

New Zealand Stocks

v4.25 (Dec-14-2017)

1. Australian salmon New Zealand [AUSSALMONNZ]
2. Black cardinalfish East coast of North Island [BKCDLFENI]
3. Black Oreo Pukaki Rise [BLACKOREOPR]
4. Black oreo West end of Chatham Rise [BLACKOREOWECCR]
5. Bluenose New Zealand [BNSNZ]
6. Dredge oyster Foveax Strait [DOYSFS]
7. common gemfish New Zealand [GEMFISHNZ]
8. Giant stargazer NZ Area STA7 [GSTRGZRSTA7]
9. Hoki Eastern New Zealand [HOKIENZ]
10. Hoki Western New Zealand [HOKIWNZ]
11. New Zealand ling New Zealand Areas LIN 3 and 4 [NZLINGLIN3-4]
12. New Zealand ling New Zealand Areas LIN 5 and 6 [NZLINGLIN5-6]
13. New Zealand ling New Zealand Area LIN 6b [NZLINGLIN6b]
14. New Zealand ling New Zealand Area LIN 72 [NZLINGLIN72]
15. New Zealand ling New Zealand Area LIN 7WC - WCSI [NZLINGLIN7WC]
16. New Zealand snapper New Zealand SNA 1 Bay of Plenty and Hauraki Gulf [NZSNAPNZ1BOP-HAGU]
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18. New Zealand snapper New Zealand SNA 7 [NZSNAPNZ7]
19. New Zealand snapper New Zealand Area 8 [NZSNAPNZ8]
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22. Orange roughy New Zealand Challenger Plateau [OROUGHYNZ7A]
23. Orange roughy New Zealand Mid East Coast [OROUGHYNZMEC]
24. Black Foot Paua NZ North PAUA5A [PAUANPAU5A]
25. New Zealand abalone species New Zealand Area PAU 5B [PAUAPAU5B]
26. New Zealand abalone species New Zealand Area PAU 5D [PAUAPAU5D]
27. New Zealand abalone species New Zealand Area PAU 7 [PAUAPAU7]
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30. Red rock lobster New Zealand area CRA2 [RROCKLOBSTERCRA2]
31. Red rock lobster New Zealand area CRA3 [RROCKLOBSTERCRA3]
32. Red rock lobster New Zealand area CRA4 [RROCKLOBSTERCRA4]
33. Red rock lobster New Zealand area CRA5 [RROCKLOBSTERCRA5]
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35. Red rock lobster New Zealand area CRA8 [RROCKLOBSTERCRA8]
36. Southern blue whiting Campbell Island Rise [SBWHITACIR]
37. Scampi Bay of Plenty [SCMPBP]
38. Scampi Mernoo Bank [SCMPMB]
39. Scampi Wairapa/Hawke Bay [SCMPWHB]
40. Smooth Oreo Bounty Plateau [SMOOTHOREOBP]
41. Smooth oreo Chatham Rise [SMOOTHOREOCR]
42. Smooth Oreo East Pukaki Rise [SMOOTHOREOEPR]
43. Smooth Oreo Southland [SMOOTHOREOSLD]
44. Smooth oreo West end of Chatham Rise [SMOOTHOREOWECCR]
45. Southern hake Chatham Rise [SOUTHHAKECR]
46. Southern hake Sub-Antarctic [SOUTHHAKESEA]
47. Southern hake West Coast South Island [SOUTHHAKEWCSI]
48. Tarakihi New Zealand [TARAKNZ]
49. Trevally New Zealand Areas TRE 7 [TREVALLYTRE7]

Australian salmon New Zealand [AUSSALMONNZ]

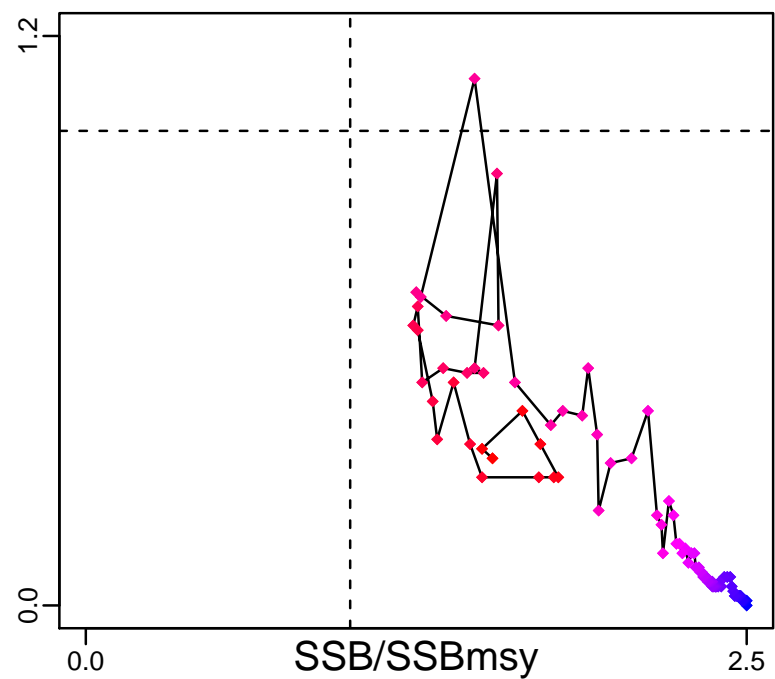
Metadata	
Scientific Name	Arripis trutta
Current Assess ID	NIWA-AUSSALMONNZ-1929-2013-FU
Area	New Zealand
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2013, 2006

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2013	17,680
Fmsy	Fmsy-1/yr	2006	0.32
ERmsy	ERmsy-ratio	2006	0.12
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2013	22,984
Fmgt	Fmgt-1/yr	2013	0.21
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2013	44,200
MSY	MSY-MT	2006	3372
M	M-1/yr	2013	0.2
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

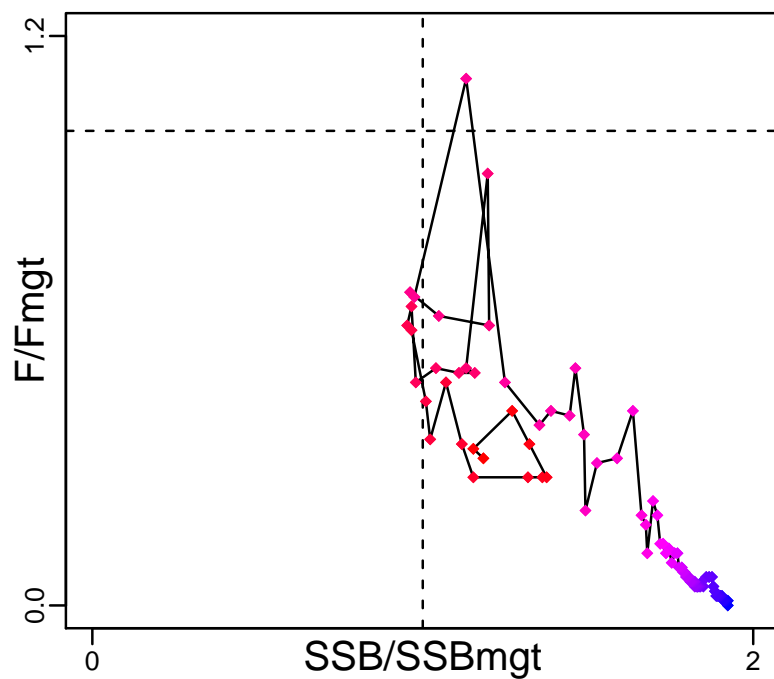
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2006	22,600	-	1+
SSB	SSB-MT	2013	27,200	-	4 to 20
TN	-	-	-	-	-
R	R-E00	2013	7,430,000	Both	-
F	F-1/yr	2013	0	Both	-
ER	ER-calc-ratio	2013	0	-	-
TC	TC-MT	2013	1680		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013	1.54		
F/Fmsy	F-1/yr/Fmsy-1/yr	2006	0.33		
ER/ERmsy	ER-ratio/ERmsy-ratio	2006	0.83		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2013	1.18		
F/Fmgt	FdivFmgt-dimensionless	2013	0.31		
ER/ERmgt	-	-	-		

Australian salmon New Zealand [AUSSALMONNZ]

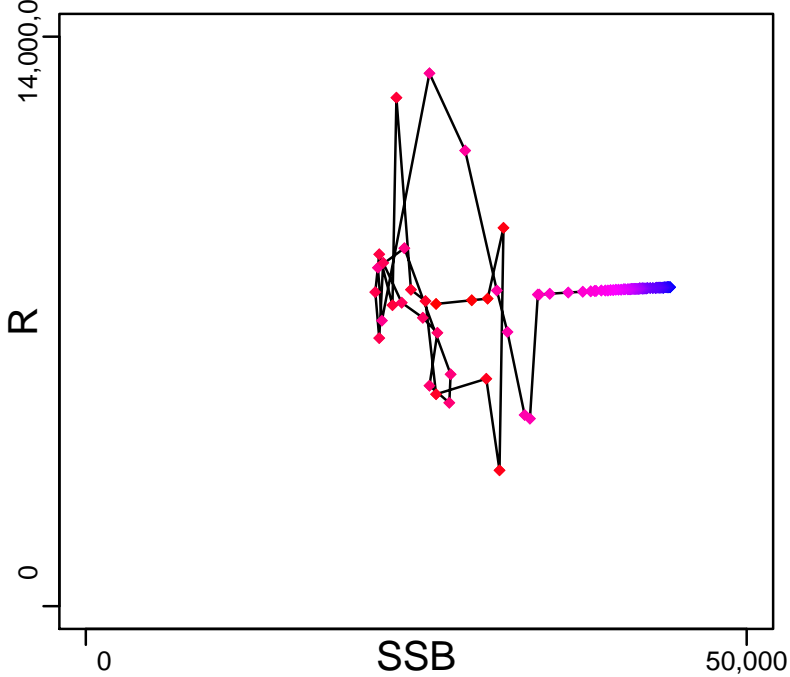
Kobe MSYpref (1929–2013–FU)



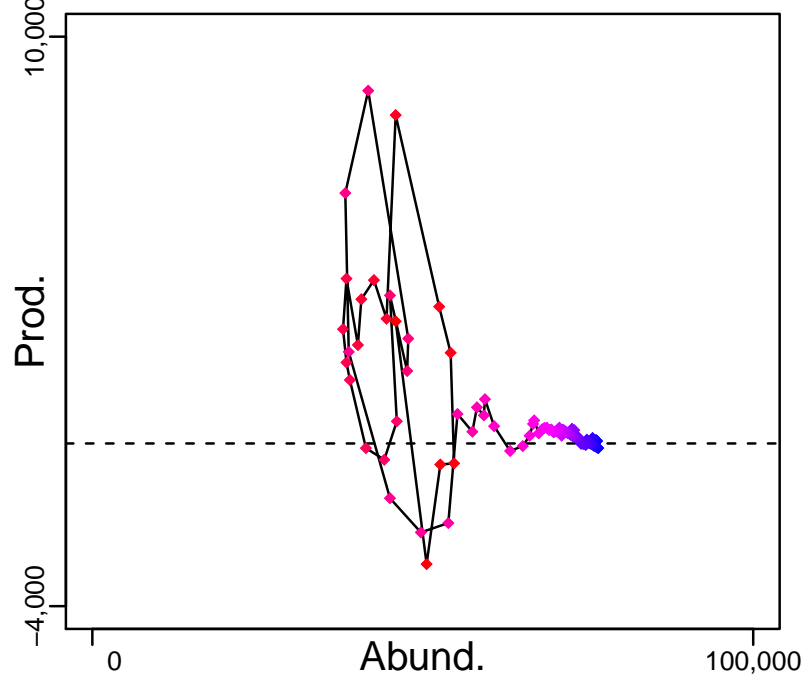
Kobe MGTpref (1929–2013–FU)



Spawner Recruit (1929–2013–FU)



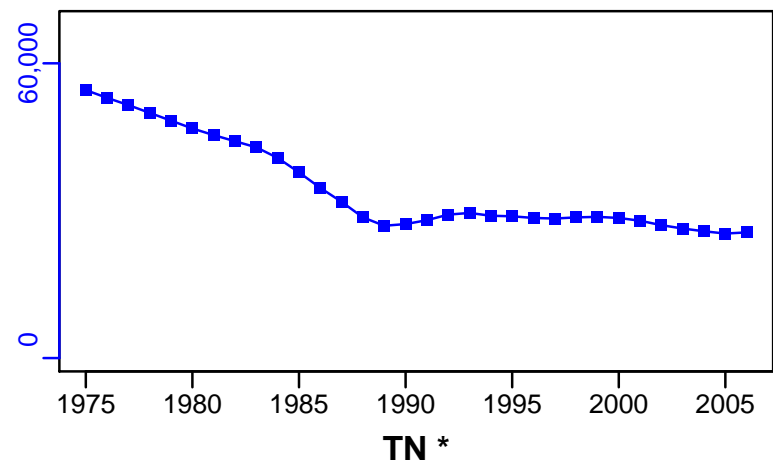
Production (1929–2013–FU)



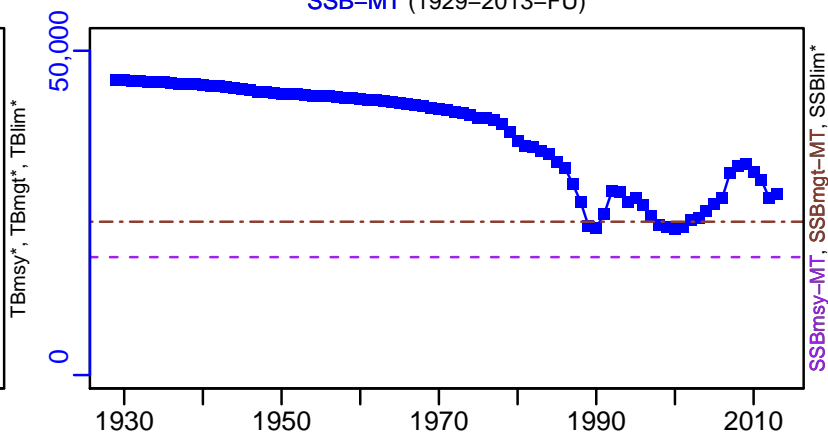
◆ Start Year ◆ End Year * No Data

Australian salmon New Zealand [AUSSALMONNZ]

TB-MT (1975–2006–JENSEN)



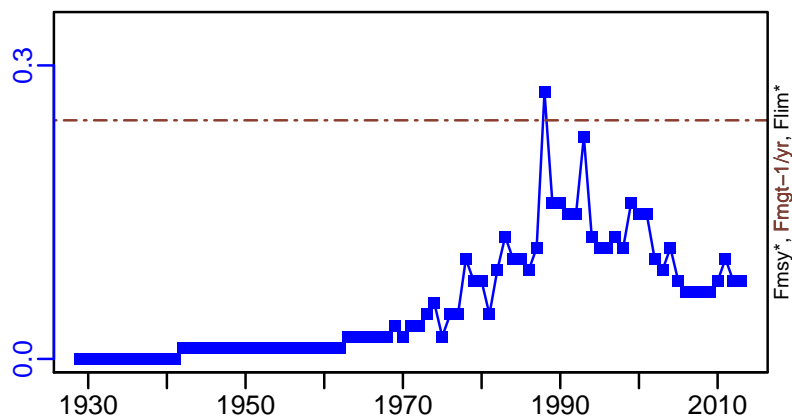
SSB-MT (1929–2013–FU)



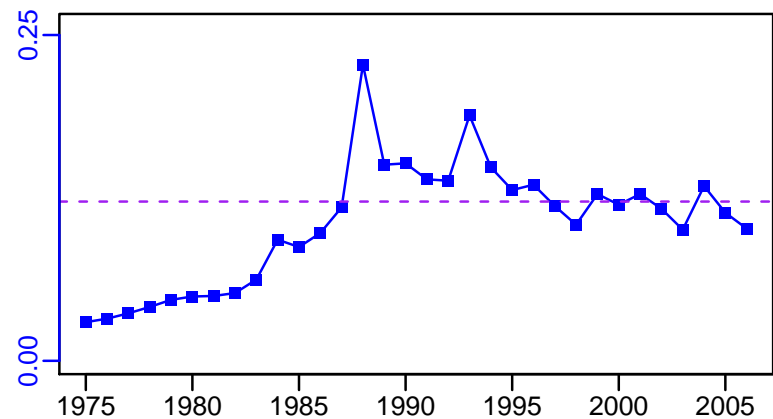
TN *



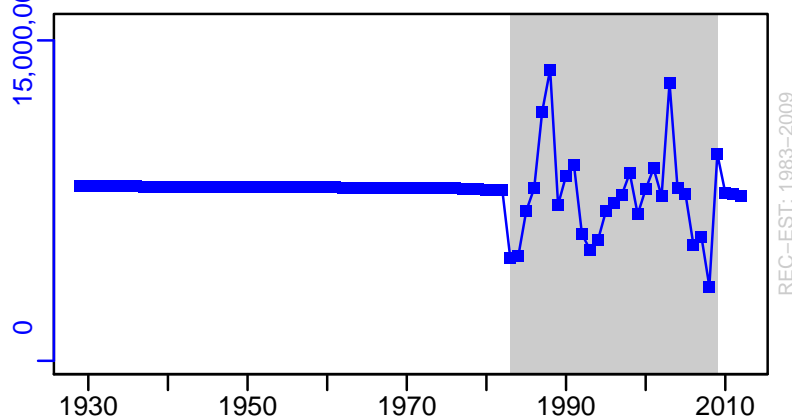
F-1/yr (1929–2013–FU)



ER-ratio (1975–2006–JENSEN)

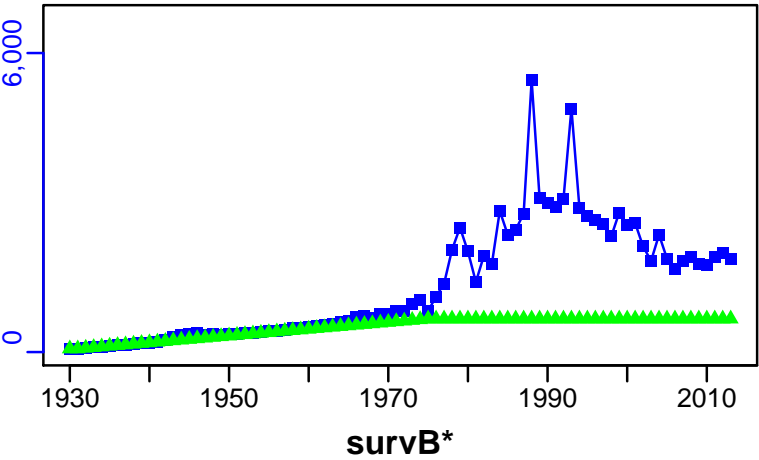


R-E00 (1929–2013–FU)

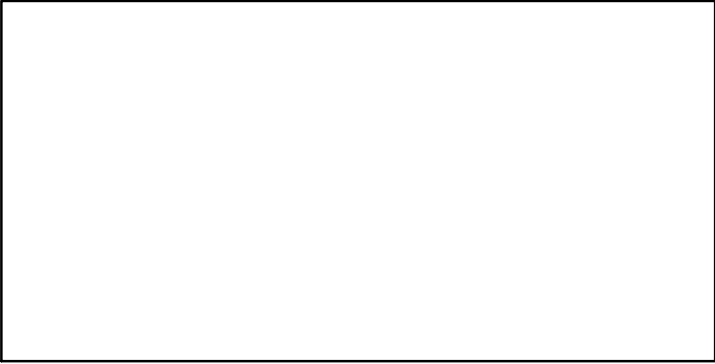
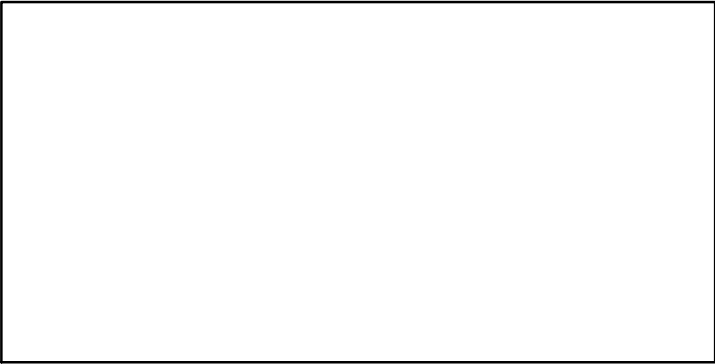
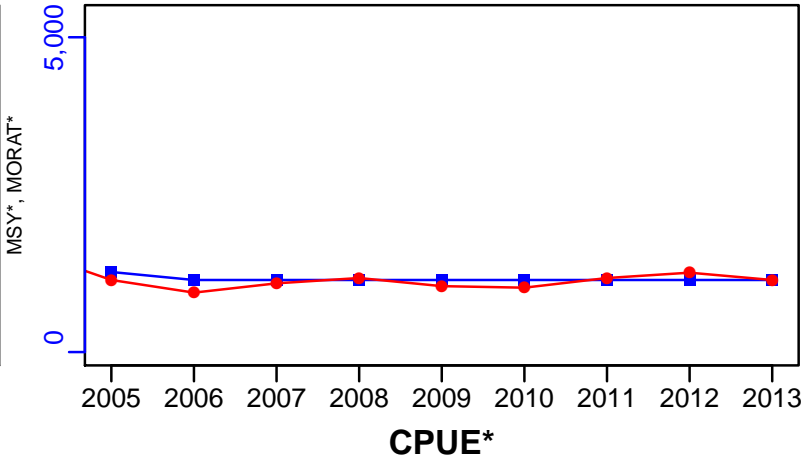


Australian salmon New Zealand [AUSSALMONNZ]

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



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



EFFORT*



Black cardinalfish East coast of North Island [BKCDLFENI]

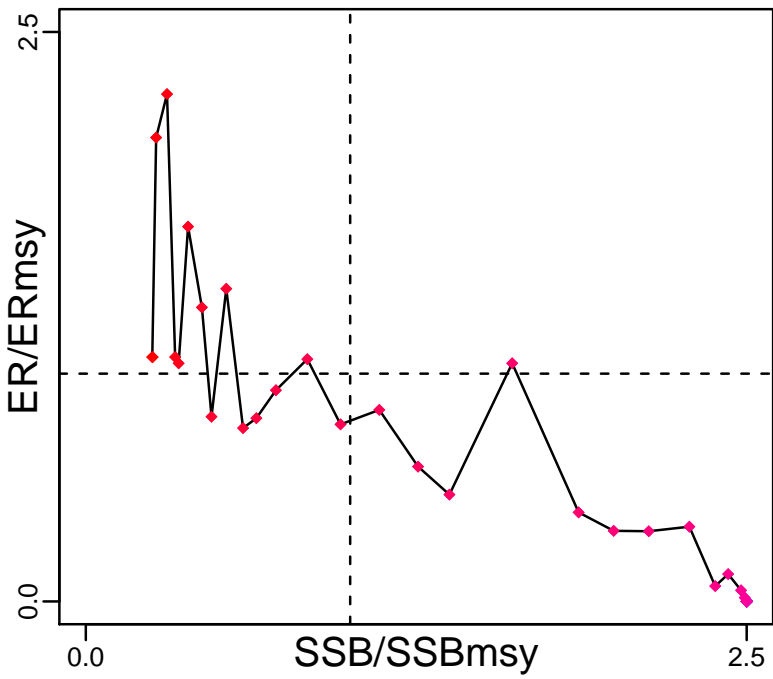
Metadata	
Scientific Name	Epigonus telescopus
Current Assess ID	NIWA-BKCDLFENI-1923-2009-CORDUE
Area	East coast of North Island
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2009

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	-	-	-

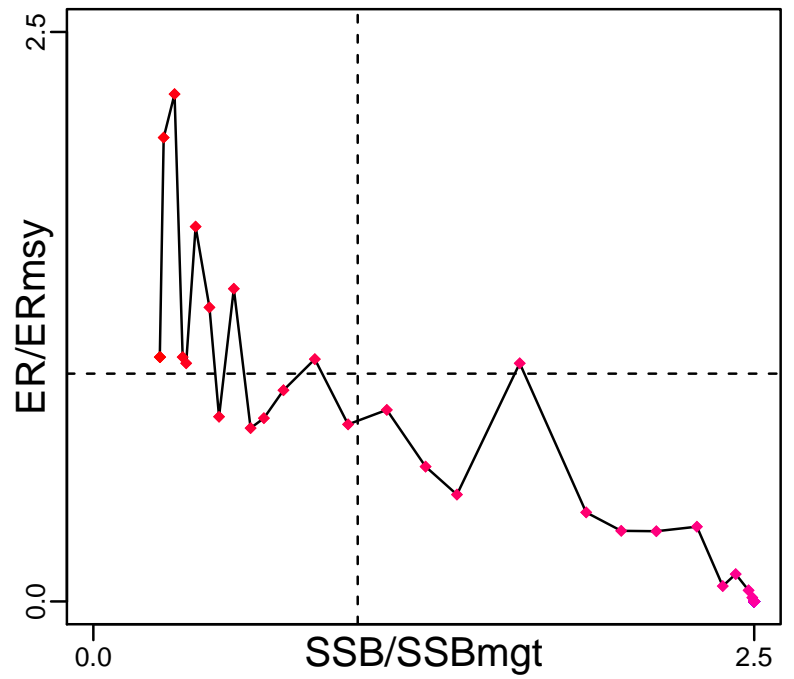
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2009	3620	Both	39.5
TN	-	-	-	-	-
R	R-E00	2009	982,000	-	1
F	F-1/yr	2009	0	-	-
ER	ER-ratio	2009	0	-	-
TC	TC-MT	2009	980		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2009	0.25		
F/Fmsy	FdivFmsy-dimensionless	2009	4.16		
ER/ERmsy	ER-ratio/ERmsy-ratio	2009	1.07		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2009	0.25		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Black cardinalfish East coast of North Island [BKCDLFENI]

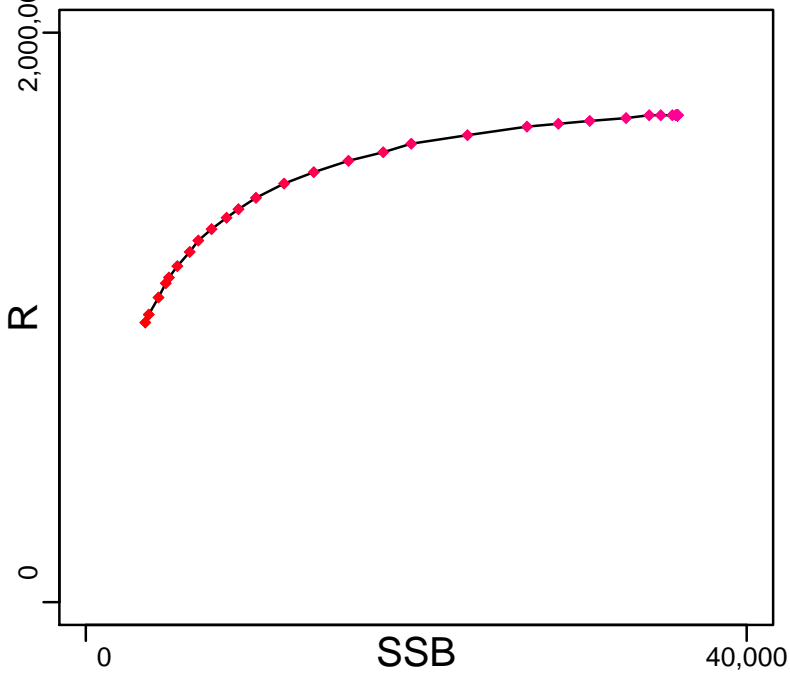
Kobe MSYpref (1923–2009–CORDUE)



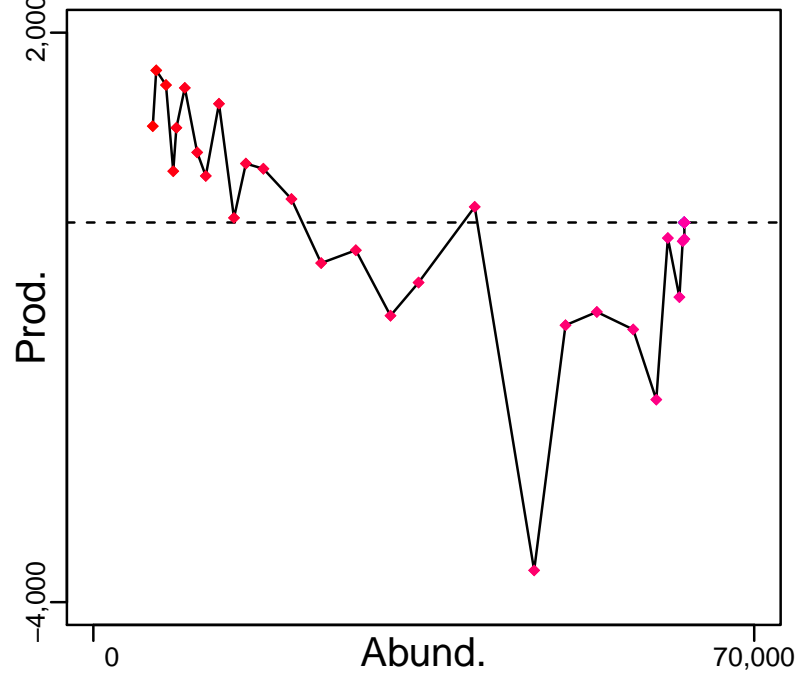
Kobe MGTpref (1923–2009–CORDUE)



Spawner Recruit (1923–2009–CORDUE)



Production (1923–2009–CORDUE)



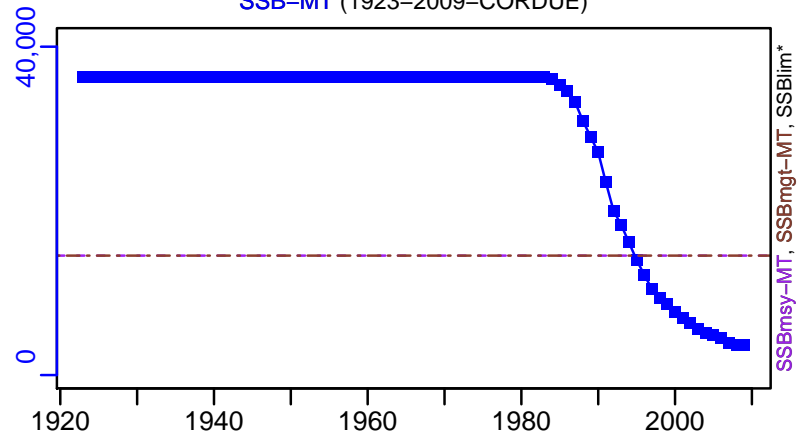
◆ Start Year ◆ End Year * No Data

Black cardinalfish East coast of North Island [BKCDLFENI]

TB*



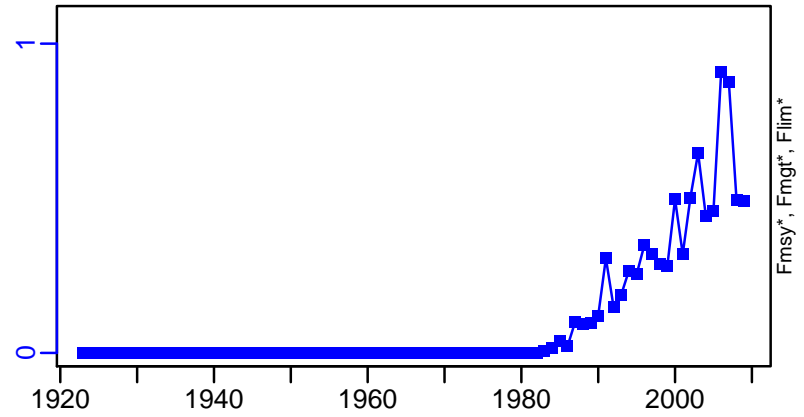
SSB-MT (1923-2009-CORDUE)



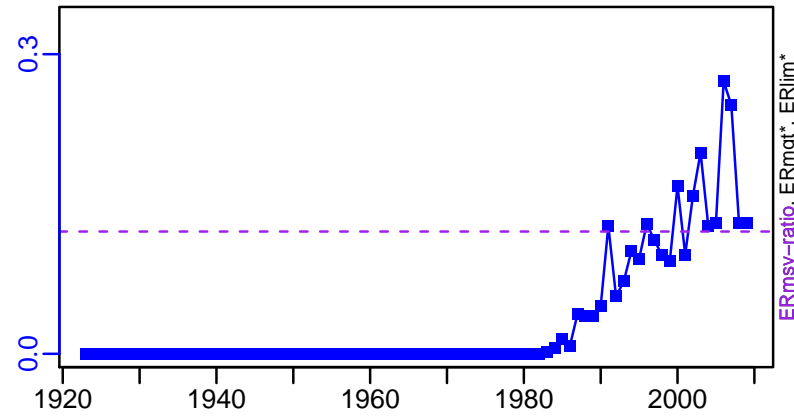
TN *



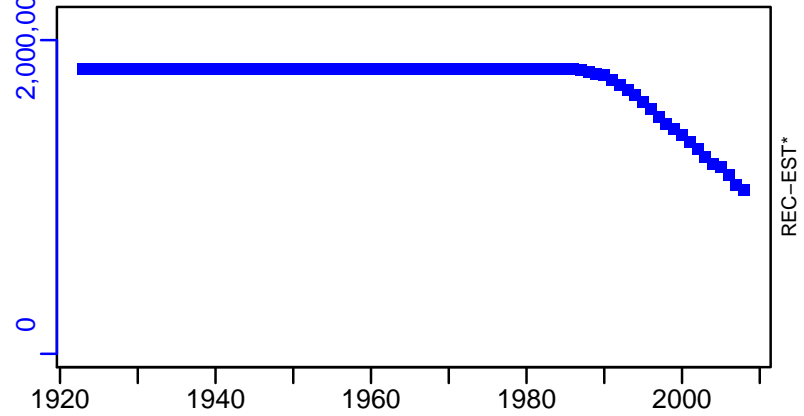
F-1/yr (1923-2009-CORDUE)



ER-ratio (1923-2009-CORDUE)

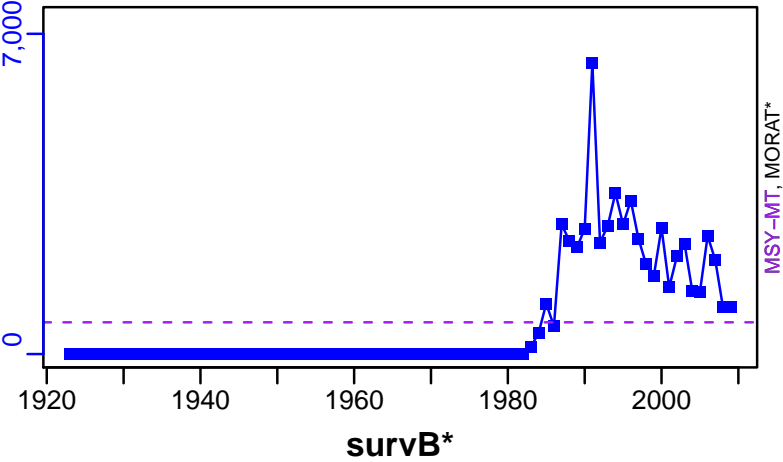


R-E00 (1923-2009-CORDUE)



Black cardinalfish East coast of North Island [BKCDLFENI]

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



TAC*, Cpair*, Cadv*



CPUE*



EFFORT*



Black Oreo Pukaki Rise [BLACKOREOPR]

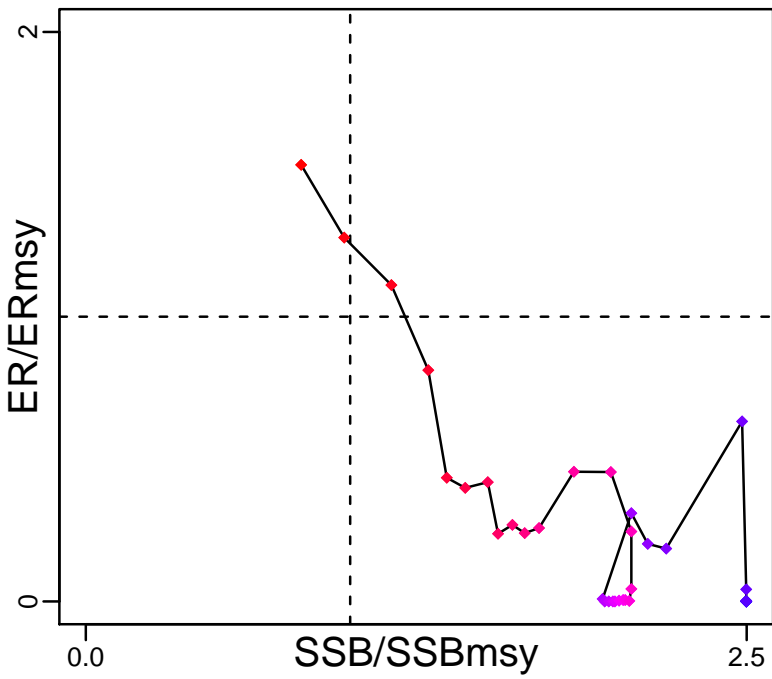
Metadata	
Scientific Name	Allocyttus niger
Current Assess ID	NIWA-BLACKOREOPR-1974-2009-CORDUE
Area	Pukaki Rise
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2009

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	-	-	-

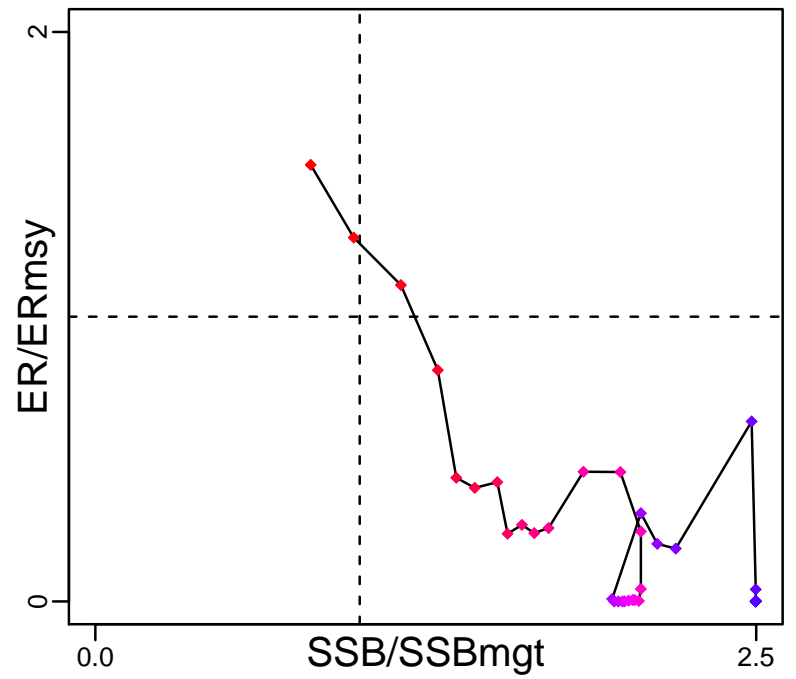
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2009	10,500	Both	37.7
TN	-	-	-	-	-
R	R-E00	2009	6,230,000	-	5
F	F-1/yr	2009	0	-	-
ER	ER-ratio	2009	0	-	-
TC	TC-MT	2009	3350		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2009	0.81		
F/Fmsy	FdivFmsy-dimensionless	2009	3.5		
ER/ERmsy	ER-ratio/ERmsy-ratio	2009	1.53		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2009	0.81		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Black Oreo Pukaki Rise [BLACKOREOPR]

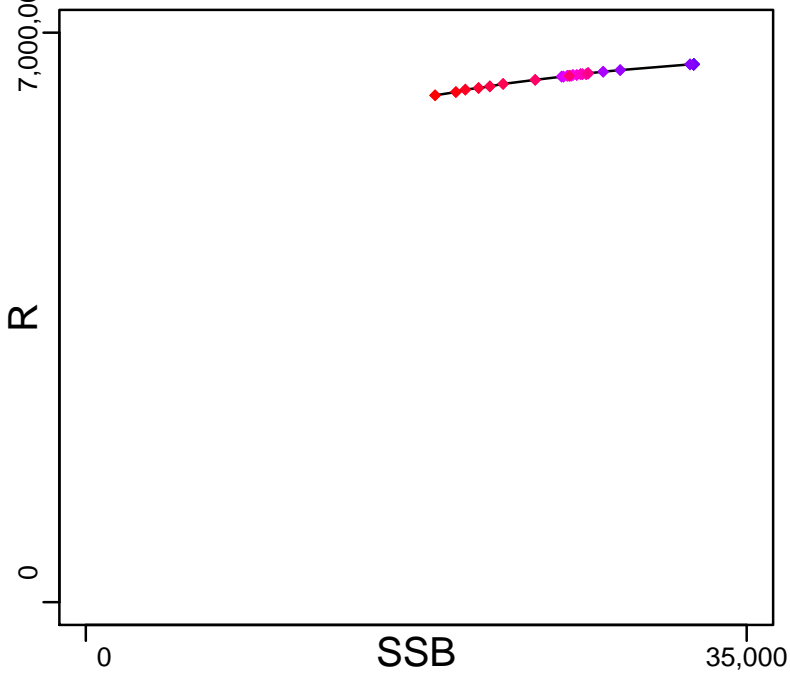
Kobe MSYpref (1974–2009–CORDUE)



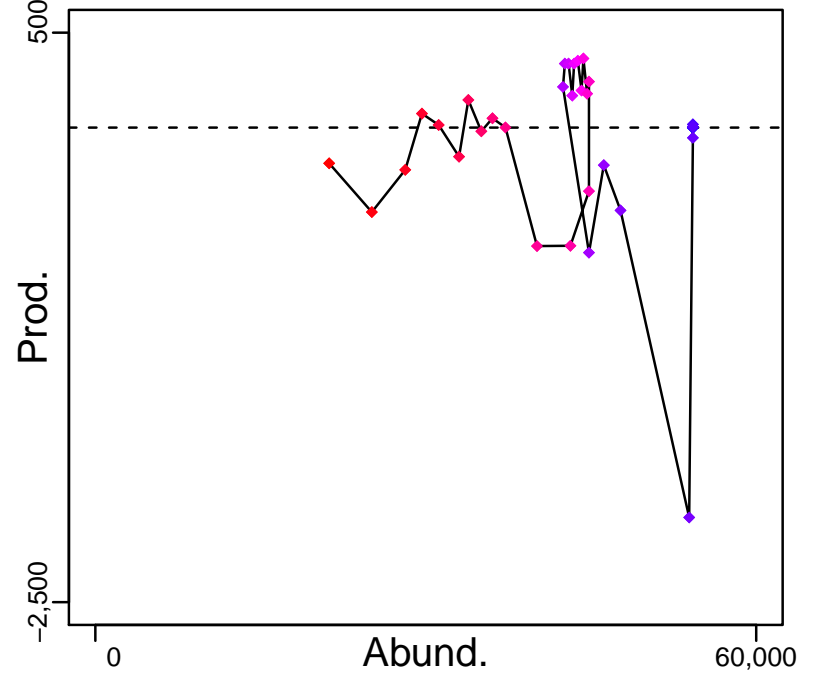
Kobe MGTpref (1974–2009–CORDUE)



Spawner Recruit (1974–2009–CORDUE)



Production (1974–2009–CORDUE)



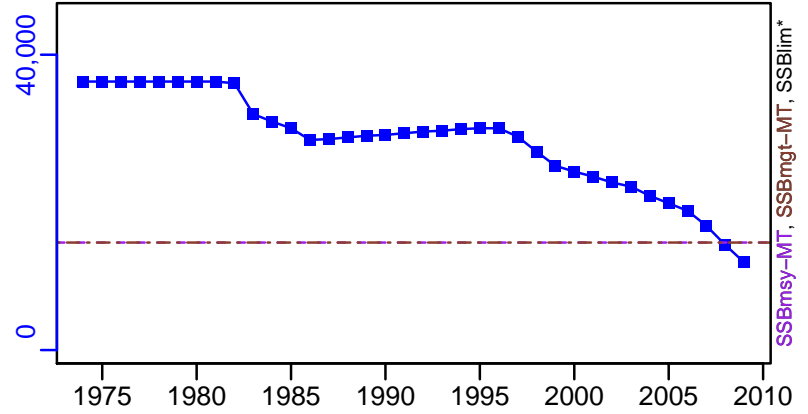
◆ Start Year ◆ End Year * No Data

Black Oreo Pukaki Rise [BLACKOREOPR]

TB*



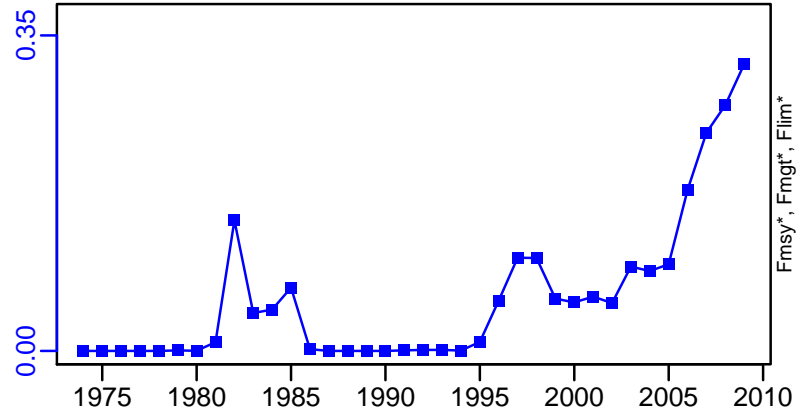
SSB-MT (1974-2009-CORDUE)



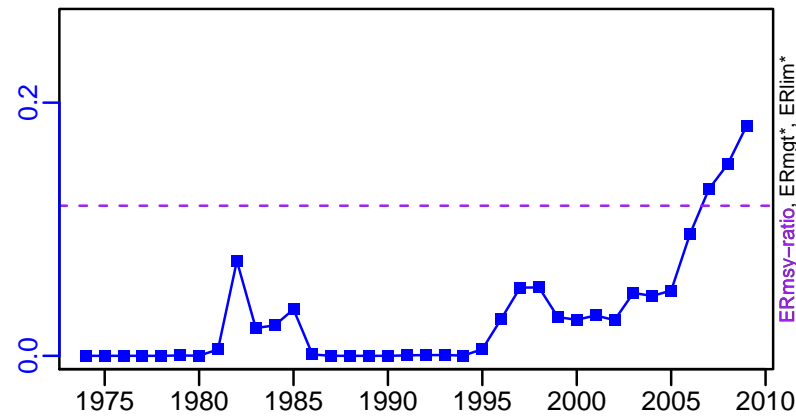
TN *



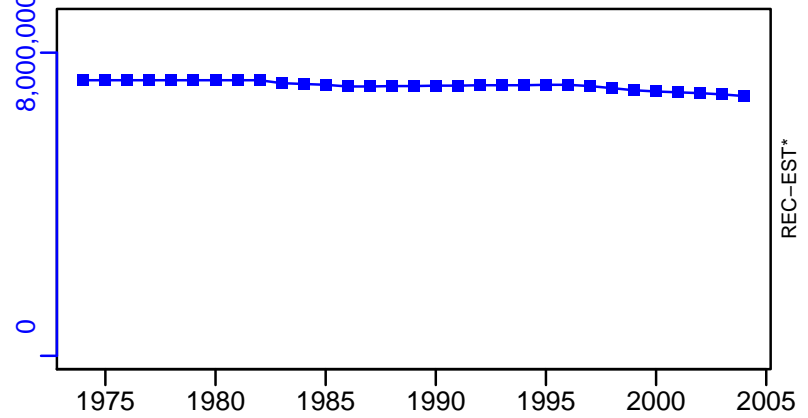
F-1/yr (1974-2009-CORDUE)



ER-ratio (1974-2009-CORDUE)

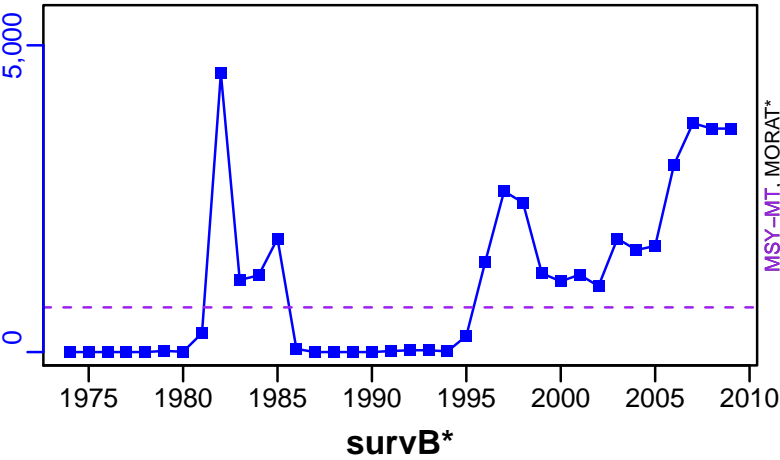


R-E00 (1974-2009-CORDUE)



Black Oreo Pukaki Rise [BLACKKOREOPR]

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



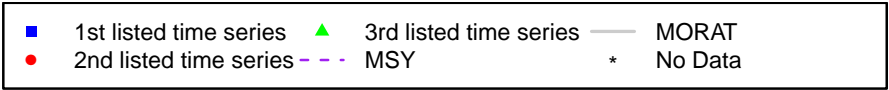
TAC*, Cpair*, Cadv*



CPUE*



EFFORT*



Black oreo West end of Chatham Rise [BLACKOREOWECR]

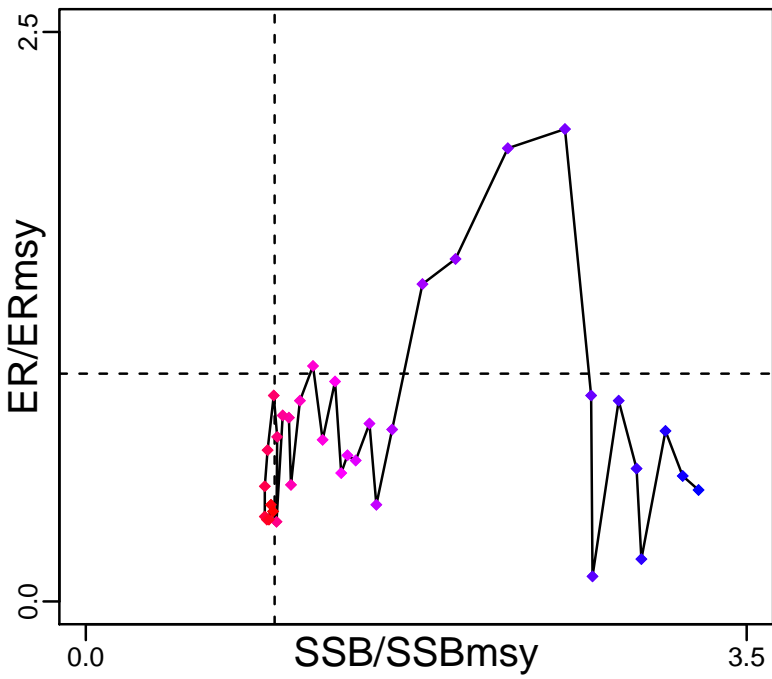
Metadata	
Scientific Name	Allocyttus niger
Current Assess ID	NZMFishDEEPWATER-BLACKOREOWECR-1973-2007-JENSEN
Area	West end of Chatham Rise
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Deepwater Working Group
Asmts in RAM	2007

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2007	27,427
Fmsy	Fmsy-1/yr	2007	0.03
ERmsy	ERmsy-ratio	2007	0.03
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2007	88,923
MSY	MSY-MT	2007	1947
M	M-1/yr	2007	0.04
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

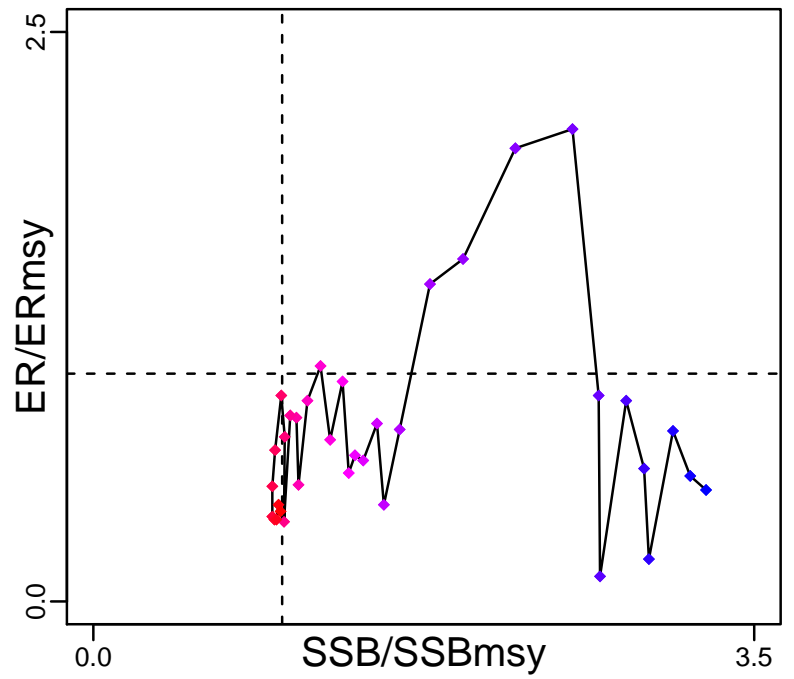
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2007	144,000	-	1
SSB	SSB-MT	2007	27,200	-	-
TN	-	-	-	-	-
R	R-E00	2007	1.9×10^7	-	1
F	F-1/yr	2007	0	-	-
ER	ER-ratio	2007	0	-	-
TC	TC-MT	2007	1770		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2007	0.99		
F/Fmsy	F-1/yr/Fmsy-1/yr	2007	0.82		
ER/ERmsy	ER-ratio/ERmsy-ratio	2007	0.4		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Black oreo West end of Chatham Rise [BLACKOREOWECR]

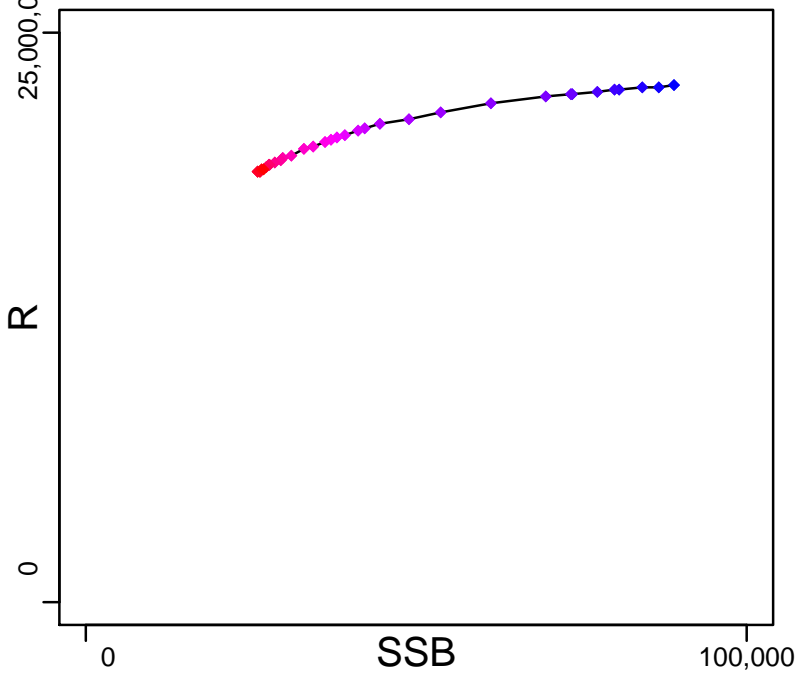
Kobe MSYpref (1973–2007–JENSEN)



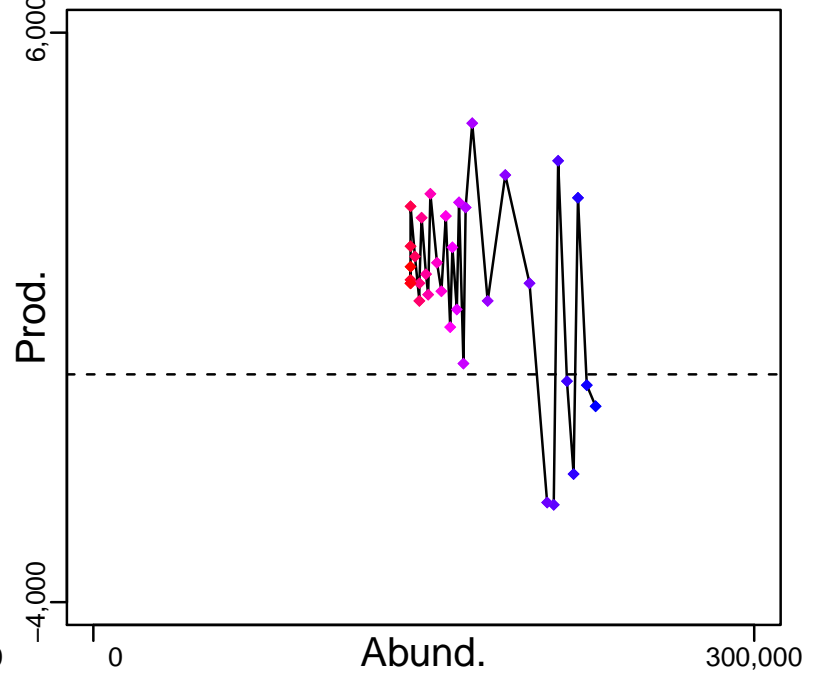
Kobe MGTpref (1973–2007–JENSEN)



Spawner Recruit (1973–2007–JENSEN)



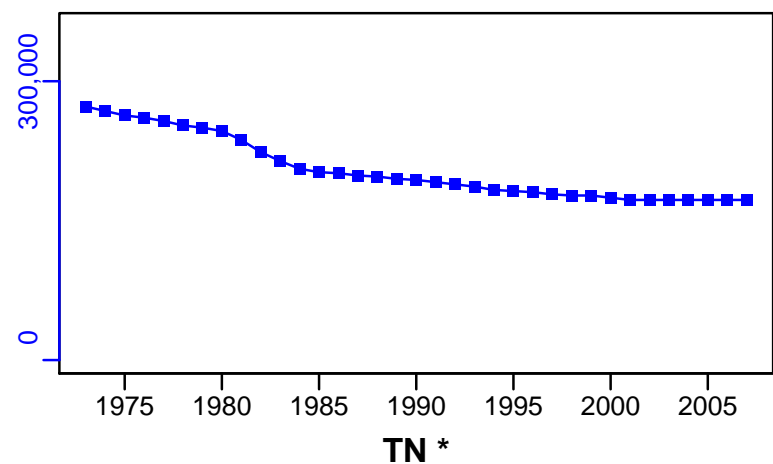
Production (1973–2007–JENSEN)



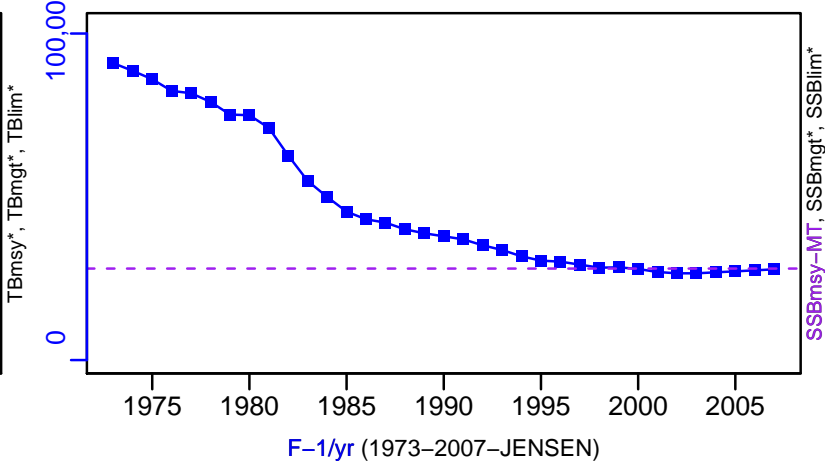
◆ Start Year ◆ End Year * No Data

Black oreo West end of Chatham Rise [BLACKOREOWECR]

TB-MT (1973-2007-JENSEN)



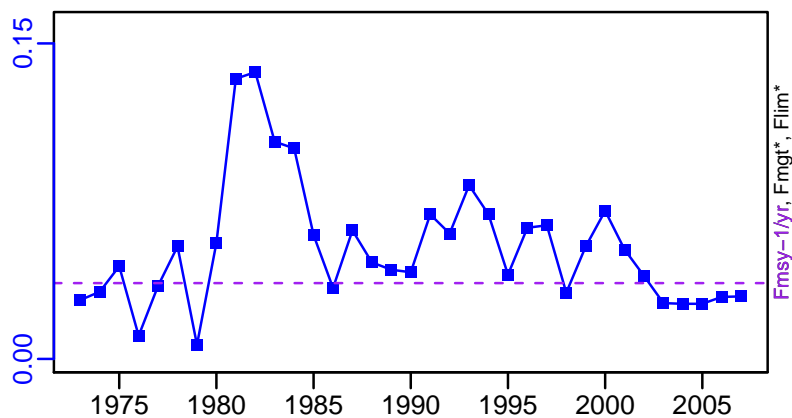
SSB-MT (1973-2007-JENSEN)



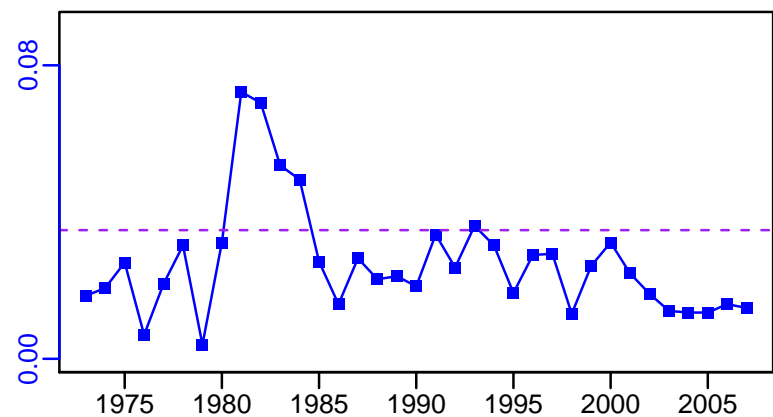
TN *



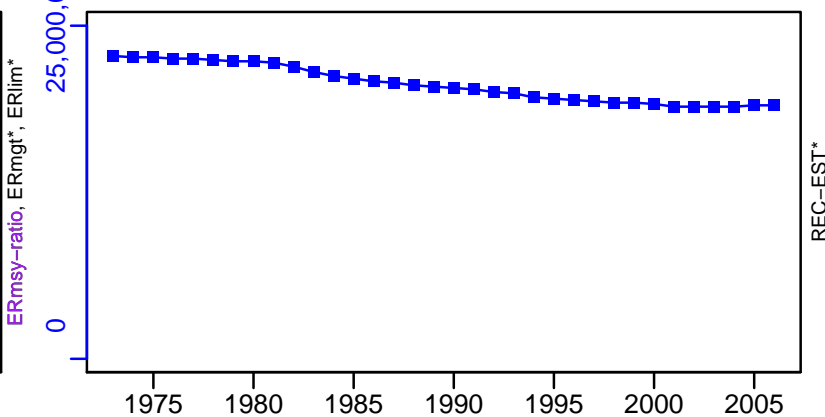
F-1/yr (1973-2007-JENSEN)



ER-ratio (1973-2007-JENSEN)



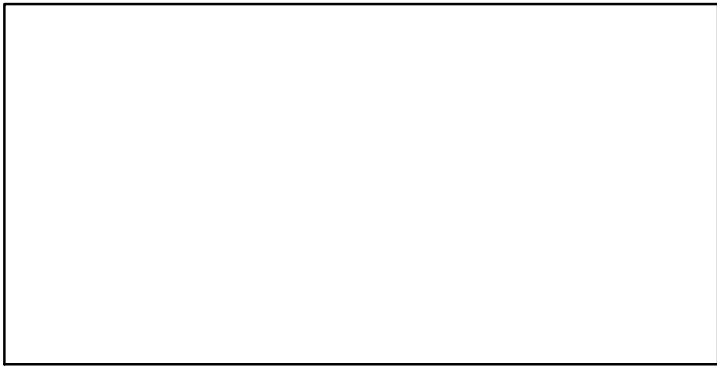
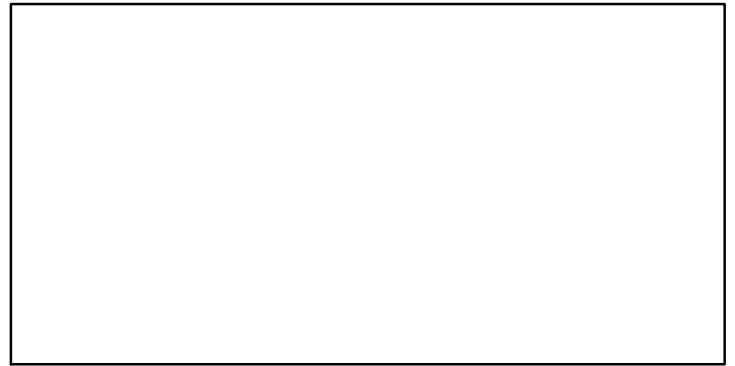
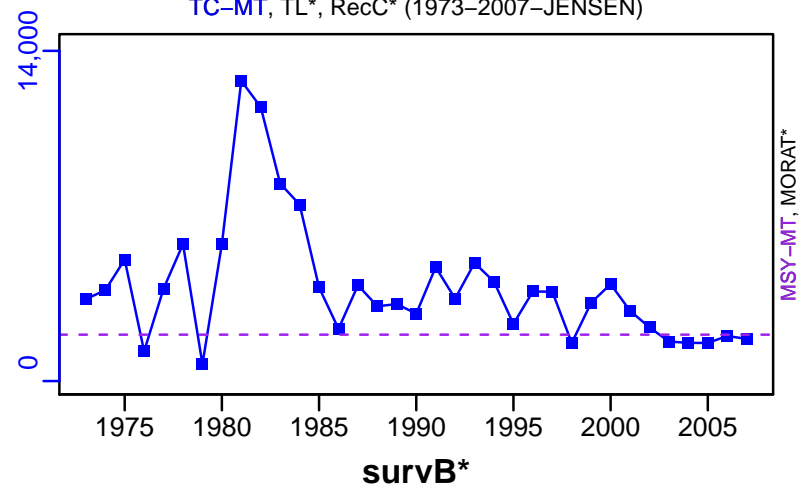
R-E00 (1973-2007-JENSEN)



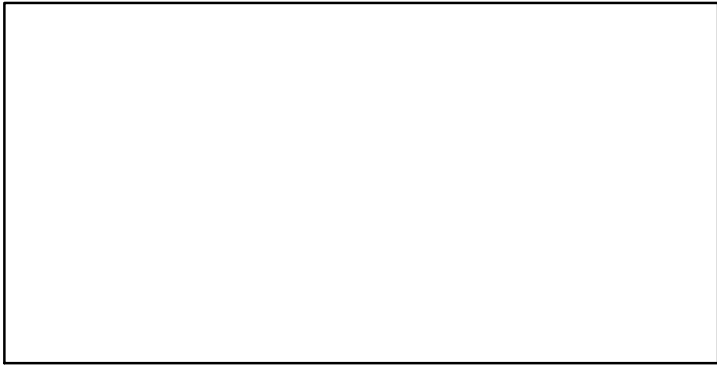
Black oreo West end of Chatham Rise [BLACKOREOWECR]

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

TAC*, Cpair*, Cadv*



EFFORT*



Bluenose New Zealand [BNSNZ]

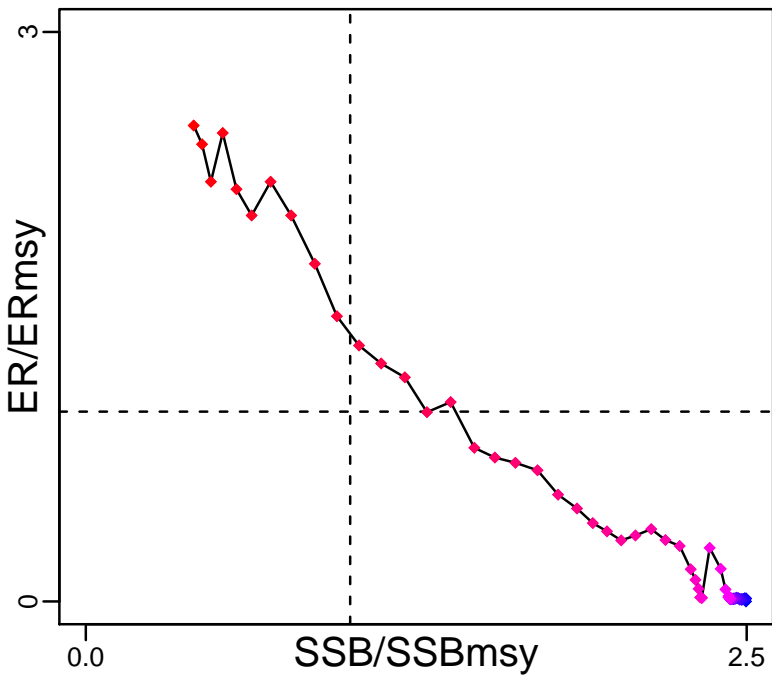
Metadata	
Scientific Name	Hyperoglyphe antarctica
Current Assess ID	NZMFishINSHOREWG-BNSNZ-1935-2011-CORDUE
Area	New Zealand
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Inshore Working Group
Asmts in RAM	2011

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2011	16,737
Fmsy	Fmsy-1/yr	2011	0.08
ERmsy	ERmsy-ratio	2011	0.05
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	-	-	-

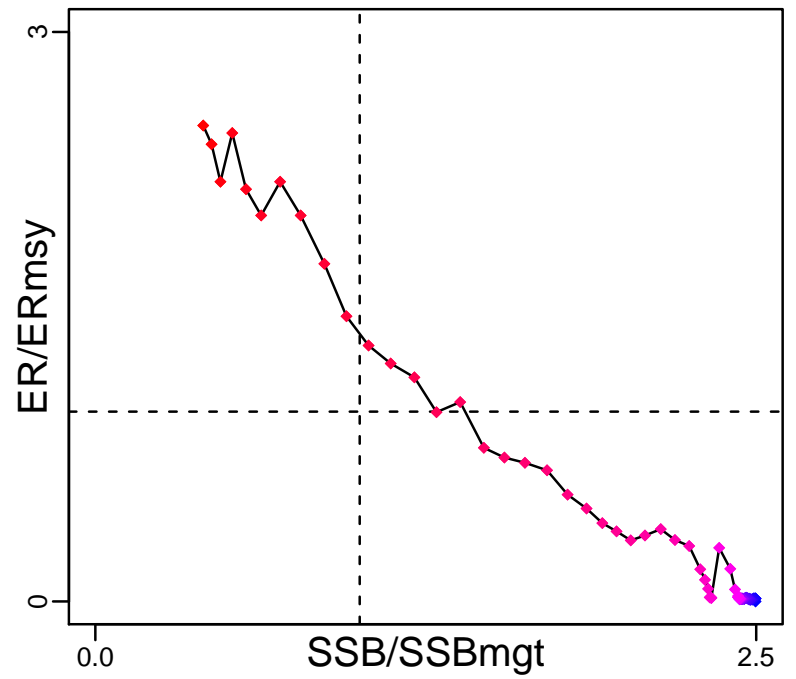
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2011	6830	Both	17+
TN	-	-	-	-	-
R	R-E00	2011	1,010,000	-	1
F	F-1/yr	2011	0	-	-
ER	ER-ratio	2011	0	-	-
TC	TC-MT	2011	2000		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2011	0.41		
F/Fmsy	FdivFmsy-dimensionless	2011	2.71		
ER/ERmsy	ER-ratio/ERmsy-ratio	2011	2.51		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2011	0.41		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Bluenose New Zealand [BNSNZ]

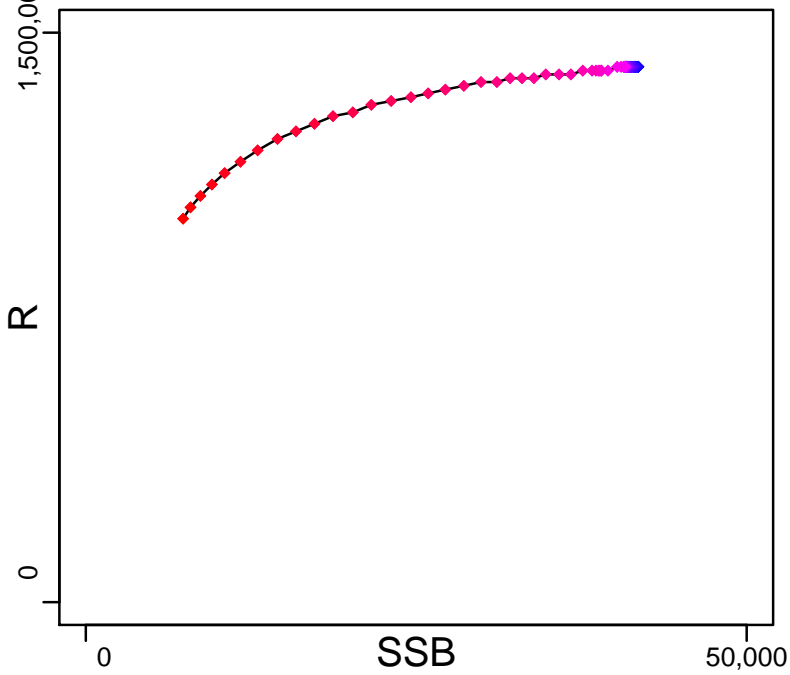
Kobe MSYpref (1935–2011–CORDUE)



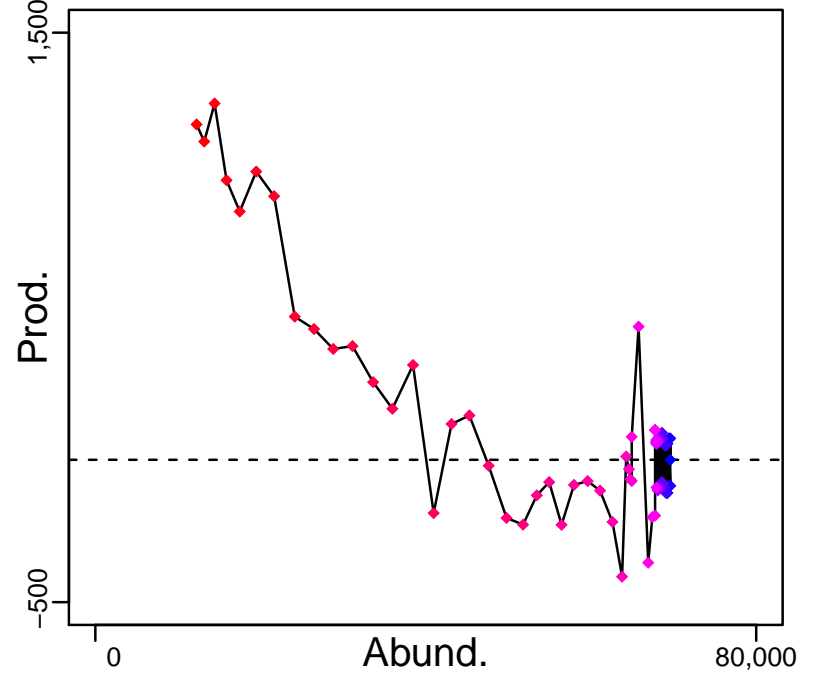
Kobe MGTpref (1935–2011–CORDUE)



Spawner Recruit (1935–2011–CORDUE)



Production (1935–2011–CORDUE)



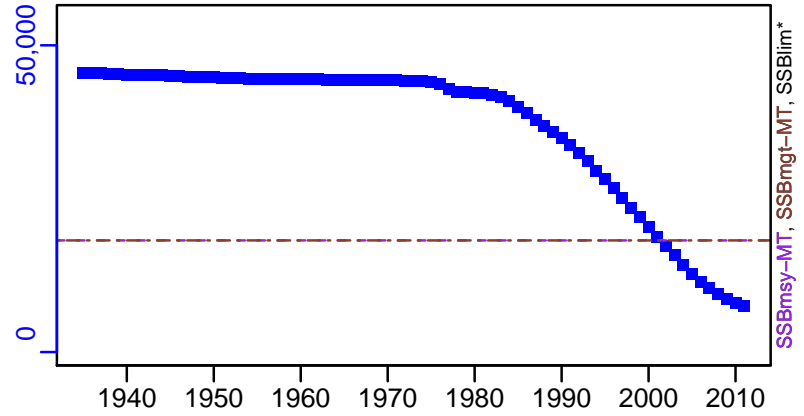
◆ Start Year ◆ End Year * No Data

Bluenose New Zealand [BNSNZ]

TB*



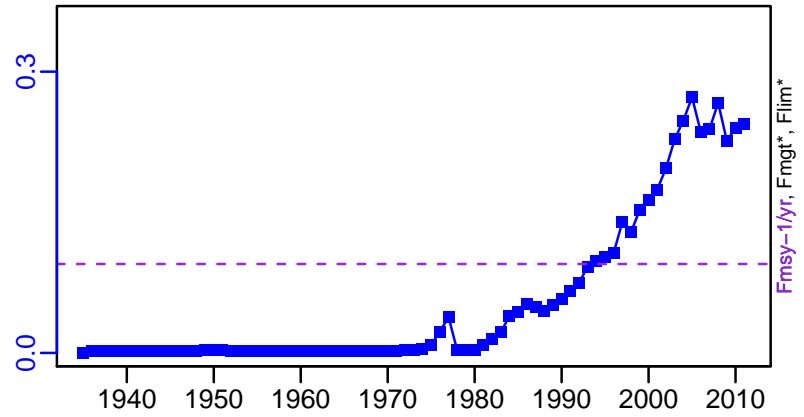
SSB-MT (1935-2011-CORDUE)



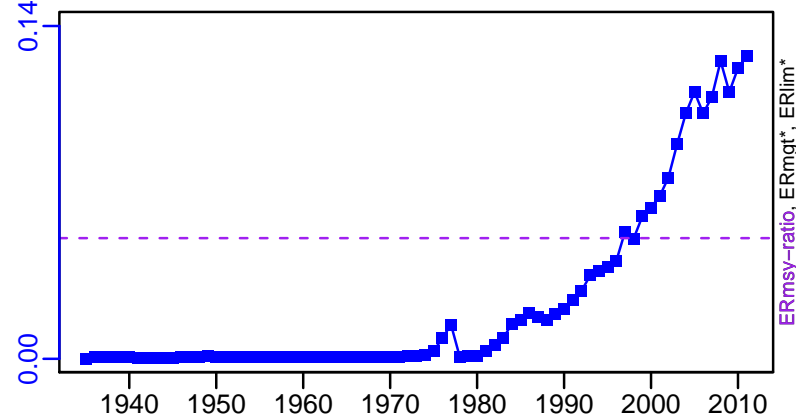
TN *



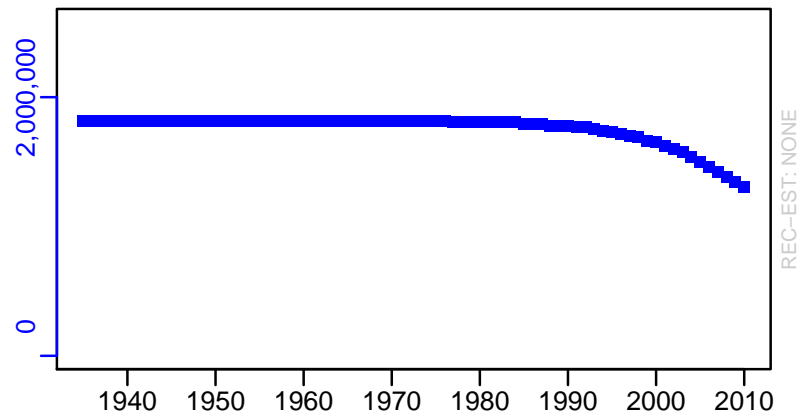
F-1/yr (1935-2011-CORDUE)



ER-ratio (1935-2011-CORDUE)

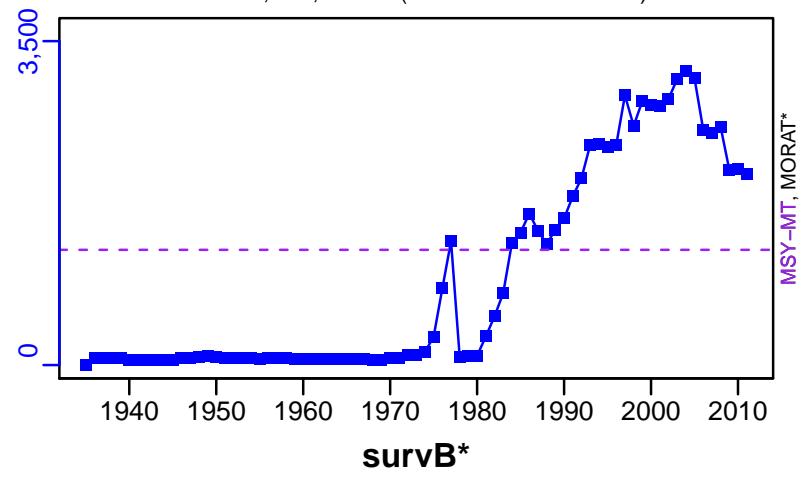


R-E00 (1935-2011-CORDUE)



Bluenose New Zealand [BNSNZ]

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



TAC*, Cpair*, Cadv*



CPUE*



EFFORT*



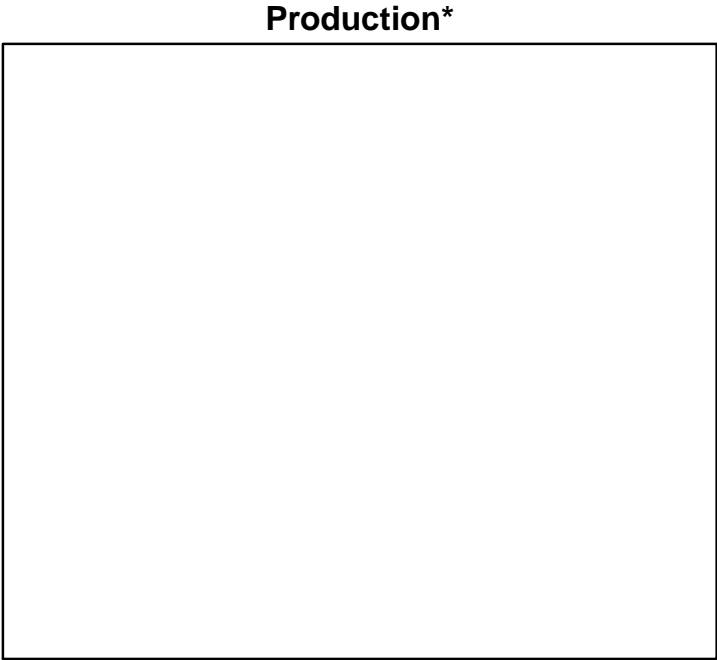
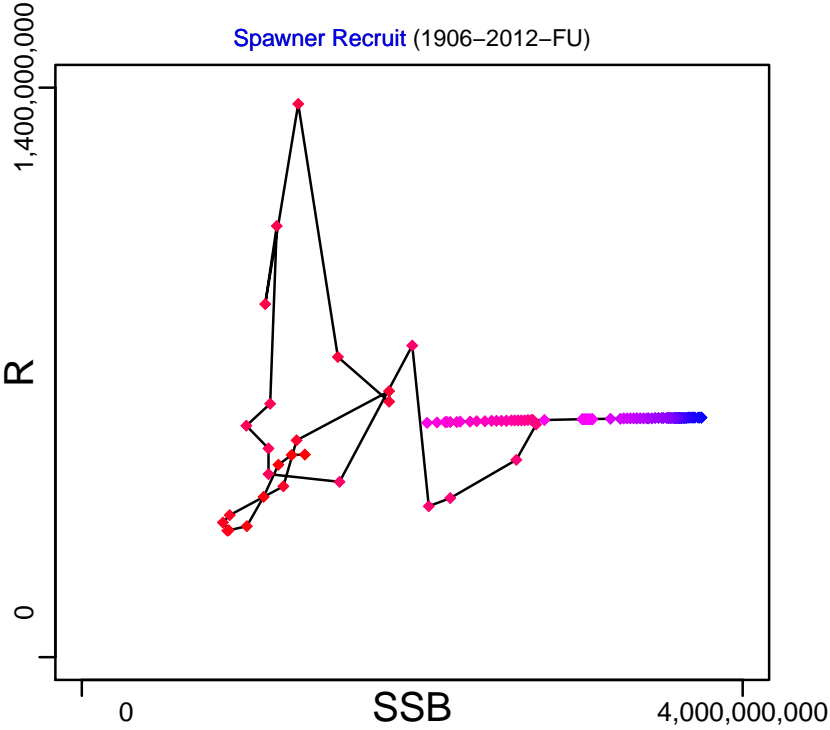
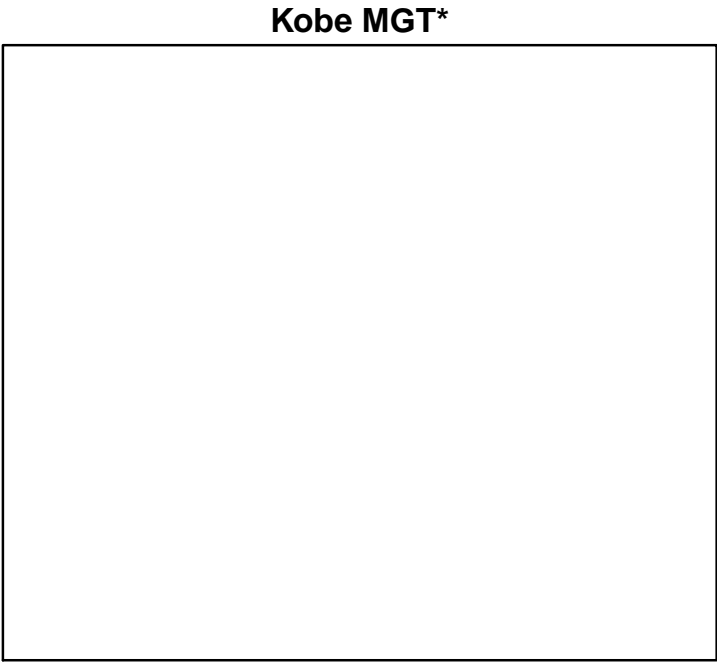
■ 1st listed time series ▲ 3rd listed time series — MORAT
● 2nd listed time series - - - MSY * No Data

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	-	-	-

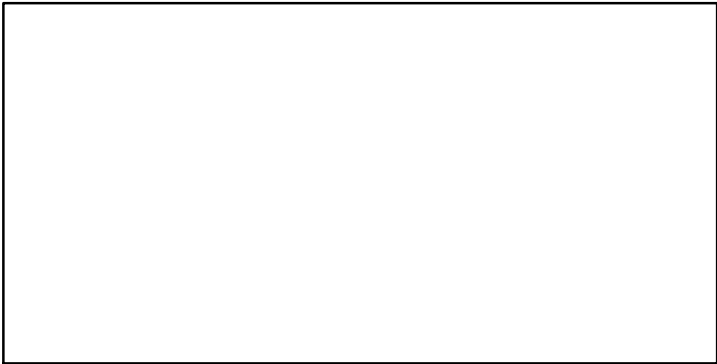
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-E00	2012	1.44×10^9	-	-
TN	-	-	-	-	-
R	R-E00	2012	4.98×10^8	Both	-
F	F-1/yr	2012	0	Both	-
ER	-	-	-	-	-
TC	TC-E00	2012	12,600,000		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSBdivSSBmgt-dimensionless	2012	0.9		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



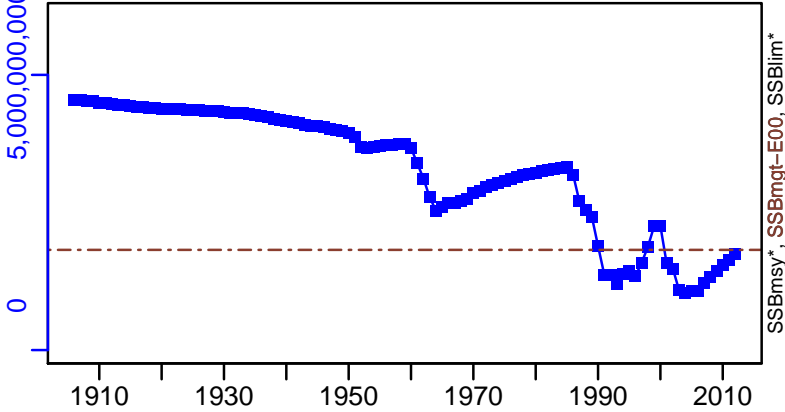
◆ Start Year ◆ End Year * No Data

Dredge oyster Foveax Strait [DOYSFS]

TB*



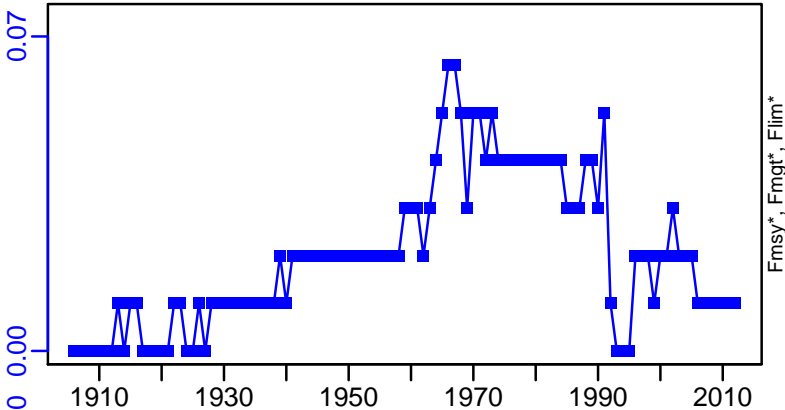
SSB-E00 (1906–2012–FU)



TN *



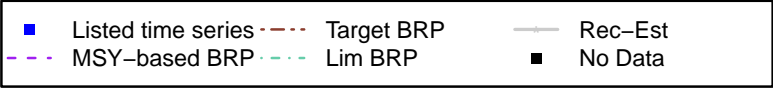
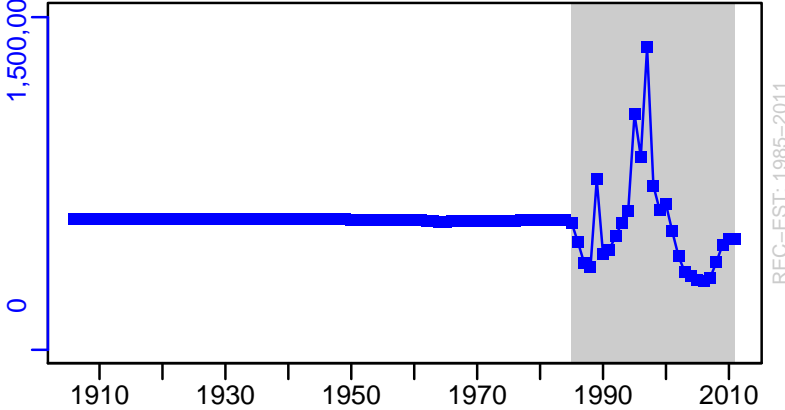
F-1/yr (1906–2012–FU)



ER*

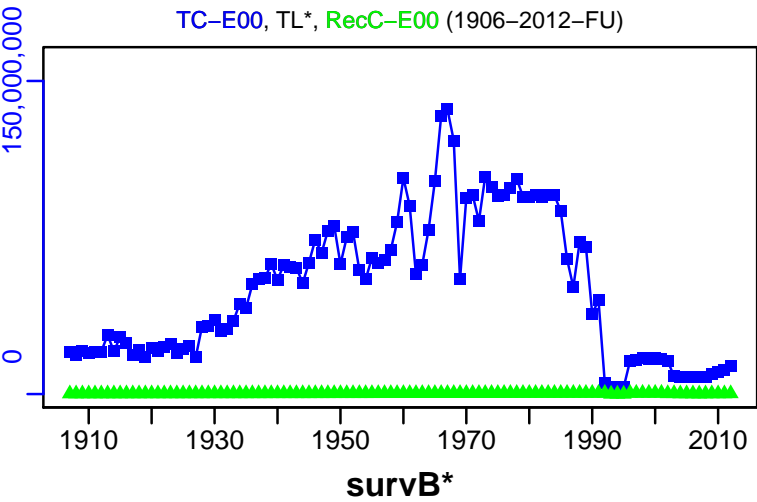


R-E00 (1906–2012–FU)

