

New Zealand Stocks

v4.63 (Dec-07-2023)

Not present Present Preferred

Stock	Time Series Types			
	B/Bmsy	U/Umsy	B/Bmgt	U/Umgt
1. AUSSALMONNZ [Australian salmon New Zealand]	TB SSB	ER F	TB SSB	ER F
2. BKCDLFENI [Black cardinalfish East coast of North Island]	TB SSB	ER F	TB SSB	ER F
3. BLACKOREOPR [Black oreo Pukaki Rise]	TB SSB	ER F	TB SSB	ER F
4. BLACKOREOWECR [Black oreo West end of Chatham Rise]	TB SSB	ER F	TB SSB	ER F
5. BNSNZ [Bluenose New Zealand]	TB SSB	ER F	TB SSB	ER F
6. DOYSFS [Dredge oyster Foveax Strait]	TB SSB	ER F	TB SSB	ER F
7. GEMFISHNZ [Common gemfish New Zealand]	TB SSB	ER F	TB SSB	ER F
8. GSTRGZRSTA7 [Giant stargazer NZ Area STA7]	TB SSB	ER F	TB SSB	ER F
9. HOKIENZ [Hoki Eastern New Zealand]	TB SSB	ER F	TB SSB	ER F
10. HOKIWNZ [Hoki Western New Zealand]	TB SSB	ER F	TB SSB	ER F
11. NZLINGLIN3-4 [Ling New Zealand Areas LIN 3 and 4]	TB SSB	ER F	TB SSB	ER F
12. NZLINGLIN5-6 [Ling New Zealand Areas LIN 5 and 6]	TB SSB	ER F	TB SSB	ER F
13. NZLINGLIN6b [Ling New Zealand Areas LIN 6b]	TB SSB	ER F	TB SSB	ER F
14. NZLINGLIN72 [Ling New Zealand Areas LIN 72]	TB SSB	ER F	TB SSB	ER F
15. NZLINGLIN7WC [Ling New Zealand Areas LIN 7WC-WCSI]	TB SSB	ER F	TB SSB	ER F
16. NZSNAPNZ1BOP-HAGU [New Zealand snapper New Zealand SNA 1 Bay of Plenty and Hauraki Gulf]	TB SSB	ER F	TB SSB	ER F
17. NZSNAPNZ1ENLD [New Zealand snapper New Zealand SNA 1 east Northland]	TB SSB	ER F	TB SSB	ER F
18. NZSNAPNZ7 [New Zealand snapper New Zealand SNA 7]	TB SSB	ER F	TB SSB	ER F
19. NZSNAPNZ8 [New Zealand snapper New Zealand Area 8 (Auckland and Central West)]	TB SSB	ER F	TB SSB	ER F
20. OROUGHYESCR [Orange roughy East and South Chatham Rise]	TB SSB	ER F	TB SSB	ER F
21. OROUGHYNWCR [Orange roughy Northwest Chatham Rise]	TB SSB	ER F	TB SSB	ER F
22. OROUGHYNZ7A [Orange roughy New Zealand Challenger Plateau]	TB SSB	ER F	TB SSB	ER F
23. OROUGHYNZMEC [Orange roughy New Zealand Mid East Coast]	TB SSB	ER F	TB SSB	ER F
24. PAUANPAU5A [Paua NZ Area North PAUA 5A]	TB SSB	ER F	TB SSB	ER F
25. PAUAPAU5B [Paua New Zealand Area PAU 5B (Stewart Island)]	TB SSB	ER F	TB SSB	ER F
26. PAUAPAU5D [Paua New Zealand Area PAU 5D (Otago)]	TB SSB	ER F	TB SSB	ER F
27. PAUAPAU7 [Paua New Zealand Area PAU 7 (Marlborough)]	TB SSB	ER F	TB SSB	ER F
28. PAUASPAU5A [Paua NZ Area South PAUA 5A]	TB SSB	ER F	TB SSB	ER F
29. RROCKLOBSTERCRA1 [Red rock lobster New Zealand Area CRA1]	TB SSB	ER F	TB SSB	ER F
30. RROCKLOBSTERCRA2 [Red rock lobster New Zealand Area CRA2]	TB SSB	ER F	TB SSB	ER F
31. RROCKLOBSTERCRA3 [Red rock lobster New Zealand Area CRA3]	TB SSB	ER F	TB SSB	ER F
32. RROCKLOBSTERCRA4 [Red rock lobster New Zealand Area CRA4]	TB SSB	ER F	TB SSB	ER F
33. RROCKLOBSTERCRA5 [Red rock lobster New Zealand Area CRA5]	TB SSB	ER F	TB SSB	ER F
34. RROCKLOBSTERCRA7 [Red rock lobster New Zealand Area CRA7]	TB SSB	ER F	TB SSB	ER F
35. RROCKLOBSTERCRA8 [Red rock lobster New Zealand Area CRA8]	TB SSB	ER F	TB SSB	ER F
36. SBWHITACIR [Southern blue whiting Campbell Island Rise]	TB SSB	ER F	TB SSB	ER F

37. SCMPBP [Scampi Bay of Plenty]	TB SSB	ER F	TB SSB	ER F
38. SCMPMB [Scampi Mernoo Bank]	TB SSB	ER F	TB SSB	ER F
39. SCMPSCI6A [Scampi SCI 6A (Auckland Islands)]	TB SSB	ER F	TB SSB	ER F
40. SCMPWHB [Scampi Wairarapa/Hawke Bay]	TB SSB	ER F	TB SSB	ER F
41. SMOOTHOREOBP [Smooth oreo Bounty Plateau]	TB SSB	ER F	TB SSB	ER F
42. SMOOTHOREOCR [Smooth oreo Chatham Rise]	TB SSB	ER F	TB SSB	ER F
43. SMOOTHOREOEPR [Smooth oreo East Pukaki Rise]	TB SSB	ER F	TB SSB	ER F
44. SMOOTHOREOSLD [Smooth oreo Southland]	TB SSB	ER F	TB SSB	ER F
45. SMOOTHOREOWECR [Smooth oreo West end of Chatham Rise]	TB SSB	ER F	TB SSB	ER F
46. SOUTHHAKECR [Southern hake Chatham Rise]	TB SSB	ER F	TB SSB	ER F
47. SOUTHHAKESA [Southern hake Sub-Antarctic]	TB SSB	ER F	TB SSB	ER F
48. SOUTHHAKEWCSI [Southern hake West Coast South Island]	TB SSB	ER F	TB SSB	ER F
49. TARAKNZ [Tarakihi Sub-Antarctic]	TB SSB	ER F	TB SSB	ER F
50. TREVALLYTRE7 [Trevally New Zealand Areas TRE 7]	TB SSB	ER F	TB SSB	ER F

Australian salmon New Zealand [AUSSALMONNZ]

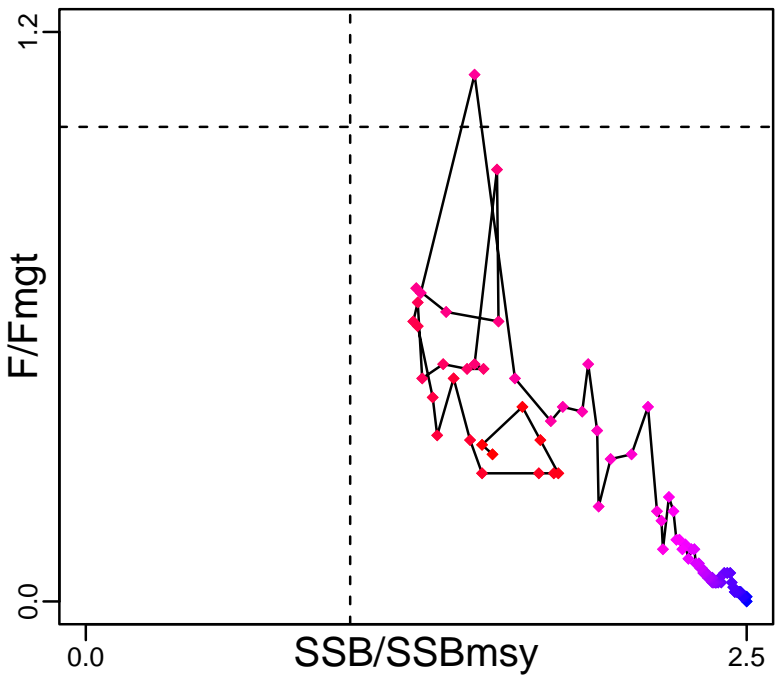
Metadata	
Scientific Name	Arripis trutta
Current Assess ID	NIWA-AUSSALMONNZ-1929-2013-FU
Area	New Zealand
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2013, 2006

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2006	28,246
SSBmsy	SSBmsy-MT	2013	17,680
Fmsy	Fmsy-1/yr	2006	0.32
ERmsy	ERmsy-ratio	2006	0.119
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2013	22,984
Fmgt	Fmgt-1/yr	2013	0.215
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2013	44,200
MSY	MSY-MT	2006	3372
M	M-1/yr	2013	0.2
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

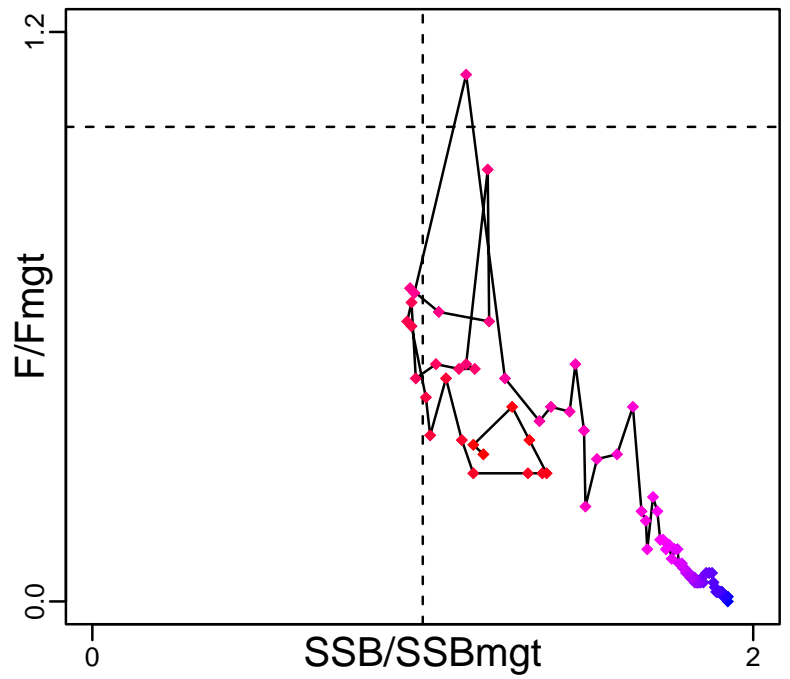
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2006	22,600	-	1+
SSB	SSB-MT	2013	27,200	-	4 to 20
TN	-	-	-	-	-
R	R-E00	2013	7,430,000	Both	-
F	F-1/yr	2013	0.07	Both	-
ER	ER-ratio	2006	0.099	-	-
TC	TC-MT	2013	1680		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2006	0.8		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013	1.538		
F/Fmsy	F-1/yr/Fmsy-1/yr	2006	0.328		
ER/ERmsy	ER-ratio/ERmsy-ratio	2006	0.83		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2013	1.183		
F/Fmgt	FdivFmgt-dimensionless	2013	0.31		
ER/ERmgt	-	-	-		

Australian salmon New Zealand [AUSSALMONNZ]

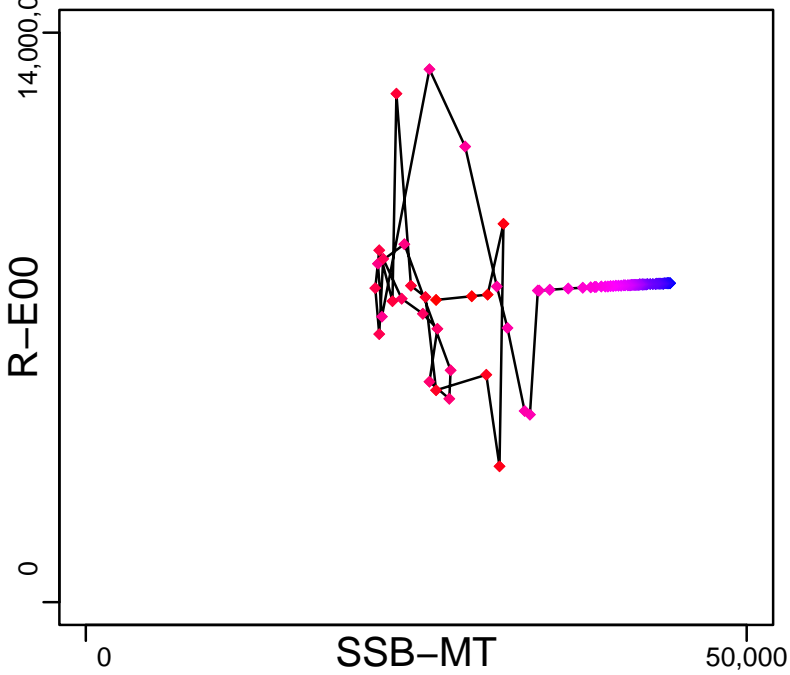
Kobe MSYpref (1929–2013–FU)



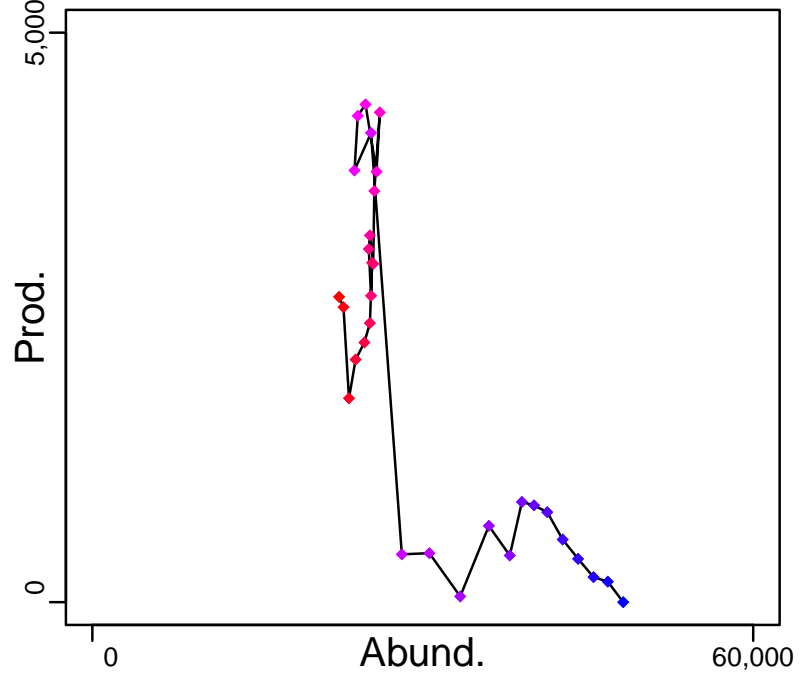
Kobe MGTpref (1929–2013–FU)



Spawner Recruit (1929–2013–FU)



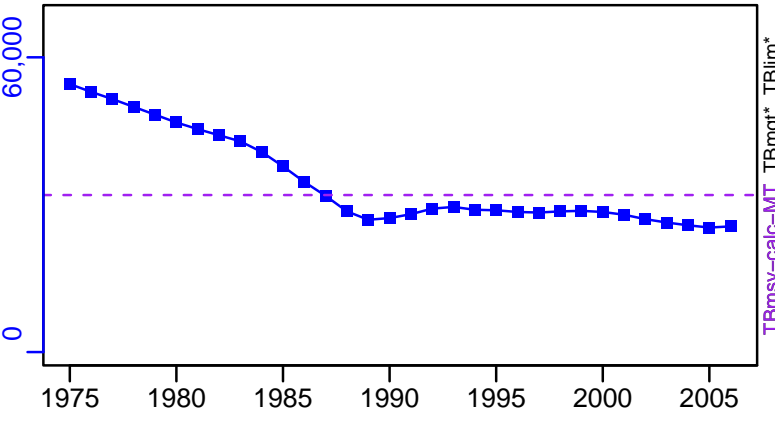
Production (1929–2013–FU)



◆ Start Year ◆ End Year * No Data

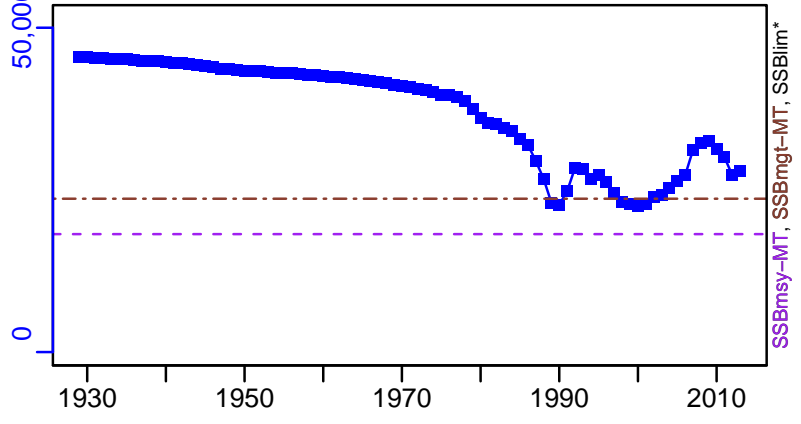
Australian salmon New Zealand [AUSSALMONNZ]

TB-MT (1975-2006-JENSEN)

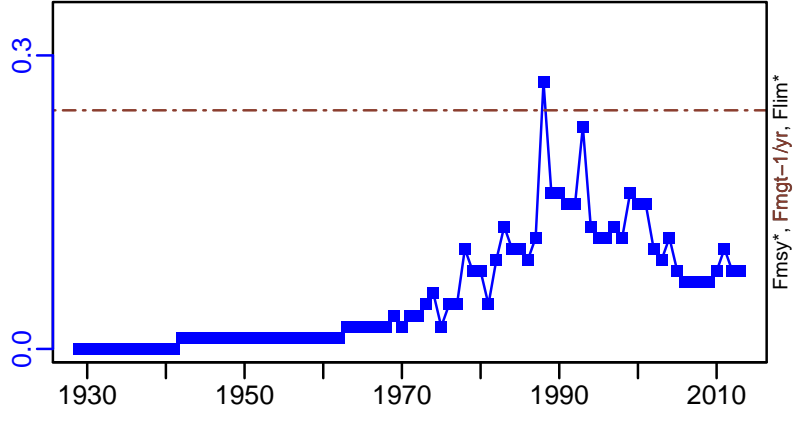


TN *

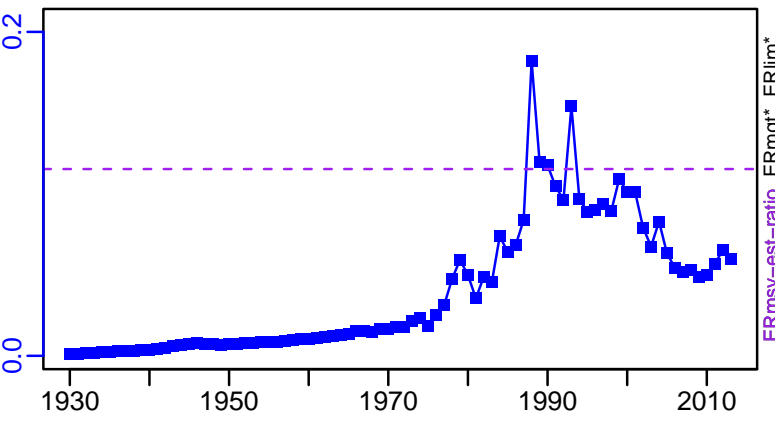
SSB-MT (1929-2013-FU)



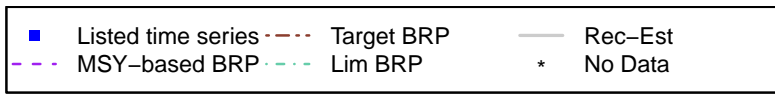
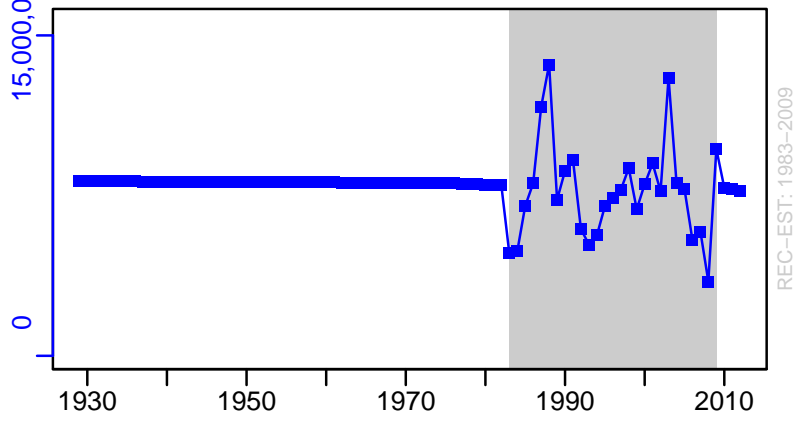
F-1/yr (1929-2013-FU)



ER-calc-ratio (1929-2013-FU)



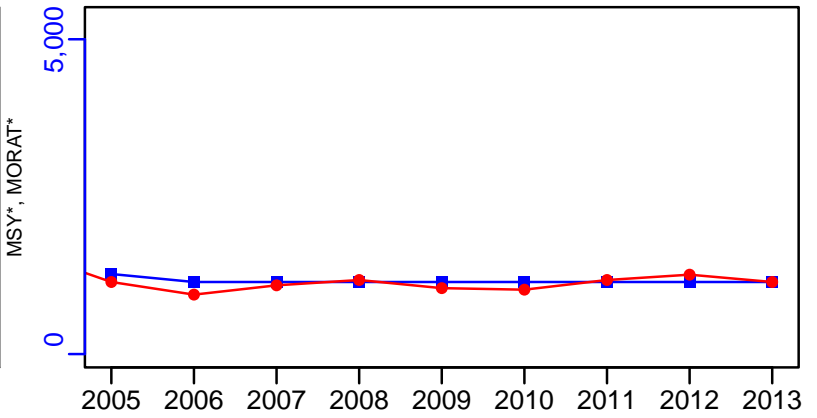
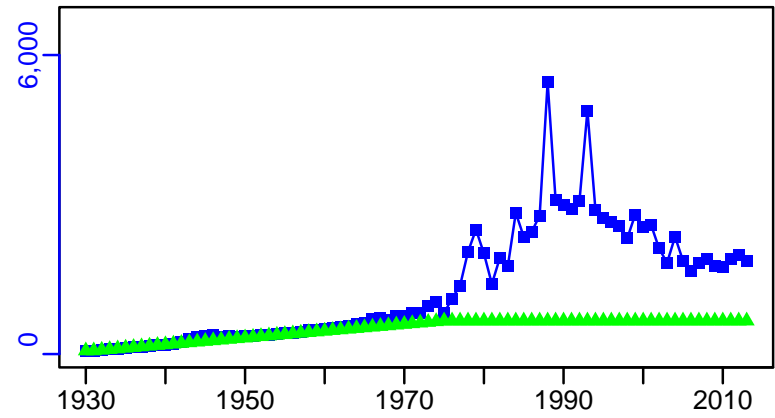
R-E00 (1929-2013-FU)



Australian salmon New Zealand [AUSSALMONNZ]

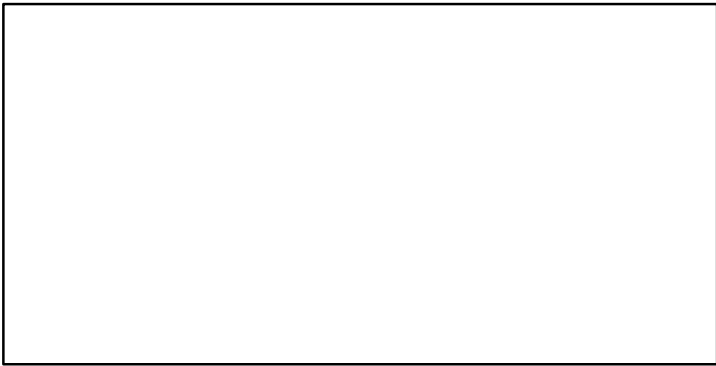
TC-MT, TL*, RecC-MT (1929-2013-FU)

TAC-MT, Cpair-MT, Cadv* (1929-2013-FU)



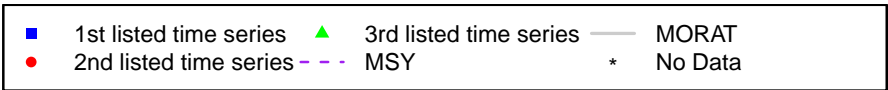
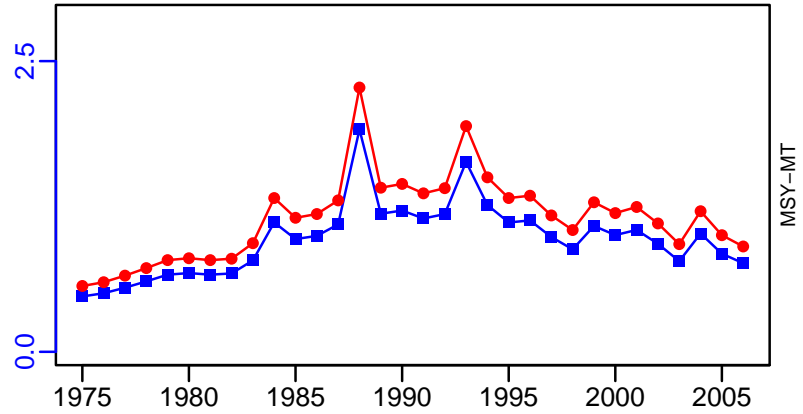
survB*

CPUE*



EFFORT*

TC-MT/MSY-MT, CdivMEANC-ratio, (1975-2006-JENSEN)



Black cardinalfish East coast of North Island [BKCDLFENI]

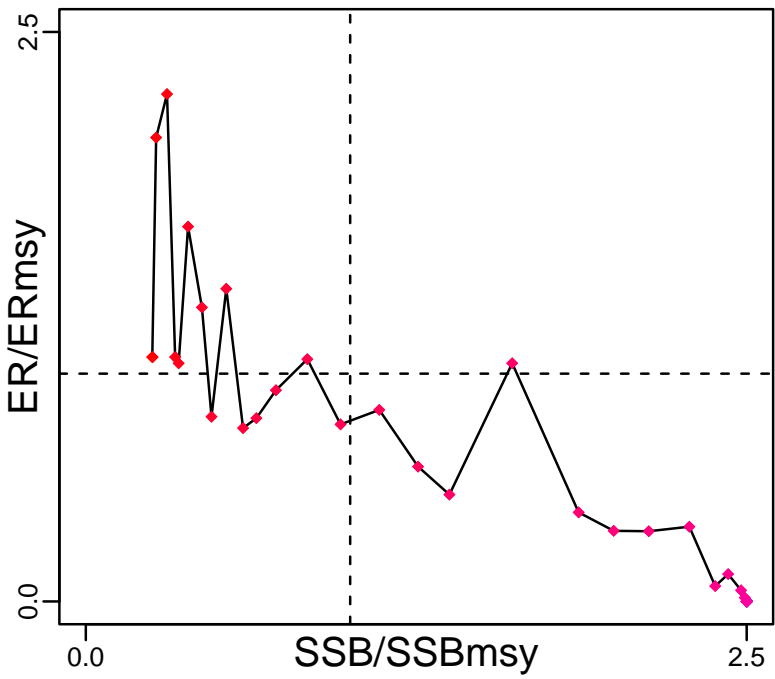
Metadata	
Scientific Name	Epigonus telescopus
Current Assess ID	NIWA-BKCDLFENI-1923-2009-CORDUE
Area	East coast of North Island
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2009

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2009	6055
SSBmsy	SSBmsy-MT	2009	14,322
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2009	0.11
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2009	14,322
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2009	35,804
MSY	MSY-MT	2009	666
M	M-1/yr	2009	0.04
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

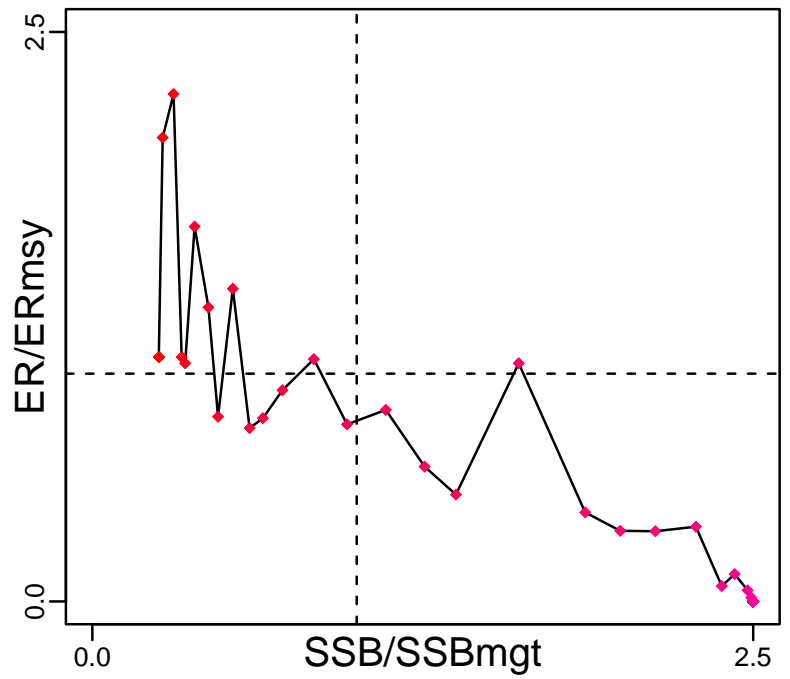
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2009	3620	Both	39.5
TN	-	-	-	-	-
R	R-E00	2009	982,000	-	1
F	F-1/yr	2009	0.457	-	-
ER	ER-ratio	2009	0.118	-	-
TC	TC-MT	2009	980		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2009	0.253		
F/Fmsy	FdivFmsy-dimensionless	2009	4.16		
ER/ERmsy	ER-ratio/ERmsy-ratio	2009	1.073		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2009	0.253		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Black cardinalfish East coast of North Island [BKCDLFENI]

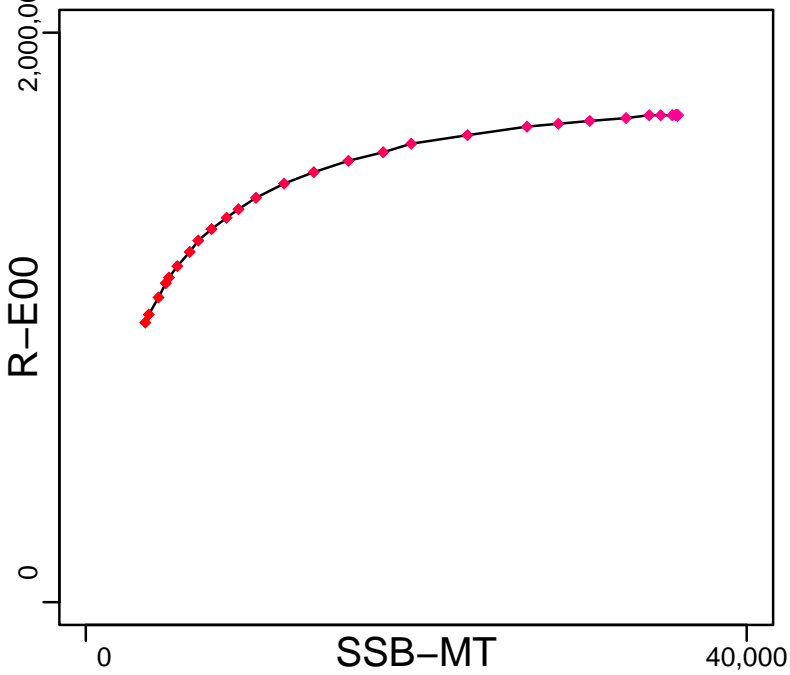
Kobe MSYpref (1923–2009–CORDUE)



Kobe MGTpref (1923–2009–CORDUE)



Spawner Recruit (1923–2009–CORDUE)



Production*



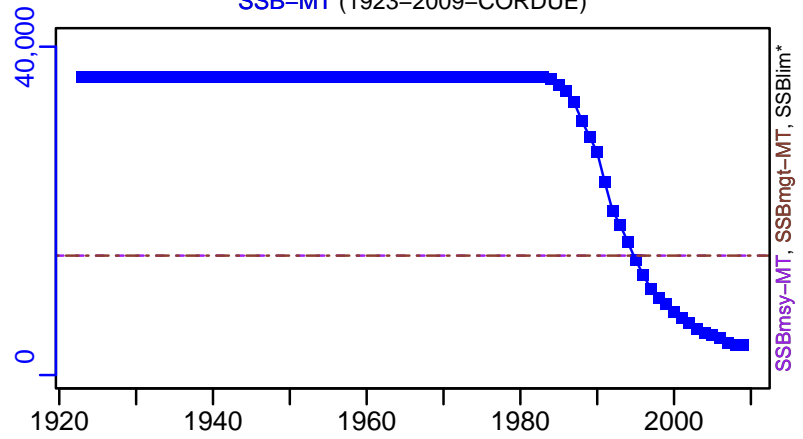
◆ Start Year ◆ End Year * No Data

Black cardinalfish East coast of North Island [BKCDLFENI]

TB*



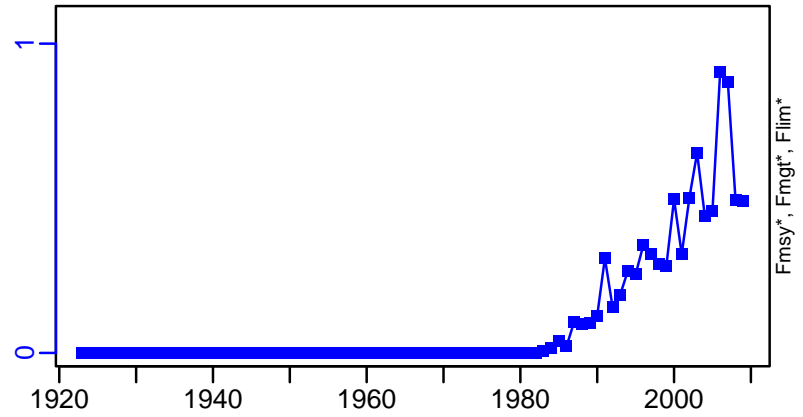
SSB-MT (1923-2009-CORDUE)



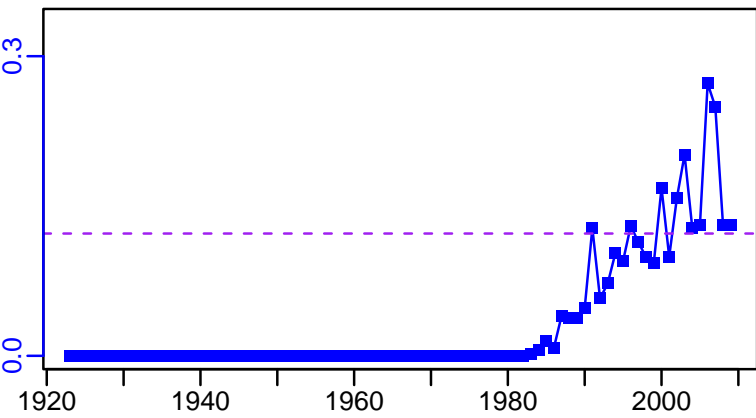
TN *



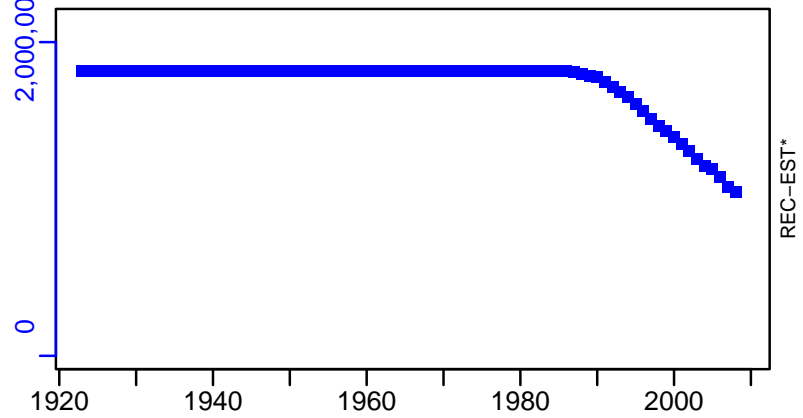
F-1/yr (1923-2009-CORDUE)



ER-ratio (1923-2009-CORDUE)



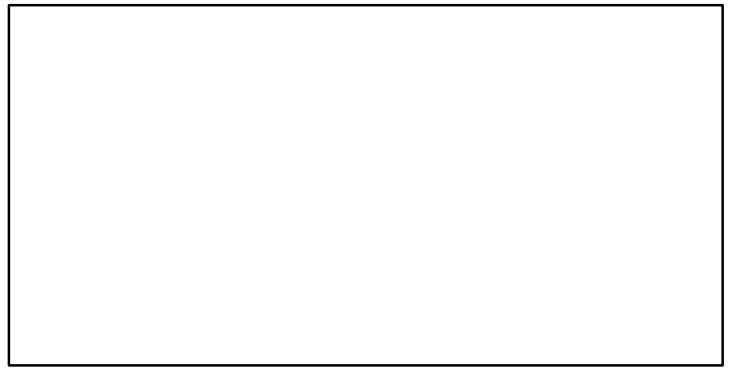
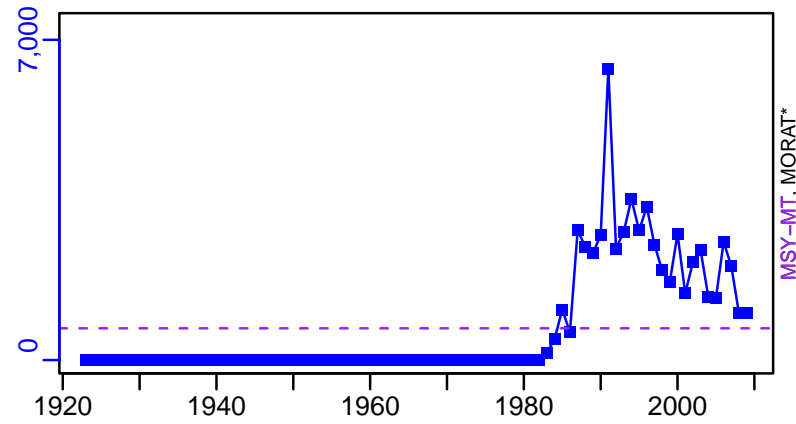
R-E00 (1923-2009-CORDUE)



Black cardinalfish East coast of North Island [BKCDLFENI]

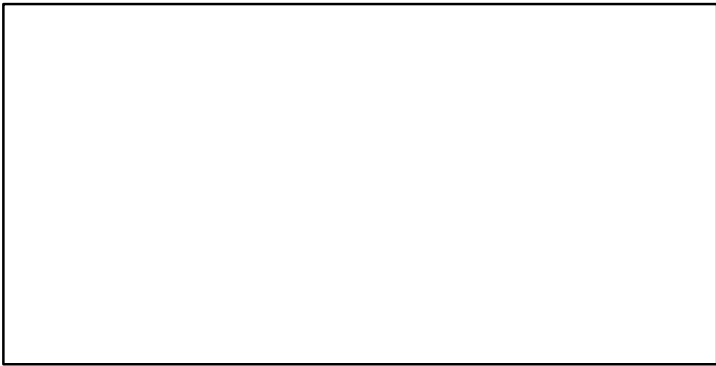
TC-MT, TL*, RecC* (1923-2009-CORDUE)

TAC*, Cpair*, Cadv*



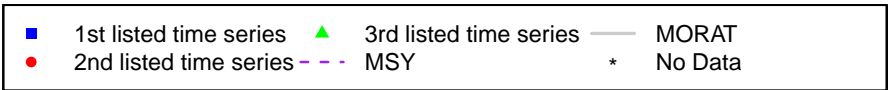
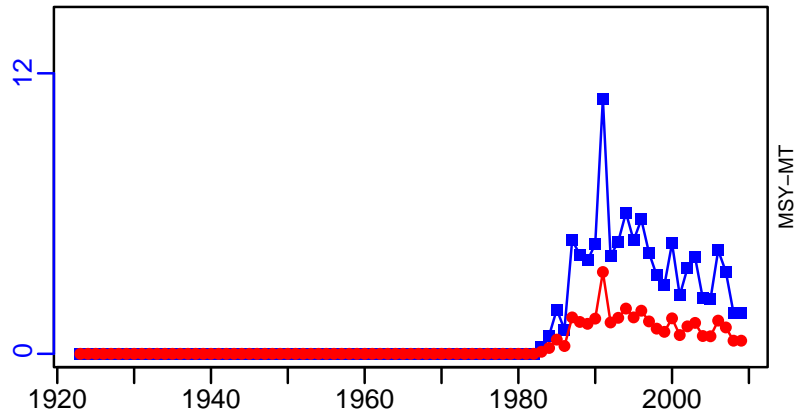
survB*

CPUE*



EFFORT*

TC-MT/MSY-MT, CdivMEANC-ratio, (1923-2009-CORDUE)



Black oreo Pukaki Rise [BLACKOREOPR]

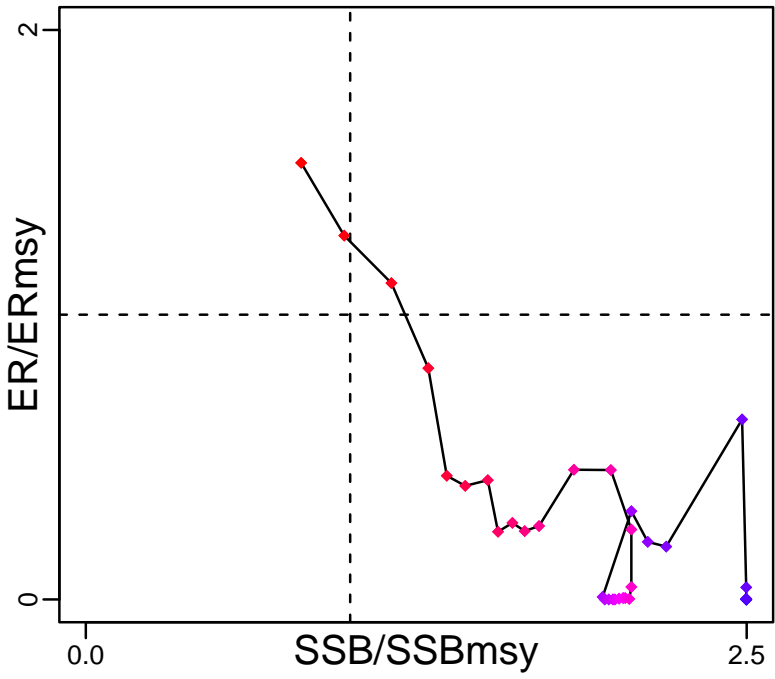
Metadata	
Scientific Name	Allocyttus niger
Current Assess ID	NIWA-BLACKOREOPR-1974-2009-CORDUE
Area	Pukaki Rise
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2009

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2009	7444
SSBmsy	SSBmsy-MT	2009	12,889
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2009	0.09
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2009	12,889
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2009	32,224
MSY	MSY-MT	2009	670
M	M-1/yr	2009	0.04
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

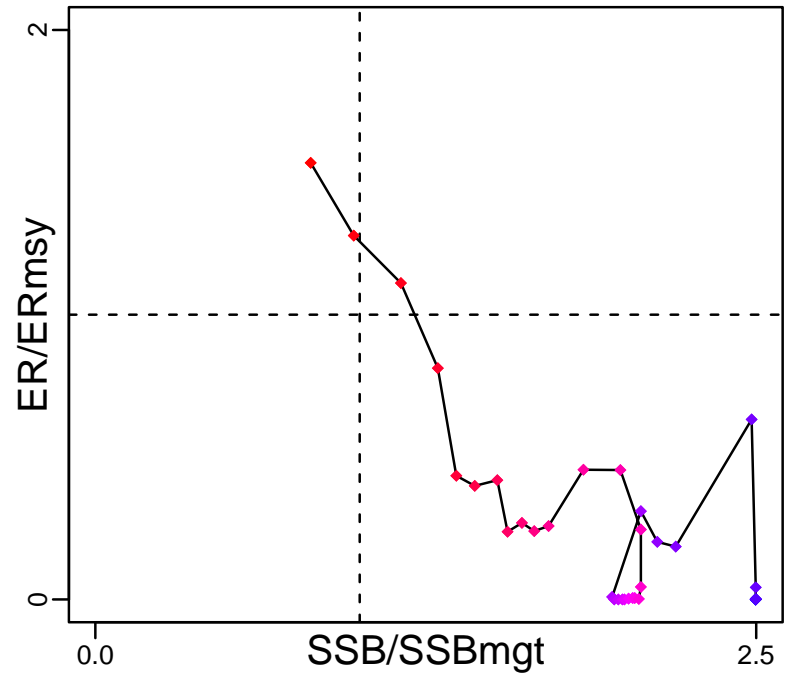
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2009	10,500	Both	37.7
TN	-	-	-	-	-
R	R-E00	2009	6,230,000	-	5
F	F-1/yr	2009	0.301	-	-
ER	ER-ratio	2009	0.138	-	-
TC	TC-MT	2009	3350		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2009	0.815		
F/Fmsy	FdivFmsy-dimensionless	2009	3.5		
ER/ERmsy	ER-ratio/ERmsy-ratio	2009	1.533		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2009	0.815		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Black oreo Pukaki Rise [BLACKKOREOPR]

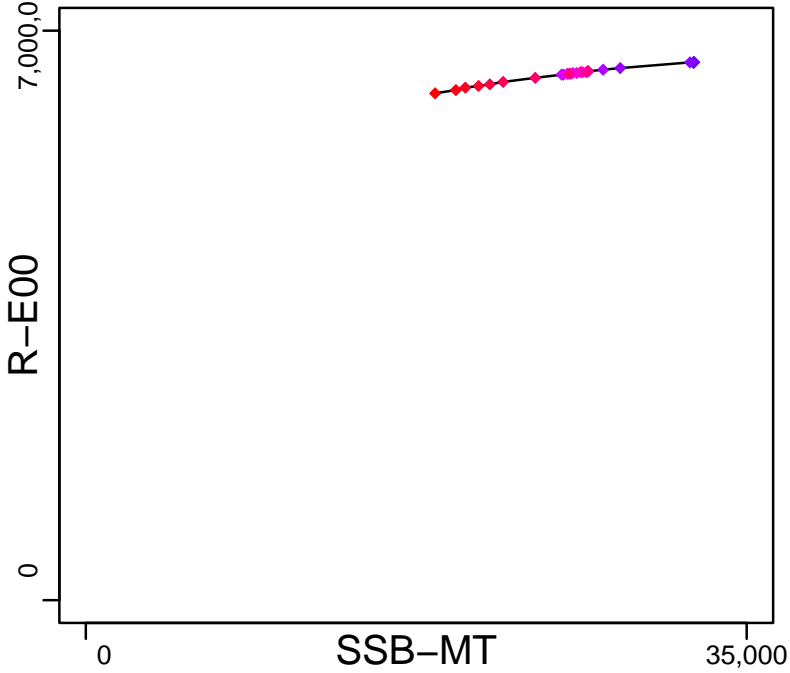
Kobe MSYpref (1974–2009–CORDUE)



Kobe MGTpref (1974–2009–CORDUE)



Spawner Recruit (1974–2009–CORDUE)



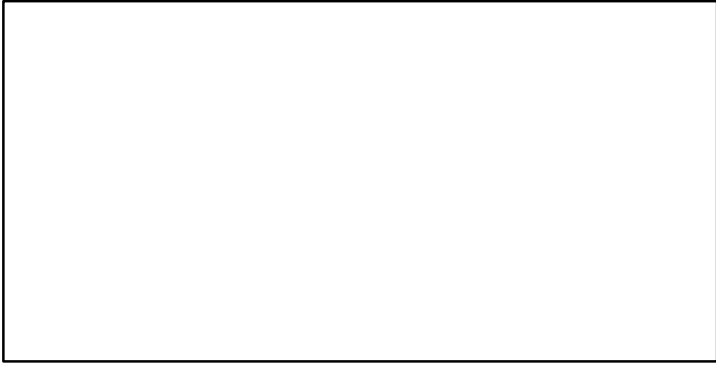
Production*



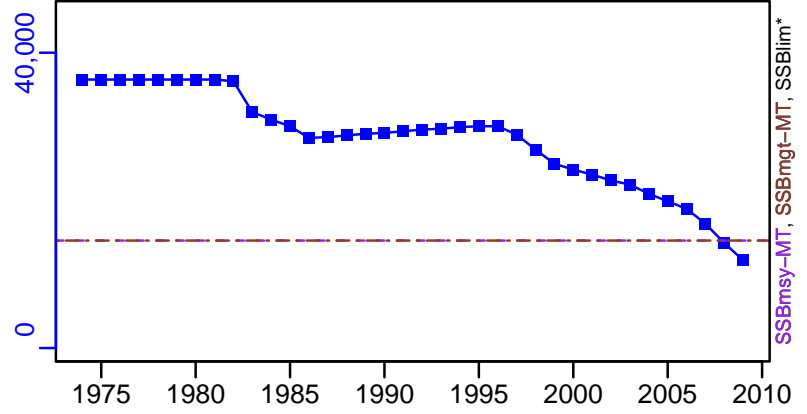
◆ Start Year ◆ End Year * No Data

Black oreo Pukaki Rise [BLACKKOREOPR]

TB*



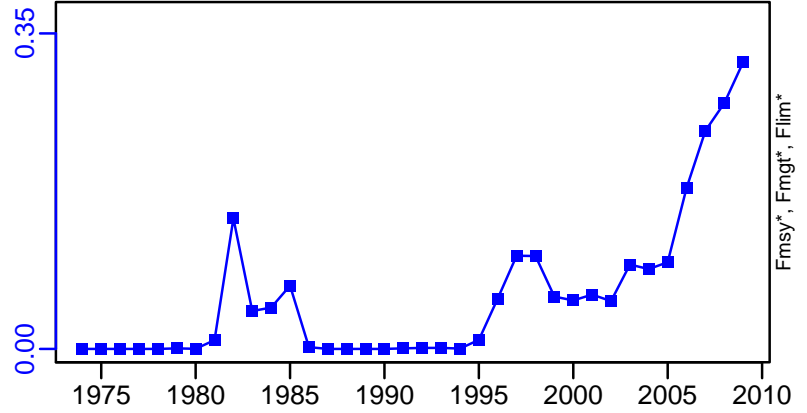
SSB-MT (1974-2009-CORDUE)



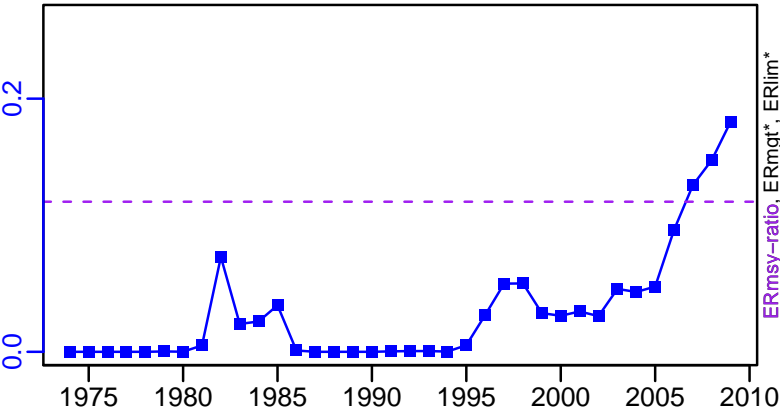
TN *



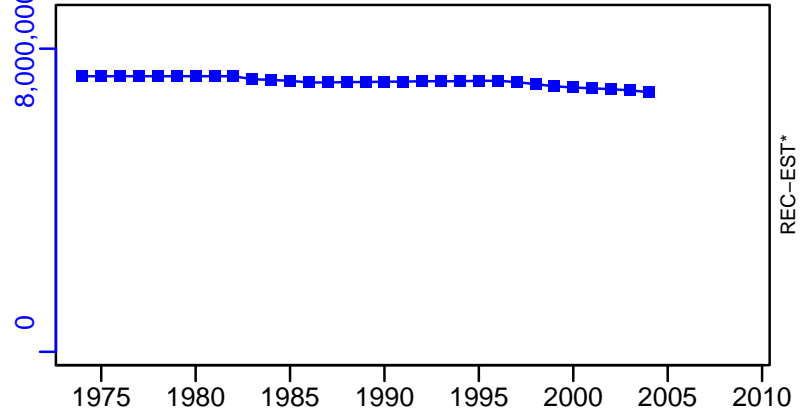
F-1/yr (1974-2009-CORDUE)



ER-ratio (1974-2009-CORDUE)



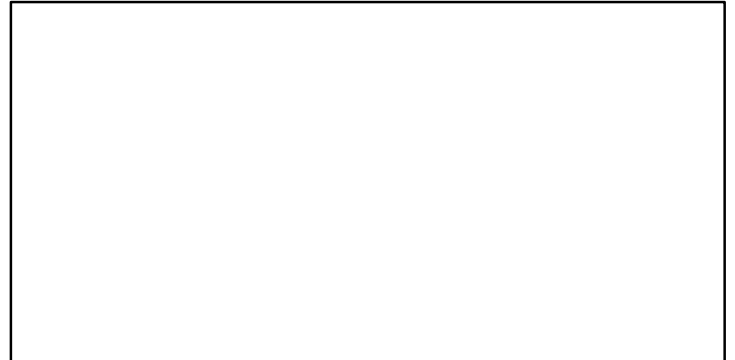
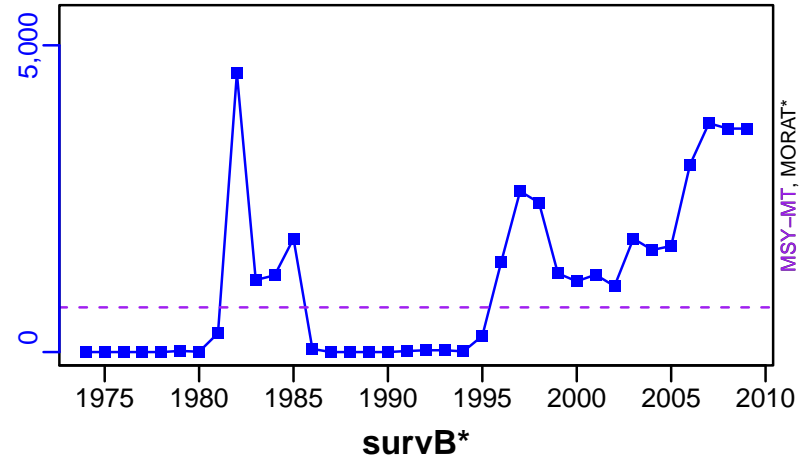
R-E00 (1974-2009-CORDUE)



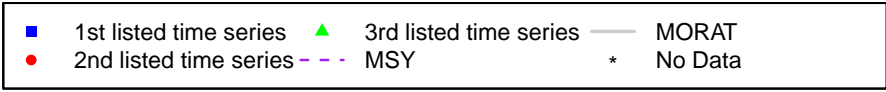
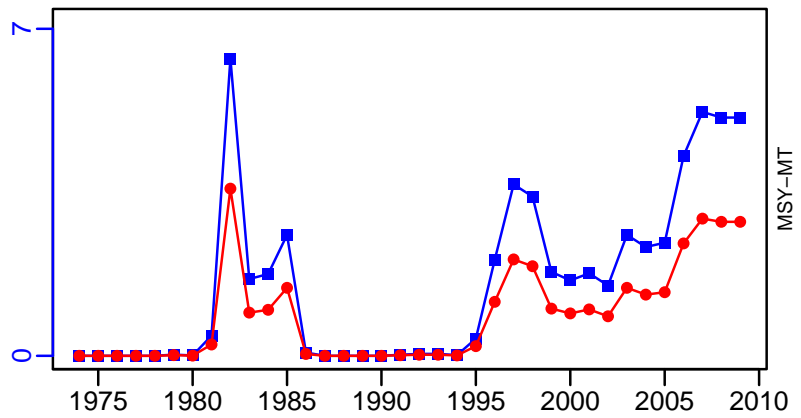
Black oreo Pukaki Rise [BLACKKOREOPR]

TC-MT, TL*, RecC* (1974-2009-CORDUE)

TAC*, Cpair*, Cadv*



TC-MT/MSY-MT, CdivMEANC-ratio, (1974-2009-CORDUE)



Black oreo West end of Chatham Rise [BLACKOREOWECR]

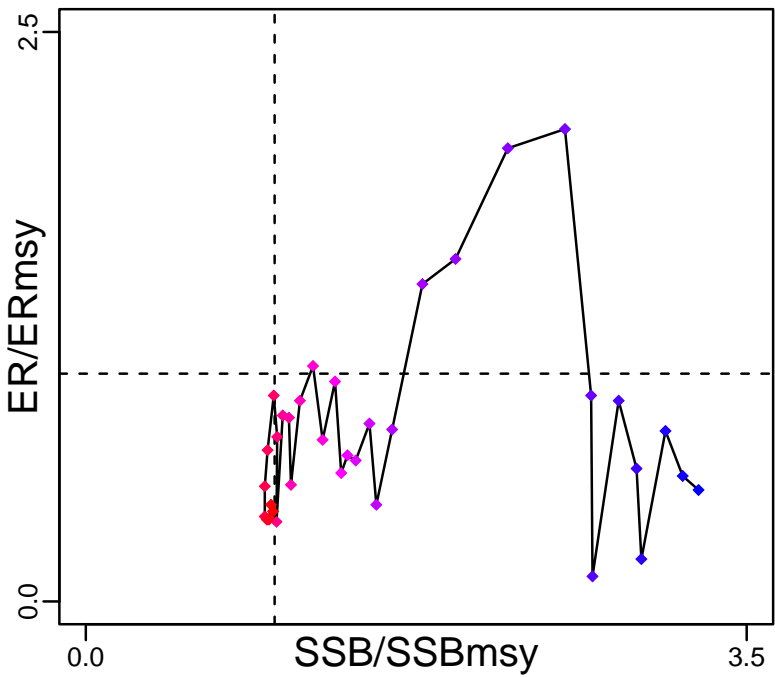
Metadata	
Scientific Name	Allocyttus niger
Current Assess ID	NZMFishDEEPWATER-BLACKOREOWECR-1973-2007-JENSEN
Area	West end of Chatham Rise
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Deepwater Working Group
Asmts in RAM	2007

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2007	63,082
SSBmsy	SSBmsy-MT	2007	27,427
Fmsy	Fmsy-1/yr	2007	0.034
ERmsy	ERmsy-ratio	2007	0.031
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2007	88,923
MSY	MSY-MT	2007	1947
M	M-1/yr	2007	0.044
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

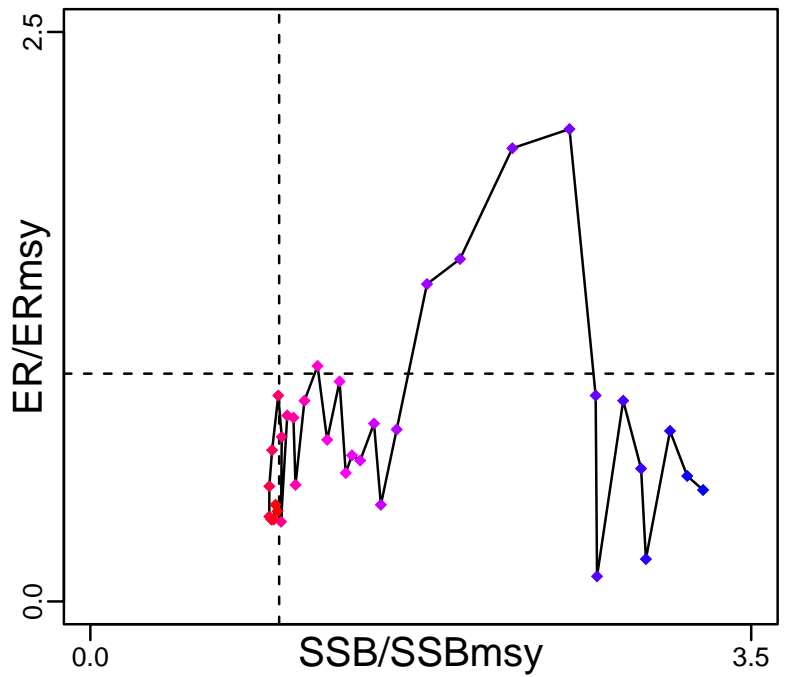
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2007	144,000	-	1
SSB	SSB-MT	2007	27,200	Both	-
TN	-	-	-	-	-
R	R-E00	2007	1.9×10^7	-	1
F	F-1/yr	2007	0.028	-	-
ER	ER-ratio	2007	0.012	-	-
TC	TC-MT	2007	1770		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2007	2.283		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2007	0.992		
F/Fmsy	F-1/yr/Fmsy-1/yr	2007	0.824		
ER/ERmsy	ER-ratio/ERmsy-ratio	2007	0.395		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Black oreo West end of Chatham Rise [BLACKKOREOWECR]

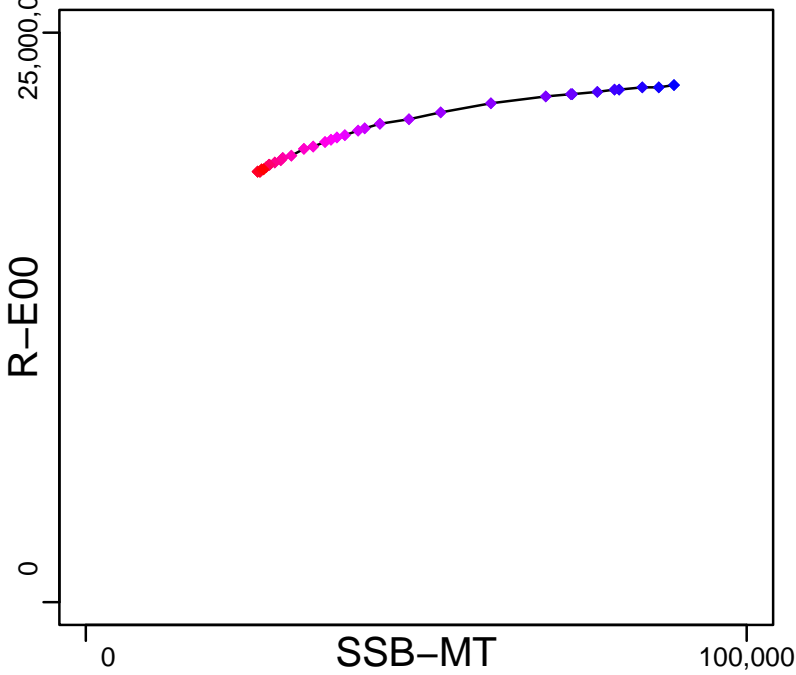
Kobe MSYpref (1973–2007–JENSEN)



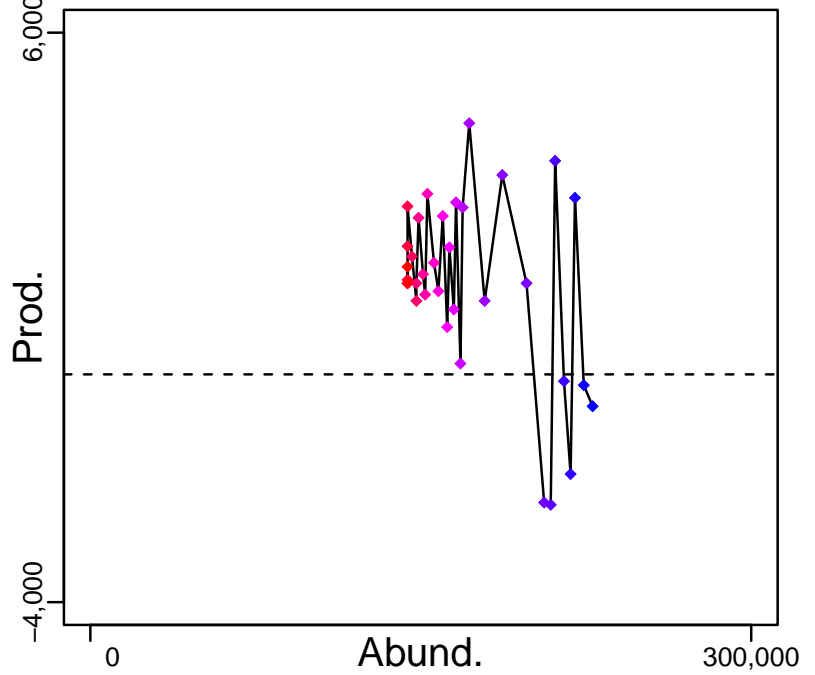
Kobe MGTpref (1973–2007–JENSEN)



Spawner Recruit (1973–2007–JENSEN)



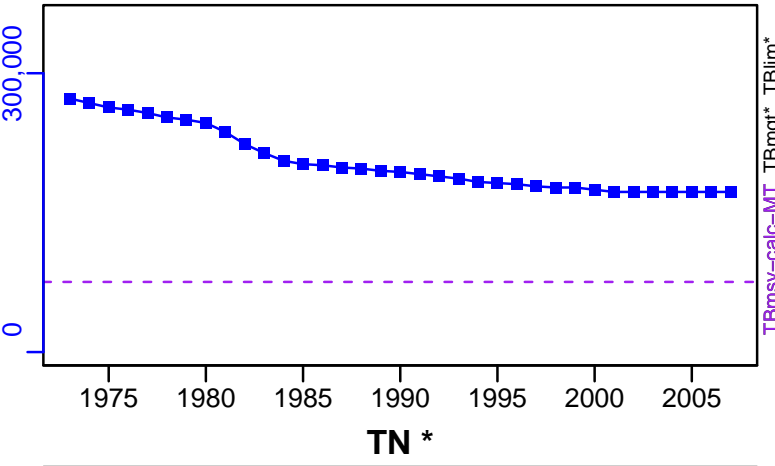
Production (1973–2007–JENSEN)



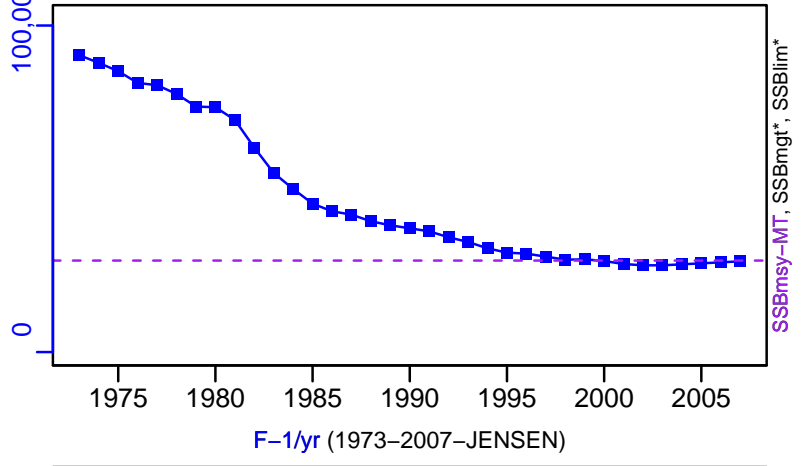
◆ Start Year ◆ End Year * No Data

Black oreo West end of Chatham Rise [BLACKKOREOWECCR]

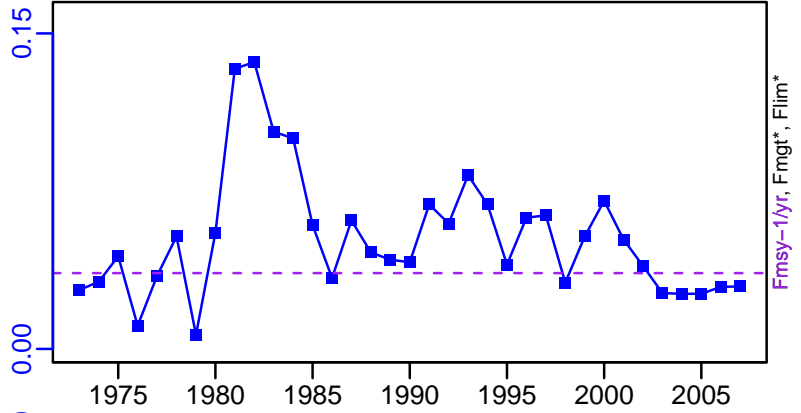
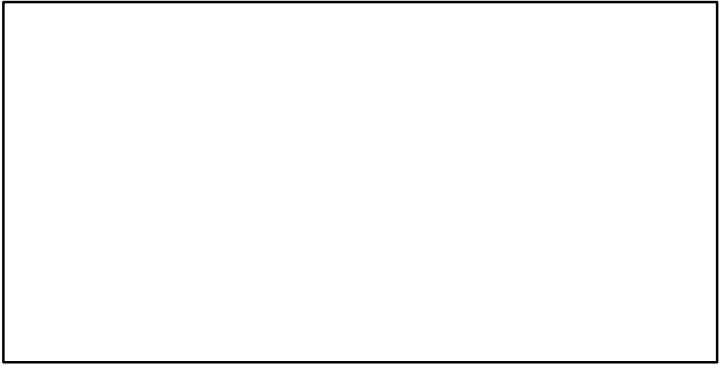
TB-MT (1973-2007-JENSEN)



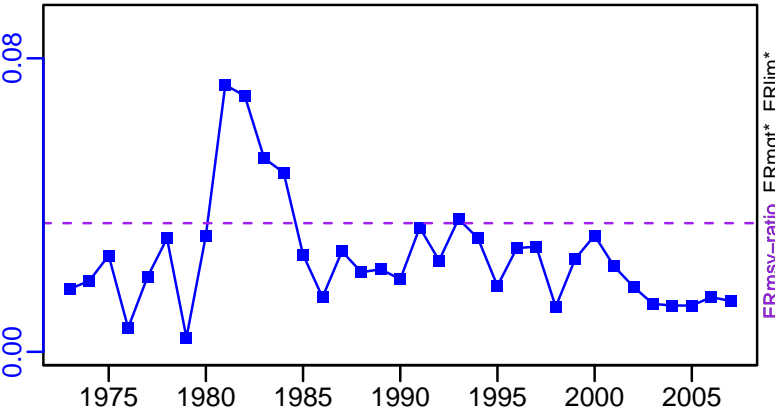
SSB-MT (1973-2007-JENSEN)



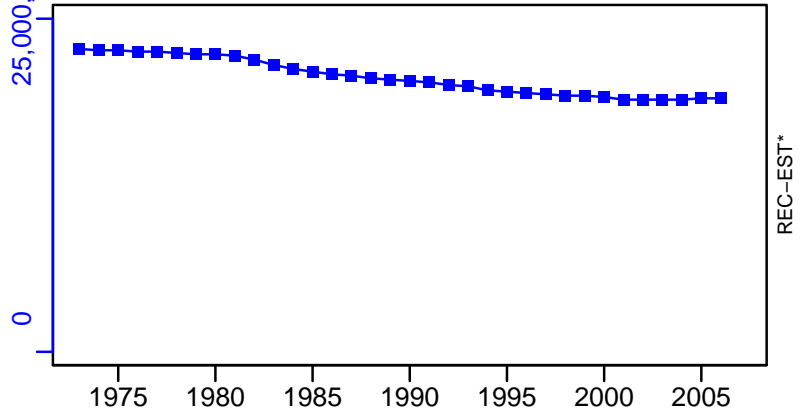
F-1/yr (1973-2007-JENSEN)



ER-ratio (1973-2007-JENSEN)



R-E00 (1973-2007-JENSEN)

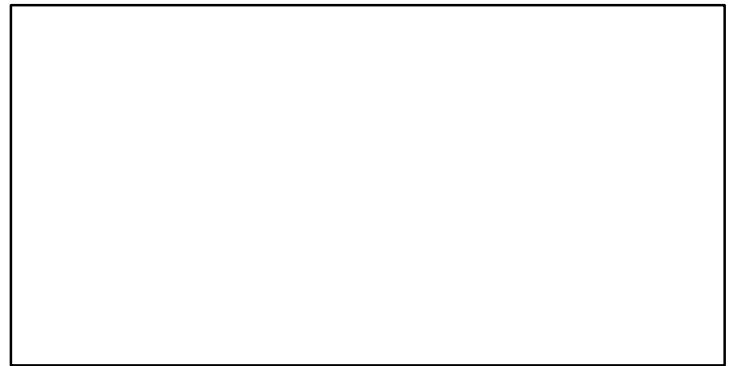
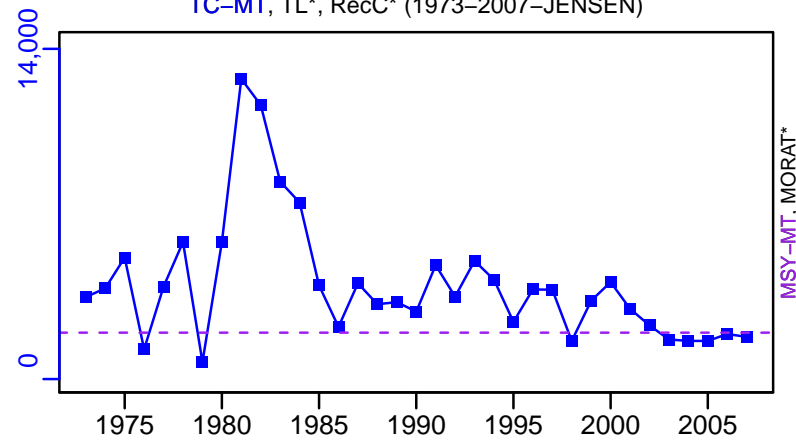


■ Listed time series	- - - Target BRP	— Rec-Est
- - - MSY-based BRP	- - - Lim BRP	* No Data

Black oreo West end of Chatham Rise [BLACKKOREOWECR]

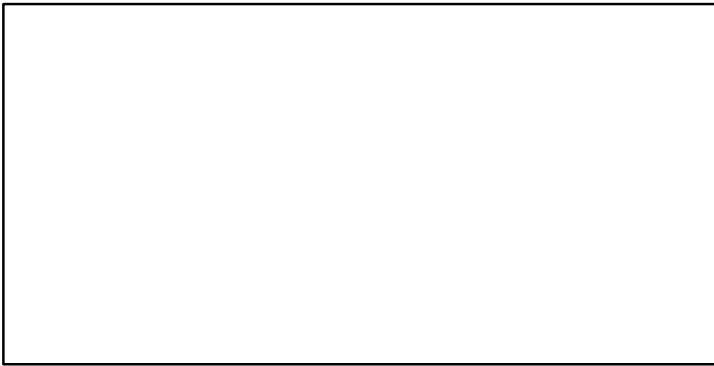
TC-MT, TL*, RecC* (1973-2007-JENSEN)

TAC*, Cpair*, Cadv*



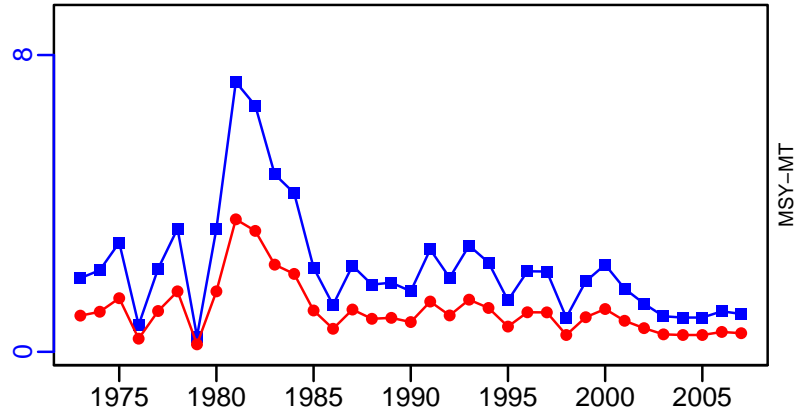
survB*

CPUE*



EFFORT*

TC-MT/MSY-MT, CdivMEANC-ratio, (1973-2007-JENSEN)



Bluenose New Zealand [BNSNZ]

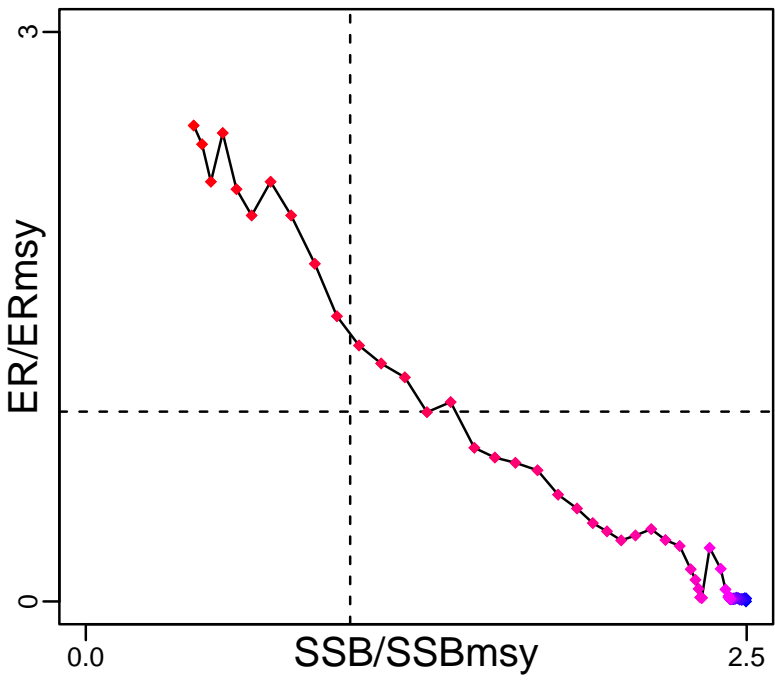
Metadata	
Scientific Name	Hyperoglyphe antarctica
Current Assess ID	NZMFishINSHOREWG-BNSNZ-1935-2011-CORDUE
Area	New Zealand
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Inshore Working Group
Asmts in RAM	2011

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2011	23,867
SSBmsy	SSBmsy-MT	2011	16,737
Fmsy	Fmsy-1/yr	2011	0.08
ERmsy	ERmsy-ratio	2011	0.051
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2011	16,737
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2011	41,843
MSY	MSY-MT	2011	1209
M	M-1/yr	2011	0.08
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

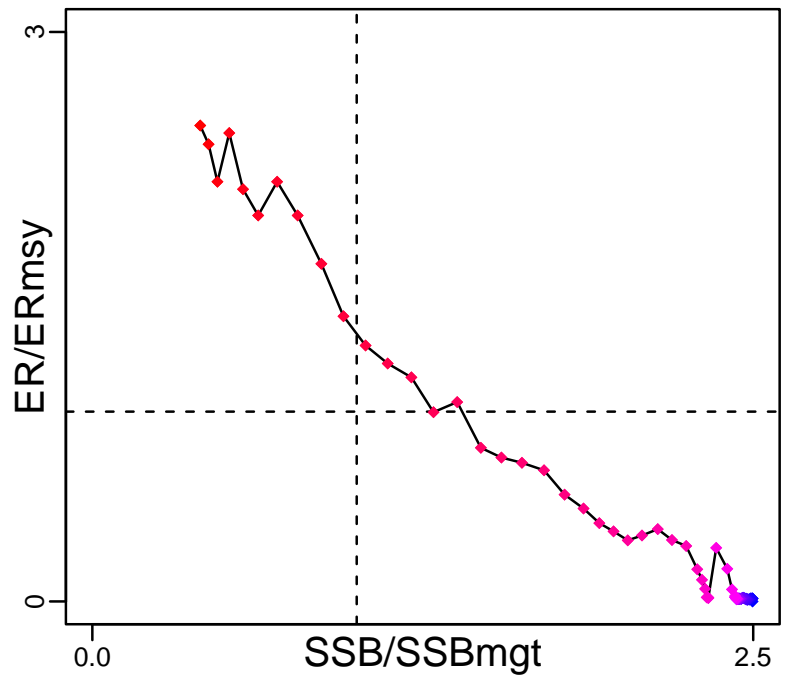
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2011	6830	Both	17+
TN	-	-	-	-	-
R	R-E00	2011	1,010,000	-	1
F	F-1/yr	2011	0.206	-	-
ER	ER-ratio	2011	0.127	-	-
TC	TC-MT	2011	2000		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2011	0.408		
F/Fmsy	FdivFmsy-dimensionless	2011	2.71		
ER/ERmsy	ER-ratio/ERmsy-ratio	2011	2.507		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2011	0.408		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Bluenose New Zealand [BNSNZ]

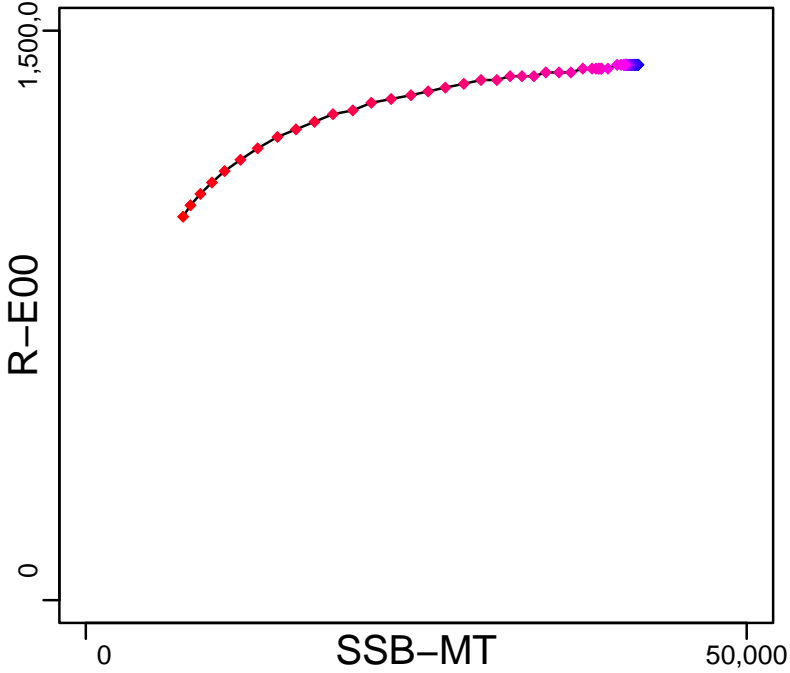
Kobe MSYpref (1935–2011–CORDUE)



Kobe MGTpref (1935–2011–CORDUE)



Spawner Recruit (1935–2011–CORDUE)



Production*



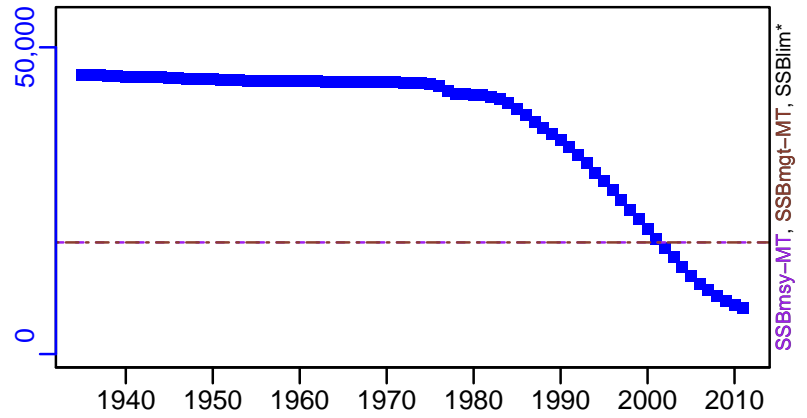
◆ Start Year ◆ End Year * No Data

Bluenose New Zealand [BNSNZ]

TB*



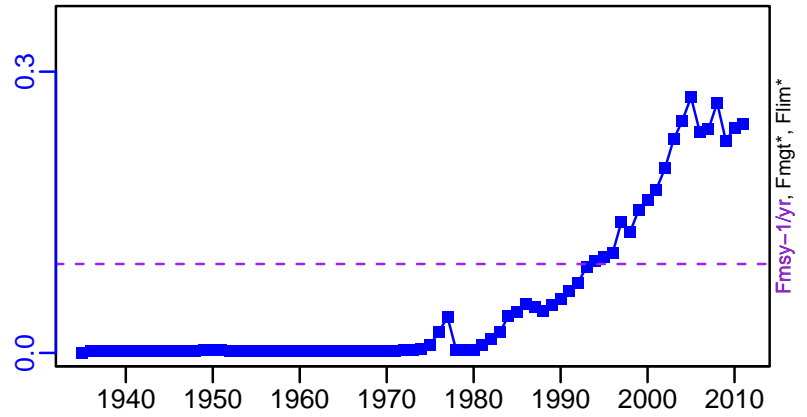
SSB-MT (1935-2011-CORDUE)



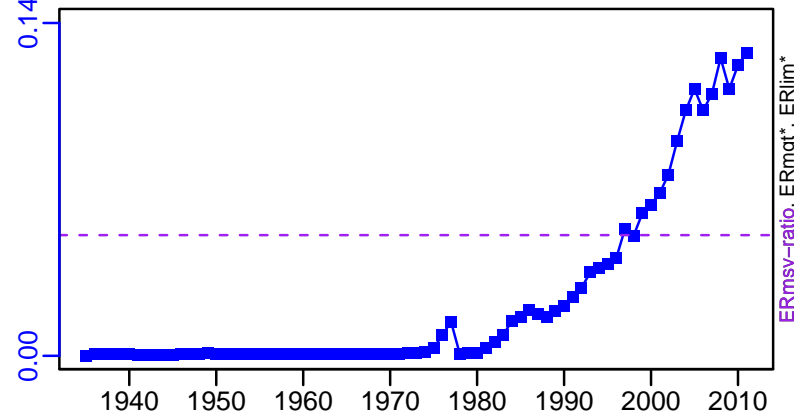
TN *



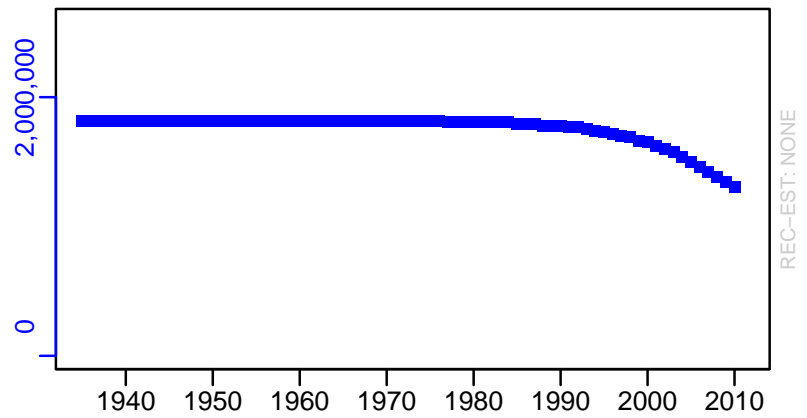
F-1/yr (1935-2011-CORDUE)



ER-ratio (1935-2011-CORDUE)



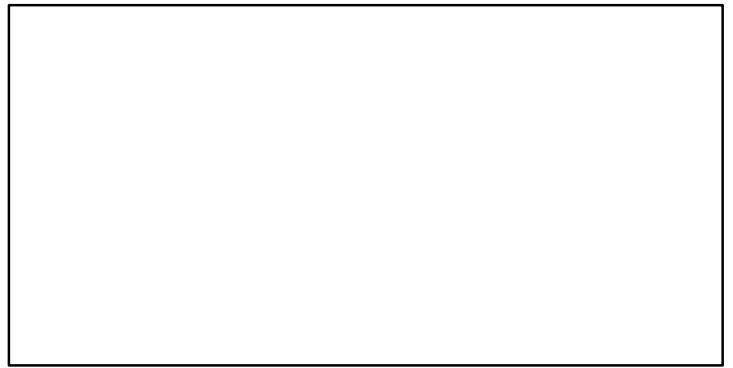
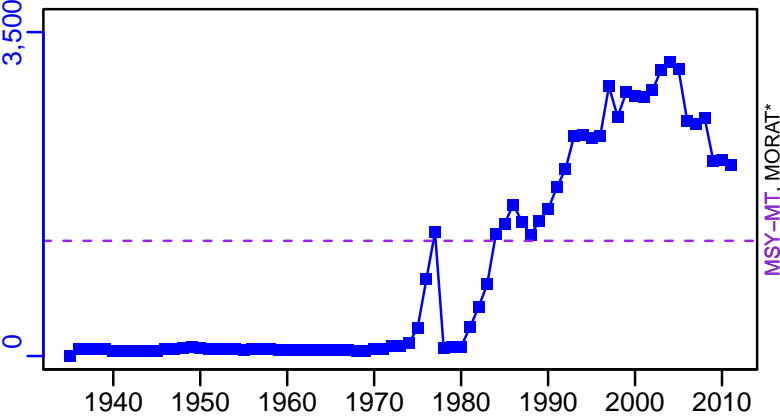
R-E00 (1935-2011-CORDUE)



Bluenose New Zealand [BNSNZ]

TC-MT, TL*, RecC* (1935-2011-CORDUE)

TAC*, Cpair*, Cadv*



survB*



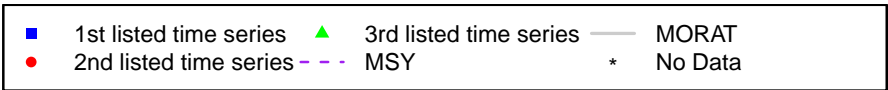
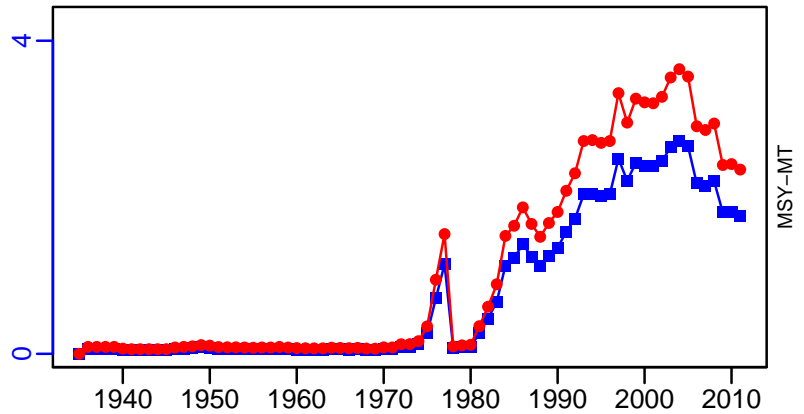
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1935-2011-CORDUE)



Dredge oyster Foveax Strait [DOYSFS]

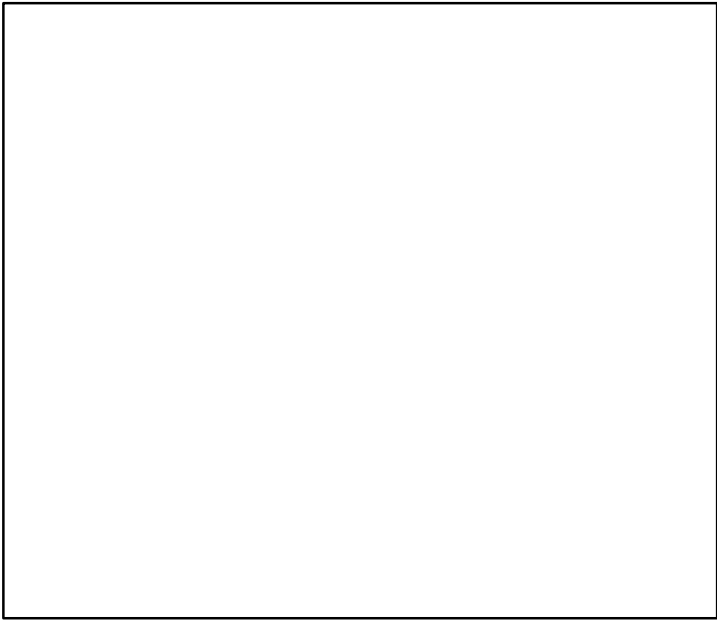
Metadata	
Scientific Name	Ostrea chilensis
Current Assess ID	NIWA-DOYSFS-1906-2012-FU
Area	Foveax Strait
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2012

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	SSBmgt-E00	2012	1,501,772,000
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2012	0.1
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-E00	2012	1.44×10^9	-	-
TN	-	-	-	-	-
R	R-E00	2012	4.98×10^8	Both	-
F	F-1/yr	2012	0.01	Both	-
ER	-	-	-	-	-
TC	TC-E00	2012	12,600,000		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSBdivSSBmgt-dimensionless	2012	0.9		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Dredge oyster Foveax Strait [DOYSFS]

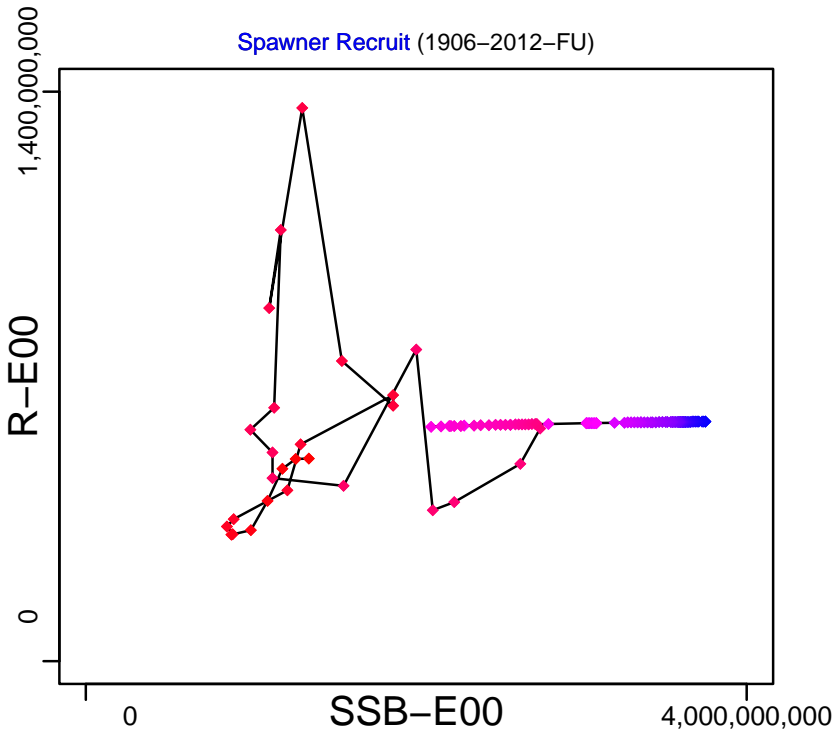
Kobe MSY*



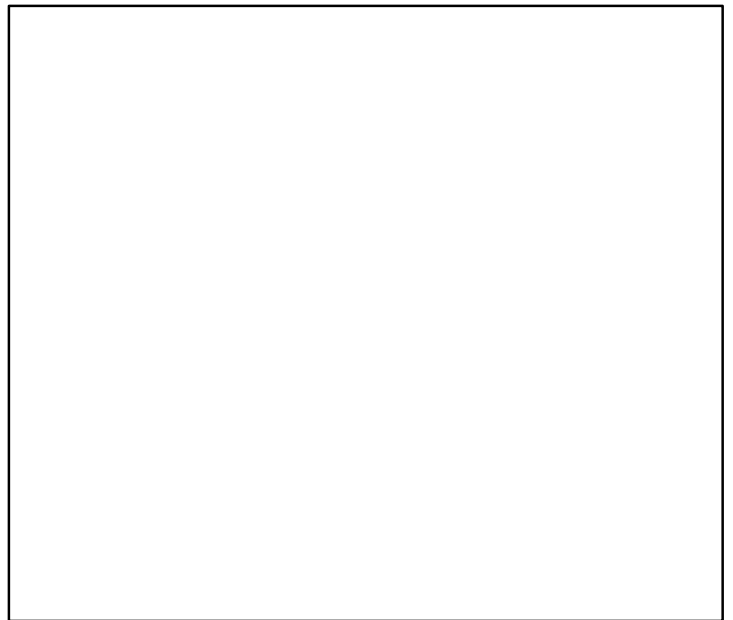
Kobe MGT*



Spawner Recruit (1906-2012-FU)



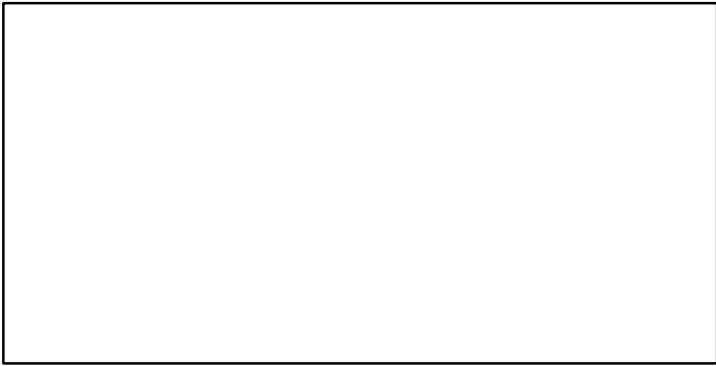
Production*



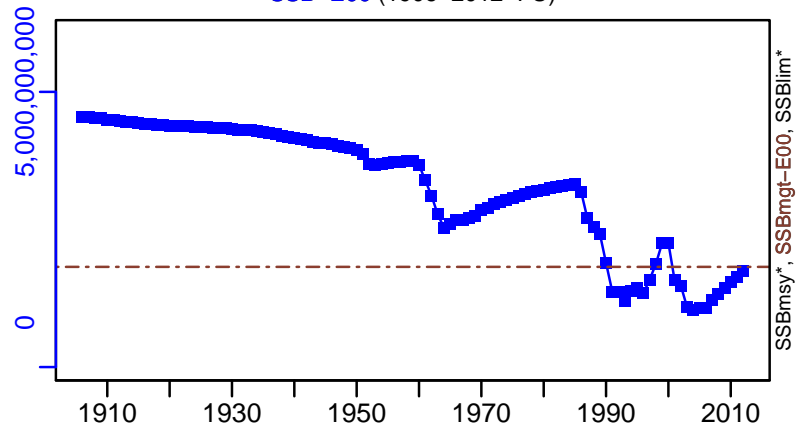
◆ Start Year ◆ End Year * No Data

Dredge oyster Foveax Strait [DOYSFS]

TB*



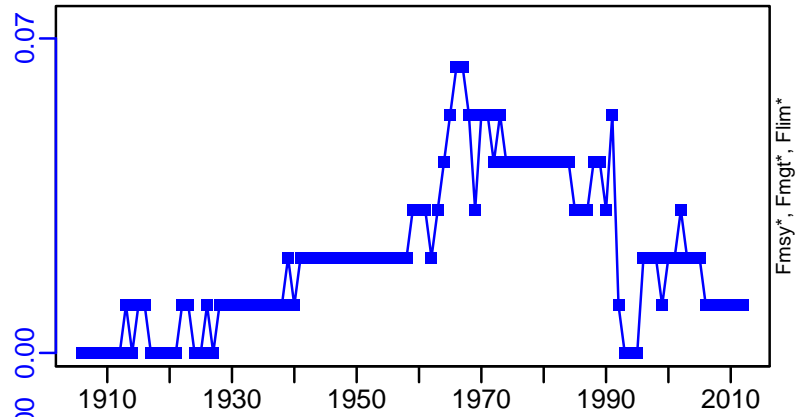
SSB-E00 (1906-2012-FU)



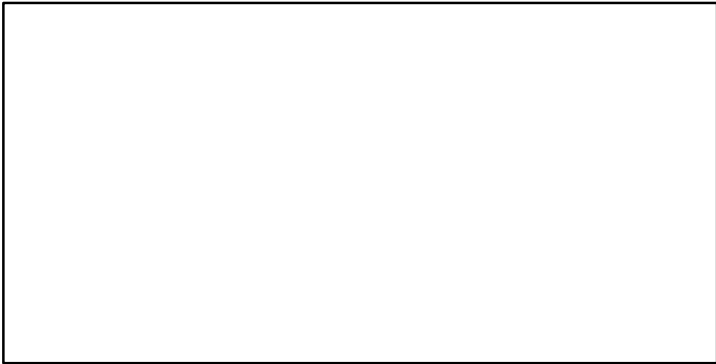
TN *



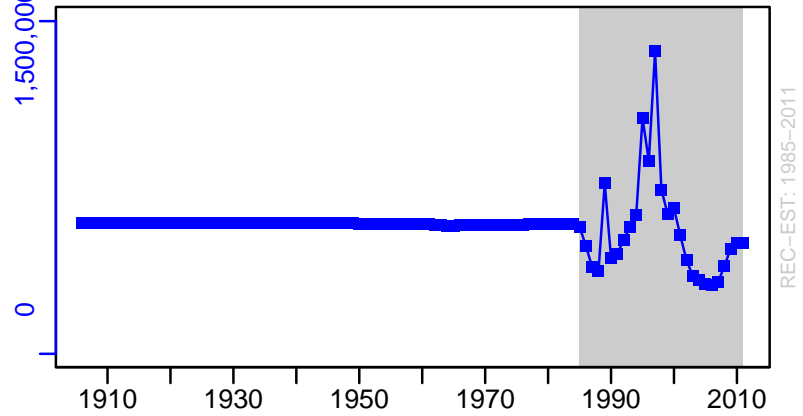
F-1/yr (1906-2012-FU)



ER*

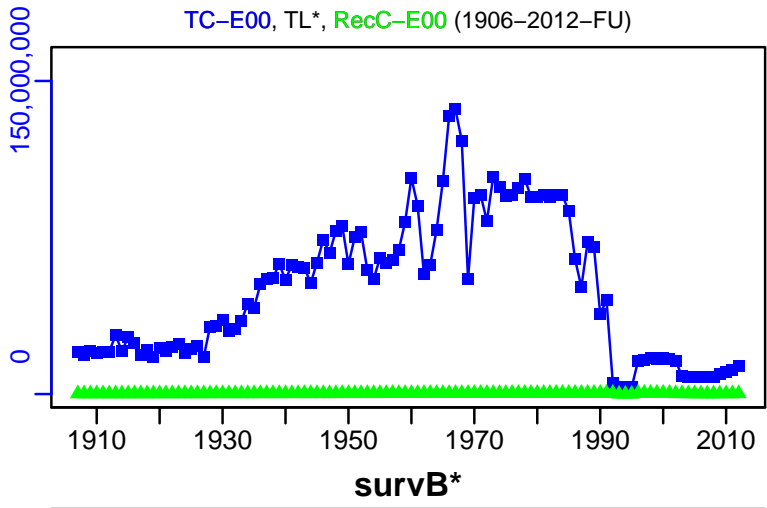


R-E00 (1906-2012-FU)

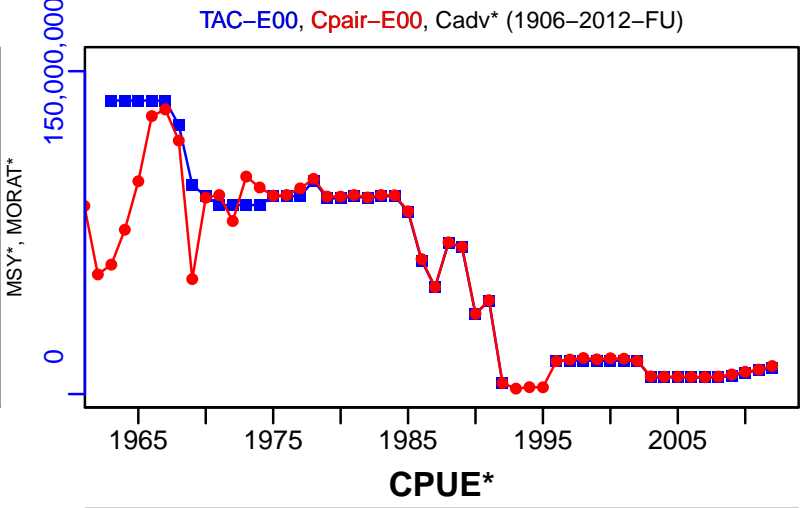


Dredge oyster Foveax Strait [DOYSFS]

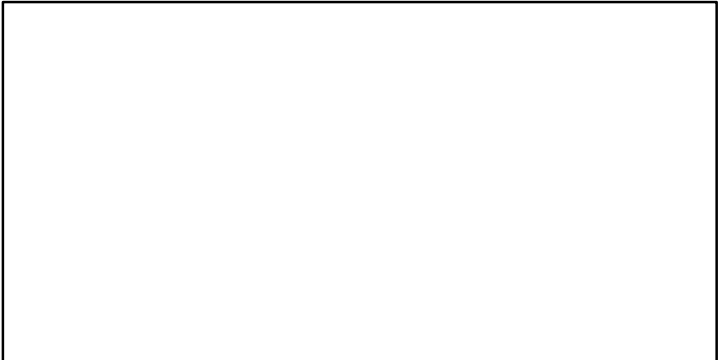
TC-E00, TL*, RecC-E00 (1906-2012-FU)



TAC-E00, Cpair-E00, Cadv* (1906-2012-FU)



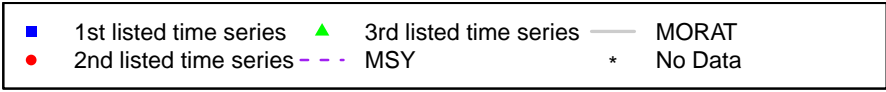
EFFORT*



CPUE*



CdivMSY*



Common gemfish New Zealand [GEMFISHNZ]

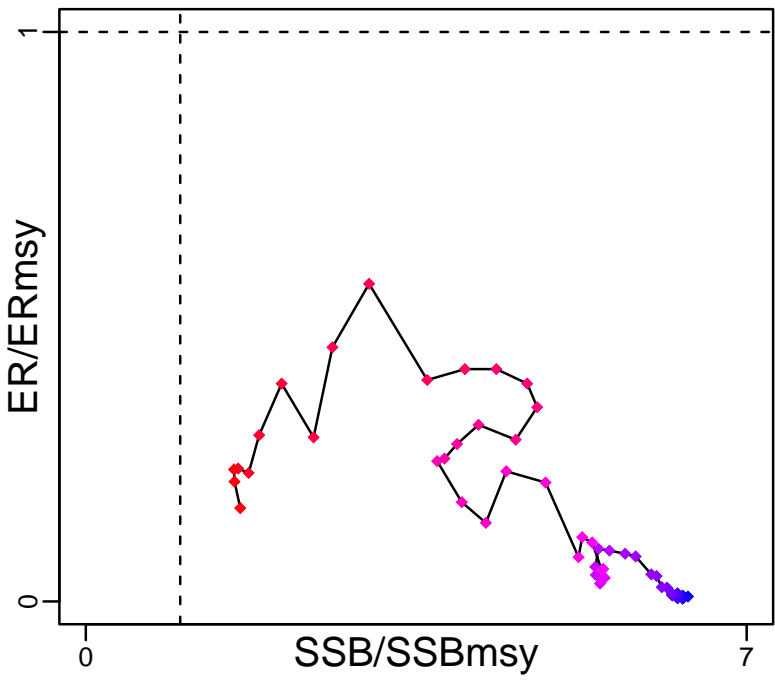
Metadata	
Scientific Name	Rexea solandri
Current Assess ID	NZMFishMIDDEPTHSWG-GEMFISHNZ-1952-2007-JENSEN
Area	New Zealand
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Middle Depths Working Group
Asmts in RAM	2007

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2007	4565
SSBmsy	SSBmsy-MT	2007	1803
Fmsy	Fmsy-1/yr	2007	0.29
ERmsy	ERmsy-ratio	2007	0.314
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2007	11,485
MSY	MSY-MT	2007	1432
M	M-1/yr	2007	0.24
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

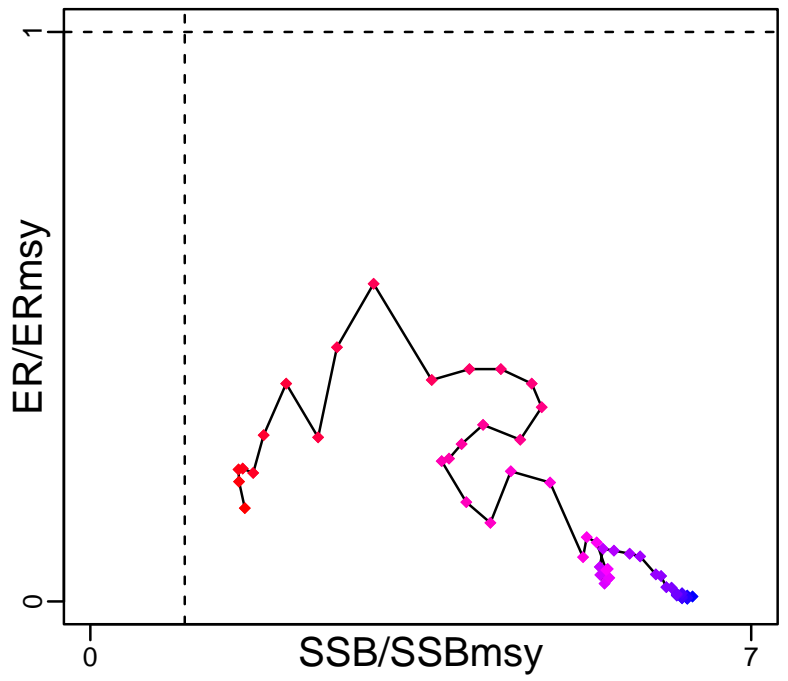
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2007	8020	-	1
SSB	SSB-MT	2007	2950	Both	-
TN	-	-	-	-	-
R	R-E00	2007	1,930,000	-	1
F	F-1/yr	2007	0.124	-	-
ER	ER-ratio	2007	0.051	-	-
TC	TC-MT	2007	412		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2007	1.757		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2007	1.636		
F/Fmsy	F-1/yr/Fmsy-1/yr	2007	0.428		
ER/ERmsy	ER-ratio/ERmsy-ratio	2007	0.164		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Common gemfish New Zealand [GEMFISHNZ]

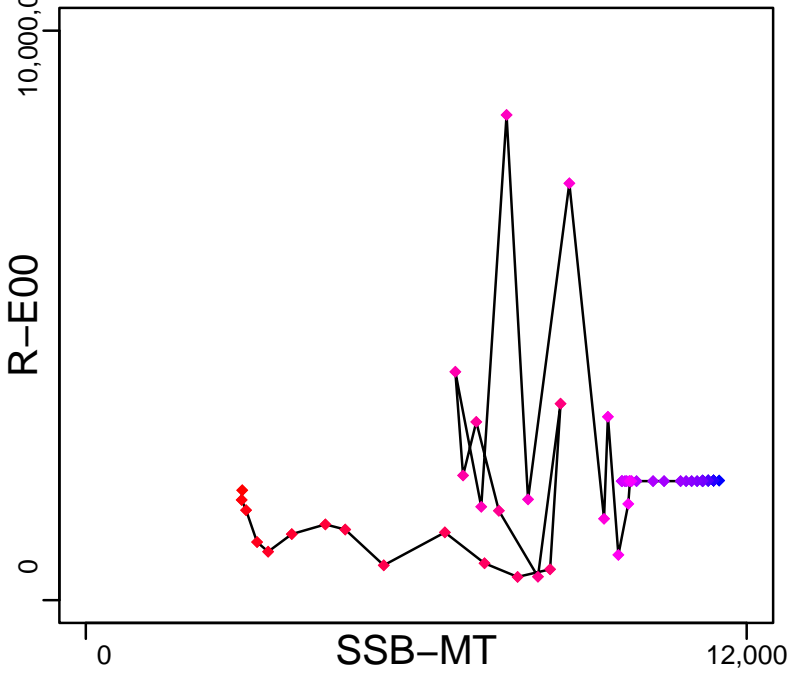
Kobe MSYpref (1952–2007–JENSEN)



