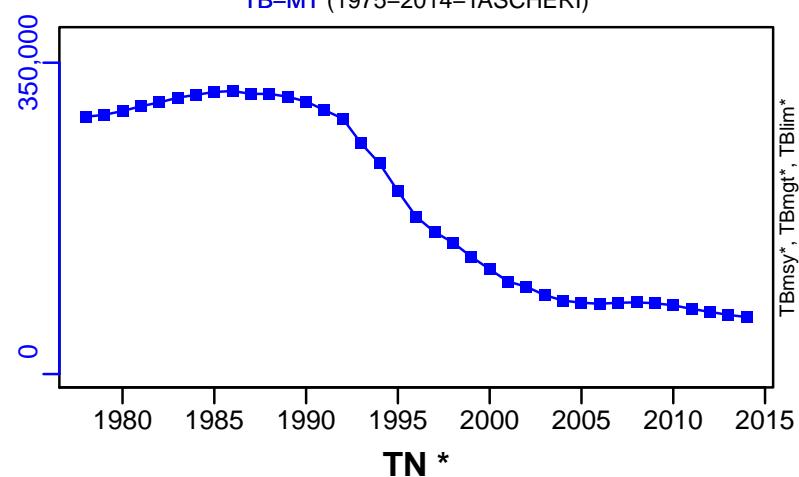


◆ Start Year ◆ End Year * No Data

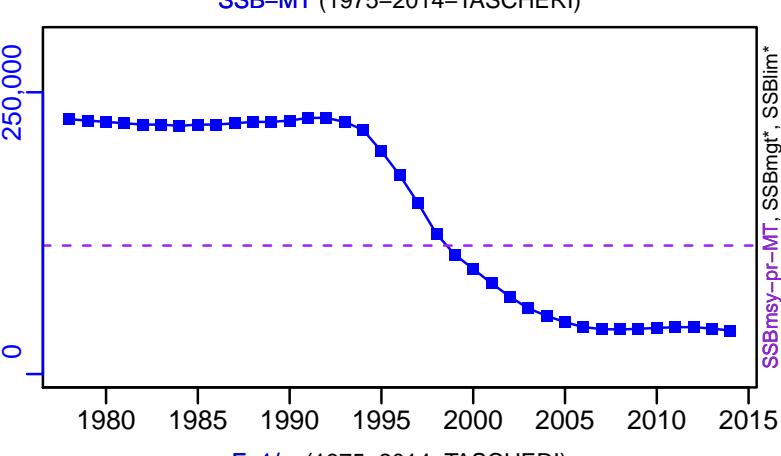
Patagonian toothfish South Chile Argentina [PTOOTHFISHCH]

TB-MT (1975–2014–TASCHERI)

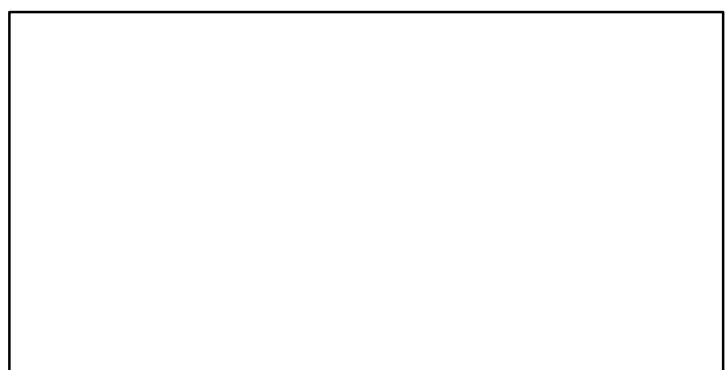
SSB-MT (1975–2014–TASCHERI)



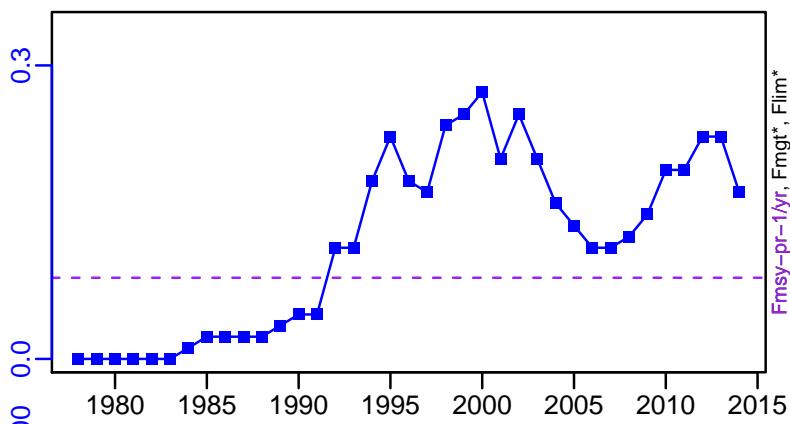
TB_{MSY}^{*}, TB_{MGT}^{*}, TB_{LIM}^{*}



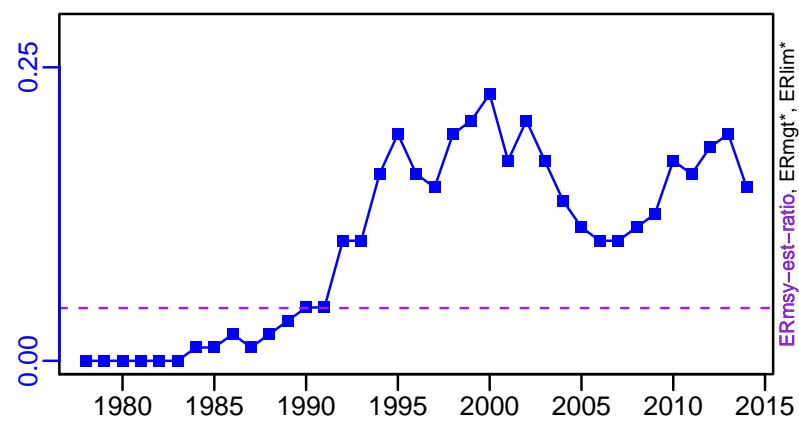
F_{MSY}-pr-1/yr, F_{MGT}^{*}, F_{LIM}^{*}



ER-ratio (1975–2014–TASCHERI)



ER_{MSY}-est-ratio, ER_{MGT}^{*}, ER_{LIM}^{*}



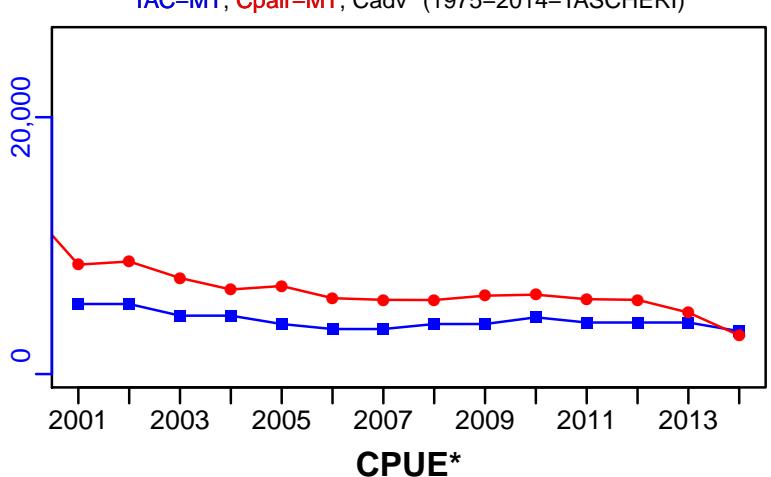
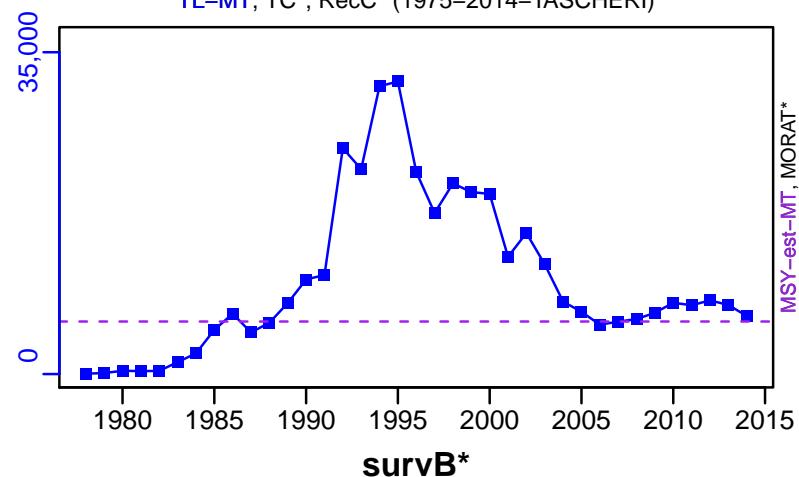
REC-EST*

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

Patagonian toothfish South Chile Argentina [PTOOTHFISHCH]

TL-MT, TC*, RecC* (1975–2014–TASCHERI)

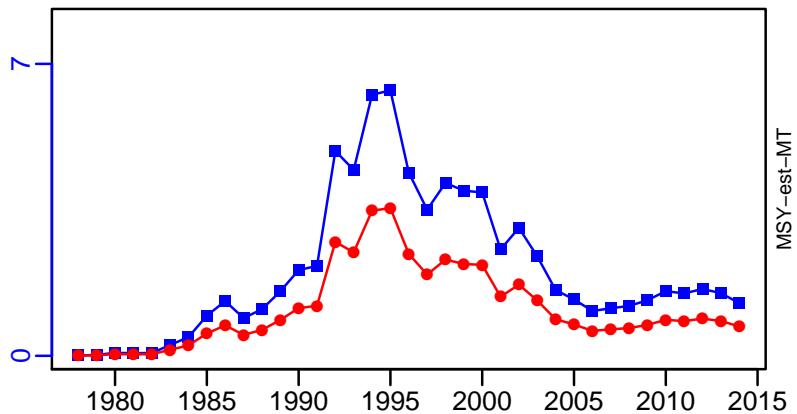
TAC-MT, Cpair-MT, Cadv* (1975–2014–TASCHERI)



EFFORT*



TL-MT/MSY-est-MT, CdivMEANC-ratio, (1975–2014–TASCHERI)



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

Red squat lobster Central-Southern Chile [RSQLOBSTERCSCH]

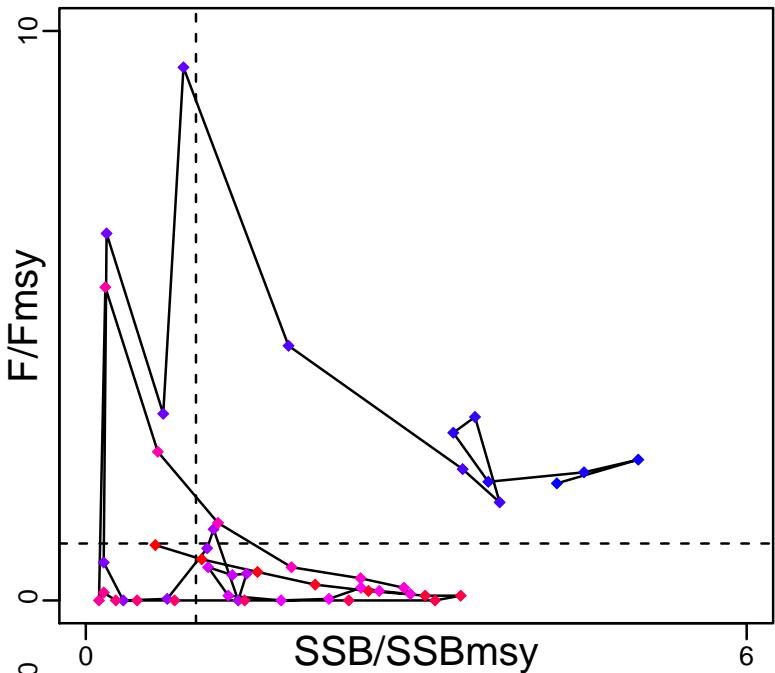
Metadata	
Scientific Name	Pleuroncodes monodon
Current Assess ID	IFOPCH-RSQLOBSTERCSCH-1968-2015-PARMA
Area	Central-Southern Chile
Management Authority	Subsecretaria de Pesca
Assessor	Instituto de Fomento Pesquero - Chilean Fisheries Development Institute
Asmts in RAM	2015

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-pr-MT	2015	22,330
Fmsy	Fmsy-pr-1/yr	2015	0.36
ERrmsy	ERrmsy-est-ratio	2015	0.017
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2015	22,330
Fmgt	Fmgt-1/yr	2015	0.36
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-est-MT	2015	953
M	M-1/yr	2015	0.35
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

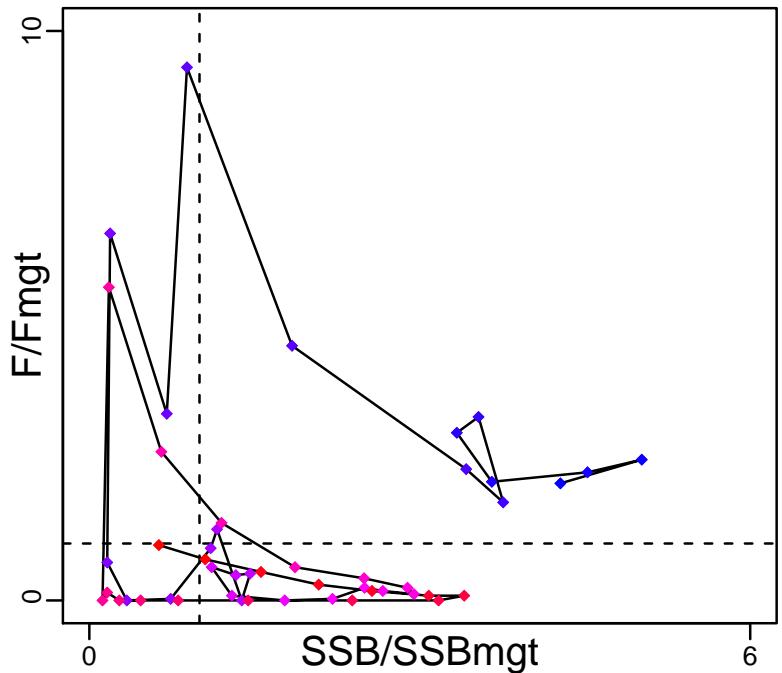
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2015	24,400	Both	-	
SSB	SSB-MT	2015	14,100	Both	-	
TN	-	-	-	-	-	
R	R-E00	2015	2.78×10^8	Both	1	
F	F-1/yr	2015	0.35	Both	-	
ER	ER-calc-ratio	2015	0.226	-	-	
TC	-	-	-			
TL	TL-MT	2015	5520			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/SSBmsy-pr-MT	2015	0.631			
F/Fmsy	F-1/yr/Fmsy-pr-1/yr	2015	0.972			
ER/ERrmsy	ER-calc-ratio/ERrmsy-est-ratio	2015	12.941			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2015	0.631			
F/Fmgt	F-1/yr/Fmgt-1/yr	2015	0.972			
ER/ERmgt	-	-	-			

Red squat lobster Central–Southern Chile [RSQLOBSTERCSCH]

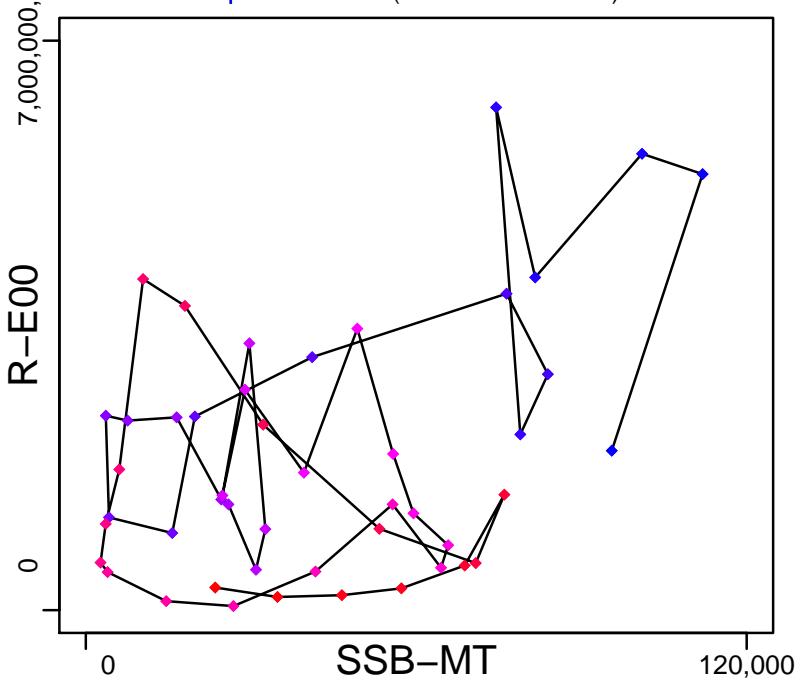
Kobe MSYpref (1968–2015–PARMA)



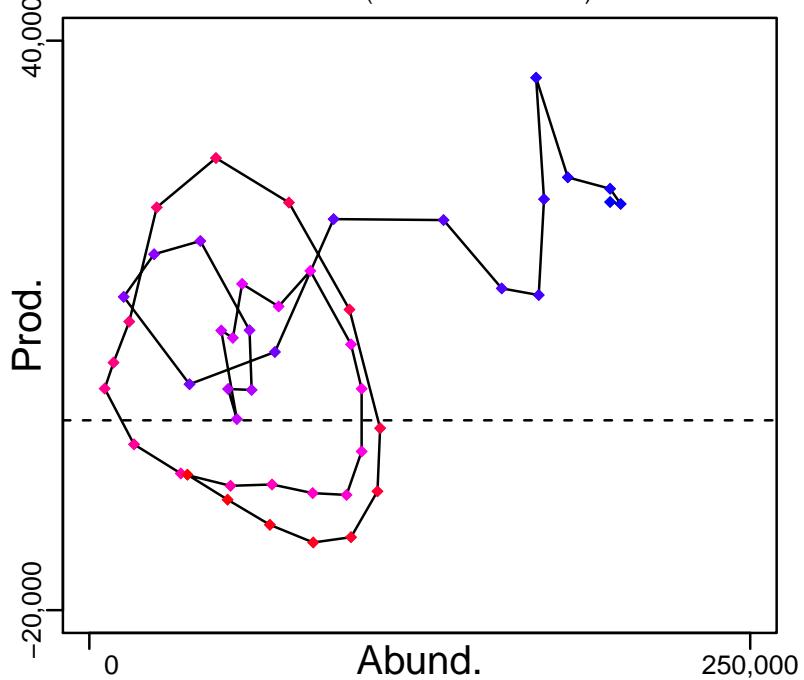
Kobe MGTPref (1968–2015–PARMA)



Spawner Recruit (1968–2015–PARMA)



Production (1968–2015–PARMA)

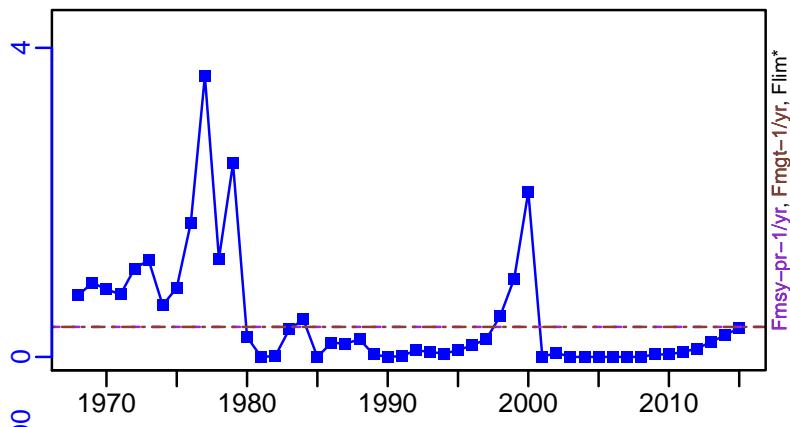
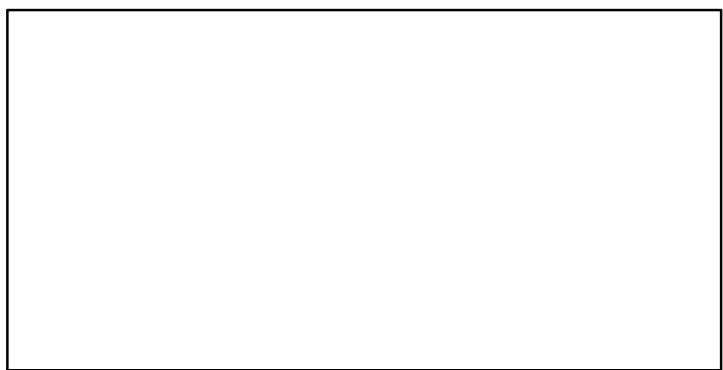
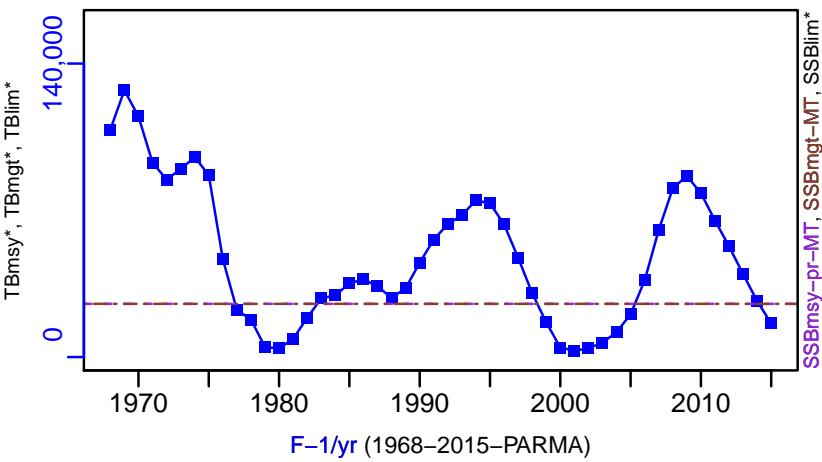
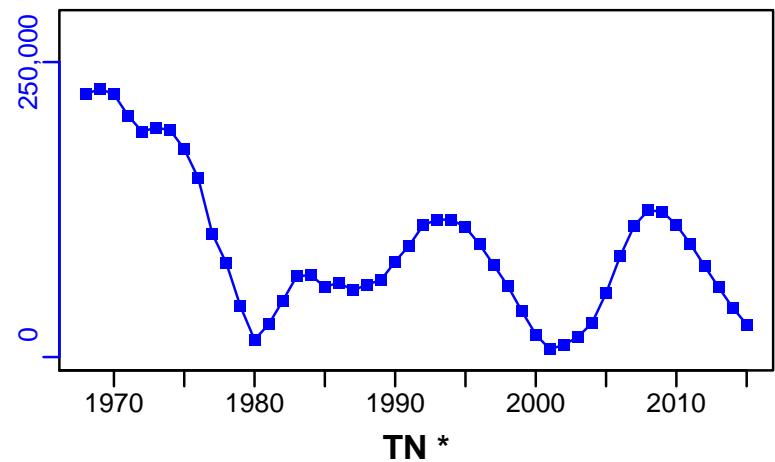


◆ Start Year ◆ End Year * No Data

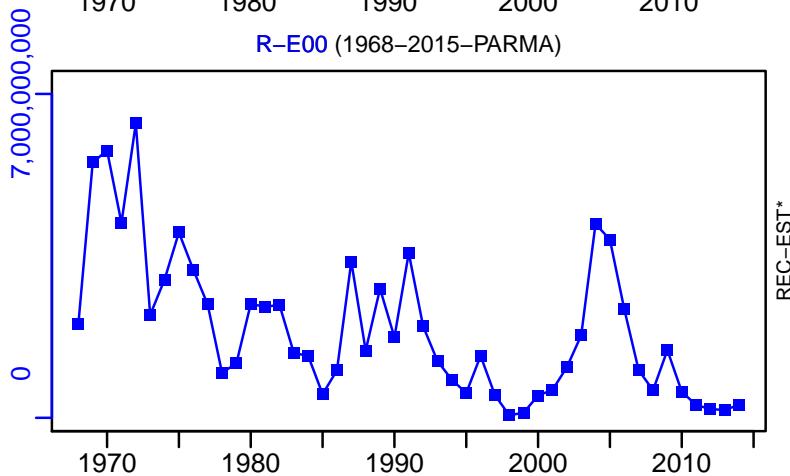
Red squat lobster Central–Southern Chile [RSQLOBSTERCSCH]

TB-MT (1968–2015–PARMA)

SSB-MT (1968–2015–PARMA)



ER-calc-ratio (1968–2015–PARMA)

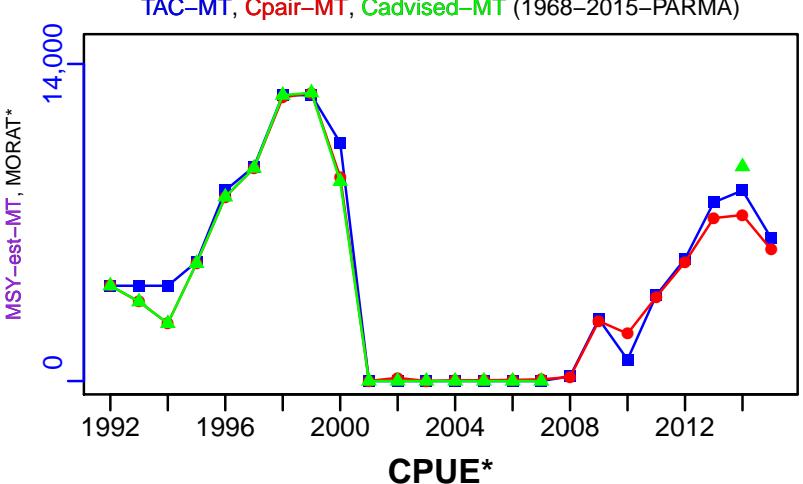
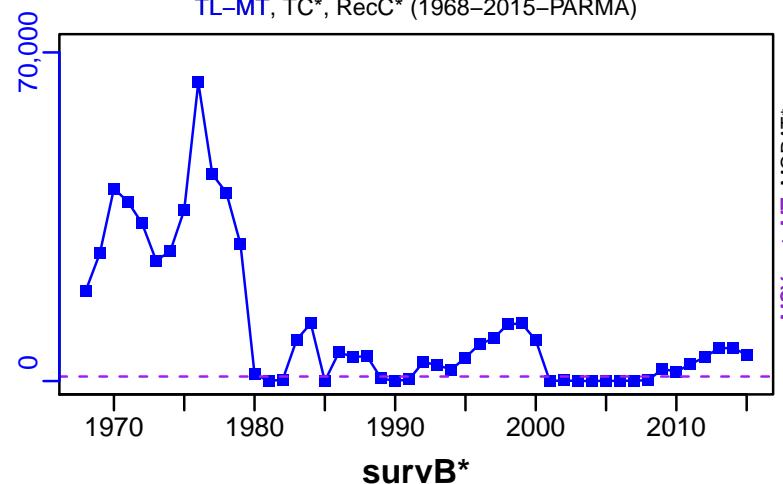