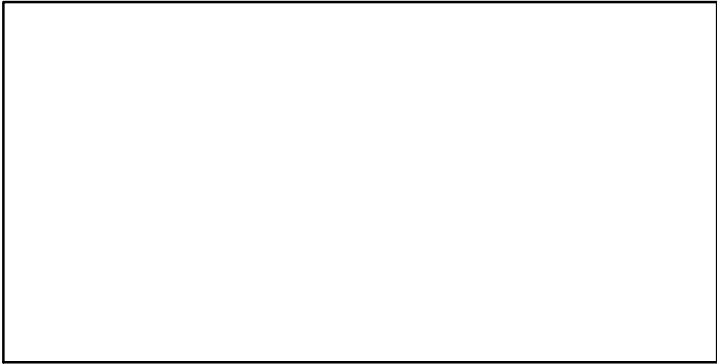
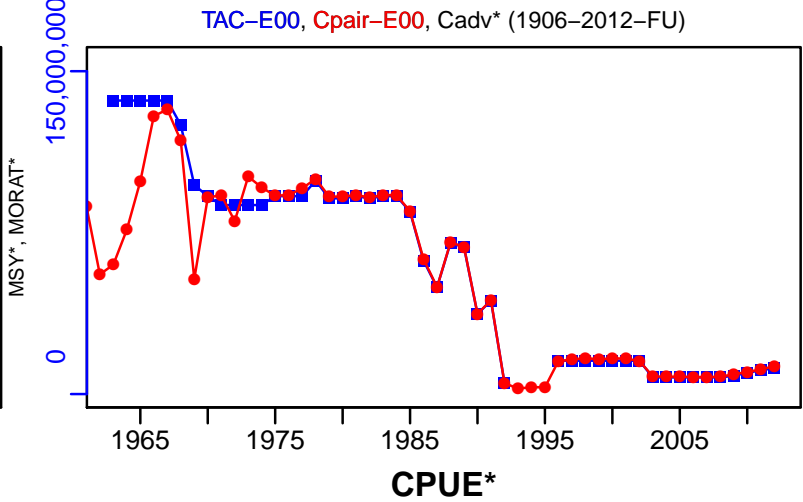


Dredge oyster Foveax Strait [DOYSFS]

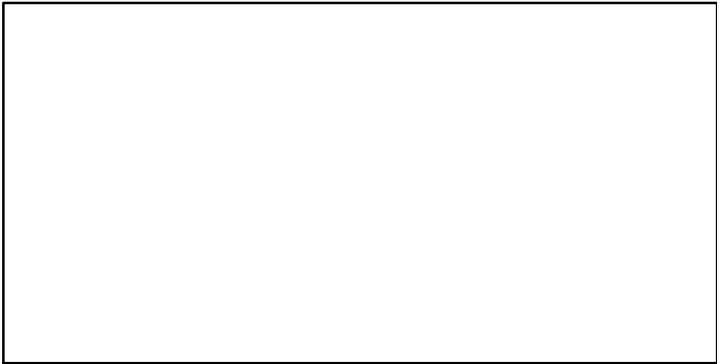
TC-E00, TL*, RecC-E00 (1906-2012-FU)



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



EFFORT*



common gemfish New Zealand [GEMFISHNZ]

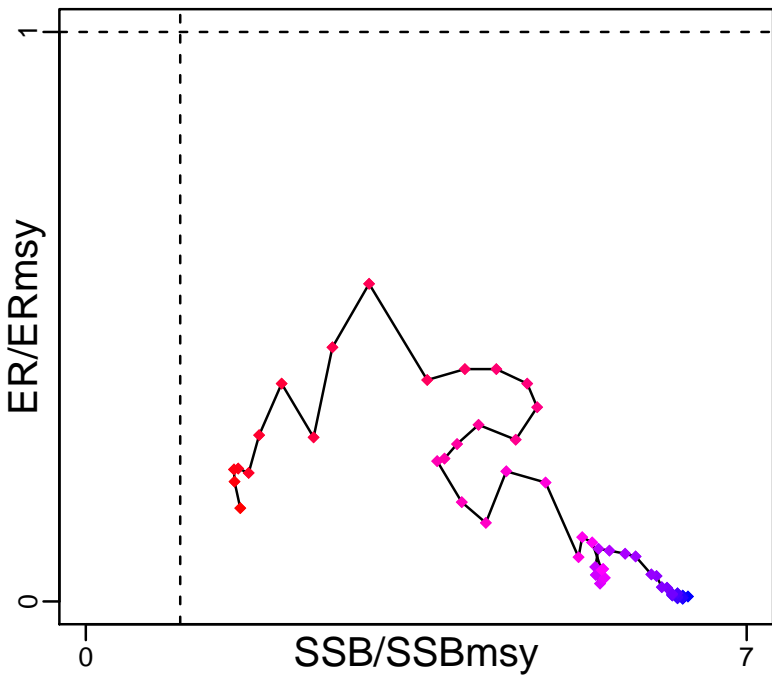
Metadata	
Scientific Name	Rexea solandri
Current Assess ID	NZMFishMIDDEPTHSWG-GEMFISHNZ-1952-2007-JENSEN
Area	New Zealand
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Middle Depths Working Group
Asmts in RAM	2007

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2007	1803
Fmsy	Fmsy-1/yr	2007	0.29
ERmsy	ERmsy-ratio	2007	0.31
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	-	-	-

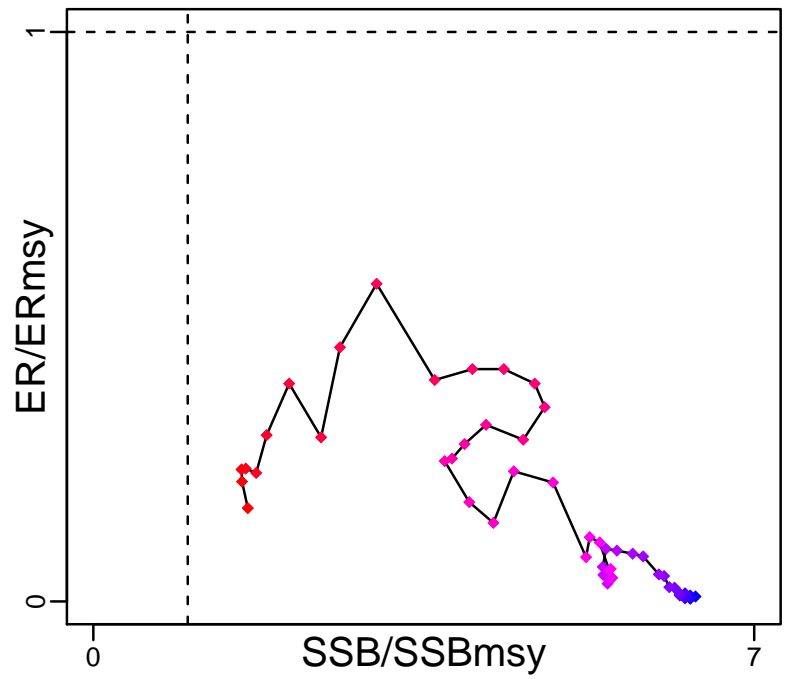
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2007	8020	-	1
SSB	SSB-MT	2007	2950	-	-
TN	-	-	-	-	-
R	R-E00	2007	1,930,000	-	1
F	F-1/yr	2007	0	-	-
ER	ER-ratio	2007	0	-	-
TC	TC-MT	2007	412		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2007	1.64		
F/Fmsy	F-1/yr/Fmsy-1/yr	2007	0.43		
ER/ERmsy	ER-ratio/ERmsy-ratio	2007	0.16		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

common gemfish New Zealand [GEMFISHNZ]

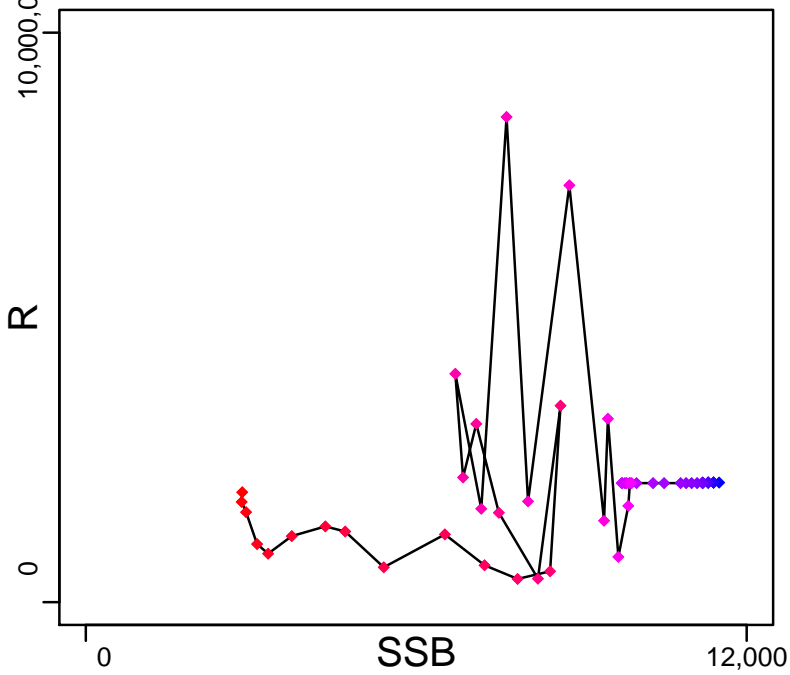
Kobe MSYpref (1952–2007–JENSEN)



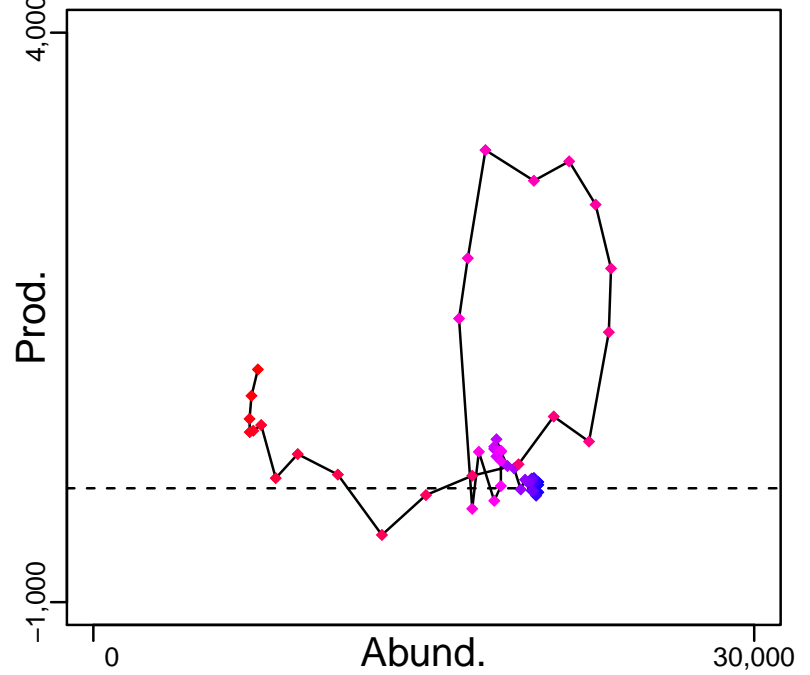
Kobe MGTpref (1952–2007–JENSEN)



Spawner Recruit (1952–2007–JENSEN)



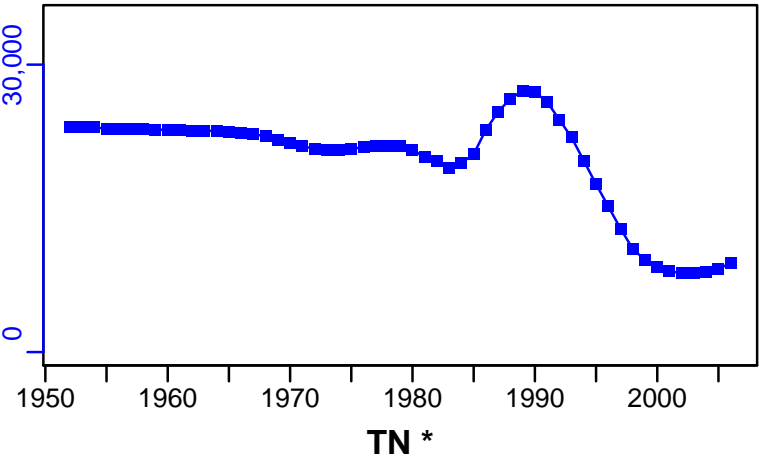
Production (1952–2007–JENSEN)



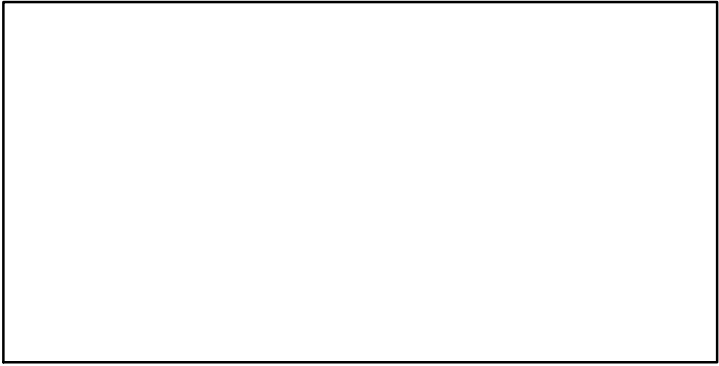
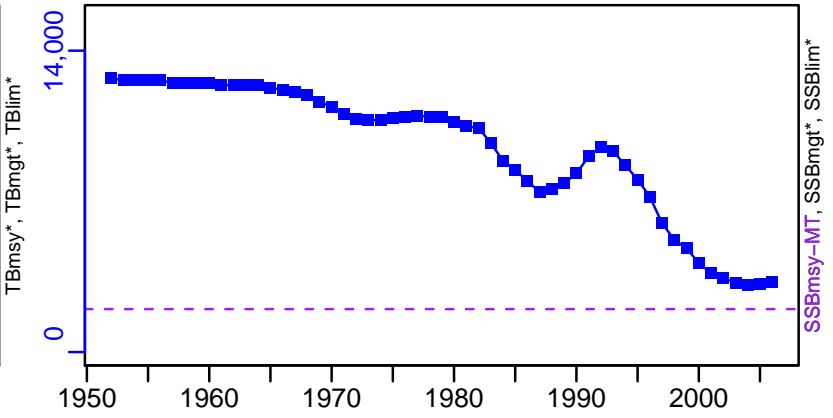
◆ Start Year ◆ End Year * No Data

common gemfish New Zealand [GEMFISHNZ]

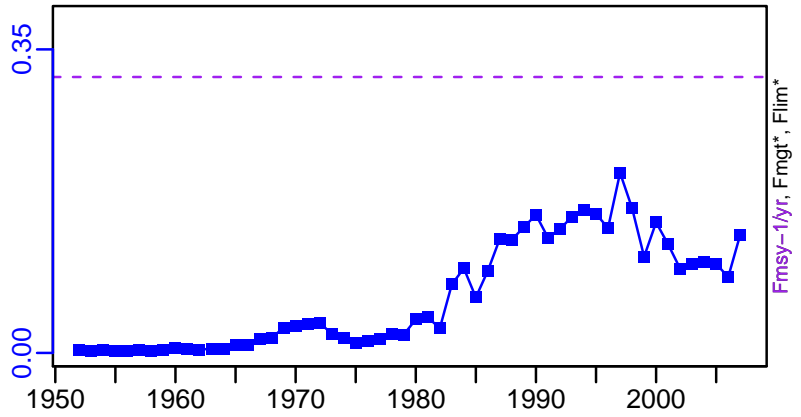
TB-MT (1952-2007-JENSEN)



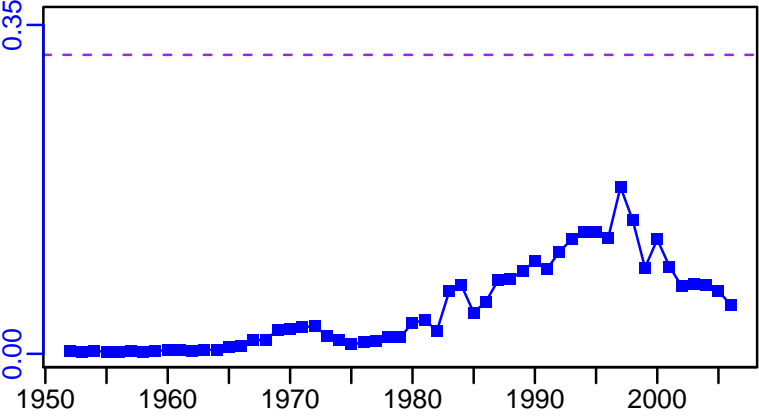
SSB-MT (1952-2007-JENSEN)



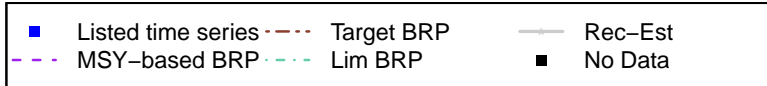
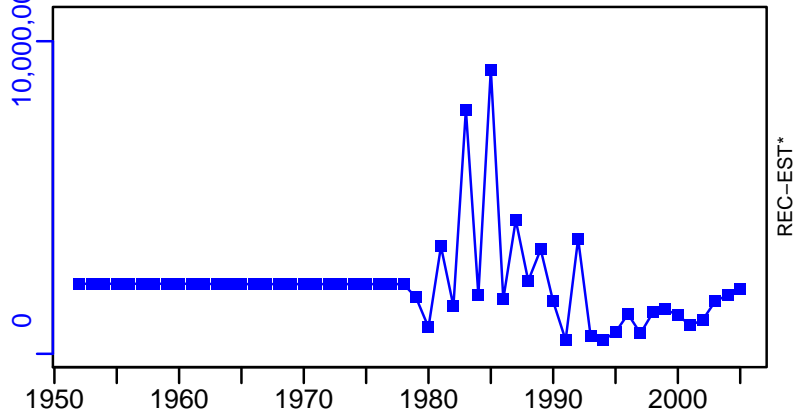
F-1/yr (1952-2007-JENSEN)



ER-ratio (1952-2007-JENSEN)

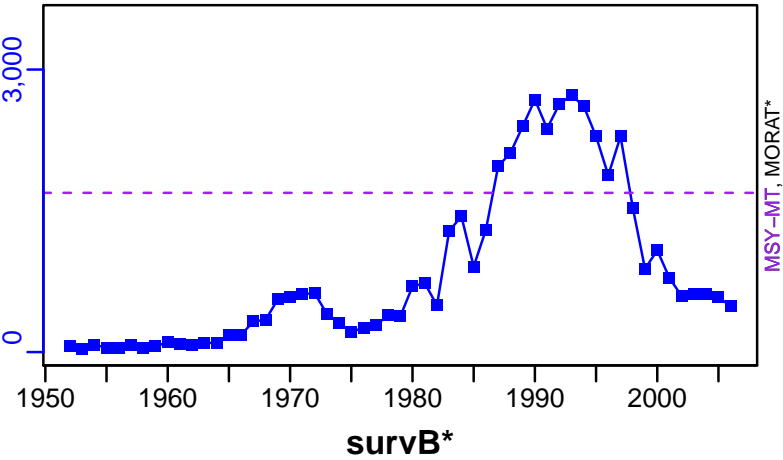


R-E00 (1952-2007-JENSEN)



common gemfish New Zealand [GEMFISHNZ]

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



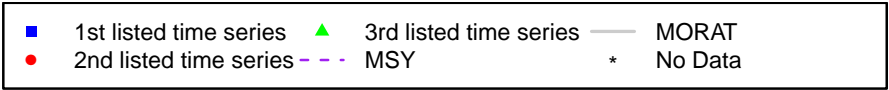
TAC*, Cpair*, Cadv*



CPUE*



EFFORT*



Giant stargazer NZ Area STA7 [GSTRGZRSTA7]

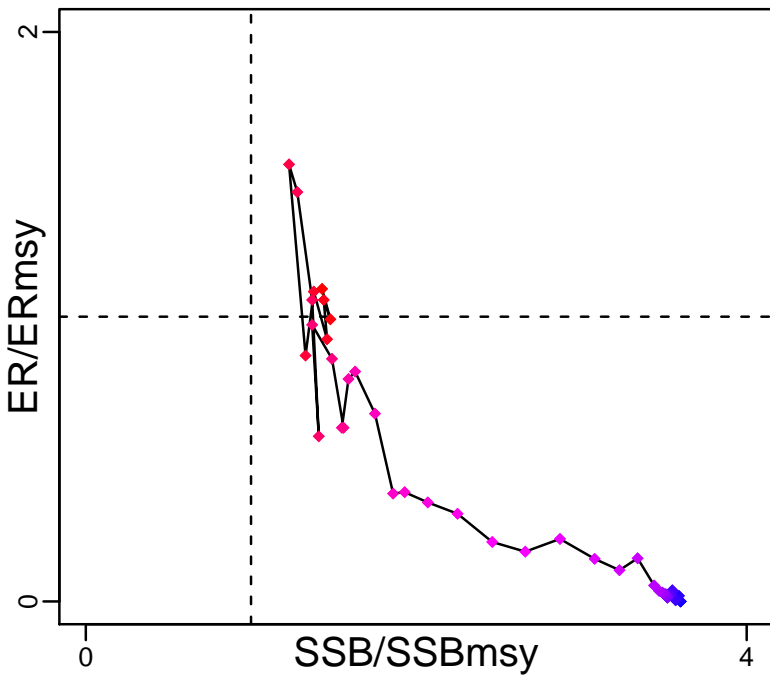
Metadata	
Scientific Name	Kathetostoma giganteum
Current Assess ID	NIWA-GSTRGZRSTA7-1964-2007-CORDUE
Area	NZ Area STA7
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2007

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2007	2568
Fmsy	Fmsy-1/yr	2007	0.38
ERmsy	ERmsy-ratio	2007	0.1
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	-	-	-

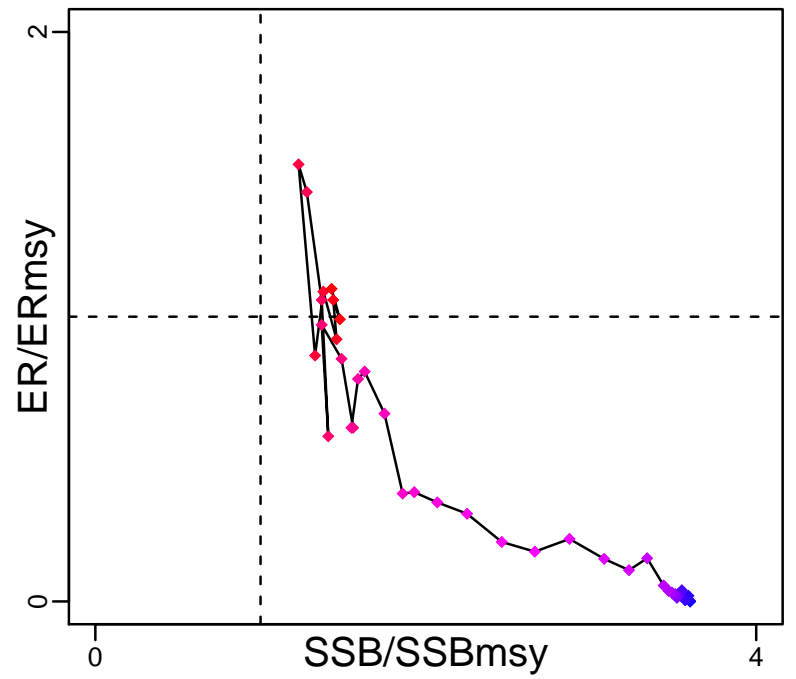
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2007	3680	Both	-
TN	-	-	-	-	-
R	R-E00	2007	1,180,000	-	0
F	F-1/yr	2007	0	-	-
ER	ER-ratio	2007	0	-	-
TC	TC-MT	2007	958		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2007	1.43		
F/Fmsy	FdivFmsy-dimensionless	2007	1.28		
ER/ERmsy	ER-ratio/ERmsy-ratio	2007	1.1		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Giant stargazer NZ Area STA7 [GSTRGZRSTA7]

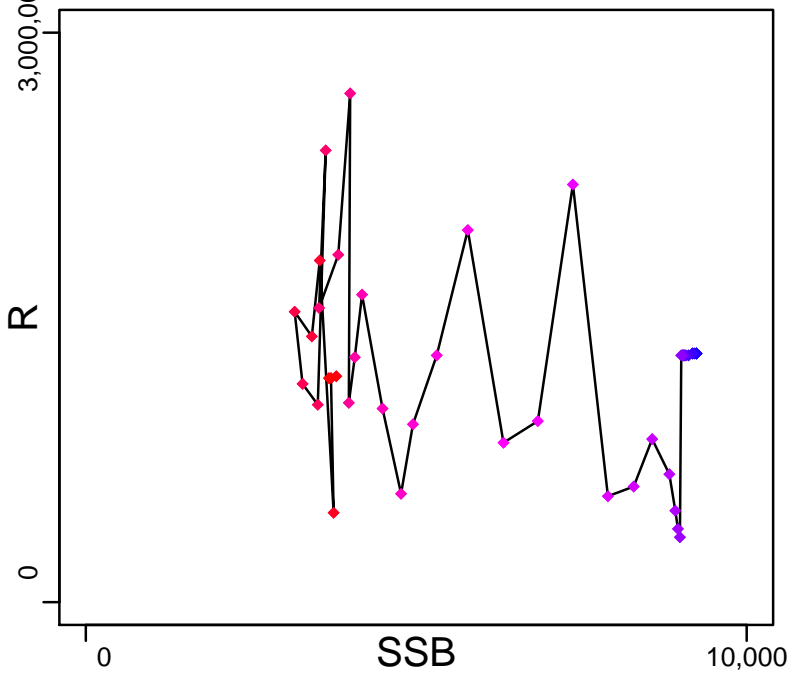
Kobe MSYpref (1964–2007–CORDUE)



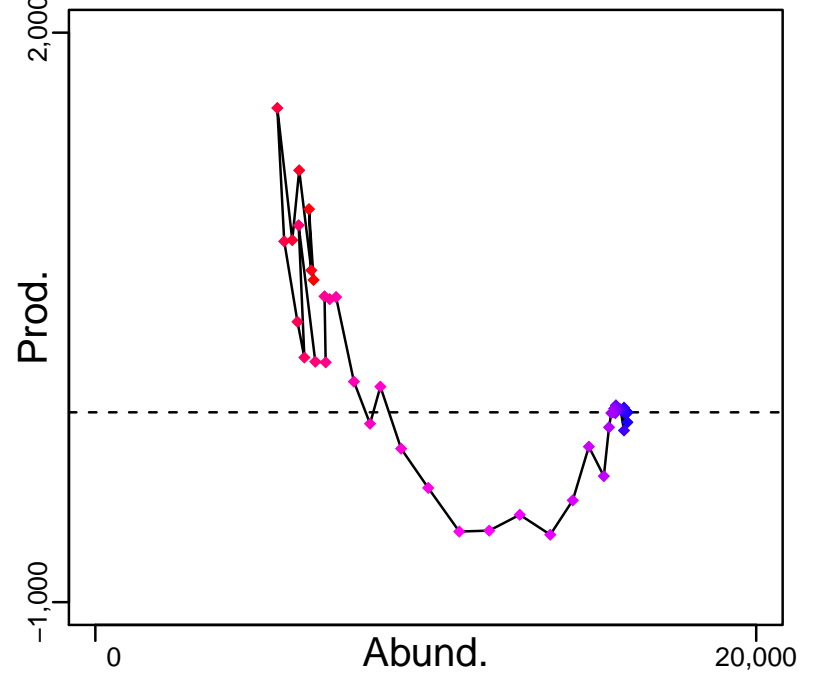
Kobe MGTpref (1964–2007–CORDUE)



Spawner Recruit (1964–2007–CORDUE)



Production (1964–2007–CORDUE)



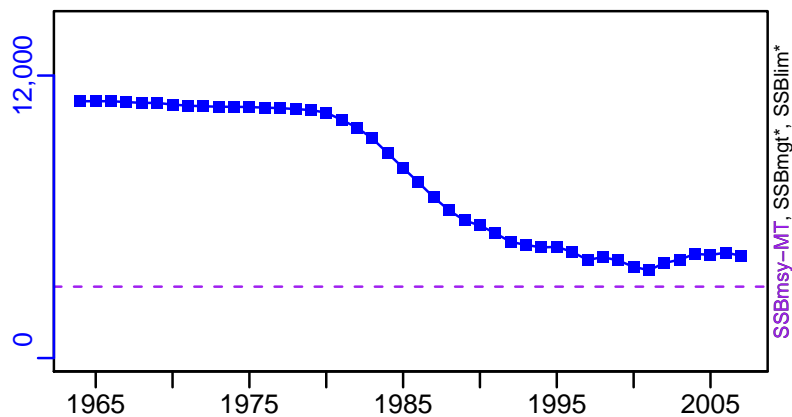
◆ Start Year ◆ End Year * No Data

Giant stargazer NZ Area STA7 [GSTRGZRSTA7]

TB*



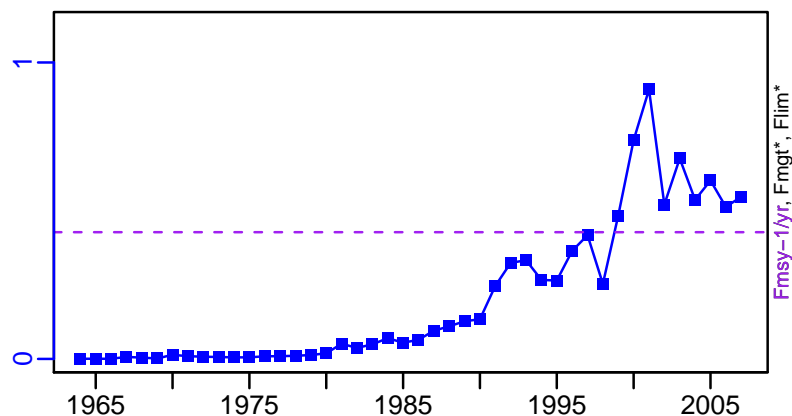
SSB-MT (1964–2007–CORDUE)



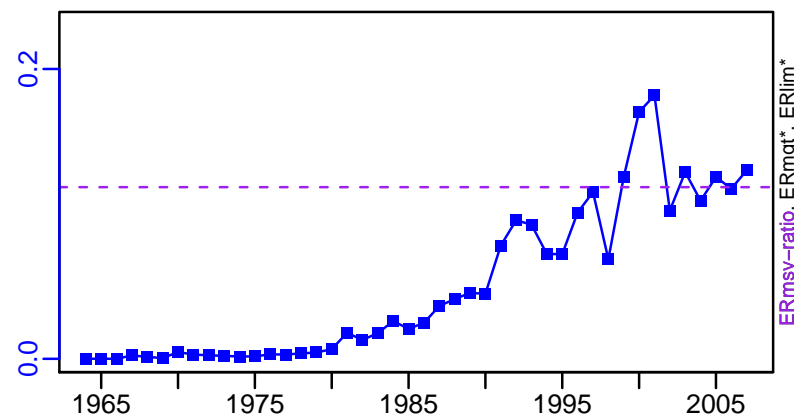
TN *



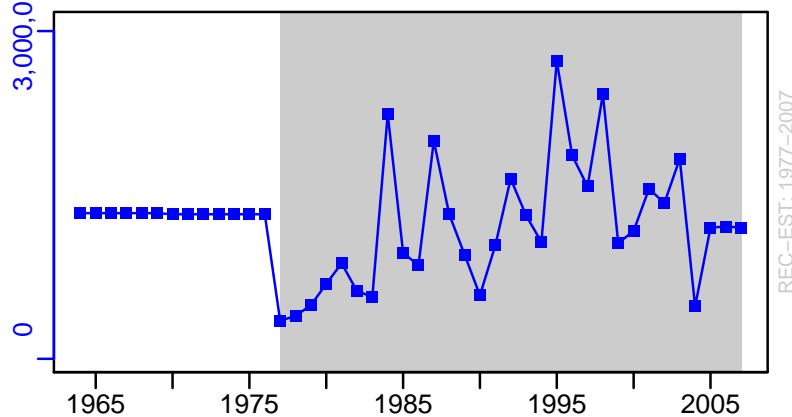
F-1/yr (1964–2007–CORDUE)



ER-ratio (1964–2007–CORDUE)

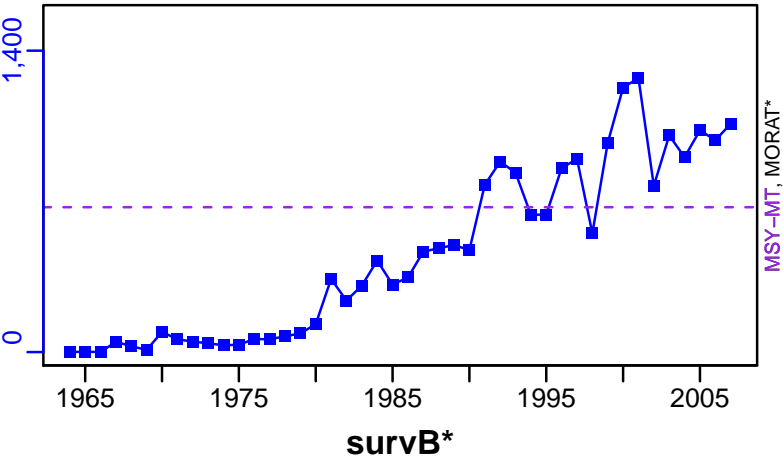


R-E00 (1964–2007–CORDUE)



Giant stargazer NZ Area STA7 [GSTRGZRSTA7]

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



TAC*, Cpair*, Cadv*



CPUE*



EFFORT*



Hoki Eastern New Zealand [HOKIENZ]

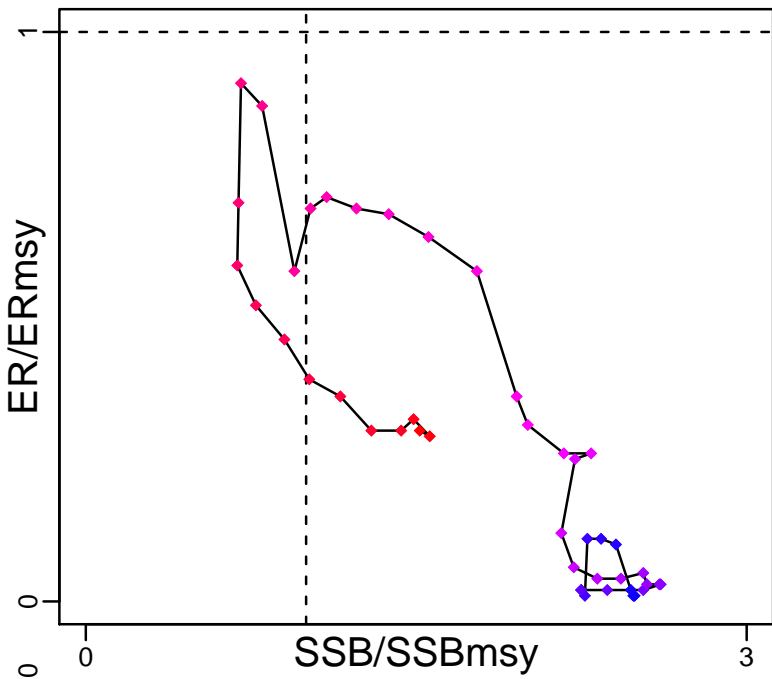
Metadata	
Scientific Name	Macruronus novaezelandiae
Current Assess ID	NIWA-HOKIENZ-1970-2015-FU
Area	Eastern New Zealand
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2012, 2015

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2012	307,143
SSBmsy	SSBmsy-MT	2015	177,430
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2015	0.29
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2015	188,519
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2015	443,574
MSY	MSY-MT	2015	73,100
M	M-1/yr	2015	0.29
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

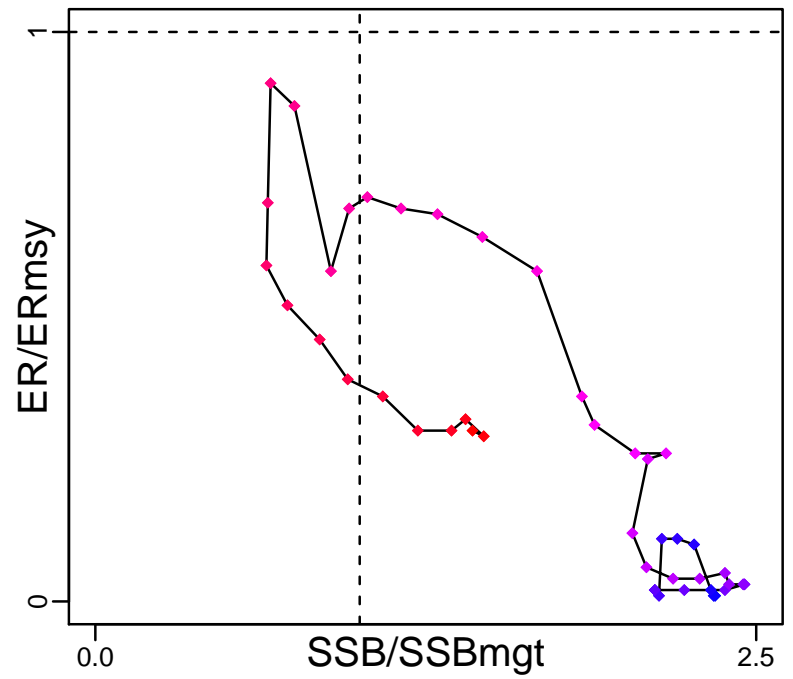
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2015	269,000	-	3+
TN	-	-	-	-	-
R	R-E00	2015	7.24×10^8	Both	-
F	F-1/yr	2012	0	-	-
ER	ER-ratio	2015	0	Both	-
TC	TC-MT	2015	60,000		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2015	1.52		
F/Fmsy	FdivFmsy-dimensionless	2012	0.38		
ER/ERmsy	ERdivERmsy-dimensionless	2015	0.3		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2015	1.43		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Hoki Eastern New Zealand [HOKIENZ]

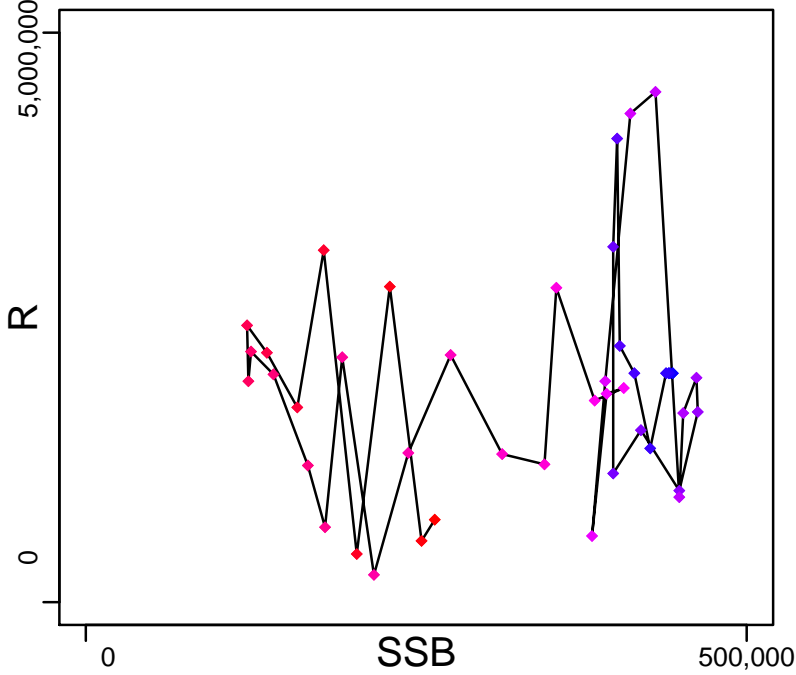
Kobe MSYpref (1970–2015–FU)



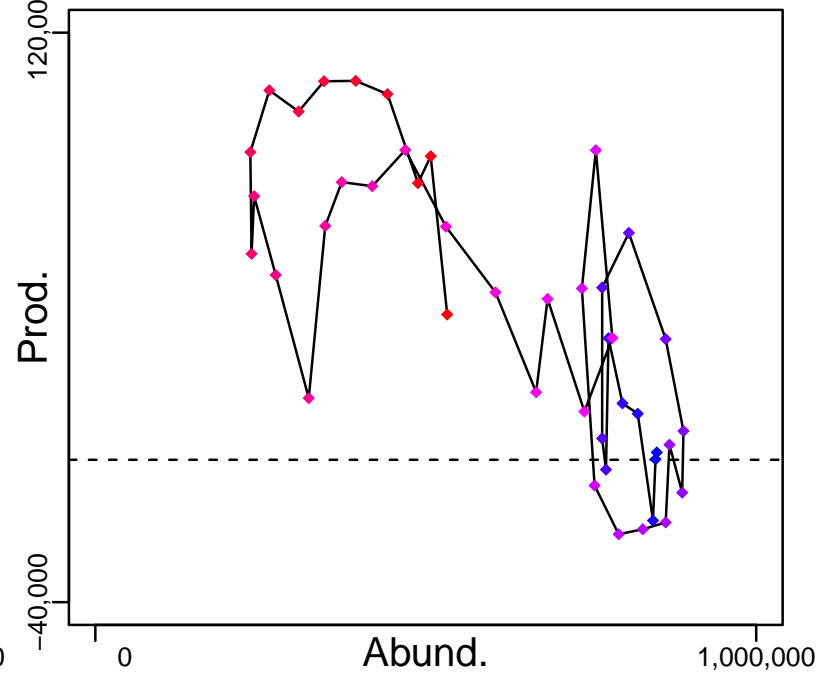
Kobe MGTpref (1970–2015–FU)



Spawner Recruit (1970–2015–FU)



Production (1970–2015–FU)



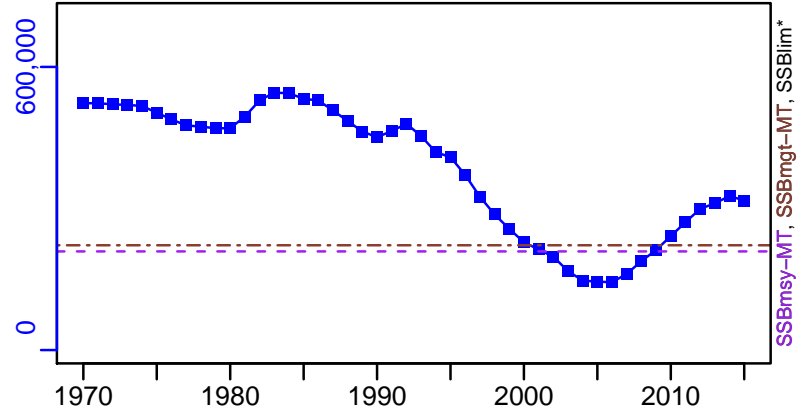
◆ Start Year ◆ End Year * No Data

Hoki Eastern New Zealand [HOKIENZ]

TB*



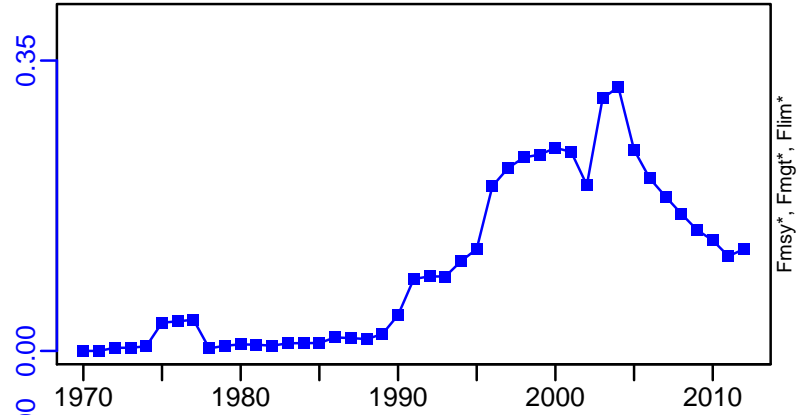
SSB-MT (1970–2015–FU)



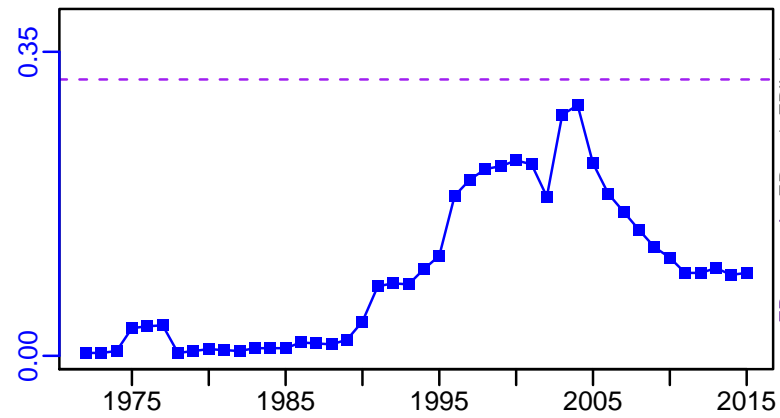
TN *



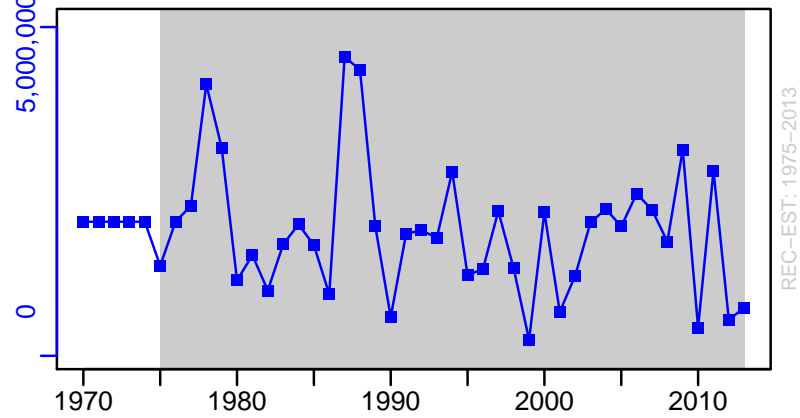
F-1/yr (1970–2012–CORDUE)



ER-ratio (1970–2015–FU)



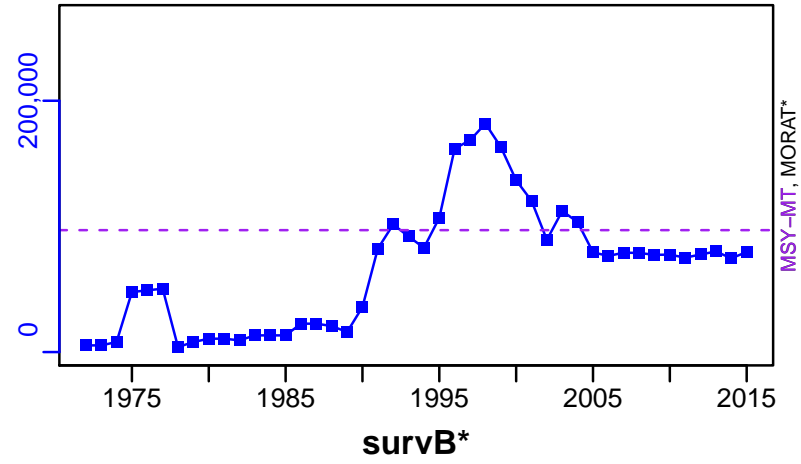
R-E00 (1970–2015–FU)



Hoki Eastern New Zealand [HOKIENZ]

TC-MT, TL*, RecC* (1970-2015-FU)

TAC*, Cpair*, Cadv*



EFFORT*



Hoki Western New Zealand [HOKIWNZ]

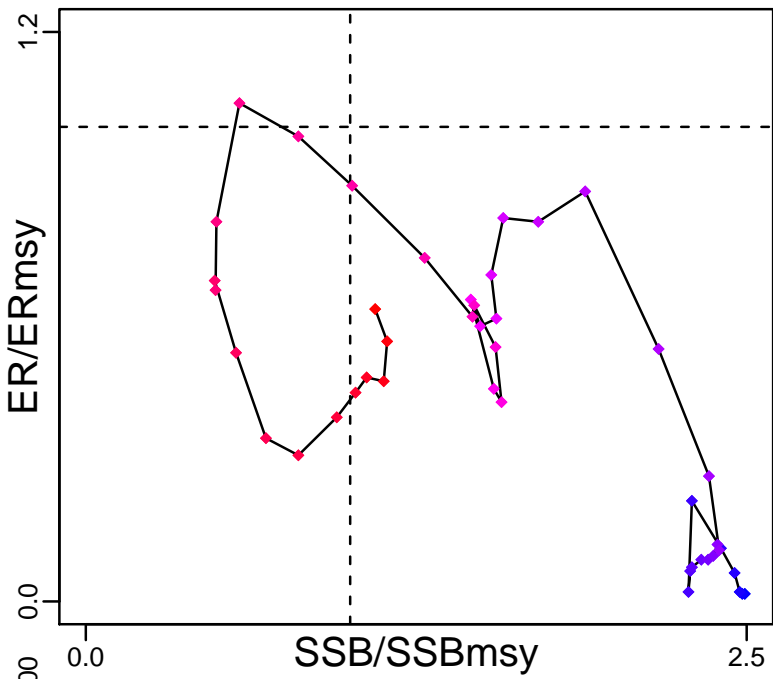
Metadata	
Scientific Name	Macruronus novaezelandiae
Current Assess ID	NIWA-HOKIWNZ-1970-2015-FU
Area	Western New Zealand
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2012, 2015

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2012	508,000
SSBmsy	SSBmsy-MT	2015	309,678
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2015	0.25
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2015	329,032
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2015	774,194
MSY	MSY-MT	2015	119,800
M	M-1/yr	2015	0.29
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

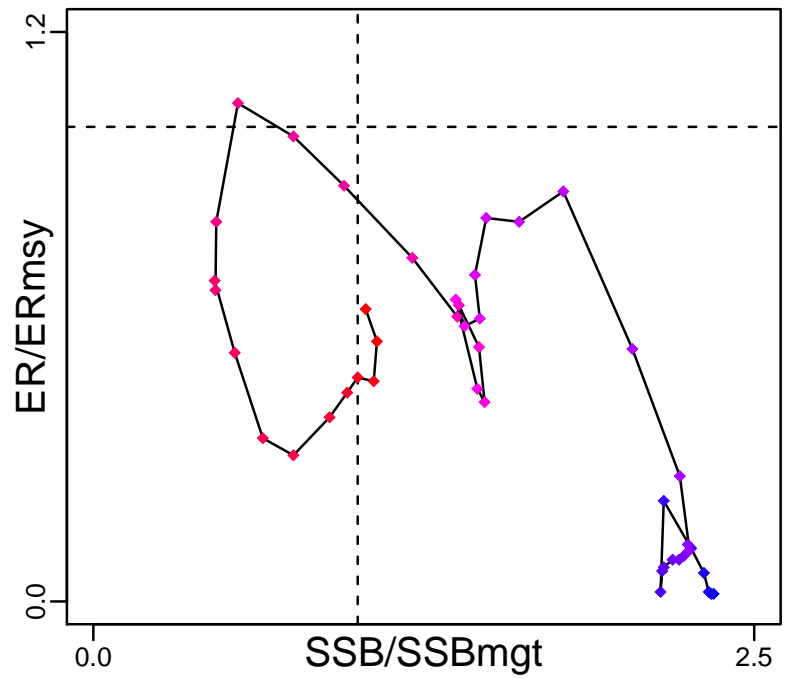
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2015	339,000	-	3+
TN	-	-	-	-	-
R	R-E00	2015	1.11×10^9	Both	-
F	F-1/yr	2012	0	-	-
ER	ER-ratio	2015	0	Both	-
TC	TC-MT	2015	1×10^5		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2015	1.09		
F/Fmsy	FdivFmsy-dimensionless	2012	0.55		
ER/ERmsy	ERdivERmsy-dimensionless	2015	0.62		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2015	1.03		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Hoki Western New Zealand [HOKIWNZ]

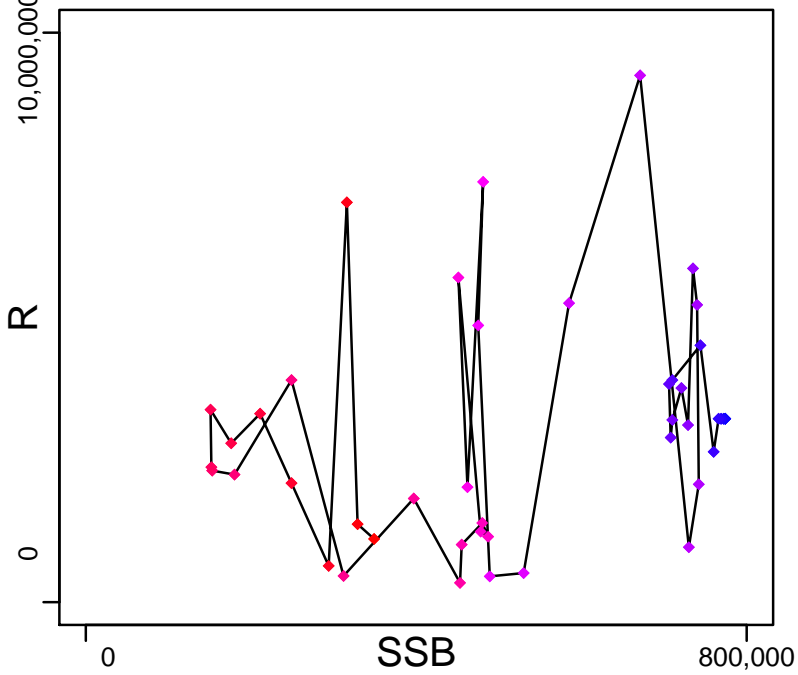
Kobe MSYpref (1970–2015–FU)



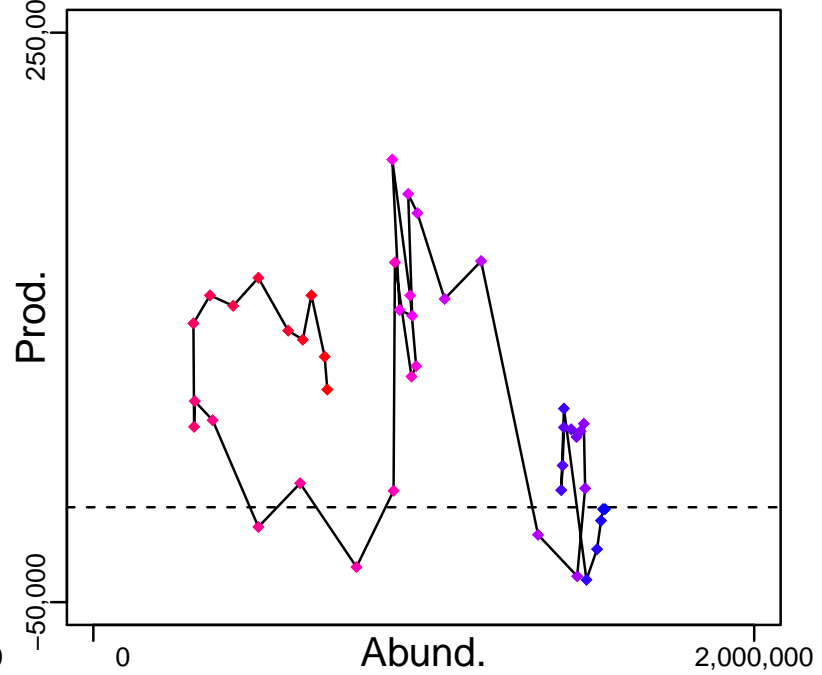
Kobe MGTpref (1970–2015–FU)



Spawner Recruit (1970–2015–FU)



Production (1970–2015–FU)



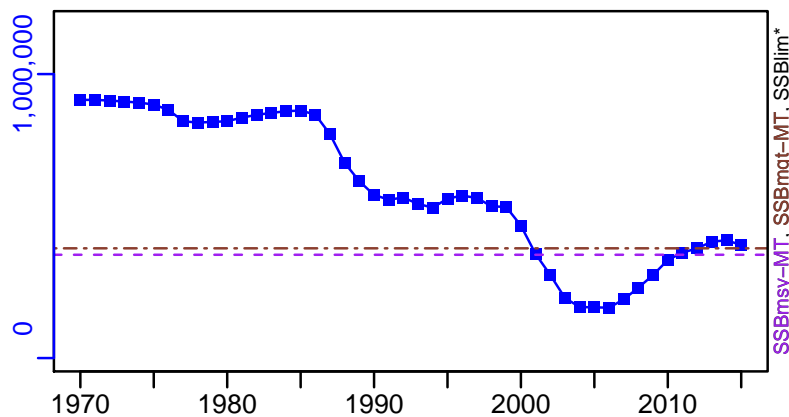
◆ Start Year ◆ End Year * No Data

Hoki Western New Zealand [HOKIWNZ]

TB*



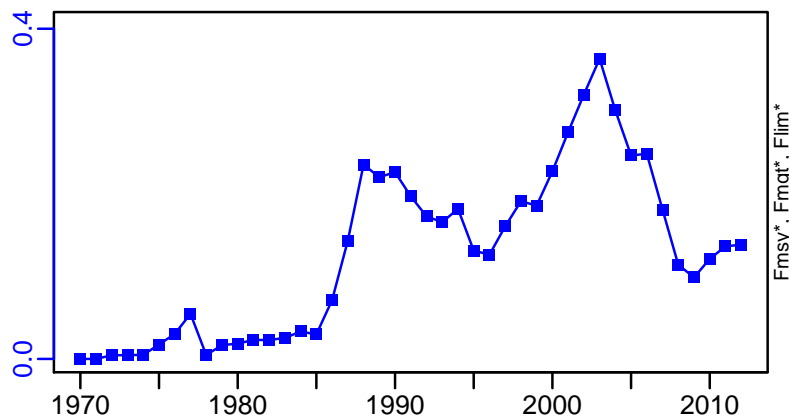
SSB-MT (1970–2015–FU)



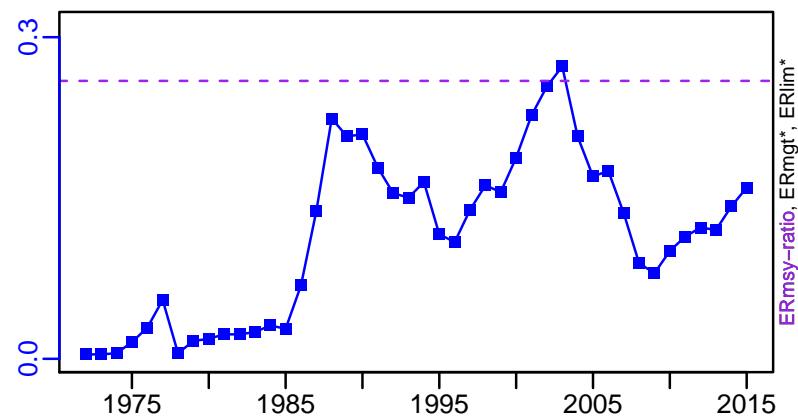
TN *



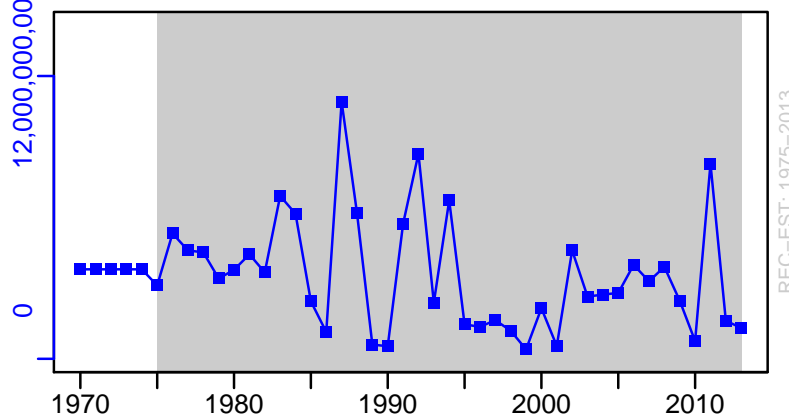
F-1/yr (1970–2012–CORDUE)



ER-ratio (1970–2015–FU)

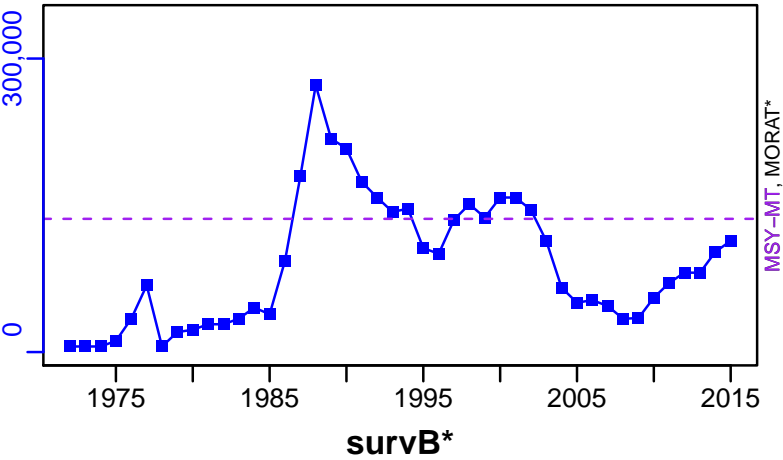


R-E00 (1970–2015–FU)



Hoki Western New Zealand [HOKIWNZ]

TC-MT, TL*, RecC* (1970-2015-FU)



TAC*, Cpair*, Cadv*



CPUE*



EFFORT*



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

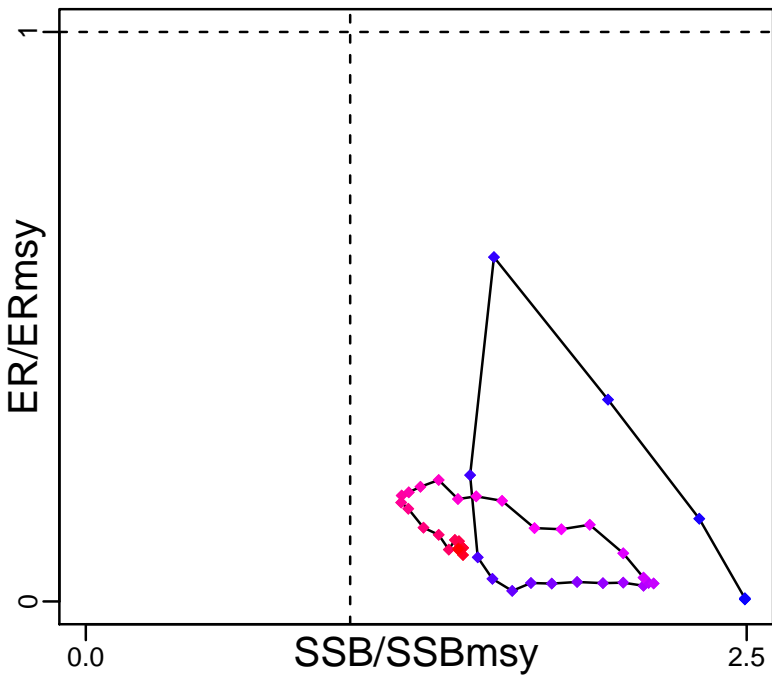
Metadata	
Scientific Name	Genypterus blacodes
Current Assess ID	NIWA-NZLINGLIN3-4-1968-2014-FU
Area	New Zealand Areas LIN 3 and 4
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2011, 2014

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2014	52,140
Fmsy	Fmsy-1/yr	2011	0.19
ERmsy	ERmsy-ratio	2014	0.37
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2014	52,140
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2014	130,349
MSY	MSY-MT	2014	6424
M	M-1/yr	2014	0.18
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

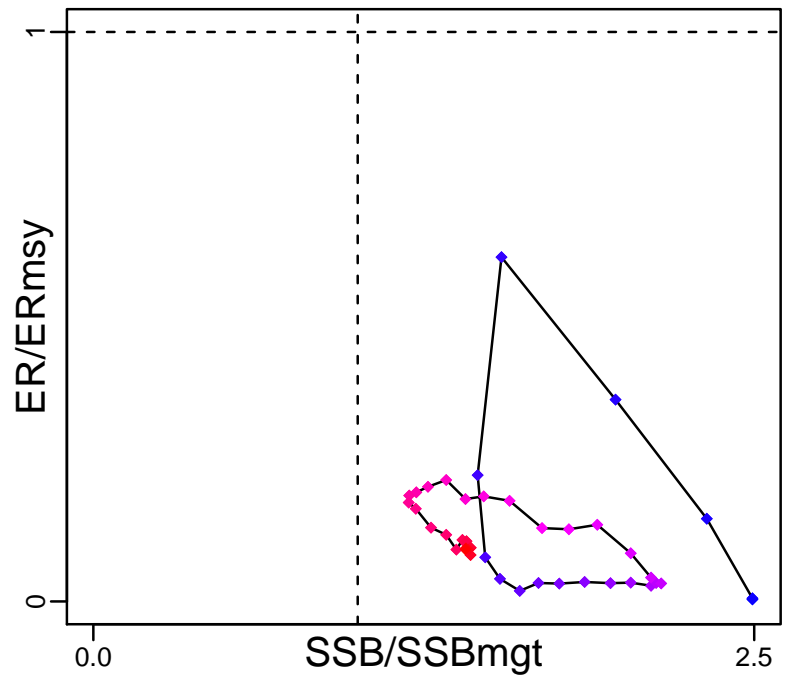
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	-	-	-		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	ER-calc-ratio/ERmsy-ratio	2014	0.09		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

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

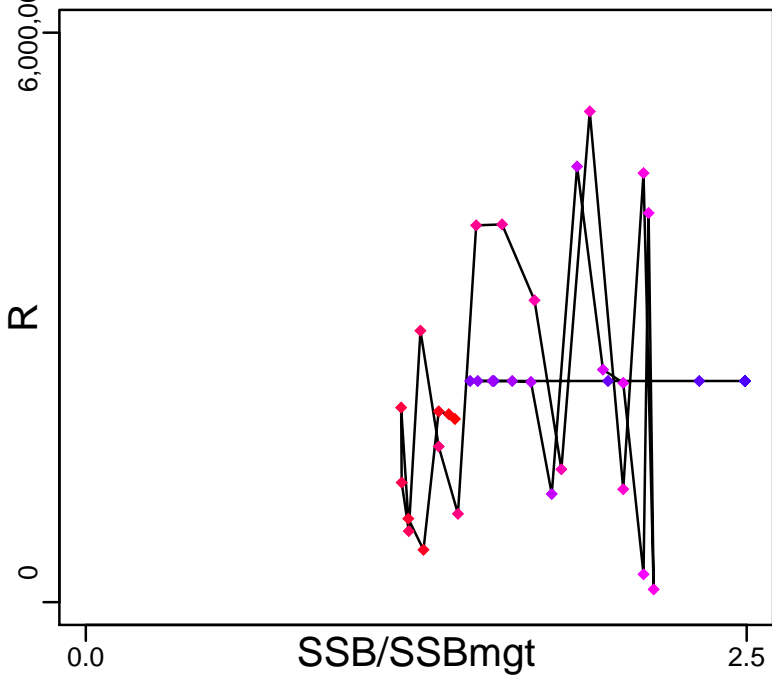
Kobe MSYpref (1968–2014–FU)



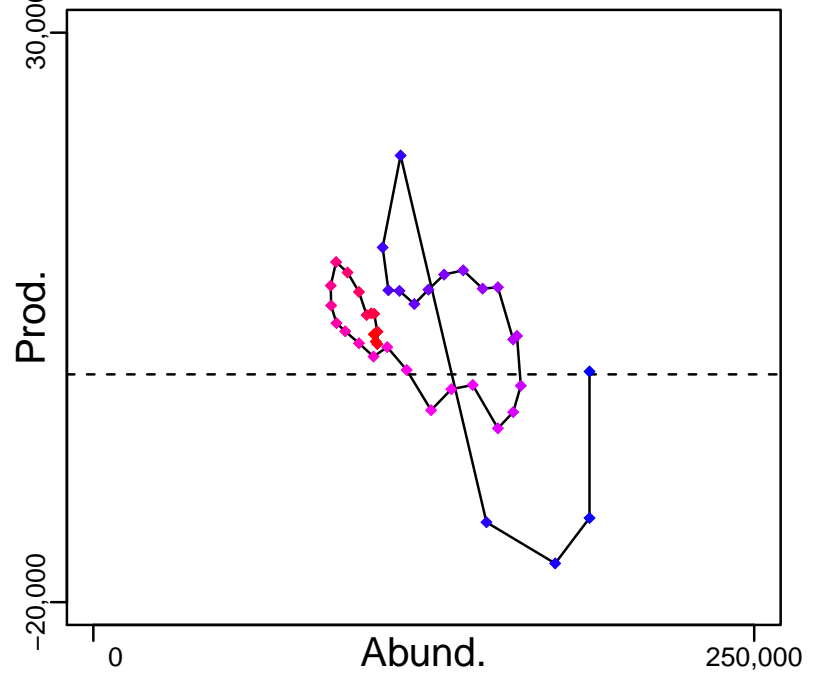
Kobe MGTpref (1968–2014–FU)



Spawner Recruit (1968–2014–FU)



Production (1968–2014–FU)



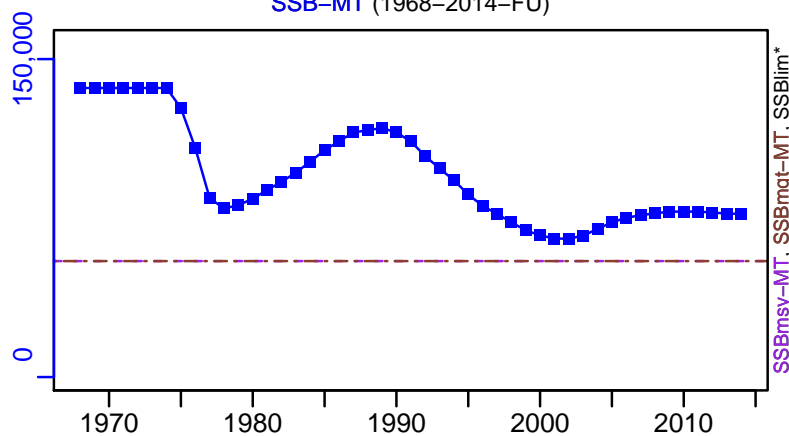
◆ Start Year ◆ End Year * No Data

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

TB*



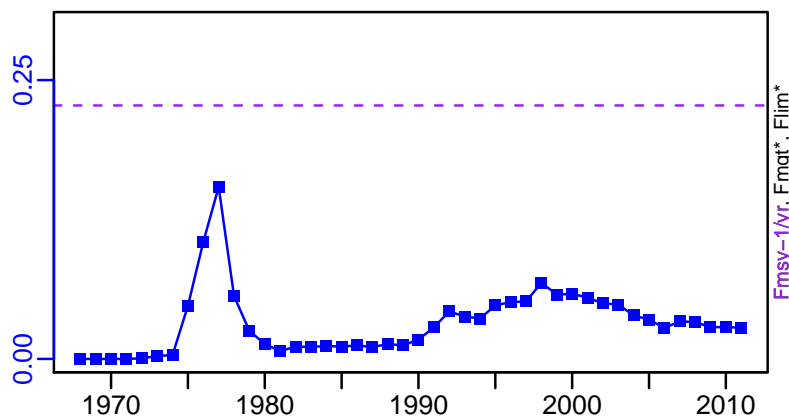
SSB-MT (1968-2014-FU)



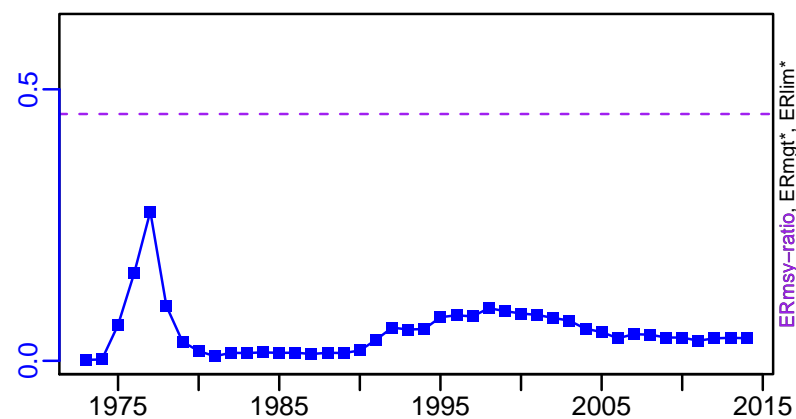
TN *



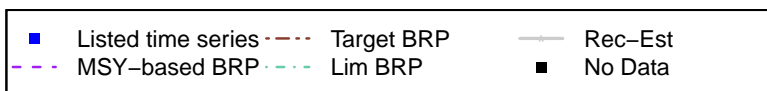
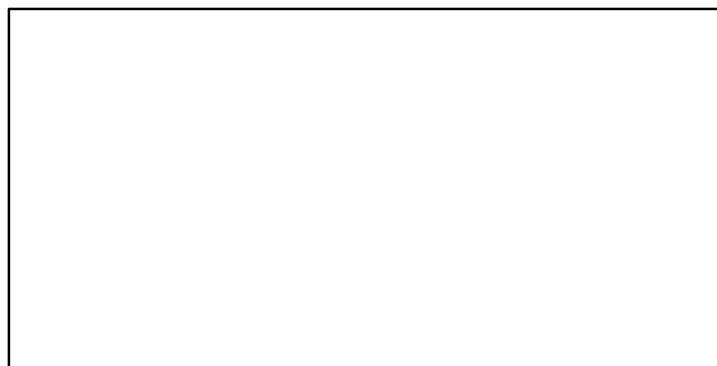
F-1/yr (1968-2011-CORDUE)



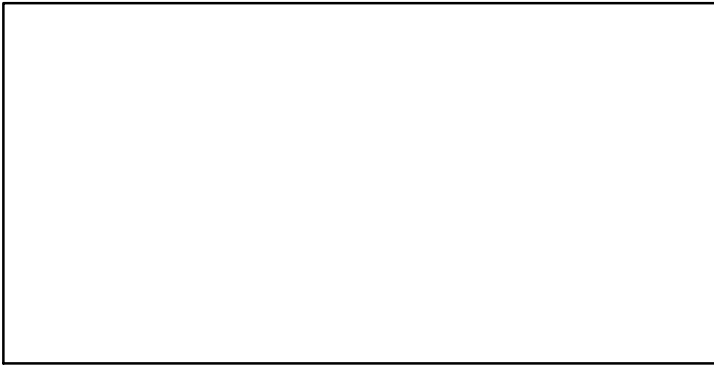
ER-calc-ratio (1968-2014-FU)



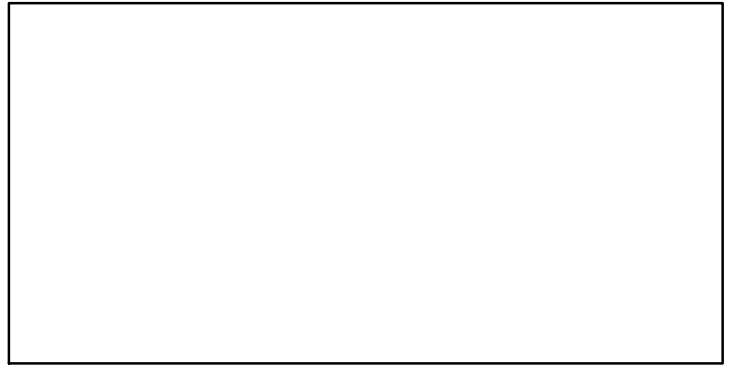
Recruits*



TC*, TL*, RecC*



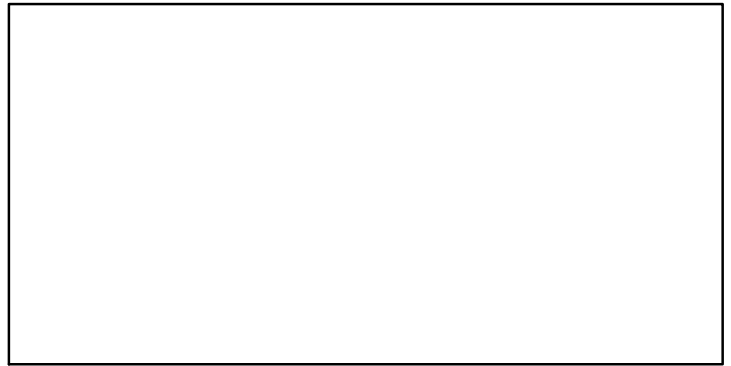
TAC*, Cpair*, Cadv*



survB*



CPUE*



EFFORT*



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

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

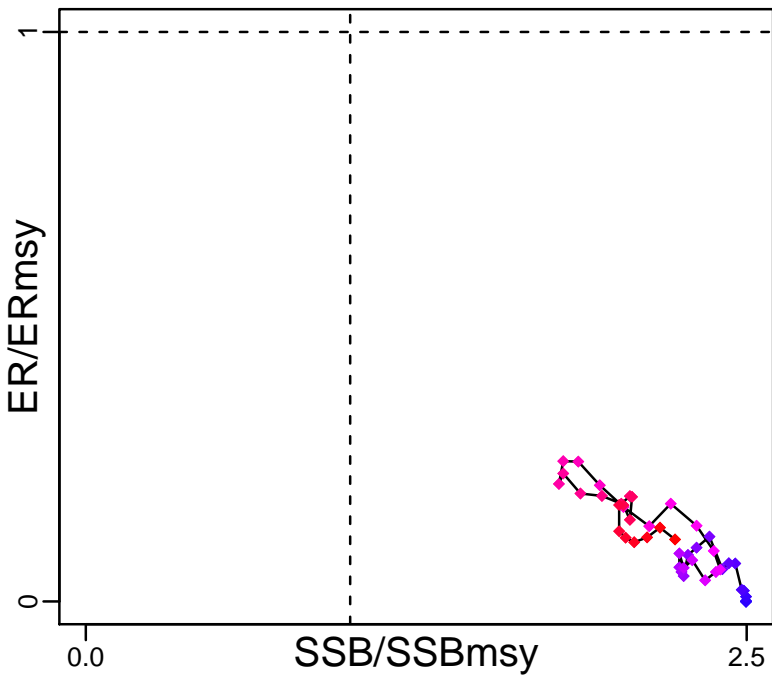
Metadata	
Scientific Name	Genypterus blacodes
Current Assess ID	NIWA-NZLINGLIN5-6-1968-2014-FU
Area	New Zealand Areas LIN 5 and 6
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2011, 2014

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2014	122,923
Fmsy	Fmsy-1/yr	2011	0.49
ERmsy	ERmsy-ratio	2011	0.16
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2014	122,923
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2014	307,308
MSY	MSY-MT	2014	23,827
M	M-1/yr	2014	0.23
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

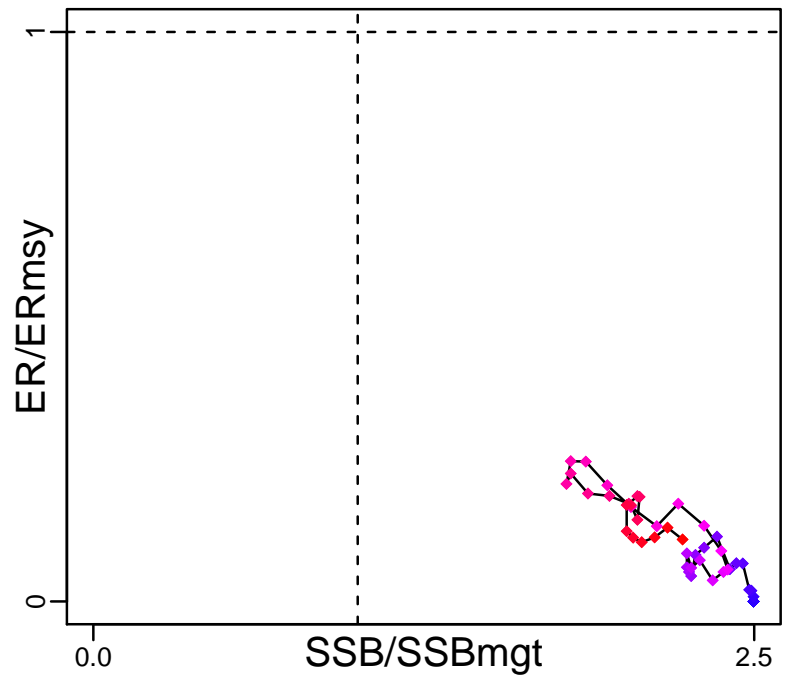
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	-	-	-		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	ER-ratio/ERmsy-ratio	2011	0.05		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

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

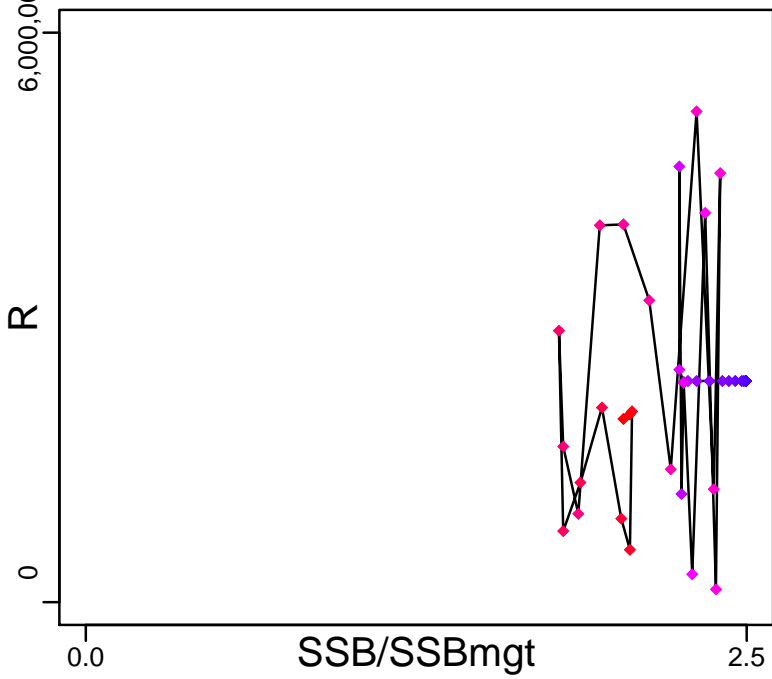
Kobe MSYpref (1968-2014-FU)



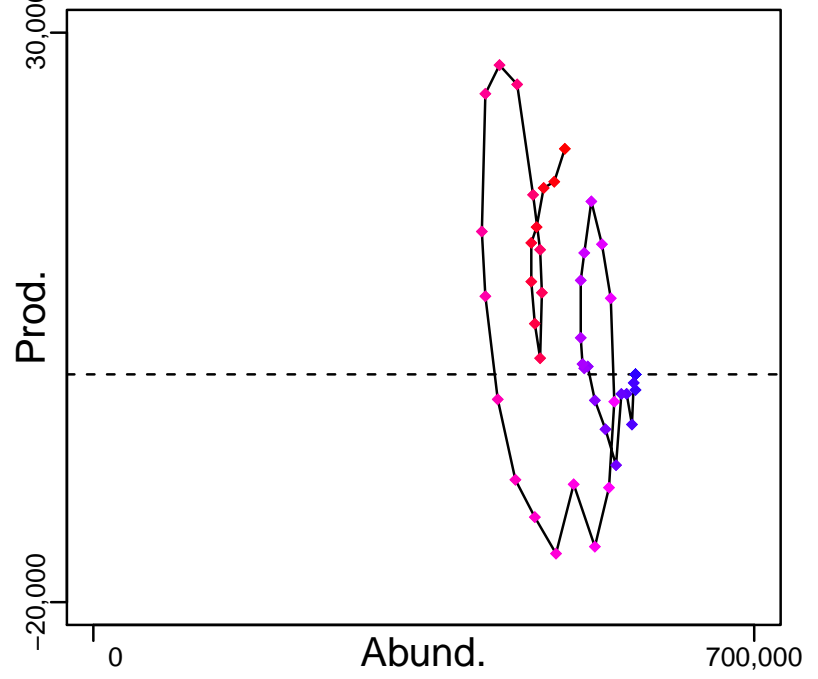
Kobe MGTpref (1968-2014-FU)



Spawner Recruit (1968-2014-FU)



Production (1968-2014-FU)



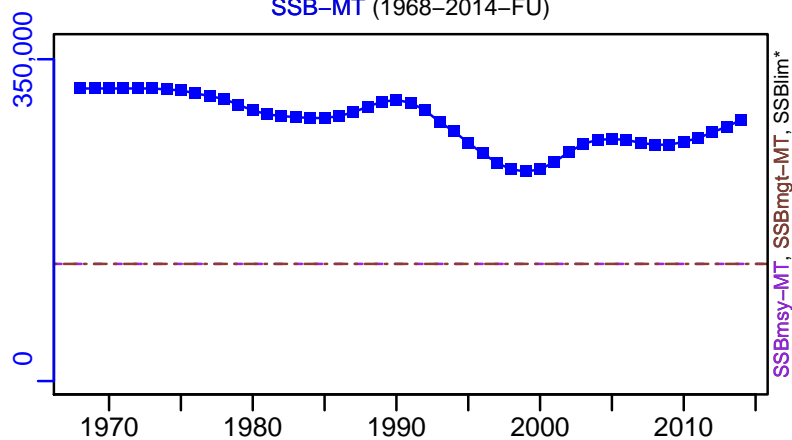
◆ Start Year ◆ End Year * No Data

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

TB*



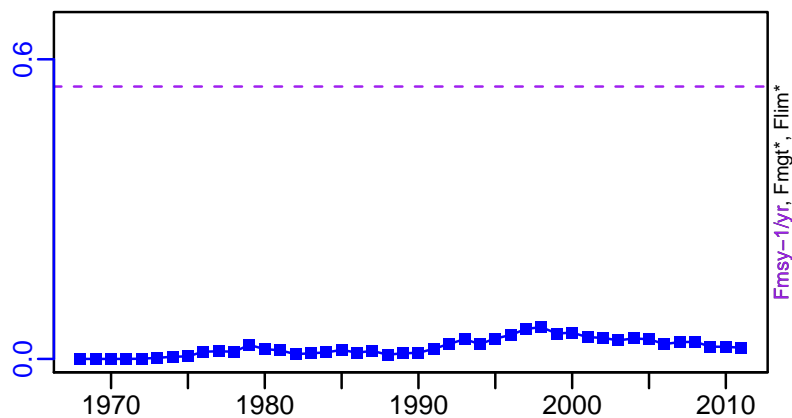
SSB-MT (1968-2014-FU)



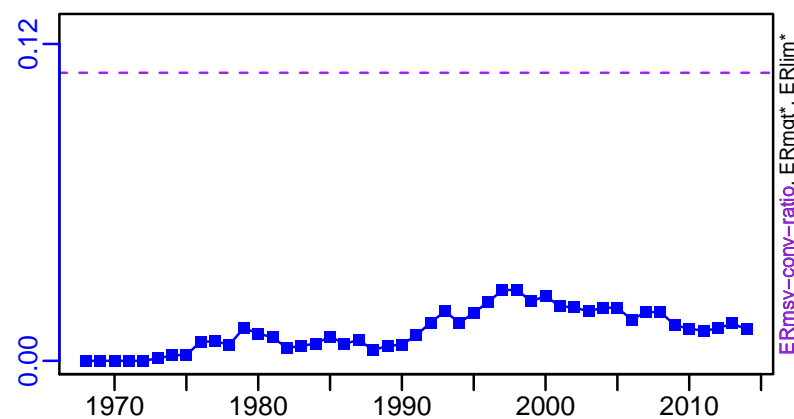
TN *



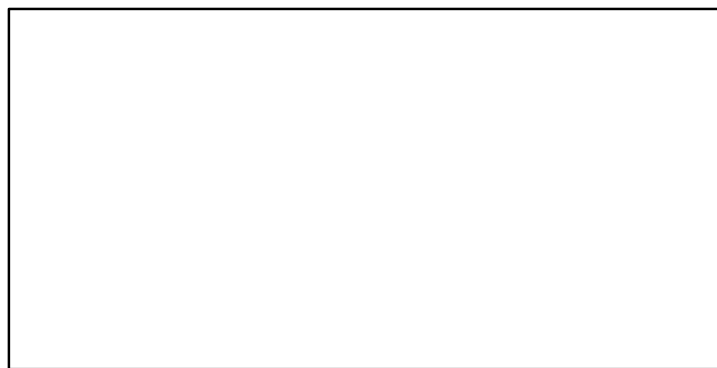
F-1/yr (1968-2011-CORDUE)



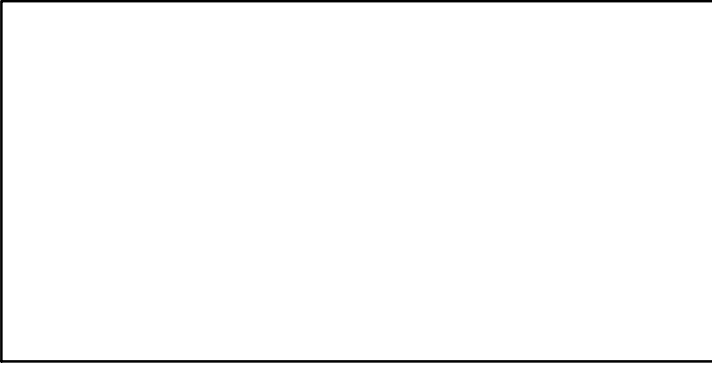
ER-calc-ratio (1968-2014-FU)



Recruits*



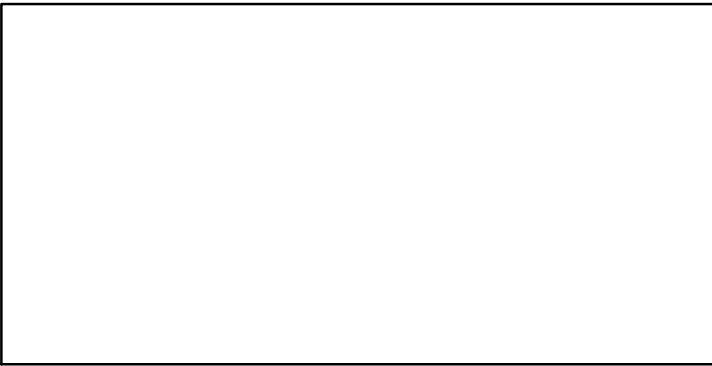
TC*, TL*, RecC*



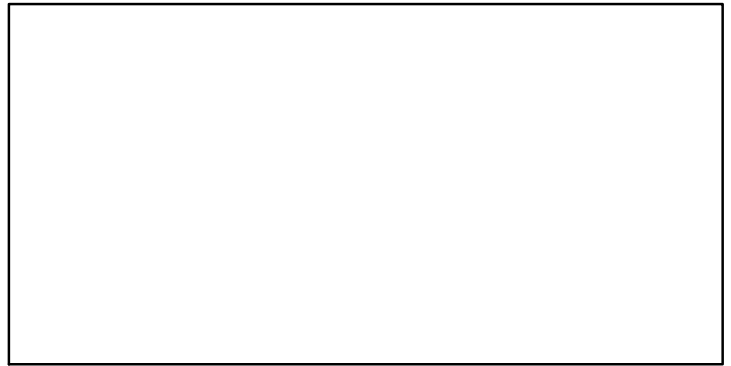
TAC*, Cpair*, Cadv*



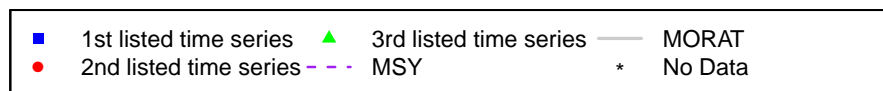
survB*



CPUE*



EFFORT*



New Zealand ling New Zealand Area LIN 6b [NZLINGLIN6b]

