

# Canada East Coast Stocks

## v4.495 (Apr-17-2021)

Not present Present Preferred

Stock	B/Bmsy	Time Series Types			
		U/Umsy	B/Bmgt	U/Umgt	
1. ACADRED2J3K [Acadian redfish NAFO Division 2J3K]	TB SSB	ER F	TB SSB	ER F	
2. ACADREDUT3 [Acadian redfish Unit 3]	TB SSB	ER F	TB SSB	ER F	
3. AMPL23K [American plaice Labrador - NE Newfoundland]	TB SSB	ER F	TB SSB	ER F	
4. AMPL3LNO [American plaice Grand Banks]	TB SSB	ER F	TB SSB	ER F	
5. AMPL3M [American plaice Flemish Cap]	TB SSB	ER F	TB SSB	ER F	
6. AMPL3Ps [American plaice St. Pierre Bank]	TB SSB	ER F	TB SSB	ER F	
7. AMPL4T [American plaice Southern Gulf of St. Lawrence]	TB SSB	ER F	TB SSB	ER F	
8. AMPL4VWX [American plaice Scotian Shelf and Bay of Fundy]	TB SSB	ER F	TB SSB	ER F	
9. ARCSURF4RST [Arctic surfclam Quebec and Gulf of St. Lawrence]	TB SSB	ER F	TB SSB	ER F	
10. ARCSURFBANQ [Arctic surfclam Banquereau]	TB SSB	ER F	TB SSB	ER F	
11. ARCSURFGB [Arctic surfclam Division 3LNO]	TB SSB	ER F	TB SSB	ER F	
12. ARCSURFQCW [Arctic surfclam Quebec Coastal Waters]	TB SSB	ER F	TB SSB	ER F	
13. ATHAL3NOPs4VWX5Zc [Atlantic halibut Scotian Shelf and Southern Grand Banks]	TB SSB	ER F	TB SSB	ER F	
14. ATHAL4RST [Atlantic halibut Gulf of St. Lawrence]	TB SSB	ER F	TB SSB	ER F	
15. BSKATCANATL [Barndoor skate Canadian Atlantic Ocean]	TB SSB	ER F	TB SSB	ER F	
16. CAPE2J3KL [Capelin Southern Labrador-Eastern Newfoundland]	TB SSB	ER F	TB SSB	ER F	
17. CAPE4RST [Capelin Gulf of St. Lawrence]	TB SSB	ER F	TB SSB	ER F	
18. COD1ABCDE [Atlantic cod NAFO 1ABCDE]	TB SSB	ER F	TB SSB	ER F	
19. COD1IN [Atlantic cod NAFO Subarea 1 (inshore)]	TB SSB	ER F	TB SSB	ER F	
20. COD2J3KL [Atlantic cod Southern Labrador-Eastern Newfoundland]	TB SSB	ER F	TB SSB	ER F	
21. COD3M [Atlantic cod Flemish Cap]	TB SSB	ER F	TB SSB	ER F	
22. COD3NO [Atlantic cod Southern Grand Banks]	TB SSB	ER F	TB SSB	ER F	
23. COD3Pn4RS [Atlantic cod NAFO 3Pn4RS]	TB SSB	ER F	TB SSB	ER F	
24. COD3Ps [Atlantic cod NAFO 3Ps]	TB SSB	ER F	TB SSB	ER F	
25. COD4TVn [Atlantic cod NAFO 4TVn]	TB SSB	ER F	TB SSB	ER F	
26. COD4VsW [Atlantic cod Eastern Scotian Shelf]	TB SSB	ER F	TB SSB	ER F	
27. COD4X5Yb [Atlantic cod Western Scotian Shelf, Bay of Fundy and Gulf of Maine]	TB SSB	ER F	TB SSB	ER F	
28. COD5Zjm [Atlantic cod NAFO 5Zjm]	TB SSB	ER F	TB SSB	ER F	
29. CUSK4X [Cusk Western Scotian Shelf]	TB SSB	ER F	TB SSB	ER F	
30. GHAL01ABCDEF [Greenland halibut NAFO divisions 01ABCDEF]	TB SSB	ER F	TB SSB	ER F	
31. GHAL23KLMNO [Greenland halibut Labrador Shelf - Grand Banks]	TB SSB	ER F	TB SSB	ER F	
32. GHAL4RST [Greenland halibut NAFO 4RST]	TB SSB	ER F	TB SSB	ER F	
33. GURCH4RST [Green sea urchin Gulf of St. Lawrence]	TB SSB	ER F	TB SSB	ER F	
34. HAD3LNO [Haddock Grand Banks]	TB SSB	ER F	TB SSB	ER F	
35. HAD3Ps [Haddock St. Pierre Bank]	TB SSB	ER F	TB SSB	ER F	
36. HAD4X5Y [Haddock Western Scotian Shelf, Bay of Fundy and Gulf of Maine]	TB SSB	ER F	TB SSB	ER F	

37. HERR4RFA [Herring NAFO 4R fall spawners]	TB SSB	ER F	TB SSB	ER F
38. HERR4RSP [Herring NAFO 4R spring spawners]	TB SSB	ER F	TB SSB	ER F
39. HERR4SFS [Herring Quebec North Shore (Fall spawners)]	TB SSB	ER F	TB SSB	ER F
40. HERR4SSS [Herring Quebec North Shore (Spring spawners)]	TB SSB	ER F	TB SSB	ER F
41. HERR4TFA [Herring NAFO 4T fall spawners]	TB SSB	ER F	TB SSB	ER F
42. HERR4TSP [Herring NAFO 4T spring spawners]	TB SSB	ER F	TB SSB	ER F
43. HERR4VWX [Herring Scotian Shelf and Bay of Fundy]	TB SSB	ER F	TB SSB	ER F
44. HERRNFLDESC [Herring Newfoundland East and South Coast]	TB SSB	ER F	TB SSB	ER F
45. LOBSTERLFA15-18 [American lobster Quebec North Shore and Anticosti Island (LFA 15-18)]	TB SSB	ER F	TB SSB	ER F
46. LOBSTERLFA19-21 [American lobster Gaspé (LFA 19-21)]	TB SSB	ER F	TB SSB	ER F
47. LOBSTERLFA22 [American lobster Magdalen Islands (LFA 22)]	TB SSB	ER F	TB SSB	ER F
48. LOBSTERLFA23-26AB [American lobster Southern Gulf of St. Lawrence]	TB SSB	ER F	TB SSB	ER F
49. LOBSTERLFA27-33 [American lobster Atlantic Coast of Nova Scotia (LFA 27-33)]	TB SSB	ER F	TB SSB	ER F
50. LOBSTERLFA3-14 [American lobster Lobster Fishing Areas 3-14]	TB SSB	ER F	TB SSB	ER F
51. LOBSTERLFA34 [American lobster Lobster Fishing Area 34]	TB SSB	ER F	TB SSB	ER F
52. LOBSTERLFA35-38 [American lobster Lobster Fishing Areas 35-38]	TB SSB	ER F	TB SSB	ER F
53. LOBSTERLFA41 [American lobster Lobster Fishing Area 41]	TB SSB	ER F	TB SSB	ER F
54. LUMP3Pn4RS [Lumpfish Northern Gulf of St. Lawrence]	TB SSB	ER F	TB SSB	ER F
55. MACKNWATLSA3-4 [Mackerel Northwest Atlantic (NAFO Subareas 3 and 4)]	TB SSB	ER F	TB SSB	ER F
56. MONK3LNOPs [Monkfish NAFO Divisions 3LNOPs]	TB SSB	ER F	TB SSB	ER F
57. PANDAL4RST [Northern shrimp Gulf of St. Lawrence]	TB SSB	ER F	TB SSB	ER F
58. PANDALSFA13-15 [Northern shrimp Eastern Scotian Shelf (SFA 13-15)]	TB SSB	ER F	TB SSB	ER F
59. PANDALSFA2-3 [Northern shrimp Shrimp Fishing Areas 2-3]	TB SSB	ER F	TB SSB	ER F
60. PANDALSFA4 [Northern shrimp Shrimp Fishing Area 4]	TB SSB	ER F	TB SSB	ER F
61. PANDALSFA5 [Northern shrimp Shrimp Fishing Area 5]	TB SSB	ER F	TB SSB	ER F
62. PANDALSFA6 [Northern shrimp Shrimp Fishing Area 6]	TB SSB	ER F	TB SSB	ER F
63. POLL3Ps [Pollock St. Pierre Bank]	TB SSB	ER F	TB SSB	ER F
64. POLL4VWX [Pollock Scotian Shelf and Bay of Fundy]	TB SSB	ER F	TB SSB	ER F
65. PORSHARATL [Porbeagle shark Canadian Atlantic Ocean]	TB SSB	ER F	TB SSB	ER F
66. REDFISHSPP3LN [Redfish species N and SW Grand Banks]	TB SSB	ER F	TB SSB	ER F
67. REDFISHSPP3M [Redfish species Flemish Cap]	TB SSB	ER F	TB SSB	ER F
68. REDFISHSPPUT1 [Redfish species Unit 1]	TB SSB	ER F	TB SSB	ER F
69. REDFISHSPPUT2 [Redfish species Unit 2]	TB SSB	ER F	TB SSB	ER F
70. ROCKCRABLFA23-26 [Rock crab Southern Gulf of St. Lawrence]	TB SSB	ER F	TB SSB	ER F
71. ROCKCRABQCW [Rock crab Quebec Coastal Waters]	TB SSB	ER F	TB SSB	ER F
72. SCALL3Ps [Sea scallop St. Pierre Bank]	TB SSB	ER F	TB SSB	ER F
73. SCALL4T [Sea scallop Southern Gulf of St. Lawrence]	TB SSB	ER F	TB SSB	ER F
74. SCALLGB [Sea scallop Georges Bank]	TB SSB	ER F	TB SSB	ER F
75. SCALLNBB [Sea scallop North Brown Bank]	TB SSB	ER F	TB SSB	ER F
76. SCALLSFA16-20 [Sea scallop Scallop Fishing Areas 16-20]	TB SSB	ER F	TB SSB	ER F
77. SCALLSPA1-6 [Sea scallop Bay of Fundy (SPA 1-6)]	TB SSB	ER F	TB SSB	ER F
78. SCALLWSFA29 [Sea scallop West Scallop Fishing Area 29]	TB SSB	ER F	TB SSB	ER F
79. SDOG4VWX5 [Spiny dogfish Scotian Shelf, Bay of Fundy and Georges Bank]	TB SSB	ER F	TB SSB	ER F

80. SHAKE4VWX [Silver hake Scotian Shelf and Bay of Fundy]	TB SSB	ER F	TB SSB	ER F
81. SMOOTHSKA2J3K [Smooth skate NAFO Division 2J3K]	TB SSB	ER F	TB SSB	ER F
82. SMOOTHSKA4T [Smooth skate Southern Gulf of St. Lawrence]	TB SSB	ER F	TB SSB	ER F
83. SNOWCRAB2HJ [Snow crab Division 2HJ]	TB SSB	ER F	TB SSB	ER F
84. SNOWCRAB3K [Snow crab Division 3K]	TB SSB	ER F	TB SSB	ER F
85. SNOWCRAB3LNO [Snow crab Division 3LNO]	TB SSB	ER F	TB SSB	ER F
86. SNOWCRAB3Ps [Snow crab St. Pierre Bank]	TB SSB	ER F	TB SSB	ER F
87. SNOWCRAB4R3Pn [Snow crab Division 4R3Pn]	TB SSB	ER F	TB SSB	ER F
88. SNOWCRABSCMA12-17 [Snow crab Northern Gulf of St. Lawrence]	TB SSB	ER F	TB SSB	ER F
89. SNOWCRABSGSL [Snow crab Southern Gulf of St. Lawrence]	TB SSB	ER F	TB SSB	ER F
90. SSCLAMQCW [Softshell clam Quebec Coastal Waters]	TB SSB	ER F	TB SSB	ER F
91. STRSHRIMPSFA2-3 [Aesop shrimp Shrimp Fishing Areas 2-3]	TB SSB	ER F	TB SSB	ER F
92. TSKA3LNOPs [Thorny skate Grand Bank and St Pierre Bank]	TB SSB	ER F	TB SSB	ER F
93. TSKA4T [Thorny skate Southern Gulf of St. Lawrence]	TB SSB	ER F	TB SSB	ER F
94. WHAKE3Ps [White hake St. Pierre Bank]	TB SSB	ER F	TB SSB	ER F
95. WHAKE4RS [White hake Northern Gulf of St. Lawrence]	TB SSB	ER F	TB SSB	ER F
96. WHAKE4T [White hake Southern Gulf of St. Lawrence]	TB SSB	ER F	TB SSB	ER F
97. WHAKE4VWX5 [White hake Scotian Shelf, Bay of Fundy and Georges Bank]	TB SSB	ER F	TB SSB	ER F
98. WINFLOUN4T [Winter flounder Southern Gulf of St. Lawrence]	TB SSB	ER F	TB SSB	ER F
99. WITFLOUN2J3KL [Witch flounder Southern Labrador-Eastern Newfoundland]	TB SSB	ER F	TB SSB	ER F
100. WITFLOUN3Ps [Witch flounder NAFO-3Ps]	TB SSB	ER F	TB SSB	ER F
101. WITFLOUN4RST [Witch flounder Gulf of St. Lawrence]	TB SSB	ER F	TB SSB	ER F
102. WWHELKQCW [Waved whelk Quebec Coastal Waters]	TB SSB	ER F	TB SSB	ER F
103. YELL3LNO [Yellowtail flounder Grand Banks]	TB SSB	ER F	TB SSB	ER F
104. YELL4T [Yellowtail flounder Southern Gulf of St. Lawrence]	TB SSB	ER F	TB SSB	ER F

## Acadian redfish NAFO Division 2J3K [ACADRED2J3K]

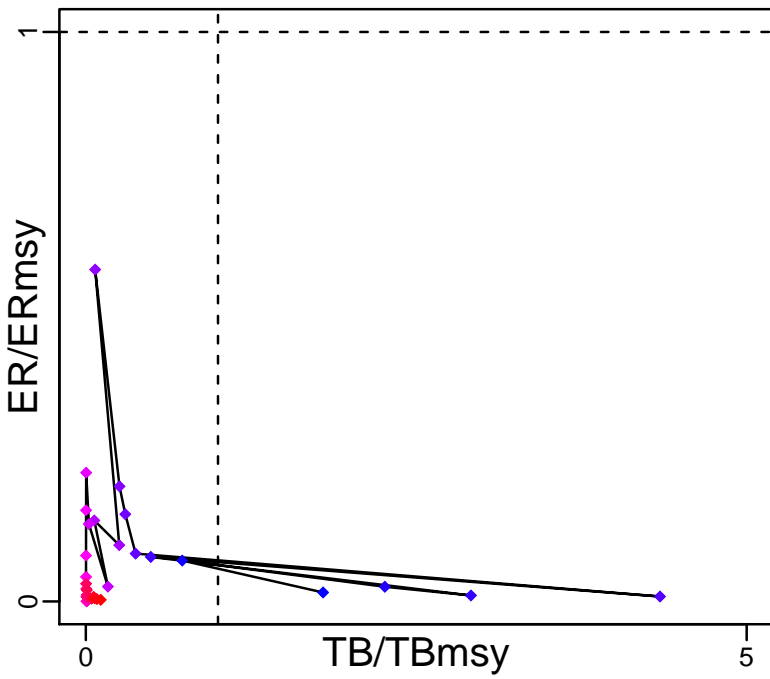
Metadata	
<b>Scientific Name</b>	Sebastes fasciatus
<b>Current Assess ID</b>	DFO-ACADRED2J3K-1960-2010-WATSON
<b>Area</b>	NAFO Division 2J3K
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans
<b>Asmts in RAM</b>	2010

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-est-MT	2010	243,994
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-est-ratio	2010	0.627
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2010	3000
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

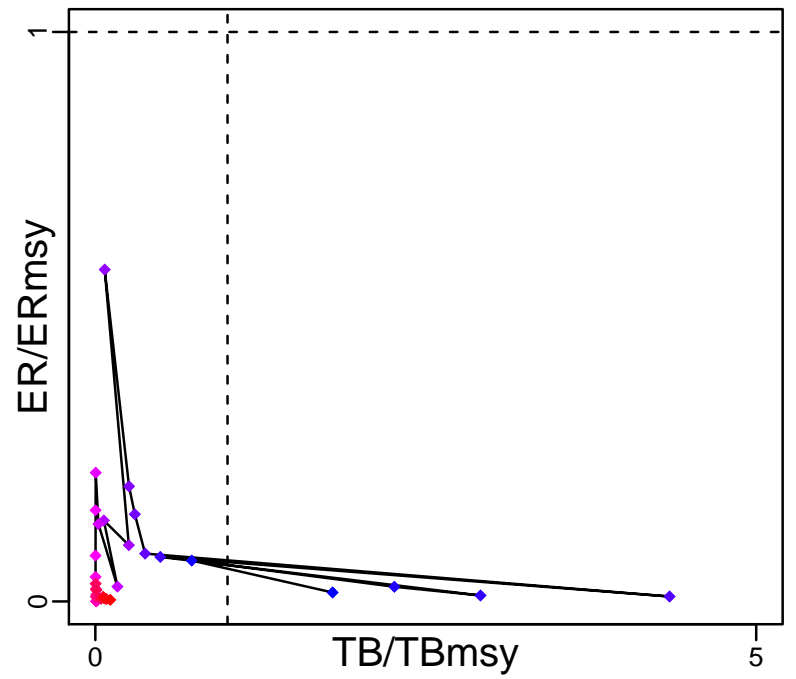
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2010	27,600	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2010	0.002	-	-
<b>TC</b>	TC-MT	2010	49		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-est-MT	2010	0.113		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-est-ratio	2010	0.003		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Acadian redfish NAFO Division 2J3K [ACADRED2J3K]

Kobe MSY<sub>pref</sub> (1960–2010–WATSON)



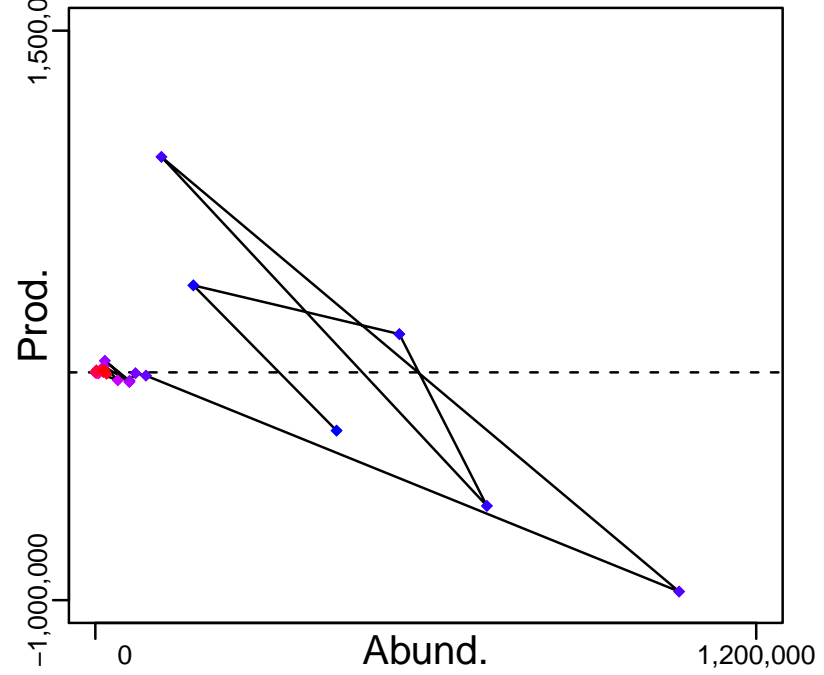
Kobe MGT<sub>pref</sub> (1960–2010–WATSON)



Spawner Recruit\*



Production (1960–2010–WATSON)

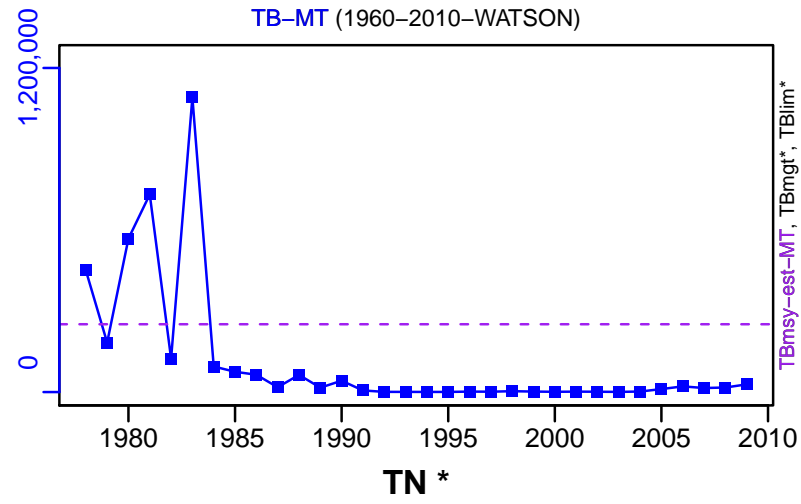


◆ Start Year ◆ End Year \* No Data

# Acadian redfish NAFO Division 2J3K [ACADRED2J3K]

TB-MT (1960-2010-WATSON)

SSB\*

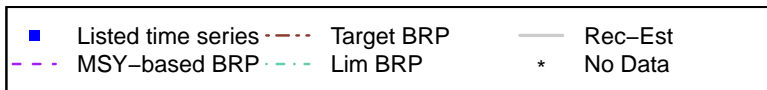
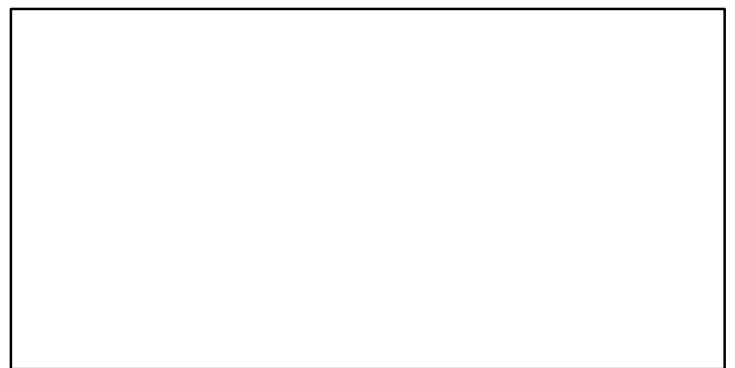
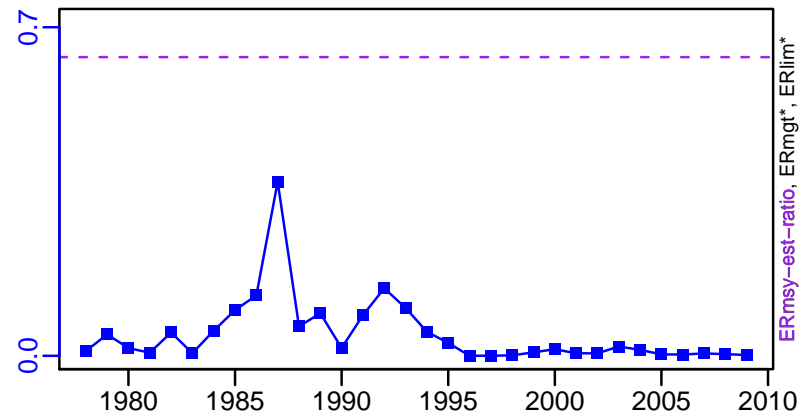


F\*



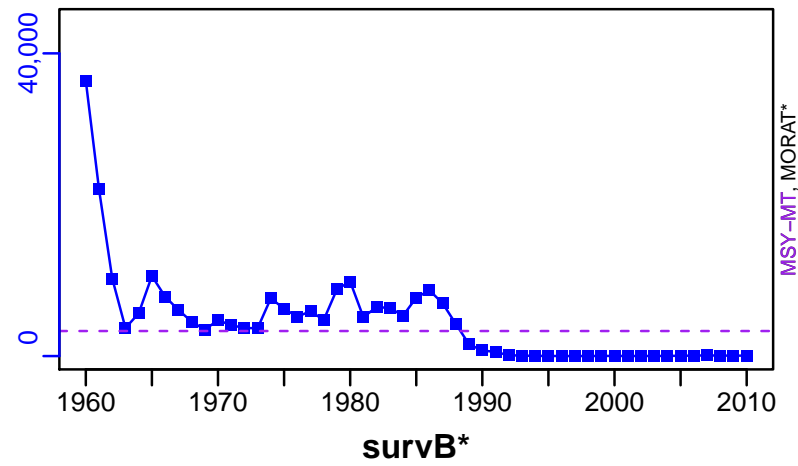
ER-calc-ratio (1960-2010-WATSON)

Recruits\*



# Acadian redfish NAFO Division 2J3K [ACADRED2J3K]

TC-MT, TL\*, RecC\* (1960-2010-WATSON)



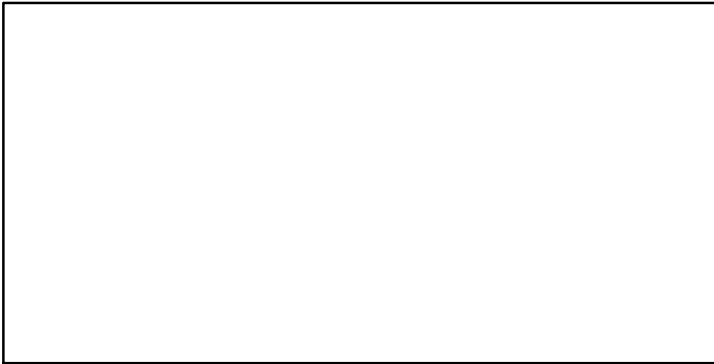
TAC\*, Cpair\*, Cadv\*



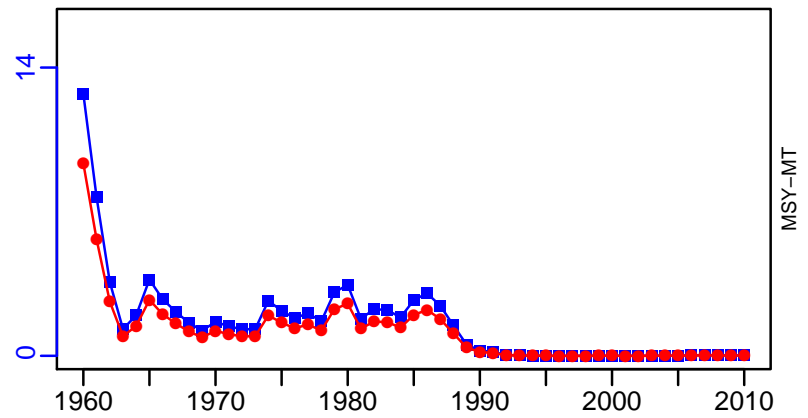
CPUE\*



EFFORT\*



TC-MT/MSY-MT, CdivMEANC-ratio, (1960-2010-WATSON)



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

### Acadian redfish Unit 3 [ACADREDUT3]

Metadata	
<b>Scientific Name</b>	Sebastes fasciatus
<b>Current Assess ID</b>	DFO-ACADREDUT3-1960-2010-WATSON
<b>Area</b>	Unit 3
<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

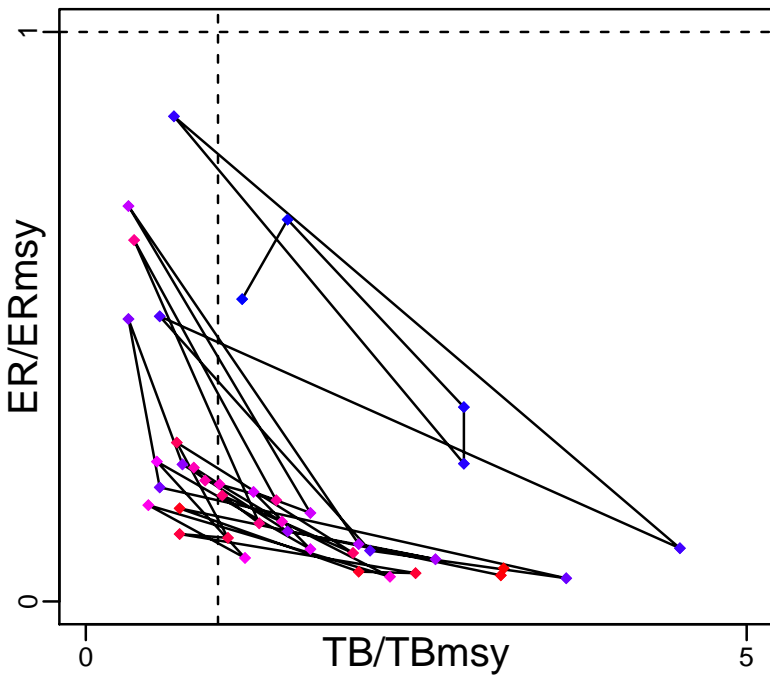
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-est-MT	2010	46,497
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-est-ratio	2010	0.538
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2010	131,000
<b>M</b>	-	-	-
<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	2010	147,000	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2010	0.031	-	-
<b>TC</b>	TC-MT	2010	5200		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-est-MT	2010	3.162		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-est-ratio	2010	0.058		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

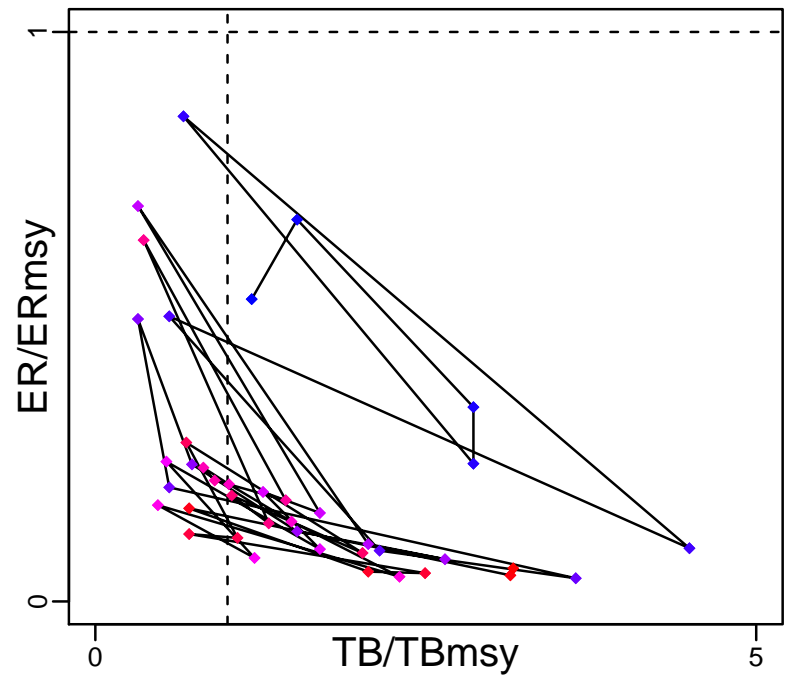


# Acadian redfish Unit 3 [ACADREDUT3]

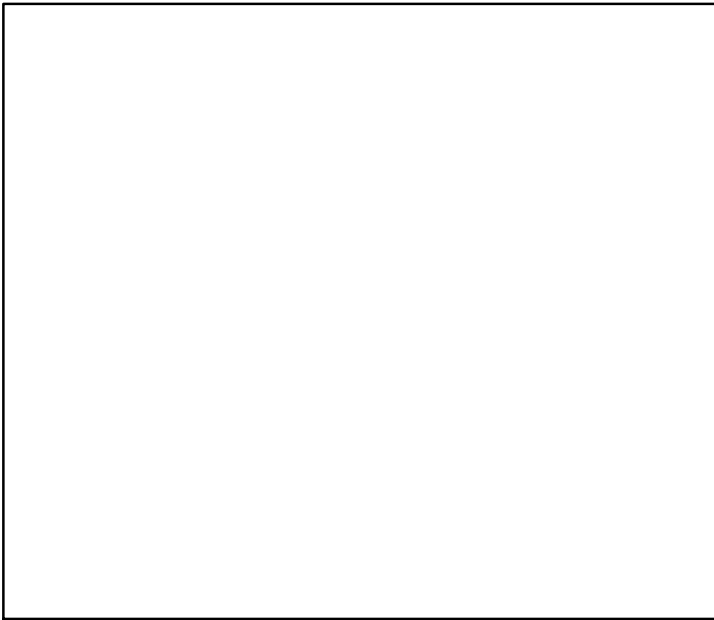
Kobe MSY<sub>pref</sub> (1960–2010–WATSON)



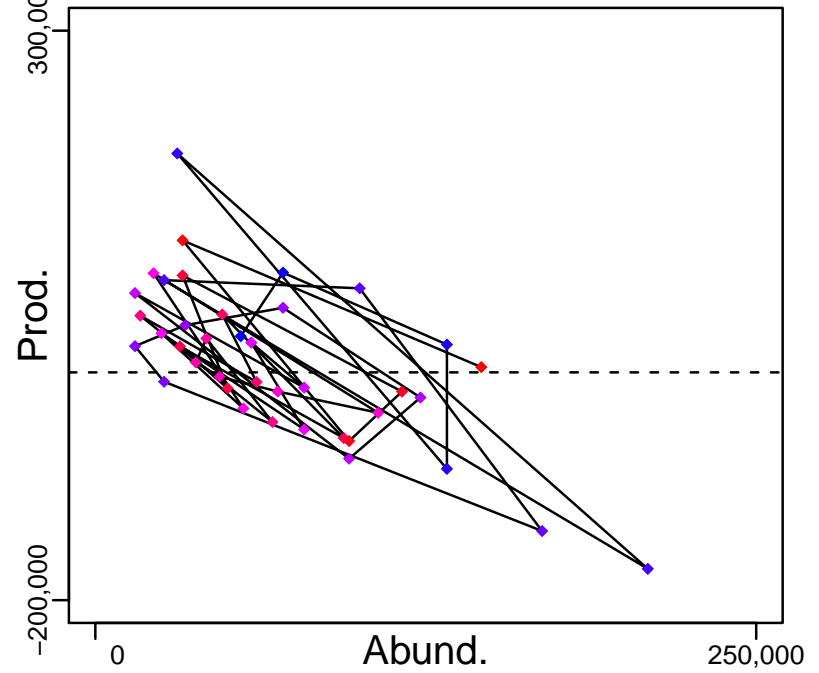
Kobe MGT<sub>pref</sub> (1960–2010–WATSON)



Spawner Recruit\*



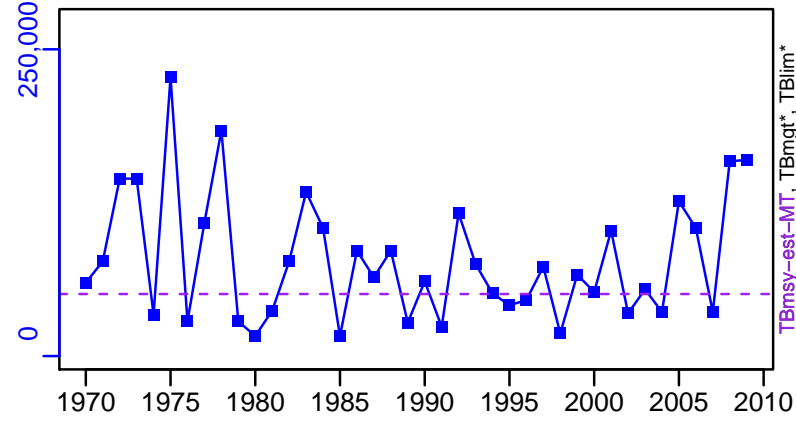
Production (1960–2010–WATSON)



◆ Start Year ◆ End Year \* No Data

# Acadian redfish Unit 3 [ACADREDUT3]

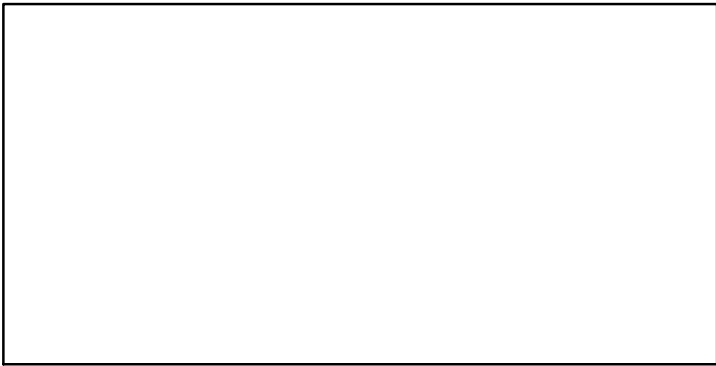
TB-MT (1960-2010-WATSON)



SSB\*



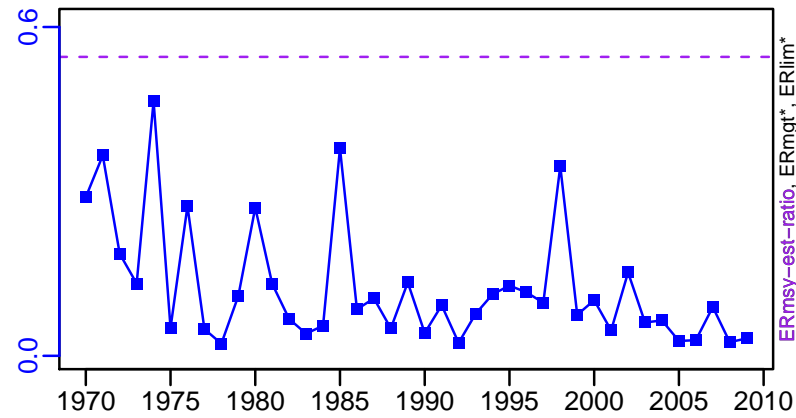
TN \*



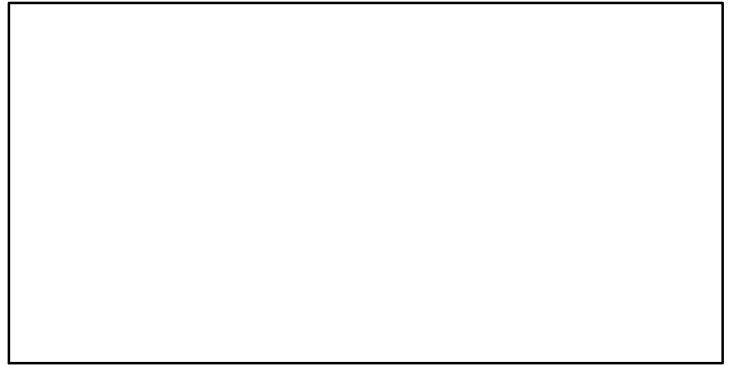
F\*



ER-calc-ratio (1960-2010-WATSON)

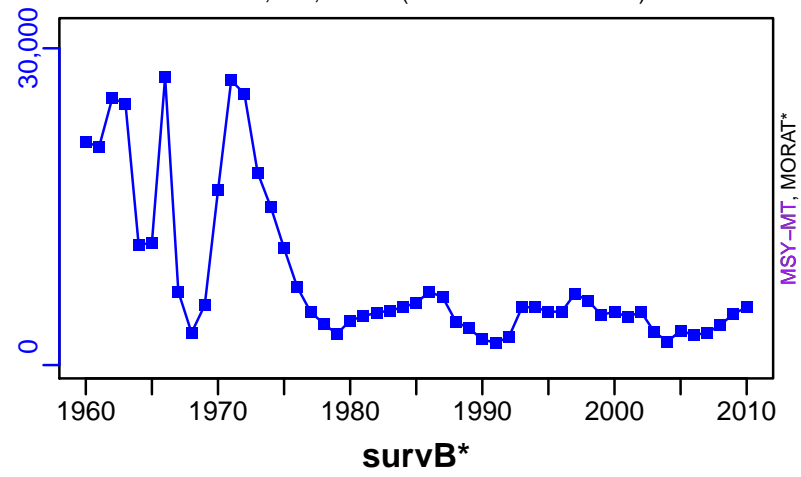


Recruits\*



# Acadian redfish Unit 3 [ACADREDUT3]

TC-MT, TL\*, RecC\* (1960-2010-WATSON)



TAC\*, Cpair\*, Cadv\*



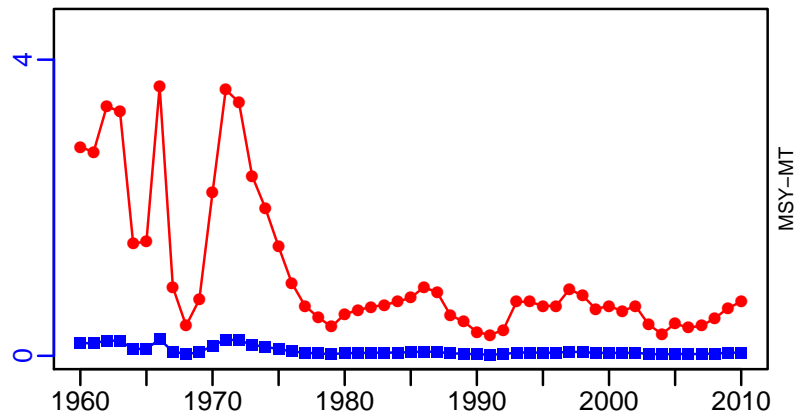
CPUE\*



EFFORT\*



TC-MT/MSY-MT, CdivMEANC-ratio, (1960-2010-WATSON)



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

## American plaice Labrador - NE Newfoundland [AMPL23K]

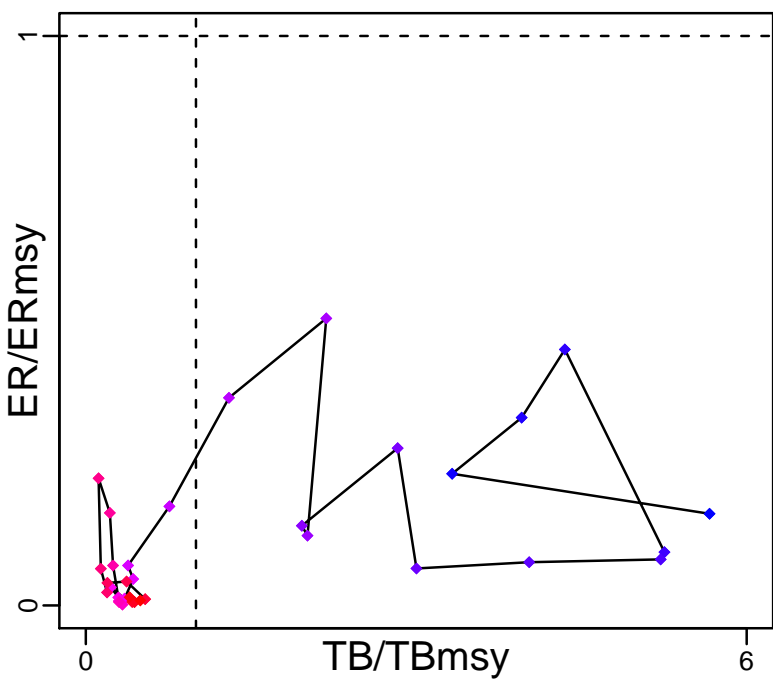
Metadata	
<b>Scientific Name</b>	Hippoglossoides platessoides
<b>Current Assess ID</b>	DFO-AMPL23K-1960-2012-WATSON
<b>Area</b>	Labrador - NE Newfoundland
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans
<b>Asmts in RAM</b>	2012, 2004

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-est-MT	2012	58,630
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-est-ratio	2012	0.066
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-est-MT	2012	3862
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

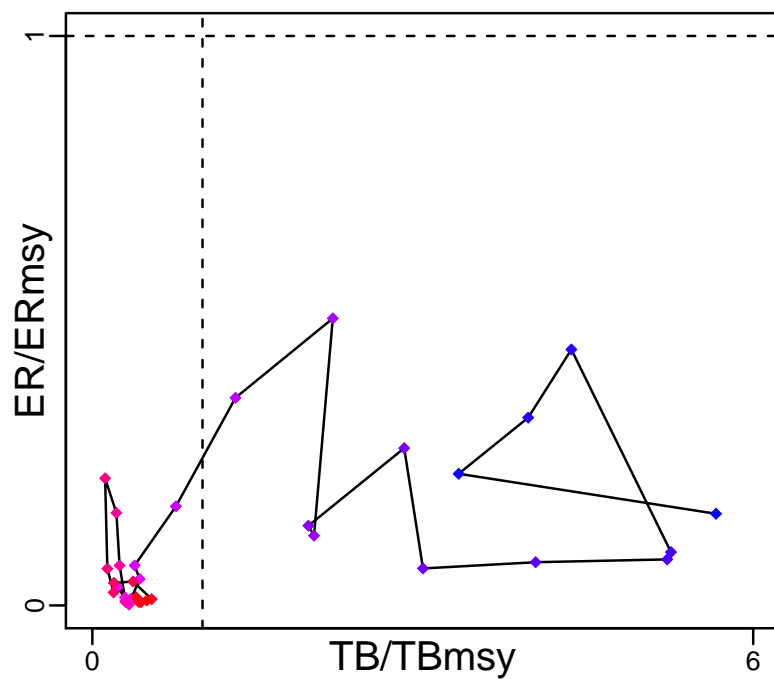
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2012	29,000	Both	-
<b>SSB</b>	SSB-MT	2004	3620	Females	-
<b>TN</b>	TN-E00	2012	$2.17 \times 10^8$	-	-
<b>R</b>	R-E00	2004	3,330,000	-	3+
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2012	0.001	-	-
<b>TC</b>	TC-MT	2012	17		
<b>TL</b>	TL-MT	2012	65		
<b>TB/TBmsy</b>	TB-MT/TBmsy-est-MT	2012	0.495		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-est-ratio	2012	0.009		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

American plaice Labrador – NE Newfoundland [AMPL23K]

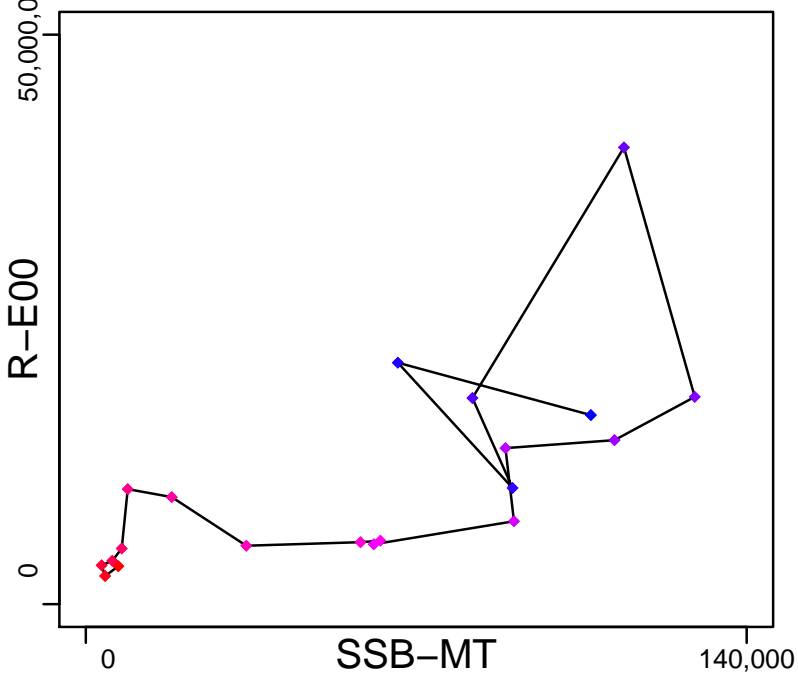
Kobe MSY<sub>pref</sub> (1960–2012–WATSON)



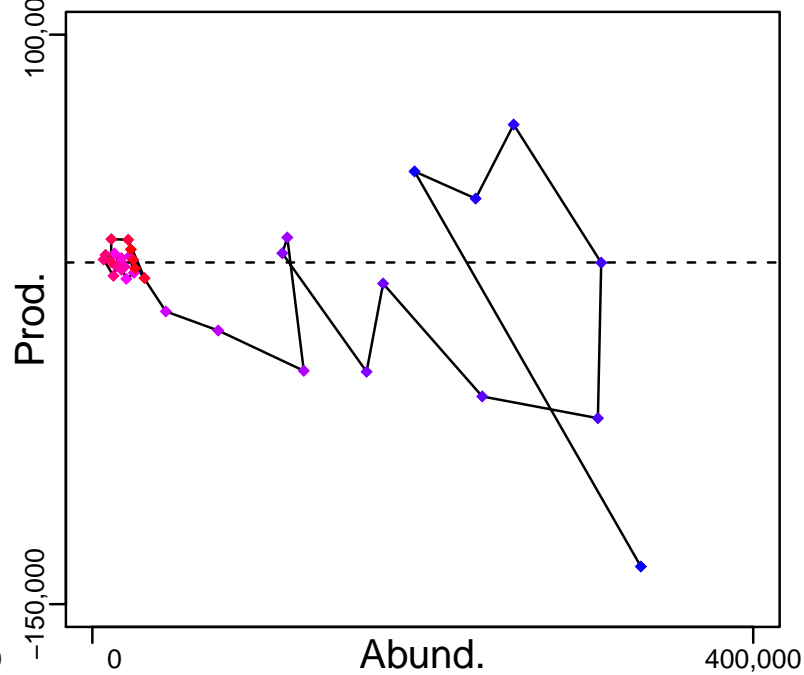
Kobe MGT<sub>pref</sub> (1960–2012–WATSON)



Spawner Recruit (1960–2004–PREFONTAINE)



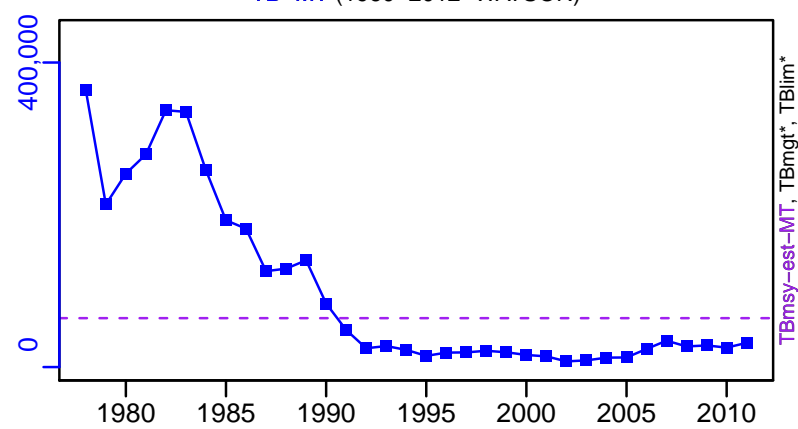
Production (1960–2012–WATSON)



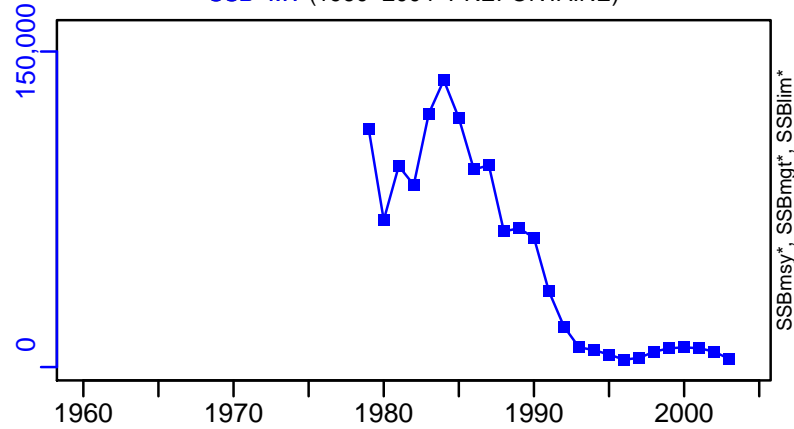
◆ Start Year ◆ End Year \* No Data

# American plaice Labrador – NE Newfoundland [AMPL23K]

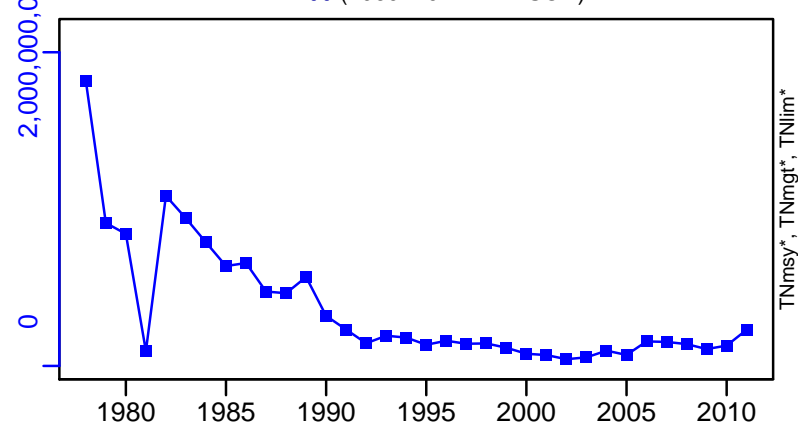
TB-MT (1960–2012–WATSON)



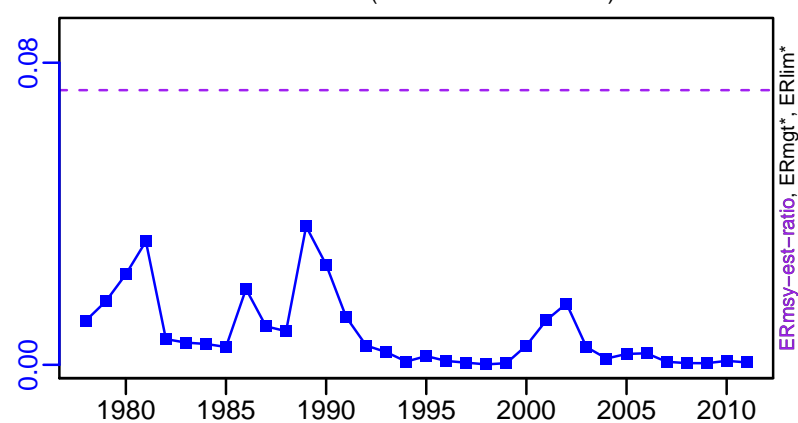
SSB-MT (1960–2004–PREFONTAINE)



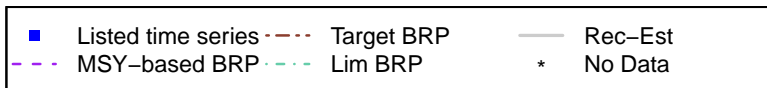
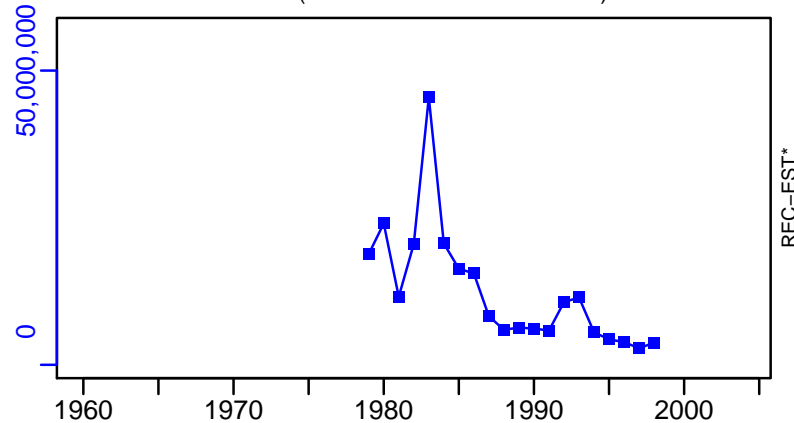
TN-E00 (1960–2012–WATSON)



ER-calc-ratio (1960–2012–WATSON)



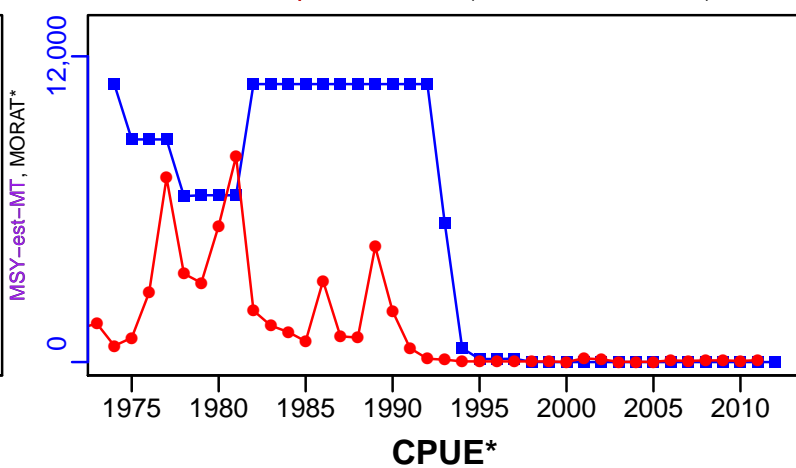
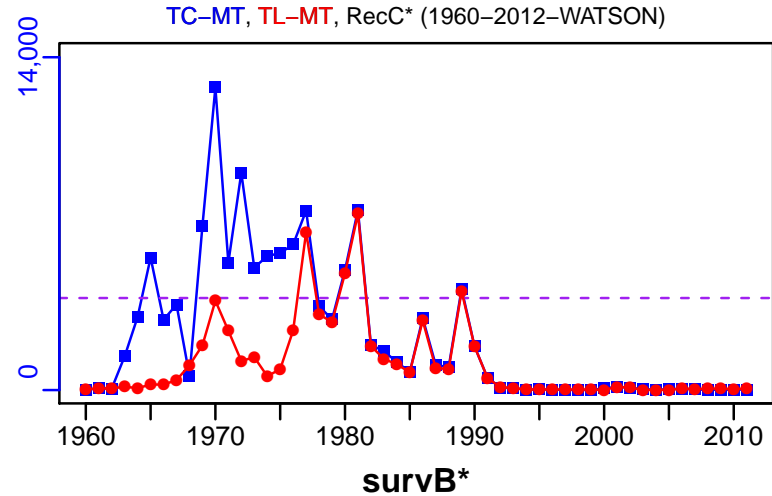
R-E00 (1960–2004–PREFONTAINE)



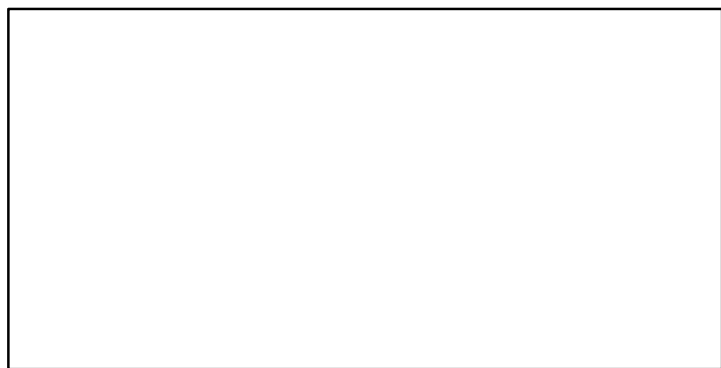
# American plaice Labrador – NE Newfoundland [AMPL23K]

TC-MT, TL-MT, RecC\* (1960–2012–WATSON)

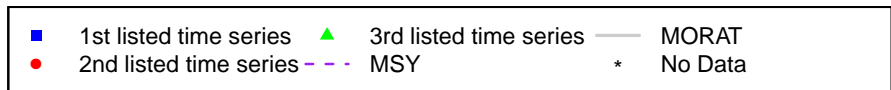
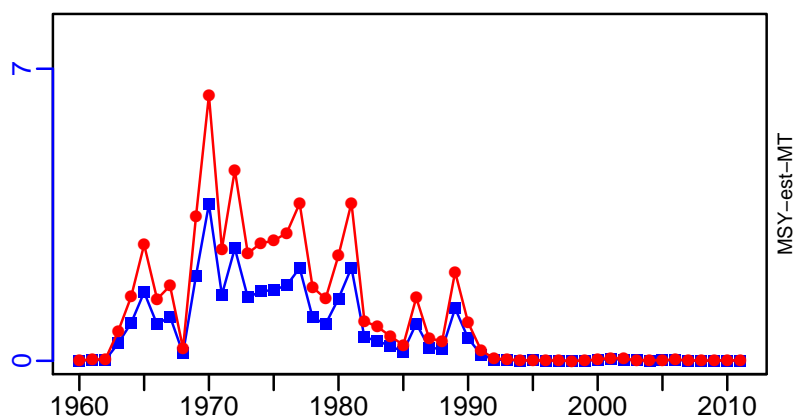
TAC-MT, Cpair-MT, Cadv\* (1960–2012–WATSON)



EFFORT\*



TC-MT/MSY-est-MT, CdivMEANC-ratio, (1960–2012–WATSON)



## American plaice Grand Banks [AMPL3LNO]

Metadata	
<b>Scientific Name</b>	Hippoglossoides platessoides
<b>Current Assess ID</b>	NAFO-SC-AMPL3LNO-1955-2007-BAUM
<b>Area</b>	Grand Banks
<b>Management Authority</b>	Northwest Atlantic Fisheries Organization
<b>Assessor</b>	NAFO Scientific Council
<b>Asmts in RAM</b>	2007

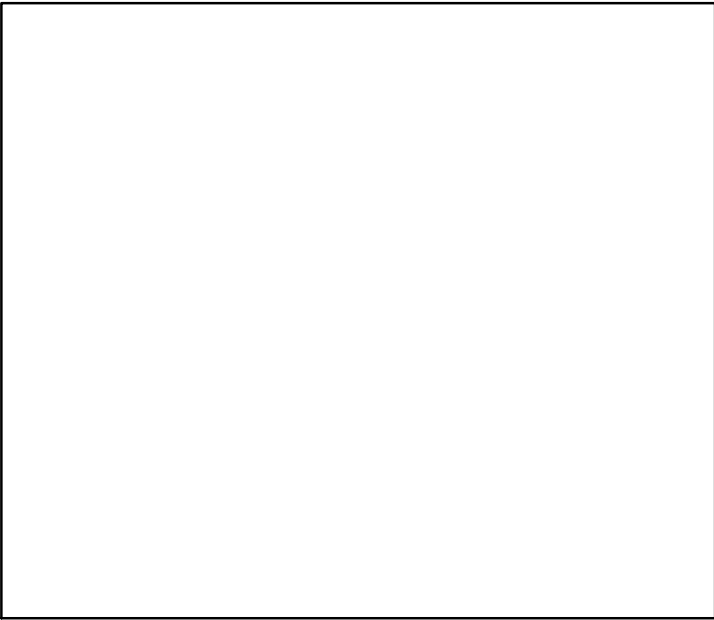
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2007	0.2
TBlim	TBlim-MT	2007	50,000
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2007	50,500	-	5+
SSB	SSB-MT	2007	35,500	Both	-
TN	-	-	-	-	-
R	R-E00	2007	33,500,000	-	5
F	F-1/yr	2007	0.193	Both	9 to 14
ER	ER-ratio	2007	0.064	-	-
TC	-	-	-		
TL	TL-MT	2007	2830		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



American plaice Grand Banks [AMPL3LNO]

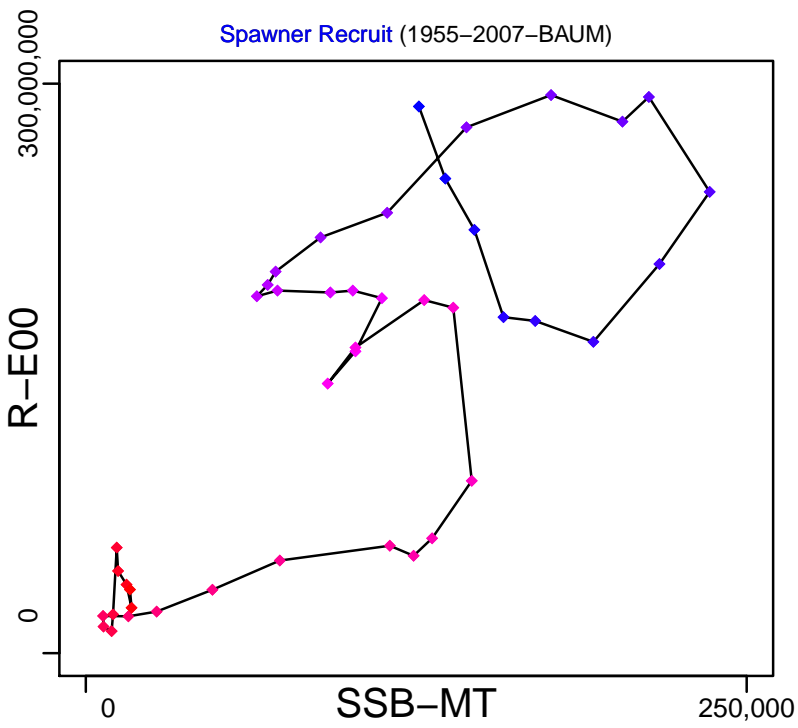
Kobe MSY\*



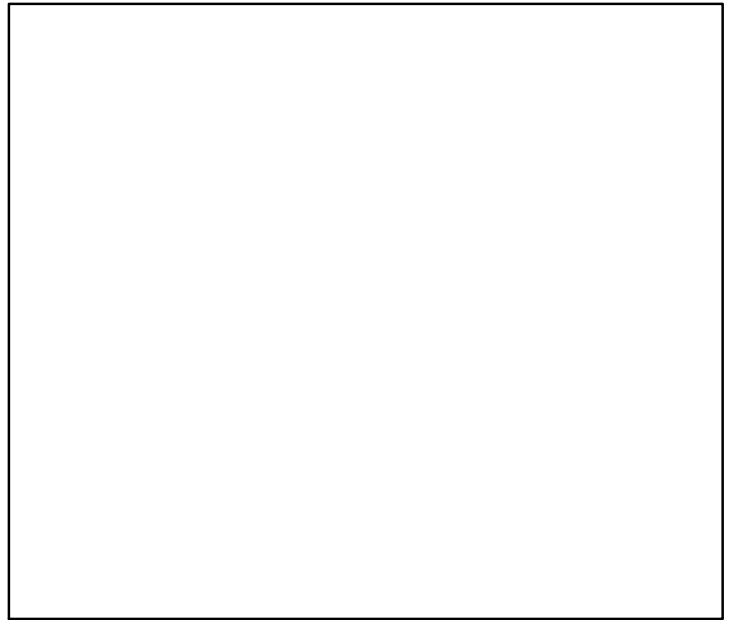
Kobe MGT\*



Spawner Recruit (1955–2007–BAUM)



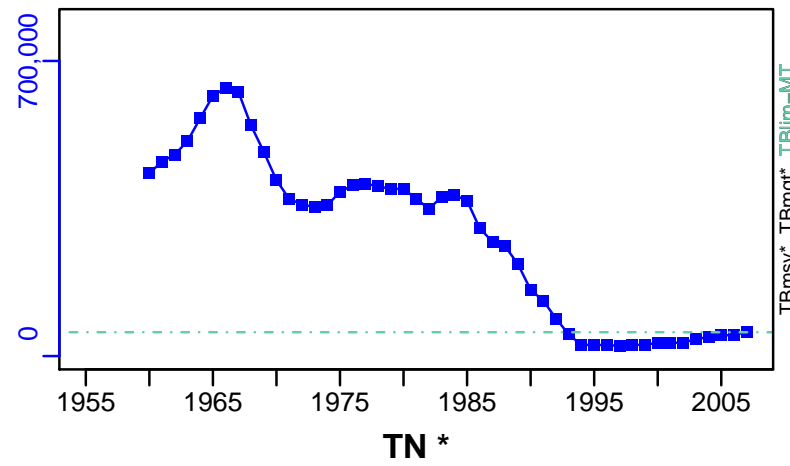
Production\*



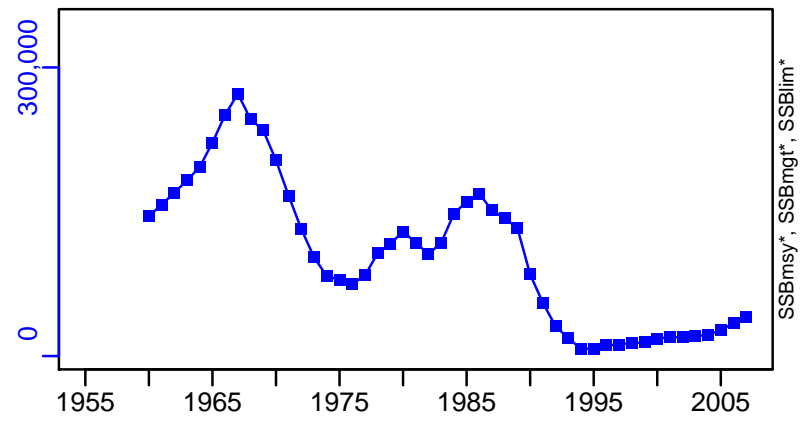
◆ Start Year ◆ End Year \* No Data

# American plaice Grand Banks [AMPL3LNO]

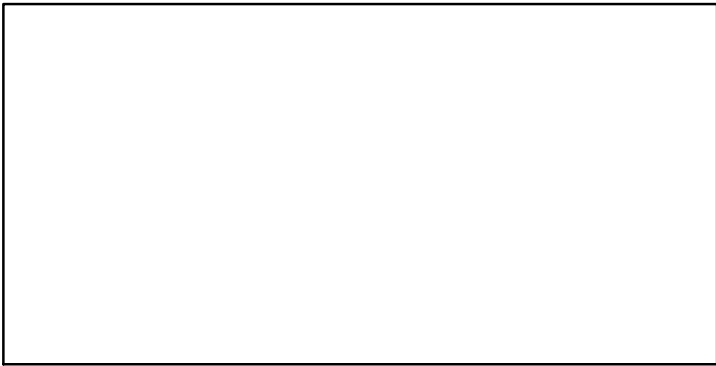
TB-MT (1955-2007-BAUM)



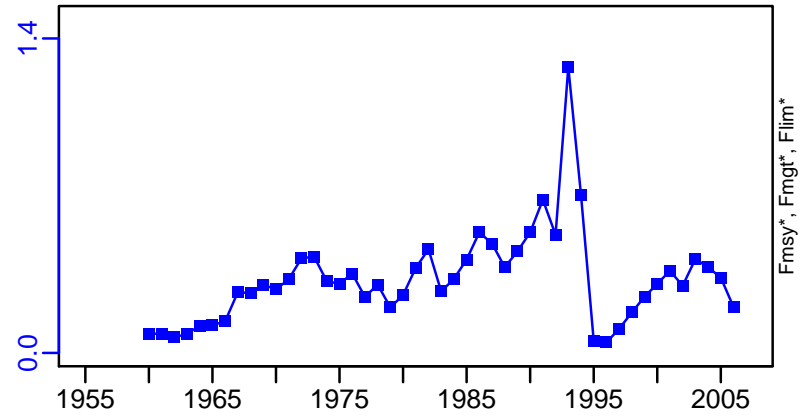
SSB-MT (1955-2007-BAUM)



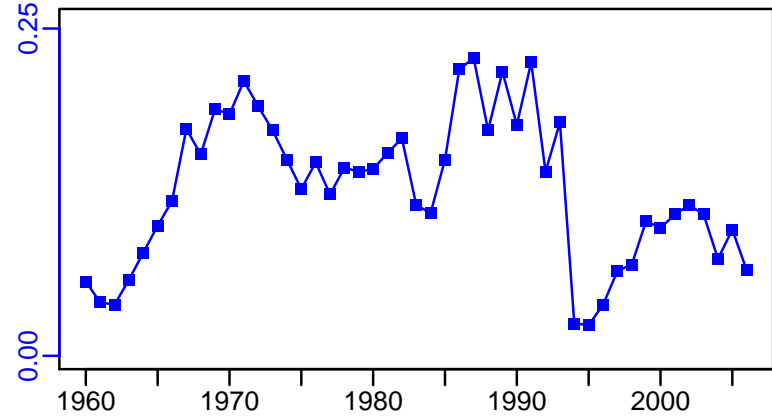
TN \*



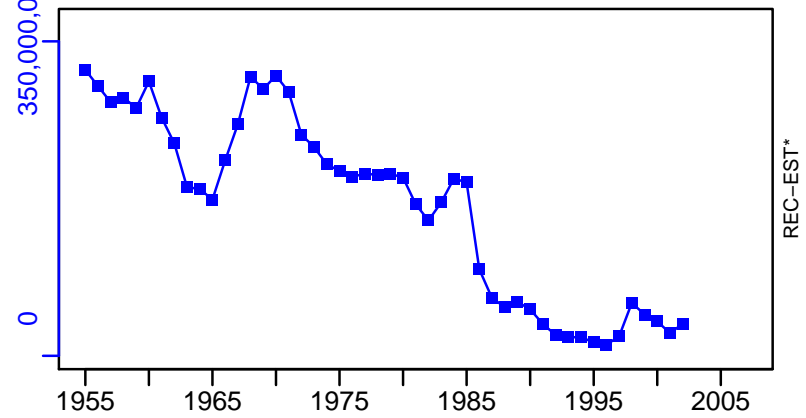
F-1/yr (1955-2007-BAUM)



ER-ratio (1955-2007-BAUM)



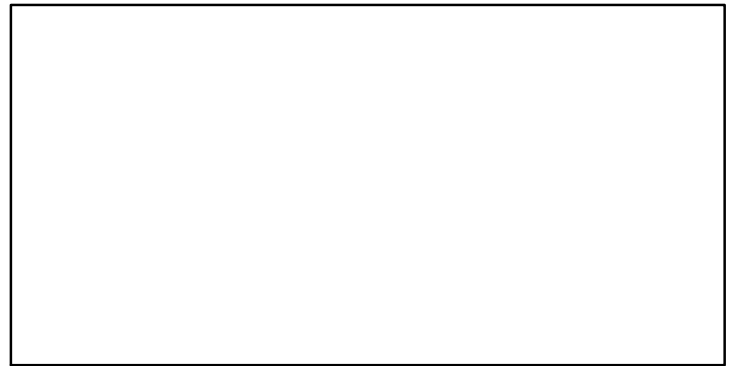
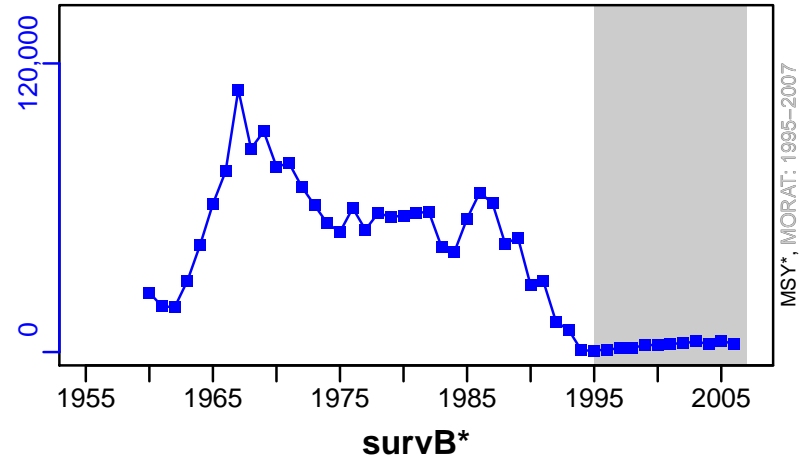
R-E00 (1955-2007-BAUM)



# American plaice Grand Banks [AMPL3LNO]

TL-MT, TC\*, RecC\* (1955-2007-BAUM)

TAC\*, Cpair\*, Cadv\*



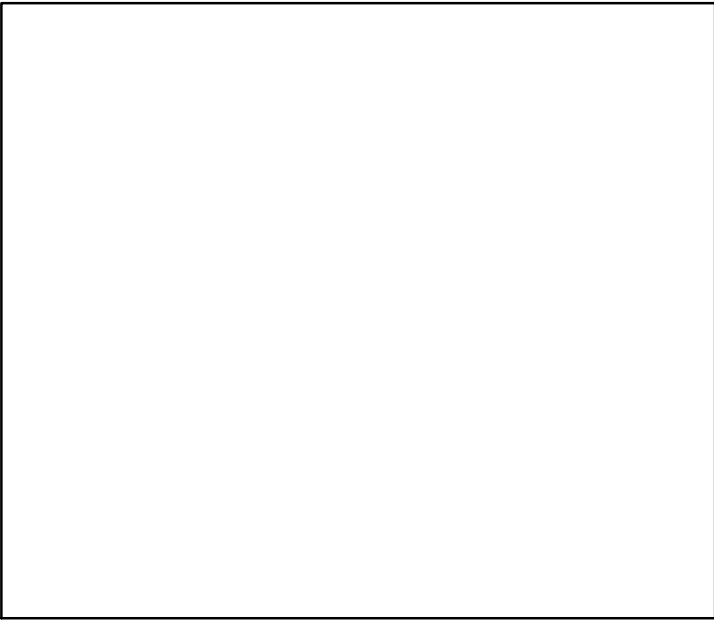
## American plaice Flemish Cap [AMPL3M]

Metadata	
<b>Scientific Name</b>	Hippoglossoides platessoides
<b>Current Assess ID</b>	NAFO-SC-AMPL3M-1960-2007-BAUM
<b>Area</b>	Flemish Cap
<b>Management Authority</b>	Northwest Atlantic Fisheries Organization
<b>Assessor</b>	NAFO Scientific Council
<b>Asmts in RAM</b>	2007

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	2007	0.2
<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	1890	-	-
<b>SSB</b>	SSB-MT	2007	1170	Females	5+
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2007	20,800,000	-	1
<b>F</b>	F-1/yr	2007	0.064	-	3 to 13
<b>ER</b>	ER-ratio	2007	0	-	-
<b>TC</b>	TC-MT	2007	0		
<b>TL</b>	-	-	-		
<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>	-	-	-		

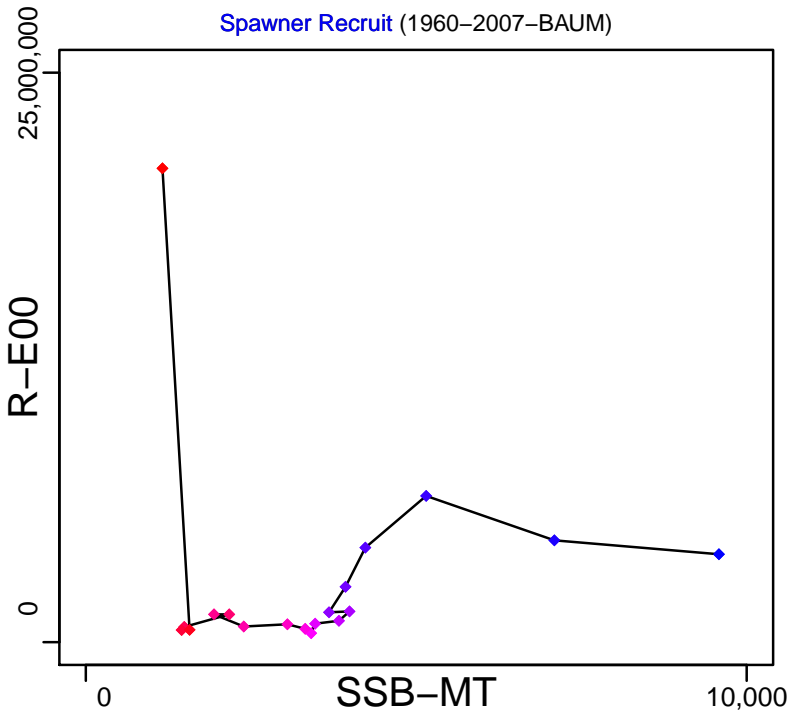
**Kobe MSY\***



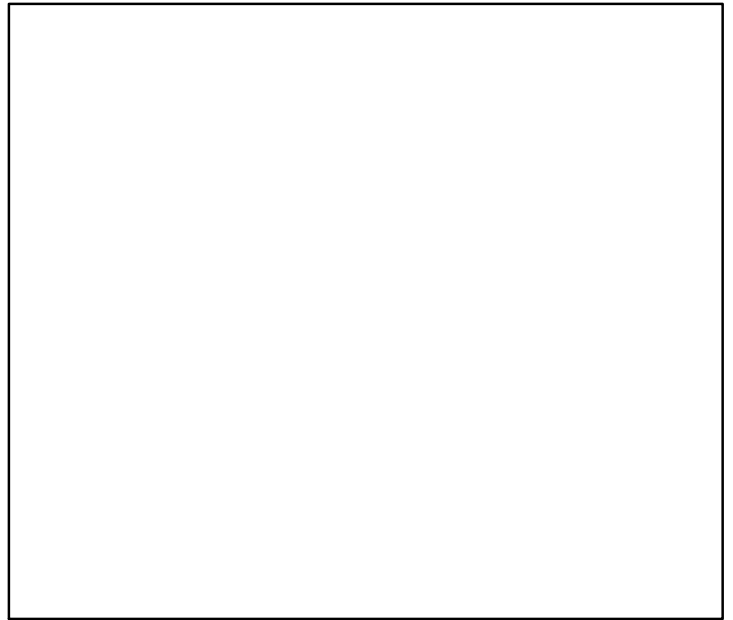
**Kobe MGT\***



**Spawner Recruit (1960–2007–BAUM)**



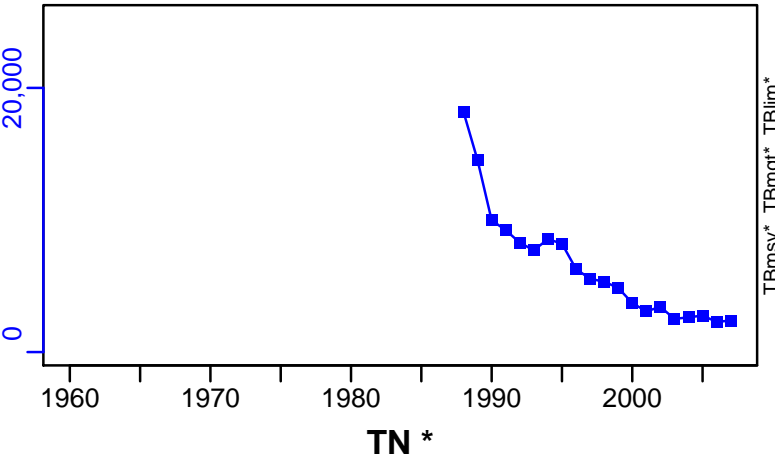
**Production\***



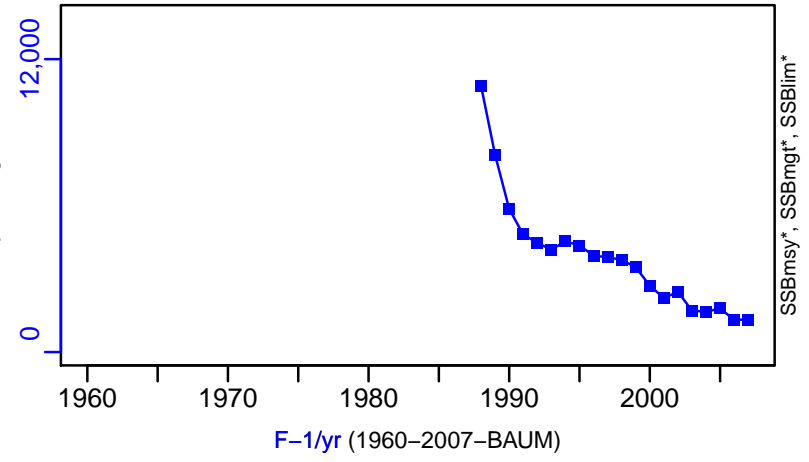
◆ Start Year ◆ End Year \* No Data

# American plaice Flemish Cap [AMPL3M]

TB-MT (1960–2007–BAUM)



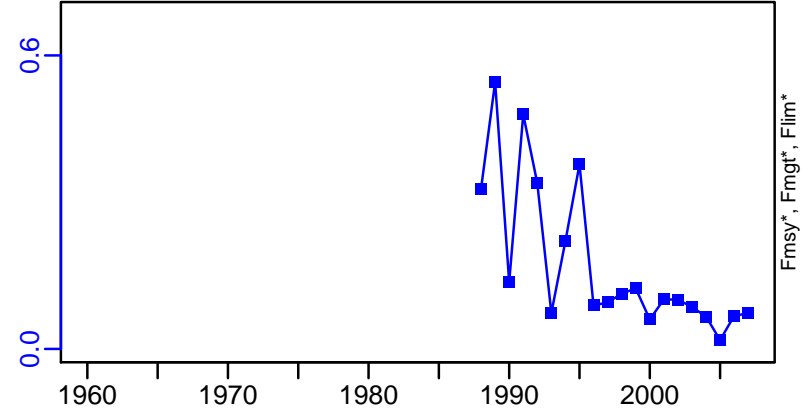
SSB-MT (1960–2007–BAUM)



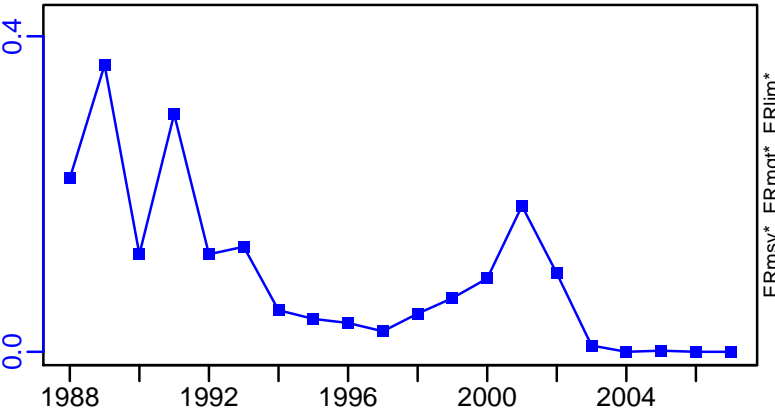
TN \*



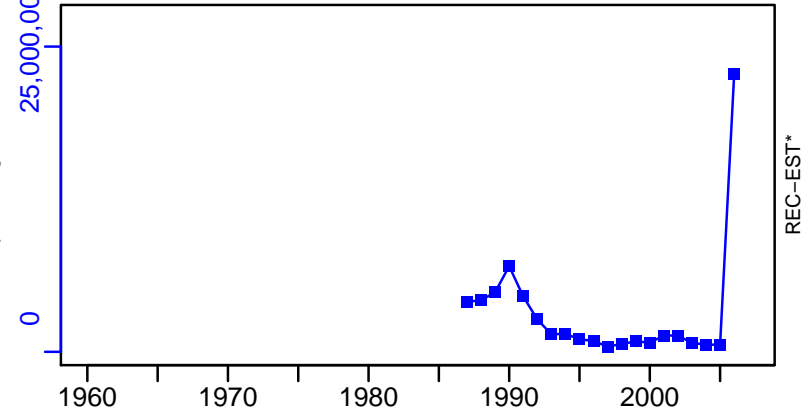
F-1/yr (1960–2007–BAUM)



ER-ratio (1960–2007–BAUM)



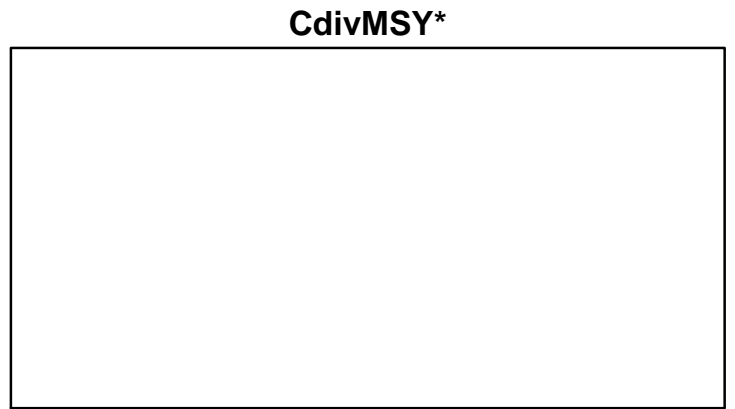
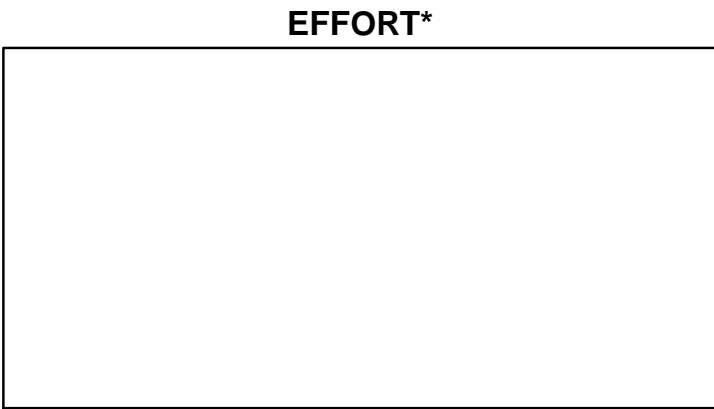
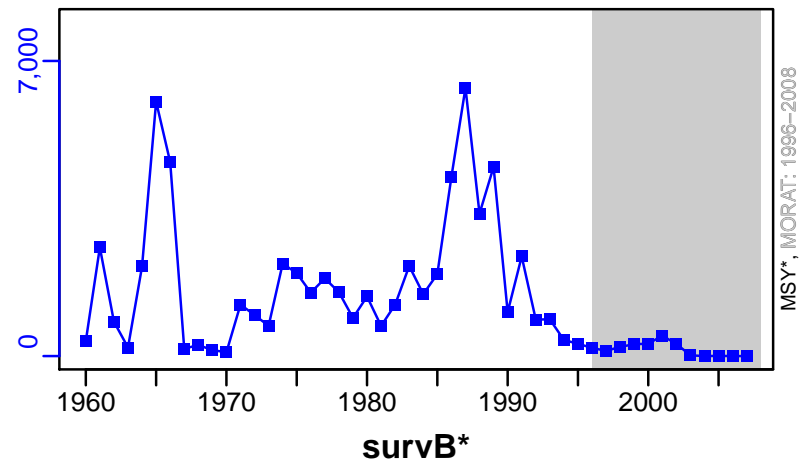
R-E00 (1960–2007–BAUM)



# American plaice Flemish Cap [AMPL3M]

TC-MT, TL\*, RecC\* (1960–2007–BAUM)

TAC\*, Cpair\*, Cadv\*



## American plaice St. Pierre Bank [AMPL3Ps]

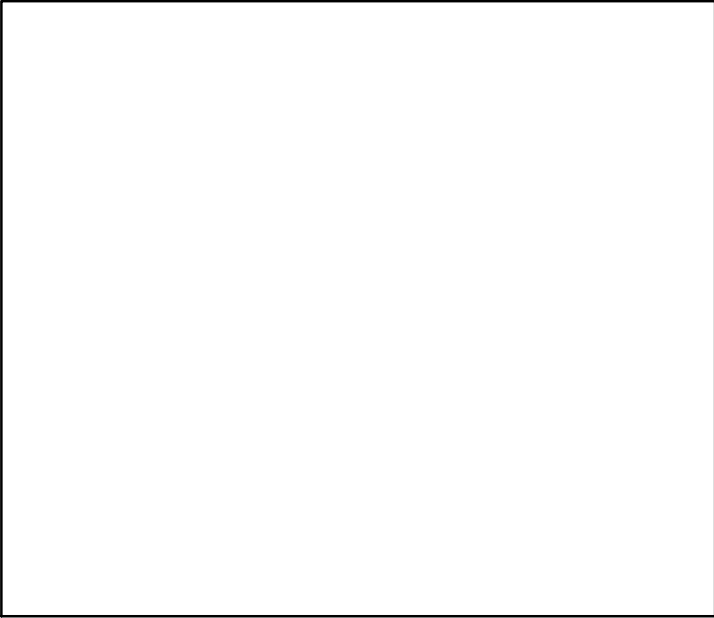
Metadata	
<b>Scientific Name</b>	Hippoglossoides platessoides
<b>Current Assess ID</b>	DFO-AMPL3Ps-1960-2013-WATSON
<b>Area</b>	St. Pierre Bank
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans
<b>Asmts in RAM</b>	2013, 2005

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

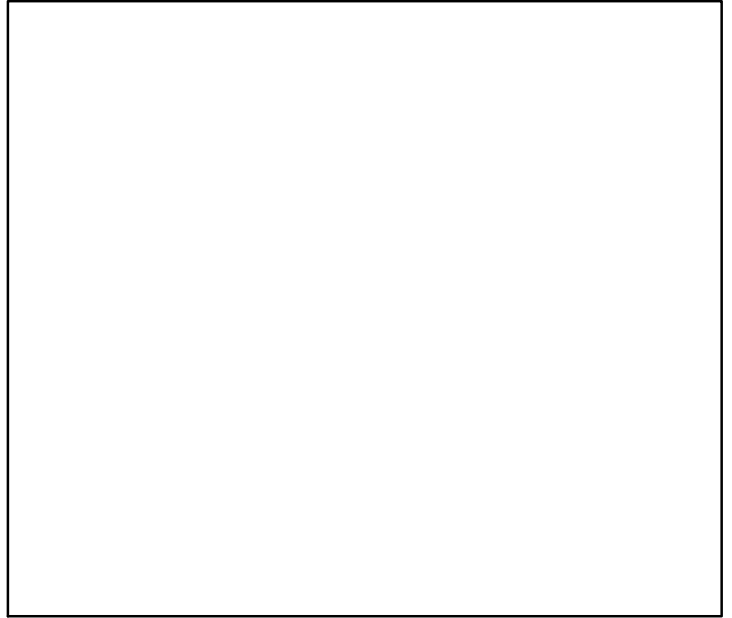
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-index	2013	15	Both	-
SSB	-	-	-	-	-
TN	TN-index	2013	112	-	-
R	R-E00	2005	27,200,000	-	5
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2005	503		
TL	TL-MT	2013	103		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



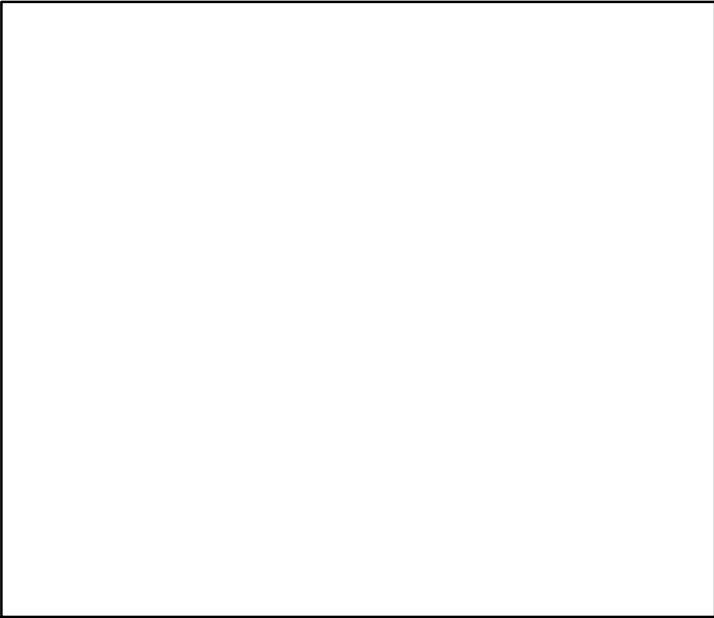
**Kobe MSY\***



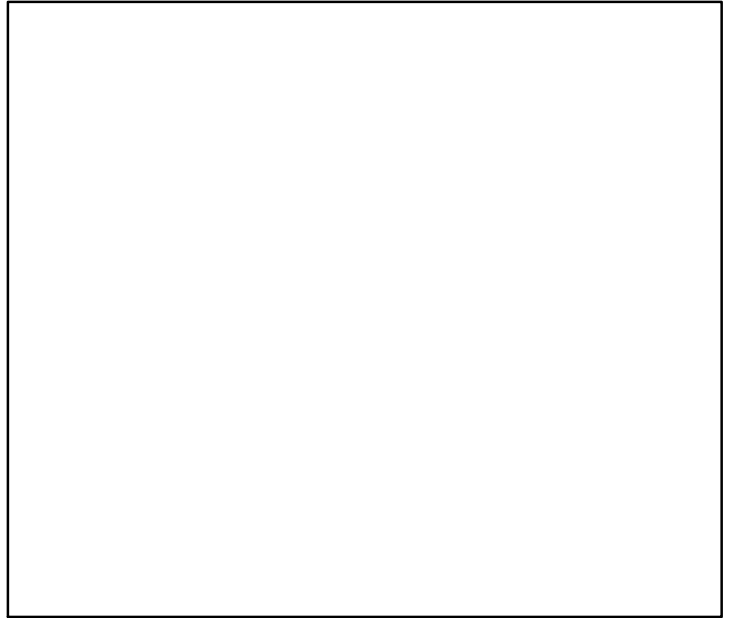
**Kobe MGT\***



**Spawner Recruit\***



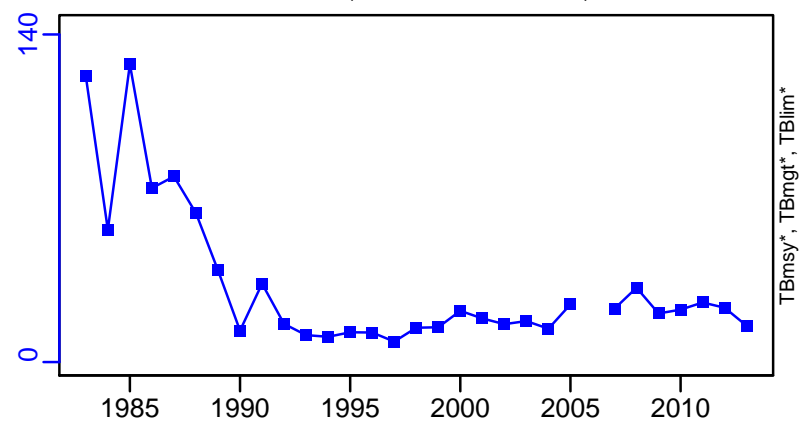
**Production\***



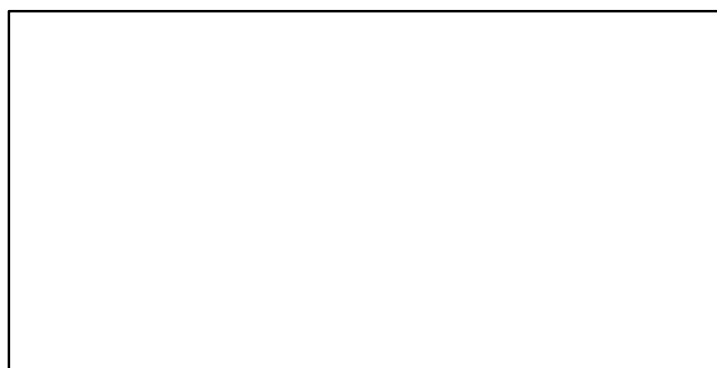
◆ Start Year   ◆ End Year   \* No Data

# American plaice St. Pierre Bank [AMPL3Ps]

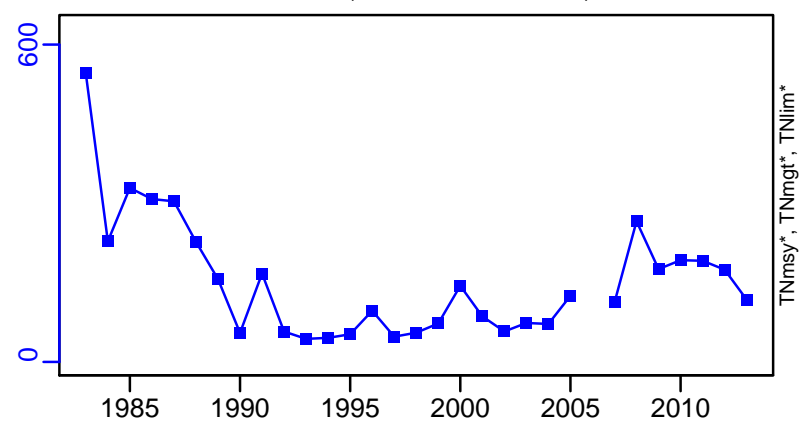
TB-index (1960–2013–WATSON)



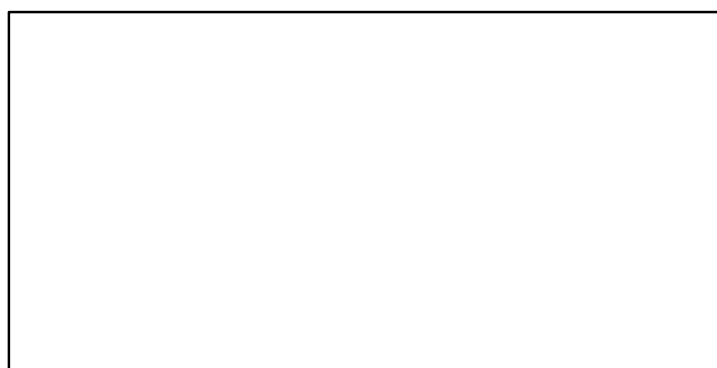
SSB\*



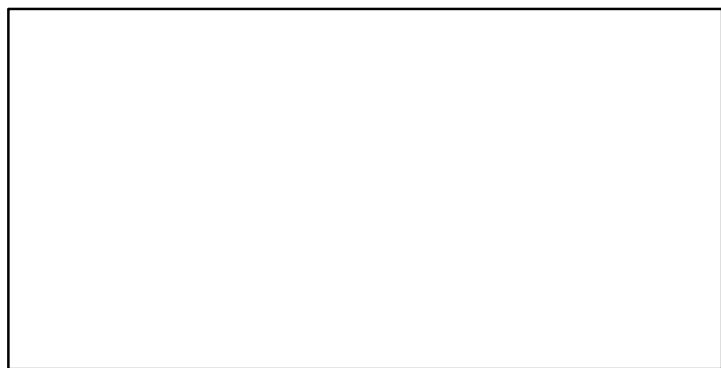
TN-index (1960–2013–WATSON)



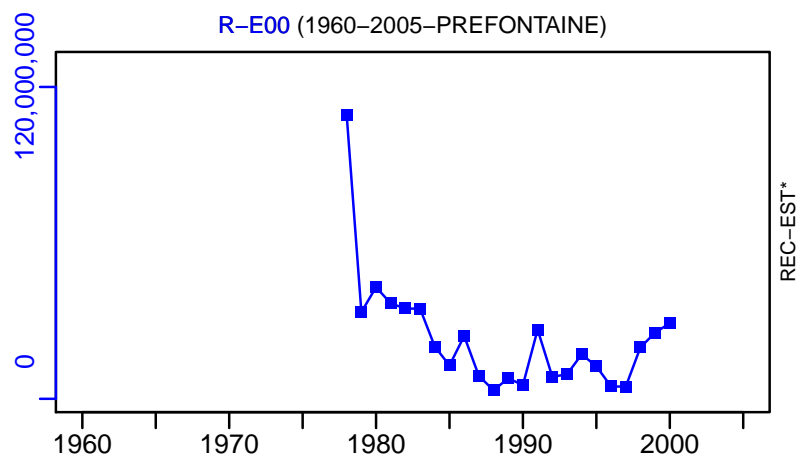
F\*



ER\*



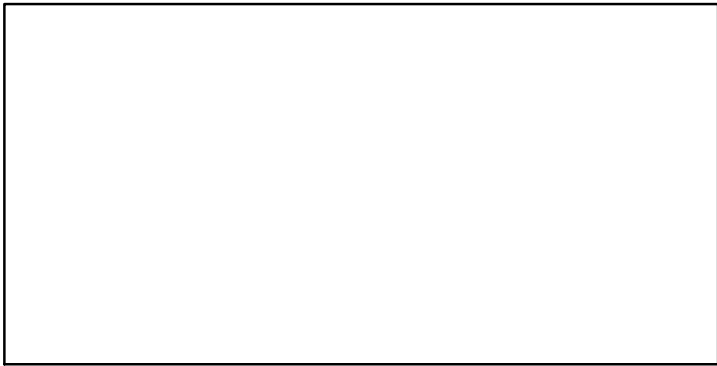
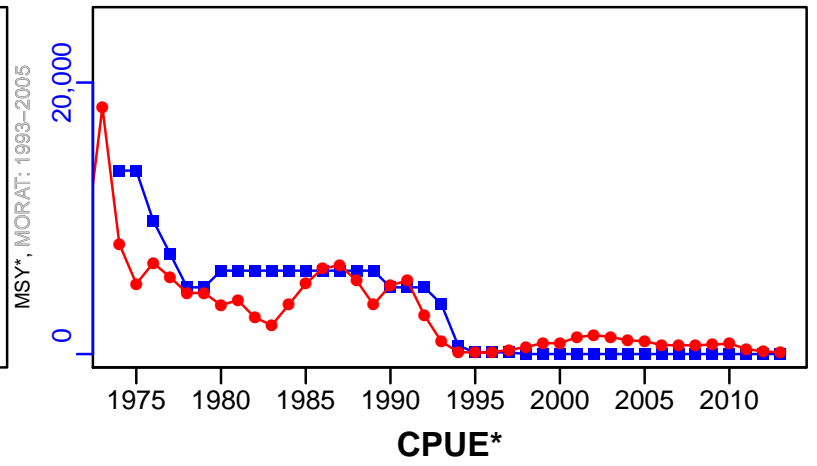
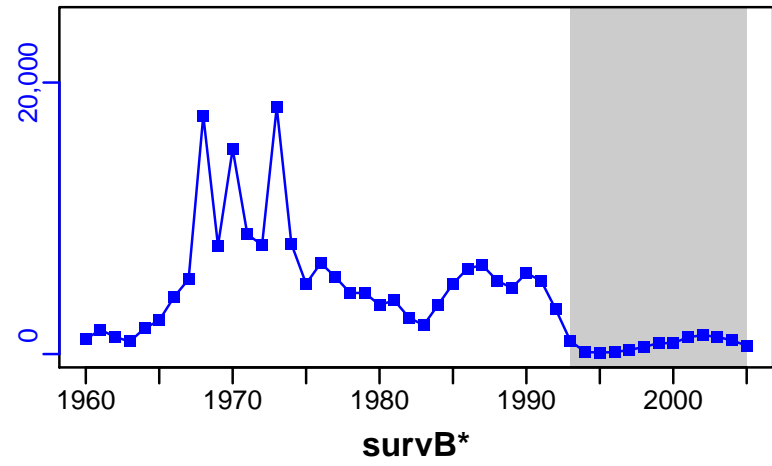
R-E00 (1960–2005–PREFONTAINE)



# American plaice St. Pierre Bank [AMPL3Ps]

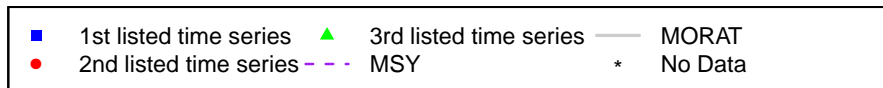
TC-MT, TL\*, RecC\* (1960–2005–PREFONTAINE)

TAC-MT, Cpair-MT, Cadv\* (1960–2013–WATSON)



**EFFORT\***

**CdivMSY\***



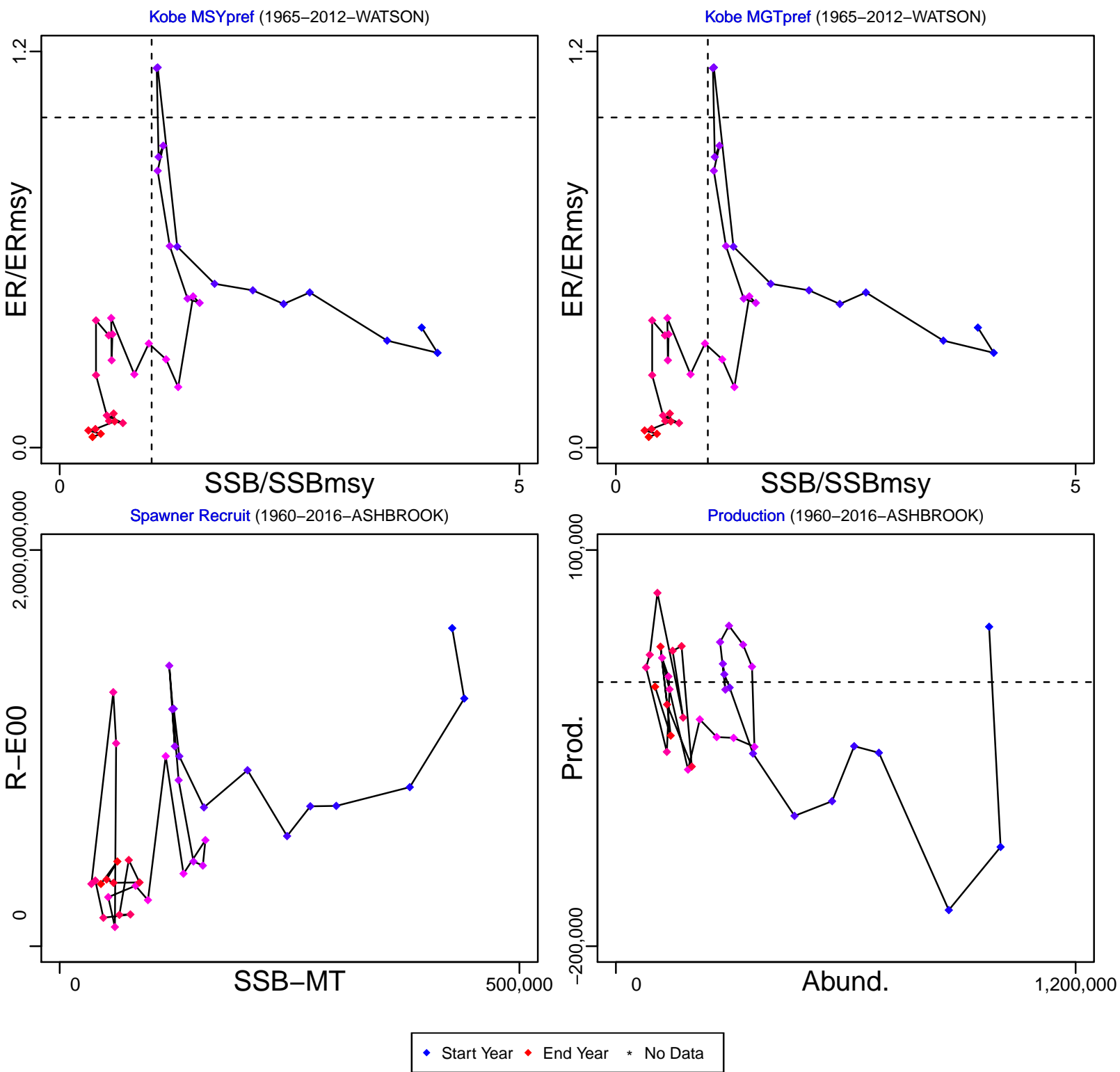
## American plaice Southern Gulf of St. Lawrence [AMPL4T]

Metadata	
<b>Scientific Name</b>	Hippoglossoides platessoides
<b>Current Assess ID</b>	DFO-SG-AMPL4T-1960-2016-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>	2012, 2016

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-est-MT	2012	98,551
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-est-ratio	2012	0.035
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-est-MT	2012	7825
<b>M</b>	M-1/yr	2016	0.39
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2012	64,000
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

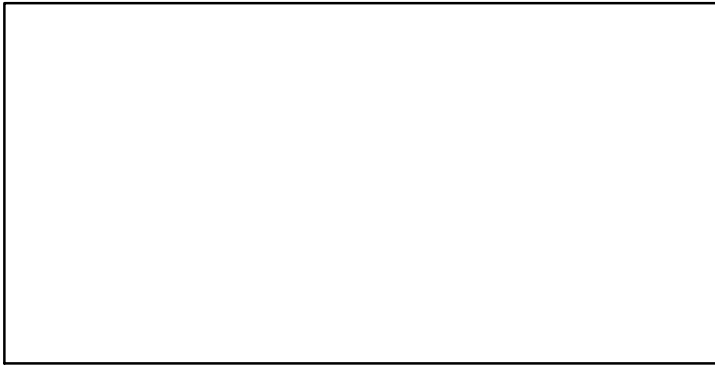
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2016	48,664	-	-
<b>TN</b>	TN-E00	2012	$9.26 \times 10^8$	-	4 to 9
<b>R</b>	R-E00	2016	314,261,730	-	4
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2016	0.001	-	-
<b>TC</b>	TC-MT	2012	90		
<b>TL</b>	TL-MT	2016	120		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-est-MT	2012	0.423		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-est-ratio	2012	0.032		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# American plaice Southern Gulf of St. Lawrence [AMPL4T]

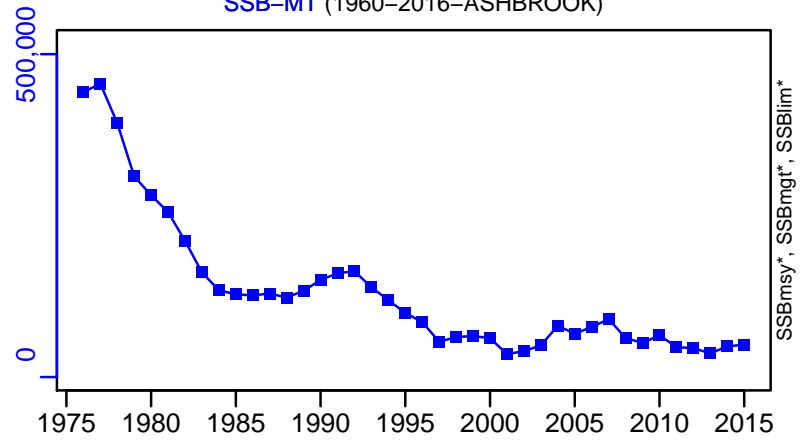


# American plaice Southern Gulf of St. Lawrence [AMPL4T]

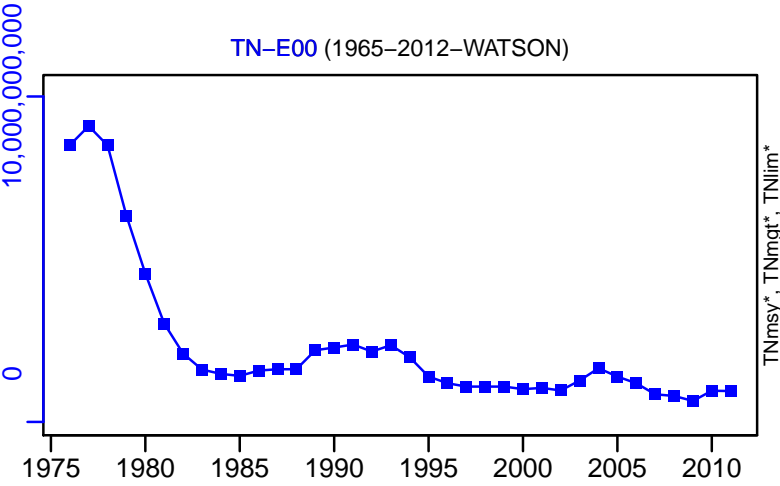
TB\*



SSB-MT (1960–2016–ASHBROOK)



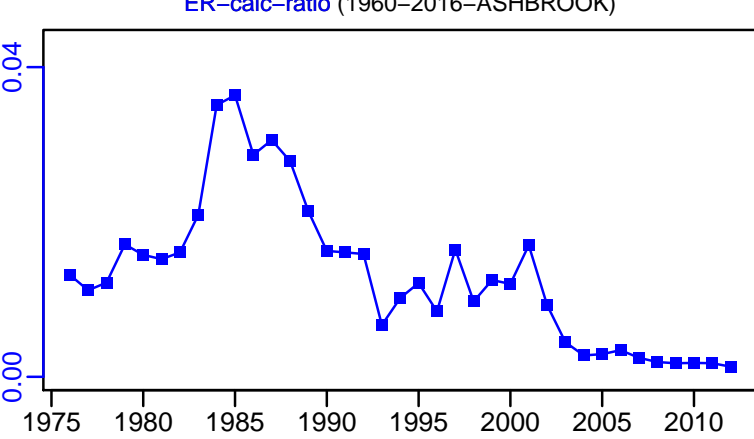
TN-E00 (1965–2012–WATSON)



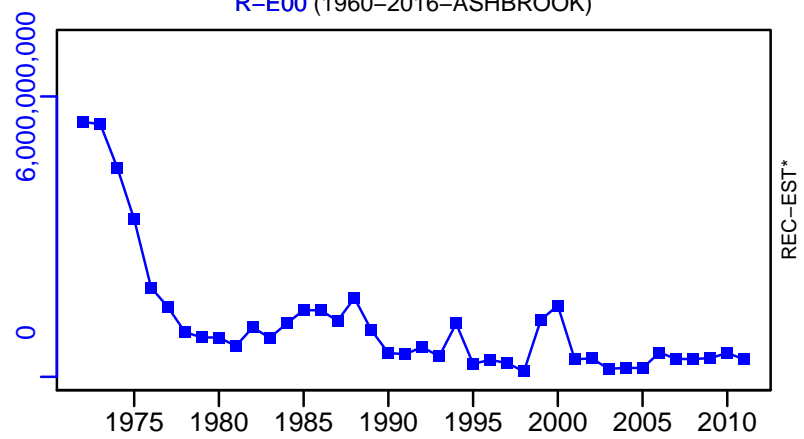
F\*



ER-calc-ratio (1960–2016–ASHBROOK)

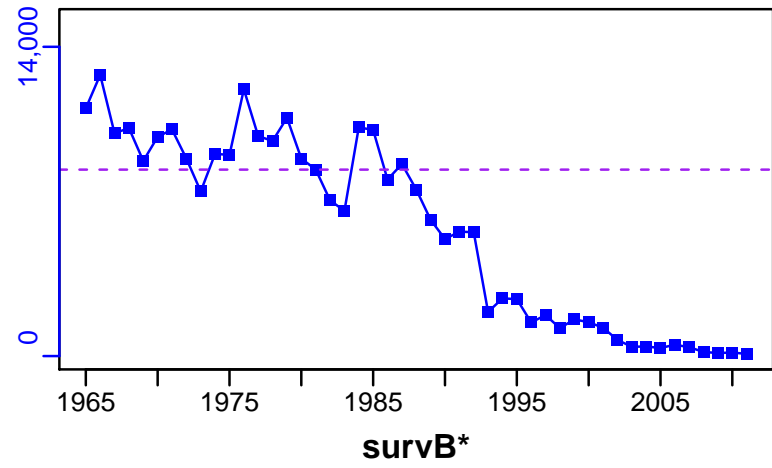


R-E00 (1960–2016–ASHBROOK)

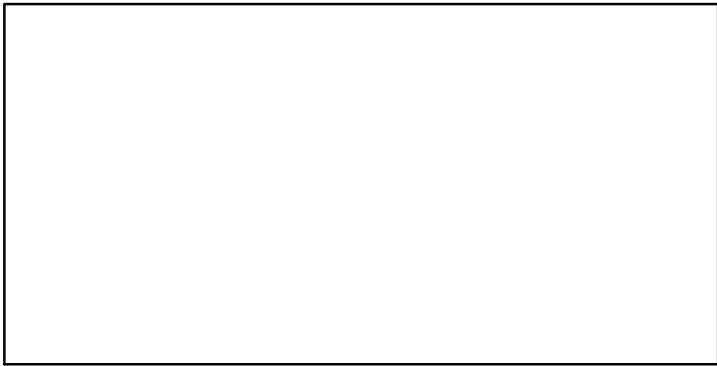
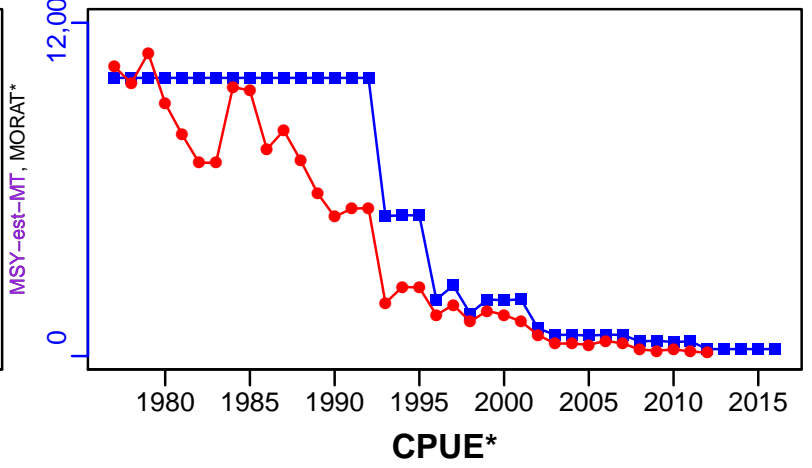


# American plaice Southern Gulf of St. Lawrence [AMPL4T]

TC-MT, TL\*, RecC\* (1965-2012-WATSON)



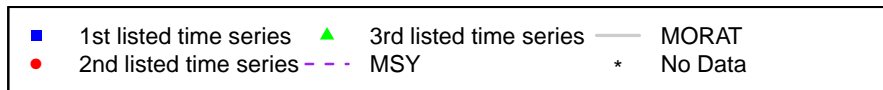
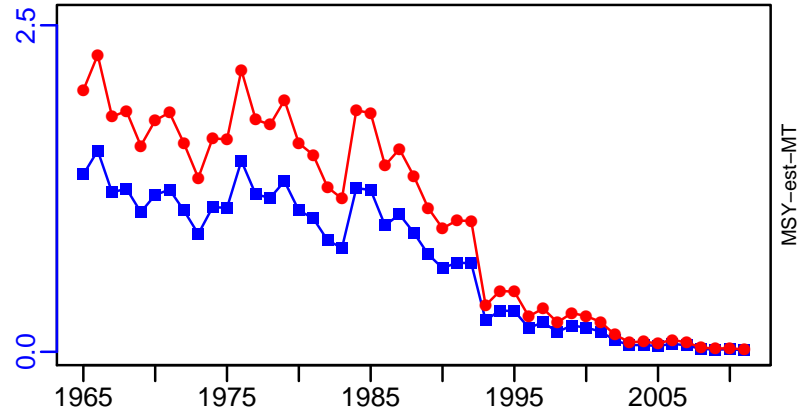
TAC-MT, Cpair-MT, Cadv\* (1960-2016-ASHBROOK)



EFFORT\*



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



## American plaice Scotian Shelf and Bay of Fundy [AMPL4VWX]

Metadata	
<b>Scientific Name</b>	Hippoglossoides platessoides
<b>Current Assess ID</b>	DFO-AMPL4VWX-1961-2010-WATSON
<b>Area</b>	Scotian Shelf and Bay of Fundy
<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

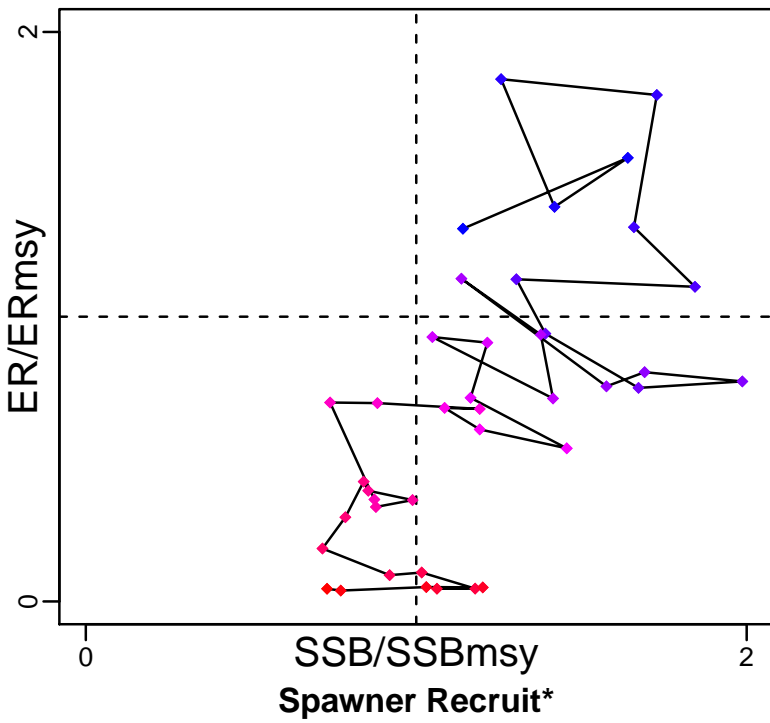
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-est-MT	2010	21,643
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-est-ratio	2010	0.113
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2010	5113
<b>M</b>	-	-	-
<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	2010	15,800	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2010	0.005	-	-
<b>TC</b>	-	-	-		
<b>TL</b>	TL-MT	2010	250		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-est-MT	2010	0.73		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-est-ratio	2010	0.045		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

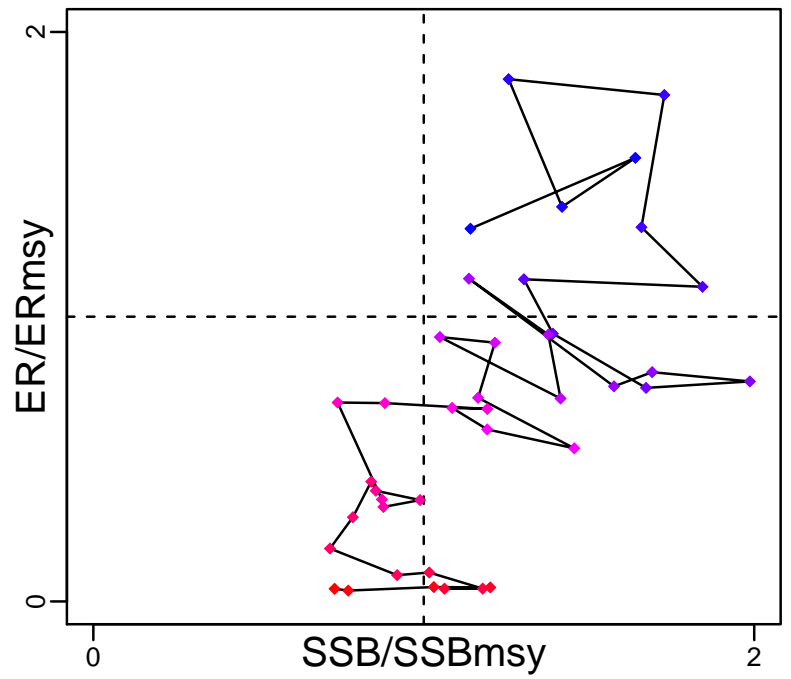


# American plaice Scotian Shelf and Bay of Fundy [AMPL4VWX]

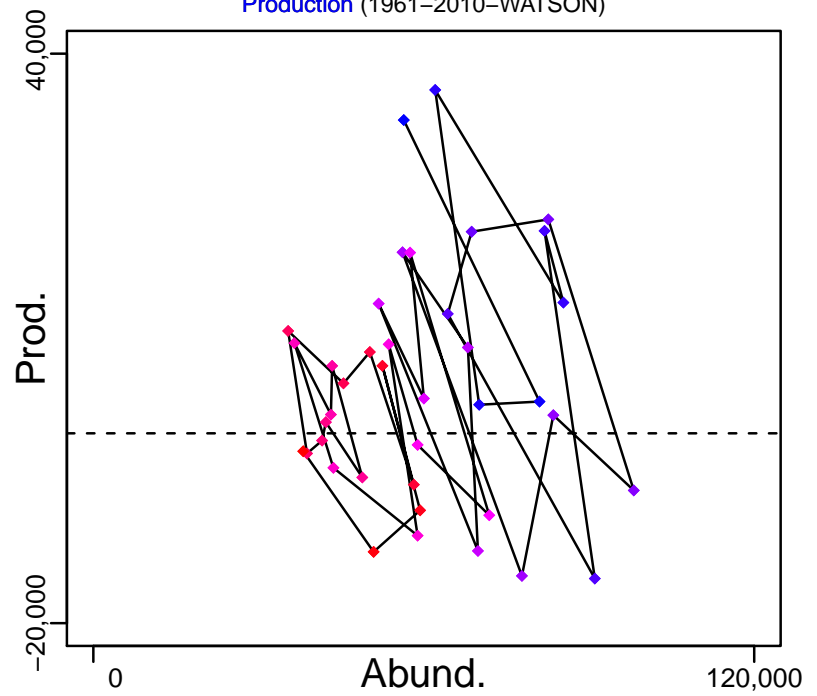
Kobe MSY<sub>pref</sub> (1961–2010–WATSON)



Kobe MGT<sub>pref</sub> (1961–2010–WATSON)



Production (1961–2010–WATSON)



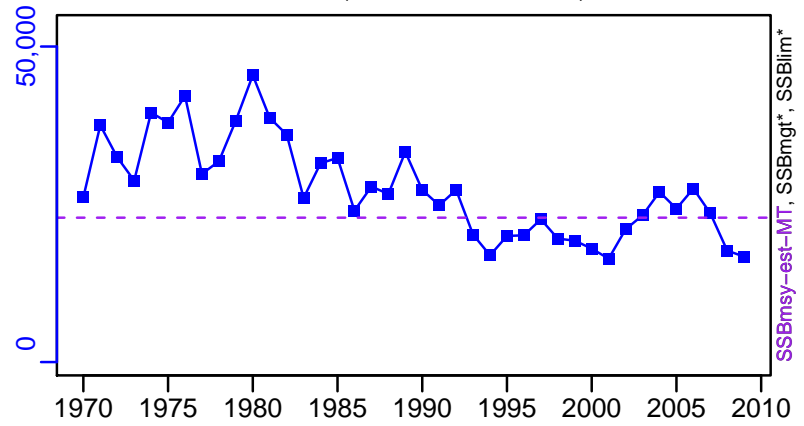
◆ Start Year ◆ End Year \* No Data

American plaice Scotian Shelf and Bay of Fundy [AMPL4VWX]

TB\*



SSB-MT (1961-2010-WATSON)



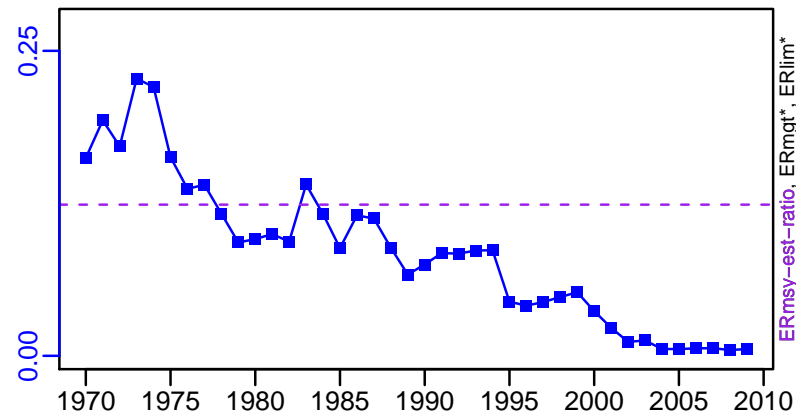
TN \*



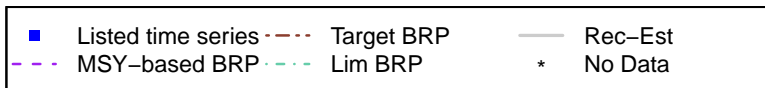
F\*



ER-calc-ratio (1961-2010-WATSON)

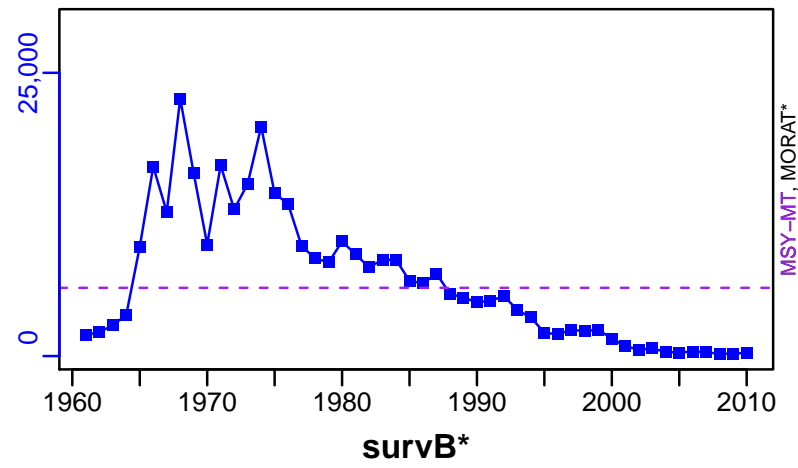


Recruits\*



# American plaice Scotian Shelf and Bay of Fundy [AMPL4VWX]

TL-MT, TC\*, RecC\* (1961-2010-WATSON)



TAC\*, Cpair\*, Cadv\*



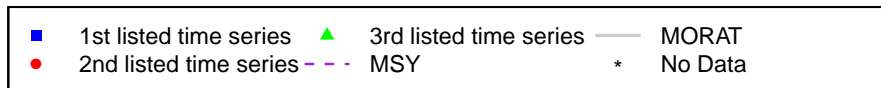
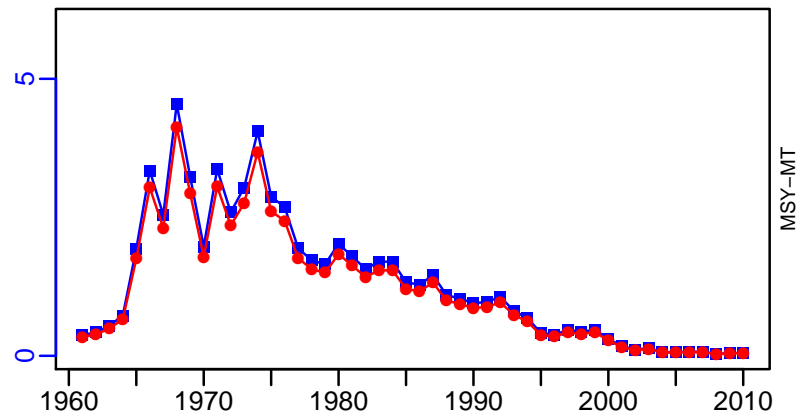
CPUE\*



EFFORT\*



TL-MT/MSY-MT, CdivMEANC-ratio, (1961-2010-WATSON)



## 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			
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	2014	785		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***

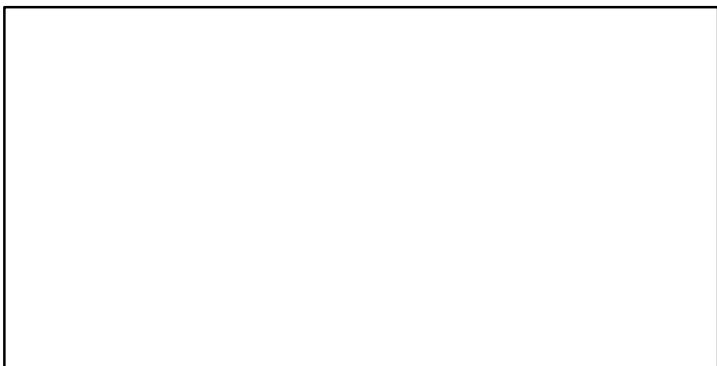


**Production\***

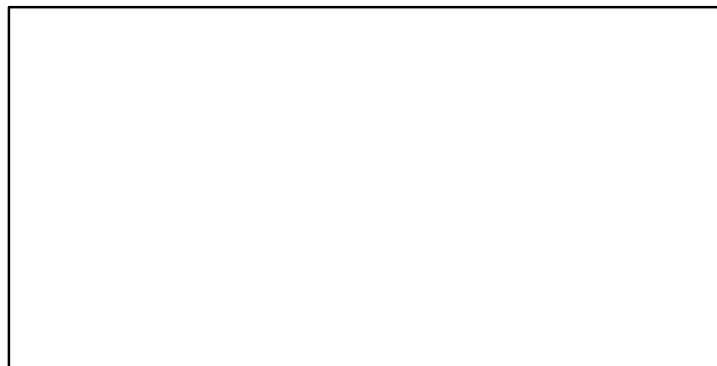


◆ Start Year ◆ End Year \* No Data

**TB\***



**SSB\***



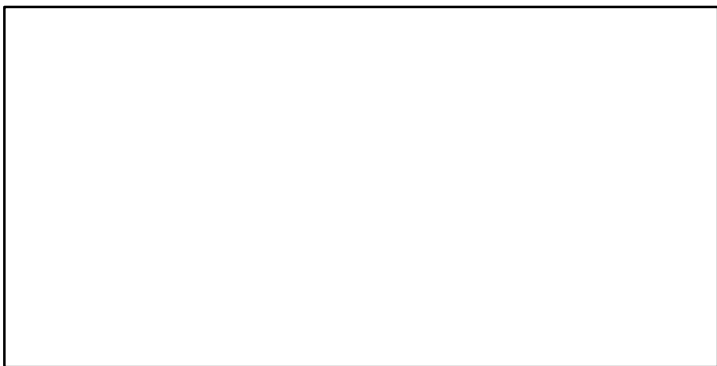
**TN \***



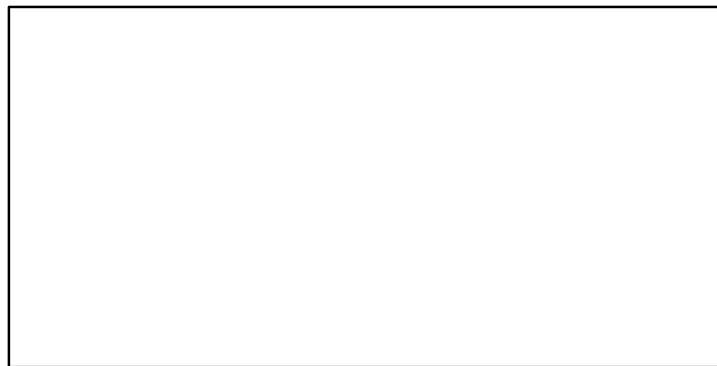
**F\***



**ER\***

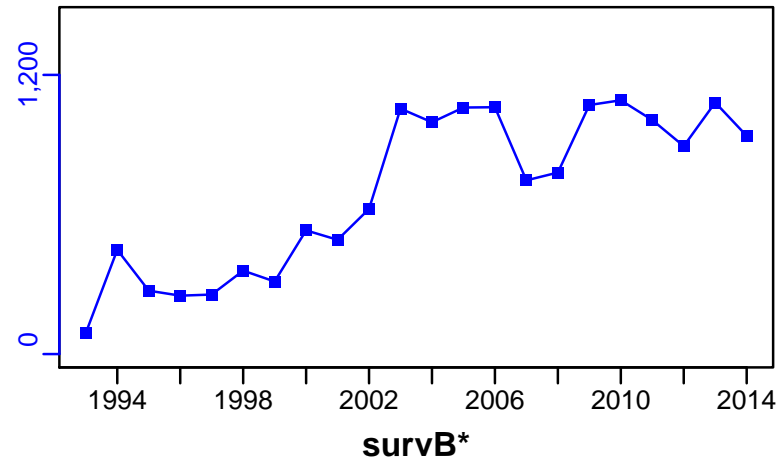


**Recruits\***

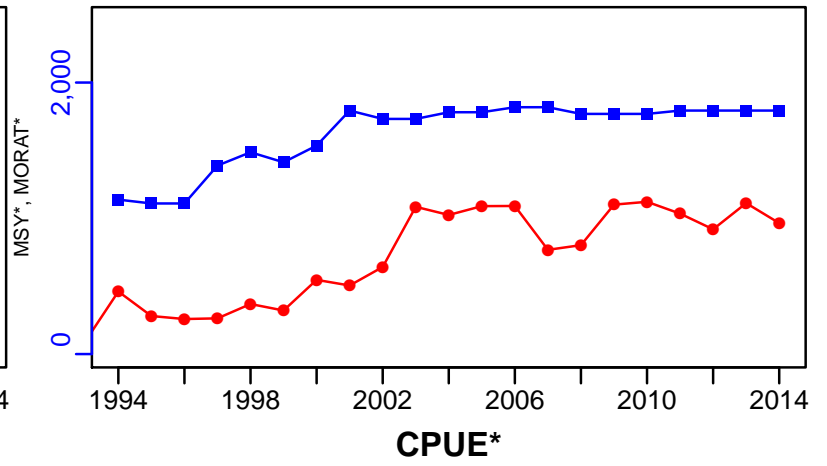


# Arctic surfclam Quebec and Gulf of St. Lawrence [ARCSURF4RST]

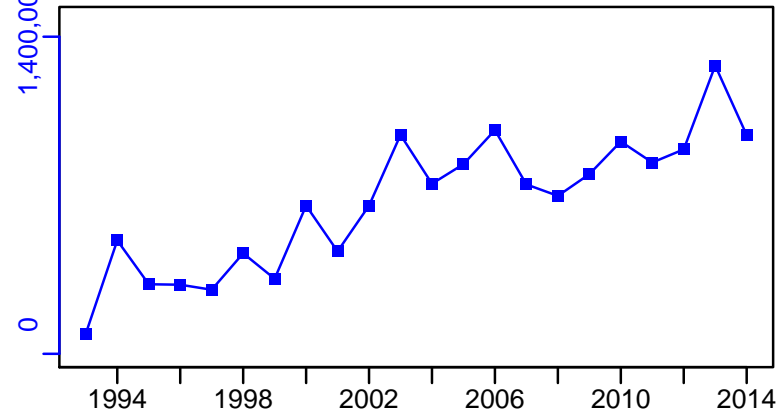
TL-MT, TC\*, RecC\* (1993-2014-OSGOOD)



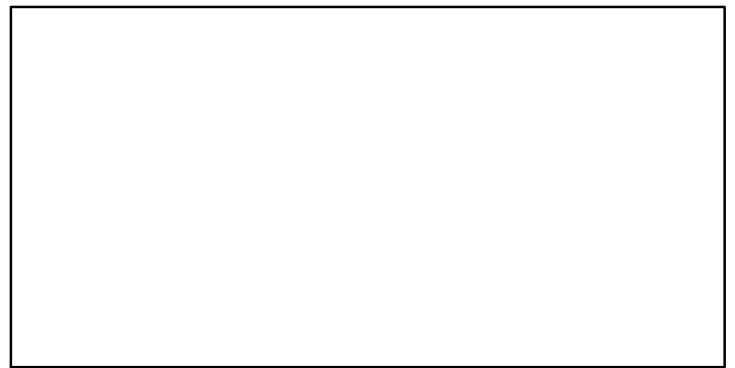
TAC-MT, Cpair-MT, Cadv\* (1993-2014-OSGOOD)



EFFORT-m2 (1993-2014-OSGOOD)



CdivMSY\*



## Arctic surfclam Banquereau [ARCSURFBANQ]

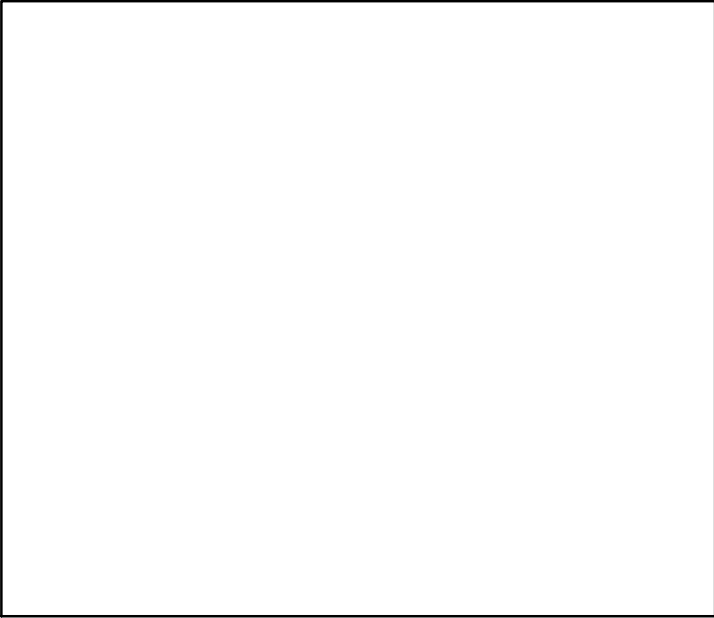
Metadata	
<b>Scientific Name</b>	Mactromeris polynyma
<b>Current Assess ID</b>	DFO-MAR-ARCSURFBANQ-1986-2010-CHING
<b>Area</b>	Banquereau
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans - Maritimes Region
<b>Asmts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

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

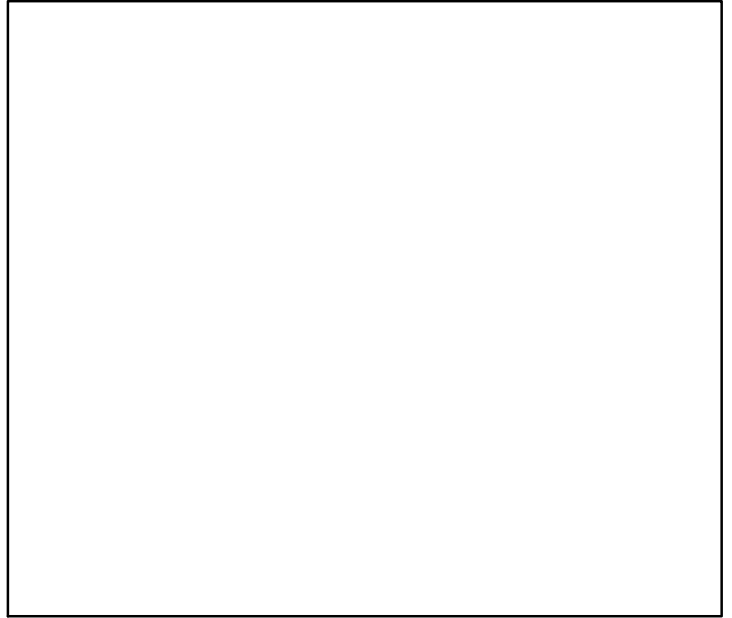
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2010	22,500		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



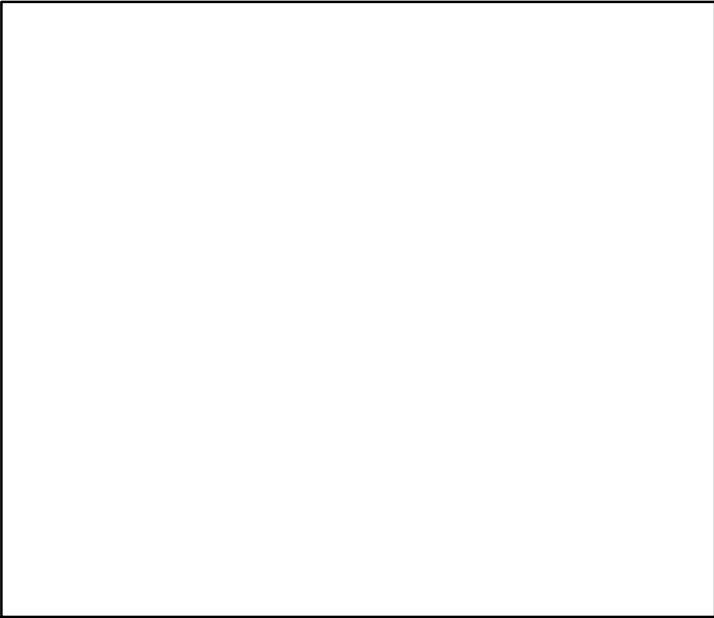
**Kobe MSY\***



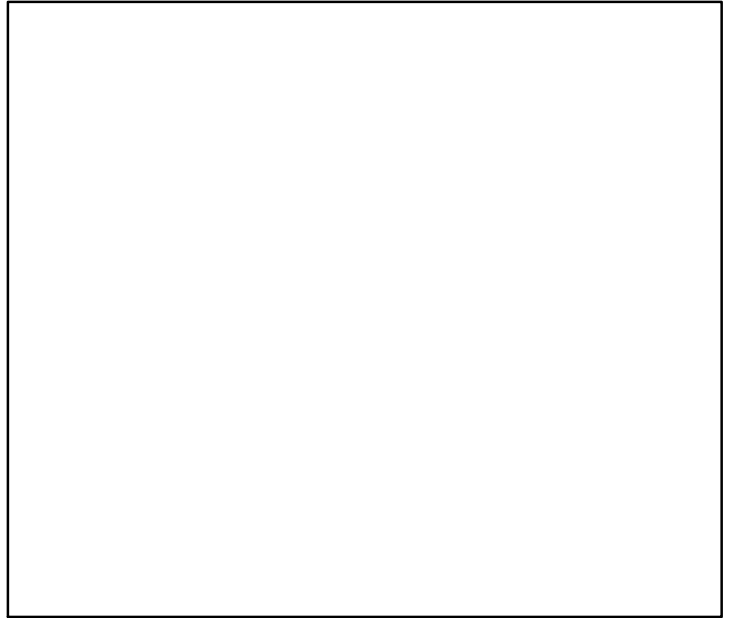
**Kobe MGT\***



**Spawner Recruit\***



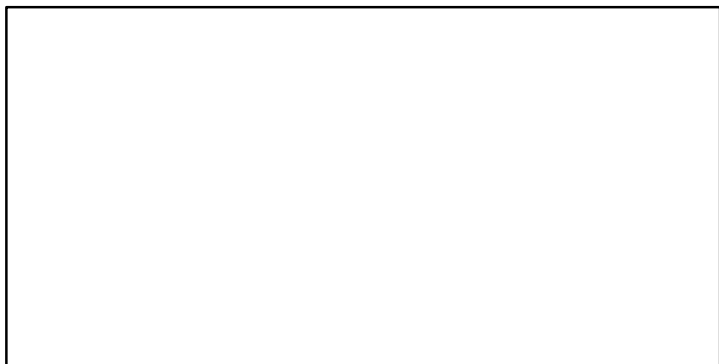
**Production\***



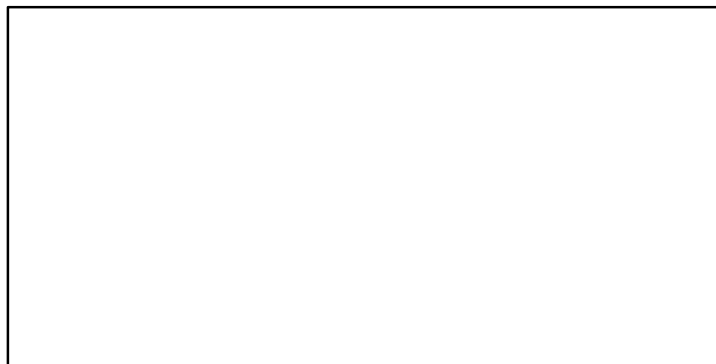
◆ Start Year    ◆ End Year    \* No Data

Arctic surfclam Banquereau [ARCSURFBANQ]

**TB\***



**SSB\***



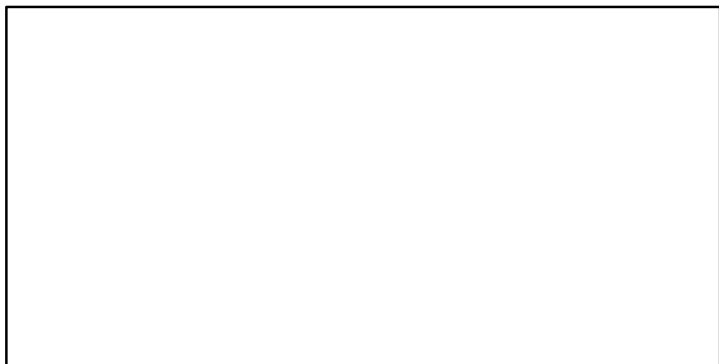
**TN \***



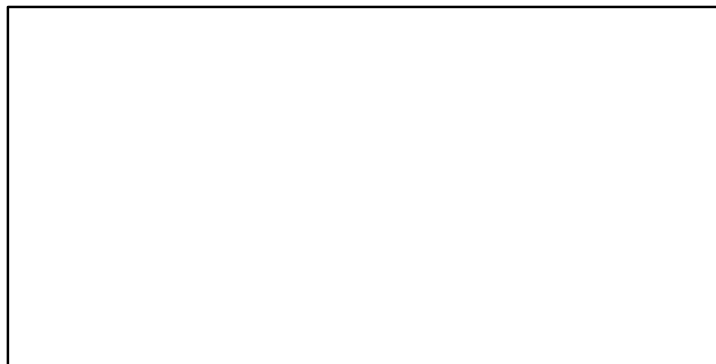
**F\***



**ER\***



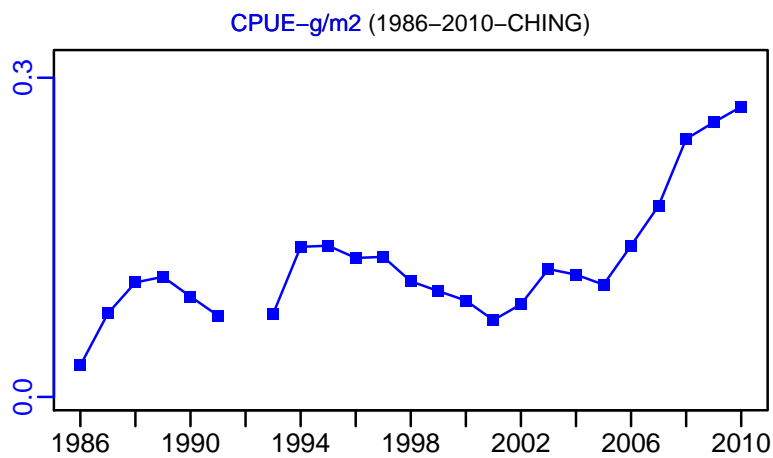
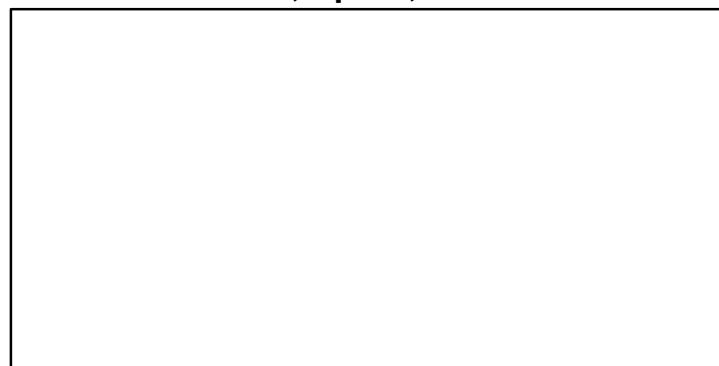
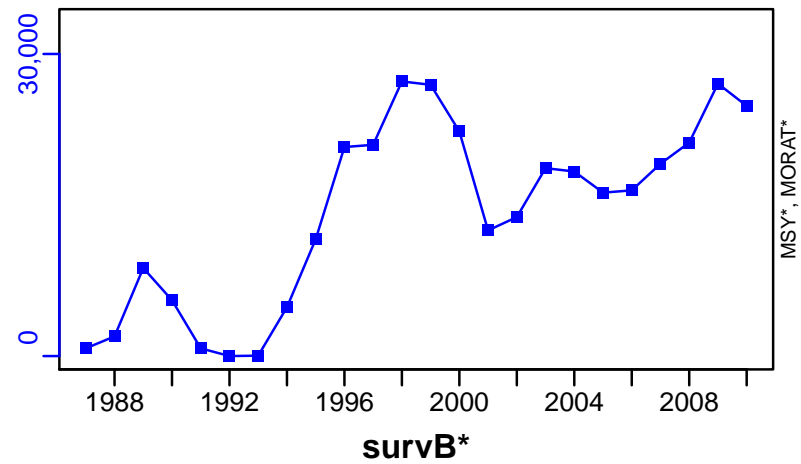
**Recruits\***



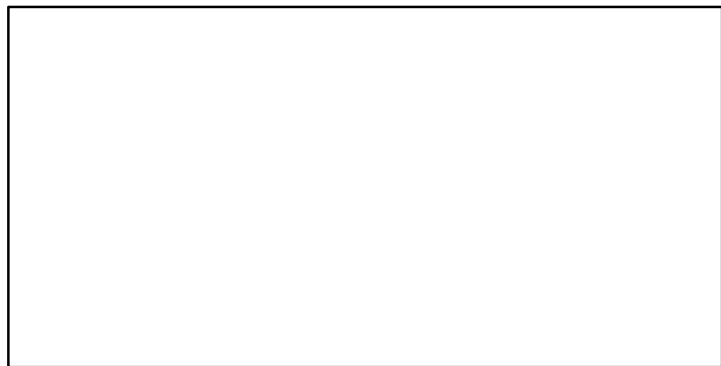
# Arctic surfclam Banquereau [ARCSURFBANQ]

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

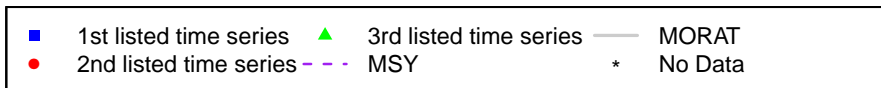
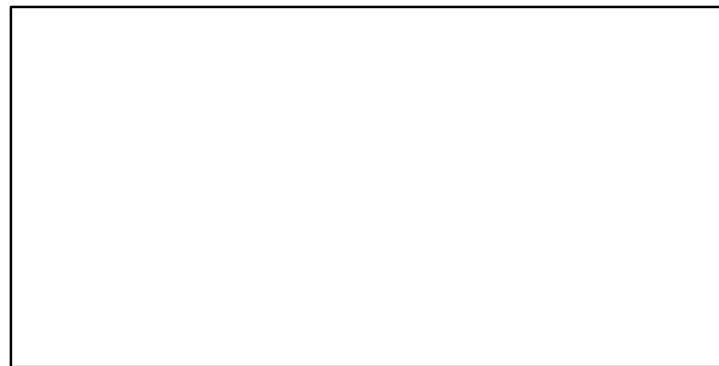
TAC\*, Cpair\*, Cadv\*



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			
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	2010	0.08
<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	2010	346		
<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

**TB\***



**SSB\***



**TN \***



**F\***



**ER\***



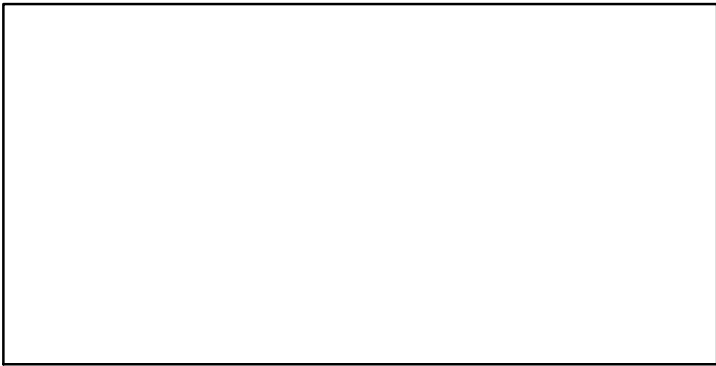
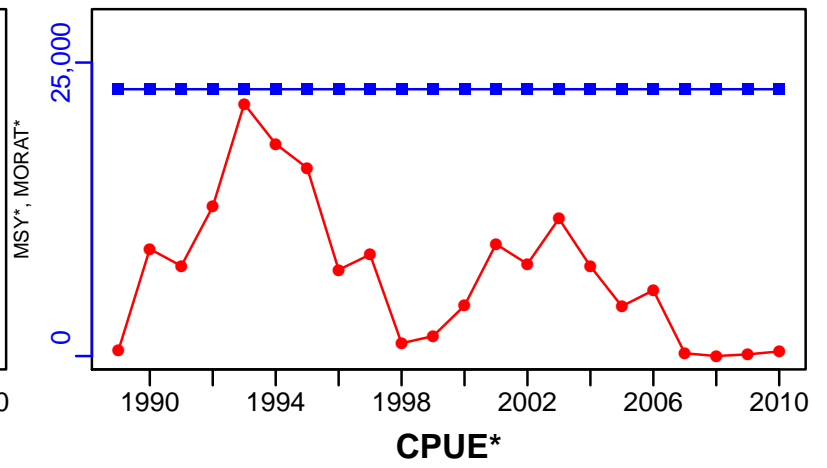
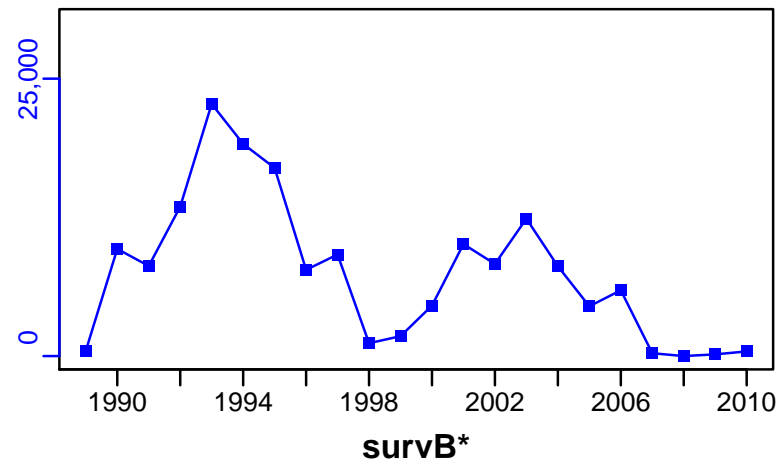
**Recruits\***



