

# bivalves-gastropods Stocks

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

Not present Present Preferred

Stock	B/Bmsy	Time Series Types			
		U/Umsy	B/Bmgt	U/Umgt	
1. ARCSURF4RST [Arctic surfclam Quebec and Gulf of St. Lawrence]	TB SSB	ER F	TB SSB	ER F	
2. ARCSURFBANQ [Arctic surfclam Banquereau]	TB SSB	ER F	TB SSB	ER F	
3. ARCSURFGB [Arctic surfclam Division 3LNO]	TB SSB	ER F	TB SSB	ER F	
4. ARCSURFQCW [Arctic surfclam Quebec Coastal Waters]	TB SSB	ER F	TB SSB	ER F	
5. DOYSFS [Dredge oyster Foveax Strait]	TB SSB	ER F	TB SSB	ER F	
6. ILSCALL3Ps [Iceland scallop St. Pierre Bank]	TB SSB	ER F	TB SSB	ER F	
7. PAUANPAU5A [Paua NZ Area North PAUA 5A]	TB SSB	ER F	TB SSB	ER F	
8. PAUAPAU5B [Paua New Zealand Area PAU 5B (Stewart Island)]	TB SSB	ER F	TB SSB	ER F	
9. PAUAPAU5D [Paua New Zealand Area PAU 5D (Otago)]	TB SSB	ER F	TB SSB	ER F	
10. PAUAPAU7 [Paua New Zealand Area PAU 7 (Marlborough)]	TB SSB	ER F	TB SSB	ER F	
11. PAUASPAU5A [Paua NZ Area South PAUA 5A]	TB SSB	ER F	TB SSB	ER F	
12. PGEODWA [Pacific geoduck Washington]	TB SSB	ER F	TB SSB	ER F	
13. QUAHATLC [Ocean quahog Atlantic Coast]	TB SSB	ER F	TB SSB	ER F	
14. SAABALONESA [South African abalone South Africa]	TB SSB	ER F	TB SSB	ER F	
15. SCALL3Ps [Sea scallop St. Pierre Bank]	TB SSB	ER F	TB SSB	ER F	
16. SCALL4T [Sea scallop Southern Gulf of St. Lawrence]	TB SSB	ER F	TB SSB	ER F	
17. SCALL5ZMAB [Sea scallop Georges Bank and Mid-Atlantic Bight]	TB SSB	ER F	TB SSB	ER F	
18. SCALLGB [Sea scallop Georges Bank]	TB SSB	ER F	TB SSB	ER F	
19. SCALLNBB [Sea scallop North Brown Bank]	TB SSB	ER F	TB SSB	ER F	
20. SCALLSFA16-20 [Sea scallop Scallop Fishing Areas 16-20]	TB SSB	ER F	TB SSB	ER F	
21. SCALLSPA1-6 [Sea scallop Bay of Fundy (SPA 1-6)]	TB SSB	ER F	TB SSB	ER F	
22. SCALLWSFA29 [Sea scallop West Scallop Fishing Area 29]	TB SSB	ER F	TB SSB	ER F	
23. SSCLAMQCW [Softshell clam Quebec Coastal Waters]	TB SSB	ER F	TB SSB	ER F	
24. SURFIDLM [Atlantic surfclam Iles-de-la-Madeleine]	TB SSB	ER F	TB SSB	ER F	
25. SURFMATLC [Atlantic surfclam Mid-Atlantic Coast]	TB SSB	ER F	TB SSB	ER F	
26. WVSCALLALASKA [Weathervane scallop Alaska]	TB SSB	ER F	TB SSB	ER F	
27. WWHELKQCW [Waved whelk Quebec Coastal Waters]	TB SSB	ER F	TB SSB	ER F	

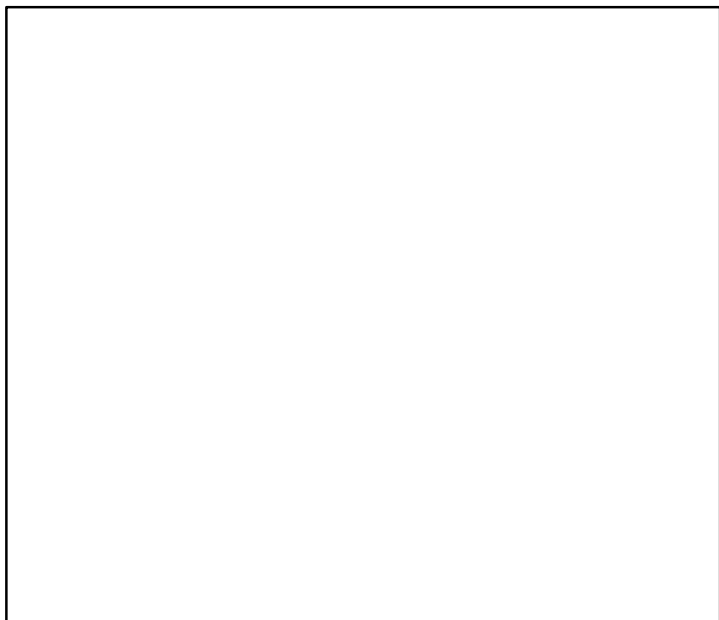
## Arctic surfclam Quebec and Gulf of St. Lawrence [ARCSURF4RST]

Metadata	
<b>Scientific Name</b>	Mactromeris polynyma
<b>Current Assess ID</b>	DFO-QUE-ARCSURF4RST-1993-2014-OSGOOD
<b>Area</b>	Quebec and Gulf of St. Lawrence
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans - Quebec Region
<b>Asmts in RAM</b>	2014

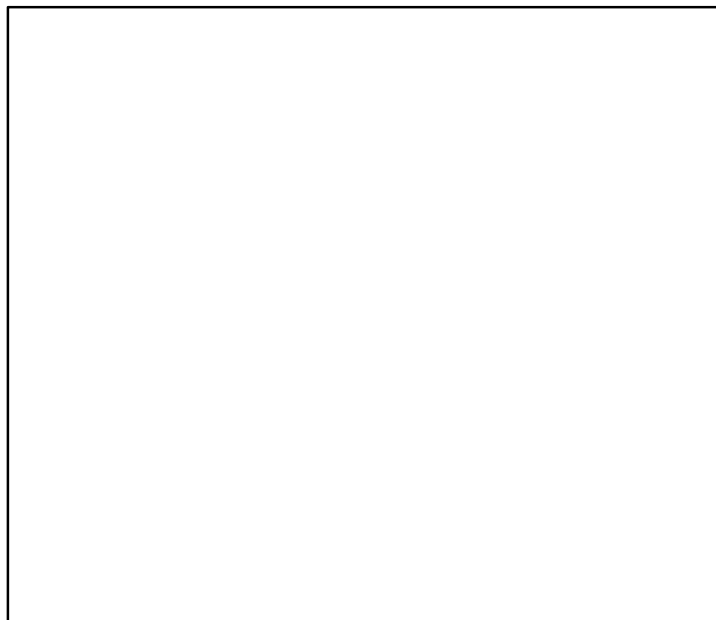
Reference Points			
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Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	-	-	-		
TL	TL-MT	2014	785		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

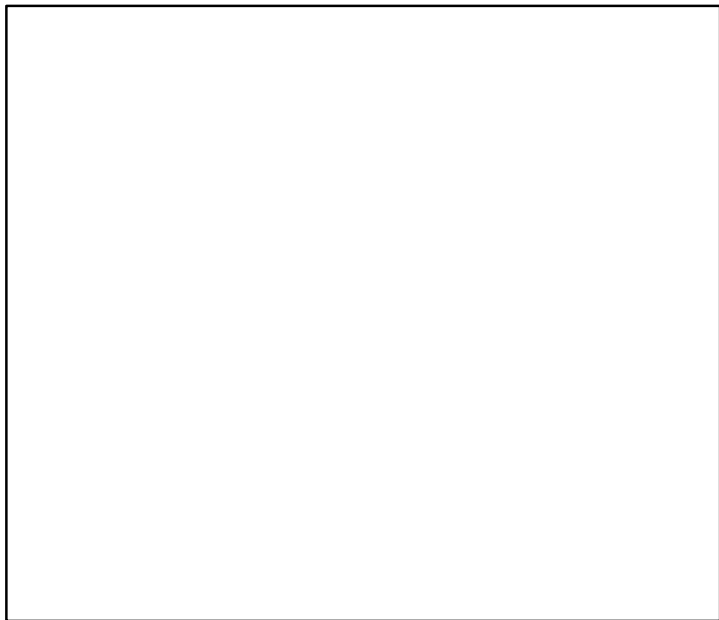
**Kobe MSY\***



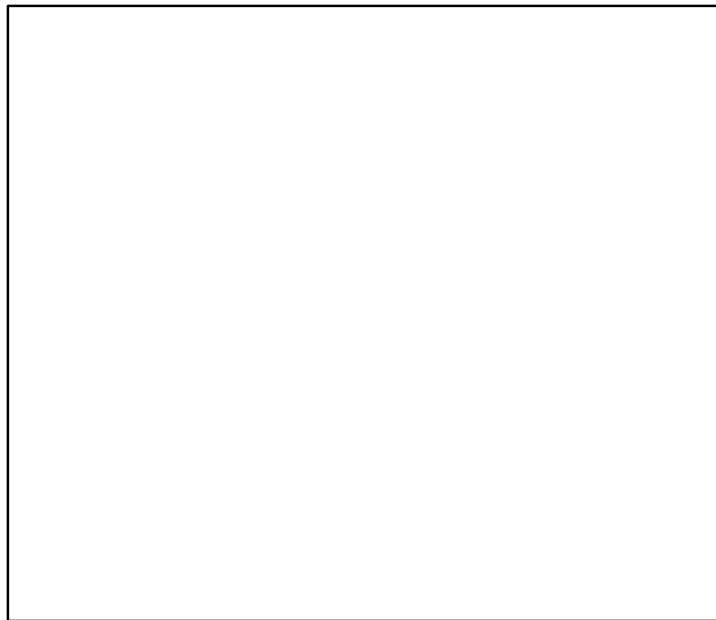
**Kobe MGT\***



**Spawner Recruit\***



**Production\***

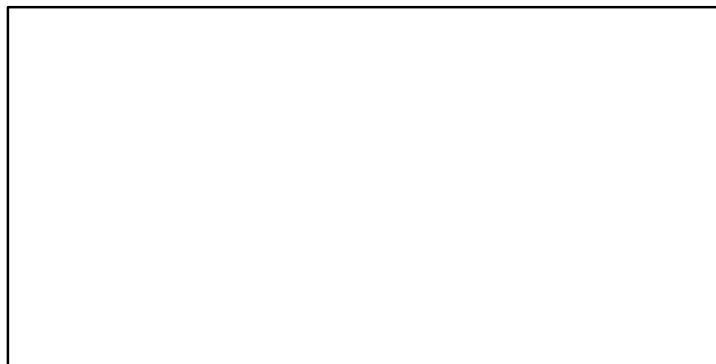


◆ Start Year   ◆ End Year   \* No Data

**TB\***



**SSB\***



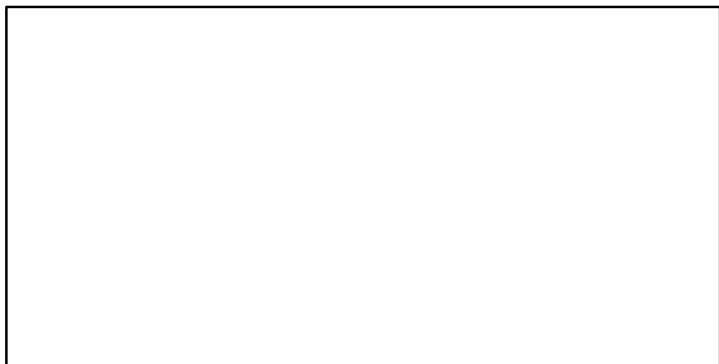
**TN \***



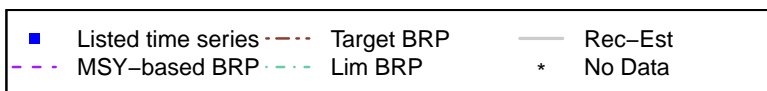
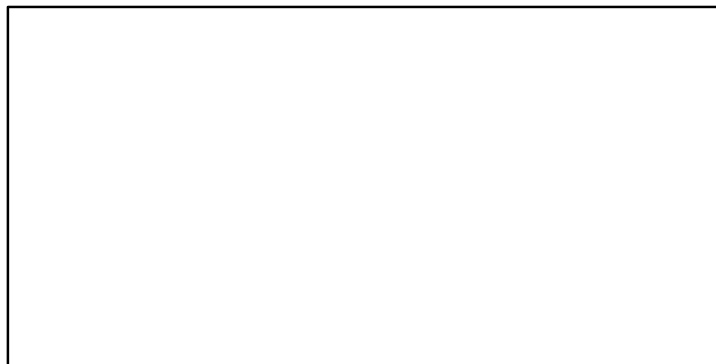
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**ER\***

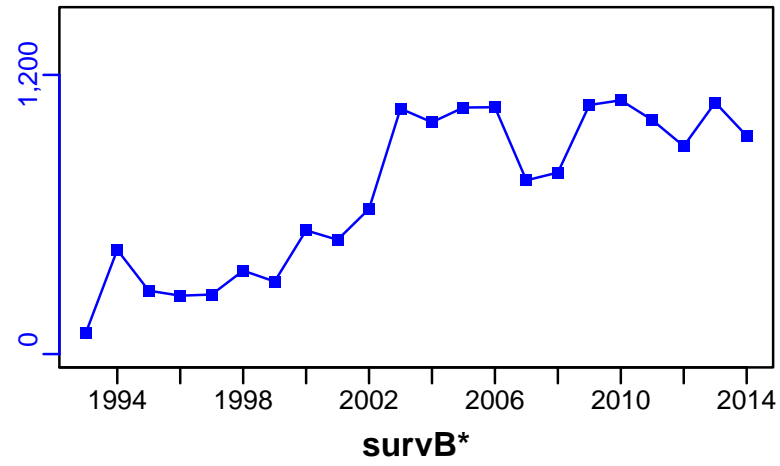


**Recruits\***

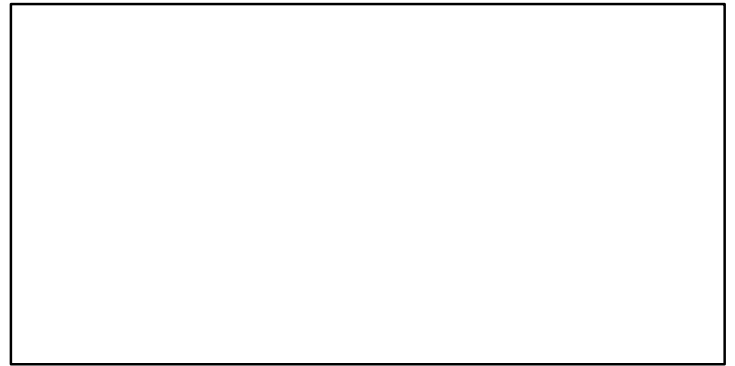
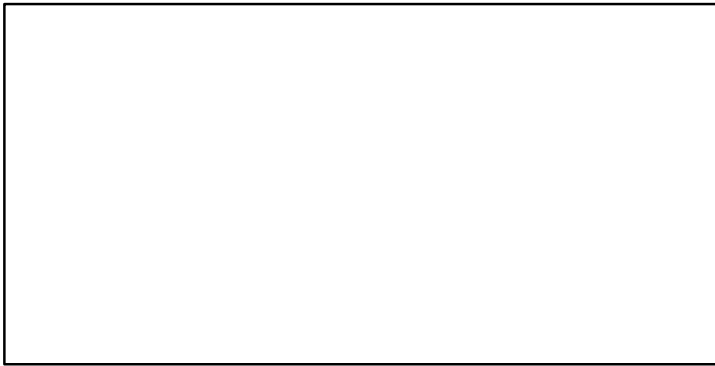
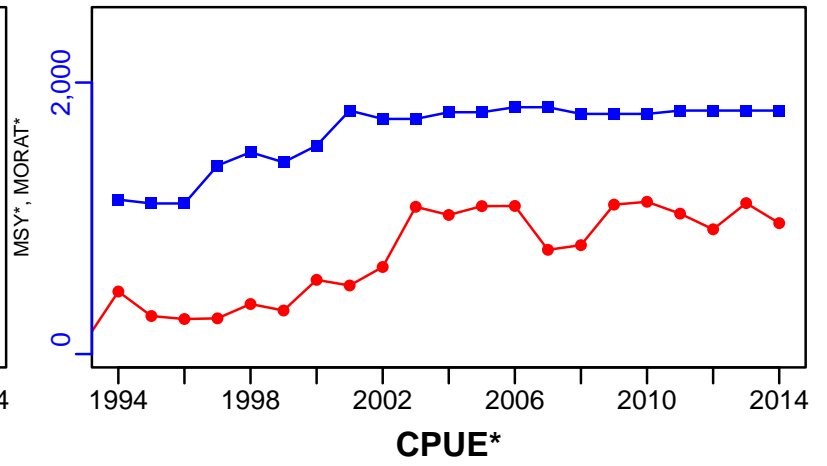


# Arctic surfclam Quebec and Gulf of St. Lawrence [ARCSURF4RST]

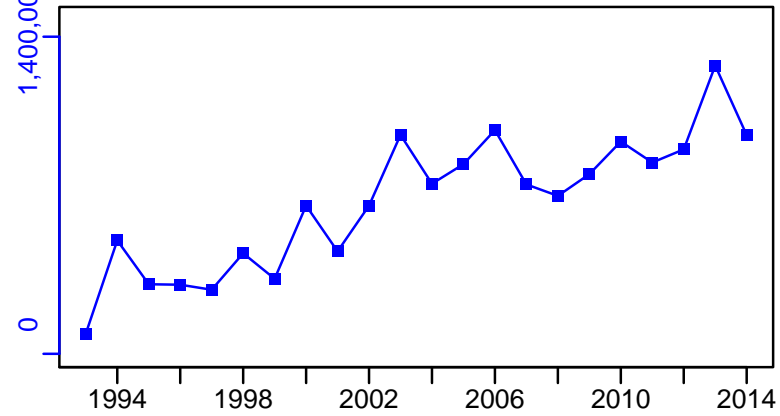
TL-MT, TC\*, RecC\* (1993-2014-OSGOOD)



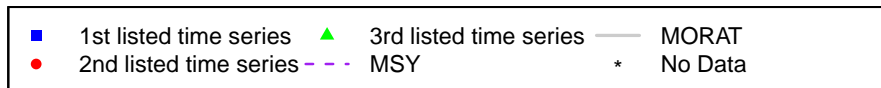
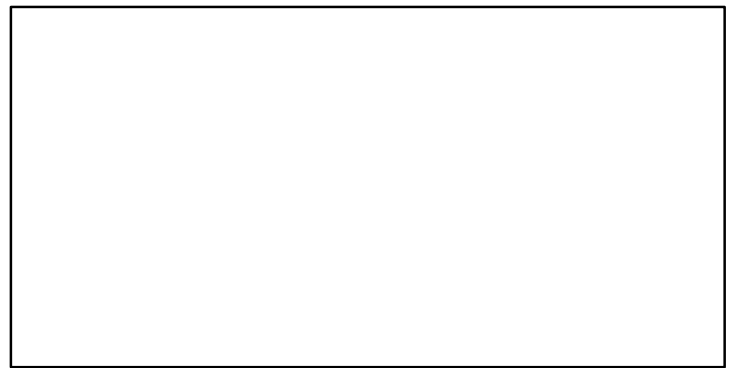
TAC-MT, Cpair-MT, Cadv\* (1993-2014-OSGOOD)



EFFORT-m2 (1993-2014-OSGOOD)



CdivMSY\*



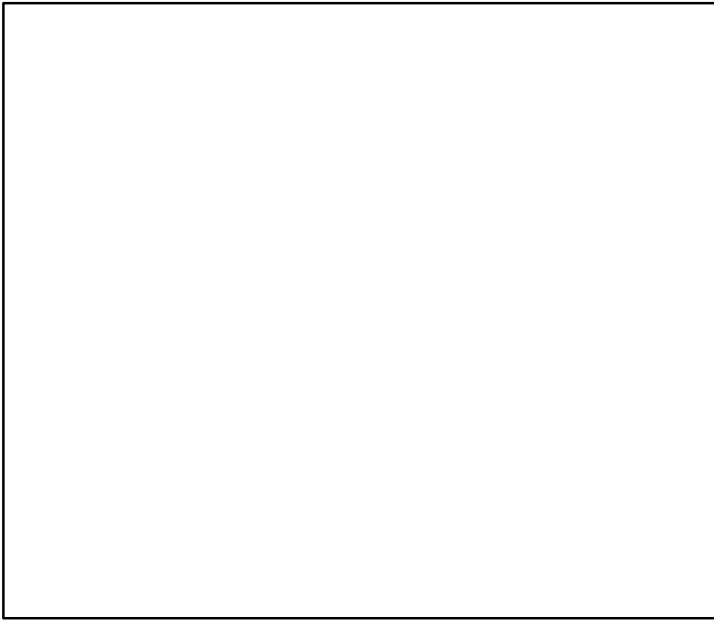
## Arctic surfclam Banquereau [ARCSURFBANQ]

Metadata	
<b>Scientific Name</b>	Mactromeris polynyma
<b>Current Assess ID</b>	DFO-MAR-ARCSURFBANQ-1986-2010-CHING
<b>Area</b>	Banquereau
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans - Maritimes Region
<b>Asmts in RAM</b>	2010

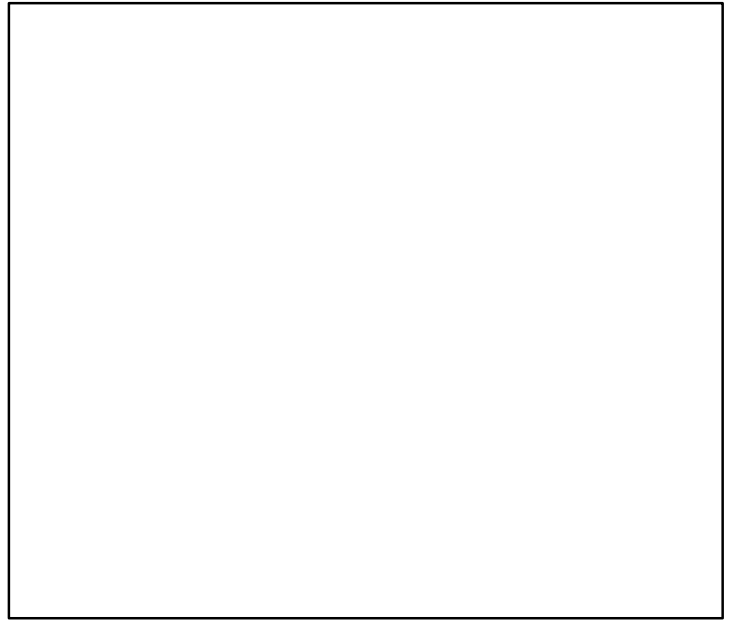
Reference Points			
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SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2010	22,500		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

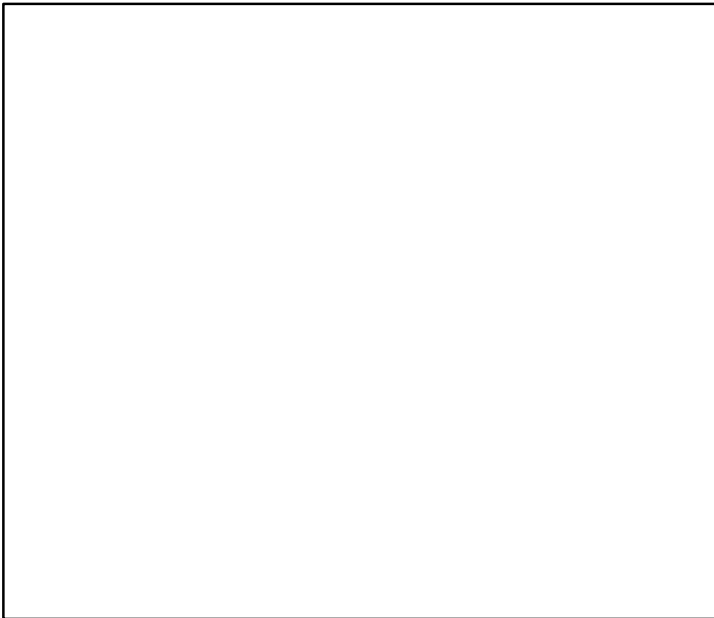
**Kobe MSY\***



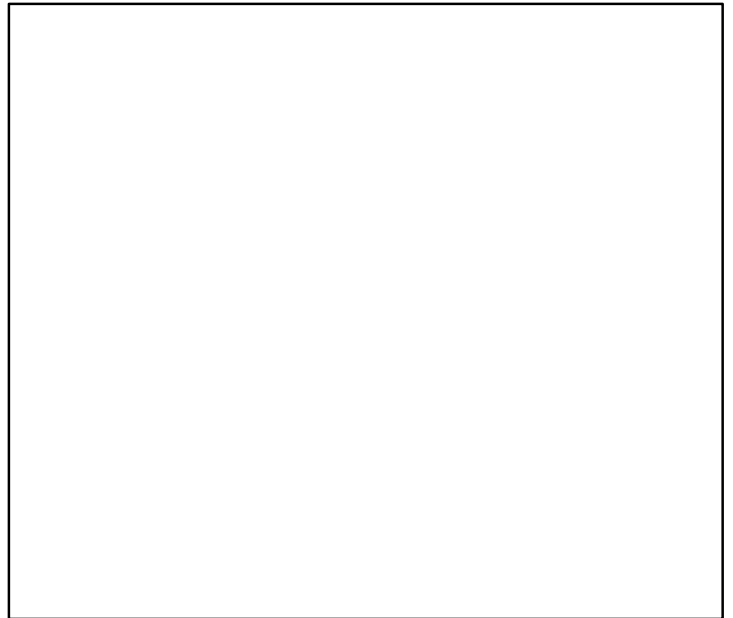
**Kobe MGT\***



**Spawner Recruit\***



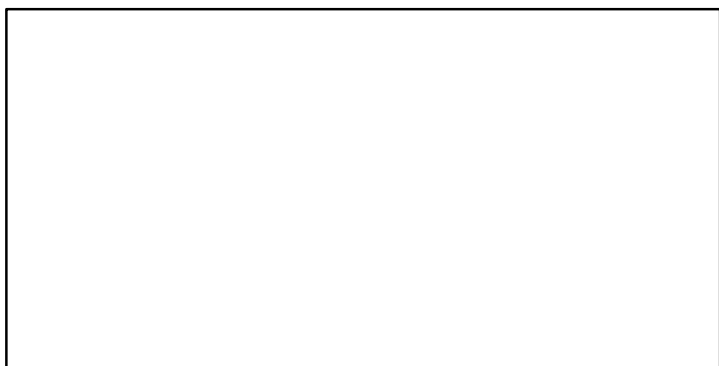
**Production\***



◆ Start Year   ◆ End Year   \* No Data

Arctic surfclam Banquereau [ARCSURFBANQ]

**TB\***



**SSB\***



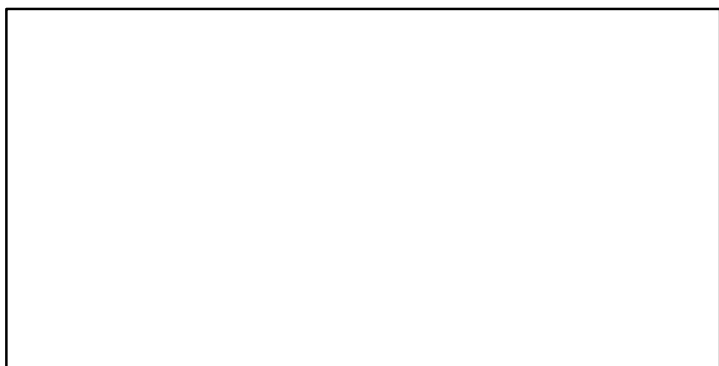
**TN \***



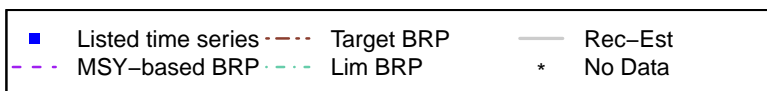
**F\***



**ER\***



**Recruits\***

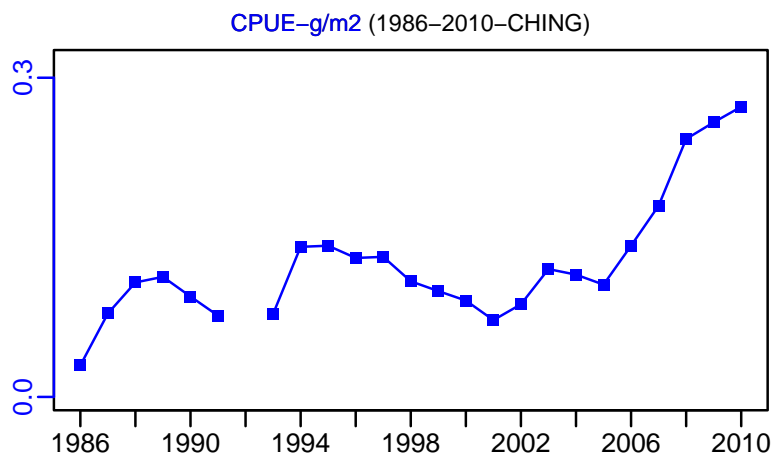
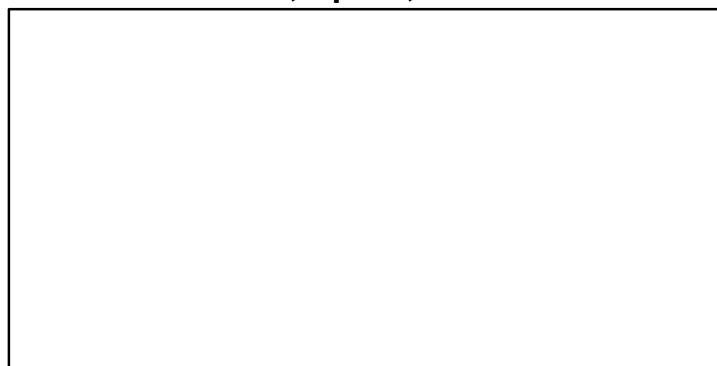
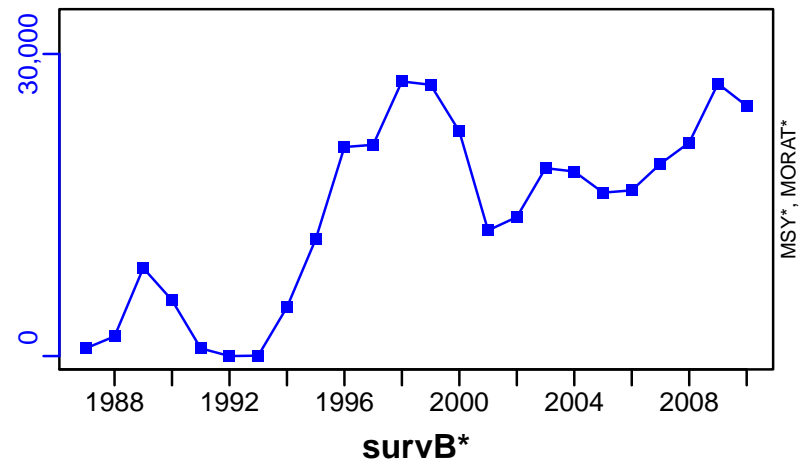




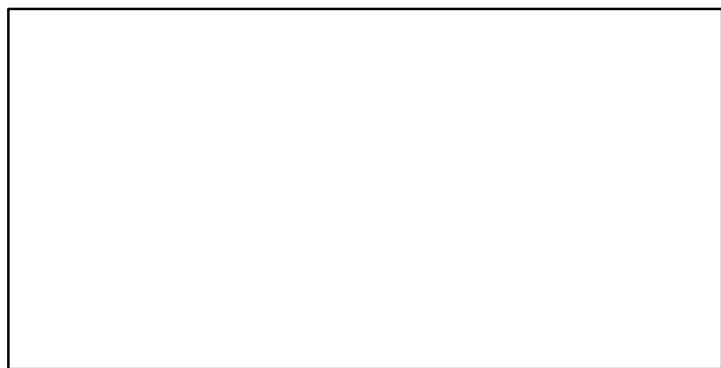
# Arctic surfclam Banquereau [ARCSURFBANQ]

TC-MT, TL\*, RecC\* (1986-2010-CHING)

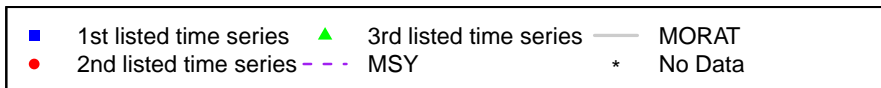
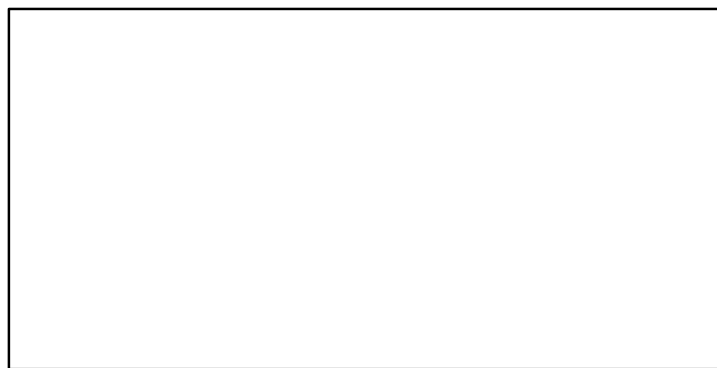
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY\*



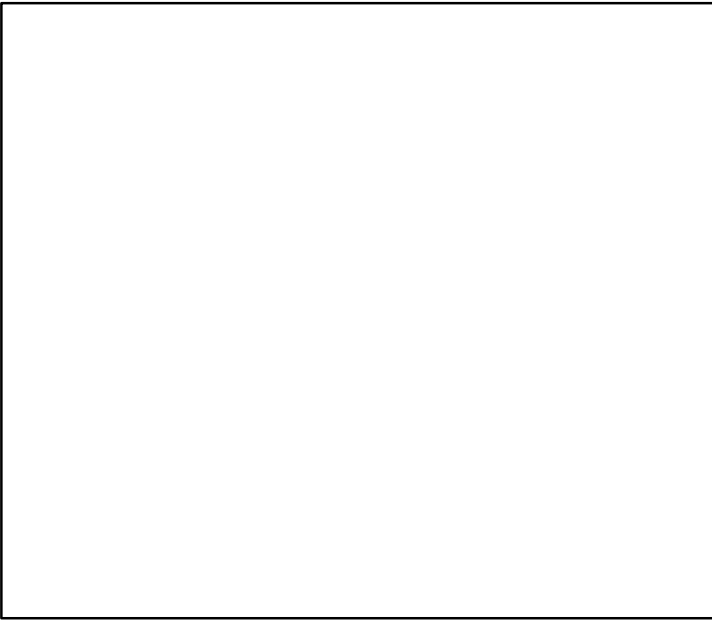
## Arctic surfclam Division 3LNO [ARCSURFGB]

Metadata	
<b>Scientific Name</b>	Mactromeris polynyma
<b>Current Assess ID</b>	DFO-ARCSURFGB-1989-2010-WATSON
<b>Area</b>	Division 3LNO
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans
<b>Asmts in RAM</b>	2010

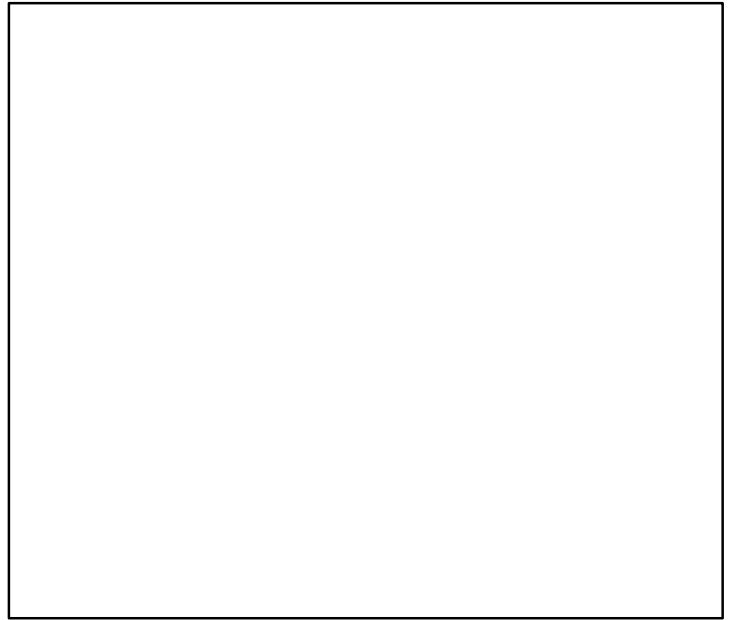
Reference Points			
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TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
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SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2010	0.08
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	-	-	-		
TL	TL-MT	2010	346		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

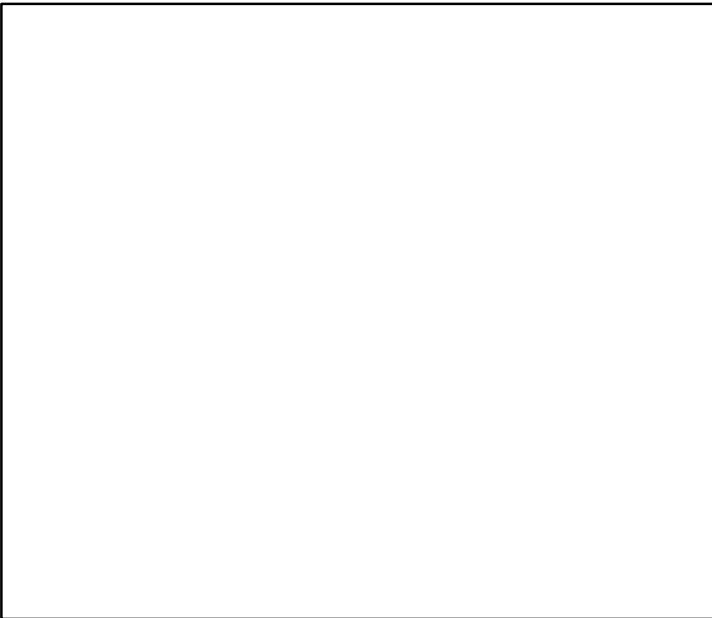
**Kobe MSY\***



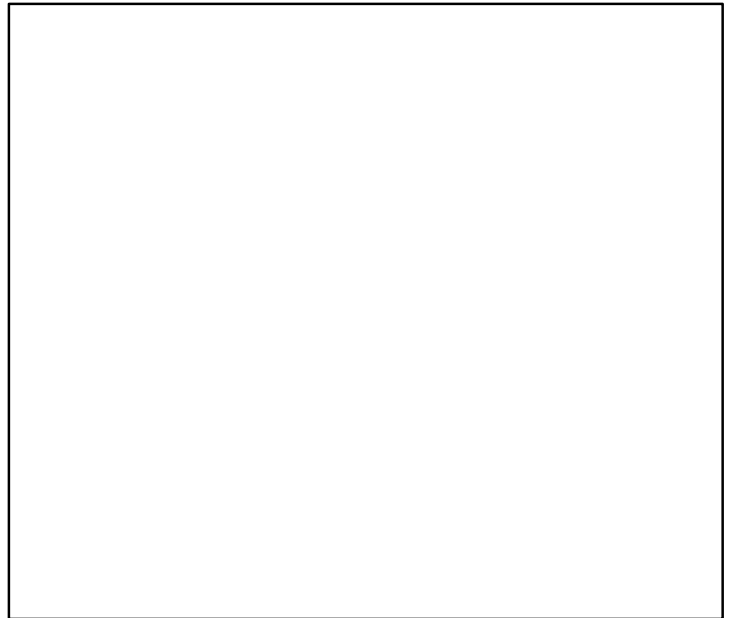
**Kobe MGT\***



**Spawner Recruit\***

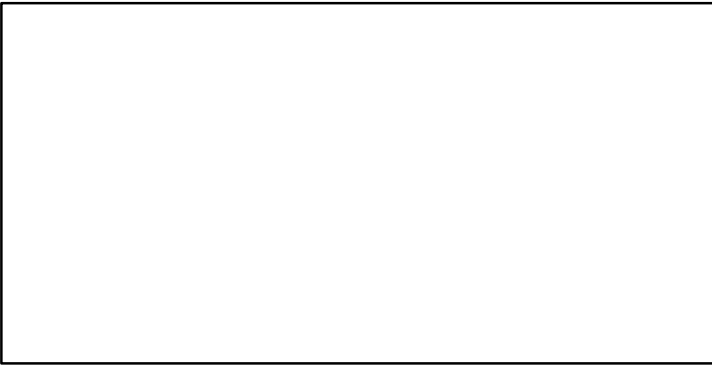


**Production\***

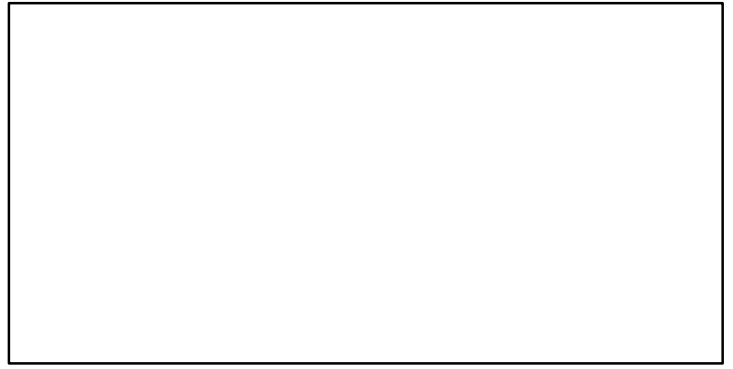


◆ Start Year ◆ End Year * No Data
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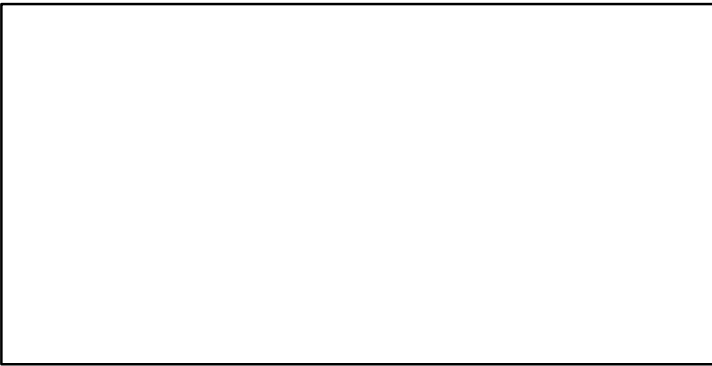
**TB\***



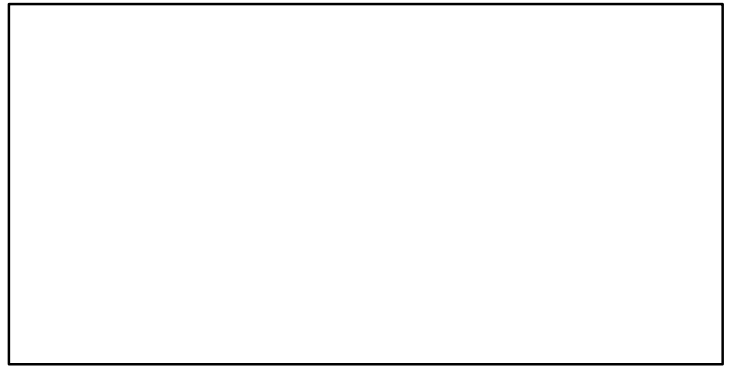
**SSB\***



**TN \***



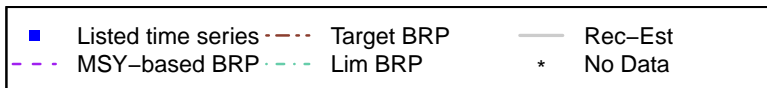
**F\***



**ER\***



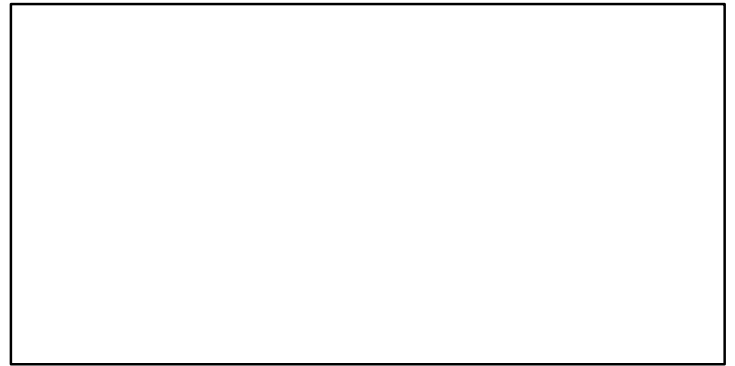
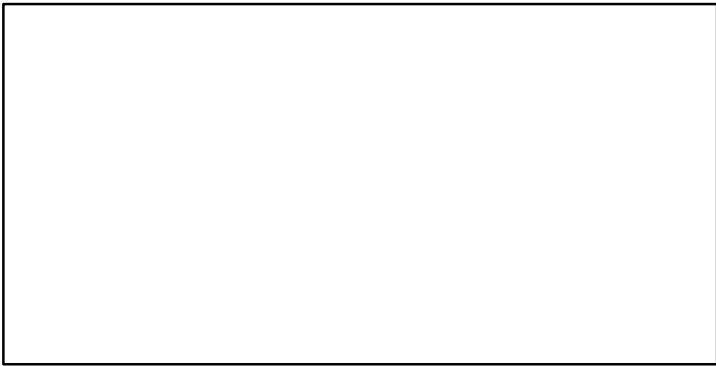
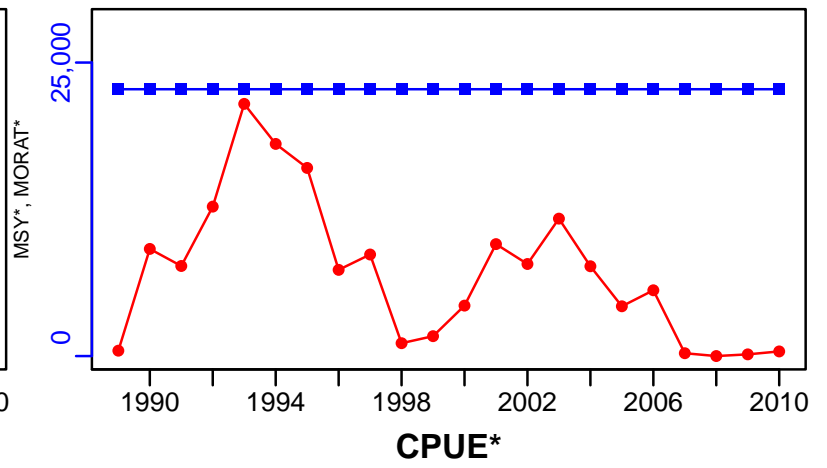
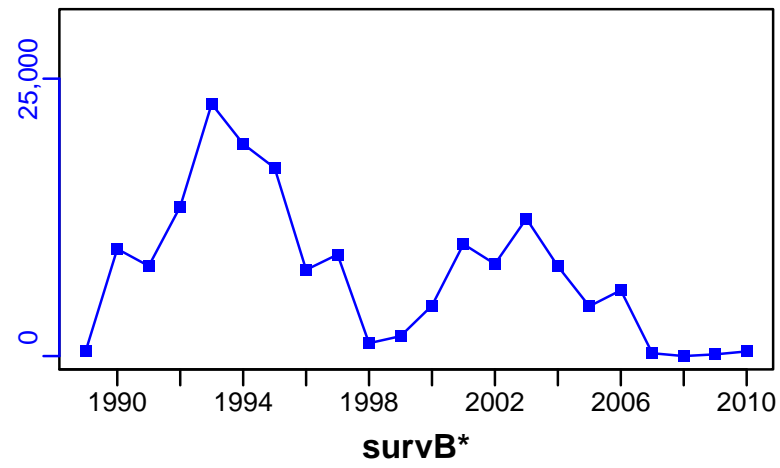
**Recruits\***



# Arctic surfclam Division 3LNO [ARCSURFGB]

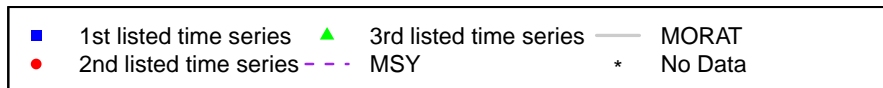
TL-MT, TC\*, RecC\* (1989-2010-WATSON)

TAC-MT, Cpair-MT, Cadv\* (1989-2010-WATSON)



EFFORT\*

CdivMSY\*



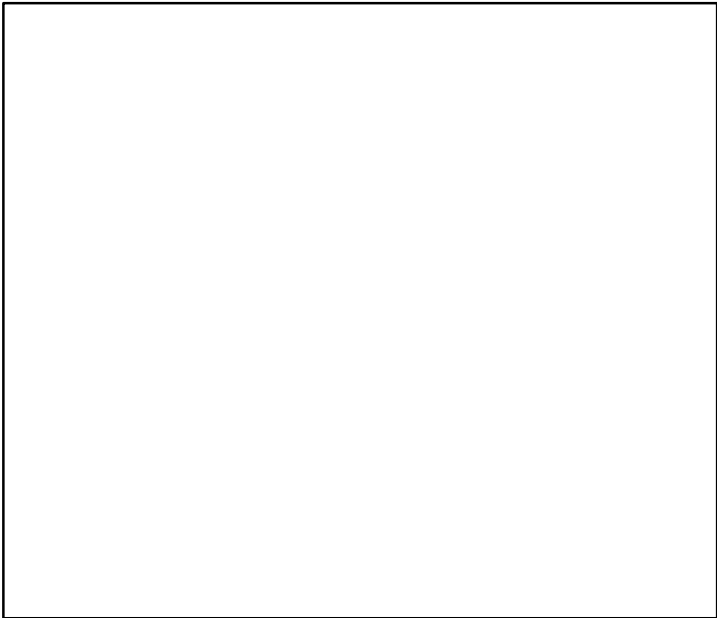
## Arctic surfclam Quebec Coastal Waters [ARCSURFQCW]

Metadata	
<b>Scientific Name</b>	Mactromeris polynyma
<b>Current Assess ID</b>	DFO-QUE-ARCSURFQCW-1993-2017-ASHBROOK
<b>Area</b>	Quebec Coastal Waters
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans - Quebec Region
<b>Asmts in RAM</b>	2011, 2017

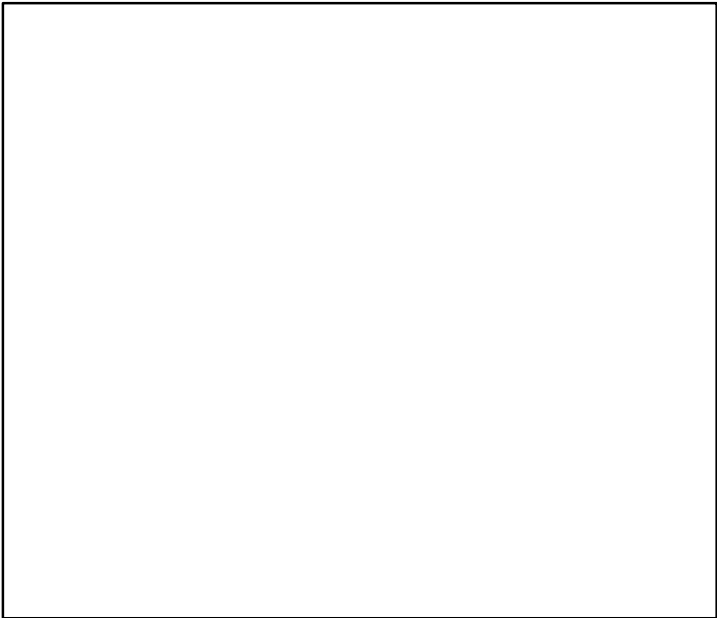
Reference Points			
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SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
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Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	-	-	-		
TL	TL-MT	2017	552		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

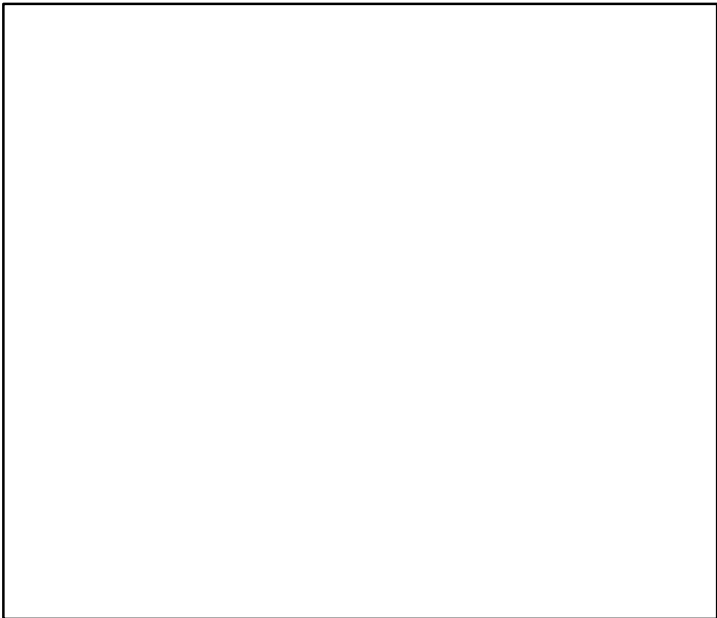
Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*

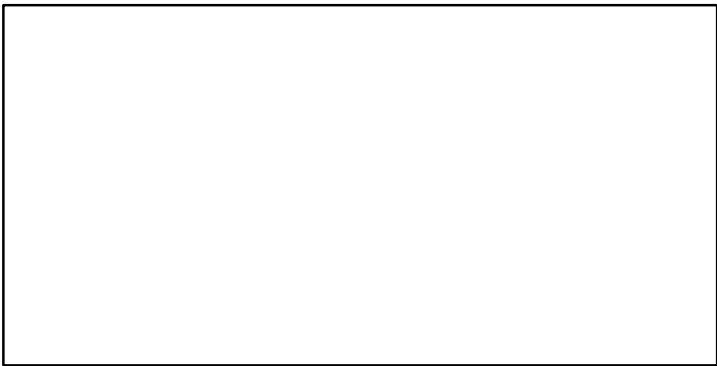


Production\*



◆ Start Year    ◆ End Year    \* No Data

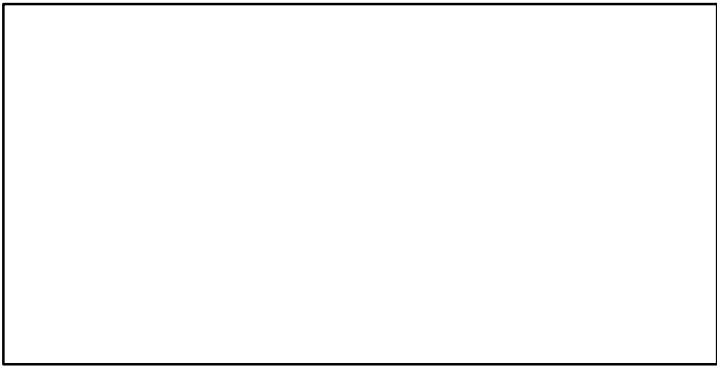
**TB\***



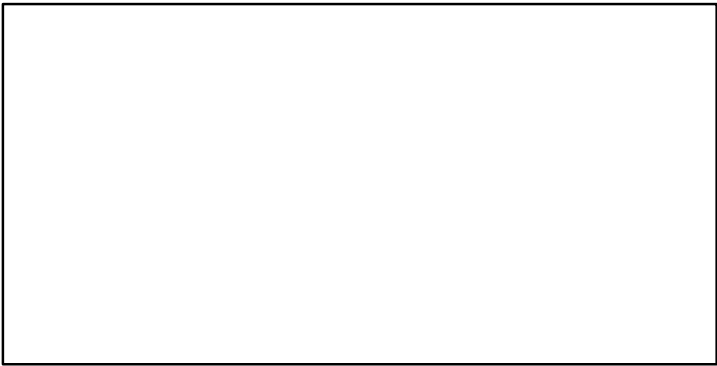
**SSB\***



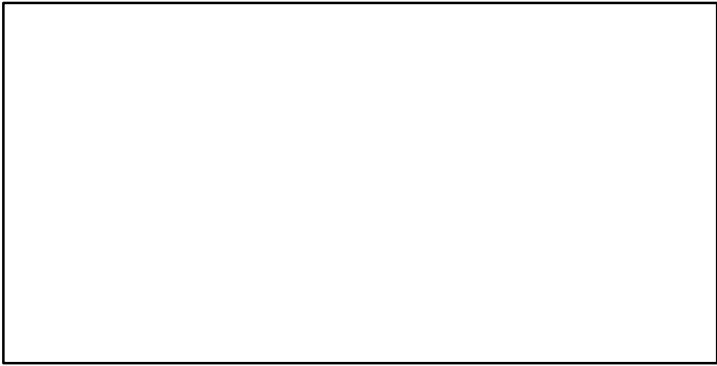
**TN \***



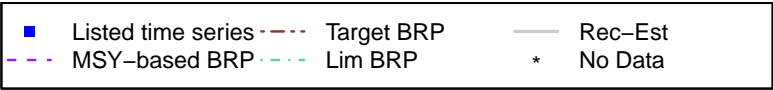
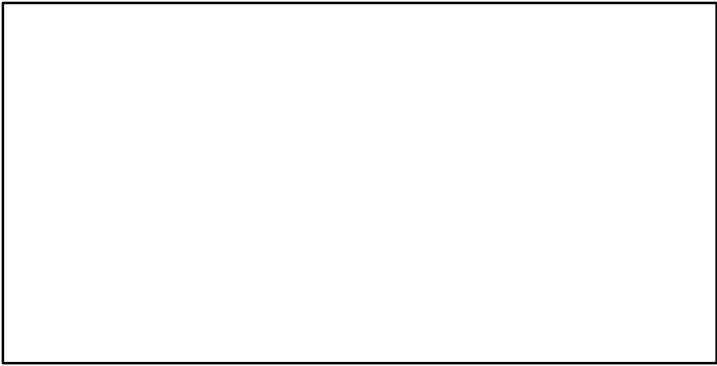
**F\***