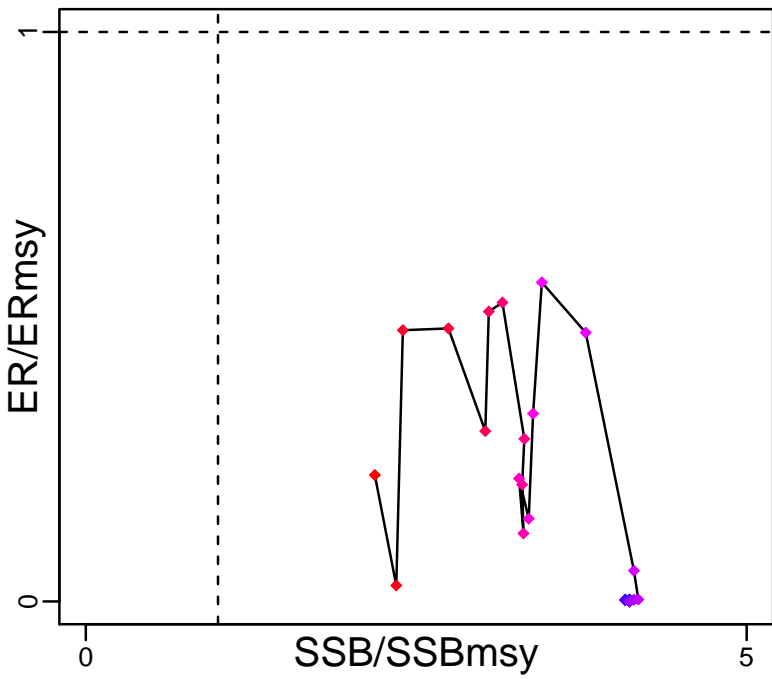
Metadata	
Scientific Name	Genypterus blacodes
Current Assess ID	NZMFishMIDDEPTHSWG-NZLINGLIN6b-1980-2006-JENSEN
Area	New Zealand Areas LIN 6b
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Middle Depths Working Group
Asmts in RAM	2006

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2006	3014
Fmsy	Fmsy-1/yr	2006	0.31
ERmsy	ERmsy-ratio	2006	0.19
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	-	-	-

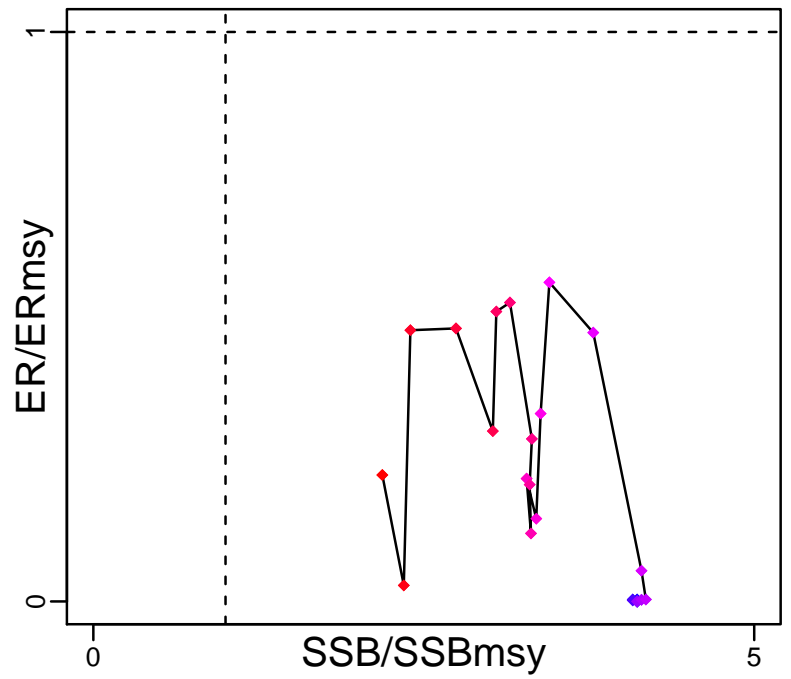
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2006	9520	-	3
SSB	SSB-MT	2006	6590	-	-
TN	-	-	-	-	-
R	R-E00	2006	888,000	-	3
F	F-1/yr	2006	0	-	-
ER	ER-ratio	2006	0	-	-
TC	TC-MT	2006	400		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2006	2.19		
F/Fmsy	F-1/yr/Fmsy-1/yr	2006	0.11		
ER/ERmsy	ER-ratio/ERmsy-ratio	2006	0.22		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

New Zealand ling New Zealand Area LIN 6b [NZLINGLIN6b]

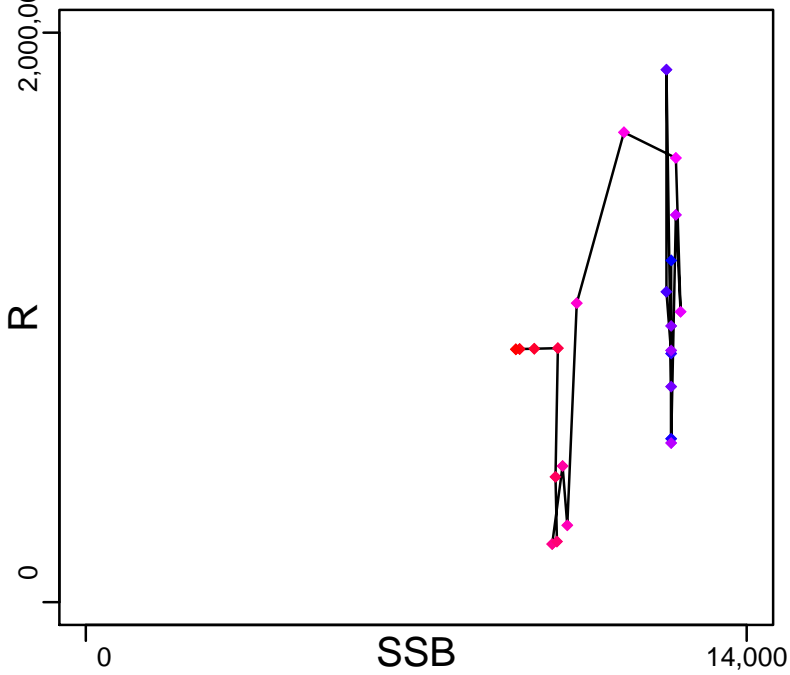
Kobe MSYpref (1980–2006–JENSEN)



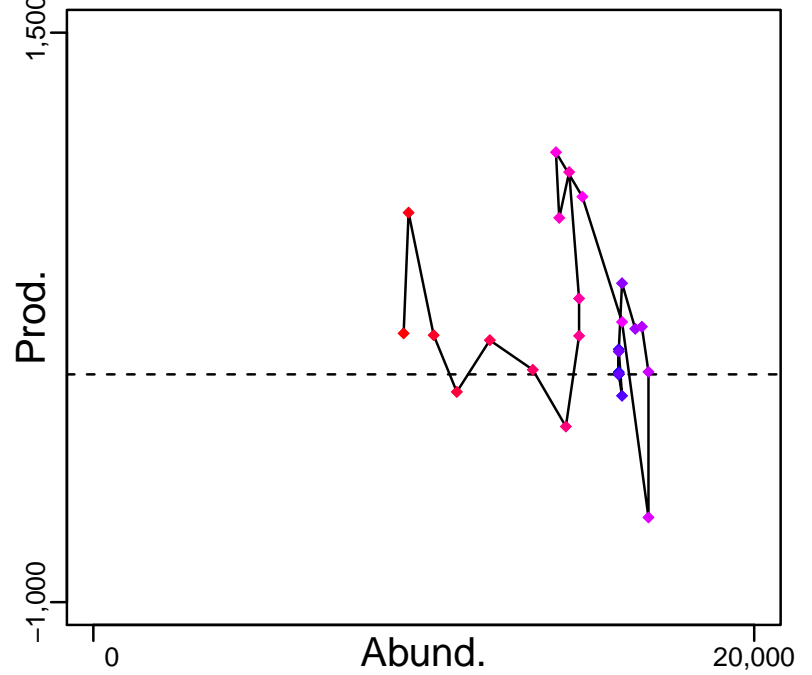
Kobe MGTpref (1980–2006–JENSEN)



Spawner Recruit (1980–2006–JENSEN)



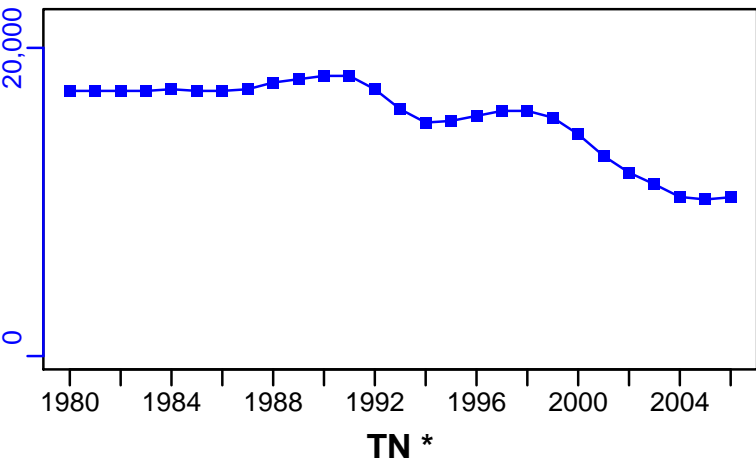
Production (1980–2006–JENSEN)



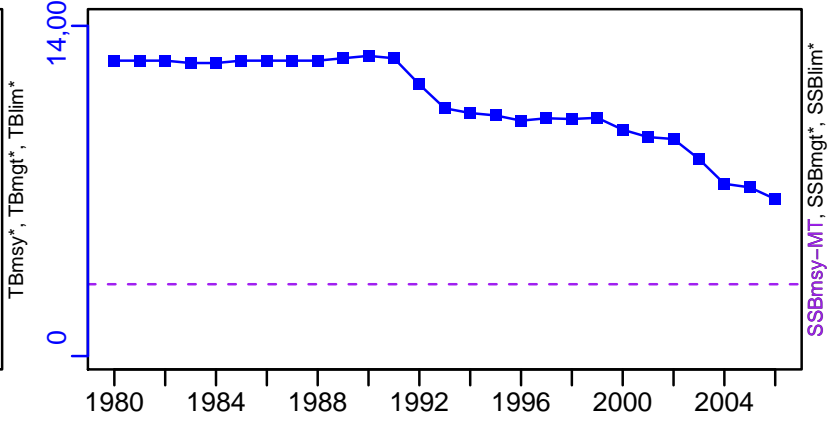
◆ Start Year ◆ End Year * No Data

New Zealand ling New Zealand Area LIN 6b [NZLINGLIN6b]

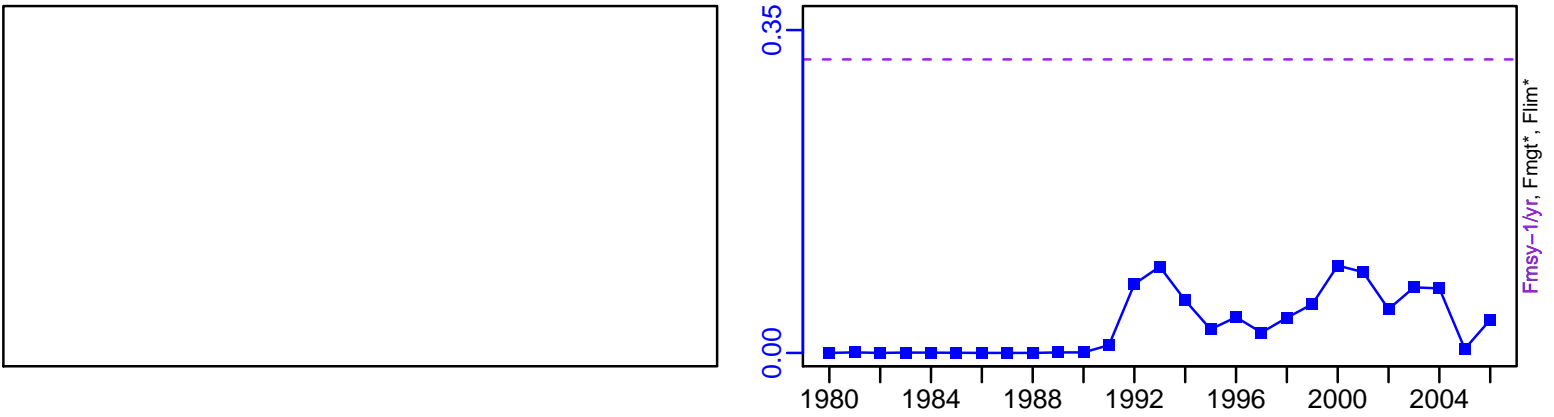
TB-MT (1980-2006-JENSEN)



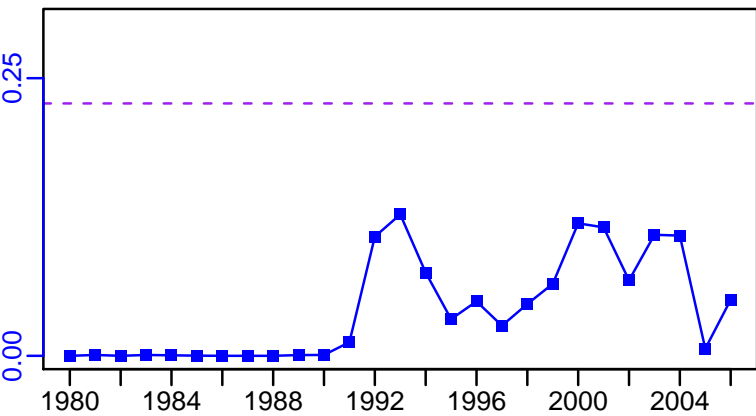
SSB-MT (1980-2006-JENSEN)



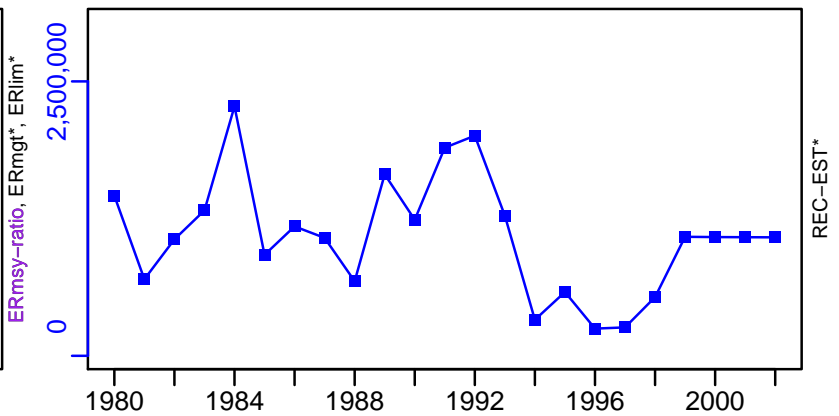
F-1/yr (1980-2006-JENSEN)



ER-ratio (1980-2006-JENSEN)



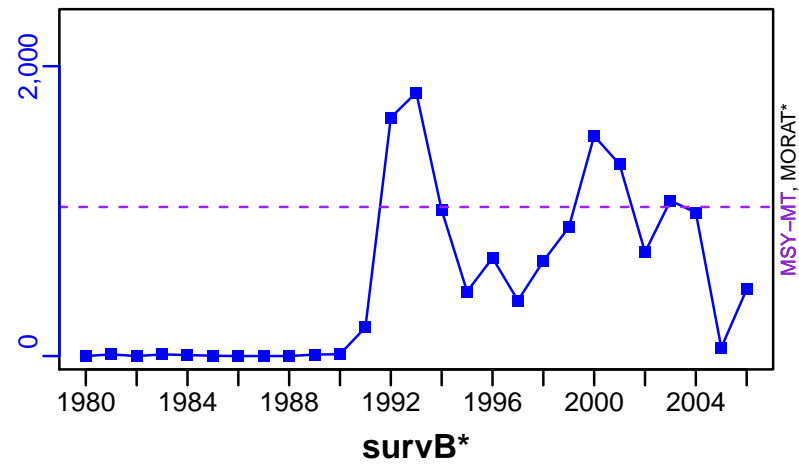
R-E00 (1980-2006-JENSEN)



New Zealand ling New Zealand Area LIN 6b [NZLINGLIN6b]

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

TAC*, Cpair*, Cadv*



EFFORT*



New Zealand ling New Zealand Area LIN 72 [NZLINGLIN72]

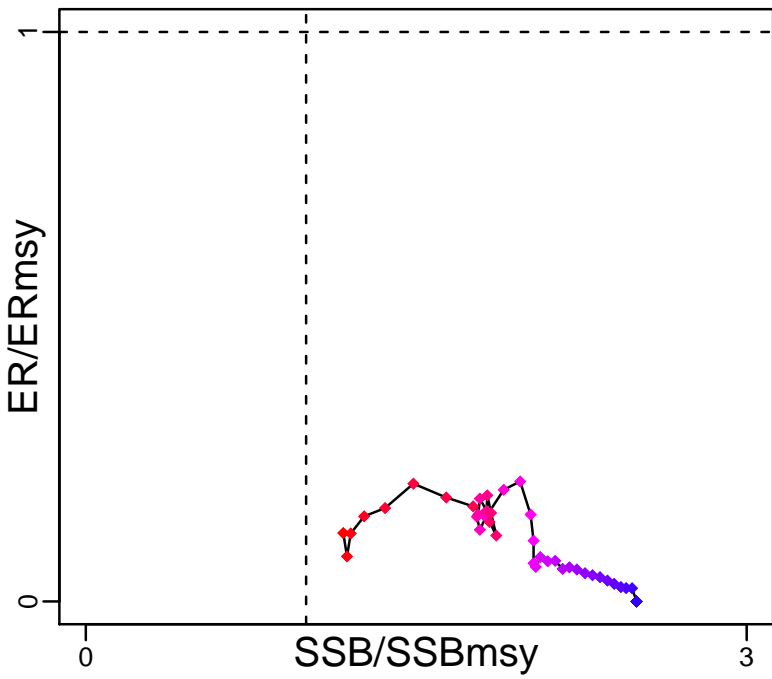
Metadata	
Scientific Name	Genypterus blacodes
Current Assess ID	NZMFishMIDDEPTHSWG-NZLINGLIN72-1968-2010-FU
Area	New Zealand Areas LIN 72
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Middle Depths Working Group
Asmts in RAM	2010, 2007

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2010	2952
Fmsy	Fmsy-1/yr	2007	0.25
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	0.2
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

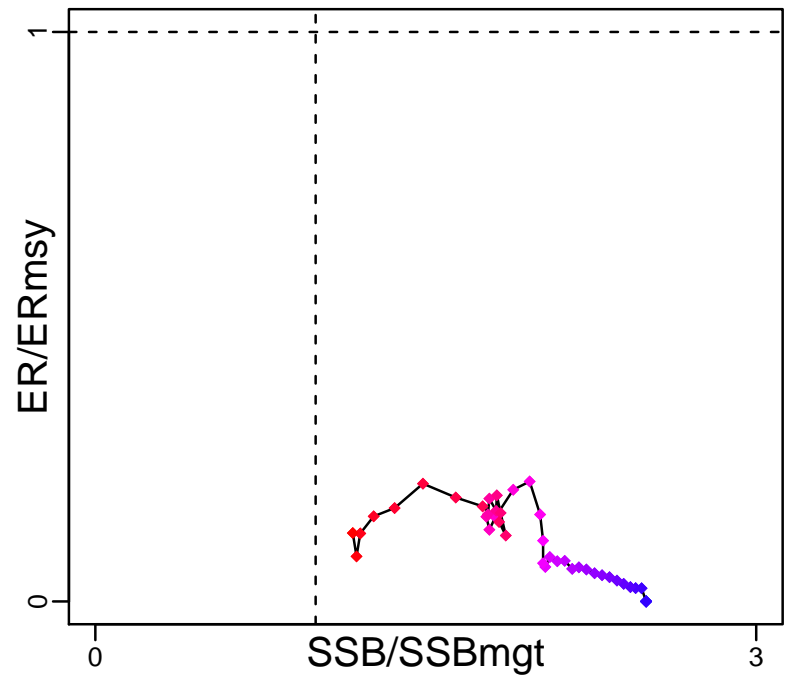
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2007	5590	-	3
SSB	SSB-MT	2010	3450	Both	3 to 25
TN	-	-	-	-	-
R	R-E00	2010	197,000	Both	-
F	F-1/yr	2007	0	-	-
ER	ER-calc-ratio	2010	0	-	-
TC	TC-MT	2010	220		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2010	1.17		
F/Fmsy	F-1/yr/Fmsy-1/yr	2007	0.32		
ER/ERmsy	ER-calc-ratio/ERmsy-ratio	2010	0.12		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2010	1.17		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

New Zealand ling New Zealand Area LIN 72 [NZLINGLIN72]

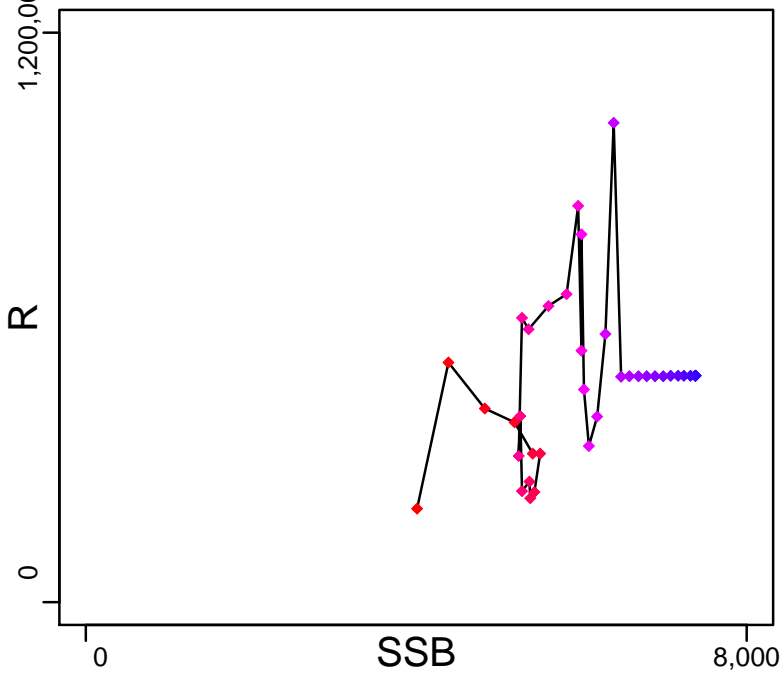
Kobe MSYpref (1968–2010–FU)



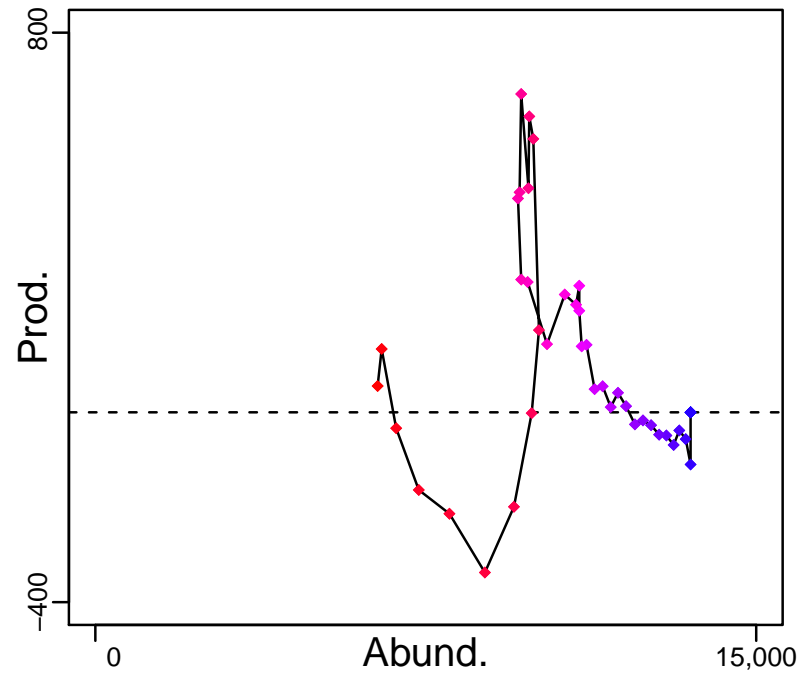
Kobe MGTpref (1968–2010–FU)



Spawner Recruit (1968–2010–FU)



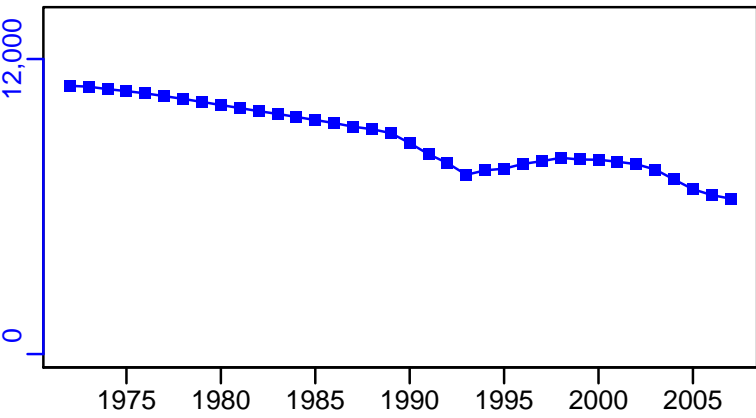
Production (1968–2010–FU)



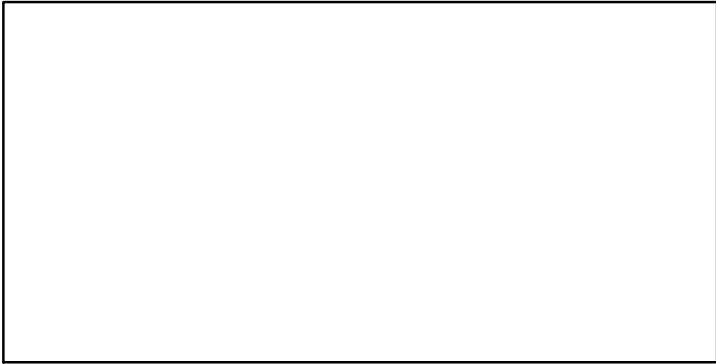
◆ Start Year ◆ End Year * No Data

New Zealand ling New Zealand Area LIN 72 [NZLINGLIN72]

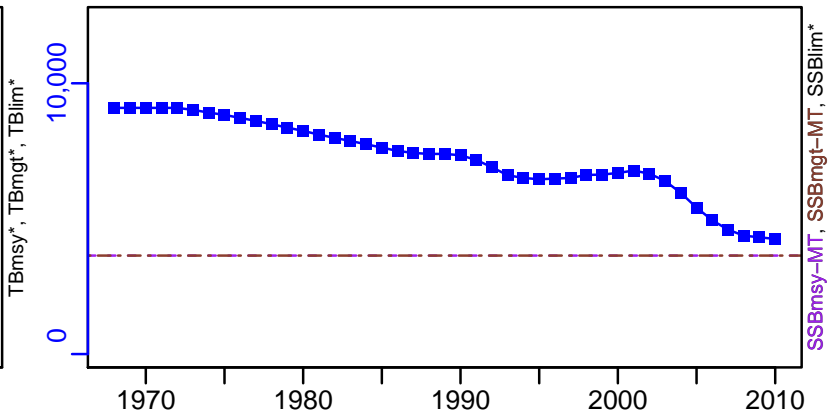
TB-MT (1972-2007-JENSEN)



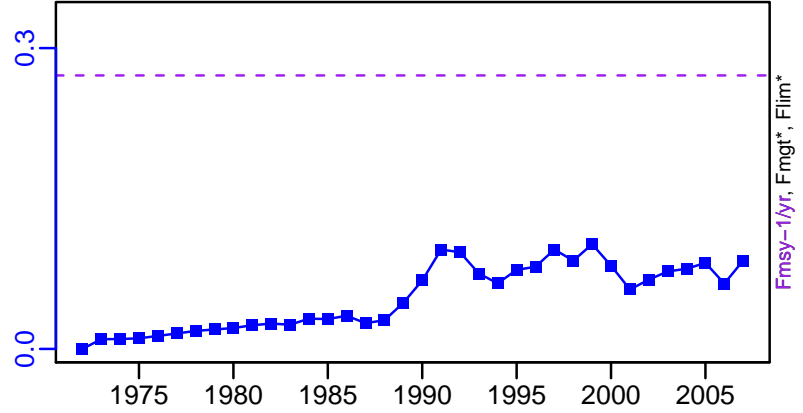
TN *



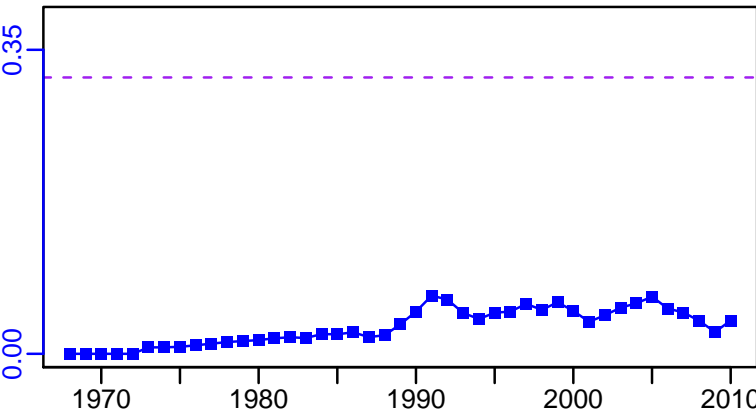
SSB-MT (1968-2010-FU)



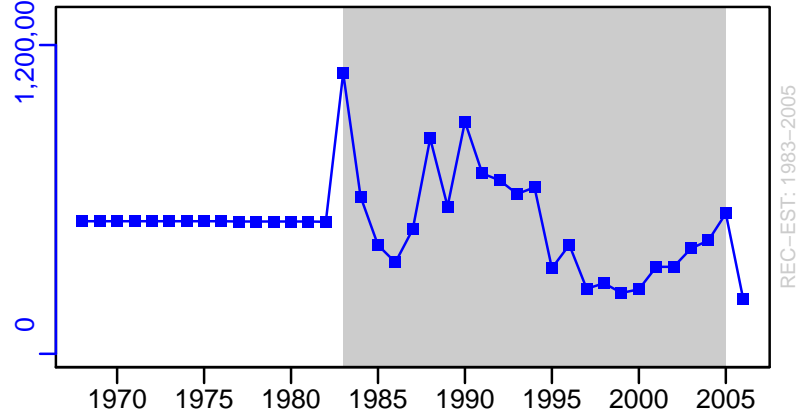
F-1/yr (1972-2007-JENSEN)



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



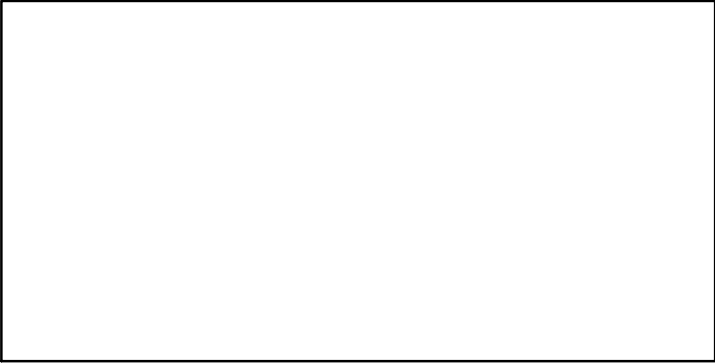
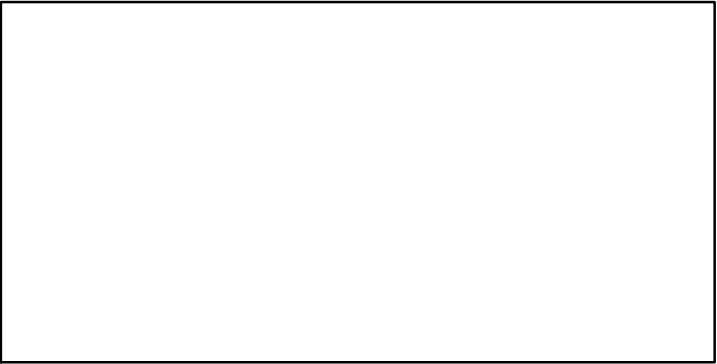
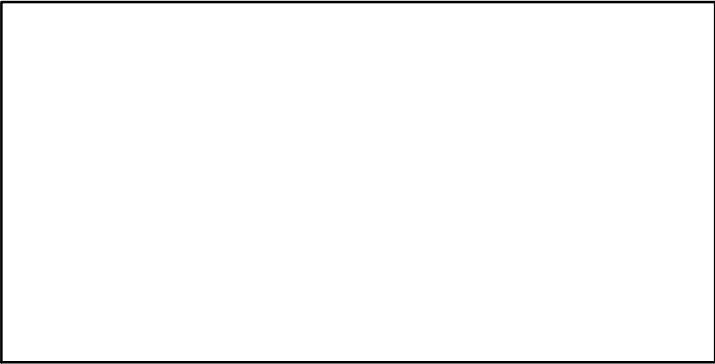
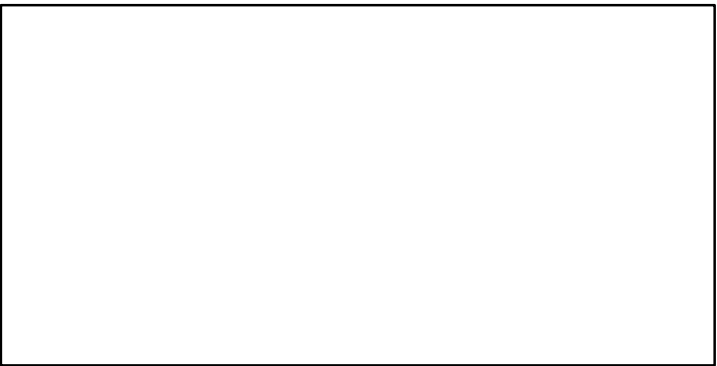
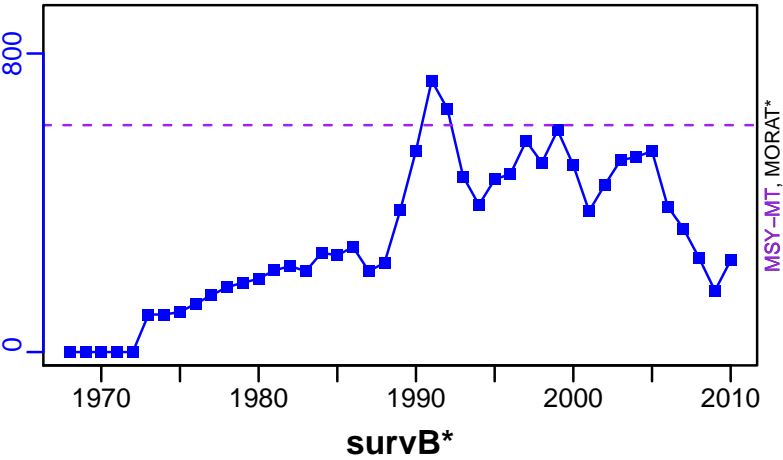
R-E00 (1968-2010-FU)



New Zealand ling New Zealand Area LIN 72 [NZLINGLIN72]

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

TAC*, Cpair*, Cadv*



New Zealand ling New Zealand Area LIN 7WC - WCSI [NZLINGLIN7WC]

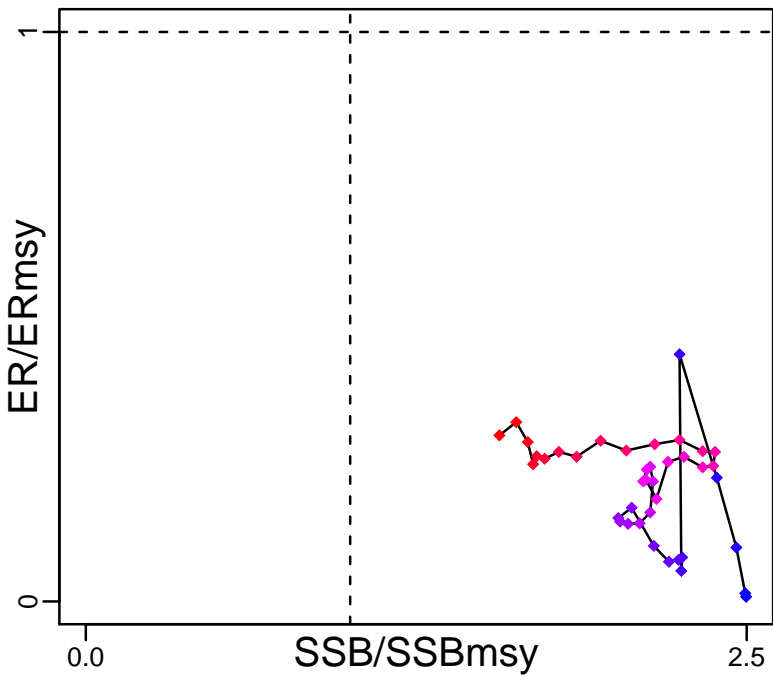
Metadata	
Scientific Name	Genypterus blacodes
Current Assess ID	NZMFishMIDDEPTHSWG-NZLINGLIN7WC-1968-2012-FU
Area	New Zealand Areas LIN 7WC-WCSI
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Middle Depths Working Group
Asmts in RAM	2012, 2008

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2012	29,785
Fmsy	Fmsy-1/yr	2008	0.2
ERmsy	ERmsy-ratio	2008	0.14
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2012	29,785
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2012	74,463
MSY	MSY-MT	2012	5150
M	M-1/yr	2012	0.22
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

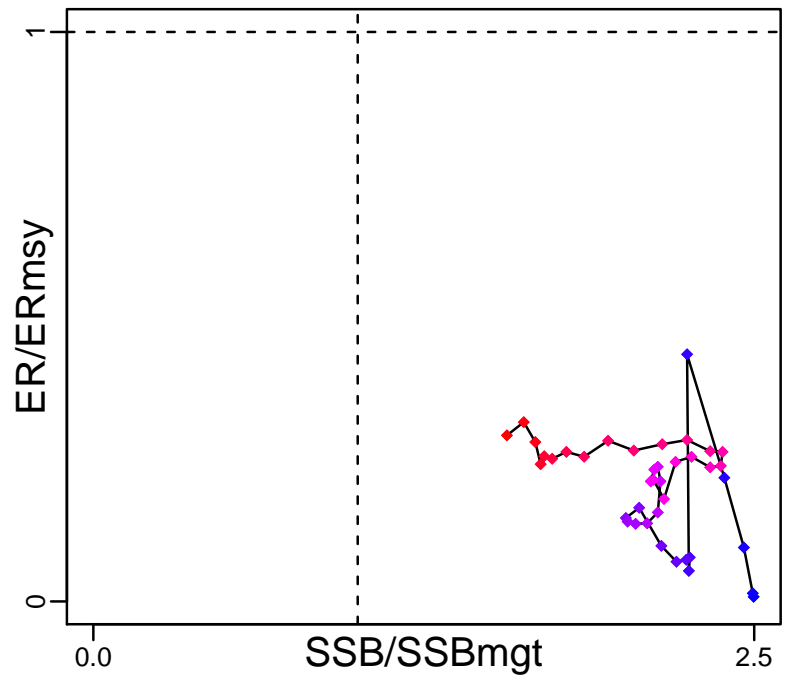
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2008	96,400	-	3
SSB	SSB-MT	2012	46,600	-	3 to 25
TN	-	-	-	-	-
R	R-E00	2012	10,500,000	Both	-
F	F-1/yr	2008	0	-	-
ER	ER-calc-ratio	2012	0	-	-
TC	TC-MT	2012	2350		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2012	1.56		
F/Fmsy	F-1/yr/Fmsy-1/yr	2008	0.13		
ER/ERmsy	ER-ratio/ERmsy-ratio	2008	0.18		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2012	1.56		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

New Zealand ling New Zealand Area LIN 7WC – WCSI [NZLINGLIN7WC]

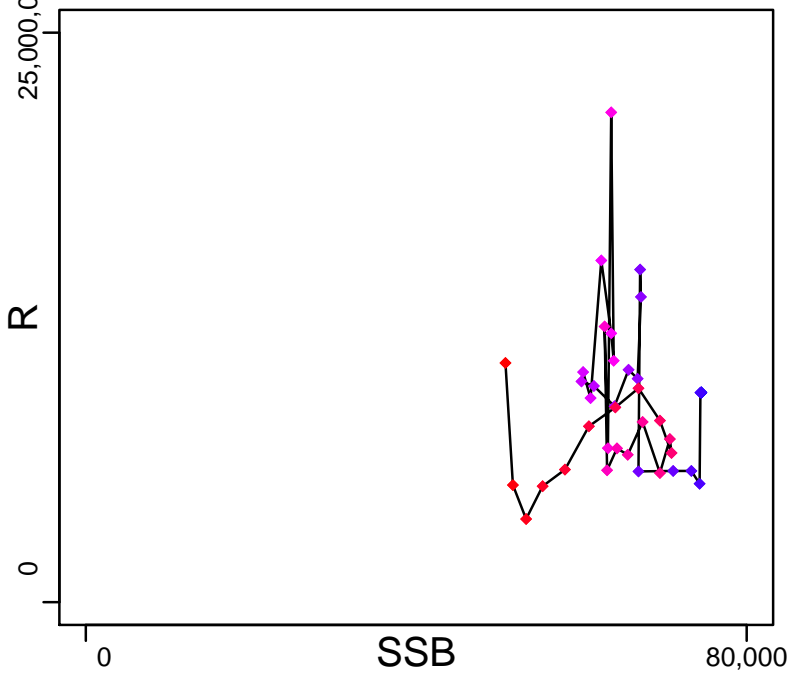
Kobe MSYpref (1968–2012–FU)



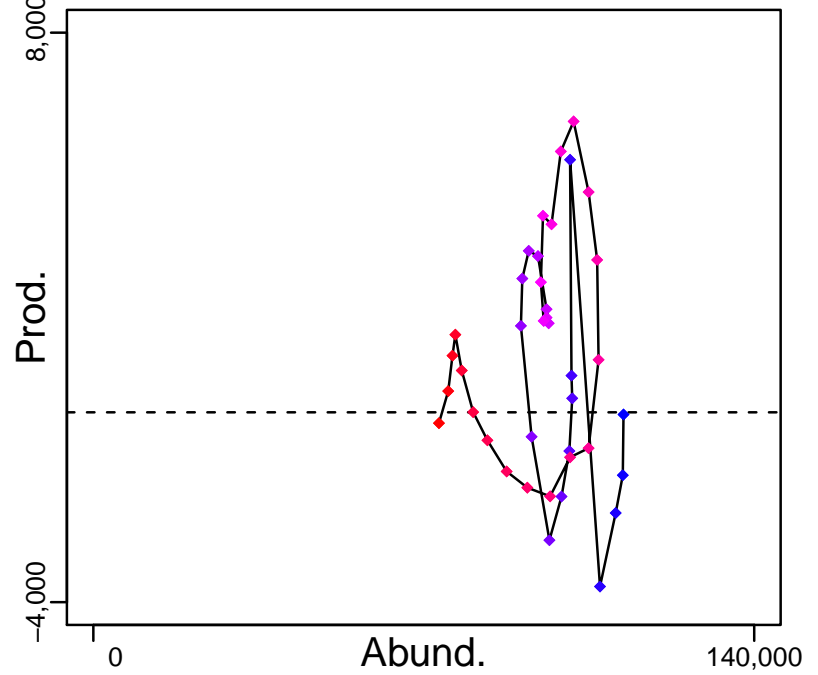
Kobe MGTpref (1968–2012–FU)



Spawner Recruit (1968–2012–FU)



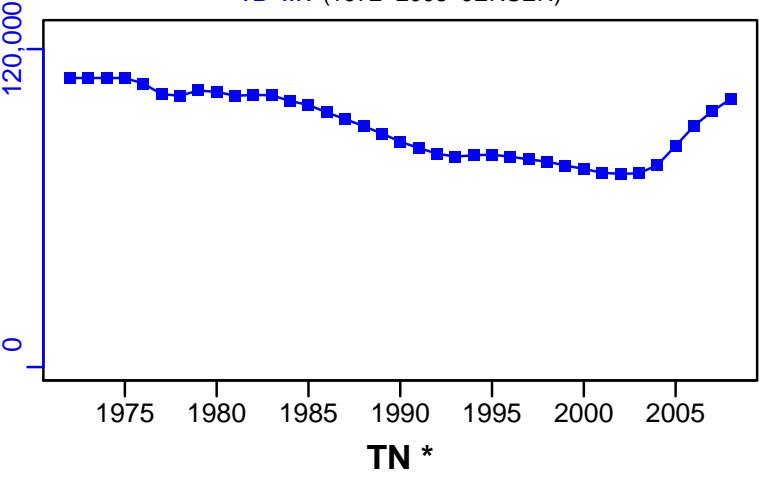
Production (1968–2012–FU)



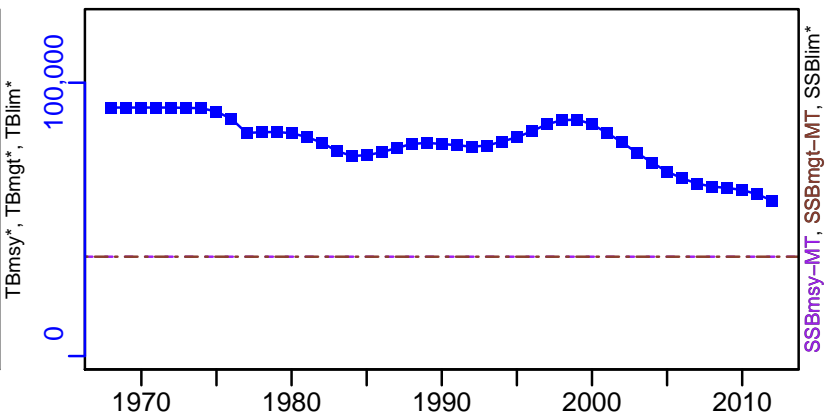
◆ Start Year ◆ End Year * No Data

New Zealand ling New Zealand Area LIN 7WC – WCSI [NZLINGLIN7WC]

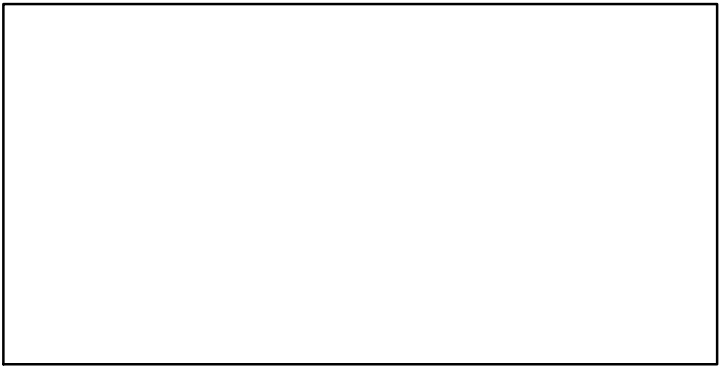
TB-MT (1972–2008–JENSEN)



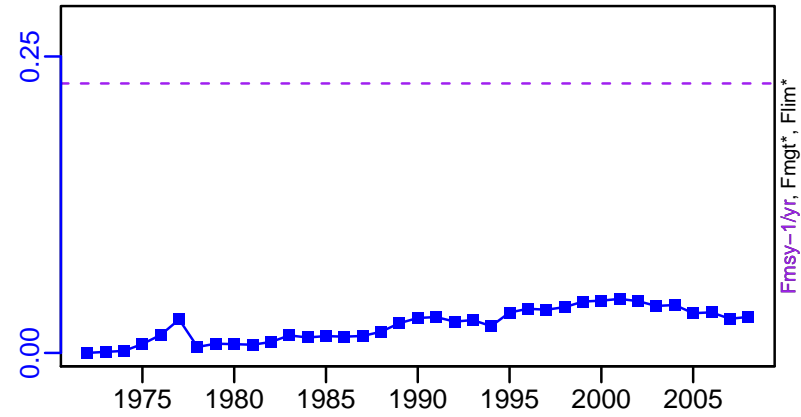
SSB-MT (1968–2012–FU)



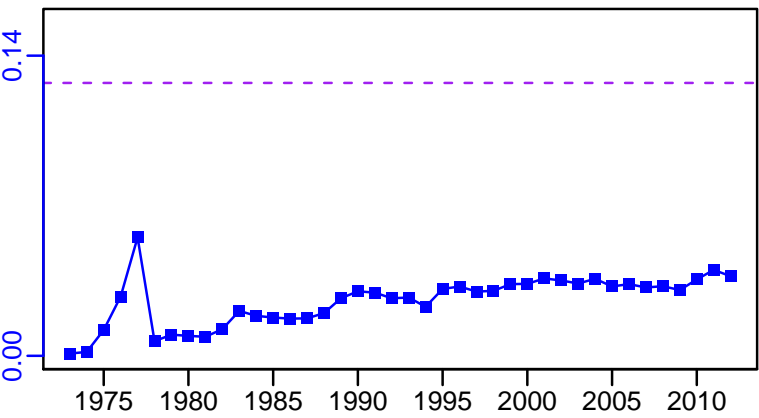
TN *



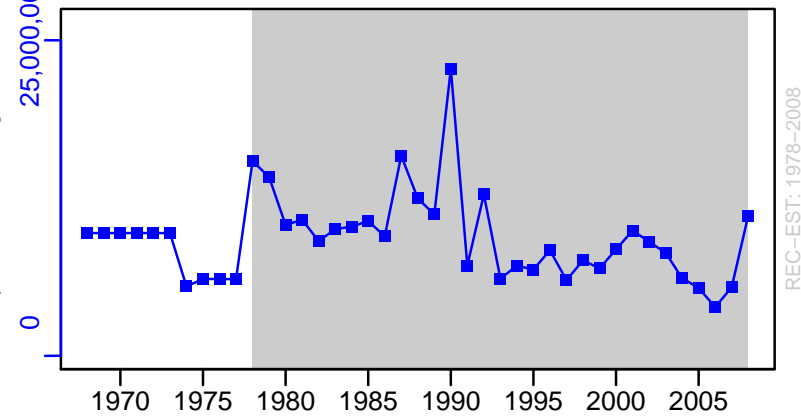
F-1/yr (1972–2008–JENSEN)



ER-calc-ratio (1968–2012–FU)

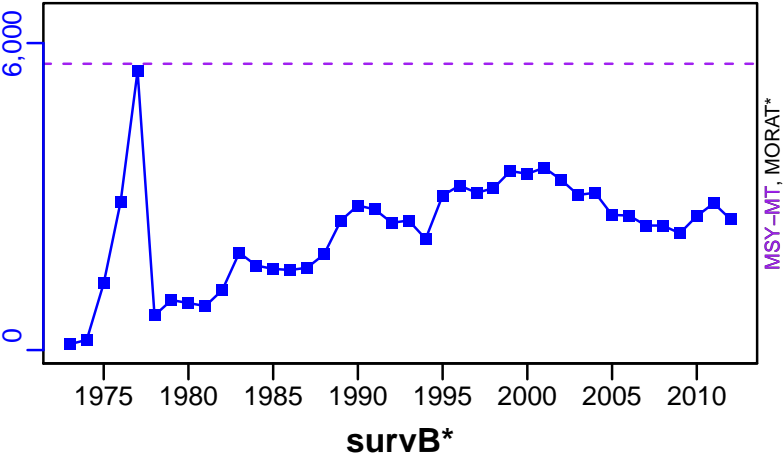


R-E00 (1968–2012–FU)



New Zealand ling New Zealand Area LIN 7WC – WCSI [NZLINGLIN7WC]

TC-MT, TL*, RecC* (1968-2012-FU)



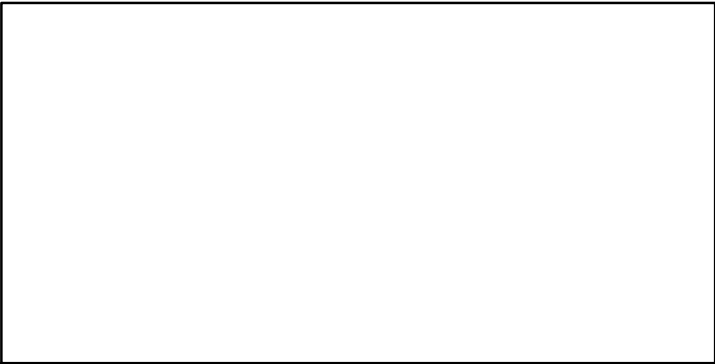
TAC*, Cpair*, Cadv*



CPUE*



EFFORT*



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	0.08
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

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

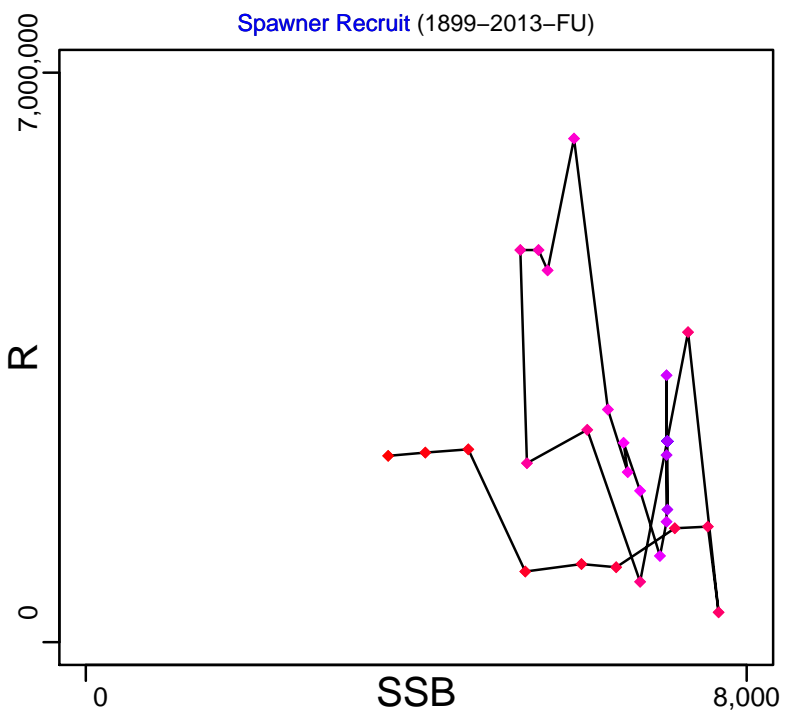
Kobe MSY*



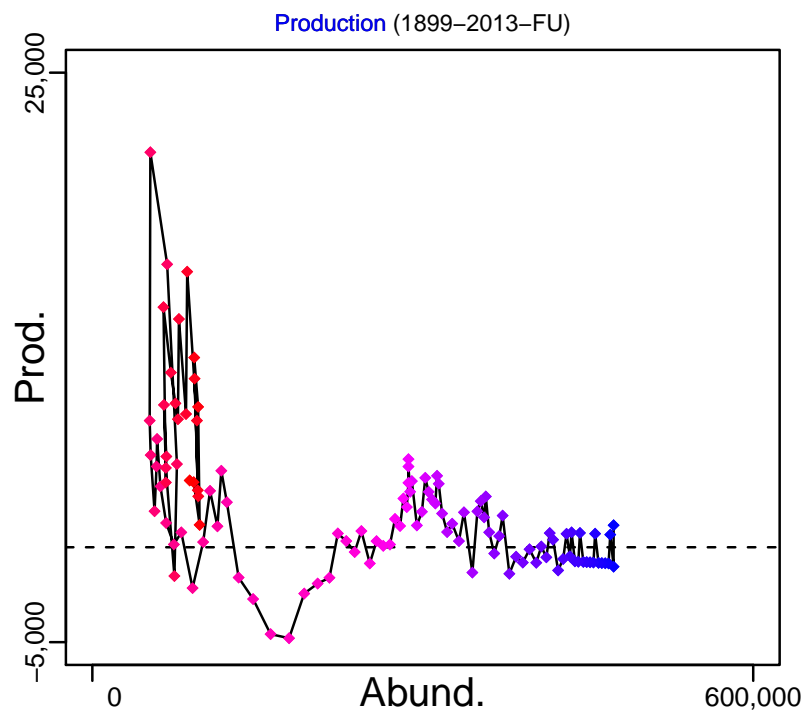
Kobe MGT*



Spawner Recruit (1899–2013–FU)



Production (1899–2013–FU)



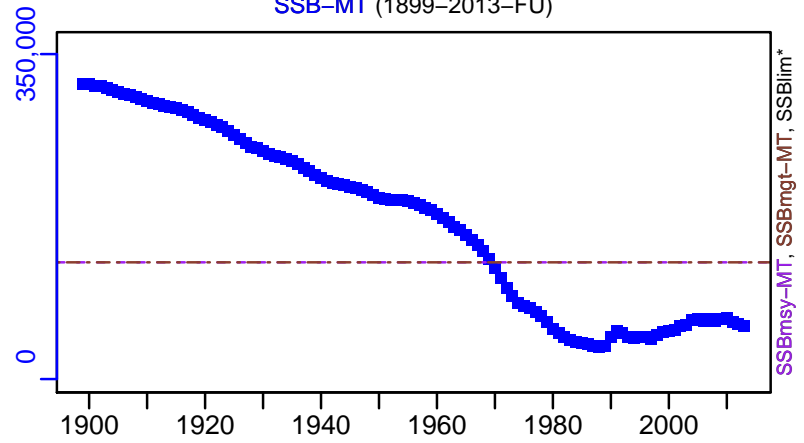
◆ Start Year ◆ End Year * No Data

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

TB*



SSB-MT (1899-2013-FU)



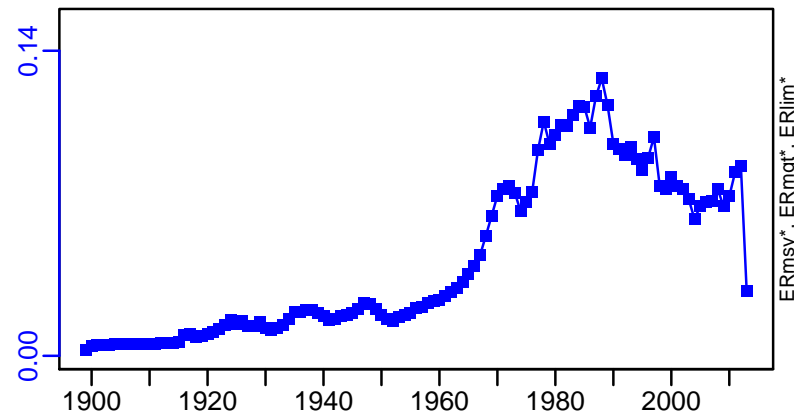
TN *



F*



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



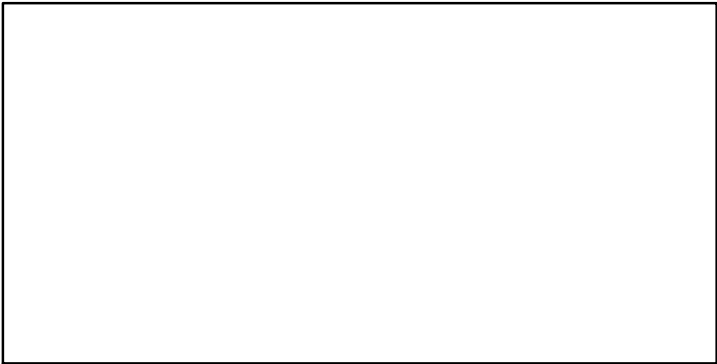
Recruits*



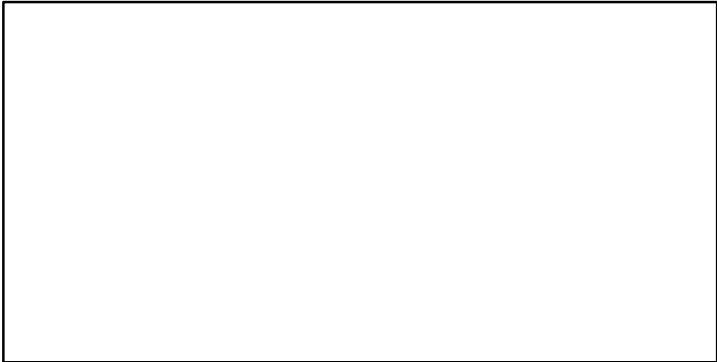
TC*, TL*, RecC*



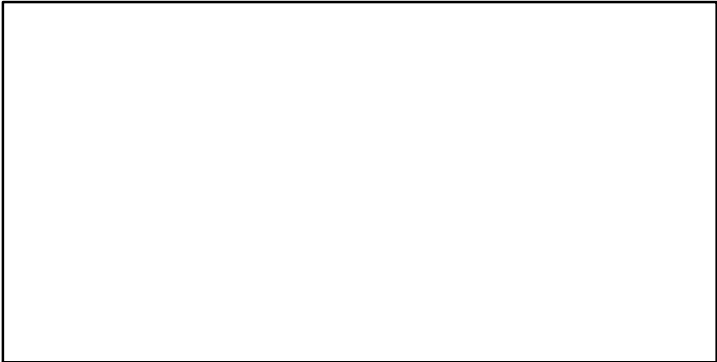
TAC*, Cpair*, Cadv*



survB*



CPUE*



EFFORT*



■

1st listed time series

●

2nd listed time series

▲

3rd listed time series

- -

MSY

—

MORAT

*

No Data

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

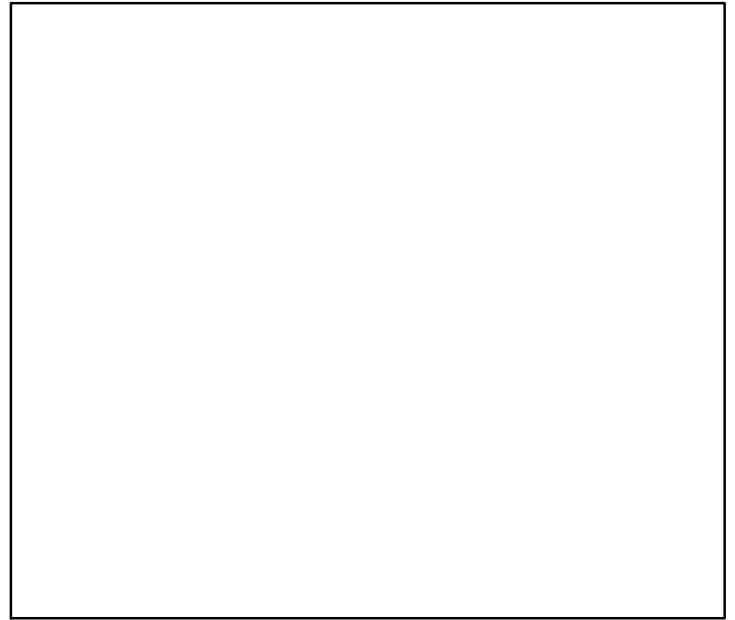
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2013	28,570
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2013	28,570
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2013	71,425
MSY	-	-	-
M	M-1/yr	2013	0.08
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

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	ER-calc-ratio	2013	0	-	-
TC	TC-MT	2013	1750		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013	0.57		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2013	0.57		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

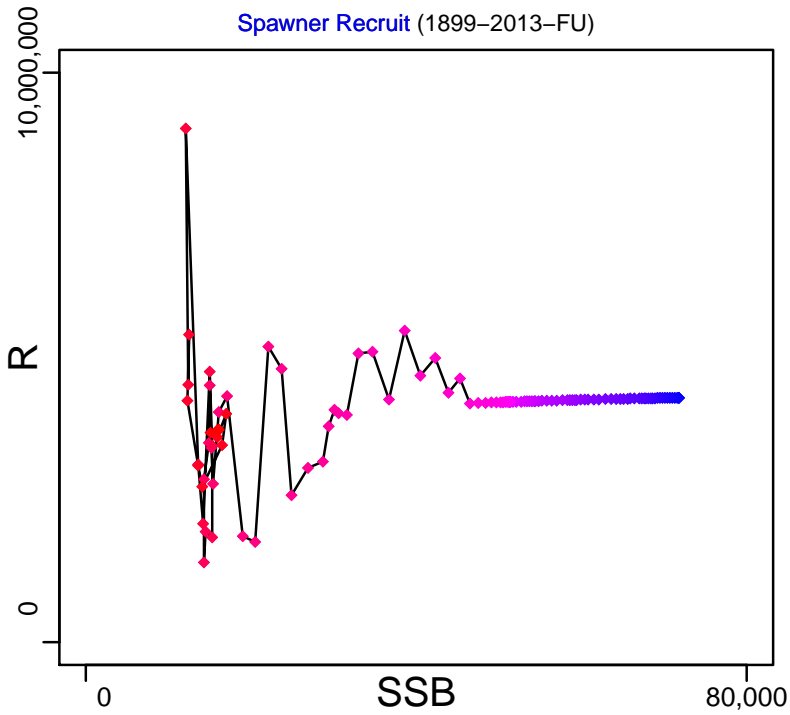
Kobe MSY*



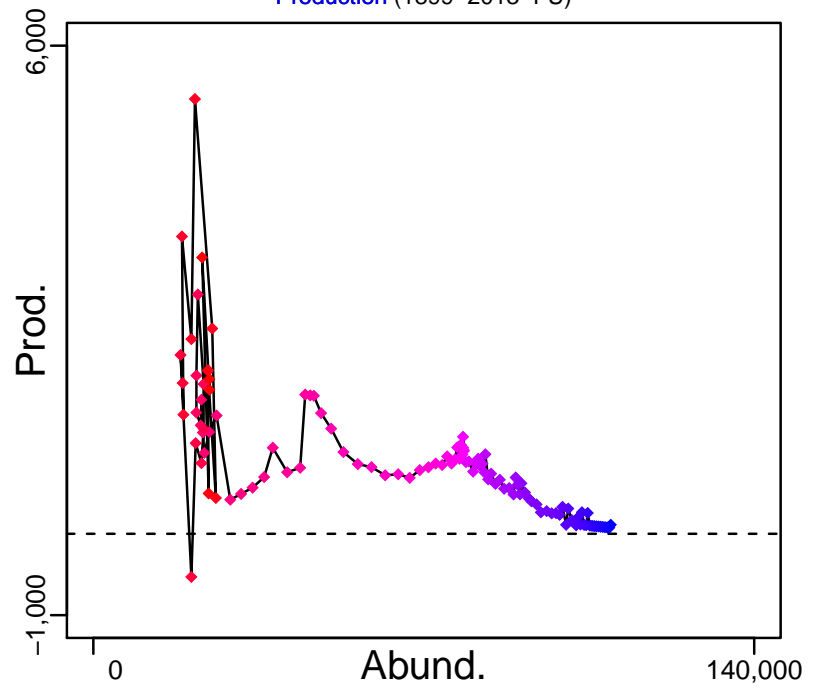
Kobe MGT*



Spawner Recruit (1899–2013–FU)



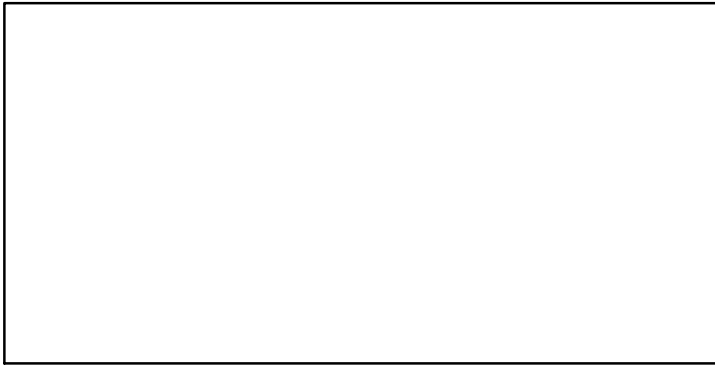
Production (1899–2013–FU)



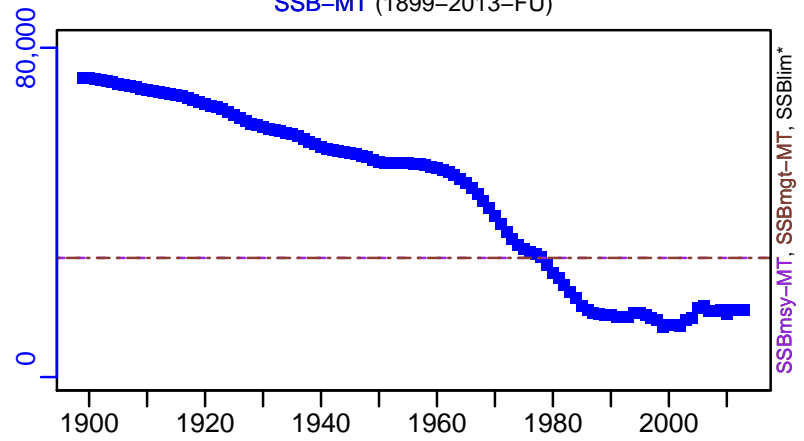
◆ Start Year ◆ End Year * No Data

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

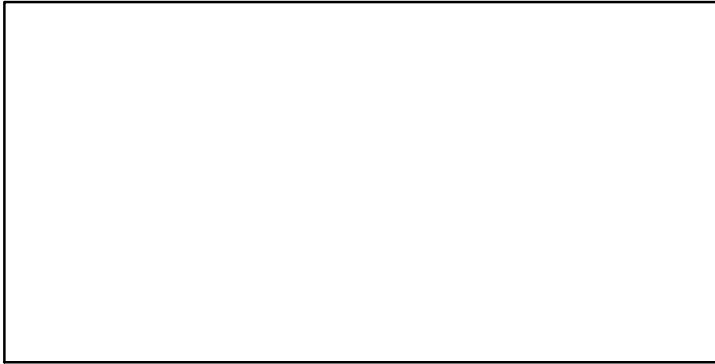
TB*



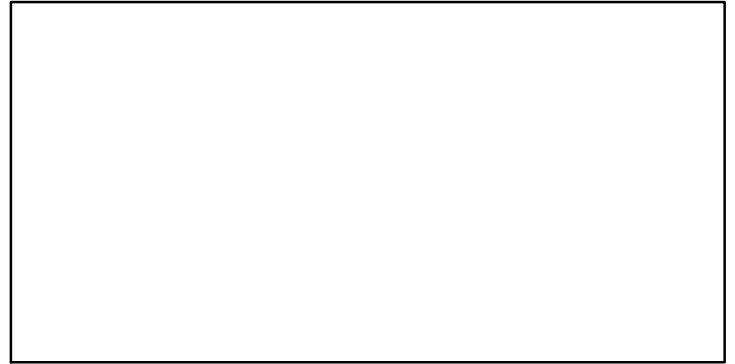
SSB-MT (1899–2013–FU)



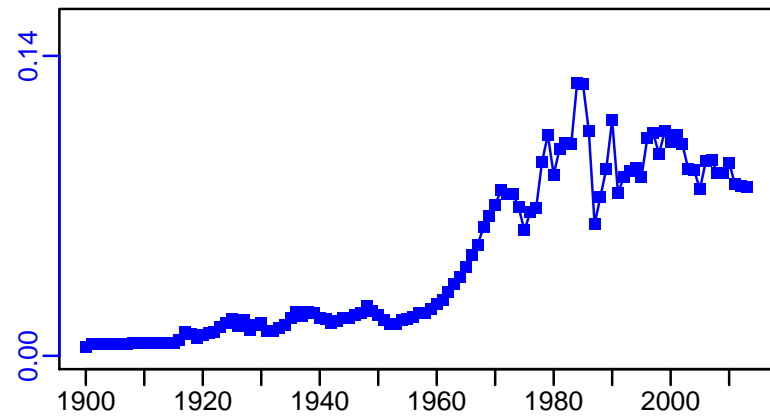
TN *



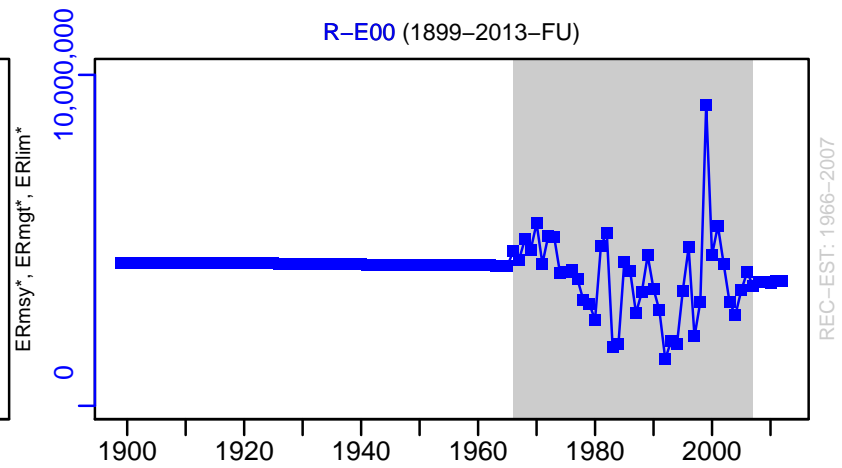
F*



ER-calc-ratio (1899–2013–FU)



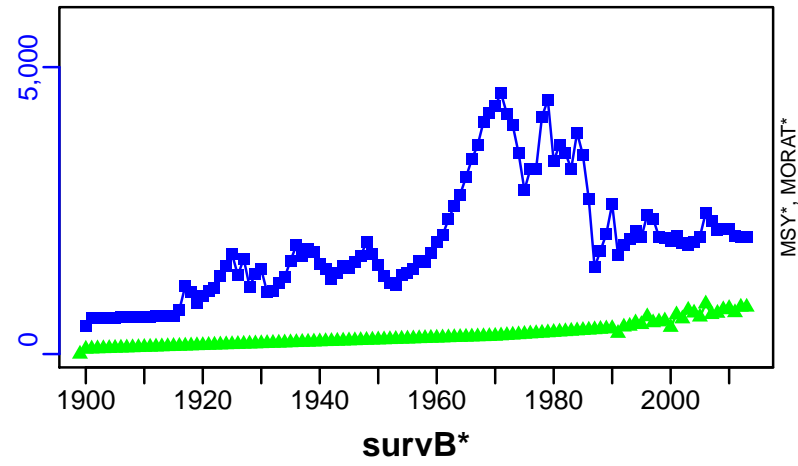
R-E00 (1899–2013–FU)



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

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

TAC*, Cpair*, Cadv*



EFFORT*



New Zealand snapper New Zealand SNA 7 [NZSNAPNZ7]

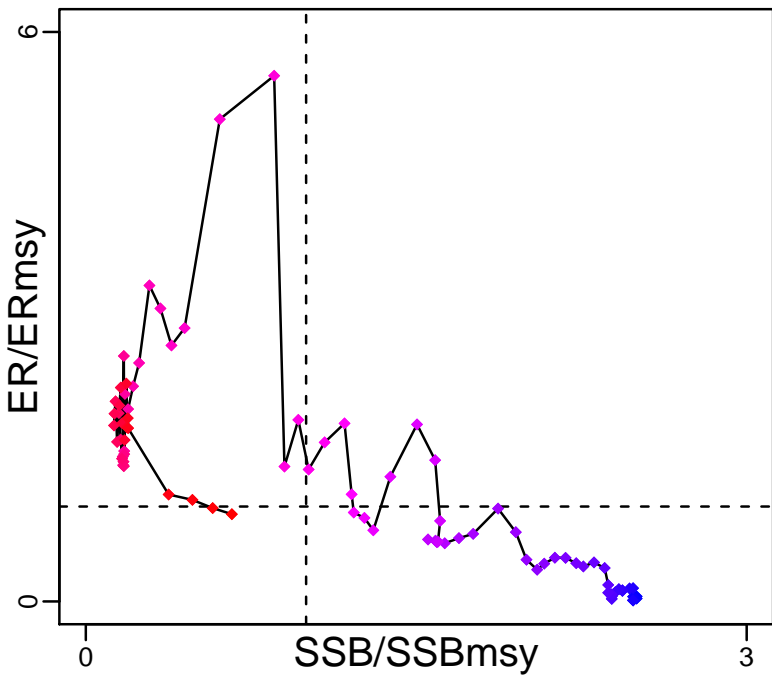
Metadata	
Scientific Name	Chrysophrys auratus
Current Assess ID	NZMFishINSHOREWG-NZSNAPNZ7-1931-2014-LANGLEY
Area	New Zealand SNA 7
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Inshore Working Group
Asmts in RAM	2014

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2014	6199
Fmsy	-	-	-
ERmsy	ERmsy-conv-ratio	2014	0.05
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2014	6199
Fmgt	Fmgt-1/yr	2014	0.06
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2014	15,497
MSY	MSY-MT	2014	699
M	M-1/yr	2014	0.08
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

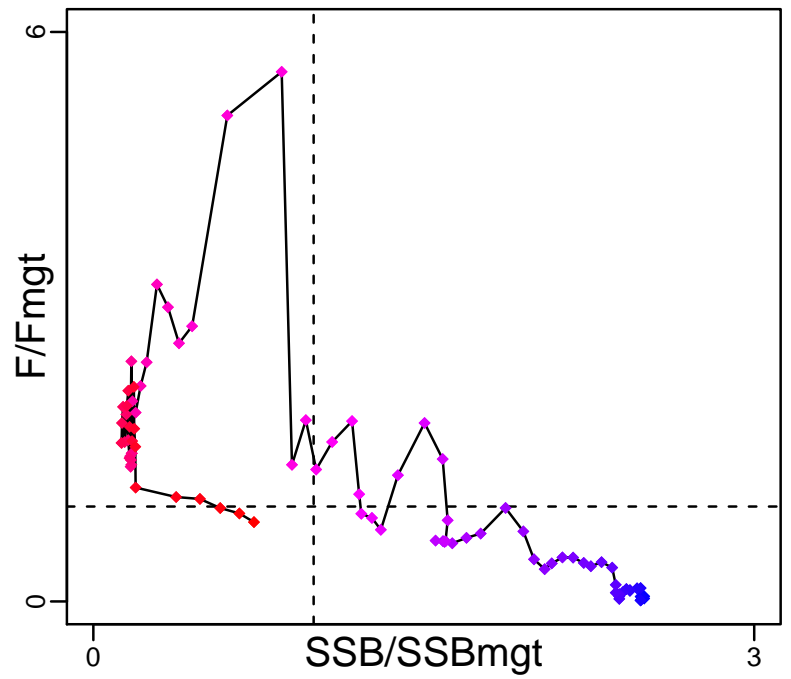
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2014	4520	Females	3 to 30+
TN	-	-	-	-	-
R	R-E00	2014	757,000	Both	0
F	-	-	-	-	-
ER	ER-calc-ratio	2014	0	-	-
TC	TC-MT	2014	426		
TL	TL-MT	2014	200		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2014	0.73		
F/Fmsy	-	-	-		
ER/ERmsy	ER-calc-ratio/ERmsy-conv-ratio	2014	0.92		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2014	0.73		
F/Fmgt	FdivFmgt-dimensionless	2014	0.84		
ER/ERmgt	-	-	-		

New Zealand snapper New Zealand SNA 7 [NZSNAPNZ7]

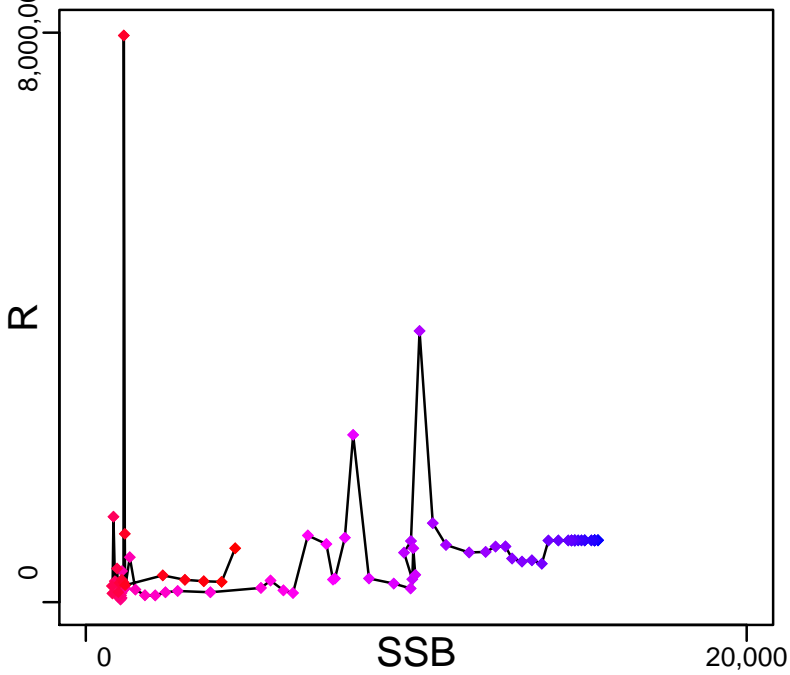
Kobe MSYpref (1931–2014–LANGLEY)



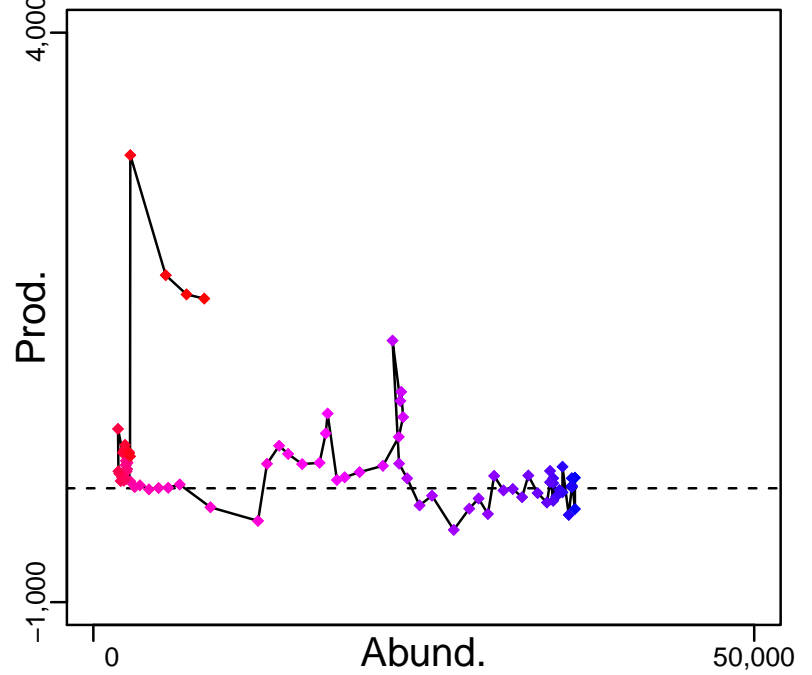
Kobe MGTpref (1931–2014–LANGLEY)



Spawner Recruit (1931–2014–LANGLEY)



Production (1931–2014–LANGLEY)



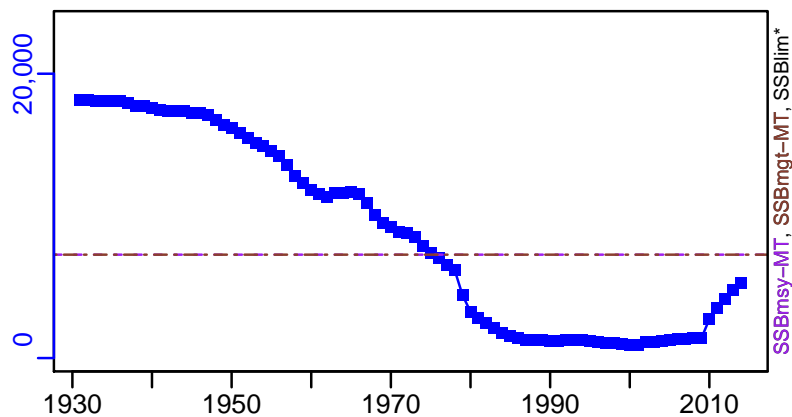
◆ Start Year ◆ End Year * No Data

New Zealand snapper New Zealand SNA 7 [NZSNAPNZ7]

TB*



SSB-MT (1931-2014-LANGLEY)



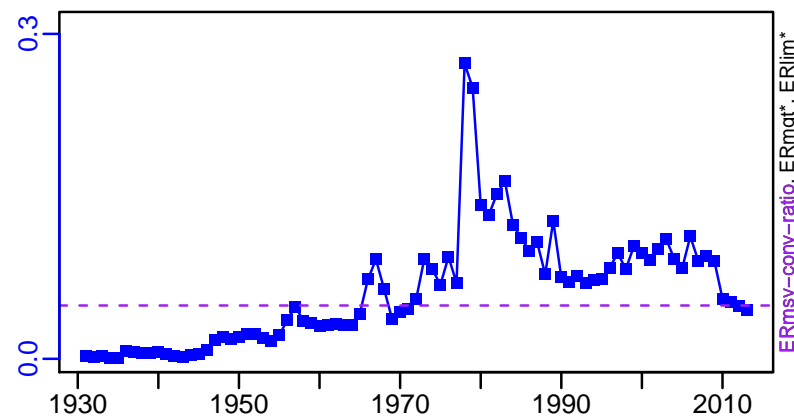
TN *



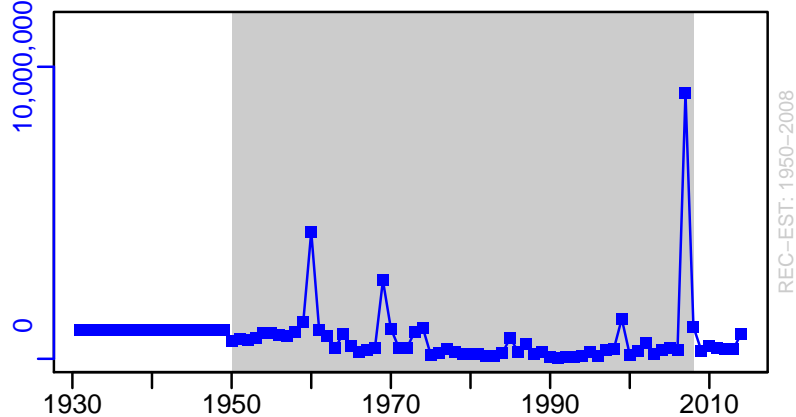
F*



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

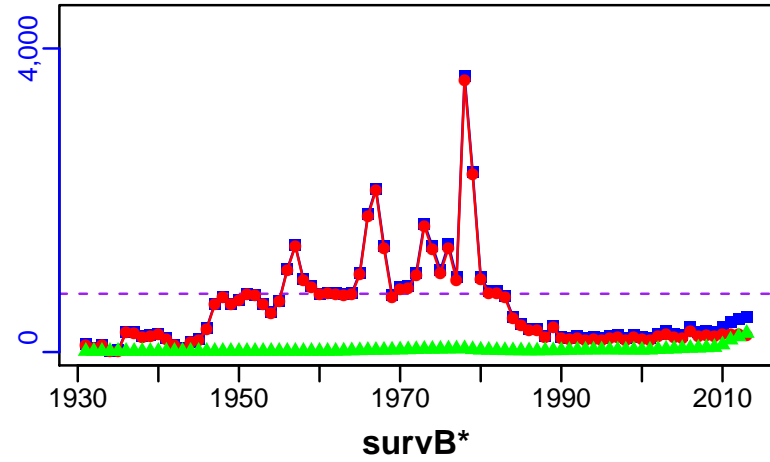


R-E00 (1931-2014-LANGLEY)

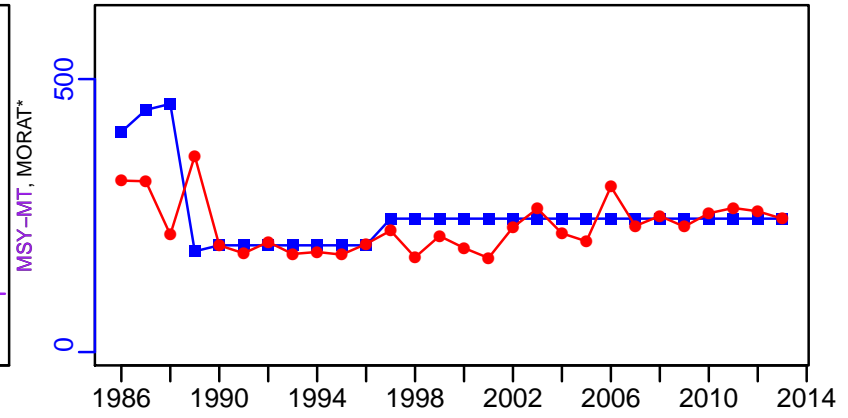


New Zealand snapper New Zealand SNA 7 [NZSNAPNZ7]

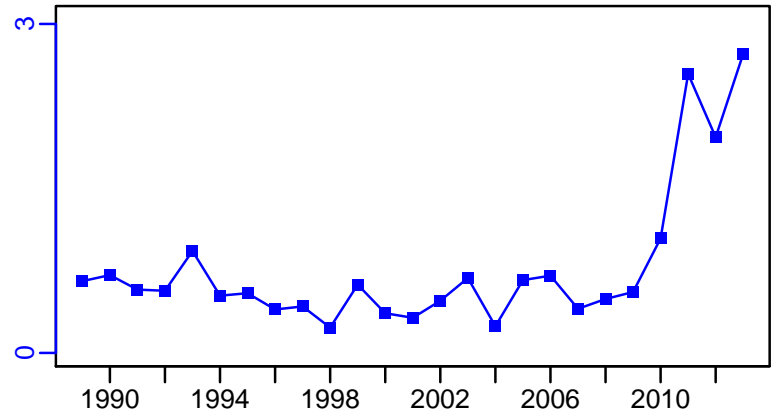
TC-MT, TL-MT, RecC-MT (1931-2014-LANGLEY)



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



CPUE-index (1931-2014-LANGLEY)



EFFORT*



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

New Zealand snapper New Zealand Area 8 [NZSNAPNZ8]

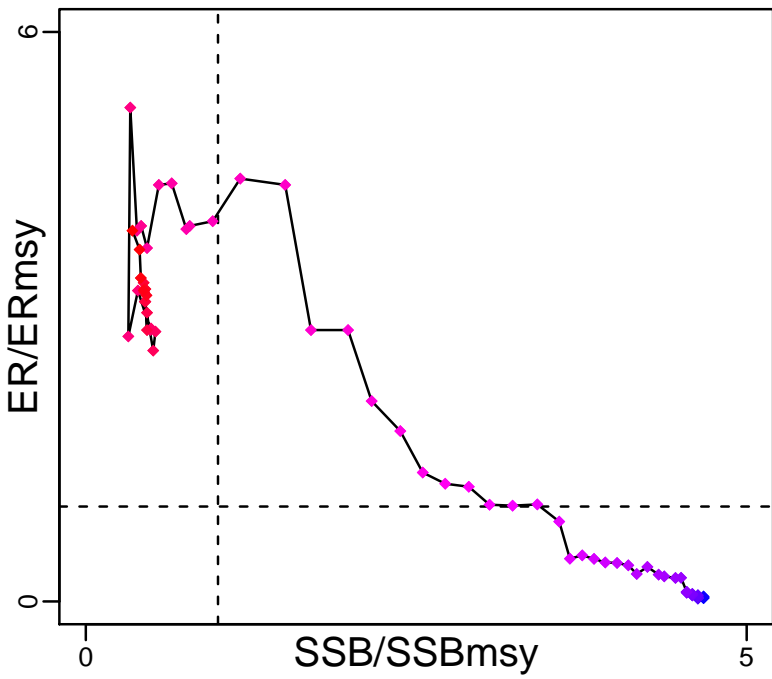
Metadata	
Scientific Name	Chrysophrys auratus
Current Assess ID	NZMFishINSHOREWG-NZSNAPNZ8-1931-2005-JENSEN
Area	New Zealand Area 8 (Auckland and Central West)
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Inshore Working Group
Asmts in RAM	2005

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2005	23,536
Fmsy	Fmsy-1/yr	2005	0.09
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	0.05
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