# Arctic surfclam Division 3LNO [ARCSURFGB]

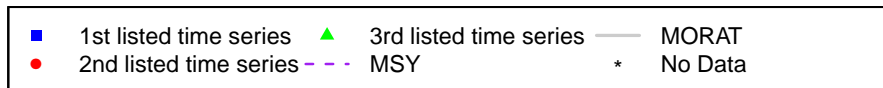
TL-MT, TC\*, RecC\* (1989-2010-WATSON)

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-1993-2011-CHING
<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

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	2011	844		
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\*



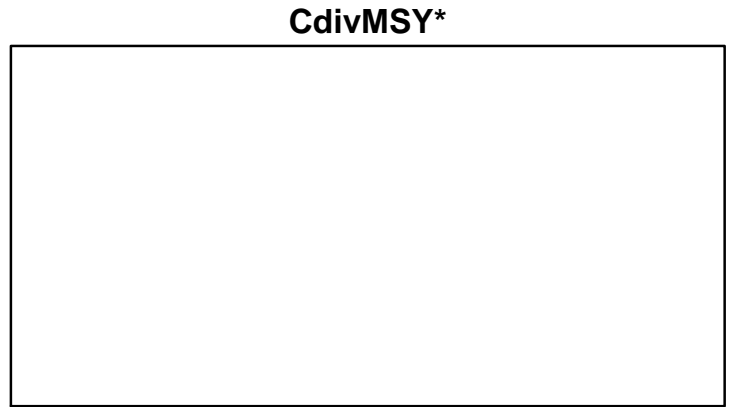
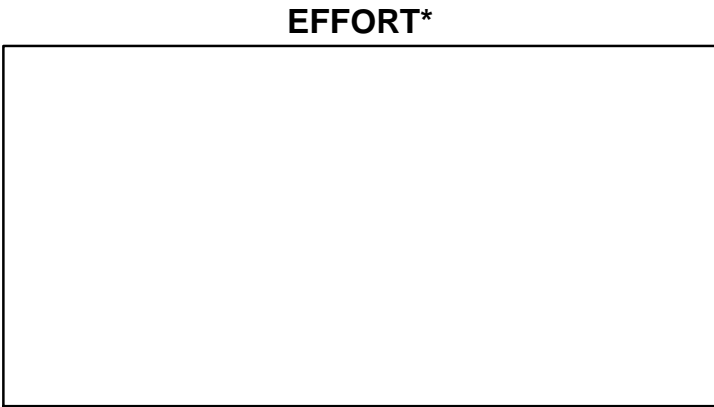
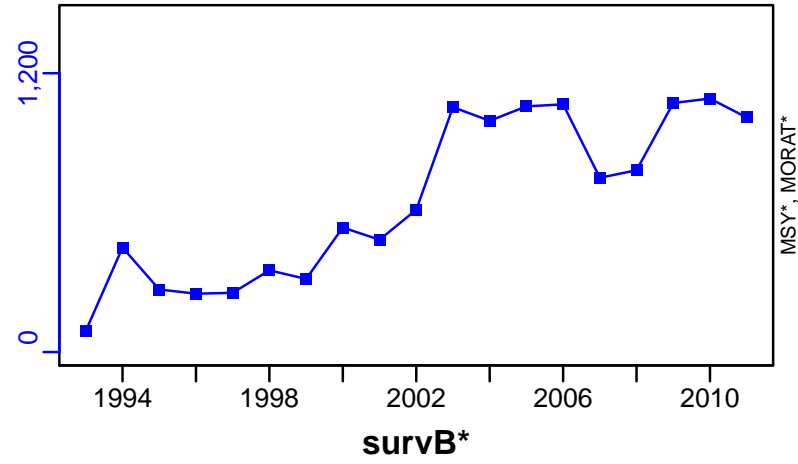
Recruits\*



# Arctic surfclam Quebec Coastal Waters [ARCSURFQCW]

TL-MT, TC\*, RecC\* (1993-2011-CHING)

TAC\*, Cpair\*, Cadv\*



## Atlantic halibut Scotian Shelf and Southern Grand Banks [ATHAL3NOPs4VWX5Zc]

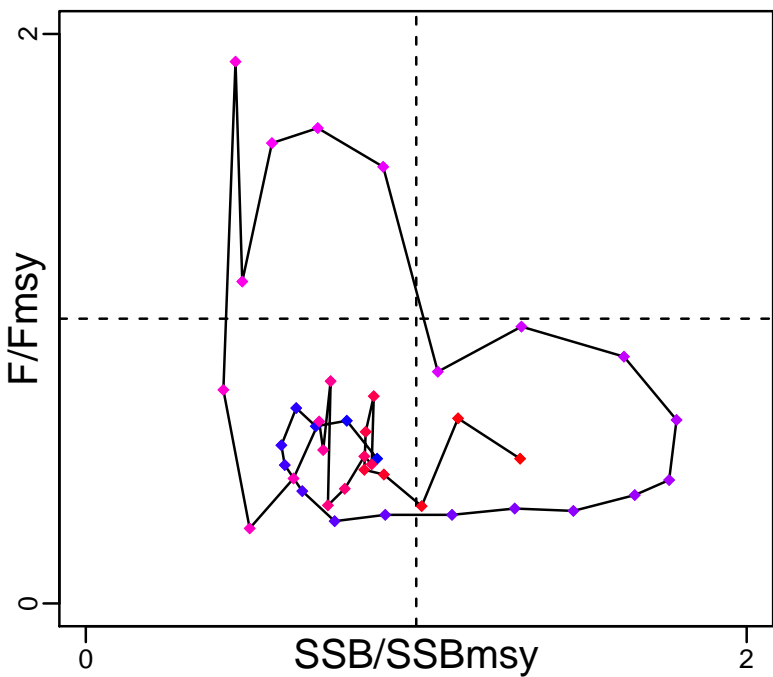
Metadata	
<b>Scientific Name</b>	Hippoglossus hippoglossus
<b>Current Assess ID</b>	DFO-ATHAL3NOPs4VWX5Zc-1970-2014-WATSON
<b>Area</b>	Scotian Shelf and Southern Grand Banks
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans
<b>Asmts in RAM</b>	2014, 2010

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2010	4900
<b>Fmsy</b>	Fmsy-1/yr	2010	0.36
<b>ERmsy</b>	ERmsy-est-ratio	2010	0.096
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-est-MT	2010	2125
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

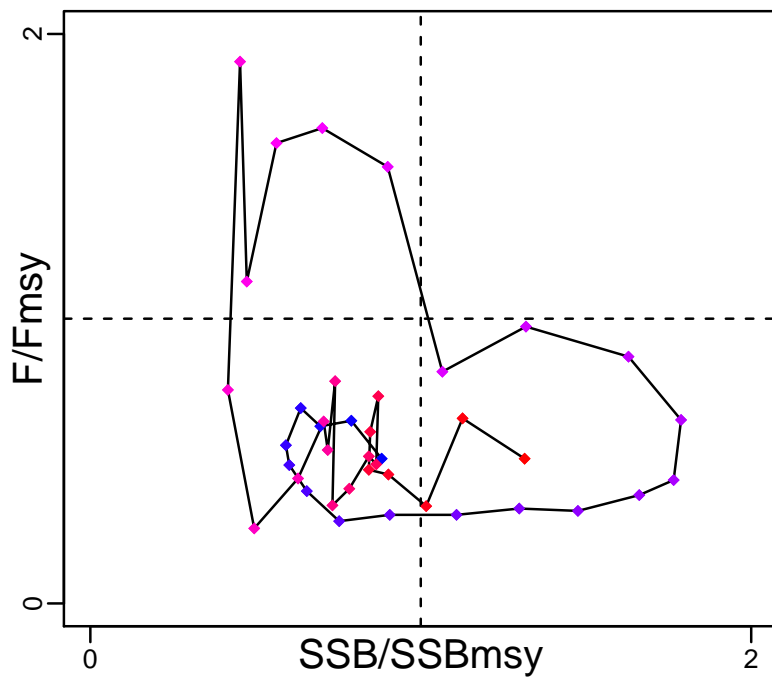
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2014	31,800	-	-
<b>SSB</b>	SSB-MT	2014	6650	-	-
<b>TN</b>	TN-E00	2014	3,460,000	Both	-
<b>R</b>	R-E00	2014	669,000	-	-
<b>F</b>	F-1/yr	2010	0.3	-	-
<b>ER</b>	ER-calc-ratio	2014	0.072	-	-
<b>TC</b>	-	-	-		
<b>TL</b>	TL-MT	2014	2290		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2010	1.314		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2010	0.833		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-est-ratio	2010	0.61		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Atlantic halibut Scotian Shelf and Southern Grand Banks [ATHAL3NOPs4VWX5Zc]

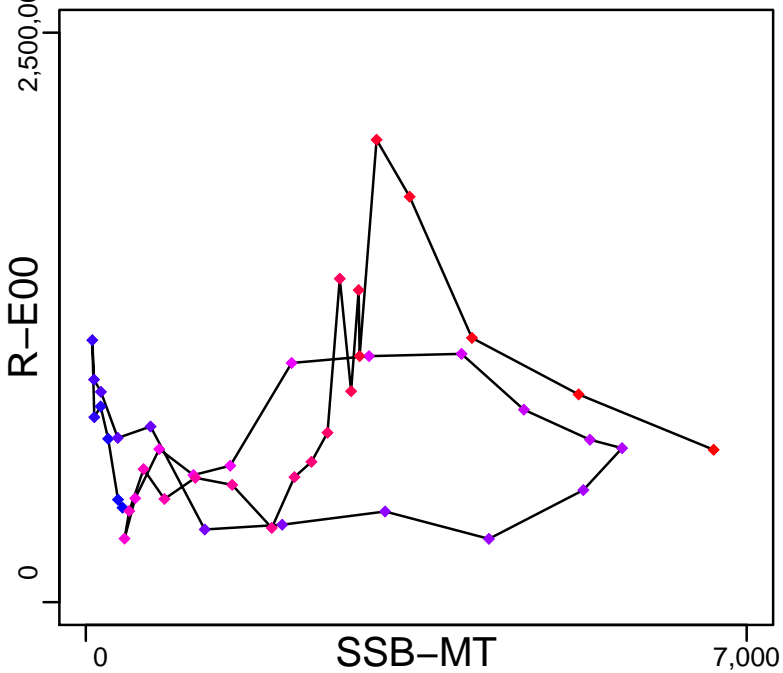
Kobe MSYpref (1960–2010–CHING)



Kobe MGTpref (1960–2010–CHING)

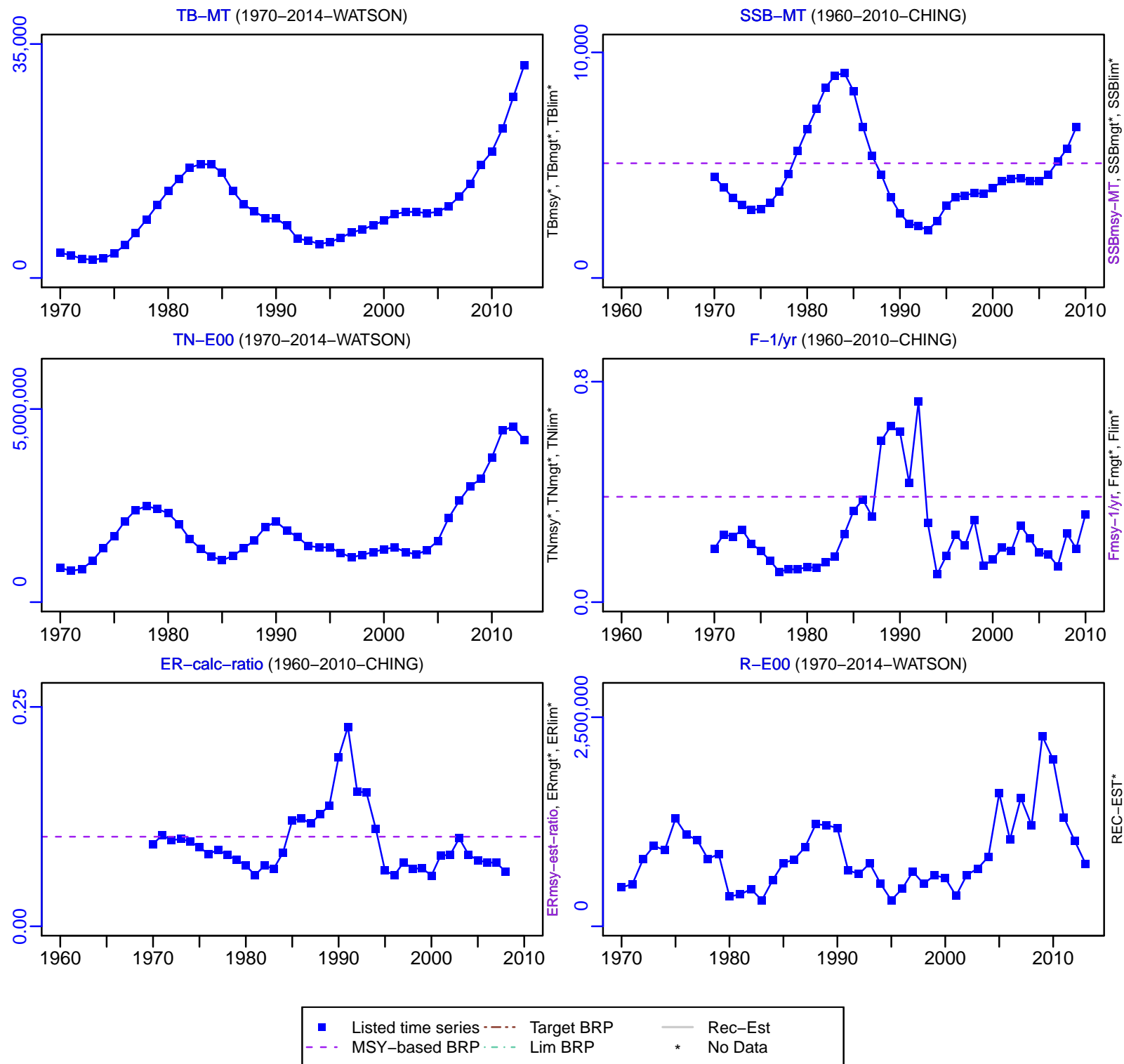


Spawner Recruit (1970–2014–WATSON)



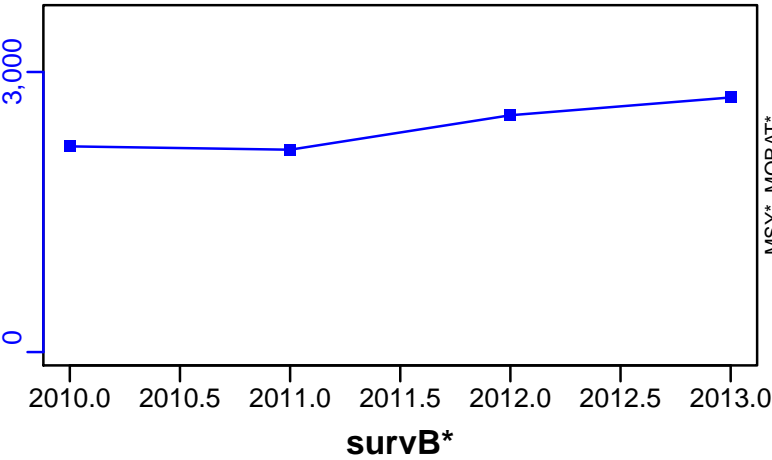
◆ Start Year ◆ End Year \* No Data

# Atlantic halibut Scotian Shelf and Southern Grand Banks [ATHAL3NOPs4VWX5Zc]

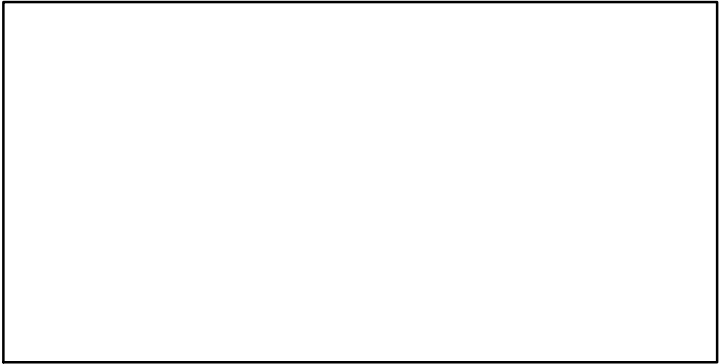
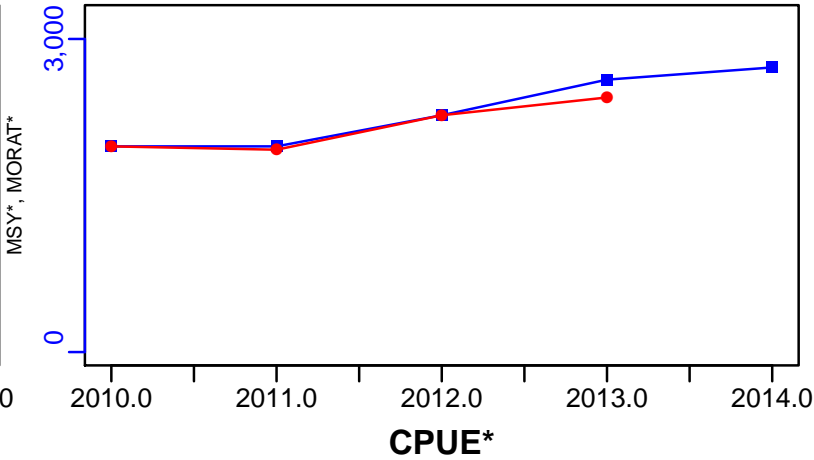


Atlantic halibut Scotian Shelf and Southern Grand Banks [ATHAL3NOPs4VWX5Zc]

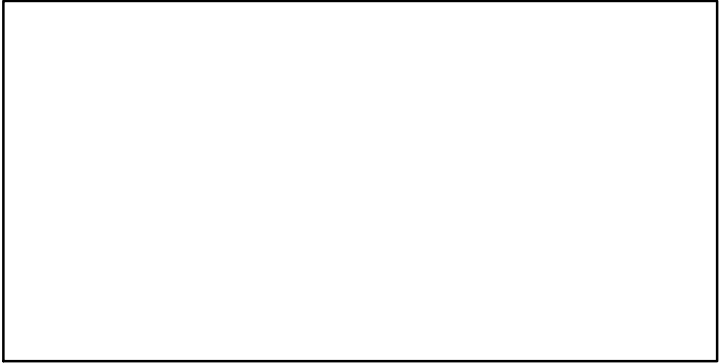
TL-MT, TC\*, RecC\* (1970-2014-WATSON)



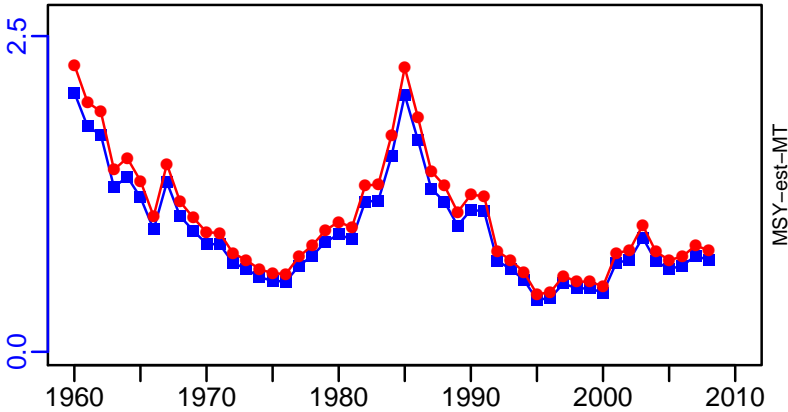
TAC-MT, Cpair-MT, Cadv\* (1970-2014-WATSON)



EFFORT\*



TL-MT/MSY-est-MT, CdivMEANC-ratio, (1960-2010-CHING)



## Atlantic halibut Gulf of St. Lawrence [ATHAL4RST]

Metadata	
<b>Scientific Name</b>	Hippoglossus hippoglossus
<b>Current Assess ID</b>	DFO-QUE-ATHAL4RST-1960-2018-ASHBROOK
<b>Area</b>	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>	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	1095		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



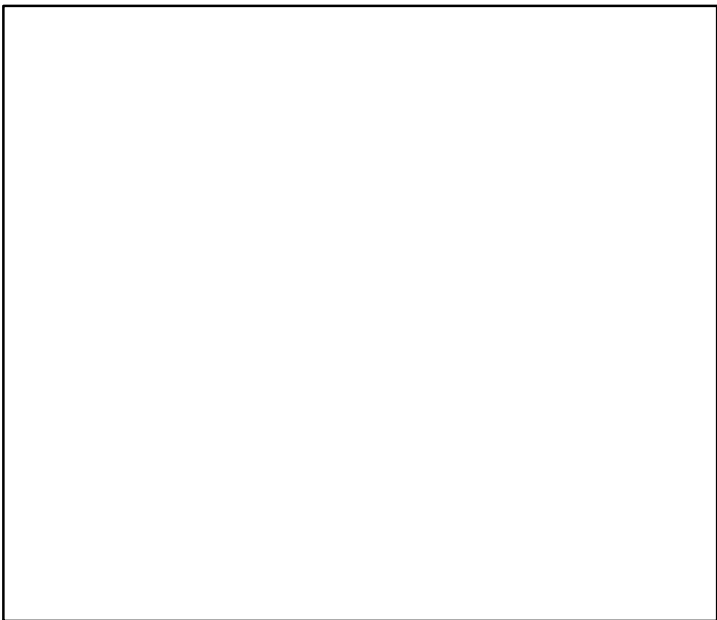
**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



**Production\***



◆ Start Year    ◆ End Year    \* No Data

TB\*



SSB\*



TN \*



F\*



ER\*

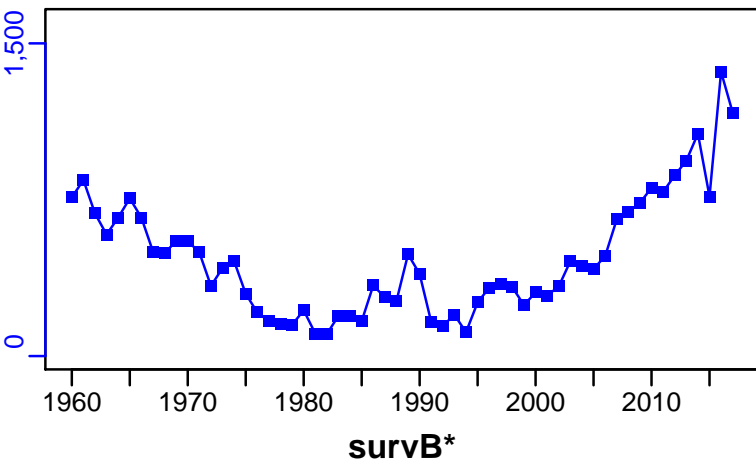


Recruits\*

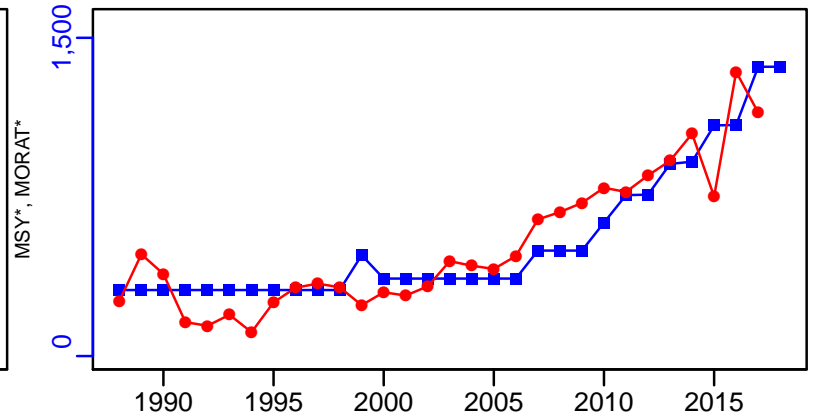


# Atlantic halibut Gulf of St. Lawrence [ATHAL4RST]

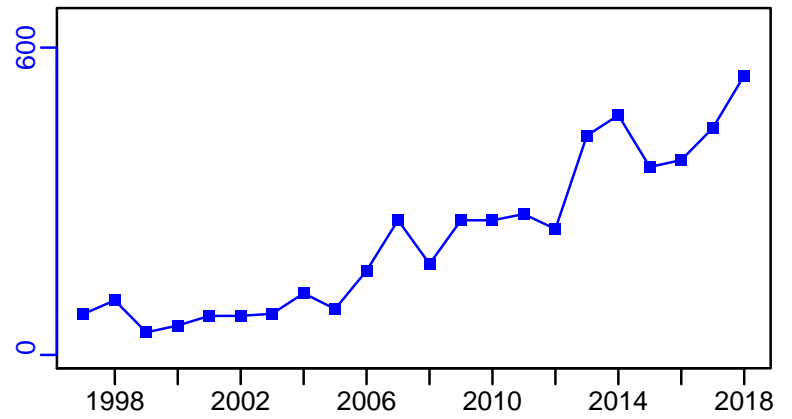
TC-MT, TL\*, RecC\* (1960–2018–ASHBROOK)



TAC-MT, Cpair-MT, Cadv\* (1960–2018–ASHBROOK)



CPUE-index (1960–2018–ASHBROOK)



EFFORT\*



CdivMSY\*



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

## Barndoor skate Canadian Atlantic Ocean [BSKATCANATL]

Metadata	
<b>Scientific Name</b>	Dipturus laevis
<b>Current Assess ID</b>	DFO-MAR-BSKATCANATL-1970-1987-PREFONTAINE
<b>Area</b>	Canadian Atlantic Ocean
<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>	1987

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	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



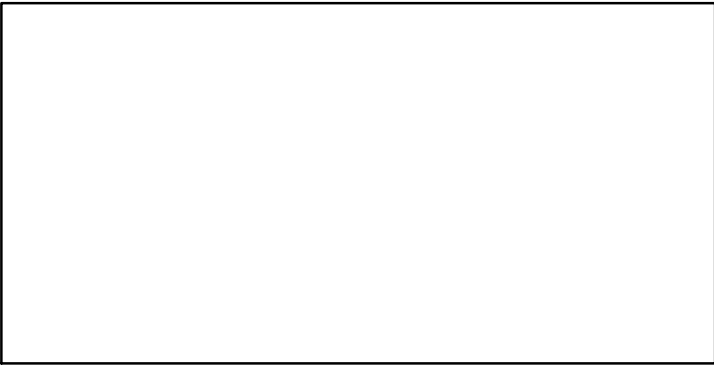
**Production\***



◆ Start Year   ◆ End Year   \* No Data

Barndoor skate Canadian Atlantic Ocean [BSKATCANATL]

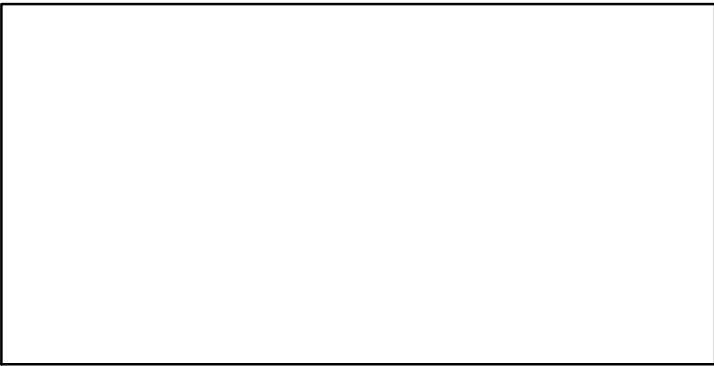
**TB\***



**SSB\***



**TN \***



**F\***



**ER\***

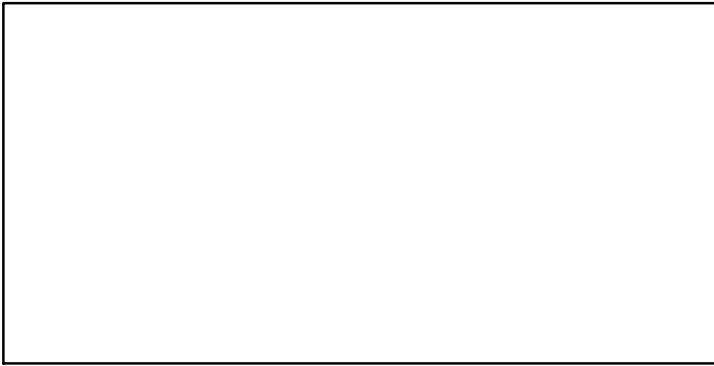


**Recruits\***

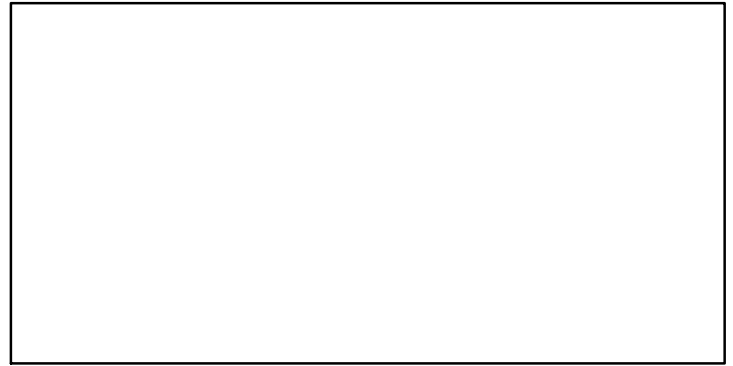


Barndoor skate Canadian Atlantic Ocean [BSKATCANATL]

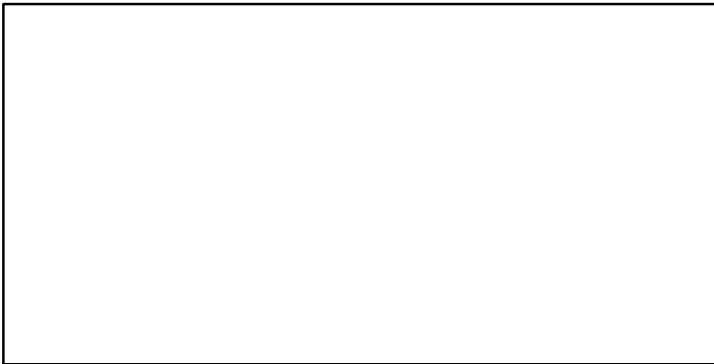
**TC\*, TL\*, RecC\***



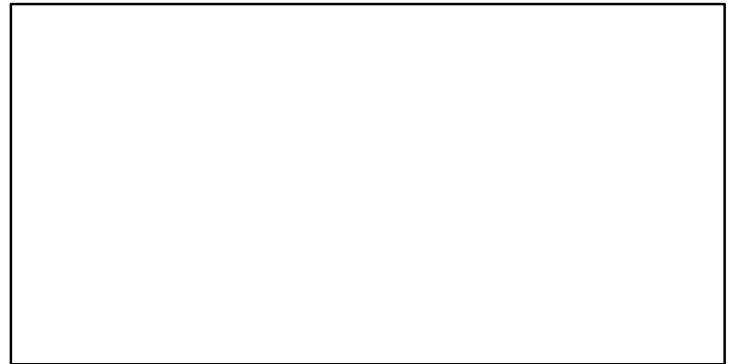
**TAC\*, Cpair\*, Cadv\***



**survB\***



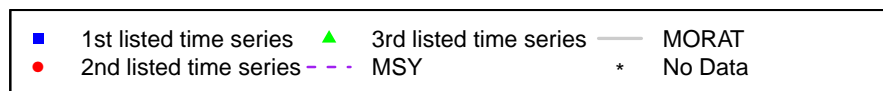
**CPUE\***



**EFFORT\***



**CdivMSY\***



## Capelin Southern Labrador-Eastern Newfoundland [CAPE2J3KL]

Metadata	
<b>Scientific Name</b>	Mallotus villosus
<b>Current Assess ID</b>	DFO-CAPE2J3KL-1972-2018-ASHBROOK
<b>Area</b>	Southern Labrador-Eastern Newfoundland
<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>	2018

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	-	-	-		
TL	TL-MT	2018	18,888		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



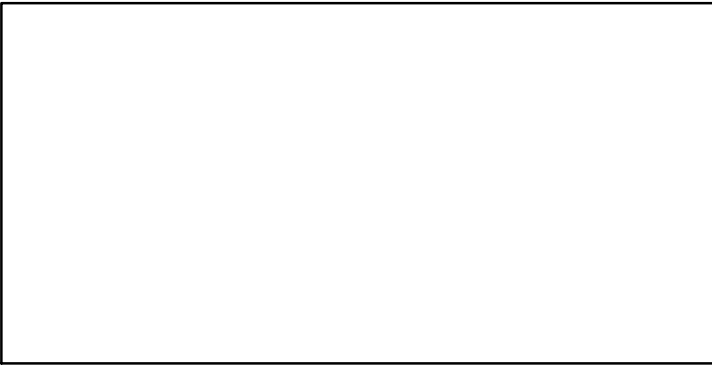
**Production\***



◆ Start Year ◆ End Year \* No Data

Capelin Southern Labrador–Eastern Newfoundland [CAPE2J3KL]

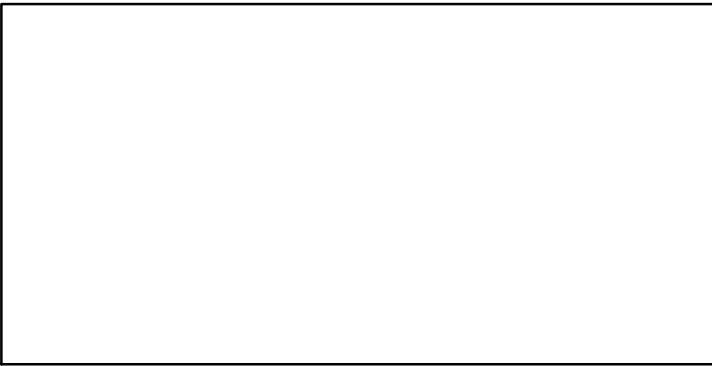
**TB\***



**SSB\***



**TN \***



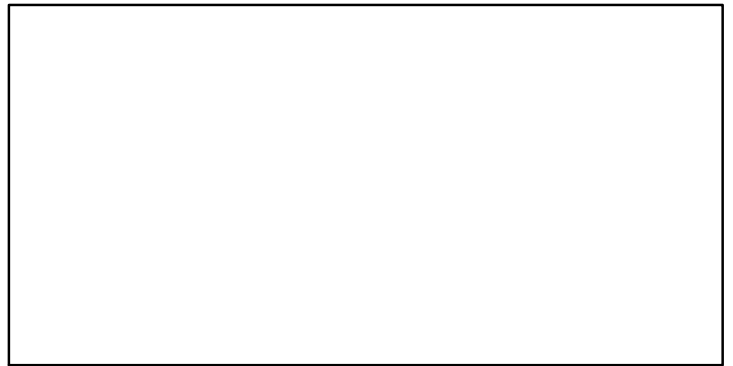
**F\***



**ER\***

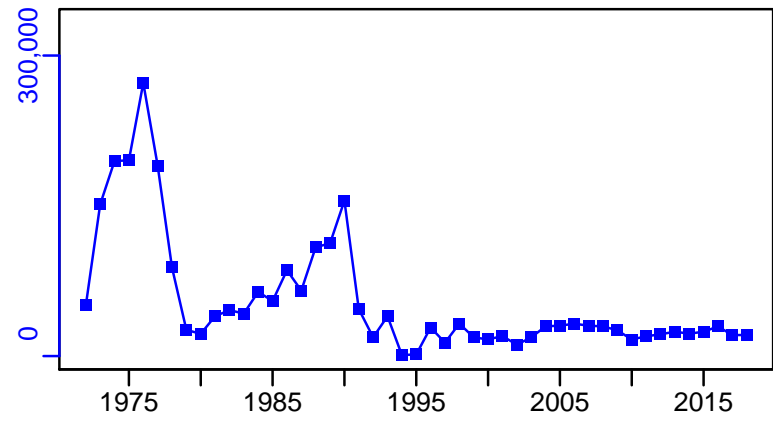


**Recruits\***

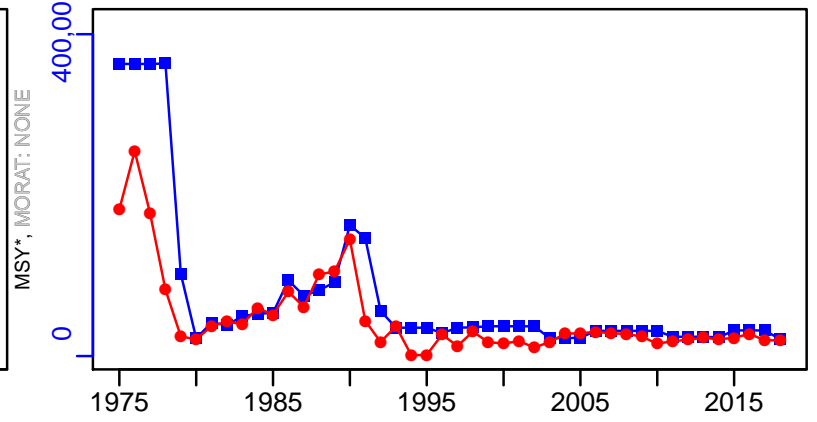


# Capelin Southern Labrador–Eastern Newfoundland [CAPE2J3KL]

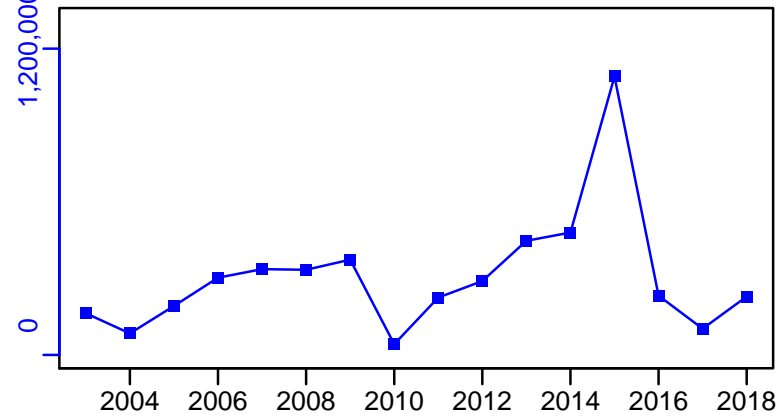
TL–MT, TC\*, RecC\* (1972–2018–ASHBROOK)



TAC–MT, Cpair–MT, Cadv\* (1972–2018–ASHBROOK)



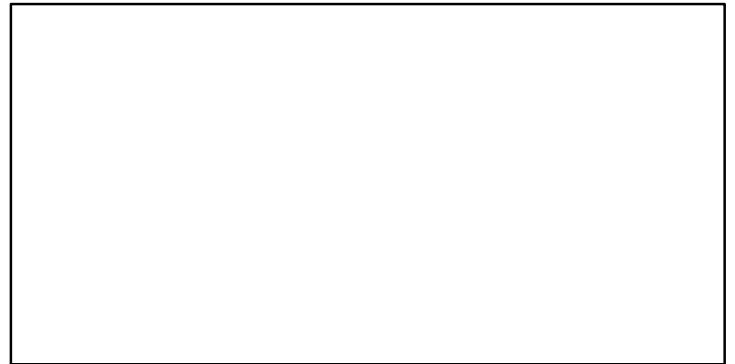
survB–MT (1972–2018–ASHBROOK)



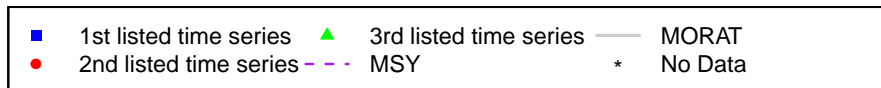
EFFORT\*



CPUE\*



CdivMSY\*



## Capelin Gulf of St. Lawrence [CAPE4RST]

Metadata	
<b>Scientific Name</b>	Mallotus villosus
<b>Current Assess ID</b>	DFO-QUE-CAPE4RST-1960-2017-ASHBROOK
<b>Area</b>	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>	2012, 2010, 2017

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	1973		
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\*

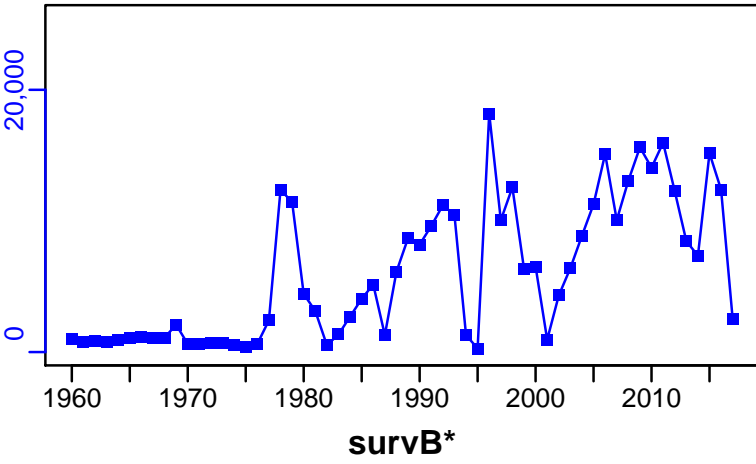


Recruits\*

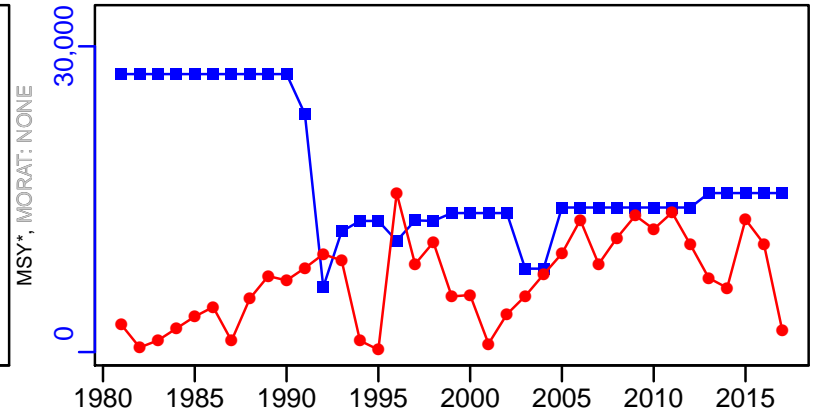


# Capelin Gulf of St. Lawrence [CAPE4RST]

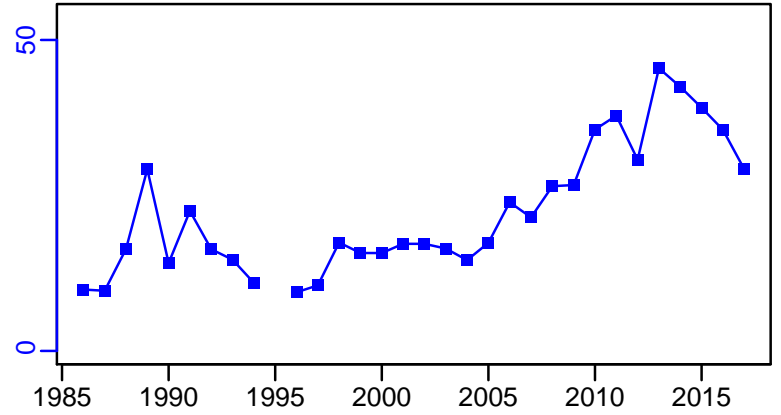
TL-MT, TC\*, RecC\* (1960-2017-ASHBROOK)



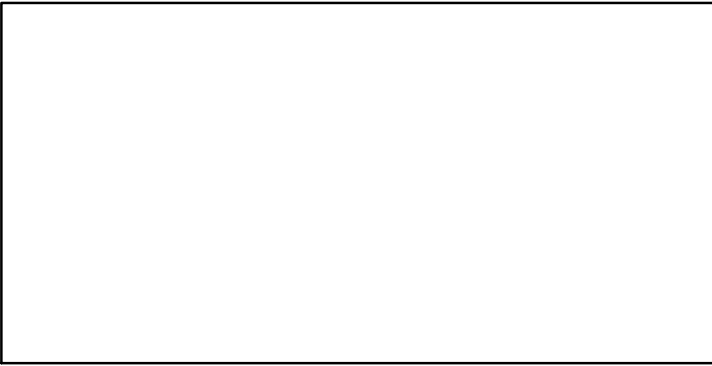
TAC-MT, Cpair-MT, Cadv\* (1960-2017-ASHBROOK)



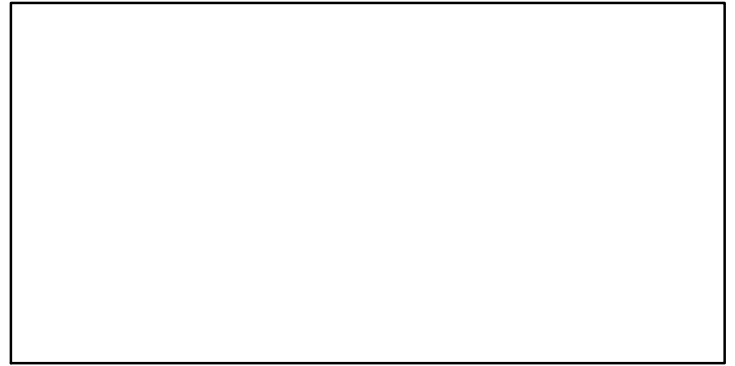
CPUE-index (1960-2017-ASHBROOK)



EFFORT\*



CdivMSY\*



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

## Atlantic cod NAFO 1ABCDE [COD1ABCDE]

Metadata	
<b>Scientific Name</b>	Gadus morhua
<b>Current Assess ID</b>	NWWG-COD1ABCDE-1952-2016-ICESIMP2018
<b>Area</b>	NAFO 1ABCDE
<b>Management Authority</b>	International Council for the Exploration of the Sea
<b>Assessor</b>	North-Western Working Group
<b>Asmts in RAM</b>	2015, 2016

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

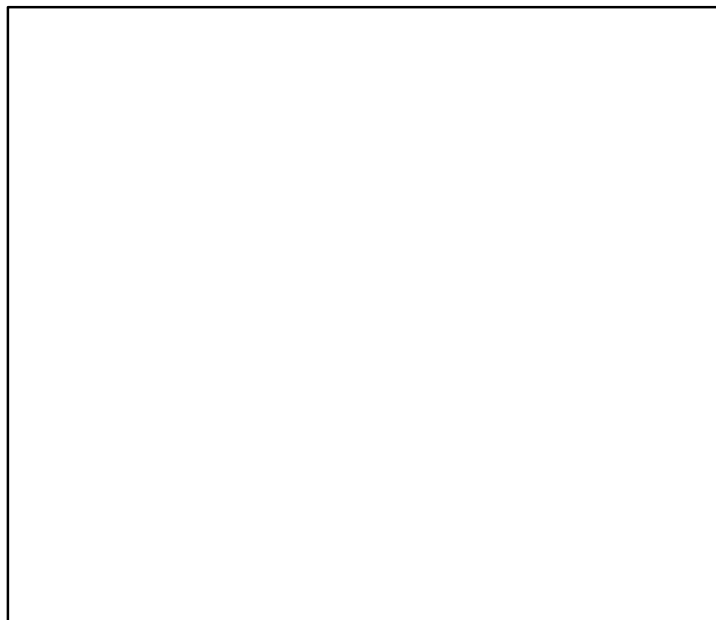
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2016	3740		
TL	TL-MT	2015	4860		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***

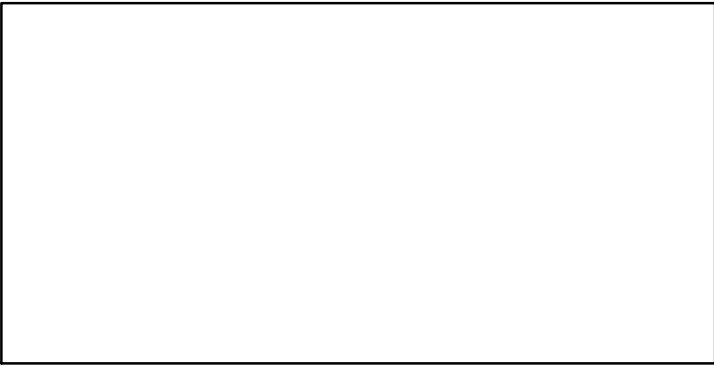


**Production\***



◆ Start Year   ◆ End Year   \* No Data

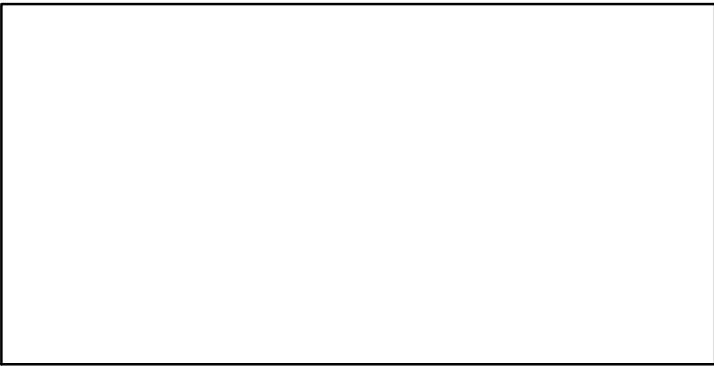
**TB\***



**SSB\***



**TN \***



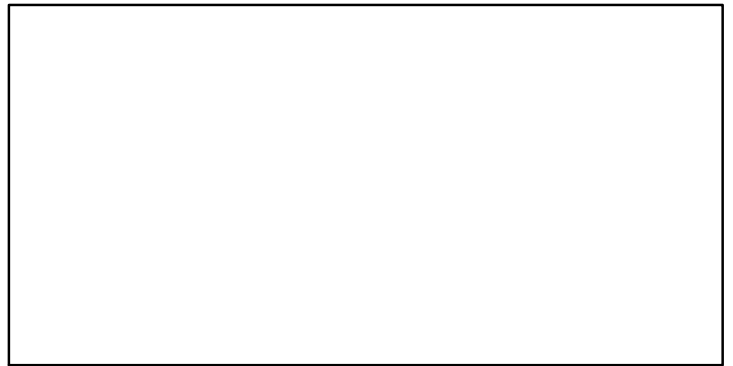
**F\***



**ER\***



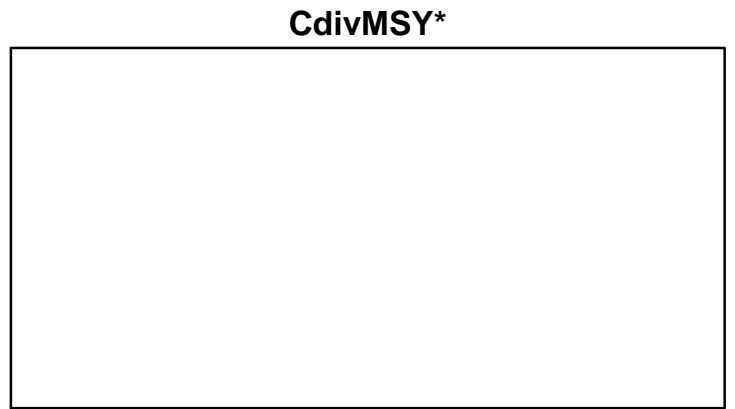
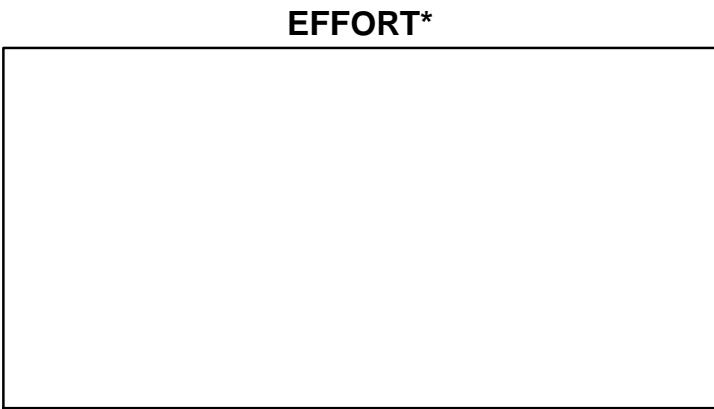
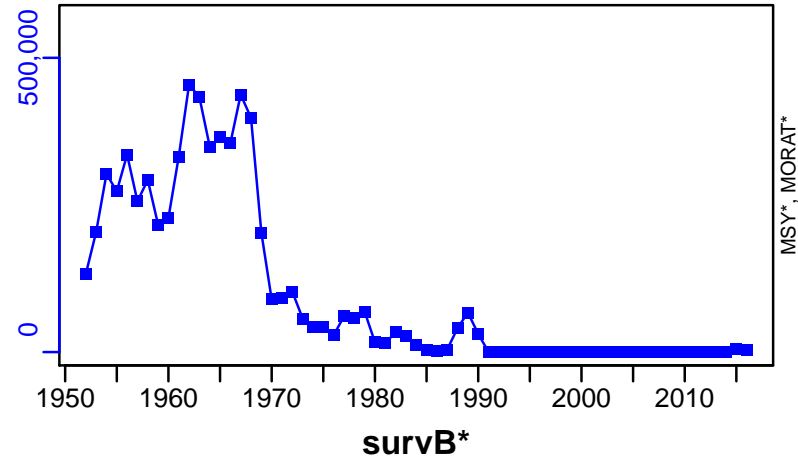
**Recruits\***



# Atlantic cod NAFO 1ABCDE [COD1ABCDE]

TC-MT, TL\*, RecC\* (1952-2016-ICESIMP2018)

TAC\*, Cpair\*, Cadv\*



## Atlantic cod NAFO Subarea 1 (inshore) [COD1IN]

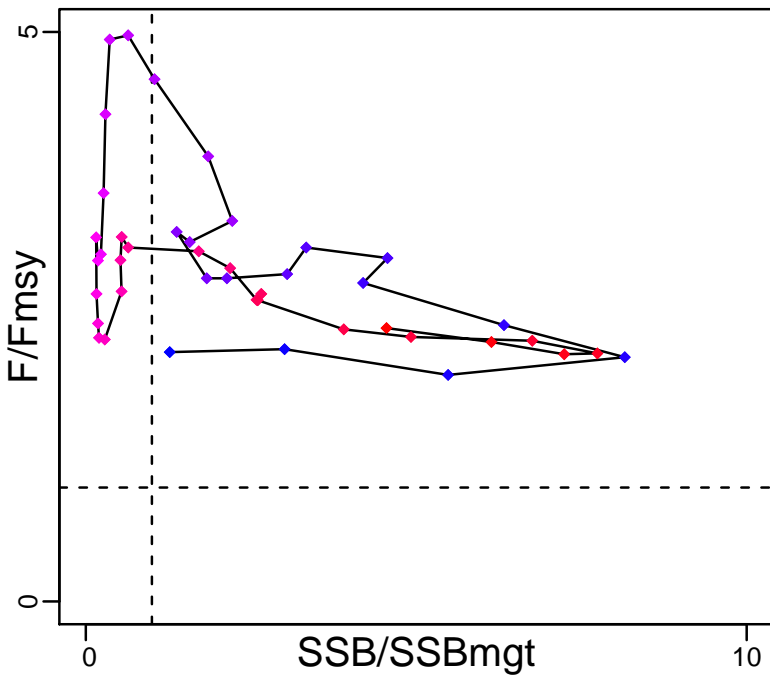
Metadata	
<b>Scientific Name</b>	Gadus morhua
<b>Current Assess ID</b>	NWWG-COD1IN-1975-2019-ICESIMP2021
<b>Area</b>	NAFO Subarea 1 (inshore)
<b>Management Authority</b>	International Council for the Exploration of the Sea
<b>Assessor</b>	North-Western Working Group
<b>Asmts in RAM</b>	2016, 2016, 2018, 2019

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	Fmsy-1/yr	2019	0.27
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2019	5983
<b>Fmgt</b>	Fmgt-1/yr	2019	0.27
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2018	4346
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

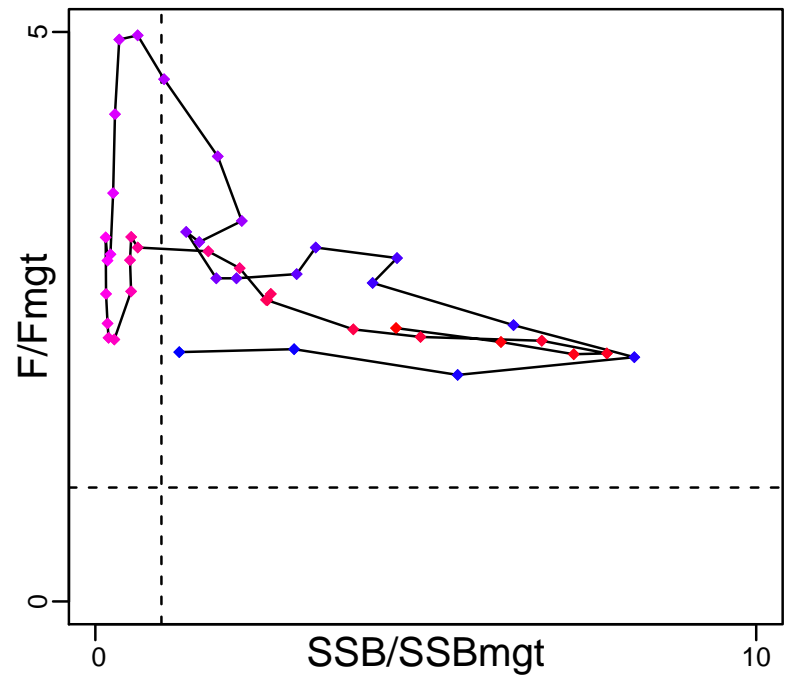
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2019	37,899	-	-
<b>SSB</b>	SSB-MT	2019	29,776	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2019	10,867,000	-	1
<b>F</b>	F-1/yr	2019	0.648	-	4 to 8
<b>ER</b>	ER-calc-ratio	2019	0.588	-	-
<b>TC</b>	TC-MT	2016	25,300		
<b>TL</b>	TL-MT	2019	22,290		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2019	2.4		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2019	4.977		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2019	2.4		
<b>ER/ERmgt</b>	-	-	-		

# Atlantic cod NAFO Subarea 1 (inshore) [COD1IN]

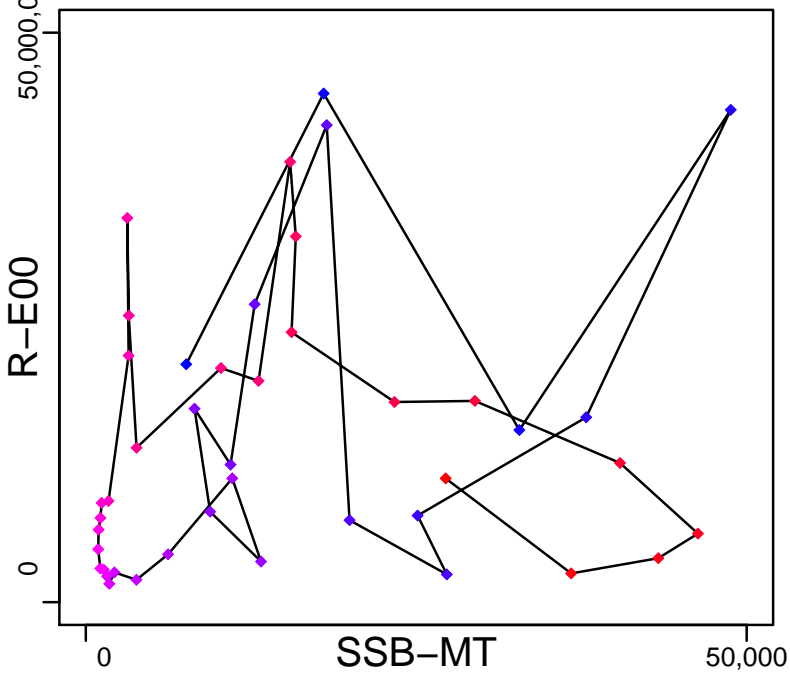
Kobe MSYpref (1975–2019–ICESIMP2021)



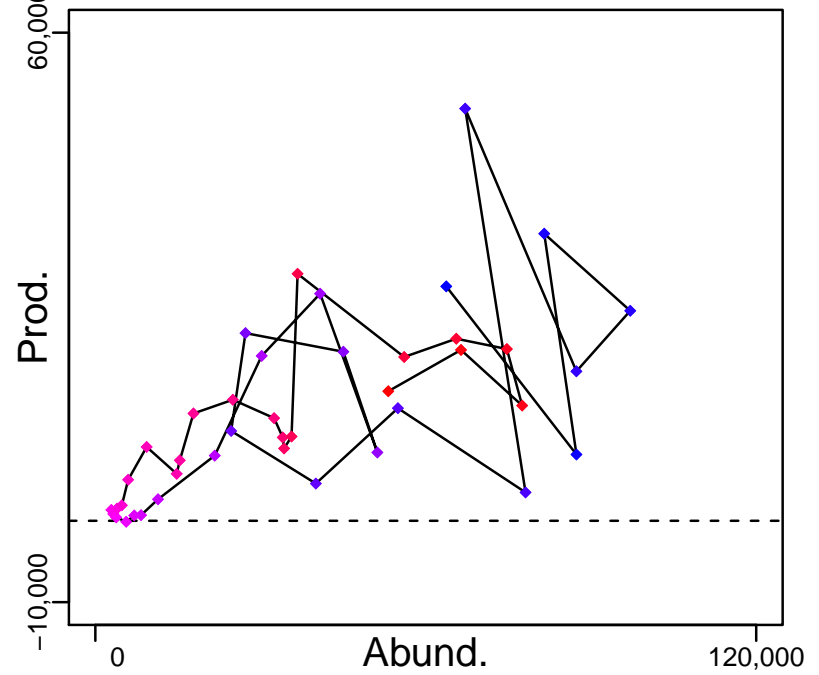
Kobe MGTpref (1975–2019–ICESIMP2021)



Spawner Recruit (1975–2019–ICESIMP2021)



Production (1975–2019–ICESIMP2021)

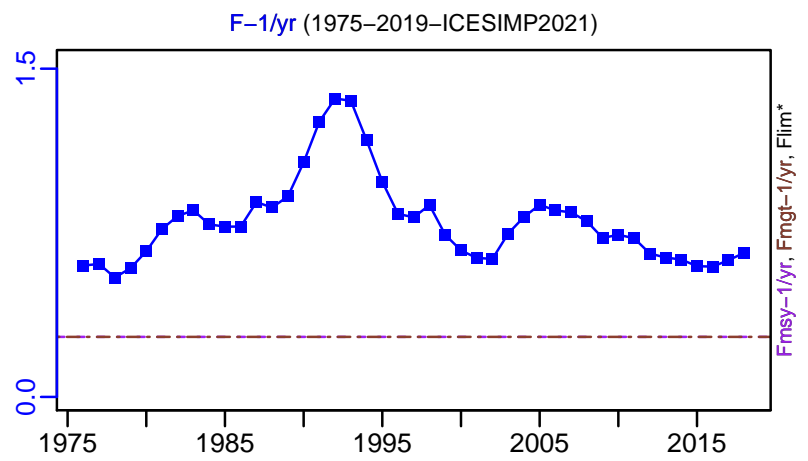
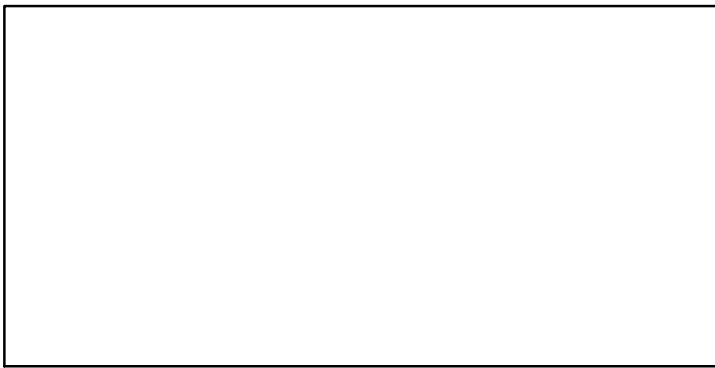
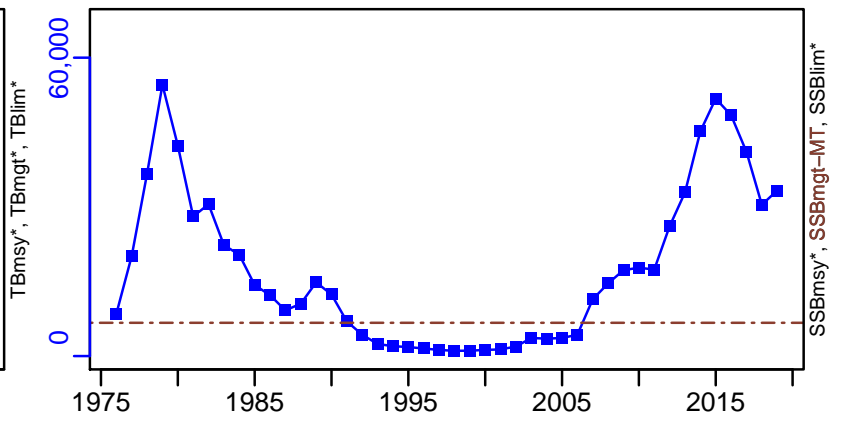
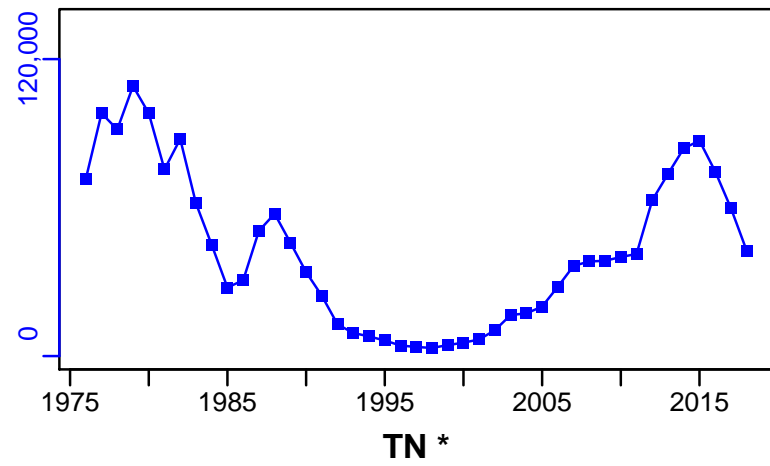


◆ Start Year ◆ End Year \* No Data

# Atlantic cod NAFO Subarea 1 (inshore) [COD1IN]

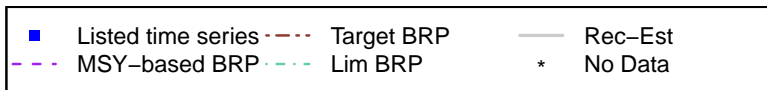
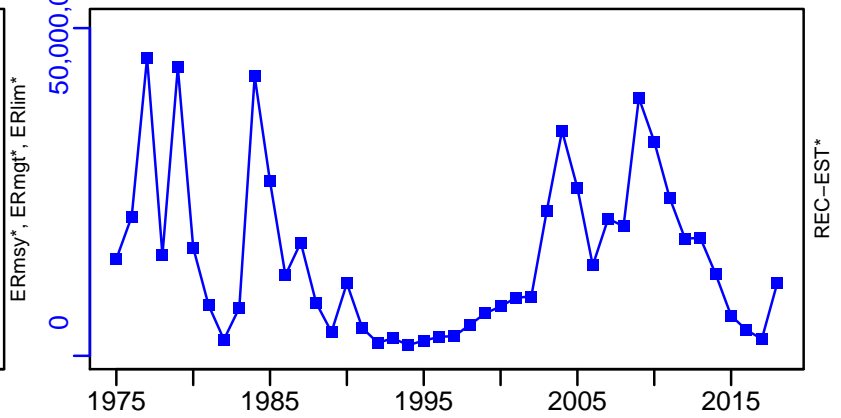
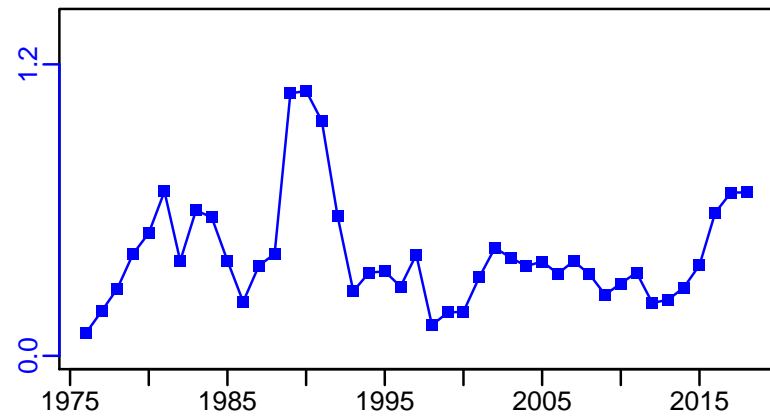
TB-MT (1975–2019–ICESIMP2021)

SSB-MT (1975–2019–ICESIMP2021)



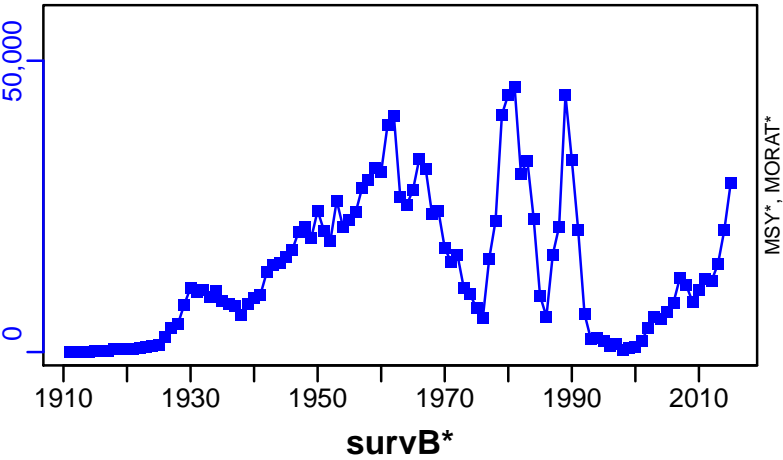
ER-calc-ratio (1975–2019–ICESIMP2021)

R-E00 (1975–2019–ICESIMP2021)



Atlantic cod NAFO Subarea 1 (inshore) [COD1IN]

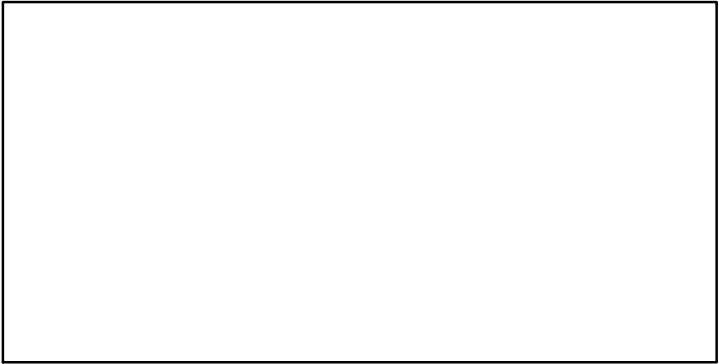
TC-MT, TL\*, RecC\* (1911-2016-ICESIMP2016)



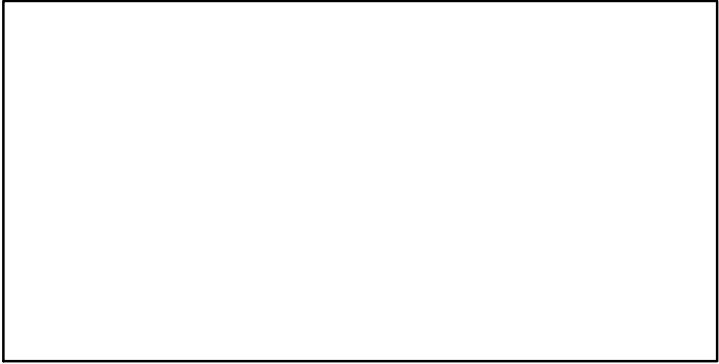
TAC\*, Cpair\*, Cadv\*



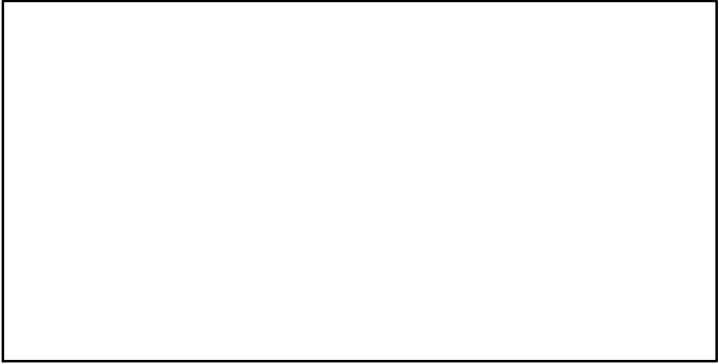
CPUE\*



EFFORT\*



CdivMSY\*



## Atlantic cod Southern Labrador-Eastern Newfoundland [COD2J3KL]

Metadata	
<b>Scientific Name</b>	Gadus morhua
<b>Current Assess ID</b>	DFO-NFLD-COD2J3KL-1959-2018-ASHBROOK
<b>Area</b>	Southern Labrador-Eastern Newfoundland
<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>	2014, 2011, 2018

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2011	$1 \times 10^6$
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2011	0.1
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-conv-MT	2011	165,005
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2018	932,432
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

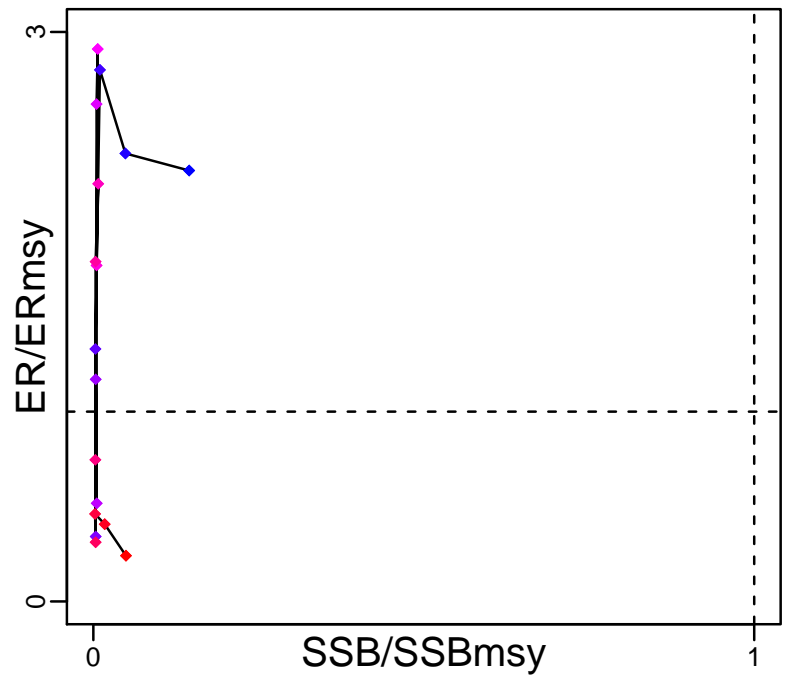
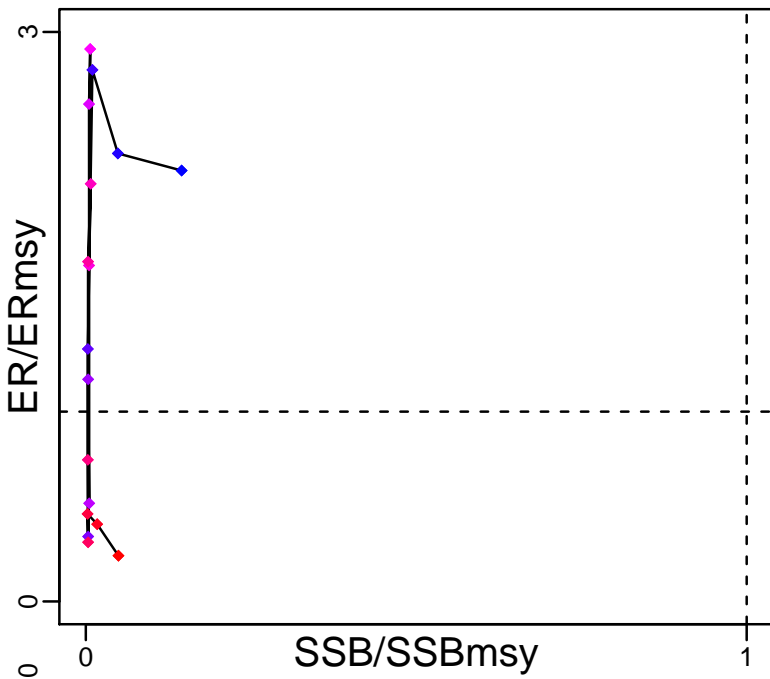
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2018	467,000	Both	2+
<b>SSB</b>	SSB-MT	2018	315,000	Both	5+
<b>TN</b>	TN-E00	2018	$7.95 \times 10^8$	Both	2+
<b>R</b>	R-E00	2018	$2.62 \times 10^8$	Both	2
<b>F</b>	F-1/yr	2018	0.02	-	14-May
<b>ER</b>	ER-calc-ratio	2018	0.02	-	-
<b>TC</b>	TC-MT	2018	13,030		
<b>TL</b>	TL-MT	2014	4580		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2011	0.066		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2011	0.241		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		



# Atlantic cod Southern Labrador–Eastern Newfoundland [COD2J3KL]

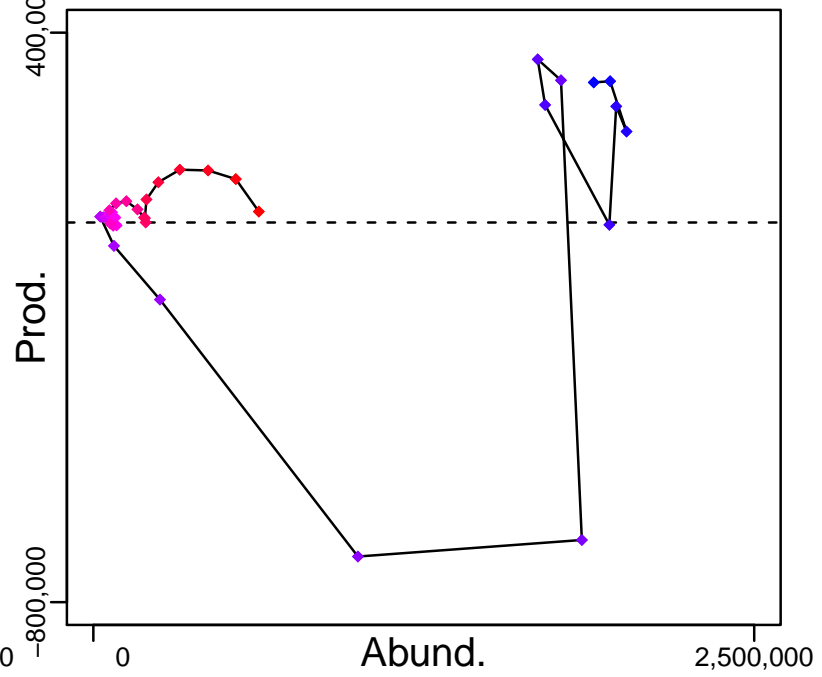
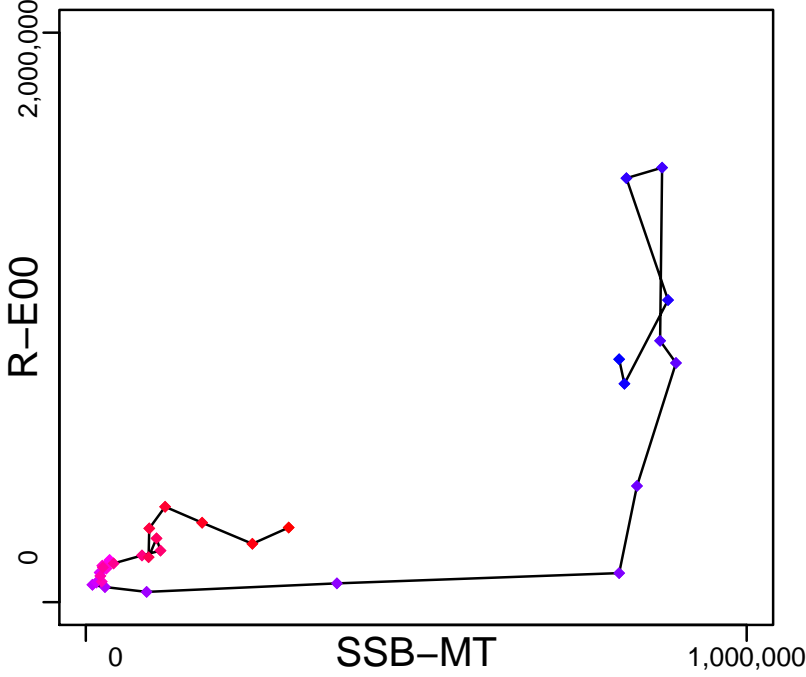
Kobe MSYpref (1850–2011–CHING)

Kobe MGTpref (1850–2011–CHING)



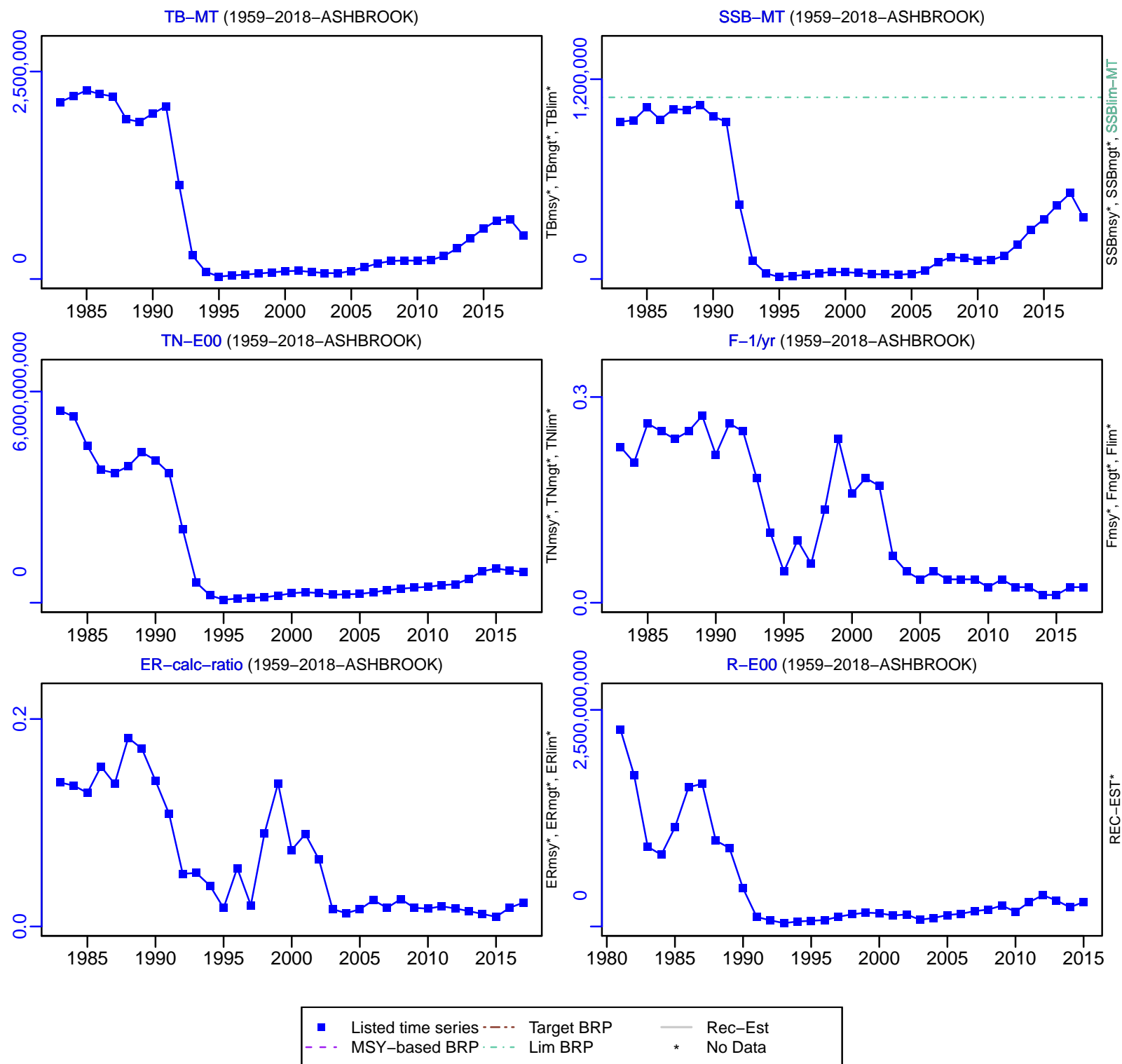
Spawner Recruit (1959–2018–ASHBROOK)

Production (1959–2018–ASHBROOK)



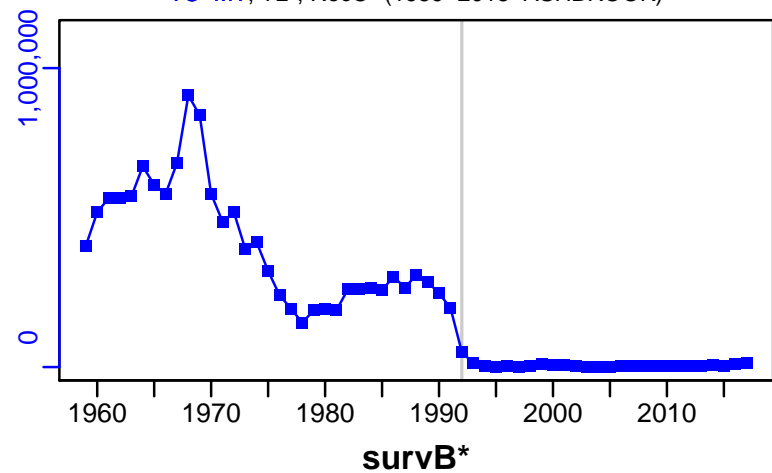
◆ Start Year ◆ End Year \* No Data

# Atlantic cod Southern Labrador–Eastern Newfoundland [COD2J3KL]

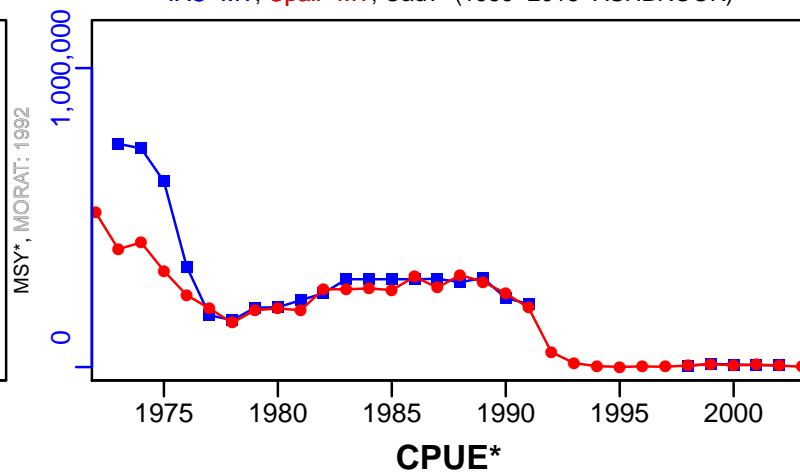


# Atlantic cod Southern Labrador–Eastern Newfoundland [COD2J3KL]

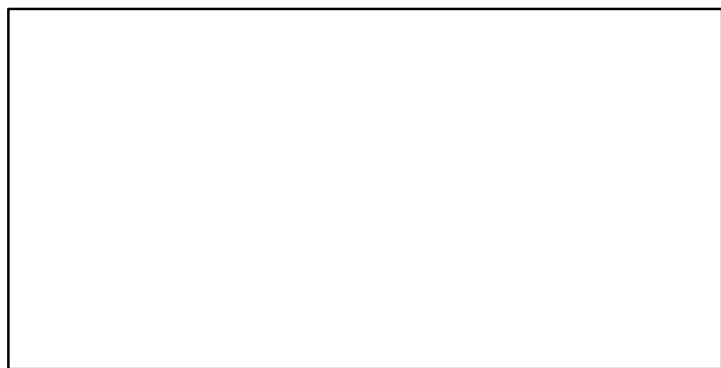
TC–MT, TL\*, RecC\* (1959–2018–ASHBROOK)



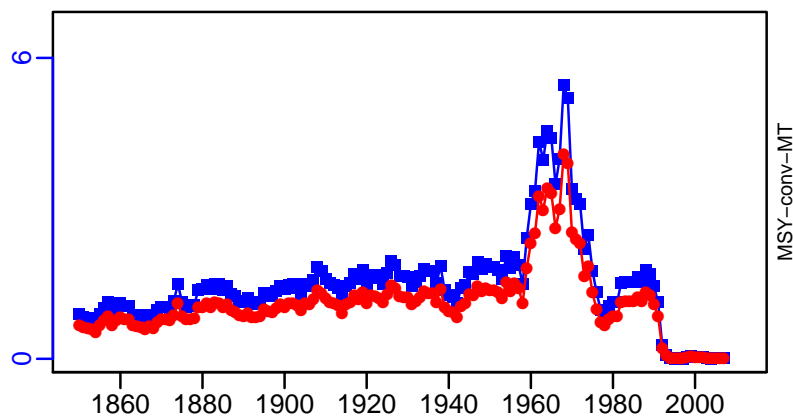
TAC–MT, Cpair–MT, Cadv\* (1959–2018–ASHBROOK)



EFFORT\*



TC–MT/MSY–conv–MT, CdivMEANC–ratio, (1850–2011–CHING)



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

## Atlantic cod Flemish Cap [COD3M]

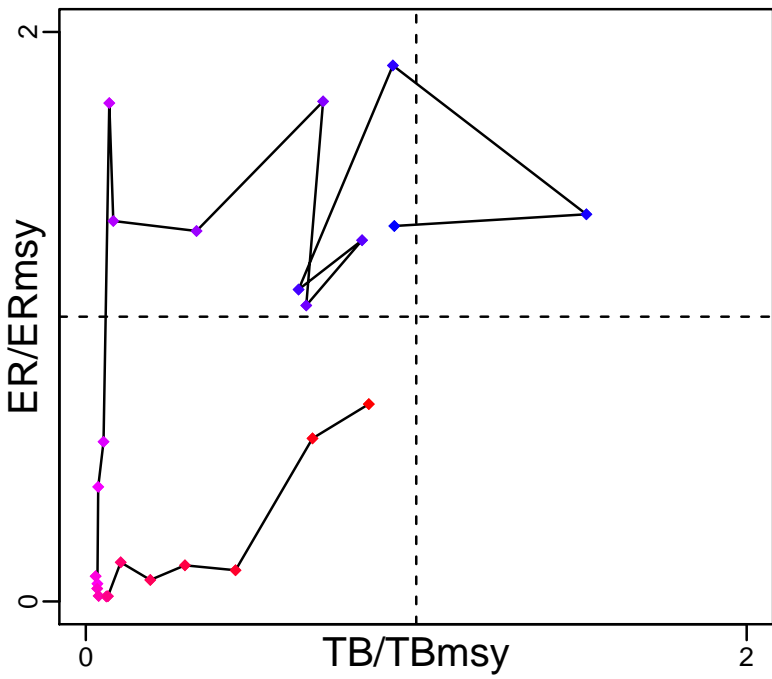
Metadata	
<b>Scientific Name</b>	Gadus morhua
<b>Current Assess ID</b>	NAFO-SC-COD3M-1960-2012-CHING
<b>Area</b>	Flemish Cap
<b>Management Authority</b>	Northwest Atlantic Fisheries Organization
<b>Assessor</b>	NAFO Scientific Council
<b>Asmts in RAM</b>	2012

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-est-MT	2012	68,652
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-est-ratio	2012	0.341
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-est-MT	2012	23,378
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

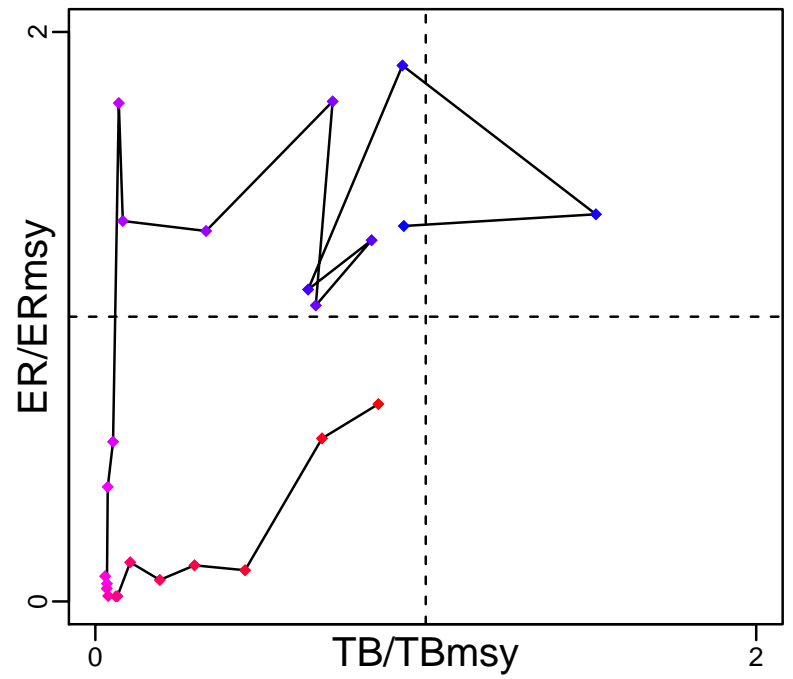
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2012	58,800	-	-
<b>SSB</b>	SSB-MT	2012	36,100	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2012	45,600	-	-
<b>F</b>	F-1/yr	2012	0.327	-	-
<b>ER</b>	ER-ratio	2012	0.236	-	-
<b>TC</b>	TC-MT	2012	13,900		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-est-MT	2012	0.856		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-est-ratio	2012	0.693		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Atlantic cod Flemish Cap [COD3M]

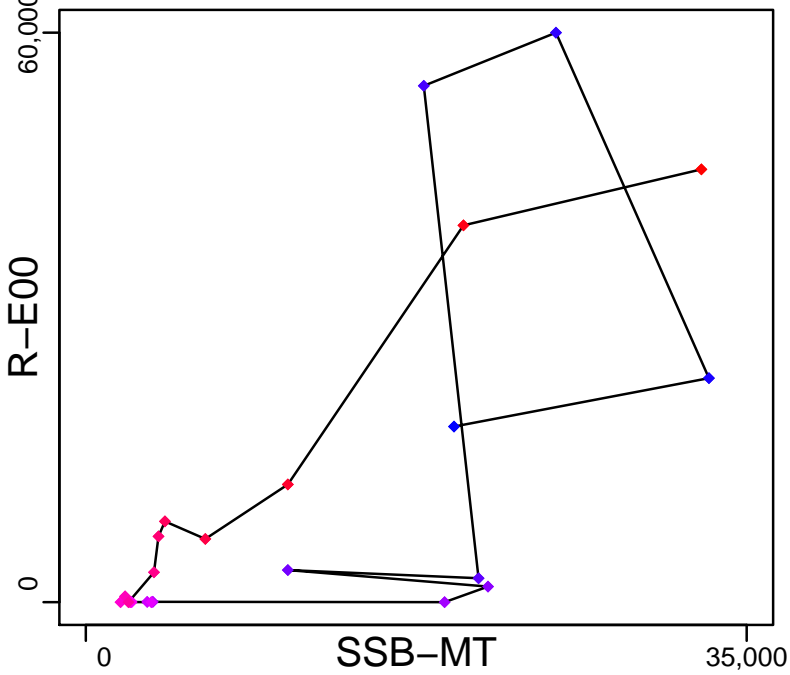
Kobe MSYpref (1960–2012–CHING)



Kobe MGTpref (1960–2012–CHING)



Spawner Recruit (1960–2012–CHING)

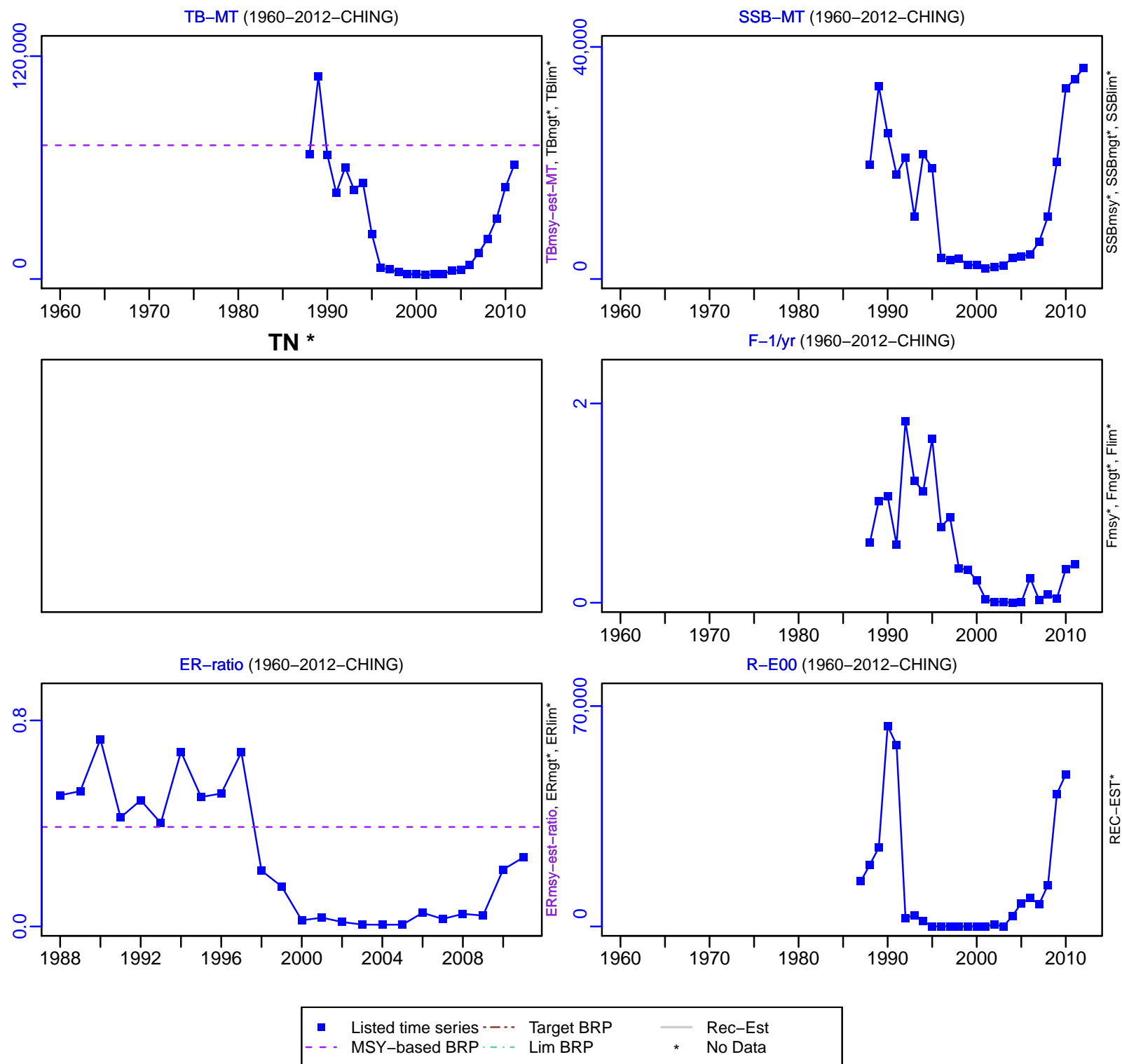


Production\*



◆ Start Year ◆ End Year \* No Data

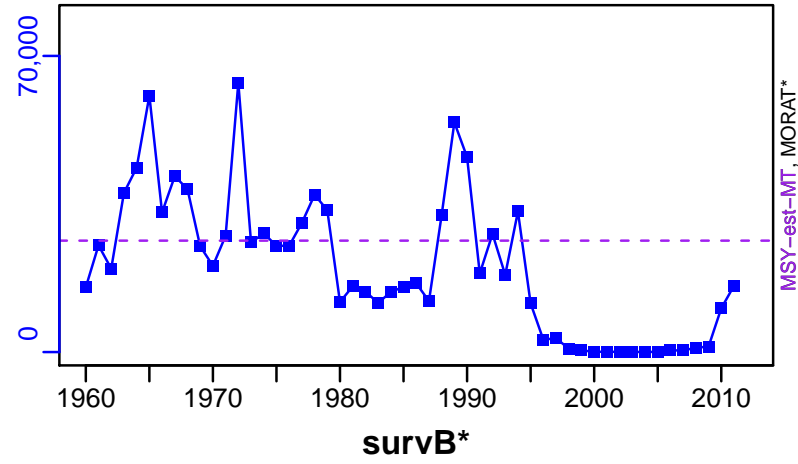
# Atlantic cod Flemish Cap [COD3M]



# Atlantic cod Flemish Cap [COD3M]

TC-MT, TL\*, RecC\* (1960-2012-CHING)

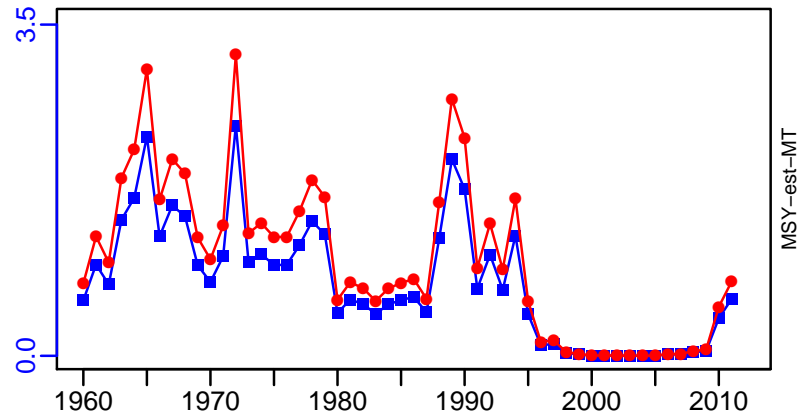
TAC\*, Cpair\*, Cadv\*



EFFORT\*



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



### Atlantic cod Southern Grand Banks [COD3NO]

Metadata	
<b>Scientific Name</b>	Gadus morhua
<b>Current Assess ID</b>	NAFO-SC-COD3NO-1953-2011-CHING
<b>Area</b>	Southern Grand Banks
<b>Management Authority</b>	Northwest Atlantic Fisheries Organization
<b>Assessor</b>	NAFO Scientific Council
<b>Asmts in RAM</b>	2011

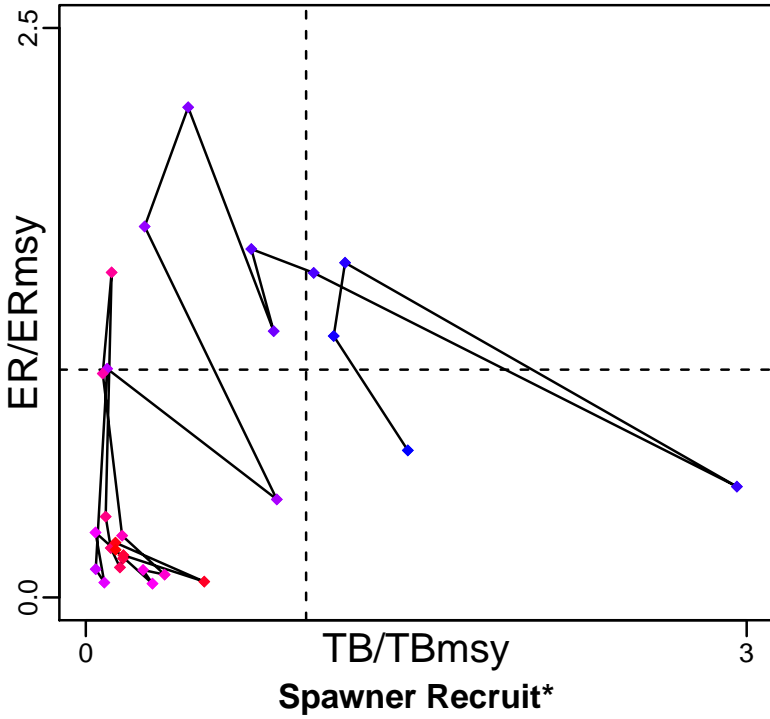
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-est-MT	2011	56,164
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-est-ratio	2011	0.516
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-est-MT	2011	28,973
<b>M</b>	-	-	-
<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	2011	7570	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2011	0.108	-	-
<b>TC</b>	TC-MT	2011	819		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-est-MT	2011	0.135		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-est-ratio	2011	0.209		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

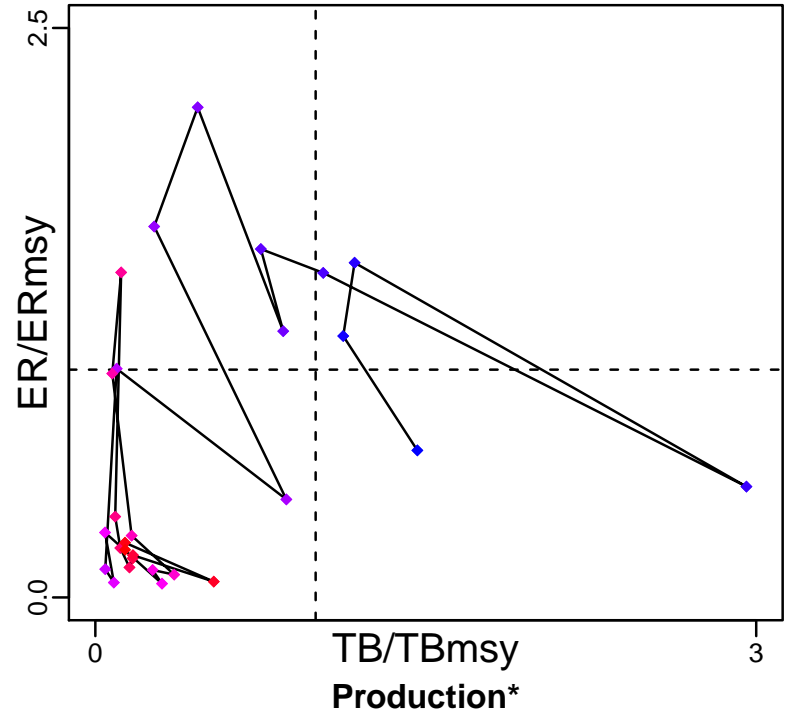


# Atlantic cod Southern Grand Banks [COD3NO]

Kobe MSYpref (1953–2011–CHING)



Kobe MGTpref (1953–2011–CHING)

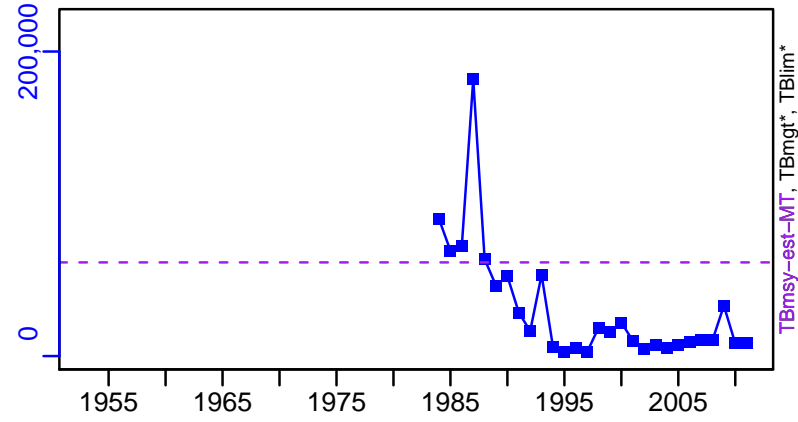


◆ Start Year ◆ End Year \* No Data

# Atlantic cod Southern Grand Banks [COD3NO]

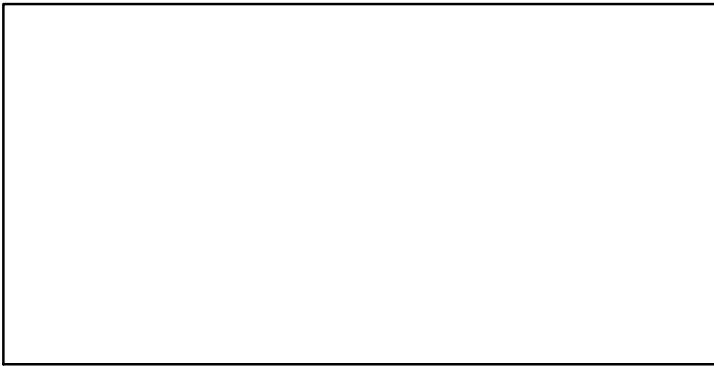
TB-MT (1953-2011-CHING)

SSB\*



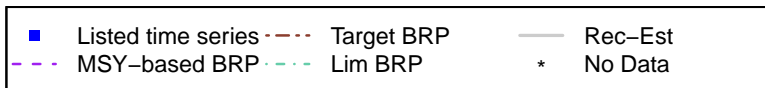
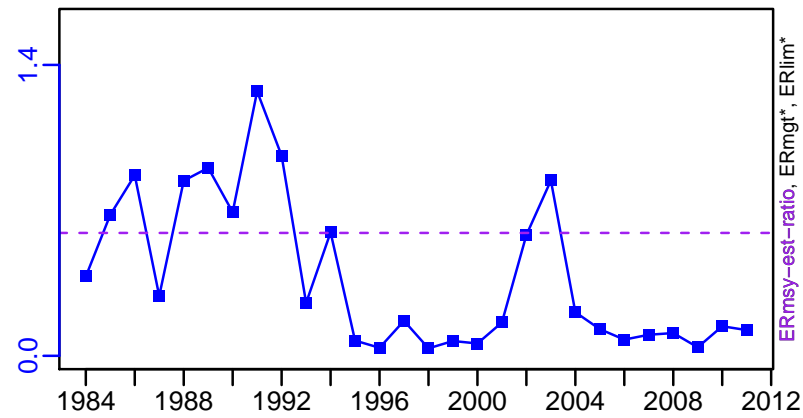
TN \*

F\*



ER-ratio (1953-2011-CHING)

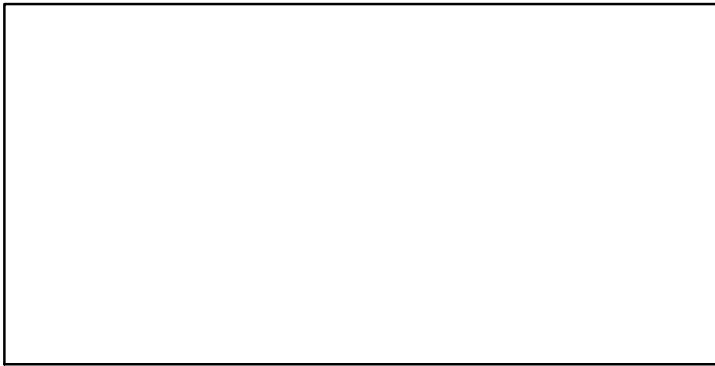
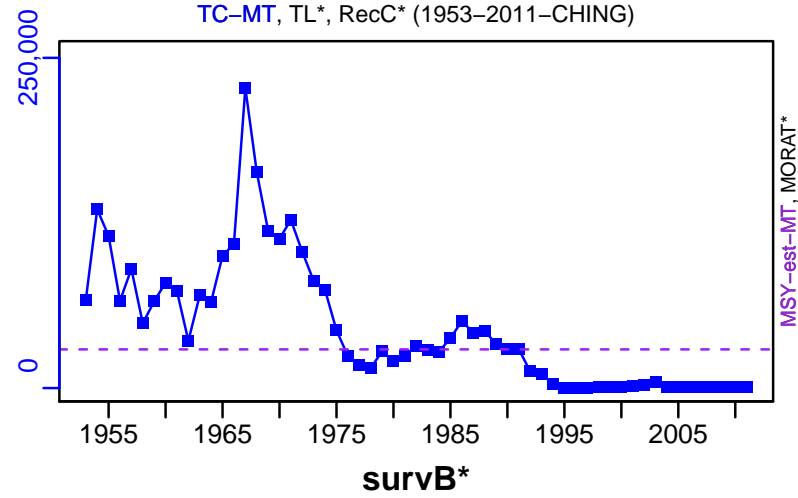
Recruits\*



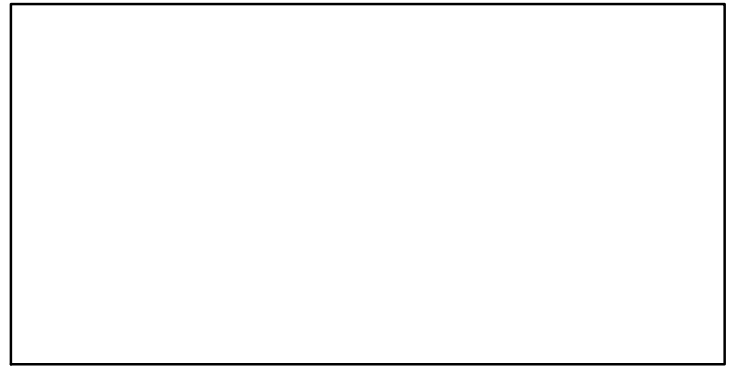
# Atlantic cod Southern Grand Banks [COD3NO]

TC-MT, TL\*, RecC\* (1953-2011-CHING)

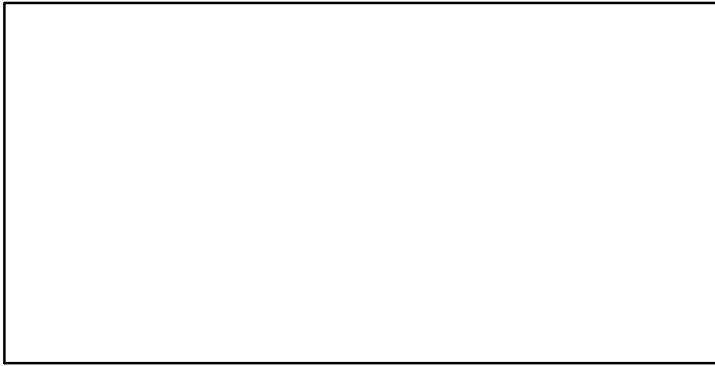
TAC\*, Cpair\*, Cadv\*



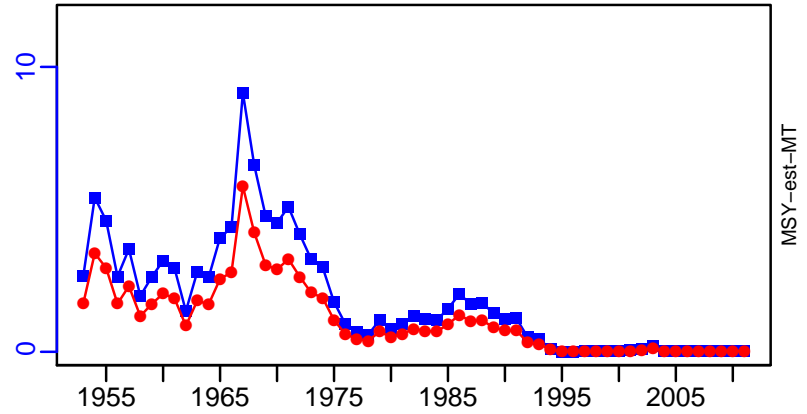
CPUE\*



EFFORT\*



TC-MT/MSY-est-MT, CdivMEANC-ratio, (1953-2011-CHING)



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

### Atlantic cod NAFO 3Pn4RS [COD3Pn4RS]

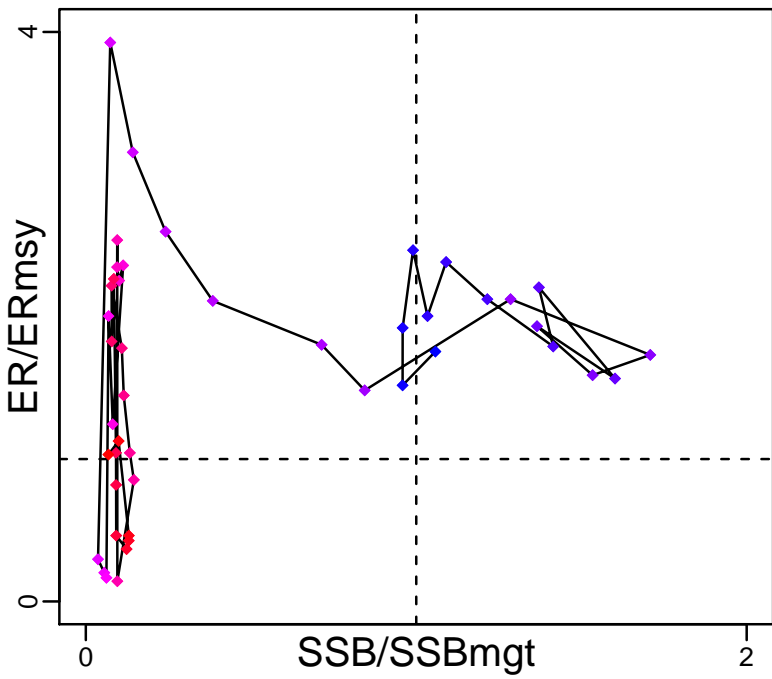
Metadata	
<b>Scientific Name</b>	Gadus morhua
<b>Current Assess ID</b>	DFO-QUE-COD3Pn4RS-1964-2019-ASHBROOK
<b>Area</b>	Northern Gulf of St. Lawrence
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans - Quebec Region
<b>Asmts in RAM</b>	2015, 2012, 2019

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-est-MT	2015	711,052
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-est-ratio	2019	0.174
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2019	188,000
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-est-MT	2015	96,607
<b>M</b>	M-1/yr	2019	0.2
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2019	116,000
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

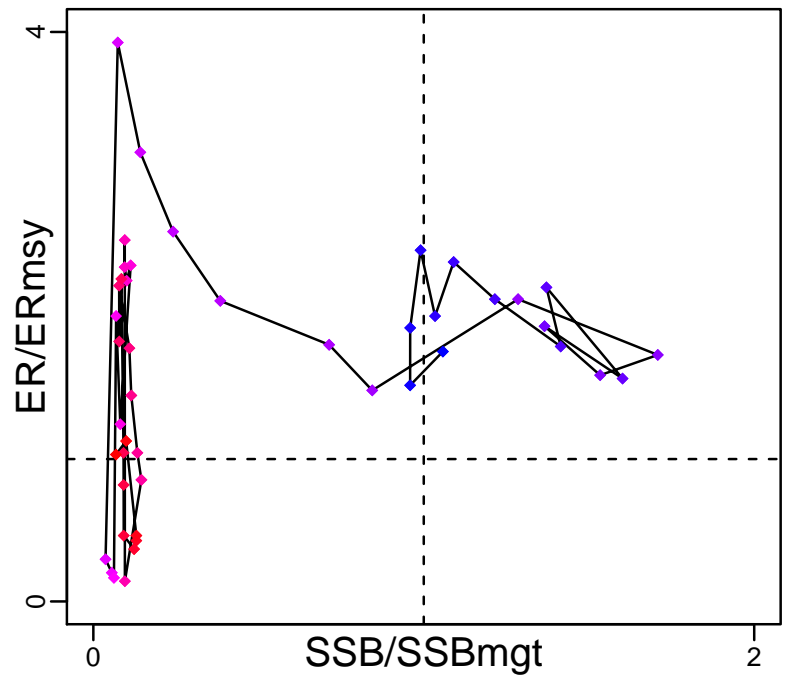
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2019	11,467	-	3+
<b>SSB</b>	SSB-MT	2019	12,921	-	3+
<b>TN</b>	TN-E00	2015	$1.44 \times 10^8$	-	3+
<b>R</b>	R-E00	2019	27,027	-	3
<b>F</b>	F-1/yr	2015	0.09	-	7 to 9
<b>ER</b>	ER-ratio	2019	0.179	-	9-Jul
<b>TC</b>	-	-	-		
<b>TL</b>	TL-MT	2019	2496		
<b>TB/TBmsy</b>	TB-MT/TBmsy-est-MT	2015	0.066		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-est-ratio	2019	1.032		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2019	0.069		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Atlantic cod NAFO 3Pn4RS [COD3Pn4RS]

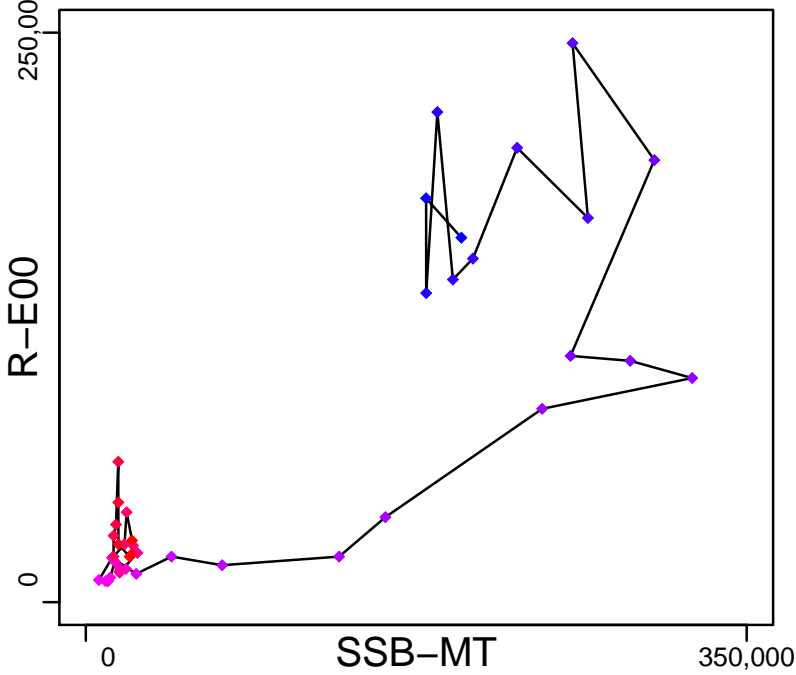
Kobe MSYpref (1964–2019–ASHBROOK)



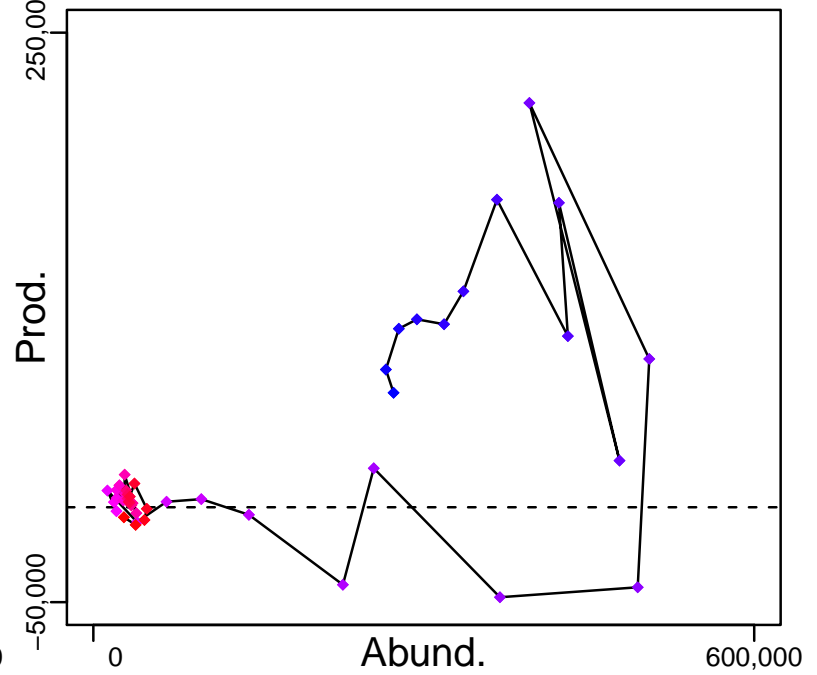
Kobe MGTpref (1964–2019–ASHBROOK)



Spawner Recruit (1964–2019–ASHBROOK)

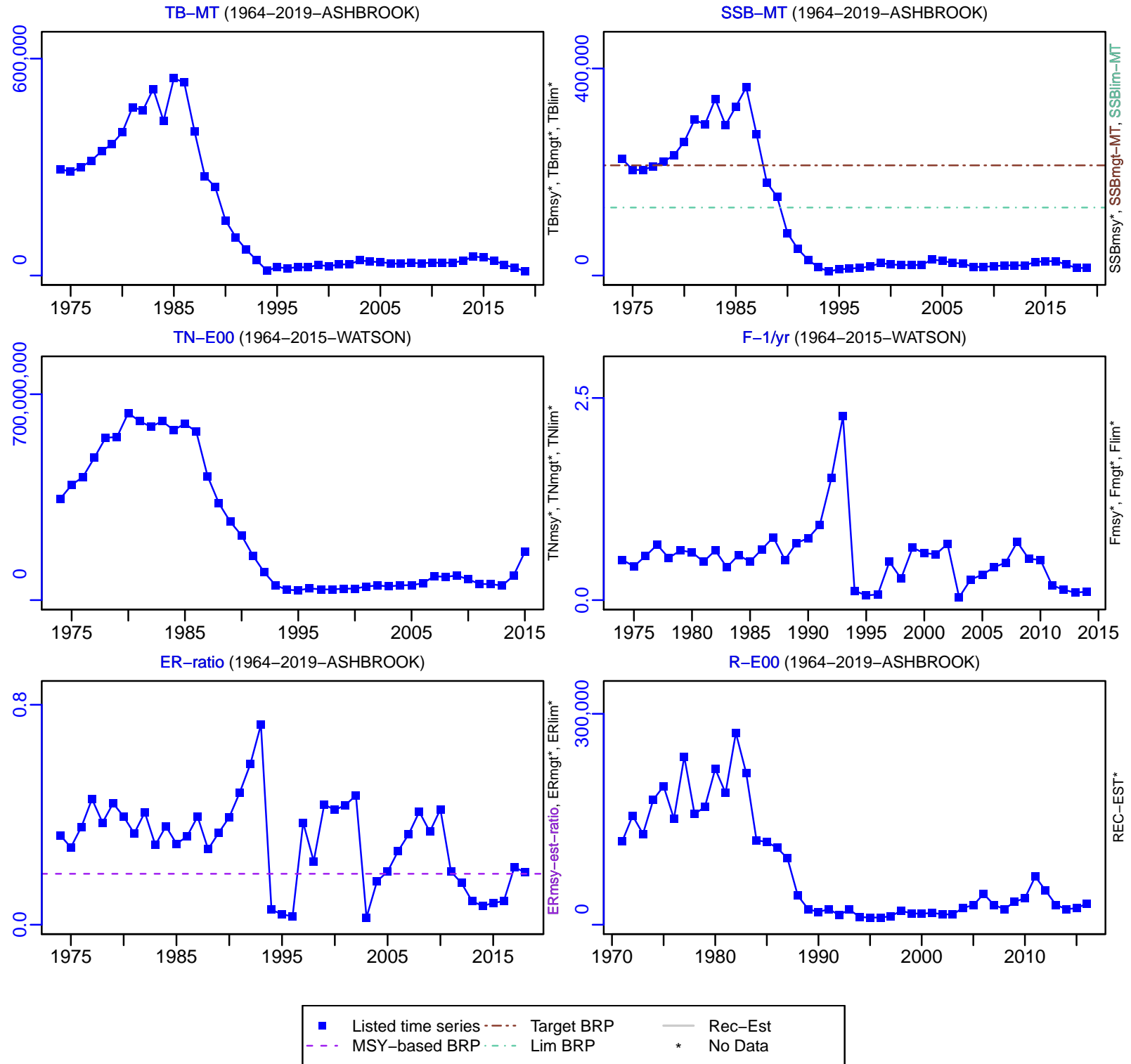


Production (1964–2019–ASHBROOK)

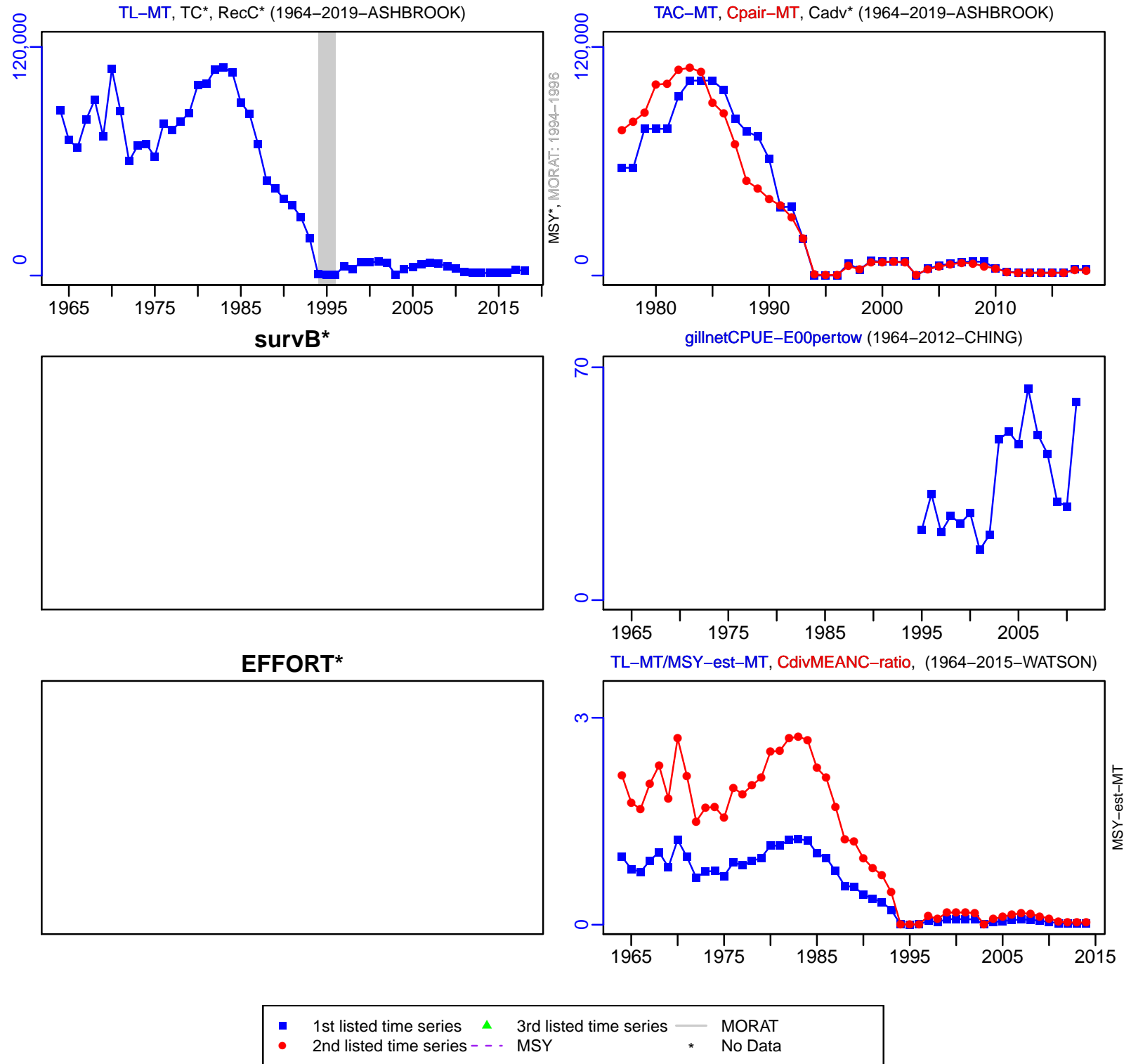


◆ Start Year ◆ End Year \* No Data

# Atlantic cod NAFO 3Pn4RS [COD3Pn4RS]



# Atlantic cod NAFO 3Pn4RS [COD3Pn4RS]



## Atlantic cod NAFO 3Ps [COD3Ps]

Metadata	
<b>Scientific Name</b>	Gadus morhua
<b>Current Assess ID</b>	DFO-NFLD-COD3Ps-1959-2018-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>	2014, 2011, 2018

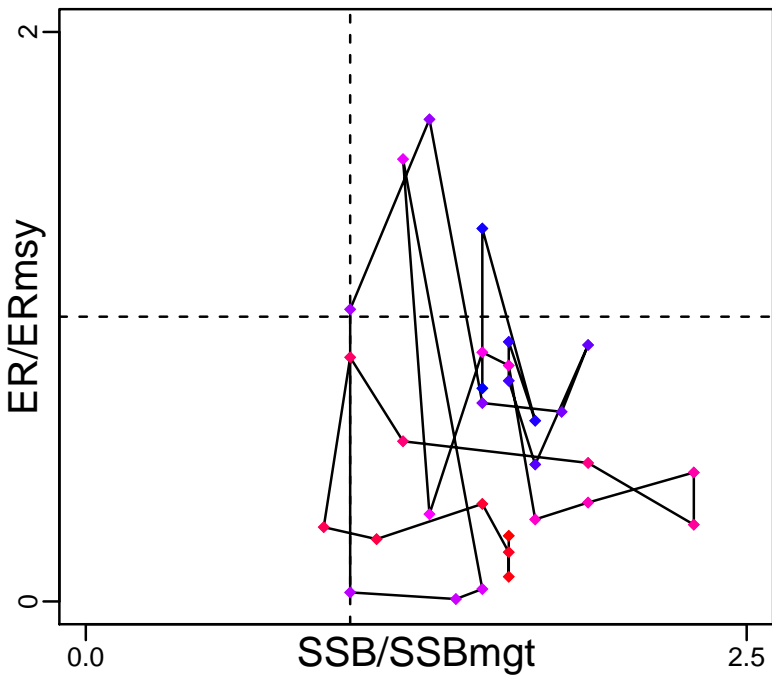
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-est-MT	2014	51,465
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-est-ratio	2014	0.659
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-est-MT	2014	33,890
<b>M</b>	-	-	-
<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	2014	27,600	-	-
<b>SSB</b>	SSB-relative	2018	1.489	-	-
<b>TN</b>	TN-E00	2014	58,100,000	-	-
<b>R</b>	R-relative	2018	13	-	1
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2014	0.152	-	-
<b>TC</b>	TC-MT	2014	4190		
<b>TL</b>	TL-MT	2018	6866		
<b>TB/TBmsy</b>	TB-MT/TBmsy-est-MT	2014	0.536		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-est-ratio	2014	0.231		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	SSBdivSSBmgt-dimensionless	2014	1.6		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

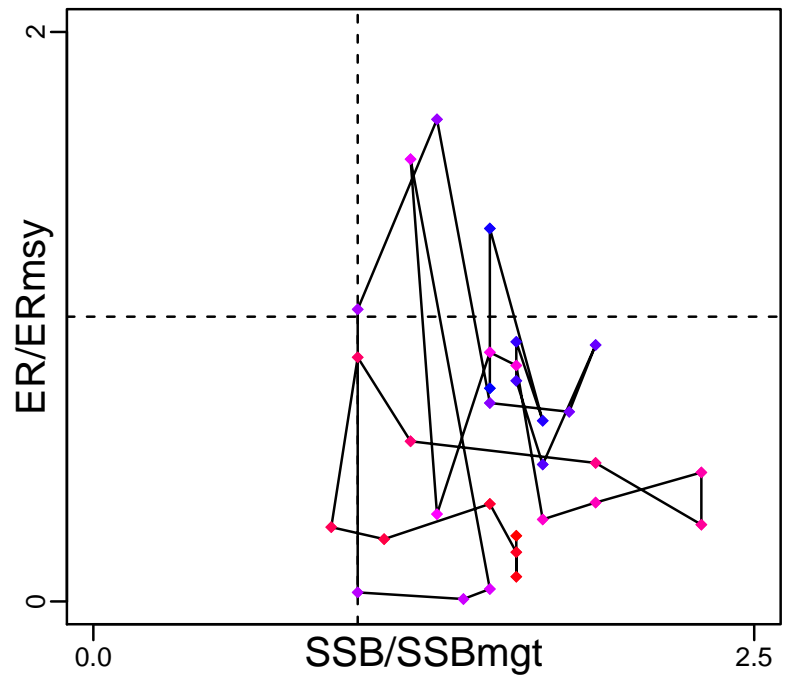


# Atlantic cod NAFO 3Ps [COD3Ps]

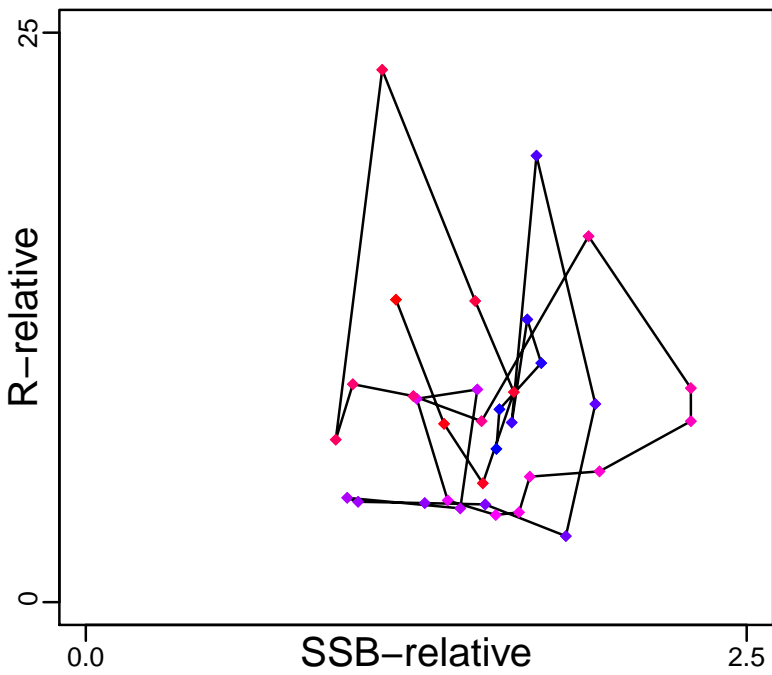
Kobe MSYpref (1980–2014–WATSON)



Kobe MGTpref (1980–2014–WATSON)



Spawner Recruit (1959–2018–ASHBROOK)



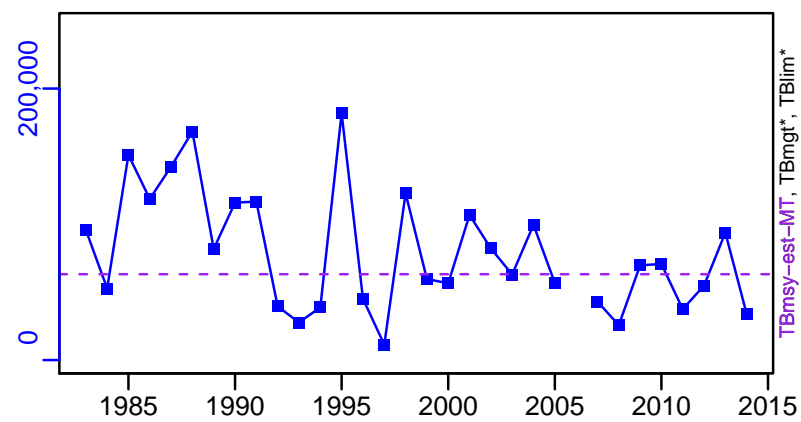
Production\*



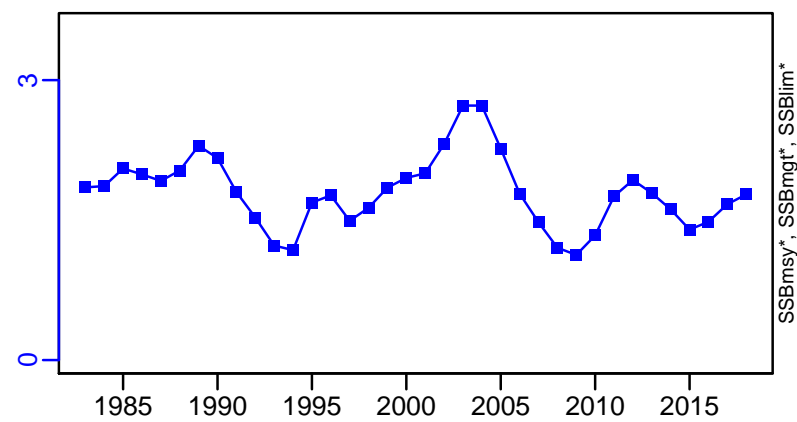
◆ Start Year ◆ End Year \* No Data

# Atlantic cod NAFO 3Ps [COD3Ps]

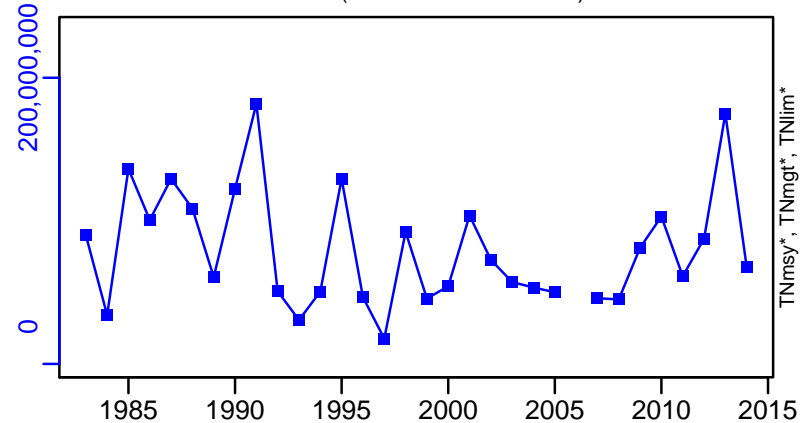
TB-MT (1980-2014-WATSON)



SSB-relative (1959-2018-ASHBROOK)



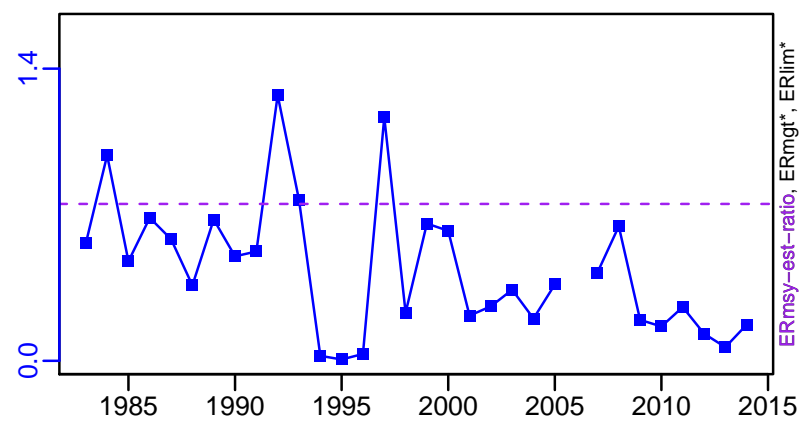
TN-E00 (1980-2014-WATSON)



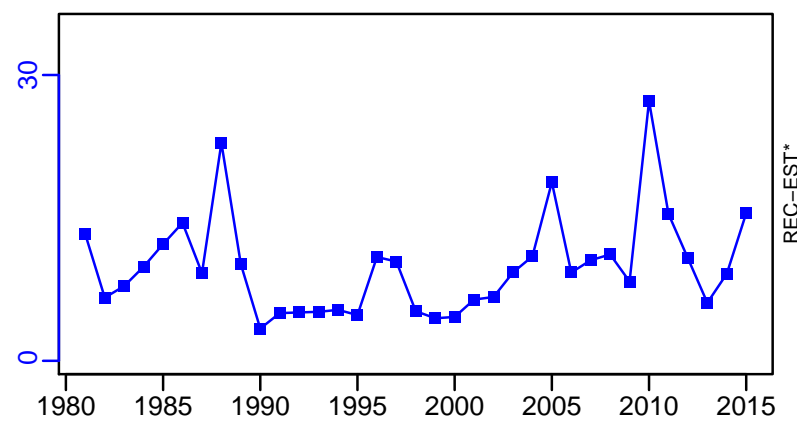
F\*



ER-calc-ratio (1980-2014-WATSON)

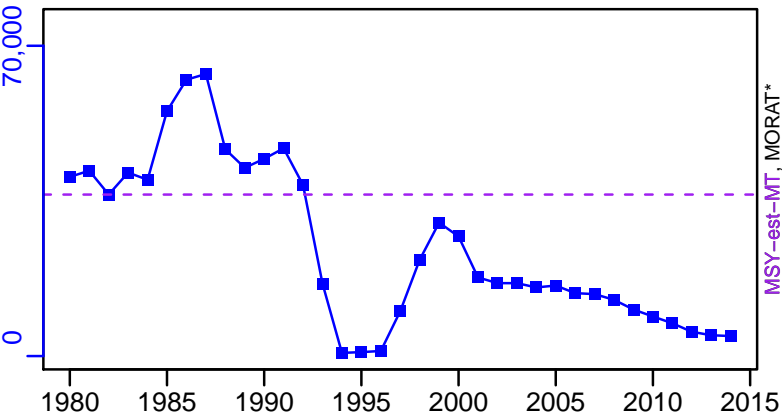


R-relative (1959-2018-ASHBROOK)

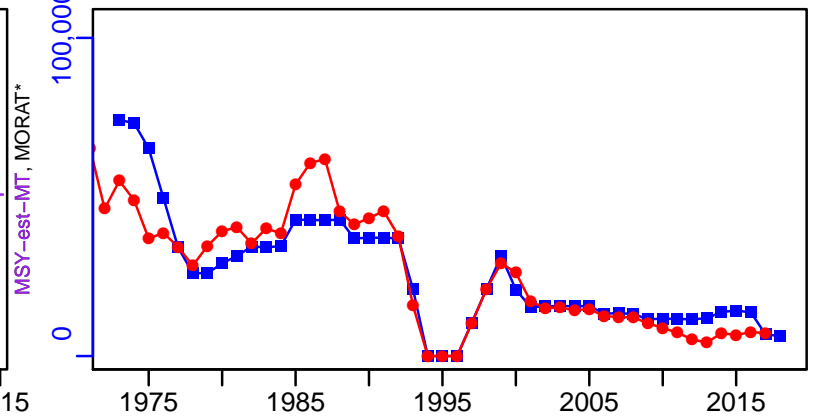


# Atlantic cod NAFO 3Ps [COD3Ps]

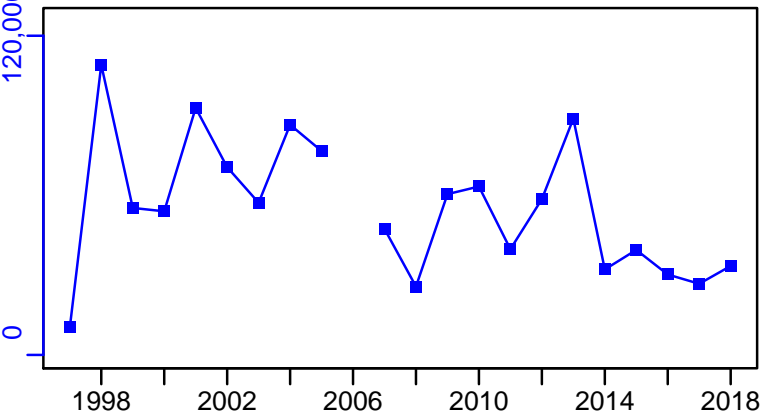
TC-MT, TL\*, RecC\* (1980–2014–WATSON)



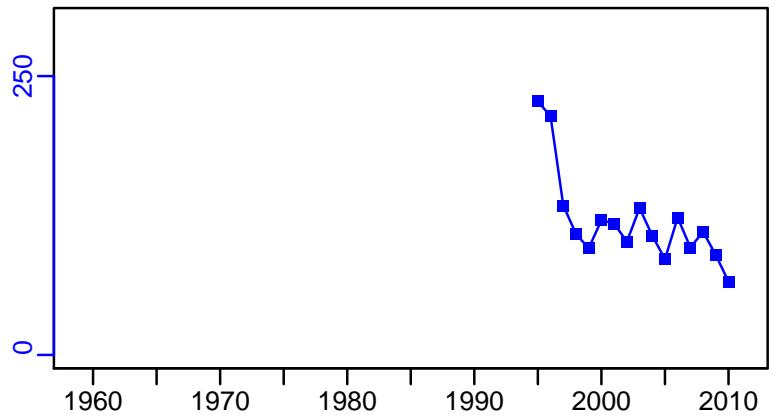
TAC-MT, Cpair-MT, Cadv\* (1959–2018–ASHBROOK)



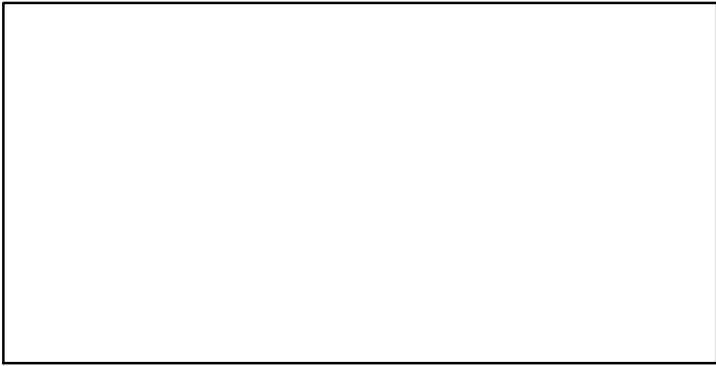
survB-MT (1959–2018–ASHBROOK)



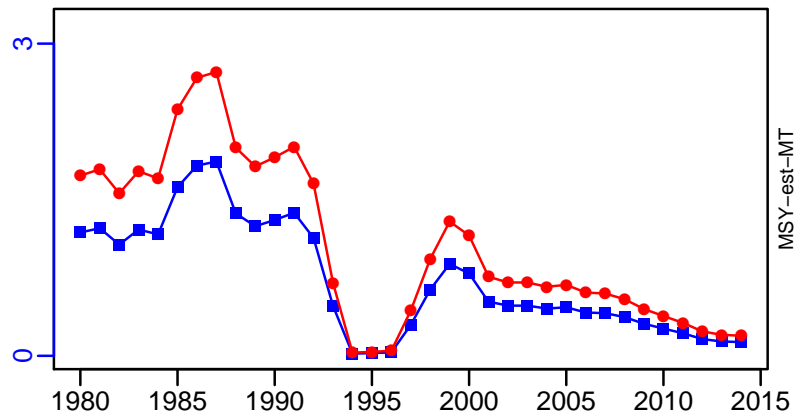
CPUE-fishperE03hooks (1959–2011–CHING)



**EFFORT\***



TC-MT/MSY-est-MT, CdivMEANC-ratio, (1980–2014–WATSON)



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

## Atlantic cod NAFO 4TVn [COD4TVn]

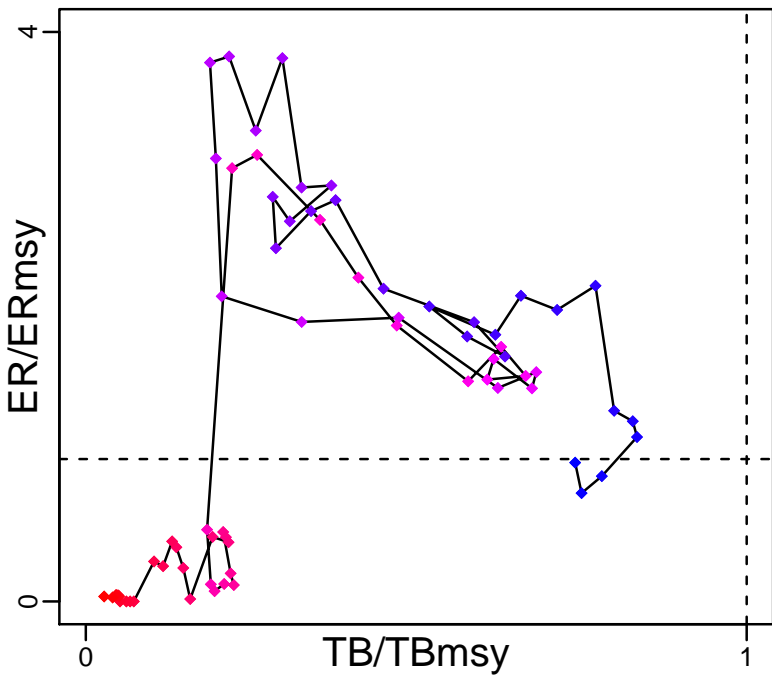
Metadata	
<b>Scientific Name</b>	Gadus morhua
<b>Current Assess ID</b>	DFO-SG-COD4TVn-1917-2018-ASHBROOK
<b>Area</b>	Southern Gulf of St. Lawrence
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans - Southern Gulf Region
<b>Asmts in RAM</b>	2015, 2018, 2011

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-est-MT	2018	549,616
<b>SSBmsy</b>	SSBmsy-est-MT	2015	818,645
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-est-ratio	2018	0.111
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-est-MT	2018	61,083
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2018	80,000
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

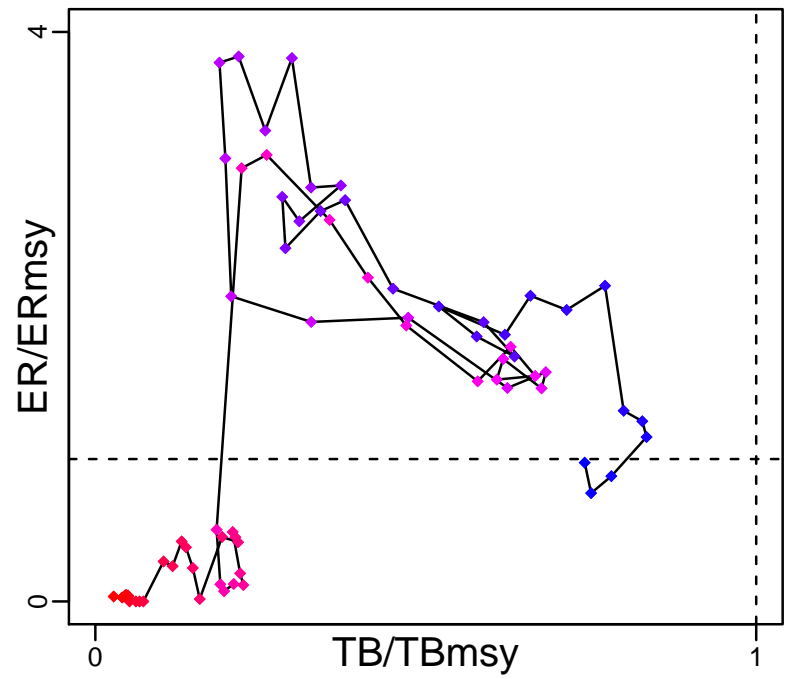
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2018	15,236	-	5+
<b>SSB</b>	SSB-MT	2018	18,322	-	-
<b>TN</b>	TN-E00	2018	17,877,070	-	5+
<b>R</b>	R-relative	2018	1.224	-	2
<b>F</b>	F-1/yr	2018	0.004	-	8-May
<b>ER</b>	ER-calc-ratio	2018	0.004	-	-
<b>TC</b>	TC-MT	2018	59		
<b>TL</b>	TL-MT	2015	114		
<b>TB/TBmsy</b>	TB-MT/TBmsy-est-MT	2018	0.028		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-est-MT	2015	0.038		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-est-ratio	2018	0.035		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Atlantic cod NAFO 4TVn [COD4TVn]

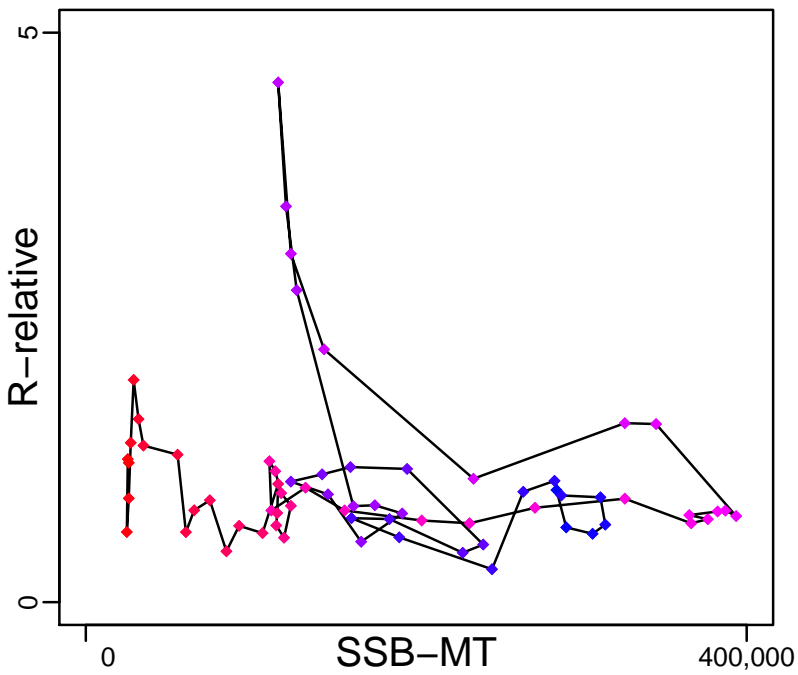
Kobe MSYpref (1917–2018–ASHBROOK)



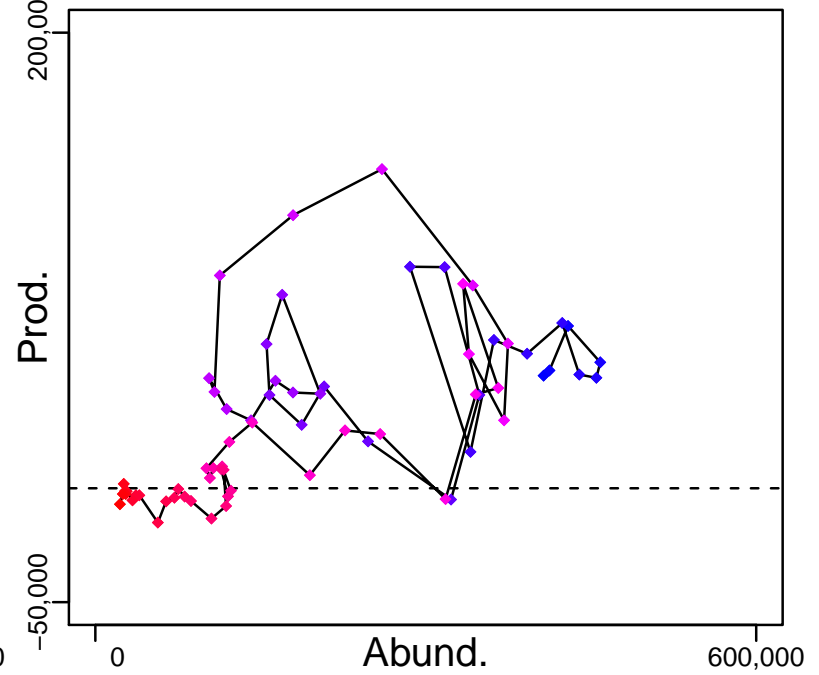
Kobe MGTpref (1917–2018–ASHBROOK)



Spawner Recruit (1917–2018–ASHBROOK)