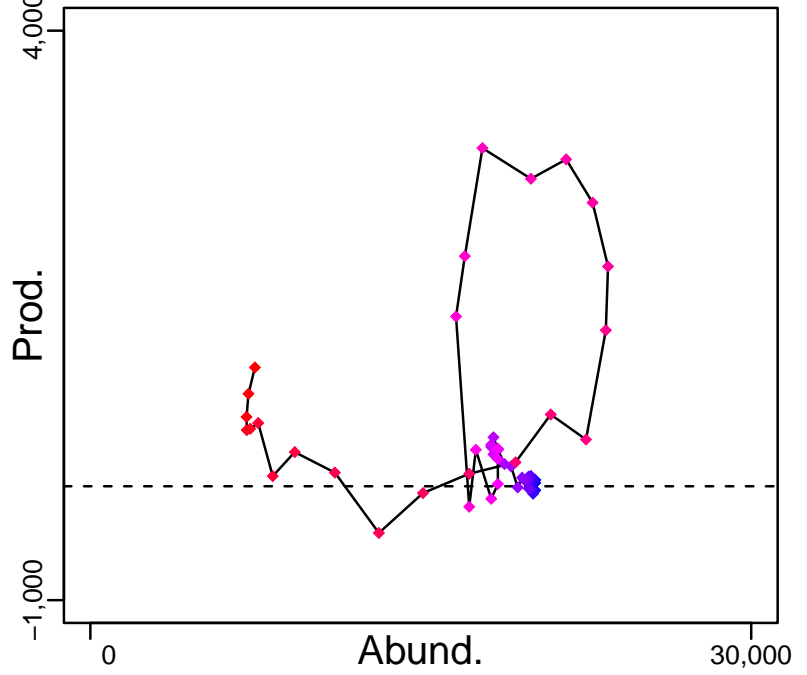
Kobe MGTpref (1952–2007–JENSEN)



Spawner Recruit (1952–2007–JENSEN)



Production (1952–2007–JENSEN)

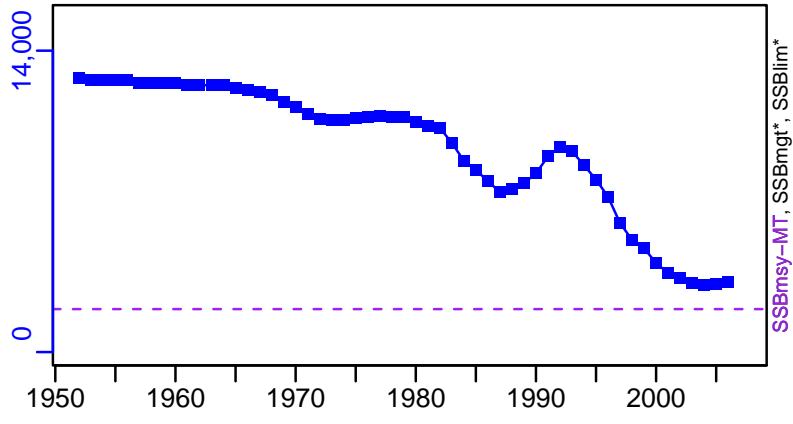
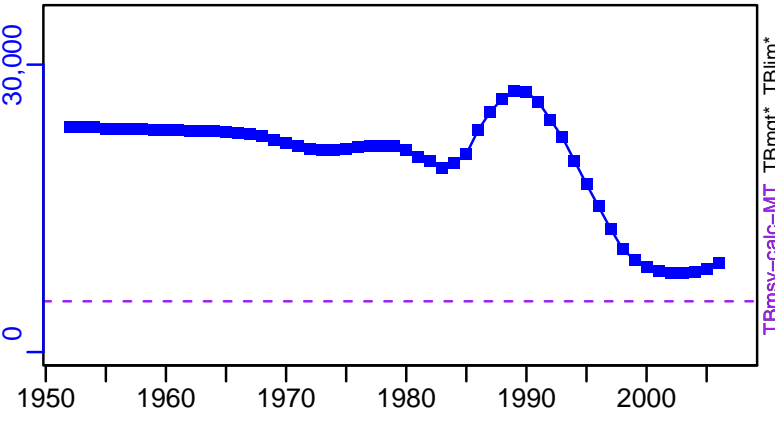


◆ Start Year ◆ End Year * No Data

Common gemfish New Zealand [GEMFISHNZ]

TB-MT (1952-2007-JENSEN)

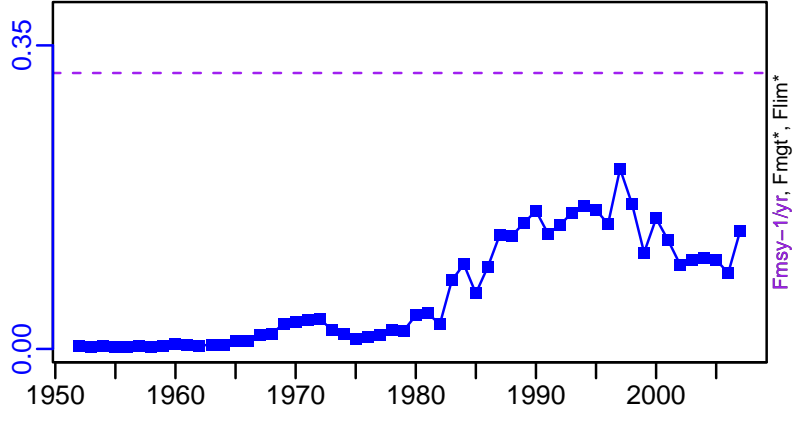
SSB-MT (1952-2007-JENSEN)



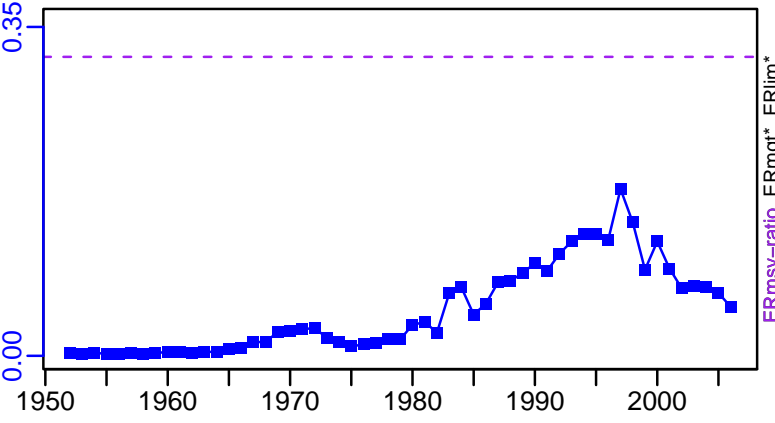
TN *



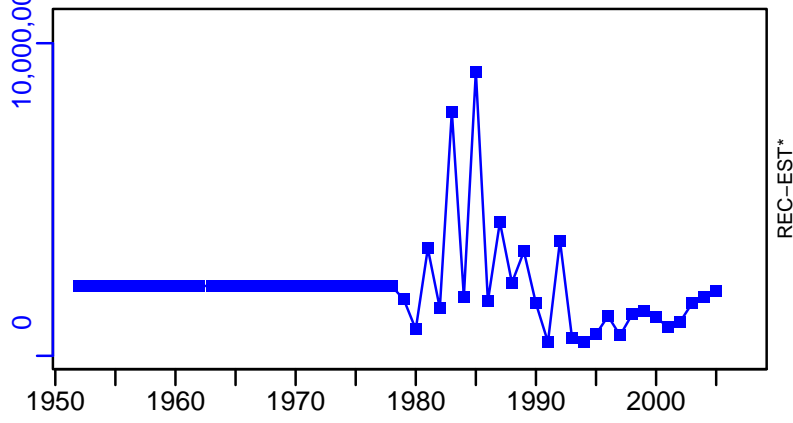
F-1/yr (1952-2007-JENSEN)



ER-ratio (1952-2007-JENSEN)



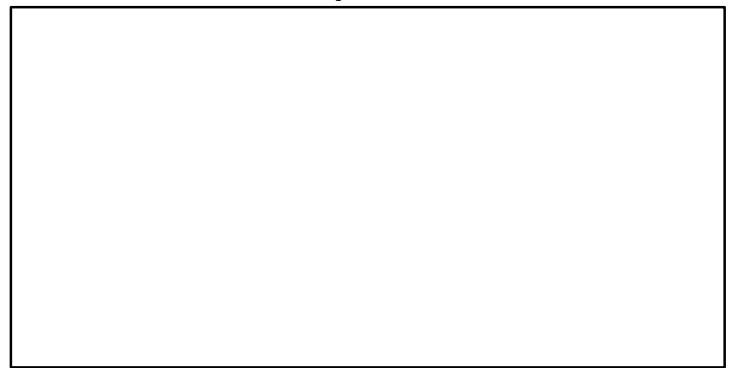
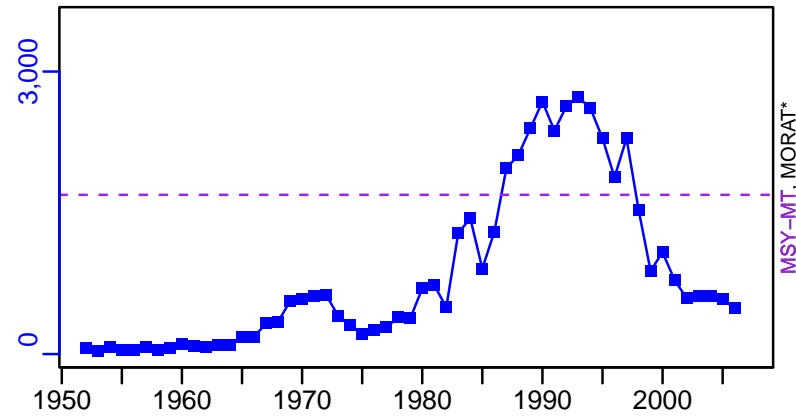
R-E00 (1952-2007-JENSEN)



Common gemfish New Zealand [GEMFISHNZ]

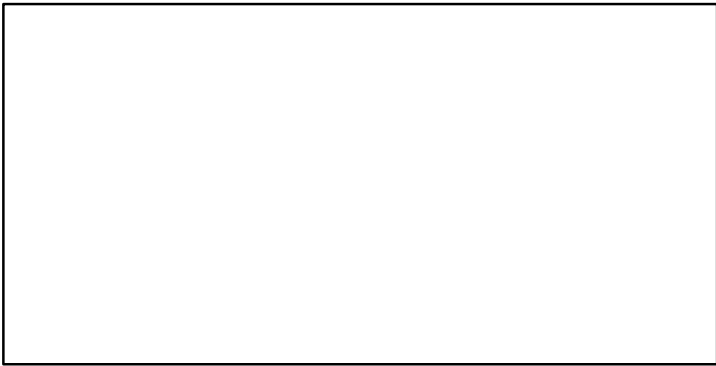
TC-MT, TL*, RecC* (1952-2007-JENSEN)

TAC*, Cpair*, Cadv*



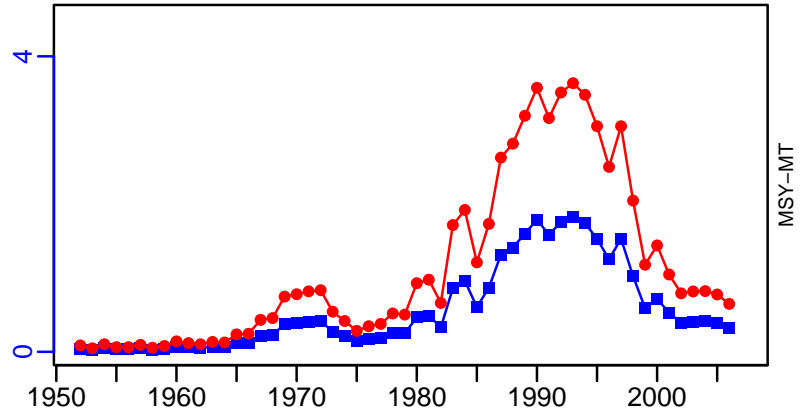
survB*

CPUE*



EFFORT*

TC-MT/MSY-MT, CdivMEANC-ratio, (1952-2007-JENSEN)



Giant stargazer NZ Area STA7 [GSTRGZRSTA7]

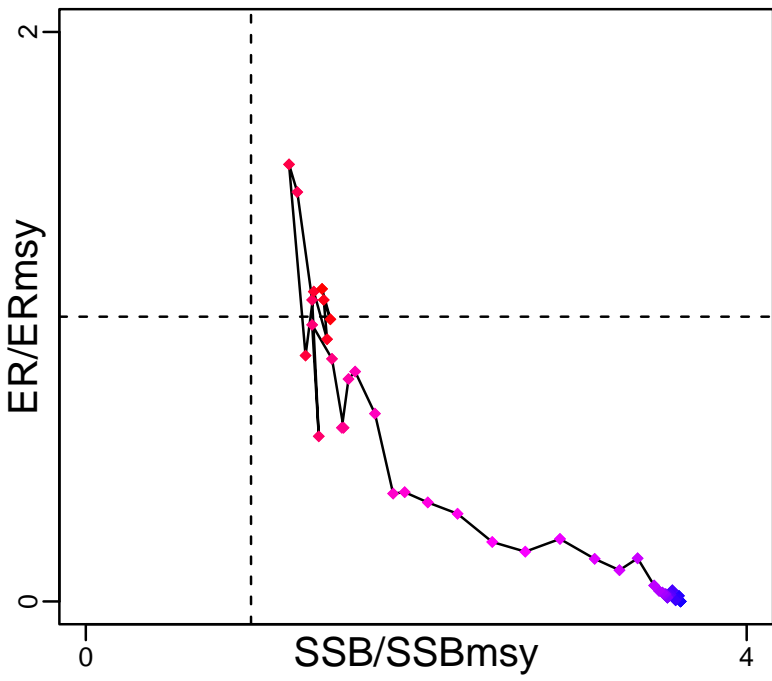
Metadata	
Scientific Name	Kathetostoma giganteum
Current Assess ID	NIWA-GSTRGZRSTA7-1964-2007-CORDUE
Area	NZ Area STA7
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2007

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2007	5906
SSBmsy	SSBmsy-MT	2007	2568
Fmsy	Fmsy-1/yr	2007	0.38
ERmsy	ERmsy-ratio	2007	0.103
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2007	9237
MSY	MSY-MT	2007	608
M	M-1/yr	2007	0.18
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

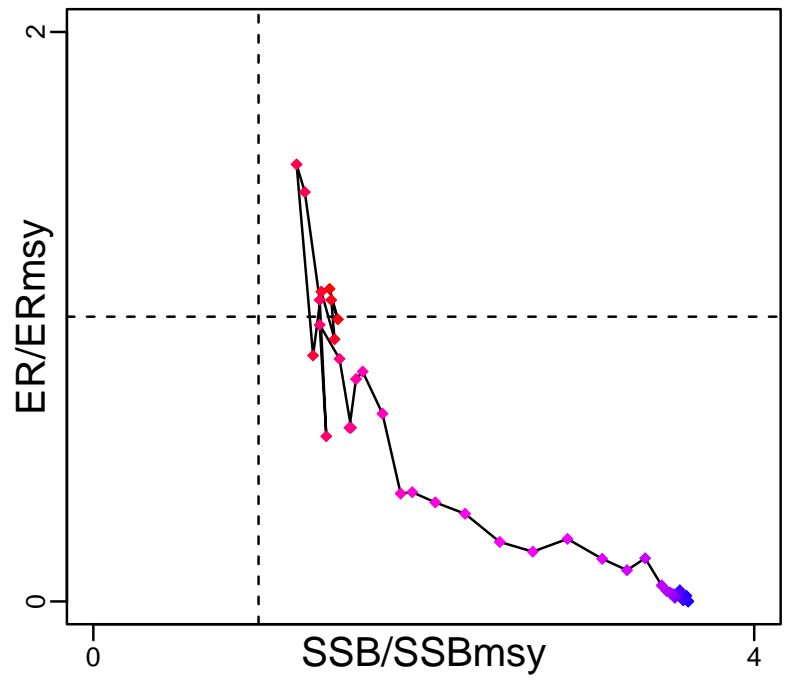
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2007	3680	Both	-
TN	-	-	-	-	-
R	R-E00	2007	1,180,000	-	0
F	F-1/yr	2007	0.486	-	-
ER	ER-ratio	2007	0.113	-	-
TC	TC-MT	2007	958		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2007	1.43		
F/Fmsy	FdivFmsy-dimensionless	2007	1.28		
ER/ERmsy	ER-ratio/ERmsy-ratio	2007	1.098		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Giant stargazer NZ Area STA7 [GSTRGZRSTA7]

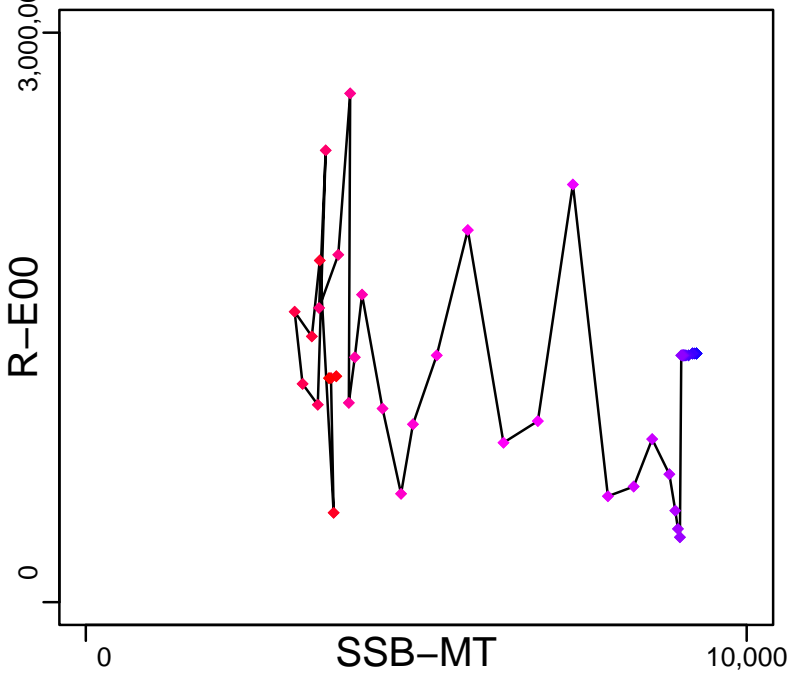
Kobe MSYpref (1964–2007–CORDUE)



Kobe MGTpref (1964–2007–CORDUE)



Spawner Recruit (1964–2007–CORDUE)



Production*



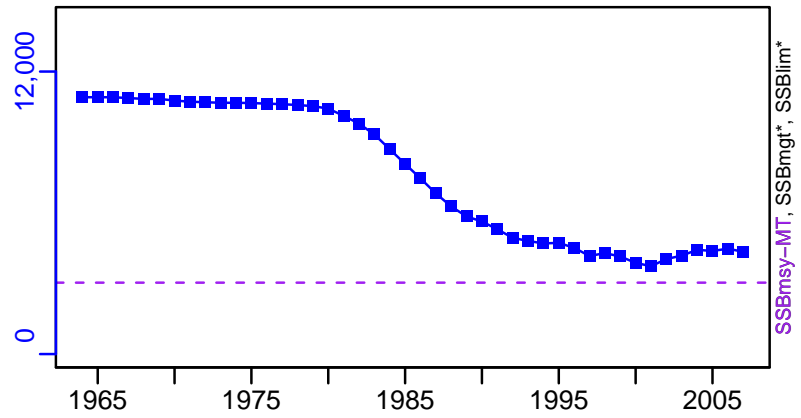
◆ Start Year ◆ End Year * No Data

Giant stargazer NZ Area STA7 [GSTRGZRSTA7]

TB*



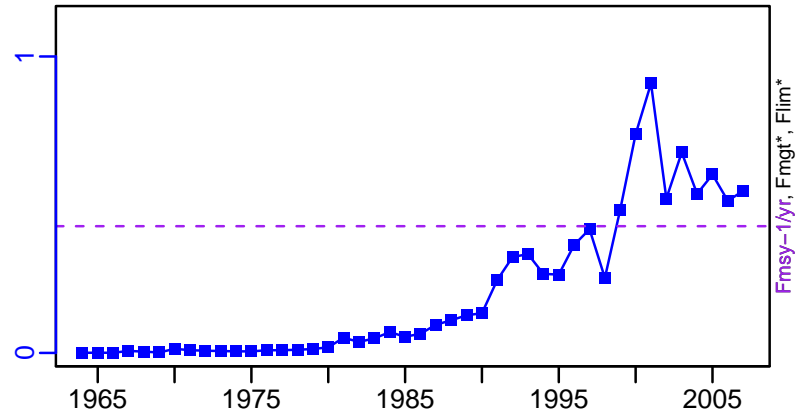
SSB-MT (1964-2007-CORDUE)



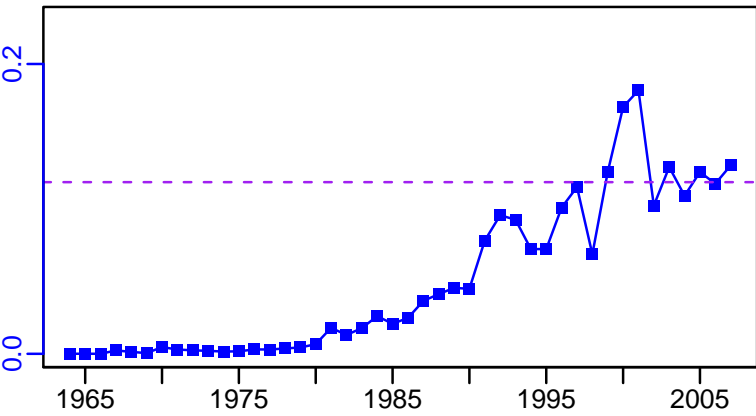
TN *



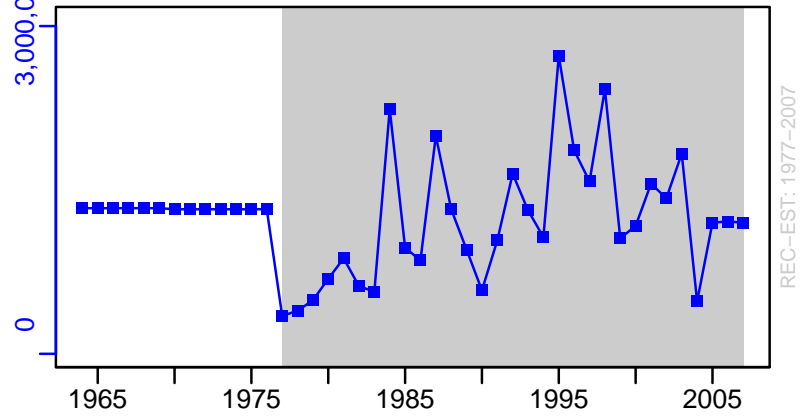
F-1/yr (1964-2007-CORDUE)



ER-ratio (1964-2007-CORDUE)



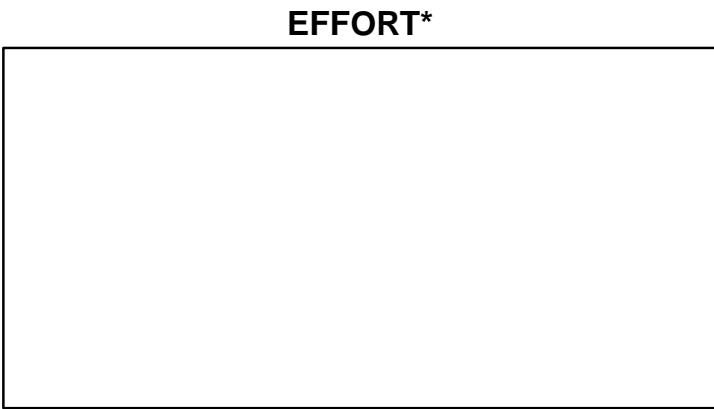
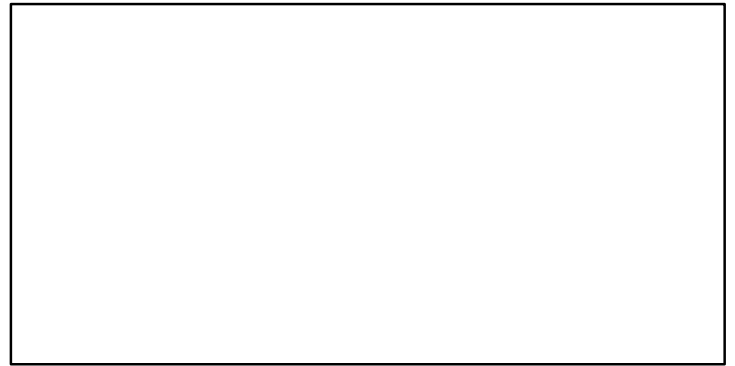
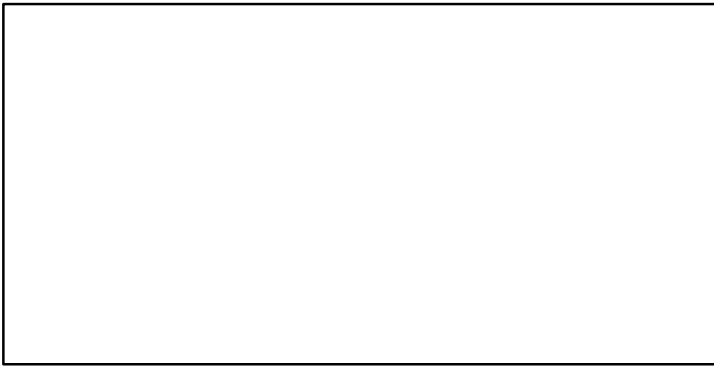
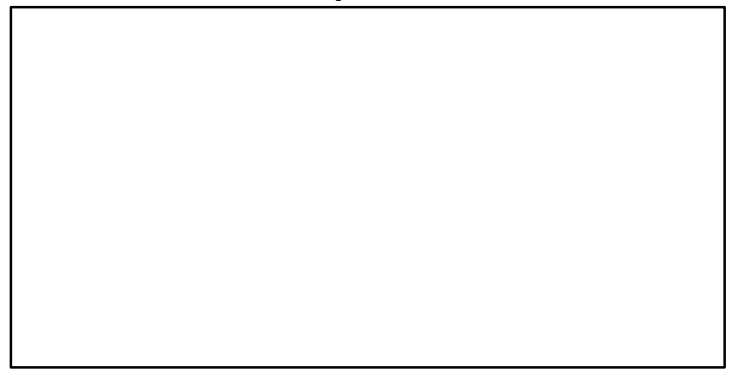
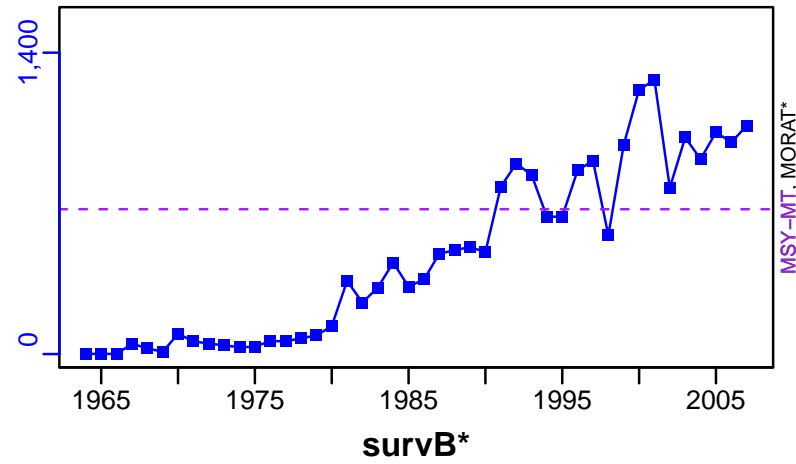
R-E00 (1964-2007-CORDUE)



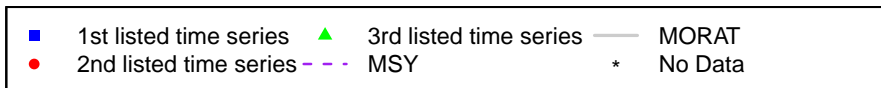
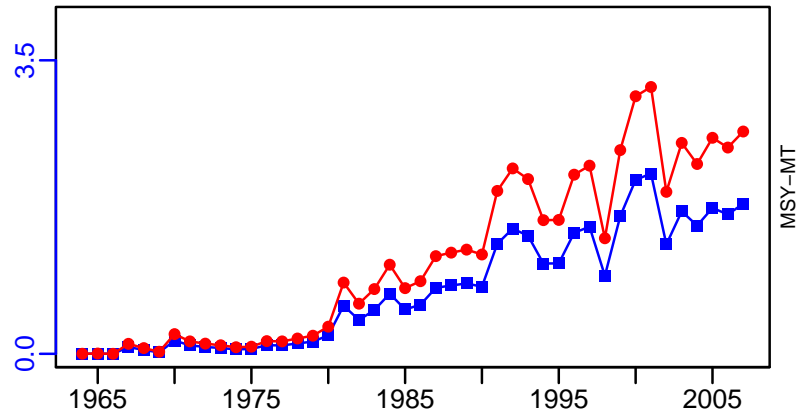
Giant stargazer NZ Area STA7 [GSTRGZRSTA7]

TC-MT, TL*, RecC* (1964-2007-CORDUE)

TAC*, Cpair*, Cadv*



TC-MT/MSY-MT, CdivMEANC-ratio, (1964-2007-CORDUE)



Hoki Eastern New Zealand [HOKIENZ]

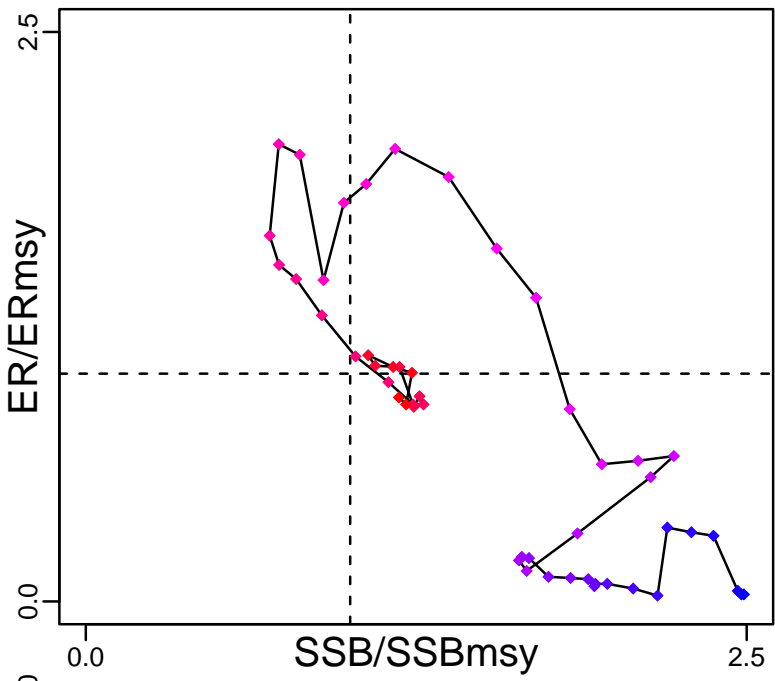
Metadata	
Scientific Name	Macruronus novaezelandiae
Current Assess ID	NIWA-HOKIENZ-1970-2021-MCGREGOR
Area	Eastern New Zealand
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2012, 2015, 2021

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2015	252,069
SSBmsy	SSBmsy-MT	2021	272,868
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2015	0.29
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2021	289,923
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2021	682,171
MSY	MSY-MT	2015	73,100
M	M-1/yr	2015	0.29
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

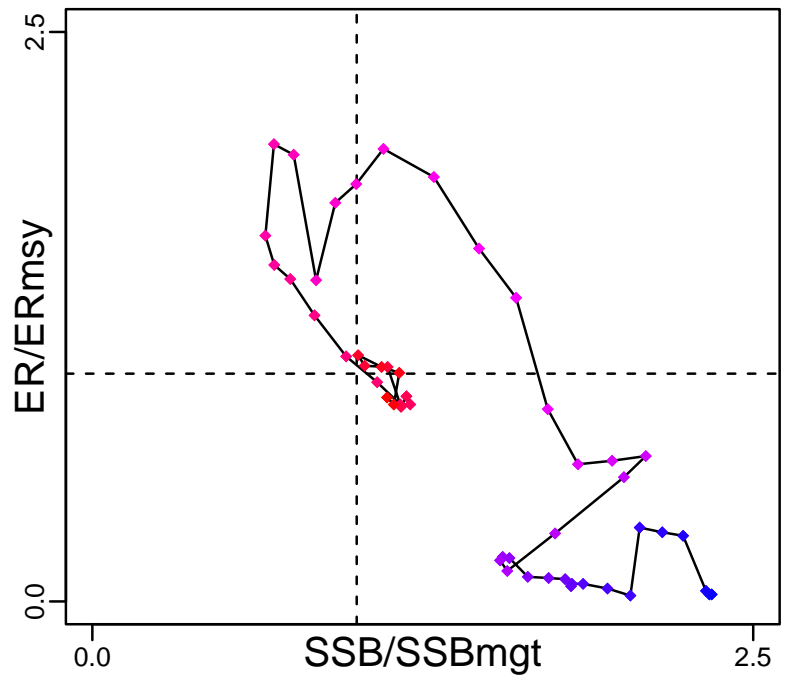
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2021	323,219	-	2+
TN	-	-	-	-	-
R	R-E00	2021	228,993,751	-	-
F	F-1/yr	2012	0.107	-	-
ER	ER-ratio	2021	0.174	-	-
TC	TC-MT	2021	56,100		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2021	1.185		
F/Fmsy	FdivFmsy-dimensionless	2012	0.382		
ER/ERmsy	ERdivERmsy-dimensionless	2015	0.3		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2021	1.115		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Hoki Eastern New Zealand [HOKIENZ]

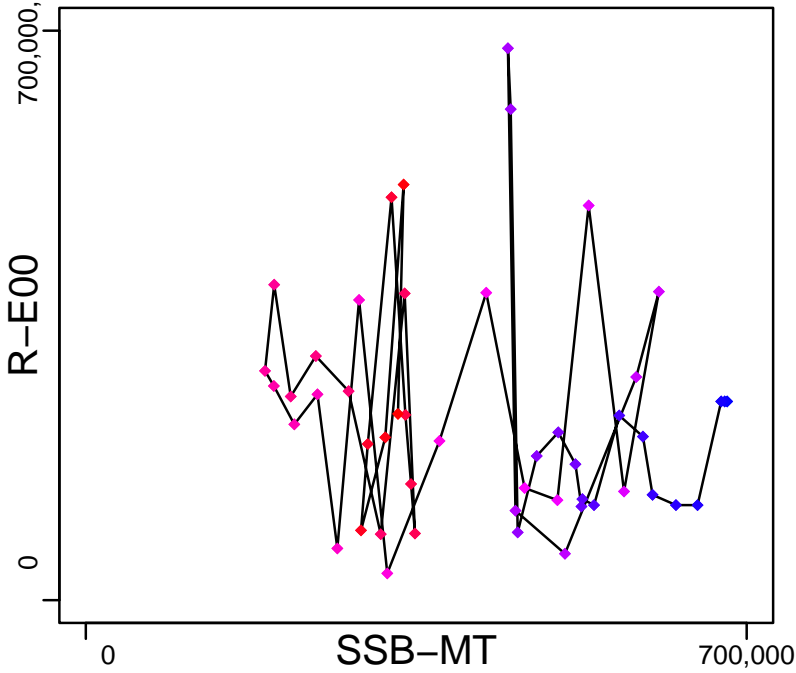
Kobe MSYpref (1970–2021–MCGREGOR)



Kobe MGTpref (1970–2021–MCGREGOR)



Spawner Recruit (1970–2021–MCGREGOR)



Production*



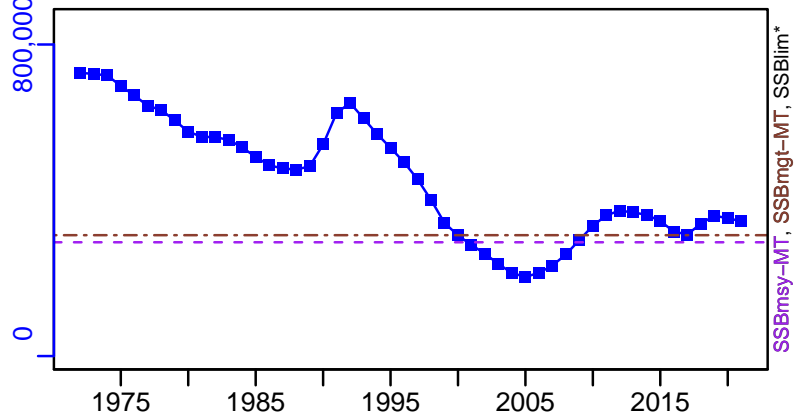
◆ Start Year ◆ End Year * No Data

Hoki Eastern New Zealand [HOKIENZ]

TB*



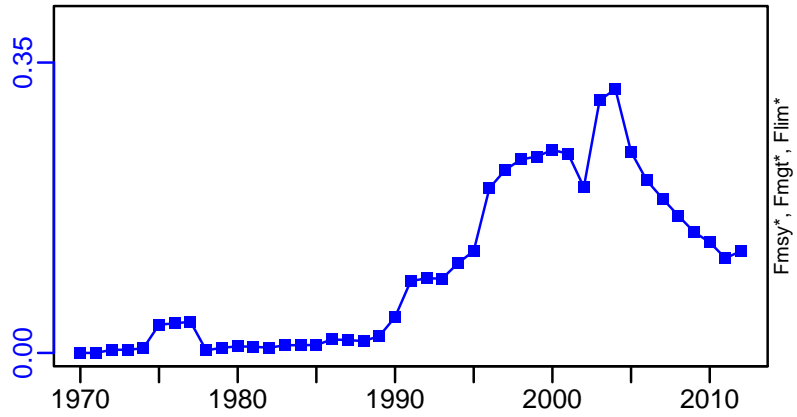
SSB-MT (1970-2021-MCGREGOR)



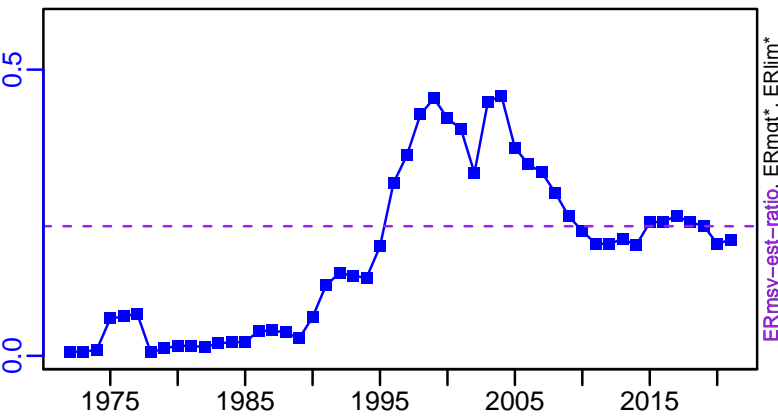
TN *



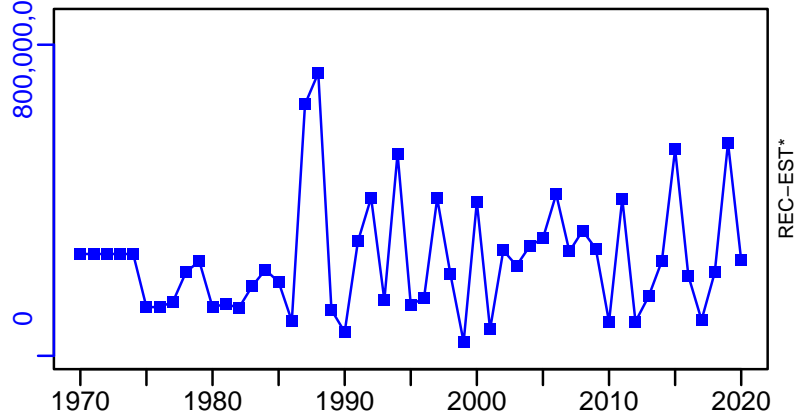
F-1/yr (1970-2012-CORDUE)



ER-ratio (1970-2021-MCGREGOR)



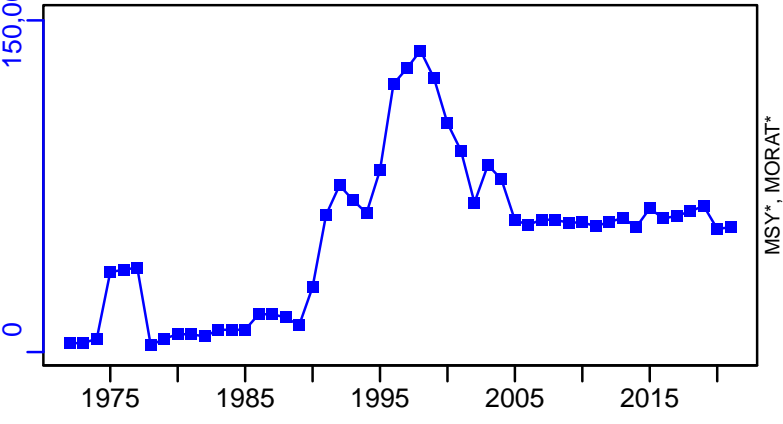
R-E00 (1970-2021-MCGREGOR)



Hoki Eastern New Zealand [HOKIENZ]

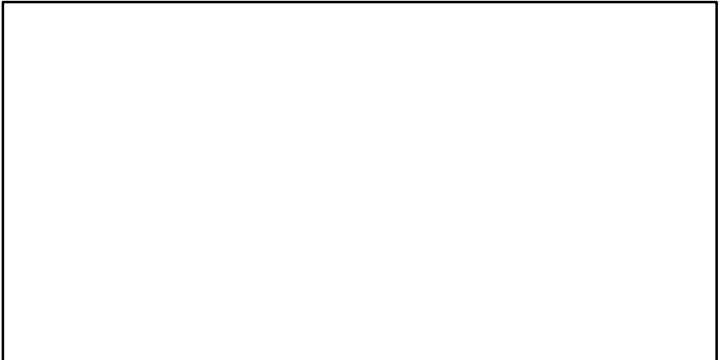
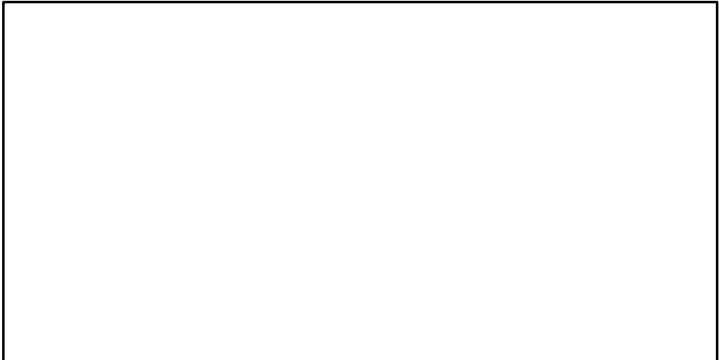
TC-MT, TL*, RecC* (1970-2021-MCGREGOR)

TAC*, Cpair*, Cadv*



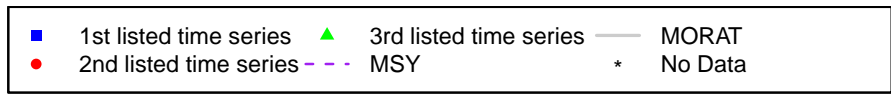
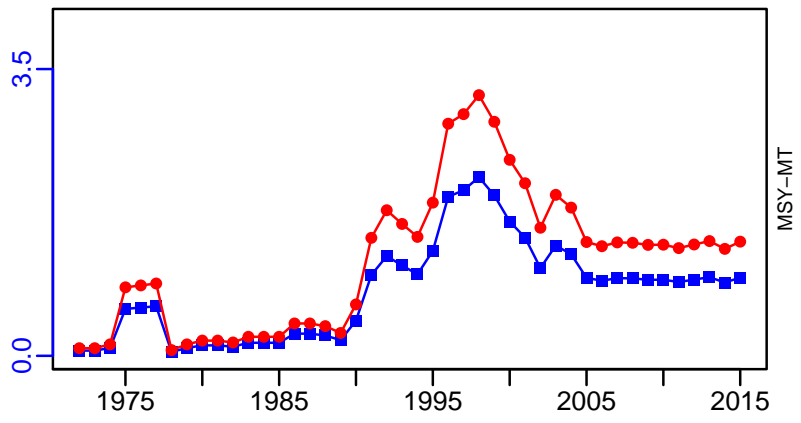
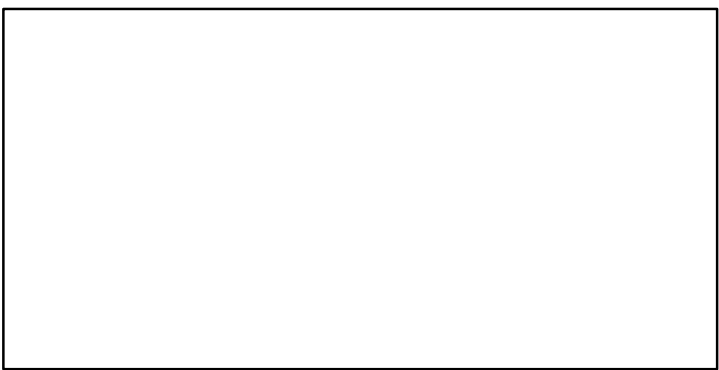
survB*

CPUE*



EFFORT*

TC-MT/MSY-MT, CdivMEANC-ratio, (1970-2015-FU)



Hoki Western New Zealand [HOKIWNZ]

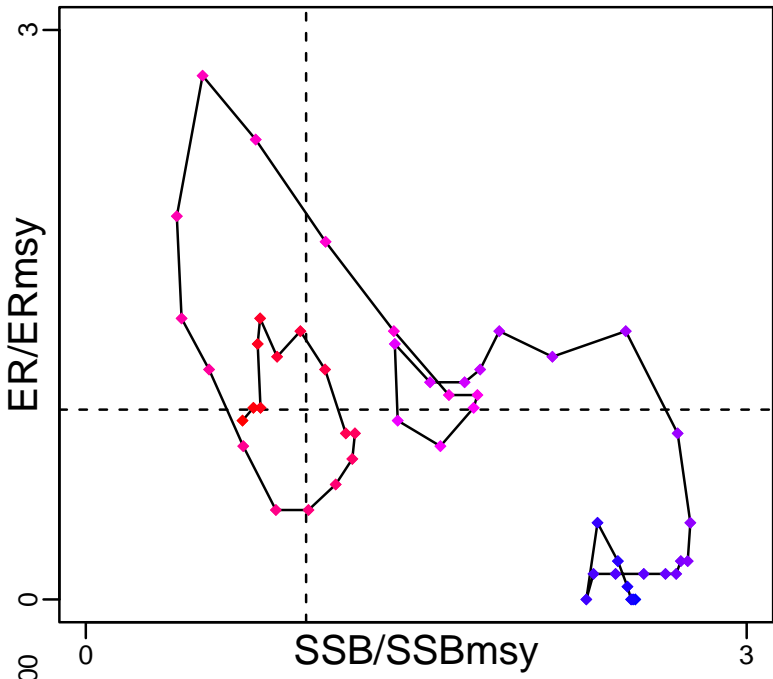
Metadata	
Scientific Name	Macruronus novaezelandiae
Current Assess ID	NIWA-HOKIWNZ-1972-2021-MCGREGOR
Area	Western New Zealand
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2012, 2015, 2021

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2015	479,200
SSBmsy	SSBmsy-MT	2021	464,420
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2015	0.25
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2021	493,446
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2021	1,161,050
MSY	MSY-MT	2015	119,800
M	M-1/yr	2015	0.29
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

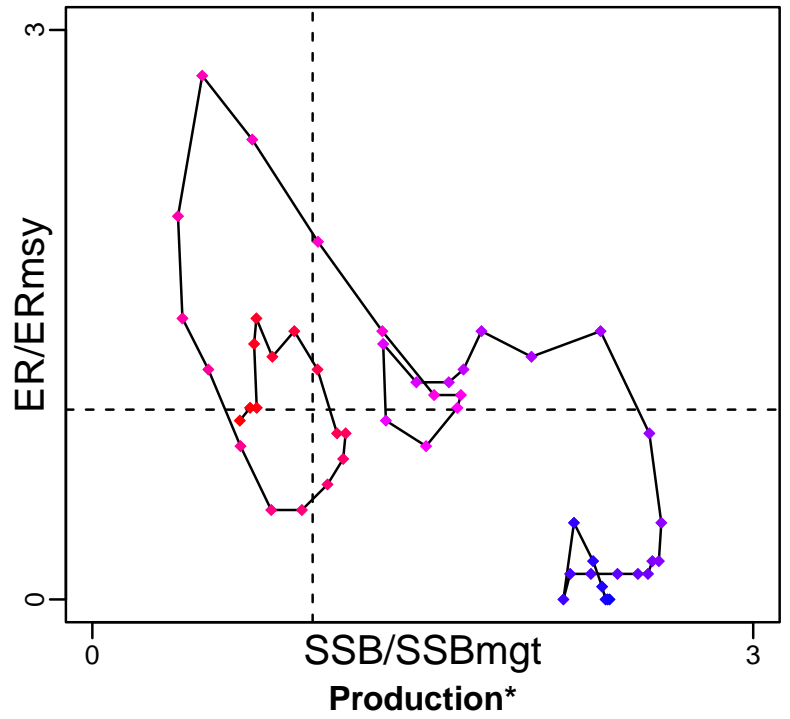
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2021	330,376	-	2+
TN	-	-	-	-	-
R	R-E00	2015	1.11×10^9	Both	-
F	F-1/yr	2012	0.137	-	-
ER	ER-ratio	2021	0.14	-	-
TC	TC-MT	2021	44,700		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2021	0.711		
F/Fmsy	FdivFmsy-dimensionless	2012	0.547		
ER/ERmsy	ERdivERmsy-dimensionless	2015	0.616		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2021	0.67		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Hoki Western New Zealand [HOKIWNZ]

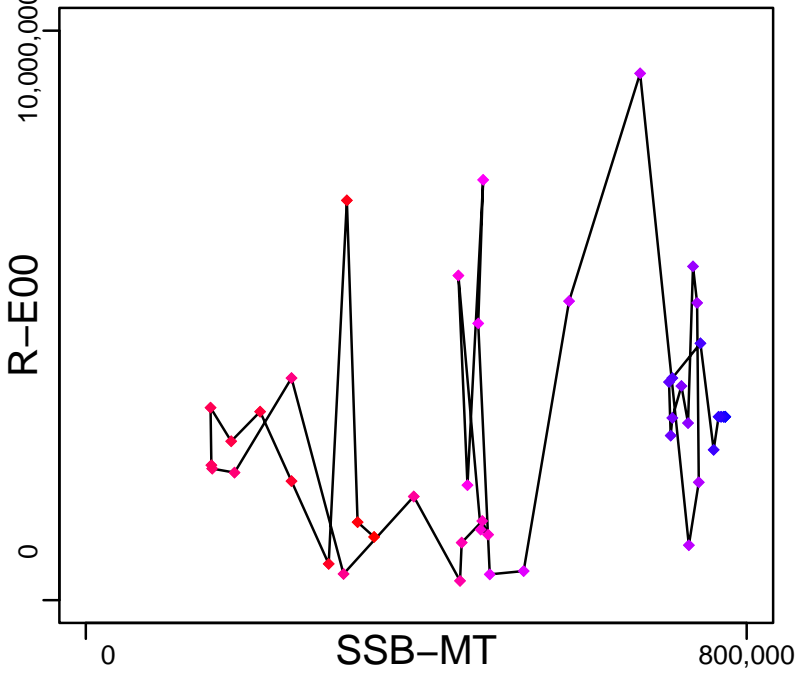
Kobe MSYpref (1972–2021–MCGREGOR)



Kobe MGTpref (1972–2021–MCGREGOR)



Spawner Recruit (1970–2015–FU)



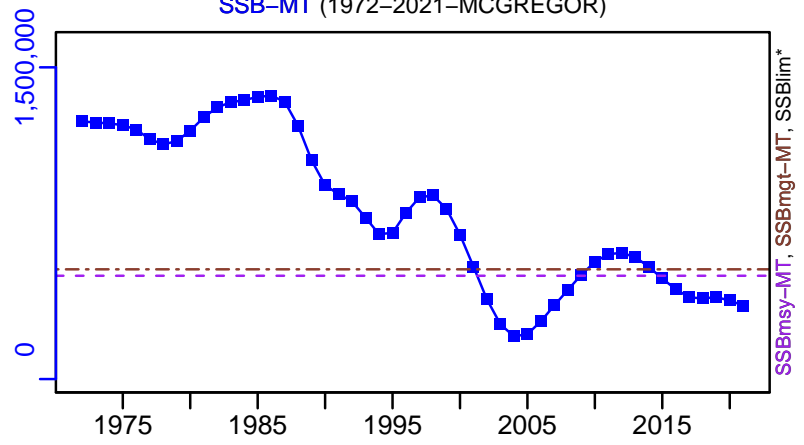
◆ Start Year ◆ End Year * No Data

Hoki Western New Zealand [HOKIWNZ]

TB*



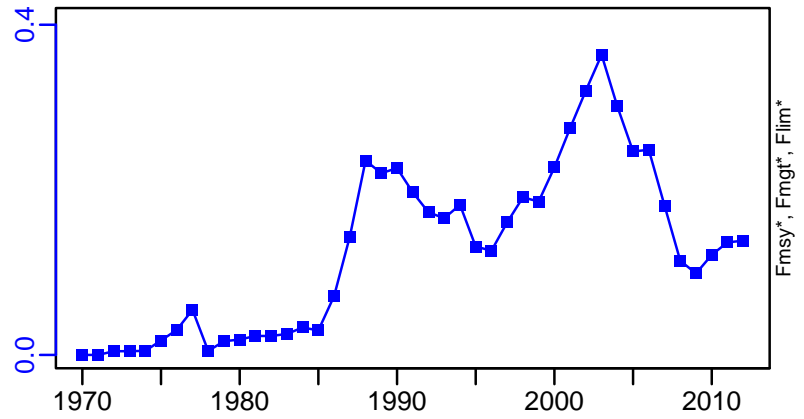
SSB-MT (1972-2021-MCGREGOR)



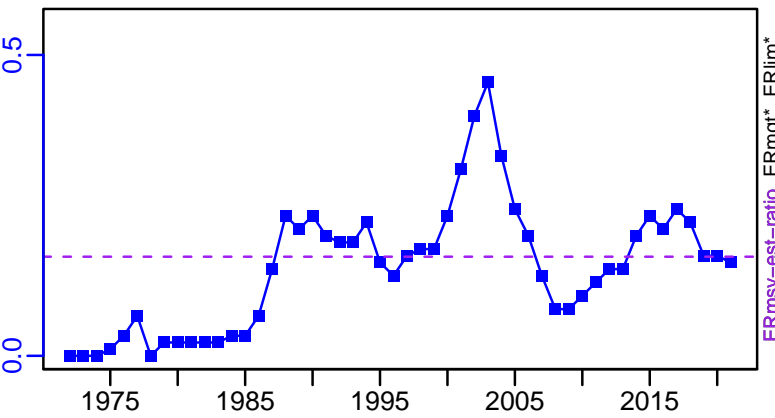
TN *



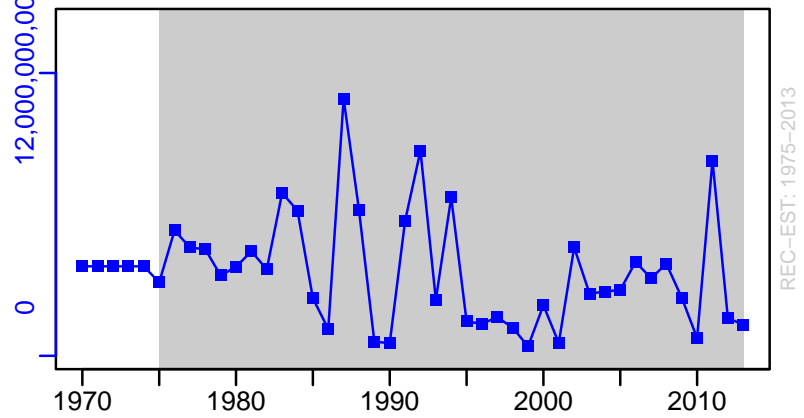
F-1/yr (1970-2012-CORDUE)



ER-ratio (1972-2021-MCGREGOR)



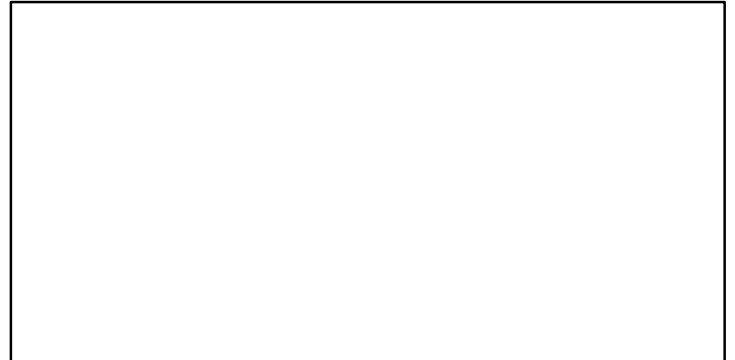
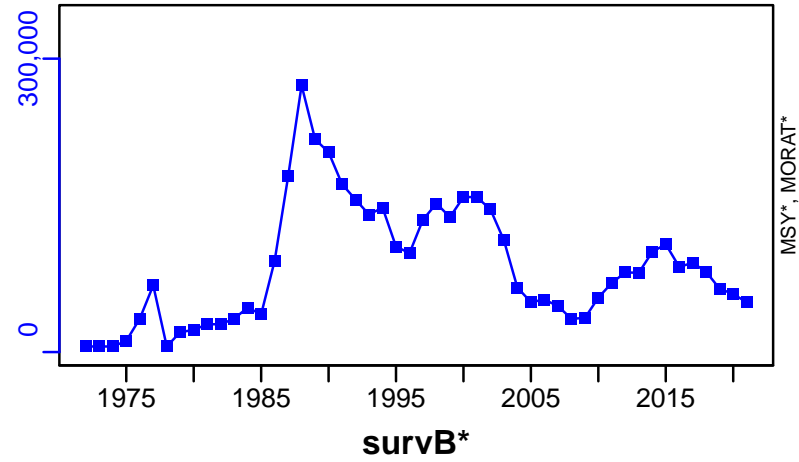
R-E00 (1970-2015-FU)



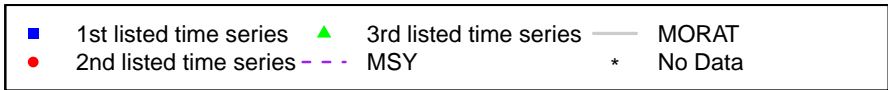
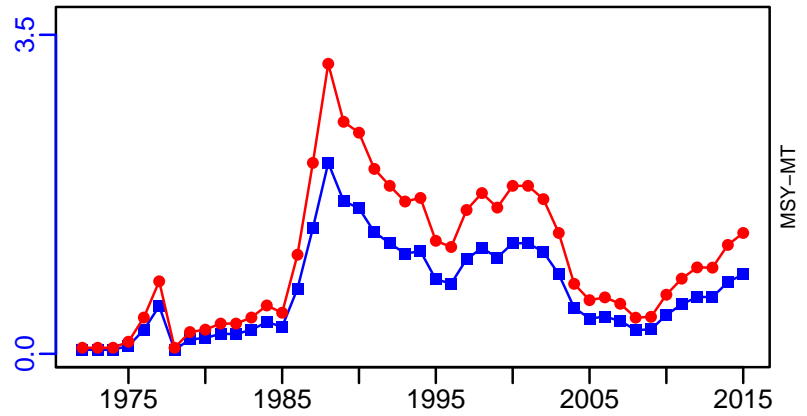
Hoki Western New Zealand [HOKIWNZ]

TC-MT, TL*, RecC* (1972-2021-MCGREGOR)

TAC*, Cpair*, Cadv*



TC-MT/MSY-MT, CdivMEANC-ratio, (1970-2015-FU)



Ling New Zealand Areas LIN 3 and 4 [NZLINGLIN3-4]

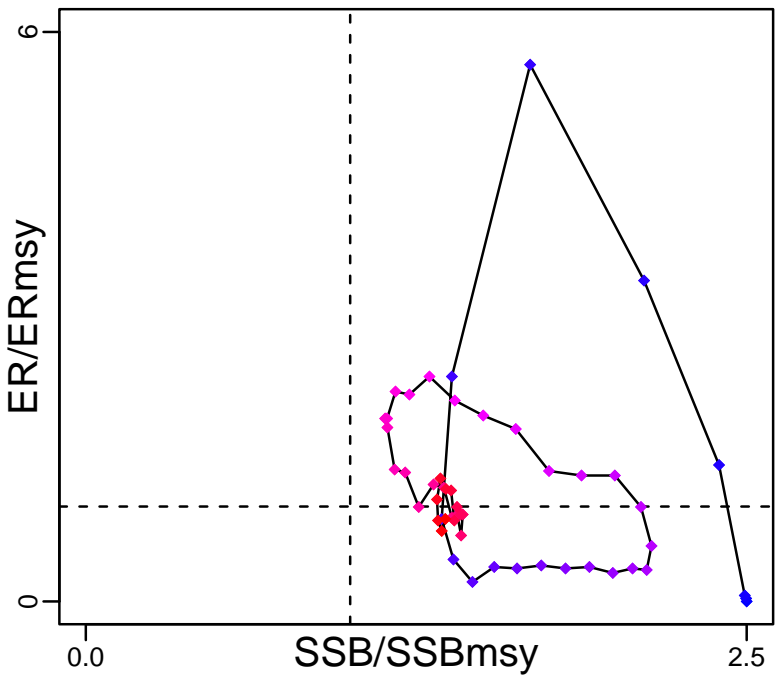
Metadata	
Scientific Name	Genypterus blacodes
Current Assess ID	NIWA-NZLINGLIN3-4-1969-2022-MORMEDE
Area	New Zealand Areas LIN 3 and 4
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2011, 2014, 2022, 2019

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2014	17,362
SSBmsy	SSBmsy-MT	2022	43,290
Fmsy	Fmsy-1/yr	2011	0.19
ERmsy	ERmsy-ratio	2014	0.37
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2022	43,290
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2022	108,224
MSY	MSY-MT	2014	6424
M	M-1/yr	2022	0.156
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

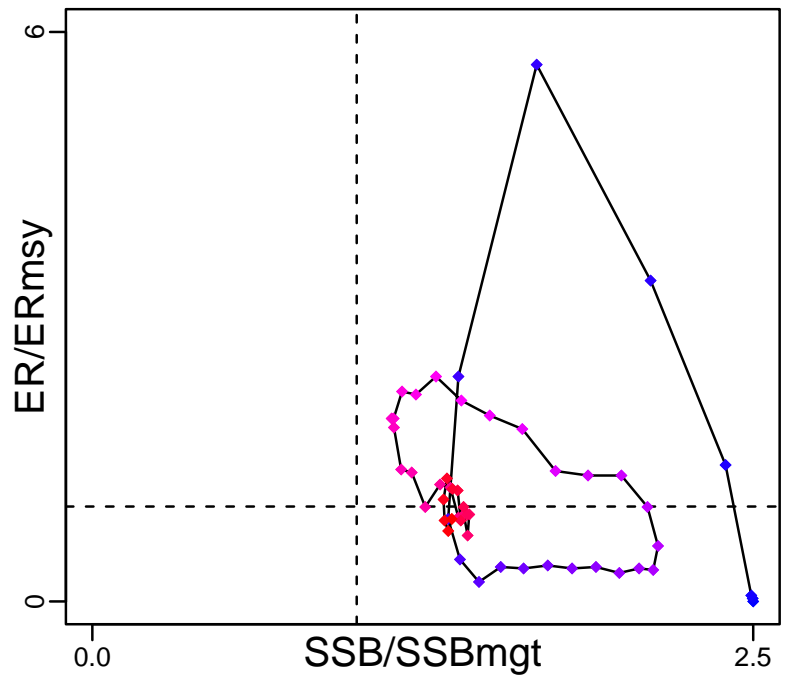
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2022	58,865	Both	-
TN	-	-	-	-	-
R	R-E00	2022	7,208,380	Both	3
F	F-1/yr	2011	0.023	-	-
ER	ER-ratio	2022	0.055	Both	-
TC	TC-MT	2022	2723		
TL	TL-MT	2022	2723		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2022	1.36		
F/Fmsy	FdivFmsy-dimensionless	2011	0.123		
ER/ERmsy	ER-ratio/ERmsy-ratio	2011	0.117		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2022	1.36		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Ling New Zealand Areas LIN 3 and 4 [NZLINGLIN3-4]

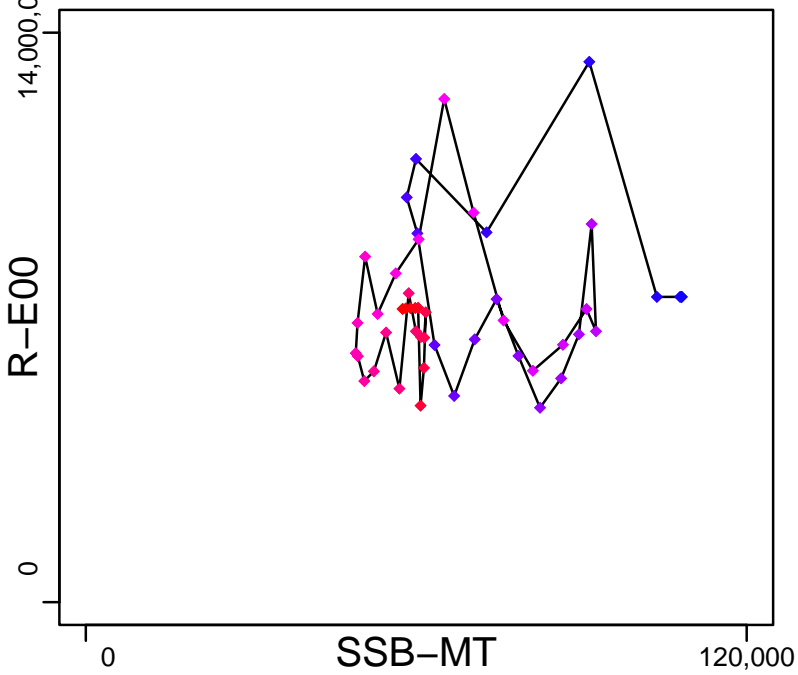
Kobe MSYpref (1969-2022-MORMEDE)



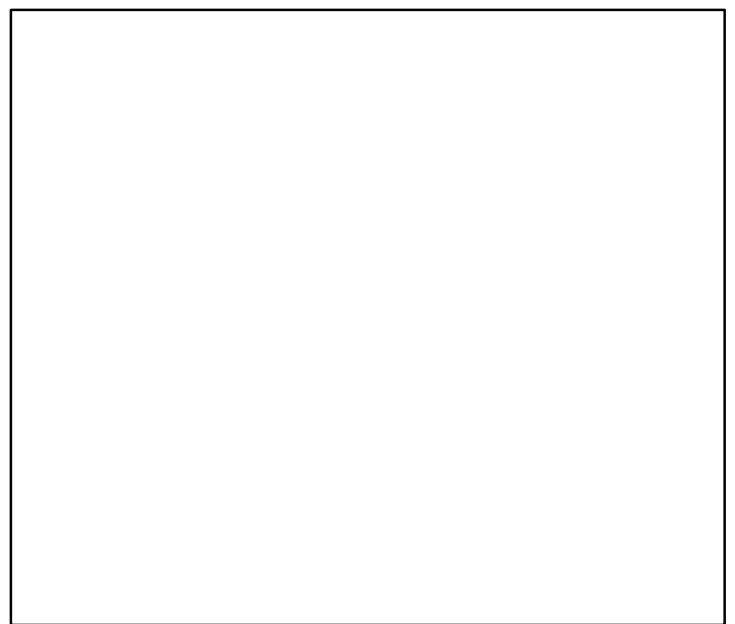
Kobe MGTpref (1969-2022-MORMEDE)



Spawner Recruit (1969-2022-MORMEDE)



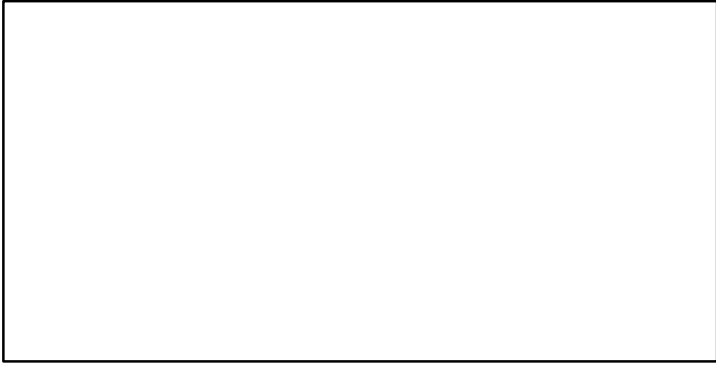
Production*



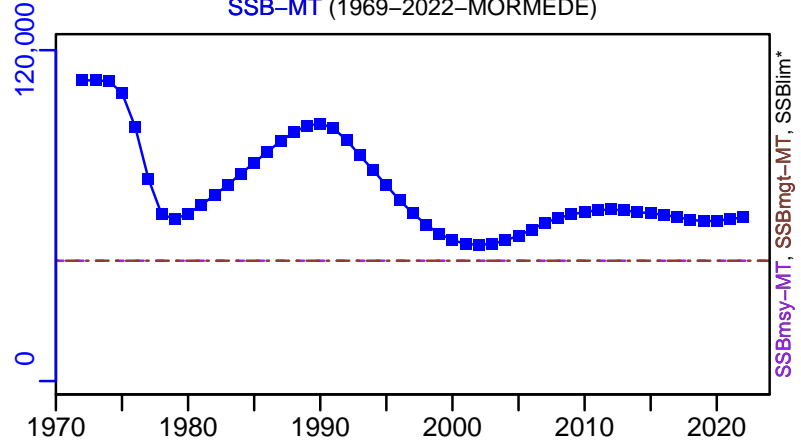
◆ Start Year ◆ End Year * No Data

Ling New Zealand Areas LIN 3 and 4 [NZLINGLIN3-4]

TB*



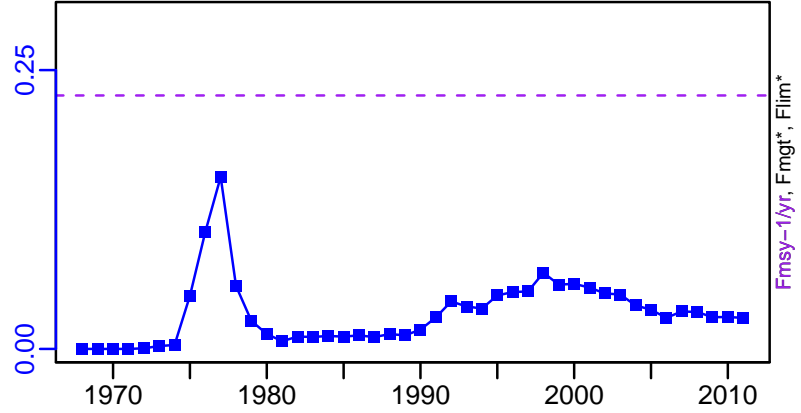
SSB-MT (1969-2022-MORMEDE)



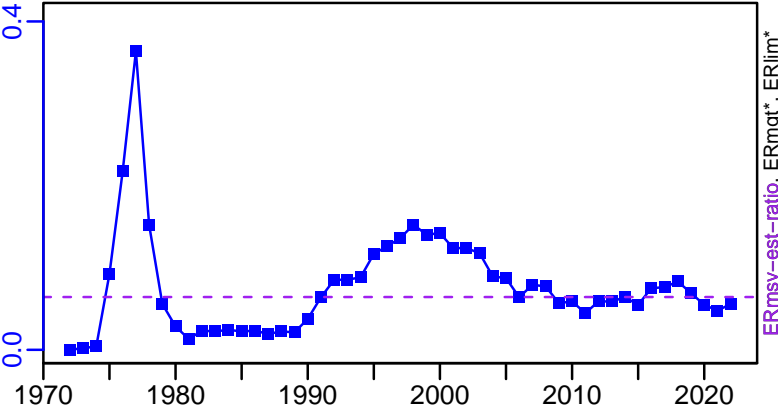
TN *



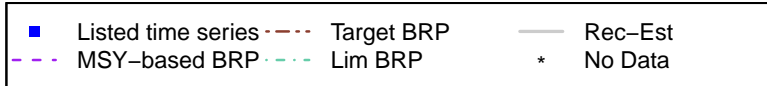
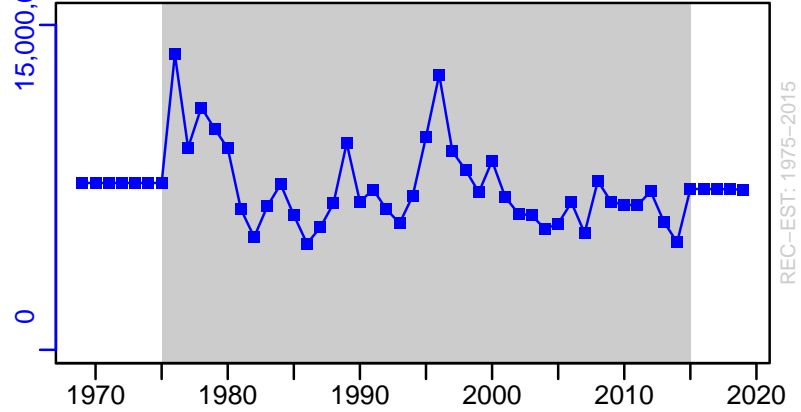
F-1/yr (1968-2011-CORDUE)



ER-ratio (1969-2022-MORMEDE)

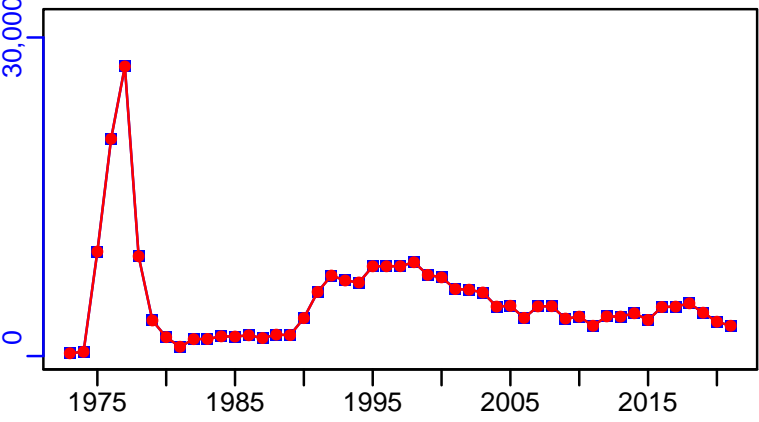


R-E00 (1969-2022-MORMEDE)

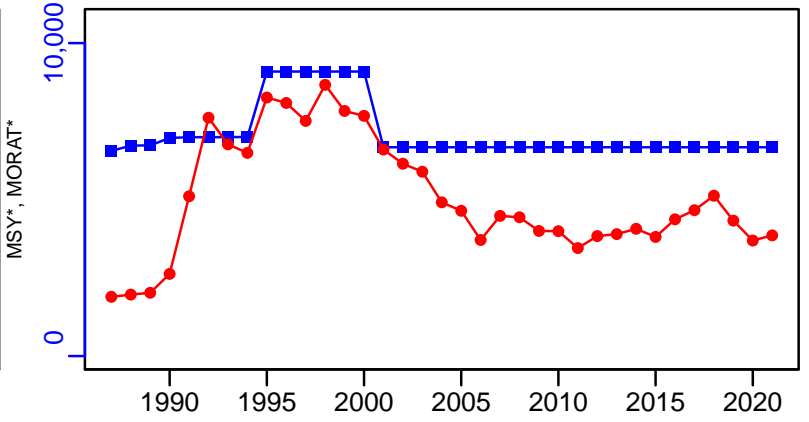


Ling New Zealand Areas LIN 3 and 4 [NZLINGLIN3-4]

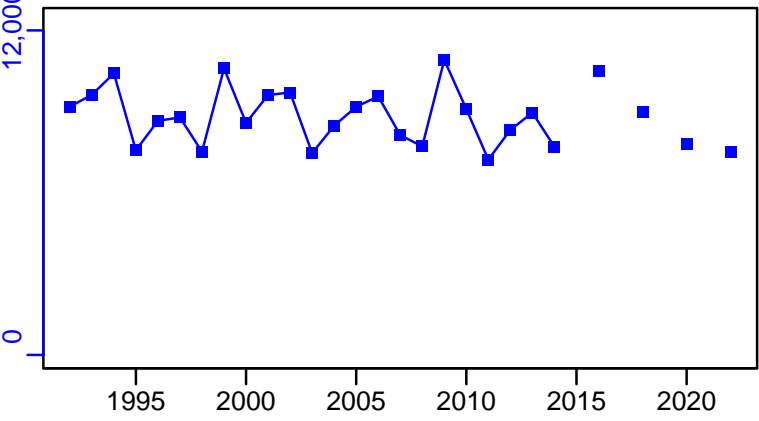
TC-MT, TL-MT, RecC* (1969-2022-MORMEDE)



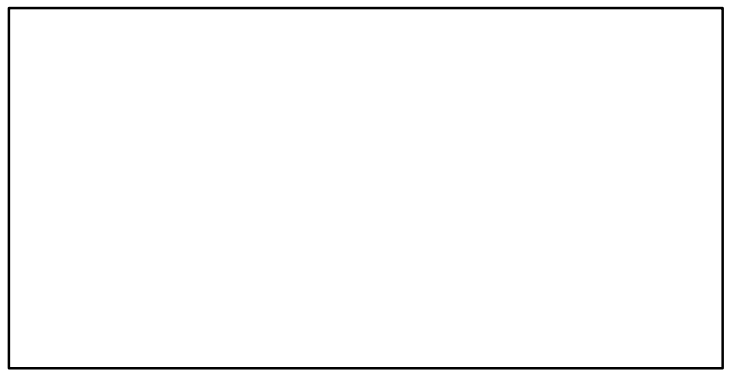
TAC-MT, Cpair-MT, Cadv* (1969-2022-MORMEDE)



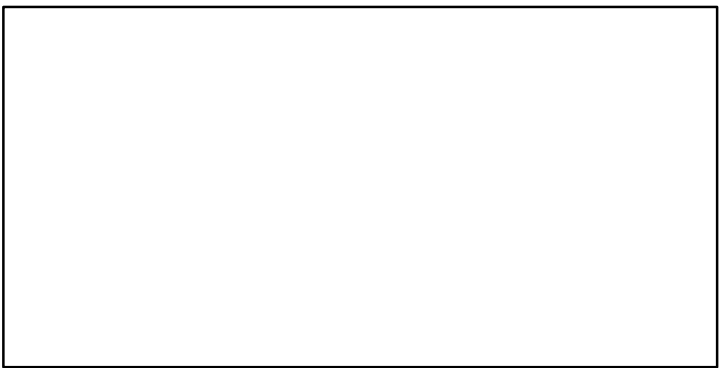
survB_index-index (1969-2022-MORMEDE)



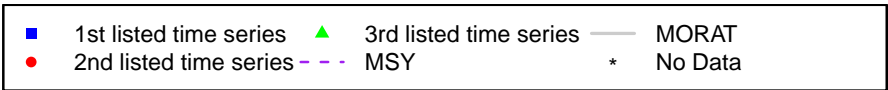
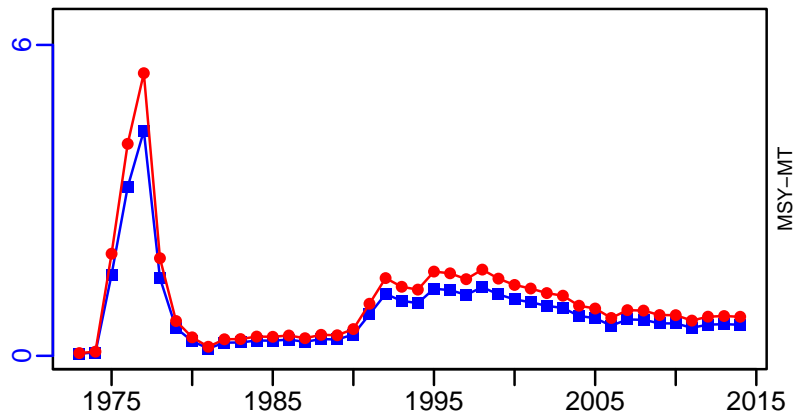
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1968-2014-FU)



Ling New Zealand Areas LIN 5 and 6 [NZLINGLIN5-6]

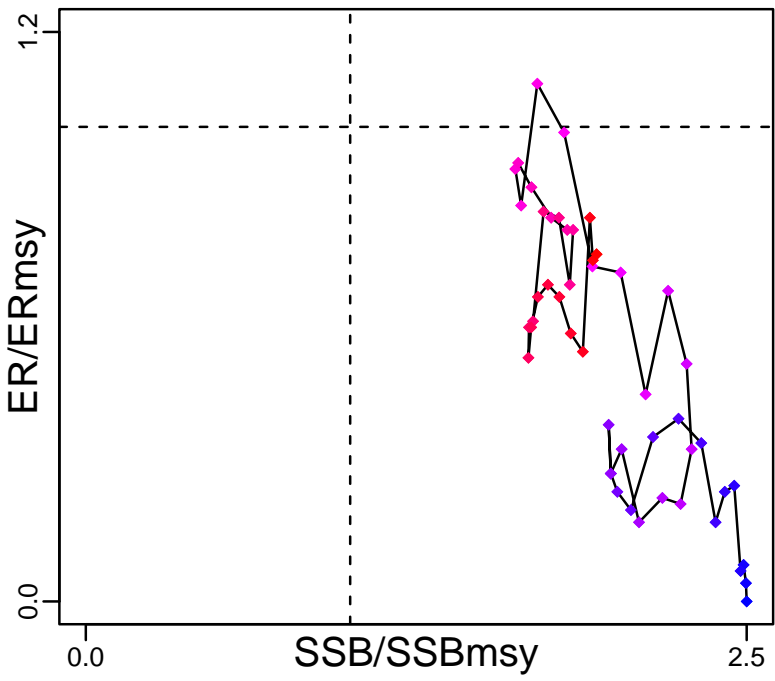
Metadata	
Scientific Name	Genypterus blacodes
Current Assess ID	NIWA-NZLINGLIN5-6-1969-2021-MORMEDE
Area	New Zealand Areas LIN 5 and 6
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2011, 2014, 2021, 2019

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2011	159,694
SSBmsy	SSBmsy-MT	2021	77,624
Fmsy	Fmsy-1/yr	2011	0.49
ERmsy	ERmsy-ratio	2011	0.162
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2021	77,624
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2021	194,059
MSY	MSY-MT	2014	23,827
M	M-1/yr	2021	0.18
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

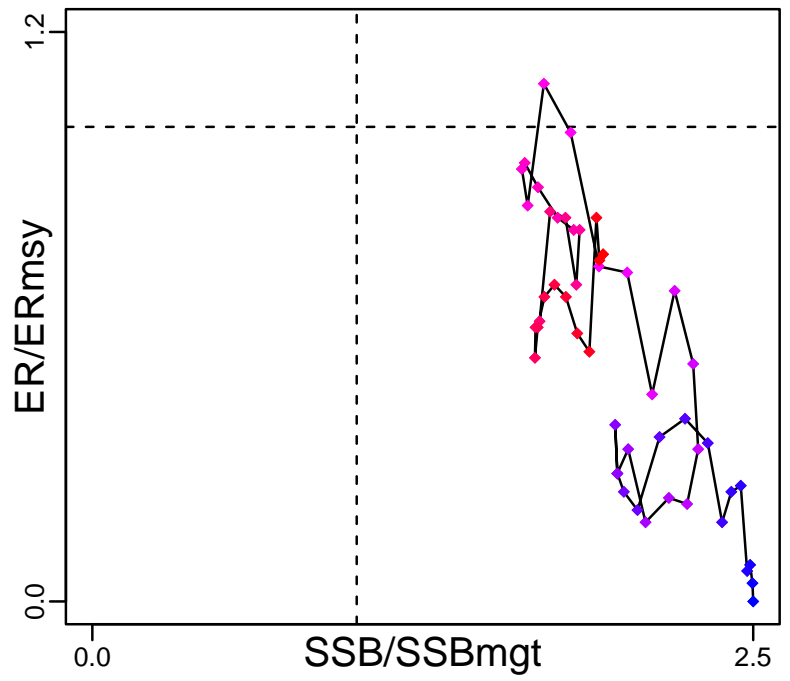
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2021	150,177	-	3-25+
TN	-	-	-	-	-
R	R-E00	2021	150,177	-	3
F	F-1/yr	2011	0.02	-	-
ER	ER-ratio	2021	0.057	-	3-25+
TC	TC-MT	2021	8553		
TL	TL-MT	2021	8553		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2021	1.935		
F/Fmsy	FdivFmsy-dimensionless	2011	0.041		
ER/ERmsy	ER-ratio/ERmsy-ratio	2011	0.048		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2021	1.935		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Ling New Zealand Areas LIN 5 and 6 [NZLINGLIN5-6]

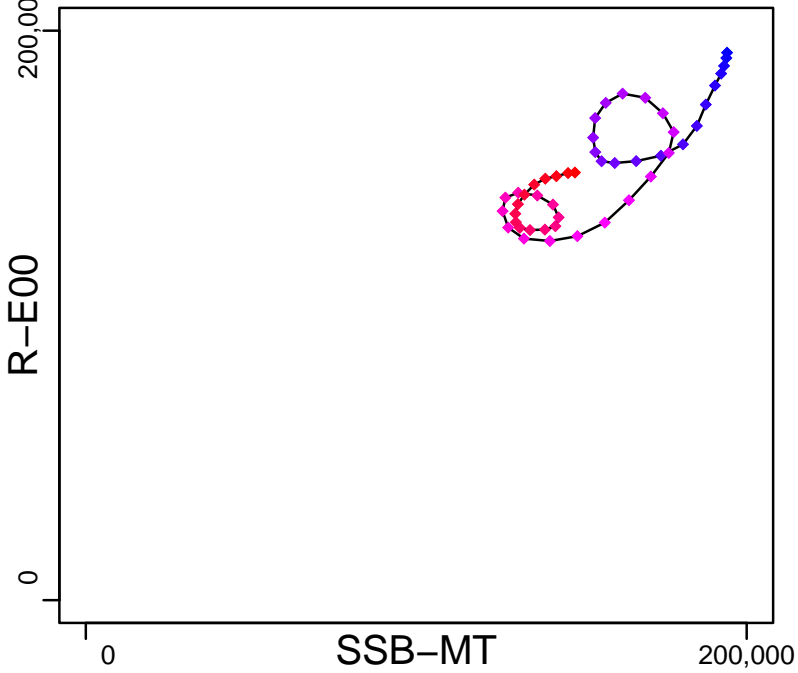
Kobe MSYpref (1969-2021-MORMEDE)



Kobe MGTpref (1969-2021-MORMEDE)



Spawner Recruit (1969-2021-MORMEDE)



Production*



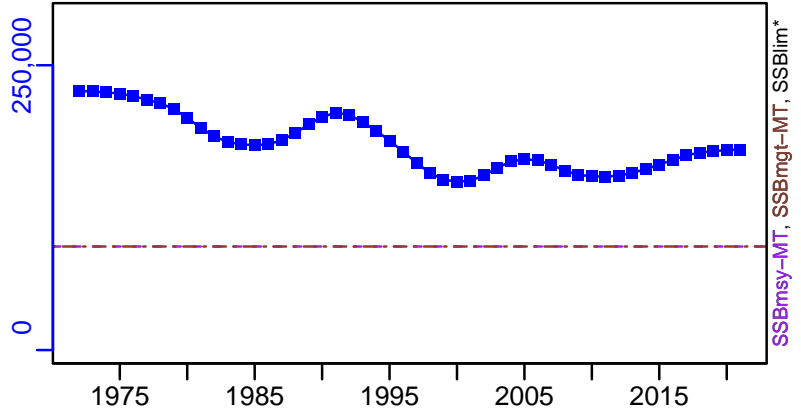
◆ Start Year ◆ End Year * No Data

Ling New Zealand Areas LIN 5 and 6 [NZLINGLIN5-6]

TB*



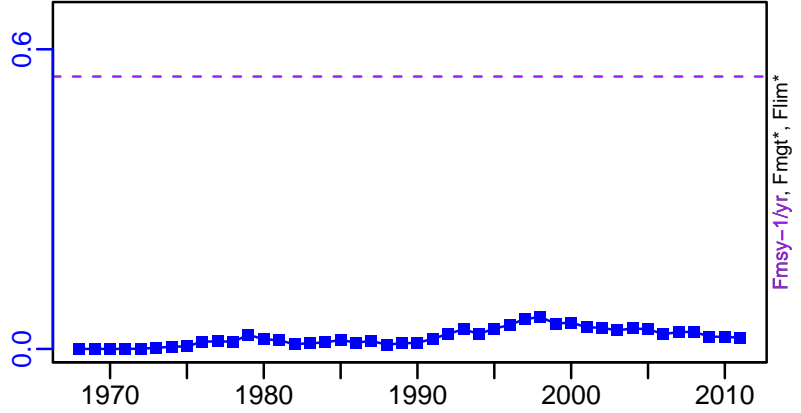
SSB-MT (1969-2021-MORMEDE)



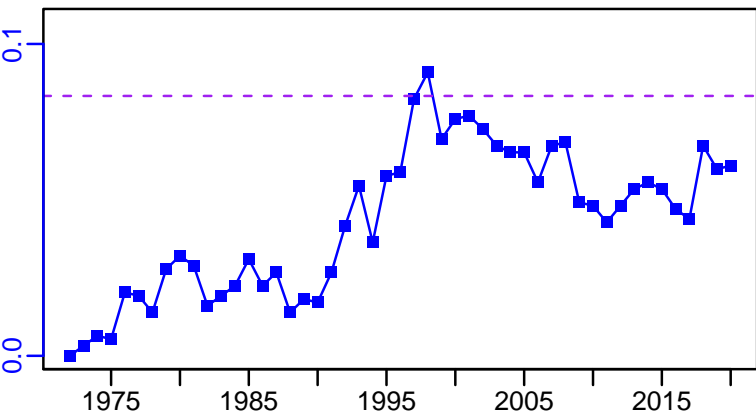
TN *



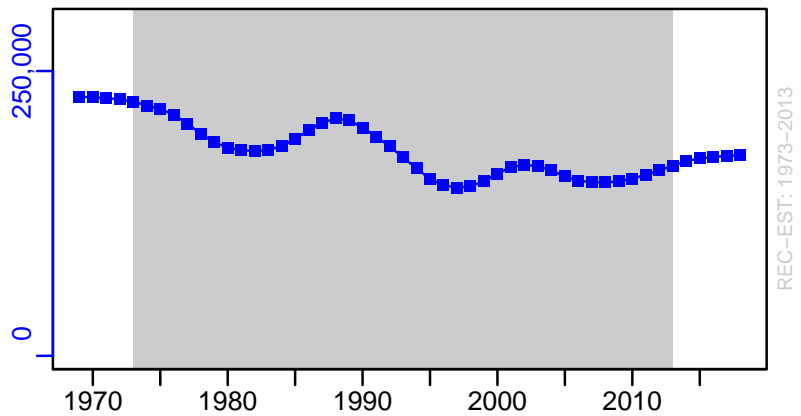
F-1/yr (1968-2011-CORDUE)



ER-ratio (1969-2021-MORMEDE)

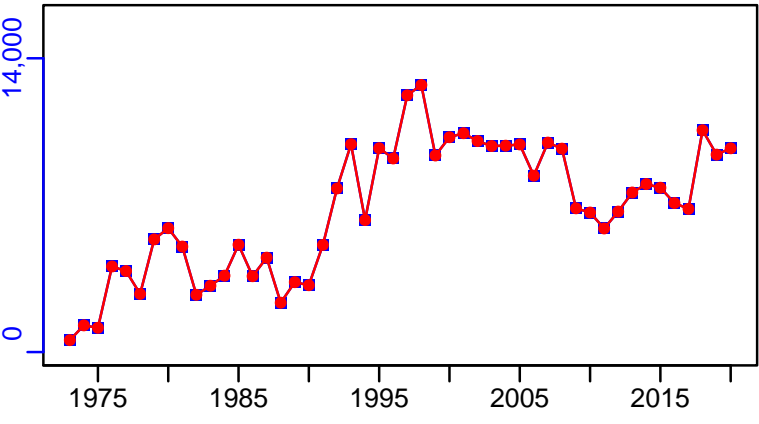


R-E00 (1969-2021-MORMEDE)

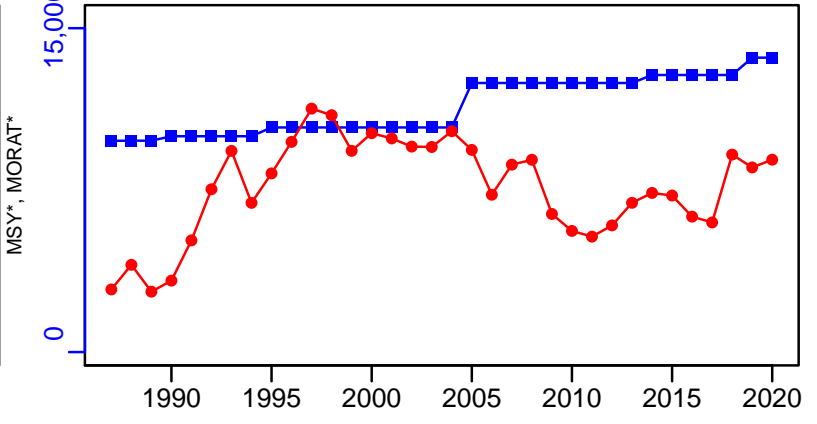


Ling New Zealand Areas LIN 5 and 6 [NZLINGLIN5-6]

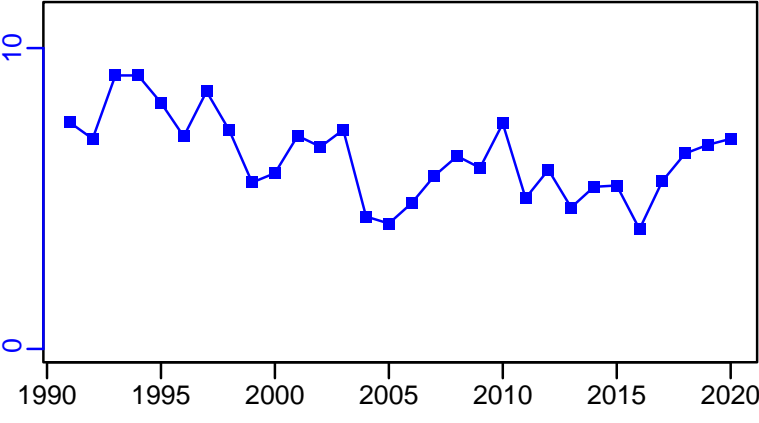
TC-MT, TL-MT, RecC* (1969-2021-MORMEDE)



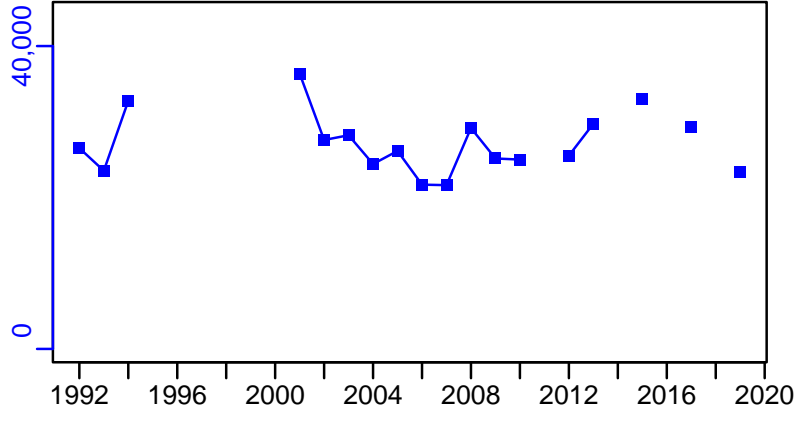
TAC-MT, Cpair-MT, Cadv* (1969-2021-MORMEDE)



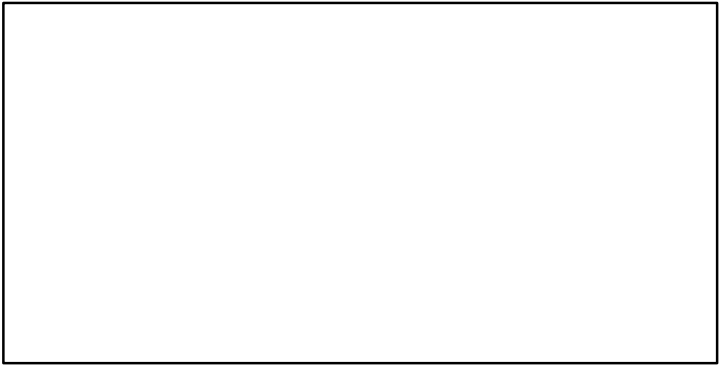
survB_index-index (1969-2021-MORMEDE)



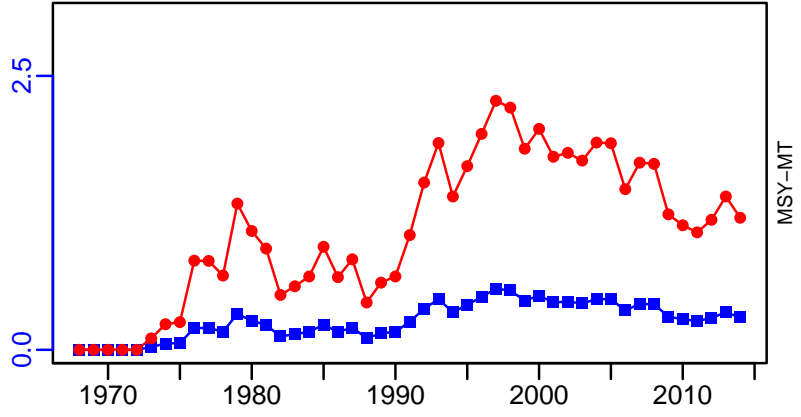
CPUE-index (1969-2021-MORMEDE)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1968-2014-FU)



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

Ling New Zealand Areas LIN 6b [NZLINGLIN6b]

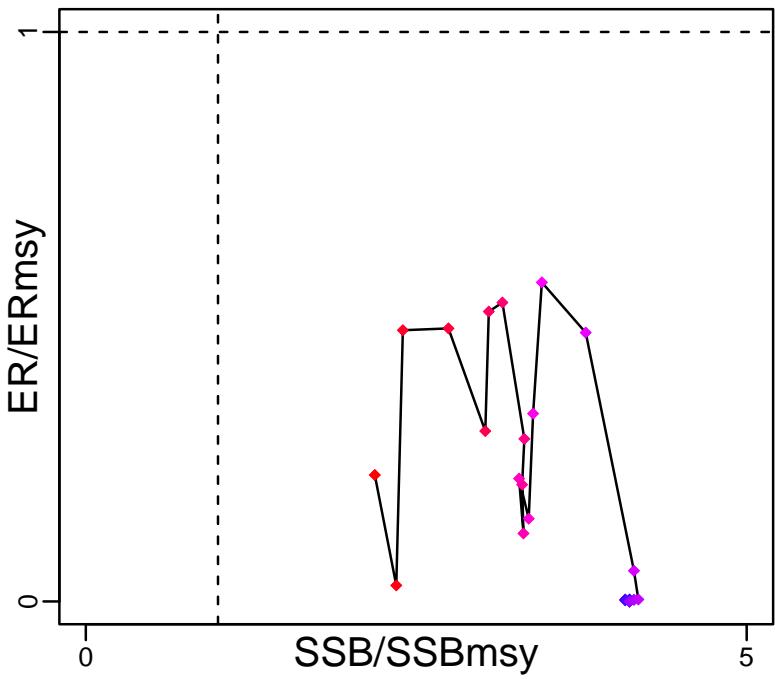
Metadata	
Scientific Name	Genypterus blacodes
Current Assess ID	NZMFishMIDDEPTHSWG-NZLINGLIN6b-1980-2006-JENSEN
Area	New Zealand Areas LIN 6b
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Middle Depths Working Group
Asmts in RAM	2006

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2006	4725
SSBmsy	SSBmsy-MT	2006	3014
Fmsy	Fmsy-1/yr	2006	0.308
ERmsy	ERmsy-ratio	2006	0.189
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2006	12,363
MSY	MSY-MT	2006	894
M	M-1/yr	2006	0.18
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

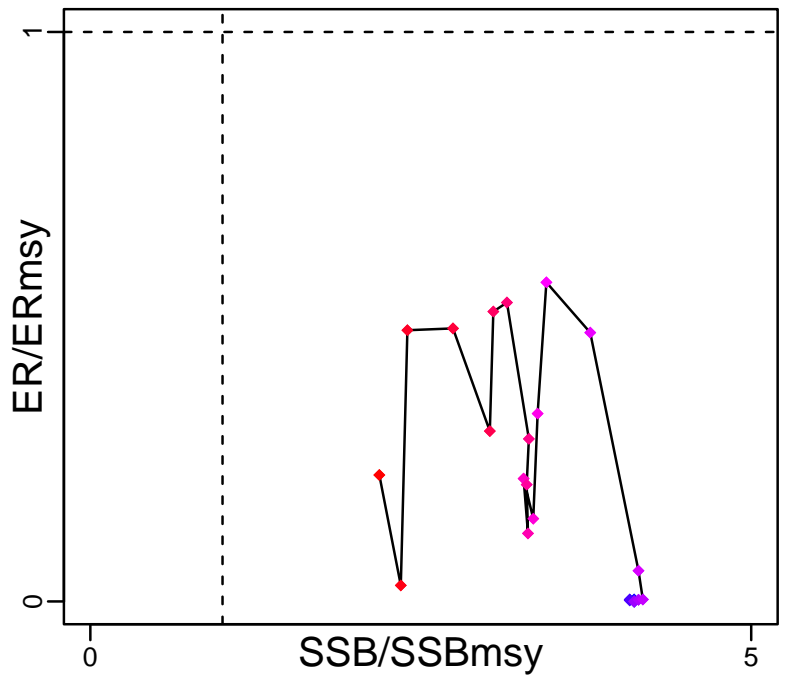
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2006	9520	-	3
SSB	SSB-MT	2006	6590	Both	-
TN	-	-	-	-	-
R	R-E00	2006	888,000	-	3
F	F-1/yr	2006	0.035	-	-
ER	ER-ratio	2006	0.042	-	-
TC	TC-MT	2006	400		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2006	2.015		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2006	2.186		
F/Fmsy	F-1/yr/Fmsy-1/yr	2006	0.113		
ER/ERmsy	ER-ratio/ERmsy-ratio	2006	0.222		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Ling New Zealand Areas LIN 6b [NZLINGLIN6b]

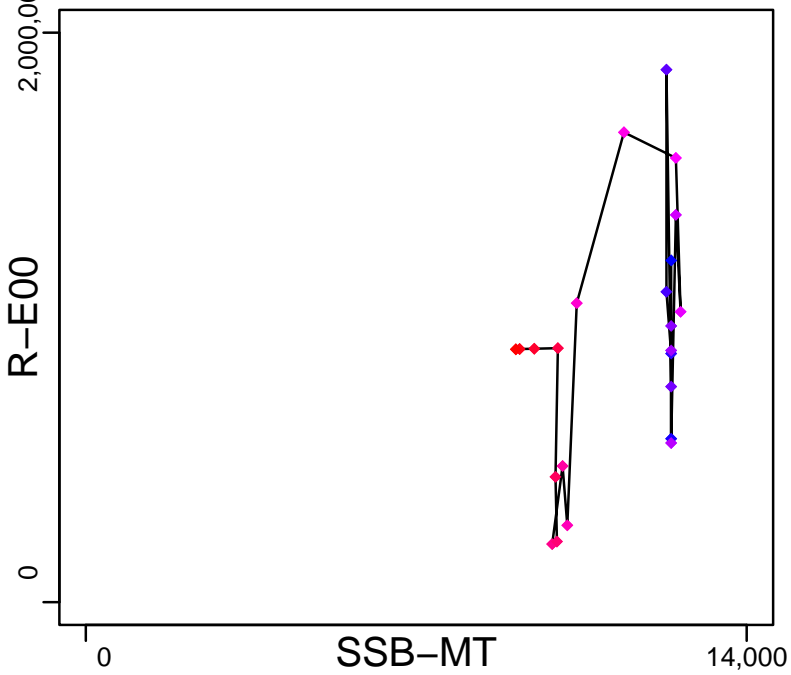
Kobe MSYpref (1980–2006–JENSEN)



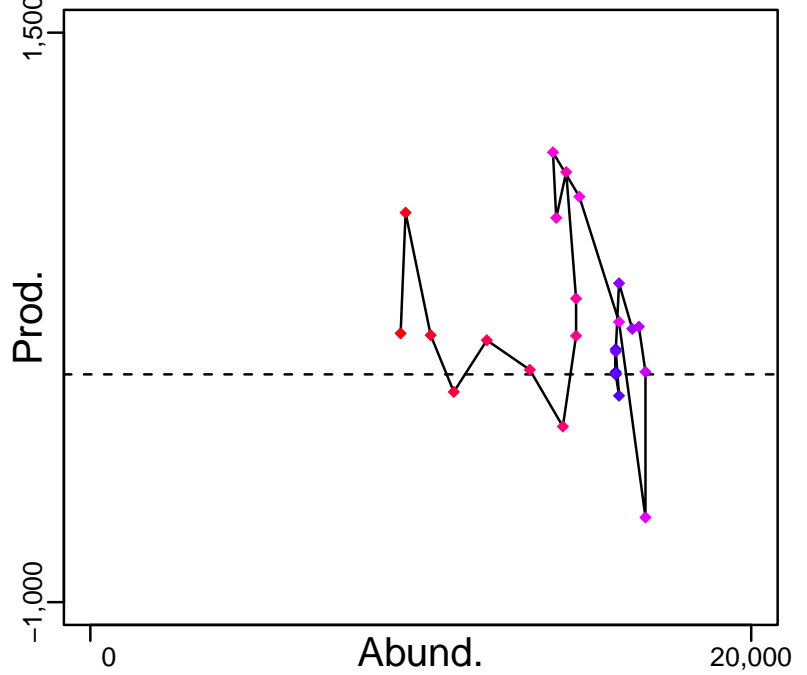
Kobe MGTpref (1980–2006–JENSEN)



Spawner Recruit (1980–2006–JENSEN)



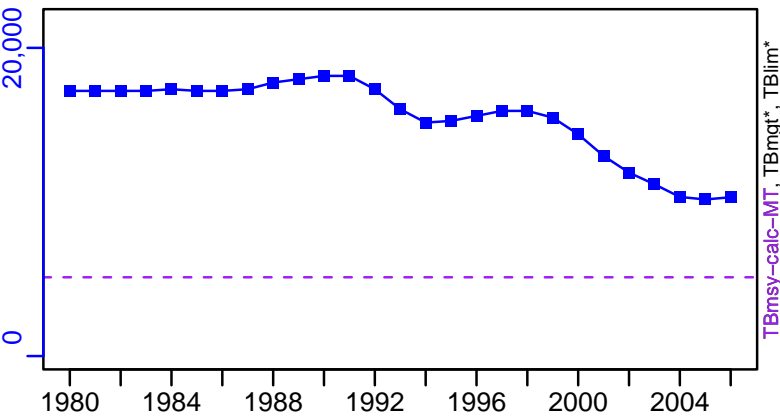
Production (1980–2006–JENSEN)



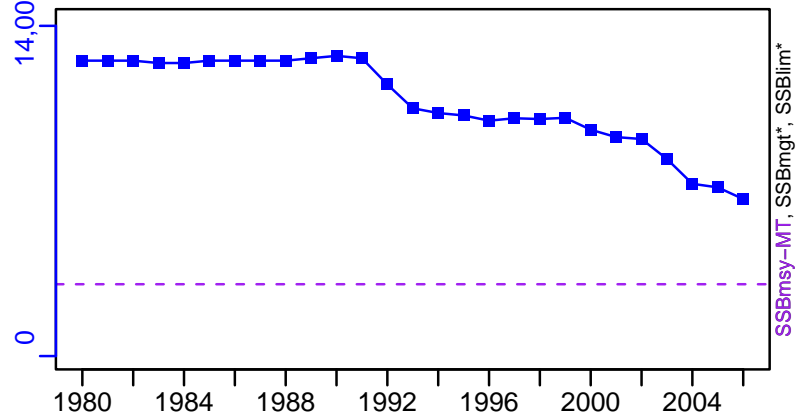
◆ Start Year ◆ End Year * No Data

Ling New Zealand Areas LIN 6b [NZLINGLIN6b]

TB-MT (1980-2006-JENSEN)



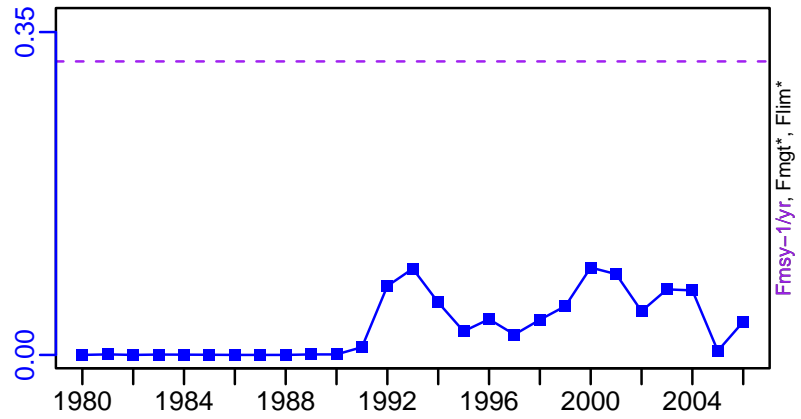
SSB-MT (1980-2006-JENSEN)



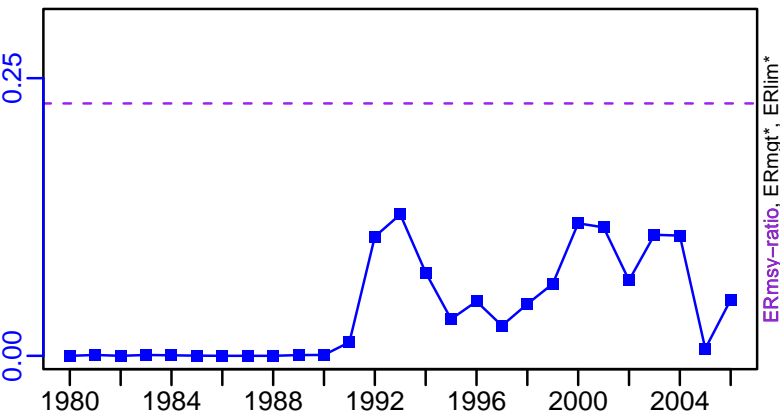
TN *



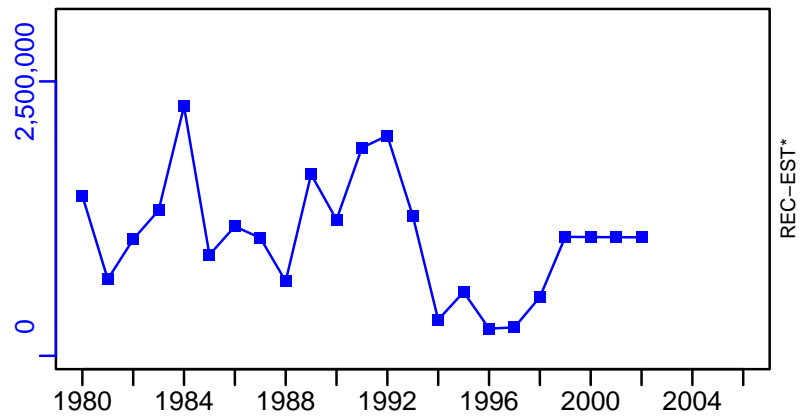
F-1/yr (1980-2006-JENSEN)