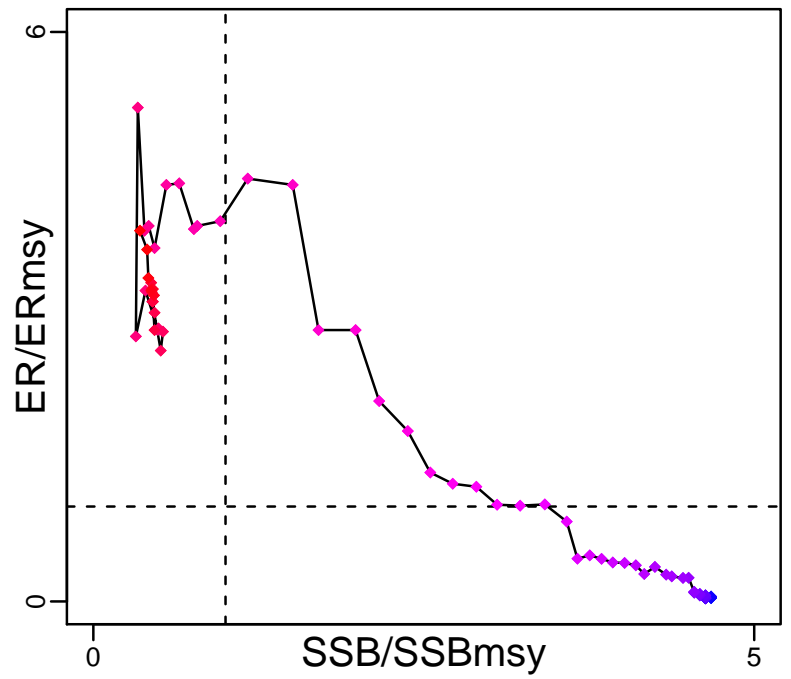
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2005	8310	-	3
SSB	SSB-MT	2005	8310	-	-
TN	-	-	-	-	-
R	R-E00	2005	1,770,000	-	3
F	F-1/yr	2005	0	-	-
ER	ER-ratio	2005	0	-	-
TC	TC-MT	2005	1950		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2005	0.35		
F/Fmsy	F-1/yr/Fmsy-1/yr	2005	2.49		
ER/ERmsy	ER-ratio/ERmsy-ratio	2005	3.91		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

New Zealand snapper New Zealand Area 8 [NZSNAPNZ8]

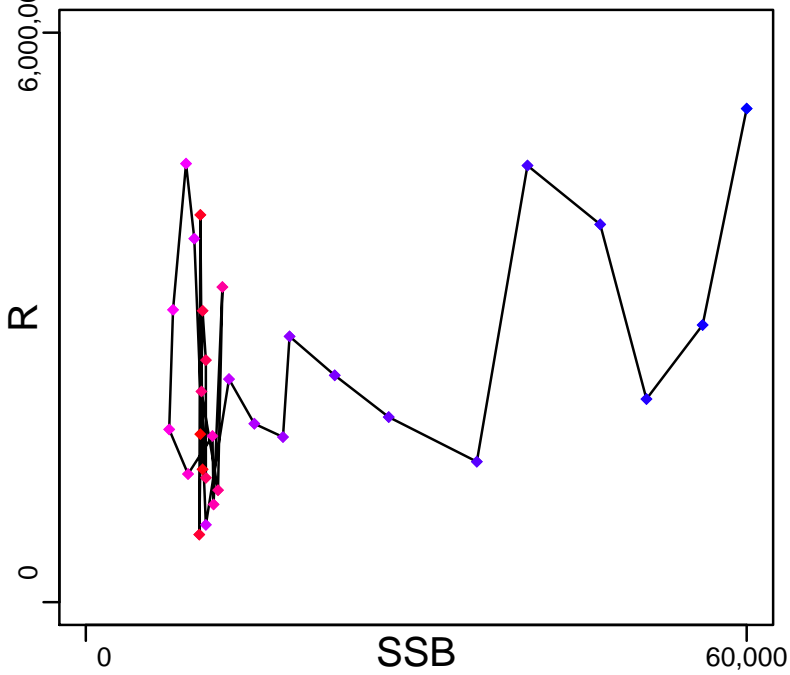
Kobe MSYpref (1931–2005–JENSEN)



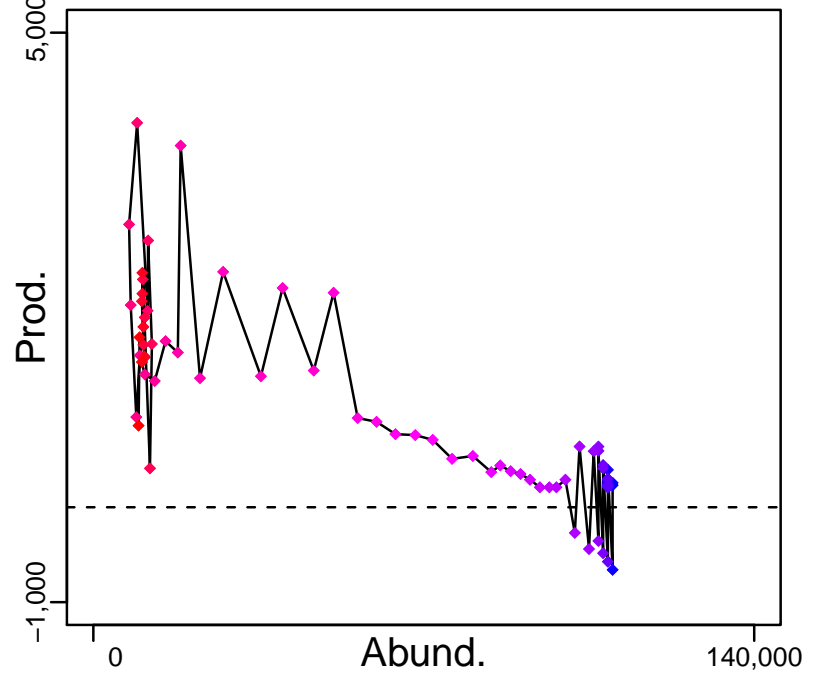
Kobe MGTpref (1931–2005–JENSEN)



Spawner Recruit (1931–2005–JENSEN)



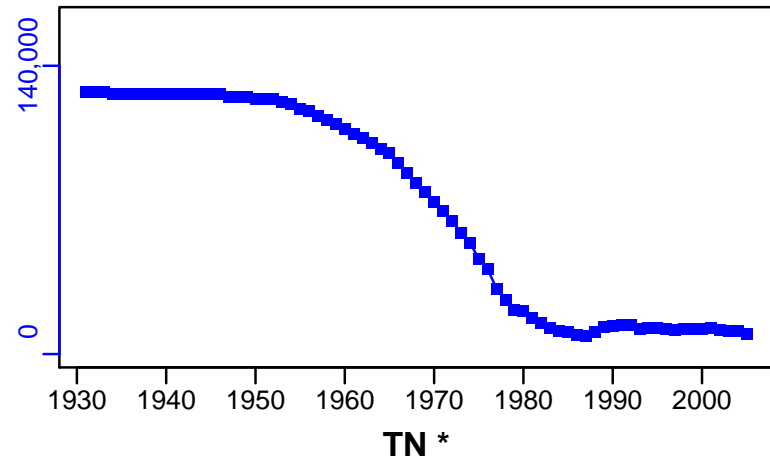
Production (1931–2005–JENSEN)



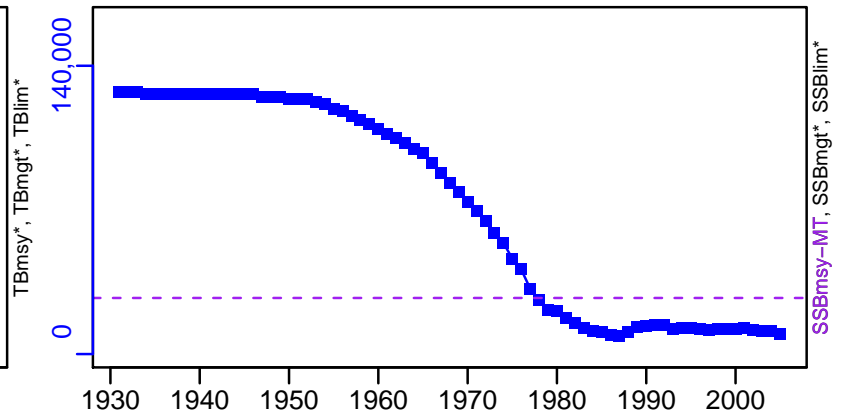
◆ Start Year ◆ End Year * No Data

New Zealand snapper New Zealand Area 8 [NZSNAPNZ8]

TB-MT (1931-2005-JENSEN)



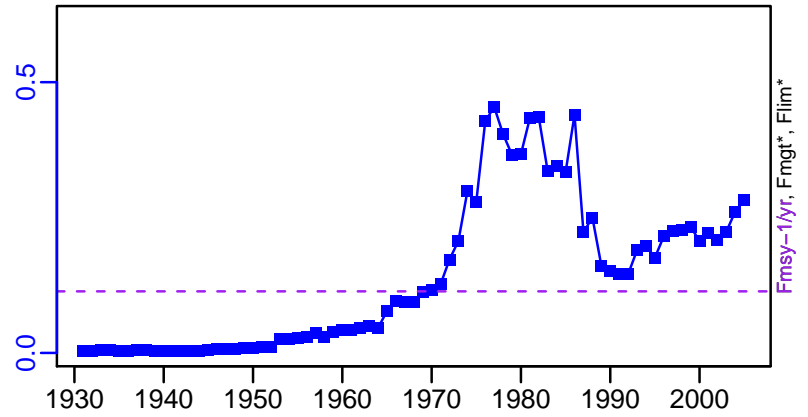
SSB-MT (1931-2005-JENSEN)



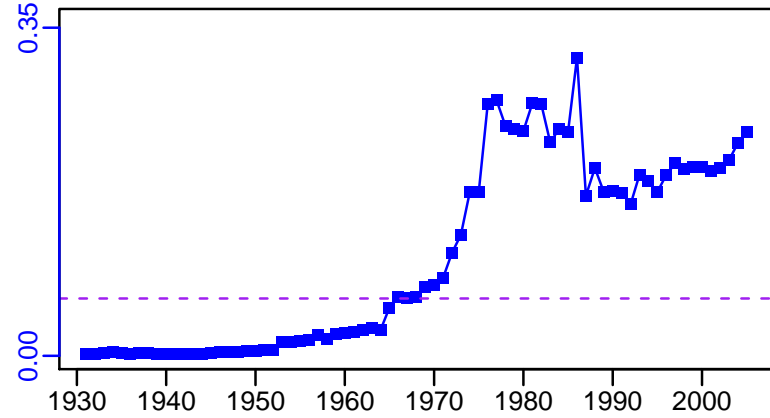
TN *



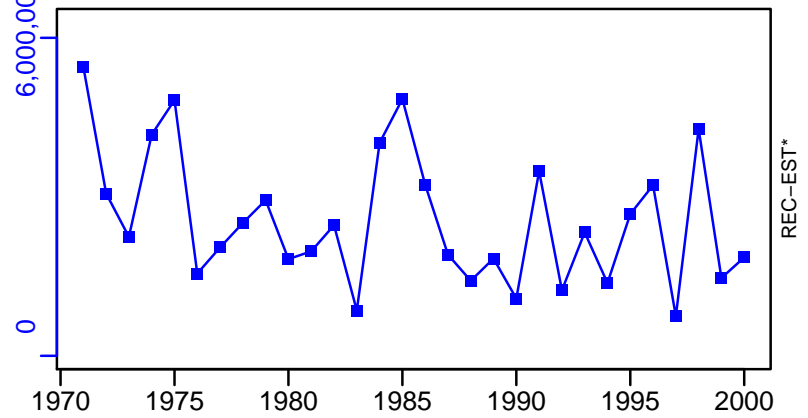
F-1/yr (1931-2005-JENSEN)



ER-ratio (1931-2005-JENSEN)



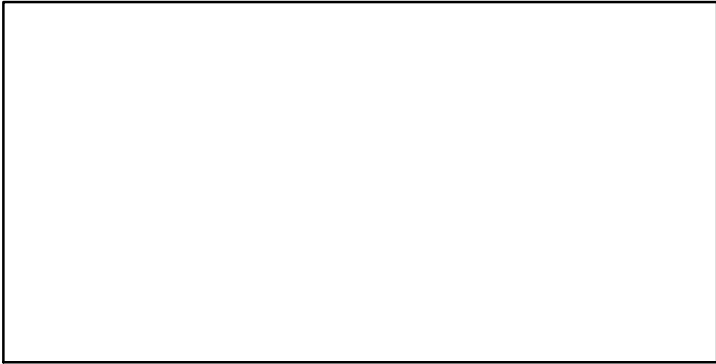
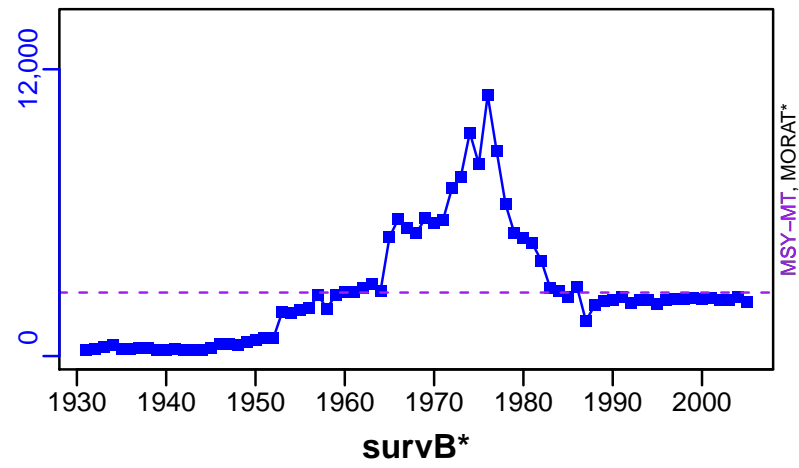
R-E00 (1931-2005-JENSEN)



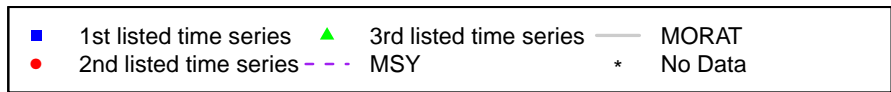
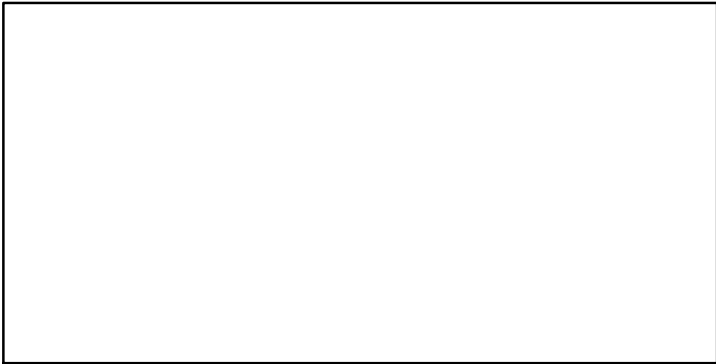
New Zealand snapper New Zealand Area 8 [NZSNAPNZ8]

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

TAC*, Cpair*, Cadv*



EFFORT*



Orange roughy East and South Chatham Rise [OROUGHYESCR]

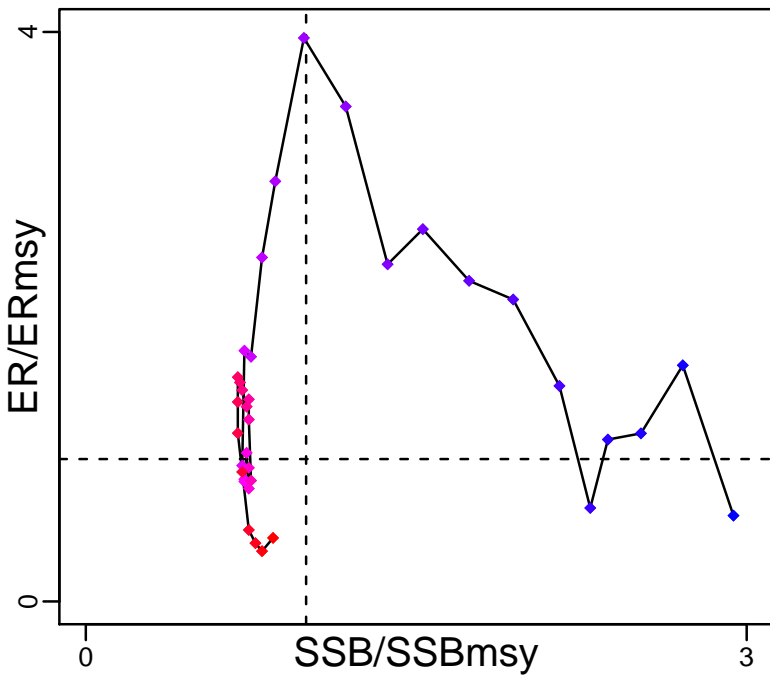
Metadata	
Scientific Name	Hoplostethus atlanticus
Current Assess ID	NIWA-OROUGHYESCR-1910-2014-FU
Area	East and South Chatham Rise
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2014

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2014	112,000
Fmsy	-	-	-
ERmsy	ERmsy-conv-ratio	2014	0.01
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2014	112,000
Fmgt	-	-	-
ERmgt	ERmgt-ratio	2014	0.05
TB0	-	-	-
SSB0	SSB0-MT	2014	320,000
MSY	MSY-MT	2014	8640
M	M-1/yr	2014	0.04
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2014	94,700	-	40+
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-calc-ratio	2014	0	-	-
TC	TC-MT	2014	3260		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2014	0.85		
F/Fmsy	-	-	-		
ER/ERmsy	ER-calc-ratio/ERmsy-conv-ratio	2014	0.45		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2014	0.85		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

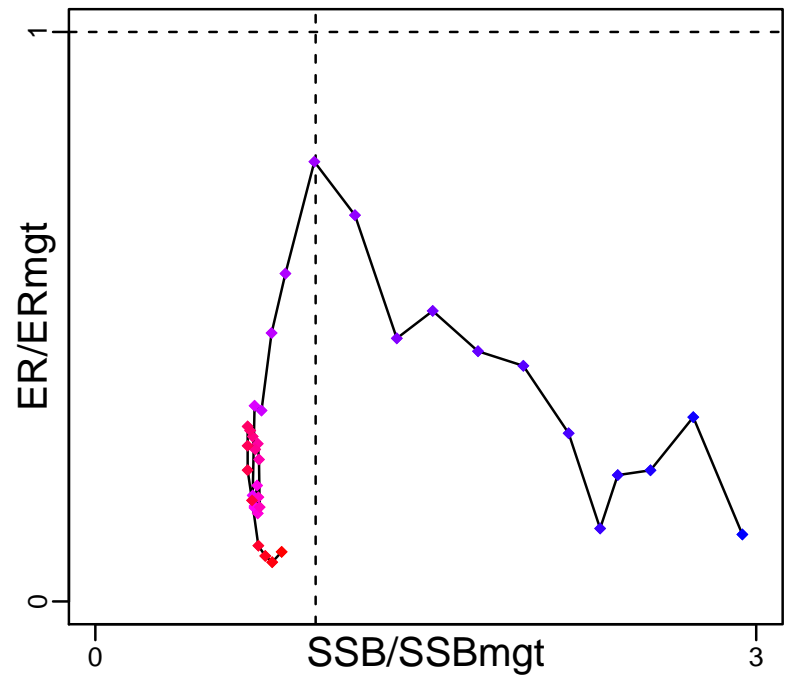
Orange roughy East and South Chatham Rise [OROUGHYESCR]

Kobe MSYpref (1910–2014–FU)

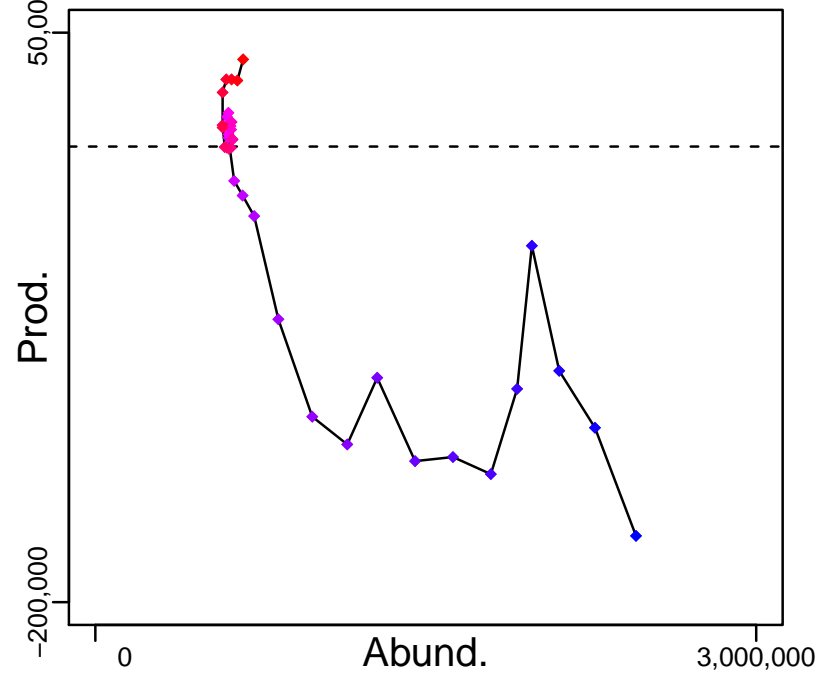
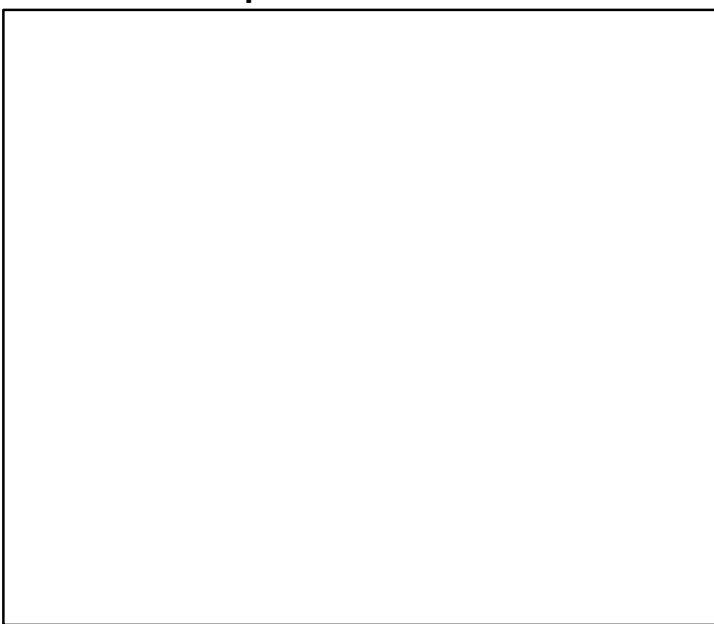


Spawner Recruit*

Kobe MGTpref (1910–2014–FU)



Production (1910–2014–FU)



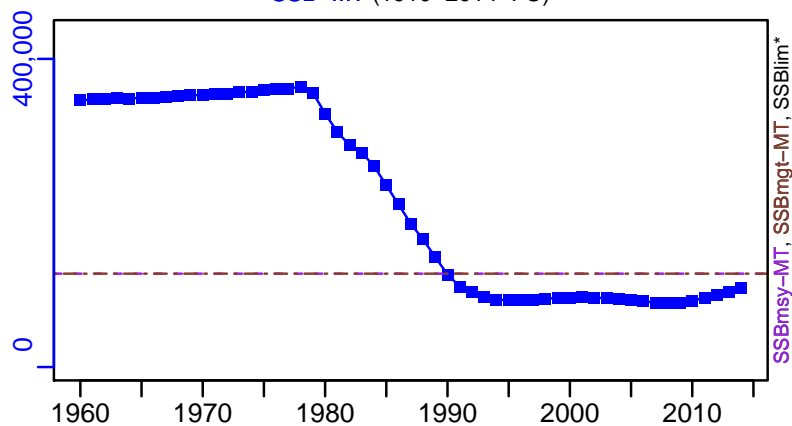
◆ Start Year ◆ End Year * No Data

Orange roughy East and South Chatham Rise [OROUGHYESCR]

TB*



SSB-MT (1910–2014–FU)



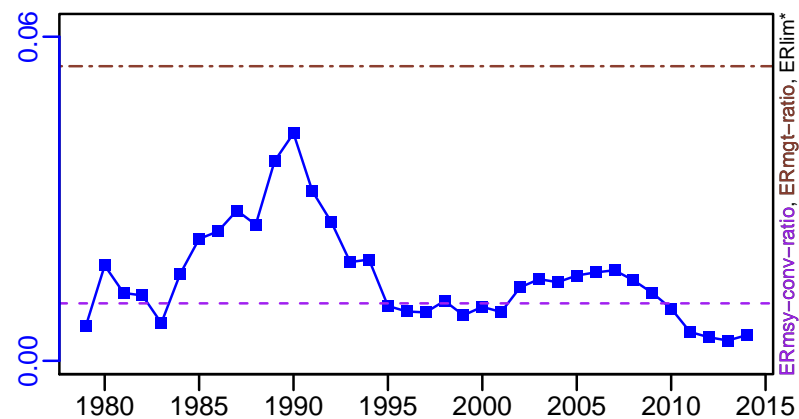
TN *



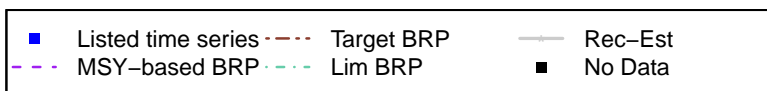
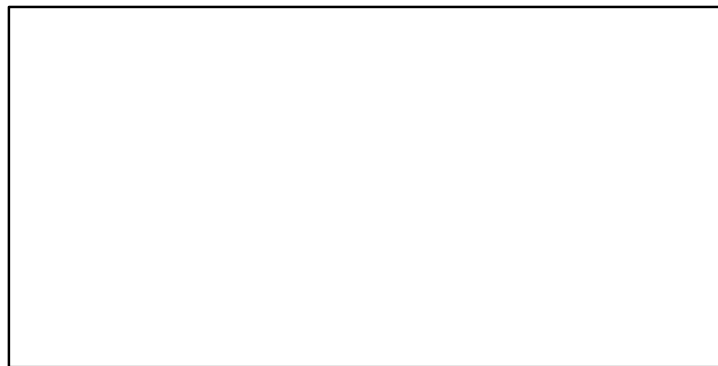
F*



ER-calc-ratio (1910–2014–FU)



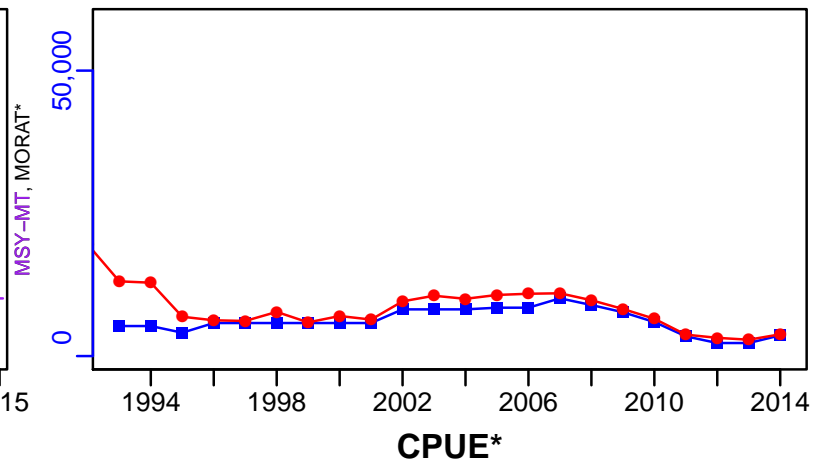
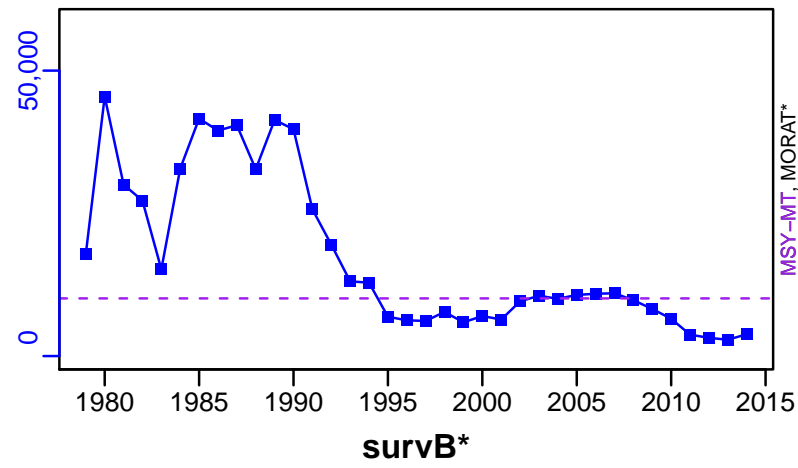
Recruits*



Orange roughy East and South Chatham Rise [OROUGHYESCR]

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

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



EFFORT*



Orange roughy Northwest Chatham Rise [OROUGHYNWCR]

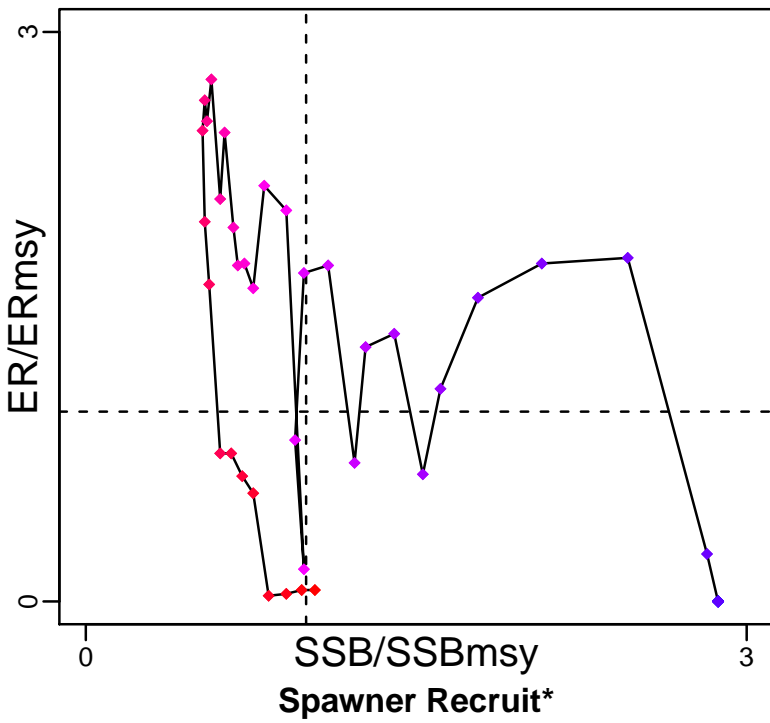
Metadata	
Scientific Name	Hoplostethus atlanticus
Current Assess ID	NIWA-OROUGHYNWCR-1910-2014-FU
Area	Northwest Chatham Rise
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2014

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2014	23,100
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2014	0.09
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2014	23,100
Fmgt	-	-	-
ERmgt	ERmgt-ratio	2014	0.05
TB0	-	-	-
SSB0	SSB0-MT	2014	66,000
MSY	MSY-MT	2014	1386
M	M-1/yr	2014	0.04
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

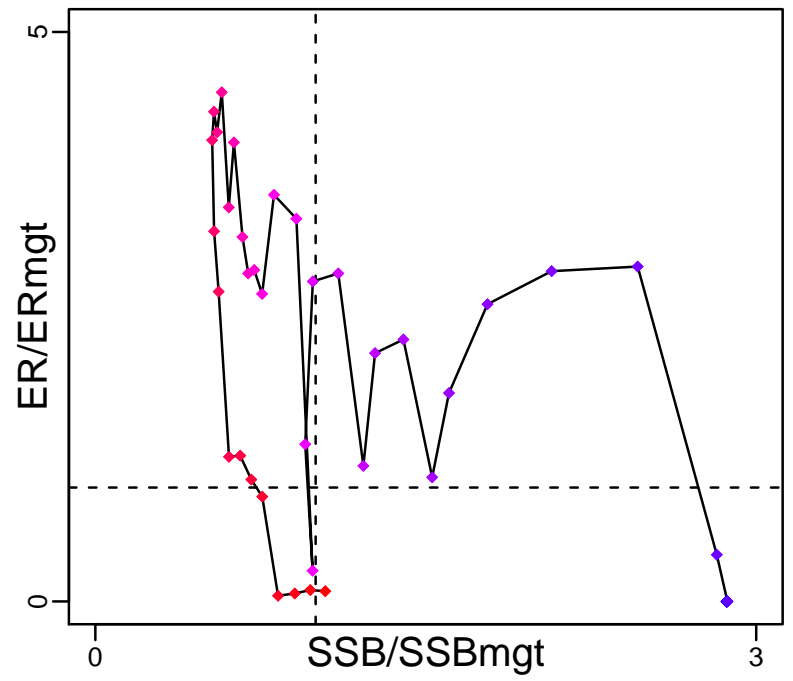
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2014	24,100	-	40+
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-ratio	2014	0	-	-
TC	TC-MT	2014	116		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2014	1.04		
F/Fmsy	-	-	-		
ER/ERmsy	ERdivERmsy-dimensionless	2014	0.06		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2014	1.04		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Orange roughy Northwest Chatham Rise [OROUGHYNWCR]

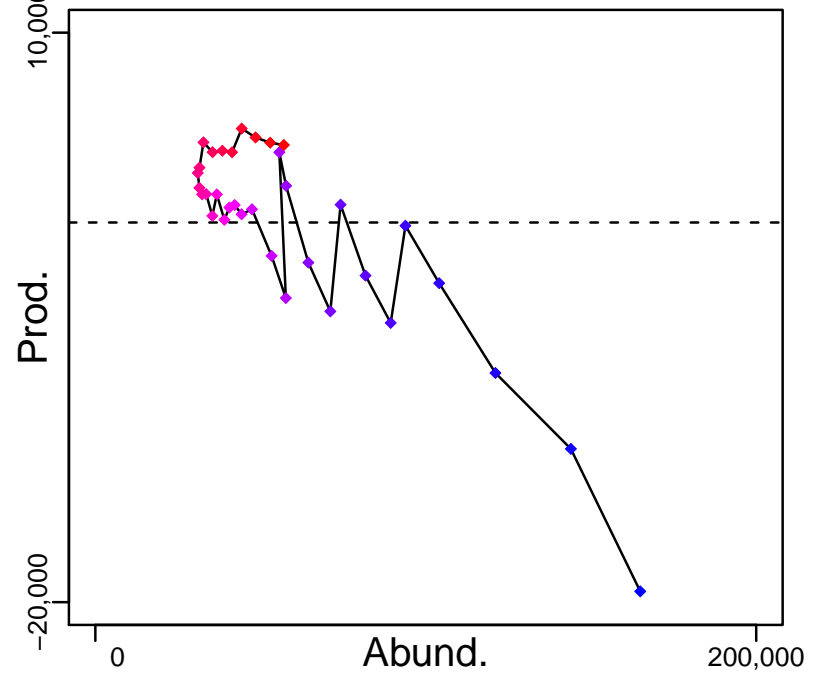
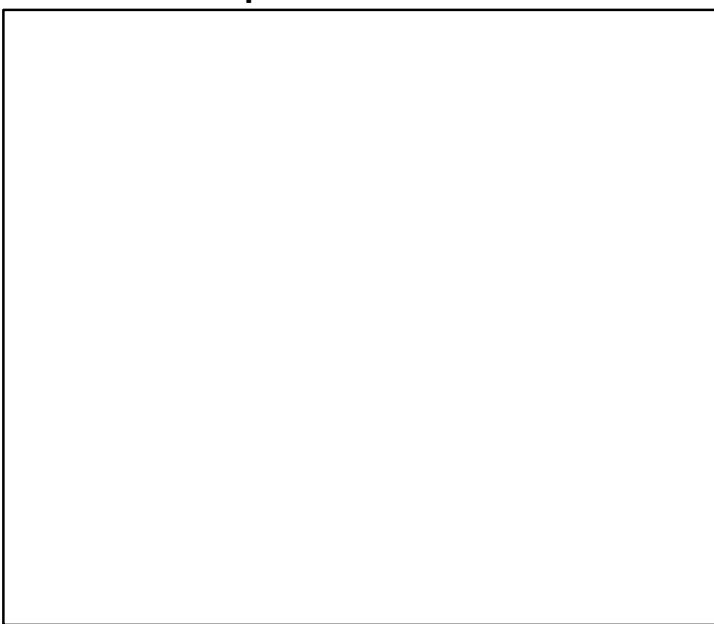
Kobe MSYpref (1910–2014–FU)



Kobe MGTpref (1910–2014–FU)



Production (1910–2014–FU)



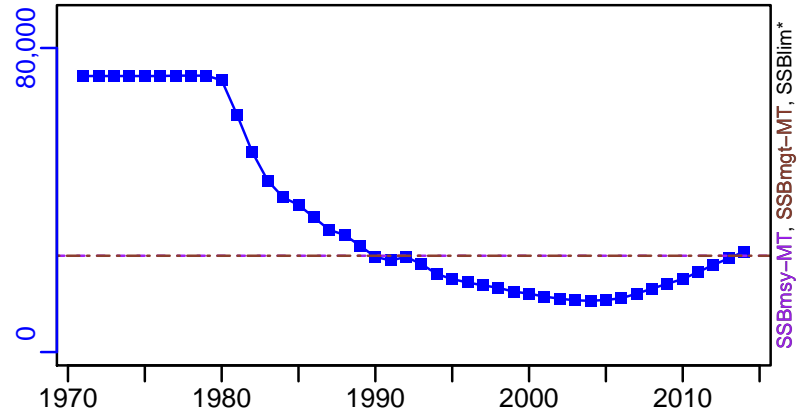
◆ Start Year ◆ End Year * No Data

Orange roughy Northwest Chatham Rise [OROUGHYNWCR]

TB*



SSB-MT (1910–2014–FU)



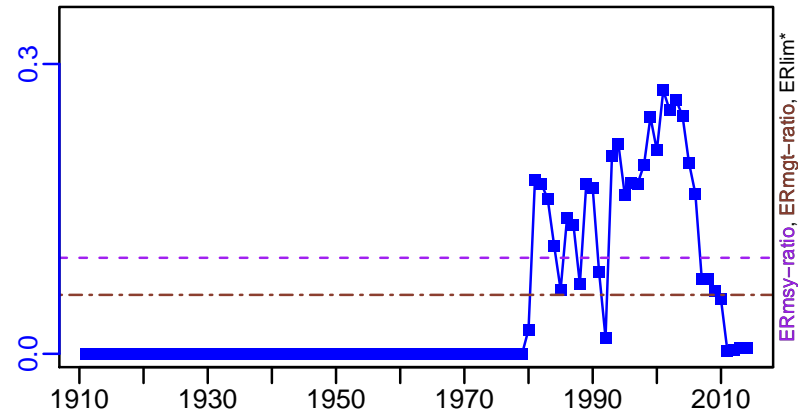
TN *



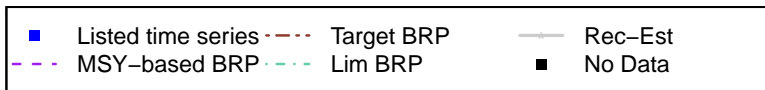
F*



ER-ratio (1910–2014–FU)

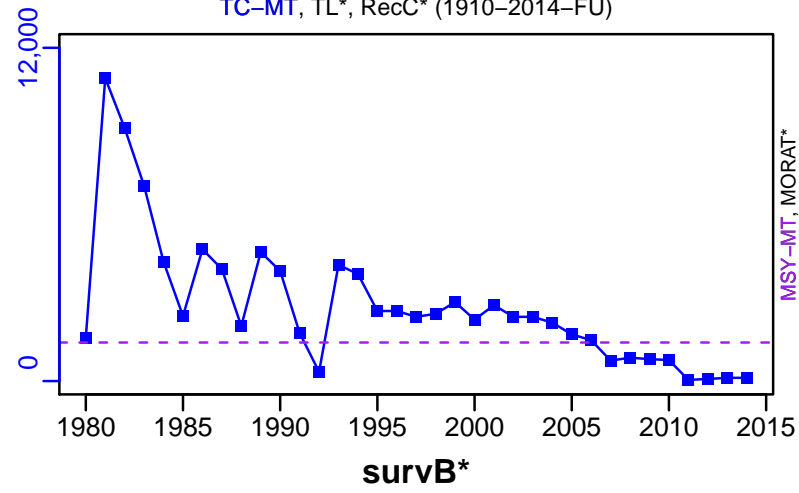


Recruits*

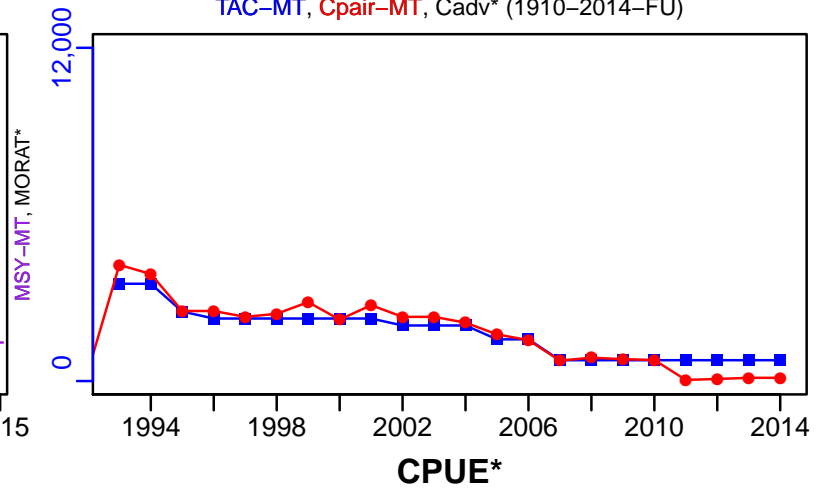


Orange roughy Northwest Chatham Rise [OROUGHYNWCR]

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



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



EFFORT*



Orange roughy New Zealand Challenger Plateau [OROUGHYNZ7A]

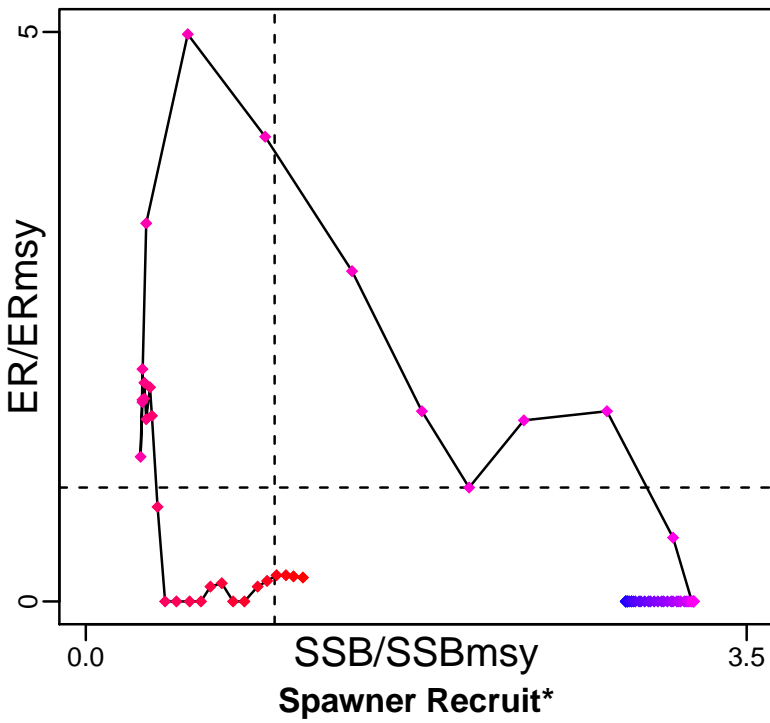
Metadata	
Scientific Name	Hoplostethus atlanticus
Current Assess ID	NIWA-OROUGHYNZ7A-1910-2014-FU
Area	New Zealand Challenger Plateau
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2014

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2014	30,800
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2014	0.09
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2014	30,800
Fmgt	-	-	-
ERmgt	ERmgt-ratio	2014	0.05
TB0	-	-	-
SSB0	SSB0-MT	2014	88,000
MSY	MSY-MT	2014	1848
M	M-1/yr	2014	0.04
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

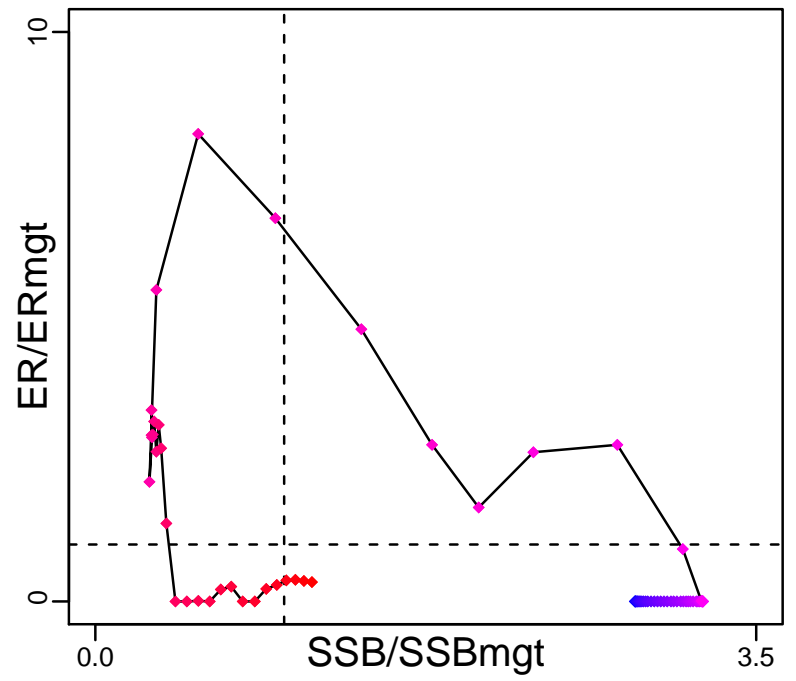
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2014	35,300	-	40+
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-ratio	2014	0	Both	-
TC	TC-MT	2014	539		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2014	1.15		
F/Fmsy	-	-	-		
ER/ERmsy	ERdivERmsy-dimensionless	2014	0.21		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2014	1.15		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Orange roughy New Zealand Challenger Plateau [OROUGHYNZ7A]

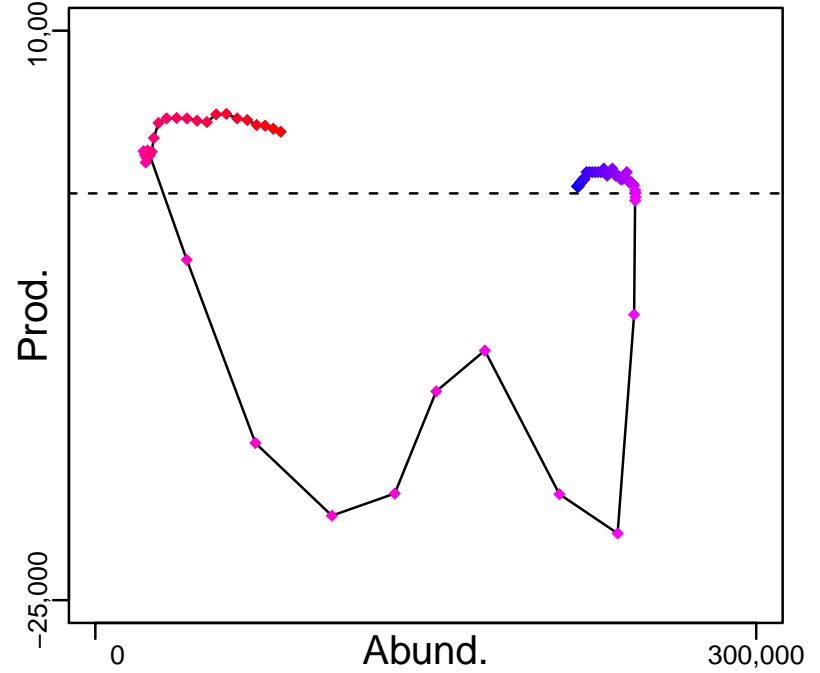
Kobe MSYpref (1910–2014–FU)



Kobe MGTpref (1910–2014–FU)



Production (1910–2014–FU)



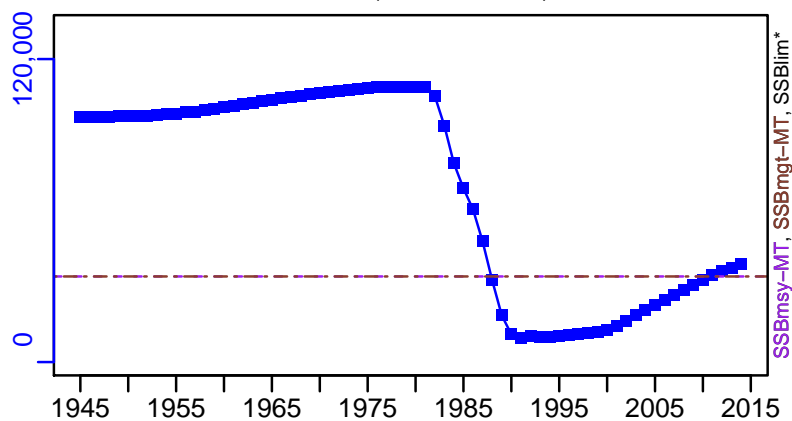
◆ Start Year ◆ End Year * No Data

Orange roughy New Zealand Challenger Plateau [OROUGHYNZ7A]

TB*



SSB-MT (1910-2014-FU)



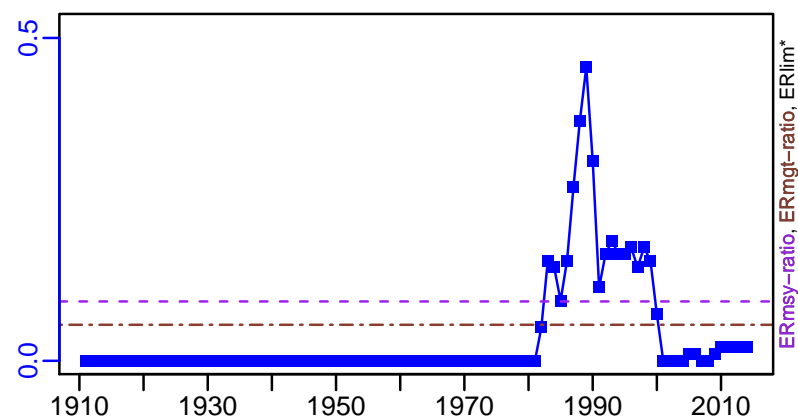
TN *



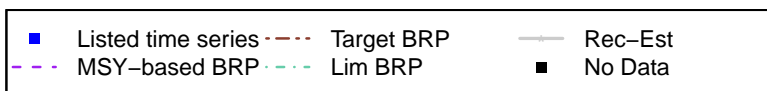
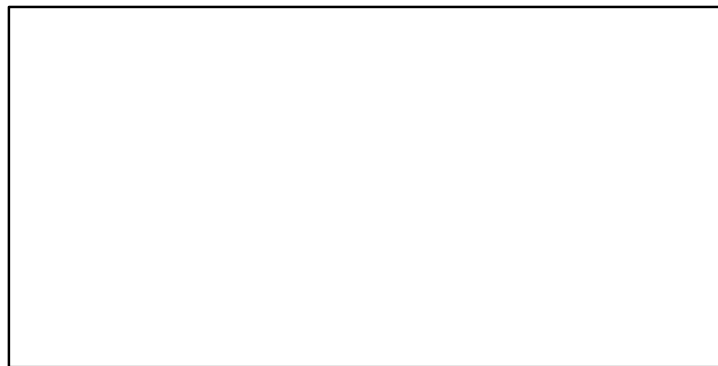
F*



ER-ratio (1910-2014-FU)



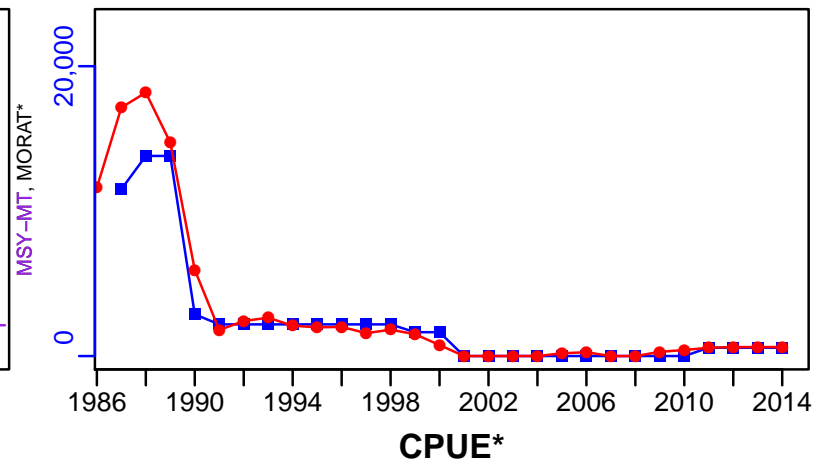
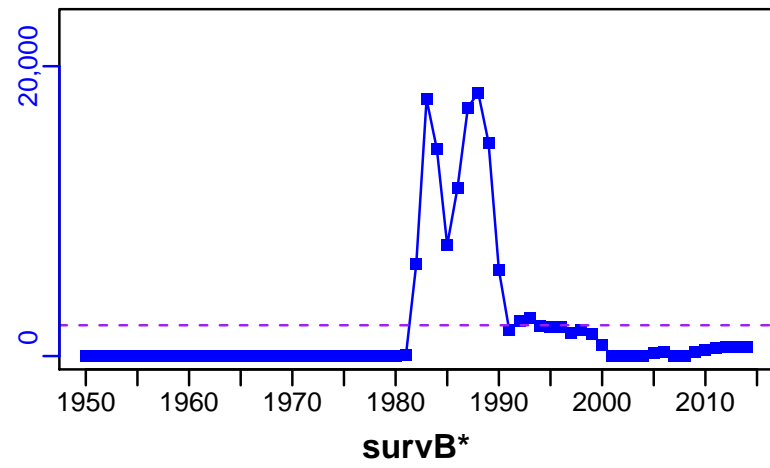
Recruits*



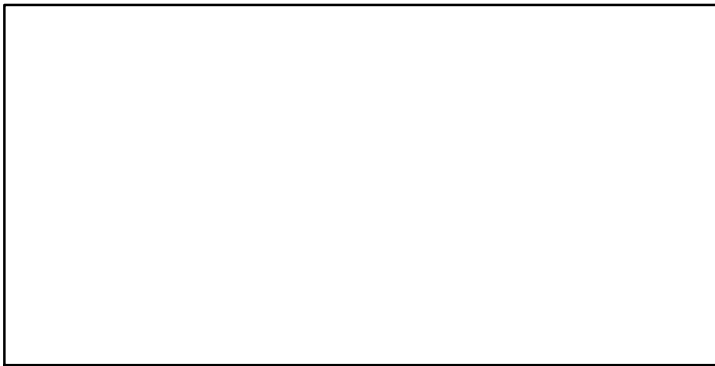
Orange roughy New Zealand Challenger Plateau [OROUGHYNZ7A]

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

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



EFFORT*



Orange roughy New Zealand Mid East Coast [OROUGHYNZMEC]

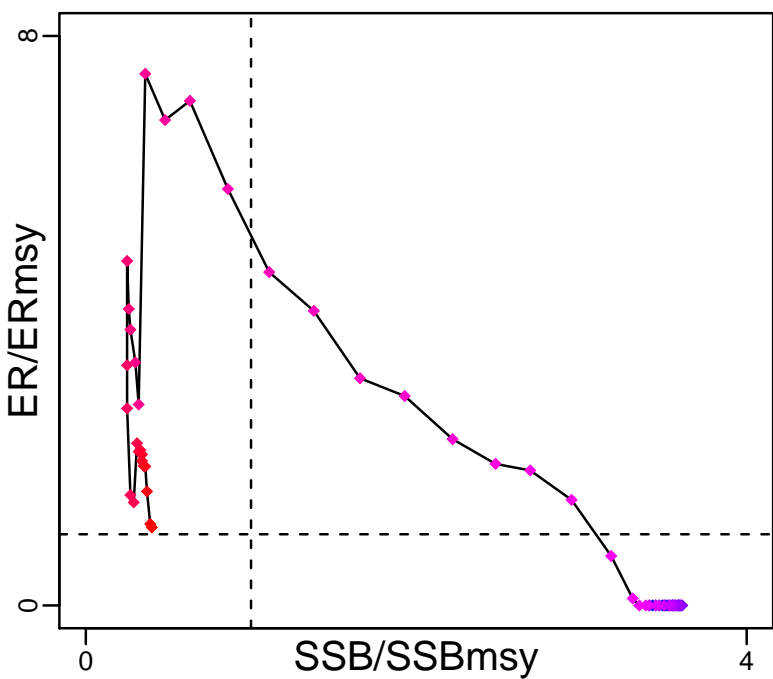
Metadata	
Scientific Name	Hoplostethus atlanticus
Current Assess ID	NIWA-OROUGHYNZMEC-1882-2014-FU
Area	New Zealand Mid East Coast
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2014, 2011

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2014	33,250
Fmsy	Fmsy-1/yr	2011	0.04
ERmsy	ERmsy-ratio	2011	0.03
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2014	33,250
Fmgt	-	-	-
ERmgt	ERmgt-ratio	2014	0.05
TB0	-	-	-
SSB0	SSB0-MT	2014	95,000
MSY	MSY-MT	2014	2214
M	M-1/yr	2014	0.04
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

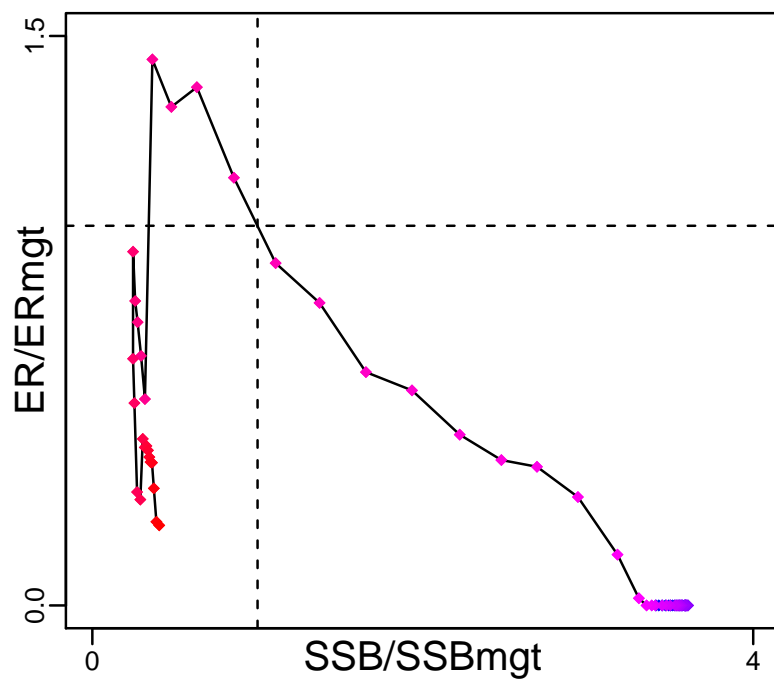
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2014	13,500	-	-
TN	-	-	-	-	-
R	R-E00	2011	2,530,000	-	1
F	F-1/yr	2011	0	-	-
ER	ER-calc-ratio	2014	0	-	-
TC	TC-MT	2014	982		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2014	0.4		
F/Fmsy	FdivFmsy-dimensionless	2011	2.5		
ER/ERmsy	ER-ratio/ERmsy-ratio	2011	2.56		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2014	0.4		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Orange roughy New Zealand Mid East Coast [OROUGHYNZMEC]

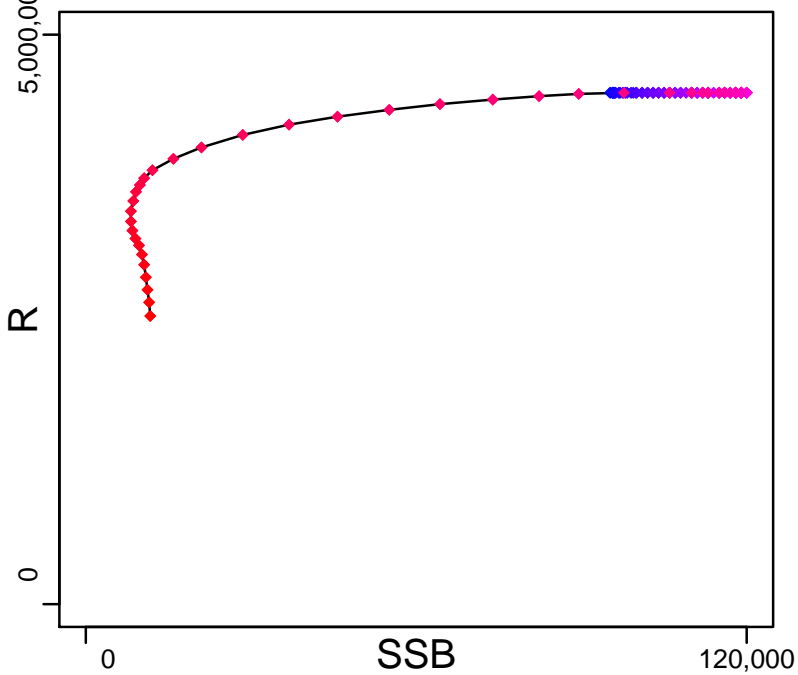
Kobe MSYpref (1882–2014–FU)



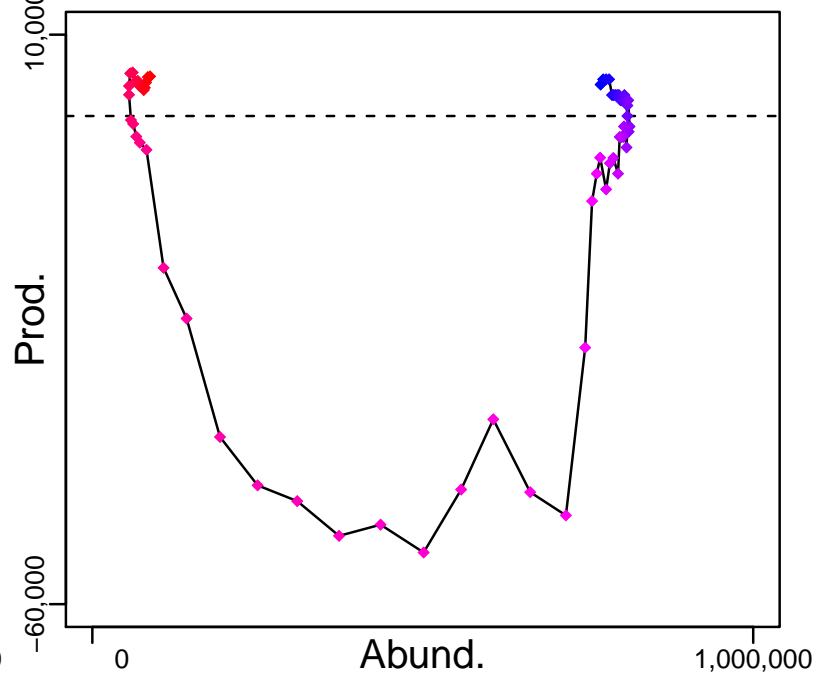
Kobe MGTpref (1882–2014–FU)



Spawner Recruit (1909–2011–CORDUE)



Production (1882–2014–FU)



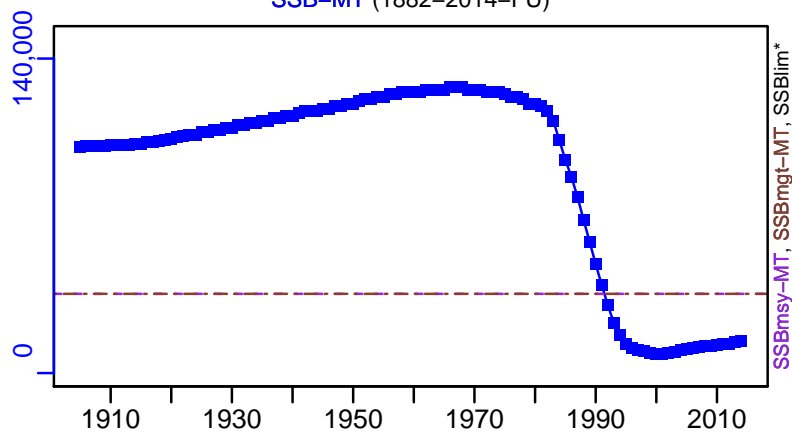
◆ Start Year ◆ End Year * No Data

Orange roughy New Zealand Mid East Coast [OROUGHYNZMEC]

TB*



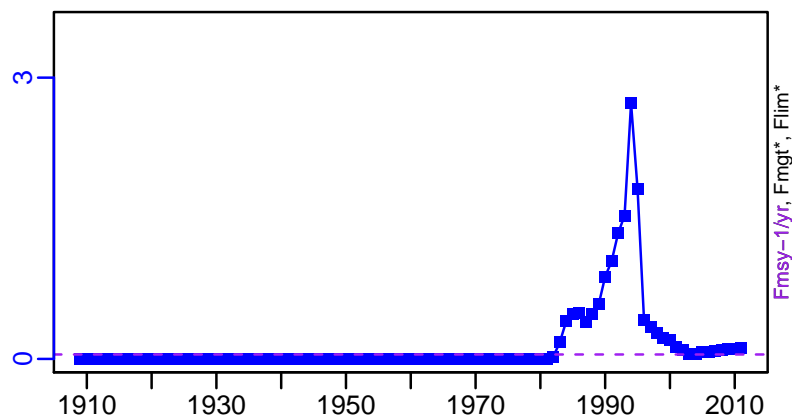
SSB-MT (1882-2014-FU)



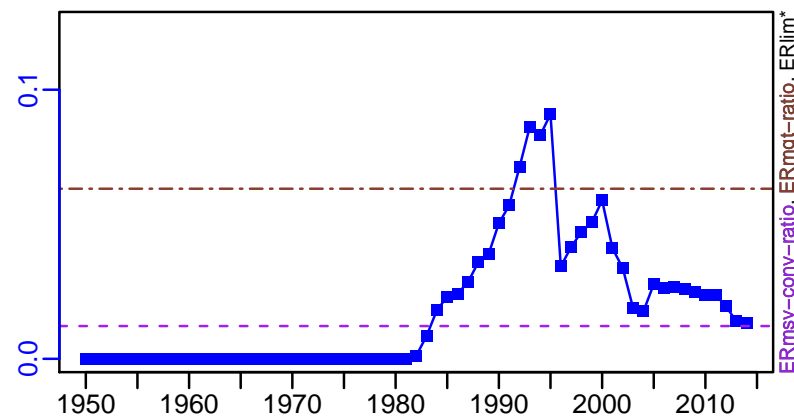
TN *



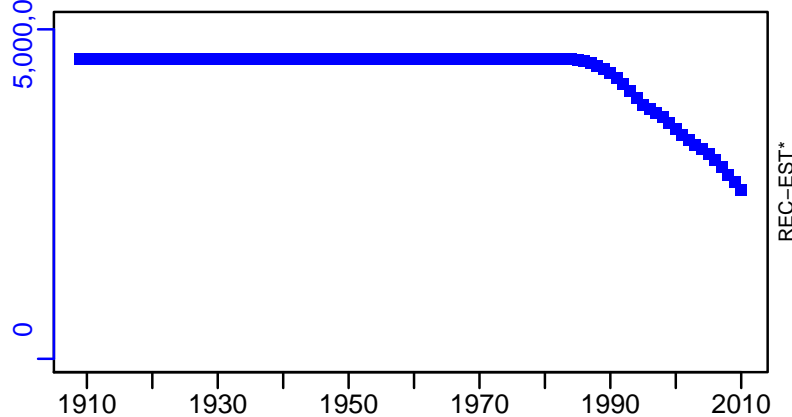
F-1/yr (1909-2011-CORDUE)



ER-calc-ratio (1882-2014-FU)

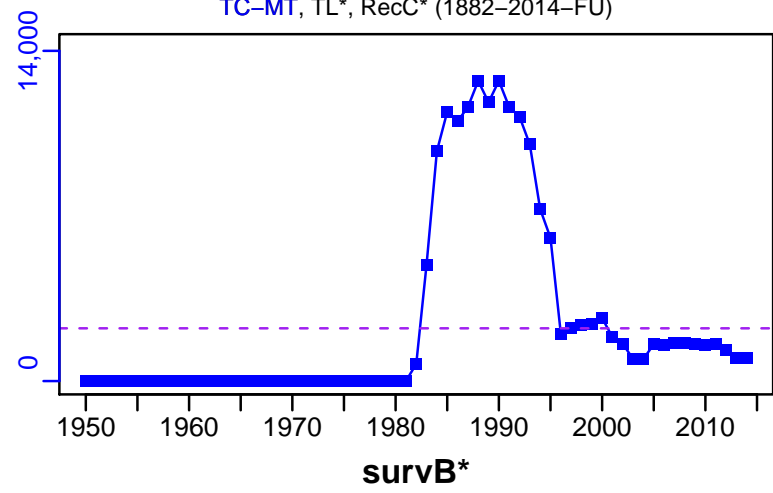


R-E00 (1909-2011-CORDUE)

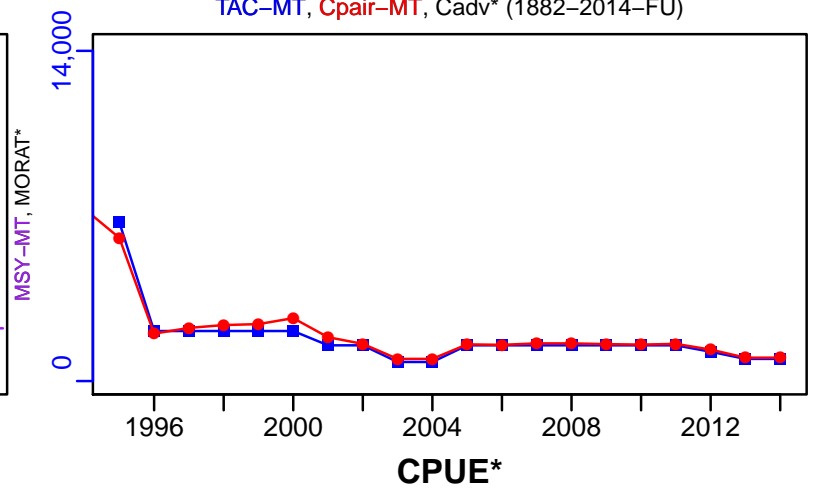


Orange roughy New Zealand Mid East Coast [OROUGHYNZMEC]

TC-MT, TL*, RecC* (1882-2014-FU)



TAC-MT, Cpair-MT, Cadv* (1882-2014-FU)



EFFORT*



Black Foot Paua NZ North PAUA5A [PAUANPAU5A]

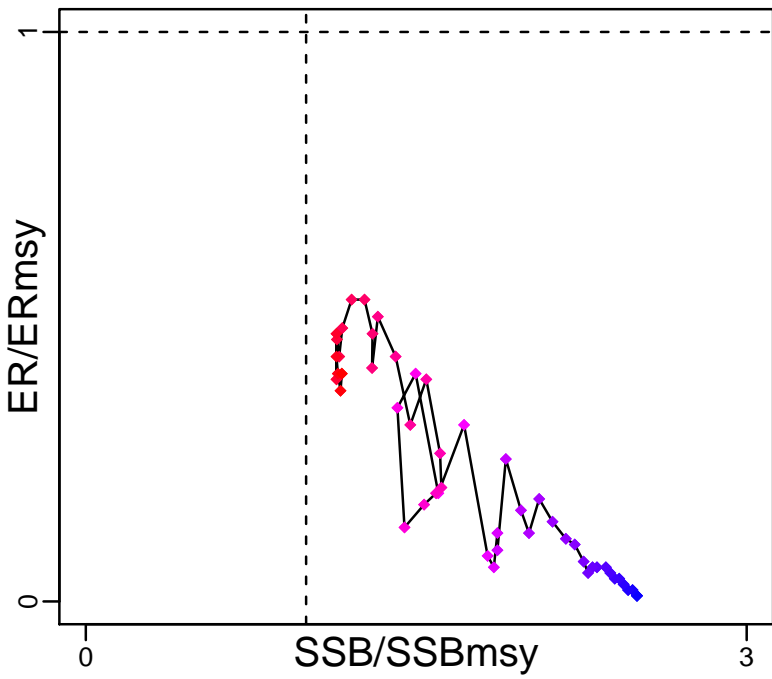
Metadata	
Scientific Name	Haliotis iris
Current Assess ID	NIWA-PAUANPAU5A-1965-2014-FU
Area	NZ Area North PAUA 5A
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2010, 2014

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2010	124
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	-	-	-

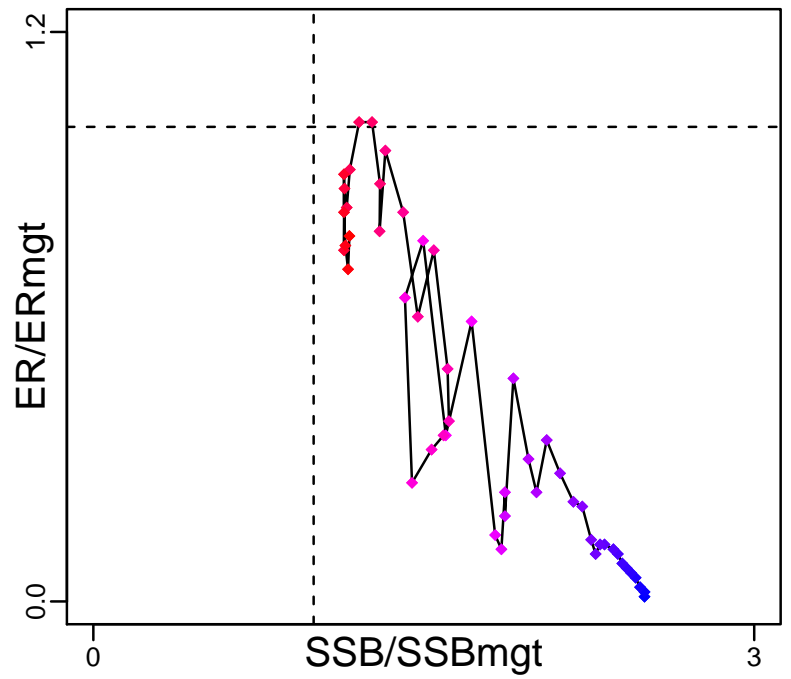
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2014	576	-	-
TN	-	-	-	-	-
R	R-E00	2014	602,000	Both	-
F	F-1/yr	2010	0	-	-
ER	ER-ratio	2014	0	Both	-
TC	TC-MT	2014	64.4		
TL	TL-MT	2014	63.6		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2014	1.16		
F/Fmsy	FdivFmsy-dimensionless	2010	0.64		
ER/ERmsy	ERdivERmsy-dimensionless	2014	0.4		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2014	1.16		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Black Foot Paua NZ North PAUA5A [PAUANPAU5A]

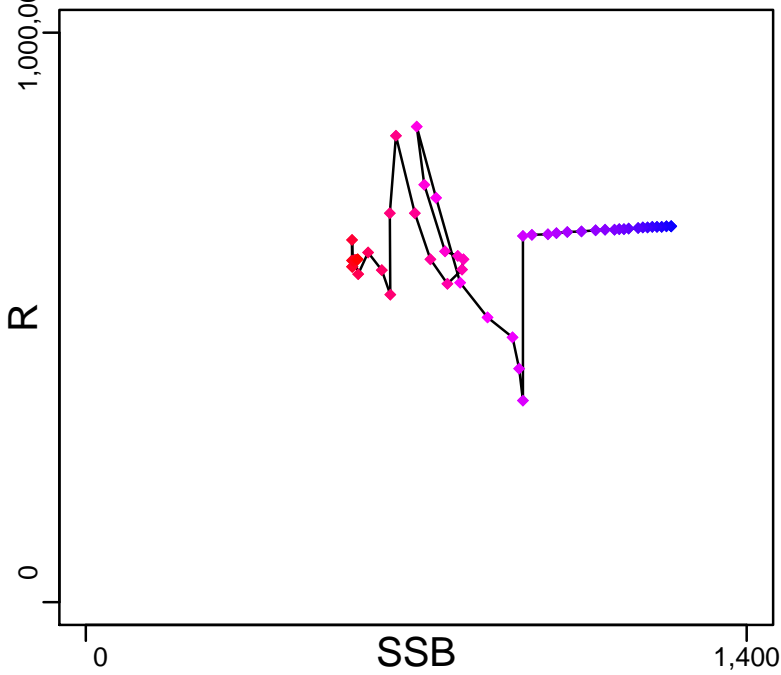
Kobe MSYpref (1965–2014–FU)



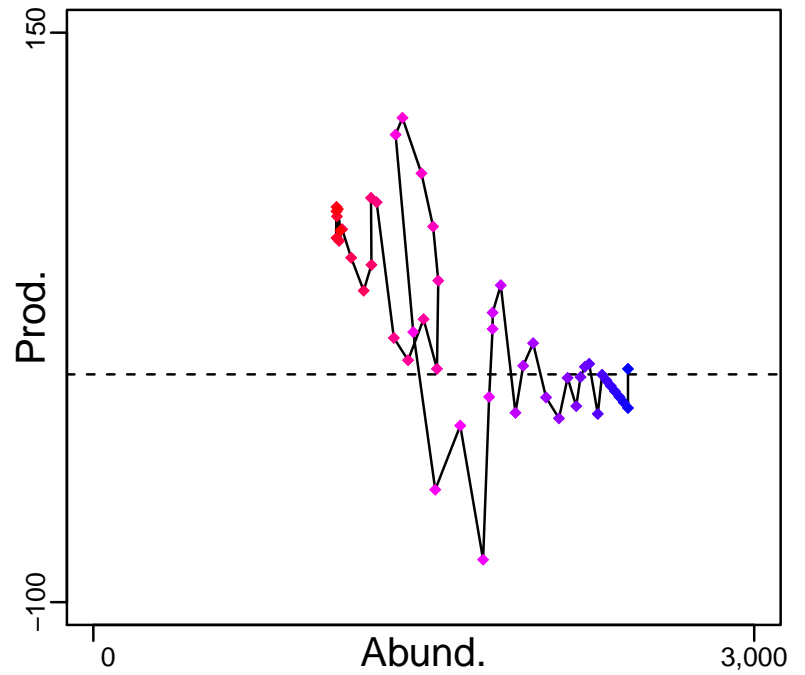
Kobe MGTpref (1965–2014–FU)



Spawner Recruit (1965–2014–FU)



Production (1965–2014–FU)



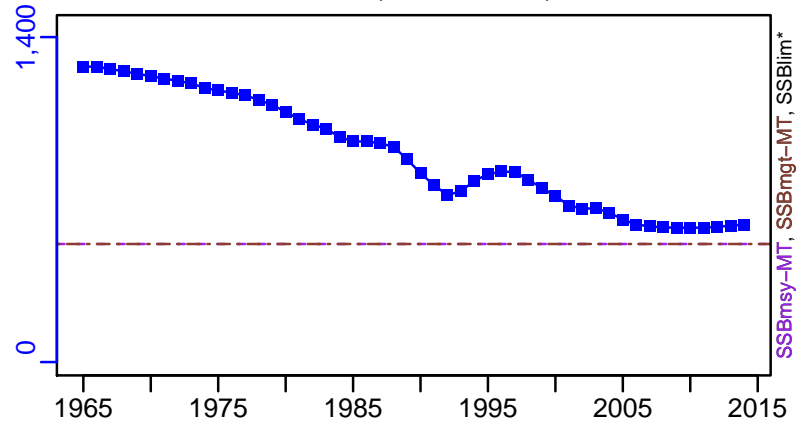
◆ Start Year ◆ End Year * No Data

Black Foot Paua NZ North PAUA5A [PAUANPAU5A]

TB*



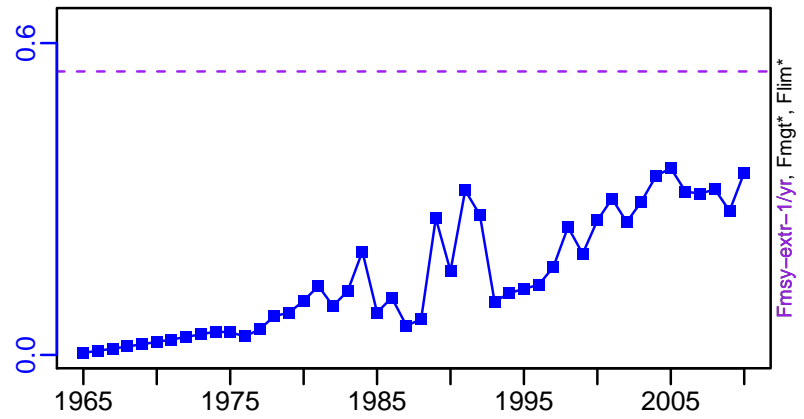
SSB-MT (1965–2014–FU)



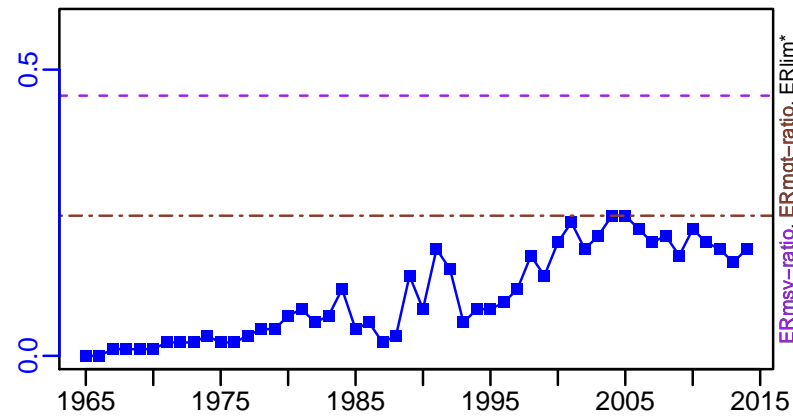
TN *



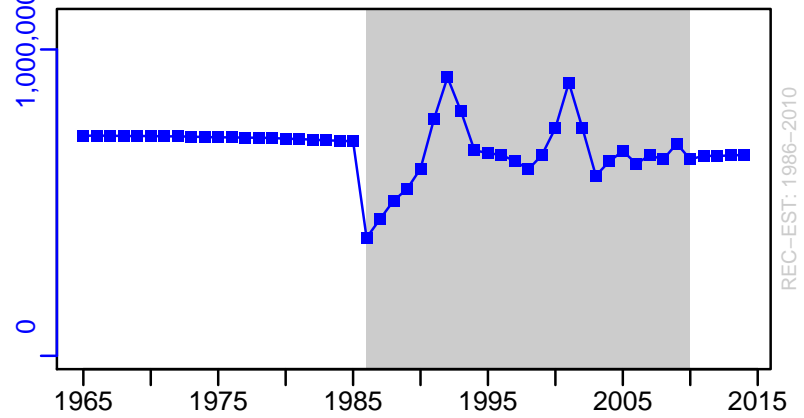
F-1/yr (1965–2010–CORDUE)



ER-ratio (1965–2014–FU)



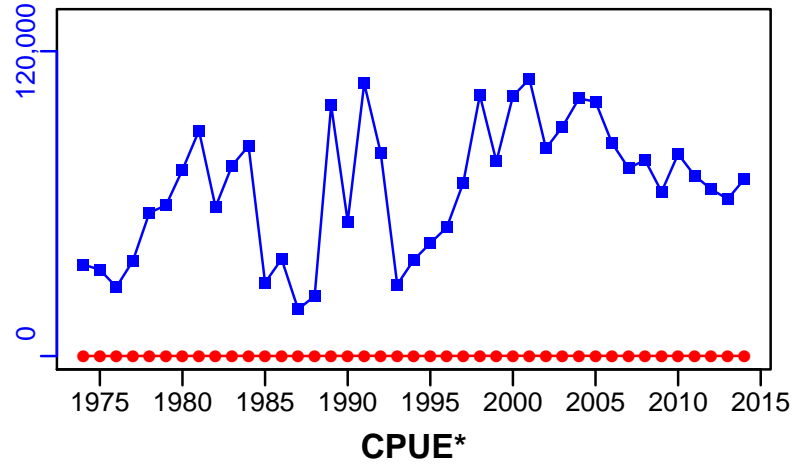
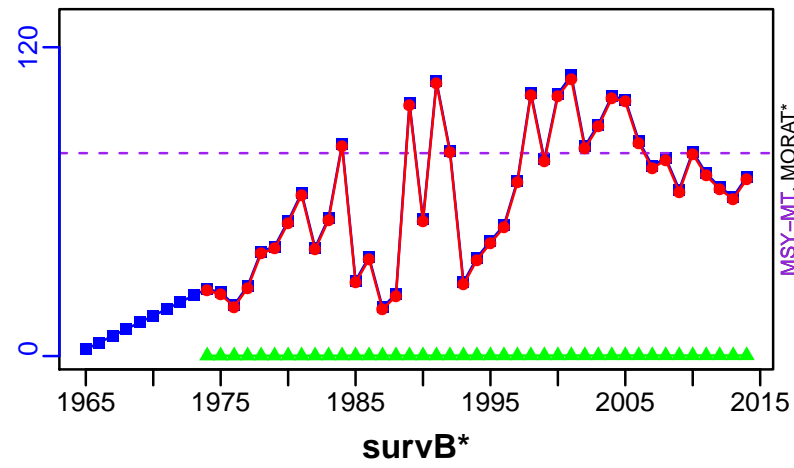
R-E00 (1965–2014–FU)



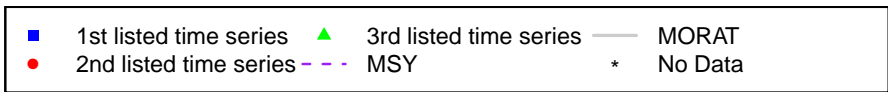
Black Foot Paua NZ North PAUA5A [PAUANPAU5A]

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

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



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New Zealand abalone species New Zealand Area PAU 5B [PAUAPAU5B]

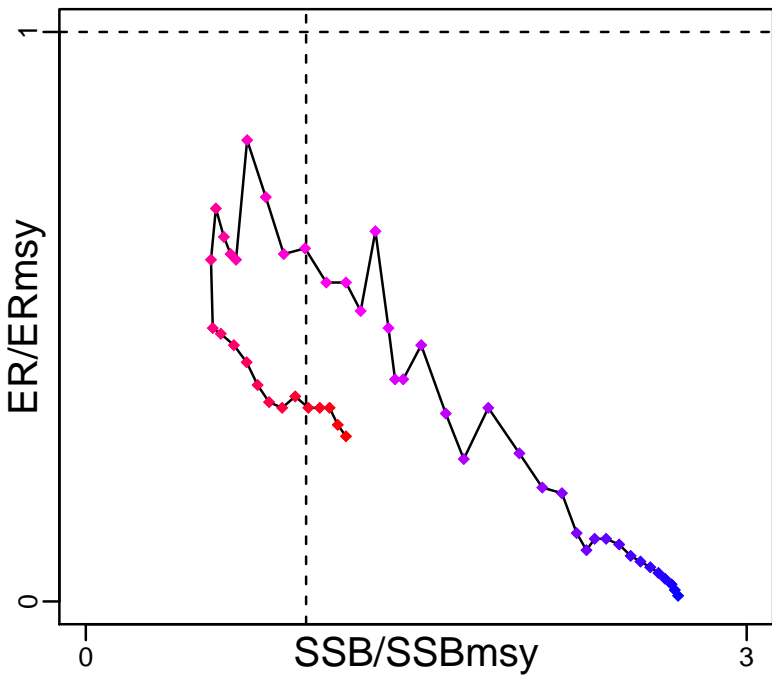
Metadata	
Scientific Name	Haliotis iris
Current Assess ID	NZMFishSHELLFISHWG-PAUAPAU5B-1965-2013-FU
Area	New Zealand Area PAU 5B (Stewart Island)
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Shellfish Working Group
Asmts in RAM	2007, 2013

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
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	-	-	-

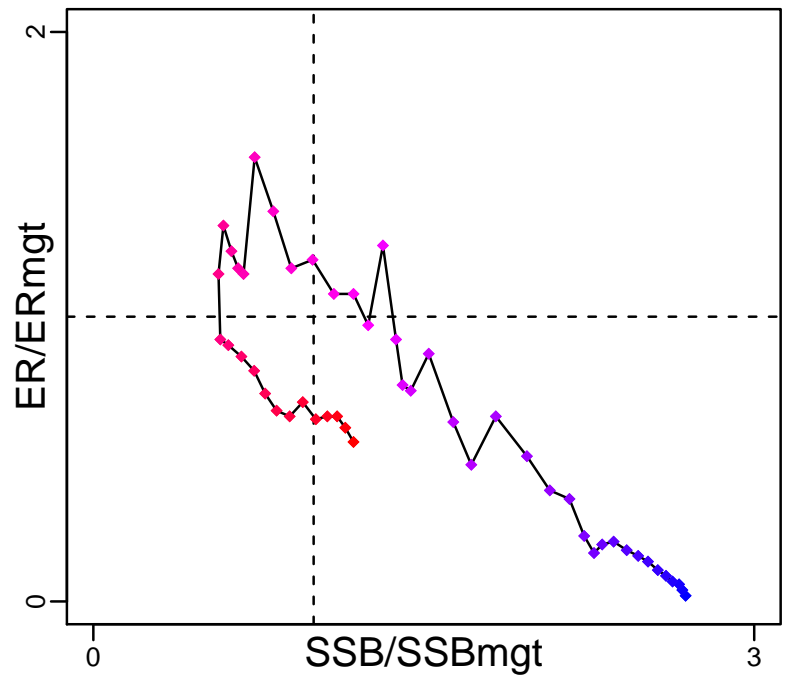
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2007	1570	-	-
SSB	SSB-MT	2013	1590	Both	-
TN	-	-	-	-	-
R	R-E00	2013	1×10^6	Both	-
F	-	-	-	-	-
ER	ER-ratio	2013	0	Both	-
TC	TC-MT	2013	101		
TL	TL-MT	2013	72		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013	1.18		
F/Fmsy	-	-	-		
ER/ERmsy	ERdivERmsy-dimensionless	2013	0.29		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2013	1.18		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

New Zealand abalone species New Zealand Area PAU 5B [PAUAPAU5B]

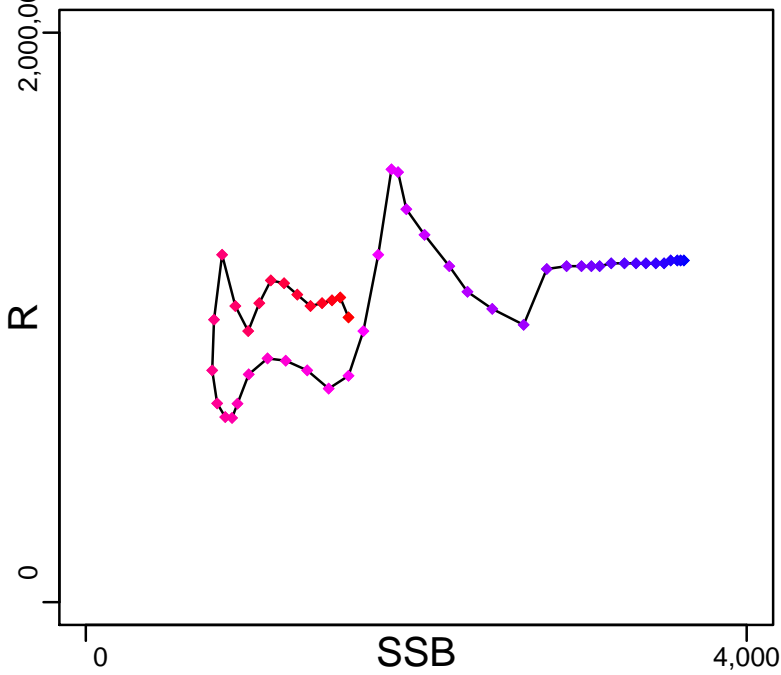
Kobe MSYpref (1965–2013–FU)