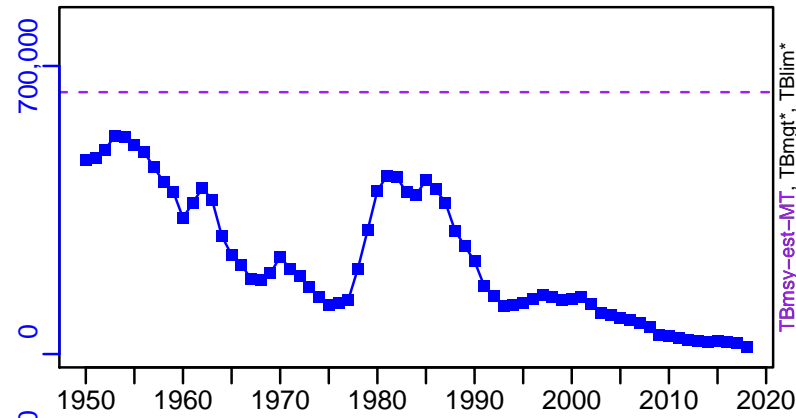
Production (1917–2018–ASHBROOK)



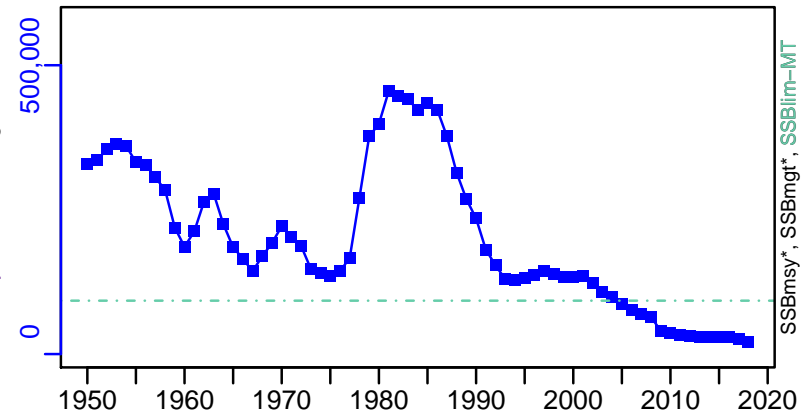
◆ Start Year ◆ End Year \* No Data

# Atlantic cod NAFO 4TVn [COD4TVn]

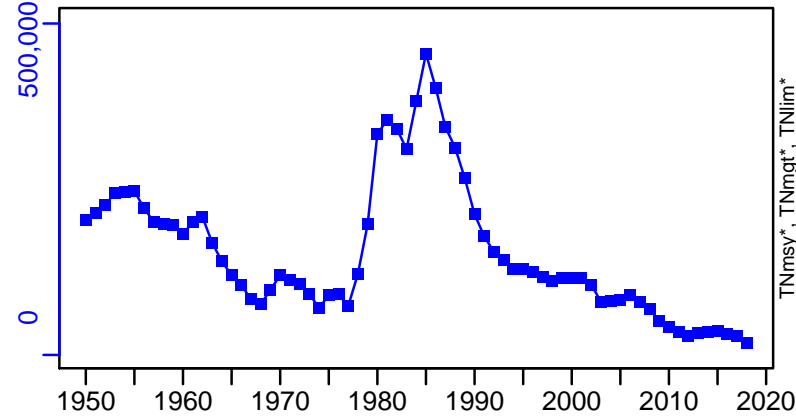
TB-MT (1917-2018-ASHBROOK)



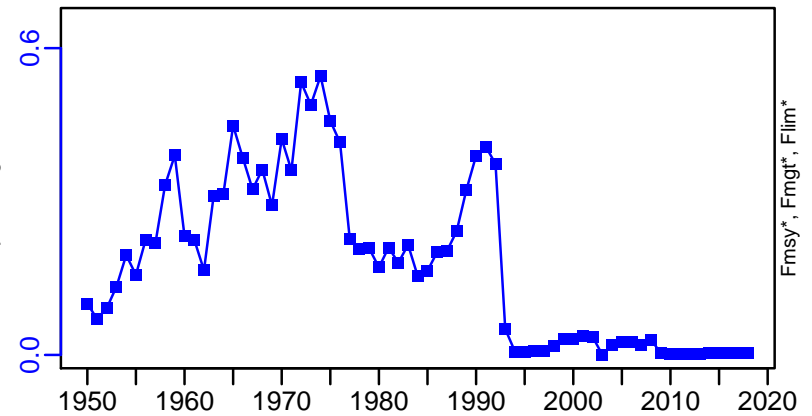
SSB-MT (1917-2018-ASHBROOK)



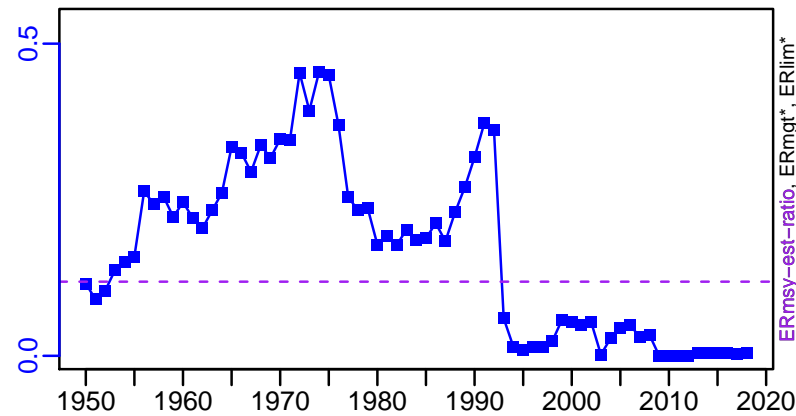
TN-E00 (1917-2018-ASHBROOK)



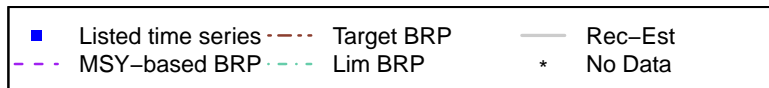
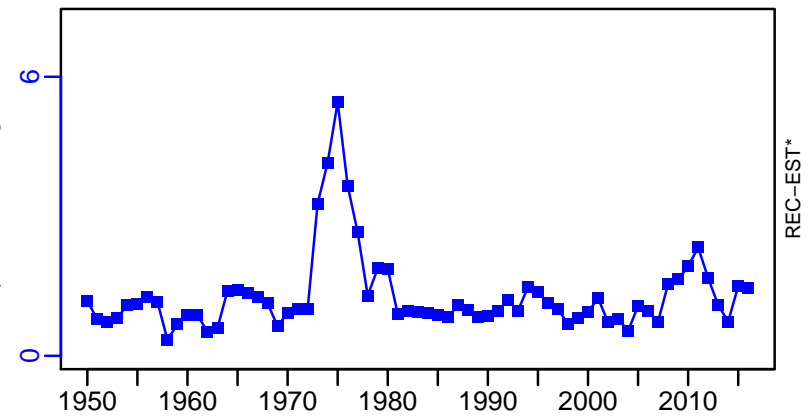
F-1/yr (1917-2018-ASHBROOK)



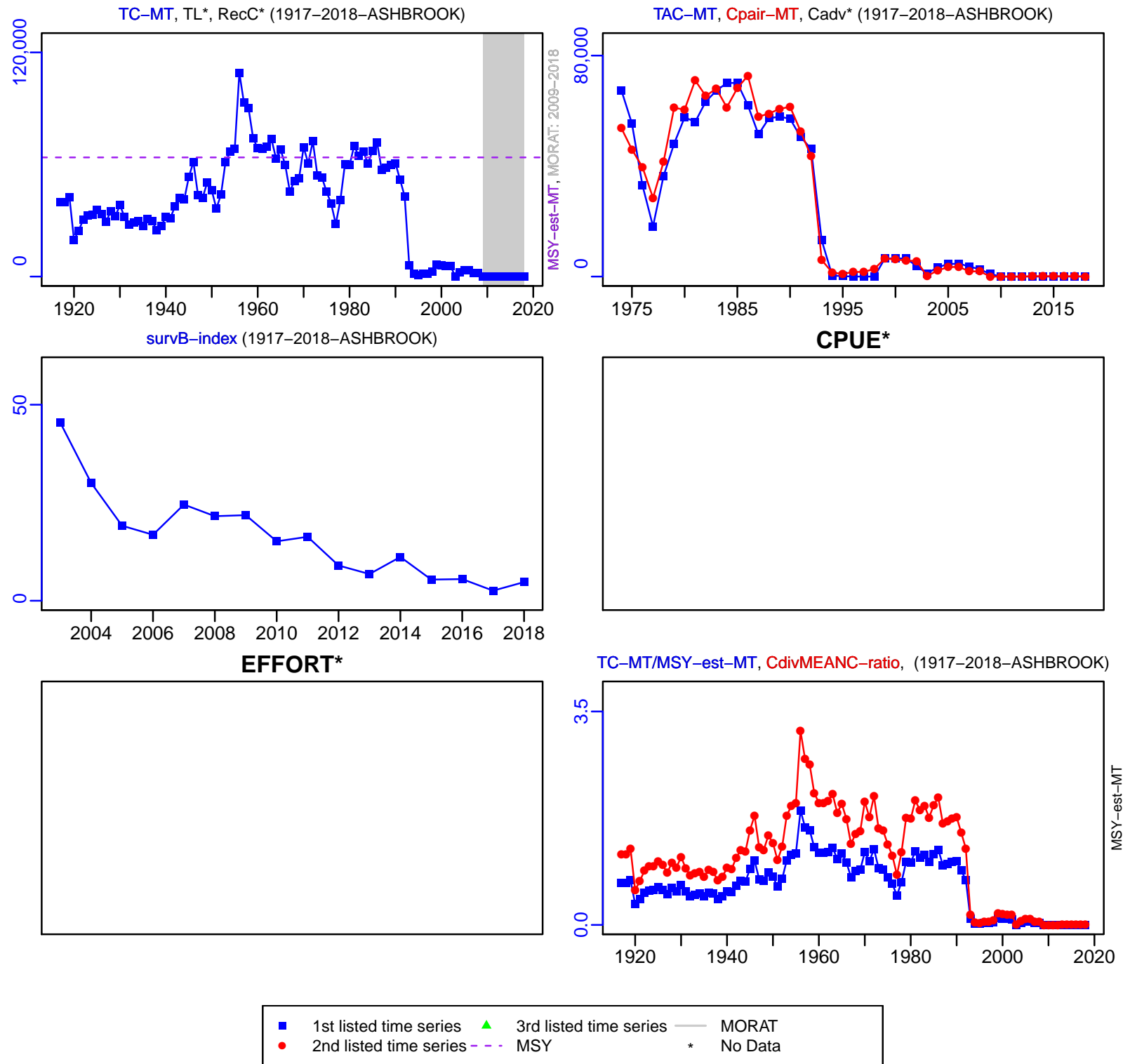
ER-calc-ratio (1917-2018-ASHBROOK)



R-relative (1917-2018-ASHBROOK)



# Atlantic cod NAFO 4TVn [COD4TVn]



## Atlantic cod Eastern Scotian Shelf [COD4VsW]

Metadata	
<b>Scientific Name</b>	Gadus morhua
<b>Current Assess ID</b>	DFO-MAR-COD4VsW-1958-2002-PREFONTAINE
<b>Area</b>	Eastern Scotian Shelf
<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>	2002

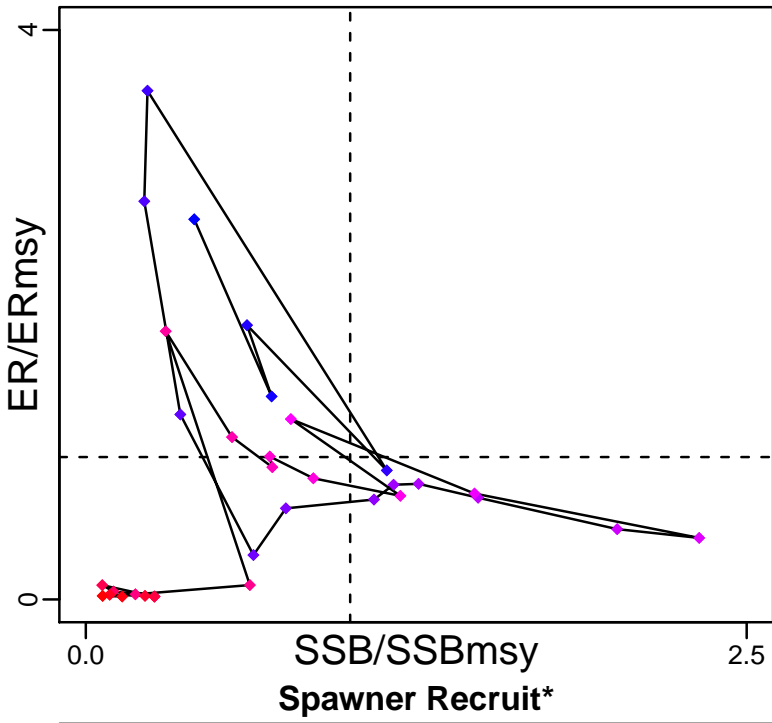
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-est-MT	2002	74,126
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-est-ratio	2002	0.308
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-est-MT	2002	45,206
<b>M</b>	-	-	-
<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	2002	4720	-	4+
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2002	0.008	-	-
<b>TC</b>	TC-MT	2002	83		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-est-MT	2002	0.064		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-est-ratio	2002	0.025		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

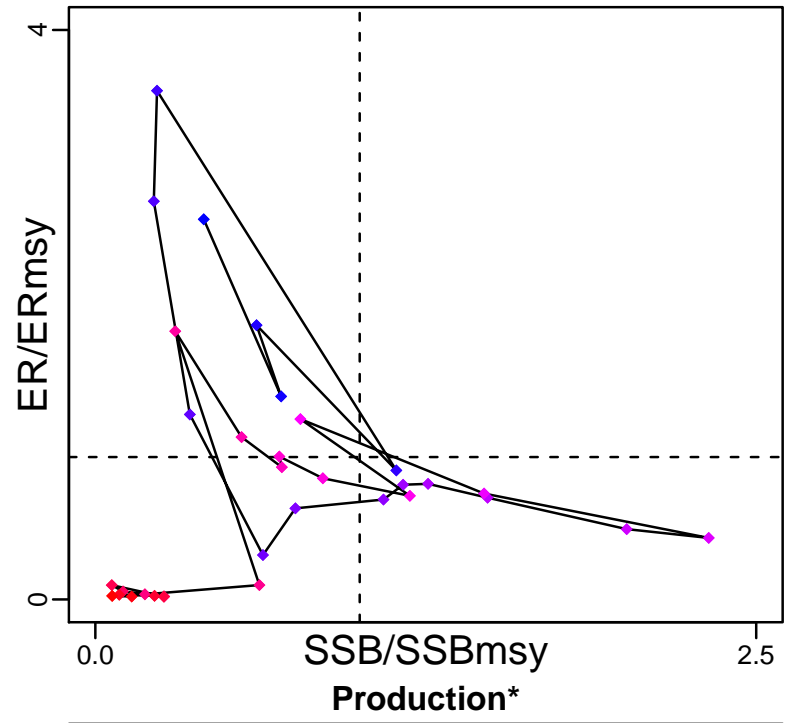


# Atlantic cod Eastern Scotian Shelf [COD4VsW]

Kobe MSYpref (1958–2002–PREFONTAINE)



Kobe MGTpref (1958–2002–PREFONTAINE)



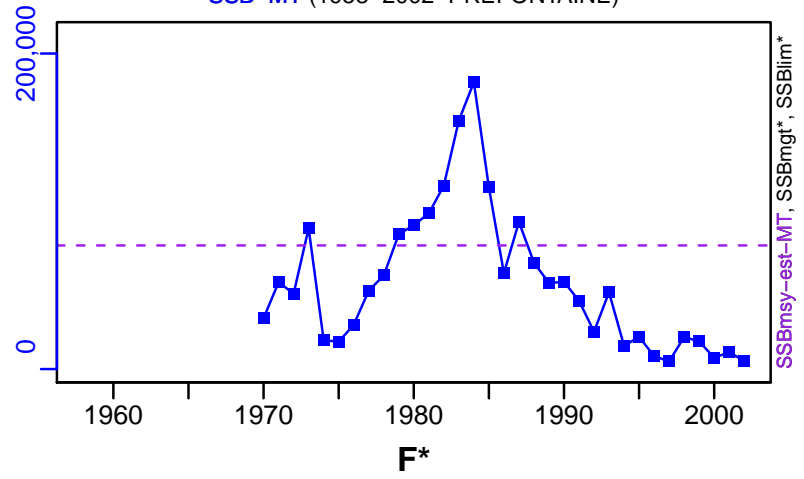
◆ Start Year ◆ End Year \* No Data

# Atlantic cod Eastern Scotian Shelf [COD4VsW]

TB\*



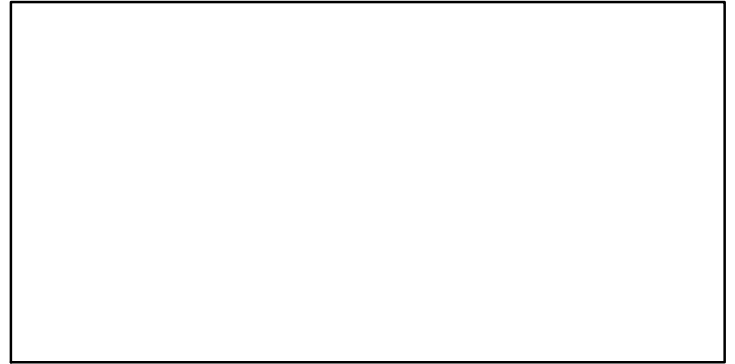
SSB-MT (1958–2002–PREFONTAINE)



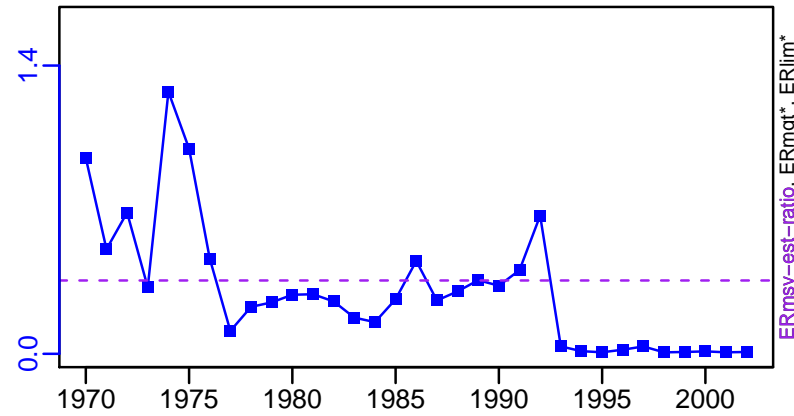
TN \*



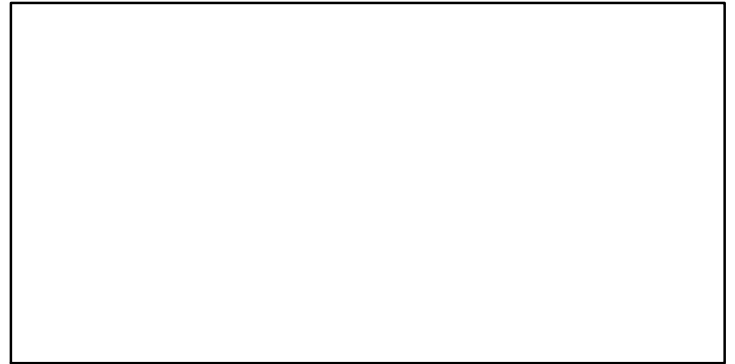
F\*



ER-ratio (1958–2002–PREFONTAINE)

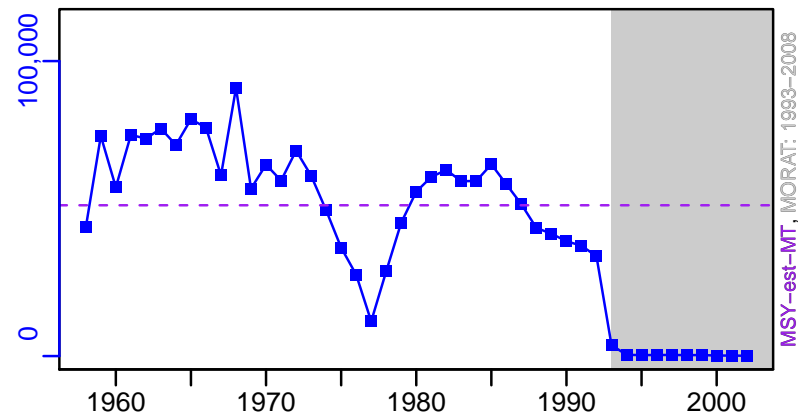


Recruits\*

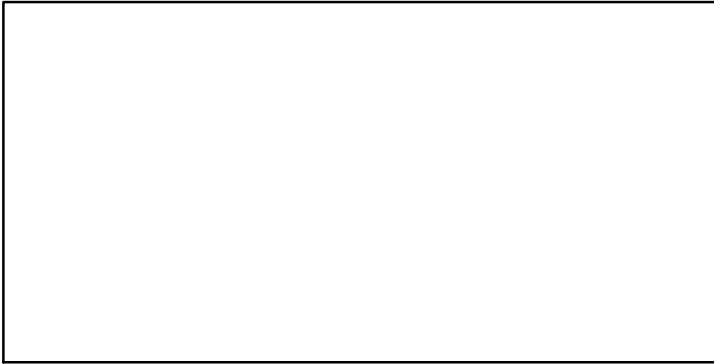


# Atlantic cod Eastern Scotian Shelf [COD4VsW]

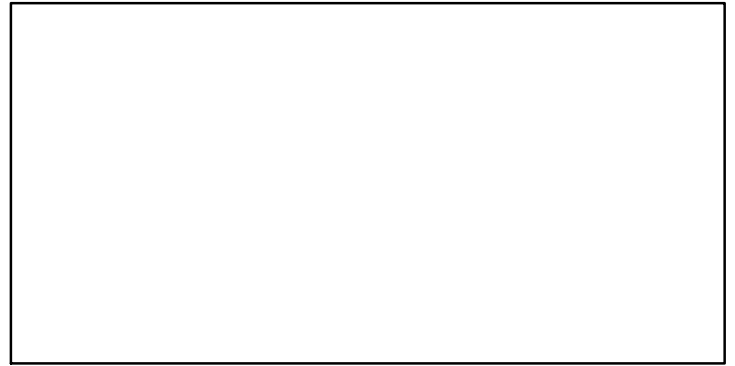
TC-MT, TL\*, RecC\* (1958-2002-PREFONTAINE)



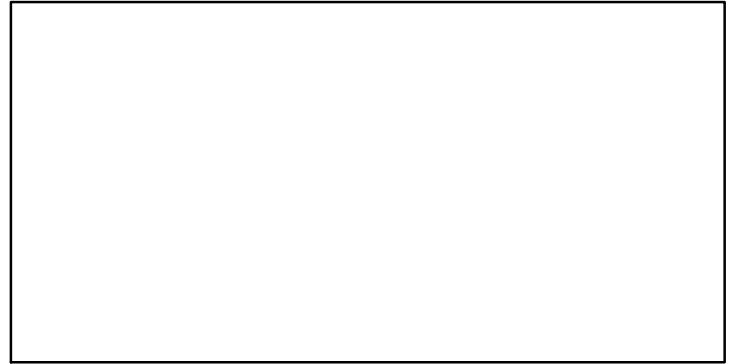
survB\*



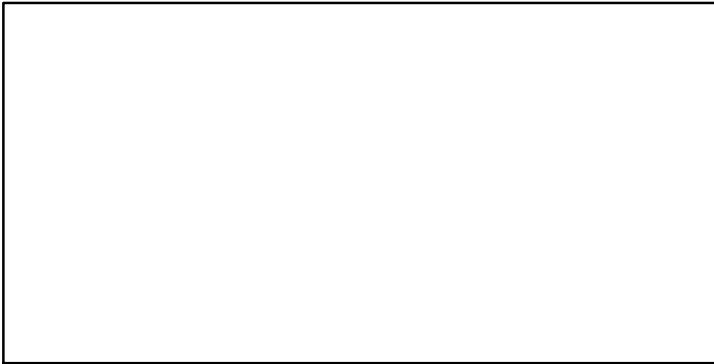
TAC\*, Cpair\*, Cadv\*



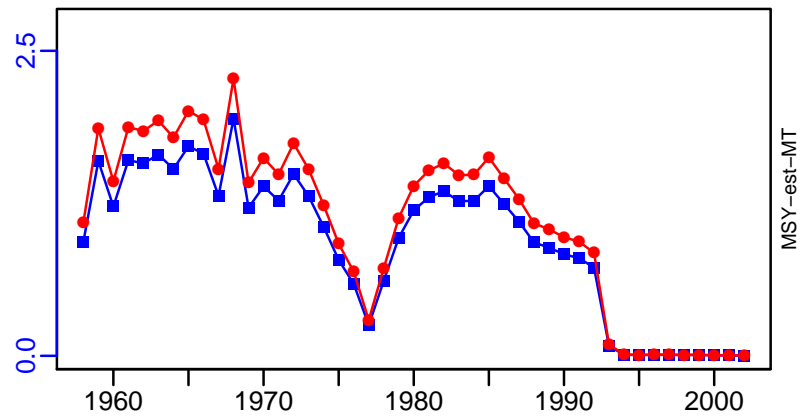
CPUE\*



EFFORT\*



TC-MT/MSY-est-MT, CdivMEANC-ratio, (1958-2002-PREFONTAINE)



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

## Atlantic cod Western Scotian Shelf, Bay of Fundy and Gulf of Maine [COD4X5Yb]

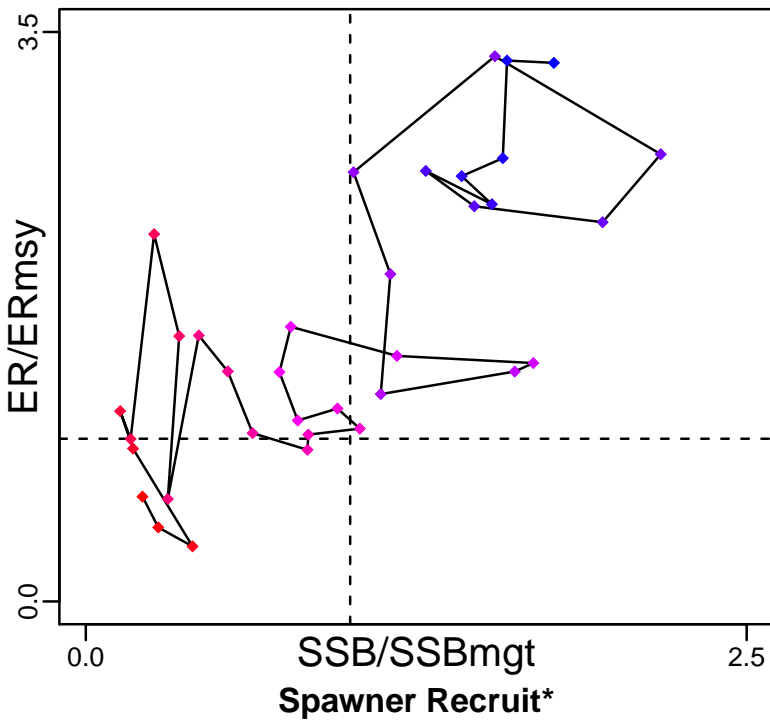
Metadata	
<b>Scientific Name</b>	Gadus morhua
<b>Current Assess ID</b>	DFO-MAR-COD4X5Yb-1960-2018-ASHBROOK
<b>Area</b>	Western Scotian Shelf, Bay of Fundy and Gulf of Maine
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans - Maritimes Region
<b>Asmts in RAM</b>	2009, 2018

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-est-ratio	2018	0.085
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2018	48,000
<b>Fmgt</b>	Fmgt-1/yr	2009	0.2
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	M-1/yr	2018	1.57
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2018	22,193
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

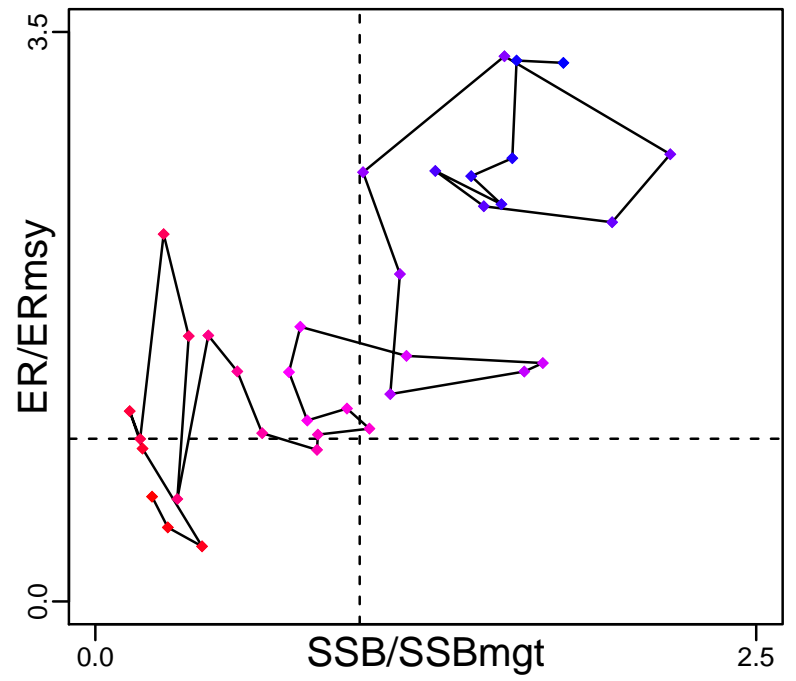
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2018	13,588	-	1-7+
<b>SSB</b>	SSB-MT	2018	12,491	-	4+
<b>TN</b>	TN-E00	2018	8,028,000	-	1-7+
<b>R</b>	-	-	-	-	-
<b>F</b>	F-1/yr	2018	0.088	-	7-Apr
<b>ER</b>	ER-calc-ratio	2018	0.055	-	-
<b>TC</b>	-	-	-		
<b>TL</b>	TL-MT	2018	746		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-est-ratio	2018	0.644		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2018	0.26		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2009	1.5		
<b>ER/ERmgt</b>	-	-	-		

# Atlantic cod Western Scotian Shelf, Bay of Fundy and Gulf of Maine [COD4X5Yb]

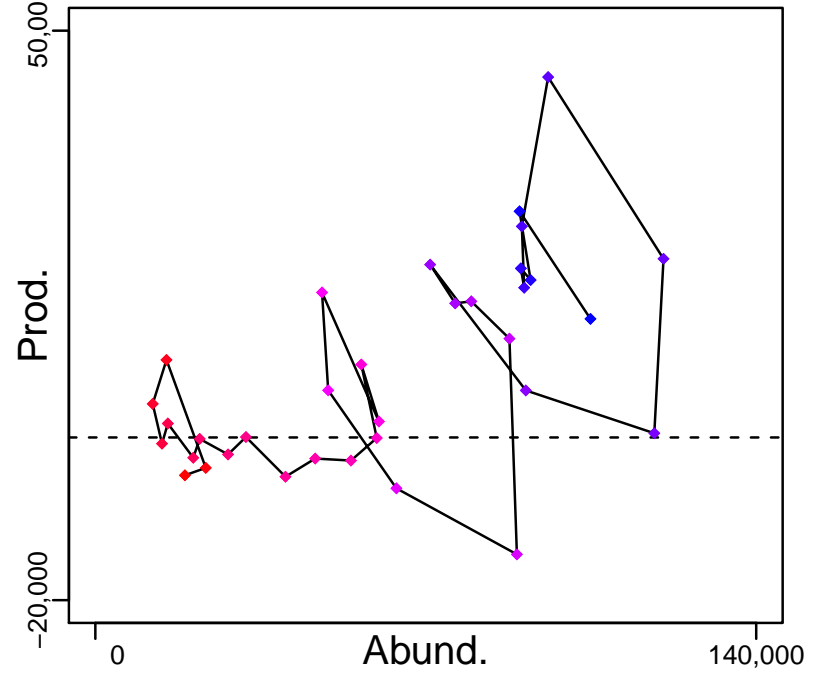
Kobe MSYpref (1960–2018–ASHBROOK)



Kobe MGTpref (1960–2018–ASHBROOK)



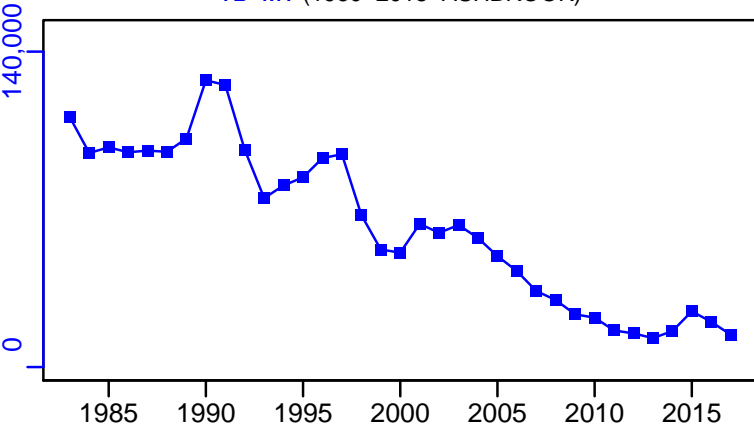
Production (1960–2018–ASHBROOK)



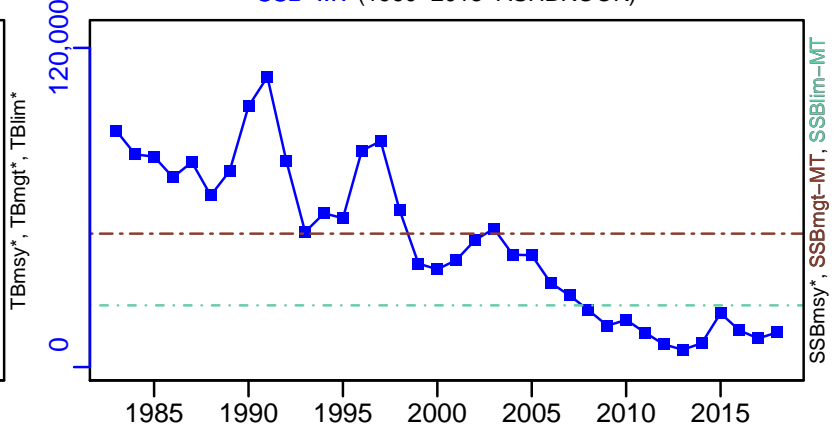
◆ Start Year ◆ End Year \* No Data

# Atlantic cod Western Scotian Shelf, Bay of Fundy and Gulf of Maine [COD4X5Yb]

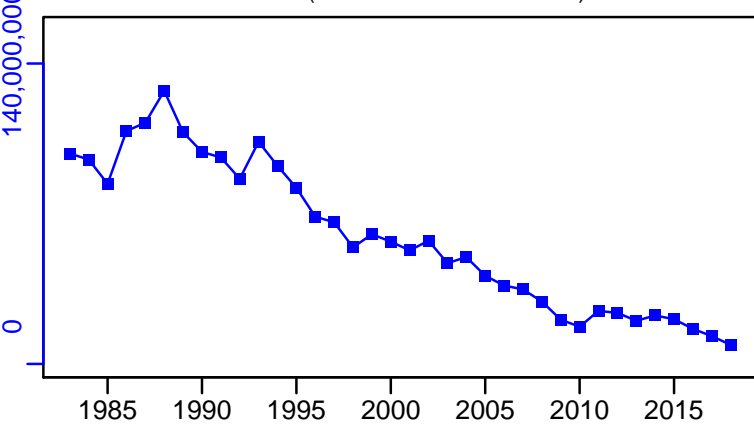
TB-MT (1960–2018–ASHBROOK)



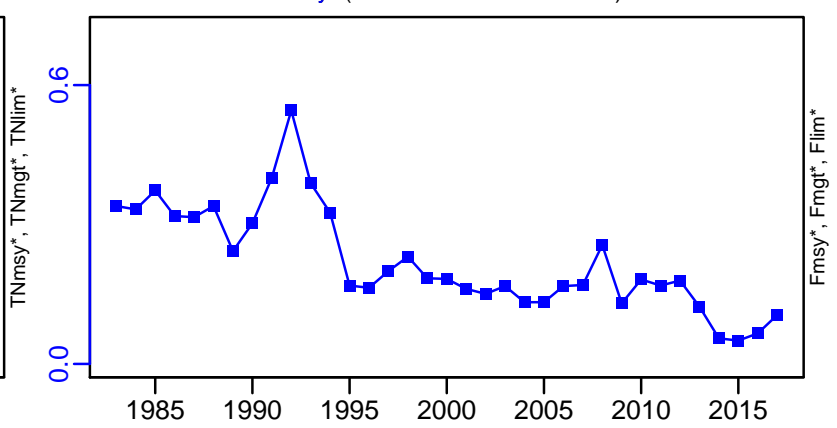
SSB-MT (1960–2018–ASHBROOK)



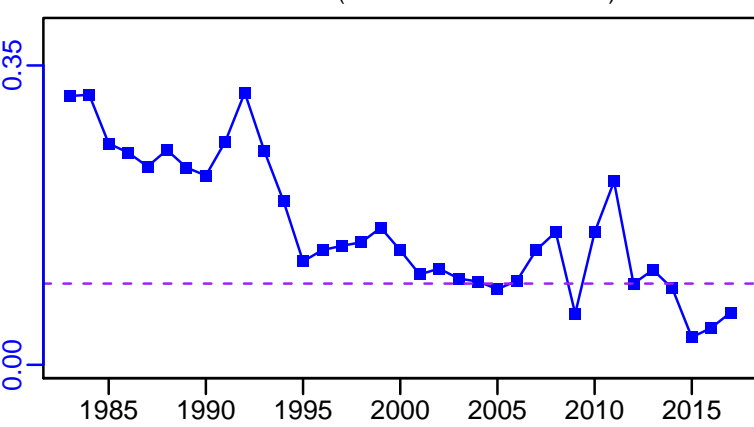
TN-E00 (1960–2018–ASHBROOK)



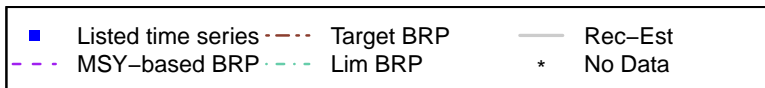
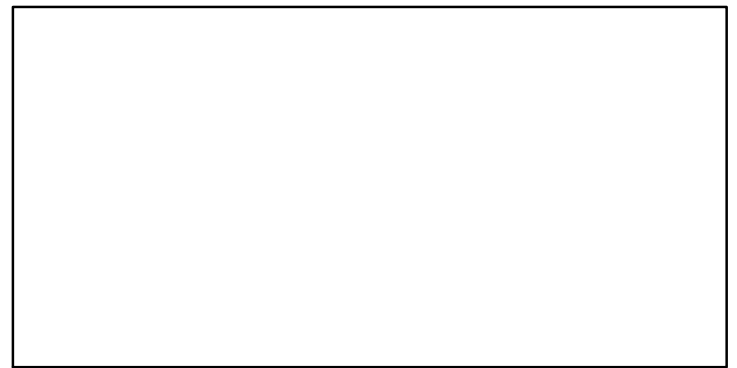
F-1/yr (1960–2018–ASHBROOK)



ER-calc-ratio (1960–2018–ASHBROOK)



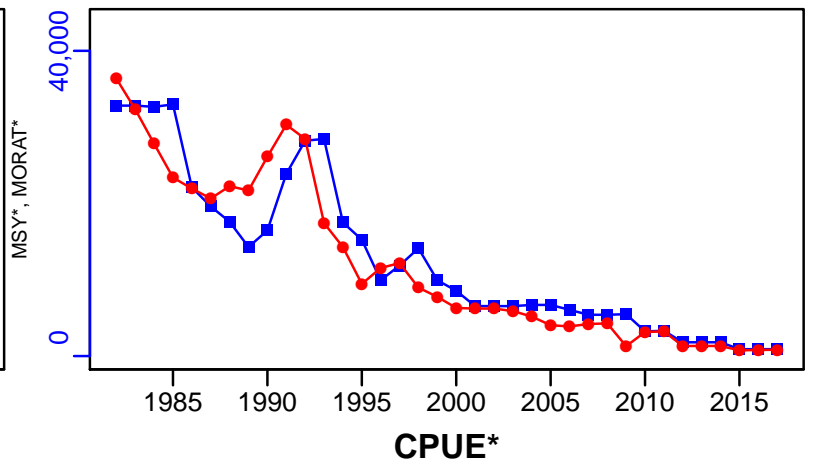
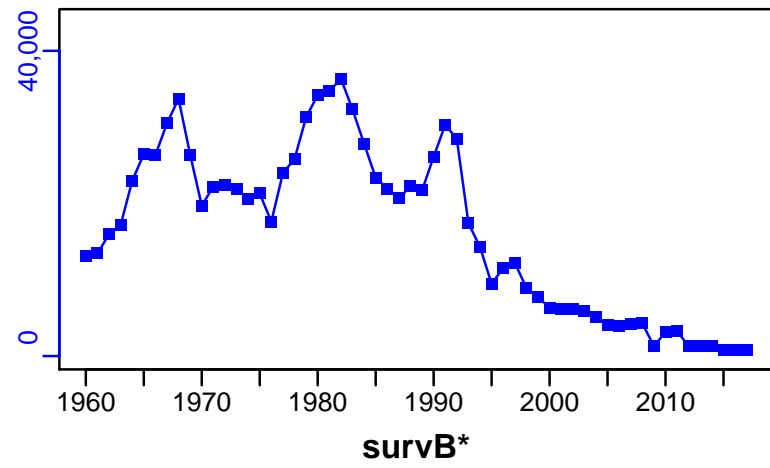
Recruits\*



# Atlantic cod Western Scotian Shelf, Bay of Fundy and Gulf of Maine [COD4X5Yb]

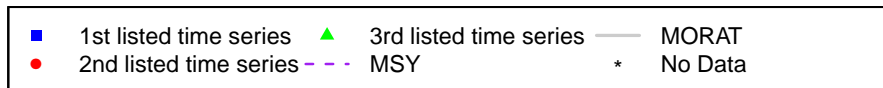
TL-MT, TC\*, RecC\* (1960–2018–ASHBROOK)

TAC-MT, Cpair-MT, Cadv\* (1960–2018–ASHBROOK)



EFFORT\*

CdivMSY\*



### Atlantic cod NAFO 5Zjm [COD5Zjm]

Metadata	
<b>Scientific Name</b>	Gadus morhua
<b>Current Assess ID</b>	TRAC-COD5Zjm-1977-2018-SISIMP2021
<b>Area</b>	NAFO 5Zjm
<b>Management Authority</b>	Transboundary Resource Assessment Committee (USA and Canada)
<b>Assessor</b>	Transboundary Resource Assessment Committee (USA and Canada)
<b>Asmts in RAM</b>	2017, 2018, 2010, 2015

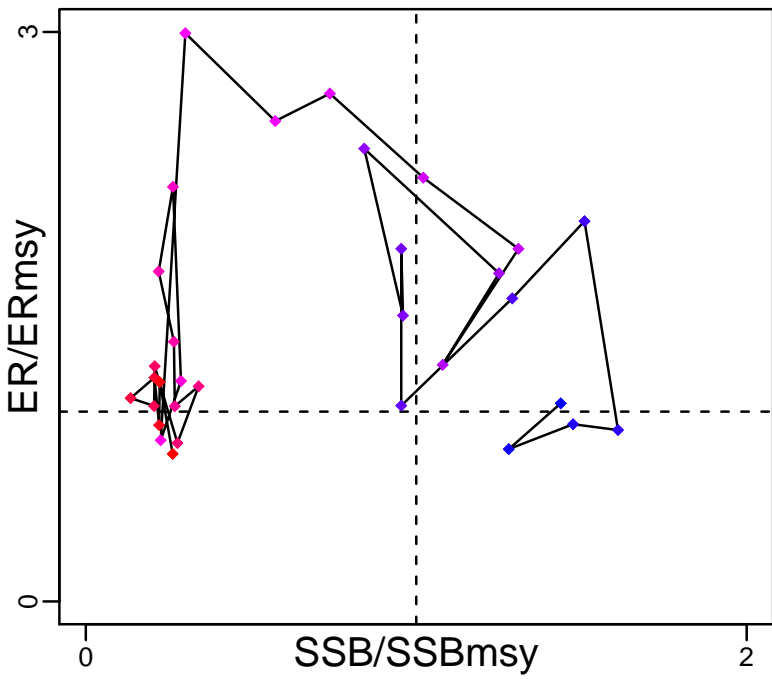
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-est-MT	2010	37,502
<b>Fmsy</b>	Fmsy-1/yr	2017	0.11
<b>ERmsy</b>	ERmsy-est-ratio	2010	0.089
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	Fmgt-1/yr	2018	0.11
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-est-MT	2010	5921
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2010	21,000
<b>Flim</b>	Flim-1/yr	2017	0.11
<b>ERlim</b>	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2018	6402	-	-
<b>SSB</b>	SSB-MT	2015	10,000	-	3+
<b>TN</b>	TN-E00	2010	3,390,000	-	3+
<b>R</b>	R-E00	2018	1,040,000	-	1
<b>F</b>	F-1/yr	2018	0.053	-	-
<b>ER</b>	ER-calc-ratio	2018	0.046	-	-
<b>TC</b>	TC-MT	2018	526		
<b>TL</b>	TL-MT	2010	1860		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-est-MT	2010	0.247		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2017	0.455		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-est-ratio	2010	0.777		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2018	0.482		
<b>ER/ERmgt</b>	-	-	-		

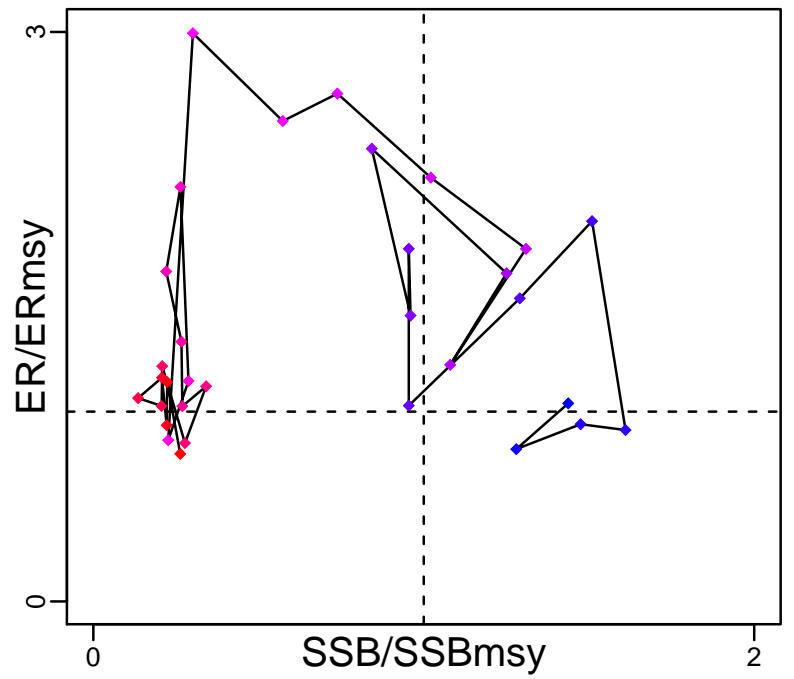


# Atlantic cod NAFO 5Zjm [COD5Zjm]

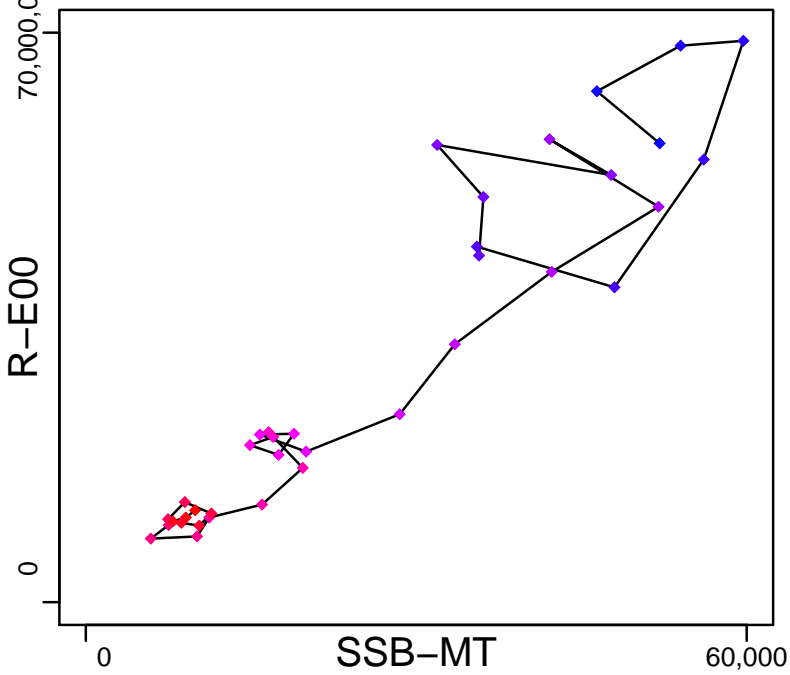
Kobe MSYpref (1978–2010–WATSON)



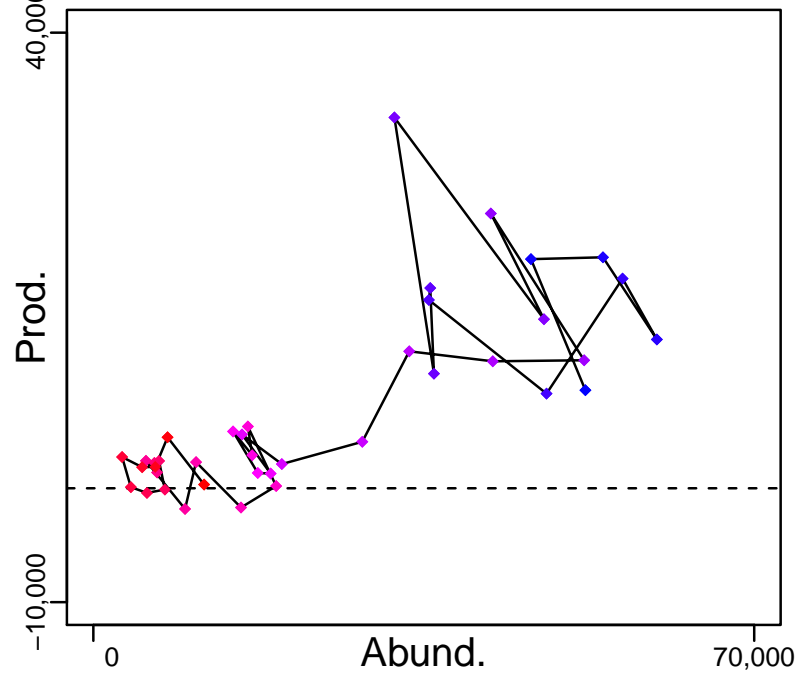
Kobe MGTpref (1978–2010–WATSON)



Spawner Recruit (1978–2015–SISIMP2016)

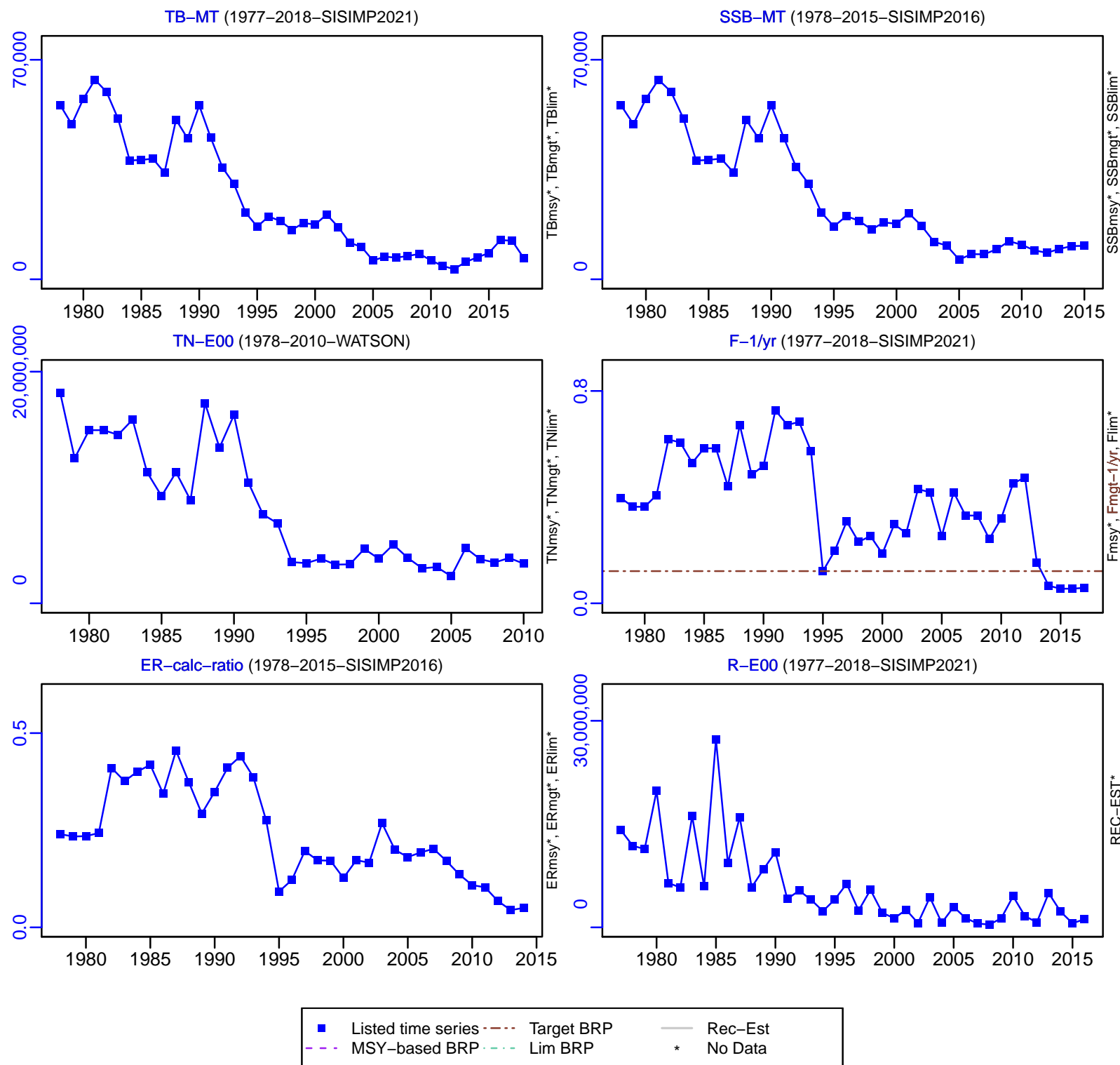


Production (1977–2018–SISIMP2021)



◆ Start Year ◆ End Year \* No Data

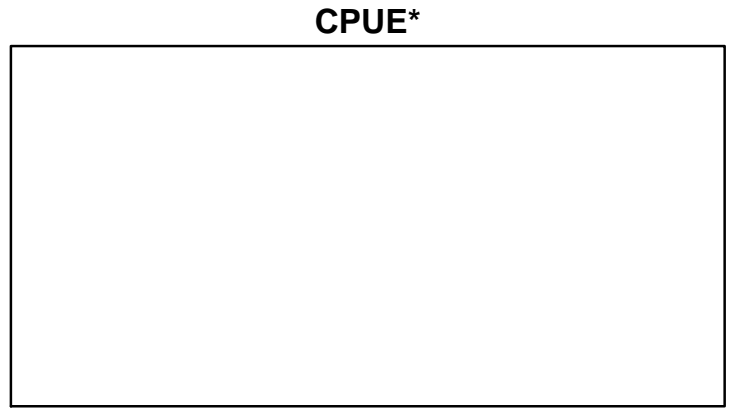
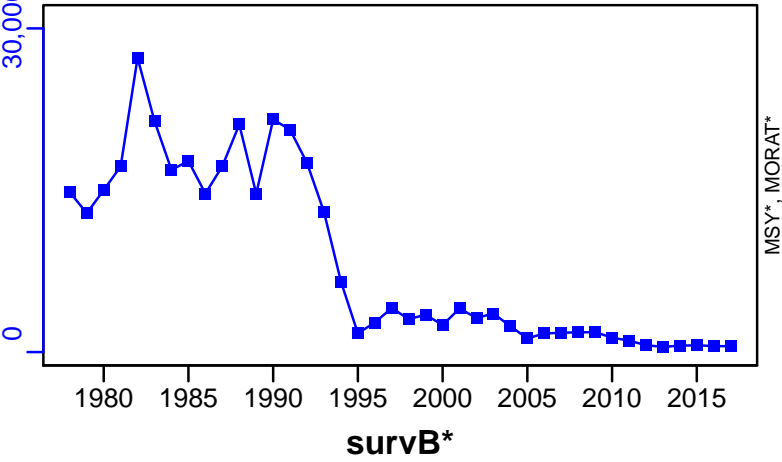
# Atlantic cod NAFO 5Zjm [COD5Zjm]



# Atlantic cod NAFO 5Zjm [COD5Zjm]

TC-MT, TL\*, RecC\* (1977-2018-SISIMP2021)

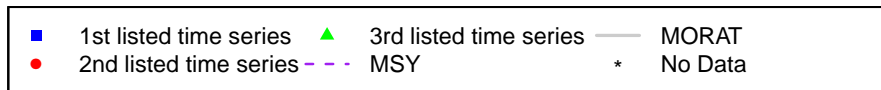
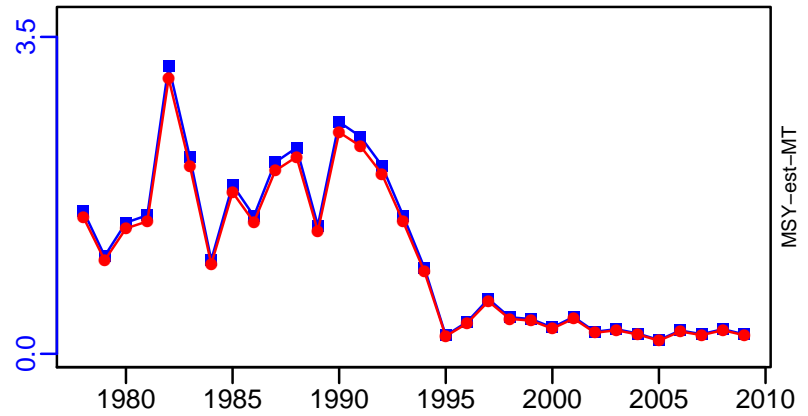
TAC\*, Cpair\*, Cadv\*



EFFORT\*



TC-MT/MSY-est-MT, CdivMEANC-ratio, (1978-2010-WATSON)



## Cusk Western Scotian Shelf [CUSK4X]

Metadata	
<b>Scientific Name</b>	Brosme brosme
<b>Current Assess ID</b>	DFO-MAR-CUSK4X-1970-2007-RICARD
<b>Area</b>	Western Scotian Shelf
<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>	2007

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-MT	2007	25,790
<b>SSBmsy</b>	SSBmsy-conv-MT	2007	9737
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2007	0.058
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2007	47,430
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2007	1483
<b>M</b>	-	-	-
<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	16,900	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	-	-	-		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2007	0.655		
<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\***



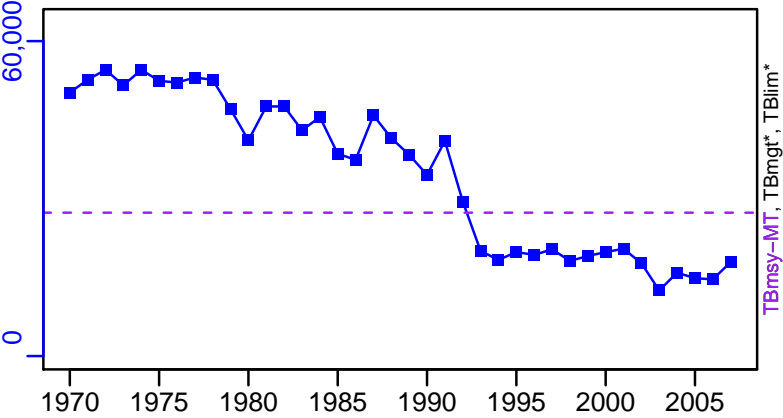
**Production\***



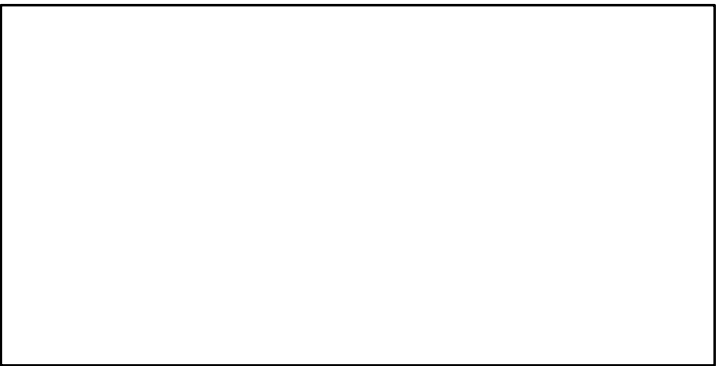
◆ Start Year   ◆ End Year   \* No Data

Cusk Western Scotian Shelf [CUSK4X]

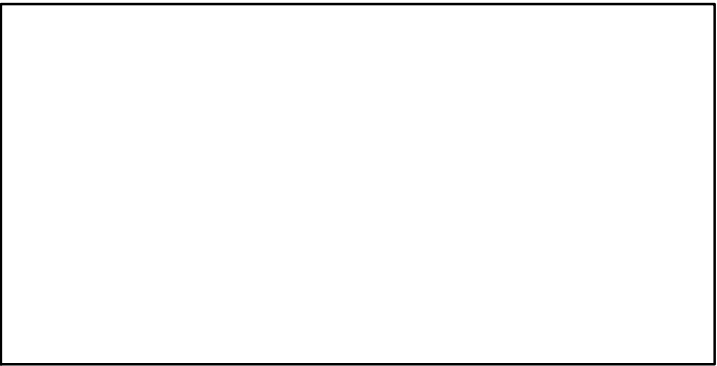
TB-MT (1970-2007-RICARD)



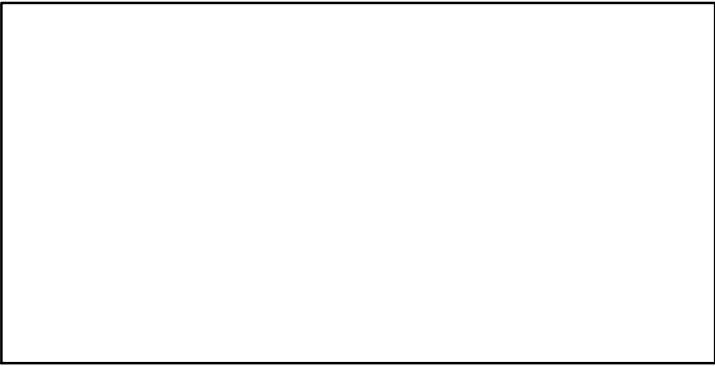
SSB\*



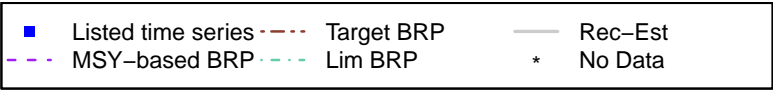
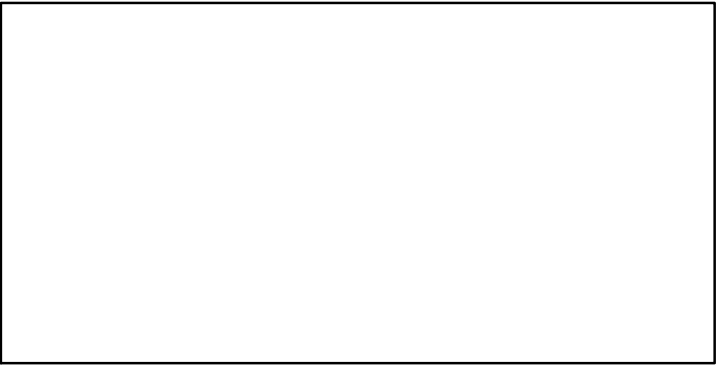
F\*



ER\*



Recruits\*



**TC\*, TL\*, RecC\***



**TAC\*, Cpair\*, Cadv\***



**survB\***



**CPUE\***



**EFFORT\***



**CdivMSY\***



■

1st listed time series

●

2nd listed time series

▲

3rd listed time series

- -

MSY

—

MORAT

\*

No Data

## Greenland halibut NAFO divisions 01ABCDEF [GHAL01ABCDEF]

Metadata	
<b>Scientific Name</b>	Reinhardtius hippoglossoides
<b>Current Assess ID</b>	NAFO-SC-GHAL01ABCDEF-1987-2006-PREFONTAINE
<b>Area</b>	NAFO divisions 01ABCDEF
<b>Management Authority</b>	Northwest Atlantic Fisheries Organization
<b>Assessor</b>	NAFO Scientific Council
<b>Asmts in RAM</b>	2006

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	Fmsy-1/yr	2006	0.22
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	2006	24,200		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



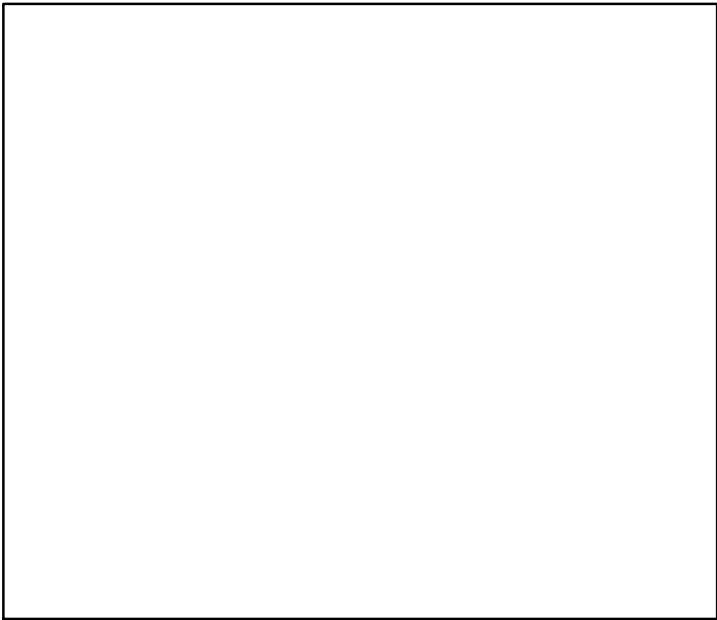
Kobe MSY\*



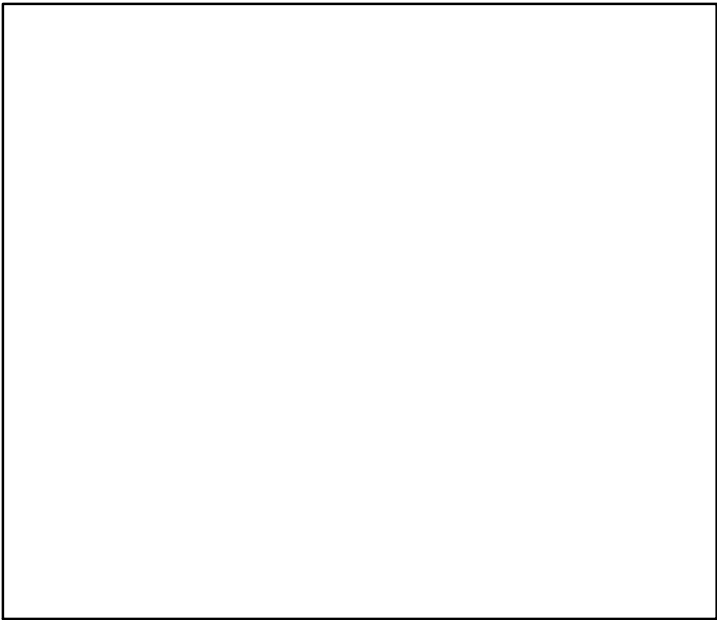
Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data

TB\*



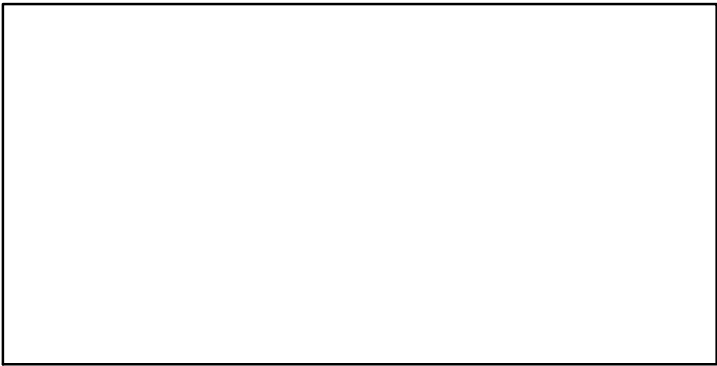
SSB\*



TN \*



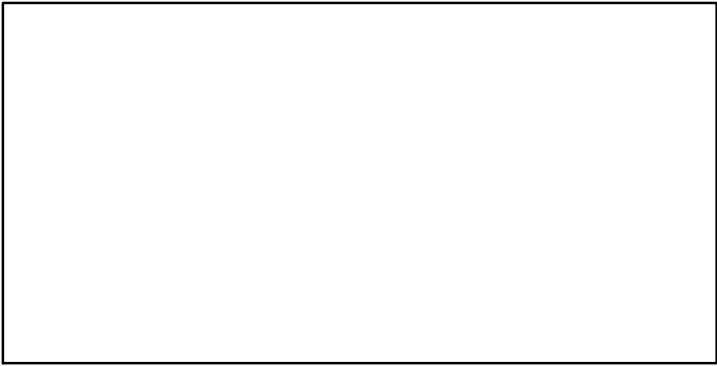
F\*



ER\*



Recruits\*



■ Listed time series

--- MSY-based BRP

--- Target BRP

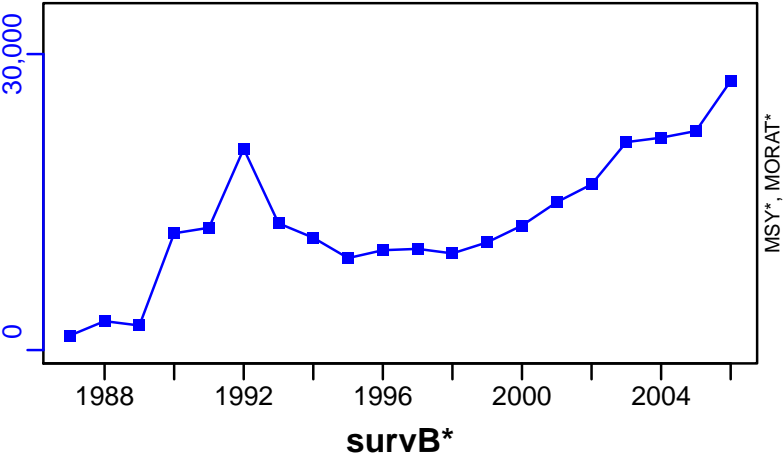
--- Lim BRP

— Rec-Est

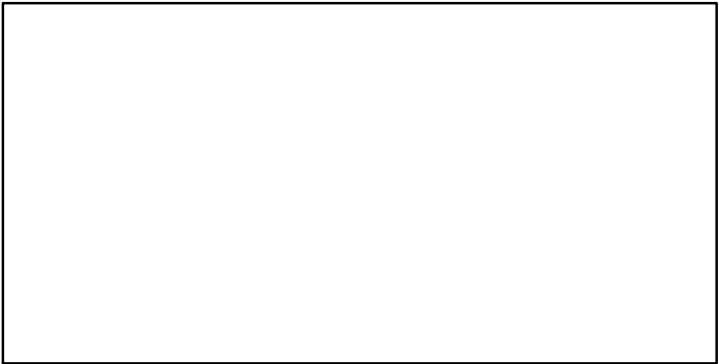
\* No Data

Greenland halibut NAFO divisions 01ABCDEF [GHAL01ABCDEF]

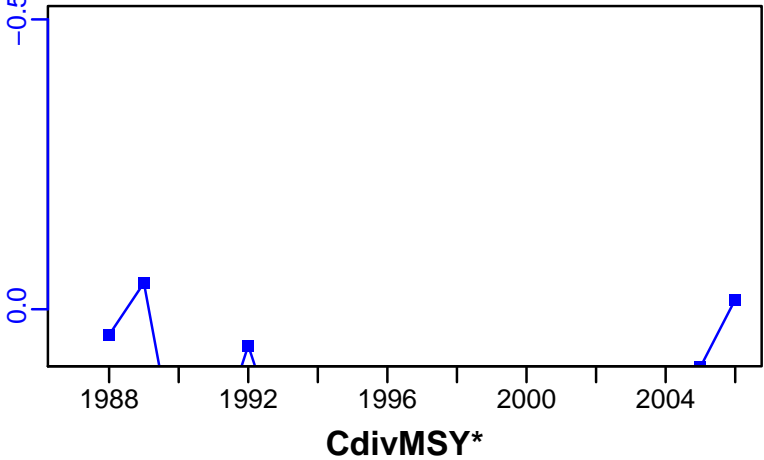
TC-MT, TL\*, RecC\* (1987-2006-PREFONTAINE)



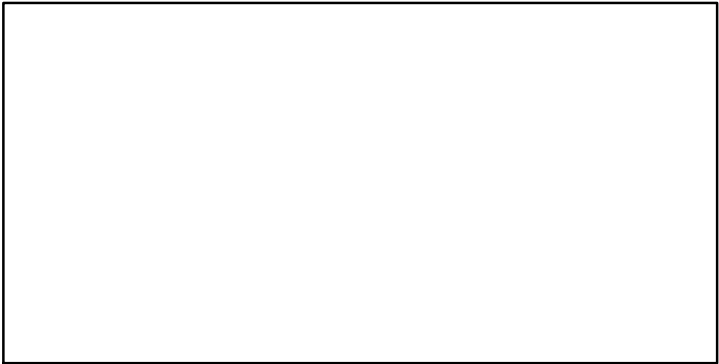
TAC\*, Cpair\*, Cadv\*



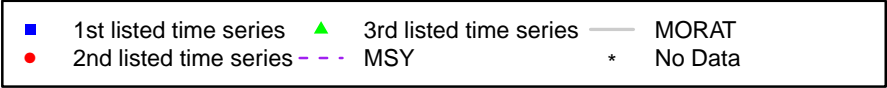
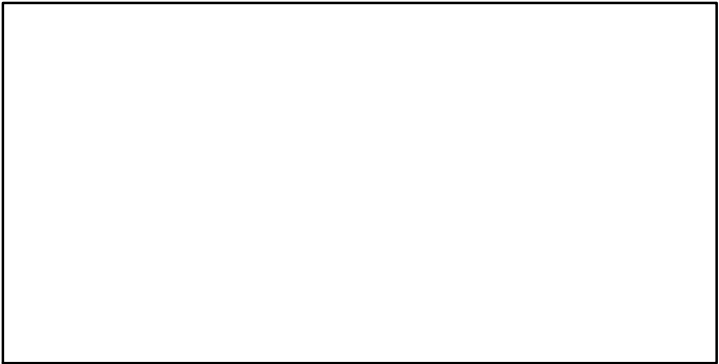
CPUEraw-C/E (1987-2006-PREFONTAINE)



EFFORT\*



CdivMSY\*



## Greenland halibut Labrador Shelf - Grand Banks [GHAL23KLMNO]

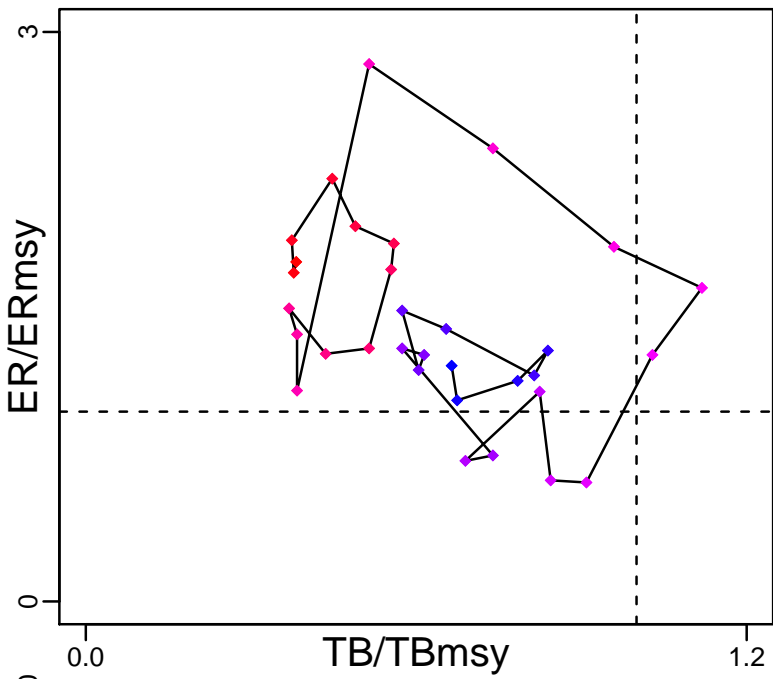
Metadata	
<b>Scientific Name</b>	Reinhardtius hippoglossoides
<b>Current Assess ID</b>	NAFO-SC-GHAL23KLMNO-1960-2010-WATSON
<b>Area</b>	Labrador Shelf - Grand Banks
<b>Management Authority</b>	Northwest Atlantic Fisheries Organization
<b>Assessor</b>	NAFO Scientific Council
<b>Asmts in RAM</b>	2006, 2010

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-est-MT	2006	200,215
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-est-ratio	2006	0.176
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-est-MT	2006	35,149
<b>M</b>	M-1/yr	2006	0.2
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

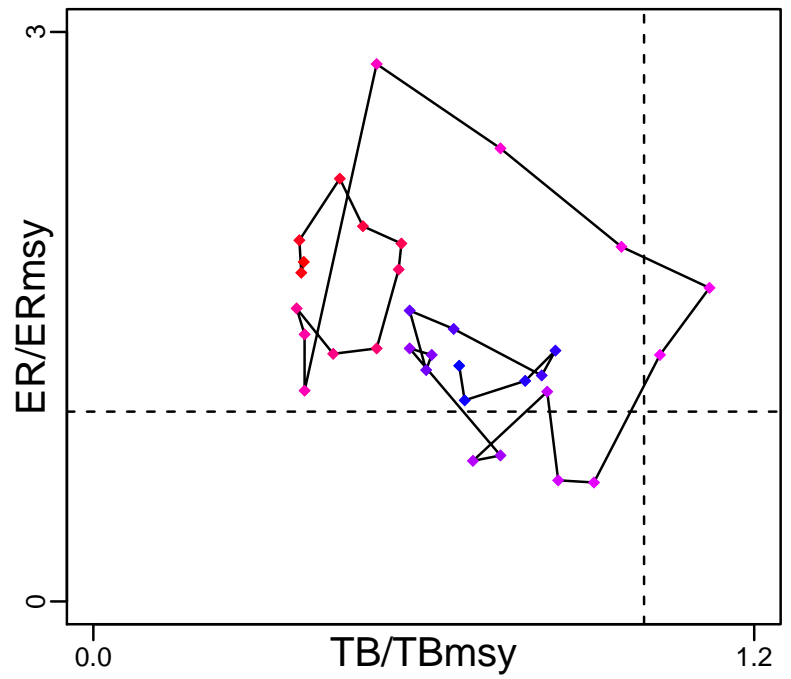
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2006	76,500	-	5+
<b>SSB</b>	SSB-MT	2006	2130	-	10+
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2006	54,600,000	-	-
<b>F</b>	F-1/yr	2006	0.588	-	5 to 10
<b>ER</b>	ER-ratio	2006	0.314	-	-
<b>TC</b>	TC-MT	2010	6530		
<b>TL</b>	TL-MT	2006	24,000		
<b>TB/TBmsy</b>	TB-MT/TBmsy-est-MT	2006	0.382		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-est-ratio	2006	1.789		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Greenland halibut Labrador Shelf – Grand Banks [GHAL23KLMNO]

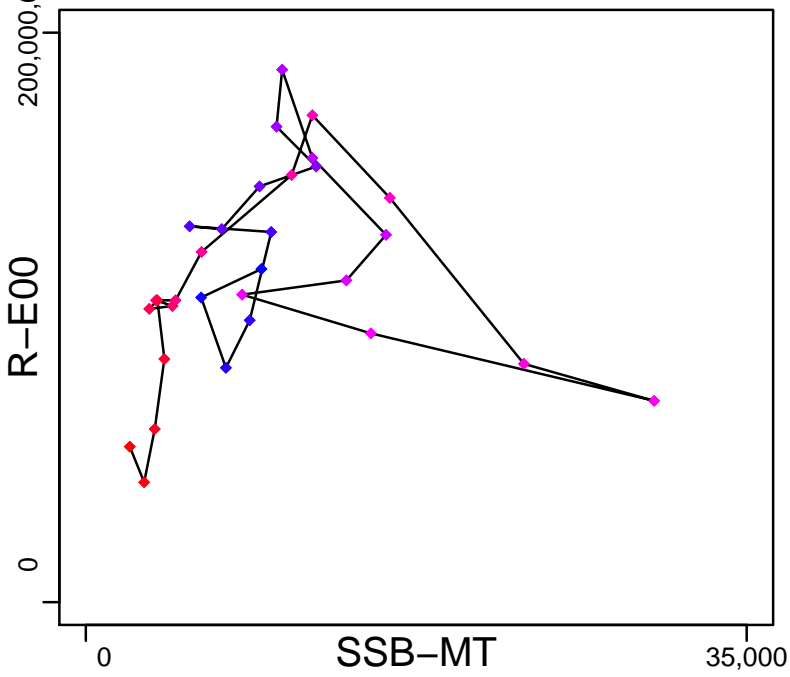
Kobe MSY<sub>pref</sub> (1960–2006–PREFONTAINE)



Kobe MGT<sub>pref</sub> (1960–2006–PREFONTAINE)



Spawner Recruit (1960–2006–PREFONTAINE)



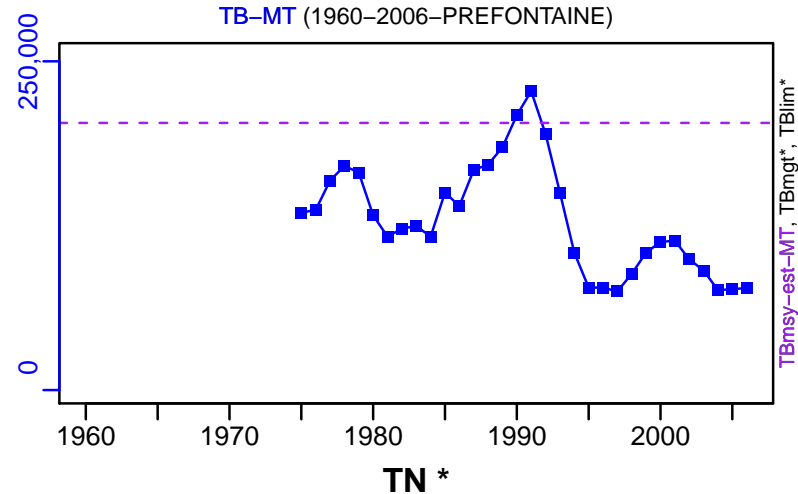
Production\*



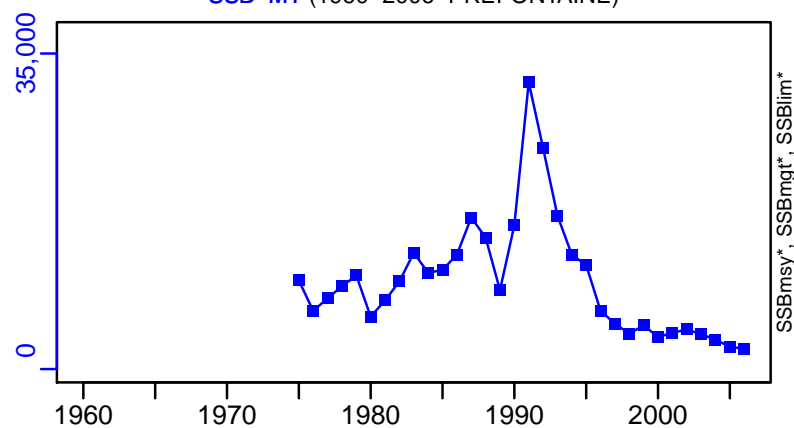
◆ Start Year ◆ End Year \* No Data

# Greenland halibut Labrador Shelf – Grand Banks [GHAL23KLMNO]

TB-MT (1960–2006–PREFONTAINE)



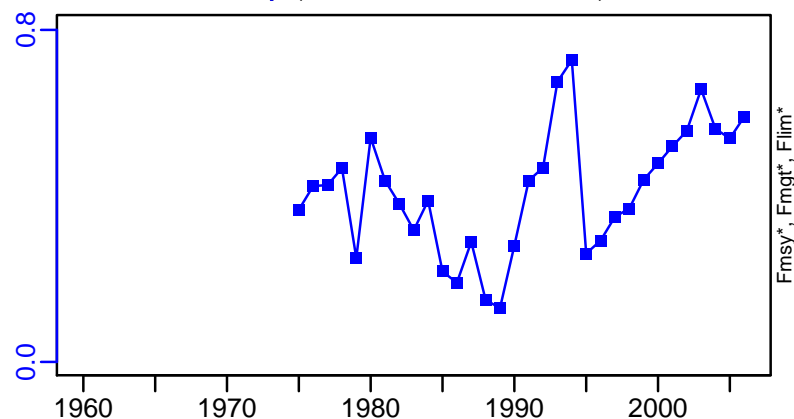
SSB-MT (1960–2006–PREFONTAINE)



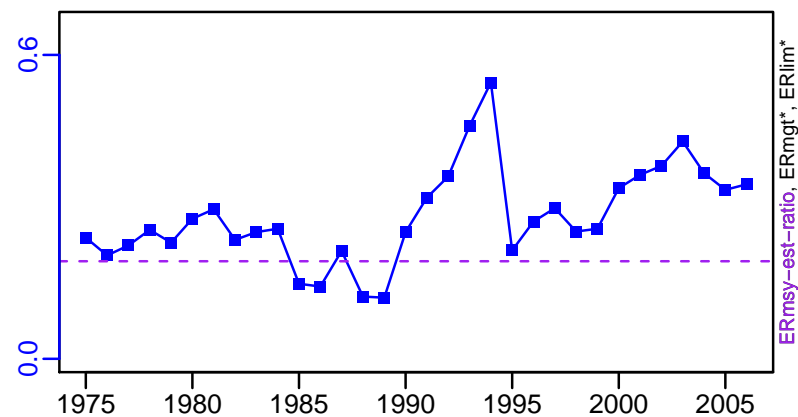
TN \*



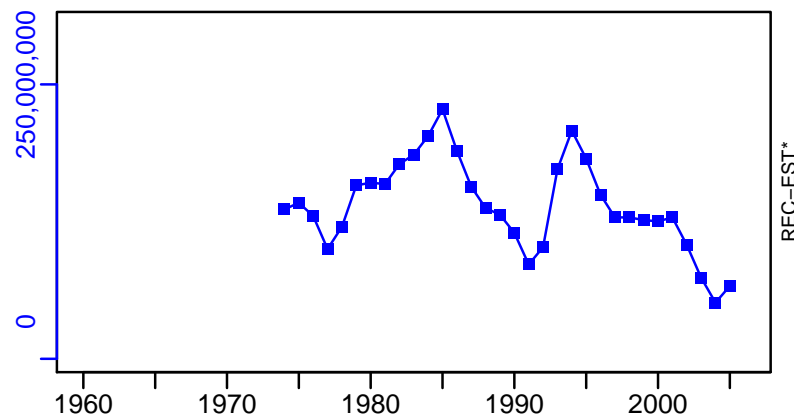
F-1/yr (1960–2006–PREFONTAINE)



ER-ratio (1960–2006–PREFONTAINE)



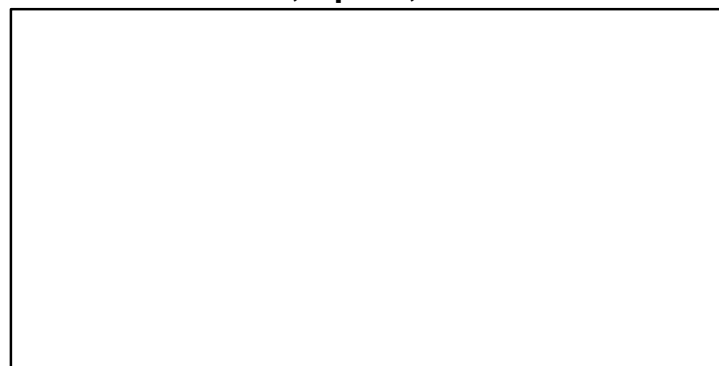
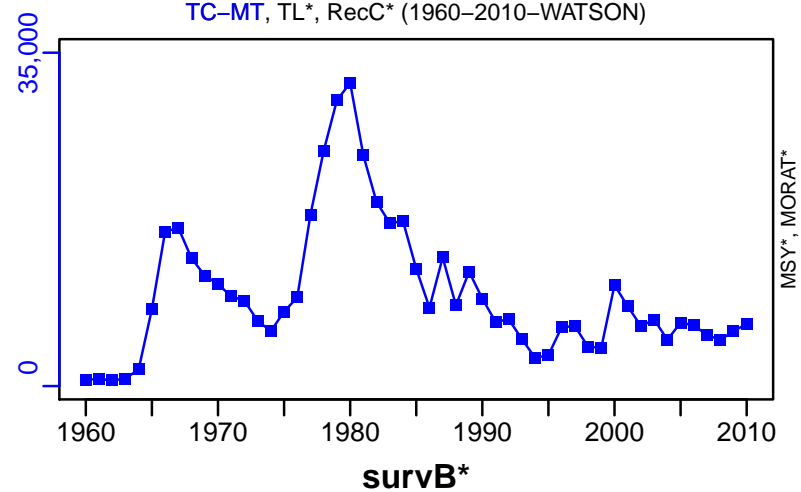
R-E00 (1960–2006–PREFONTAINE)



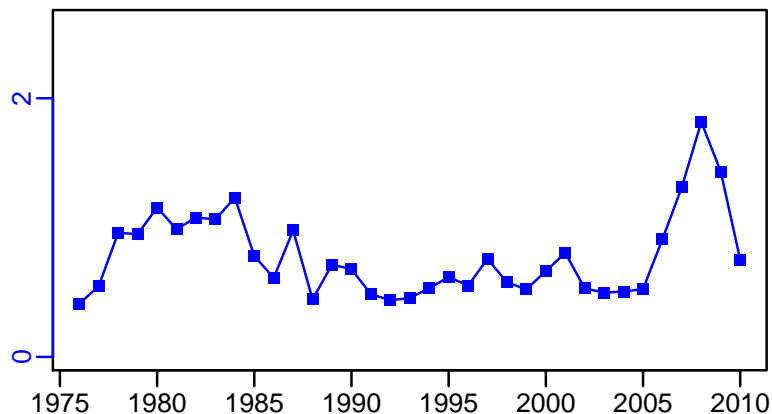
# Greenland halibut Labrador Shelf – Grand Banks [GHAL23KLMNO]

TC-MT, TL\*, RecC\* (1960–2010–WATSON)

TAC\*, Cpair\*, Cadv\*

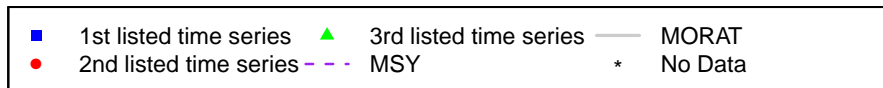
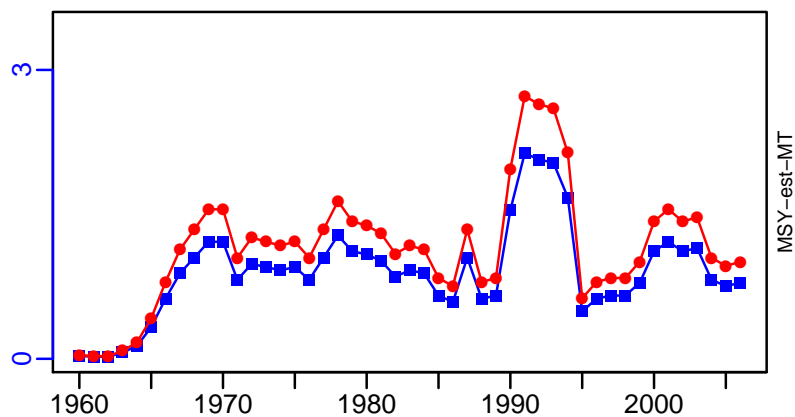
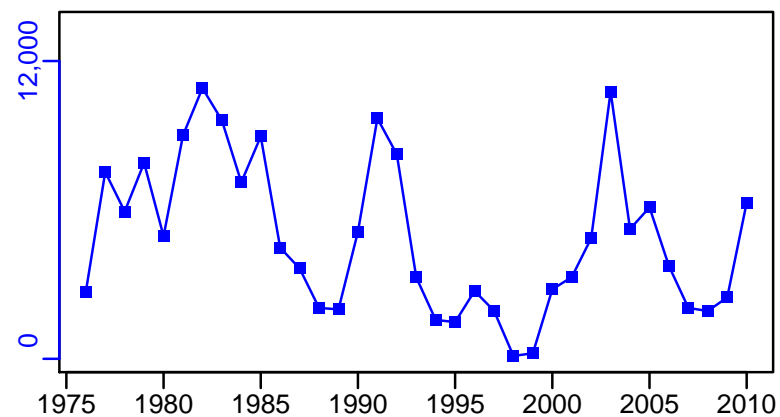


CPUE-MT/hour (1960–2010–WATSON)



EFFORT-hour (1960–2010–WATSON)

TL-MT/MSY-est-MT, CdivMEANC-ratio, (1960–2006–PREFONTAINE)



## Greenland halibut NAFO 4RST [GHAL4RST]

Metadata	
<b>Scientific Name</b>	Reinhardtius hippoglossoides
<b>Current Assess ID</b>	DFO-QUE-GHAL4RST-1971-2019-ASHBROOK
<b>Area</b>	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>	2015, 2002, 2019

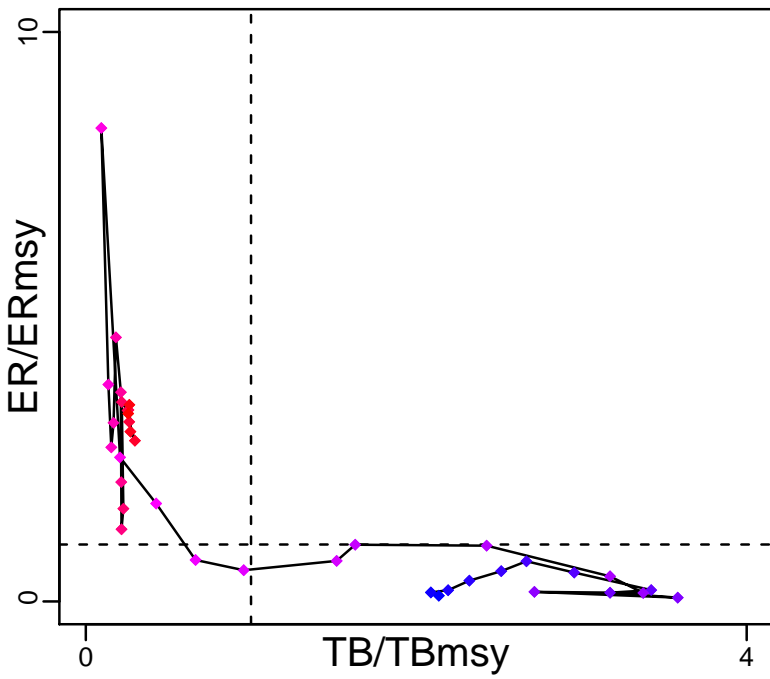
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-est-MT	2015	124,488
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-est-ratio	2015	0.038
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-est-MT	2015	4672
<b>M</b>	-	-	-
<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	47,100	-	3+
<b>SSB</b>	SSB-MT	2015	17,700	-	3+
<b>TN</b>	TN-E00	2015	$1.44 \times 10^8$	-	3+
<b>R</b>	-	-	-	-	-
<b>F</b>	F-1/yr	2015	0.09	-	7 to 9
<b>ER</b>	ER-calc-ratio	2015	0.124	-	-
<b>TC</b>	-	-	-		
<b>TL</b>	TL-MT	2019	1458		
<b>TB/TBmsy</b>	TB-MT/TBmsy-est-MT	2015	0.378		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-est-ratio	2015	3.299		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

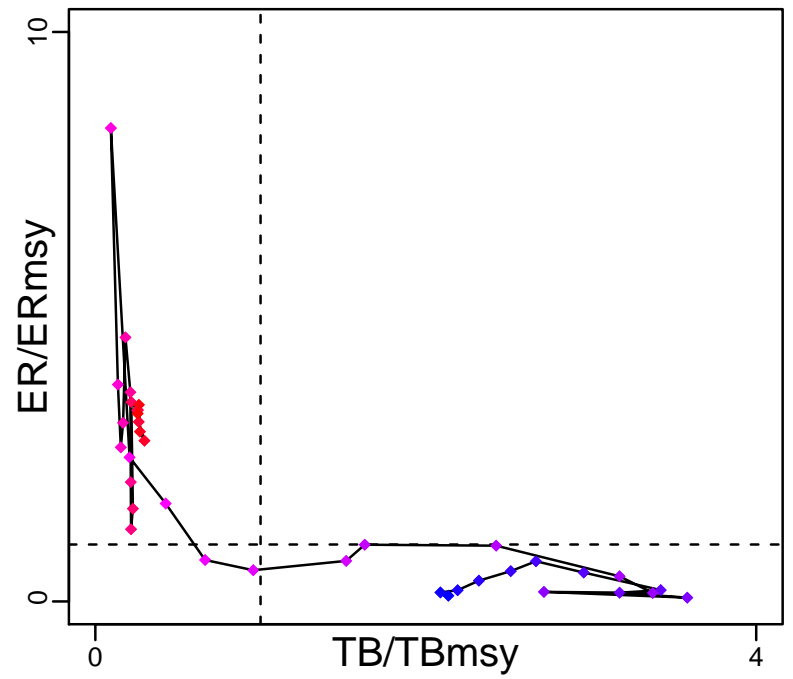


# Greenland halibut NAFO 4RST [GHAL4RST]

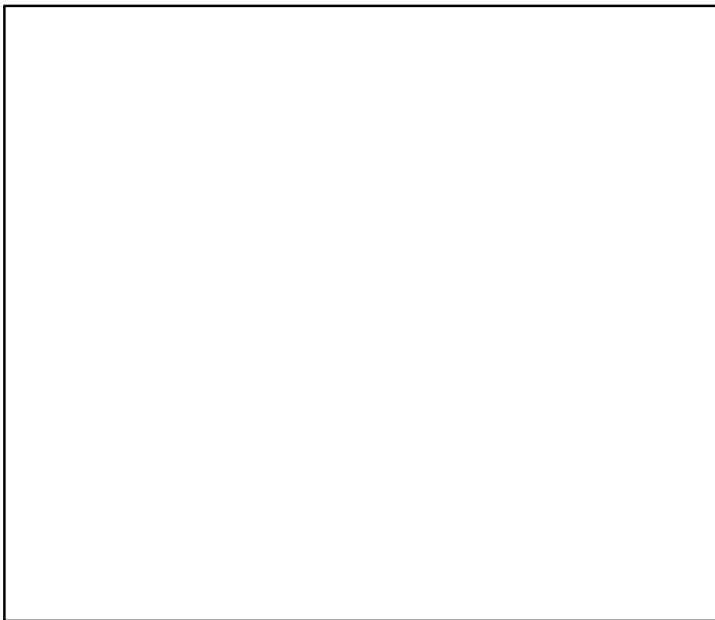
Kobe MSY<sub>pref</sub> (1970–2015–WATSON)



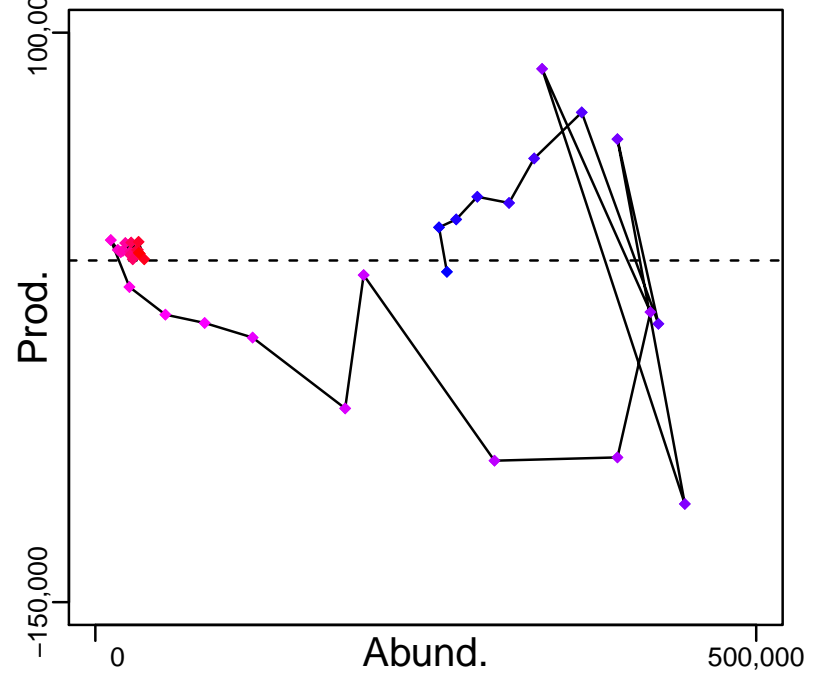
Kobe MGT<sub>pref</sub> (1970–2015–WATSON)



Spawner Recruit\*

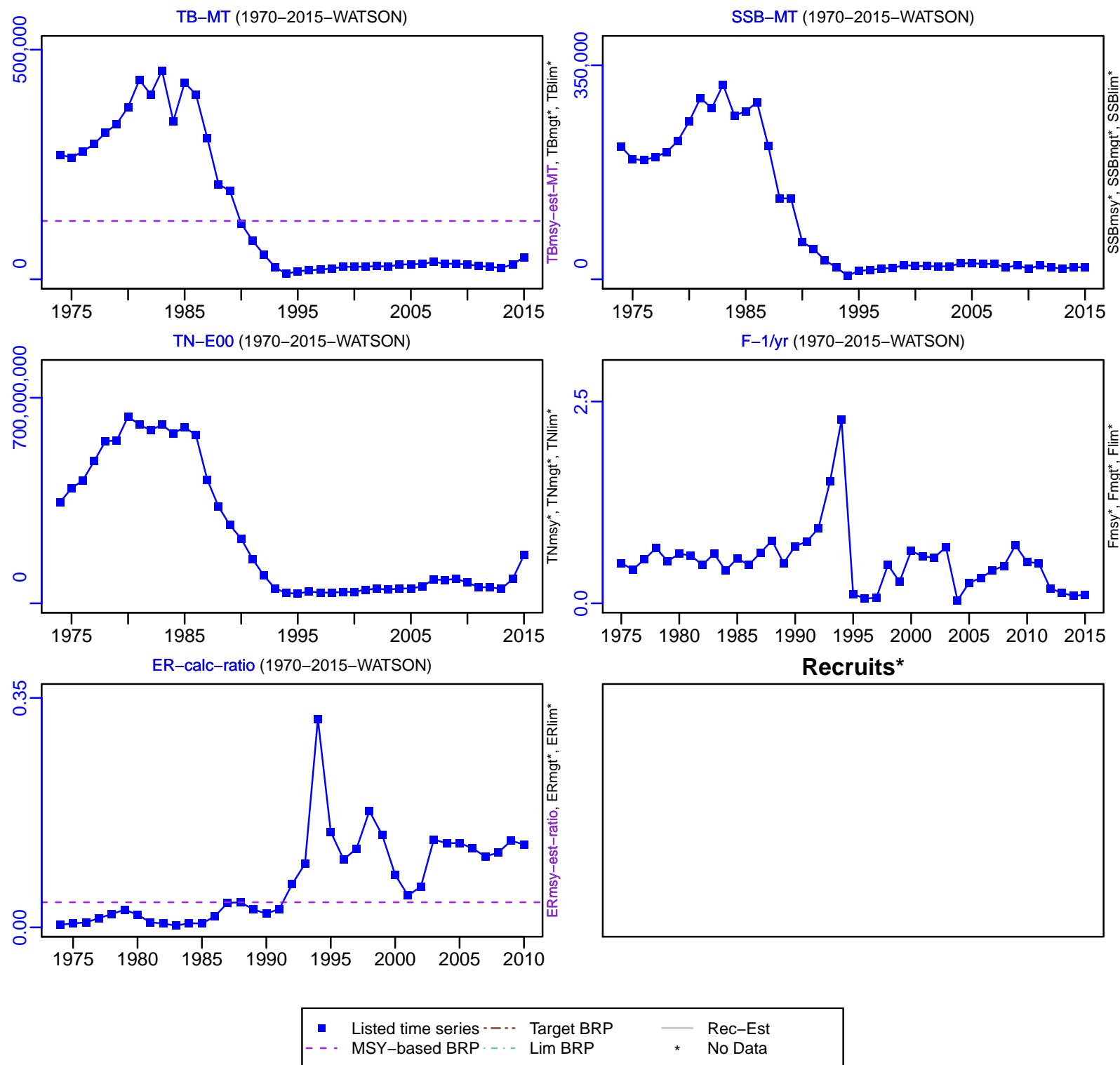


Production (1970–2015–WATSON)



◆ Start Year ◆ End Year \* No Data

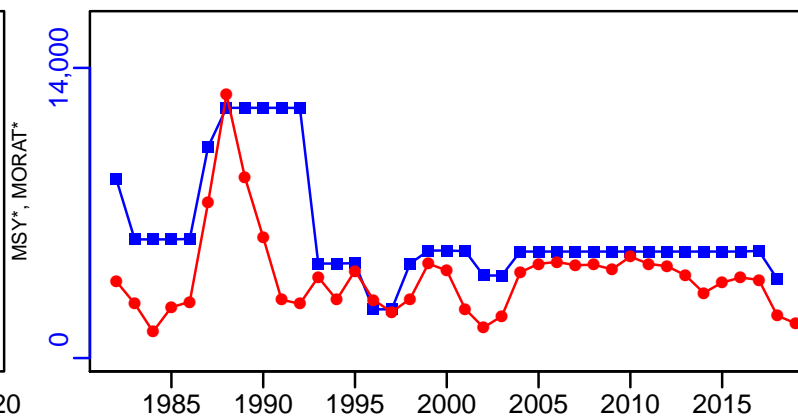
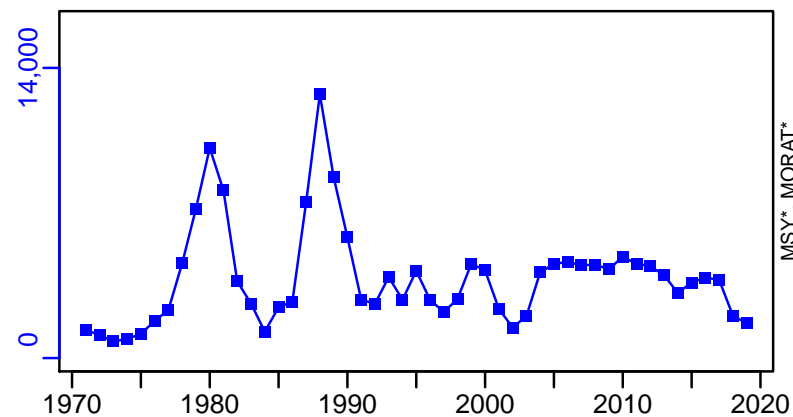
# Greenland halibut NAFO 4RST [GHAL4RST]



# Greenland halibut NAFO 4RST [GHAL4RST]

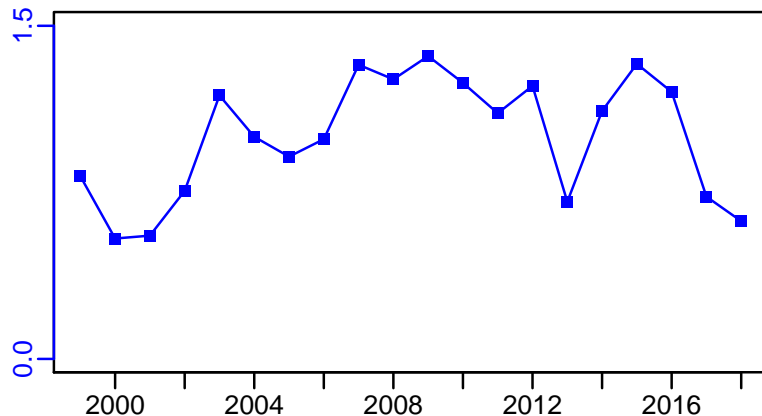
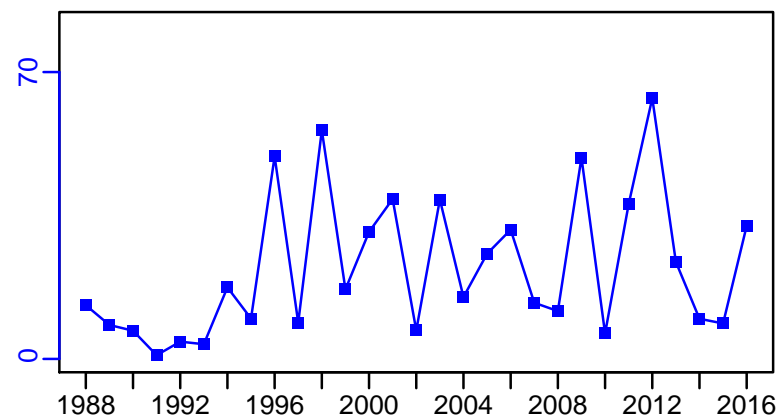
TL-MT, TC\*, RecC\* (1971-2019-ASHBROOK)

TAC-MT, Cpair-MT, Cadv\* (1971-2019-ASHBROOK)



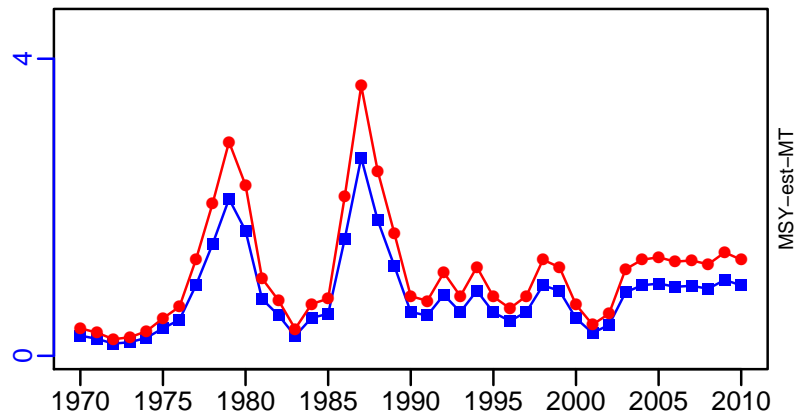
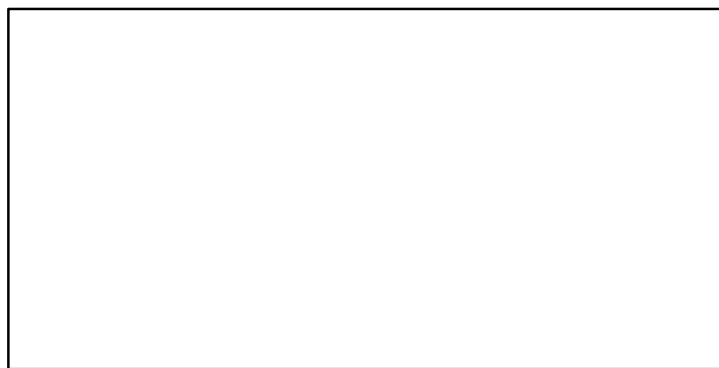
survB-index (1971-2019-ASHBROOK)

CPUE-index (1971-2019-ASHBROOK)



**EFFORT\***

TL-MT/MSY-est-MT, CdivMEANC-ratio, (1970-2015-WATSON)



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

## Green sea urchin Gulf of St. Lawrence [GURCH4RST]

Metadata	
<b>Scientific Name</b>	Strongylocentrotus droebachiensis
<b>Current Assess ID</b>	DFO-QUE-GURCH4RST-1991-2011-CHING
<b>Area</b>	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>	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	2011	578		
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

Green sea urchin Gulf of St. Lawrence [GURCH4RST]

TB\*



SSB\*



TN \*



F\*



ER\*



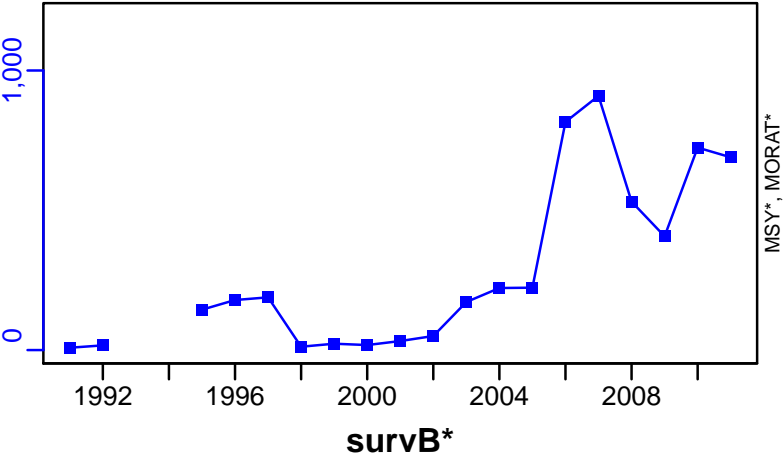
Recruits\*



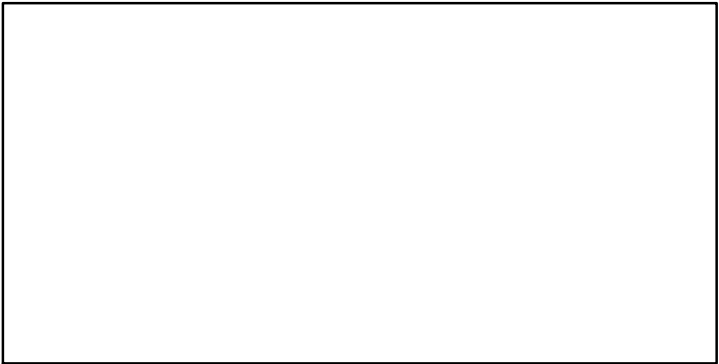
■ Listed time series	- - - Target BRP	— Rec-Est
- - - MSY-based BRP	· · · Lim BRP	* No Data

Green sea urchin Gulf of St. Lawrence [GURCH4RST]

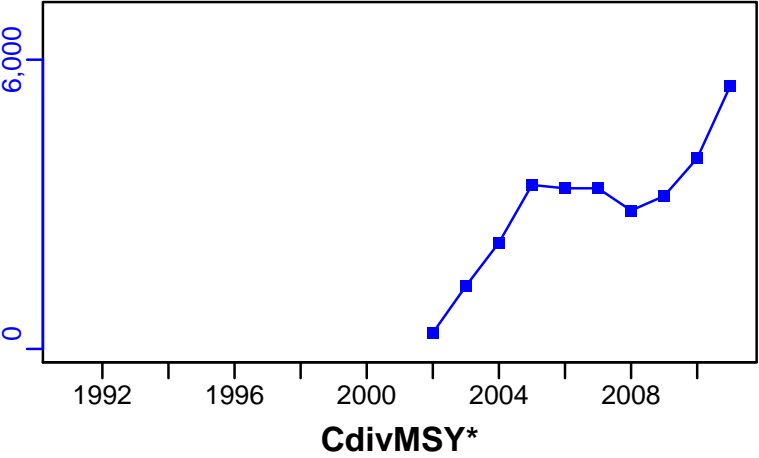
TL-MT, TC\*, RecC\* (1991-2011-CHING)



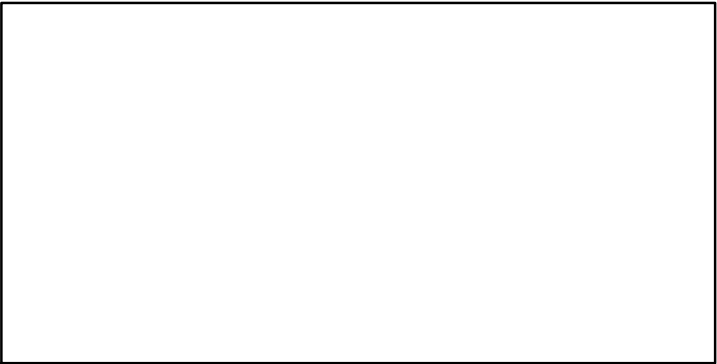
TAC\*, Cpair\*, Cadv\*



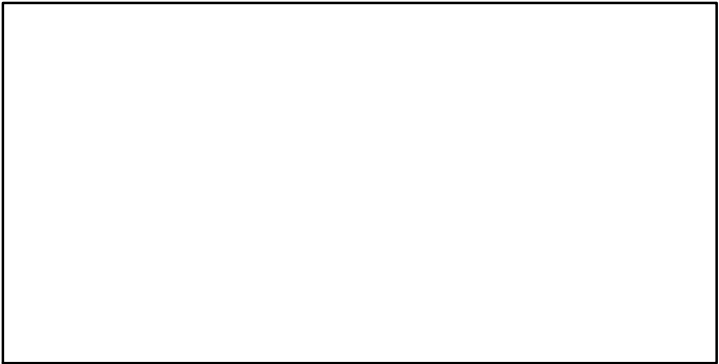
CPUE-1-kg/day (1991-2011-CHING)



EFFORT\*



CdivMSY\*



## Haddock Grand Banks [HAD3LNO]

Metadata	
<b>Scientific Name</b>	Melanogrammus aeglefinus
<b>Current Assess ID</b>	NAFO-SC-HAD3LNO-1953-2017-ASHBROOK
<b>Area</b>	Grand Banks
<b>Management Authority</b>	Northwest Atlantic Fisheries Organization
<b>Assessor</b>	NAFO Scientific Council
<b>Asmts in RAM</b>	2013, 2017

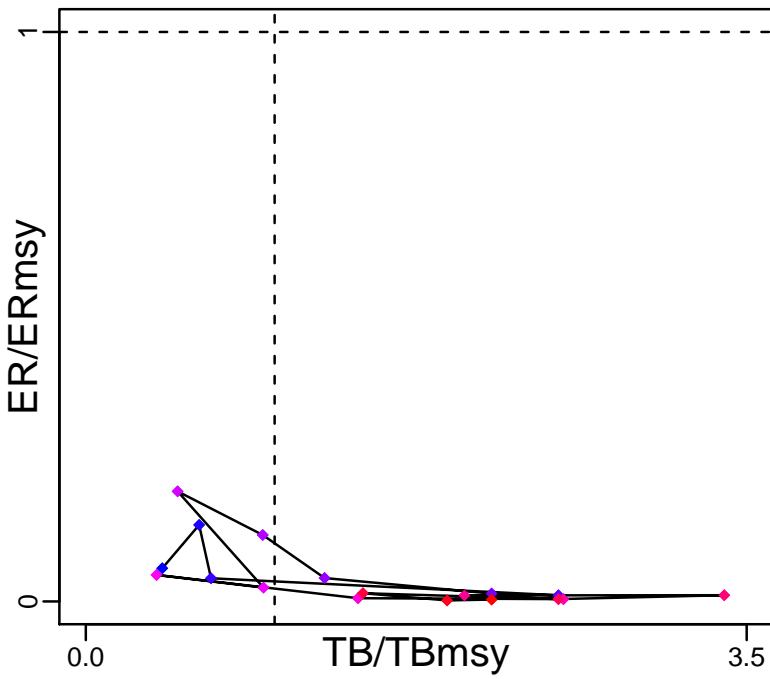
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-est-MT	2013	7631
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-est-ratio	2013	0.383
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-est-MT	2013	2926
<b>M</b>	-	-	-
<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	2013	16,400	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	TN-E00	2013	14,900,000	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2013	0.001	-	-
<b>TC</b>	TC-MT	2017	228		
<b>TL</b>	TL-MT	2013	21		
<b>TB/TBmsy</b>	TB-MT/TBmsy-est-MT	2013	2.149		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-est-ratio	2013	0.003		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

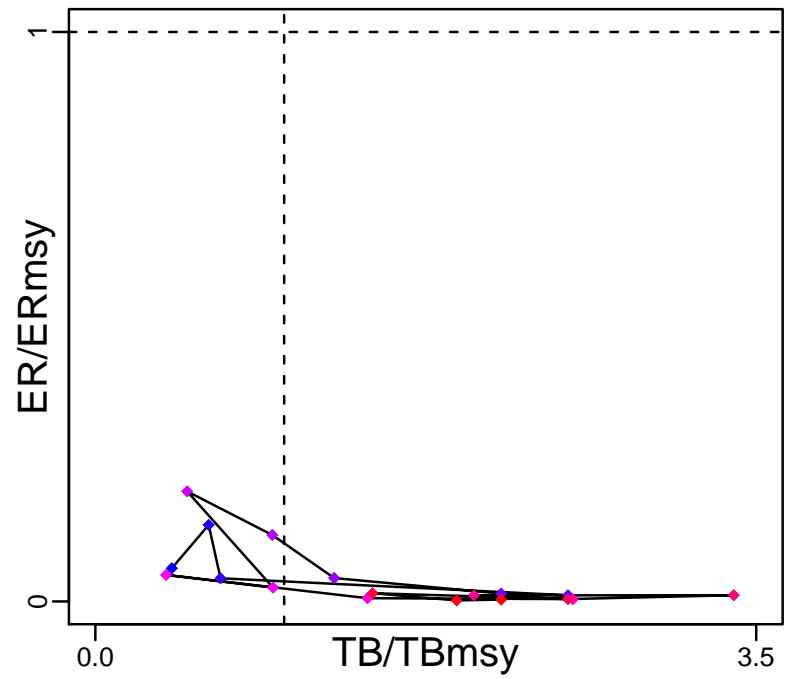


# Haddock Grand Banks [HAD3LNO]

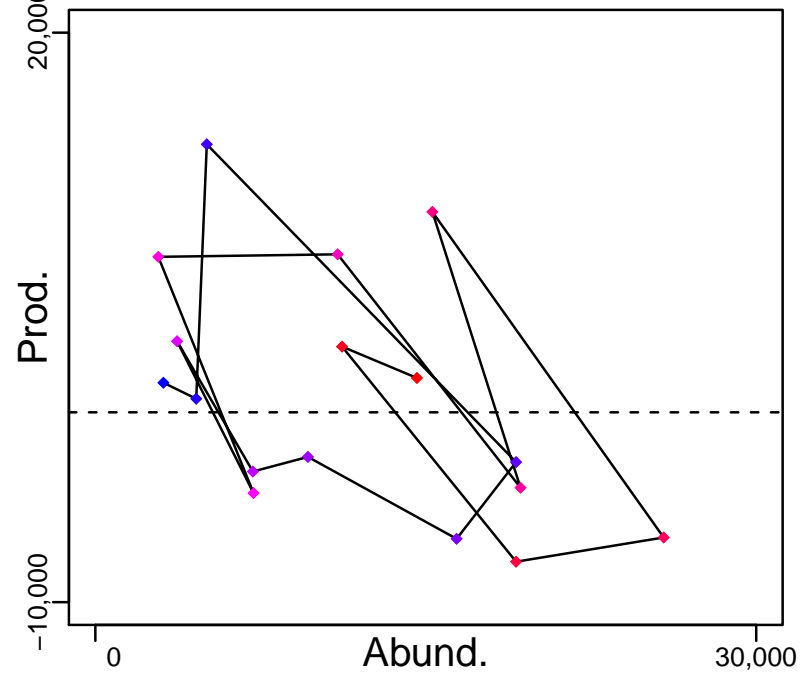
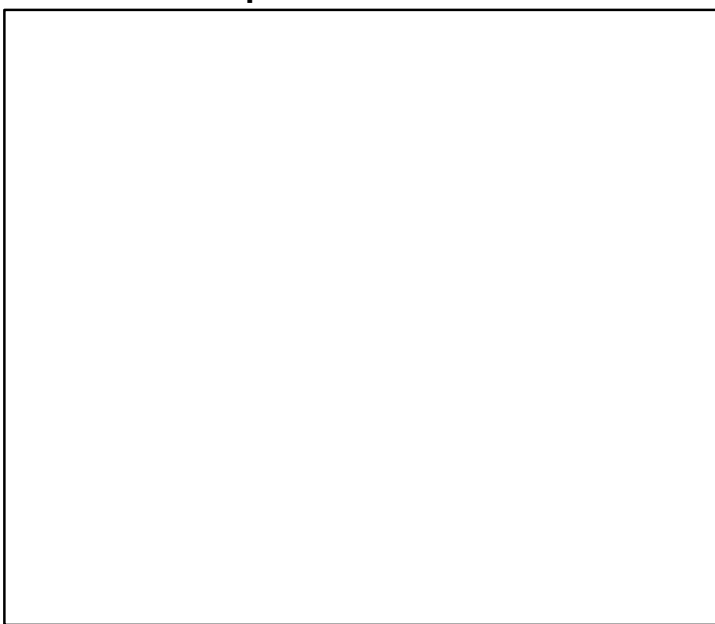
Kobe MSY<sub>pref</sub> (1953–2013–WATSON)



Kobe MGT<sub>pref</sub> (1953–2013–WATSON)



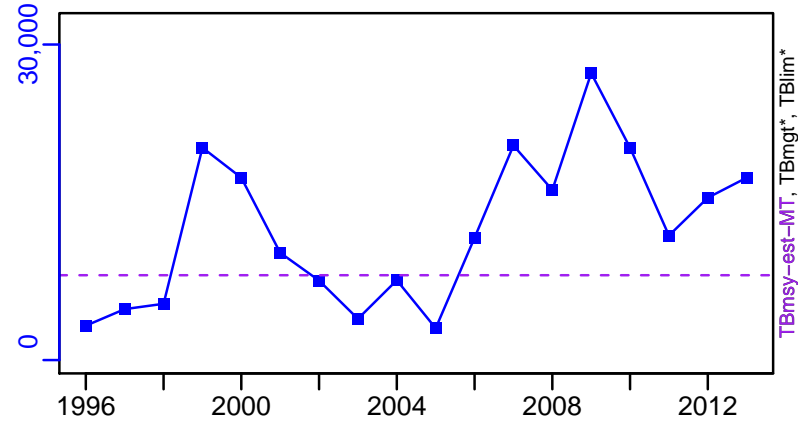
Production (1953–2013–WATSON)



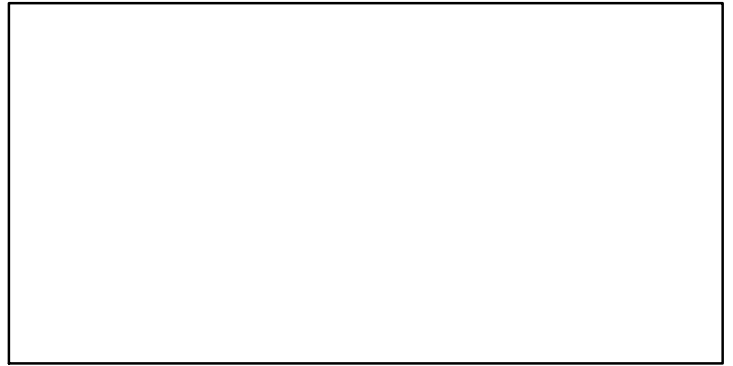
◆ Start Year ◆ End Year \* No Data

# Haddock Grand Banks [HAD3LNO]

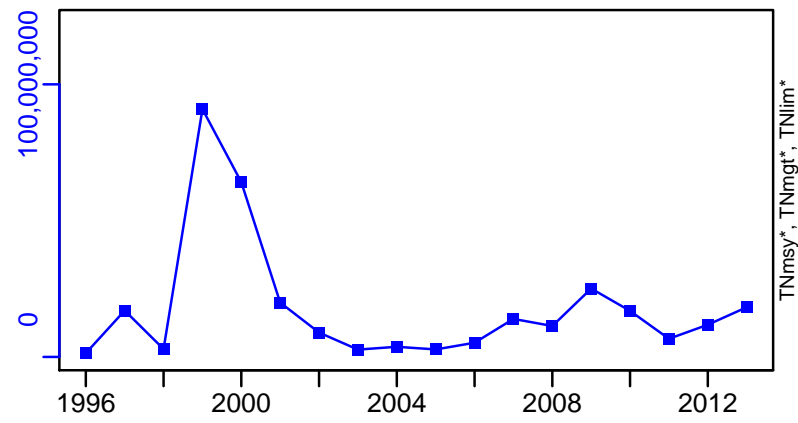
TB-MT (1953-2013-WATSON)



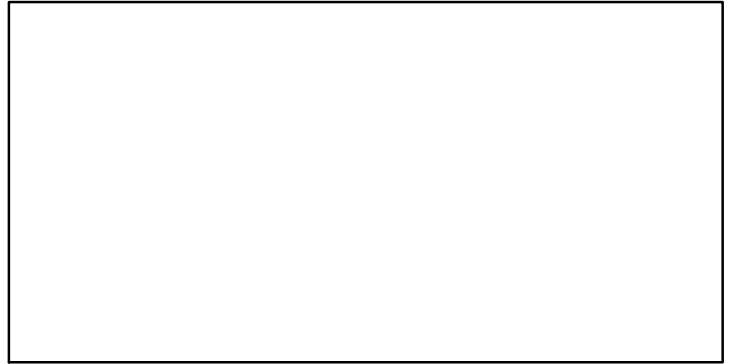
SSB\*



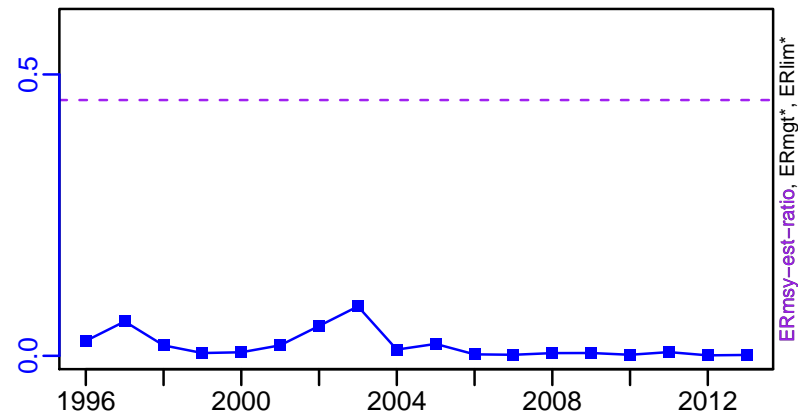
TN-E00 (1953-2013-WATSON)



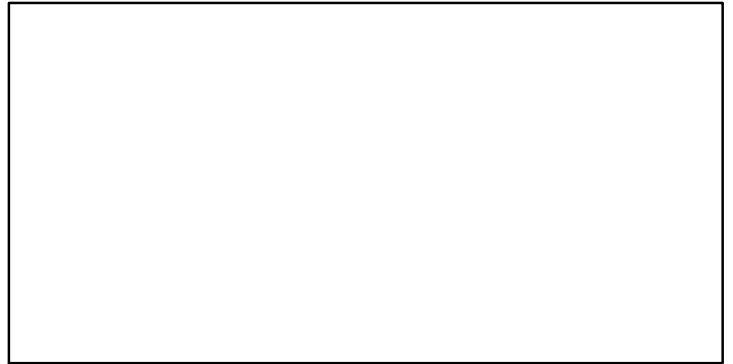
F\*



ER-calc-ratio (1953-2013-WATSON)

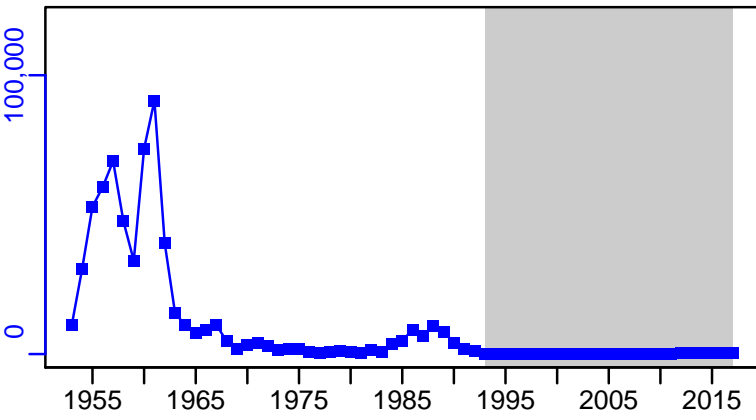


Recruits\*

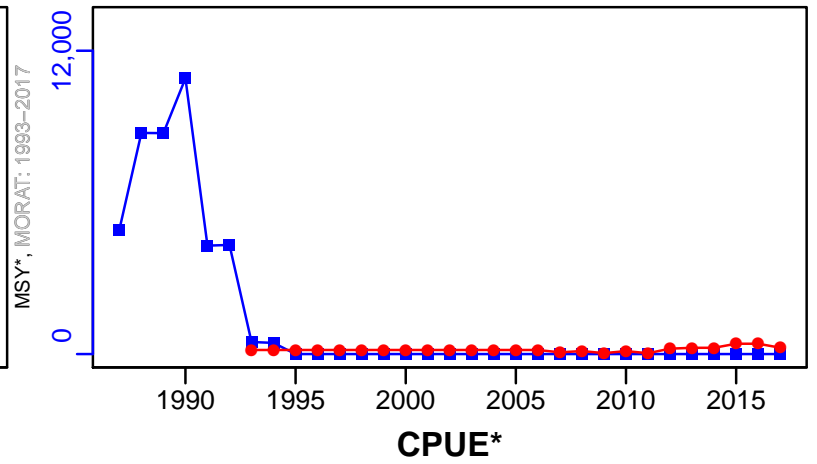


# Haddock Grand Banks [HAD3LNO]

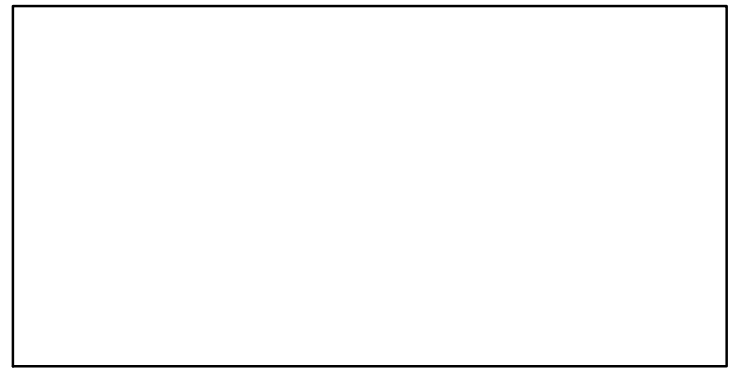
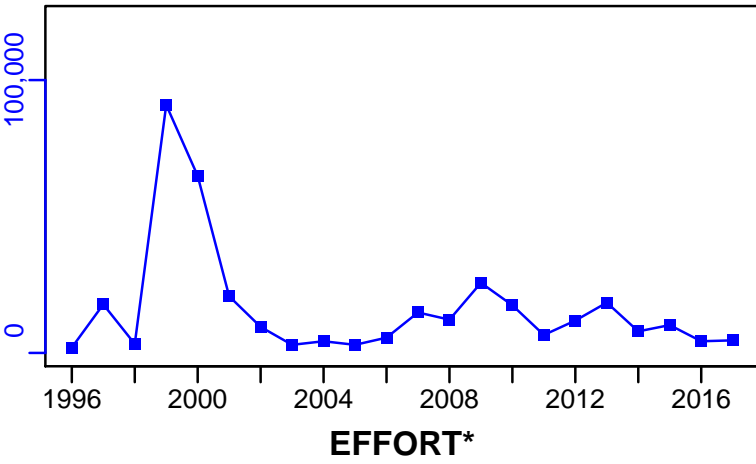
TC-MT, TL\*, RecC\* (1953-2017-ASHBROOK)



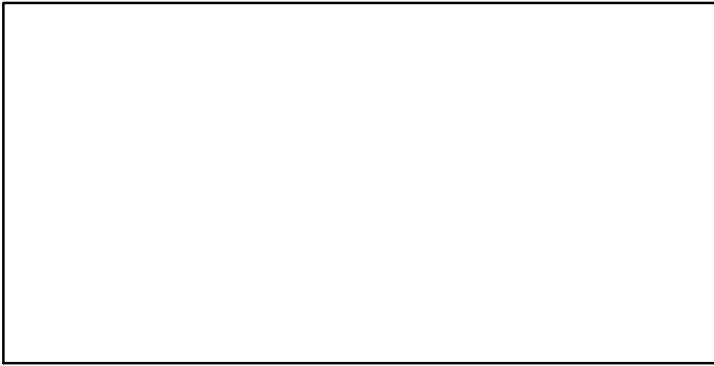
TAC-MT, Cpair-MT, Cadv\* (1953-2017-ASHBROOK)



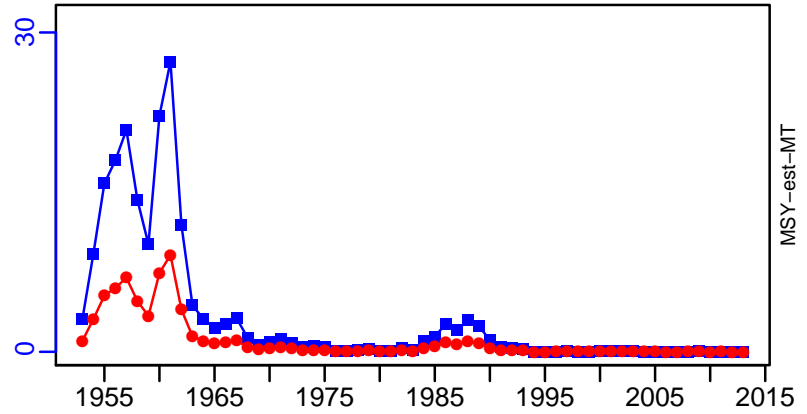
survB-E00 (1953-2017-ASHBROOK)



EFFORT\*



TL-MT/MSY-est-MT, CdivMEANC-ratio, (1953-2013-WATSON)



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

## Haddock St. Pierre Bank [HAD3Ps]

Metadata	
<b>Scientific Name</b>	Melanogrammus aeglefinus
<b>Current Assess ID</b>	DFO-NFLD-HAD3Ps-1953-2018-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>	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	0.254		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



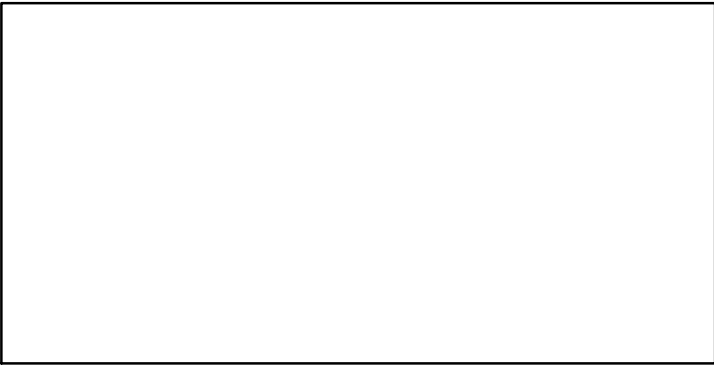
**Production\***



◆ Start Year ◆ End Year \* No Data

Haddock St. Pierre Bank [HAD3Ps]

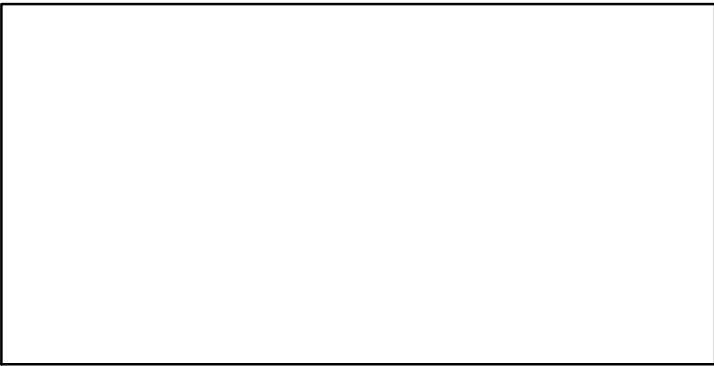
**TB\***



**SSB\***



**TN \***



**F\***



**ER\***

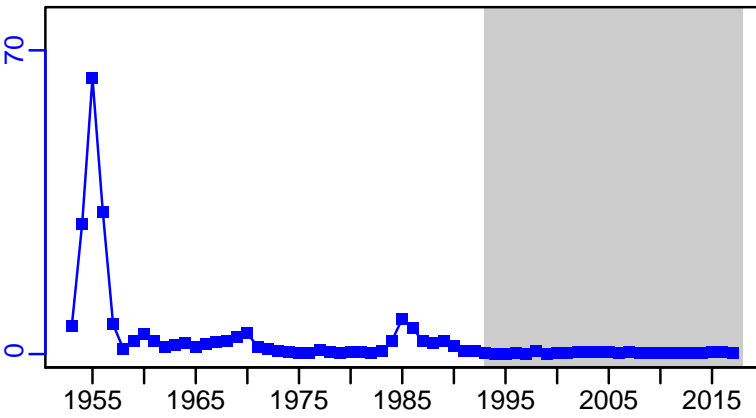


**Recruits\***

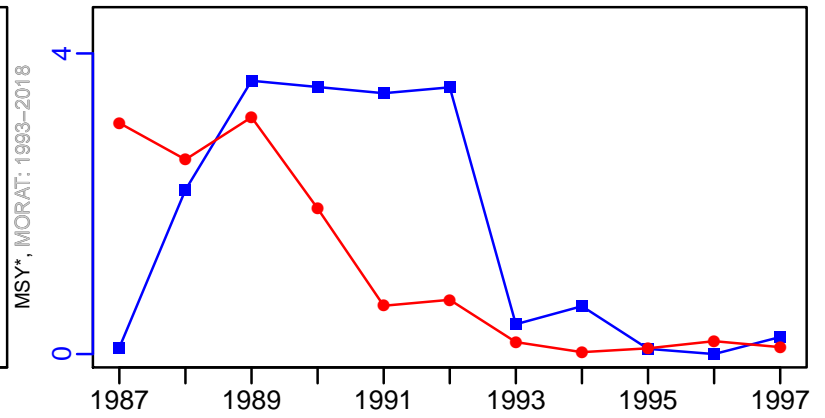


# Haddock St. Pierre Bank [HAD3Ps]

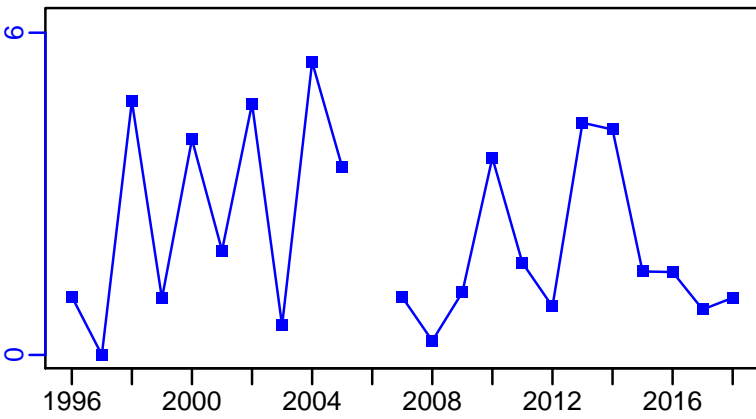
TC-MT, TL\*, RecC\* (1953–2018–ASHBROOK)



TAC-MT, Cpair-MT, Cadv\* (1953–2018–ASHBROOK)



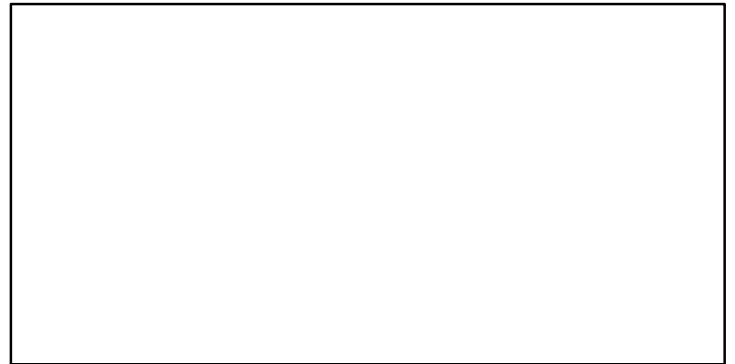
survB-1-index (1953–2018–ASHBROOK)



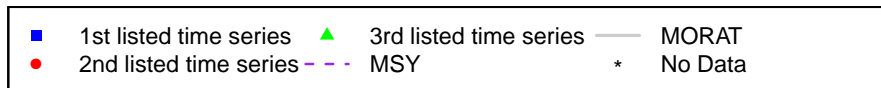
EFFORT\*



CPUE\*



CdivMSY\*



## Haddock Western Scotian Shelf, Bay of Fundy and Gulf of Maine [HAD4X5Y]

Metadata	
<b>Scientific Name</b>	Melanogrammus aeglefinus
<b>Current Assess ID</b>	DFO-MAR-HAD4X5Y-1970-2016-ASHBROOK
<b>Area</b>	Western Scotian Shelf, Bay of Fundy and Gulf of Maine
<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>	2014, 2011, 2016

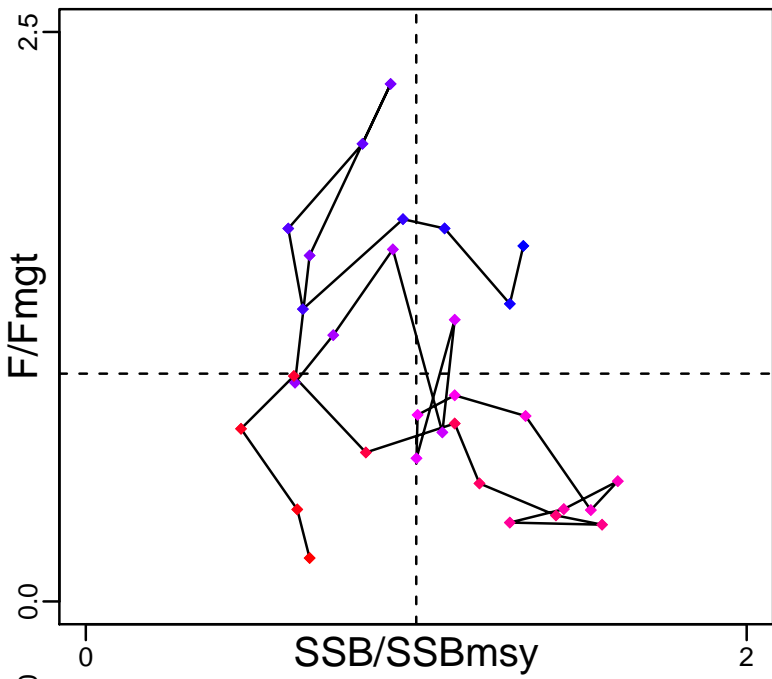
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-est-MT	2014	47,427
<b>SSBmsy</b>	SSBmsy-MT	2011	52,000
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-est-ratio	2016	0.29
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	Fmgt-1/yr	2016	0.25
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2011	14,700
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2016	19,700
<b>Flim</b>	Flim-1/yr	2016	0.149
<b>ERlim</b>	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2014	42,900	Both	-
<b>SSB</b>	SSB-MT	2016	34,147	-	4+
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2016	74,730,530	-	1
<b>F</b>	F-1/yr	2016	0.048	-	10-Jun
<b>ER</b>	ER-calc-ratio	2016	0.167	-	-
<b>TC</b>	TC-MT	2014	3520		
<b>TL</b>	TL-MT	2016	2926		
<b>TB/TBmsy</b>	TB-MT/TBmsy-est-MT	2014	0.905		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2011	0.821		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-est-ratio	2016	0.577		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2016	0.191		
<b>ER/ERmgt</b>	-	-	-		

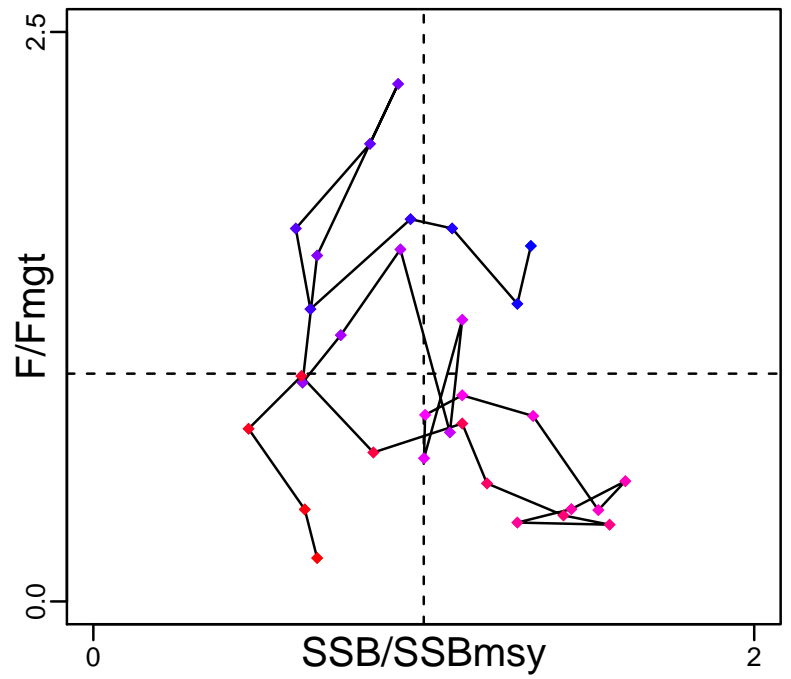


# Haddock Western Scotian Shelf, Bay of Fundy and Gulf of Maine [HAD4X5Y]

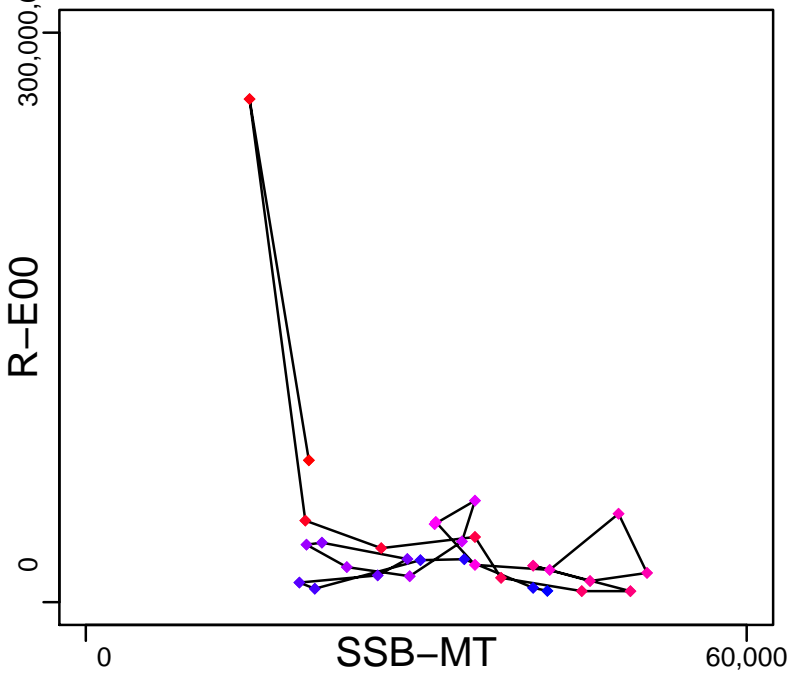
Kobe MSYpref (1970–2016–ASHBROOK)



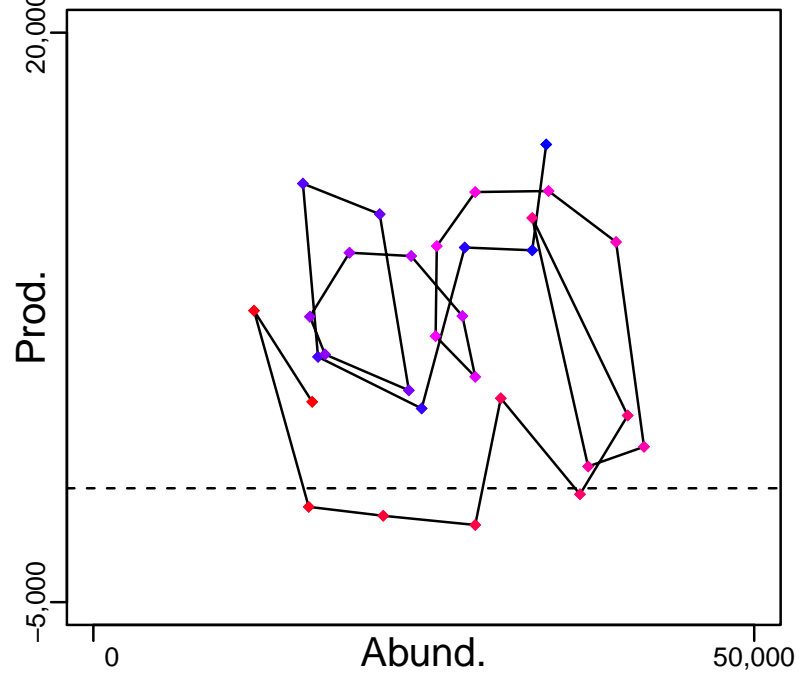
Kobe MGTpref (1970–2016–ASHBROOK)



Spawner Recruit (1970–2016–ASHBROOK)



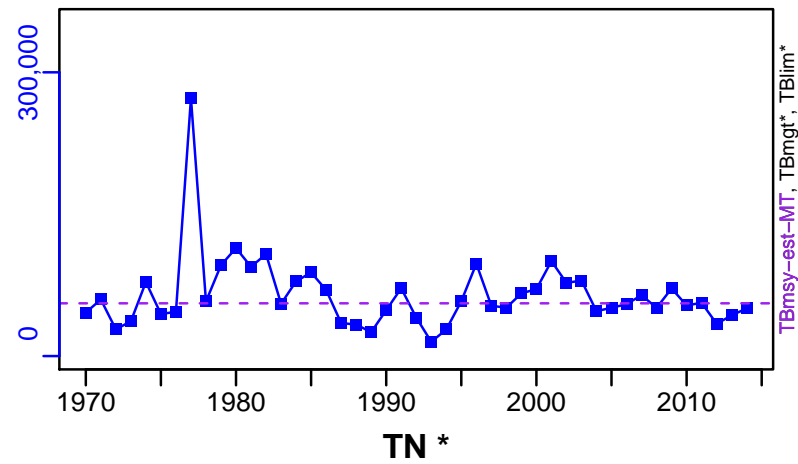
Production (1970–2016–ASHBROOK)



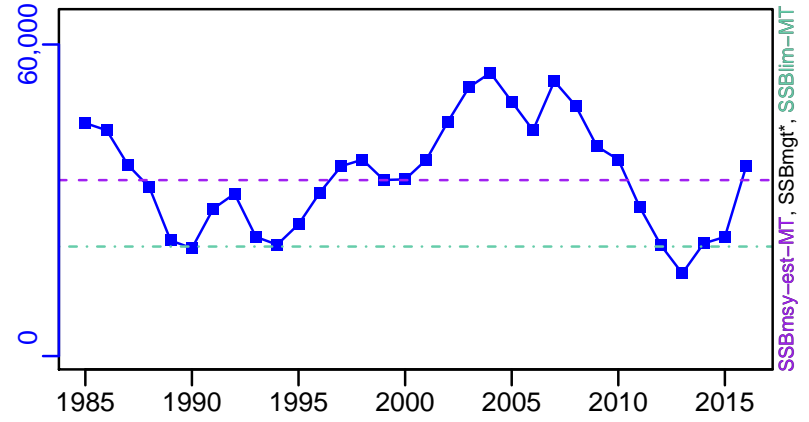
◆ Start Year ◆ End Year \* No Data

# Haddock Western Scotian Shelf, Bay of Fundy and Gulf of Maine [HAD4X5Y]

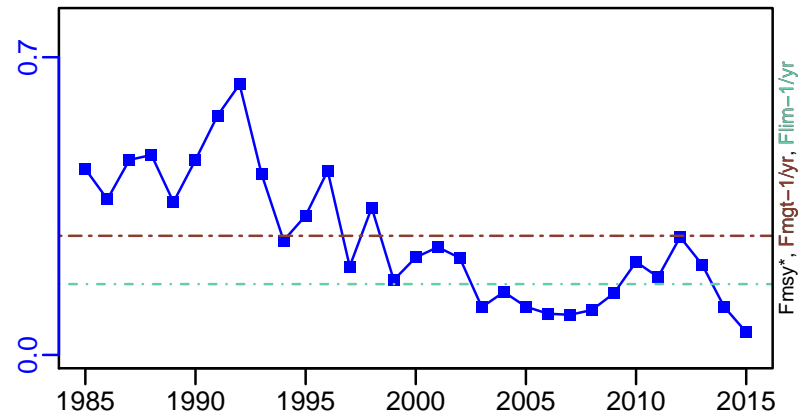
TB-MT (1970–2014–WATSON)



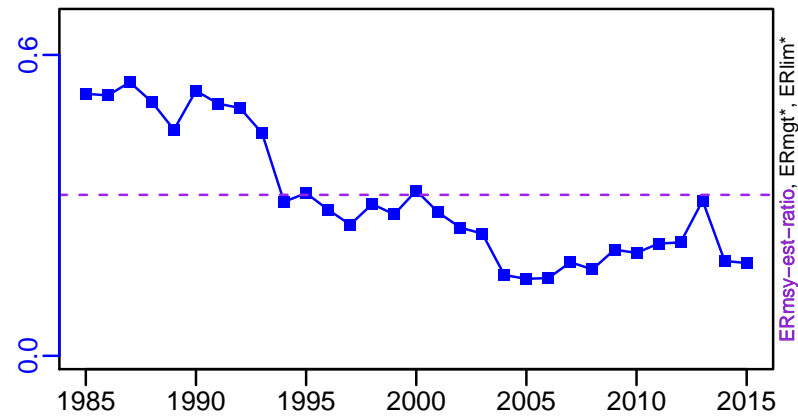
SSB-MT (1970–2016–ASHBROOK)



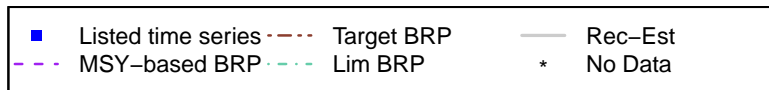
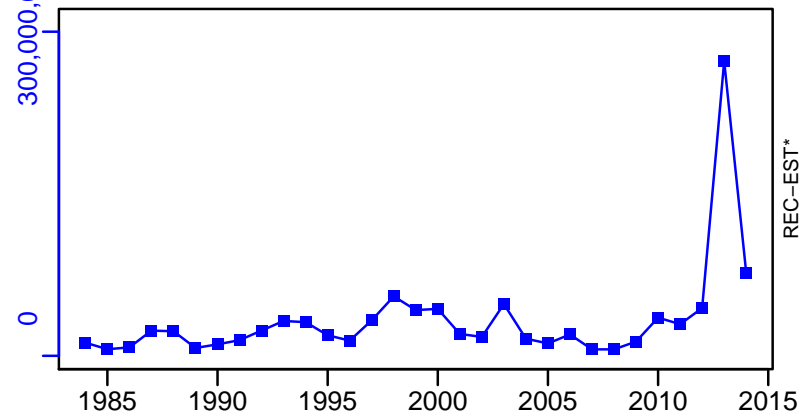
F-1/yr (1970–2016–ASHBROOK)