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	— Lim BRP	* No Data

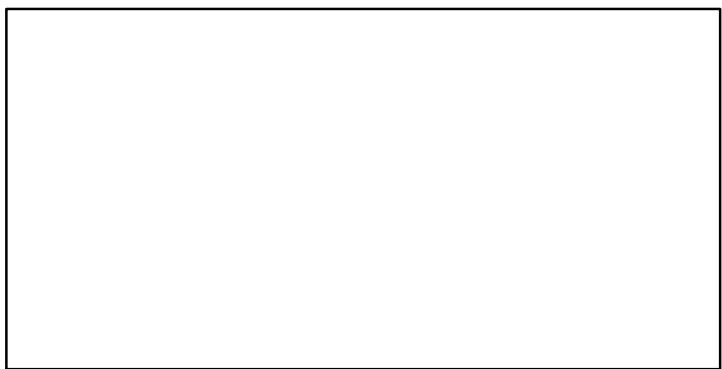
Red squat lobster Central–Southern Chile [RSQLOBSTERCSCH]

TL–MT, TC*, RecC* (1968–2015–PARMA)

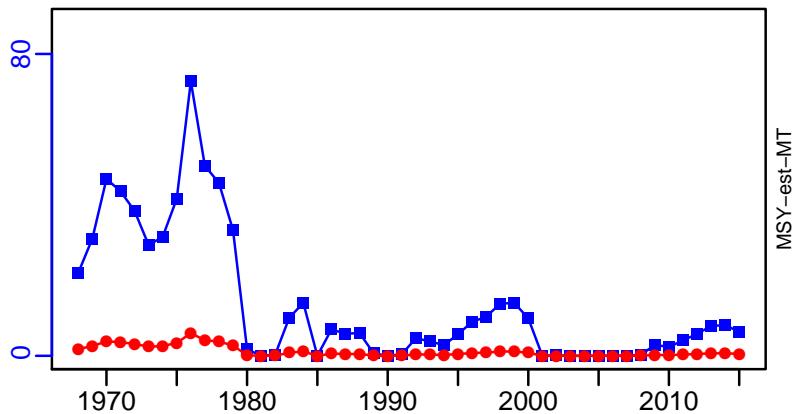
TAC–MT, Cpair–MT, Cadvised–MT (1968–2015–PARMA)



EFFORT*



TL–MT/MSY–est–MT, CdivMEANC–ratio, (1968–2015–PARMA)



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

Red squat lobster Northern Chile [RSQLOBSTERNCH]

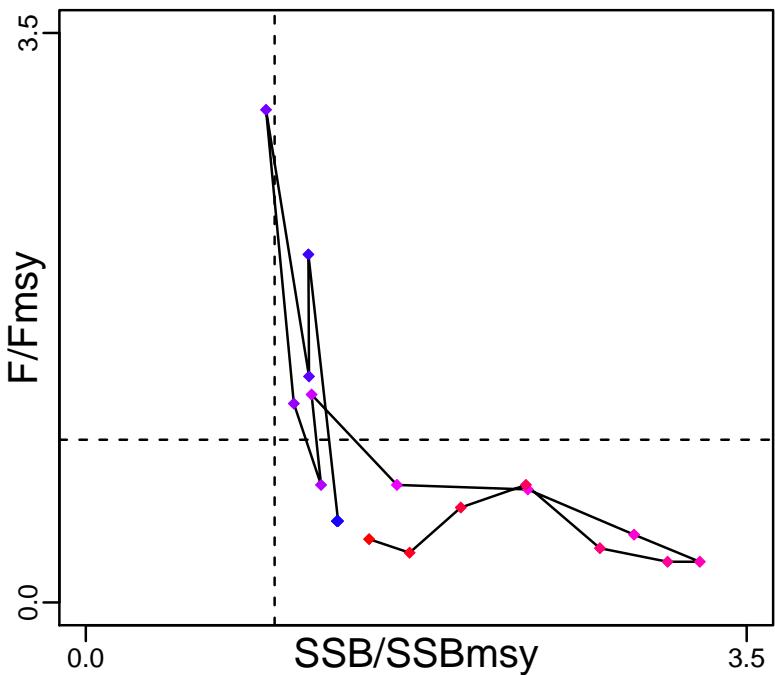
Metadata	
Scientific Name	Pleuroncodes monodon
Current Assess ID	IFOPCH-RSQLOBSTERNCH-1969-2015-PARMA
Area	Northern Chile
Management Authority	Subsecretaria de Pesca
Assessor	Instituto de Fomento Pesquero - Chilean Fisheries Development Institute
Asmts in RAM	2015

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-pr-MT	2015	2986
Fmsy	Fmsy-pr-1/yr	2015	0.36
ERmsy	ERmsy-est-ratio	2015	0.197
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2015	2986
Fmgt	Fmgt-1/yr	2015	0.36
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-est-MT	2015	1437
M	M-1/yr	2015	0.35
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

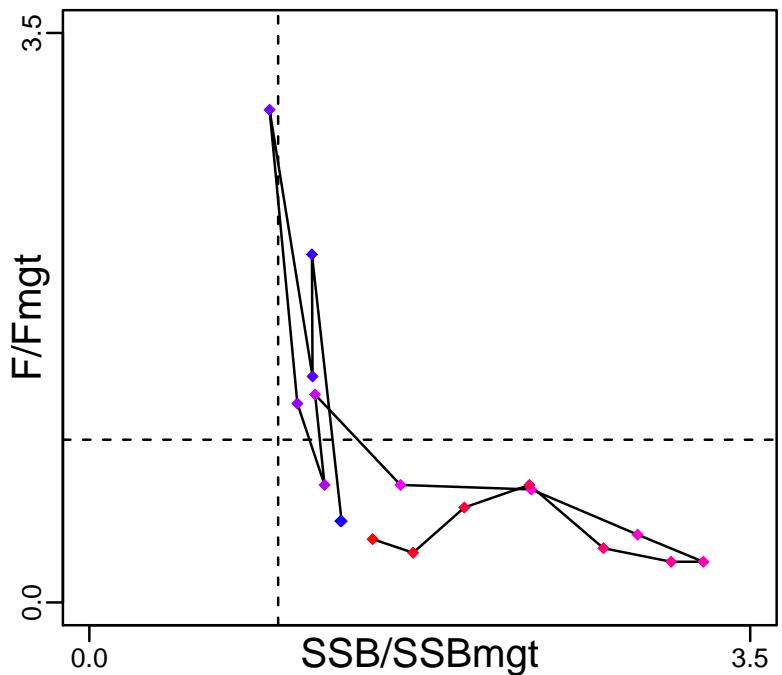
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2015	7010	Both	-	
SSB	SSB-MT	2015	4480	Both	-	
TN	-	-	-	-	-	
R	R-E00	2015	1.93×10^8	Both	1	
F	F-1/yr	2015	0.14	Both	-	
ER	ER-calc-ratio	2015	0.086	-	-	
TC	-	-	-			
TL	TL-MT	2015	602			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/SSBmsy-pr-MT	2015	1.5			
F/Fmsy	F-1/yr/Fmsy-pr-1/yr	2015	0.389			
ER/ERmsy	ER-calc-ratio/ERmsy-est-ratio	2015	0.436			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2015	1.5			
F/Fmgt	F-1/yr/Fmgt-1/yr	2015	0.389			
ER/ERmgt	-	-	-			

Red squat lobster Northern Chile [RSQLOBSTERNCH]

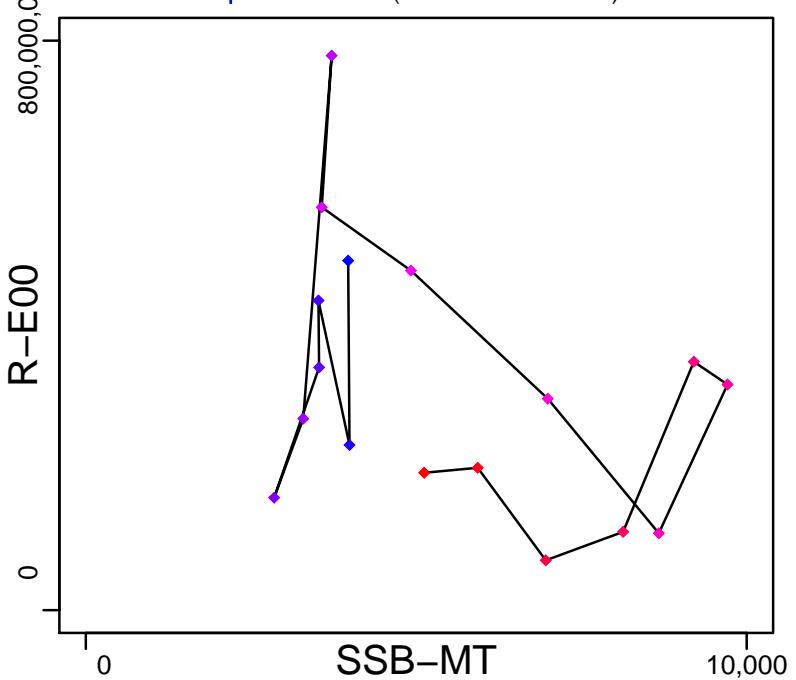
Kobe MSYpref (1969–2015–PARMA)



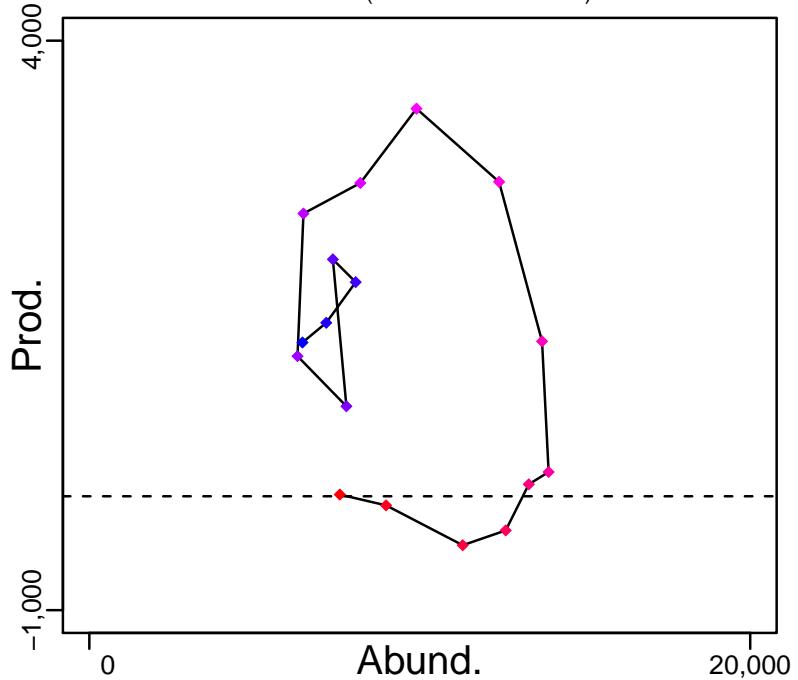
Kobe MGTPref (1969–2015–PARMA)



Spawner Recruit (1969–2015–PARMA)



Production (1969–2015–PARMA)

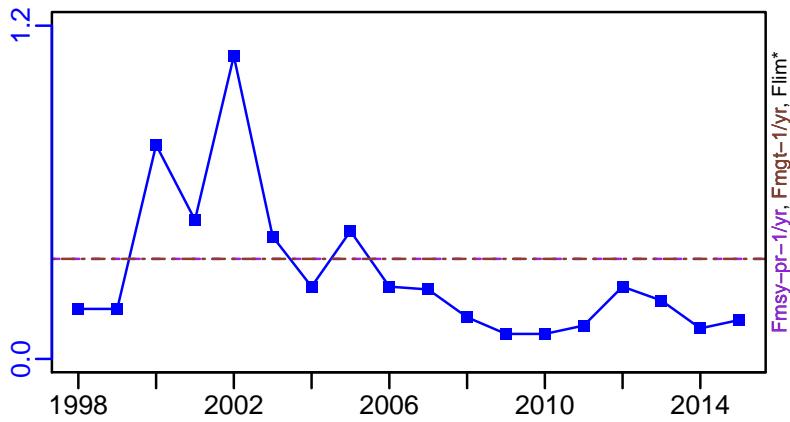
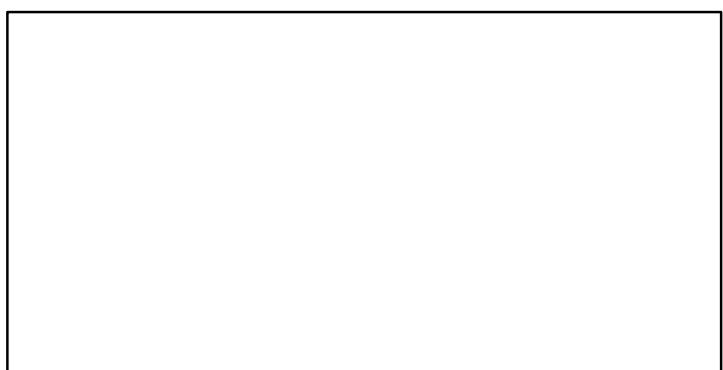
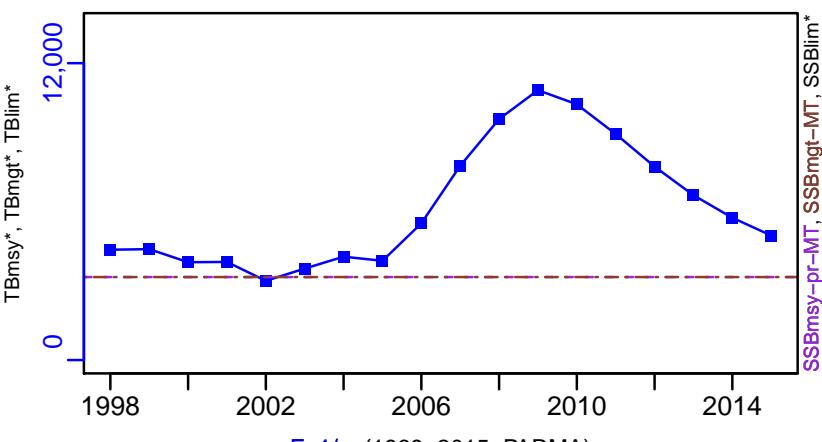
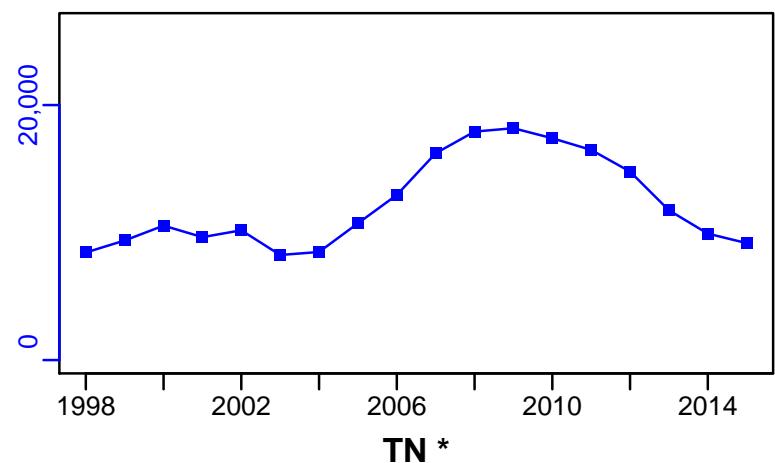


◆ Start Year
 ◆ End Year
 * No Data

Red squat lobster Northern Chile [RSQLOBSTERNCH]

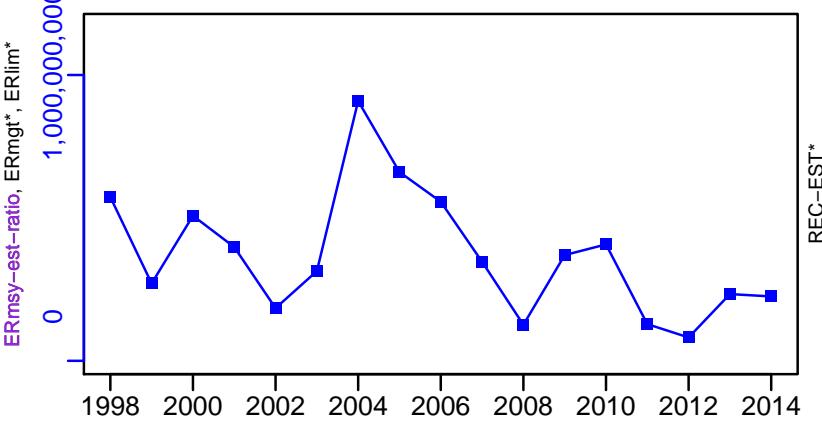
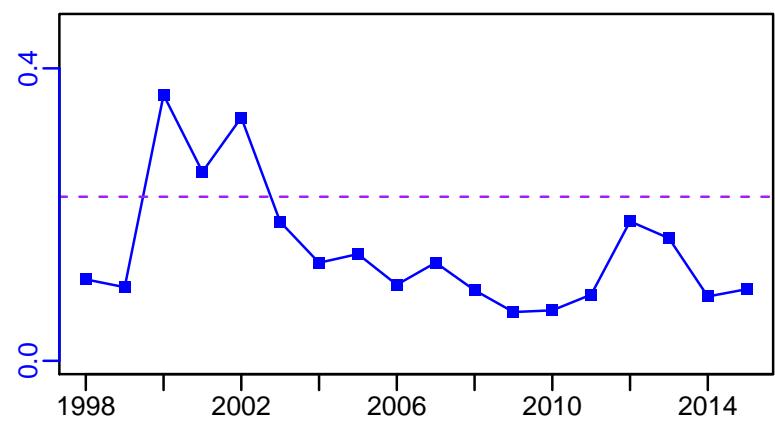
TB-MT (1969–2015–PARMA)

SSB-MT (1969–2015–PARMA)



ER-calc-ratio (1969–2015–PARMA)

R-E00 (1969–2015–PARMA)

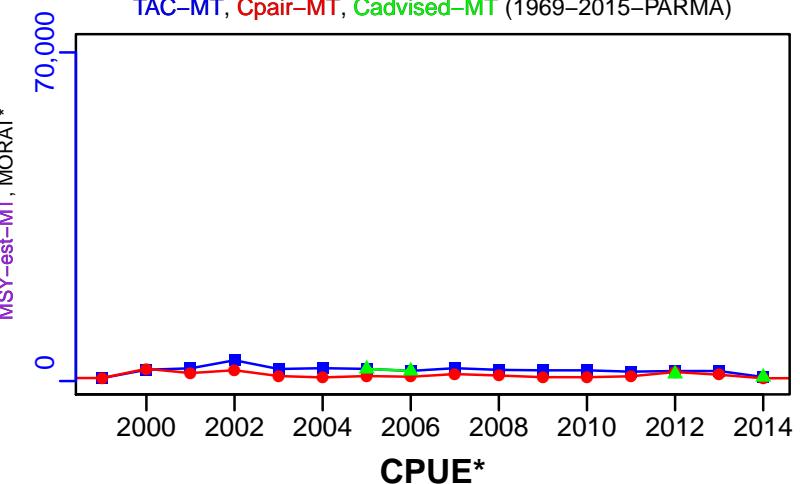
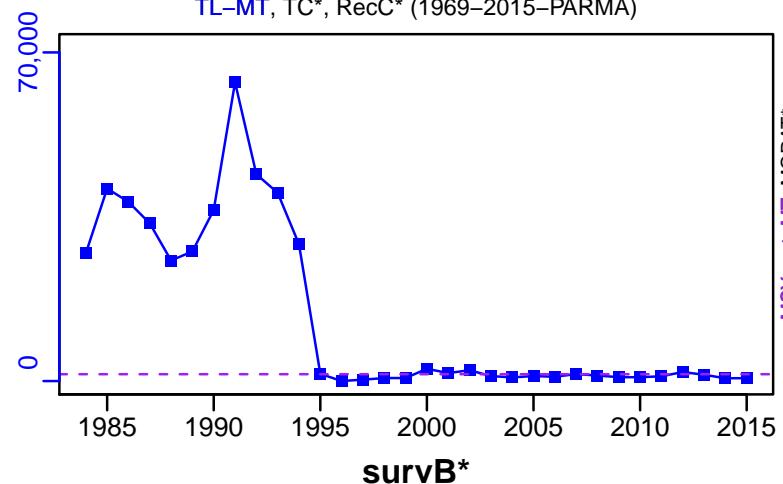


■ Listed time series	— Target BRP	— Rec-Est
- - MSY-based BRP	--- Lim BRP	* No Data

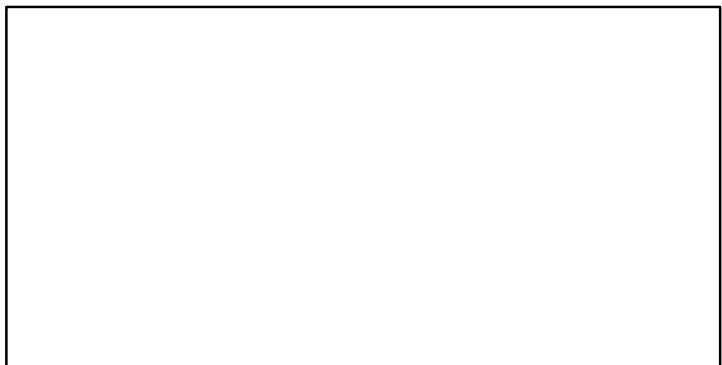
Red squat lobster Northern Chile [RSQLOBSTERNCH]

TL-MT, TC*, RecC* (1969–2015-PARMA)

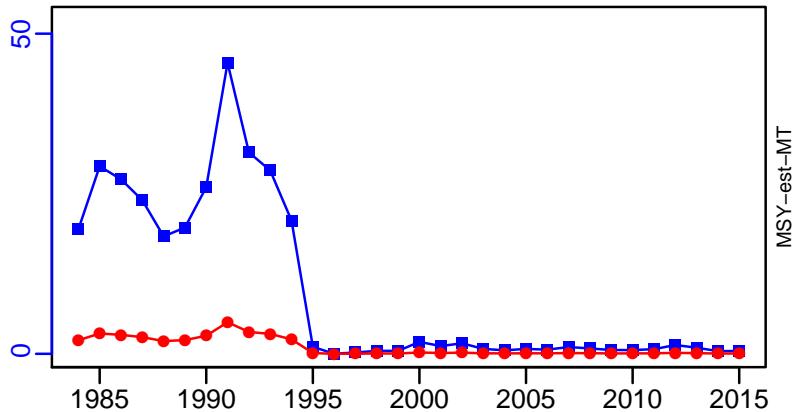
TAC-MT, Cpair-MT, Cadvised-MT (1969–2015-PARMA)



EFFORT*



TL-MT/MSY-est-MT, CdivMEANC-ratio, (1969–2015-PARMA)



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

Deepwater cardinalfish Chile [SBREAMCH]

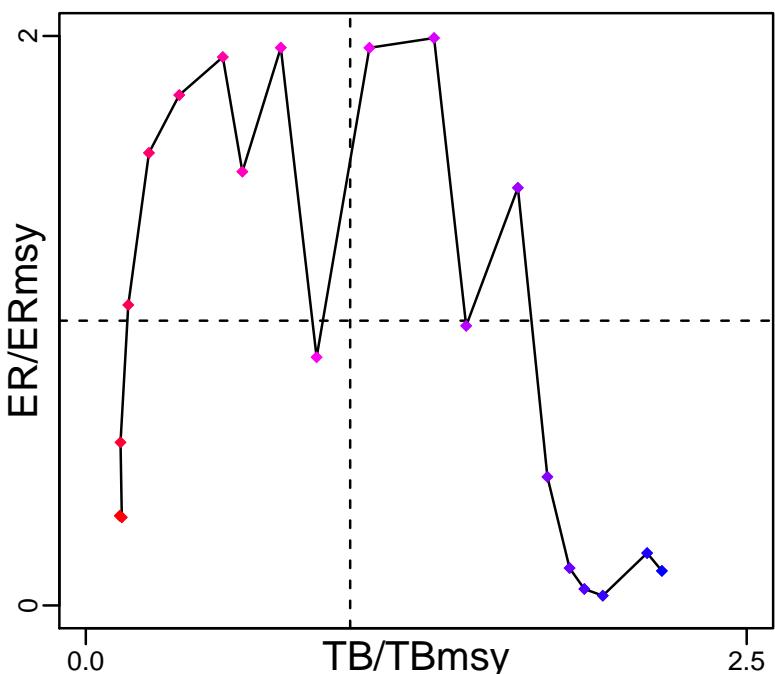
Metadata	
Scientific Name	Epigonus crassicaudus
Current Assess ID	SPRFMO-SBREAMCH-1989-2011-CHING
Area	Chile
Management Authority	South Pacific Regional Fisheries Management Organization
Assessor	South Pacific Regional Fisheries Management Organization
Asmts in RAM	2011

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-est-MT	2011	7158
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	ERmsy-est-ratio	2011	0.307
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-est-MT	2011	2194
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