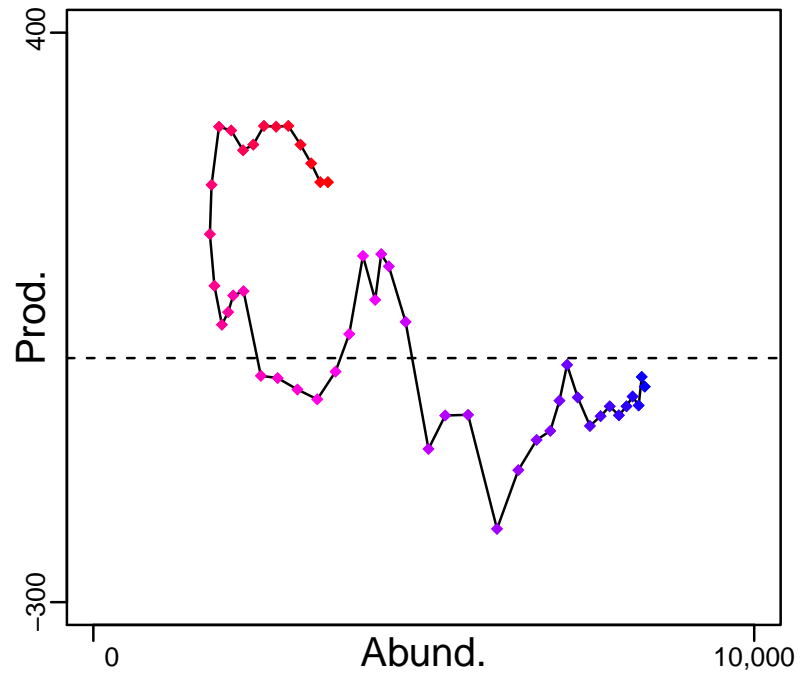
Kobe MGTpref (1965–2013–FU)



Spawner Recruit (1965–2013–FU)



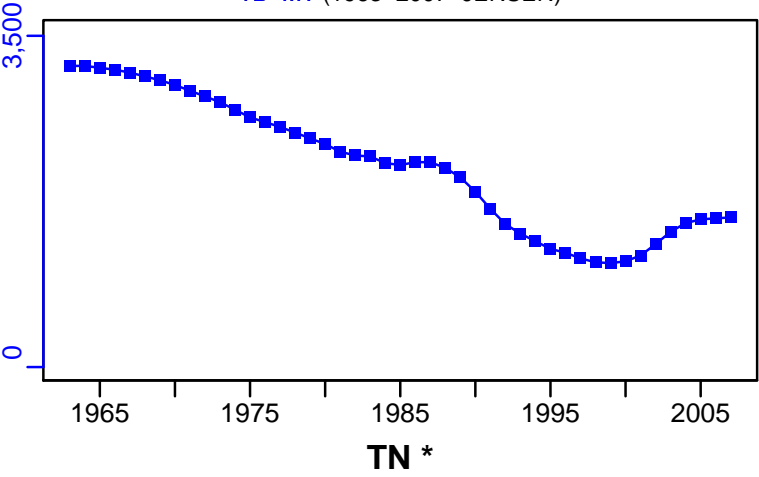
Production (1965–2013–FU)



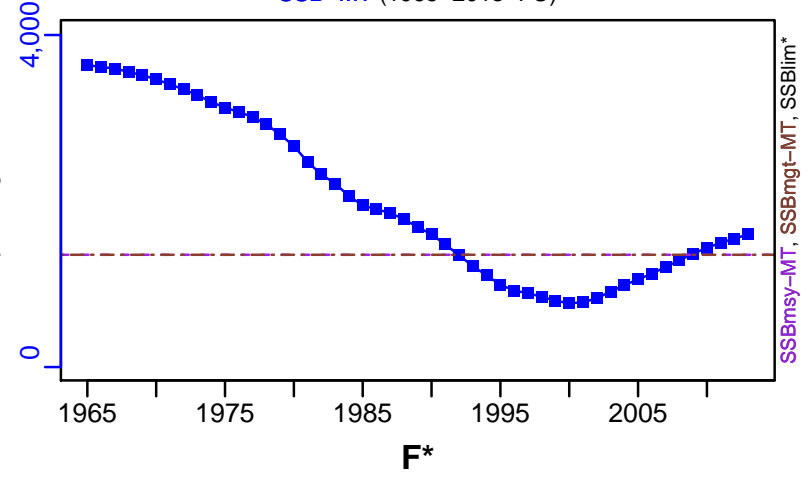
◆ Start Year ◆ End Year * No Data

New Zealand abalone species New Zealand Area PAU 5B [PAUAPAU5B]

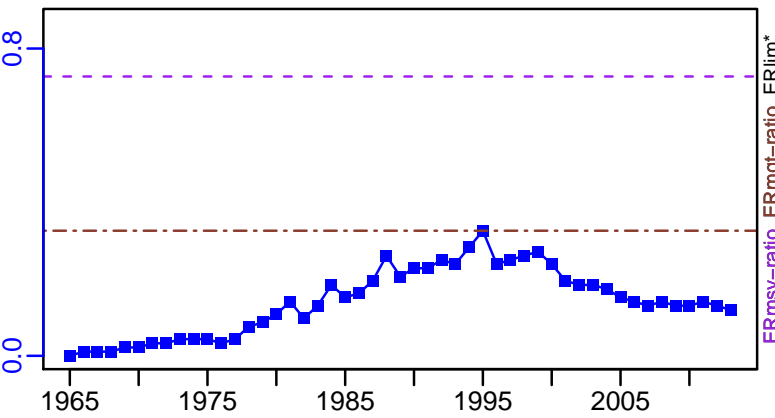
TB-MT (1963–2007–JENSEN)



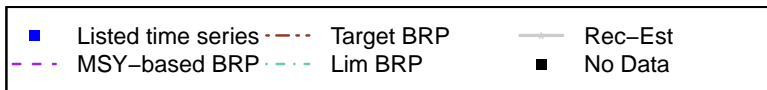
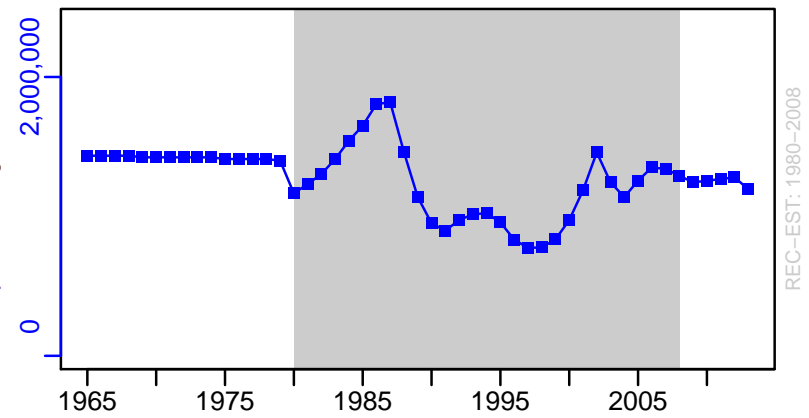
SSB-MT (1965–2013–FU)



ER-ratio (1965–2013–FU)



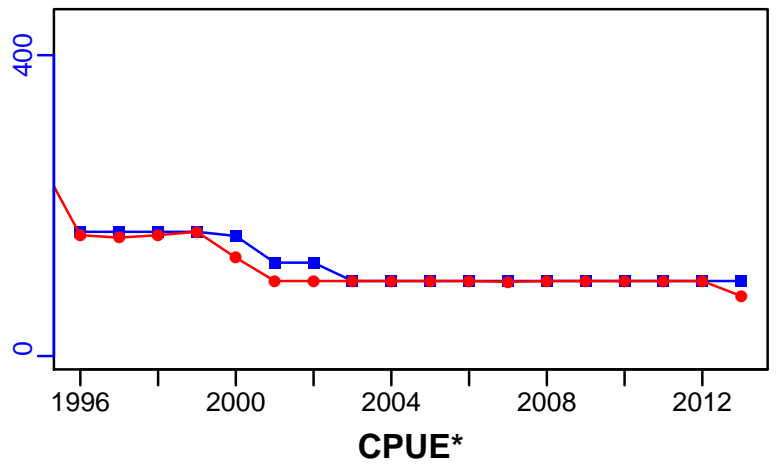
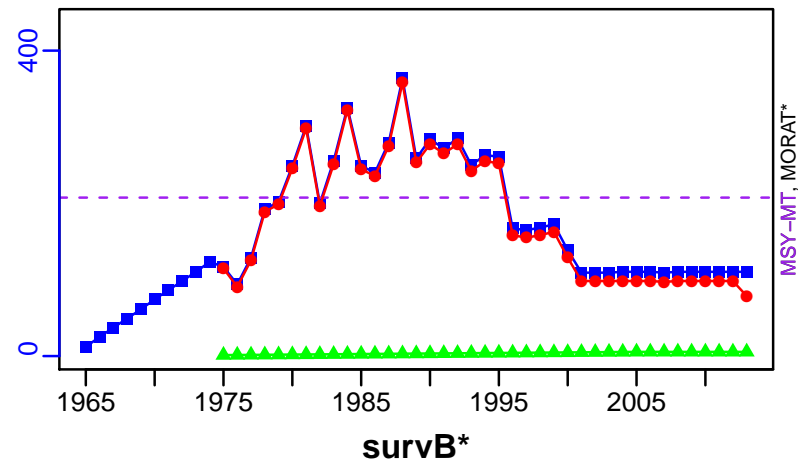
R-E00 (1965–2013–FU)



New Zealand abalone species New Zealand Area PAU 5B [PAUAPAU5B]

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

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



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New Zealand abalone species New Zealand Area PAU 5D [PAUAPAU5D]

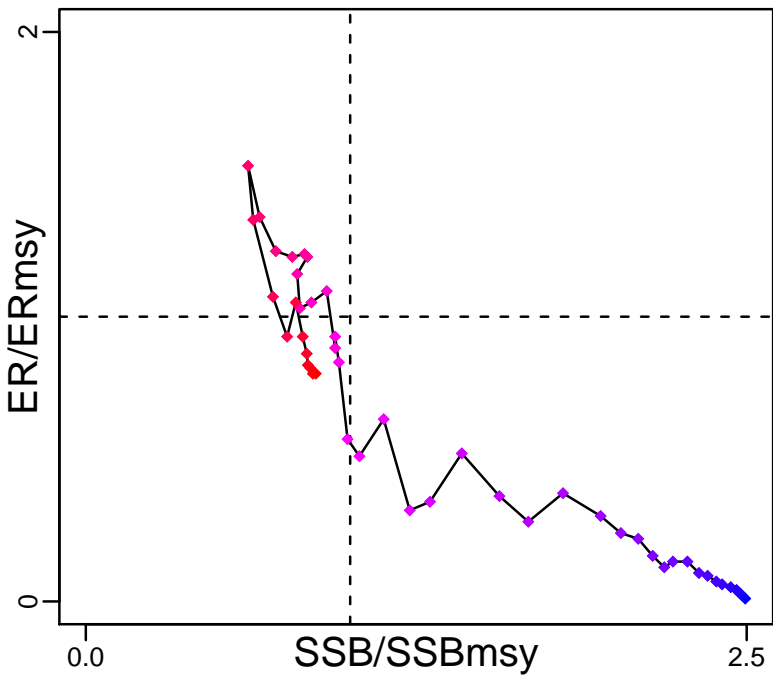
Metadata	
Scientific Name	Haliotis iris
Current Assess ID	NZMFishSHELLFISHWG-PAUAPAU5D-1965-2012-FU
Area	New Zealand Area PAU 5D (Otago)
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Shellfish Working Group
Asmts in RAM	2006, 2012

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
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	-	-	-

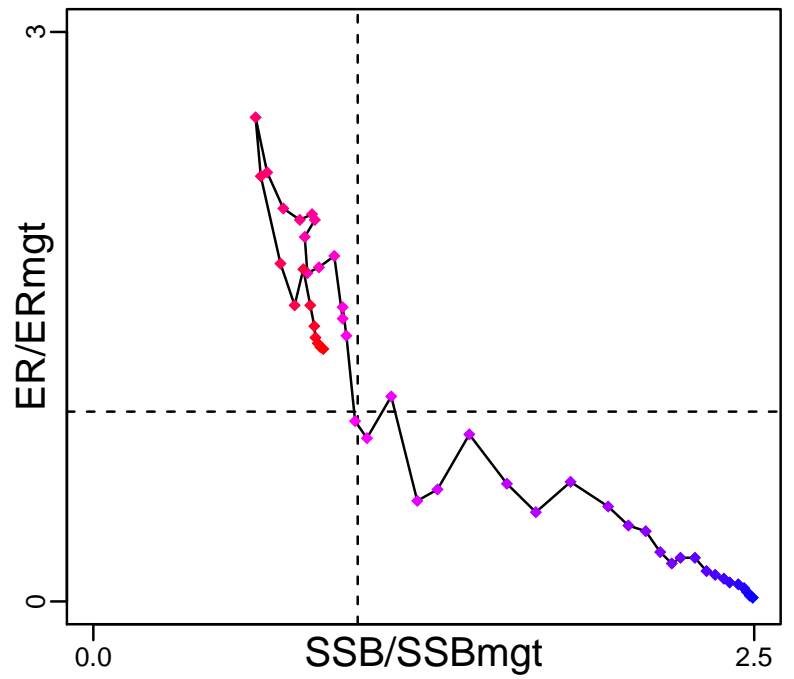
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2006	400	-	-
SSB	SSB-MT	2012	795	-	-
TN	-	-	-	-	-
R	R-E00	2012	884,000	Both	-
F	-	-	-	-	-
ER	ER-ratio	2012	0	Both	-
TC	TC-MT	2012	111		
TL	TL-MT	2012	88.7		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2012	0.87		
F/Fmsy	-	-	-		
ER/ERmsy	ERdivERmsy-dimensionless	2012	0.8		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2012	0.87		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

New Zealand abalone species New Zealand Area PAU 5D [PAUAPAU5D]

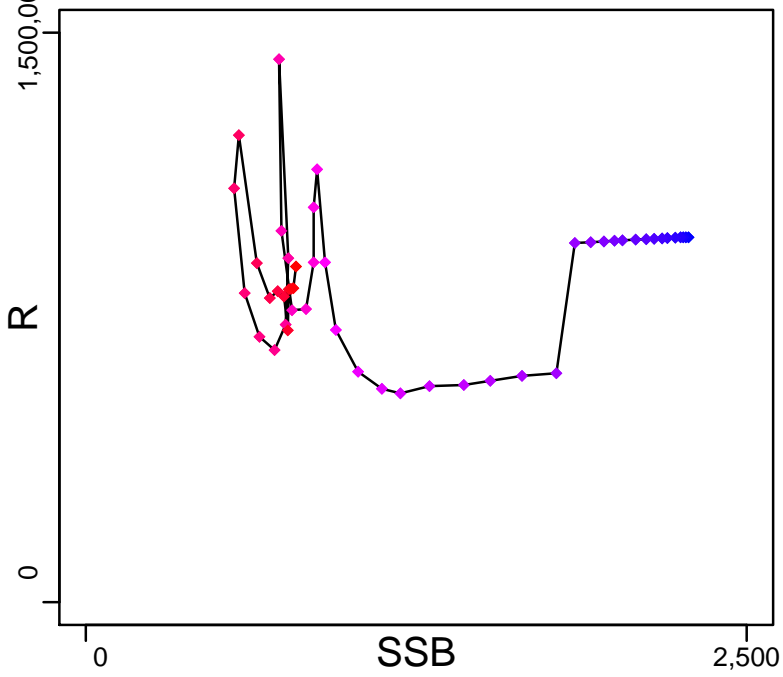
Kobe MSYpref (1965–2012–FU)



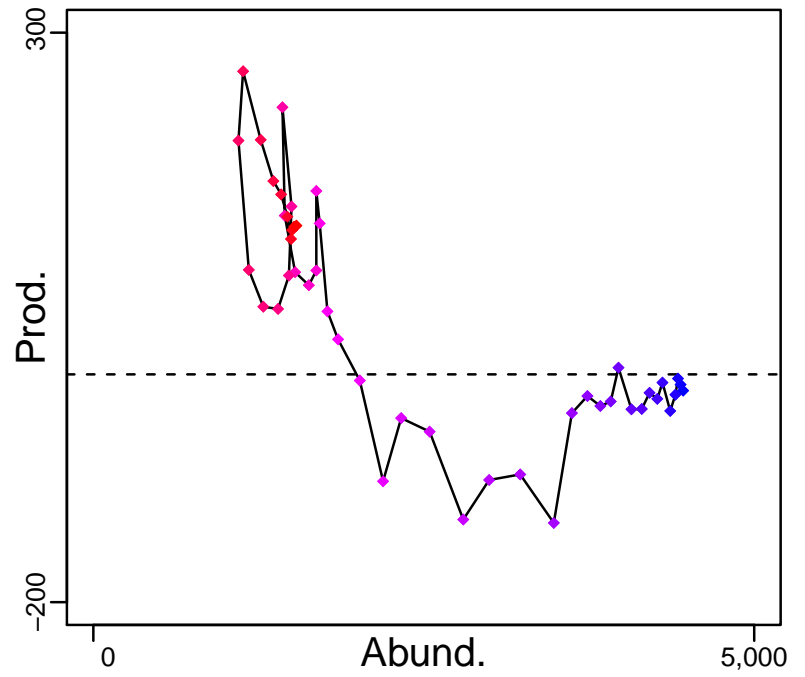
Kobe MGTpref (1965–2012–FU)



Spawner Recruit (1965–2012–FU)



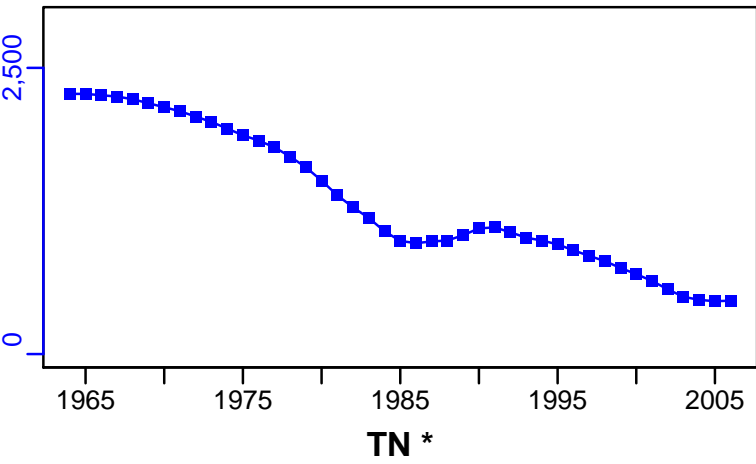
Production (1965–2012–FU)



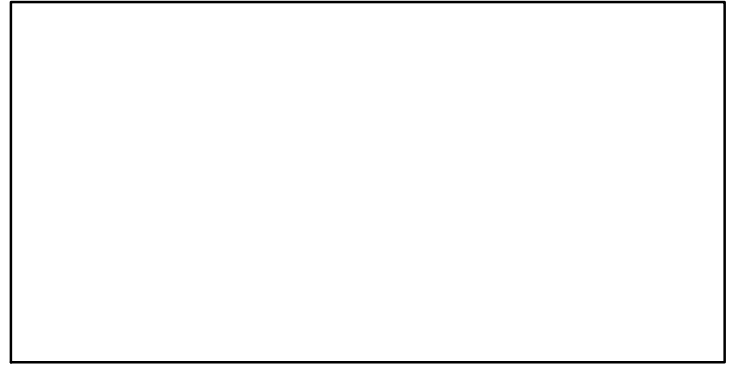
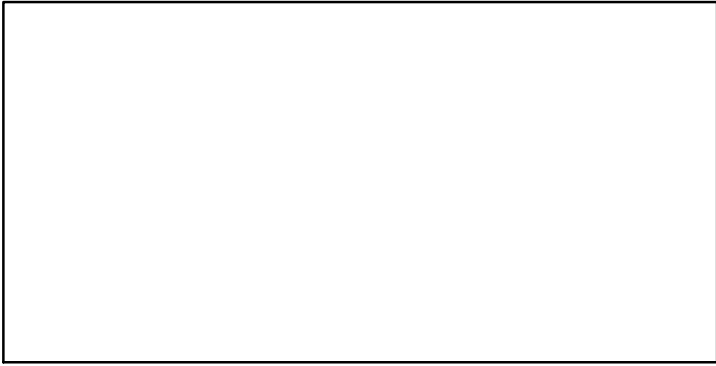
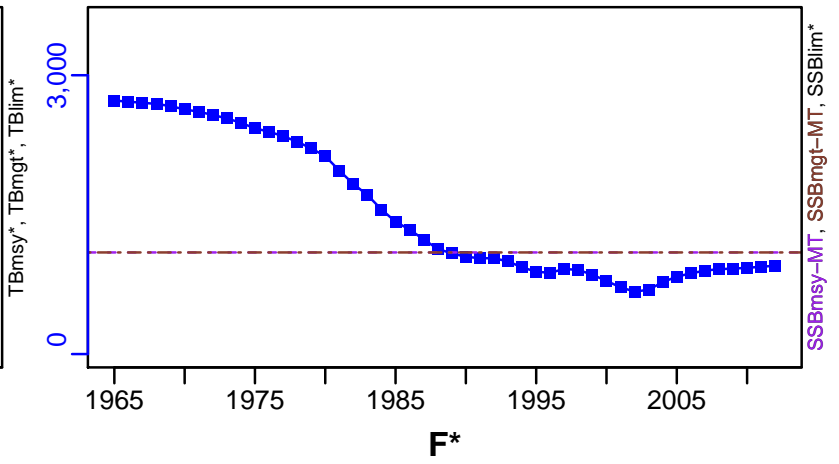
◆ Start Year ◆ End Year * No Data

New Zealand abalone species New Zealand Area PAU 5D [PAUAPAU5D]

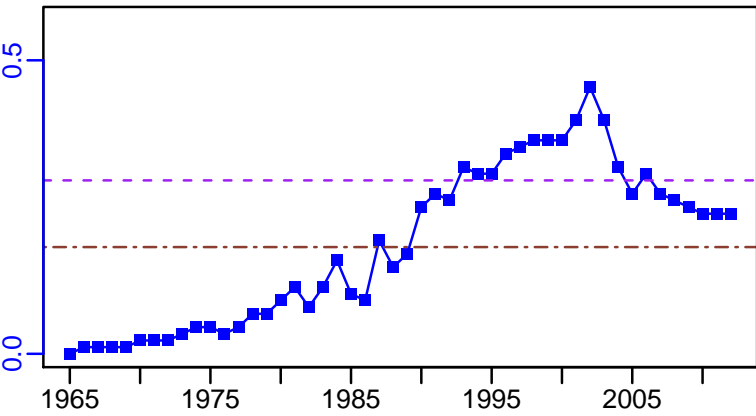
TB-MT (1964–2006–JENSEN)



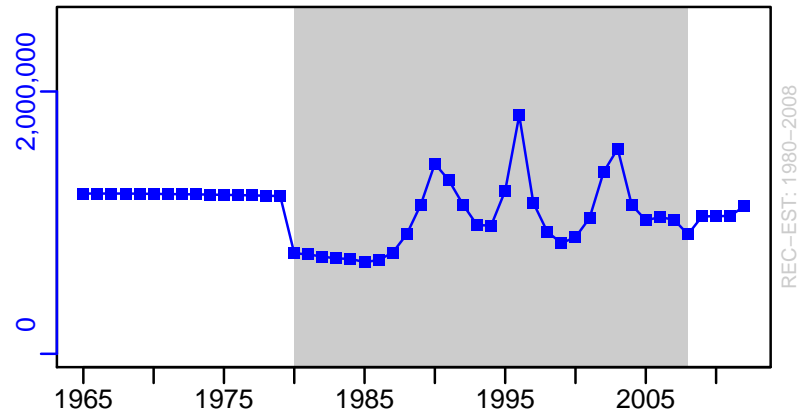
SSB-MT (1965–2012–FU)



ER-ratio (1965–2012–FU)



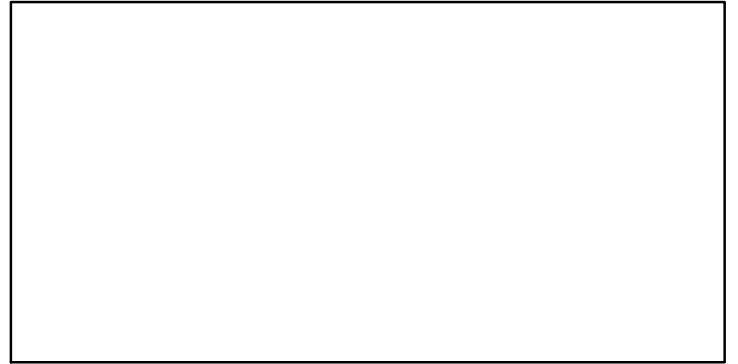
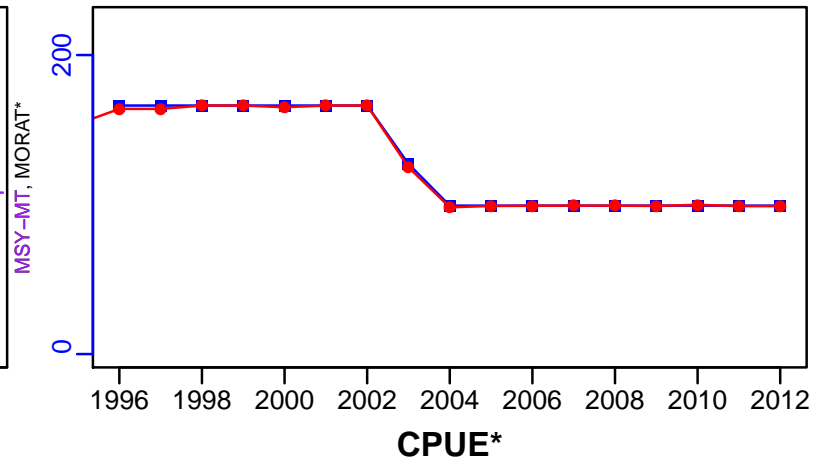
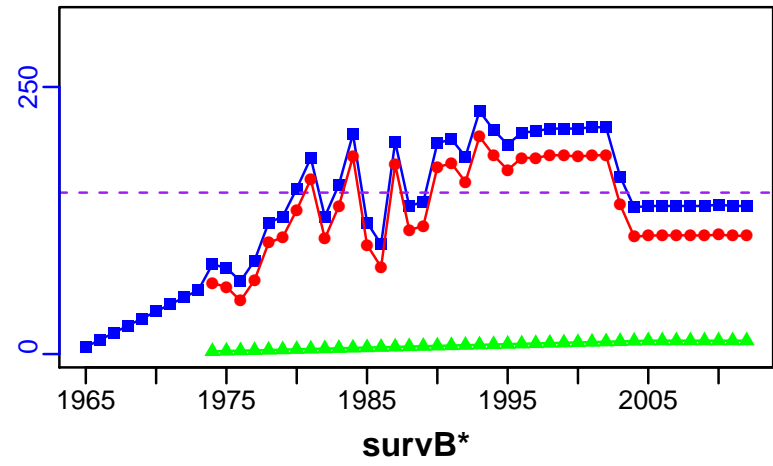
R-E00 (1965–2012–FU)



New Zealand abalone species New Zealand Area PAU 5D [PAUAPAU5D]

TC-MT, TL-MT, RecC-MT (1965-2012-FU)

TAC-MT, Cpair-MT, Cadv* (1965-2012-FU)



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New Zealand abalone species New Zealand Area PAU 7 [PAUAPAU7]

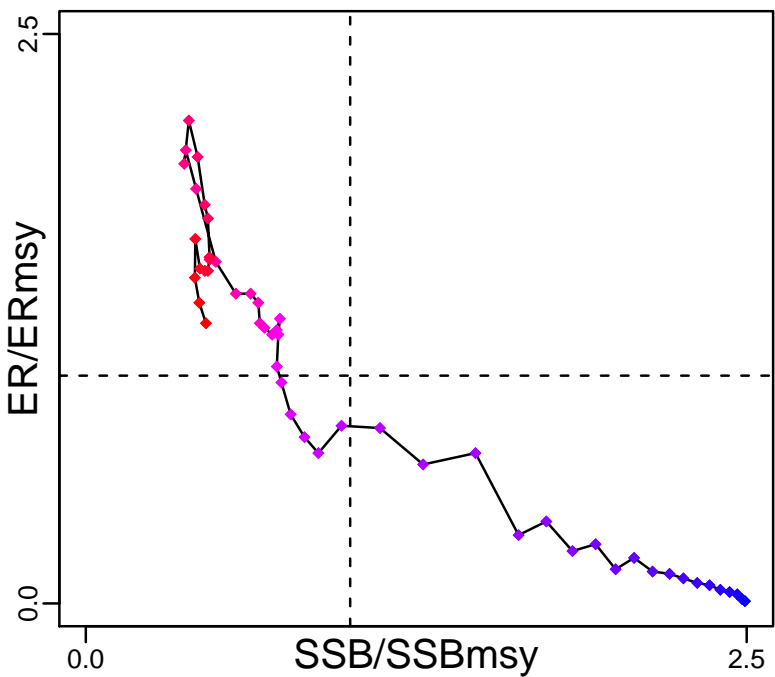
Metadata	
Scientific Name	Haliotis iris
Current Assess ID	NIWA-PAUAPAU7-1965-2015-FU
Area	New Zealand Area PAU 7 (Marlborough)
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2011, 2015

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2011	655
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	-	-	-

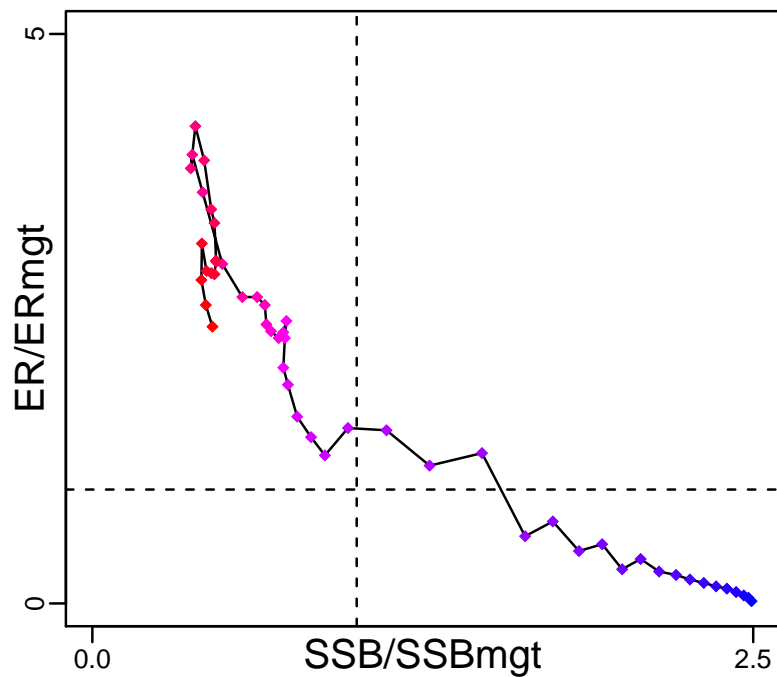
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2015	780	Both	-
TN	-	-	-	-	-
R	R-E00	2015	1,180,000	Both	-
F	F-1/yr	2011	0	-	-
ER	ER-ratio	2015	0	Both	-
TC	TC-MT	2015	143		
TL	TL-MT	2015	135		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2015	0.45		
F/Fmsy	FdivFmsy-dimensionless	2011	1.3		
ER/ERmsy	ERdivERmsy-dimensionless	2015	1.23		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2015	0.45		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

New Zealand abalone species New Zealand Area PAU 7 [PAUAPAU7]

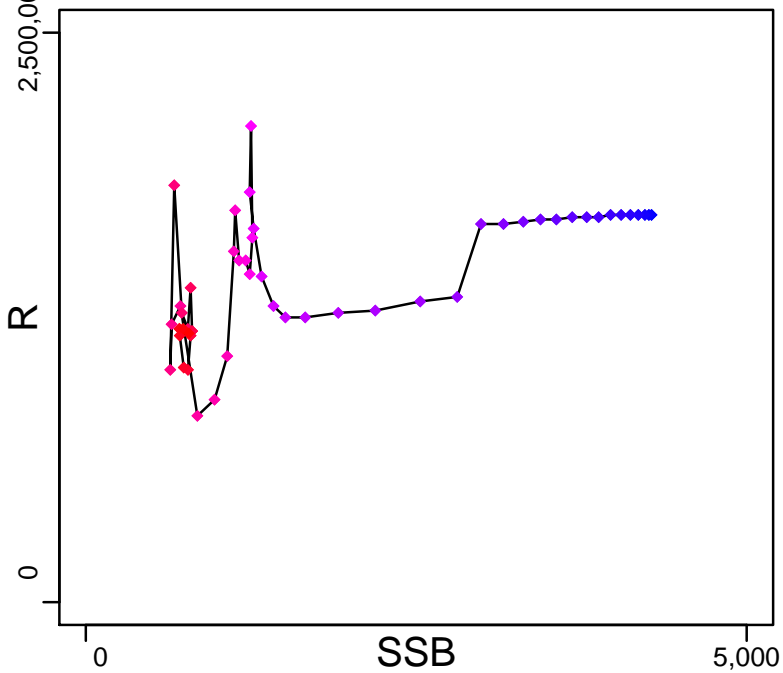
Kobe MSYpref (1965–2015–FU)



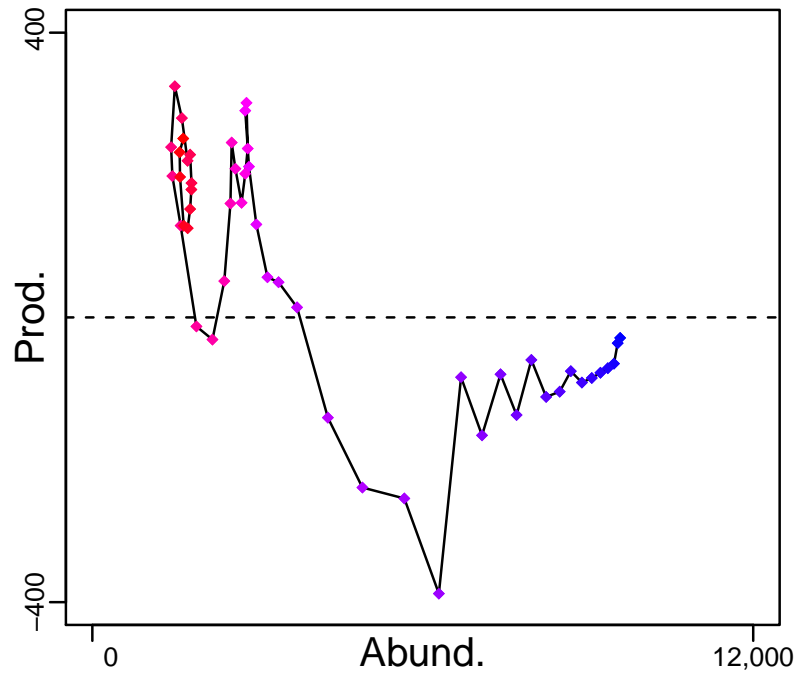
Kobe MGTpref (1965–2015–FU)



Spawner Recruit (1965–2015–FU)



Production (1965–2015–FU)



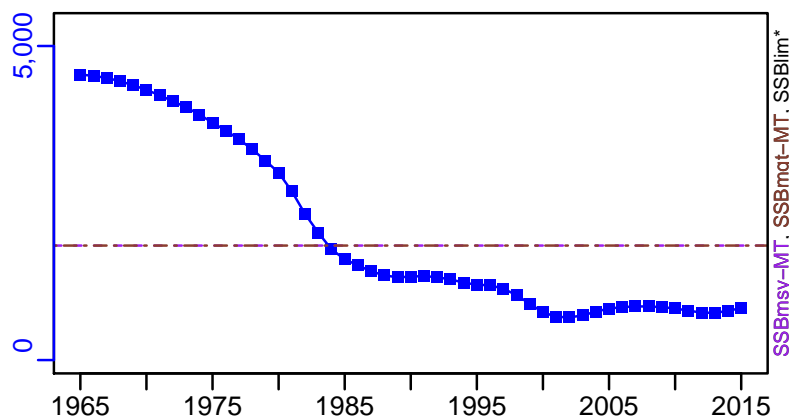
◆ Start Year ◆ End Year * No Data

New Zealand abalone species New Zealand Area PAU 7 [PAU7PAU7]

TB*



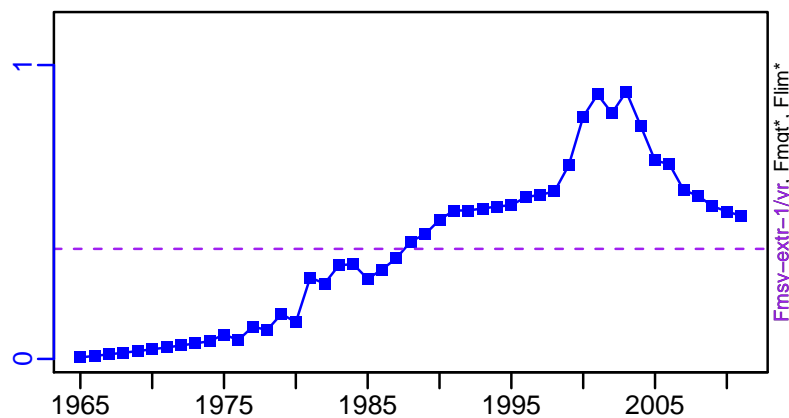
SSB-MT (1965–2015–FU)



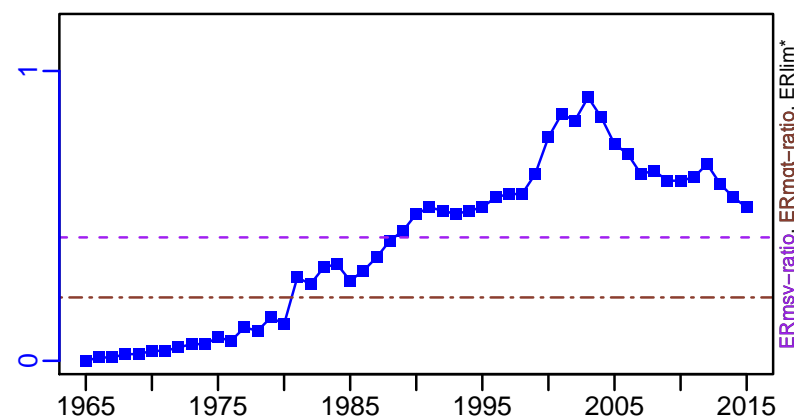
TN *



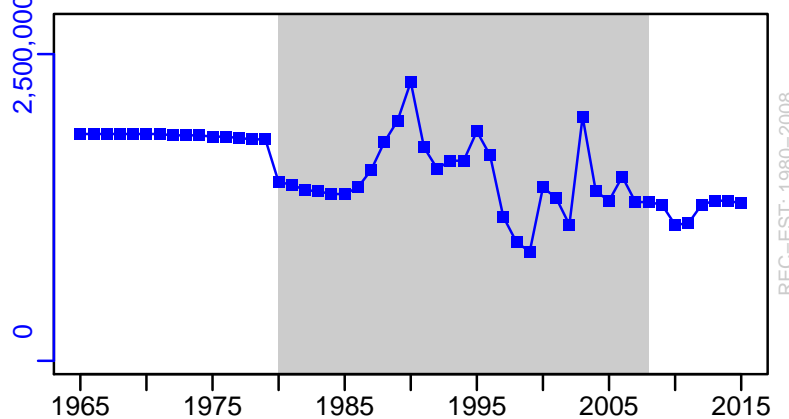
F-1/yr (1965–2011–CORDUE)



ER-ratio (1965–2015–FU)



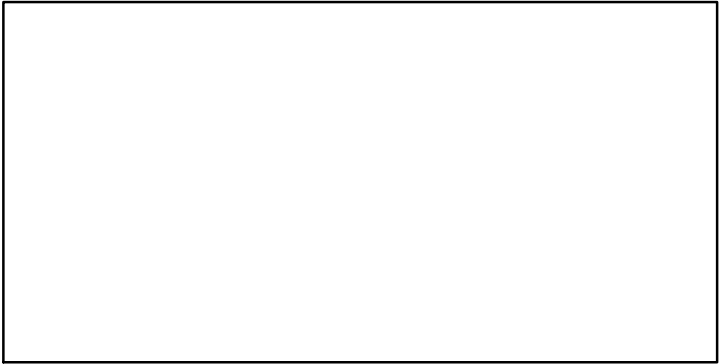
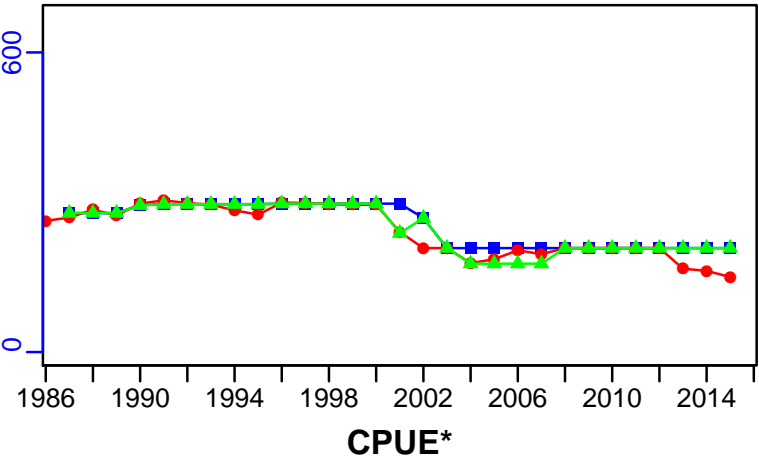
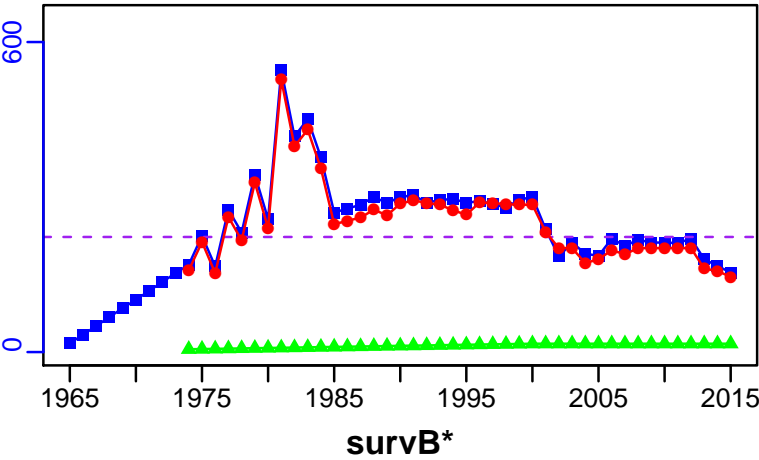
R-E00 (1965–2015–FU)



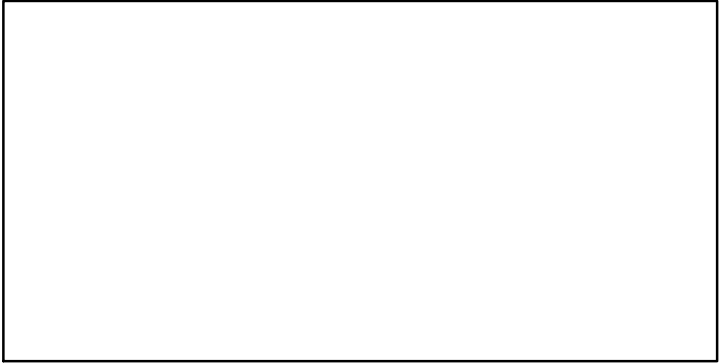
New Zealand abalone species New Zealand Area PAU 7 [PAU7PAU7]

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

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



EFFORT*



Black Foot Paua NZ South PAUA5A [PAUASPAU5A]

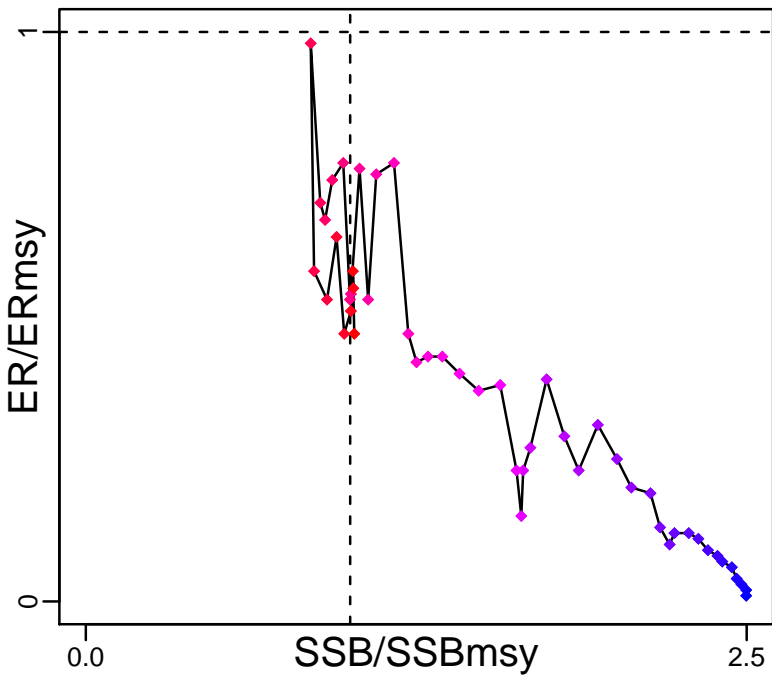
Metadata	
Scientific Name	Haliotis iris
Current Assess ID	NIWA-PAUASPAU5A-1965-2014-FU
Area	NZ Area South PAUA 5A
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2009, 2014

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2009	234
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	-	-	-

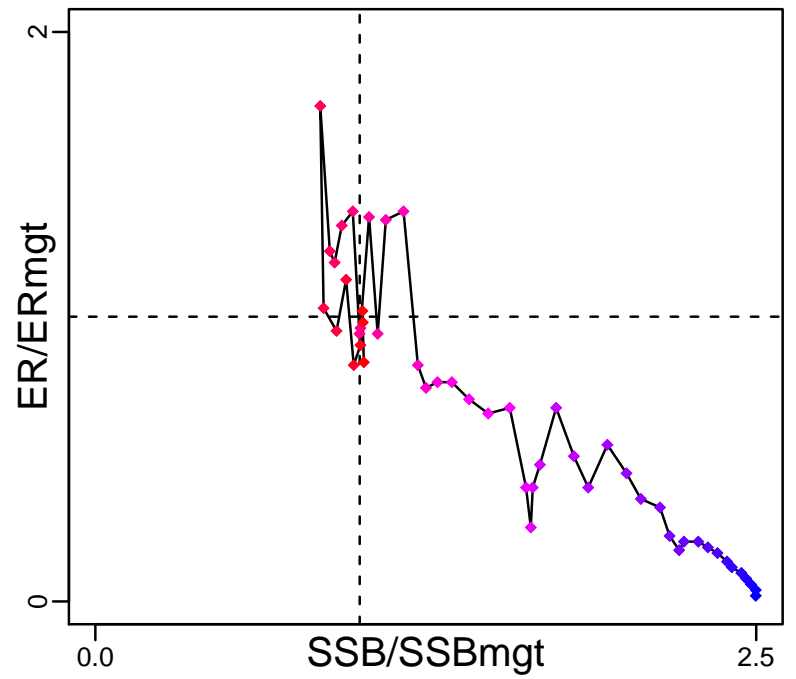
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2014	561	-	-
TN	-	-	-	-	-
R	R-E00	2014	376,000	Both	-
F	F-1/yr	2009	0	-	-
ER	ER-ratio	2014	0	Both	-
TC	TC-MT	2014	45.9		
TL	TL-MT	2014	38.7		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2014	1.02		
F/Fmsy	FdivFmsy-dimensionless	2009	1.06		
ER/ERmsy	ERdivERmsy-dimensionless	2014	0.47		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2014	1.02		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Black Foot Paua NZ South PAUA5A [PAUASPAU5A]

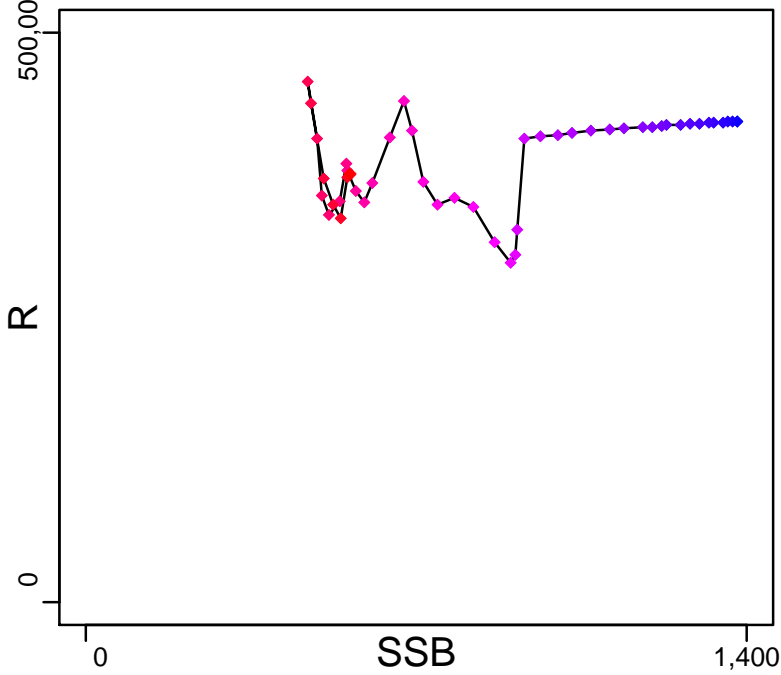
Kobe MSYpref (1965–2014–FU)



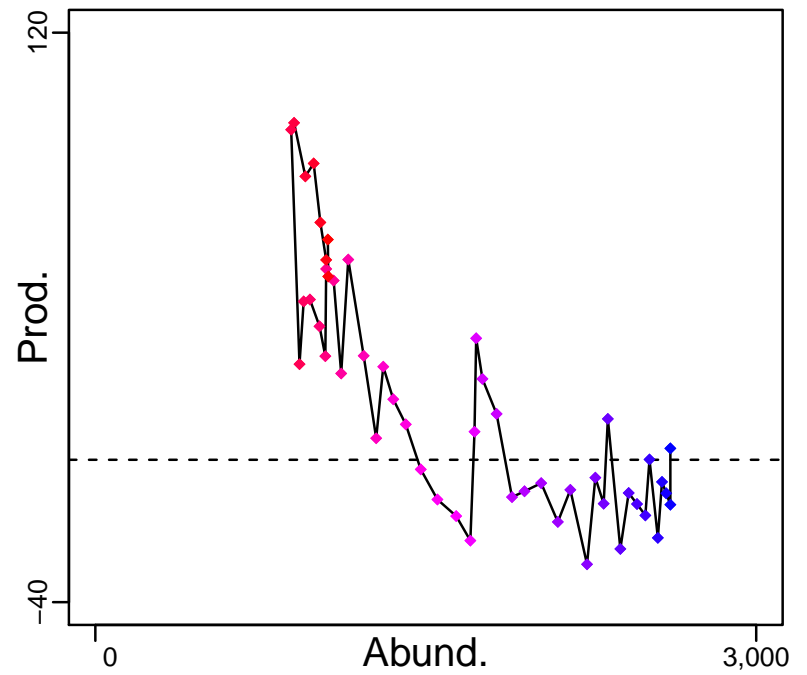
Kobe MGTpref (1965–2014–FU)



Spawner Recruit (1965–2014–FU)



Production (1965–2014–FU)



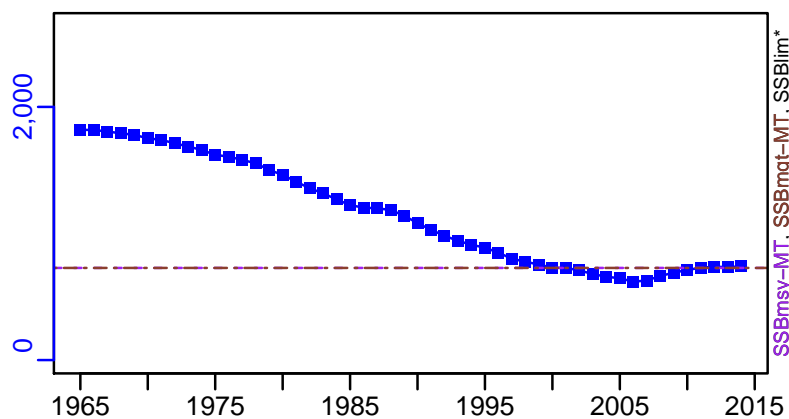
◆ Start Year ◆ End Year * No Data

Black Foot Paua NZ South PAUA5A [PAUASPAU5A]

TB*



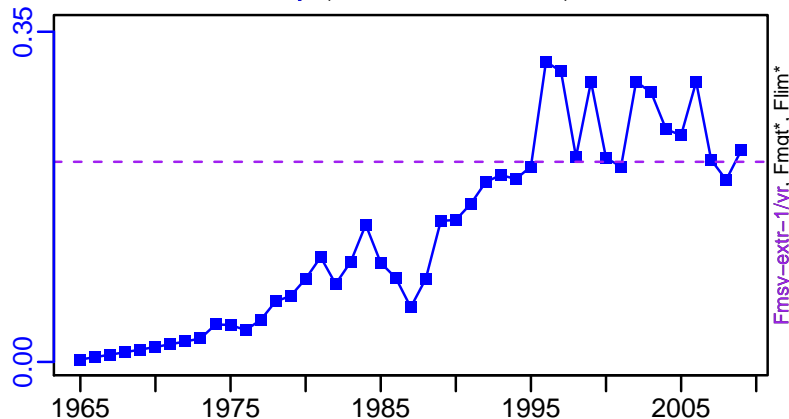
SSB-MT (1965–2014–FU)



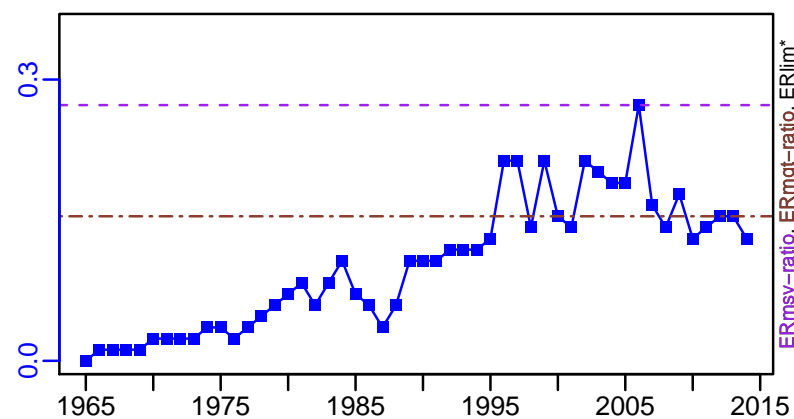
TN *



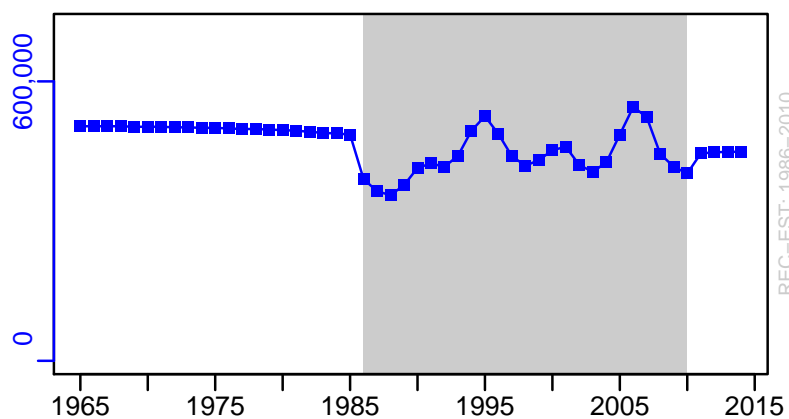
F-1/yr (1965–2009–CORDUE)



ER-ratio (1965–2014–FU)



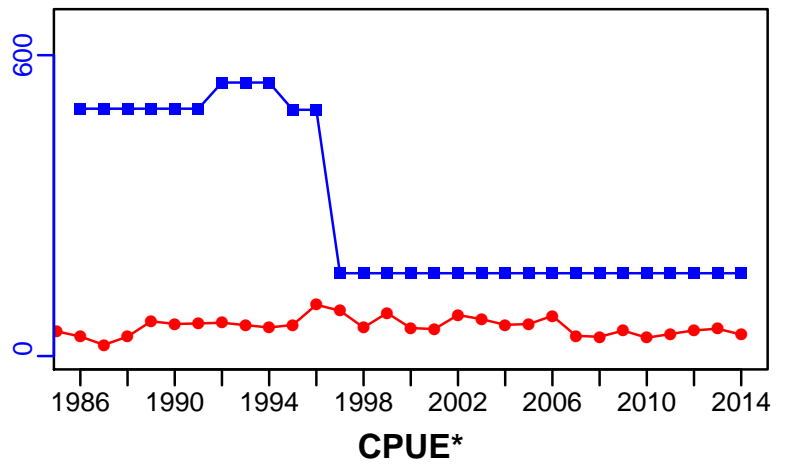
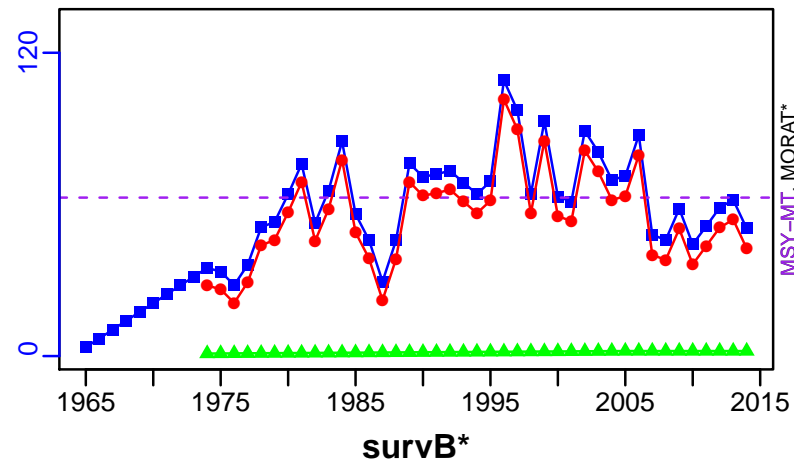
R-E00 (1965–2014–FU)



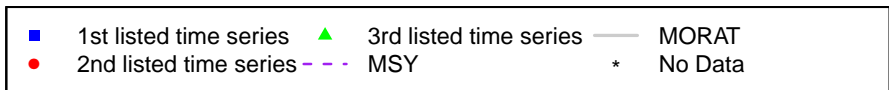
Black Foot Paua NZ South PAUA5A [PAUASPAU5A]

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

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



EFFORT*



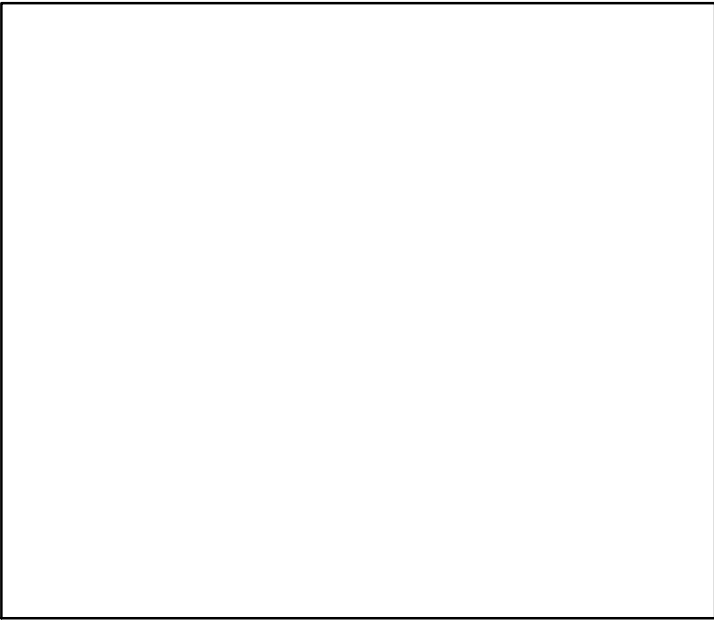
Red rock lobster New Zealand area CRA1 [RROCKLOBSTERCRA1]

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

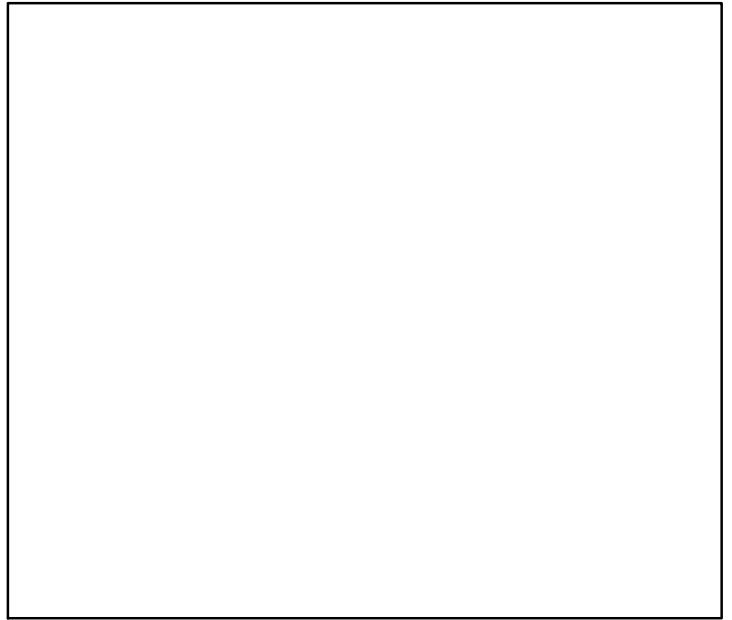
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2014	161
M	M-1/yr	2014	0.12
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

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	Both	-
TC	TC-MT	2014	257		
TL	TL-MT	2014	130		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

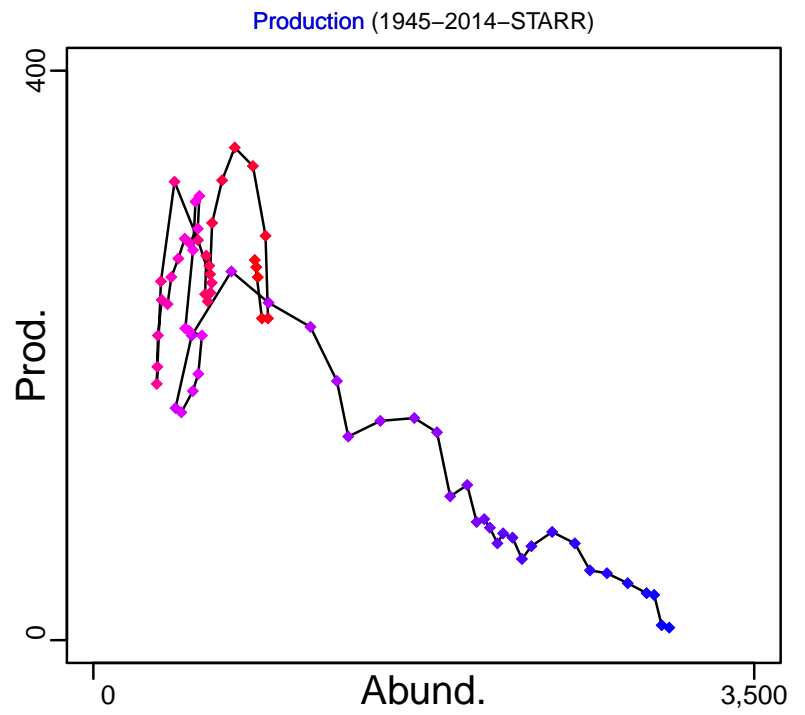
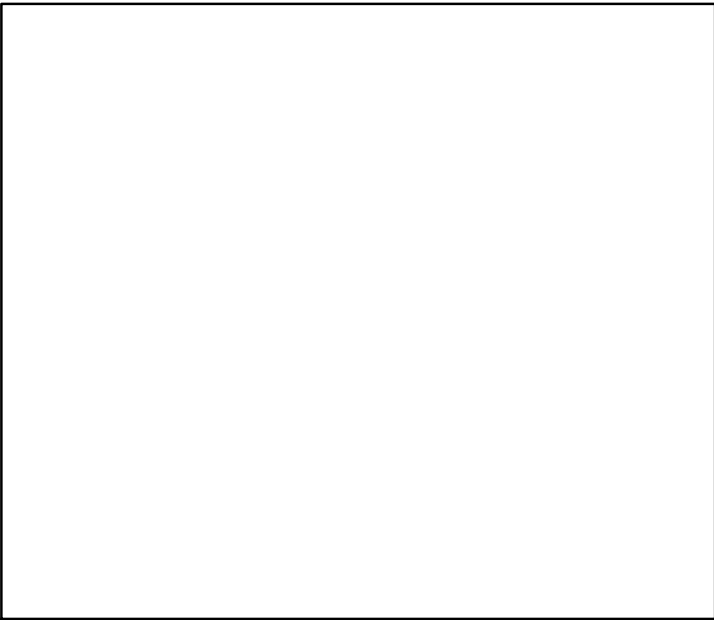
Kobe MSY*



Kobe MGT*



Spawner Recruit*

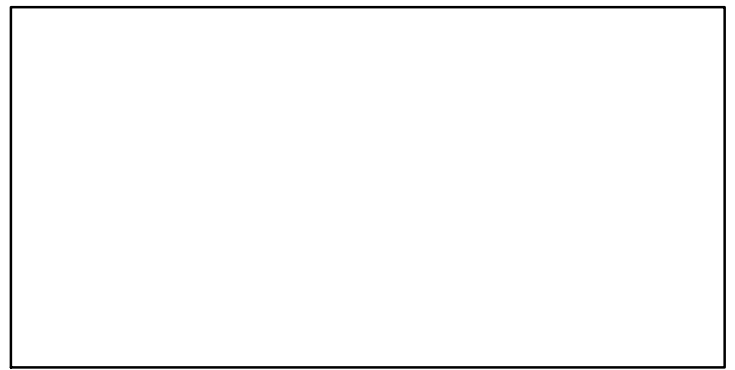
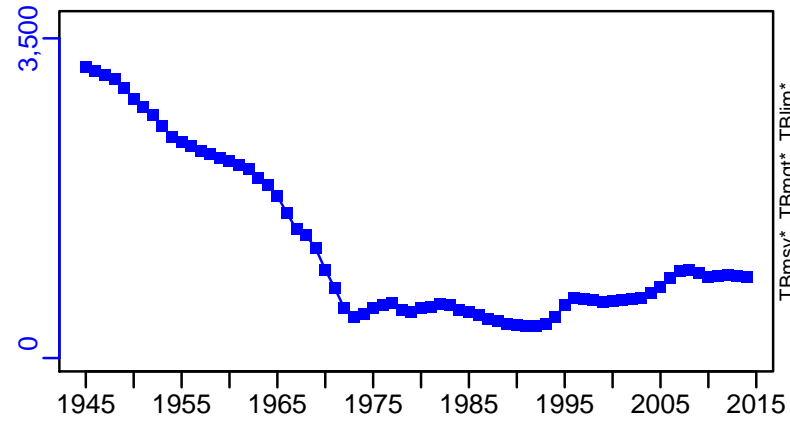


◆ Start Year ◆ End Year * No Data

Red rock lobster New Zealand area CRA1 [RROCKLOBSTERCRA1]

TB-MT (1945–2014–STARR)

SSB*



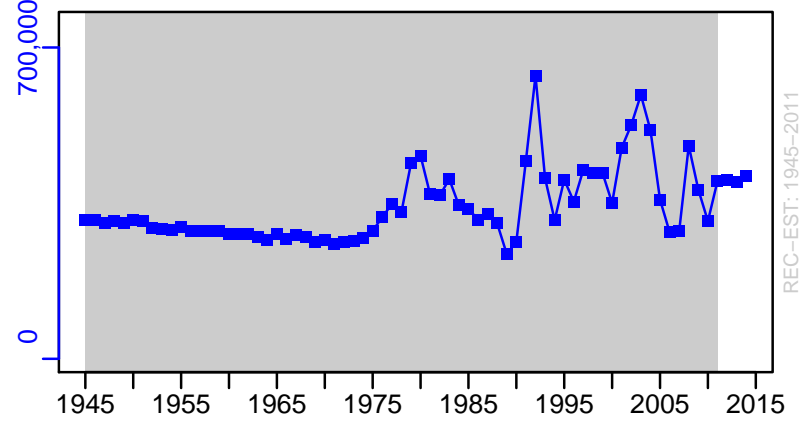
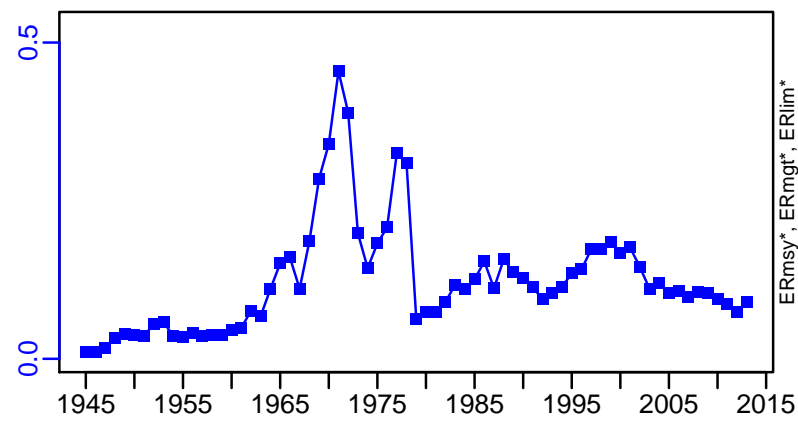
TN *

F*



ER-ratio (1945–2014–STARR)

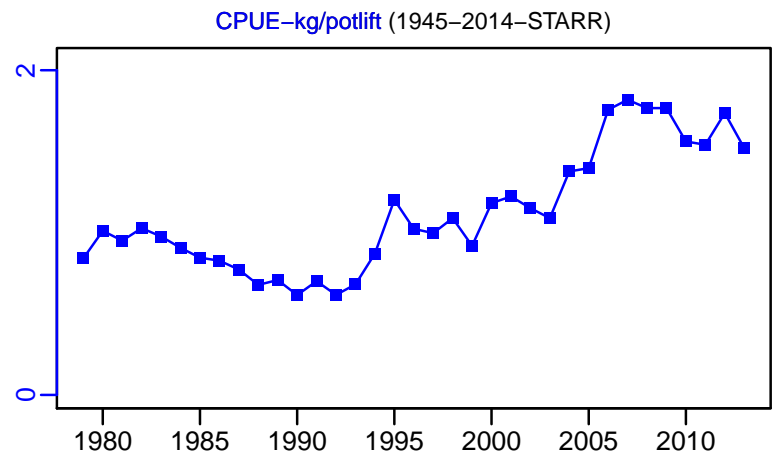
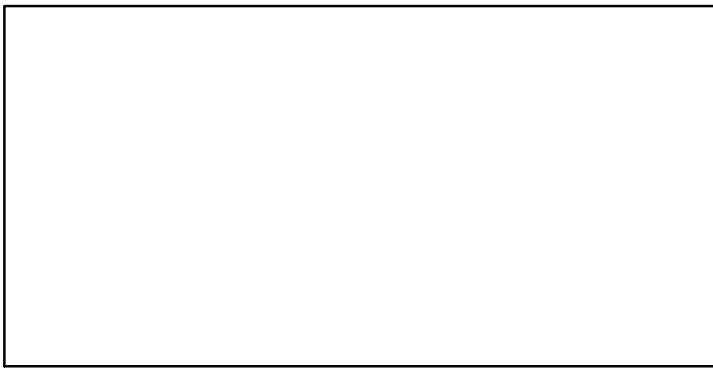
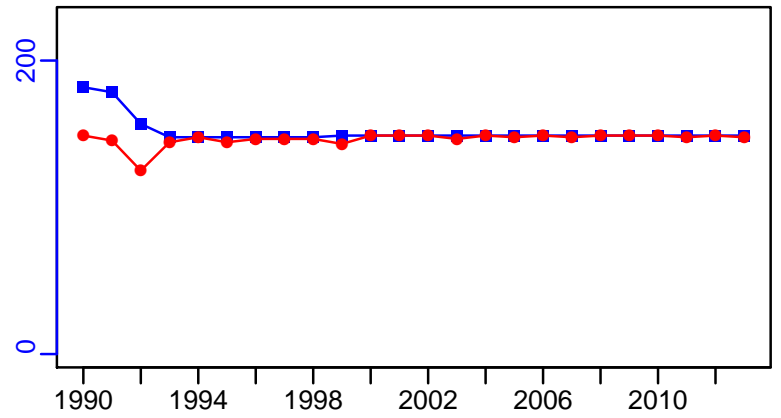
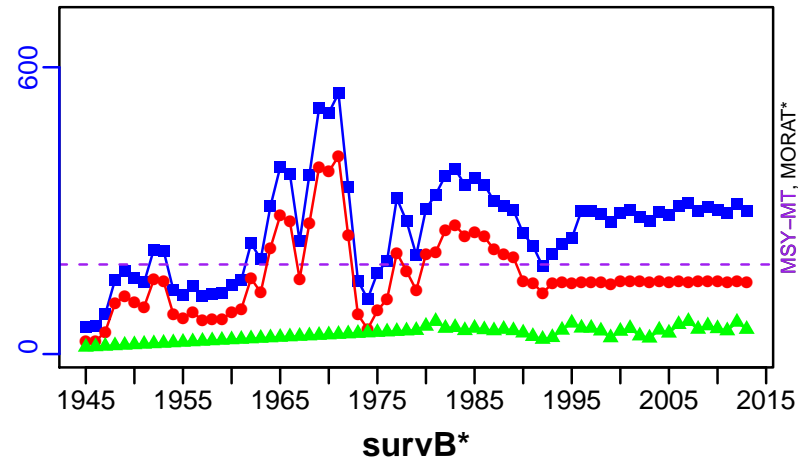
R-E00 (1945–2014–STARR)



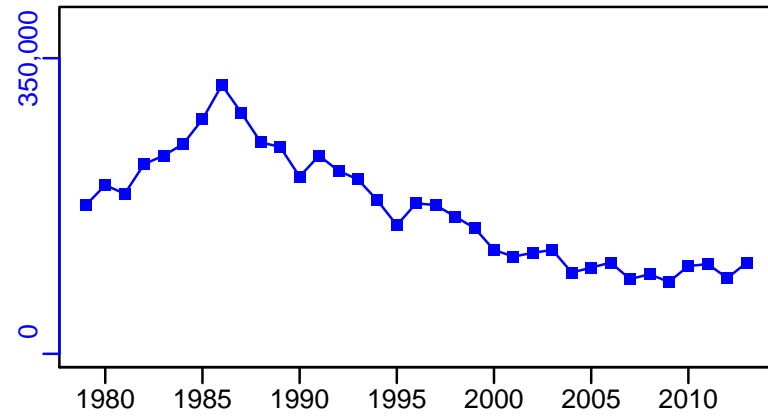
Red rock lobster New Zealand area CRA1 [RROCKLOBSTERCRA1]

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

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



EFFORT-potlift (1945-2014-STARR)



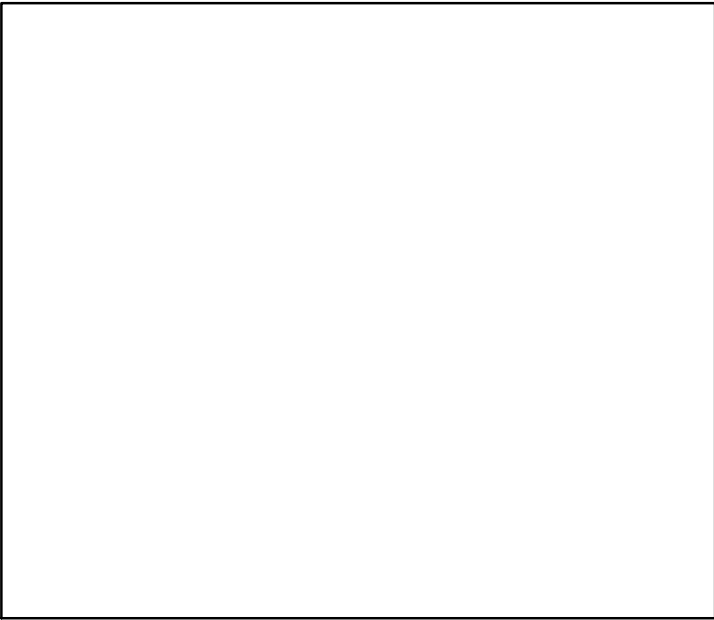
Red rock lobster New Zealand area CRA2 [RROCKLOBSTERCRA2]

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	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2013	266
M	M-1/yr	2013	0.16
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	Both	-
TC	TC-MT	2013	389		
TL	TL-MT	2013	233		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

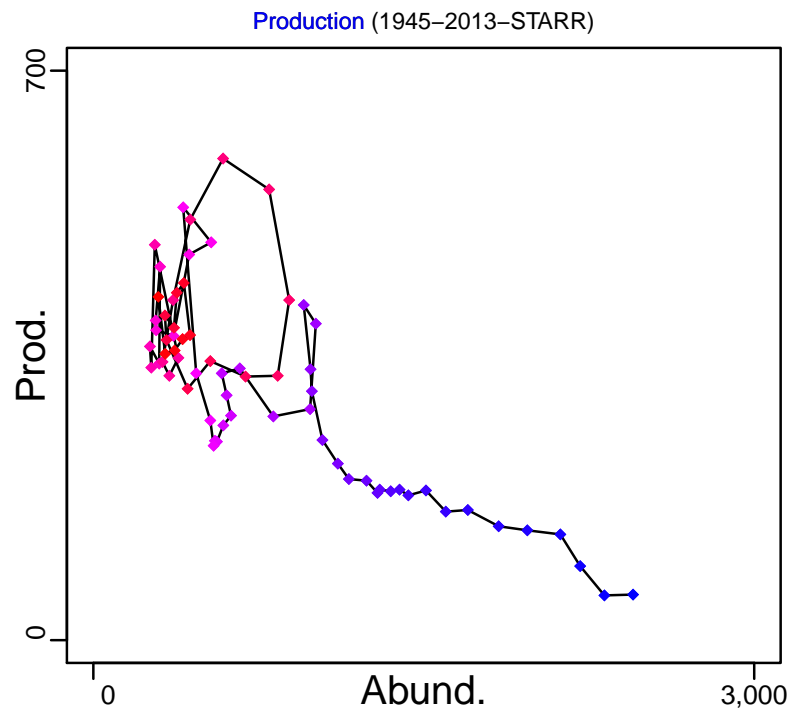
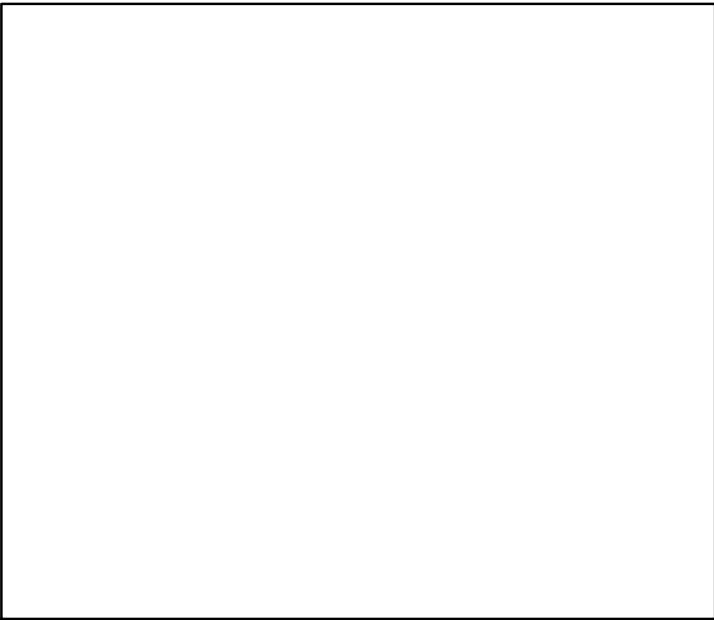
Kobe MSY*



Kobe MGT*



Spawner Recruit*

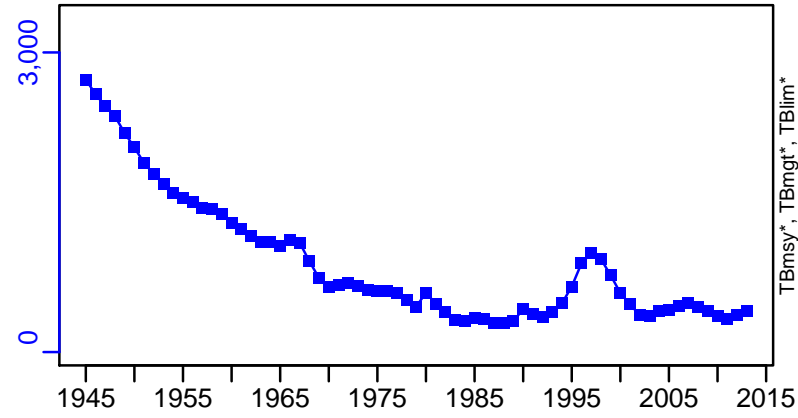


◆ Start Year ◆ End Year * No Data

Red rock lobster New Zealand area CRA2 [RROCKLOBSTERCRA2]

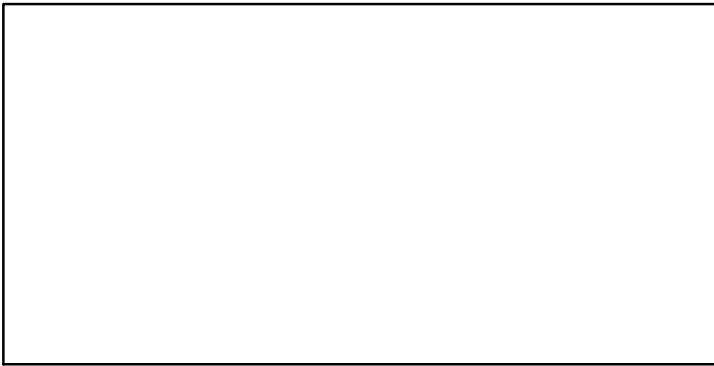
TB-MT (1945–2013–STARR)

SSB*



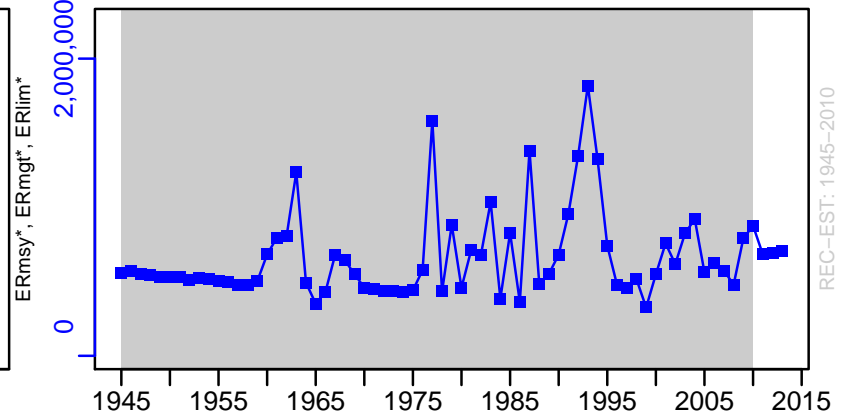
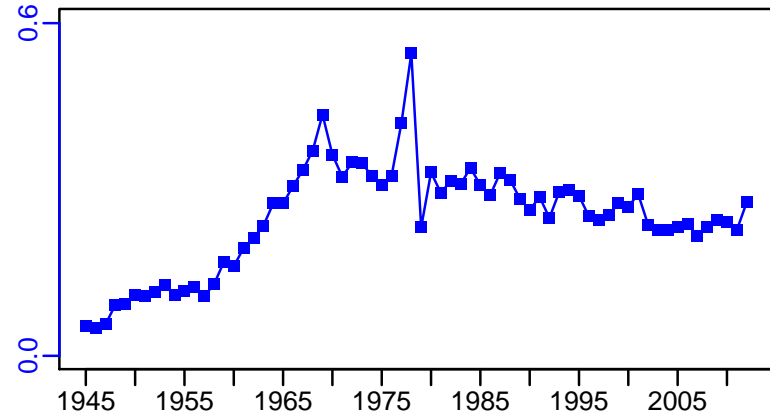
TN *

F*



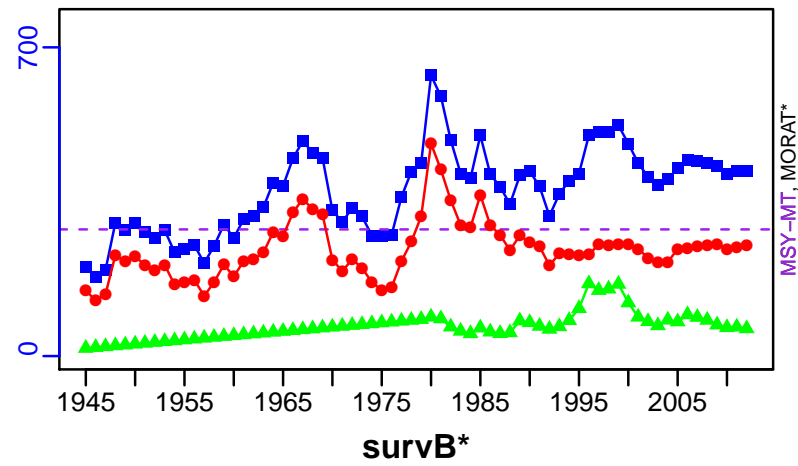
ER-ratio (1945–2013–STARR)

R-E00 (1945–2013–STARR)

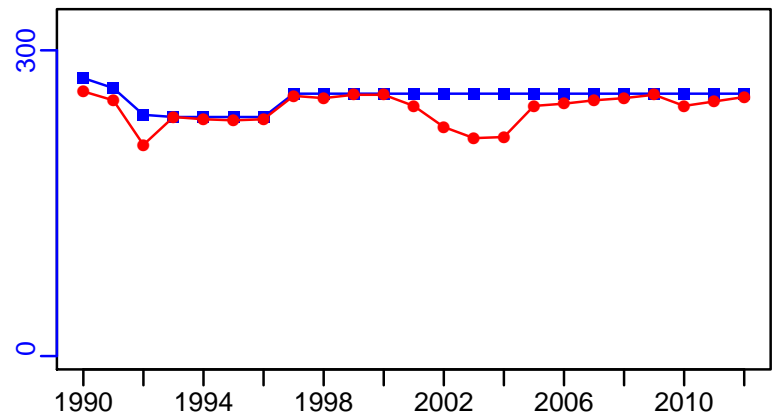


Red rock lobster New Zealand area CRA2 [RROCKLOBSTERCRA2]

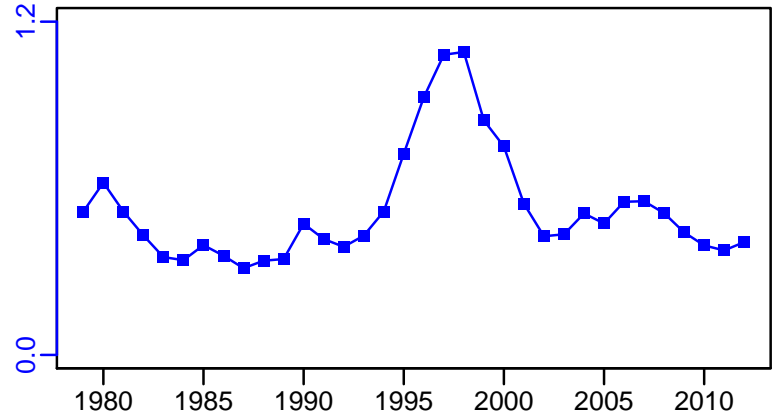
TC-MT, TL-MT, RecC-MT (1945-2013-STARR)



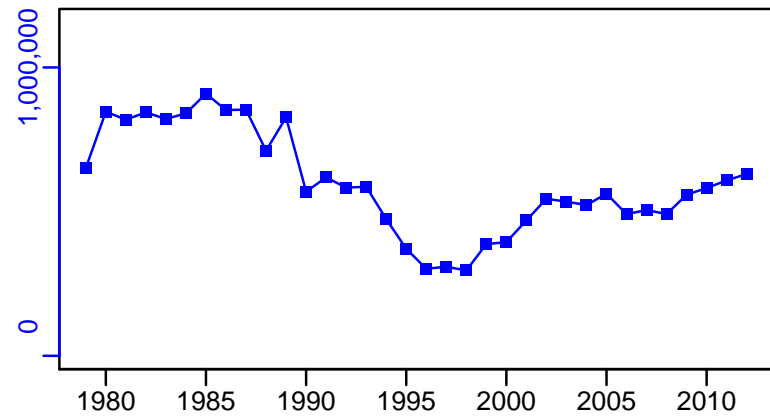
TAC-MT, Cpair-MT, Cadv* (1945-2013-STARR)



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



EFFORT-potlift (1945-2013-STARR)



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	0.25
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	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]

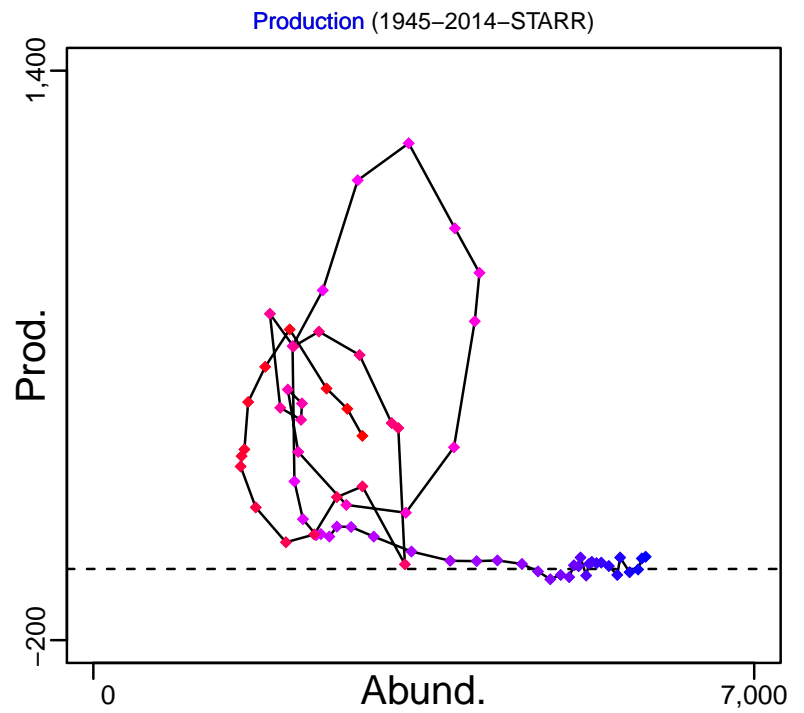
Kobe MSY*



Kobe MGT*



Spawner Recruit*

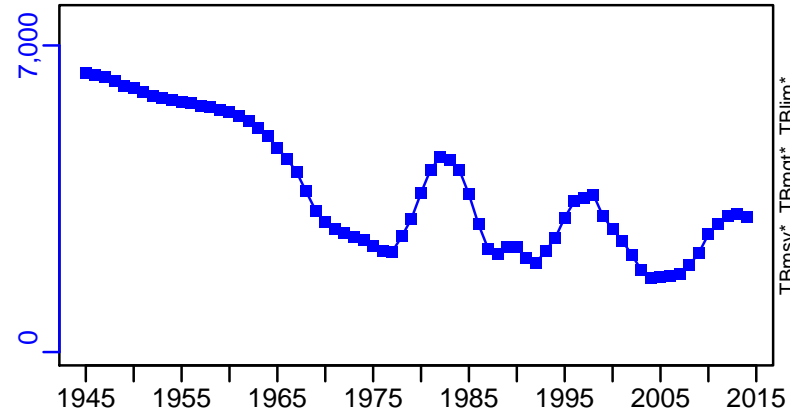


◆ Start Year ◆ End Year * No Data

Red rock lobster New Zealand area CRA3 [RROCKLOBSTERCRA3]