ER-ratio (1980-2006-JENSEN)



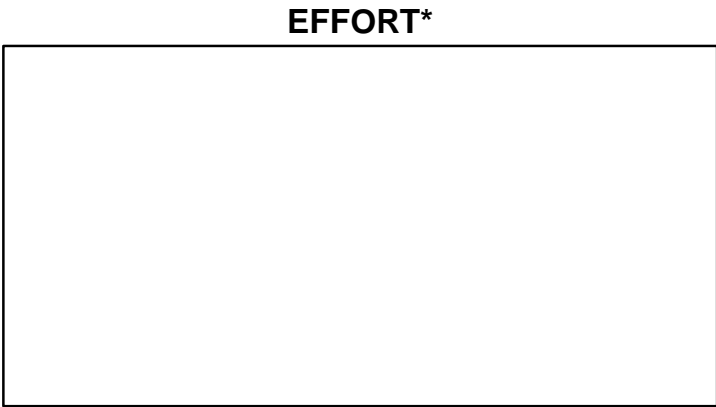
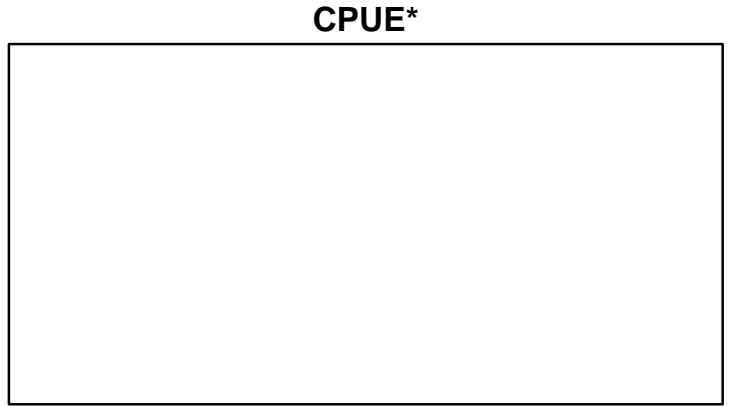
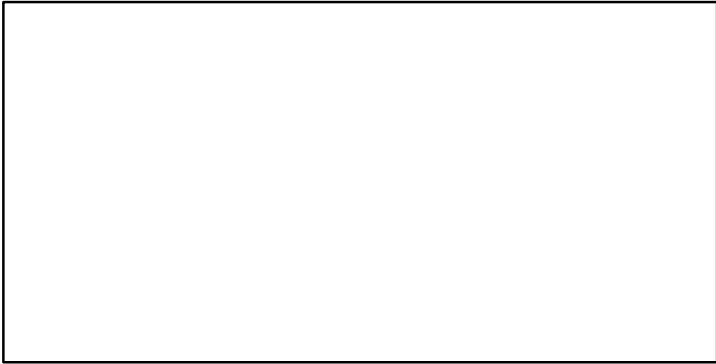
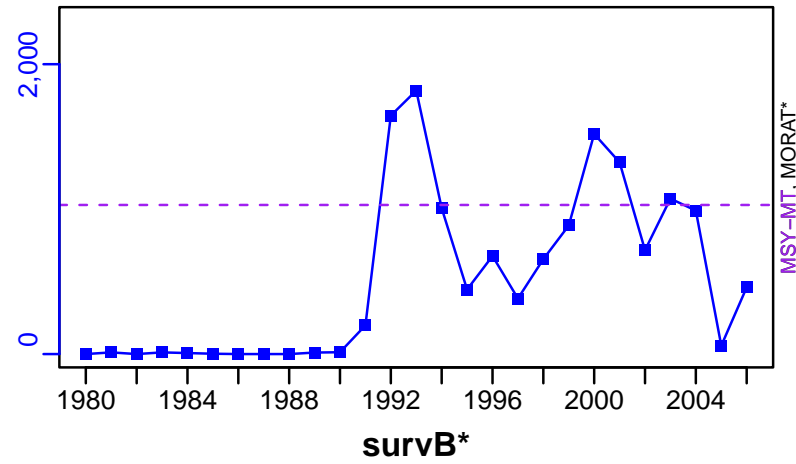
R-E00 (1980-2006-JENSEN)



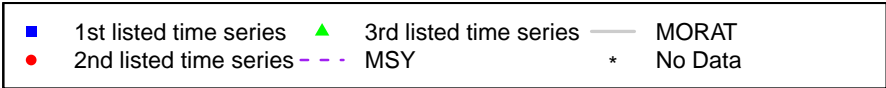
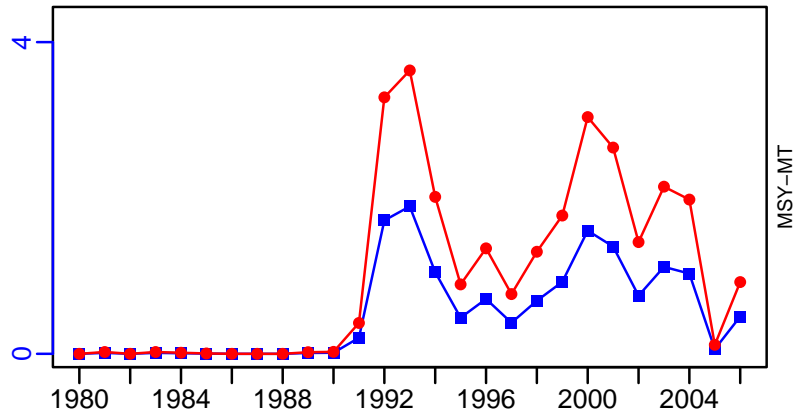
Ling New Zealand Areas LIN 6b [NZLINGLIN6b]

TC-MT, TL*, RecC* (1980-2006-JENSEN)

TAC*, Cpair*, Cadv*



TC-MT/MSY-MT, CdivMEANC-ratio, (1980-2006-JENSEN)



Ling New Zealand Areas LIN 72 [NZLINGLIN72]

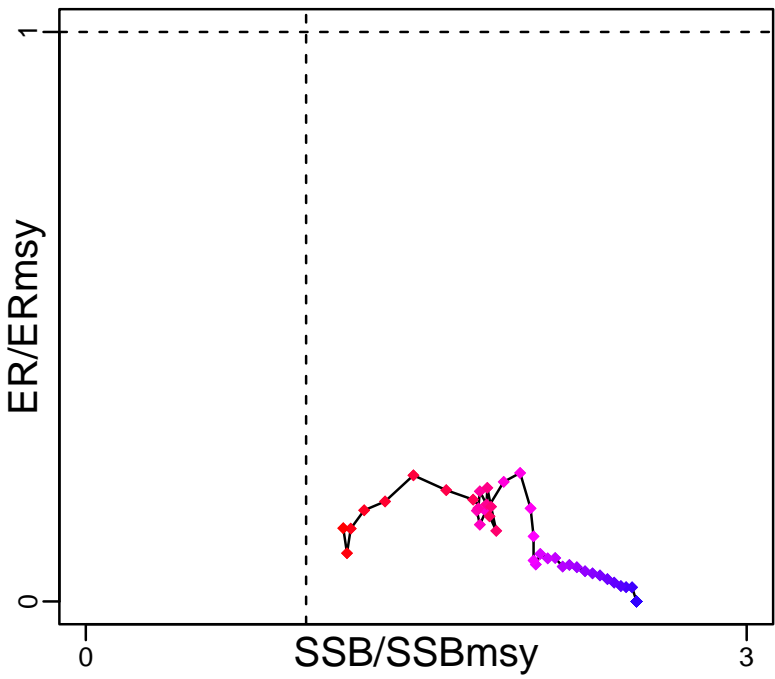
Metadata	
Scientific Name	Genypterus blacodes
Current Assess ID	NZMFishMIDDEPTHSWG-NZLINGLIN72-1968-2010-FU
Area	New Zealand Areas LIN 72
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Middle Depths Working Group
Asmts in RAM	2010, 2007

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2010	1877
SSBmsy	SSBmsy-MT	2010	2952
Fmsy	Fmsy-1/yr	2007	0.246
ERmsy	ERmsy-ratio	2010	0.29
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2010	2952
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2010	7380
MSY	MSY-MT	2010	544
M	M-1/yr	2010	0.204
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

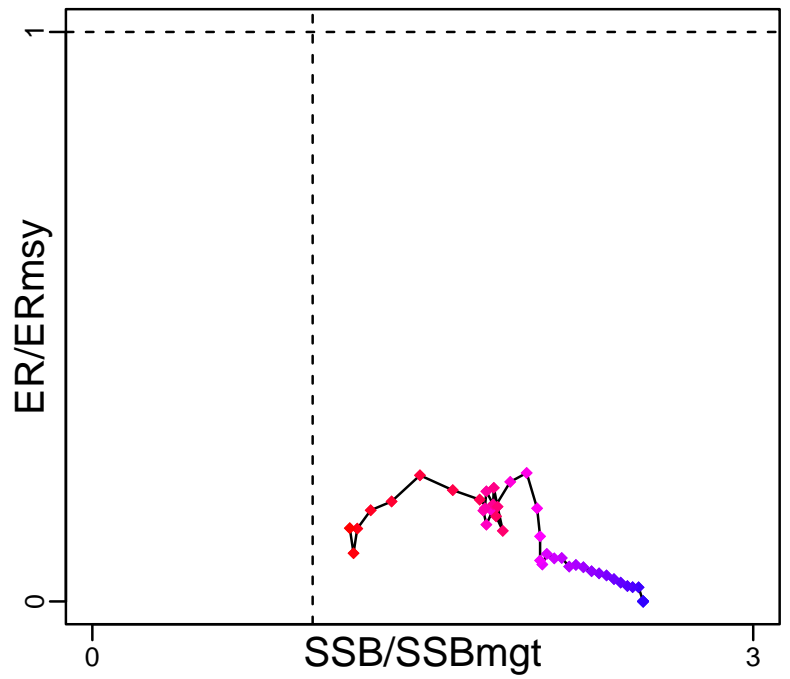
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2007	5590	-	3
SSB	SSB-MT	2010	3450	Both	3 to 25
TN	-	-	-	-	-
R	R-E00	2010	197,000	Both	-
F	F-1/yr	2007	0.08	-	-
ER	ER-ratio	2007	0.08	-	-
TC	TC-MT	2010	220		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2007	2.098		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2010	1.169		
F/Fmsy	F-1/yr/Fmsy-1/yr	2007	0.323		
ER/ERmsy	ER-ratio/ERmsy-ratio	2007	0.416		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2010	1.169		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Ling New Zealand Areas LIN 72 [NZLINGLIN72]

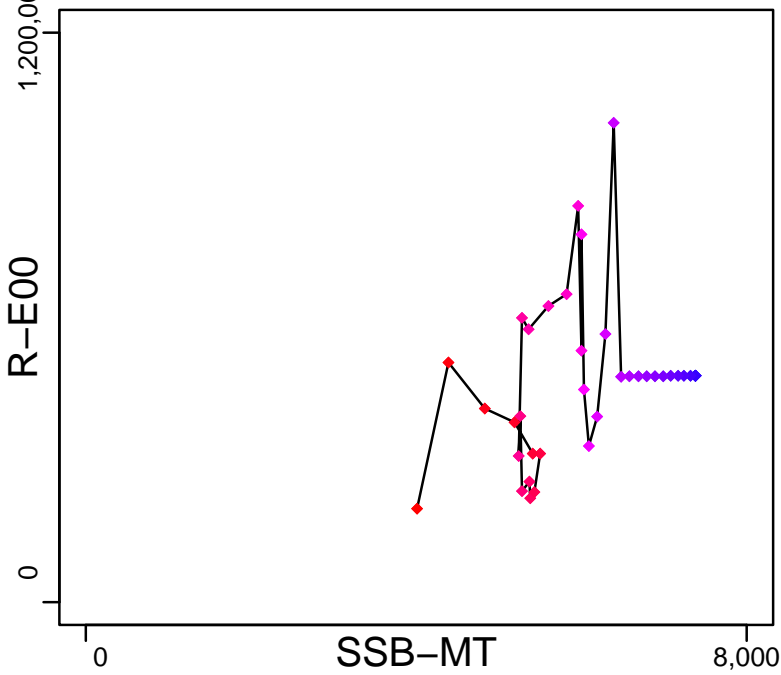
Kobe MSYpref (1968–2010–FU)



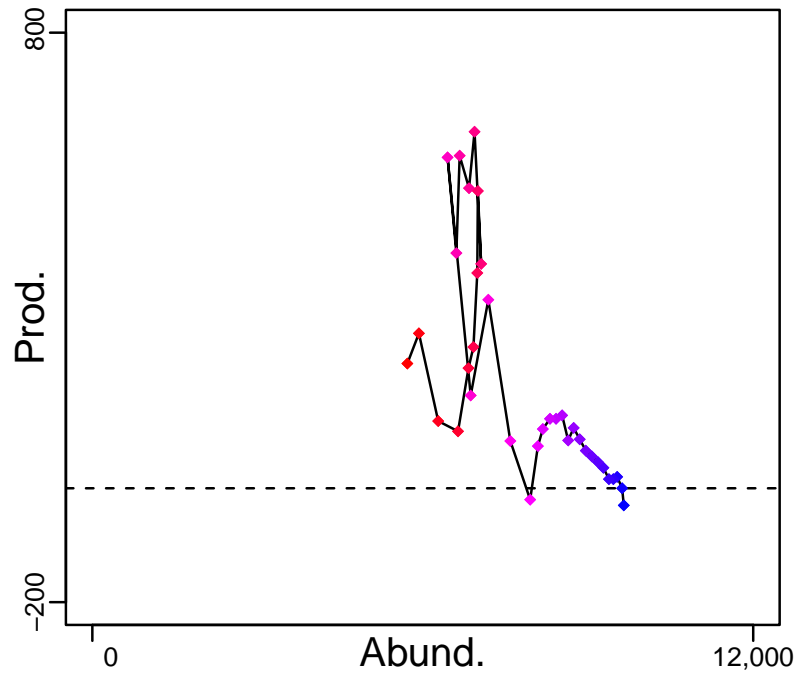
Kobe MGTpref (1968–2010–FU)



Spawner Recruit (1968–2010–FU)



Production (1968–2010–FU)

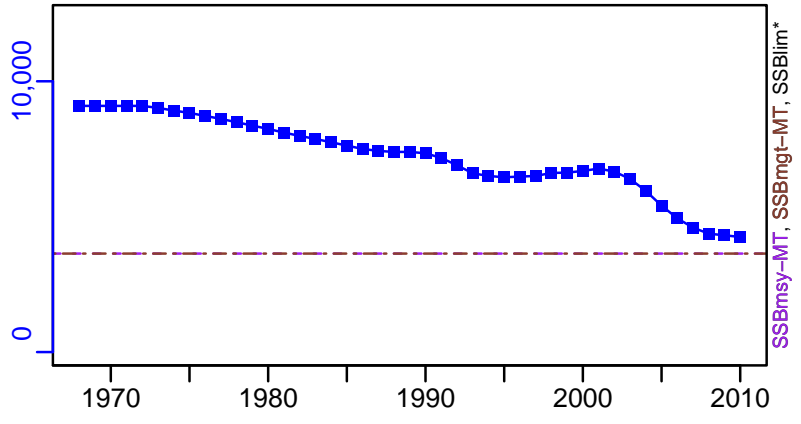
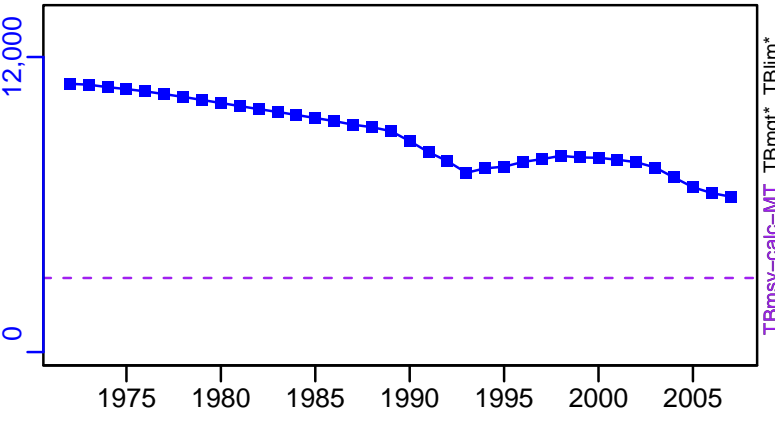


◆ Start Year ◆ End Year * No Data

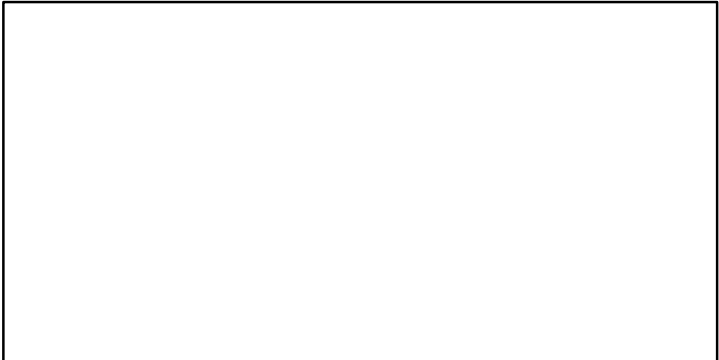
Ling New Zealand Areas LIN 72 [NZLINGLIN72]

TB-MT (1972-2007-JENSEN)

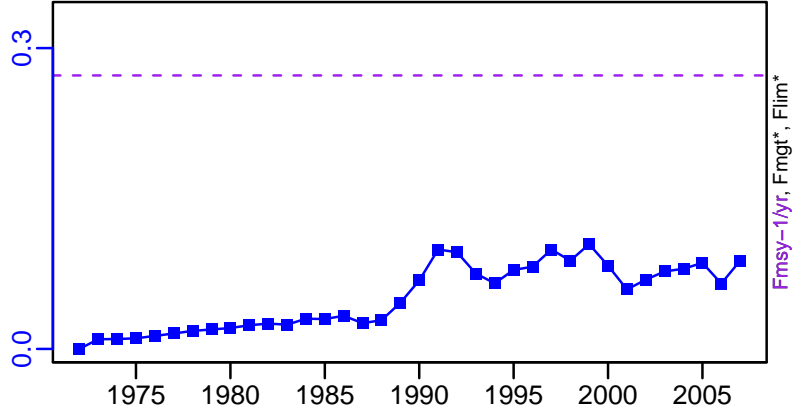
SSB-MT (1968-2010-FU)



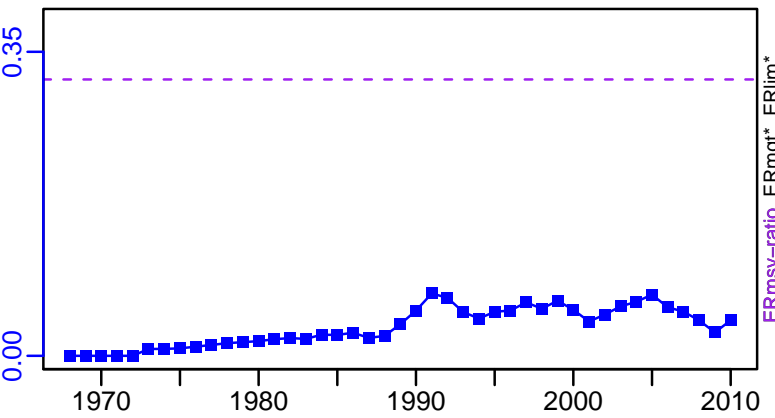
TN *



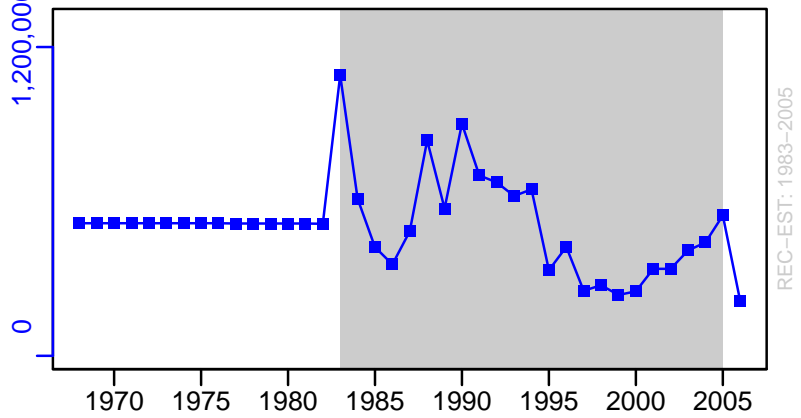
F-1/yr (1972-2007-JENSEN)



ER-calc-ratio (1968-2010-FU)



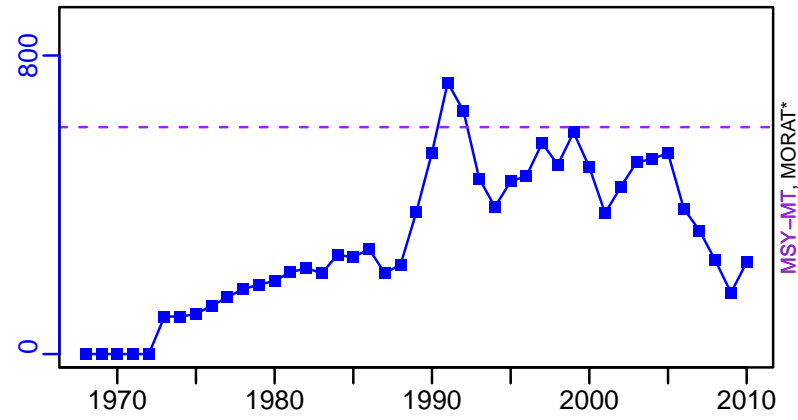
R-E00 (1968-2010-FU)



Ling New Zealand Areas LIN 72 [NZLINGLIN72]

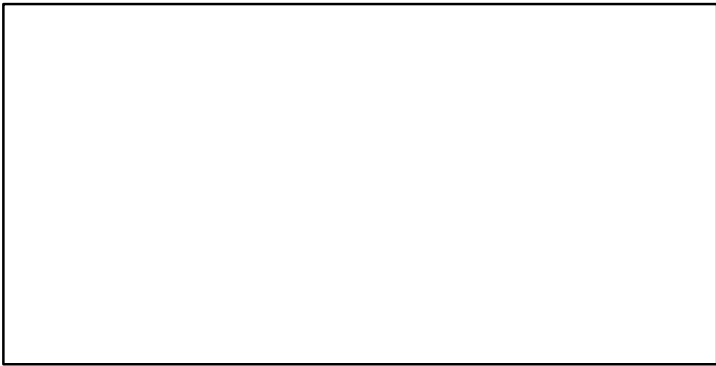
TC-MT, TL*, RecC* (1968-2010-FU)

TAC*, Cpair*, Cadv*



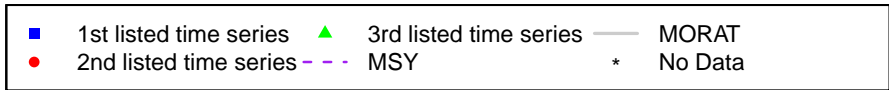
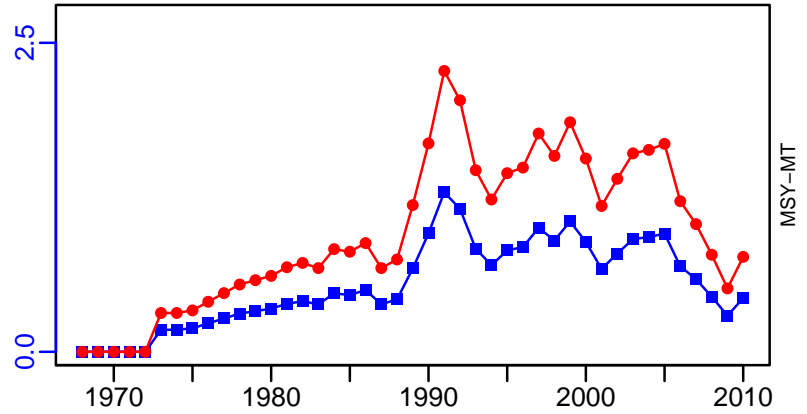
survB*

CPUE*



EFFORT*

TC-MT/MSY-MT, CdivMEANC-ratio, (1968-2010-FU)



Ling New Zealand Areas LIN 7WC-WCSI [NZLINGLIN7WC]

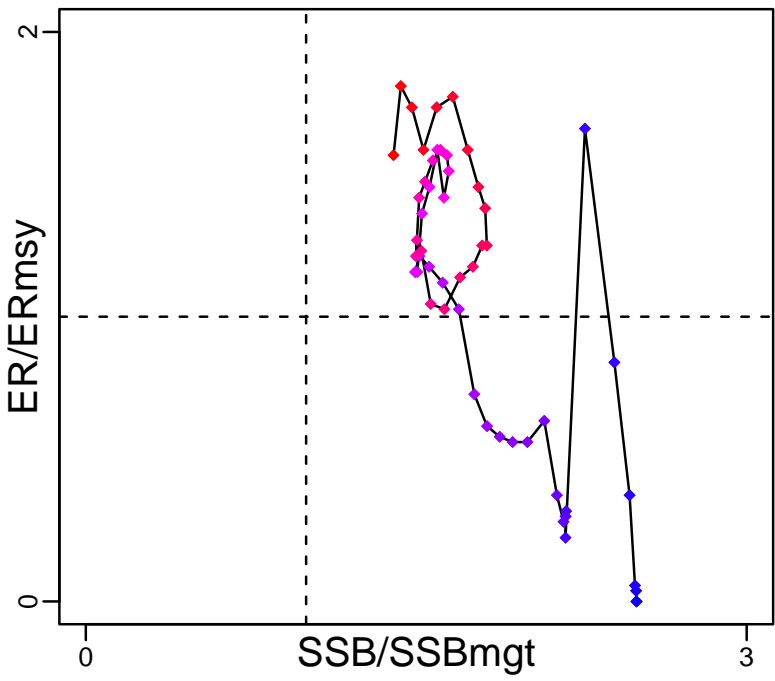
Metadata	
Scientific Name	Genypterus blacodes
Current Assess ID	NZMFishMIDDEPTHSWG-NZLINGLIN7WC-1970-2022-MORMEDE
Area	New Zealand Areas LIN 7WC-WCSI
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Middle Depths Working Group
Asmts in RAM	2012, 2022, 2008, 2020

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2008	43,937
SSBmsy	SSBmsy-MT	2020	21,818
Fmsy	Fmsy-1/yr	2008	0.202
ERmsy	ERmsy-ratio	2008	0.138
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2022	24,867
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2022	62,168
MSY	MSY-MT	2012	5150
M	M-1/yr	2022	0.18
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

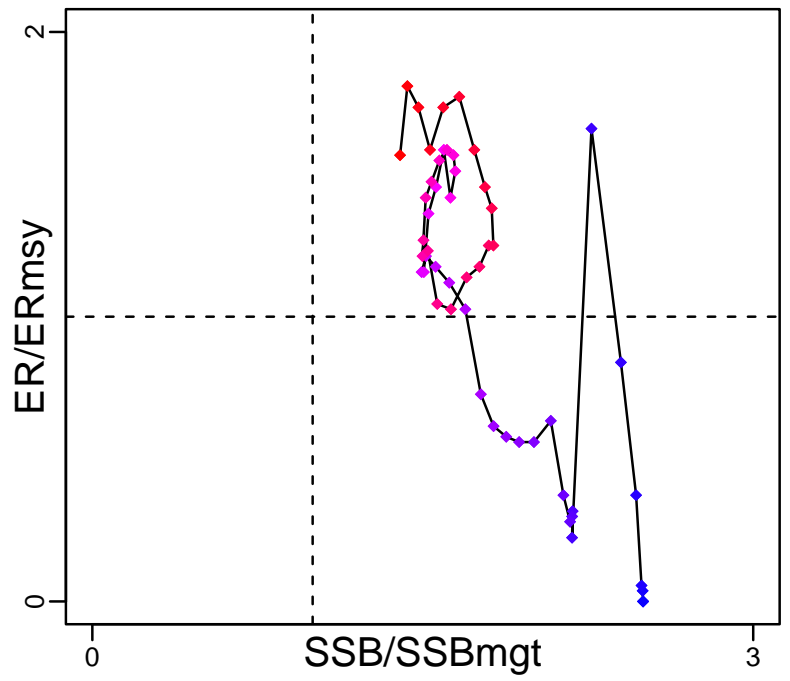
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2008	96,400	-	3
SSB	SSB-MT	2022	34,737	Both	-
TN	-	-	-	-	-
R	R-E00	2022	5,839,625	Both	1
F	F-1/yr	2008	0.027	-	-
ER	ER-ratio	2022	0.084	Both	-
TC	TC-MT	2022	2904		
TL	TL-MT	2022	2904		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2008	2.194		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2020	1.171		
F/Fmsy	F-1/yr/Fmsy-1/yr	2008	0.134		
ER/ERmsy	ER-ratio/ERmsy-ratio	2008	0.18		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2022	1.397		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Ling New Zealand Areas LIN 7WC-WCSI [NZLINGLIN7WC]

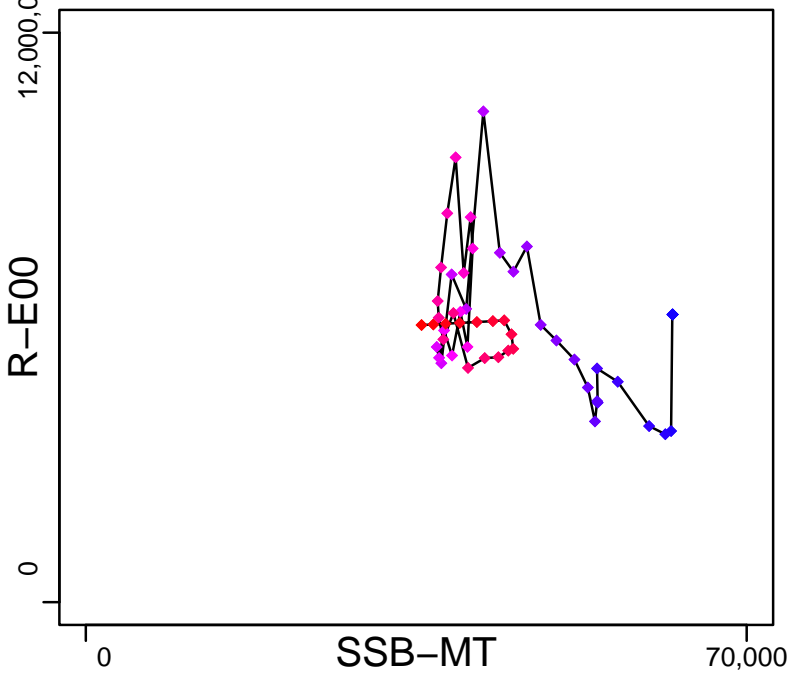
Kobe MSYpref (1970-2022-MORMEDE)



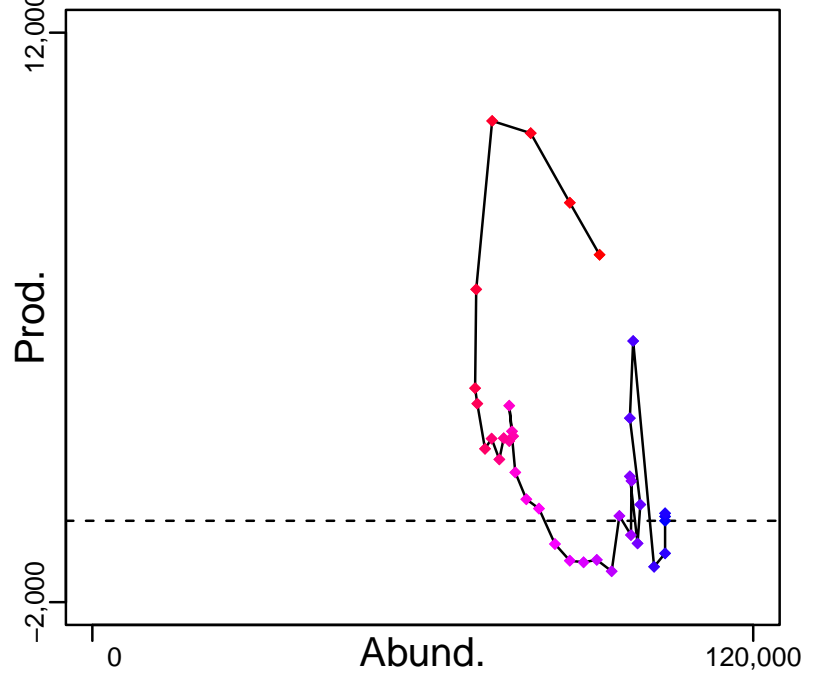
Kobe MGTpref (1970-2022-MORMEDE)



Spawner Recruit (1970-2022-MORMEDE)



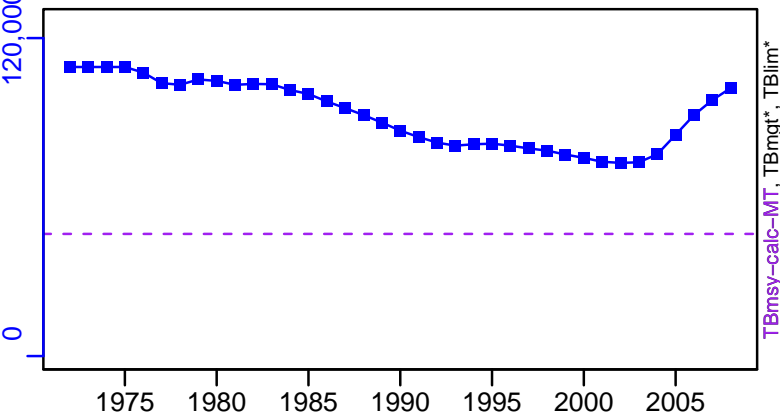
Production (1970-2022-MORMEDE)



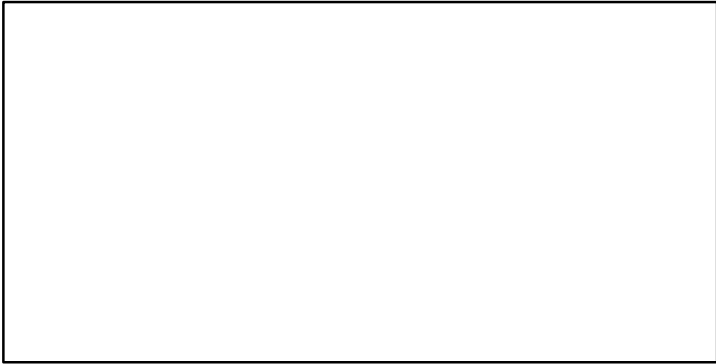
◆ Start Year ◆ End Year * No Data

Ling New Zealand Areas LIN 7WC-WCSI [NZLINGLIN7WC]

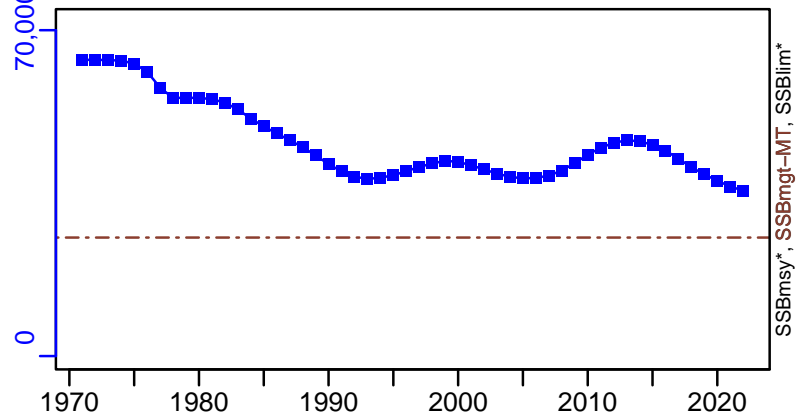
TB-MT (1972-2008-JENSEN)



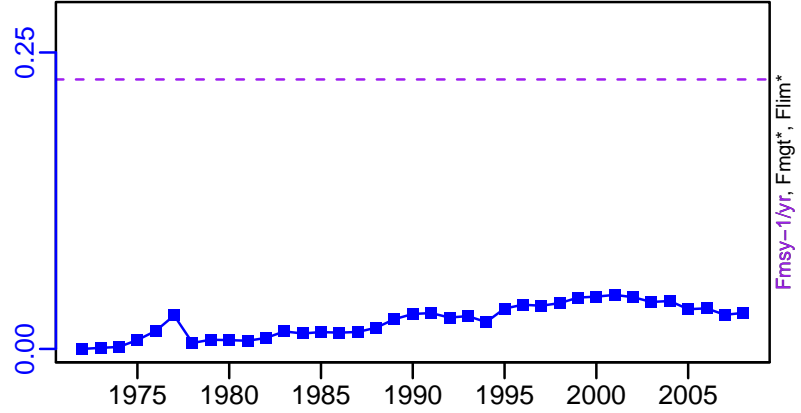
TN *



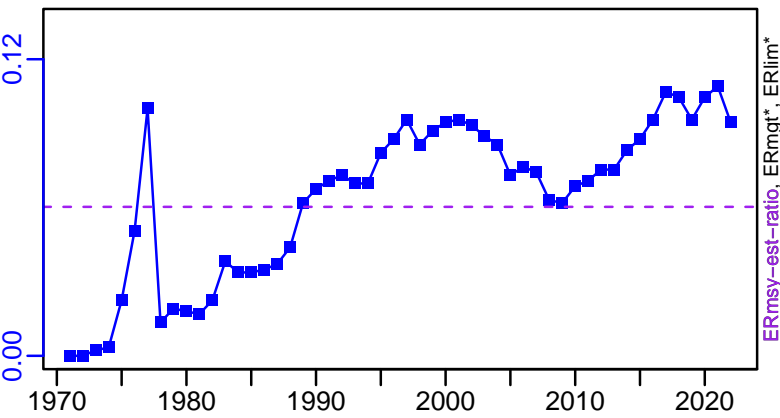
SSB-MT (1970-2022-MORMEDE)



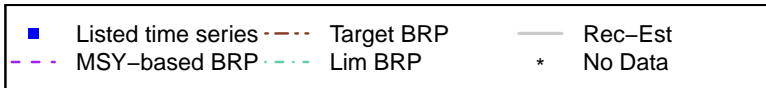
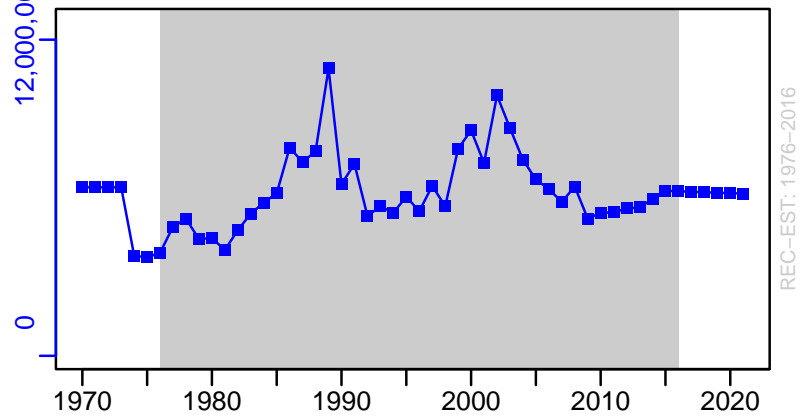
F-1/yr (1972-2008-JENSEN)



ER-ratio (1970-2022-MORMEDE)

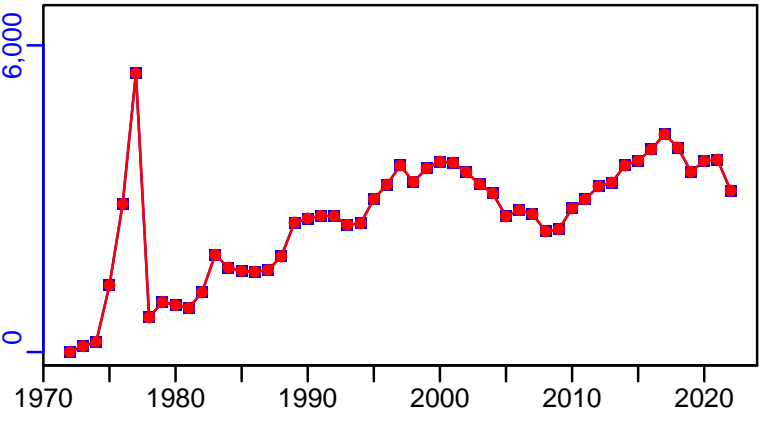


R-E00 (1970-2022-MORMEDE)

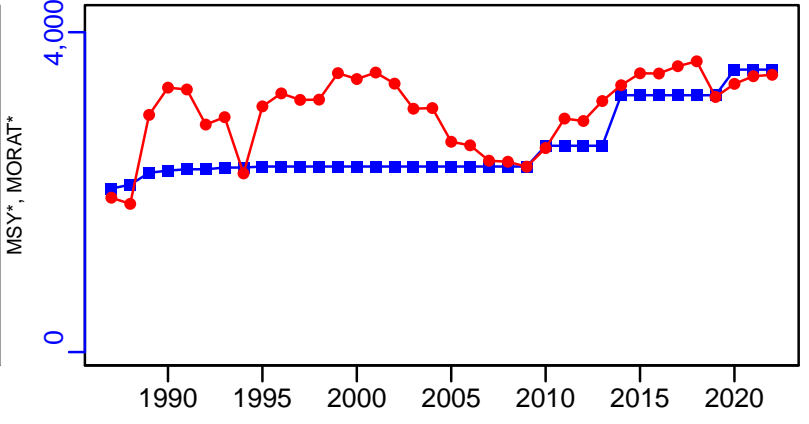


Ling New Zealand Areas LIN 7WC-WCSI [NZLINGLIN7WC]

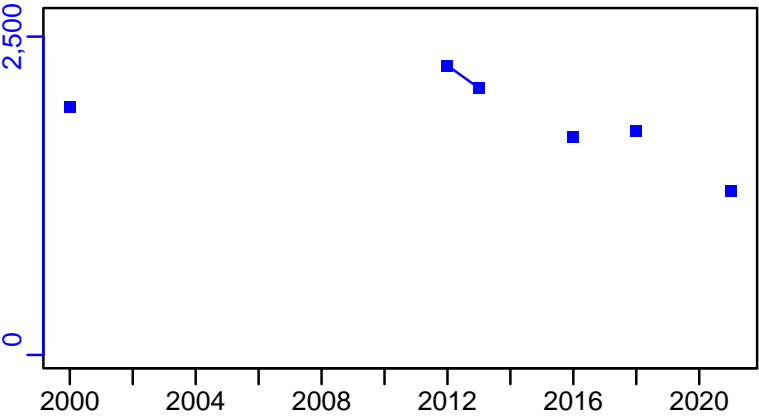
TC-MT, TL-MT, RecC* (1970-2022-MORMEDE)



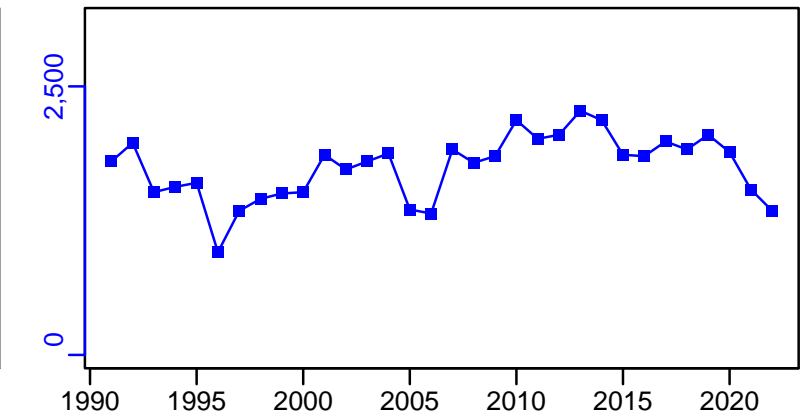
TAC-MT, Cpair-MT, Cadv* (1970-2022-MORMEDE)



survB_index-index (1970-2022-MORMEDE)



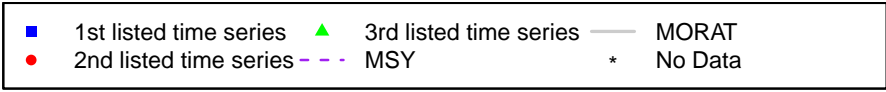
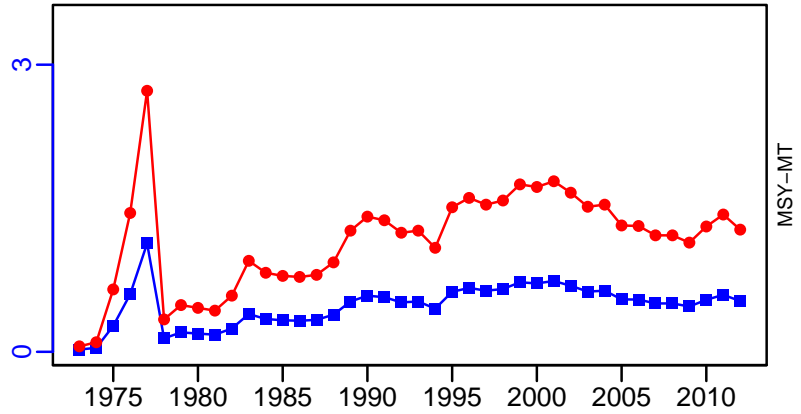
CPUE-index (1970-2022-MORMEDE)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1968-2012-FU)



**New Zealand snapper New Zealand SNA 1 Bay of Plenty and Hauraki Gulf
[NZSNAPNZ1BOP-HAGU]**

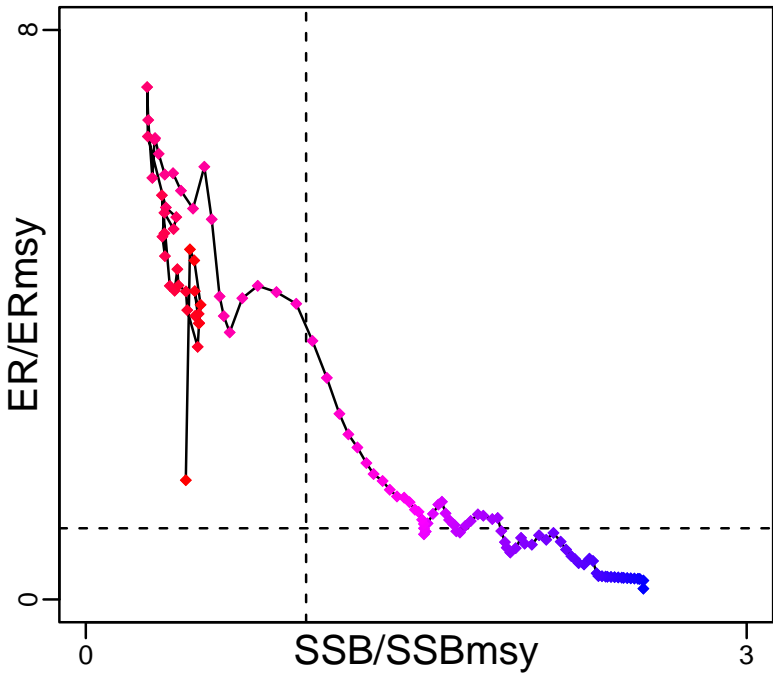
Metadata	
Scientific Name	Chrysophrys auratus
Current Assess ID	NIWA-NZSNAPNZ1BOP-HAGU-1899-2013-FU
Area	New Zealand SNA 1 Bay of Plenty and Hauraki Gulf
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2013

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2013	122,479
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2013	122,479
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2013	306,198
MSY	-	-	-
M	M-1/yr	2013	0.075
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

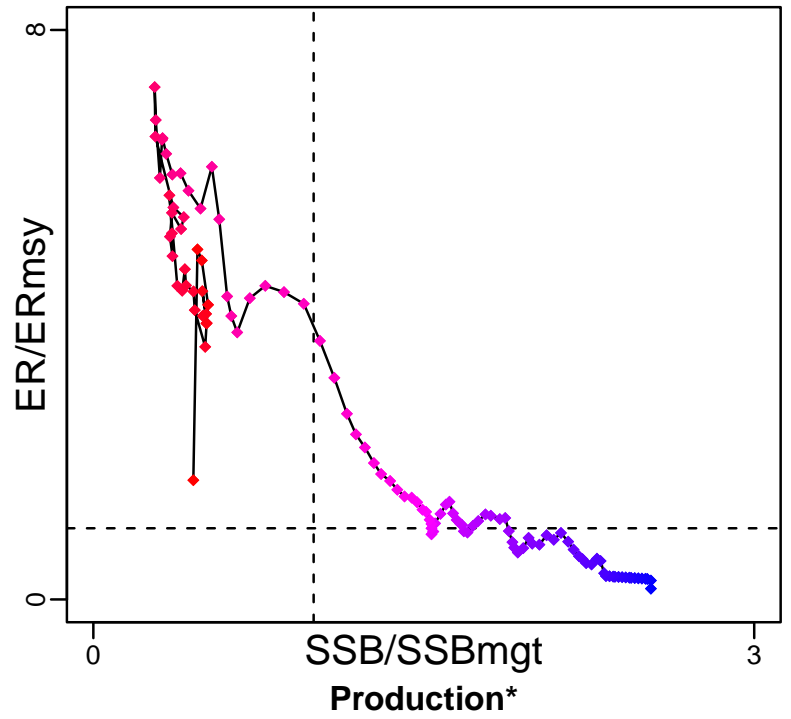
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2013	55,600	-	4 to 20
TN	-	-	-	-	-
R	R-E00	2013	1.4×10^7	Both	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2013	2300	-	-
TL	-	-	-	-	-
TB/TBmsy	-	-	-	-	-
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013	0.454	-	-
F/Fmsy	-	-	-	-	-
ER/ERmsy	-	-	-	-	-
TB/TBmgt	-	-	-	-	-
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2013	0.454	-	-
F/Fmgt	-	-	-	-	-
ER/ERmgt	-	-	-	-	-

New Zealand snapper New Zealand SNA 1 Bay of Plenty and Hauraki Gulf [NZSNAPNZ1BOP-HAGU]

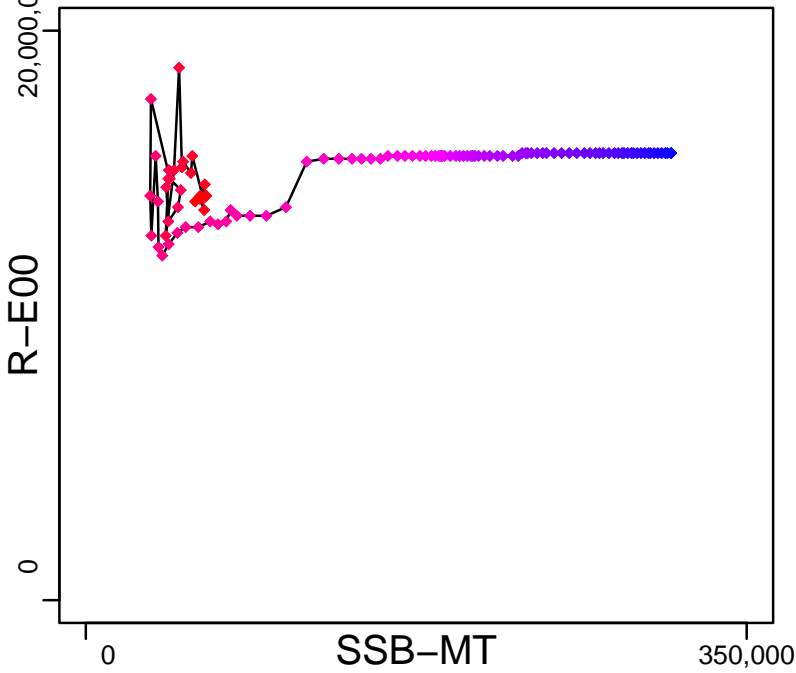
Kobe MSYpref (1899-2013-FU)



Kobe MGTpref (1899-2013-FU)



Spawner Recruit (1899-2013-FU)



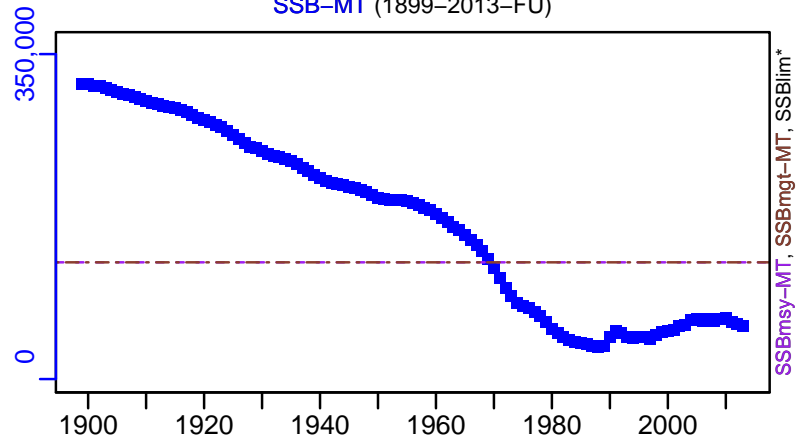
◆ Start Year ◆ End Year * No Data

New Zealand snapper New Zealand SNA 1 Bay of Plenty and Hauraki Gulf [NZSNAPNZ1BOP-HAGU]

TB*



SSB-MT (1899-2013-FU)



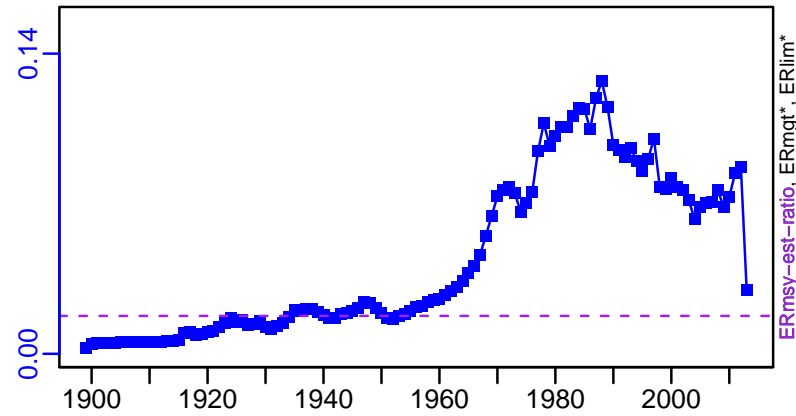
TN *



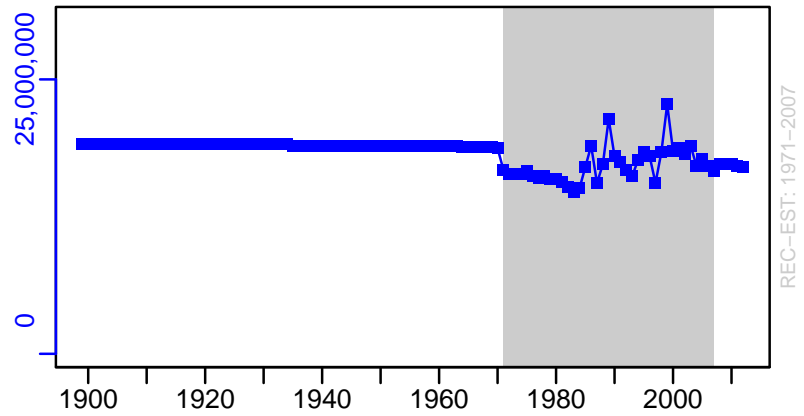
F*



ER-calc-ratio (1899-2013-FU)



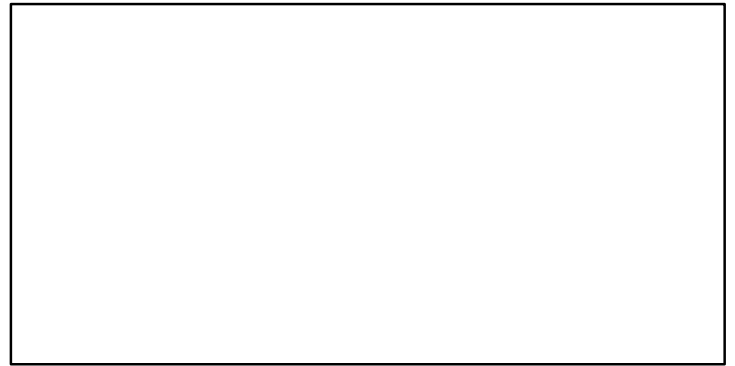
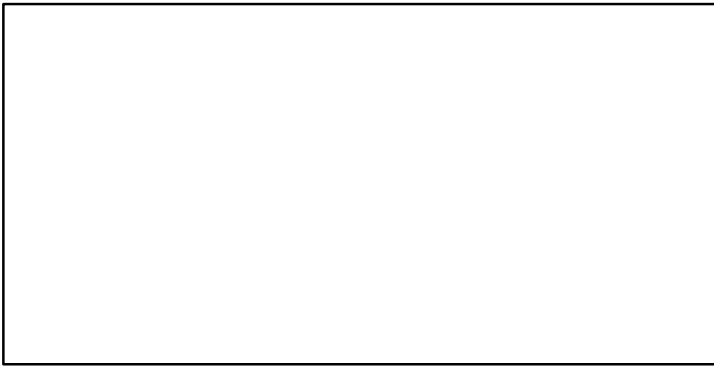
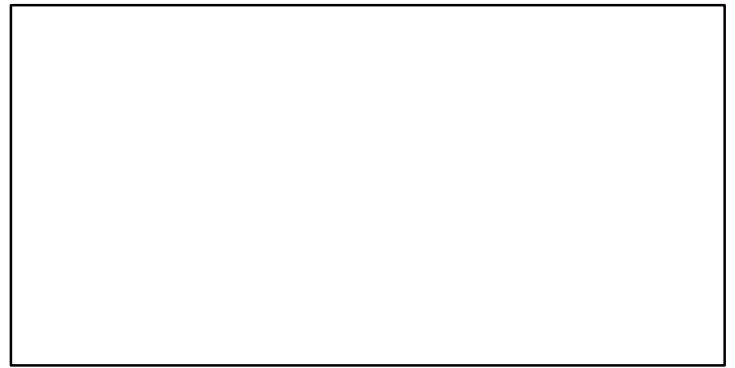
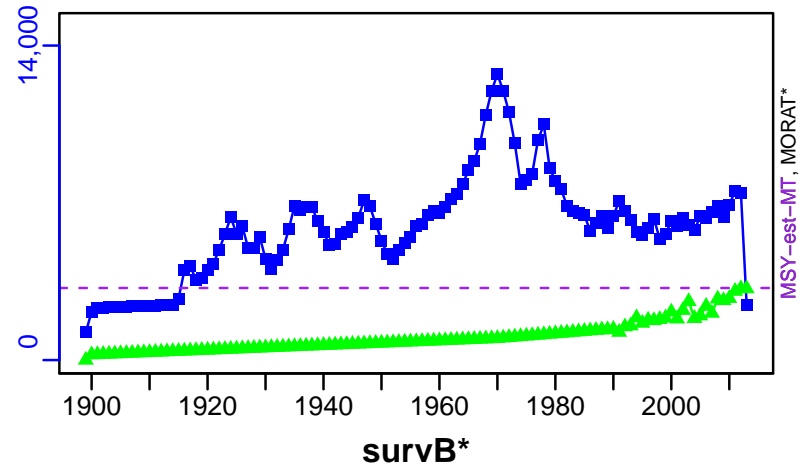
R-E00 (1899-2013-FU)



New Zealand snapper New Zealand SNA 1 Bay of Plenty and Hauraki Gulf [NZSNAPNZ1BOP-HAGU]

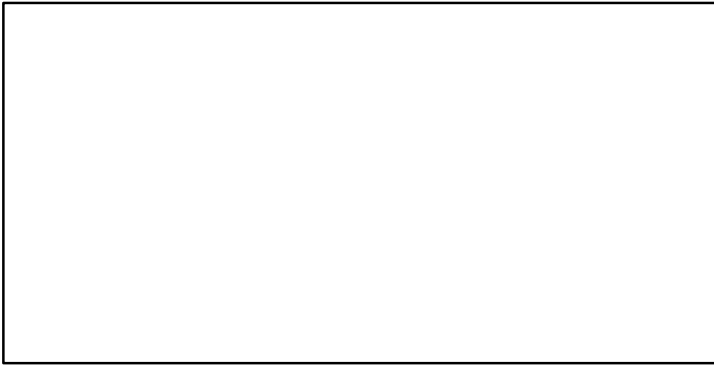
TC-MT, TL*, RecC-MT (1899-2013-FU)

TAC*, Cpair*, Cadv*

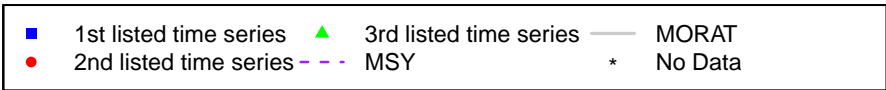
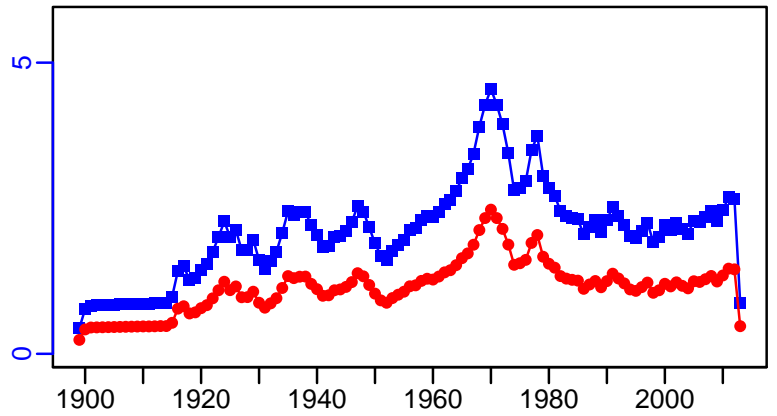


CPUE*

EFFORT*



TC-MT/MSY-est-MT, CdivMEANC-ratio, (1899-2013-FU)



New Zealand snapper New Zealand SNA 1 east Northland [NZSNAPNZ1ENLD]

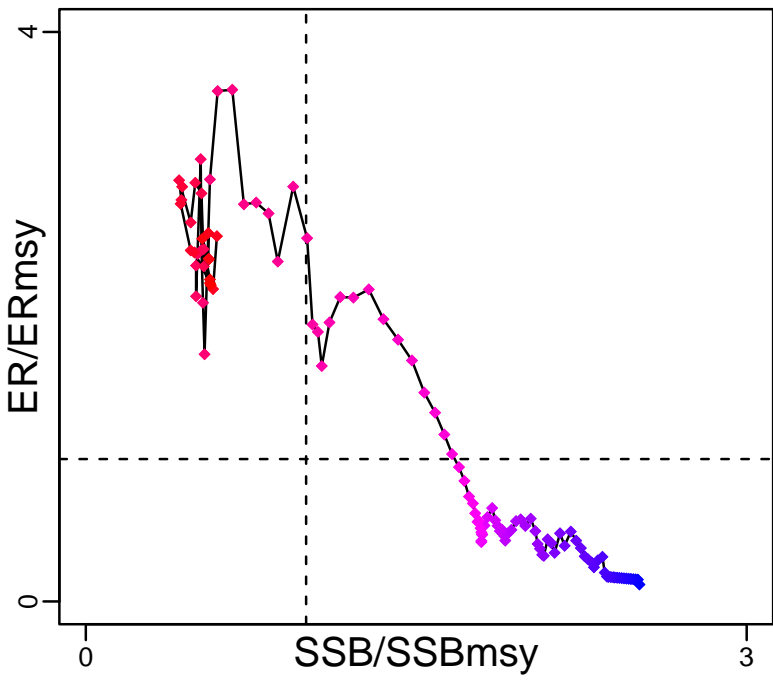
Metadata	
Scientific Name	Chrysophrys auratus
Current Assess ID	NIWA-NZSNAPNZ1ENLD-1899-2013-FU
Area	New Zealand SNA 1 east Northland
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2013

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2013	28,570
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2013	28,570
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2013	71,425
MSY	-	-	-
M	M-1/yr	2013	0.075
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

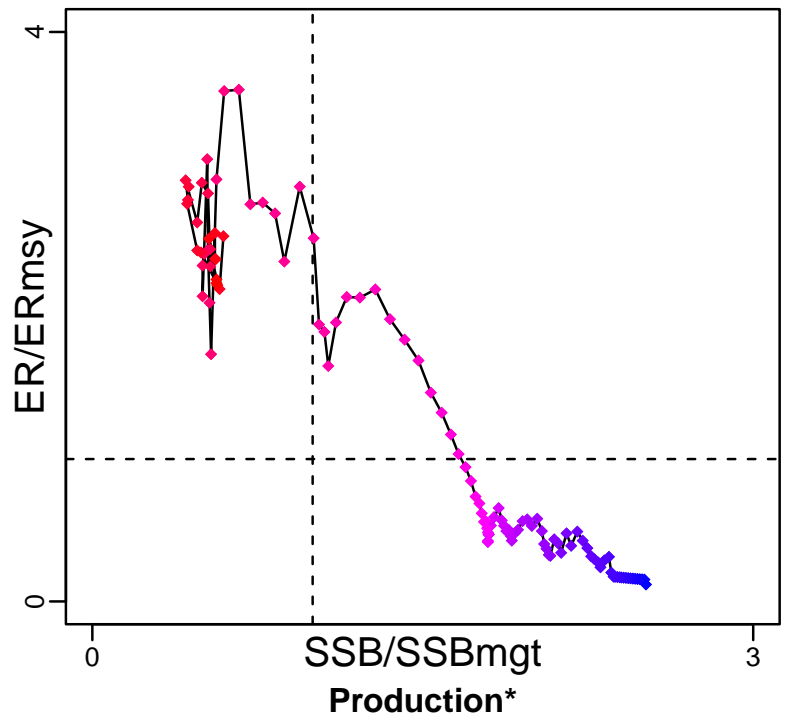
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2013	16,200	-	4 to 20
TN	-	-	-	-	-
R	R-E00	2013	3,730,000	Both	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2013	1750		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013	0.567		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2013	0.567		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

New Zealand snapper New Zealand SNA 1 east Northland [NZSNAPNZ1ENLD]

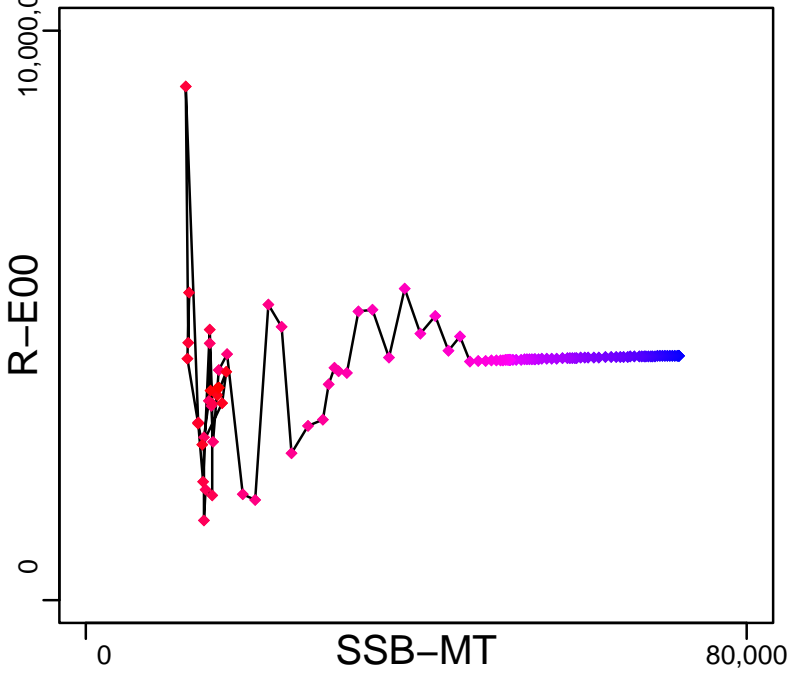
Kobe MSYpref (1899–2013–FU)



Kobe MGTpref (1899–2013–FU)



Spawner Recruit (1899–2013–FU)



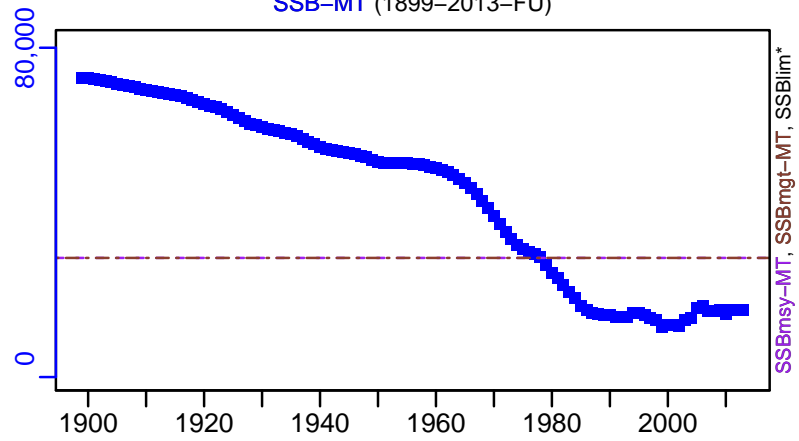
◆ Start Year ◆ End Year * No Data

New Zealand snapper New Zealand SNA 1 east Northland [NZSNAPNZ1ENLD]

TB*



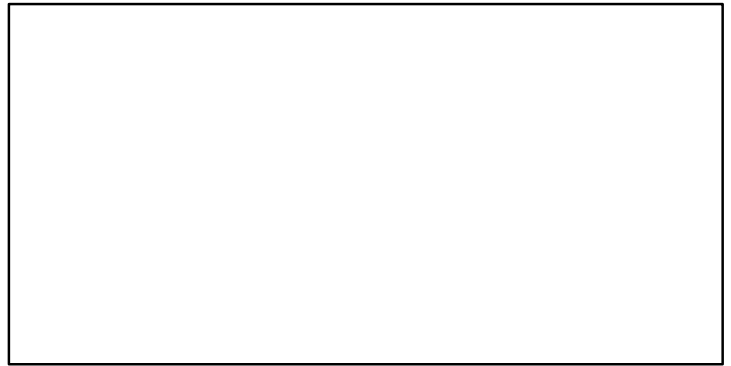
SSB-MT (1899-2013-FU)



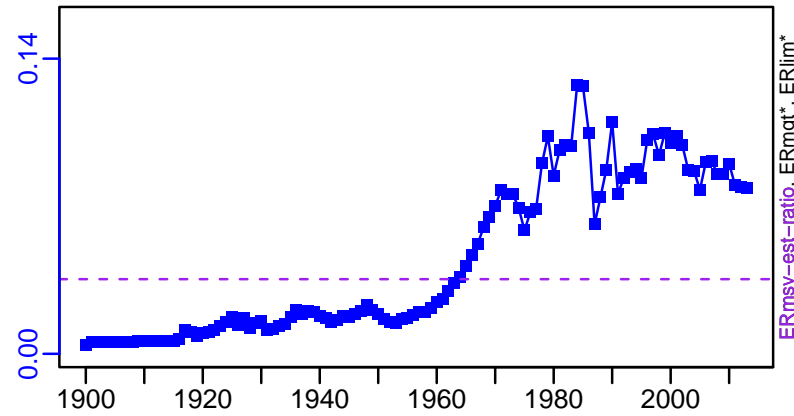
TN *



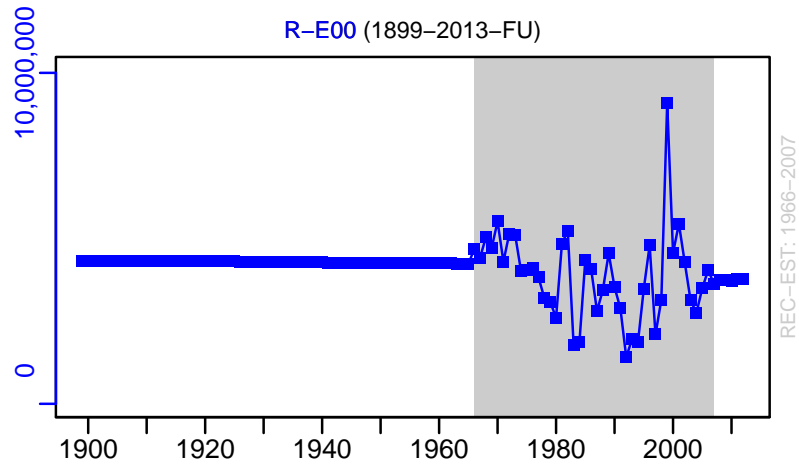
F*



ER-calc-ratio (1899-2013-FU)



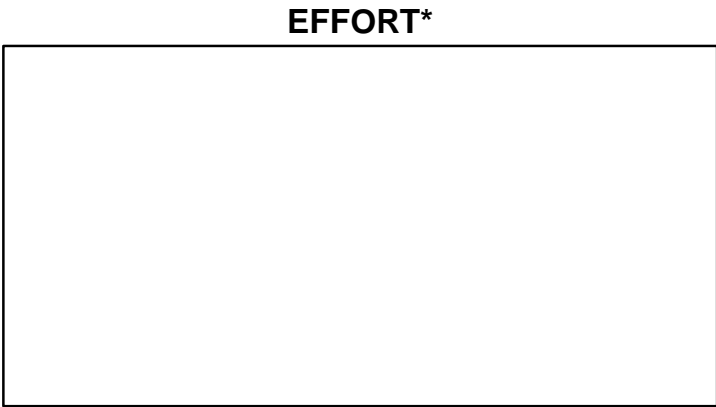
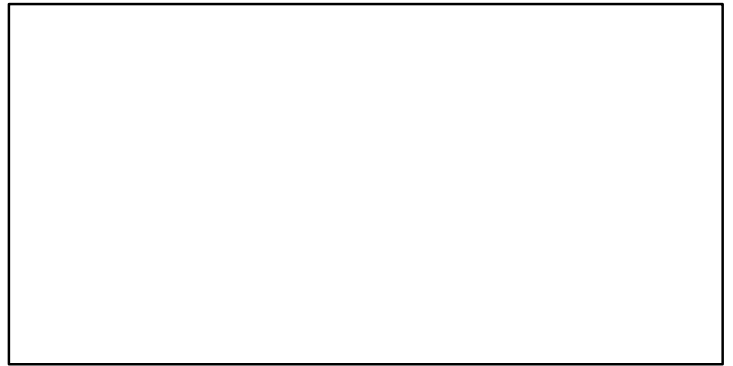
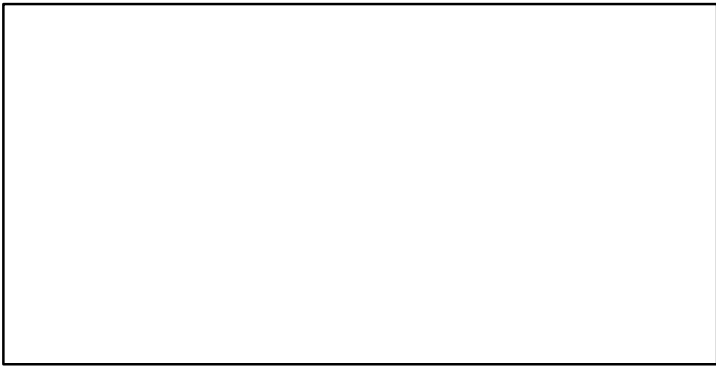
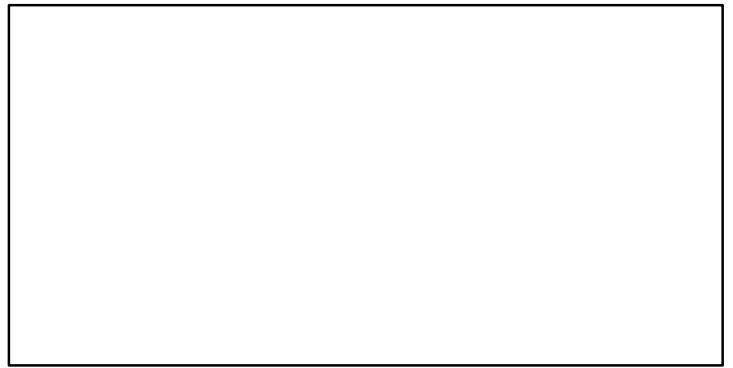
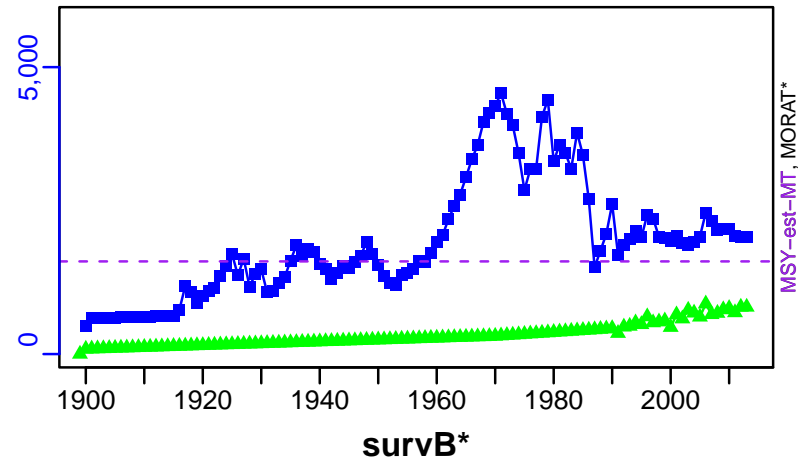
R-E00 (1899-2013-FU)



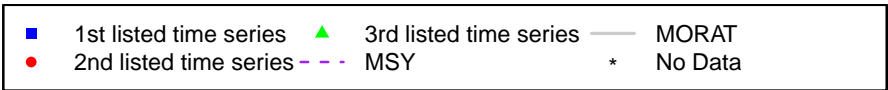
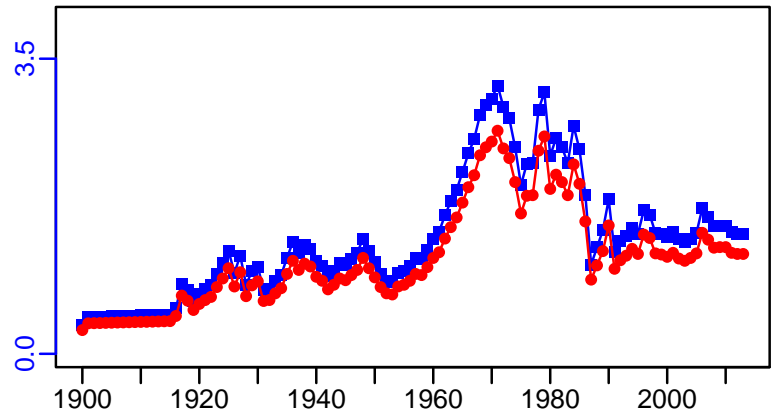
New Zealand snapper New Zealand SNA 1 east Northland [NZSNAPNZ1ENLD]

TC-MT, TL*, RecC-MT (1899-2013-FU)

TAC*, Cpair*, Cadv*



TC-MT/MSY-est-MT, CdivMEANC-ratio, (1899-2013-FU)



New Zealand snapper New Zealand SNA 7 [NZSNAPNZ7]

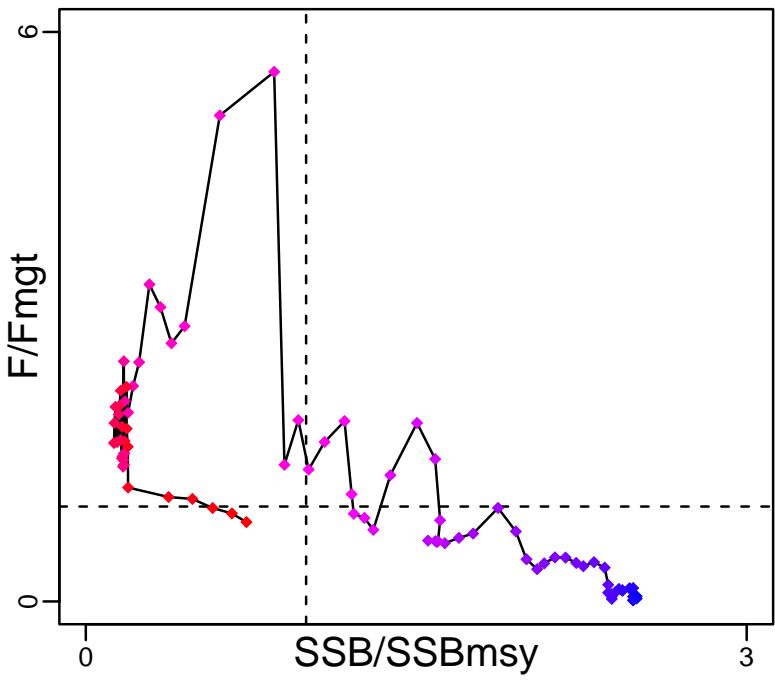
Metadata	
Scientific Name	Chrysophrys auratus
Current Assess ID	NZMFishINSHOREWG-NZSNAPNZ7-1931-2014-LANGLEY
Area	New Zealand SNA 7
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Inshore Working Group
Asmts in RAM	2014

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2014	6199
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2014	6199
Fmgt	Fmgt-1/yr	2014	0.056
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2014	15,497
MSY	MSY-MT	2014	699
M	M-1/yr	2014	0.075
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

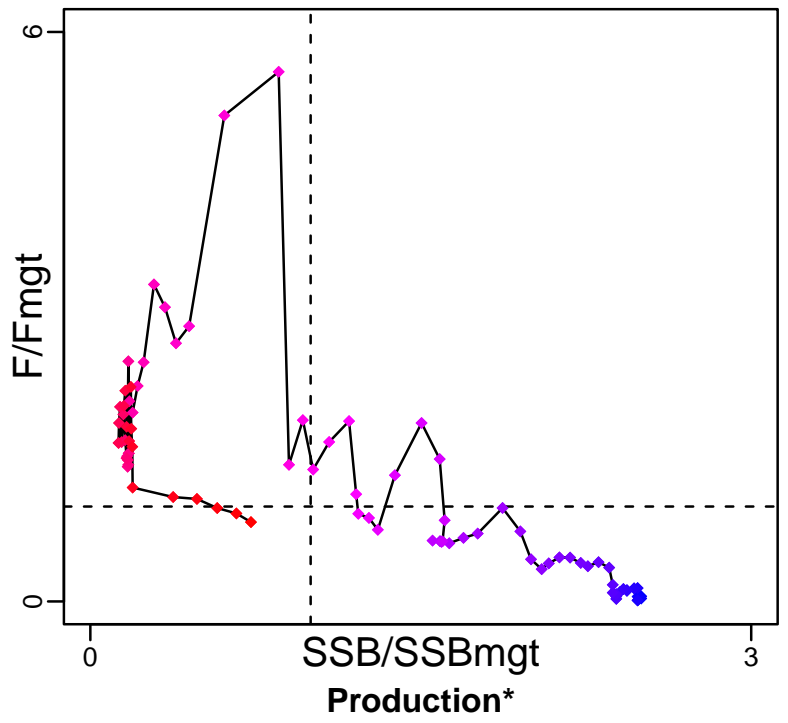
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2014	4520	Females	3 to 30+
TN	-	-	-	-	-
R	R-E00	2014	757,000	Both	0
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2014	426		
TL	TL-MT	2014	200		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2014	0.729		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2014	0.729		
F/Fmgt	FdivFmgt-dimensionless	2014	0.836		
ER/ERmgt	-	-	-		

New Zealand snapper New Zealand SNA 7 [NZSNAPNZ7]

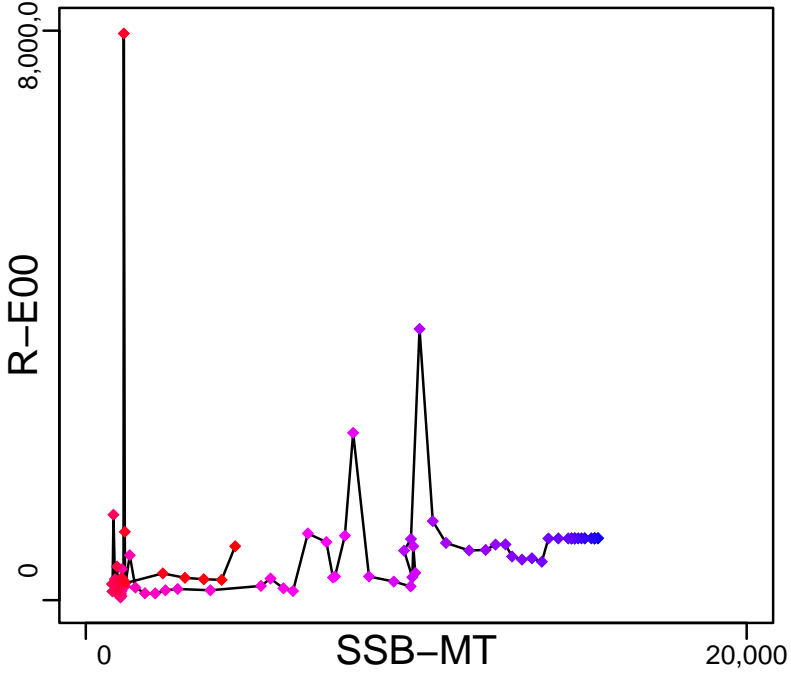
Kobe MSYpref (1931–2014–LANGLEY)



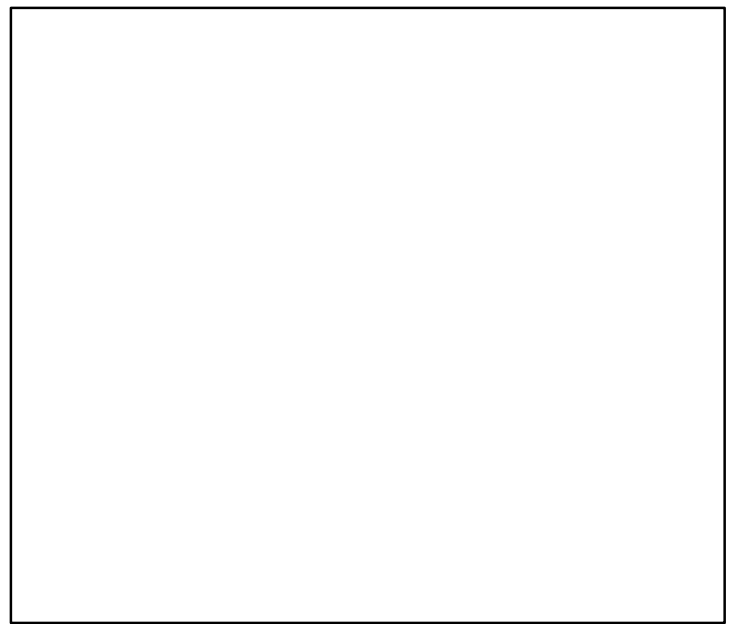
Kobe MGTpref (1931–2014–LANGLEY)



Spawner Recruit (1931–2014–LANGLEY)



Production*



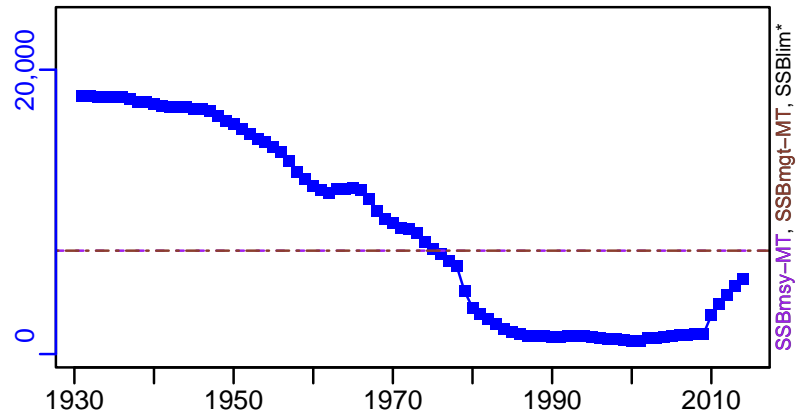
◆ Start Year ◆ End Year * No Data

New Zealand snapper New Zealand SNA 7 [NZSNAPNZ7]

TB*



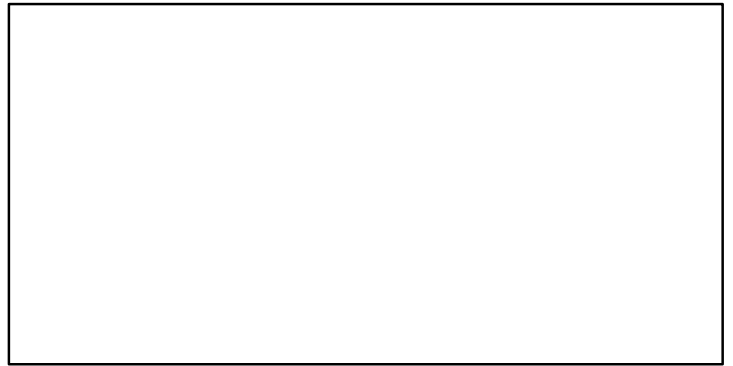
SSB-MT (1931-2014-LANGLEY)



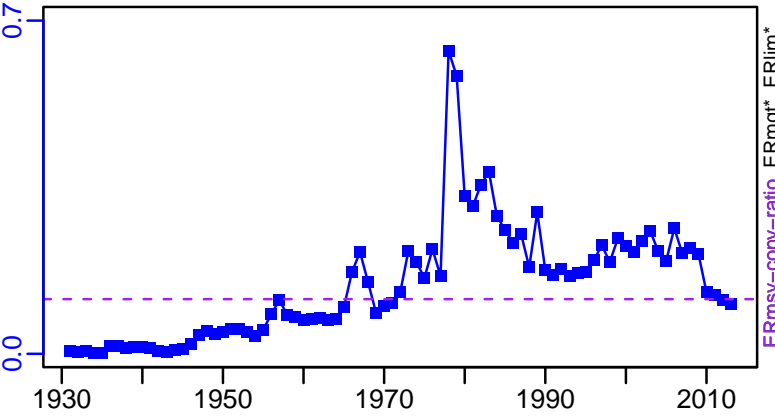
TN *



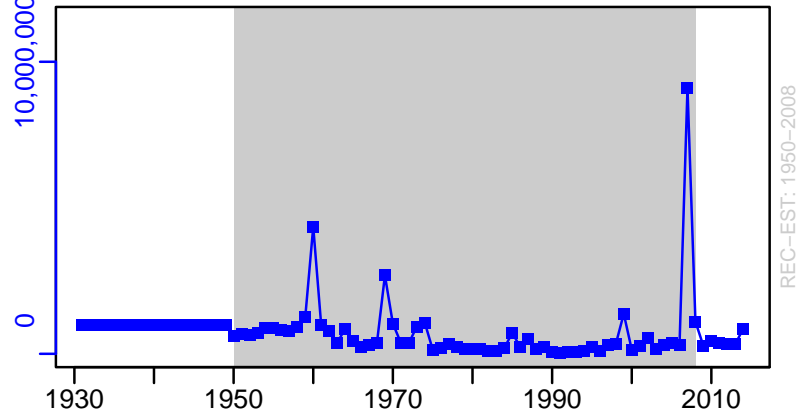
F*



ER-calc-ratio (1931-2014-LANGLEY)



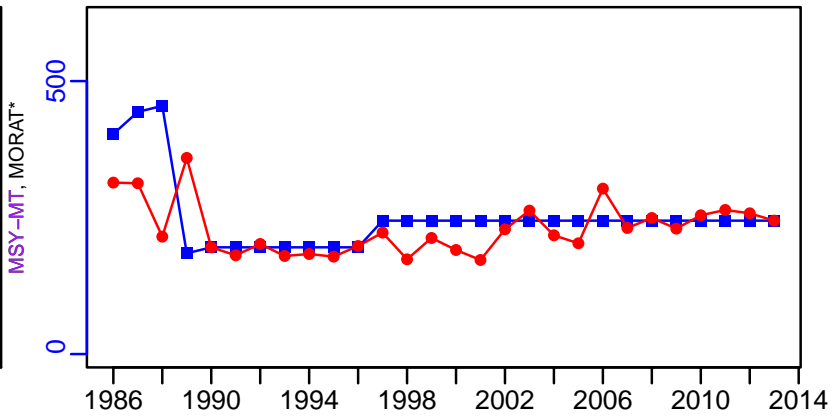
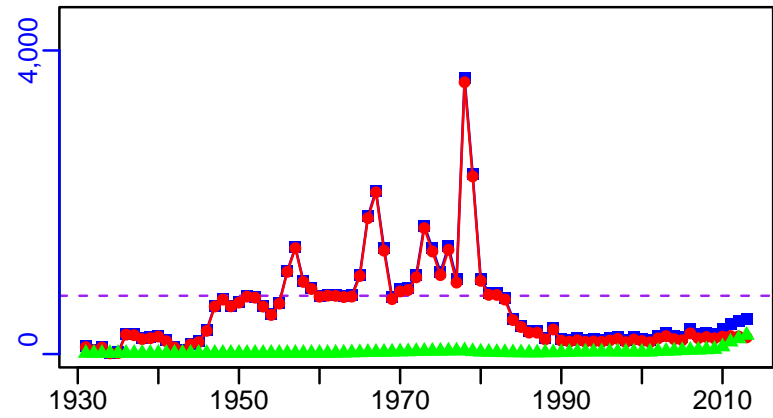
R-E00 (1931-2014-LANGLEY)



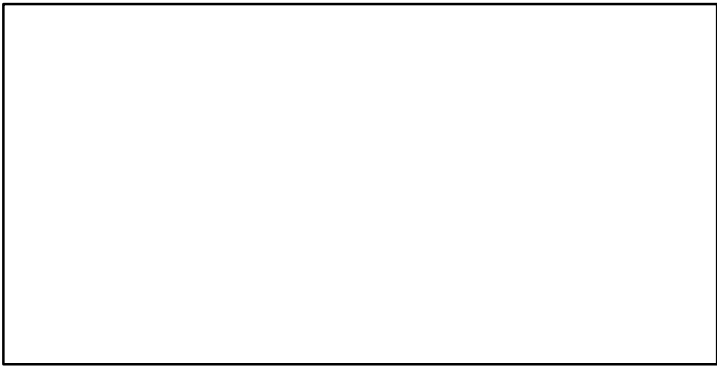
New Zealand snapper New Zealand SNA 7 [NZSNAPNZ7]

TC-MT, TL-MT, RecC-MT (1931-2014-LANGLEY)

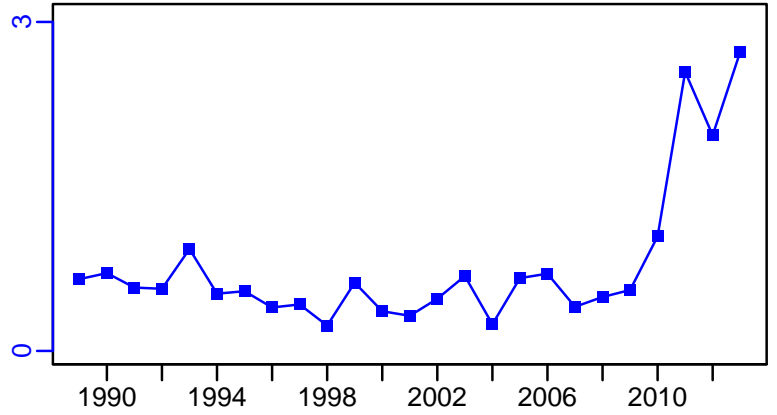
TAC-MT, Cpair-MT, Cadv* (1931-2014-LANGLEY)



survB*



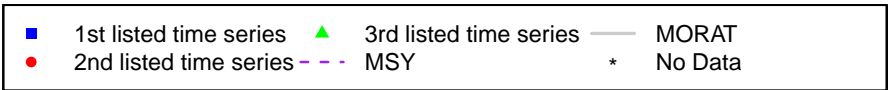
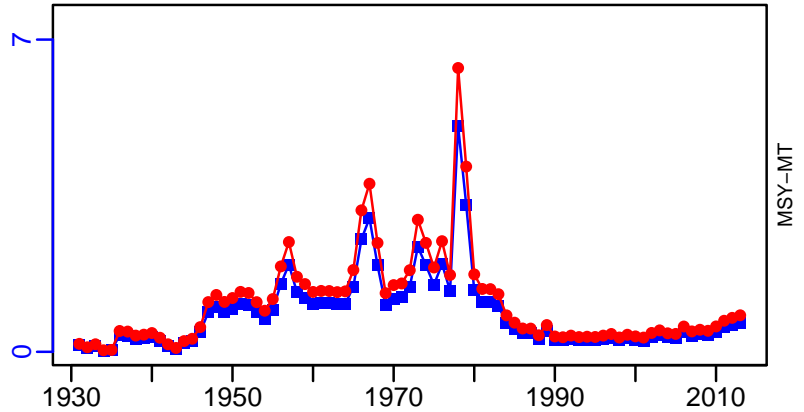
CPUE-index (1931-2014-LANGLEY)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1931-2014-LANGLEY)



**New Zealand snapper New Zealand Area 8 (Auckland and Central West)
[NZSNAPNZ8]**

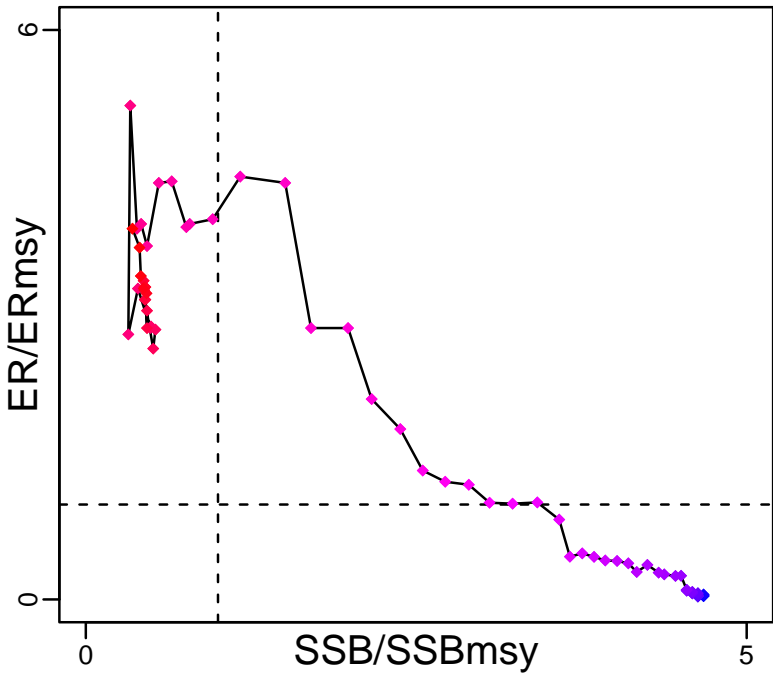
Metadata	
Scientific Name	Chrysophrys auratus
Current Assess ID	NZMFishINSHOREWG-NZSNAPNZ8-1931-2005-JENSEN
Area	New Zealand Area 8 (Auckland and Central West)
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Inshore Working Group
Asmts in RAM	2005

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2005	37,979
SSBmsy	SSBmsy-MT	2005	23,536
Fmsy	Fmsy-1/yr	2005	0.092
ERmsy	ERmsy-ratio	2005	0.06
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2005	120,884
MSY	MSY-MT	2005	2285
M	M-1/yr	2005	0.051
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

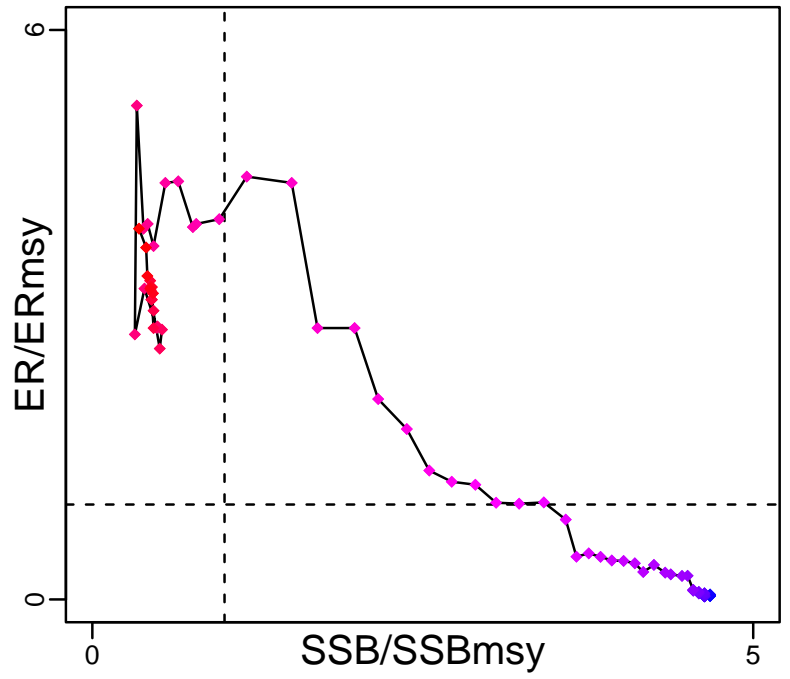
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2005	8310	Both	-
TN	-	-	-	-	-
R	R-E00	2005	1,770,000	-	3
F	F-1/yr	2005	0.23	-	-
ER	ER-ratio	2005	0.235	-	-
TC	TC-MT	2005	1950		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2005	0.353		
F/Fmsy	F-1/yr/Fmsy-1/yr	2005	2.492		
ER/ERmsy	ER-ratio/ERmsy-ratio	2005	3.906		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

New Zealand snapper New Zealand Area 8 (Auckland and Central West) [NZSNAPNZ8]

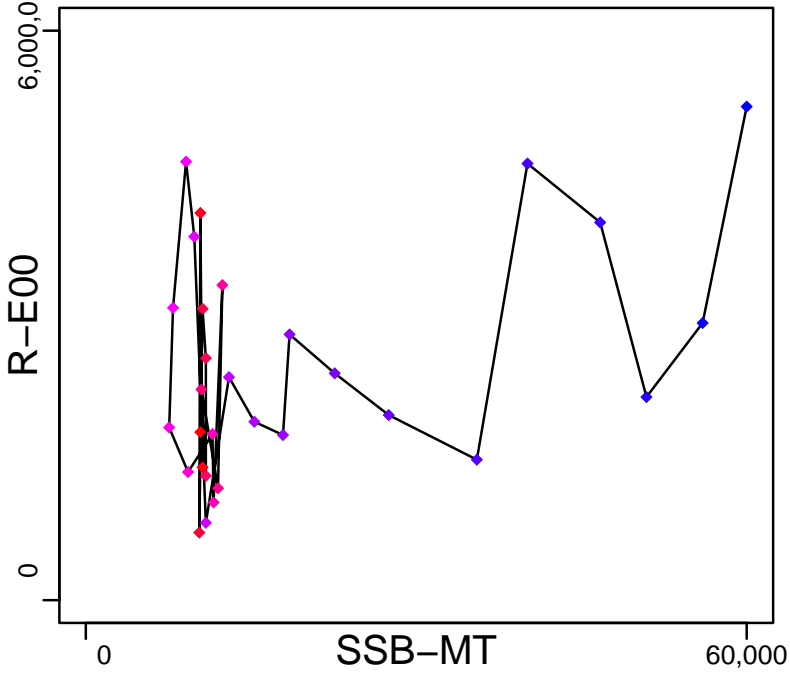
Kobe MSYpref (1931–2005–JENSEN)



Kobe MGTpref (1931–2005–JENSEN)



Spawner Recruit (1931–2005–JENSEN)



Production*



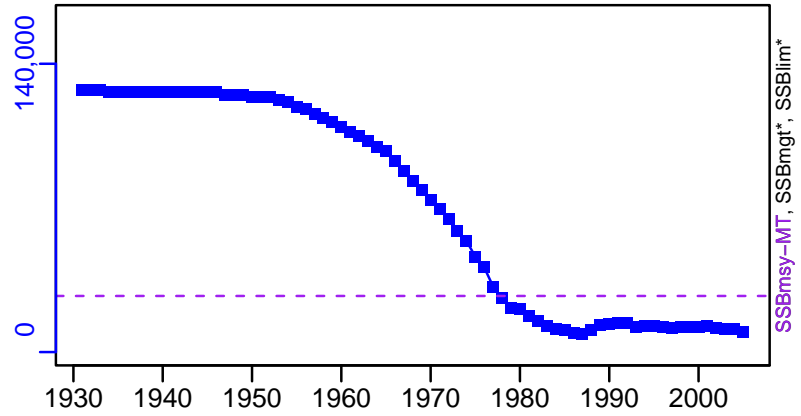
◆ Start Year ◆ End Year * No Data

New Zealand snapper New Zealand Area 8 (Auckland and Central West) [NZSNAPNZ8]

TB*



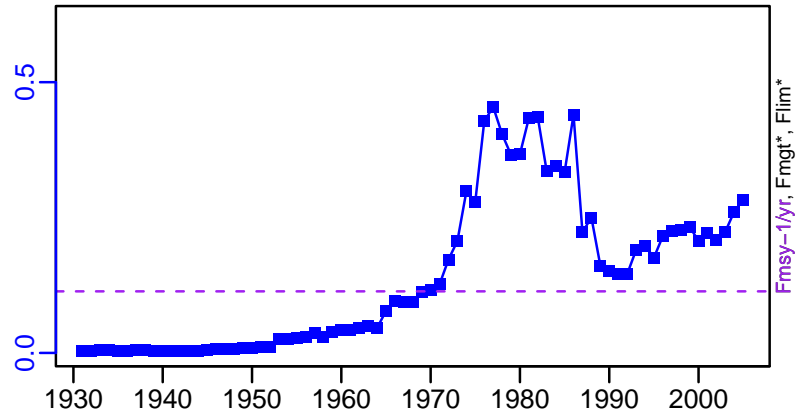
SSB-MT (1931-2005-JENSEN)



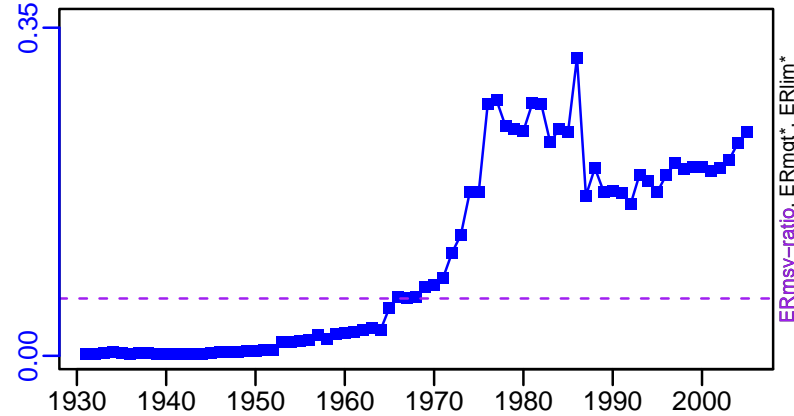
TN *



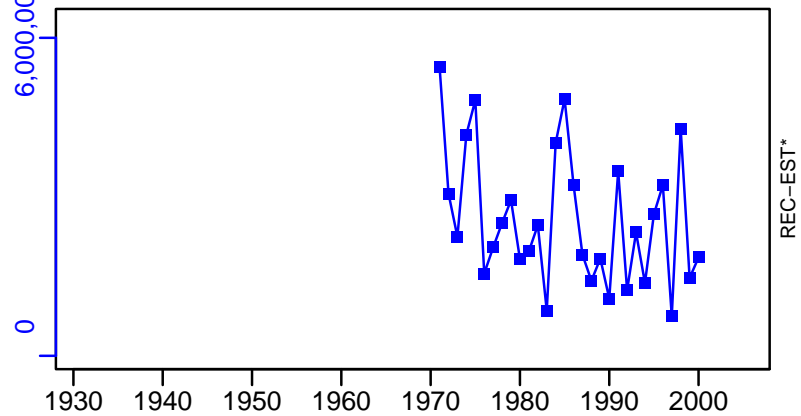
F-1/yr (1931-2005-JENSEN)



ER-ratio (1931-2005-JENSEN)



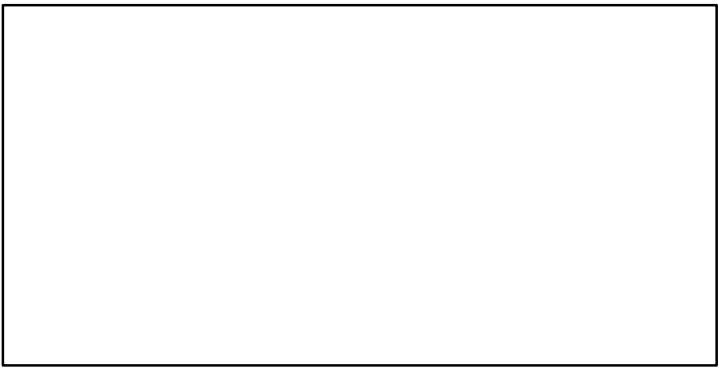
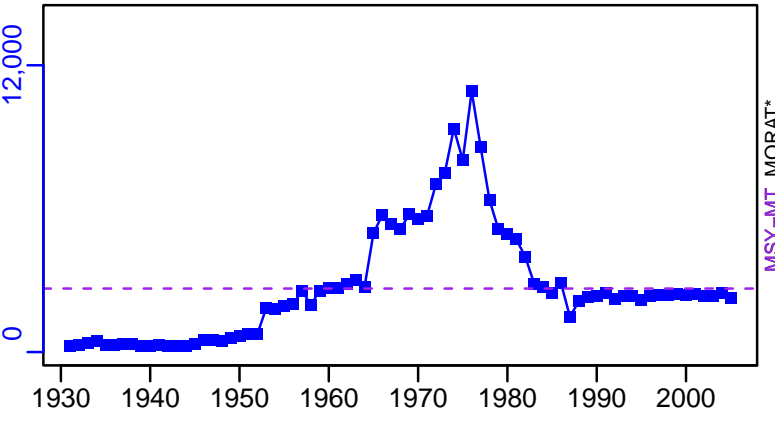
R-E00 (1931-2005-JENSEN)



New Zealand snapper New Zealand Area 8 (Auckland and Central West) [NZSNAPNZ8]

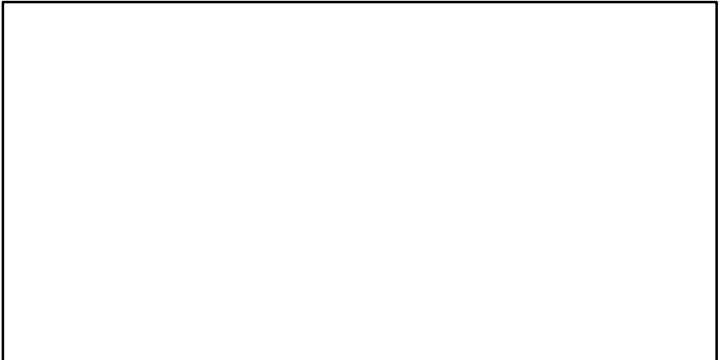
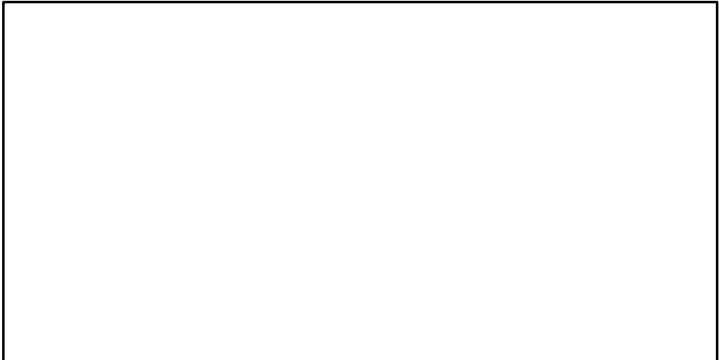
TC-MT, TL*, RecC* (1931-2005-JENSEN)