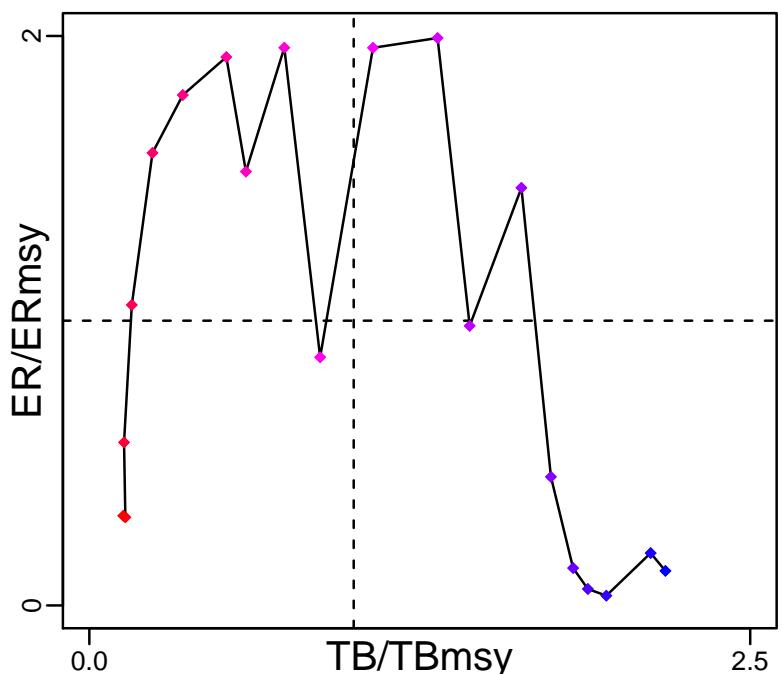
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2011	920	-	-	
SSB	SSB-MT	2011	607	-	-	
TN	-	-	-	-	-	
R	R-E00	2011	553,000	-	-	
F	F-1/yr	2011	12.2	-	-	
ER	ER-calc-ratio	2011	0.097	-	-	
TC	-	-	-			
TL	TL-MT	2011	89			
TB/TBmsy	TB-MT/TBmsy-est-MT	2011	0.129			
SSB/SSBmsy	-	-	-			
F/Fmsy	-	-	-			
ER/ERmsy	ER-calc-ratio/ERmsy-est-ratio	2011	0.315			
TB/TBmgt	-	-	-			
SSB/SSBmgt	-	-	-			
F/Fmgt	-	-	-			
ER/ERmgt	-	-	-			

Deepwater cardinalfish Chile [SBREAMCH]

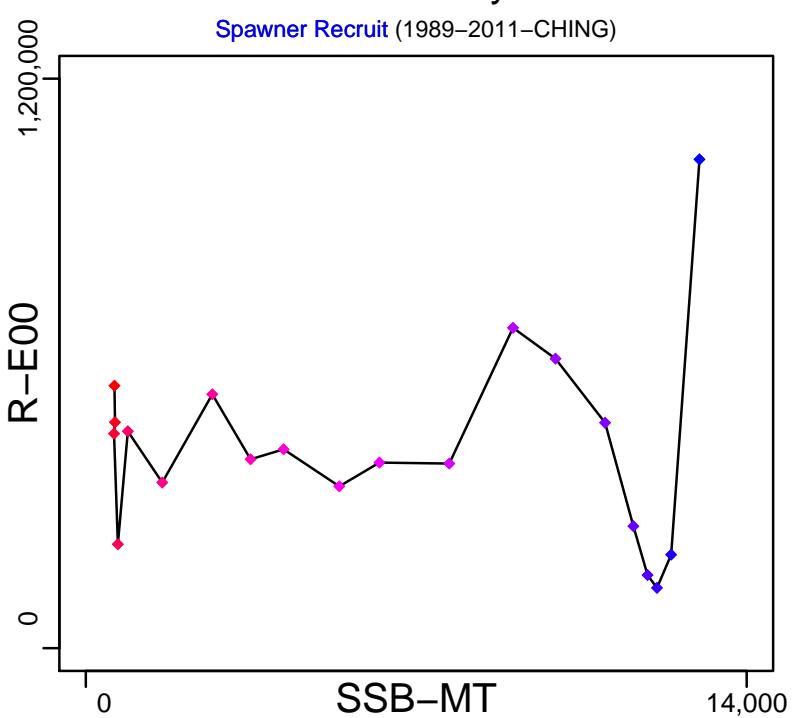
Kobe MSYpref (1989–2011–CHING)



Kobe MGTPref (1989–2011–CHING)



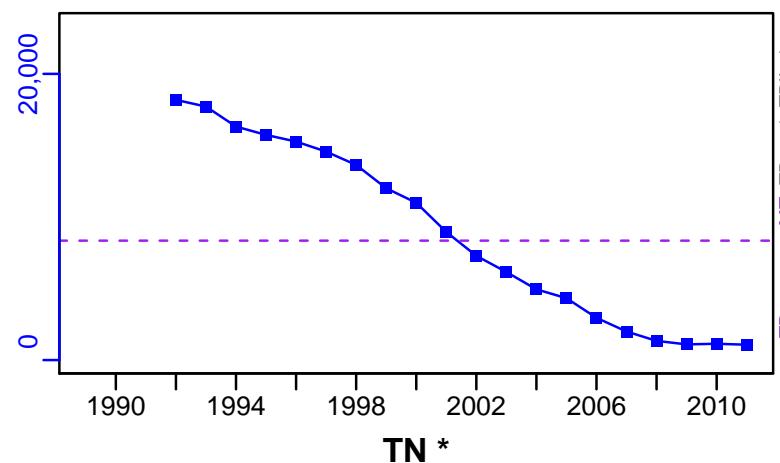
Spawner Recruit (1989–2011–CHING)



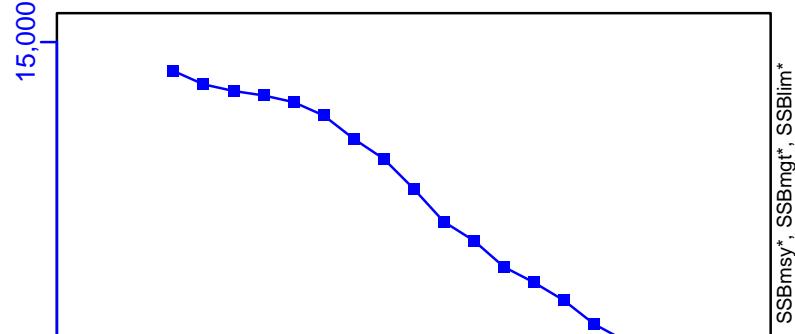
◆ Start Year ◆ End Year * No Data

Deepwater cardinalfish Chile [SBREAMCH]

TB-MT (1989–2011-CHING)



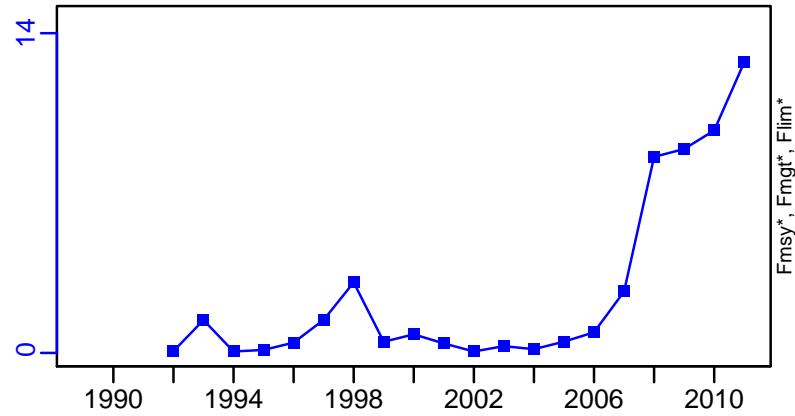
SSB-MT (1989–2011-CHING)



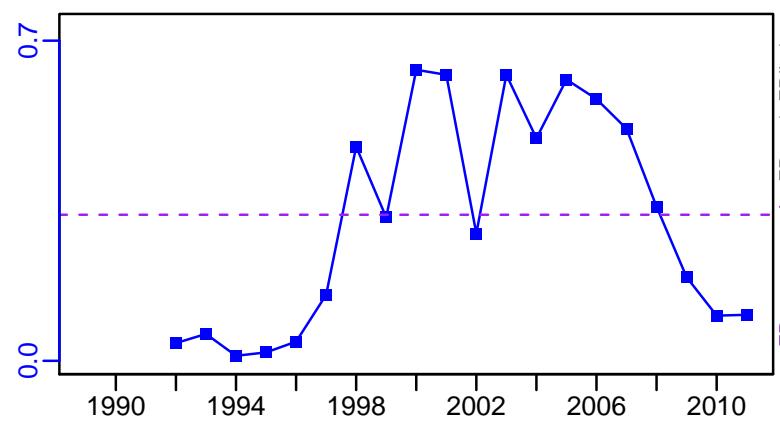
TN *



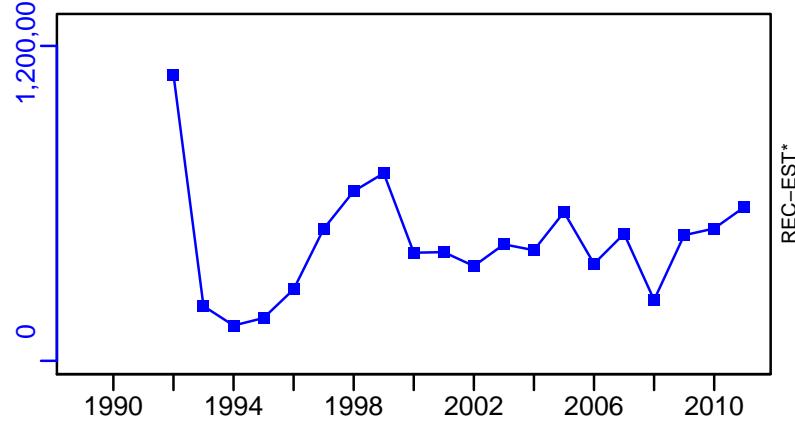
F-1/yr (1989–2011-CHING)



ER-calc-ratio (1989–2011-CHING)



R-E00 (1989–2011-CHING)

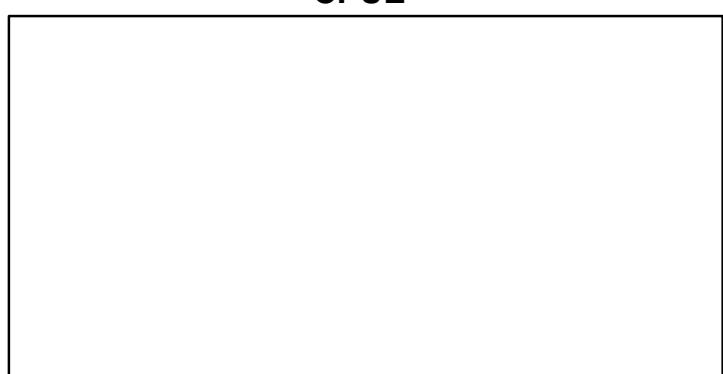
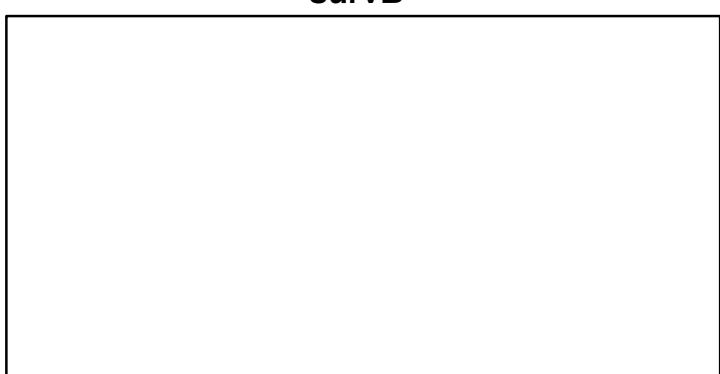
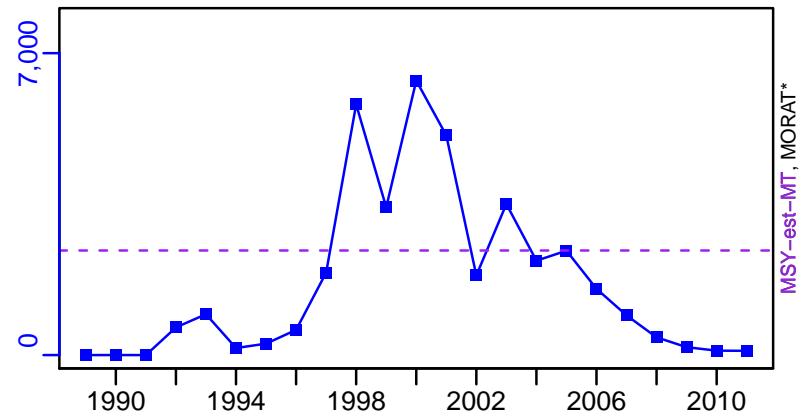


- | | | |
|----------------------|---------------|-----------|
| ■ Listed time series | — Target BRP | — Rec-Est |
| - - - MSY-based BRP | - - - Lim BRP | * No Data |

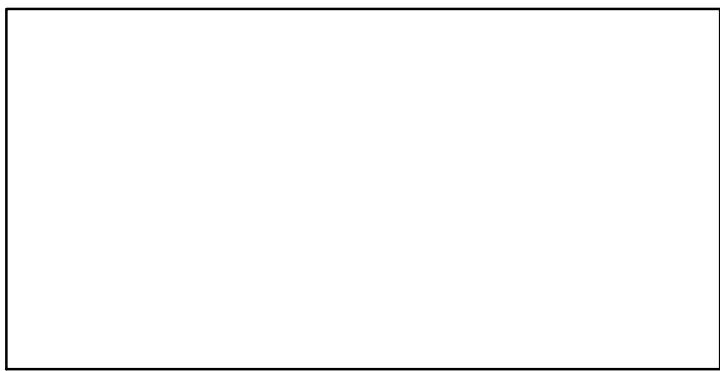
Deepwater cardinalfish Chile [SBREAMCH]

TL-MT, TC*, RecC* (1989–2011-CHING)

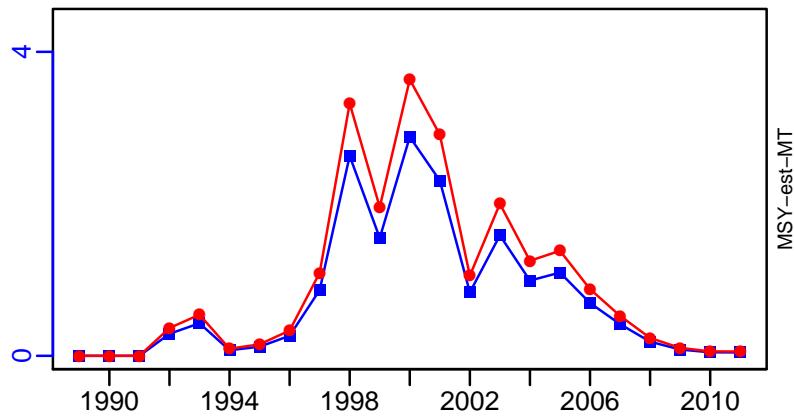
TAC*, Cpair*, Cadv*



EFFORT*



TL-MT/MSY-est-MT, CdivMEANC-ratio, (1989–2011-CHING)



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

Southern blue whiting Southern Argentina [SBWHITARGS]

Metadata	
Scientific Name	Micromesistius australis
Current Assess ID	INIDEP-SBWHITARGS-1985-2015-PARMA
Area	Southern Argentina
Management Authority	Consejo Federal Pesquero, Argentina national management
Assessor	Instituto Nacional de Investigacion y Desarrollo Pesquero
Asmts in RAM	2007, 2015

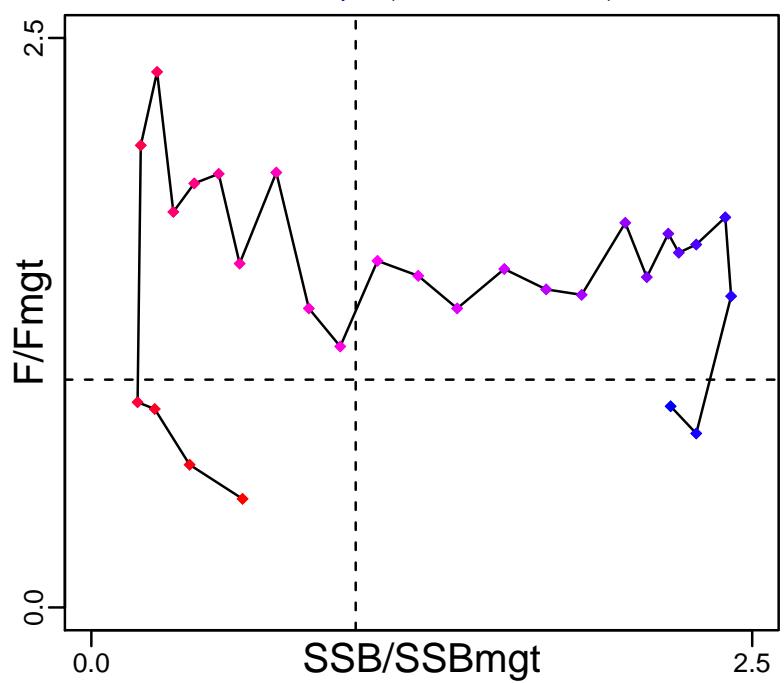
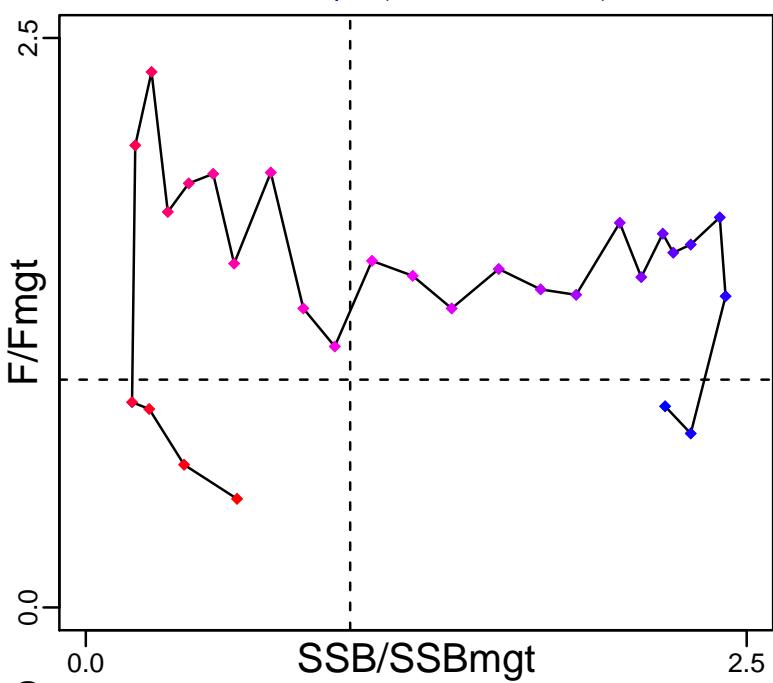
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	ERmsy-est-ratio	2015	0.088
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2015	454,500
Fmgt	Fmgt-1/yr	2015	0.168
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2015	1,515,000
MSY	-	-	-
M	M-1/yr	2015	0.15
TBlim	-	-	-
SSBlim	SSBlim-MT	2015	303,000
Flim	-	-	-
ERlim	-	-	-

Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2015	425,000	-	1+	
SSB	SSB-MT	2015	260,000	Both	3+	
TN	-	-	-	-	-	
R	R-E00	2015	2.93×10^8	-	1	
F	F-1/yr	2015	0.08	-	7 to 21+	
ER	ER-calc-ratio	2015	0.035	-	-	
TC	TC-MT	2015	21,400			
TL	-	-	-			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/(SSB0-MT*0.368)	2015	0.466			
F/Fmsy	-	-	-			
ER/ERmsy	ER-calc-ratio/ERmsy-est-ratio	2015	0.395			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2015	0.572			
F/Fmgt	F-1/yr/Fmgt-1/yr	2015	0.477			
ER/ERmgt	-	-	-			

Southern blue whiting Southern Argentina [SBWHITARGS]

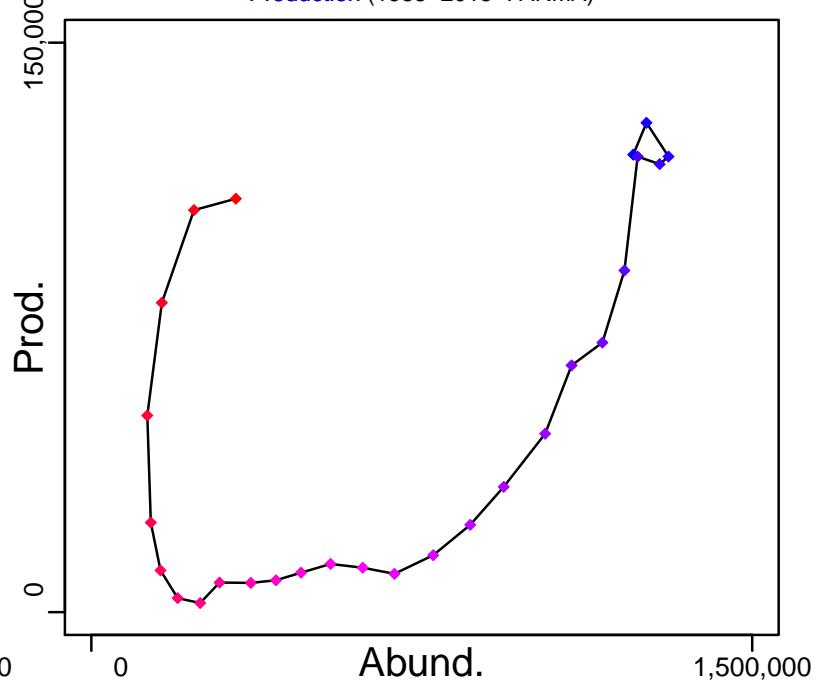
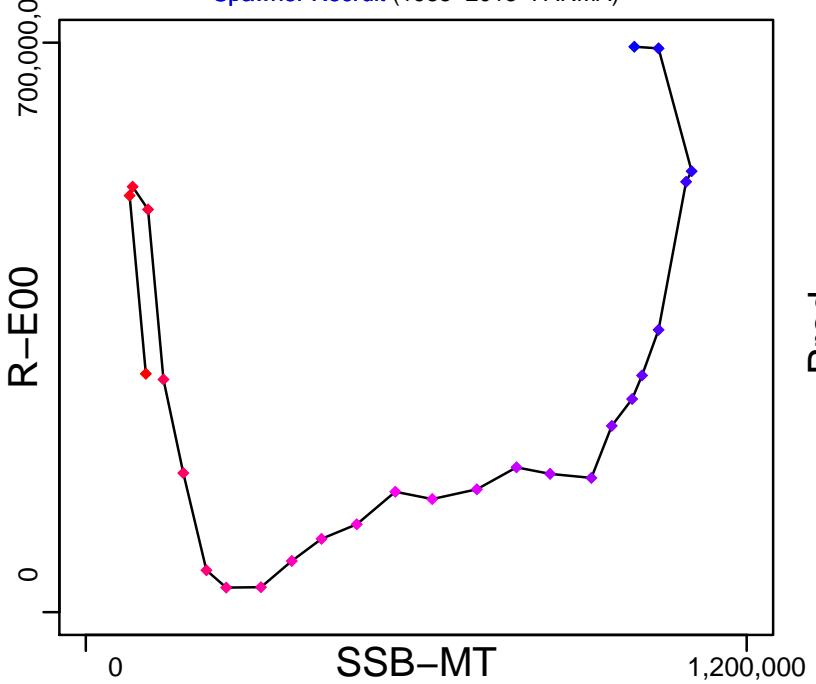
Kobe MSYpref (1985–2015–PARMA)

Kobe MGTPref (1985–2015–PARMA)



Spawner Recruit (1985–2015–PARMA)

Production (1985–2015–PARMA)

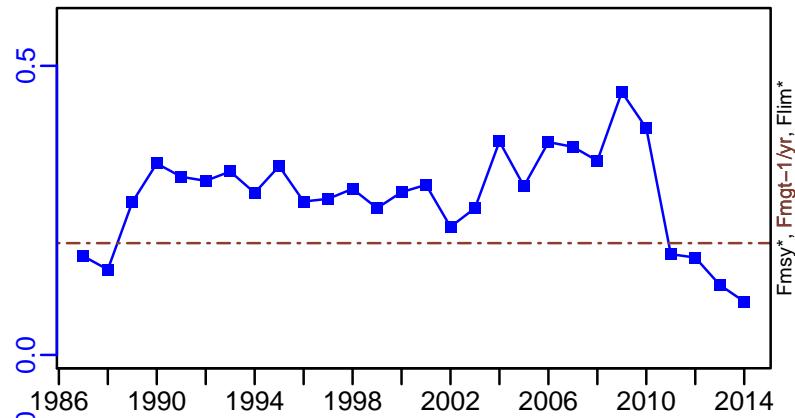
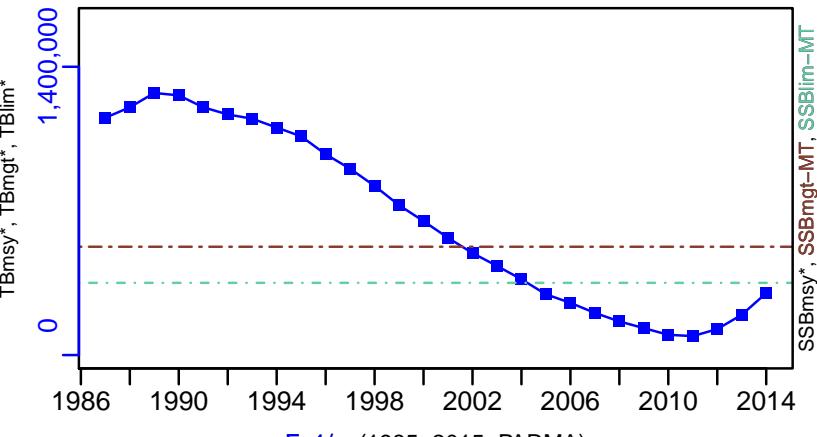
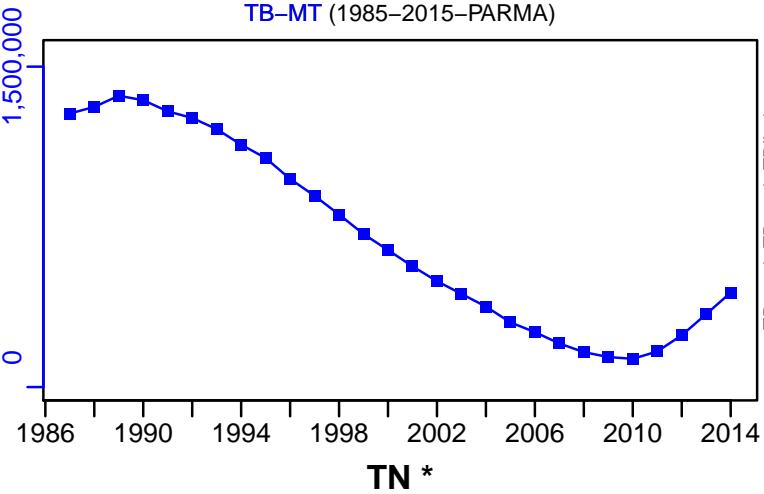