**ER\***



**Recruits\***

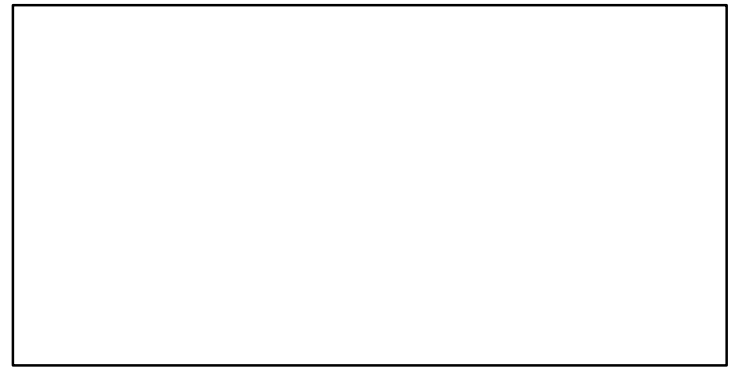
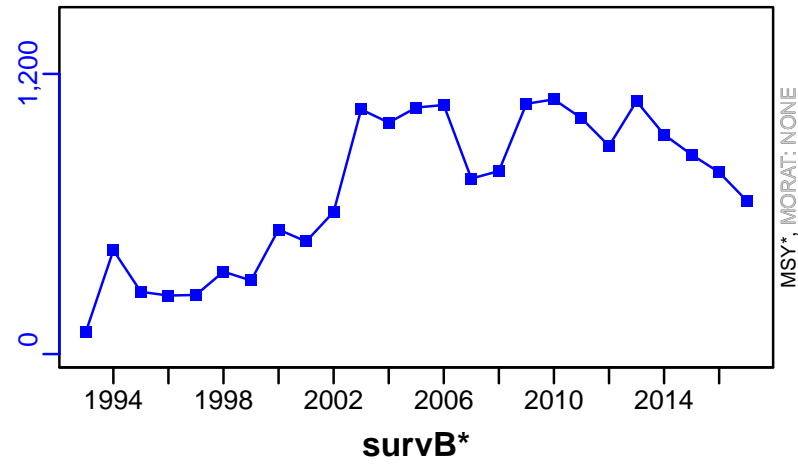




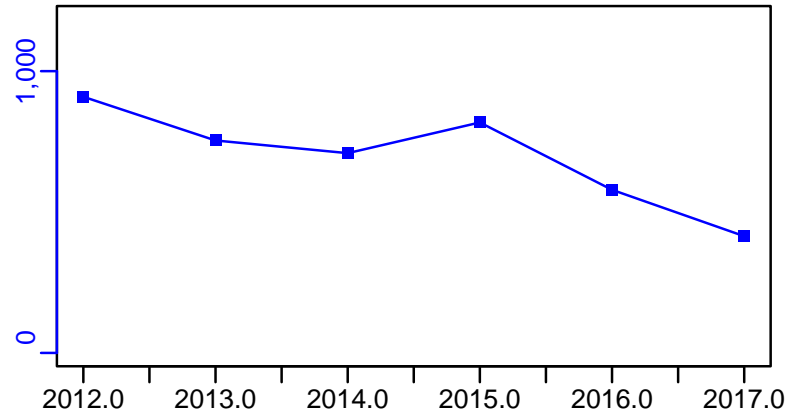
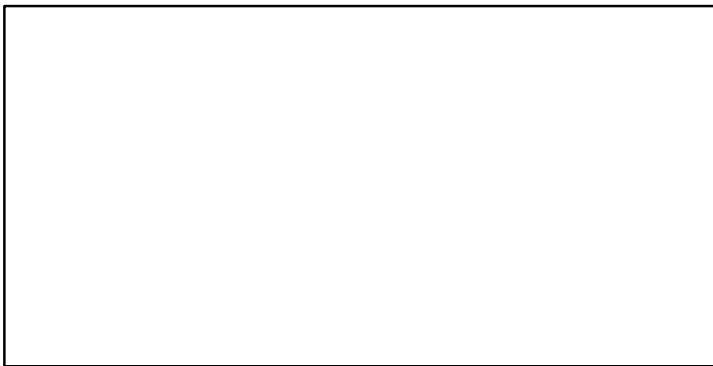
# Arctic surfclam Quebec Coastal Waters [ARCSURFQCW]

TL-MT, TC\*, RecC\* (1993-2017-ASHBROOK)

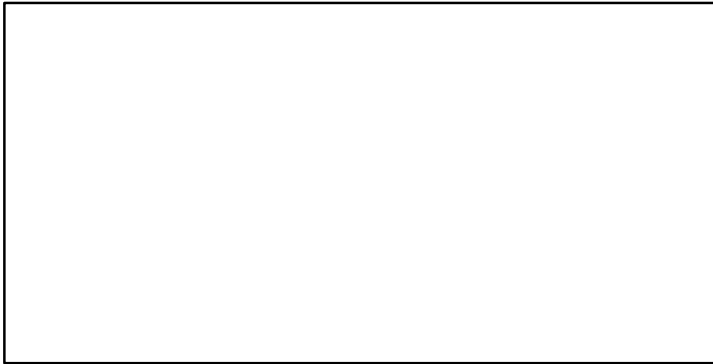
TAC\*, Cpair\*, Cadv\*



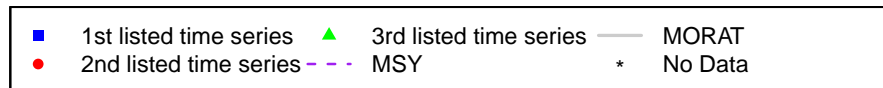
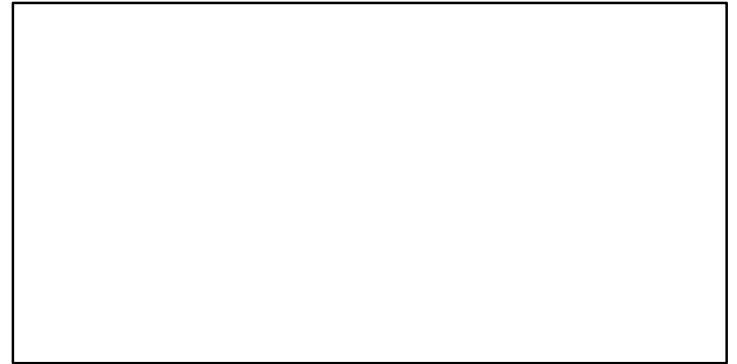
CPUE-index (1993-2017-ASHBROOK)



EFFORT\*



CdivMSY\*

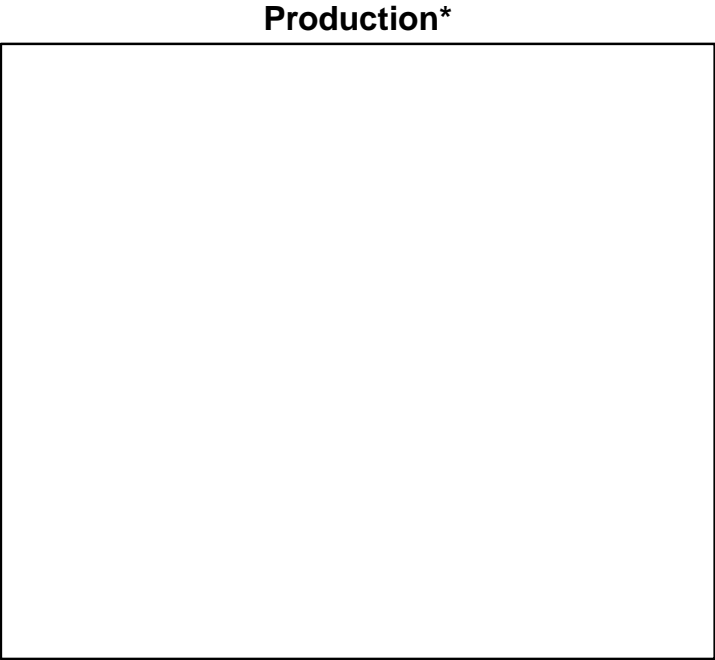
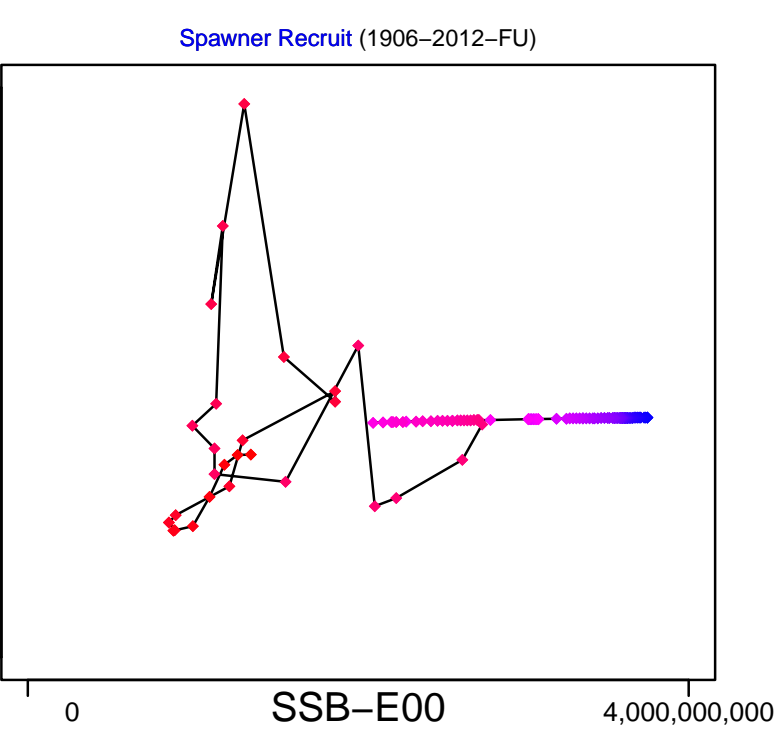
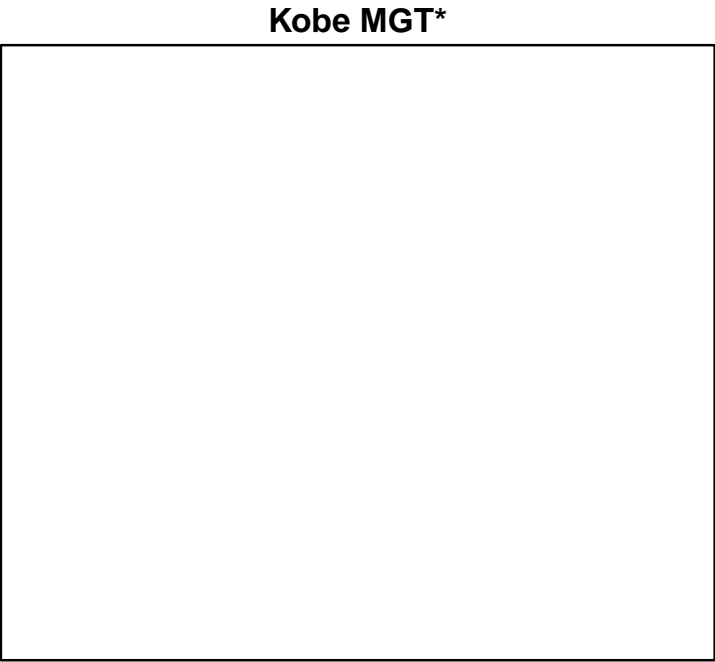
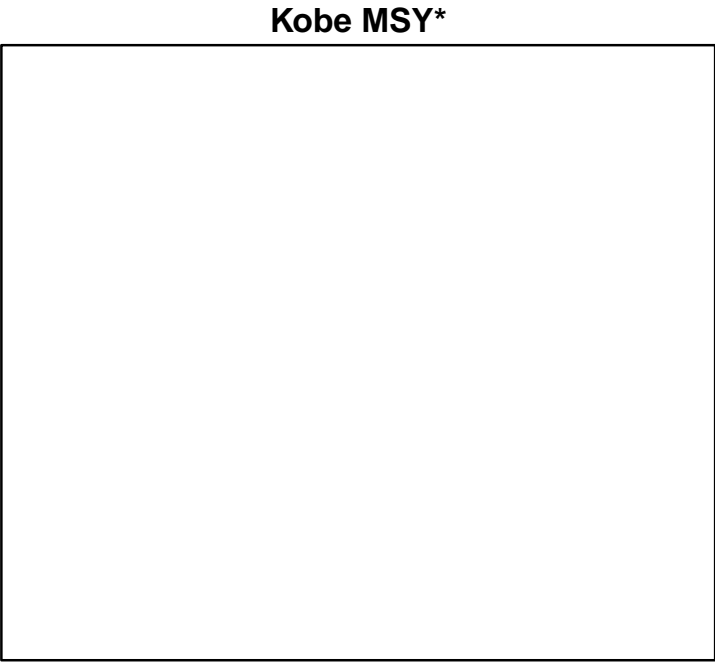


## Dredge oyster Foveax Strait [DOYSFS]

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

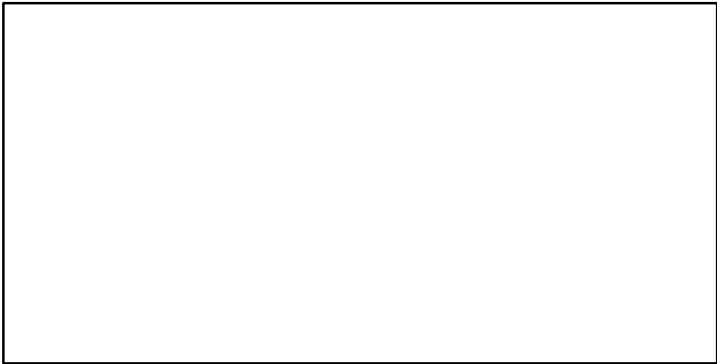
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-E00	2012	$1.44 \times 10^9$	-	-
TN	-	-	-	-	-
R	R-E00	2012	$4.98 \times 10^8$	Both	-
F	F-1/yr	2012	0.01	Both	-
ER	-	-	-	-	-
TC	TC-E00	2012	12,600,000		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-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



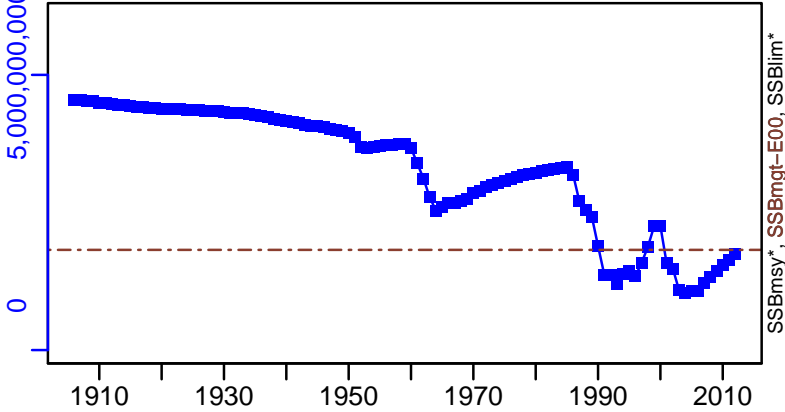
◆ Start Year ◆ End Year \* No Data

Dredge oyster Foveax Strait [DOYSFS]

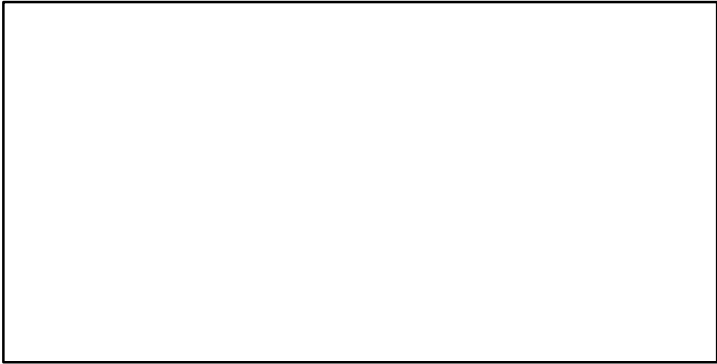
TB\*



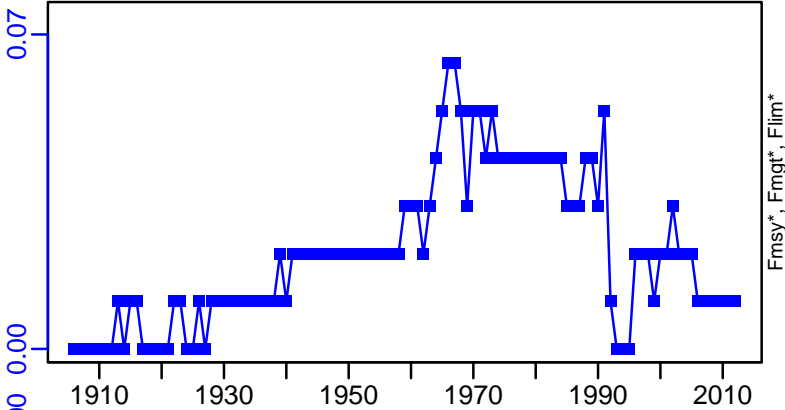
SSB-E00 (1906–2012–FU)



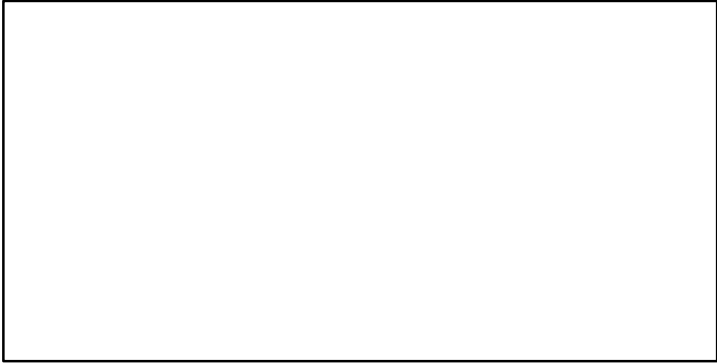
TN \*



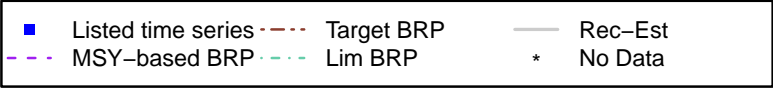
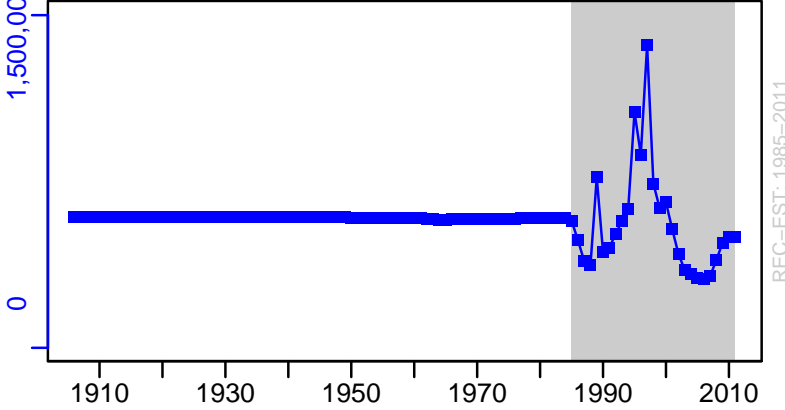
F-1/yr (1906–2012–FU)



ER\*

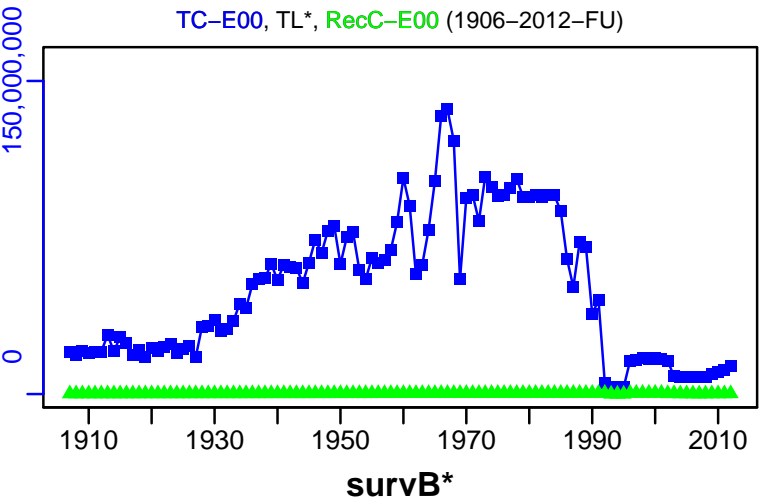


R-E00 (1906–2012–FU)

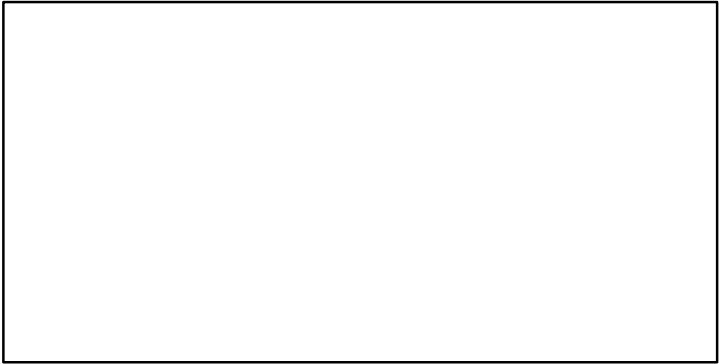
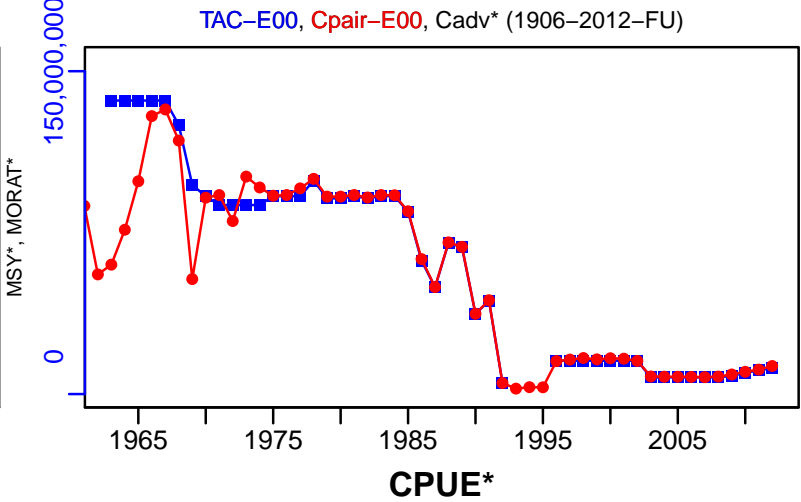


Dredge oyster Foveax Strait [DOYSFS]

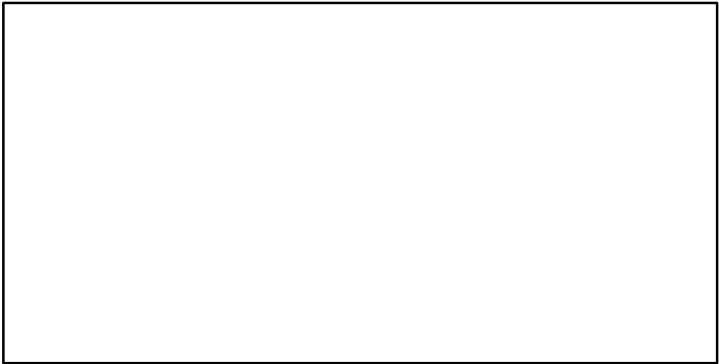
TC-E00, TL\*, RecC-E00 (1906-2012-FU)



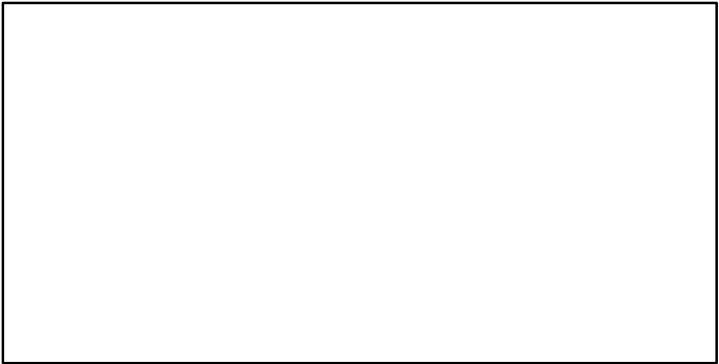
TAC-E00, Cpair-E00, Cadv\* (1906-2012-FU)



EFFORT\*



CdivMSY\*



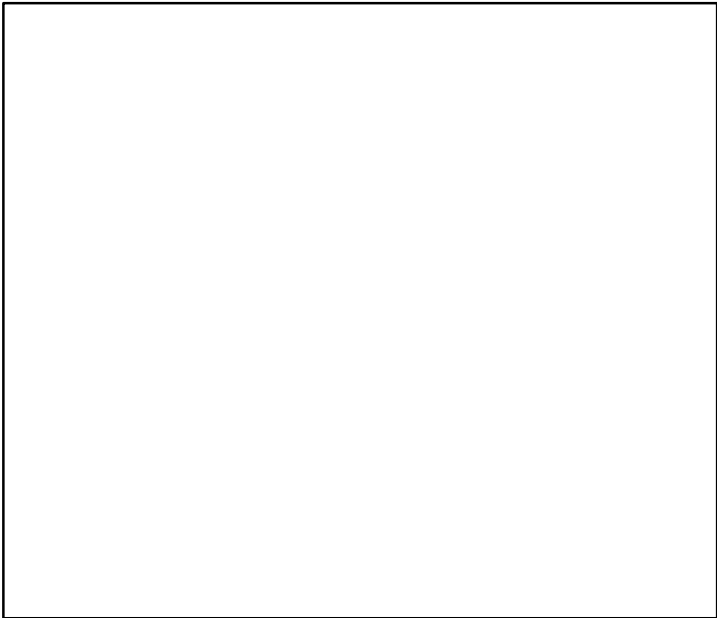
## Iceland scallop St. Pierre Bank [ILSCALL3Ps]

Metadata	
<b>Scientific Name</b>	Chlamys islandica
<b>Current Assess ID</b>	DFO-NFLD-ILSCALL3Ps-1989-2017-ASHBROOK
<b>Area</b>	St. Pierre Bank
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans - Newfoundland Region
<b>Asmts in RAM</b>	2017

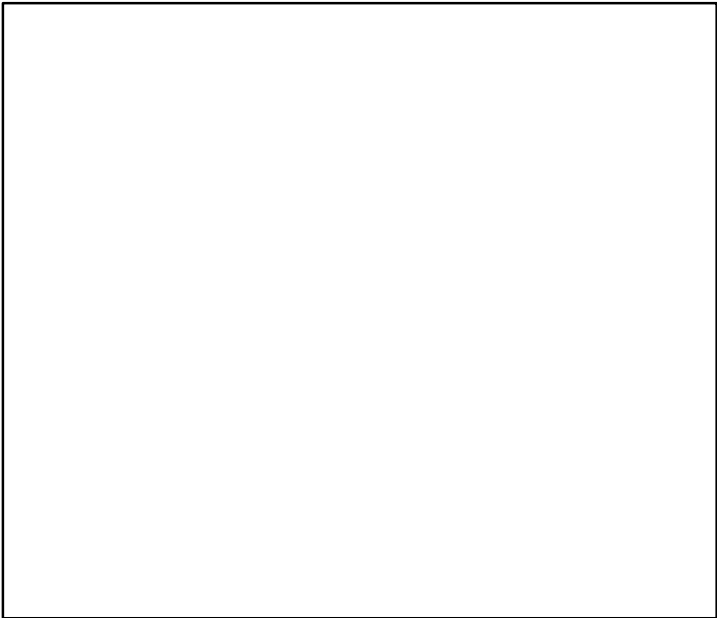
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	M-1/yr	2017	0.07
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	-	-	-		
<b>TL</b>	TL-MT	2017	0		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

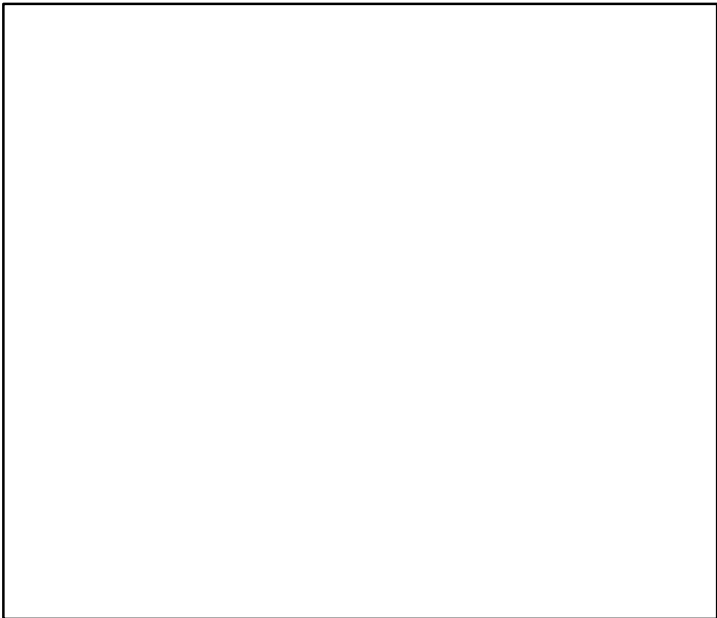
Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



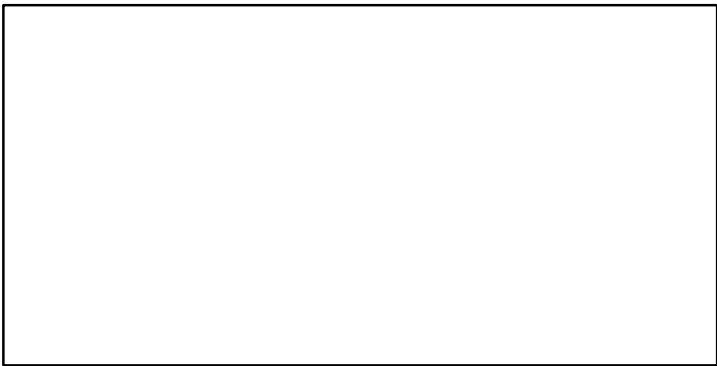
Production\*



◆ Start Year ◆ End Year \* No Data

Iceland scallop St. Pierre Bank [ILSCALL3Ps]

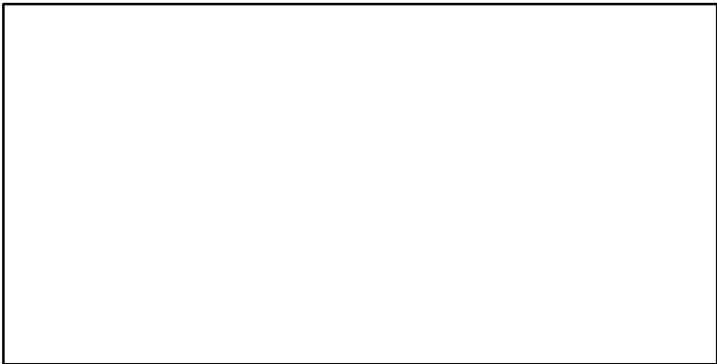
TB\*



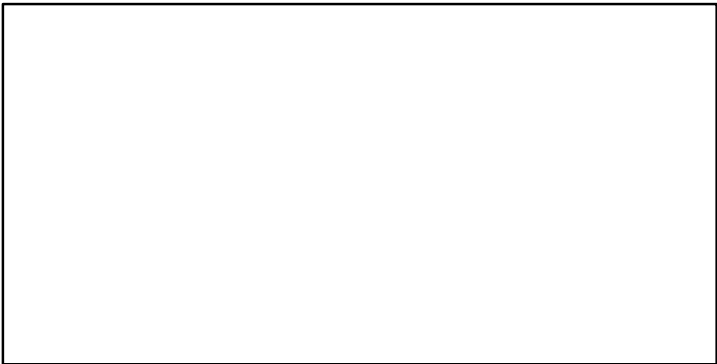
SSB\*



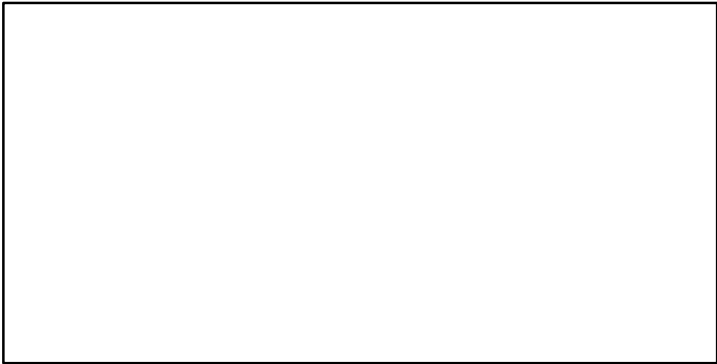
TN \*



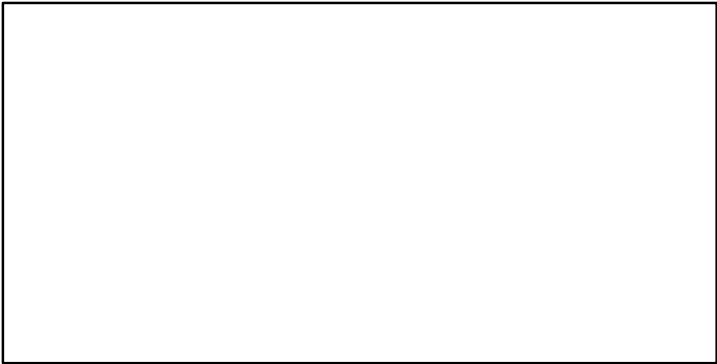
F\*



ER\*



Recruits\*



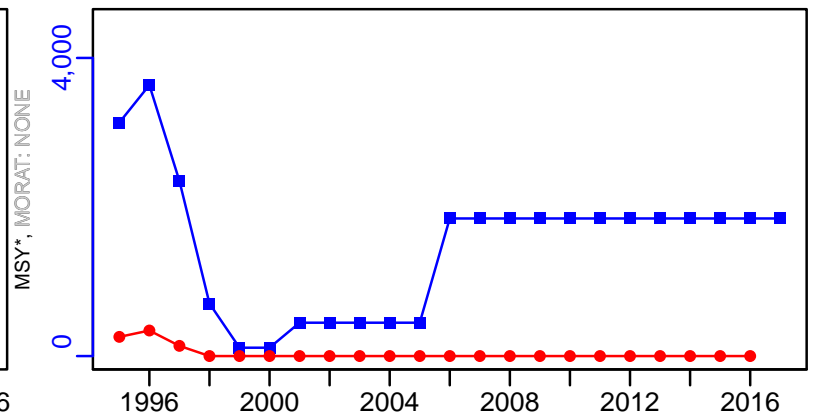
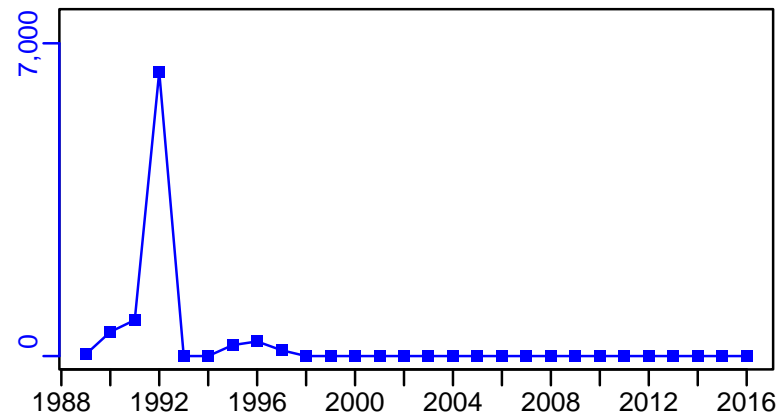
■ Listed time series	- - - Target BRP	— Rec-Est
- - - MSY-based BRP	- - - Lim BRP	* No Data



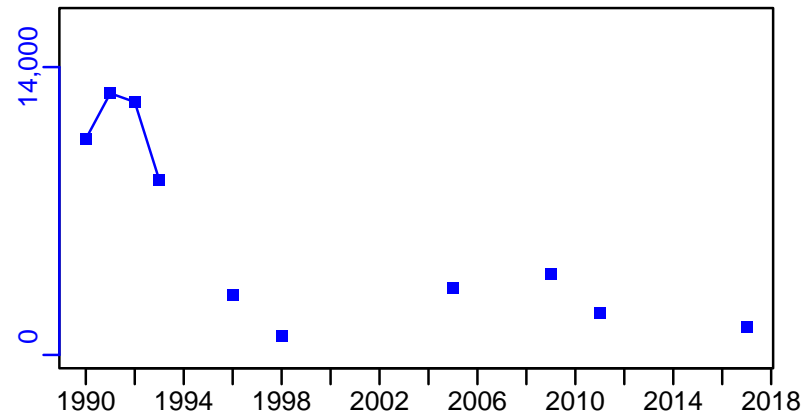
# Iceland scallop St. Pierre Bank [ILSCALL3Ps]

TL-MT, TC\*, RecC\* (1989-2017-ASHBROOK)

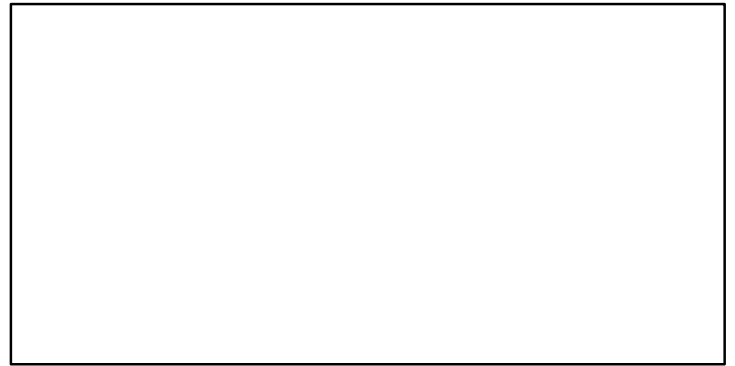
TAC-MT, Cpair-MT, Cadv\* (1989-2017-ASHBROOK)



survB-MT (1989-2017-ASHBROOK)



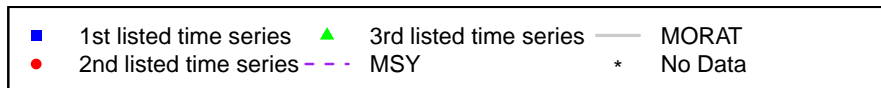
CPUE\*



EFFORT\*



CdivMSY\*



## Paua NZ Area North PAUA 5A [PAUANPAU5A]

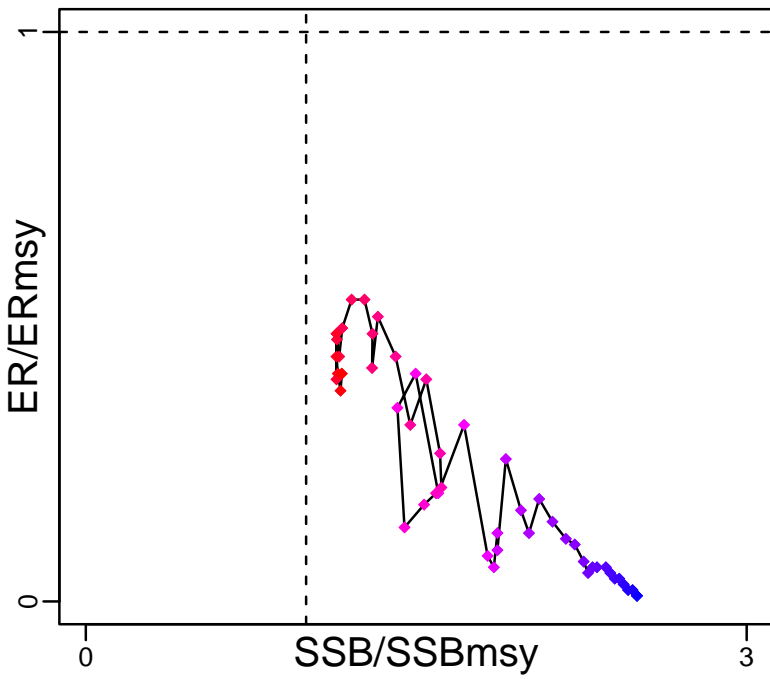
Metadata	
<b>Scientific Name</b>	Haliotis iris
<b>Current Assess ID</b>	NIWA-PAUANPAU5A-1965-2014-FU
<b>Area</b>	NZ Area North PAUA 5A
<b>Management Authority</b>	Ministry of Fisheries, New Zealand national management
<b>Assessor</b>	National Institute of Water and Atmospheric Research
<b>Asmts in RAM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

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

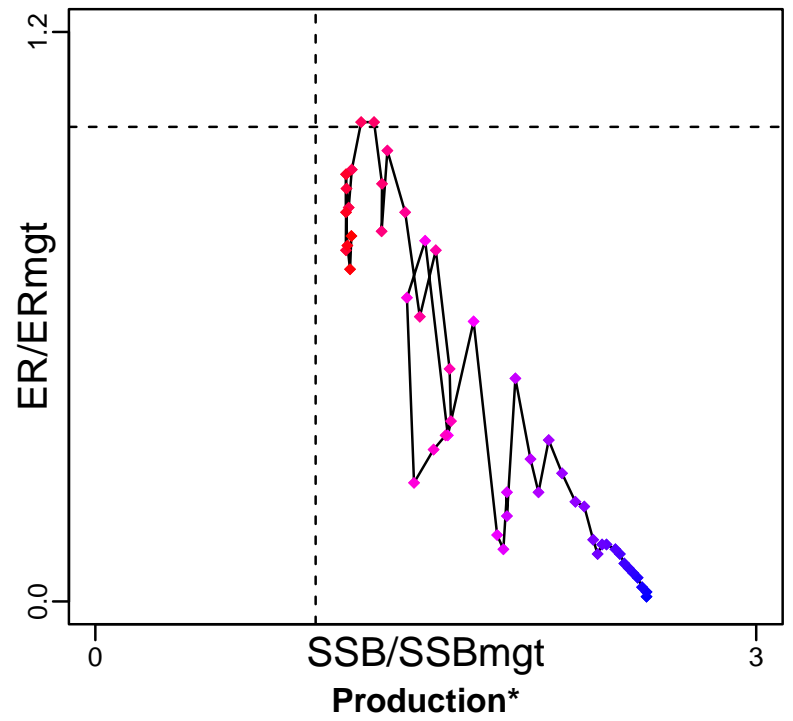
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2014	576	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2014	602,000	Both	-
<b>F</b>	F-1/yr	2010	0.328	-	-
<b>ER</b>	ER-ratio	2014	0.16	Both	-
<b>TC</b>	TC-MT	2014	64		
<b>TL</b>	TL-MT	2014	64		
<b>TB/TBmsy</b>	-	-	-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

Paua NZ Area North PAUA 5A [PAUANPAU5A]

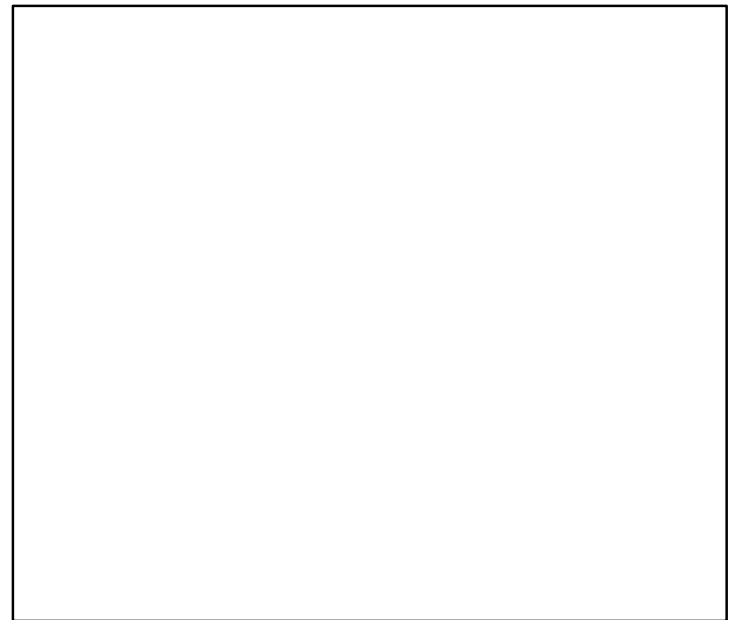
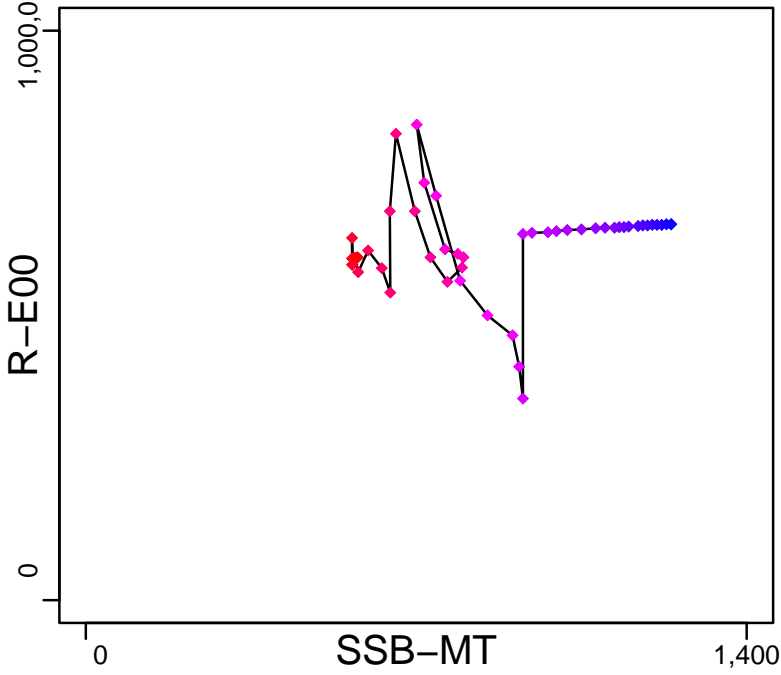
Kobe MSYpref (1965–2014–FU)



Kobe MGTpref (1965–2014–FU)



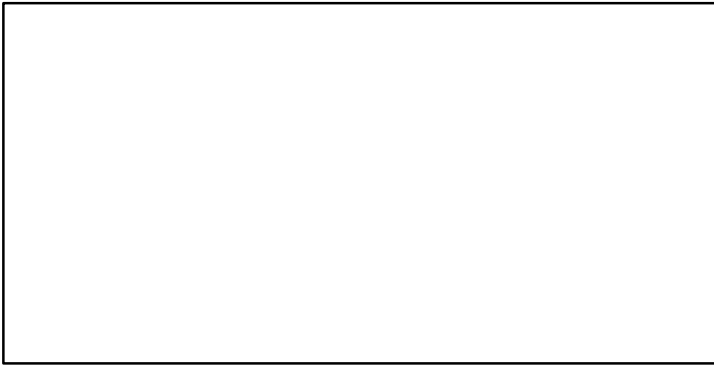
Spawner Recruit (1965–2014–FU)



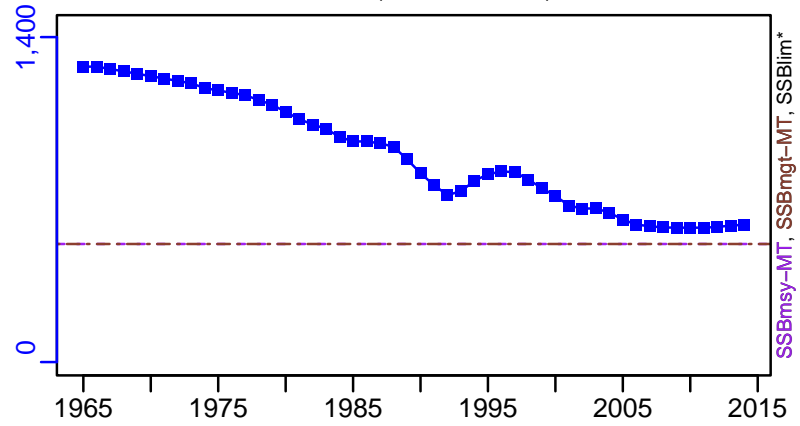
◆ Start Year ◆ End Year \* No Data

Paua NZ Area North PAUA 5A [PAUANPAU5A]

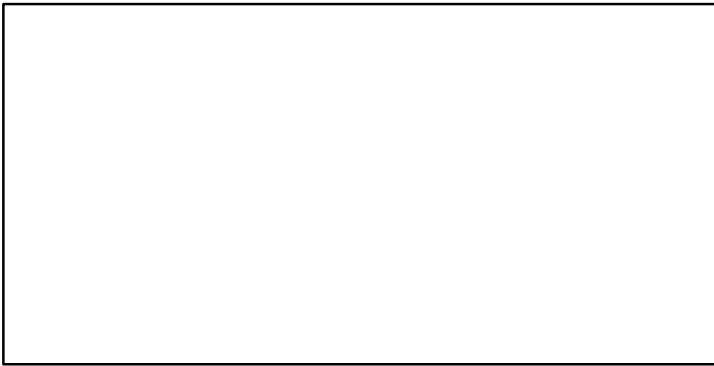
TB\*



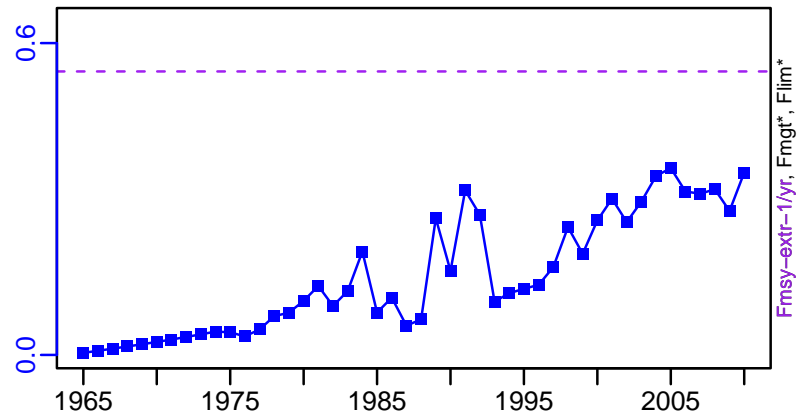
SSB-MT (1965–2014–FU)



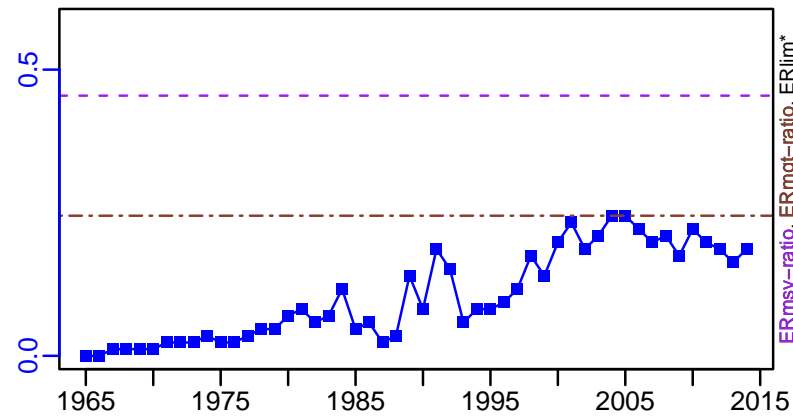
TN \*



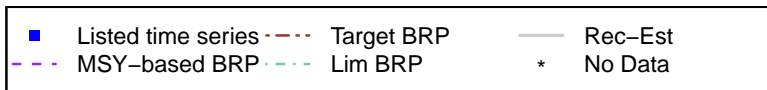
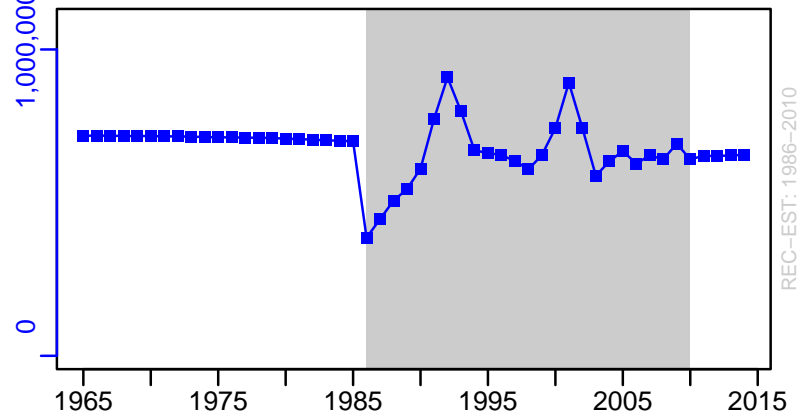
F-1/yr (1965–2010–CORDUE)



ER-ratio (1965–2014–FU)