ER-calc-ratio (1970–2016–ASHBROOK)



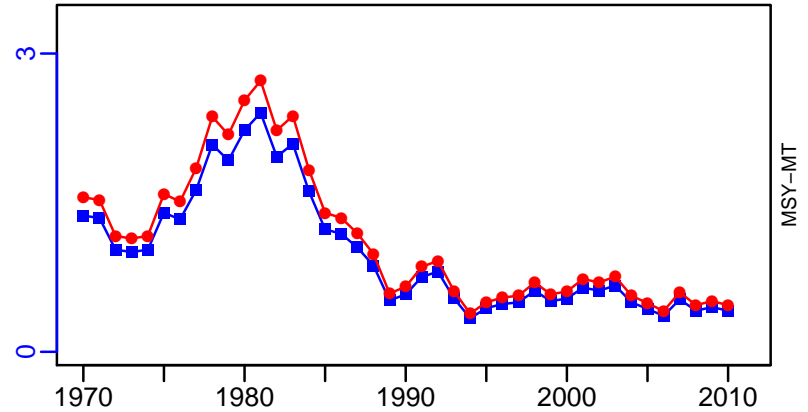
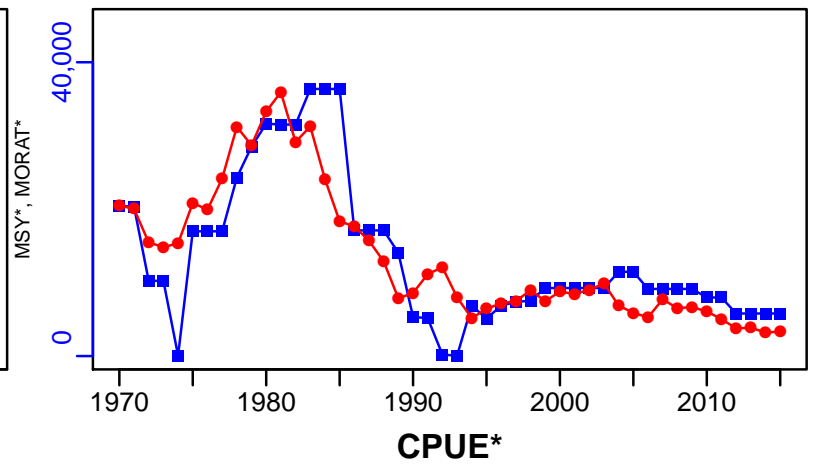
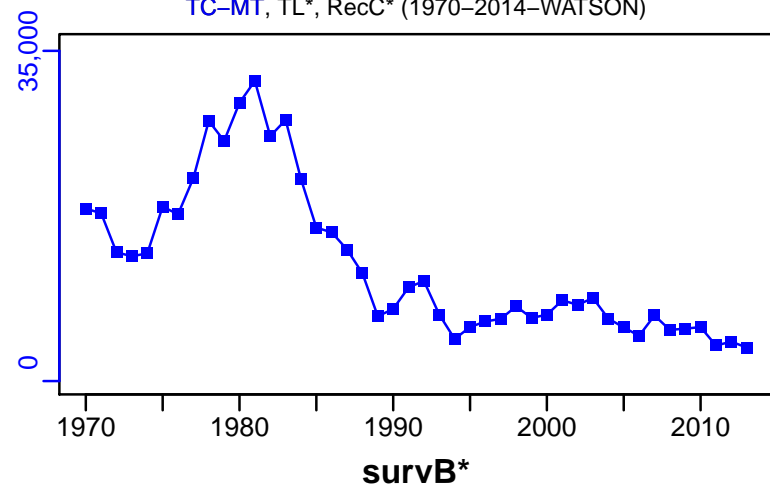
R-E00 (1970–2016–ASHBROOK)



# Haddock Western Scotian Shelf, Bay of Fundy and Gulf of Maine [HAD4X5Y]

TC-MT, TL\*, RecC\* (1970-2014-WATSON)

TAC-MT, Cpair-MT, Cadv\* (1970-2016-ASHBROOK)



## Herring NAFO 4R fall spawners [HERR4RFA]

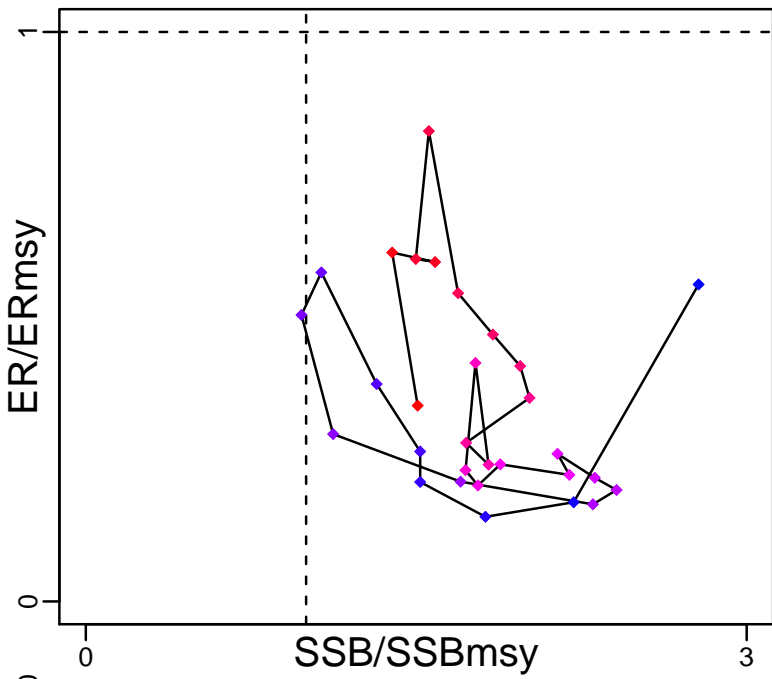
Metadata	
<b>Scientific Name</b>	Clupea harengus
<b>Current Assess ID</b>	DFO-QUE-HERR4RFA-1965-2017-ASHBROOK
<b>Area</b>	NAFO division 4R (Fall spawners)
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans - Quebec Region
<b>Asmts in RAM</b>	2017, 2003

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-est-MT	2003	35,446
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-est-ratio	2003	0.189
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2017	61,074
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-est-MT	2003	8686
<b>M</b>	M-1/yr	2003	0.2
<b>TBlim</b>	TBlim-MT	2003	47,953
<b>SSBlim</b>	SSBlim-MT	2017	47,902
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

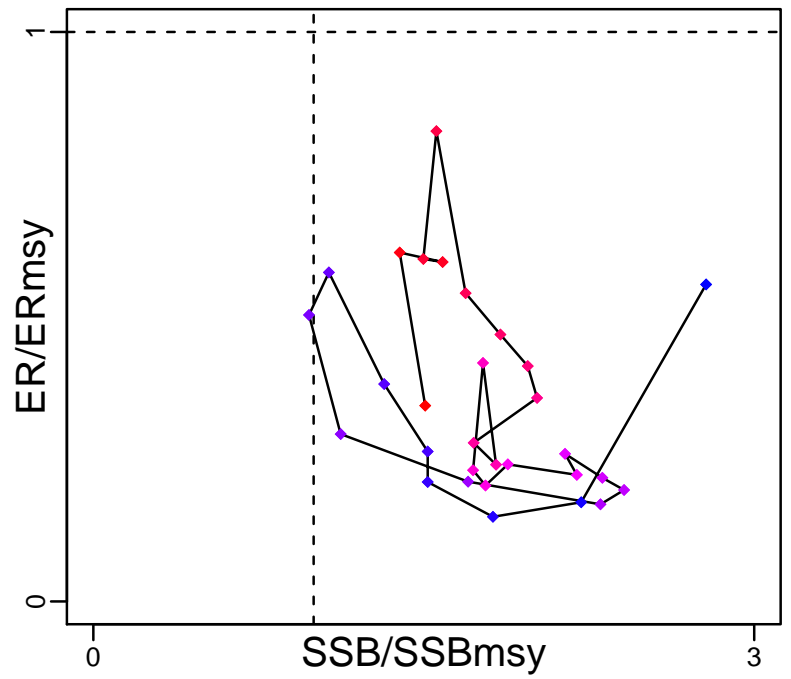
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2017	76,383	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2003	49,300,000	-	2
<b>F</b>	F-1/yr	2003	0.049	-	4+
<b>ER</b>	ER-calc-ratio	2003	0.065	-	-
<b>TC</b>	TC-E00	2003	16,200,000		
<b>TL</b>	TL-MT	2003	4499		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-est-MT	2003	1.368		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-est-ratio	2003	0.344		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2017	1.251		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Herring NAFO 4R fall spawners [HERR4RFA]

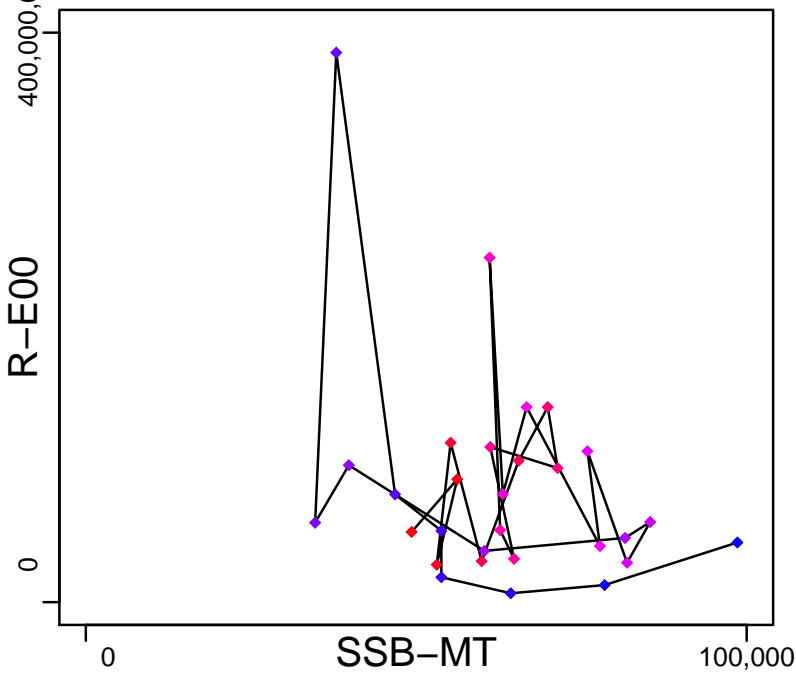
Kobe MSY<sub>pref</sub> (1971–2003–PREFONTAINE)



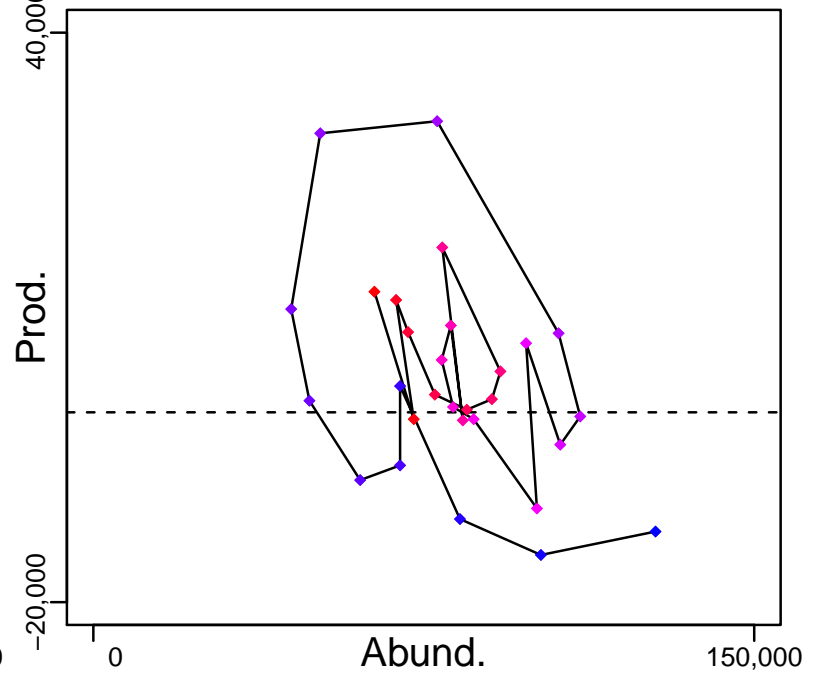
Kobe MGT<sub>pref</sub> (1971–2003–PREFONTAINE)



Spawner Recruit (1971–2003–PREFONTAINE)



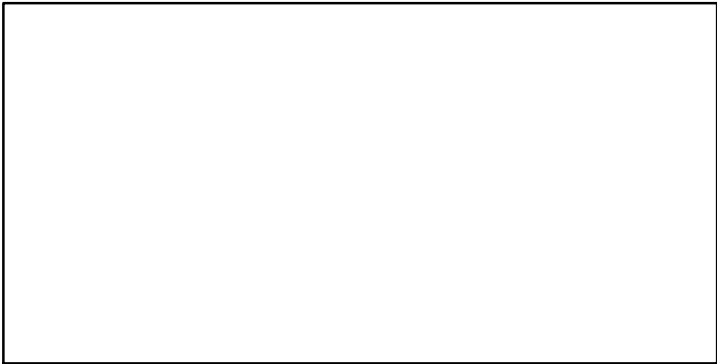
Production (1971–2003–PREFONTAINE)



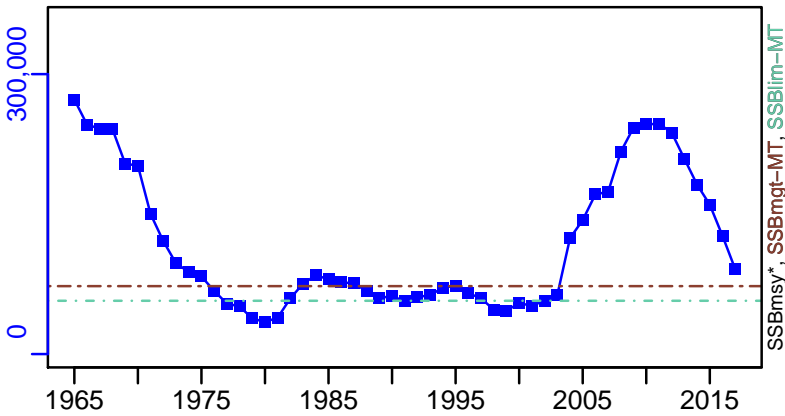
◆ Start Year ◆ End Year \* No Data

Herring NAFO 4R fall spawners [HERR4RFA]

TB\*



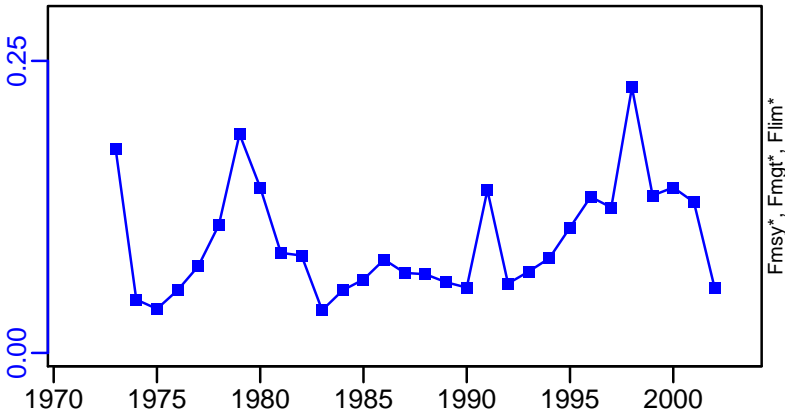
SSB-MT (1965–2017–ASHBROOK)



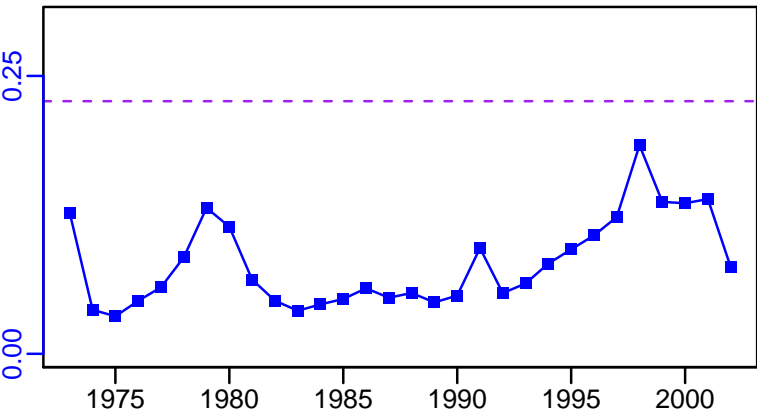
TN \*



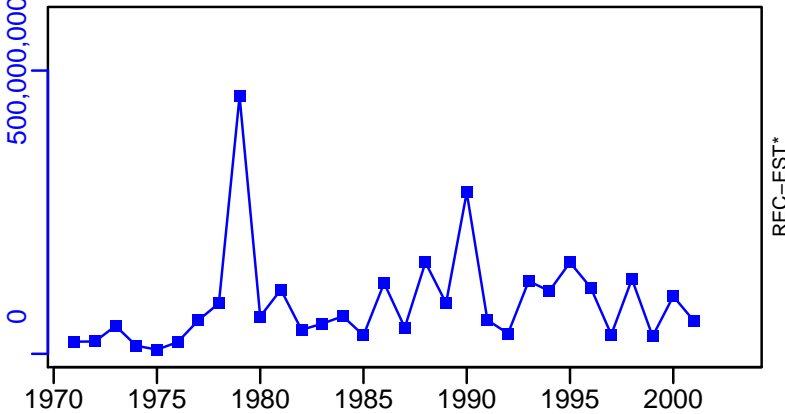
F-1/yr (1971–2003–PREFONTAINE)



ER-calc-ratio (1971–2003–PREFONTAINE)

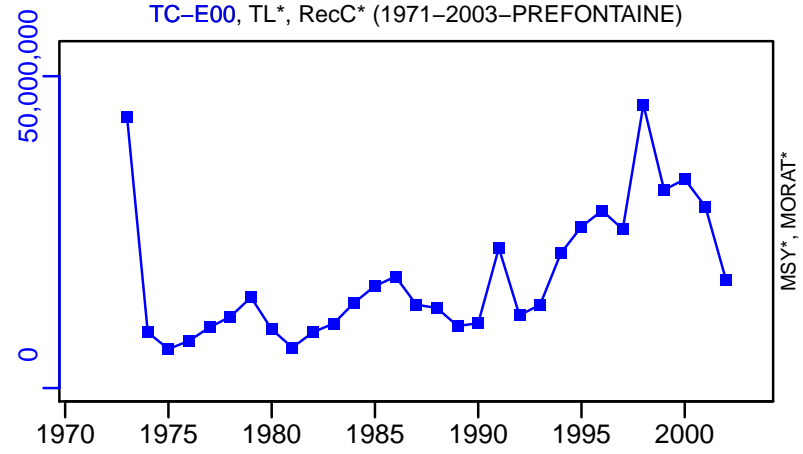


R-E00 (1971–2003–PREFONTAINE)



# Herring NAFO 4R fall spawners [HERR4RFA]

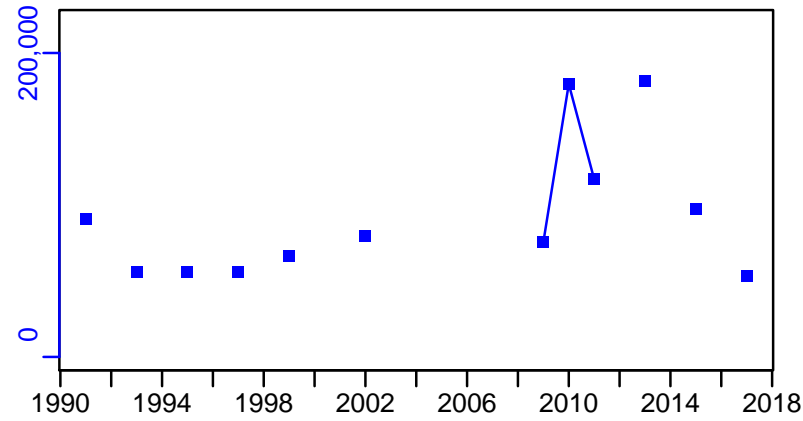
TC-E00, TL\*, RecC\* (1971-2003-PREFONTAINE)



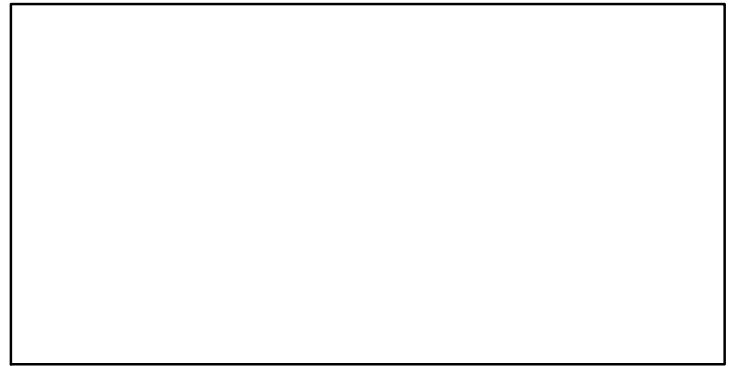
TAC\*, Cpair\*, Cadv\*



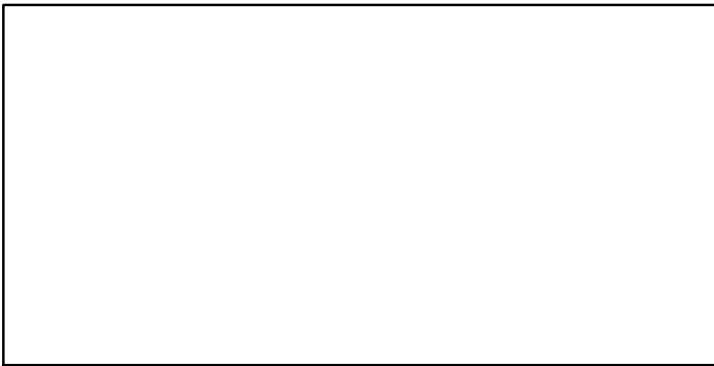
survB-MT (1965-2017-ASHBROOK)



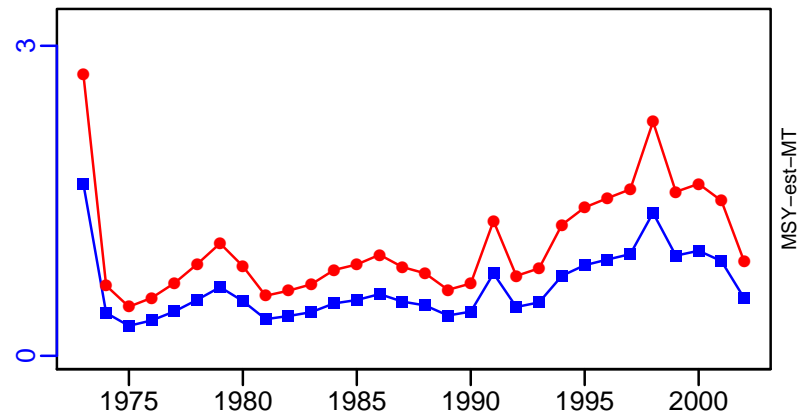
CPUE\*



EFFORT\*



TL-MT/MSY-est-MT, CdivMEANC-ratio, (1971-2003-PREFONTAINE)



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

## Herring NAFO 4R spring spawners [HERR4RSP]

Metadata	
<b>Scientific Name</b>	Clupea harengus
<b>Current Assess ID</b>	DFO-QUE-HERR4RSP-1965-2017-ASHBROOK
<b>Area</b>	NAFO division 4R (Spring spawners)
<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>	2004, 2017

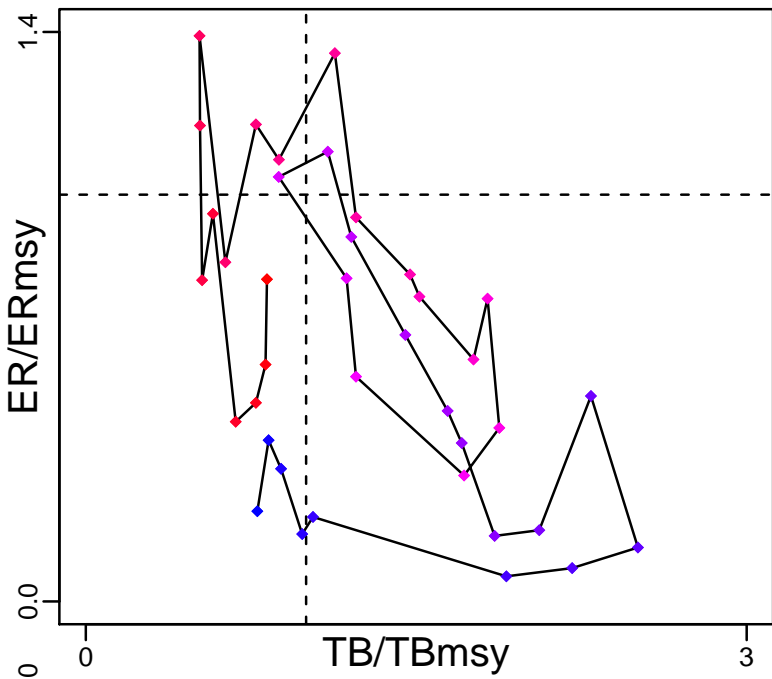
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-est-MT	2004	93,761
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-est-ratio	2004	0.13
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2017	57,081
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-est-MT	2004	12,171
<b>M</b>	M-1/yr	2004	0.2
<b>TBlim</b>	TBlim-MT	2004	37,831
<b>SSBlim</b>	SSBlim-MT	2017	37,384
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2004	64,300	-	-
<b>SSB</b>	SSB-MT	2017	2192	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2004	71,800,000	-	2
<b>F</b>	F-1/yr	2004	0.148	-	4+
<b>ER</b>	ER-calc-ratio	2004	0.103	-	-
<b>TC</b>	TC-E00	2004	22,700,000		
<b>TL</b>	TL-MT	2004	7926		
<b>TB/TBmsy</b>	TB-MT/TBmsy-est-MT	2004	0.686		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-est-ratio	2004	0.792		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2017	0.038		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

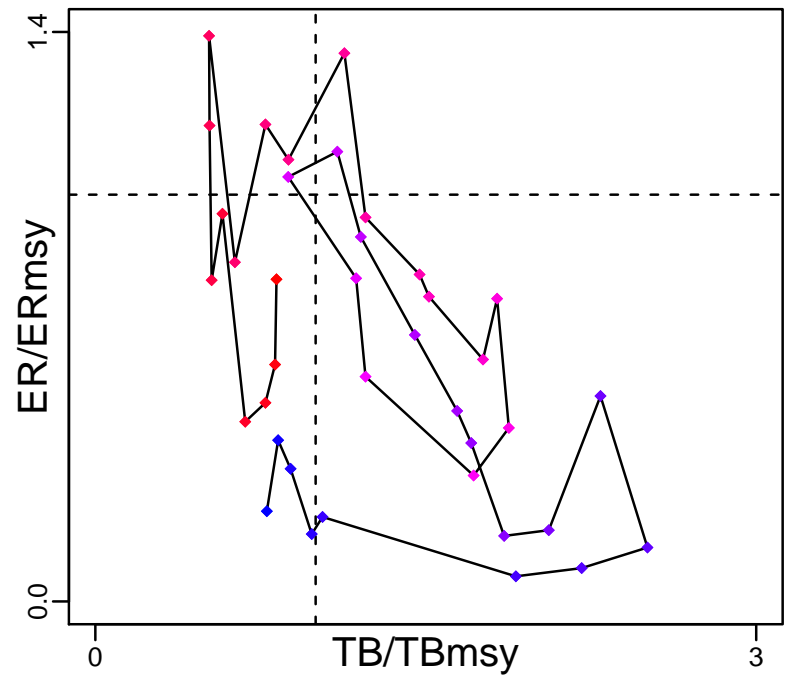


# Herring NAFO 4R spring spawners [HERR4RSP]

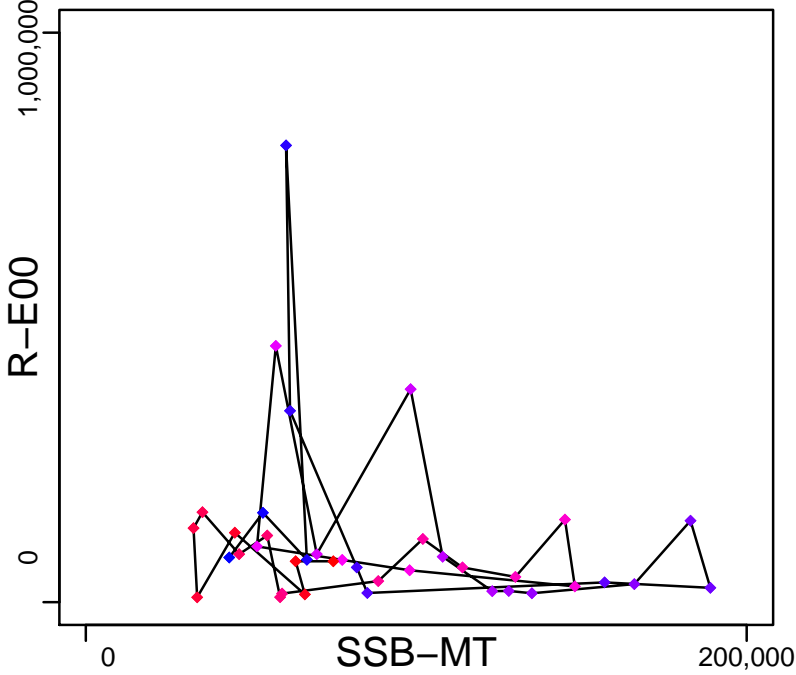
Kobe MSY<sub>pref</sub> (1963–2004–PREFONTAINE)



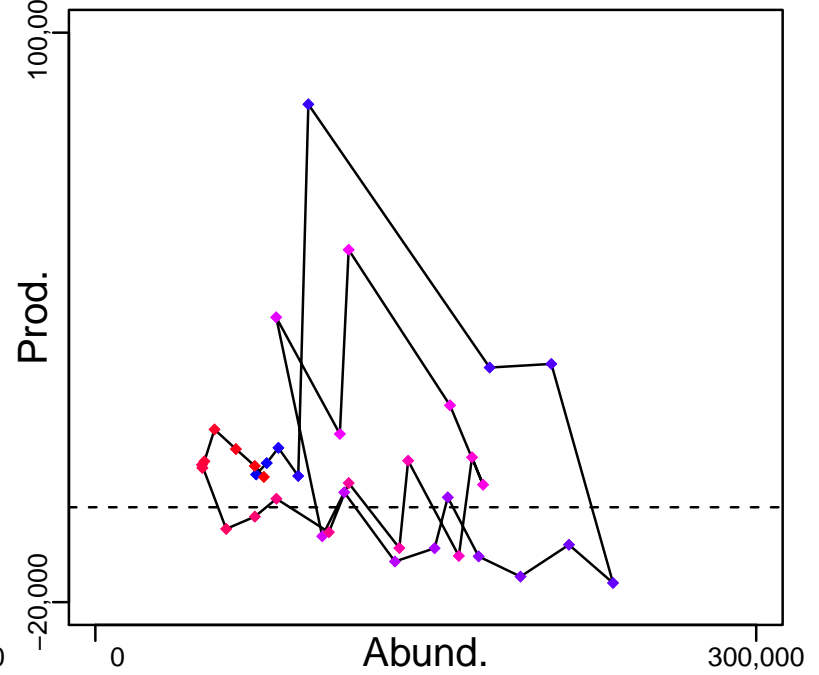
Kobe MGT<sub>pref</sub> (1963–2004–PREFONTAINE)



Spawner Recruit (1963–2004–PREFONTAINE)



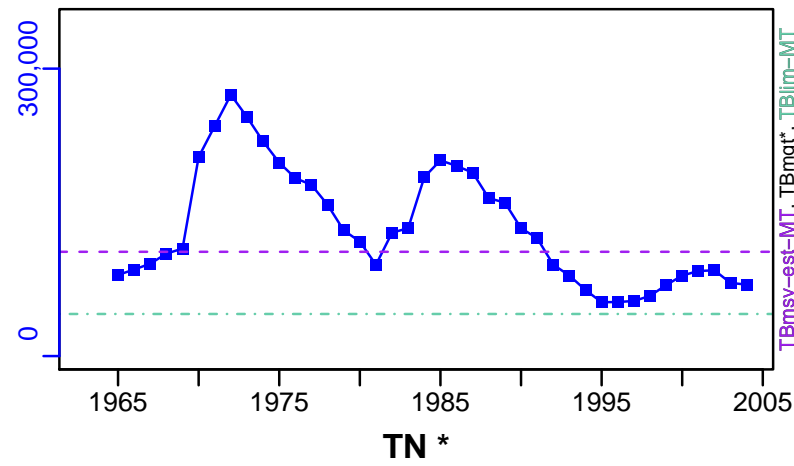
Production (1963–2004–PREFONTAINE)



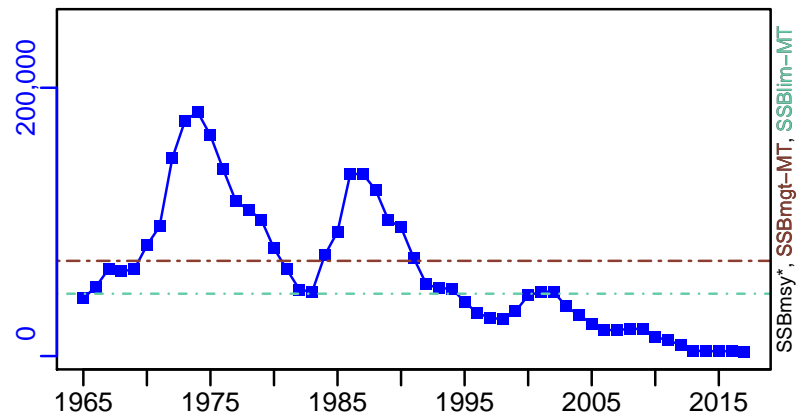
◆ Start Year ◆ End Year \* No Data

# Herring NAFO 4R spring spawners [HERR4RSP]

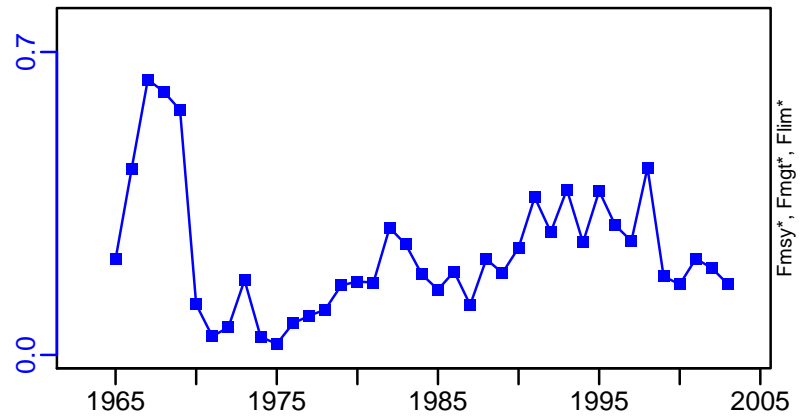
TB-MT (1963–2004–PREFONTAINE)



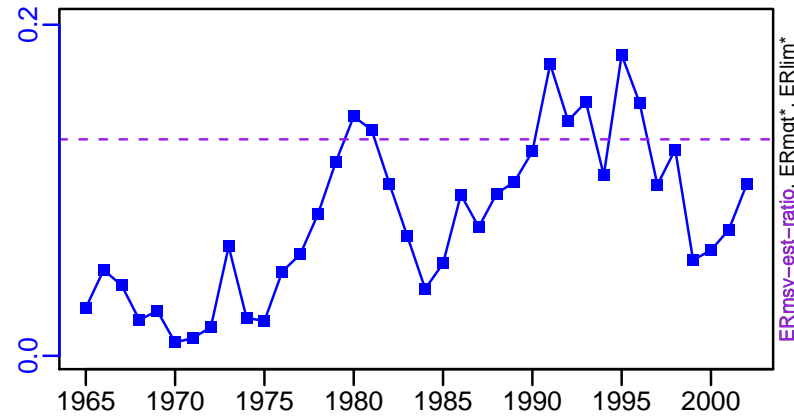
SSB-MT (1965–2017–ASHBROOK)



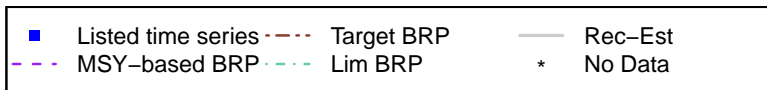
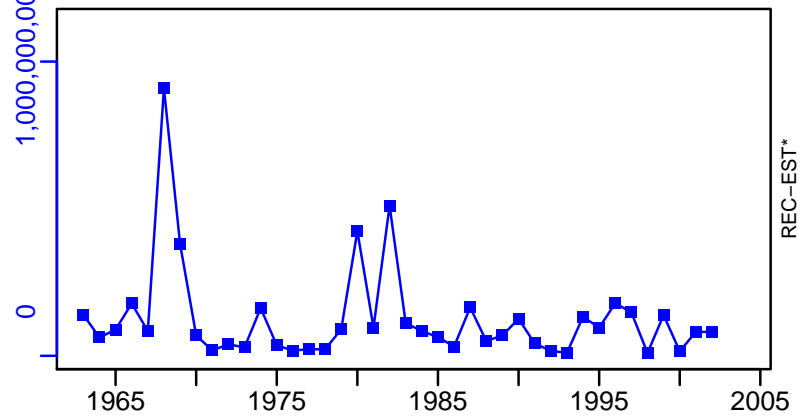
F-1/yr (1963–2004–PREFONTAINE)



ER-calc-ratio (1963–2004–PREFONTAINE)

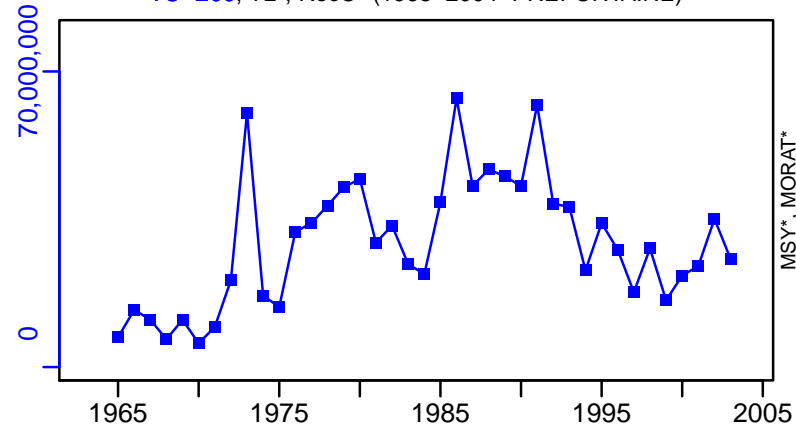


R-E00 (1963–2004–PREFONTAINE)



# Herring NAFO 4R spring spawners [HERR4RSP]

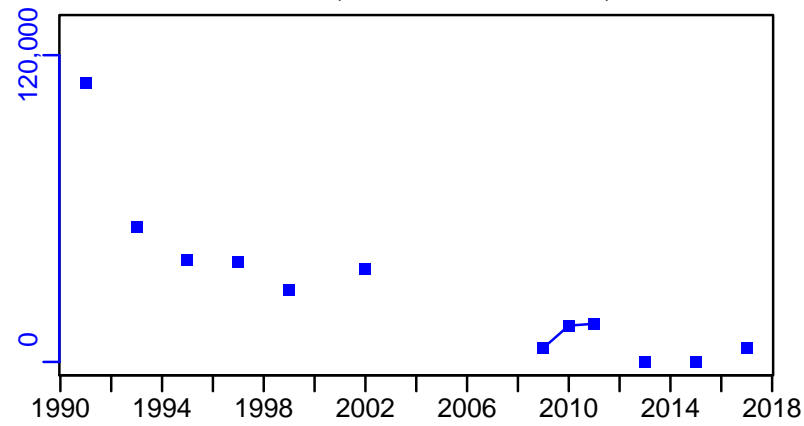
TC-E00, TL\*, RecC\* (1963–2004–PREFONTAINE)



TAC\*, Cpair\*, Cadv\*



survB-MT (1965–2017–ASHBROOK)



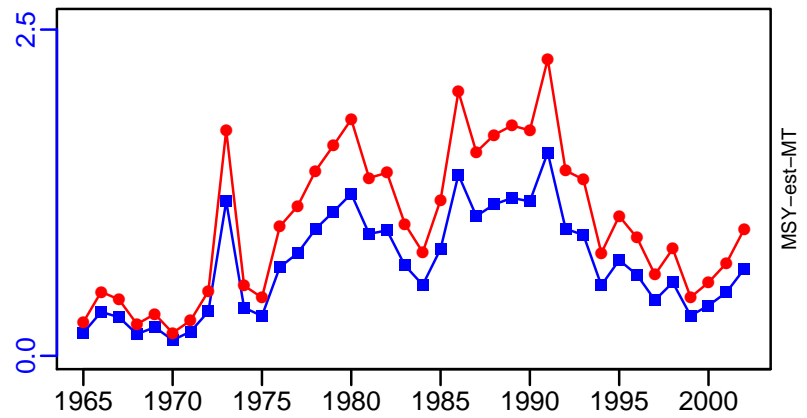
CPUE\*



EFFORT\*



TL-MT/MSY-est-MT, CdivMEANC-ratio, (1963–2004–PREFONTAINE)



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

## Herring Quebec North Shore (Fall spawners) [HERR4SFS]

Metadata	
<b>Scientific Name</b>	Clupea harengus
<b>Current Assess ID</b>	DFO-QUE-HERR4SFS-1985-2018-ASHBROOK
<b>Area</b>	Quebec North Shore (Fall spawners)
<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	-	-	-		
TL	TL-MT	2018	2355		
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

Herring Quebec North Shore (Fall spawners) [HERR4SFS]

**TB\***



**SSB\***



**TN \***



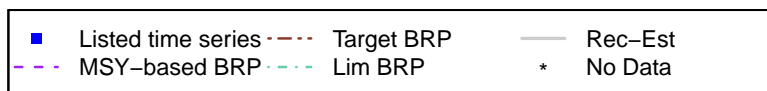
**F\***



**ER\***



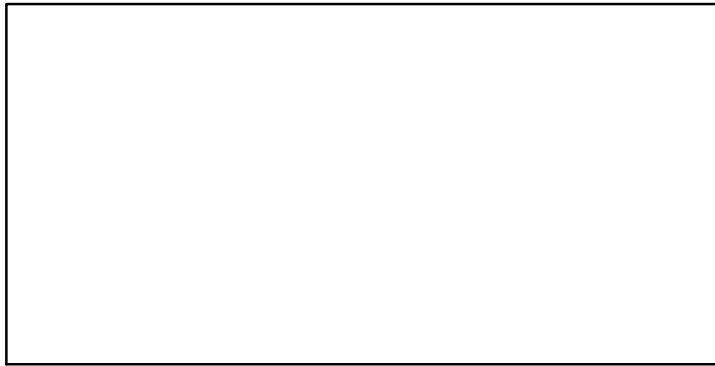
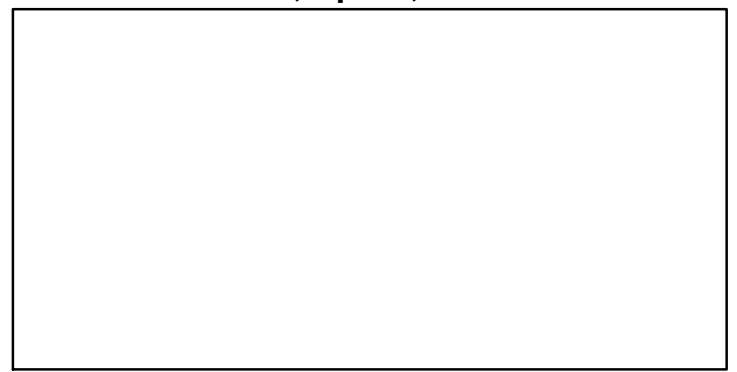
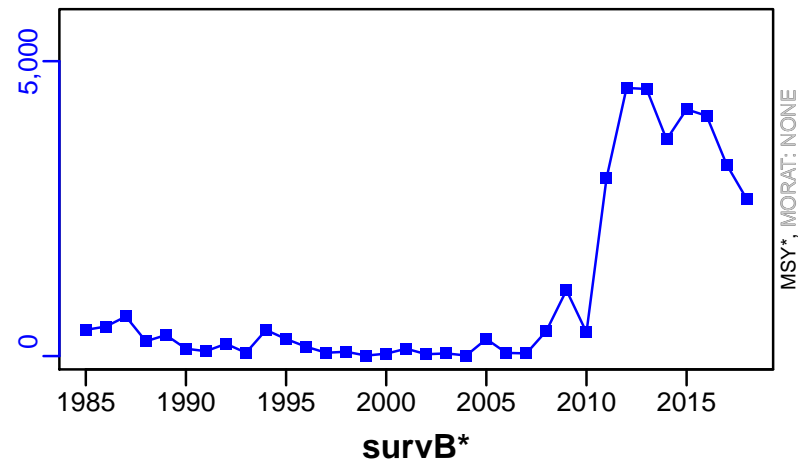
**Recruits\***



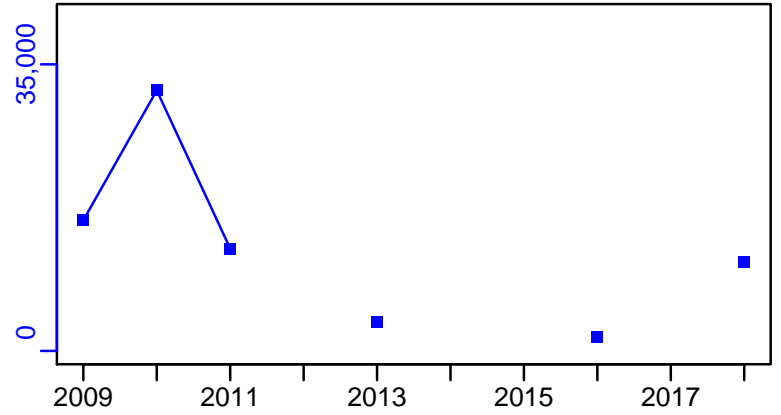
# Herring Quebec North Shore (Fall spawners) [HERR4SFS]

TL-MT, TC\*, RecC\* (1985-2018-ASHBROOK)

TAC\*, Cpair\*, Cadv\*



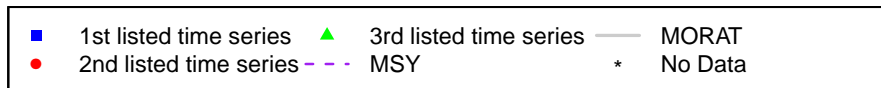
CPUE-MT (1985-2018-ASHBROOK)



EFFORT\*



CdivMSY\*



## Herring Quebec North Shore (Spring spawners) [HERR4SSS]

Metadata	
<b>Scientific Name</b>	Clupea harengus
<b>Current Assess ID</b>	DFO-QUE-HERR4SSS-1985-2018-ASHBROOK
<b>Area</b>	Quebec North Shore (Spring spawners)
<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	-	-	-		
TL	TL-MT	2018	146		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



**Production\***



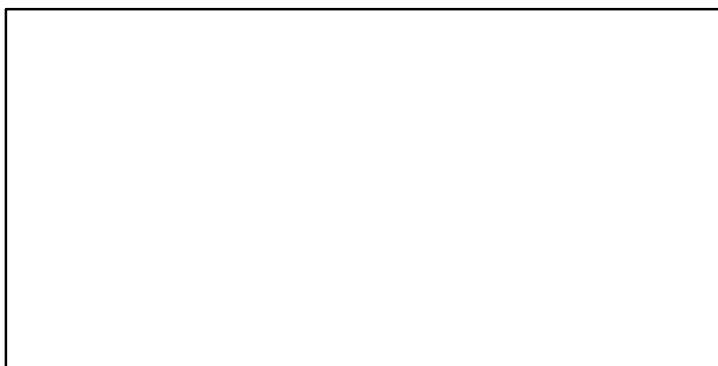
◆ Start Year ◆ End Year \* No Data

Herring Quebec North Shore (Spring spawners) [HERR4SSS]

**TB\***



**SSB\***



**TN \***



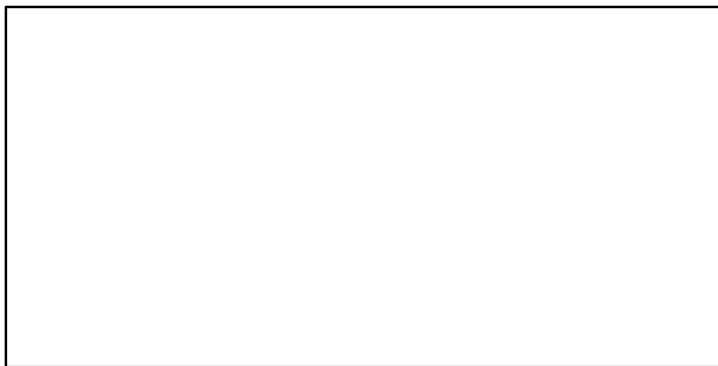
**F\***



**ER\***

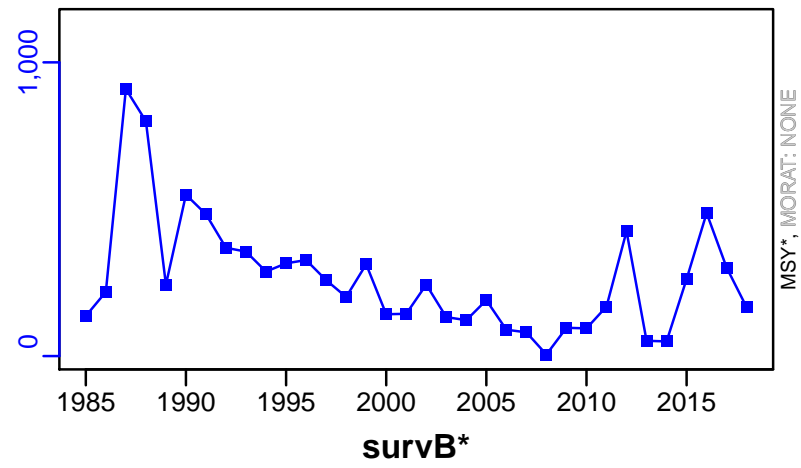


**Recruits\***



# Herring Quebec North Shore (Spring spawners) [HERR4SSS]

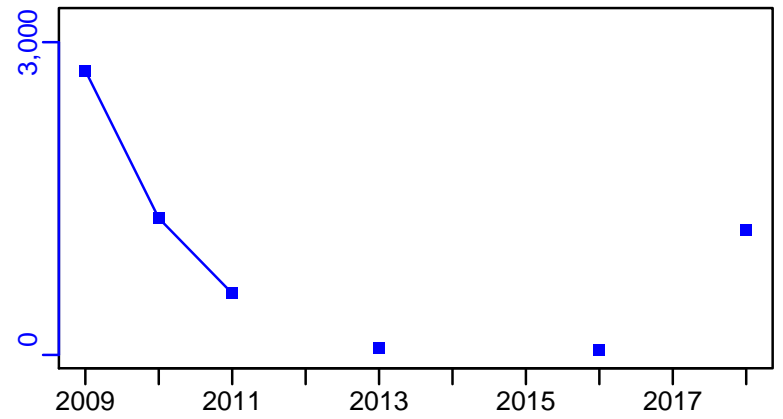
TL-MT, TC\*, RecC\* (1985-2018-ASHBROOK)



TAC\*, Cpair\*, Cadv\*



CPUE-MT (1985-2018-ASHBROOK)



EFFORT\*



CdivMSY\*



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

## Herring NAFO 4T fall spawners [HERR4TFA]

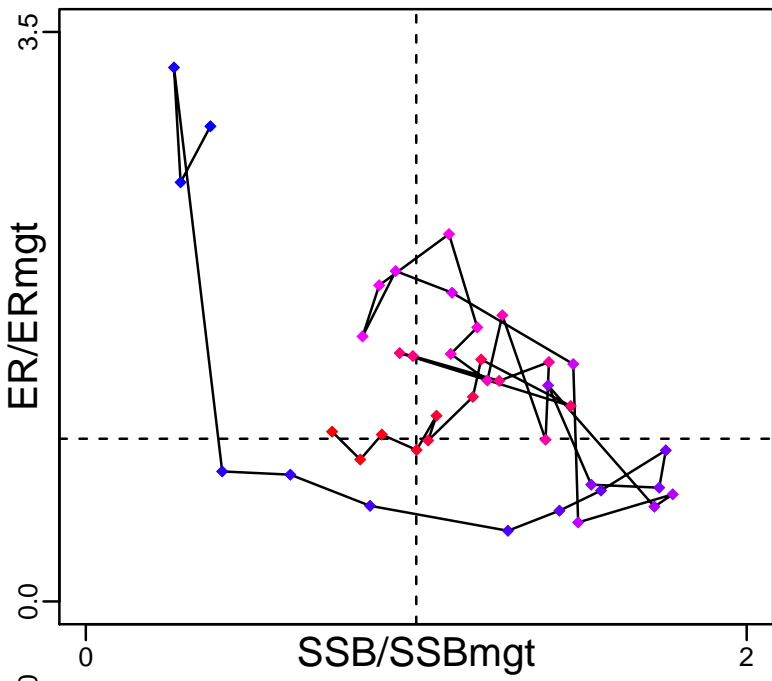
Metadata	
<b>Scientific Name</b>	Clupea harengus
<b>Current Assess ID</b>	DFO-SG-HERR4TFA-1974-2018-ASHBROOK
<b>Area</b>	Southern Gulf of St. Lawrence (Fall spawners)
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans - Southern Gulf Region
<b>Asmts in RAM</b>	2014, 2007, 2018

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-est-MT	2014	154,471
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-est-ratio	2014	0.328
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2018	172,000
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	ERmgt-ratio	2018	0.27
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-est-MT	2014	67,506
<b>M</b>	M-1/yr	2014	0.2
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2018	58,000
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

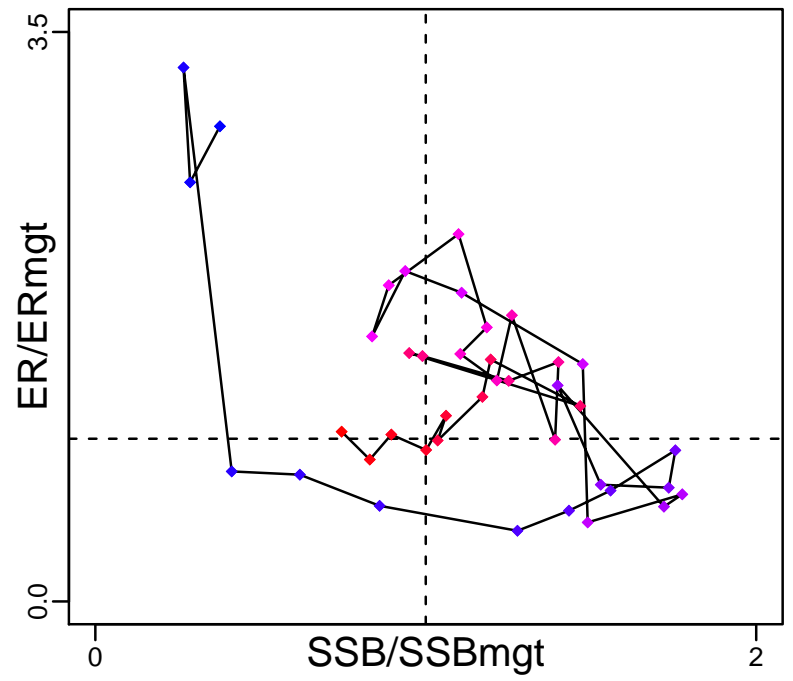
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2007	316,000	-	4+
<b>SSB</b>	SSB-MT	2018	112,000	-	-
<b>TN</b>	TN-E00	2018	559,253,800	-	4+
<b>R</b>	R-E00	2018	79,119,050	-	4
<b>F</b>	F-1/yr	2014	0.423	Both	5 to 10
<b>ER</b>	ER-ratio	2018	0.282	-	-
<b>TC</b>	TC-MT	2014	34,400		
<b>TL</b>	TL-MT	2018	20,523		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-est-MT	2014	0.641		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-est-ratio	2014	0.57		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2018	0.651		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Herring NAFO 4T fall spawners [HERR4TFA]

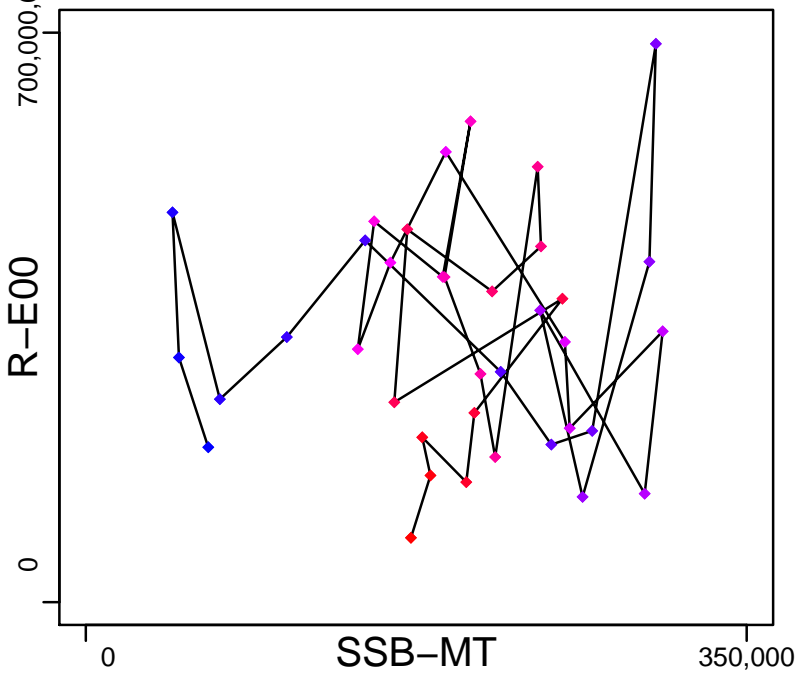
Kobe MSYpref (1974–2018–ASHBROOK)



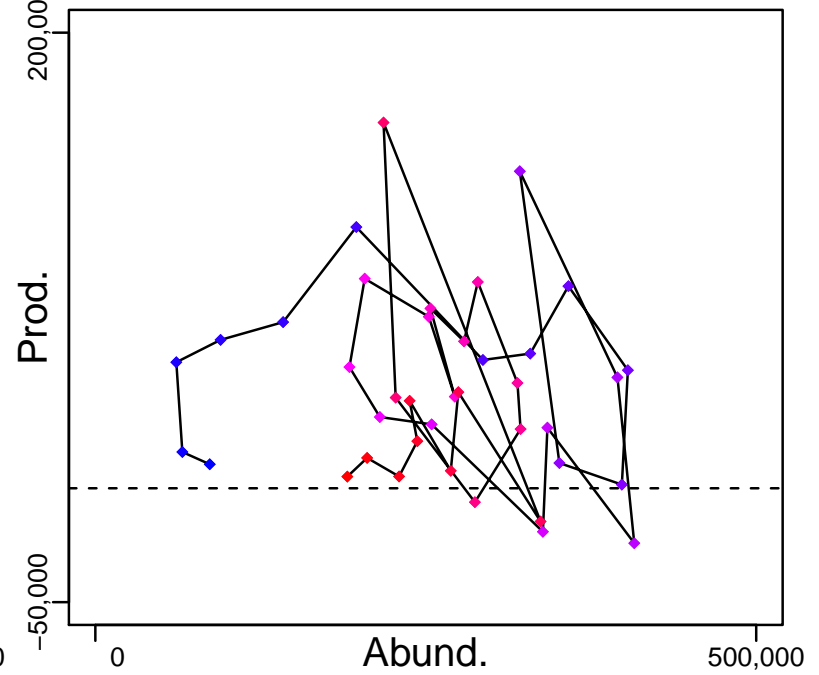
Kobe MGTpref (1974–2018–ASHBROOK)



Spawner Recruit (1974–2018–ASHBROOK)

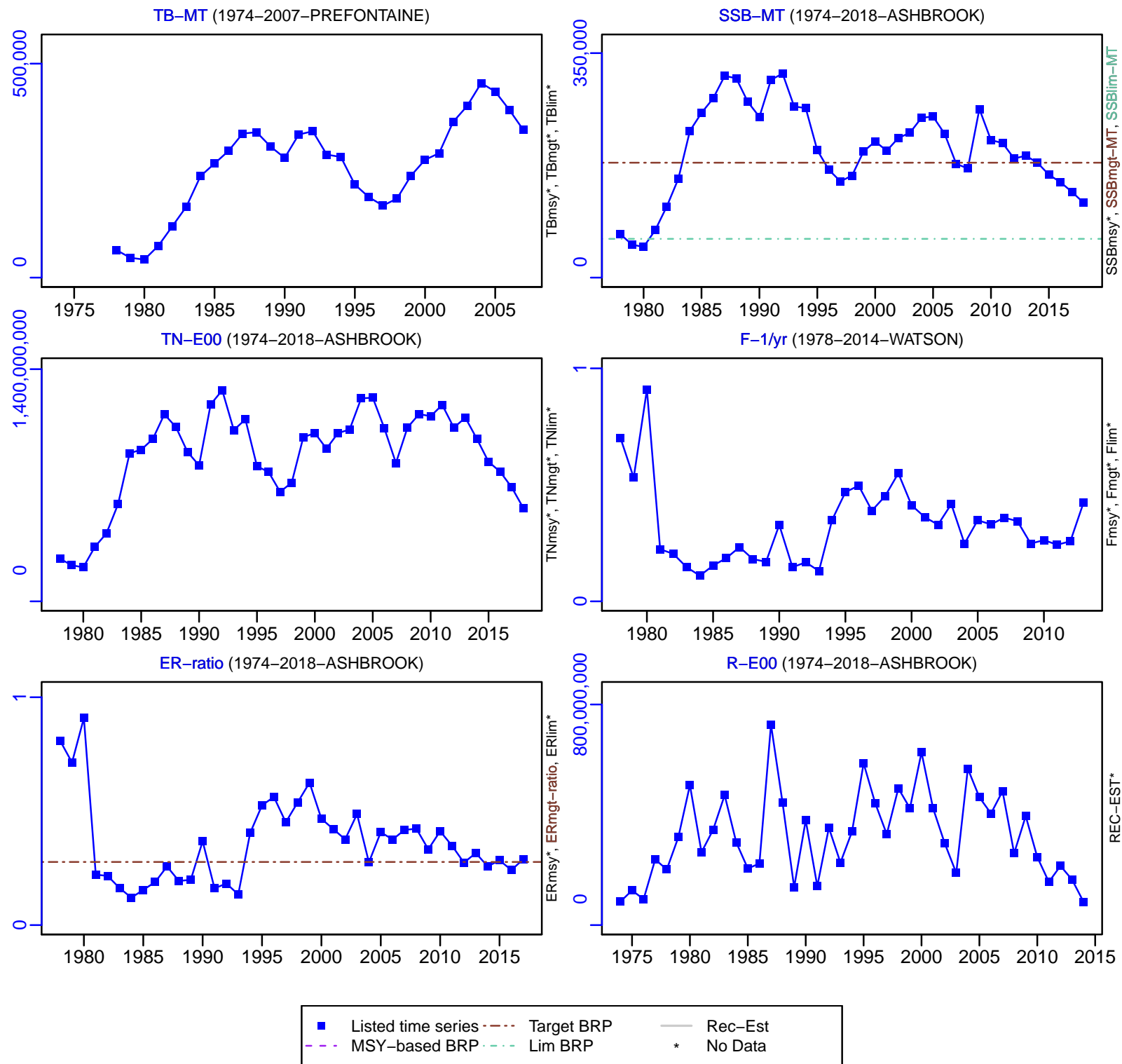


Production (1974–2018–ASHBROOK)



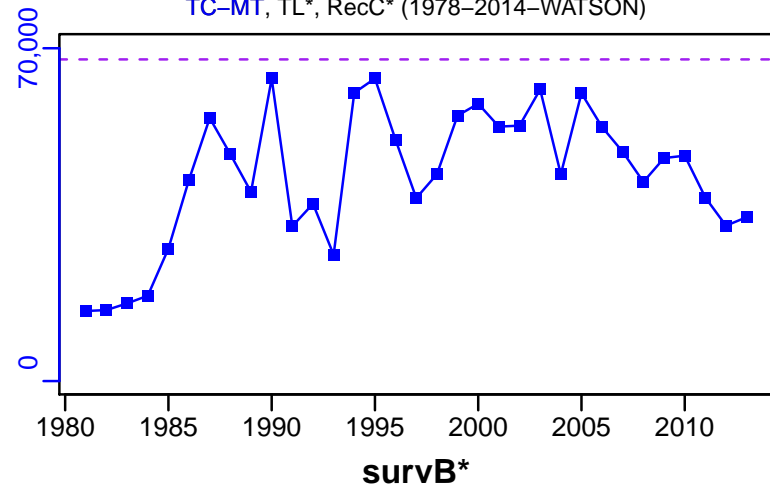
◆ Start Year ◆ End Year \* No Data

# Herring NAFO 4T fall spawners [HERR4TFA]

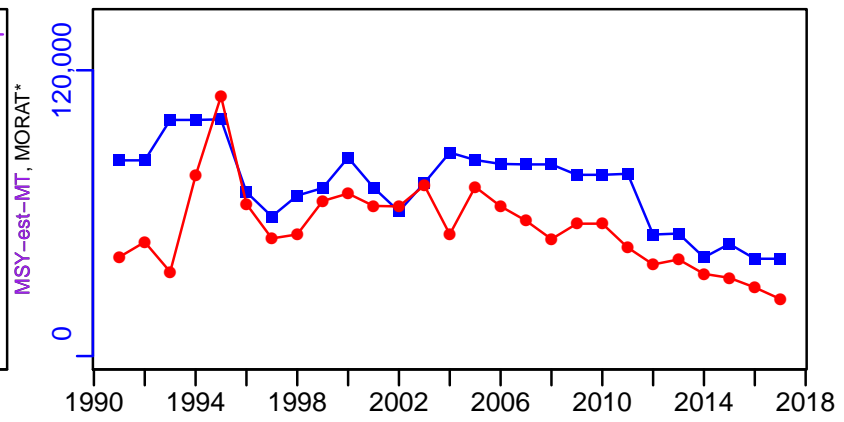


# Herring NAFO 4T fall spawners [HERR4TFA]

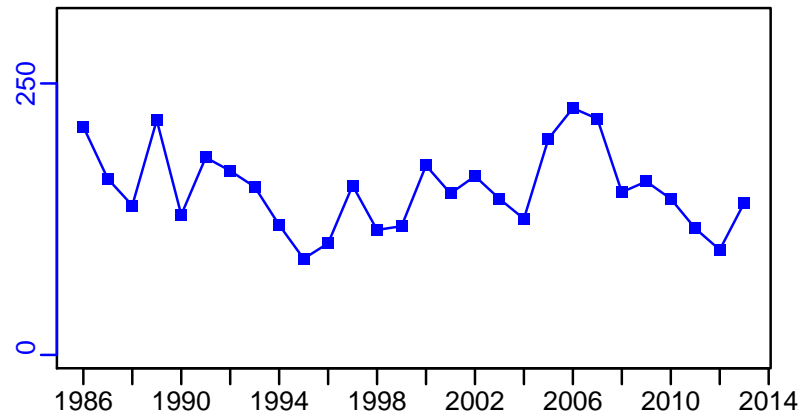
TC-MT, TL\*, RecC\* (1978-2014-WATSON)



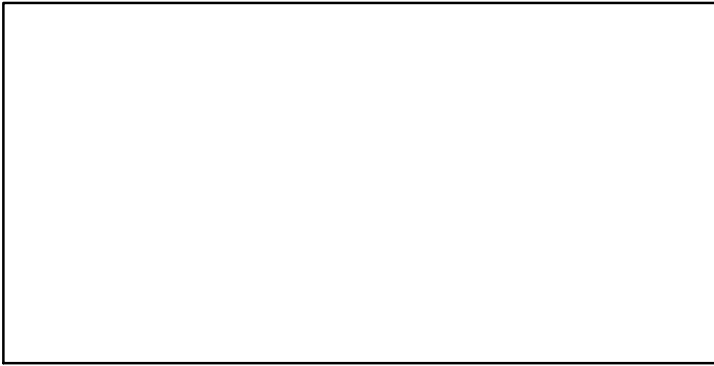
TAC-MT, Cpair-MT, Cadv\* (1974-2018-ASHBROOK)



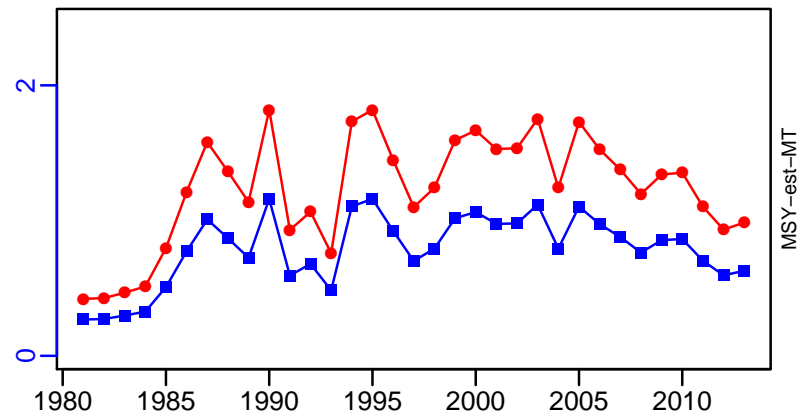
CPUE-kg/trip (1978-2014-WATSON)



**EFFORT\***



TC-MT/MSY-est-MT, CdivMEANC-ratio, (1978-2014-WATSON)



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

## Herring NAFO 4T spring spawners [HERR4TSP]

Metadata	
<b>Scientific Name</b>	Clupea harengus
<b>Current Assess ID</b>	DFO-SG-HERR4TSP-1974-2018-ASHBROOK
<b>Area</b>	Southern Gulf of St. Lawrence (Spring spawners)
<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, 2007, 2018

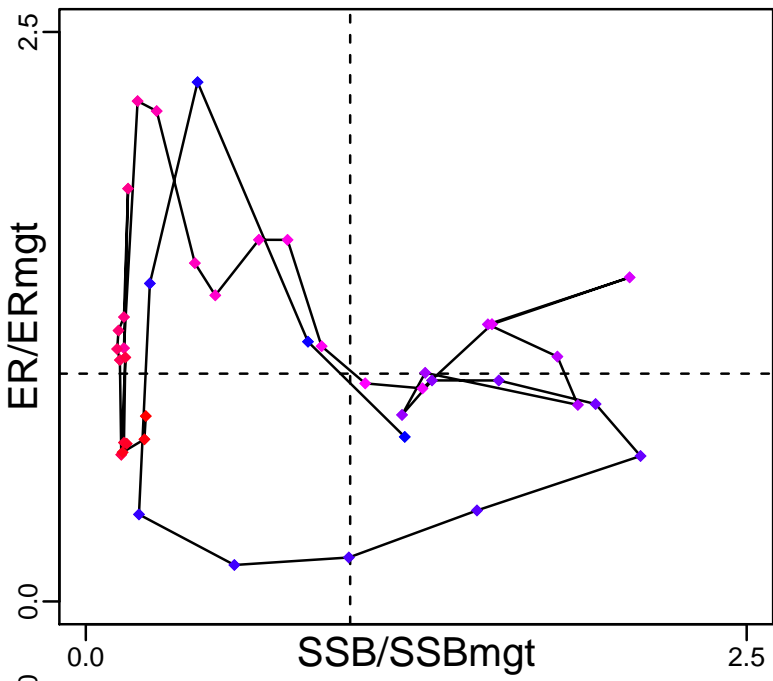
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-est-MT	2014	54,655
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-est-ratio	2014	0.261
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2018	54,000
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	ERmgt-ratio	2018	0.295
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-est-MT	2014	20,088
<b>M</b>	M-1/yr	2014	0.2
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2018	19,250
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2007	35,600	-	4 to 10
<b>SSB</b>	SSB-MT	2018	12,251	-	-
<b>TN</b>	TN-E00	2018	84,033,190	-	4+
<b>R</b>	R-E00	2018	20,737,226	-	4
<b>F</b>	F-1/yr	2014	0.137	Both	5 to 10
<b>ER</b>	ER-ratio	2018	0.24	-	8-Jun
<b>TC</b>	TC-MT	2014	1700		
<b>TL</b>	TL-MT	2018	1189		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-est-MT	2014	0.408		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-est-ratio	2014	0.228		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2018	0.227		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

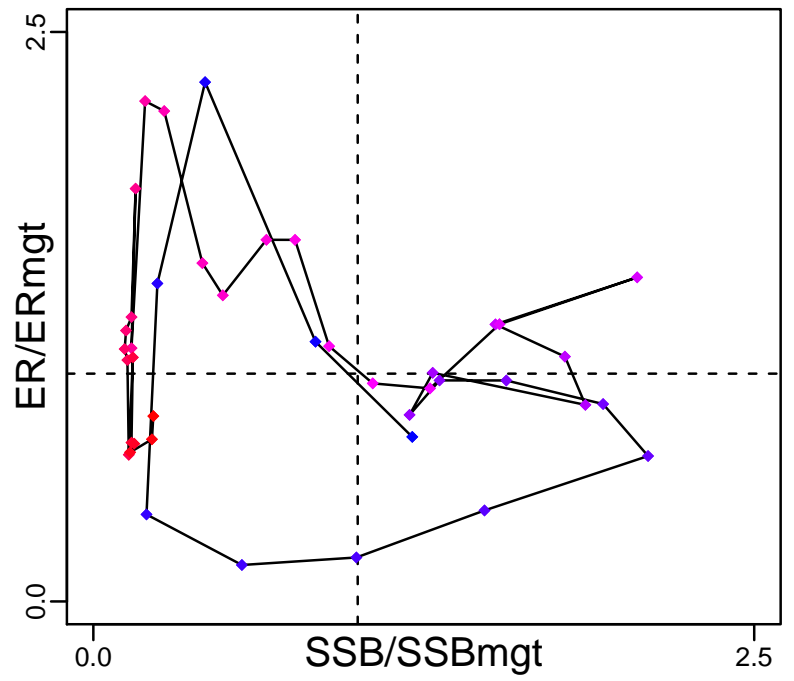


# Herring NAFO 4T spring spawners [HERR4TSP]

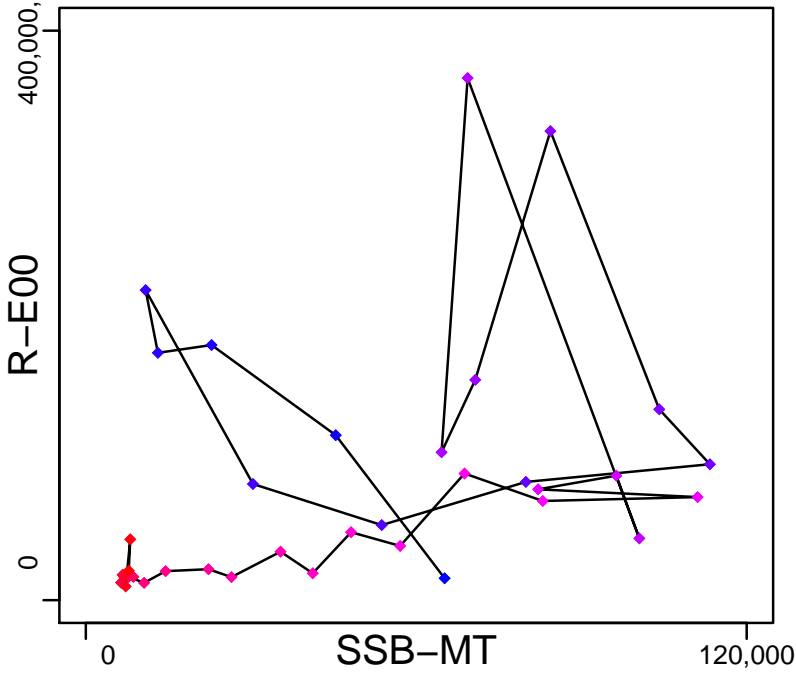
Kobe MSYpref (1974–2018–ASHBROOK)



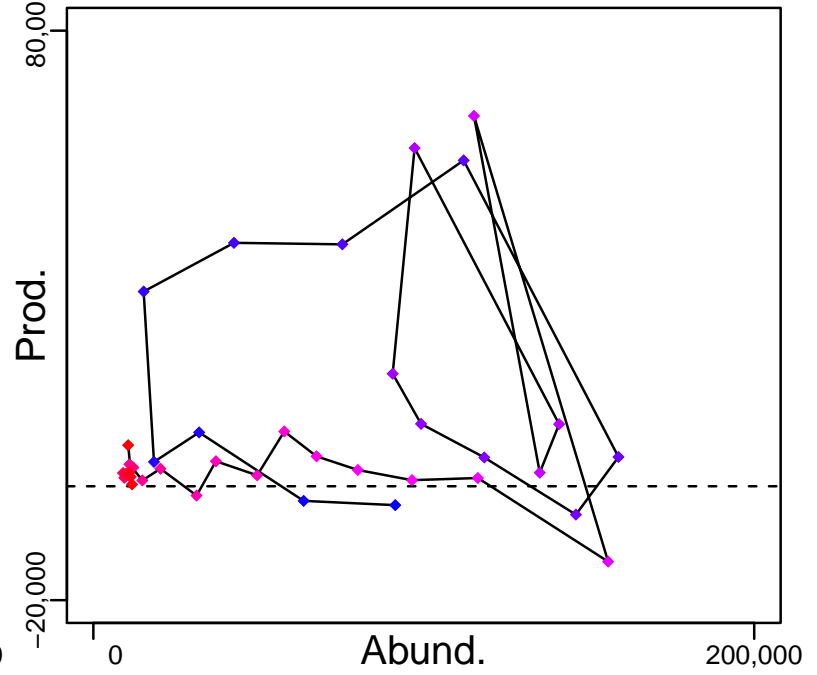
Kobe MGTpref (1974–2018–ASHBROOK)



Spawner Recruit (1974–2018–ASHBROOK)

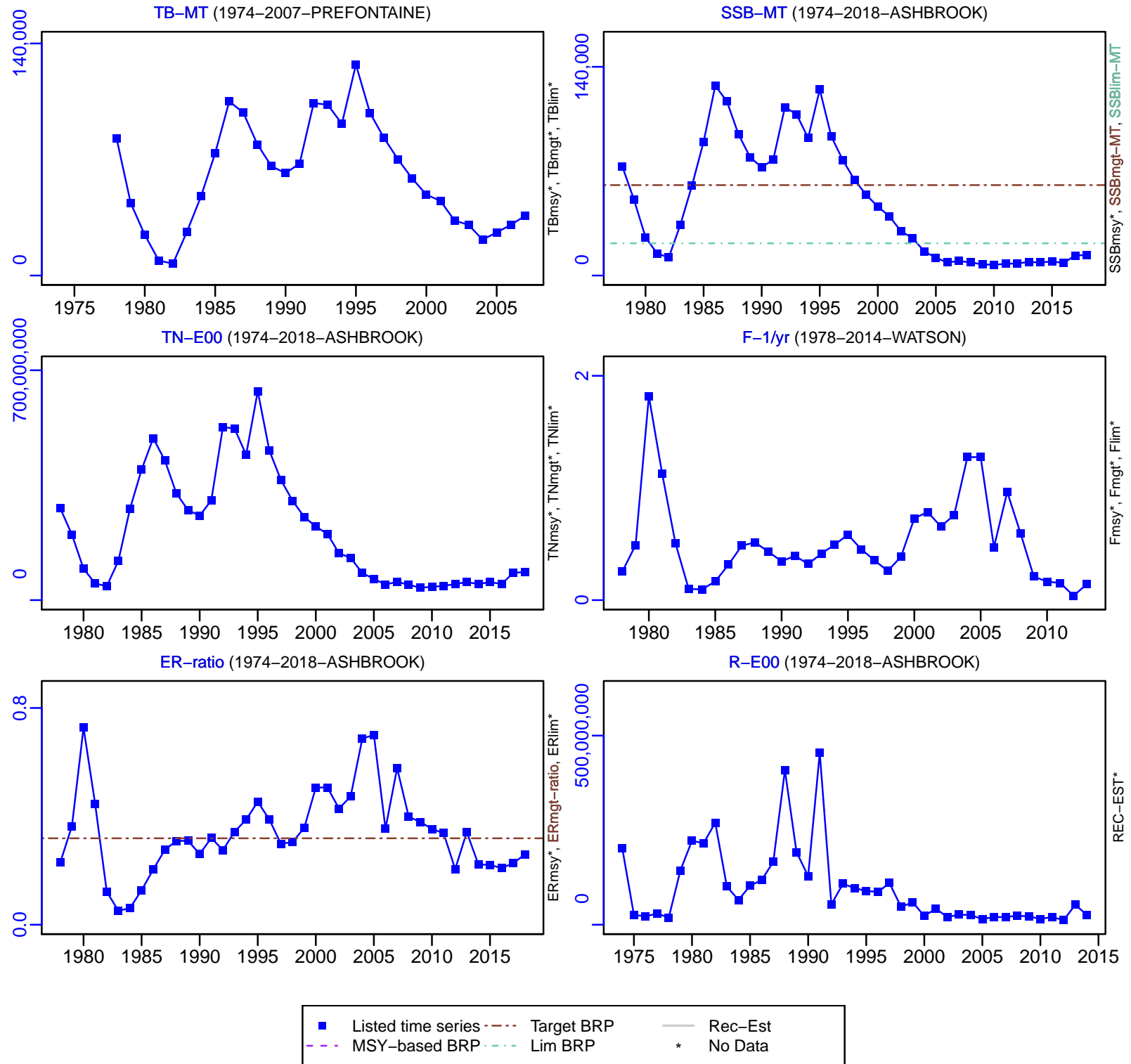


Production (1974–2018–ASHBROOK)



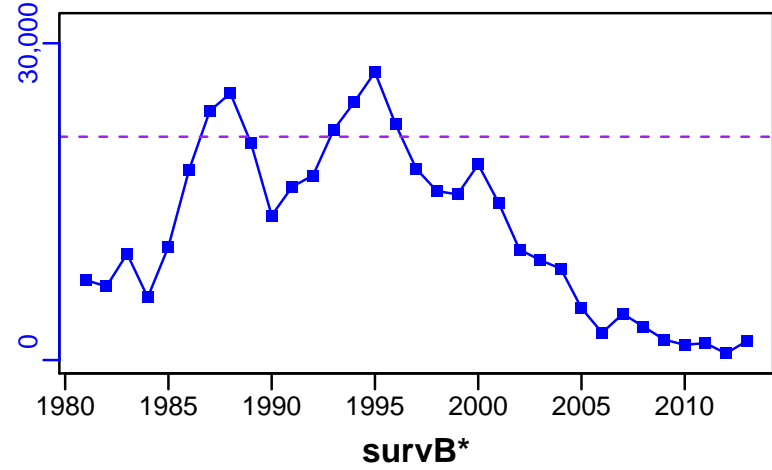
◆ Start Year ◆ End Year \* No Data

# Herring NAFO 4T spring spawners [HERR4TSP]

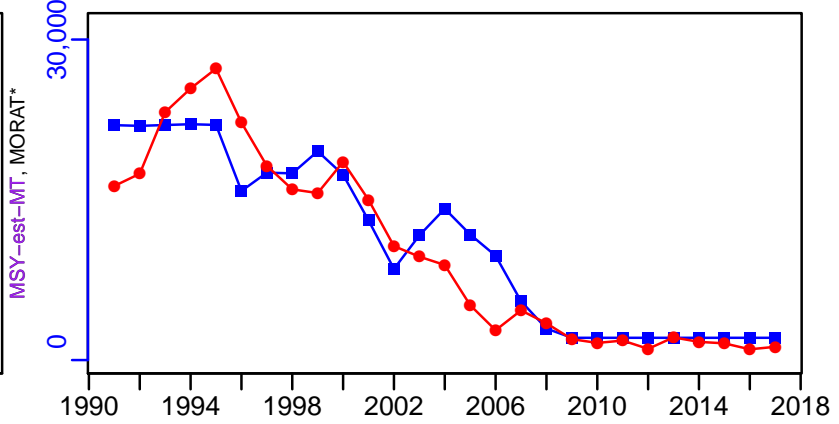


# Herring NAFO 4T spring spawners [HERR4TSP]

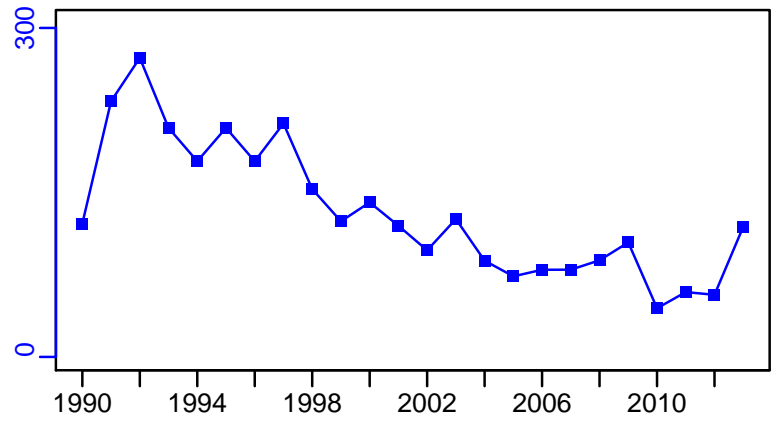
TC-MT, TL\*, RecC\* (1978–2014–WATSON)



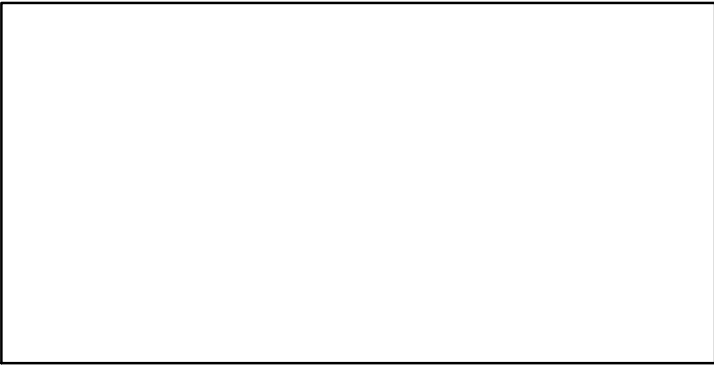
TAC-MT, Cpair-MT, Cadv\* (1974–2018–ASHBROOK)



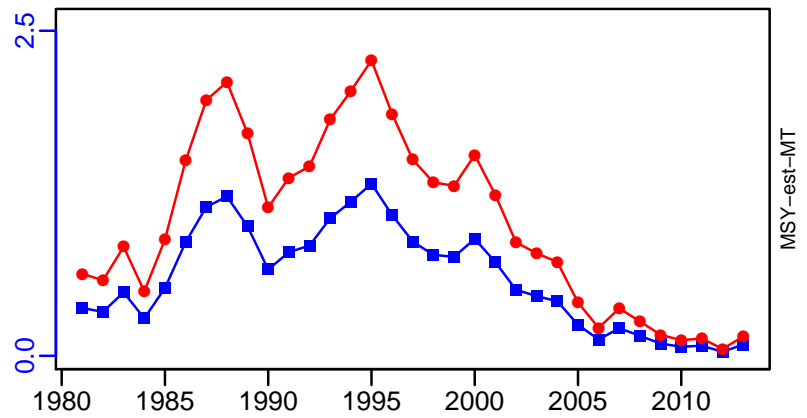
CPUE-kg/trip (1978–2014–WATSON)



EFFORT\*



TC-MT/MSY-est-MT, CdivMEANC-ratio, (1978–2014–WATSON)



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

## Herring Scotian Shelf and Bay of Fundy [HERR4VWX]

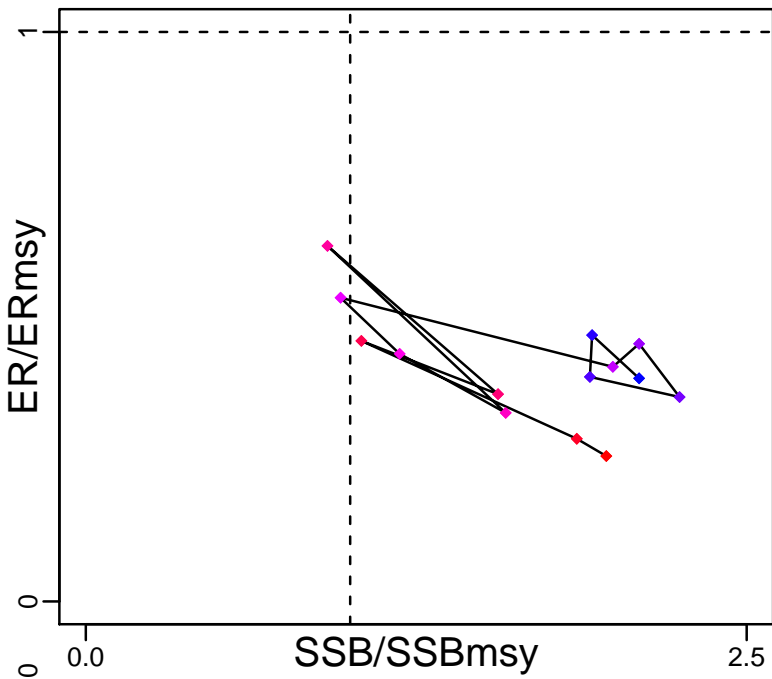
Metadata	
<b>Scientific Name</b>	Clupea harengus
<b>Current Assess ID</b>	DFO-MAR-HERR4VWX-1966-2017-ASHBROOK
<b>Area</b>	Scotian Shelf and Bay of Fundy
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans - Maritimes Region
<b>Asmts in RAM</b>	2012, 2006, 2017

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-est-MT	2012	241,750
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-est-ratio	2012	0.396
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-est-MT	2012	129,231
<b>M</b>	M-1/yr	2006	0.2
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

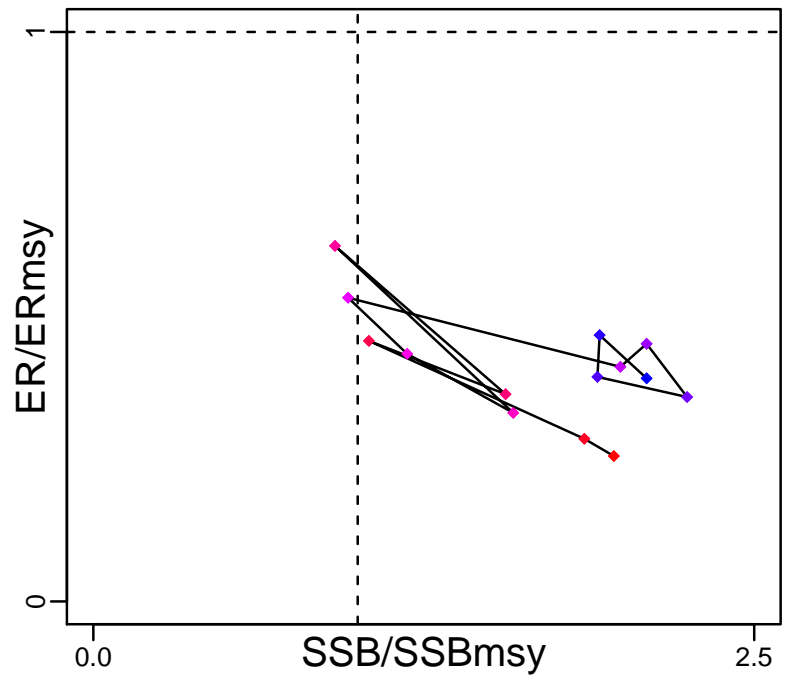
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2006	91,700	-	-
<b>SSB</b>	SSB-MT	2012	476,000	-	-
<b>TN</b>	TN-index	2012	83	-	-
<b>R</b>	R-E00	2006	$1 \times 10^9$	-	1
<b>F</b>	F-1/yr	2006	1.21	-	5 to 8
<b>ER</b>	ER-ratio	2012	0.101	Both	-
<b>TC</b>	-	-	-		
<b>TL</b>	TL-MT	2017	39,997		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-est-MT	2012	1.969		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-est-ratio	2012	0.255		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Herring Scotian Shelf and Bay of Fundy [HERR4VWX]

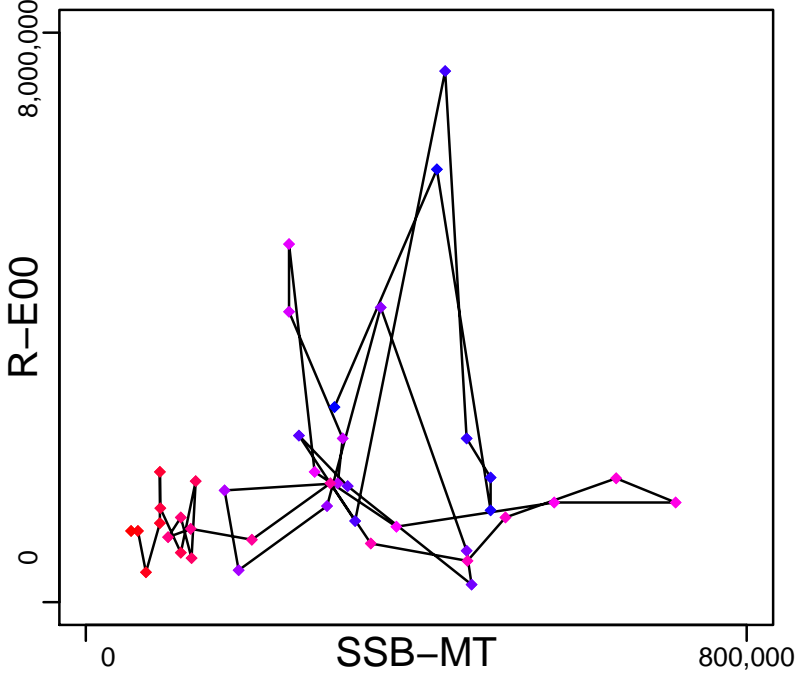
Kobe MSYpref (1963–2012–WATSON)



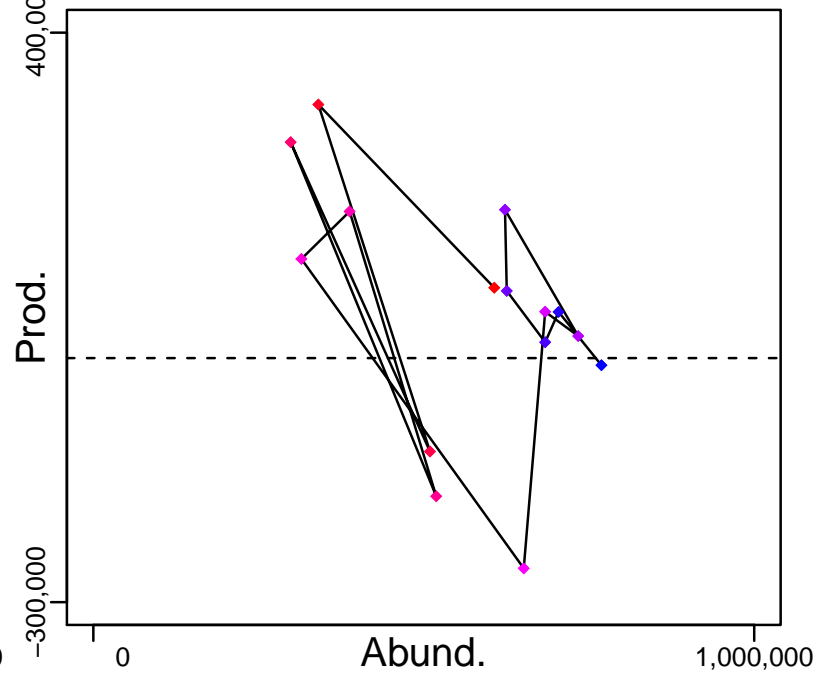
Kobe MGTpref (1963–2012–WATSON)



Spawner Recruit (1964–2006–PREFONTAINE)



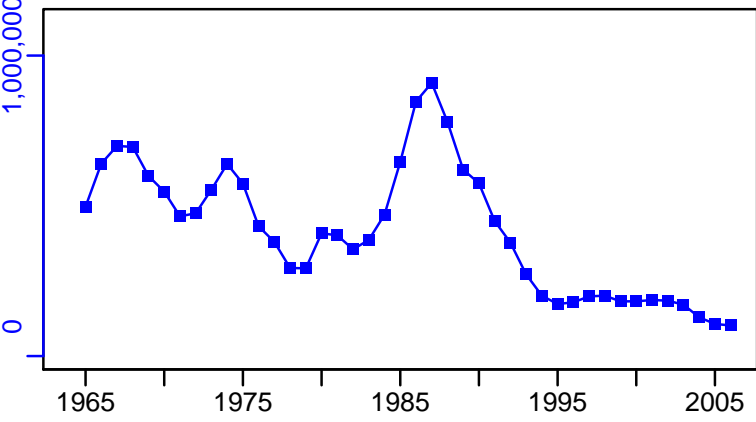
Production (1963–2012–WATSON)



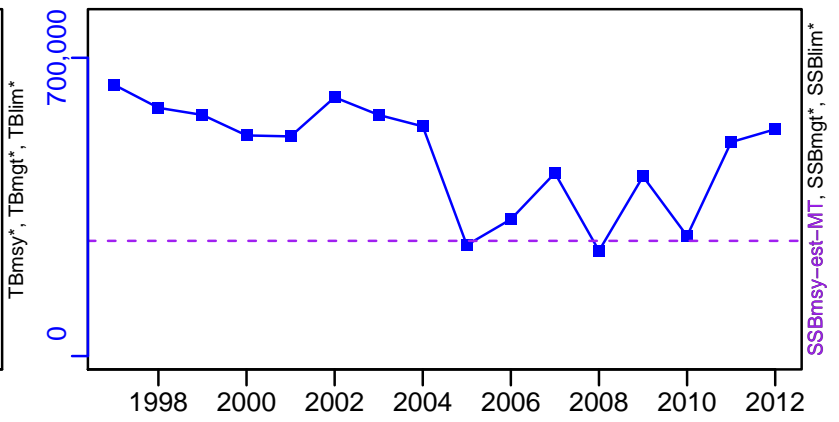
◆ Start Year ◆ End Year \* No Data

# Herring Scotian Shelf and Bay of Fundy [HERR4VWX]

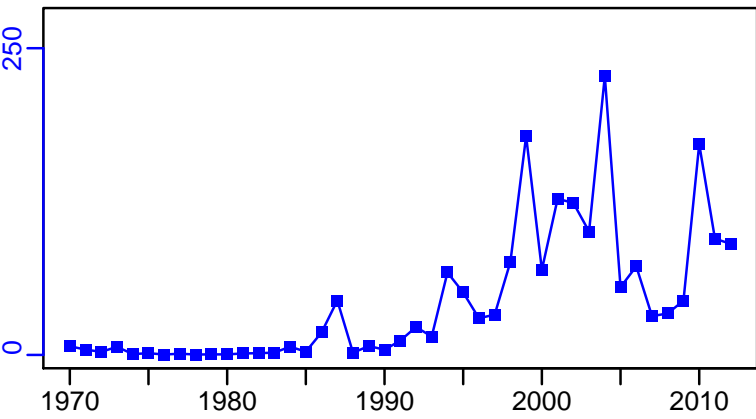
TB-MT (1964–2006–PREFONTAINE)



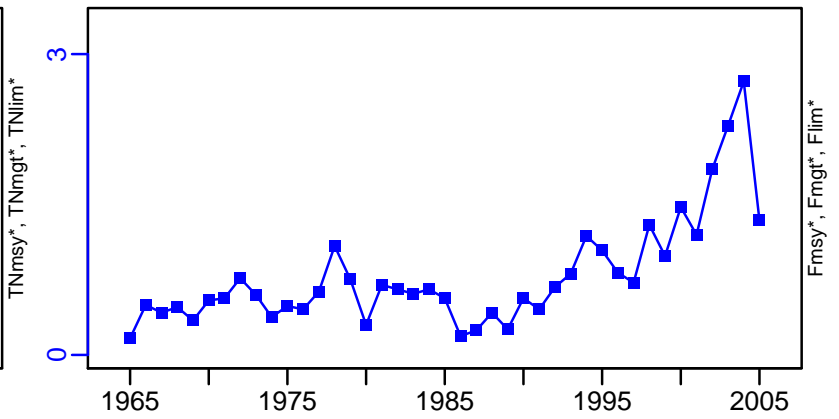
SSB-MT (1963–2012–WATSON)



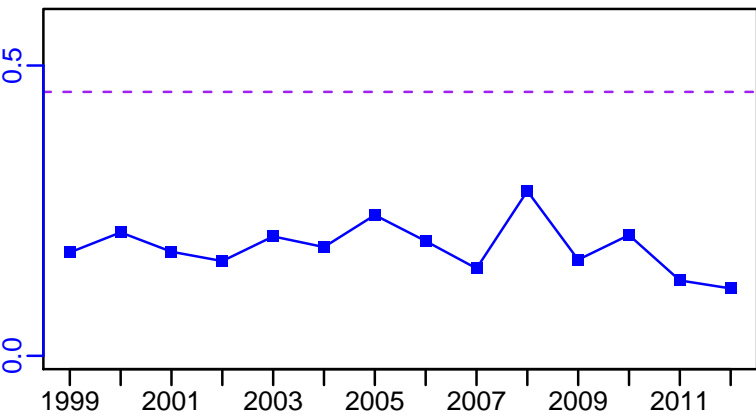
TN-index (1963–2012–WATSON)



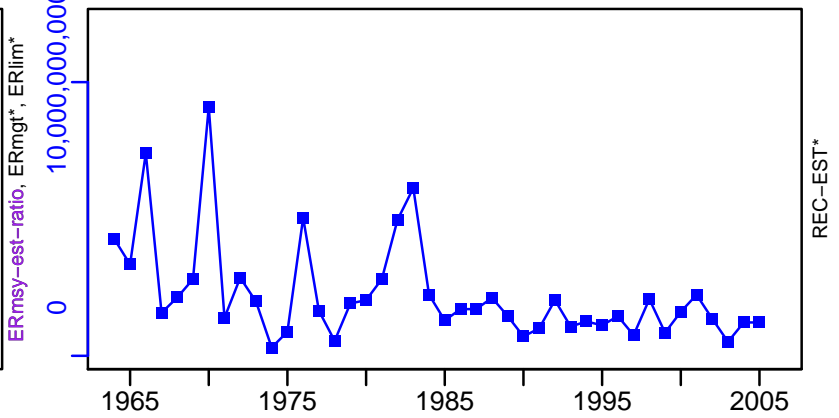
F-1/yr (1964–2006–PREFONTAINE)



ER-ratio (1963–2012–WATSON)

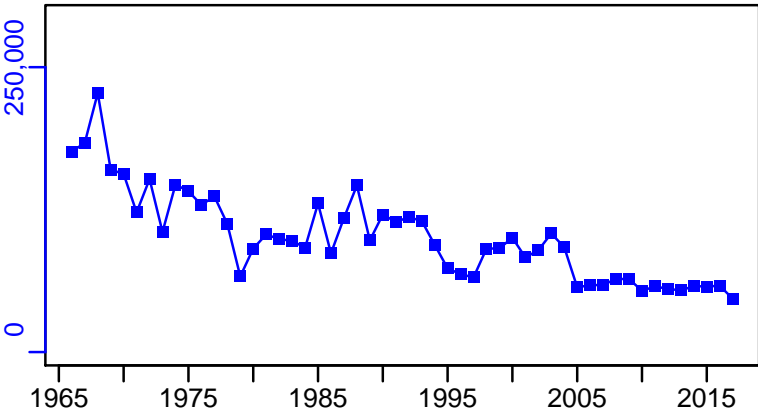


R-E00 (1964–2006–PREFONTAINE)

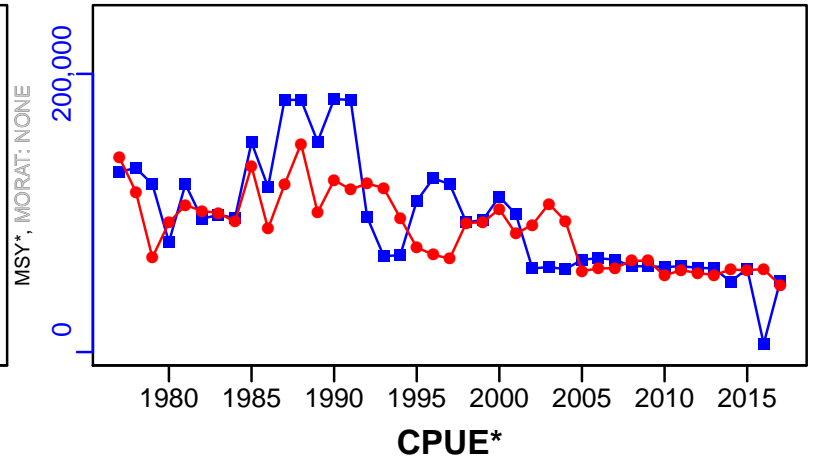


# Herring Scotian Shelf and Bay of Fundy [HERR4VWX]

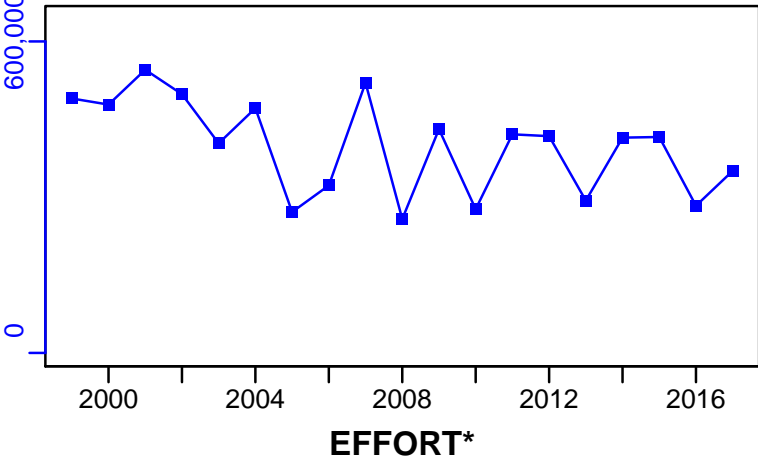
TL-MT, TC\*, RecC\* (1966-2017-ASHBROOK)



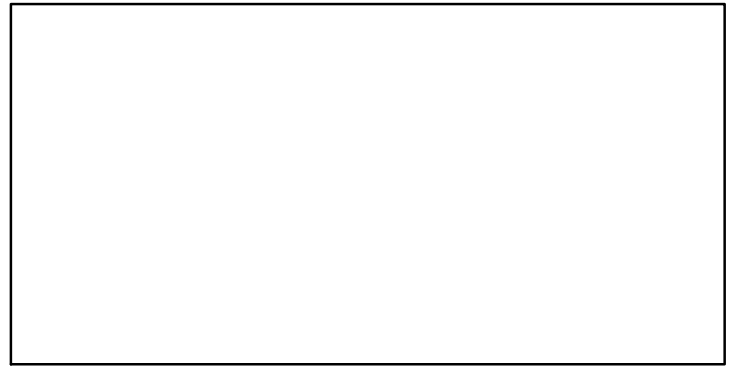
TAC-MT, Cpair-MT, Cadv\* (1966-2017-ASHBROOK)



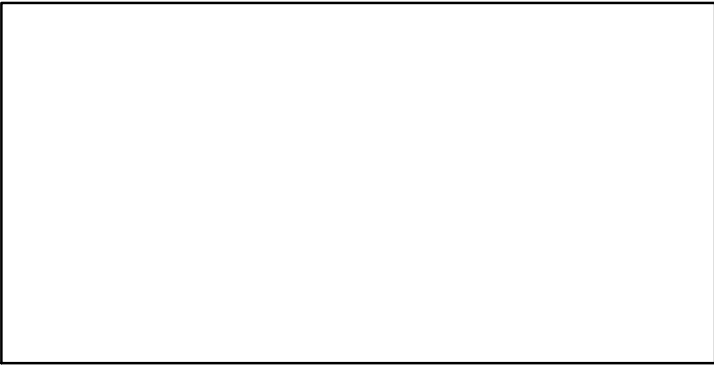
survB-MT (1966-2017-ASHBROOK)



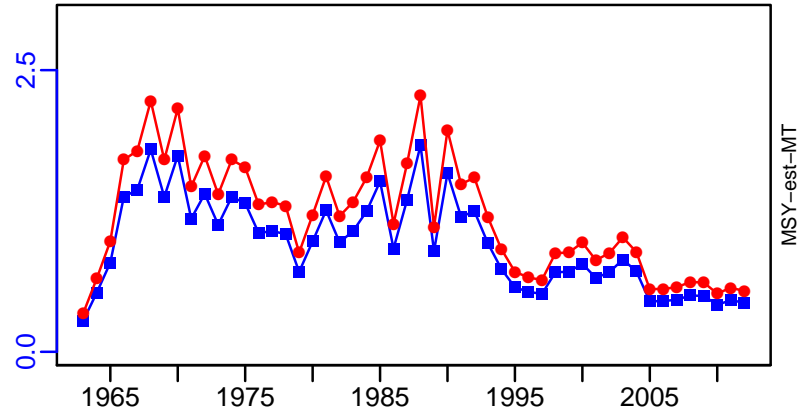
CPUE\*



EFFORT\*



TL-MT/MSY-est-MT, CdivMEANC-ratio, (1963-2012-WATSON)



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

## Herring Newfoundland East and South Coast [HERRNFLDESC]

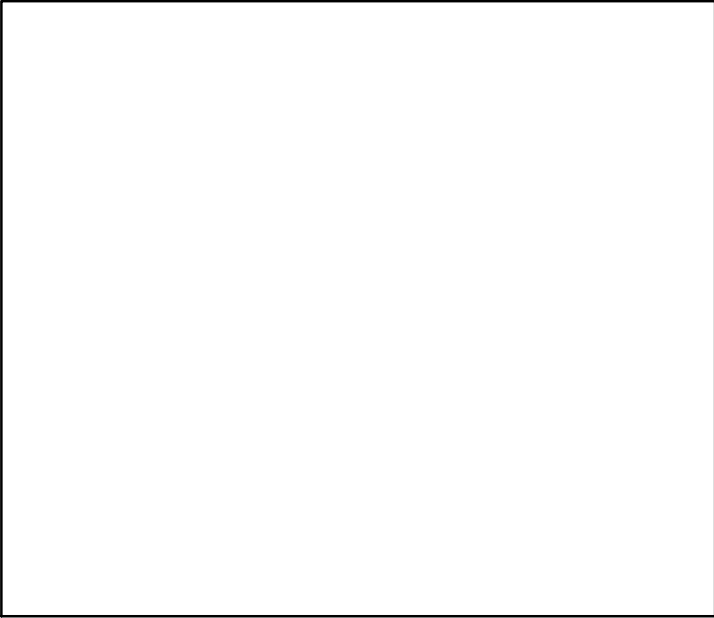
Metadata	
<b>Scientific Name</b>	Clupea harengus
<b>Current Assess ID</b>	DFO-HERRNFLDESC-1966-2018-ASHBROOK
<b>Area</b>	Newfoundland East and South Coast
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans
<b>Asmts in RAM</b>	2014, 2018

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

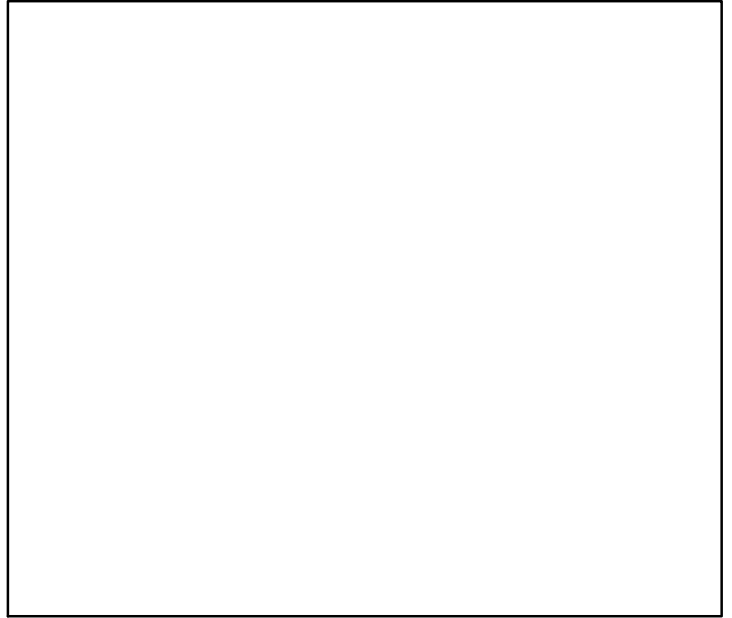
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	-	-	-		
TL	TL-MT	2018	5907		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



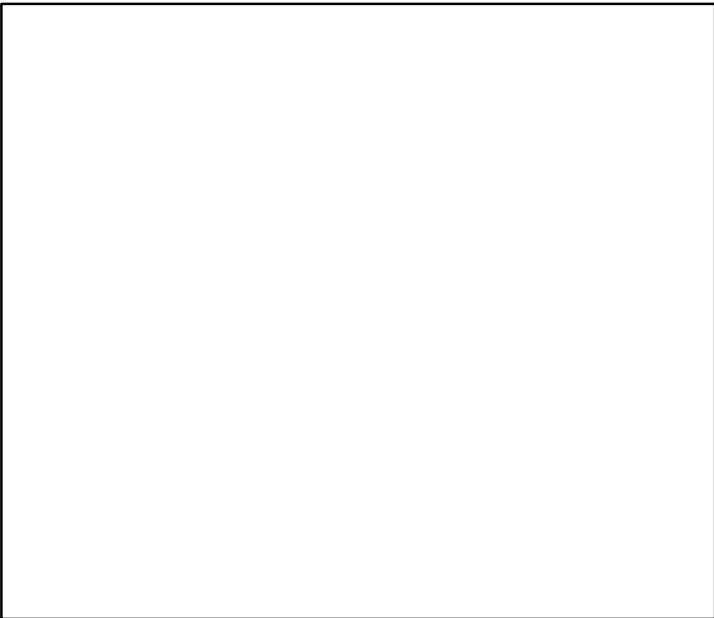
**Kobe MSY\***



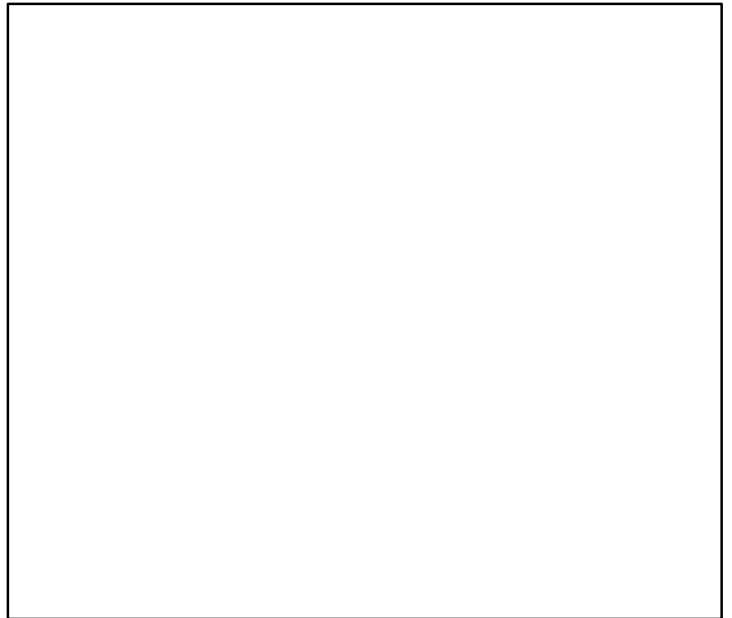
**Kobe MGT\***



**Spawner Recruit\***



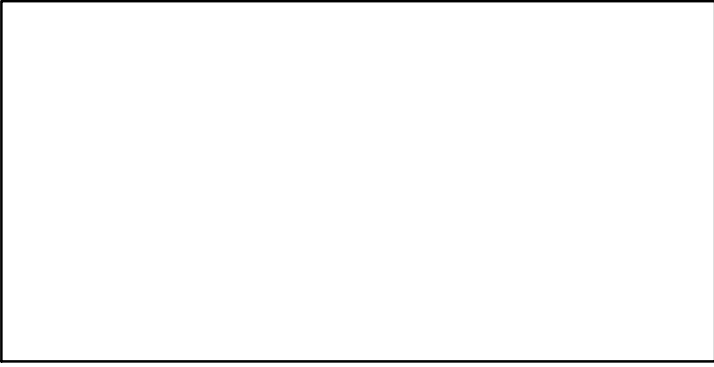
**Production\***



◆ Start Year ◆ End Year \* No Data

Herring Newfoundland East and South Coast [HERRNFLDESC]

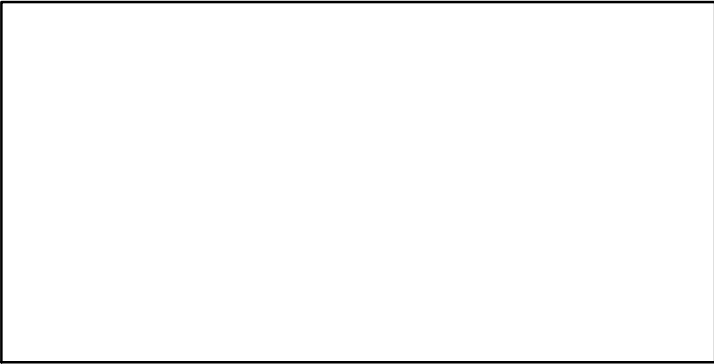
**TB\***



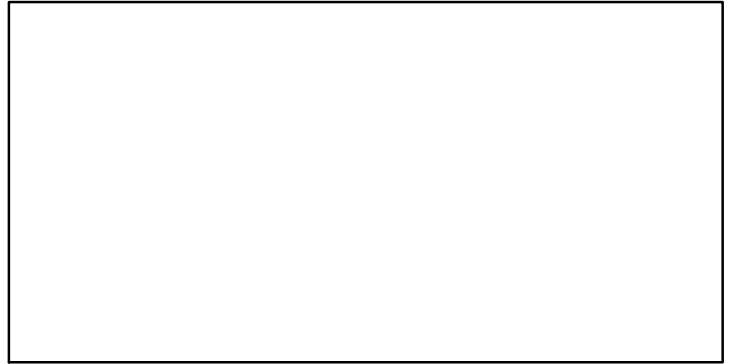
**SSB\***



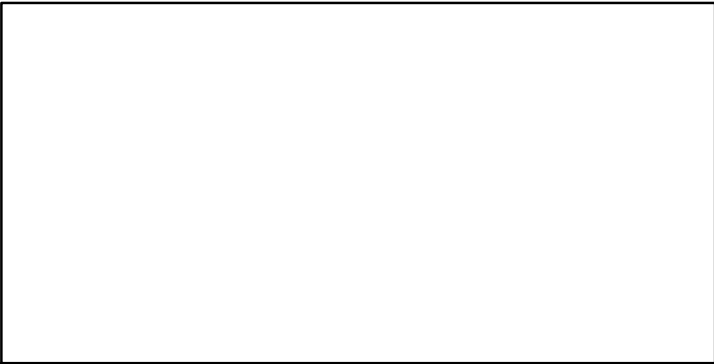
**TN \***



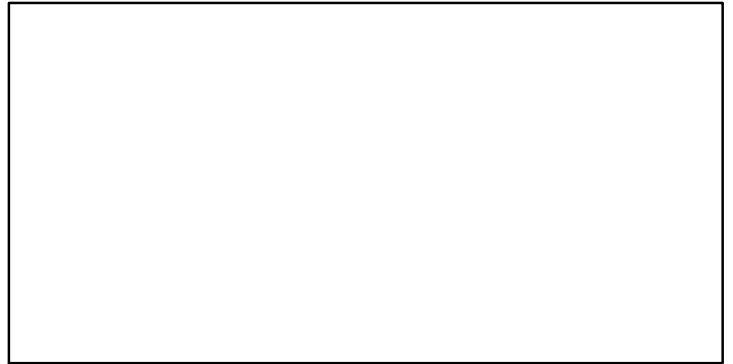
**F\***



**ER\***



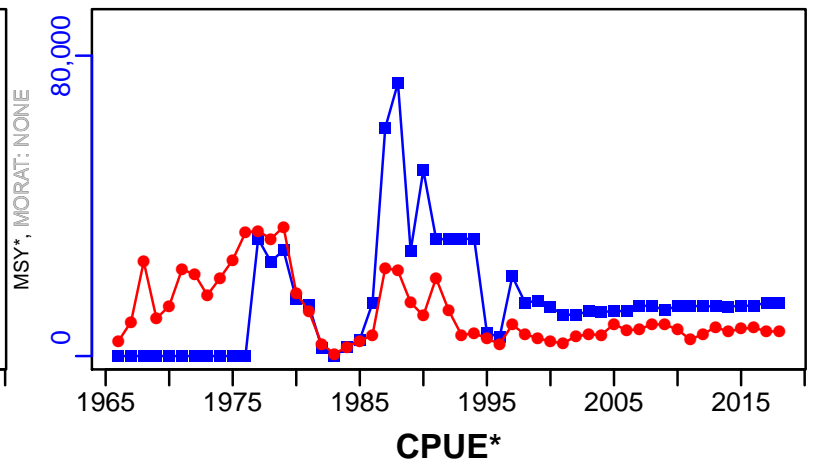
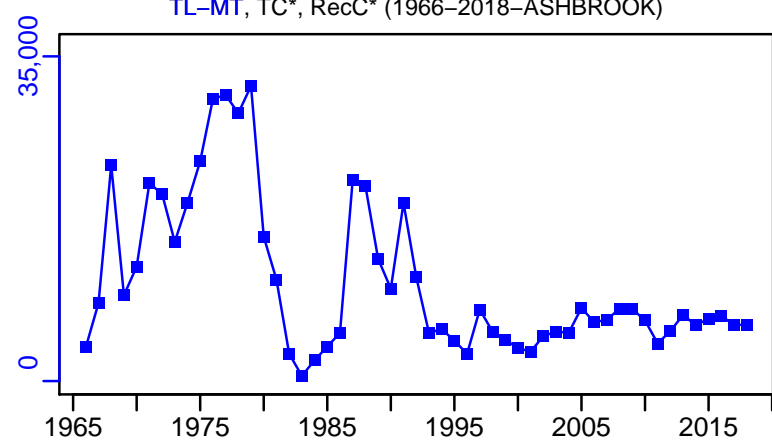
**Recruits\***



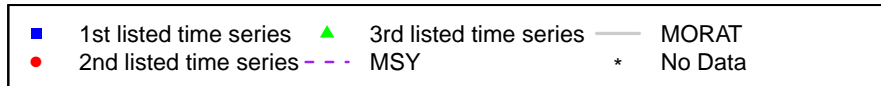
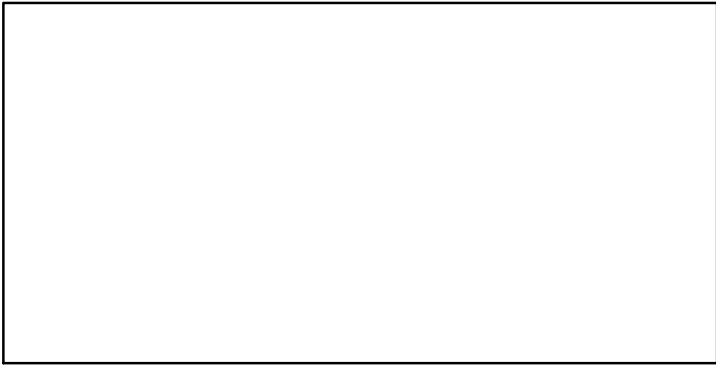
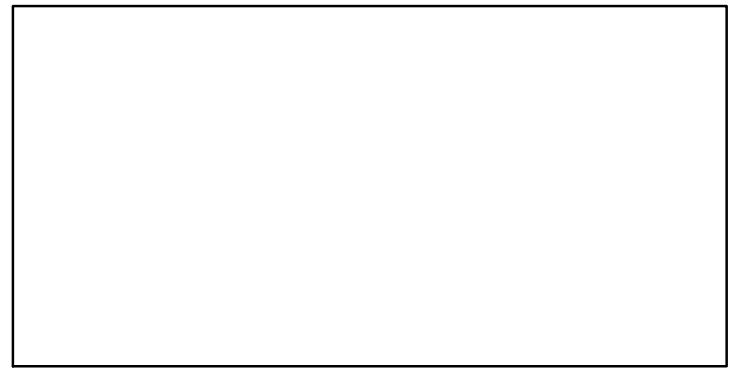
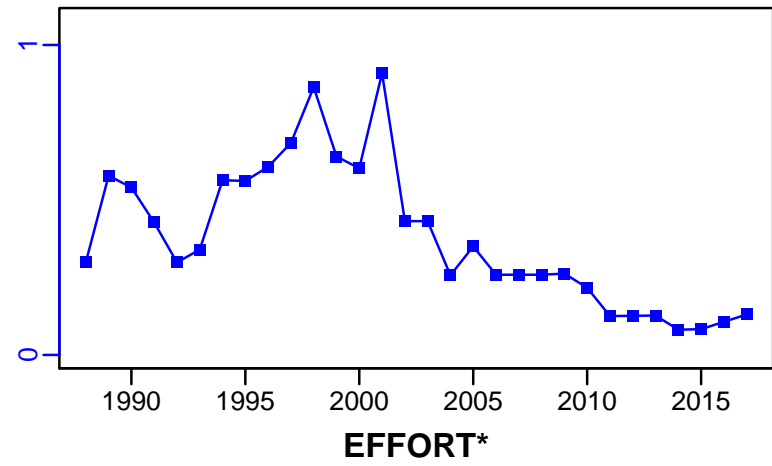
# Herring Newfoundland East and South Coast [HERRNFLDESC]

TL-MT, TC\*, RecC\* (1966-2018-ASHBROOK)

TAC-MT, Cpair-MT, Cadv\* (1966-2018-ASHBROOK)



survB-index (1966-2018-ASHBROOK)



**American lobster Quebec North Shore and Anticosti Island (LFA 15-18)**  
**[LOBSTERLFA15-18]**

Metadata	
<b>Scientific Name</b>	Homarus americanus
<b>Current Assess ID</b>	DFO-QUE-LOBSTERLFA15-18-1984-2011-CHING
<b>Area</b>	Quebec North Shore and Anticosti Island (LFA 15-18)
<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

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	2011	195	-	-
TB/TBmsy	-	-	-	-	-
SSB/SSBmsy	-	-	-	-	-
F/Fmsy	-	-	-	-	-
ER/ERmsy	-	-	-	-	-
TB/TBmgt	-	-	-	-	-
SSB/SSBmgt	-	-	-	-	-
F/Fmgt	-	-	-	-	-
ER/ERmgt	-	-	-	-	-

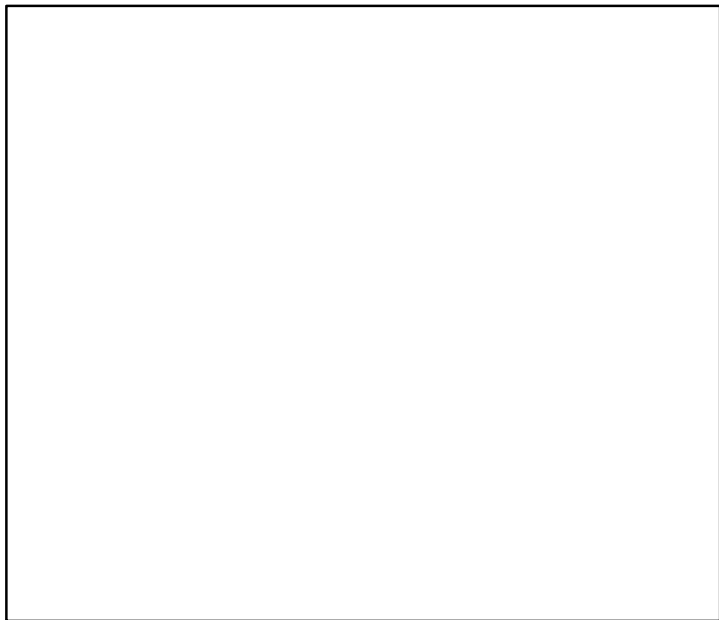
**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



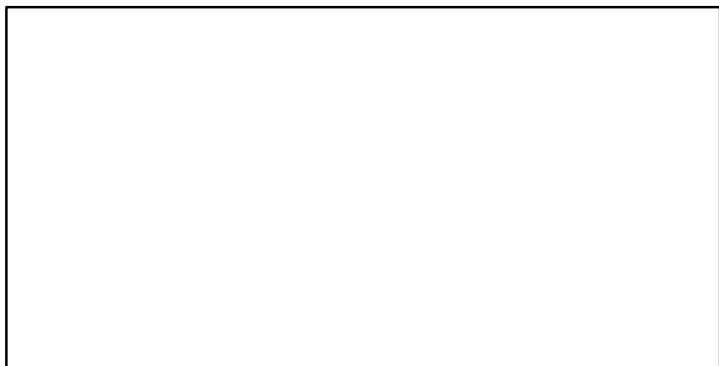
**Production\***



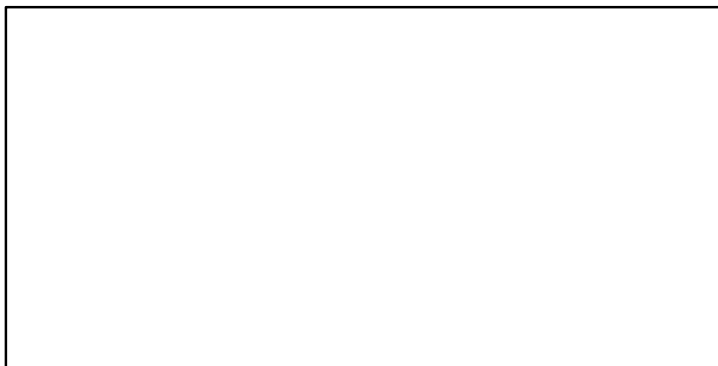
◆ Start Year ◆ End Year \* No Data

American lobster Quebec North Shore and Anticosti Island (LFA 15–18) [LOBSTERLFA15–18]

**TB\***



**SSB\***



**TN \***



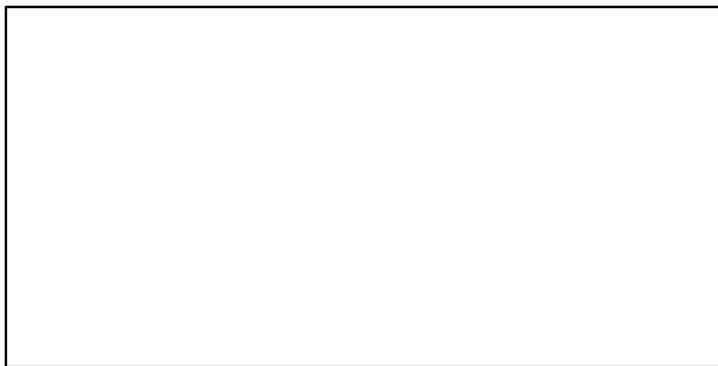
**F\***



**ER\***



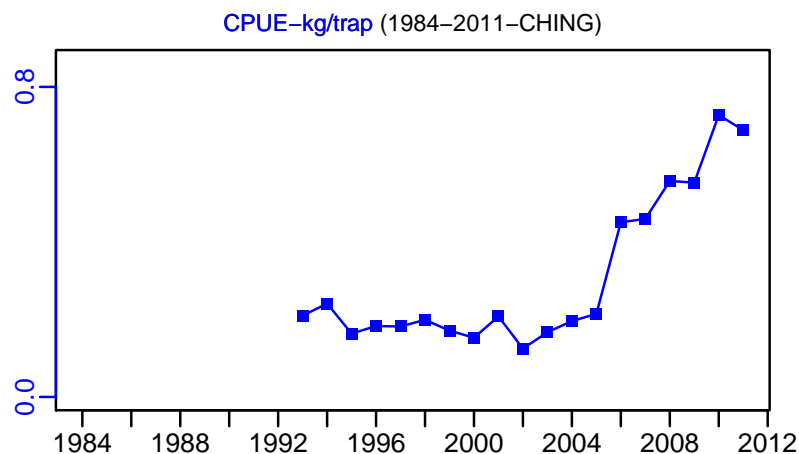
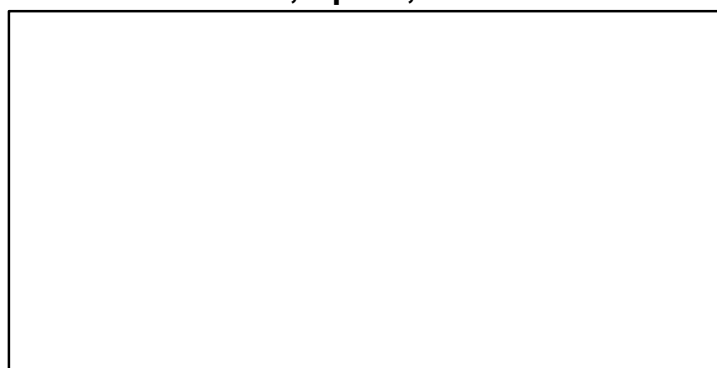
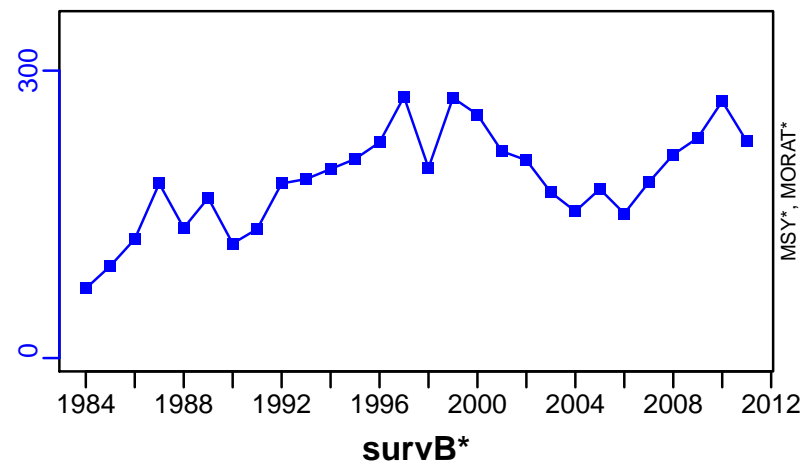
**Recruits\***



# American lobster Quebec North Shore and Anticosti Island (LFA 15–18) [LOBSTERLFA15–18]

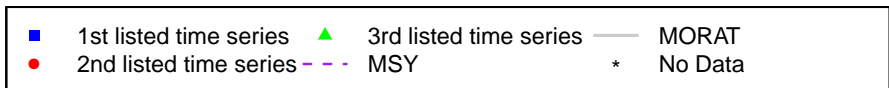
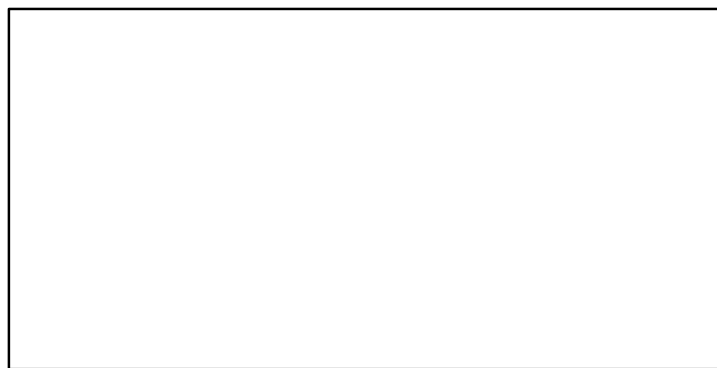
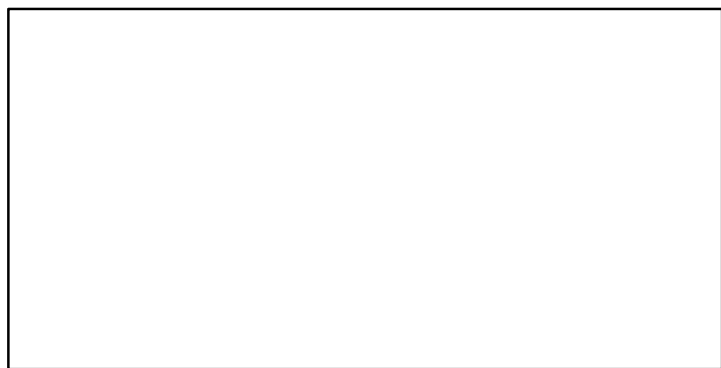
TL–MT, TC\*, RecC\* (1984–2011–CHING)

TAC\*, Cpair\*, Cadv\*



EFFORT\*

CdivMSY\*



## American lobster Gaspe (LFA 19-21) [LOBSTERLFA19-21]

Metadata	
<b>Scientific Name</b>	Homarus americanus
<b>Current Assess ID</b>	DFO-QUE-LOBSTERLFA19-21-1945-2011-CHING
<b>Area</b>	Gaspe (LFA 19-21)
<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

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	2011	872		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



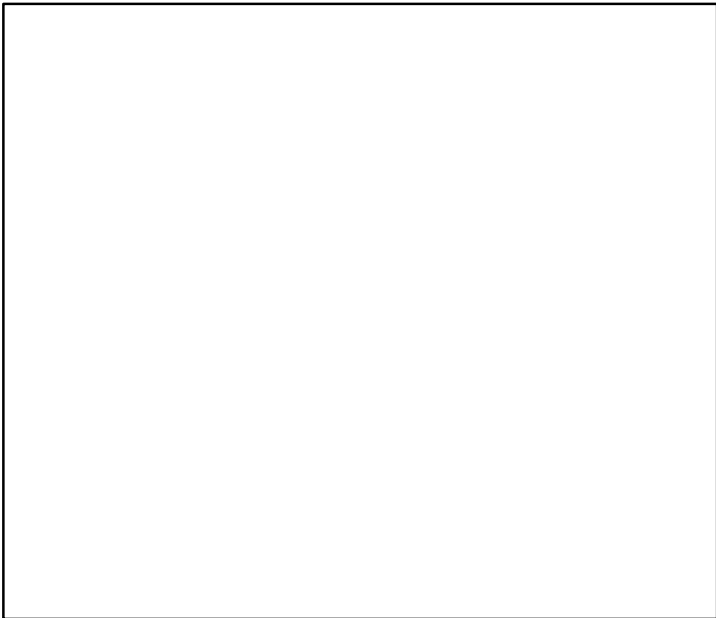
**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



**Production\***



◆ Start Year ◆ End Year \* No Data

**TB\***



**SSB\***



**TN \***



**F\***



**ER\***



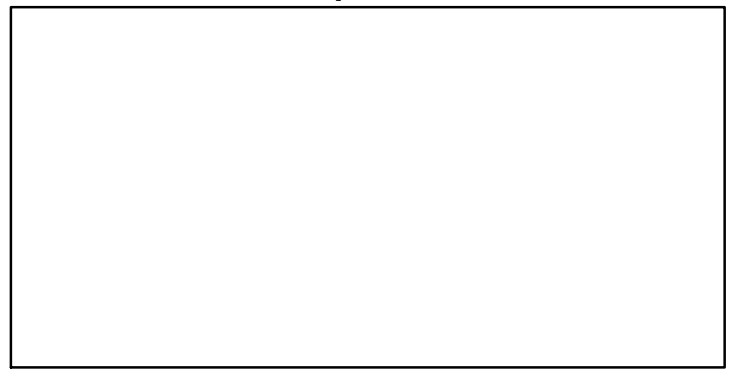
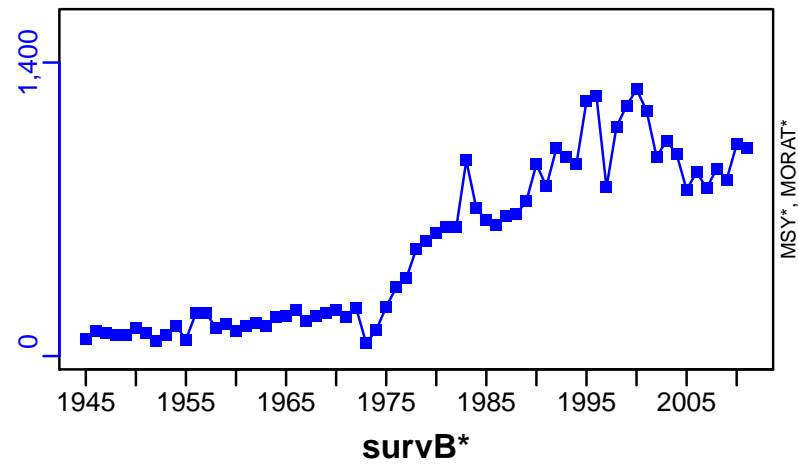
**Recruits\***



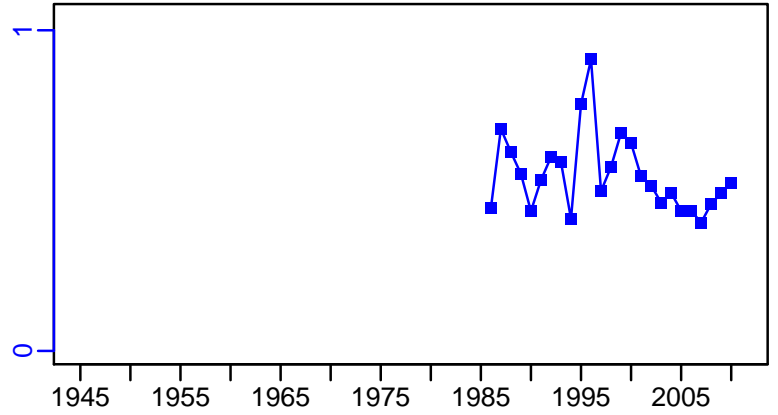
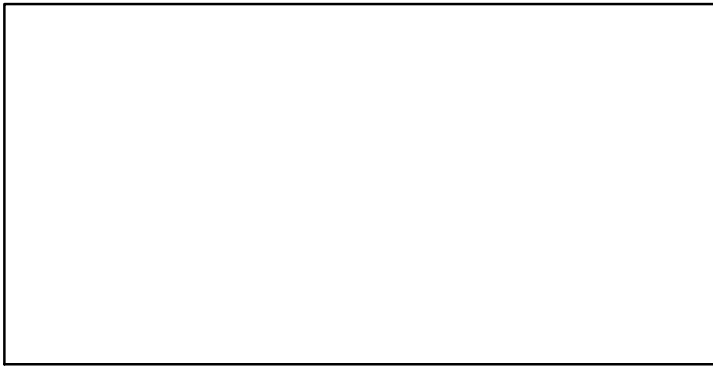
# American lobster Gaspe (LFA 19–21) [LOBSTERLFA19–21]

TL–MT, TC\*, RecC\* (1945–2011–CHING)

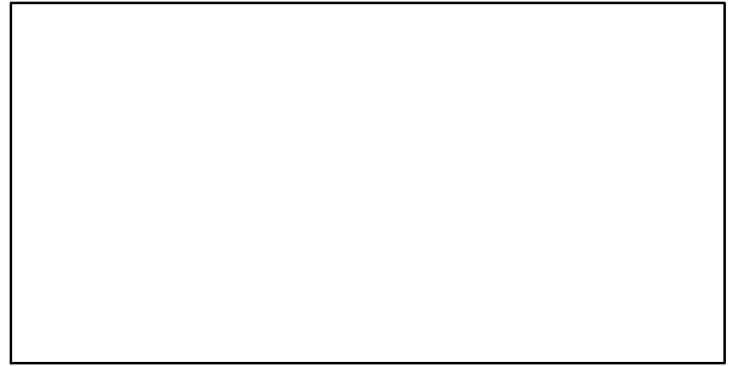
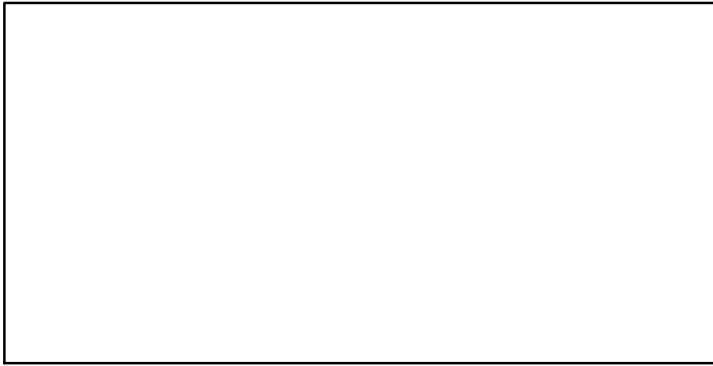
TAC\*, Cpair\*, Cadv\*



CPUE–E00/trap (1945–2011–CHING)



EFFORT\*



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

## American lobster Magdalen Islands (LFA 22) [LOBSTERLFA22]

Metadata	
<b>Scientific Name</b>	Homarus americanus
<b>Current Assess ID</b>	DFO-QUE-LOBSTERLFA22-1945-2011-CHING
<b>Area</b>	Magdalen Islands (LFA 22)
<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

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	2011	2650		
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\*



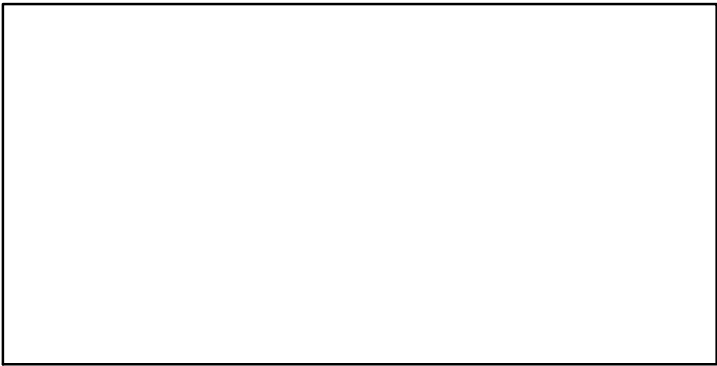
SSB\*



TN \*



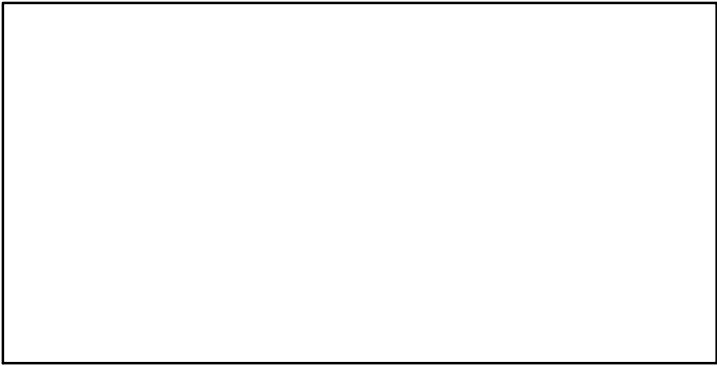
F\*



ER\*



Recruits\*



■ Listed time series

--- MSY-based BRP

--- Target BRP

--- Lim BRP

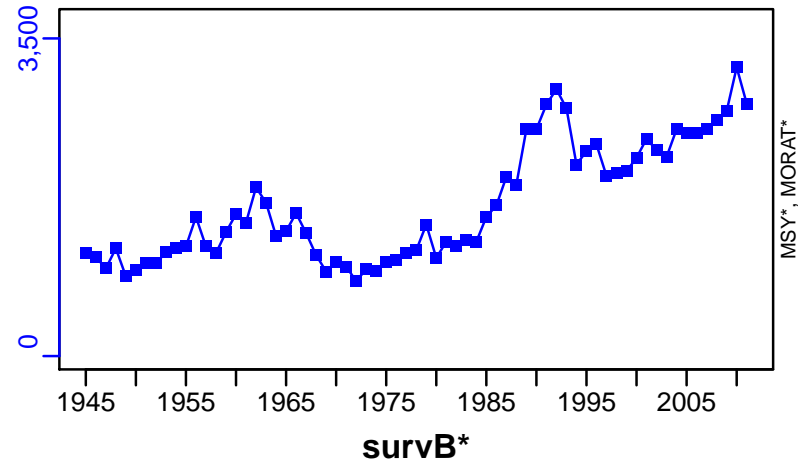
— Rec-Est

\* No Data

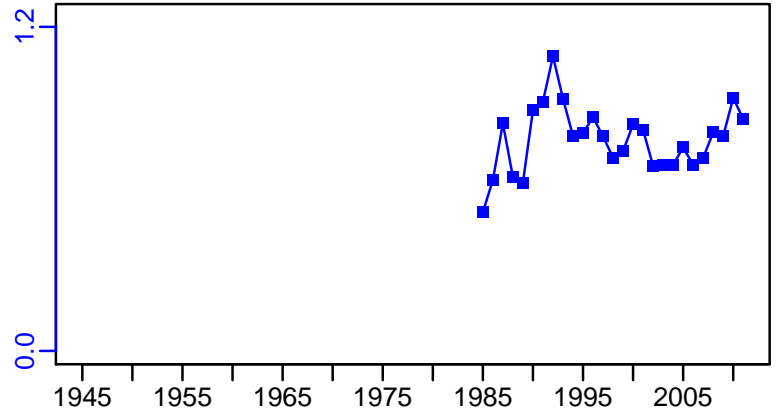
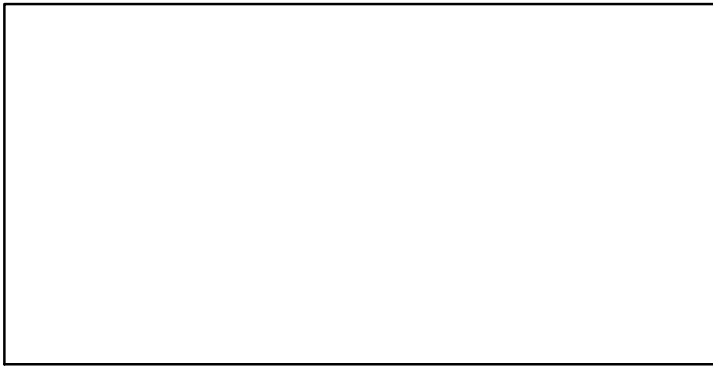
# American lobster Magdalen Islands (LFA 22) [LOBSTERLFA22]

TL-MT, TC\*, RecC\* (1945-2011-CHING)

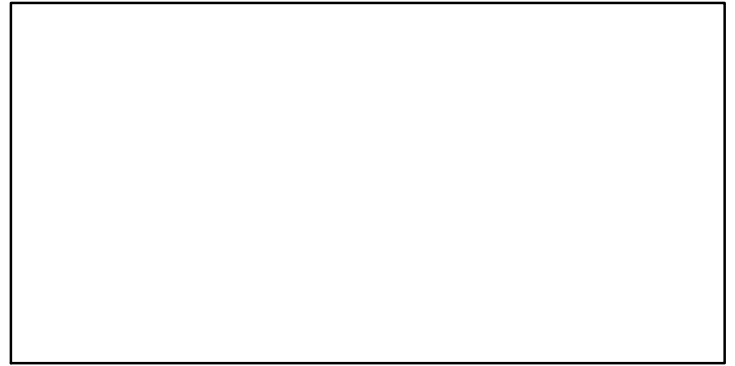
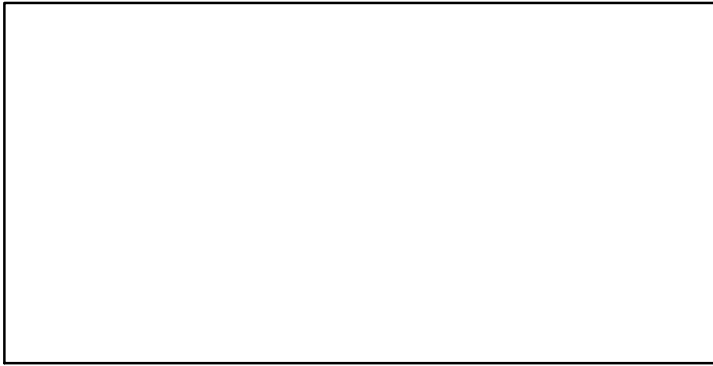
TAC\*, Cpair\*, Cadv\*



CPUE-E00/trap (1945-2011-CHING)



EFFORT\*



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

## American lobster Southern Gulf of St. Lawrence [LOBSTERLFA23-26AB]

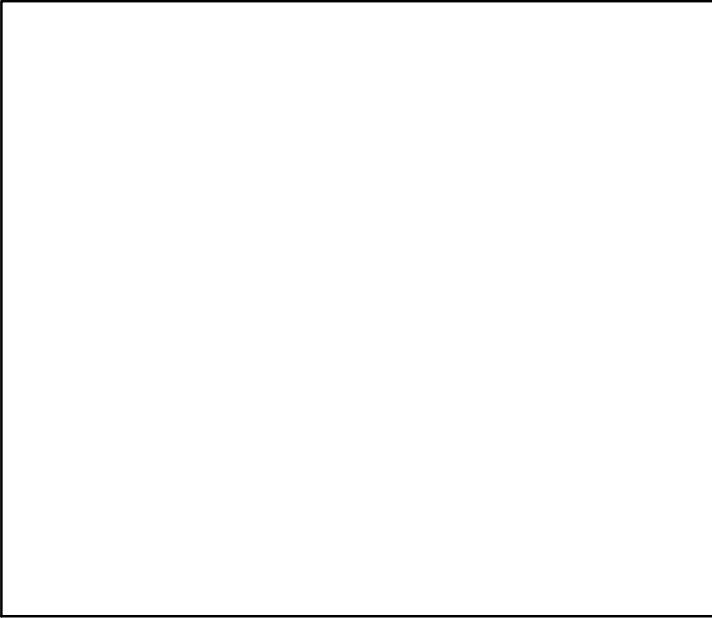
Metadata	
<b>Scientific Name</b>	Homarus americanus
<b>Current Assess ID</b>	DFO-SG-LOBSTERLFA23-26AB-1892-2011-CHING
<b>Area</b>	Southern Gulf of St. Lawrence
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans - Southern Gulf Region
<b>Asmts in RAM</b>	2011

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

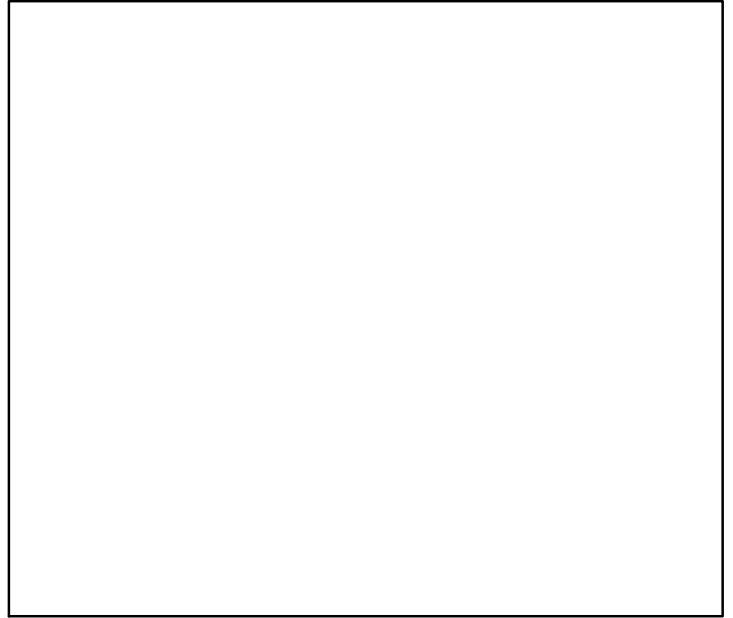
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	-	-	-		
TL	TL-MT	2011	18,900		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***

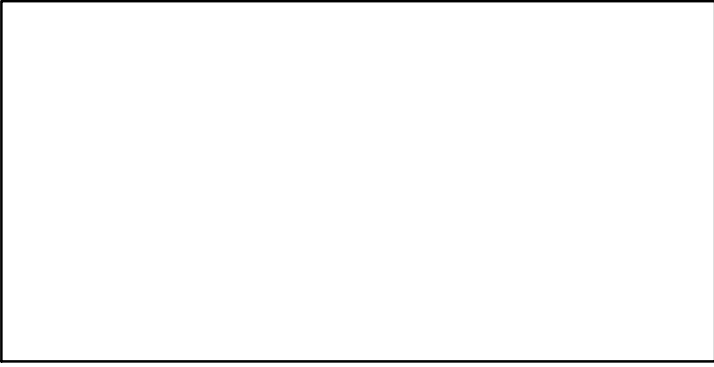


**Production\***

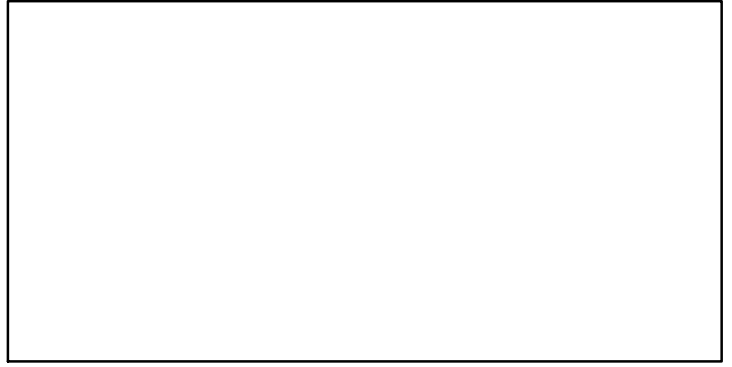


◆ Start Year ◆ End Year \* No Data

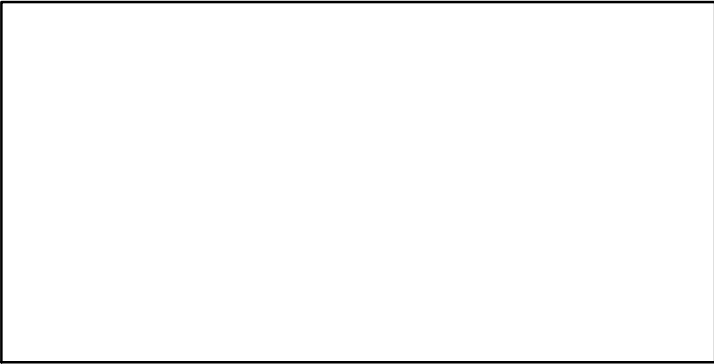
**TB\***



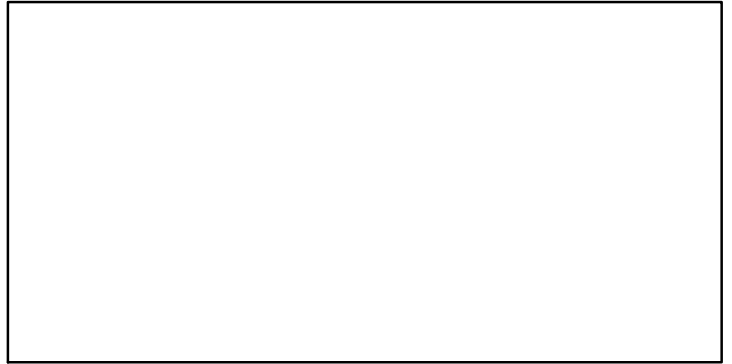
**SSB\***



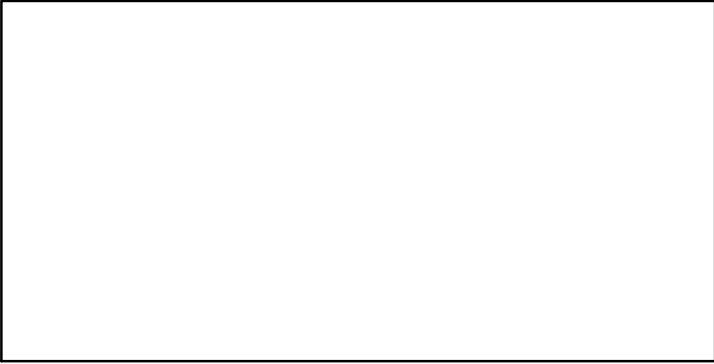
**TN \***



**F\***



**ER\***



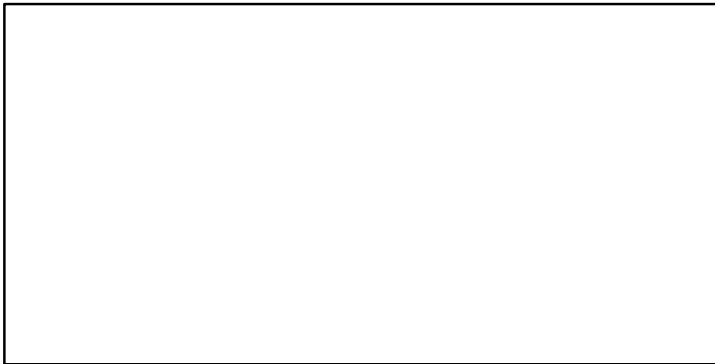
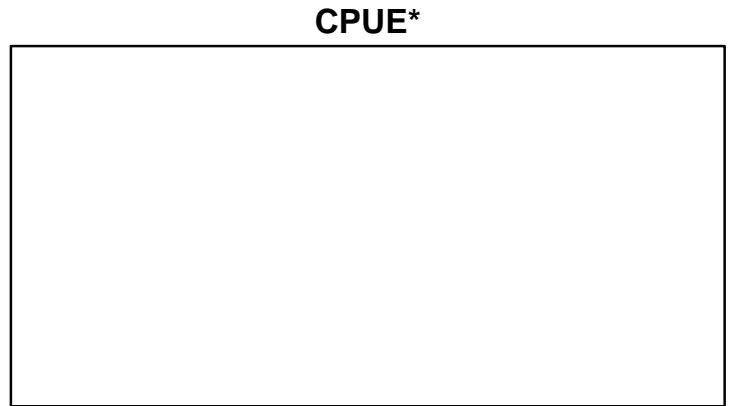
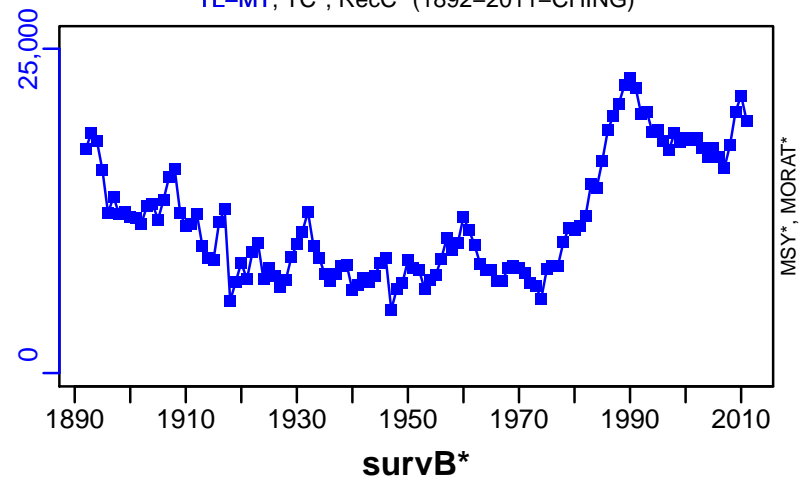
**Recruits\***