◆ Start Year ◆ End Year * No Data

Southern blue whiting Southern Argentina [SBWHITARGS]

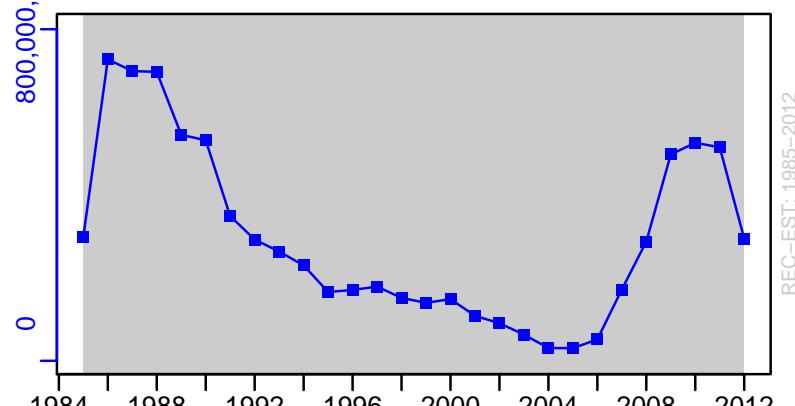
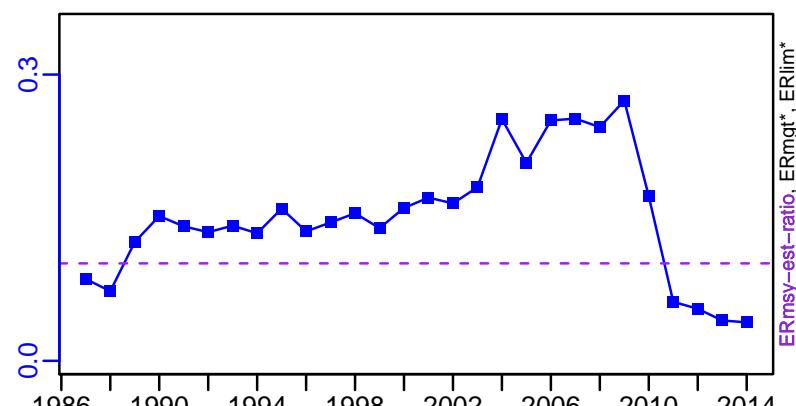
TB-MT (1985–2015-PARMA)

SSB-MT (1985–2015-PARMA)



ER-calc-ratio (1985–2015-PARMA)

R-E00 (1985–2015-PARMA)

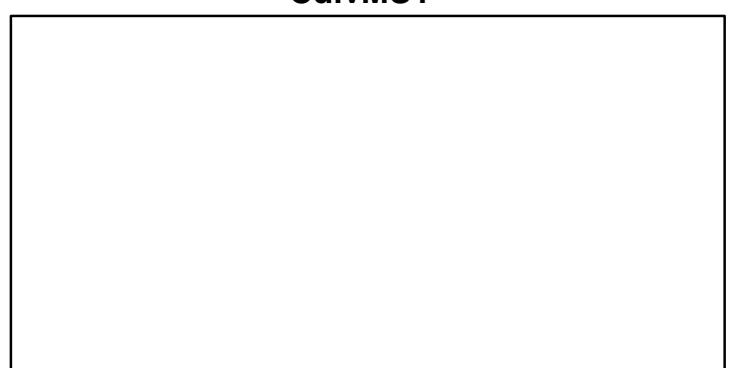
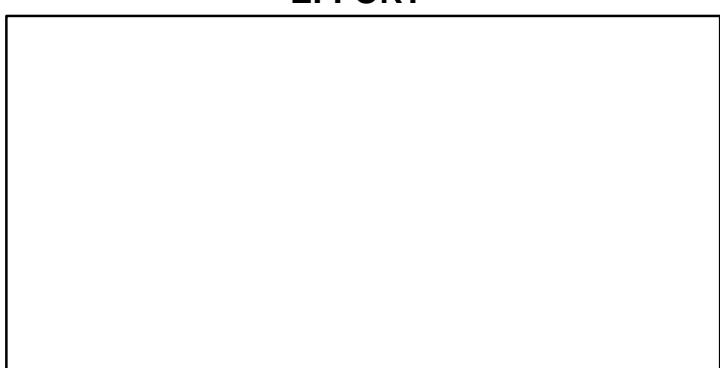
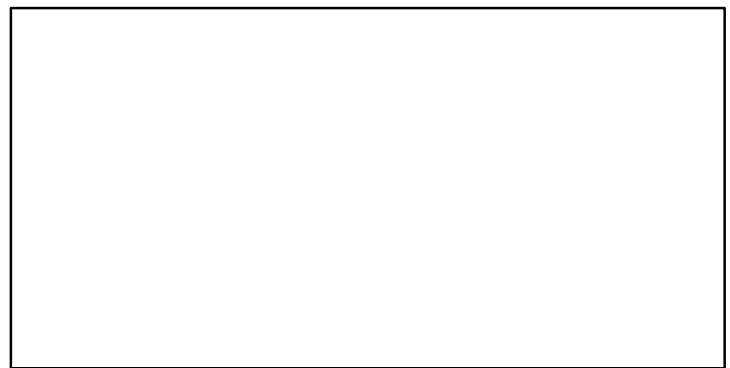
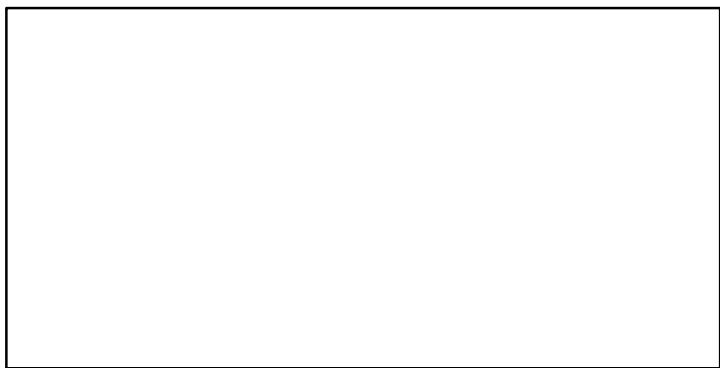
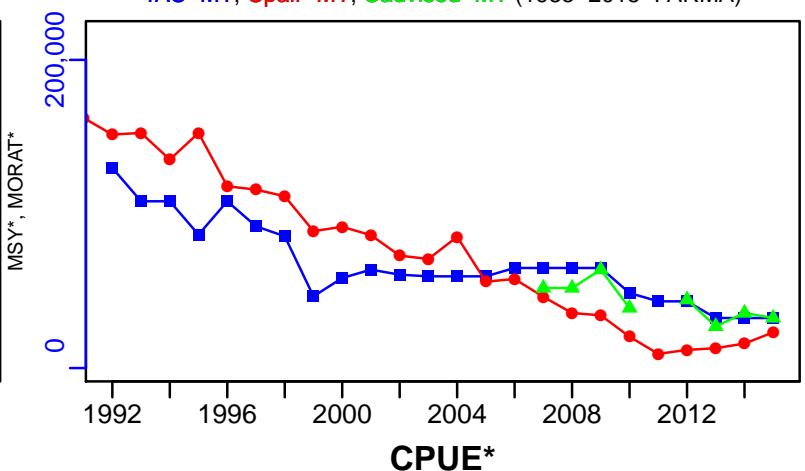
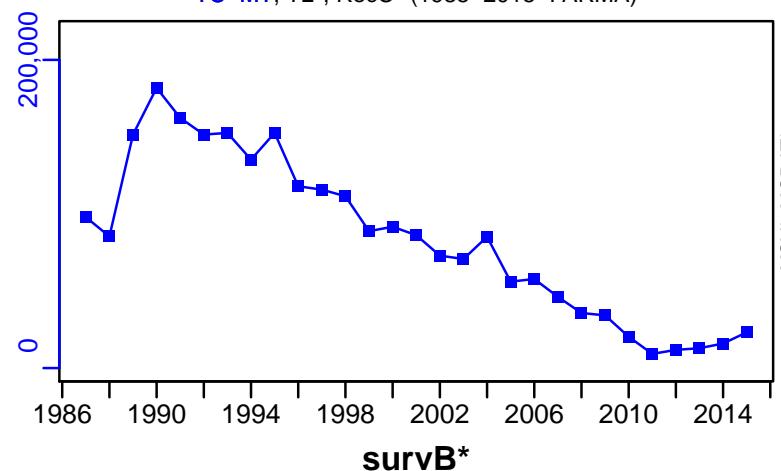


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - - Lim BRP	* No Data

Southern blue whiting Southern Argentina [SBWHITARGS]

TC-MT, TL*, RecC* (1985–2015-PARMA)

TAC-MT, Cpair-MT, Cadvised-MT (1985–2015-PARMA)



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

Southern blue whiting Central-Southern Chile [SBWHITCH]

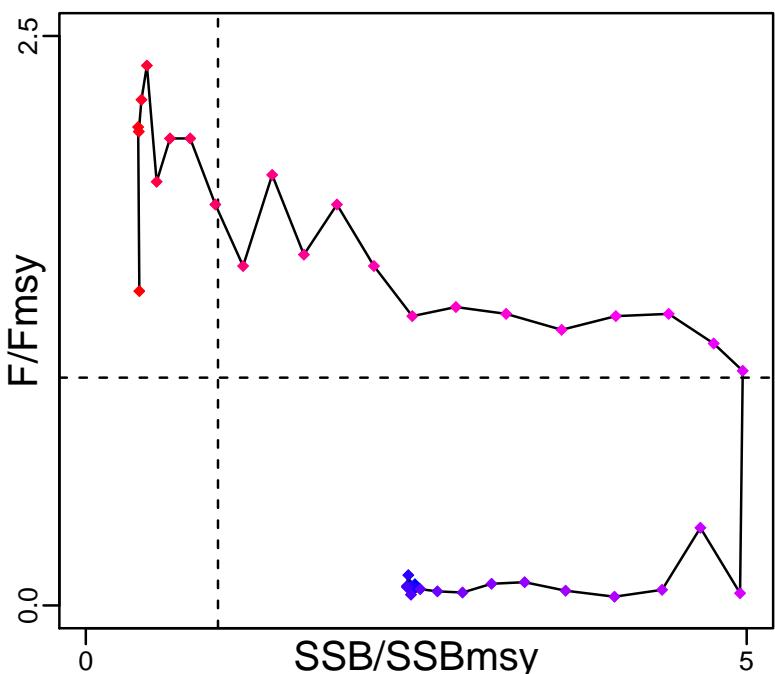
Metadata	
Scientific Name	Micromesistius australis
Current Assess ID	IFOPCH-SBWHITCH-1977-2016-PARMA
Area	Central-Southern Chile
Management Authority	Subsecretaria de Pesca
Assessor	Instituto de Fomento Pesquero - Chilean Fisheries Development Institute
Asmts in RAM	2015, 2016, 2012

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-est-MT	2012	500,079
SSBmsy	SSBmsy-pr-MT	2016	160,606
Fmsy	Fmsy-extr-1/yr	2016	0.132
ERmsy	ERmsy-est-ratio	2016	0.014
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2016	160,606
Fmgt	Fmgt-1/yr	2015	0.2
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2016	401,516
MSY	MSY-est-MT	2016	3126
M	M-1/yr	2016	0.18
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

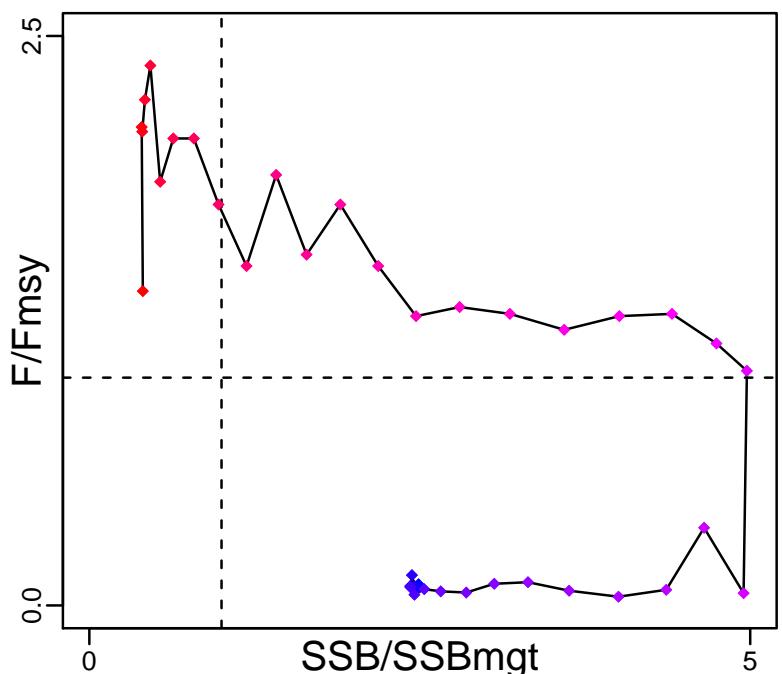
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2016	159,000	Both	-	
SSB	SSB-MT	2016	65,000	Both	-	
TN	-	-	-	-	-	
R	R-E00	2016	94,900	-	-	
F	F-1/yr	2016	0.183	Both	-	
ER	ER-calc-ratio	2016	0.086	-	-	
TC	TC-MT	2016	13,900			
TL	TL-MT	2015	16,600			
TB/TBmsy	TB-MT/TBmsy-est-MT	2012	1.238			
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2016	0.405			
F/Fmsy	FdivFmsy-dimensionless	2016	1.38			
ER/ERmsy	ER-calc-ratio/ERmsy-est-ratio	2016	6.313			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2016	0.405			
F/Fmgt	F-1/yr/Fmgt-1/yr	2015	1.02			
ER/ERmgt	-	-	-			

Southern blue whiting Central–Southern Chile [SBWHITCH]

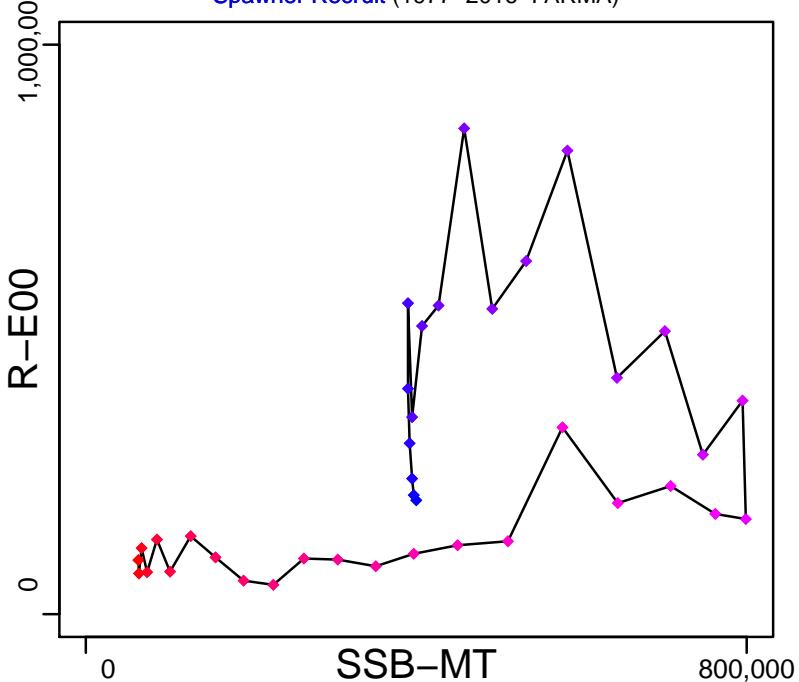
Kobe MSYpref (1977–2016–PARMA)



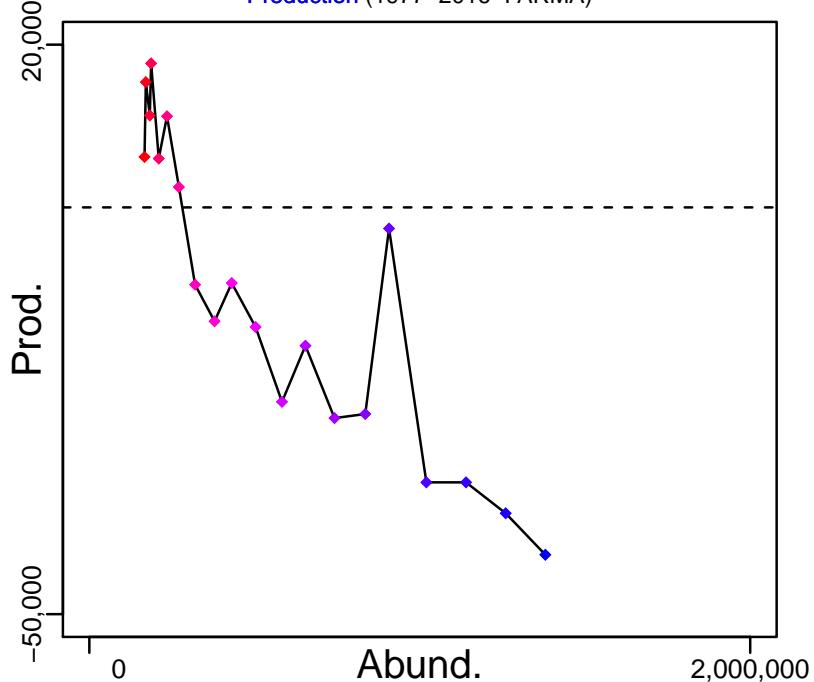
Kobe MGTPref (1977–2016–PARMA)



Spawner Recruit (1977–2016–PARMA)



Production (1977–2016–PARMA)

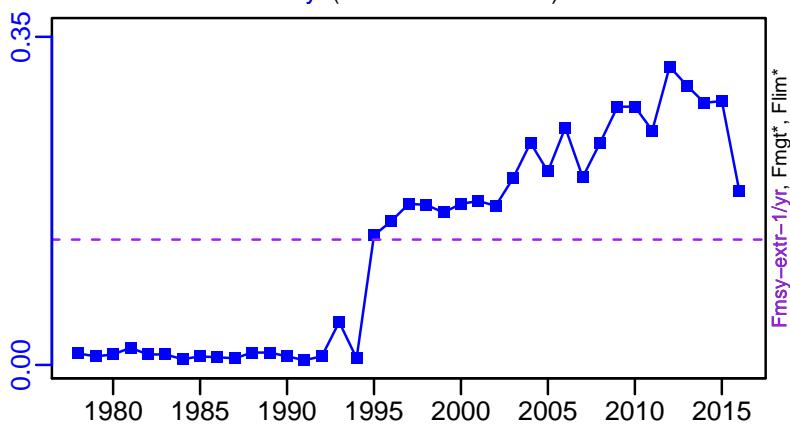
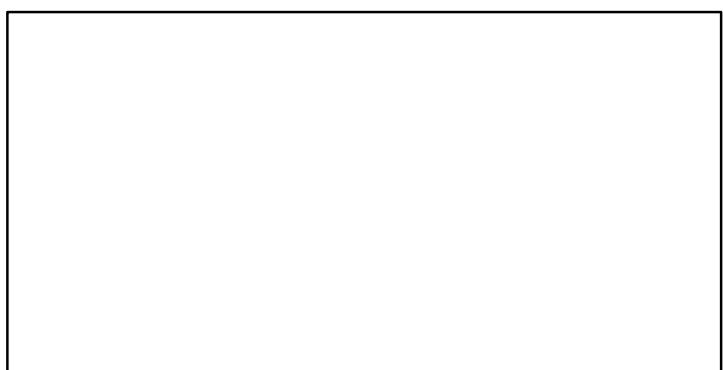
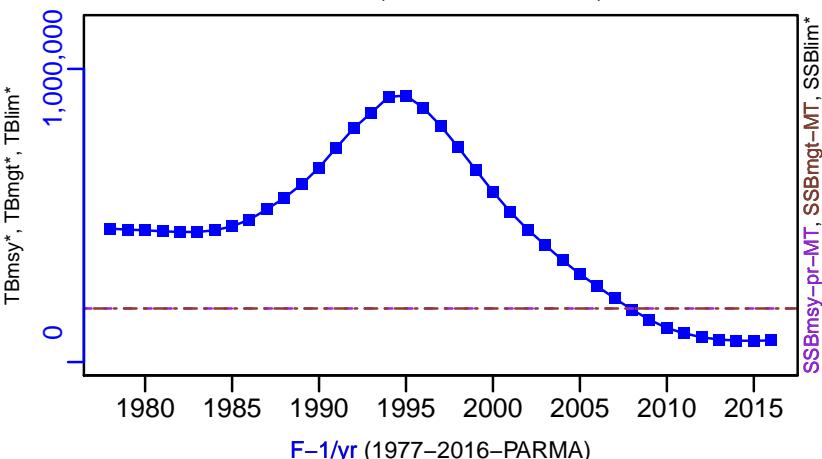
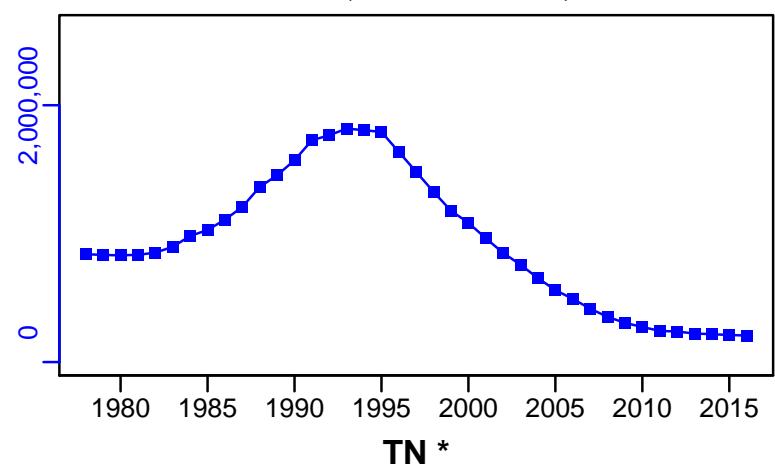


◆ Start Year ◆ End Year * No Data

Southern blue whiting Central–Southern Chile [SBWHITCH]

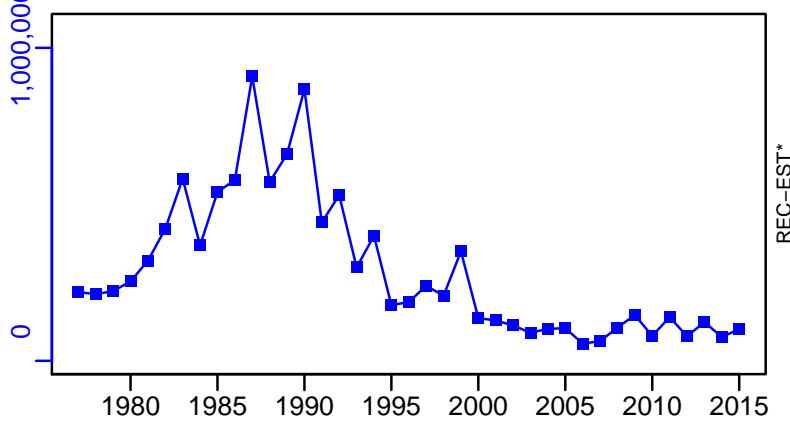
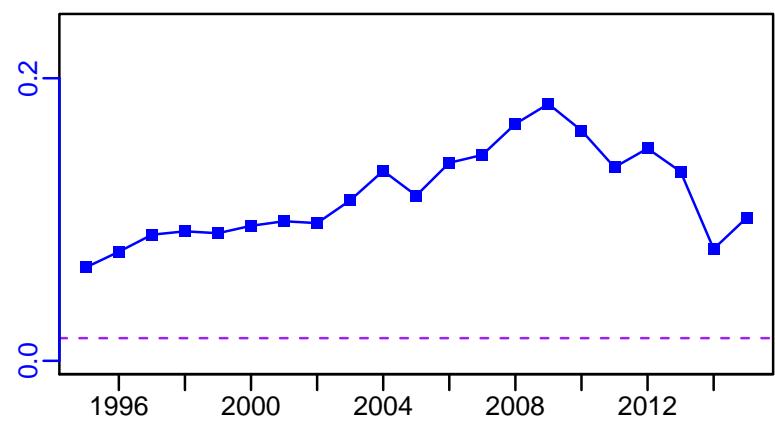
TB-MT (1977–2016-PARMA)

SSB-MT (1977–2016-PARMA)



ER-calc-ratio (1977–2016-PARMA)

R-E00 (1977–2016-PARMA)

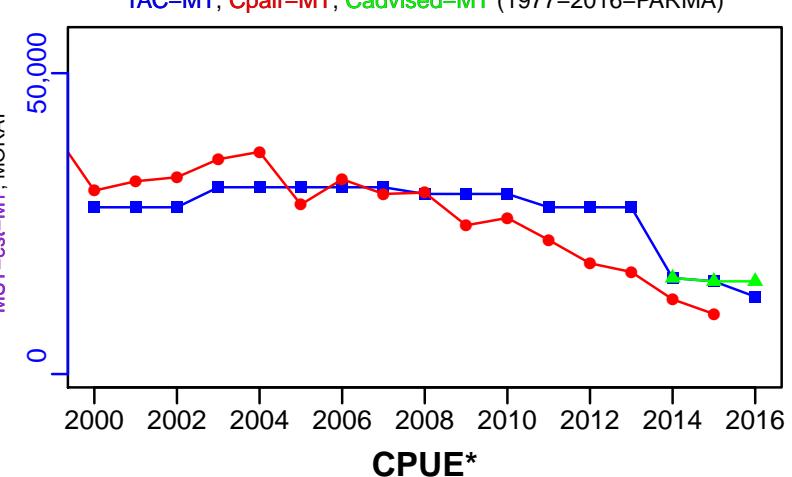
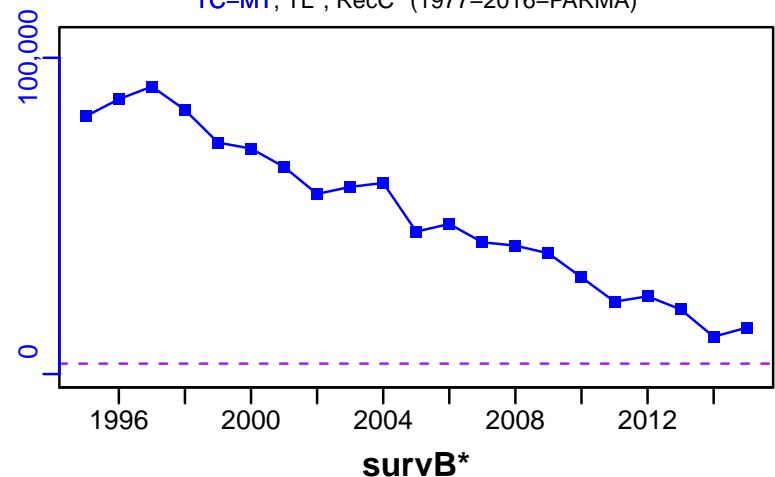