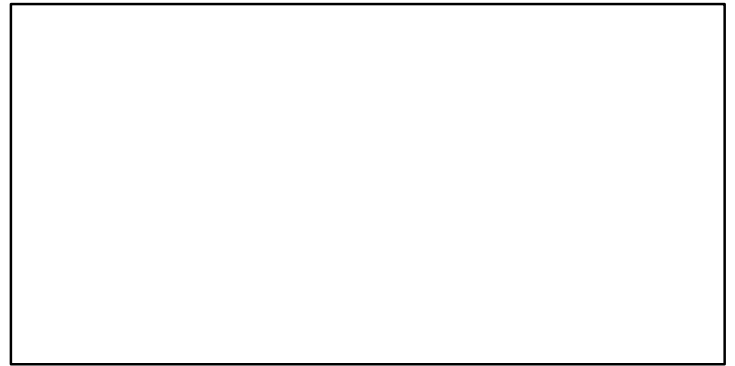
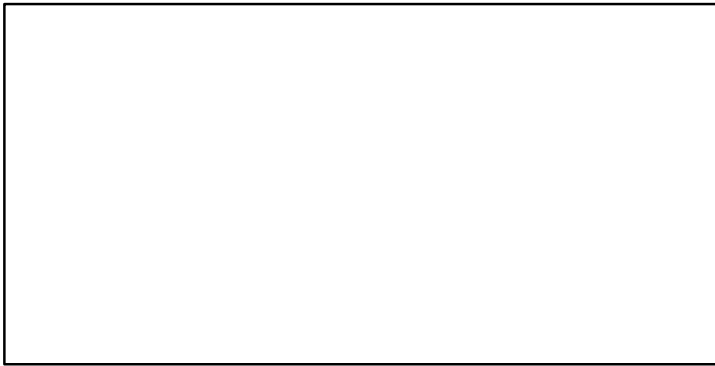
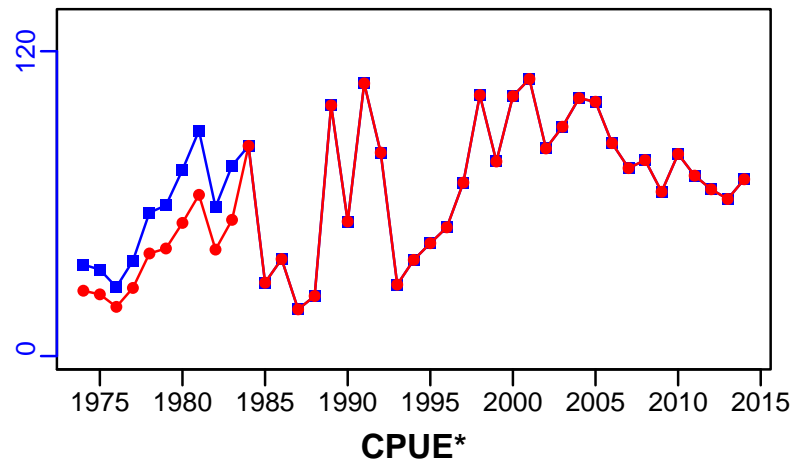
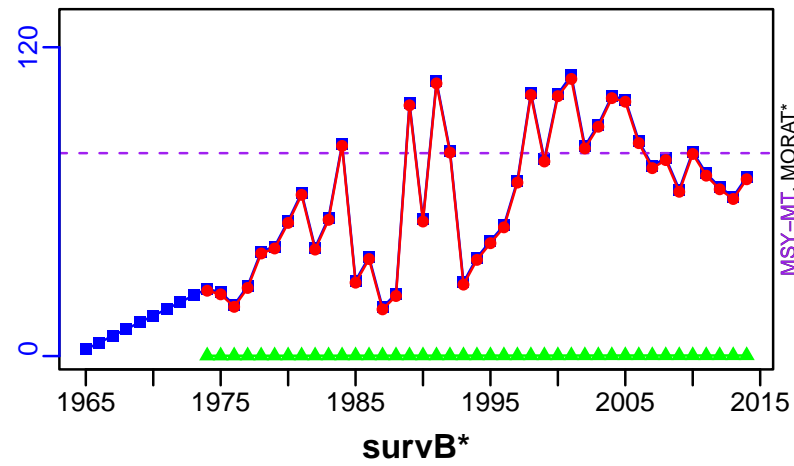
R-E00 (1965–2014–FU)



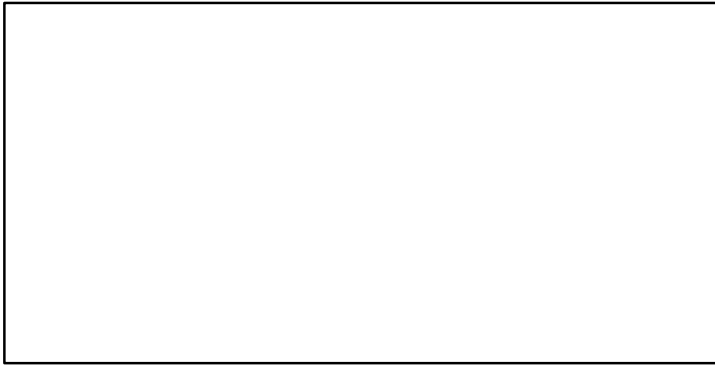
# Paua NZ Area North PAUA 5A [PAUANPAU5A]

TC-MT, TL-MT, RecC-MT (1965–2014–FU)

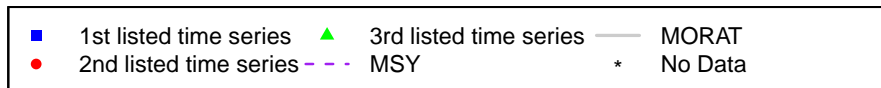
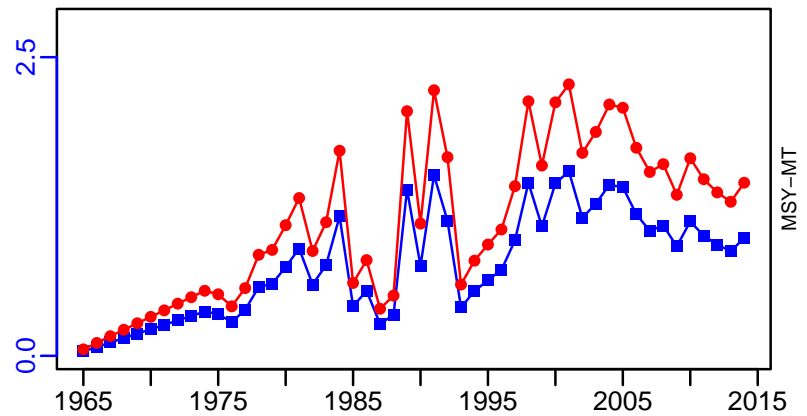
TAC-MT, Cpair-MT, Cadv\* (1965–2014–FU)



EFFORT\*



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



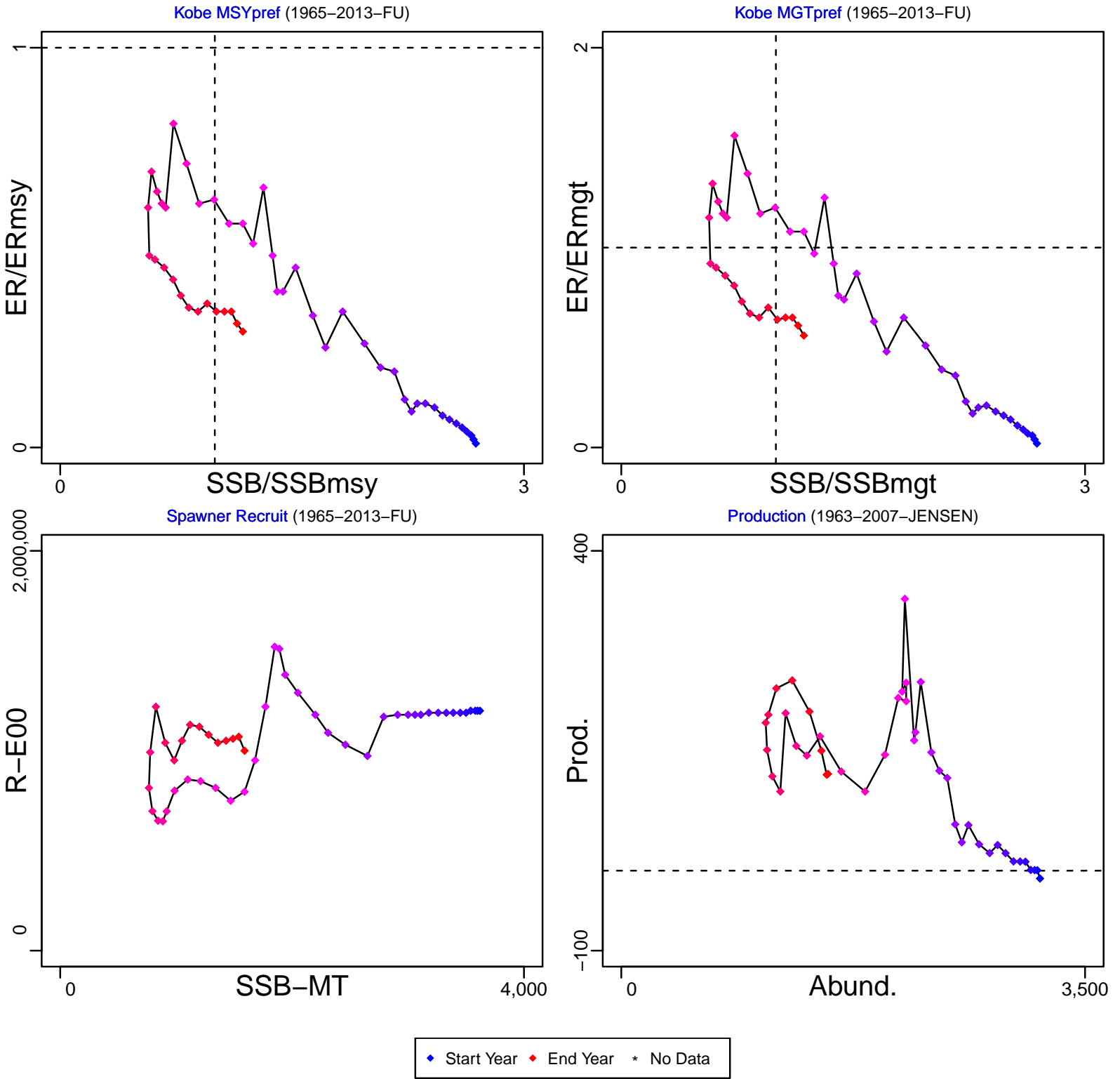
## Paua New Zealand Area PAU 5B (Stewart Island) [PAUAPAU5B]

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

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

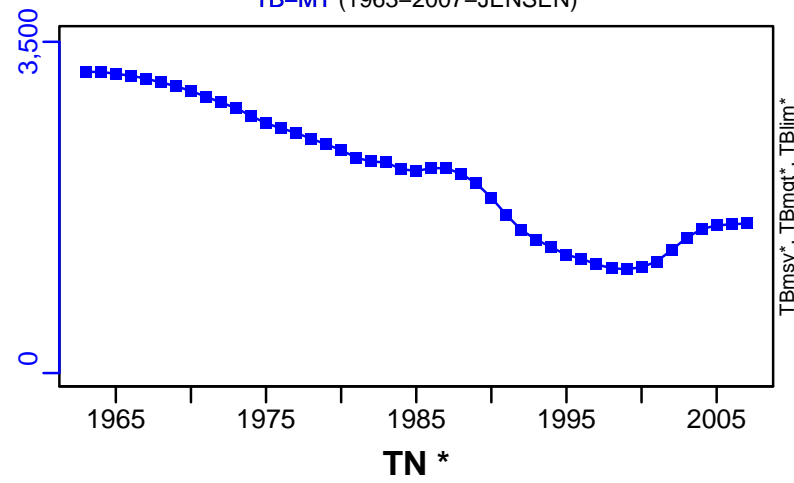
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2007	1570	-	-
<b>SSB</b>	SSB-MT	2013	1590	Both	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	$1 \times 10^6$	Both	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2013	0.11	Both	-
<b>TC</b>	TC-MT	2013	101		
<b>TL</b>	TL-MT	2013	72		
<b>TB/TBmsy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

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

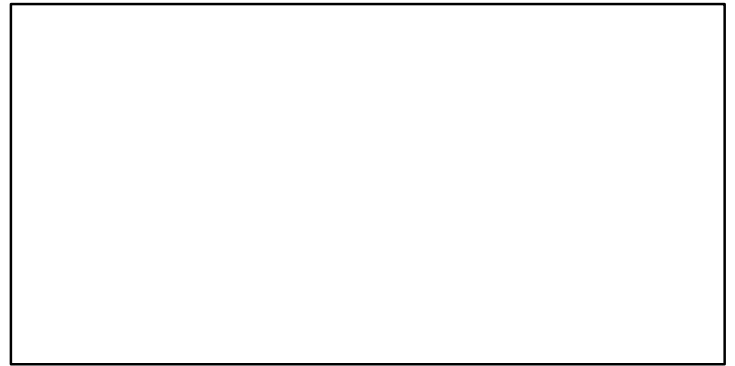
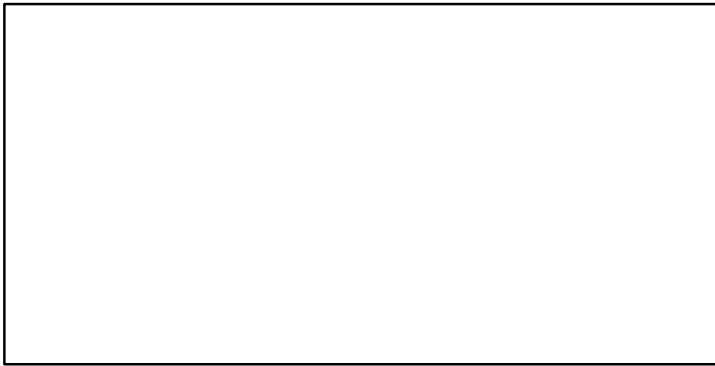
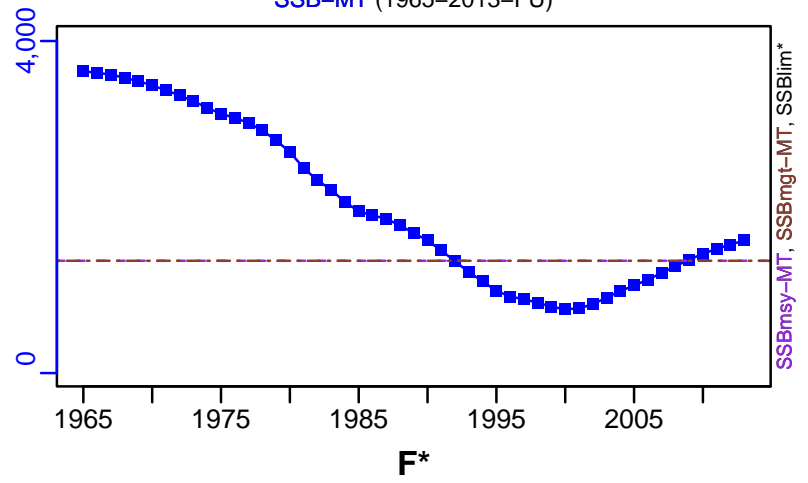


Paua New Zealand Area PAU 5B (Stewart Island) [PAUAPAU5B]

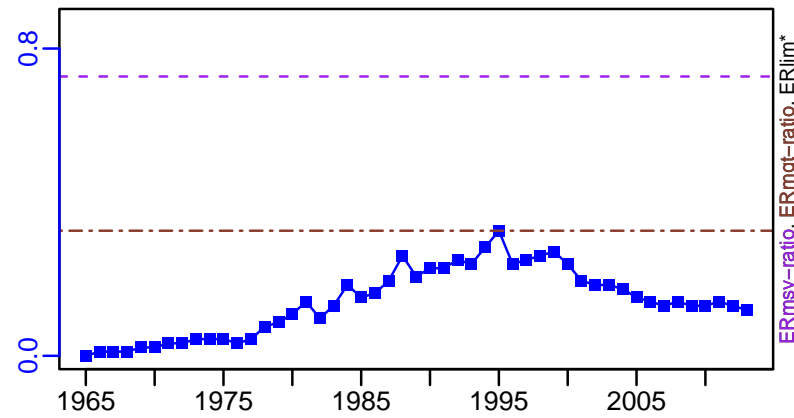
TB-MT (1963–2007–JENSEN)



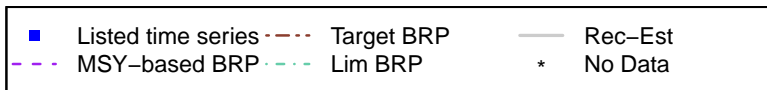
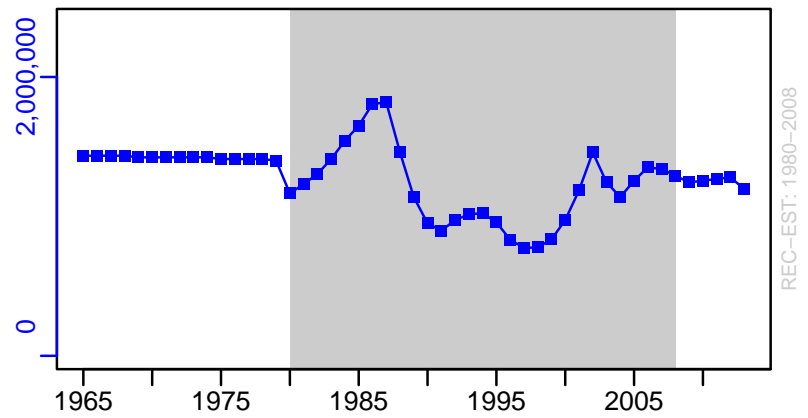
SSB-MT (1965–2013–FU)



ER-ratio (1965–2013–FU)



R-E00 (1965–2013–FU)

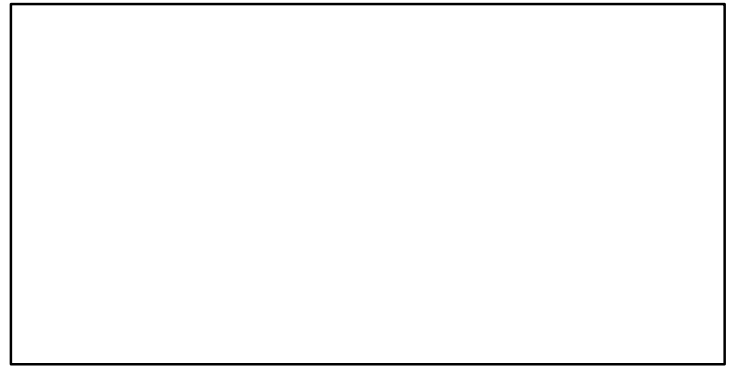
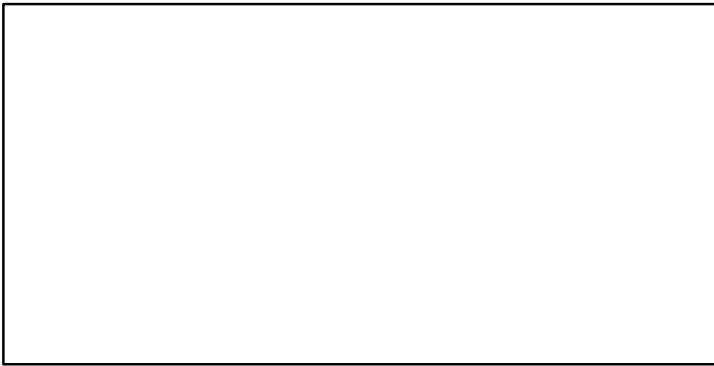
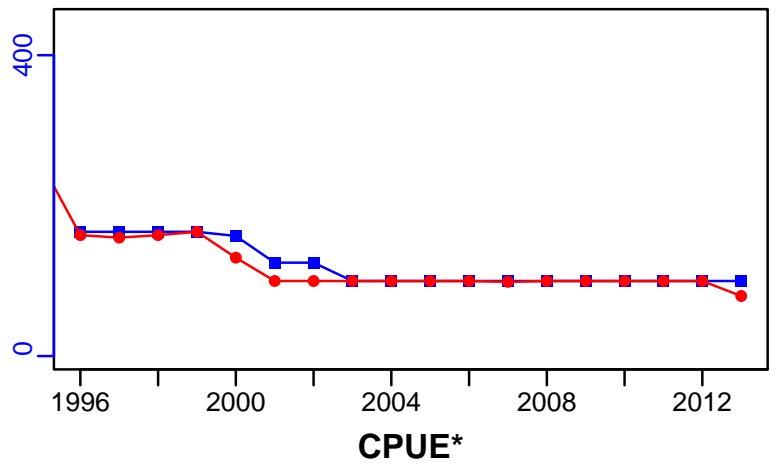
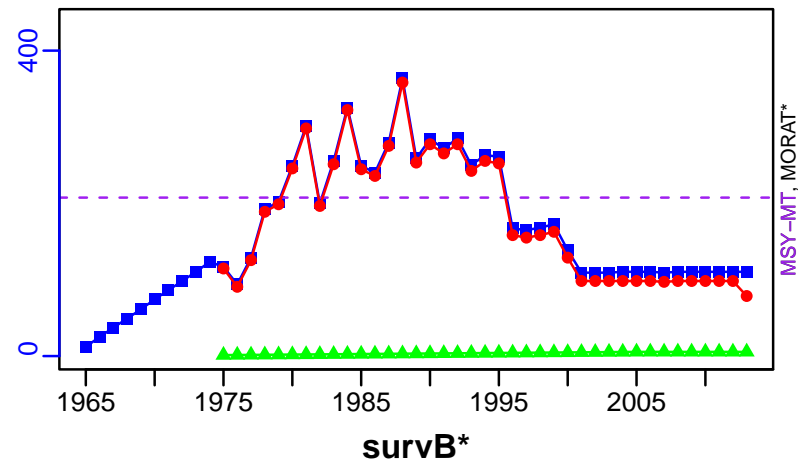




# Paua New Zealand Area PAU 5B (Stewart Island) [PAUAPAU5B]

TC-MT, TL-MT, RecC-MT (1965–2013–FU)

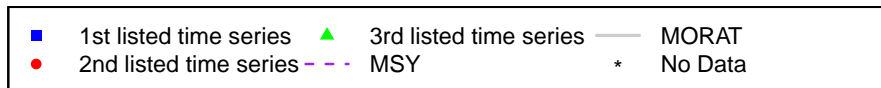
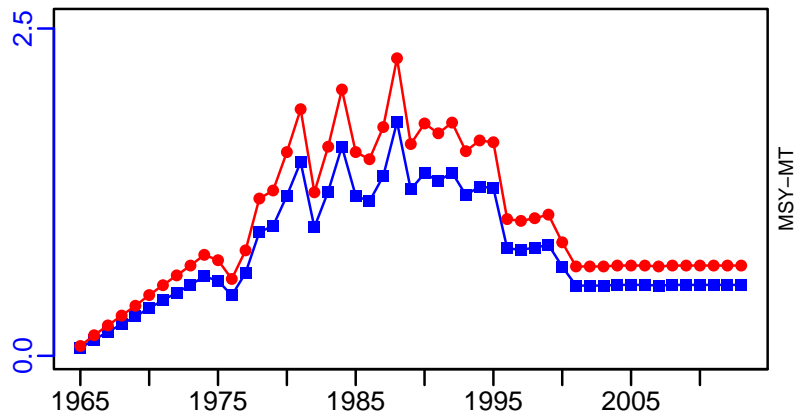
TAC-MT, Cpair-MT, Cadv\* (1965–2013–FU)



EFFORT\*



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



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

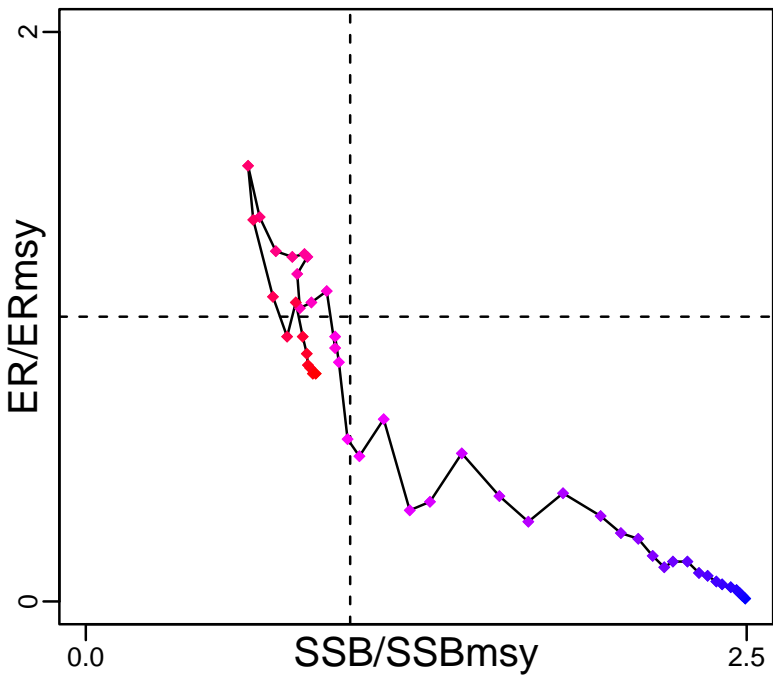
Metadata	
<b>Scientific Name</b>	Haliotis iris
<b>Current Assess ID</b>	NZMFishSHELLFISHWG-PAUAPAU5D-1965-2022-NEUBAUER
<b>Area</b>	New Zealand Area PAU 5D (Otago)
<b>Management Authority</b>	Ministry of Fisheries, New Zealand national management
<b>Assessor</b>	Shellfish Working Group
<b>Asmts in RAM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

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

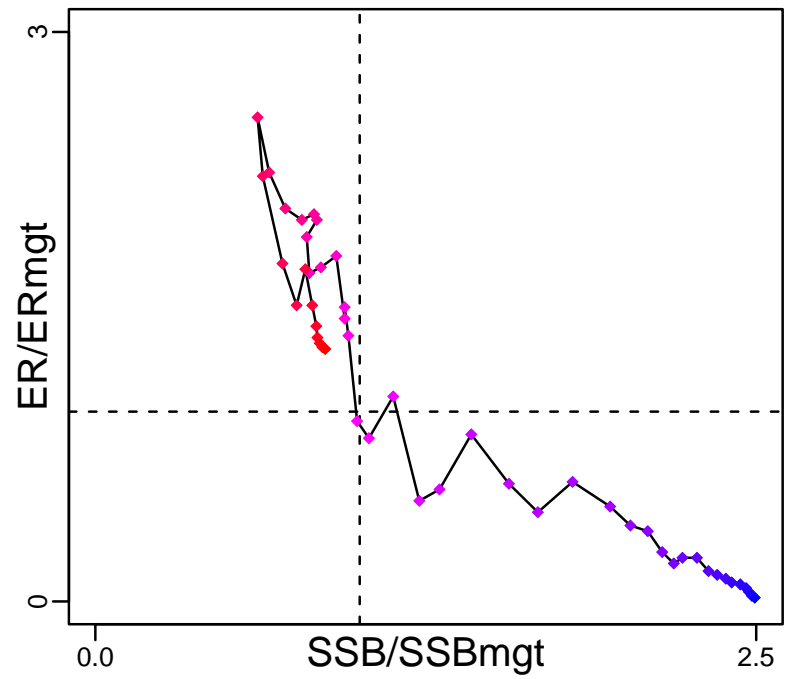
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2006	400	-	-
<b>SSB</b>	SSB-MT	2022	972	Both	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2012	884,000	Both	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2022	0.113	Both	-
<b>TC</b>	TC-MT	2022	88		
<b>TL</b>	TL-MT	2022	68		
<b>TB/TBmsy</b>	-	-	-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

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

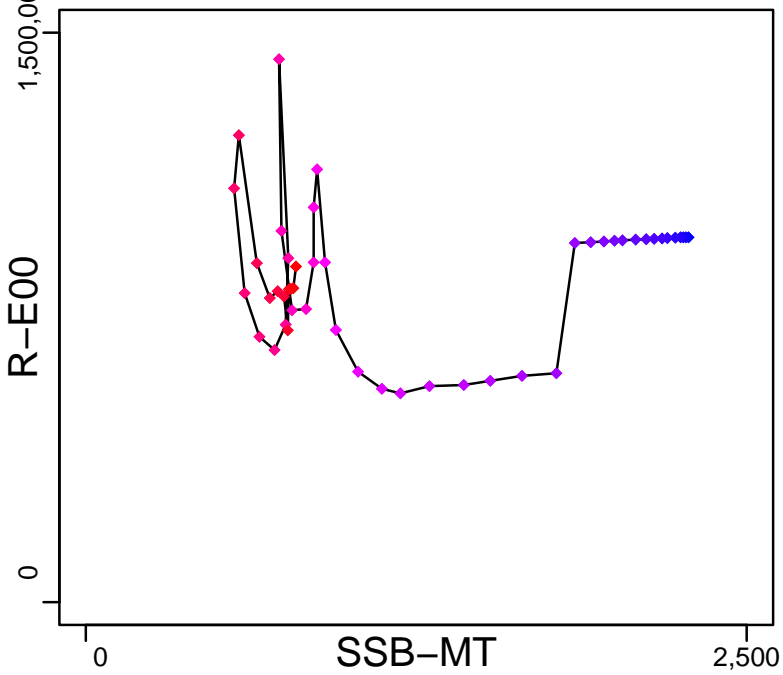
Kobe MSYpref (1965–2012–FU)



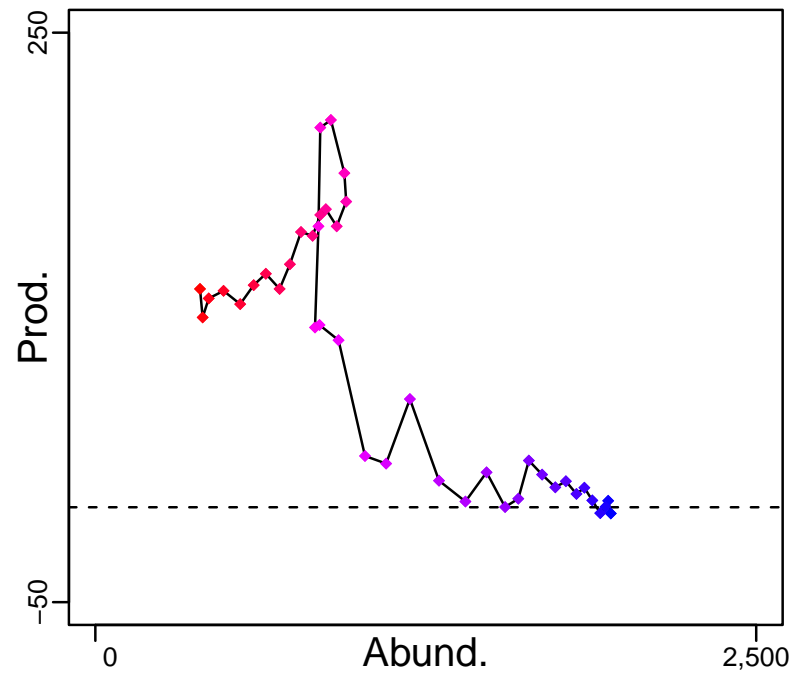
Kobe MGTpref (1965–2012–FU)



Spawner Recruit (1965–2012–FU)



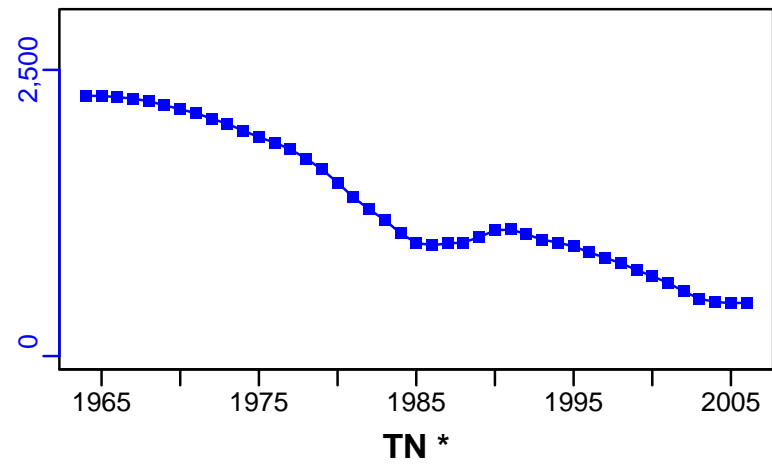
Production (1964–2006–JENSEN)



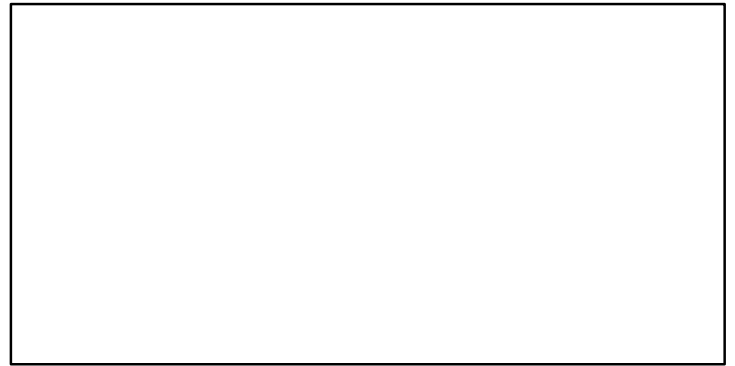
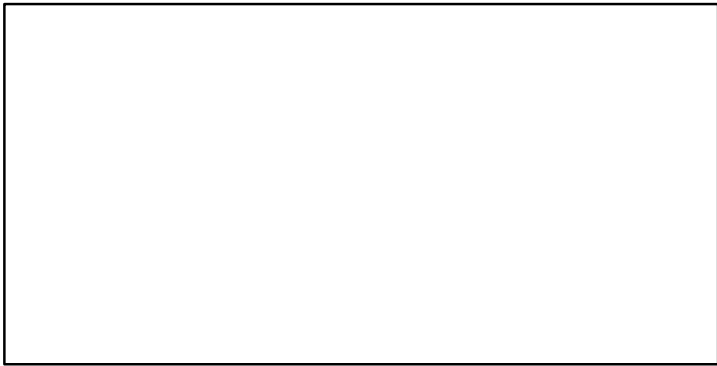
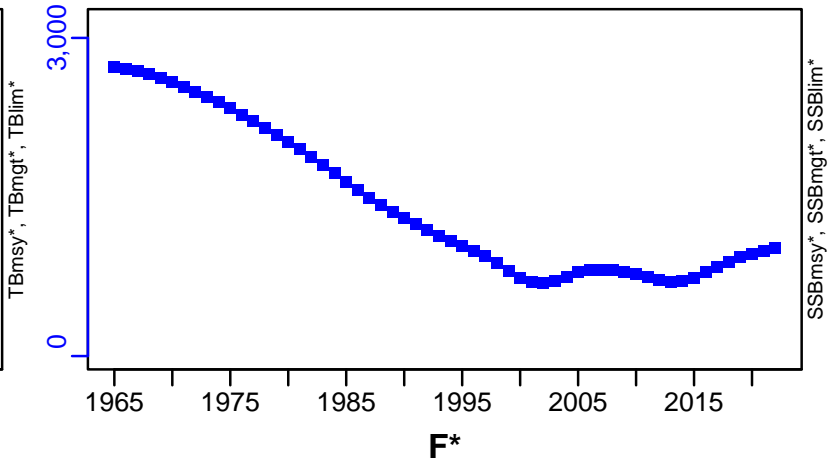
◆ Start Year ◆ End Year \* No Data

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

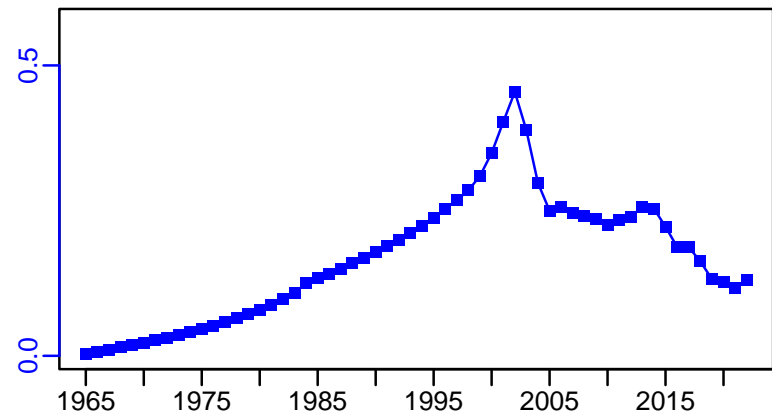
TB-MT (1964–2006–JENSEN)



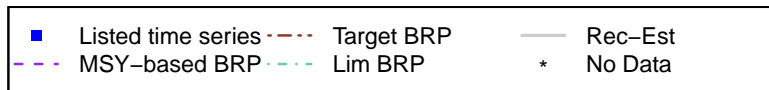
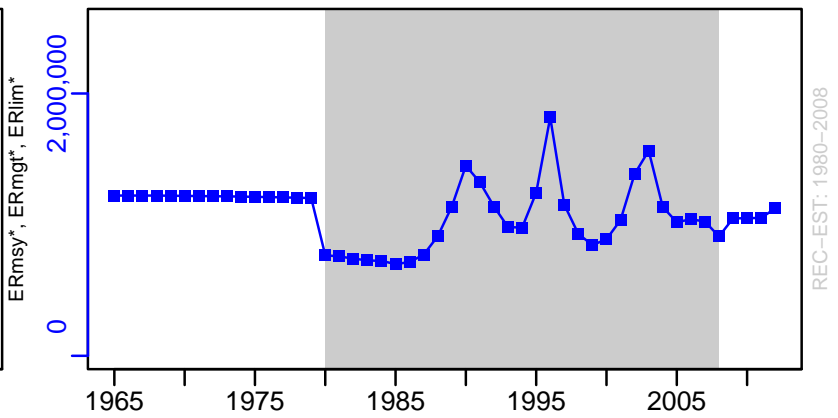
SSB-MT (1965–2022–NEUBAUER)



ER-ratio (1965–2022–NEUBAUER)

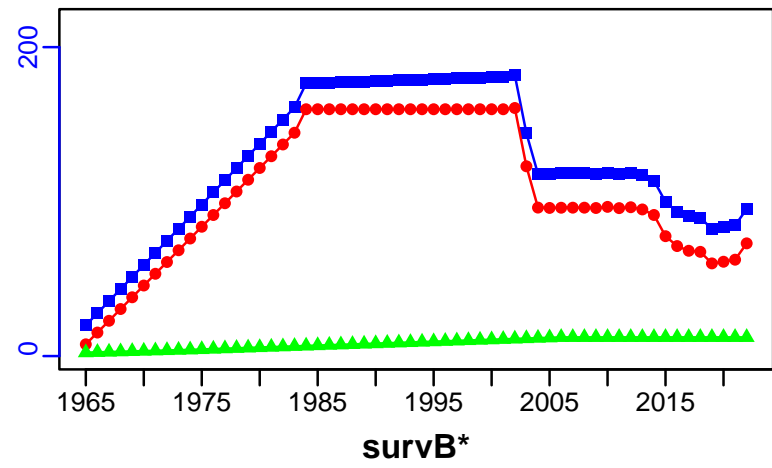


R-E00 (1965–2012–FU)

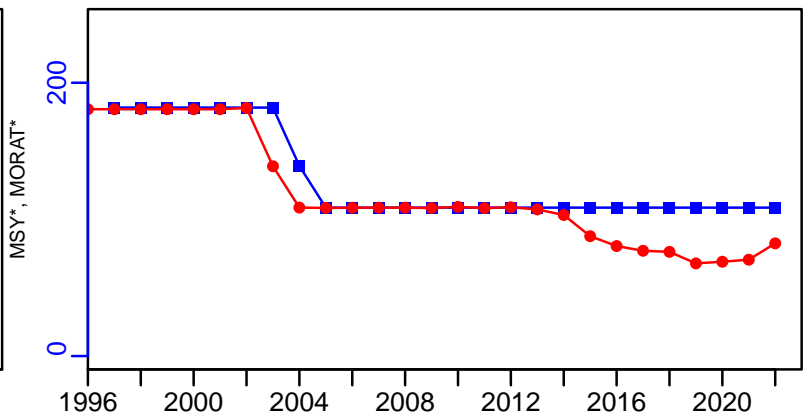


# Paua New Zealand Area PAU 5D (Otago) [PAUAPAU5D]

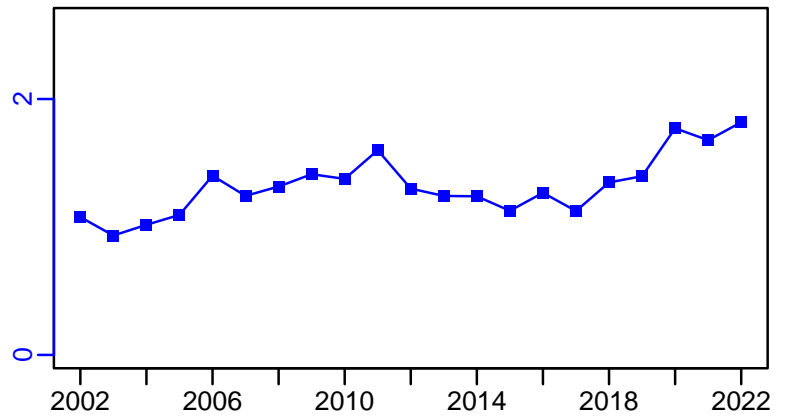
TC-MT, TL-MT, RecC-MT (1965-2022-NEUBAUER)



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



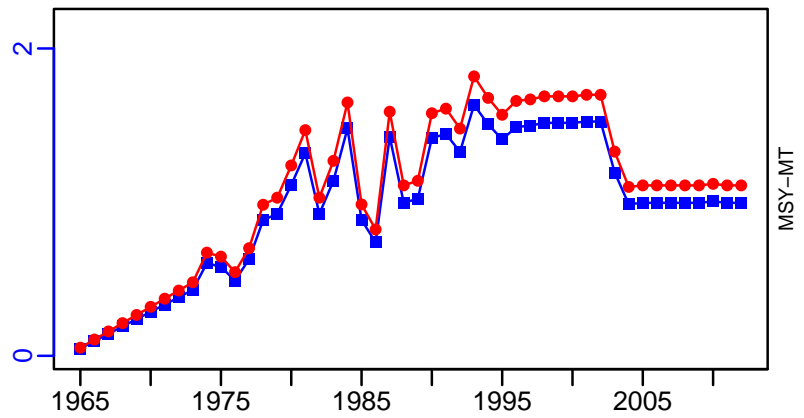
CPUE-index (1965-2022-NEUBAUER)



EFFORT\*



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



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

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

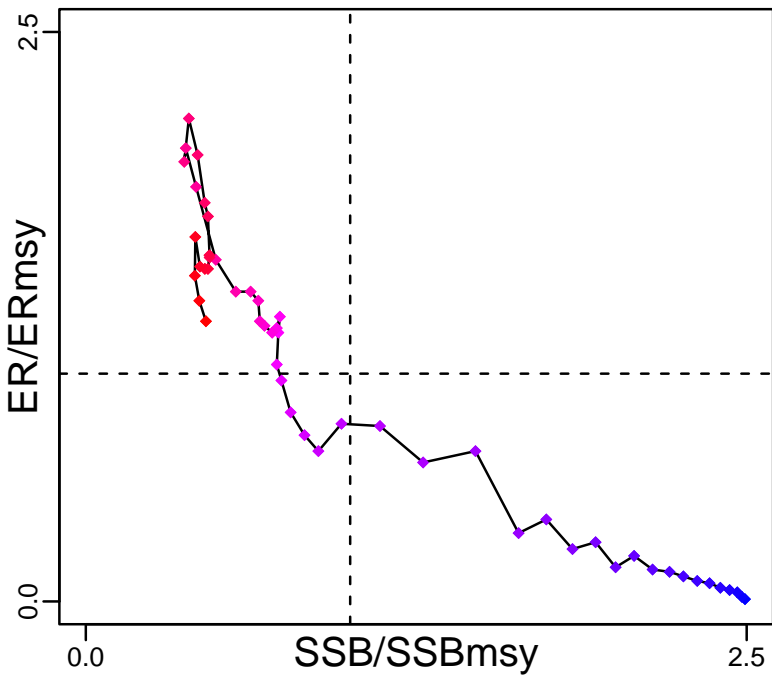
Metadata	
<b>Scientific Name</b>	Haliotis iris
<b>Current Assess ID</b>	NIWA-PAUAPAU7-1965-2015-FU
<b>Area</b>	New Zealand Area PAU 7 (Marlborough)
<b>Management Authority</b>	Ministry of Fisheries, New Zealand national management
<b>Assessor</b>	National Institute of Water and Atmospheric Research
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

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

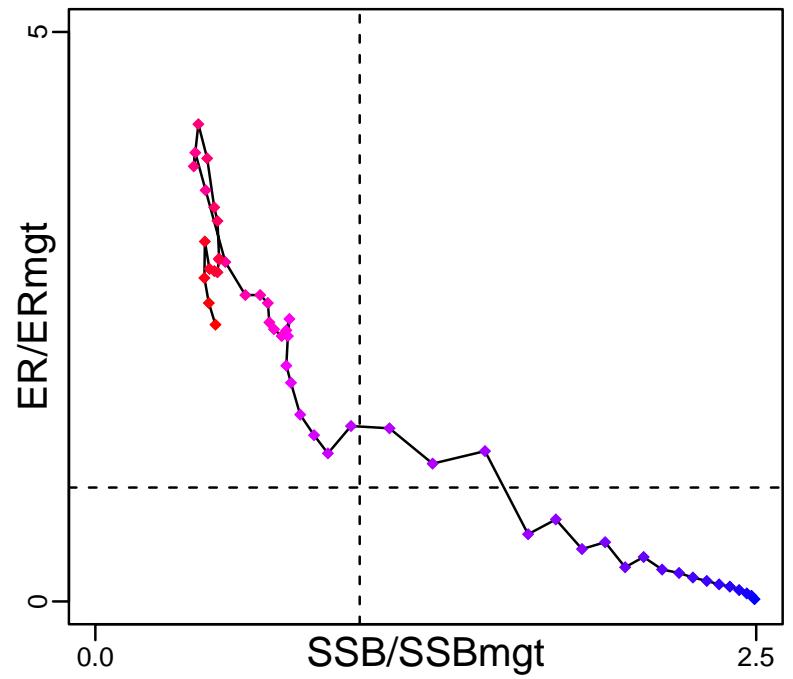
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2015	780	Both	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2015	1,180,000	Both	-
<b>F</b>	F-1/yr	2011	0.429	-	-
<b>ER</b>	ER-ratio	2015	0.46	Both	-
<b>TC</b>	TC-MT	2015	143		
<b>TL</b>	TL-MT	2015	135		
<b>TB/TBmsy</b>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

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

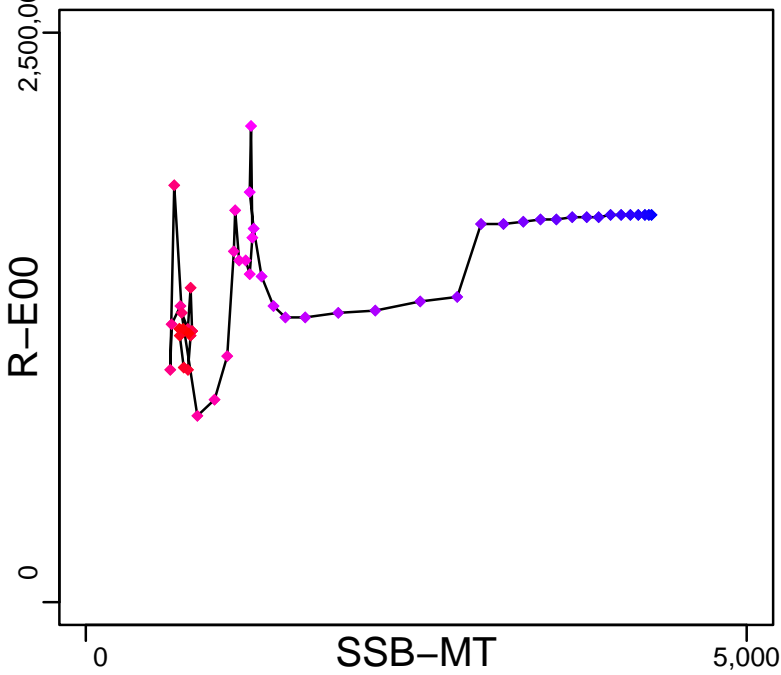
Kobe MSYpref (1965–2015–FU)



Kobe MGTpref (1965–2015–FU)



Spawner Recruit (1965–2015–FU)



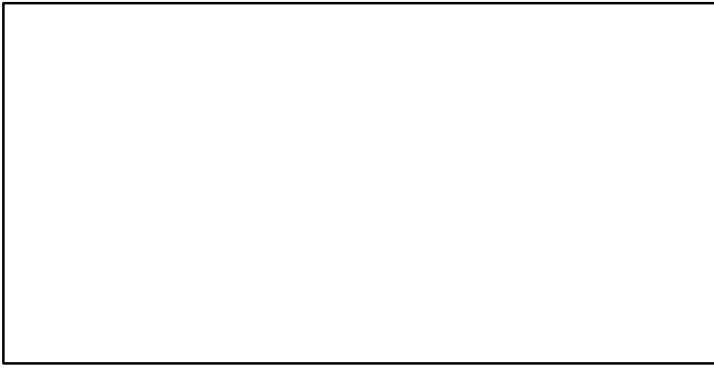
Production\*



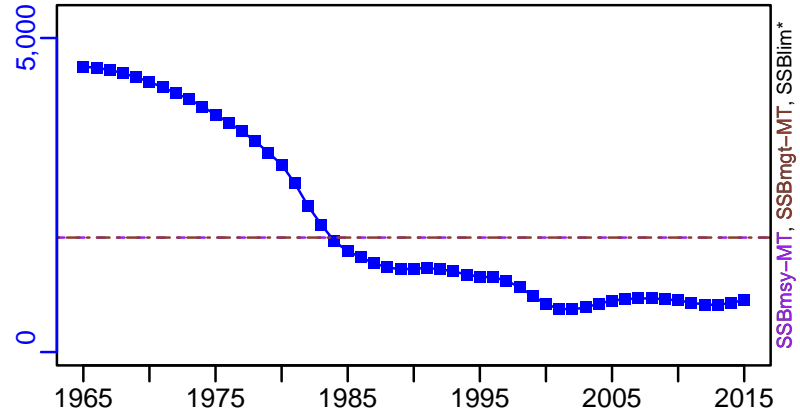
◆ Start Year ◆ End Year \* No Data

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

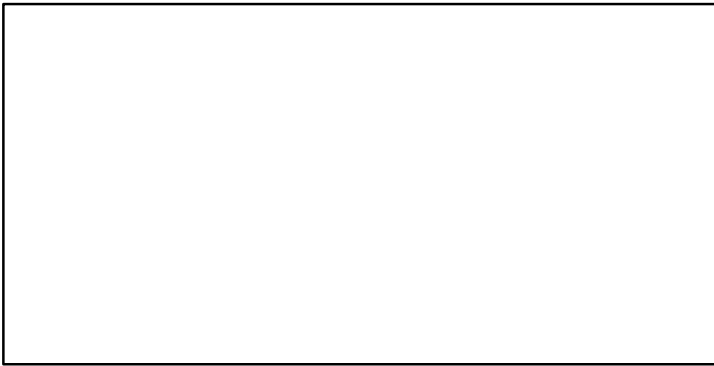
TB\*



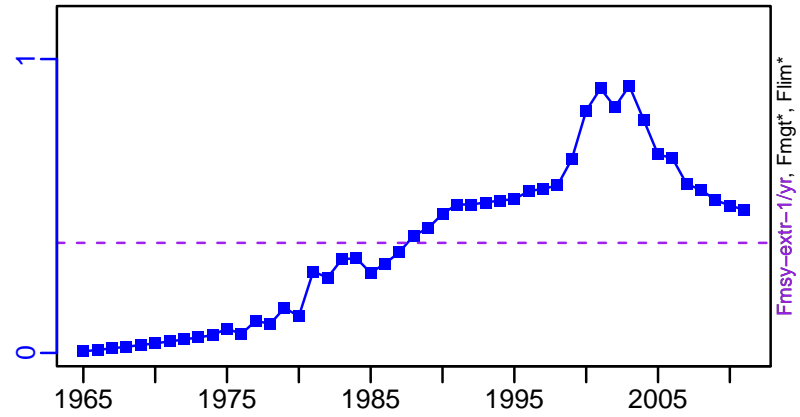
SSB-MT (1965–2015–FU)



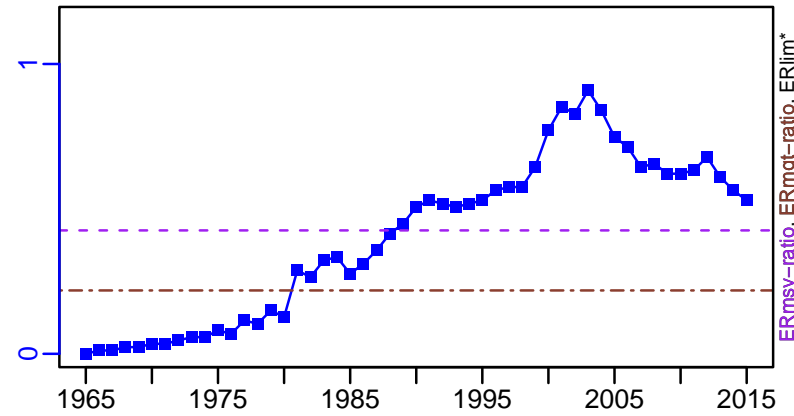
TN \*



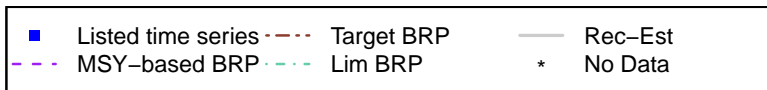
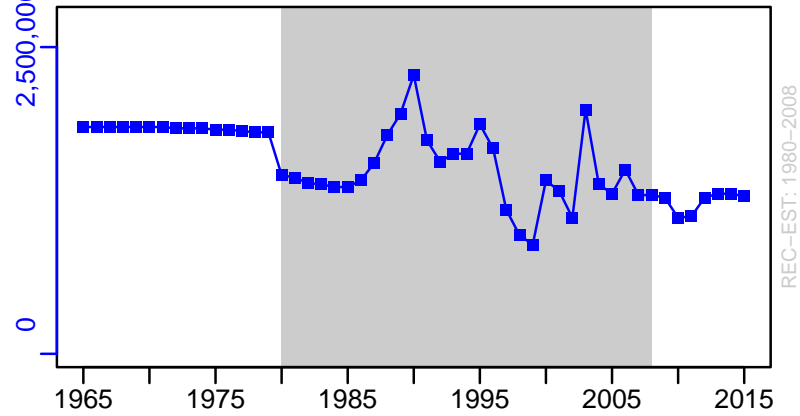
F-1/yr (1965–2011–CORDUE)



ER-ratio (1965–2015–FU)



R-E00 (1965–2015–FU)

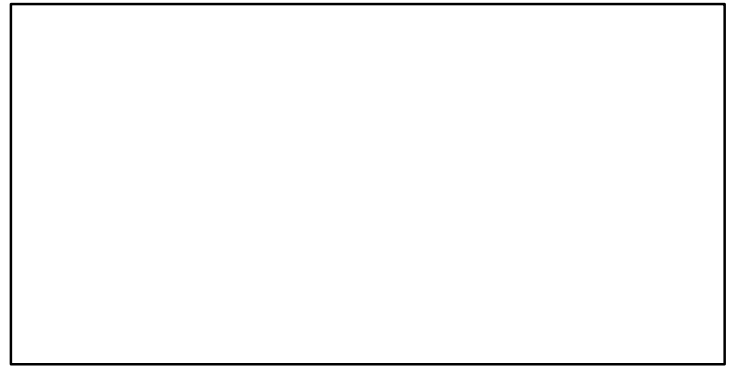
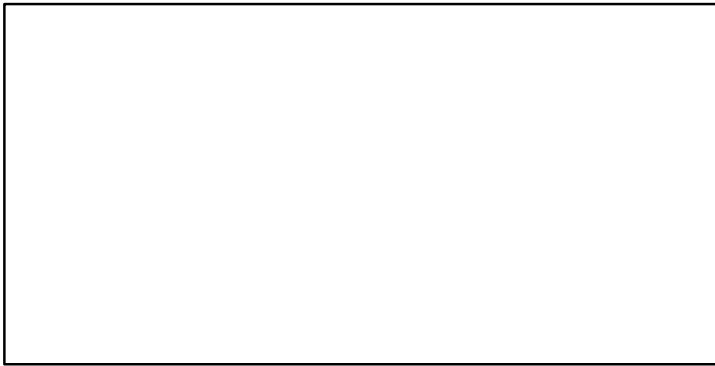
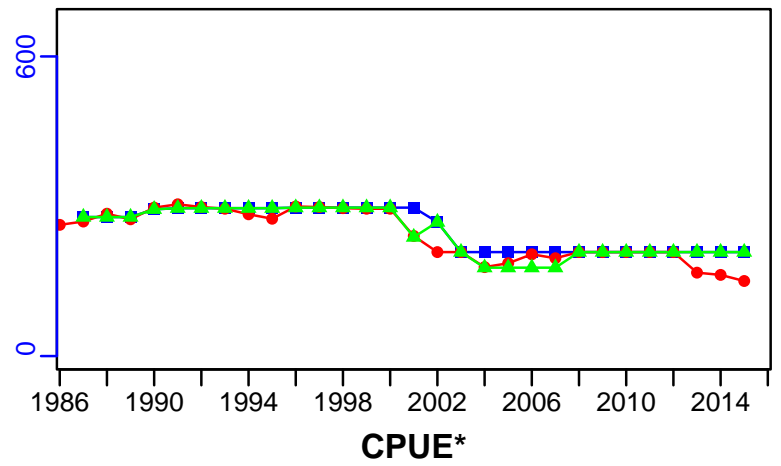
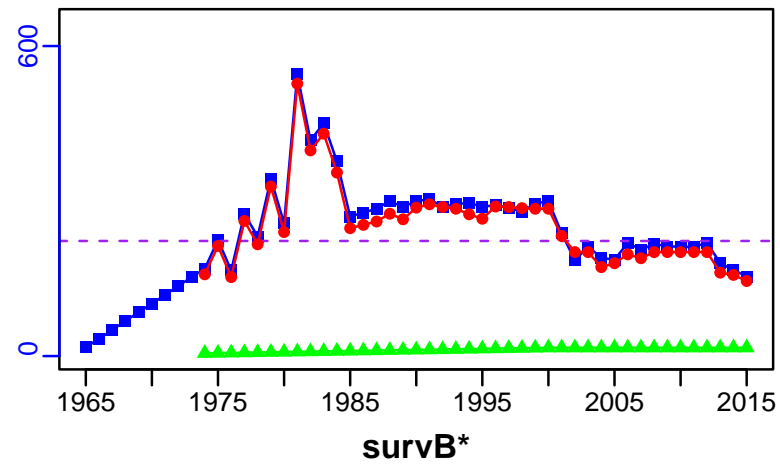