TAC*, Cpair*, Cadv*



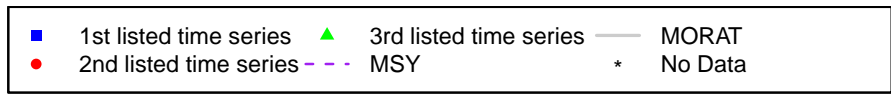
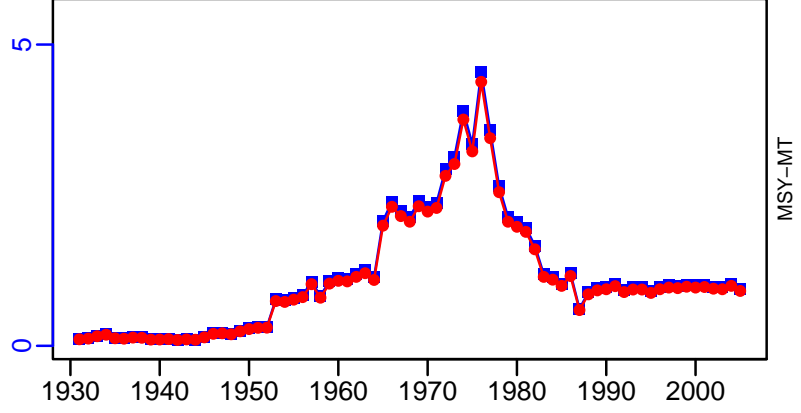
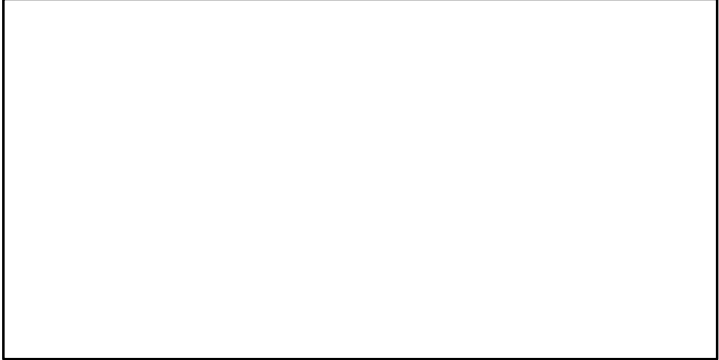
survB*

CPUE*



EFFORT*

TC-MT/MSY-MT, CdivMEANC-ratio, (1931-2005-JENSEN)



Orange roughy East and South Chatham Rise [OROUGHYESCR]

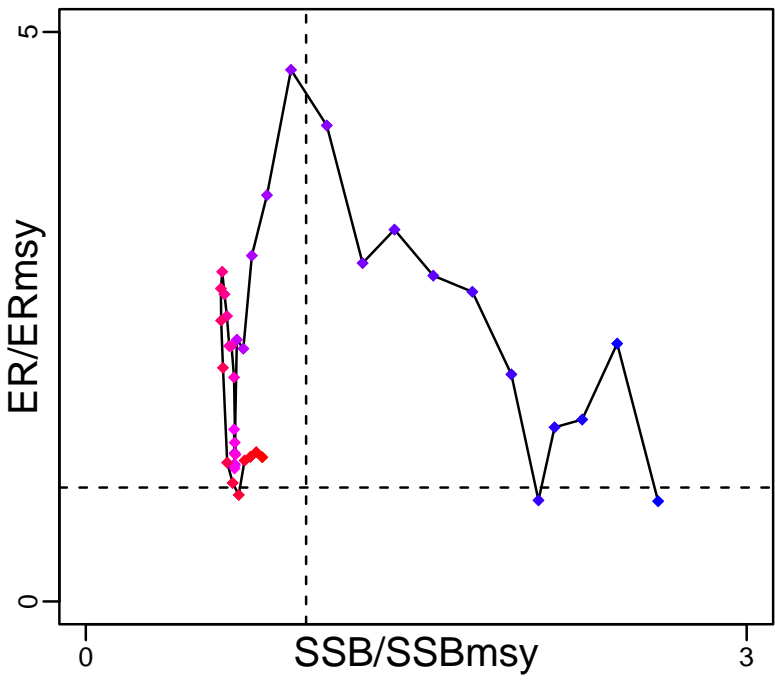
Metadata	
Scientific Name	Hoplostethus atlanticus
Current Assess ID	NIWA-OROUGHYESCR-1911-2017-DEVINE
Area	East and South Chatham Rise
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2014, 2017

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2017	124,507
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2017	124,507
Fmgt	-	-	-
ERmgt	ERmgt-ratio	2014	0.053
TB0	-	-	-
SSB0	SSB0-MT	2017	311,268
MSY	MSY-MT	2014	8640
M	M-1/yr	2017	0.045
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

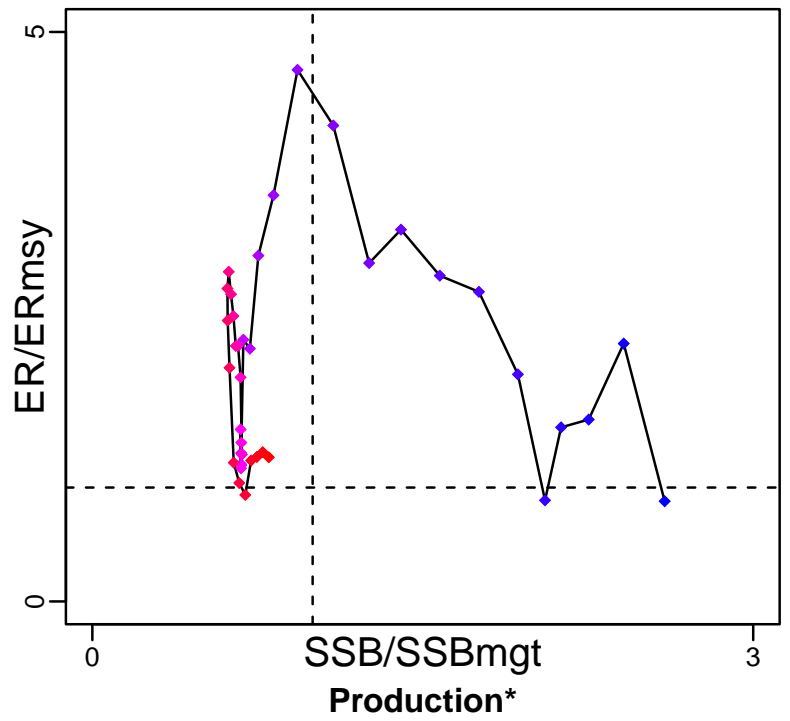
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2017	99,746	Both	28-100
TN	-	-	-	-	-
R	R-E00	2017	45,828,090	Both	28
F	-	-	-	-	-
ER	ER-ratio	2017	0.048	Both	28-100
TC	TC-MT	2017	3503		
TL	TL-MT	2017	3336		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2017	0.801		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2017	0.801		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Orange roughy East and South Chatham Rise [OROUGHYESCR]

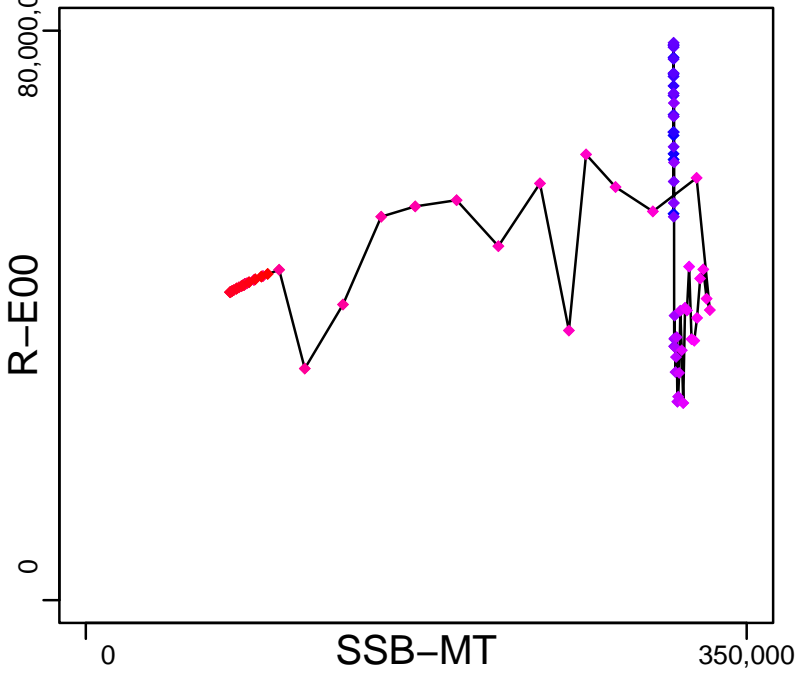
Kobe MSYpref (1911–2017–DEVINE)



Kobe MGTpref (1911–2017–DEVINE)



Spawner Recruit (1911–2017–DEVINE)



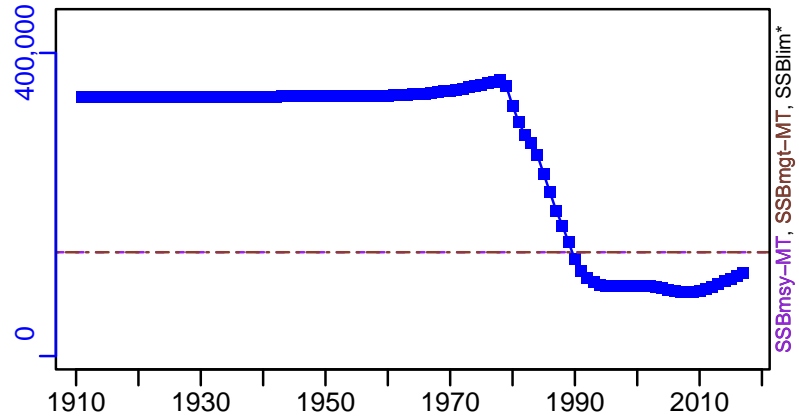
◆ Start Year ◆ End Year * No Data

Orange roughy East and South Chatham Rise [OROUGHYESCR]

TB*



SSB-MT (1911-2017-DEVINE)



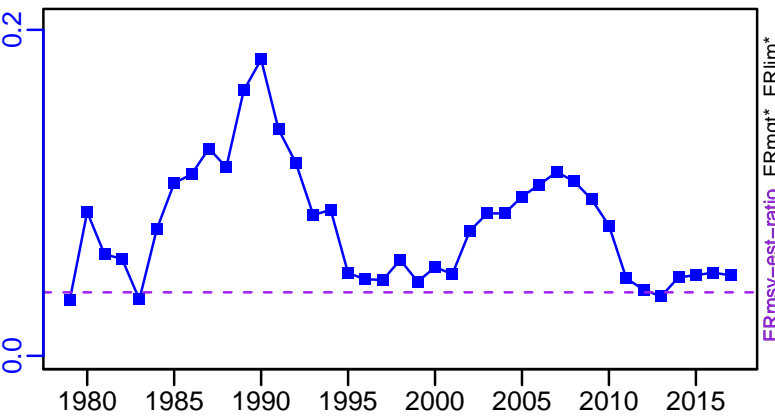
TN *



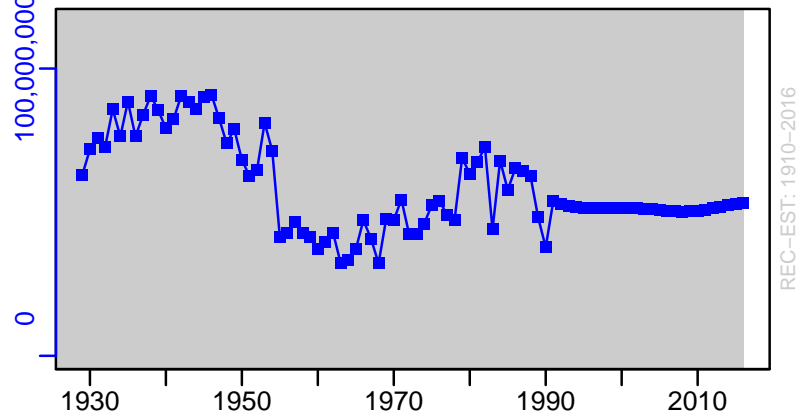
F*



ER-ratio (1911-2017-DEVINE)

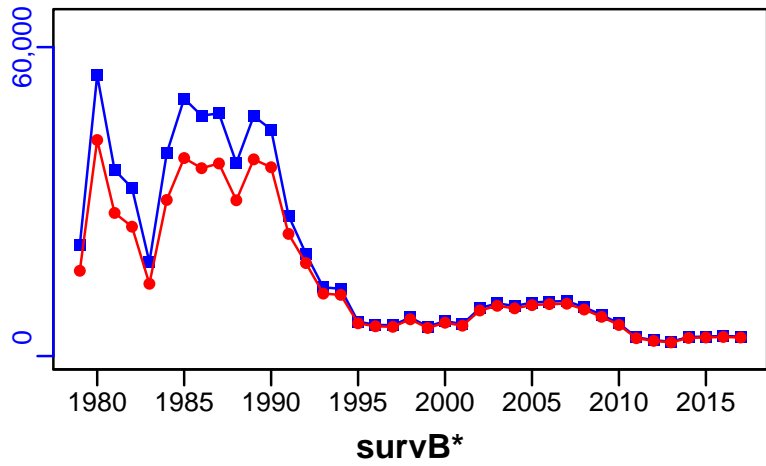


R-E00 (1911-2017-DEVINE)

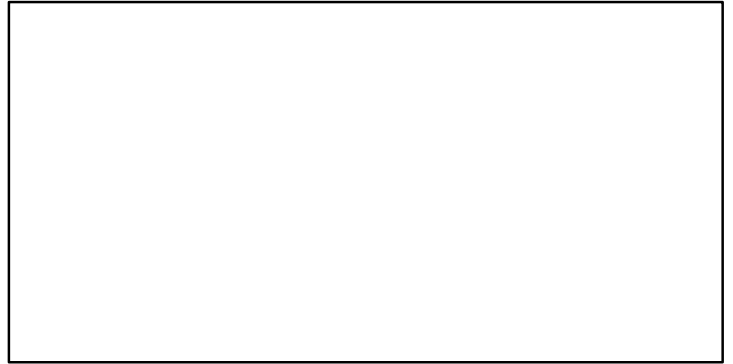
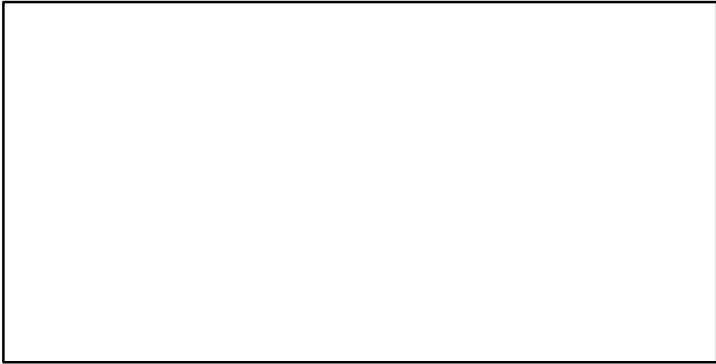
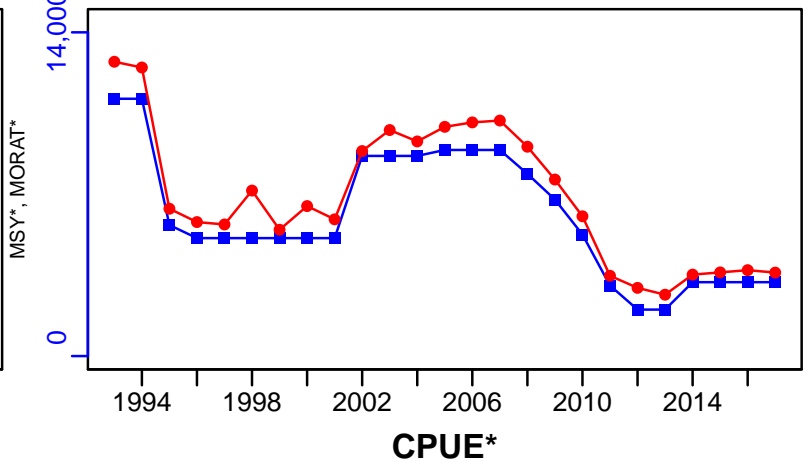


Orange roughy East and South Chatham Rise [OROUGHYESCR]

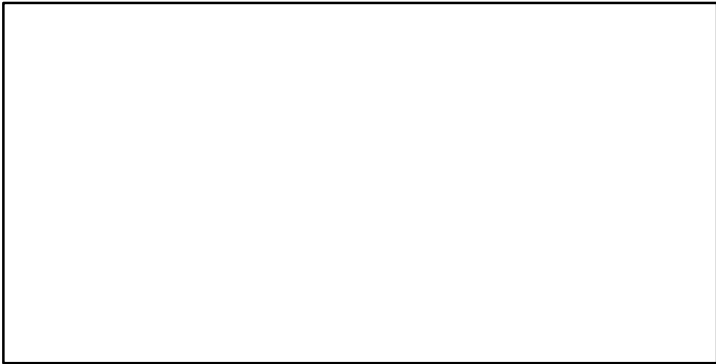
TC-MT, TL-MT, RecC* (1911-2017-DEVINE)



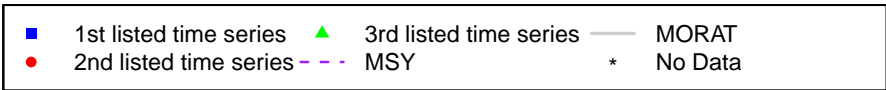
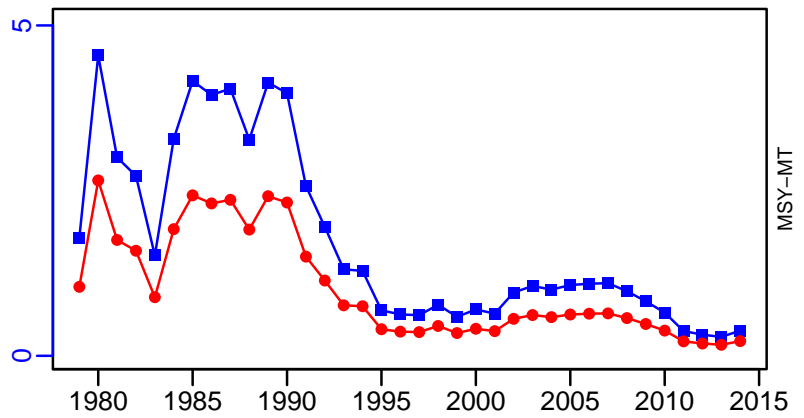
TAC-MT, Cpair-MT, Cadv* (1911-2017-DEVINE)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1910-2014-FU)



Orange roughy Northwest Chatham Rise [OROUGHYNWCR]

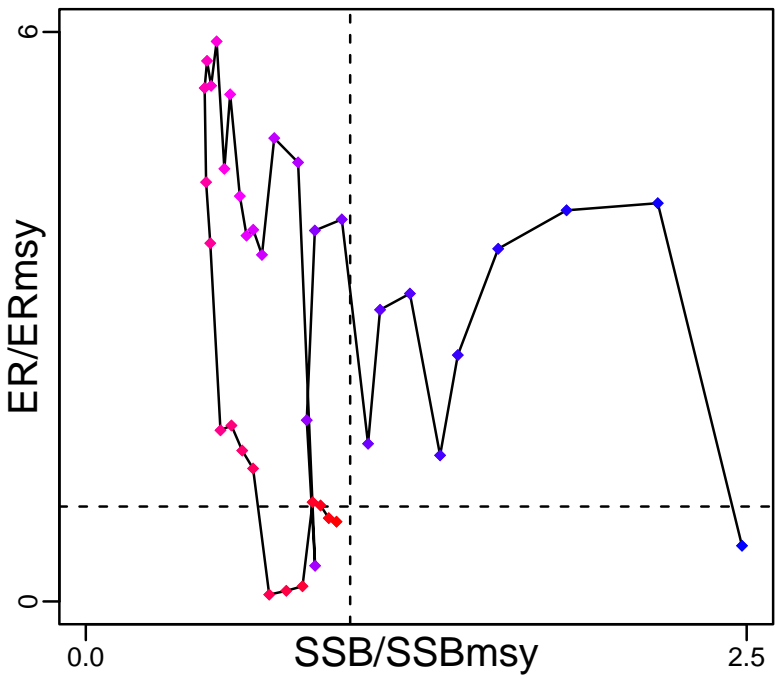
Metadata	
Scientific Name	Hoplostethus atlanticus
Current Assess ID	NIWA-OROUGHYNWCR-1911-2017-DEVINE
Area	Northwest Chatham Rise
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2014, 2017

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2014	16,052
SSBmsy	SSBmsy-MT	2017	26,054
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2014	0.086
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2017	26,054
Fmgt	-	-	-
ERmgt	ERmgt-ratio	2014	0.053
TB0	-	-	-
SSB0	SSB0-MT	2017	65,134
MSY	MSY-MT	2014	1386
M	M-1/yr	2017	0.045
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

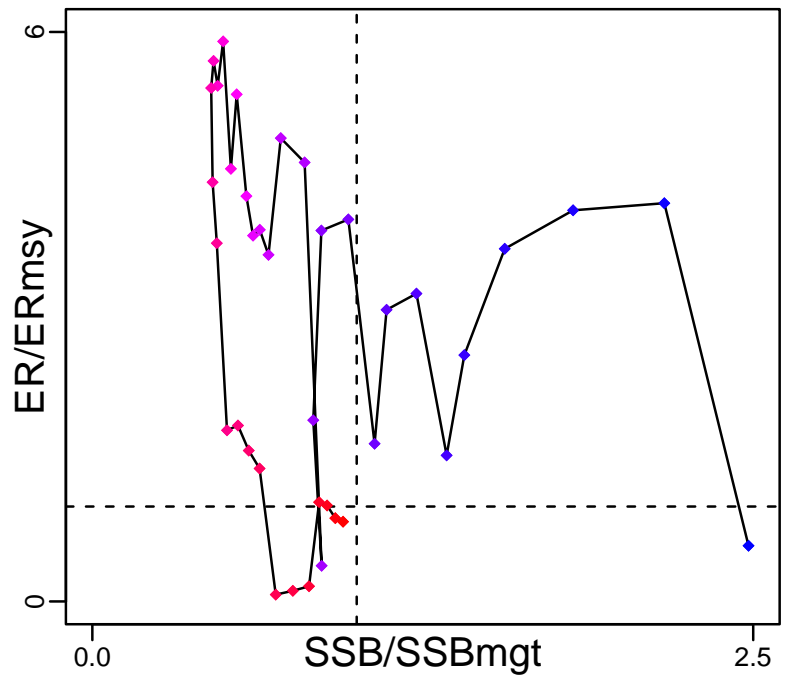
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2017	24,712	Both	28-100
TN	-	-	-	-	-
R	R-E00	2017	8,363,698	Both	28
F	-	-	-	-	-
ER	ER-ratio	2017	0.032	Both	28-100
TC	TC-MT	2017	799		
TL	TL-MT	2017	761		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2017	0.948		
F/Fmsy	-	-	-		
ER/ERmsy	ERdivERmsy-dimensionless	2014	0.06		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2017	0.948		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Orange roughy Northwest Chatham Rise [OROUGHYNWCR]

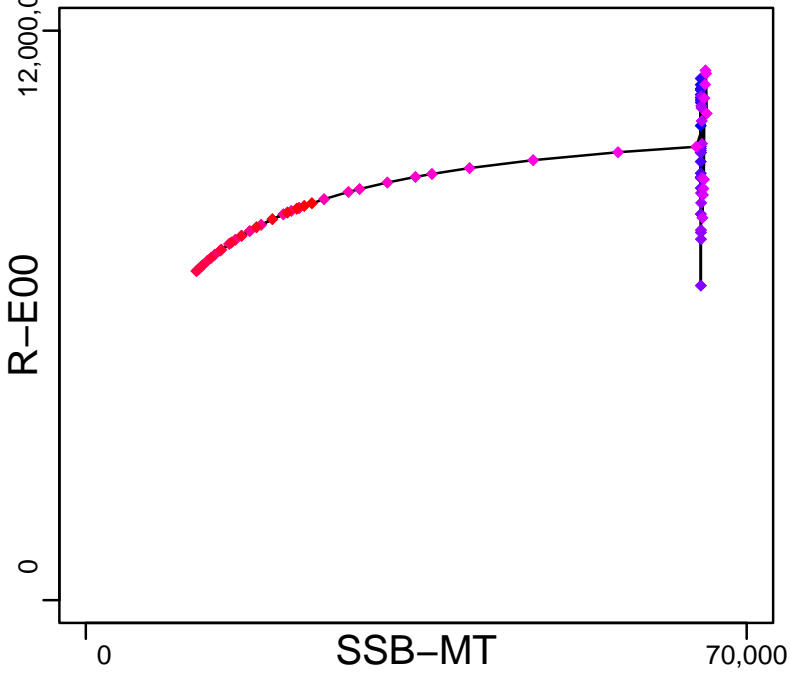
Kobe MSYpref (1911–2017–DEVINE)



Kobe MGTpref (1911–2017–DEVINE)



Spawner Recruit (1911–2017–DEVINE)



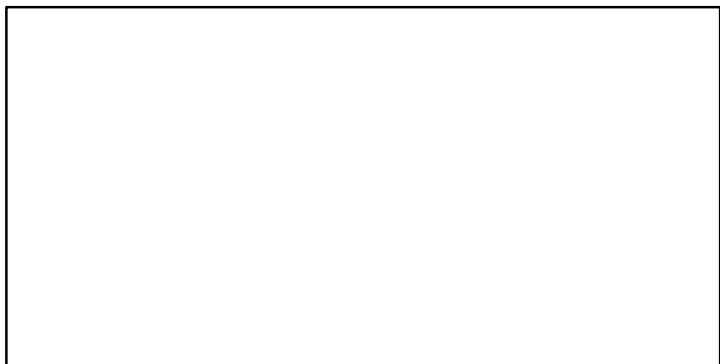
Production*



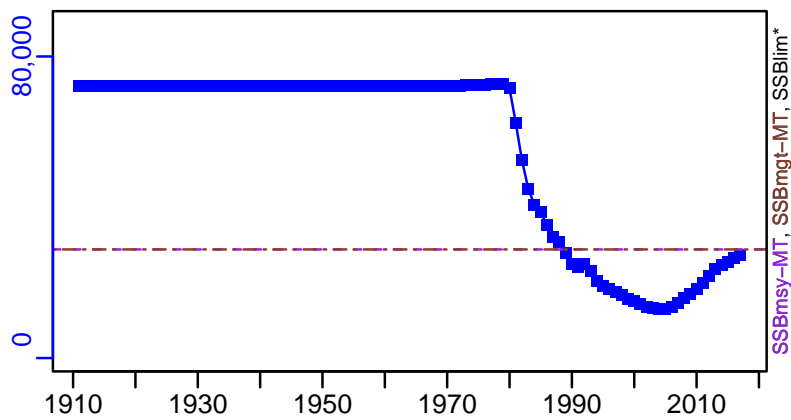
◆ Start Year ◆ End Year * No Data

Orange roughy Northwest Chatham Rise [OROUGHYNWCR]

TB*



SSB-MT (1911-2017-DEVINE)



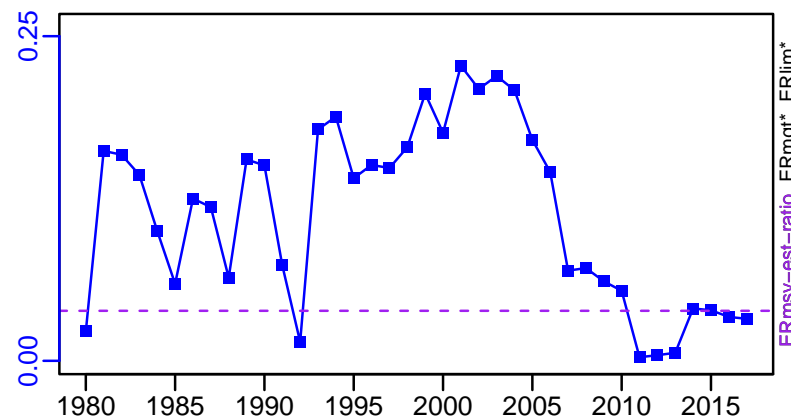
TN *



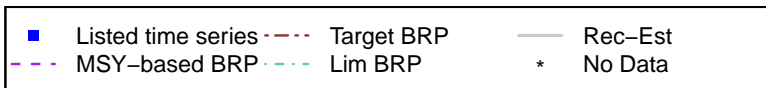
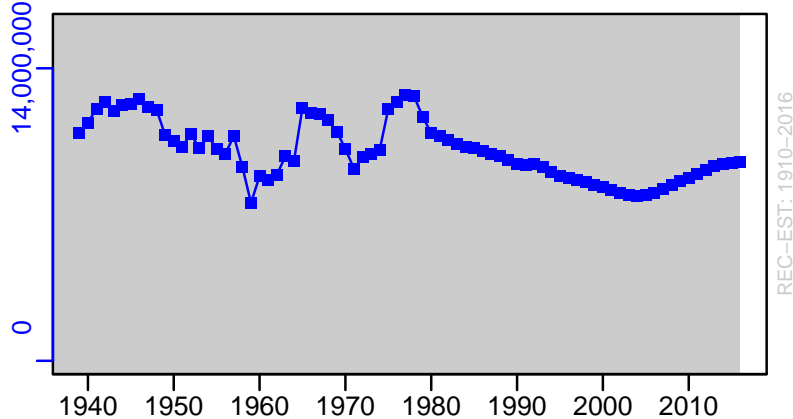
F*



ER-ratio (1911-2017-DEVINE)



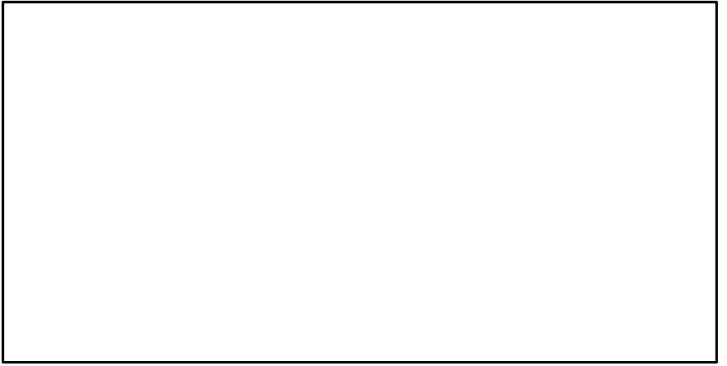
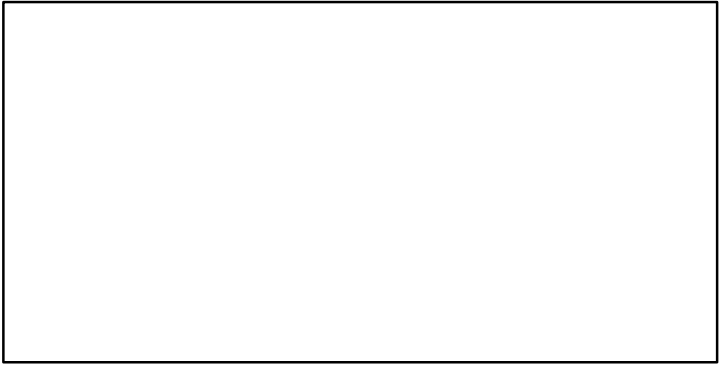
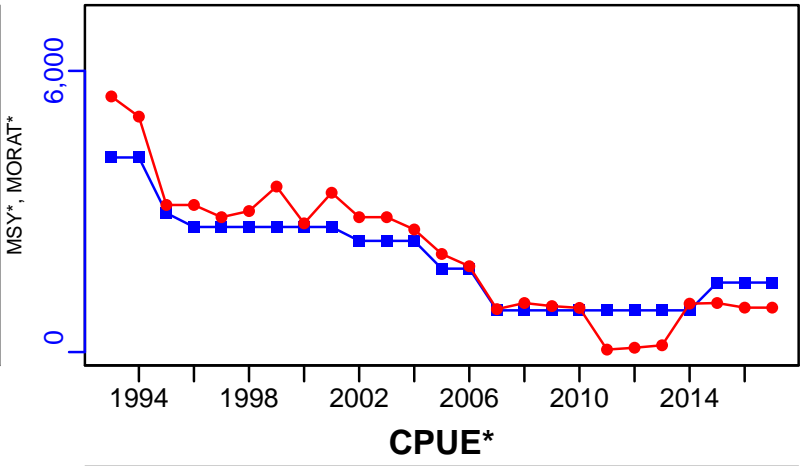
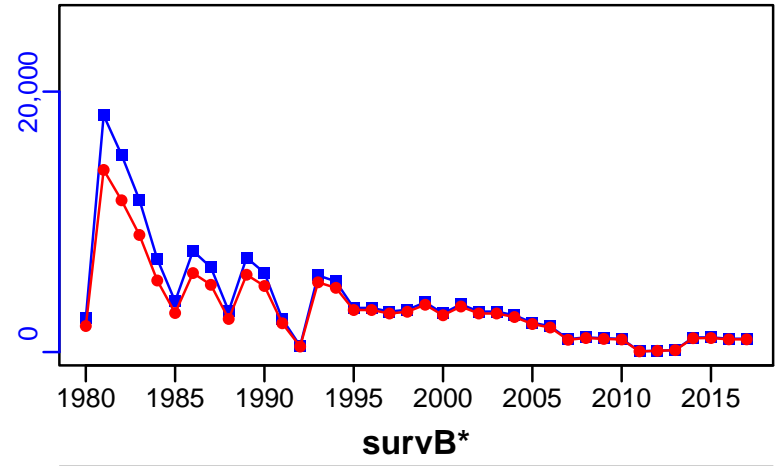
R-E00 (1911-2017-DEVINE)



Orange roughy Northwest Chatham Rise [OROUGHYNWCR]

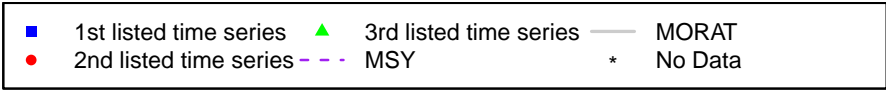
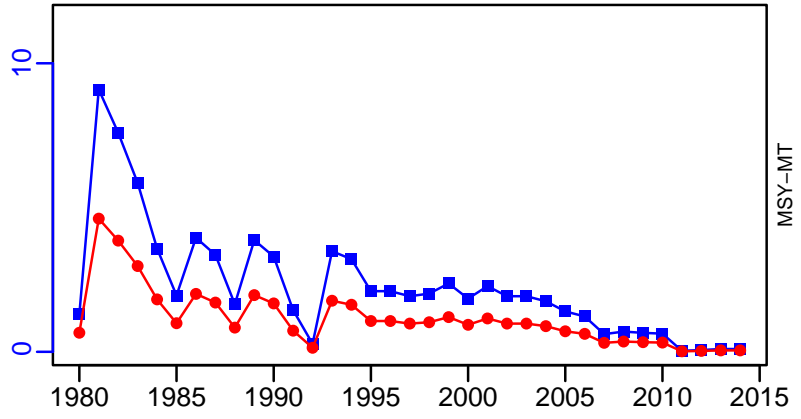
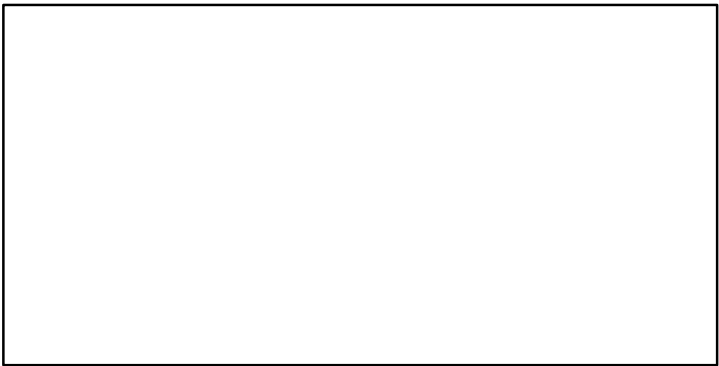
TC-MT, TL-MT, RecC* (1911-2017-DEVINE)

TAC-MT, Cpair-MT, Cadv* (1911-2017-DEVINE)



EFFORT*

TC-MT/MSY-MT, CdivMEANC-ratio, (1910-2014-FU)



Orange roughy New Zealand Challenger Plateau [OROUGHYNZ7A]

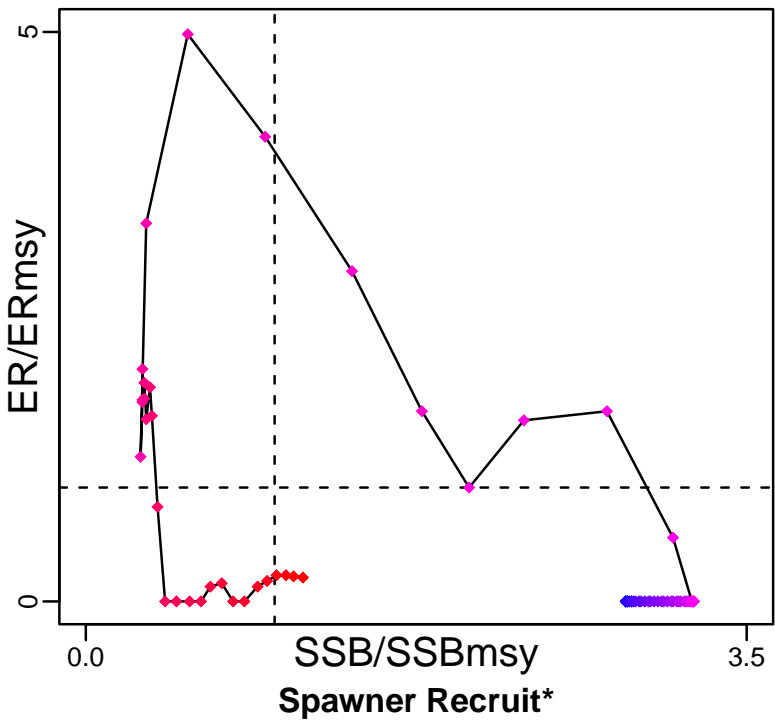
Metadata	
Scientific Name	Hoplostethus atlanticus
Current Assess ID	NIWA-OROUGHYNZ7A-1910-2014-FU
Area	New Zealand Challenger Plateau
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2014

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2014	20,764
SSBmsy	SSBmsy-MT	2014	30,800
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2014	0.089
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2014	30,800
Fmgt	-	-	-
ERmgt	ERmgt-ratio	2014	0.054
TB0	-	-	-
SSB0	SSB0-MT	2014	88,000
MSY	MSY-MT	2014	1848
M	M-1/yr	2014	0.045
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

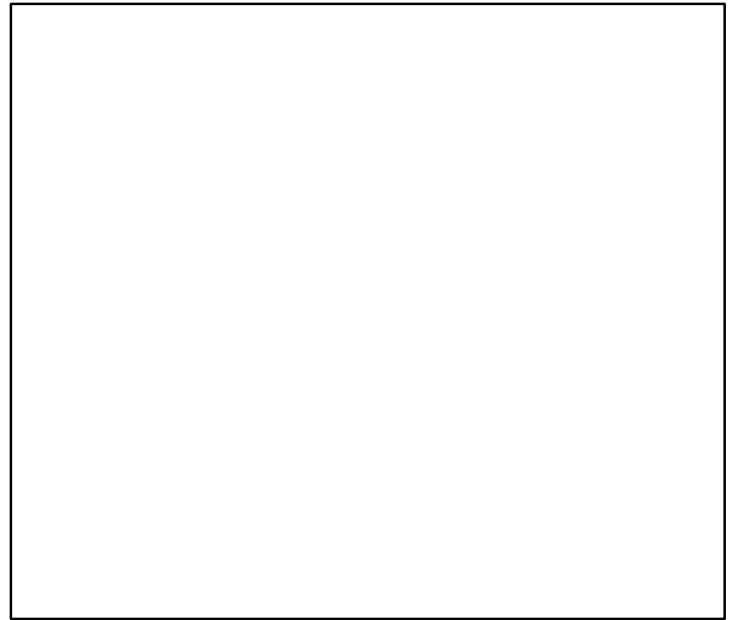
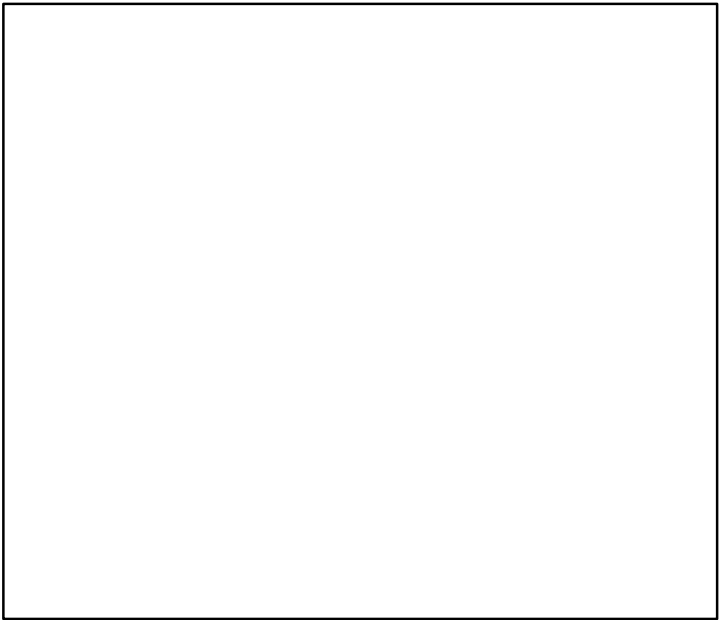
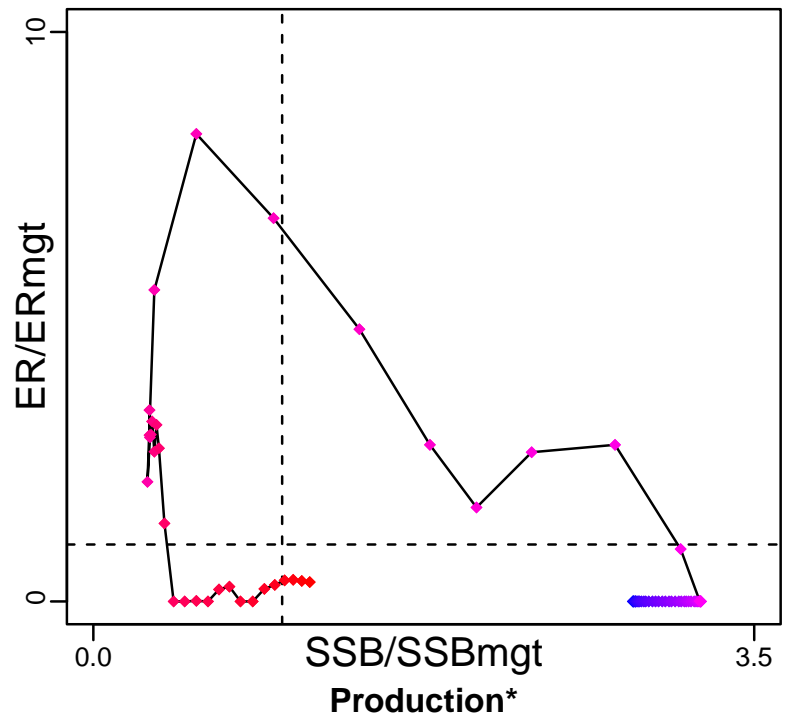
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2014	35,300	-	40+
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-ratio	2014	0.02	Both	-
TC	TC-MT	2014	539		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2014	1.15		
F/Fmsy	-	-	-		
ER/ERmsy	ERdivERmsy-dimensionless	2014	0.21		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2014	1.146		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Orange roughy New Zealand Challenger Plateau [OROUGHYNZ7A]

Kobe MSYpref (1910–2014–FU)



Kobe MGTpref (1910–2014–FU)



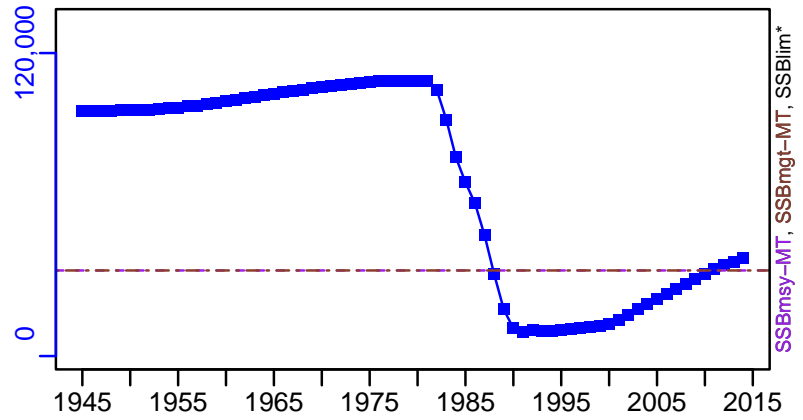
◆ Start Year ◆ End Year * No Data

Orange roughy New Zealand Challenger Plateau [OROUGHYNZ7A]

TB*



SSB-MT (1910-2014-FU)



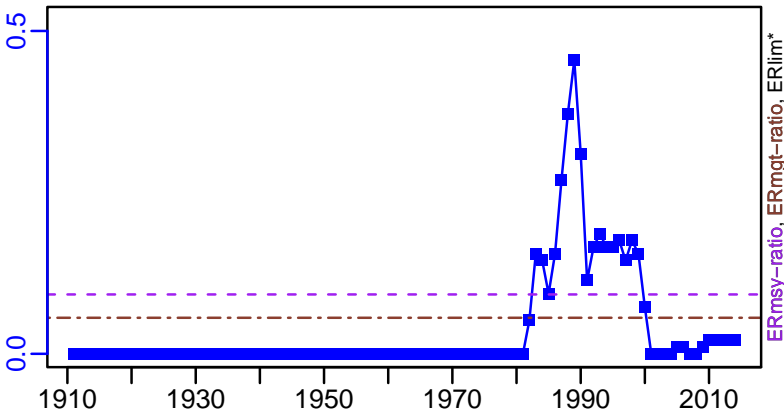
TN *



F*



ER-ratio (1910-2014-FU)



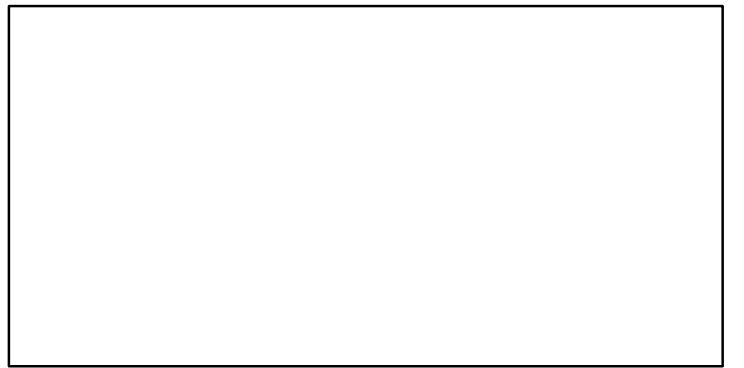
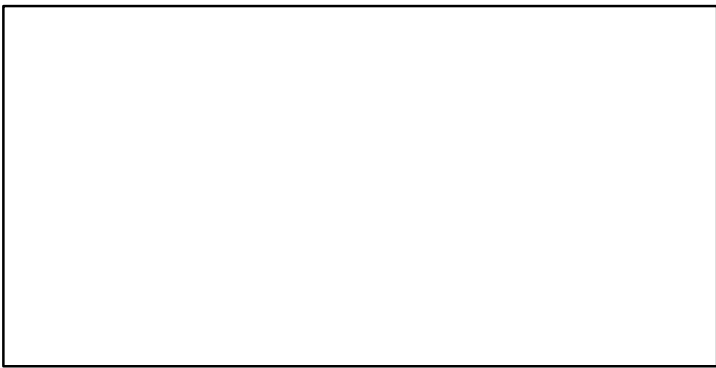
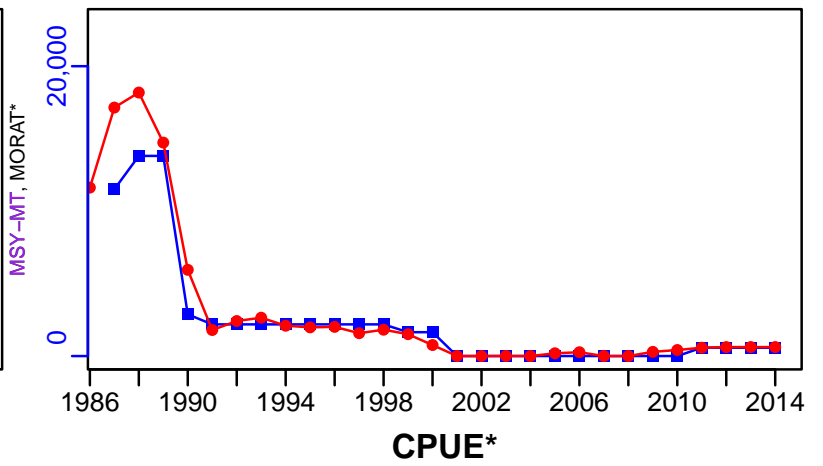
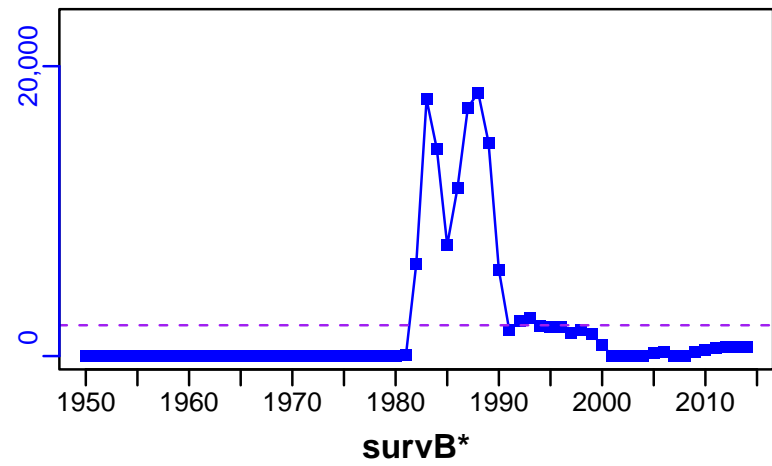
Recruits*



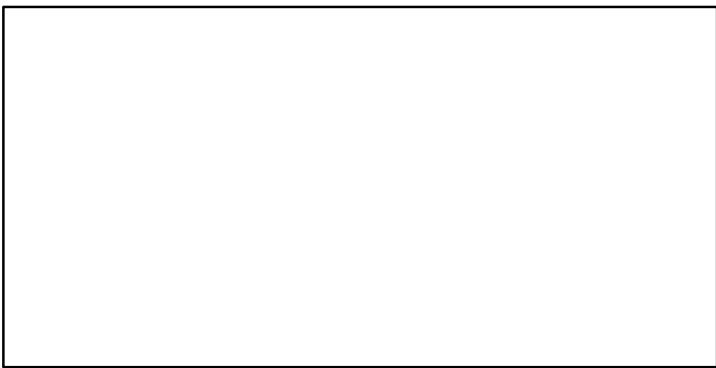
Orange roughy New Zealand Challenger Plateau [OROUGHYNZ7A]

TC-MT, TL*, RecC* (1910-2014-FU)

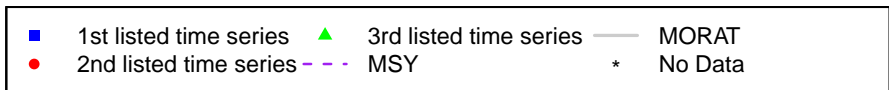
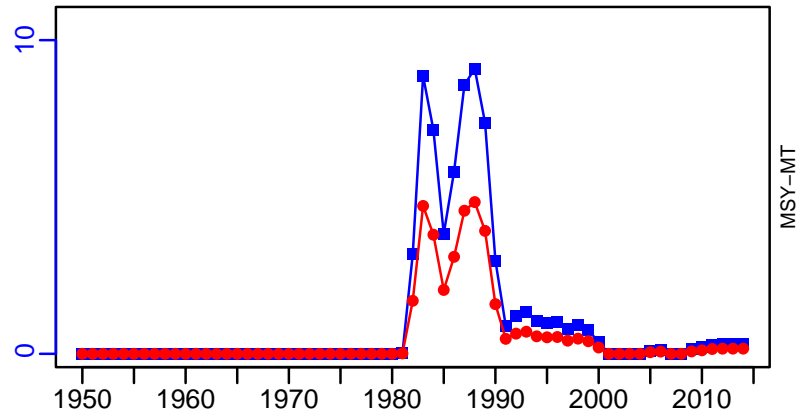
TAC-MT, Cpair-MT, Cadv* (1910-2014-FU)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1910-2014-FU)



Orange roughly New Zealand Mid East Coast [OROUGHYNZMEC]

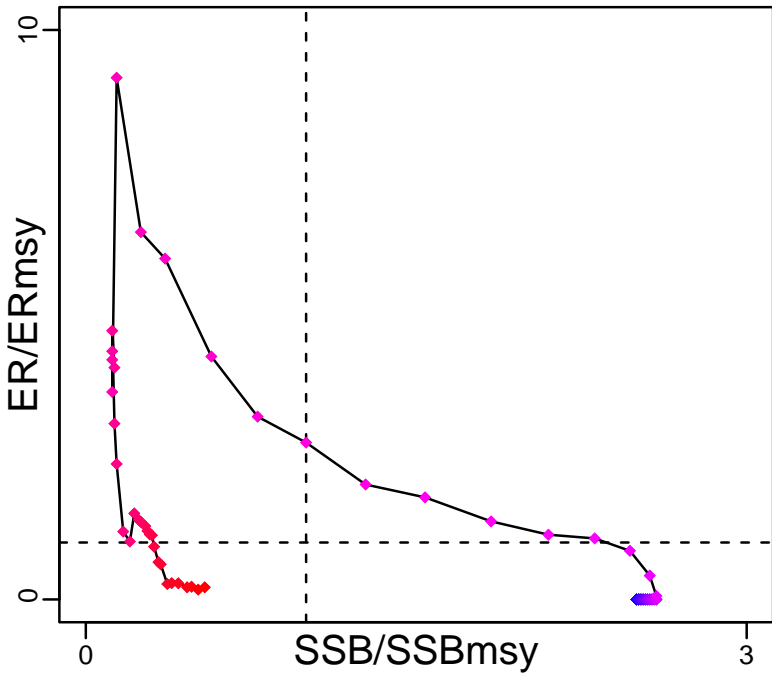
Metadata	
Scientific Name	Hoplostethus atlanticus
Current Assess ID	NIWA-OROUGHYNZMEC-1950-2021-DUNN
Area	New Zealand Mid East Coast
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2014, 2011, 2021

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2011	55,297
SSBmsy	SSBmsy-pr-MT	2021	21,340
Fmsy	Fmsy-1/yr	2011	0.04
ERmsy	ERmsy-ratio	2011	0.029
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2021	21,340
Fmgt	-	-	-
ERmgt	ERmgt-ratio	2014	0.051
TB0	-	-	-
SSB0	SSB0-MT	2021	53,350
MSY	MSY-MT	2014	2214
M	M-1/yr	2021	0.045
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

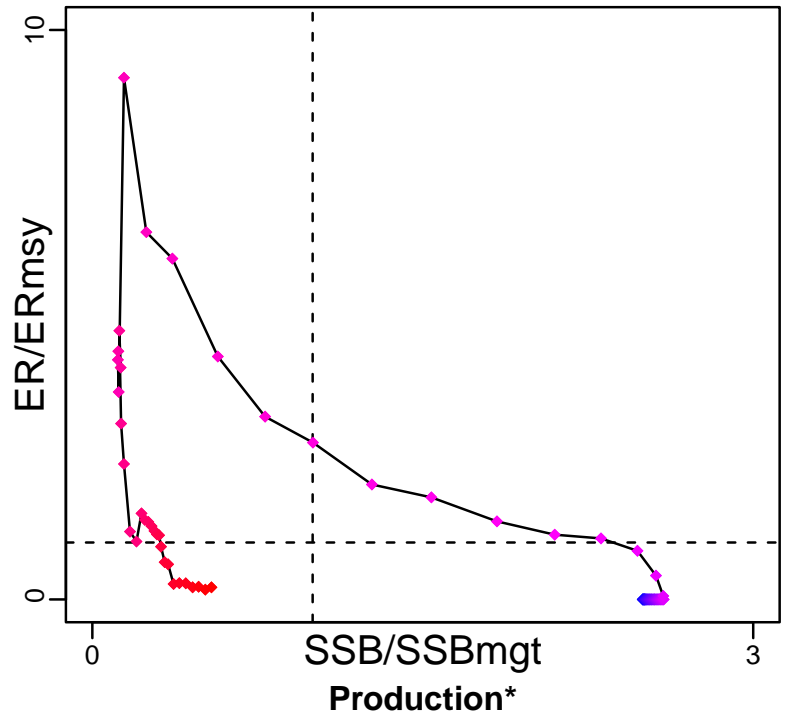
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2021	11,538	Both	60+
TN	-	-	-	-	-
R	R-E00	2011	2,530,000	-	1
F	F-1/yr	2011	0.1	-	-
ER	ER-ratio	2011	0.074	-	-
TC	TC-MT	2021	526		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2021	0.54		
F/Fmsy	FdivFmsy-dimensionless	2011	2.5		
ER/ERmsy	ER-ratio/ERmsy-ratio	2011	2.555		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2021	0.541		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Orange roughy New Zealand Mid East Coast [OROUGHYNZMEC]

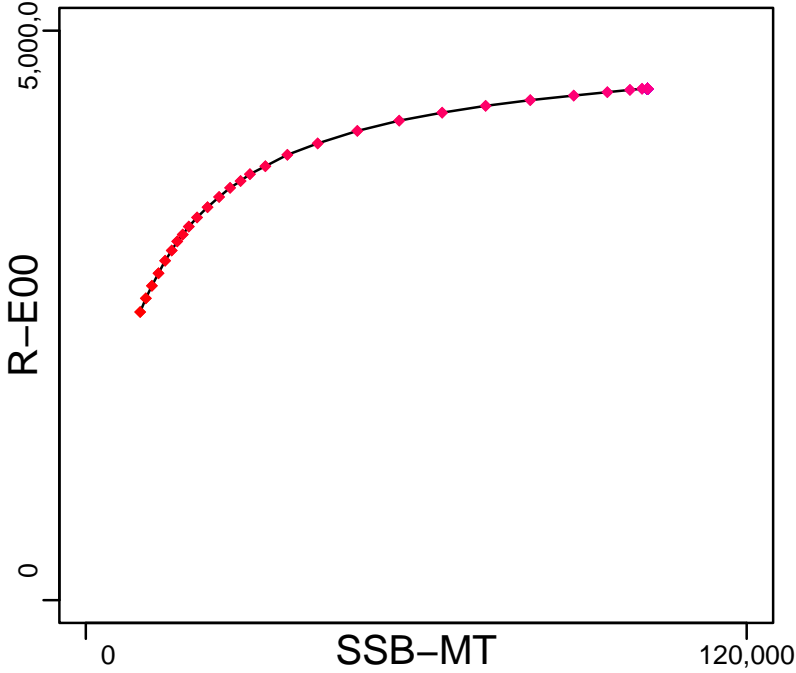
Kobe MSYpref (1950–2021–DUNN)



Kobe MGTpref (1950–2021–DUNN)



Spawner Recruit (1909–2011–CORDUE)



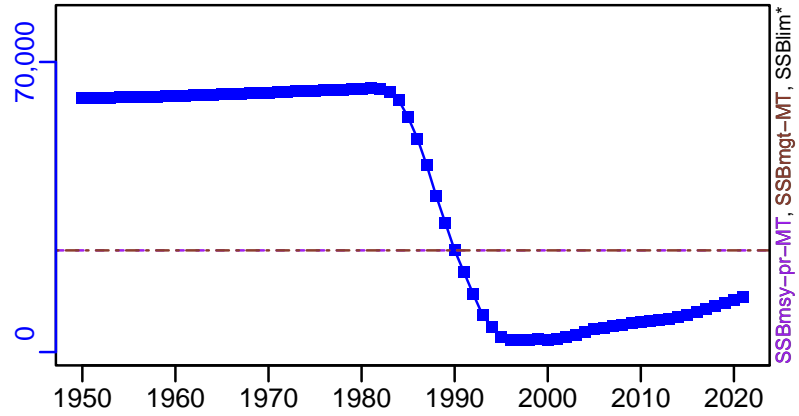
◆ Start Year ◆ End Year * No Data

Orange roughy New Zealand Mid East Coast [OROUGHYNZMEC]

TB*



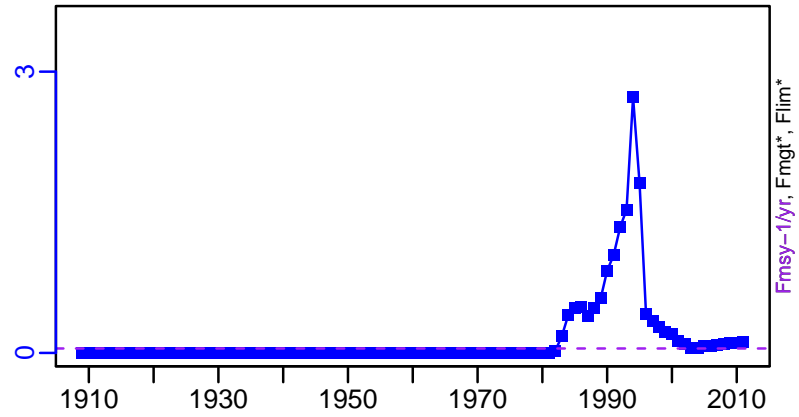
SSB-MT (1950-2021-DUNN)



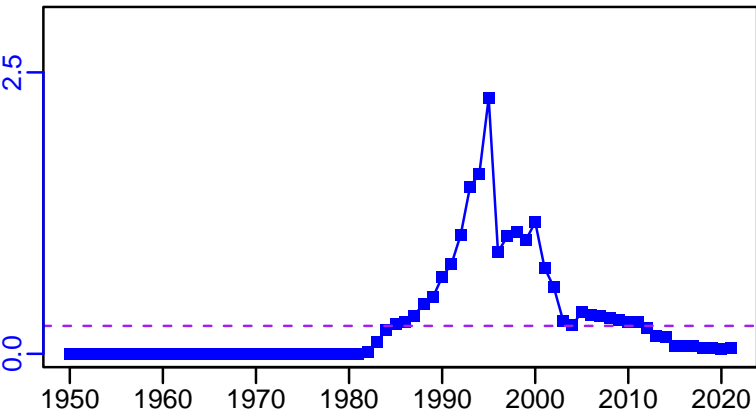
TN *



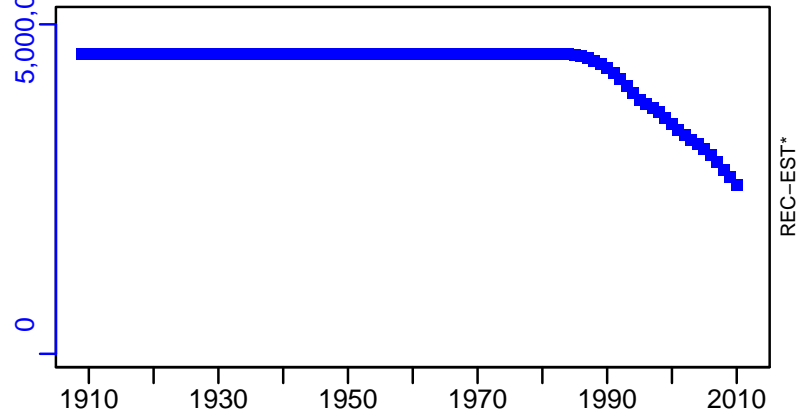
F-1/yr (1909-2011-CORDUE)



ER-calc-ratio (1950-2021-DUNN)

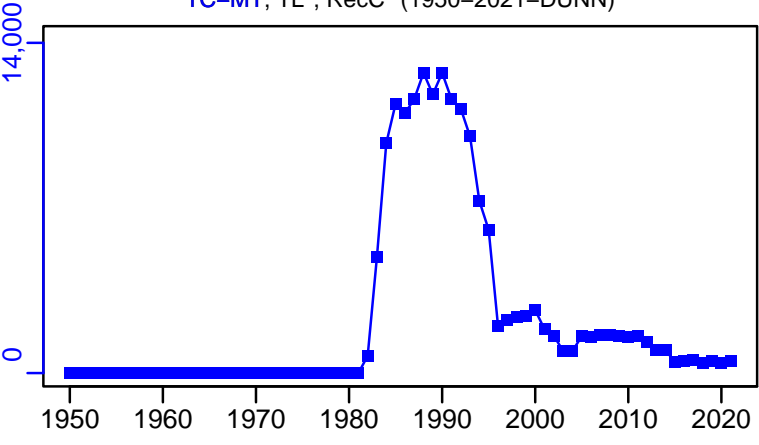


R-E00 (1909-2011-CORDUE)

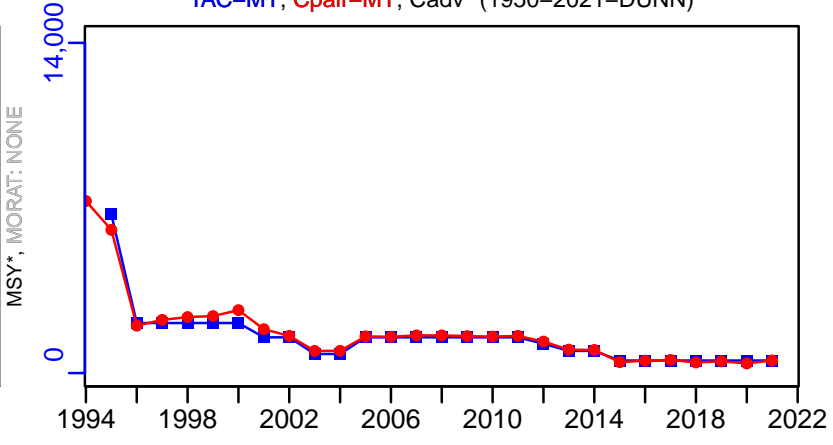


Orange roughy New Zealand Mid East Coast [OROUGHYNZMEC]

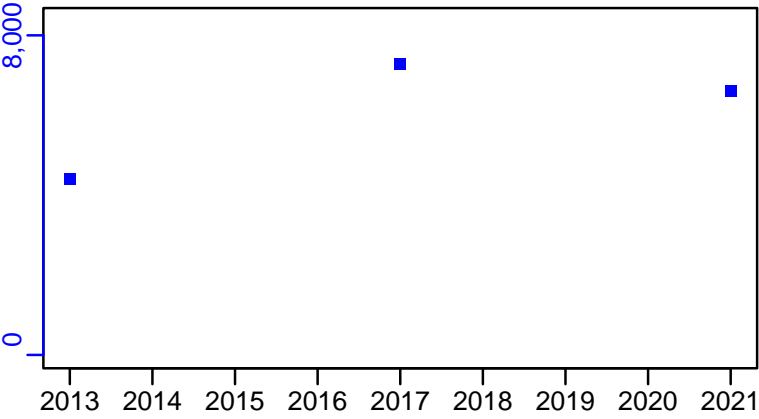
TC-MT, TL*, RecC* (1950-2021-DUNN)



TAC-MT, Cpair-MT, Cadv* (1950-2021-DUNN)



survB_absolute-MT (1950-2021-DUNN)



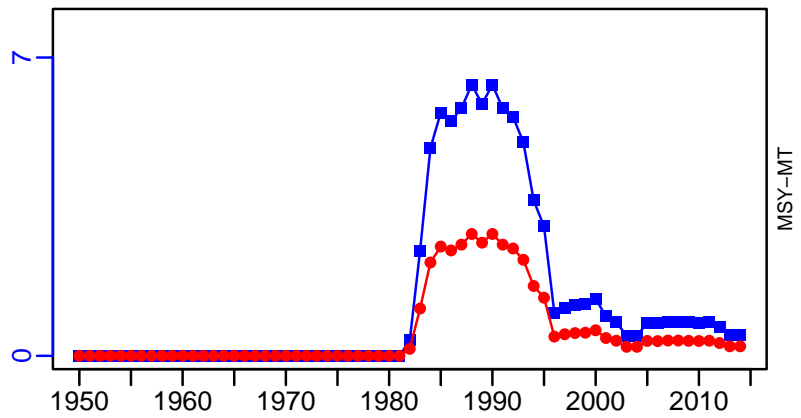
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1882-2014-FU)



Paua NZ Area North PAUA 5A [PAUANPAU5A]

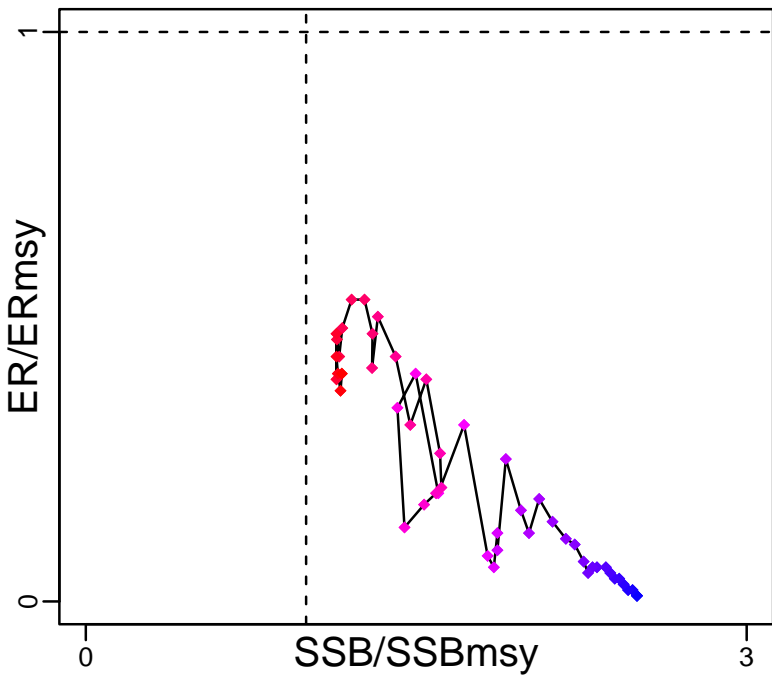
Metadata	
Scientific Name	Haliotis iris
Current Assess ID	NIWA-PAUANPAU5A-1965-2014-FU
Area	NZ Area North PAUA 5A
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2010, 2014

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2014	187
SSBmsy	SSBmsy-MT	2014	496
Fmsy	Fmsy-extr-1/yr	2010	0.51
ERmsy	ERmsy-ratio	2014	0.39
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2014	496
Fmgt	-	-	-
ERmgt	ERmgt-ratio	2014	0.21
TB0	-	-	-
SSB0	SSB0-MT	2014	1239
MSY	MSY-MT	2014	73
M	M-1/yr	2014	0.15
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

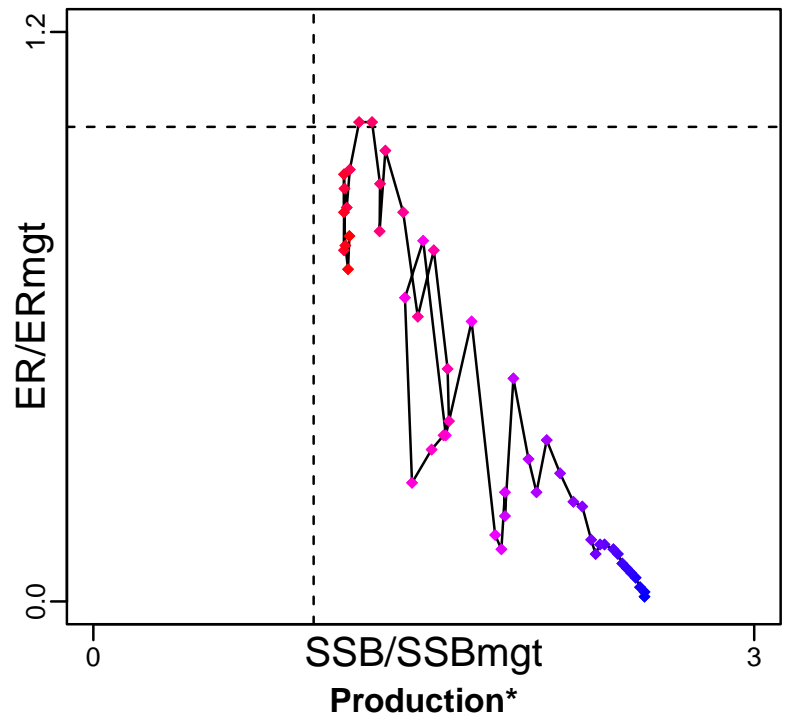
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2014	576	-	-
TN	-	-	-	-	-
R	R-E00	2014	602,000	Both	-
F	F-1/yr	2010	0.328	-	-
ER	ER-ratio	2014	0.16	Both	-
TC	TC-MT	2014	64		
TL	TL-MT	2014	64		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2014	1.162		
F/Fmsy	FdivFmsy-dimensionless	2010	0.643		
ER/ERmsy	ERdivERmsy-dimensionless	2014	0.4		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2014	1.162		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Paua NZ Area North PAUA 5A [PAUANPAU5A]

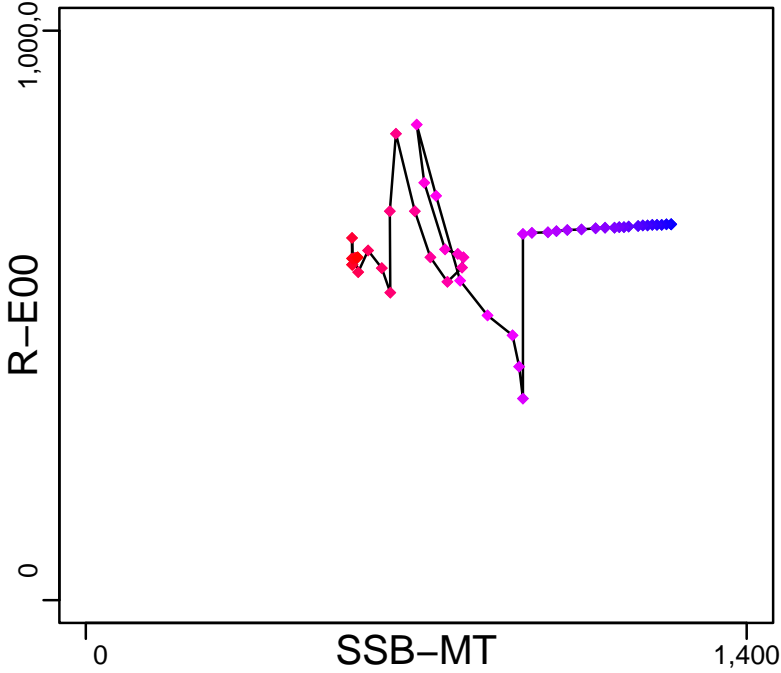
Kobe MSYpref (1965–2014–FU)



Kobe MGTpref (1965–2014–FU)



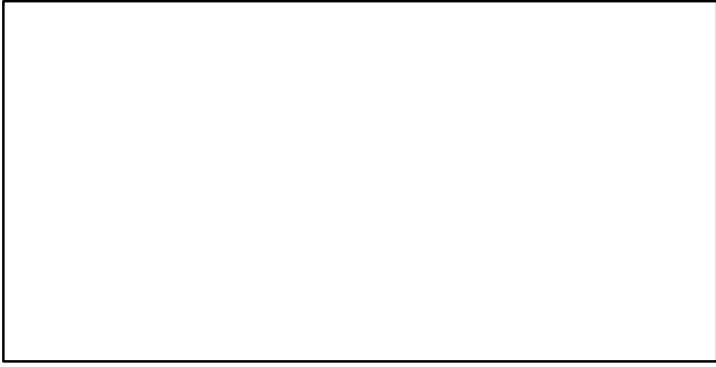
Spawner Recruit (1965–2014–FU)



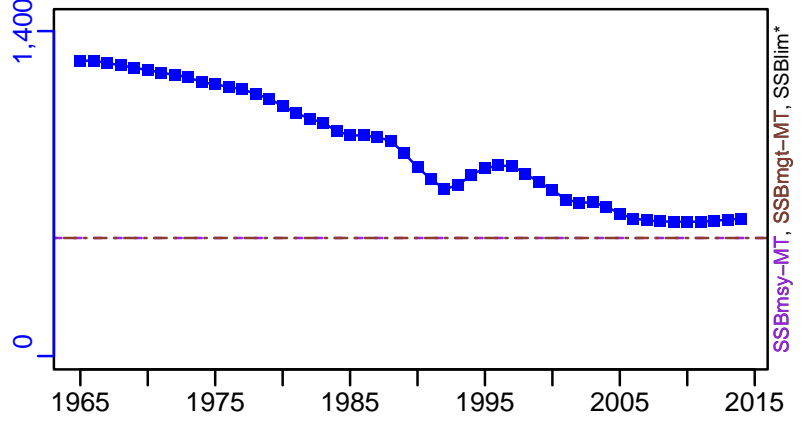
◆ Start Year ◆ End Year * No Data

Paua NZ Area North PAUA 5A [PAUANPAU5A]

TB*



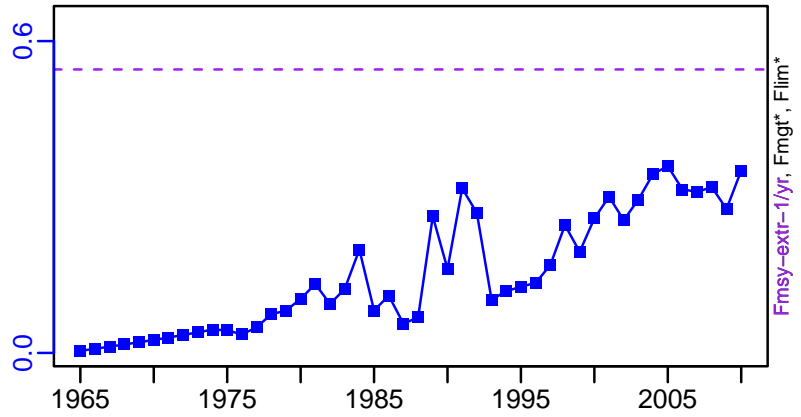
SSB-MT (1965-2014-FU)



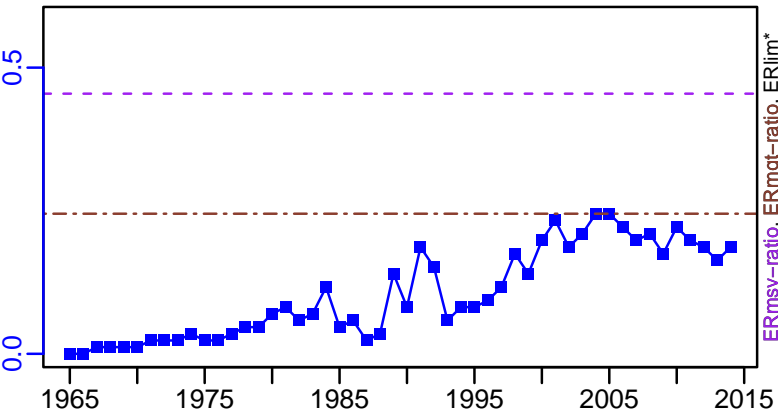
TN *



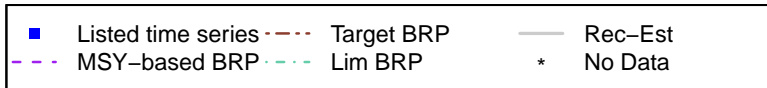
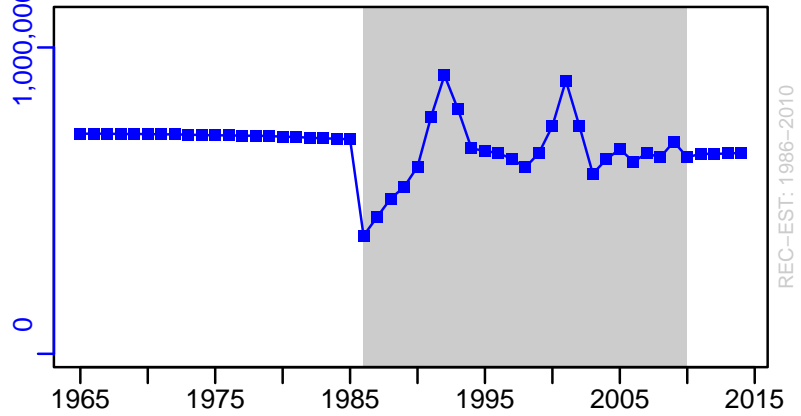
F-1/yr (1965-2010-CORDUE)



ER-ratio (1965-2014-FU)



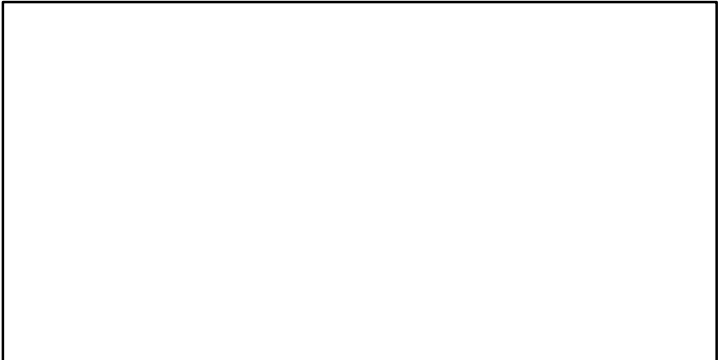
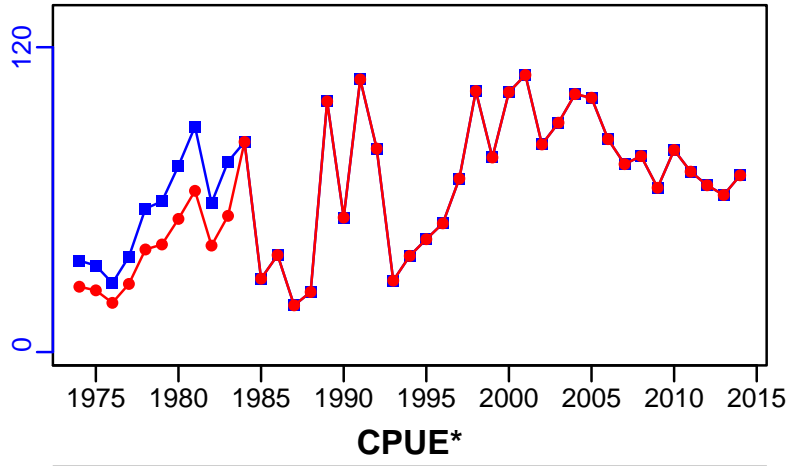
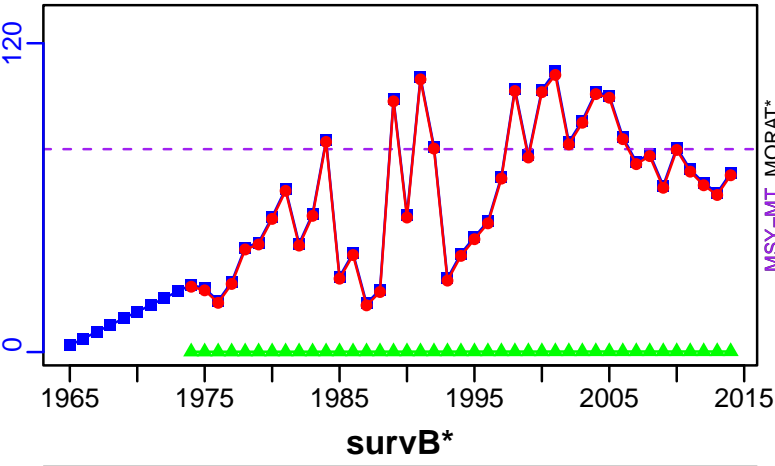
R-E00 (1965-2014-FU)



Paua NZ Area North PAUA 5A [PAUANPAU5A]

TC-MT, TL-MT, RecC-MT (1965-2014-FU)

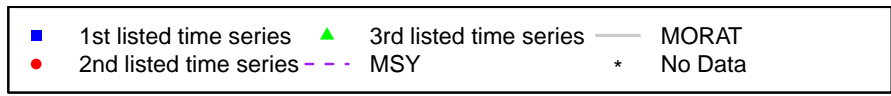
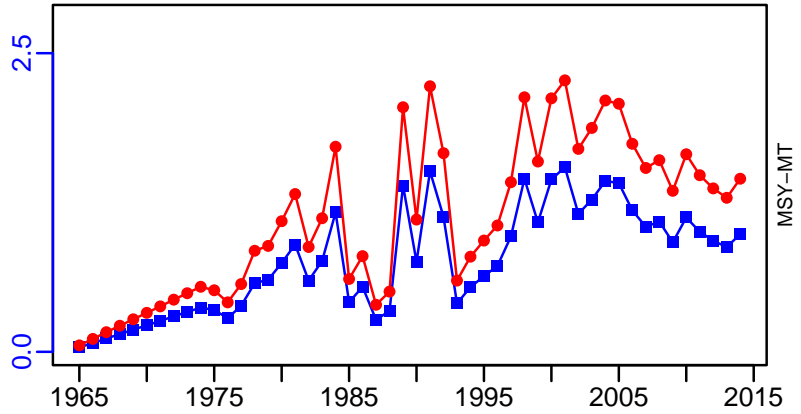
TAC-MT, Cpair-MT, Cadv* (1965-2014-FU)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1965-2014-FU)



Paua New Zealand Area PAU 5B (Stewart Island) [PAUAPAU5B]

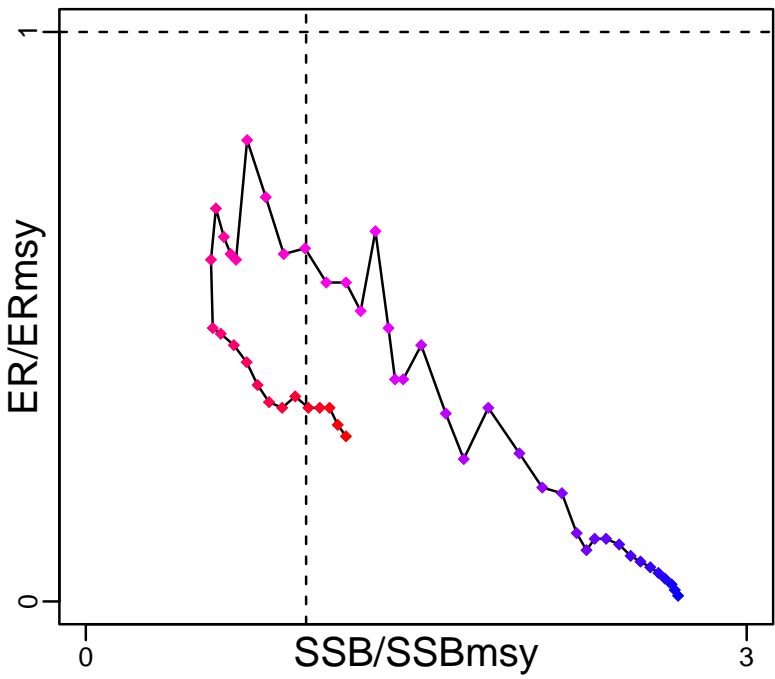
Metadata	
Scientific Name	Haliotis iris
Current Assess ID	NZMFishSHELLFISHWG-PAUAPAU5B-1965-2013-FU
Area	New Zealand Area PAU 5B (Stewart Island)
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Shellfish Working Group
Asmts in RAM	2007, 2013

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2013	284
SSBmsy	SSBmsy-MT	2013	1346
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2013	0.67
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2013	1346
Fmgt	-	-	-
ERmgt	ERmgt-ratio	2013	0.3
TB0	-	-	-
SSB0	SSB0-MT	2013	3366
MSY	MSY-MT	2013	190
M	M-1/yr	2013	0.15
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

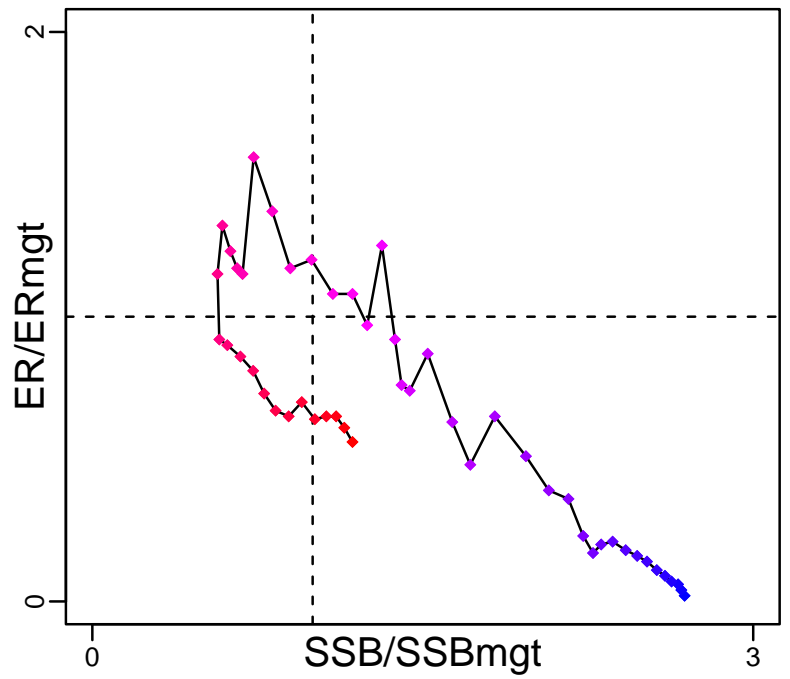
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2007	1570	-	-
SSB	SSB-MT	2013	1590	Both	-
TN	-	-	-	-	-
R	R-E00	2013	1×10^6	Both	-
F	-	-	-	-	-
ER	ER-ratio	2013	0.11	Both	-
TC	TC-MT	2013	101		
TL	TL-MT	2013	72		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013	1.181		
F/Fmsy	-	-	-		
ER/ERmsy	ERdivERmsy-dimensionless	2013	0.29		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2013	1.181		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Paua New Zealand Area PAU 5B (Stewart Island) [PAUAPAU5B]

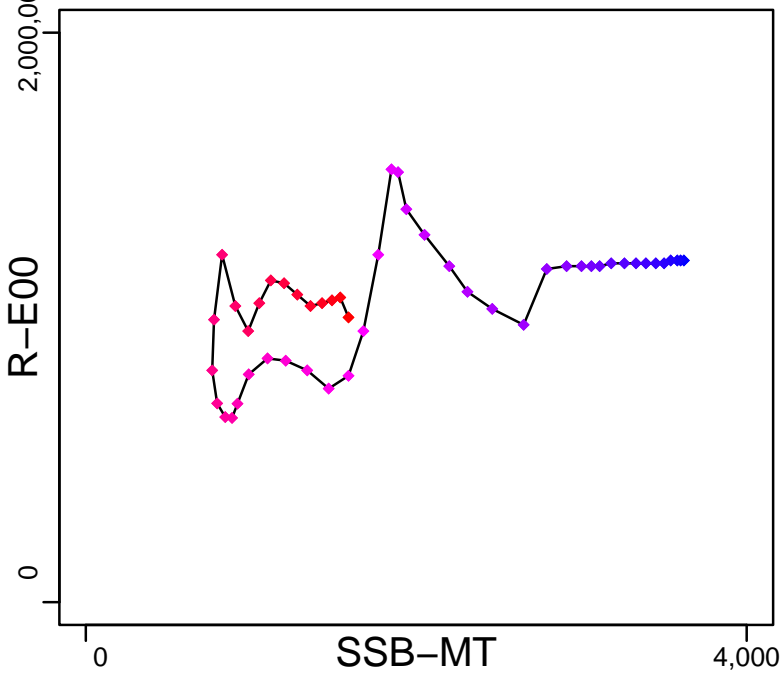
Kobe MSYpref (1965–2013–FU)



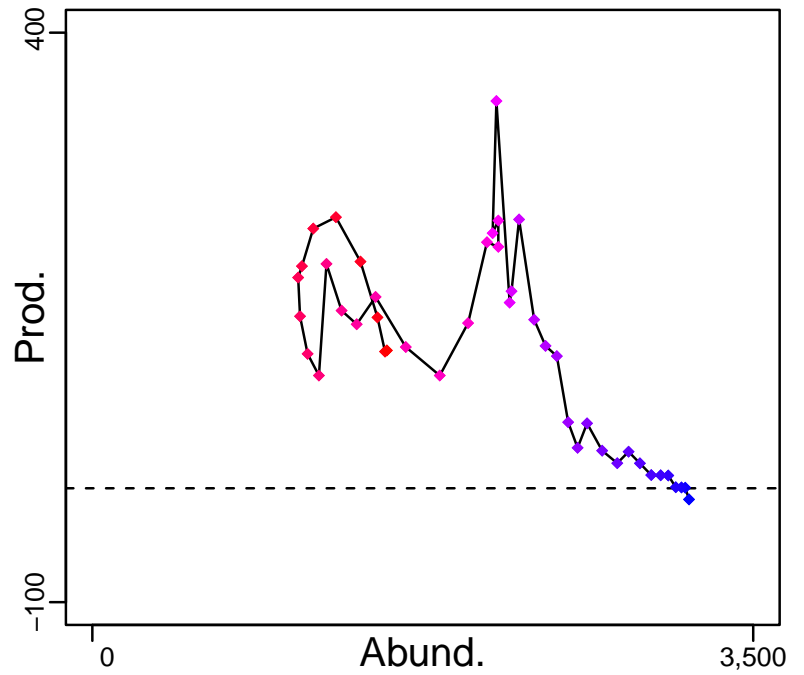
Kobe MGTpref (1965–2013–FU)



Spawner Recruit (1965–2013–FU)



Production (1965–2013–FU)

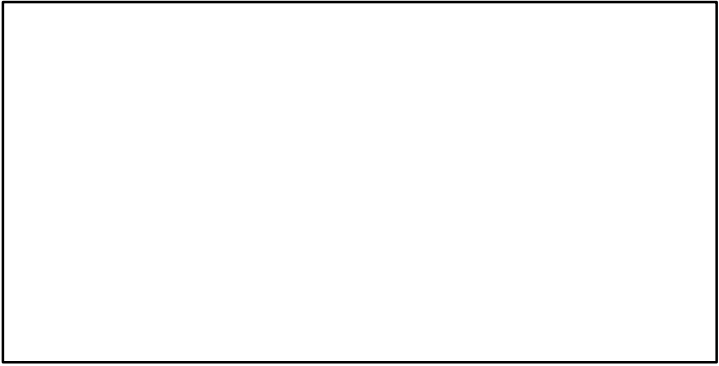
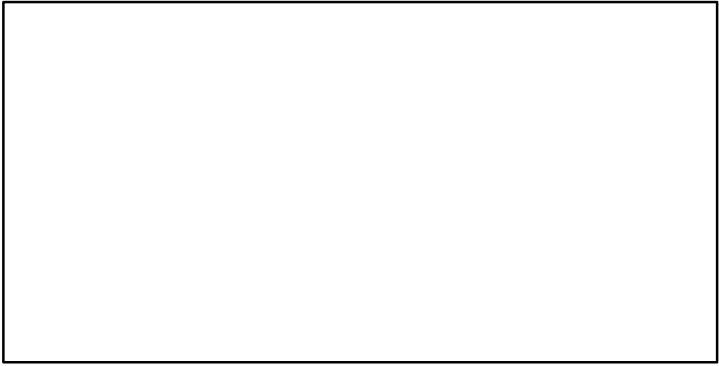
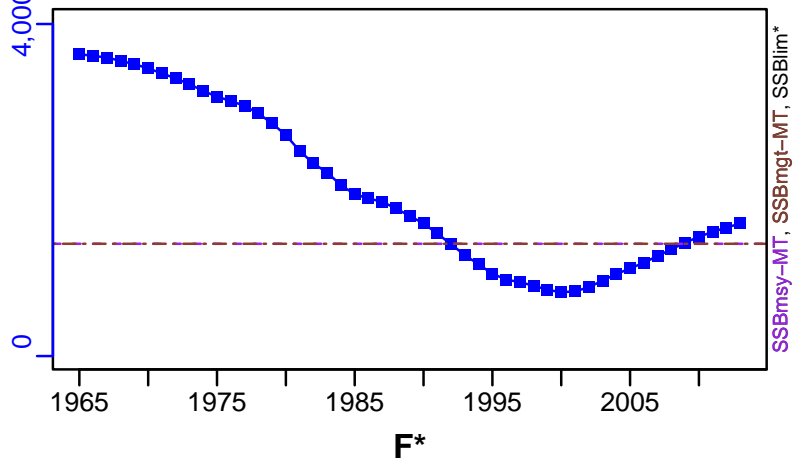
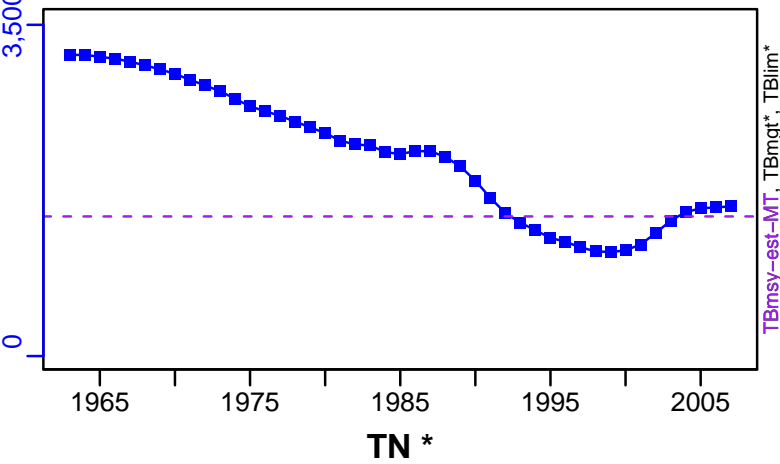


◆ Start Year ◆ End Year * No Data

Paua New Zealand Area PAU 5B (Stewart Island) [PAUAPAU5B]

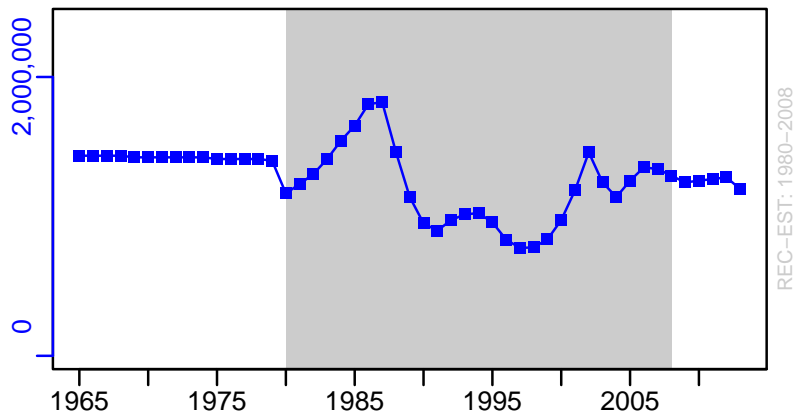
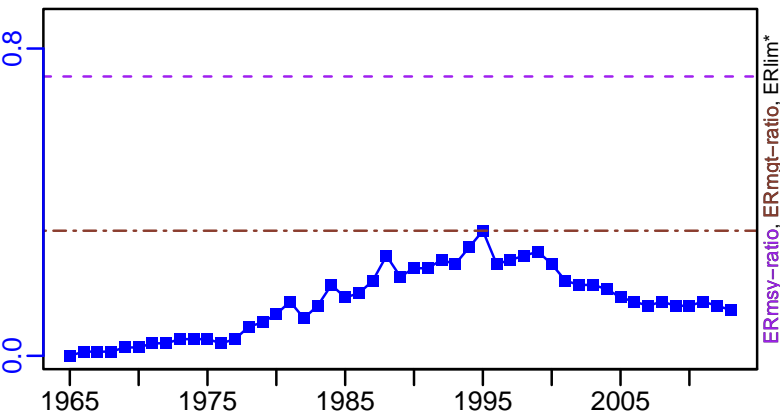
TB-MT (1963-2007-JENSEN)

SSB-MT (1965-2013-FU)



ER-ratio (1965-2013-FU)

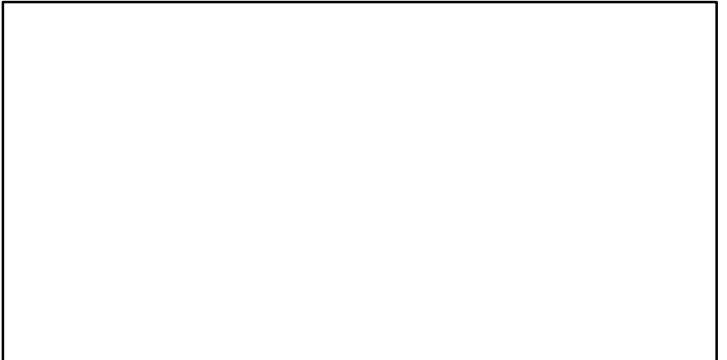
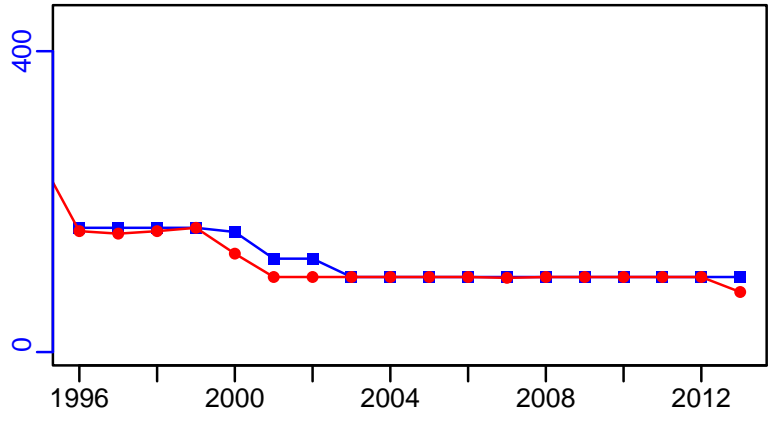
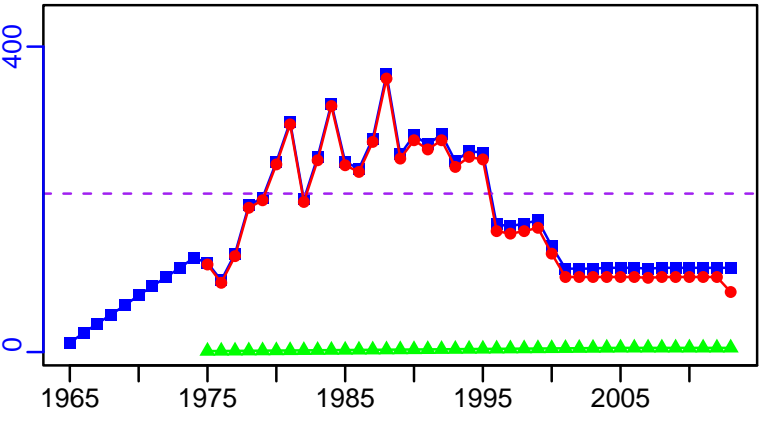
R-E00 (1965-2013-FU)



Paua New Zealand Area PAU 5B (Stewart Island) [PAU5B]

TC-MT, TL-MT, RecC-MT (1965-2013-FU)

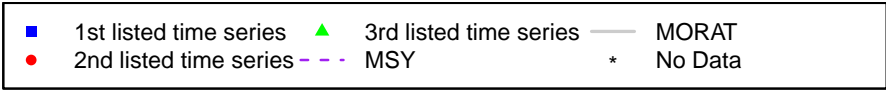
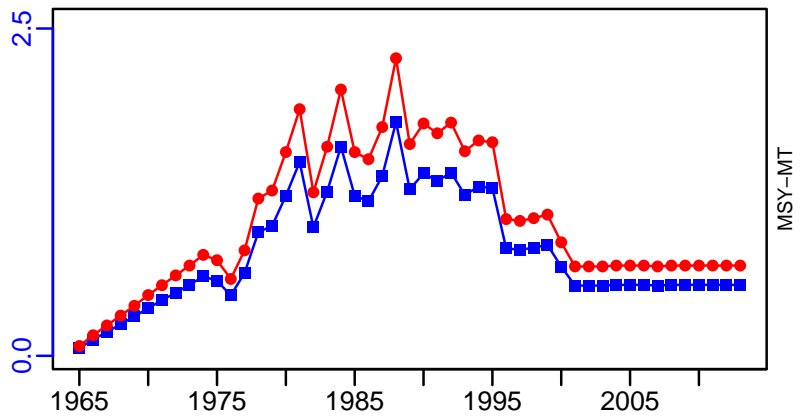
TAC-MT, Cpair-MT, Cadv* (1965-2013-FU)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1965-2013-FU)



Paua New Zealand Area PAU 5D (Otago) [PAUAPAU5D]

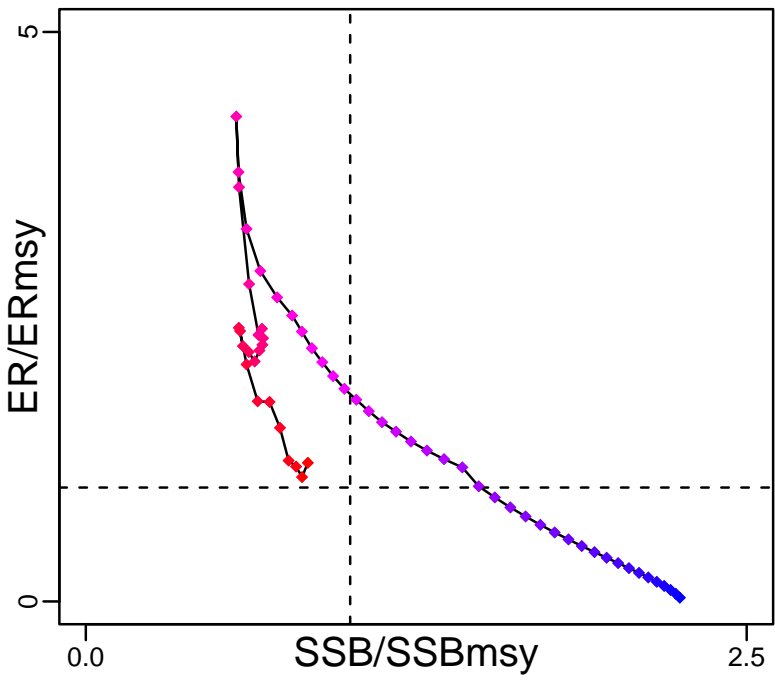
Metadata	
Scientific Name	Haliotis iris
Current Assess ID	NZMFishSHELLFISHWG-PAUAPAU5D-1965-2022-NEUBAUER
Area	New Zealand Area PAU 5D (Otago)
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Shellfish Working Group
Asmts in RAM	2006, 2012, 2022

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2012	465
SSBmsy	SSBmsy-MT	2012	914
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2012	0.26
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2012	914
Fmgt	-	-	-
ERmgt	ERmgt-ratio	2012	0.16
TB0	-	-	-
SSB0	SSB0-MT	2012	2285
MSY	MSY-MT	2012	121
M	M-1/yr	2012	0.15
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

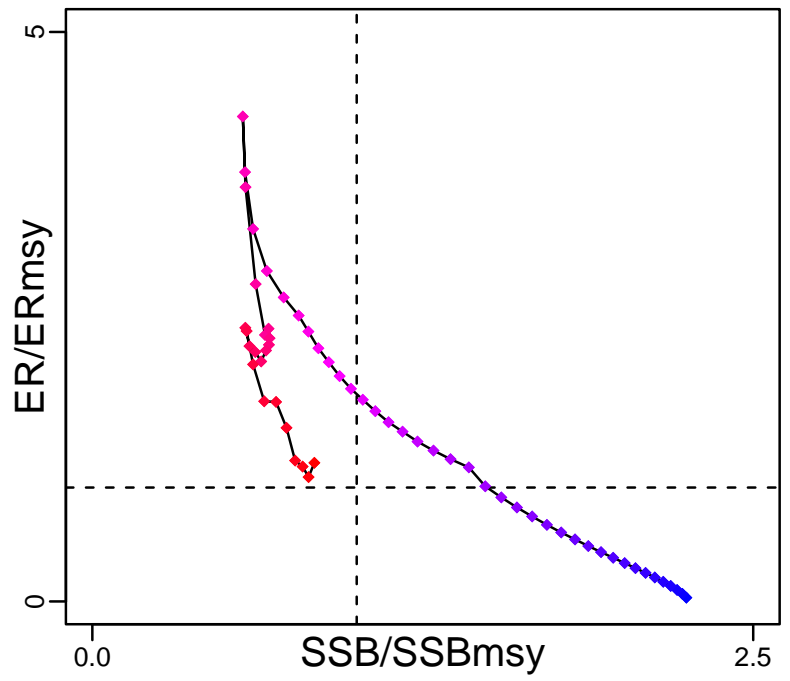
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2006	400	-	-
SSB	SSB-MT	2022	972	Both	-
TN	-	-	-	-	-
R	R-E00	2012	884,000	Both	-
F	-	-	-	-	-
ER	ER-ratio	2022	0.113	Both	-
TC	TC-MT	2022	88		
TL	TL-MT	2022	68		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2012	0.87		
F/Fmsy	-	-	-		
ER/ERmsy	ERdivERmsy-dimensionless	2012	0.8		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2012	0.87		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Paua New Zealand Area PAU 5D (Otago) [PAUAPAU5D]

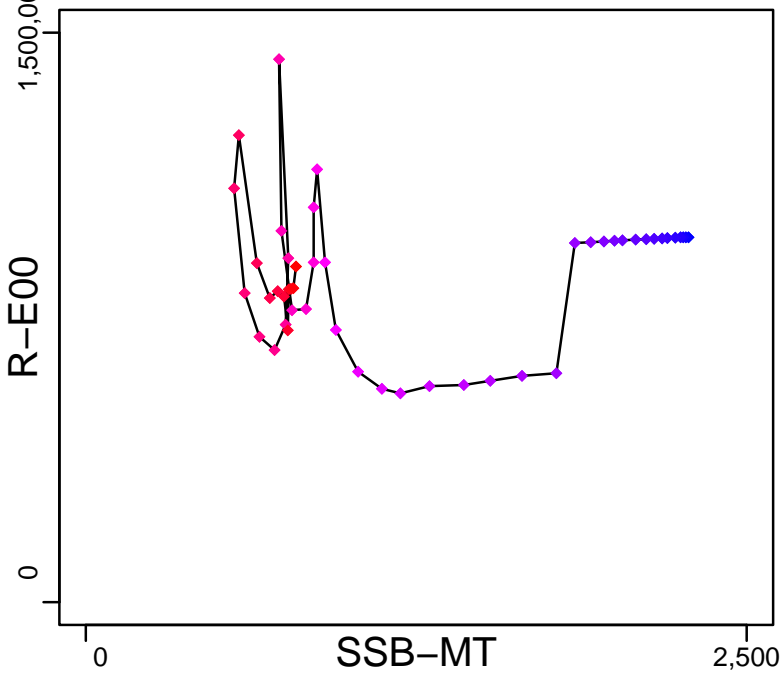
Kobe MSYpref (1965–2022–NEUBAUER)