American lobster Southern Gulf of St. Lawrence [LOBSTERLFA23–26AB]

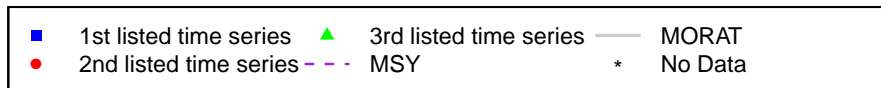
TL–MT, TC\*, RecC\* (1892–2011–CHING)

TAC\*, Cpair\*, Cadv\*



EFFORT\*

CdivMSY\*



## American lobster Atlantic Coast of Nova Scotia (LFA 27-33) [LOBSTERLFA27-33]

Metadata	
<b>Scientific Name</b>	Homarus americanus
<b>Current Assess ID</b>	DFO-MAR-LOBSTERLFA27-33-1980-2010-CHING
<b>Area</b>	Atlantic Coast of Nova Scotia (LFA 27-33)
<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	9810		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

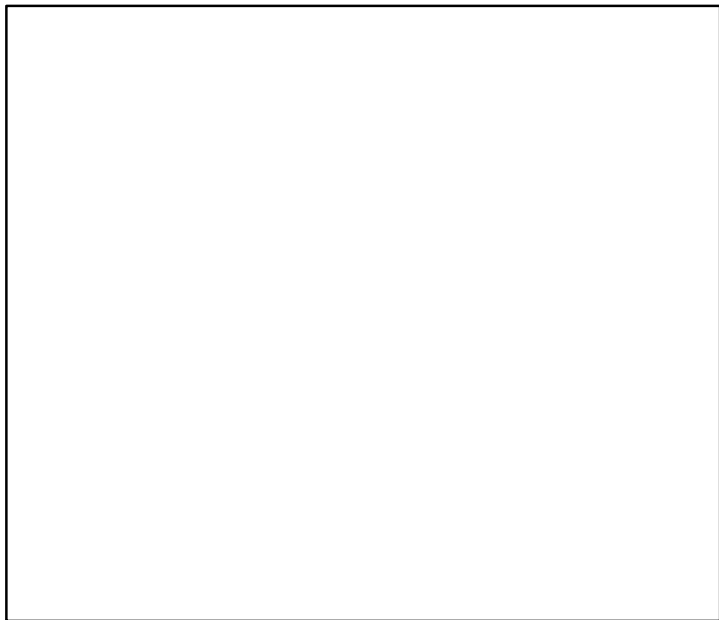
**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***

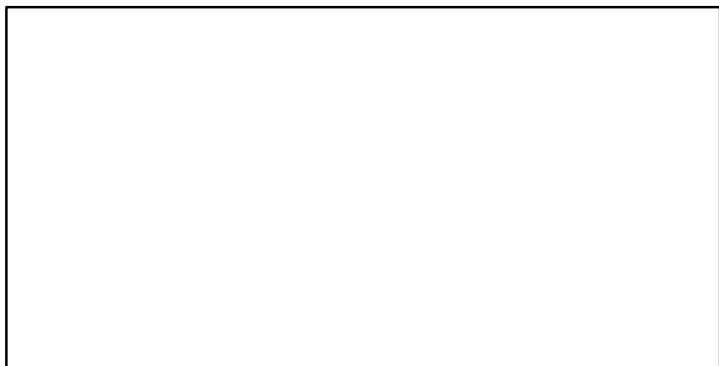


**Production\***

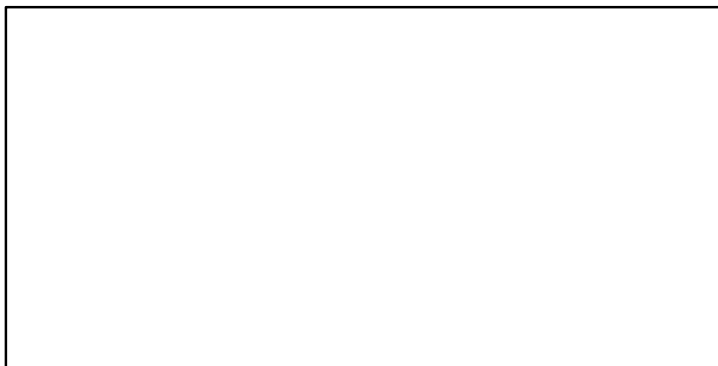


◆ Start Year ◆ End Year \* No Data

**TB\***



**SSB\***



**TN \***



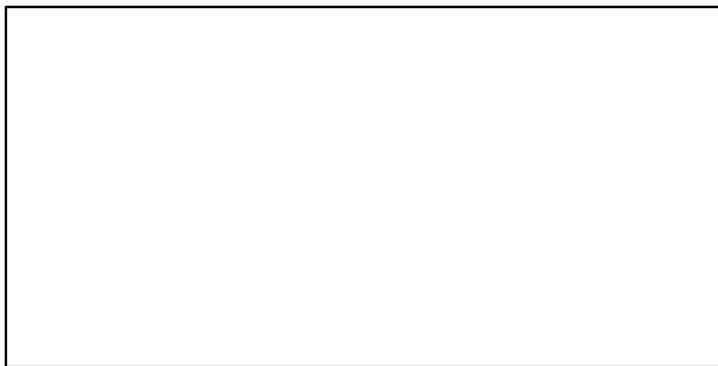
**F\***



**ER\***



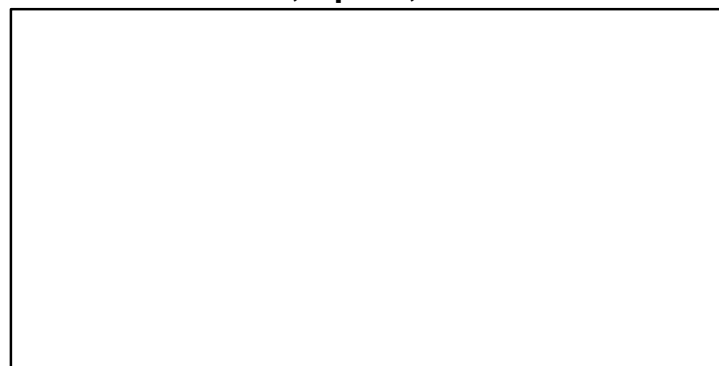
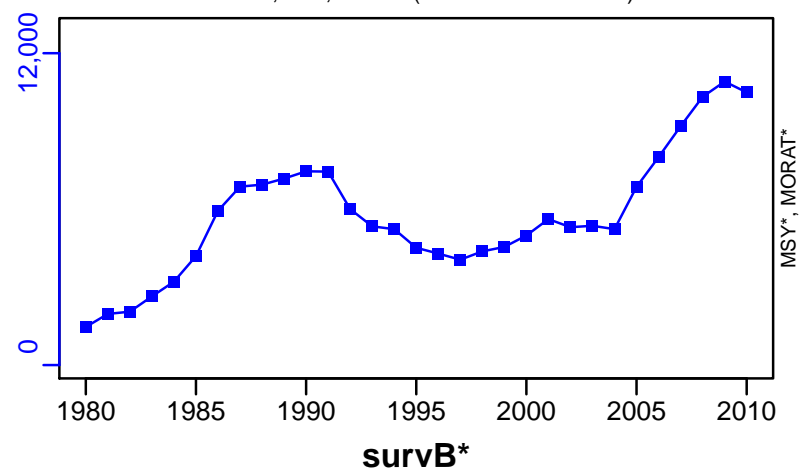
**Recruits\***



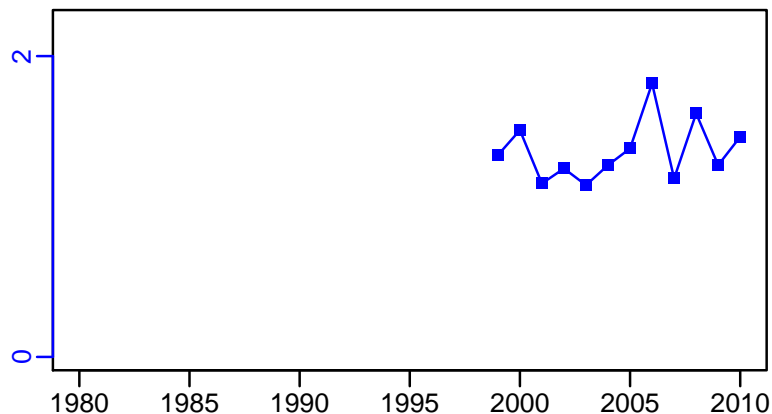
# American lobster Atlantic Coast of Nova Scotia (LFA 27–33) [LOBSTERLFA27–33]

TL–MT, TC\*, RecC\* (1980–2010–CHING)

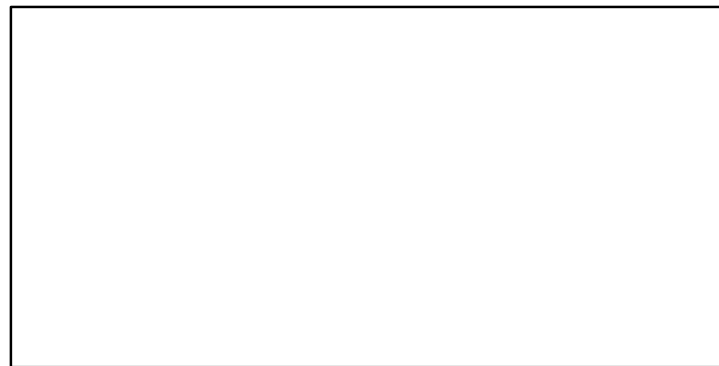
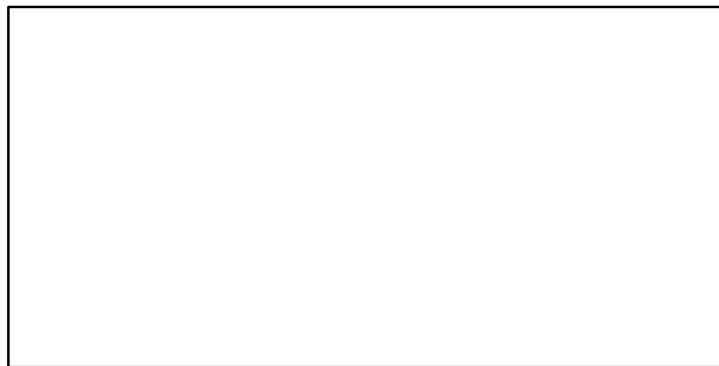
TAC\*, Cpair\*, Cadv\*



CPUE–1–E00/trap (1980–2010–CHING)



CdivMSY\*



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

## American lobster Lobster Fishing Areas 3-14 [LOBSTERLFA3-14]

Metadata	
<b>Scientific Name</b>	Homarus americanus
<b>Current Assess ID</b>	DFO-LOBSTERLFA3-14-1960-2012-WATSON
<b>Area</b>	Lobster Fishing Areas 3-14
<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

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	2012	2150		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



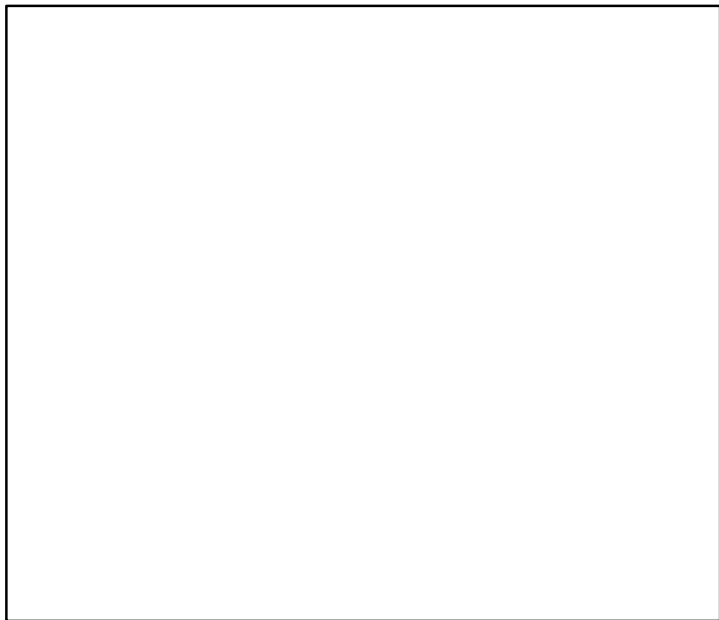
**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



**Production\***



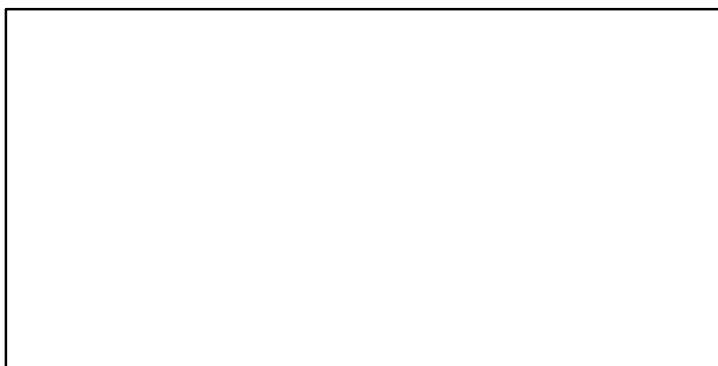
◆ Start Year ◆ End Year \* No Data

American lobster Lobster Fishing Areas 3–14 [LOBSTERLFA3–14]

**TB\***



**SSB\***



**TN \***



**F\***



**ER\***



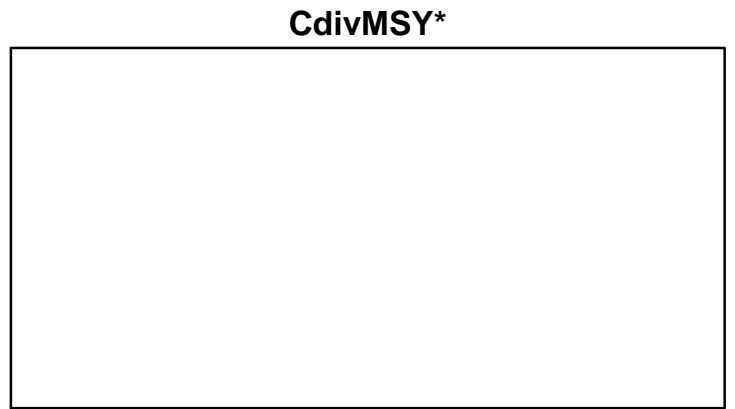
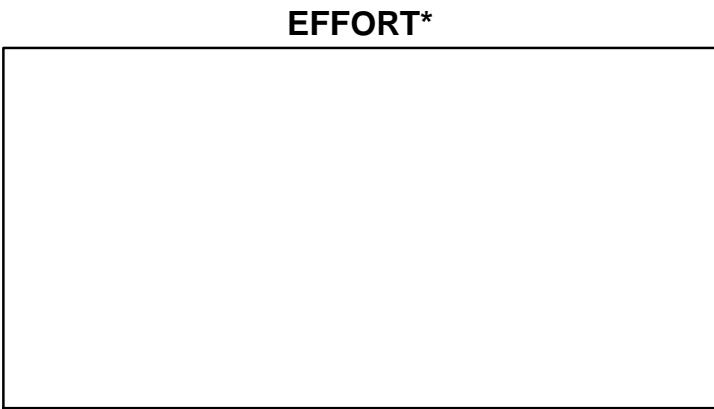
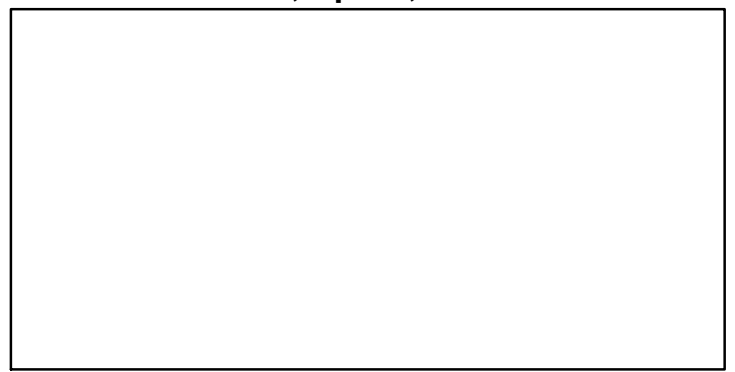
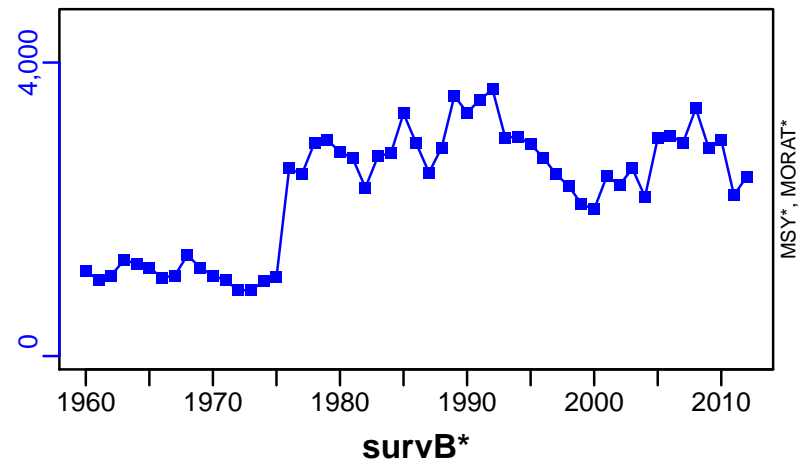
**Recruits\***



# American lobster Lobster Fishing Areas 3–14 [LOBSTERLFA3–14]

TL–MT, TC\*, RecC\* (1960–2012–WATSON)

TAC\*, Cpair\*, Cadv\*



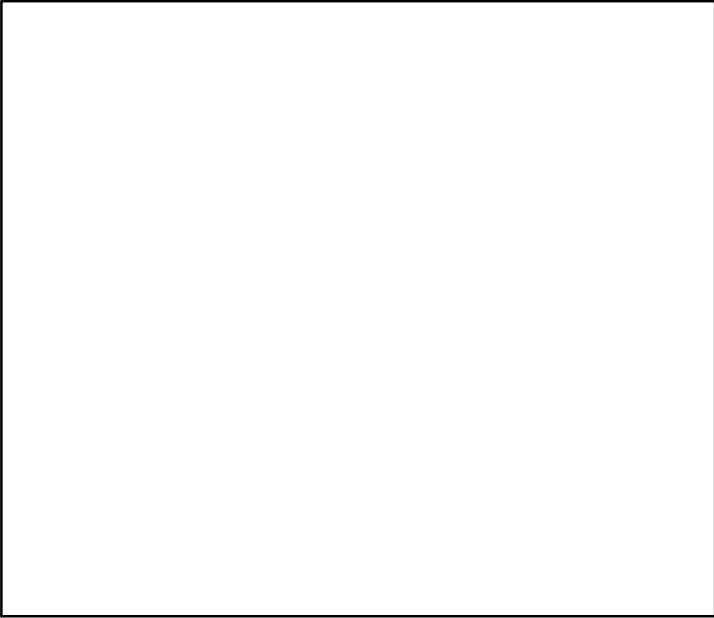
## American lobster Lobster Fishing Area 34 [LOBSTERLFA34]

Metadata	
<b>Scientific Name</b>	Homarus americanus
<b>Current Assess ID</b>	DFO-MAR-LOBSTERLFA34-1893-2012-CHING
<b>Area</b>	Lobster Fishing Area 34
<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>	2012

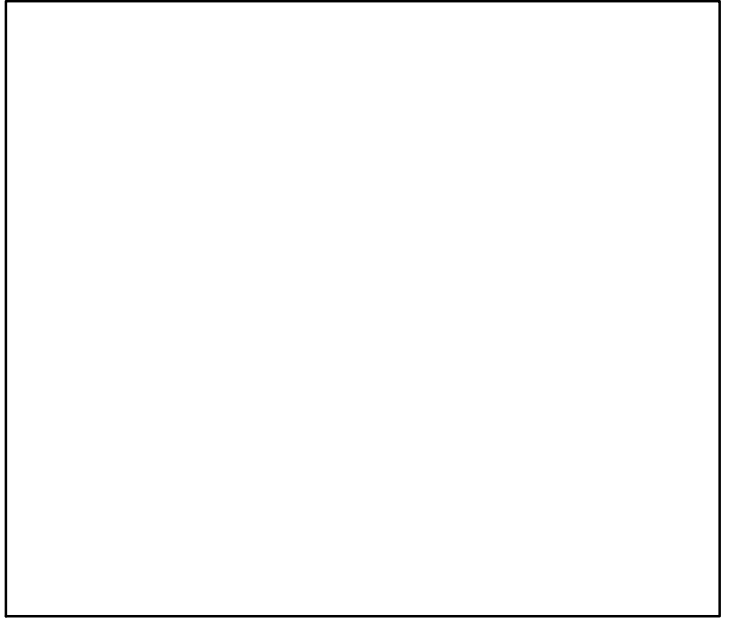
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	-	-	-		
TL	TL-MT	2012	23,300		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

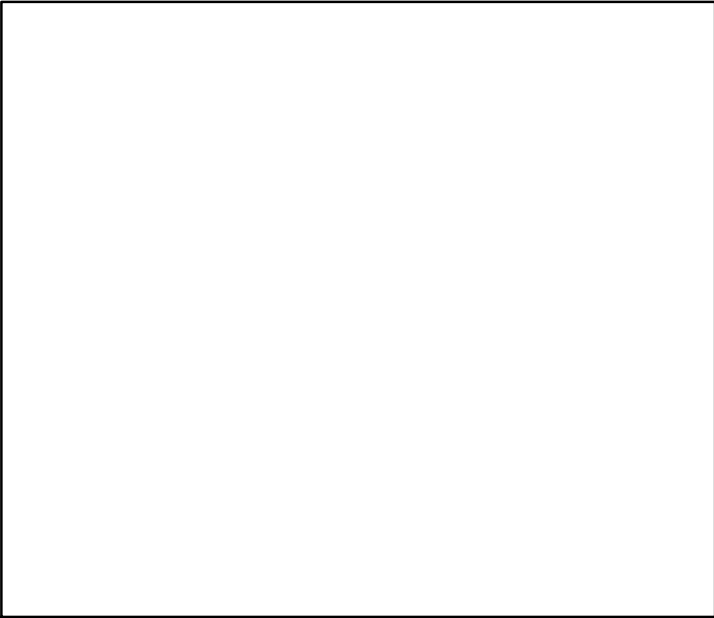
**Kobe MSY\***



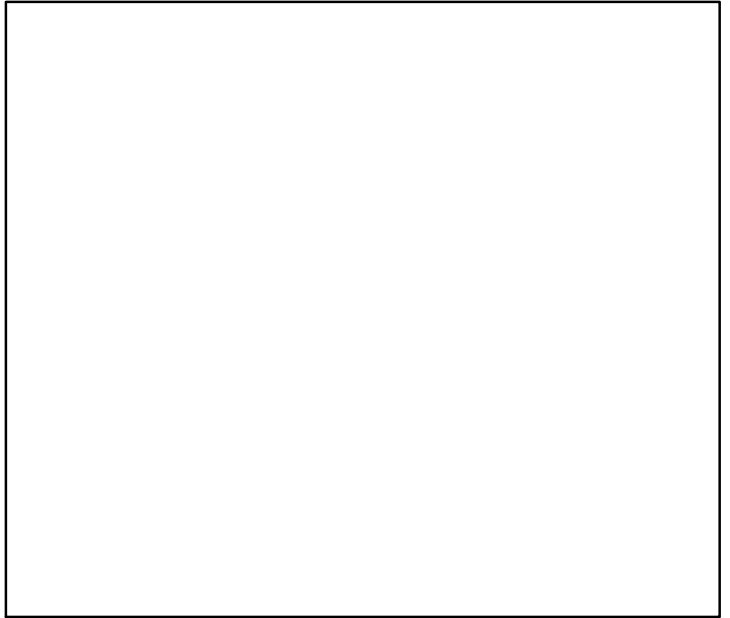
**Kobe MGT\***



**Spawner Recruit\***



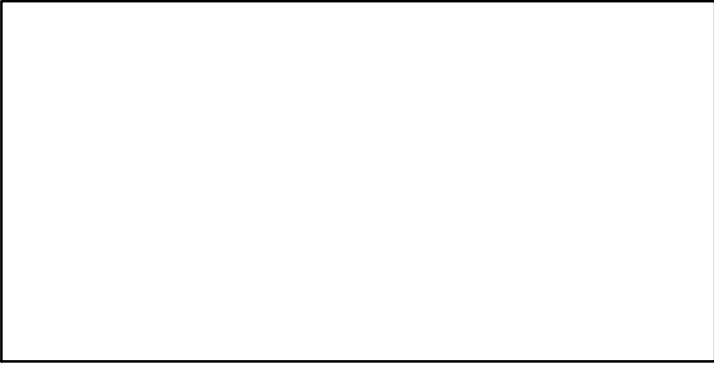
**Production\***



◆ Start Year ◆ End Year \* No Data

American lobster Lobster Fishing Area 34 [LOBSTERLFA34]

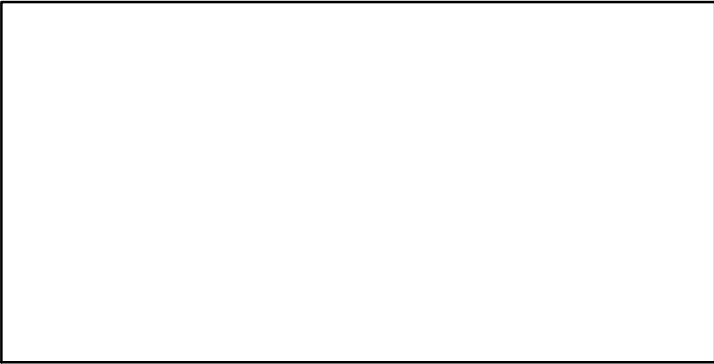
**TB\***



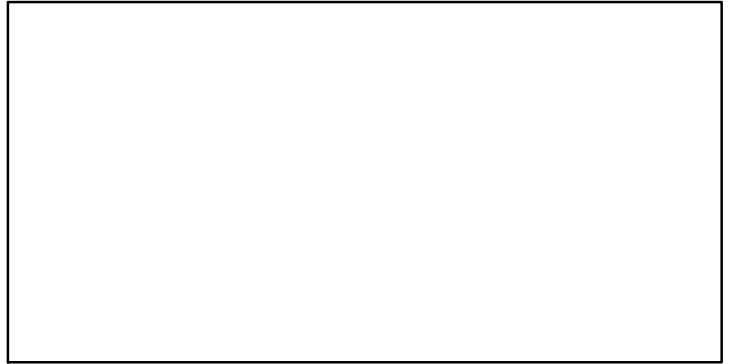
**SSB\***



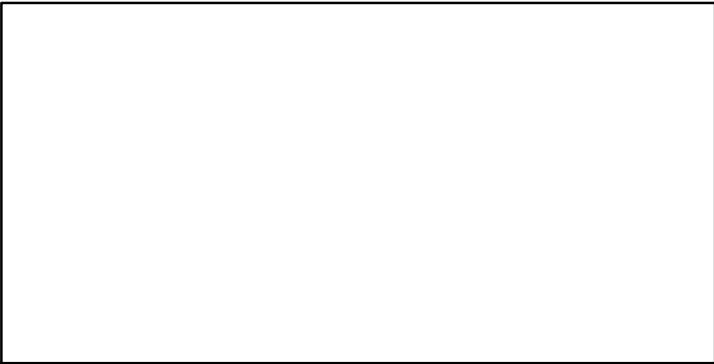
**TN \***



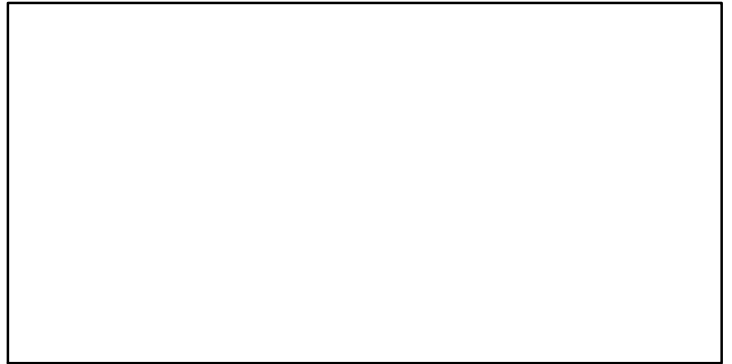
**F\***



**ER\***



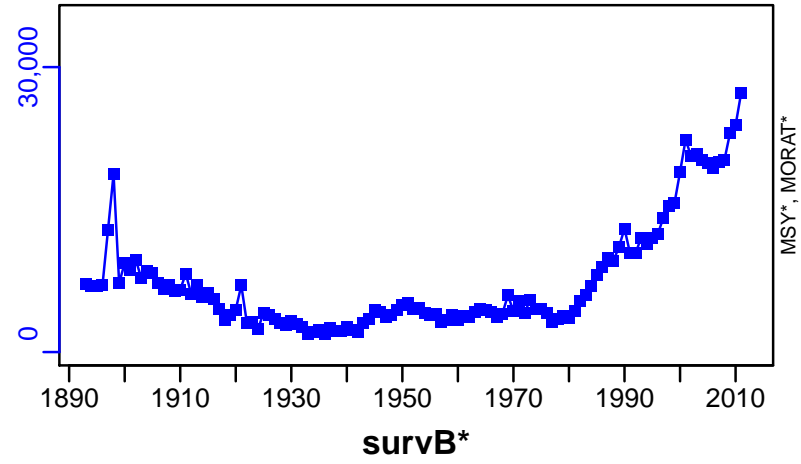
**Recruits\***



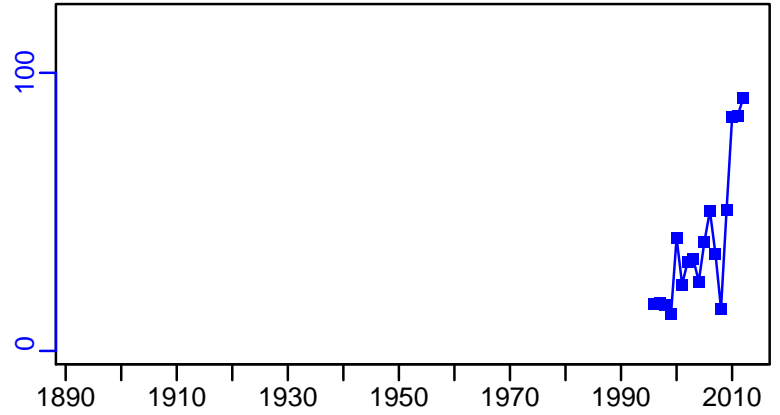
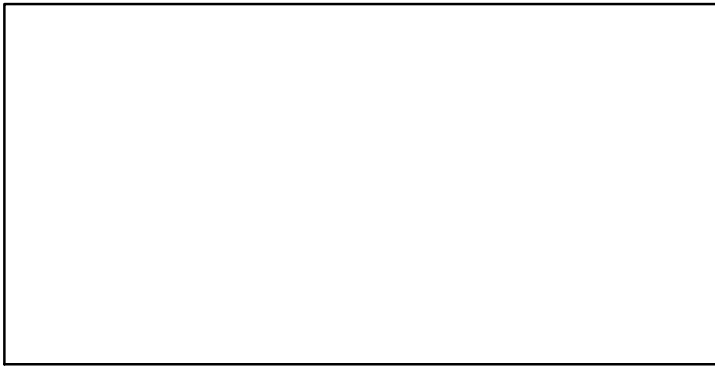
# American lobster Lobster Fishing Area 34 [LOBSTERLFA34]

TL-MT, TC\*, RecC\* (1893-2012-CHING)

TAC\*, Cpair\*, Cadv\*

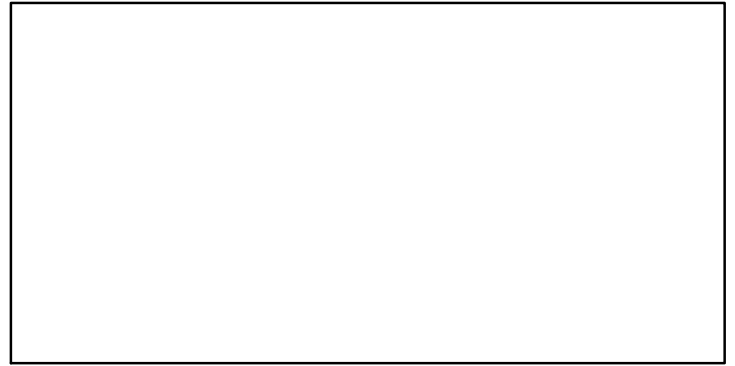
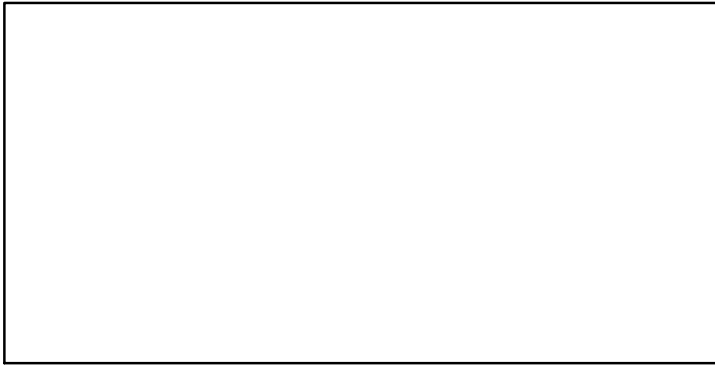


CPUE-E00/tow (1893-2012-CHING)



EFFORT\*

CdivMSY\*



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

## American lobster Lobster Fishing Areas 35-38 [LOBSTERLFA35-38]

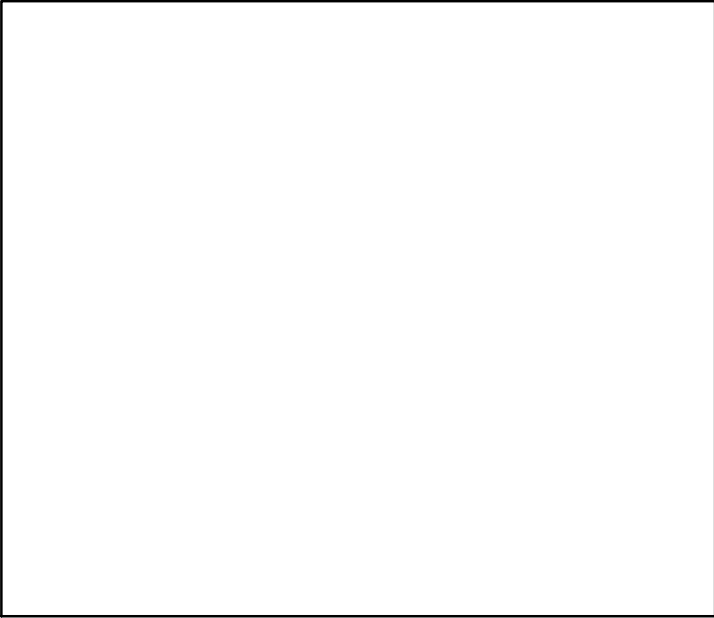
Metadata	
<b>Scientific Name</b>	Homarus americanus
<b>Current Assess ID</b>	DFO-MAR-LOBSTERLFA35-38-1893-2012-CHING
<b>Area</b>	Lobster Fishing Areas 35-38
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans - Maritimes Region
<b>Asmts in RAM</b>	2012

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

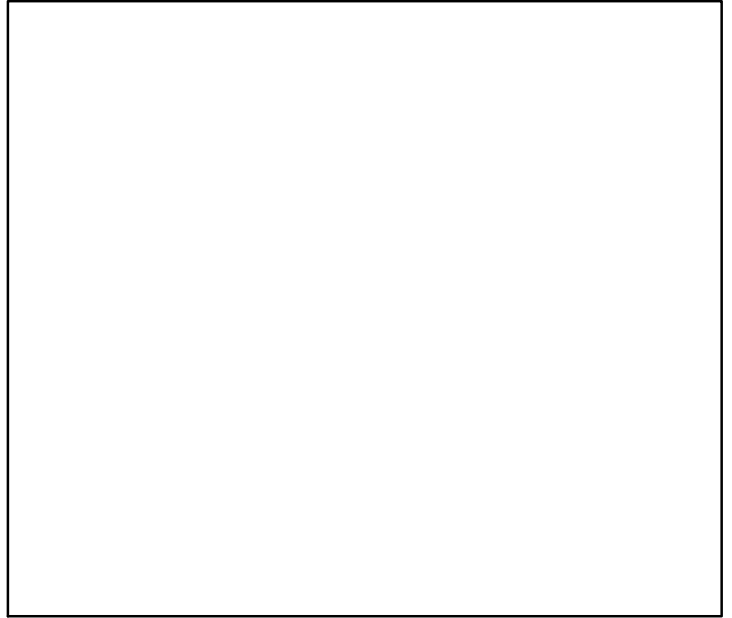
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	-	-	-		
TL	TL-MT	2012	8470		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



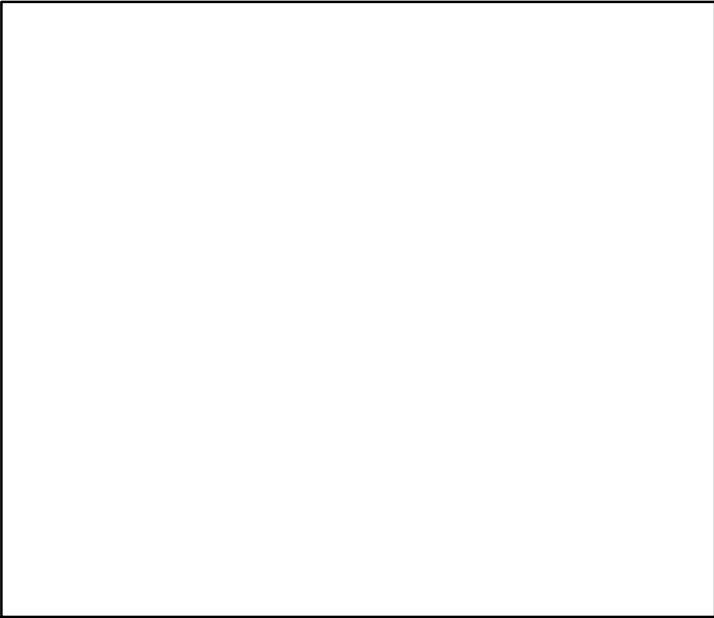
**Kobe MSY\***



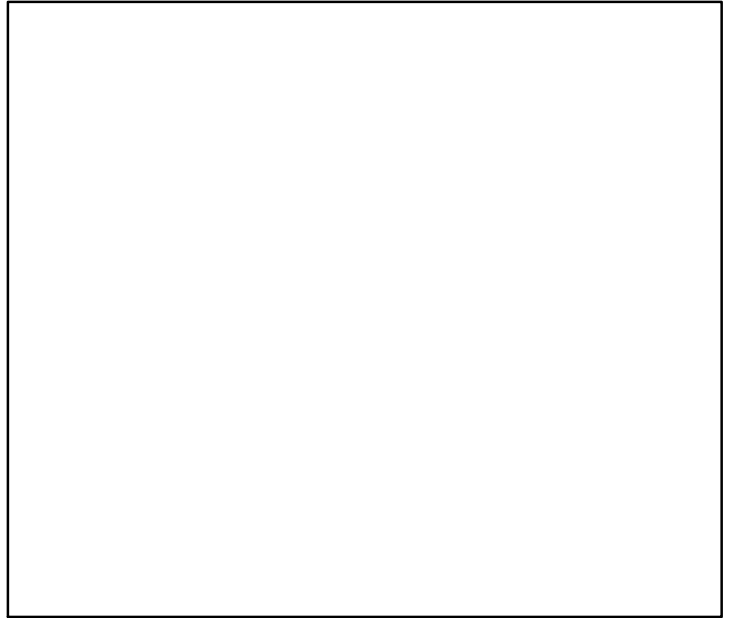
**Kobe MGT\***



**Spawner Recruit\***



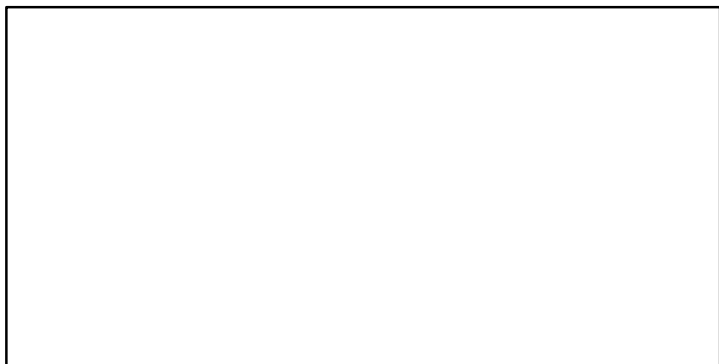
**Production\***



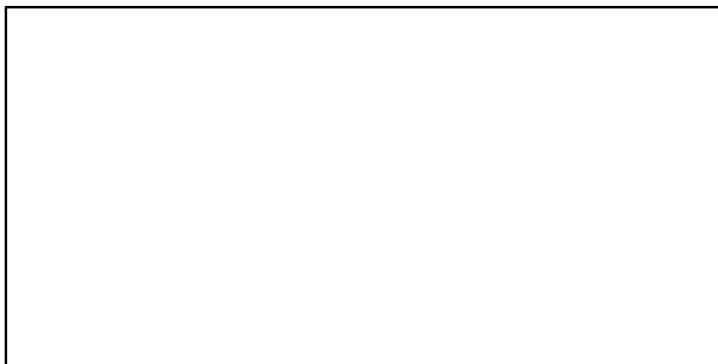
◆ Start Year ◆ End Year \* No Data

American lobster Lobster Fishing Areas 35–38 [LOBSTERLFA35–38]

**TB\***



**SSB\***



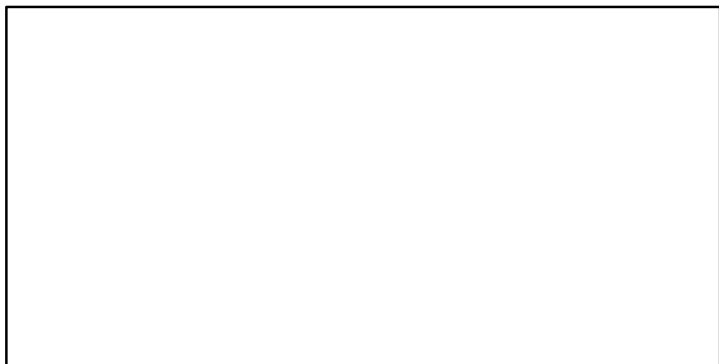
**TN \***



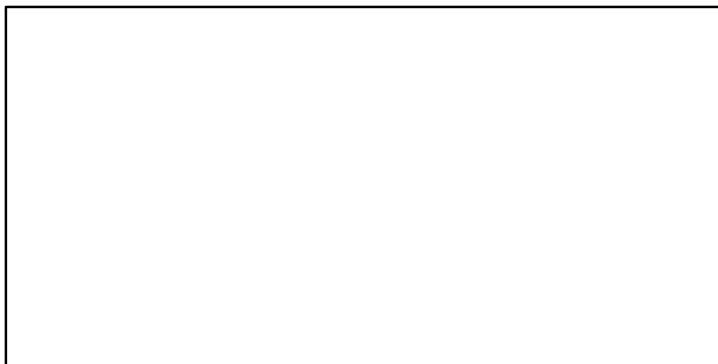
**F\***



**ER\***



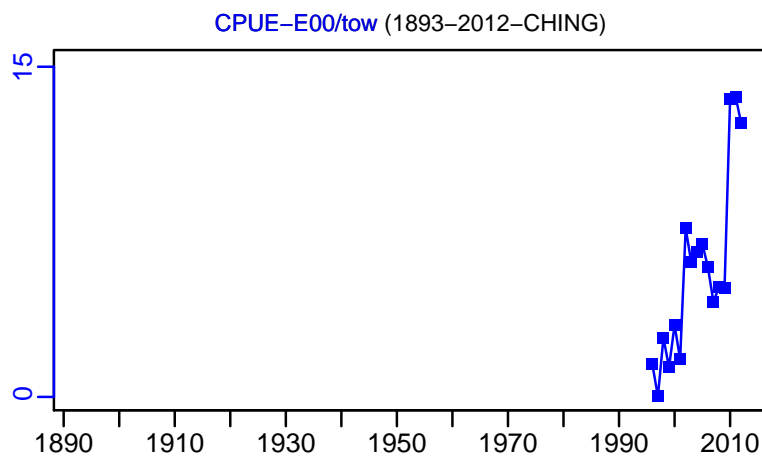
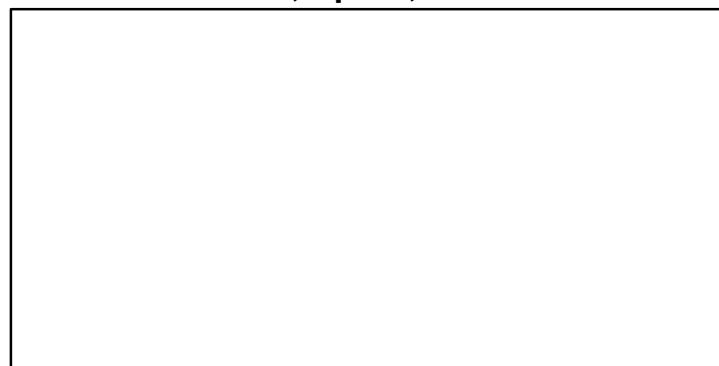
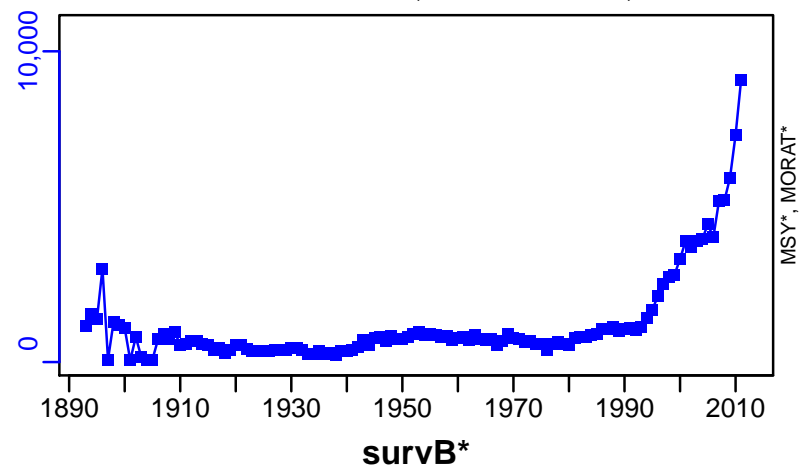
**Recruits\***



# American lobster Lobster Fishing Areas 35–38 [LOBSTERLFA35–38]

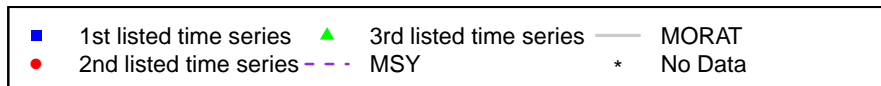
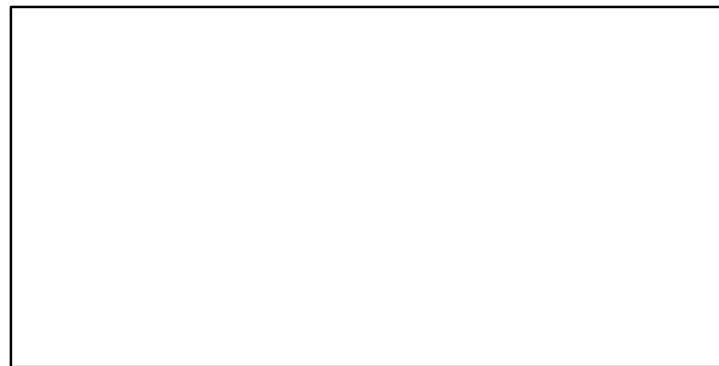
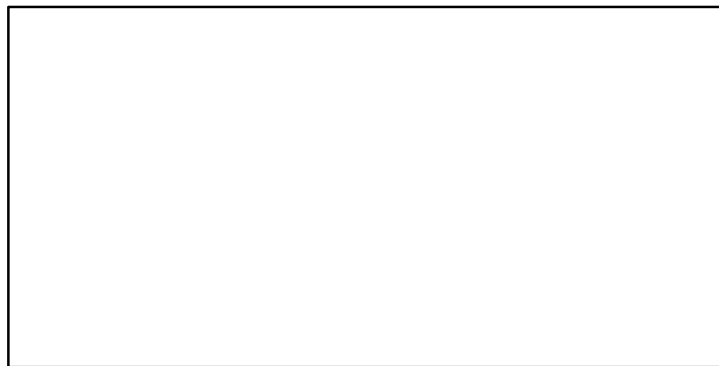
TL–MT, TC\*, RecC\* (1893–2012–CHING)

TAC\*, Cpair\*, Cadv\*



EFFORT\*

CdivMSY\*



## American lobster Lobster Fishing Area 41 [LOBSTERLFA41]

Metadata	
<b>Scientific Name</b>	Homarus americanus
<b>Current Assess ID</b>	DFO-MAR-LOBSTERLFA41-1969-2016-ASHBROOK
<b>Area</b>	Lobster Fishing Area 41
<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>	2012, 2016

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	2012	654		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



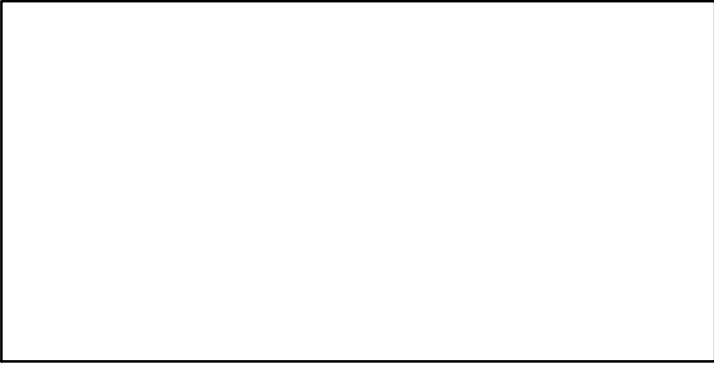
**Production\***



◆ Start Year ◆ End Year \* No Data

American lobster Lobster Fishing Area 41 [LOBSTERLFA41]

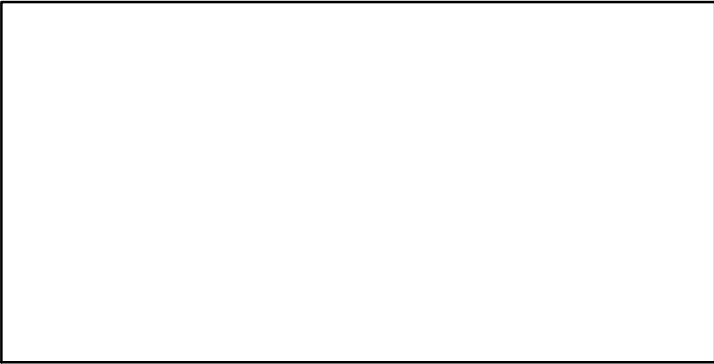
**TB\***



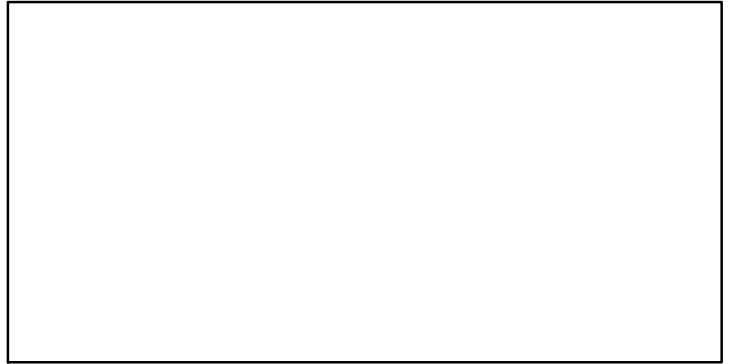
**SSB\***



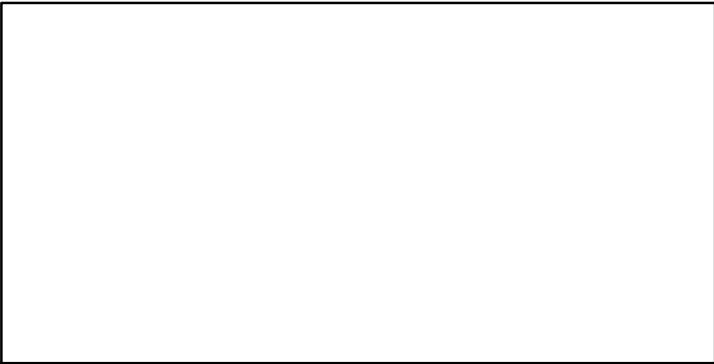
**TN \***



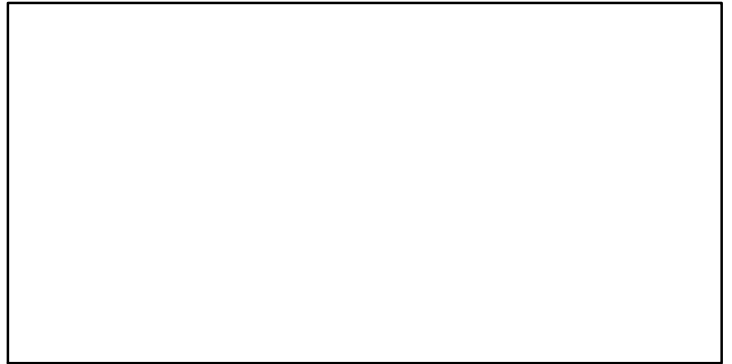
**F\***



**ER\***



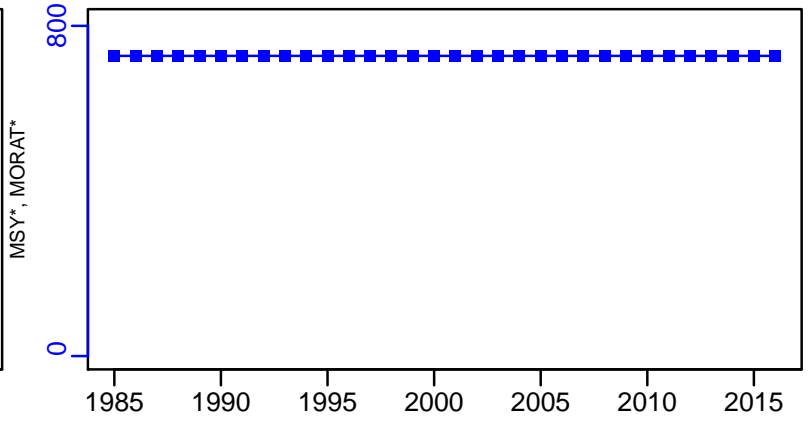
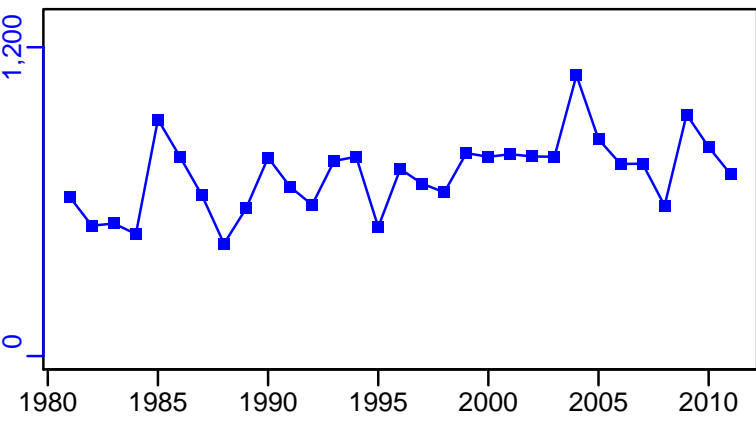
**Recruits\***



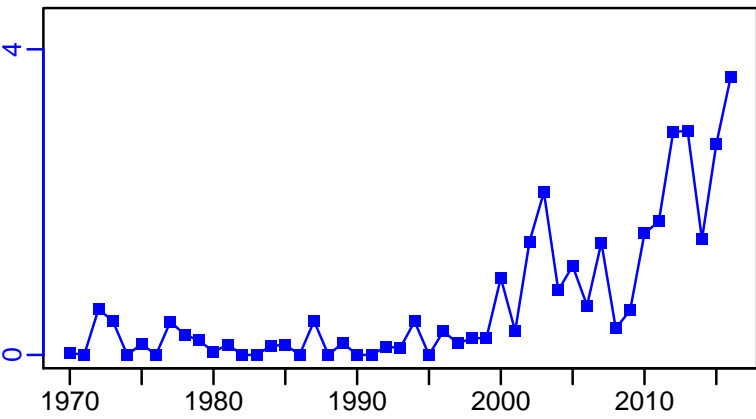
# American lobster Lobster Fishing Area 41 [LOBSTERLFA41]

TL-MT, TC\*, RecC\* (1981-2012-WATSON)

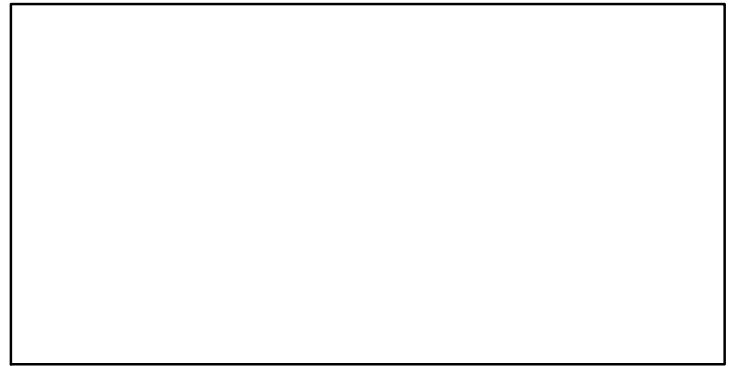
TAC-MT, Cpair\*, Cadv\* (1969-2016-ASHBROOK)



survB-MT (1969-2016-ASHBROOK)



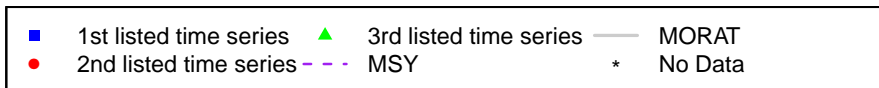
CPUE\*



EFFORT\*



CdivMSY\*



## Lumpfish Northern Gulf of St. Lawrence [LUMP3Pn4RS]

Metadata	
<b>Scientific Name</b>	Cyclopterus lumpus
<b>Current Assess ID</b>	DFO-QUE-LUMP3Pn4RS-1970-2015-ASHBROOK
<b>Area</b>	Northern 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>	2015

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	-	-	-		
TL	TL-MT	2015	36		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



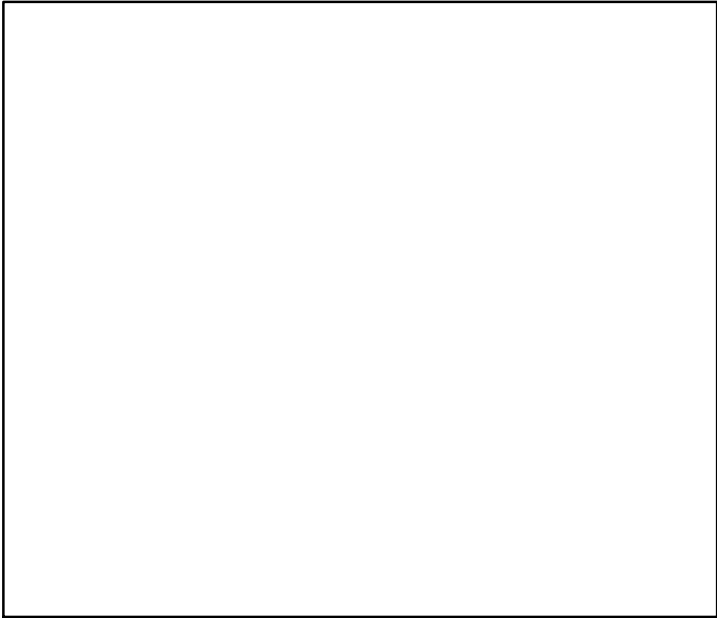
Kobe MSY\*



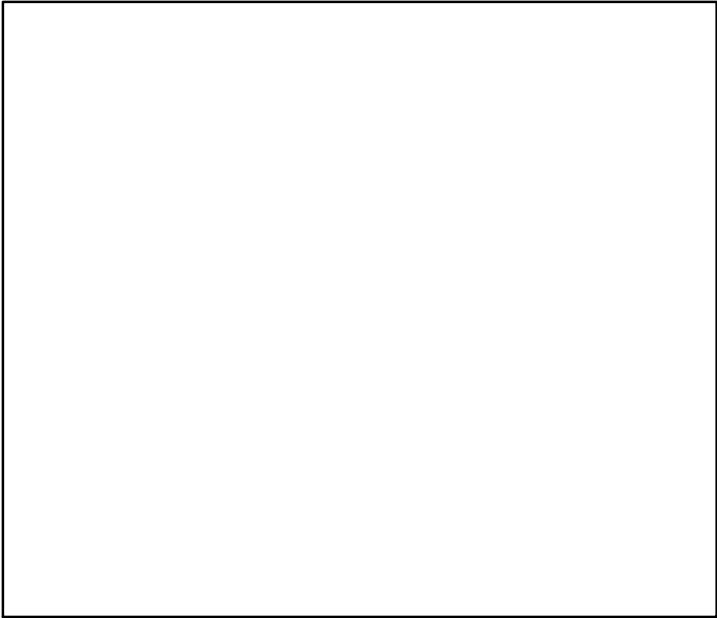
Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year    ◆ End Year    \* No Data

Lumpfish Northern Gulf of St. Lawrence [LUMP3Pn4RS]

TB\*



SSB\*



TN \*



F\*



ER\*

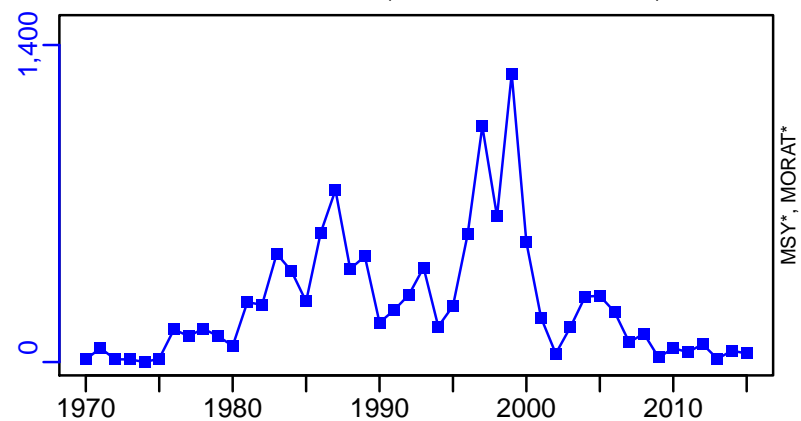


Recruits\*



# Lumpfish Northern Gulf of St. Lawrence [LUMP3Pn4RS]

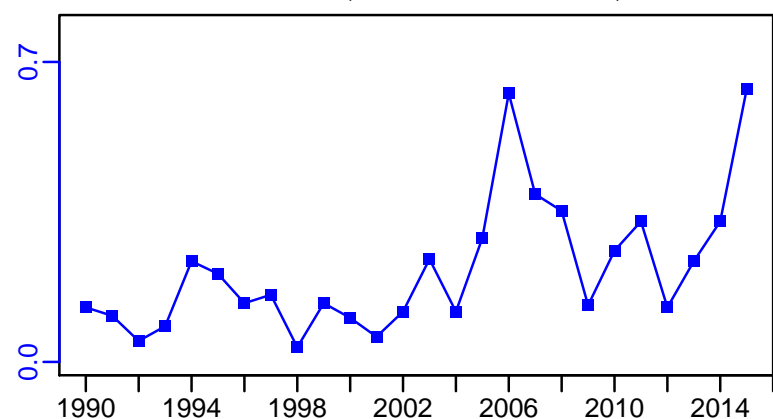
TL-MT, TC\*, RecC\* (1970-2015-ASHBROOK)



TAC\*, Cpair\*, Cadv\*



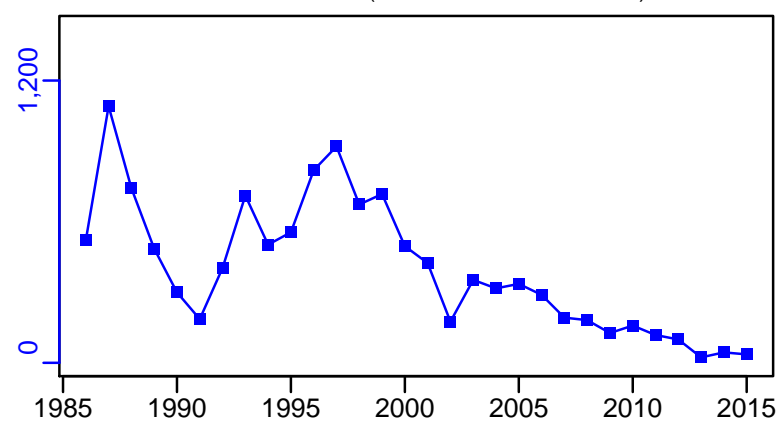
survB-index (1970-2015-ASHBROOK)



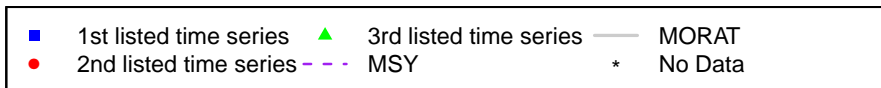
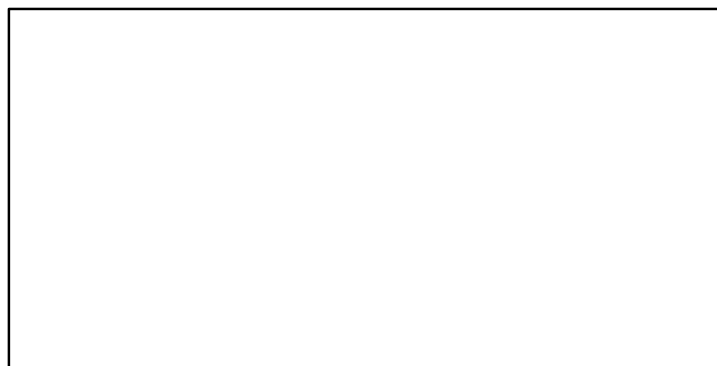
CPUE\*



EFFORT-fishers (1970-2015-ASHBROOK)



CdivMSY\*



## Mackerel Northwest Atlantic (NAFO Subareas 3 and 4) [MACKNWATLSA3-4]

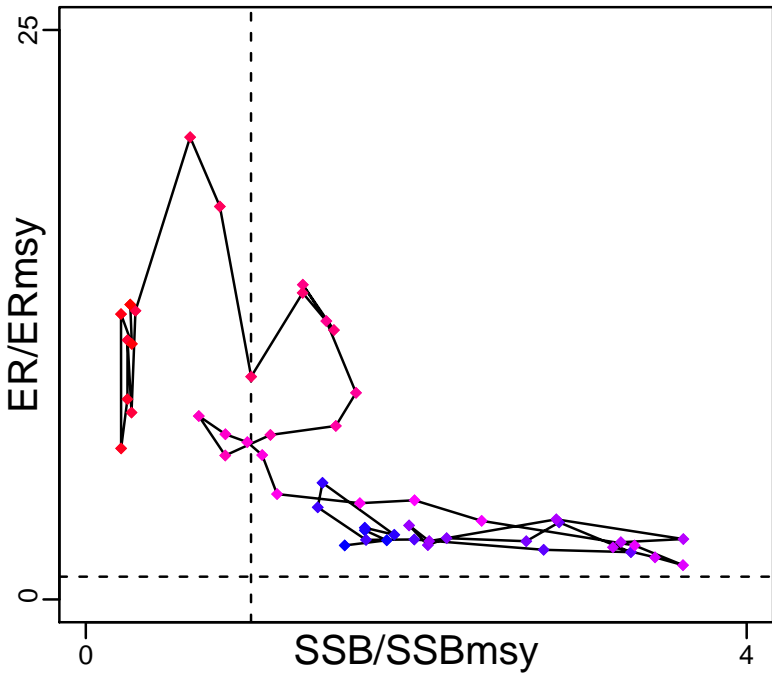
Metadata	
<b>Scientific Name</b>	Scomber scombrus
<b>Current Assess ID</b>	DFO-QUE-MACKNWATLSA3-4-1960-2018-ASHBROOK
<b>Area</b>	Northwest Atlantic (NAFO Subareas 3 and 4)
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans - Quebec Region
<b>Asmts in RAM</b>	2014, 2018, 2011

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-est-MT	2014	230,626
<b>SSBmsy</b>	SSBmsy-pr-MT	2018	113,292
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-est-ratio	2018	0.021
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2018	90,943
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-est-MT	2018	3016
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2018	45,041
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

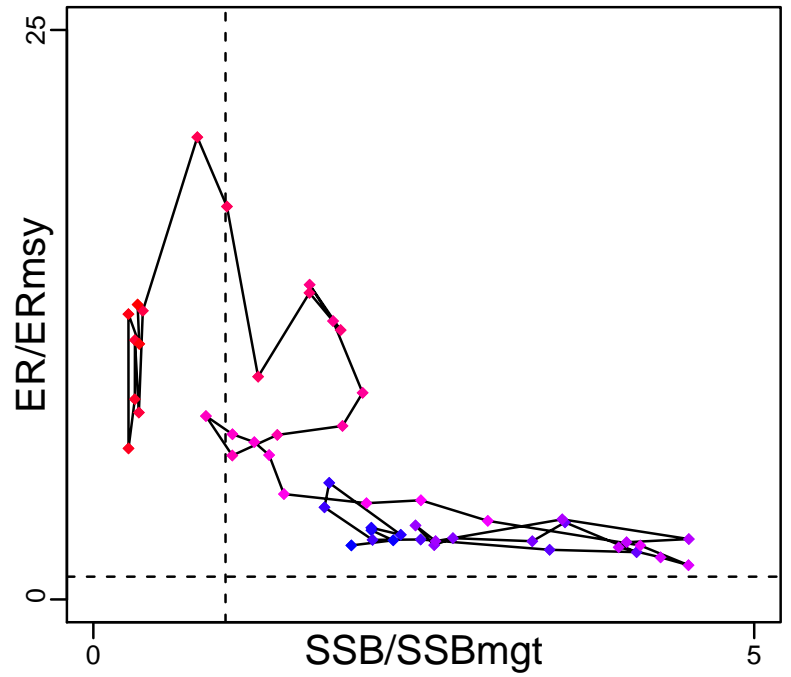
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2014	13,400	-	-
<b>SSB</b>	SSB-MT	2018	30,468	-	10-May
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2018	58,824	-	1
<b>F</b>	F-1/yr	2011	0.468	-	8+
<b>ER</b>	ER-calc-ratio	2018	0.277	-	-
<b>TC</b>	-	-	-		
<b>TL</b>	TL-MT	2018	10,499		
<b>TB/TBmsy</b>	TB-MT/TBmsy-est-MT	2014	0.058		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-pr-MT	2018	0.269		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-est-ratio	2018	12.946		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2018	0.335		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Mackerel Northwest Atlantic (NAFO Subareas 3 and 4) [MACKNWATLSA3-4]

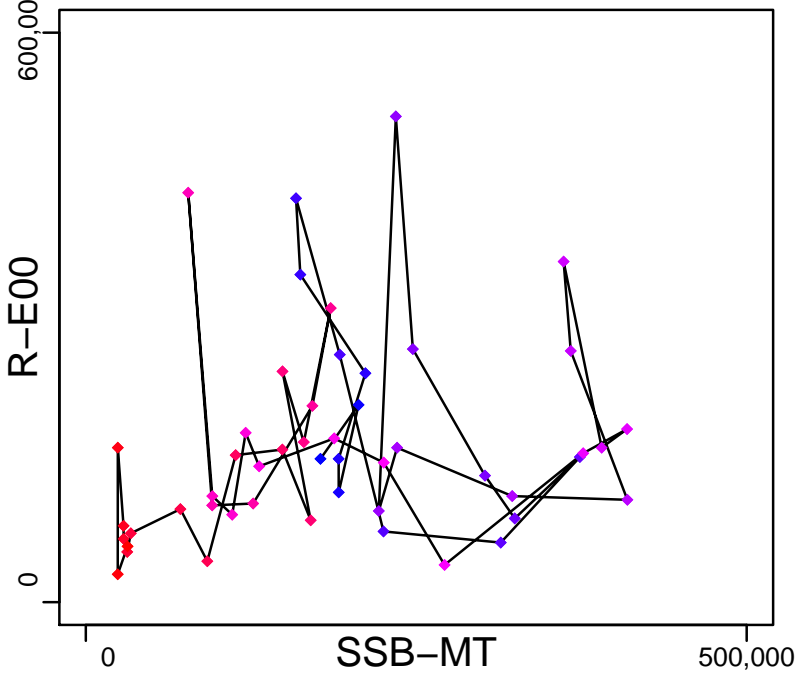
Kobe MSY<sub>pref</sub> (1960–2018–ASHBROOK)



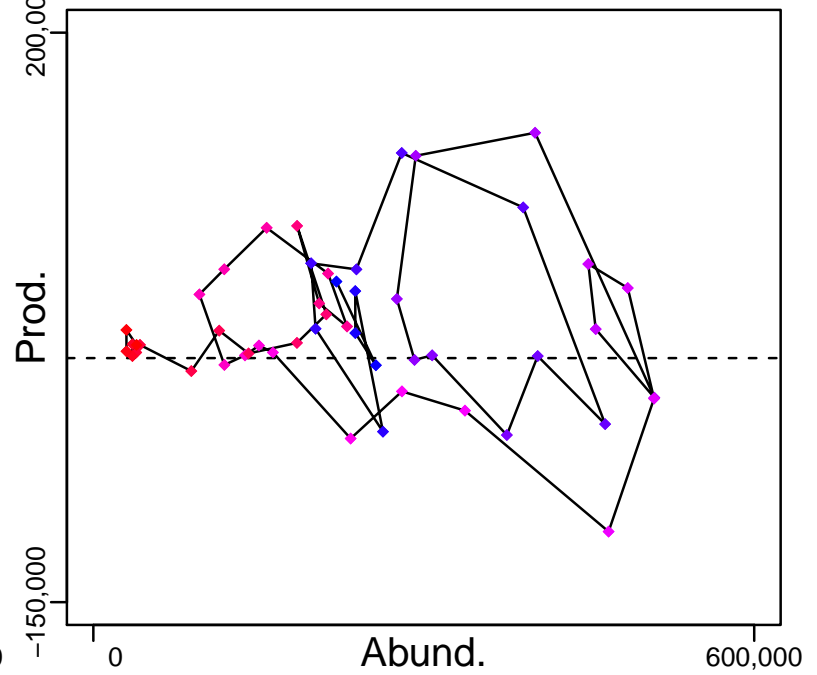
Kobe MGT<sub>pref</sub> (1960–2018–ASHBROOK)



Spawner Recruit (1960–2018–ASHBROOK)



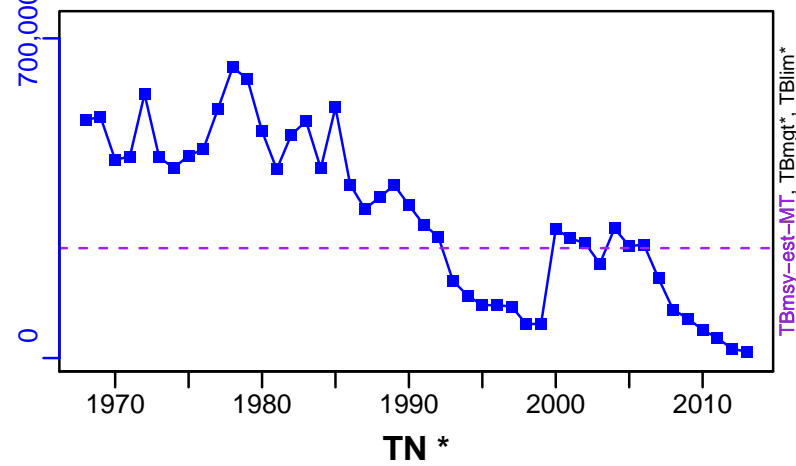
Production (1960–2018–ASHBROOK)



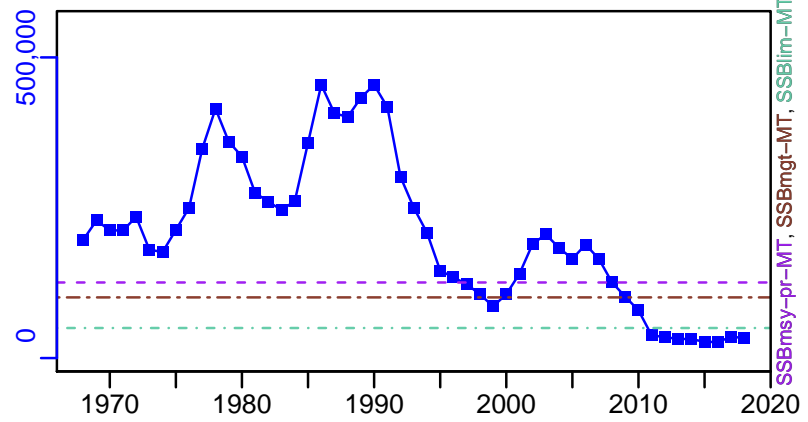
◆ Start Year ◆ End Year \* No Data

# Mackerel Northwest Atlantic (NAFO Subareas 3 and 4) [MACKNWATLSA3-4]

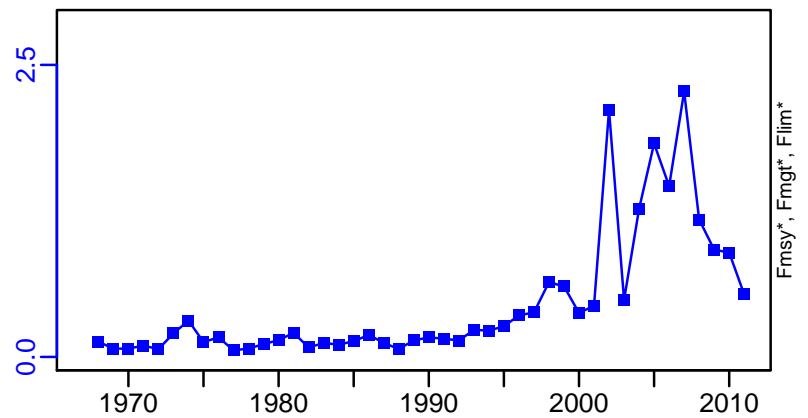
TB-MT (1968-2014-WATSON)



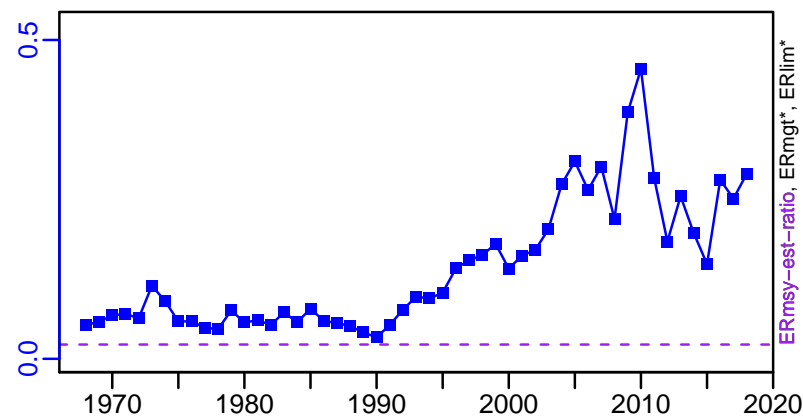
SSB-MT (1960-2018-ASHBROOK)



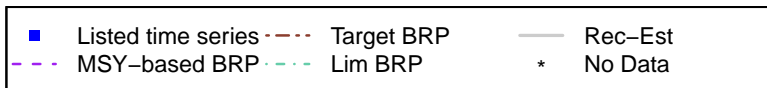
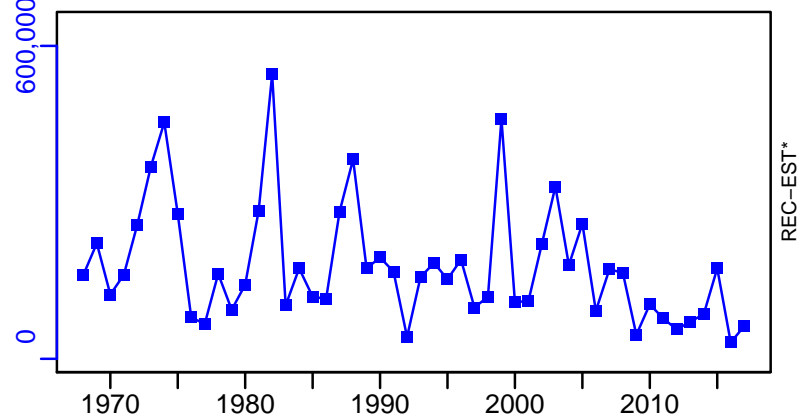
F-1/yr (1967-2011-CHING)



ER-calc-ratio (1960-2018-ASHBROOK)



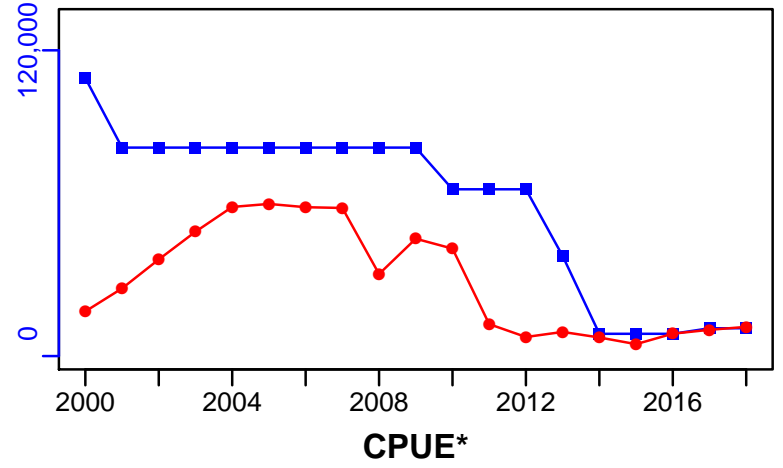
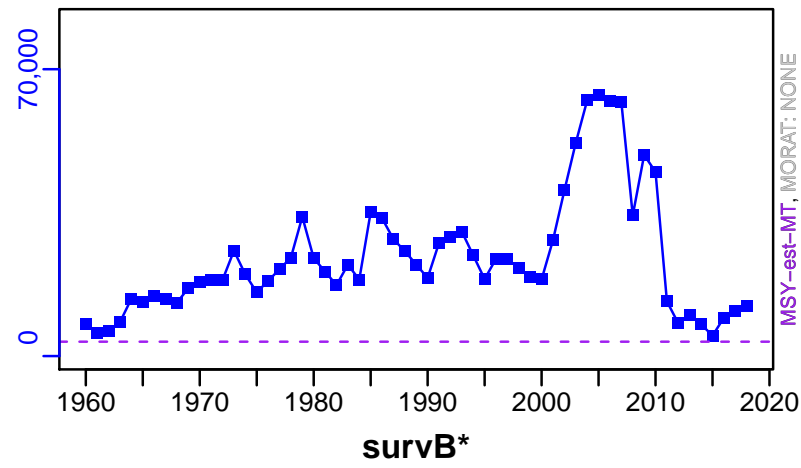
R-E00 (1960-2018-ASHBROOK)



# Mackerel Northwest Atlantic (NAFO Subareas 3 and 4) [MACKNWATLSA3-4]

TL-MT, TC\*, RecC\* (1960–2018–ASHBROOK)

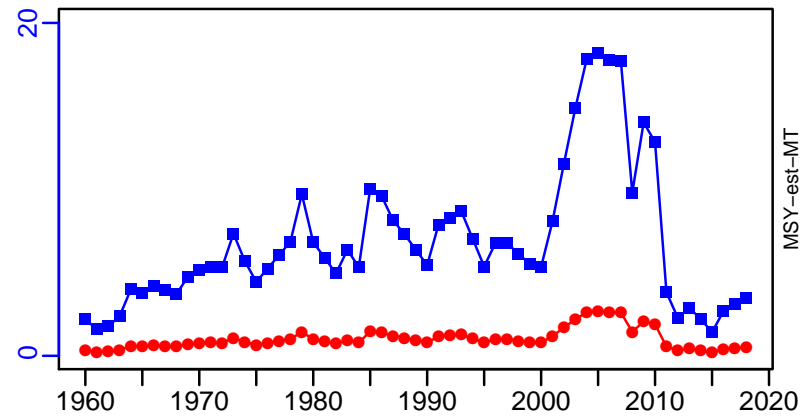
TAC-MT, Cpair-MT, Cadv\* (1960–2018–ASHBROOK)



EFFORT\*



TL-MT/MSY-est-MT, CdivMEANC-ratio, (1960–2018–ASHBROOK)



## Monkfish NAFO Divisions 3LNOPs [MONK3LNOPs]

Metadata	
<b>Scientific Name</b>	Lophius americanus
<b>Current Assess ID</b>	DFO-NFLD-MONK3LNOPs-1960-2017-ASHBROOK
<b>Area</b>	NAFO Divisions 3LNOPs
<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
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	360		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



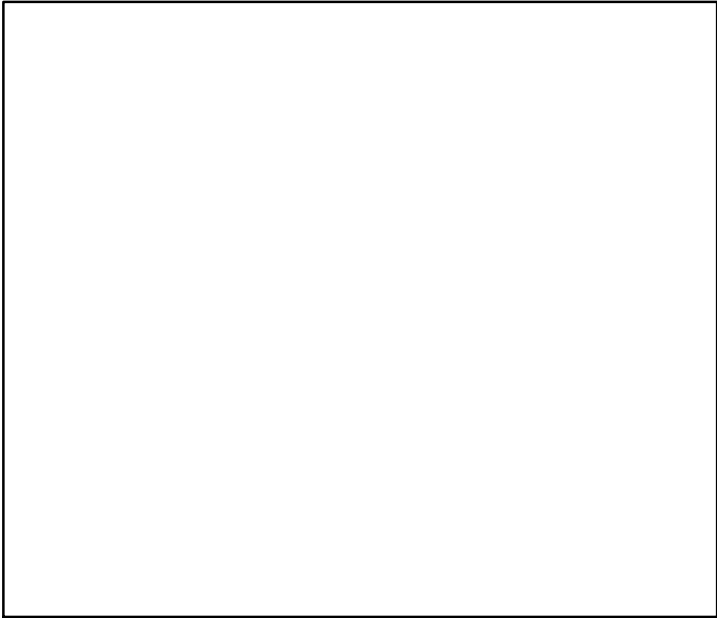
Kobe MSY\*



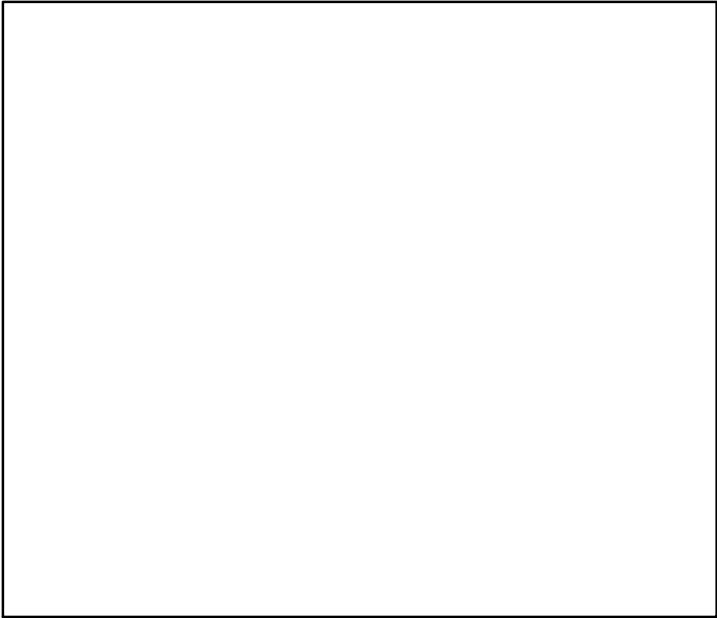
Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data

Monkfish NAFO Divisions 3LNOPs [MONK3LNOPs]

TB\*



SSB\*



TN \*



F\*



ER\*



Recruits\*



■

Listed time series

---

MSY-based BRP

---

Target BRP

---

Lim BRP

—

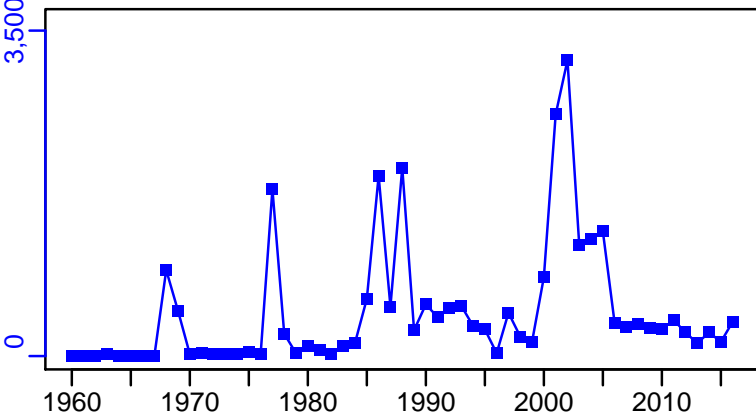
Rec-Est

\*

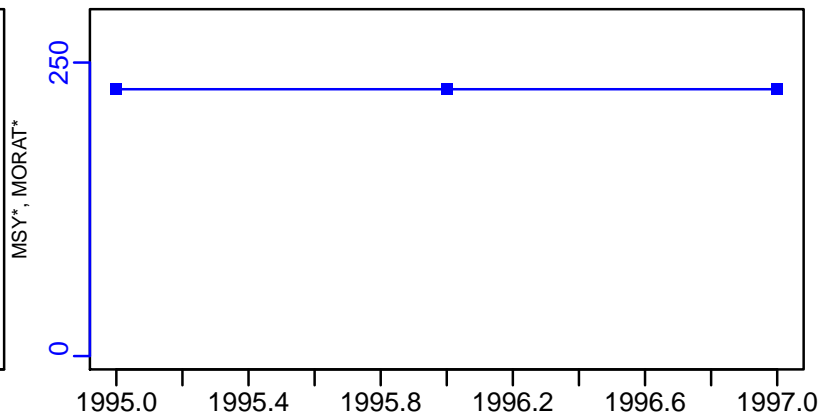
No Data

# Monkfish NAFO Divisions 3LNOPs [MONK3LNOPs]

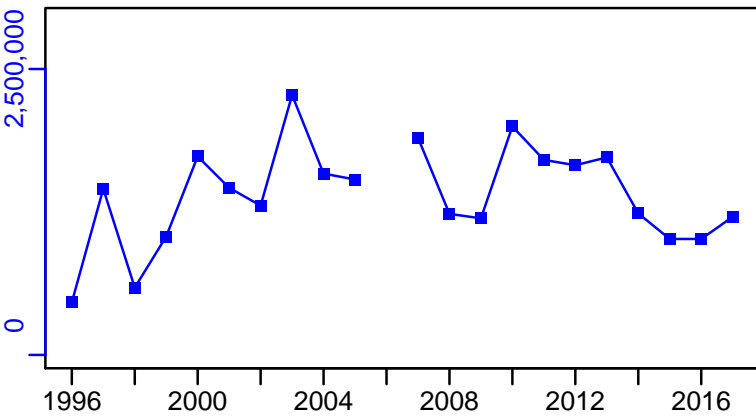
TL-MT, TC\*, RecC\* (1960-2017-ASHBROOK)



TAC-MT, Cpair\*, Cadv\* (1960-2017-ASHBROOK)



survB-E00 (1960-2017-ASHBROOK)



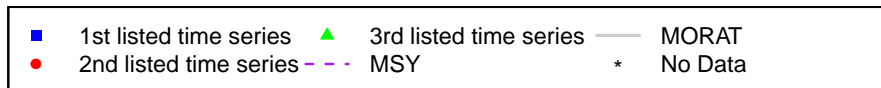
CPUE\*



EFFORT\*



CdivMSY\*



## Northern shrimp Gulf of St. Lawrence [PANDAL4RST]

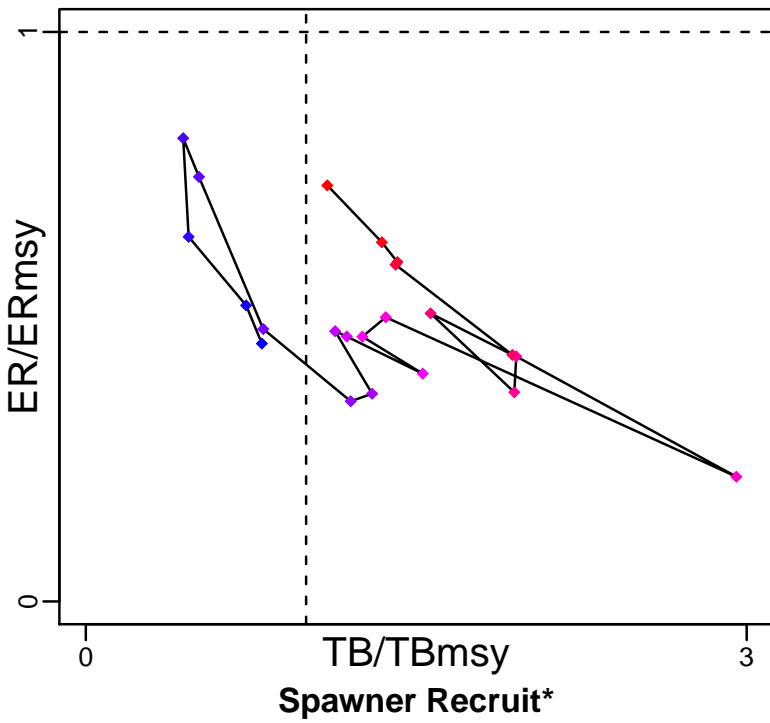
Metadata	
<b>Scientific Name</b>	Pandalus borealis
<b>Current Assess ID</b>	DFO-PANDAL4RST-1965-2012-WATSON
<b>Area</b>	Gulf of St. Lawrence
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans
<b>Asmts in RAM</b>	2012, 2011

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-est-MT	2011	113,099
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-est-ratio	2011	0.379
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-est-MT	2011	42,825
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

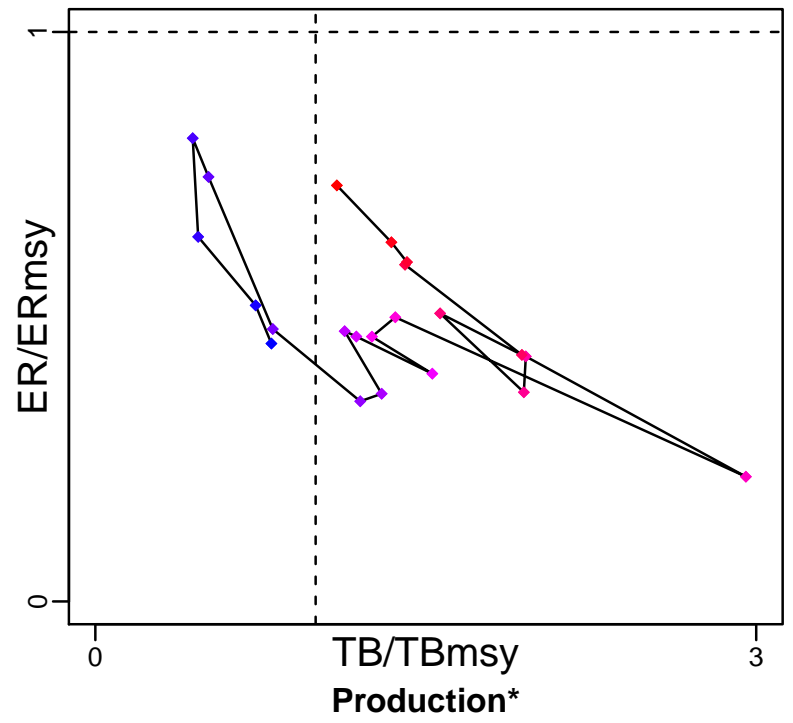
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2011	124,000	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	F-1/yr	2011	0.34	-	-
<b>ER</b>	ER-calc-ratio	2011	0.277	-	-
<b>TC</b>	TC-E00	2012	$6.01 \times 10^9$		
<b>TL</b>	TL-MT	2012	32,000		
<b>TB/TBmsy</b>	TB-MT/TBmsy-est-MT	2011	1.096		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-est-ratio	2011	0.731		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Northern shrimp Gulf of St. Lawrence [PANDAL4RST]

Kobe MSYpref (1982–2011–CHING)



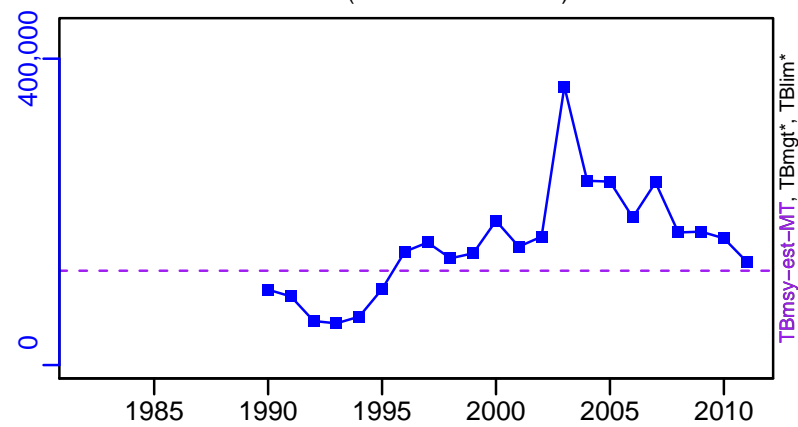
Kobe MGTpref (1982–2011–CHING)



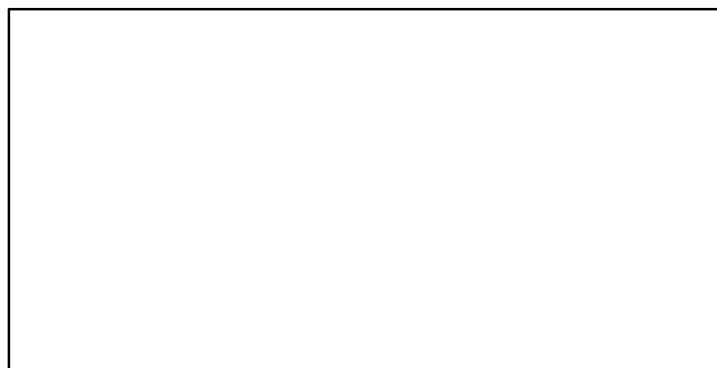
◆ Start Year ◆ End Year \* No Data

# Northern shrimp Gulf of St. Lawrence [PANDAL4RST]

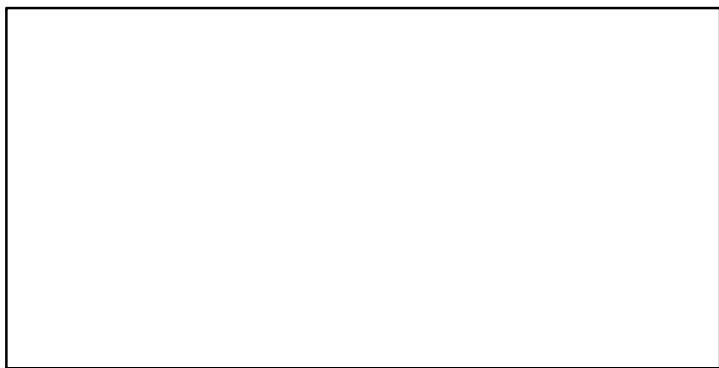
TB-MT (1982-2011-CHING)



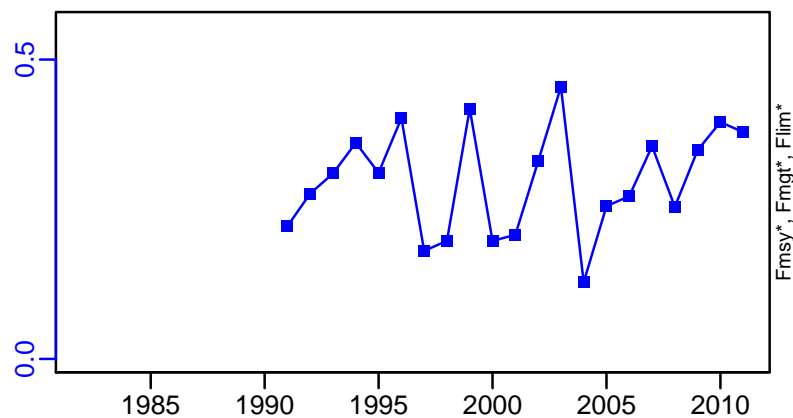
SSB\*



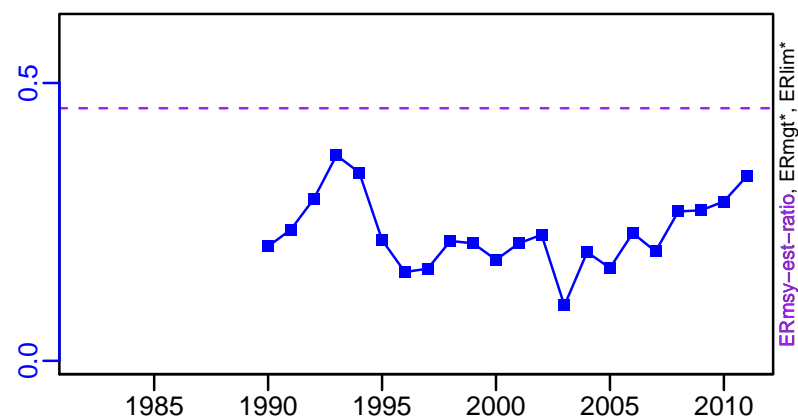
TN \*



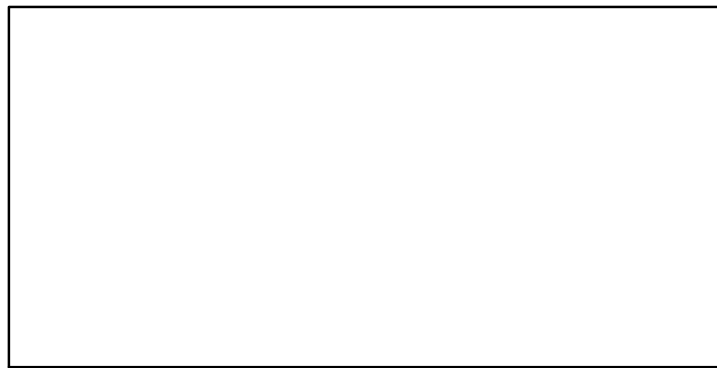
F-1/yr (1982-2011-CHING)



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

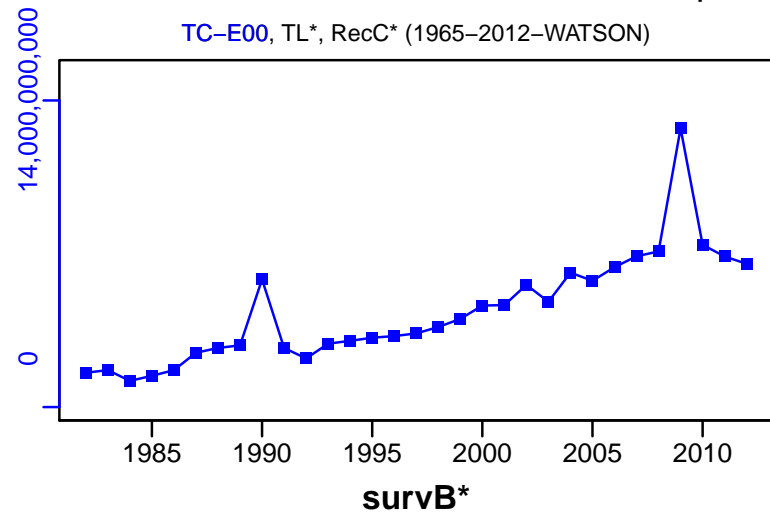


Recruits\*

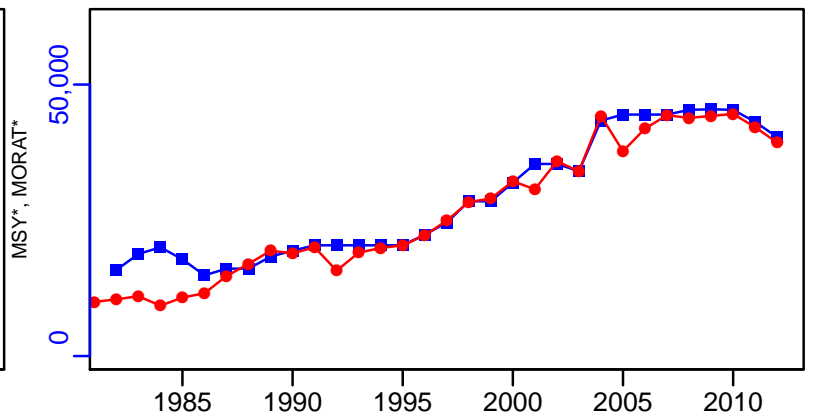


# Northern shrimp Gulf of St. Lawrence [PANDAL4RST]

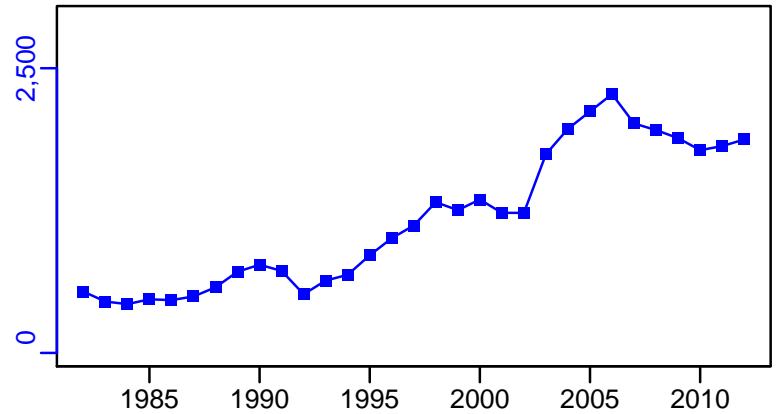
TC-E00, TL\*, RecC\* (1965-2012-WATSON)



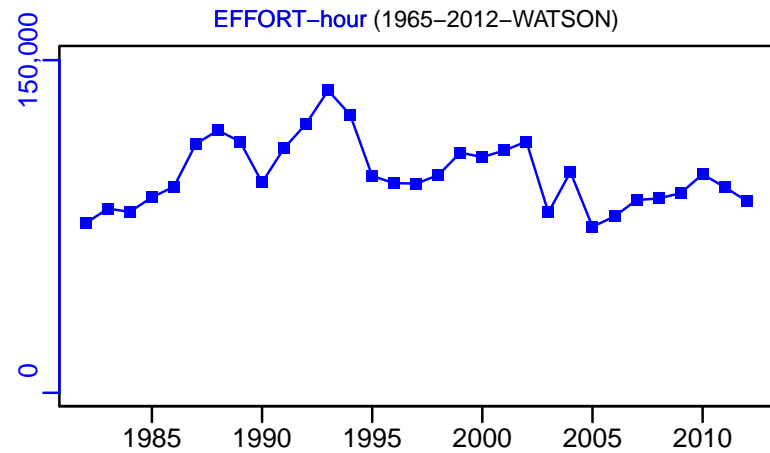
TAC-MT, Cpair-MT, Cadv\* (1965-2012-WATSON)



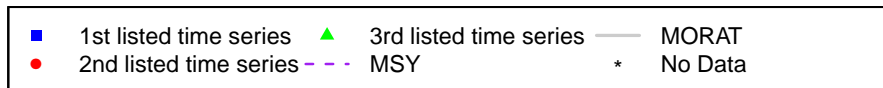
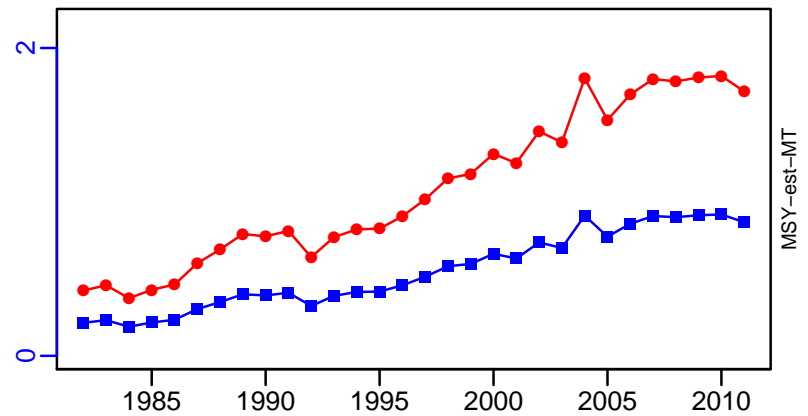
CPUE-kg/hour (1965-2012-WATSON)



EFFORT-hour (1965-2012-WATSON)



TL-MT/MSY-est-MT, CdivMEANC-ratio, (1982-2011-CHING)



## Northern shrimp Eastern Scotian Shelf (SFA 13-15) [PANDALSFA13-15]

Metadata	
<b>Scientific Name</b>	Pandalus borealis
<b>Current Assess ID</b>	DFO-PANDALSFA13-15-1980-2012-WATSON
<b>Area</b>	Eastern Scotian Shelf (SFA 13-15)
<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>	2011, 2012

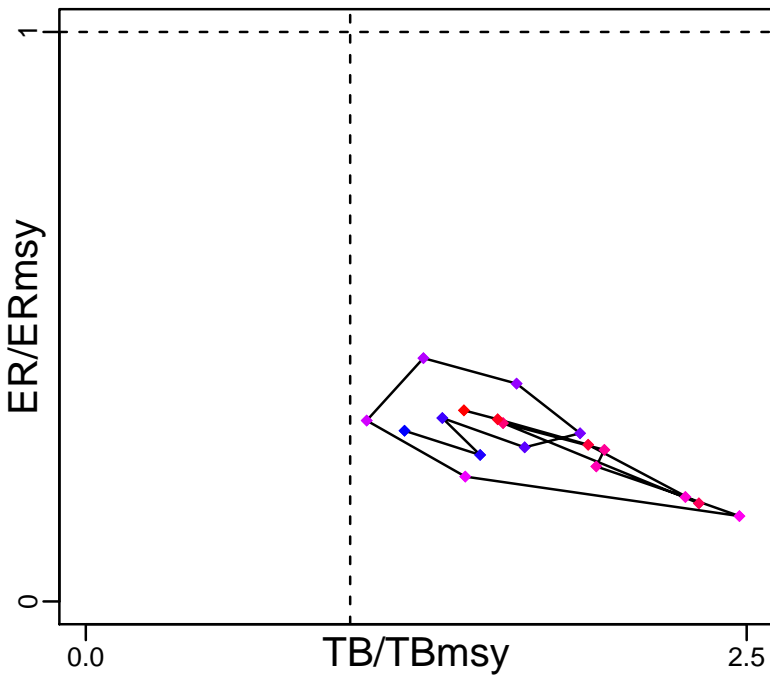
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-est-MT	2012	19,575
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-est-ratio	2012	0.447
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-est-MT	2012	8752
<b>M</b>	-	-	-
<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	2012	28,000	-	-
<b>SSB</b>	SSB-index	2011	16,800	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2012	0.15	Both	-
<b>TC</b>	TC-MT	2012	3650		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-est-MT	2012	1.43		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-est-ratio	2012	0.336		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

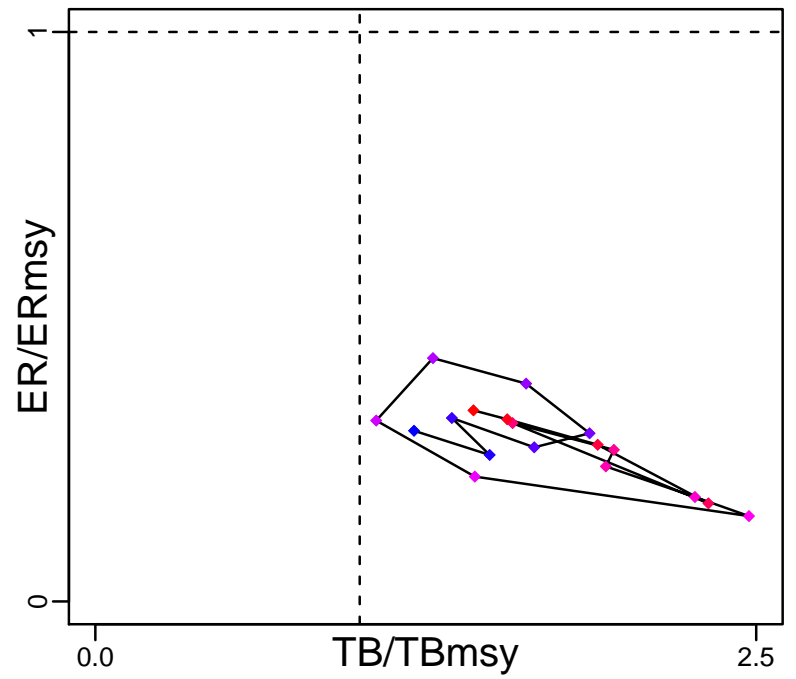


# Northern shrimp Eastern Scotian Shelf (SFA 13–15) [PANDALSFA13–15]

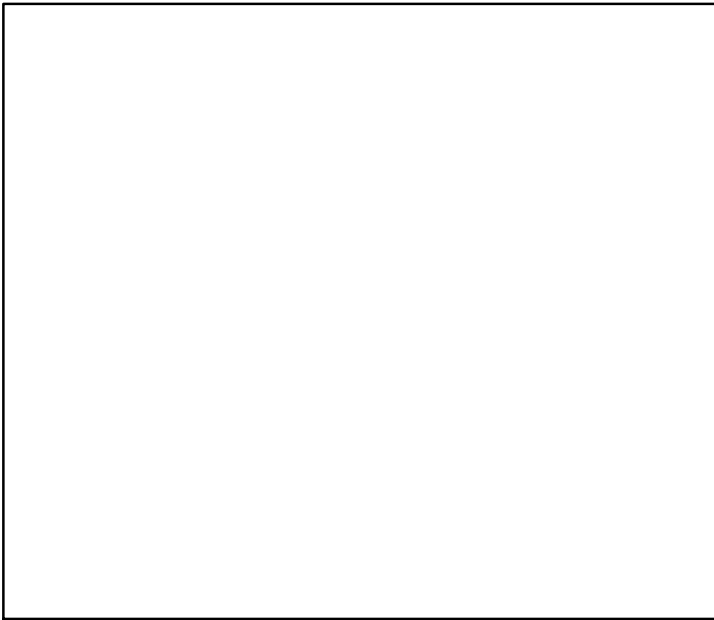
Kobe MSY<sub>pref</sub> (1980–2012–WATSON)



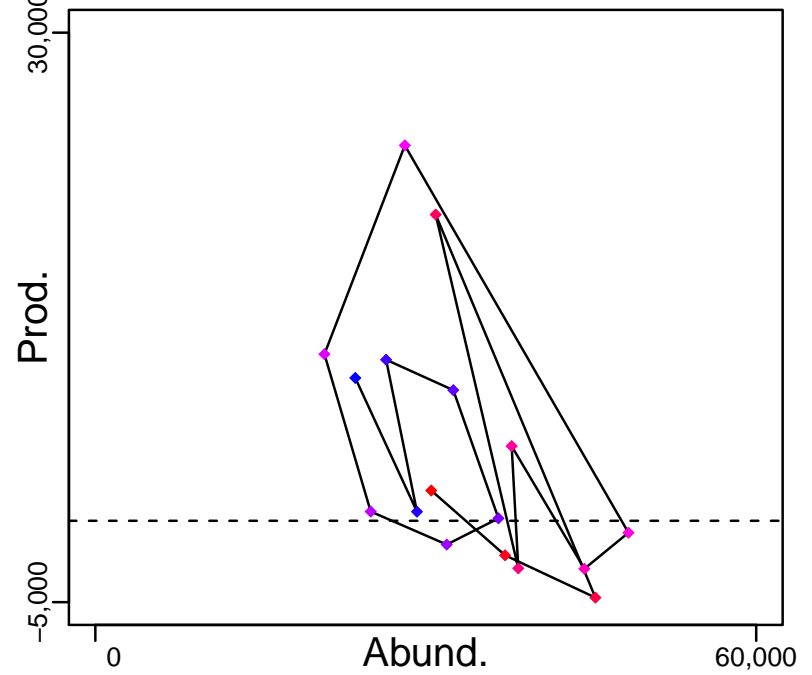
Kobe MGT<sub>pref</sub> (1980–2012–WATSON)



Spawner Recruit\*



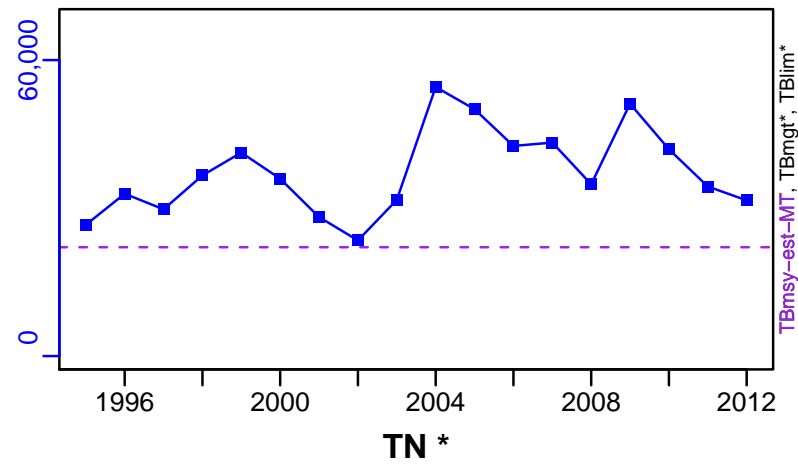
Production (1980–2012–WATSON)



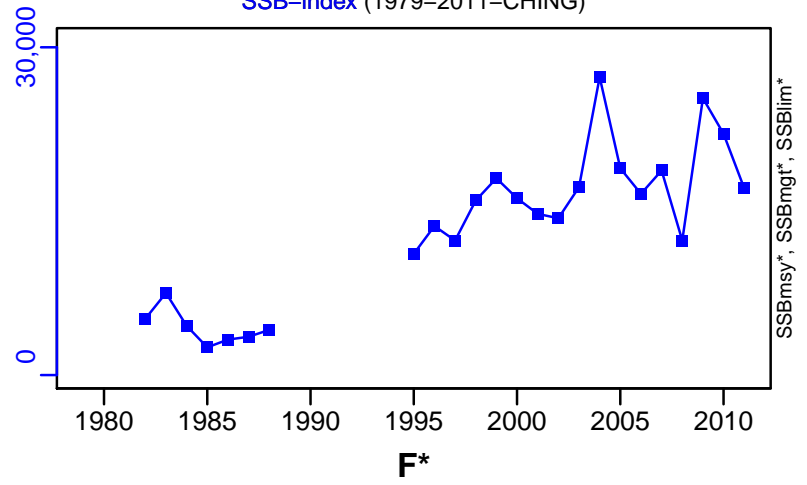
◆ Start Year ◆ End Year \* No Data

# Northern shrimp Eastern Scotian Shelf (SFA 13–15) [PANDALSFA13–15]

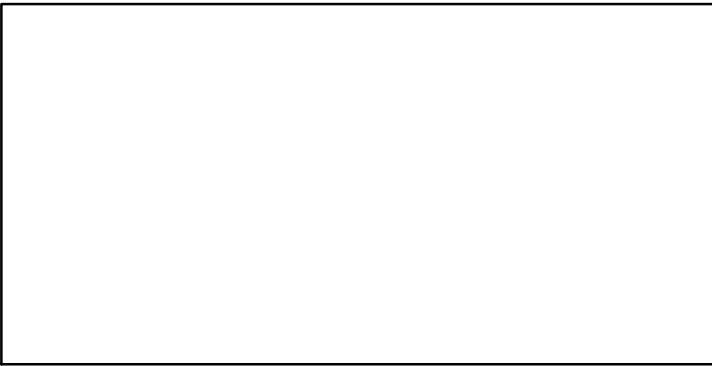
TB–MT (1980–2012–WATSON)



SSB–index (1979–2011–CHING)



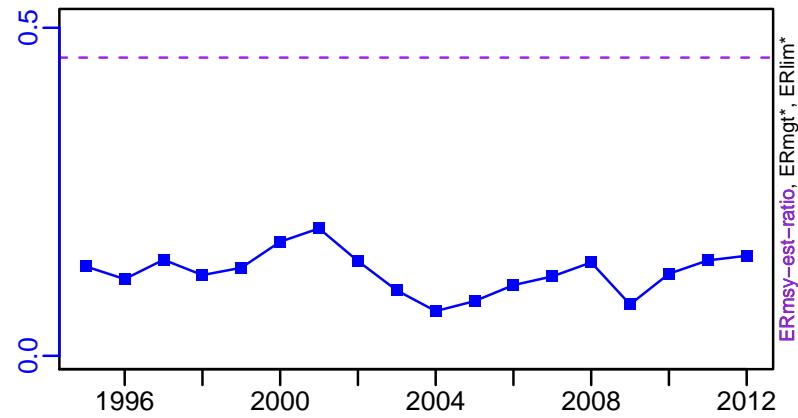
TN \*



F\*



ER–ratio (1980–2012–WATSON)



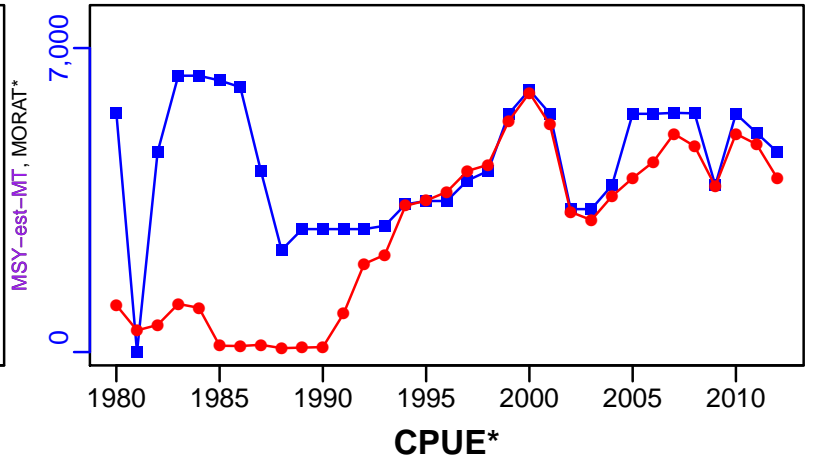
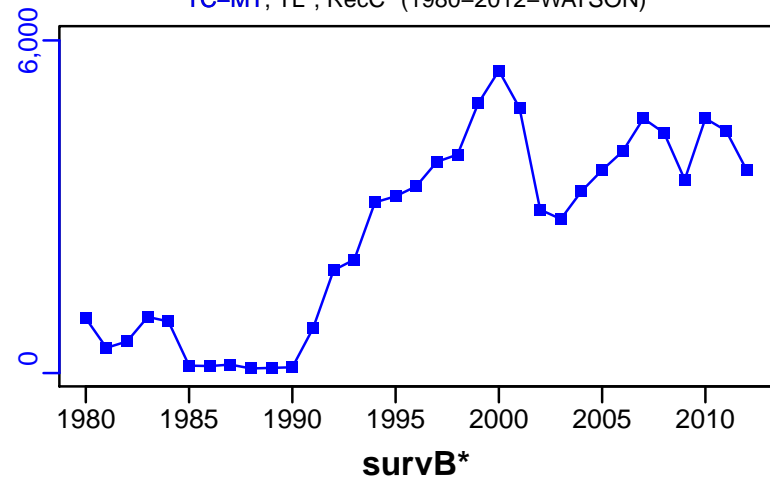
Recruits\*



# Northern shrimp Eastern Scotian Shelf (SFA 13–15) [PANDALSFA13–15]

TC–MT, TL\*, RecC\* (1980–2012–WATSON)

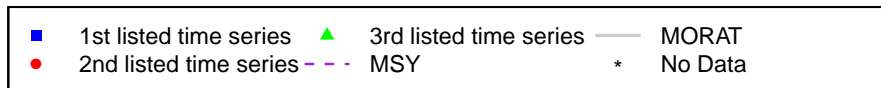
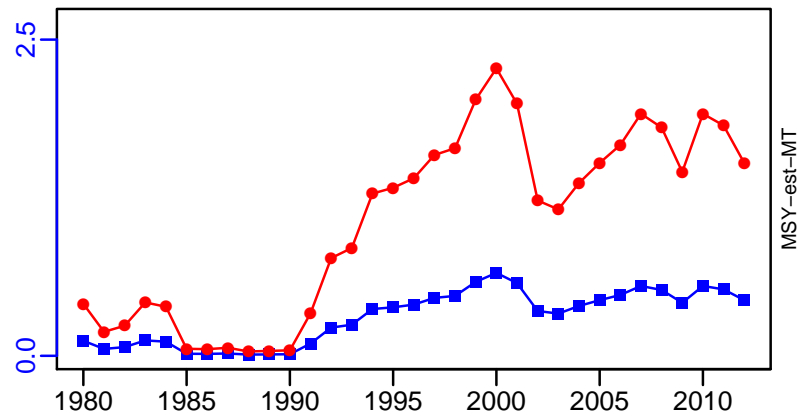
TAC–MT, Cpair–MT, Cadv\* (1980–2012–WATSON)



EFFORT\*



TC–MT/MSY–est–MT, CdivMEANC–ratio, (1980–2012–WATSON)



## Northern shrimp Shrimp Fishing Areas 2-3 [PANDALSFA2-3]

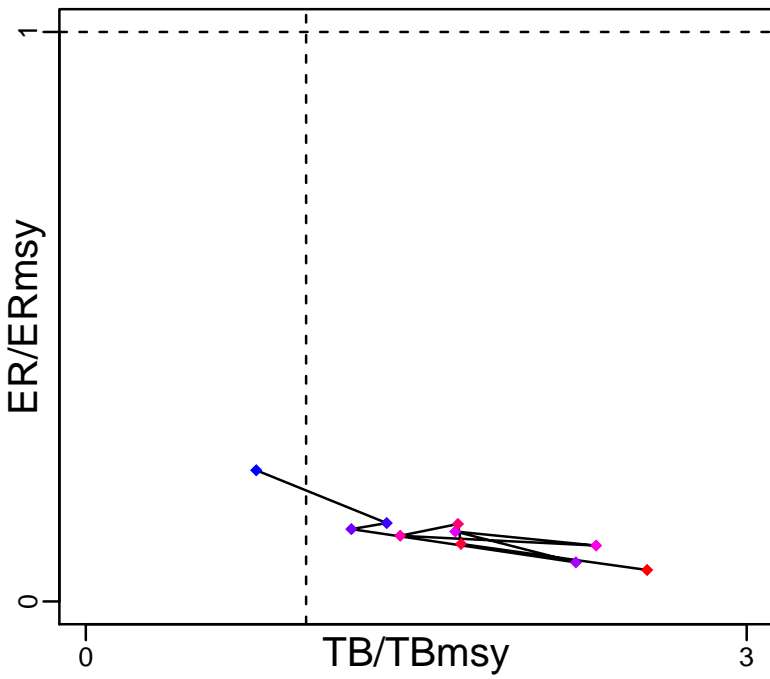
Metadata	
<b>Scientific Name</b>	Pandalus borealis
<b>Current Assess ID</b>	DFO-ARCTIC-PANDALSFA2-3-1979-2015-WATSON
<b>Area</b>	Shrimp Fishing Areas 2-3
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans - Arctic Region
<b>Asmts in RAM</b>	2015, 2010

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-est-MT	2015	42,388
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-est-ratio	2015	0.798
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-est-MT	2015	33,833
<b>M</b>	-	-	-
<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	108,000	-	-
<b>SSB</b>	SSB-MT	2015	75,600	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2015	0.044	-	-
<b>TC</b>	TC-MT	2015	4760		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-est-MT	2015	2.548		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-est-ratio	2015	0.055		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

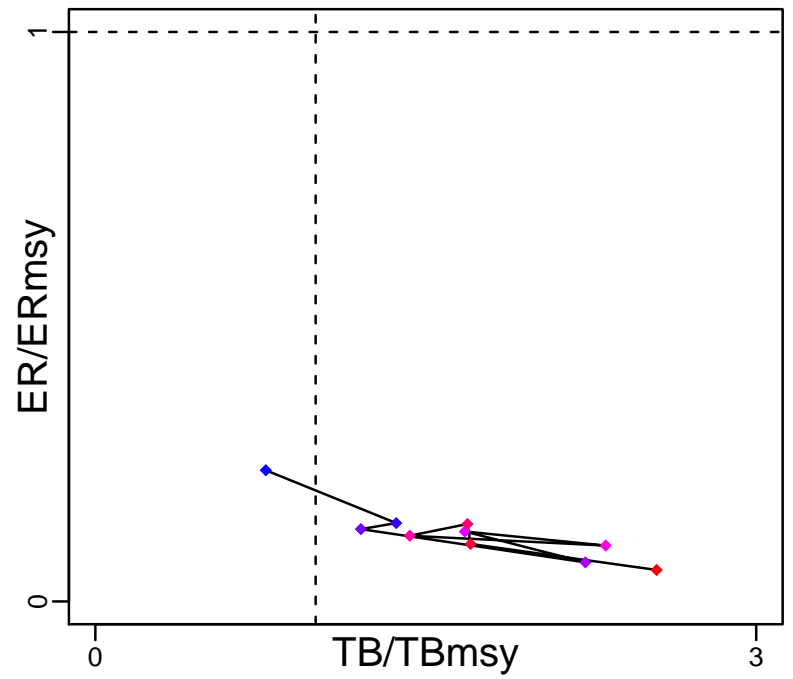
# Northern shrimp Shrimp Fishing Areas 2-3 [PANDALSFA2-3]

Kobe MSYpref (1979-2015-WATSON)

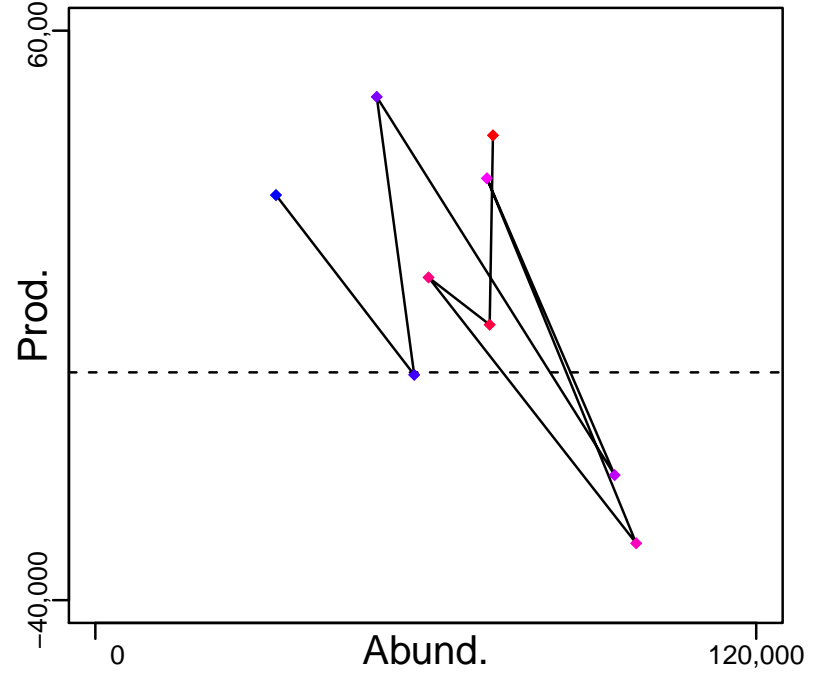


Spawner Recruit\*

Kobe MGTpref (1979-2015-WATSON)



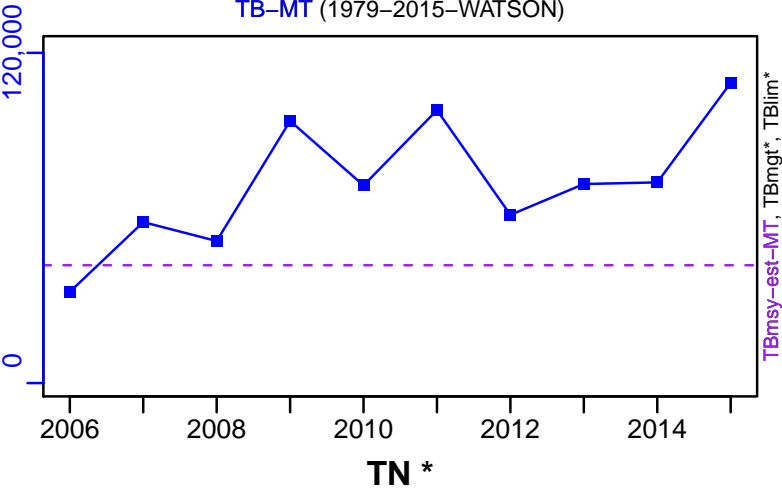
Production (1979-2015-WATSON)



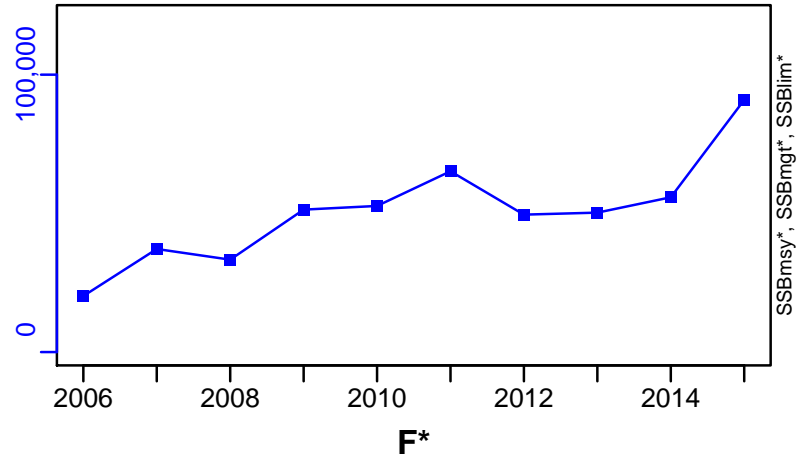
◆ Start Year ◆ End Year \* No Data

# Northern shrimp Shrimp Fishing Areas 2-3 [PANDALSFA2-3]

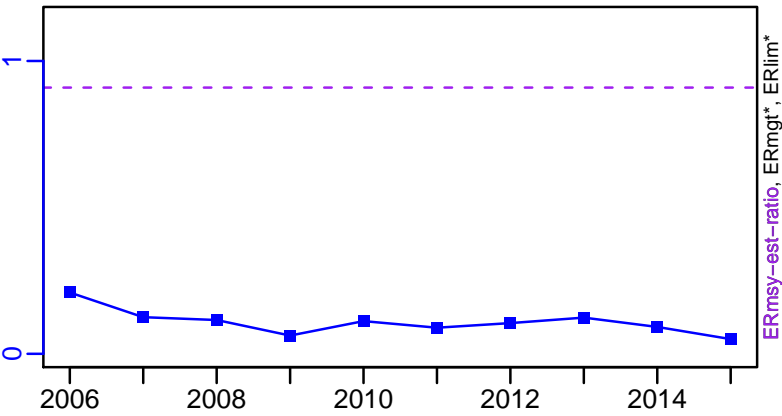
TB-MT (1979-2015-WATSON)



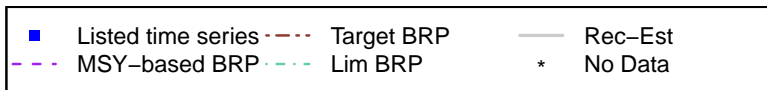
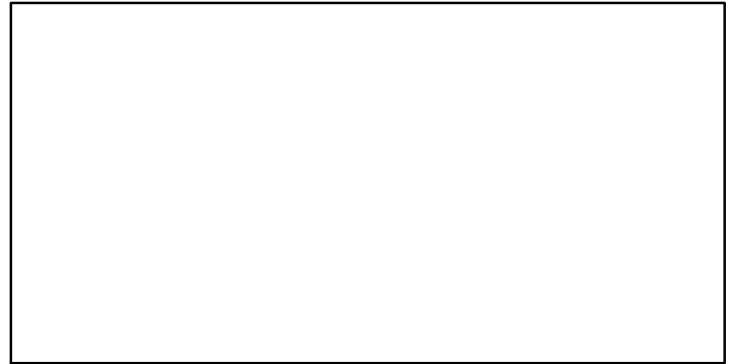
SSB-MT (1979-2015-WATSON)



ER-calc-ratio (1979-2015-WATSON)



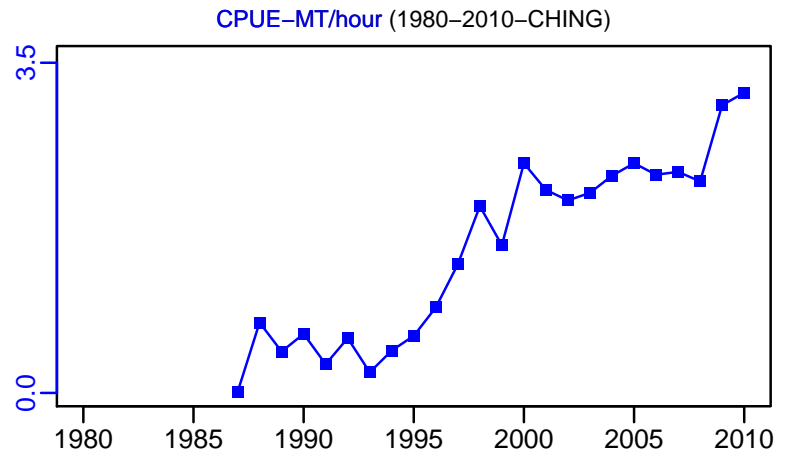
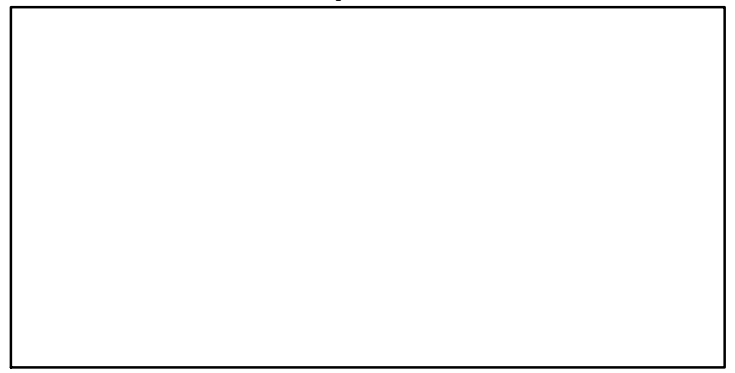
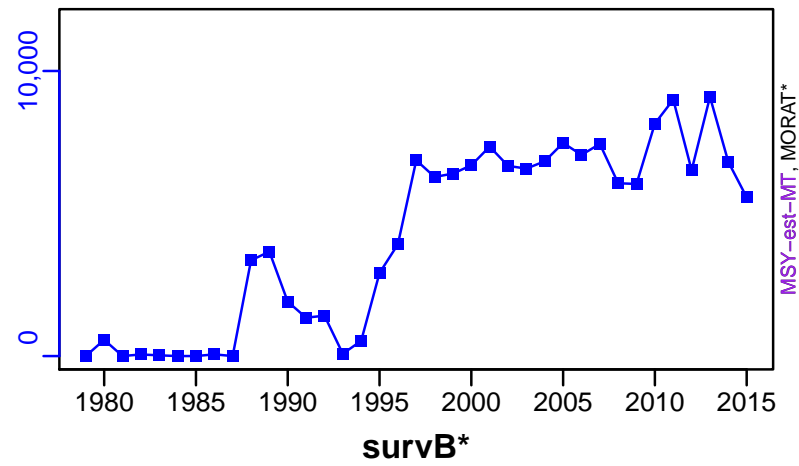
Recruits\*



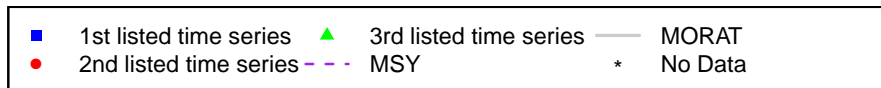
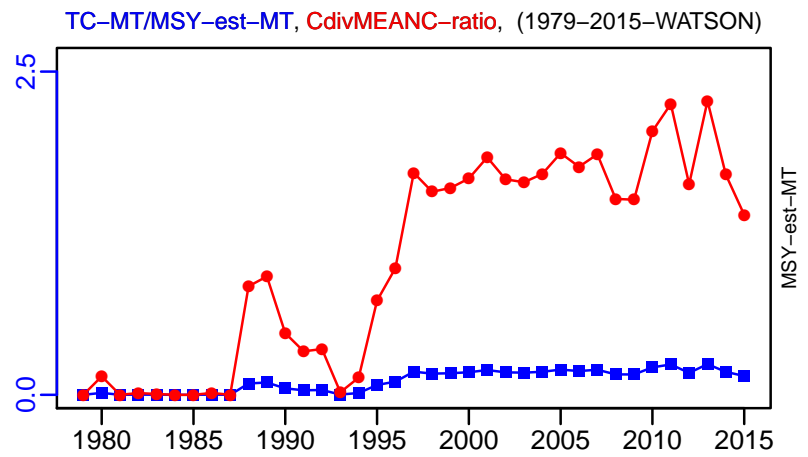
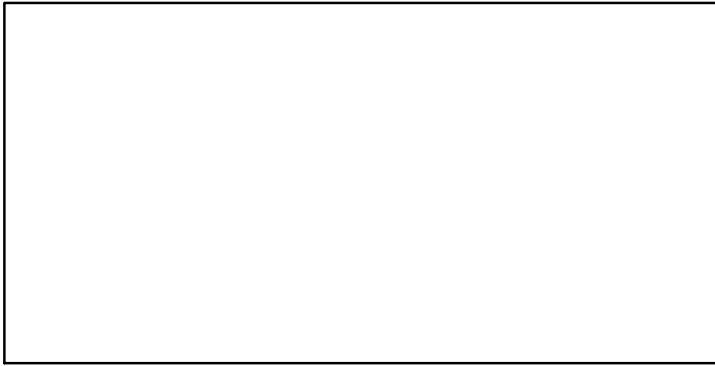
# Northern shrimp Shrimp Fishing Areas 2-3 [PANDALSFA2-3]

TC-MT, TL\*, RecC\* (1979-2015-WATSON)

TAC\*, Cpair\*, Cadv\*



EFFORT\*



## Northern shrimp Shrimp Fishing Area 4 [PANDALSFA4]

Metadata	
<b>Scientific Name</b>	Pandalus borealis
<b>Current Assess ID</b>	DFO-PANDALSFA4-1977-2012-WATSON
<b>Area</b>	Shrimp Fishing Area 4
<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

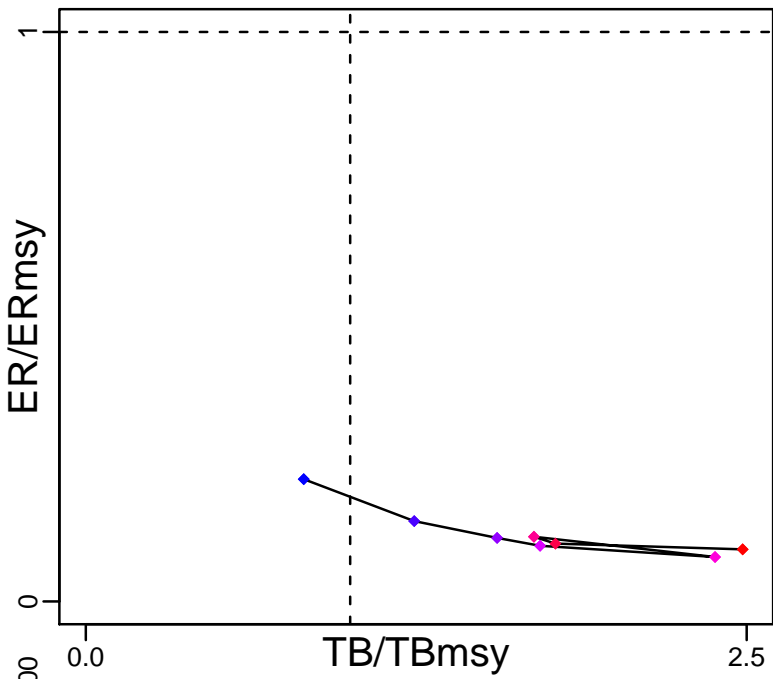
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-est-MT	2012	86,124
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-est-ratio	2012	0.669
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-est-MT	2012	57,628
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2012	21,000
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2012	214,000	Both	-
<b>SSB</b>	SSB-MT	2012	110,000	-	-
<b>TN</b>	TN-E00	2012	$4.54 \times 10^{10}$	-	-
<b>R</b>	R-E00	2012	$6.06 \times 10^9$	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2012	0.061	-	-
<b>TC</b>	TC-MT	2012	13,100		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-est-MT	2012	2.485		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-est-ratio	2012	0.091		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

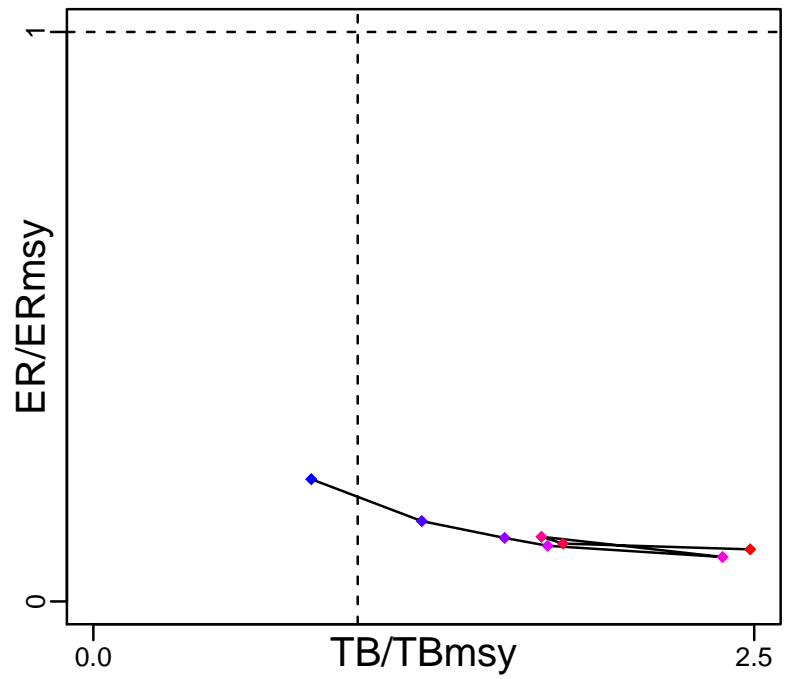


# Northern shrimp Shrimp Fishing Area 4 [PANDALSFA4]

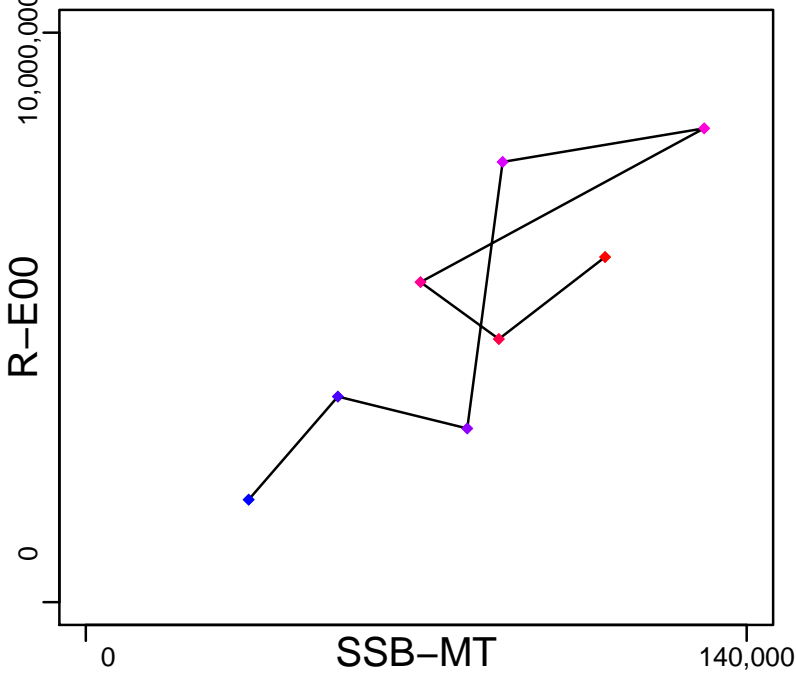
Kobe MSYpref (1977–2012–WATSON)



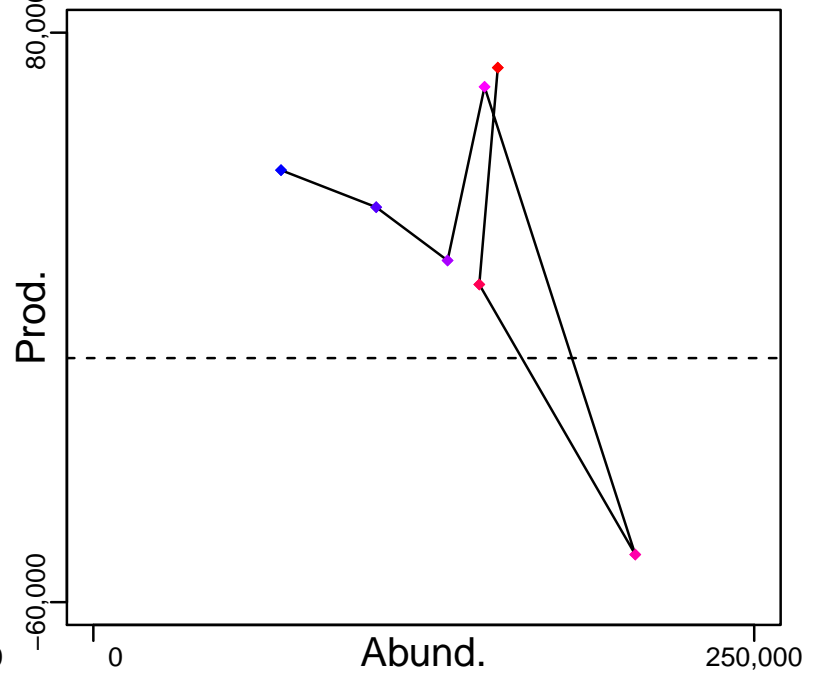
Kobe MGTpref (1977–2012–WATSON)



Spawner Recruit (1977–2012–WATSON)



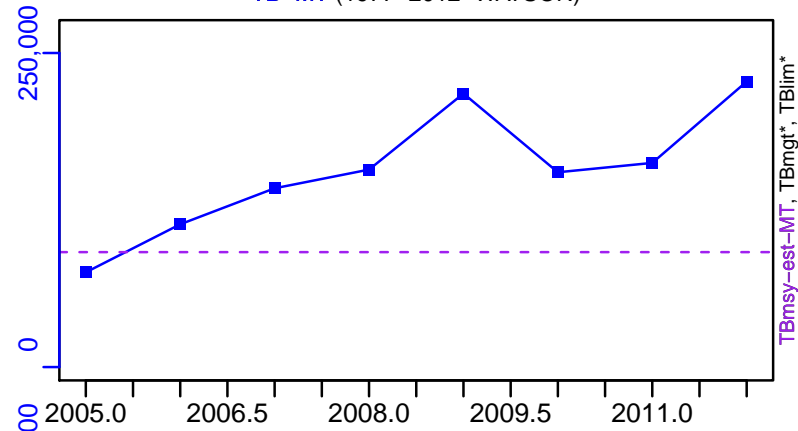
Production (1977–2012–WATSON)



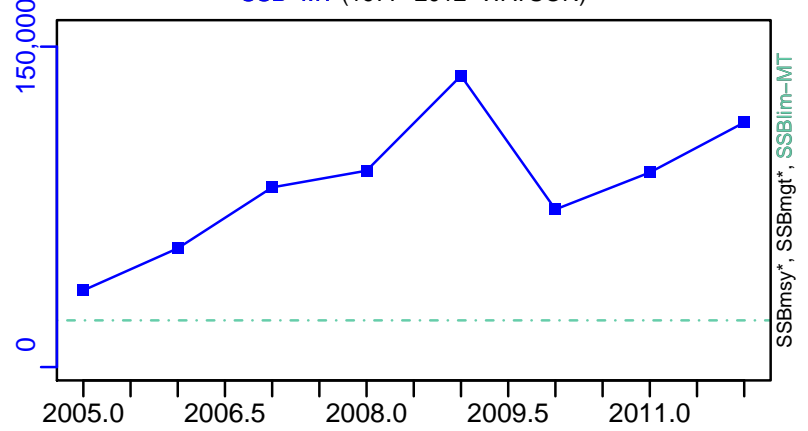
◆ Start Year ◆ End Year \* No Data

# Northern shrimp Shrimp Fishing Area 4 [PANDALSFA4]

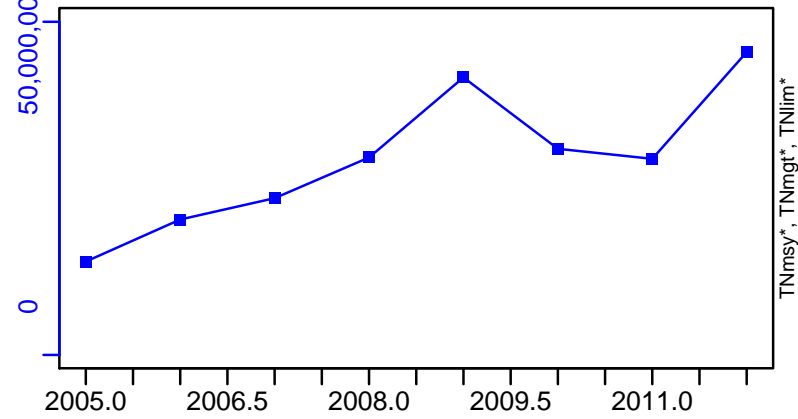
TB-MT (1977-2012-WATSON)



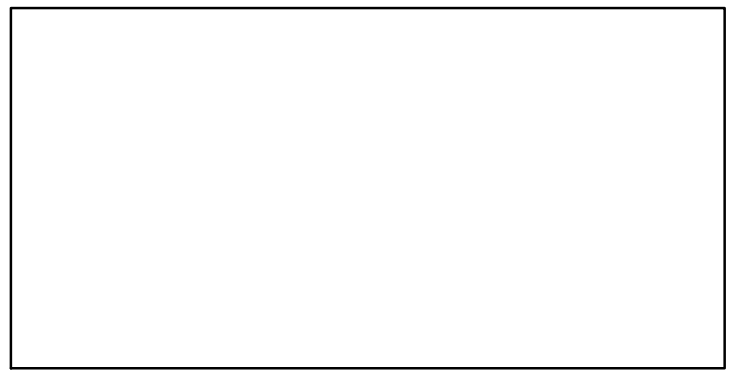
SSB-MT (1977-2012-WATSON)



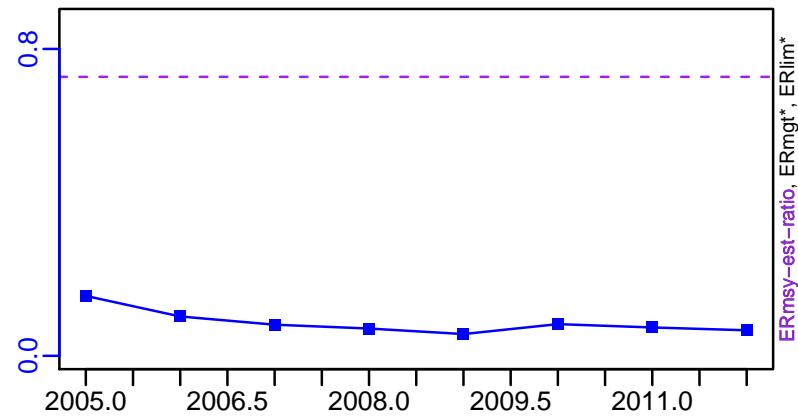
TN-E00 (1977-2012-WATSON)