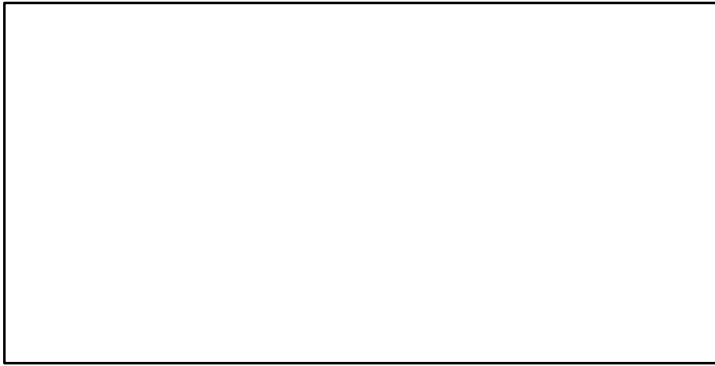
# Paua New Zealand Area PAU 7 (Marlborough) [PAUAPAU7]

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

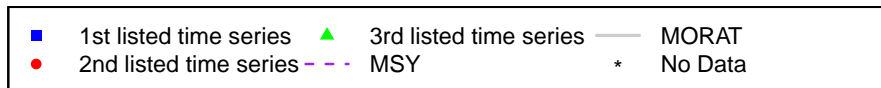
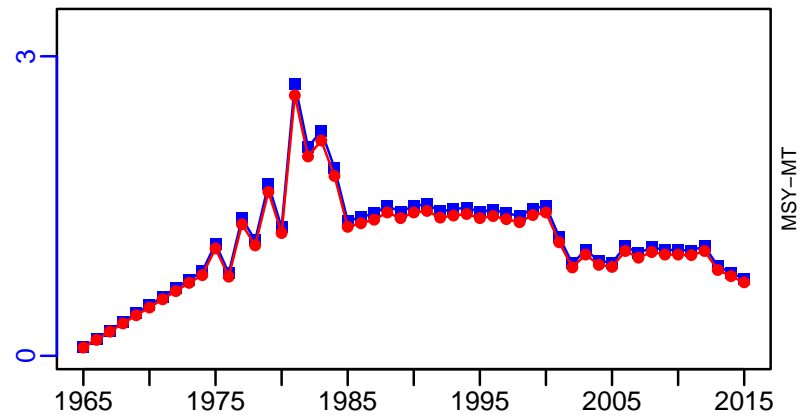
TAC-MT, Cpair-MT, Cadvised-MT (1965-2015-FU)



EFFORT\*



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



## Paua NZ Area South PAUA 5A [PAUASPAU5A]

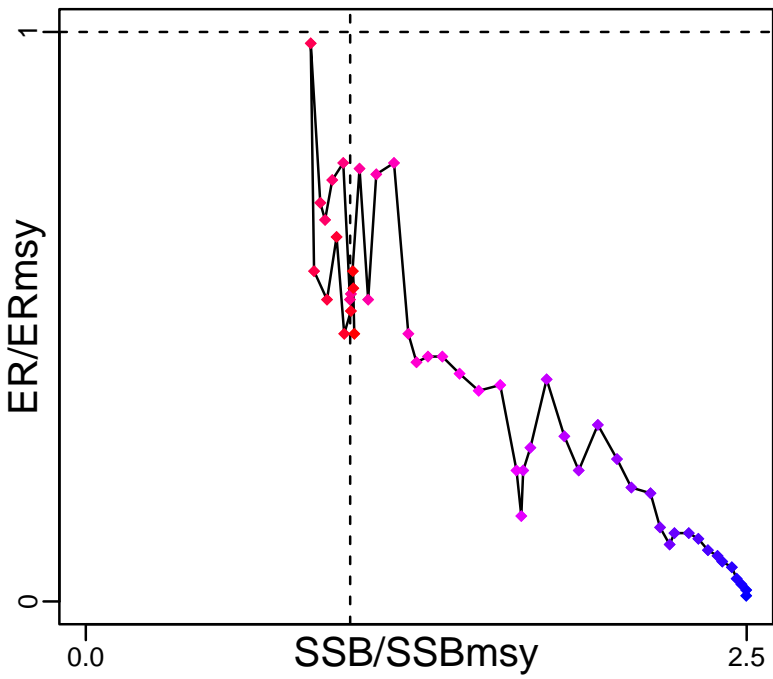
Metadata	
<b>Scientific Name</b>	Haliotis iris
<b>Current Assess ID</b>	NIWA-PAUASPAU5A-1965-2014-FU
<b>Area</b>	NZ Area South PAUA 5A
<b>Management Authority</b>	Ministry of Fisheries, New Zealand national management
<b>Assessor</b>	National Institute of Water and Atmospheric Research
<b>Asmts in RAM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

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

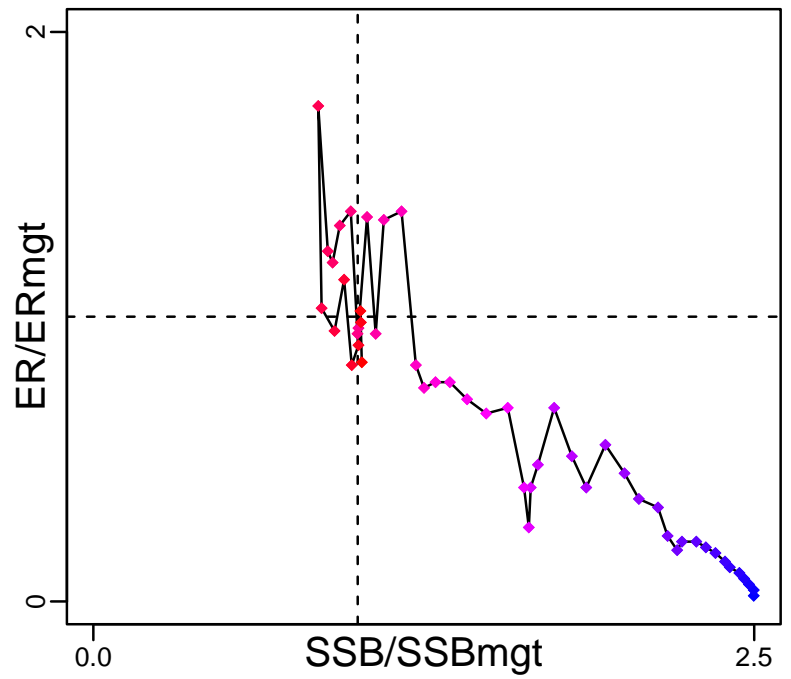
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2014	561	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2014	376,000	Both	-
<b>F</b>	F-1/yr	2009	0.222	-	-
<b>ER</b>	ER-ratio	2014	0.11	Both	-
<b>TC</b>	TC-MT	2014	46		
<b>TL</b>	TL-MT	2014	39		
<b>TB/TBmsy</b>	-	-	-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

Paua NZ Area South PAUA 5A [PAUASPAU5A]

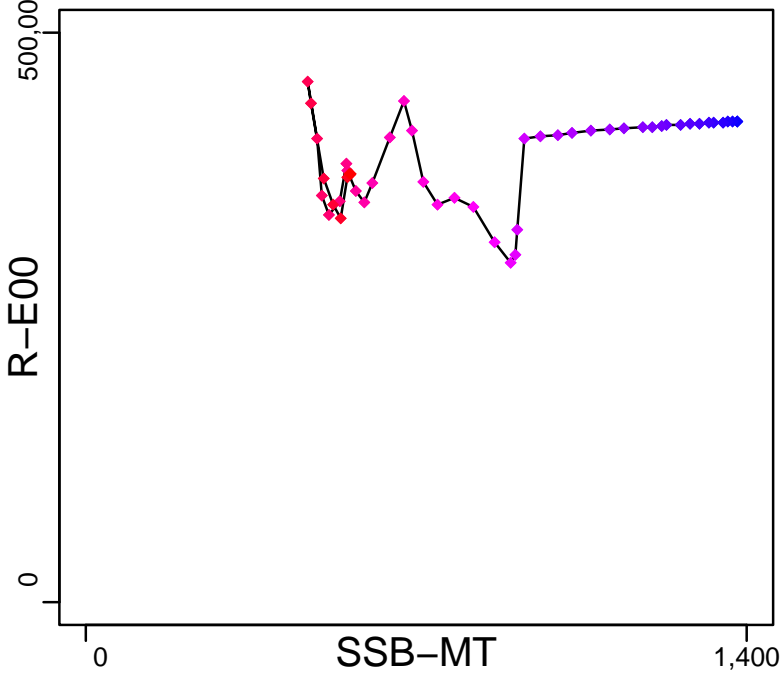
Kobe MSYpref (1965–2014–FU)



Kobe MGTpref (1965–2014–FU)



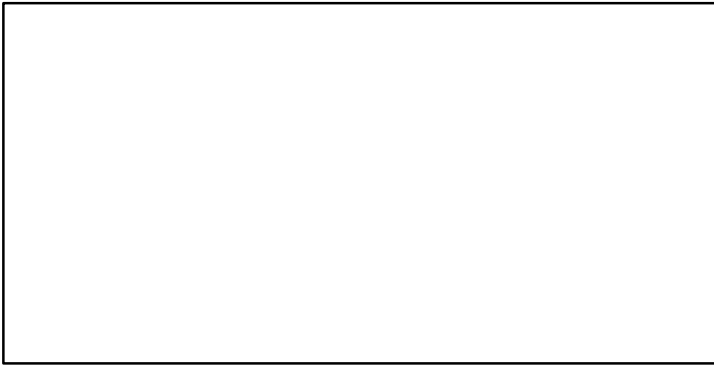
Spawner Recruit (1965–2014–FU)



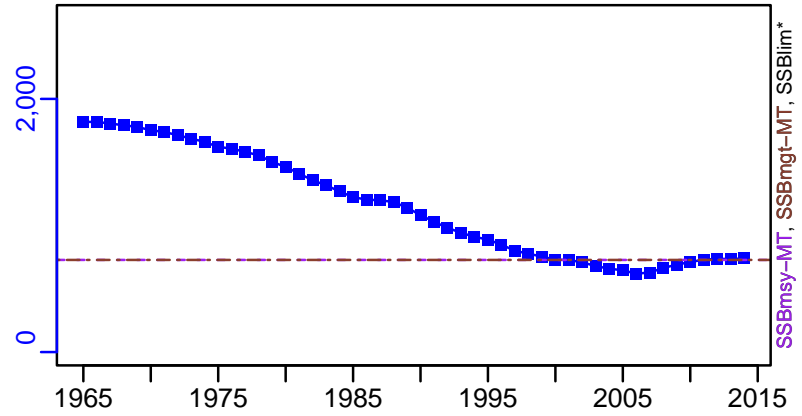
◆ Start Year ◆ End Year \* No Data

Paua NZ Area South PAUA 5A [PAUASPAU5A]

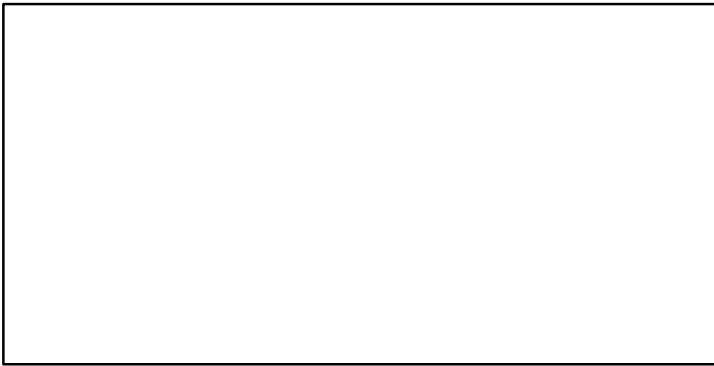
TB\*



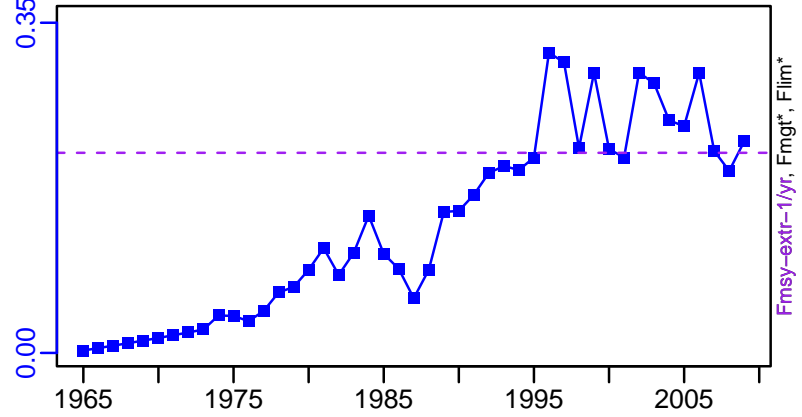
SSB-MT (1965–2014–FU)



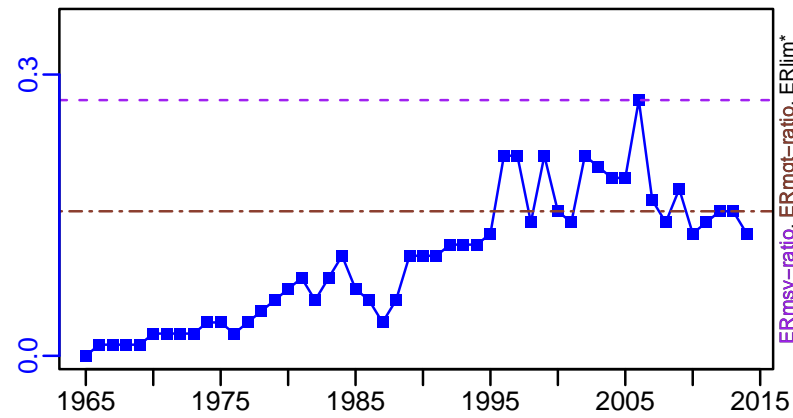
TN \*



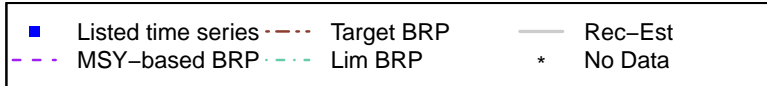
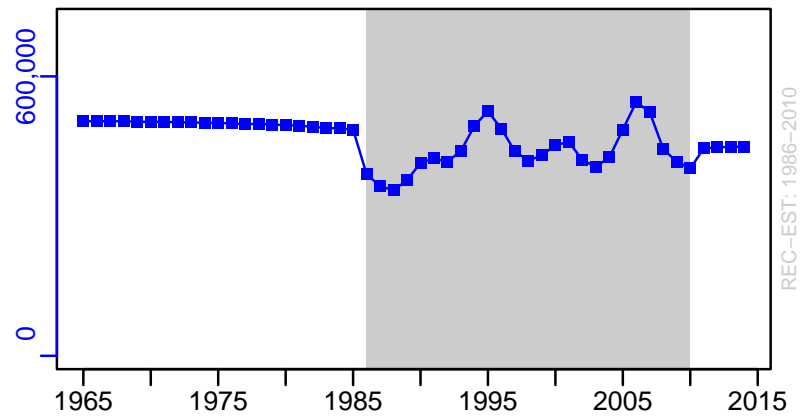
F-1/yr (1965–2009–CORDUE)



ER-ratio (1965–2014–FU)



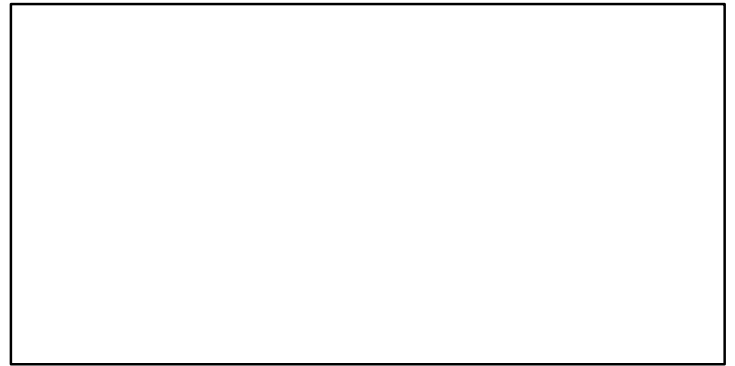
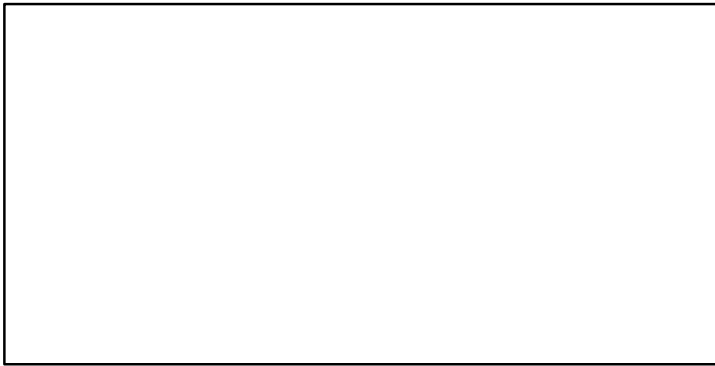
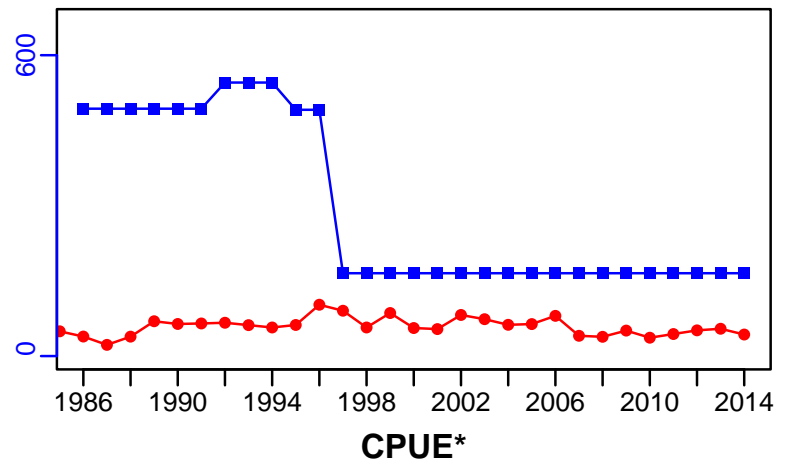
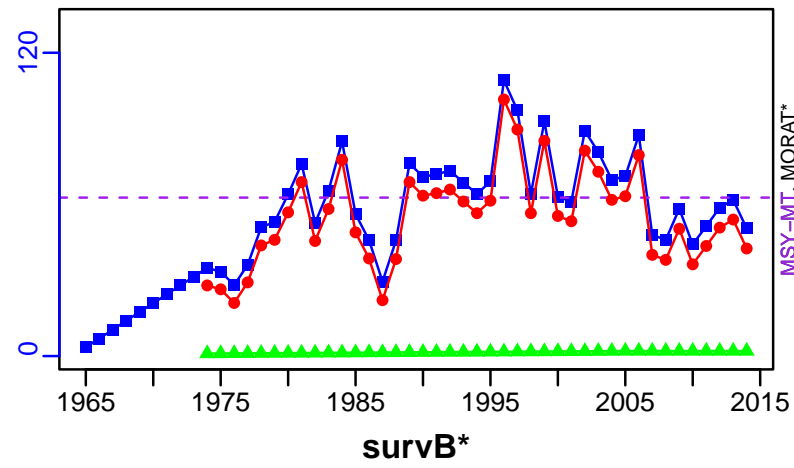
R-E00 (1965–2014–FU)



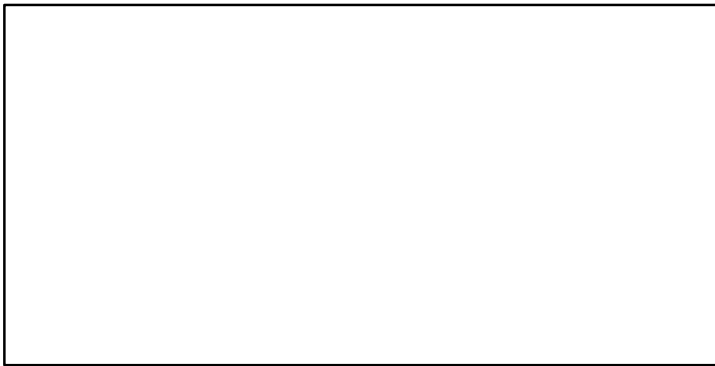
# Paua NZ Area South PAUA 5A [PAUASPAU5A]

TC-MT, TL-MT, RecC-MT (1965–2014–FU)

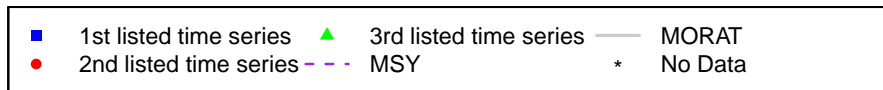
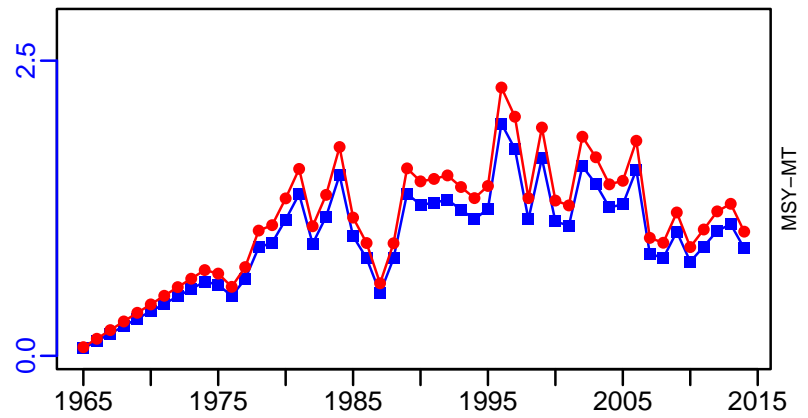
TAC-MT, Cpair-MT, Cadv\* (1965–2014–FU)



EFFORT\*



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



## Pacific geoduck Washington [PGEODWA]

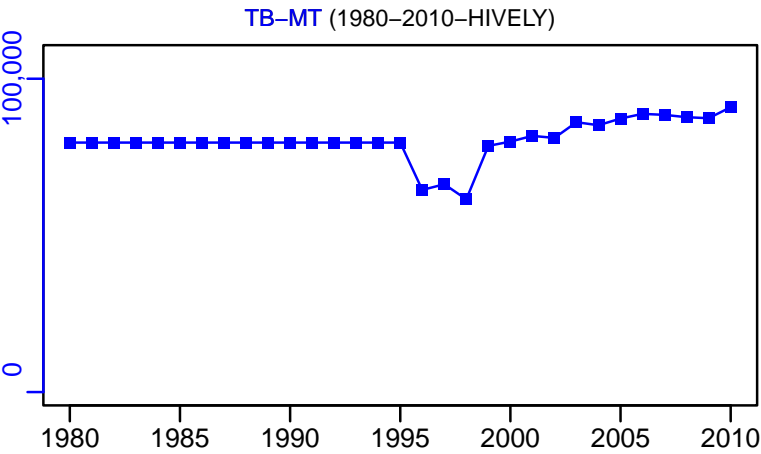
Metadata	
<b>Scientific Name</b>	Panopea generosa
<b>Current Assess ID</b>	WDFW-PGEODWA-1980-2010-HIVELY
<b>Area</b>	Washington
<b>Management Authority</b>	State of Washington
<b>Assessor</b>	Washington Department of Fish and Wildlife
<b>Asmts in RAM</b>	2010

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

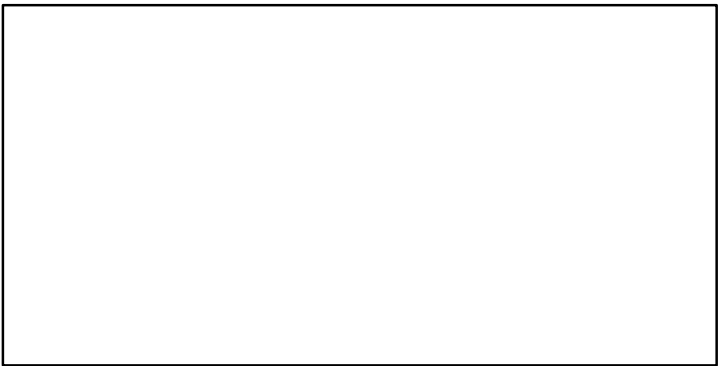
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2010	85,400	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-ratio	2010	0.025	-	-
TC	TC-MT	2010	2150		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



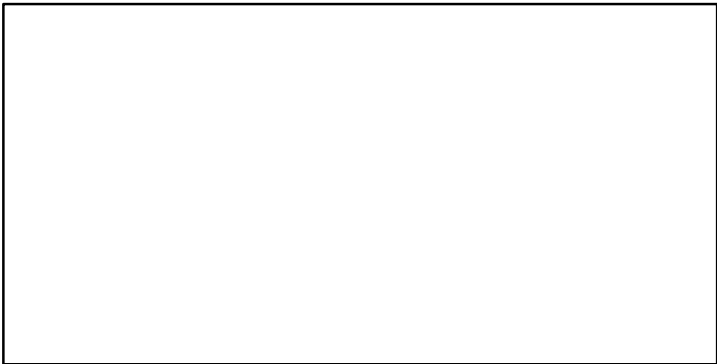
Pacific geoduck Washington [PGEODWA]



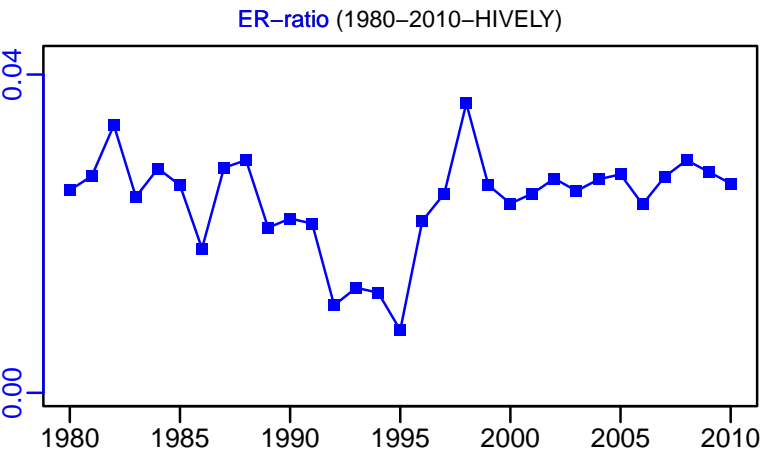
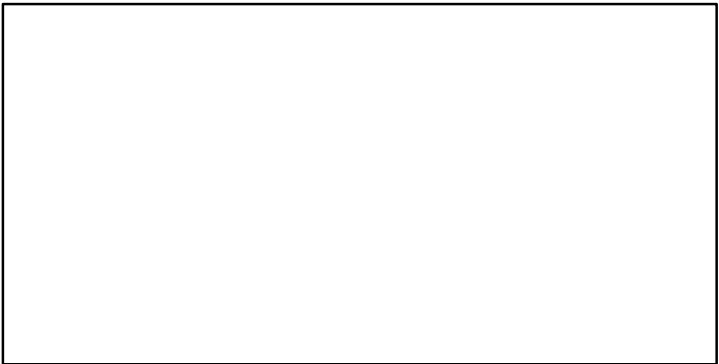
SSB\*



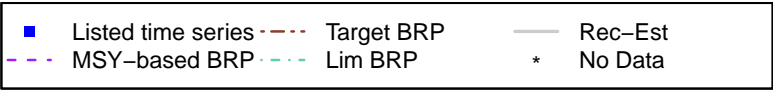
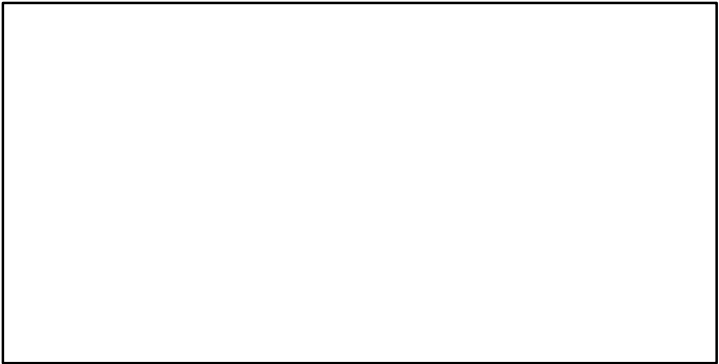
TN \*



F\*



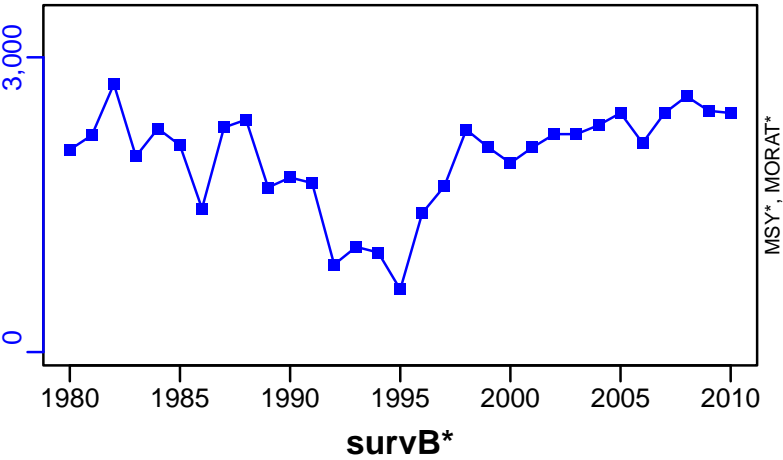
Recruits\*



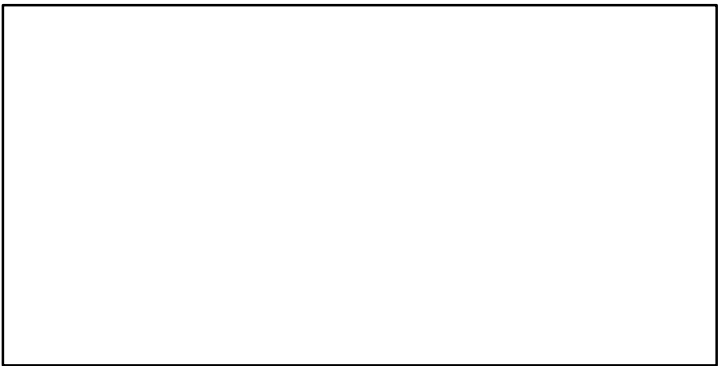


Pacific geoduck Washington [PGEODWA]

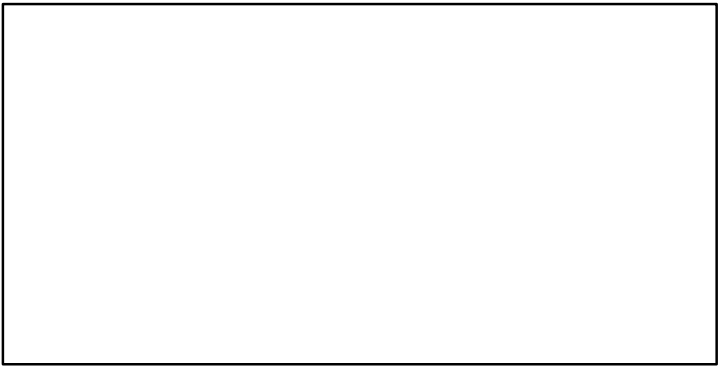
TC-MT, TL\*, RecC\* (1980-2010-HIVELY)



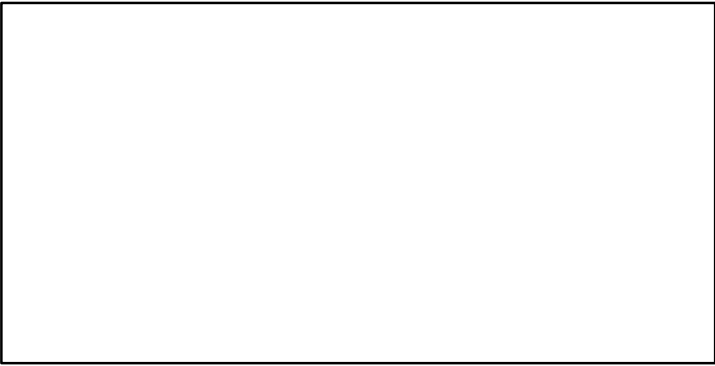
TAC\*, Cpair\*, Cadv\*



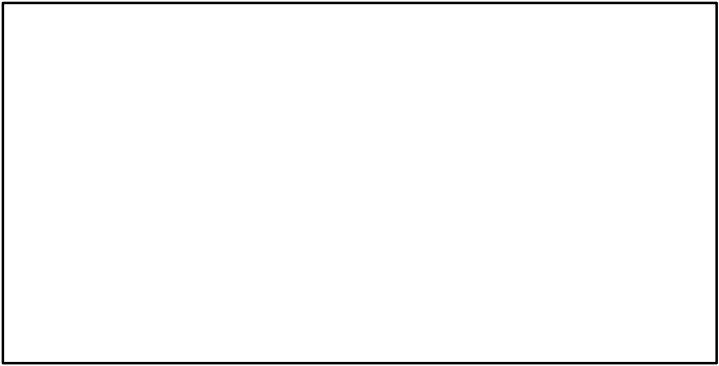
CPUE\*



EFFORT\*



CdivMSY\*



## Ocean quahog Atlantic Coast [QUAHATLC]

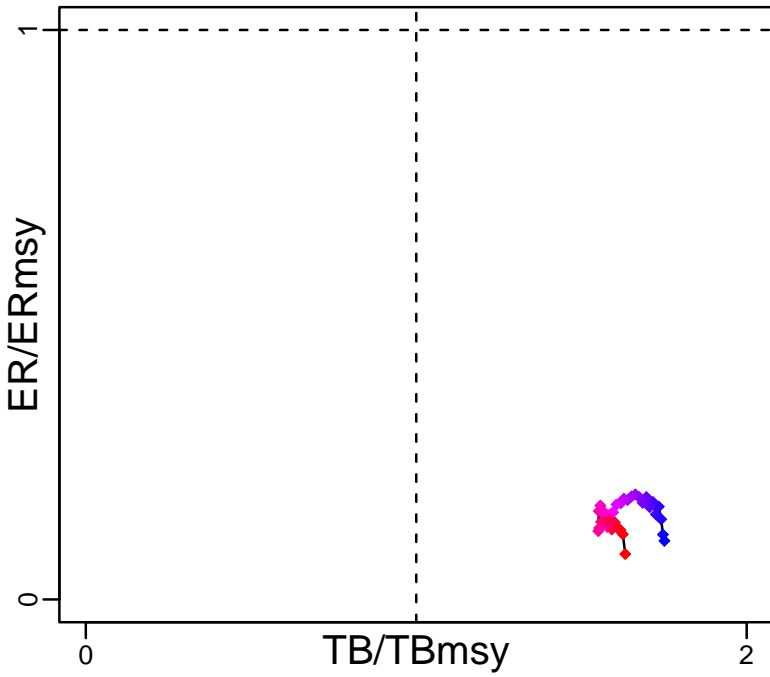
Metadata	
<b>Scientific Name</b>	Arctica islandica
<b>Current Assess ID</b>	NEFSC-QUAHATLC-1980-2016-SISIMP2021
<b>Area</b>	Atlantic Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northeast Fisheries Science Center
<b>Asmts in RAM</b>	2008, 2011, 2016

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-MT	2016	2,013,585
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	Fmsy-1/yr	2016	0.019
<b>ERmsy</b>	ERmsy-calc-ratio	2016	0.036
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2016	73,298
<b>M</b>	M-1/yr	2008	0.02
<b>TBlim</b>	TBlim-MT	2016	1,610,868
<b>SSBlim</b>	-	-	-
<b>Flim</b>	Flim-1/yr	2016	0.019
<b>ERlim</b>	-	-	-

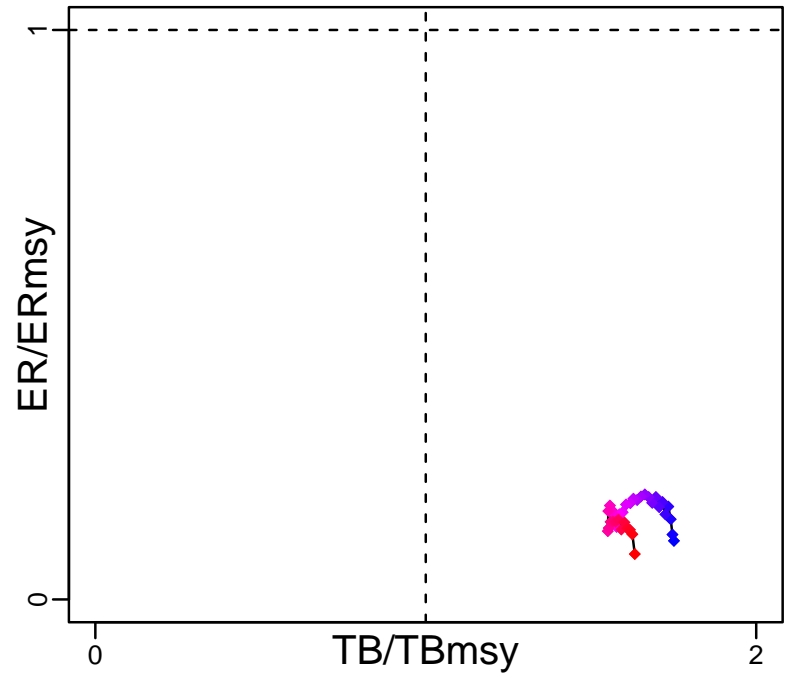
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2016	3,287,300	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	F-1/yr	2016	0.005	-	-
<b>ER</b>	ER-calc-ratio	2016	0.003	-	-
<b>TC</b>	TC-MT	2016	9542		
<b>TL</b>	TL-MT	2008	15,500		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2016	1.633		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2016	0.263		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-calc-ratio	2016	0.08		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Ocean quahog Atlantic Coast [QUAHATLC]

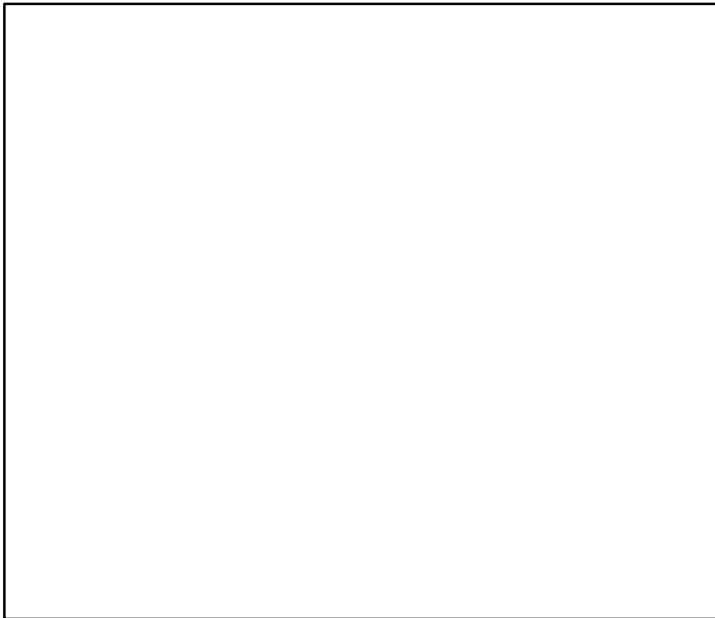
Kobe MSY<sub>pref</sub> (1980–2016–SISIMP2021)



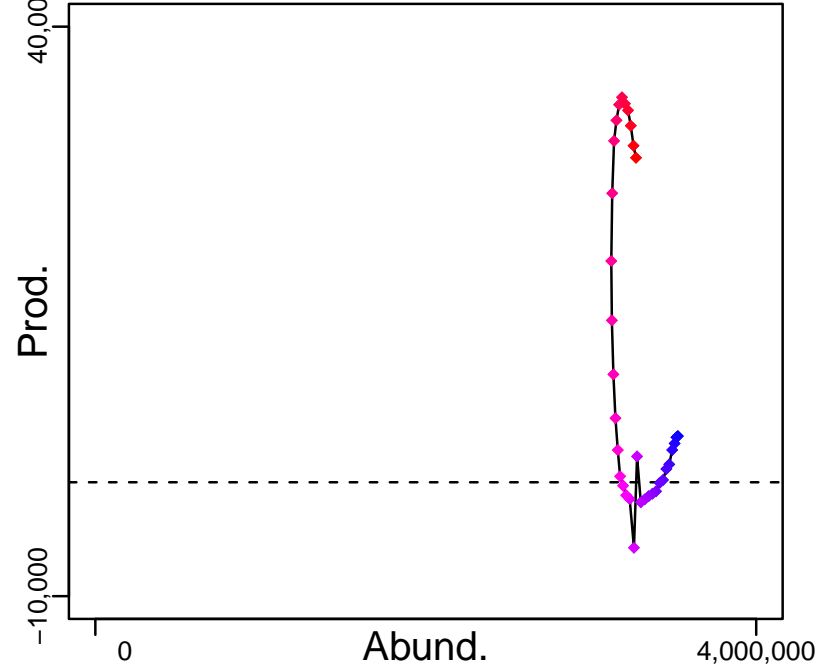
Kobe MGT<sub>pref</sub> (1980–2016–SISIMP2021)



Spawner Recruit\*



Production (1980–2016–SISIMP2021)

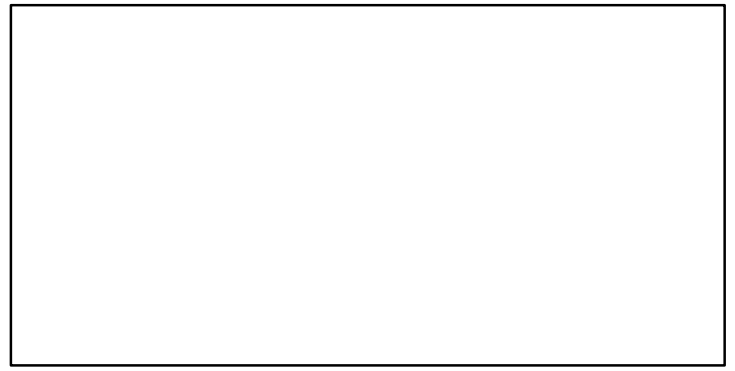
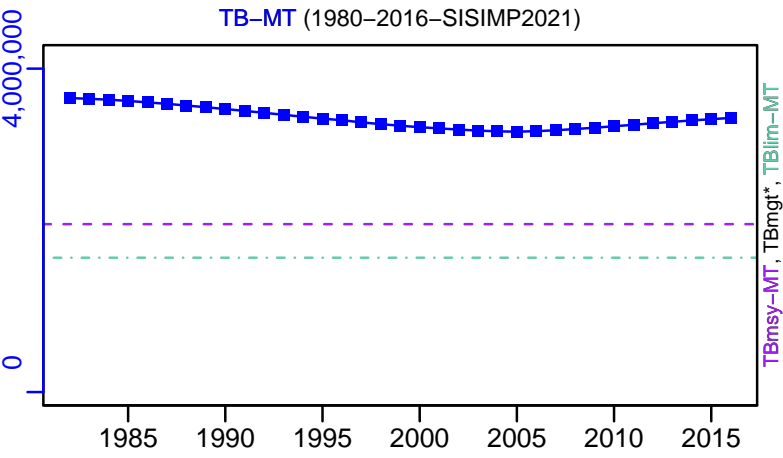


◆ Start Year ◆ End Year \* No Data

# Ocean quahog Atlantic Coast [QUAHATLC]

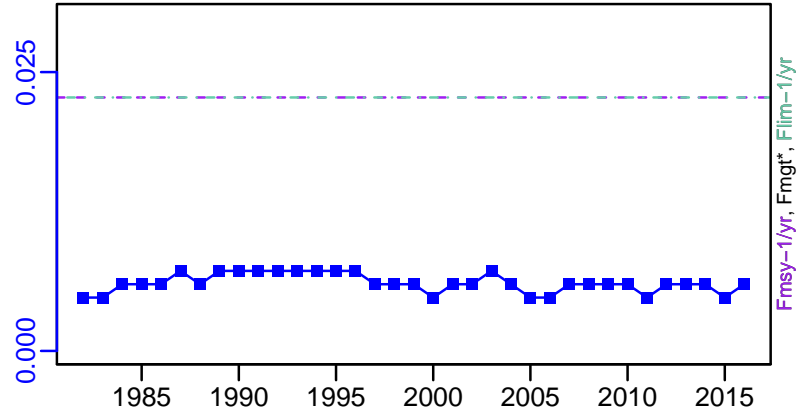
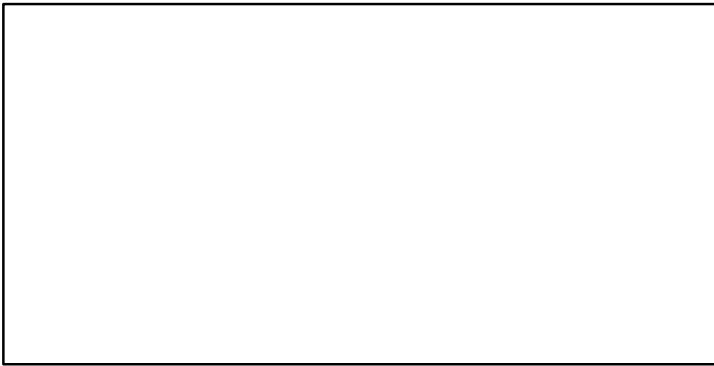
TB-MT (1980-2016-SISIMP2021)

SSB\*



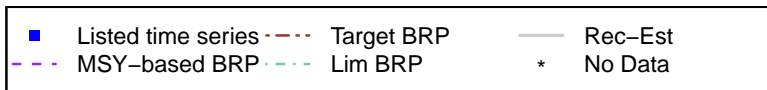
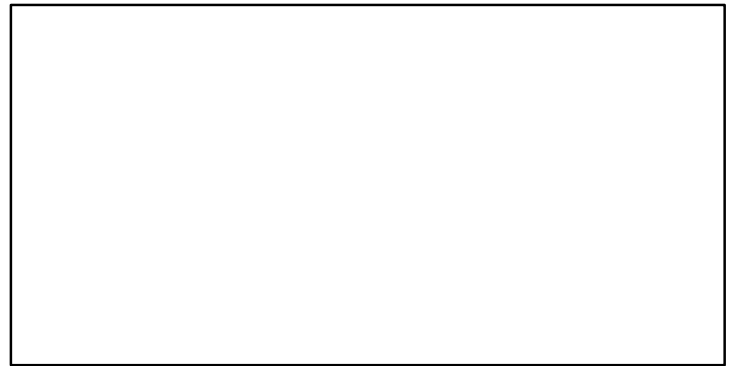
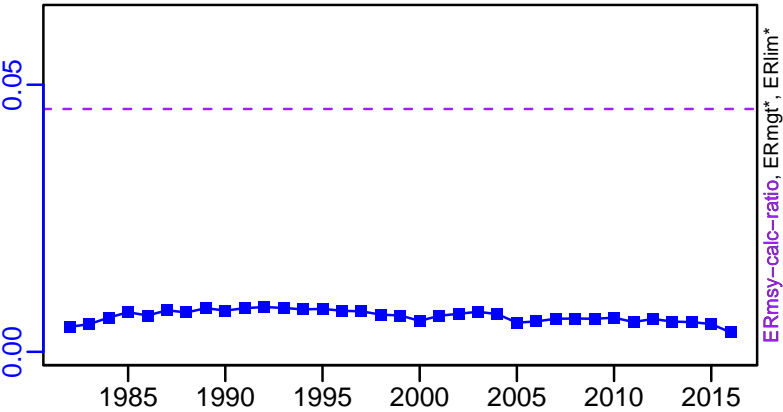
TN \*

F-1/yr (1980-2016-SISIMP2021)



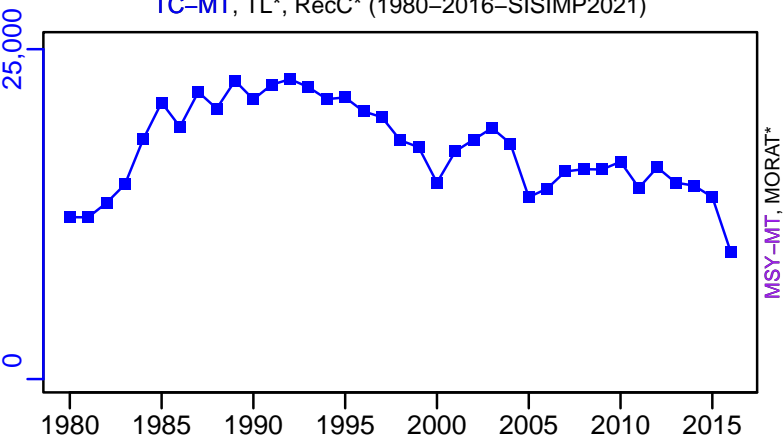
ER-calc-ratio (1980-2016-SISIMP2021)

Recruits\*

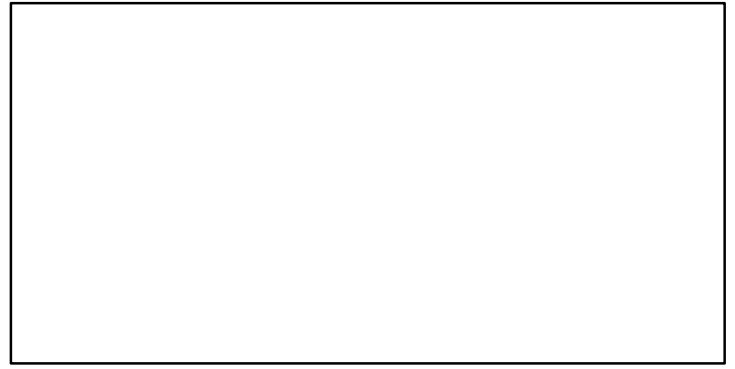


# Ocean quahog Atlantic Coast [QUAHATLC]

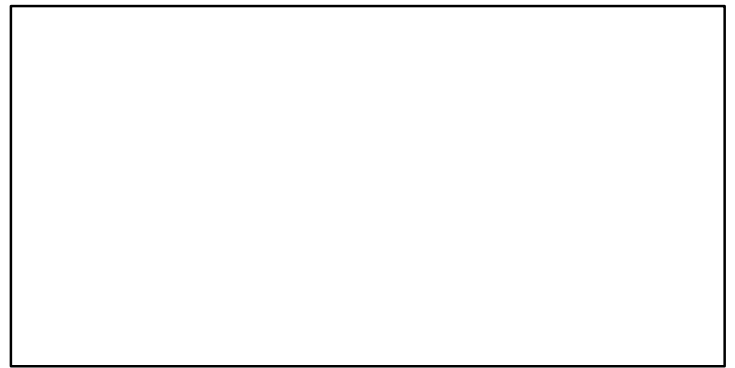
TC-MT, TL\*, RecC\* (1980-2016-SISIMP2021)



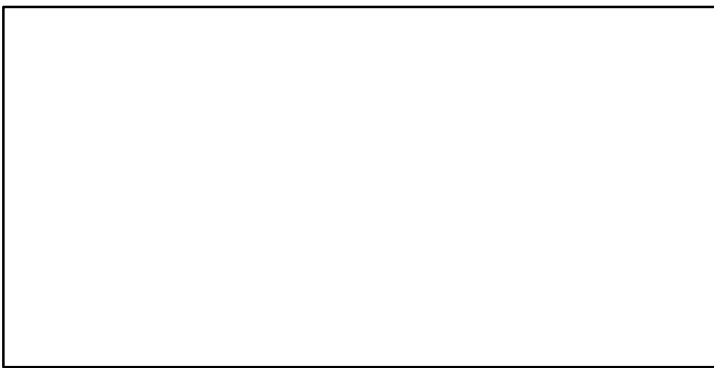
TAC\*, Cpair\*, Cadv\*



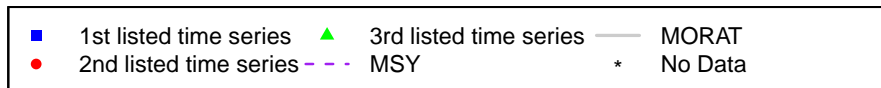
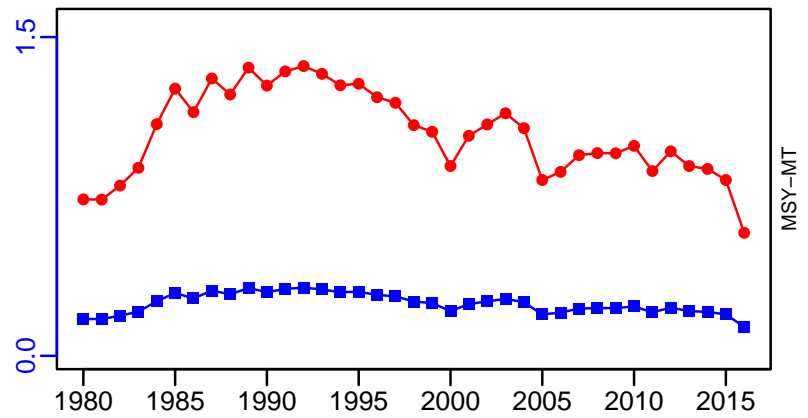
CPUE\*



EFFORT\*



TC-MT/MSY-MT, CdivMEANC-ratio, (1980-2016-SISIMP2021)



## South African abalone South Africa [SAABALONESA]

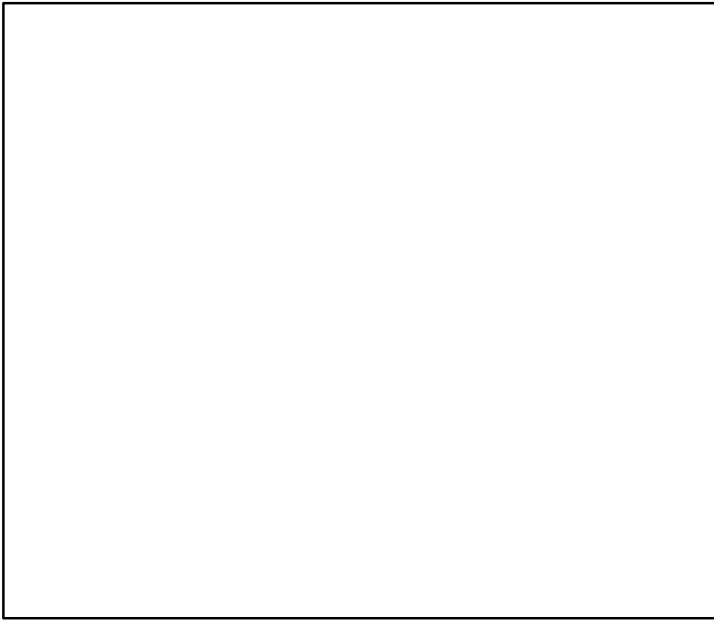
Metadata	
<b>Scientific Name</b>	Haliotis midae
<b>Current Assess ID</b>	MARAM-SAABALONESA-1951-2015-Brandao
<b>Area</b>	South Africa
<b>Management Authority</b>	South African national management, Fisheries Branch of Department of Agriculture, Forestry and Fisheries
<b>Assessor</b>	Marine Resource Assessment and Management Group, Department of Mathematics and Applied Mathematics, University of Cape Town, Rondebosch, 7701, South Africa
<b>Asmts in RAM</b>	2013, 2015