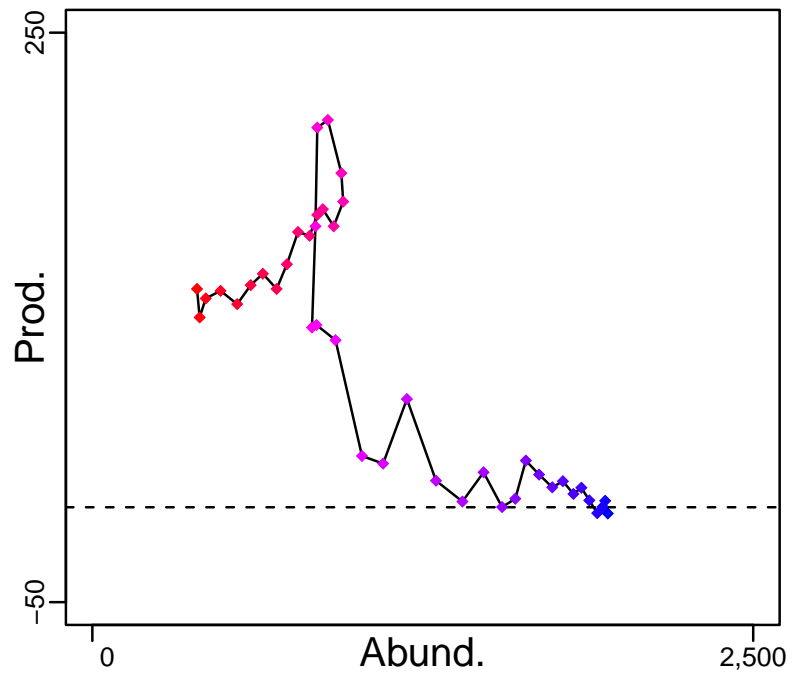
Kobe MGTpref (1965–2022–NEUBAUER)



Spawner Recruit (1965–2012–FU)



Production (1965–2022–NEUBAUER)

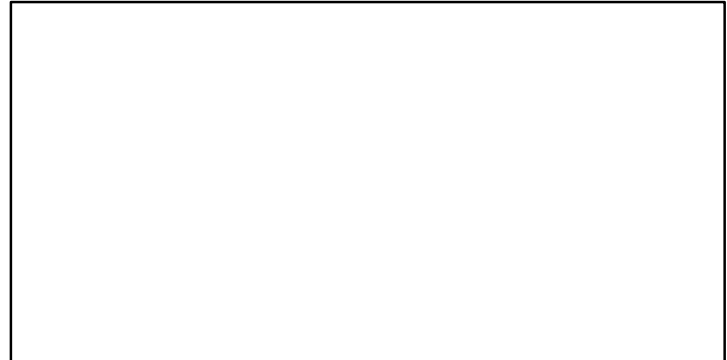
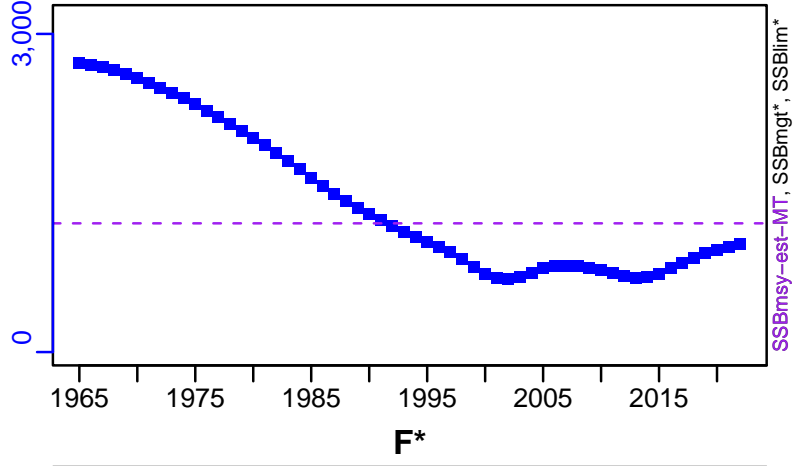
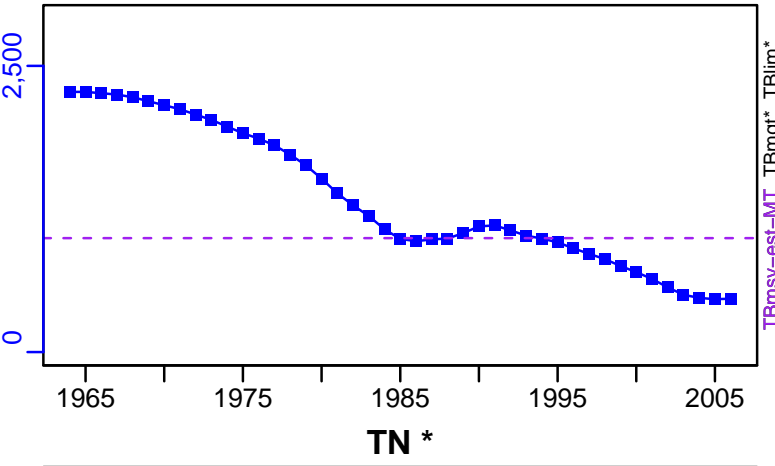


◆ Start Year ◆ End Year * No Data

Paua New Zealand Area PAU 5D (Otago) [PAUAPAU5D]

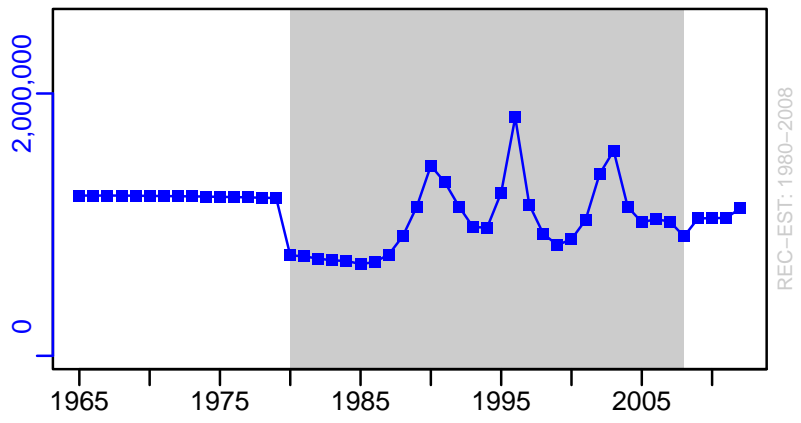
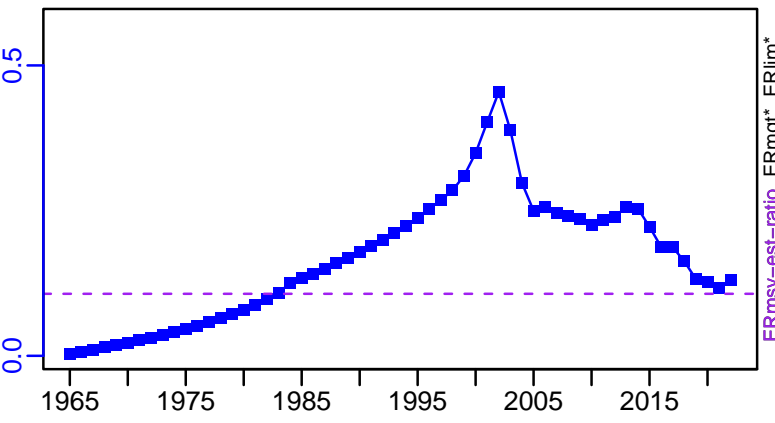
TB-MT (1964-2006-JENSEN)

SSB-MT (1965-2022-NEUBAUER)



ER-ratio (1965-2022-NEUBAUER)

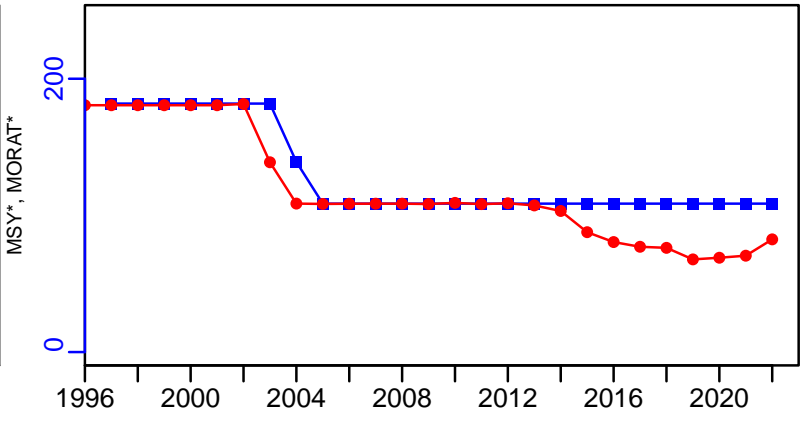
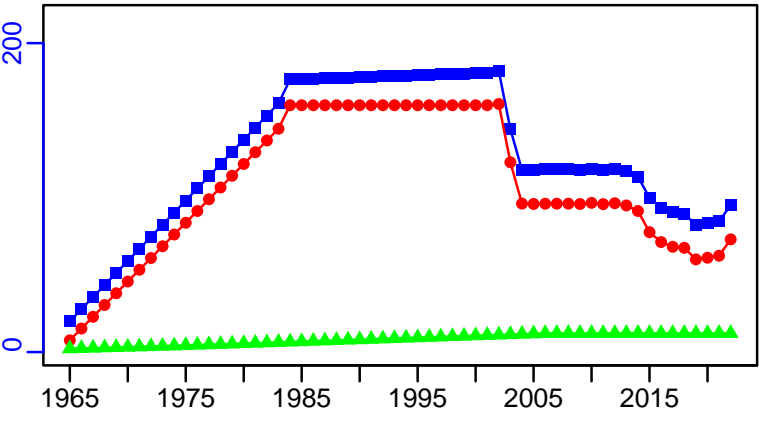
R-E00 (1965-2012-FU)



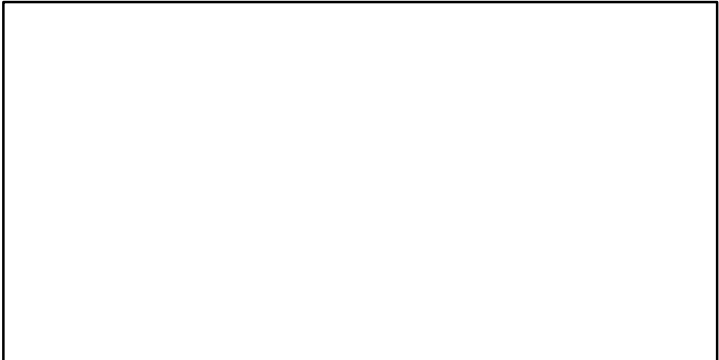
Paua New Zealand Area PAU 5D (Otago) [PAUAPAU5D]

TC-MT, TL-MT, RecC-MT (1965-2022-NEUBAUER)

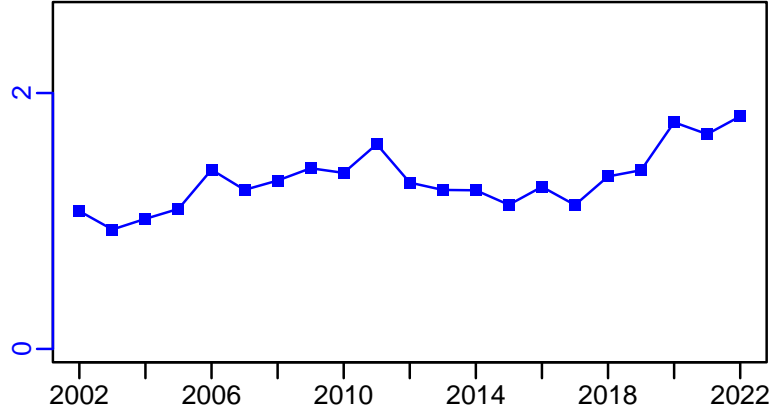
TAC-MT, Cpair-MT, Cadv* (1965-2022-NEUBAUER)



survB*



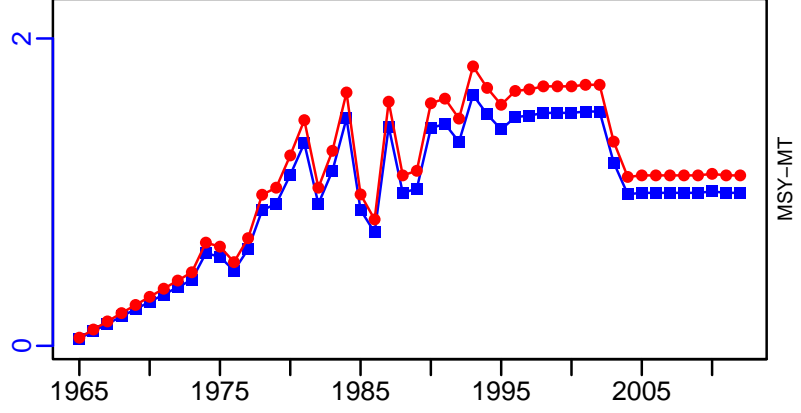
CPUE-index (1965-2022-NEUBAUER)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1965-2012-FU)



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

Paua New Zealand Area PAU 7 (Marlborough) [PAUAPAU7]

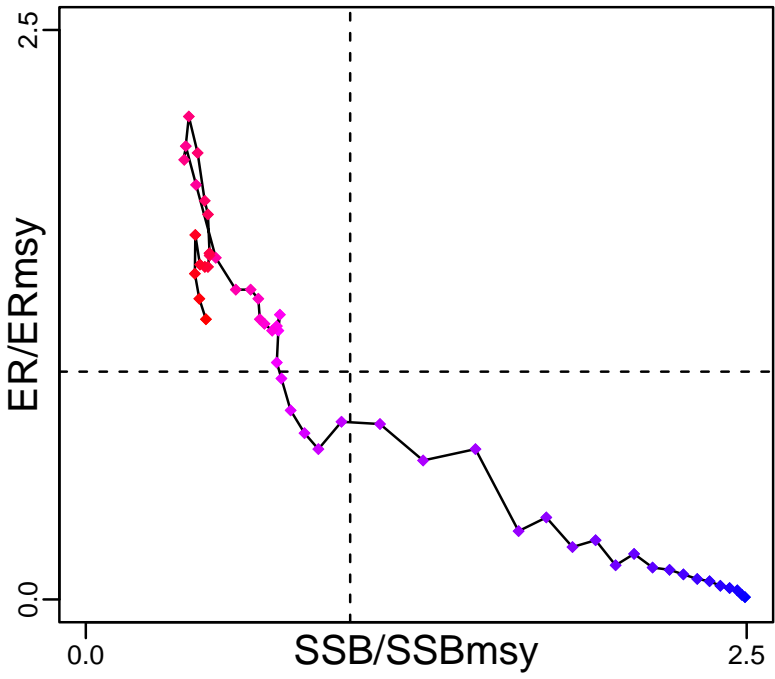
Metadata	
Scientific Name	Haliotis iris
Current Assess ID	NIWA-PAUAPAU7-1965-2015-FU
Area	New Zealand Area PAU 7 (Marlborough)
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2011, 2015

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2015	559
SSBmsy	SSBmsy-MT	2015	1716
Fmsy	Fmsy-extr-1/yr	2011	0.33
ERmsy	ERmsy-ratio	2015	0.37
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2015	1716
Fmgt	-	-	-
ERmgt	ERmgt-ratio	2015	0.19
TB0	-	-	-
SSB0	SSB0-MT	2015	4291
MSY	MSY-MT	2015	207
M	M-1/yr	2015	0.11
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

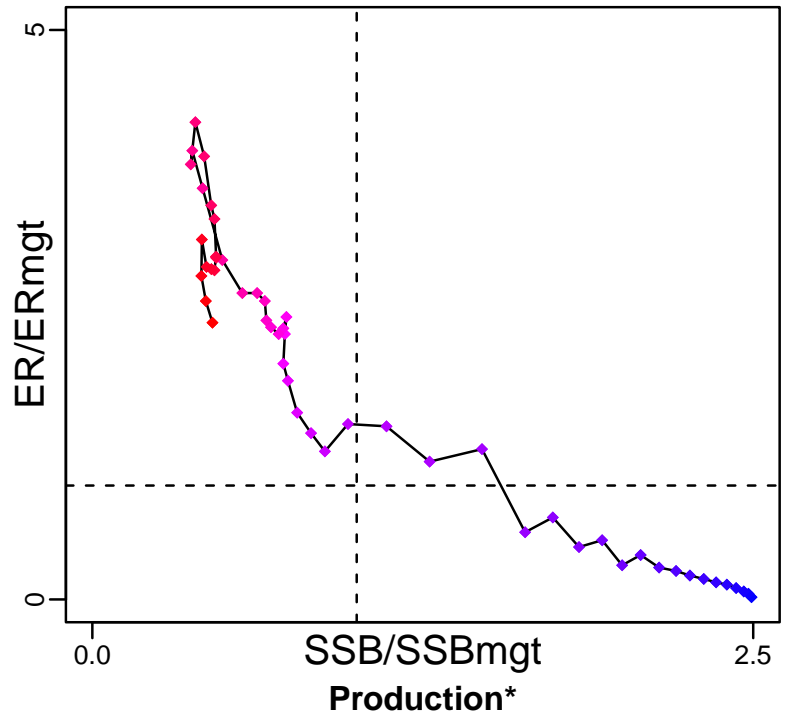
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2015	780	Both	-
TN	-	-	-	-	-
R	R-E00	2015	1,180,000	Both	-
F	F-1/yr	2011	0.429	-	-
ER	ER-ratio	2015	0.46	Both	-
TC	TC-MT	2015	143		
TL	TL-MT	2015	135		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2015	0.454		
F/Fmsy	FdivFmsy-dimensionless	2011	1.3		
ER/ERmsy	ERdivERmsy-dimensionless	2015	1.23		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2015	0.454		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Paua New Zealand Area PAU 7 (Marlborough) [PAU7PAU7]

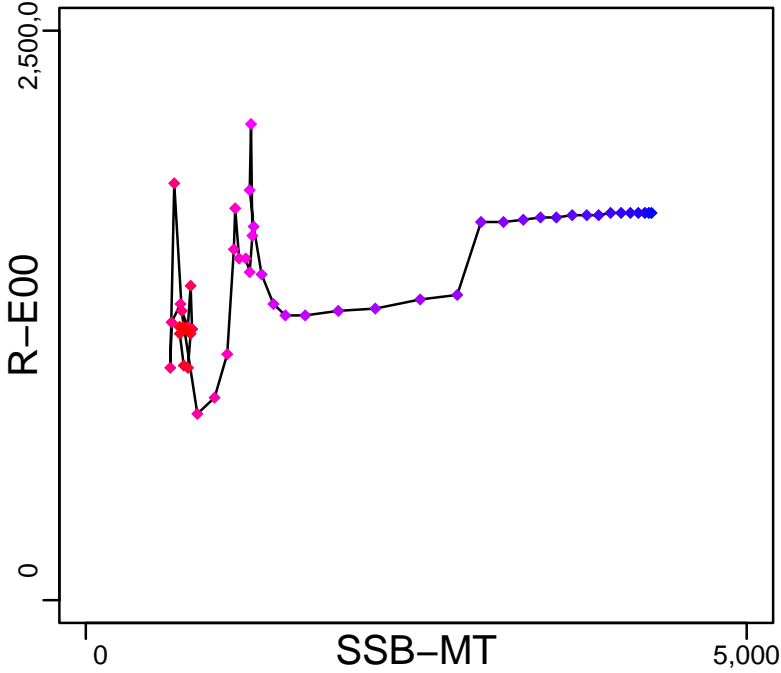
Kobe MSYpref (1965–2015–FU)



Kobe MGTpref (1965–2015–FU)



Spawner Recruit (1965–2015–FU)



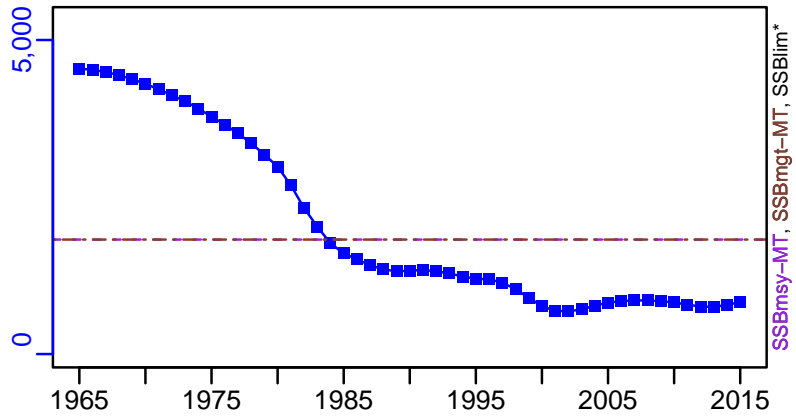
◆ Start Year ◆ End Year * No Data

Paua New Zealand Area PAU 7 (Marlborough) [PAU7PAU7]

TB*



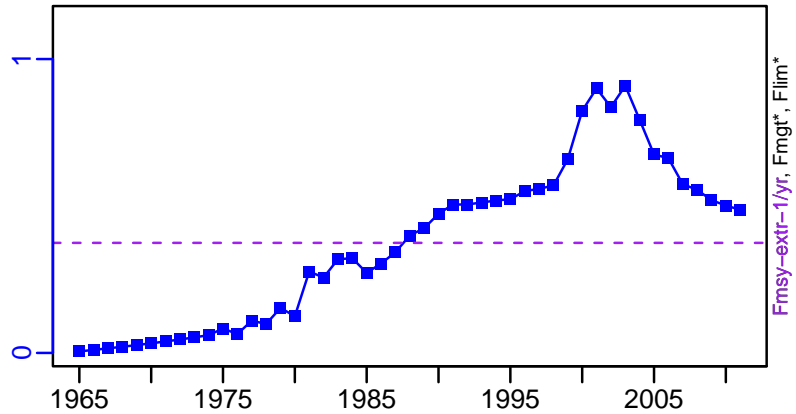
SSB-MT (1965-2015-FU)



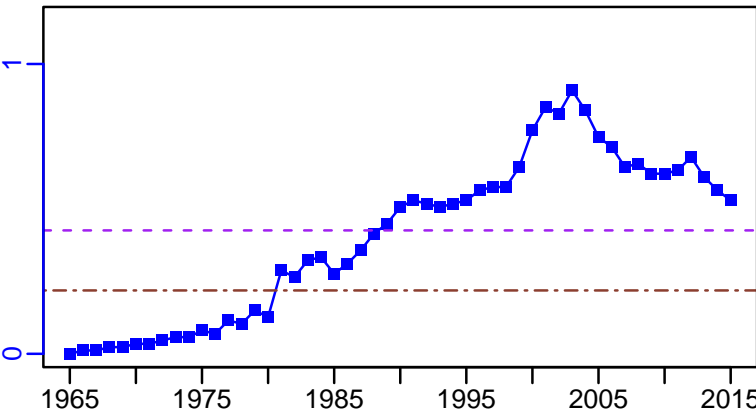
TN *



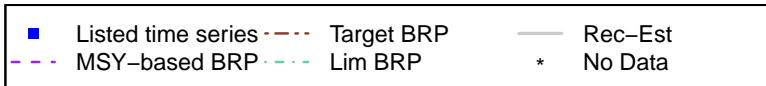
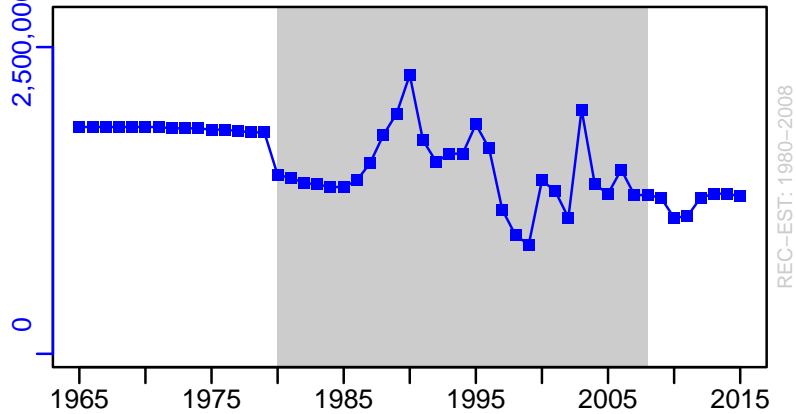
F-1/yr (1965-2011-CORDUE)



ER-ratio (1965-2015-FU)



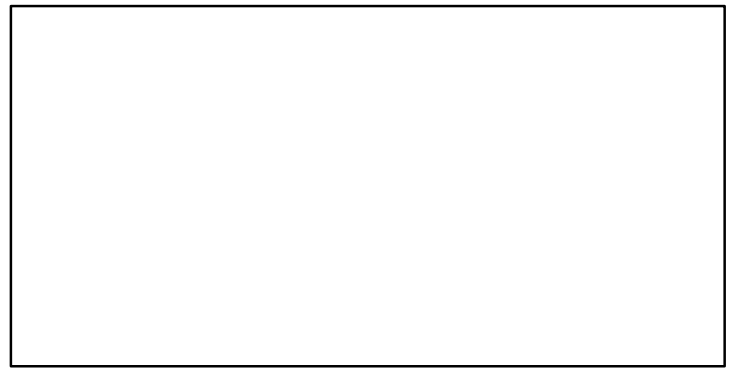
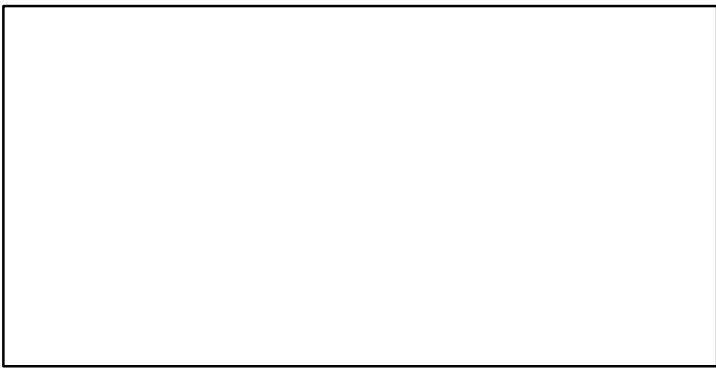
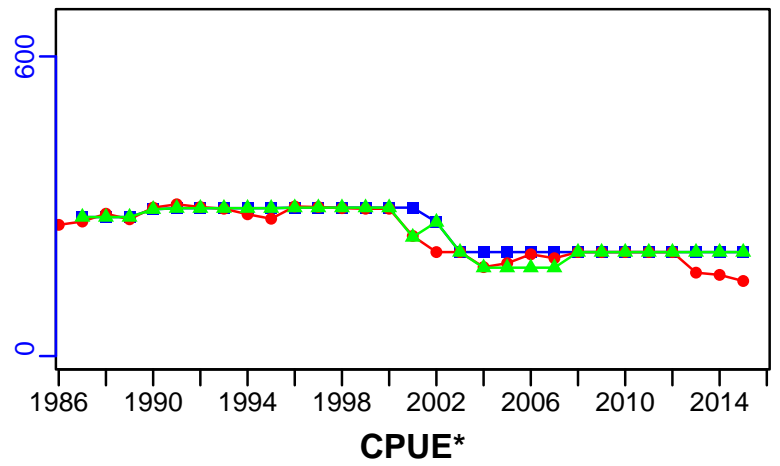
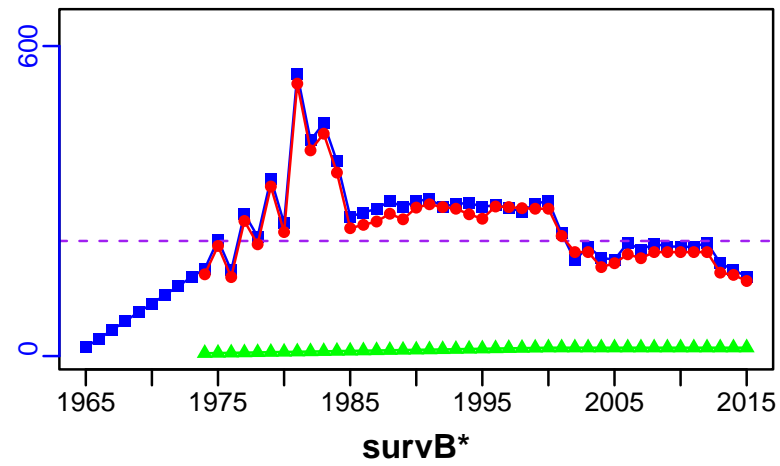
R-E00 (1965-2015-FU)



Paua New Zealand Area PAU 7 (Marlborough) [PAU7PAU7]

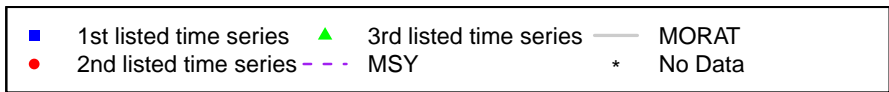
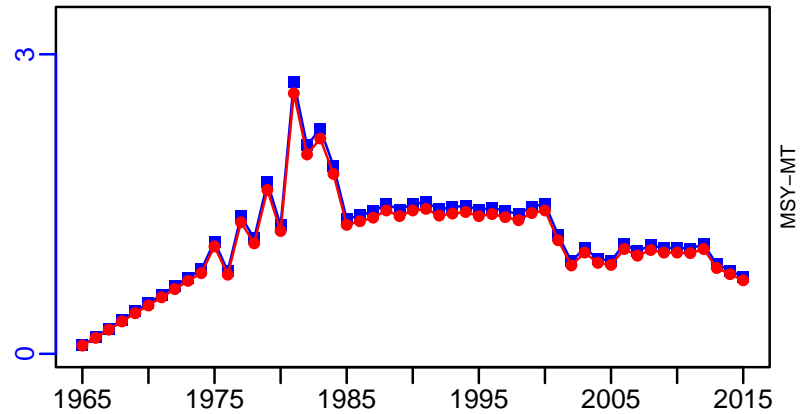
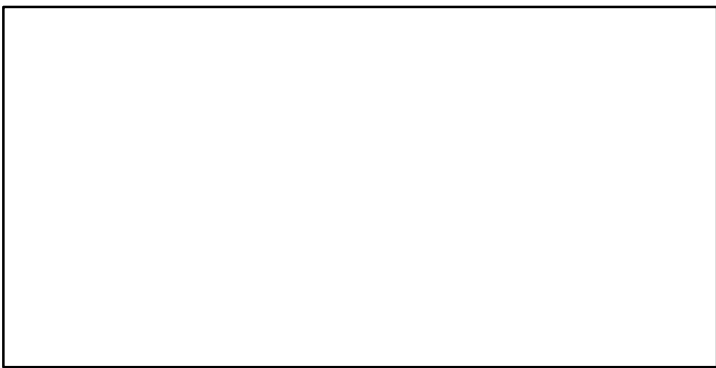
TC-MT, TL-MT, RecC-MT (1965-2015-FU)

TAC-MT, Cpair-MT, Cadvised-MT (1965-2015-FU)



EFFORT*

TC-MT/MSY-MT, CdivMEANC-ratio, (1965-2015-FU)



Paua NZ Area South PAUA 5A [PAUASPAU5A]

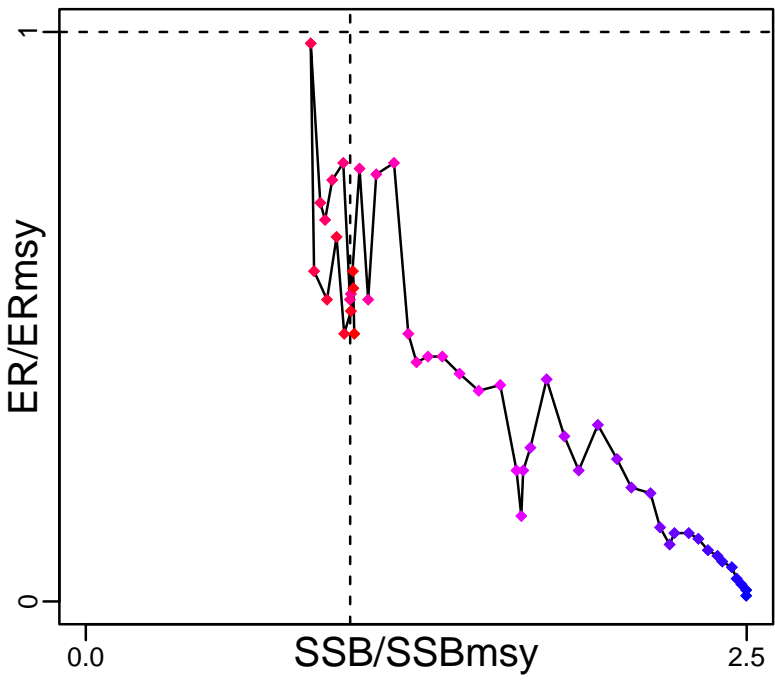
Metadata	
Scientific Name	Haliotis iris
Current Assess ID	NIWA-PAUASPAU5A-1965-2014-FU
Area	NZ Area South PAUA 5A
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2009, 2014

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2014	248
SSBmsy	SSBmsy-MT	2014	552
Fmsy	Fmsy-extr-1/yr	2009	0.21
ERmsy	ERmsy-ratio	2014	0.23
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2014	552
Fmgt	-	-	-
ERmgt	ERmgt-ratio	2014	0.13
TB0	-	-	-
SSB0	SSB0-MT	2014	1381
MSY	MSY-MT	2014	57
M	M-1/yr	2014	0.11
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

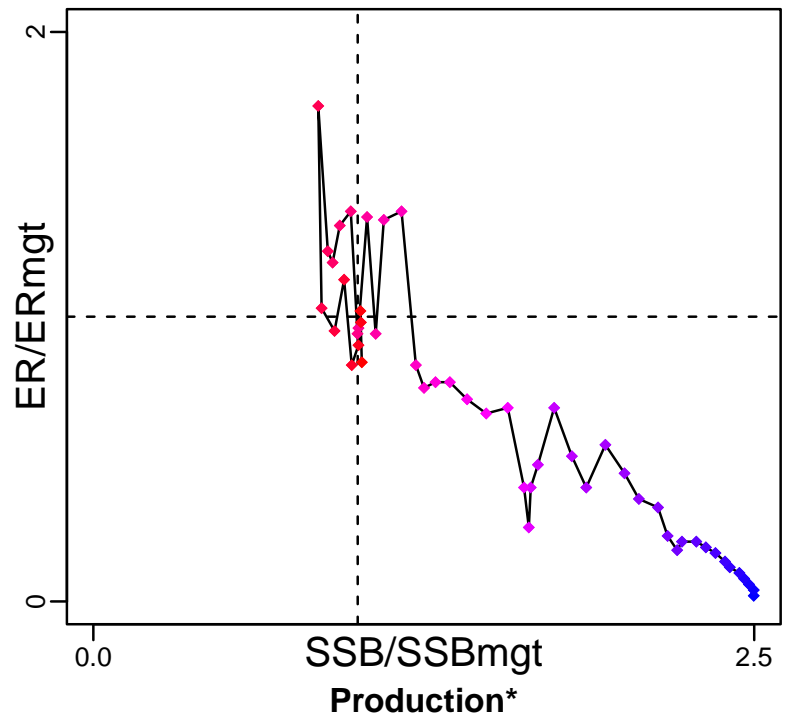
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2014	561	-	-
TN	-	-	-	-	-
R	R-E00	2014	376,000	Both	-
F	F-1/yr	2009	0.222	-	-
ER	ER-ratio	2014	0.11	Both	-
TC	TC-MT	2014	46		
TL	TL-MT	2014	39		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2014	1.016		
F/Fmsy	FdivFmsy-dimensionless	2009	1.06		
ER/ERmsy	ERdivERmsy-dimensionless	2014	0.47		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2014	1.016		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Paua NZ Area South PAUA 5A [PAUASPAU5A]

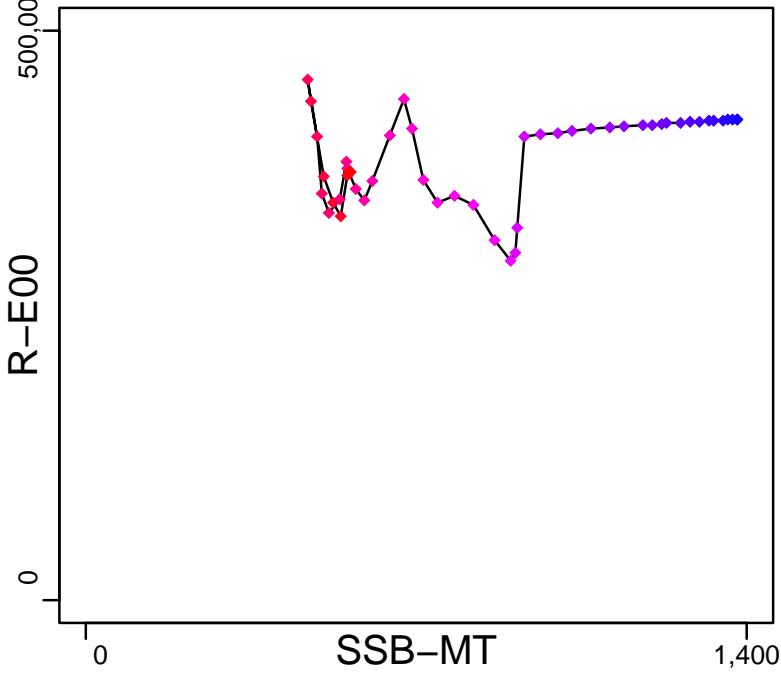
Kobe MSYpref (1965–2014–FU)



Kobe MGTpref (1965–2014–FU)



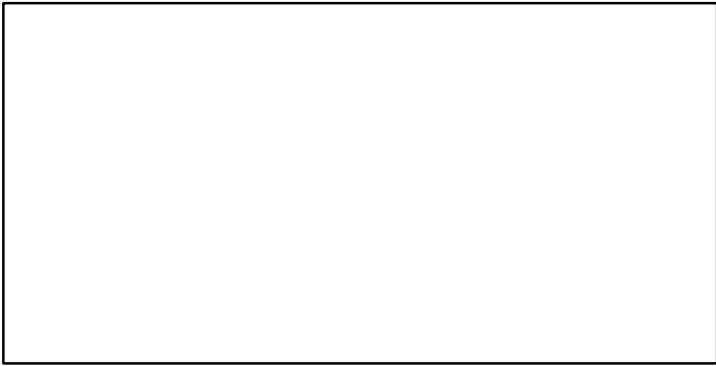
Spawner Recruit (1965–2014–FU)



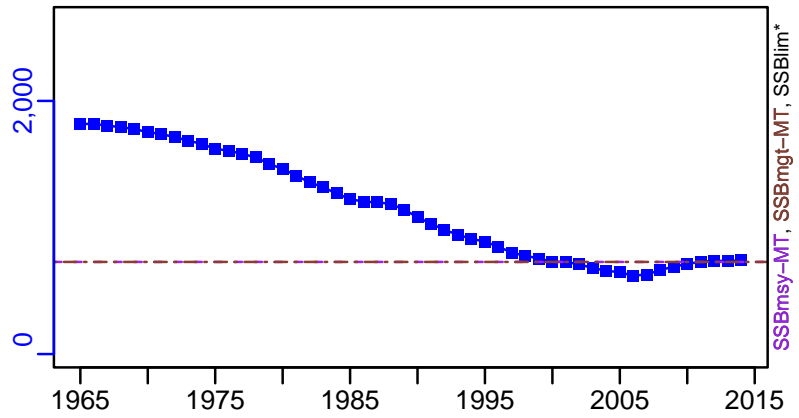
◆ Start Year ◆ End Year * No Data

Paua NZ Area South PAUA 5A [PAUASPAU5A]

TB*



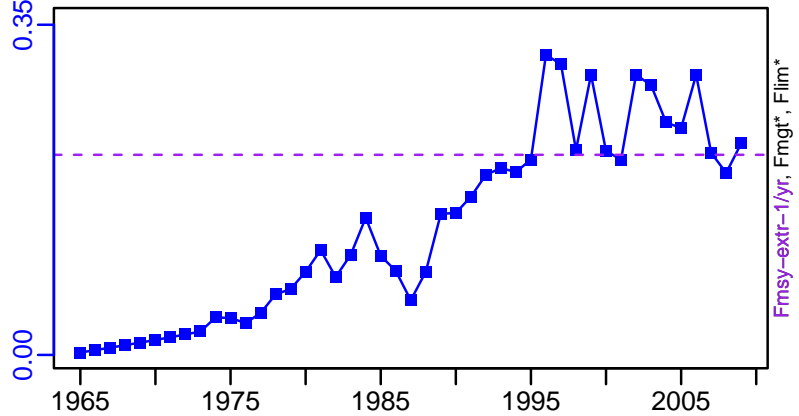
SSB-MT (1965-2014-FU)



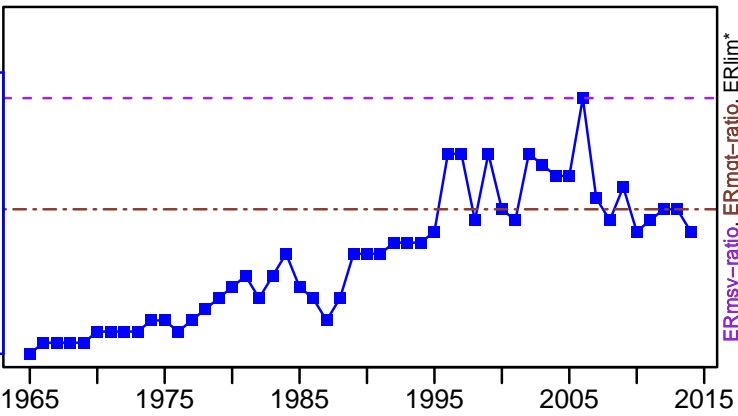
TN *



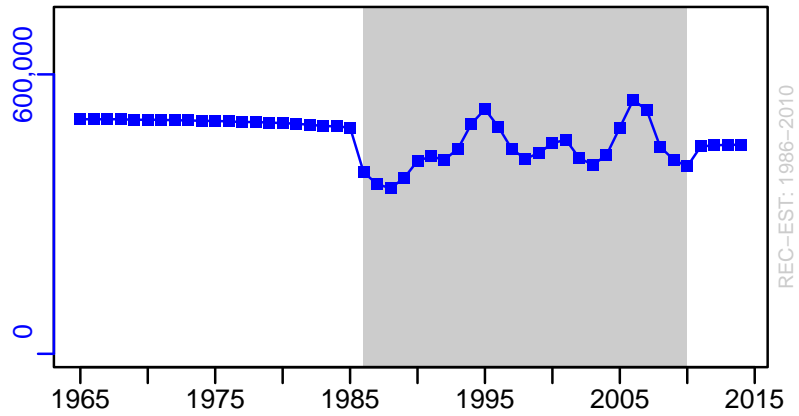
F-1/yr (1965-2009-CORDUE)



ER-ratio (1965-2014-FU)



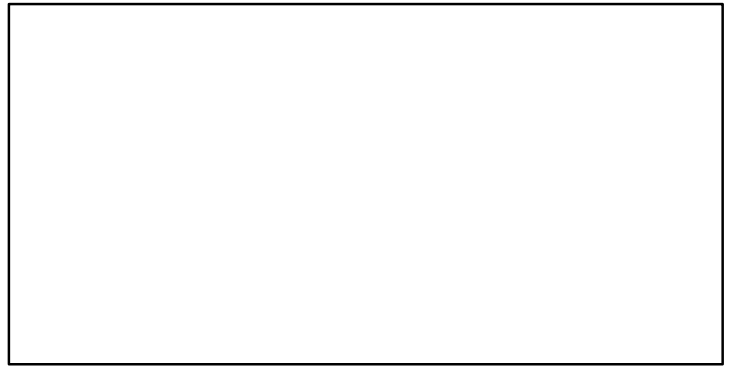
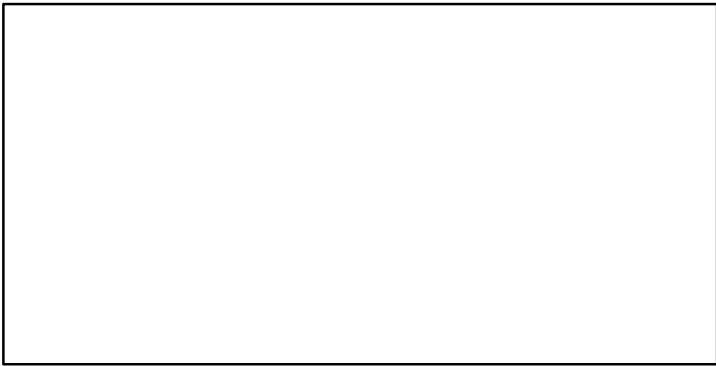
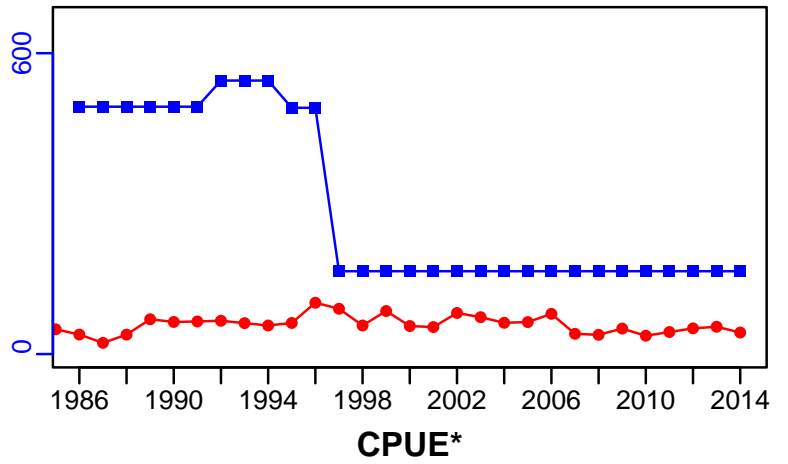
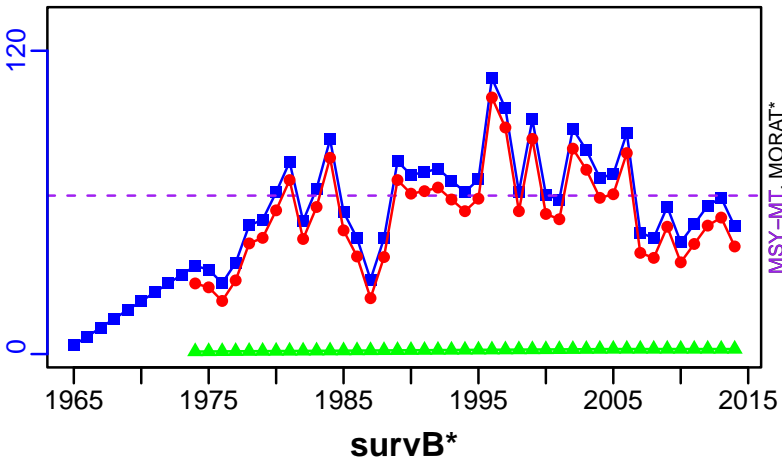
R-E00 (1965-2014-FU)



Paua NZ Area South PAUA 5A [PAUASPAU5A]

TC-MT, TL-MT, RecC-MT (1965-2014-FU)

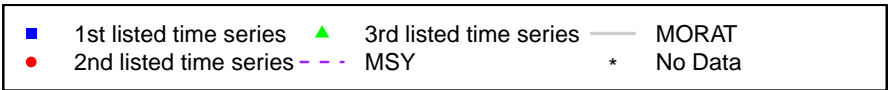
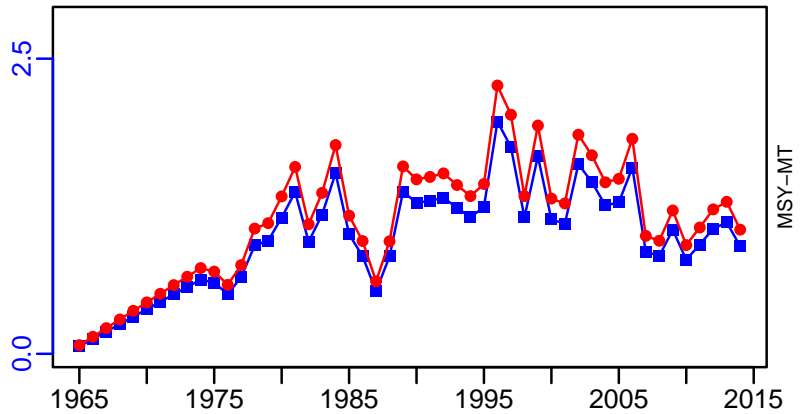
TAC-MT, Cpair-MT, Cadv* (1965-2014-FU)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1965-2014-FU)



Red rock lobster New Zealand Area CRA1 [RROCKLOBSTERCRA1]

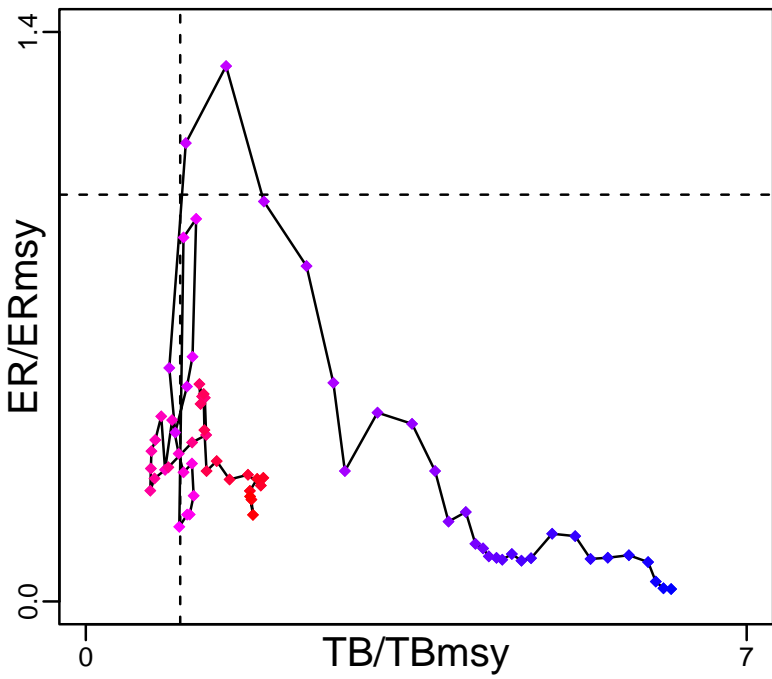
Metadata	
Scientific Name	Jasus edwardsii
Current Assess ID	NZMFishLOBSTERWG-RROCKLOBSTERCRA1-1945-2014-STARR
Area	New Zealand Area CRA1
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Lobster Working Group
Asmts in RAM	2001, 2014

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2014	492
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	ERmsy-calc-ratio	2014	0.327
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2014	161
M	M-1/yr	2014	0.125
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

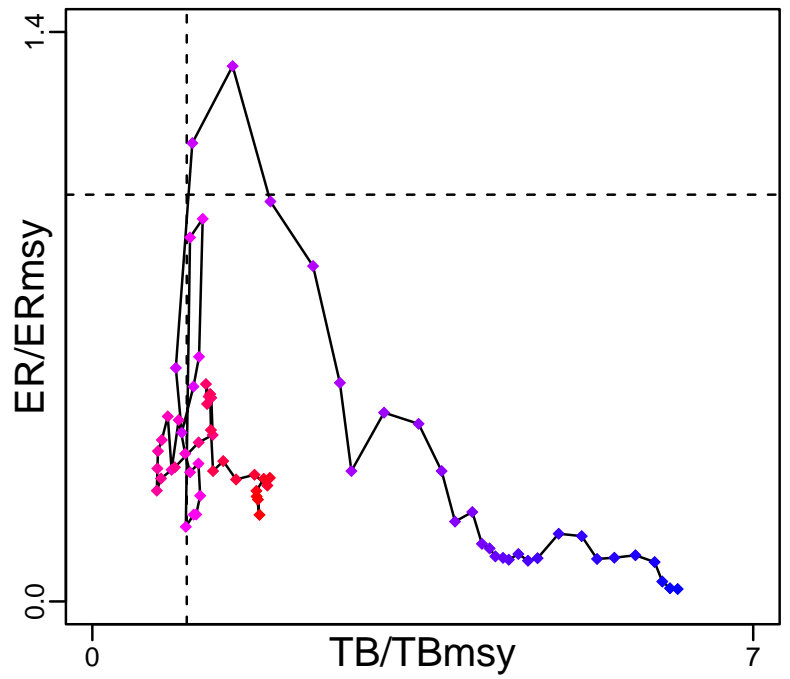
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2014	851	Both	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	R-E00	2014	384,000	Both	-
F	-	-	-	-	-
ER	ER-ratio	2014	0.084	Both	-
TC	TC-MT	2014	257		
TL	TL-MT	2014	130		
TB/TBmsy	TB-MT/TBmsy-MT	2014	1.73		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	ER-ratio/ERmsy-calc-ratio	2014	0.258		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Red rock lobster New Zealand Area CRA1 [RROCKLOBSTERCRA1]

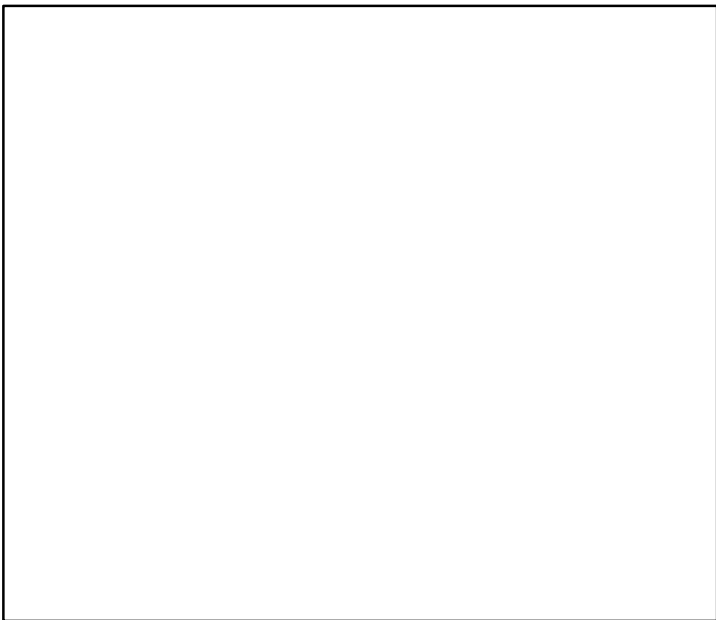
Kobe MSYpref (1945–2014–STARR)



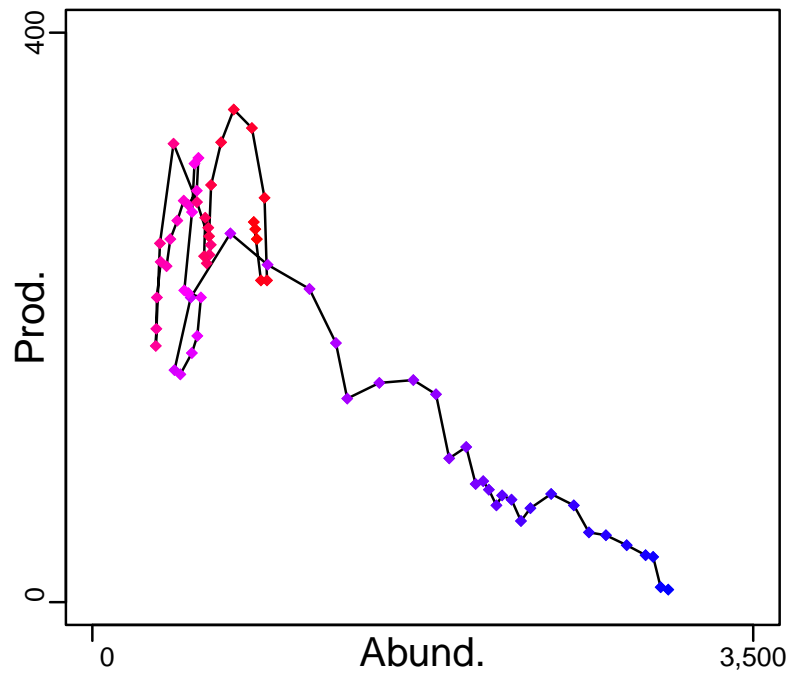
Kobe MGTpref (1945–2014–STARR)



Spawner Recruit*



Production (1945–2014–STARR)

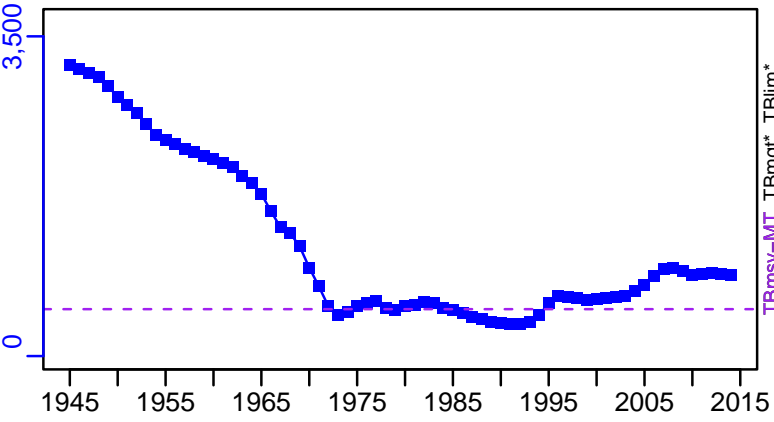


◆ Start Year ◆ End Year * No Data

Red rock lobster New Zealand Area CRA1 [RROCKLOBSTERCRA1]

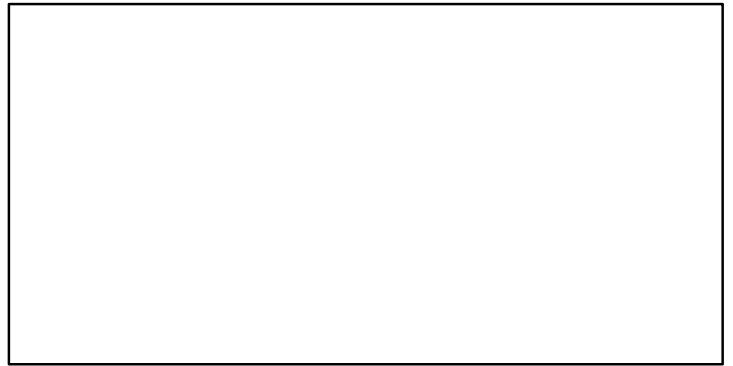
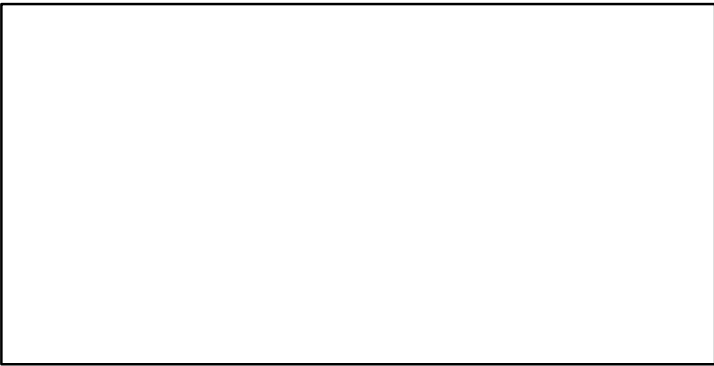
TB-MT (1945-2014-STARR)

SSB*



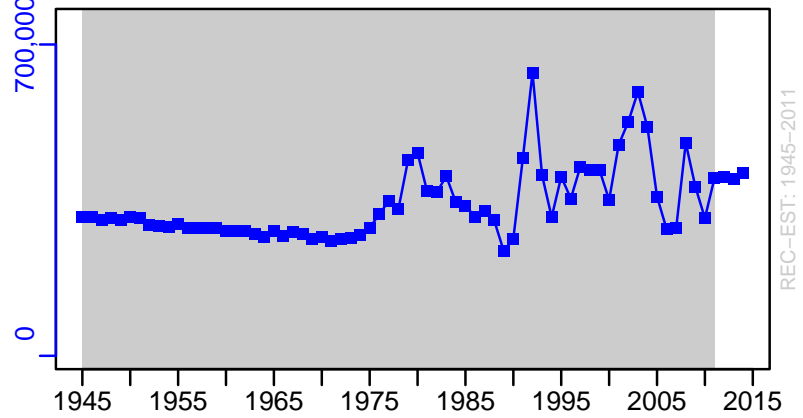
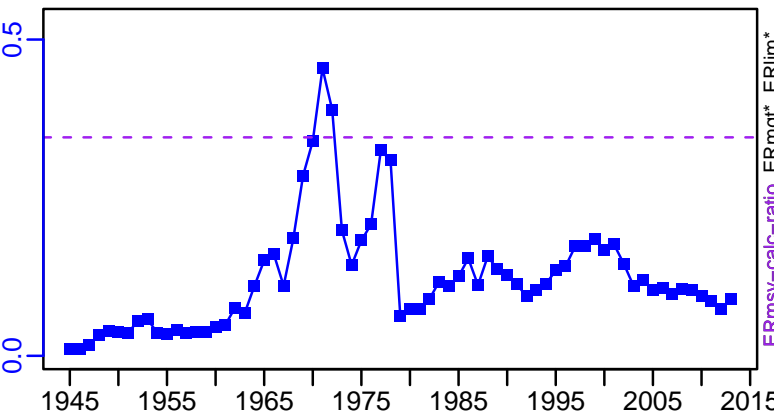
TN *

F*



ER-ratio (1945-2014-STARR)

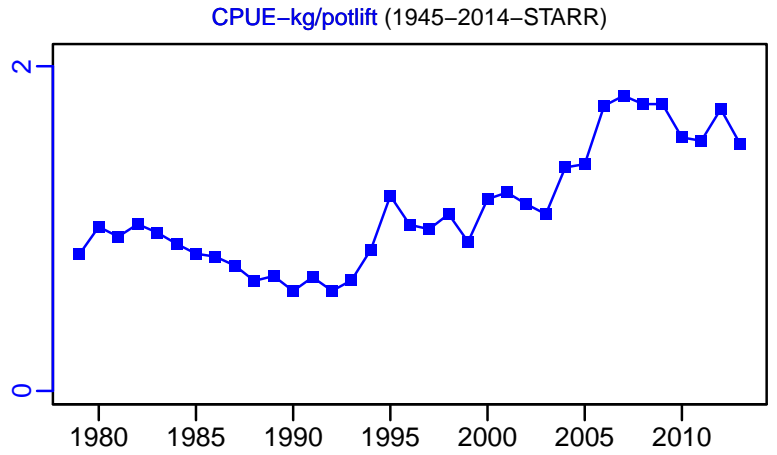
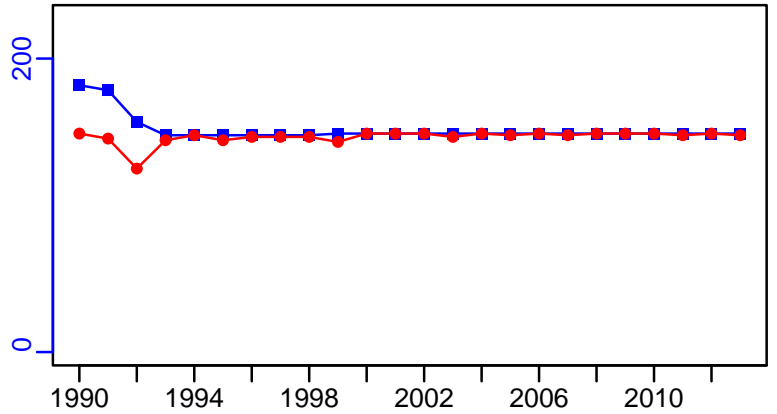
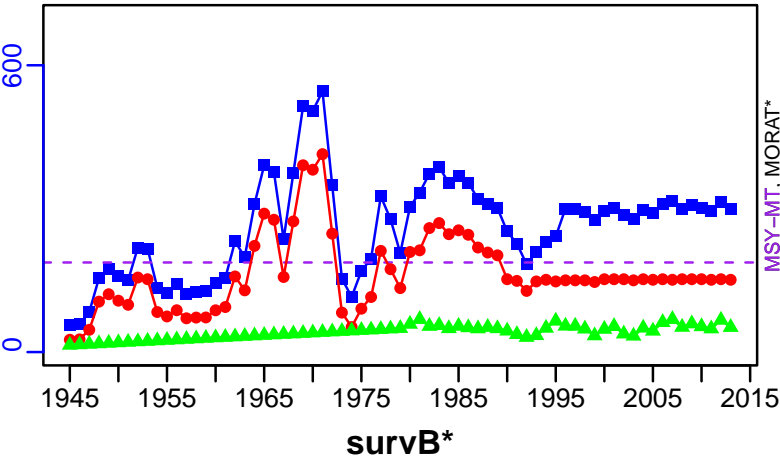
R-E00 (1945-2014-STARR)



Red rock lobster New Zealand Area CRA1 [RROCKLOBSTERCRA1]

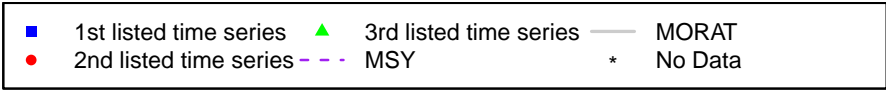
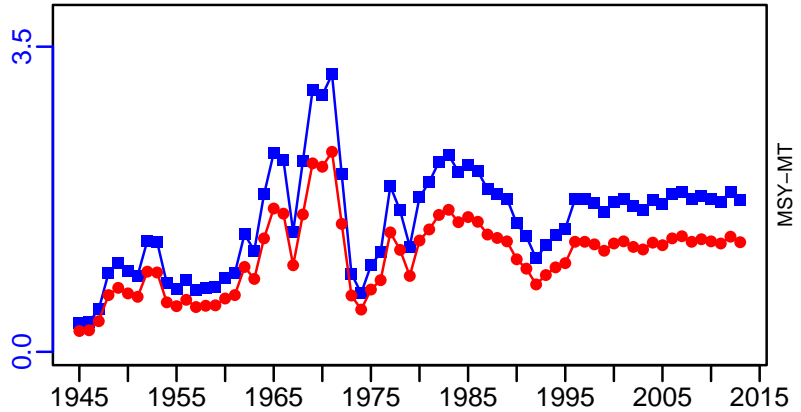
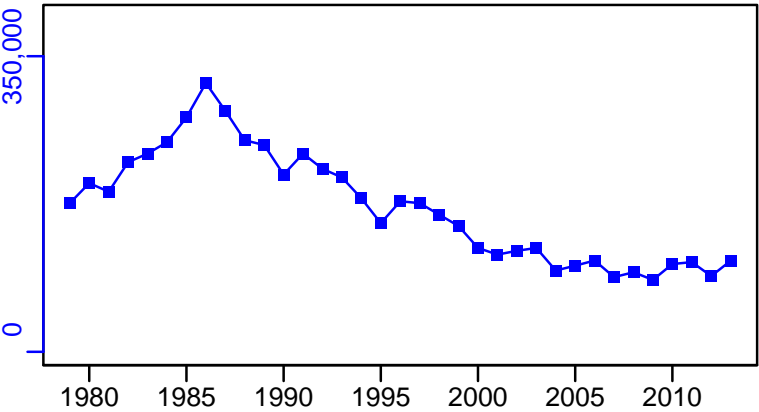
TC-MT, TL-MT, RecC-MT (1945-2014-STARR)

TAC-MT, Cpair-MT, Cadv* (1945-2014-STARR)



EFFORT-potlift (1945-2014-STARR)

TC-MT/MSY-MT, CdivMEANC-ratio, (1945-2014-STARR)



Red rock lobster New Zealand Area CRA2 [RROCKLOBSTERCRA2]

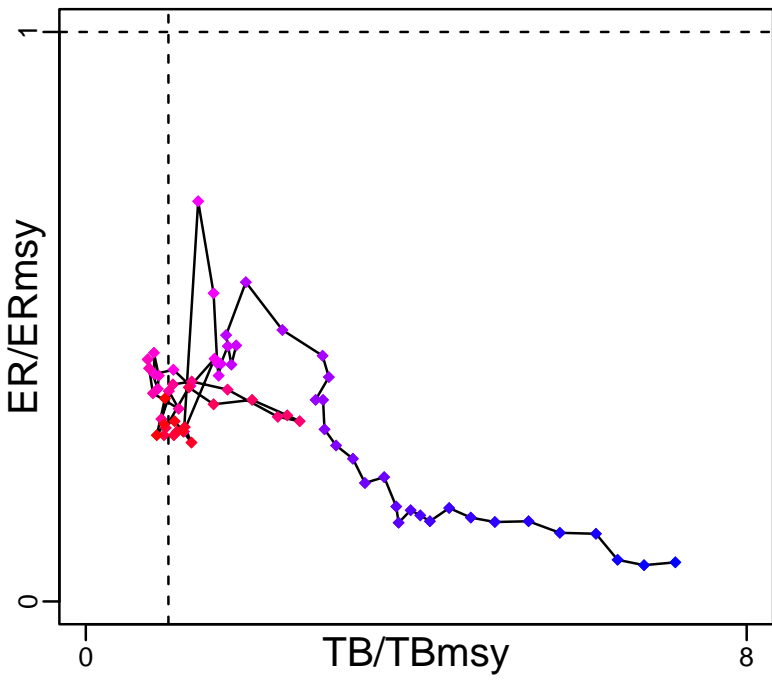
Metadata	
Scientific Name	Jasus edwardsii
Current Assess ID	NZMFishLOBSTERWG-RROCKLOBSTERCRA2-1945-2013-STARR
Area	New Zealand Area CRA2
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Lobster Working Group
Asmts in RAM	2001, 2013

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2013	343
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	ERmsy-calc-ratio	2013	0.774
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2013	266
M	M-1/yr	2013	0.161
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

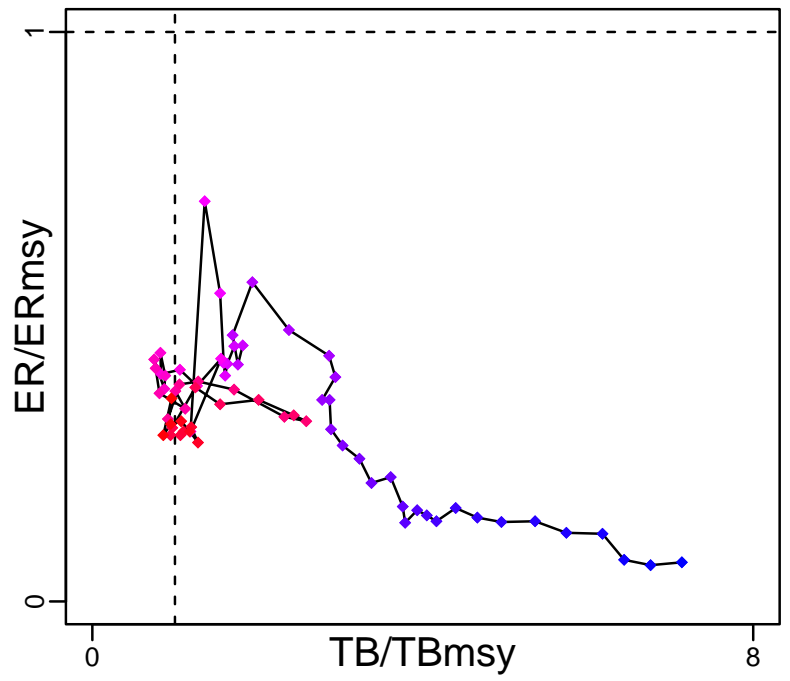
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	366	Both	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	R-E00	2013	627,000	Both	-
F	-	-	-	-	-
ER	ER-ratio	2013	0.276	Both	-
TC	TC-MT	2013	389		
TL	TL-MT	2013	233		
TB/TBmsy	TB-MT/TBmsy-MT	2013	1.066		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	ER-ratio/ERmsy-calc-ratio	2013	0.357		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Red rock lobster New Zealand Area CRA2 [RROCKLOBSTERCRA2]

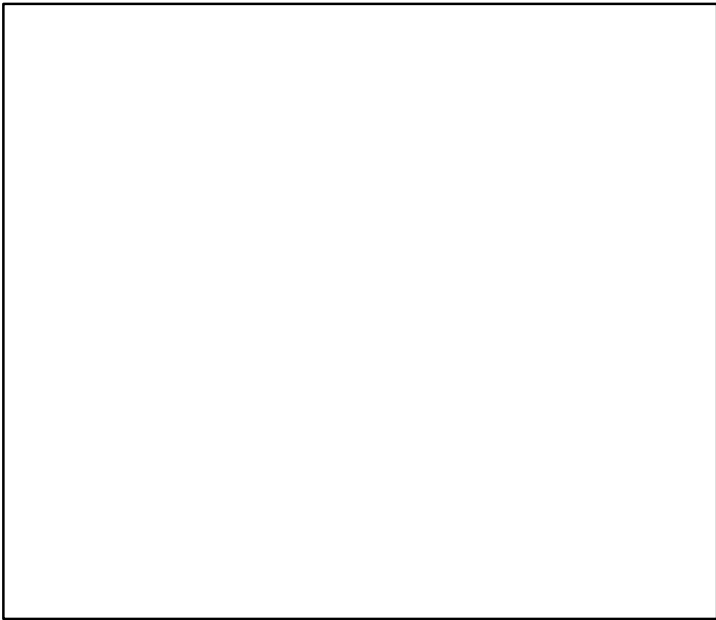
Kobe MSYpref (1945–2013–STARR)



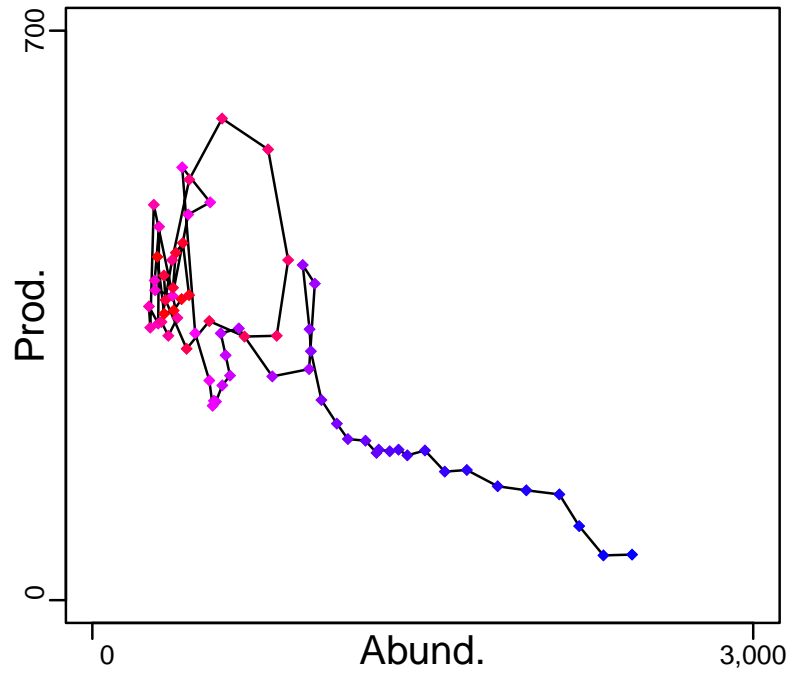
Kobe MGTpref (1945–2013–STARR)



Spawner Recruit*



Production (1945–2013–STARR)

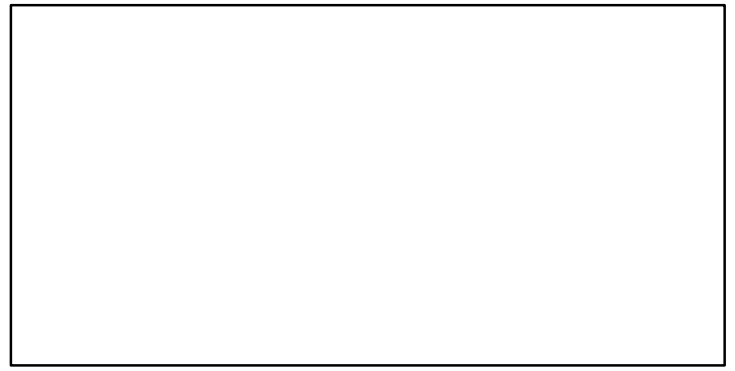
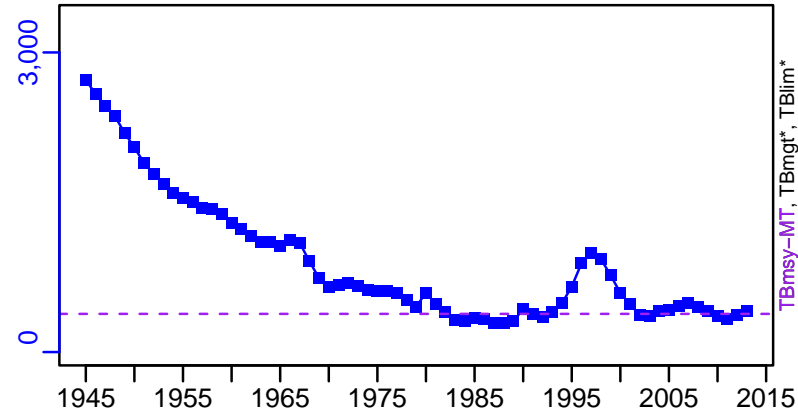


◆ Start Year ◆ End Year * No Data

Red rock lobster New Zealand Area CRA2 [RROCKLOBSTERCRA2]

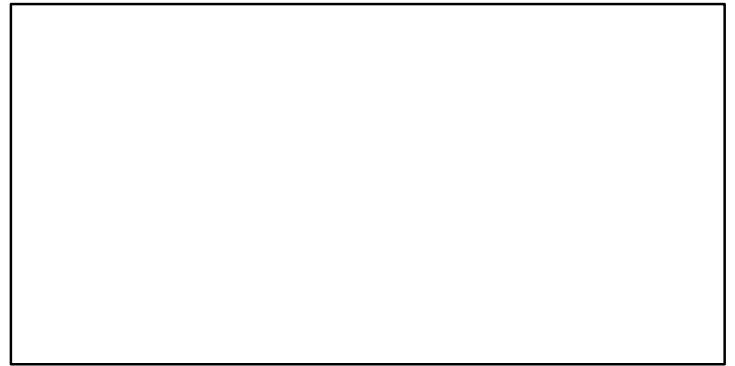
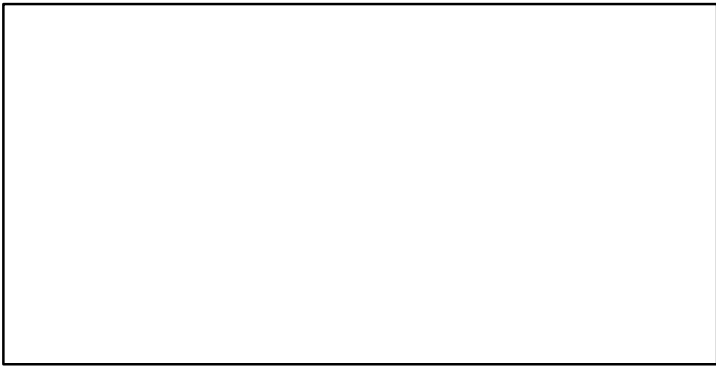
TB-MT (1945-2013-STARR)

SSB*



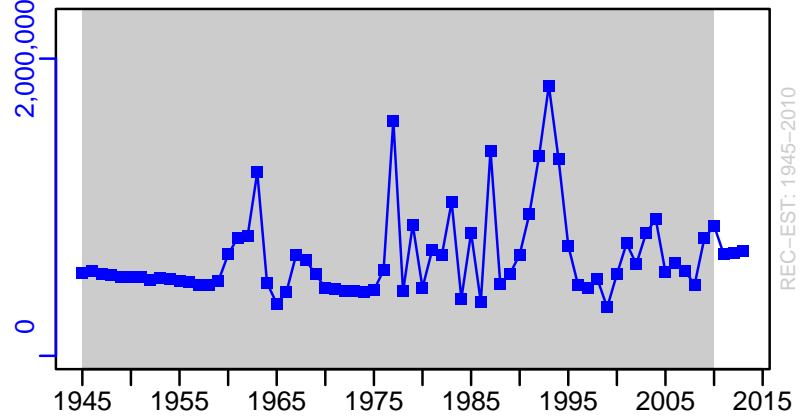
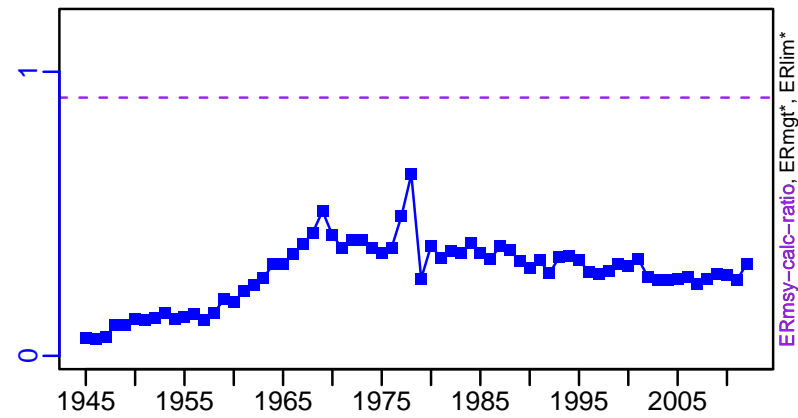
TN *

F*



ER-ratio (1945-2013-STARR)

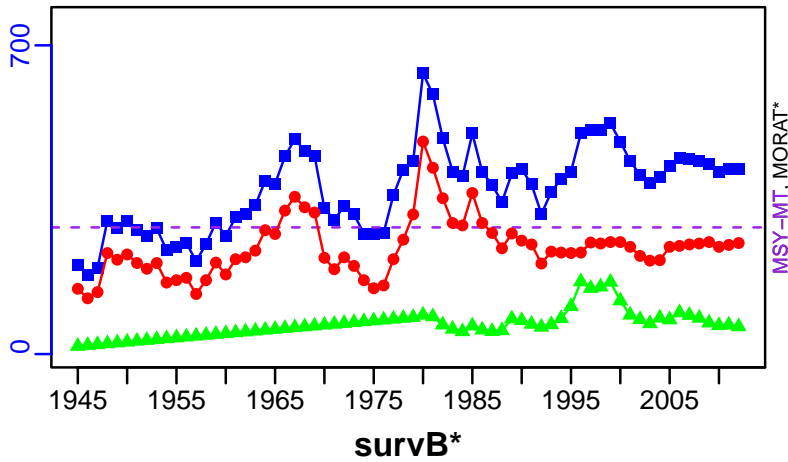
R-E00 (1945-2013-STARR)



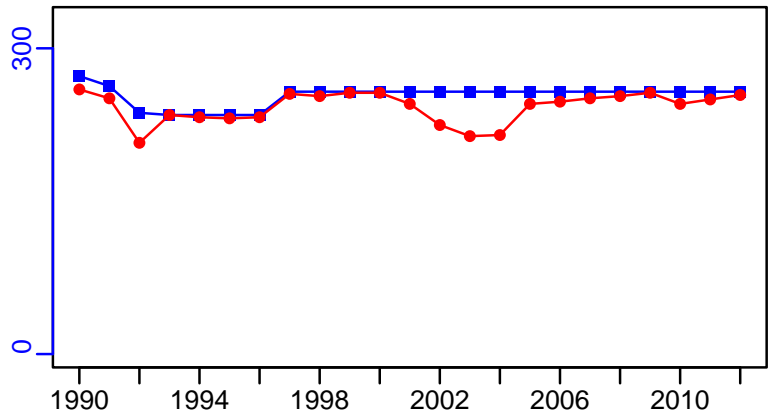
- Listed time series
- - - Target BRP
- Rec-Est
- - - MSY-based BRP
- - - Lim BRP
- * No Data

Red rock lobster New Zealand Area CRA2 [RROCKLOBSTERCRA2]

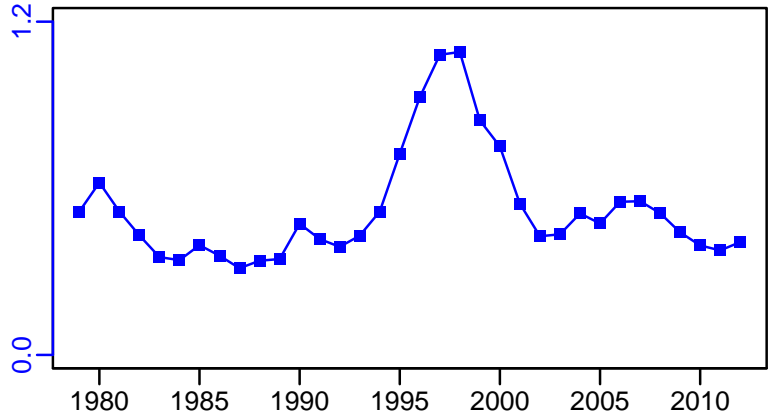
TC-MT, TL-MT, RecC-MT (1945-2013-STARR)



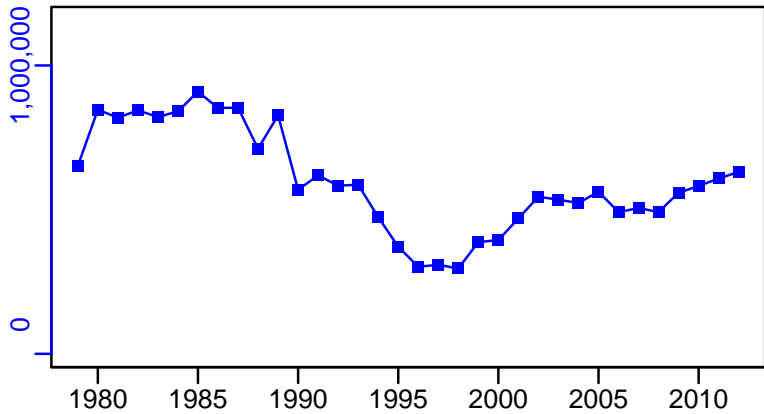
TAC-MT, Cpair-MT, Cadv* (1945-2013-STARR)



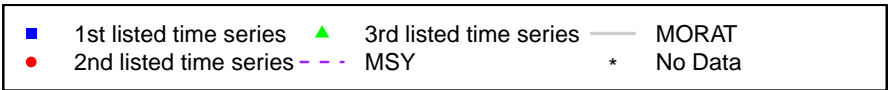
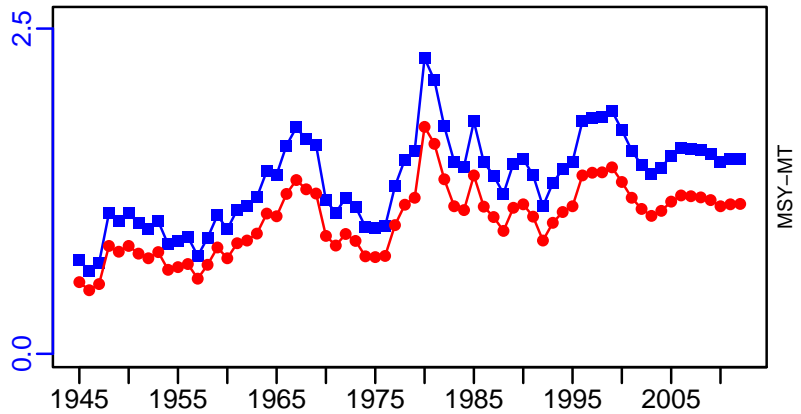
CPUE-kg/potlift (1945-2013-STARR)



EFFORT-potlift (1945-2013-STARR)



TC-MT/MSY-MT, CdivMEANC-ratio, (1945-2013-STARR)



Red rock lobster New Zealand Area CRA3 [RROCKLOBSTERCRA3]

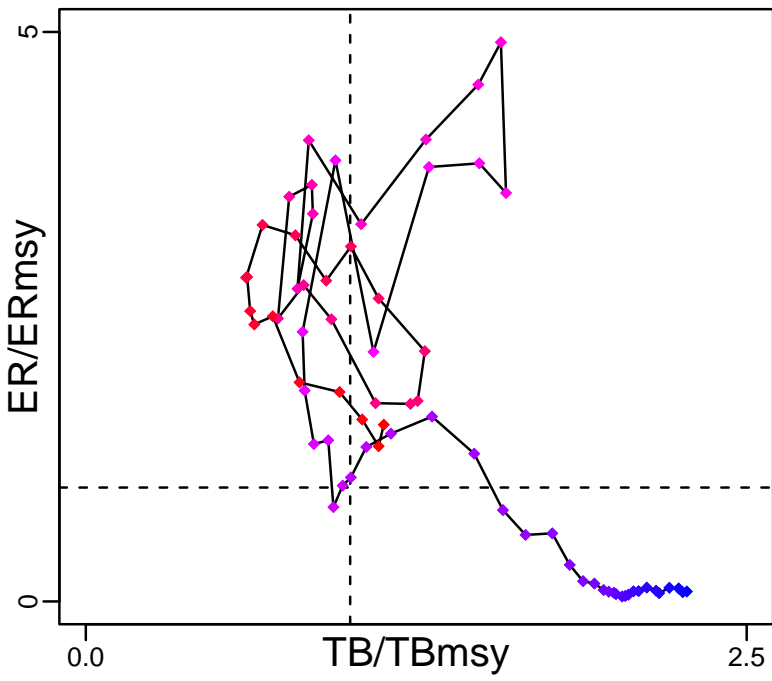
Metadata	
Scientific Name	Jasus edwardsii
Current Assess ID	NZMFishLOBSTERWG-RROCKLOBSTERCRA3-1945-2014-STARR
Area	New Zealand Area CRA3
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Lobster Working Group
Asmts in RAM	2007, 2014

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2014	212
M	M-1/yr	2014	0.251
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

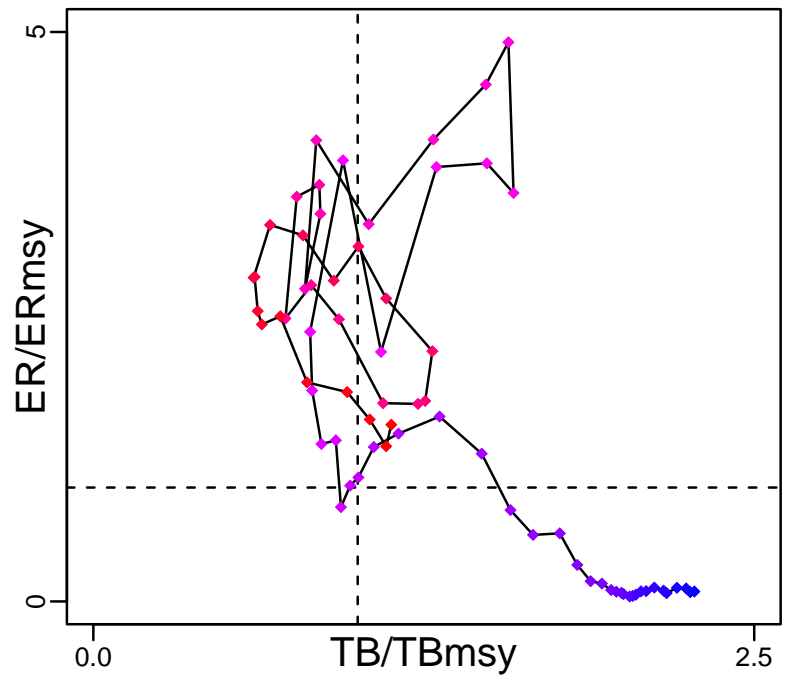
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2014	2840	Both	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	R-E00	2014	1,290,000	Both	-
F	-	-	-	-	-
ER	ER-ratio	2014	0.238	Both	-
TC	TC-MT	2014	354		
TL	TL-MT	2014	224		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Red rock lobster New Zealand Area CRA3 [RROCKLOBSTERCRA3]

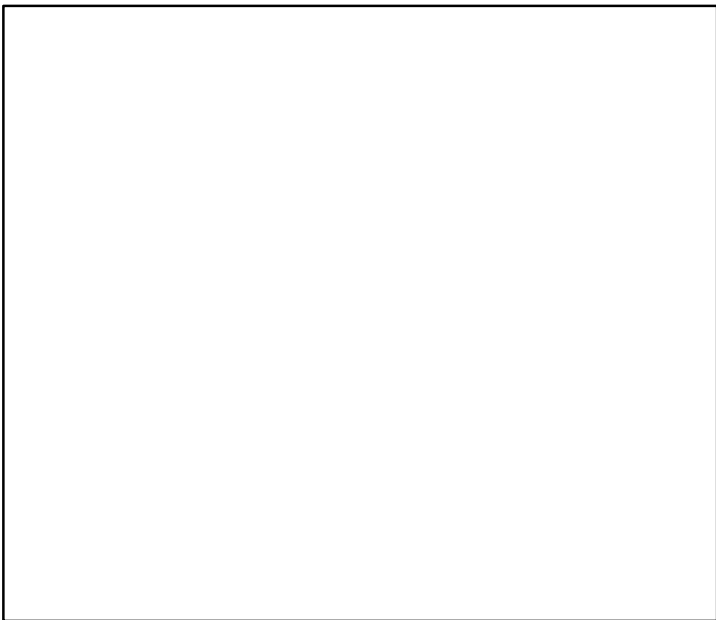
Kobe MSYpref (1945–2014–STARR)



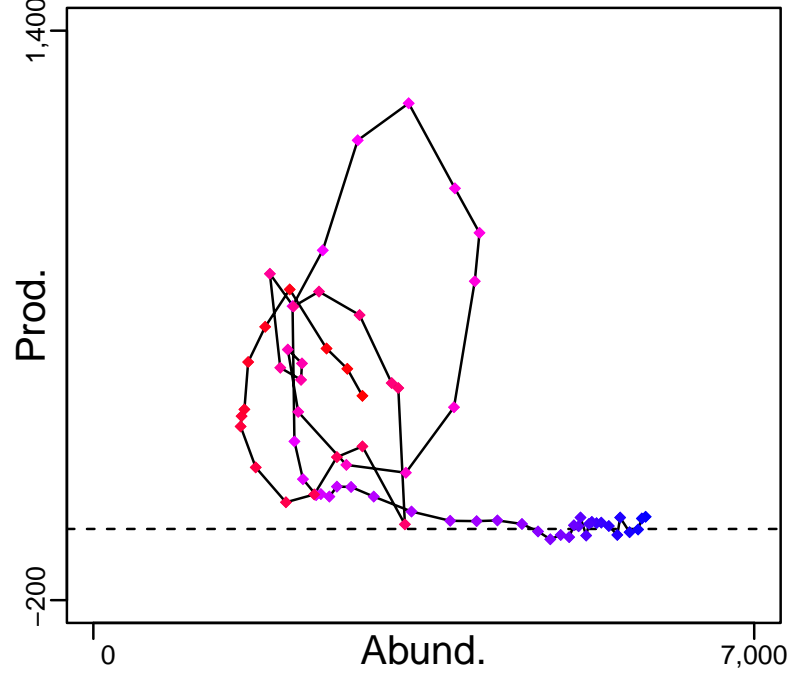
Kobe MGTpref (1945–2014–STARR)



Spawner Recruit*



Production (1945–2014–STARR)

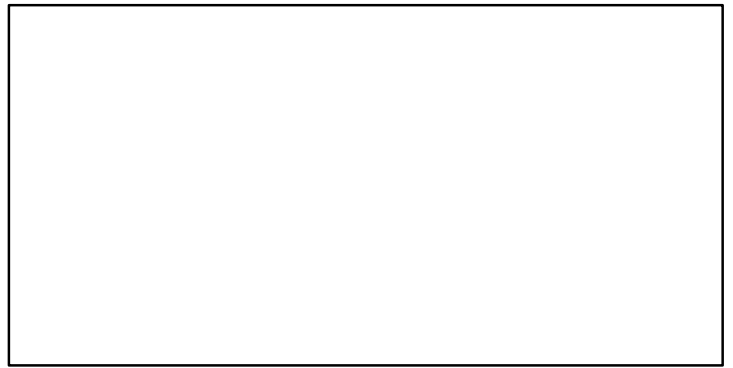
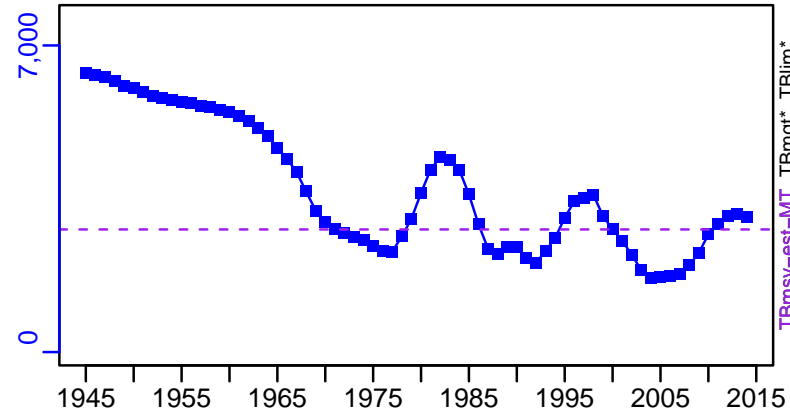


◆ Start Year ◆ End Year * No Data

Red rock lobster New Zealand Area CRA3 [RROCKLOBSTERCRA3]

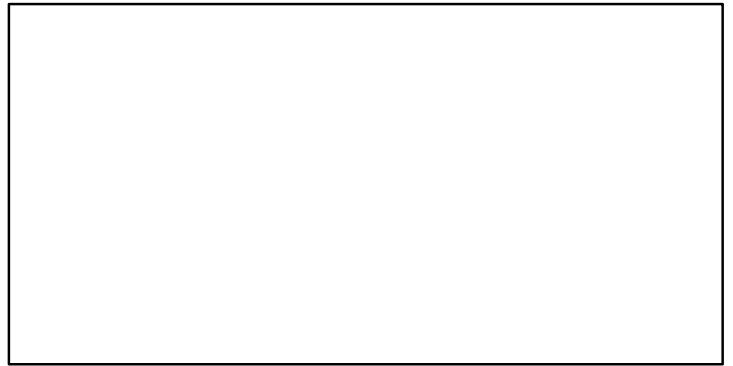
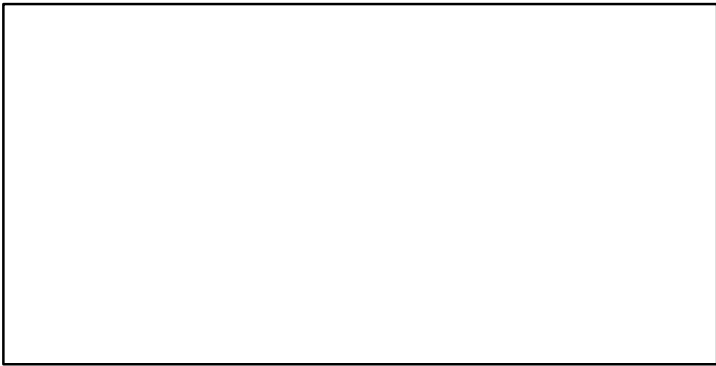
TB-MT (1945-2014-STARR)

SSB*



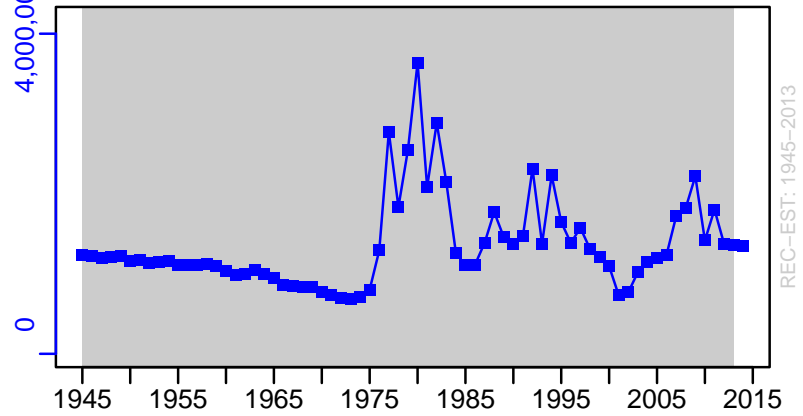
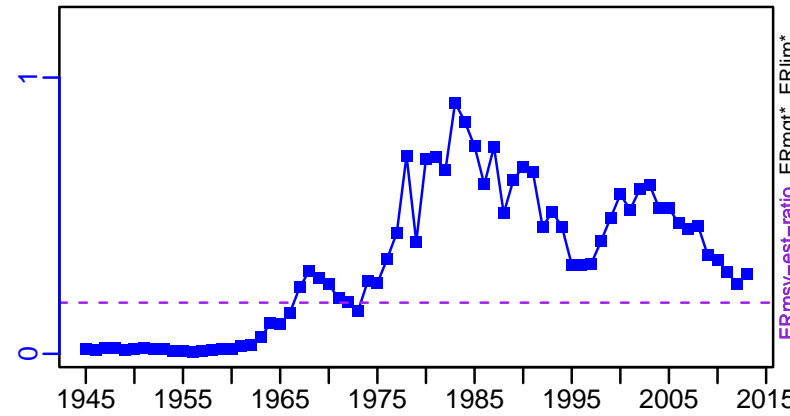
TN *

F*



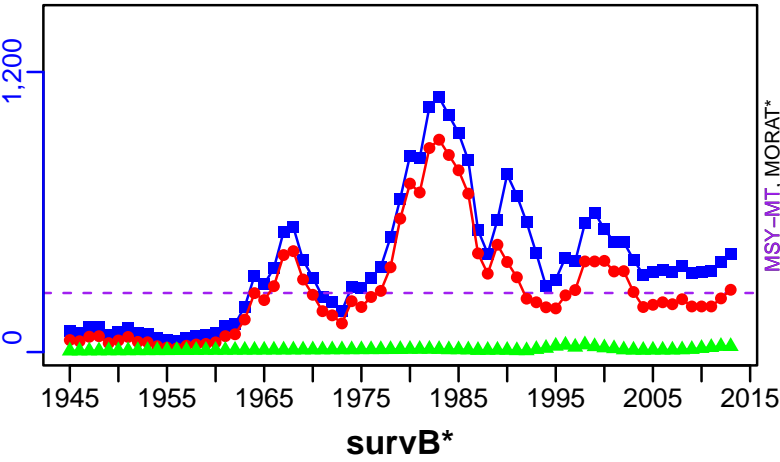
ER-ratio (1945-2014-STARR)

R-E00 (1945-2014-STARR)

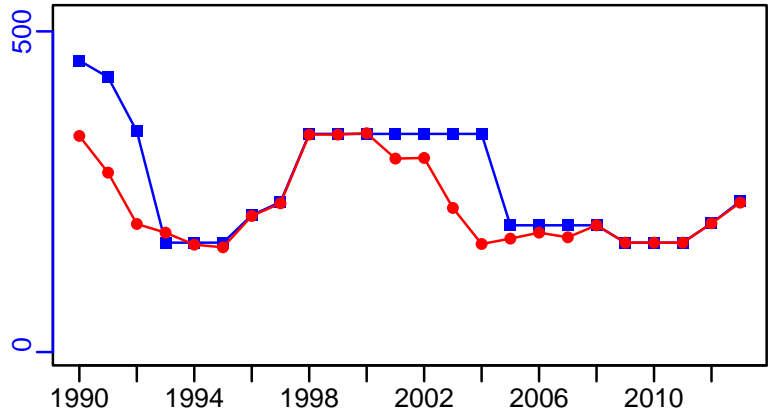


Red rock lobster New Zealand Area CRA3 [RROCKLOBSTERCRA3]

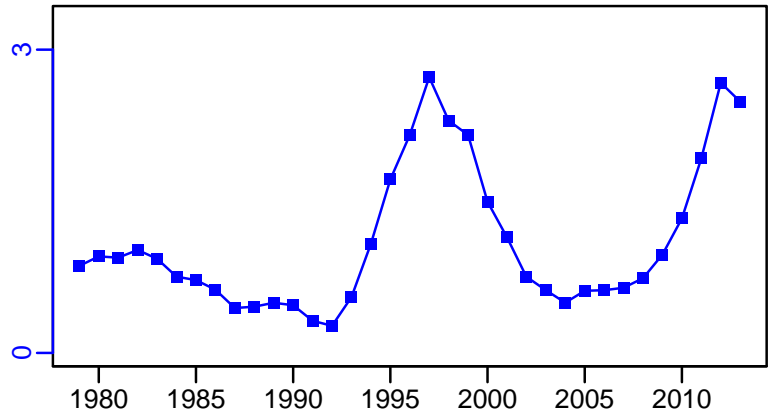
TC-MT, TL-MT, RecC-MT (1945-2014-STARR)



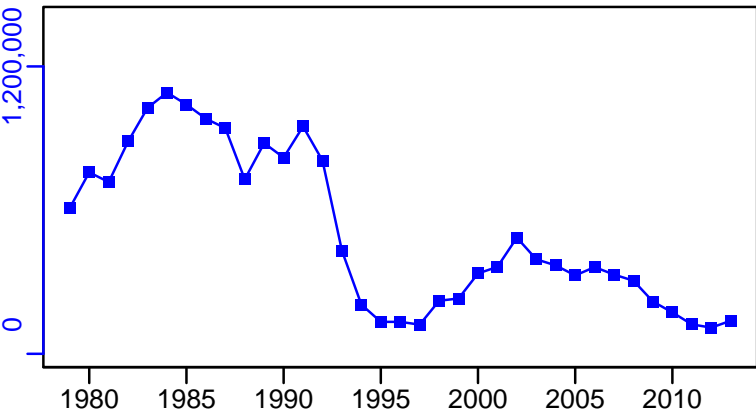
TAC-MT, Cpair-MT, Cadv* (1945-2014-STARR)



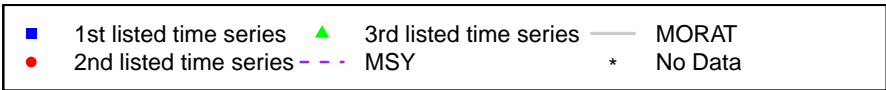
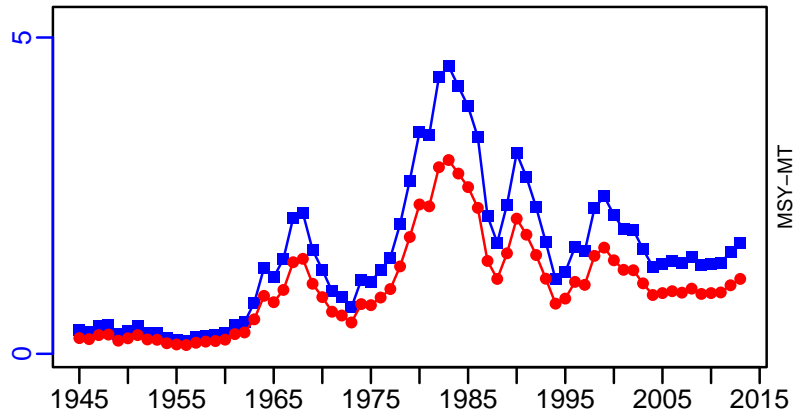
CPUE-kg/potlift (1945-2014-STARR)



EFFORT-potlift (1945-2014-STARR)



TC-MT/MSY-MT, CdivMEANC-ratio, (1945-2014-STARR)



Red rock lobster New Zealand Area CRA4 [RROCKLOBSTERCRA4]

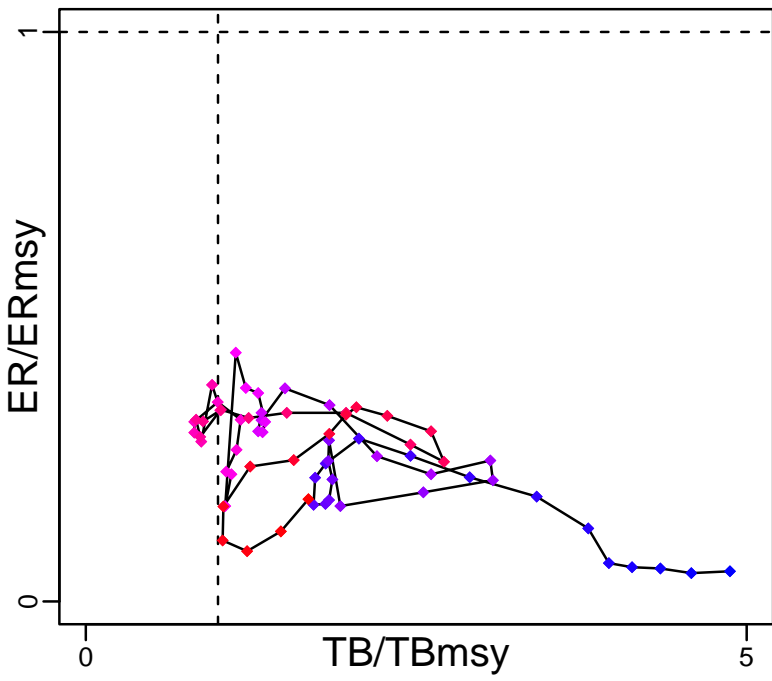
Metadata	
Scientific Name	Jasus edwardsii
Current Assess ID	NZMFishLOBSTERWG-RROCKLOBSTERCRA4-1945-2011-STARR
Area	New Zealand Area CRA4
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Lobster Working Group
Asmts in RAM	2005, 2011

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2011	513
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	ERmsy-calc-ratio	2011	1.326
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2011	680
M	M-1/yr	2011	0.322
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

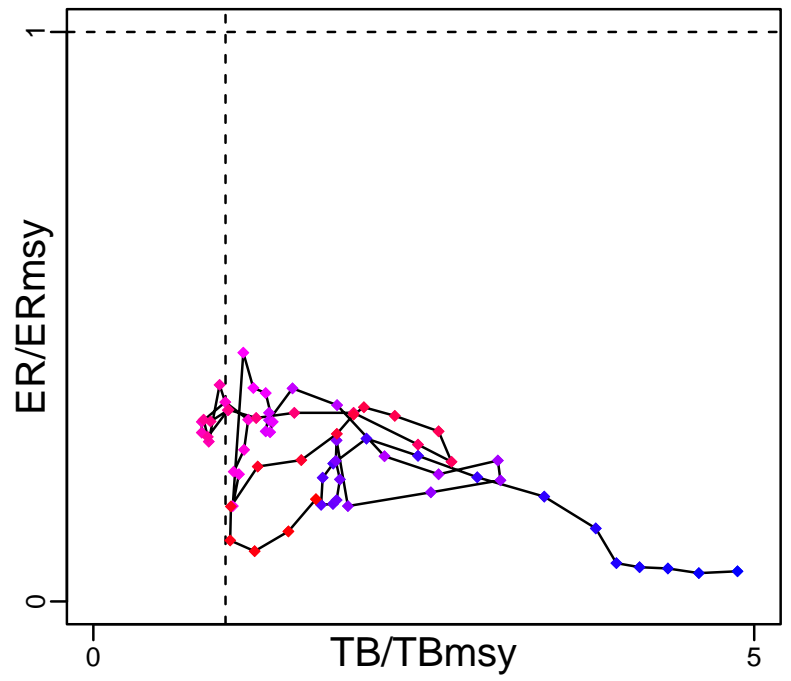
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2011	863	Both	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	R-E00	2011	5,750,000	Both	-
F	-	-	-	-	-
ER	ER-ratio	2011	0.238	Both	-
TC	TC-MT	2011	533		
TL	TL-MT	2011	415		
TB/TBmsy	TB-MT/TBmsy-MT	2011	1.682		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	ER-ratio/ERmsy-calc-ratio	2011	0.18		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Red rock lobster New Zealand Area CRA4 [RROCKLOBSTERCRA4]