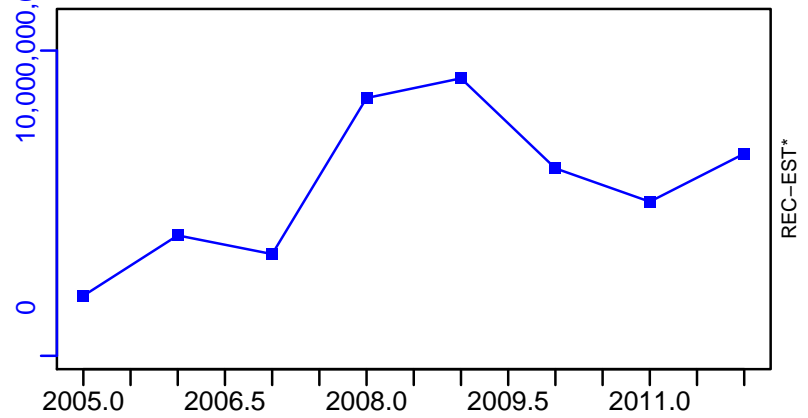
F\*



ER-calc-ratio (1977-2012-WATSON)

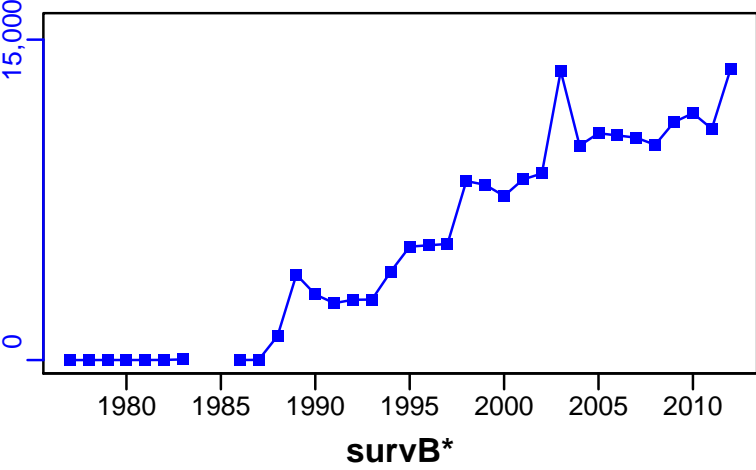


R-E00 (1977-2012-WATSON)

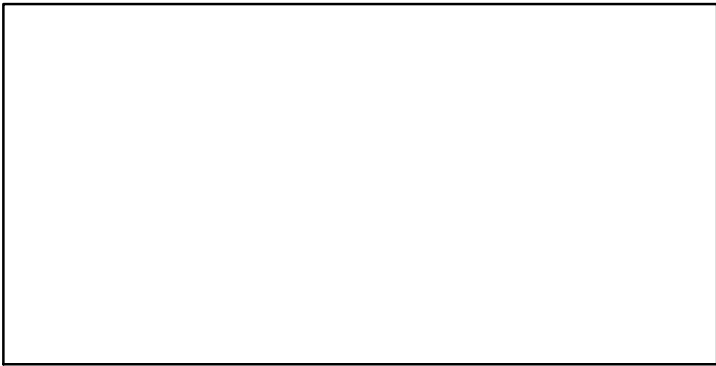
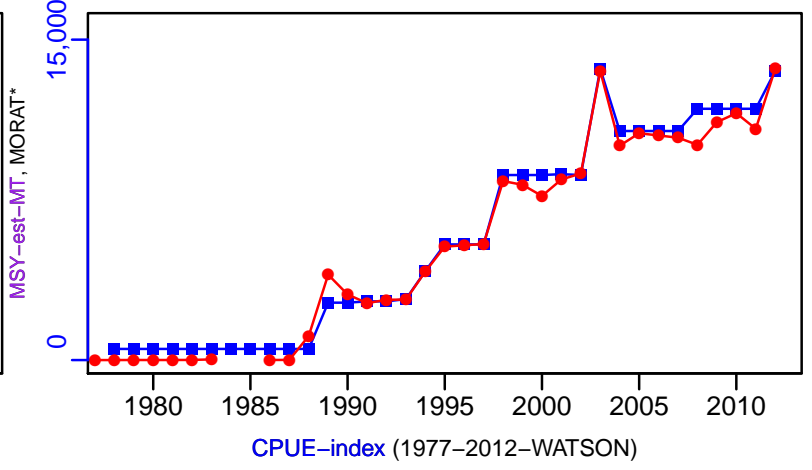


# Northern shrimp Shrimp Fishing Area 4 [PANDALSFA4]

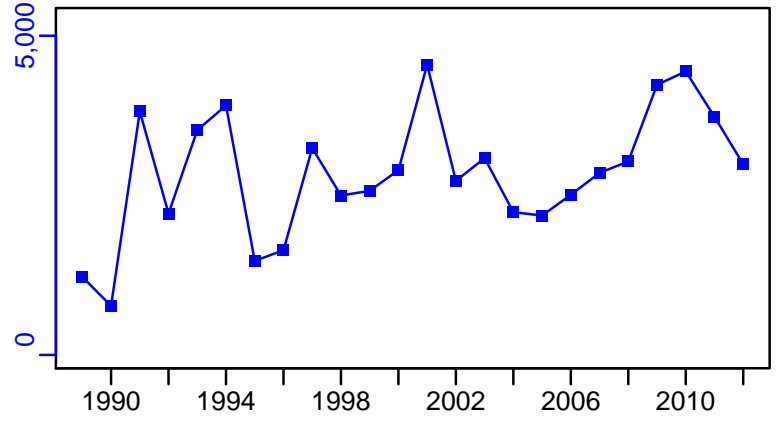
TC-MT, TL\*, RecC\* (1977-2012-WATSON)



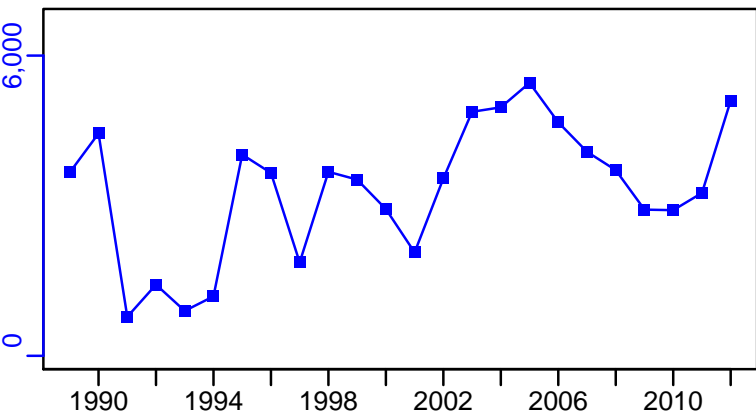
TAC-MT, Cpair-MT, Cadv\* (1977-2012-WATSON)



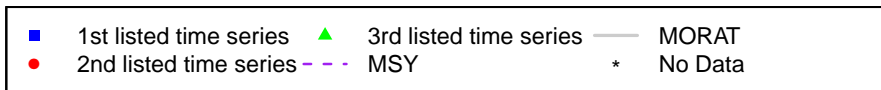
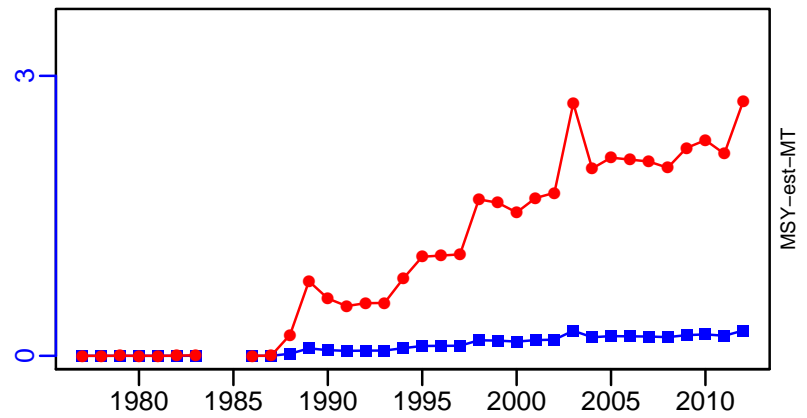
CPUE-index (1977-2012-WATSON)



EFFORT-hour (1977-2012-WATSON)



TC-MT/MSY-est-MT, CdivMEANC-ratio, (1977-2012-WATSON)



## Northern shrimp Shrimp Fishing Area 5 [PANDALSFA5]

Metadata	
<b>Scientific Name</b>	Pandalus borealis
<b>Current Assess ID</b>	DFO-PANDALSFA5-1977-2012-WATSON
<b>Area</b>	Shrimp Fishing Area 5
<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

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	SSBlim-MT	2012	14,300
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2012	176,000	Both	-
SSB	SSB-MT	2012	63,000	-	-
TN	TN-E00	2012	$4.38 \times 10^{10}$	-	-
R	R-E00	2012	$1.3 \times 10^{10}$	-	-
F	-	-	-	-	-
ER	ER-calc-ratio	2012	0.103	-	-
TC	TC-MT	2012	18,100		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Northern shrimp Shrimp Fishing Area 5 [PANDALSFA5]

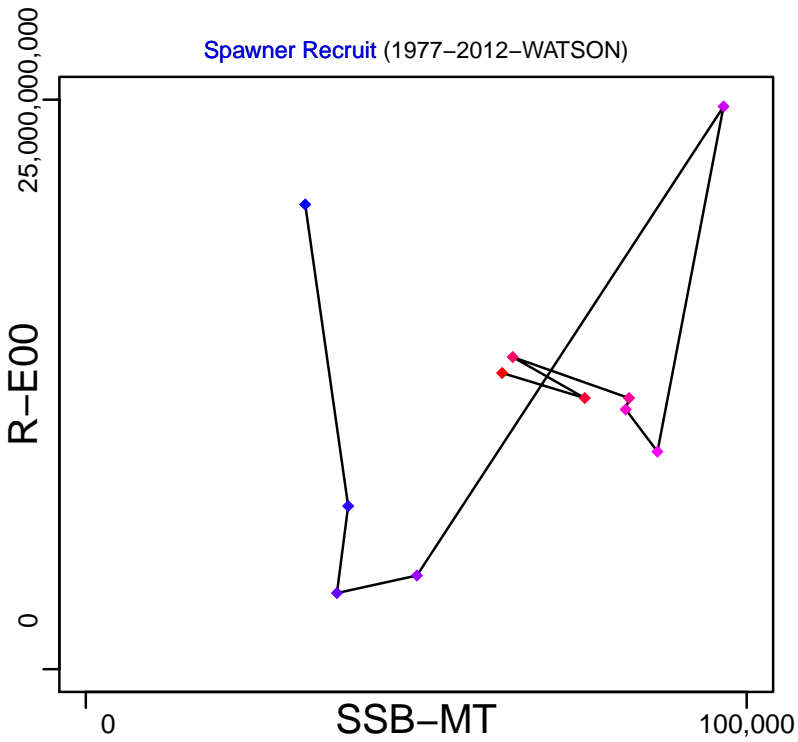
Kobe MSY\*



Kobe MGT\*



Spawner Recruit (1977–2012–WATSON)



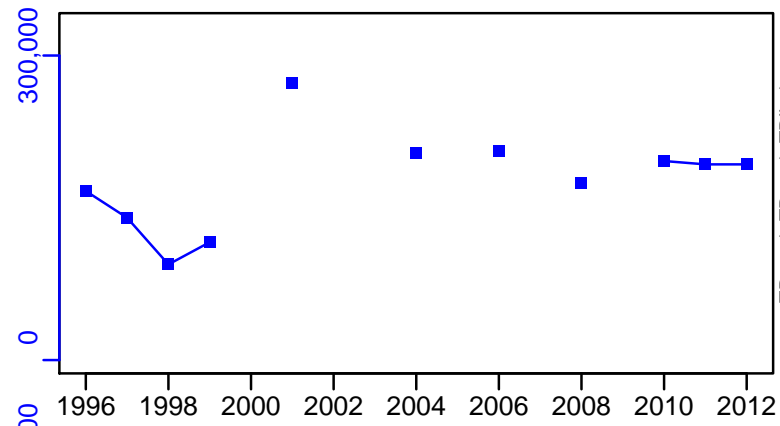
Production\*



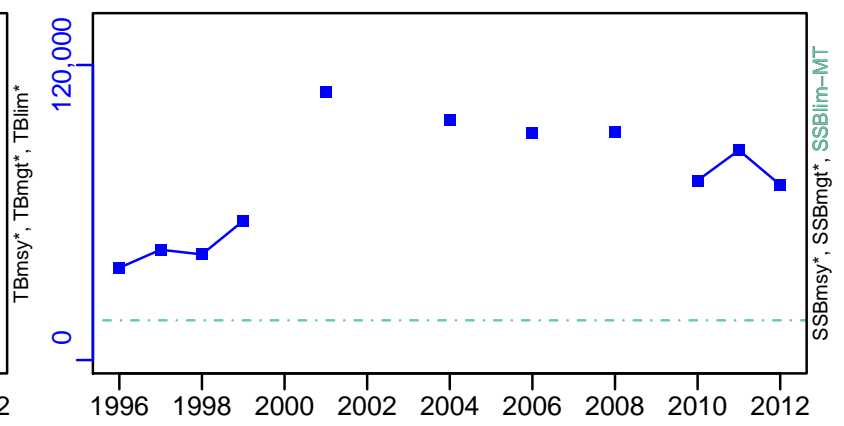
◆ Start Year ◆ End Year \* No Data

# Northern shrimp Shrimp Fishing Area 5 [PANDALSFA5]

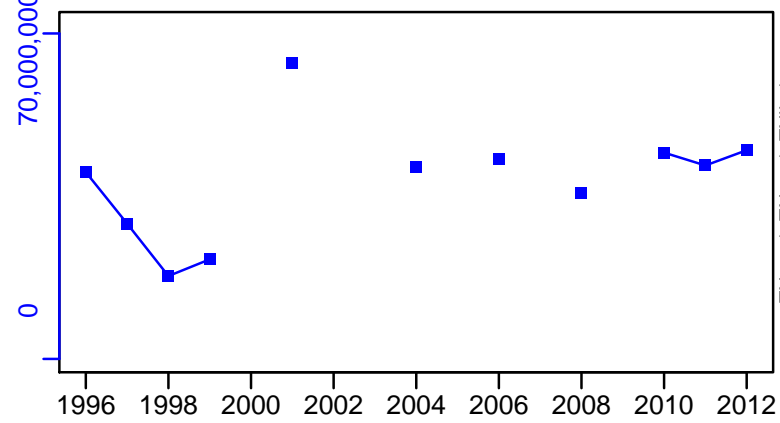
TB-MT (1977-2012-WATSON)



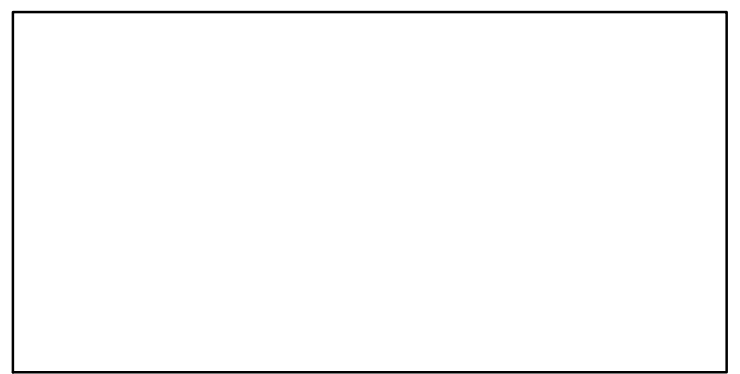
SSB-MT (1977-2012-WATSON)



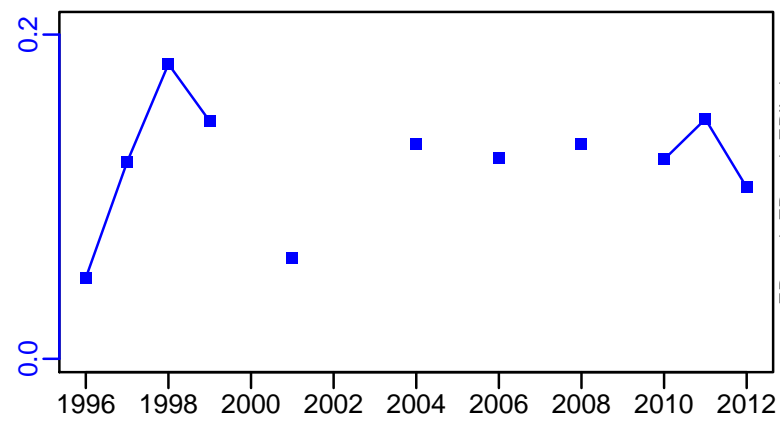
TN-E00 (1977-2012-WATSON)



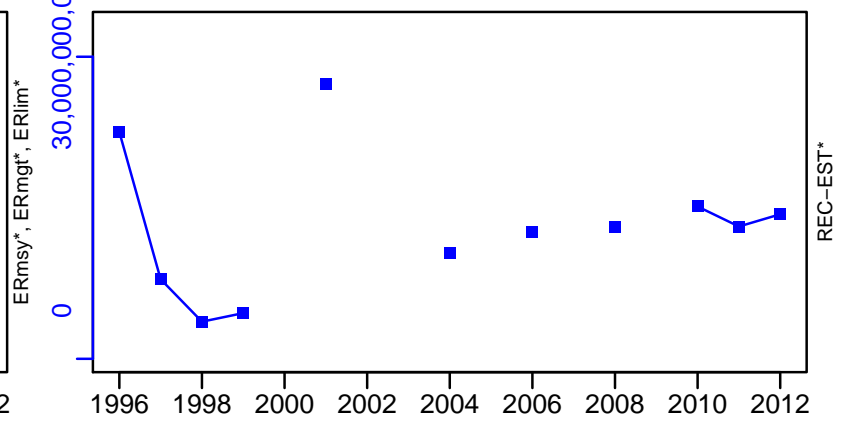
F\*



ER-calc-ratio (1977-2012-WATSON)



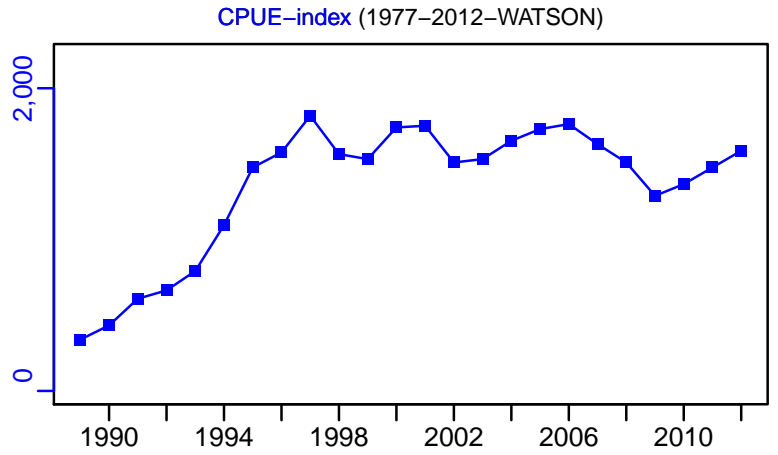
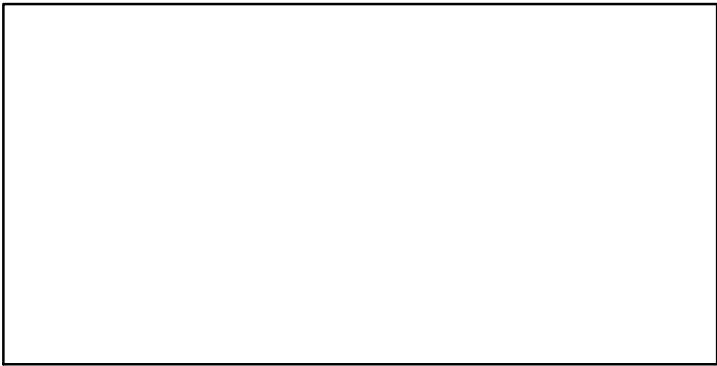
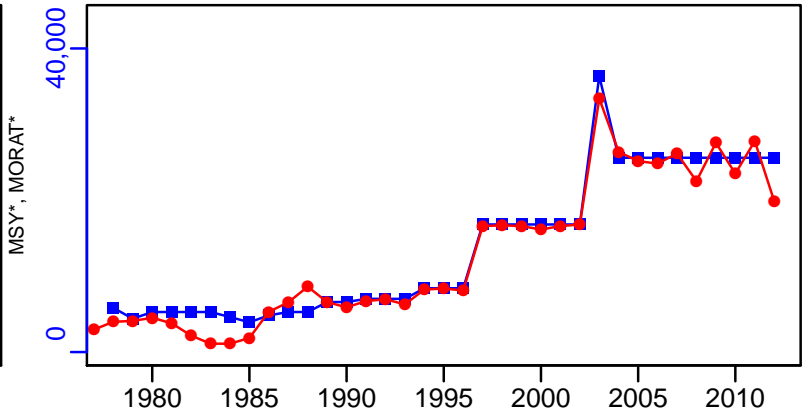
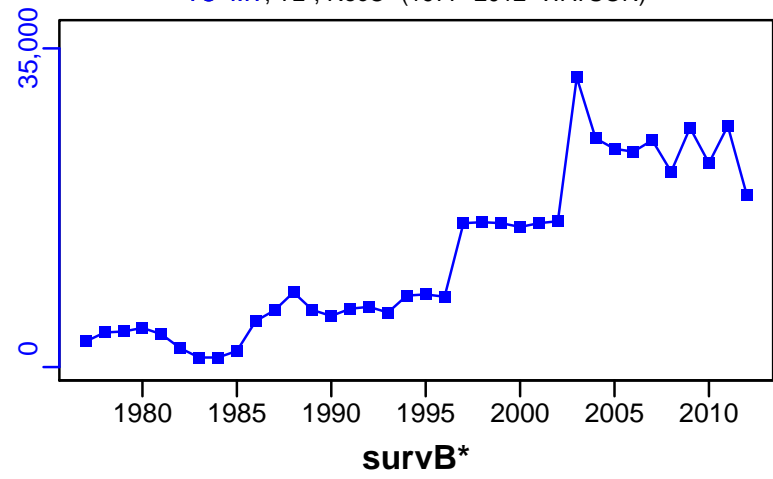
R-E00 (1977-2012-WATSON)



# Northern shrimp Shrimp Fishing Area 5 [PANDALSFA5]

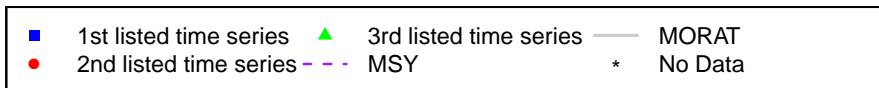
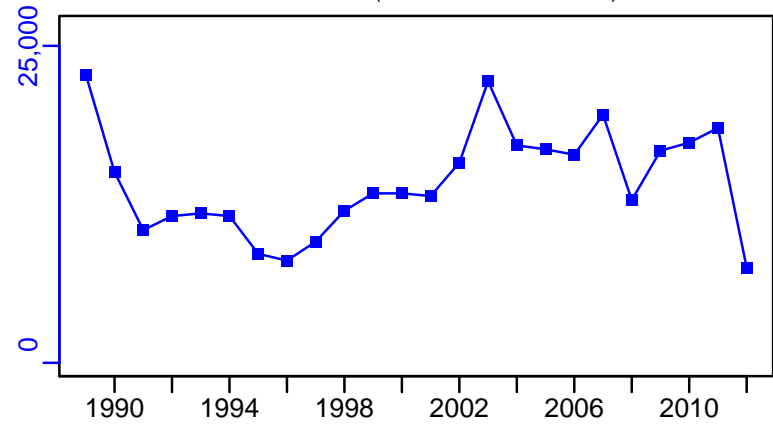
TC-MT, TL\*, RecC\* (1977-2012-WATSON)

TAC-MT, Cpair-MT, Cadv\* (1977-2012-WATSON)



EFFORT-hour (1977-2012-WATSON)

CdivMSY\*



## Northern shrimp Shrimp Fishing Area 6 [PANDALSFA6]

Metadata	
<b>Scientific Name</b>	Pandalus borealis
<b>Current Assess ID</b>	DFO-PANDALSFA6-1977-2012-WATSON
<b>Area</b>	Shrimp Fishing Area 6
<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

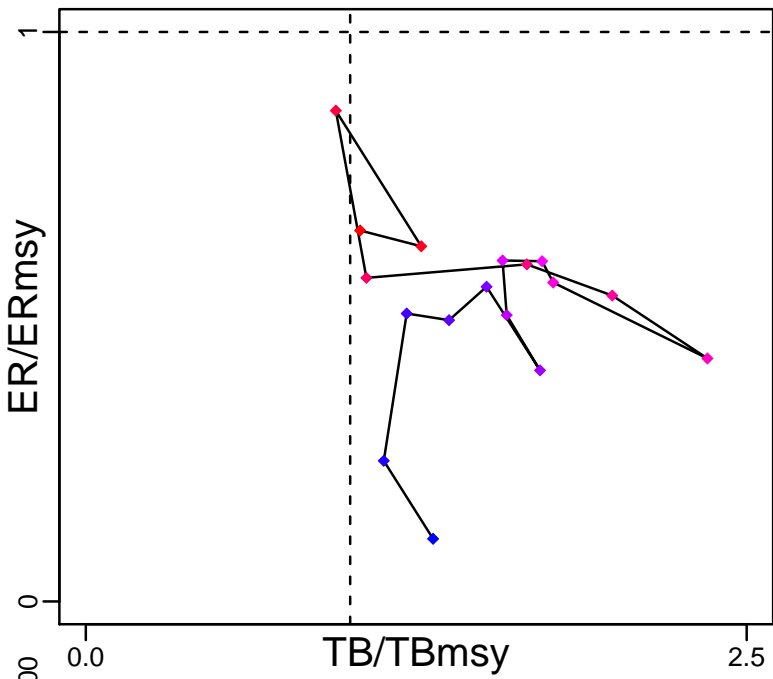
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-est-MT	2012	380,605
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-est-ratio	2012	0.198
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-est-MT	2012	75,442
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2012	79,600
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2012	395,000	Both	-
<b>SSB</b>	SSB-MT	2012	187,000	-	-
<b>TN</b>	TN-E00	2012	$9.29 \times 10^{10}$	-	-
<b>R</b>	R-E00	2012	$3.14 \times 10^{10}$	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2012	0.129	-	-
<b>TC</b>	TC-MT	2012	51,000		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-est-MT	2012	1.038		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-est-ratio	2012	0.651		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

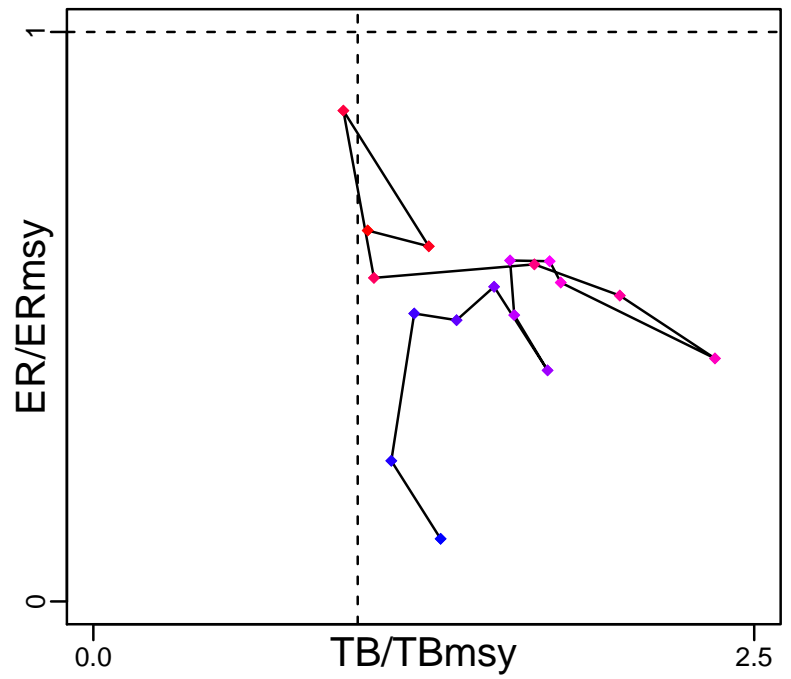


# Northern shrimp Shrimp Fishing Area 6 [PANDALSFA6]

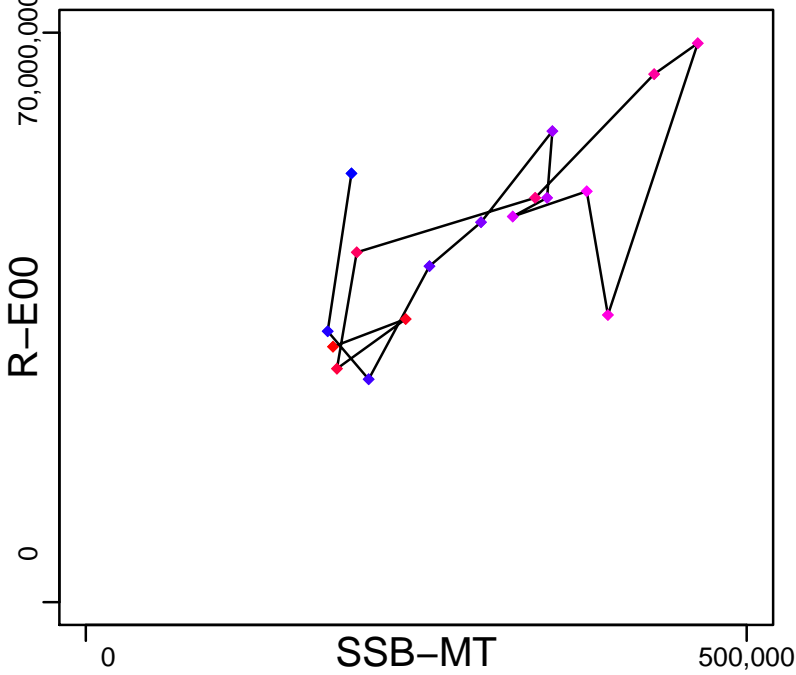
Kobe MSYpref (1977–2012–WATSON)



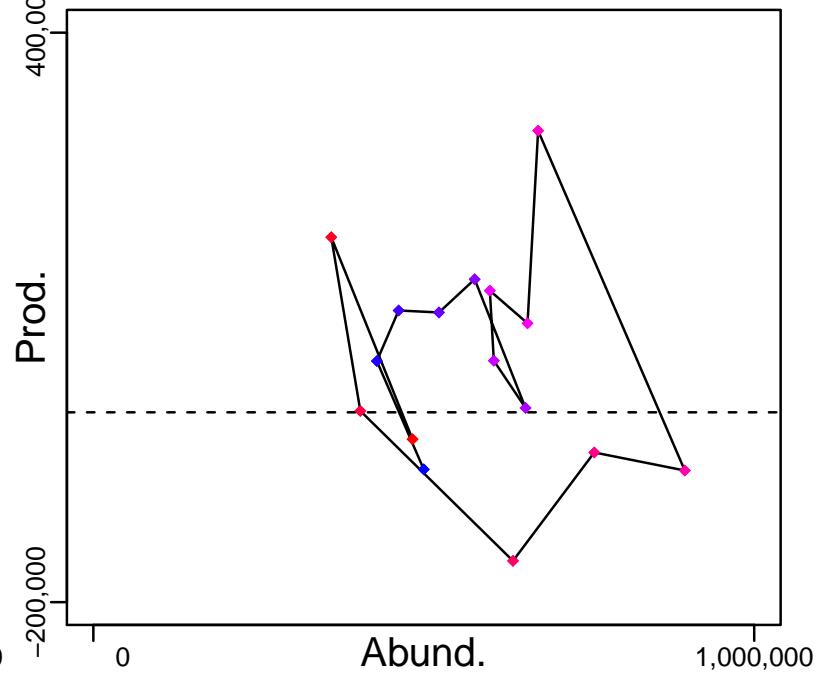
Kobe MGTpref (1977–2012–WATSON)



Spawner Recruit (1977–2012–WATSON)



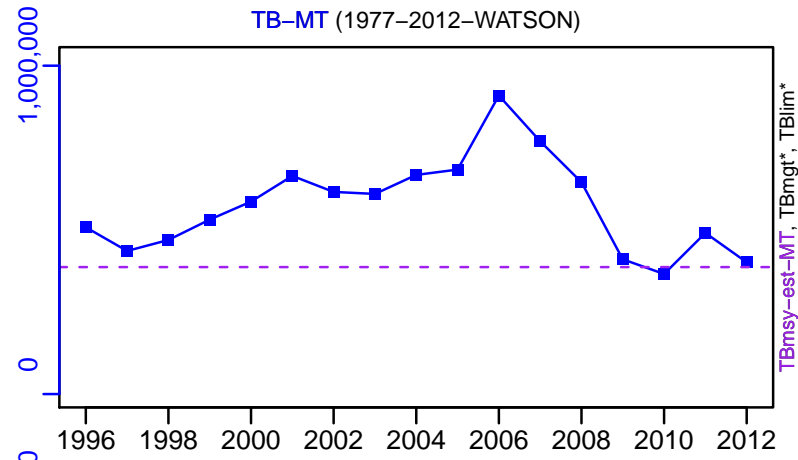
Production (1977–2012–WATSON)



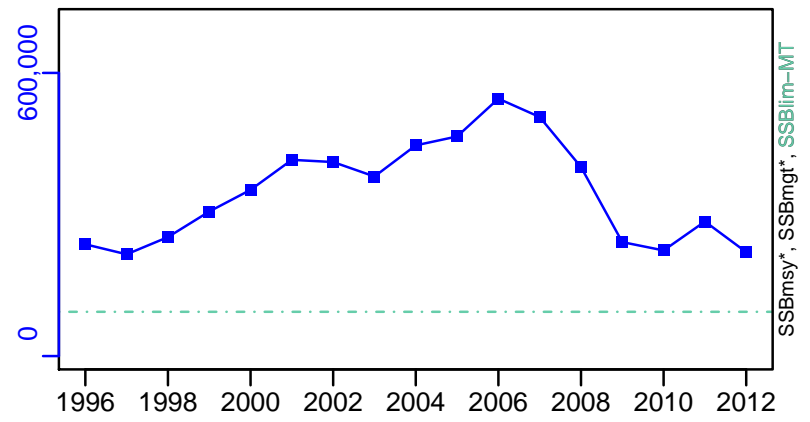
◆ Start Year ◆ End Year \* No Data

# Northern shrimp Shrimp Fishing Area 6 [PANDALSFA6]

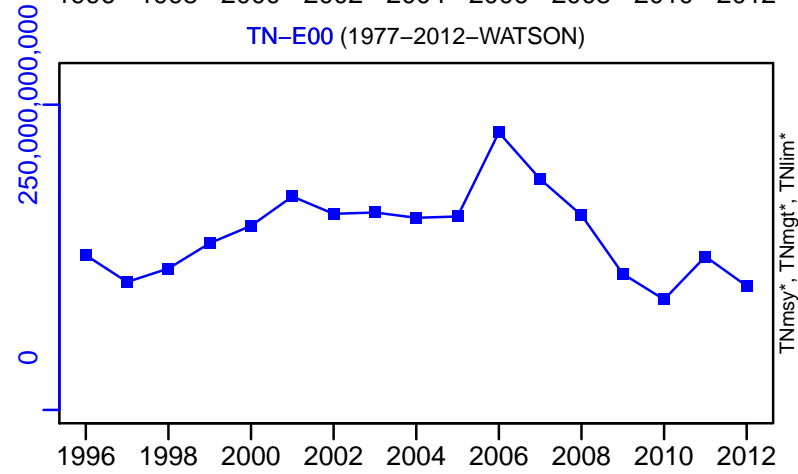
TB-MT (1977-2012-WATSON)



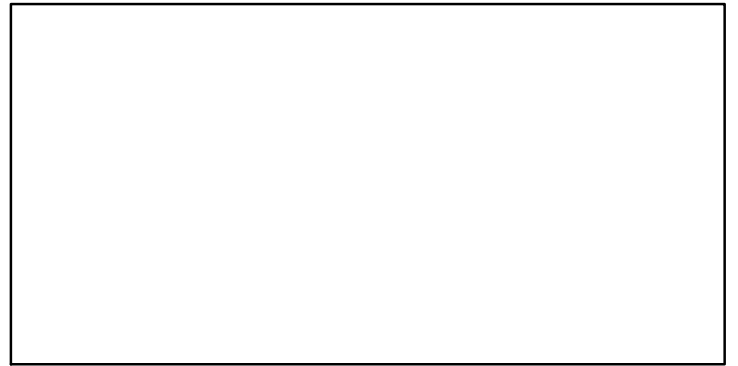
SSB-MT (1977-2012-WATSON)



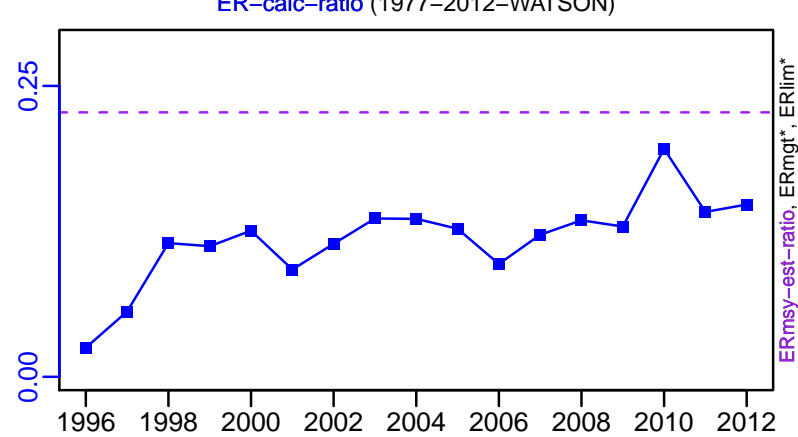
TN-E00 (1977-2012-WATSON)



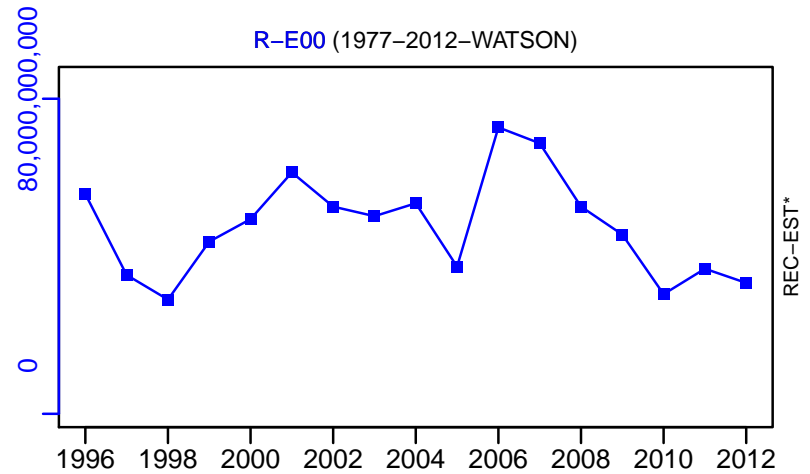
F\*



ER-calc-ratio (1977-2012-WATSON)

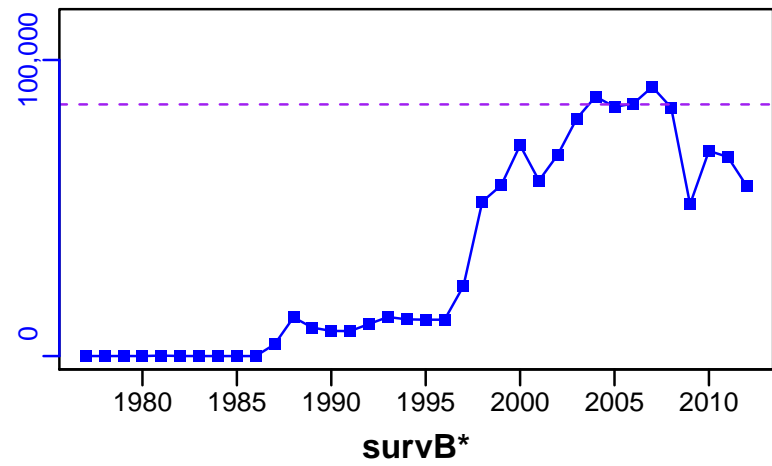


R-E00 (1977-2012-WATSON)

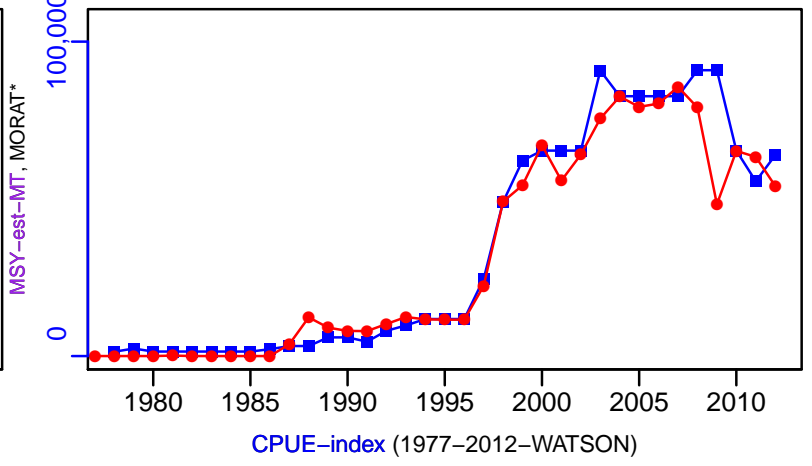


# Northern shrimp Shrimp Fishing Area 6 [PANDALSFA6]

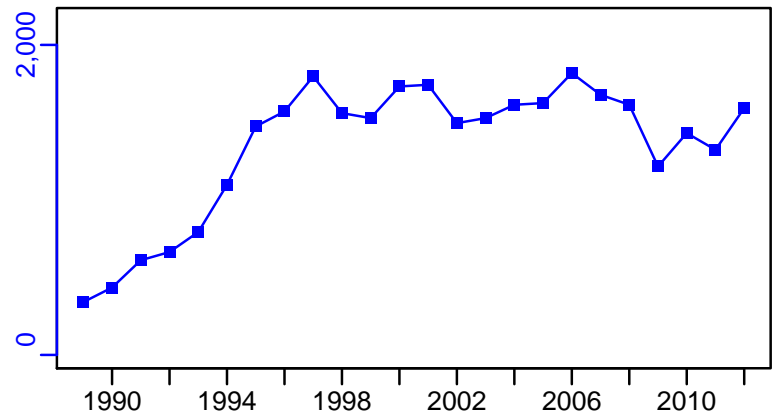
TC-MT, TL\*, RecC\* (1977-2012-WATSON)



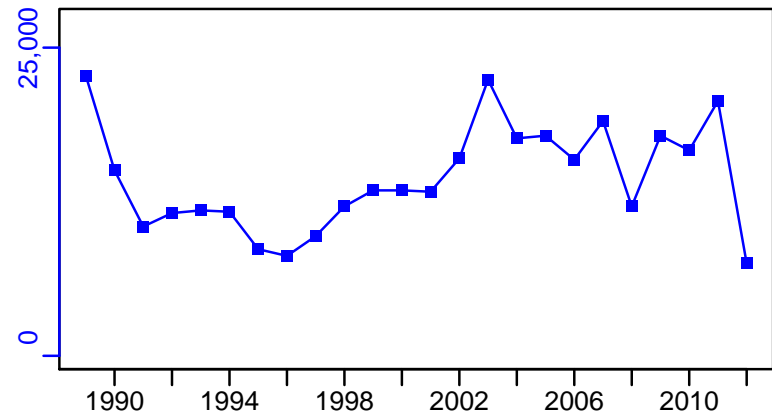
TAC-MT, Cpair-MT, Cadv\* (1977-2012-WATSON)



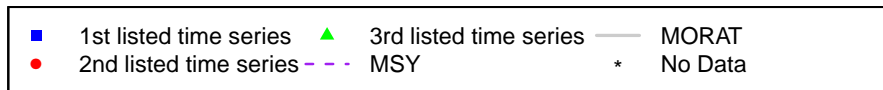
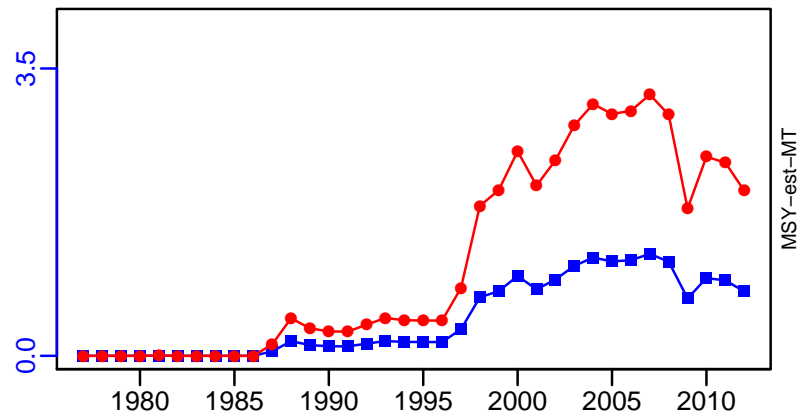
CPUE-index (1977-2012-WATSON)



EFFORT-hour (1977-2012-WATSON)



TC-MT/MSY-est-MT, CdivMEANC-ratio, (1977-2012-WATSON)



## Pollock St. Pierre Bank [POLL3Ps]

Metadata	
<b>Scientific Name</b>	Pollachius virens
<b>Current Assess ID</b>	DFO-NFLD-POLL3Ps-1960-2018-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>	2013, 2018

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	-	-	-		
TL	TL-MT	2018	650		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



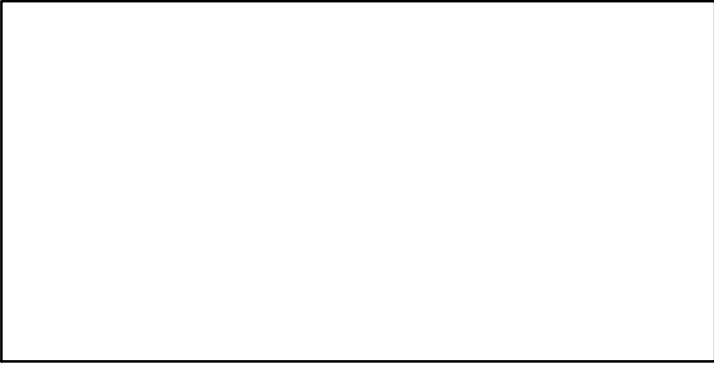
Production\*



◆ Start Year   ◆ End Year   \* No Data

Pollock St. Pierre Bank [POLL3Ps]

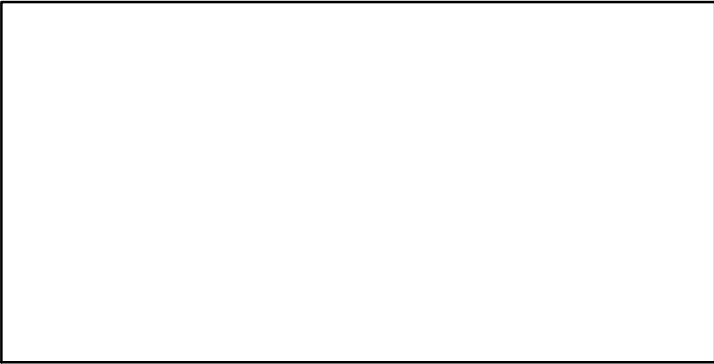
**TB\***



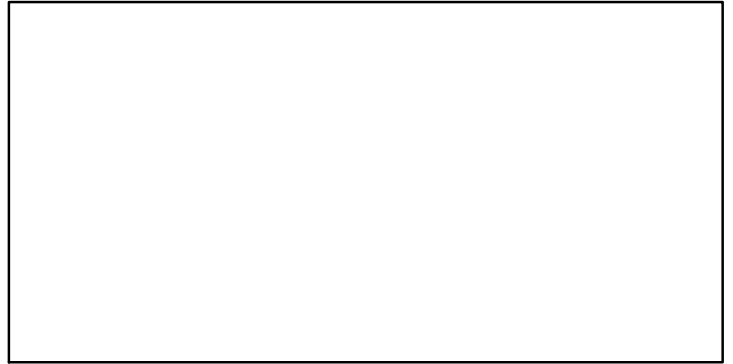
**SSB\***



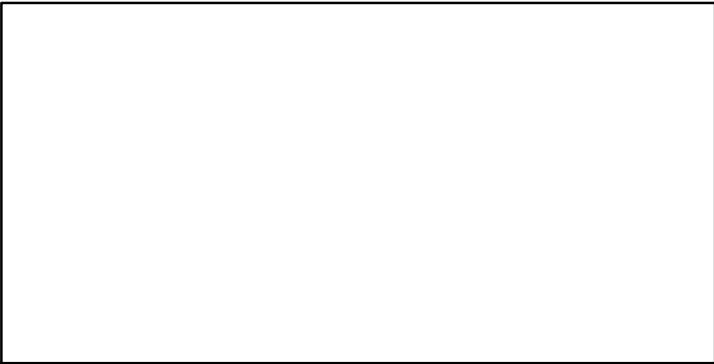
**TN \***



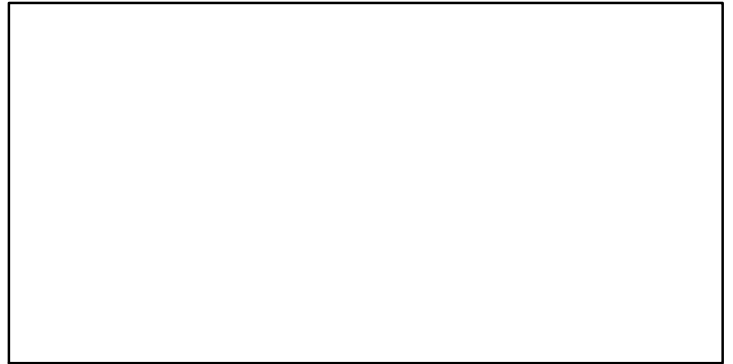
**F\***



**ER\***

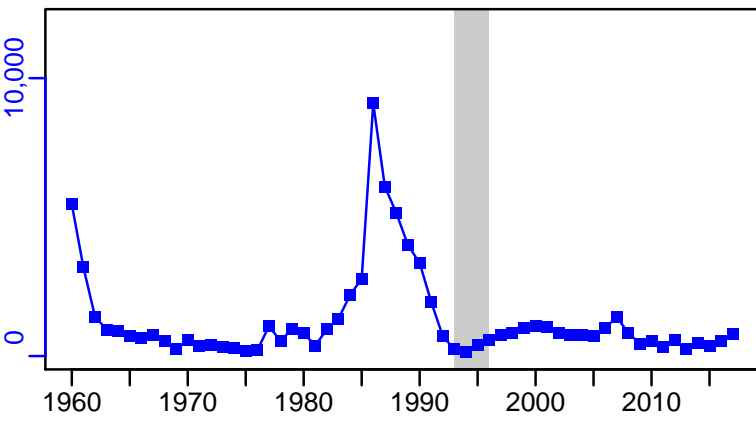


**Recruits\***

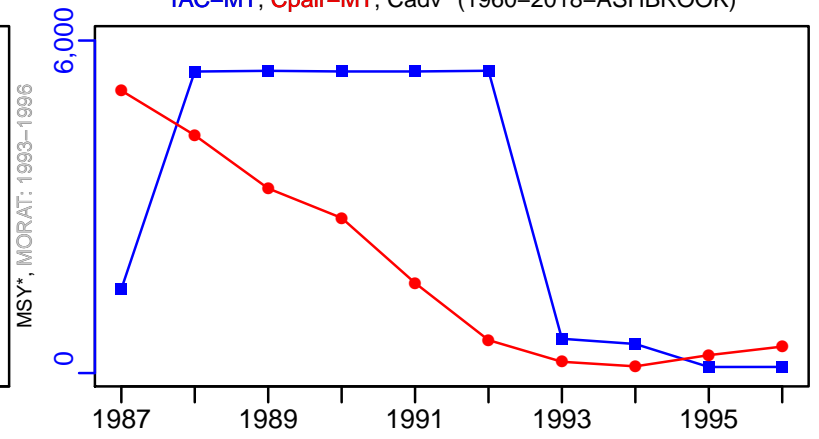


# Pollock St. Pierre Bank [POLL3Ps]

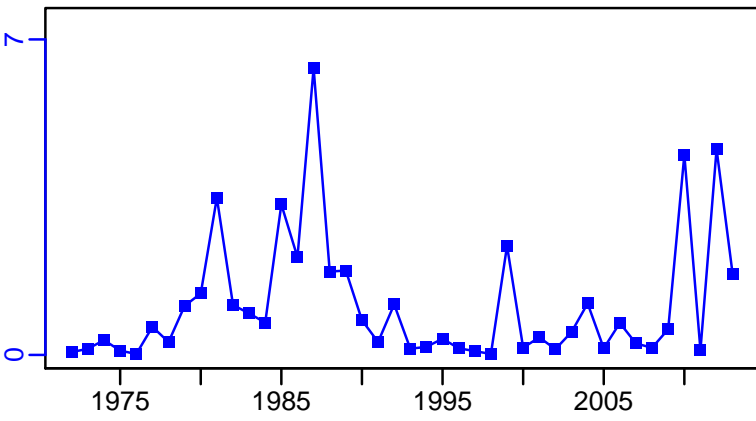
TL-MT, TC\*, RecC\* (1960–2018–ASHBROOK)



TAC-MT, Cpair-MT, Cadv\* (1960–2018–ASHBROOK)

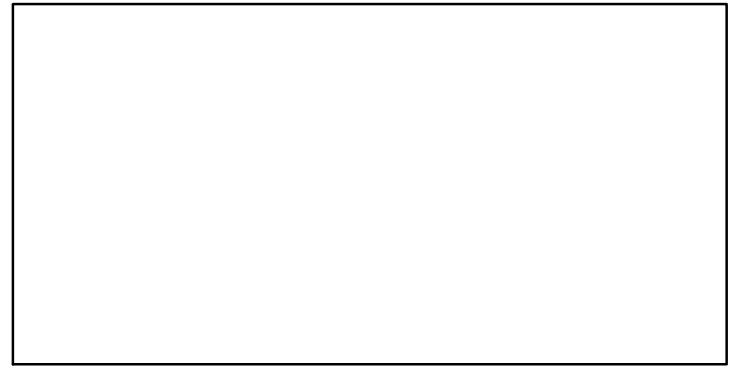


survB–kg/tow (1960–2013–OSGOOD)

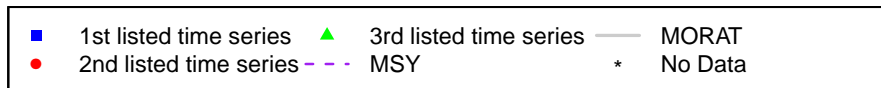


EFFORT\*

CPUE\*



CdivMSY\*



## Pollock Scotian Shelf and Bay of Fundy [POLL4VWX]

Metadata	
<b>Scientific Name</b>	Pollachius virens
<b>Current Assess ID</b>	DFO-MAR-POLL4VWX-1982-2011-OSGOOD
<b>Area</b>	Scotian Shelf and Bay of Fundy
<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	-	-	-	-	-
ER	-	-	-	-	-
TC	-	-	-		
TL	TL-MT	2011	1430		
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

Pollock Scotian Shelf and Bay of Fundy [POLL4VWX]

TB\*



SSB\*



TN \*



F\*



ER\*

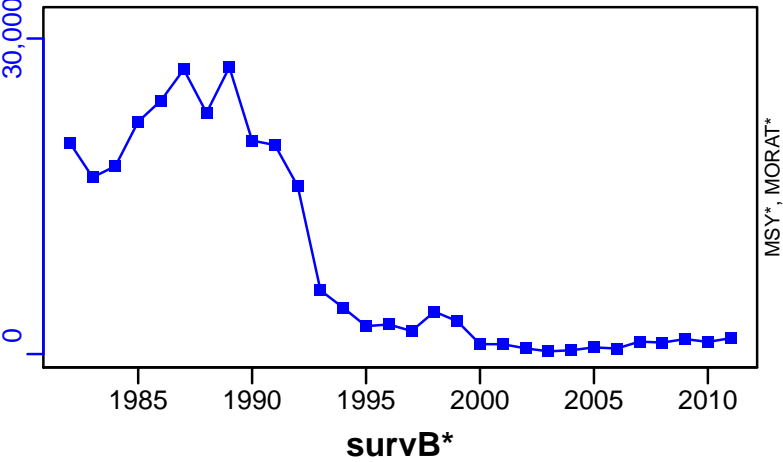


Recruits\*



Pollock Scotian Shelf and Bay of Fundy [POLL4VWX]

TL-MT, TC\*, RecC\* (1982-2011-OSGOOD)



TAC\*, Cpair\*, Cadv\*



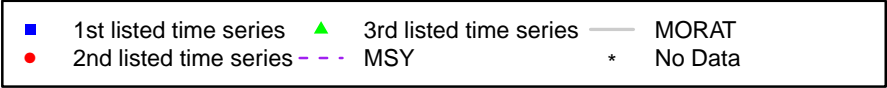
CPUE\*



EFFORT\*



CdivMSY\*



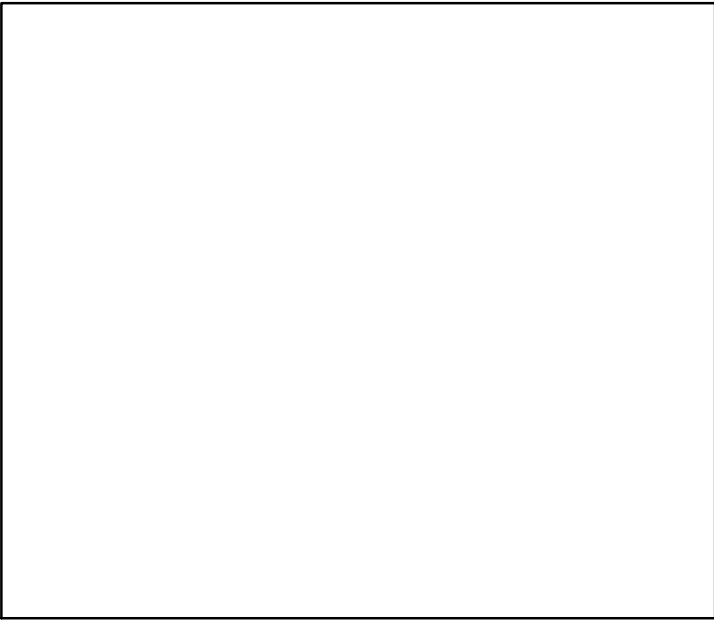
## Porbeagle shark Canadian Atlantic Ocean [PORSHARATL]

Metadata	
<b>Scientific Name</b>	Lamna nasus
<b>Current Assess ID</b>	DFO-PORSHARATL-1960-2014-OSGOOD
<b>Area</b>	Canadian Atlantic Ocean
<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>	2014

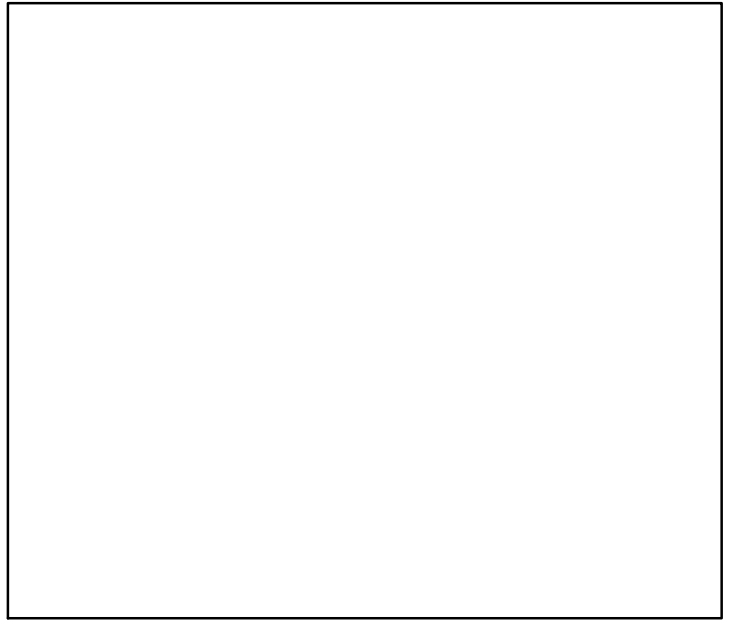
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-E00	2014	34,573
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-E00	2014	27,658
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	M-1/yr	2014	0.2
<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-E00	2014	12,900	-	-
<b>TN</b>	TN-E00	2014	199,000	Both	-
<b>R</b>	R-E00	2014	26,500	Both	1
<b>F</b>	-	-	-	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	TC-MT	2014	81		
<b>TL</b>	TL-MT	2014	9		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-E00/SSBmsy-E00	2014	0.373		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	SSB-E00/SSBmgt-E00	2014	0.466		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

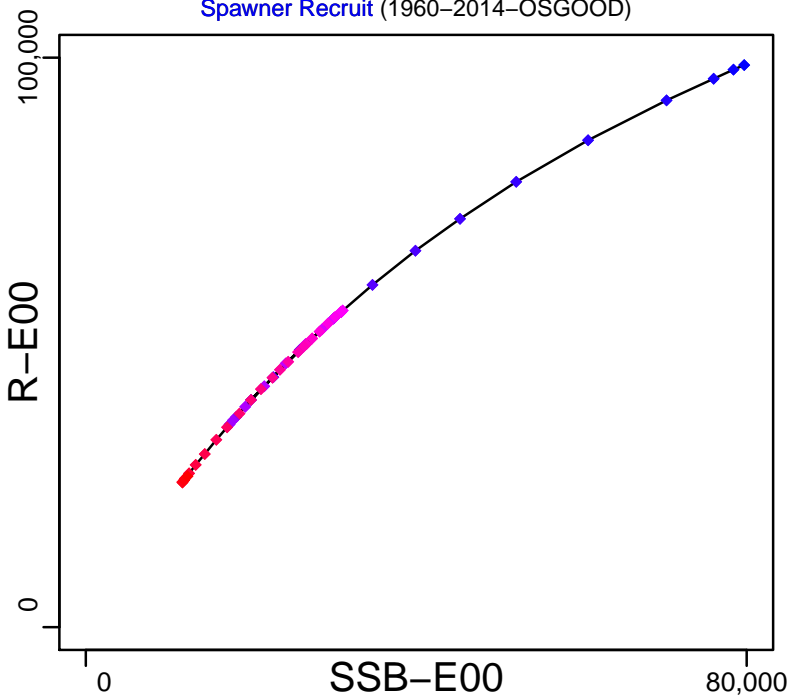
**Kobe MSY\***



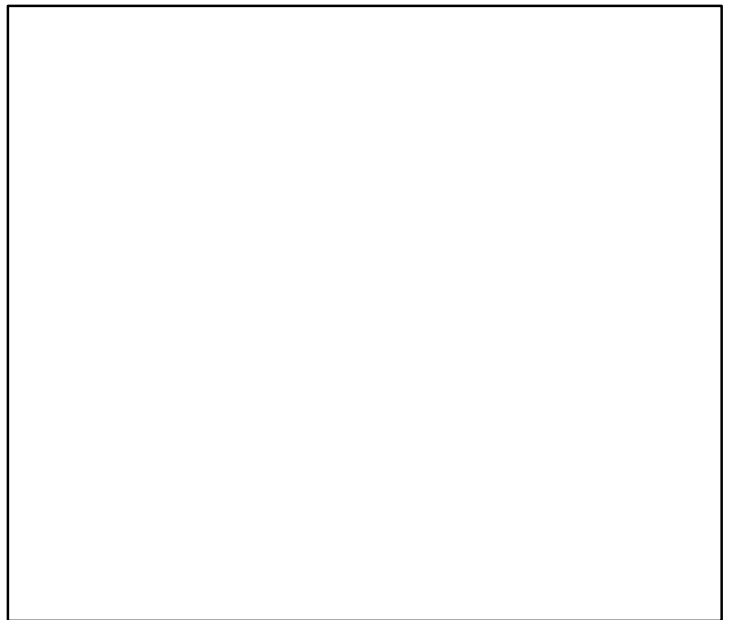
**Kobe MGT\***



**Spawner Recruit** (1960–2014–OSGOOD)



**Production\***



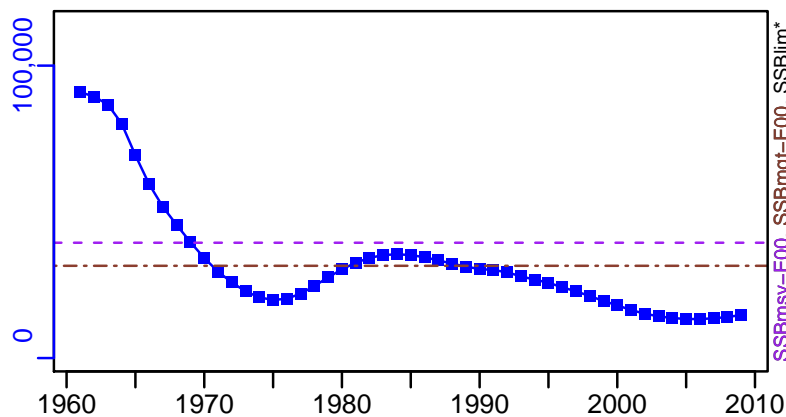
◆ Start Year ◆ End Year \* No Data

Porbeagle shark Canadian Atlantic Ocean [PORSHARATL]

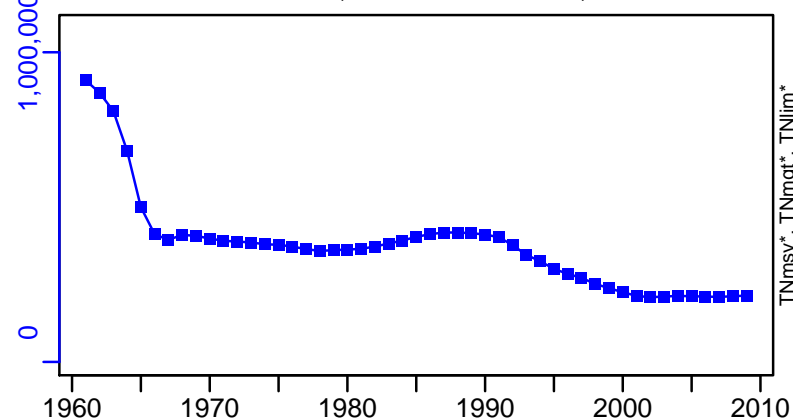
TB\*



SSB-E00 (1960–2014–OSGOOD)



TN-E00 (1960–2014–OSGOOD)



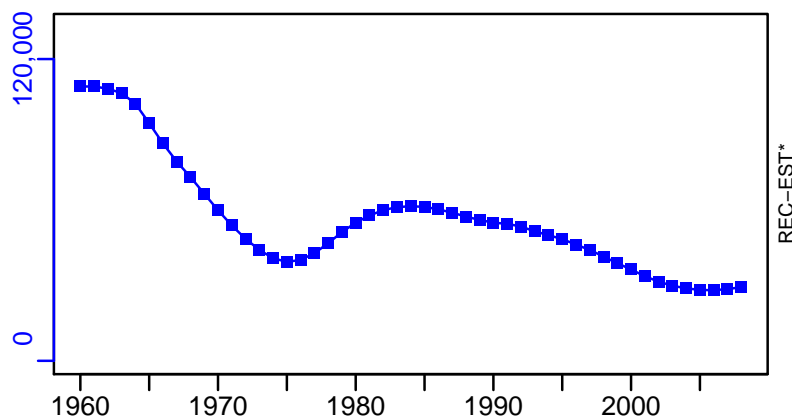
F\*



ER\*



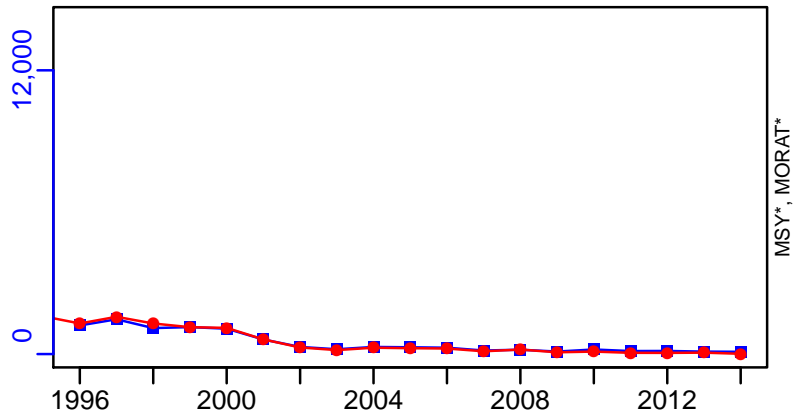
R-E00 (1960–2014–OSGOOD)



Porbeagle shark Canadian Atlantic Ocean [PORSHARATL]

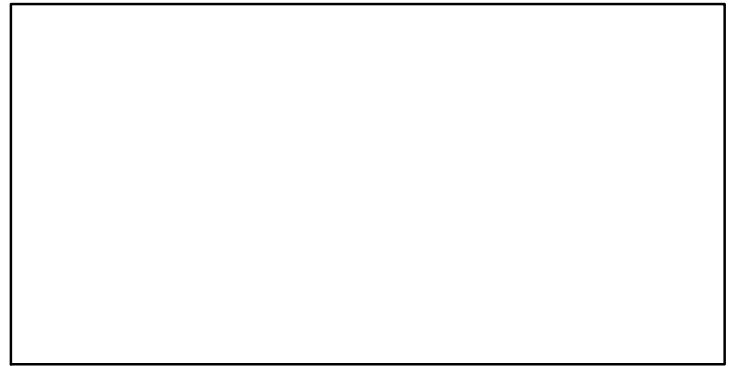
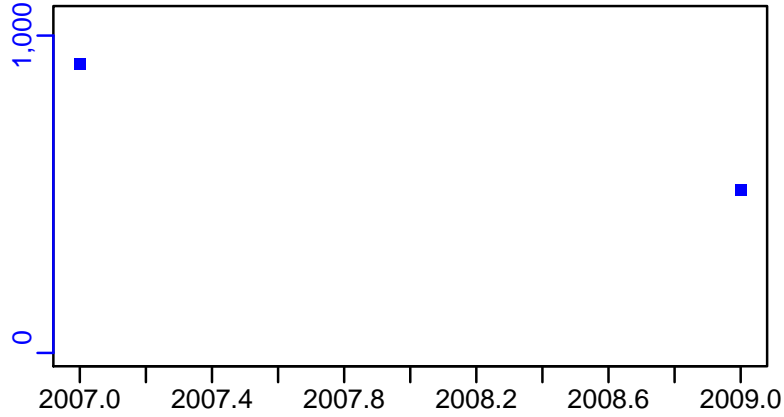
TC-MT, TL-MT, RecC\* (1960-2014-OSGOOD)

TAC\*, Cpair\*, Cadv\*



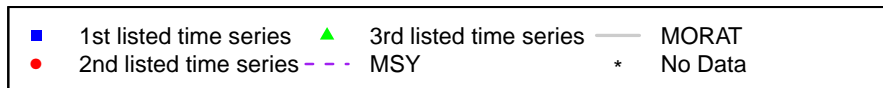
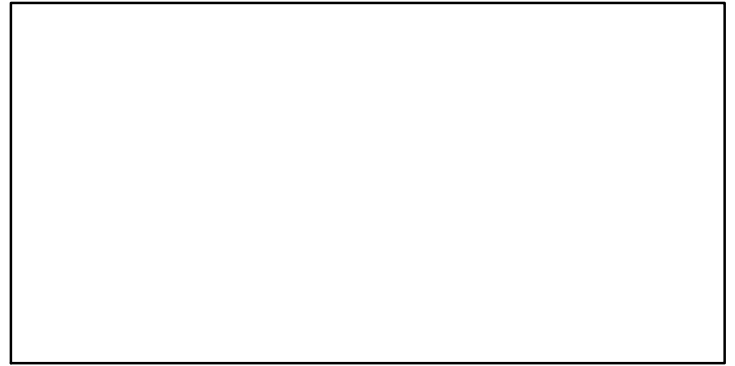
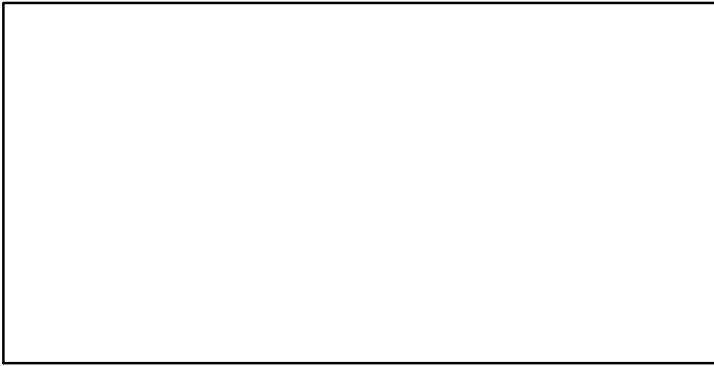
survB-E00 (1960-2014-OSGOOD)

CPUE\*



EFFORT\*

CdivMSY\*



## Redfish species N and SW Grand Banks [REDFISHSPP3LN]

Metadata	
<b>Scientific Name</b>	Sebastes spp
<b>Current Assess ID</b>	NAFO-SC-REDFISHSPP3LN-1959-2013-WATSON
<b>Area</b>	N and SW Grand Banks
<b>Management Authority</b>	Northwest Atlantic Fisheries Organization
<b>Assessor</b>	NAFO Scientific Council
<b>Asmts in RAM</b>	2008, 2013

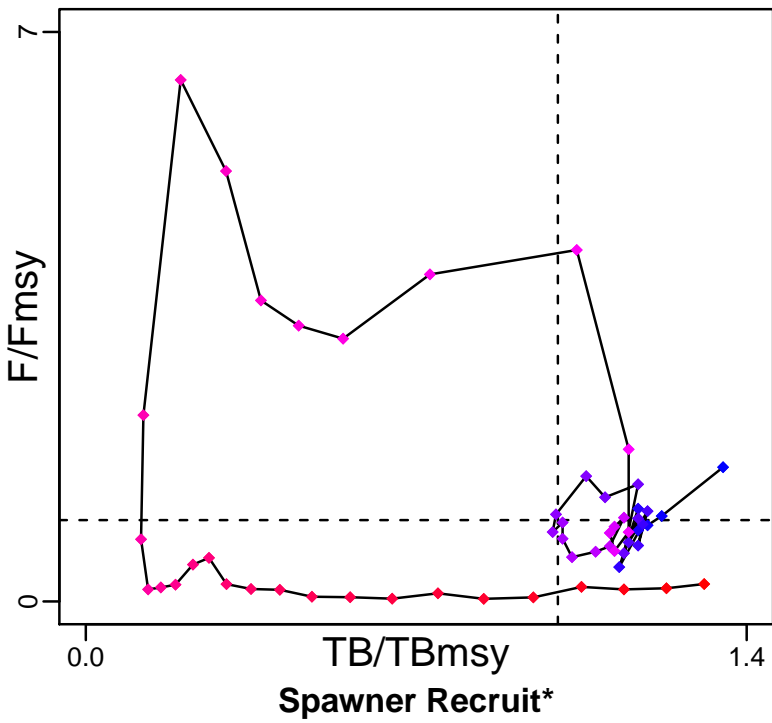
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-MT	2008	141,900
<b>SSBmsy</b>	SSBmsy-conv-MT	2008	33,251
<b>Fmsy</b>	Fmsy-1/yr	2008	0.172
<b>ERmsy</b>	ERmsy-ratio	2008	0.172
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2008	24,440
<b>M</b>	-	-	-
<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	2008	267,000	-	ALL AGES
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	F-1/yr	2008	0.007	Both	-
<b>ER</b>	ER-ratio	2008	0.006	-	-
<b>TC</b>	TC-MT	2013	6000		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TBdivTBmsy-dimensionless	2013	1.31		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	FdivFmsy-dimensionless	2013	0.214		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2008	0.037		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

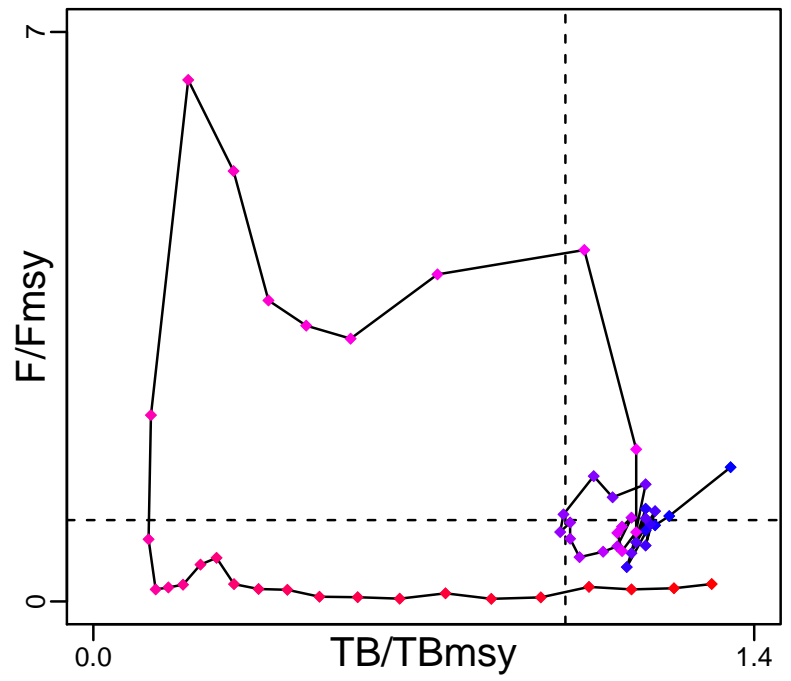


# Redfish species N and SW Grand Banks [REDFISHSPP3LN]

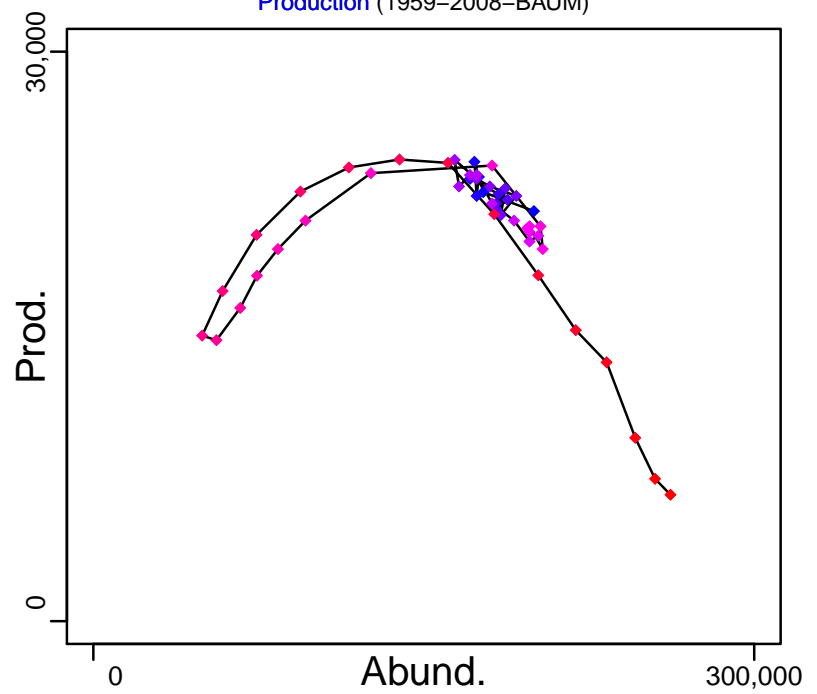
Kobe MSYpref (1959–2013–WATSON)



Kobe MGTpref (1959–2013–WATSON)



Production (1959–2008–BAUM)

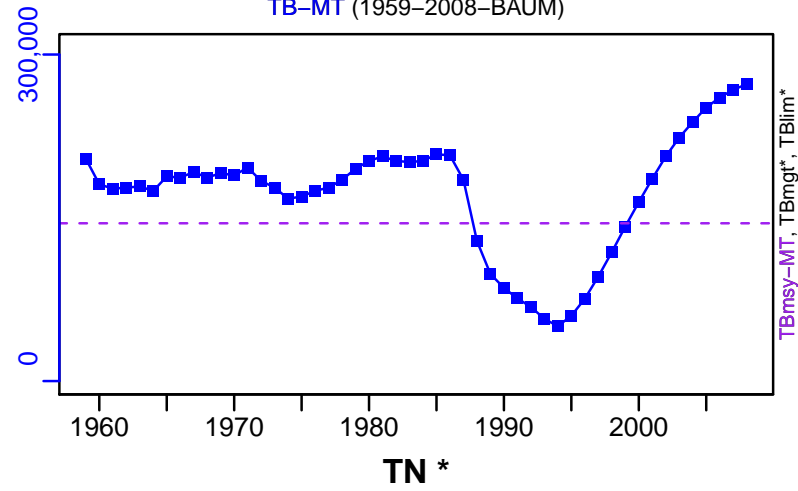


◆ Start Year ◆ End Year \* No Data

# Redfish species N and SW Grand Banks [REDFISHSPP3LN]

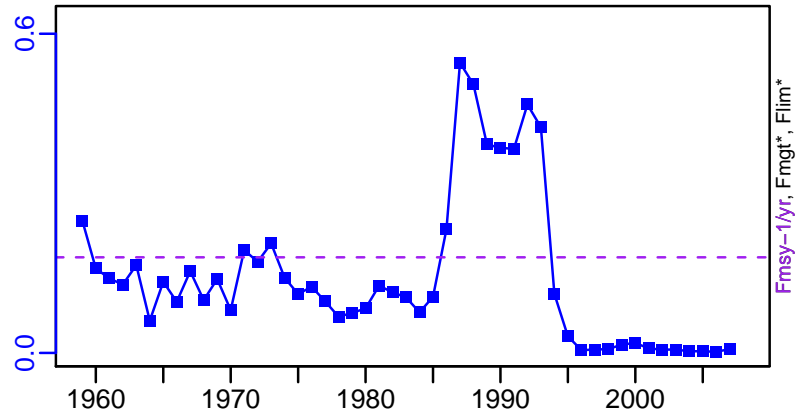
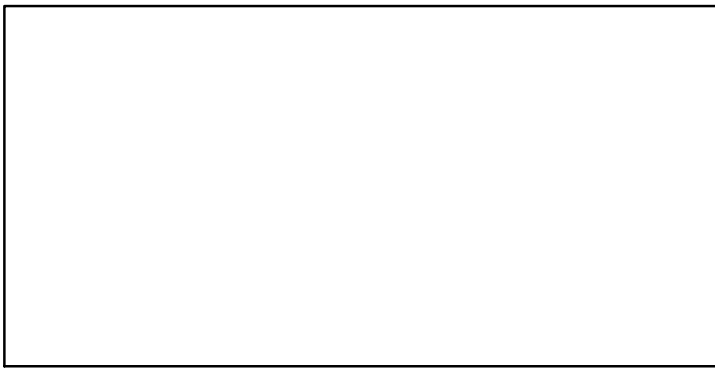
TB-MT (1959–2008–BAUM)

SSB\*



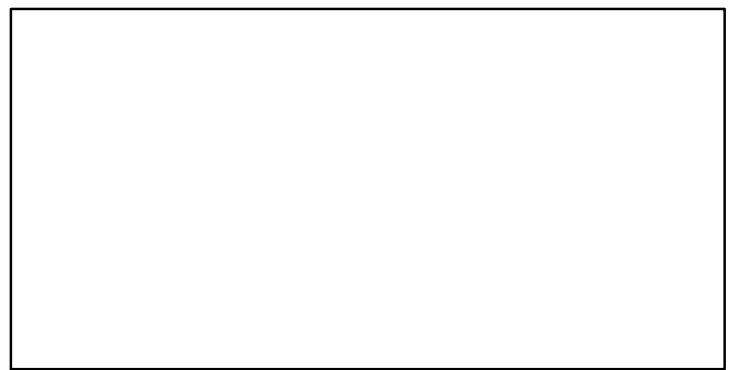
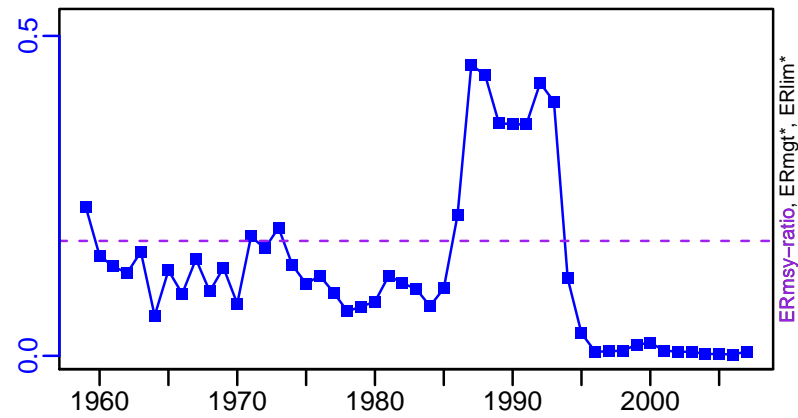
TN \*

F-1/yr (1959–2008–BAUM)



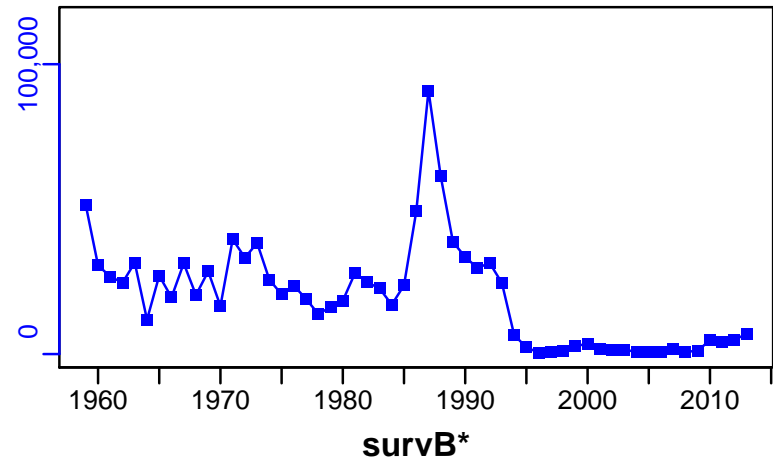
ER-ratio (1959–2008–BAUM)

Recruits\*

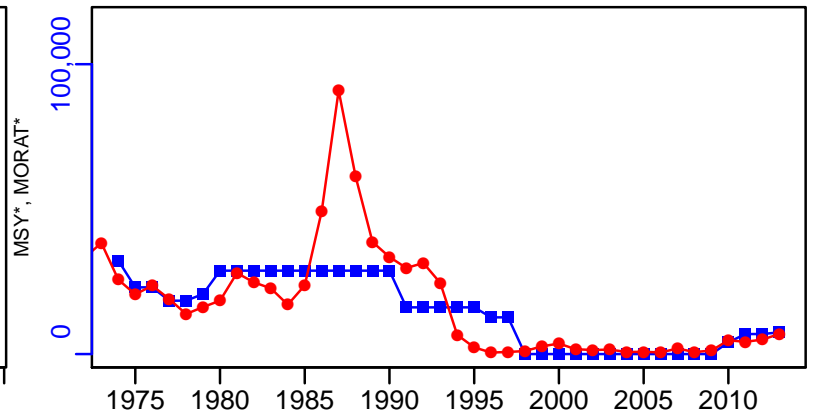


# Redfish species N and SW Grand Banks [REDFISHSPP3LN]

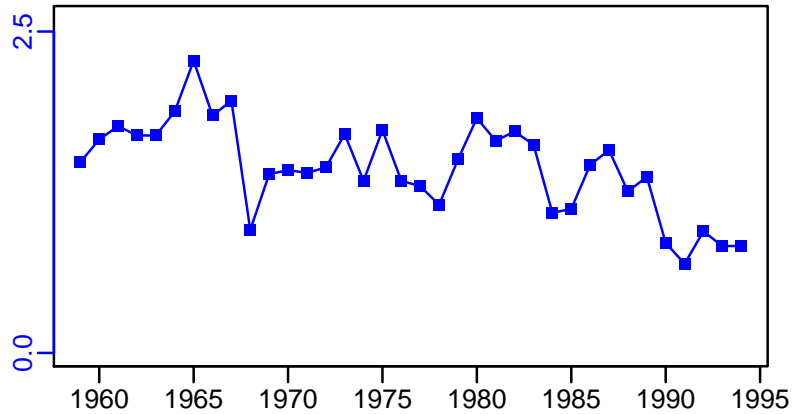
TC-MT, TL\*, RecC\* (1959-2013-WATSON)



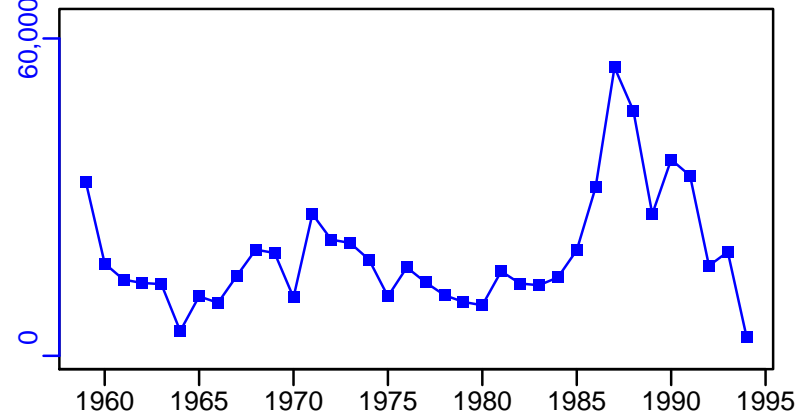
TAC-MT, Cpair-MT, Cadv\* (1959-2013-WATSON)



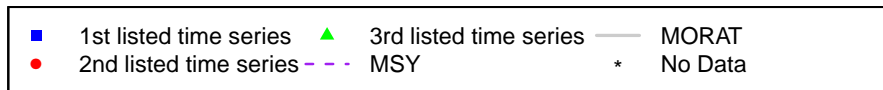
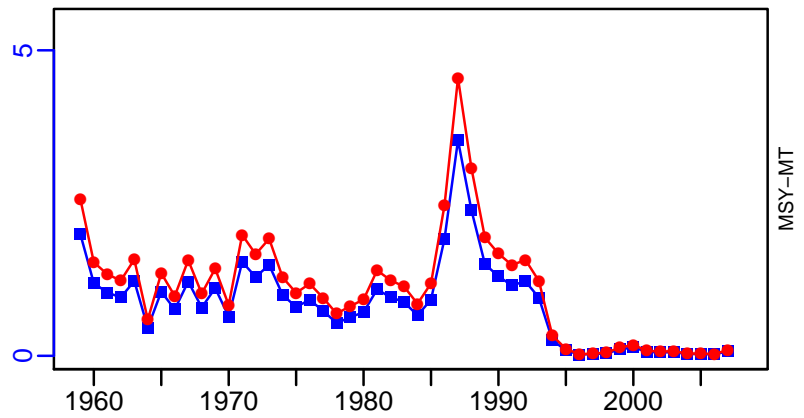
CPUE-MT/hour (1959-2013-WATSON)



EFFORT-hour (1959-2013-WATSON)



TC-MT/MSY-MT, CdivMEANC-ratio, (1959-2008-BAUM)



## Redfish species Flemish Cap [REDFISHSPP3M]

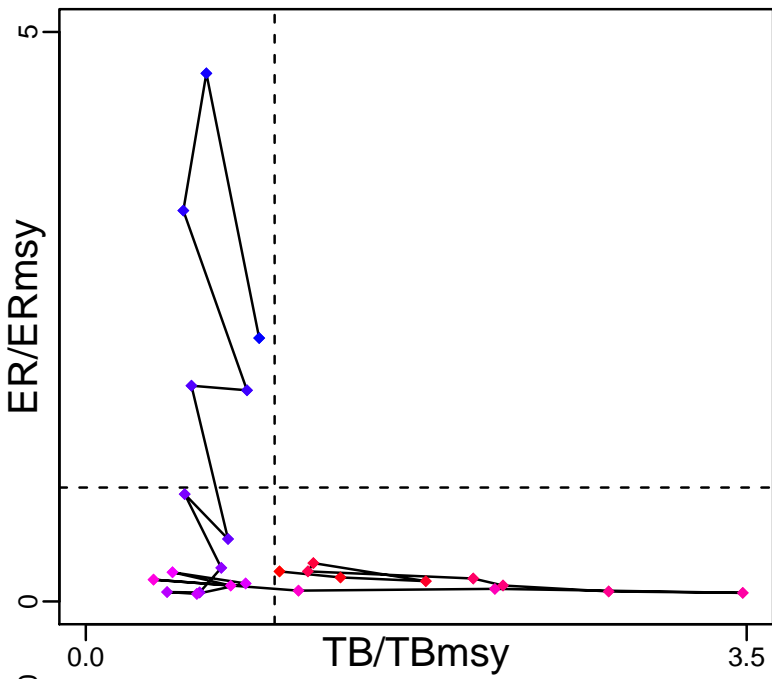
Metadata	
<b>Scientific Name</b>	Sebastes spp
<b>Current Assess ID</b>	NAFO-SC-REDFISHSPP3M-1988-2014-WATSON
<b>Area</b>	Flemish Cap
<b>Management Authority</b>	Northwest Atlantic Fisheries Organization
<b>Assessor</b>	NAFO Scientific Council
<b>Asmts in RAM</b>	2006, 2014

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-est-MT	2014	139,397
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-est-ratio	2014	0.196
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-est-MT	2014	27,362
<b>M</b>	M-1/yr	2006	0.1
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

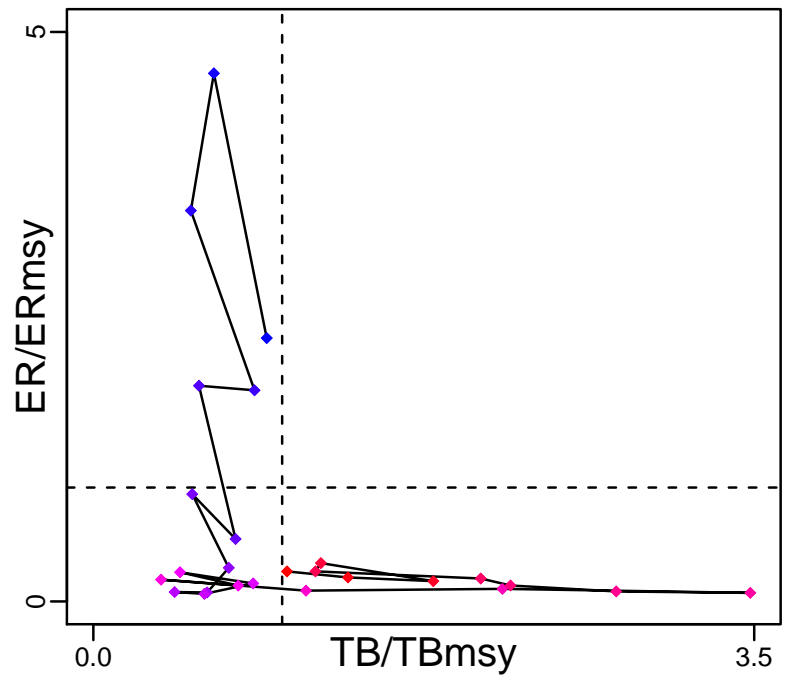
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2014	143,000	Both	-
<b>SSB</b>	SSB-MT	2014	63,000	Females	13+
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2006	$6.66 \times 10^8$	-	4
<b>F</b>	F-1/yr	2006	0.046	-	6 to 16
<b>ER</b>	ER-calc-ratio	2014	0.052	-	-
<b>TC</b>	TC-MT	2014	7400		
<b>TL</b>	TL-MT	2006	4120		
<b>TB/TBmsy</b>	TB-MT/TBmsy-est-MT	2014	1.026		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-est-ratio	2014	0.264		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Redfish species Flemish Cap [REDFISHSPP3M]

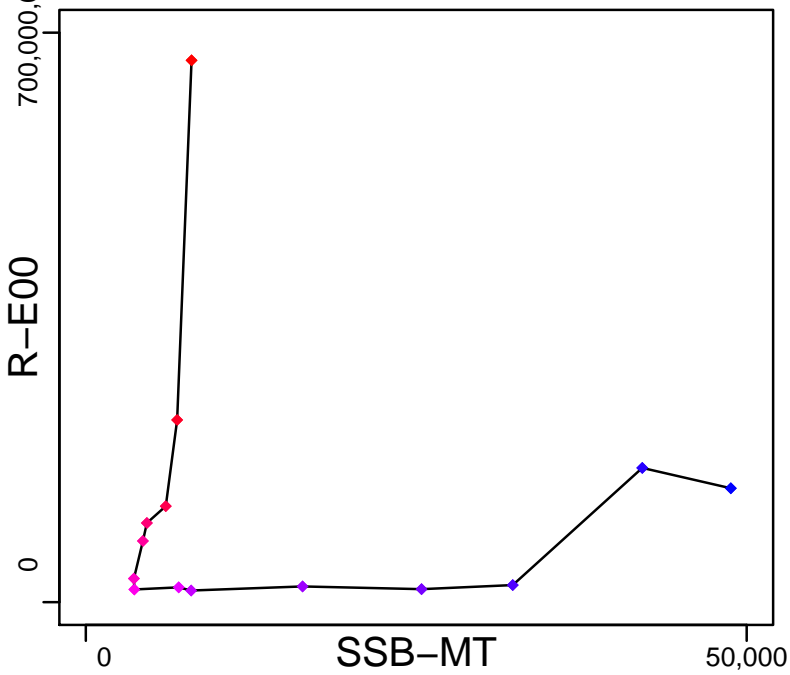
Kobe MSYpref (1988–2014–WATSON)



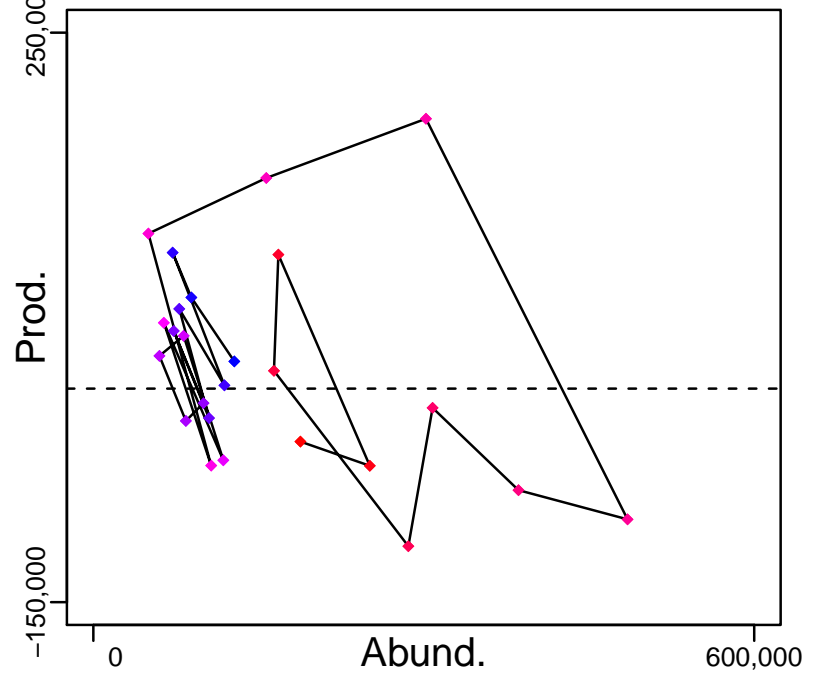
Kobe MGTpref (1988–2014–WATSON)



Spawner Recruit (1985–2006–PREFONTAINE)



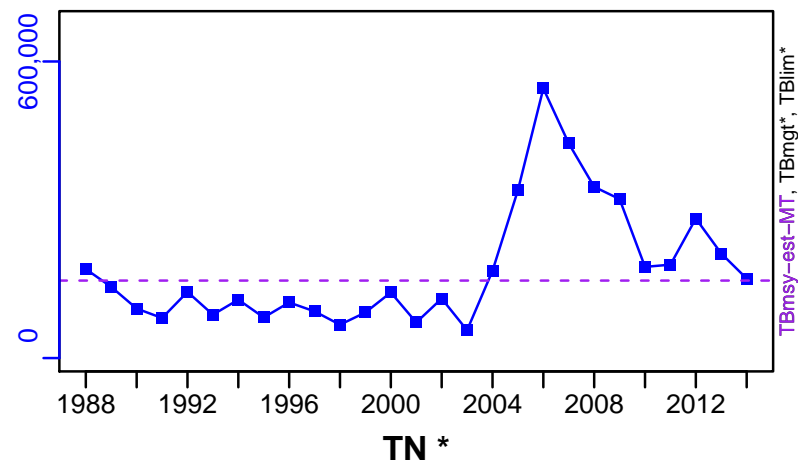
Production (1988–2014–WATSON)



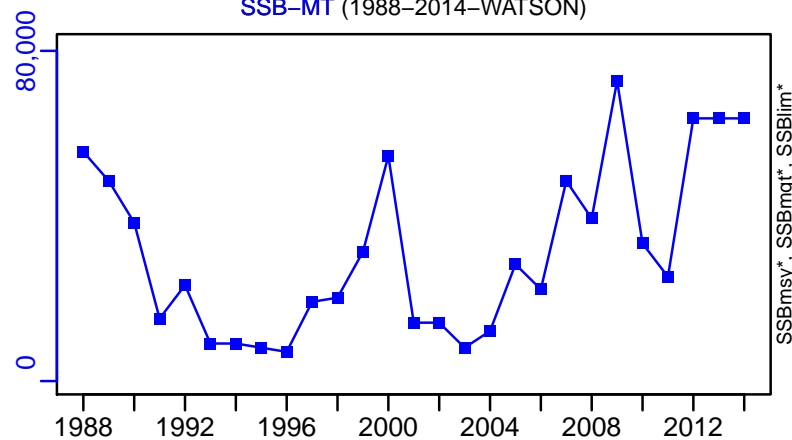
◆ Start Year ◆ End Year \* No Data

# Redfish species Flemish Cap [REDFISHSPP3M]

TB-MT (1988–2014–WATSON)



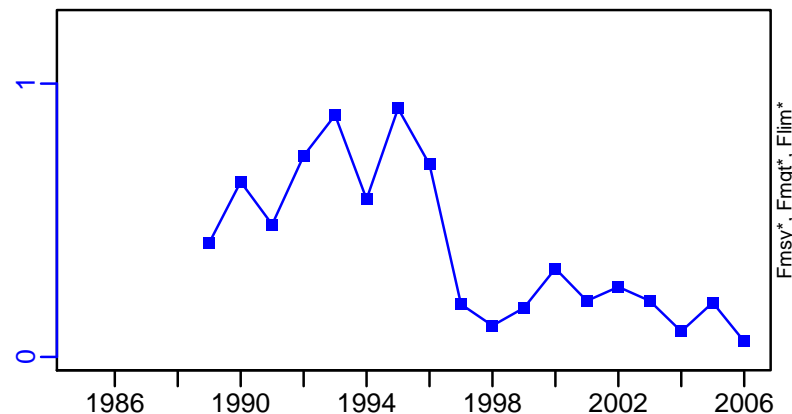
SSB-MT (1988–2014–WATSON)



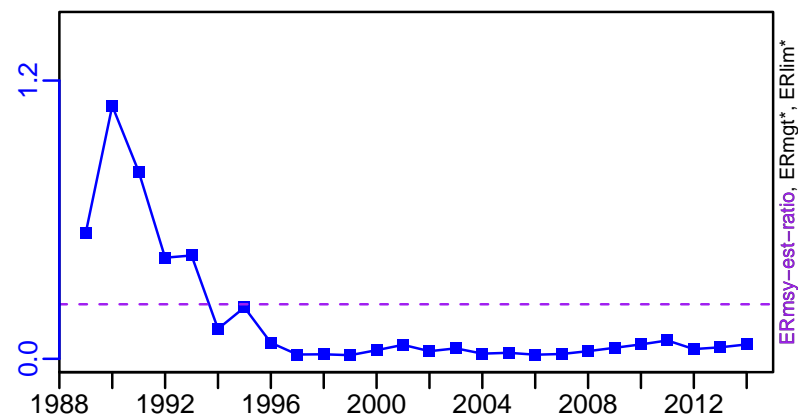
TN \*



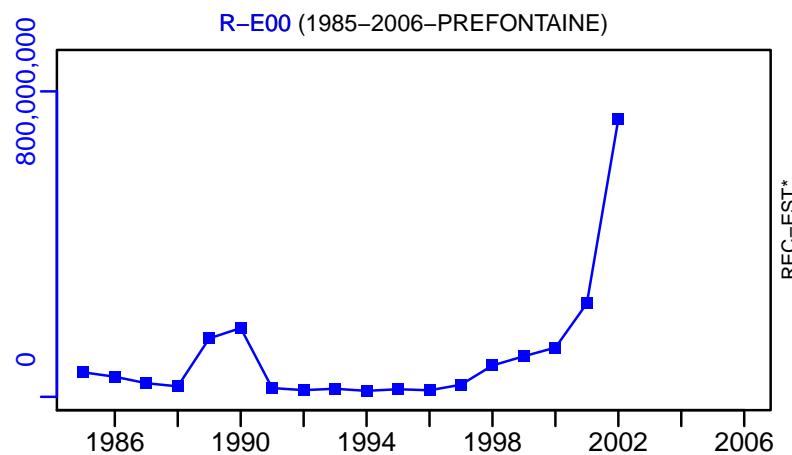
F-1/yr (1985–2006–PREFONTAINE)



ER-calc-ratio (1988–2014–WATSON)

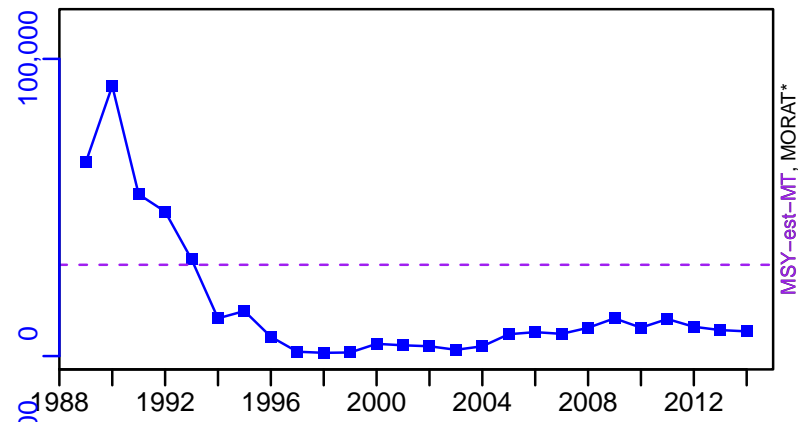


R-E00 (1985–2006–PREFONTAINE)



# Redfish species Flemish Cap [REDFISHSPP3M]

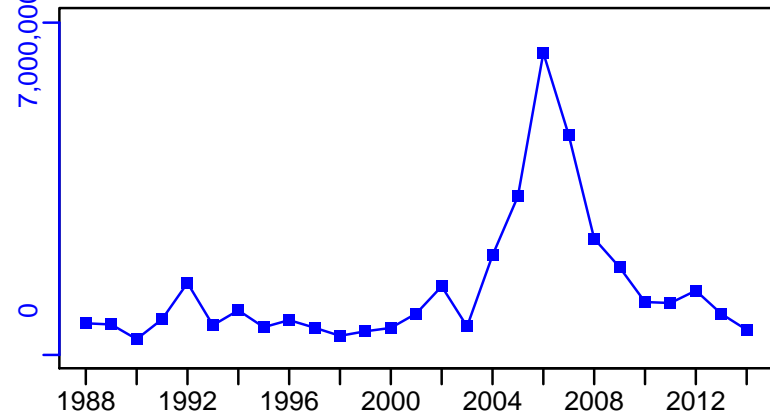
TC-MT, TL\*, RecC\* (1988–2014–WATSON)



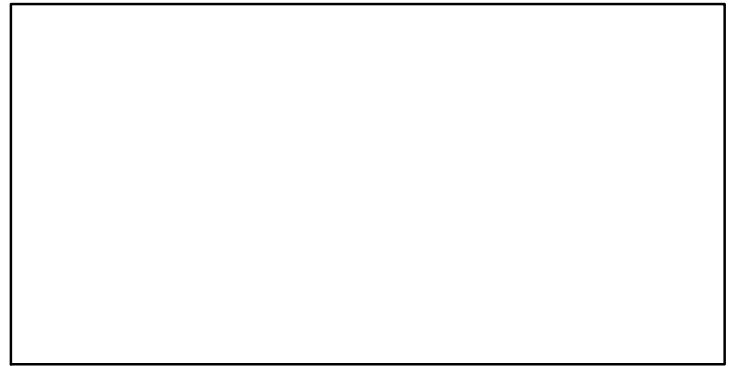
TAC\*, Cpair\*, Cadv\*



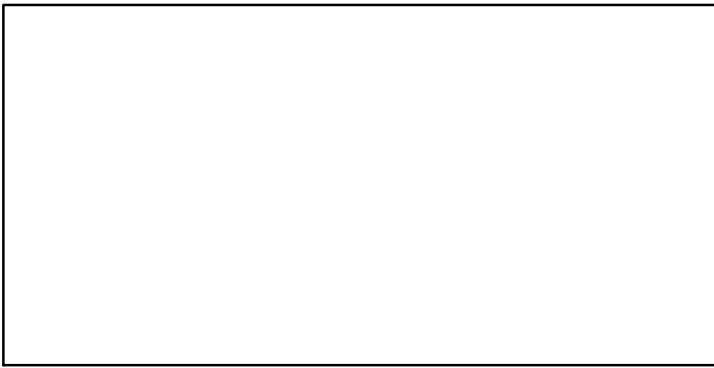
survB-E00 (1988–2014–WATSON)



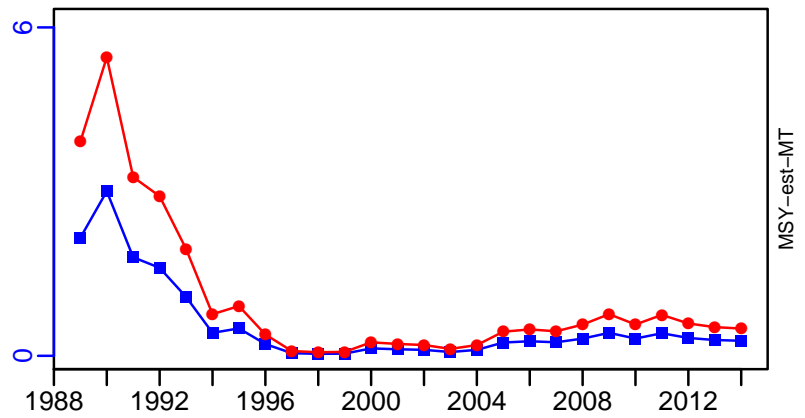
CPUE\*



EFFORT\*



TC-MT/MSY-est-MT, CdivMEANC-ratio, (1988–2014–WATSON)



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

## Redfish species Unit 1 [REDFISHSPPUT1]

Metadata	
<b>Scientific Name</b>	Sebastes spp
<b>Current Assess ID</b>	DFO-REDFISHSPPUT1-1960-2017-ASHBROOK
<b>Area</b>	Unit 1
<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>	2017

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	328		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



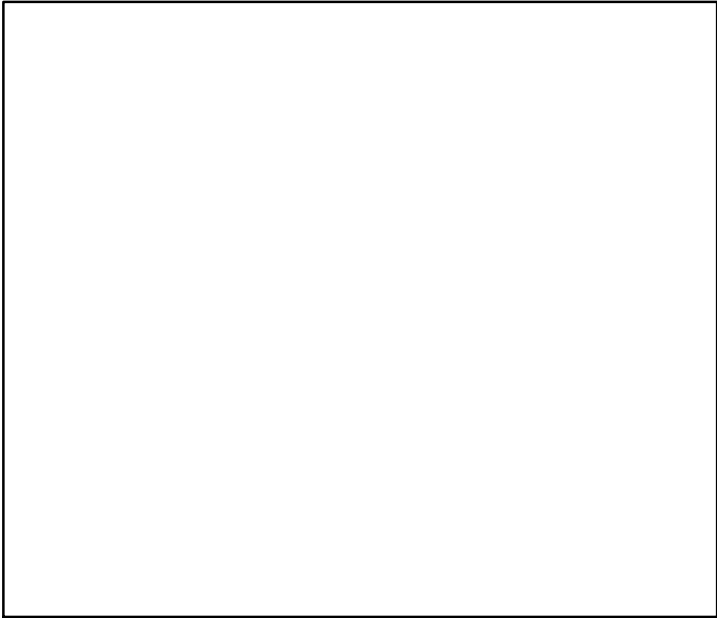
Kobe MSY\*



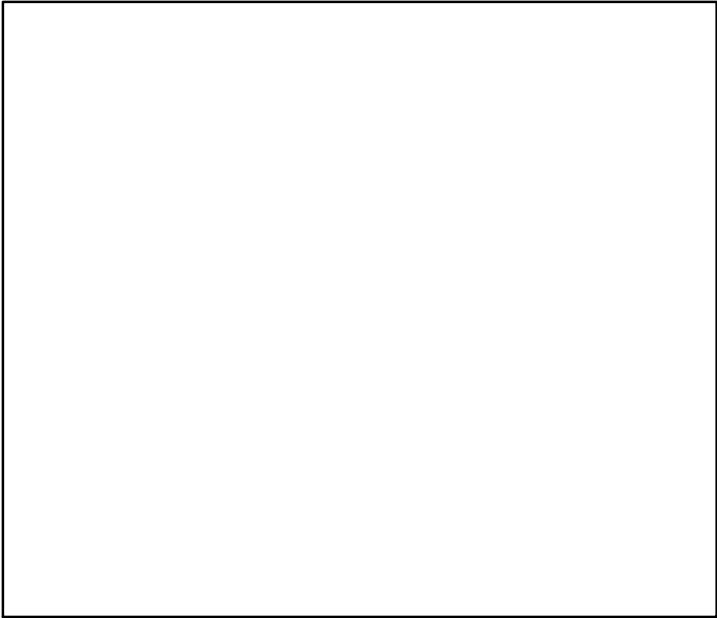
Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data

Redfish species Unit 1 [REDFISHSPPUT1]

TB\*



SSB\*



TN \*



F\*



ER\*



Recruits\*

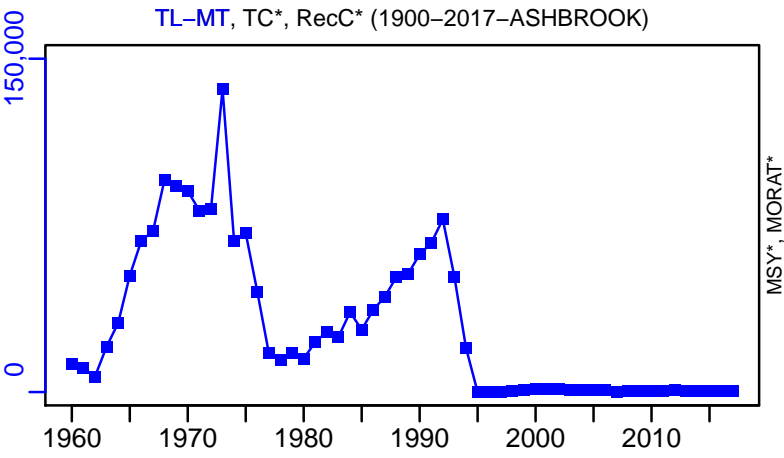


■ Listed time series	- - - Target BRP	— Rec-Est
- - - MSY-based BRP	- - - Lim BRP	* No Data

# Redfish species Unit 1 [REDFISHSPPUT1]

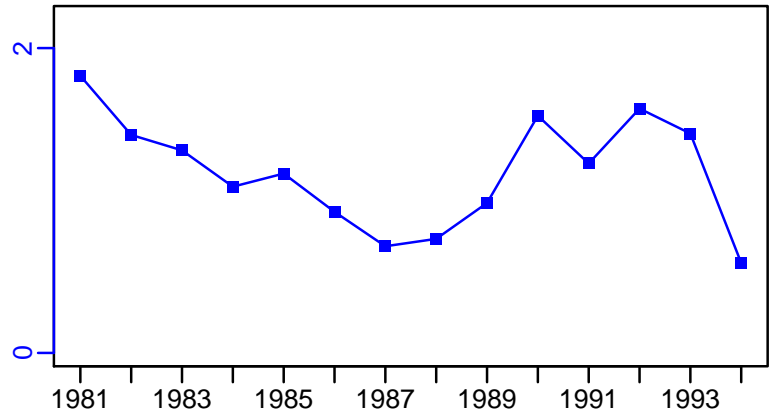
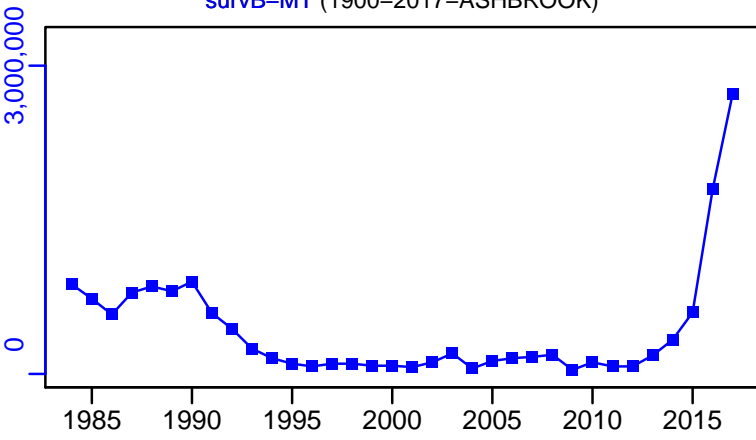
TL-MT, TC\*, RecC\* (1900-2017-ASHBROOK)

TAC\*, Cpair\*, Cadv\*



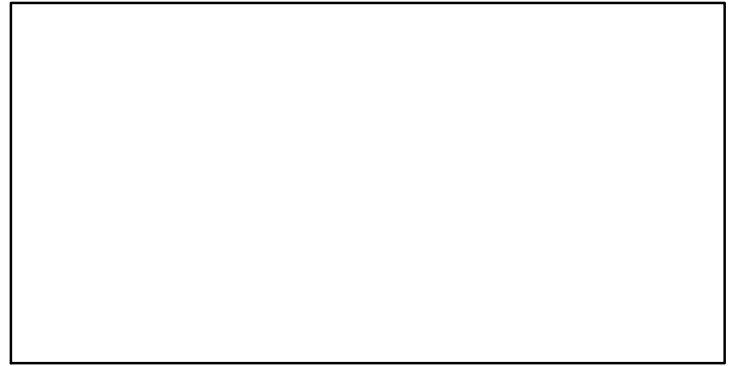
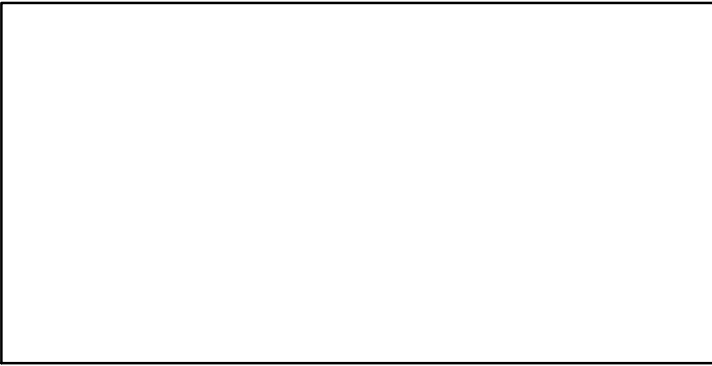
survB-MT (1900-2017-ASHBROOK)

CPUE-1-index (1900-2017-ASHBROOK)



EFFORT\*

CdivMSY\*



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

## Redfish species Unit 2 [REDFISHSPPUT2]

Metadata	
<b>Scientific Name</b>	Sebastes spp
<b>Current Assess ID</b>	DFO-REDFISHSPPUT2-1960-2017-ASHBROOK
<b>Area</b>	Unit 2
<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>	2017

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	3042		
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

Redfish species Unit 2 [REDFISHSPPUT2]

TB\*



SSB\*



TN \*



F\*



ER\*

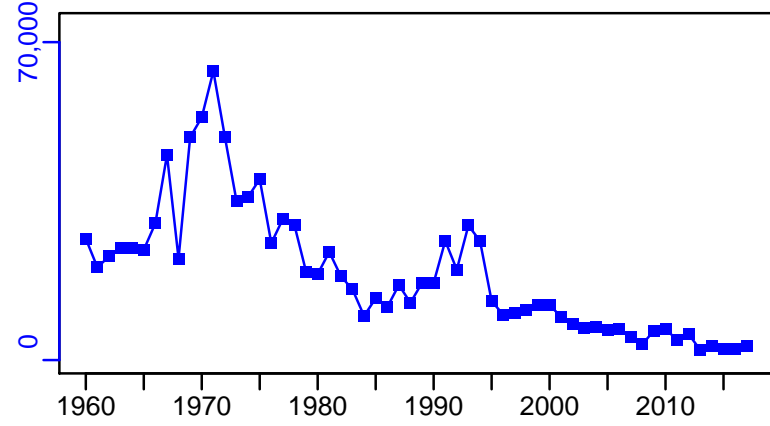


Recruits\*

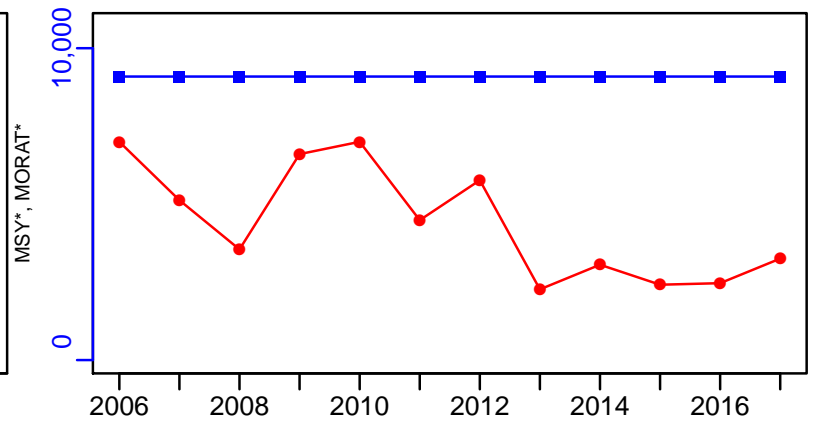


# Redfish species Unit 2 [REDFISHSPPUT2]

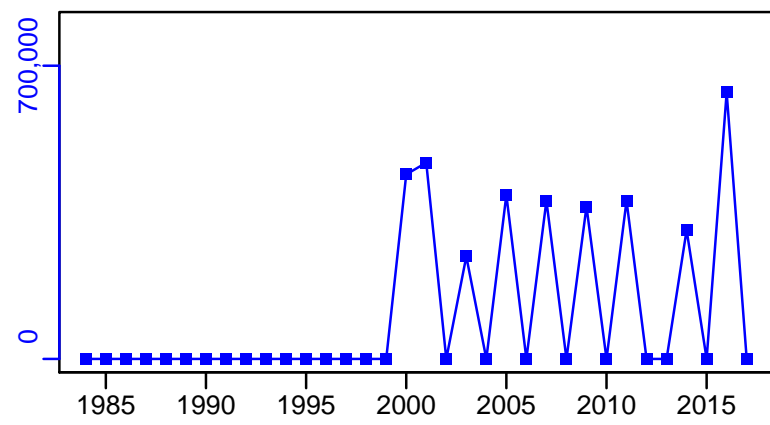
TL-MT, TC\*, RecC\* (1960-2017-ASHBROOK)



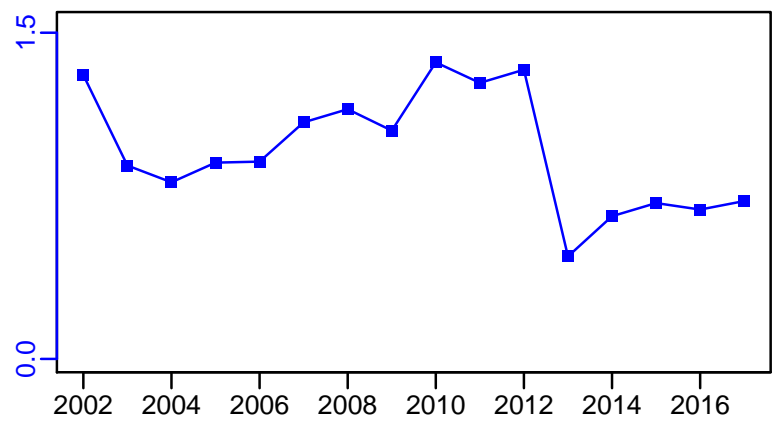
TAC-MT, Cpair-MT, Cadv\* (1960-2017-ASHBROOK)



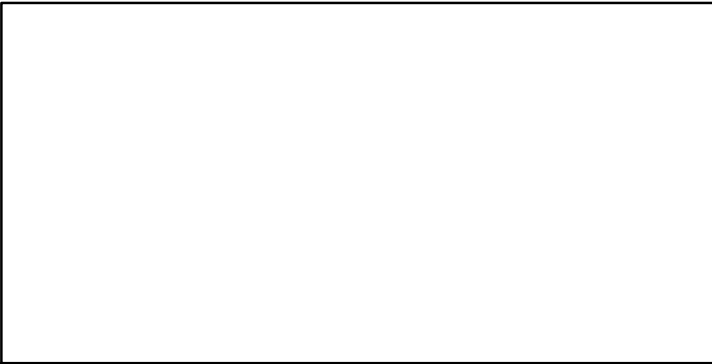
survB-MT (1960-2017-ASHBROOK)



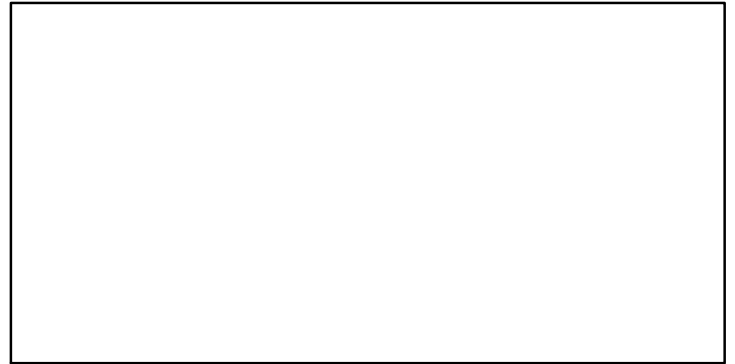
CPUE-index (1960-2017-ASHBROOK)



EFFORT\*



CdivMSY\*



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

## Rock crab Southern Gulf of St. Lawrence [ROCKCRABLFA23-26]

Metadata	
<b>Scientific Name</b>	Cancer irroratus
<b>Current Assess ID</b>	DFO-SG-ROCKCRABLFA23-26-1985-2010-OSGOOD
<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>	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	4520		
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\*



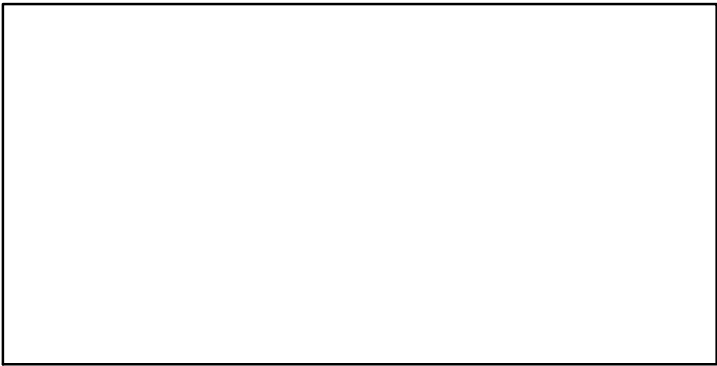
SSB\*



TN \*



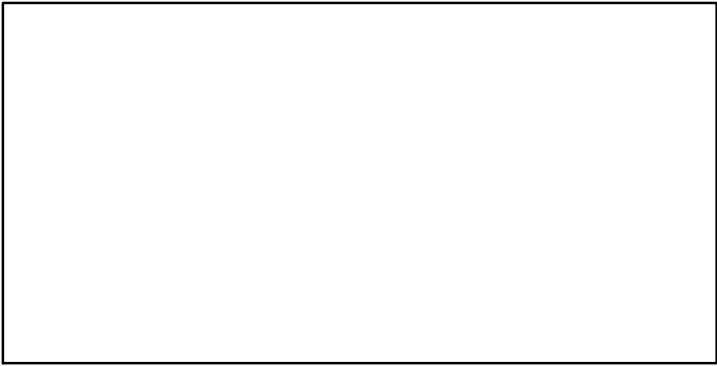
F\*



ER\*



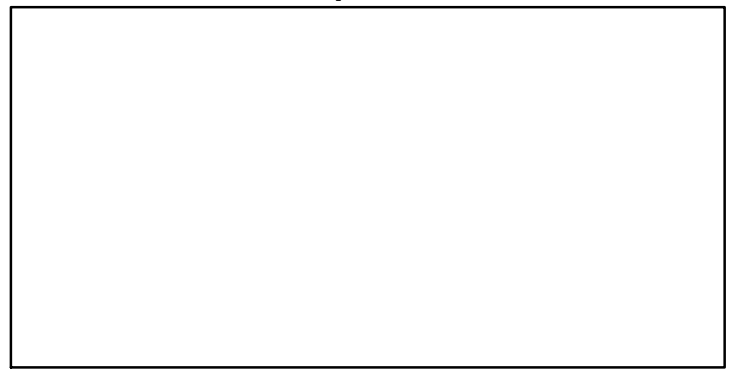
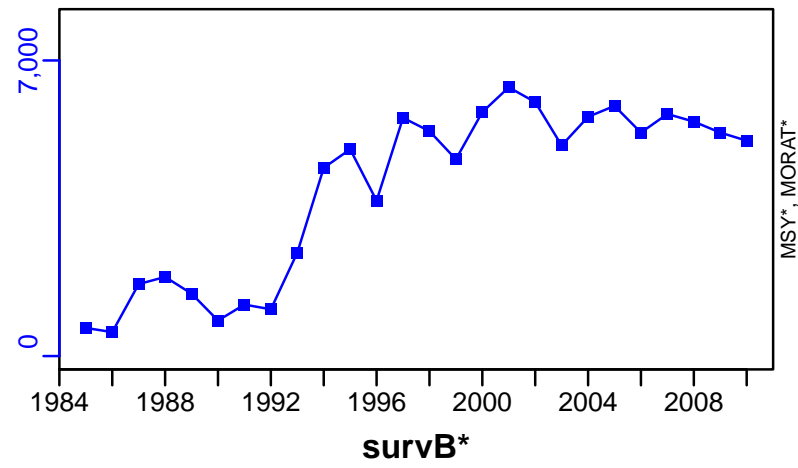
Recruits\*



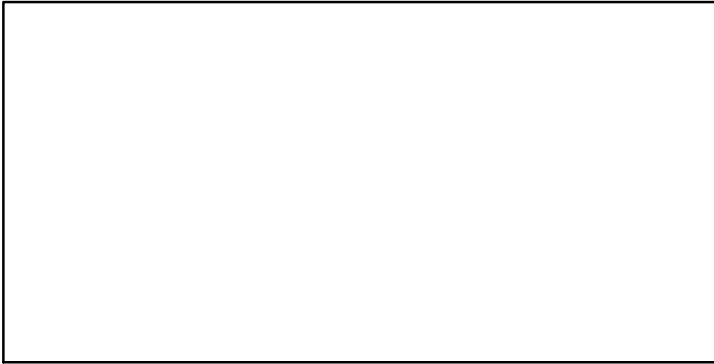
# Rock crab Southern Gulf of St. Lawrence [ROCKCRABLFA23-26]

TL-MT, TC\*, RecC\* (1985-2010-OSGOOD)

TAC\*, Cpair\*, Cadv\*

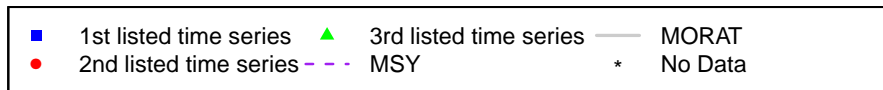
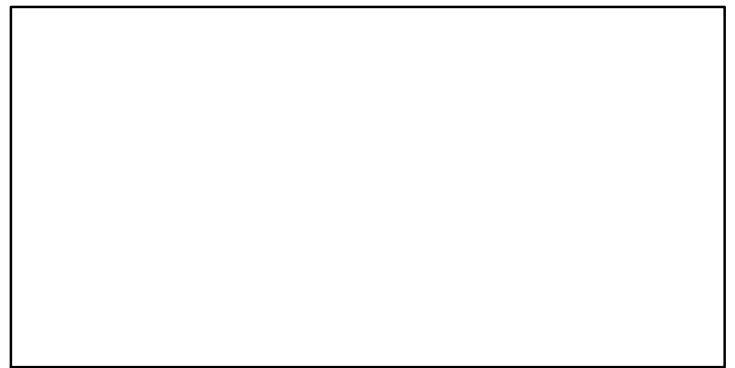
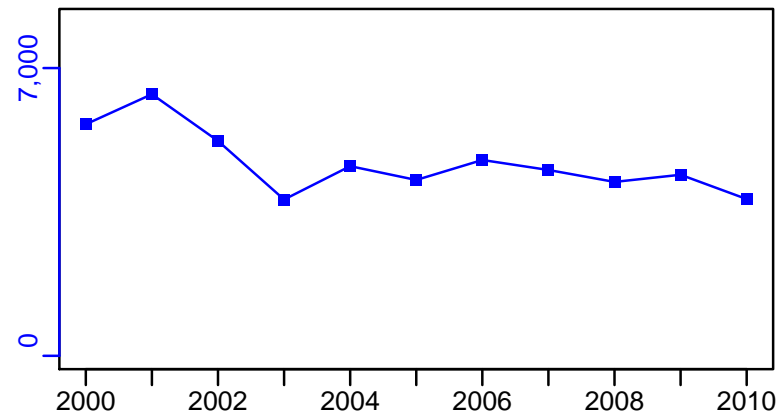


CPUE\*



EFFORT-trips (1985-2010-OSGOOD)

CdivMSY\*



## Rock crab Quebec Coastal Waters [ROCKCRABQCW]

Metadata	
<b>Scientific Name</b>	Cancer irroratus
<b>Current Assess ID</b>	DFO-QUE-ROCKCRABQCW-1998-2012-OSGOOD
<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>	2012

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	2012	1580		
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

Rock crab Quebec Coastal Waters [ROCKCRABQCW]

TB\*



SSB\*



TN \*



F\*



ER\*

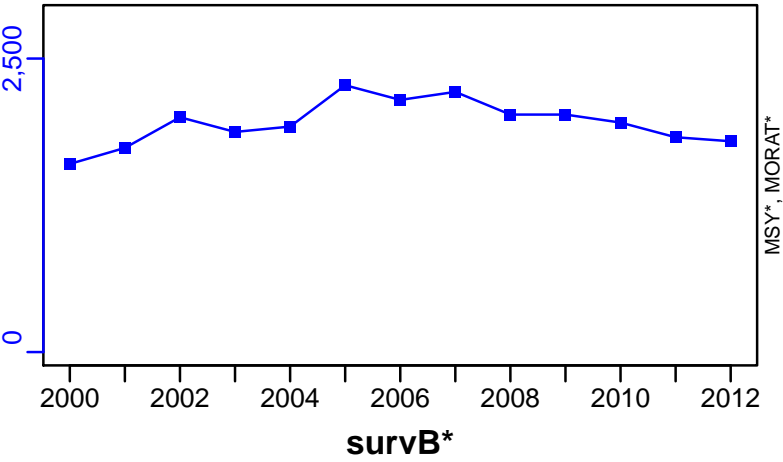


Recruits\*



Rock crab Quebec Coastal Waters [ROCKCRABQCW]

TL-MT, TC\*, RecC\* (1998-2012-OSGOOD)



TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



CdivMSY\*



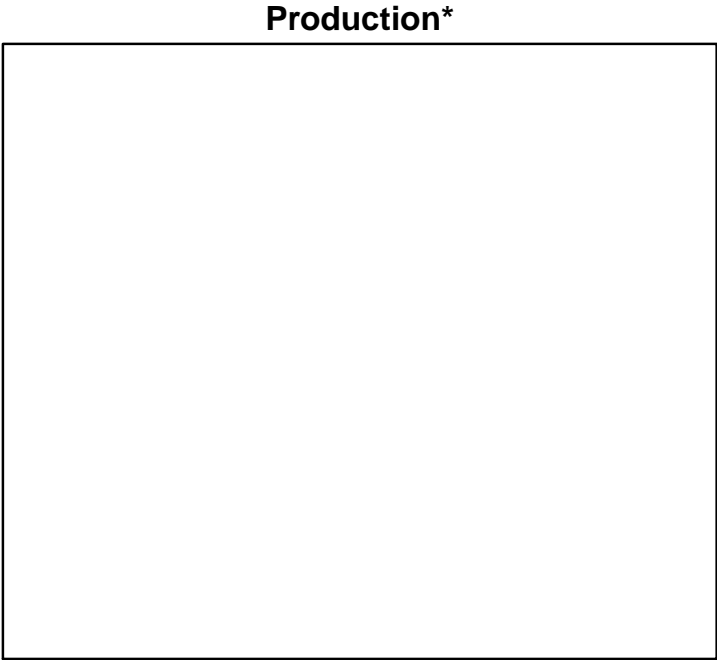
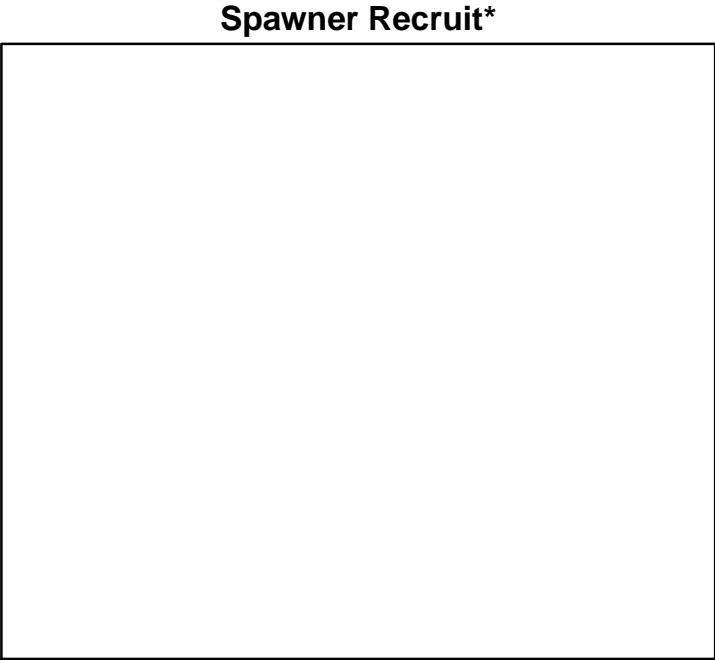
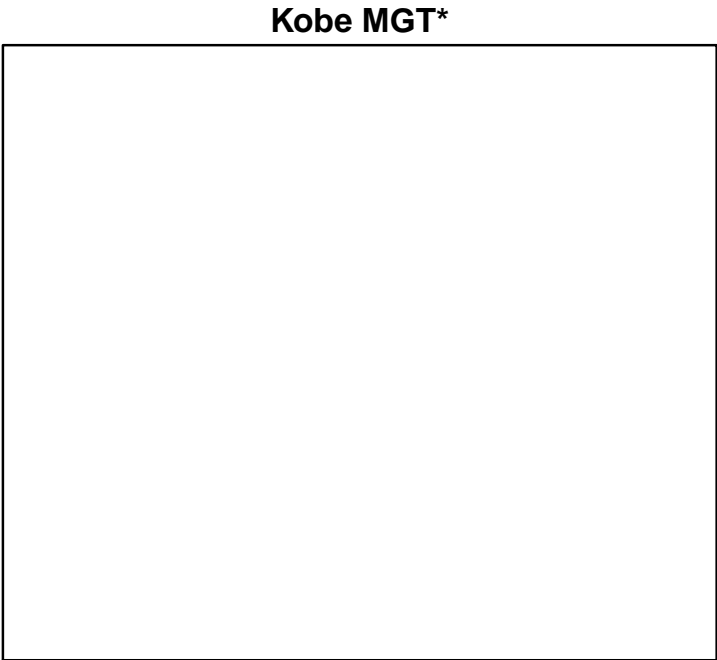
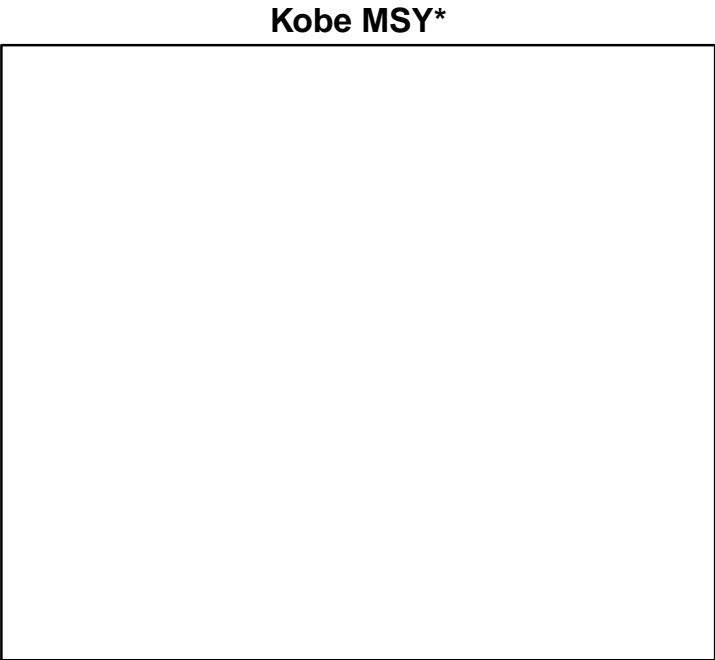
## Sea scallop St. Pierre Bank [SCALL3Ps]

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	-	-	-		





◆ Start Year   ♦ End Year   \* No Data

Sea scallop St. Pierre Bank [SCALL3Ps]

TB\*



SSB\*



TN \*



F\*



ER\*



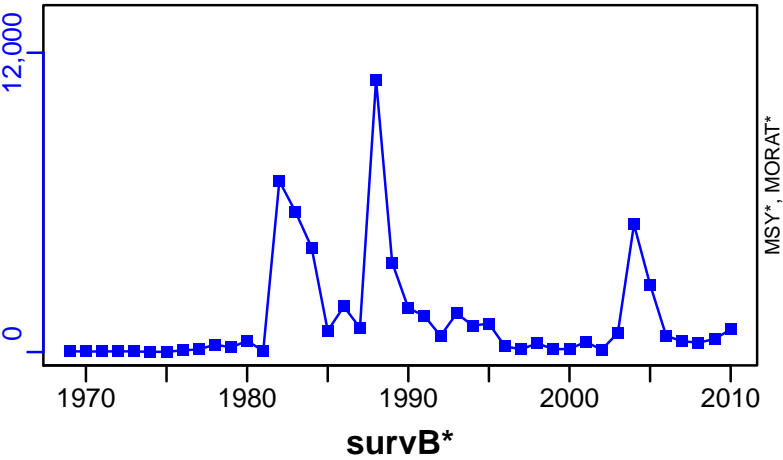
Recruits\*



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

Sea scallop St. Pierre Bank [SCALL3Ps]

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



TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



CdivMSY\*



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

Metadata	
<b>Scientific Name</b>	Placopecten magellanicus
<b>Current Assess ID</b>	DFO-MAR-SCALL4T-1968-2014-OSGOOD
<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 - Maritimes Region
<b>Asmts in RAM</b>	2014, 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	2014	91		
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 Southern Gulf of St. Lawrence [SCALL4T]

TB\*



SSB\*



TN \*



F\*



ER\*



Recruits\*

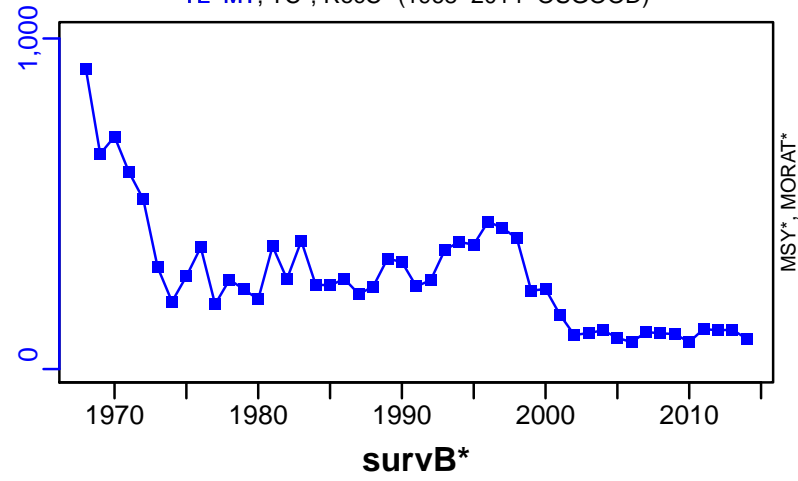


■ Listed time series	- - - Target BRP	— Rec-Est
- - - MSY-based BRP	· · · Lim BRP	* No Data

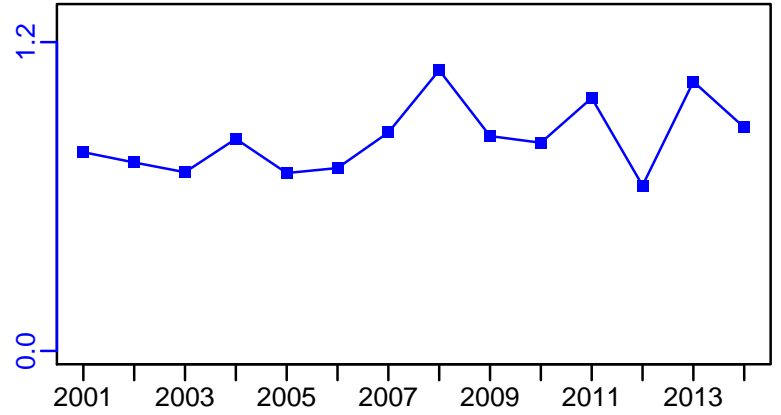
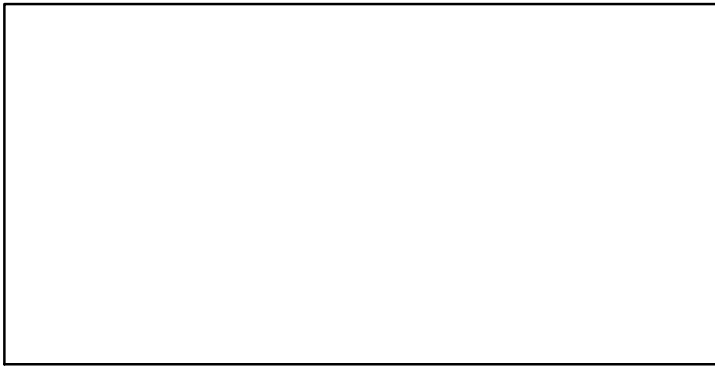
# Sea scallop Southern Gulf of St. Lawrence [SCALL4T]

TL-MT, TC\*, RecC\* (1968-2014-OSGOOD)

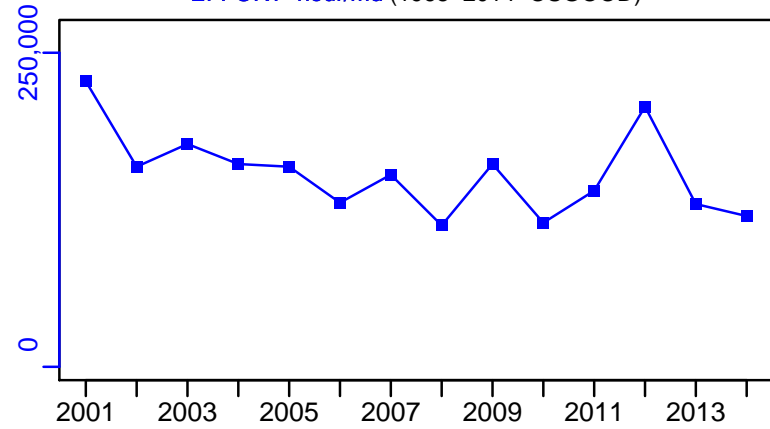
TAC\*, Cpair\*, Cadv\*



CPUE-kg/hmdw (1968-2014-OSGOOD)



EFFORT-hour/md (1968-2014-OSGOOD)



## 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

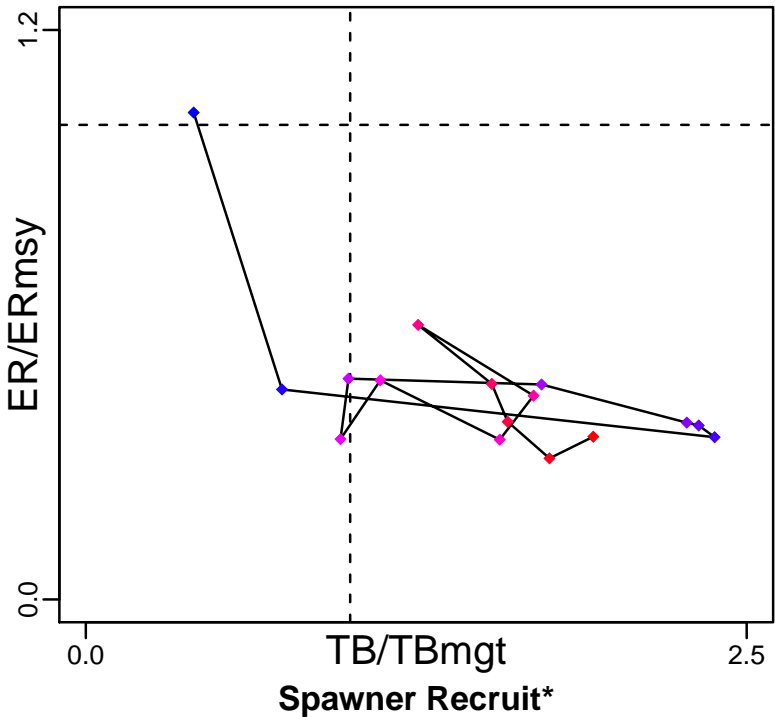
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-est-MT	2007	17,540
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-est-ratio	2014	0.534
<b>TBmgt</b>	TBmgt-MT	2014	13,284
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-est-MT	2007	6602
<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>	TB-MT/TBmsy-est-MT	2007	1.488		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-est-ratio	2014	0.343		
<b>TB/TBmgt</b>	TB-MT/TBmgt-MT	2014	1.92		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

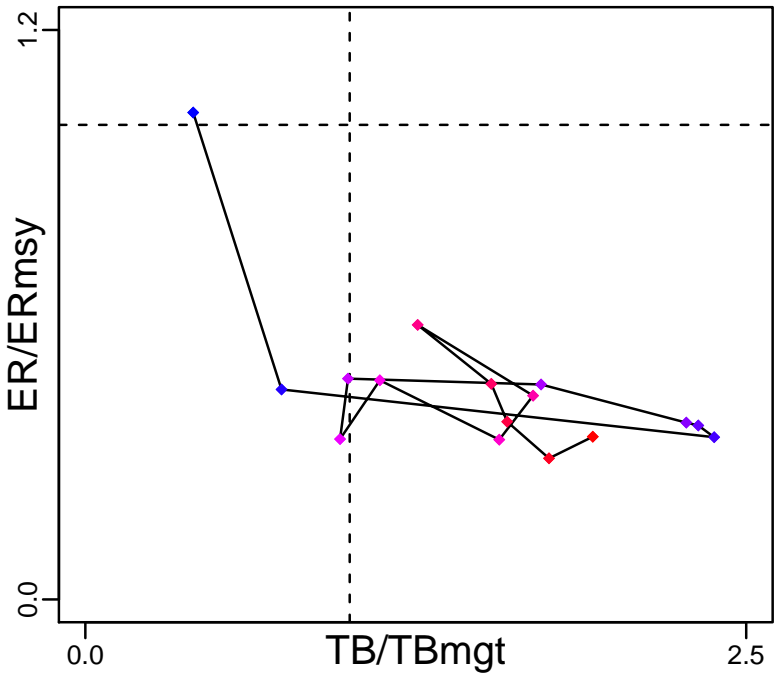


Sea scallop Georges Bank [SCALLGB]

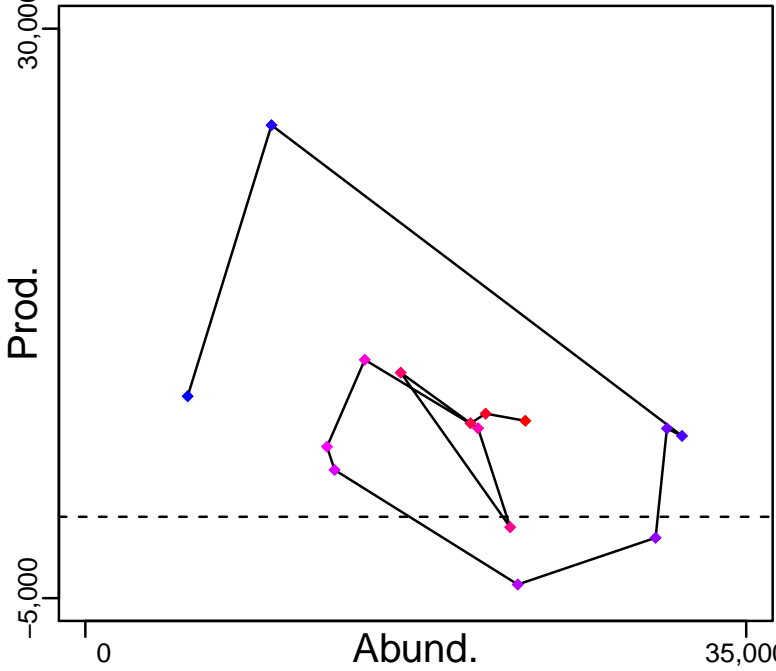
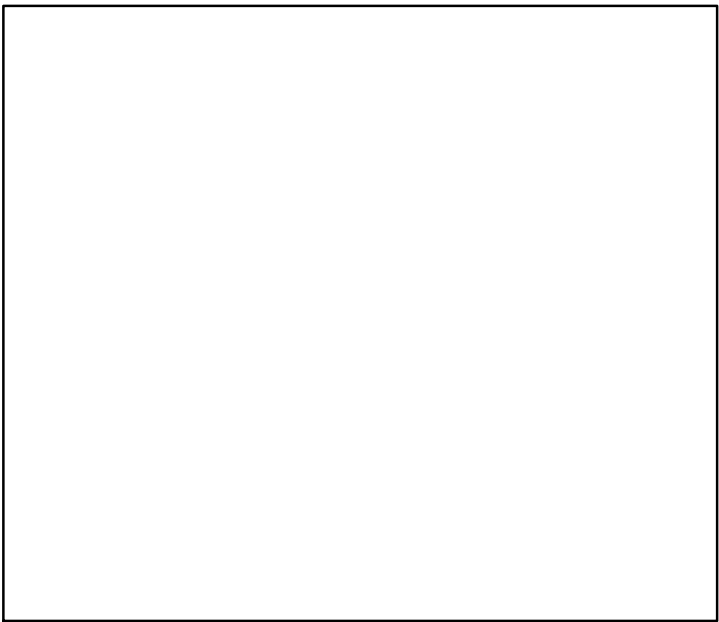
Kobe MSYpref (1986–2014–ASHBROOK)



Kobe MGTpref (1986–2014–ASHBROOK)



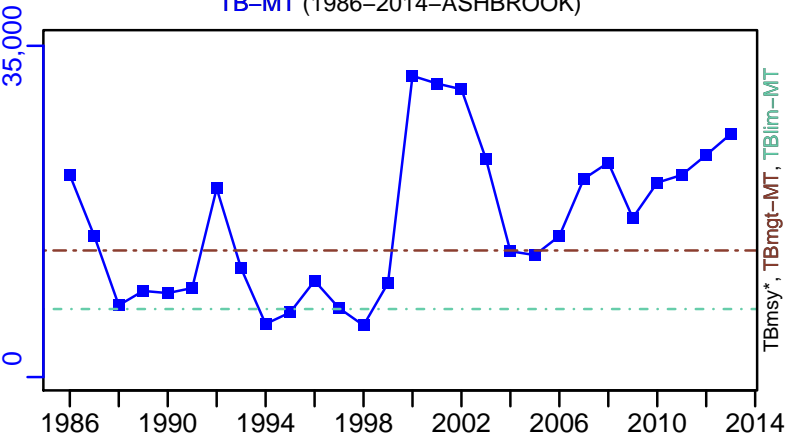
Production (1986–2014–ASHBROOK)



◆ Start Year ◆ End Year \* No Data

Sea scallop Georges Bank [SCALLGB]

TB-MT (1986-2014-ASHBROOK)



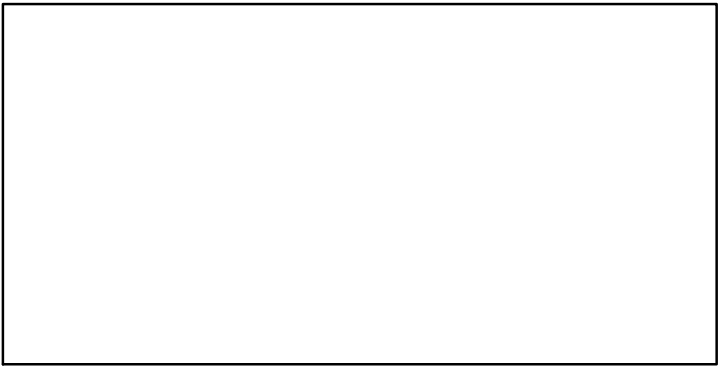
SSB\*



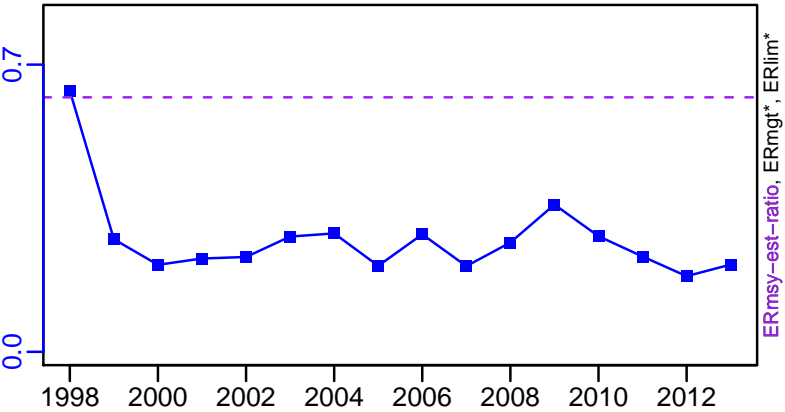
TN \*



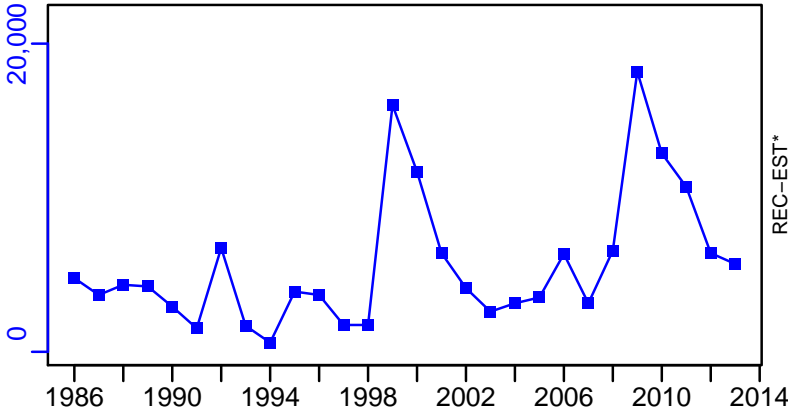
F\*



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

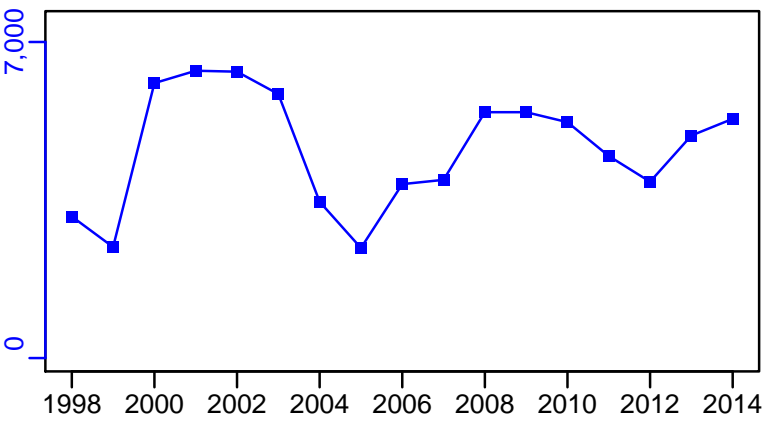


R-MT (1986-2014-ASHBROOK)