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-pr-MT	2015	11,575
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2015	31,391
<b>SSB0</b>	SSB0-MT	2015	28,937
<b>MSY</b>	-	-	-
<b>M</b>	M-1/yr	2015	0.15
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

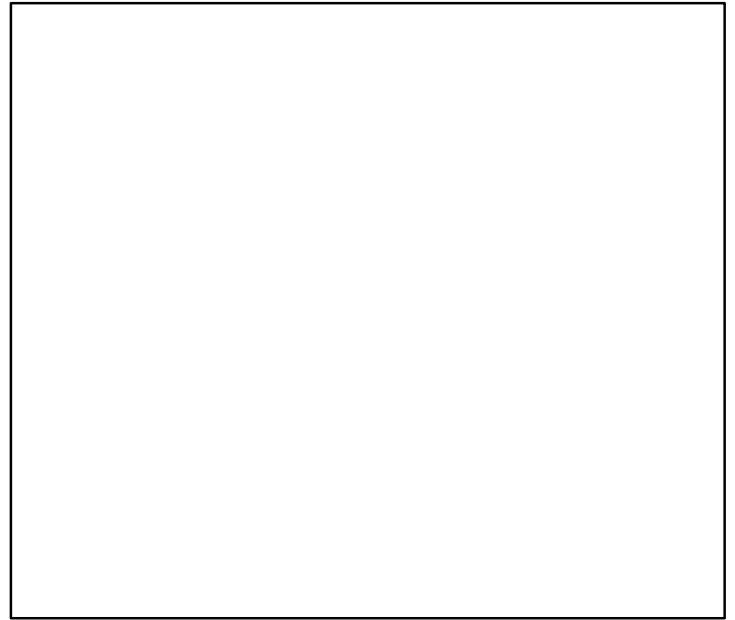
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	6210	-	1+
<b>SSB</b>	SSB-MT	2015	5080	Both	7+
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2015	9,070,000	-	8
<b>F</b>	F-1/yr	2015	0.035	-	-
<b>ER</b>	ER-ratio	2015	0.16	-	-
<b>TC</b>	TC-MT	2015	985		
<b>TL</b>	TL-MT	2015	50		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-pr-MT	2015	0.439		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

South African abalone South Africa [SAABALONESA]

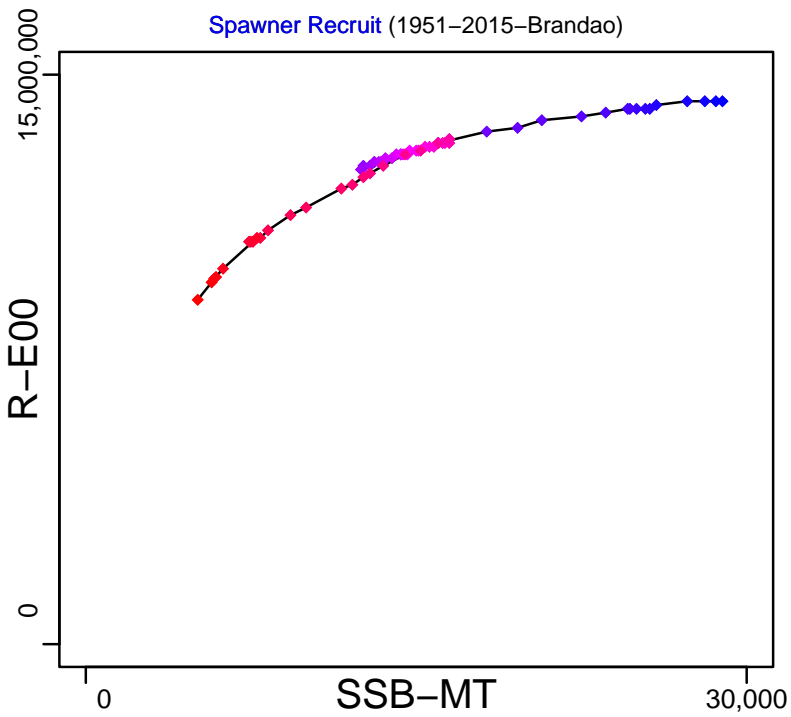
Kobe MSY\*



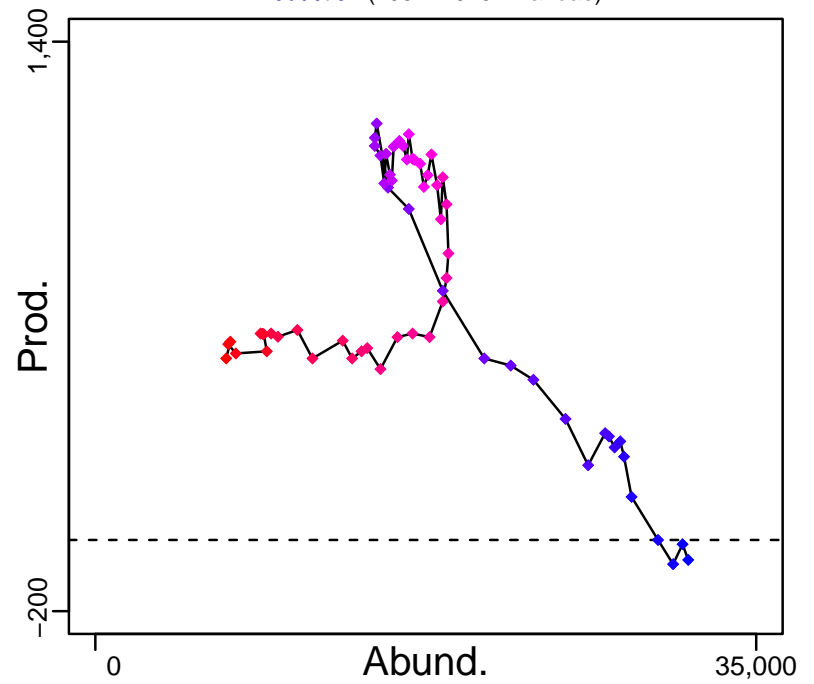
Kobe MGT\*



Spawner Recruit (1951–2015–Brandao)



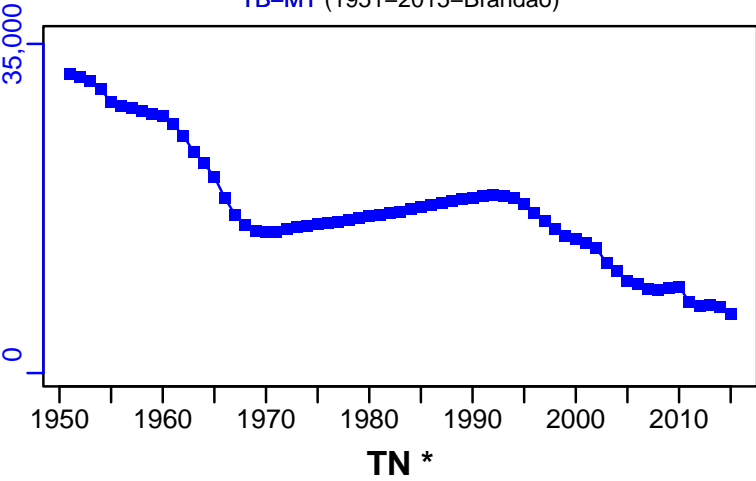
Production (1951–2015–Brandao)



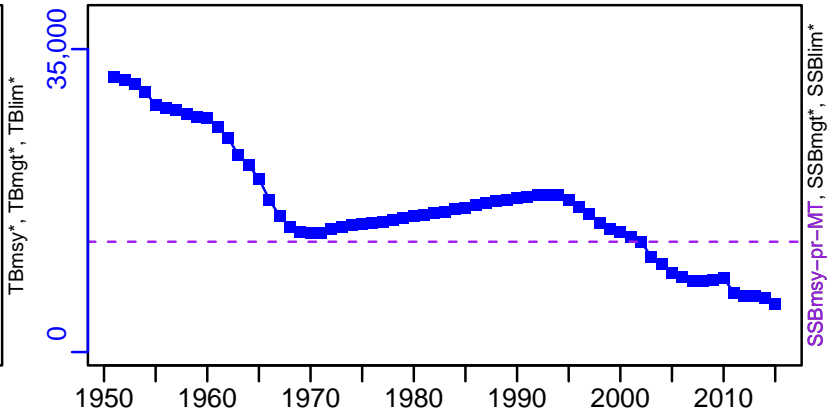
◆ Start Year ◆ End Year \* No Data

# South African abalone South Africa [SAABALONESA]

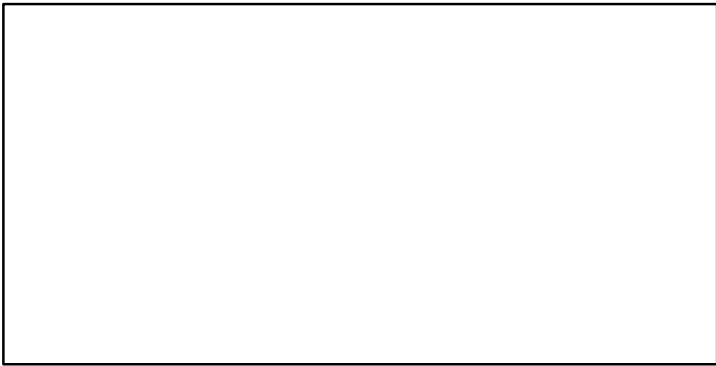
TB-MT (1951–2015–Brandao)



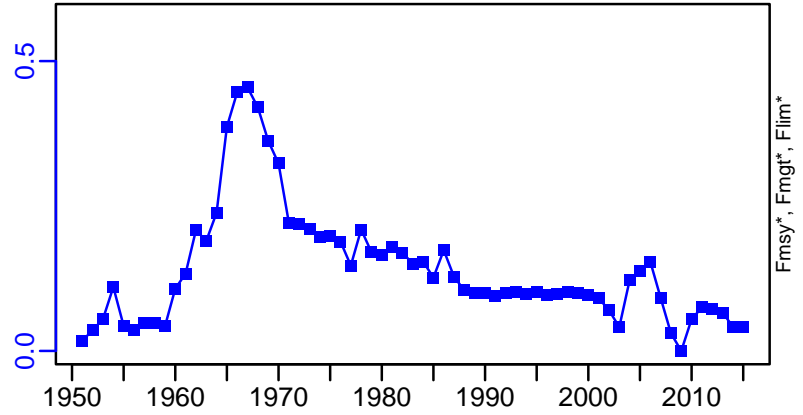
SSB-MT (1951–2015–Brandao)



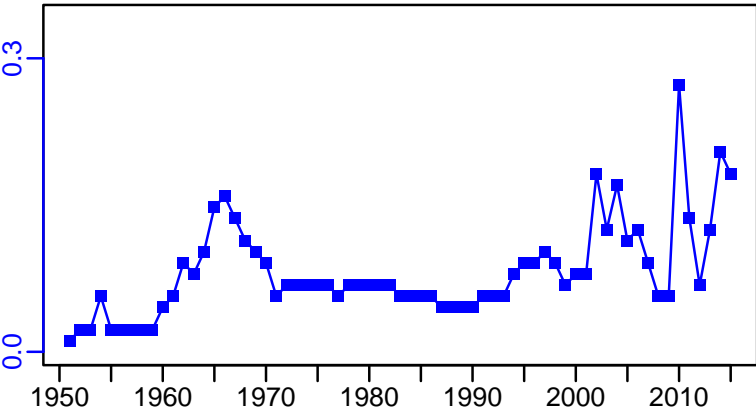
TN \*



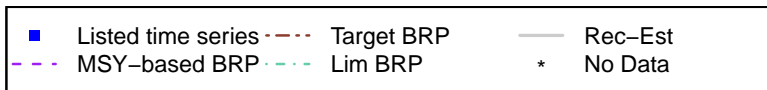
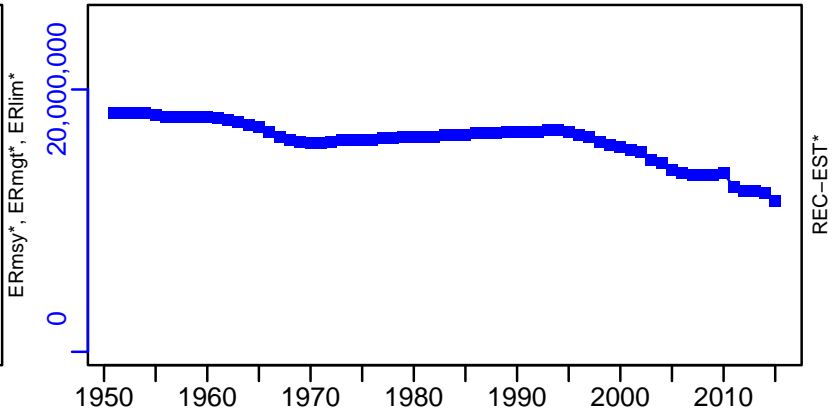
F-1/yr (1951–2015–Brandao)



ER-ratio (1951–2015–Brandao)



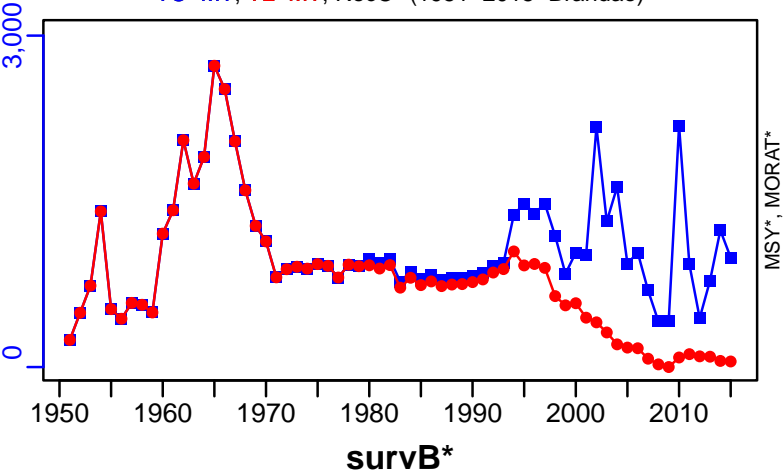
R-E00 (1951–2015–Brandao)



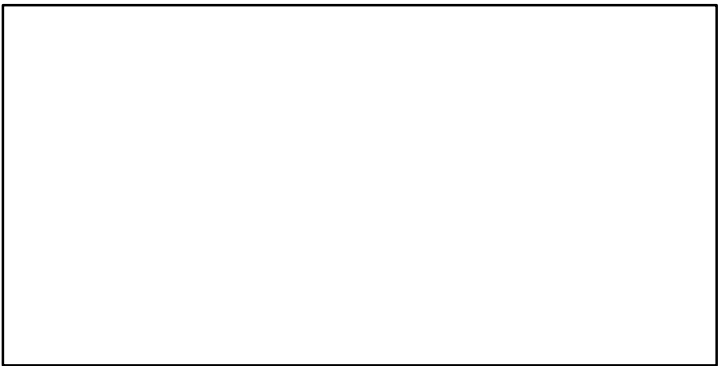


South African abalone South Africa [SAABALONESA]

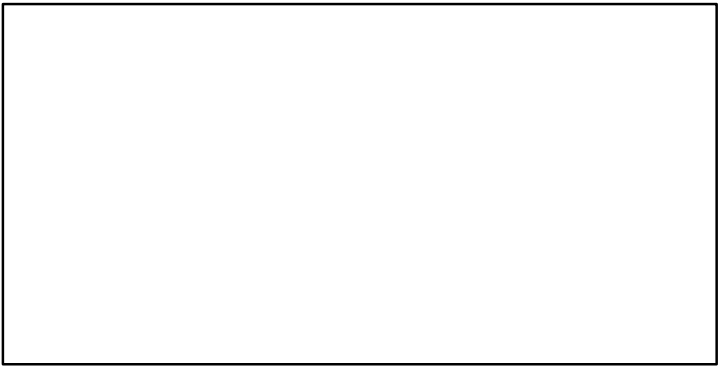
TC-MT, TL-MT, RecC\* (1951-2015-Brandao)



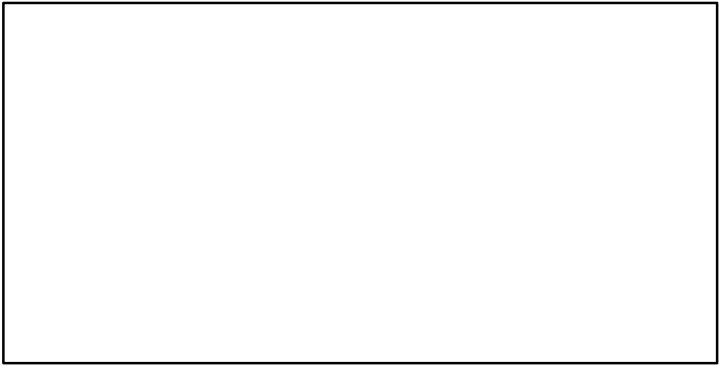
TAC\*, Cpair\*, Cadv\*



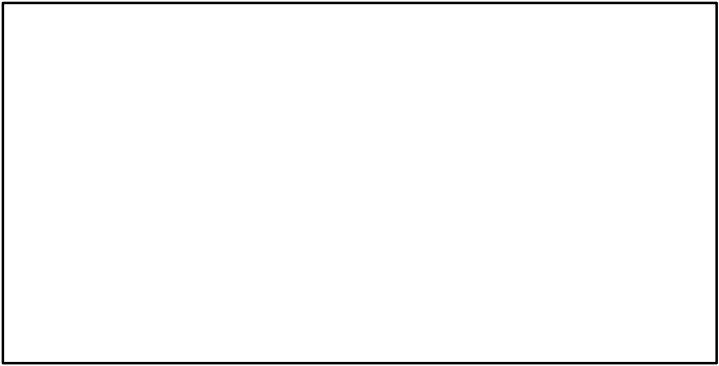
CPUE\*



EFFORT\*



CdivMSY\*



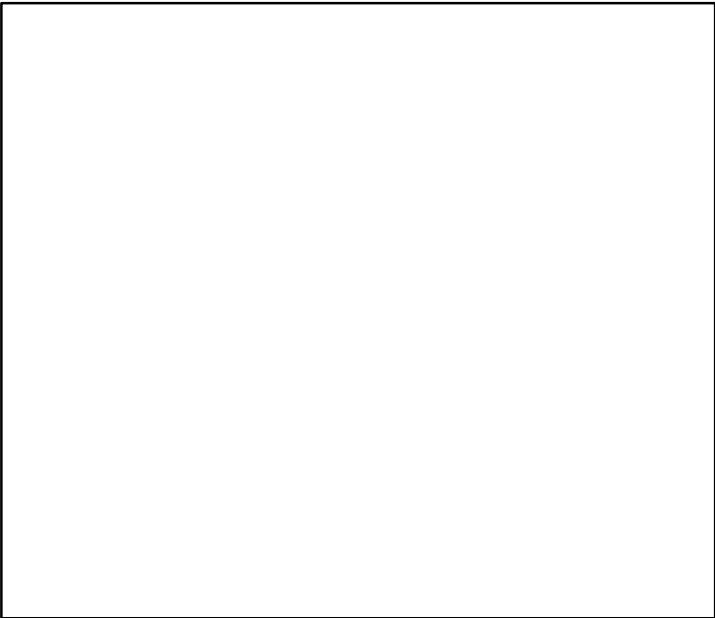
## Sea scallop St. Pierre Bank [SCALL3Ps]

Metadata	
<b>Scientific Name</b>	Placopecten magellanicus
<b>Current Assess ID</b>	DFO-NFLD-SCALL3Ps-1969-2010-CHING
<b>Area</b>	St. Pierre Bank
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans - Newfoundland Region
<b>Asmts in RAM</b>	2010

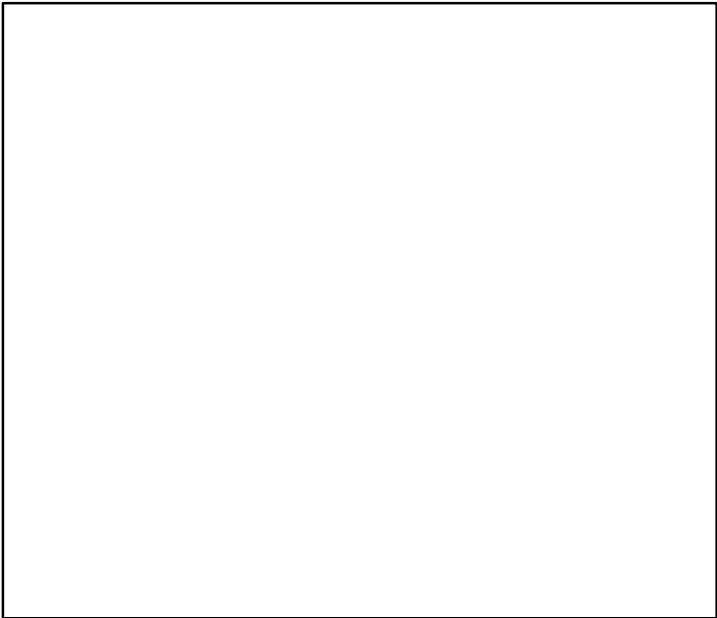
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	-	-	-		
TL	TL-MT	2010	813		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

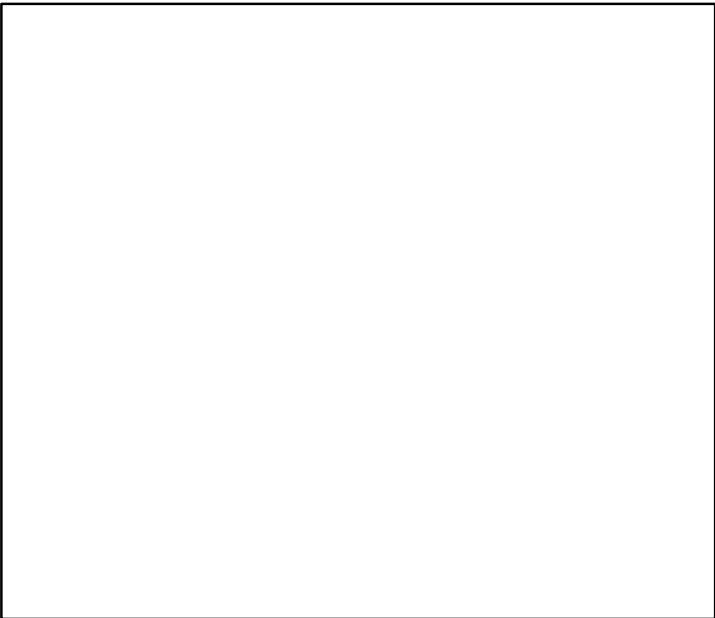
Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



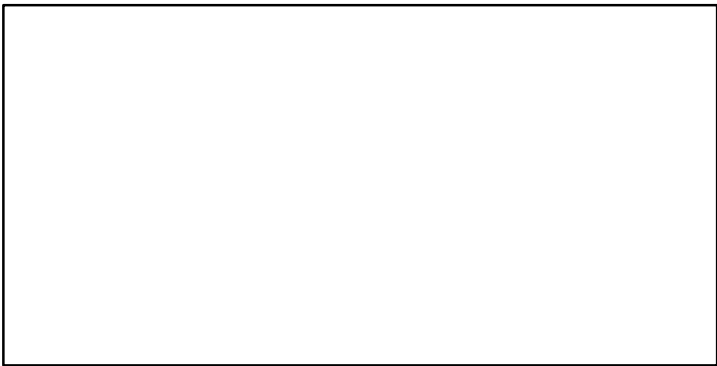
Production\*



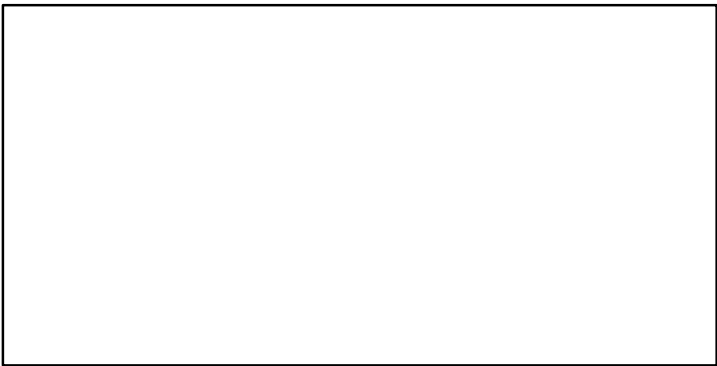
◆ Start Year   ◆ End Year   \* No Data

Sea scallop St. Pierre Bank [SCALL3Ps]

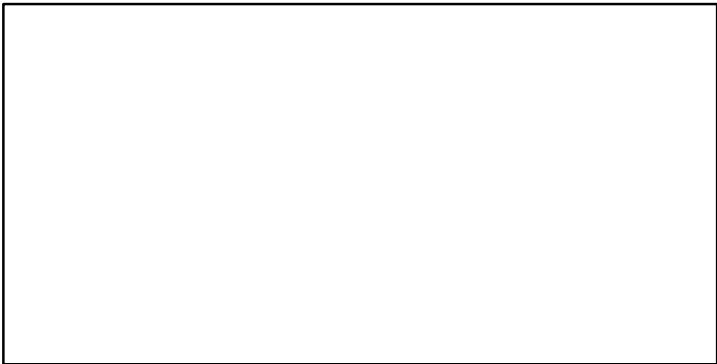
TB\*



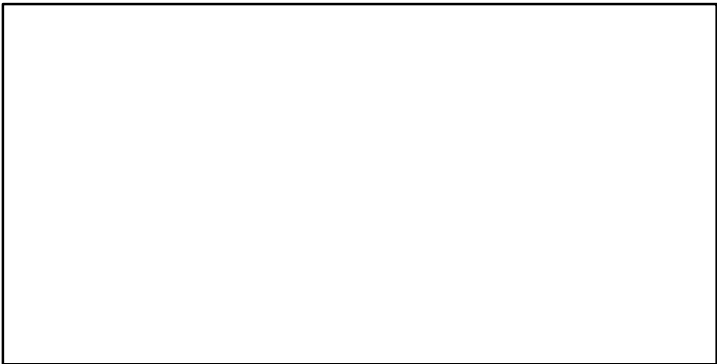
SSB\*



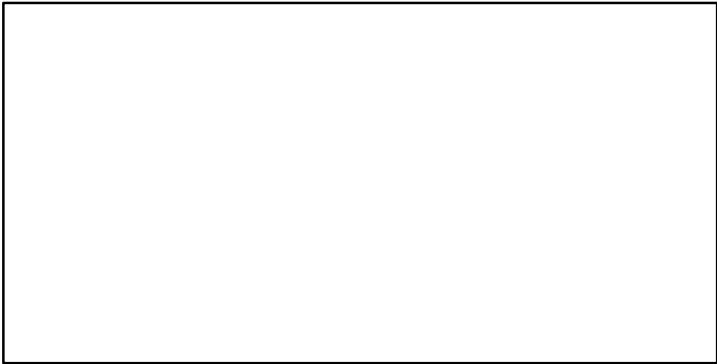
TN \*



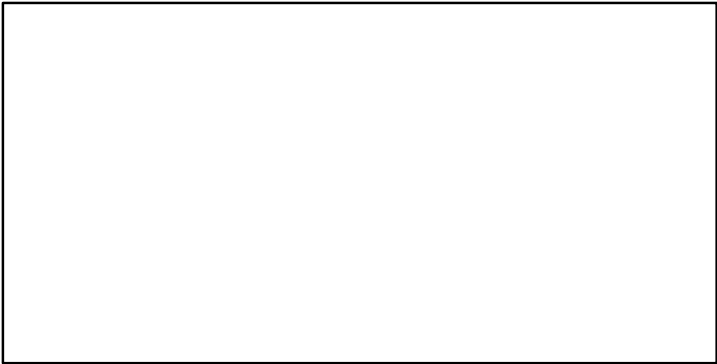
F\*



ER\*



Recruits\*



■ Listed time series

--- MSY-based BRP

--- Target BRP

--- Lim BRP

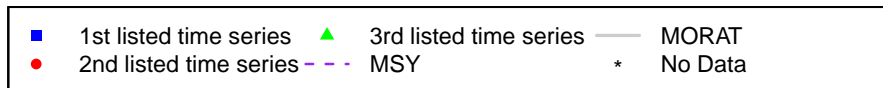
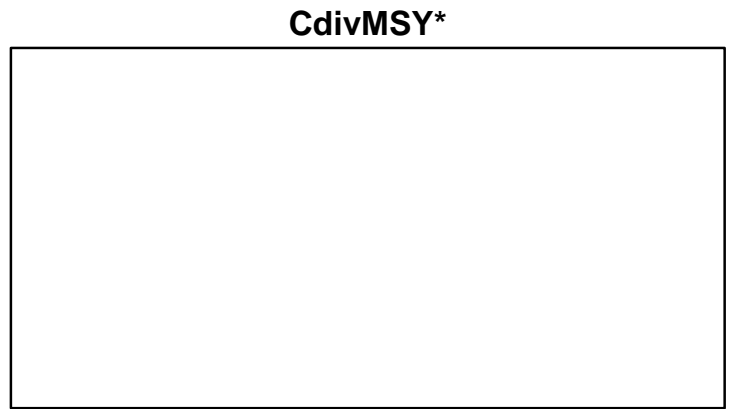
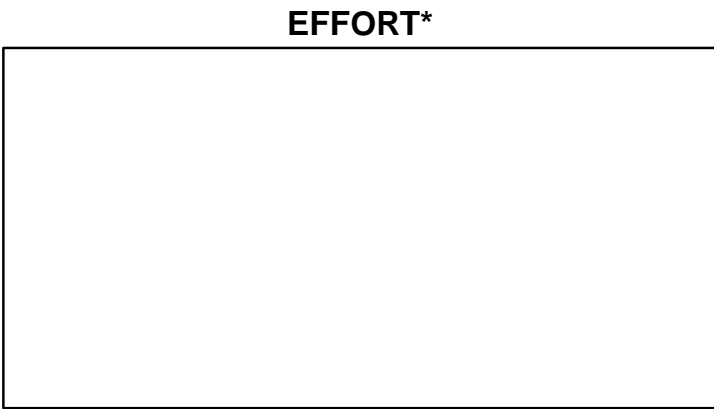
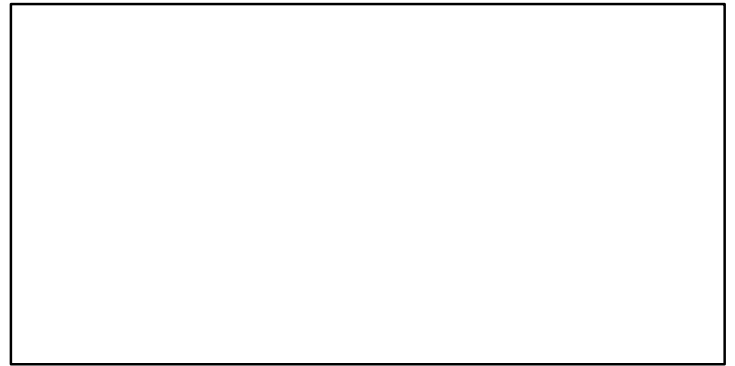
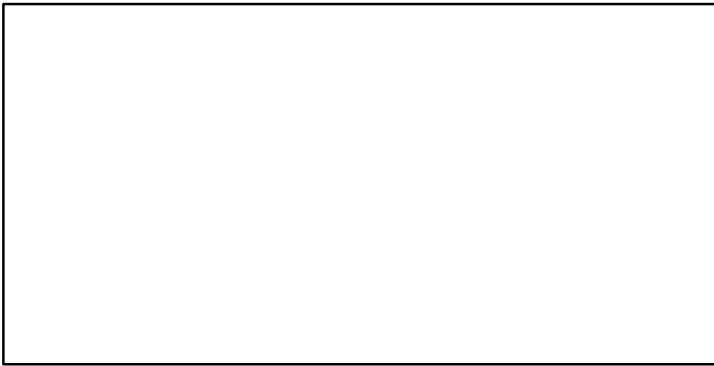
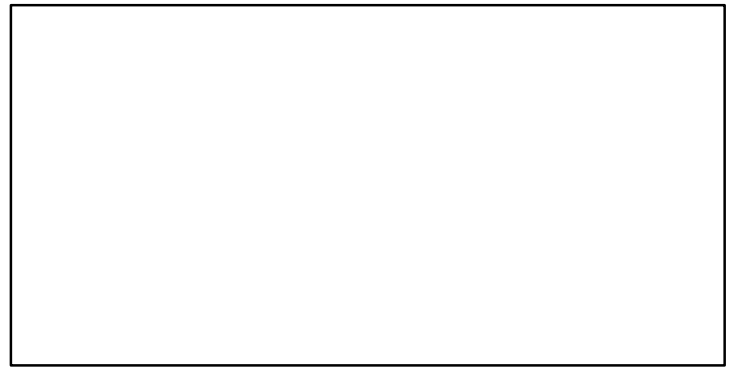
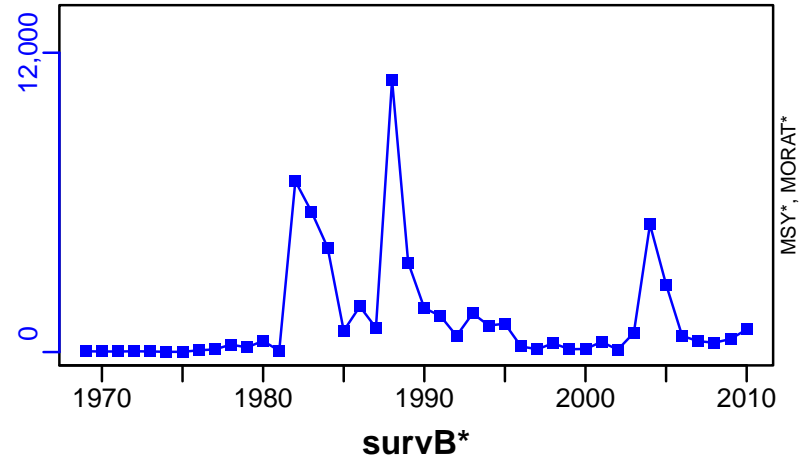
— Rec-Est

\* No Data

# Sea scallop St. Pierre Bank [SCALL3Ps]

TL-MT, TC\*, RecC\* (1969-2010-CHING)

TAC\*, Cpair\*, Cadv\*



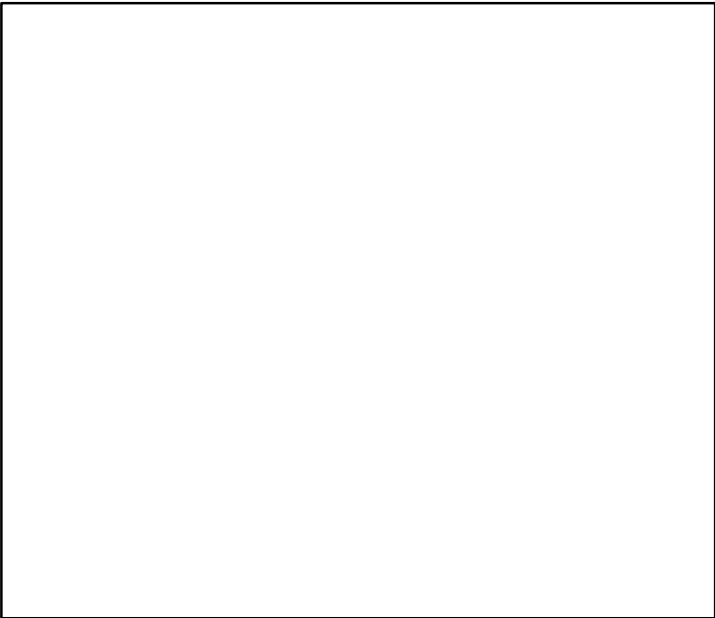
## Sea scallop Southern Gulf of St. Lawrence [SCALL4T]

Metadata	
<b>Scientific Name</b>	Placopecten magellanicus
<b>Current Assess ID</b>	DFO-SG-SCALL4T-1968-2016-ASHBROOK
<b>Area</b>	Southern Gulf of St. Lawrence
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans - Southern Gulf Region
<b>Asmts in RAM</b>	2014, 2010, 2016

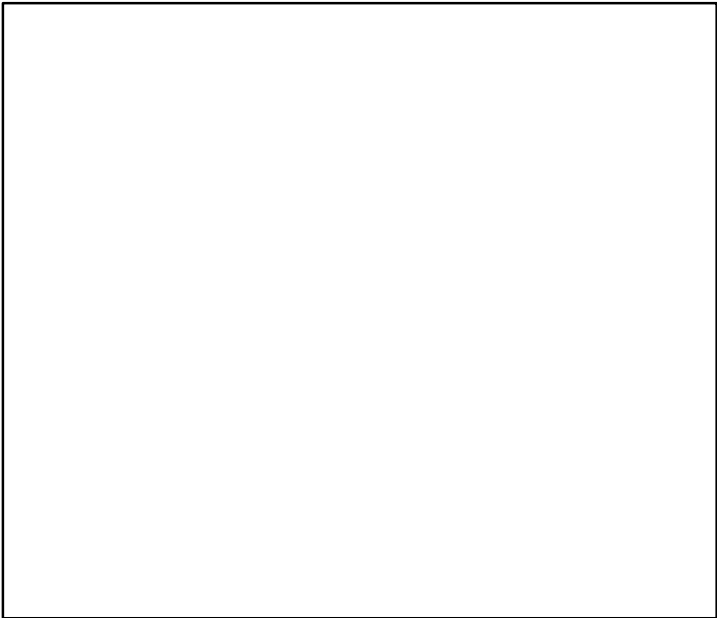
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	M-1/yr	2016	0.225
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	-	-	-		
<b>TL</b>	TL-MT	2016	72		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

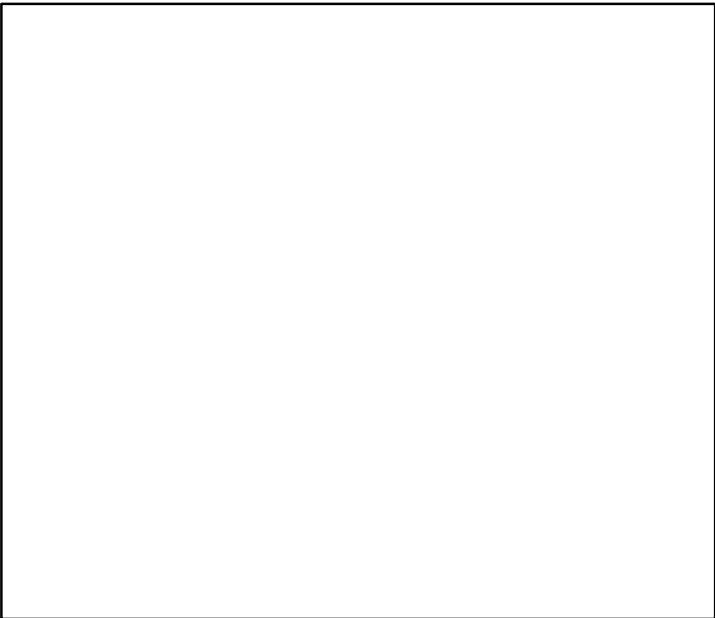
Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



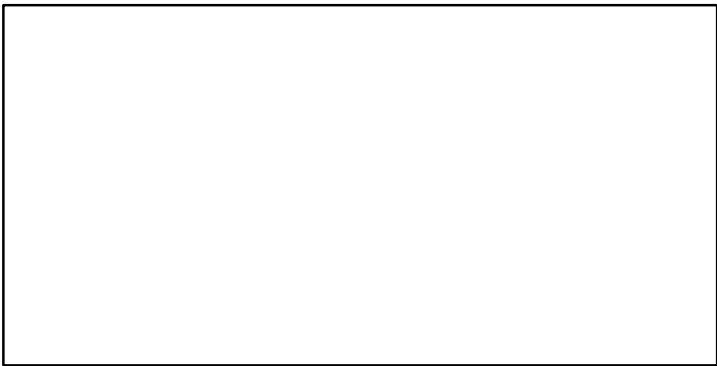
Production\*



◆ Start Year   ◆ End Year   \* No Data

Sea scallop Southern Gulf of St. Lawrence [SCALL4T]

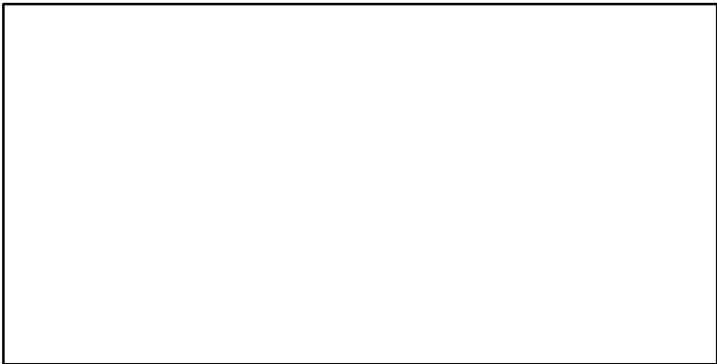
TB\*



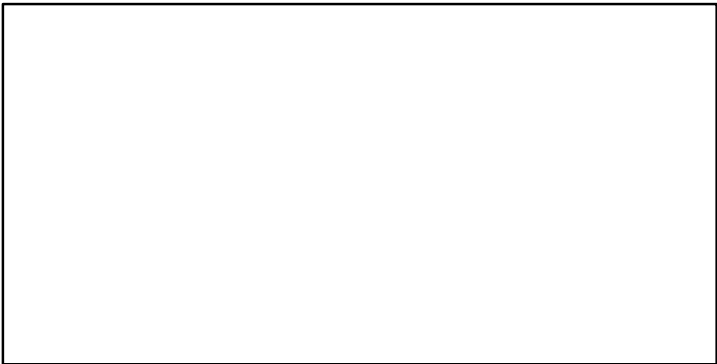
SSB\*



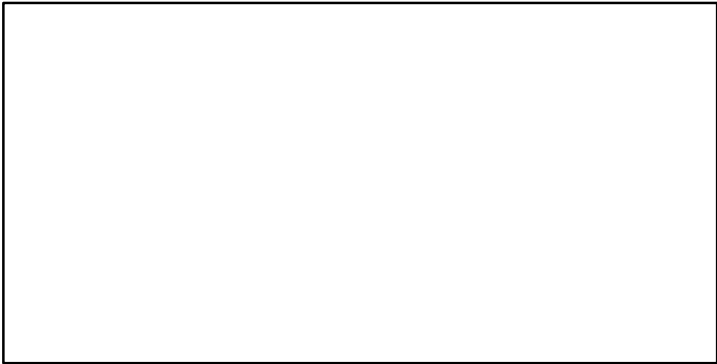
TN \*



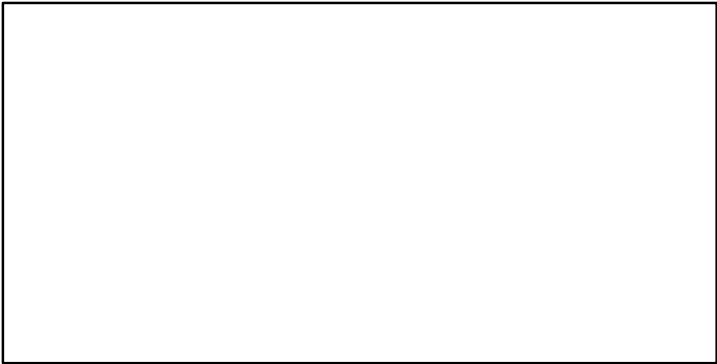
F\*



ER\*



Recruits\*



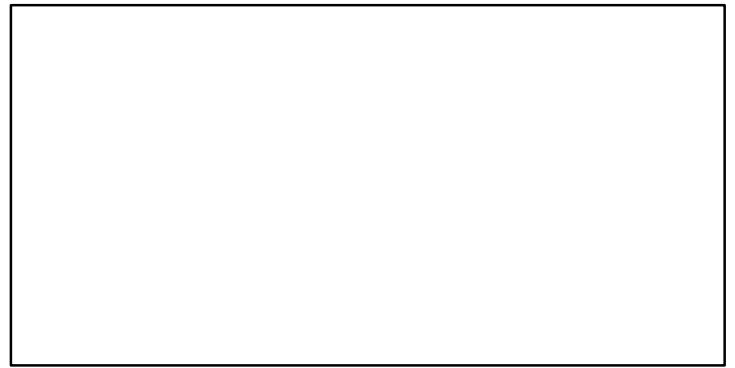
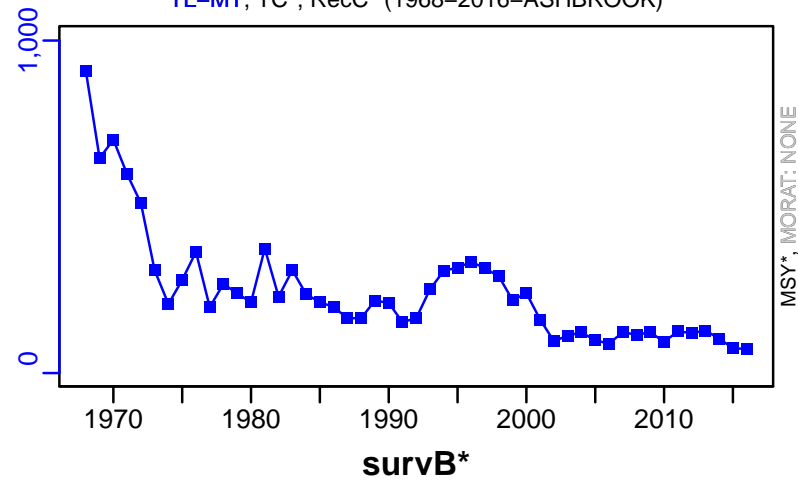
■ Listed time series	- - - Target BRP	— Rec-Est
- - - MSY-based BRP	· · · Lim BRP	* No Data



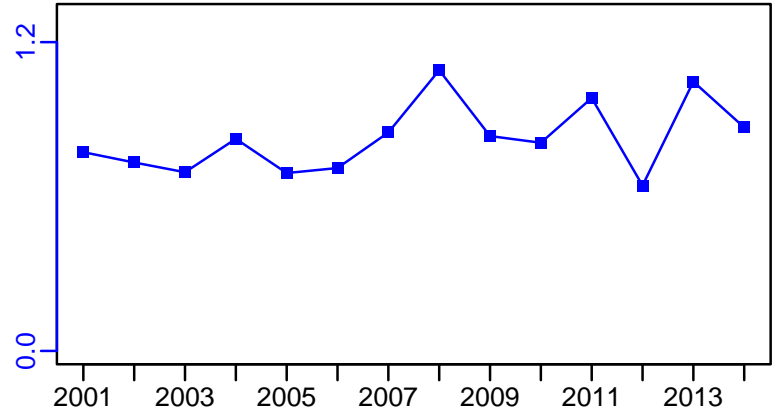
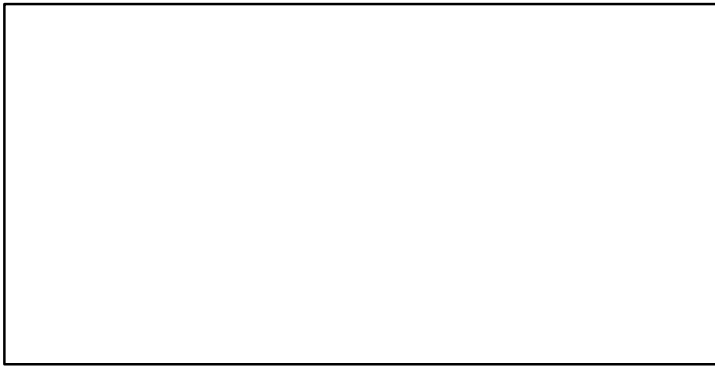
# Sea scallop Southern Gulf of St. Lawrence [SCALL4T]

TL-MT, TC\*, RecC\* (1968–2016–ASHBROOK)

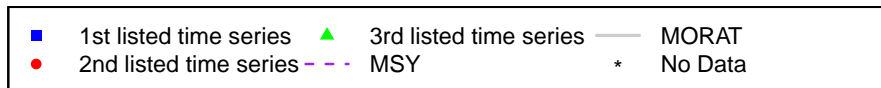
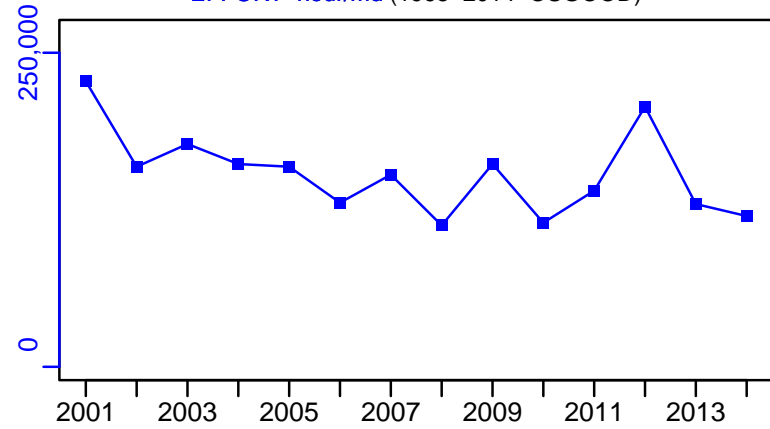
TAC\*, Cpair\*, Cadv\*



CPUE–kg/hmdw (1968–2014–OSGOOD)



EFFORT–hour/md (1968–2014–OSGOOD)



## Sea scallop Georges Bank and Mid-Atlantic Bight [SCALL5ZMAB]

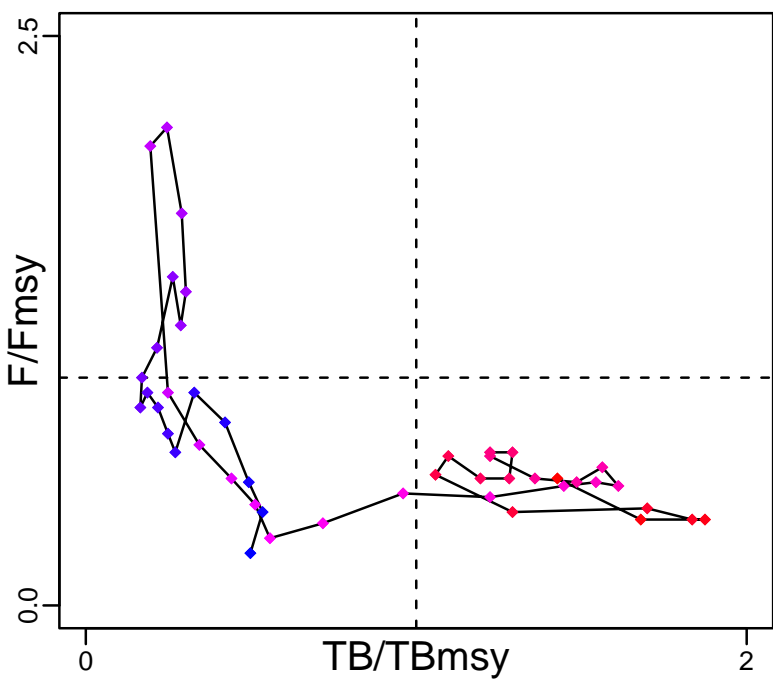
Metadata	
<b>Scientific Name</b>	Placopecten magellanicus
<b>Current Assess ID</b>	NEFSC-SCALL5ZMAB-1964-2019-SISIMP2021-2
<b>Area</b>	Georges Bank and Mid-Atlantic Bight
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northeast Fisheries Science Center
<b>Asmts in RAM</b>	2013, 2017, 2019

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-MT	2019	103,000
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	Fmsy-1/yr	2019	0.61
<b>ERmsy</b>	ERmsy-calc-ratio	2017	0.398
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2017	46,531
<b>M</b>	M-1/yr	2013	0.12
<b>TBlim</b>	TBlim-MT	2019	51,300
<b>SSBlim</b>	-	-	-
<b>Flim</b>	Flim-1/yr	2019	0.61
<b>ERlim</b>	-	-	-

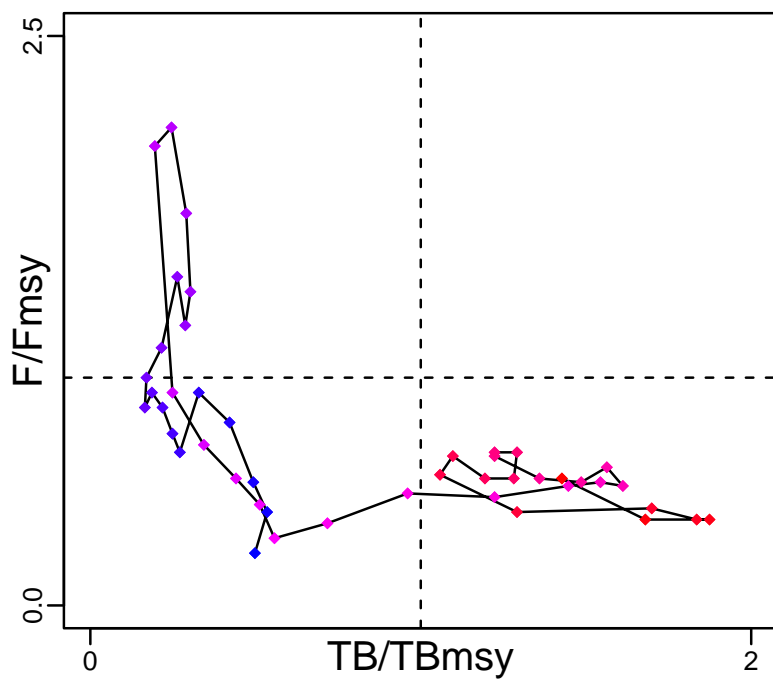
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2019	147,000	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	F-1/yr	2019	0.34	-	-
<b>ER</b>	ER-calc-ratio	2019	0.188	-	-
<b>TC</b>	TC-MT	2019	27,600		
<b>TL</b>	TL-MT	2013	18,700		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2019	1.427		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2019	0.557		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-calc-ratio	2017	0.186		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Sea scallop Georges Bank and Mid-Atlantic Bight [SCALL5ZMAB]

Kobe MSYpref (1964–2019–SISIMP2021–2)



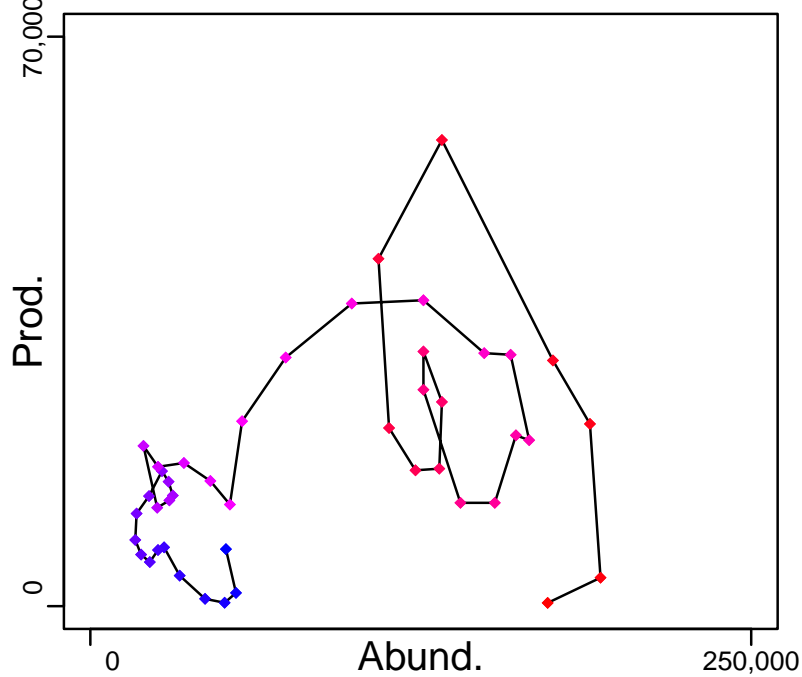
Kobe MGTpref (1964–2019–SISIMP2021–2)