TB-MT (1945–2014–STARR)

SSB*



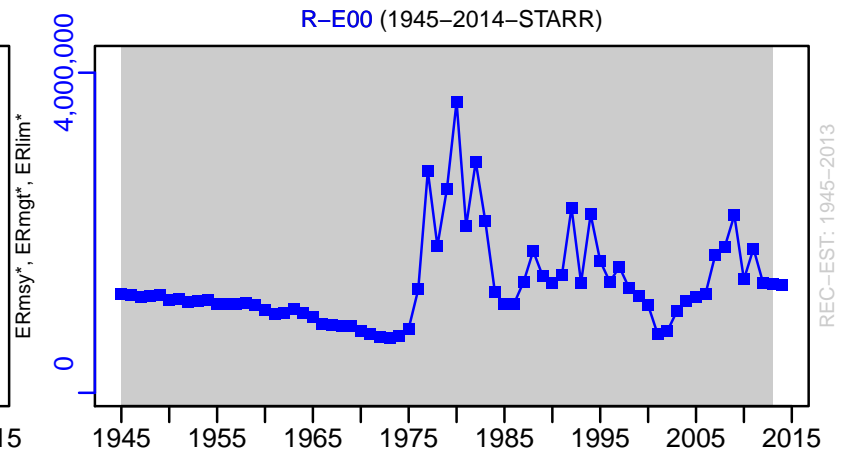
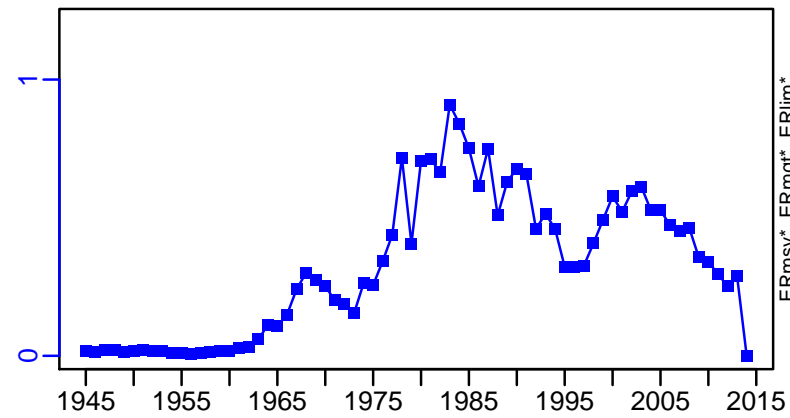
TN *

F*



ER-ratio (1945–2014–STARR)

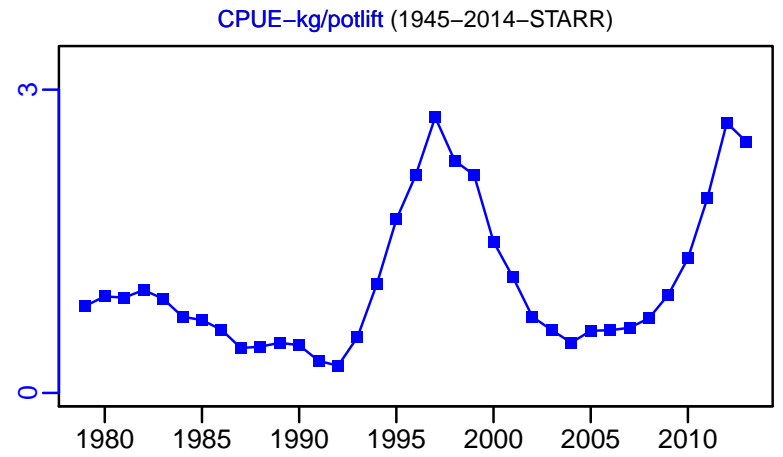
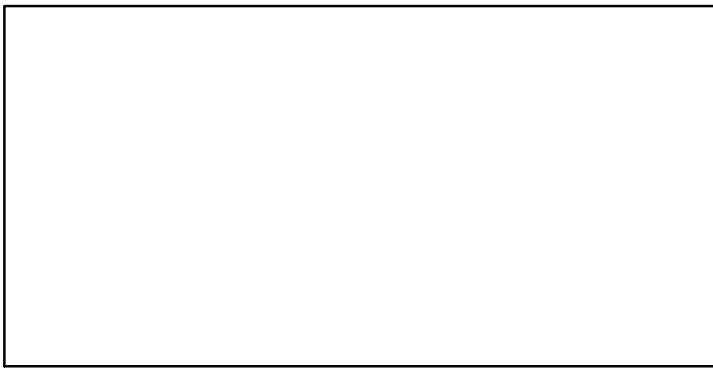
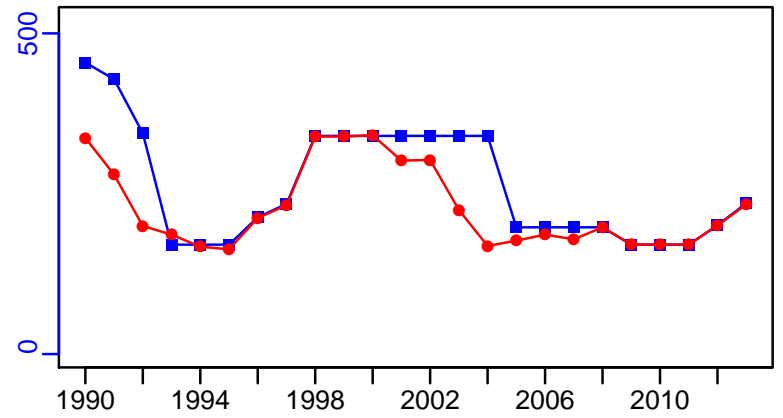
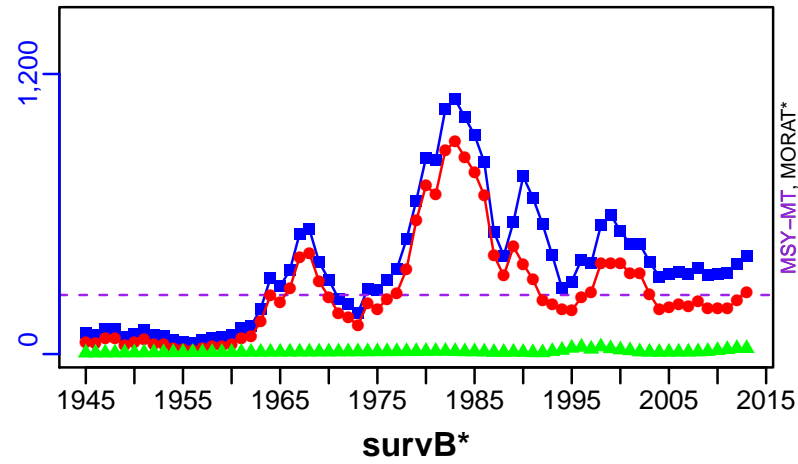
R-E00 (1945–2014–STARR)



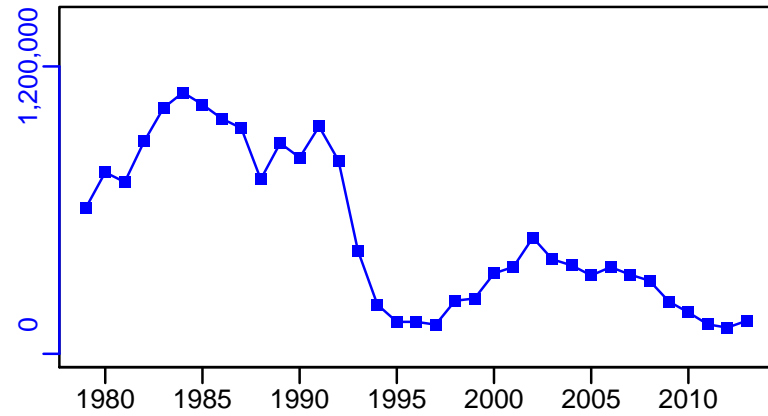
Red rock lobster New Zealand area CRA3 [RROCKLOBSTERCRA3]

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

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



EFFORT-potlift (1945-2014-STARR)



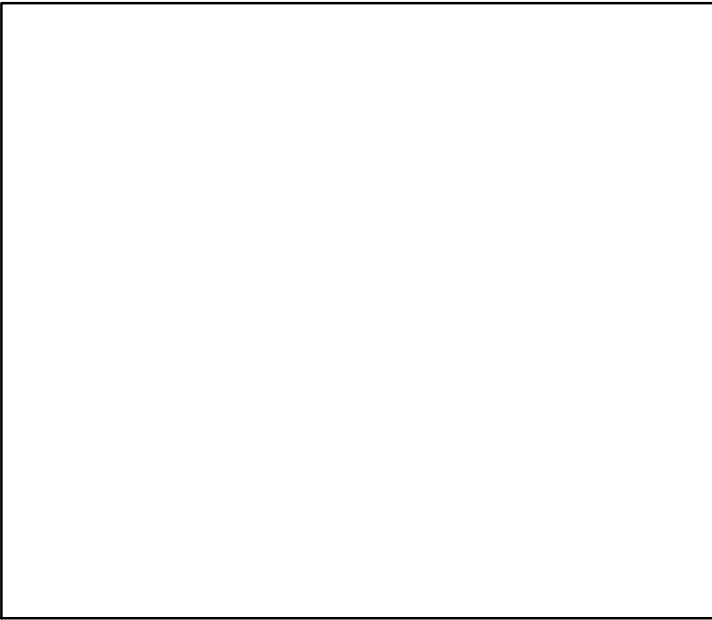
Red rock lobster New Zealand area CRA4 [RROCKLOBSTERCRA4]

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	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2011	680
M	M-1/yr	2011	0.32
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	Both	-
TC	TC-MT	2011	533		
TL	TL-MT	2011	415		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

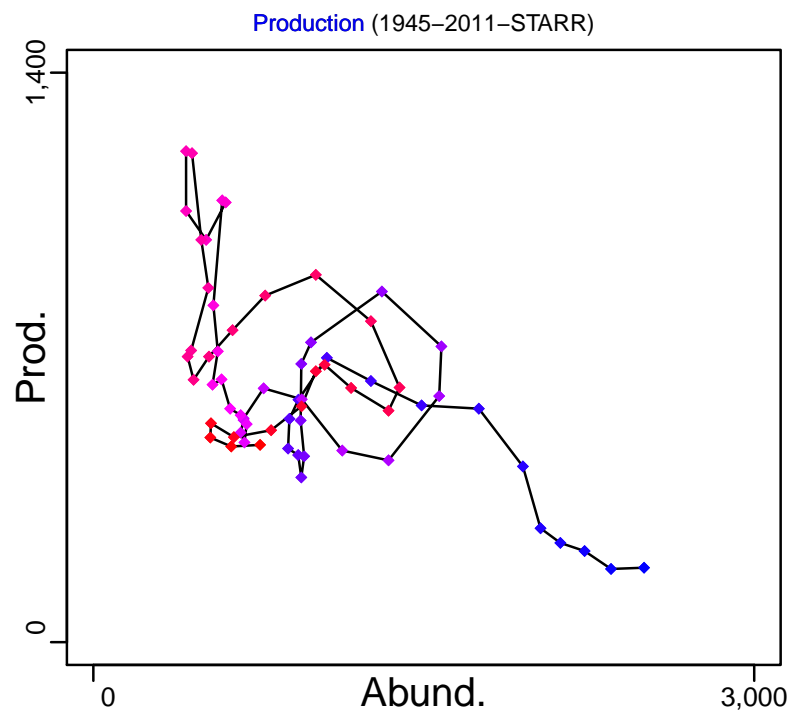
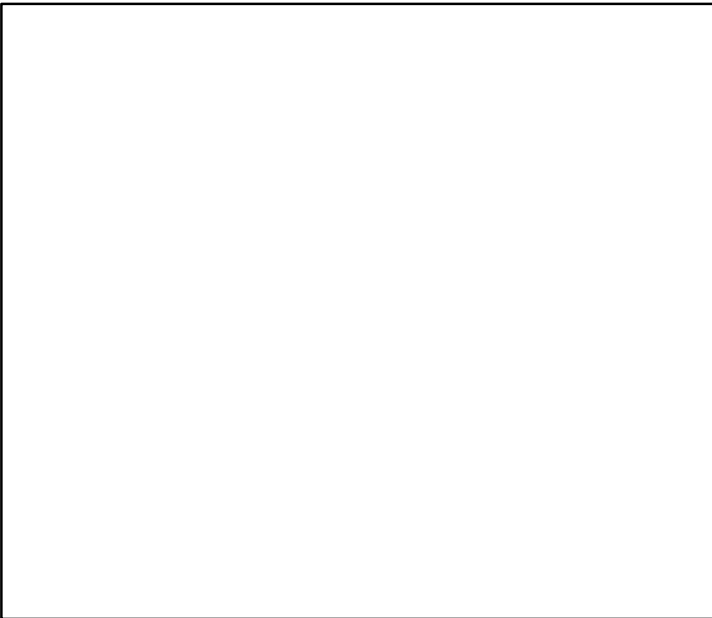
Kobe MSY*



Kobe MGT*



Spawner Recruit*

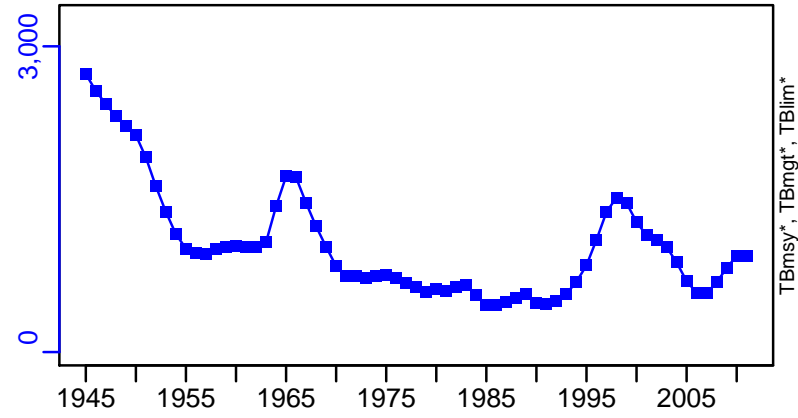


◆ Start Year ◆ End Year * No Data

Red rock lobster New Zealand area CRA4 [RROCKLOBSTERCRA4]

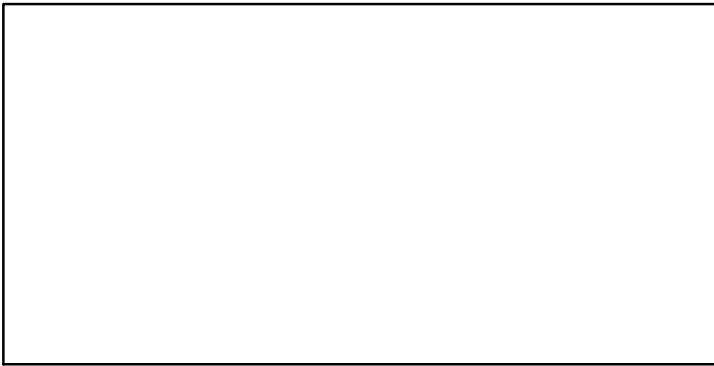
TB-MT (1945-2011-STARR)

SSB*



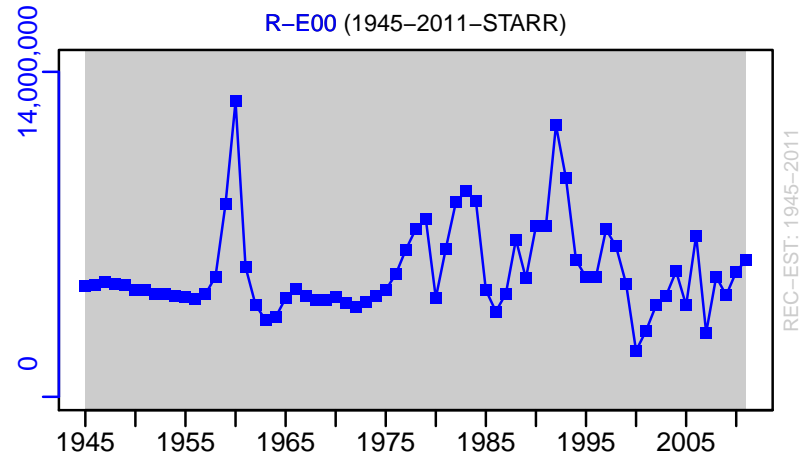
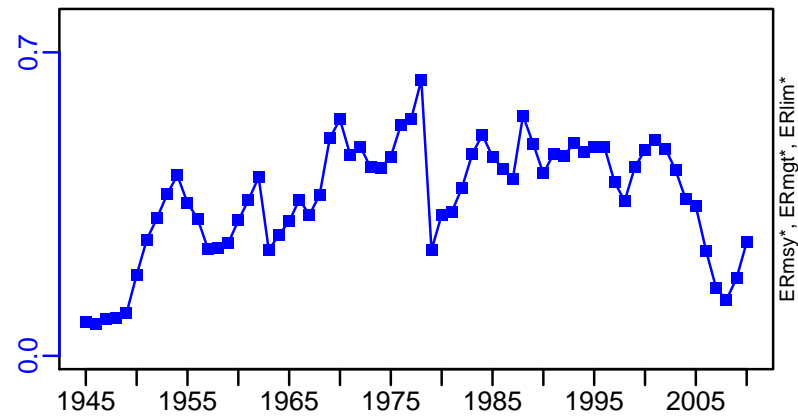
TN *

F*



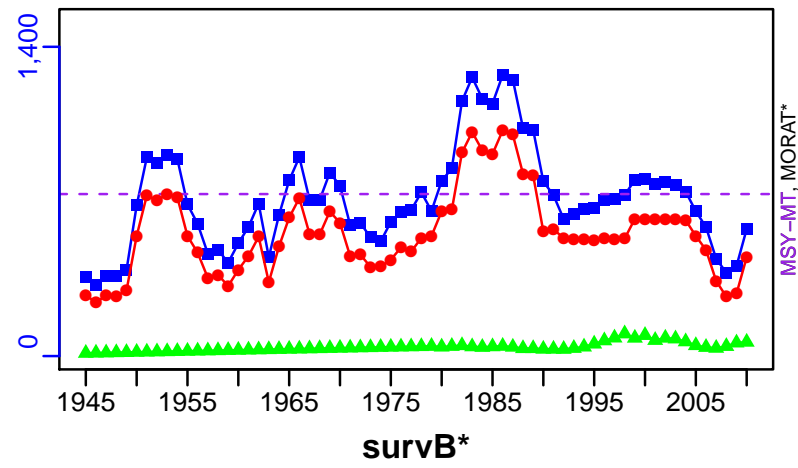
ER-ratio (1945-2011-STARR)

R-E00 (1945-2011-STARR)

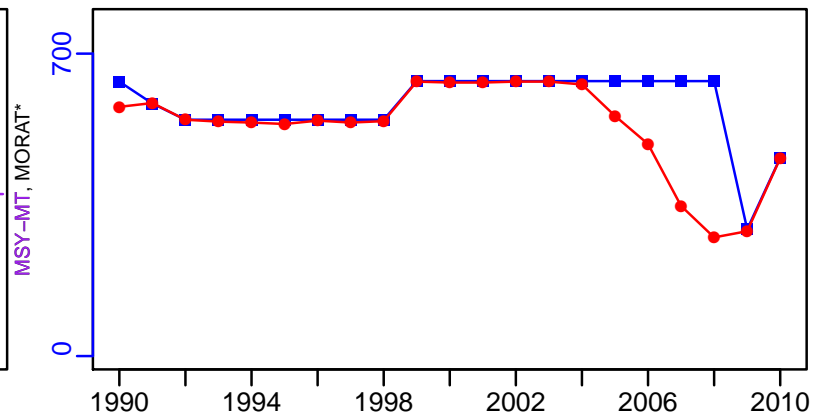


Red rock lobster New Zealand area CRA4 [RROCKLOBSTERCRA4]

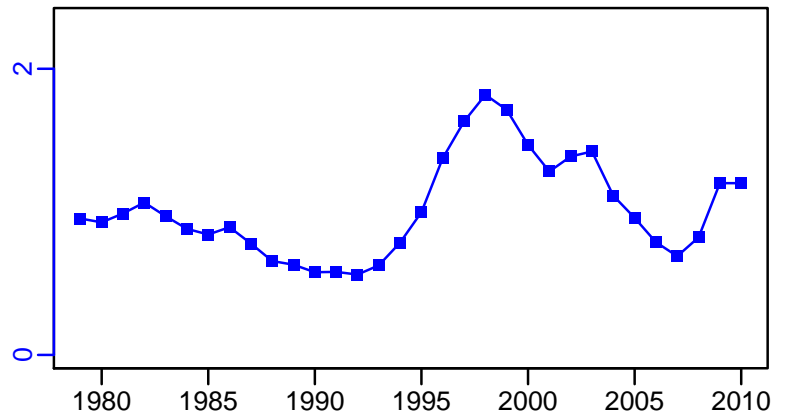
TC-MT, TL-MT, RecC-MT (1945-2011-STARR)



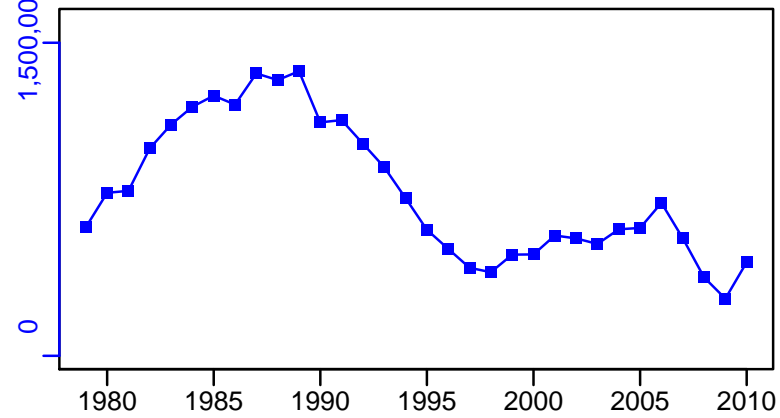
TAC-MT, Cpair-MT, Cadv* (1945-2011-STARR)



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



EFFORT-potlift (1945-2011-STARR)



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	0.13
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	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	-	-	-		

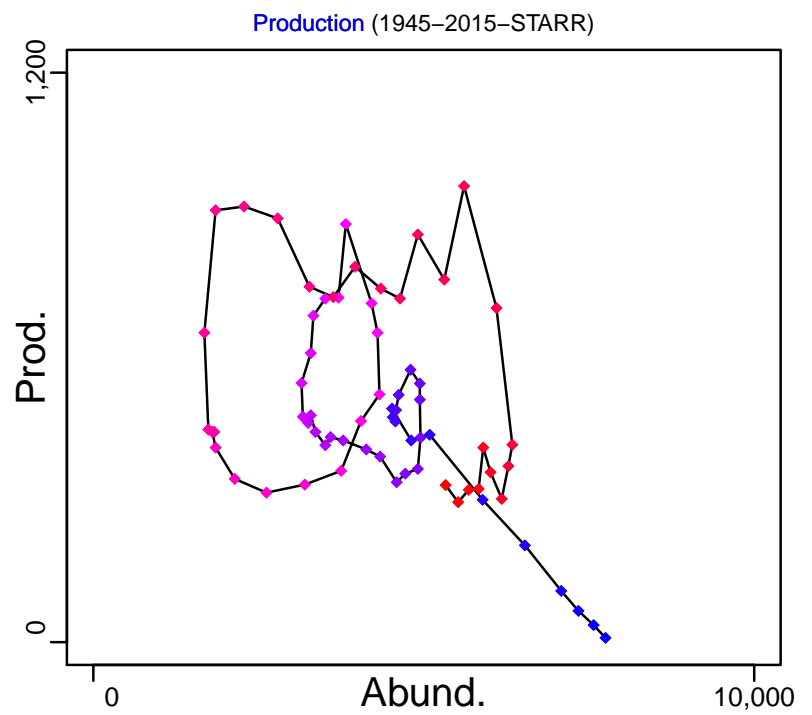
Kobe MSY*



Kobe MGT*



Spawner Recruit*

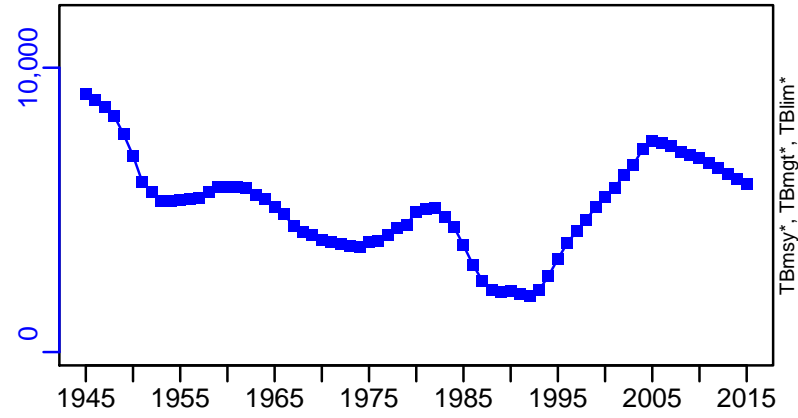


◆ Start Year ◆ End Year * No Data

Red rock lobster New Zealand area CRA5 [RROCKLOBSTERCRA5]

TB-MT (1945–2015–STARR)

SSB*



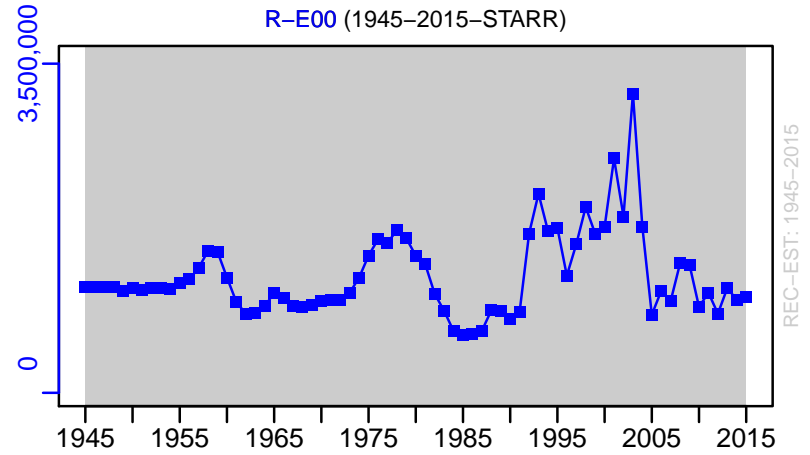
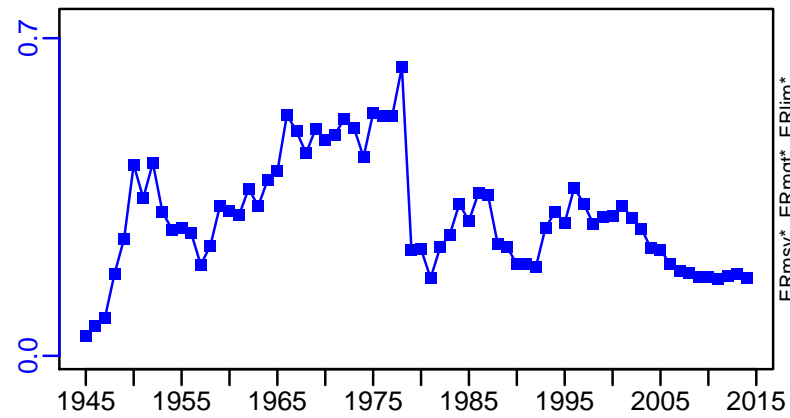
TN *

F*



ER-ratio (1945–2015–STARR)

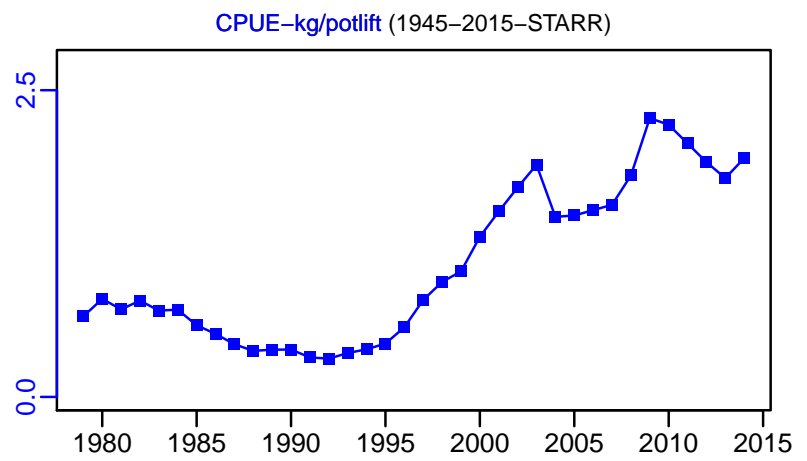
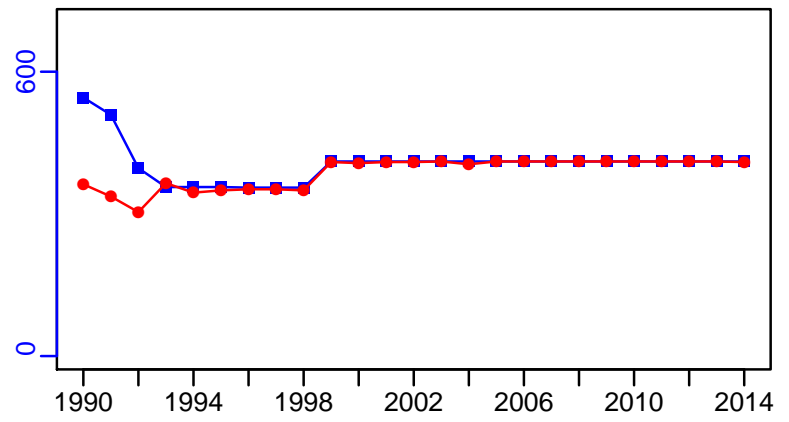
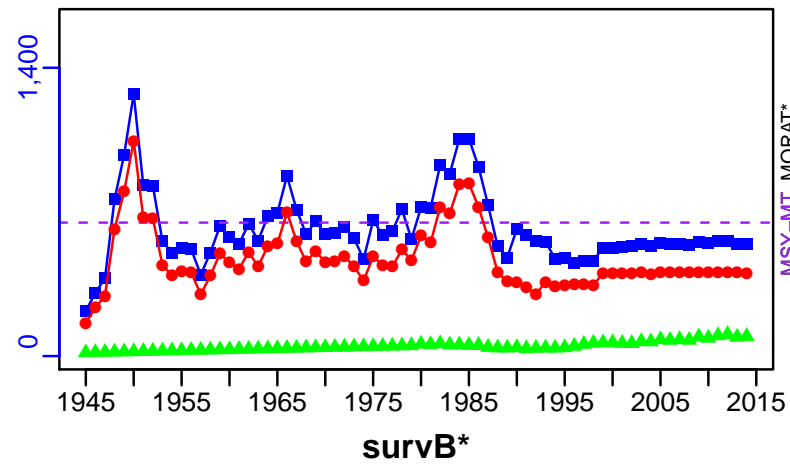
R-E00 (1945–2015–STARR)



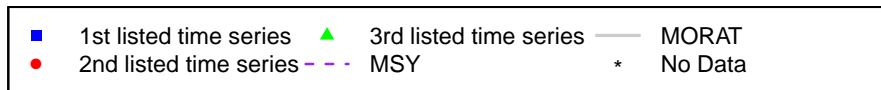
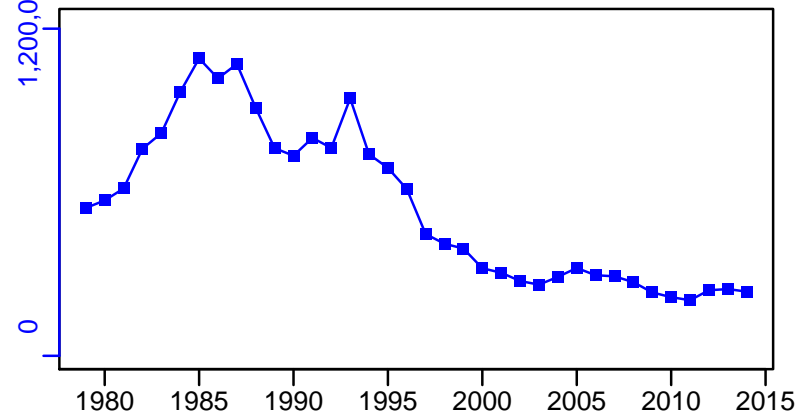
Red rock lobster New Zealand area CRA5 [RROCKLOBSTERCRA5]

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

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



EFFORT-potlift (1945-2015-STARR)



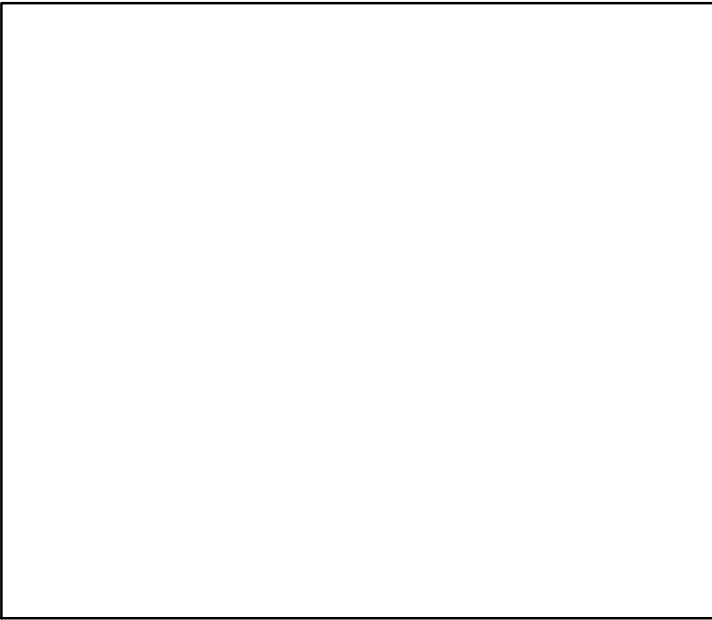
Red rock lobster New Zealand area CRA7 [RROCKLOBSTERCRA7]

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	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2015	194
M	M-1/yr	2015	0.1
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	Both	-
TC	TC-MT	2015	74.7		
TL	TL-MT	2015	66		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

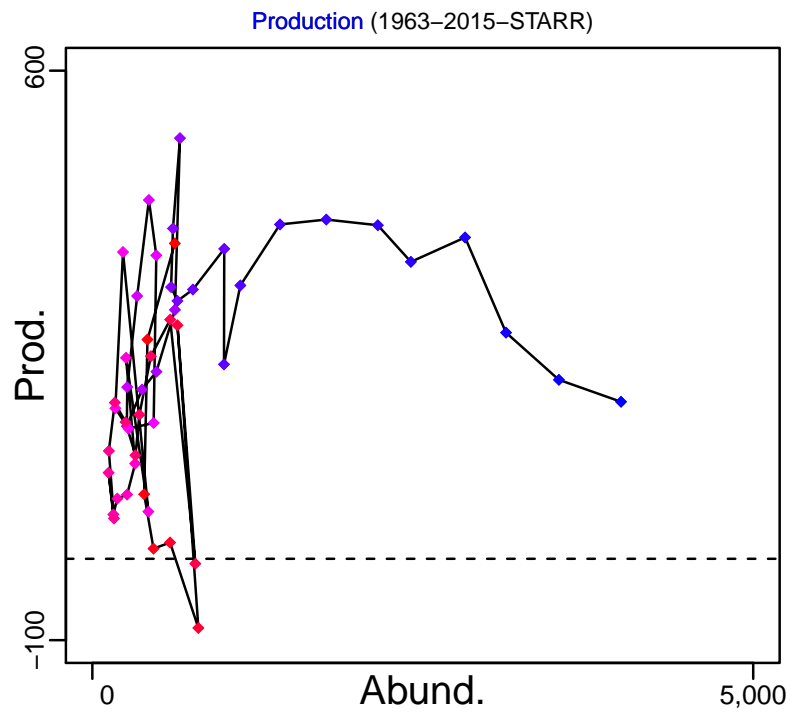
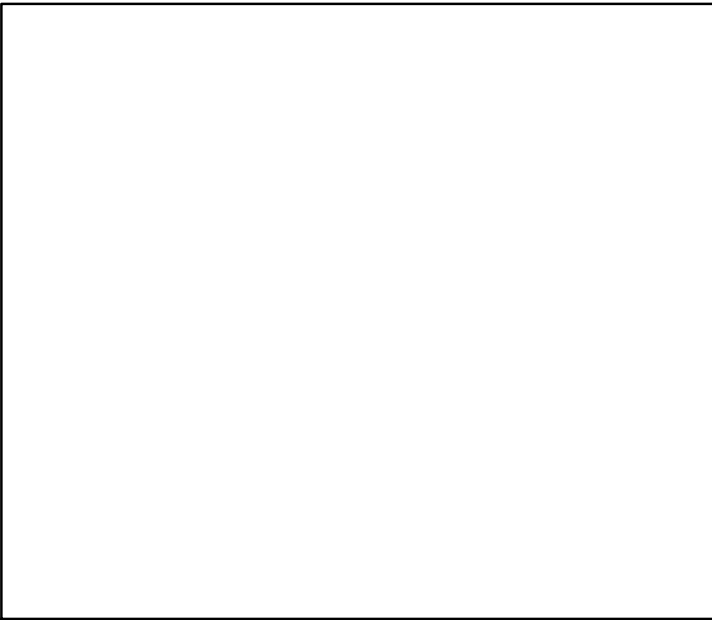
Kobe MSY*



Kobe MGT*



Spawner Recruit*

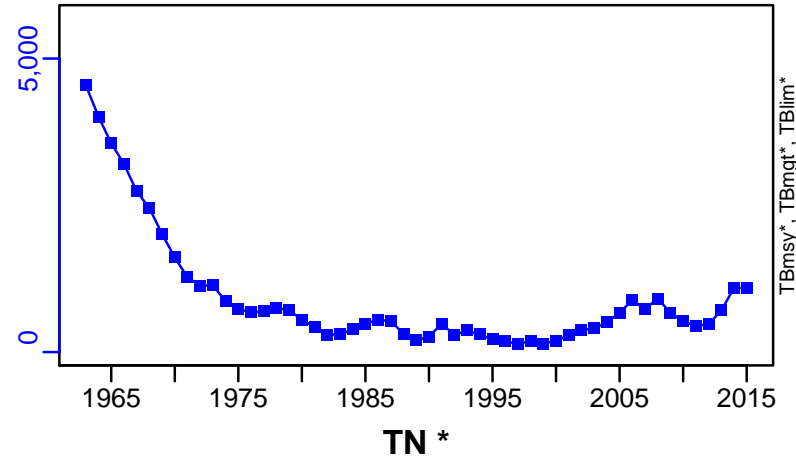


◆ Start Year ◆ End Year * No Data

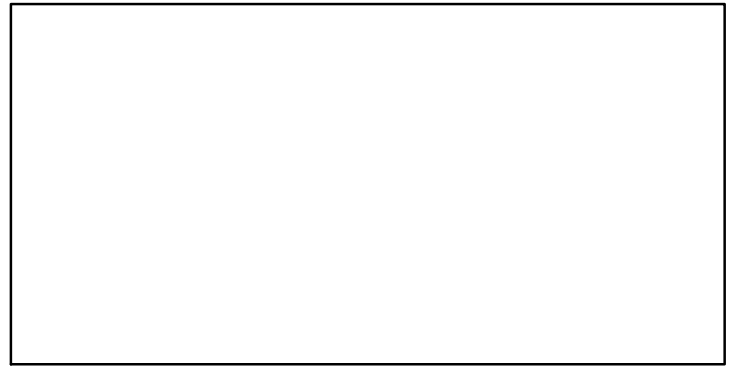
Red rock lobster New Zealand area CRA7 [RROCKLOBSTERCRA7]

TB-MT (1963–2015–STARR)

SSB*

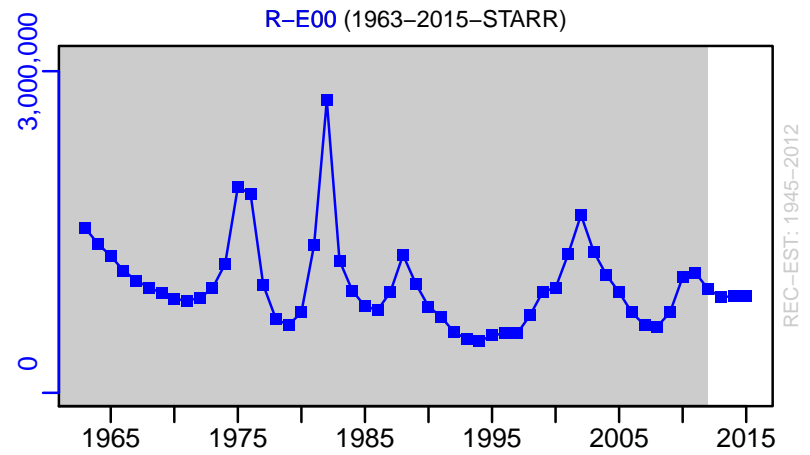
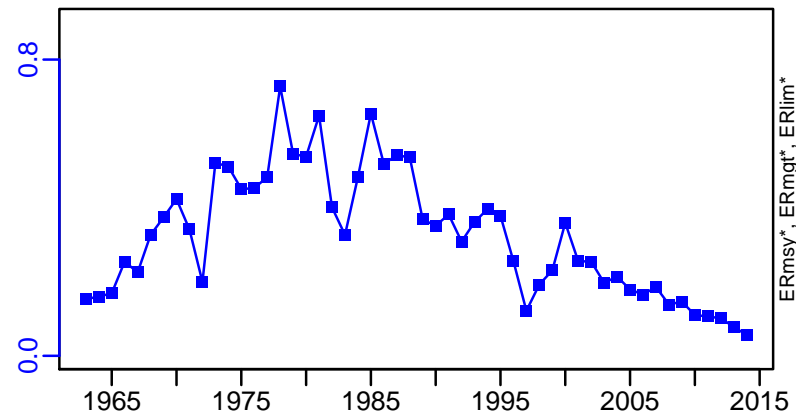


F*



ER-ratio (1963–2015–STARR)

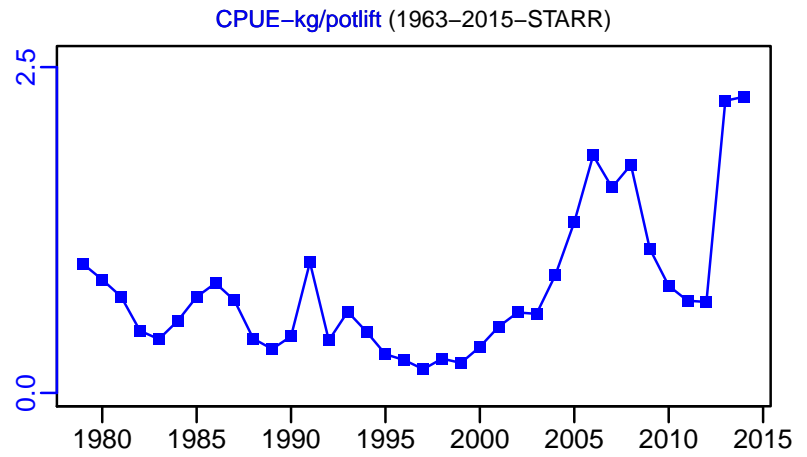
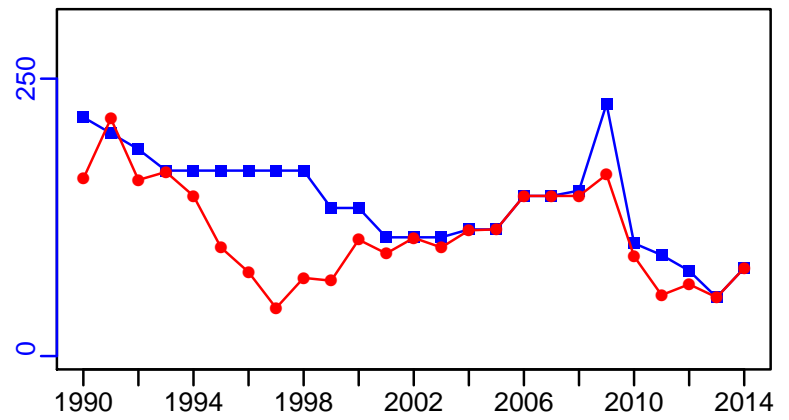
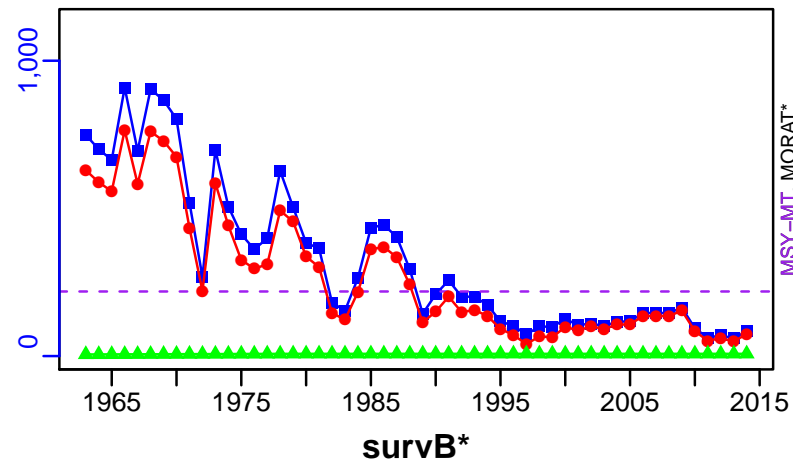
R-E00 (1963–2015–STARR)



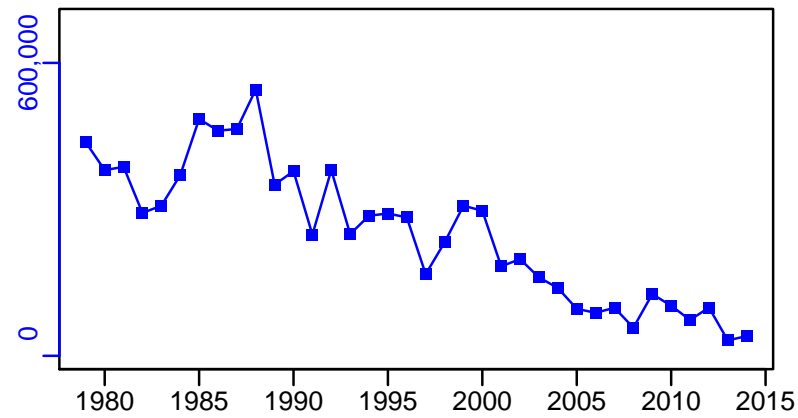
Red rock lobster New Zealand area CRA7 [RROCKLOBSTERCRA7]

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

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



EFFORT-potlift (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	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2015	1083
M	M-1/yr	2015	0.09
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	Both	-
TC	TC-MT	2015	1010		
TL	TL-MT	2015	960		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



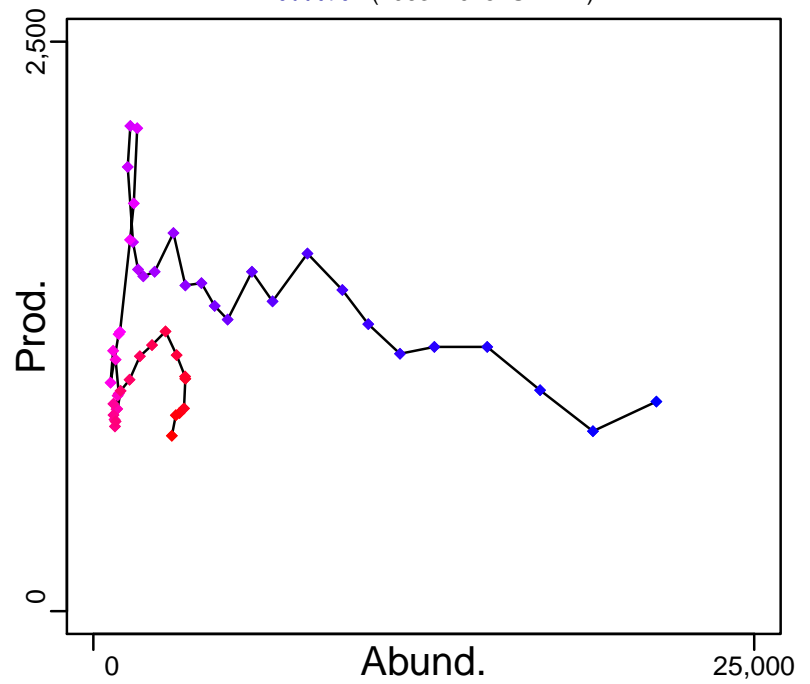
Kobe MGT*



Spawner Recruit*



Production (1963–2015–STARR)

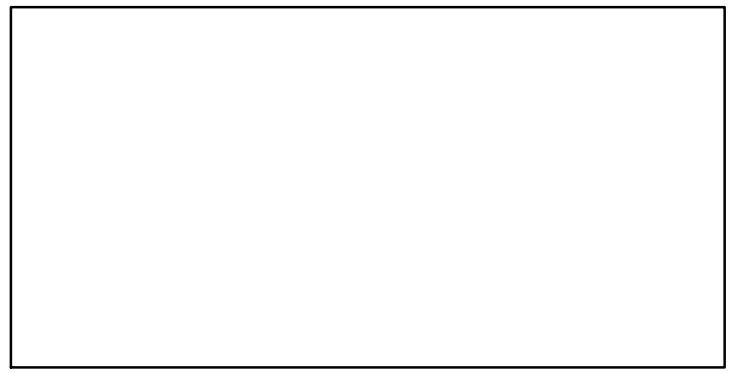
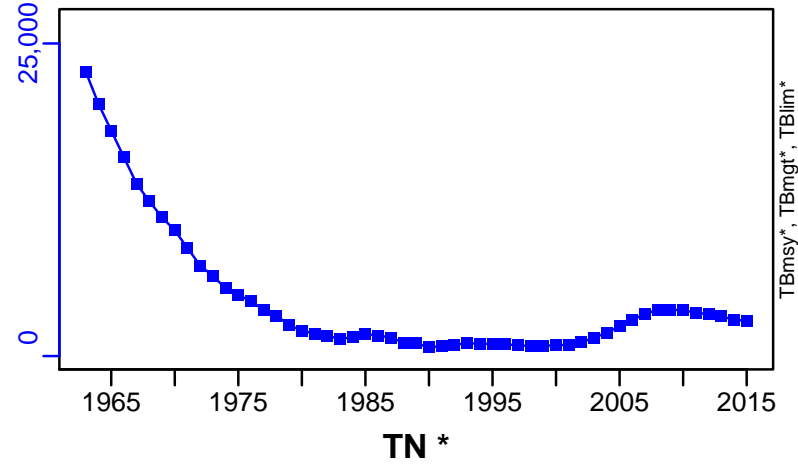


◆ Start Year ◆ End Year * No Data

Red rock lobster New Zealand area CRA8 [RROCKLOBSTERCRA8]

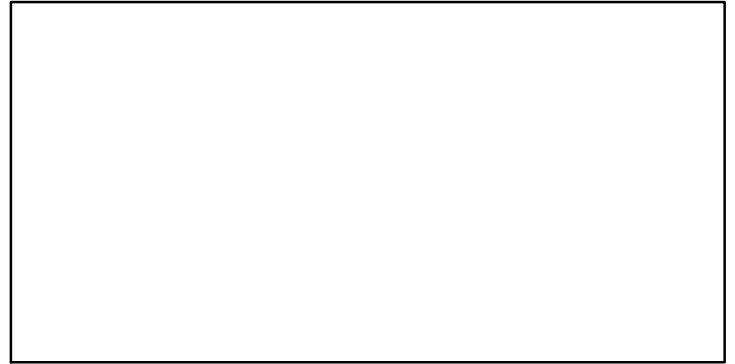
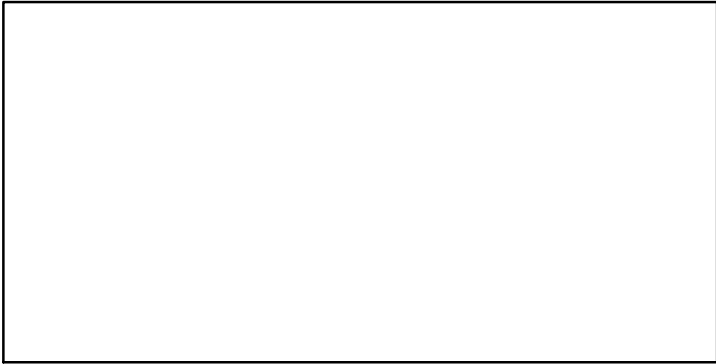
TB-MT (1963–2015–STARR)

SSB*



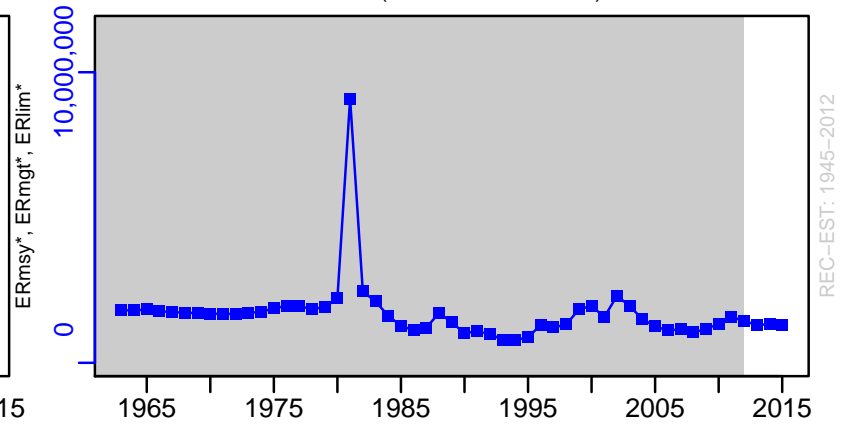
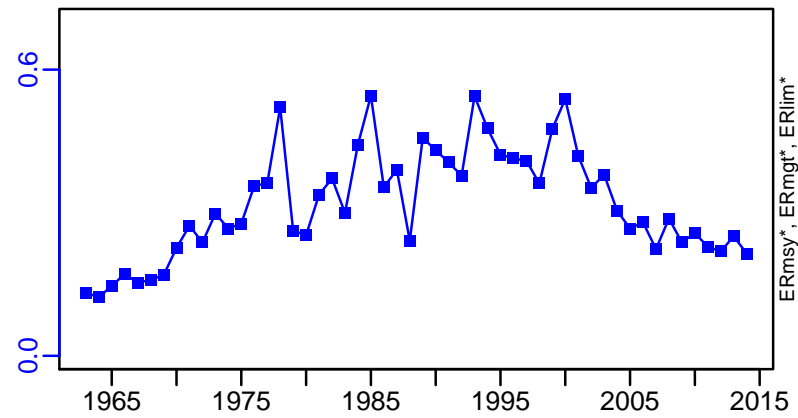
TN *

F*



ER-ratio (1963–2015–STARR)

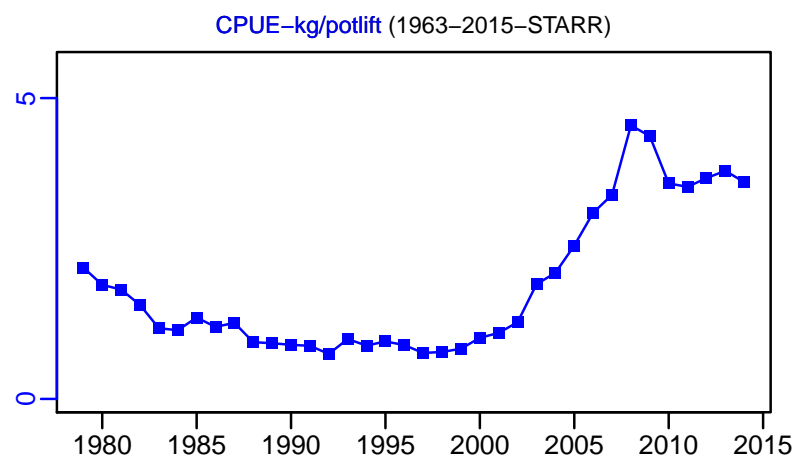
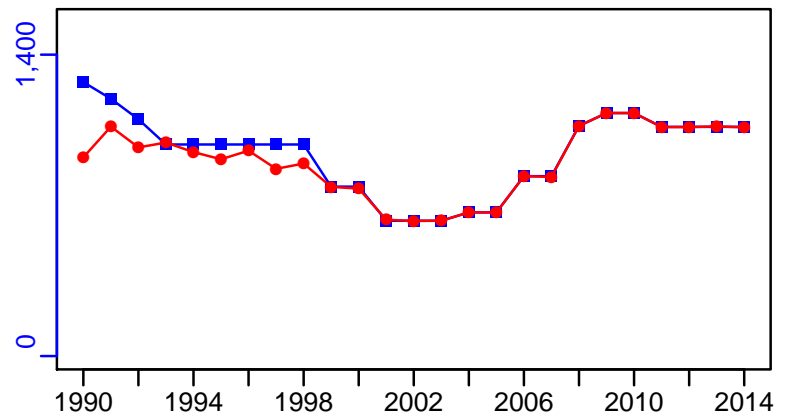
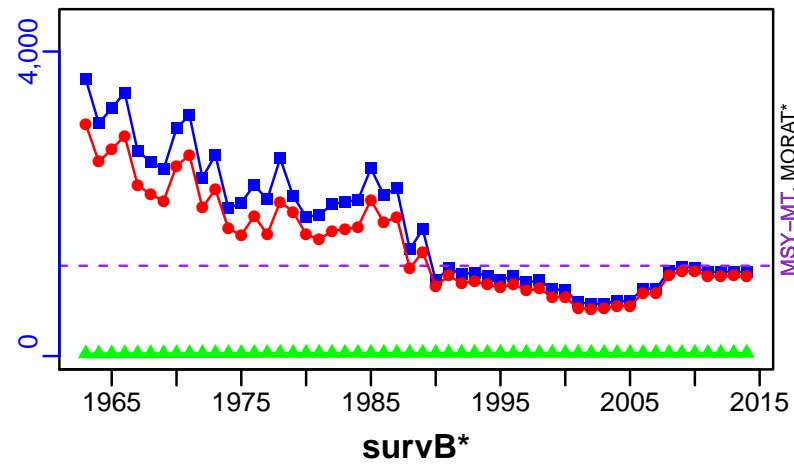
R-E00 (1963–2015–STARR)



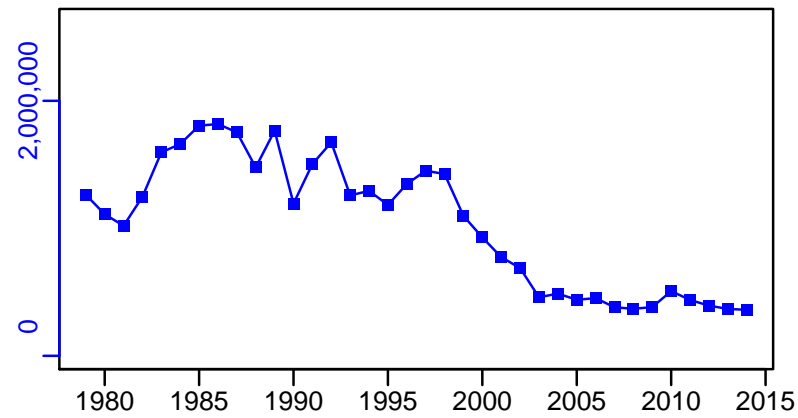
Red rock lobster New Zealand area CRA8 [RROCKLOBSTERCRA8]

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

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



EFFORT-potlift (1963-2015-STARR)

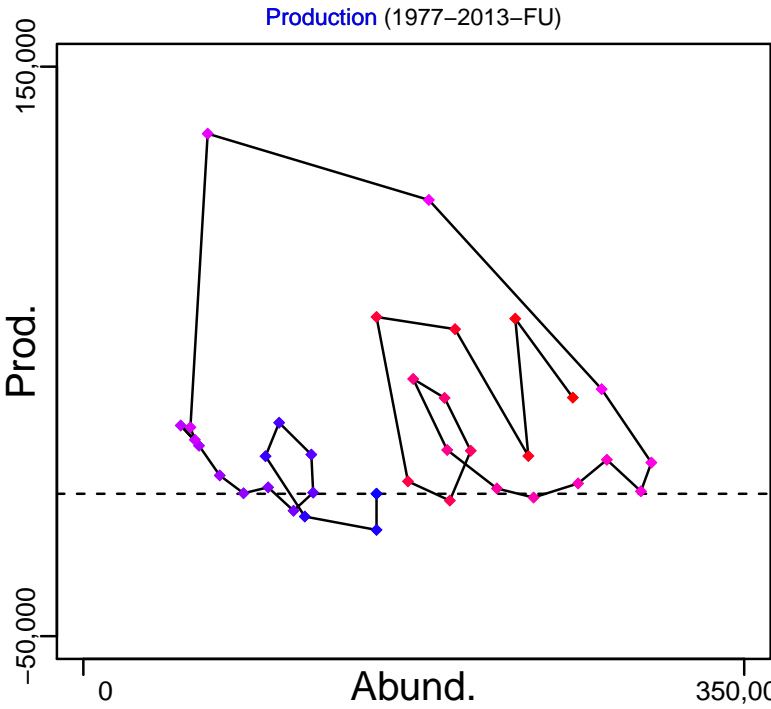
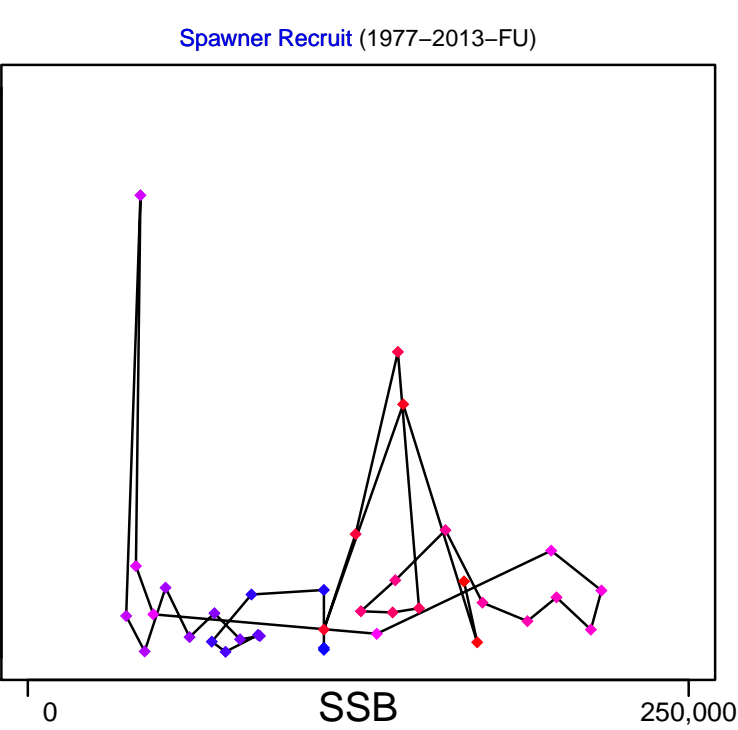
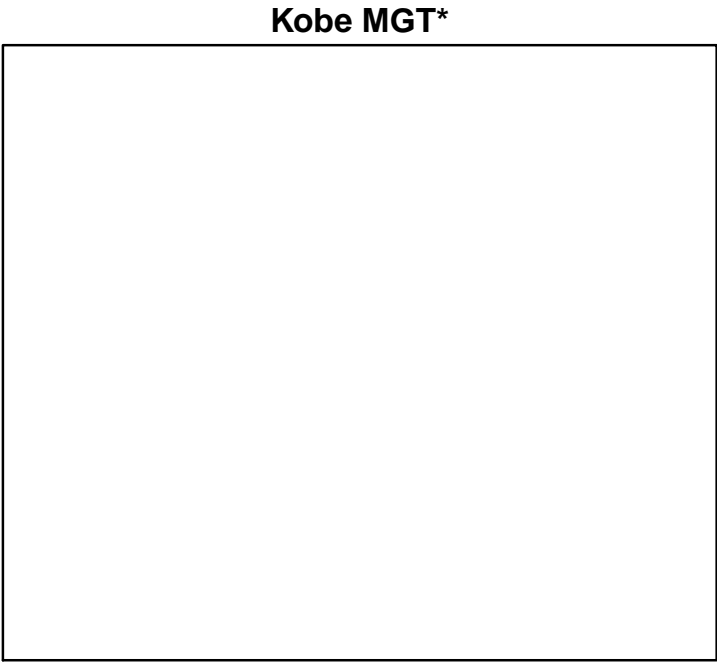


Southern blue whiting Campbell Island Rise [SBWHITACIR]

Metadata	
Scientific Name	Micromesistius australis
Current Assess ID	NZMFishMIDDEPTHSWG-SBWHITACIR-1977-2013-FU
Area	New Zealand - 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	-	-
ER	ER-ratio	2013	0	Both	2 to 15
TC	TC-MT	2013	28,600		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013	1.46		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2013	1.46		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



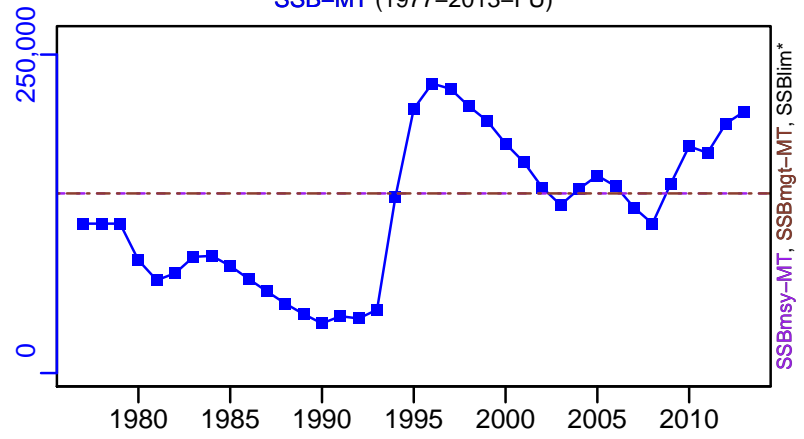
◆ Start Year ◆ End Year * No Data

Southern blue whiting Campbell Island Rise [SBWHITACIR]

TB*



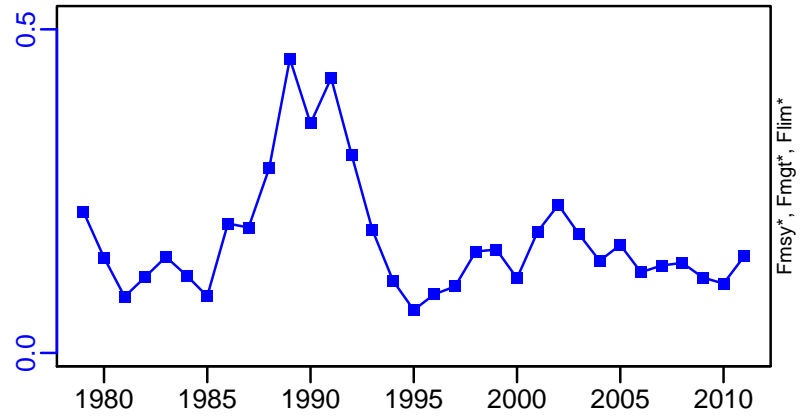
SSB-MT (1977–2013–FU)



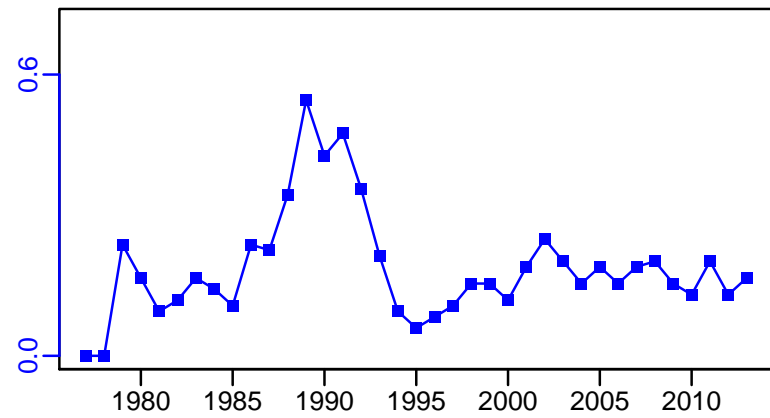
TN *



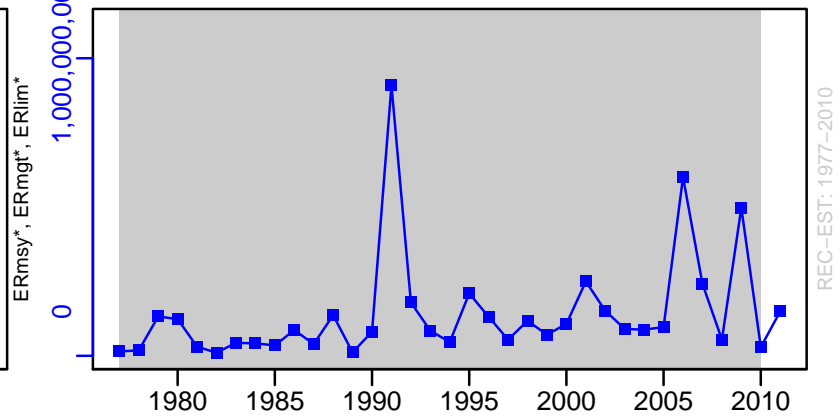
F-1/yr (1978–2011–CHING)



ER-ratio (1977–2013–FU)

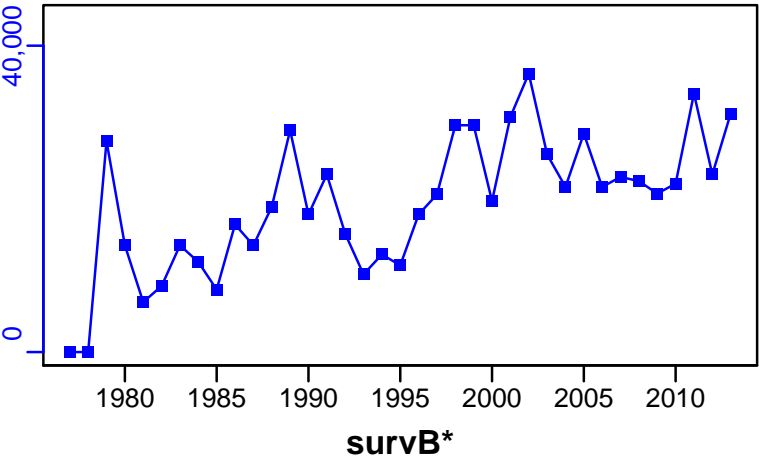


R-E00 (1977–2013–FU)

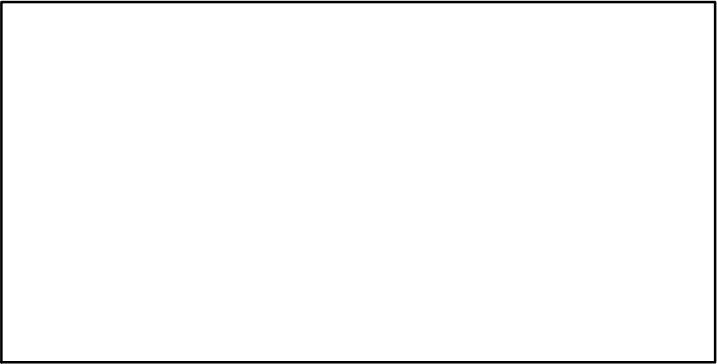
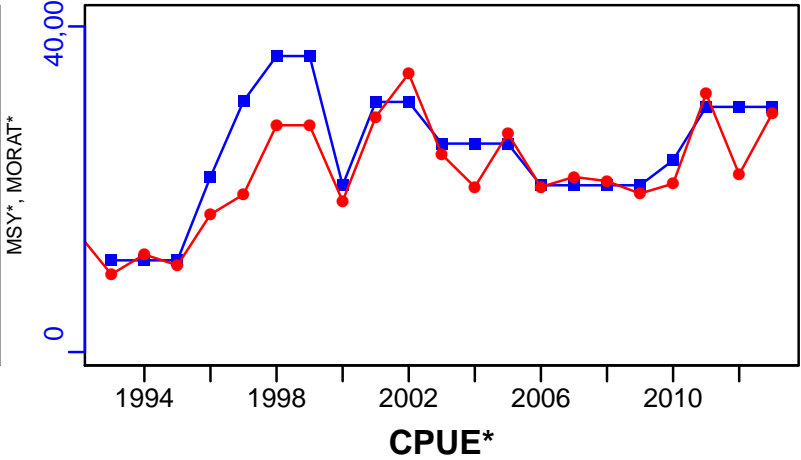


Southern blue whiting Campbell Island Rise [SBWHITACIR]

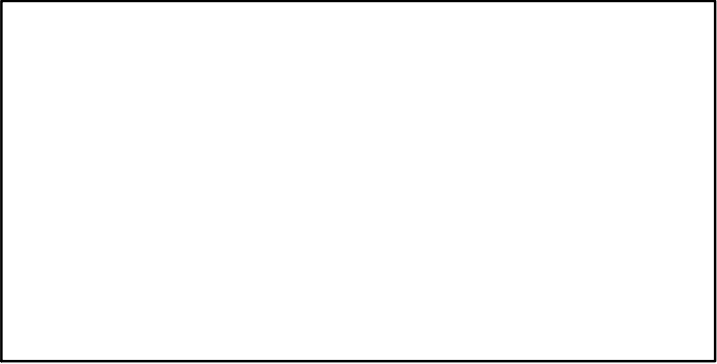
TC-MT, TL*, RecC* (1977-2013-FU)



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



EFFORT*



Scampi Bay of Plenty [SCMPBP]

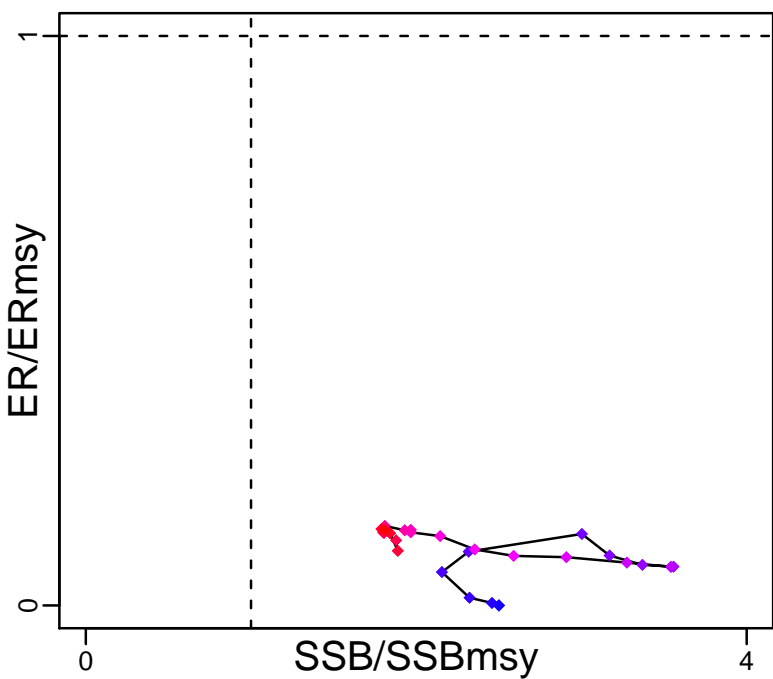
Metadata	
Scientific Name	Metanephrops challengeri
Current Assess ID	NIWA-SCMPBP-1985-2012-FU
Area	Bay of Plenty
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2010, 2012

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2012	1912
Fmsy	Fmsy-1/yr	2010	0.54
ERmsy	ERmsy-ratio	2012	0.09
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2012	1912
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2012	4779
MSY	MSY-MT	2012	342
M	M-1/yr	2012	0.3
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

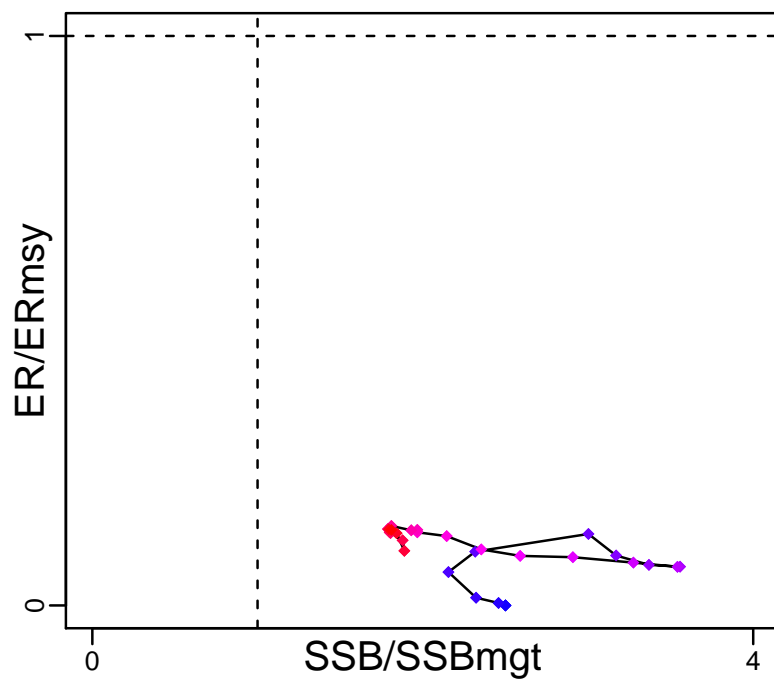
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2012	3460	-	-
TN	-	-	-	-	-
R	R-E00	2012	46,200,000	Both	-
F	F-1/yr	2012	0	Females	-
ER	ER-calc-ratio	2012	0	-	-
TC	TC-MT	2012	114		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2012	1.81		
F/Fmsy	FdivFmsy-dimensionless	2010	0.25		
ER/ERmsy	ER-calc-ratio/ERmsy-ratio	2012	0.13		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2012	1.81		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Scampi Bay of Plenty [SCMPBP]

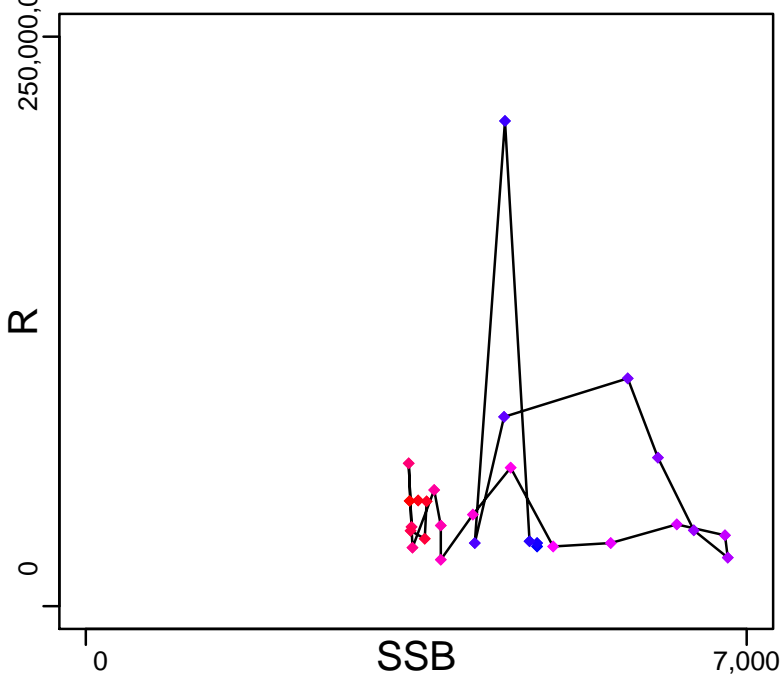
Kobe MSYpref (1985–2012–FU)



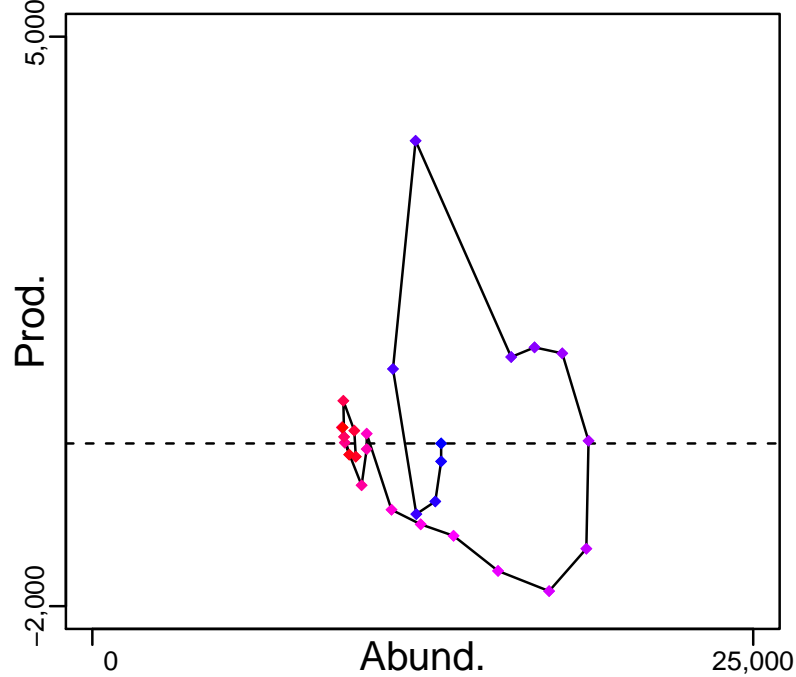
Kobe MGTpref (1985–2012–FU)



Spawner Recruit (1985–2012–FU)



Production (1985–2012–FU)



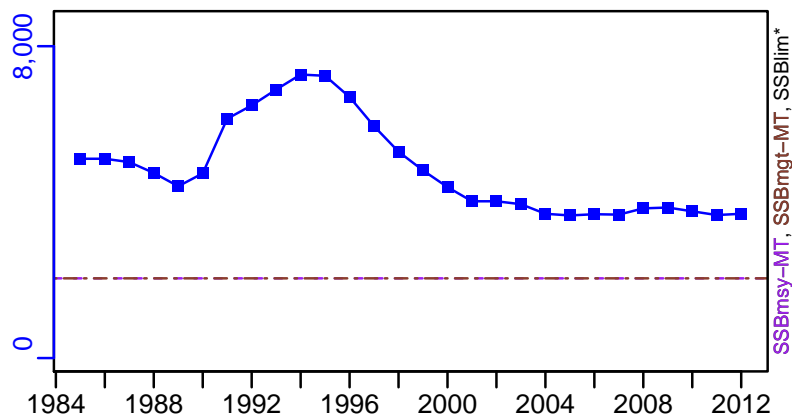
◆ Start Year ◆ End Year * No Data

Scampi Bay of Plenty [SCMPBP]

TB*



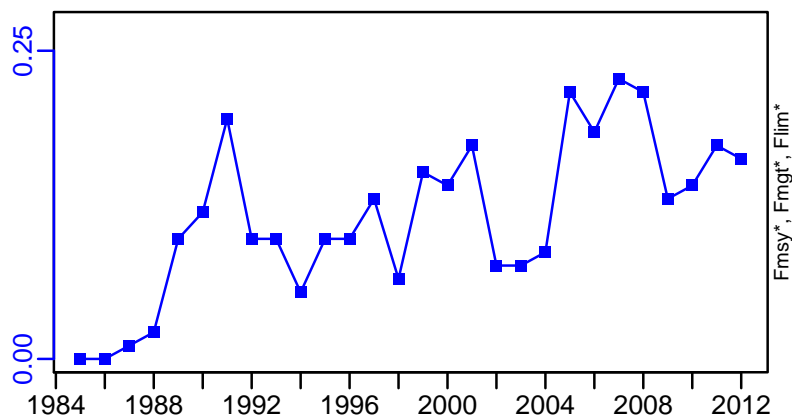
SSB-MT (1985-2012-FU)



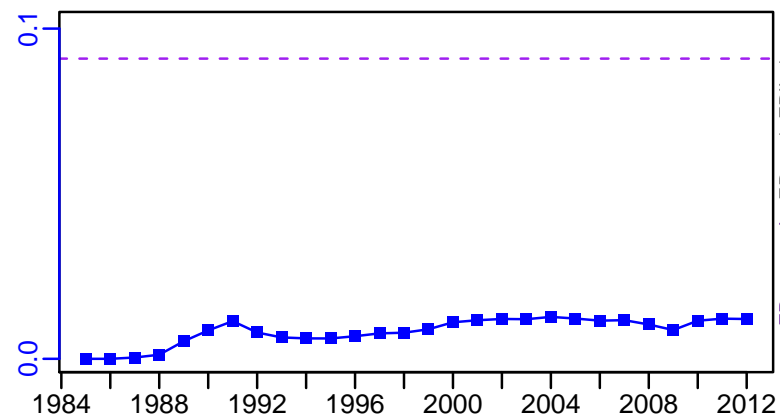
TN *



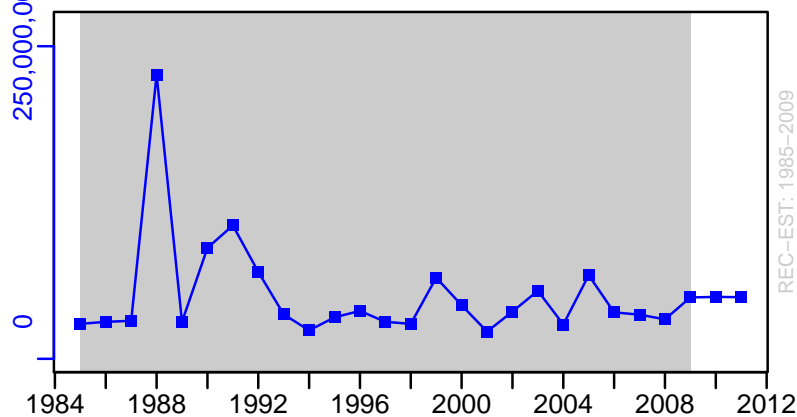
F-1/yr (1985-2012-FU)



ER-calc-ratio (1985-2012-FU)

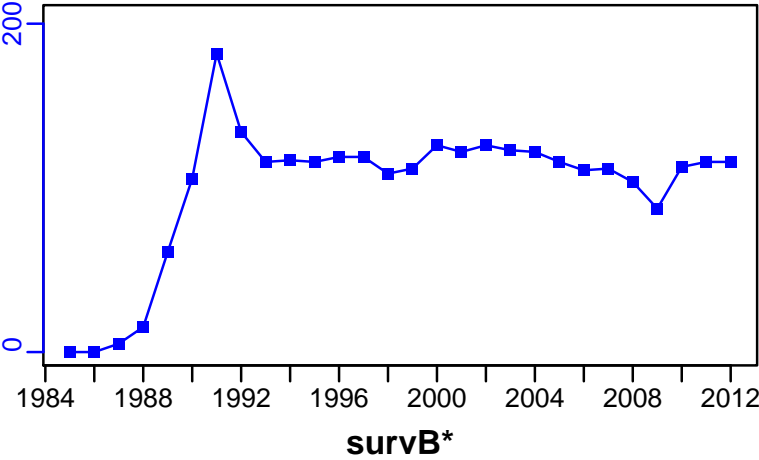


R-E00 (1985-2012-FU)

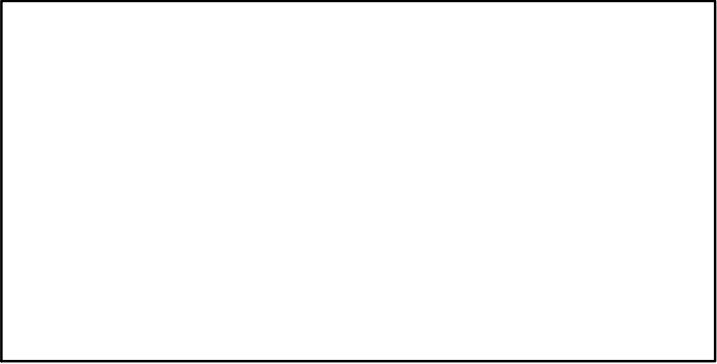
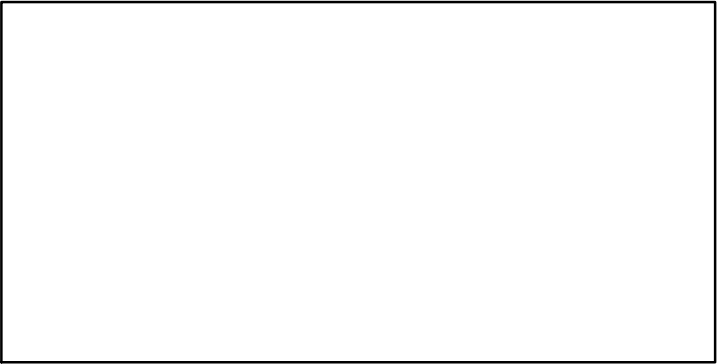
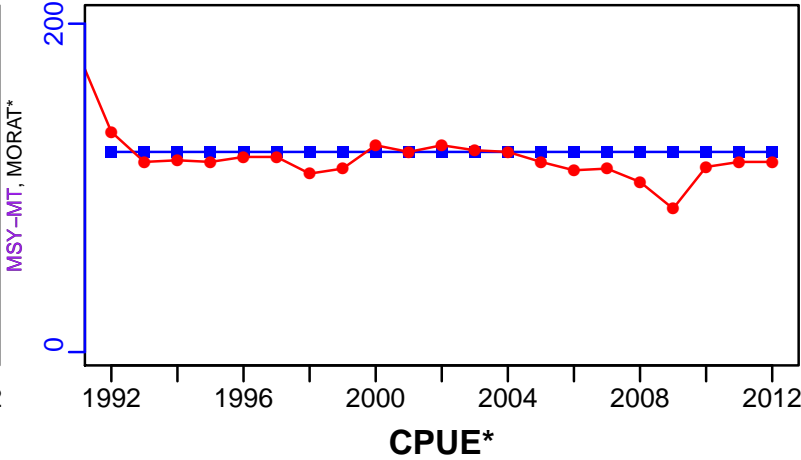


Scampi Bay of Plenty [SCMPBP]

TC-MT, TL*, RecC* (1985-2012-FU)



TAC-MT, Cpair-MT, Cadv* (1985-2012-FU)