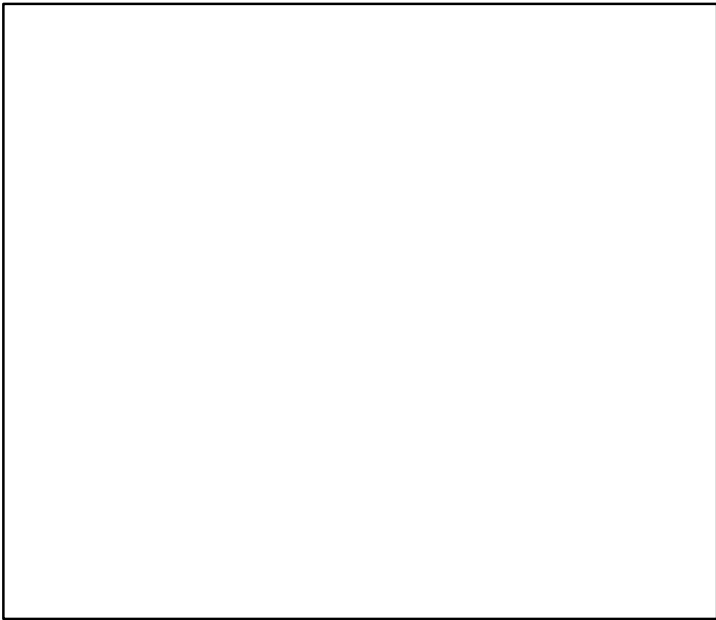
Kobe MSYpref (1945–2011–STARR)



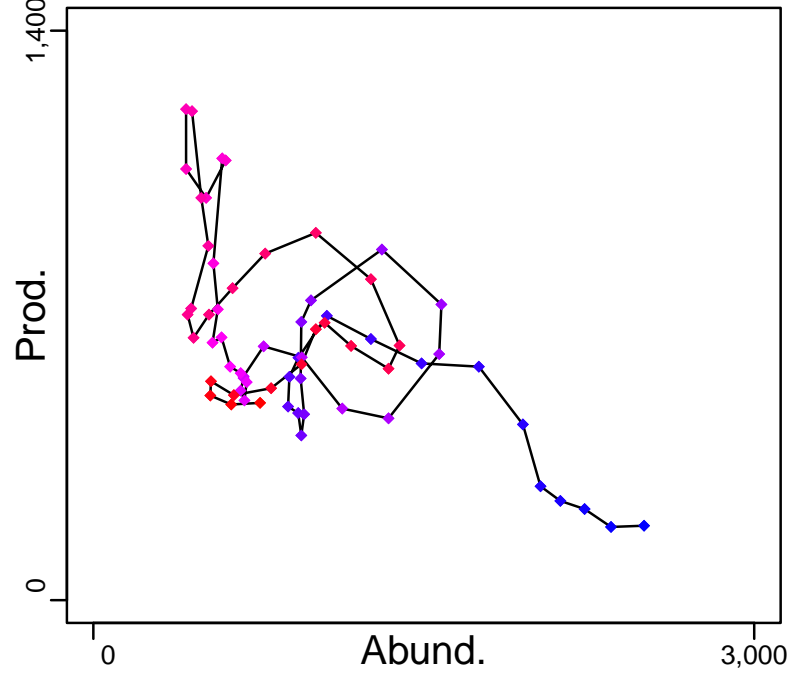
Kobe MGTpref (1945–2011–STARR)



Spawner Recruit*



Production (1945–2011–STARR)

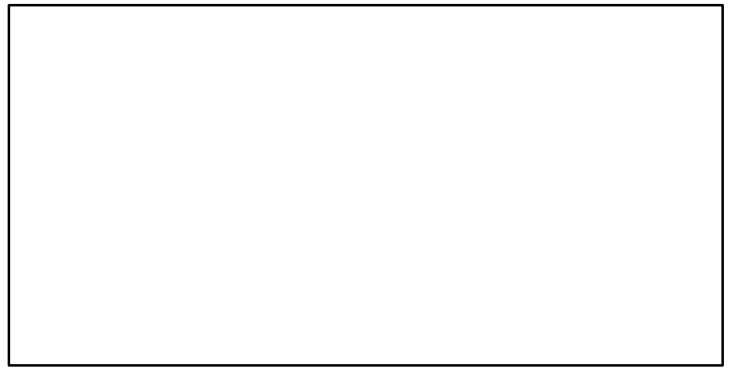
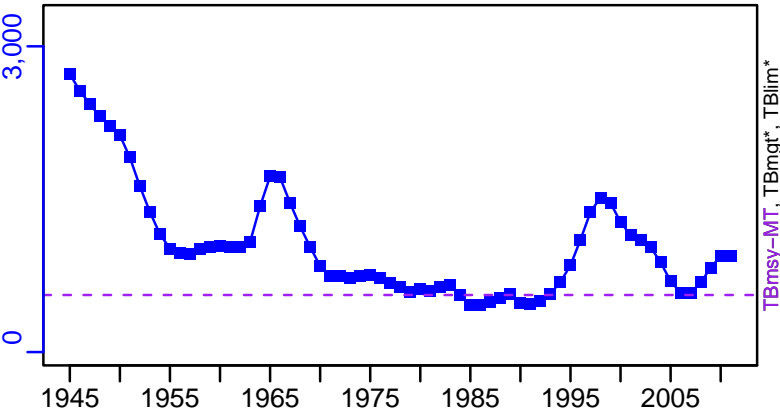


◆ Start Year ◆ End Year * No Data

Red rock lobster New Zealand Area CRA4 [RROCKLOBSTERCRA4]

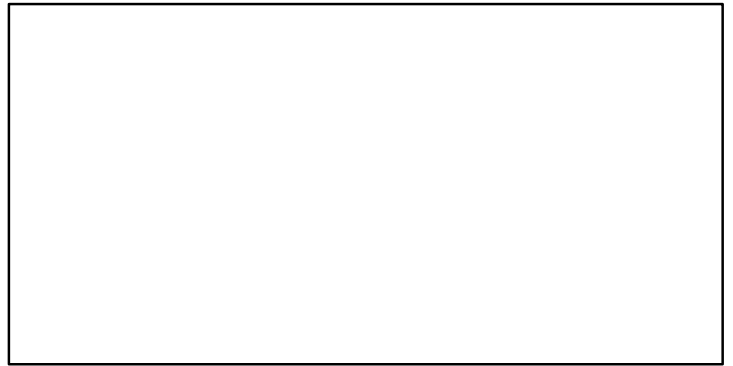
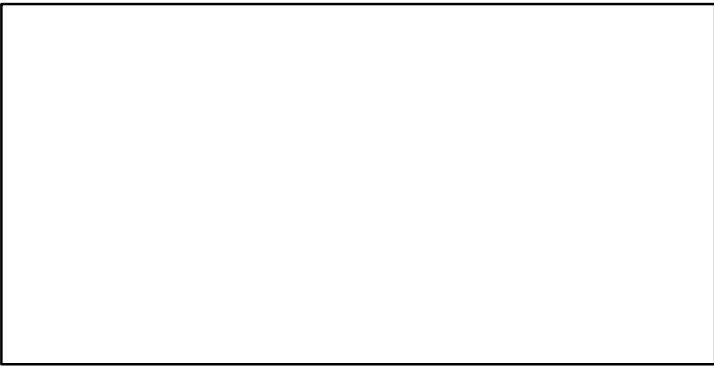
TB-MT (1945-2011-STARR)

SSB*



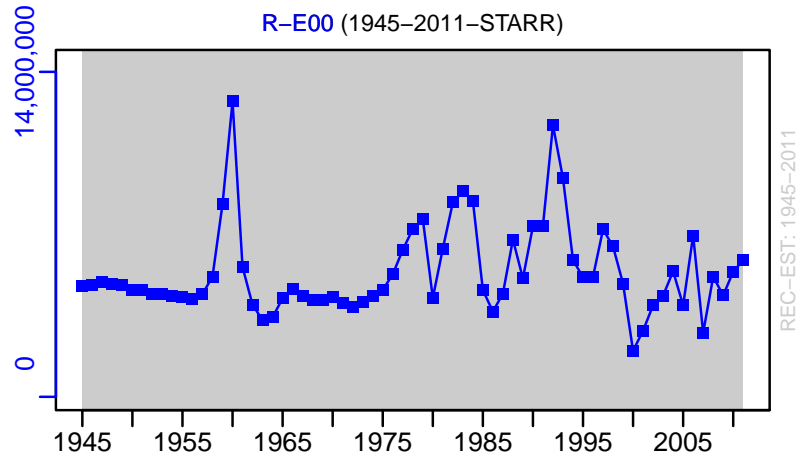
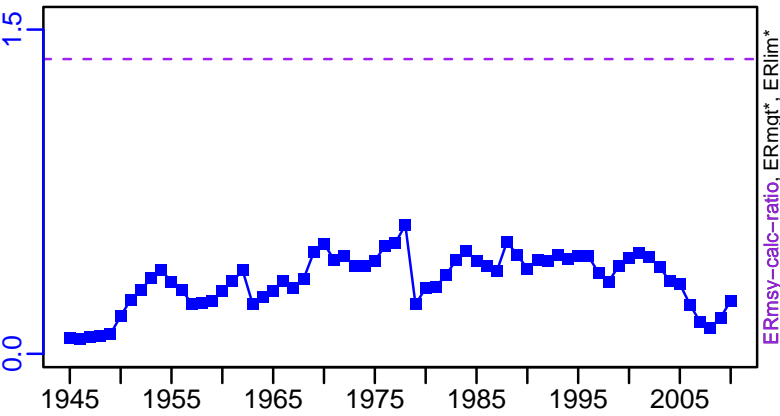
TN *

F*



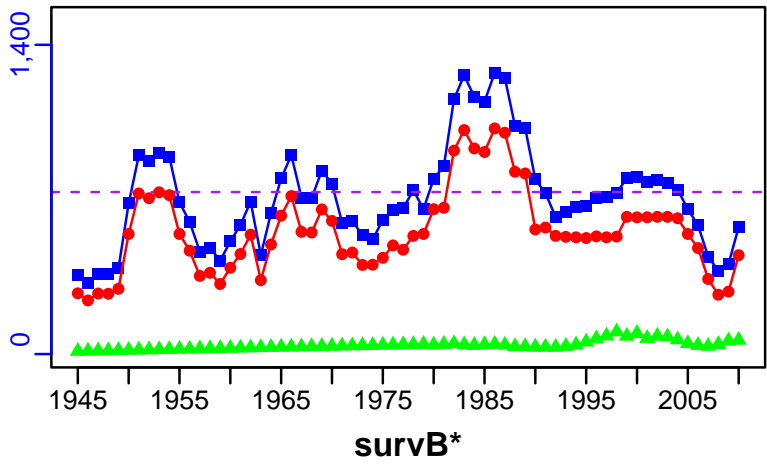
ER-ratio (1945-2011-STARR)

R-E00 (1945-2011-STARR)

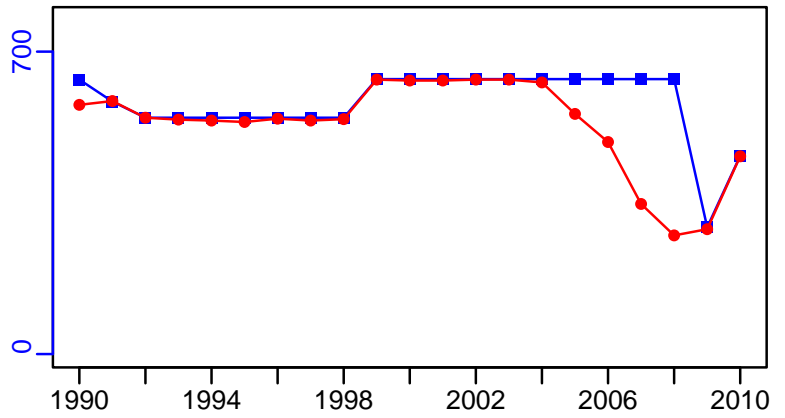


Red rock lobster New Zealand Area CRA4 [RROCKLOBSTERCRA4]

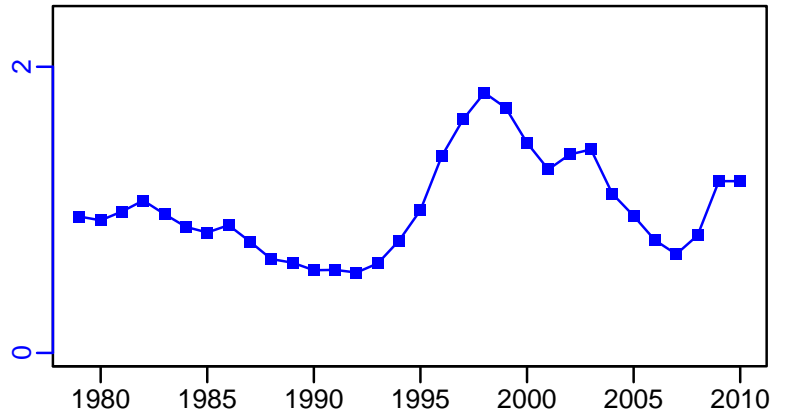
TC-MT, TL-MT, RecC-MT (1945-2011-STARR)



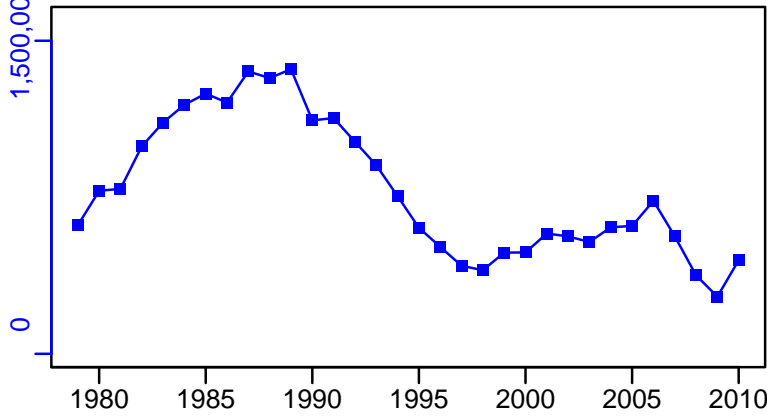
TAC-MT, Cpair-MT, Cadv* (1945-2011-STARR)



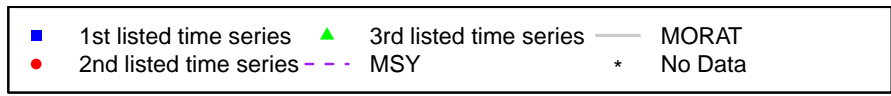
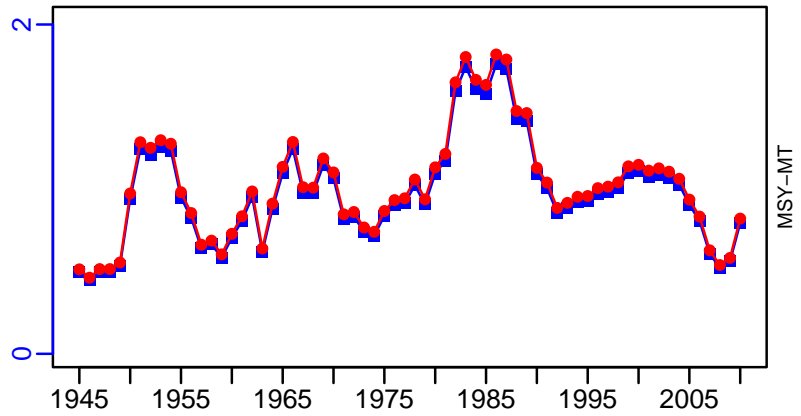
CPUE-kg/potlift (1945-2011-STARR)



EFFORT-potlift (1945-2011-STARR)



TC-MT/MSY-MT, CdivMEANC-ratio, (1945-2011-STARR)



Red rock lobster New Zealand Area CRA5 [RROCKLOBSTERCRA5]

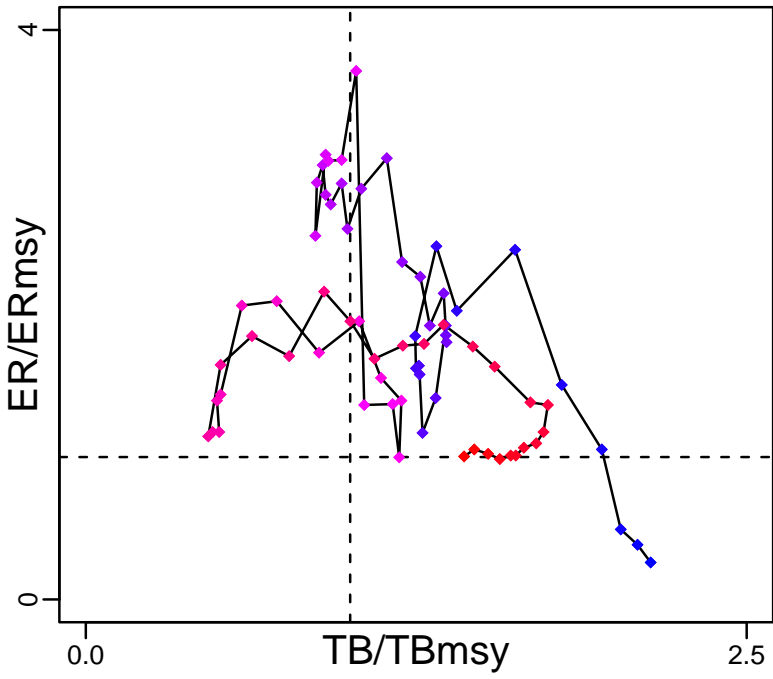
Metadata	
Scientific Name	Jasus edwardsii
Current Assess ID	NZMFishLOBSTERWG-RROCKLOBSTERCRA5-1945-2015-STARR
Area	New Zealand Area CRA5
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Lobster Working Group
Asmts in RAM	2002, 2015

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2015	560
M	M-1/yr	2015	0.132
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

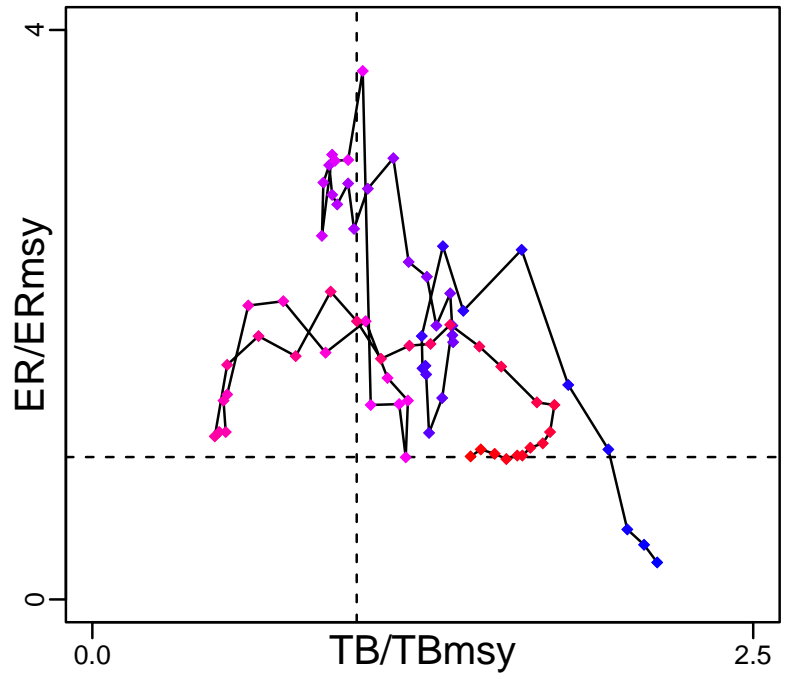
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2015	5050	Both	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	R-E00	2015	1,010,000	Both	-
F	-	-	-	-	-
ER	ER-ratio	2015	0.164	Both	-
TC	TC-MT	2015	472		
TL	TL-MT	2015	349		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Red rock lobster New Zealand Area CRA5 [RROCKLOBSTERCRA5]

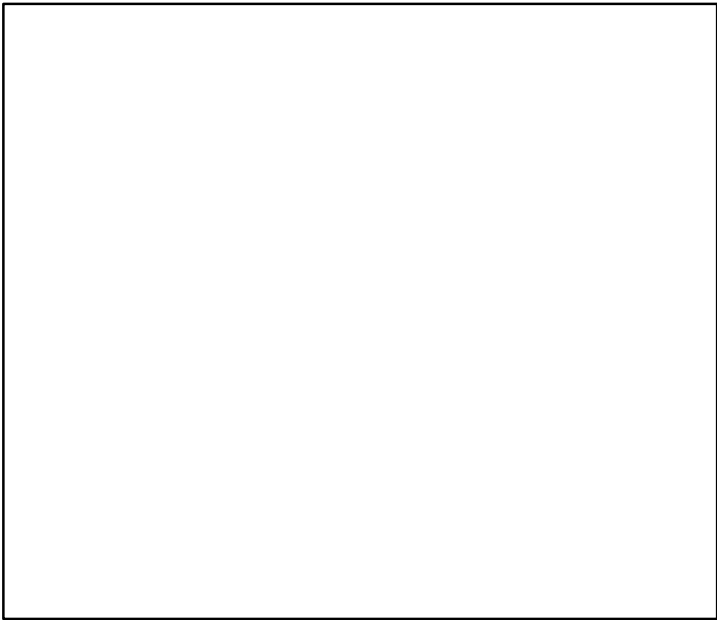
Kobe MSYpref (1945–2015–STARR)



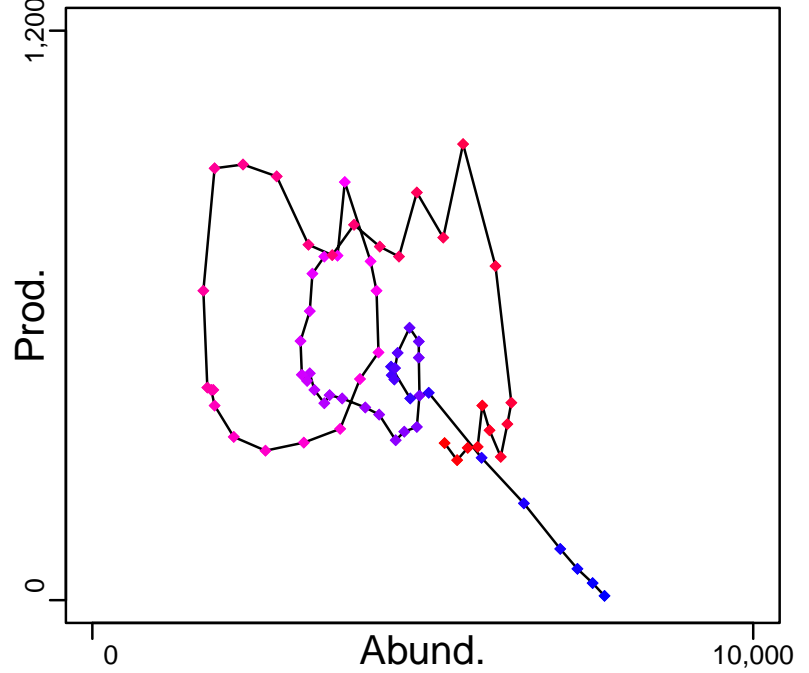
Kobe MGTpref (1945–2015–STARR)



Spawner Recruit*



Production (1945–2015–STARR)

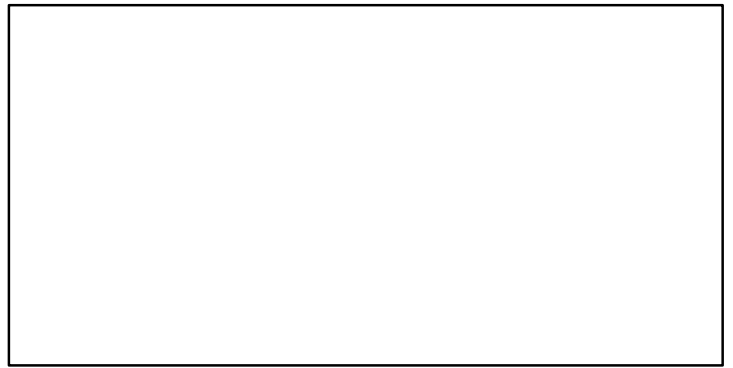
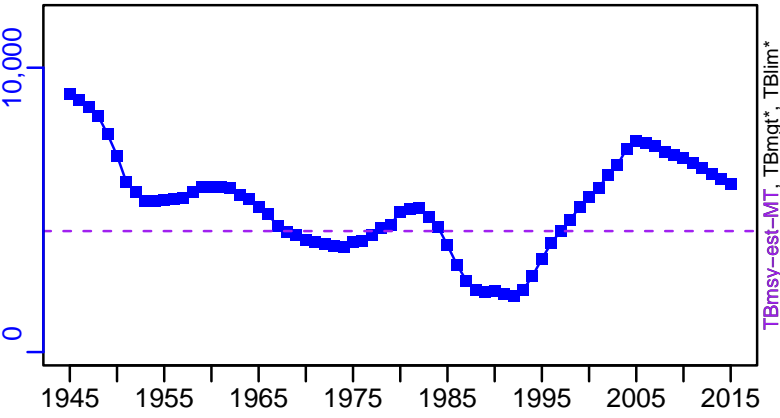


◆ Start Year ◆ End Year * No Data

Red rock lobster New Zealand Area CRA5 [RROCKLOBSTERCRA5]

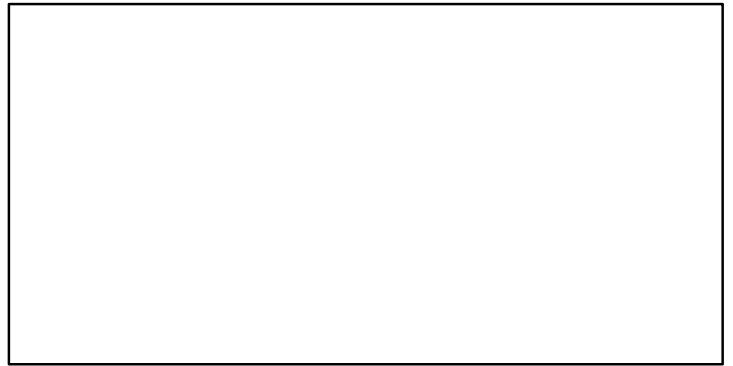
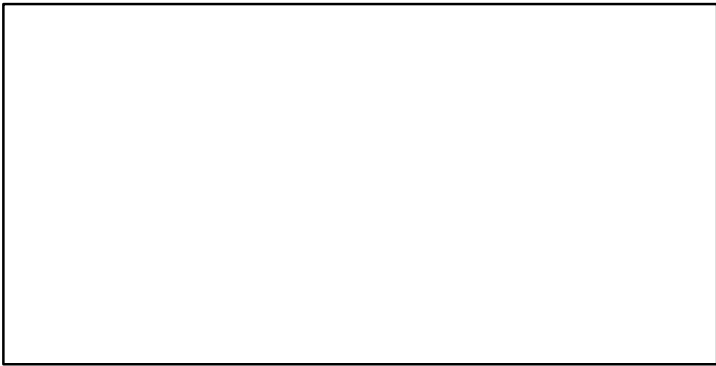
TB-MT (1945-2015-STARR)

SSB*



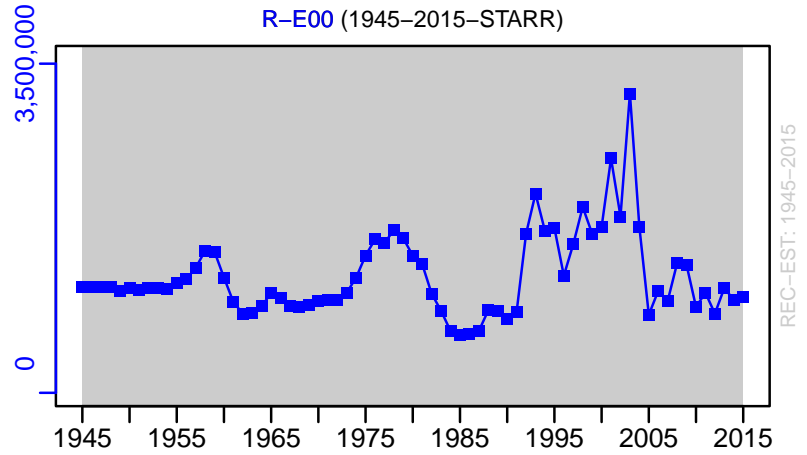
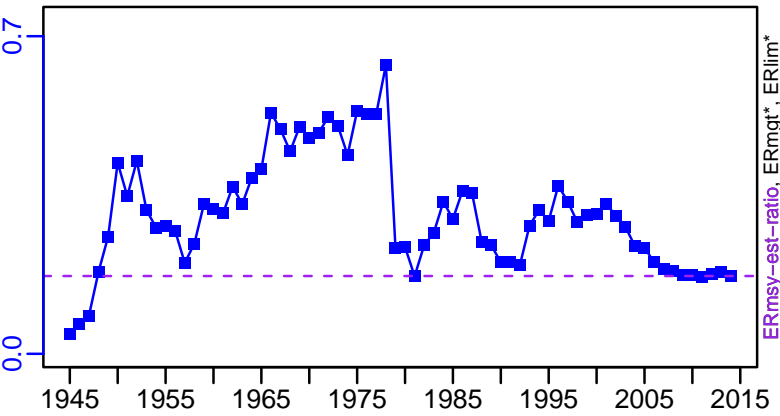
TN *

F*



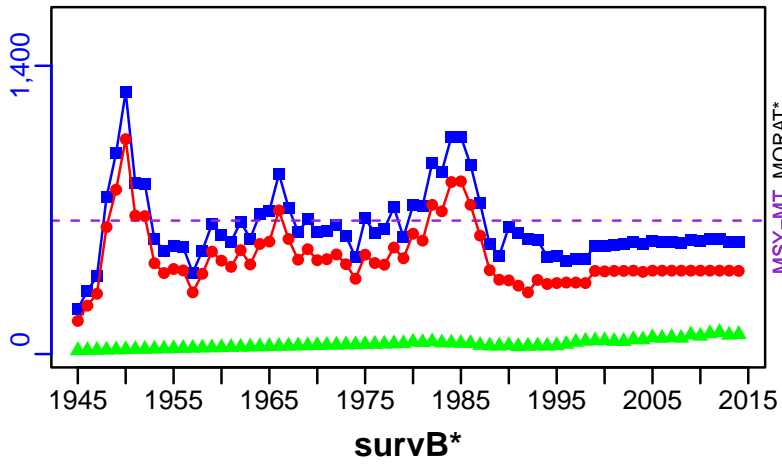
ER-ratio (1945-2015-STARR)

R-E00 (1945-2015-STARR)

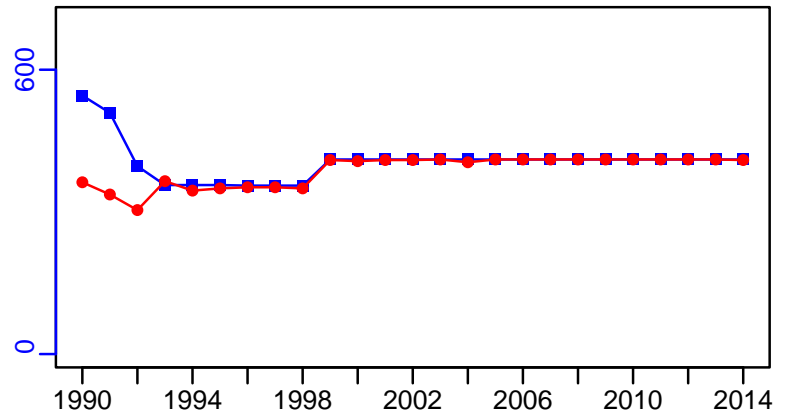


Red rock lobster New Zealand Area CRA5 [RROCKLOBSTERCRA5]

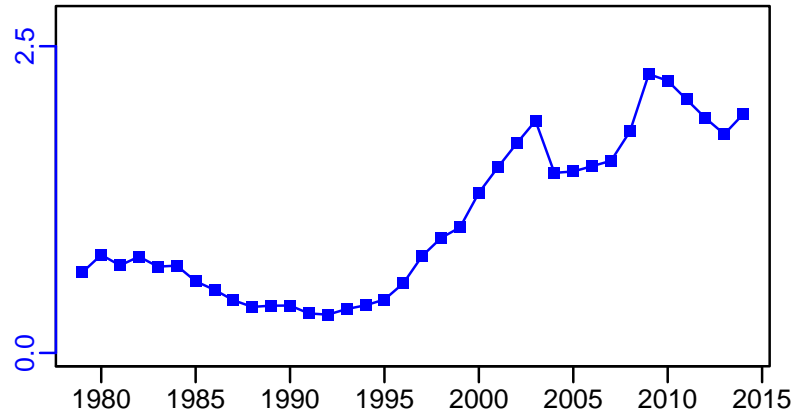
TC-MT, TL-MT, RecC-MT (1945-2015-STARR)



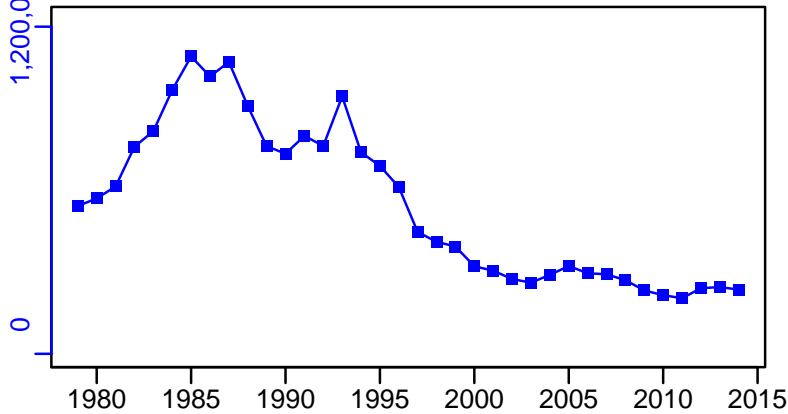
TAC-MT, Cpair-MT, Cadv* (1945-2015-STARR)



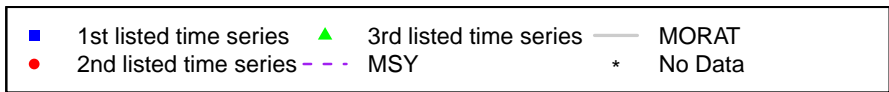
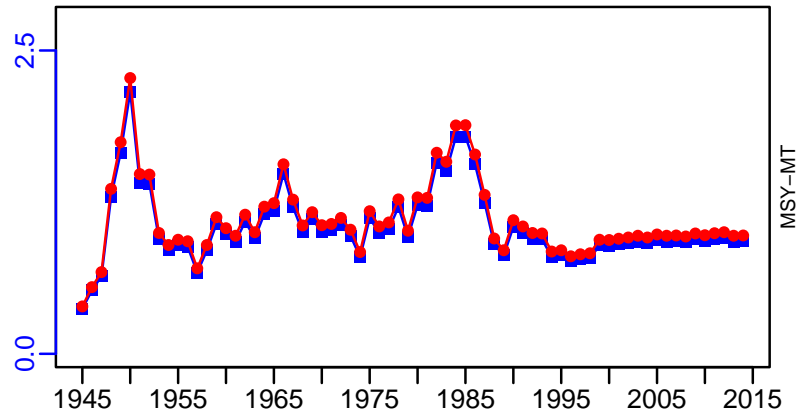
CPUE-kg/potlift (1945-2015-STARR)



EFFORT-potlift (1945-2015-STARR)



TC-MT/MSY-MT, CdivMEANC-ratio, (1945-2015-STARR)



Red rock lobster New Zealand Area CRA7 [RROCKLOBSTERCRA7]

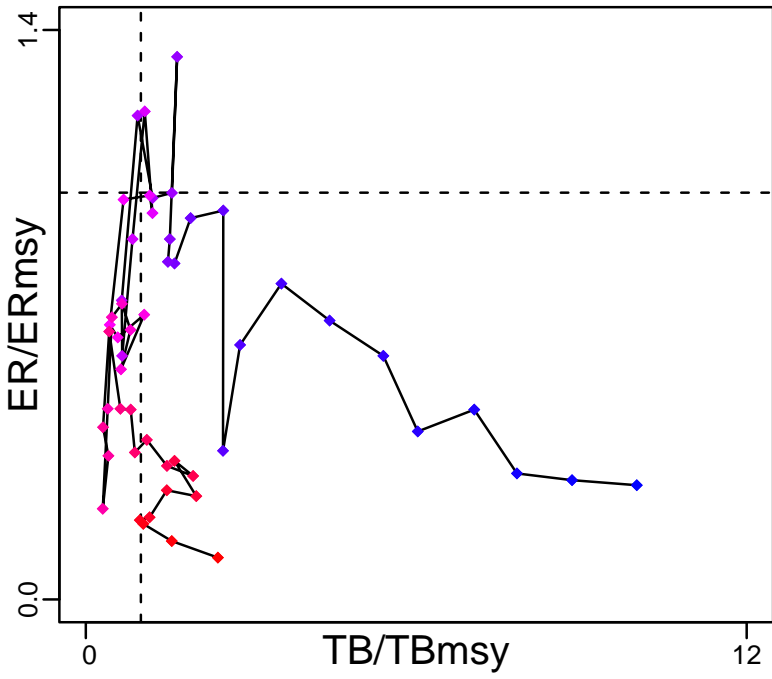
Metadata	
Scientific Name	Jasus edwardsii
Current Assess ID	NZMFishLOBSTERWG-RROCKLOBSTERCRA7-1963-2015-STARR
Area	New Zealand Area CRA7
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Lobster Working Group
Asmts in RAM	2015, 2005

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2015	400
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	ERmsy-calc-ratio	2015	0.484
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2015	194
M	M-1/yr	2015	0.103
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

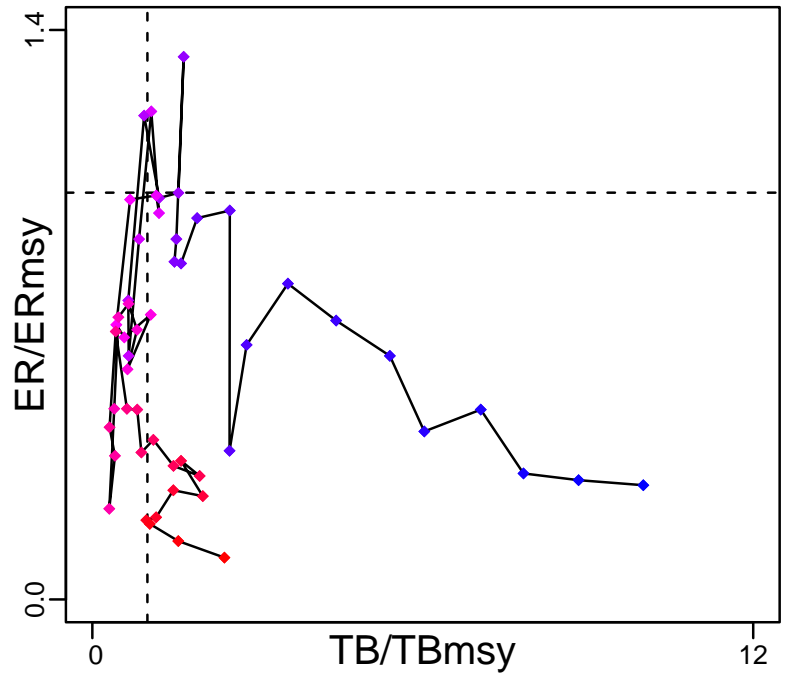
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2015	962	Both	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	R-E00	2015	871,000	Both	-
F	-	-	-	-	-
ER	ER-ratio	2015	0.05	Both	-
TC	TC-MT	2015	75		
TL	TL-MT	2015	66		
TB/TBmsy	TB-MT/TBmsy-MT	2015	2.406		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	ER-ratio/ERmsy-calc-ratio	2015	0.103		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Red rock lobster New Zealand Area CRA7 [RROCKLOBSTERCRA7]

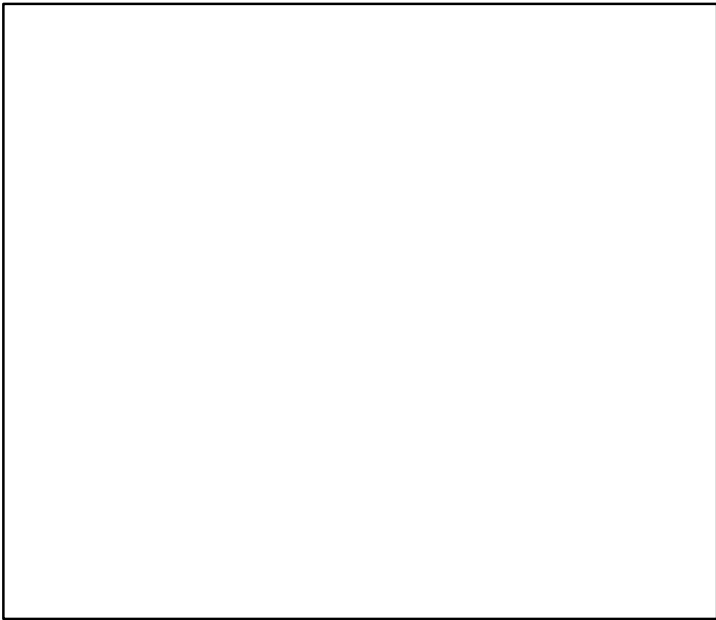
Kobe MSYpref (1963–2015–STARR)



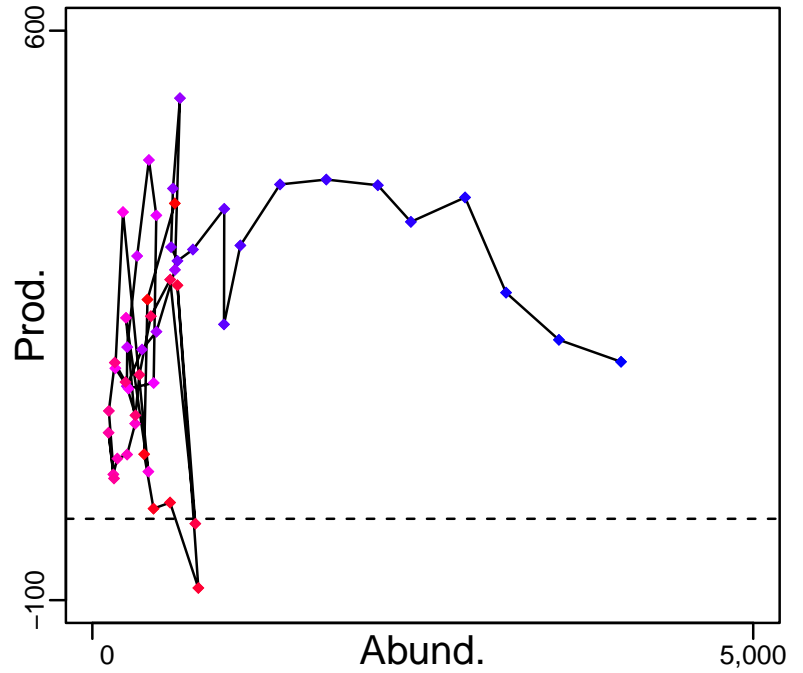
Kobe MGTpref (1963–2015–STARR)



Spawner Recruit*



Production (1963–2015–STARR)

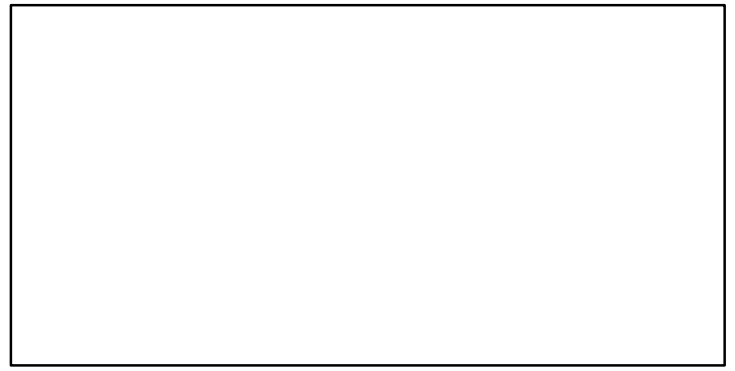
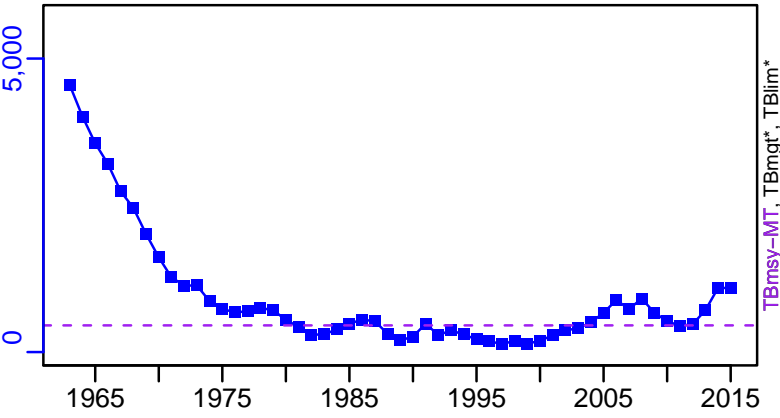


◆ Start Year ◆ End Year * No Data

Red rock lobster New Zealand Area CRA7 [RROCKLOBSTERCRA7]

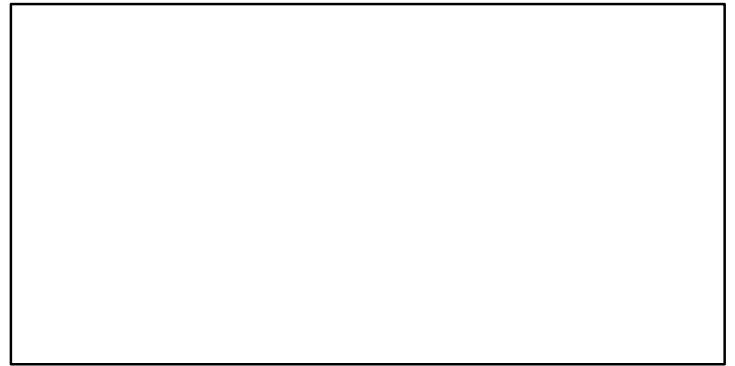
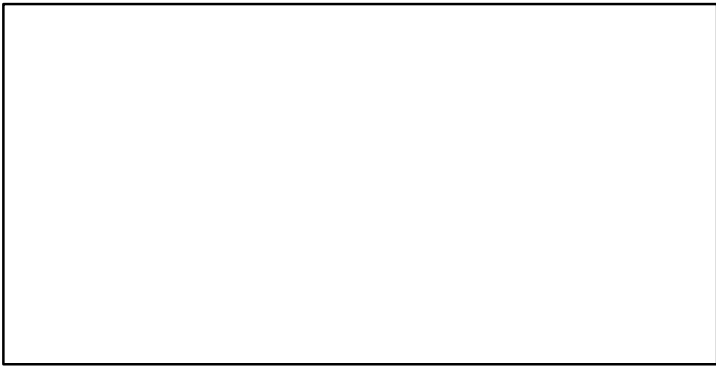
TB-MT (1963-2015-STARR)

SSB*



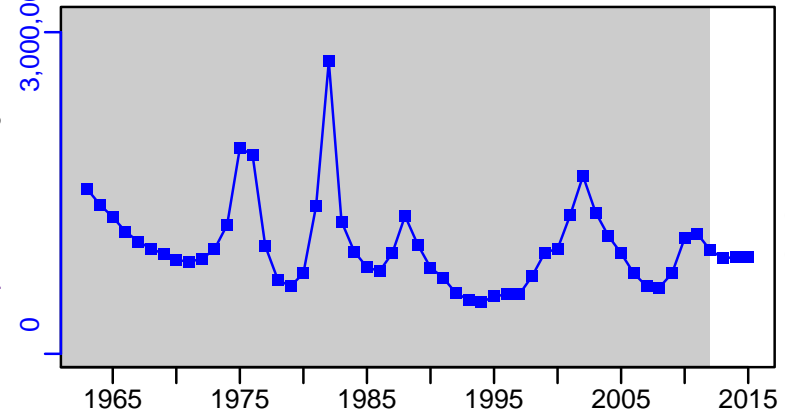
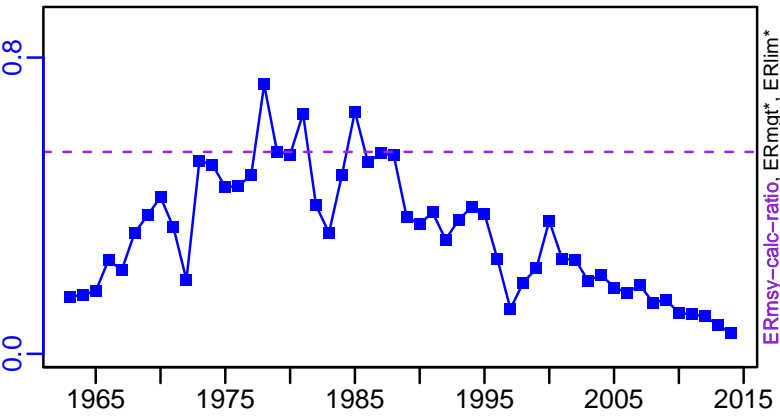
TN *

F*



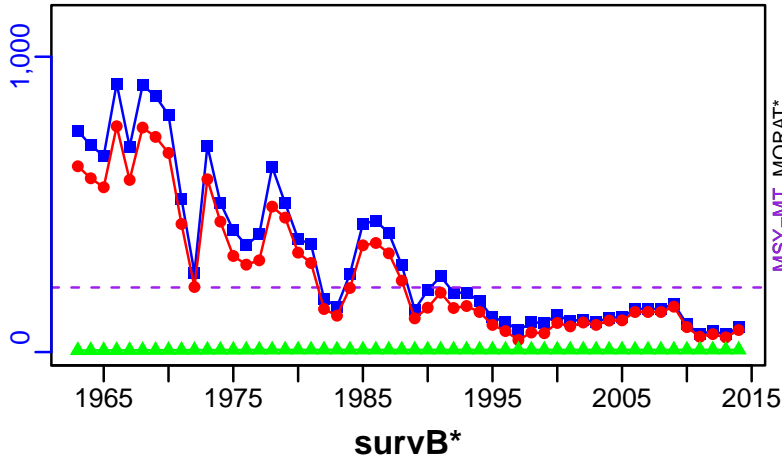
ER-ratio (1963-2015-STARR)

R-E00 (1963-2015-STARR)

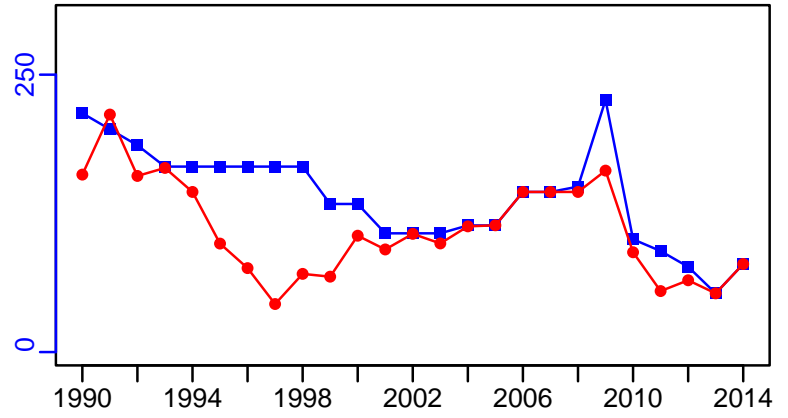


Red rock lobster New Zealand Area CRA7 [RROCKLOBSTERCRA7]

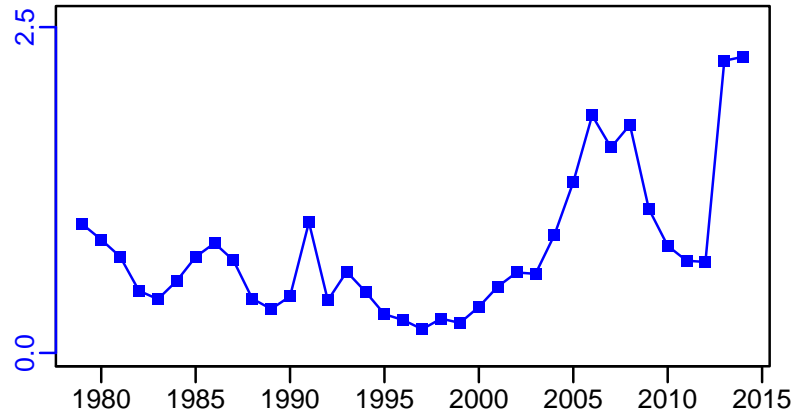
TC-MT, TL-MT, RecC-MT (1963-2015-STARR)



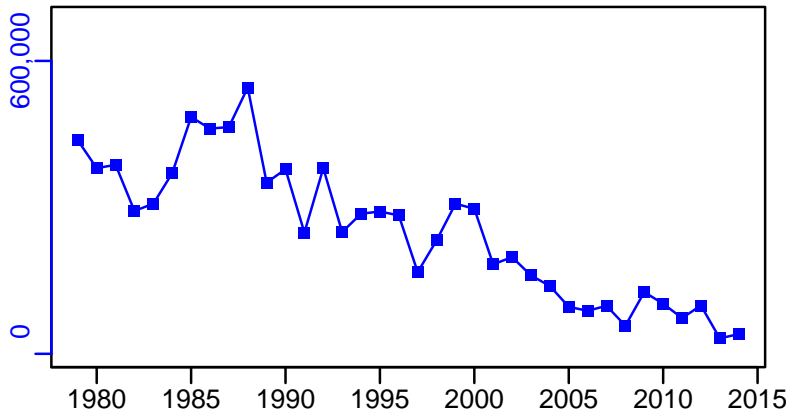
TAC-MT, Cpair-MT, Cadv* (1963-2015-STARR)



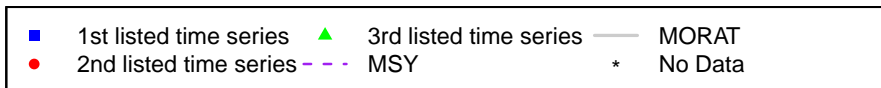
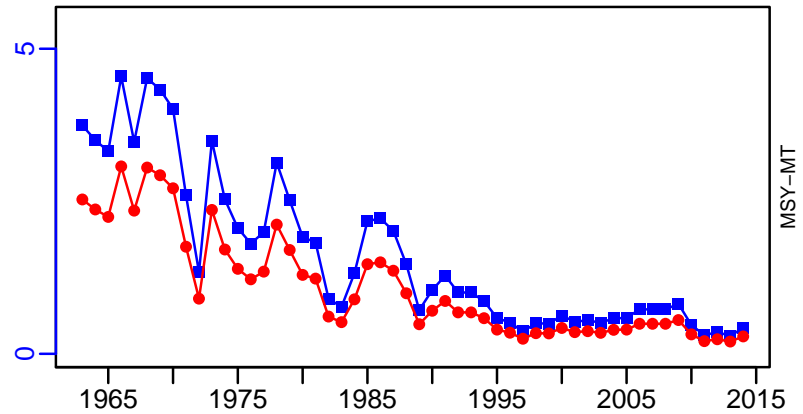
CPUE-kg/potlift (1963-2015-STARR)



EFFORT-potlift (1963-2015-STARR)



TC-MT/MSY-MT, CdivMEANC-ratio, (1963-2015-STARR)



Red rock lobster New Zealand Area CRA8 [RROCKLOBSTERCRA8]

Metadata	
Scientific Name	Jasus edwardsii
Current Assess ID	NZMFishLOBSTERWG-RROCKLOBSTERCRA8-1963-2015-STARR
Area	New Zealand Area CRA8
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Lobster Working Group
Asmts in RAM	2015, 2005

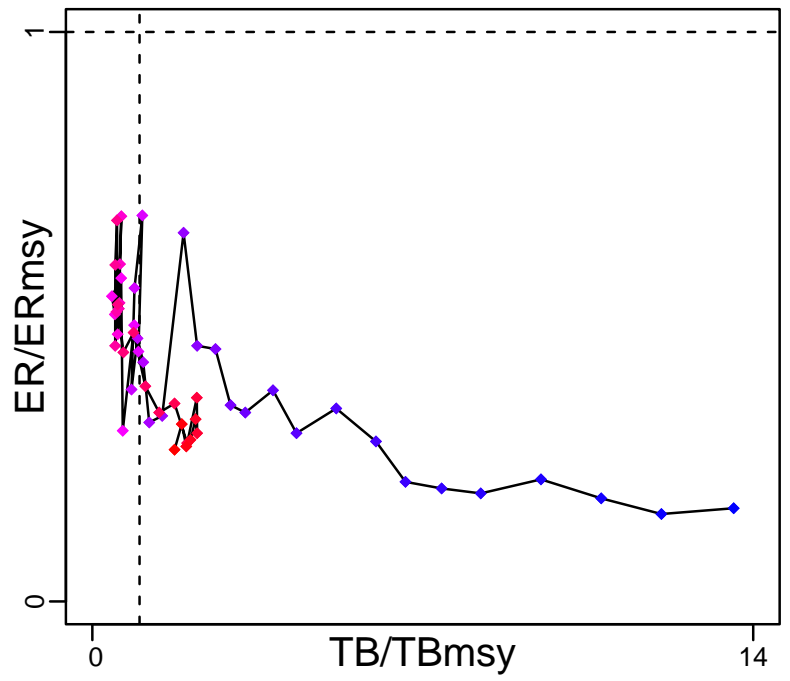
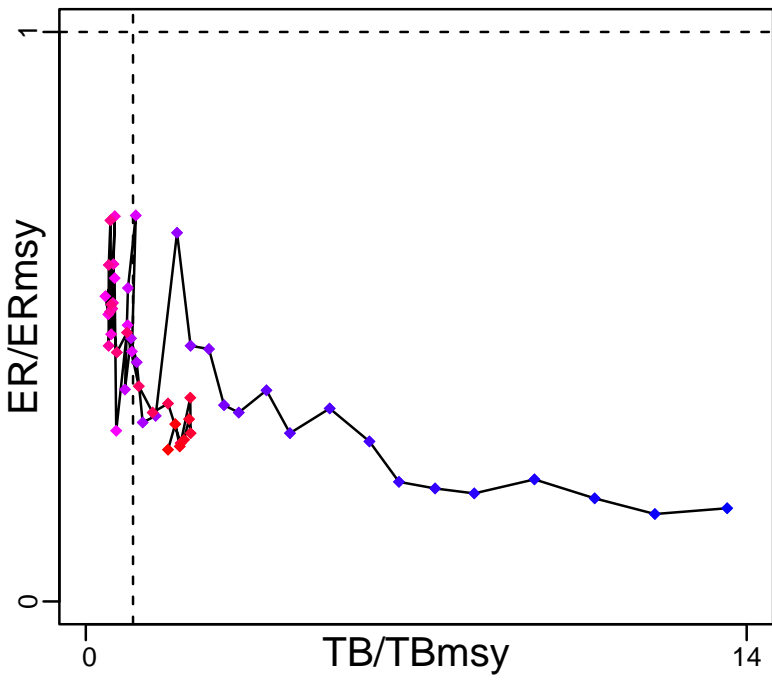
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2015	1568
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	ERmsy-calc-ratio	2015	0.69
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2015	1083
M	M-1/yr	2015	0.095
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2015	2630	Both	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	R-E00	2015	1,140,000	Both	-
F	-	-	-	-	-
ER	ER-ratio	2015	0.184	Both	-
TC	TC-MT	2015	1010		
TL	TL-MT	2015	960		
TB/TBmsy	TB-MT/TBmsy-MT	2015	1.678		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	ER-ratio/ERmsy-calc-ratio	2015	0.266		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

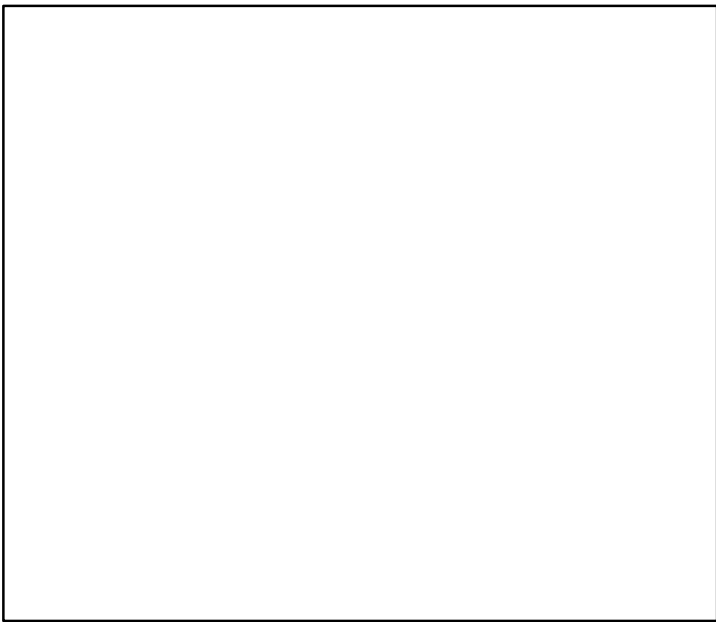
Red rock lobster New Zealand Area CRA8 [RROCKLOBSTERCRA8]

Kobe MSYpref (1963–2015–STARR)

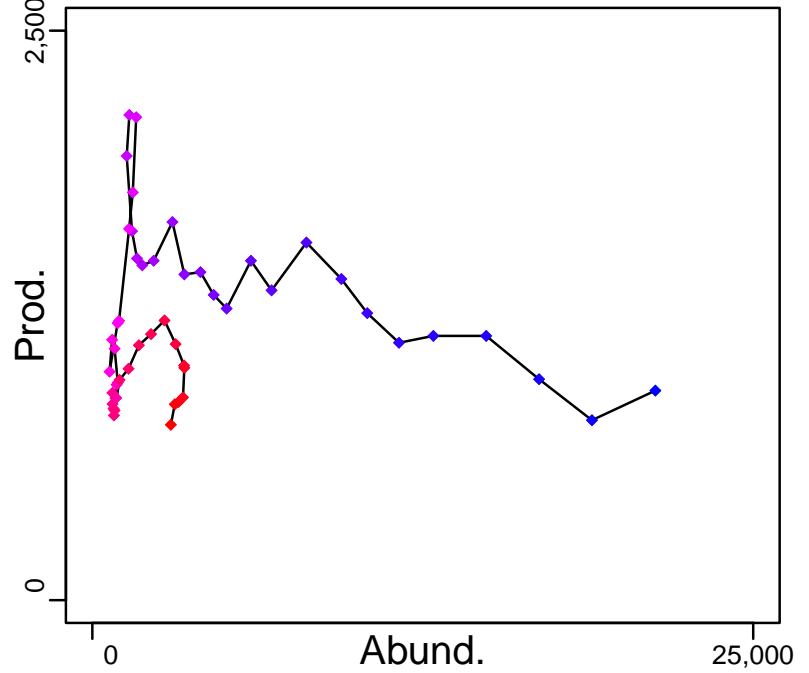
Kobe MGTpref (1963–2015–STARR)



Spawner Recruit*



Production (1963–2015–STARR)

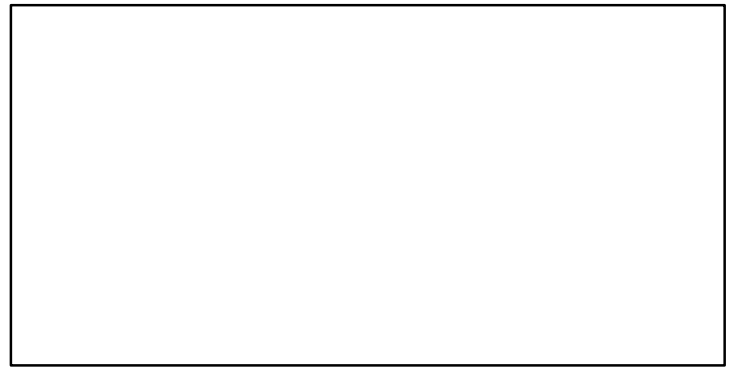
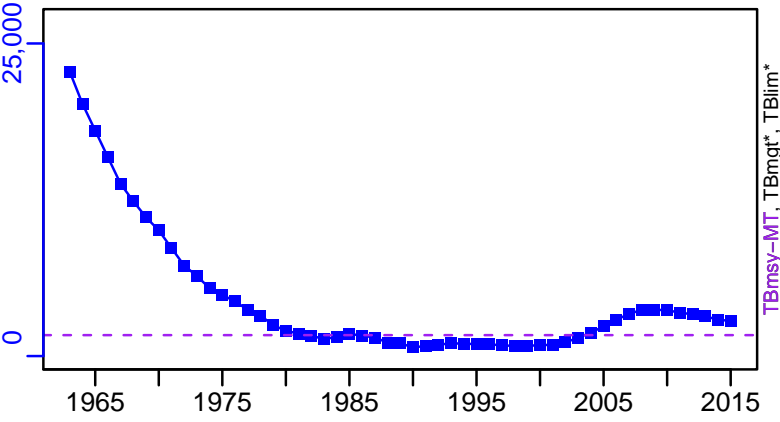


◆ Start Year ◆ End Year * No Data

Red rock lobster New Zealand Area CRA8 [RROCKLOBSTERCRA8]

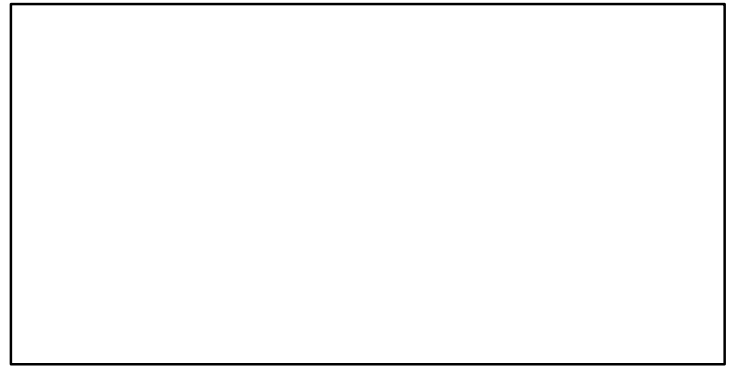
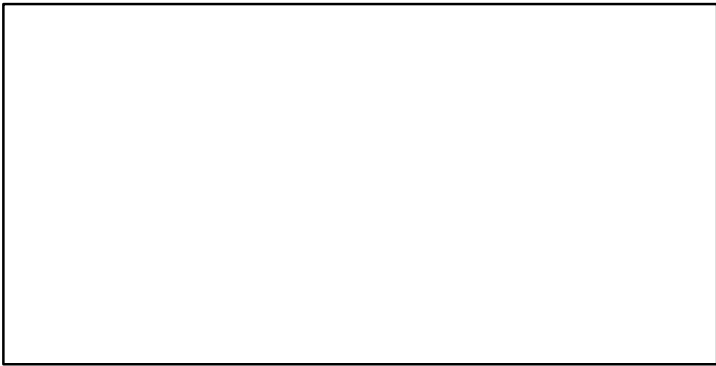
TB-MT (1963-2015-STARR)

SSB*



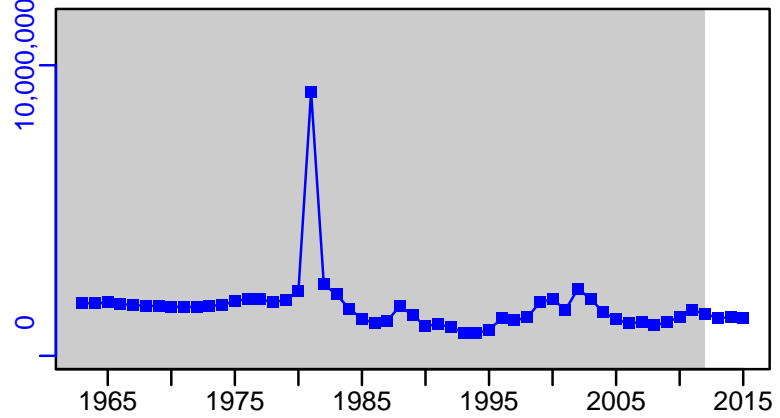
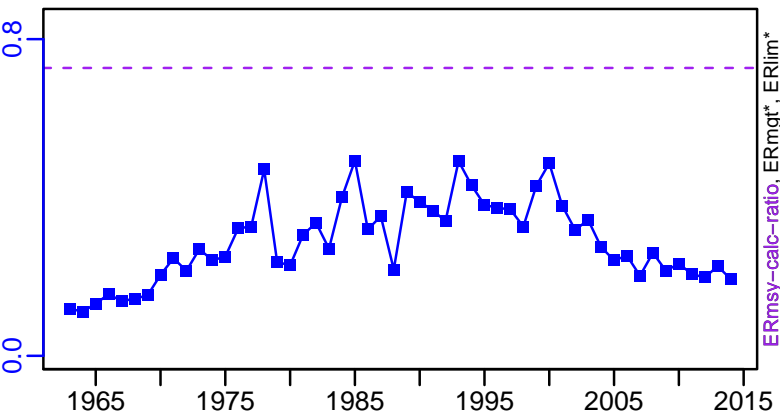
TN *

F*



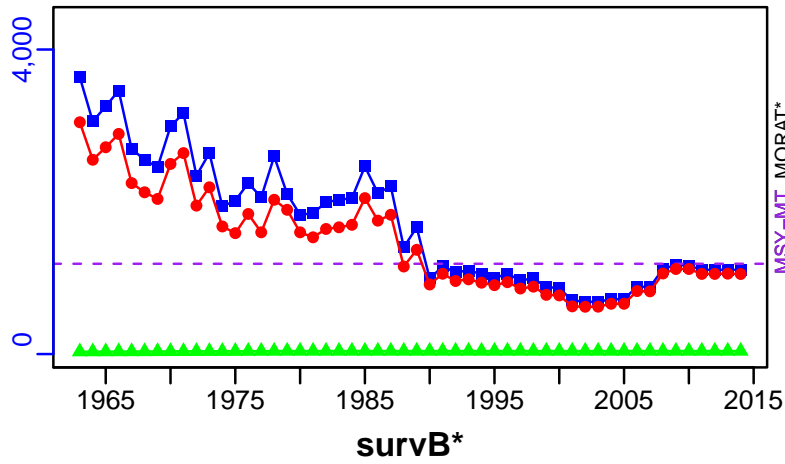
ER-ratio (1963-2015-STARR)

R-E00 (1963-2015-STARR)

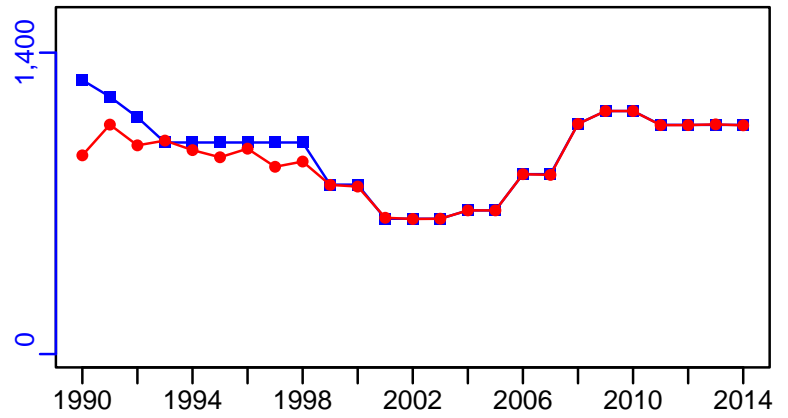


Red rock lobster New Zealand Area CRA8 [RROCKLOBSTERCRA8]

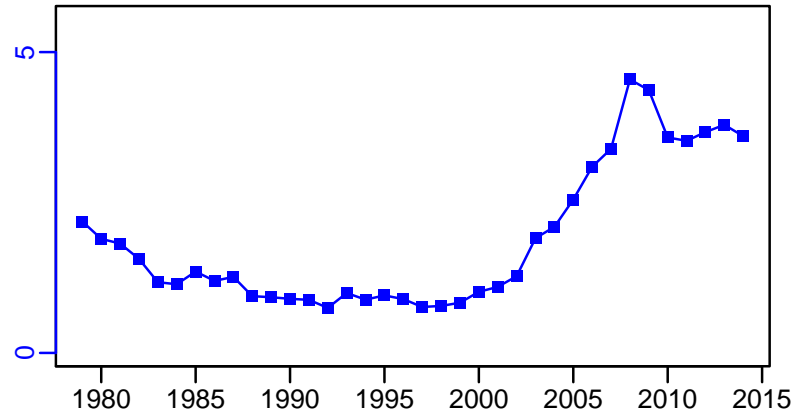
TC-MT, TL-MT, RecC-MT (1963-2015-STARR)



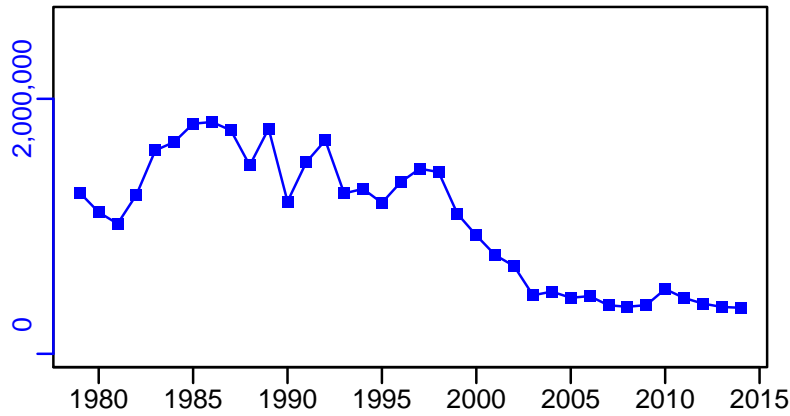
TAC-MT, Cpair-MT, Cadv* (1963-2015-STARR)



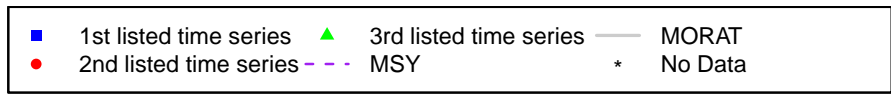
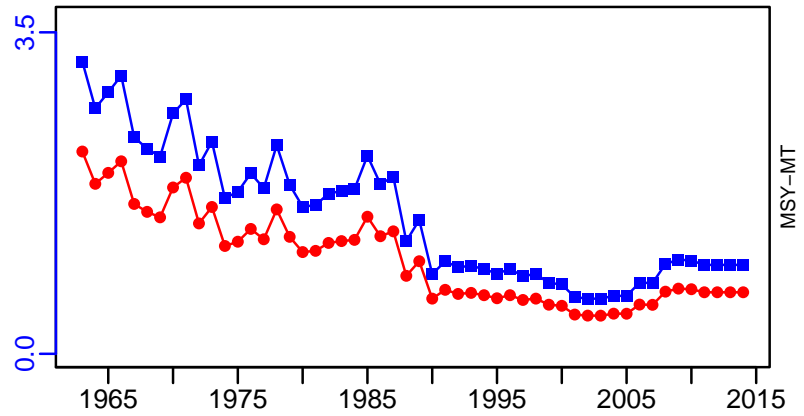
CPUE-kg/potlift (1963-2015-STARR)



EFFORT-potlift (1963-2015-STARR)



TC-MT/MSY-MT, CdivMEANC-ratio, (1963-2015-STARR)



Southern blue whiting Campbell Island Rise [SBWHITACIR]

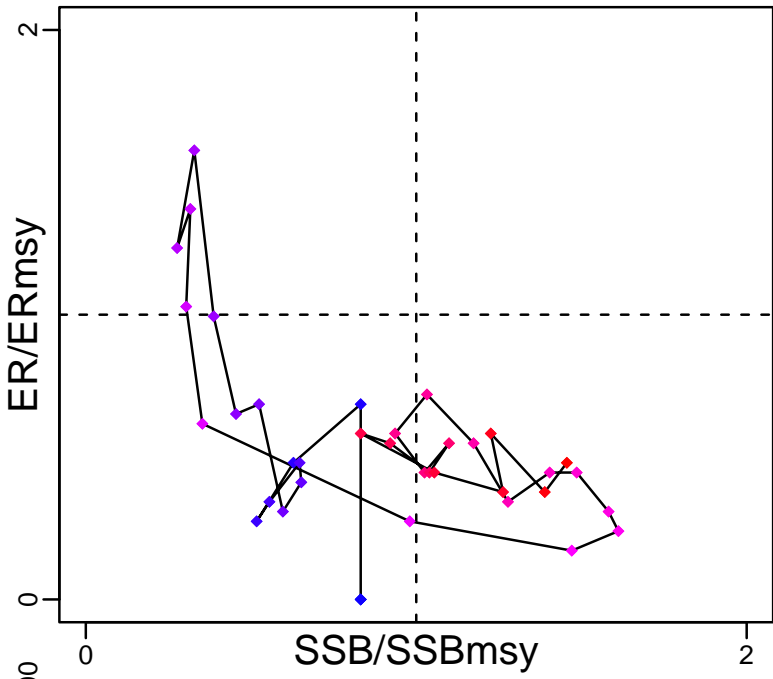
Metadata	
Scientific Name	Micromesistius australis
Current Assess ID	NZMFishMIDDEPTHSWG-SBWHITACIR-1977-2013-FU
Area	Campbell Island Rise
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Middle Depths Working Group
Asmts in RAM	2013, 2011

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2013	134,634
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2013	134,634
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2013	336,585
MSY	-	-	-
M	M-1/yr	2013	0.2
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

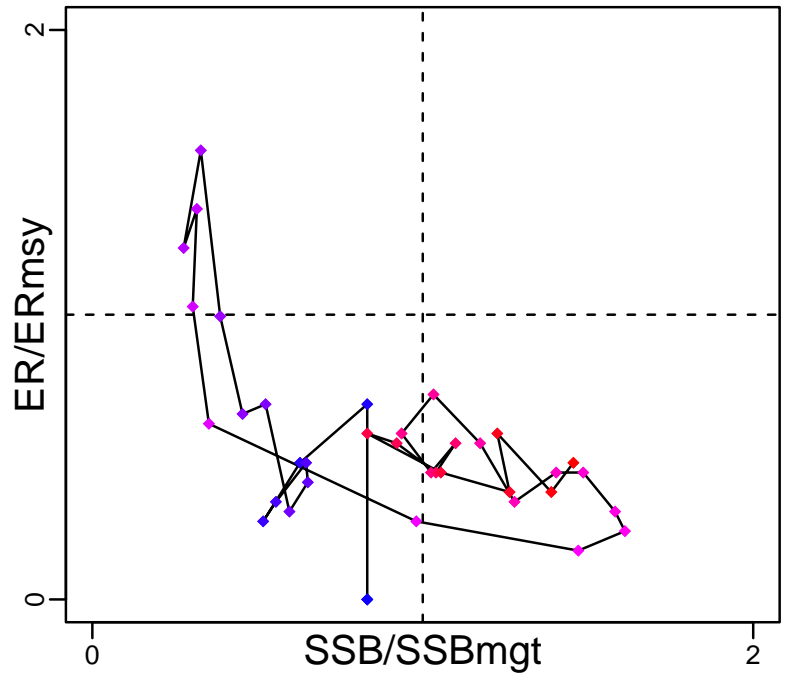
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2013	196,000	-	2 to 15
TN	-	-	-	-	-
R	R-E00	2013	1.33×10^8	Both	-
F	F-1/yr	2011	0.145	-	-
ER	ER-ratio	2013	0.14	Both	2 to 15
TC	TC-MT	2013	28,600		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013	1.456		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2013	1.456		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Southern blue whiting Campbell Island Rise [SBWHITACIR]

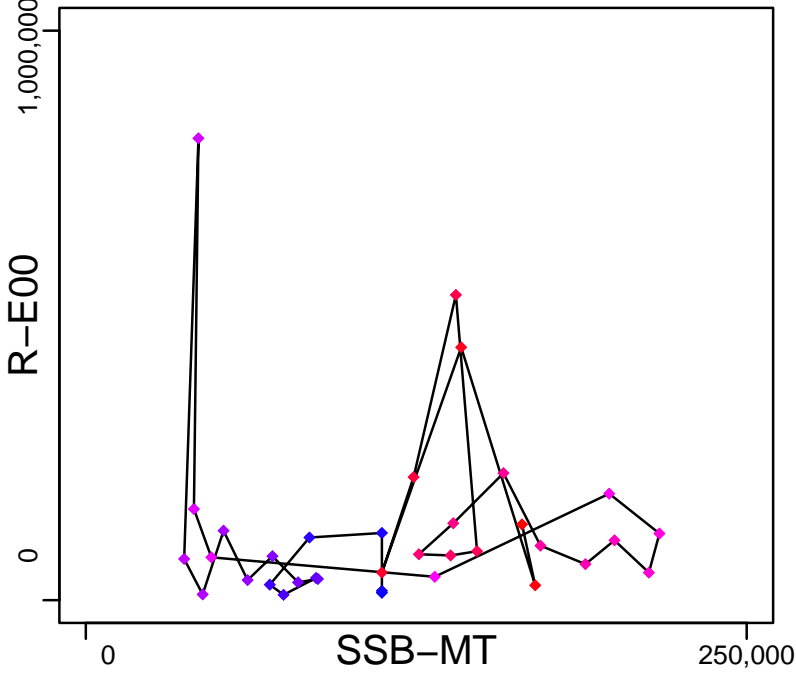
Kobe MSYpref (1977–2013–FU)



Kobe MGTpref (1977–2013–FU)



Spawner Recruit (1977–2013–FU)



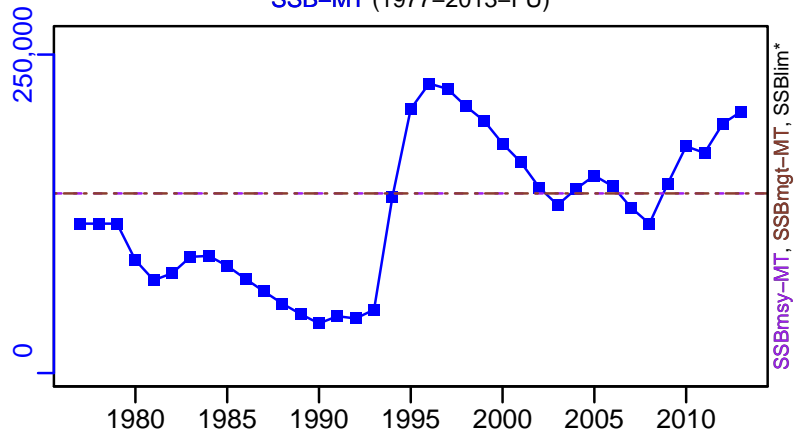
◆ Start Year ◆ End Year * No Data

Southern blue whiting Campbell Island Rise [SBWHITACIR]

TB*



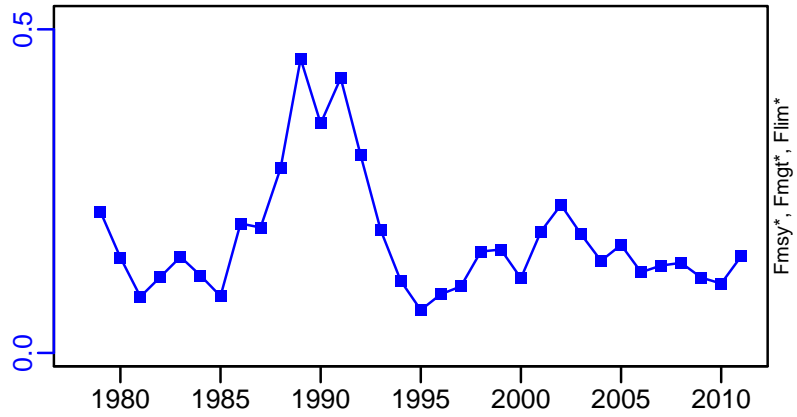
SSB-MT (1977-2013-FU)



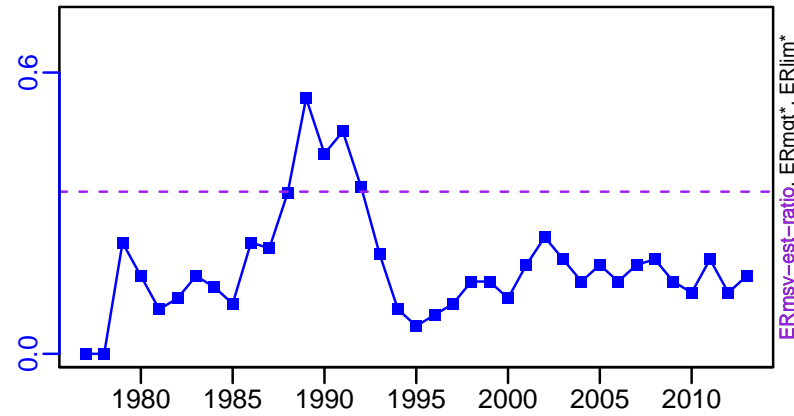
TN *



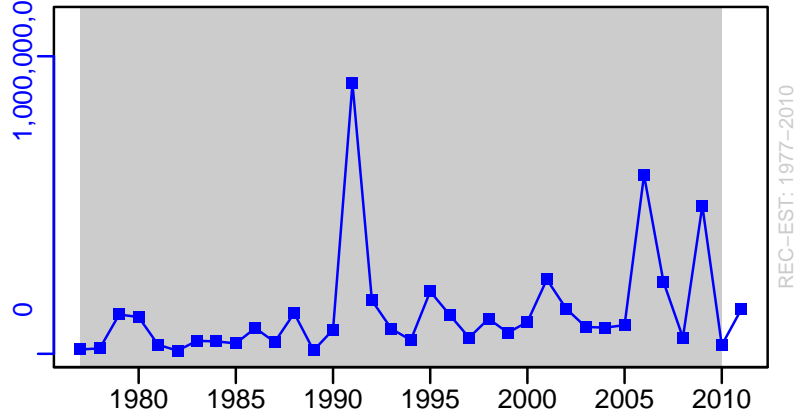
F-1/yr (1978-2011-CHING)



ER-ratio (1977-2013-FU)



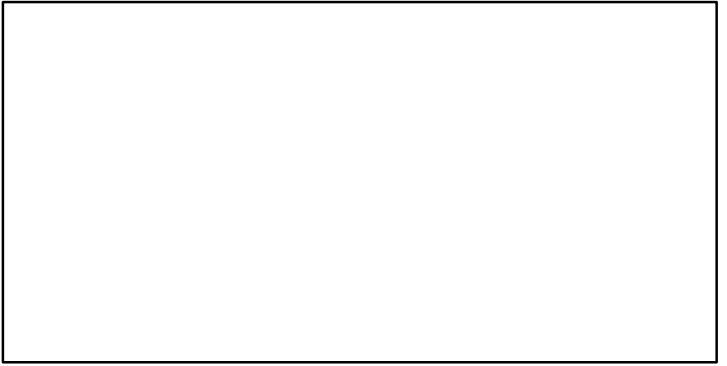
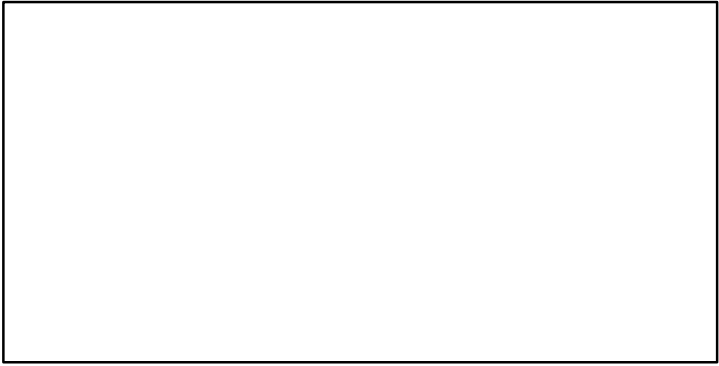
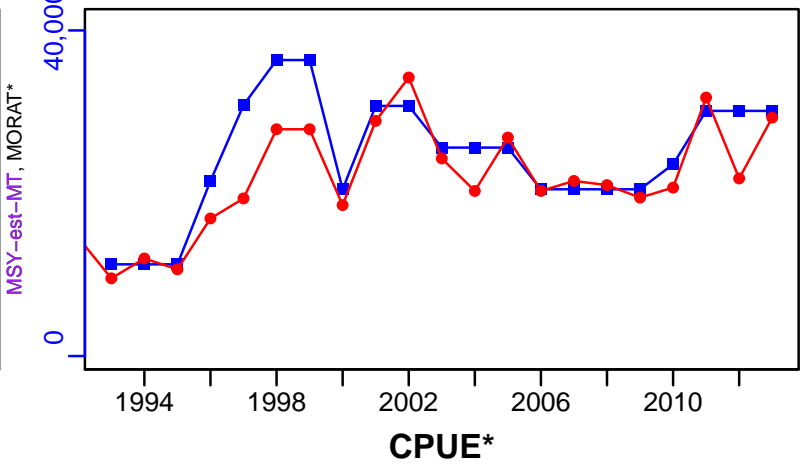
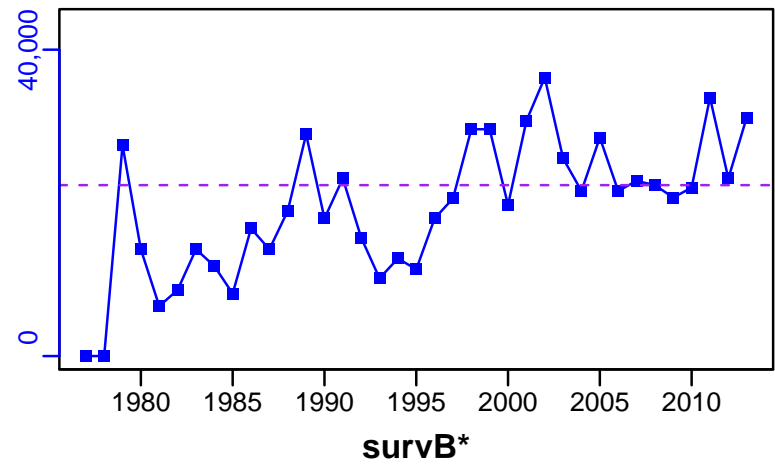
R-E00 (1977-2013-FU)



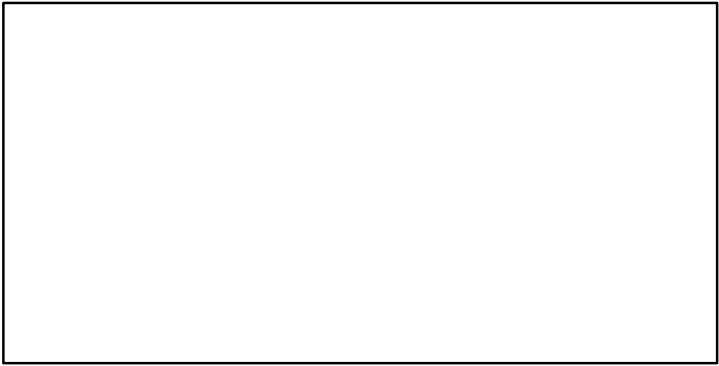
Southern blue whiting Campbell Island Rise [SBWHITACIR]

TC-MT, TL*, RecC* (1977-2013-FU)

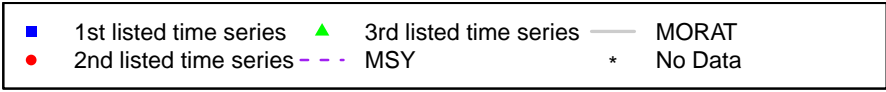
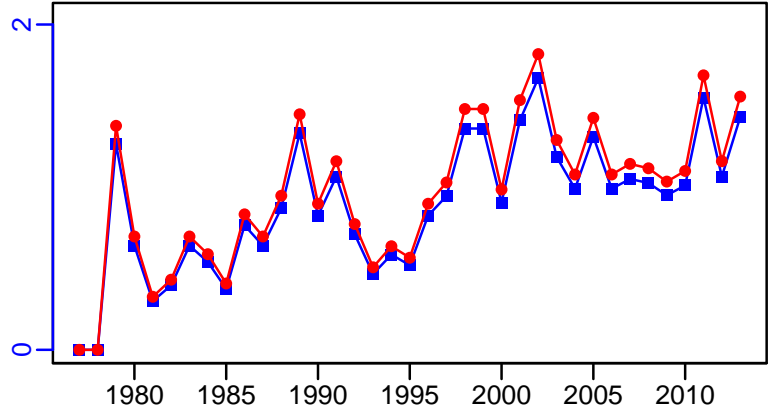
TAC-MT, Cpair-MT, Cadv* (1977-2013-FU)



EFFORT*



TC-MT/MSY-est-MT, CdivMEANC-ratio, (1977-2013-FU)



Scampi Bay of Plenty [SCMPBP]

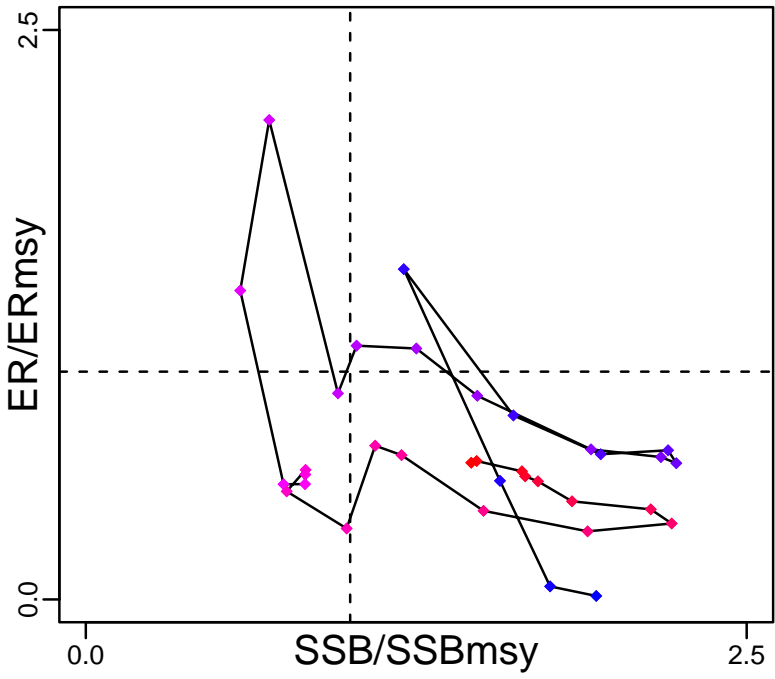
Metadata	
Scientific Name	Metanephrops challengeri
Current Assess ID	NIWA-SCMPBP-1985-2021-MCGREGOR
Area	Bay of Plenty
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2010, 2012, 2019, 2021

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2012	3805
SSBmsy	SSBmsy-MT	2021	720
Fmsy	Fmsy-1/yr	2010	0.54
ERmsy	ERmsy-ratio	2012	0.09
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2021	720
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2021	1800
MSY	MSY-MT	2012	342
M	M-1/yr	2021	0.25
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

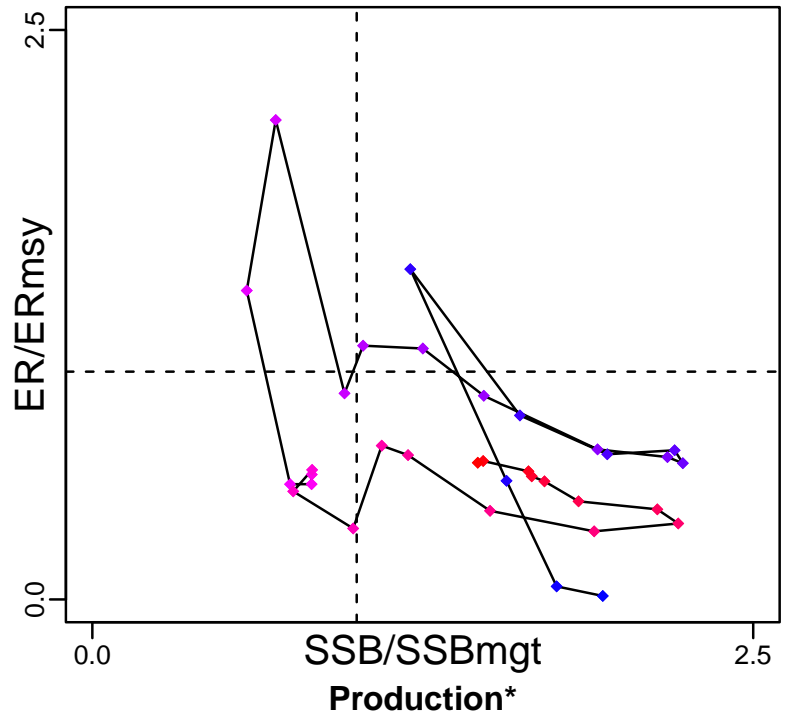
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2021	1050	-	-
TN	-	-	-	-	-
R	R-E00	2021	7,357,490	-	-
F	F-1/yr	2012	0.15	Females	-
ER	ER-ratio	2021	0.141	-	-
TC	TC-MT	2021	148		
TL	TL-MT	2021	148		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2021	1.458		
F/Fmsy	FdivFmsy-dimensionless	2010	0.253		
ER/ERmsy	ER-ratio/ERmsy-ratio	2010	0.342		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2021	1.458		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Scampi Bay of Plenty [SCMPBP]

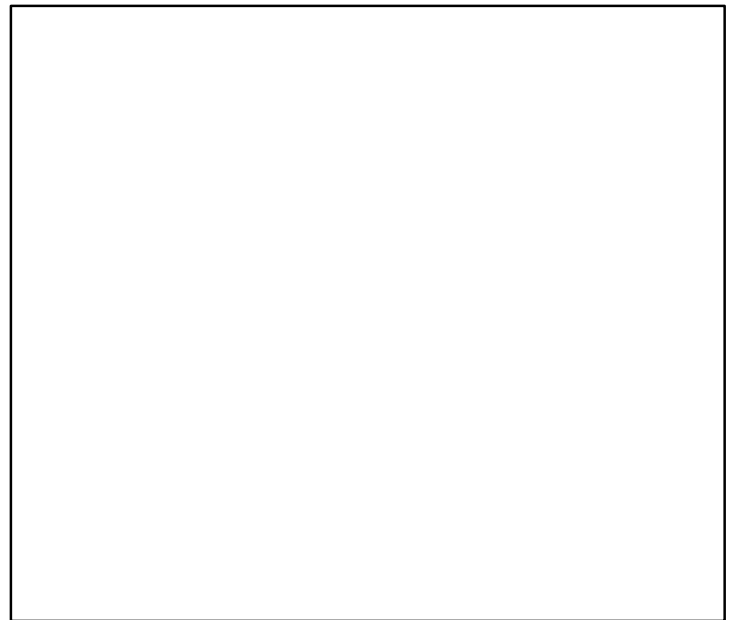
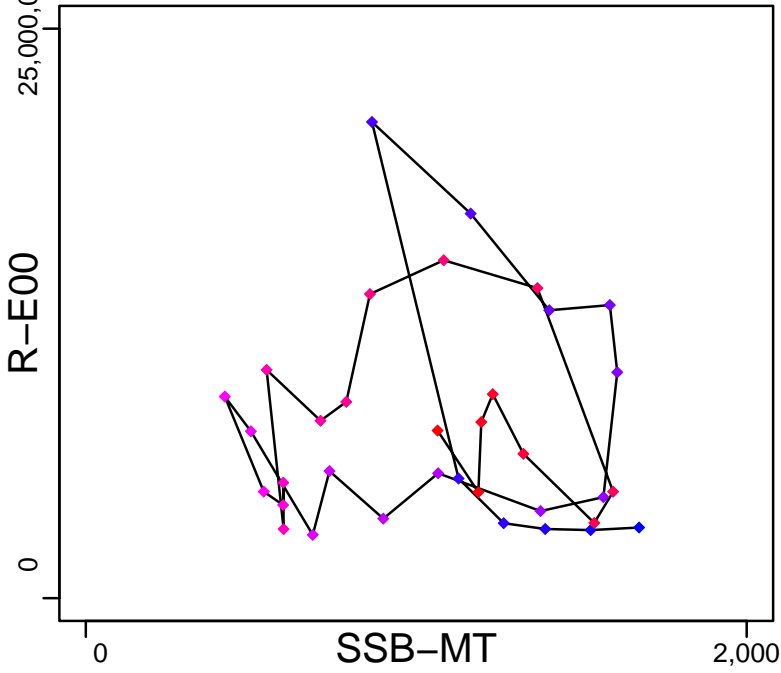
Kobe MSYpref (1985–2021–MCGREGOR)



Kobe MGTpref (1985–2021–MCGREGOR)



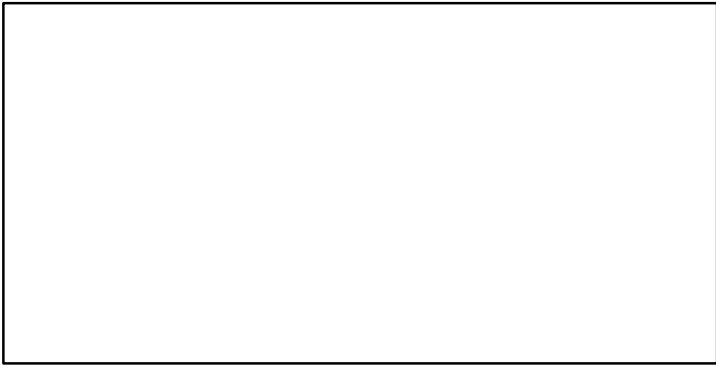
Spawner Recruit (1985–2021–MCGREGOR)



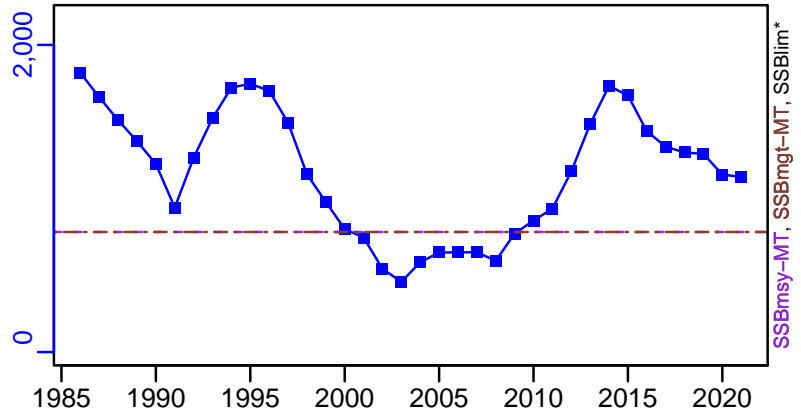
◆ Start Year ◆ End Year * No Data

Scampi Bay of Plenty [SCMPBP]

TB*



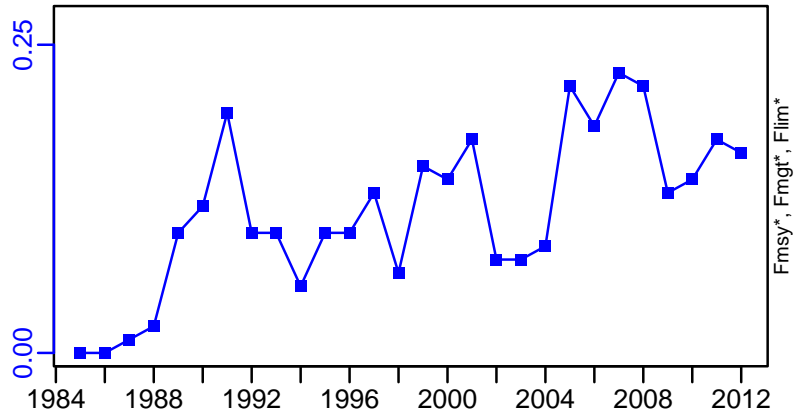
SSB-MT (1985-2021-MCGREGOR)



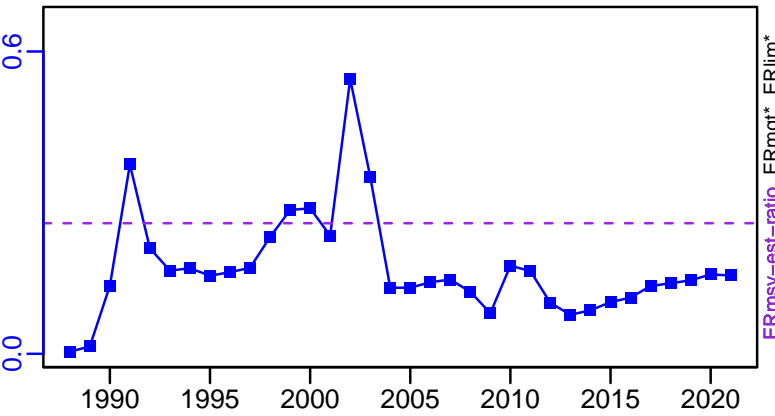
TN *



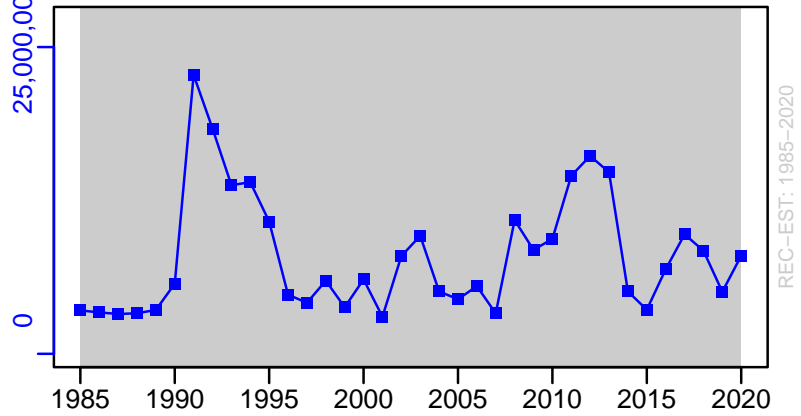
F-1/yr (1985-2012-FU)



ER-ratio (1985-2021-MCGREGOR)



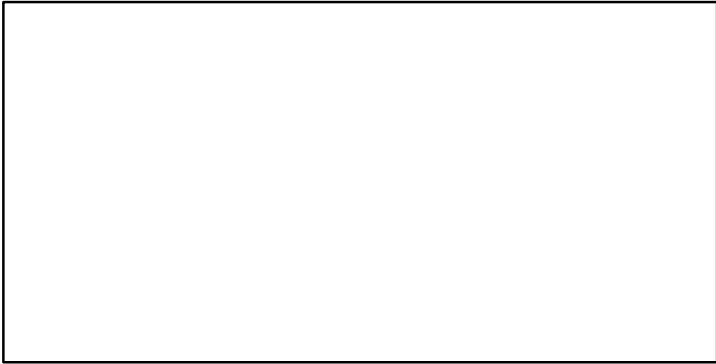
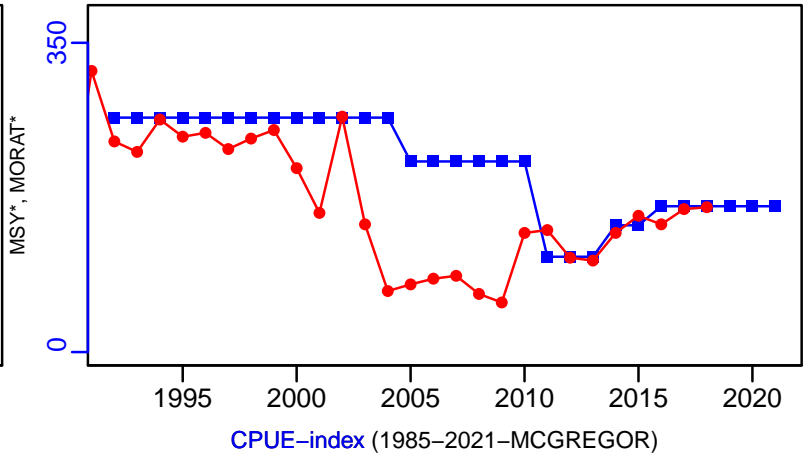
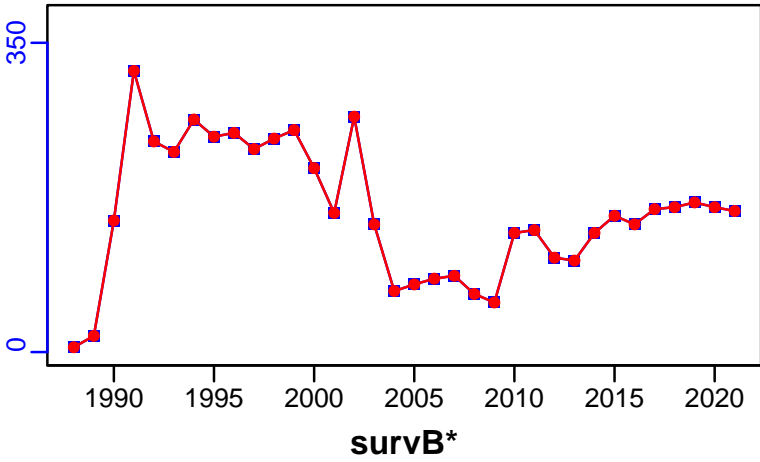
R-E00 (1985-2021-MCGREGOR)



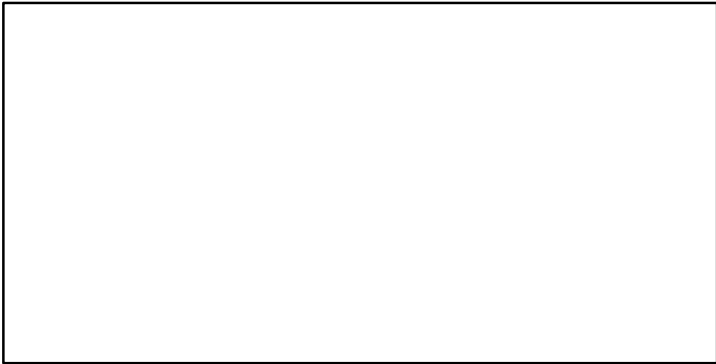
Scampi Bay of Plenty [SCMPBP]

TC-MT, TL-MT, RecC* (1985-2021-MCGREGOR)

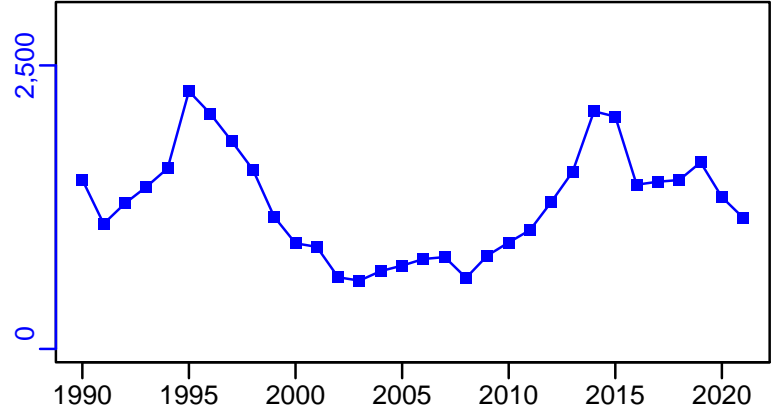
TAC-MT, Cpair-MT, Cadv* (1985-2021-MCGREGOR)



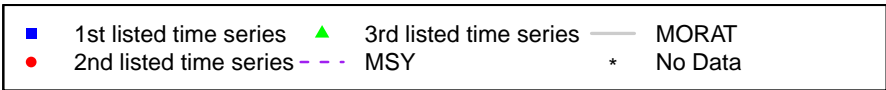
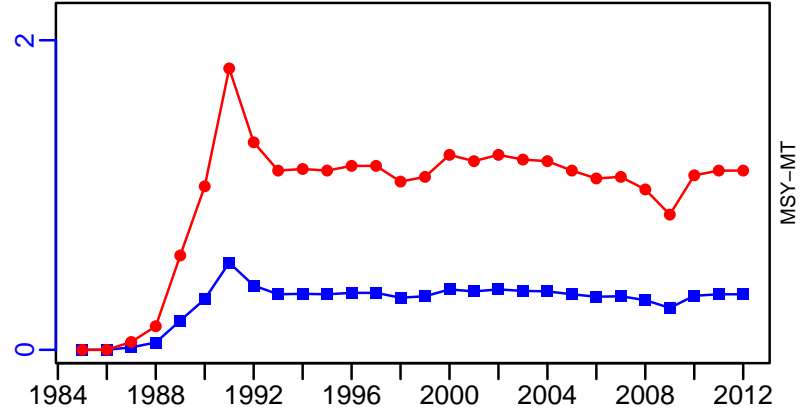
EFFORT*