Spawner Recruit\*



Production (1964–2019–SISIMP2021–2)

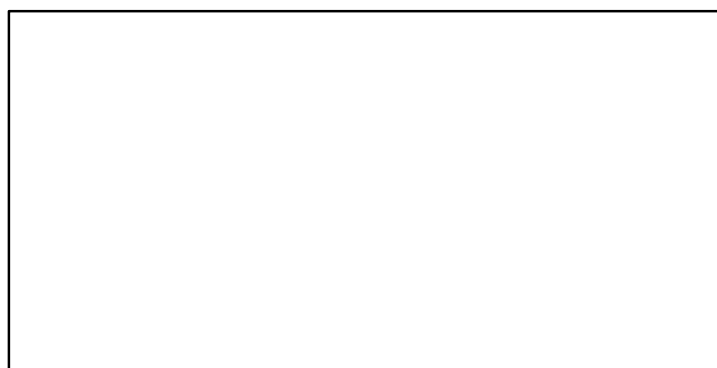
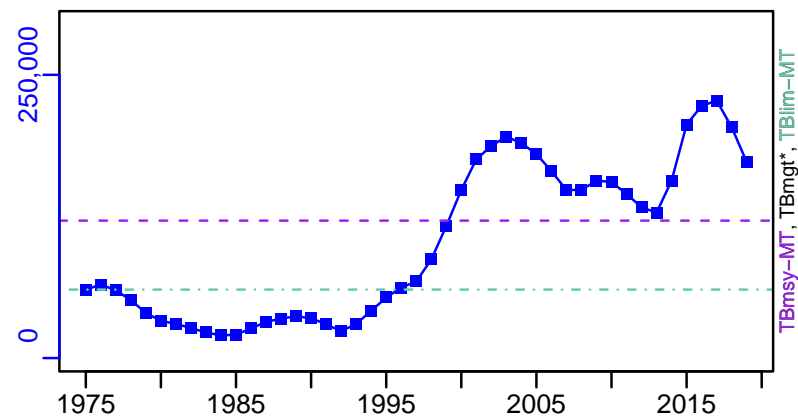


◆ Start Year ◆ End Year \* No Data

# Sea scallop Georges Bank and Mid-Atlantic Bight [SCALL5ZMAB]

TB-MT (1964-2019-SISIMP2021-2)

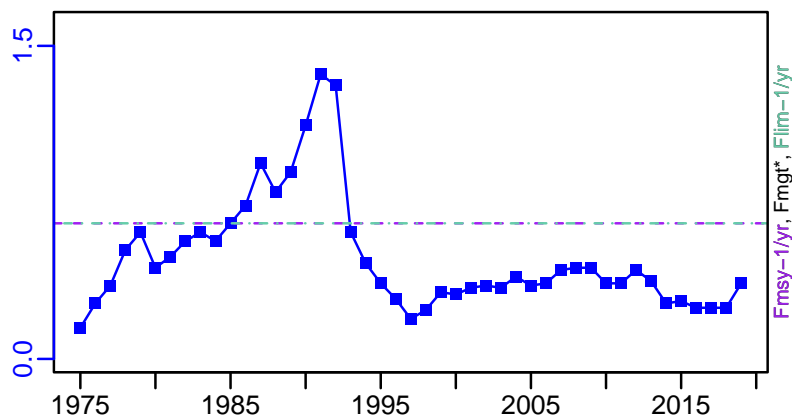
SSB\*



TN \*

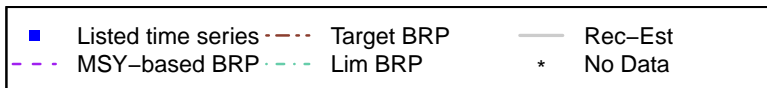
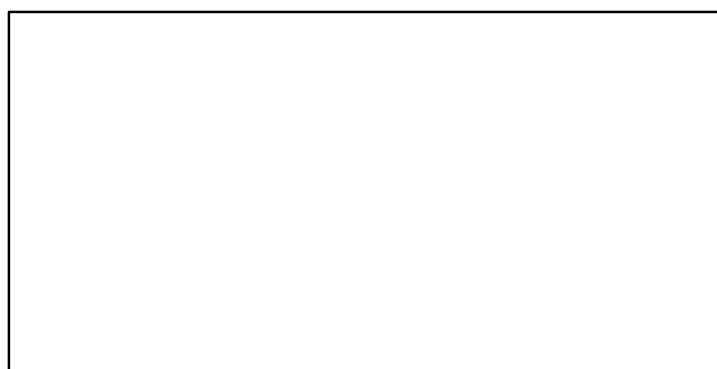
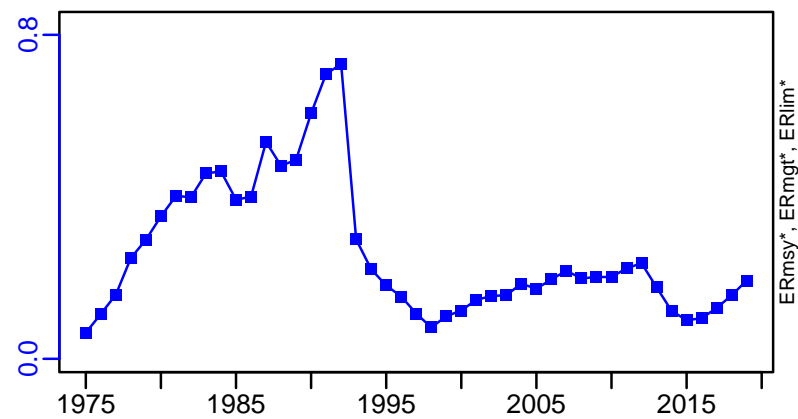


F-1/yr (1964-2019-SISIMP2021-2)



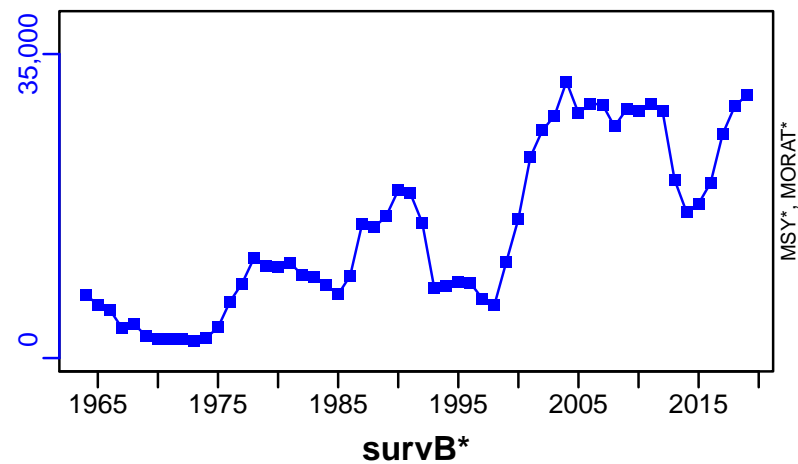
ER-calc-ratio (1964-2019-SISIMP2021-2)

Recruits\*

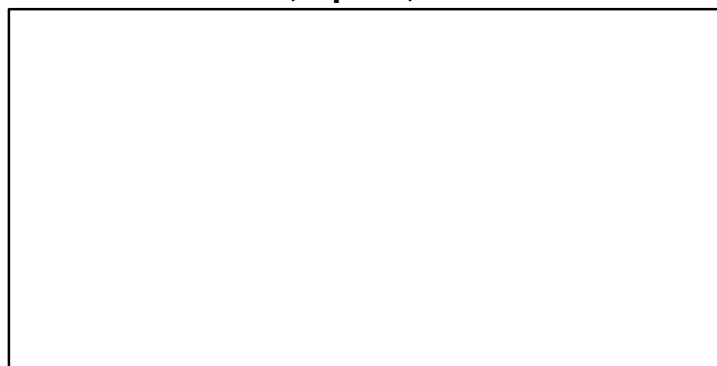


# Sea scallop Georges Bank and Mid-Atlantic Bight [SCALL5ZMAB]

TC-MT, TL\*, RecC\* (1964–2019–SISIMP2021–2)



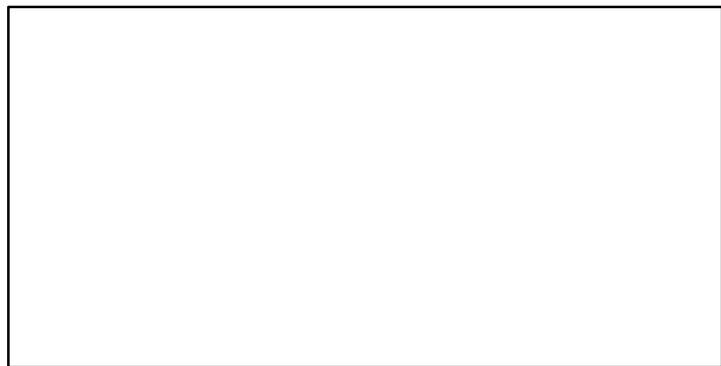
TAC\*, Cpair\*, Cadv\*



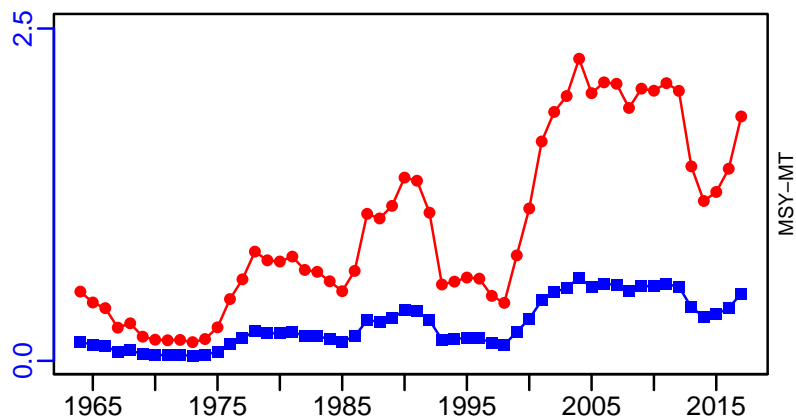
CPUE\*



EFFORT\*



TC-MT/MSY-MT, CdivMEANC-ratio, (1964–2017–SISIMP2021)



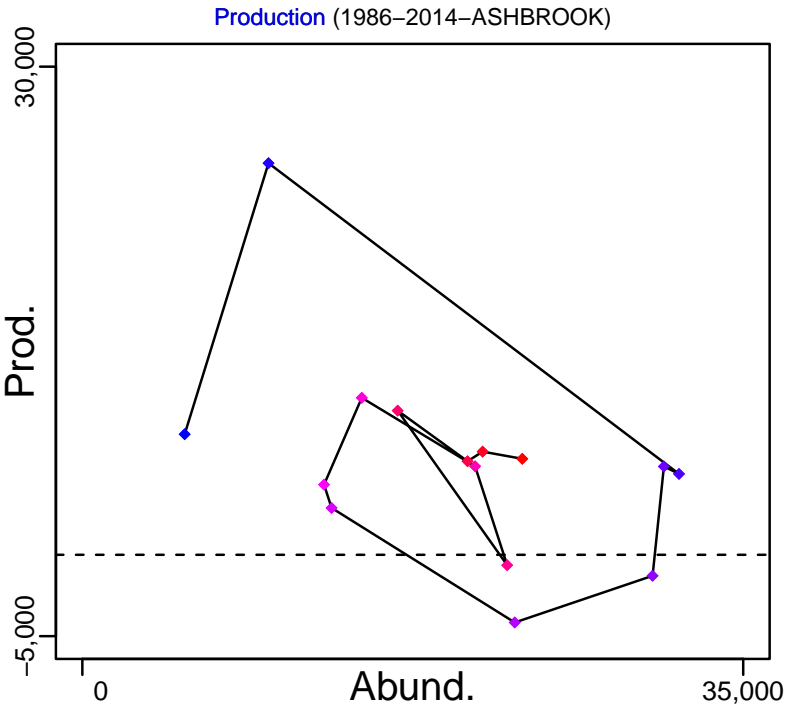
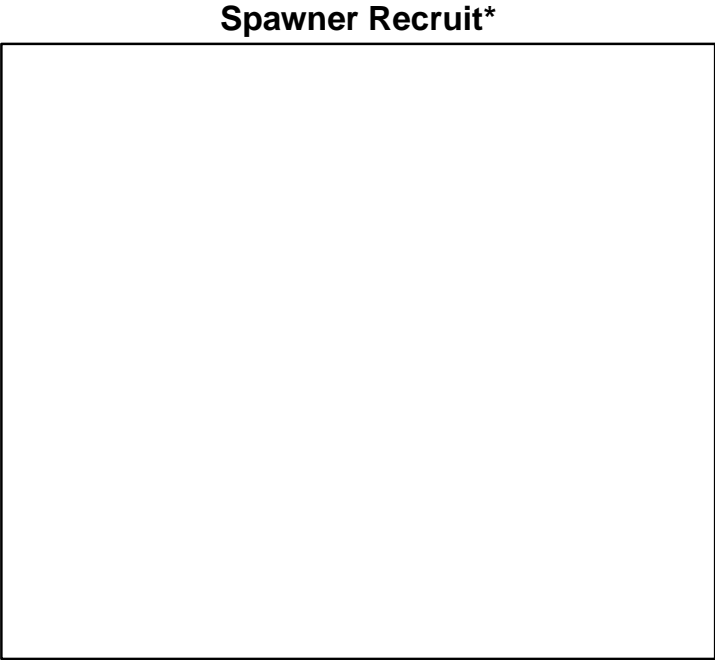
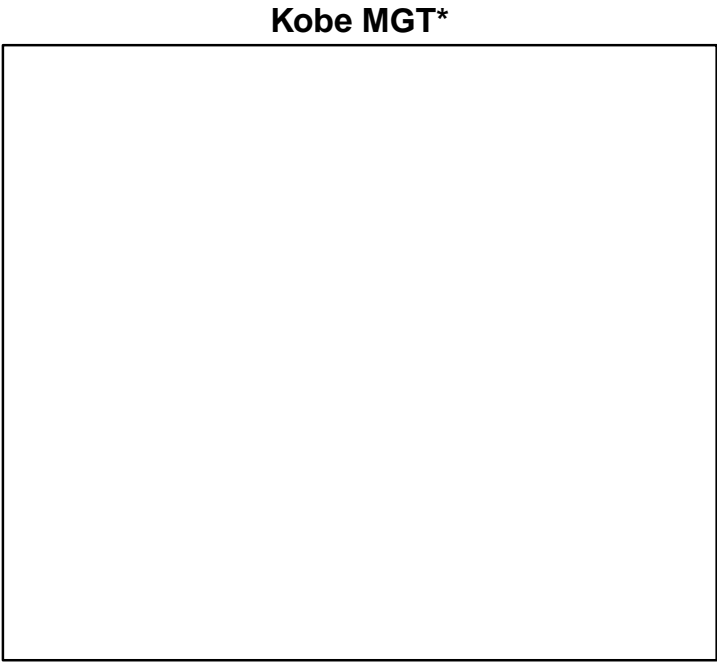
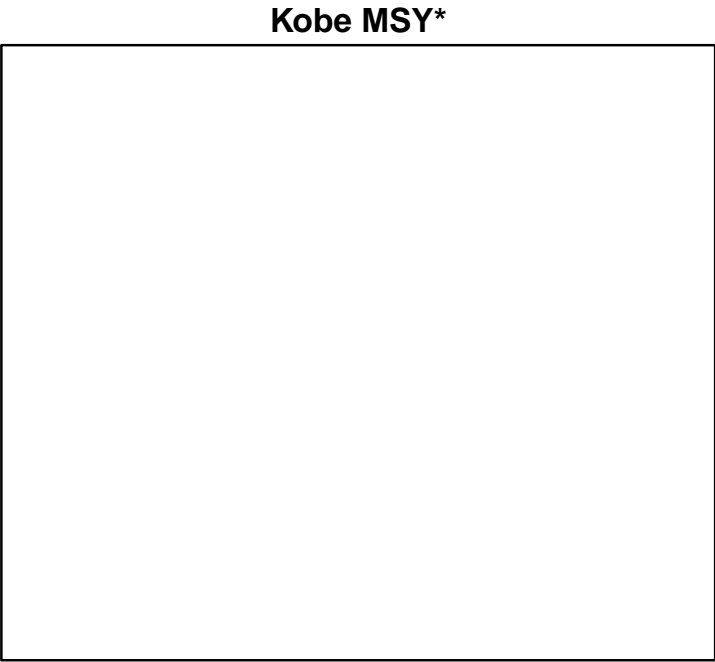
■ 1st listed time series    ▲ 3rd listed time series    — MORAT  
● 2nd listed time series    - - - MSY    \* No Data

## Sea scallop Georges Bank [SCALLGB]

Metadata	
<b>Scientific Name</b>	Placopecten magellanicus
<b>Current Assess ID</b>	DFO-SCALLGB-1986-2014-ASHBROOK
<b>Area</b>	Georges Bank
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans
<b>Asmts in RAM</b>	2012, 2007, 2014

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	TBmgt-MT	2014	13,284
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	M-1/yr	2014	0.159
<b>TBlim</b>	TBlim-MT	2014	7137
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

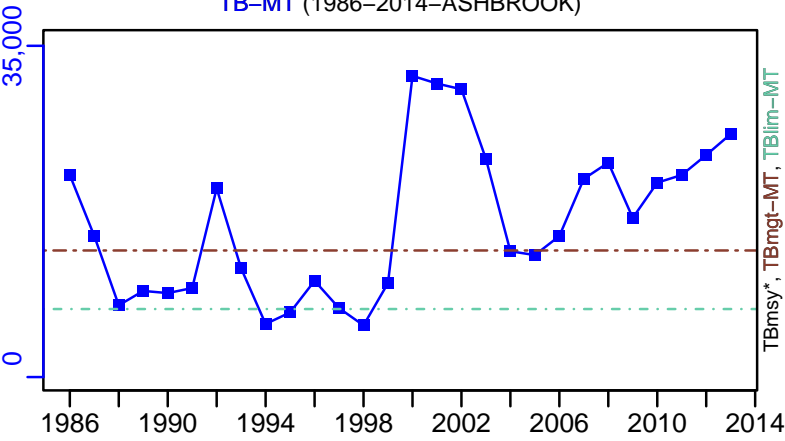
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2014	25,500	Both	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-MT	2014	5270	Both	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2014	0.183	-	-
<b>TC</b>	-	-	-		
<b>TL</b>	TL-MT	2014	5020		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	TB-MT/TBmgt-MT	2014	1.92		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		



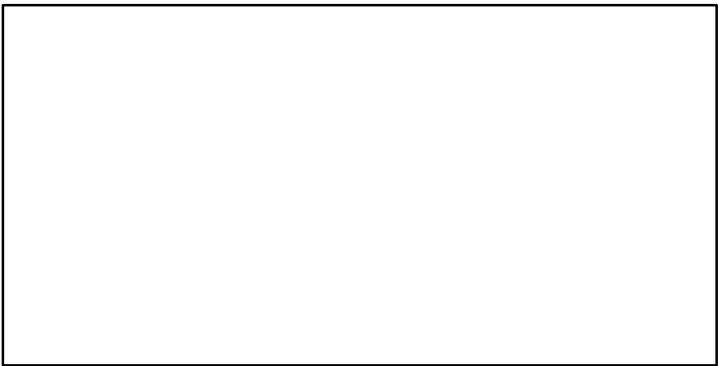
◆ Start Year ◆ End Year \* No Data

Sea scallop Georges Bank [SCALLGB]

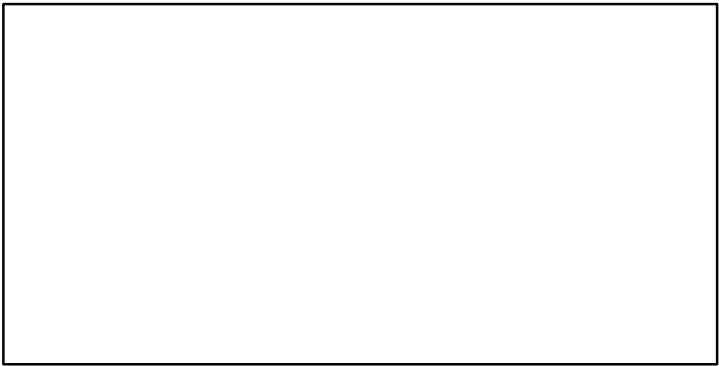
TB-MT (1986-2014-ASHBROOK)



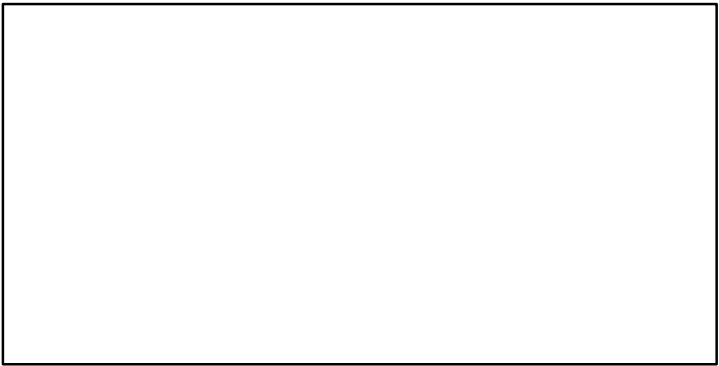
SSB\*



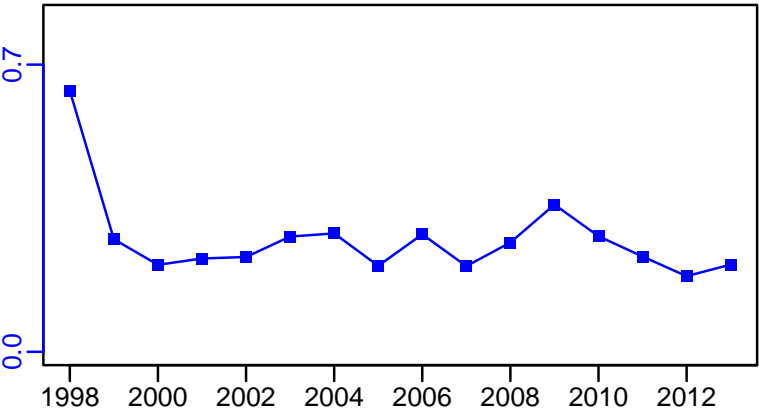
TN \*



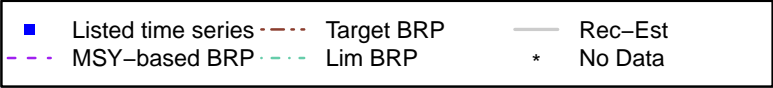
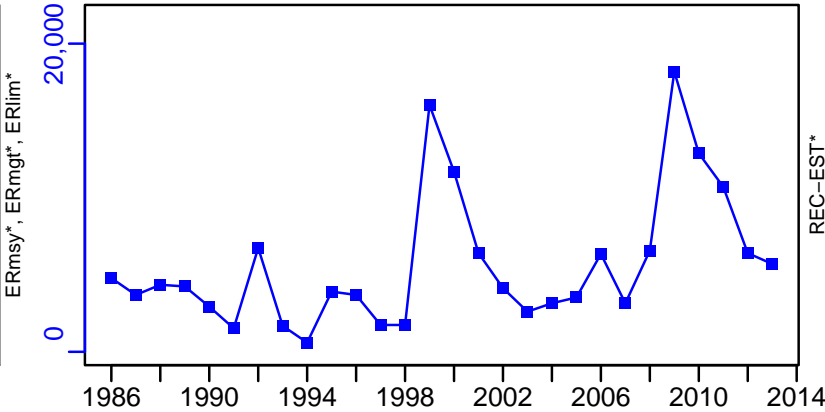
F\*



ER-calc-ratio (1986-2014-ASHBROOK)



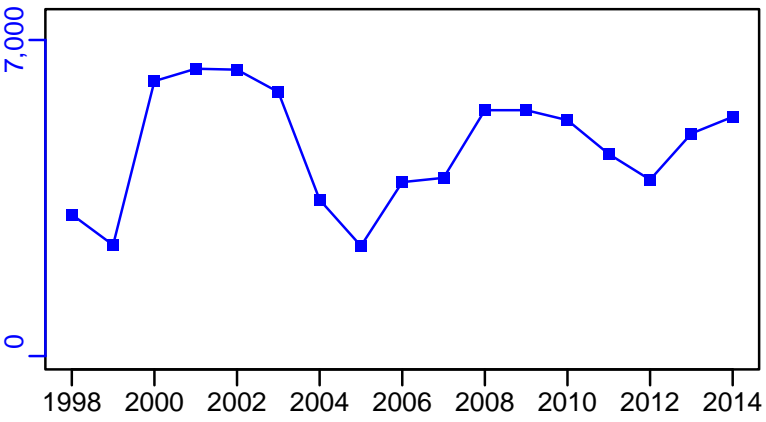
R-MT (1986-2014-ASHBROOK)



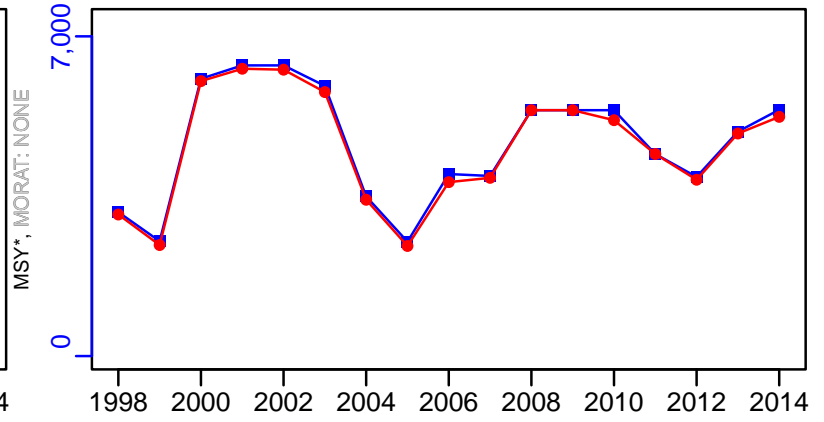


# Sea scallop Georges Bank [SCALLGB]

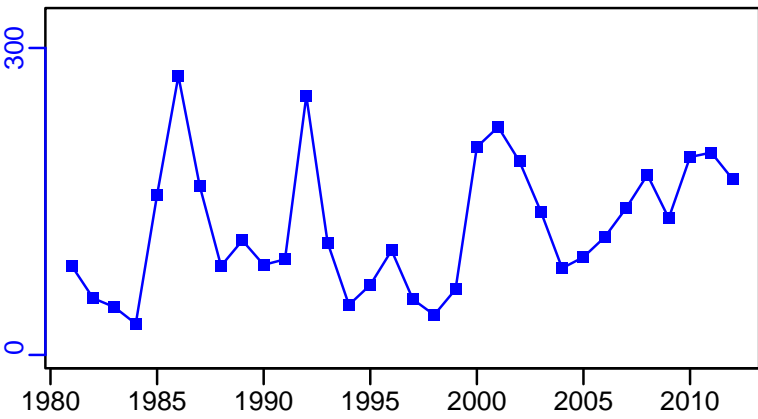
TL-MT, TC\*, RecC\* (1986-2014-ASHBROOK)



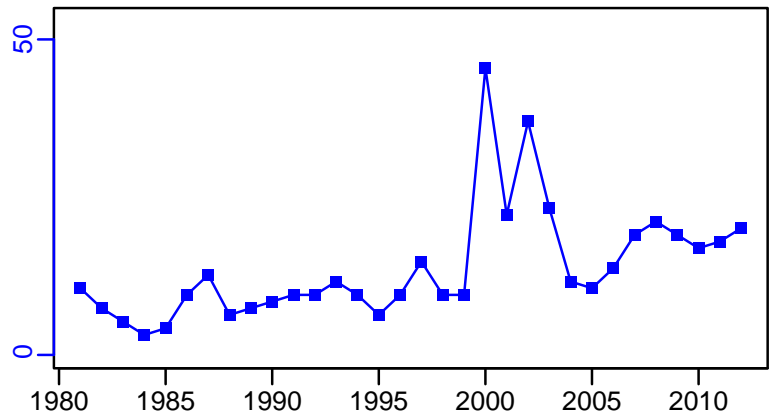
TAC-MT, Cpair-MT, Cadv\* (1986-2014-ASHBROOK)



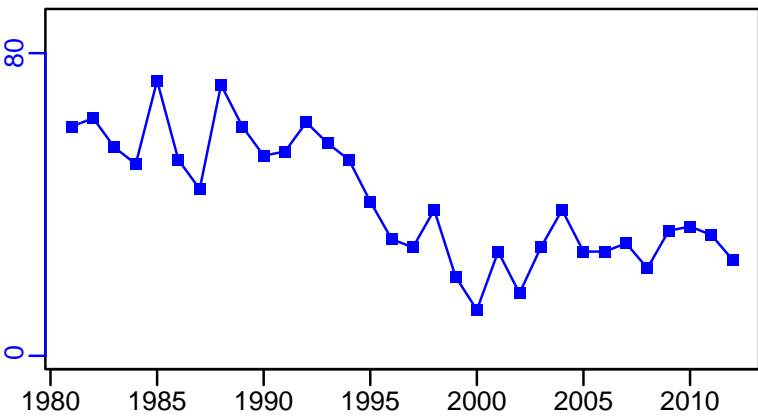
survB-E00/tow (1981-2012-ASHBROOK)



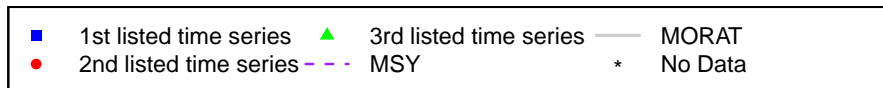
CPUE-kg/hm (1981-2012-ASHBROOK)



EFFORT-hm (1981-2012-ASHBROOK)



CdivMSY\*



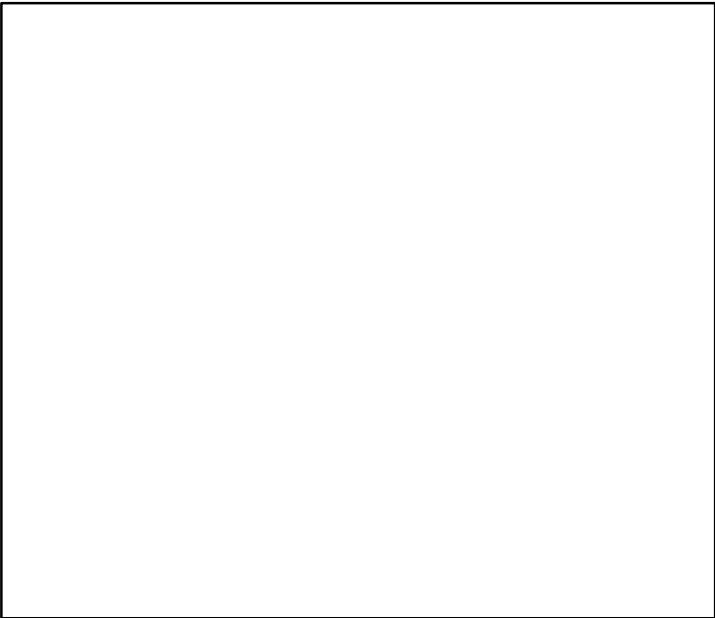
## Sea scallop North Brown Bank [SCALLNBB]

Metadata	
<b>Scientific Name</b>	Placopecten magellanicus
<b>Current Assess ID</b>	DFO-MAR-SCALLNBB-1981-2011-CHING
<b>Area</b>	North Brown Bank
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans - Maritimes Region
<b>Asmts in RAM</b>	2011

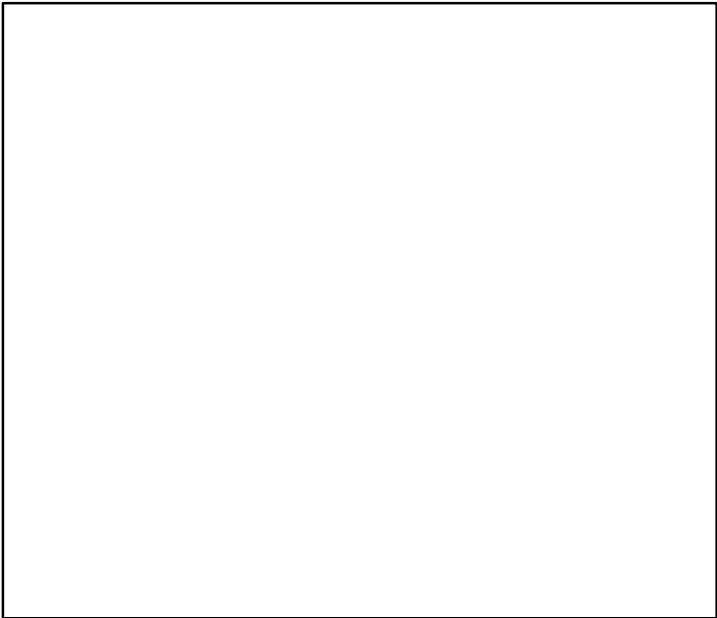
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2011	13,100	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-ratio	2011	0.02	-	-
TC	TC-MT	2011	201		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

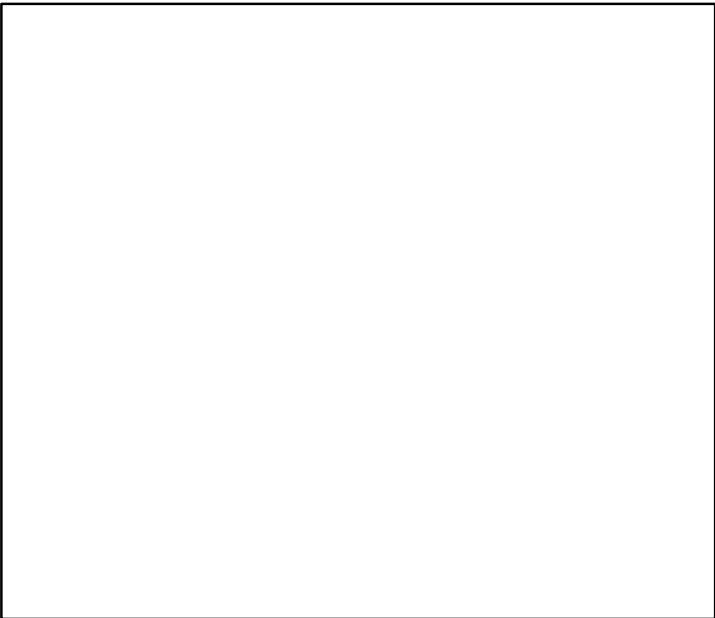
Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



Production\*

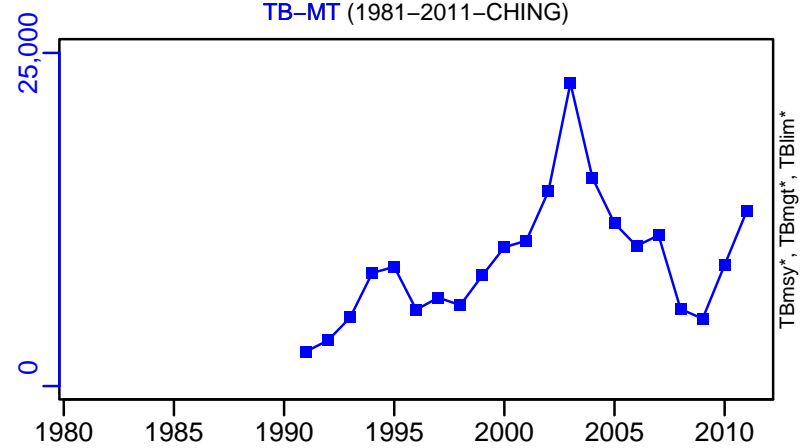


◆ Start Year   ◆ End Year   \* No Data

# Sea scallop North Brown Bank [SCALLNBB]

TB-MT (1981-2011-CHING)

SSB\*



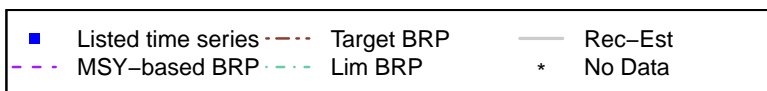
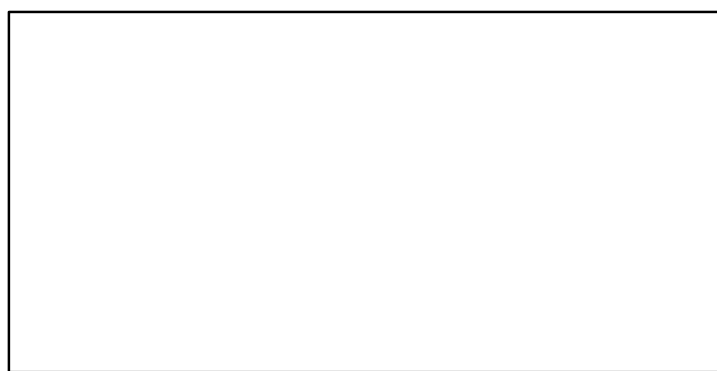
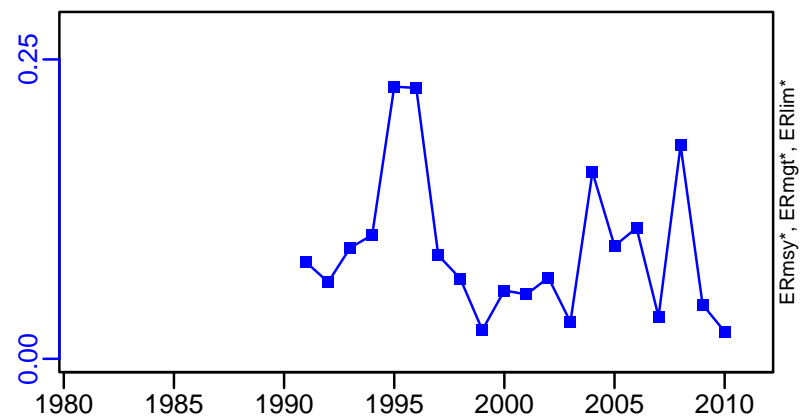
TN \*

F\*



ER-ratio (1981-2011-CHING)

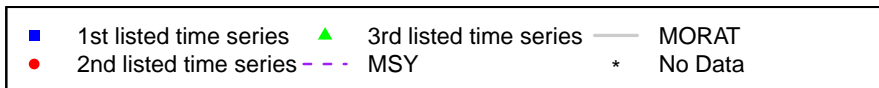
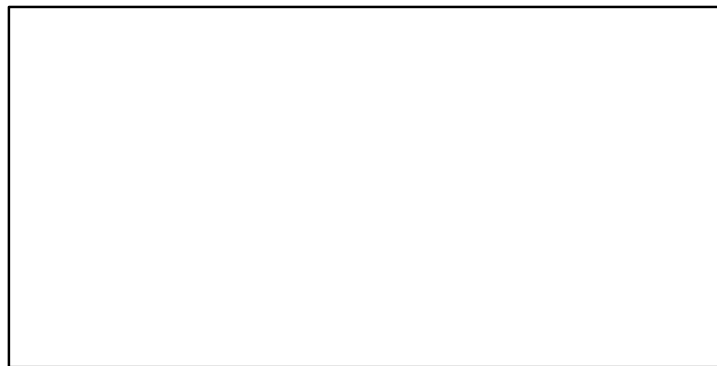
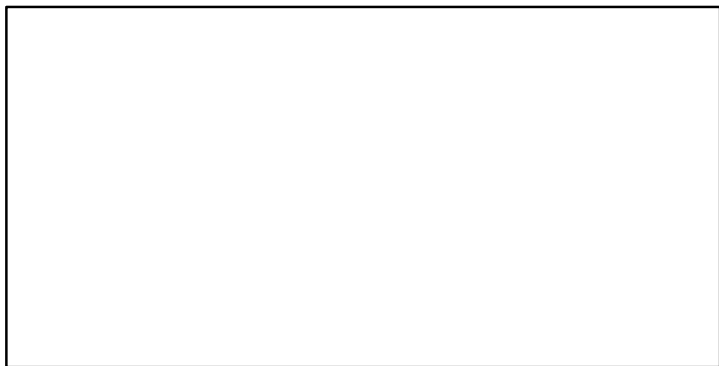
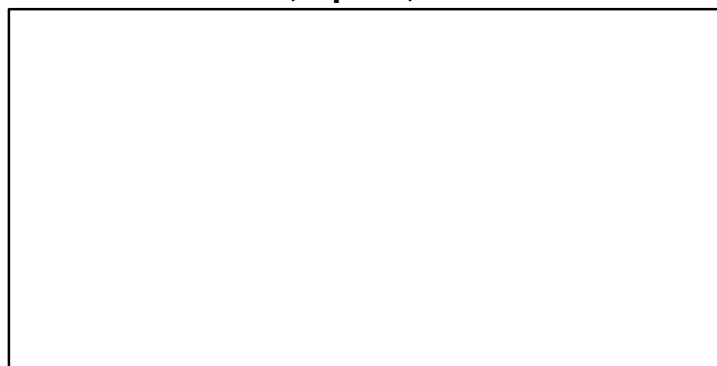
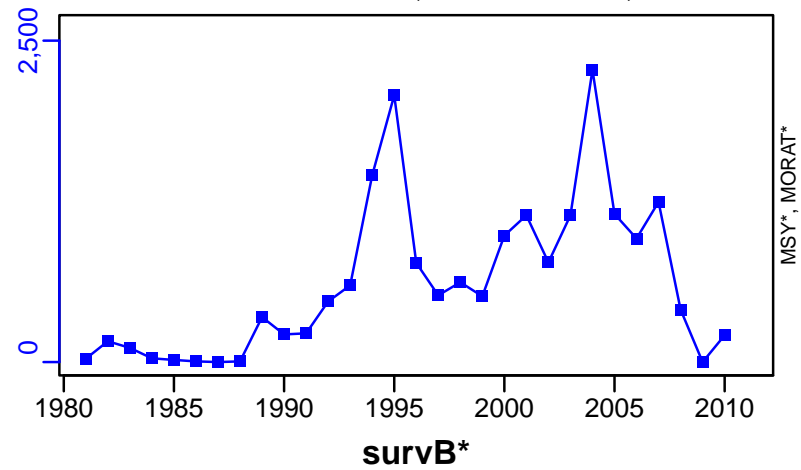
Recruits\*



# Sea scallop North Brown Bank [SCALLNBB]

TC-MT, TL\*, RecC\* (1981-2011-CHING)

TAC\*, Cpair\*, Cadv\*



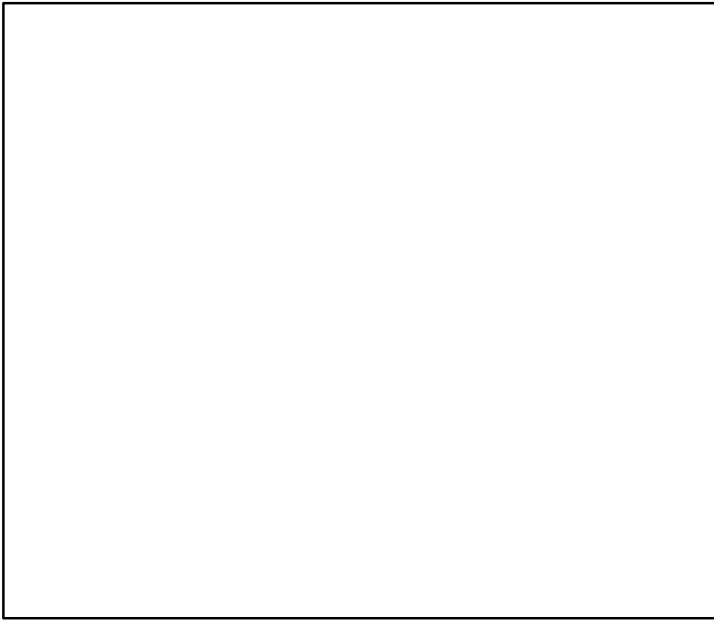
## Sea scallop Scallop Fishing Areas 16-20 [SCALLSFA16-20]

Metadata	
<b>Scientific Name</b>	Placopecten magellanicus
<b>Current Assess ID</b>	DFO-QUE-SCALLSFA16-20-1965-2015-ASHBROOK
<b>Area</b>	Scallop Fishing Areas 16-20
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans - Quebec Region
<b>Asmts in RAM</b>	2012, 2015

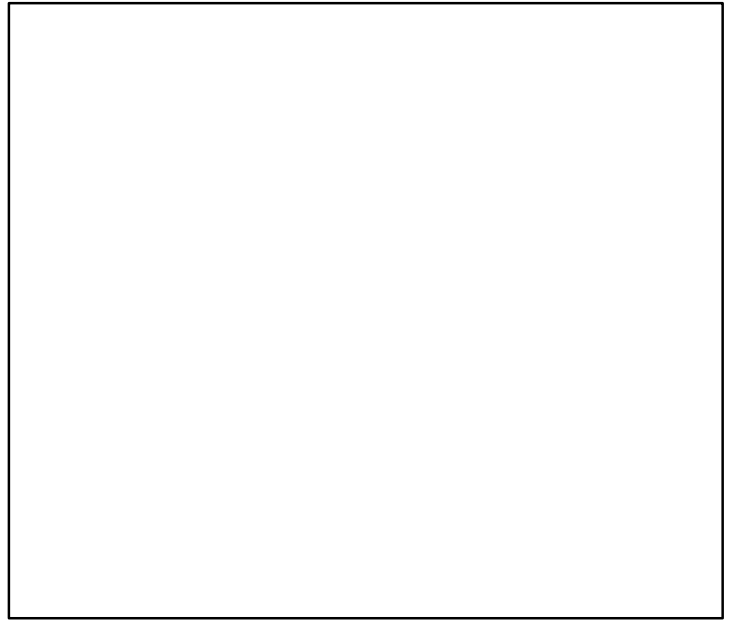
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	-	-	-		
TL	TL-MT	2015	61		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

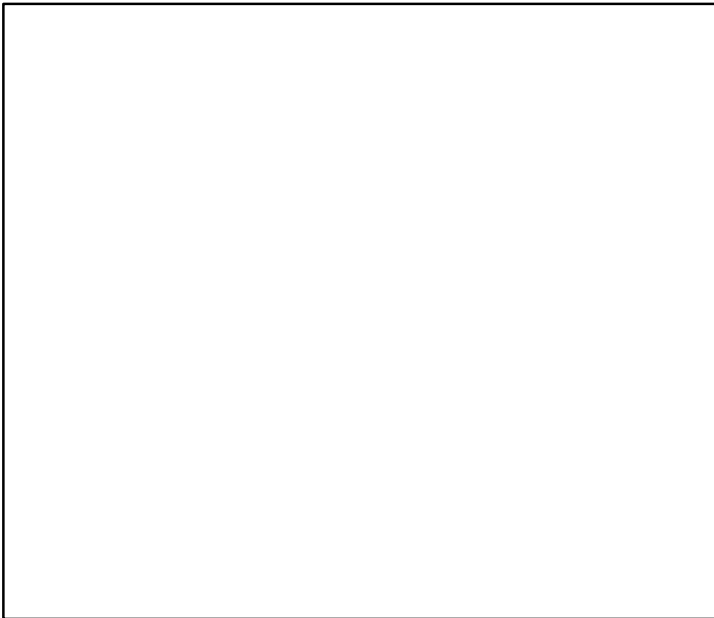
**Kobe MSY\***



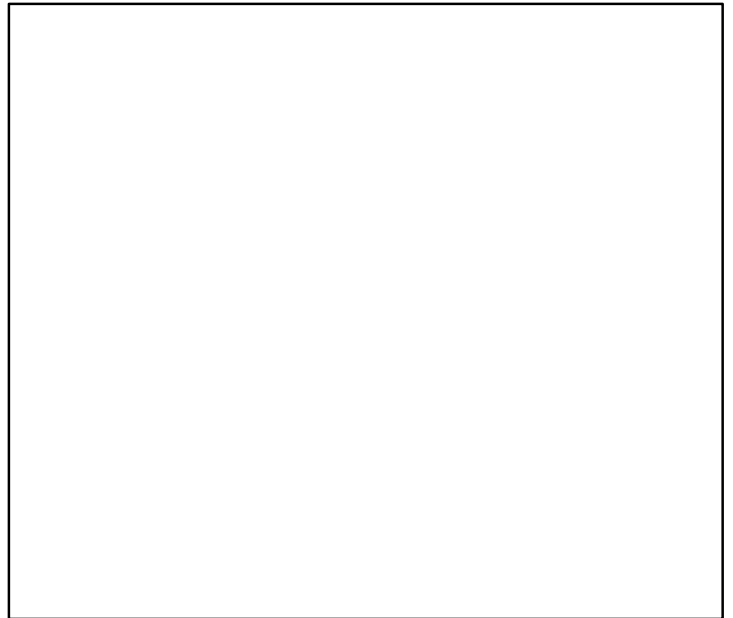
**Kobe MGT\***



**Spawner Recruit\***



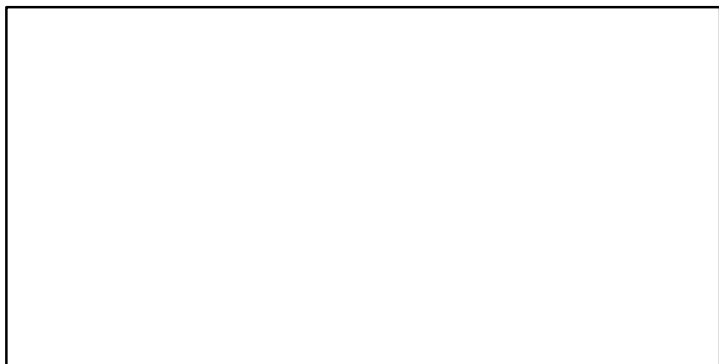
**Production\***



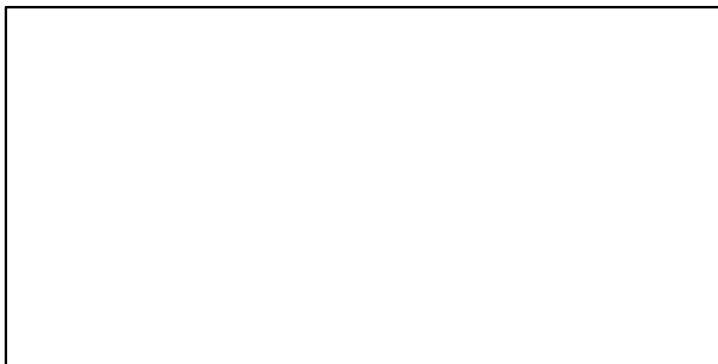
◆ Start Year ◆ End Year \* No Data

Sea scallop Scallop Fishing Areas 16–20 [SCALLSFA16–20]

**TB\***



**SSB\***



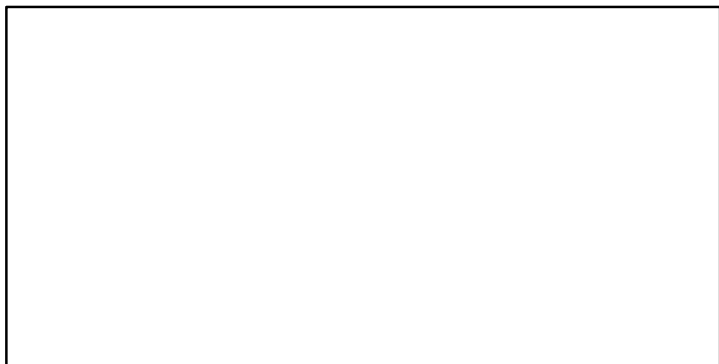
**TN \***



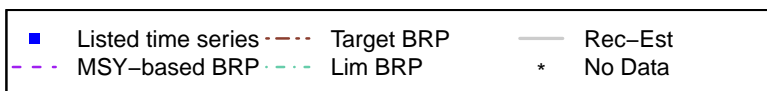
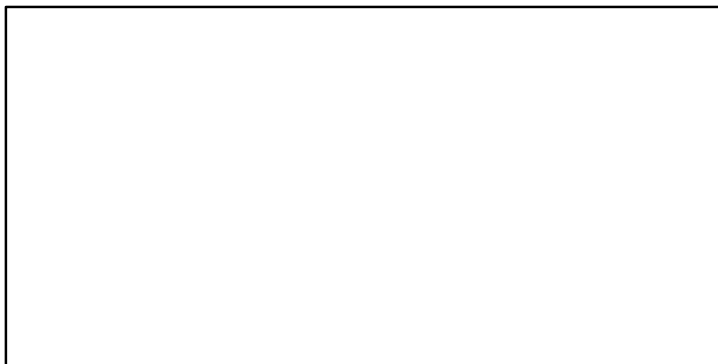
**F\***



**ER\***



**Recruits\***

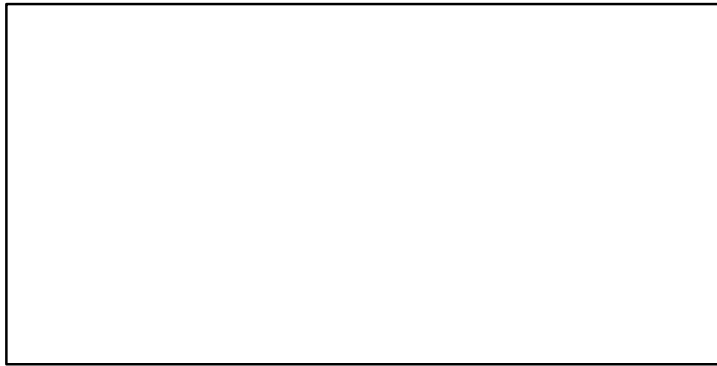
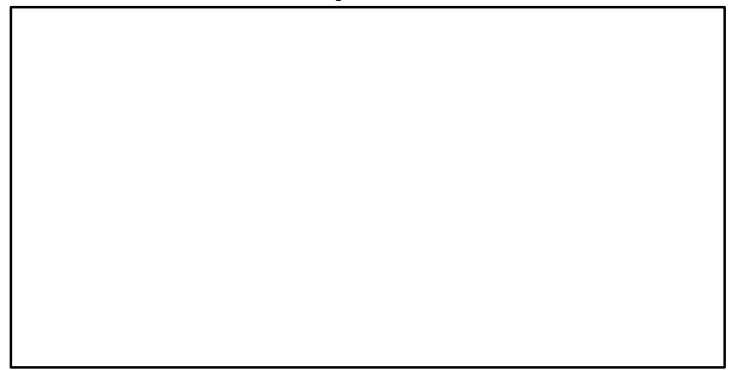
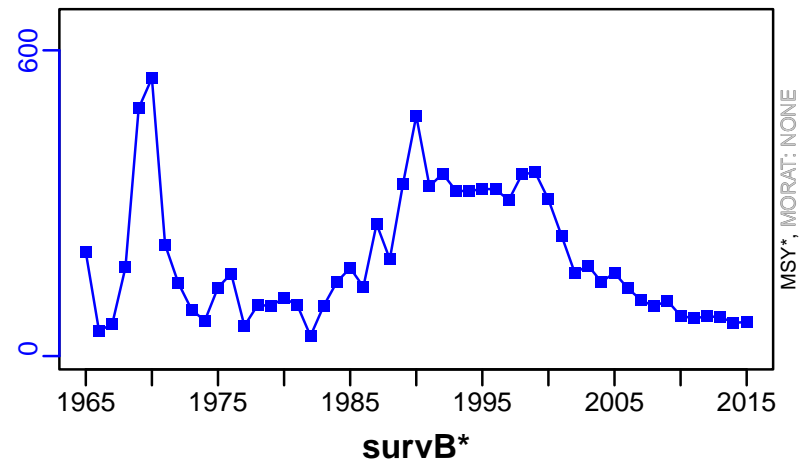