EFFORT*

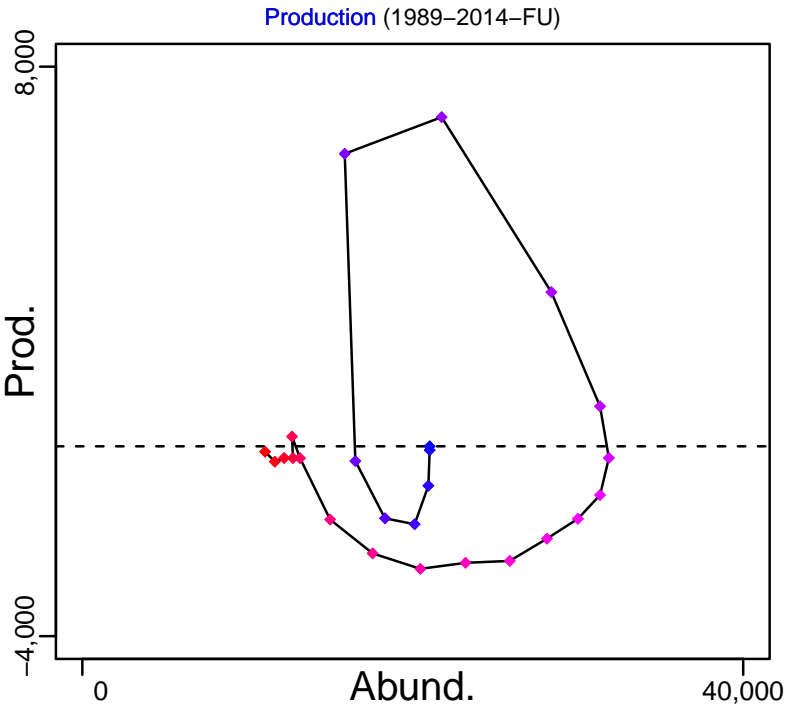
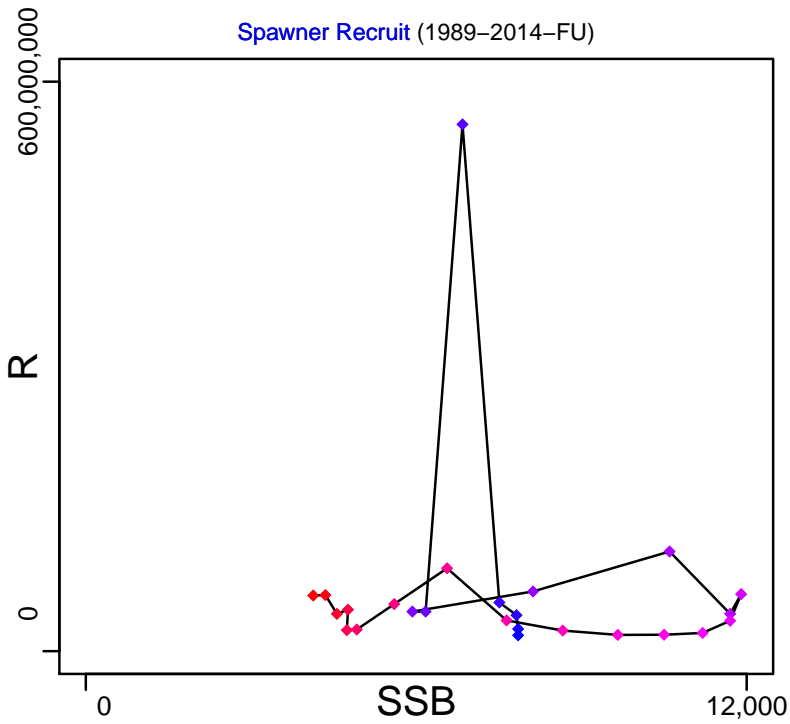
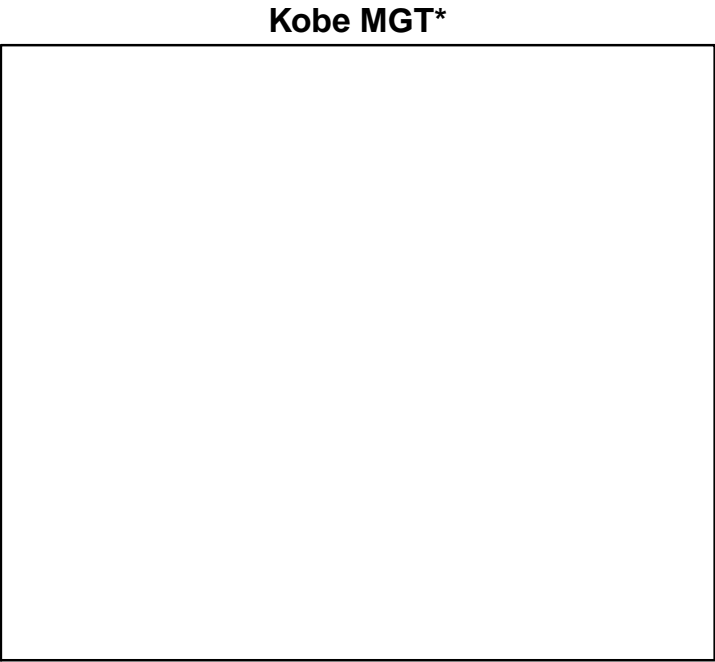


Scampi Mernoo Bank [SCMPMB]

Metadata	
Scientific Name	Metanephrops challengeri
Current Assess ID	NIWA-SCMPMB-1989-2014-FU
Area	Mernoo Bank
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	-	-	-
SSBmsy	SSBmsy-MT	2014	3138
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2014	3138
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2014	7845
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	2014	3990	-	-
TN	-	-	-	-	-
R	R-E00	2014	58,600,000	Both	-
F	F-1/yr	2014	0	Both	-
ER	ER-calc-ratio	2014	0	-	-
TC	TC-MT	2014	266		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2014	1.27		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2014	1.27		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



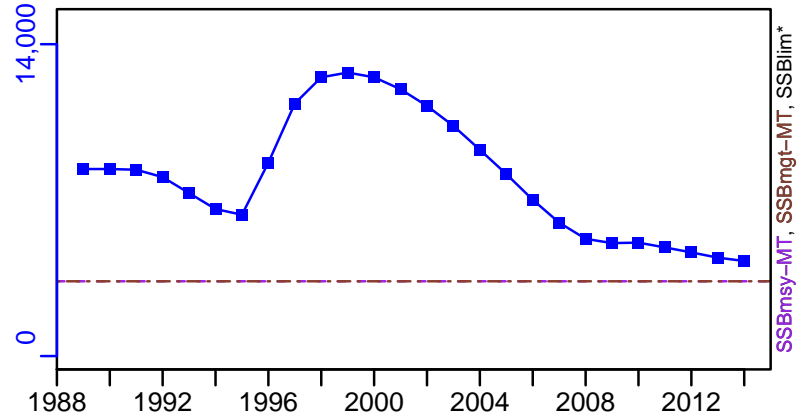
◆ Start Year ◆ End Year * No Data

Scampi Mernoo Bank [SCMPMB]

TB*



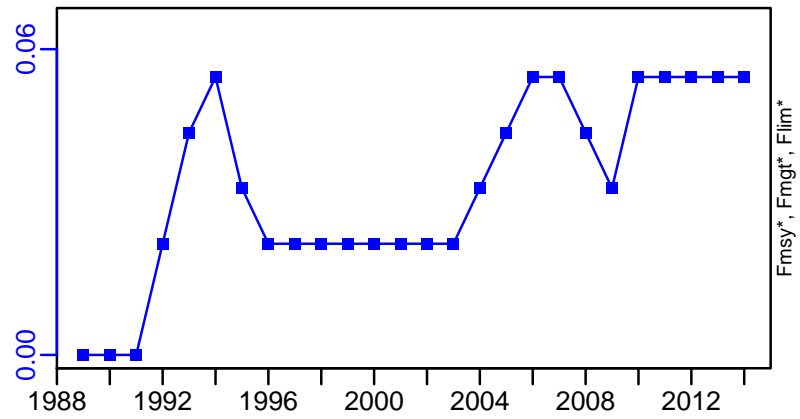
SSB-MT (1989–2014–FU)



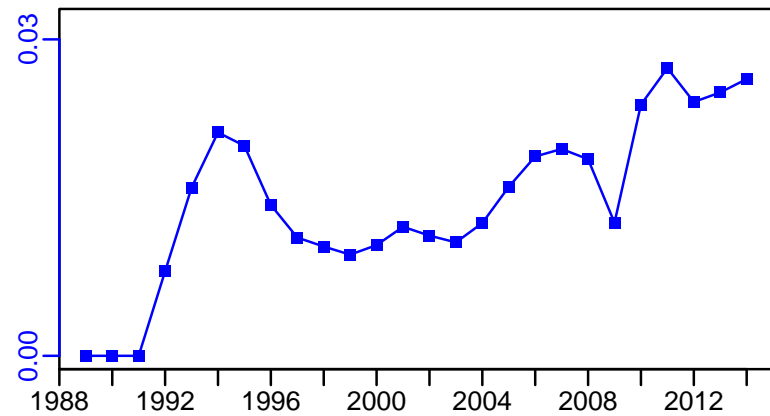
TN *



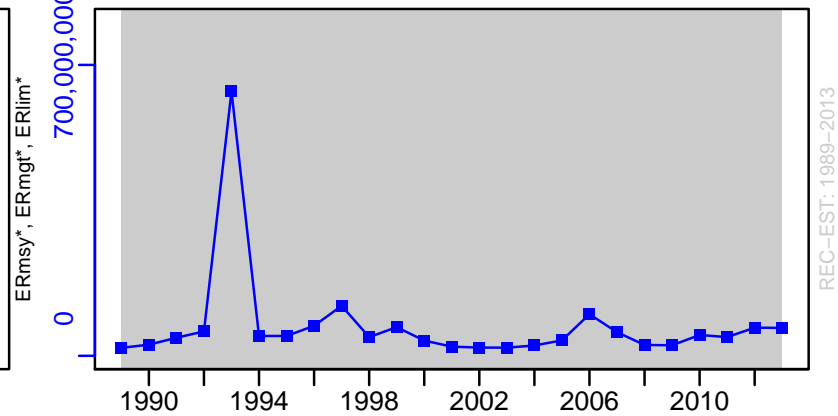
F-1/yr (1989–2014–FU)



ER-calc-ratio (1989–2014–FU)

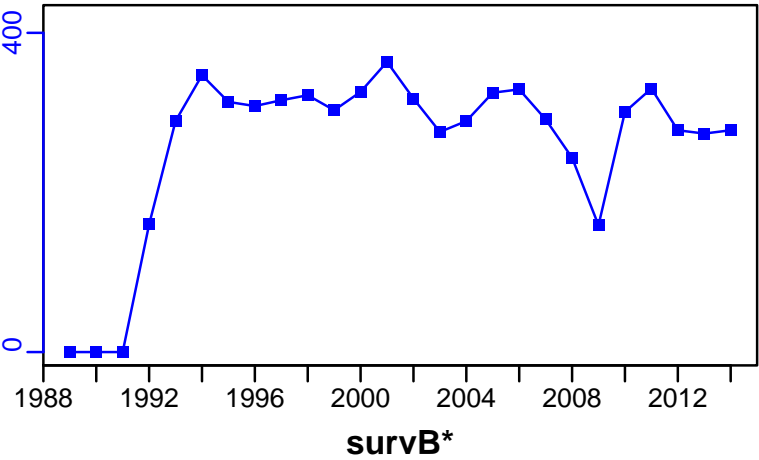


R-E00 (1989–2014–FU)

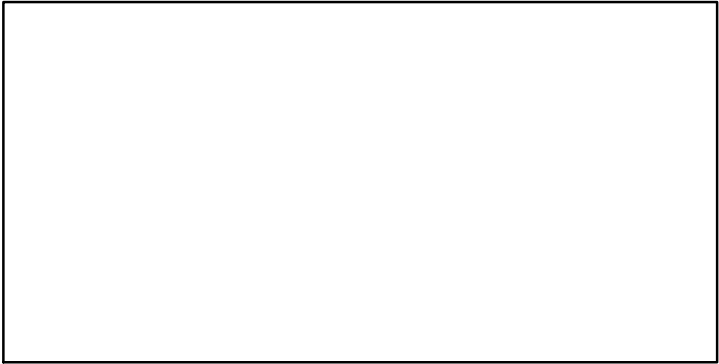
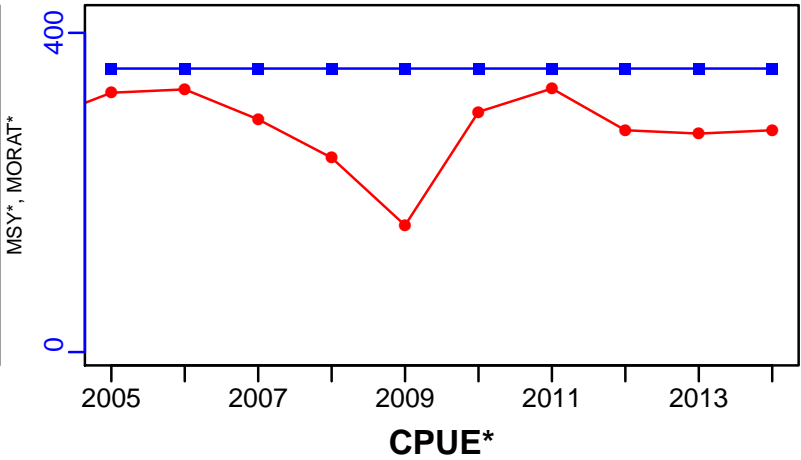


Scampi Mernoo Bank [SCMPMB]

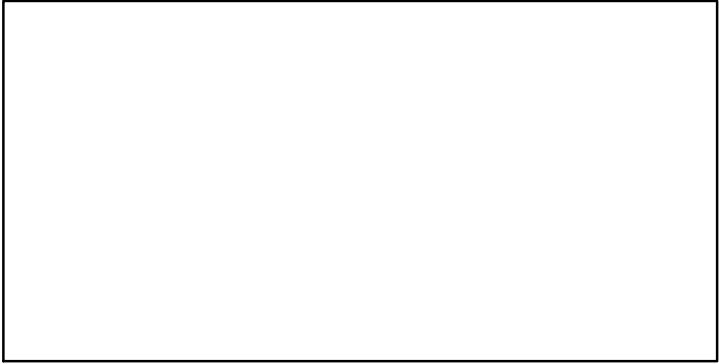
TC-MT, TL*, RecC* (1989-2014-FU)



TAC-MT, Cpair-MT, Cadv* (1989-2014-FU)



EFFORT*



Scampi Wairapa/Hawke Bay [SCMPWHB]

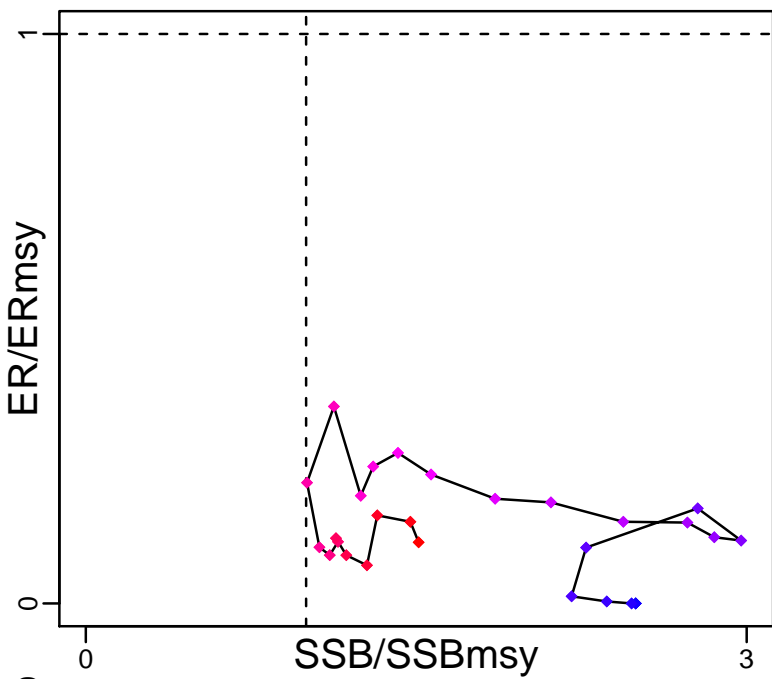
Metadata	
Scientific Name	Metanephrops challengeri
Current Assess ID	NIWA-SCMPWHB-1985-2012-FU
Area	Wairarapa/Hawke Bay
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2010, 2012

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2012	1066
Fmsy	Fmsy-1/yr	2010	0.51
ERmsy	ERmsy-ratio	2012	0.21
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2012	1066
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2012	2664
MSY	MSY-MT	2012	194
M	M-1/yr	2012	0.3
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

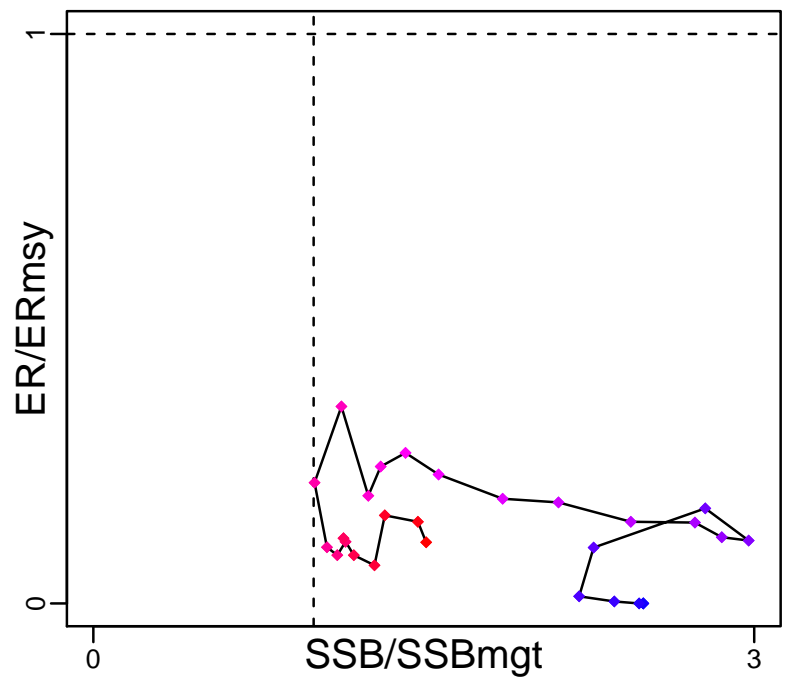
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2012	1610	-	-
TN	-	-	-	-	-
R	R-E00	2012	13,200,000	Both	-
F	F-1/yr	2012	0	Both	-
ER	ER-calc-ratio	2012	0	-	-
TC	TC-MT	2012	98.3		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2012	1.51		
F/Fmsy	FdivFmsy-dimensionless	2010	0.34		
ER/ERmsy	ER-calc-ratio/ERmsy-ratio	2012	0.11		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2012	1.51		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Scampi Wairapa/Hawke Bay [SCMPWHB]

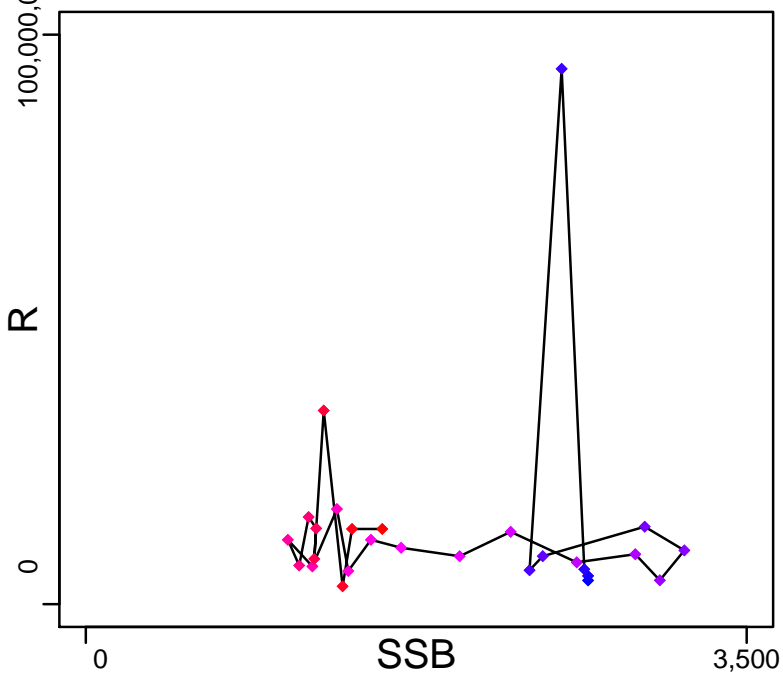
Kobe MSYpref (1985–2012–FU)



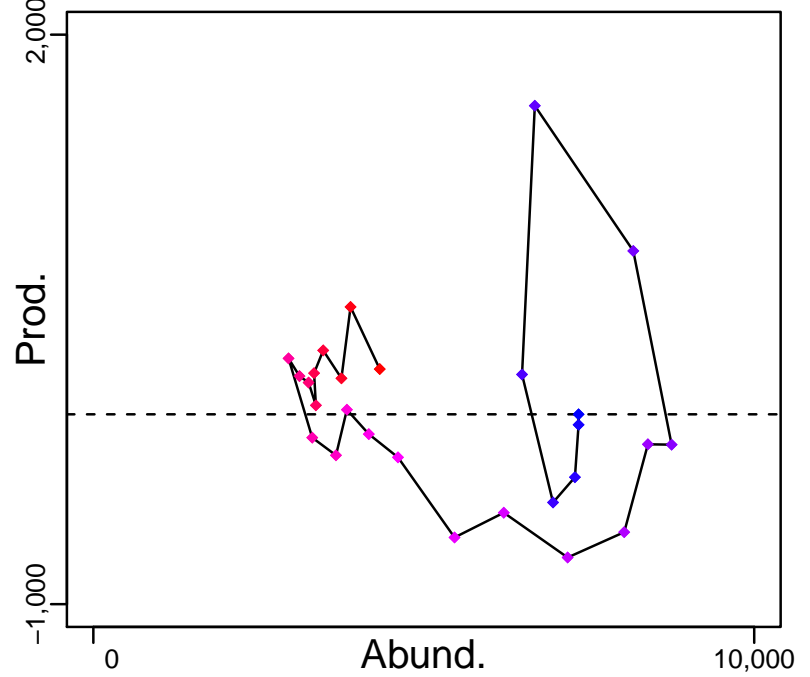
Kobe MGTpref (1985–2012–FU)



Spawner Recruit (1985–2012–FU)



Production (1985–2012–FU)



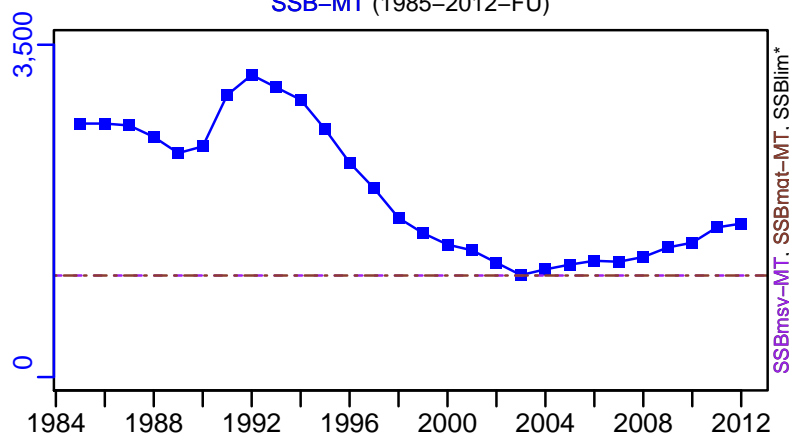
◆ Start Year ◆ End Year * No Data

Scampi Wairapa/Hawke Bay [SCMPWHB]

TB*



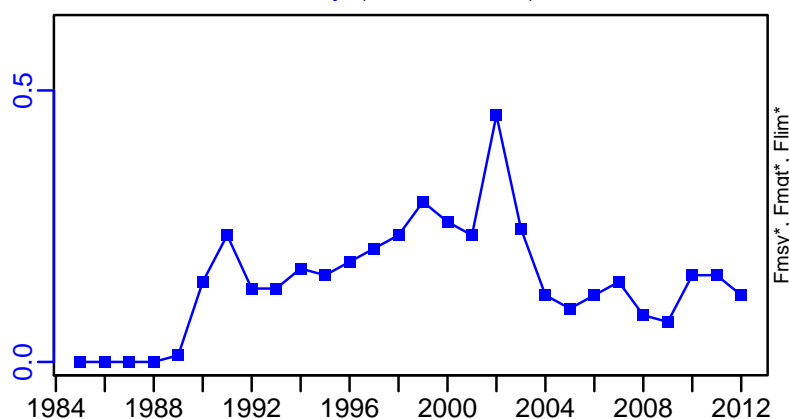
SSB-MT (1985–2012–FU)



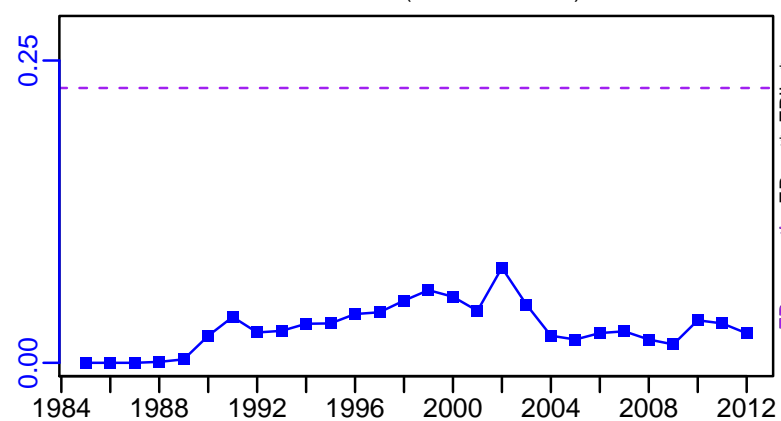
TN *



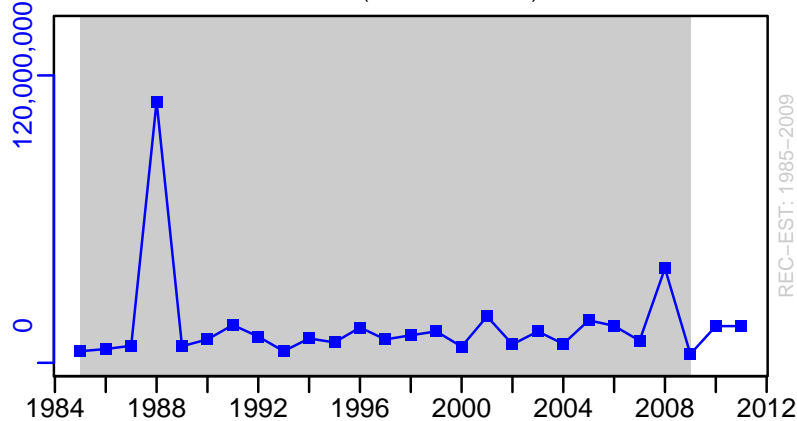
F-1/yr (1985–2012–FU)



ER-calc-ratio (1985–2012–FU)



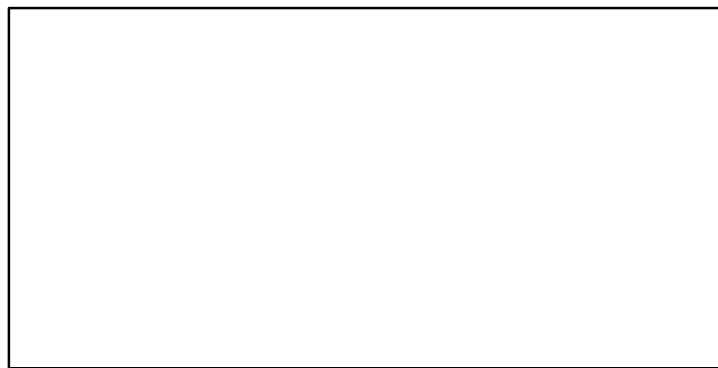
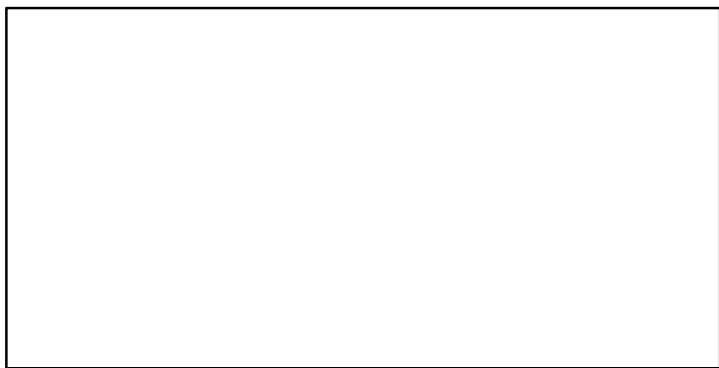
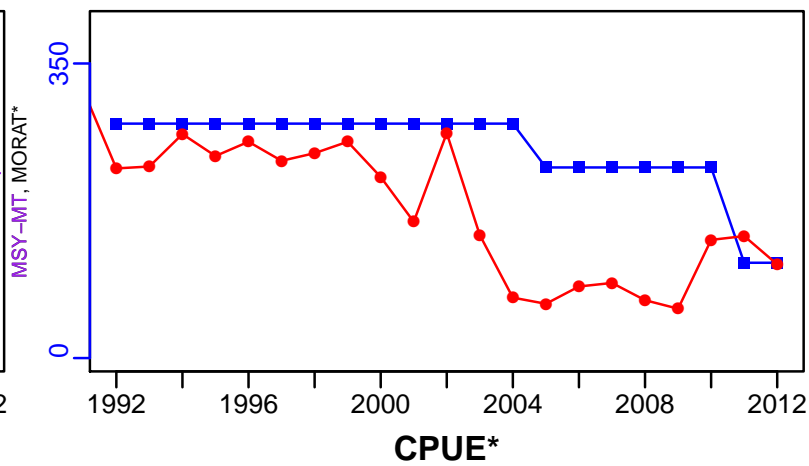
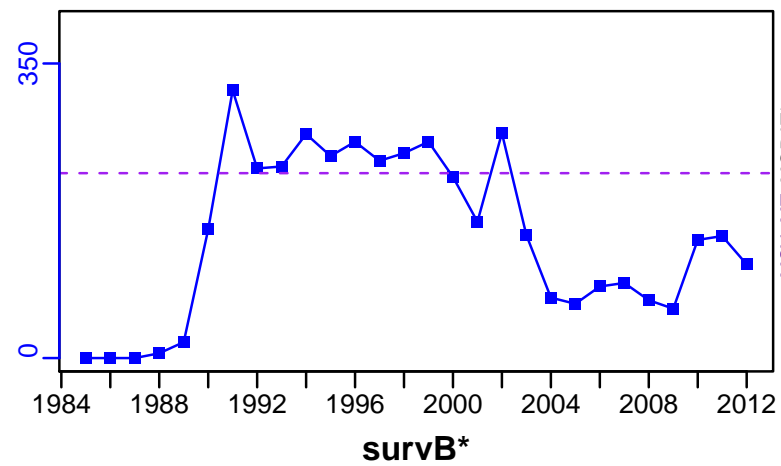
R-E00 (1985–2012–FU)



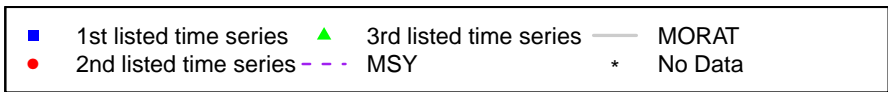
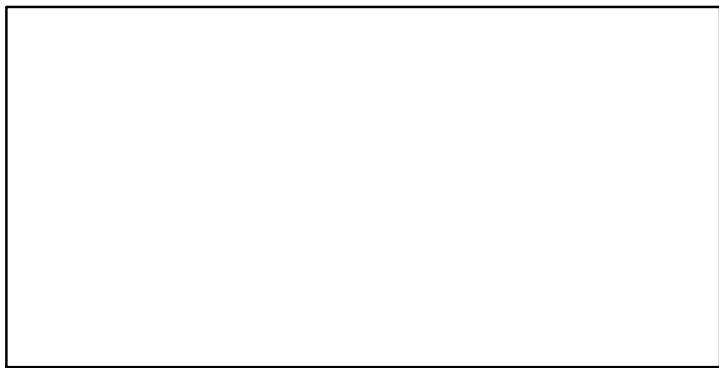
Scampi Wairapa/Hawke Bay [SCMPWHB]

TC-MT, TL*, RecC* (1985-2012-FU)

TAC-MT, Cpair-MT, Cadv* (1985-2012-FU)



EFFORT*



Smooth Oreo Bounty Plateau [SMOOTHOREOBP]

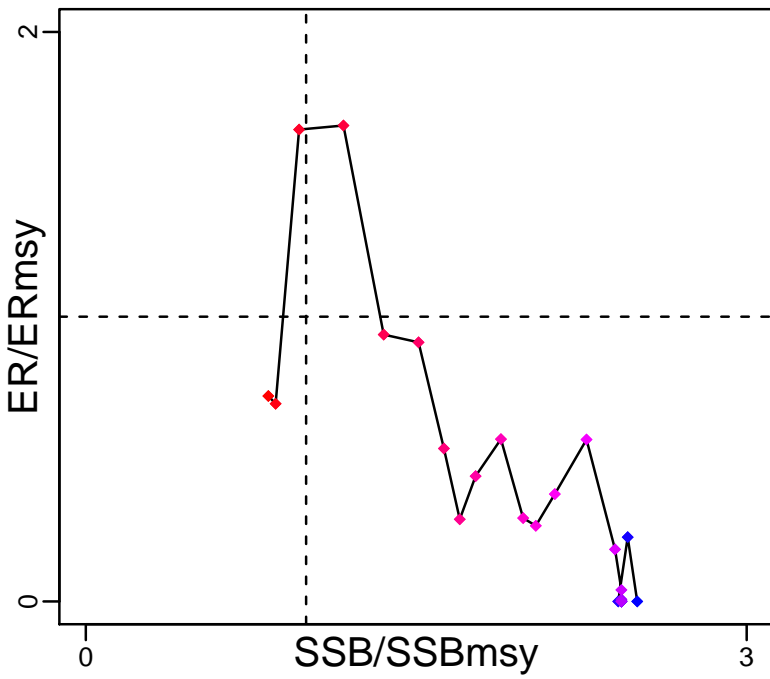
Metadata	
Scientific Name	Pseudocyttus maculatus
Current Assess ID	NIWA-SMOOTHOREOBP-1983-2008-CORDUE
Area	Bounty Plateau
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2008

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	-	-	-

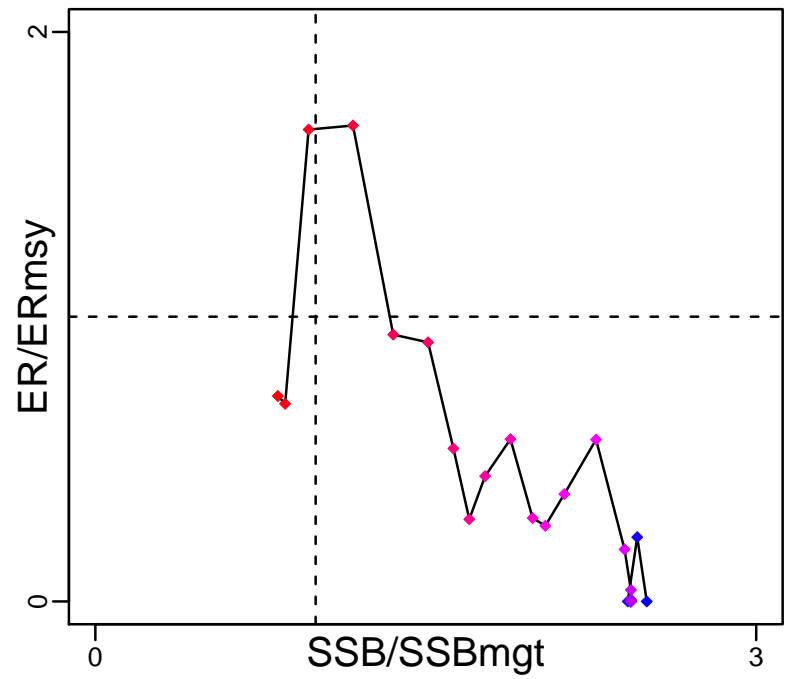
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2008	5760	Both	25+
TN	-	-	-	-	-
R	R-E00	2008	2,620,000	-	1
F	F-1/yr	2008	0	-	-
ER	ER-ratio	2008	0	-	-
TC	TC-MT	2008	670		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2008	0.83		
F/Fmsy	FdivFmsy-dimensionless	2008	1.42		
ER/ERmsy	ER-ratio/ERmsy-ratio	2008	0.72		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2008	0.83		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Smooth Oreo Bounty Plateau [SMOOTHOREOBP]

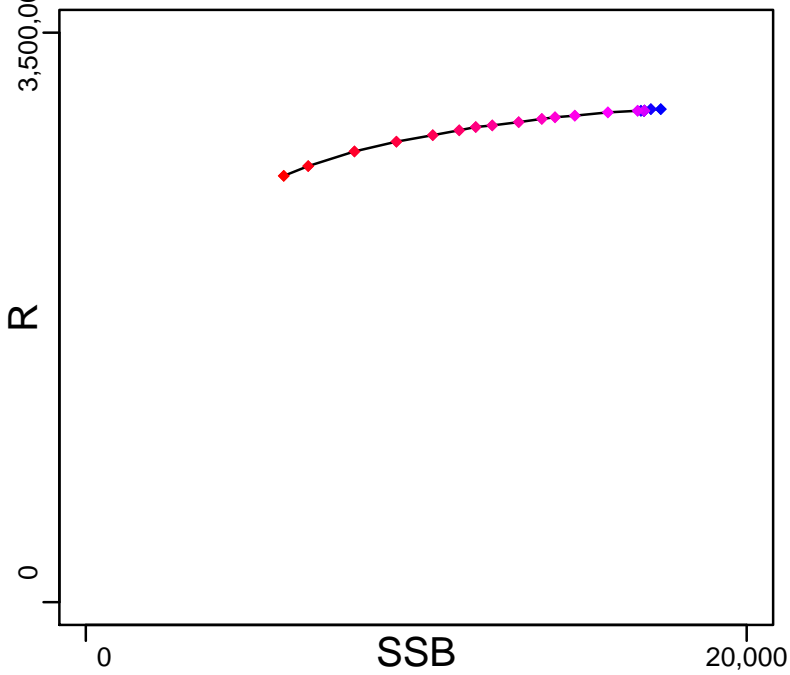
Kobe MSYpref (1983–2008–CORDUE)



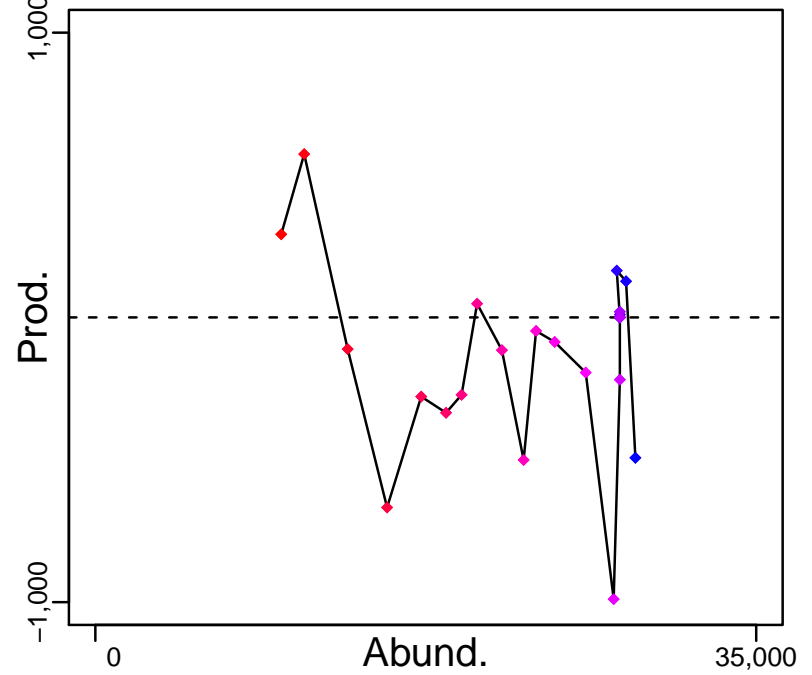
Kobe MGTpref (1983–2008–CORDUE)



Spawner Recruit (1983–2008–CORDUE)



Production (1983–2008–CORDUE)



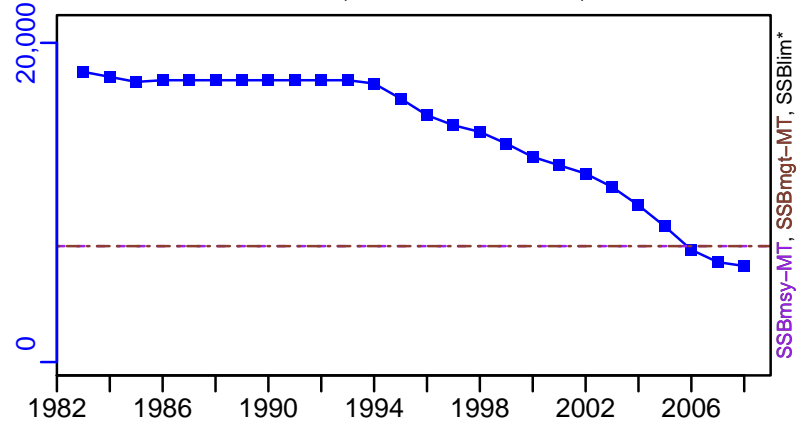
◆ Start Year ◆ End Year * No Data

Smooth Oreo Bounty Plateau [SMOOTHOREOBP]

TB*



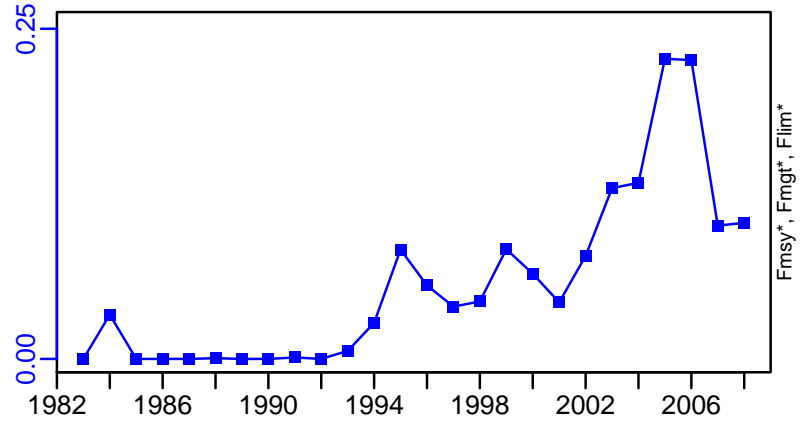
SSB-MT (1983-2008-CORDUE)



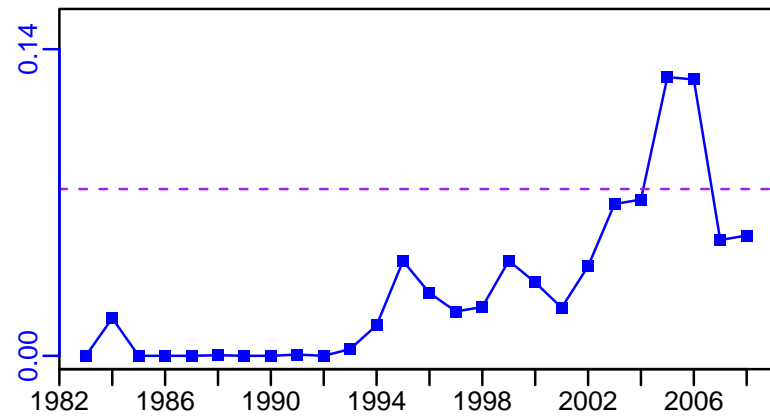
TN *



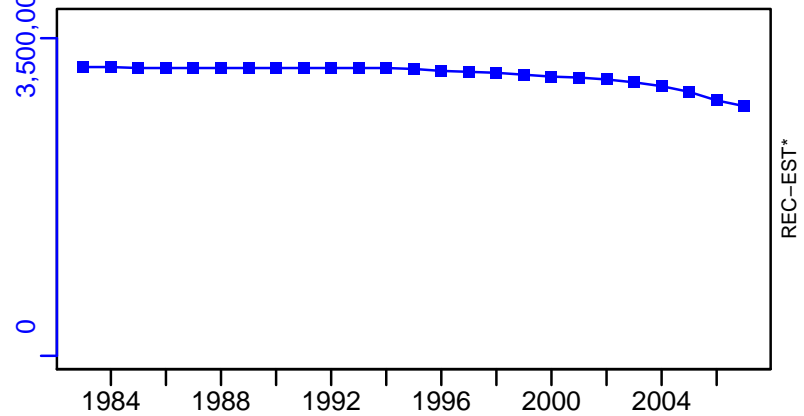
F-1/yr (1983-2008-CORDUE)



ER-ratio (1983-2008-CORDUE)



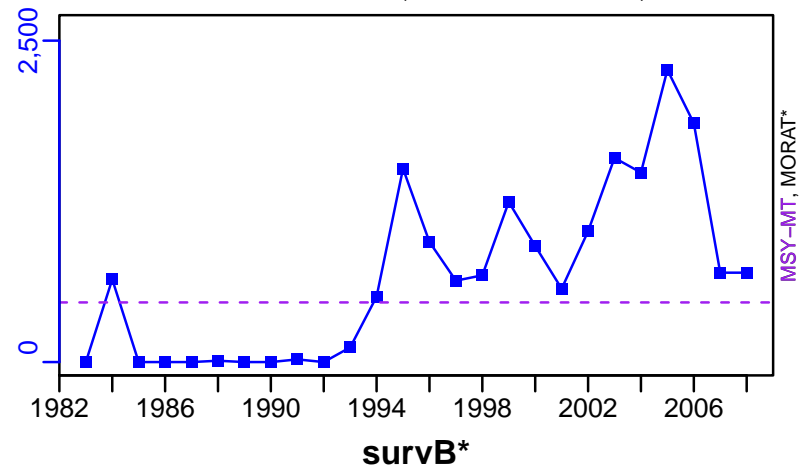
R-E00 (1983-2008-CORDUE)



Smooth Oreo Bounty Plateau [SMOOTHOREOBP]

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

TAC*, Cpair*, Cadv*



EFFORT*



Smooth oreo Chatham Rise [SMOOTHOREOCR]

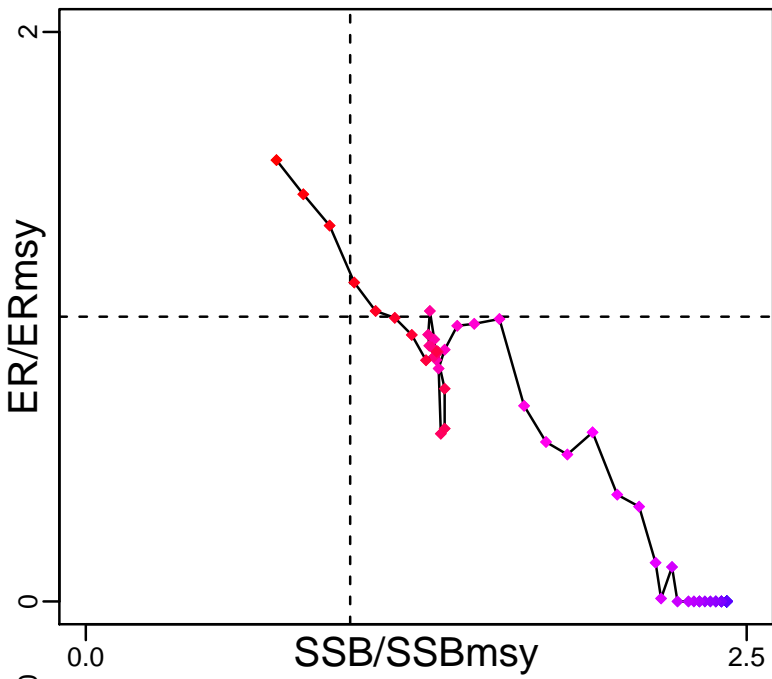
Metadata	
Scientific Name	Pseudocyttus maculatus
Current Assess ID	NIWA-SMOOTHOREOCR-1955-2013-FU
Area	Chatham Rise
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2013, 2010

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2010	43,300
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	-	-	-

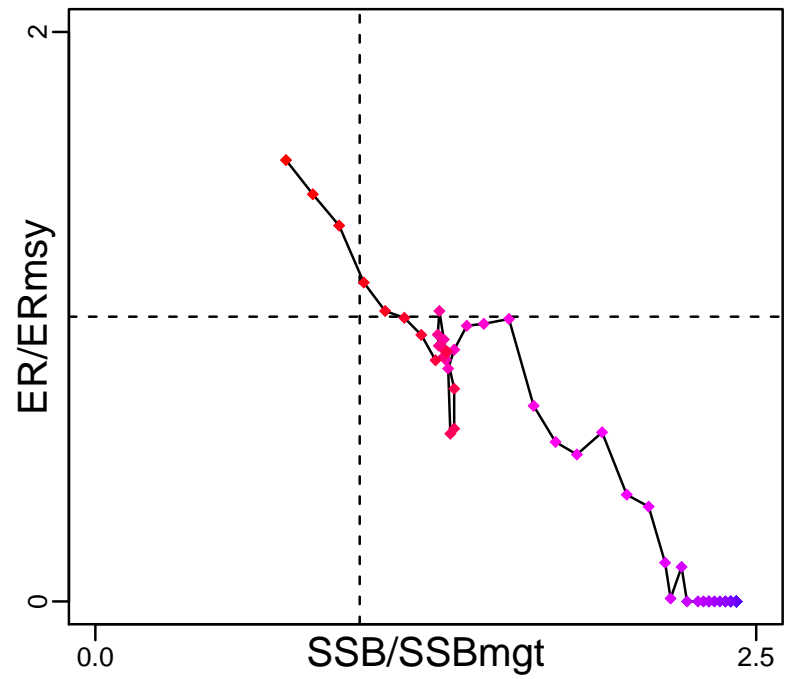
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2013	34,800	-	1 to 70
TN	-	-	-	-	-
R	R-E00	2013	17,400,000	Both	1 to 70
F	F-1/yr	2010	0	-	-
ER	ER-ratio	2013	0	Both	1 to 70
TC	TC-MT	2013	5960		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2013	0.72		
F/Fmsy	FdivFmsy-dimensionless	2010	1.03		
ER/ERmsy	ERdivERmsy-dimensionless	2013	1.55		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2013	0.72		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Smooth oreo Chatham Rise [SMOOTHOREOCR]

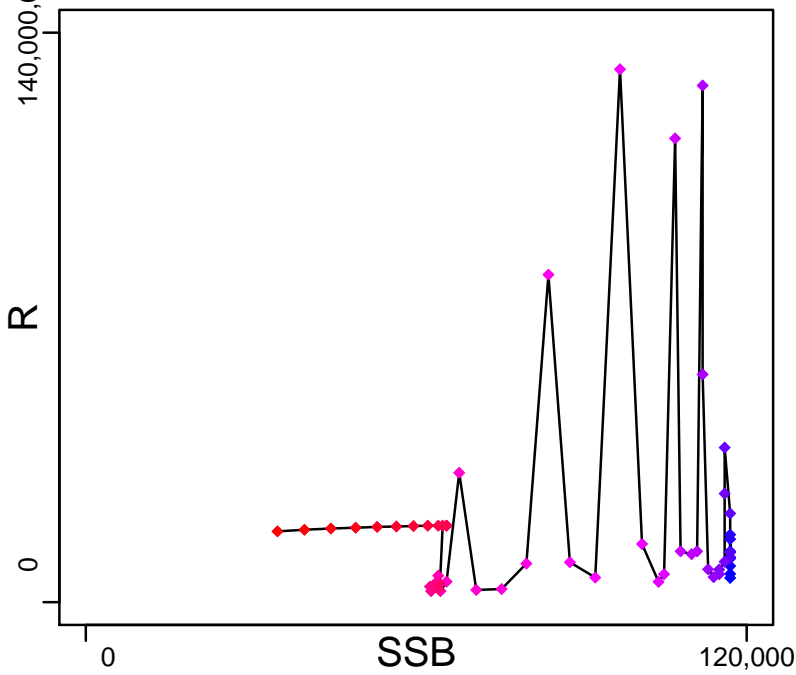
Kobe MSYpref (1955–2013–FU)



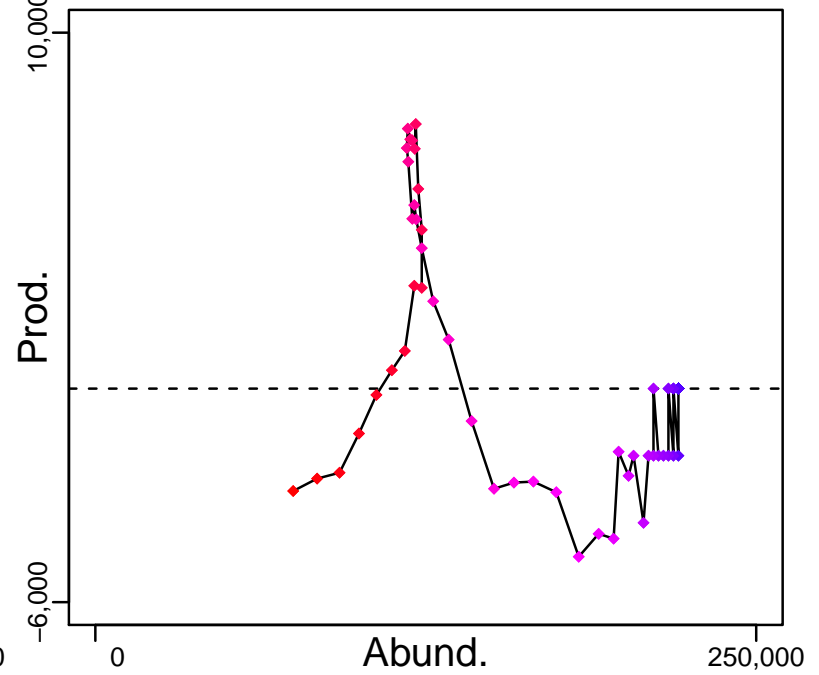
Kobe MGTpref (1955–2013–FU)



Spawner Recruit (1955–2013–FU)



Production (1955–2013–FU)



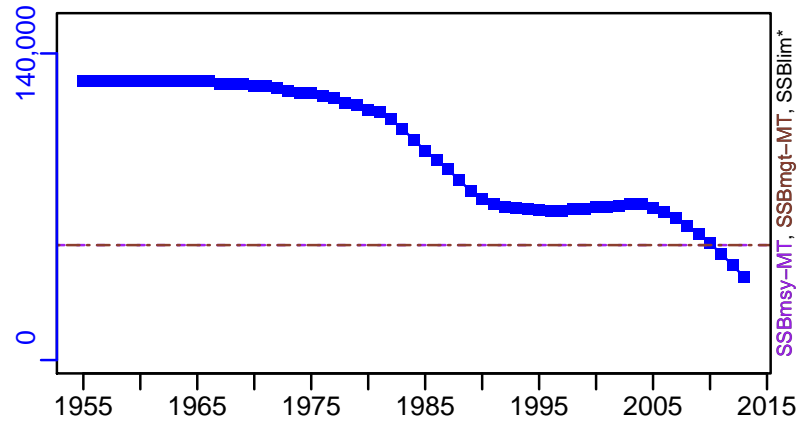
◆ Start Year ◆ End Year * No Data

Smooth oreo Chatham Rise [SMOOTHOREOCR]

TB*



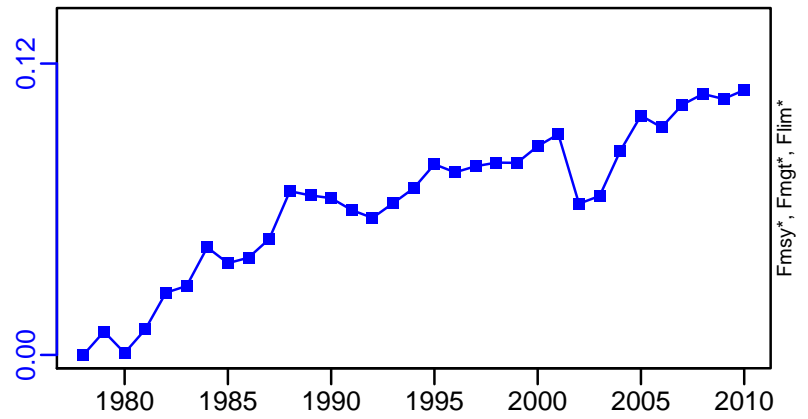
SSB-MT (1955–2013–FU)



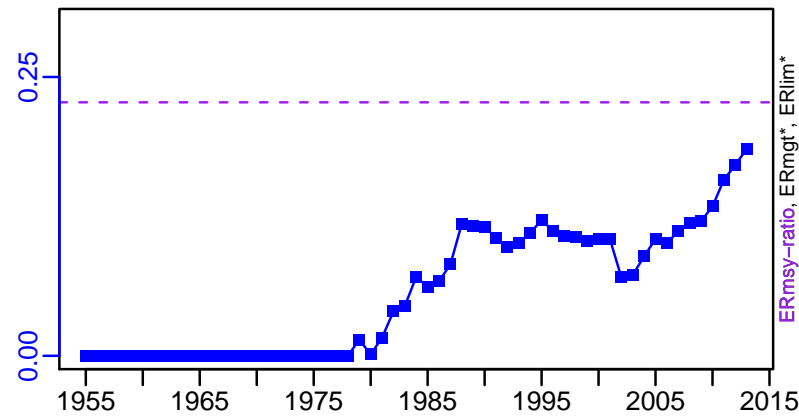
TN *



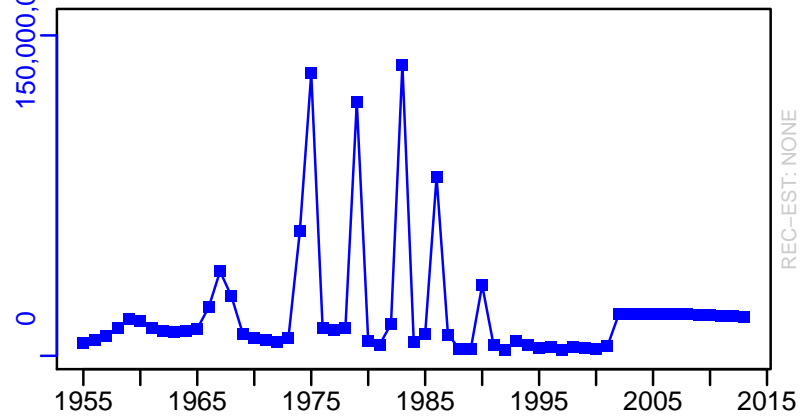
F-1/yr (1978–2010–CORDUE)



ER-ratio (1955–2013–FU)



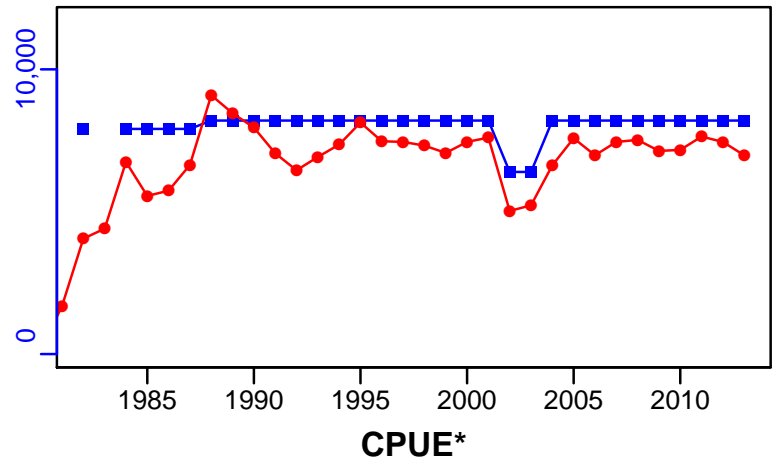
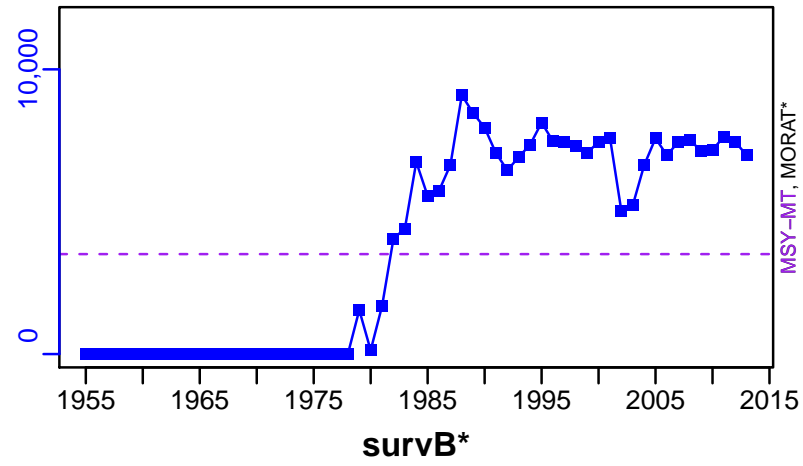
R-E00 (1955–2013–FU)



Smooth oreo Chatham Rise [SMOOTHOREOCR]

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

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



EFFORT*



Smooth Oreo East Pukaki Rise [SMOOTHOREOEPR]

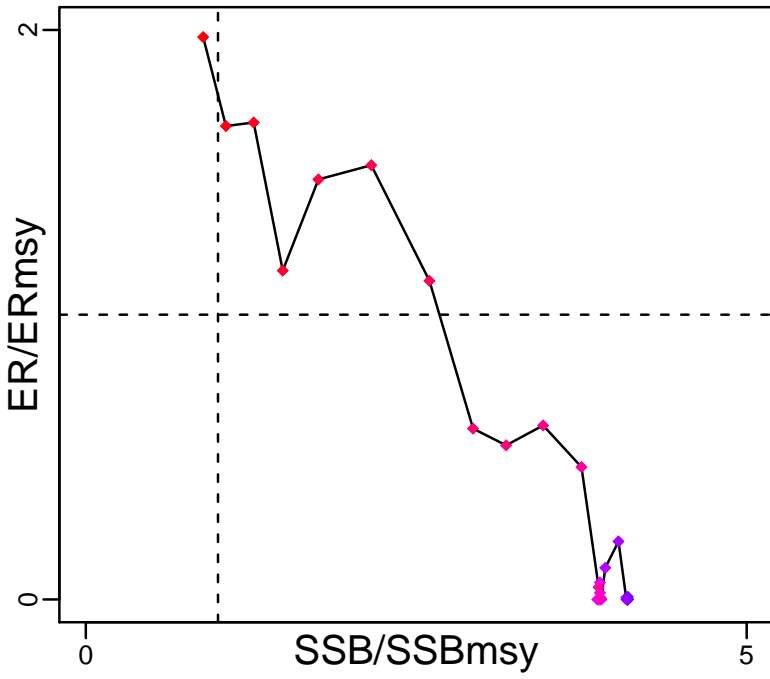
Metadata	
Scientific Name	Pseudocyttus maculatus
Current Assess ID	NIWA-SMOOTHOREOEPR-1973-2006-CORDUE
Area	East Pukaki Rise
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2006

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	-	-	-

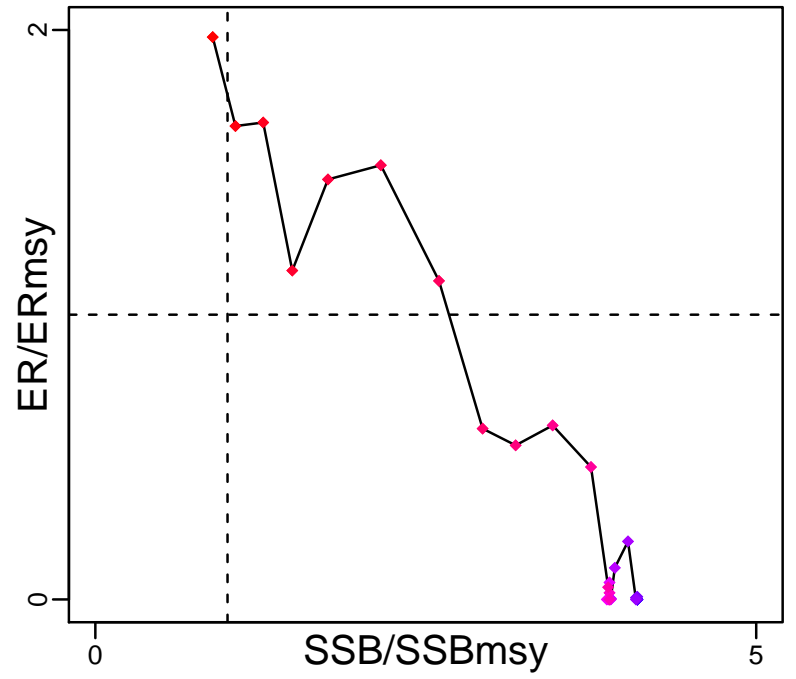
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2006	3760	Both	-
TN	-	-	-	-	-
R	R-E00	2006	2,180,000	-	5
F	F-1/yr	2006	0	-	-
ER	ER-ratio	2006	0	-	-
TC	TC-MT	2006	1370		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2006	0.89		
F/Fmsy	FdivFmsy-dimensionless	2006	3.35		
ER/ERmsy	ER-ratio/ERmsy-ratio	2006	1.98		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Smooth Oreo East Pukaki Rise [SMOOTHOREOEPR]

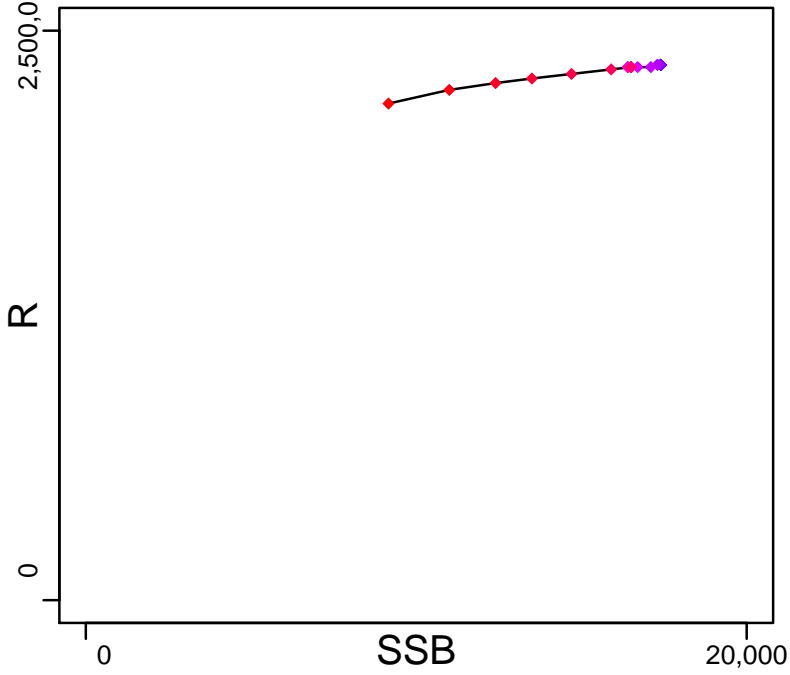
Kobe MSYpref (1973–2006–CORDUE)



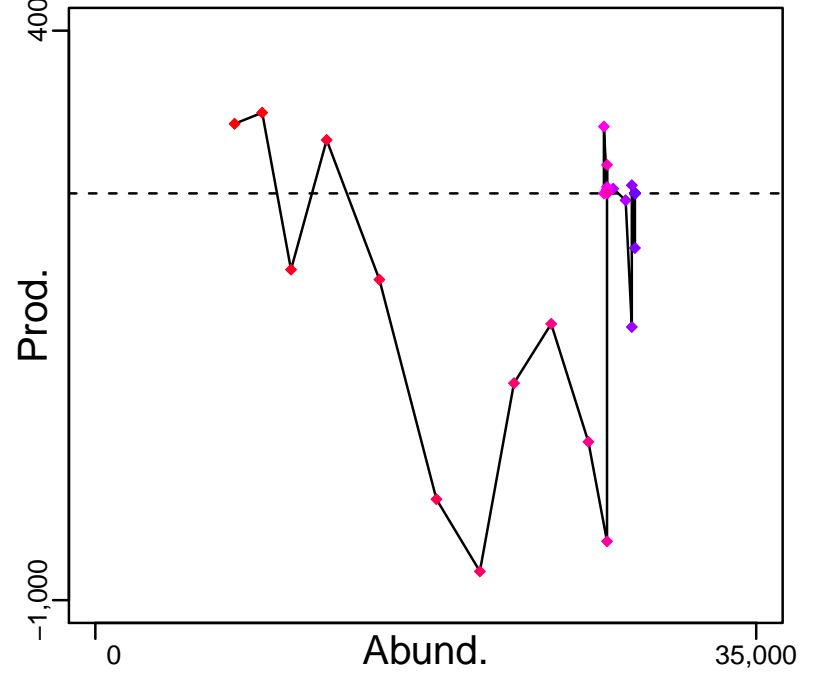
Kobe MGTpref (1973–2006–CORDUE)



Spawner Recruit (1973–2006–CORDUE)



Production (1973–2006–CORDUE)



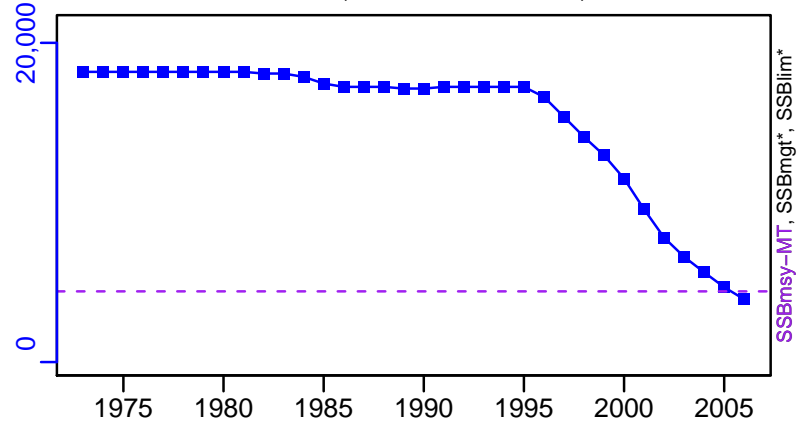
◆ Start Year ◆ End Year * No Data

Smooth Oreo East Pukaki Rise [SMOOTHOREOEPR]

TB*



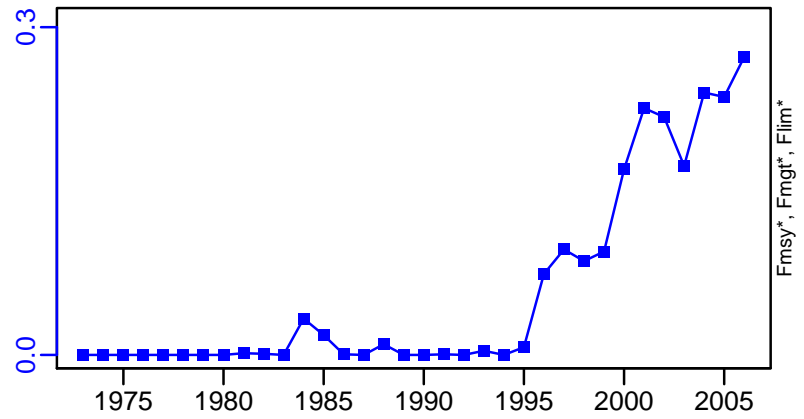
SSB-MT (1973-2006-CORDUE)



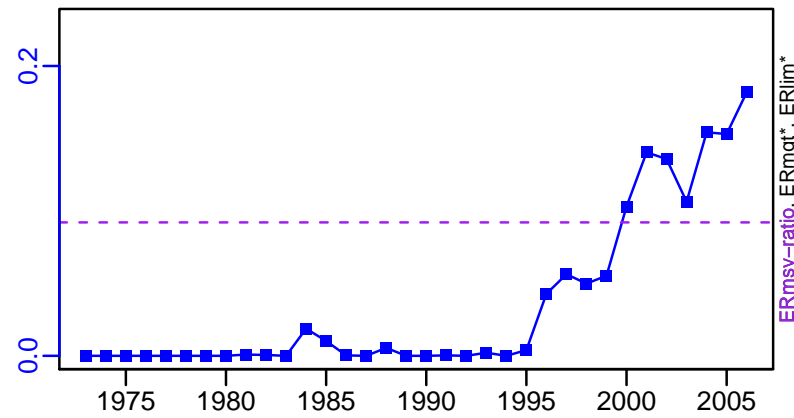
TN *



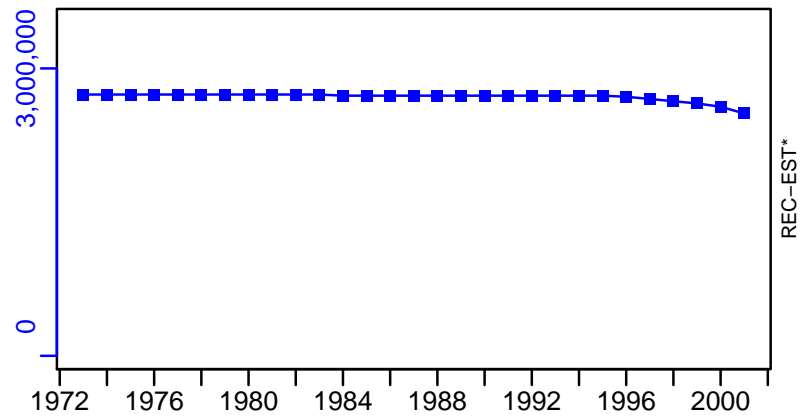
F-1/yr (1973-2006-CORDUE)



ER-ratio (1973-2006-CORDUE)



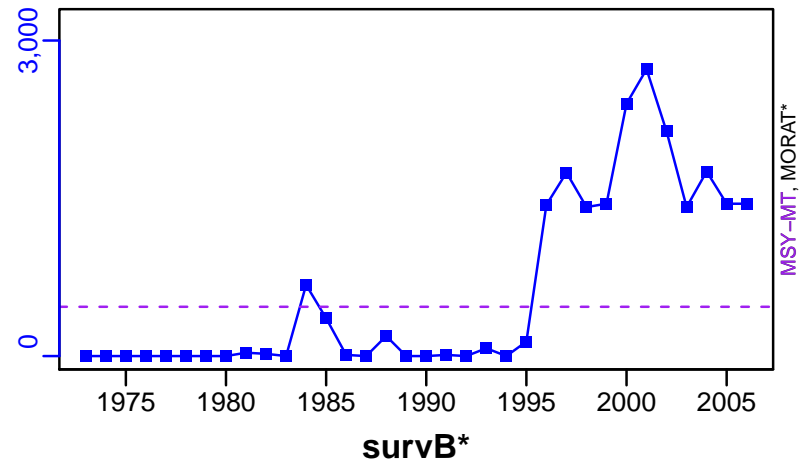
R-E00 (1973-2006-CORDUE)



Smooth Oreo East Pukaki Rise [SMOOTHOREOEPR]

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

TAC*, Cpair*, Cadv*



EFFORT*



Smooth Oreo Southland [SMOOTHOREOSLD]

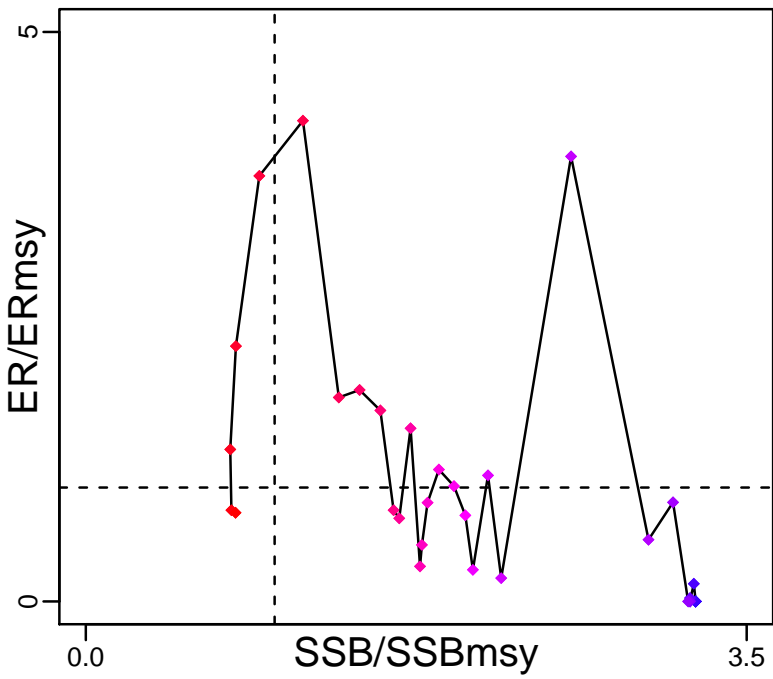
Metadata	
Scientific Name	Pseudocyttus maculatus
Current Assess ID	NIWA-SMOOTHOREOSLD-1973-2007-CORDUE
Area	Southland
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2007

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2007	5217
Fmsy	Fmsy-1/yr	2007	0.08
ERmsy	ERmsy-ratio	2007	0.04
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	-	-	-

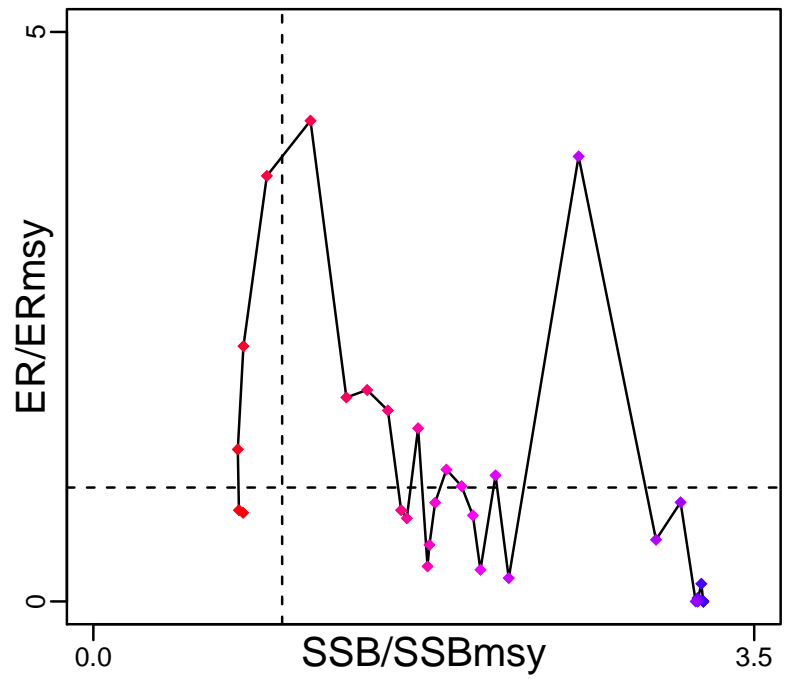
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2007	4140	Both	25+
TN	-	-	-	-	-
R	R-E00	2007	1,980,000	-	5
F	F-1/yr	2007	0	-	-
ER	ER-ratio	2007	0	-	-
TC	TC-MT	2007	260		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2007	0.79		
F/Fmsy	FdivFmsy-dimensionless	2007	0.72		
ER/ERmsy	ER-ratio/ERmsy-ratio	2007	0.78		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Smooth Oreo Southland [SMOOTHOREOSLD]

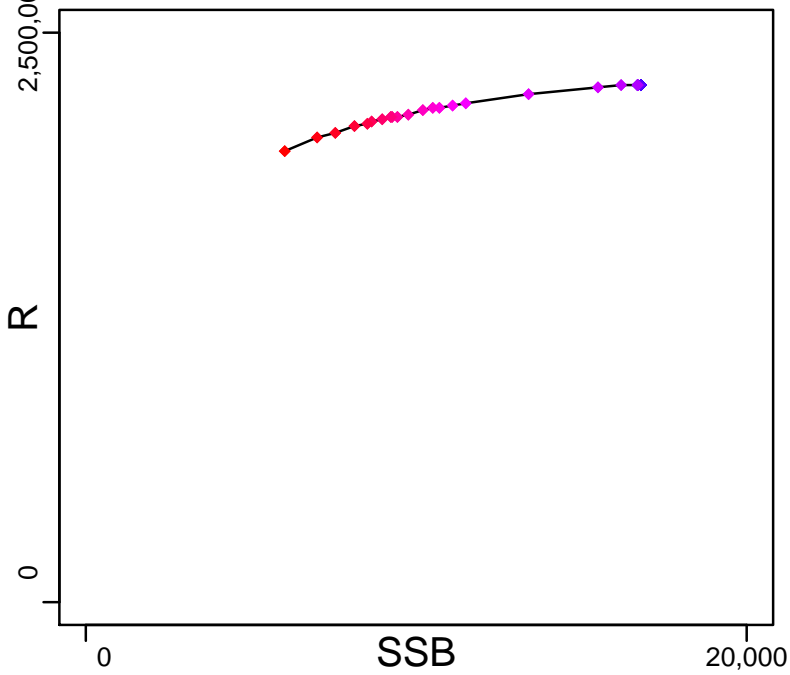
Kobe MSYpref (1973–2007–CORDUE)



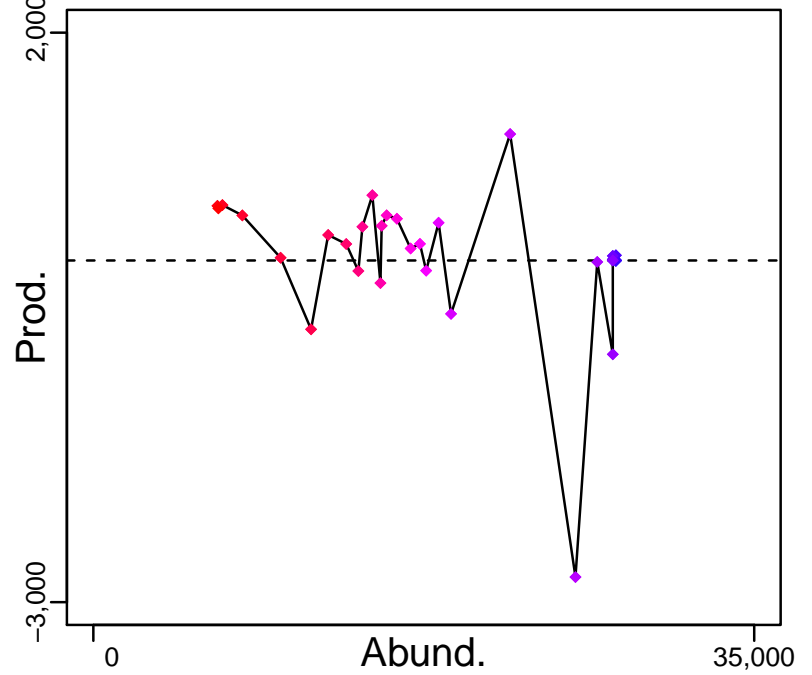
Kobe MGTpref (1973–2007–CORDUE)



Spawner Recruit (1973–2007–CORDUE)



Production (1973–2007–CORDUE)



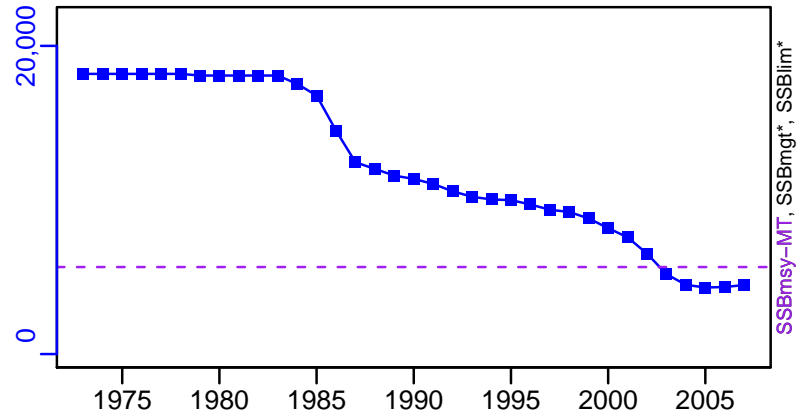
◆ Start Year ◆ End Year * No Data

Smooth Oreo Southland [SMOOTHOREOSLD]

TB*



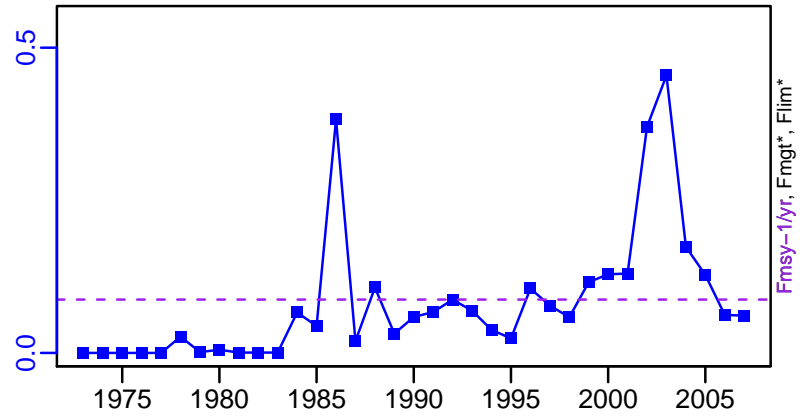
SSB-MT (1973-2007-CORDUE)



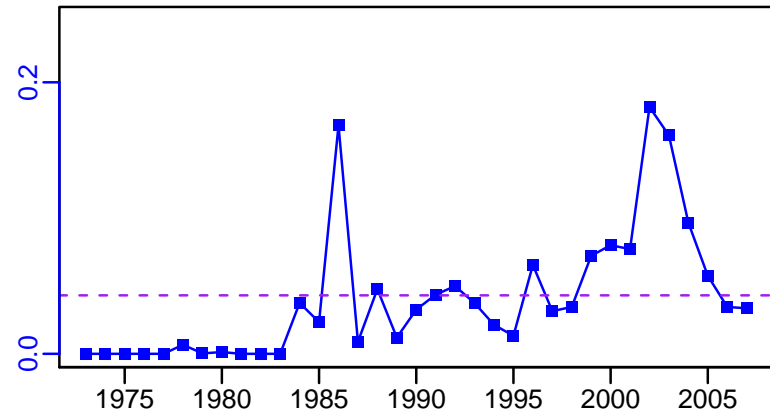
TN *



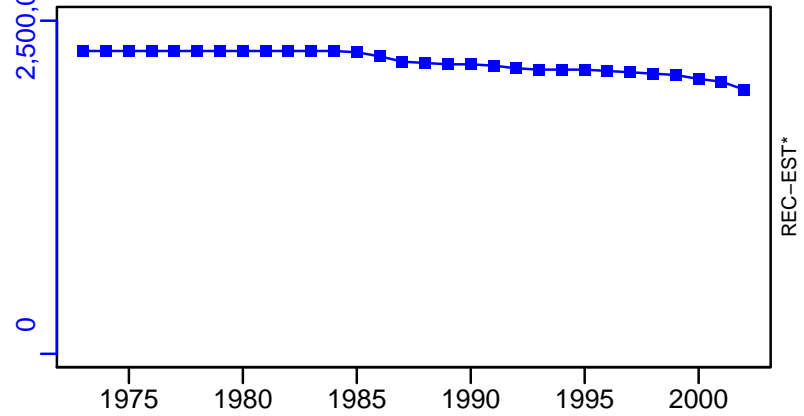
F-1/yr (1973-2007-CORDUE)



ER-ratio (1973-2007-CORDUE)



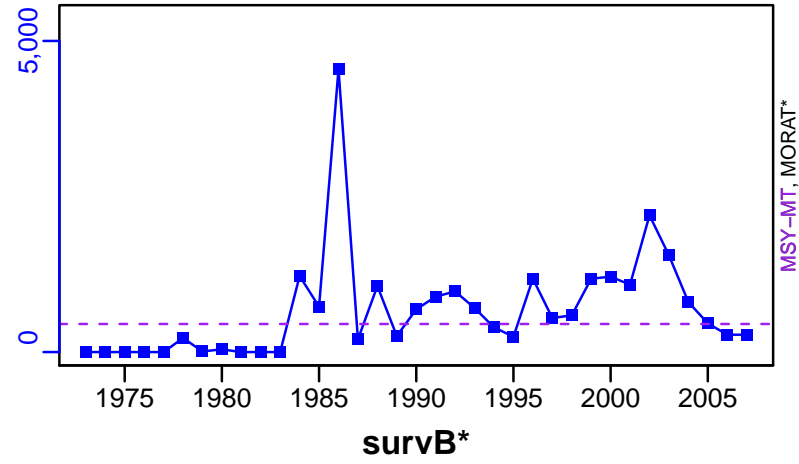
R-E00 (1973-2007-CORDUE)



Smooth Oreo Southland [SMOOTHOREOSLD]

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

TAC*, Cpair*, Cadv*



EFFORT*



Smooth oreo West end of Chatham Rise [SMOOTHOREOWECR]

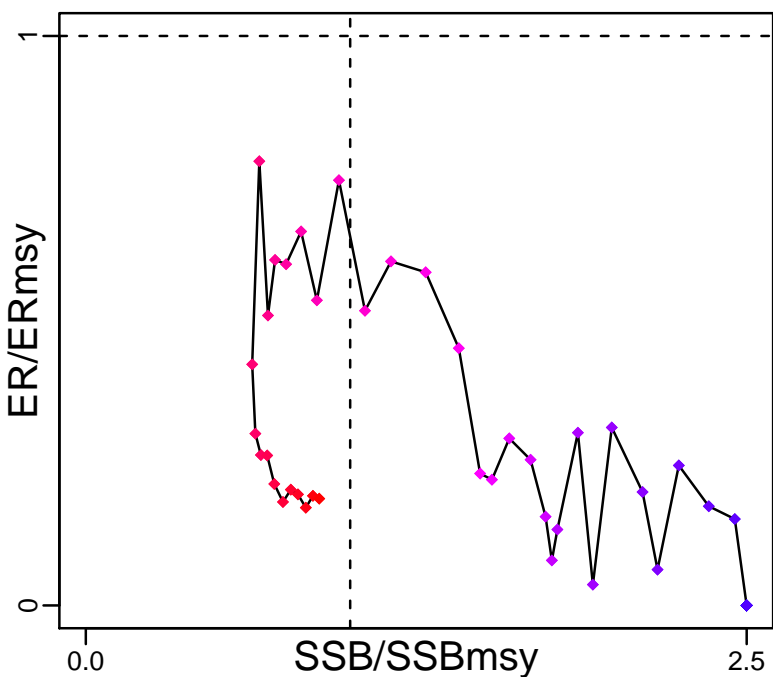
Metadata	
Scientific Name	Pseudocyttus maculatus
Current Assess ID	NIWA-SMOOTHOREOWECR-1965-2009-CORDUE
Area	West end of Chatham Rise
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2009

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	-	-	-

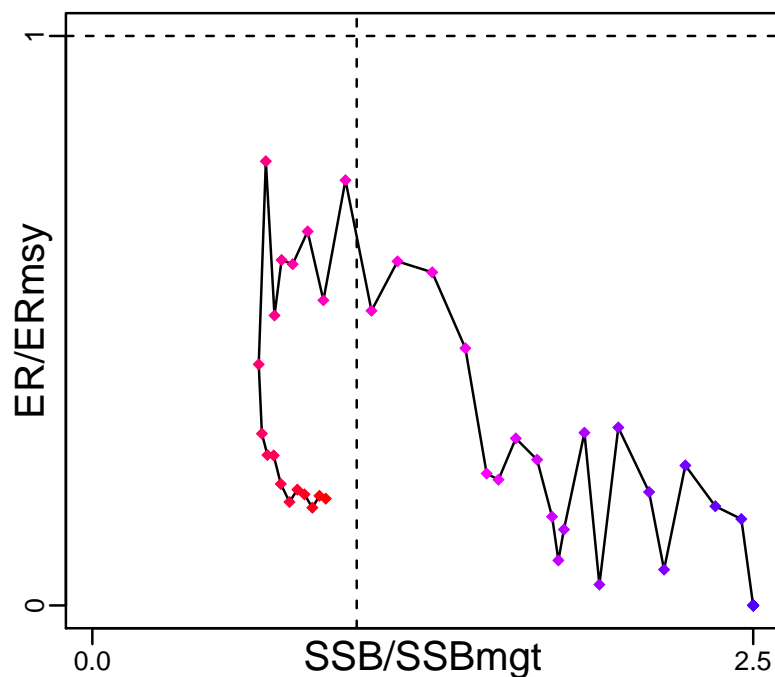
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2009	29,600	Both	25+
TN	-	-	-	-	-
R	R-E00	2009	9,930,000	-	5
F	F-1/yr	2009	0	-	-
ER	ER-ratio	2009	0	-	-
TC	TC-MT	2009	1530		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2009	0.88		
F/Fmsy	FdivFmsy-dimensionless	2009	0.49		
ER/ERmsy	ER-ratio/ERmsy-ratio	2009	0.19		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2009	0.88		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Smooth oreo West end of Chatham Rise [SMOOTHOREOWECR]