CPUE-index (1985-2021-MCGREGOR)



TC-MT/MSY-MT, CdivMEANC-ratio, (1985-2012-FU)



Scampi Mernoo Bank [SCMPMB]

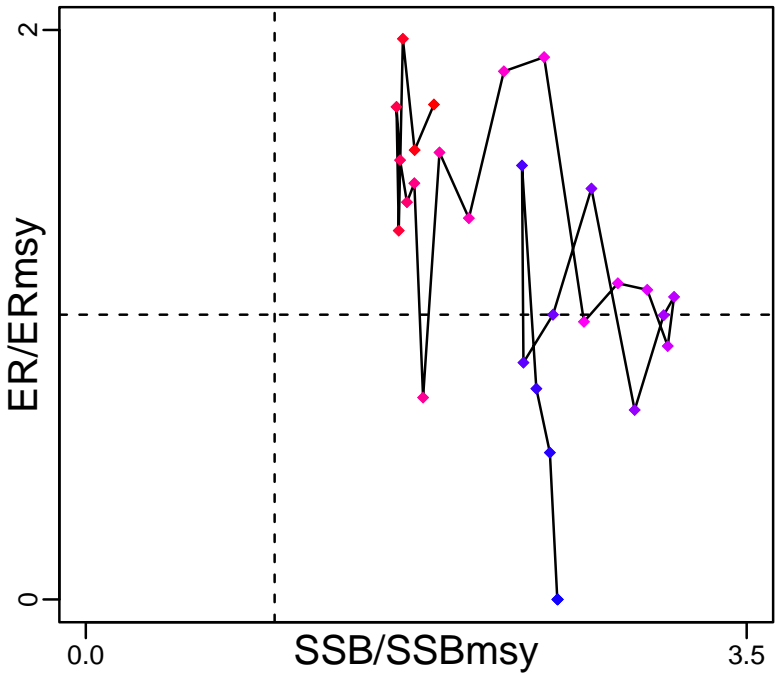
Metadata	
Scientific Name	Metanephrops challengeri
Current Assess ID	NIWA-SCMPMB-1989-2019-DEVINE
Area	Mernoo Bank
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2014, 2019

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2019	4429
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2019	4429
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2019	11,072
MSY	-	-	-
M	M-1/yr	2014	0.25
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

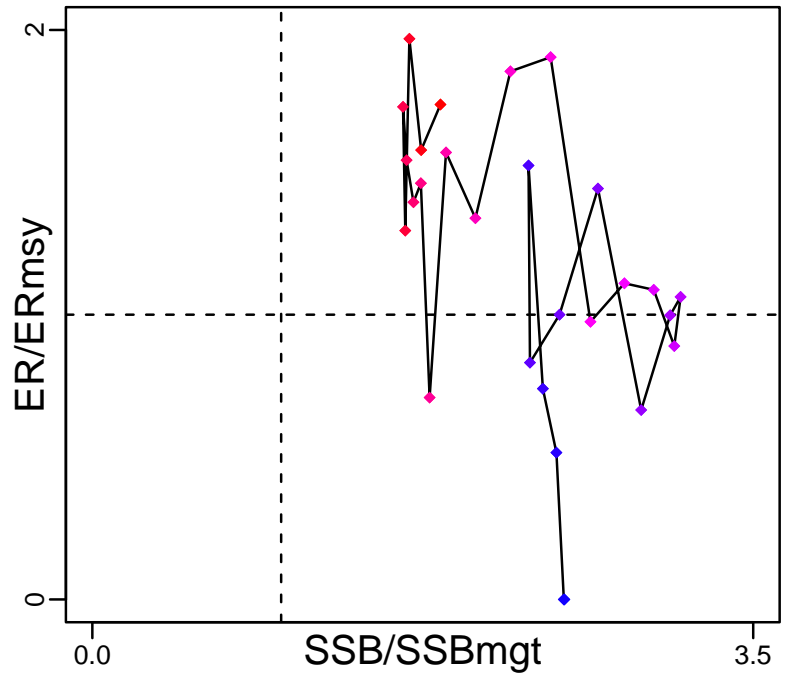
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2019	8166	-	-
TN	-	-	-	-	-
R	R-E00	2019	25,457,017	-	1
F	F-1/yr	2014	0.05	Both	-
ER	ER-ratio	2019	0.084	-	-
TC	TC-MT	2019	353		
TL	TL-MT	2019	353		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2019	1.844		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2019	1.844		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Scampi Mernoo Bank [SCMPMB]

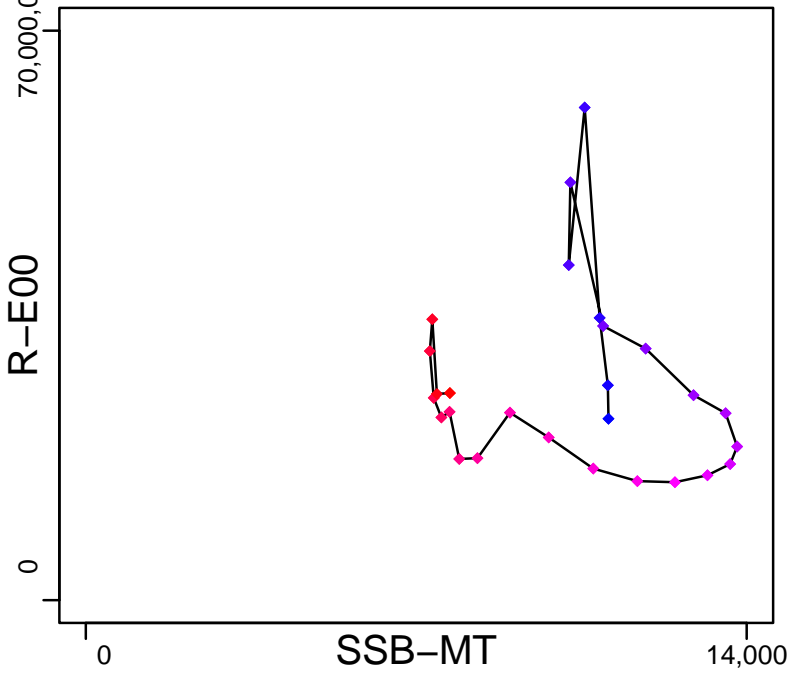
Kobe MSYpref (1989–2019–DEVINE)



Kobe MGTpref (1989–2019–DEVINE)



Spawner Recruit (1989–2019–DEVINE)



Production*



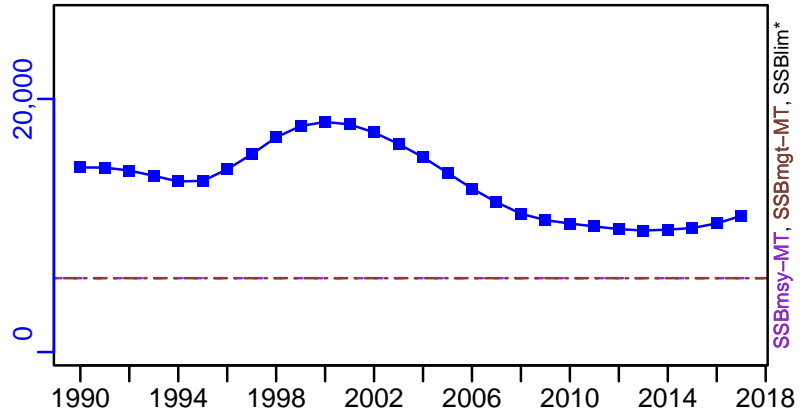
◆ Start Year ◆ End Year * No Data

Scampi Mernoo Bank [SCMPMB]

TB*



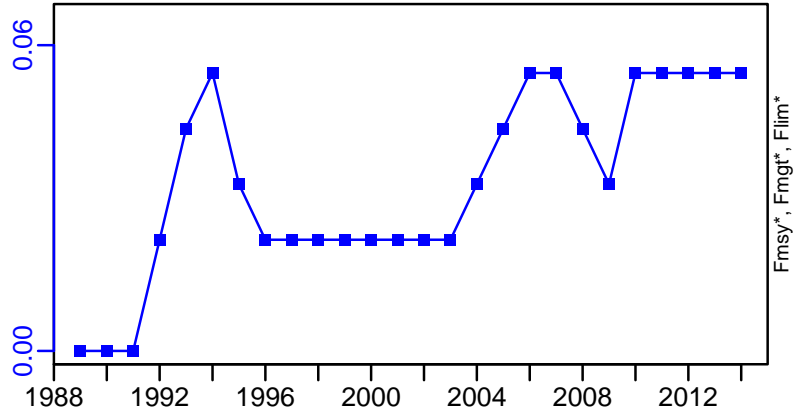
SSB-MT (1989-2019-DEVINE)



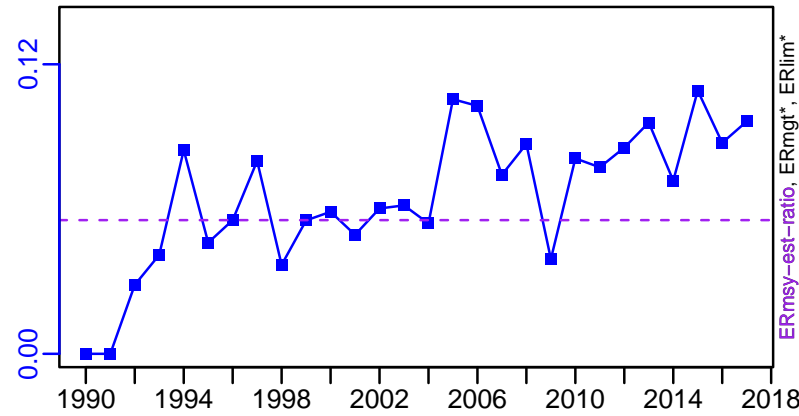
TN *



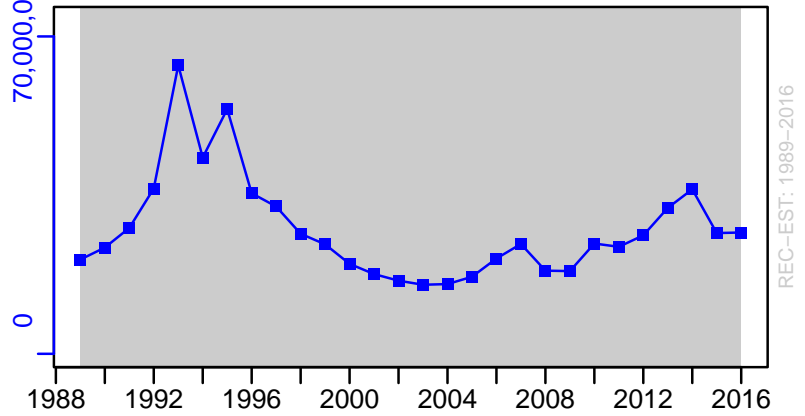
F-1/yr (1989-2014-FU)



ER-ratio (1989-2019-DEVINE)



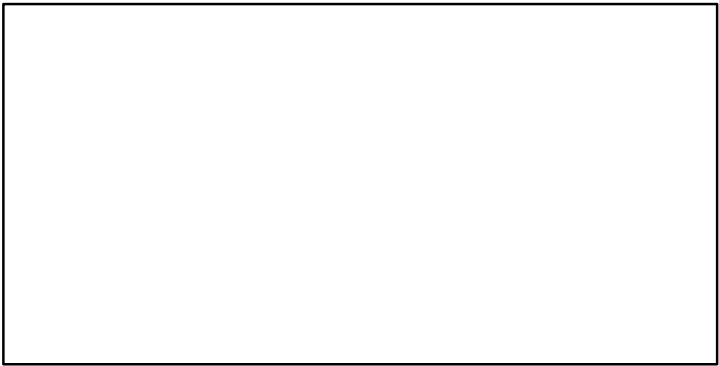
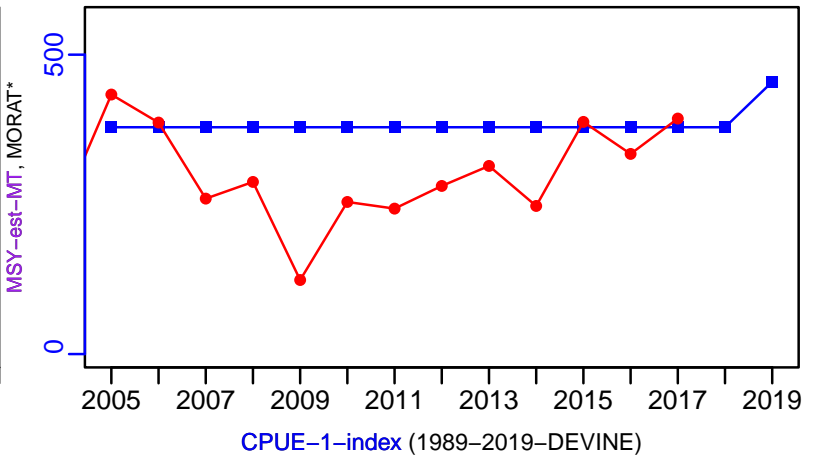
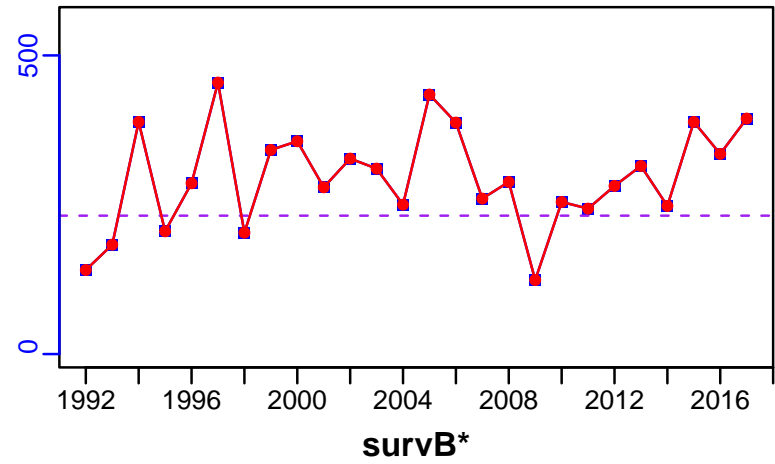
R-E00 (1989-2019-DEVINE)



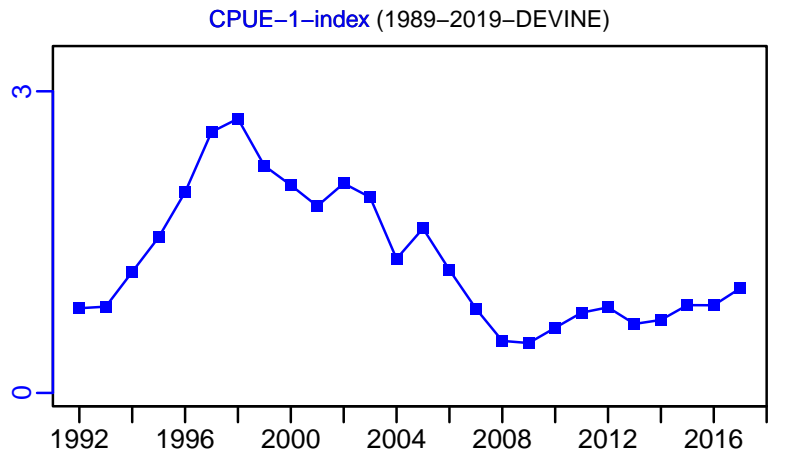
Scampi Mernoo Bank [SCMPMB]

TC-MT, TL-MT, RecC* (1989-2019-DEVINE)

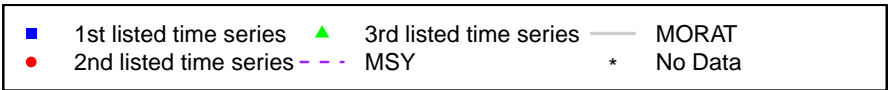
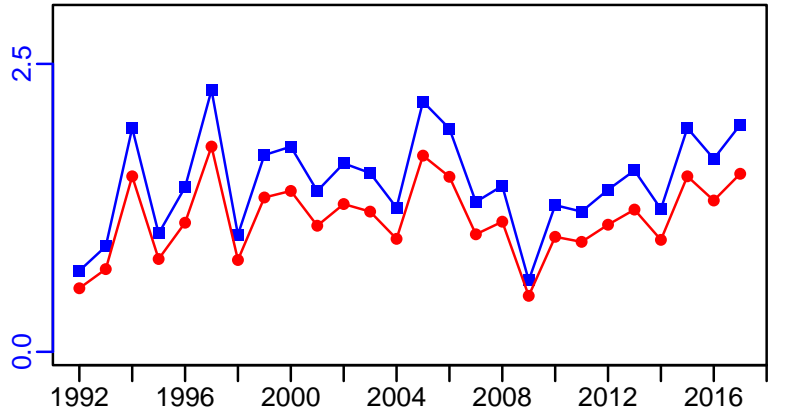
TAC-MT, Cpair-MT, Cadv* (1989-2019-DEVINE)



EFFORT*



TC-MT/MSY-est-MT, CdivMEANC-ratio, (1989-2019-DEVINE)



Scampi SCI 6A (Auckland Islands) [SCMPSCI6A]

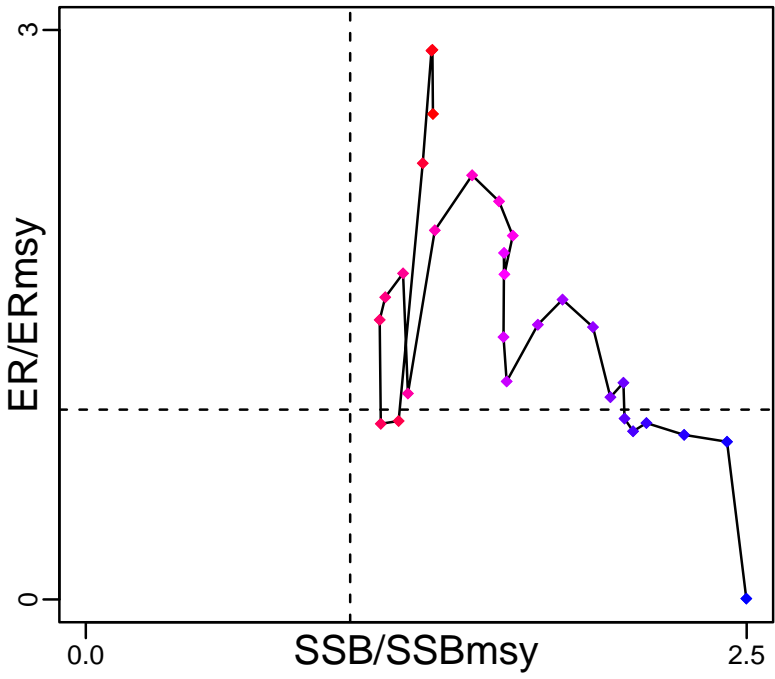
Metadata	
Scientific Name	Metanephrops challengeri
Current Assess ID	NIWA-SCMPSCI6A-1991-2019-DEVINE
Area	SCI 6A (Auckland Islands)
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2019

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2019	1424
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2019	1424
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2019	3559
MSY	-	-	-
M	M-1/yr	2019	0.25
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

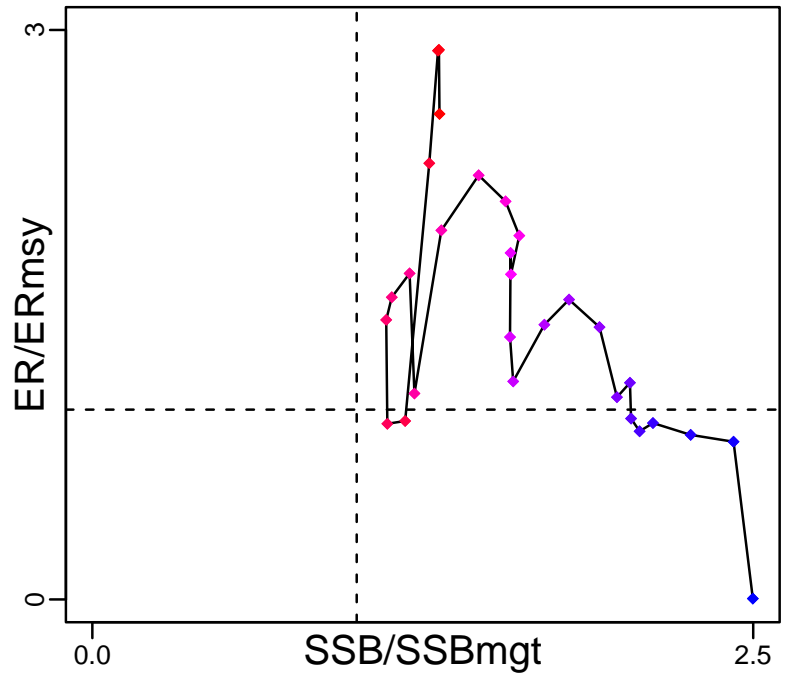
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2019	1870	-	-
TN	-	-	-	-	-
R	R-E00	2019	20,650,716	-	-
F	-	-	-	-	-
ER	ER-ratio	2019	0.437	-	-
TC	TC-MT	2019	257		
TL	TL-MT	2019	257		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2019	1.313		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2019	1.313		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Scampi SCI 6A (Auckland Islands) [SCMPSCI6A]

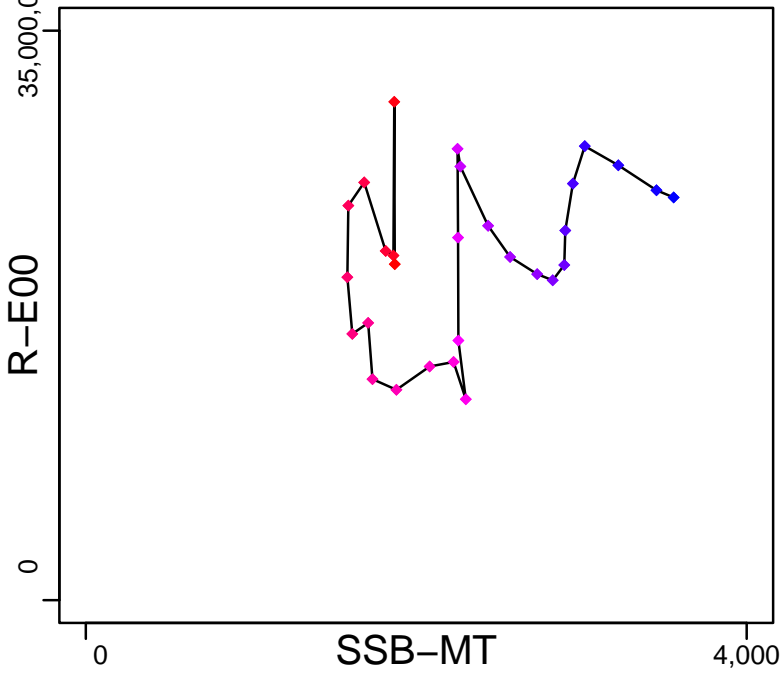
Kobe MSYpref (1991–2019–DEVINE)



Kobe MGTpref (1991–2019–DEVINE)



Spawner Recruit (1991–2019–DEVINE)



Production*



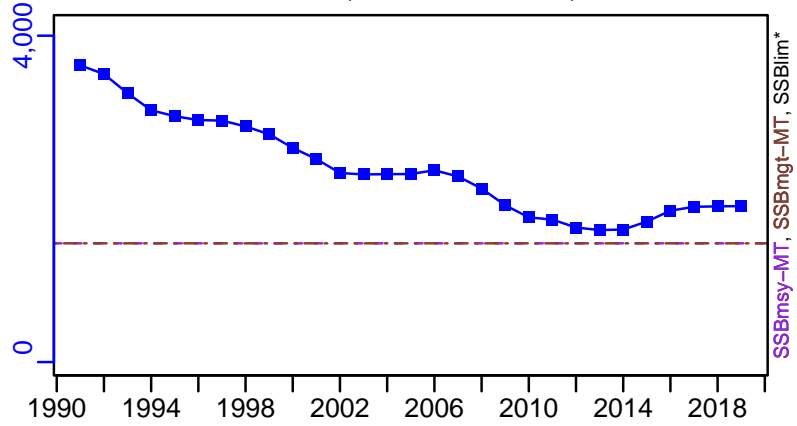
◆ Start Year ◆ End Year * No Data

Scampi SCI 6A (Auckland Islands) [SCMPSCI6A]

TB*



SSB-MT (1991-2019-DEVINE)



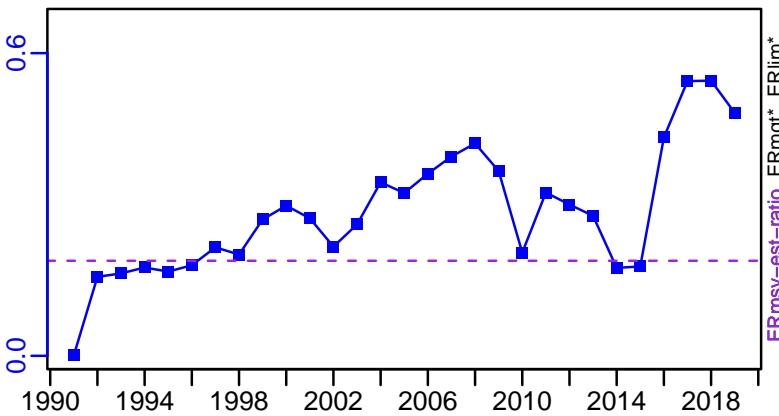
TN *



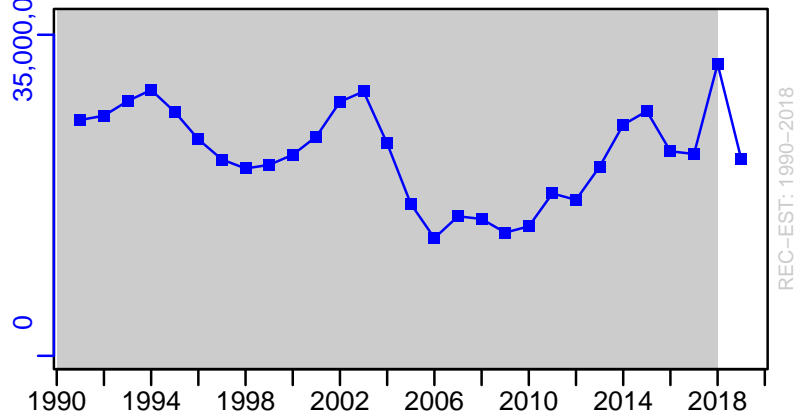
F*



ER-ratio (1991-2019-DEVINE)



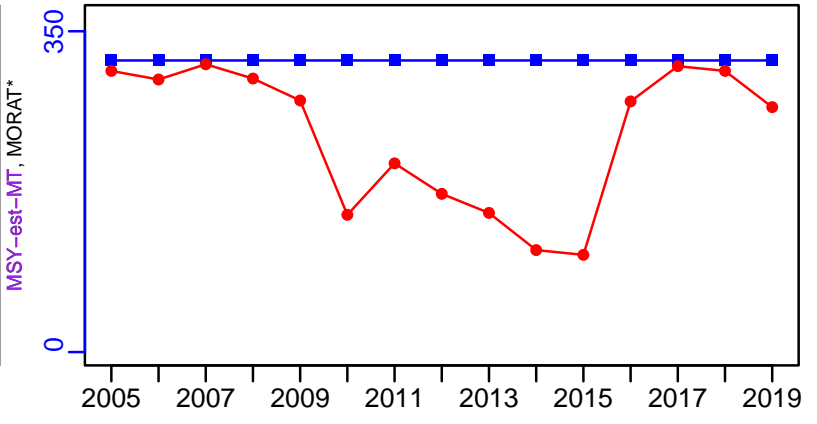
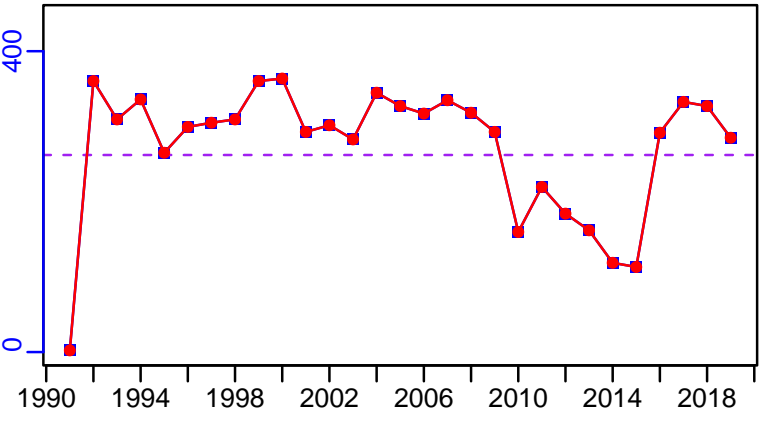
R-E00 (1991-2019-DEVINE)



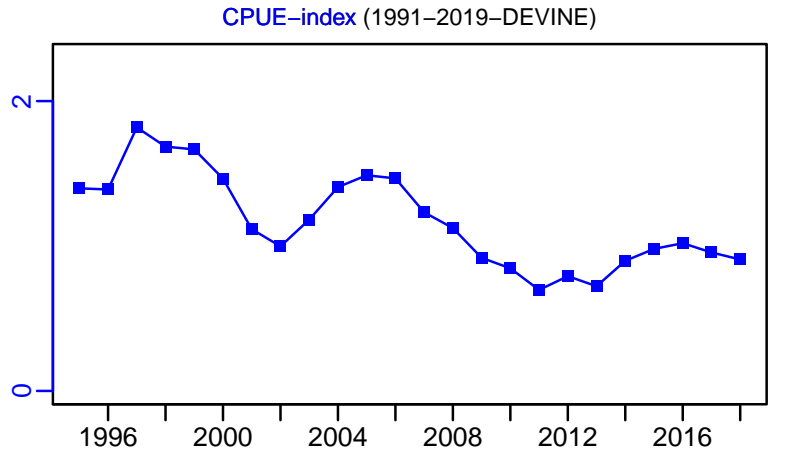
Scampi SCI 6A (Auckland Islands) [SCMPSCI6A]

TC-MT, TL-MT, RecC* (1991-2019-DEVINE)

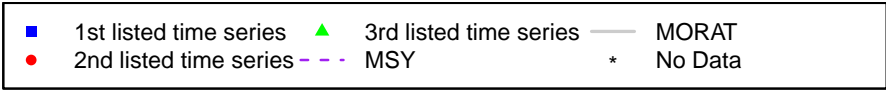
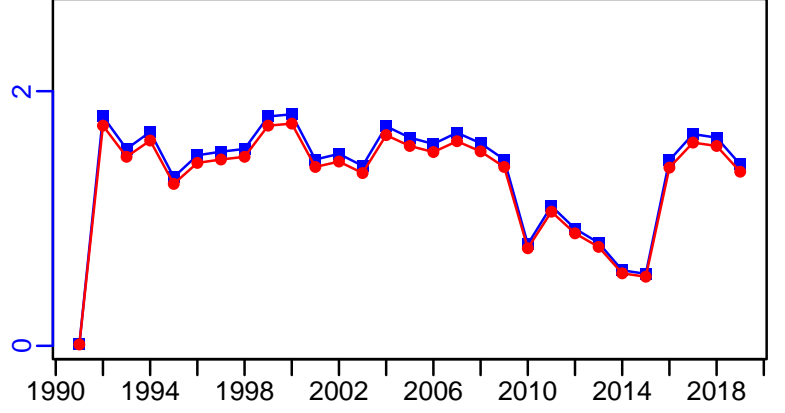
TAC-MT, Cpair-MT, Cadv* (1991-2019-DEVINE)



EFFORT*



TC-MT/MSY-est-MT, CdivMEANC-ratio, (1991-2019-DEVINE)



Scampi Wairarapa/Hawke Bay [SCMPWHB]

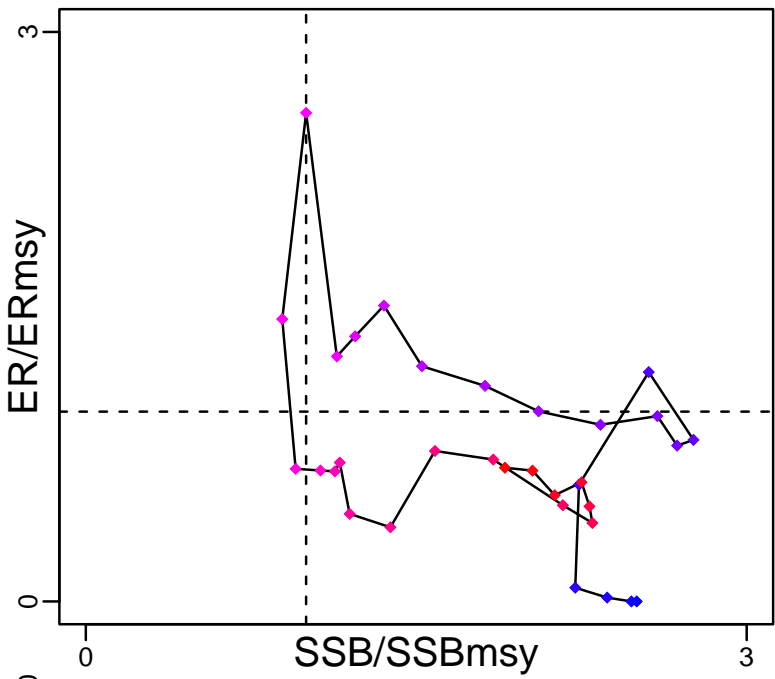
Metadata	
Scientific Name	Metanephrops challengeri
Current Assess ID	NIWA-SCMPWHB-1986-2019-DEVINE
Area	Wairarapa/Hawke Bay
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2010, 2012, 2019

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2012	942
SSBmsy	SSBmsy-MT	2019	1118
Fmsy	Fmsy-1/yr	2010	0.51
ERmsy	ERmsy-ratio	2012	0.206
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2019	1118
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2019	2796
MSY	MSY-MT	2012	194
M	M-1/yr	2019	0.25
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

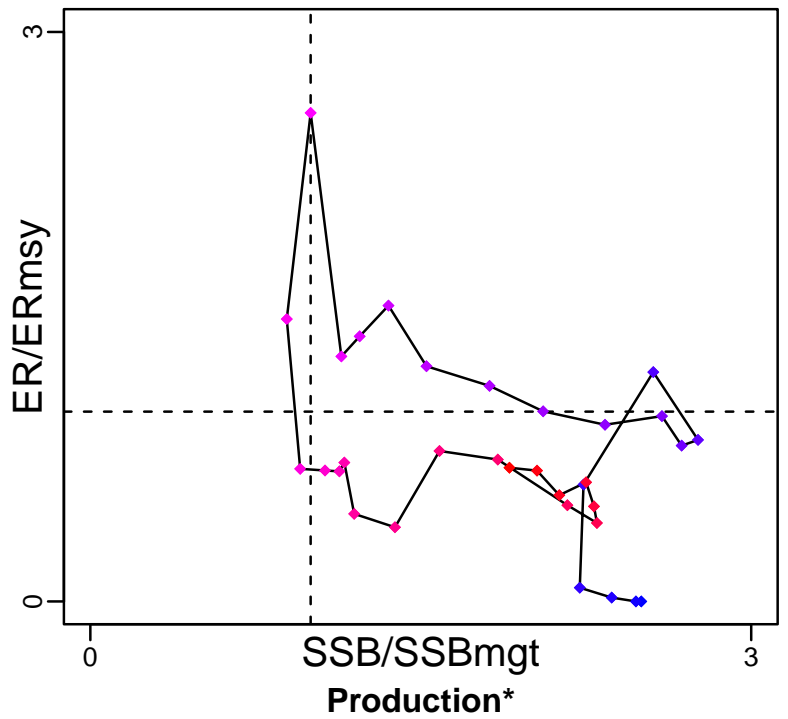
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2019	2127	-	-
TN	-	-	-	-	-
R	R-E00	2019	20,243,938	-	1
F	F-1/yr	2012	0.1	Both	-
ER	ER-ratio	2019	0.109	-	-
TC	TC-MT	2019	152		
TL	TL-MT	2019	152		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2019	1.903		
F/Fmsy	FdivFmsy-dimensionless	2010	0.335		
ER/ERmsy	ER-ratio/ERmsy-ratio	2010	0.455		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2019	1.903		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Scampi Wairarapa/Hawke Bay [SCMPWHB]

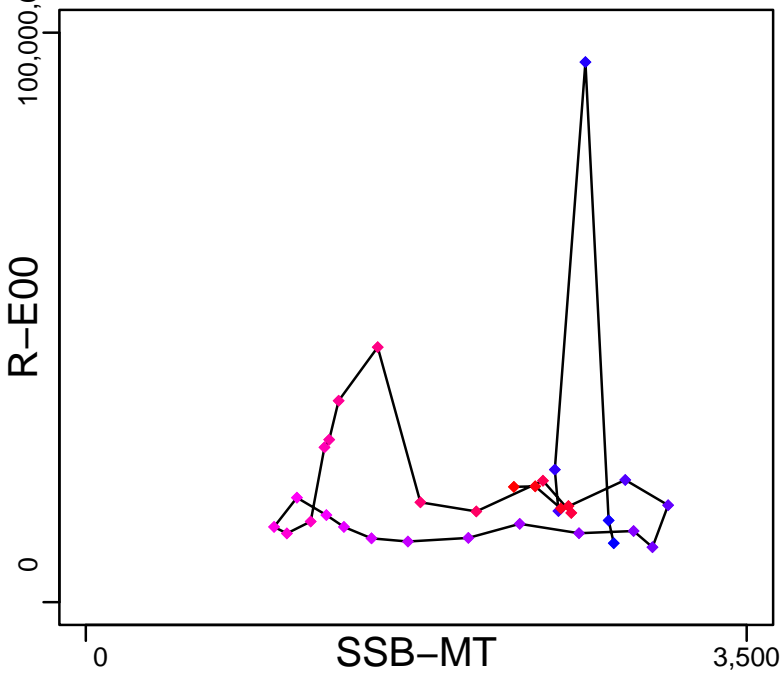
Kobe MSYpref (1986–2019–DEVINE)



Kobe MGTpref (1986–2019–DEVINE)



Spawner Recruit (1986–2019–DEVINE)



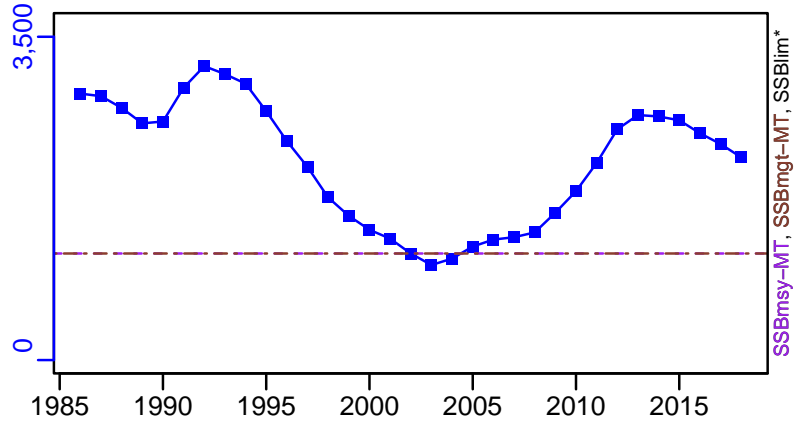
◆ Start Year ◆ End Year * No Data

Scampi Wairarapa/Hawke Bay [SCMPWHB]

TB*



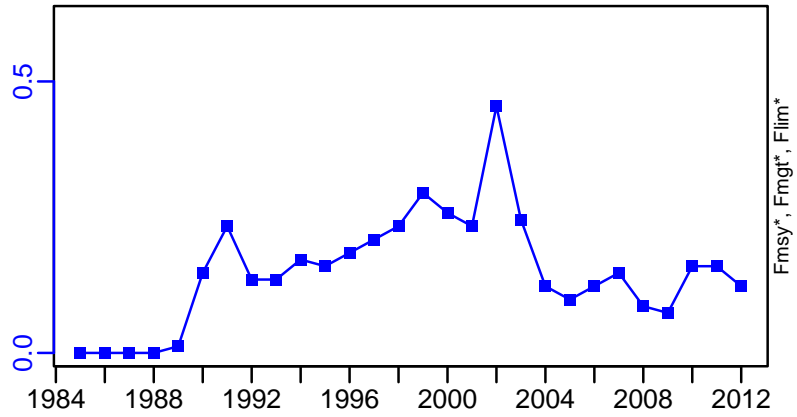
SSB-MT (1986-2019-DEVINE)



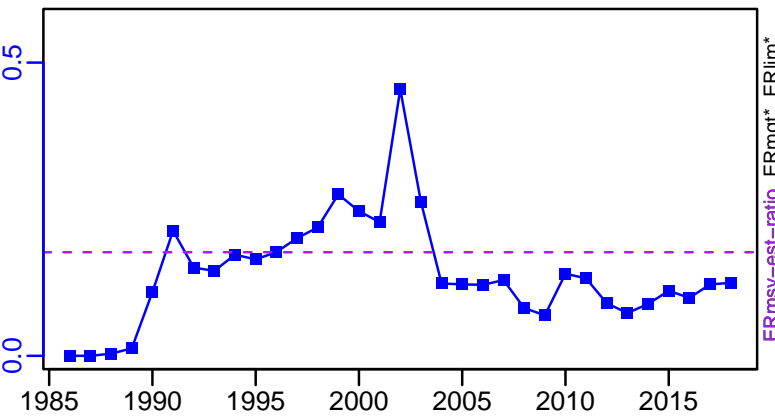
TN *



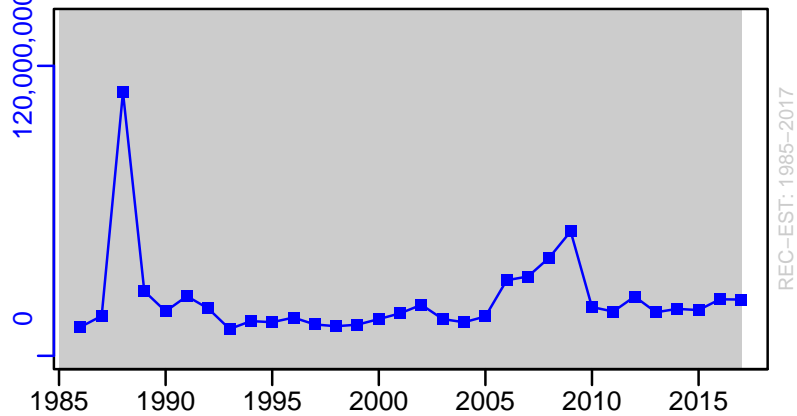
F-1/yr (1985-2012-FU)



ER-ratio (1986-2019-DEVINE)

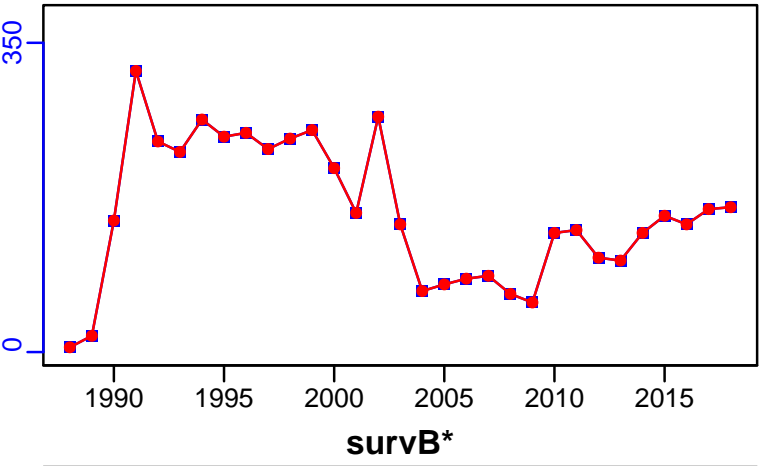


R-E00 (1986-2019-DEVINE)

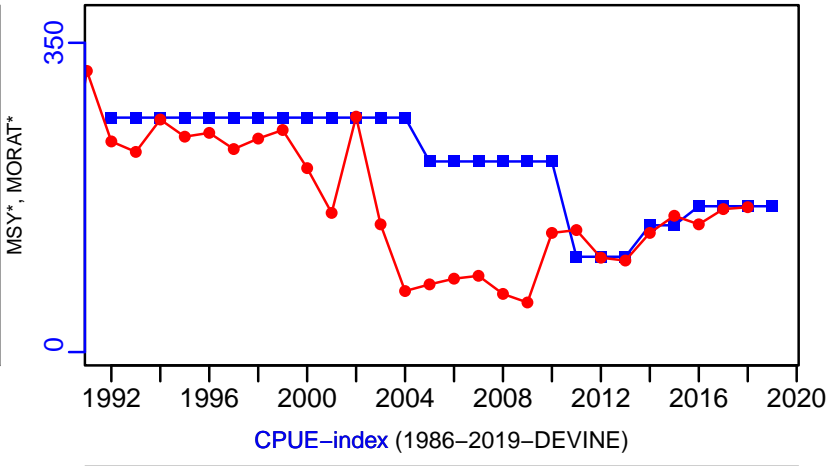


Scampi Wairarapa/Hawke Bay [SCMPWHB]

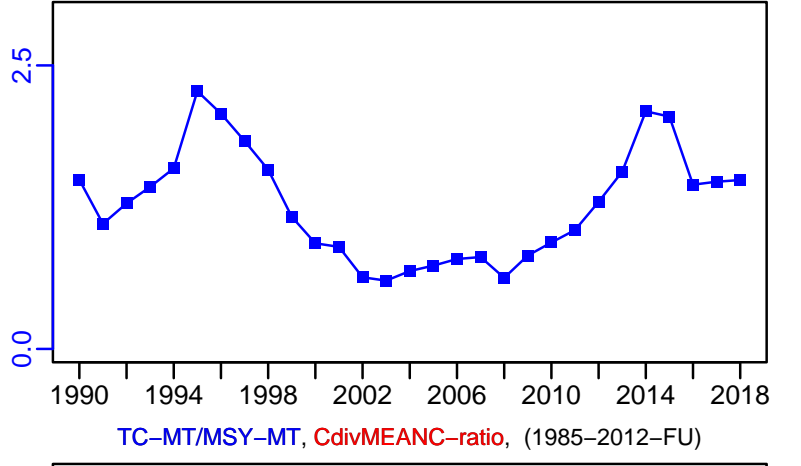
TC-MT, TL-MT, RecC* (1986-2019-DEVINE)



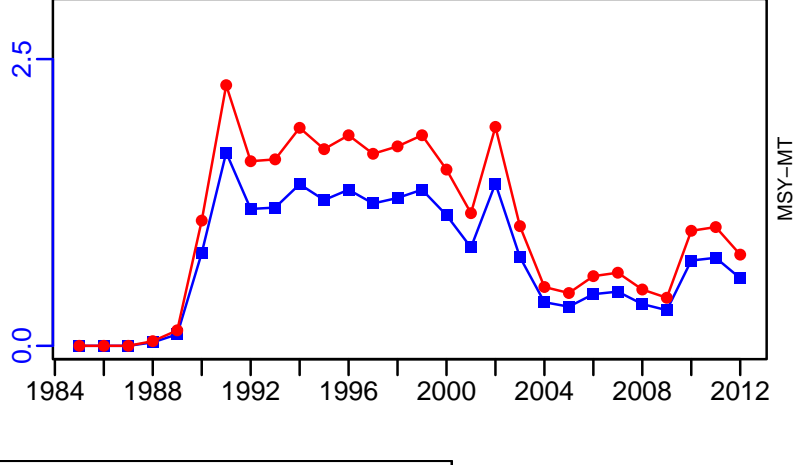
TAC-MT, Cpair-MT, Cadv* (1986-2019-DEVINE)



CPUE-index (1986-2019-DEVINE)



TC-MT/MSY-MT, CdivMEANC-ratio, (1985-2012-FU)



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

Smooth oreo Bounty Plateau [SMOOTHOREOBP]

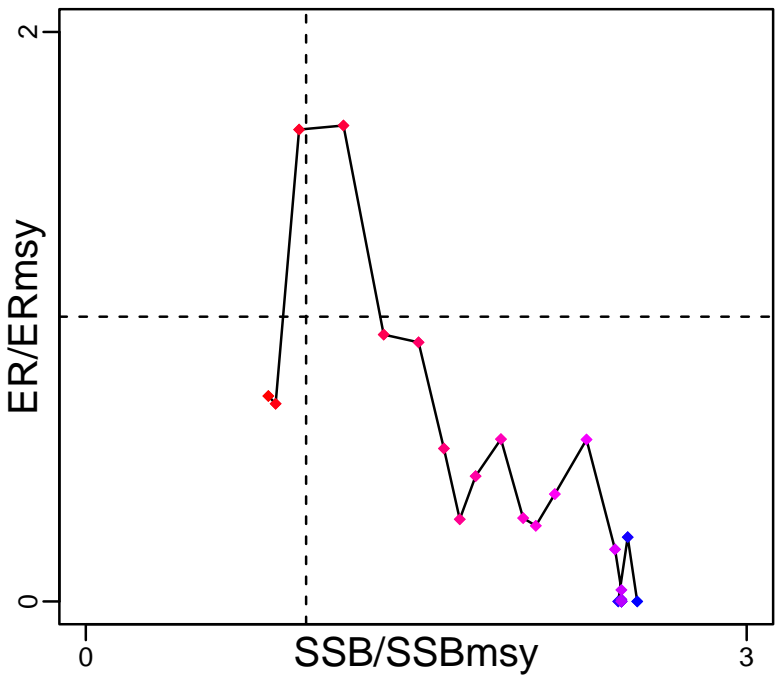
Metadata	
Scientific Name	Pseudocyttus maculatus
Current Assess ID	NIWA-SMOOTHOREOBP-1983-2008-CORDUE
Area	Bounty Plateau
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2008

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2008	6386
SSBmsy	SSBmsy-MT	2008	6951
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2008	0.07
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2008	6951
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2008	17,378
MSY	MSY-MT	2008	447
M	M-1/yr	2008	0.06
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

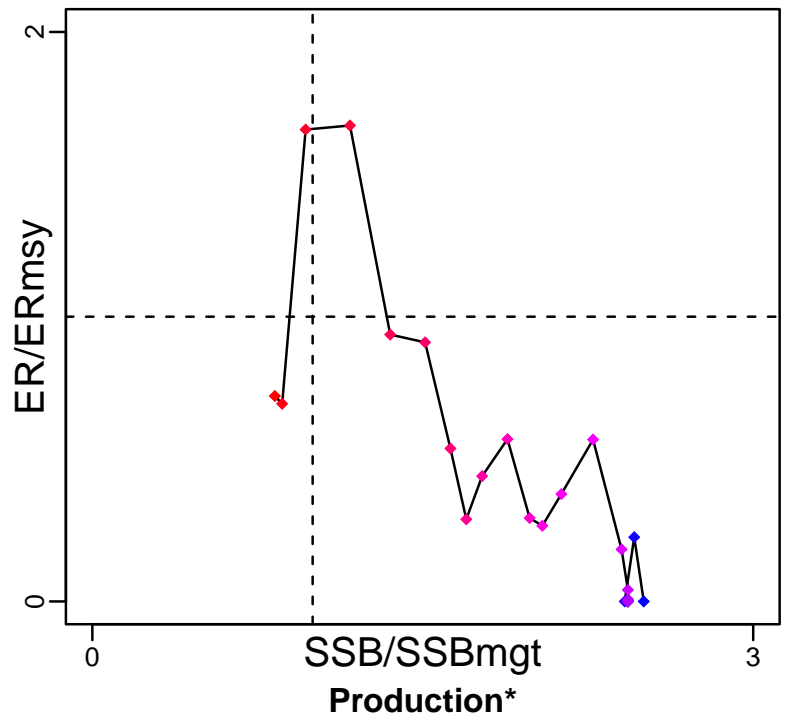
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2008	5760	Both	25+
TN	-	-	-	-	-
R	R-E00	2008	2,620,000	-	1
F	F-1/yr	2008	0.102	-	-
ER	ER-ratio	2008	0.051	-	-
TC	TC-MT	2008	670		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2008	0.829		
F/Fmsy	FdivFmsy-dimensionless	2008	1.42		
ER/ERmsy	ER-ratio/ERmsy-ratio	2008	0.721		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2008	0.829		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Smooth oreo Bounty Plateau [SMOOTHOREOBP]

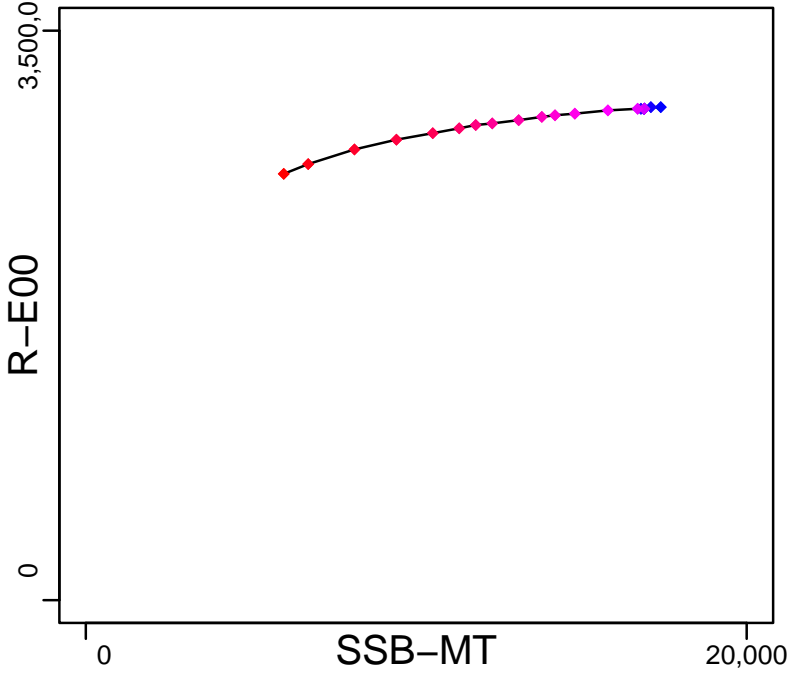
Kobe MSYpref (1983–2008–CORDUE)



Kobe MGTpref (1983–2008–CORDUE)



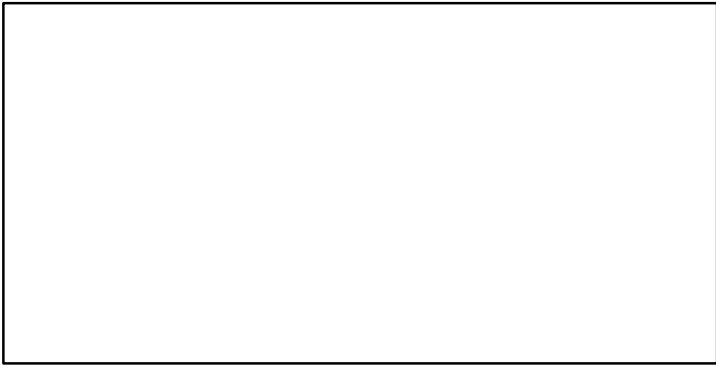
Spawner Recruit (1983–2008–CORDUE)



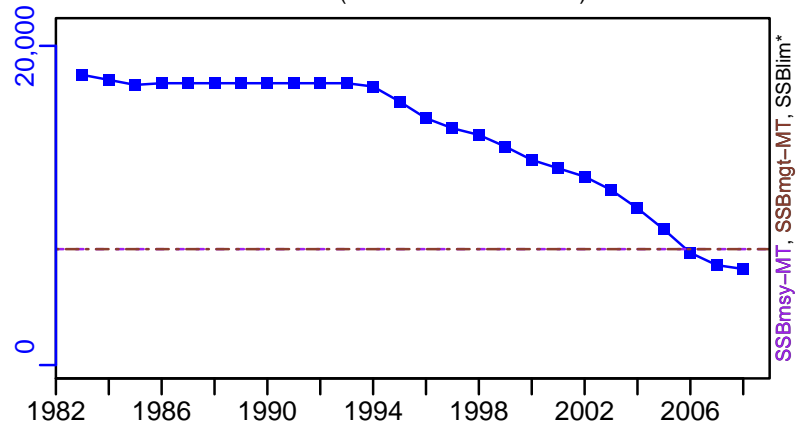
◆ Start Year ◆ End Year * No Data

Smooth oreo Bounty Plateau [SMOOTHOREOBP]

TB*



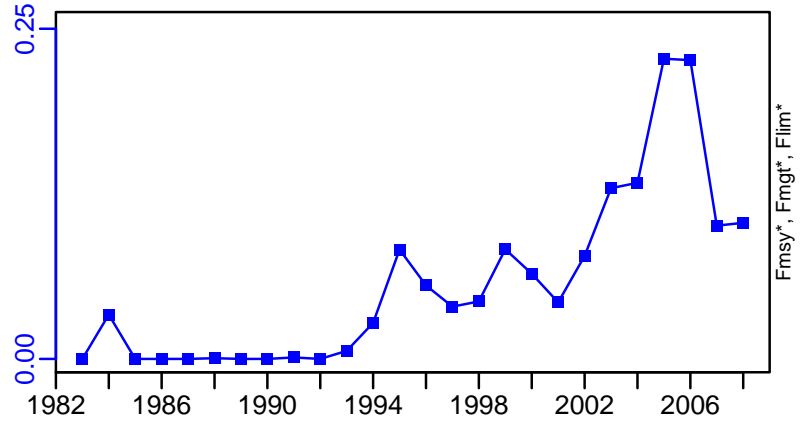
SSB-MT (1983-2008-CORDUE)



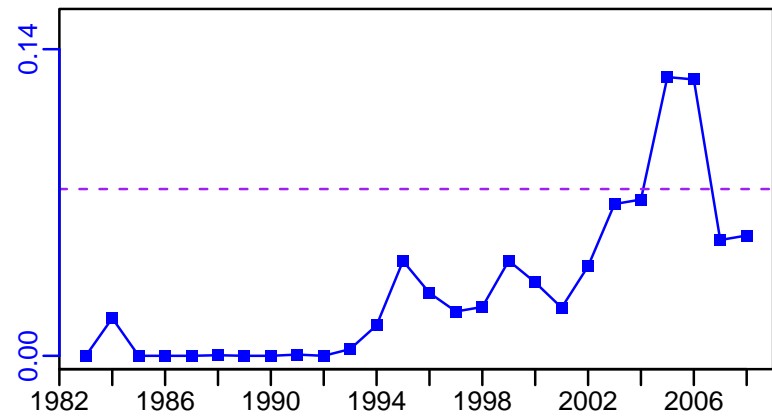
TN *



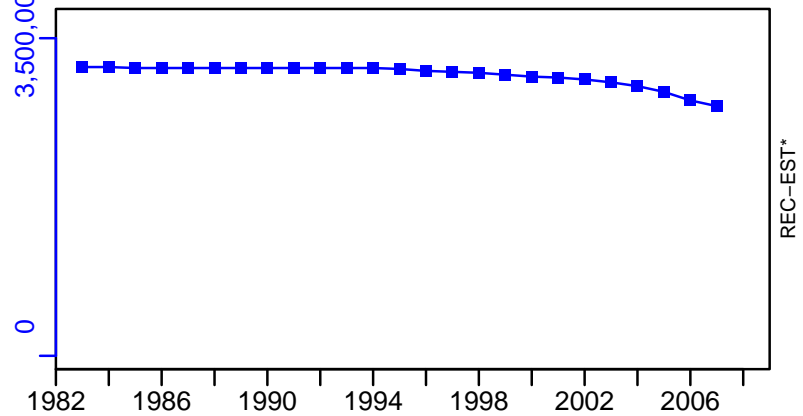
F-1/yr (1983-2008-CORDUE)



ER-ratio (1983-2008-CORDUE)



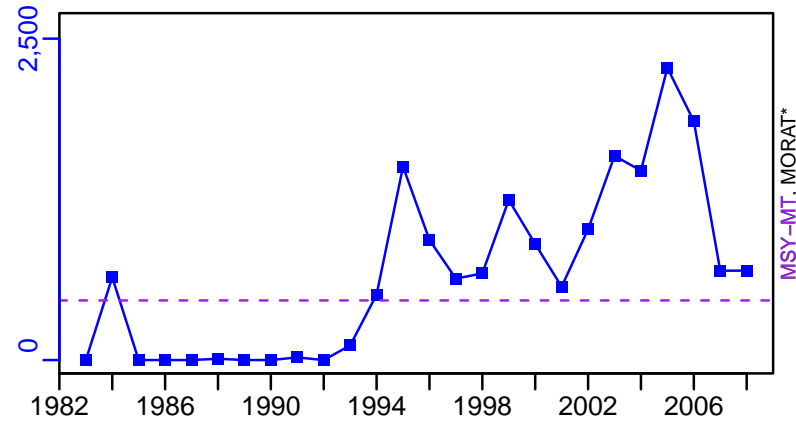
R-E00 (1983-2008-CORDUE)



Smooth oreo Bounty Plateau [SMOOTHOREOBP]

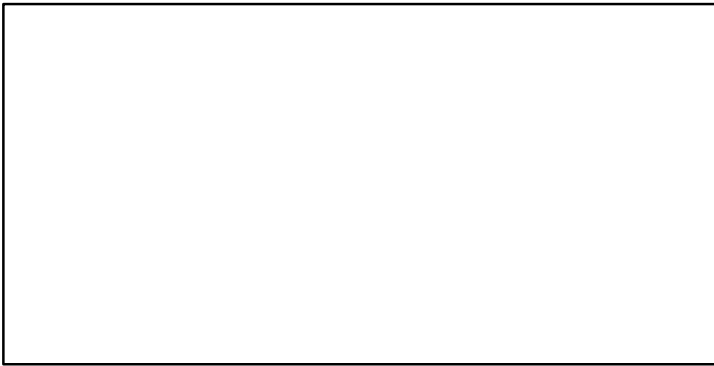
TC-MT, TL*, RecC* (1983-2008-CORDUE)

TAC*, Cpair*, Cadv*



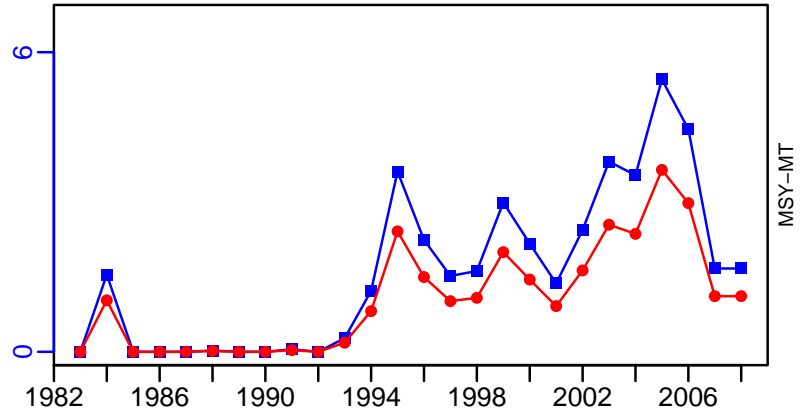
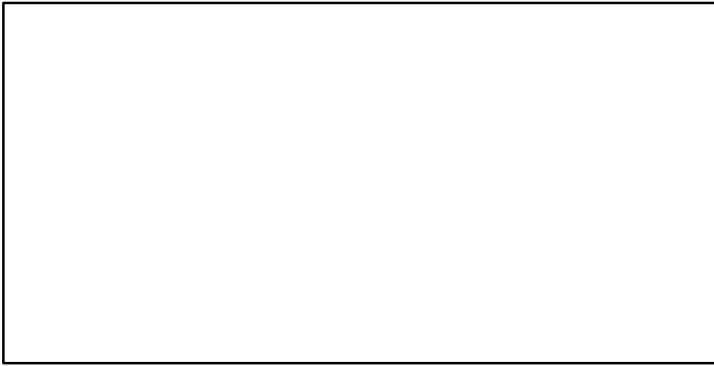
survB*

CPUE*



EFFORT*

TC-MT/MSY-MT, CdivMEANC-ratio, (1983-2008-CORDUE)



Smooth oreo Chatham Rise [SMOOTHOREOCR]

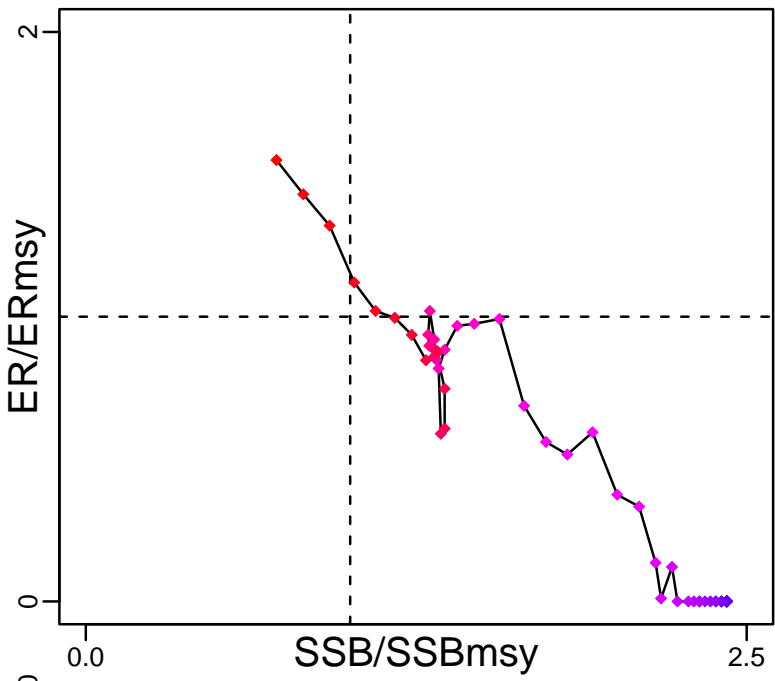
Metadata	
Scientific Name	Pseudocyttus maculatus
Current Assess ID	NIWA-SMOOTHOREOCR-1955-2013-FU
Area	Chatham Rise
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2013, 2010

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2013	15,768
SSBmsy	SSBmsy-MT	2013	48,252
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2013	0.19
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2013	48,252
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2013	120,629
MSY	MSY-MT	2013	2996
M	M-1/yr	2013	0.06
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

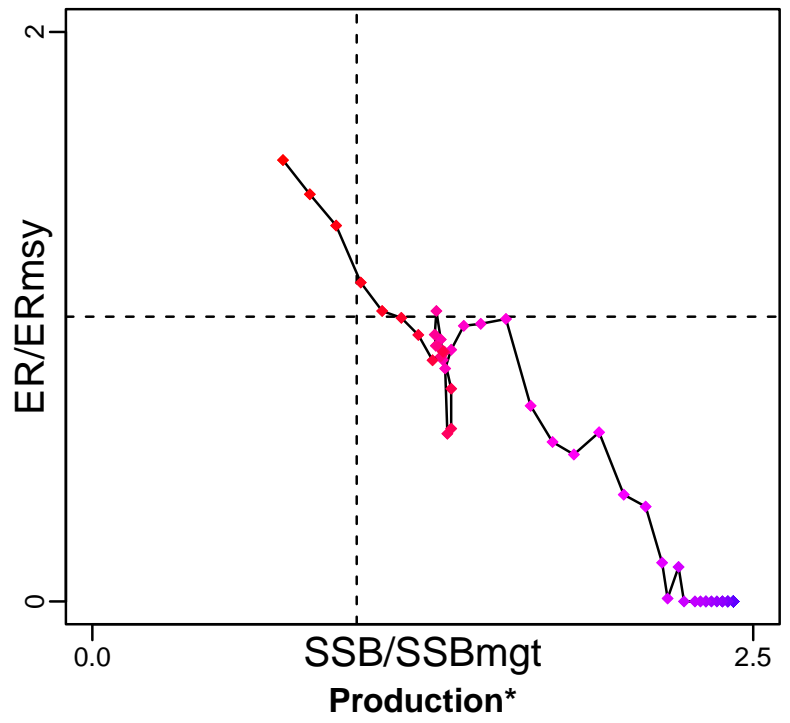
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2013	34,800	-	1 to 70
TN	-	-	-	-	-
R	R-E00	2013	17,400,000	Both	1 to 70
F	F-1/yr	2010	0.095	-	-
ER	ER-ratio	2013	0.155	Both	1 to 70
TC	TC-MT	2013	5960		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013	0.721		
F/Fmsy	FdivFmsy-dimensionless	2010	1.03		
ER/ERmsy	ERdivERmsy-dimensionless	2013	1.55		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2013	0.721		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Smooth oreo Chatham Rise [SMOOTHOREOCR]

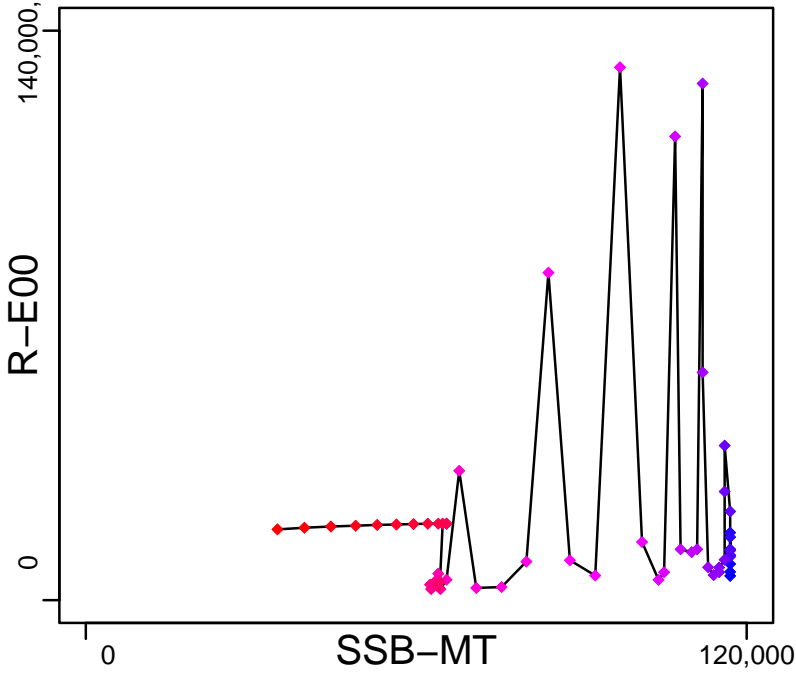
Kobe MSYpref (1955–2013–FU)



Kobe MGTpref (1955–2013–FU)



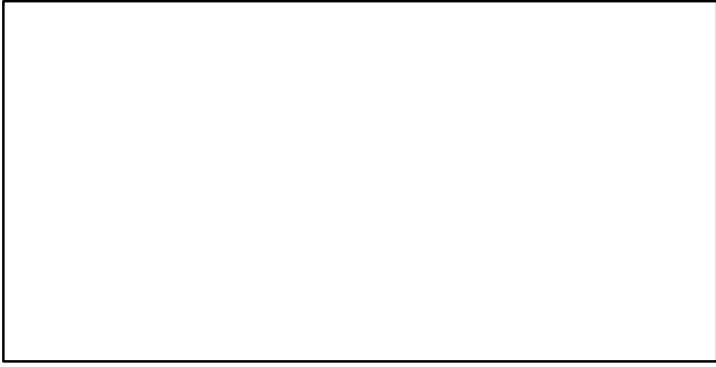
Spawner Recruit (1955–2013–FU)



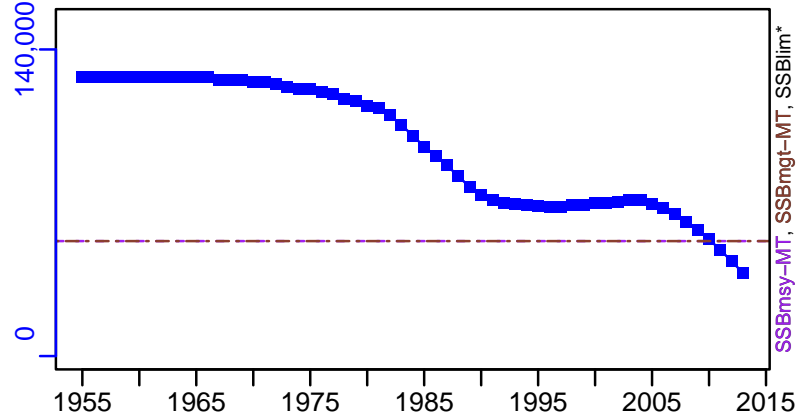
◆ Start Year ◆ End Year * No Data

Smooth oreo Chatham Rise [SMOOTHOREOCR]

TB*



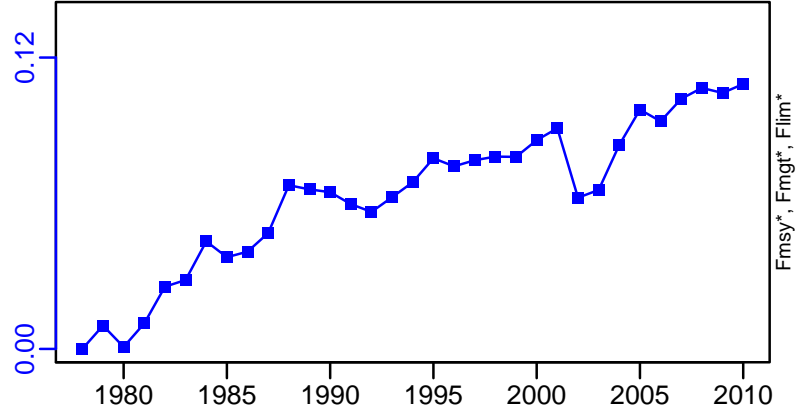
SSB-MT (1955-2013-FU)



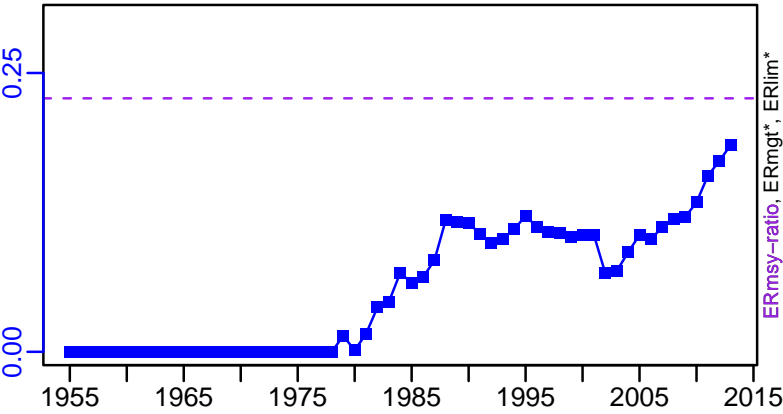
TN *



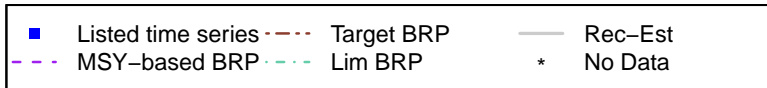
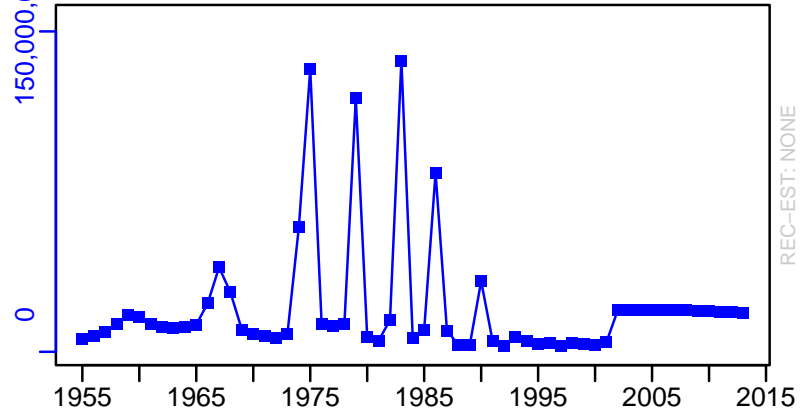
F-1/yr (1978-2010-CORDUE)



ER-ratio (1955-2013-FU)



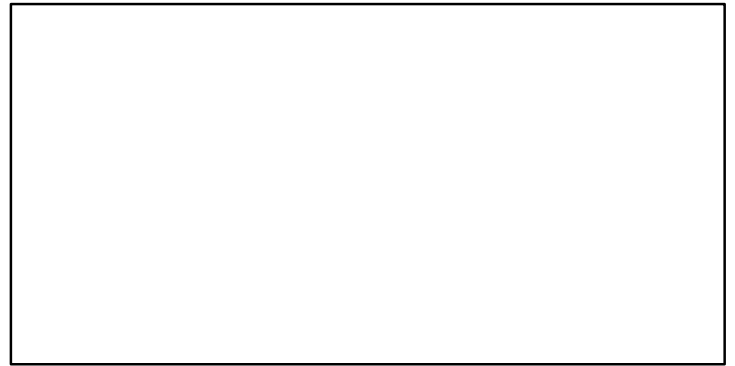
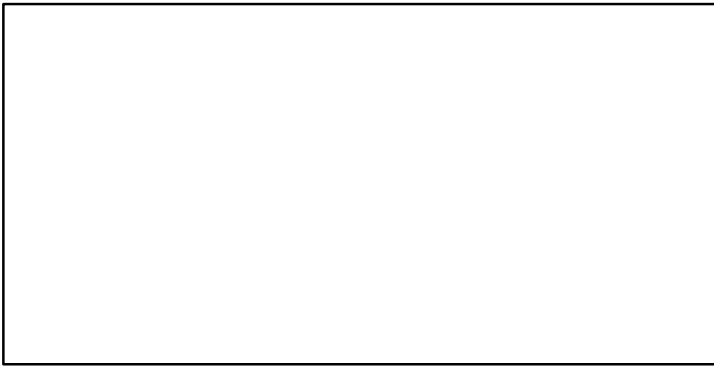
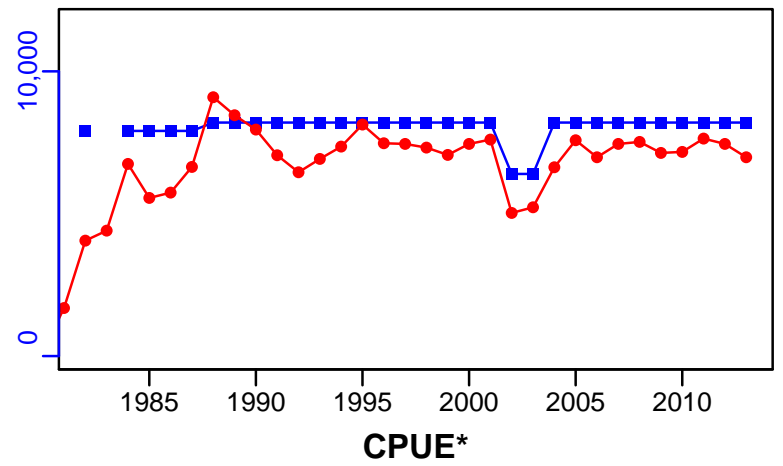
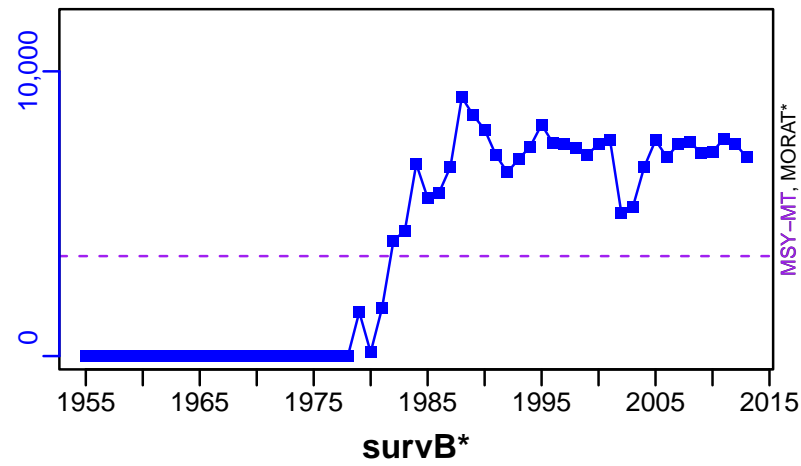
R-E00 (1955-2013-FU)



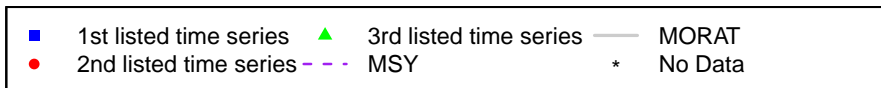
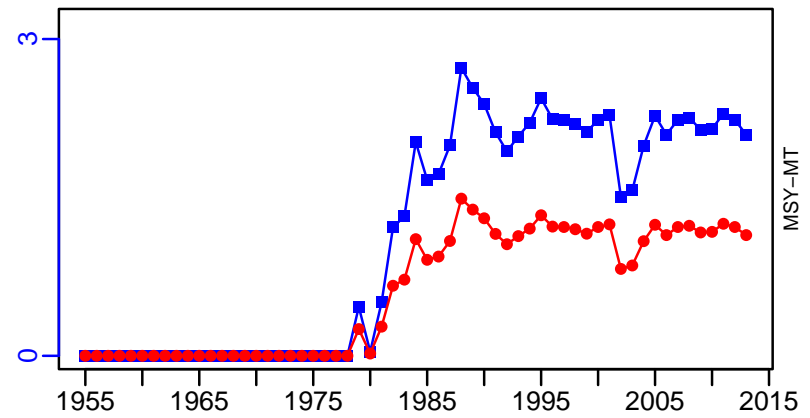
Smooth oreo Chatham Rise [SMOOTHOREOCR]

TC-MT, TL*, RecC* (1955-2013-FU)

TAC-MT, Cpair-MT, Cadv* (1955-2013-FU)



TC-MT/MSY-MT, CdivMEANC-ratio, (1955-2013-FU)



Smooth oreo East Pukaki Rise [SMOOTHOREOEPR]

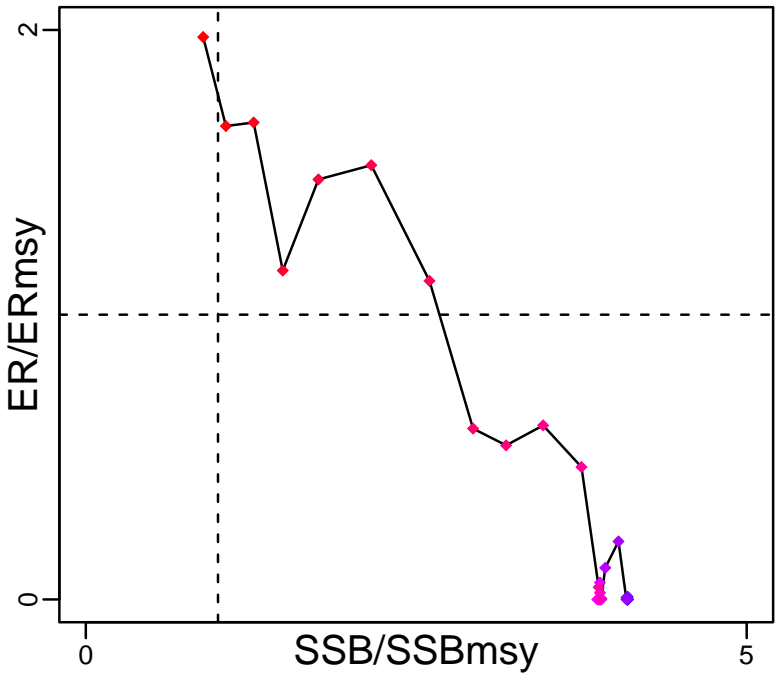
Metadata	
Scientific Name	Pseudocyttus maculatus
Current Assess ID	NIWA-SMOOTHOREOEPR-1973-2006-CORDUE
Area	East Pukaki Rise
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2006

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2006	5538
SSBmsy	SSBmsy-MT	2006	4239
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2006	0.08
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2006	17,372
MSY	MSY-MT	2006	443
M	M-1/yr	2006	0.06
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

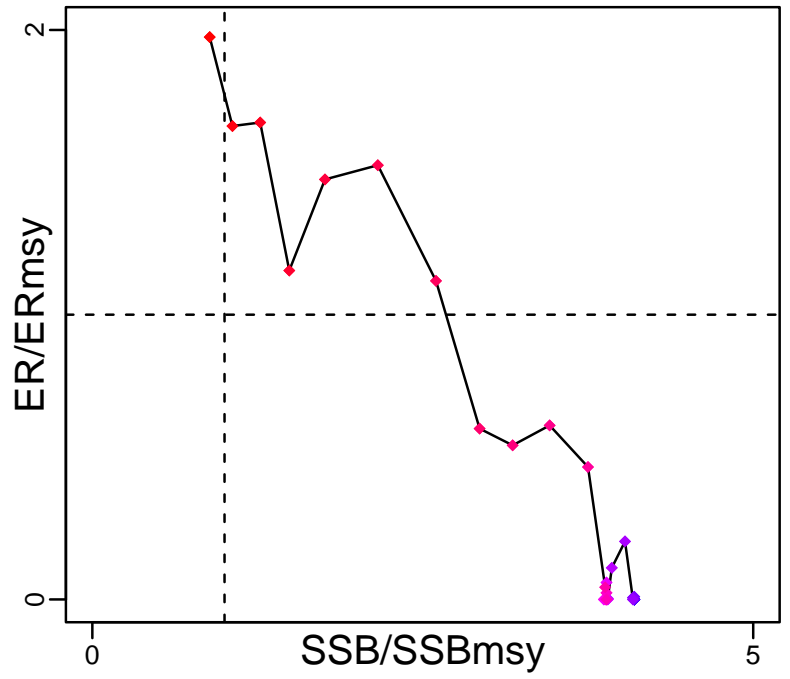
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2006	3760	Both	-
TN	-	-	-	-	-
R	R-E00	2006	2,180,000	-	5
F	F-1/yr	2006	0.268	-	-
ER	ER-ratio	2006	0.158	-	-
TC	TC-MT	2006	1370		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2006	0.888		
F/Fmsy	FdivFmsy-dimensionless	2006	3.35		
ER/ERmsy	ER-ratio/ERmsy-ratio	2006	1.975		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Smooth oreo East Pukaki Rise [SMOOTHOREOEPR]

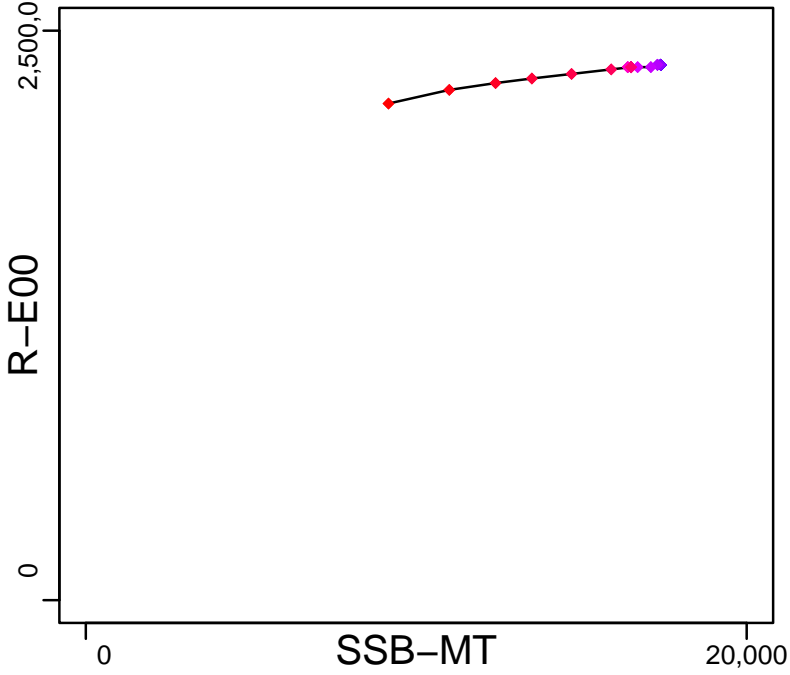
Kobe MSYpref (1973–2006–CORDUE)



Kobe MGTpref (1973–2006–CORDUE)



Spawner Recruit (1973–2006–CORDUE)



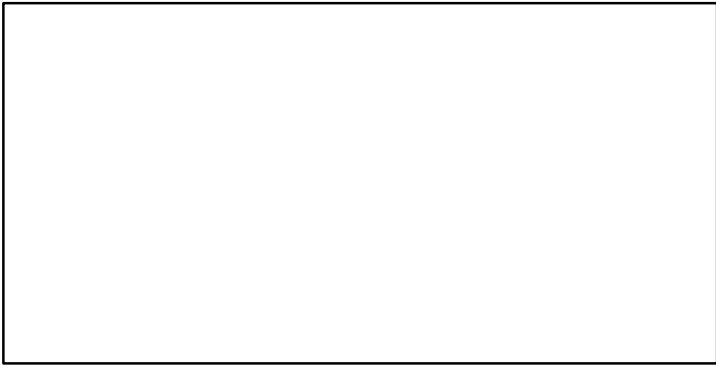
Production*



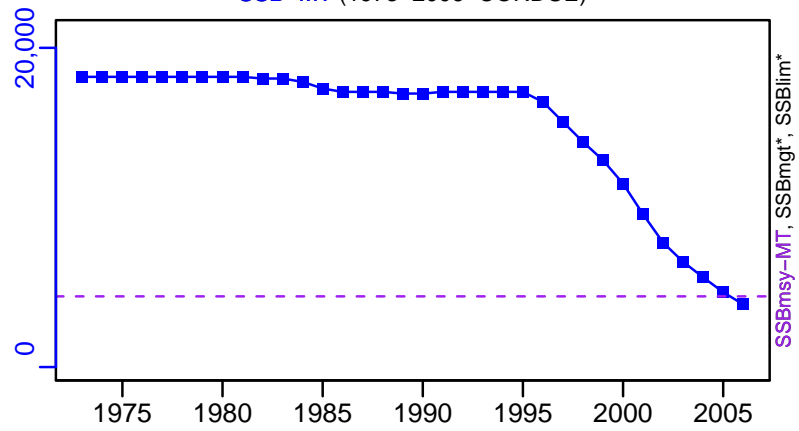
◆ Start Year ◆ End Year * No Data

Smooth oreo East Pukaki Rise [SMOOTHOREOEP]R

TB*



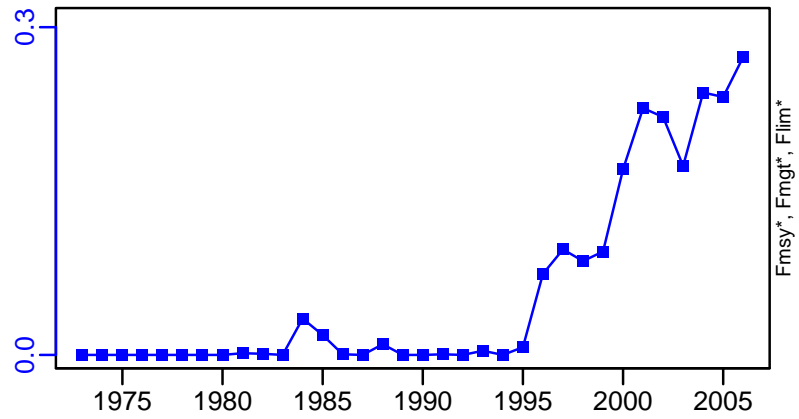
SSB-MT (1973-2006-CORDUE)



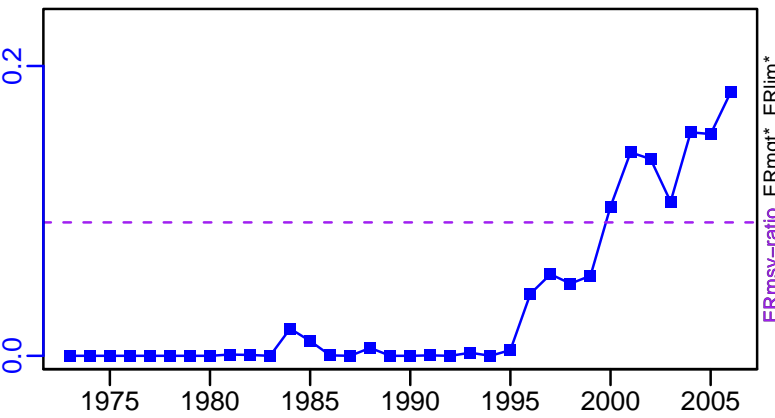
TN *



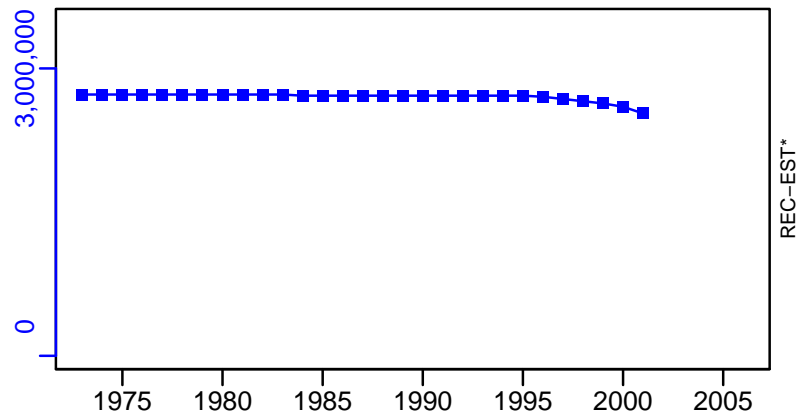
F-1/yr (1973-2006-CORDUE)



ER-ratio (1973-2006-CORDUE)



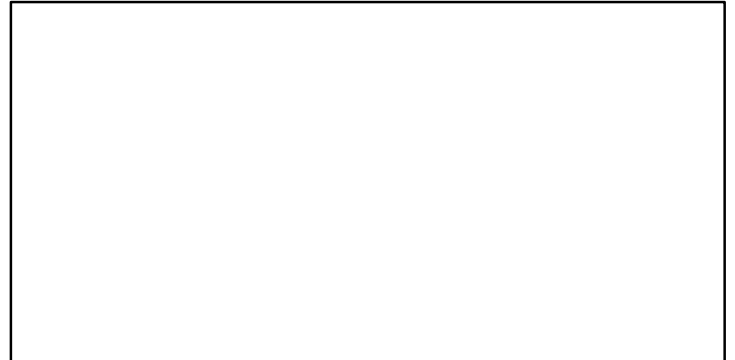
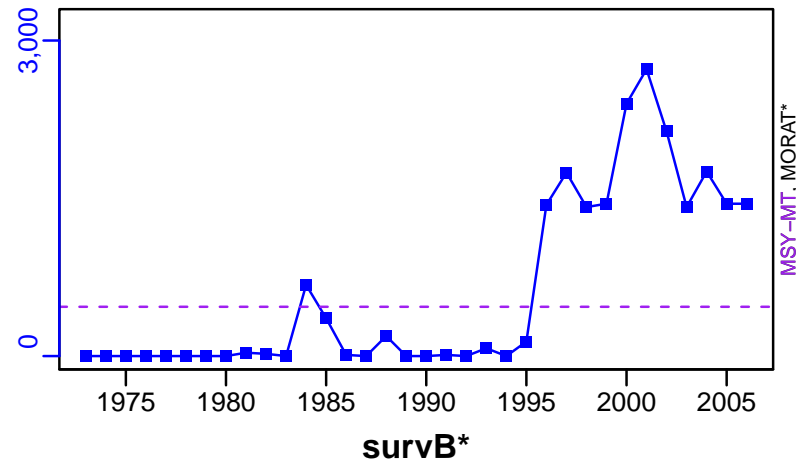
R-E00 (1973-2006-CORDUE)



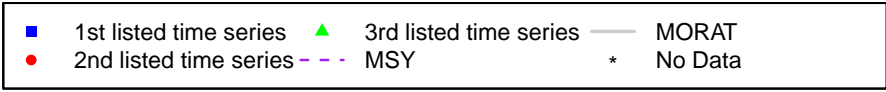
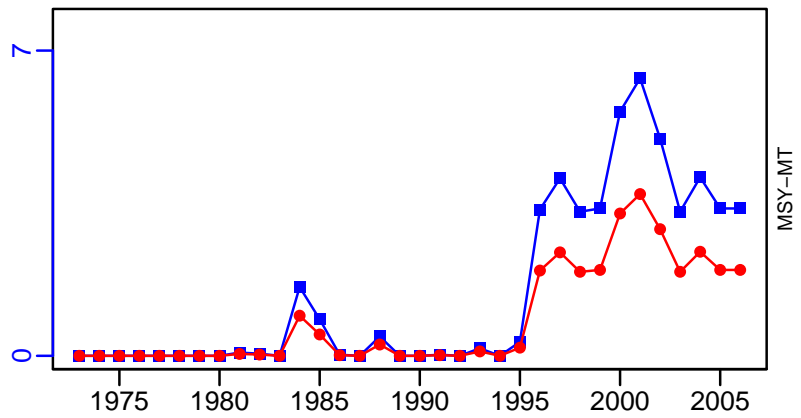
Smooth oreo East Pukaki Rise [SMOOTHOREOEPR]

TC-MT, TL*, RecC* (1973-2006-CORDUE)

TAC*, Cpair*, Cadv*



TC-MT/MSY-MT, CdivMEANC-ratio, (1973-2006-CORDUE)



Smooth oreo Southland [SMOOTHOREOSLD]

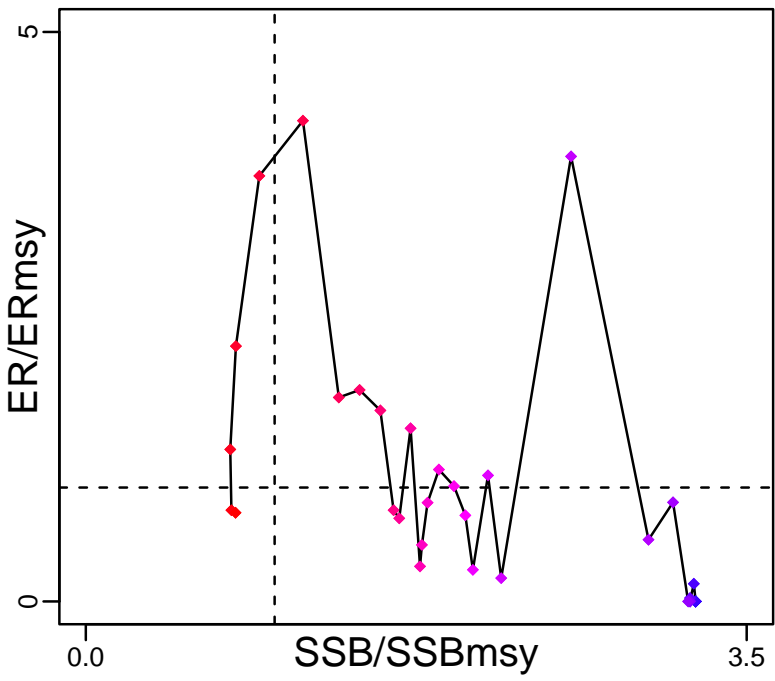
Metadata	
Scientific Name	Pseudocyttus maculatus
Current Assess ID	NIWA-SMOOTHOREOSLD-1973-2007-CORDUE
Area	Southland
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2007

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2007	11,999
SSBmsy	SSBmsy-MT	2007	5217
Fmsy	Fmsy-1/yr	2007	0.08
ERmsy	ERmsy-ratio	2007	0.035
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERMgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2007	16,829
MSY	MSY-MT	2007	421
M	M-1/yr	2007	0.06
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

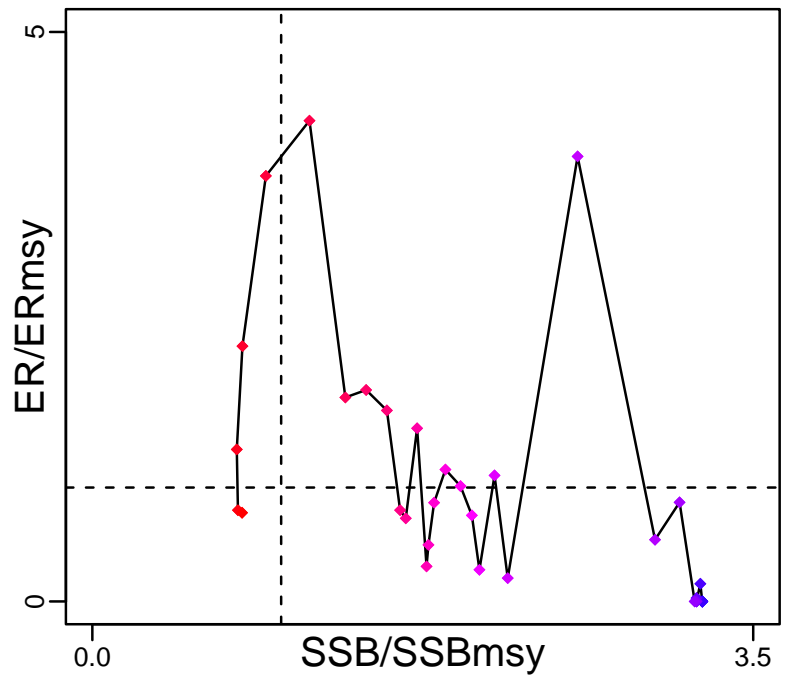
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2007	4140	Both	25+
TN	-	-	-	-	-
R	R-E00	2007	1,980,000	-	5
F	F-1/yr	2007	0.056	-	-
ER	ER-ratio	2007	0.027	-	-
TC	TC-MT	2007	260		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2007	0.793		
F/Fmsy	FdivFmsy-dimensionless	2007	0.718		
ER/ERmsy	ER-ratio/ERmsy-ratio	2007	0.779		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERMgt	-	-	-		

Smooth oreo Southland [SMOOTHOREOSLD]

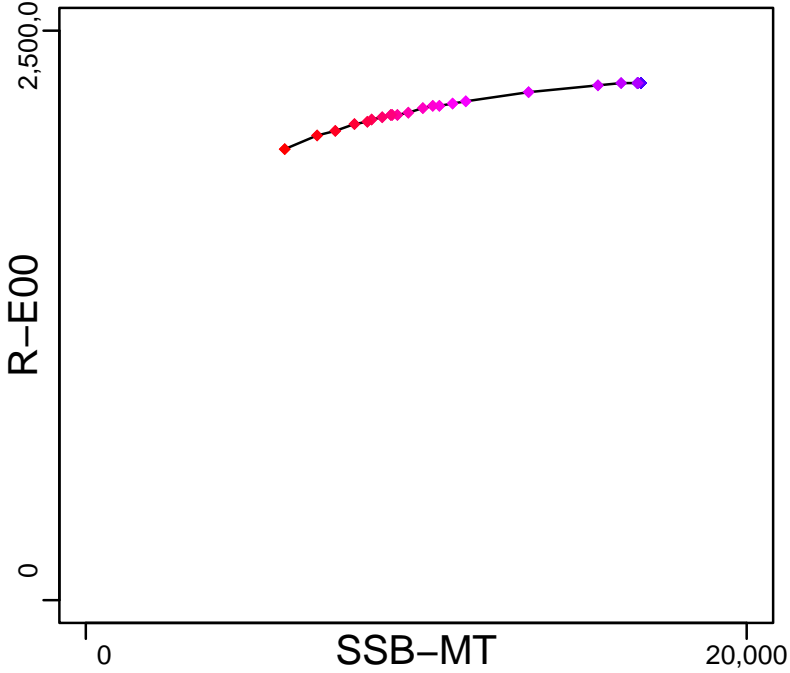
Kobe MSYpref (1973–2007–CORDUE)



Kobe MGTpref (1973–2007–CORDUE)



Spawner Recruit (1973–2007–CORDUE)



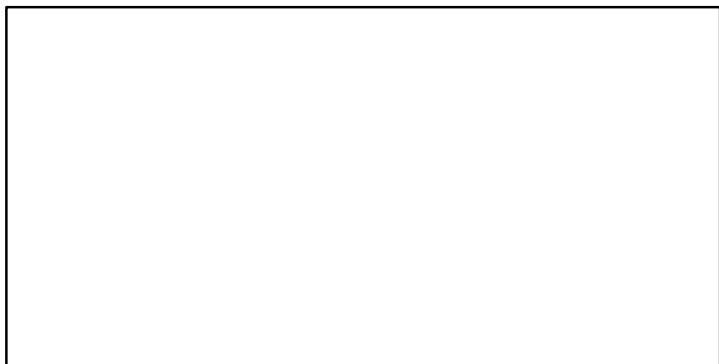
Production*



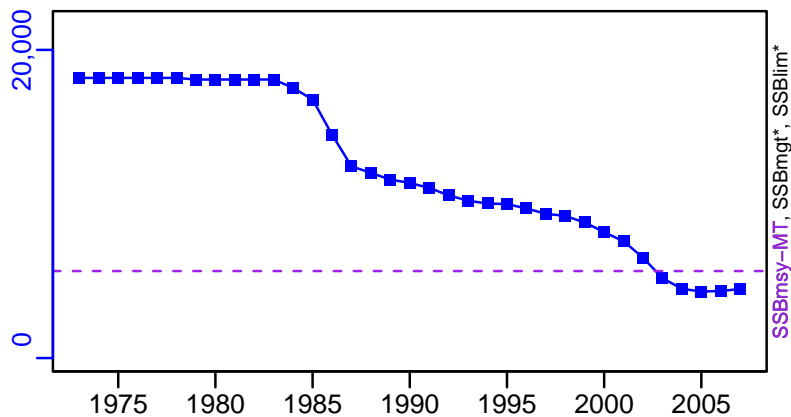
◆ Start Year ◆ End Year * No Data

Smooth oreo Southland [SMOOTHOREOSLD]

TB*



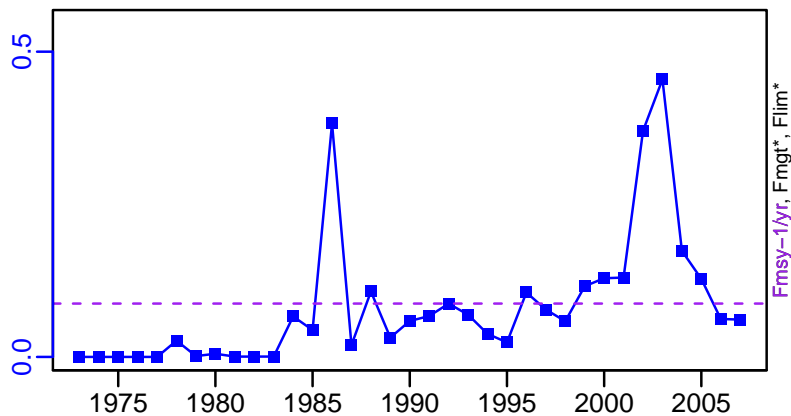
SSB-MT (1973-2007-CORDUE)



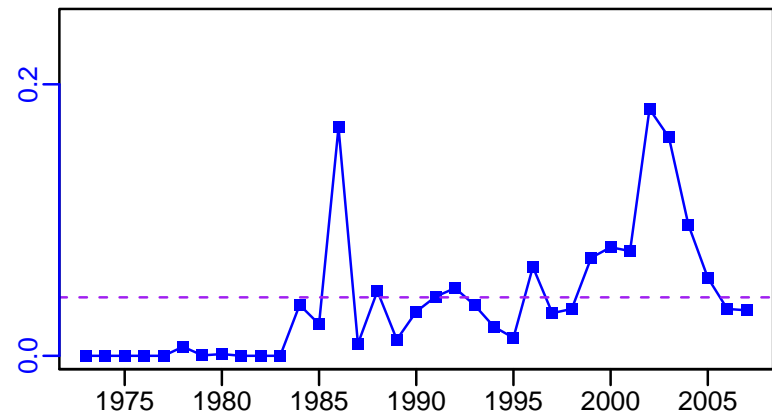
TN *



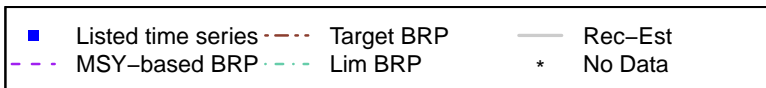
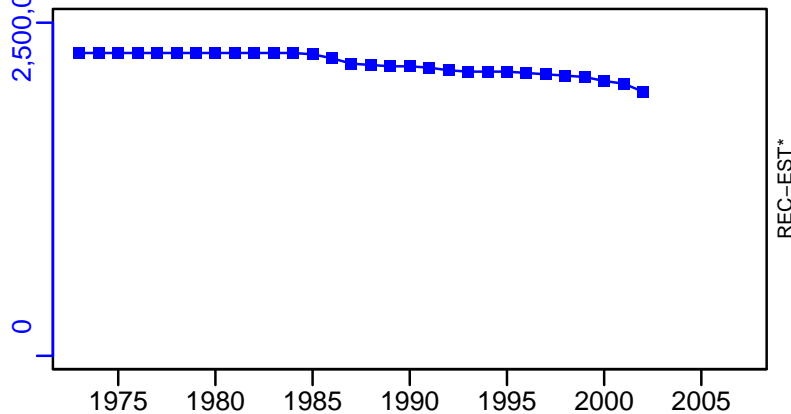
F-1/yr (1973-2007-CORDUE)



ER-ratio (1973-2007-CORDUE)



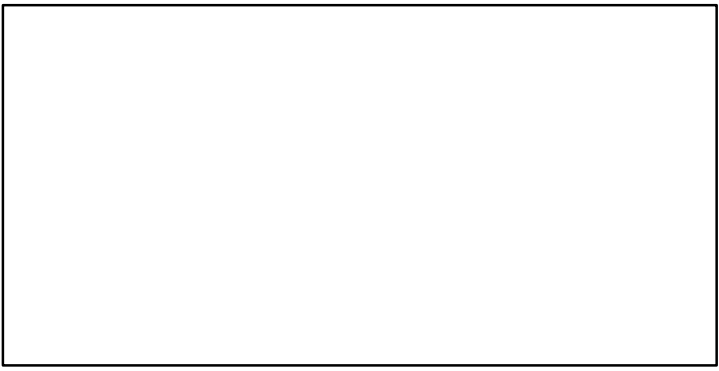
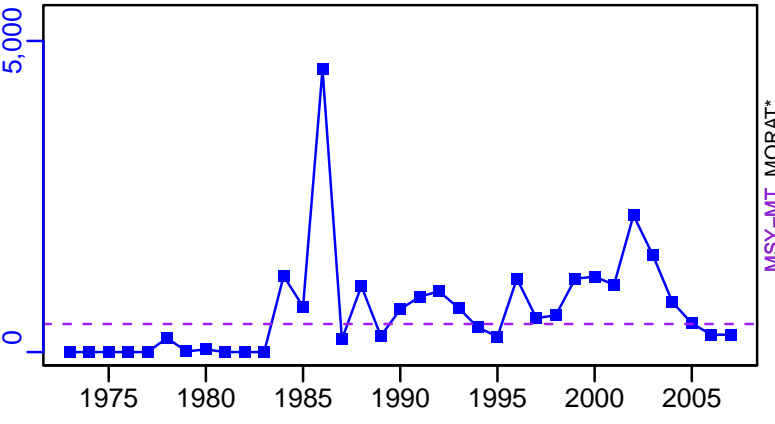
R-E00 (1973-2007-CORDUE)



Smooth oreo Southland [SMOOTHOREOSLD]