■ Listed time series	— Target BRP	— Rec-Est
- MSY-based BRP	- Lim BRP	* No Data

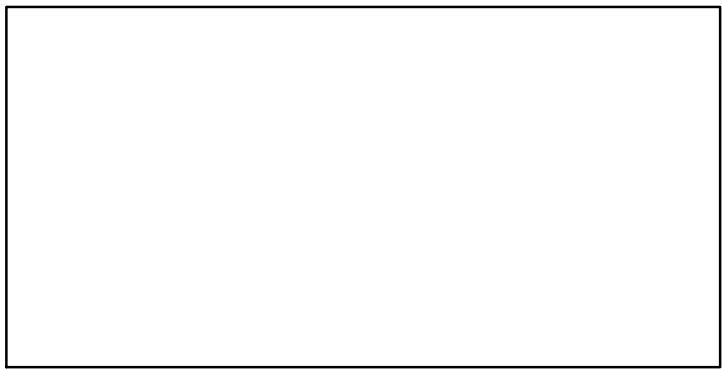
Southern blue whiting Central–Southern Chile [SBWHITCH]

TC-MT, TL*, RecC* (1977–2016-PARMA)

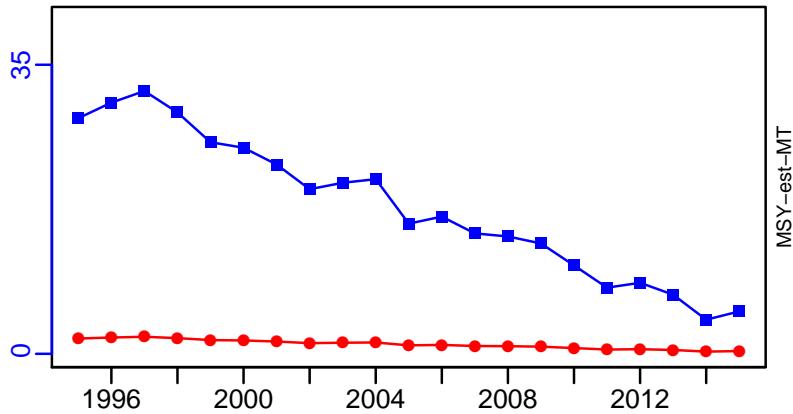
TAC-MT, Cpair-MT, Cadvised-MT (1977–2016-PARMA)



EFFORT*



TC-MT/MSY-est-MT, CdivMEANC-ratio, (1977–2016-PARMA)



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

Southern hake Central-Southern Chile [SOUTHHAKECH]

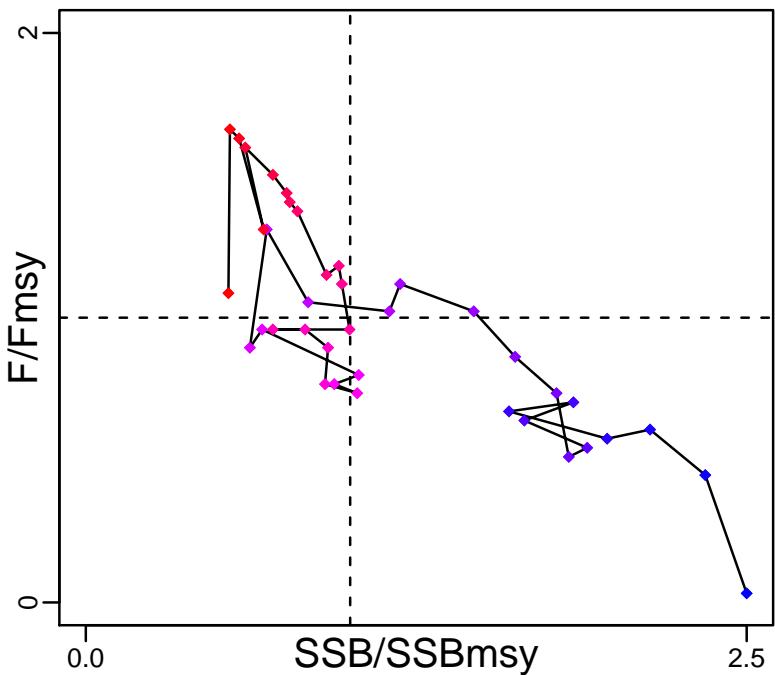
Metadata	
Scientific Name	Merluccius australis
Current Assess ID	IFOPCH-SOUTHHAKECH-1977-2015-PARMA
Area	Central-Southern Chile
Management Authority	Subsecretaria de Pesca
Assessor	Instituto de Fomento Pesquero - Chilean Fisheries Development Institute
Asmts in RAM	2011, 2015

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-est-MT	2011	453,772
SSBmsy	SSBmsy-pr-MT	2015	172,400
Fmsy	Fmsy-pr-1/yr	2015	0.313
ERmsy	ERmsy-est-ratio	2015	0.036
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2015	172,400
Fmgt	Fmgt-1/yr	2015	0.313
ERmgt	-	-	-
TB0	TB0-MT	2015	940,000
SSB0	SSB0-MT	2015	431,000
MSY	MSY-est-MT	2015	19,375
M	M-1/yr	2015	0.21
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

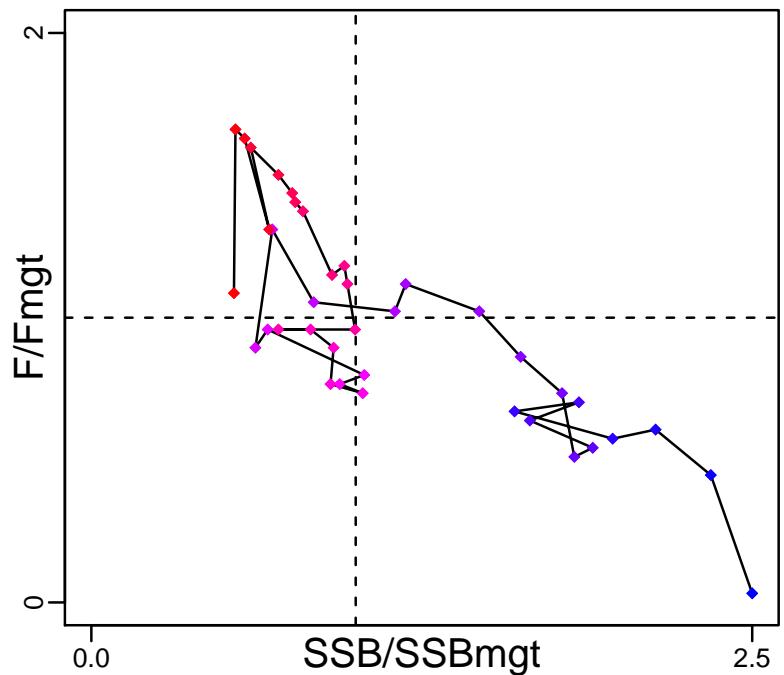
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2015	294,000	-	-	
SSB	SSB-MT	2015	93,000	-	-	
TN	-	-	-	-	-	
R	R-E00	2015	8.5×10^7	Both	1	
F	F-1/yr	2015	0.34	Both	-	
ER	ER-calc-ratio	2015	0.058	-	-	
TC	TC-MT	2015	22,800			
TL	TL-MT	2015	16,200			
TB/TBmsy	TB-MT/(TB0-MT*0.368)	2015	0.85			
SSB/SSBmsy	SSB-MT/SSBmsy-pr-MT	2015	0.539			
F/Fmsy	F-1/yr/Fmsy-pr-1/yr	2015	1.086			
ER/ERmsy	ER-calc-ratio/ERmsy-est-ratio	2015	1.615			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2015	0.539			
F/Fmgt	F-1/yr/Fmgt-1/yr	2015	1.086			
ER/ERmgt	-	-	-			

Southern hake Central–Southern Chile [SOUTHHAKECH]

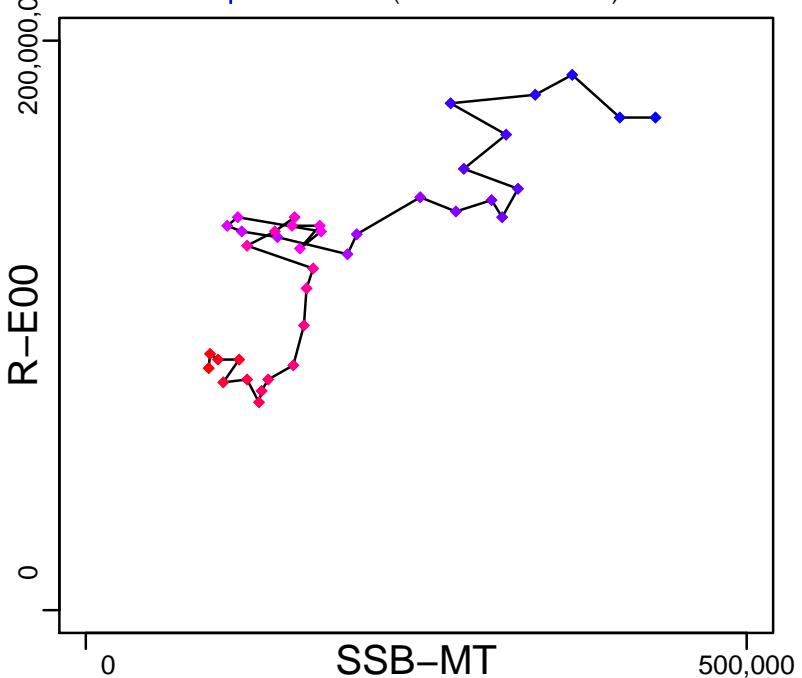
Kobe MSYpref (1977–2015–PARMA)



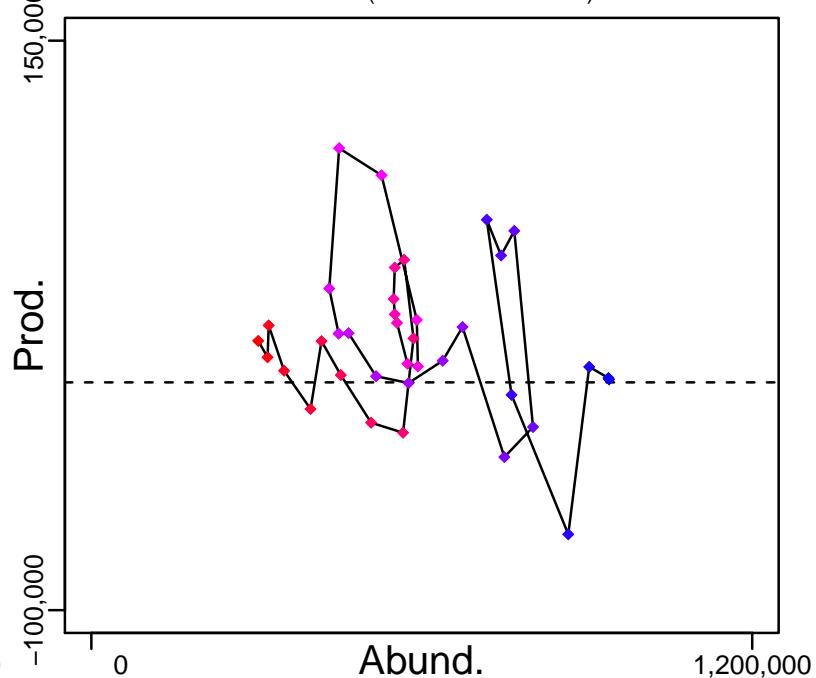
Kobe MGTPref (1977–2015–PARMA)



Spawner Recruit (1977–2015–PARMA)



Production (1977–2015–PARMA)

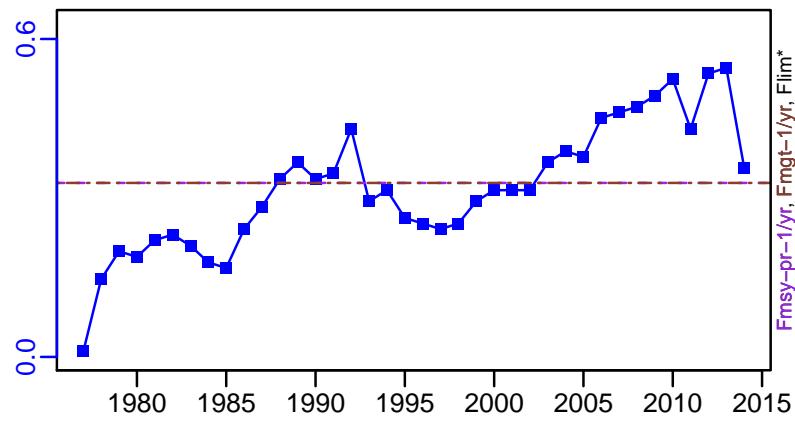
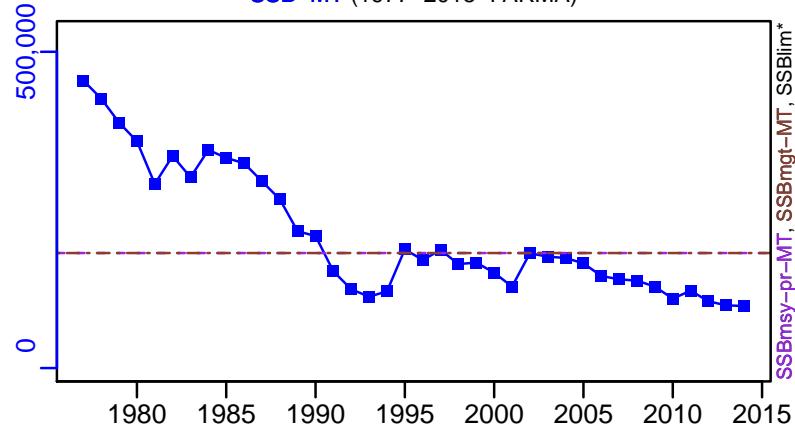
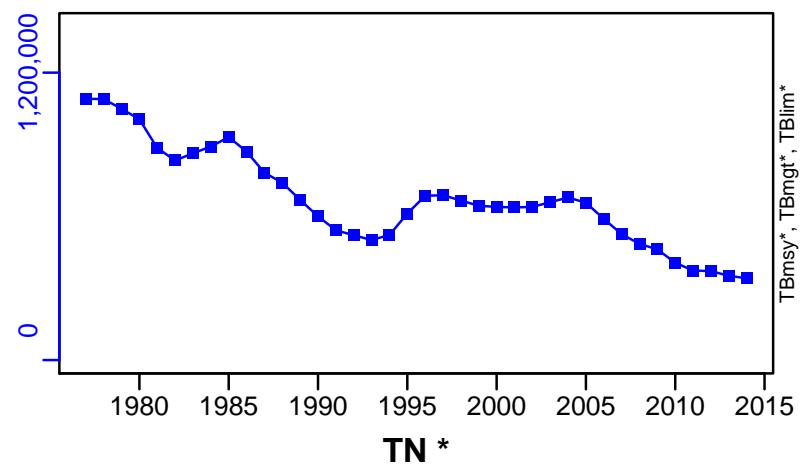


◆ Start Year ◆ End Year * No Data

Southern hake Central–Southern Chile [SOUTHHAKECH]

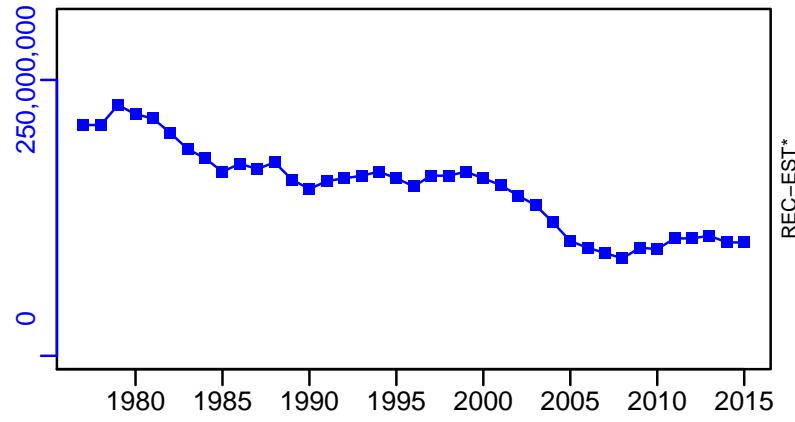
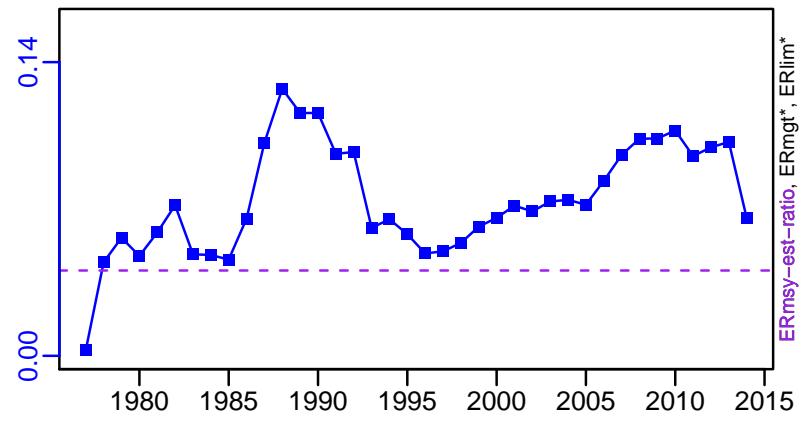
TB-MT (1977–2015-PARMA)

SSB-MT (1977–2015-PARMA)



ER-calc-ratio (1977–2015-PARMA)

R-E00 (1977–2015-PARMA)

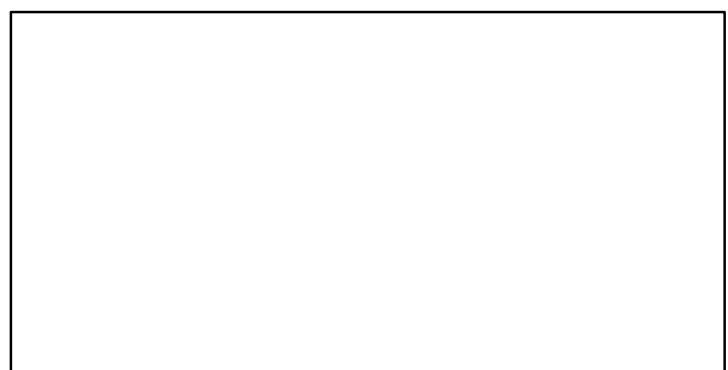
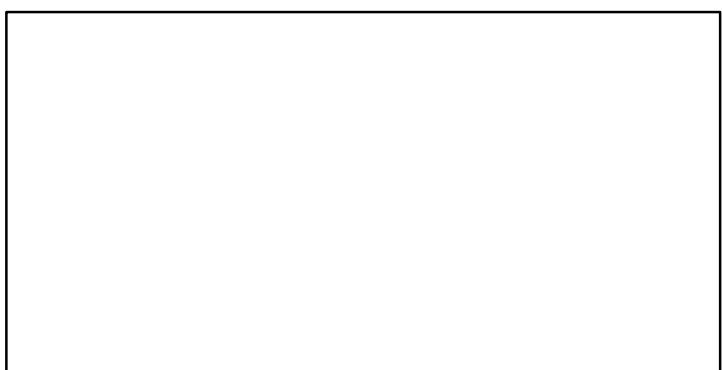
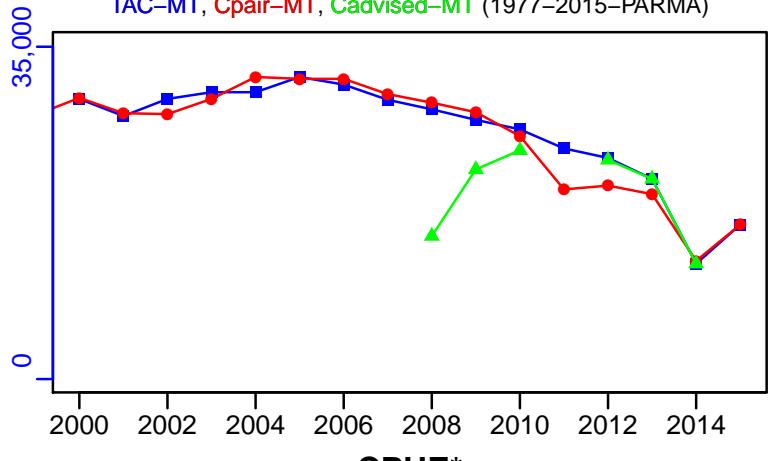
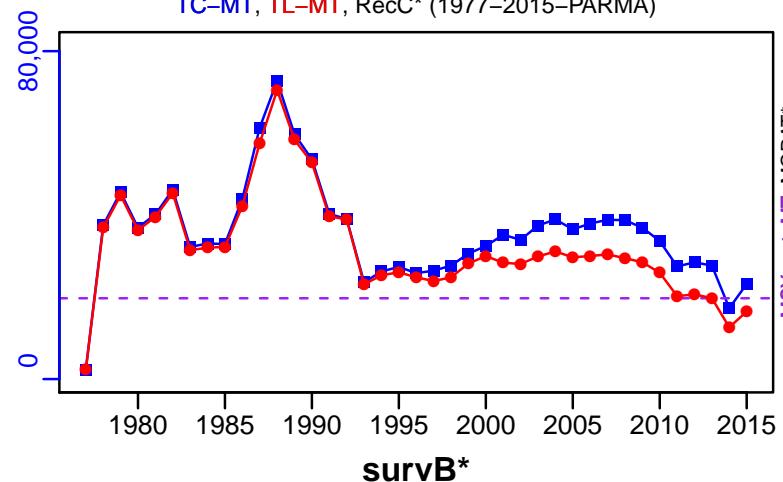


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	--- Lim BRP	* No Data

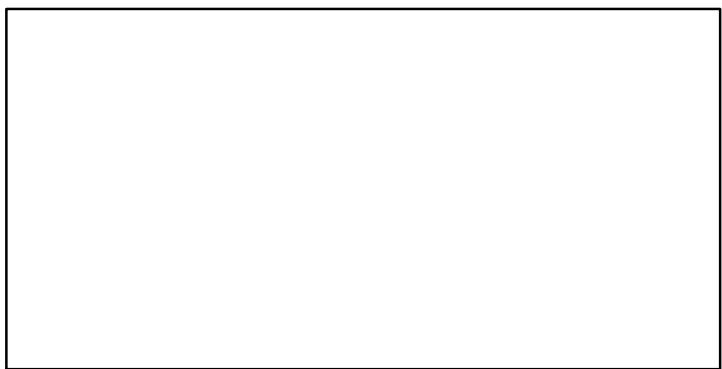
Southern hake Central–Southern Chile [SOUTHHAKECH]

TC-MT, TL-MT, RecC* (1977–2015-PARMA)

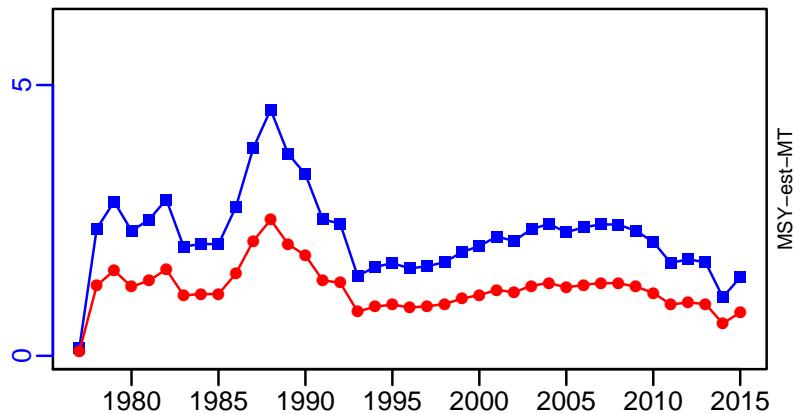
TAC-MT, Cpair-MT, Cadvised-MT (1977–2015-PARMA)



EFFORT*



TC-MT/MSY-est-MT, CdivMEANC-ratio, (1977–2015-PARMA)



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

South Pacific hake Central-Southern Chile [SPHAKECH]

Metadata	
Scientific Name	Merluccius gayi
Current Assess ID	IFOPCH-SPHAKECH-1940-2015-TASCHERI
Area	Central-Southern Chile
Management Authority	Subsecretaria de Pesca
Assessor	Instituto de Fomento Pesquero - Chilean Fisheries Development Institute
Asmts in RAM	2015, 2012