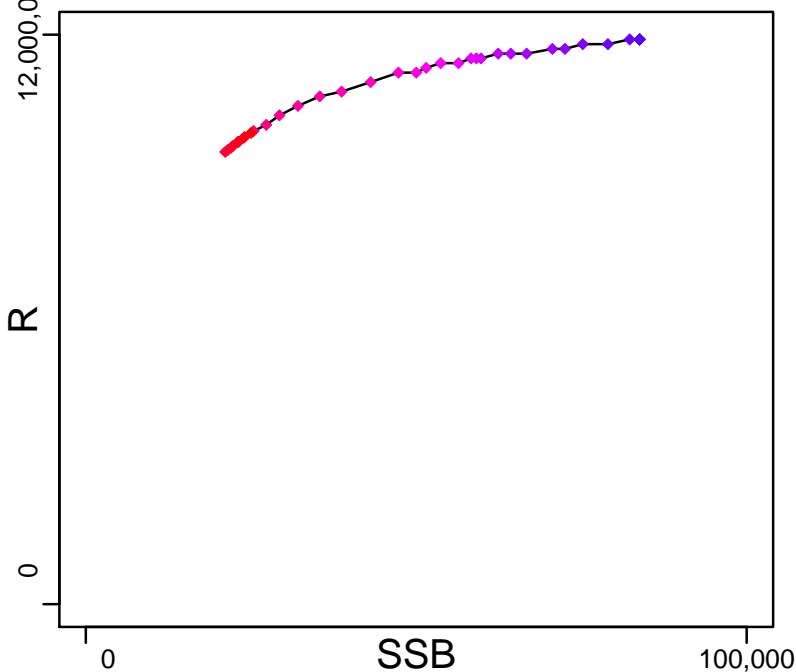
Kobe MSYpref (1965–2009–CORDUE)



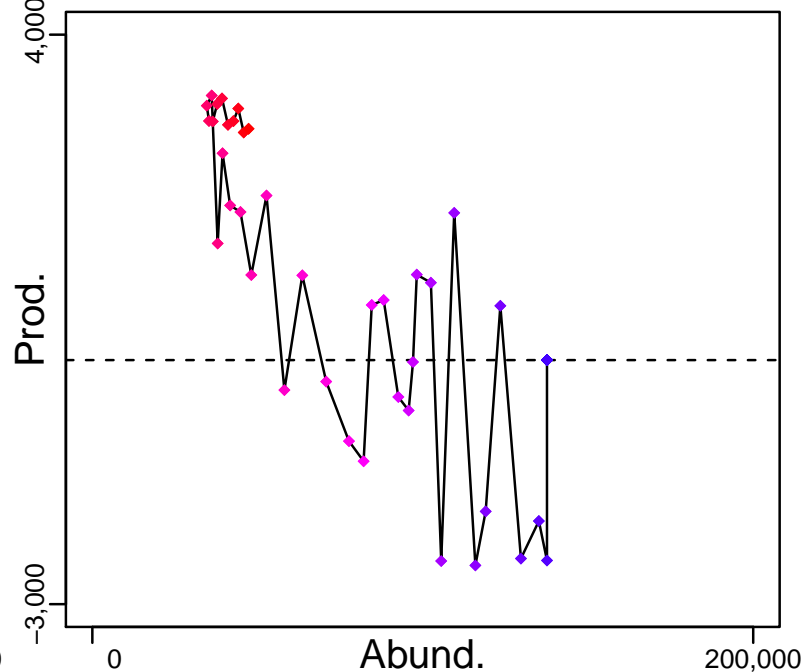
Kobe MGTpref (1965–2009–CORDUE)



Spawner Recruit (1965–2009–CORDUE)



Production (1965–2009–CORDUE)



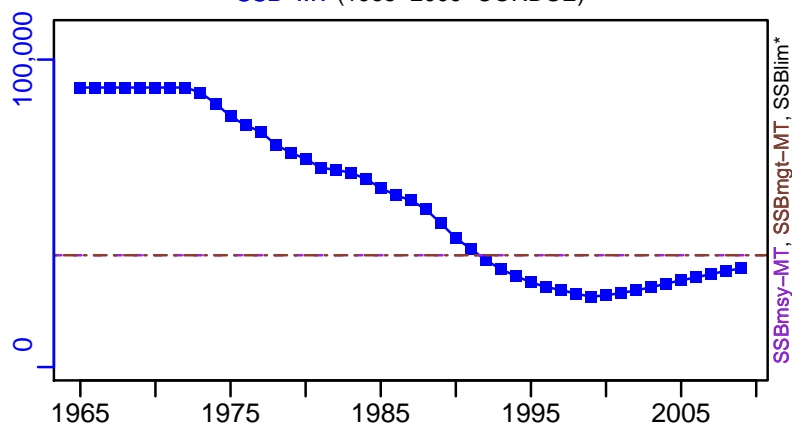
◆ Start Year ◆ End Year * No Data

Smooth oreo West end of Chatham Rise [SMOOTHOREOWECR]

TB*



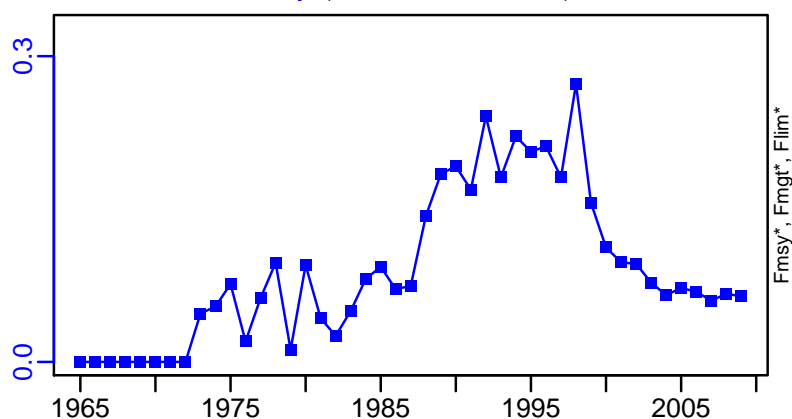
SSB-MT (1965-2009-CORDUE)



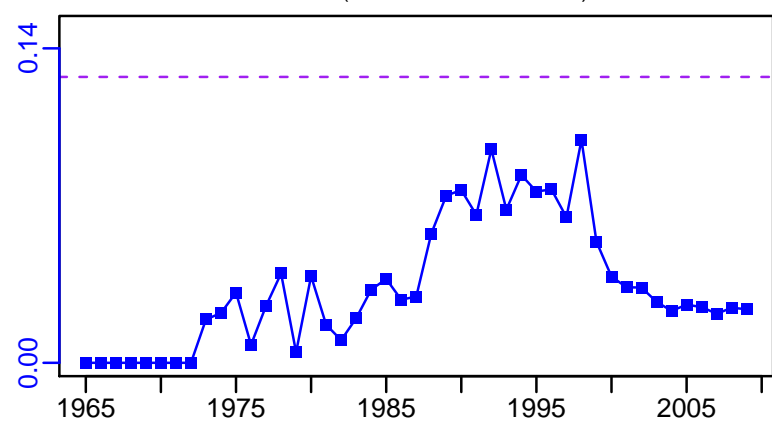
TN *



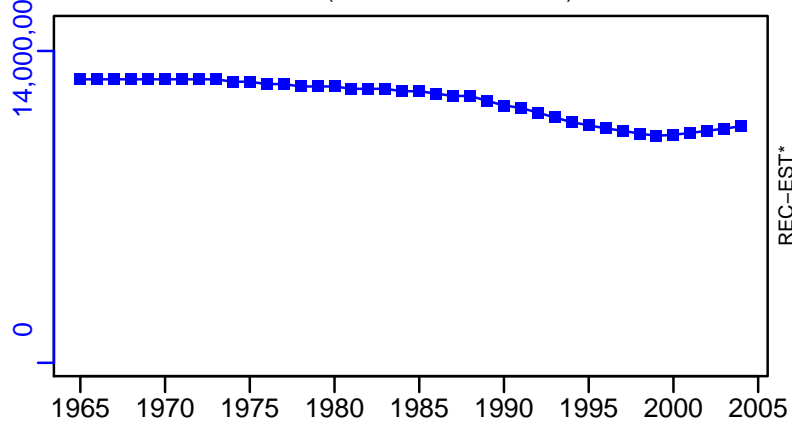
F-1/yr (1965-2009-CORDUE)



ER-ratio (1965-2009-CORDUE)

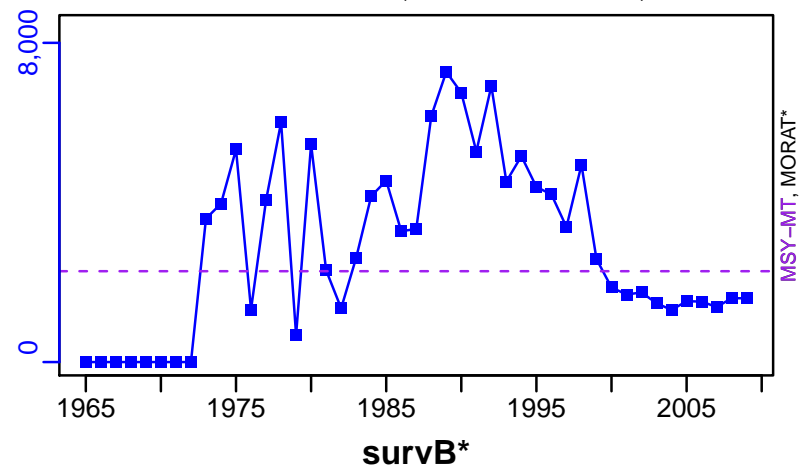


R-E00 (1965-2009-CORDUE)



Smooth oreo West end of Chatham Rise [SMOOTHOREOWECCR]

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



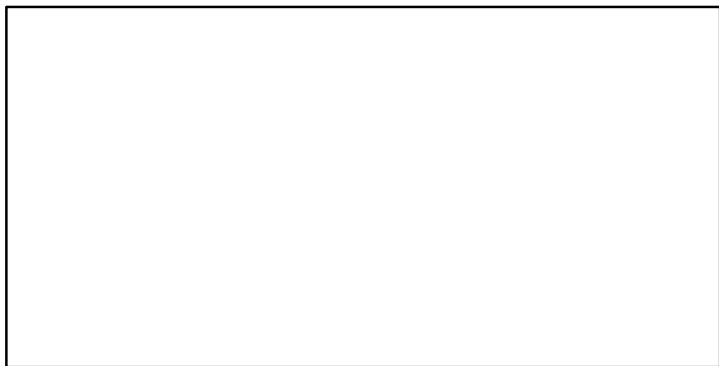
TAC*, Cpair*, Cadv*



CPUE*



EFFORT*



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

Southern hake Chatham Rise [SOUTHHAKECR]

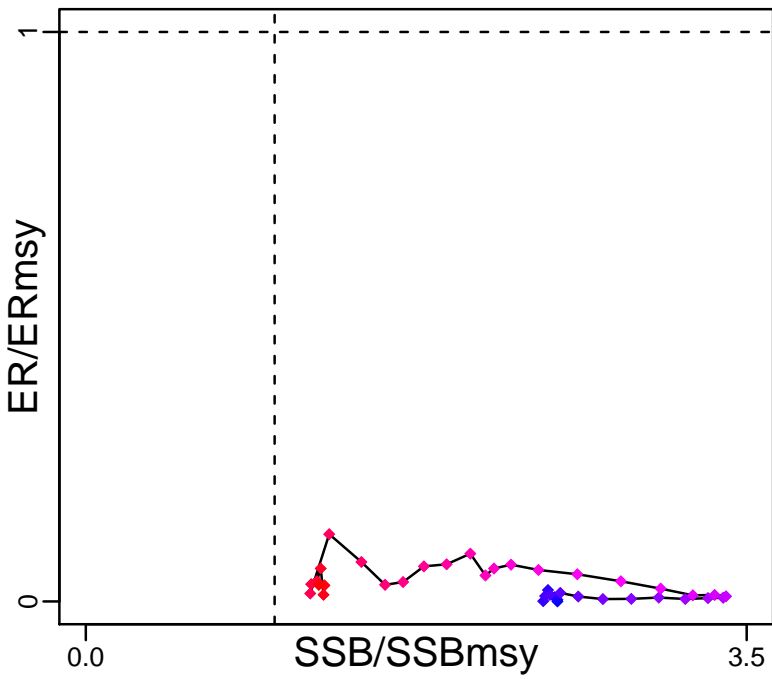
Metadata	
Scientific Name	Merluccius australis
Current Assess ID	NIWA-SOUTHHAKECR-1974-2012-FU
Area	Chatham Rise
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2012, 2010

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
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	-	-	-

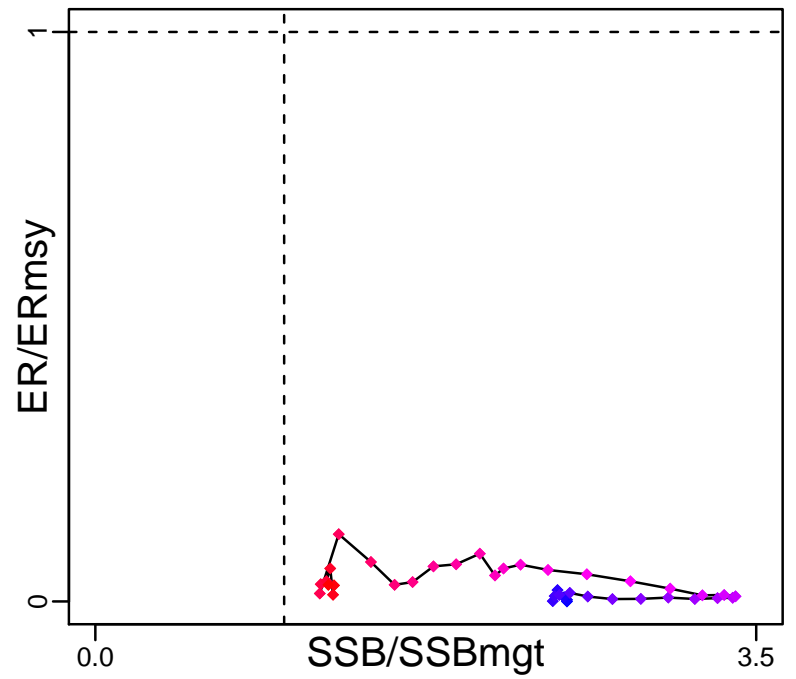
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2012	24,600	-	1 to 30
TN	-	-	-	-	-
R	R-E00	2012	4,350,000	Both	-
F	-	-	-	-	-
ER	ER-calc-ratio	2012	0	-	-
TC	TC-MT	2012	950		
TL	TL-MT	2012	161		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2012	1.23		
F/Fmsy	-	-	-		
ER/ERmsy	ER-calc-ratio/ERmsy-ratio	2012	0.03		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2012	1.23		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Southern hake Chatham Rise [SOUTHHAKECR]

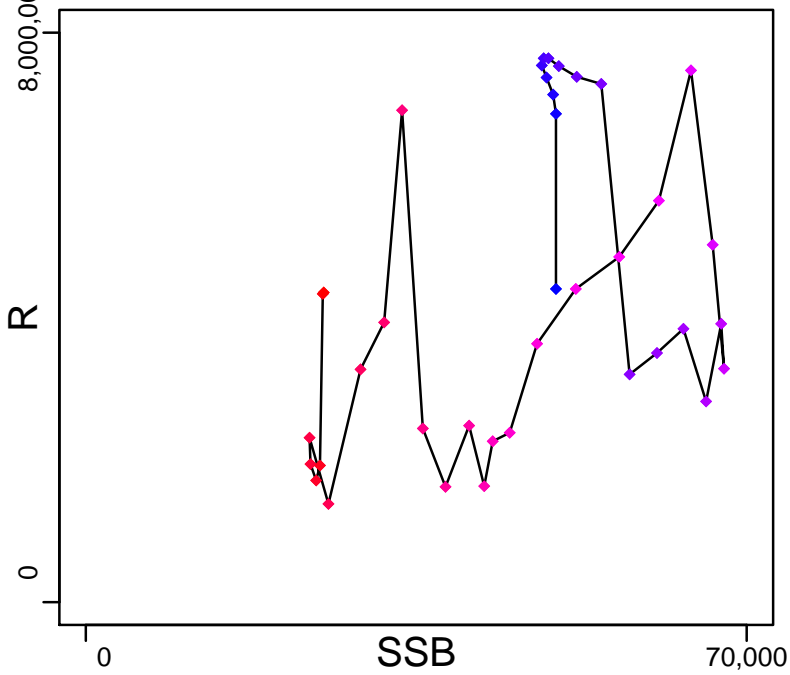
Kobe MSYpref (1974–2012–FU)



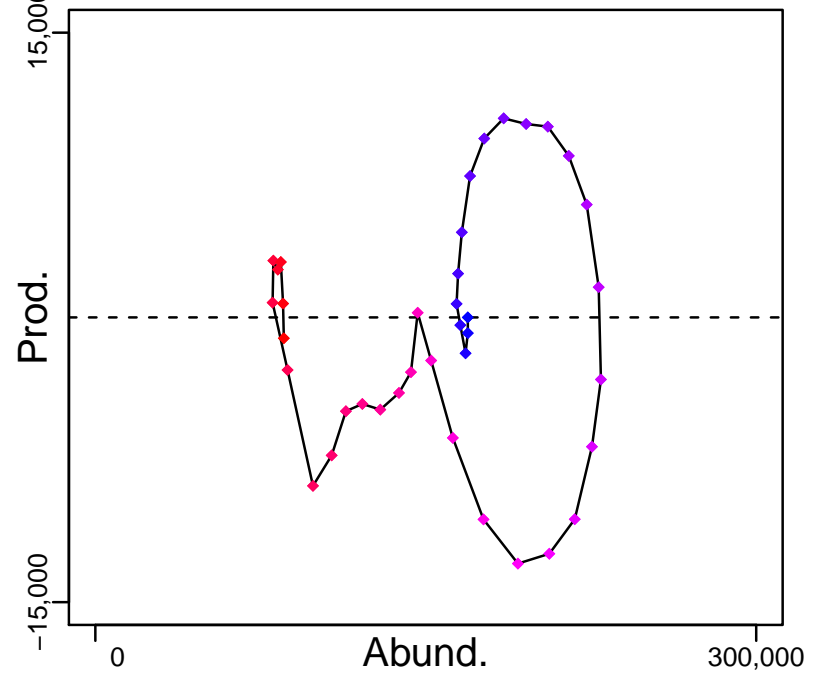
Kobe MGTpref (1974–2012–FU)



Spawner Recruit (1974–2012–FU)



Production (1974–2012–FU)



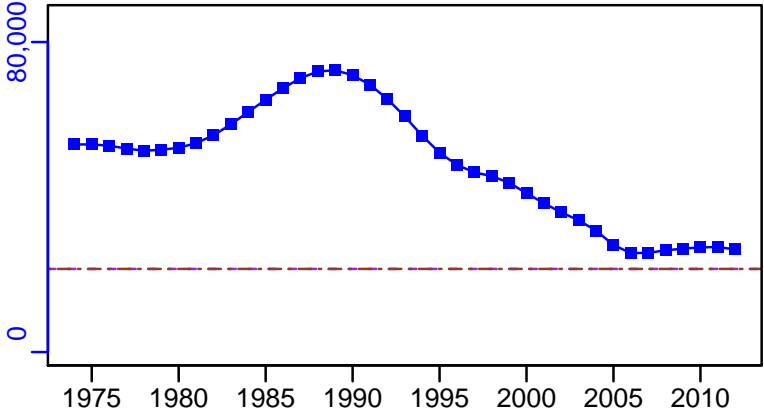
◆ Start Year ◆ End Year * No Data

Southern hake Chatham Rise [SOUTHHAKECR]

TB*



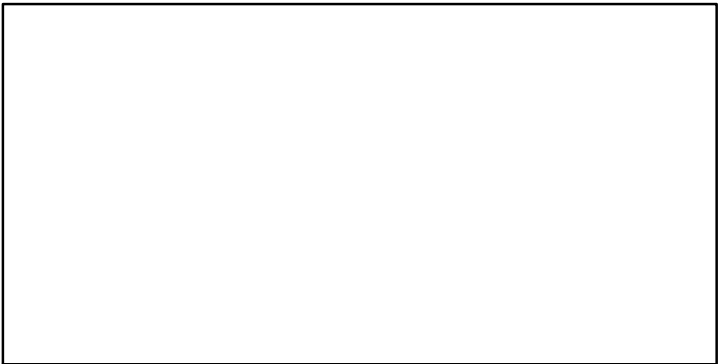
SSB-MT (1974–2012–FU)



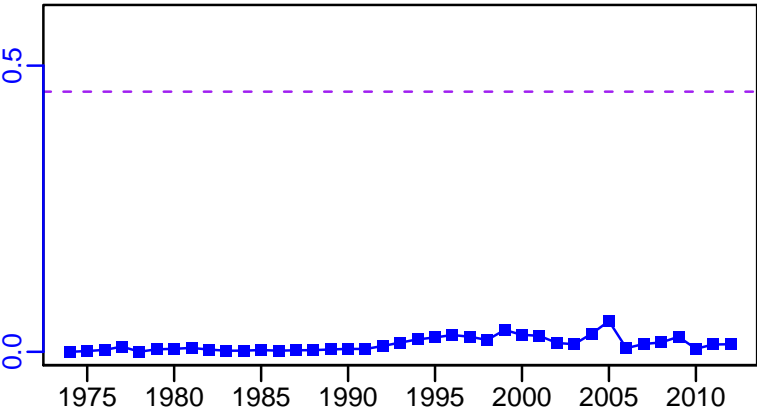
TN *



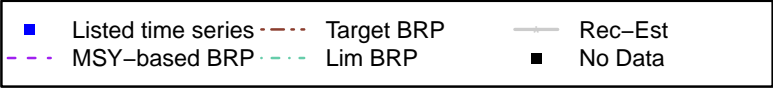
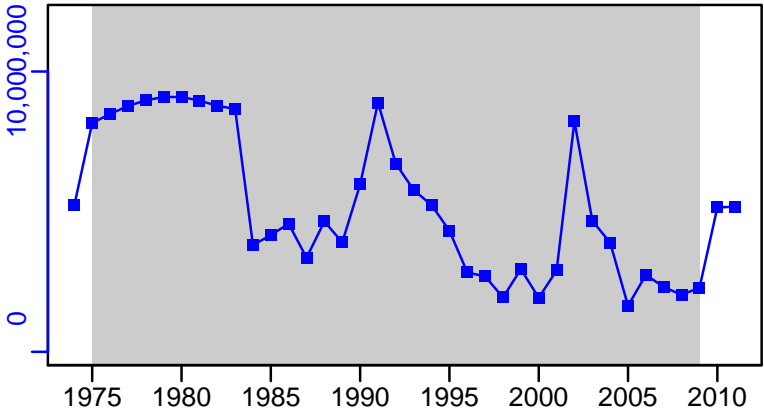
F*



ER-calc-ratio (1974–2012–FU)

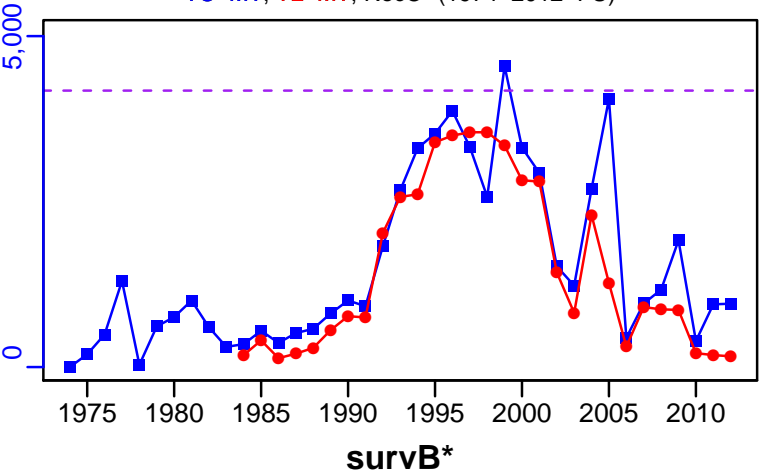


R-E00 (1974–2012–FU)

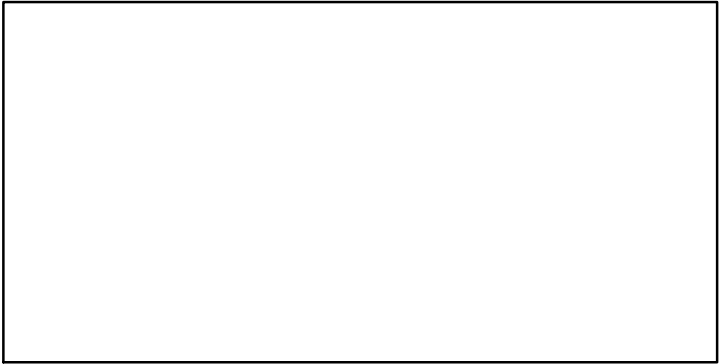
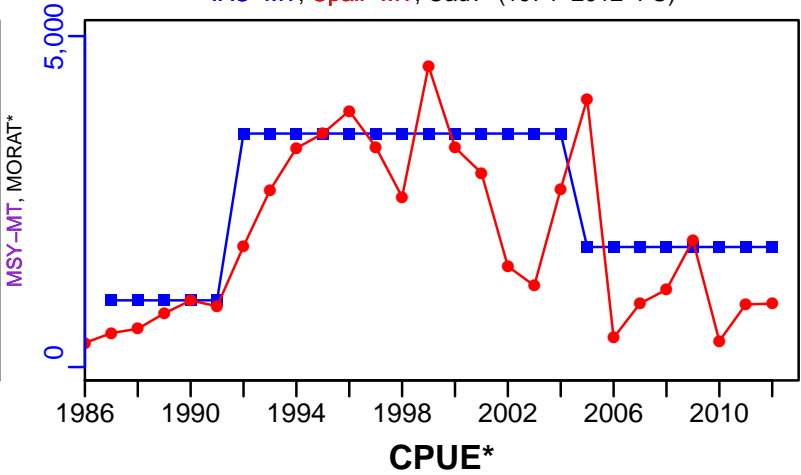


Southern hake Chatham Rise [SOUTHHAKECR]

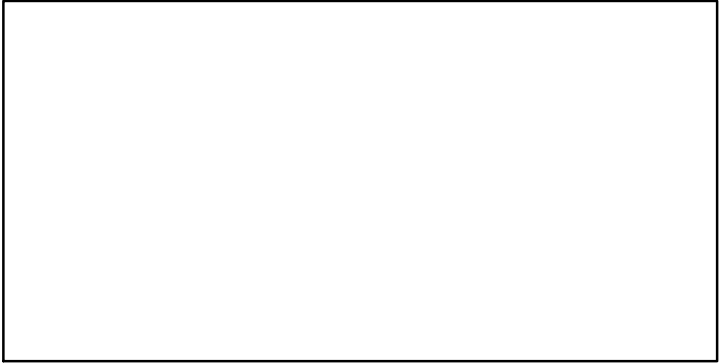
TC-MT, TL-MT, RecC* (1974-2012-FU)



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



EFFORT*



Southern hake Sub-Antarctic [SOUTHHAKESA]

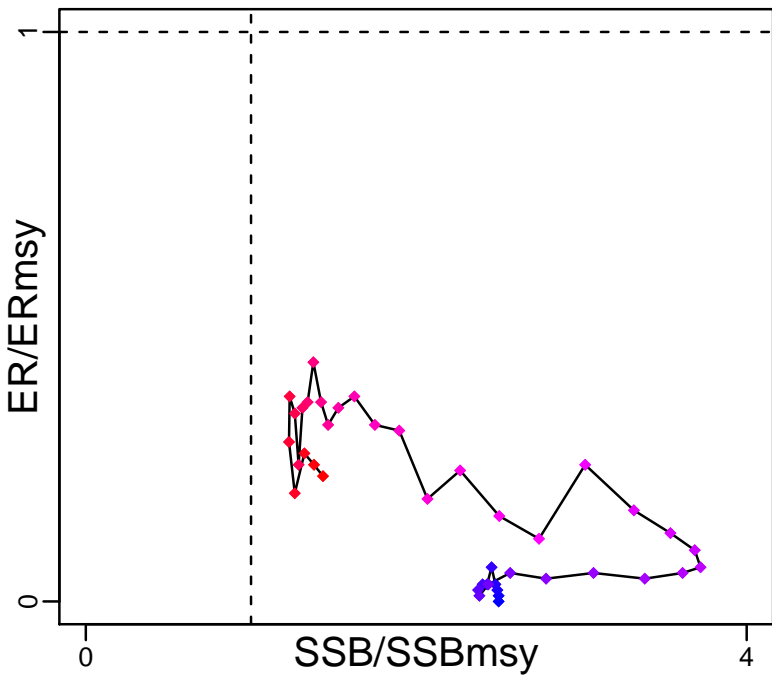
Metadata	
Scientific Name	Merluccius australis
Current Assess ID	NIWA-SOUTHHAKESA-1974-2014-FU
Area	Sub-Antarctic
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2011, 2014

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2011	20,851
SSBmsy	SSBmsy-MT	2014	25,774
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2014	0.21
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2014	25,774
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2014	64,436
MSY	MSY-MT	2014	4341
M	M-1/yr	2014	0.29
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

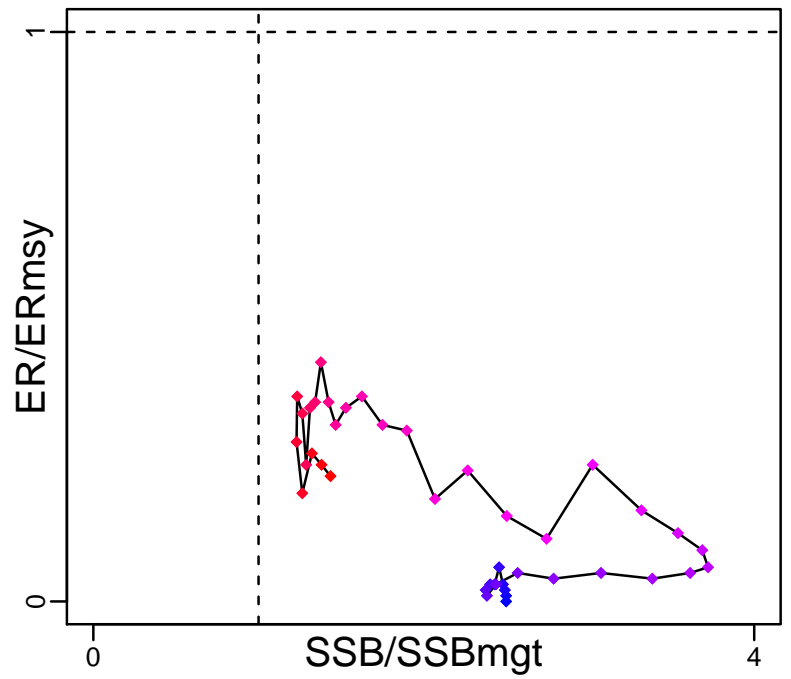
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2014	37,000	-	1 to 30
TN	-	-	-	-	-
R	R-E00	2014	8,260,000	Both	-
F	F-1/yr	2011	0	-	-
ER	ER-ratio	2014	0	Both	-
TC	TC-MT	2014	1800		
TL	TL-MT	2014	1880		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2014	1.44		
F/Fmsy	FdivFmsy-dimensionless	2011	0.11		
ER/ERmsy	ERdivERmsy-dimensionless	2014	0.22		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2014	1.44		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Southern hake Sub-Antarctic [SOUTHHAKEsa]

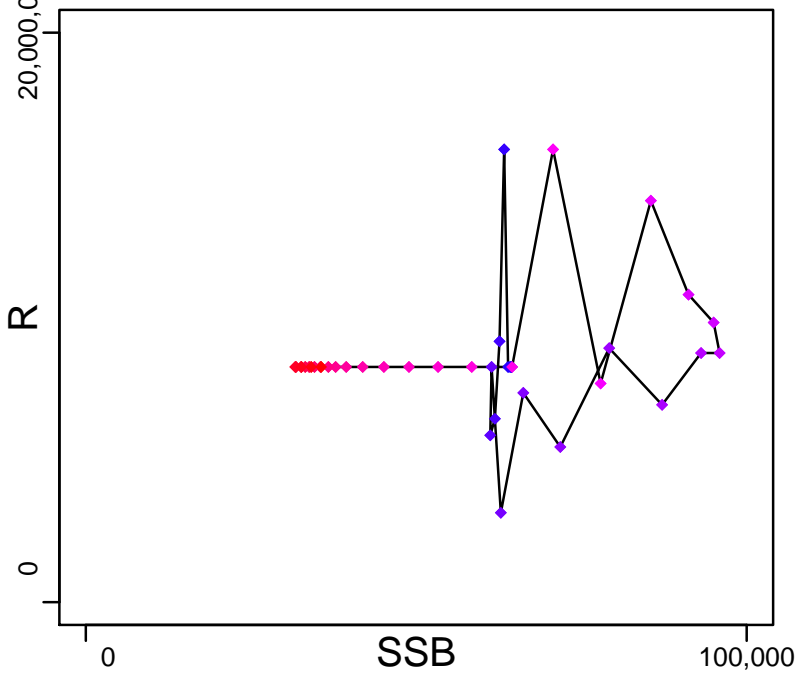
Kobe MSYpref (1974–2014–FU)



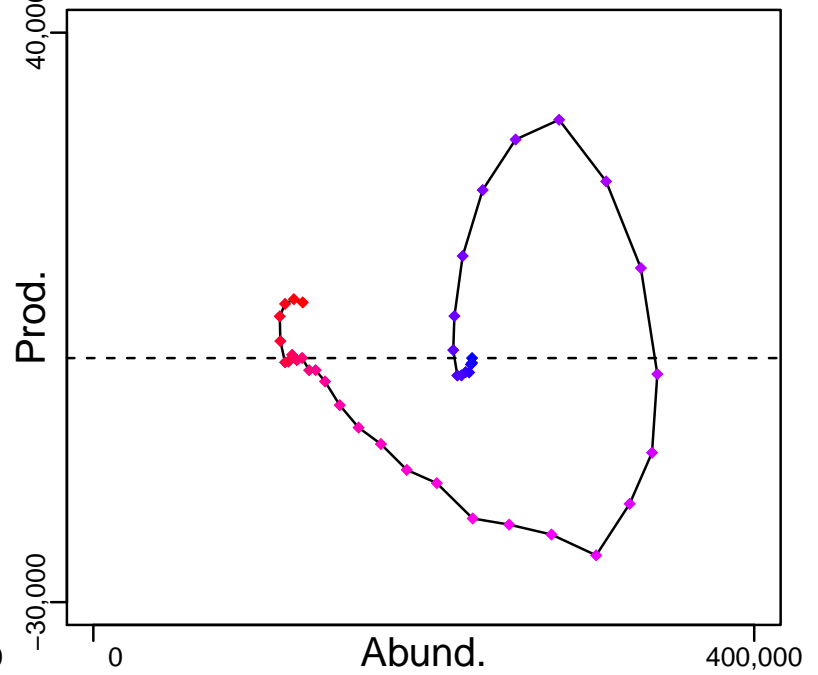
Kobe MGTpref (1974–2014–FU)



Spawner Recruit (1974–2014–FU)



Production (1974–2014–FU)



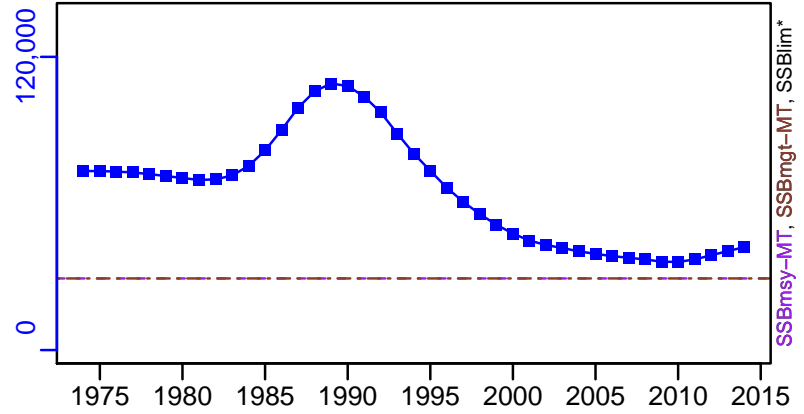
◆ Start Year ◆ End Year * No Data

Southern hake Sub-Antarctic [SOUTHHAKEsa]

TB*



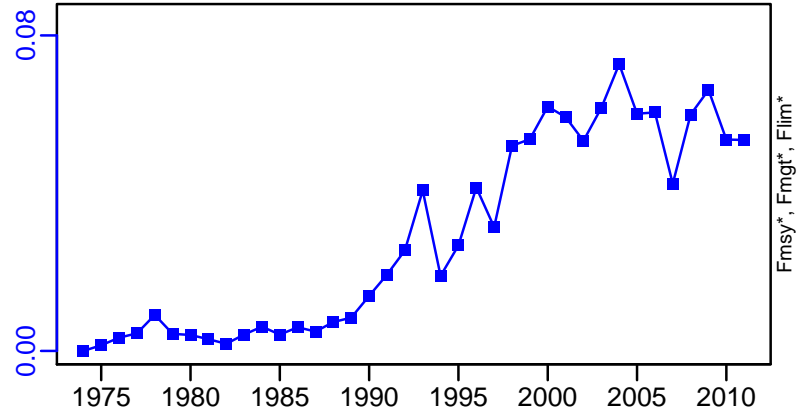
SSB-MT (1974-2014-FU)



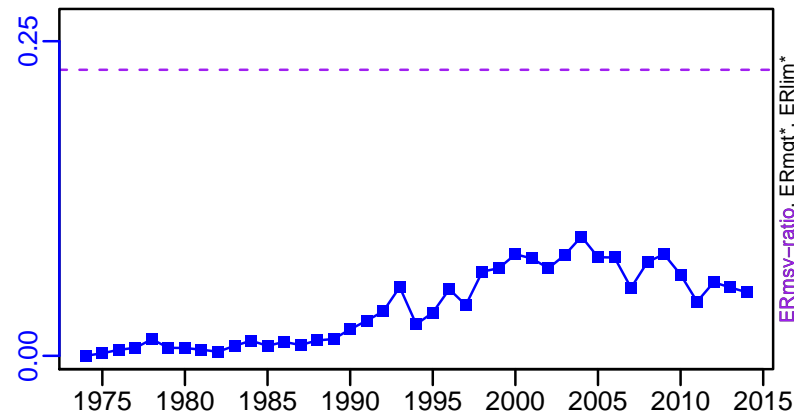
TN *



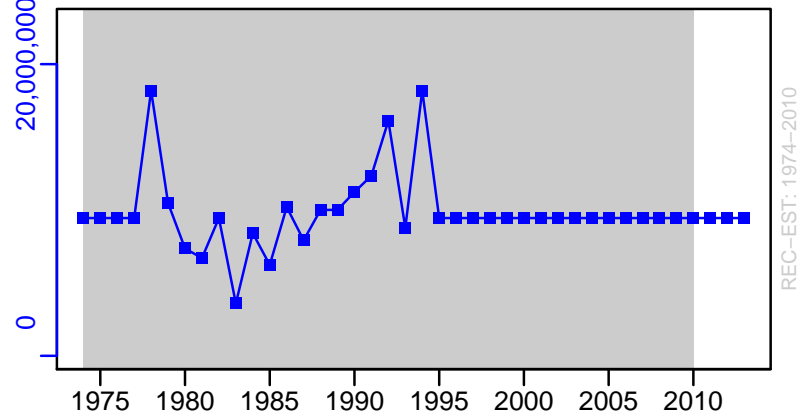
F-1/yr (1974-2011-CORDUE)



ER-ratio (1974-2014-FU)



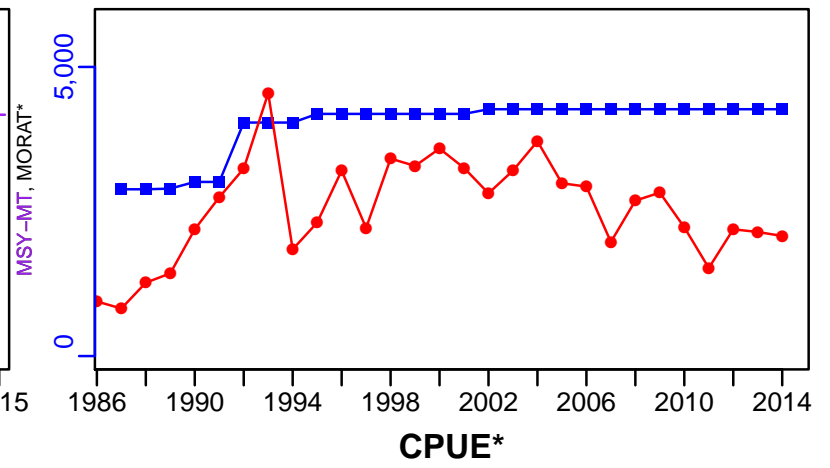
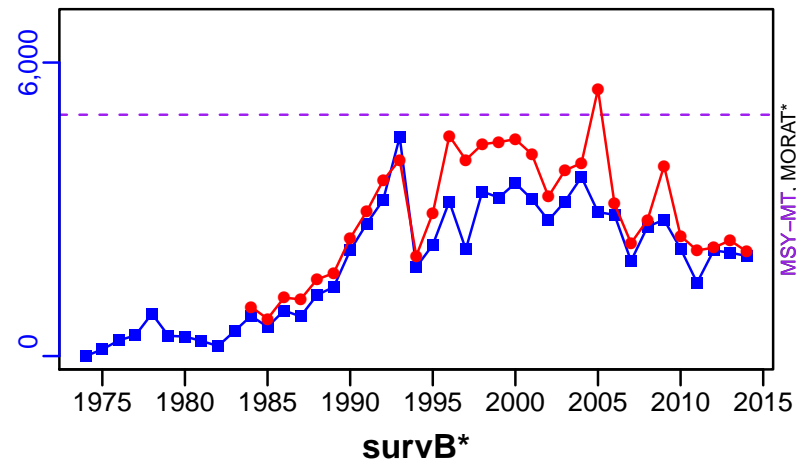
R-E00 (1974-2014-FU)



Southern hake Sub-Antarctic [SOUTHHAKESA]

TC-MT, TL-MT, RecC* (1974-2014-FU)

TAC-MT, Cpair-MT, Cadv* (1974-2014-FU)



EFFORT*



Southern hake West Coast South Island [SOUTHHAKEWCSI]

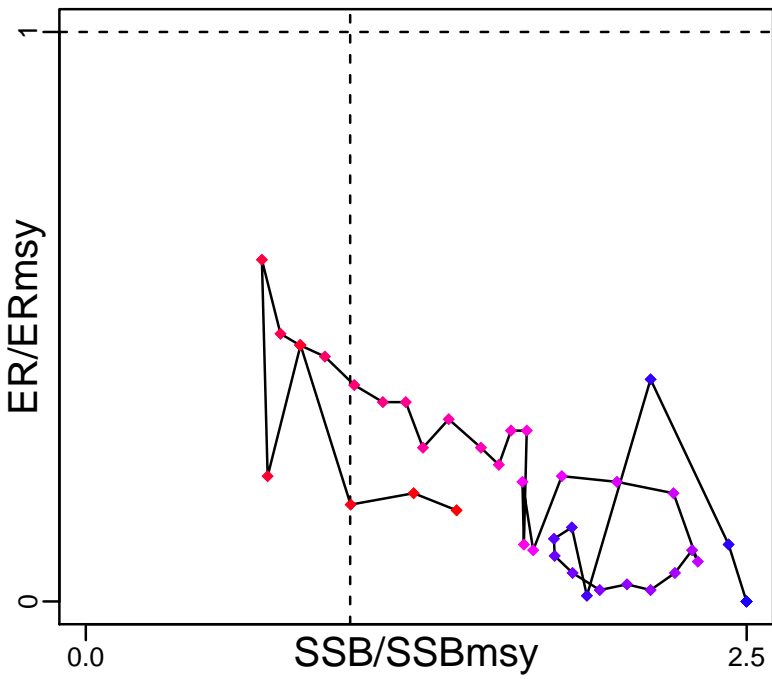
Metadata	
Scientific Name	Merluccius australis
Current Assess ID	NIWA-SOUTHHAKEWCSI-1973-2012-FU
Area	West Coast South Island
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2012

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2012	36,930
Fmsy	-	-	-
ERmsy	ERmsy-pr-ratio	2012	0.71
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2012	36,930
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2012	92,326
MSY	MSY-MT	2012	8077
M	M-1/yr	2012	0.19
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

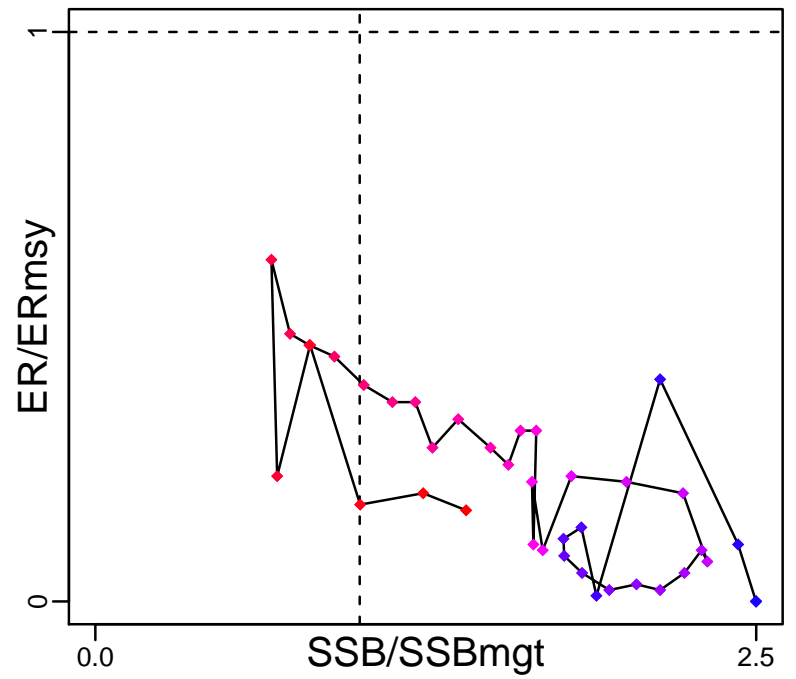
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2012	51,800	-	1 to 30
TN	-	-	-	-	-
R	R-E00	2012	1,850,000	Both	-
F	-	-	-	-	-
ER	ER-ratio	2012	0	-	-
TC	TC-MT	2012	3600		
TL	TL-MT	2012	4460		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2012	1.4		
F/Fmsy	-	-	-		
ER/ERmsy	ERdivERmsy-dimensionless	2012	0.16		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2012	1.4		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Southern hake West Coast South Island [SOUTHHAKEWCSI]

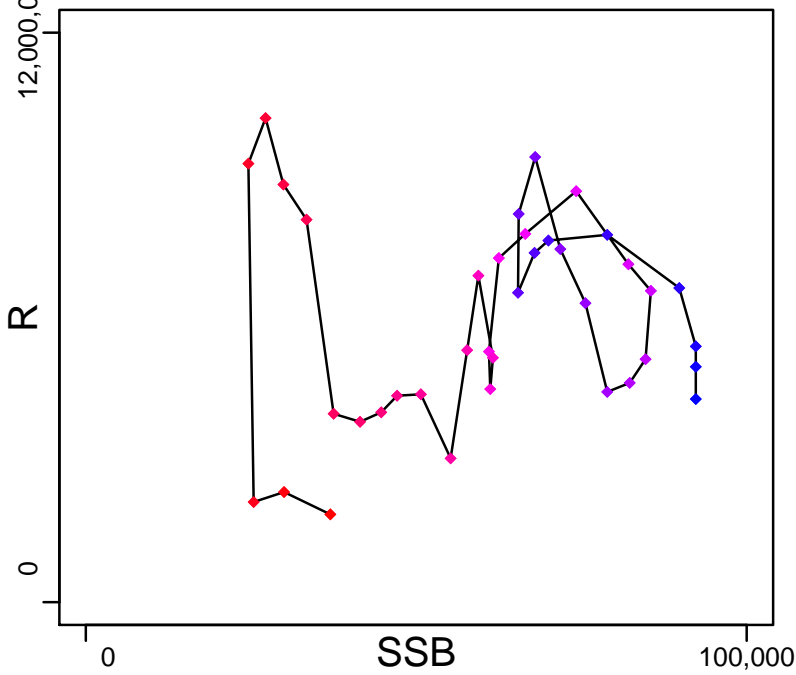
Kobe MSYpref (1973–2012–FU)



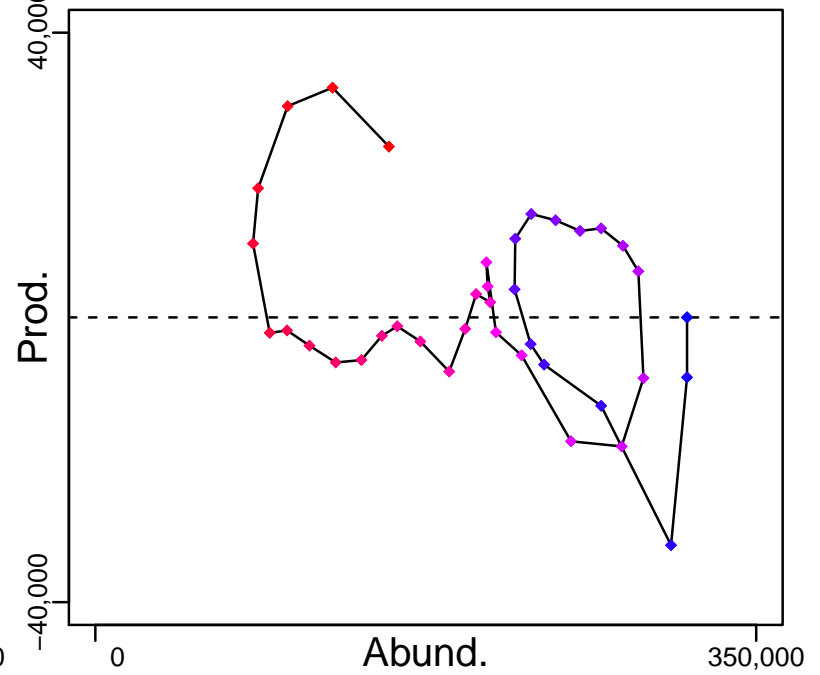
Kobe MGTpref (1973–2012–FU)



Spawner Recruit (1973–2012–FU)



Production (1973–2012–FU)



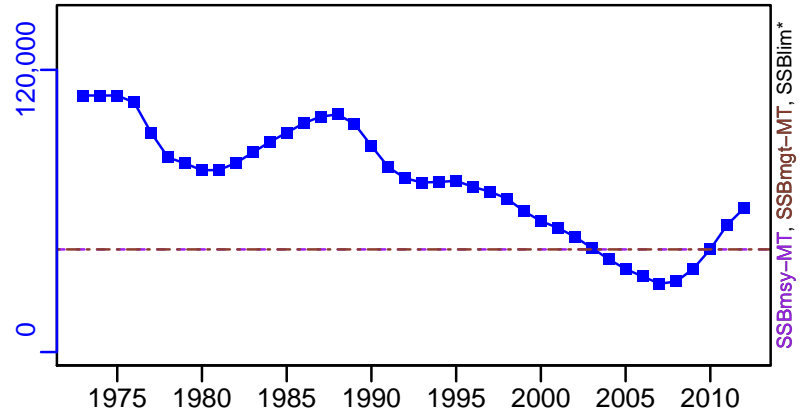
◆ Start Year ◆ End Year * No Data

Southern hake West Coast South Island [SOUTHHAKEWCSI]

TB*



SSB-MT (1973–2012–FU)



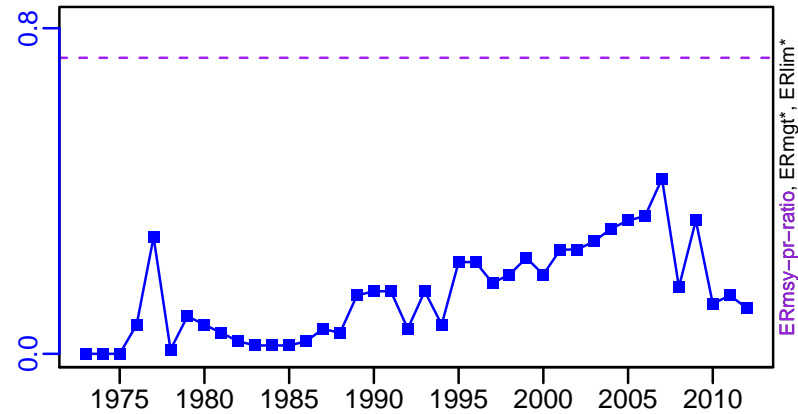
TN *



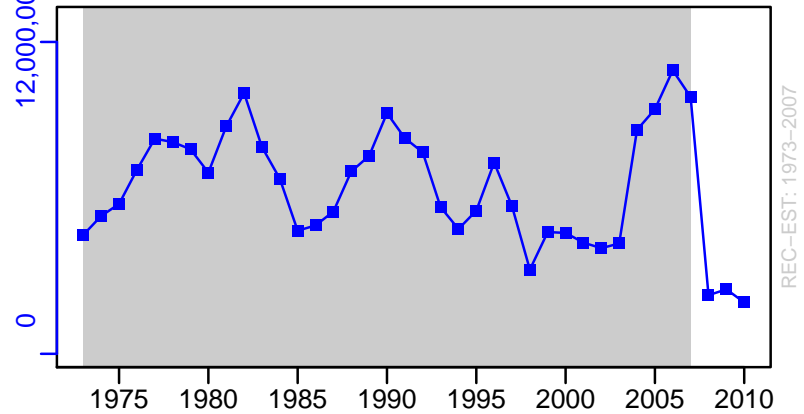
F*



ER-ratio (1973–2012–FU)



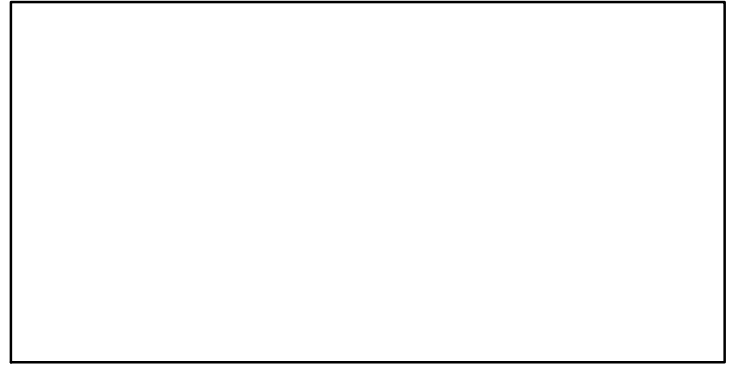
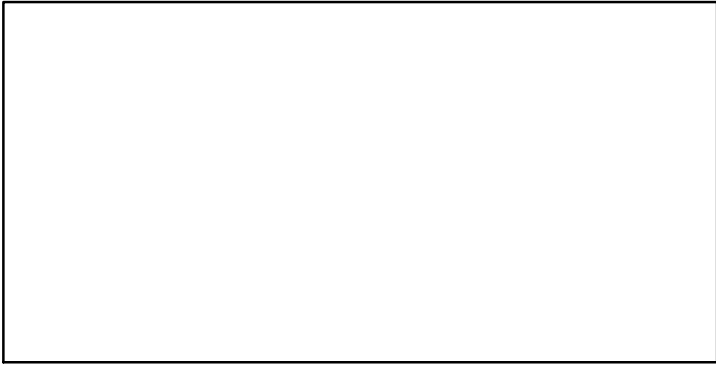
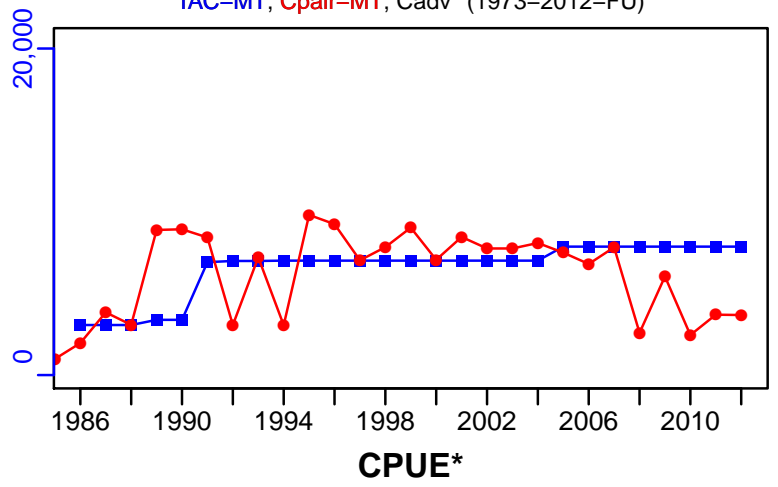
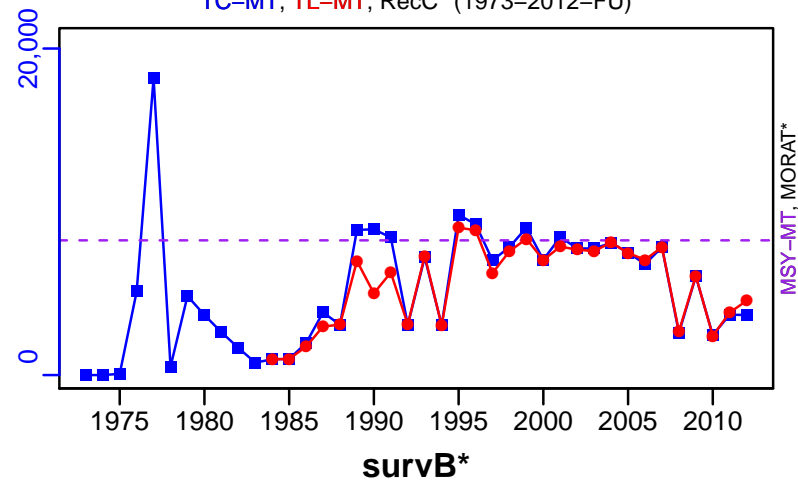
R-E00 (1973–2012–FU)



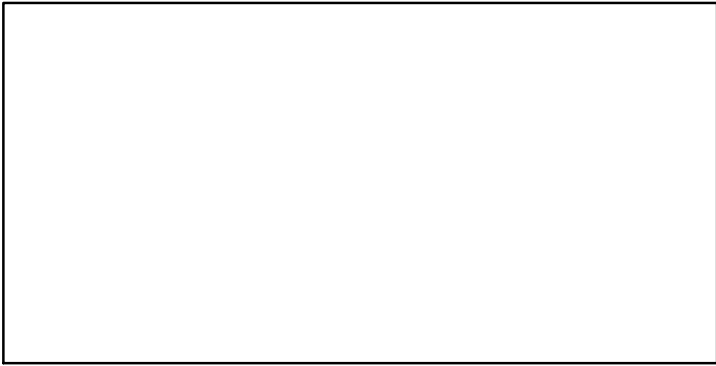
Southern hake West Coast South Island [SOUTHHAKEWCSI]

TC-MT, TL-MT, RecC* (1973-2012-FU)

TAC-MT, Cpair-MT, Cadv* (1973-2012-FU)



EFFORT*



Tarakihi New Zealand [TARAKNZ]

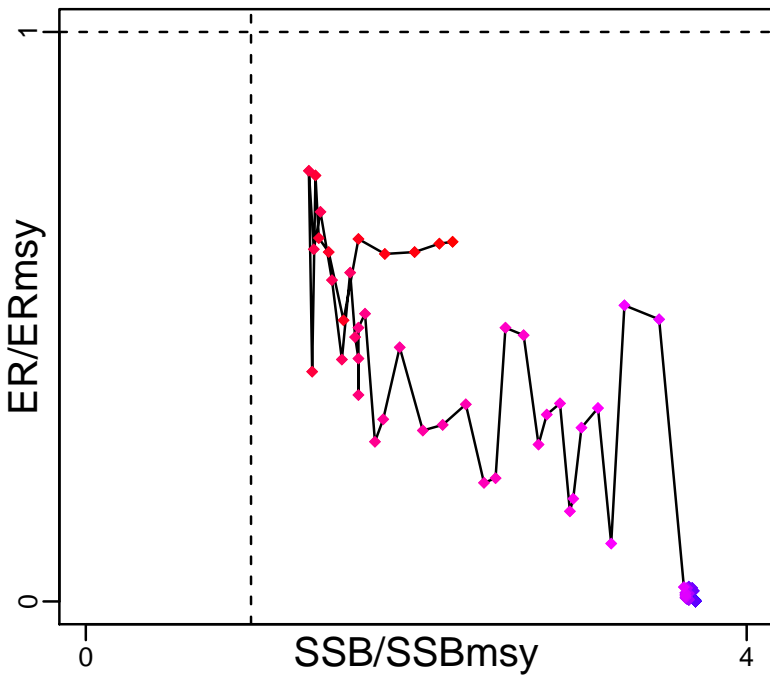
Metadata	
Scientific Name	Nemadactylus macropterus
Current Assess ID	NIWA-TARAKNZ-1932-2007-CORDUE
Area	Sub-Antarctic
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	National Institute of Water and Atmospheric Research
Asmts in RAM	2007

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2007	4864
Fmsy	Fmsy-1/yr	2007	0.1
ERmsy	ERmsy-ratio	2007	0.06
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	-	-	-

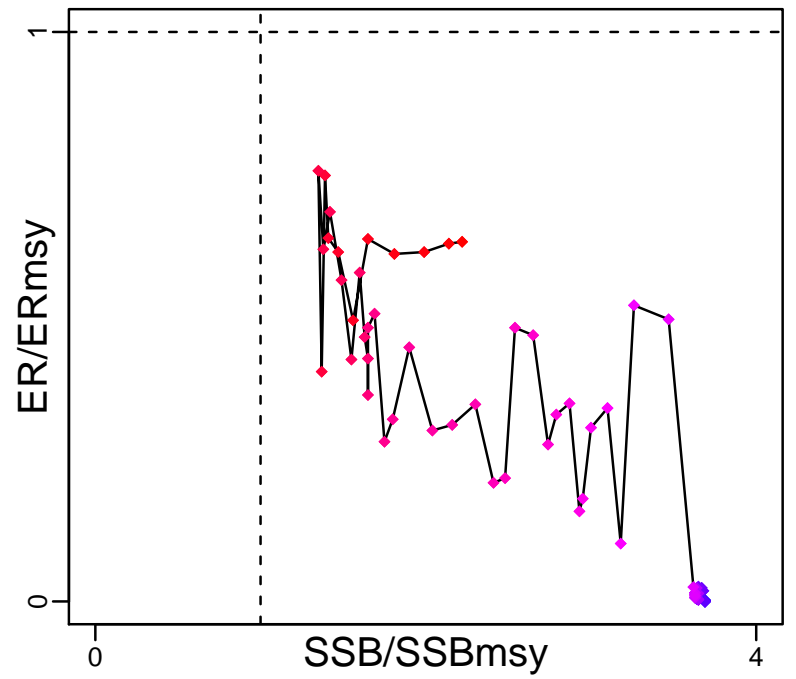
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2007	10,800	Both	-
TN	-	-	-	-	-
R	R-E00	2007	2,310,000	-	0
F	F-1/yr	2007	0	-	-
ER	ER-ratio	2007	0	-	-
TC	TC-MT	2007	957		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2007	2.22		
F/Fmsy	FdivFmsy-dimensionless	2007	0.77		
ER/ERmsy	ER-ratio/ERmsy-ratio	2007	0.63		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Tarakihi New Zealand [TARAKNZ]

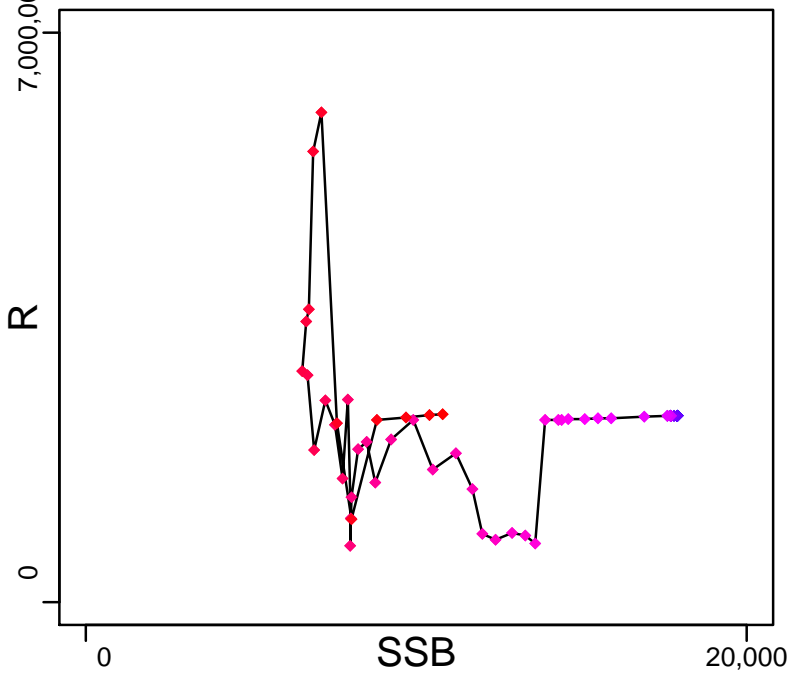
Kobe MSYpref (1932–2007–CORDUE)



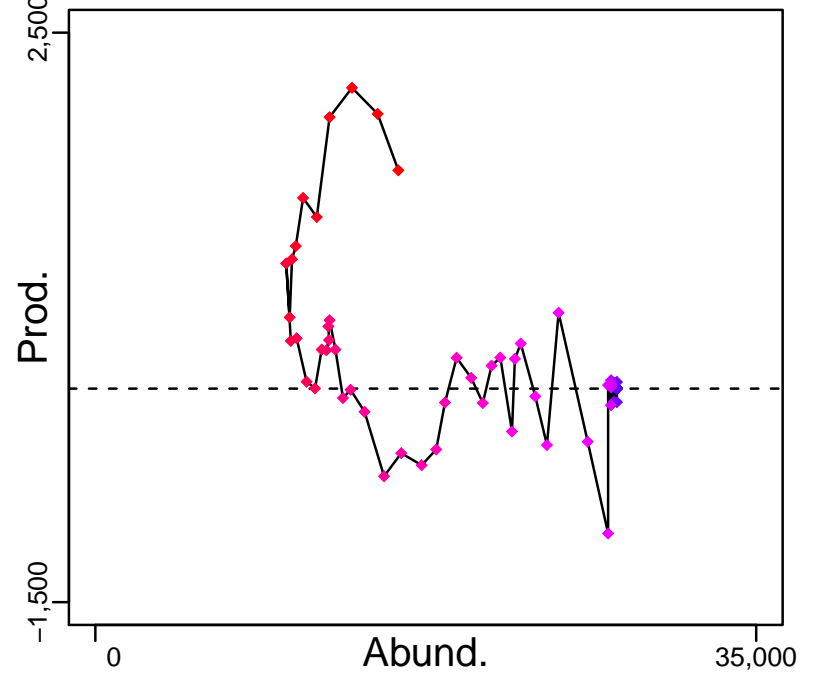
Kobe MGTpref (1932–2007–CORDUE)



Spawner Recruit (1932–2007–CORDUE)



Production (1932–2007–CORDUE)



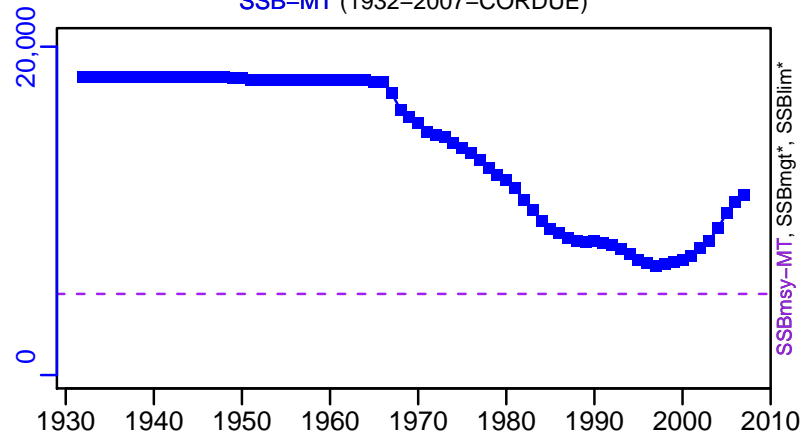
◆ Start Year ◆ End Year * No Data

Tarakihi New Zealand [TARAKNZ]

TB*



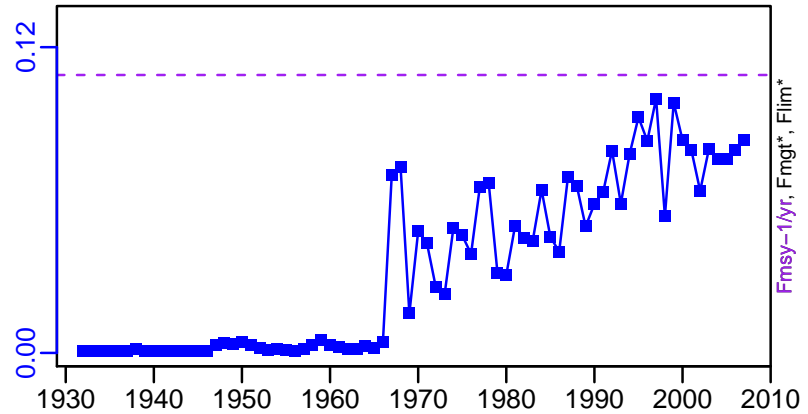
SSB-MT (1932-2007-CORDUE)



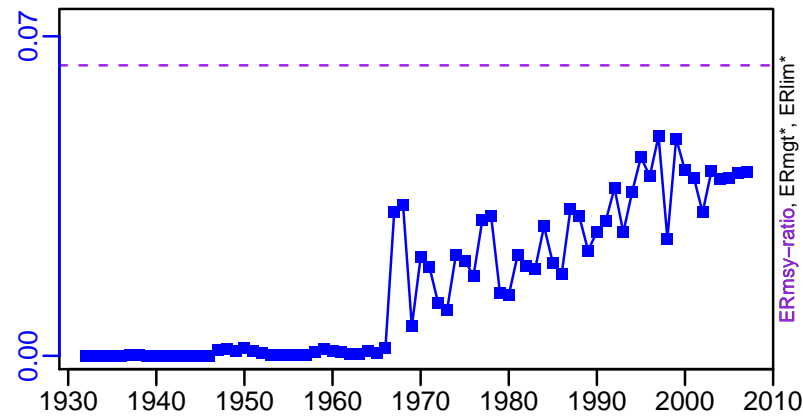
TN *



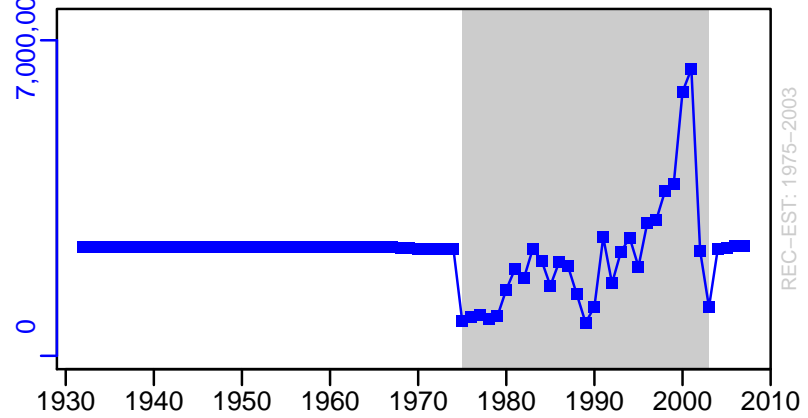
F-1/yr (1932-2007-CORDUE)



ER-ratio (1932-2007-CORDUE)



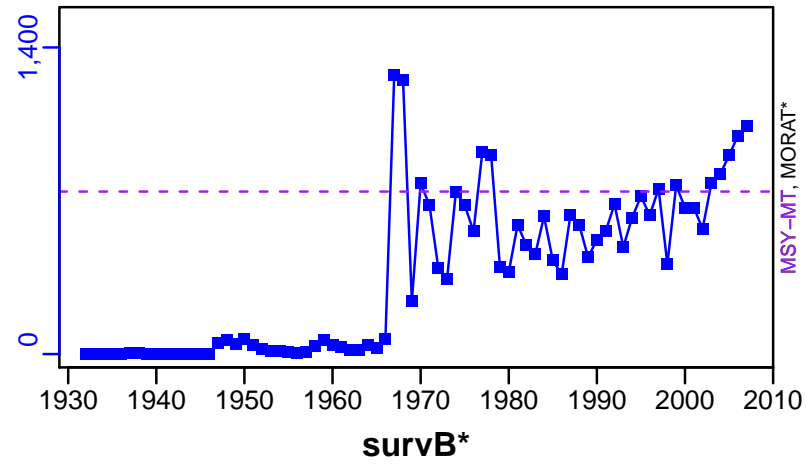
R-E00 (1932-2007-CORDUE)



Tarakihi New Zealand [TARAKNZ]

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

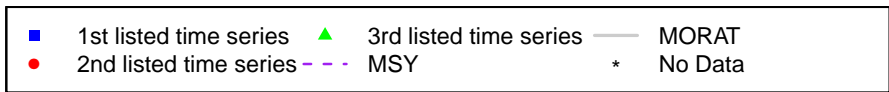
TAC*, Cpair*, Cadv*



CPUE*



EFFORT*



Trevally New Zealand Areas TRE 7 [TREVALLYTRE7]

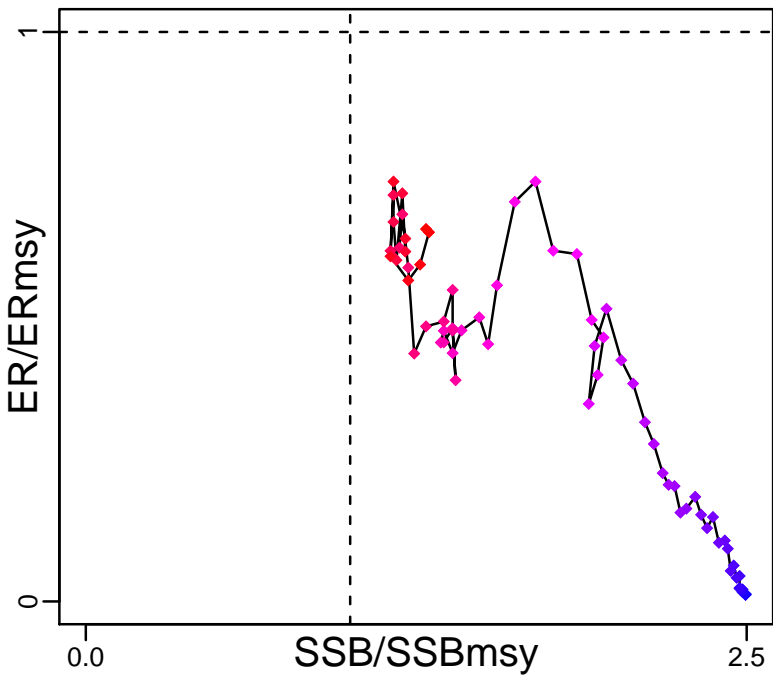
Metadata	
Scientific Name	Pseudocaranx dentex
Current Assess ID	NZMFishINSHOREWG-TREVALLYTRE7-1944-2014-LANGLEY
Area	New Zealand Areas TRE 7
Management Authority	Ministry of Fisheries, New Zealand national management
Assessor	Inshore Working Group
Asmts in RAM	2005, 2014

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2014	8936
Fmsy	Fmsy-1/yr	2005	0.11
ERmsy	ERmsy-ratio	2005	0.08
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2014	8936
Fmgt	Fmgt-1/yr	2014	0.09
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2014	22,339
MSY	MSY-MT	2014	1818
M	M-1/yr	2014	0.1
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

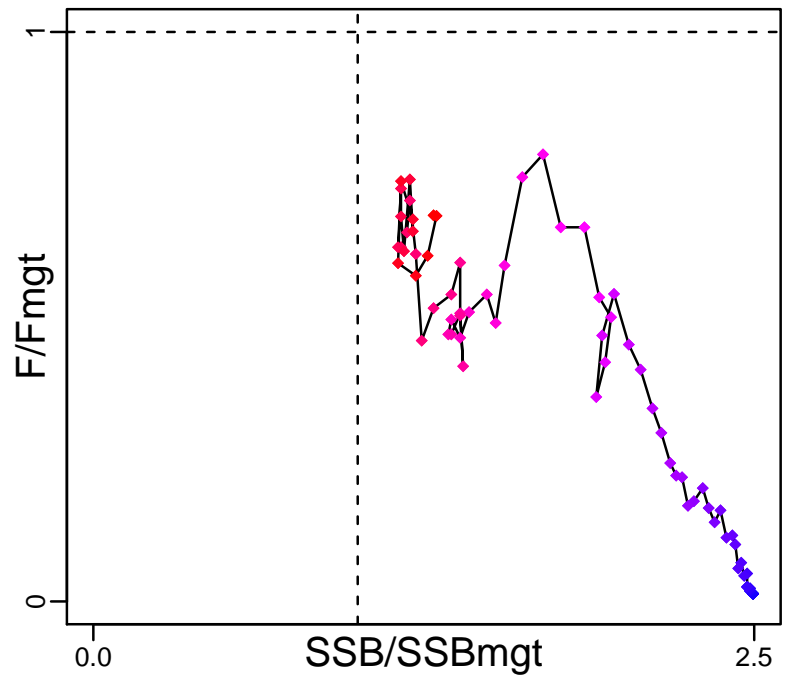
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2005	28,200	-	1
SSB	SSB-MT	2014	11,500	Females	4 to 40+
TN	-	-	-	-	-
R	R-E00	2014	3,530,000	Both	0
F	F-1/yr	2005	0	-	-
ER	ER-calc-ratio	2014	0	-	-
TC	TC-MT	2014	1530		
TL	TL-MT	2014	1440		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2014	1.29		
F/Fmsy	F-1/yr/Fmsy-1/yr	2005	0.83		
ER/ERmsy	ER-ratio/ERmsy-ratio	2005	1.08		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2014	1.29		
F/Fmgt	FdivFmgt-dimensionless	2014	0.68		
ER/ERmgt	-	-	-		

Trevally New Zealand Areas TRE 7 [TREVALLYTRE7]

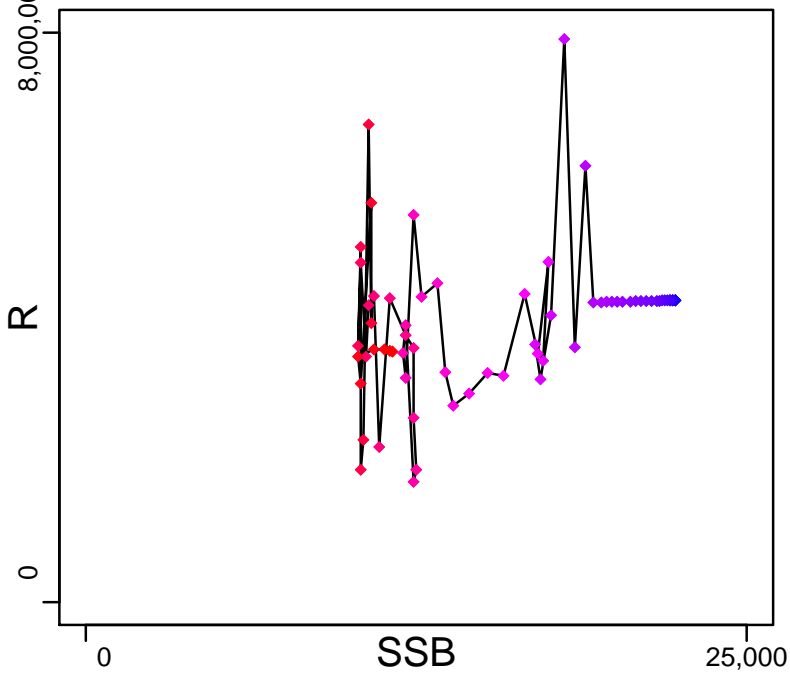
Kobe MSYpref (1944–2014–LANGLEY)



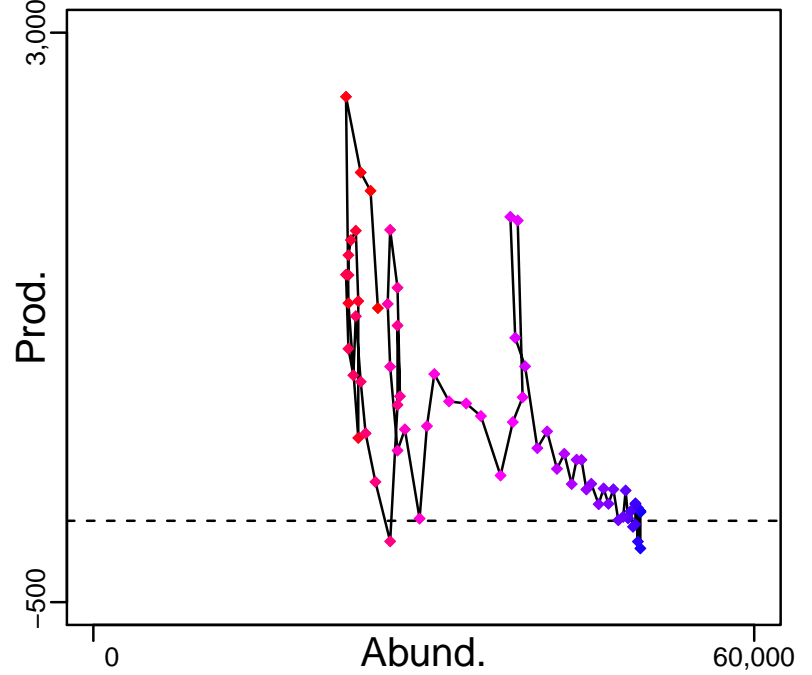
Kobe MGTpref (1944–2014–LANGLEY)



Spawner Recruit (1944–2014–LANGLEY)



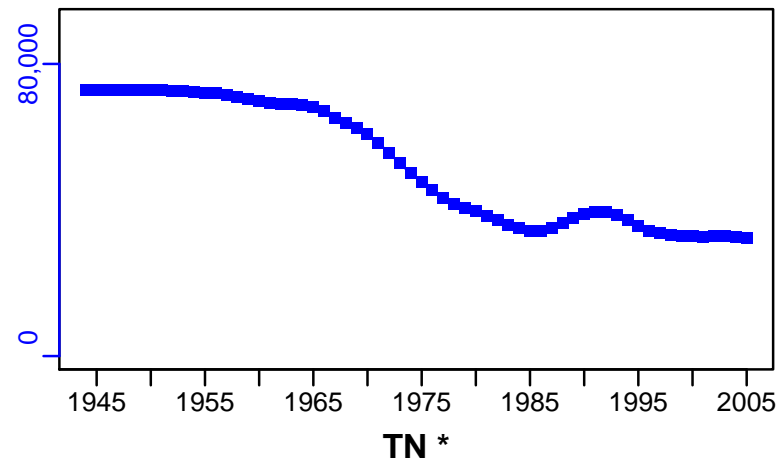
Production (1944–2014–LANGLEY)



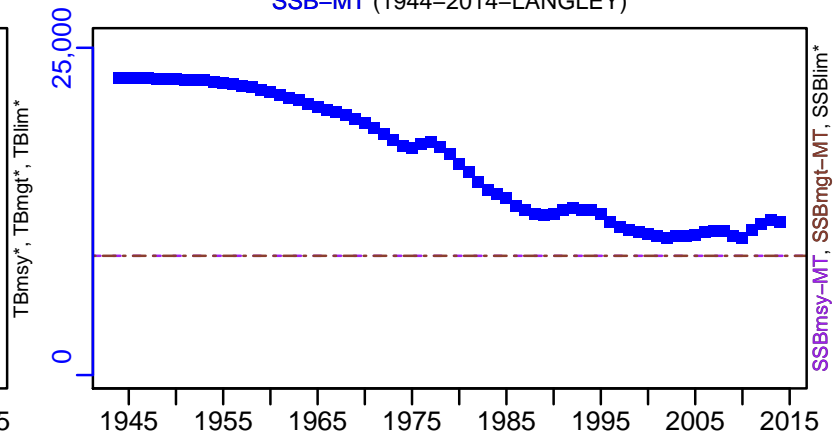
◆ Start Year ◆ End Year * No Data

Trevally New Zealand Areas TRE 7 [TREVALLYTRE7]

TB-MT (1944-2005-JENSEN)



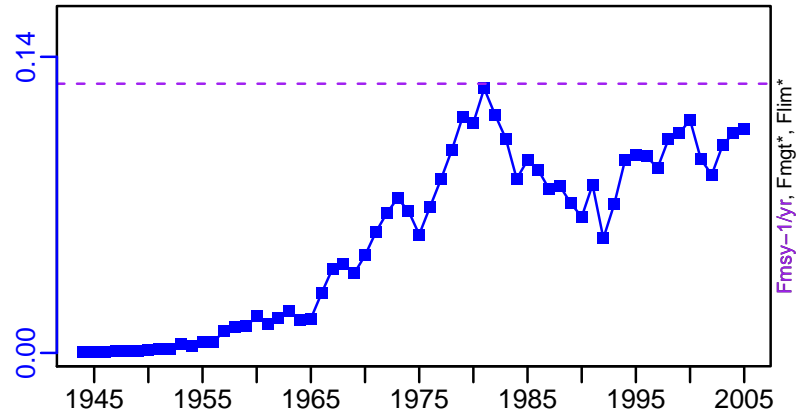
SSB-MT (1944-2014-LANGLEY)



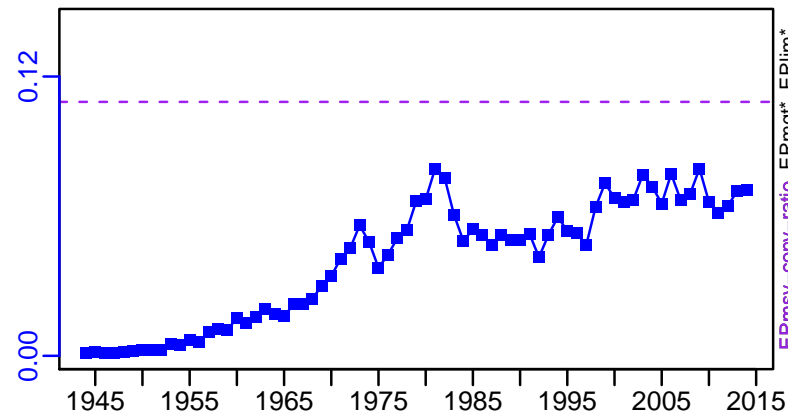
TN *



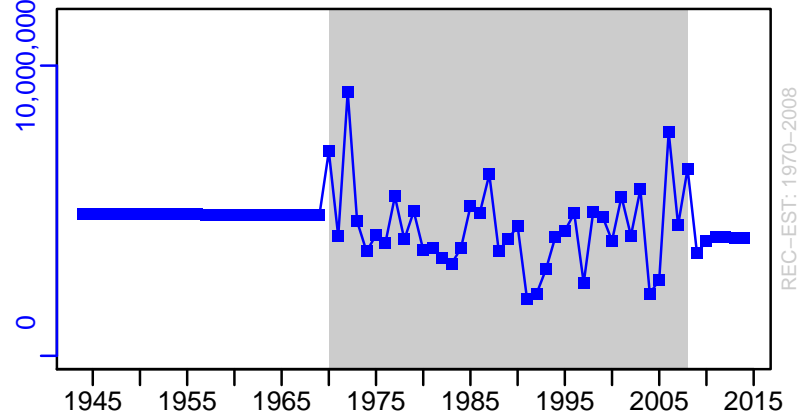
F-1/yr (1944-2005-JENSEN)



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

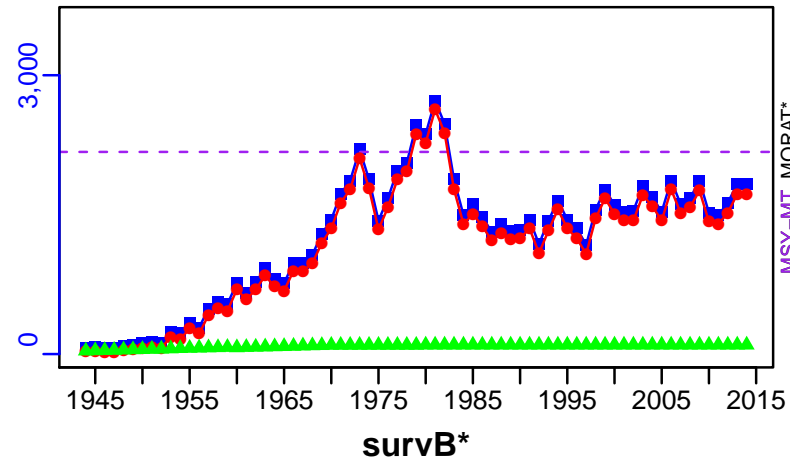


R-E00 (1944-2014-LANGLEY)

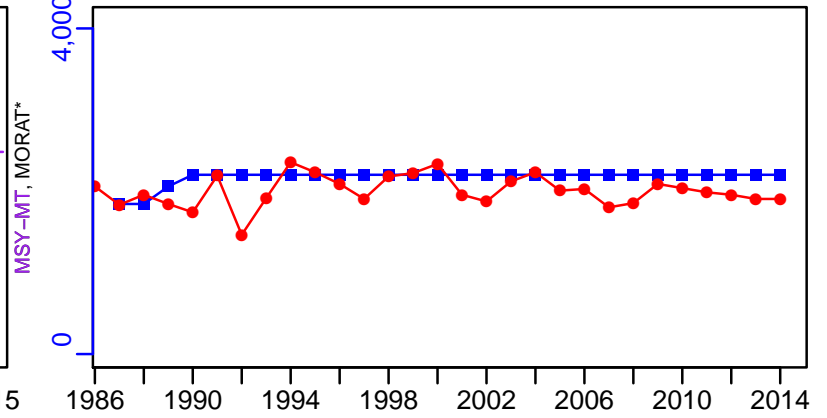


Trevally New Zealand Areas TRE 7 [TREVALLYTRE7]

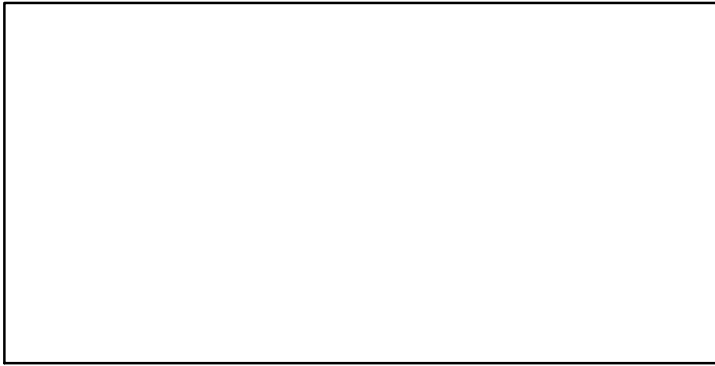
TC-MT, TL-MT, RecC-MT (1944-2014-LANGLEY)



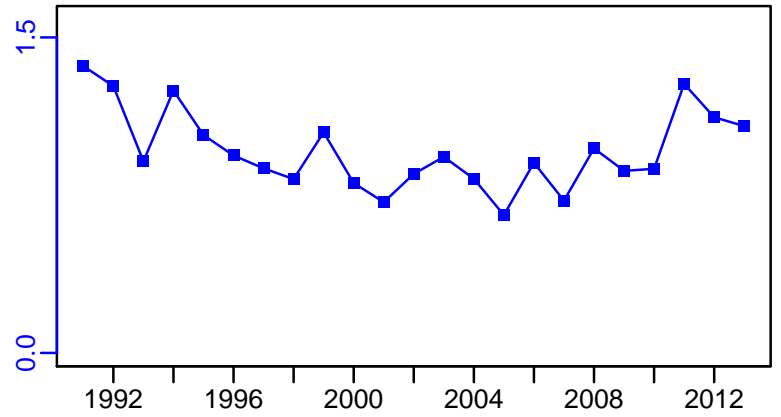
TAC-MT, Cpair-MT, Cadv* (1944-2014-LANGLEY)



EFFORT*



CPUE-MT (1944-2014-LANGLEY)



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