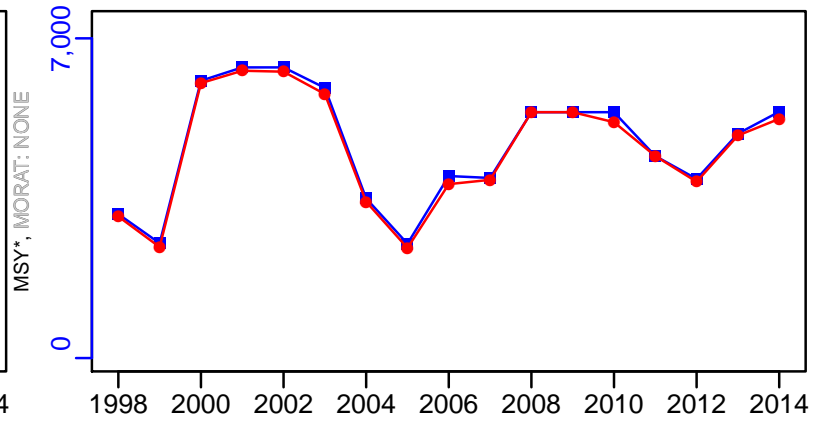


# Sea scallop Georges Bank [SCALLGB]

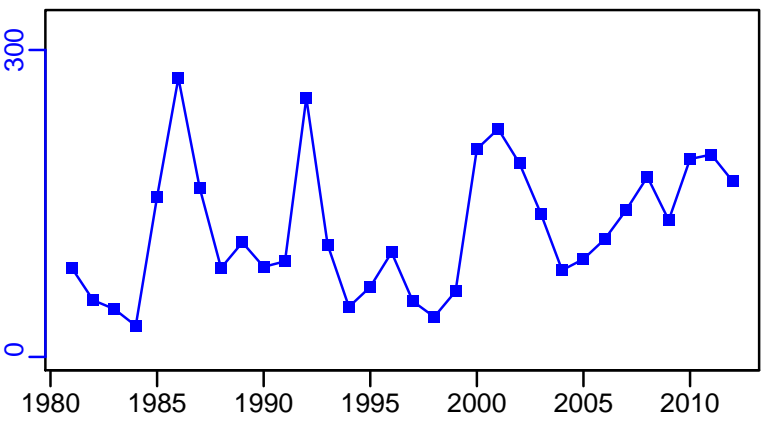
TL-MT, TC\*, RecC\* (1986-2014-ASHBROOK)



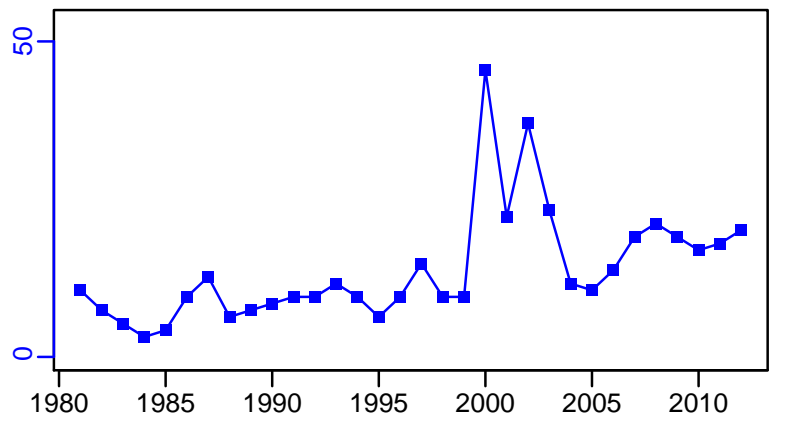
TAC-MT, Cpair-MT, Cadv\* (1986-2014-ASHBROOK)



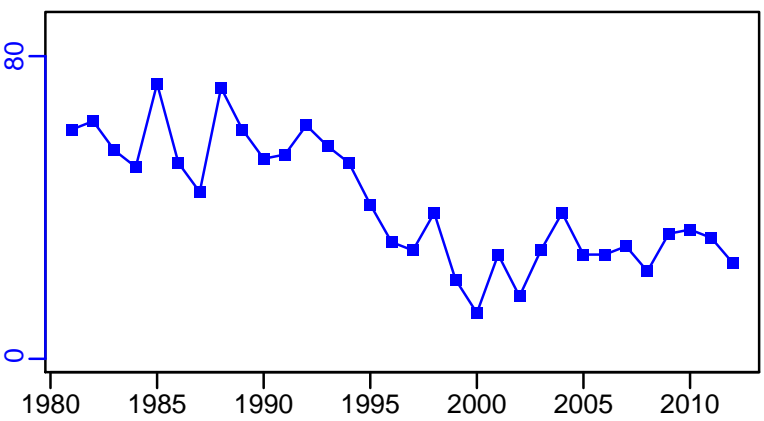
survB-E00/tow (1981-2012-ASHBROOK)



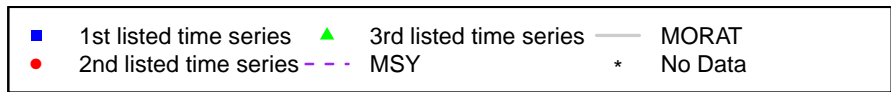
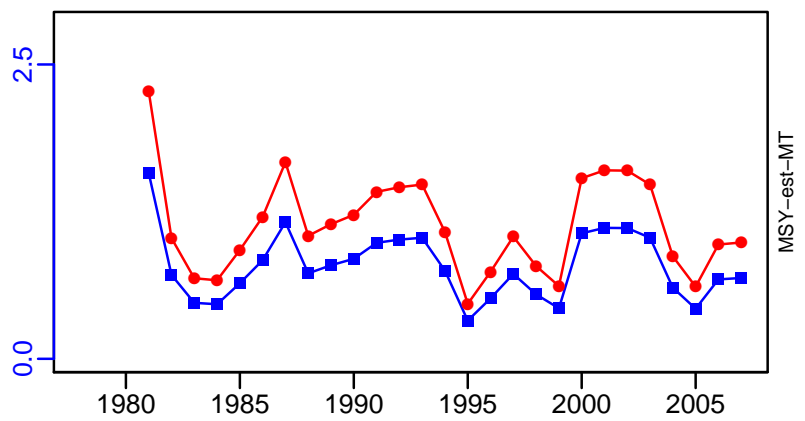
CPUE-kg/hm (1981-2012-ASHBROOK)



EFFORT-hm (1981-2012-ASHBROOK)



TL-MT/MSY-est-MT, CdivMEANC-ratio, (1978-2007-ANDERSON)



## Sea scallop North Brown Bank [SCALLNBB]

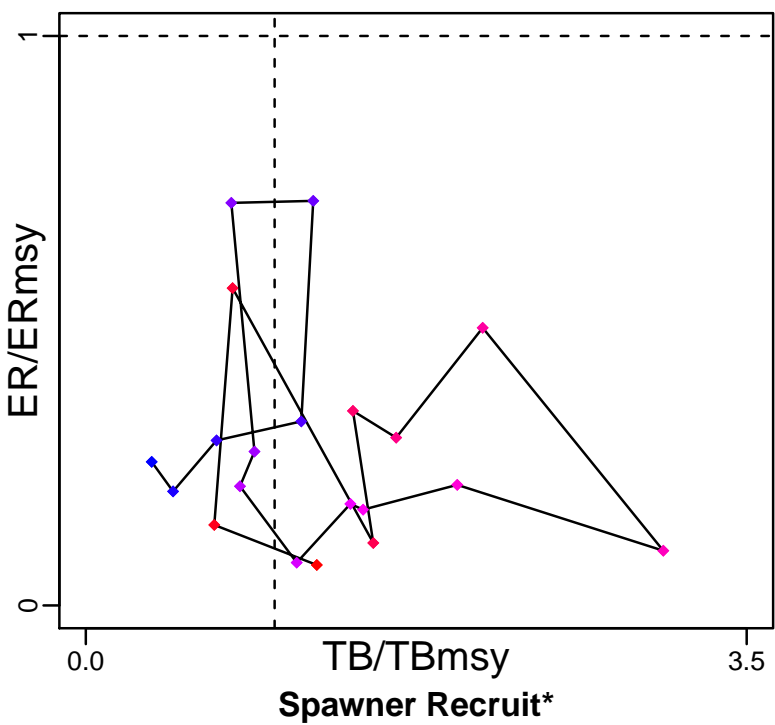
Metadata	
<b>Scientific Name</b>	Placopecten magellanicus
<b>Current Assess ID</b>	DFO-MAR-SCALLNBB-1981-2011-CHING
<b>Area</b>	North Brown Bank
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans - Maritimes Region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

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-est-MT	2011	7422
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-est-ratio	2011	0.287
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-est-MT	2011	2131
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

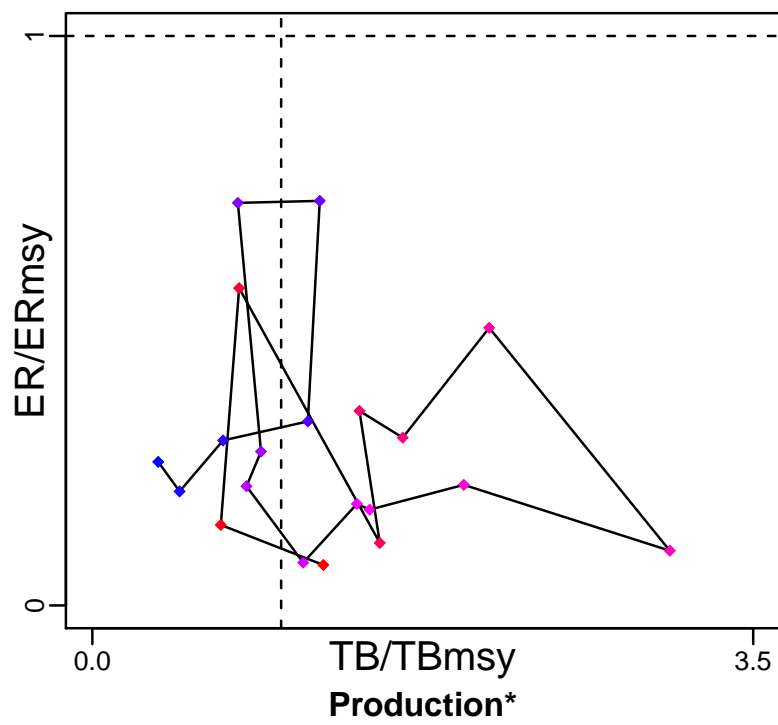
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2011	13,100	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2011	0.02	-	-
<b>TC</b>	TC-MT	2011	201		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-est-MT	2011	1.765		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-est-ratio	2011	0.071		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Sea scallop North Brown Bank [SCALLNBB]

Kobe MSYpref (1981–2011–CHING)



Kobe MGTpref (1981–2011–CHING)

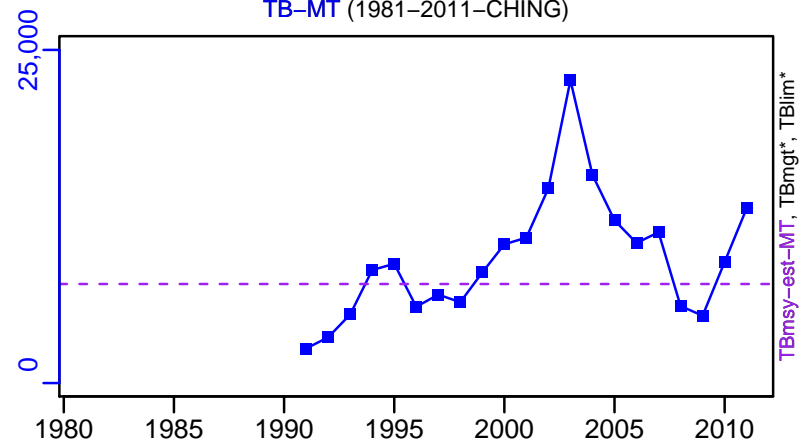


◆ Start Year ◆ End Year \* No Data

# Sea scallop North Brown Bank [SCALLNBB]

TB-MT (1981-2011-CHING)

SSB\*



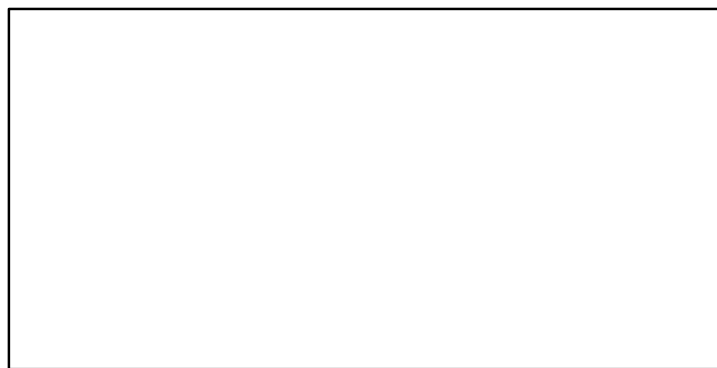
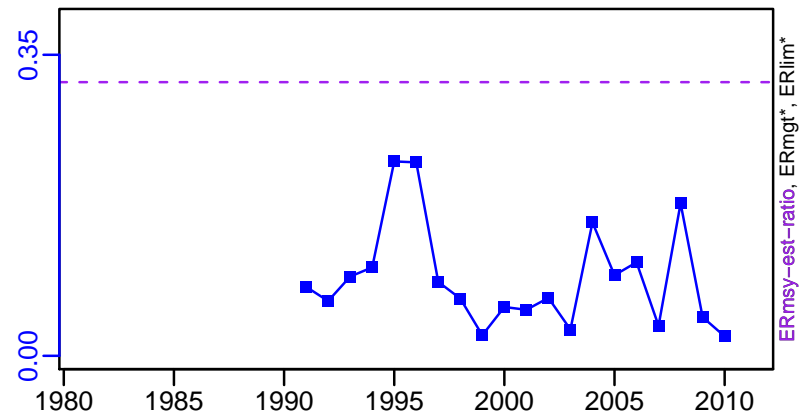
TN \*

F\*



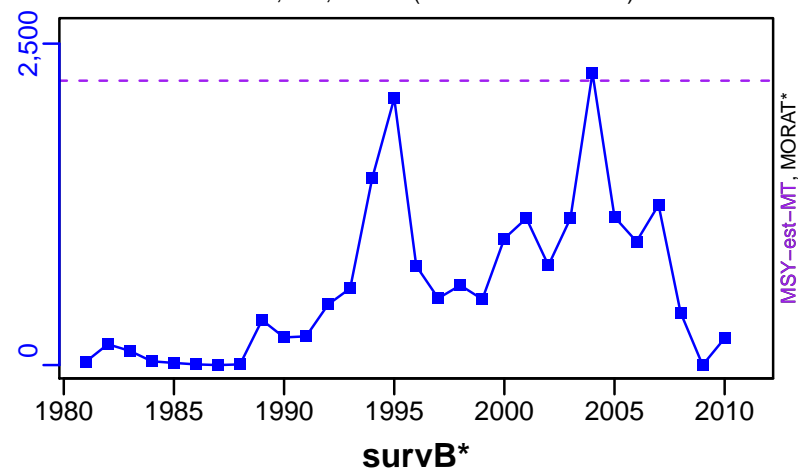
ER-ratio (1981-2011-CHING)

Recruits\*



# Sea scallop North Brown Bank [SCALLNBB]

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



TAC\*, Cpair\*, Cadv\*



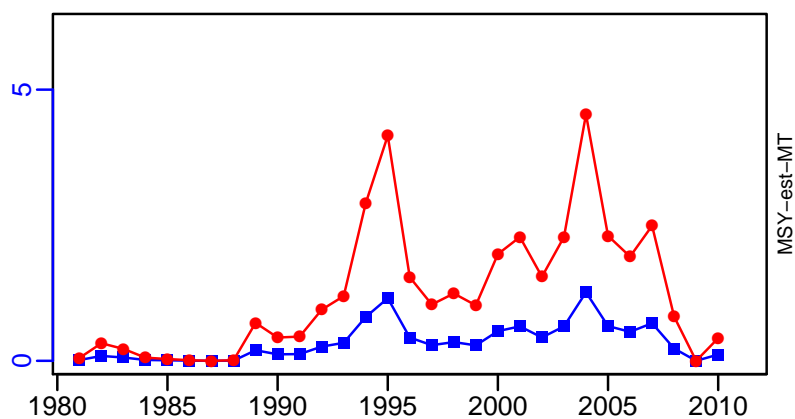
CPUE\*



EFFORT\*



TC-MT/MSY-est-MT, CdivMEANC-ratio, (1981-2011-CHING)



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

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

Metadata	
<b>Scientific Name</b>	Placopecten magellanicus
<b>Current Assess ID</b>	DFO-MAR-SCALLSFA16-20-1965-2012-OSGOOD
<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 - Maritimes Region
<b>Asmts in RAM</b>	2012

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	2012	69		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



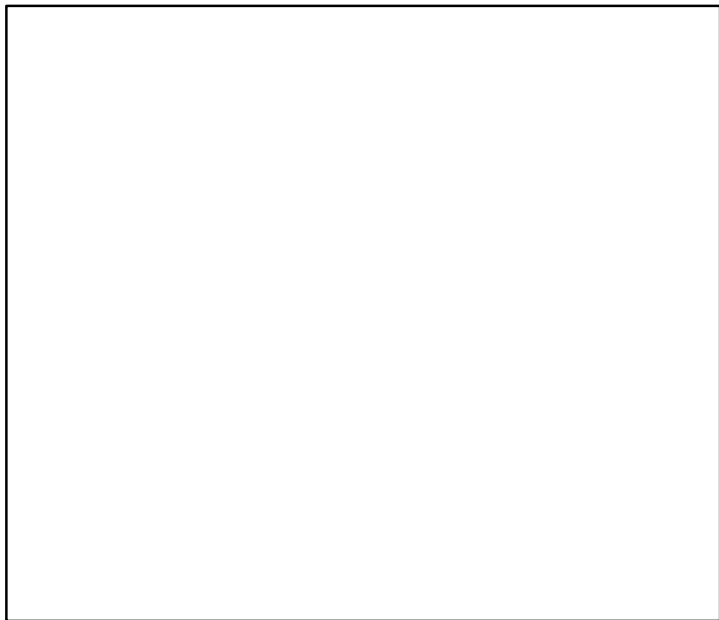
**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



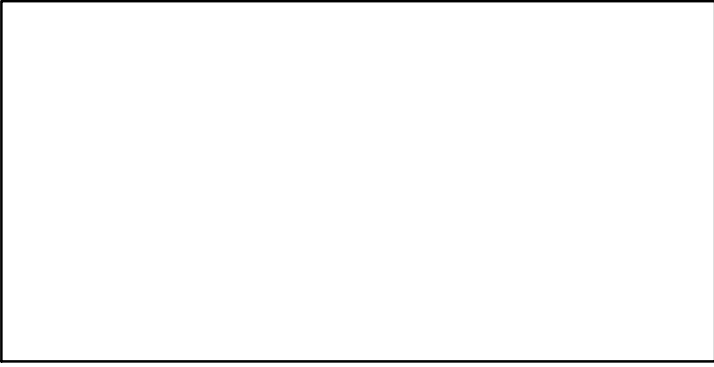
**Production\***



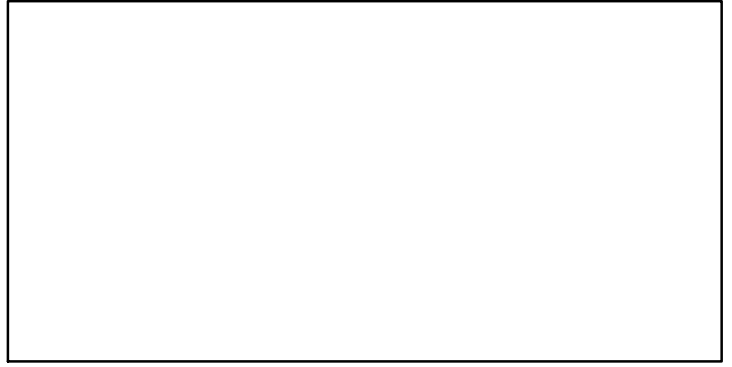
◆ Start Year ◆ End Year \* No Data

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

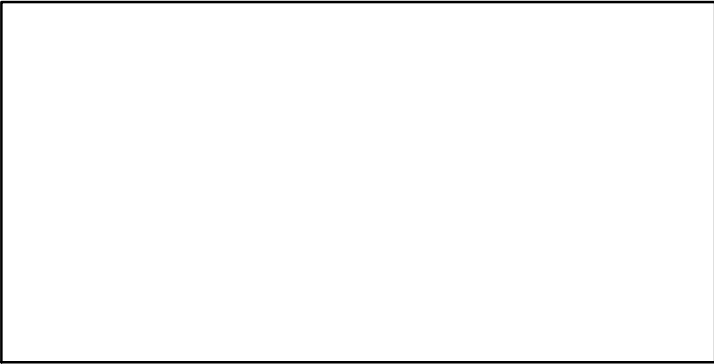
**TB\***



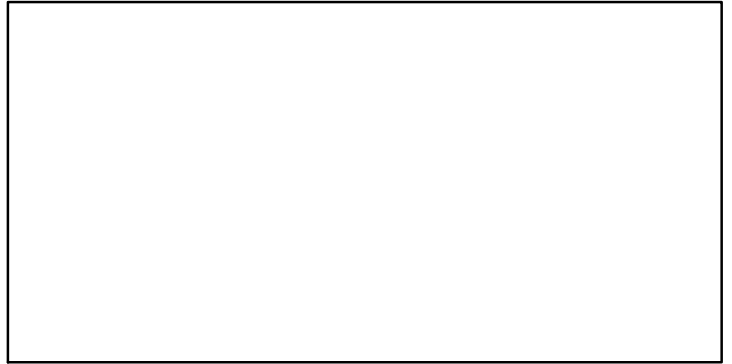
**SSB\***



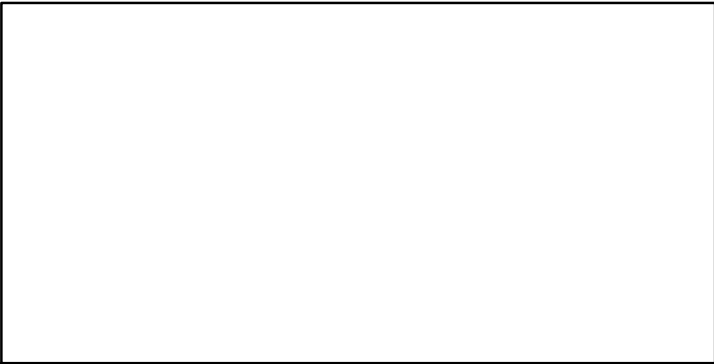
**TN \***



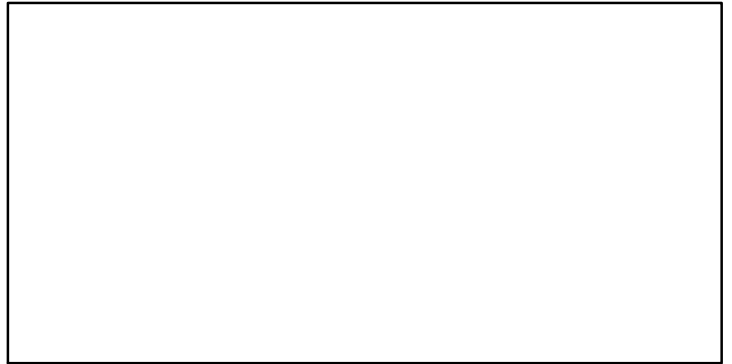
**F\***



**ER\***



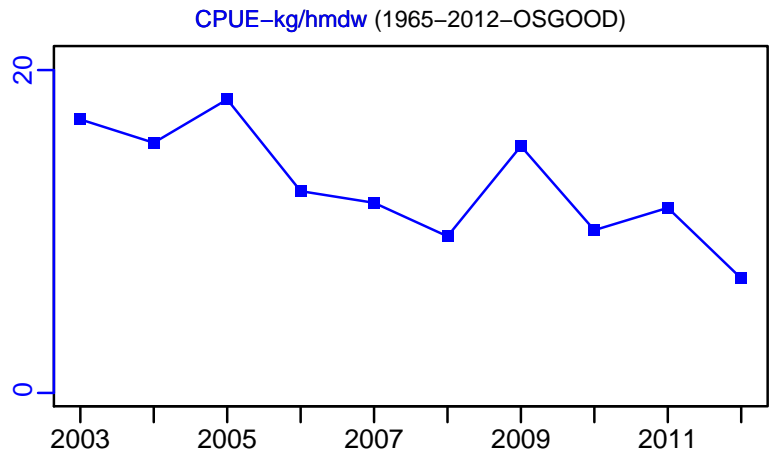
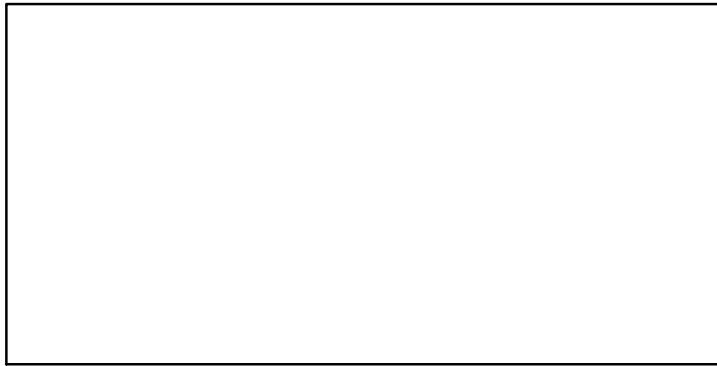
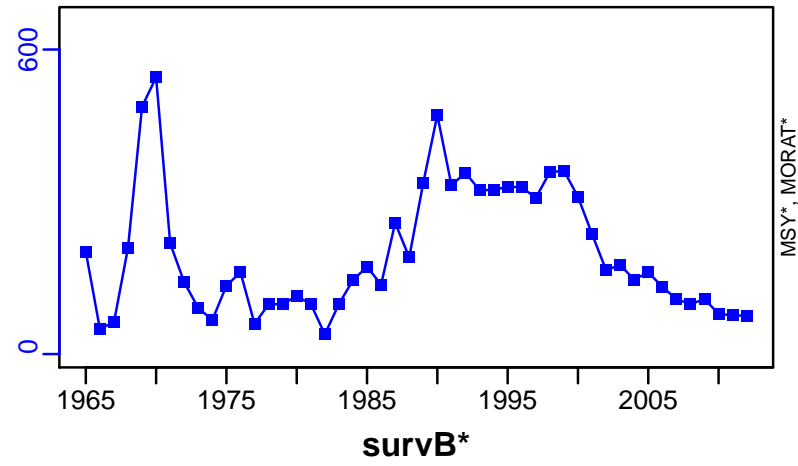
**Recruits\***



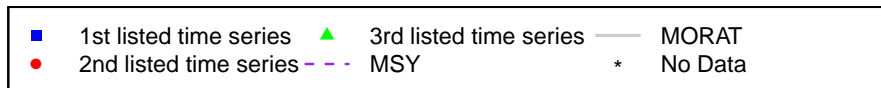
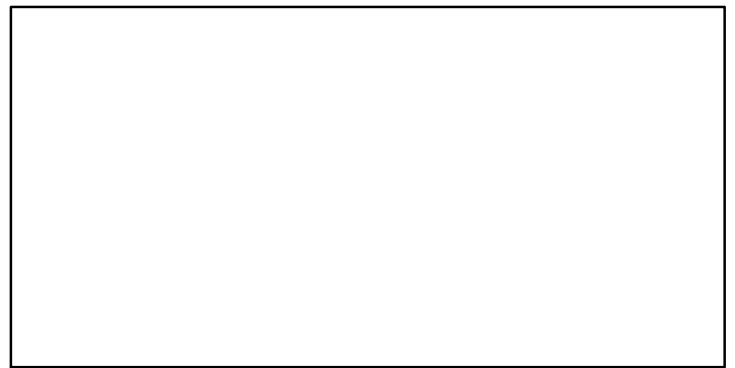
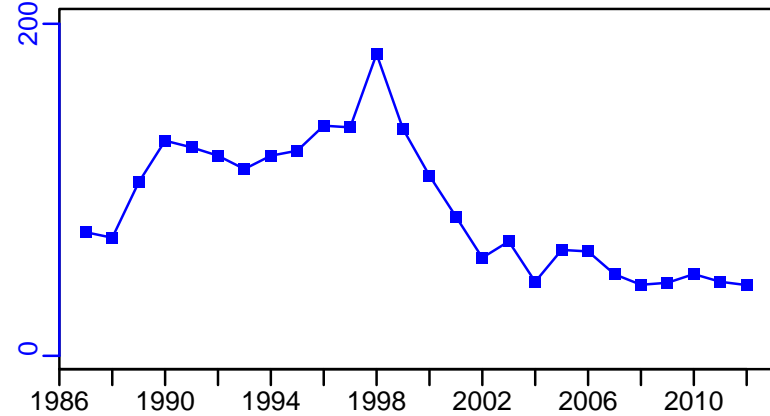
# Sea scallop Scallop Fishing Areas 16–20 [SCALLSFA16–20]

TL–MT, TC\*, RecC\* (1965–2012–OSGOOD)

TAC\*, Cpair\*, Cadv\*



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 \***



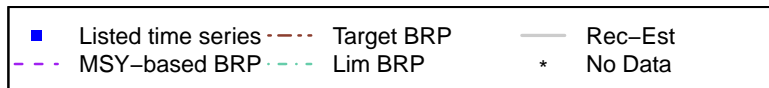
**F\***



**ER\***



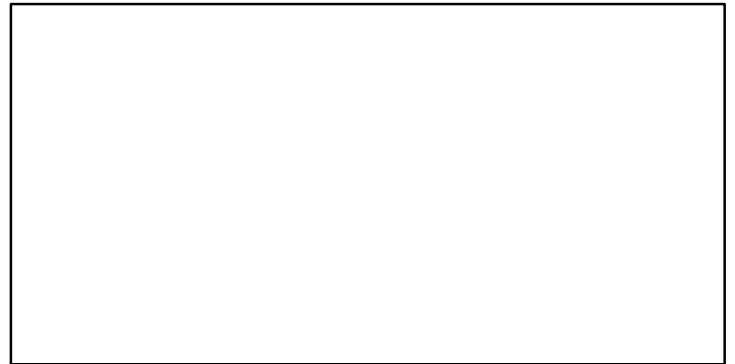
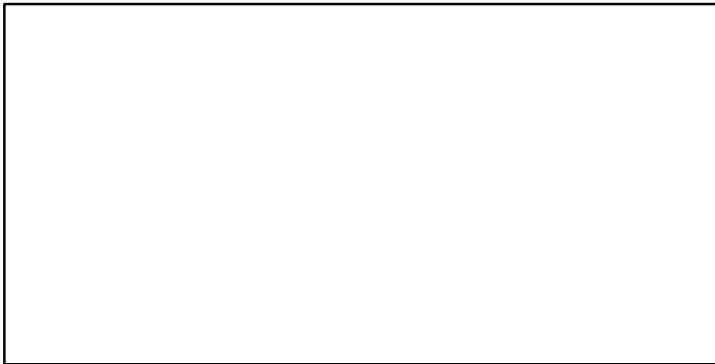
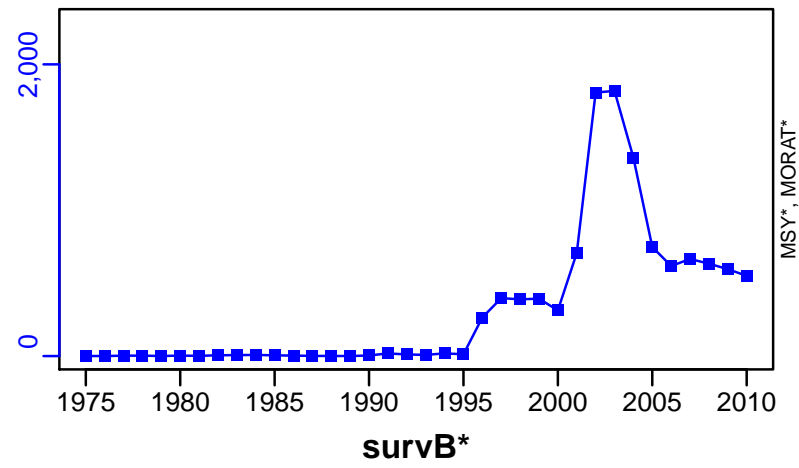
**Recruits\***



# 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	-	-	-		



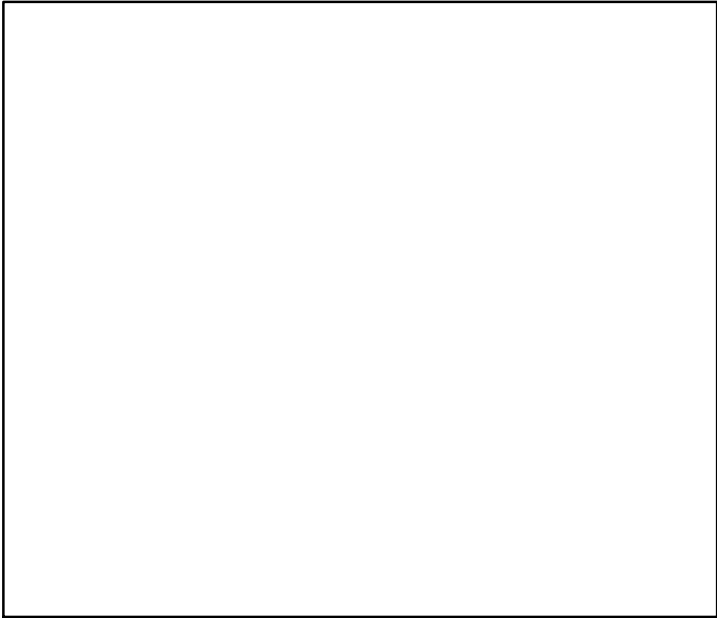
Kobe MSY\*



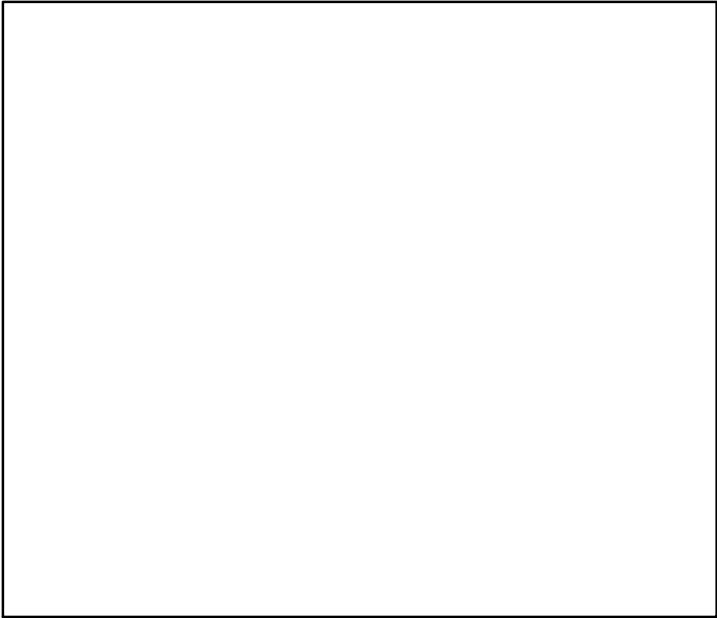
Kobe MGT\*



Spawner Recruit\*



Production\*



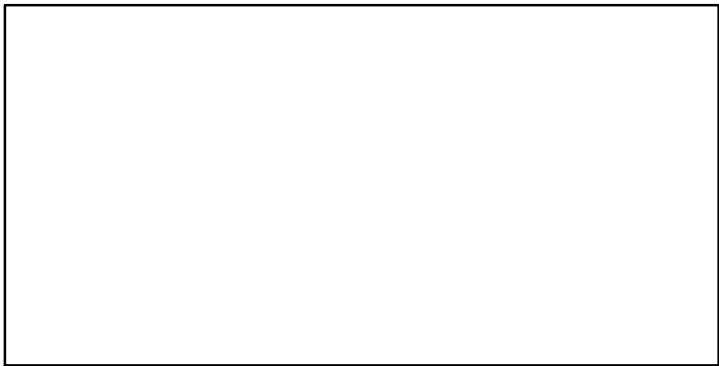
◆ Start Year   ◆ End Year   \* No Data

Sea scallop West Scallop Fishing Area 29 [SCALLWSFA29]

TB\*



SSB\*



TN \*



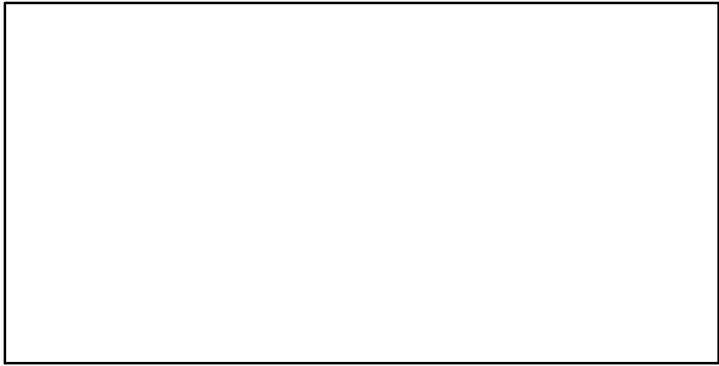
F-1/yr (2001-2011-CHING)



ER\*

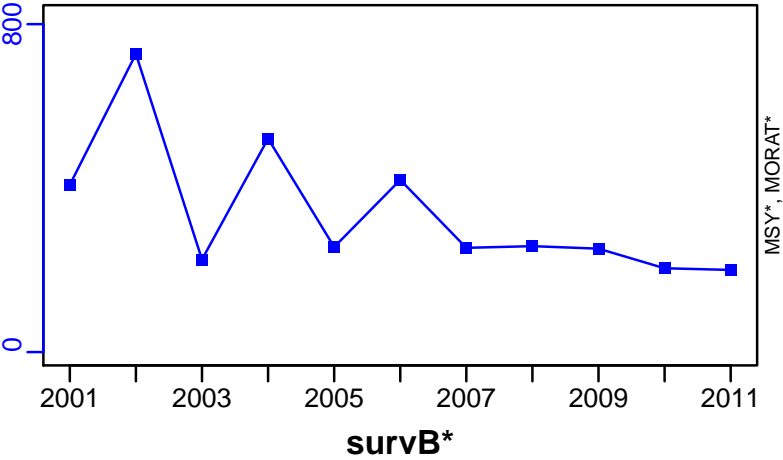


Recruits\*



Sea scallop West Scallop Fishing Area 29 [SCALLWSFA29]

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



TAC\*, Cpair\*, Cadv\*



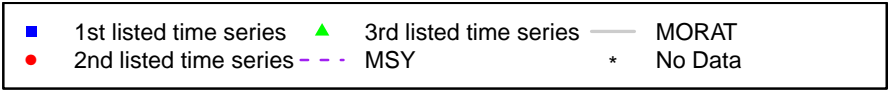
CPUE\*



EFFORT\*



CdivMSY\*



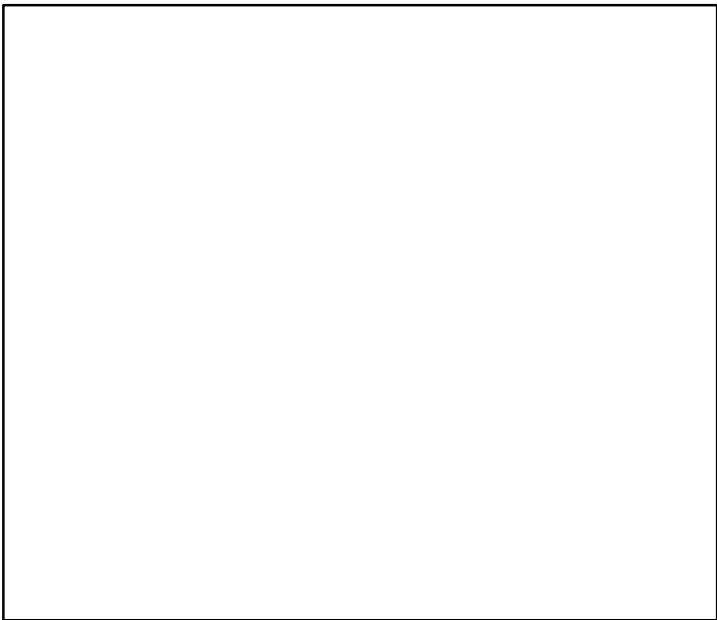
## Spiny dogfish Scotian Shelf, Bay of Fundy and Georges Bank [SDOG4VWX5]

Metadata	
<b>Scientific Name</b>	Squalus acanthias
<b>Current Assess ID</b>	DFO-MAR-SDOG4VWX5-1922-2013-OSGOOD
<b>Area</b>	Scotian Shelf, Bay of Fundy and Georges 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>	2013

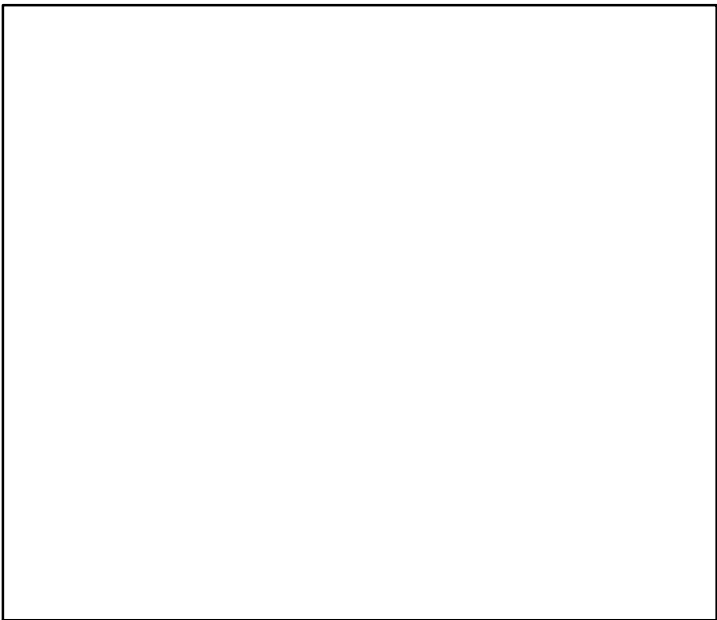
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2013	742
M	M-1/yr	2013	0.1
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-E00	2013	1790	-	-
TN	TN-E00	2013	792,000	Both	0+
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2013	993		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

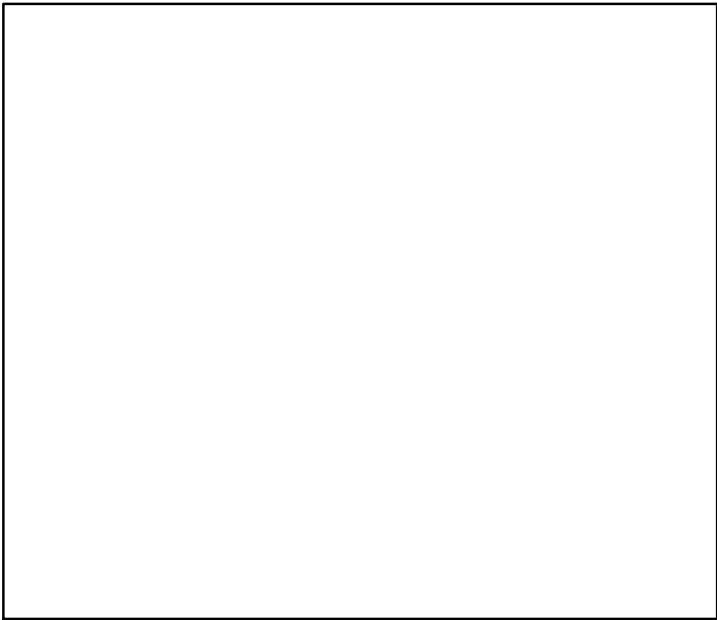
Kobe MSY\*



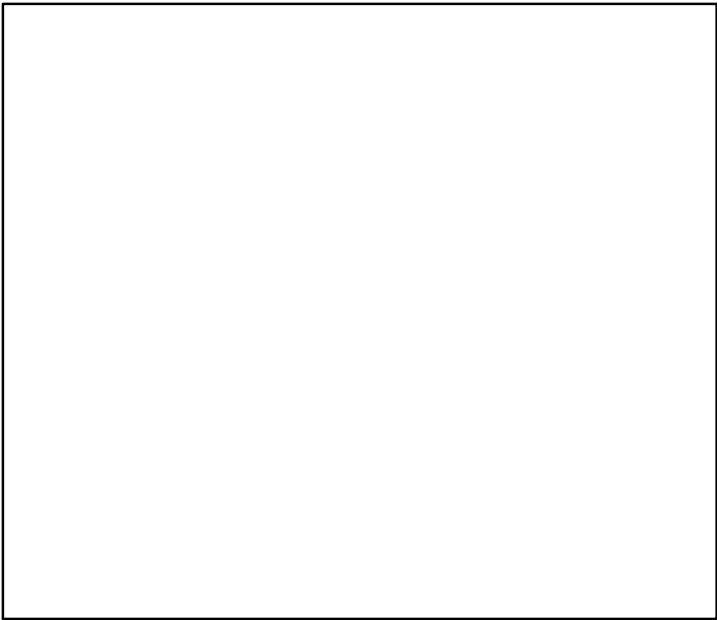
Kobe MGT\*



Spawner Recruit\*



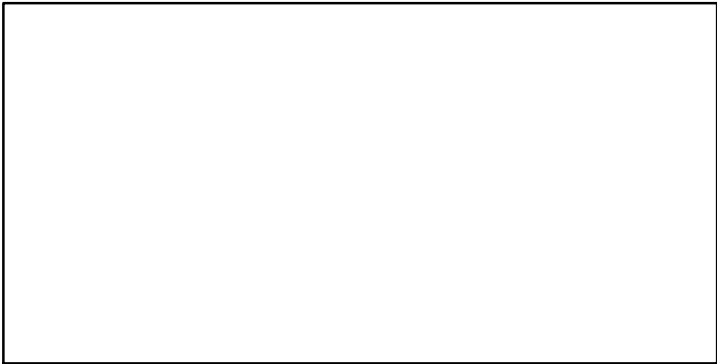
Production\*



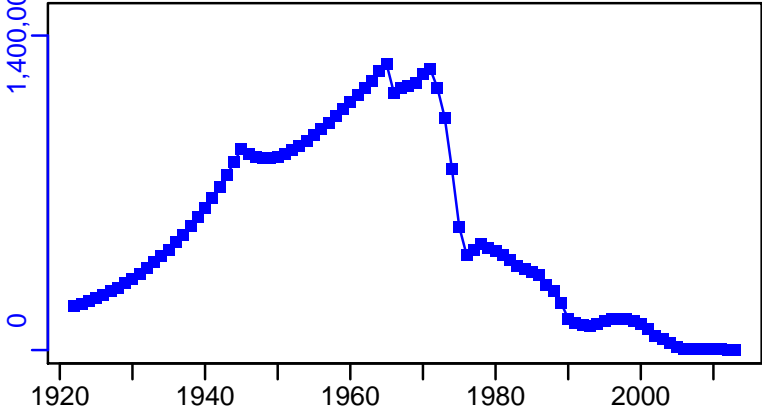
◆ Start Year   ◆ End Year   \* No Data

Spiny dogfish Scotian Shelf, Bay of Fundy and Georges Bank [SDOG4VWX5]

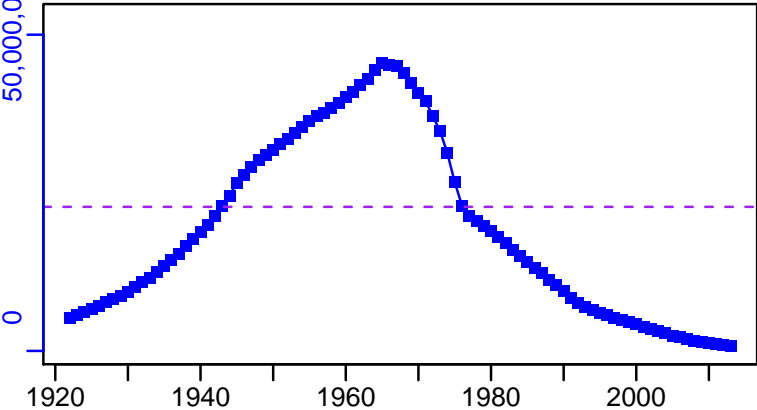
TB\*



SSB-E00 (1922-2013-OSGOOD)



TN-E00 (1922-2013-OSGOOD)



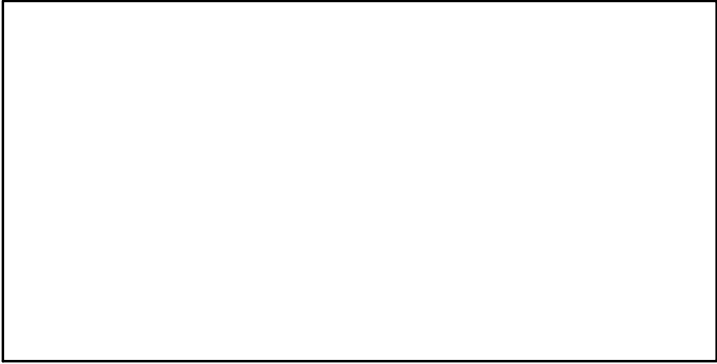
F\*



ER\*

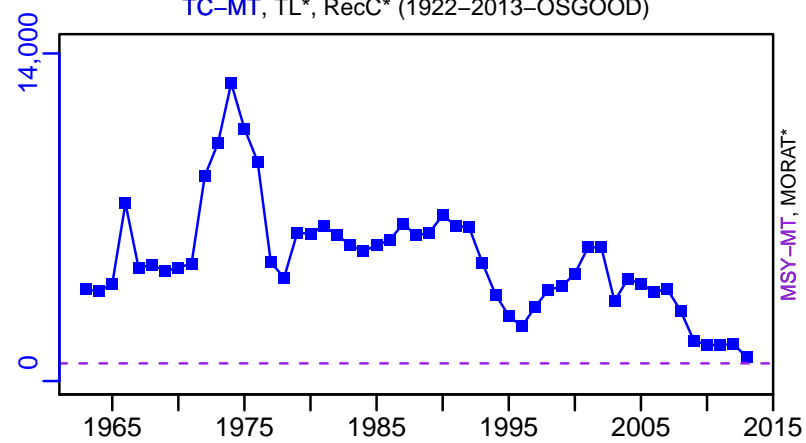


Recruits\*

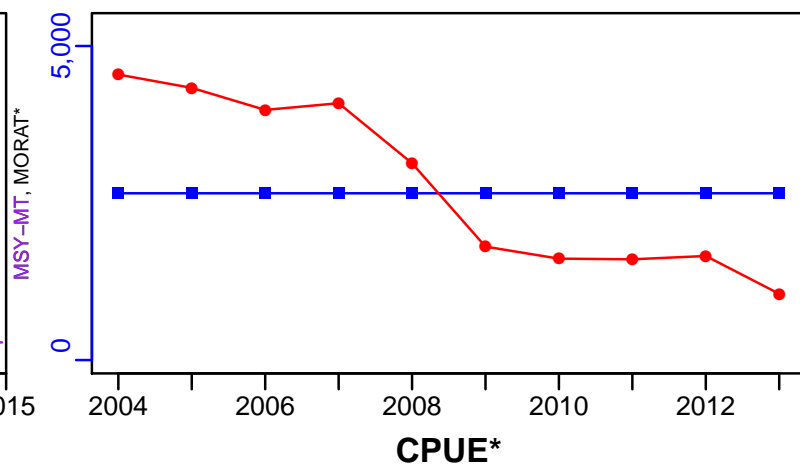


# Spiny dogfish Scotian Shelf, Bay of Fundy and Georges Bank [SDOG4VWX5]

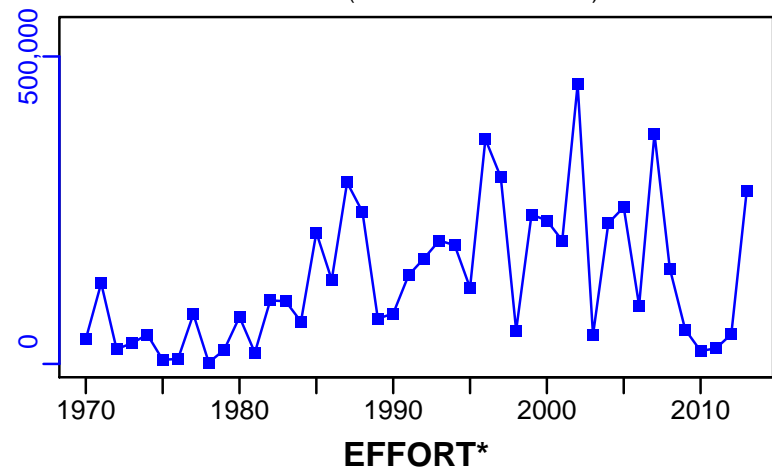
TC-MT, TL\*, RecC\* (1922-2013-OSGOOD)



TAC-MT, Cpair-MT, Cadv\* (1922-2013-OSGOOD)



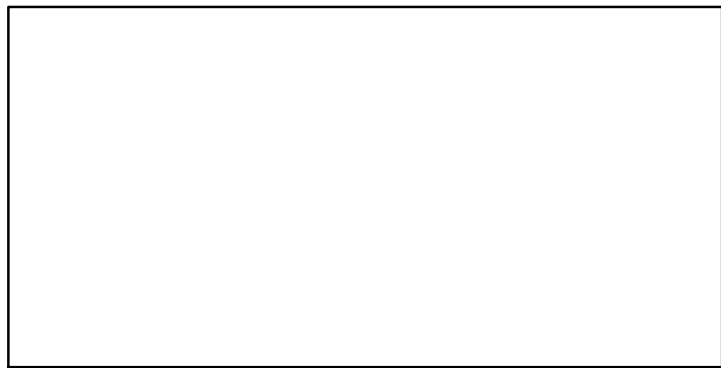
survB-MT (1922-2013-OSGOOD)



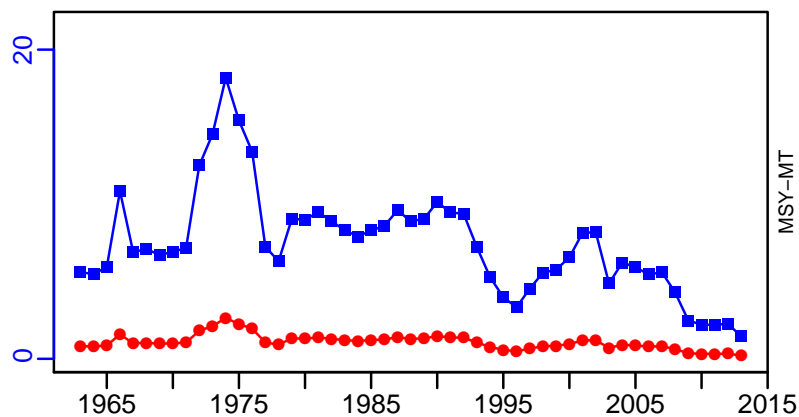
CPUE\*



EFFORT\*



TC-MT/MSY-MT, CdivMEANC-ratio, (1922-2013-OSGOOD)



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

## Silver hake Scotian Shelf and Bay of Fundy [SHAKE4VWX]

Metadata	
<b>Scientific Name</b>	Merluccius bilinearis
<b>Current Assess ID</b>	DFO-MAR-SHAKE4VWX-1969-2015-OSGOOD
<b>Area</b>	Scotian Shelf and Bay of Fundy
<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>	2015

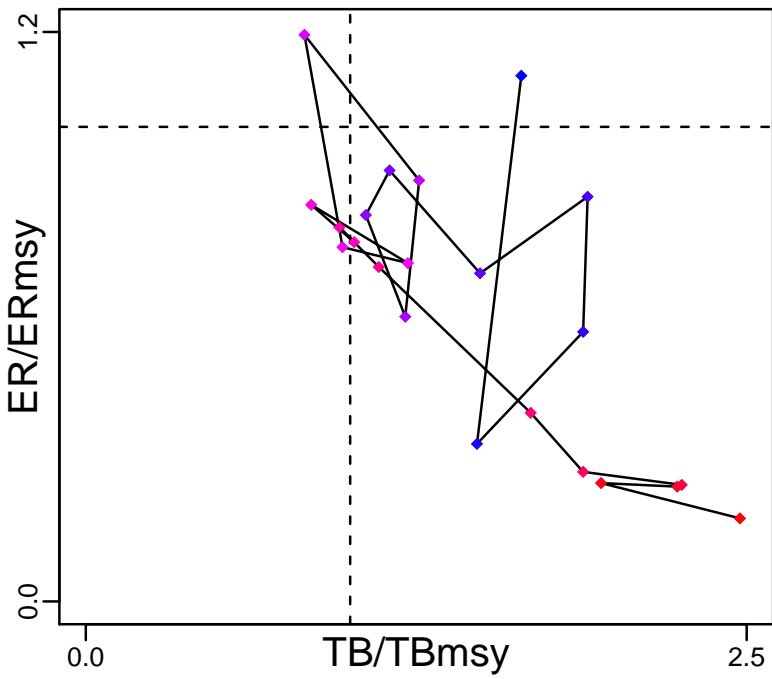
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-MT	2015	59,000
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	Fmsy-1/yr	2015	0.32
<b>ERmsy</b>	ERmsy-calc-ratio	2015	0.271
<b>TBmgt</b>	TBmgt-MT	2015	47,200
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2015	16,000
<b>M</b>	-	-	-
<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	122,000	Both	0+
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2015	$2.56 \times 10^8$	Both	-
<b>F</b>	F-1/yr	2015	0.048	-	-
<b>ER</b>	ER-calc-ratio	2015	0.047	-	-
<b>TC</b>	-	-	-		
<b>TL</b>	TL-MT	2015	6930		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2015	2.068		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2015	0.149		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-calc-ratio	2015	0.175		
<b>TB/TBmgt</b>	TB-MT/TBmgt-MT	2015	2.585		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

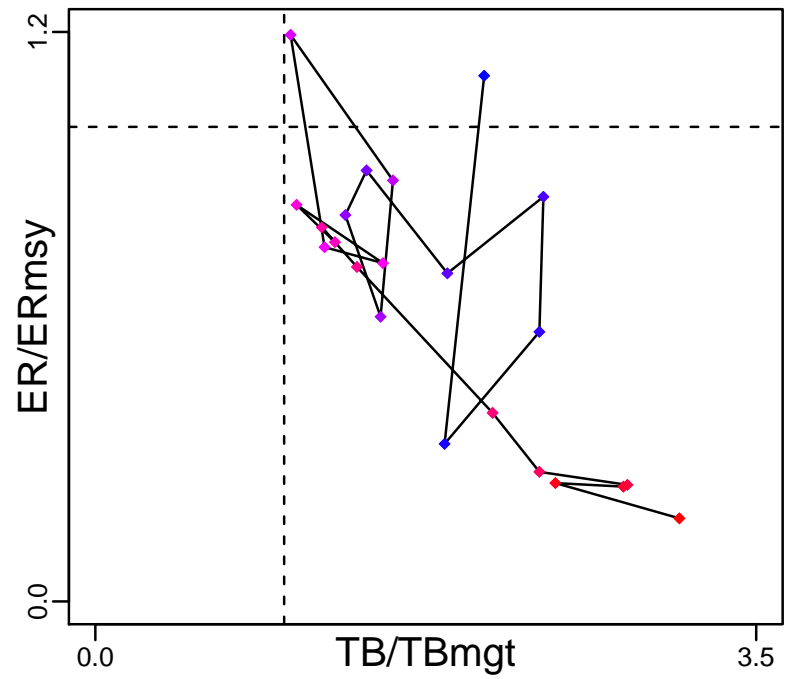


# Silver hake Scotian Shelf and Bay of Fundy [SHAKE4VWX]

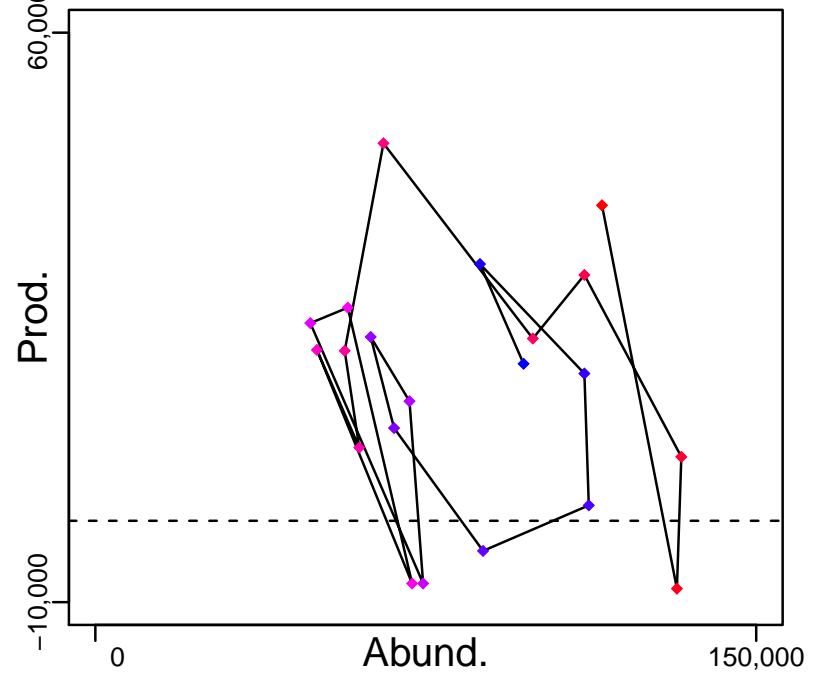
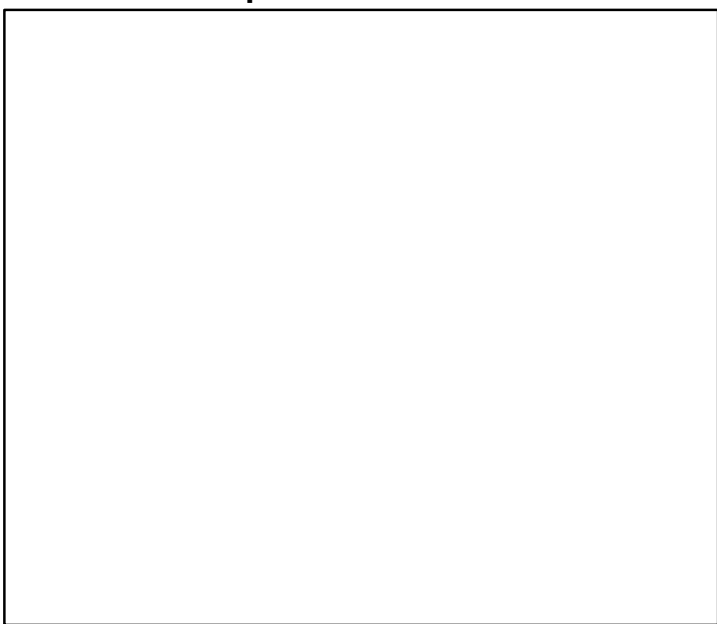
Kobe MSYpref (1969–2015–OSGOOD)



Kobe MGTpref (1969–2015–OSGOOD)



Production (1969–2015–OSGOOD)

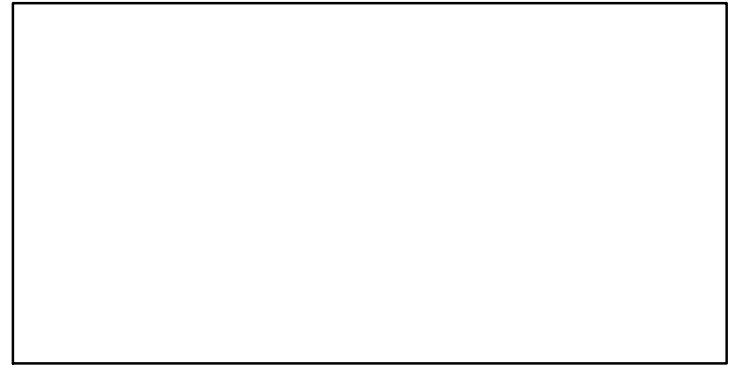
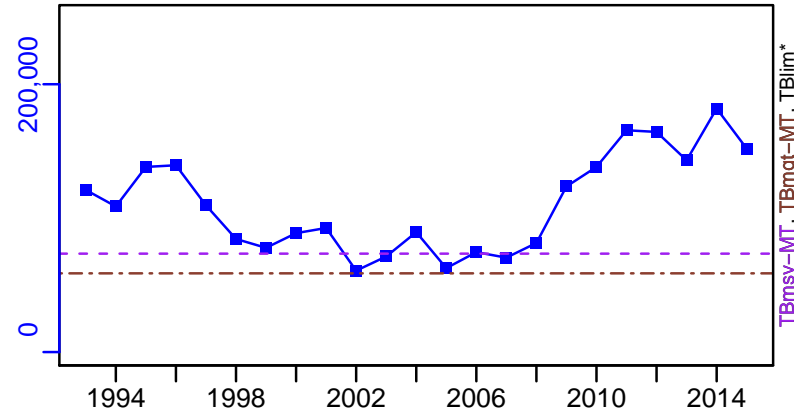


◆ Start Year ◆ End Year \* No Data

# Silver hake Scotian Shelf and Bay of Fundy [SHAKE4VWX]

TB-MT (1969-2015-OSGOOD)

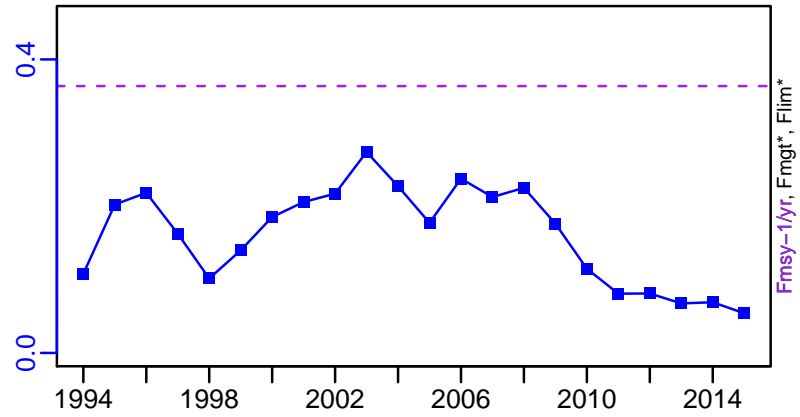
SSB\*



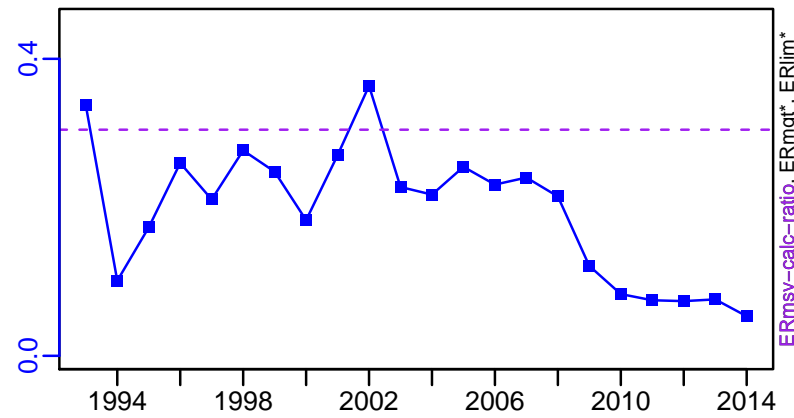
TN \*



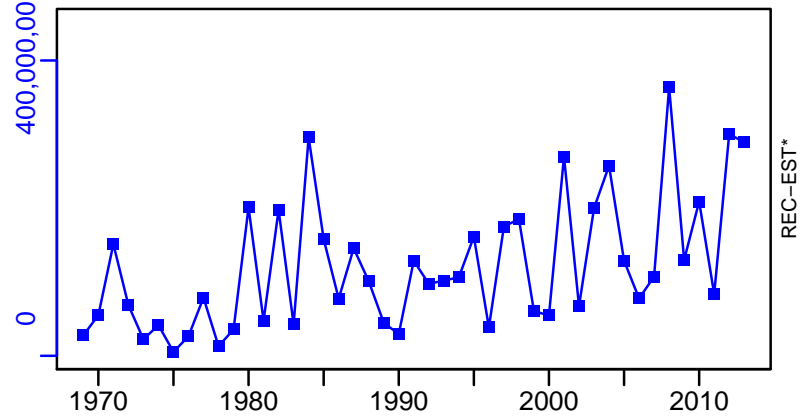
F-1/yr (1969-2015-OSGOOD)



ER-calc-ratio (1969-2015-OSGOOD)

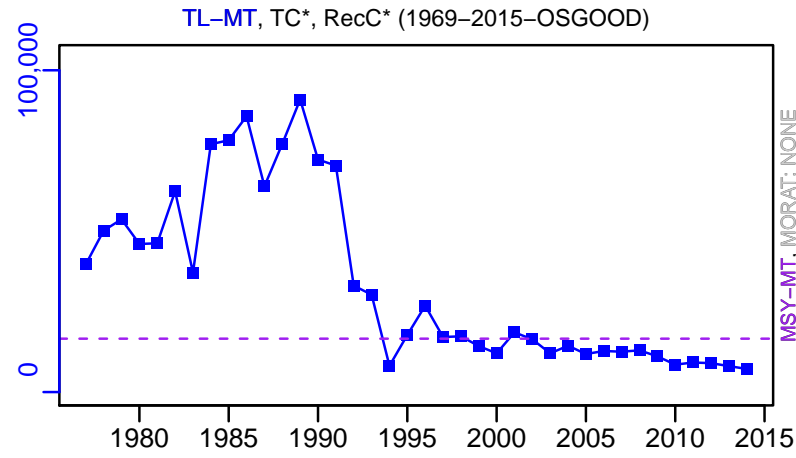


R-E00 (1969-2015-OSGOOD)

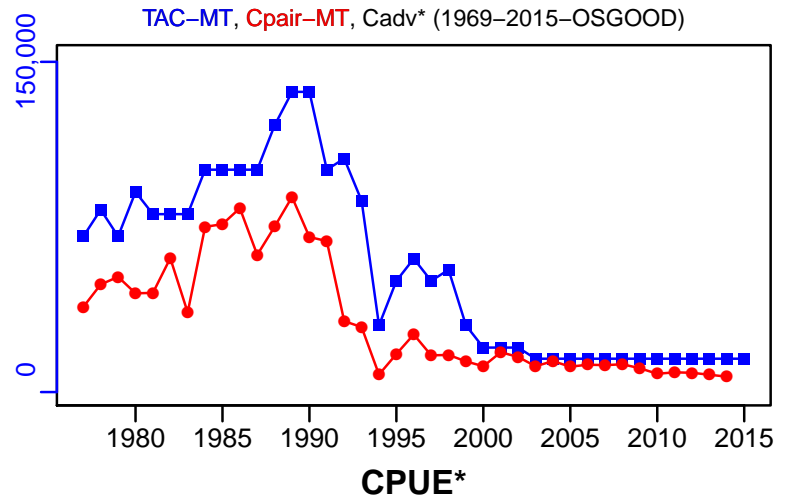


# Silver hake Scotian Shelf and Bay of Fundy [SHAKE4VWX]

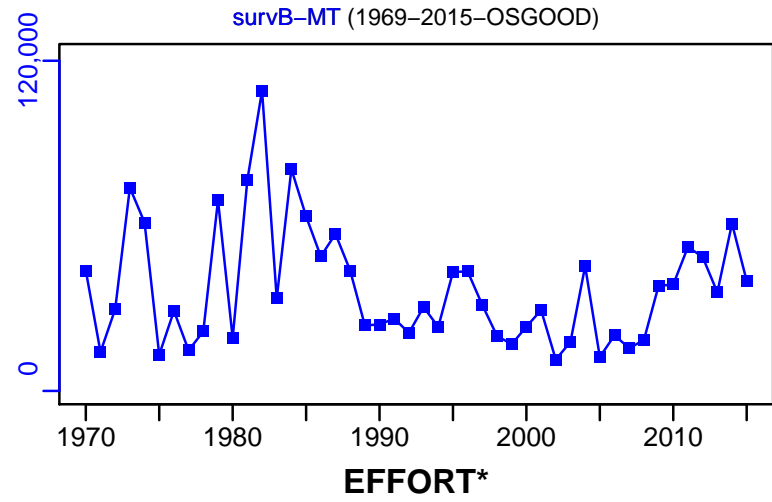
TL-MT, TC\*, RecC\* (1969–2015–OSGOOD)



TAC-MT, Cpair-MT, Cadv\* (1969–2015–OSGOOD)



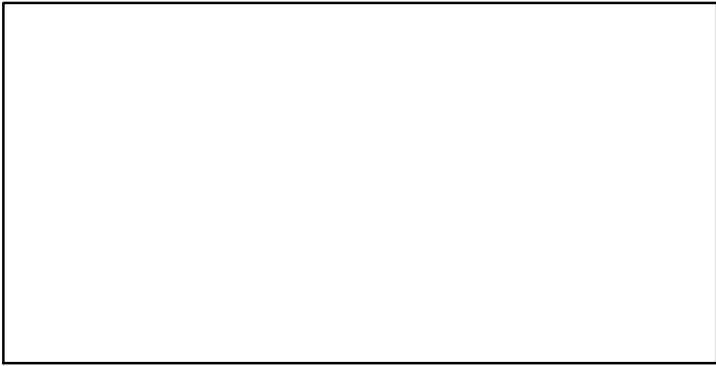
survB-MT (1969–2015–OSGOOD)



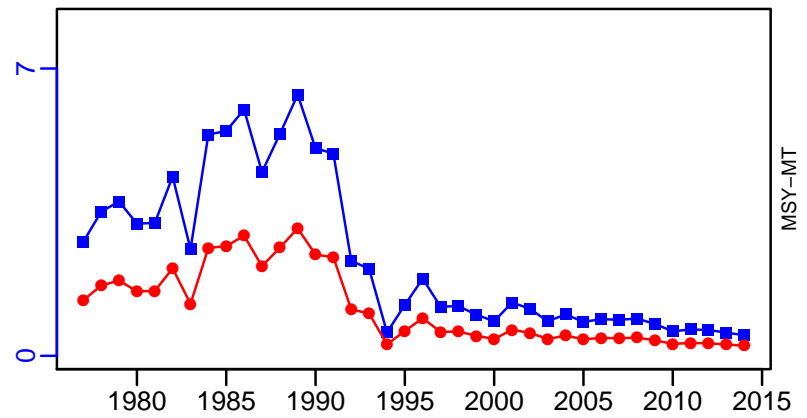
CPUE\*



EFFORT\*



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



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

## Smooth skate NAFO Division 2J3K [SMOOTHSKA2J3K]

Metadata	
<b>Scientific Name</b>	Malacoraja senta
<b>Current Assess ID</b>	DFO-NFLD-SMOOTHSKA2J3K-1981-2012-OSGOOD
<b>Area</b>	NAFO Division 2J3K
<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>	2012

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	2012	0.021		
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

Smooth skate NAFO Division 2J3K [SMOOTHSKA2J3K]

**TB\***



**SSB\***



**TN \***



**F\***



**ER\***

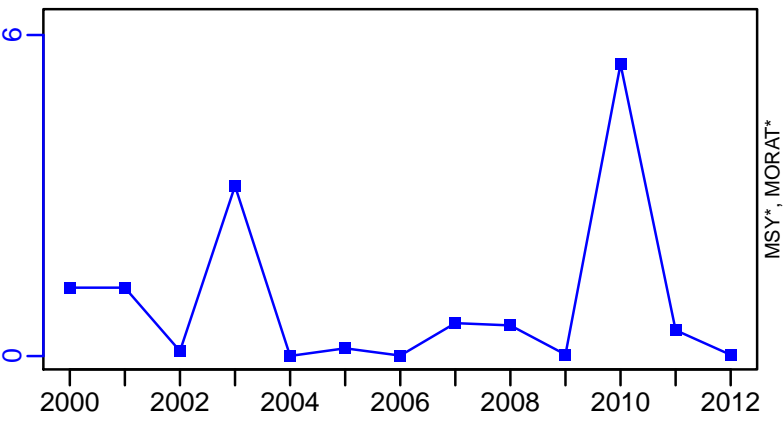


**Recruits\***



# Smooth skate NAFO Division 2J3K [SMOOTHSKA2J3K]

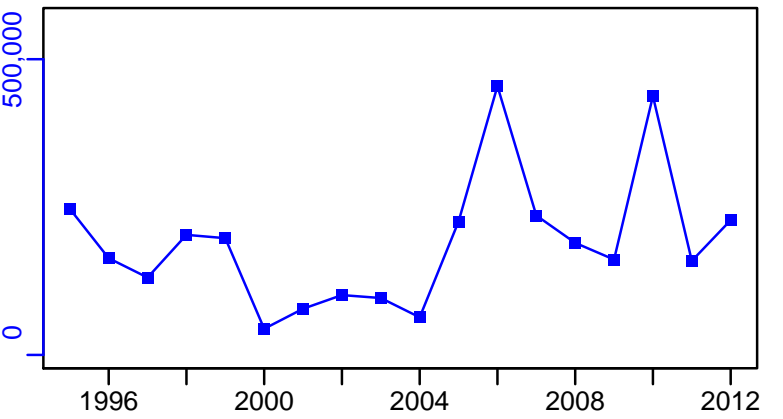
TC-MT, TL\*, RecC\* (1981-2012-OSGOOD)



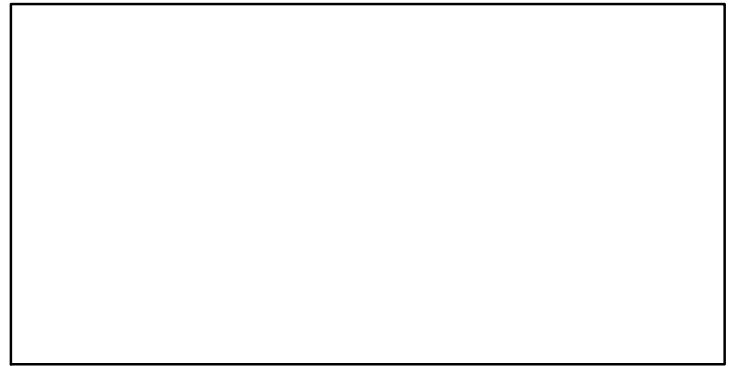
TAC\*, Cpair\*, Cadv\*



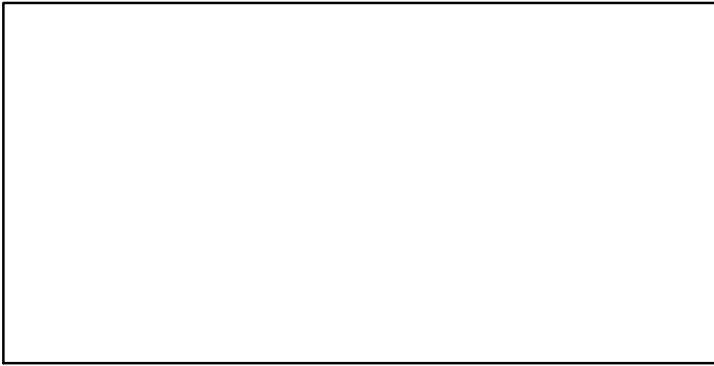
survB-MT (1981-2012-OSGOOD)



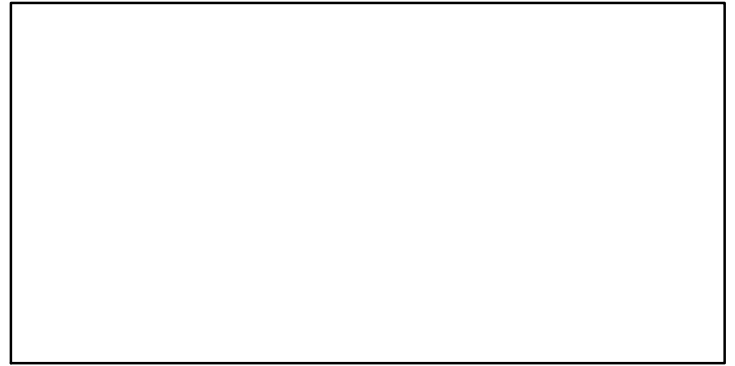
CPUE\*



EFFORT\*



CdivMSY\*



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

## Smooth skate Southern Gulf of St. Lawrence [SMOOTHSKA4T]

Metadata	
<b>Scientific Name</b>	Malacoraja senta
<b>Current Assess ID</b>	DFO-NFLD-SMOOTHSKA4T-1971-2010-OSGOOD
<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 - 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	MSY-MT	2010	120
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	24		
TL	TL-MT	2010	0.56		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



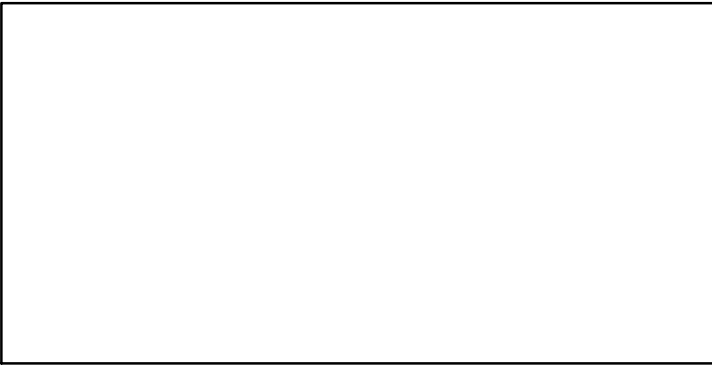
Production\*



◆ Start Year   ◆ End Year   \* No Data

Smooth skate Southern Gulf of St. Lawrence [SMOOTHSKA4T]

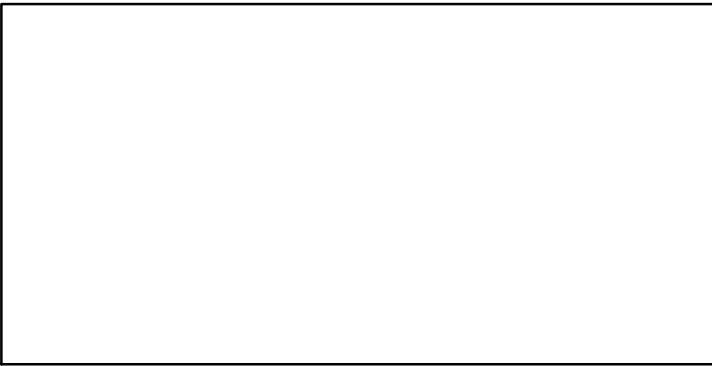
**TB\***



**SSB\***



**TN \***



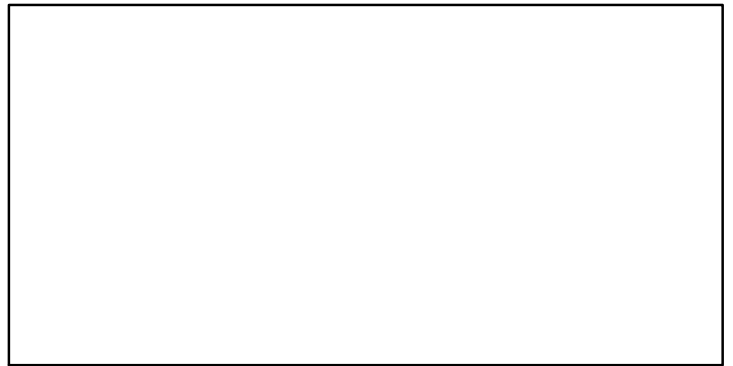
**F\***



**ER\***

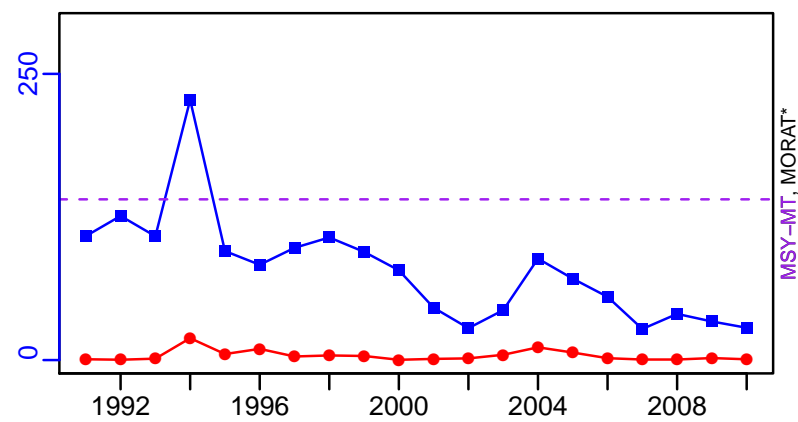


**Recruits\***



# Smooth skate Southern Gulf of St. Lawrence [SMOOTHKA4T]

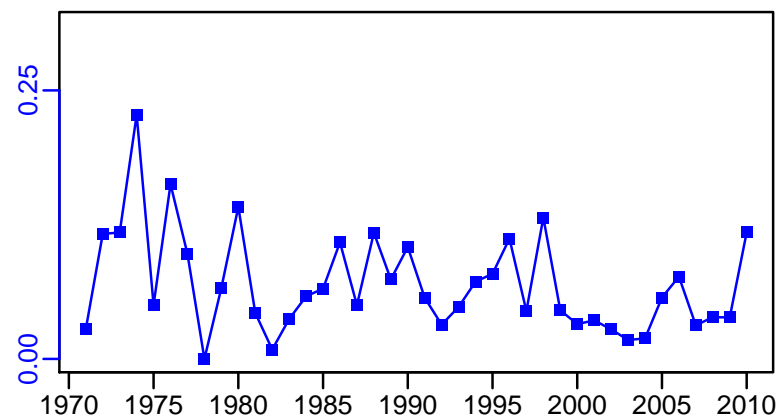
TC-MT, TL-MT, RecC\* (1971-2010-OSGOOD)



TAC\*, Cpair\*, Cadv\*



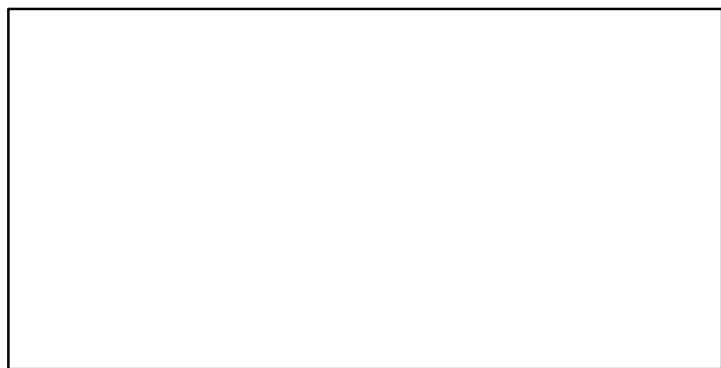
survB-kg/tow (1971-2010-OSGOOD)



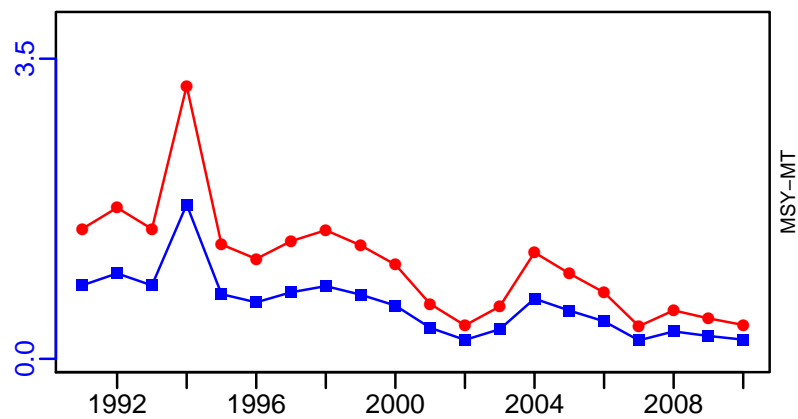
CPUE\*



EFFORT\*



TC-MT/MSY-MT, CdivMEANC-ratio, (1971-2010-OSGOOD)



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

## Snow crab Division 2HJ [SNOWCRAB2HJ]

Metadata	
<b>Scientific Name</b>	Chionoecetes opilio
<b>Current Assess ID</b>	DFO-SNOWCRAB2HJ-1995-2013-WATSON
<b>Area</b>	Division 2HJ
<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>	2013

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	TN-E00	2013	6,350,000	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	-	-	-		
TL	TL-MT	2013	1380		
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

Snow crab Division 2HJ [SNOWCRAB2HJ]

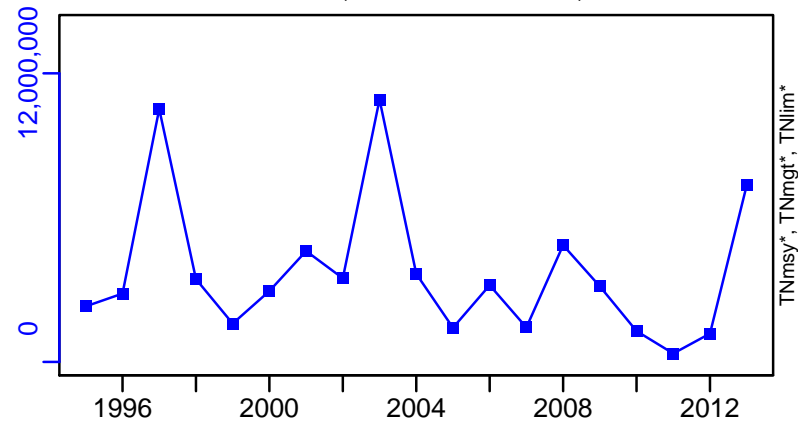
TB\*



SSB\*



TN-E00 (1995–2013–WATSON)



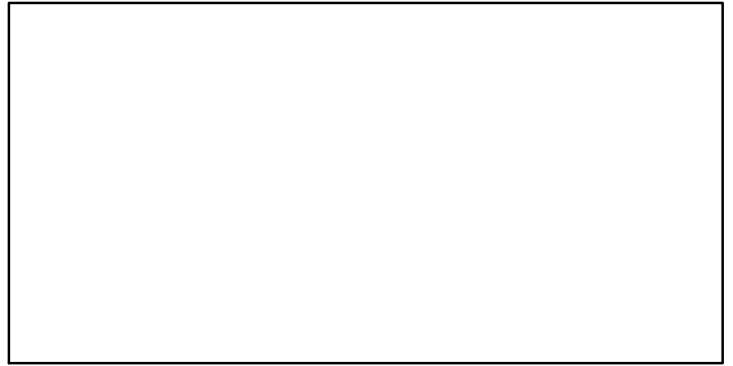
F\*



ER\*

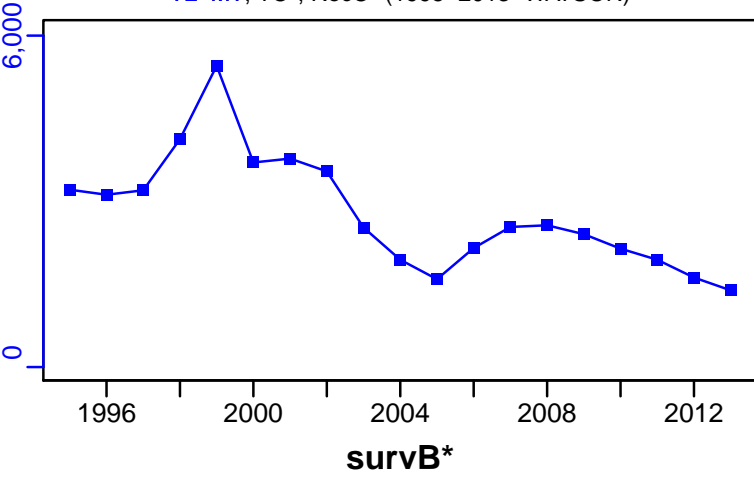


Recruits\*

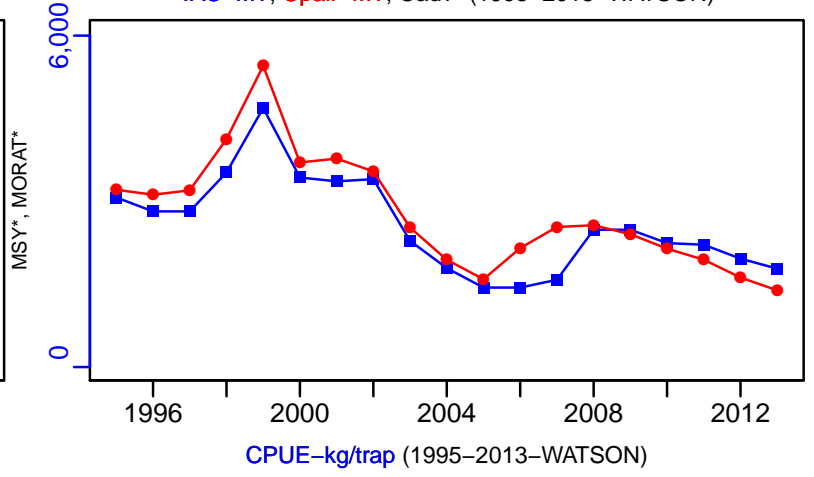


# Snow crab Division 2HJ [SNOWCRAB2HJ]

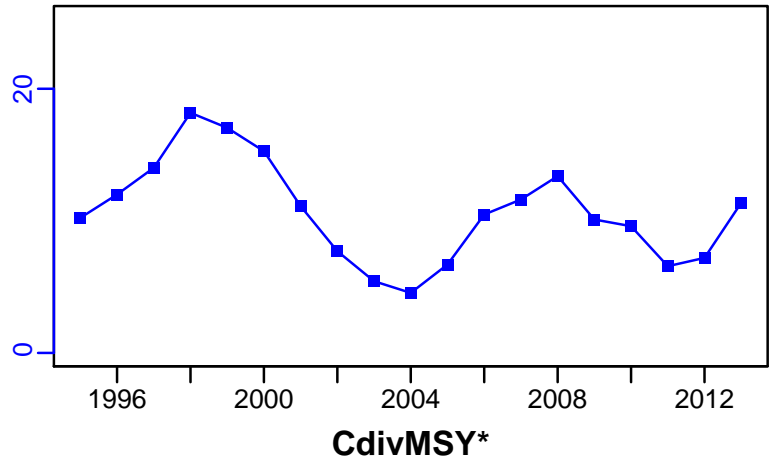
TL-MT, TC\*, RecC\* (1995-2013-WATSON)



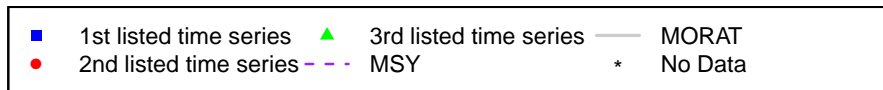
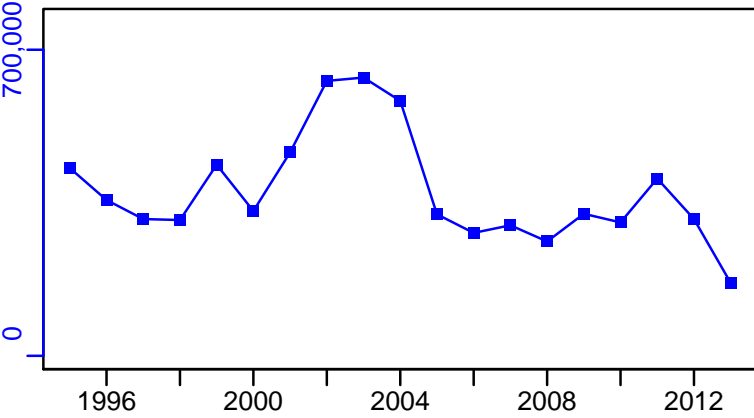
TAC-MT, Cpair-MT, Cadv\* (1995-2013-WATSON)



CPUE-kg/trap (1995-2013-WATSON)



EFFORT-traphauls (1995-2013-WATSON)



### Snow crab Division 3K [SNOWCRAB3K]

Metadata	
<b>Scientific Name</b>	Chionoecetes opilio
<b>Current Assess ID</b>	DFO-SNOWCRAB3K-1995-2013-WATSON
<b>Area</b>	Division 3K
<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>	2008, 2013

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2008	14,300	-	-
SSB	-	-	-	-	-
TN	TN-E00	2013	3,310,000	-	-
R	R-MT	2008	7170	-	-
F	-	-	-	-	-
ER	ER-ratio	2008	0.811	-	-
TC	-	-	-		
TL	TL-MT	2013	8520		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



# Snow crab Division 3K [SNOWCRAB3K]

Kobe MSY\*



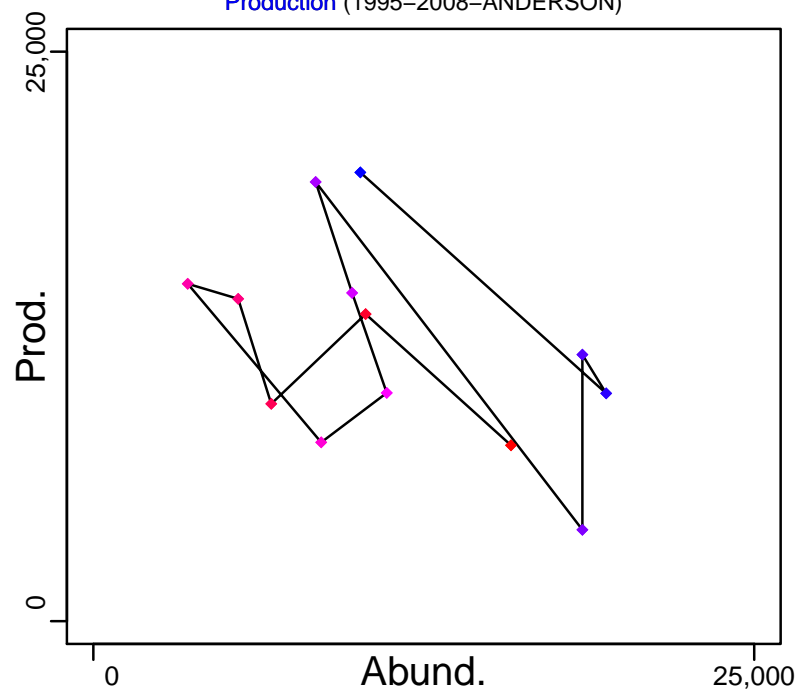
Kobe MGT\*



Spawner Recruit\*



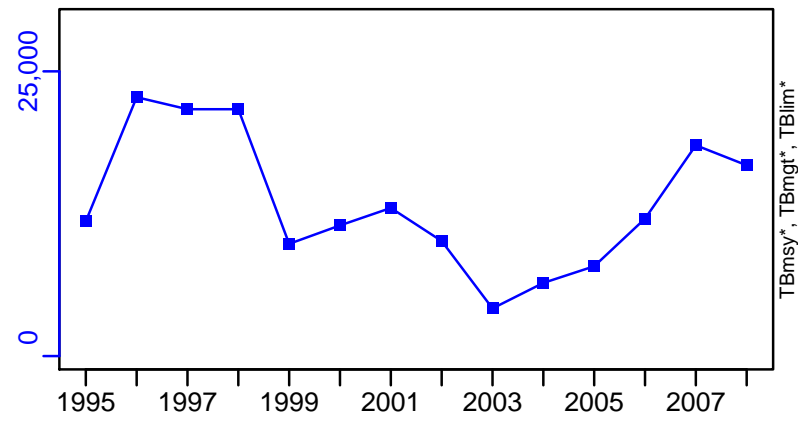
Production (1995–2008–ANDERSON)



◆ Start Year ◆ End Year \* No Data

# Snow crab Division 3K [SNOWCRAB3K]

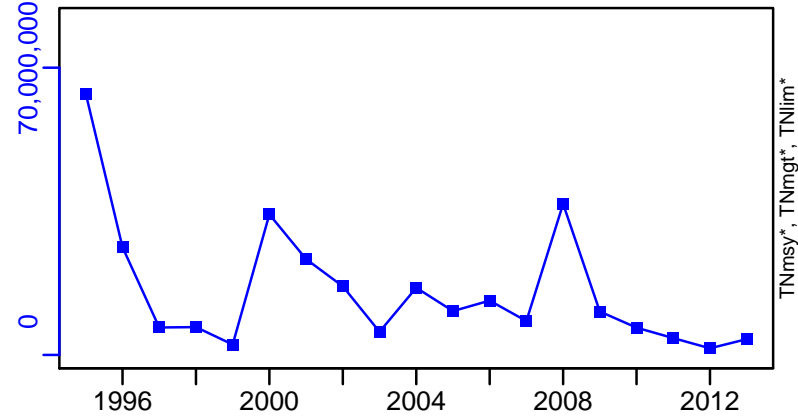
TB-MT (1995–2008–ANDERSON)



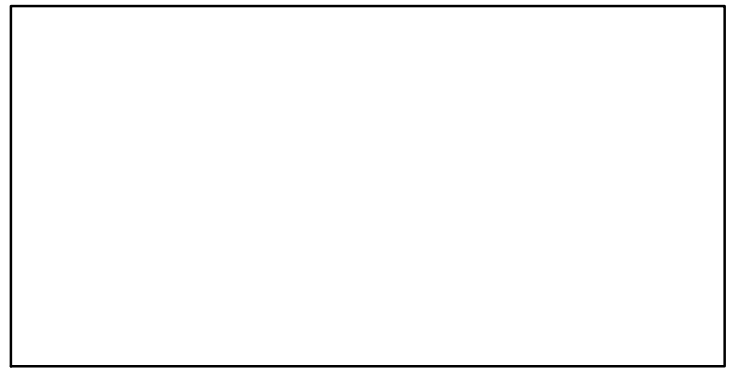
SSB\*



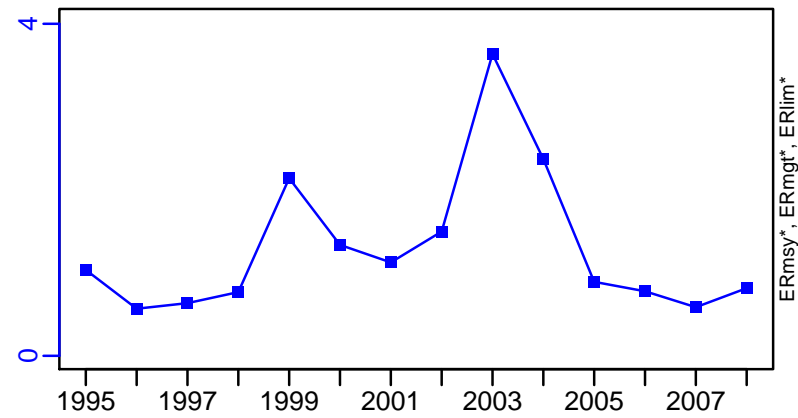
TN-E00 (1995–2013–WATSON)



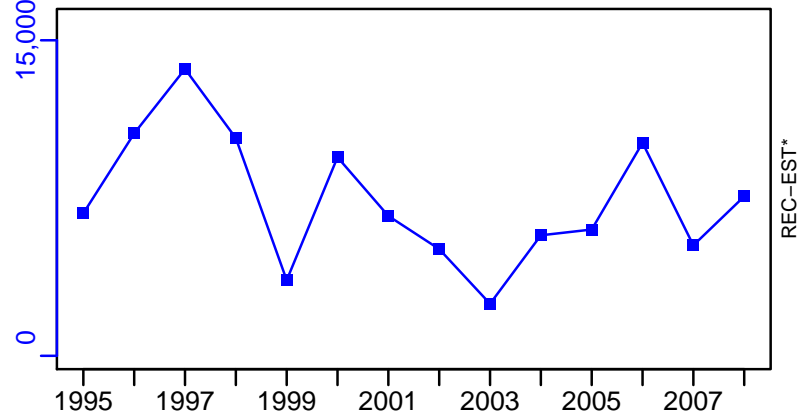
F\*



ER-ratio (1995–2008–ANDERSON)

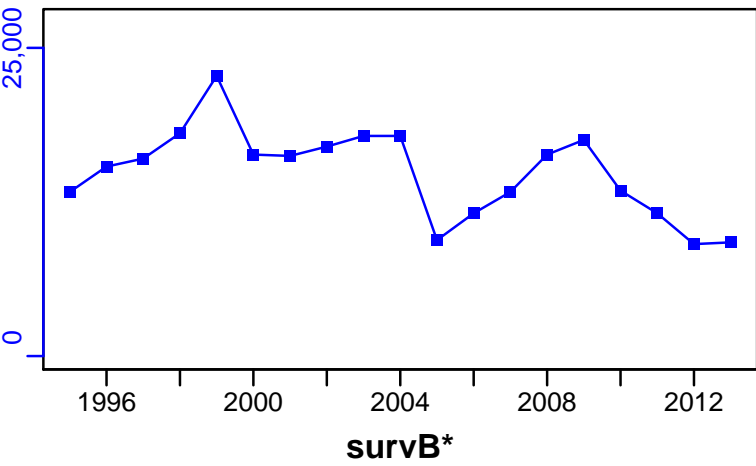


R-MT (1995–2008–ANDERSON)

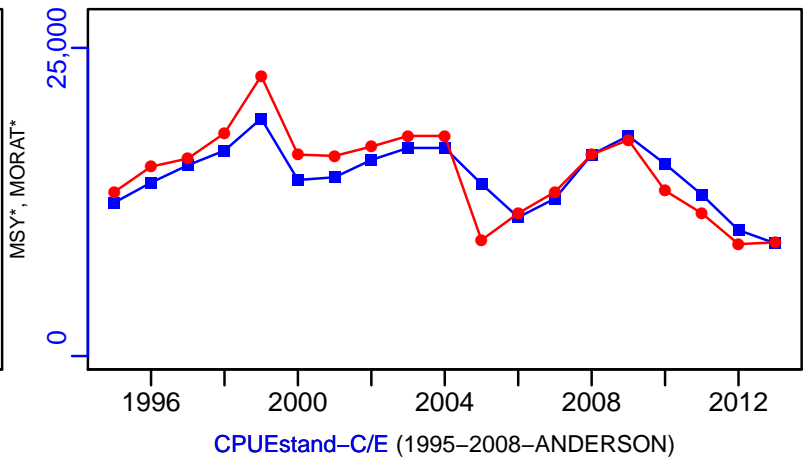


# Snow crab Division 3K [SNOWCRAB3K]

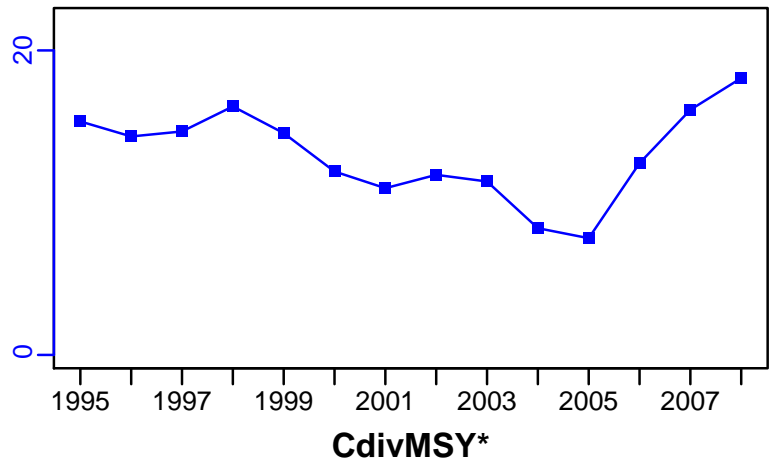
TL-MT, TC\*, RecC\* (1995-2013-WATSON)



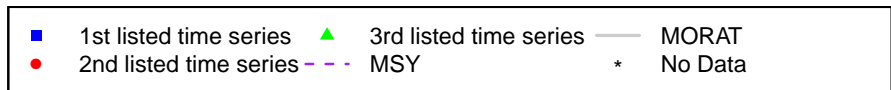
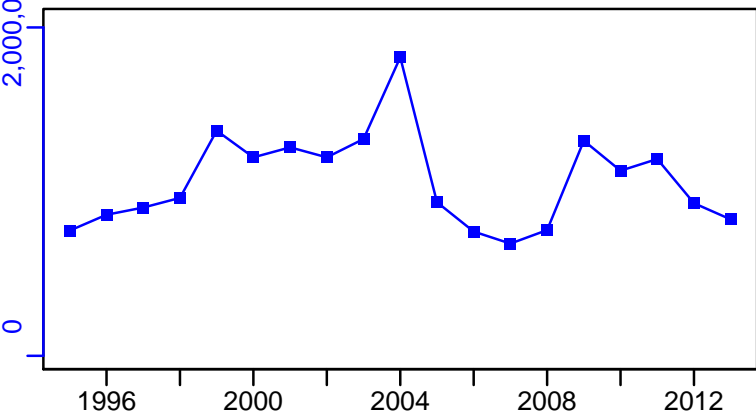
TAC-MT, Cpair-MT, Cadv\* (1995-2013-WATSON)



CPUStand-C/E (1995-2008-ANDERSON)



EFFORT-A1-traphauls (1995-2013-WATSON)

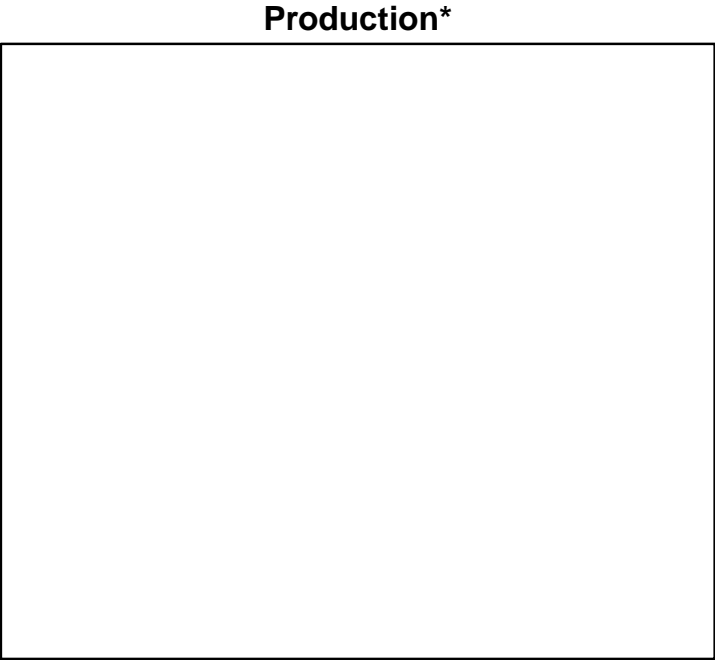
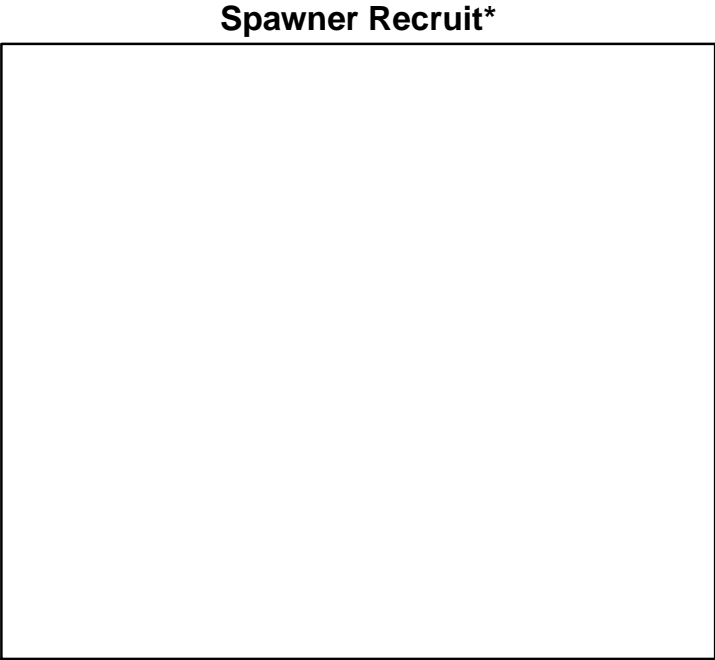
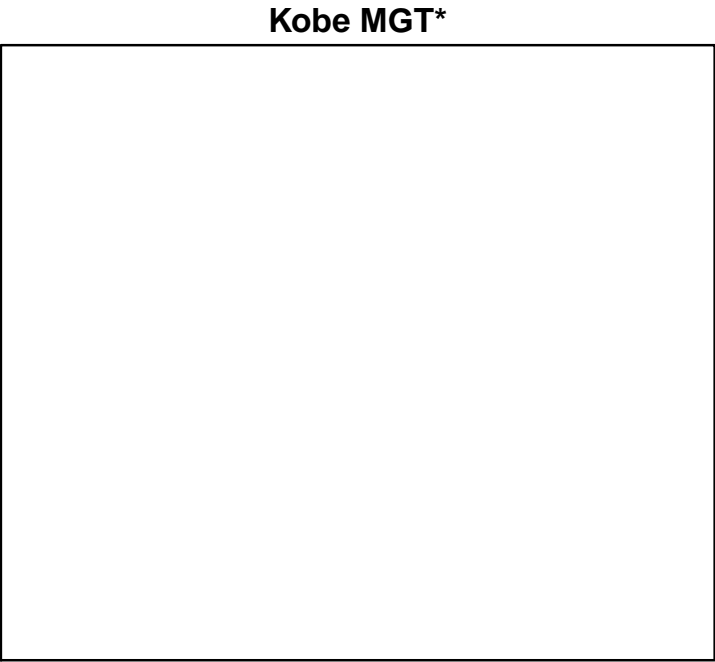


## Snow crab Division 3LNO [SNOWCRAB3LNO]

Metadata	
<b>Scientific Name</b>	Chionoecetes opilio
<b>Current Assess ID</b>	DFO-SNOWCRAB3LNO-1995-2013-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>	2013

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

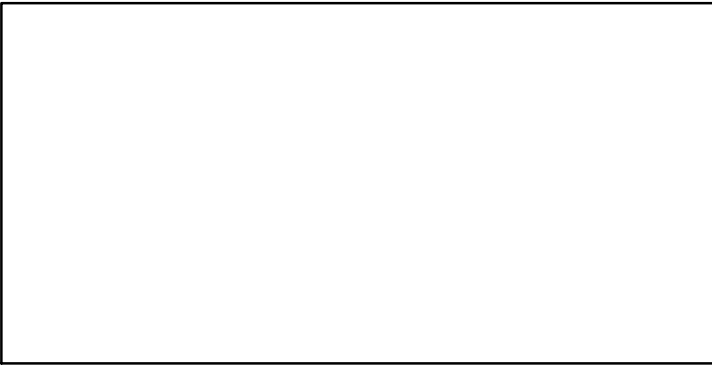
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	TN-E00	2013	8,270,000	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	-	-	-		
TL	TL-MT	2013	33,900		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



◆ Start Year   ◆ End Year   \* No Data

Snow crab Division 3LNO [SNOWCRAB3LNO]

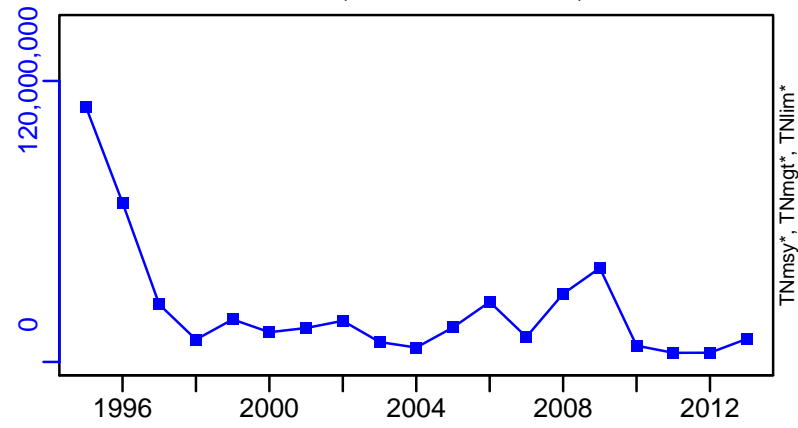
TB\*



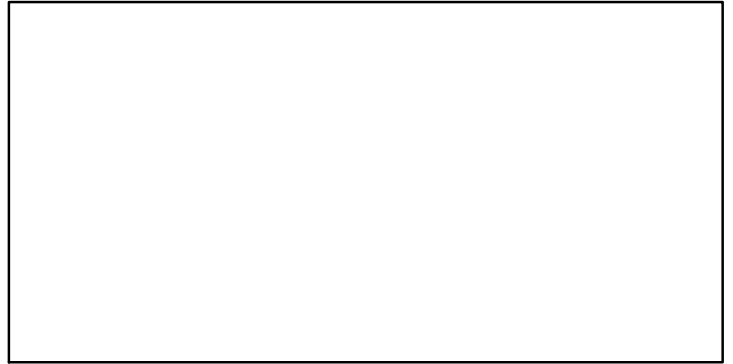
SSB\*



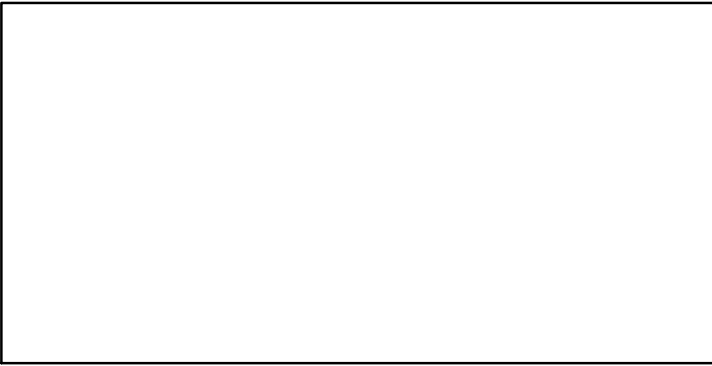
TN-E00 (1995–2013–WATSON)



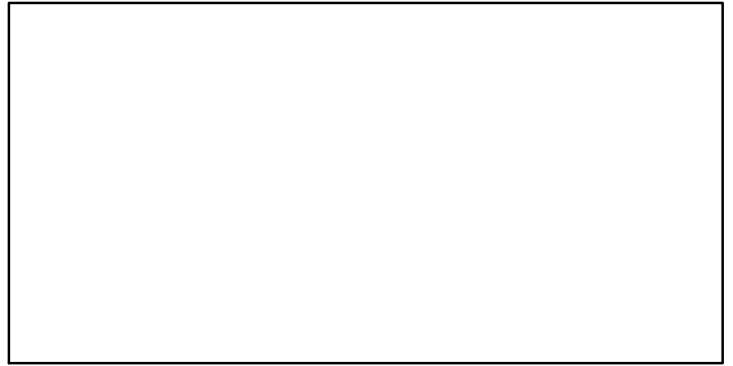
F\*



ER\*

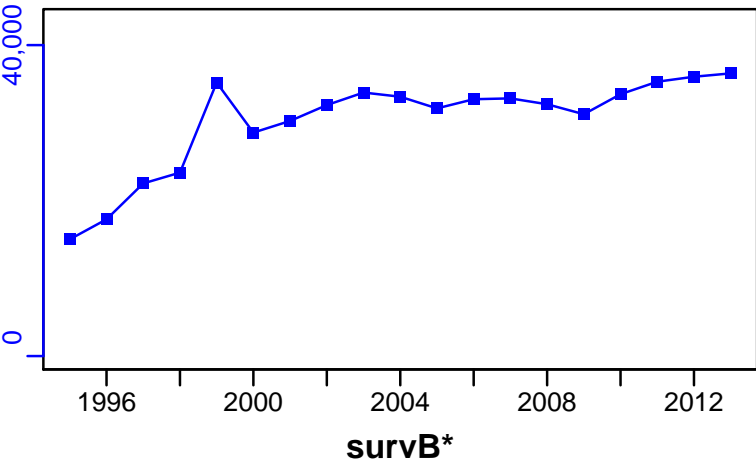


Recruits\*

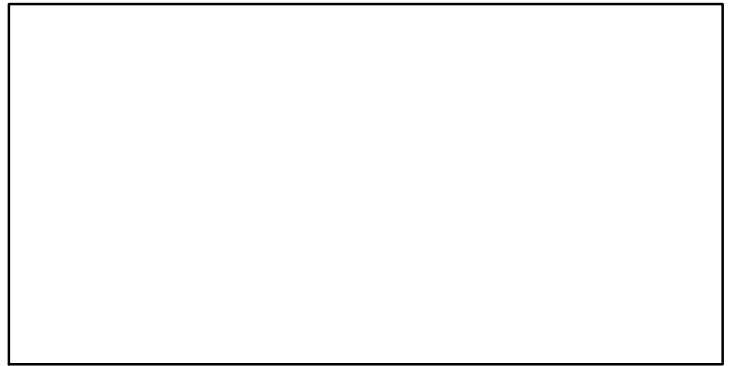
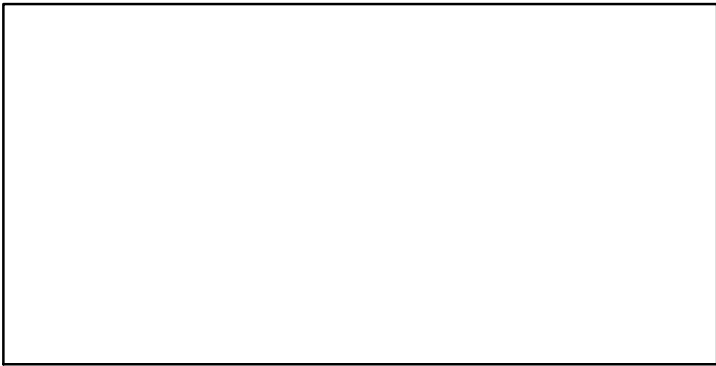
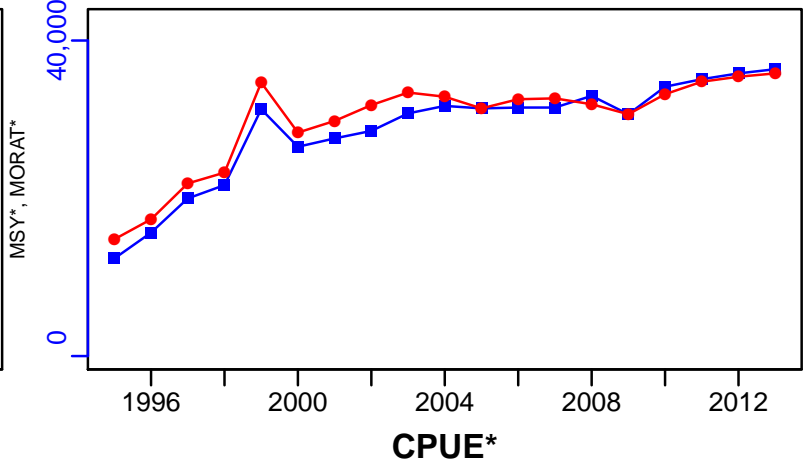


# Snow crab Division 3LNO [SNOWCRAB3LNO]

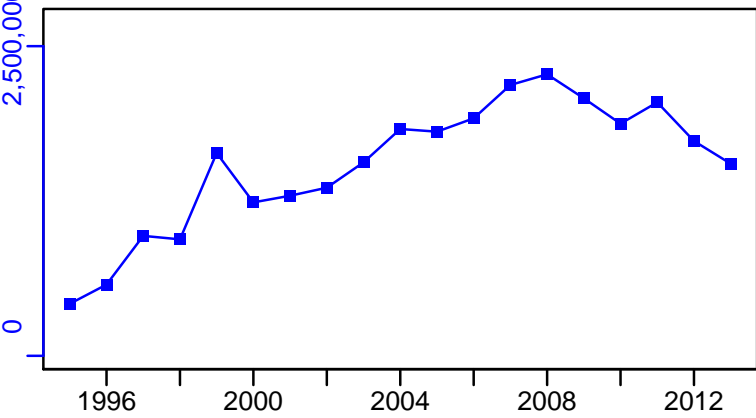
TL-MT, TC\*, RecC\* (1995-2013-WATSON)



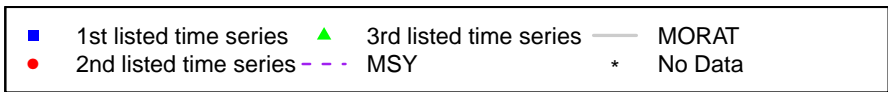
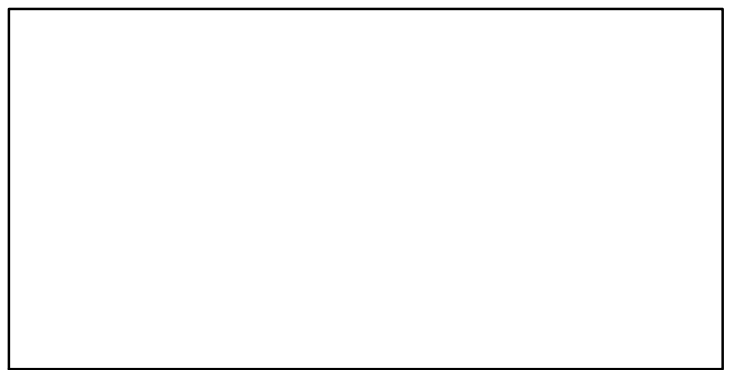
TAC-MT, Cpair-MT, Cadv\* (1995-2013-WATSON)



EFFORT-A1-traphauls (1995-2013-WATSON)



CdivMSY\*



## Snow crab St. Pierre Bank [SNOWCRAB3Ps]

Metadata	
<b>Scientific Name</b>	Chionoecetes opilio
<b>Current Assess ID</b>	DFO-SNOWCRAB3Ps-1995-2013-WATSON
<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
<b>Asmts in RAM</b>	2008, 2013

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2008	354	-	-
SSB	-	-	-	-	-
TN	TN-E00	2013	768,000	-	-
R	R-MT	2008	1020	-	-
F	-	-	-	-	-
ER	ER-ratio	2008	8.97	-	-
TC	-	-	-		
TL	TL-MT	2013	6050		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



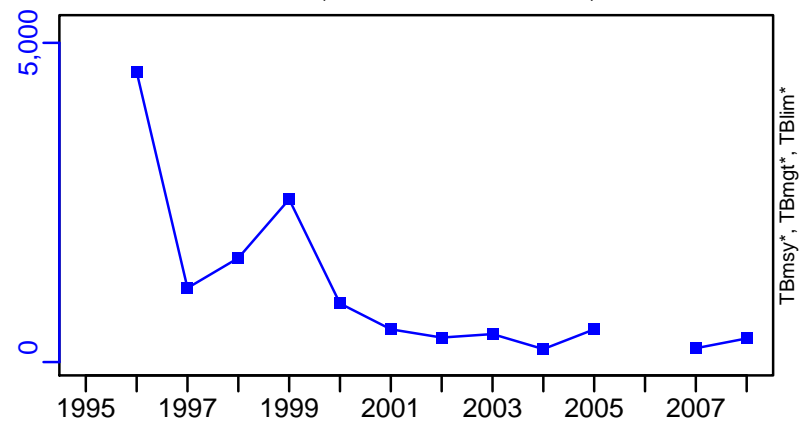
Production\*



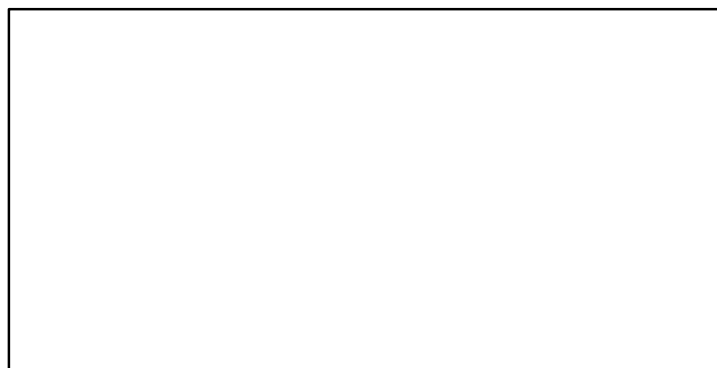
◆ Start Year   ◆ End Year   \* No Data

# Snow crab St. Pierre Bank [SNOWCRAB3Ps]

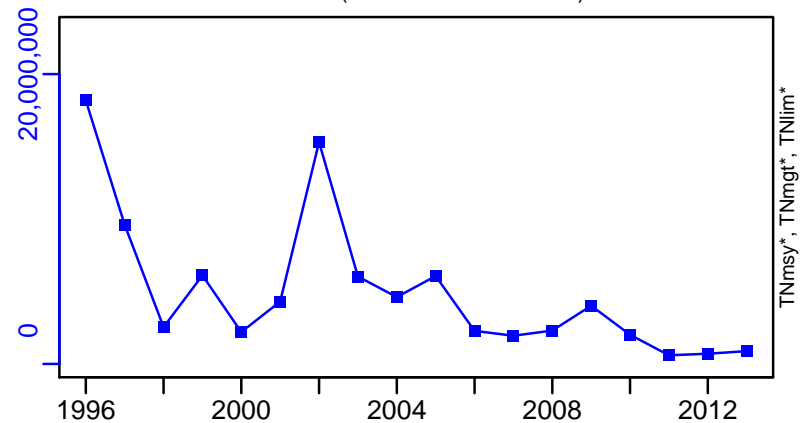
TB-MT (1995–2008–ANDERSON)



SSB\*



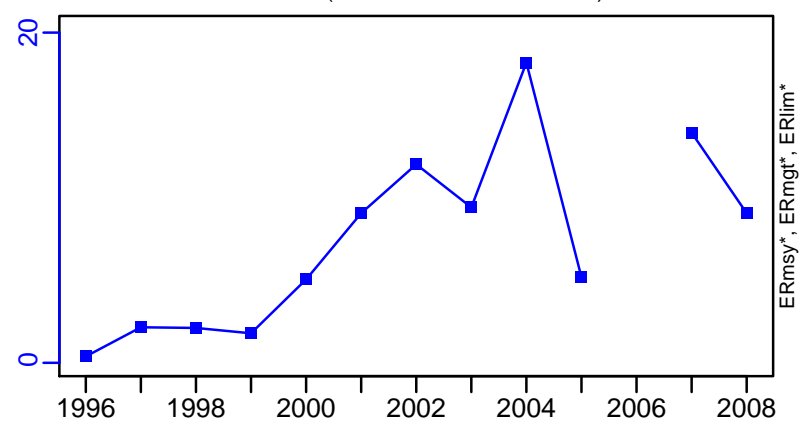
TN-E00 (1995–2013–WATSON)



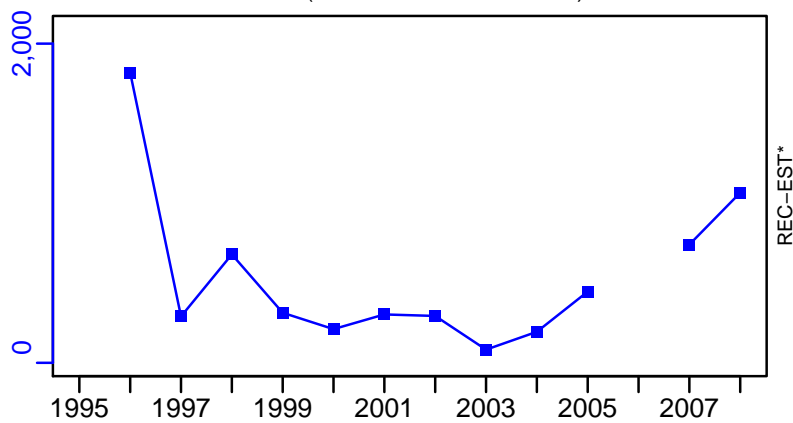
F\*



ER-ratio (1995–2008–ANDERSON)

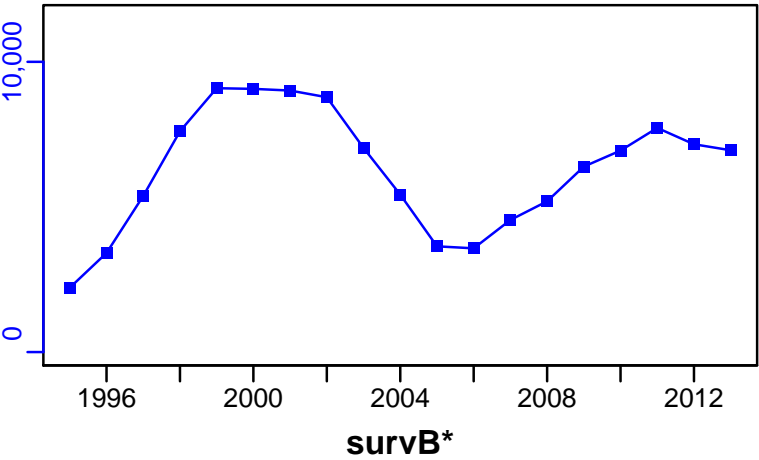


R-MT (1995–2008–ANDERSON)

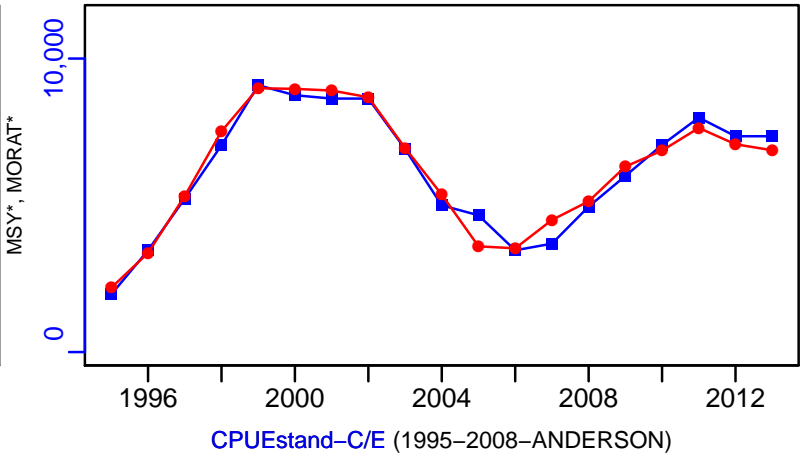


Snow crab St. Pierre Bank [SNOWCRAB3Ps]

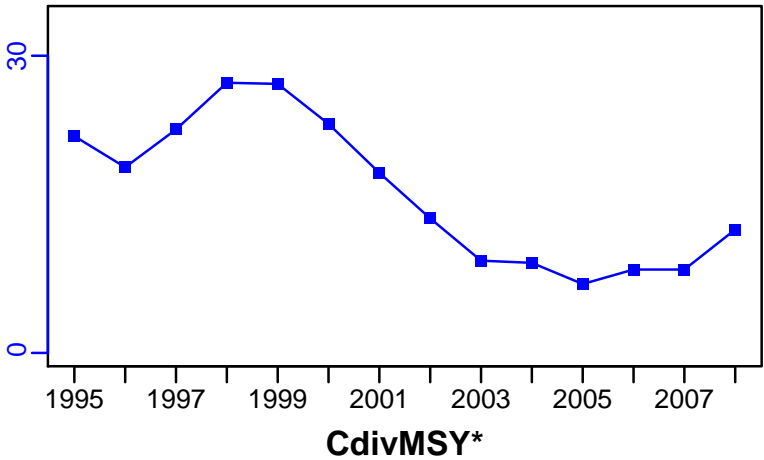
TL-MT, TC\*, RecC\* (1995-2013-WATSON)



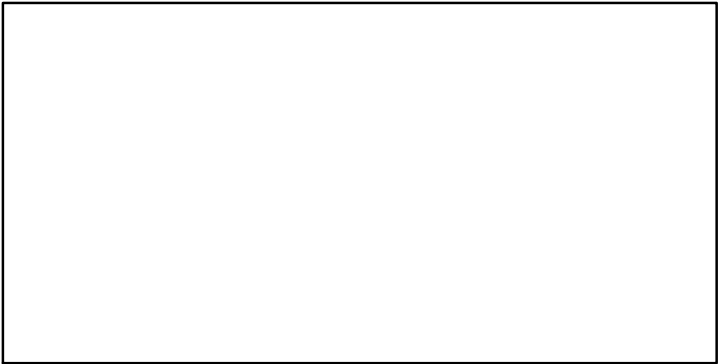
TAC-MT, Cpair-MT, Cadv\* (1995-2013-WATSON)



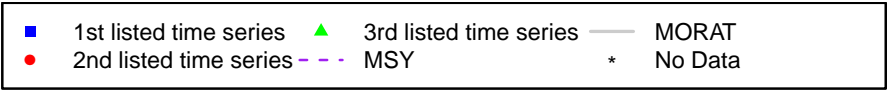
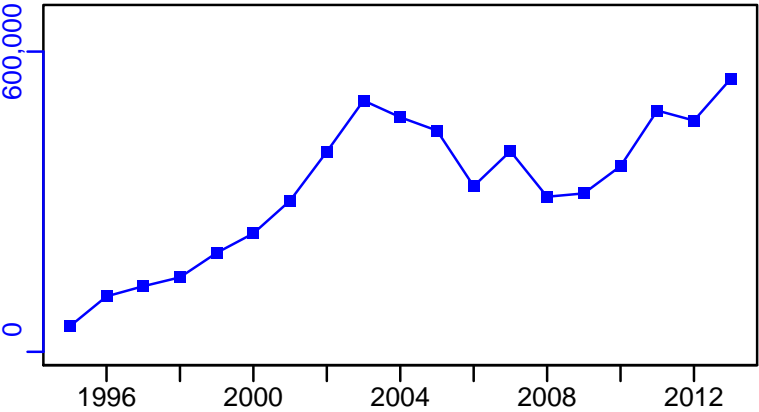
CPUStand-C/E (1995-2008-ANDERSON)



CdivMSY\*



EFFORT-A1-traphauls (1995-2013-WATSON)



## Snow crab Division 4R3Pn [SNOWCRAB4R3Pn]

Metadata	
<b>Scientific Name</b>	Chionoecetes opilio
<b>Current Assess ID</b>	DFO-SNOWCRAB4R3Pn-1995-2013-WATSON
<b>Area</b>	Division 4R3Pn
<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>	2013

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	TN-E00	2013	$3.4 \times 10^7$	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	-	-	-		
TL	TL-MT	2013	891		
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

Snow crab Division 4R3Pn [SNOWCRAB4R3Pn]

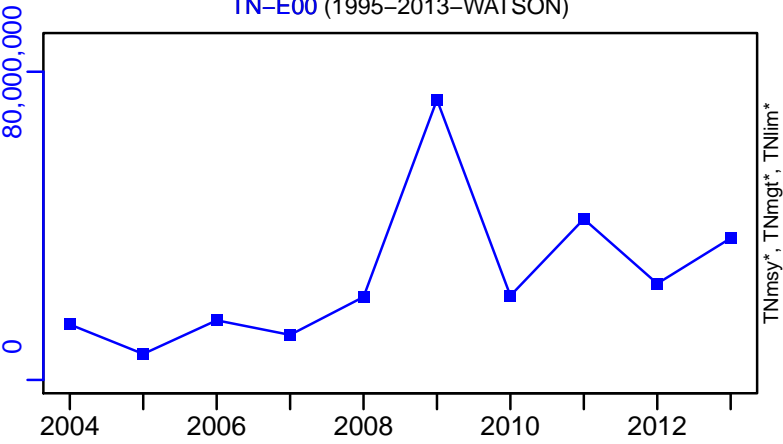
TB\*



SSB\*



TN-E00 (1995-2013-WATSON)



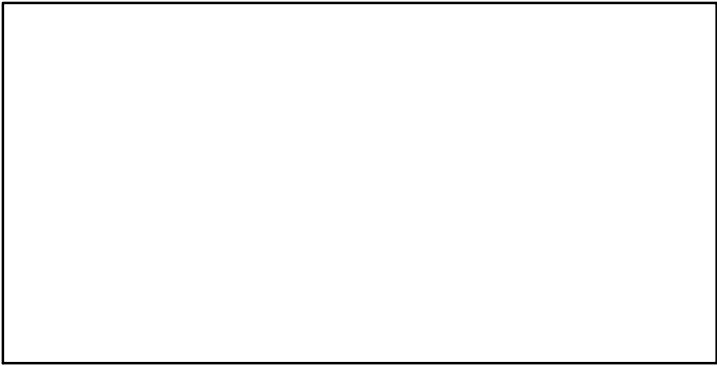
F\*



ER\*

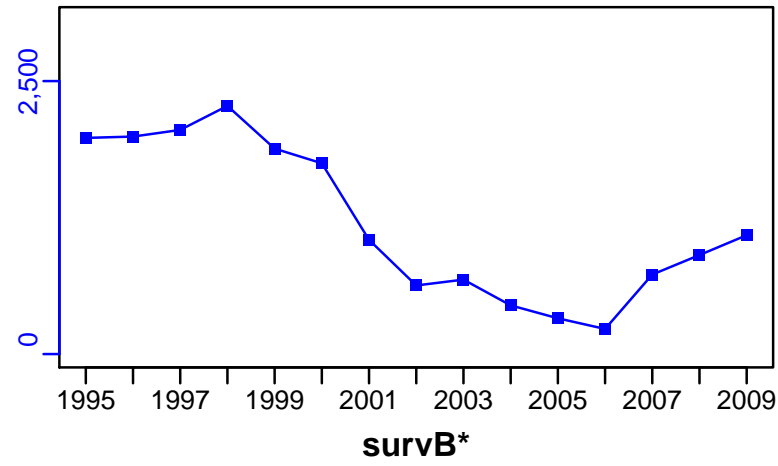


Recruits\*

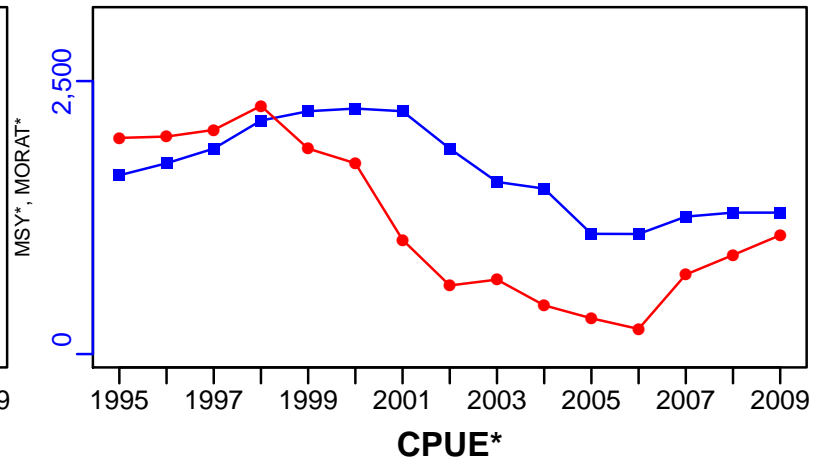


# Snow crab Division 4R3Pn [SNOWCRAB4R3Pn]

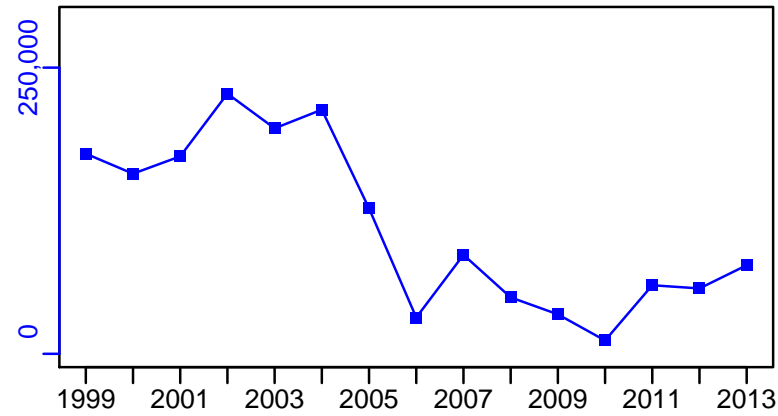
TL-MT, TC\*, RecC\* (1995-2013-WATSON)



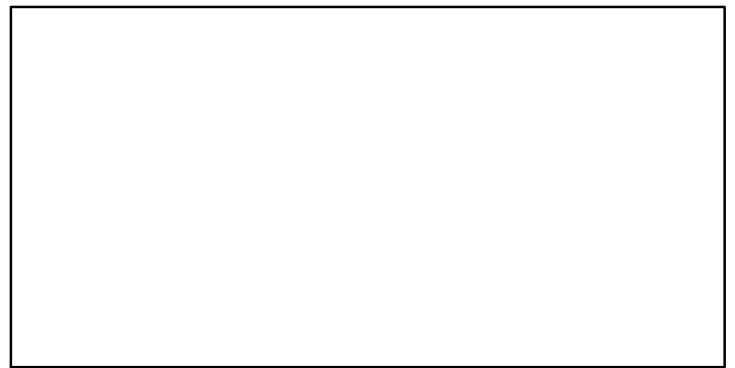
TAC-MT, Cpair-MT, Cadv\* (1995-2013-WATSON)



EFFORT-A1-traphauls (1995-2013-WATSON)



CdivMSY\*



## Snow crab Northern Gulf of St. Lawrence [SNOWCRABSCMA12-17]

Metadata	
<b>Scientific Name</b>	Chionoecetes opilio
<b>Current Assess ID</b>	DFO-QUE-SNOWCRABSCMA12-17-1979-2011-CHING
<b>Area</b>	Northern 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>	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	2011	7490		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



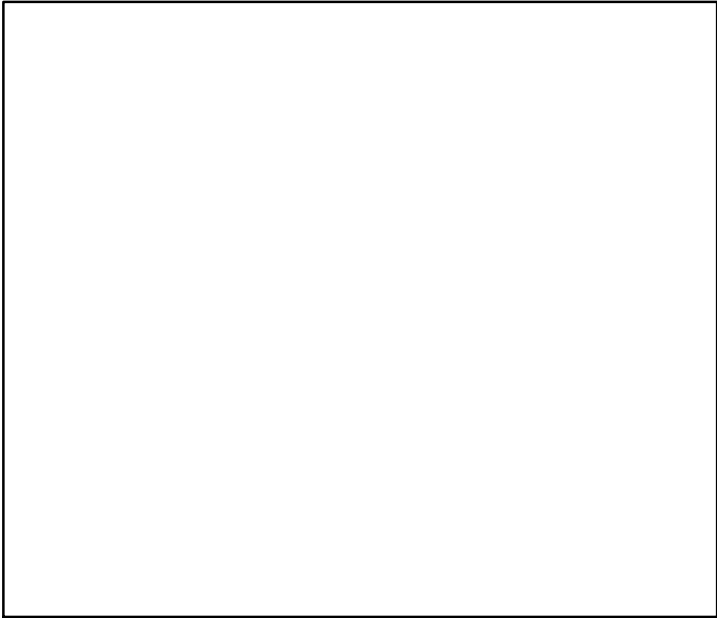
Kobe MSY\*



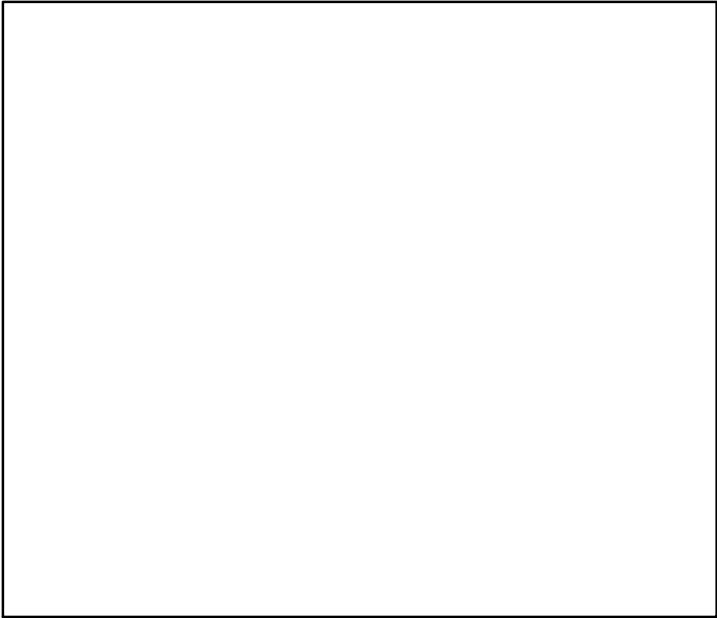
Kobe MGT\*



Spawner Recruit\*

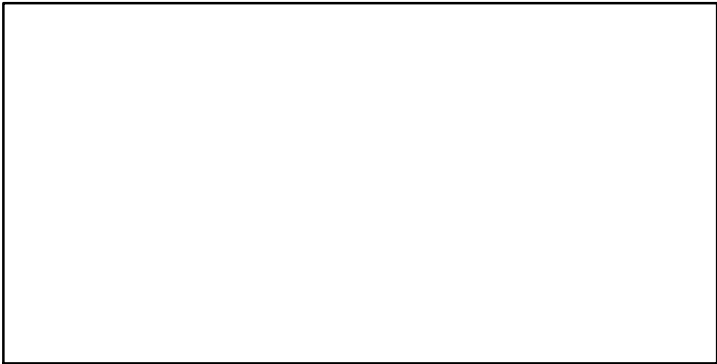


Production\*

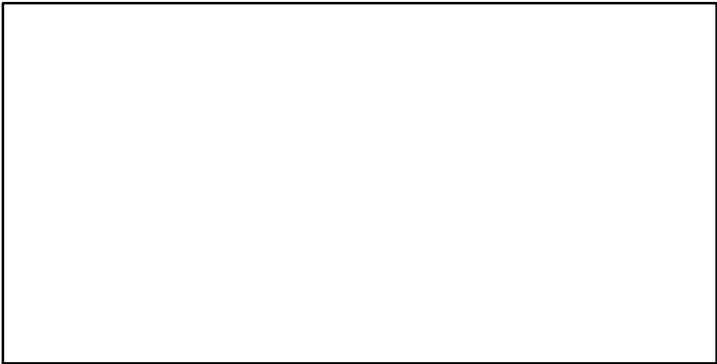


◆ Start Year   ◆ End Year   \* No Data

**TB\***



**SSB\***



**TN \***



**F\***



**ER\***

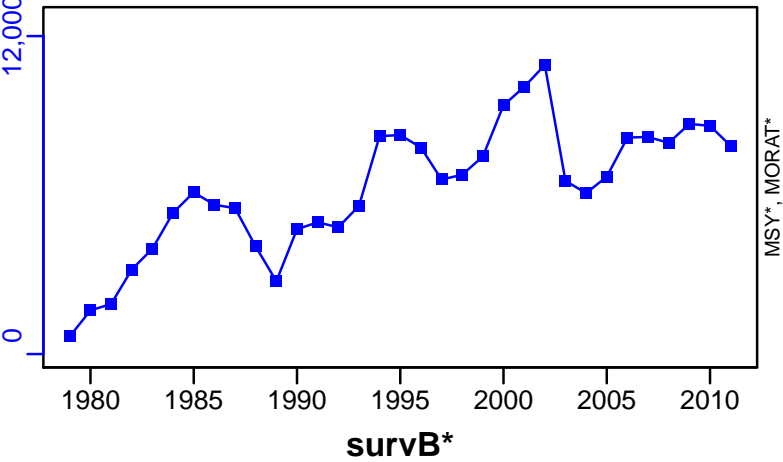


**Recruits\***



Snow crab Northern Gulf of St. Lawrence [SNOWCRABSCMA12-17]

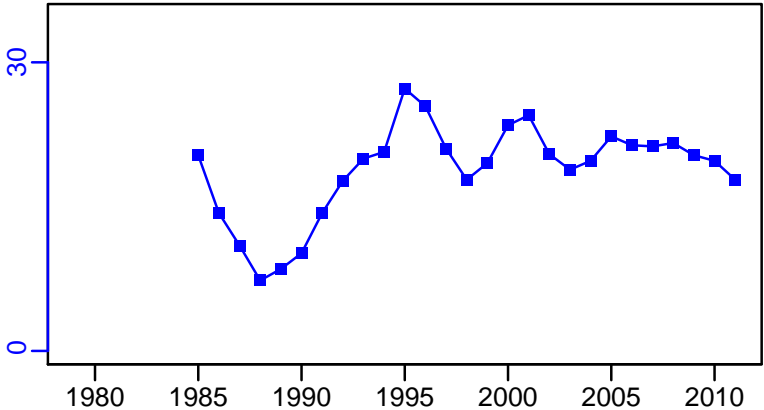
TL-MT, TC\*, RecC\* (1979-2011-CHING)



TAC\*, Cpair\*, Cadv\*



CPUE-index (1979-2011-CHING)



EFFORT\*



## Snow crab Southern Gulf of St. Lawrence [SNOWCRABSGSL]

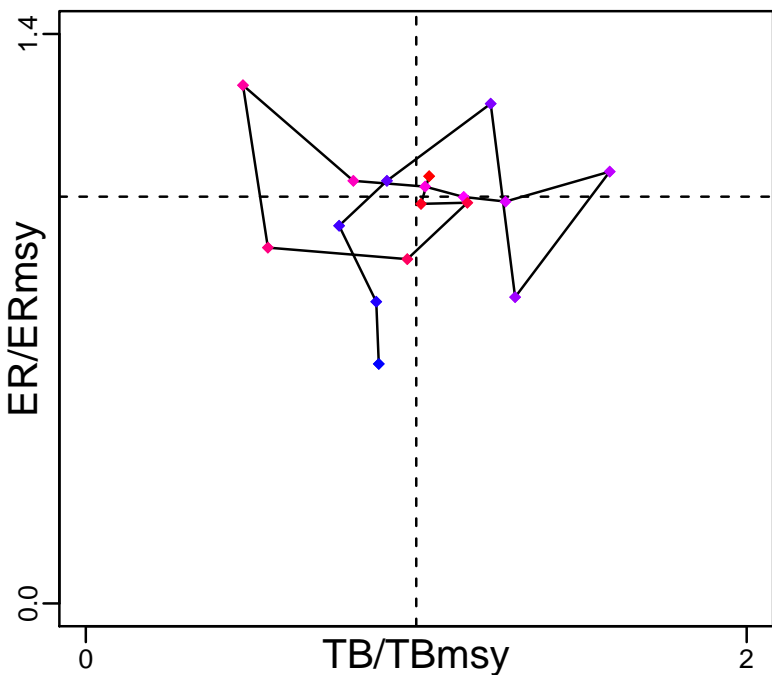
Metadata	
<b>Scientific Name</b>	Chionoecetes opilio
<b>Current Assess ID</b>	DFO-SNOWCRABSGSL-1987-2014-WATSON
<b>Area</b>	Southern Gulf of St. Lawrence
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans
<b>Asmts in RAM</b>	2007, 2014

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-est-MT	2014	64,964
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-est-ratio	2014	0.353
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-est-MT	2014	22,949
<b>M</b>	M-1/yr	2007	0.38
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

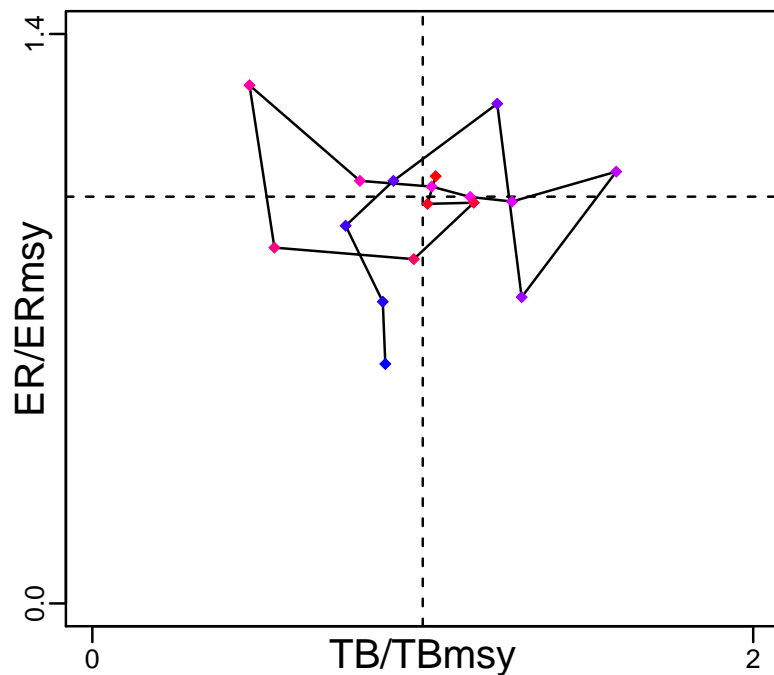
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2014	67,500	Males	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-MT	2014	43,600	Males	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2014	0.371	-	-
<b>TC</b>	-	-	-		
<b>TL</b>	TL-MT	2014	24,400		
<b>TB/TBmsy</b>	TB-MT/TBmsy-est-MT	2014	1.039		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-est-ratio	2014	1.05		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Snow crab Southern Gulf of St. Lawrence [SNOWCRABSGSL]

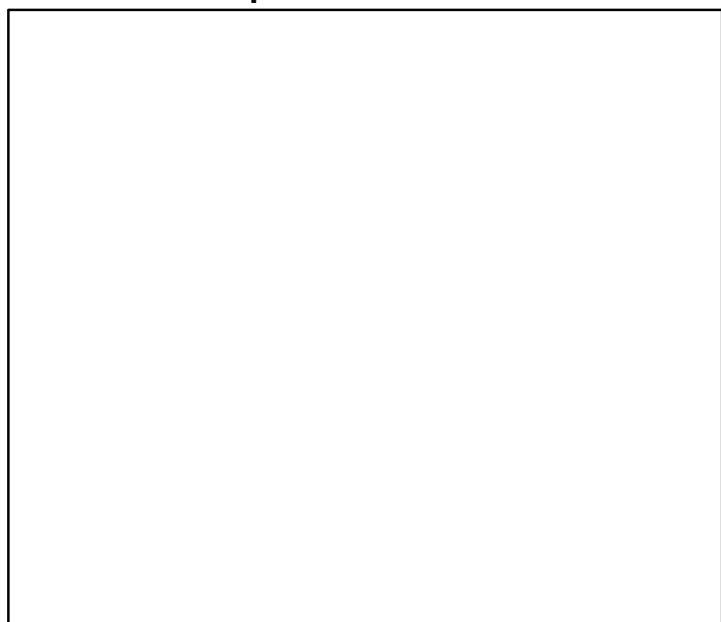
Kobe MSY<sub>pref</sub> (1987–2014–WATSON)