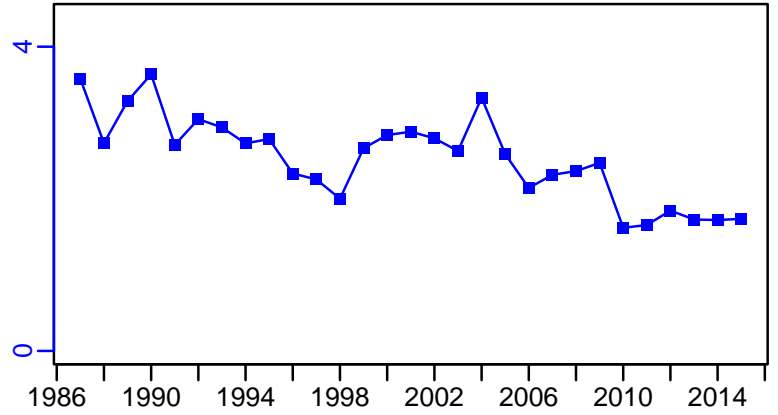
# Sea scallop Scallop Fishing Areas 16–20 [SCALLSFA16–20]

TL–MT, TC\*, RecC\* (1965–2015–ASHBROOK)

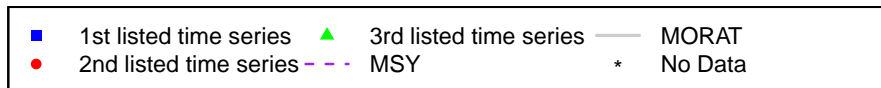
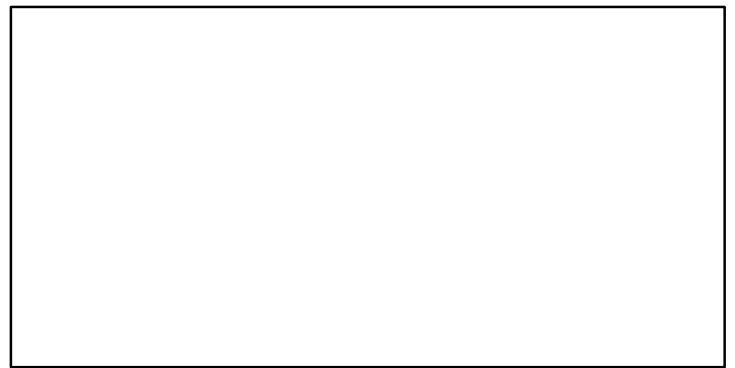
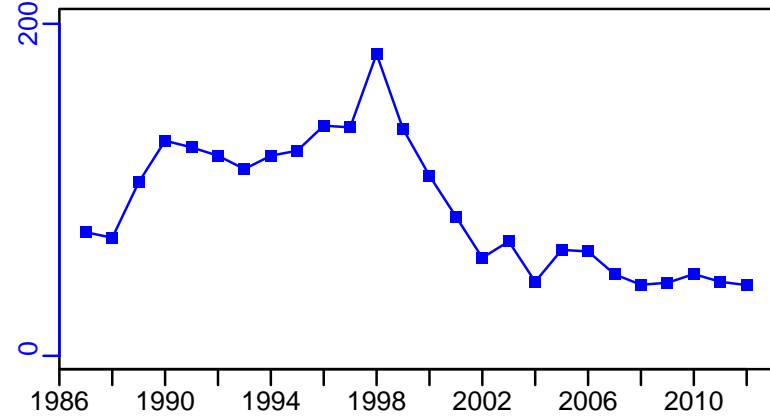
TAC\*, Cpair\*, Cadv\*



CPUE–index (1965–2015–ASHBROOK)



EFFORT–hour/mdw (1965–2012–OSGOOD)



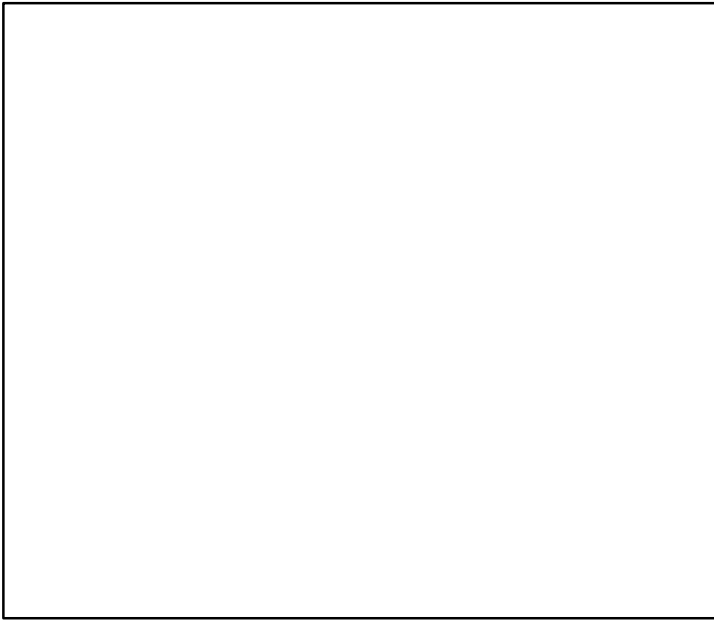
## Sea scallop Bay of Fundy (SPA 1-6) [SCALLSPA1-6]

Metadata	
<b>Scientific Name</b>	Placopecten magellanicus
<b>Current Assess ID</b>	DFO-MAR-SCALLSPA1-6-1975-2010-CHING
<b>Area</b>	Bay of Fundy (SPA 1-6)
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans - Maritimes Region
<b>Asmts in RAM</b>	2010

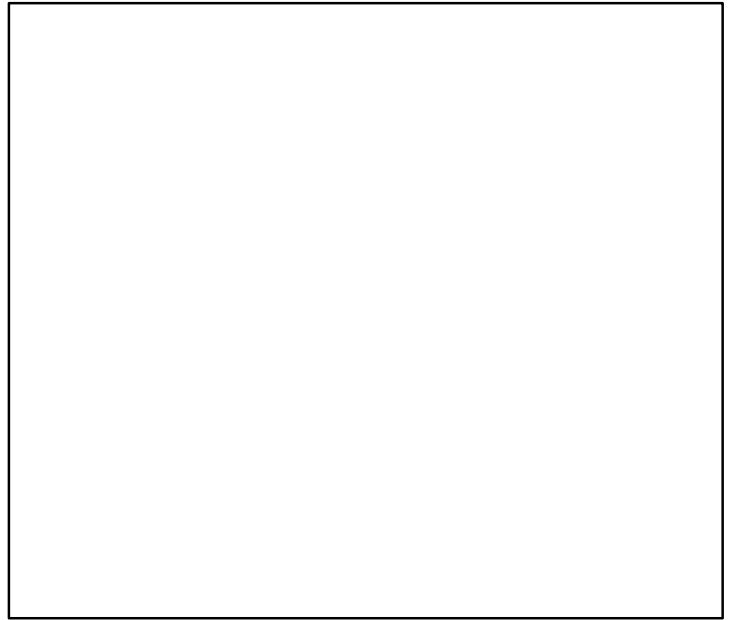
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	-	-	-		
TL	TL-MT	2010	481		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

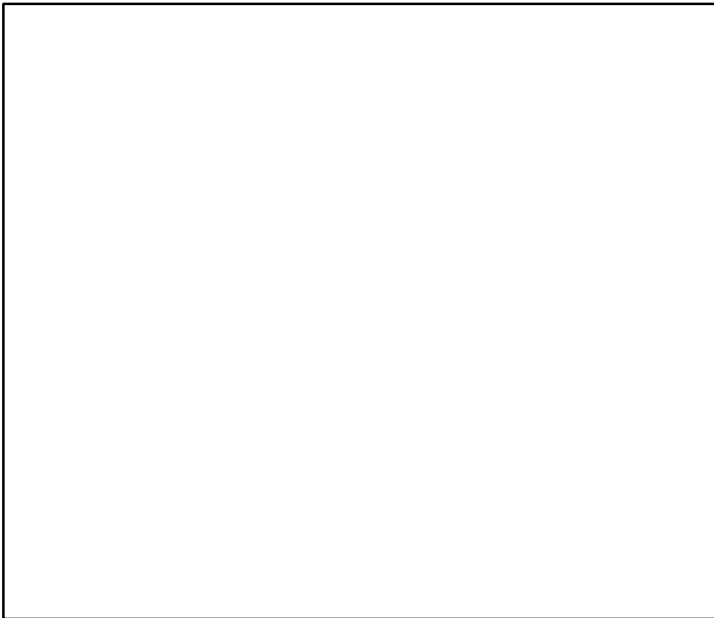
**Kobe MSY\***



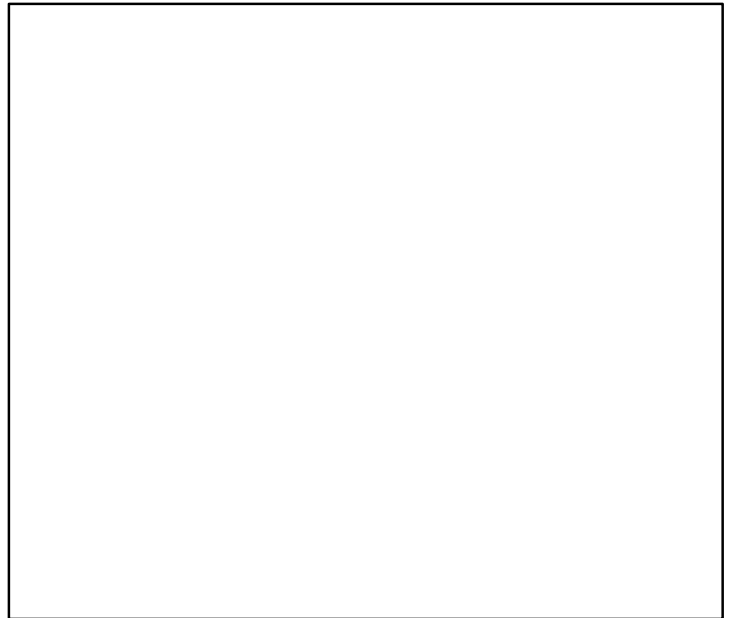
**Kobe MGT\***



**Spawner Recruit\***



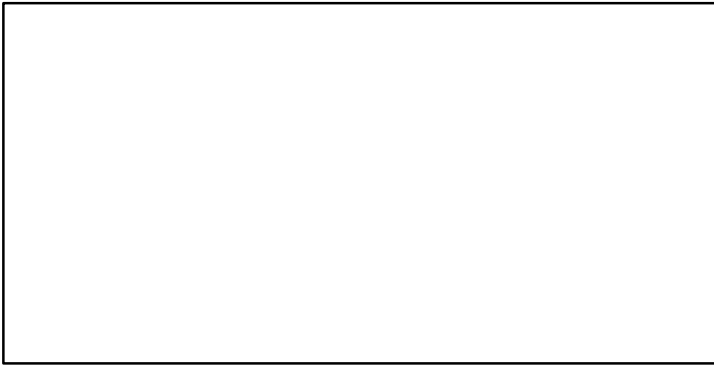
**Production\***



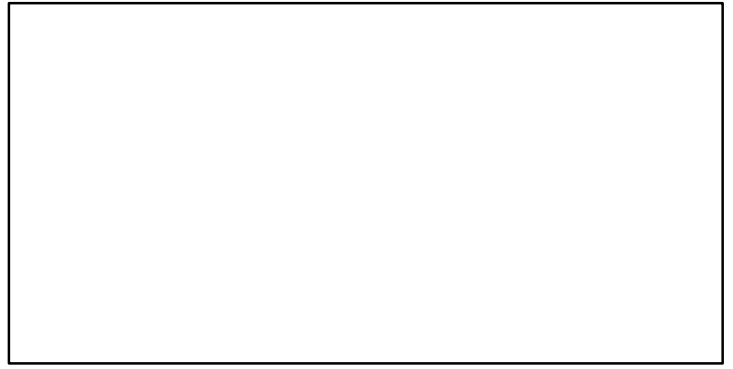
◆ Start Year ◆ End Year \* No Data

Sea scallop Bay of Fundy (SPA 1–6) [SCALLSPA1–6]

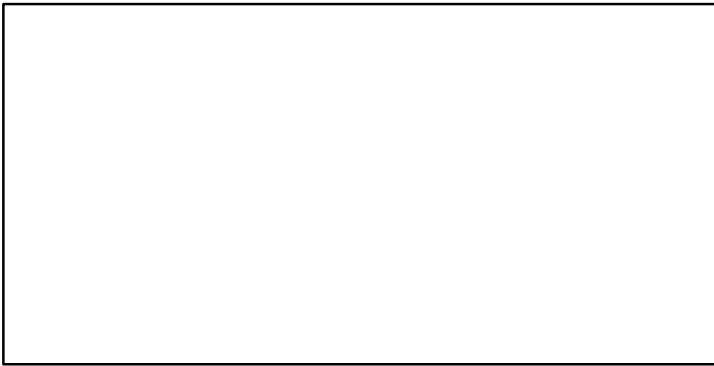
**TB\***



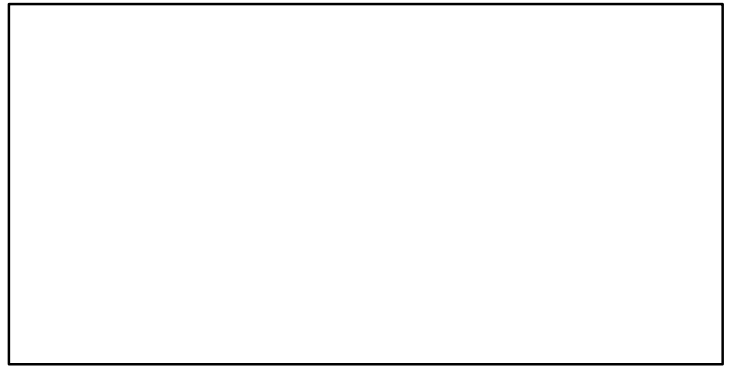
**SSB\***



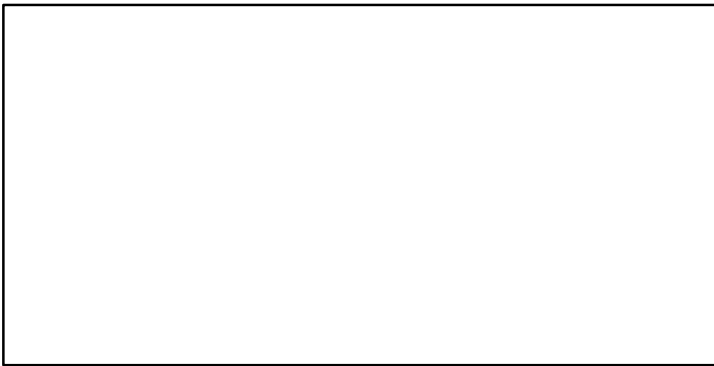
**TN \***



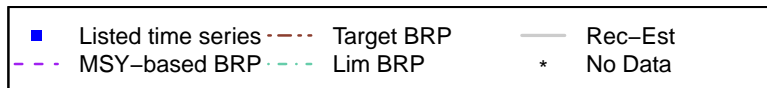
**F\***



**ER\***



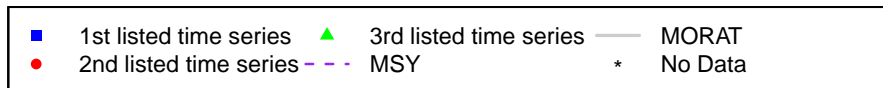
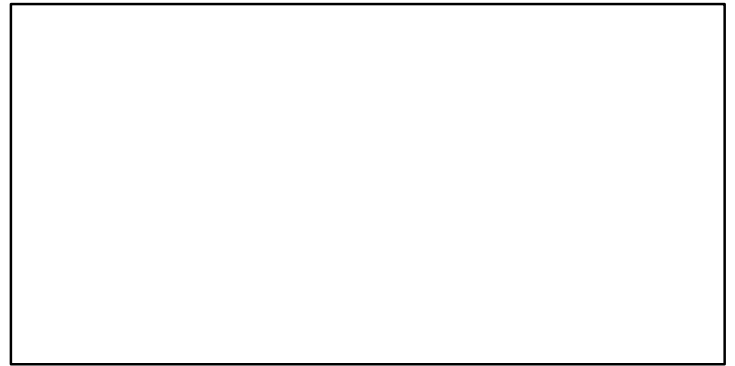
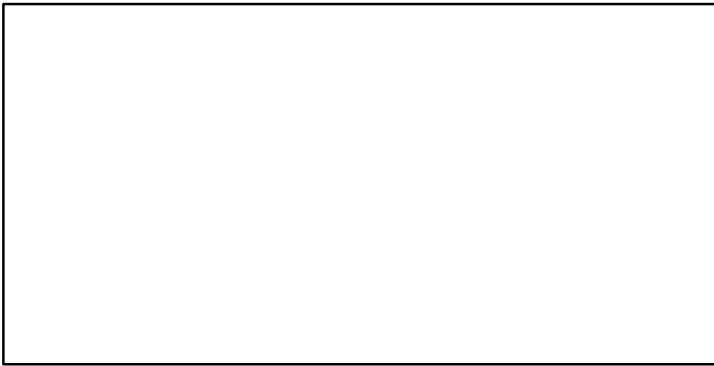
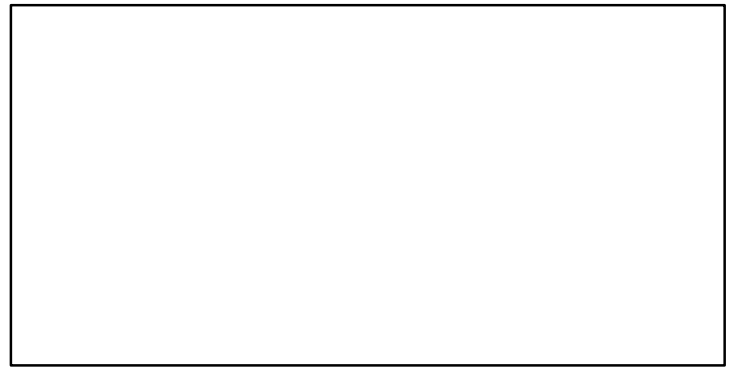
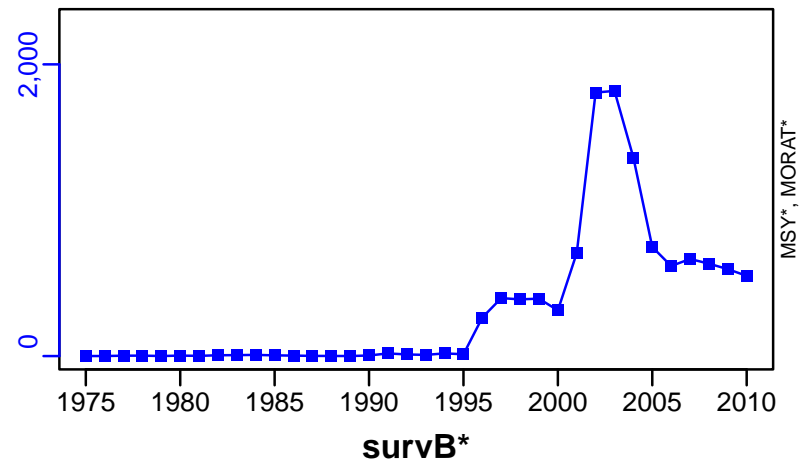
**Recruits\***



# Sea scallop Bay of Fundy (SPA 1–6) [SCALLSPA1–6]

TL–MT, TC\*, RecC\* (1975–2010–CHING)

TAC\*, Cpair\*, Cadv\*



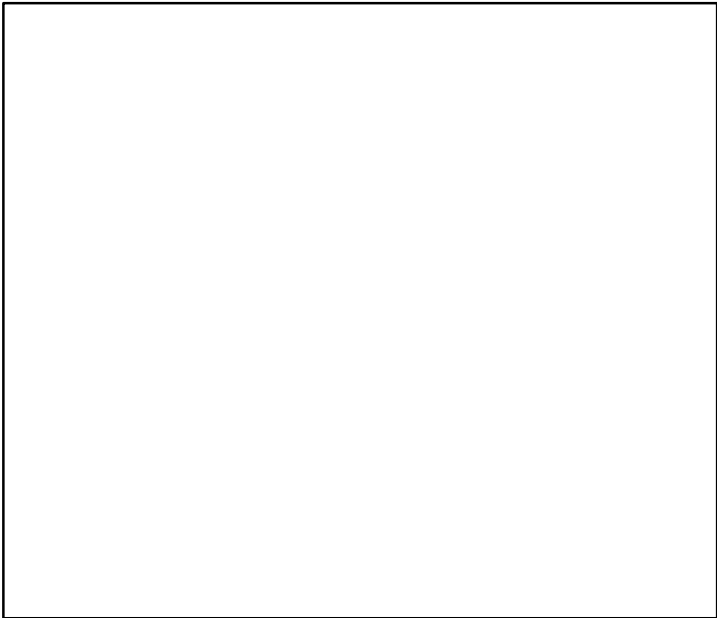
## Sea scallop West Scallop Fishing Area 29 [SCALLWSFA29]

Metadata	
<b>Scientific Name</b>	Placopecten magellanicus
<b>Current Assess ID</b>	DFO-MAR-SCALLWSFA29-2001-2011-CHING
<b>Area</b>	West Scallop Fishing Area 29
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans - Maritimes Region
<b>Asmts in RAM</b>	2011

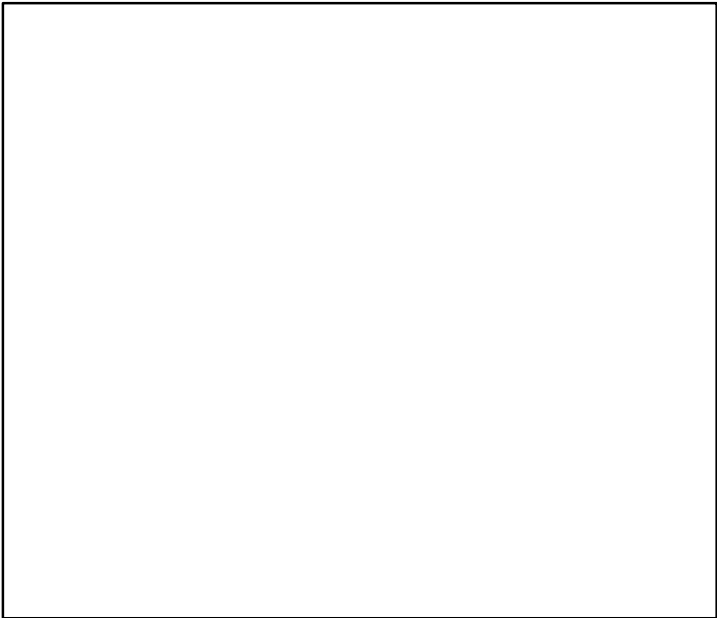
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	F-1/yr	2011	0.283	-	-
ER	-	-	-	-	-
TC	-	-	-		
TL	TL-MT	2011	197		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

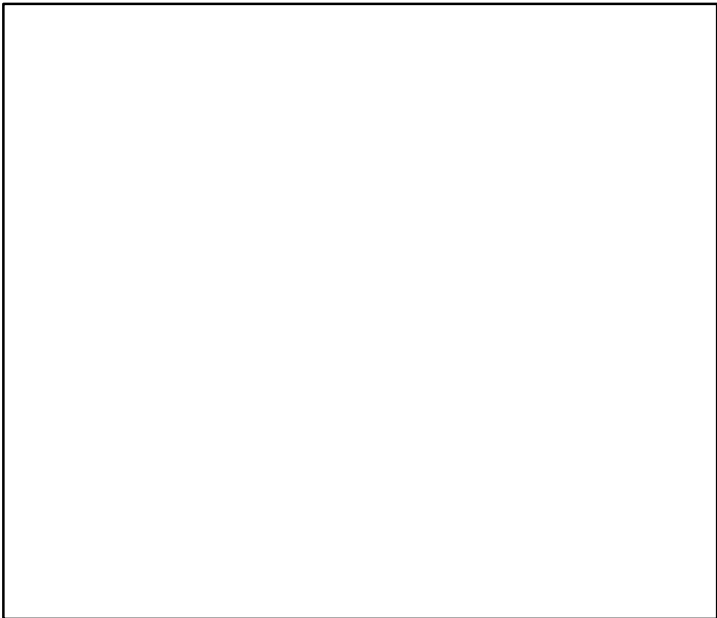
Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



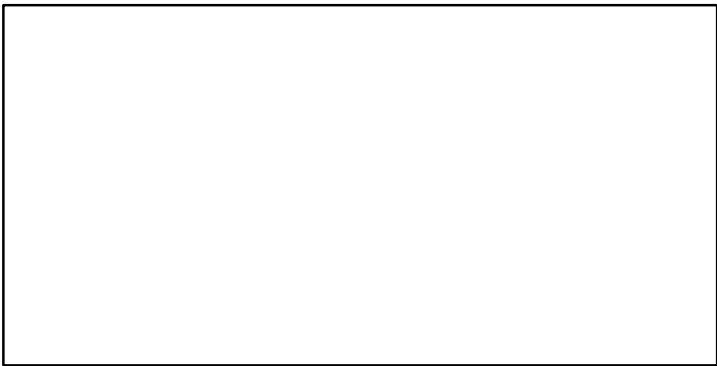
Production\*



◆ Start Year   ◆ End Year   \* No Data

Sea scallop West Scallop Fishing Area 29 [SCALLWSFA29]

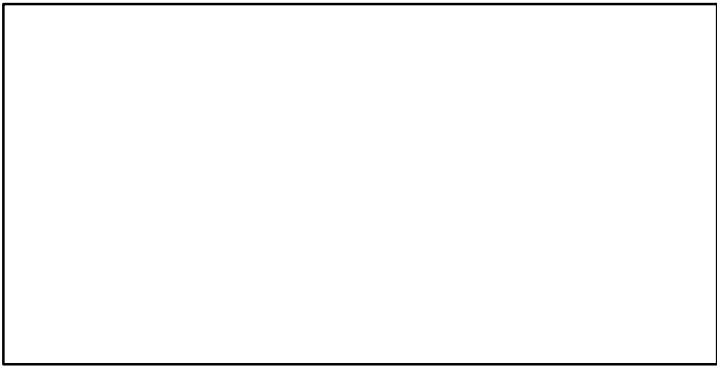
TB\*



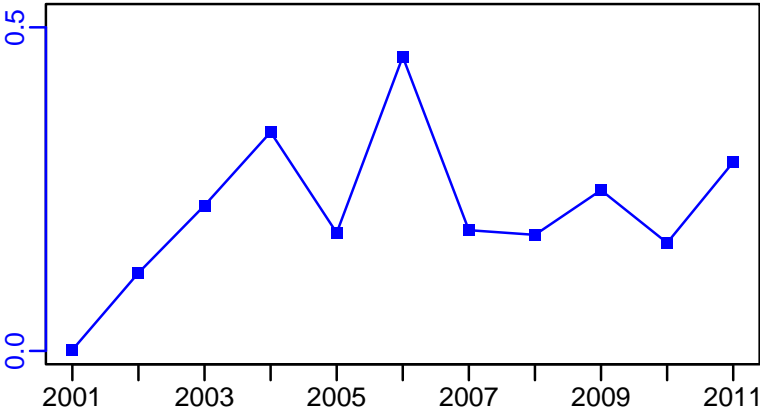
SSB\*



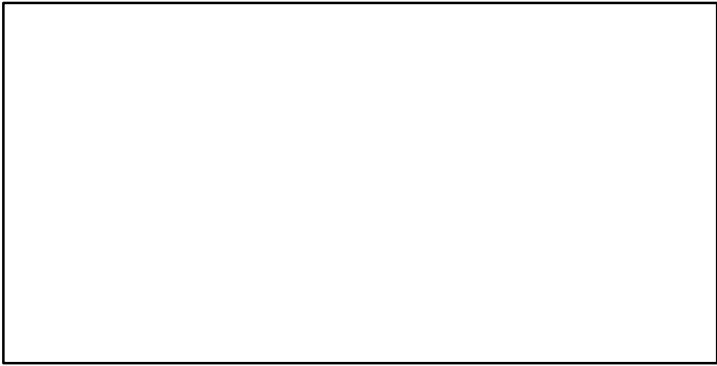
TN \*



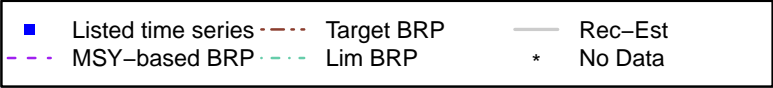
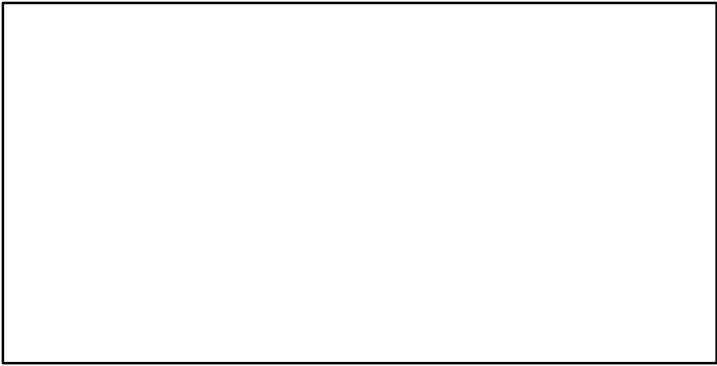
F-1/yr (2001-2011-CHING)



ER\*



Recruits\*

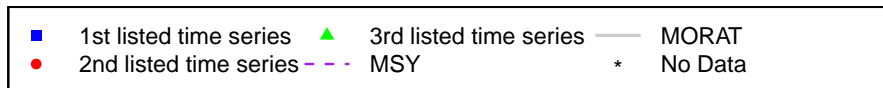
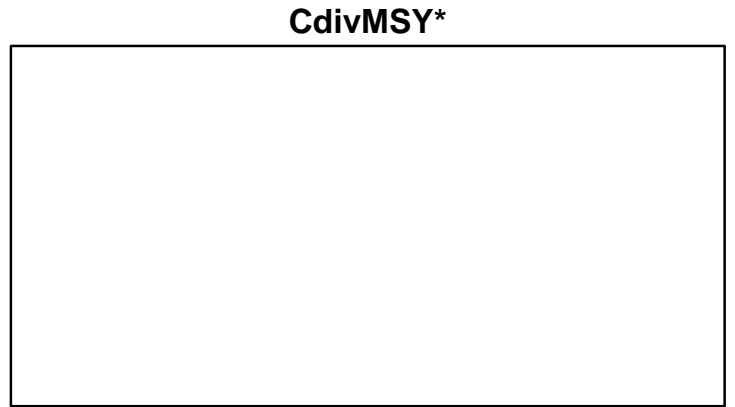
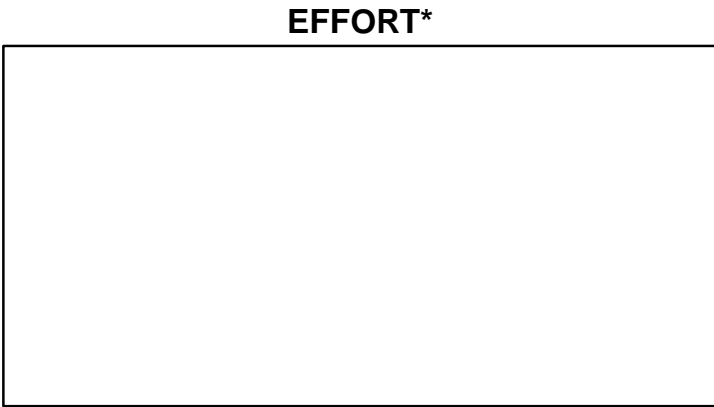
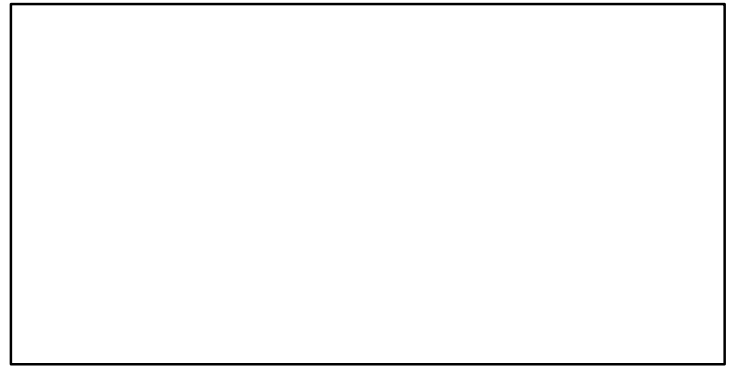
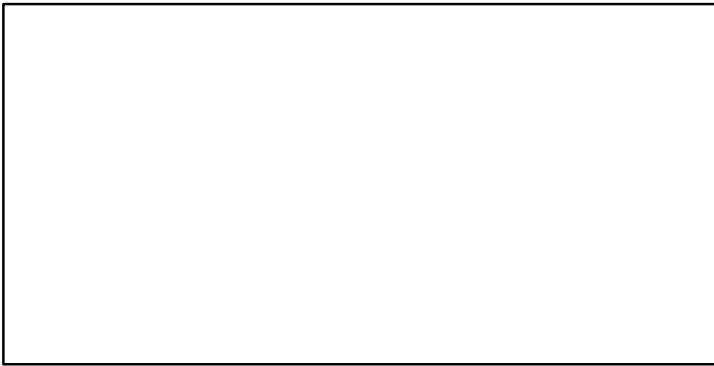
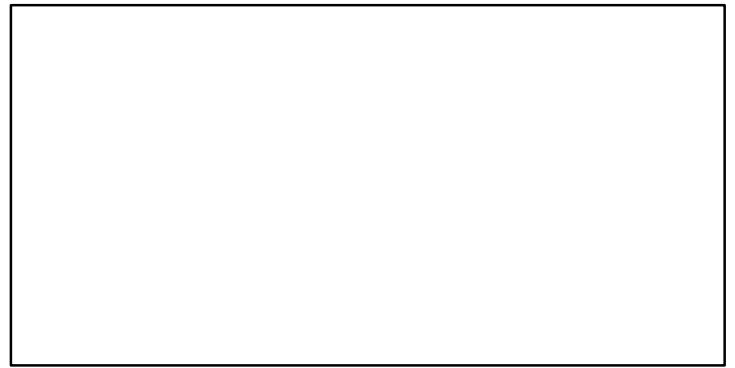
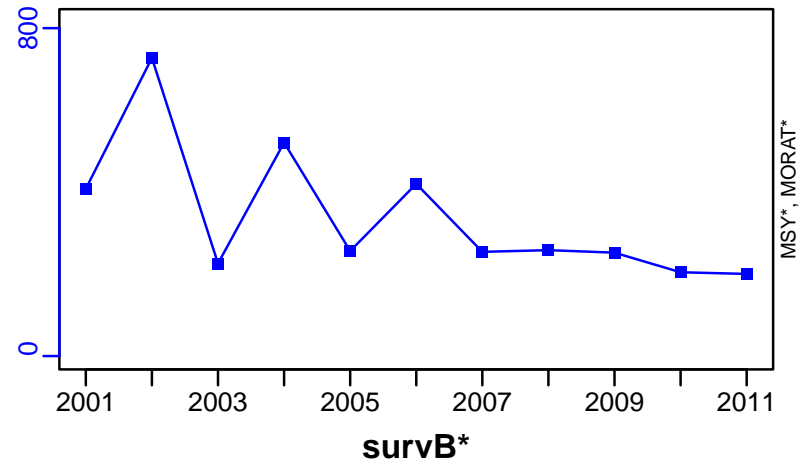




# Sea scallop West Scallop Fishing Area 29 [SCALLWSFA29]

TL-MT, TC\*, RecC\* (2001-2011-CHING)

TAC\*, Cpair\*, Cadv\*



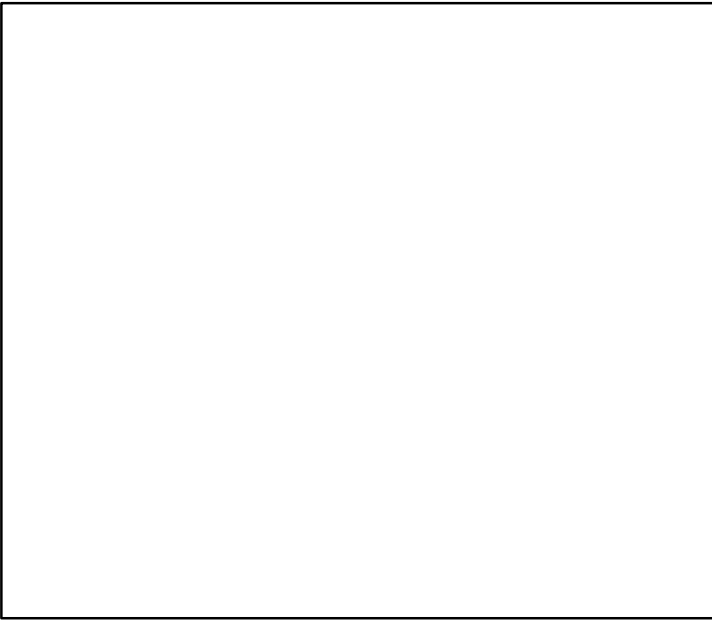
## Softshell clam Quebec Coastal Waters [SSCLAMQCW]

Metadata	
<b>Scientific Name</b>	Mya arenaria
<b>Current Assess ID</b>	DFO-QUE-SSCLAMQCW-1900-2016-ASHBROOK
<b>Area</b>	Quebec Coastal Waters
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans - Quebec Region
<b>Asmts in RAM</b>	2016, 2010

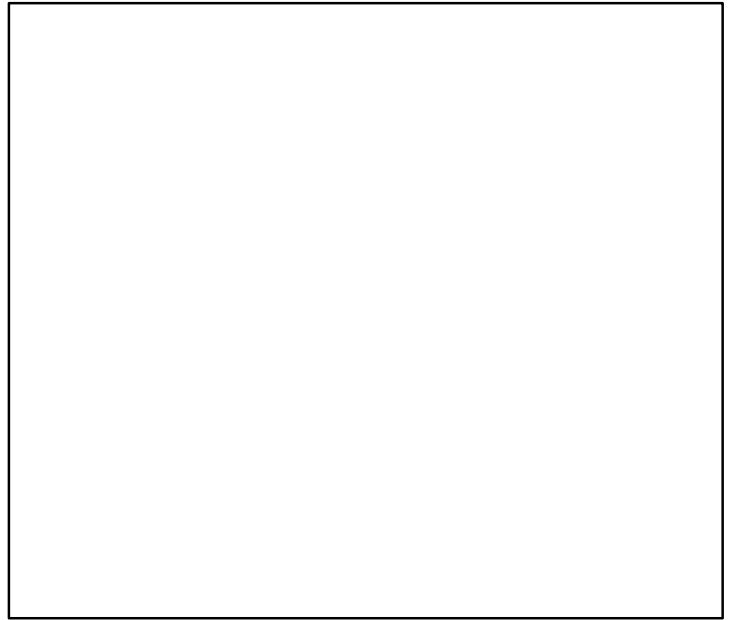
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2016	83		
TL	TL-MT	2010	55		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

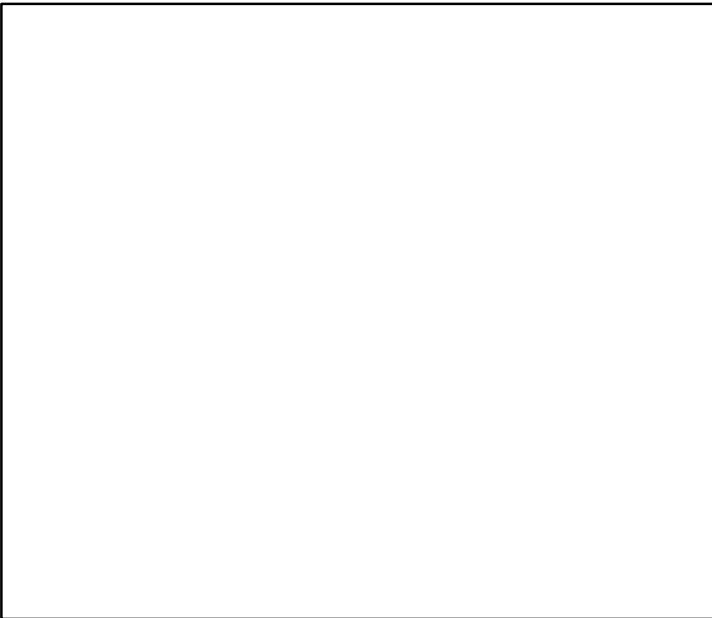
**Kobe MSY\***



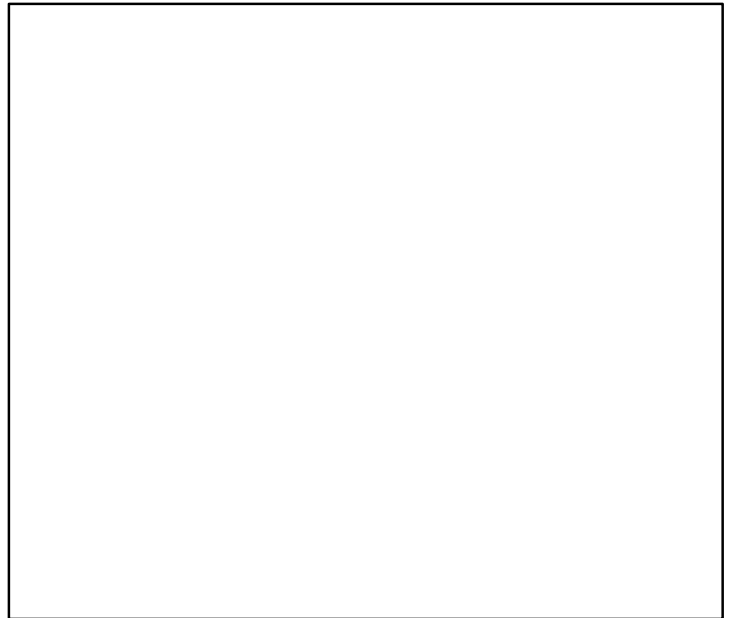
**Kobe MGT\***



**Spawner Recruit\***



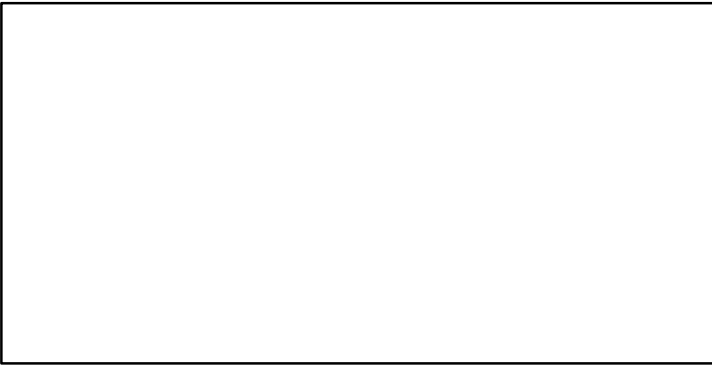
**Production\***



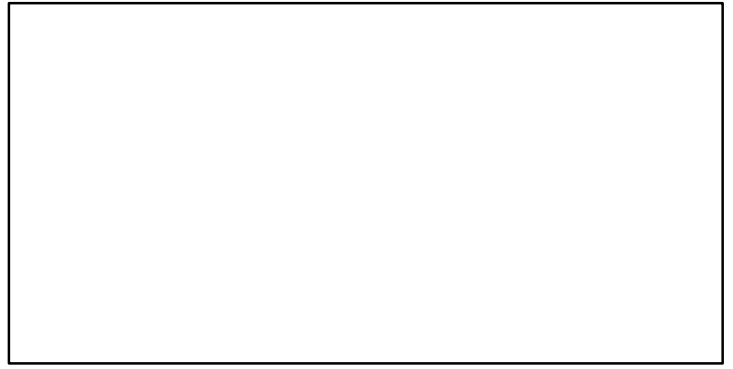
◆ Start Year ◆ End Year \* No Data

Softshell clam Quebec Coastal Waters [SSCLAMQCW]

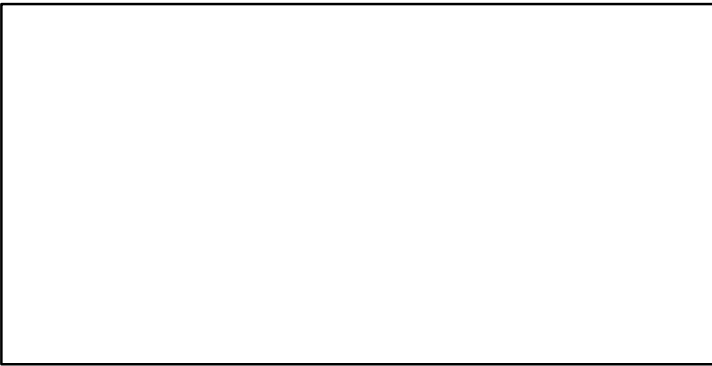
**TB\***



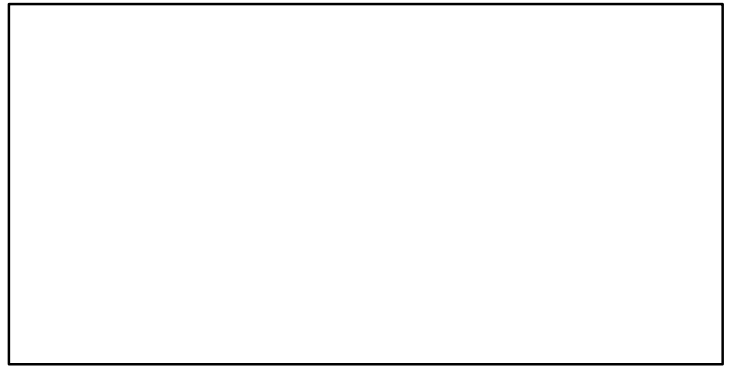
**SSB\***



**TN \***



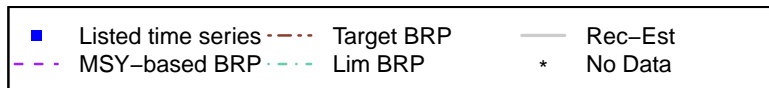
**F\***



**ER\***



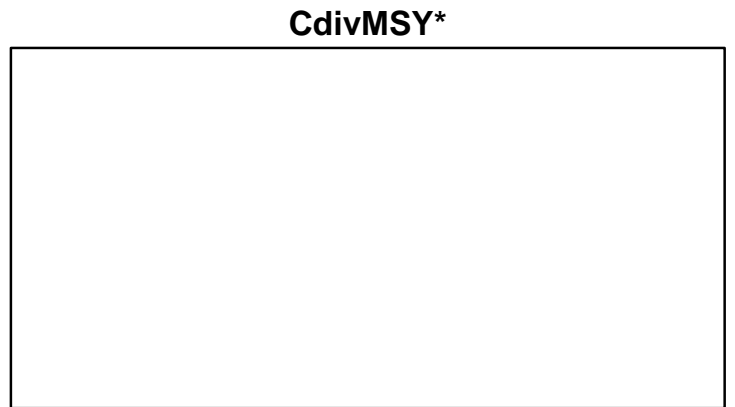
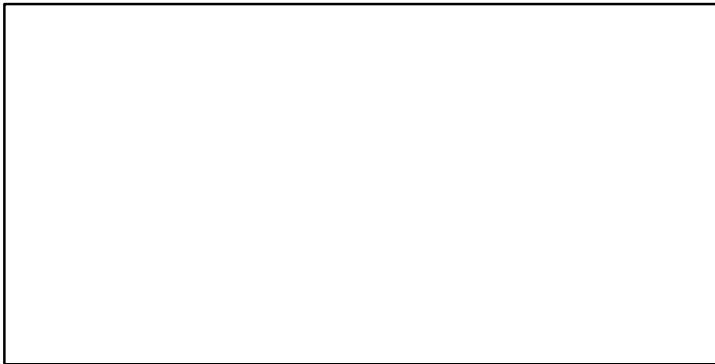
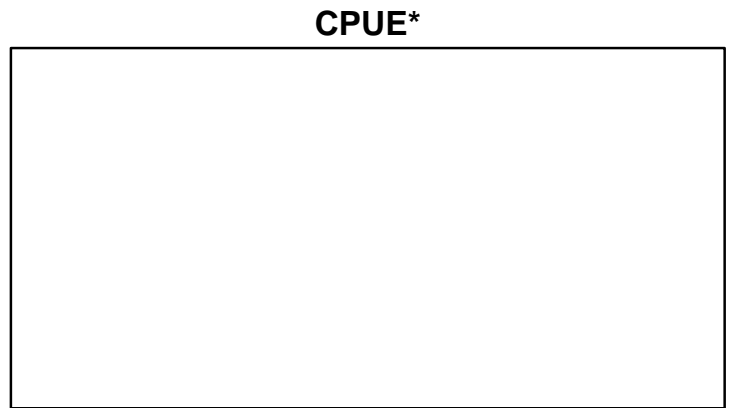
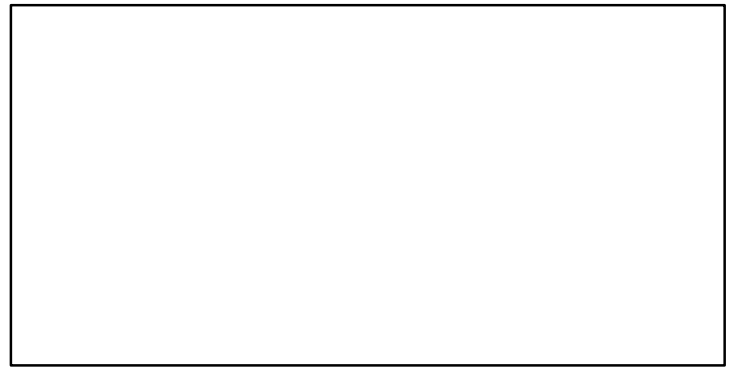
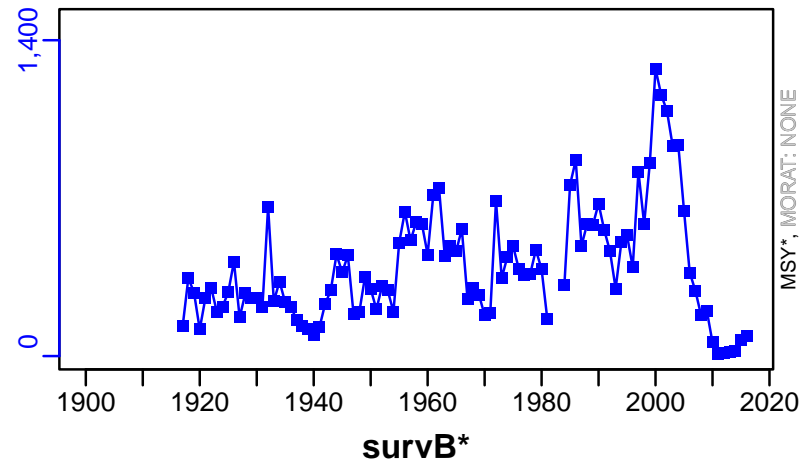
**Recruits\***



# Softshell clam Quebec Coastal Waters [SSCLAMQCW]

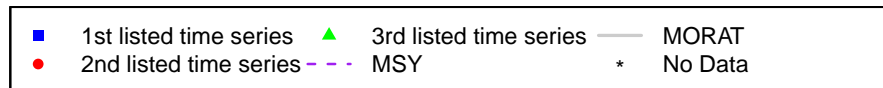
TC-MT, TL\*, RecC\* (1900-2016-ASHBROOK)

TAC\*, Cpair\*, Cadv\*



EFFORT\*

CdivMSY\*

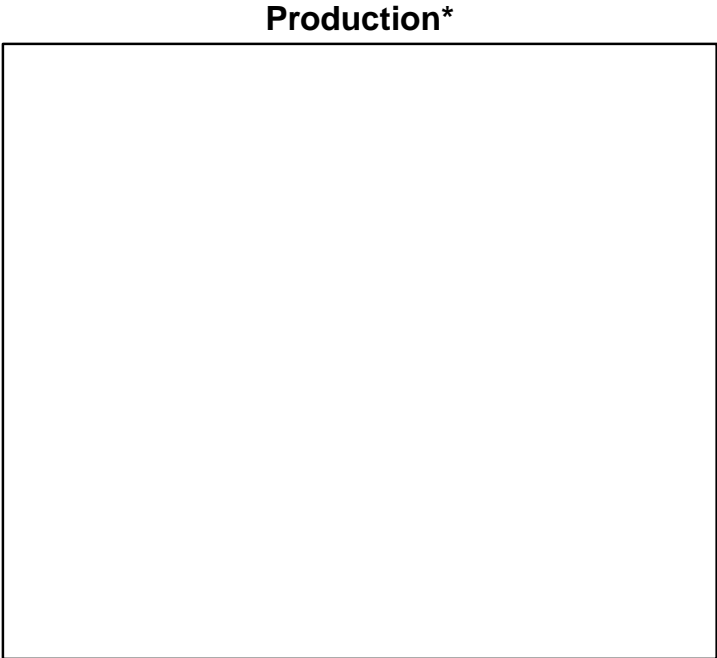
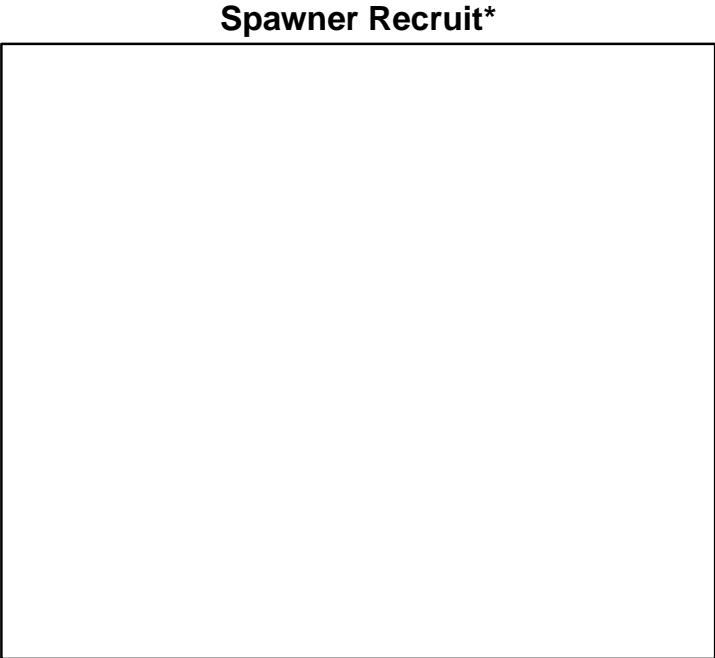
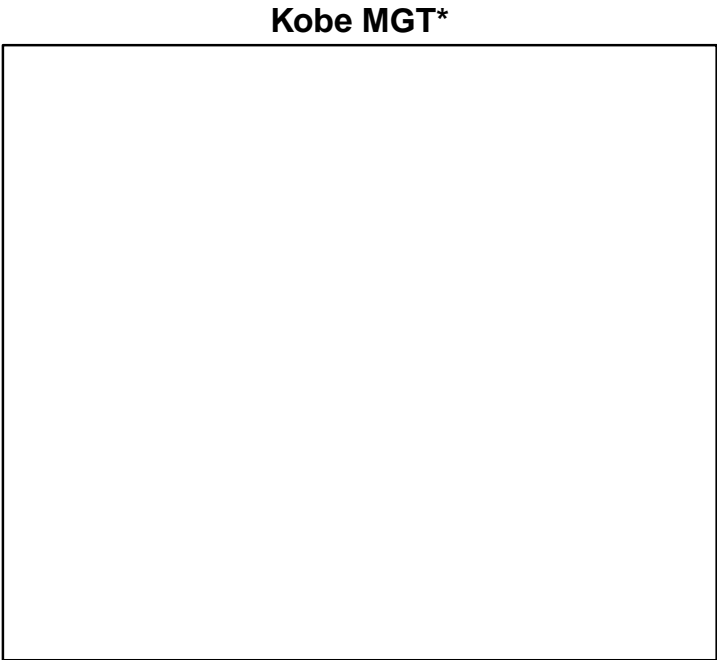
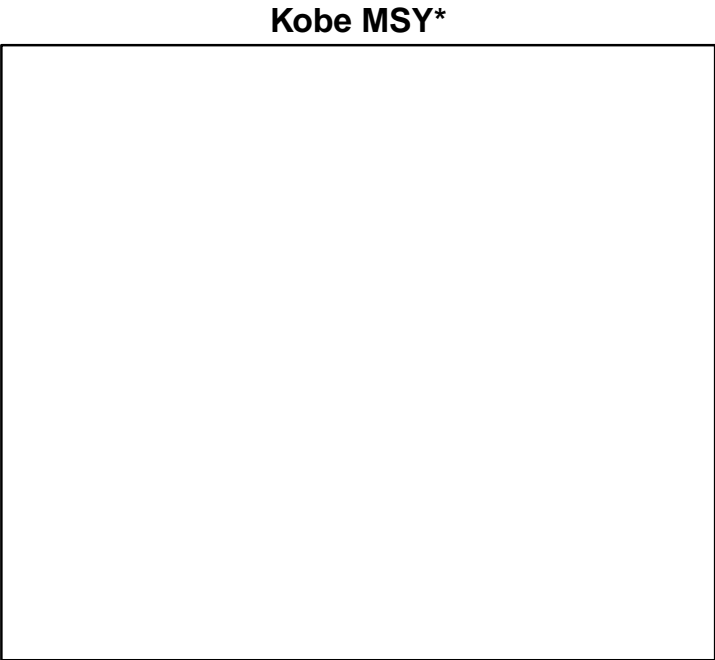