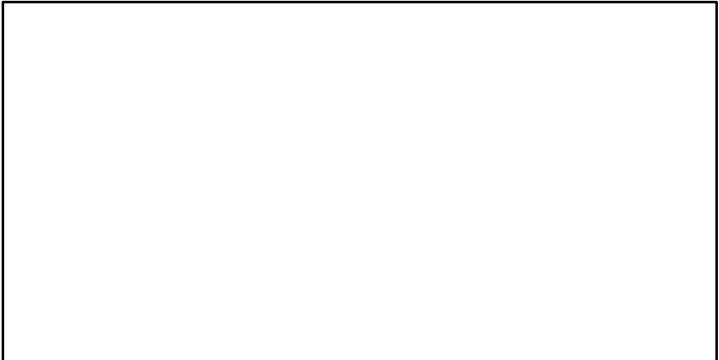
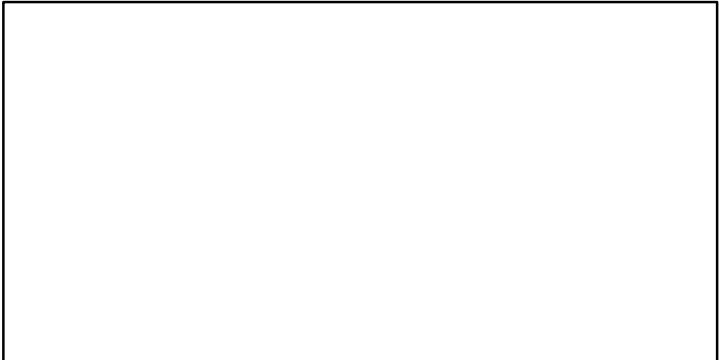
TC-MT, TL*, RecC* (1973-2007-CORDUE)

TAC*, Cpair*, Cadv*



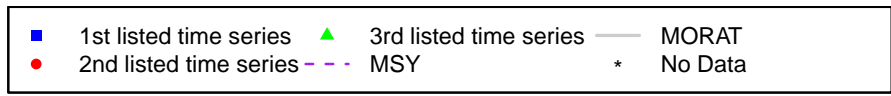
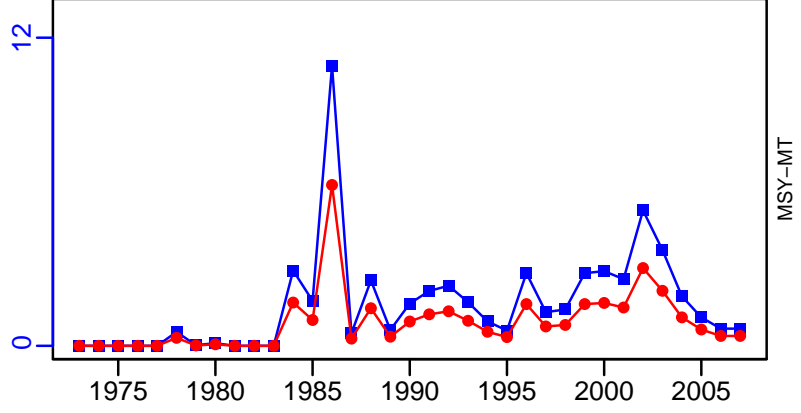
survB*

CPUE*



EFFORT*

TC-MT/MSY-MT, CdivMEANC-ratio, (1973-2007-CORDUE)



Smooth oreo West end of Chatham Rise [SMOOTHOREOWECR]

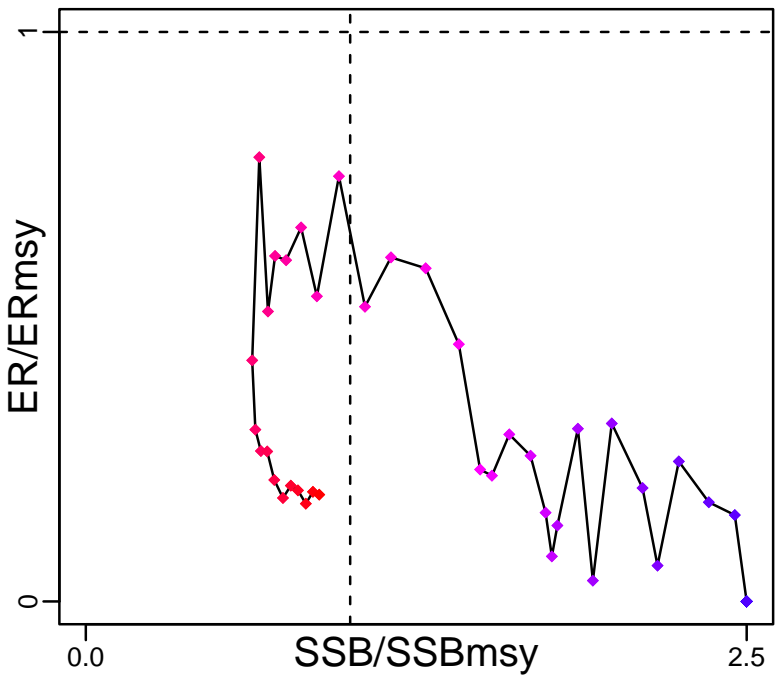
Metadata	
Scientific Name	Pseudocyttus maculatus
Current Assess ID	NIWA-SMOOTHOREOWECR-1965-2009-CORDUE
Area	West end of Chatham Rise
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2009

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2009	18,158
SSBmsy	SSBmsy-MT	2009	33,522
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2009	0.12
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2009	33,522
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2009	83,805
MSY	MSY-MT	2009	2179
M	M-1/yr	2009	0.06
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

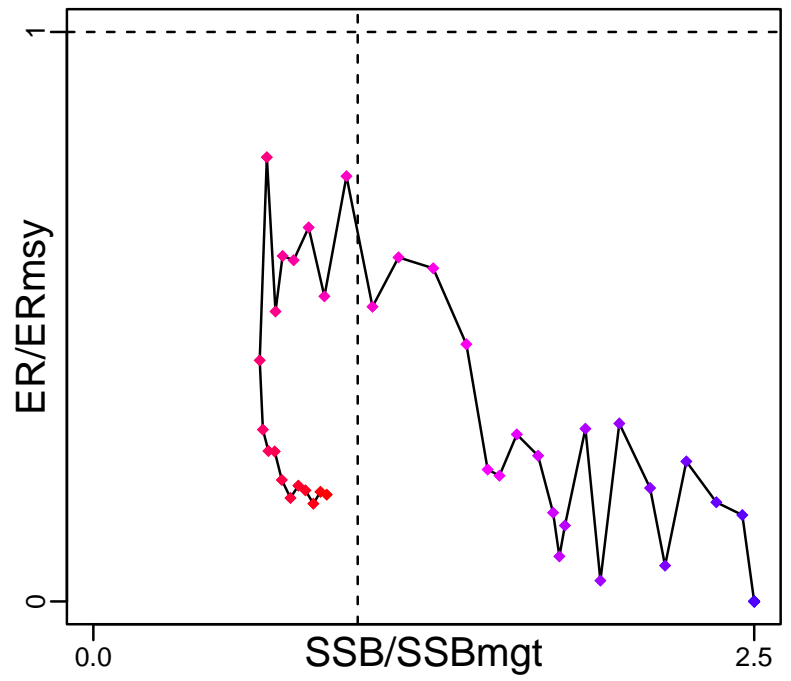
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2009	29,600	Both	25+
TN	-	-	-	-	-
R	R-E00	2009	9,930,000	-	5
F	F-1/yr	2009	0.059	-	-
ER	ER-ratio	2009	0.022	-	-
TC	TC-MT	2009	1530		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2009	0.883		
F/Fmsy	FdivFmsy-dimensionless	2009	0.494		
ER/ERmsy	ER-ratio/ERmsy-ratio	2009	0.188		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2009	0.883		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Smooth oreo West end of Chatham Rise [SMOOTHOREOWECR]

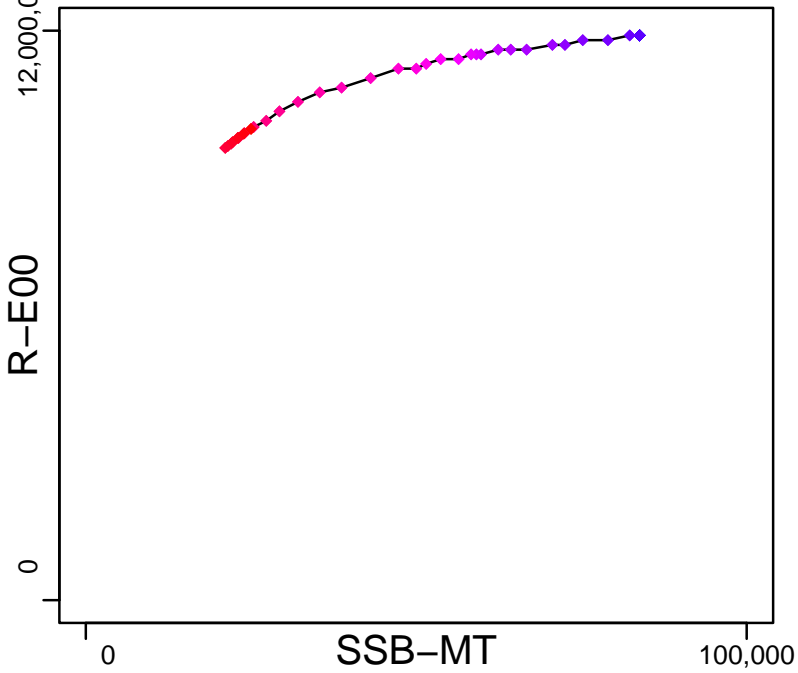
Kobe MSYpref (1965–2009–CORDUE)



Kobe MGTpref (1965–2009–CORDUE)



Spawner Recruit (1965–2009–CORDUE)



Production*



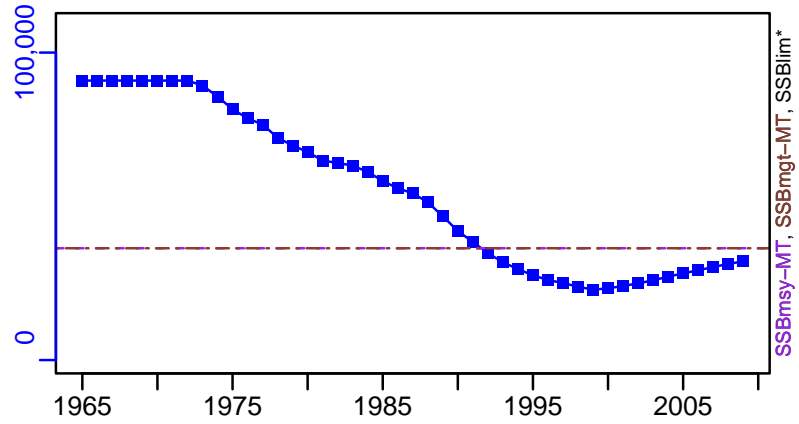
◆ Start Year ◆ End Year * No Data

Smooth oreo West end of Chatham Rise [SMOOTHOREOWECCR]

TB*



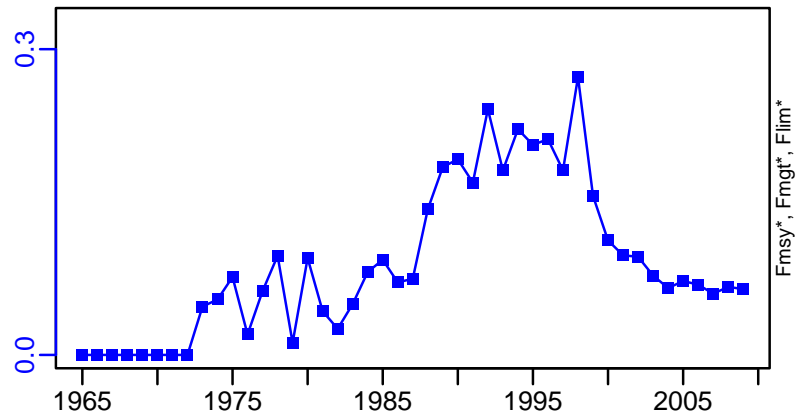
SSB-MT (1965-2009-CORDUE)



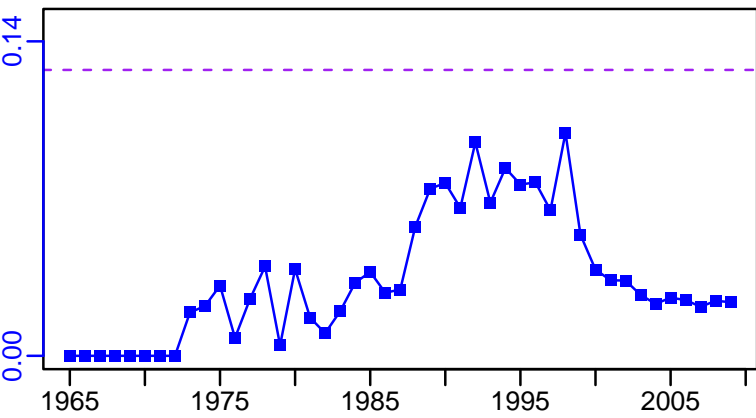
TN *



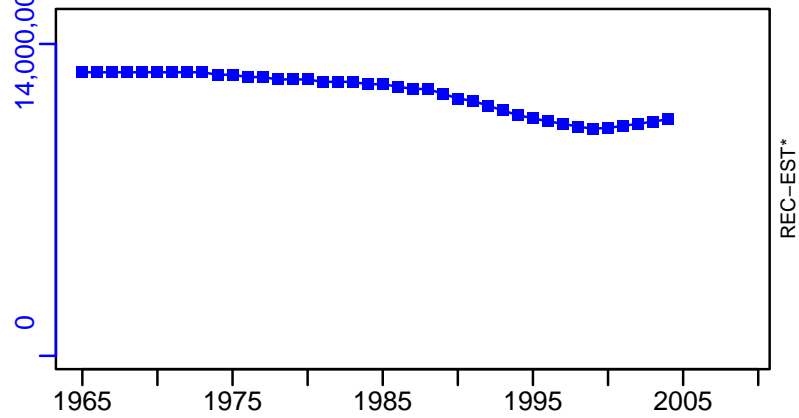
F-1/yr (1965-2009-CORDUE)



ER-ratio (1965-2009-CORDUE)



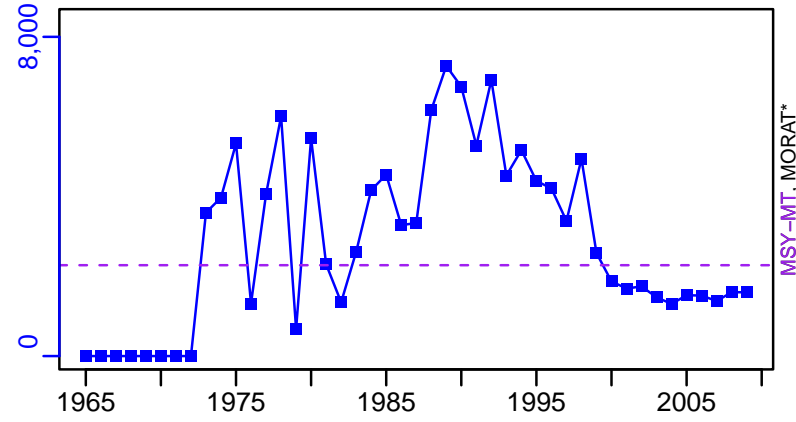
R-E00 (1965-2009-CORDUE)



Smooth oreo West end of Chatham Rise [SMOOTHOREOWECR]

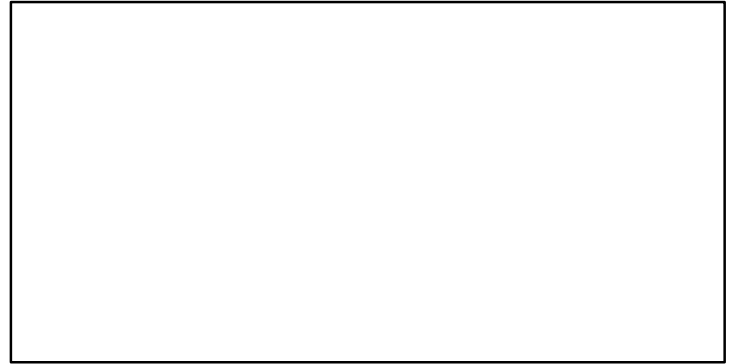
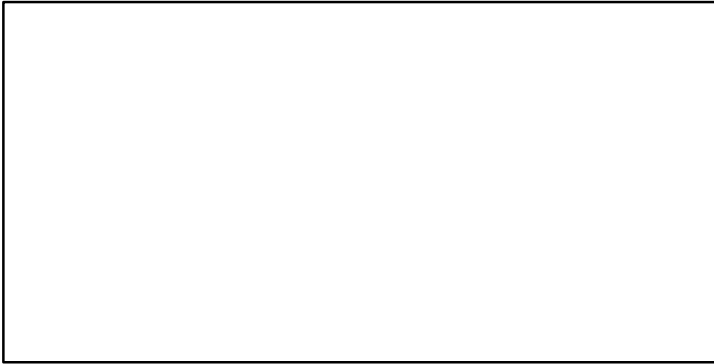
TC-MT, TL*, RecC* (1965-2009-CORDUE)

TAC*, Cpair*, Cadv*



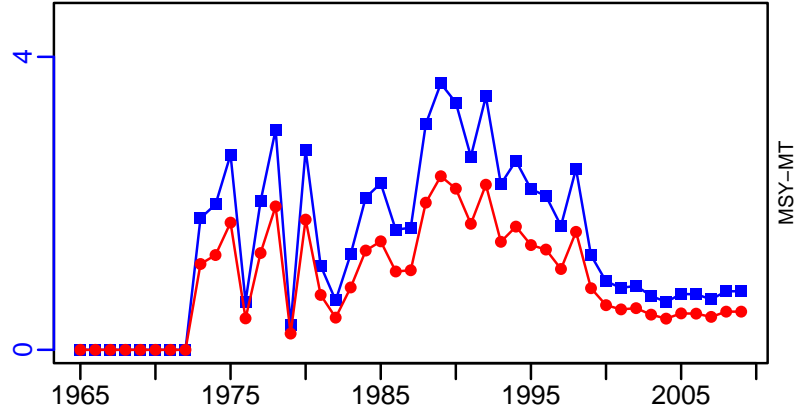
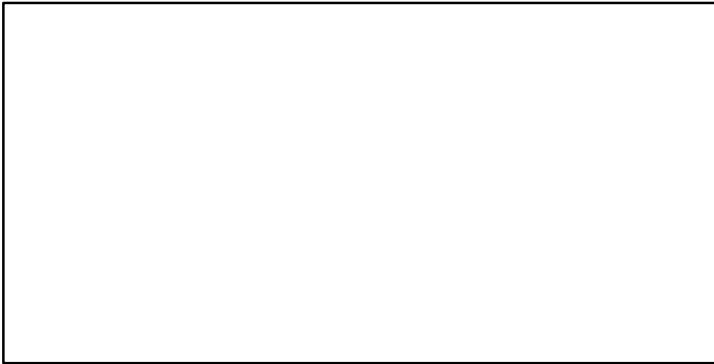
survB*

CPUE*



EFFORT*

TC-MT/MSY-MT, CdivMEANC-ratio, (1965-2009-CORDUE)



Southern hake Chatham Rise [SOUTHHAKECR]

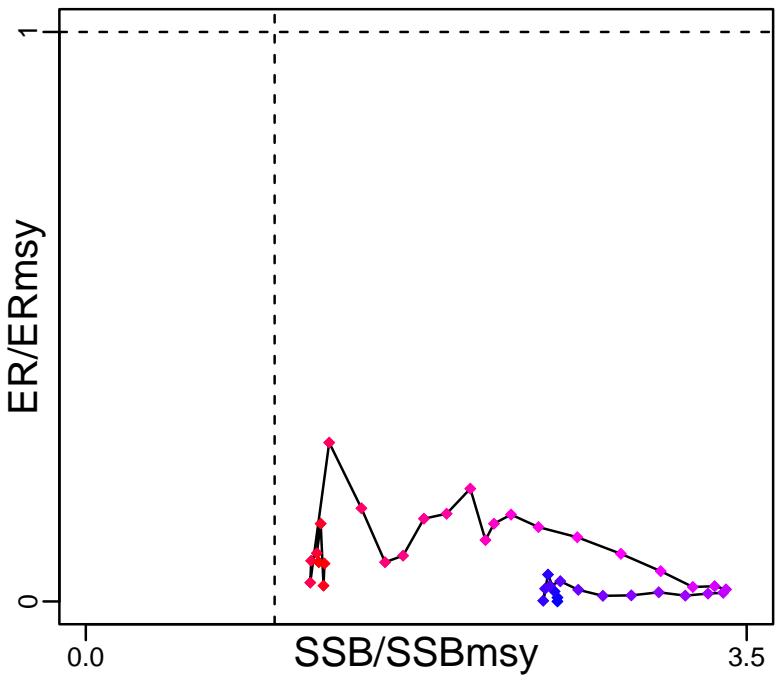
Metadata	
Scientific Name	Merluccius australis
Current Assess ID	NIWA-SOUTHHAKECR-1974-2012-FU
Area	Chatham Rise
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2012, 2010

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2012	10,626
SSBmsy	SSBmsy-MT	2012	19,938
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2012	0.39
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2012	19,938
Fmgt	-	-	-
ERmgt	-	-	-
TB0	TB0-MT	2010	88,920
SSB0	SSB0-MT	2012	49,845
MSY	MSY-MT	2012	4144
M	M-1/yr	2012	0.19
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

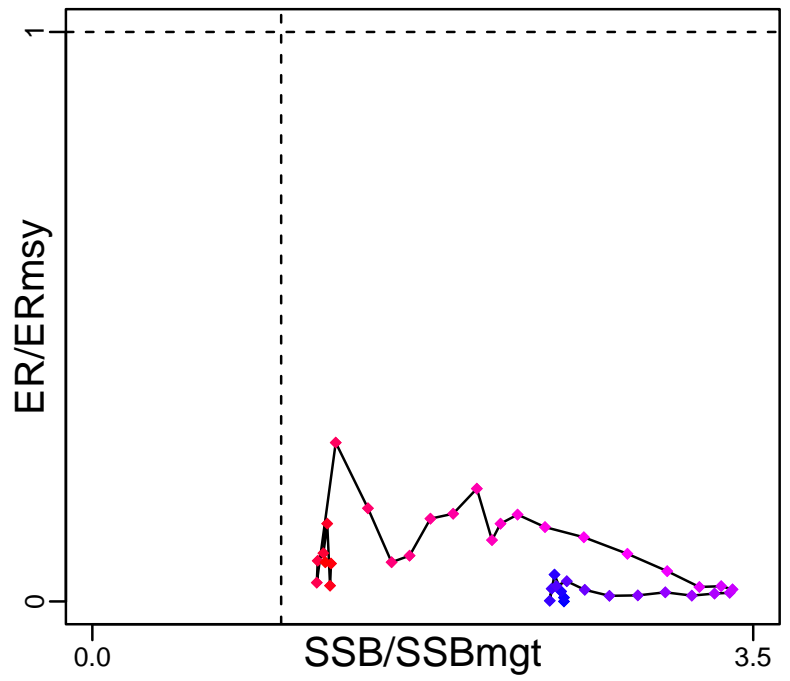
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2012	24,600	-	1 to 30
TN	-	-	-	-	-
R	R-E00	2012	4,350,000	Both	-
F	-	-	-	-	-
ER	ER-ratio	2010	0.026	-	-
TC	TC-MT	2012	950		
TL	TL-MT	2012	161		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2012	1.234		
F/Fmsy	-	-	-		
ER/ERmsy	ER-ratio/ERmsy-ratio	2010	0.077		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2012	1.234		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Southern hake Chatham Rise [SOUTHHAKECR]

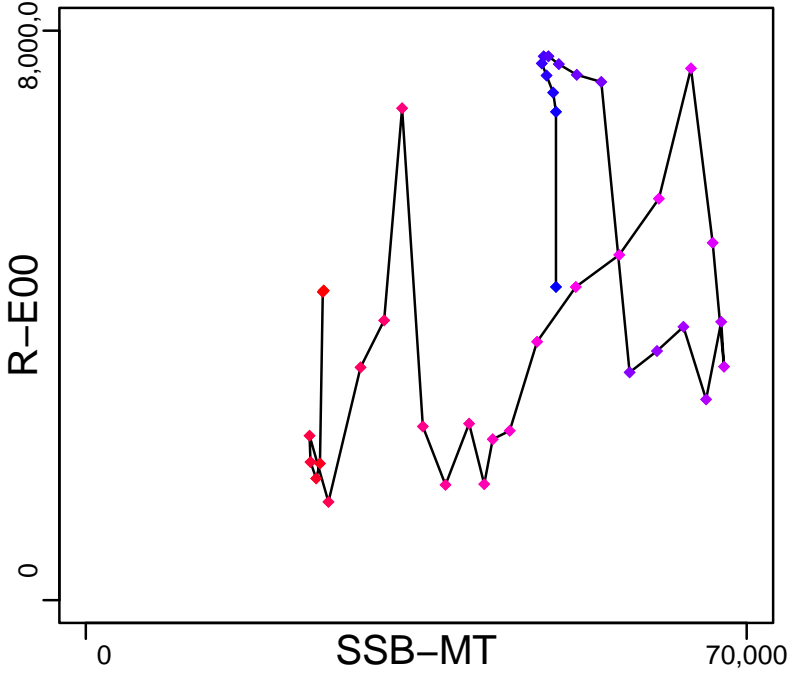
Kobe MSYpref (1974–2012–FU)



Kobe MGTpref (1974–2012–FU)



Spawner Recruit (1974–2012–FU)



Production*



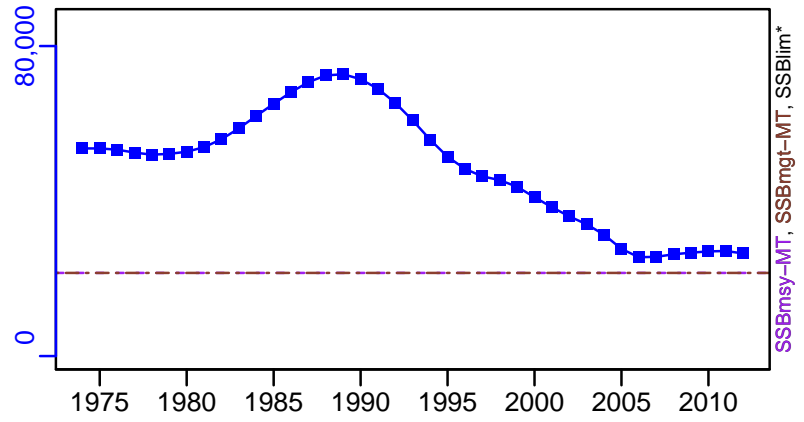
◆ Start Year ◆ End Year * No Data

Southern hake Chatham Rise [SOUTHHAKECR]

TB*



SSB-MT (1974-2012-FU)



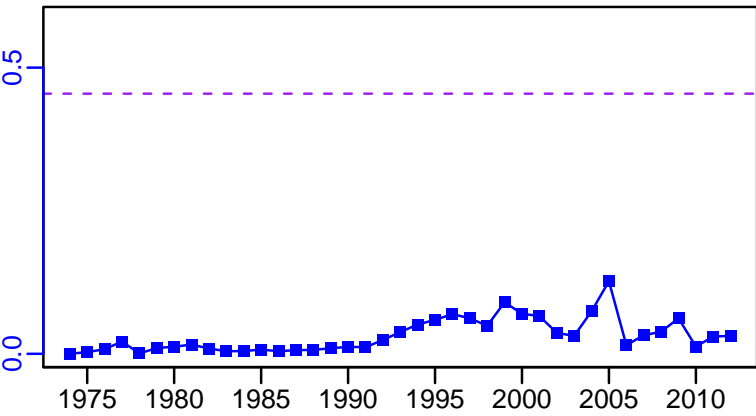
TN *



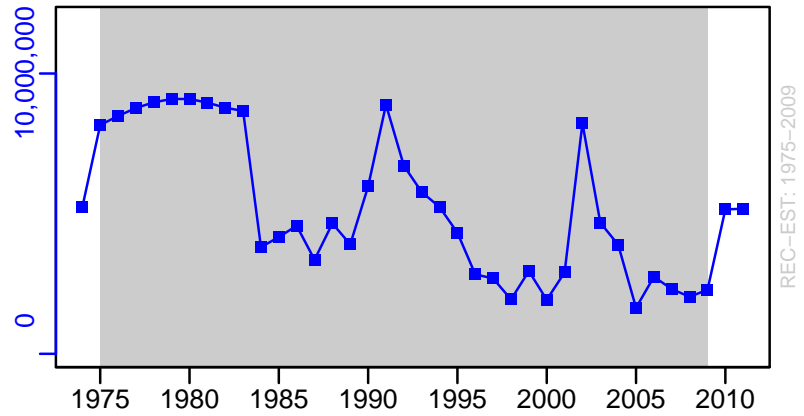
F*



ER-calc-ratio (1974-2012-FU)



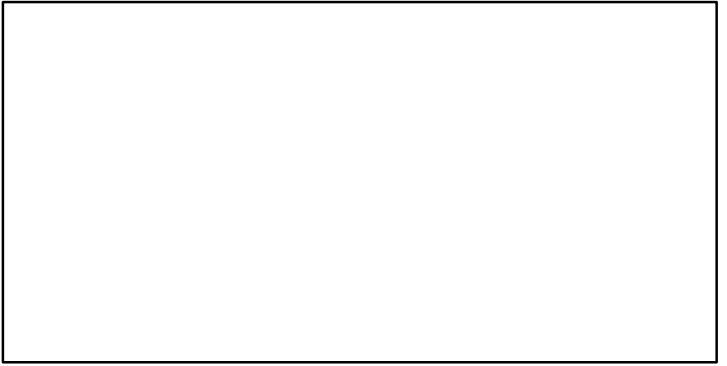
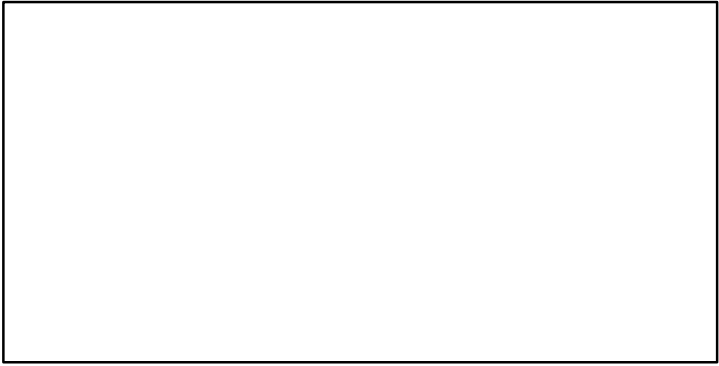
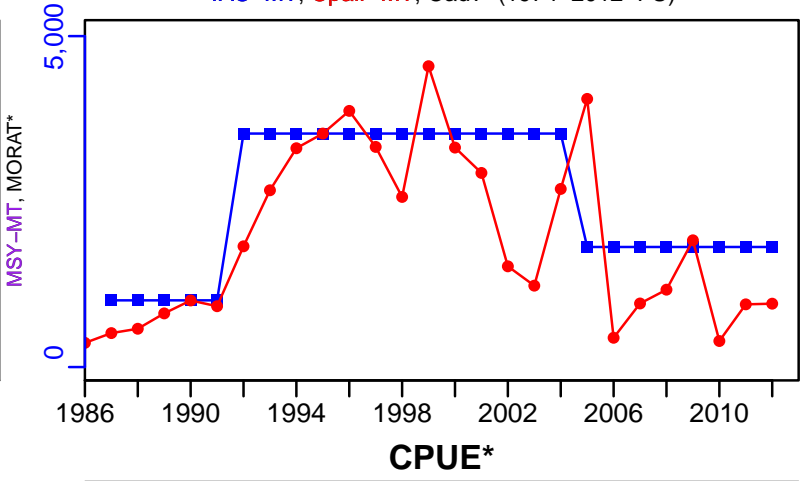
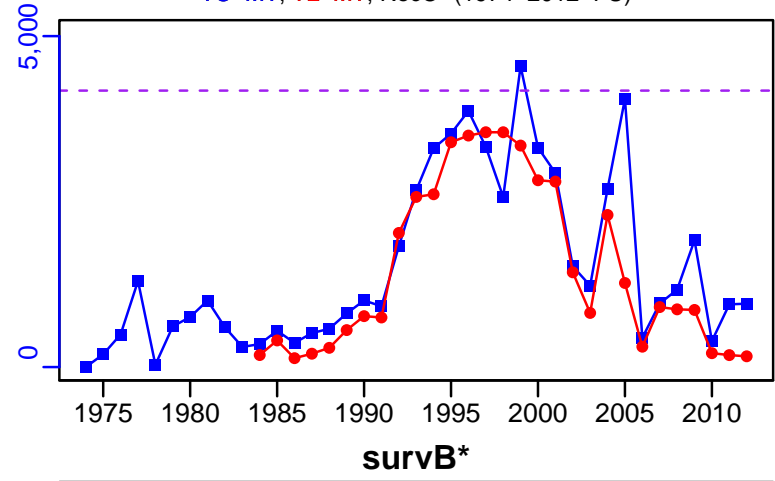
R-E00 (1974-2012-FU)



Southern hake Chatham Rise [SOUTHHAKECR]

TC-MT, TL-MT, RecC* (1974-2012-FU)

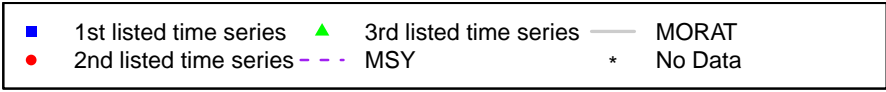
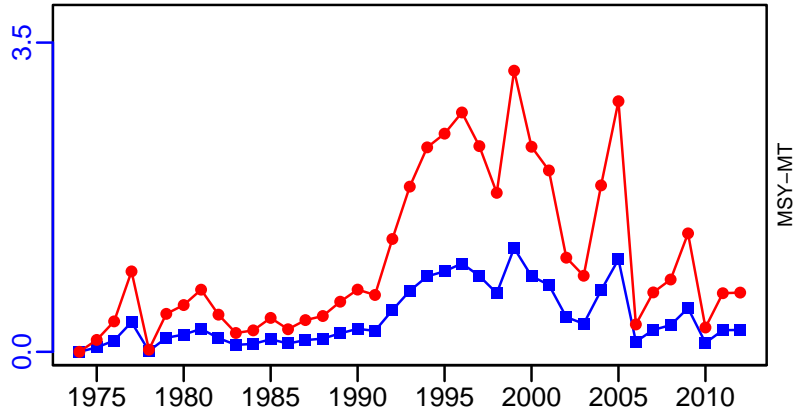
TAC-MT, Cpair-MT, Cadv* (1974-2012-FU)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1974-2012-FU)



Southern hake Sub-Antarctic [SOUTHAKESA]

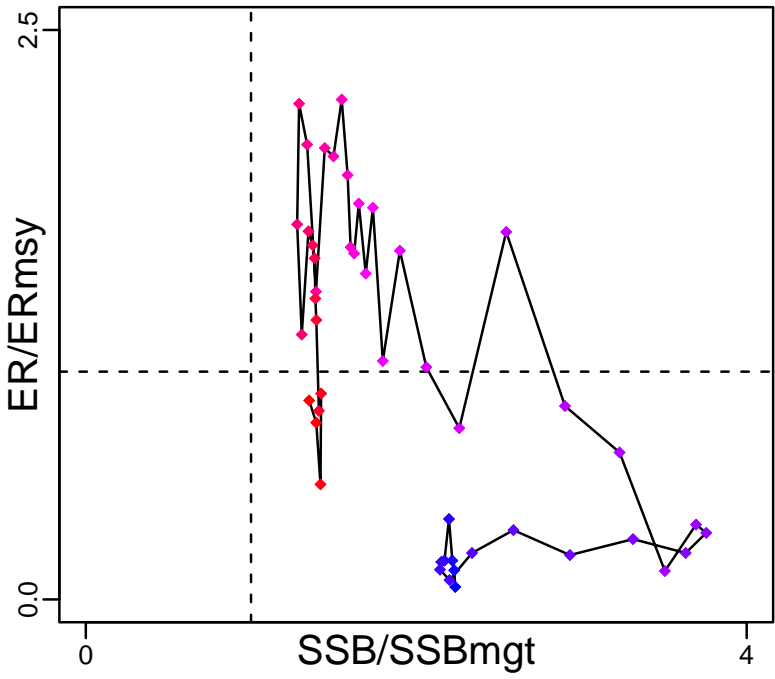
Metadata	
Scientific Name	Merluccius australis
Current Assess ID	NIWA-SOUTHAKESA-1974-2021-DUNN
Area	Sub-Antarctic
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2011, 2014, 2021, 2017

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2014	20,249
SSBmsy	SSBmsy-MT	2017	23,992
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2014	0.214
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2021	26,910
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2021	60,223
MSY	MSY-MT	2014	4341
M	M-1/yr	2021	0.19
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

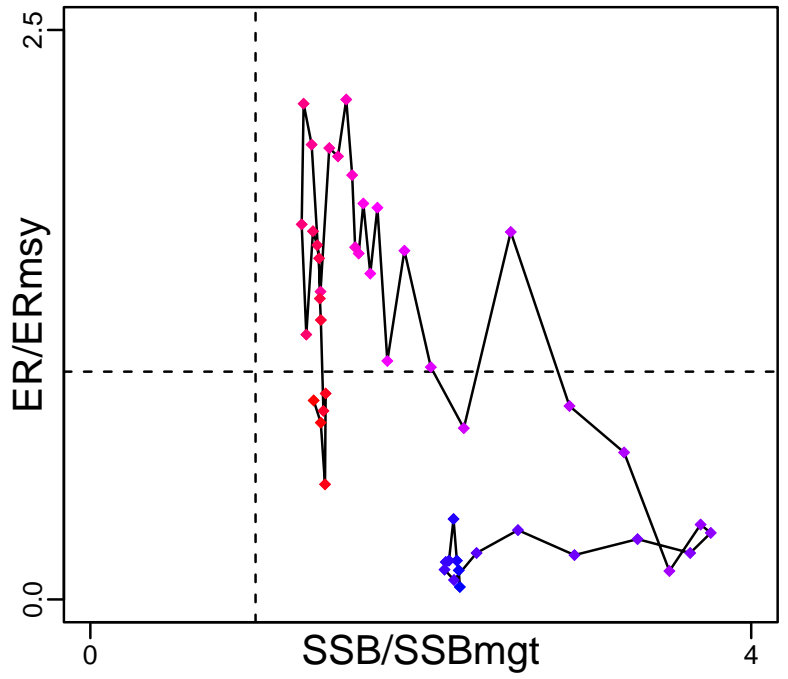
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2021	36,373	-	-
TN	-	-	-	-	-
R	R-E00	2021	6,512,550	Both	1
F	F-1/yr	2011	0.051	-	-
ER	ER-ratio	2021	0.029	-	-
TC	TC-MT	2021	1355		
TL	TL-MT	2021	1355		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2017	1.311		
F/Fmsy	FdivFmsy-dimensionless	2011	0.108		
ER/ERmsy	ERdivERmsy-dimensionless	2014	0.22		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2021	1.352		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Southern hake Sub-Antarctic [SOUTHAKESA]

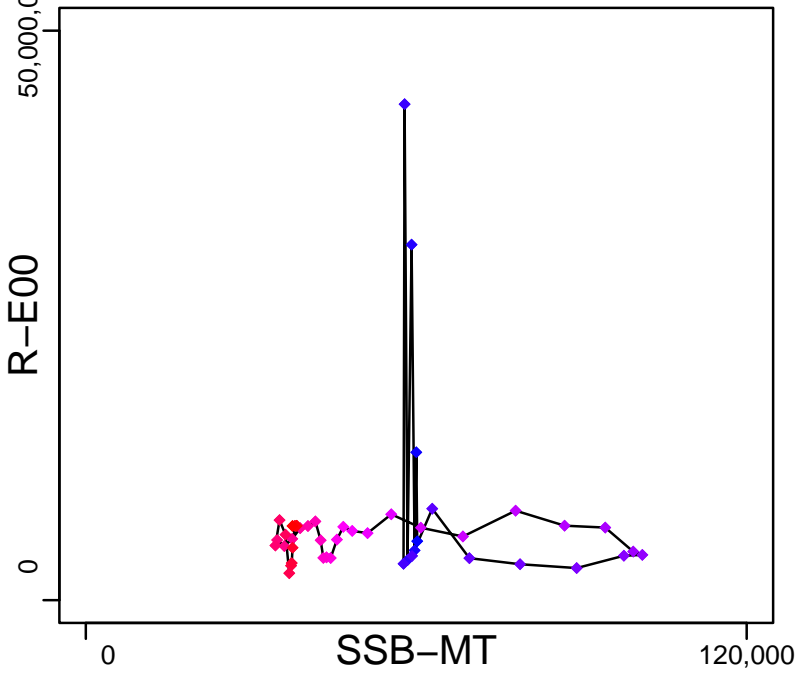
Kobe MSYpref (1974-2021-DUNN)



Kobe MGTpref (1974-2021-DUNN)



Spawner Recruit (1974-2021-DUNN)



Production*



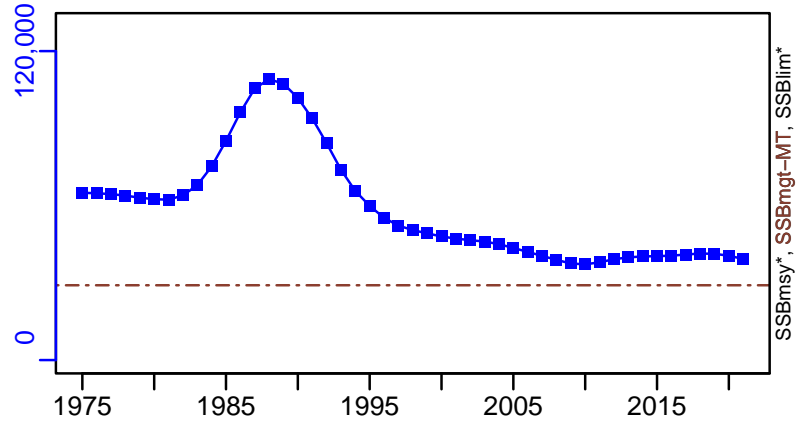
◆ Start Year ◆ End Year * No Data

Southern hake Sub-Antarctic [SOUTHAKESA]

TB*



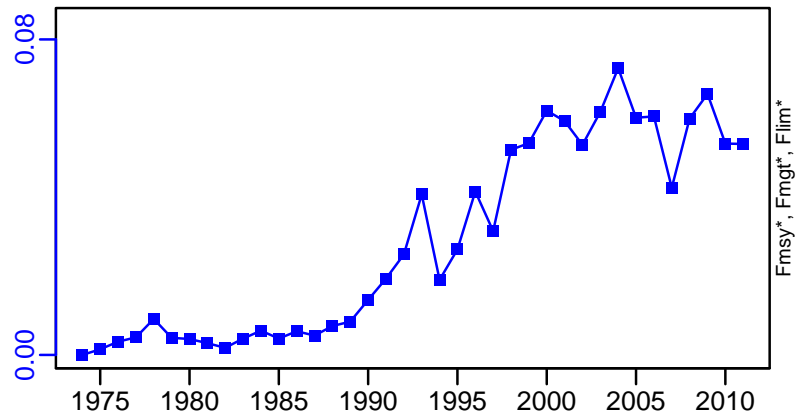
SSB-MT (1974-2021-DUNN)



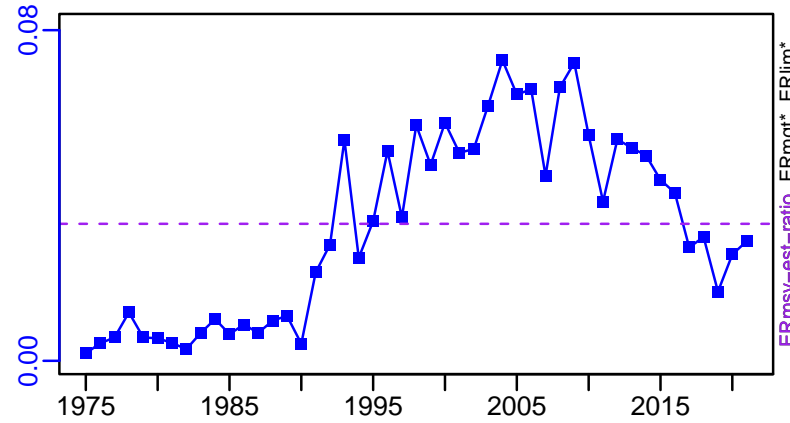
TN *



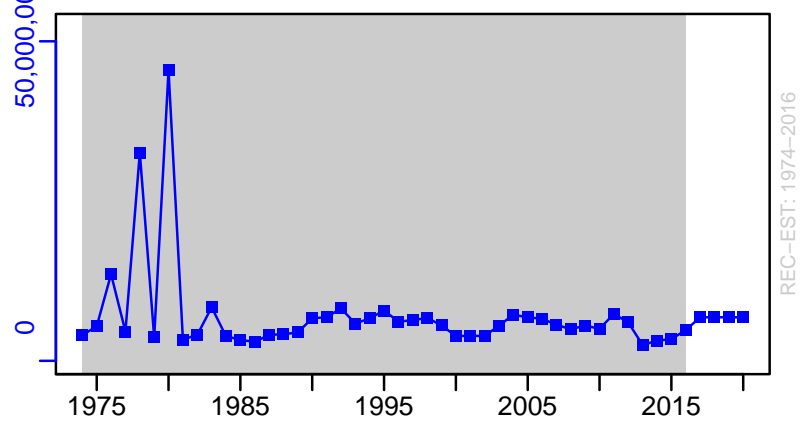
F-1/yr (1974-2011-CORDUE)



ER-ratio (1974-2021-DUNN)

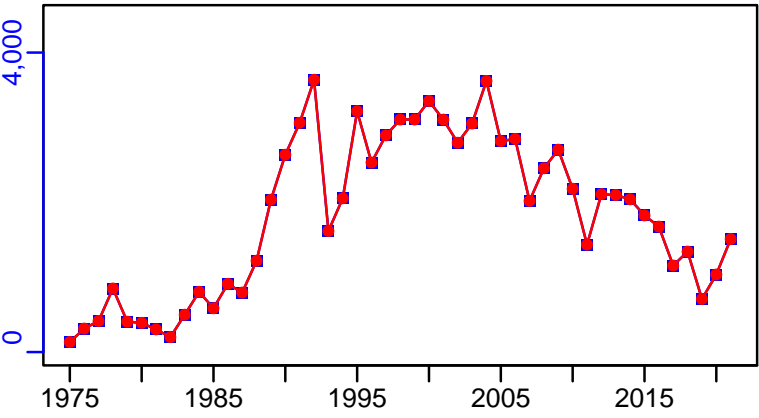


R-E00 (1974-2021-DUNN)

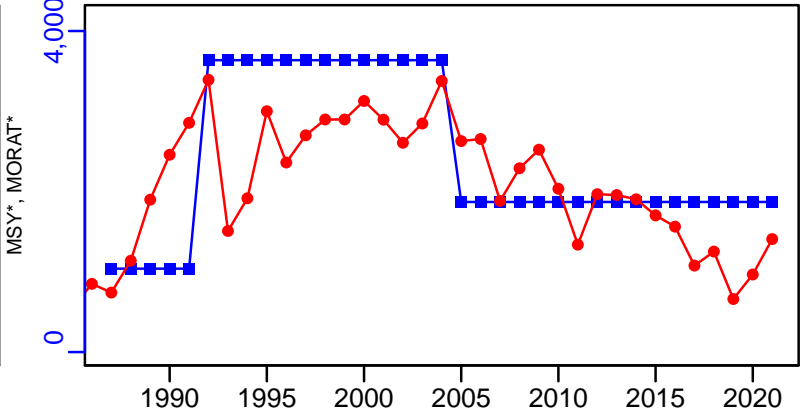


Southern hake Sub-Antarctic [SOUTHAKESA]

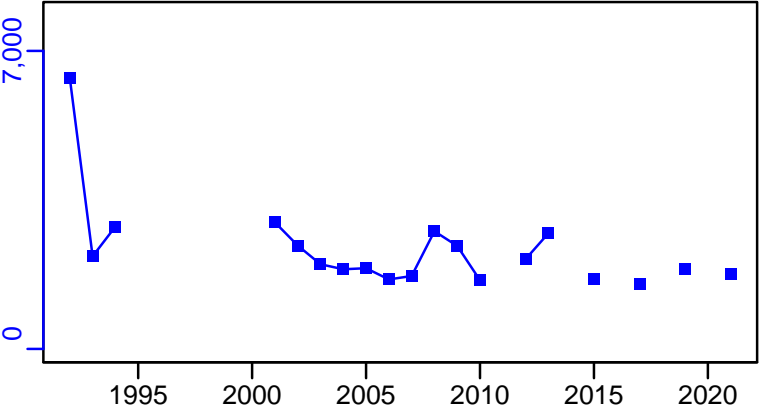
TC-MT, TL-MT, RecC* (1974-2021-DUNN)



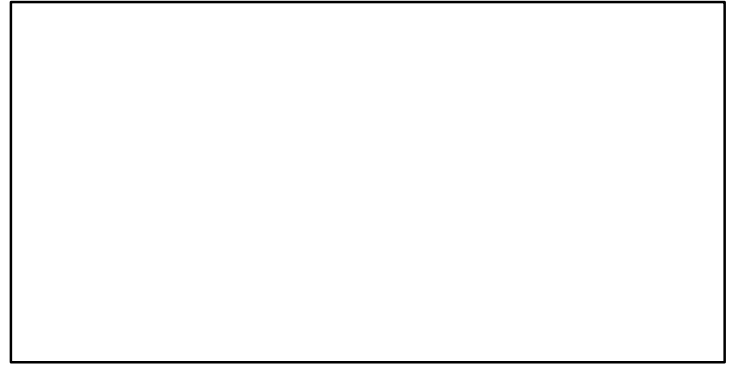
TAC-MT, Cpair-MT, Cadv* (1974-2021-DUNN)



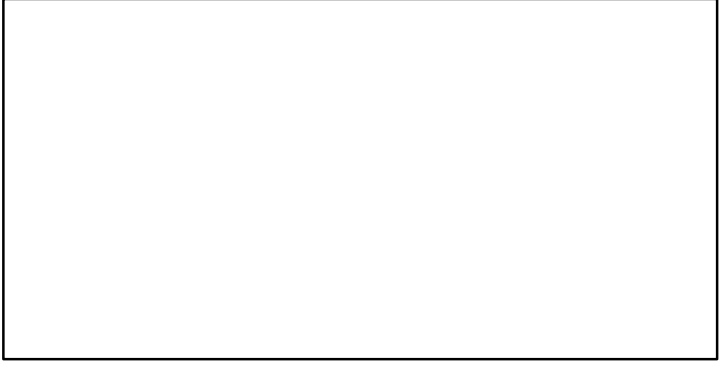
survB_absolute-MT (1974-2021-DUNN)



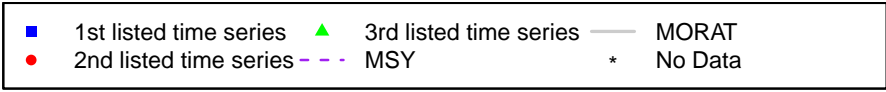
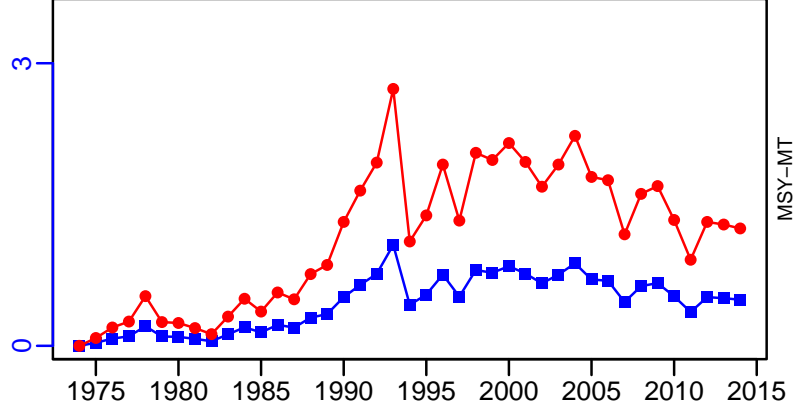
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1974-2014-FU)



Southern hake West Coast South Island [SOUTHHAKEWCSI]

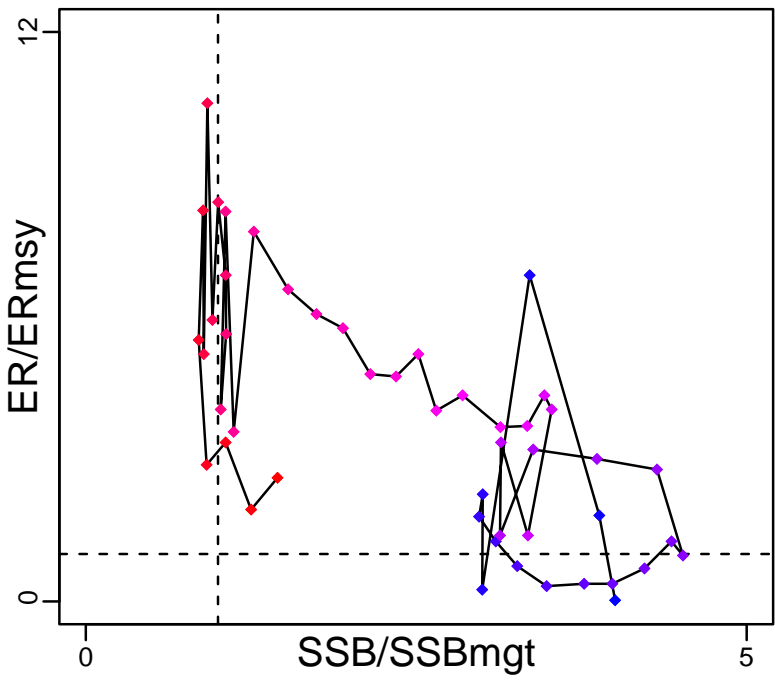
Metadata	
Scientific Name	Merluccius australis
Current Assess ID	NIWA-SOUTHHAKEWCSI-1974-2022-DUNN
Area	West Coast South Island
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2012, 2022, 2019

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2012	11,376
SSBmsy	SSBmsy-MT	2019	28,014
Fmsy	-	-	-
ERmsy	ERmsy-pr-ratio	2012	0.71
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2022	19,519
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2022	78,202
MSY	MSY-MT	2012	8077
M	M-1/yr	2022	0.19
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

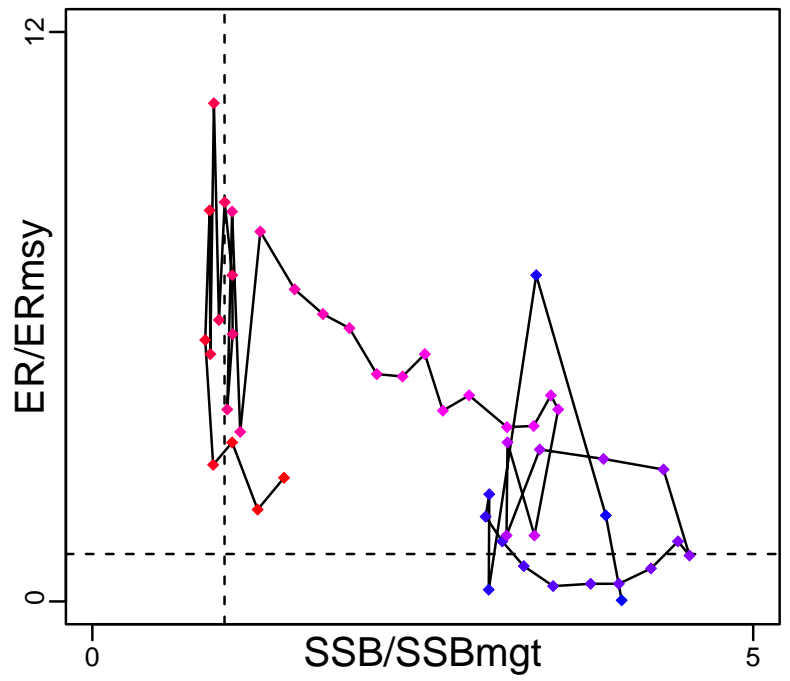
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2022	49,373	-	1+
SSB	SSB-MT	2022	28,314	Both	-
TN	TN-E00	2022	24,183,100	-	1+
R	R-E00	2022	6,390,470	Both	1
F	-	-	-	-	-
ER	ER-ratio	2022	0.105	-	-
TC	TC-MT	2022	1367		
TL	TL-MT	2022	1367		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2019	0.422		
F/Fmsy	-	-	-		
ER/ERmsy	ERdivERmsy-dimensionless	2012	0.16		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2022	1.451		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Southern hake West Coast South Island [SOUTHHAKEWCSI]

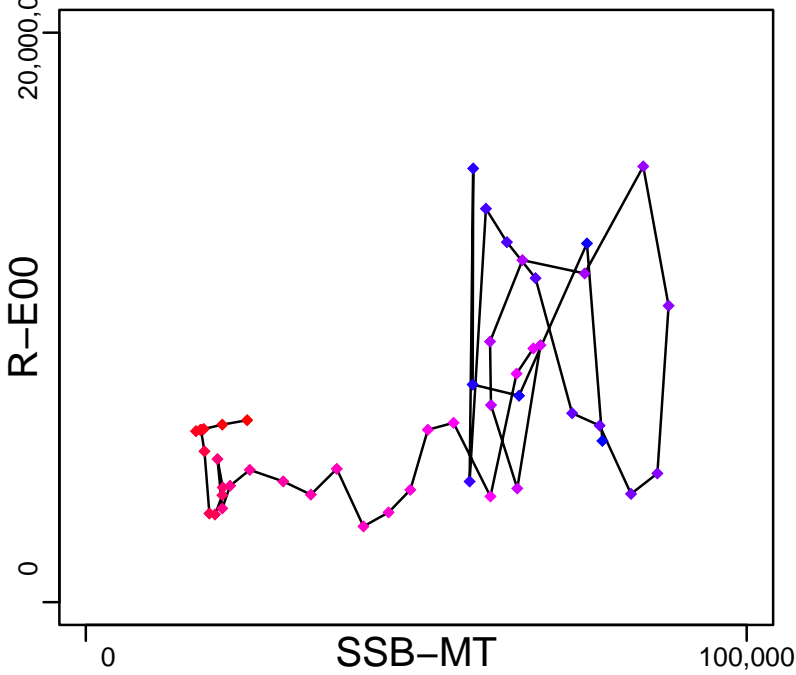
Kobe MSYpref (1974–2022–DUNN)



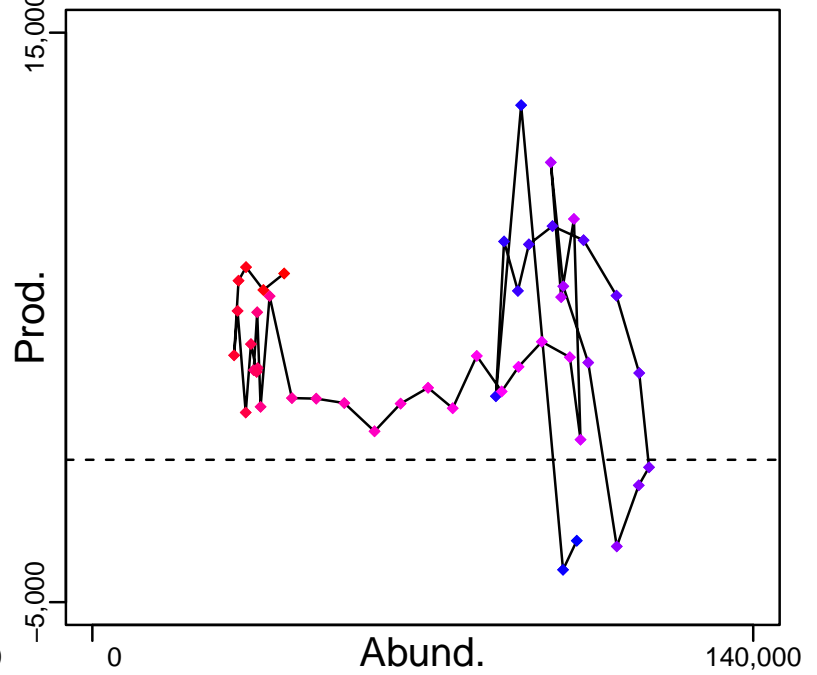
Kobe MGTpref (1974–2022–DUNN)



Spawner Recruit (1974–2022–DUNN)



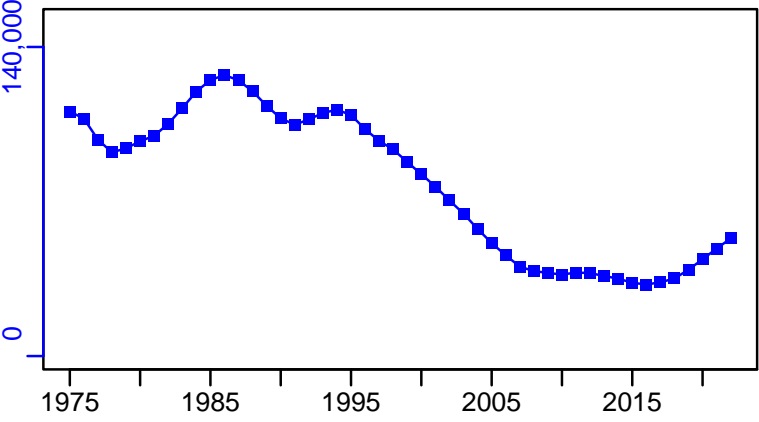
Production (1974–2022–DUNN)



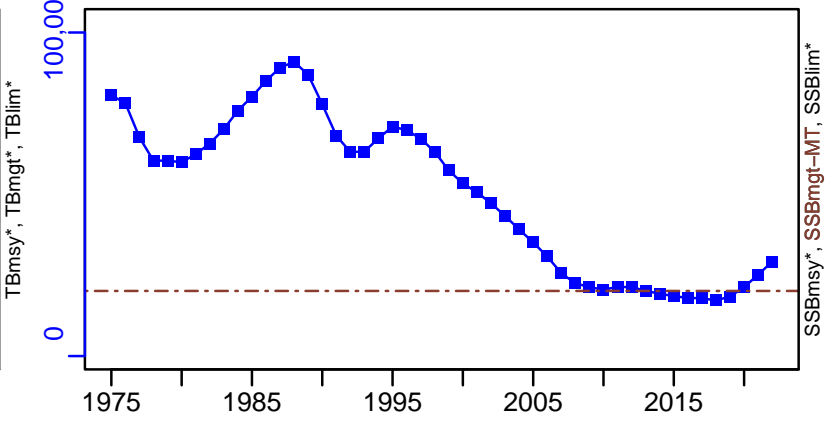
◆ Start Year ◆ End Year * No Data

Southern hake West Coast South Island [SOUTHHAKEWCSI]

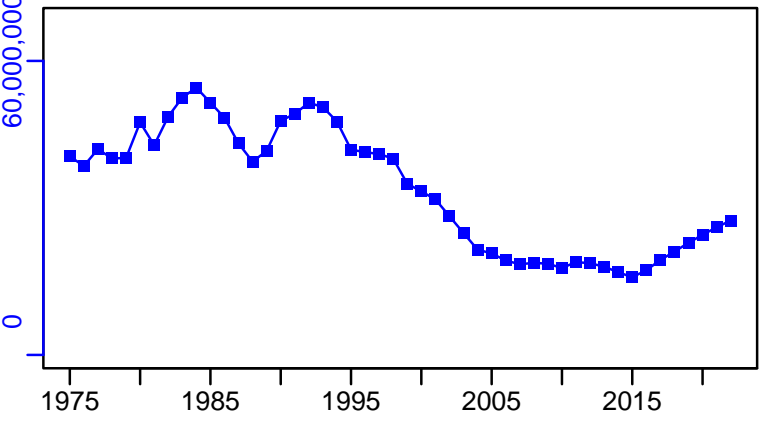
TB-MT (1974-2022-DUNN)



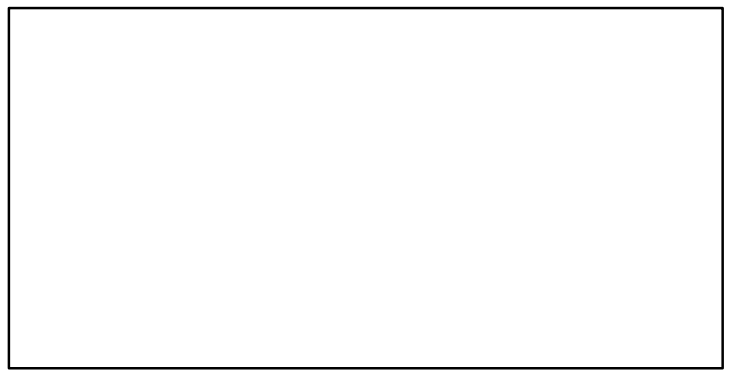
SSB-MT (1974-2022-DUNN)



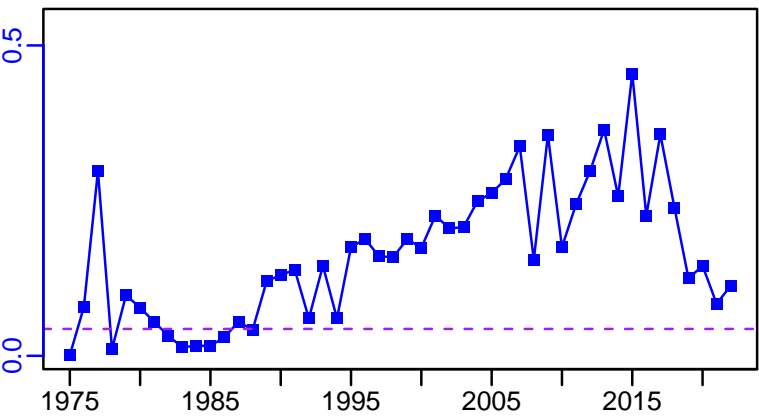
TN-E00 (1974-2022-DUNN)



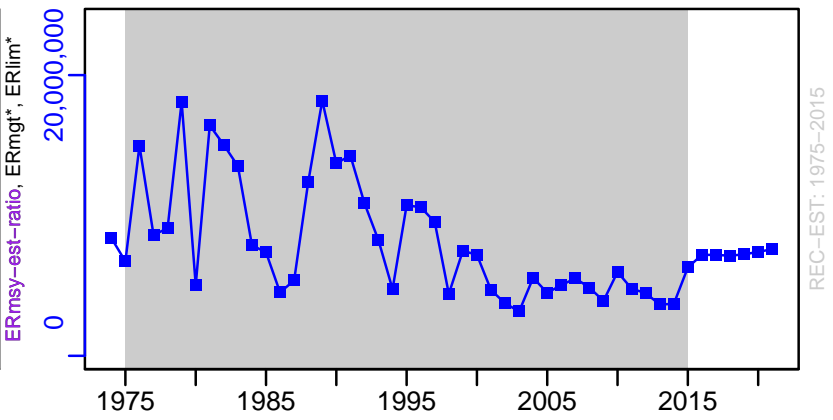
F*



ER-ratio (1974-2022-DUNN)

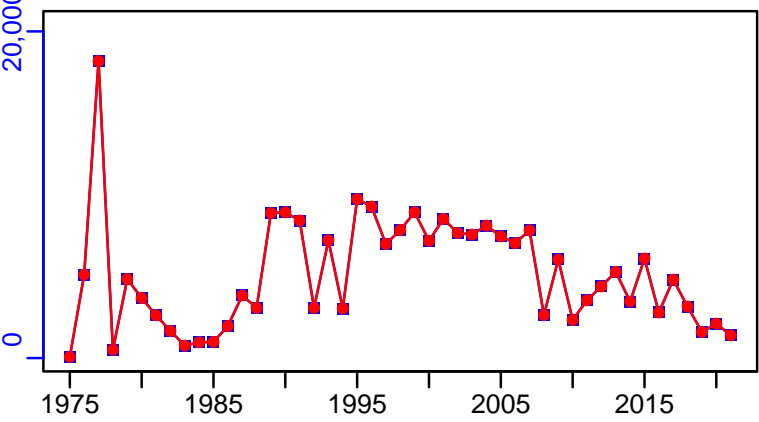


R-E00 (1974-2022-DUNN)

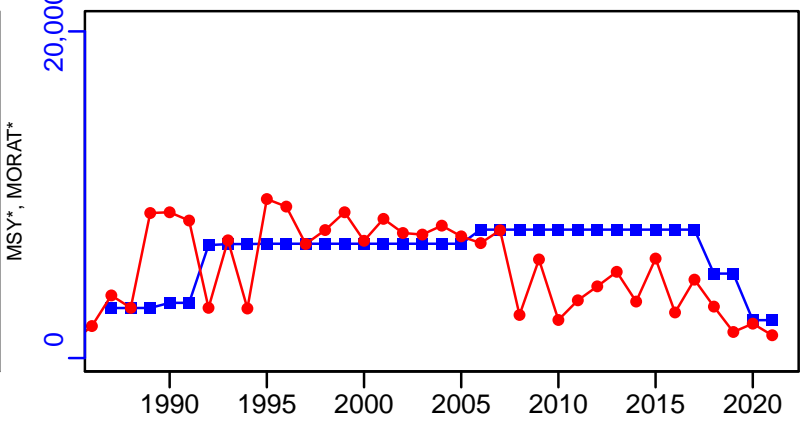


Southern hake West Coast South Island [SOUTHHAKEWCSI]

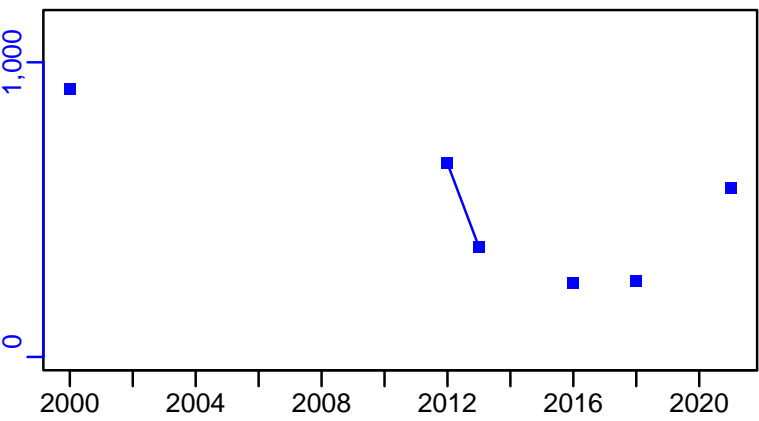
TC-MT, TL-MT, RecC* (1974-2022-DUNN)



TAC-MT, Cpair-MT, Cadv* (1974-2022-DUNN)



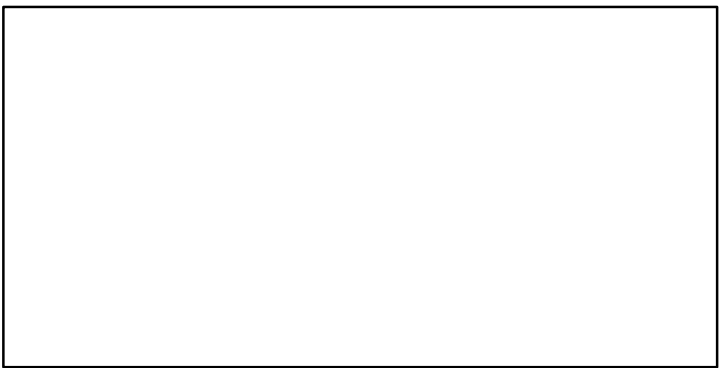
survB_absolute-MT (1974-2022-DUNN)



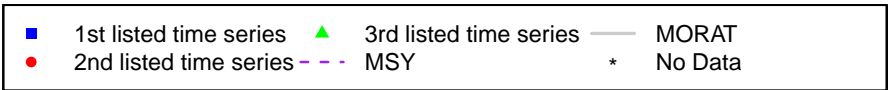
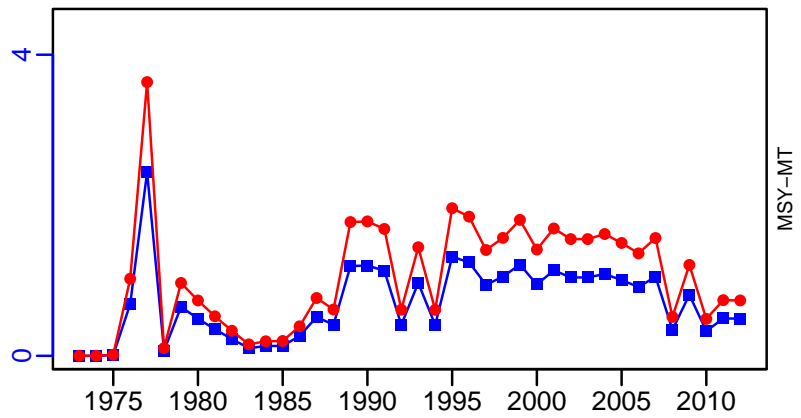
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1973-2012-FU)



Tarakihi Sub-Antarctic [TARAKNZ]

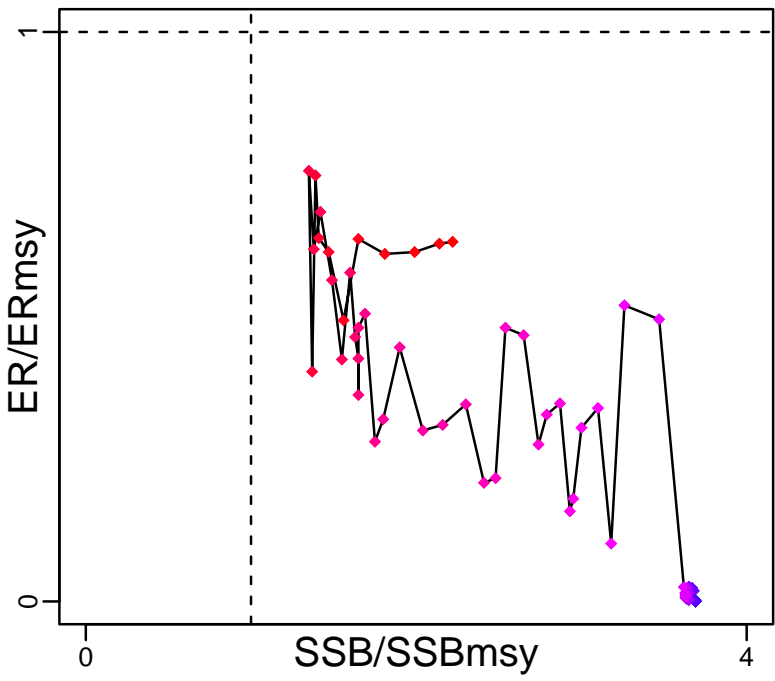
Metadata	
Scientific Name	Nemadactylus macropterus
Current Assess ID	NIWA-TARAKNZ-1932-2007-CORDUE
Area	Sub-Antarctic
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2007

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2007	11,187
SSBmsy	SSBmsy-MT	2007	4864
Fmsy	Fmsy-1/yr	2007	0.1
ERmsy	ERmsy-ratio	2007	0.061
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2007	17,950
MSY	MSY-MT	2007	682
M	M-1/yr	2007	0.1
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

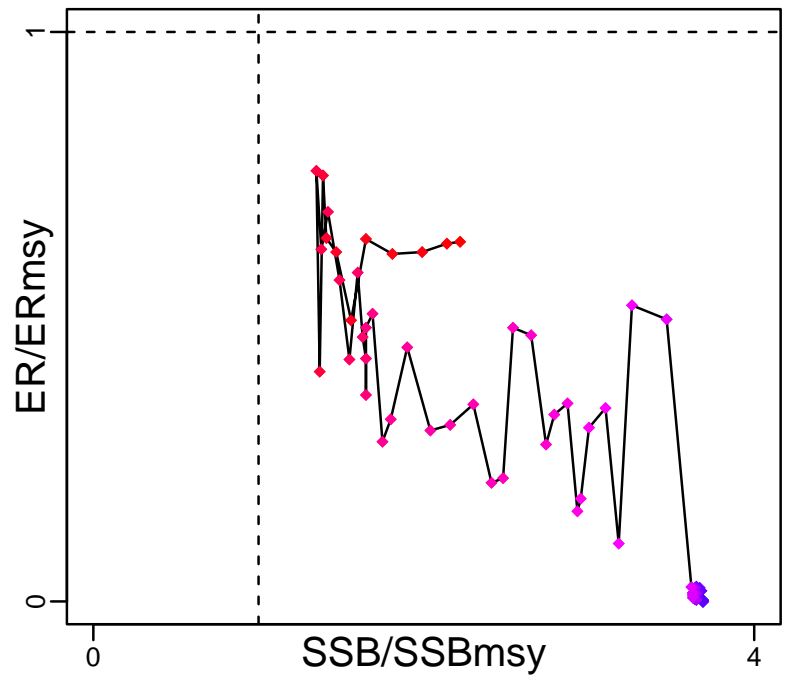
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2007	10,800	Both	-
TN	-	-	-	-	-
R	R-E00	2007	2,310,000	-	0
F	F-1/yr	2007	0.077	-	-
ER	ER-ratio	2007	0.038	-	-
TC	TC-MT	2007	957		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2007	2.22		
F/Fmsy	FdivFmsy-dimensionless	2007	0.766		
ER/ERmsy	ER-ratio/ERmsy-ratio	2007	0.632		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Tarakihi Sub-Antarctic [TARAKNZ]

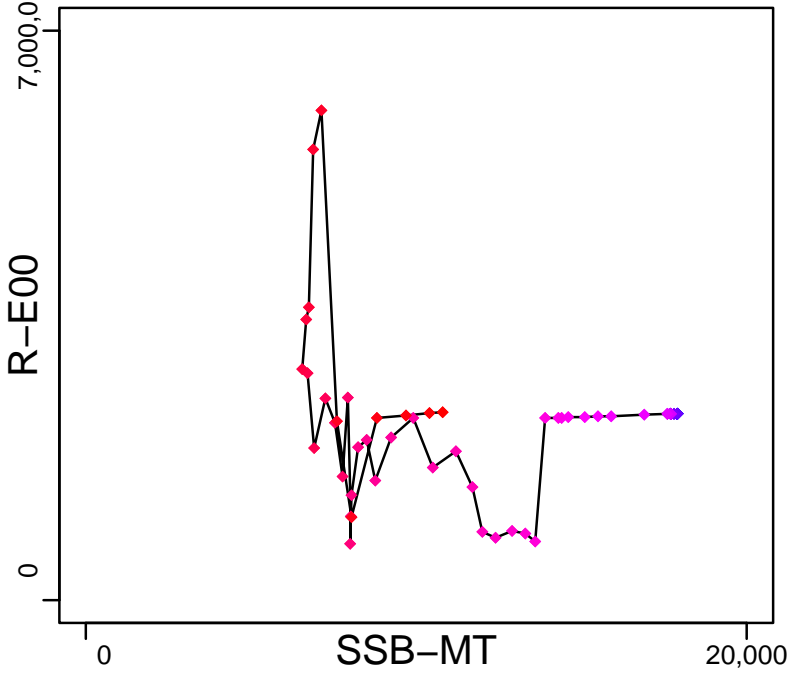
Kobe MSYpref (1932-2007-CORDUE)



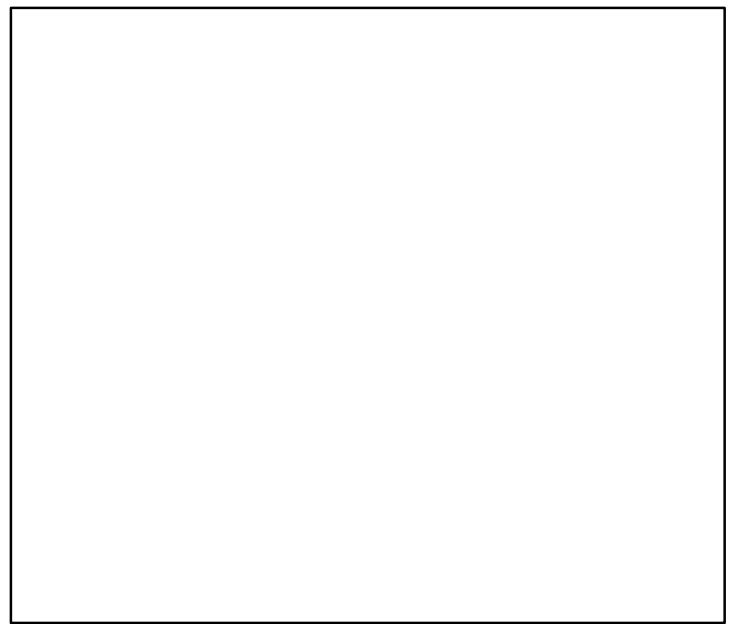
Kobe MGTpref (1932-2007-CORDUE)



Spawner Recruit (1932-2007-CORDUE)



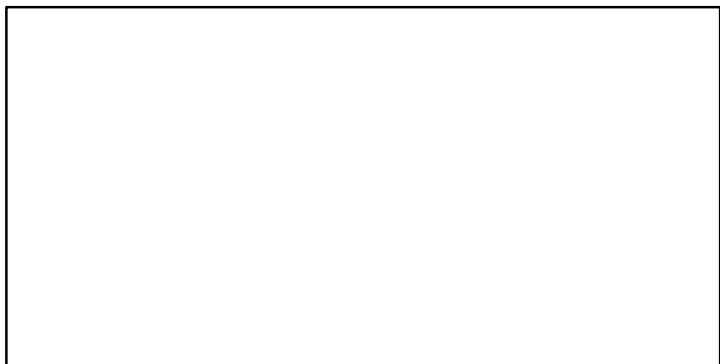
Production*



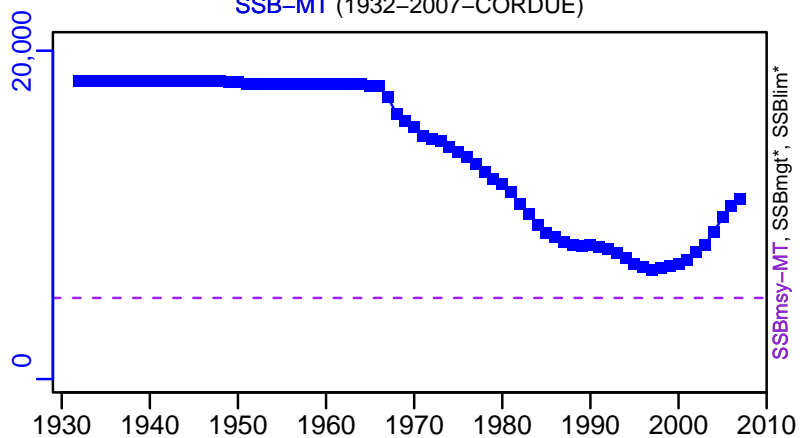
◆ Start Year ◆ End Year * No Data

Tarakihi Sub-Antarctic [TARAKNZ]

TB*



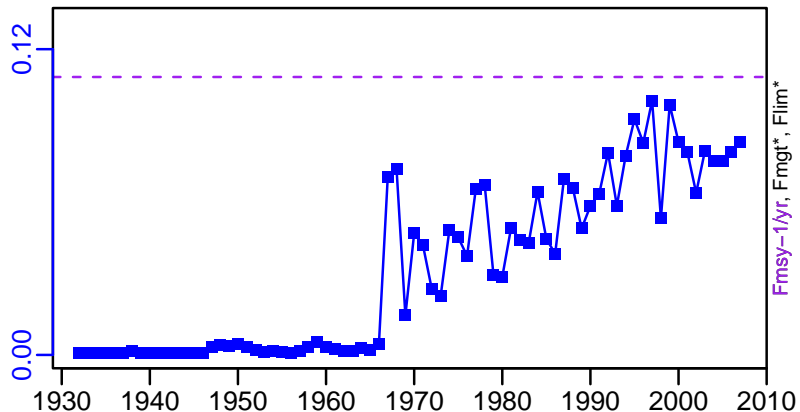
SSB-MT (1932-2007-CORDUE)



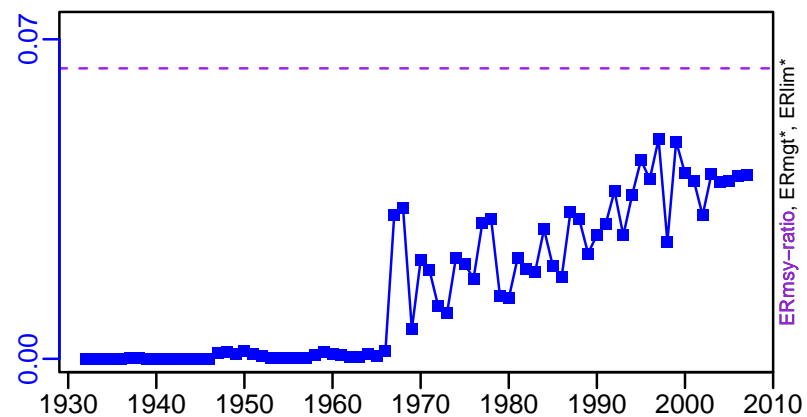
TN *



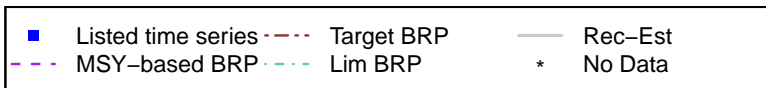
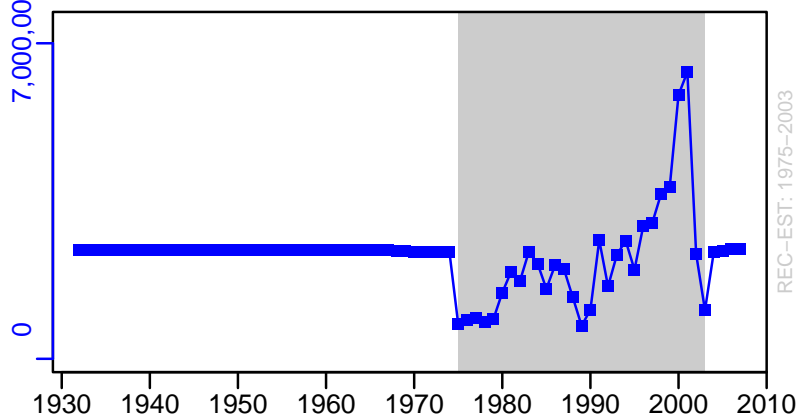
F-1/yr (1932-2007-CORDUE)



ER-ratio (1932-2007-CORDUE)



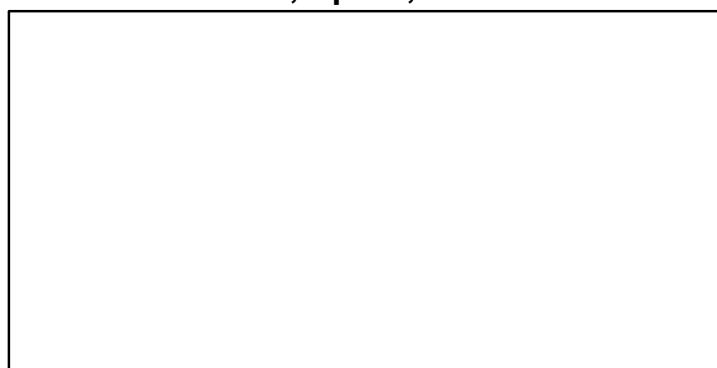
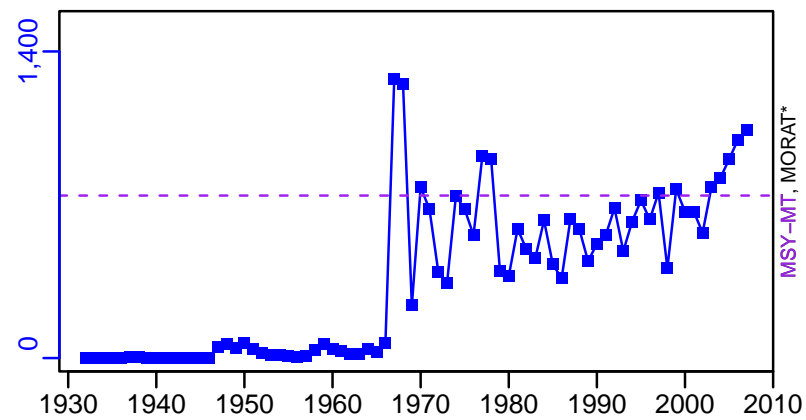
R-E00 (1932-2007-CORDUE)



Tarakihi Sub-Antarctic [TARAKNZ]

TC-MT, TL*, RecC* (1932-2007-CORDUE)

TAC*, Cpair*, Cadv*



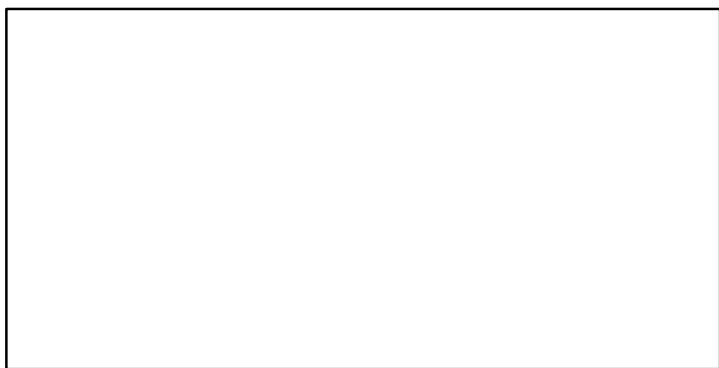
survB*



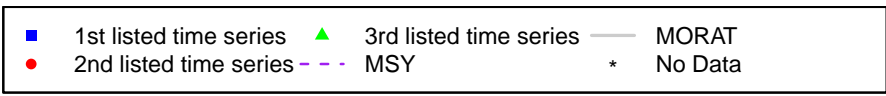
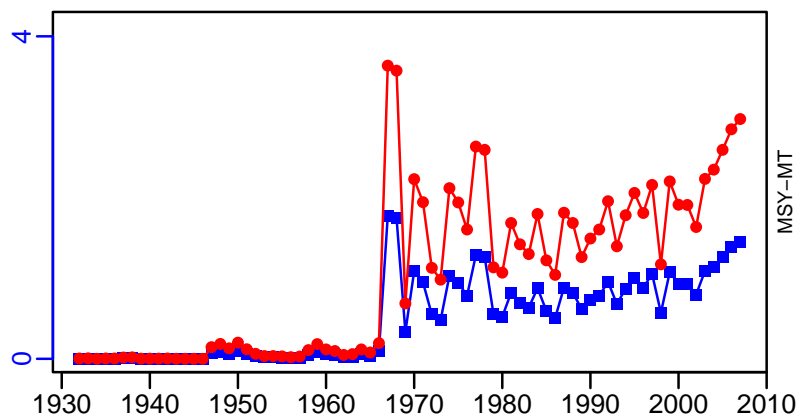
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1932-2007-CORDUE)



Trevally New Zealand Areas TRE 7 [TREVALLYTRE7]

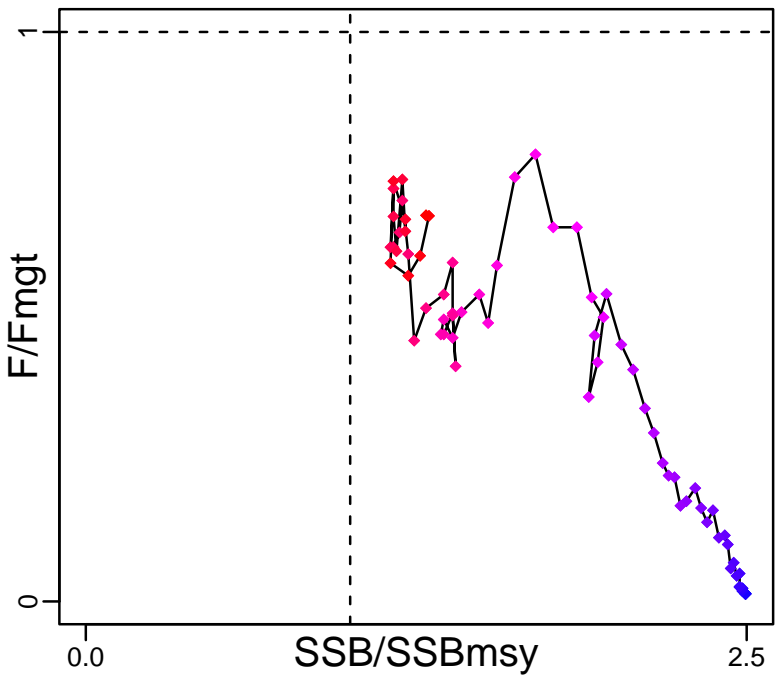
Metadata	
Scientific Name	Pseudocaranx dentex
Current Assess ID	NZMFishINSHOREWG-TREVALLYTRE7-1944-2014-LANGLEY
Area	New Zealand Areas TRE 7
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Inshore Working Group
Asmts in RAM	2005, 2014

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2005	26,990
SSBmsy	SSBmsy-MT	2014	8936
Fmsy	Fmsy-1/yr	2005	0.113
ERmsy	ERmsy-ratio	2005	0.08
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2014	8936
Fmgt	Fmgt-1/yr	2014	0.088
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2014	22,339
MSY	MSY-MT	2014	1818
M	M-1/yr	2014	0.1
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

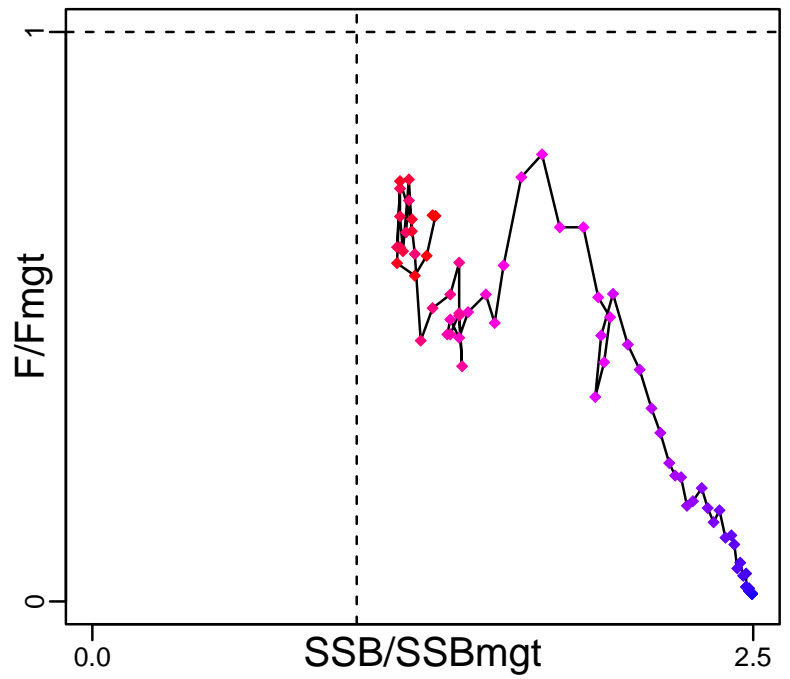
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2005	28,200	-	1
SSB	SSB-MT	2014	11,500	Females	4 to 40+
TN	-	-	-	-	-
R	R-E00	2014	3,530,000	Both	0
F	F-1/yr	2005	0.094	-	-
ER	ER-ratio	2005	0.087	-	-
TC	TC-MT	2014	1530		
TL	TL-MT	2014	1440		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2005	1.045		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2014	1.287		
F/Fmsy	F-1/yr/Fmsy-1/yr	2005	0.83		
ER/ERmsy	ER-ratio/ERmsy-ratio	2005	1.082		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2014	1.287		
F/Fmgt	FdivFmgt-dimensionless	2014	0.678		
ER/ERmgt	-	-	-		

Trevally New Zealand Areas TRE 7 [TREVALLYTRE7]

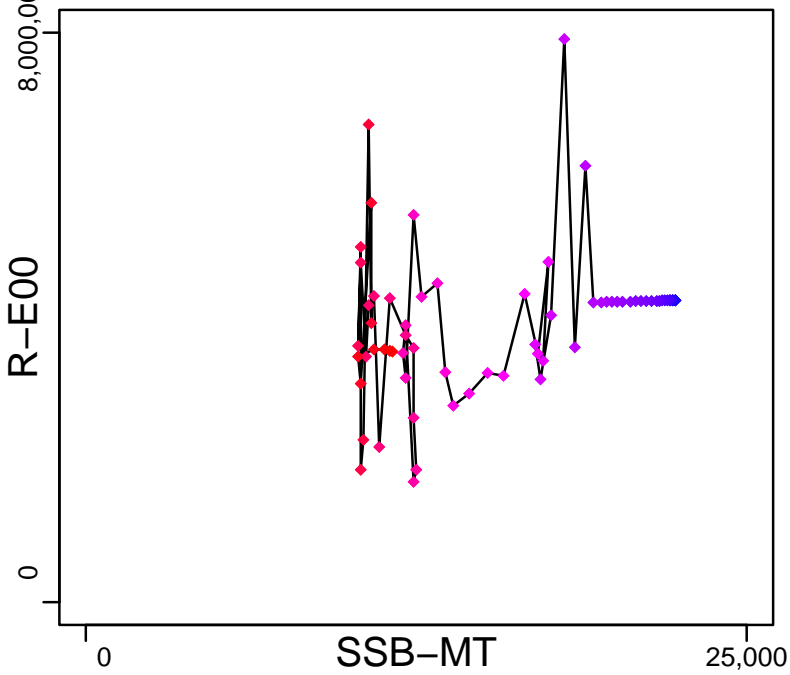
Kobe MSYpref (1944–2014–LANGLEY)



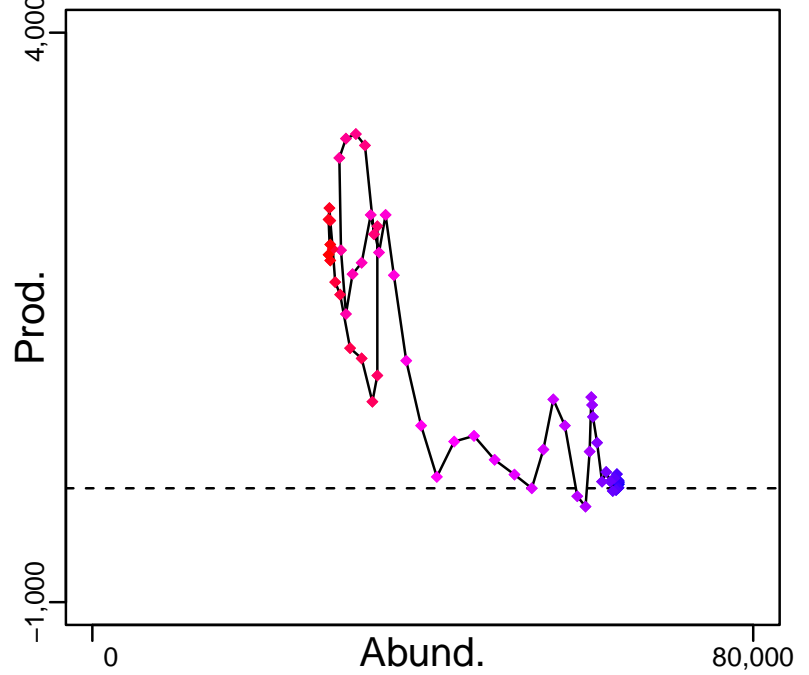
Kobe MGTpref (1944–2014–LANGLEY)



Spawner Recruit (1944–2014–LANGLEY)



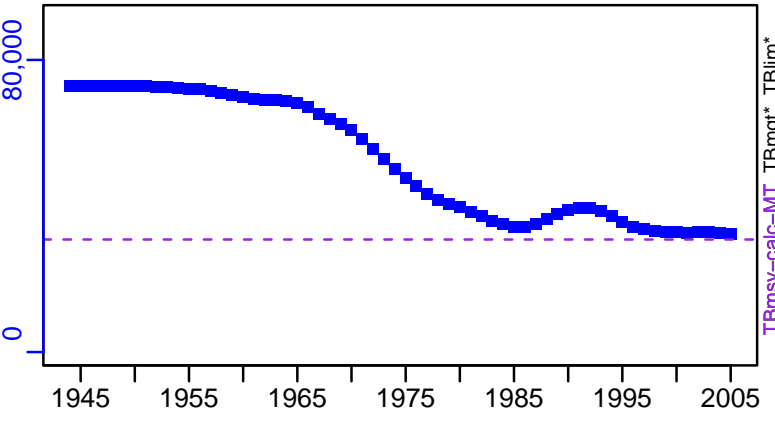
Production (1944–2014–LANGLEY)



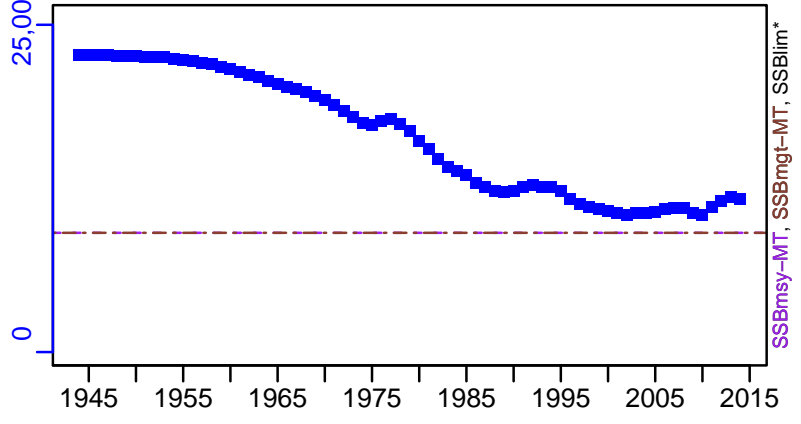
◆ Start Year ◆ End Year * No Data

Trevally New Zealand Areas TRE 7 [TREVALLYTRE7]

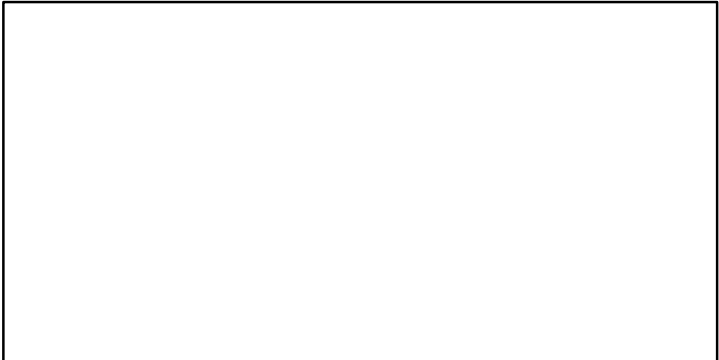
TB-MT (1944-2005-JENSEN)



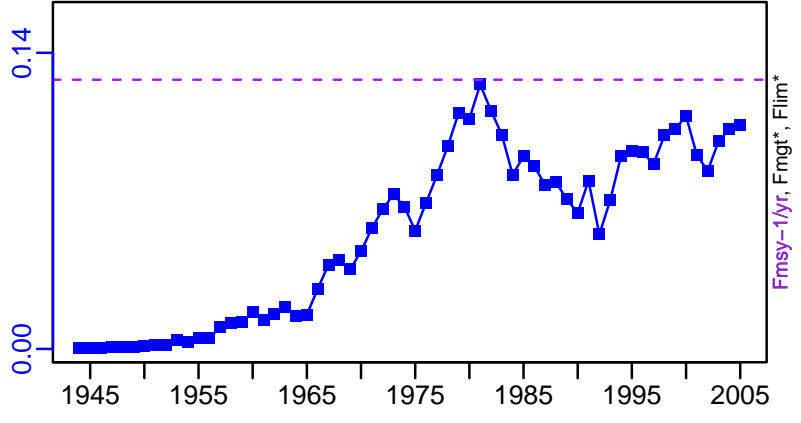
SSB-MT (1944-2014-LANGLEY)



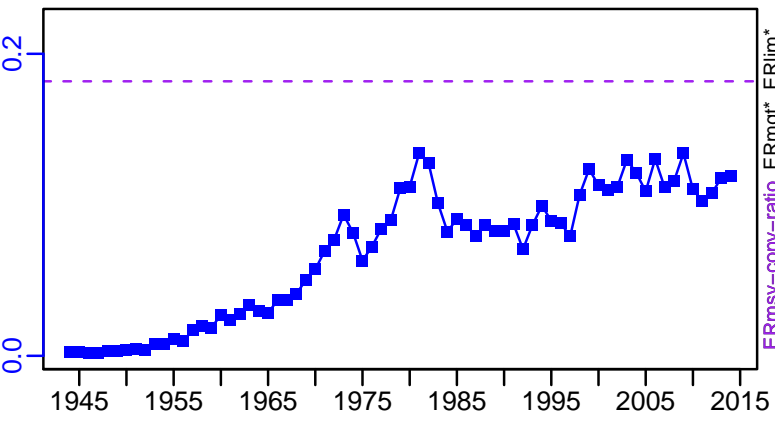
TN *



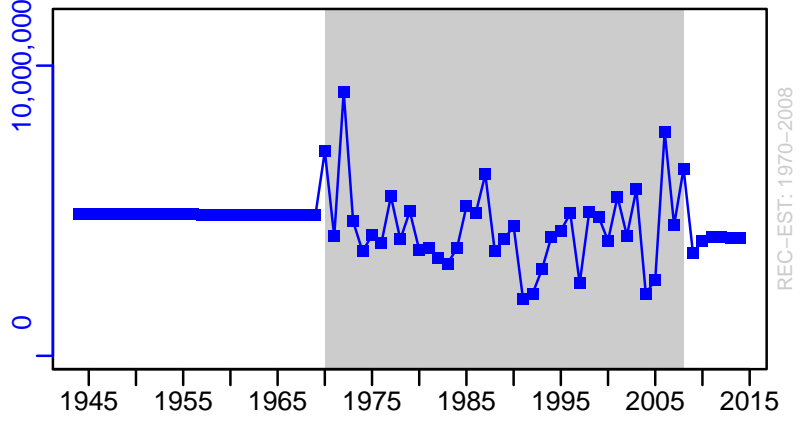
F-1/yr (1944-2005-JENSEN)



ER-calc-ratio (1944-2014-LANGLEY)



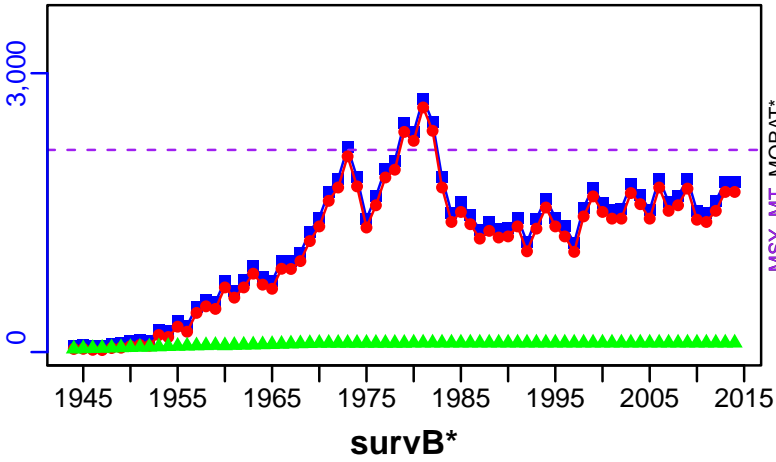
R-E00 (1944-2014-LANGLEY)



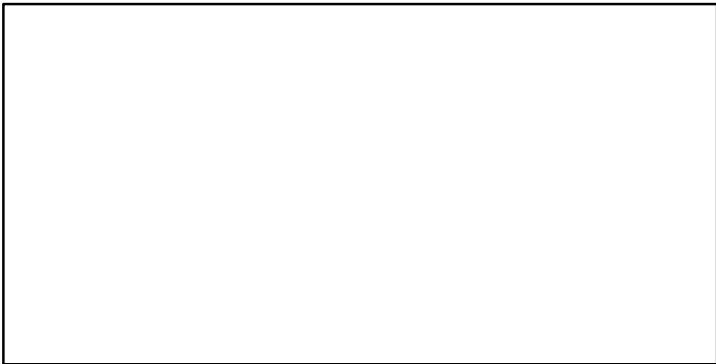
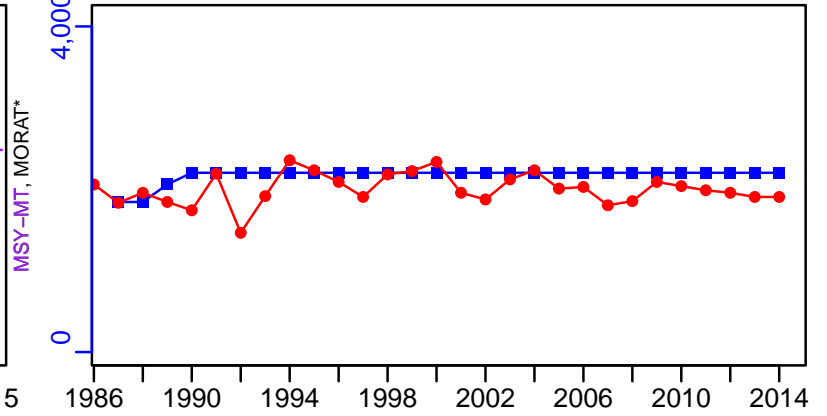
■ Listed time series - - - Target BRP — Rec-Est
- - - MSY-based BRP - - - Lim BRP * No Data

Trevally New Zealand Areas TRE 7 [TREVALLYTRE7]

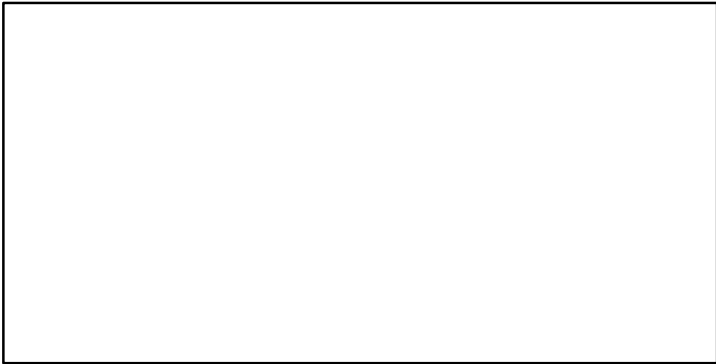
TC-MT, TL-MT, RecC-MT (1944-2014-LANGLEY)



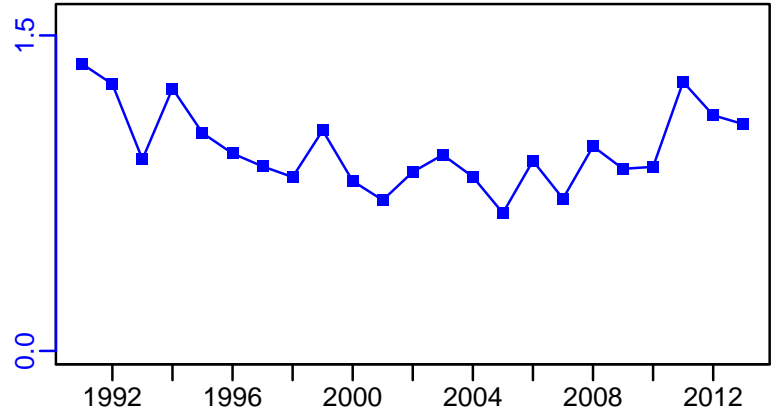
TAC-MT, Cpair-MT, Cadv* (1944-2014-LANGLEY)



EFFORT*



CPUE-MT (1944-2014-LANGLEY)



TC-MT/MSY-MT, CdivMEANC-ratio, (1944-2014-LANGLEY)