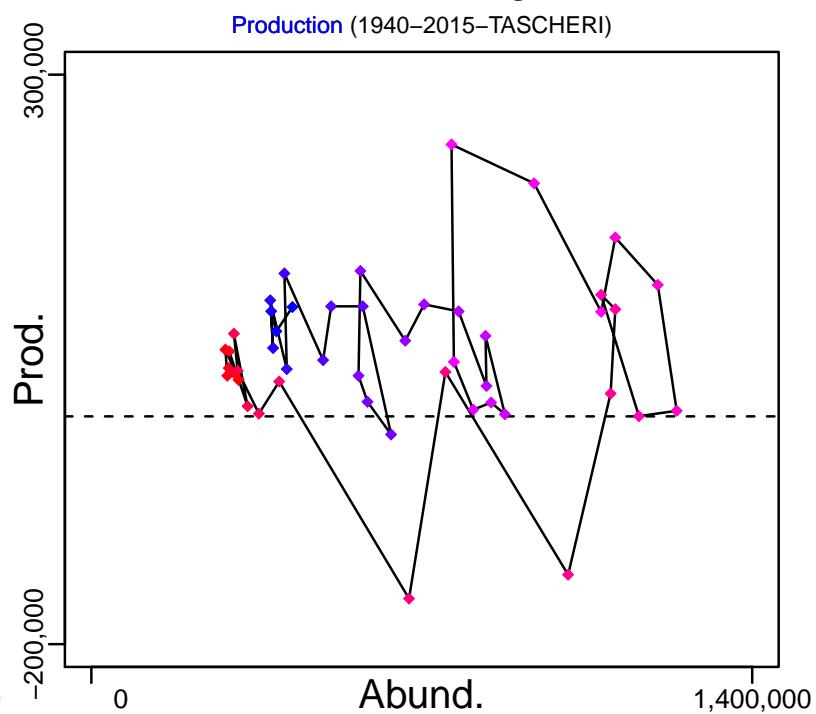
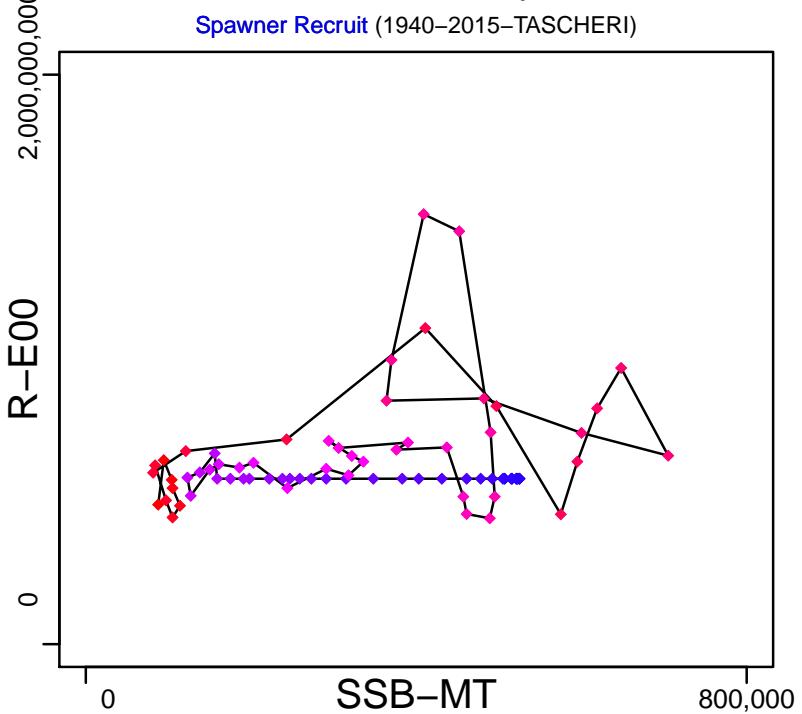
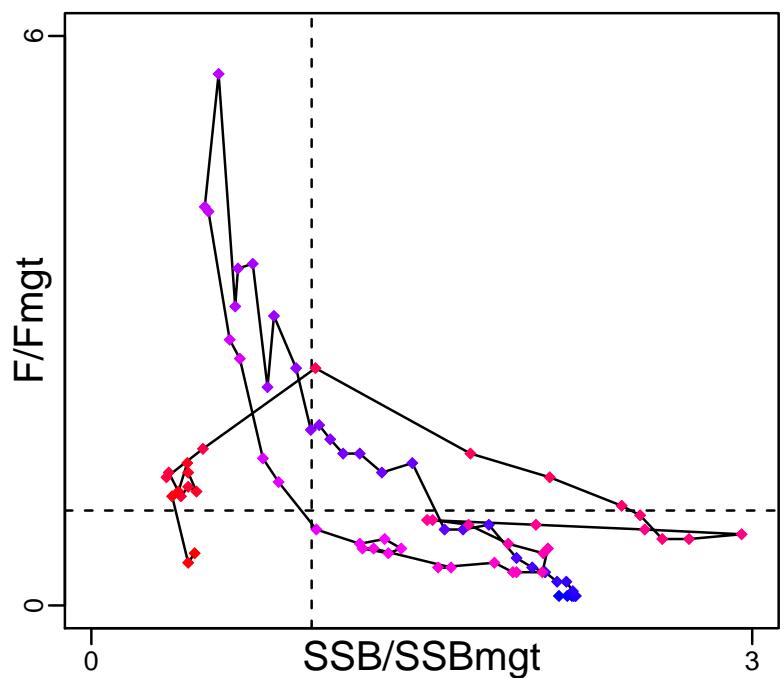
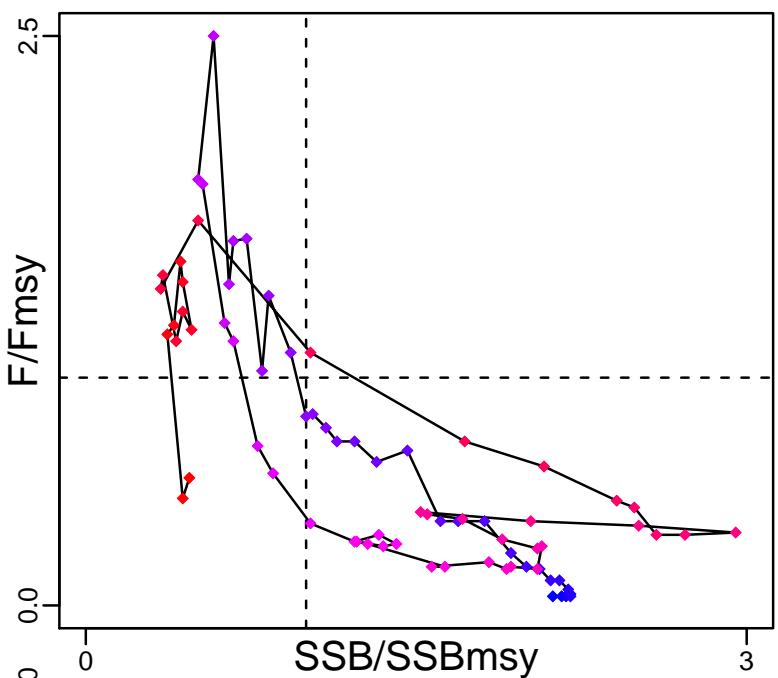
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-est-MT	2012	1,061,146
SSBmsy	SSBmsy-pr-MT	2015	238,840
Fmsy	Fmsy-pr-1/yr	2015	0.2
ERmsy	ERmsy-est-ratio	2015	0.117
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2015	238,840
Fmgt	Fmgt-1/yr	2015	0.2
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2015	597,100
MSY	MSY-est-MT	2015	60.524
M	M-1/yr	2015	0.33
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2015	326,000	Both	2+	
SSB	SSB-MT	2015	112,000	-	2+	
TN	-	-	-	-	-	
R	R-E00	2015	4.9×10^8	-	2	
F	F-1/yr	2015	0.11	-	-	
ER	ER-ratio	2015	0.08	-	-	
TC	-	-	-			
TL	TL-MT	2015	19,300			
TB/TBmsy	TB-MT/TBmsy-est-MT	2012	0.326			
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2015	0.47			
F/Fmsy	FdivFmsy-dimensionless	2015	0.56			
ER/ERmsy	ER-ratio/ERmsy-est-ratio	2015	0.681			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2015	0.469			
F/Fmgt	F-1/yr/Fmgt-1/yr	2015	0.55			
ER/ERmgt	-	-	-			

South Pacific hake Central–Southern Chile [SPHAKECH]

Kobe MSYpref (1940–2015–TASCHERI)

Kobe MGTPref (1940–2015–TASCHERI)

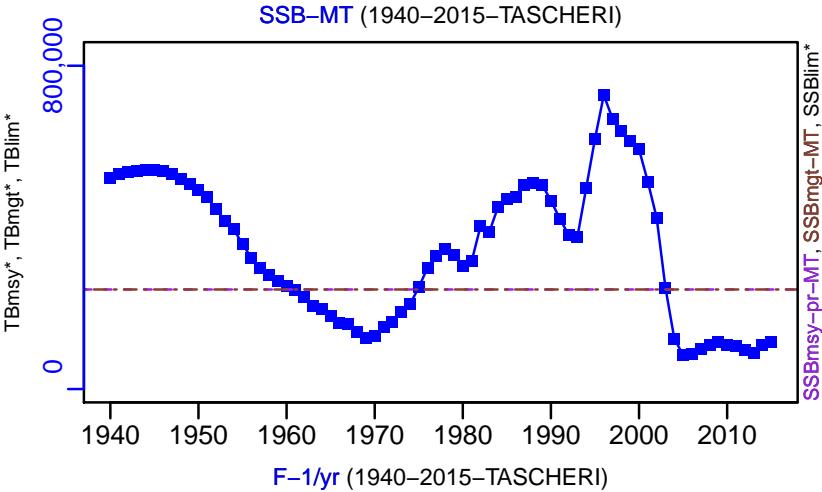
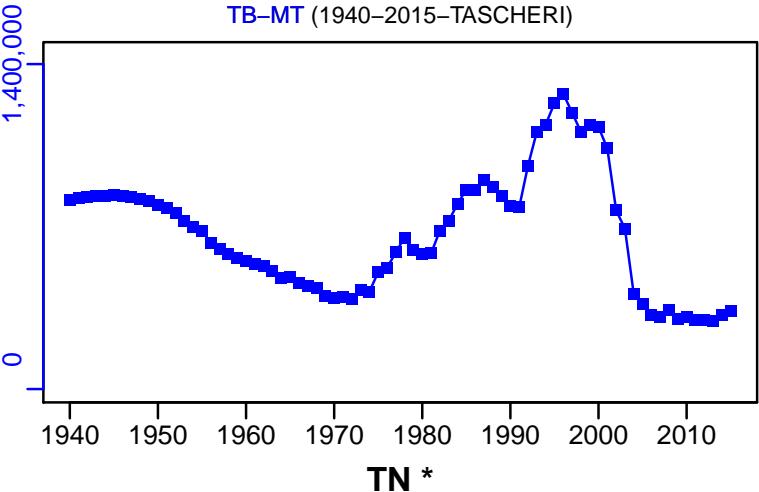


◆ Start Year ♦ End Year * No Data

South Pacific hake Central–Southern Chile [SPHAKECH]

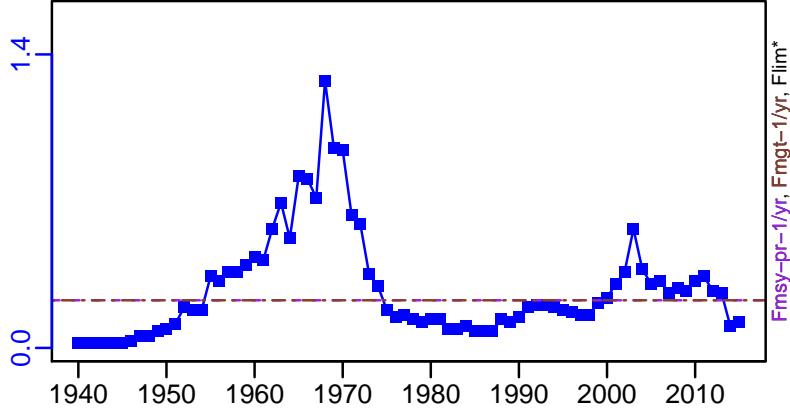
TB-MT (1940–2015–TASCHERI)

SSB-MT (1940–2015–TASCHERI)



TN *

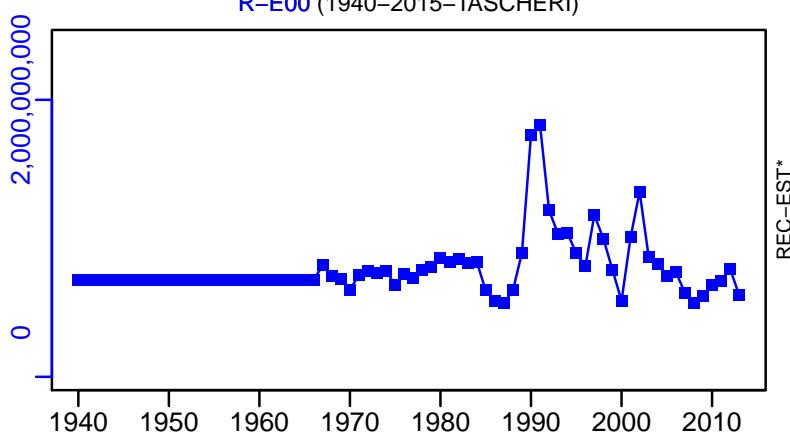
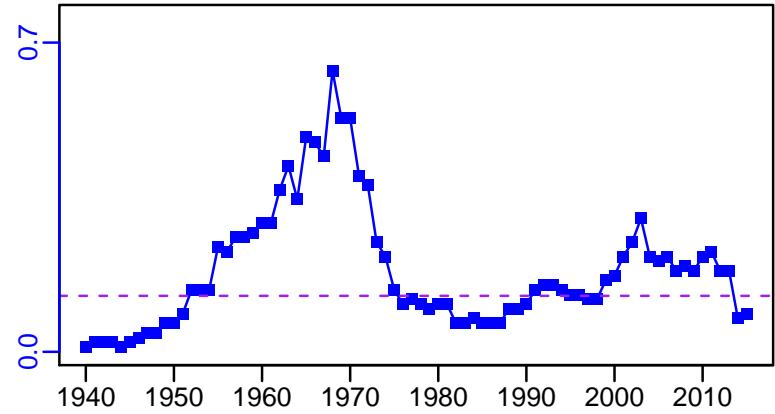
F-1/yr (1940–2015–TASCHERI)



Fmsy-pr-1/yr, Fmgt-1/yr, Flim*

ER-ratio (1940–2015–TASCHERI)

R-E00 (1940–2015–TASCHERI)



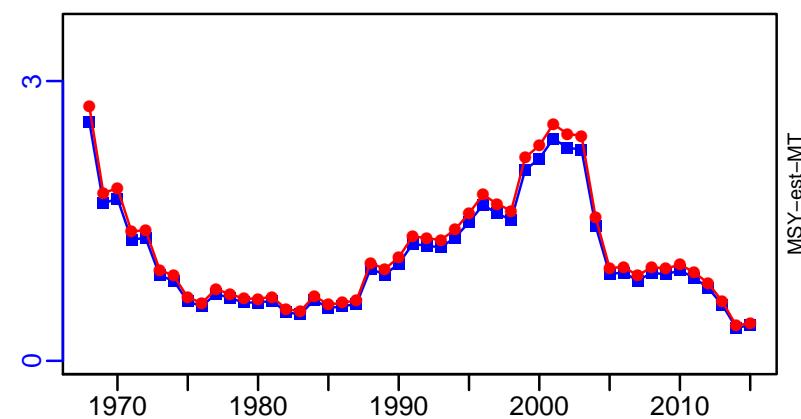
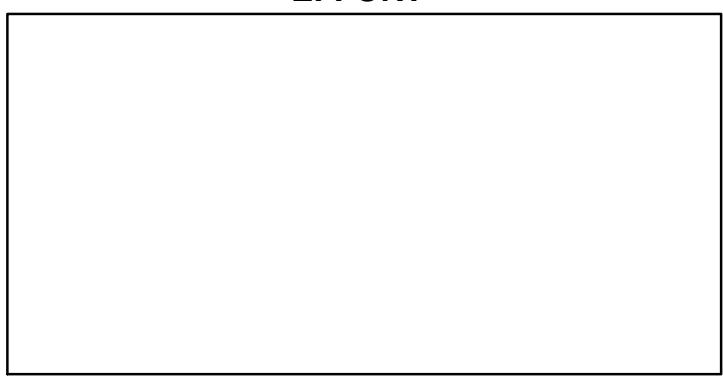
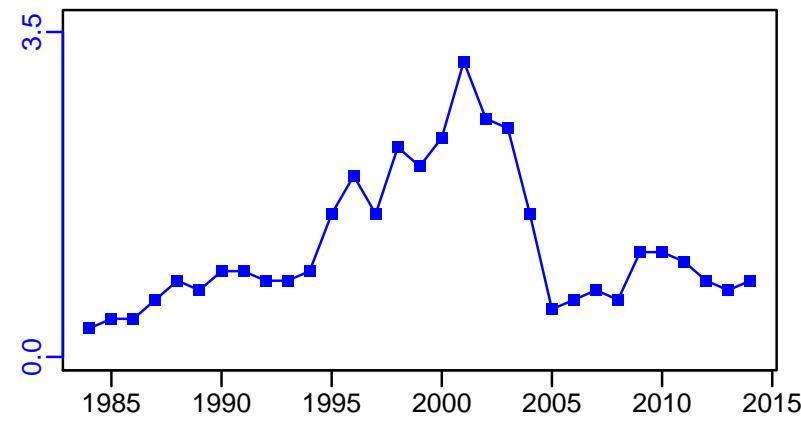
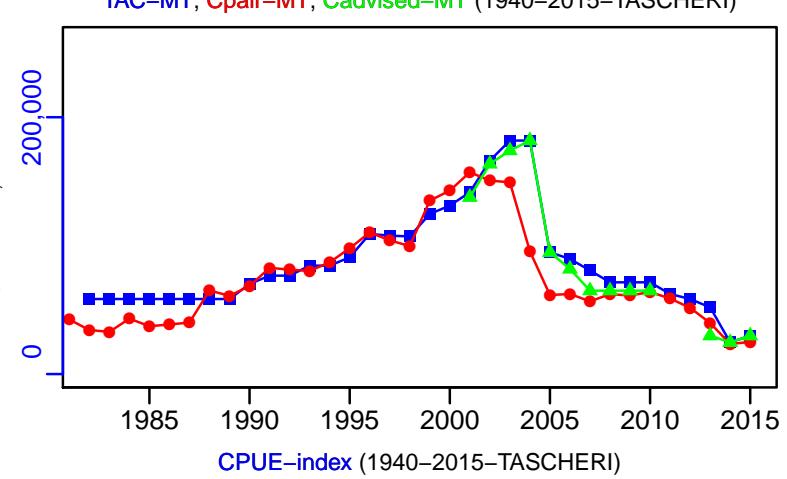
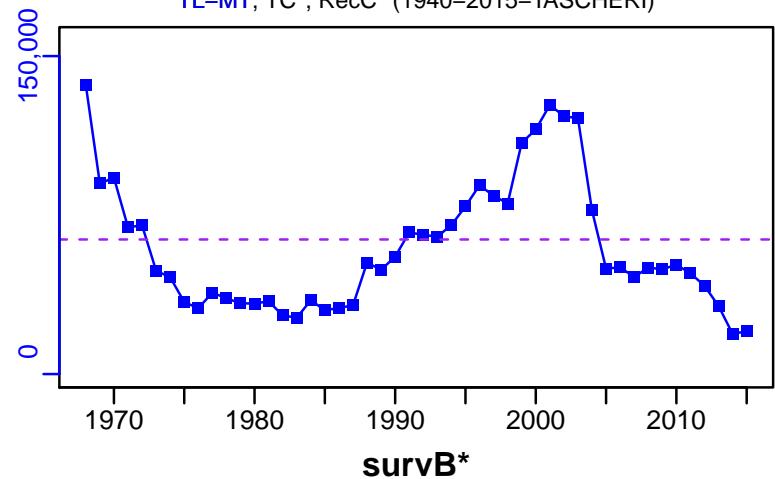
REC-EST*

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

South Pacific hake Central–Southern Chile [SPHAKECH]

TL-MT, TC*, RecC* (1940–2015–TASCHERI)

TAC-MT, Cpair-MT, Cadvised-MT (1940–2015–TASCHERI)



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

Southern sardine Central-Southern Chile [SSARDCH]

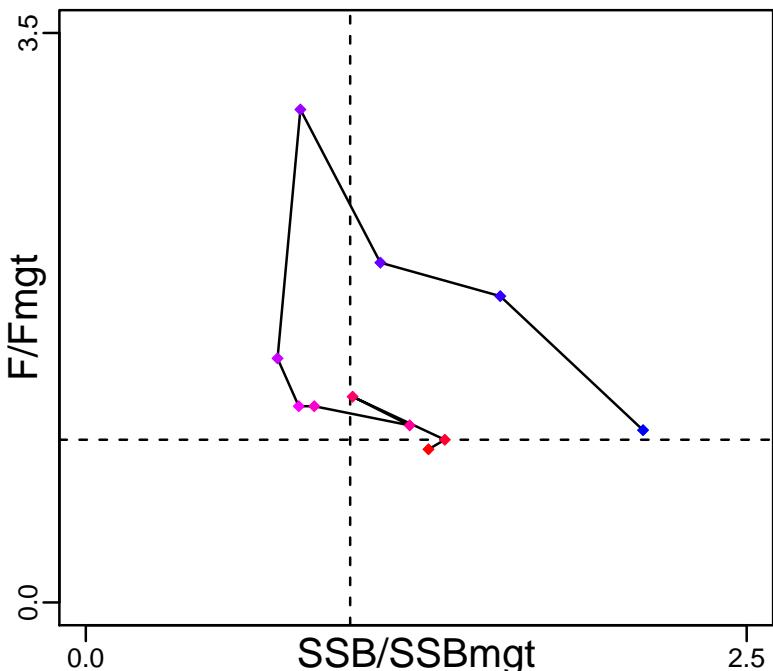
Metadata	
Scientific Name	Sprattus fuegensis
Current Assess ID	IFOPCH-SSARDCH-2006-2016-PARMA
Area	Central-Southern Chile
Management Authority	Subsecretaria de Pesca
Assessor	Instituto de Fomento Pesquero - Chilean Fisheries Development Institute
Asmts in RAM	2012, 2016

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-est-MT	2012	365,955
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	ERmsy-est-ratio	2016	0.198
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2016	32,400
Fmgt	Fmgt-1/yr	2016	0.34
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-est-MT	2012	32,796
M	M-1/yr	2016	1.1
TBlim	-	-	-
SSBLim	-	-	-
Flim	-	-	-
ERlim	-	-	-

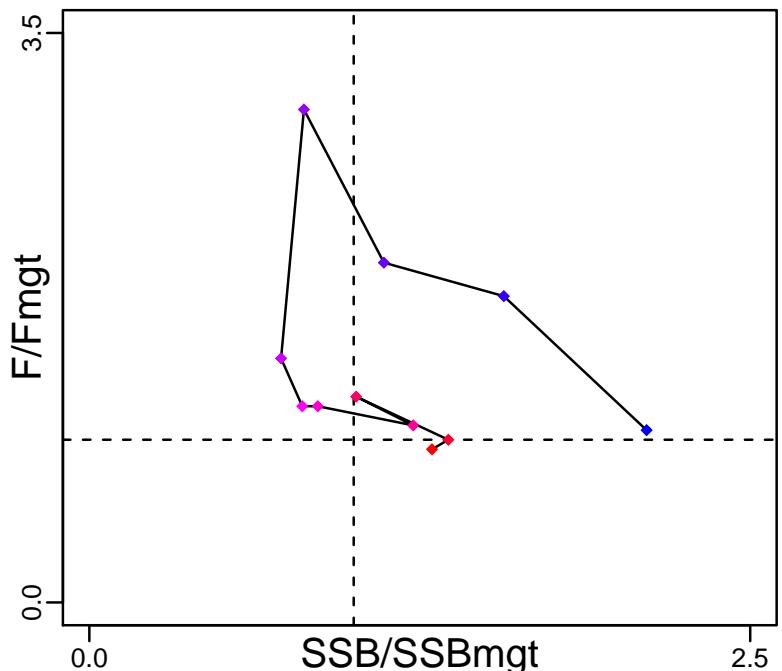
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2016	140,000	-	-	
SSB	SSB-MT	2016	42,000	-	-	
TN	-	-	-	-	-	
R	R-E00	2016	8,080,000	-	-	
F	F-1/yr	2016	0.32	-	-	
ER	ER-calc-ratio	2016	0.143	-	-	
TC	TC-MT	2012	14,300			
TL	TL-MT	2016	20,000			
TB/TBmsy	TB-MT/TBmsy-est-MT	2012	0.336			
SSB/SSBmsy	-	-	-			
F/Fmsy	-	-	-			
ER/ERmsy	ER-calc-ratio/ERmsy-est-ratio	2016	0.723			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2016	1.296			
F/Fmgt	F-1/yr/Fmgt-1/yr	2016	0.941			
ER/ERmgt	-	-	-			

Southern sardine Central–Southern Chile [SSARDCH]

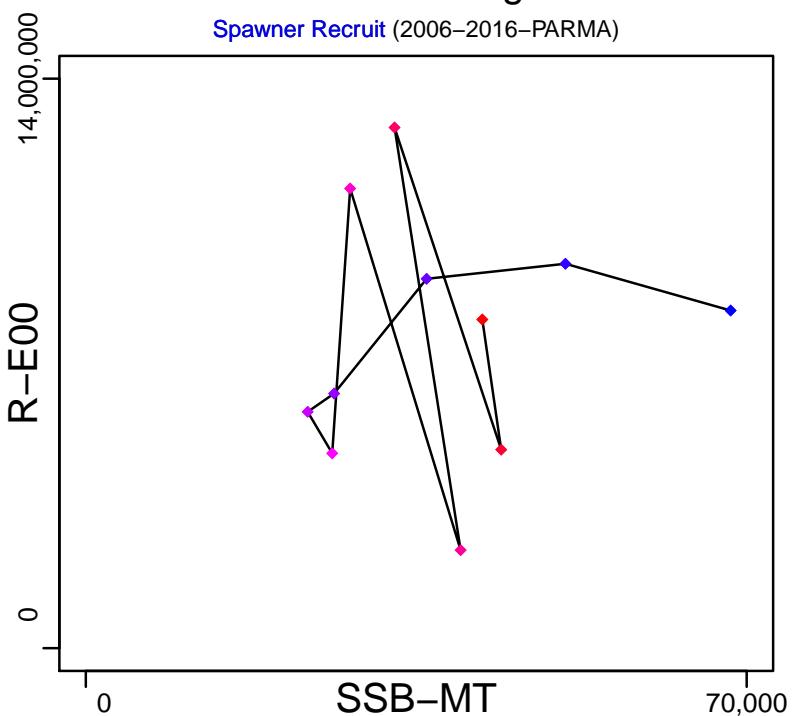
Kobe MSYpref (2006–2016–PARMA)



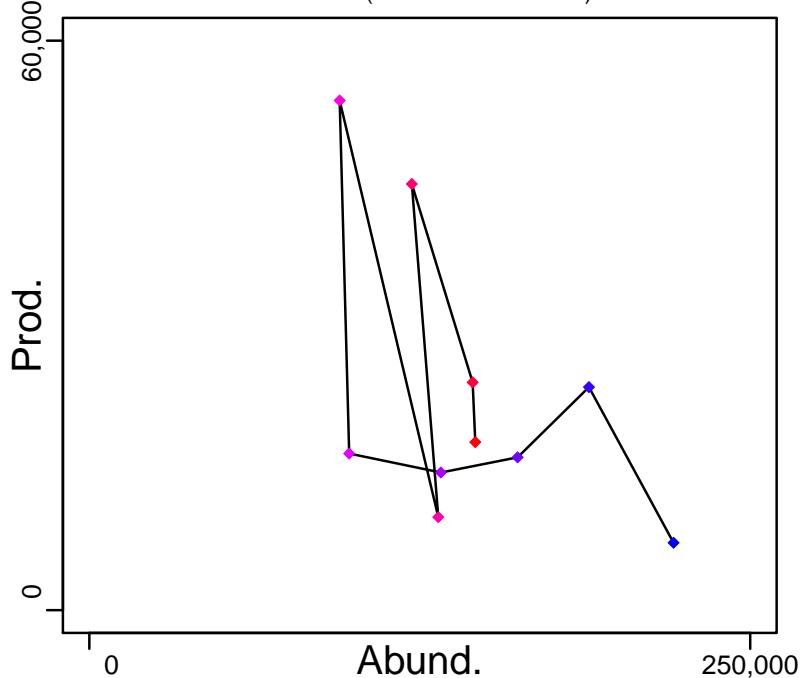
Kobe MGTPref (2006–2016–PARMA)