## Atlantic surfclam Iles-de-la-Madeleine [SURFIDLM]

Metadata	
<b>Scientific Name</b>	Spisula solidissima
<b>Current Assess ID</b>	DFO-QUE-SURFIDLM-2002-2018-ASHBROOK
<b>Area</b>	Iles-de-la-Madeleine
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans - Quebec Region
<b>Asmts in RAM</b>	2018

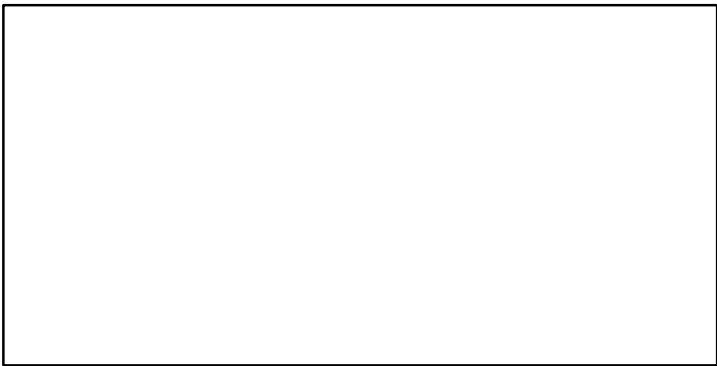
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2018	348		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



◆ Start Year   ♦ End Year   \* No Data

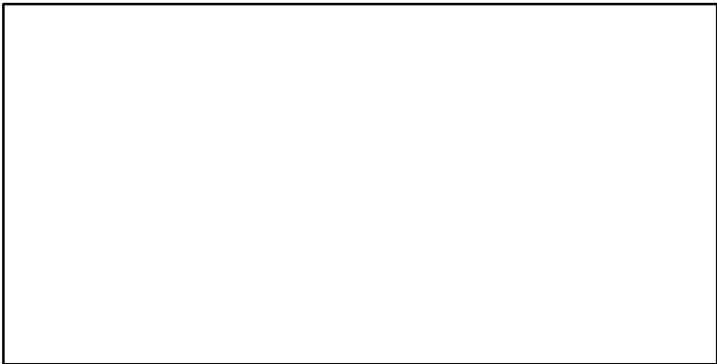
TB\*



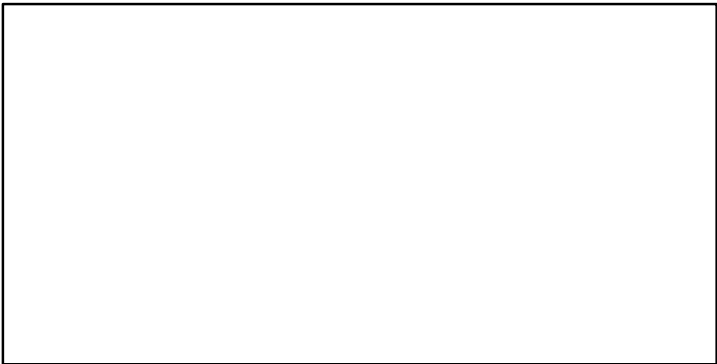
SSB\*



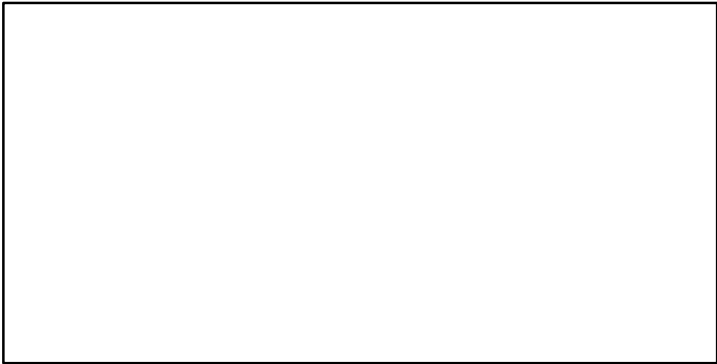
TN \*



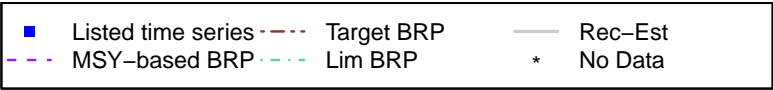
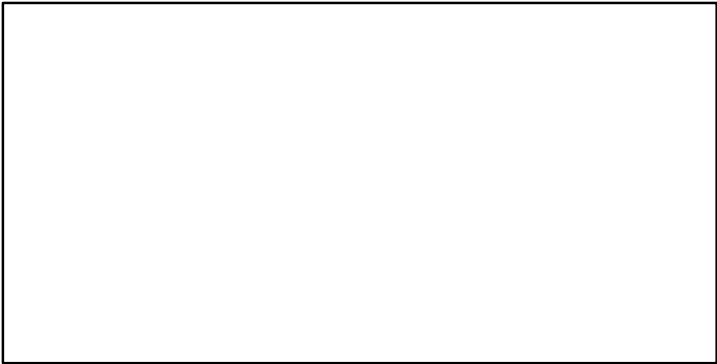
F\*



ER\*



Recruits\*

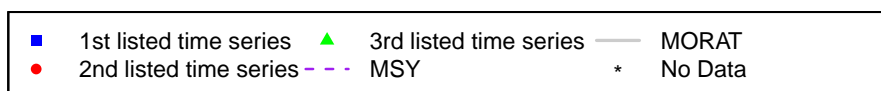
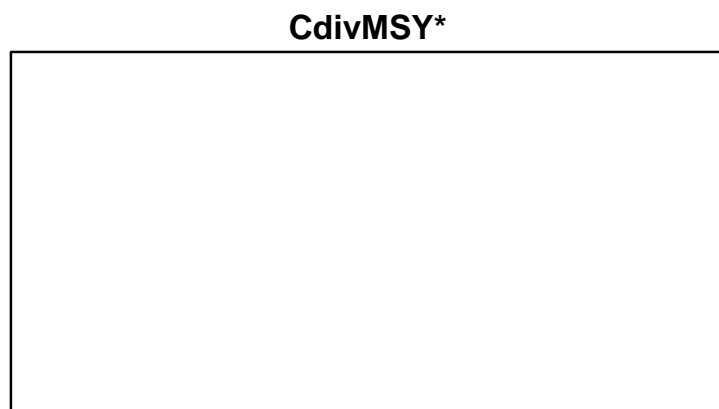
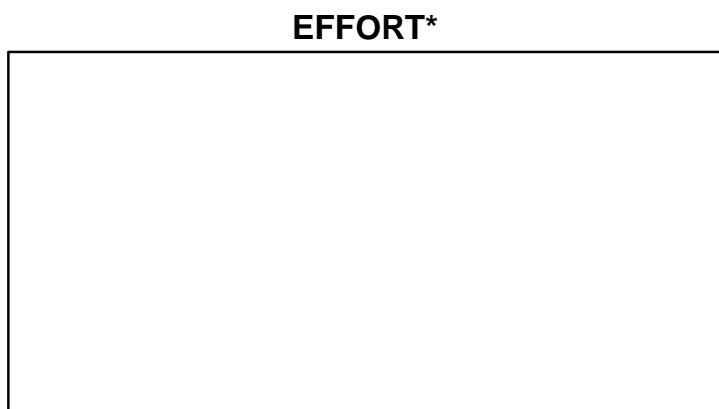
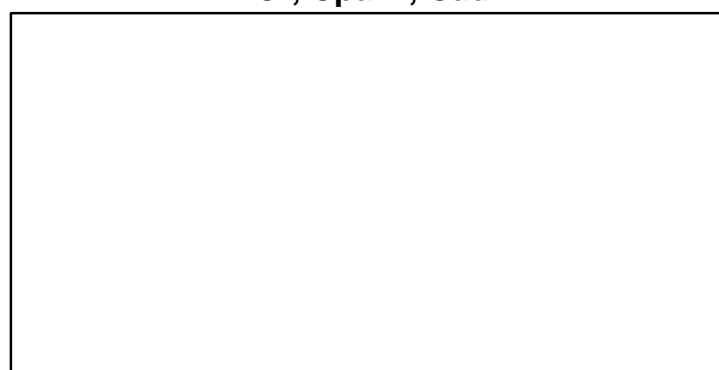
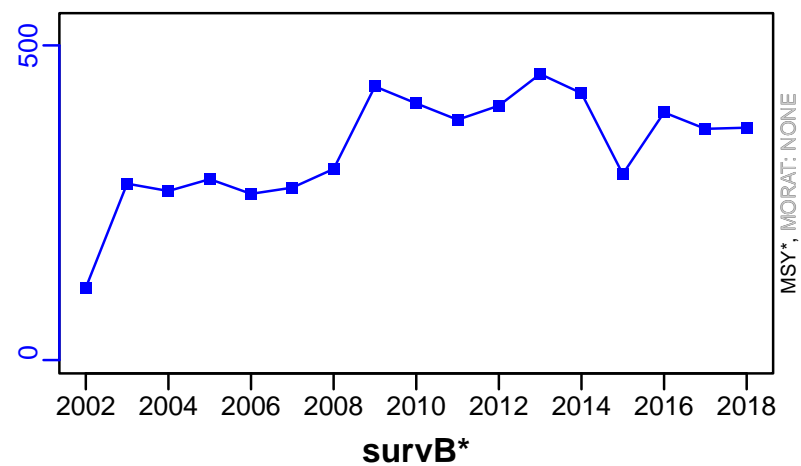




# Atlantic surfclam Iles-de-la-Madeleine [SURFIDLM]

TC-MT, TL\*, RecC\* (2002-2018-ASHBROOK)

TAC\*, Cpair\*, Cadv\*



## Atlantic surfclam Mid-Atlantic Coast [SURFMATLC]

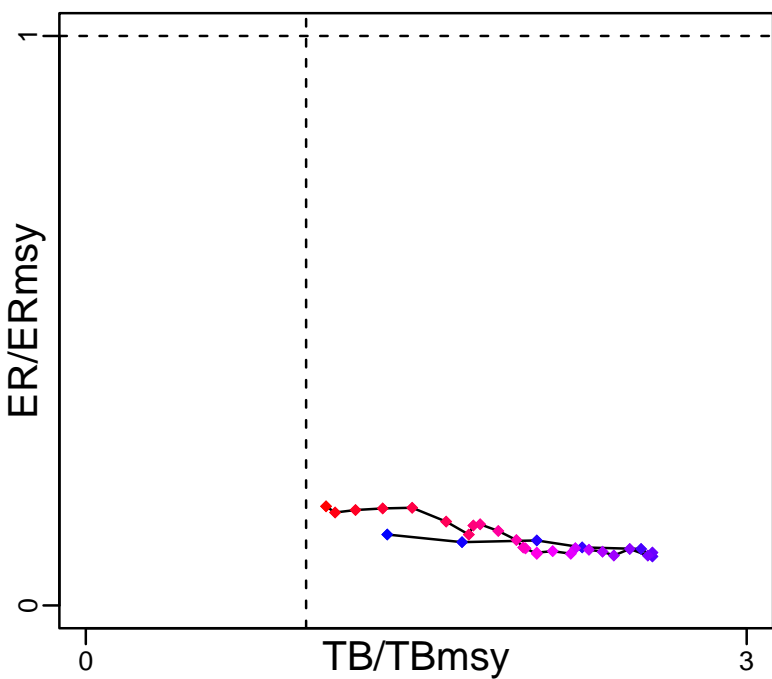
Metadata	
<b>Scientific Name</b>	Spisula solidissima
<b>Current Assess ID</b>	NEFSC-SURFMATLC-1965-2015-SISIMP2021
<b>Area</b>	Mid-Atlantic Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northeast Fisheries Science Center
<b>Asmts in RAM</b>	2008, 2015, 2011

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-MT	2011	972,000
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	Fmsy-1/yr	2011	0.15
<b>ERmsy</b>	ERmsy-calc-ratio	2011	0.101
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2011	98,000
<b>M</b>	M-1/yr	2008	0.15
<b>TBlim</b>	TBlim-MT	2011	486,000
<b>SSBlim</b>	-	-	-
<b>Flim</b>	Flim-1/yr	2011	0.15
<b>ERlim</b>	-	-	-

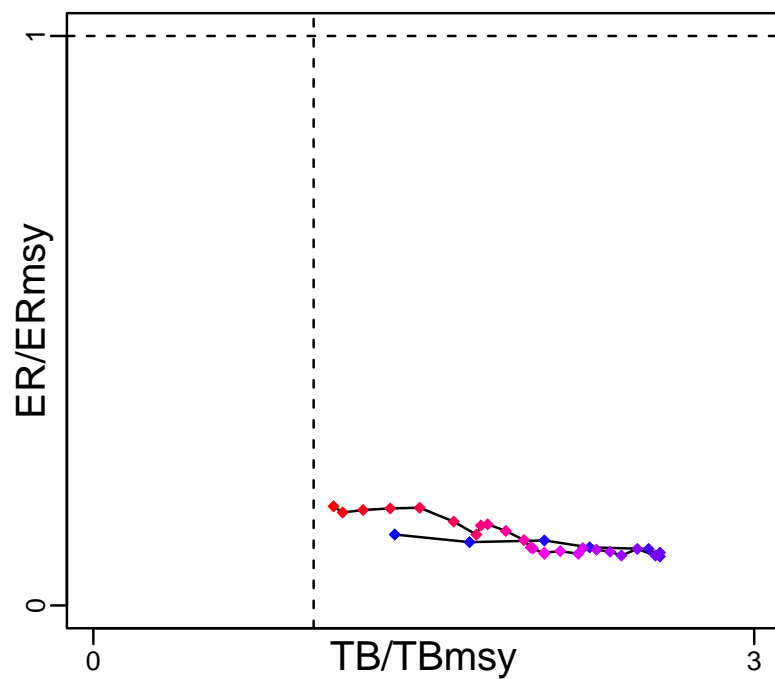
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2011	1,060,000	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-MT	2011	2,090,000	-	-
<b>F</b>	F-1/yr	2011	0.027	-	-
<b>ER</b>	ER-calc-ratio	2011	0.018	-	-
<b>TC</b>	TC-MT	2015	18,284		
<b>TL</b>	TL-MT	2008	22,500		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2011	1.091		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2011	0.18		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-calc-ratio	2011	0.174		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Atlantic surfclam Mid-Atlantic Coast [SURFMATLC]

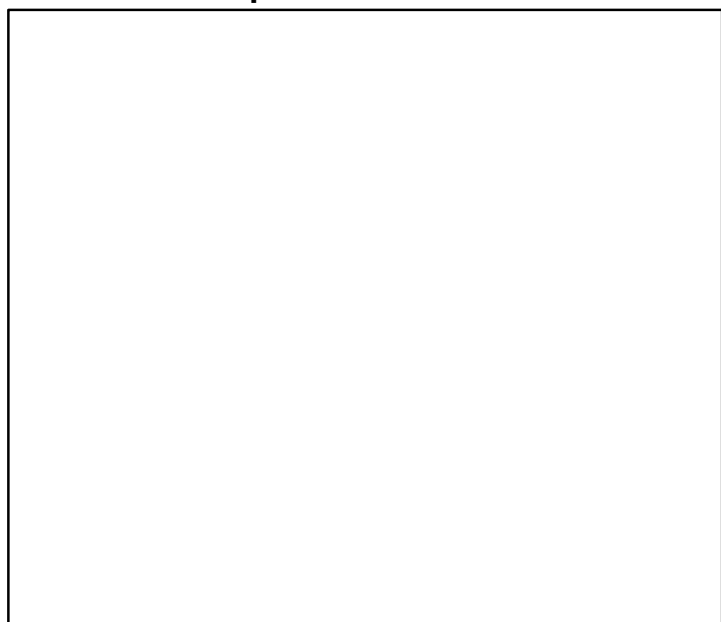
Kobe MSY<sub>pref</sub> (1982–2011–SISIMP2016)



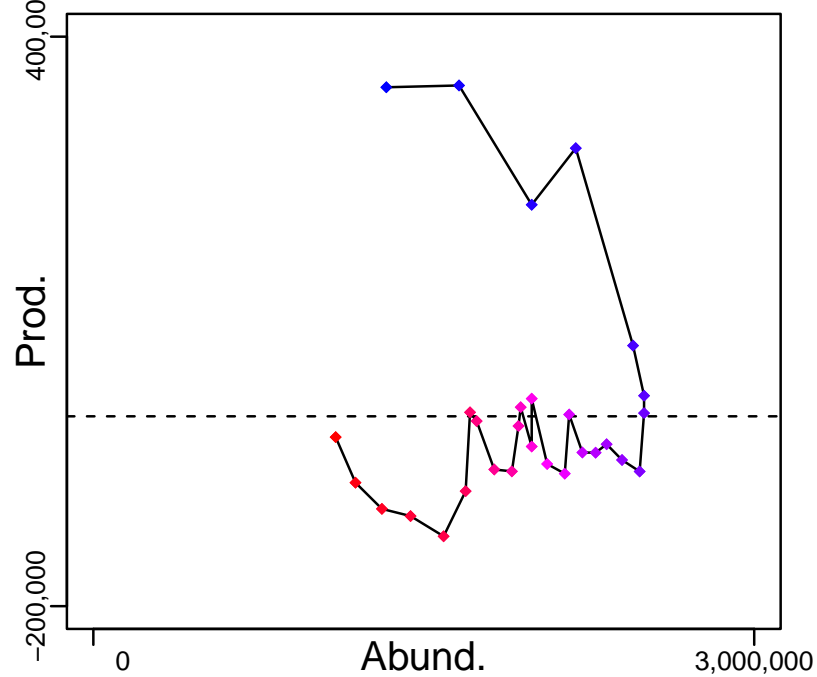
Kobe MGT<sub>pref</sub> (1982–2011–SISIMP2016)



Spawner Recruit\*



Production (1982–2011–SISIMP2016)

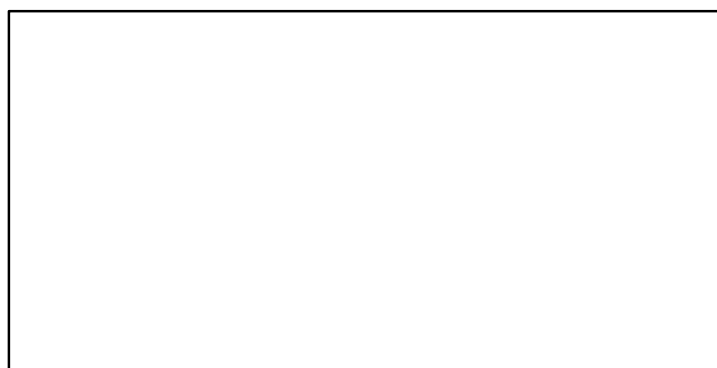
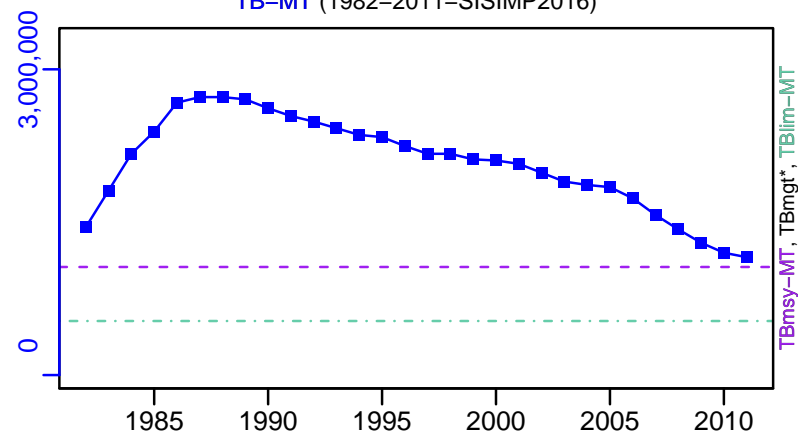


◆ Start Year ◆ End Year \* No Data

# Atlantic surfclam Mid-Atlantic Coast [SURFMATLC]

TB-MT (1982-2011-SISIMP2016)

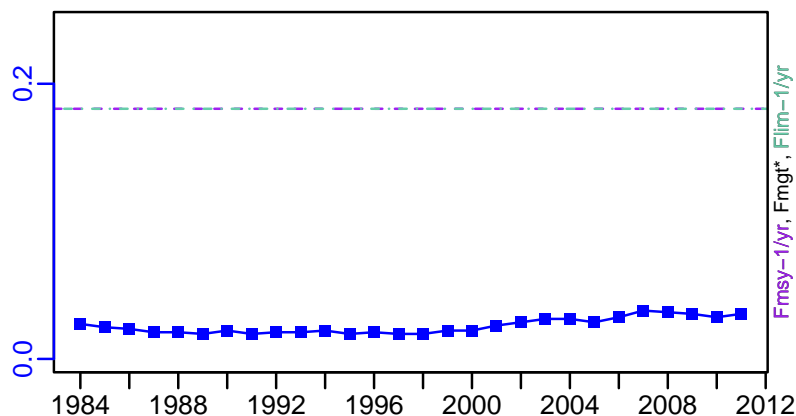
SSB\*



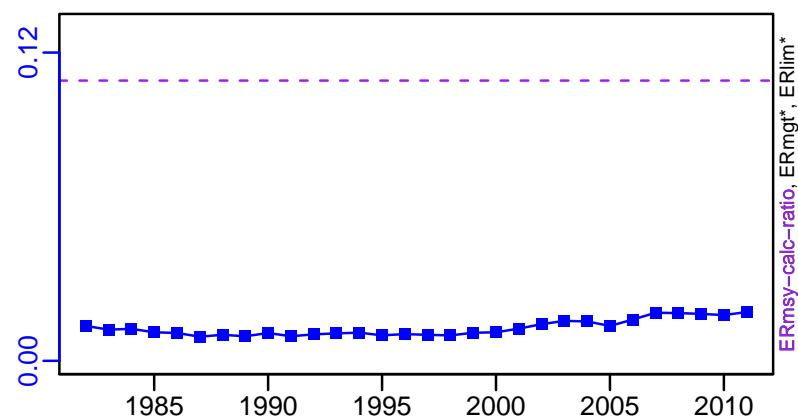
TN \*



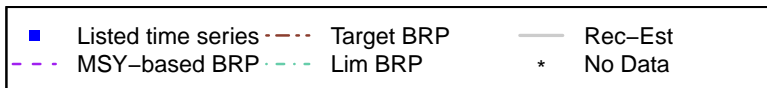
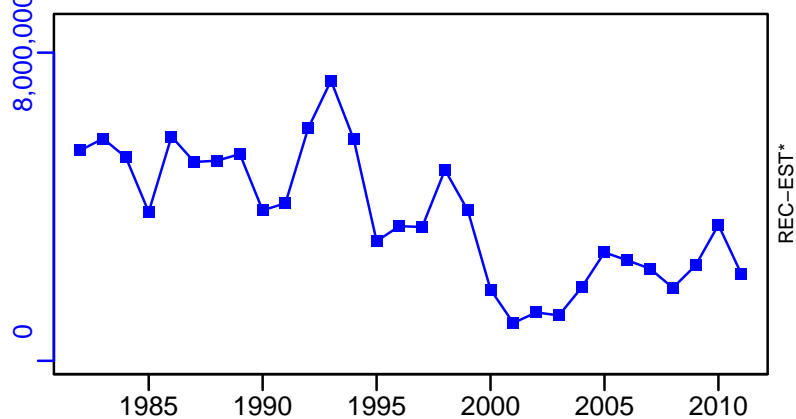
F-1/yr (1982-2011-SISIMP2016)



ER-calc-ratio (1982-2011-SISIMP2016)

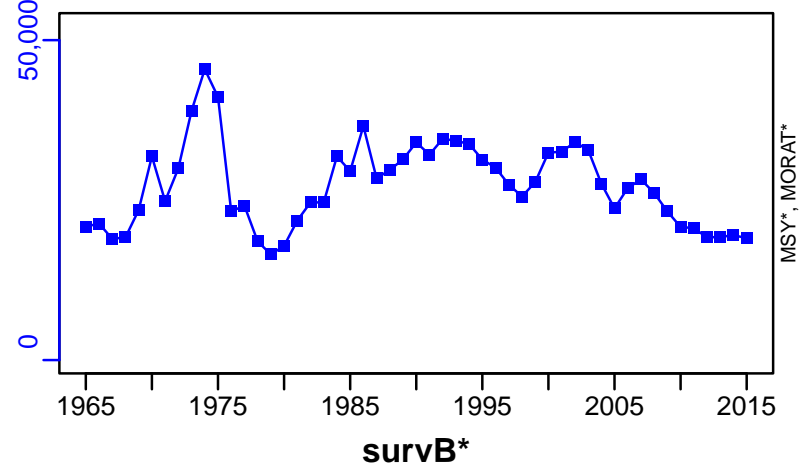


R-MT (1982-2011-SISIMP2016)

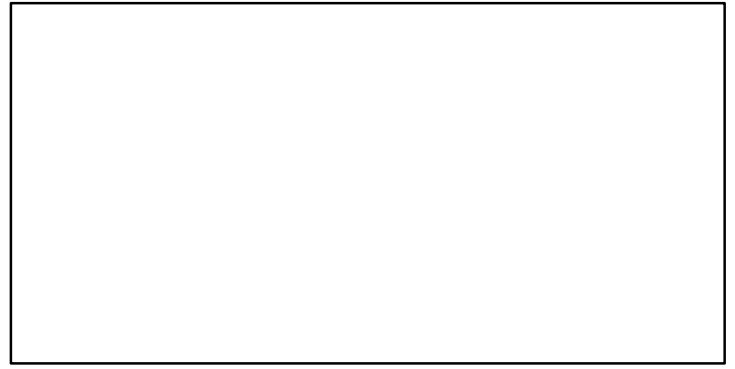


# Atlantic surfclam Mid-Atlantic Coast [SURFMATLC]

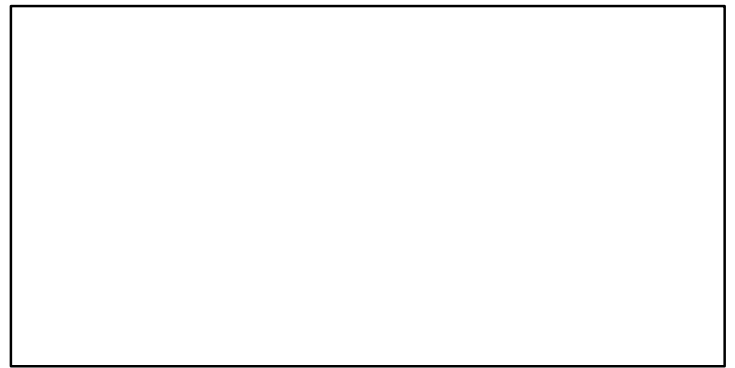
TC-MT, TL\*, RecC\* (1965-2015-SISIMP2021)



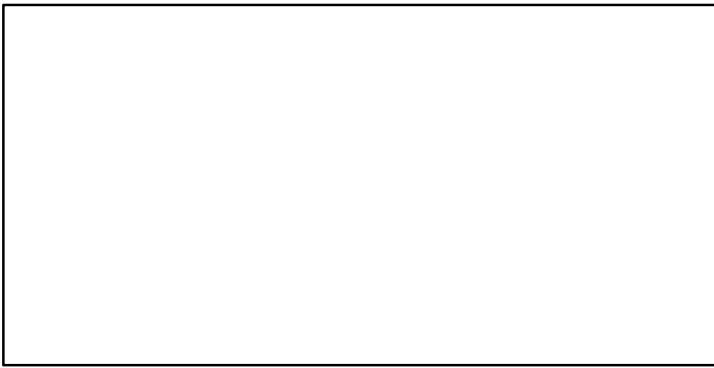
TAC\*, Cpair\*, Cadv\*



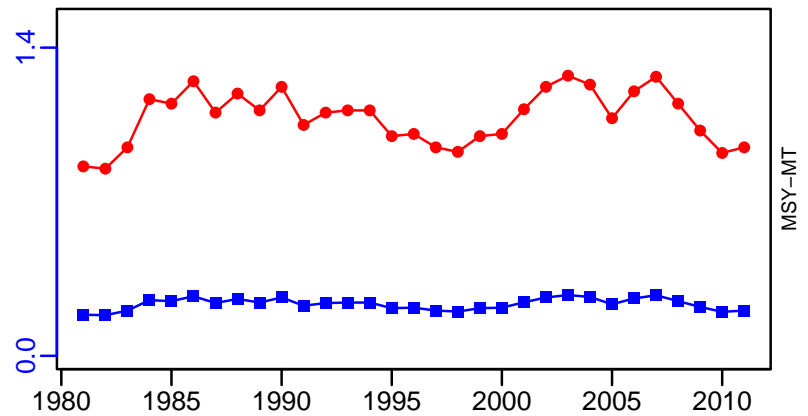
CPUE\*



EFFORT\*



TC-MT/MSY-MT, CdivMEANC-ratio, (1982-2011-SISIMP2016)



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

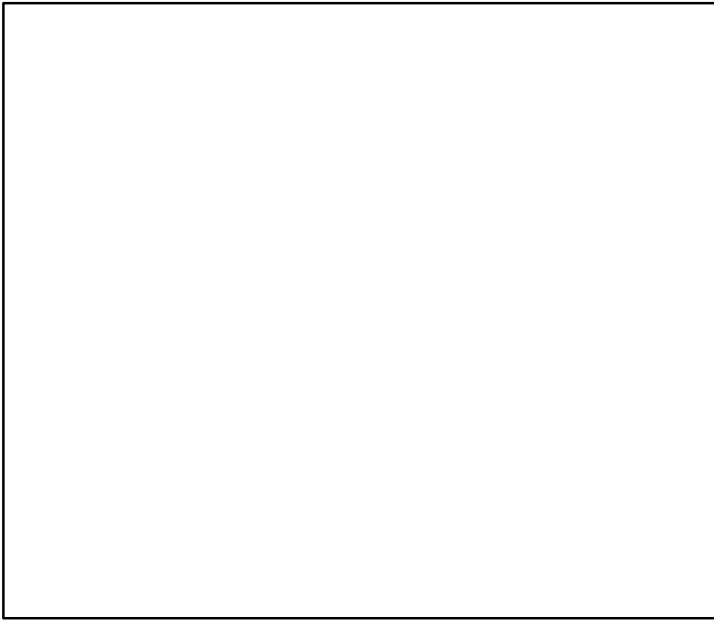
## Weathervane scallop Alaska [WVSCALLALASKA]

Metadata	
<b>Scientific Name</b>	Patinopecten caurinus
<b>Current Assess ID</b>	AFSC-WVSCALLALASKA-1994-2020-SISIMP2021-2
<b>Area</b>	Alaska
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2015, 2016, 2017, 2018, 2019, 2020

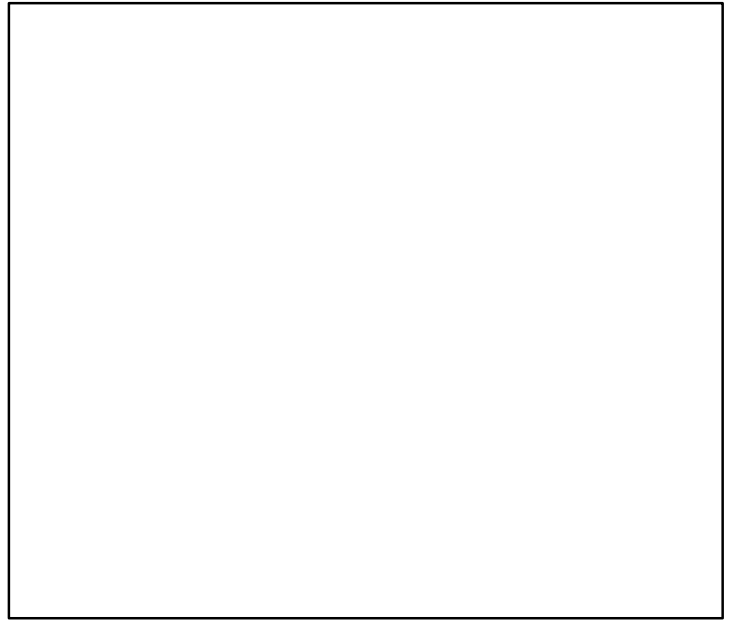
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2020	581
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2017	106		
TL	TL-MT	2020	112		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

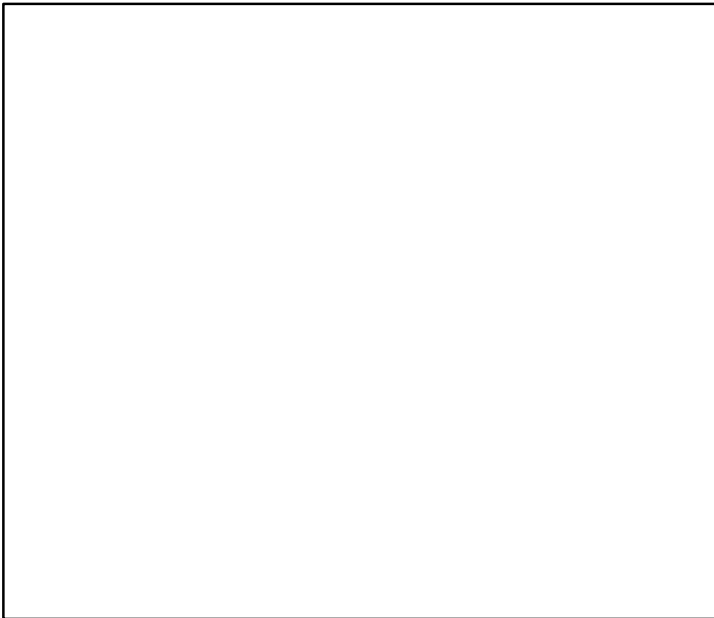
**Kobe MSY\***



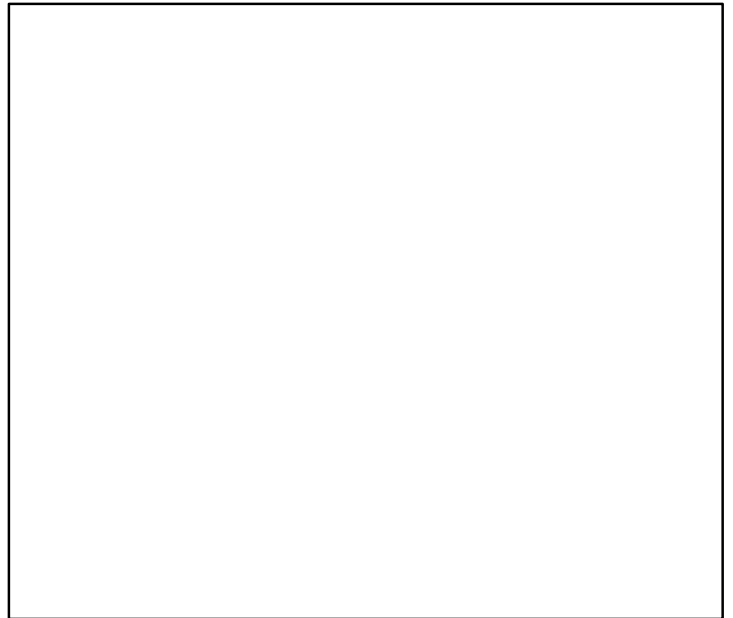
**Kobe MGT\***



**Spawner Recruit\***



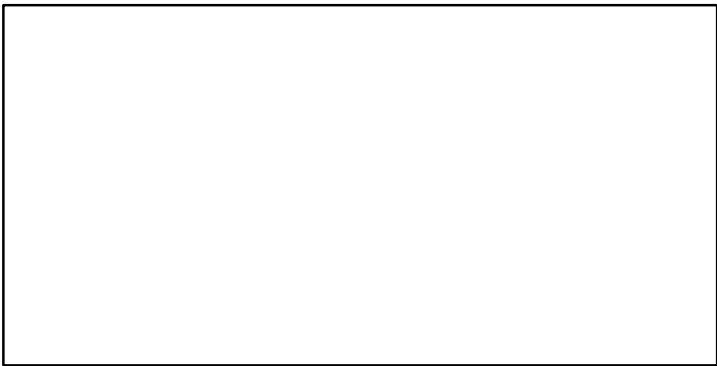
**Production\***



◆ Start Year   ◆ End Year   \* No Data

Weathervane scallop Alaska [WVSCALLALASKA]

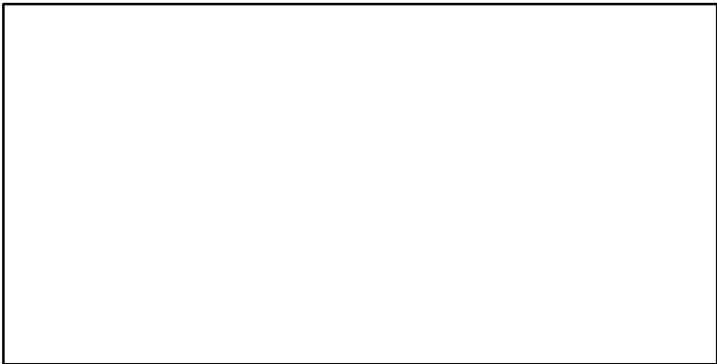
TB\*



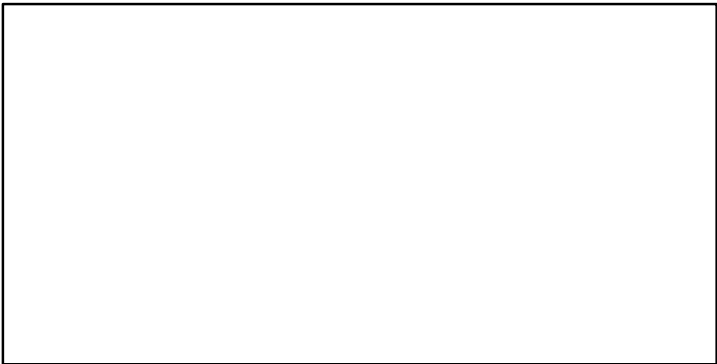
SSB\*



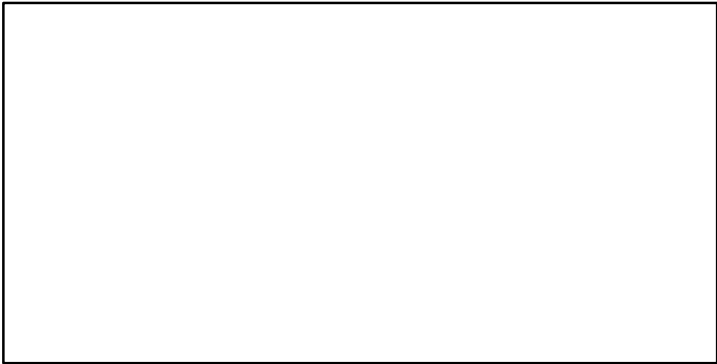
TN \*



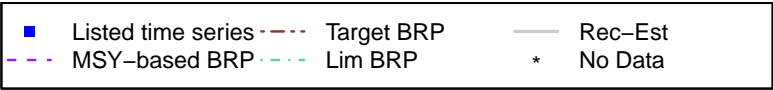
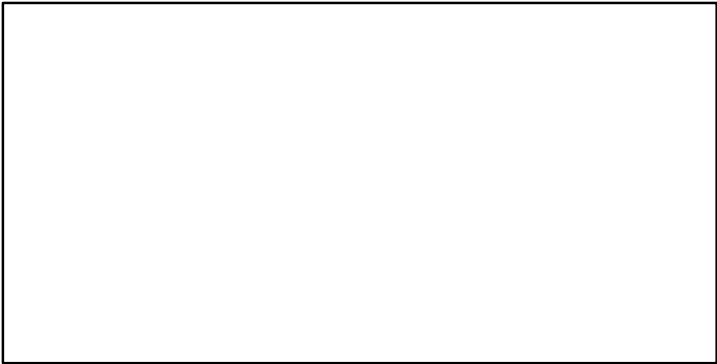
F\*



ER\*



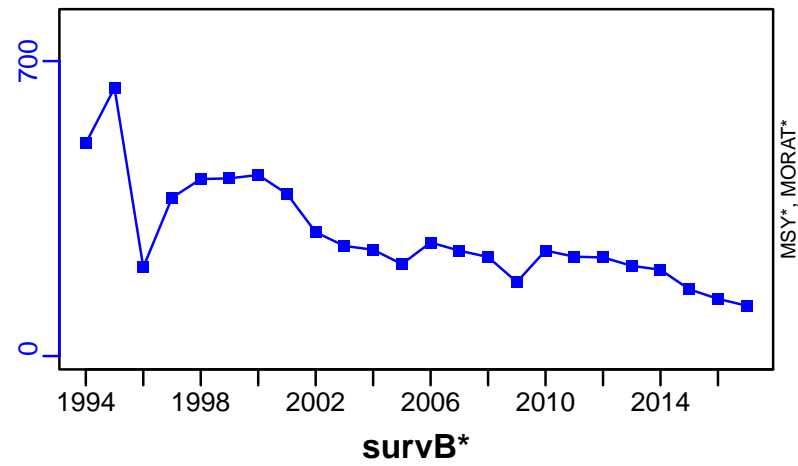
Recruits\*



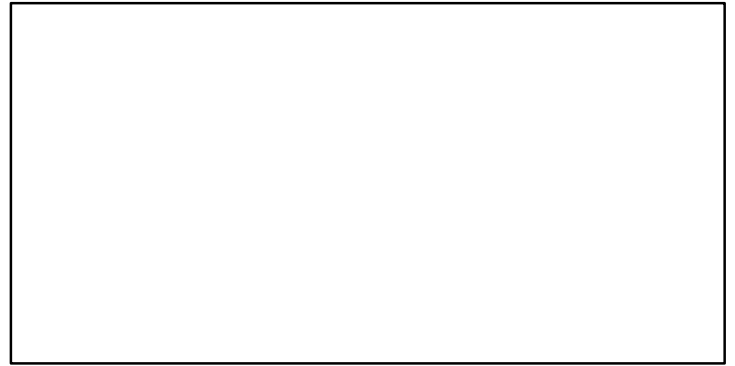


# Weathervane scallop Alaska [WVSCALLALASKA]

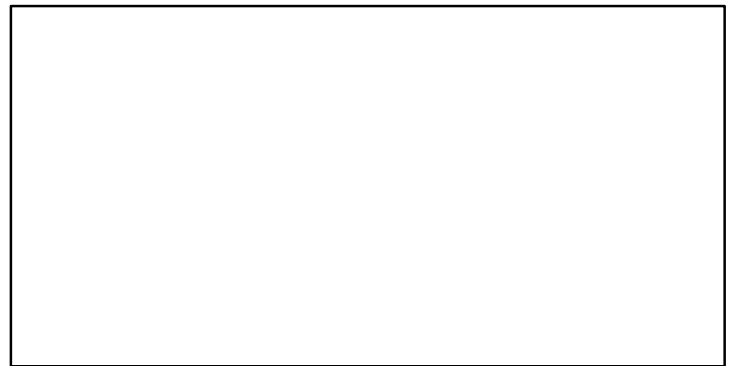
TC-MT, TL\*, RecC\* (1994-2017-SISIMP2021)



TAC\*, Cpair\*, Cadv\*



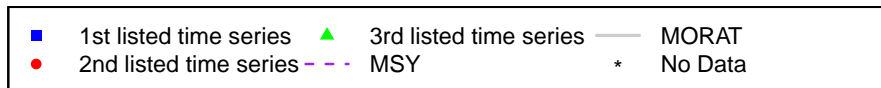
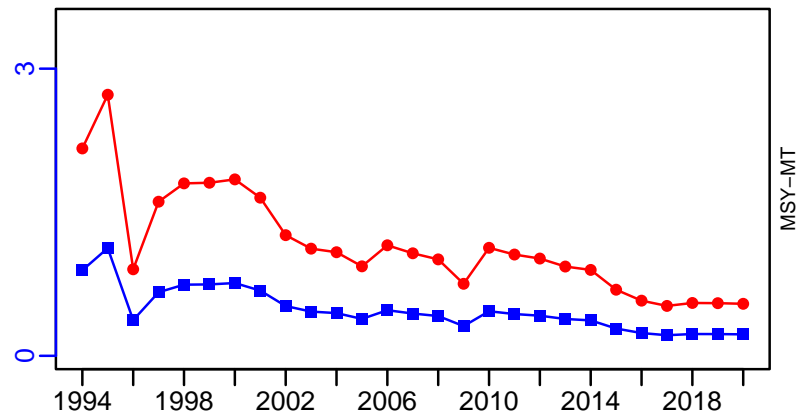
CPUE\*



EFFORT\*



TL-MT/MSY-MT, CdivMEANC-ratio, (1994-2020-SISIMP2021-2)



## Waved whelk Quebec Coastal Waters [WWHELKQCW]

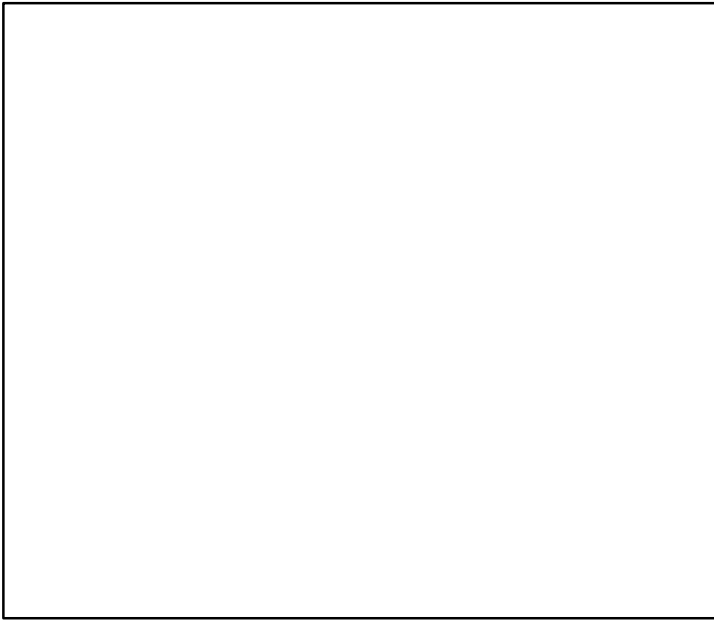
Metadata	
<b>Scientific Name</b>	Buccinum undatum
<b>Current Assess ID</b>	DFO-QUE-WWHELKQCW-1984-2017-ASHBROOK
<b>Area</b>	Quebec Coastal Waters
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans - Quebec Region
<b>Asmts in RAM</b>	2017, 2011

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

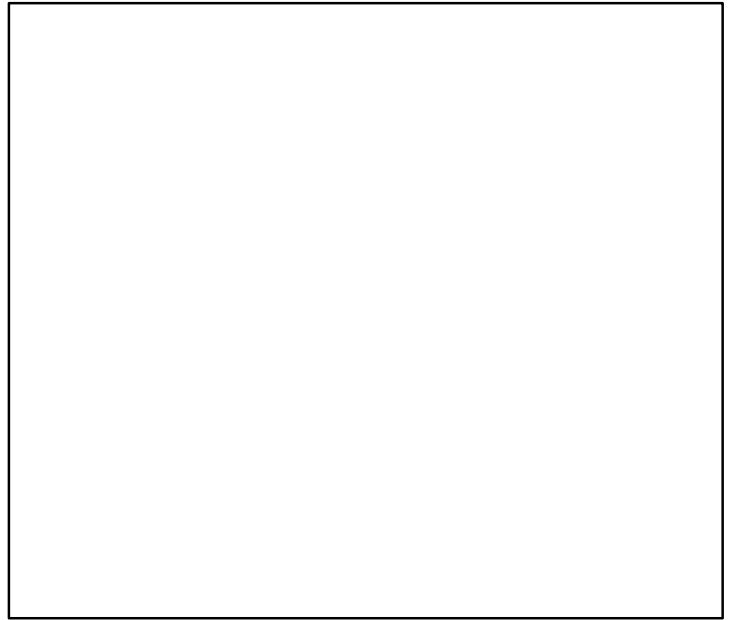
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	-	-	-		
TL	TL-MT	2017	1329		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Waved whelk Quebec Coastal Waters [WWHELKQCW]

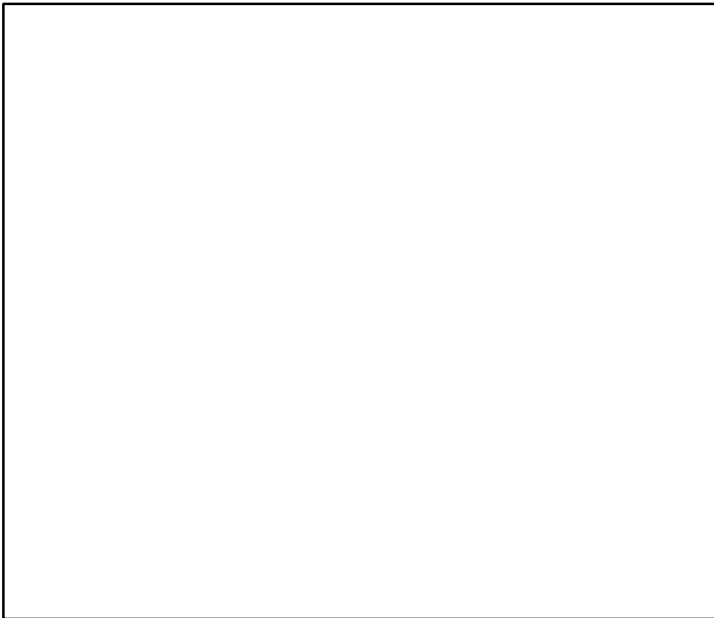
**Kobe MSY\***



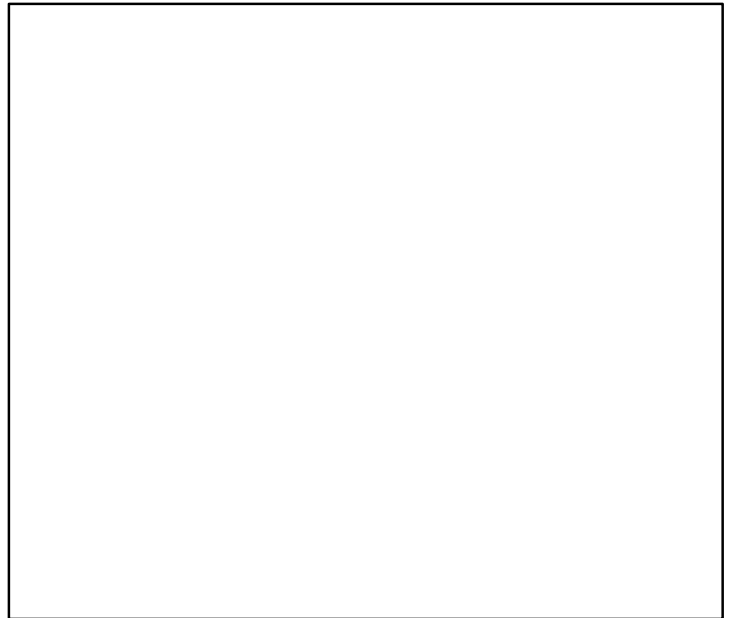
**Kobe MGT\***



**Spawner Recruit\***



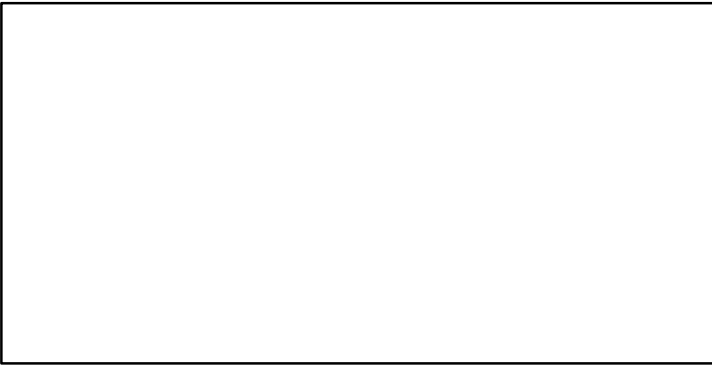
**Production\***



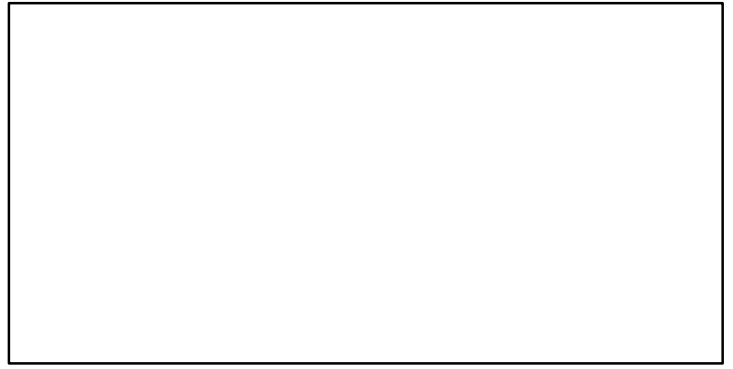
◆ Start Year ◆ End Year \* No Data

Waved whelk Quebec Coastal Waters [WWHELKQCW]

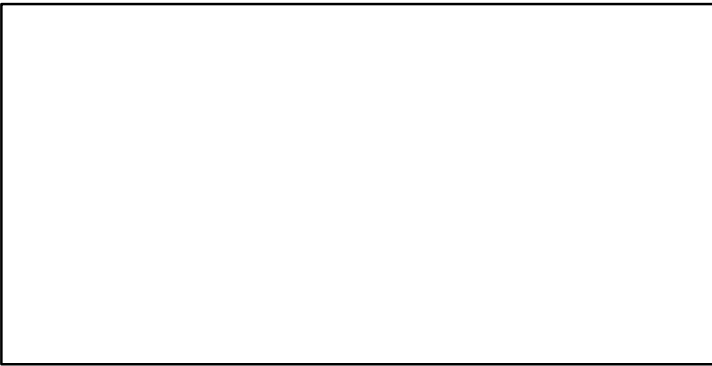
**TB\***



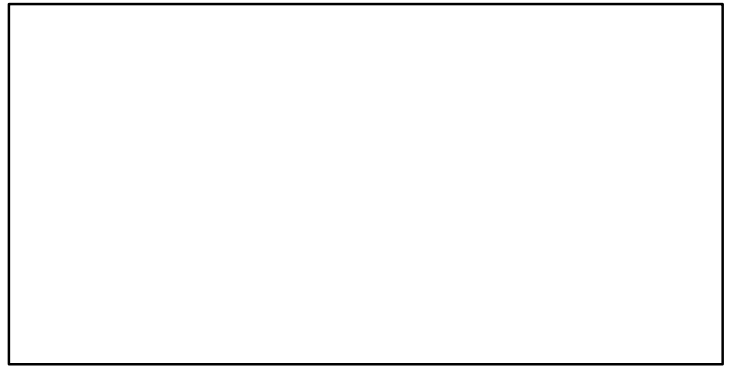
**SSB\***



**TN \***



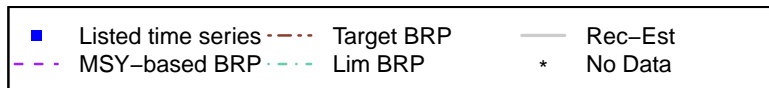
**F\***



**ER\***



**Recruits\***



# Waved whelk Quebec Coastal Waters [WWHELKQCW]

TL-MT, TC\*, RecC\* (1984-2017-ASHBROOK)

TAC\*, Cpair\*, Cadv\*