Spawner Recruit (2006–2016–PARMA)



Production (2006–2016–PARMA)

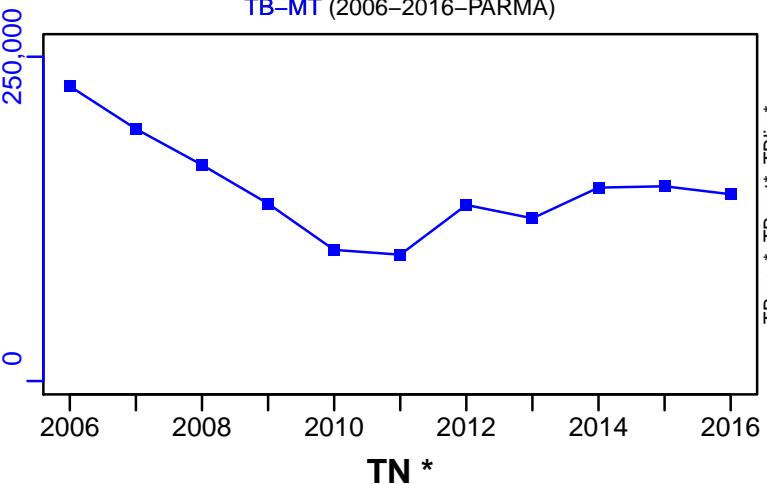


◆ Start Year ◆ End Year * No Data

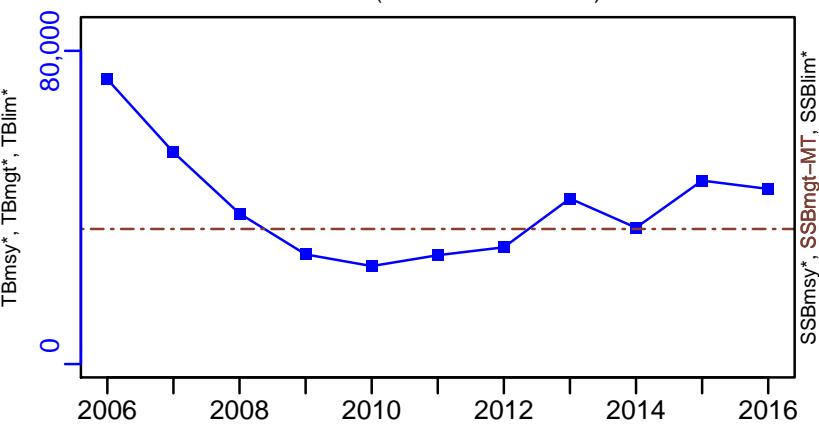
Southern sardine Central–Southern Chile [SSARDCH]

TB-MT (2006–2016-PARMA)

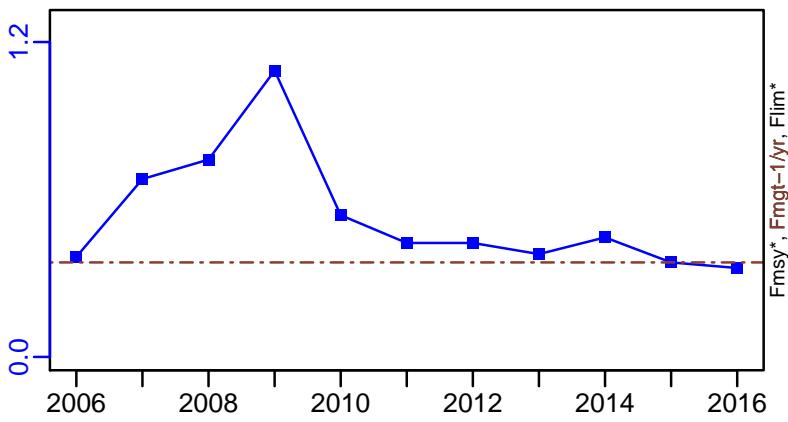
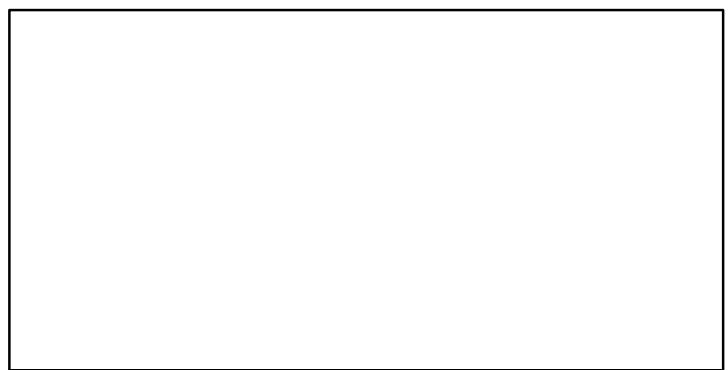
SSB-MT (2006–2016-PARMA)



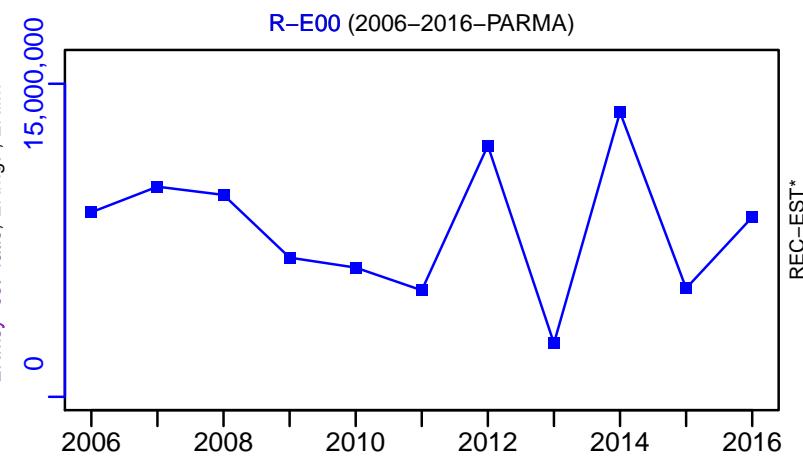
TN *



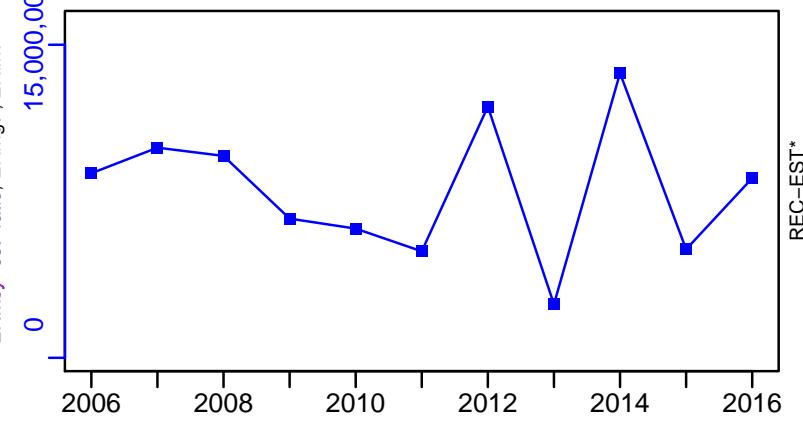
F-1/yr (2006–2016-PARMA)



ER-calc-ratio (2006–2016-PARMA)



R-E00 (2006–2016-PARMA)

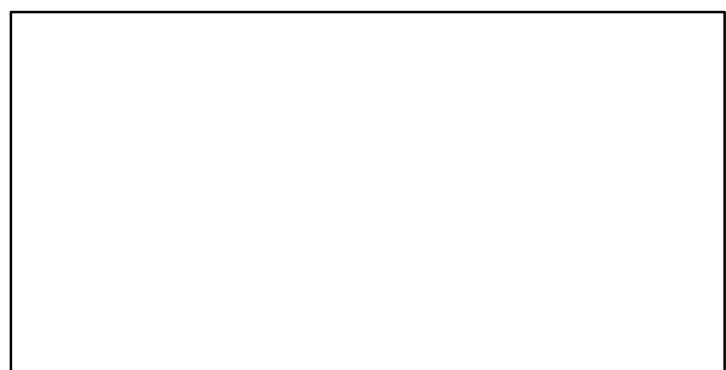
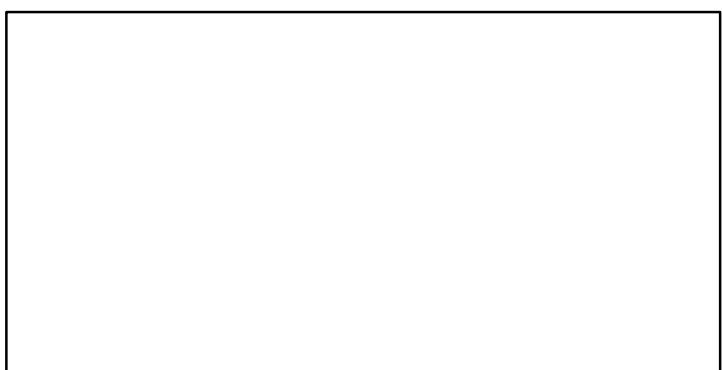
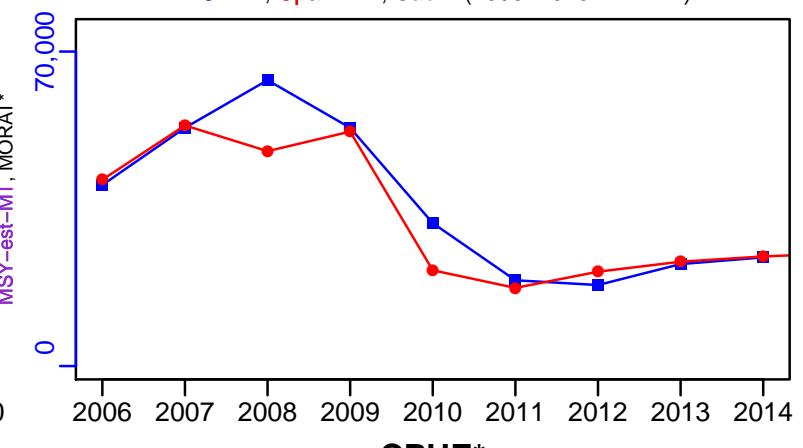
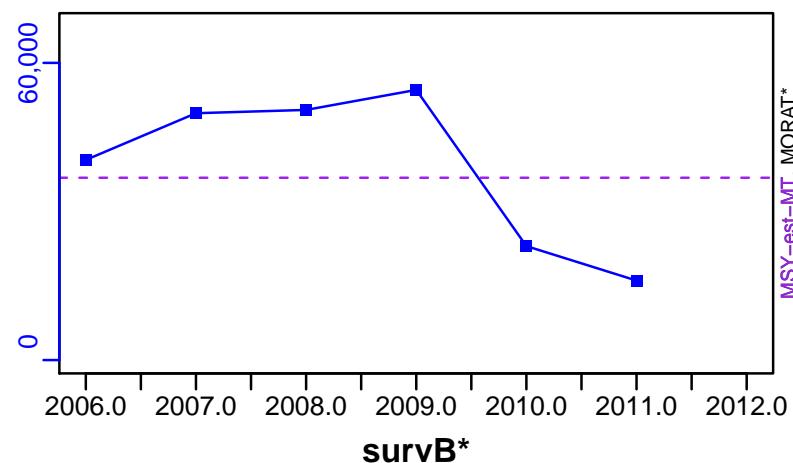


■ Listed time series	— Target BRP	— Rec-Est
- - - MSY-based BRP	- - Lim BRP	* No Data

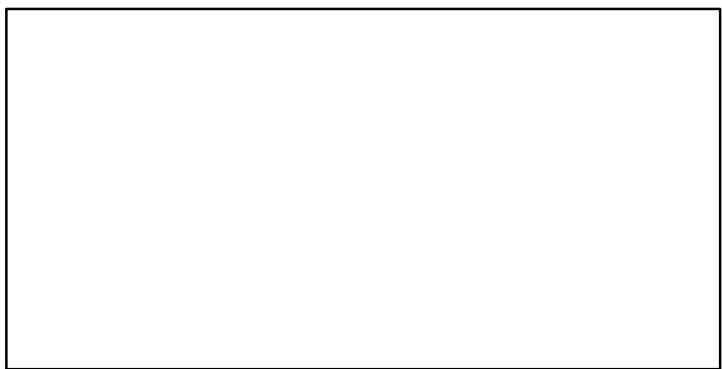
Southern sardine Central–Southern Chile [SSARDCH]

TC-MT, TL*, RecC* (2006–2012–CHING)

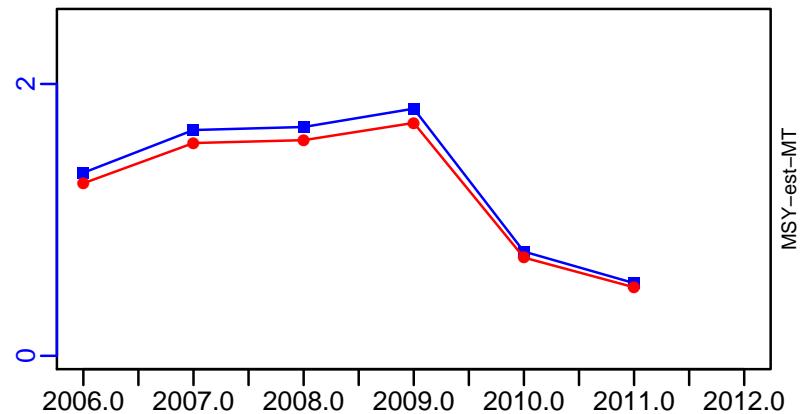
TAC-MT, Cpair-MT, Cadv* (2006–2016–PARMA)



EFFORT*



TC-MT/MSY-est-MT, CdivMEANC-ratio, (2006–2012–CHING)



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

Yellownose skate Central-Southern Chile [YNOSESKACSCH]

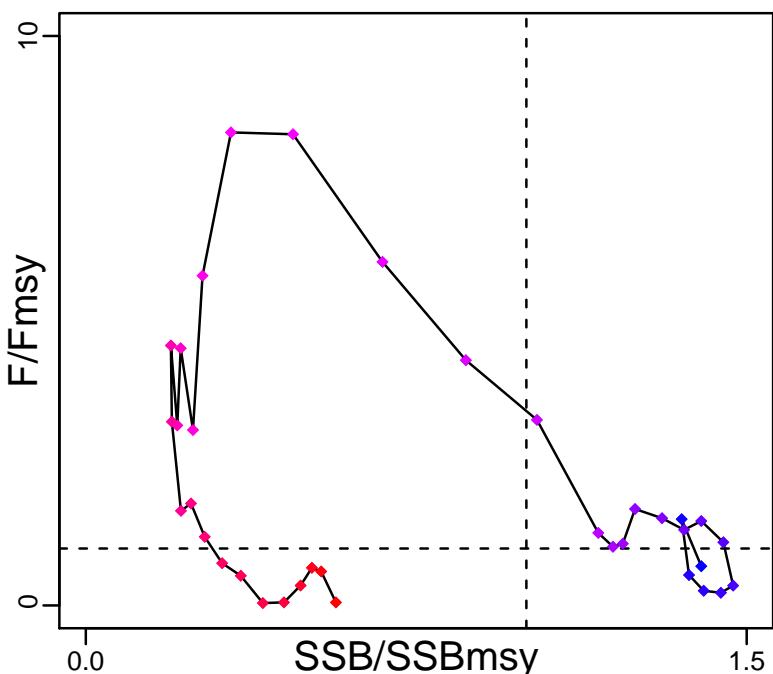
Metadata	
Scientific Name	Zearaja chilensis
Current Assess ID	IFOPCH-YNOSESKACSCH-1978-2014-PARMA
Area	Central-Southern Chile
Management Authority	Subsecretaria de Pesca
Assessor	Instituto de Fomento Pesquero - Chilean Fisheries Development Institute
Asmts in RAM	2014

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-pr-MT	2014	1797
Fmsy	Fmsy-1/yr	2014	0.062
ERmsy	ERmsy-est-ratio	2014	0.029
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2014	1797
Fmgt	Fmgt-1/yr	2014	0.062
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2014	3993
MSY	MSY-est-MT	2014	413
M	M-1/yr	2014	0.14
TBlim	-	-	-
SSBlim	SSBlim-MT	2014	898
Flim	-	-	-
ERlim	-	-	-

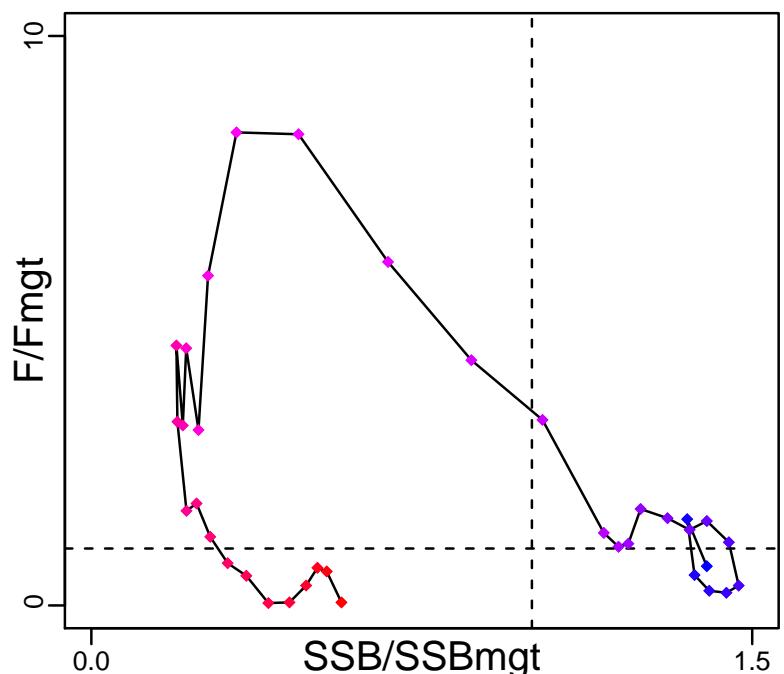
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2014	6090	-	-	
SSB	SSB-MT	2014	1020	Females	-	
TN	-	-	-	-	-	
R	R-E00	2014	253,000	-	1	
F	F-1/yr	2014	0.003	Females	-	
ER	ER-calc-ratio	2014	0.002	-	-	
TC	-	-	-			
TL	TL-MT	2014	15			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/SSBmsy-pr-MT	2014	0.568			
F/Fmsy	F-1/yr/Fmsy-1/yr	2014	0.053			
ER/ERmsy	ER-calc-ratio/ERmsy-est-ratio	2014	0.085			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2014	0.568			
F/Fmgt	F-1/yr/Fmgt-1/yr	2014	0.053			
ER/ERmgt	-	-	-			

Yellownose skate Central–Southern Chile [YNOSESKACCSCH]

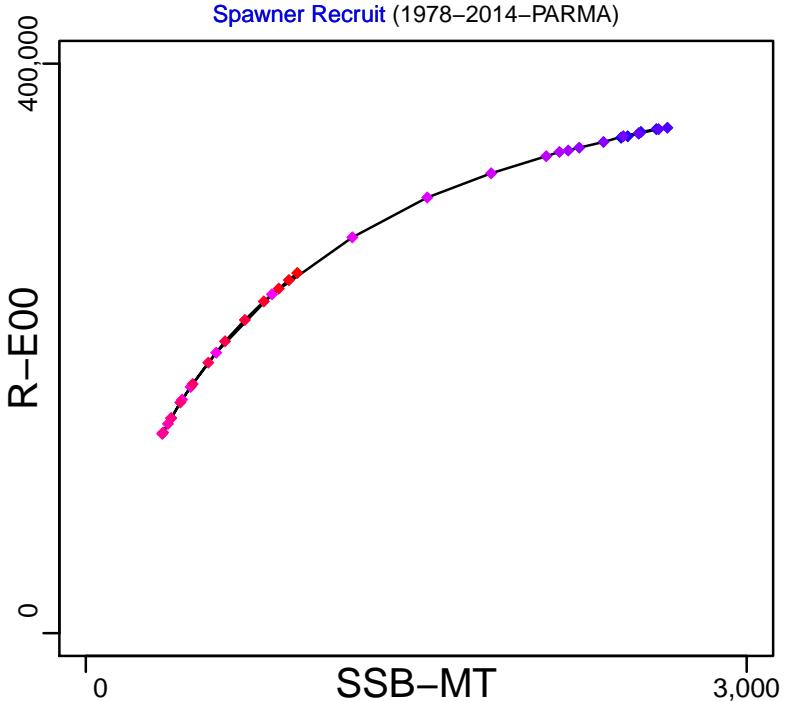
Kobe MSYpref (1978–2014–PARMA)



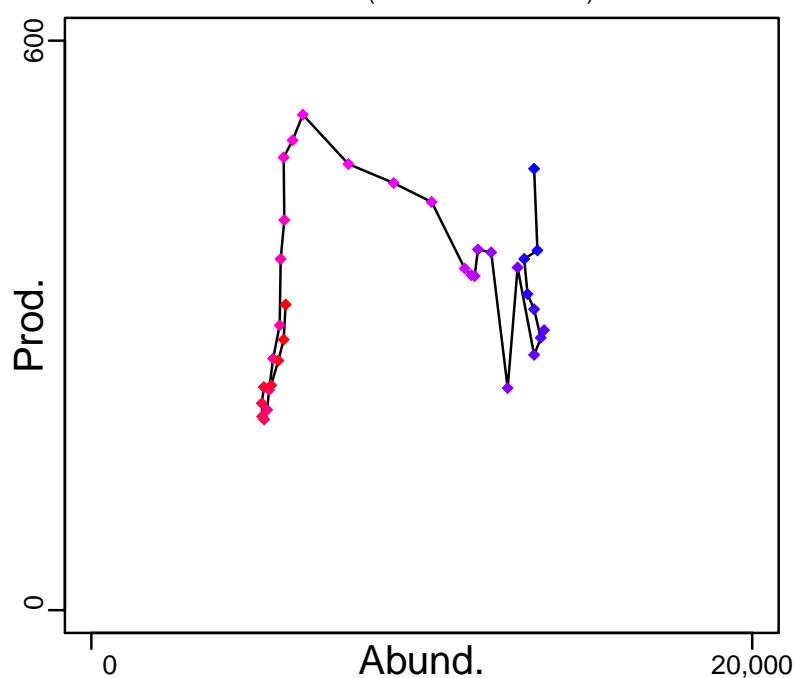
Kobe MGTPref (1978–2014–PARMA)



Spawner Recruit (1978–2014–PARMA)



Production (1978–2014–PARMA)

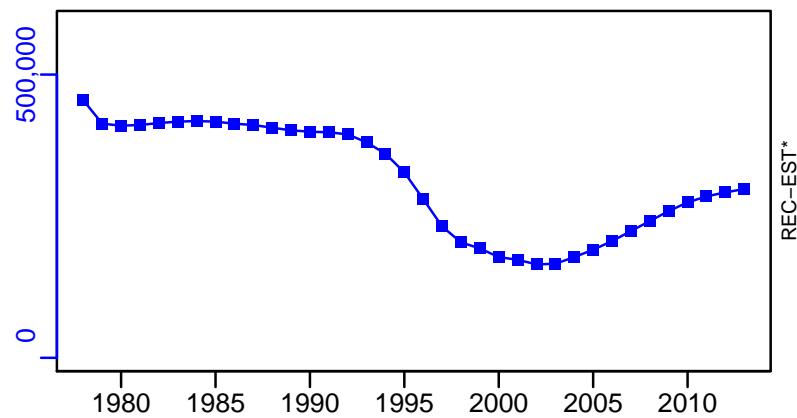
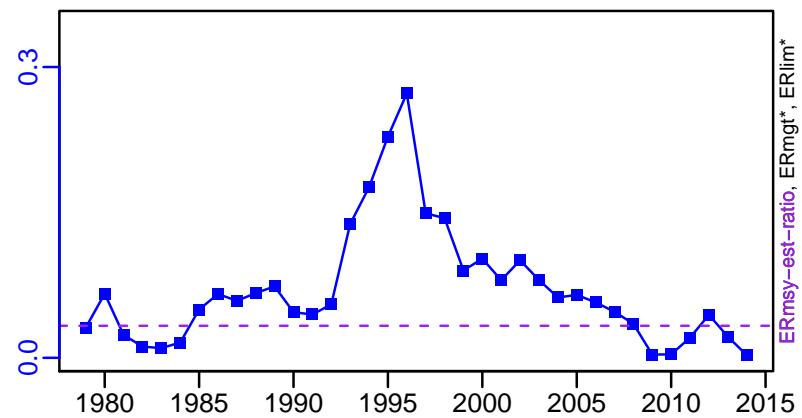
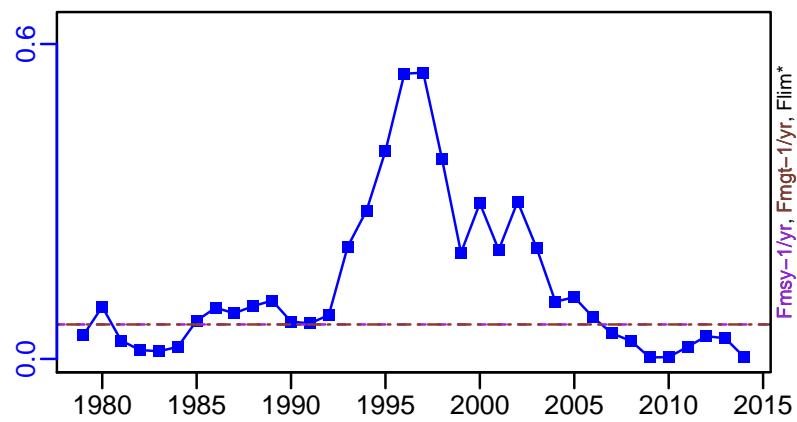
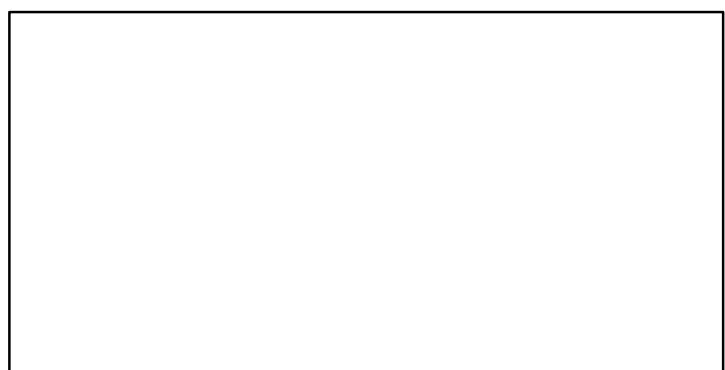
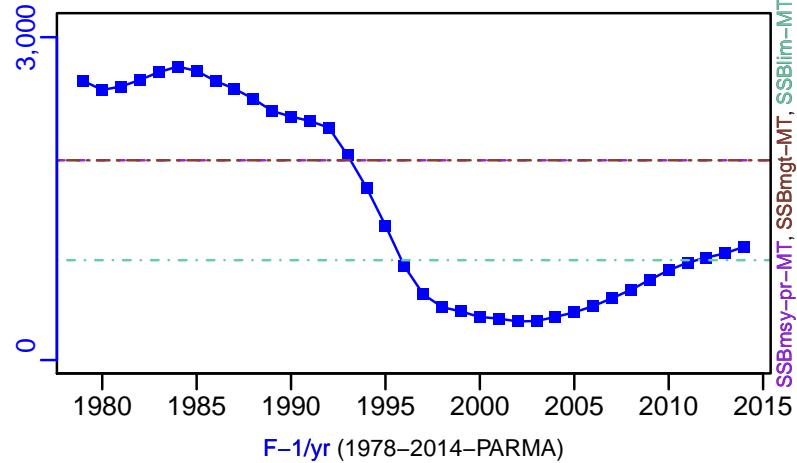
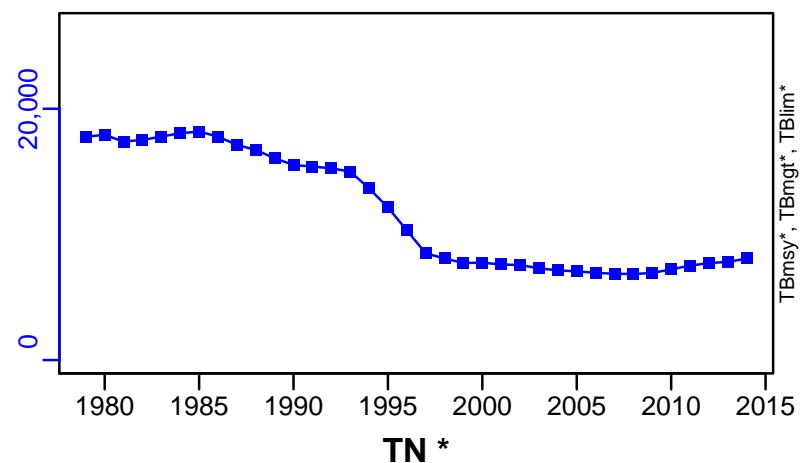


◆ Start Year	◆ End Year	*	No Data
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Yellownose skate Central–Southern Chile [YNOSESKAC SCH]

TB-MT (1978–2014–PARMA)

SSB-MT (1978–2014–PARMA)

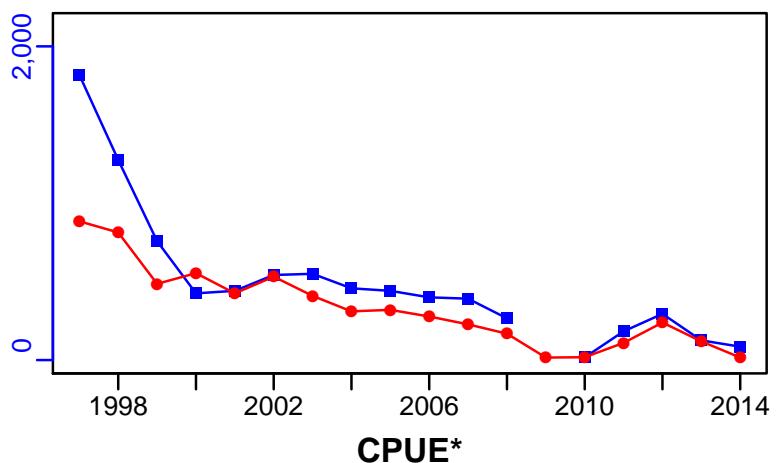
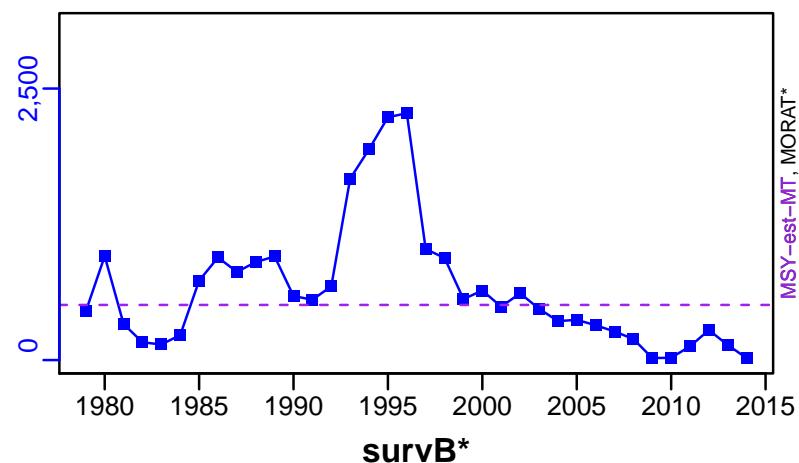


■ Listed time series	— Target BRP	— Rec-Est
- - MSY-based BRP	- - Lim BRP	* No Data

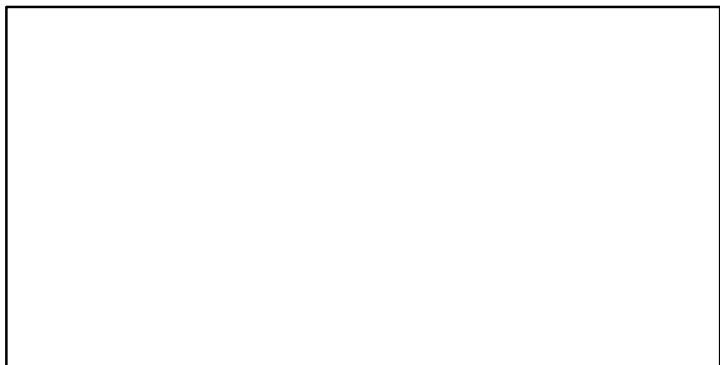
Yellownose skate Central–Southern Chile [YNOSESKACCSCH]

TL–MT, TC*, RecC* (1978–2014–PARMA)

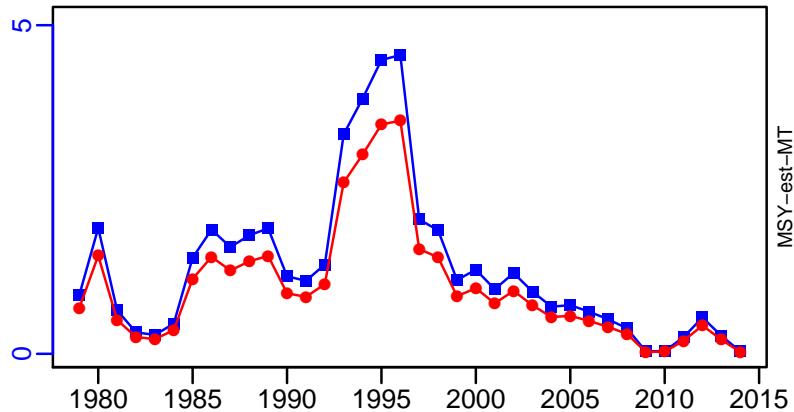
TAC–MT, Cpair–MT, Cadv* (1978–2014–PARMA)



EFFORT*



TL–MT/MSY–est–MT, CdivMEANC–ratio, (1978–2014–PARMA)



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

Yellownose skate Southern Chile [YNOSESKASCH]

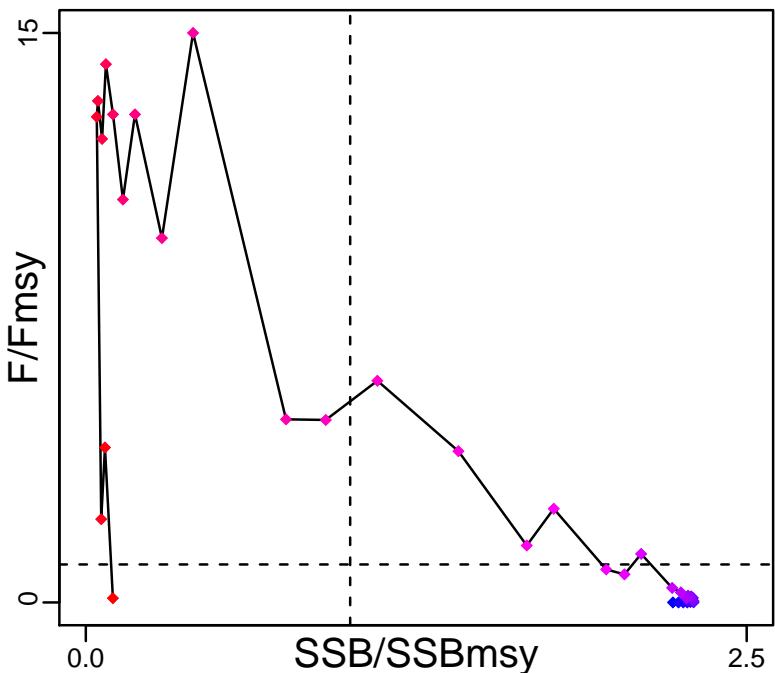
Metadata	
Scientific Name	Zearaja chilensis
Current Assess ID	IFOPCH-YNOSESKASCH-1978-2014-PARMA
Area	Southern Chile
Management Authority	Subsecretaria de Pesca
Assessor	Instituto de Fomento Pesquero - Chilean Fisheries Development Institute
Asmts in RAM	2014

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-pr-MT	2014	3327
Fmsy	Fmsy-1/yr	2014	0.062
ERmsy	ERmsy-est-ratio	2014	0.013
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2014	3327
Fmgt	Fmgt-1/yr	2014	0.062
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2014	7394
MSY	MSY-est-MT	2014	341
M	M-1/yr	2014	0.14
TBlim	-	-	-
SSBlim	SSBlim-MT	2014	1664
Flim	-	-	-
ERlim	-	-	-

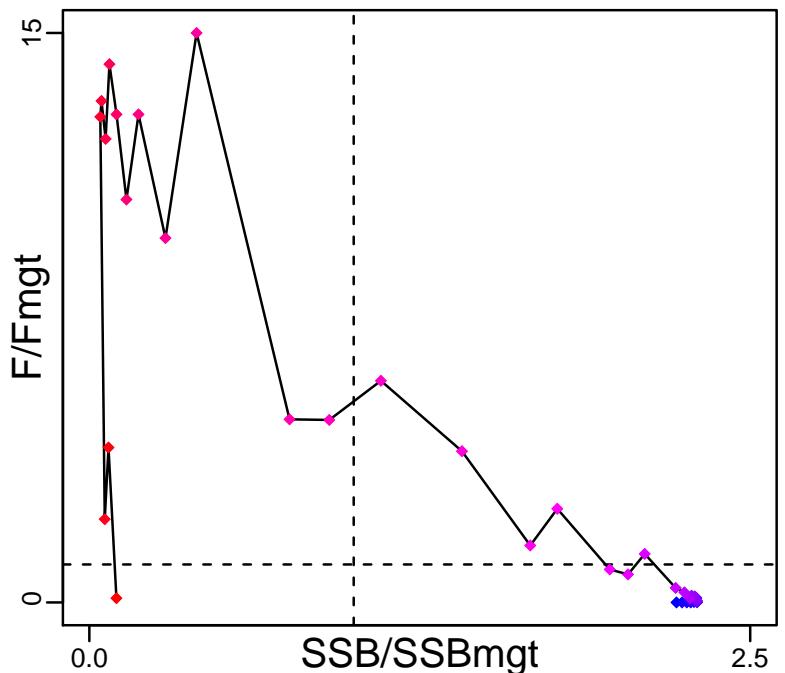
Time Series						
Type	ID	Asmt Year	Curr Value	Sex	Age	
TB	TB-MT	2014	3850	-	-	
SSB	SSB-MT	2014	341	Females	-	
TN	-	-	-	-	-	
R	R-E00	2014	113	-	1	
F	F-1/yr	2014	0.007	Females	-	
ER	ER-calc-ratio	2014	0.004	-	-	
TC	-	-	-			
TL	TL-MT	2014	16			
TB/TBmsy	-	-	-			
SSB/SSBmsy	SSB-MT/SSBmsy-pr-MT	2014	0.102			
F/Fmsy	F-1/yr/Fmsy-1/yr	2014	0.112			
ER/ERmsy	ER-calc-ratio/ERmsy-est-ratio	2014	0.324			
TB/TBmgt	-	-	-			
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2014	0.102			
F/Fmgt	F-1/yr/Fmgt-1/yr	2014	0.112			
ER/ERmgt	-	-	-			

Yellownose skate Southern Chile [YNOSESKASCH]

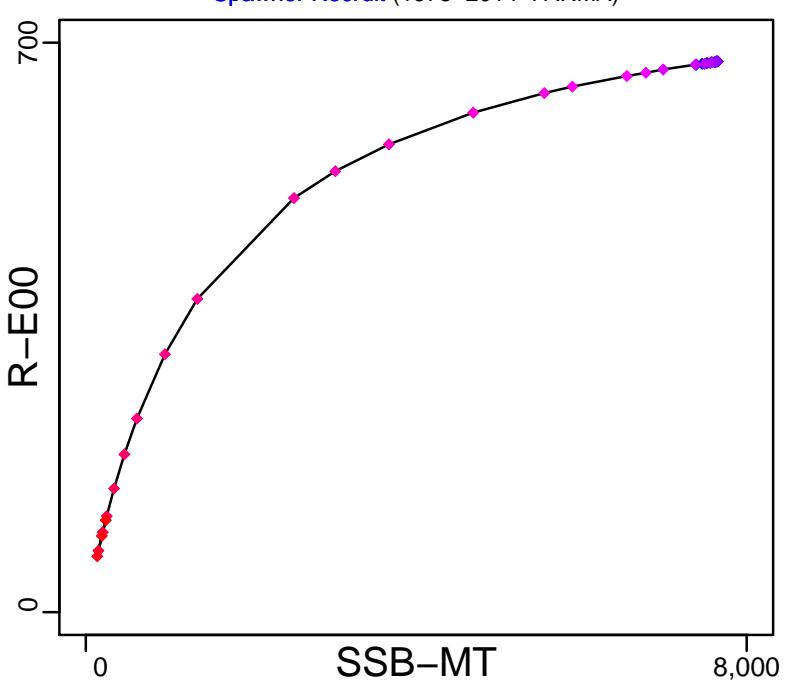
Kobe MSYpref (1978–2014–PARMA)



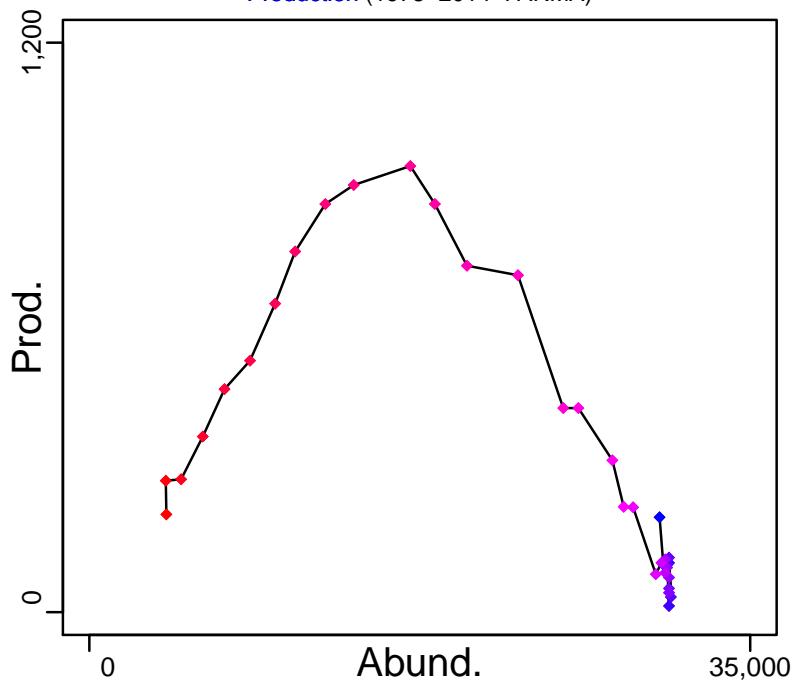
Kobe MGTPref (1978–2014–PARMA)



Spawner Recruit (1978–2014–PARMA)



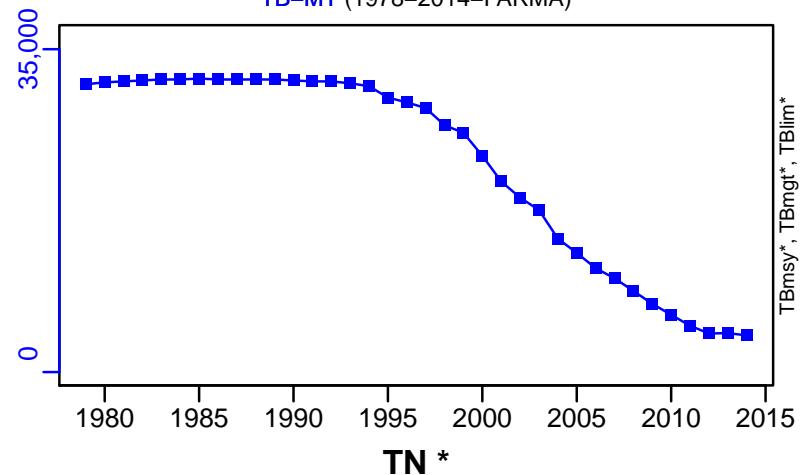
Production (1978–2014–PARMA)



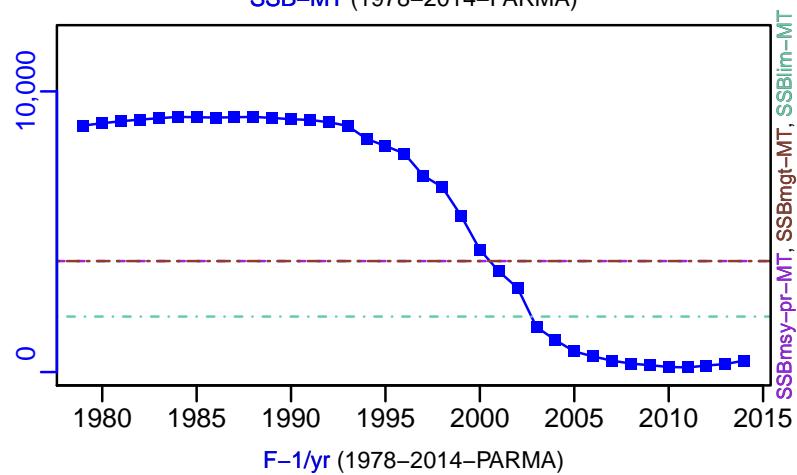
◆ Start Year ◆ End Year * No Data

Yellownose skate Southern Chile [YNOSESKASCH]

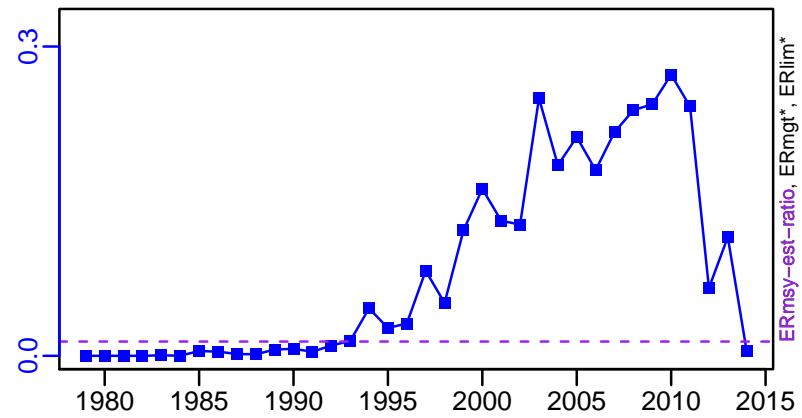
TB-MT (1978–2014–PARMA)



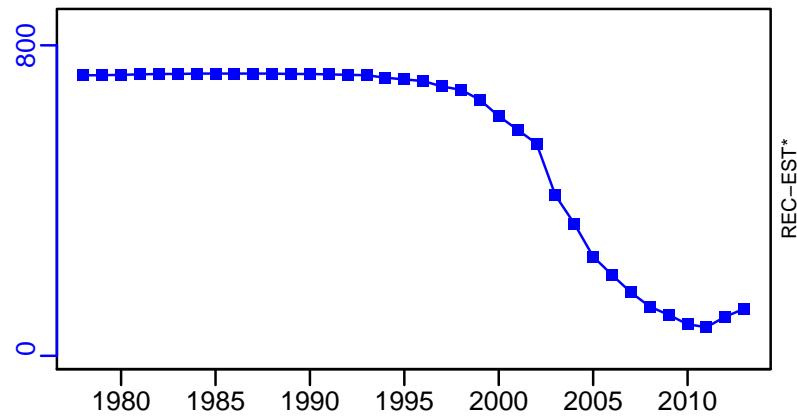
SSB-MT (1978–2014–PARMA)



ER-calc-ratio (1978–2014–PARMA)



R-E00 (1978–2014–PARMA)

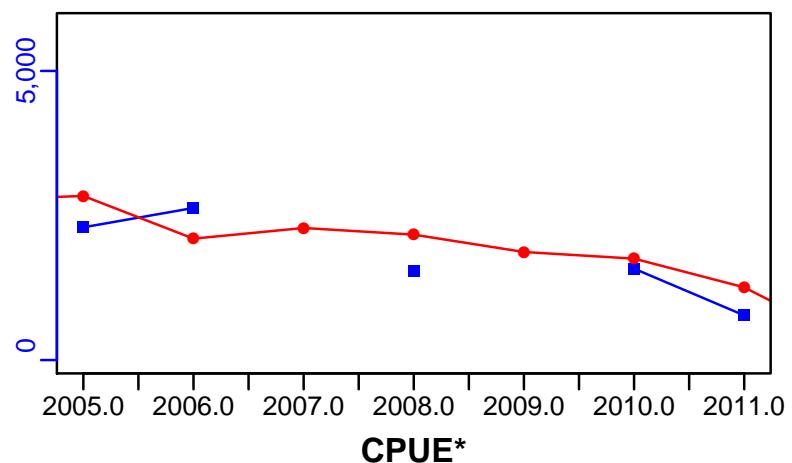
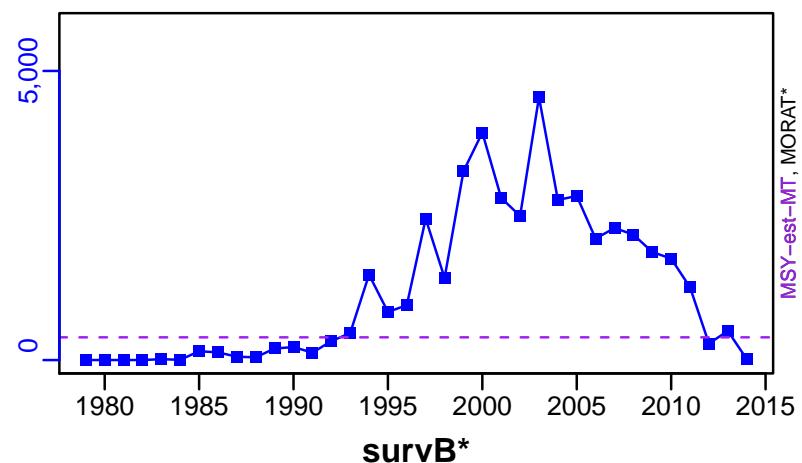


■ Listed time series	— Target BRP	— Rec-Est
— MSY-based BRP	--- Lim BRP	* No Data

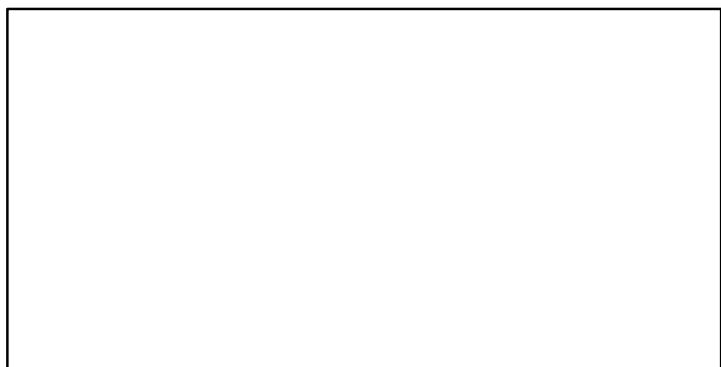
Yellownose skate Southern Chile [YNOSESKASCH]

TL-MT, TC*, RecC* (1978–2014–PARMA)

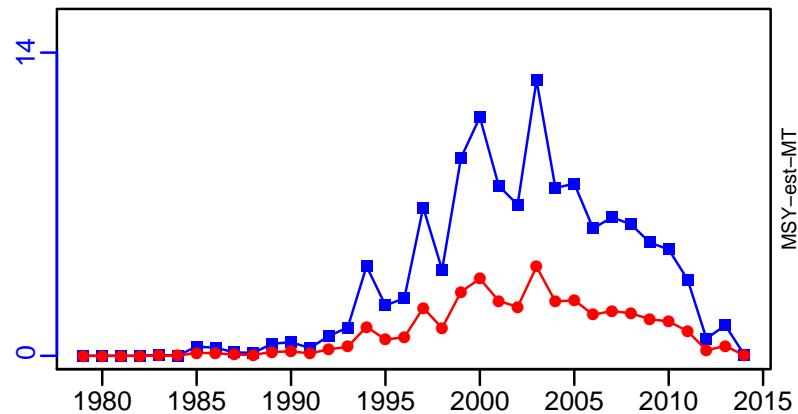
TAC-MT, Cpair-MT, Cadv* (1978–2014–PARMA)



EFFORT*



TL-MT/MSY-est-MT, CdivMEANC-ratio, (1978–2014–PARMA)



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