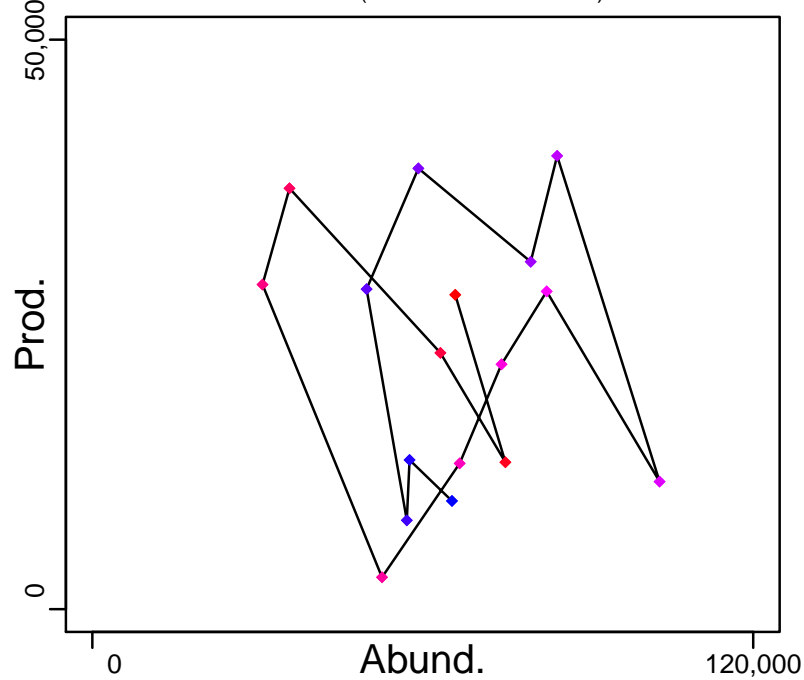
Kobe MGT<sub>pref</sub> (1987–2014–WATSON)



Spawner Recruit\*



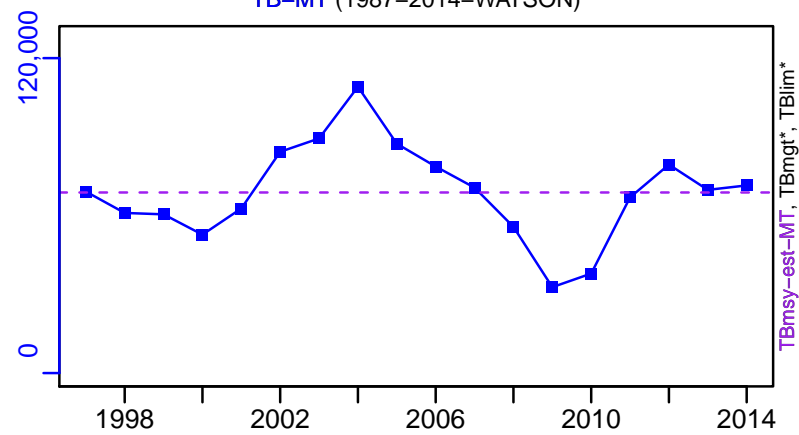
Production (1987–2014–WATSON)



◆ Start Year ◆ End Year \* No Data

# Snow crab Southern Gulf of St. Lawrence [SNOWCRABSGSL]

TB-MT (1987-2014-WATSON)



SSB\*



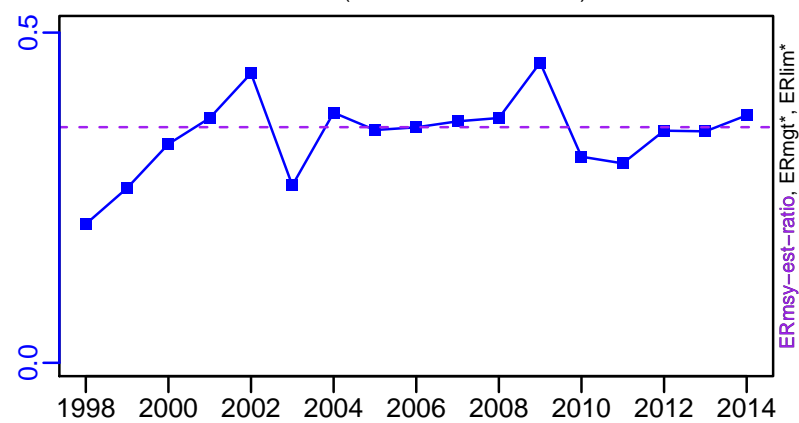
TN \*



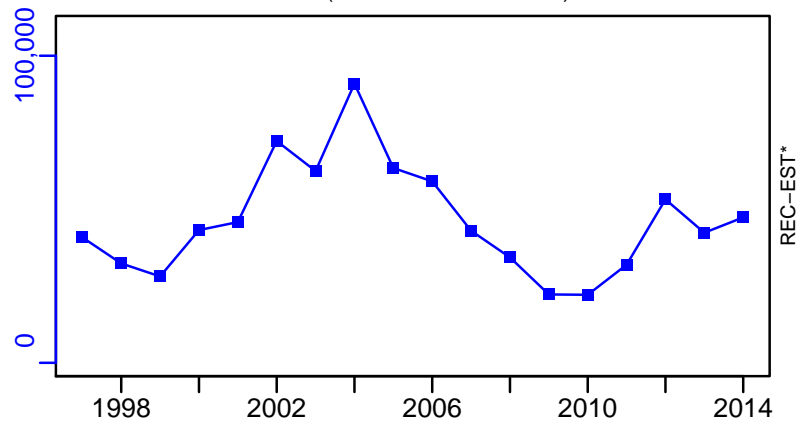
F\*



ER-ratio (1987-2014-WATSON)



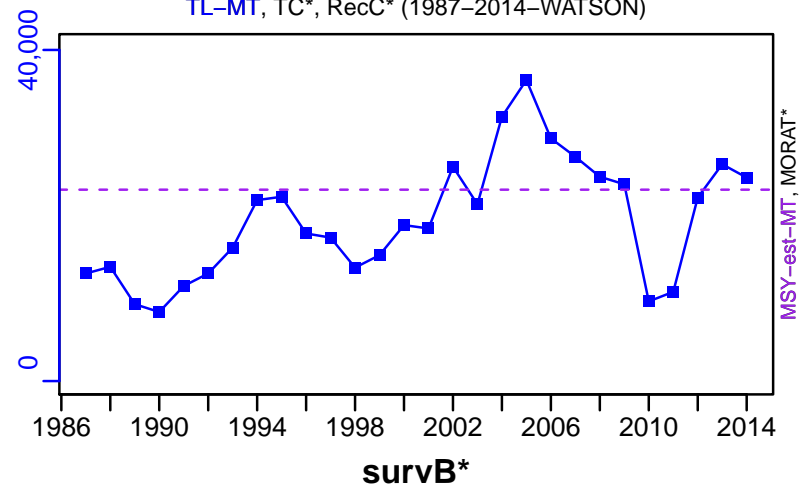
R-MT (1987-2014-WATSON)



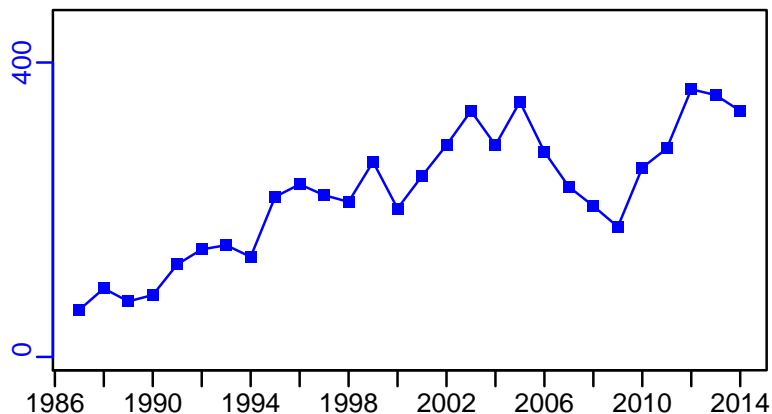
# Snow crab Southern Gulf of St. Lawrence [SNOWCRABSGSL]

TL-MT, TC\*, RecC\* (1987-2014-WATSON)

TAC\*, Cpair\*, Cadv\*

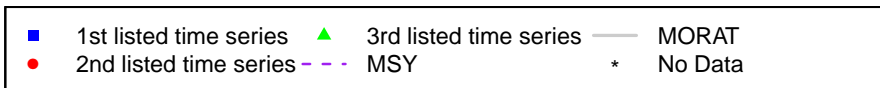
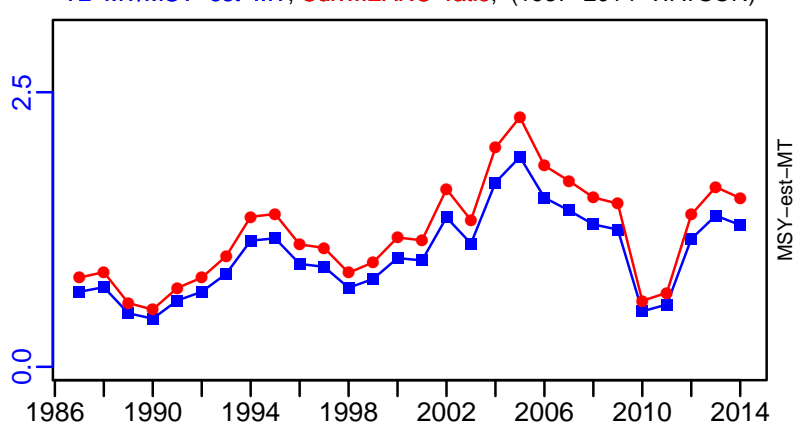
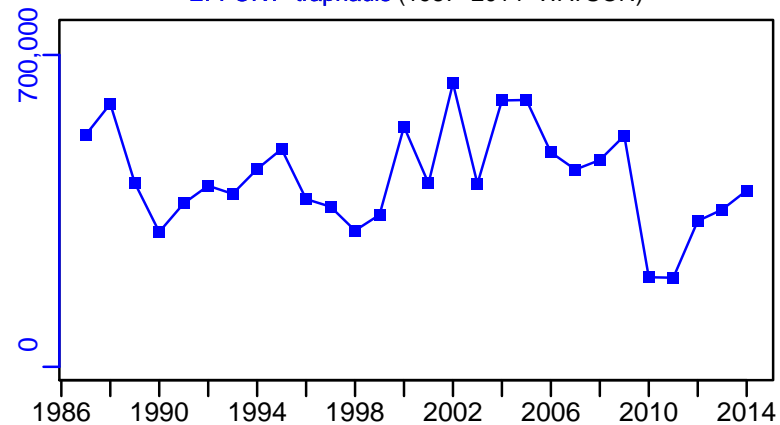


CPUE-kg/trap (1987-2014-WATSON)



EFFORT-traphauls (1987-2014-WATSON)

TL-MT/MSY-est-MT, CdivMEANC-ratio, (1987-2014-WATSON)



## Softshell clam Quebec Coastal Waters [SSCLAMQCW]

Metadata	
<b>Scientific Name</b>	Mya arenaria
<b>Current Assess ID</b>	DFO-QUE-SSCLAMQCW-1930-2010-CHING
<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>	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	55		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



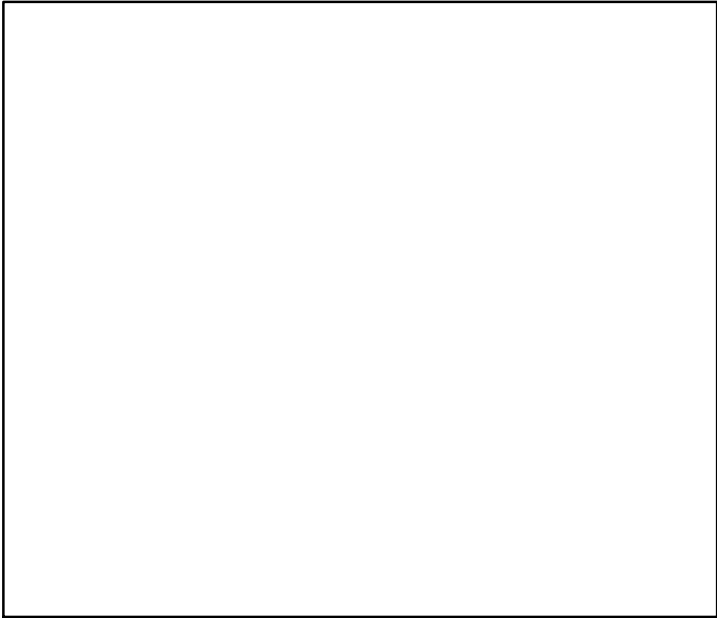
Kobe MSY\*



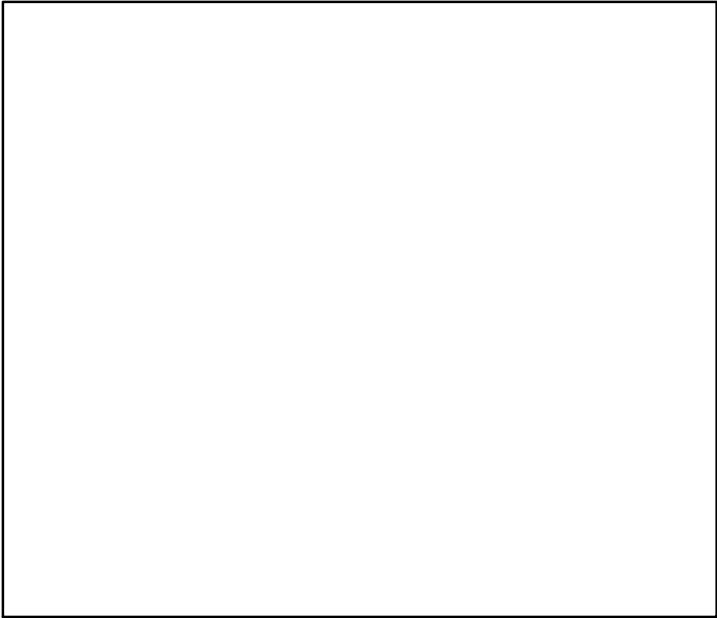
Kobe MGT\*



Spawner Recruit\*



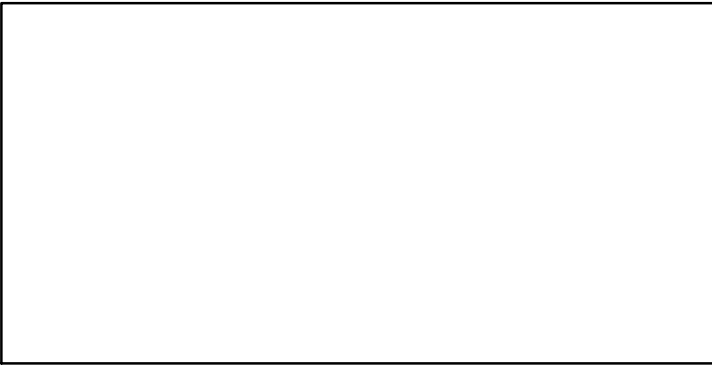
Production\*



◆ Start Year   ◆ End Year   \* No Data

Softshell clam Quebec Coastal Waters [SSCLAMQCW]

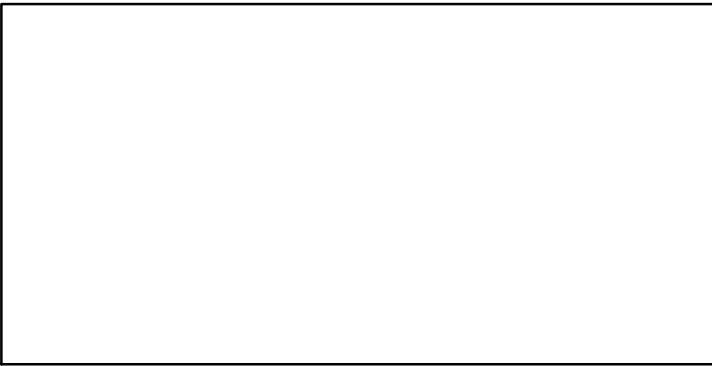
**TB\***



**SSB\***



**TN \***



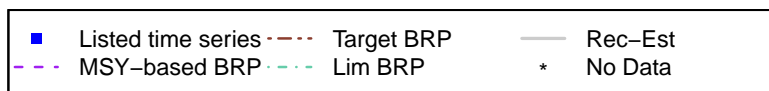
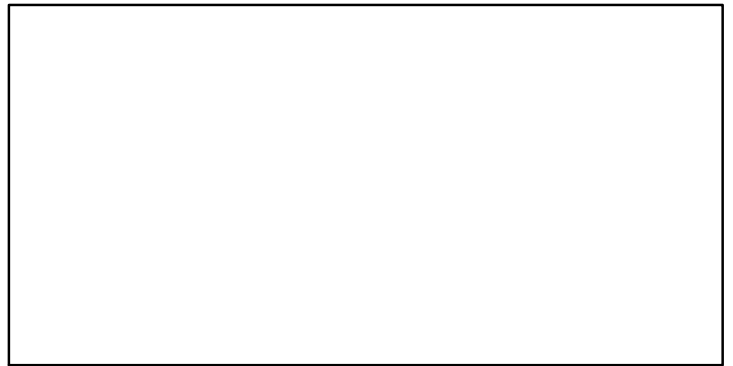
**F\***



**ER\***



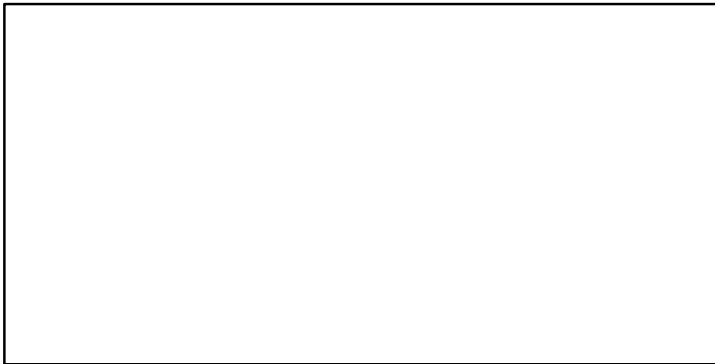
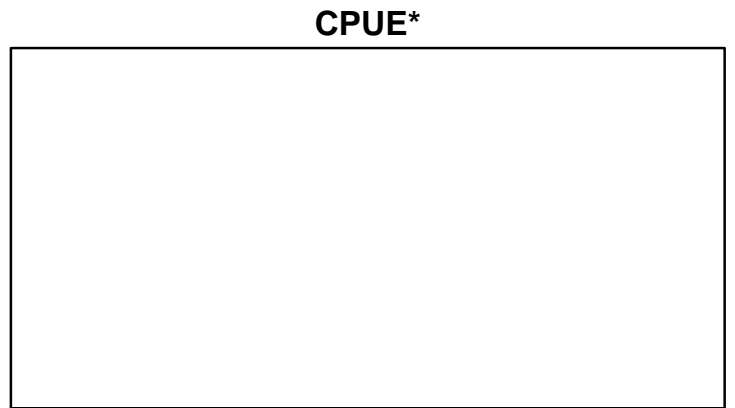
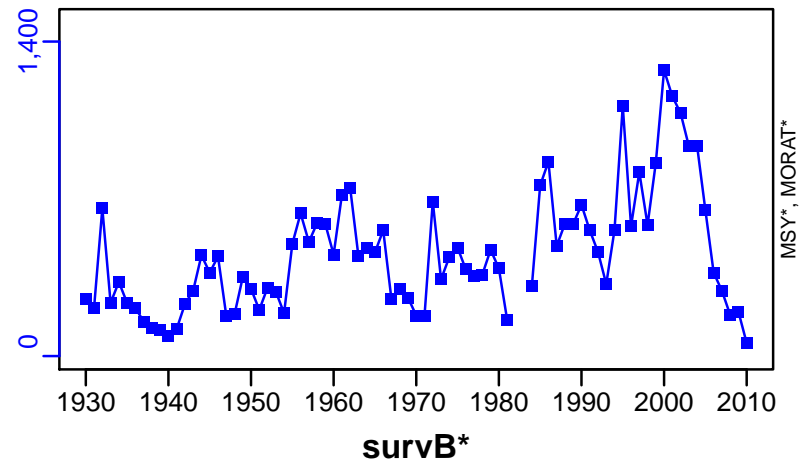
**Recruits\***



# Softshell clam Quebec Coastal Waters [SSCLAMQCW]

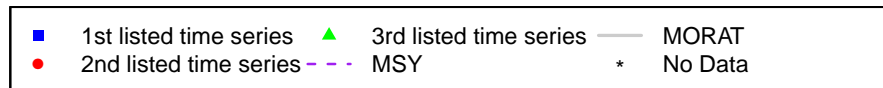
TL-MT, TC\*, RecC\* (1930-2010-CHING)

TAC\*, Cpair\*, Cadv\*



EFFORT\*

CdivMSY\*



## Aesop shrimp Shrimp Fishing Areas 2-3 [STRSHRIMPSFA2-3]

Metadata	
<b>Scientific Name</b>	Pandalus montagui
<b>Current Assess ID</b>	DFO-ARCTIC-STRSHRIMPSFA2-3-1979-2010-CHING
<b>Area</b>	Shrimp Fishing Areas 2-3
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans - Arctic 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	TC-MT	2010	218		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data

TB\*



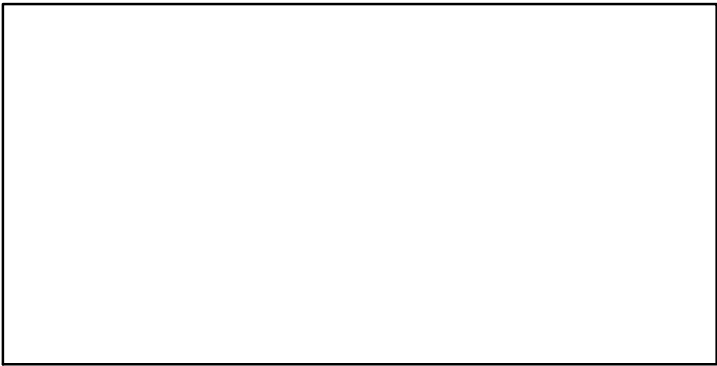
SSB\*



TN \*



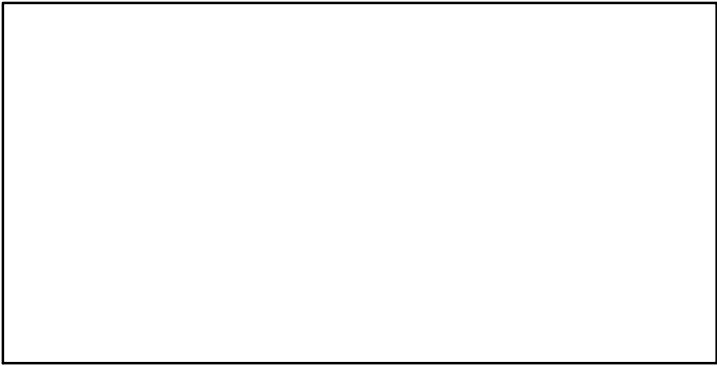
F\*



ER\*



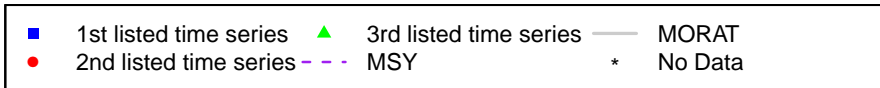
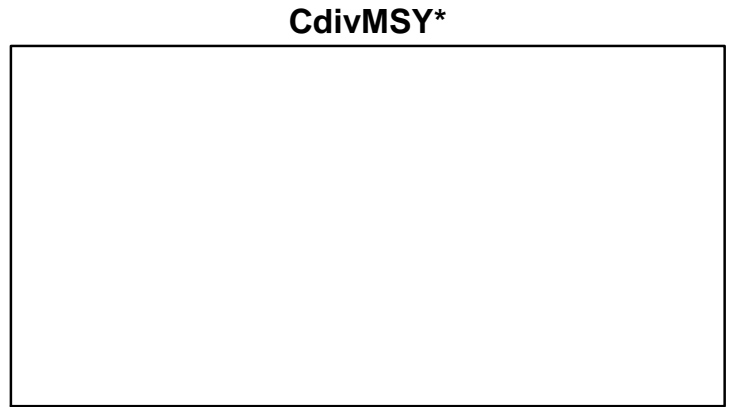
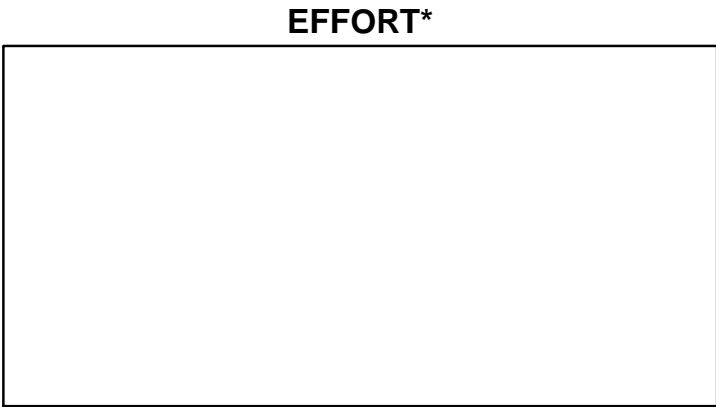
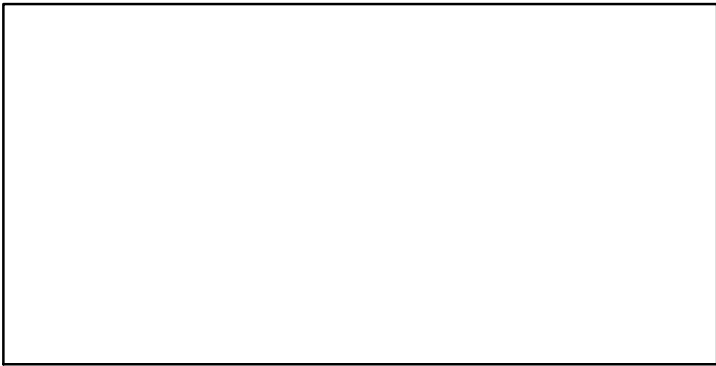
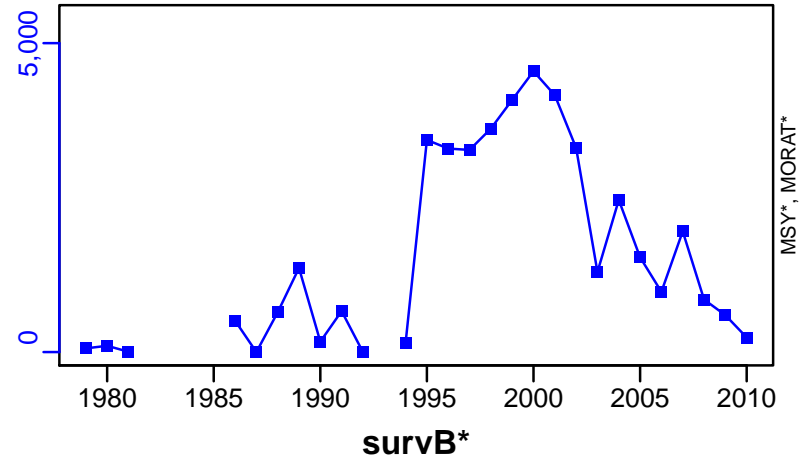
Recruits\*



# Aesop shrimp Shrimp Fishing Areas 2-3 [STRSHRIMPSFA2-3]

TC-MT, TL\*, RecC\* (1979-2010-CHING)

TAC\*, Cpair\*, Cadv\*



## Thorny skate Grand Bank and St Pierre Bank [TSKA3LNOPs]

Metadata	
<b>Scientific Name</b>	Amblyraja radiata
<b>Current Assess ID</b>	NAFO-SC-TSKA3LNOPs-1960-2014-OSGOOD
<b>Area</b>	Grand Bank and St Pierre Bank
<b>Management Authority</b>	Northwest Atlantic Fisheries Organization
<b>Assessor</b>	NAFO Scientific Council
<b>Asmts in RAM</b>	2014

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2014	6653
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	R-index	2014	1.74	Both	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	-	-	-		
TL	TL-MT	2014	4640		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



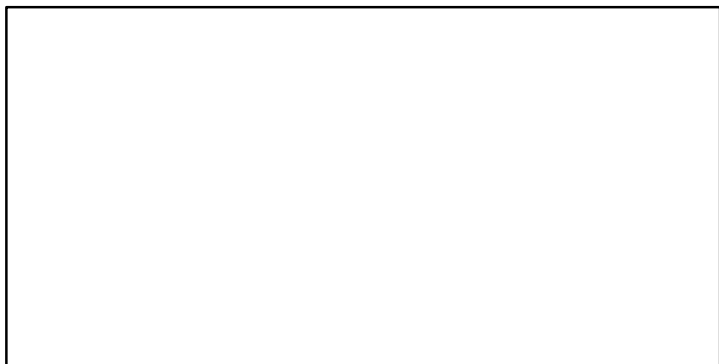
**Production\***



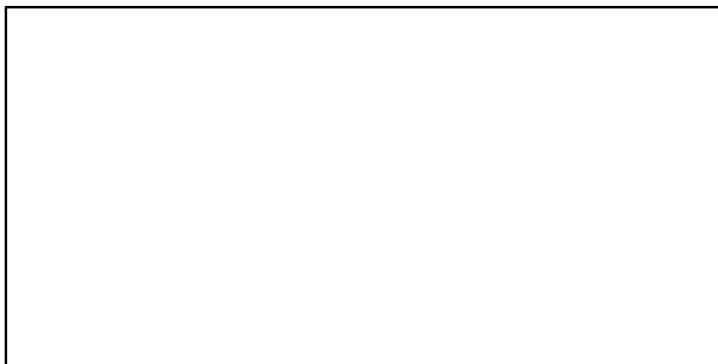
◆ Start Year ◆ End Year \* No Data

Thorny skate Grand Bank and St Pierre Bank [TSKA3LNOPs]

TB\*



SSB\*



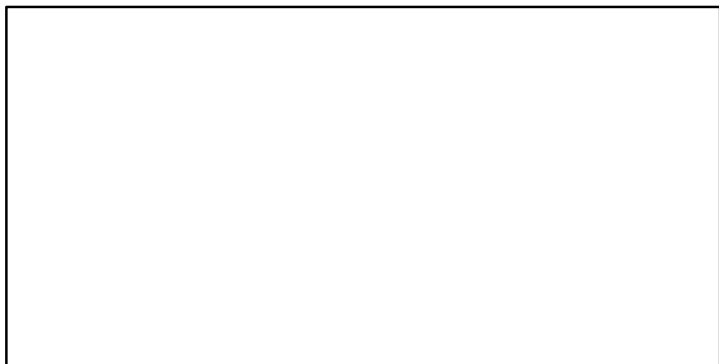
TN \*



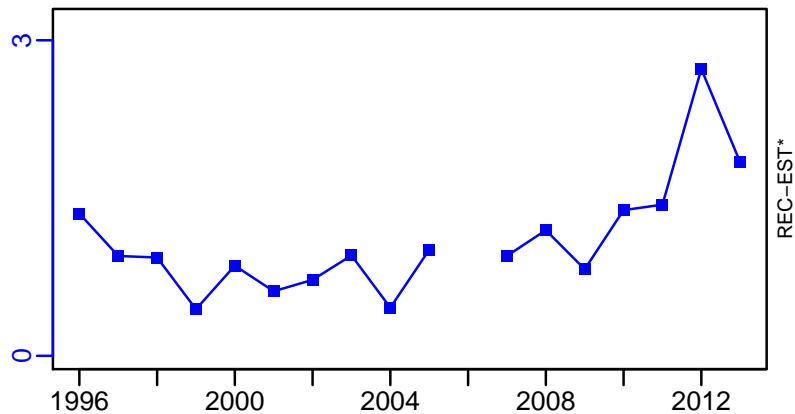
F\*



ER\*

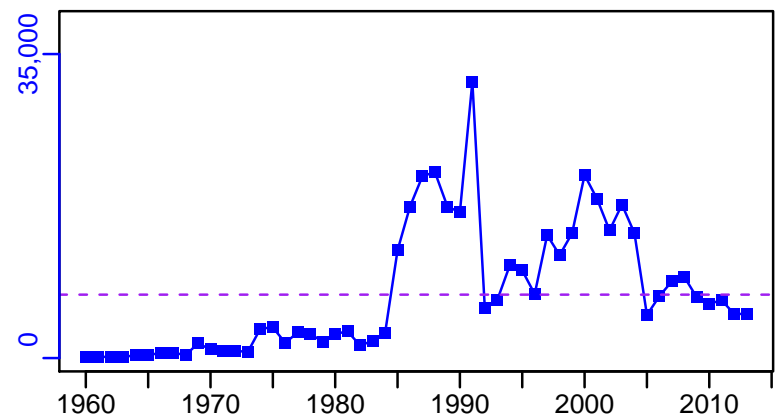


R-index (1960–2014–OSGOOD)

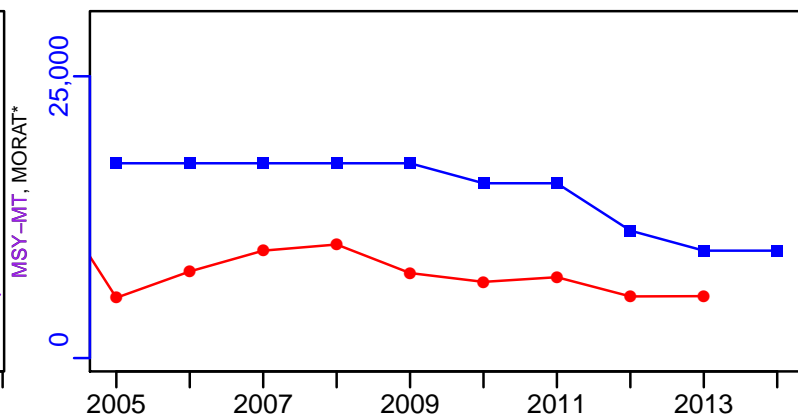


# Thorny skate Grand Bank and St Pierre Bank [TSKA3LNOPs]

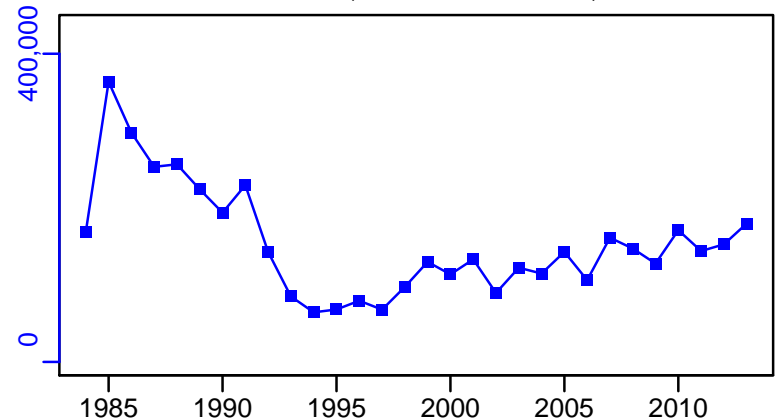
TL-MT, TC\*, RecC\* (1960–2014–OSGOOD)



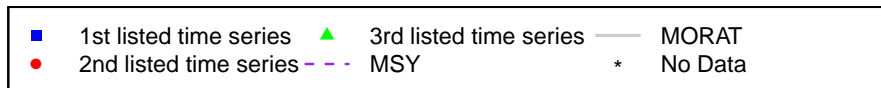
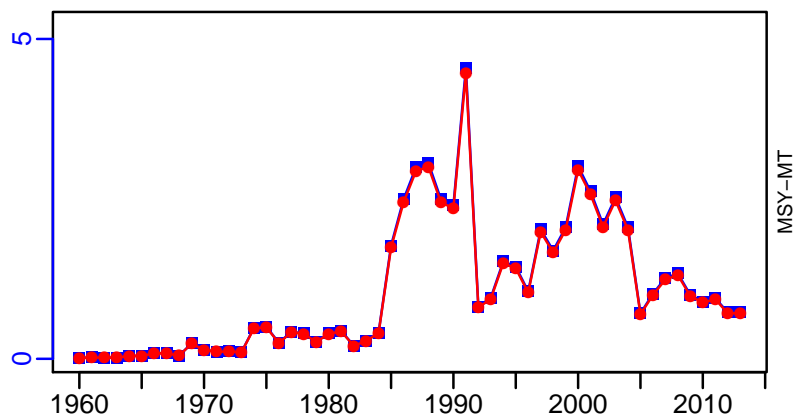
TAC-MT, Cpair-MT, Cadv\* (1960–2014–OSGOOD)



survB-MT (1960–2014–OSGOOD)



TL-MT/MSY-MT, CdivMEANC-ratio, (1960–2014–OSGOOD)



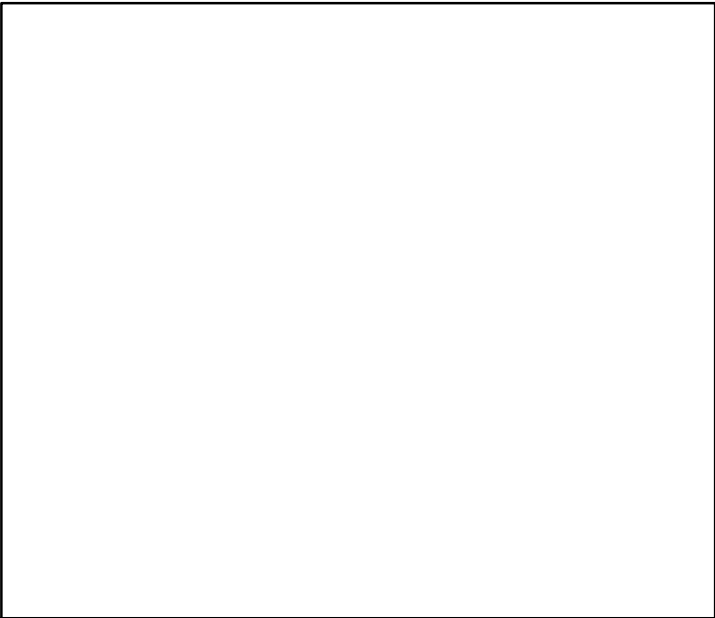
## Thorny skate Southern Gulf of St. Lawrence [TSKA4T]

Metadata	
<b>Scientific Name</b>	Amblyraja radiata
<b>Current Assess ID</b>	DFO-SG-TSKA4T-1971-2010-OSGOOD
<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>	2010

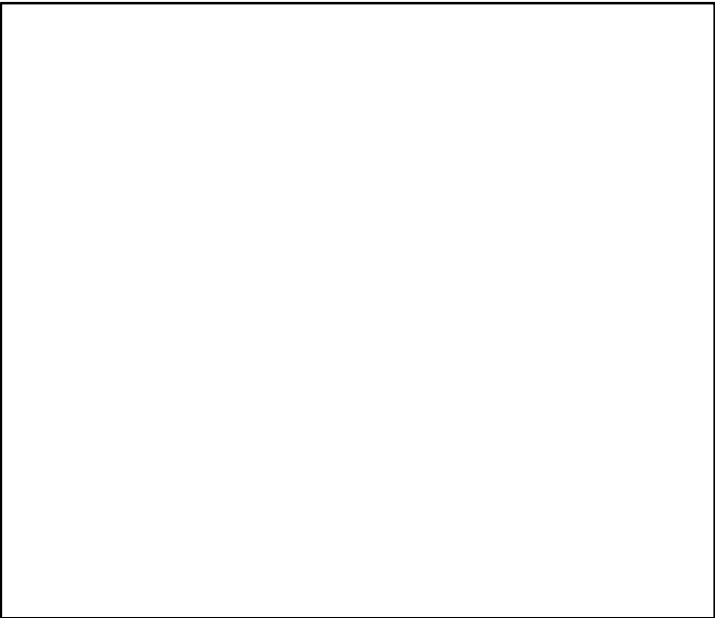
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2010	42		
TL	TL-MT	2010	1.22		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

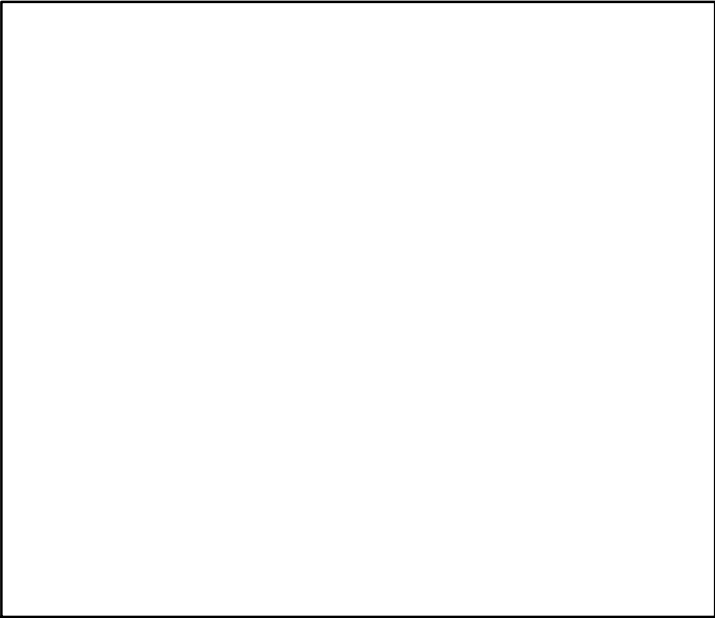
Kobe MSY\*



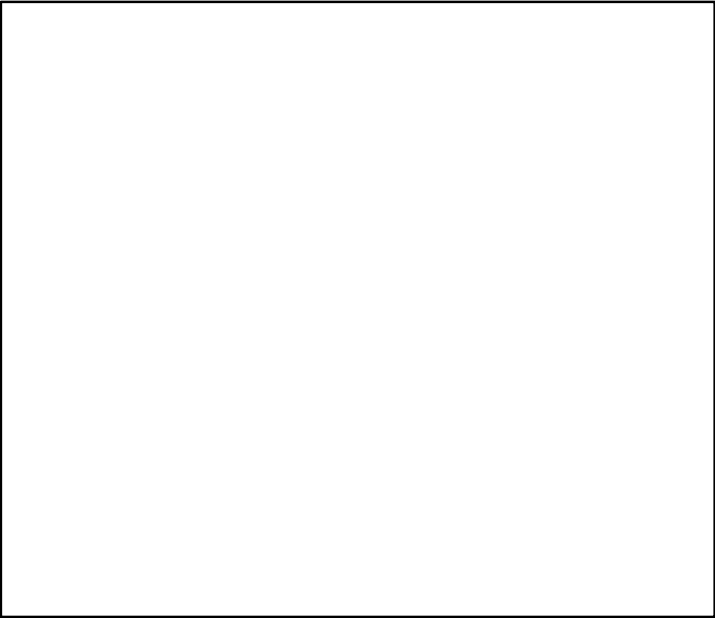
Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data

TB\*



SSB\*



TN \*



F\*



ER\*

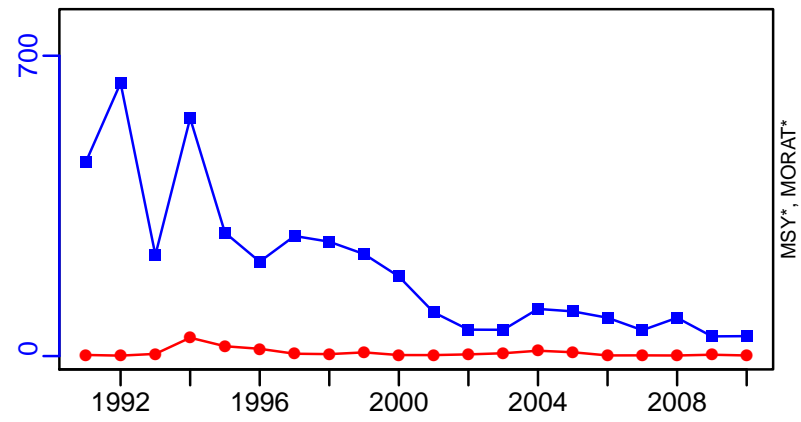


Recruits\*



# Thorny skate Southern Gulf of St. Lawrence [TSKA4T]

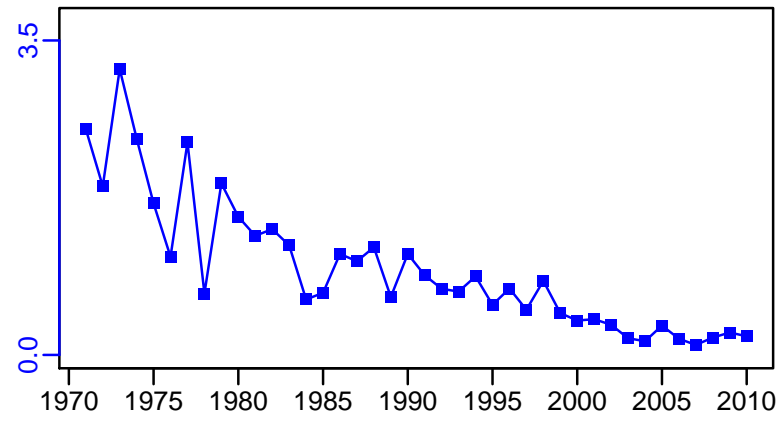
TC-MT, TL-MT, RecC\* (1971-2010-OSGOOD)



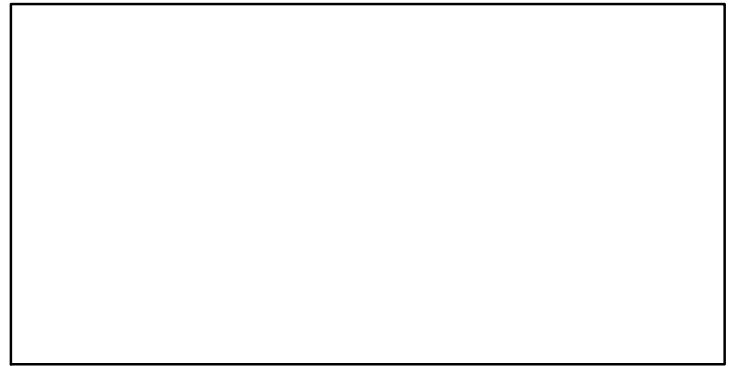
TAC\*, Cpair\*, Cadv\*



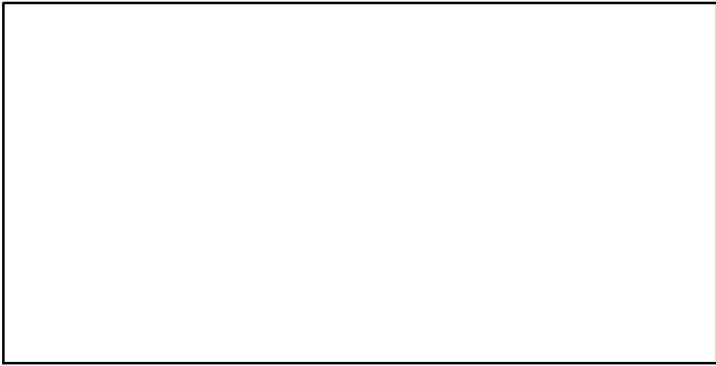
survB-kg/tow (1971-2010-OSGOOD)



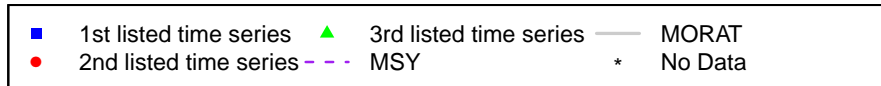
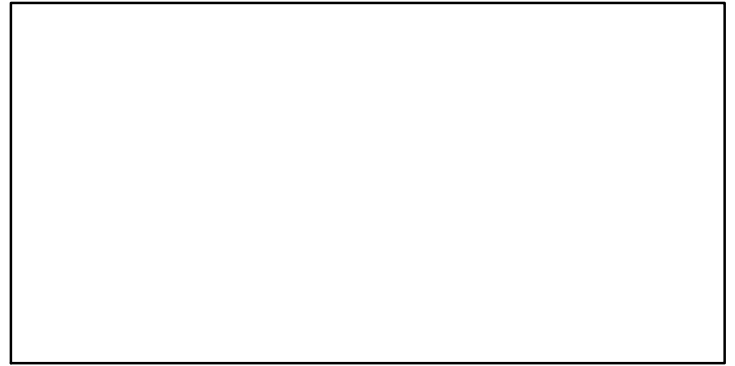
CPUE\*



EFFORT\*



CdivMSY\*



## White hake St. Pierre Bank [WHAKE3Ps]

Metadata	
<b>Scientific Name</b>	Urophycis tenuis
<b>Current Assess ID</b>	NAFO-SC-WHAKE3Ps-1960-2017-ASHBROOK
<b>Area</b>	St. Pierre Bank
<b>Management Authority</b>	Northwest Atlantic Fisheries Organization
<b>Assessor</b>	NAFO Scientific Council
<b>Asmts in RAM</b>	2017

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	445		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



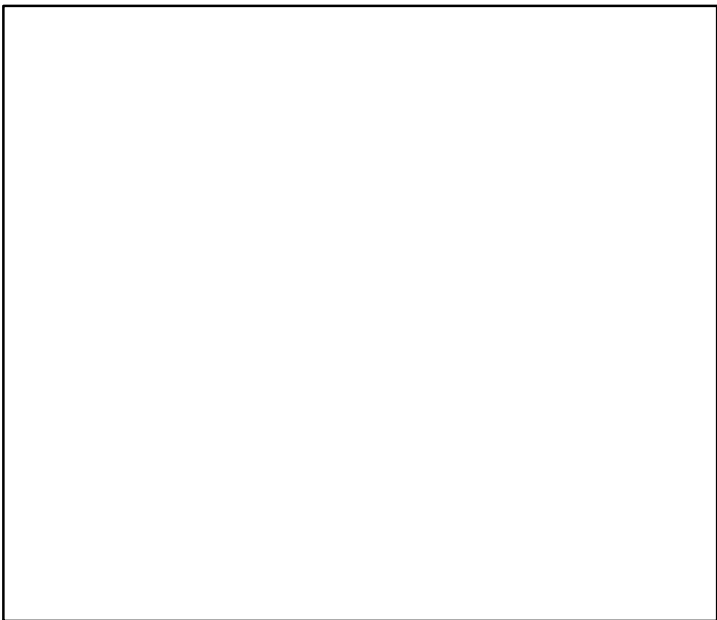
Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data

White hake St. Pierre Bank [WHAKE3Ps]

TB\*



SSB\*



TN \*



F\*



ER\*

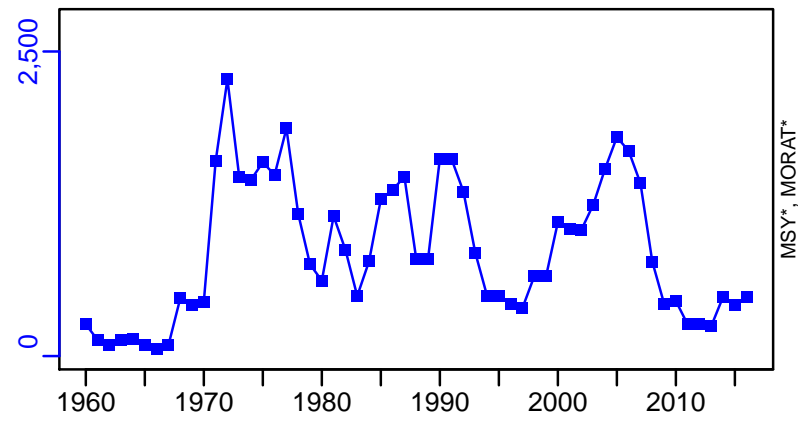


Recruits\*



# White hake St. Pierre Bank [WHAKE3Ps]

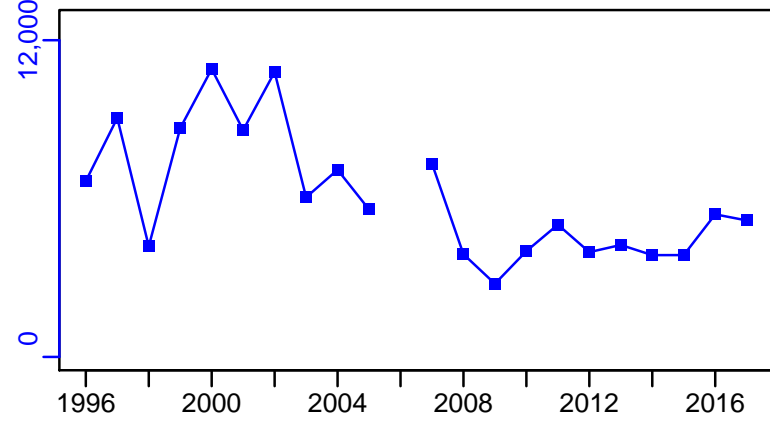
TL-MT, TC\*, RecC\* (1960-2017-ASHBROOK)



TAC\*, Cpair\*, Cadv\*



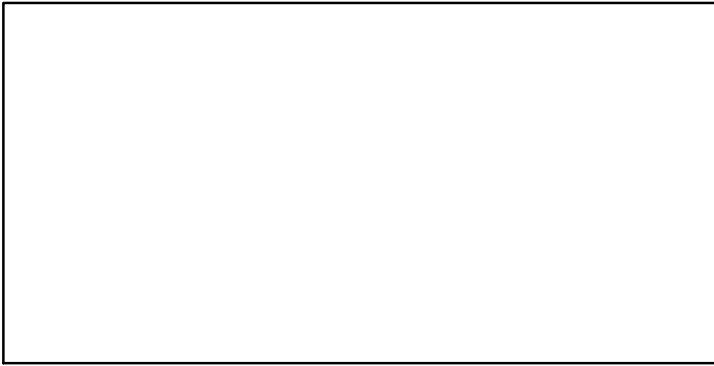
survB-MT (1960-2017-ASHBROOK)



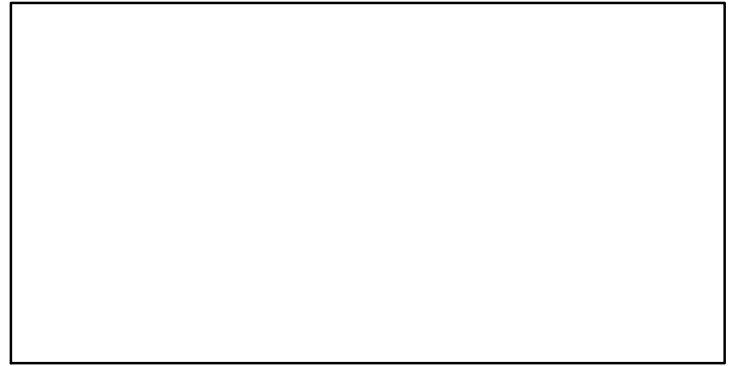
CPUE\*



EFFORT\*



CdivMSY\*



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

## White hake Northern Gulf of St. Lawrence [WHAKE4RS]

Metadata	
<b>Scientific Name</b>	Urophycis tenuis
<b>Current Assess ID</b>	DFO-QUE-WHAKE4RS-1960-2014-OSGOOD
<b>Area</b>	Northern 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			
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	2014	10		
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\***

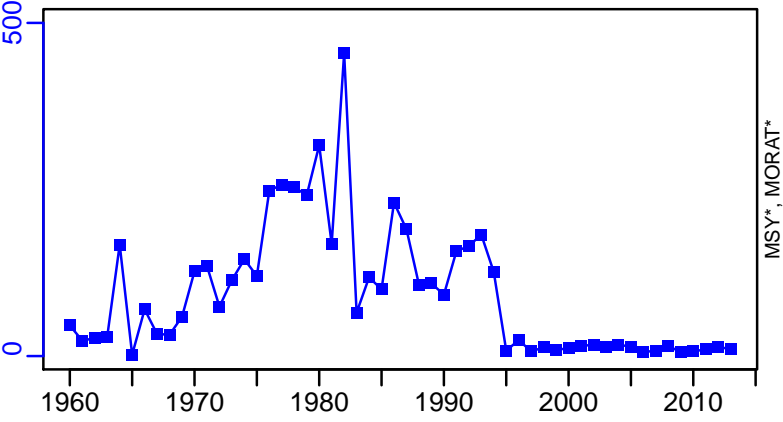


**Recruits\***



# White hake Northern Gulf of St. Lawrence [WHAKE4RS]

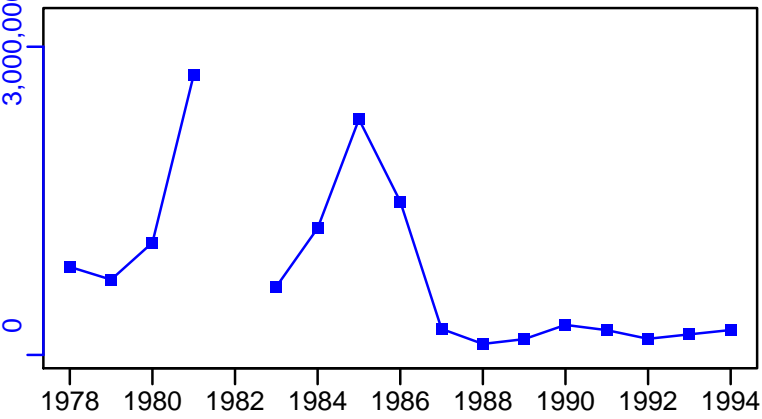
TL-MT, TC\*, RecC\* (1960–2014–OSGOOD)



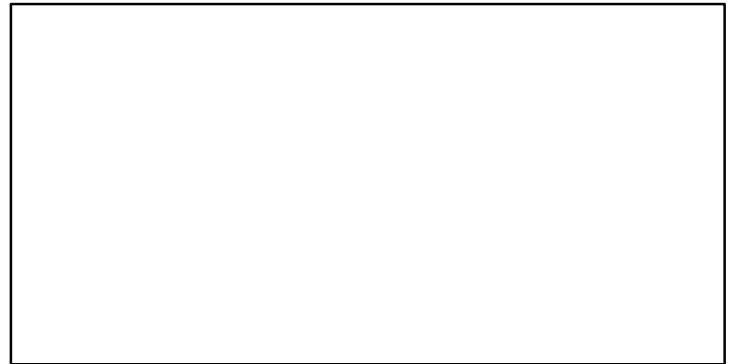
TAC\*, Cpair\*, Cadv\*



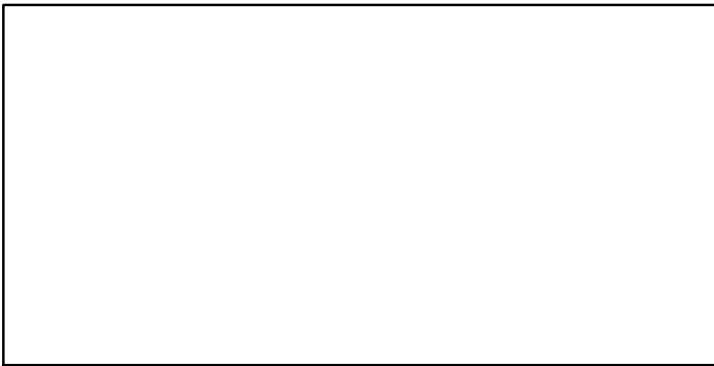
survB-E00 (1960–2014–OSGOOD)



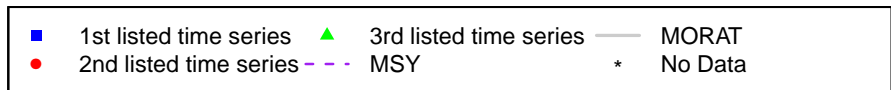
CPUE\*



EFFORT\*



CdivMSY\*



## White hake Southern Gulf of St. Lawrence [WHAKE4T]

Metadata	
<b>Scientific Name</b>	Urophycis tenuis
<b>Current Assess ID</b>	DFO-SG-WHAKE4T-1960-2013-OSGOOD
<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>	2013

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2013	1.078
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2013	21,900	Both	1+
SSB	SSB-MT	2013	4120	Both	4+
TN	TN-E00	2013	93,900,000	Both	1+
R	R-E00	2013	71,800,000	Both	-
F	F-1/yr	2013	0.035	Both	6+
ER	ER-calc-ratio	2013	0.001	-	-
TC	-	-	-		
TL	TL-MT	2013	15		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

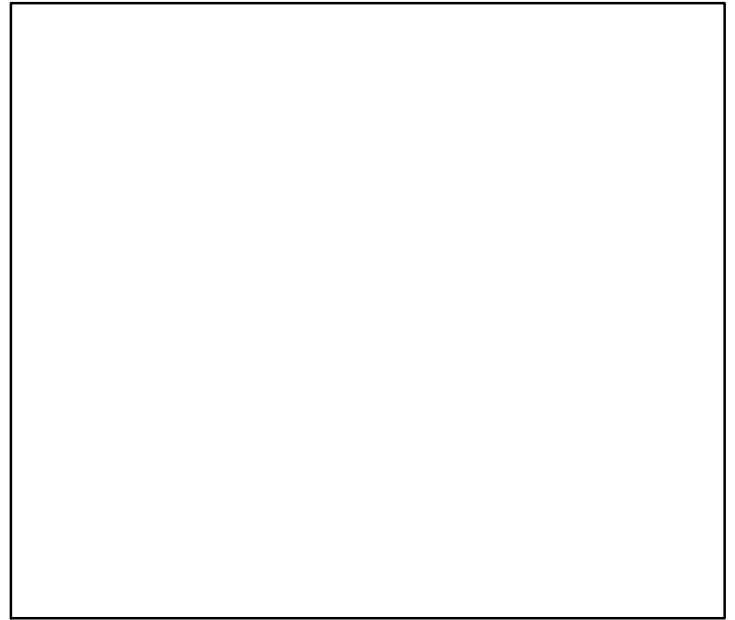


White hake Southern Gulf of St. Lawrence [WHAKE4T]

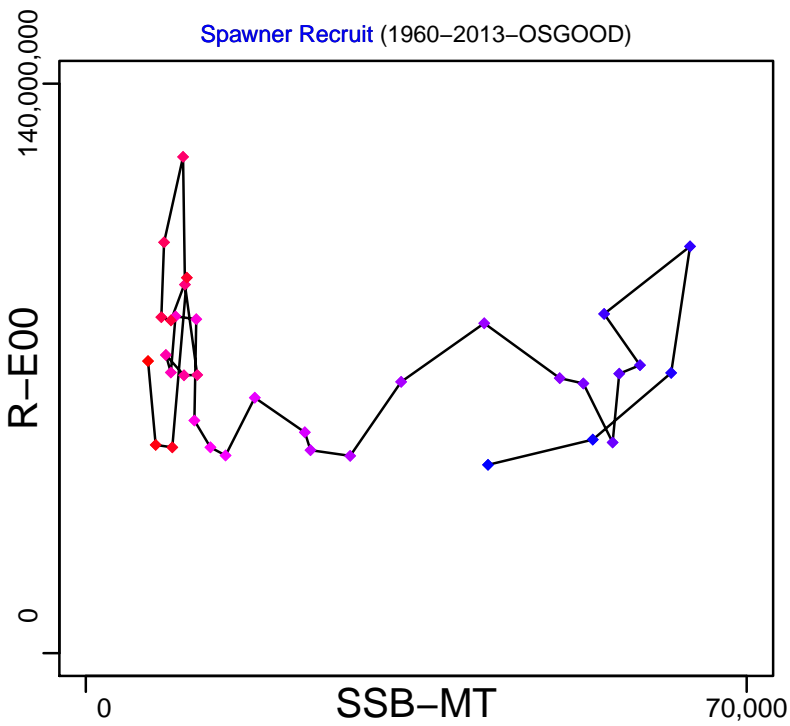
Kobe MSY\*



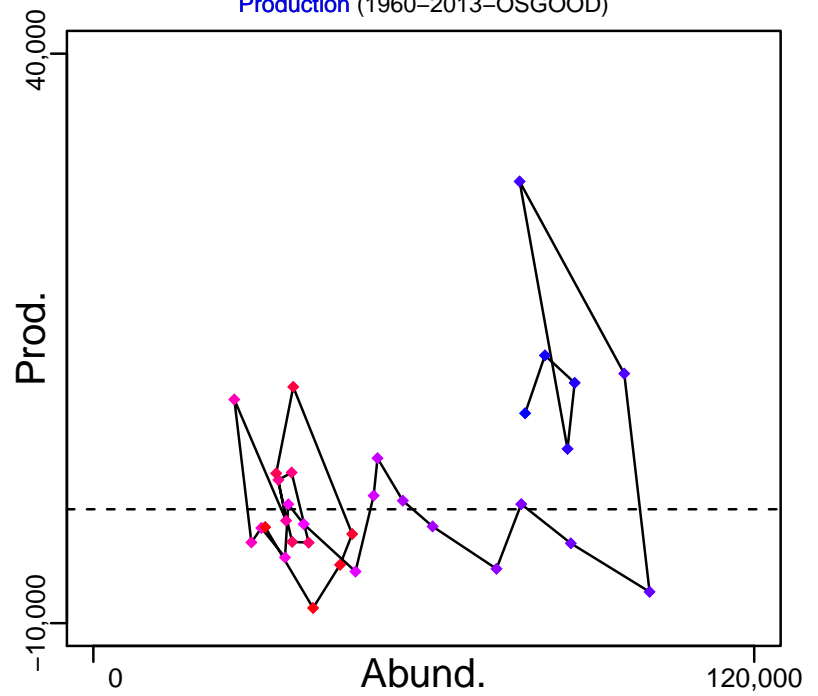
Kobe MGT\*



Spawner Recruit (1960–2013–OSGOOD)



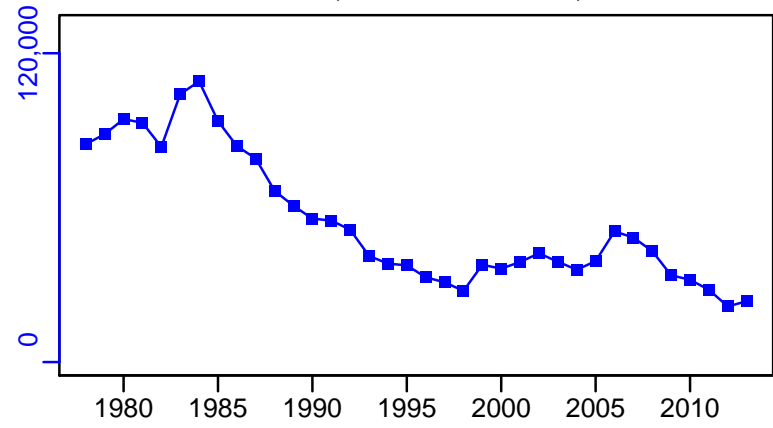
Production (1960–2013–OSGOOD)



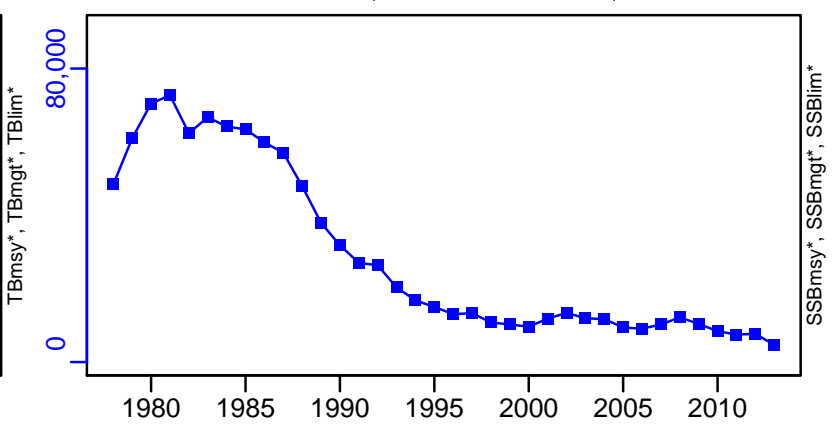
◆ Start Year ◆ End Year \* No Data

# White hake Southern Gulf of St. Lawrence [WHAKE4T]

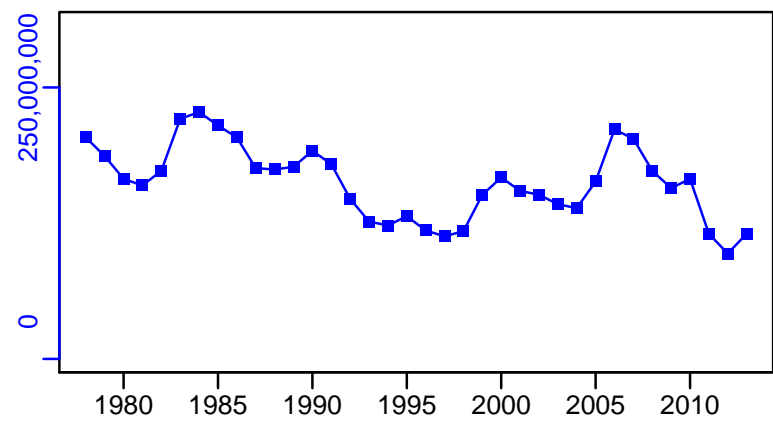
TB-MT (1960-2013-OSGOOD)



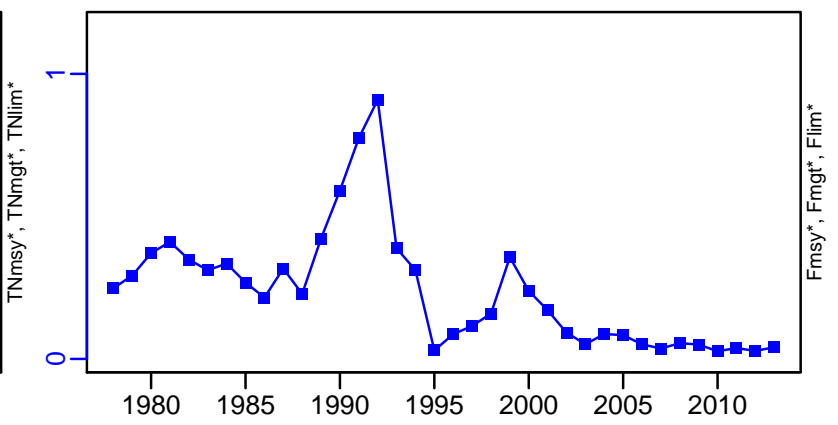
SSB-MT (1960-2013-OSGOOD)



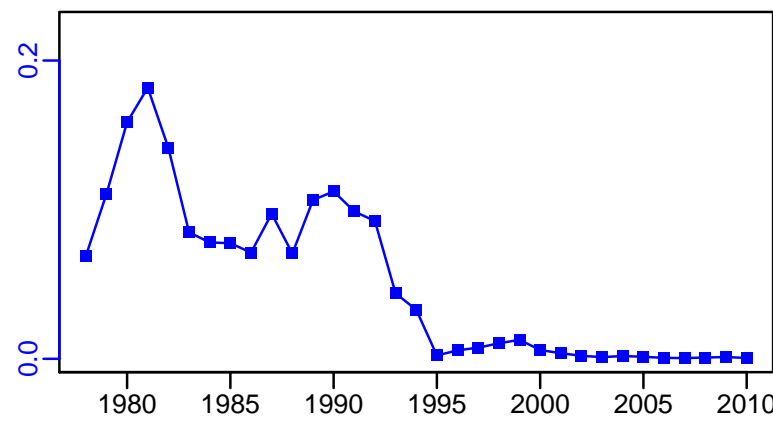
TN-E00 (1960-2013-OSGOOD)



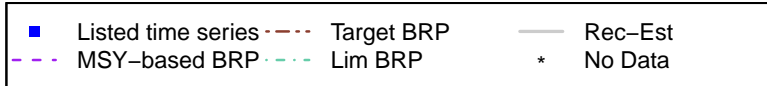
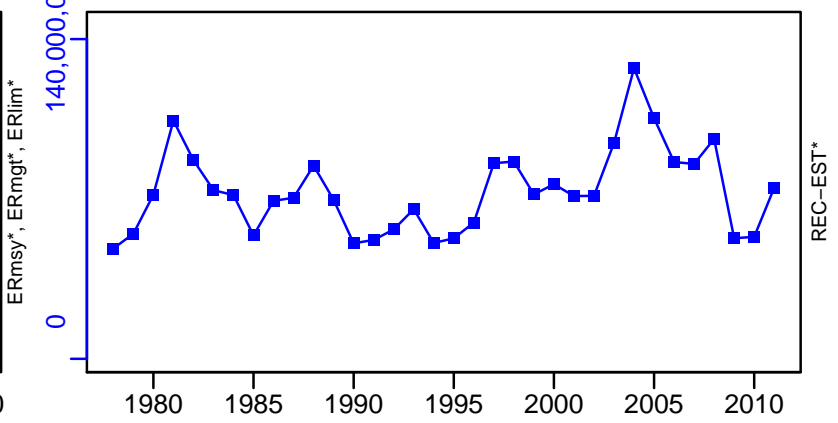
F-1/yr (1960-2013-OSGOOD)



ER-calc-ratio (1960-2013-OSGOOD)



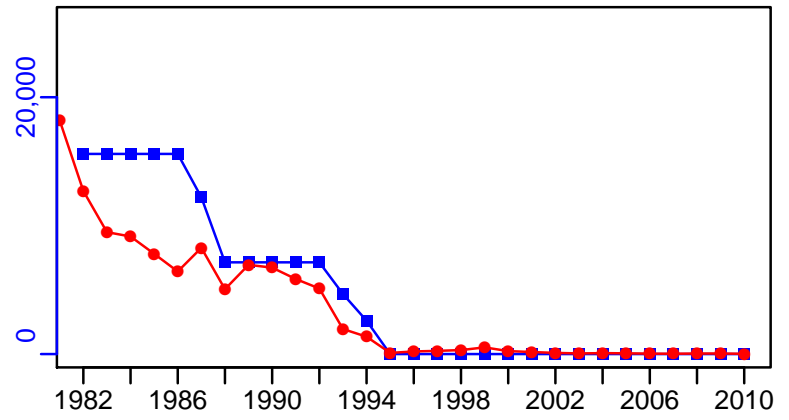
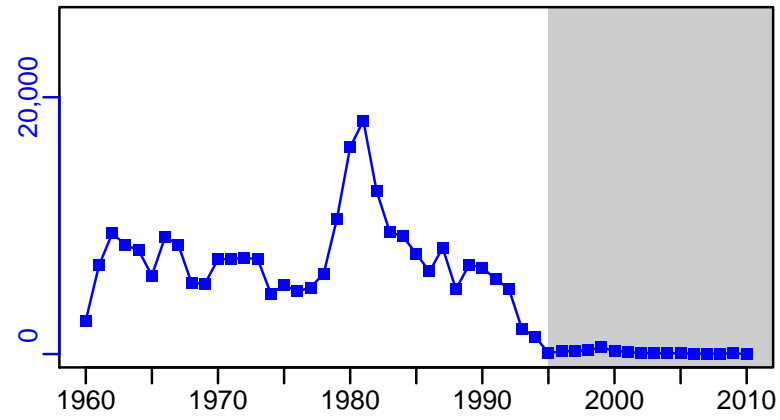
R-E00 (1960-2013-OSGOOD)



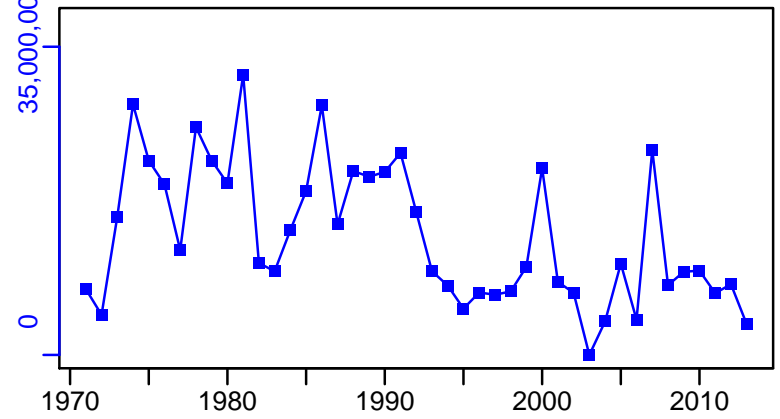
# White hake Southern Gulf of St. Lawrence [WHAKE4T]

TL-MT, TC\*, RecC\* (1960-2013-OSGOOD)

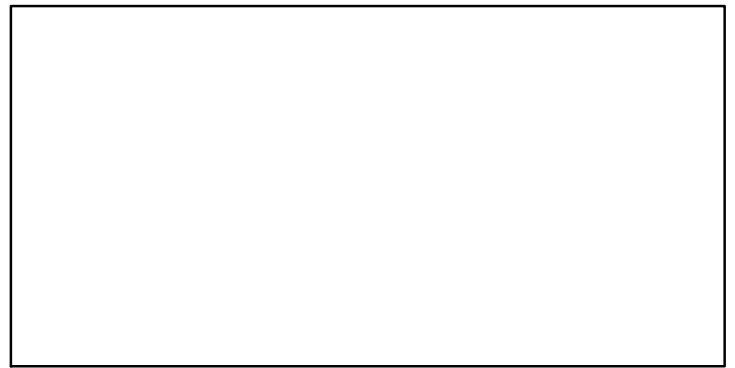
TAC-MT, Cpair-MT, Cadv\* (1960-2013-OSGOOD)



survB-E00 (1960-2013-OSGOOD)



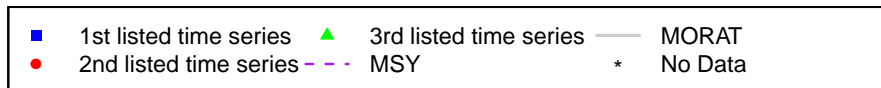
CPUE\*



EFFORT\*



CdivMSY\*



## White hake Scotian Shelf, Bay of Fundy and Georges Bank [WHAKE4VWX5]

Metadata	
<b>Scientific Name</b>	Urophycis tenuis
<b>Current Assess ID</b>	DFO-MAR-WHAKE4VWX5-1964-2005-PREFONTAINE
<b>Area</b>	Scotian Shelf, Bay of Fundy and Georges 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>	2005

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	2005	2060		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



**Production\***



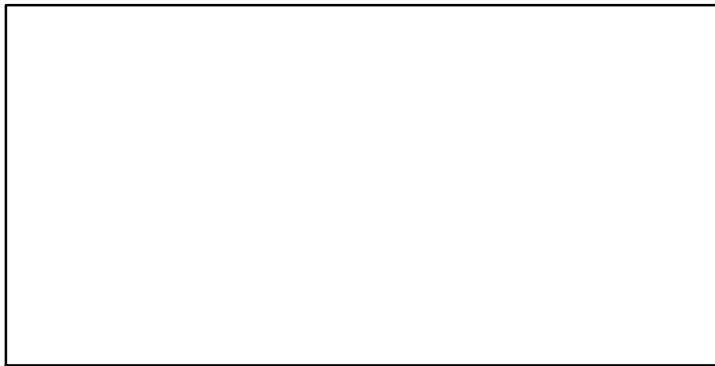
◆ Start Year ◆ End Year \* No Data

White hake Scotian Shelf, Bay of Fundy and Georges Bank [WHAKE4VWX5]

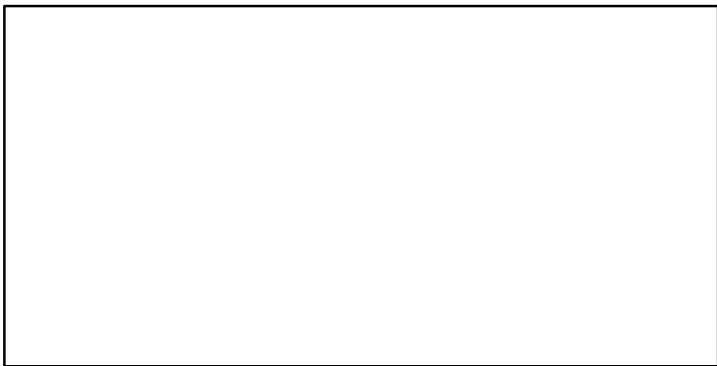
**TB\***



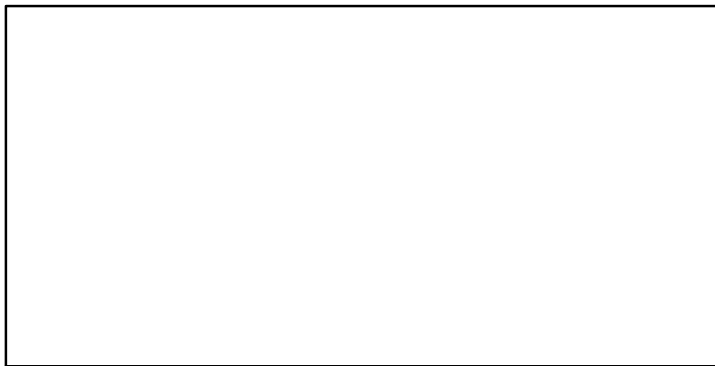
**SSB\***



**TN \***



**F\***



**ER\***

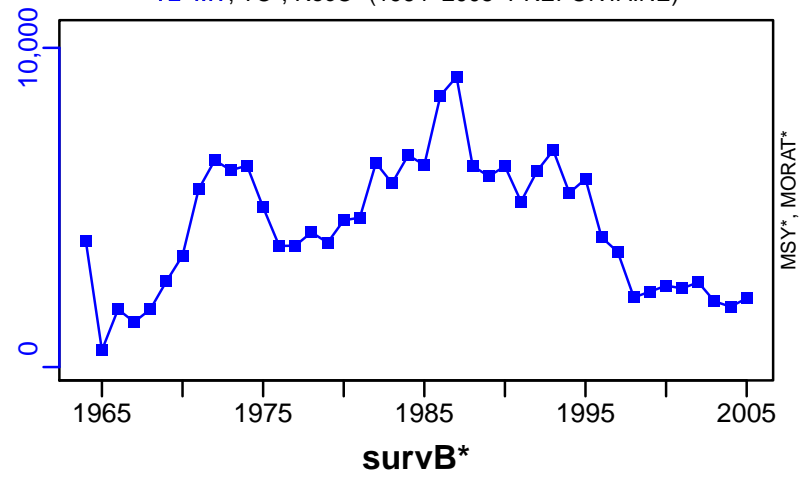


**Recruits\***



White hake Scotian Shelf, Bay of Fundy and Georges Bank [WHAKE4VWX5]

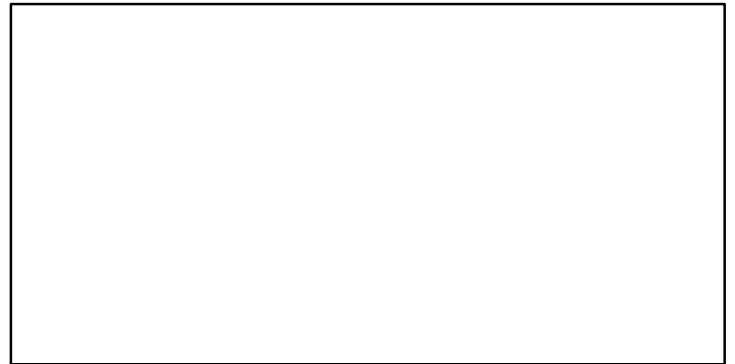
TL-MT, TC\*, RecC\* (1964-2005-PREFONTAINE)



TAC\*, Cpair\*, Cadv\*



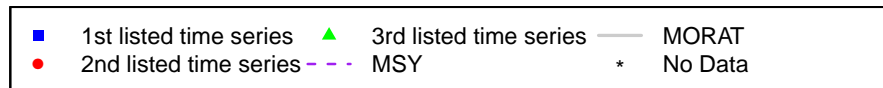
CPUE\*



EFFORT\*



CdivMSY\*



## Winter flounder Southern Gulf of St. Lawrence [WINFLOUN4T]

Metadata	
<b>Scientific Name</b>	Pseudopleuronectes americanus
<b>Current Assess ID</b>	DFO-SG-WINFLOUN4T-1960-2016-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>	2011, 2012, 2016

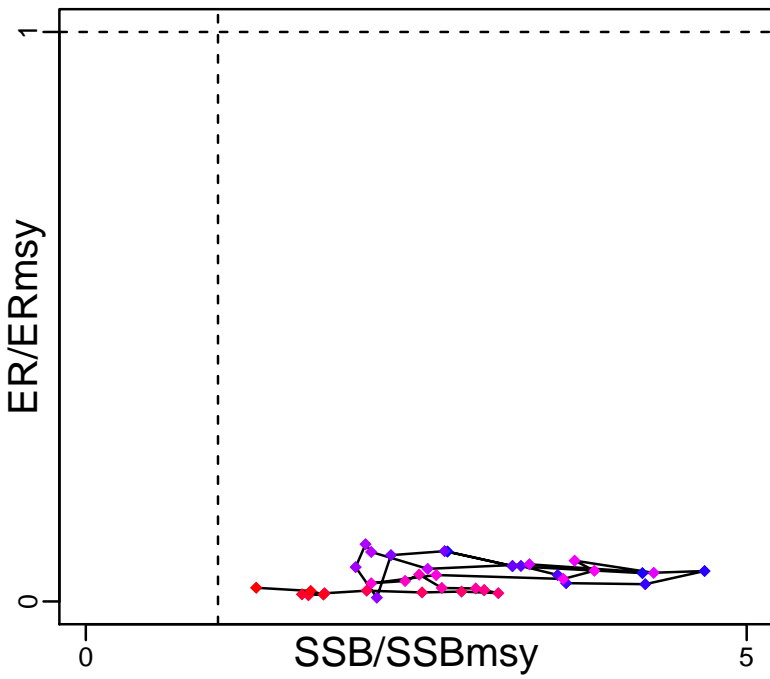
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2016	369,600
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-est-ratio	2011	0.092
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-est-MT	2011	9593
<b>M</b>	M-1/yr	2016	1.02
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2016	147,800
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2016	72,254	-	-
<b>TN</b>	TN-E00	2012	$2.52 \times 10^9$	Both	3+
<b>R</b>	R-E00	2012	1,540,000	Both	-
<b>F</b>	F-1/yr	2016	0	-	5+
<b>ER</b>	ER-calc-ratio	2016	0.001	-	-
<b>TC</b>	TC-E00	2012	$1.47 \times 10^9$		
<b>TL</b>	TL-MT	2016	196		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2016	0.195		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-est-ratio	2011	0.024		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

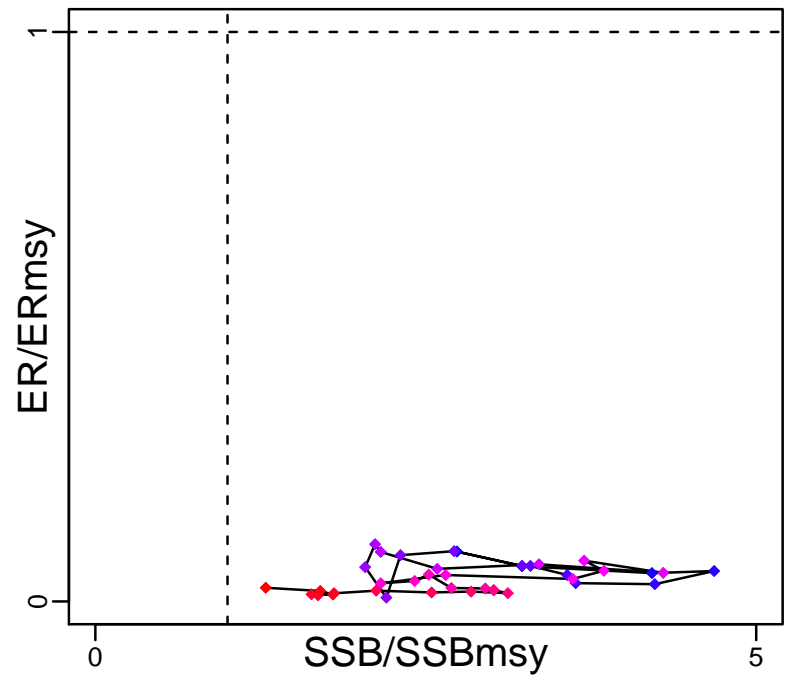


# Winter flounder Southern Gulf of St. Lawrence [WINFLOUN4T]

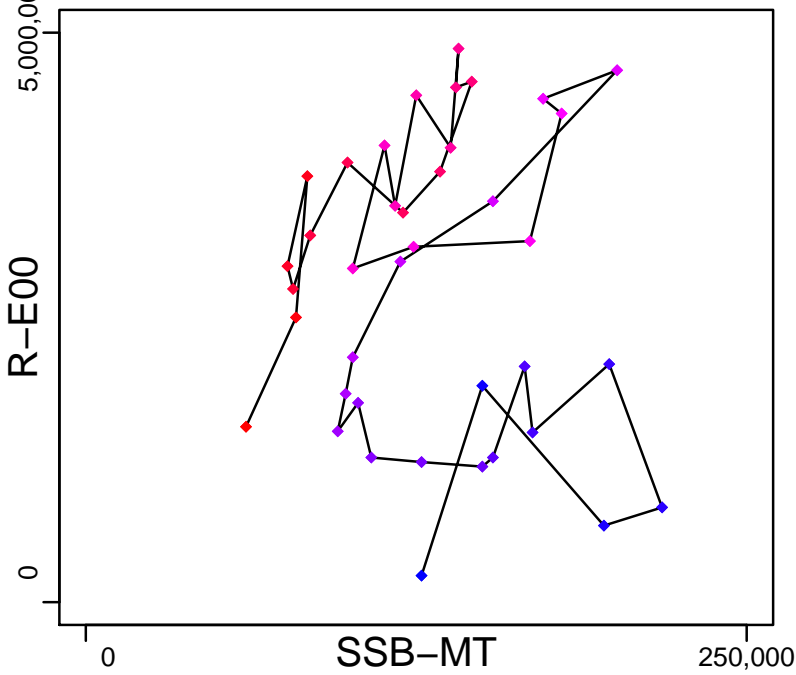
Kobe MSYpref (1960–2011–CHING)



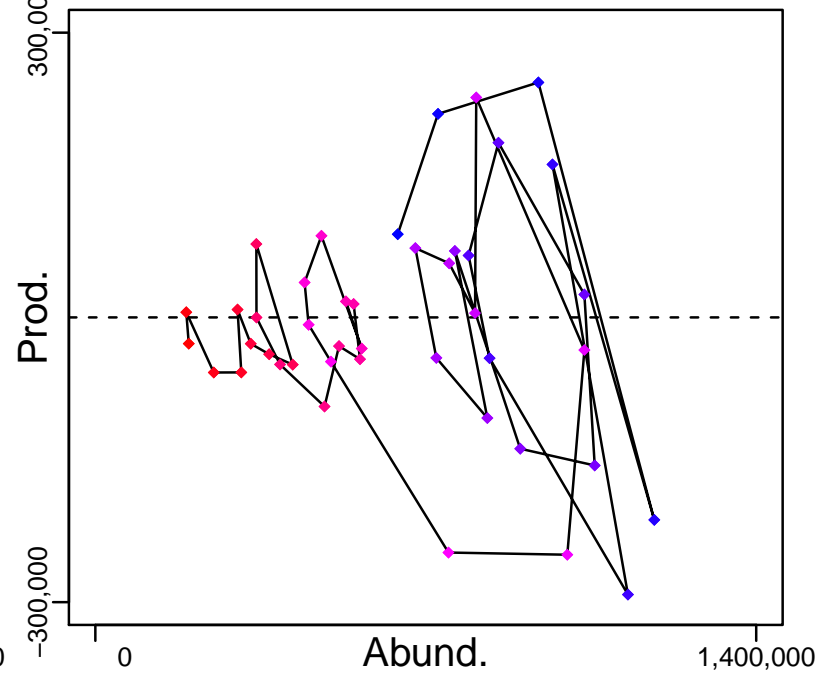
Kobe MGTpref (1960–2011–CHING)



Spawner Recruit (1960–2012–OSGOOD)



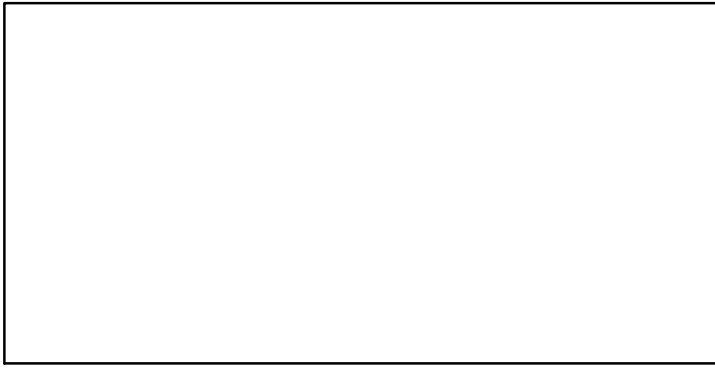
Production (1960–2016–ASHBROOK)



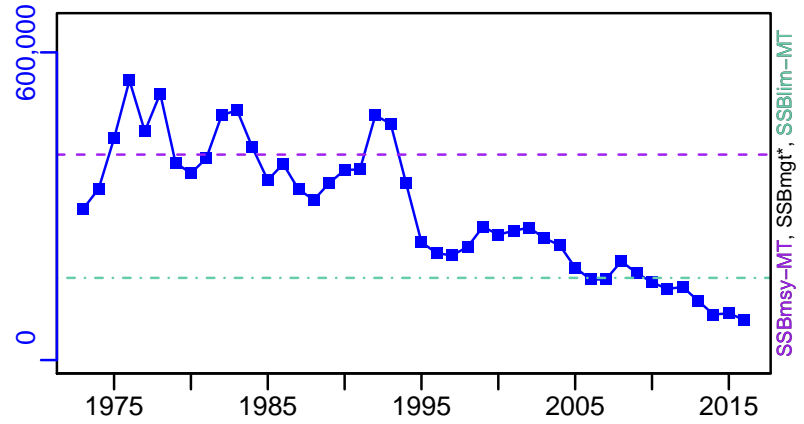
◆ Start Year ◆ End Year \* No Data

# Winter flounder Southern Gulf of St. Lawrence [WINFLOUN4T]

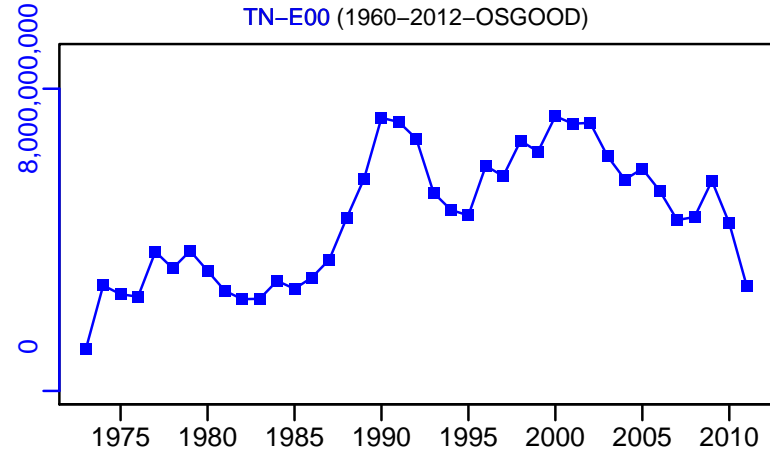
TB\*



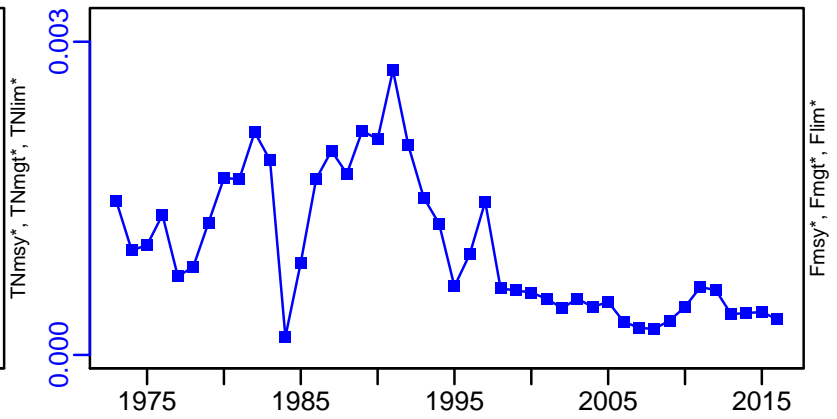
SSB-MT (1960–2016–ASHBROOK)



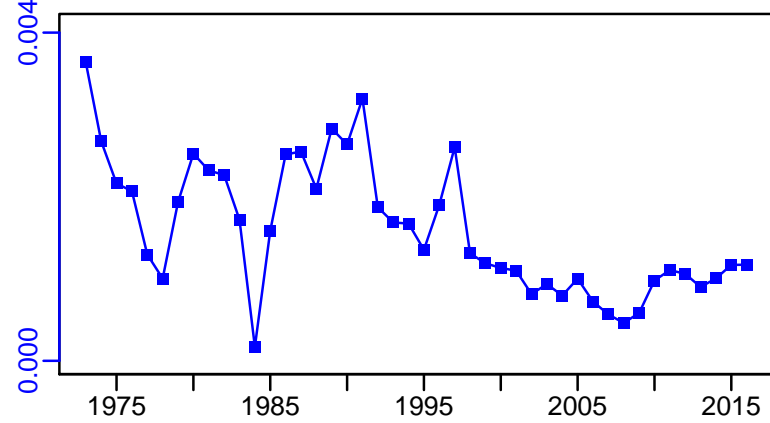
TN-E00 (1960–2012–OSGOOD)



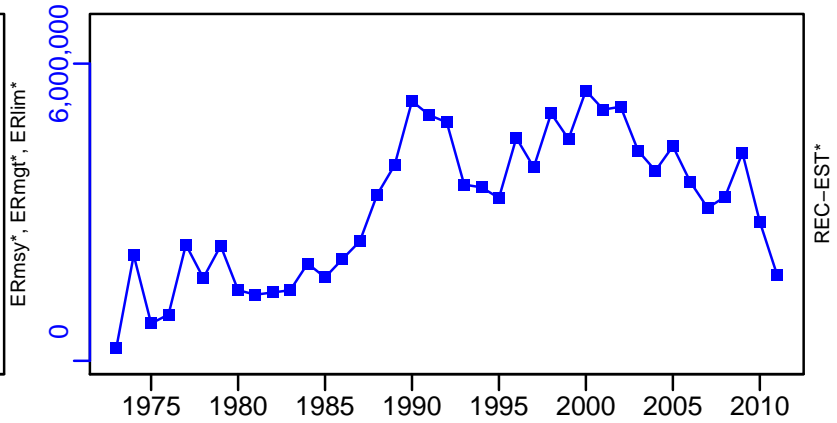
F-1/yr (1960–2016–ASHBROOK)



ER-calc-ratio (1960–2016–ASHBROOK)

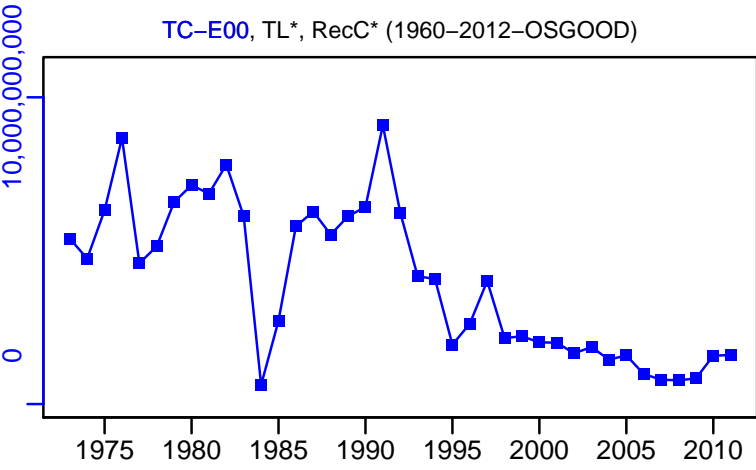


R-E00 (1960–2012–OSGOOD)

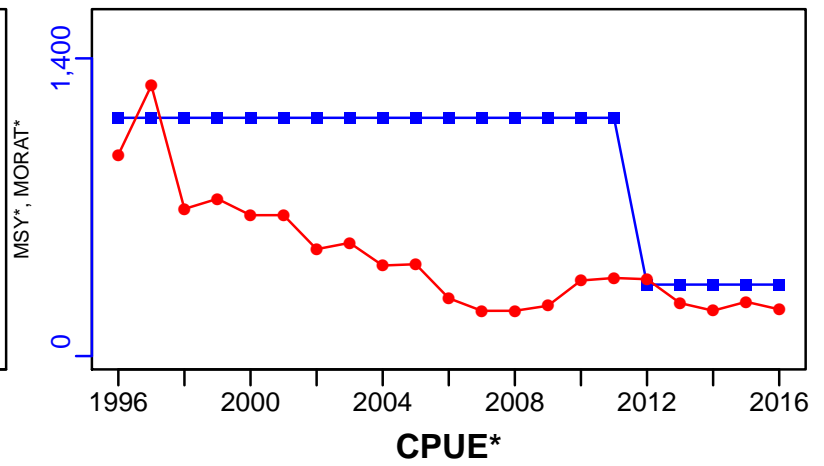


# Winter flounder Southern Gulf of St. Lawrence [WINFLOUN4T]

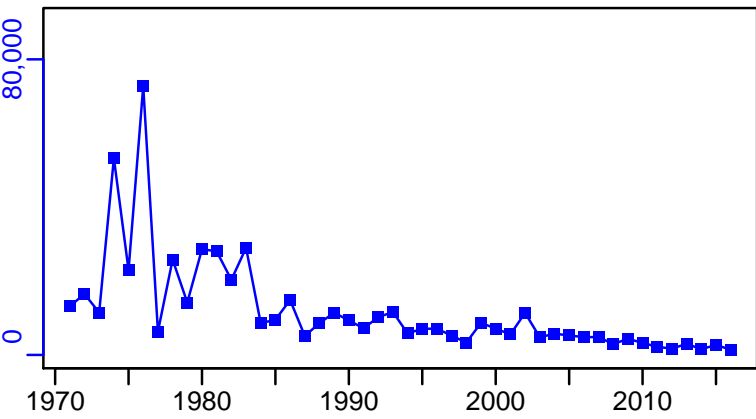
TC-E00, TL\*, RecC\* (1960-2012-OSGOOD)



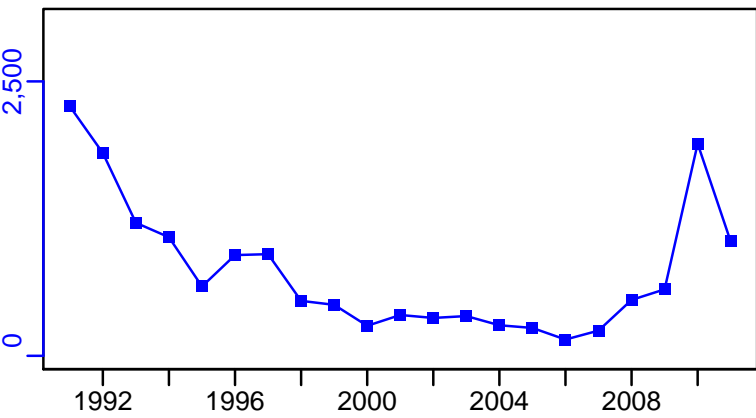
TAC-MT, Cpair-MT, Cadv\* (1960-2016-ASHBROOK)



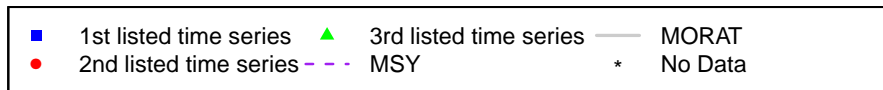
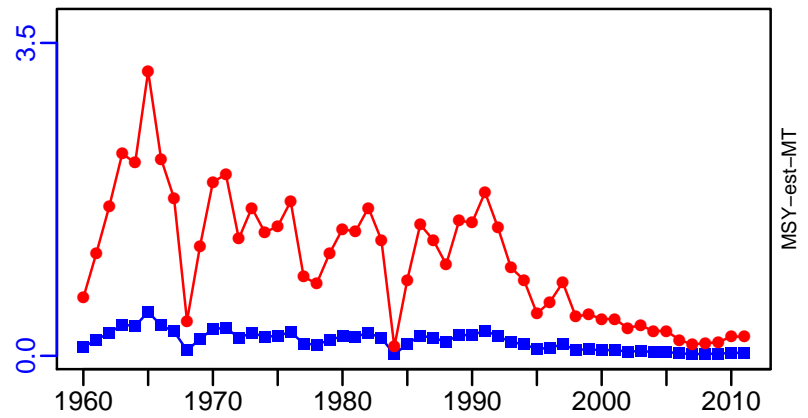
survB-MT (1960-2016-ASHBROOK)



EFFORT-day (1960-2012-OSGOOD)



TL-MT/MSY-est-MT, CdivMEANC-ratio, (1960-2011-CHING)



## Witch flounder Southern Labrador-Eastern Newfoundland [WITFLOUN2J3KL]

Metadata	
<b>Scientific Name</b>	Glyptocephalus cynoglossus
<b>Current Assess ID</b>	DFO-NFLD-WITFLOUN2J3KL-1960-2017-ASHBROOK
<b>Area</b>	Southern Labrador-Eastern Newfoundland
<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
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	190		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

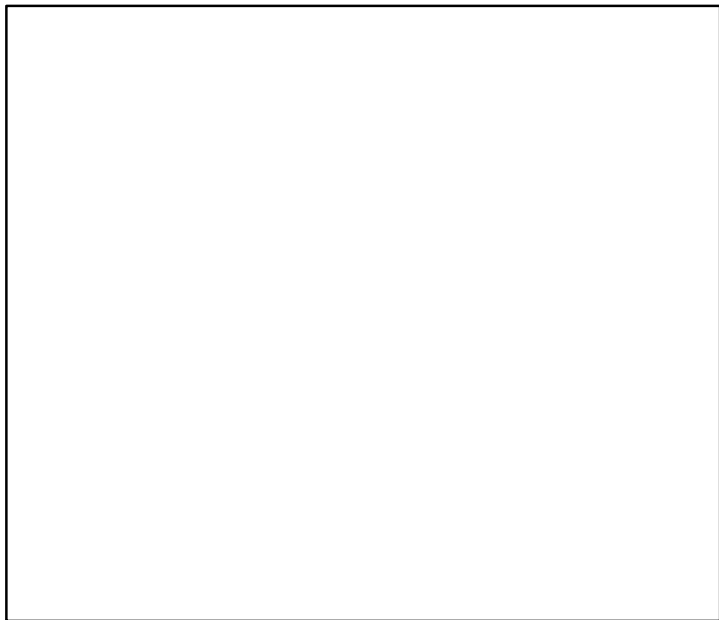
**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



**Production\***



◆ Start Year ◆ End Year \* No Data

**TB\***



**SSB\***



**TN \***



**F\***



**ER\***

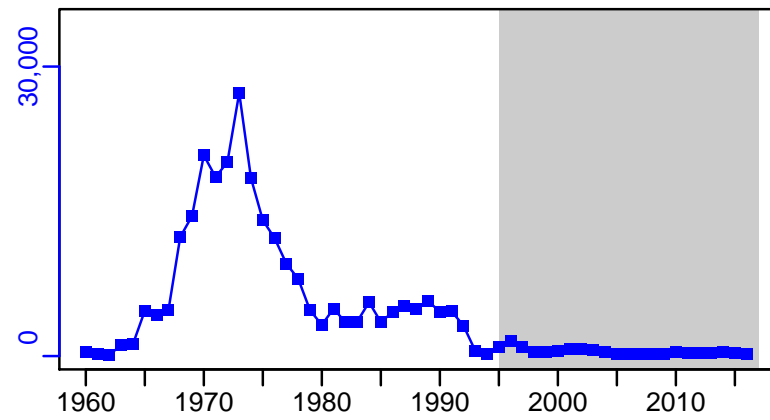


**Recruits\***

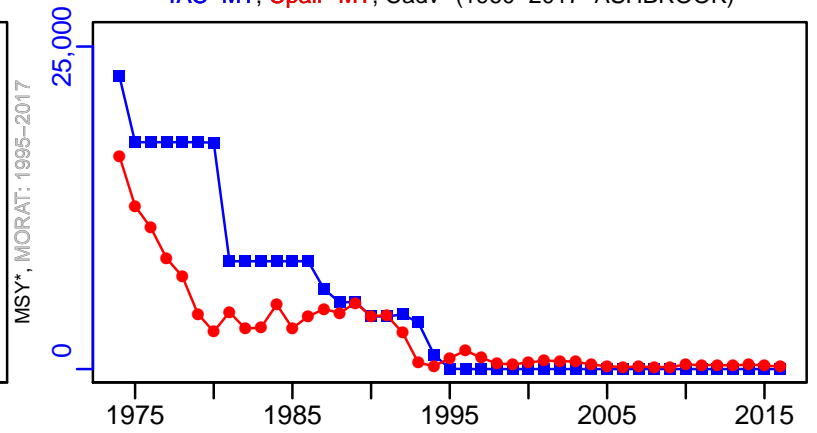


# Witch flounder Southern Labrador–Eastern Newfoundland [WITFLOUN2J3KL]

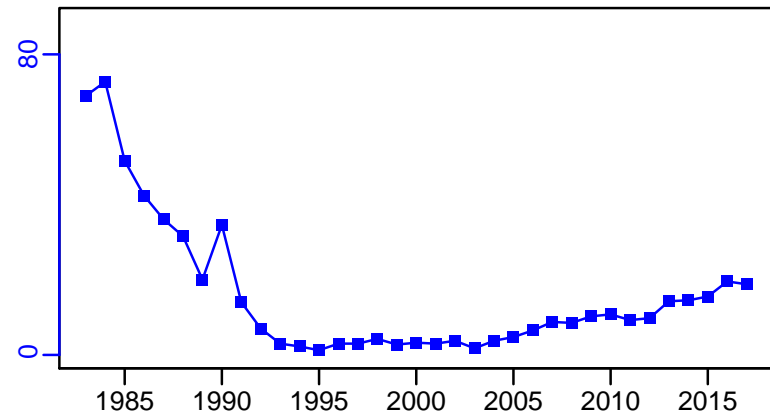
TL–MT, TC\*, RecC\* (1960–2017–ASHBROOK)



TAC–MT, Cpair–MT, Cadv\* (1960–2017–ASHBROOK)



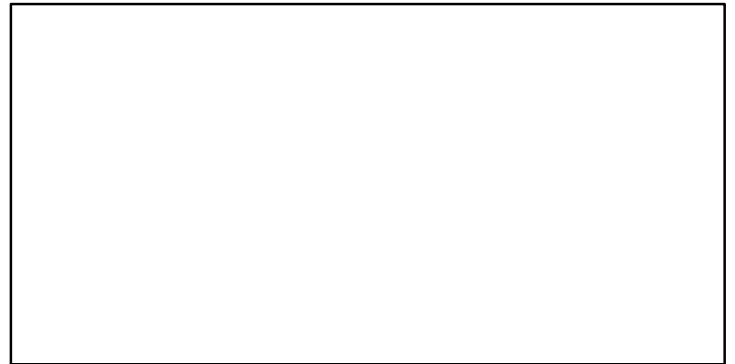
survB–1–index (1960–2017–ASHBROOK)



EFFORT\*



CPUE\*



CdivMSY\*



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

## Witch flounder NAFO-3Ps [WITFLOUN3Ps]

Metadata	
<b>Scientific Name</b>	Glyptocephalus cynoglossus
<b>Current Assess ID</b>	DFO-NFLD-WITFLOUN3Ps-1974-2017-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>	2013, 2017

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	412		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



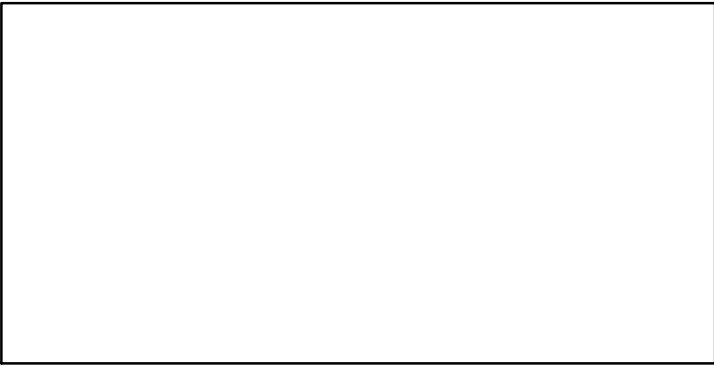
**Production\***



◆ Start Year    ◆ End Year    \* No Data

Witch flounder NAFO-3Ps [WITFLOUN3Ps]

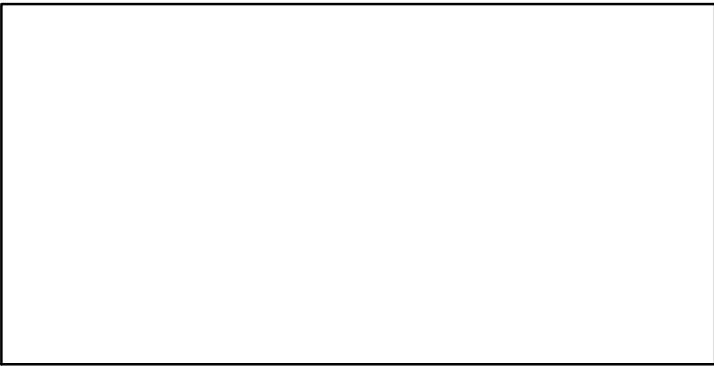
**TB\***



**SSB\***



**TN \***



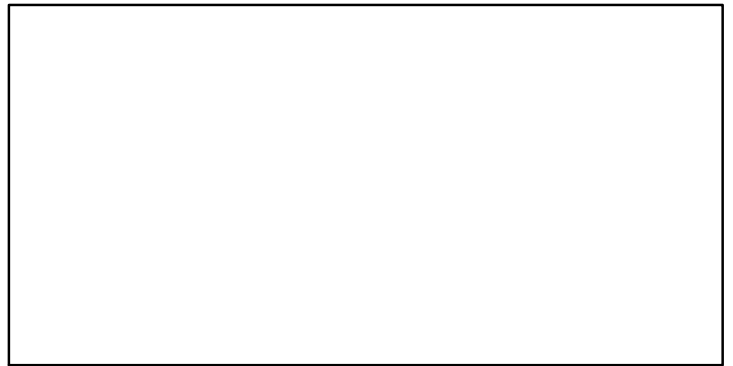
**F\***



**ER\***



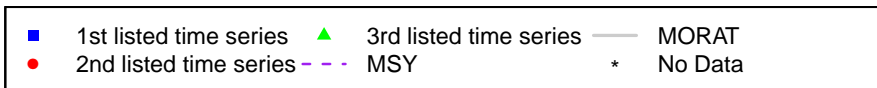
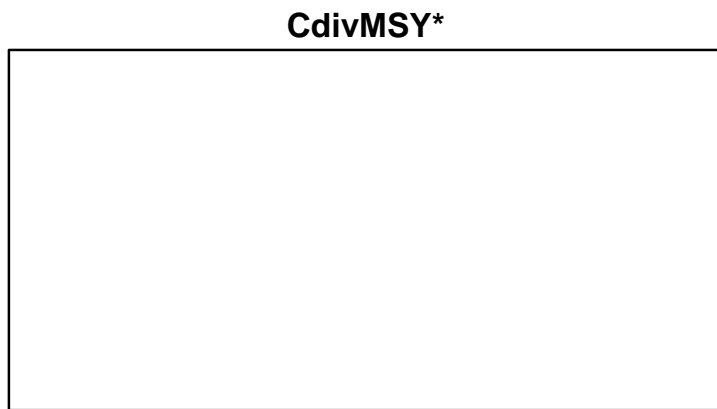
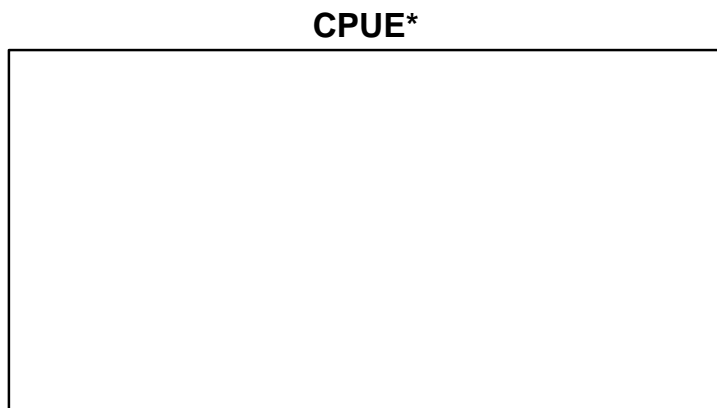
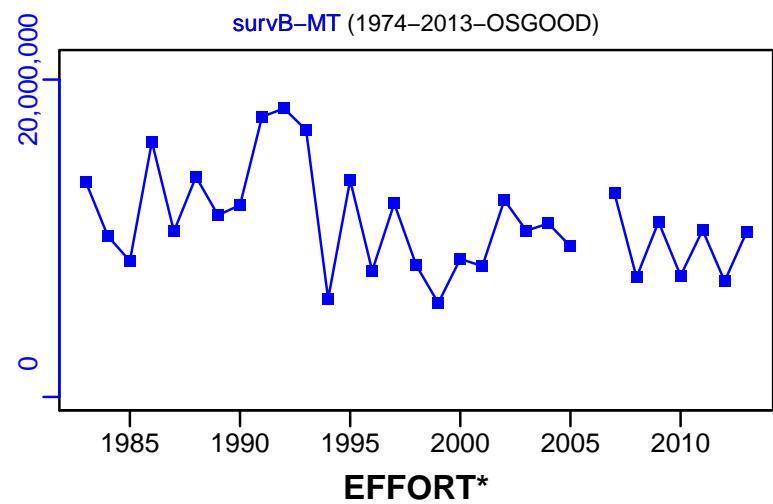
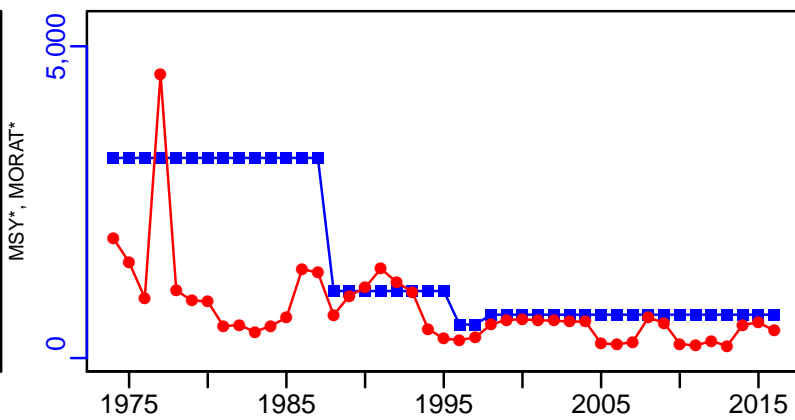
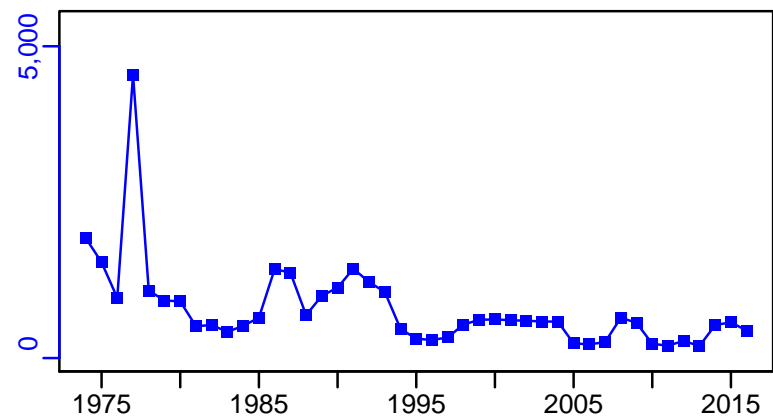
**Recruits\***



# Witch flounder NAFO-3Ps [WITFLOUN3Ps]

TL-MT, TC\*, RecC\* (1974-2017-ASHBROOK)

TAC-MT, Cpair-MT, Cadv\* (1974-2017-ASHBROOK)



## Witch flounder Gulf of St. Lawrence [WITFLOUN4RST]

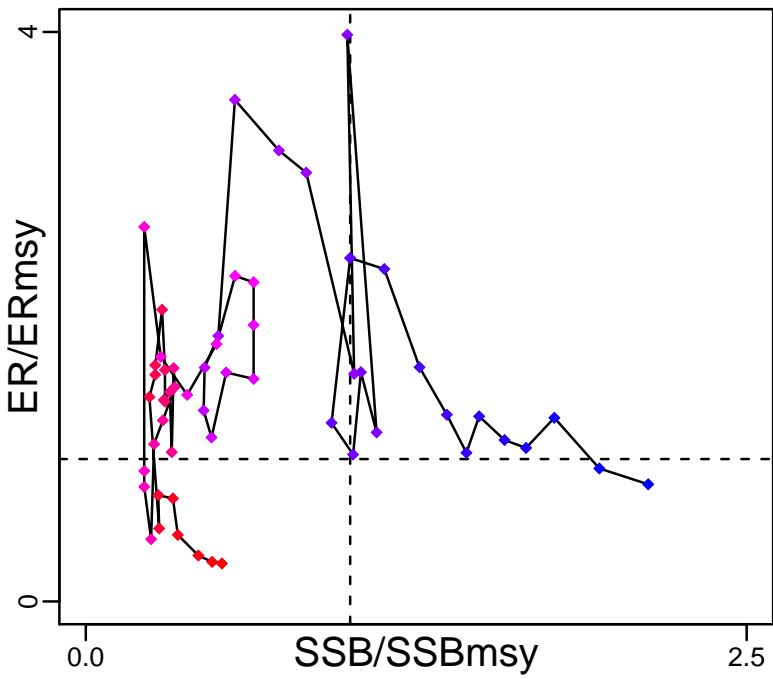
Metadata	
<b>Scientific Name</b>	Glyptocephalus cynoglossus
<b>Current Assess ID</b>	DFO-SG-WITFLOUN4RST-1960-2016-ASHBROOK
<b>Area</b>	Gulf of St. Lawrence
<b>Management Authority</b>	Department of Fisheries and Oceans, Canada national management
<b>Assessor</b>	Department of Fisheries and Oceans - Southern Gulf Region
<b>Asmts in RAM</b>	2011, 2016

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2016	363,889
<b>SSBmsy</b>	SSBmsy-MT	2016	26,200
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2016	0.072
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2016	21,000
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	ERmgt-ratio	2011	0.07
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2016	26,200
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2016	10,500
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

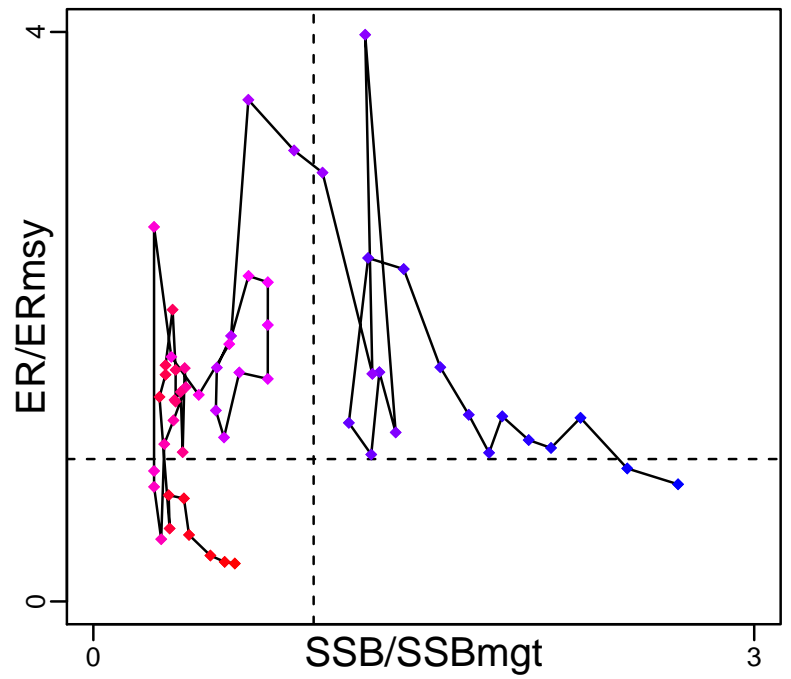
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2016	13,505	-	-
<b>SSB</b>	SSB-MT	2016	13,489	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2016	16,327	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2016	0.019	-	-
<b>TC</b>	-	-	-		
<b>TL</b>	TL-MT	2016	296		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2016	0.037		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2016	0.515		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2016	0.266		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2016	0.642		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

Witch flounder Gulf of St. Lawrence [WITFLOUN4RST]

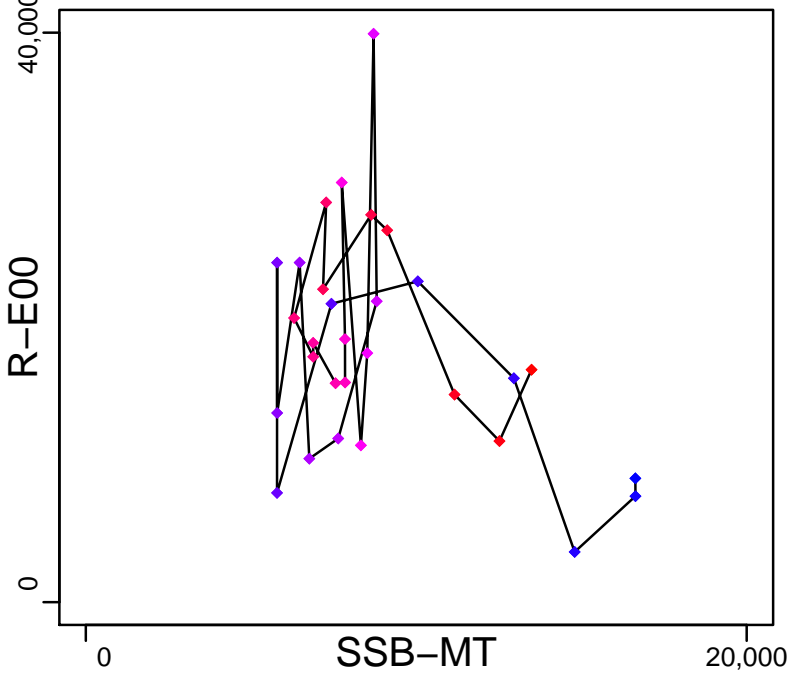
Kobe MSYpref (1960–2016–ASHBROOK)



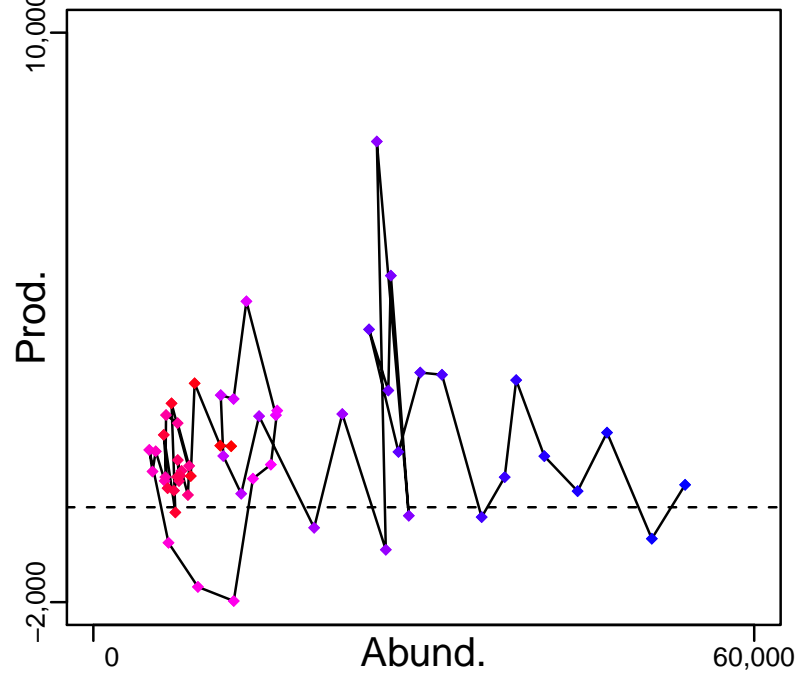
Kobe MGTpref (1960–2016–ASHBROOK)



Spawner Recruit (1960–2016–ASHBROOK)



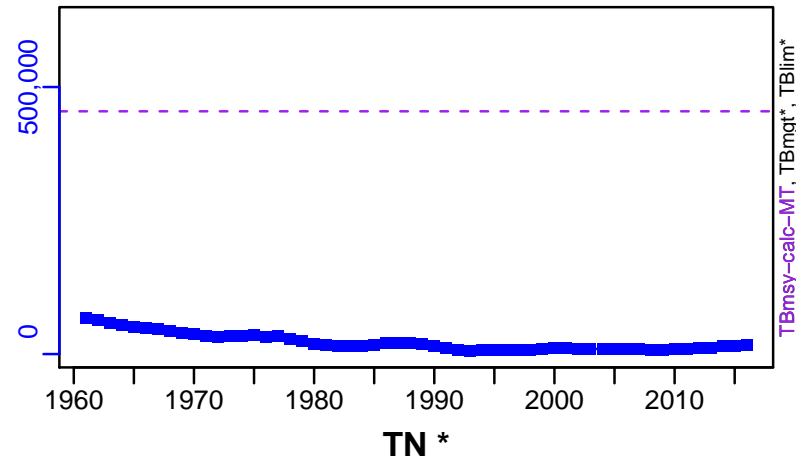
Production (1960–2016–ASHBROOK)



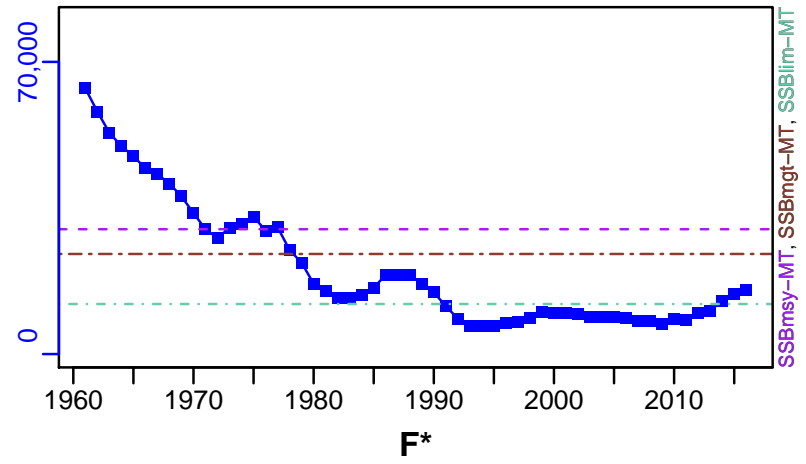
◆ Start Year ◆ End Year \* No Data

# Witch flounder Gulf of St. Lawrence [WITFLOUN4RST]

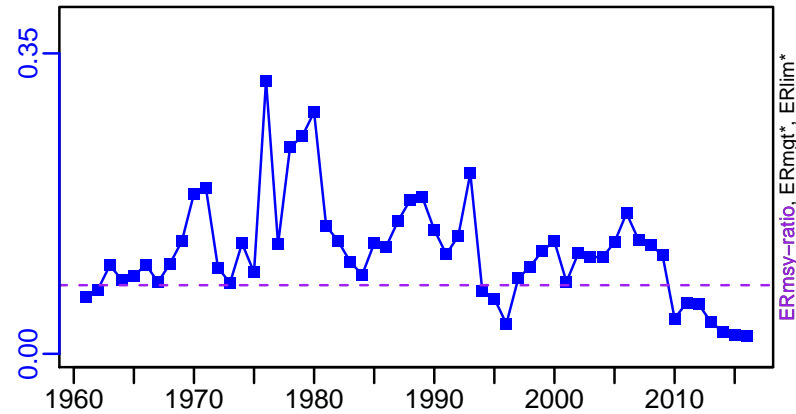
TB-MT (1960–2016–ASHBROOK)



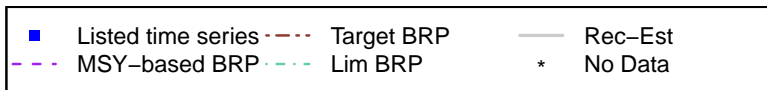
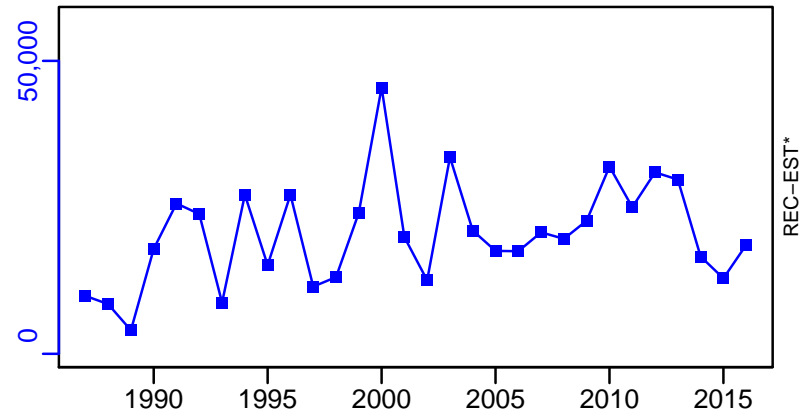
SSB-MT (1960–2016–ASHBROOK)



ER-ratio (1960–2016–ASHBROOK)

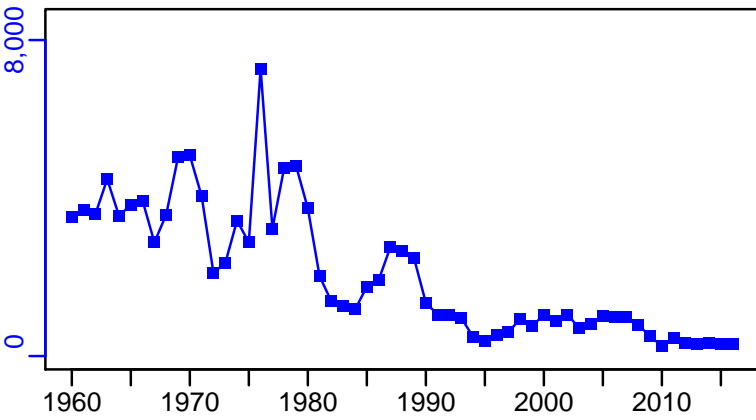


R-E00 (1960–2016–ASHBROOK)

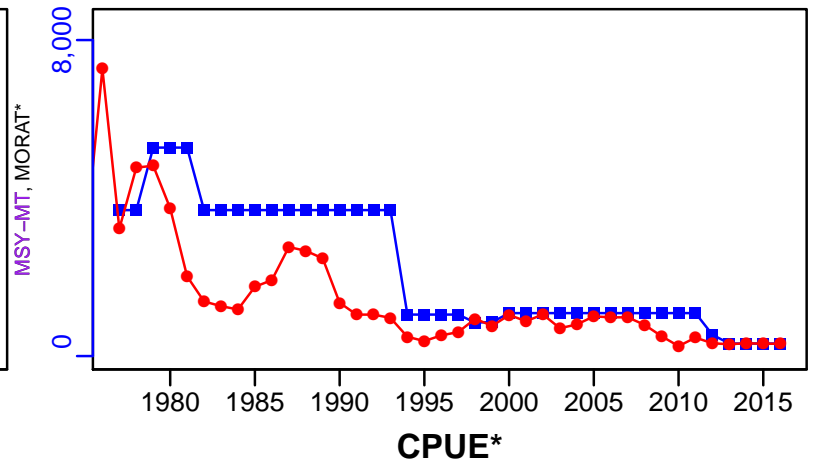


# Witch flounder Gulf of St. Lawrence [WITFLOUN4RST]

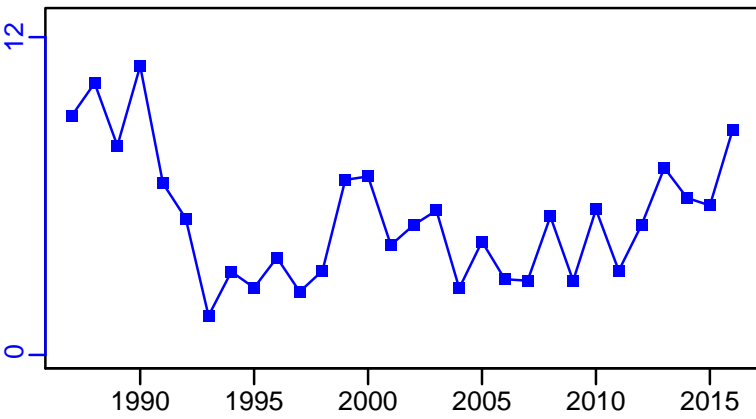
TL-MT, TC\*, RecC\* (1960-2016-ASHBROOK)



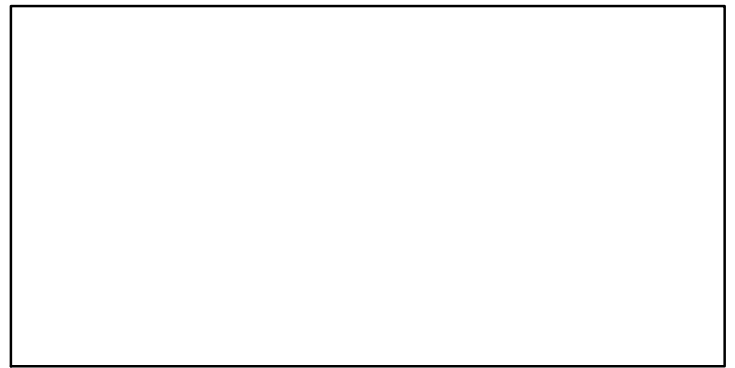
TAC-MT, Cpair-MT, Cadv\* (1960-2016-ASHBROOK)



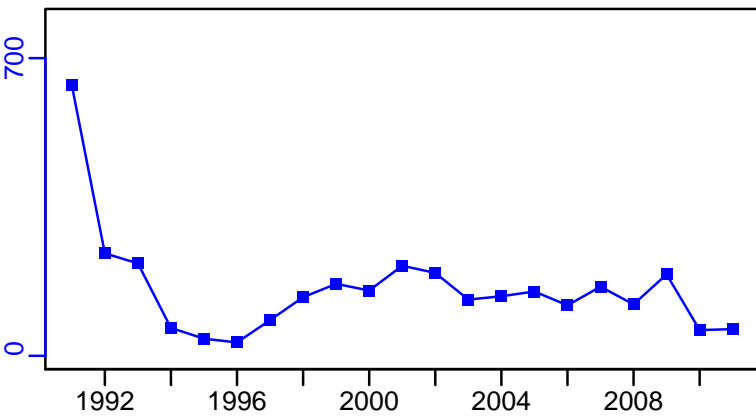
survB-index (1960-2016-ASHBROOK)



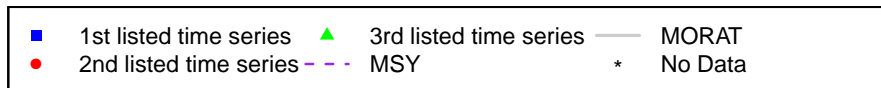
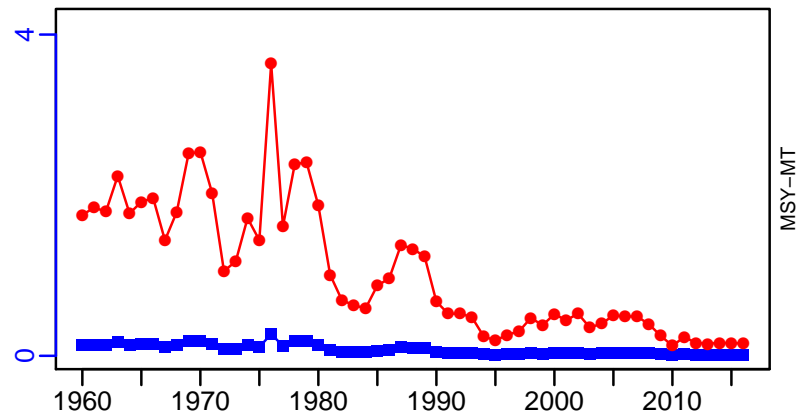
CPUE\*



EFFORT-day (1960-2011-OSGOOD)



TL-MT/MSY-MT, CdivMEANC-ratio, (1960-2016-ASHBROOK)



## Waved whelk Quebec Coastal Waters [WWHELKQCW]

Metadata	
<b>Scientific Name</b>	Buccinum undatum
<b>Current Assess ID</b>	DFO-QUE-WWHELKQCW-1987-2011-CHING
<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

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	2011	1360		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



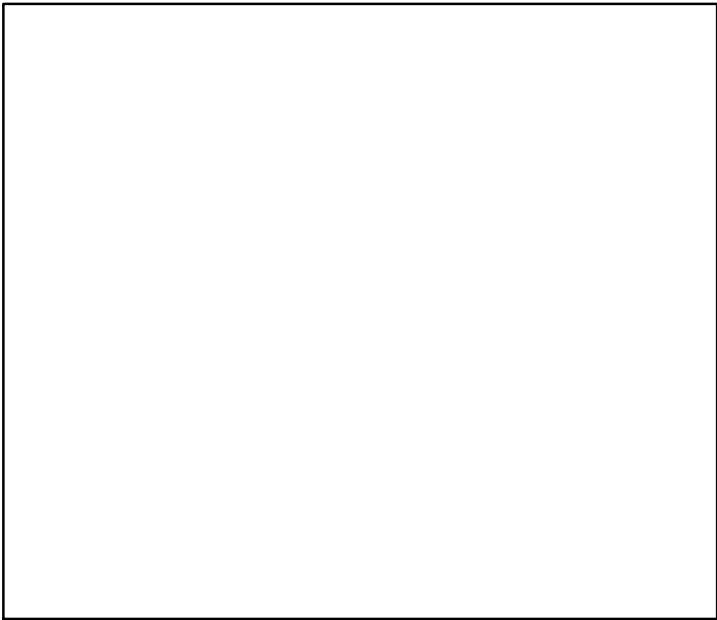
Kobe MSY\*



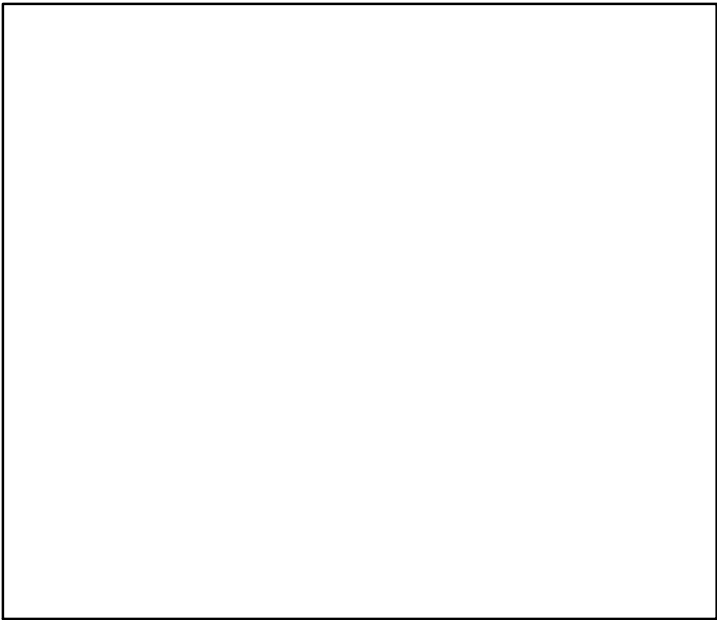
Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data

Waved whelk Quebec Coastal Waters [WWHELKQCW]

TB\*



SSB\*



TN \*



F\*



ER\*



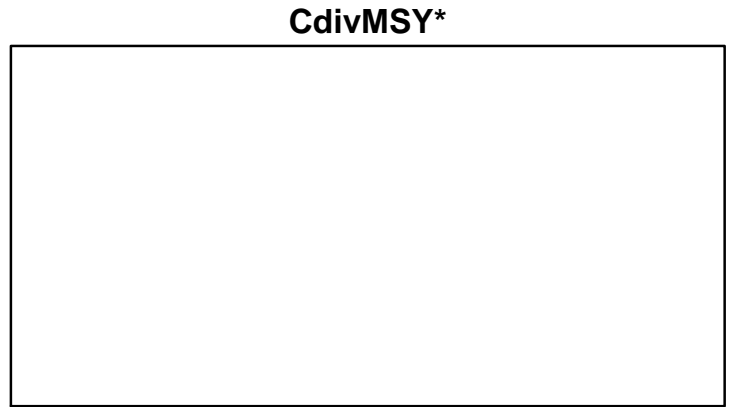
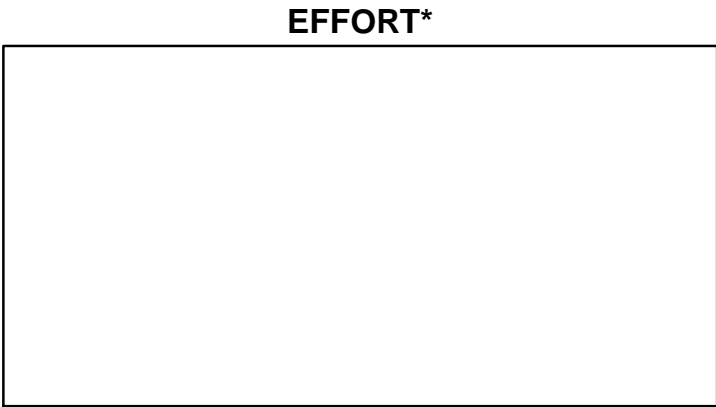
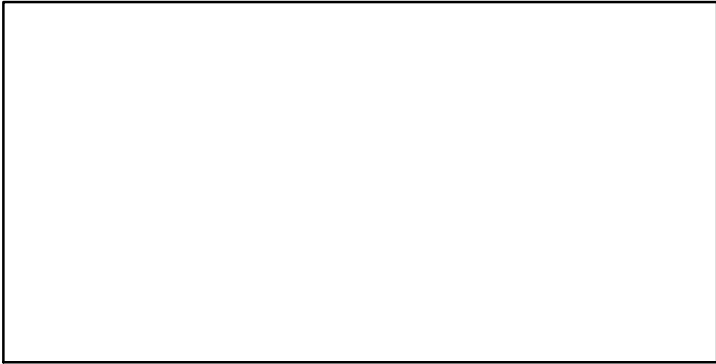
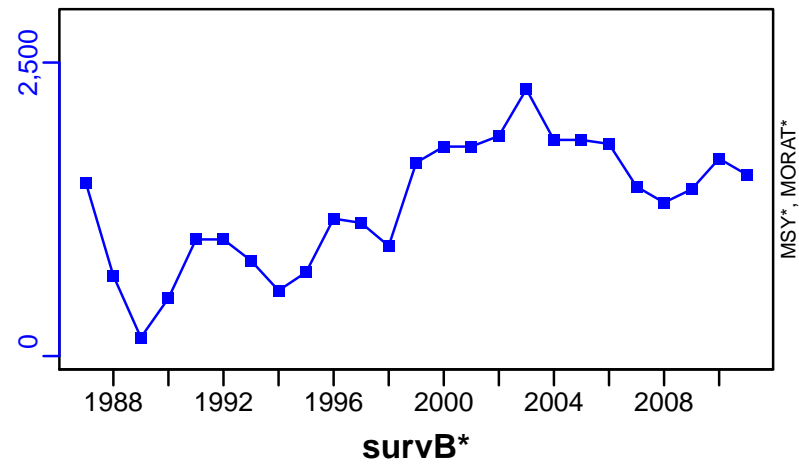
Recruits\*



# Waved whelk Quebec Coastal Waters [WWHELKQCW]

TL-MT, TC\*, RecC\* (1987-2011-CHING)

TAC\*, Cpair\*, Cadv\*



## Yellowtail flounder Grand Banks [YELL3LNO]

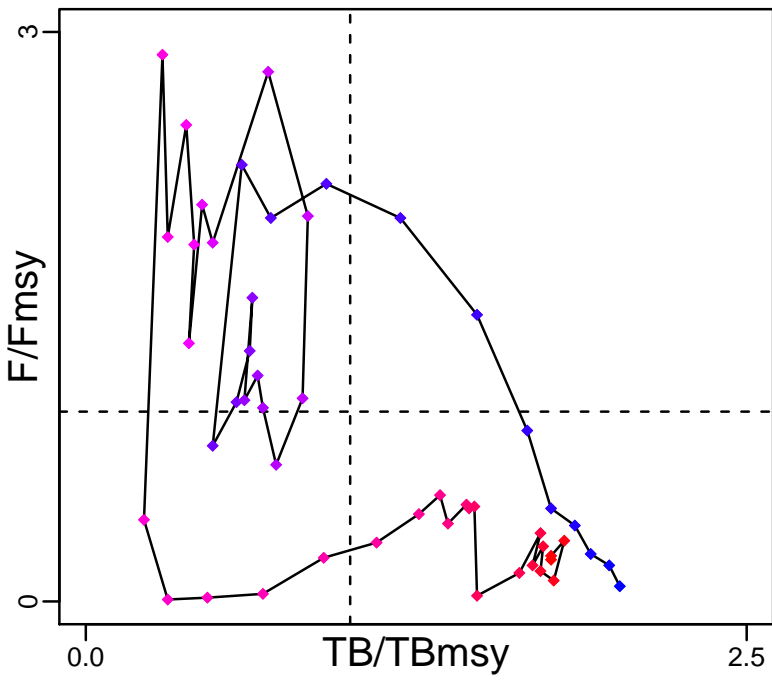
Metadata	
<b>Scientific Name</b>	Limanda ferruginea
<b>Current Assess ID</b>	NAFO-SC-YELL3LNO-1960-2015-WATSON
<b>Area</b>	Grand Banks
<b>Management Authority</b>	Northwest Atlantic Fisheries Organization
<b>Assessor</b>	NAFO Scientific Council
<b>Asmts in RAM</b>	2009, 2015

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-MT	2009	73,580
<b>SSBmsy</b>	SSBmsy-est-MT	2015	84,130
<b>Fmsy</b>	Fmsy-1/yr	2009	0.26
<b>ERmsy</b>	ERmsy-ratio	2009	0.256
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2015	18,730
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

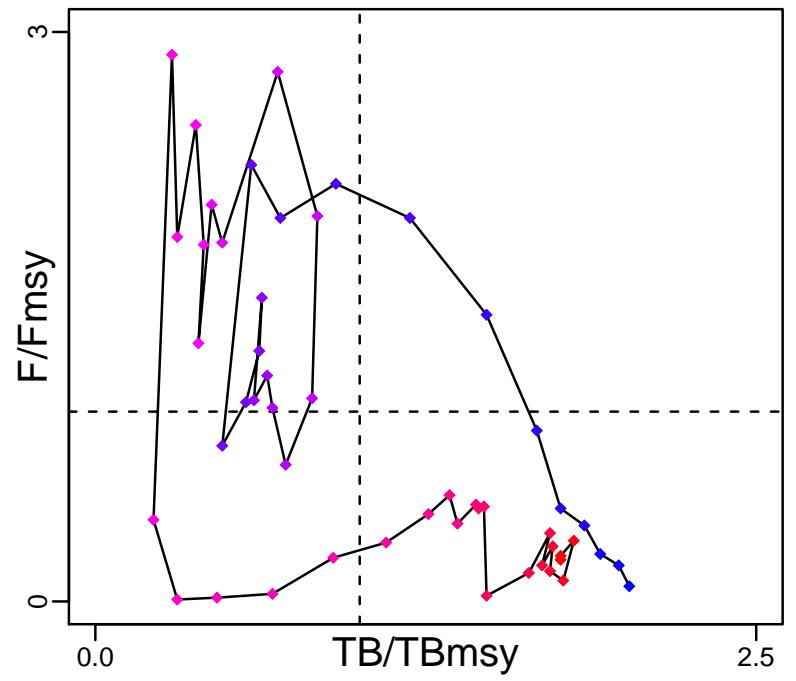
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2009	120,000	-	-
<b>SSB</b>	SSB-MT	2015	162,000	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	F-1/yr	2009	0.126	-	-
<b>ER</b>	ER-calc-ratio	2015	0.024	-	-
<b>TC</b>	TC-MT	2015	7990		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TBdivTBmsy-dimensionless	2015	1.76		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-est-MT	2015	1.926		
<b>F/Fmsy</b>	FdivFmsy-dimensionless	2015	0.22		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2009	0.151		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Yellowtail flounder Grand Banks [YELL3LNO]

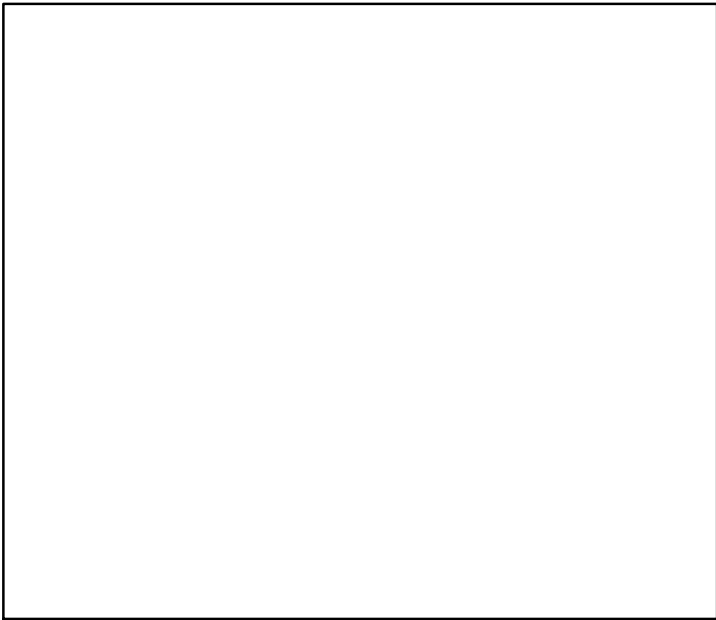
Kobe MSYpref (1960–2015–WATSON)



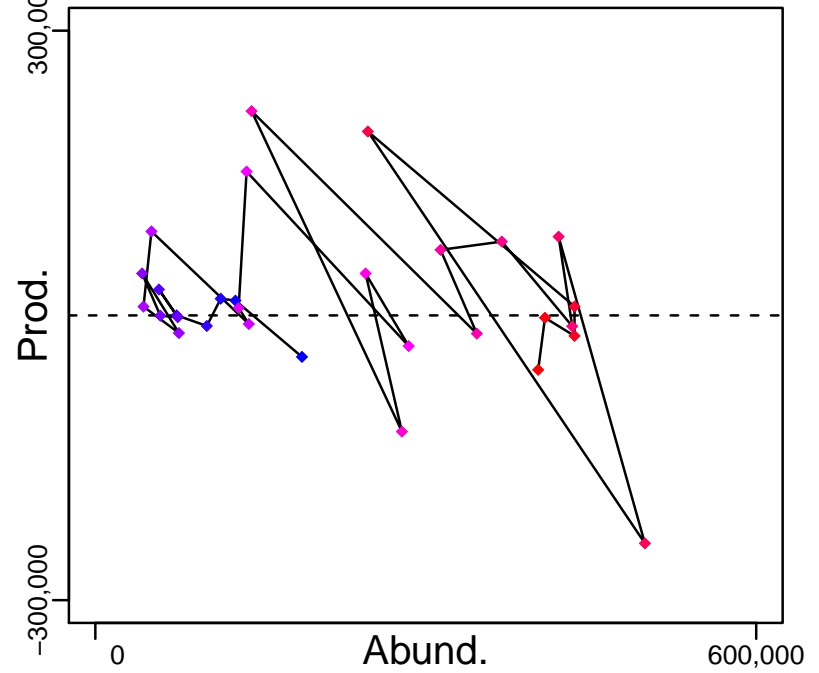
Kobe MGTpref (1960–2015–WATSON)



Spawner Recruit\*

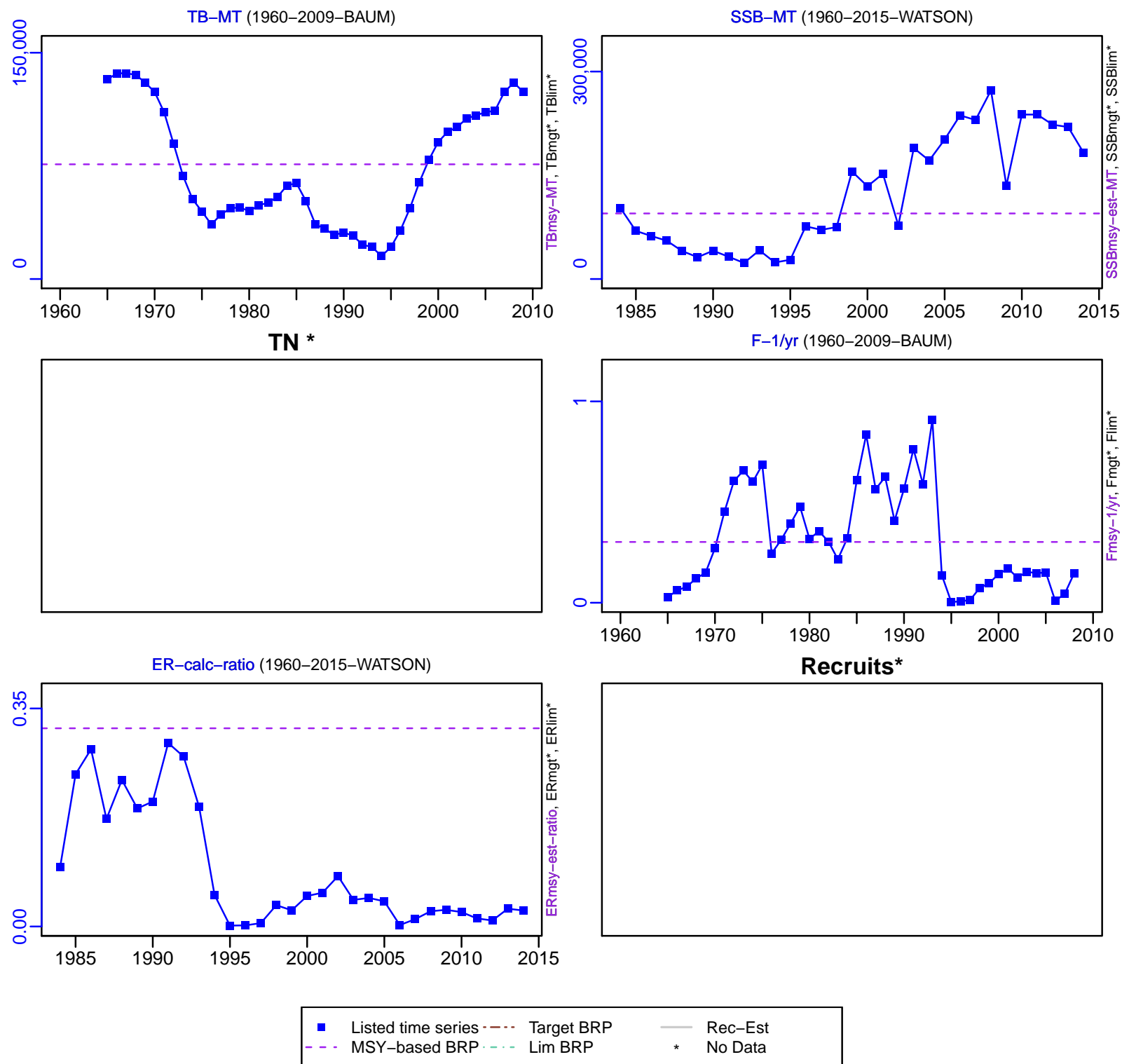


Production (1960–2015–WATSON)



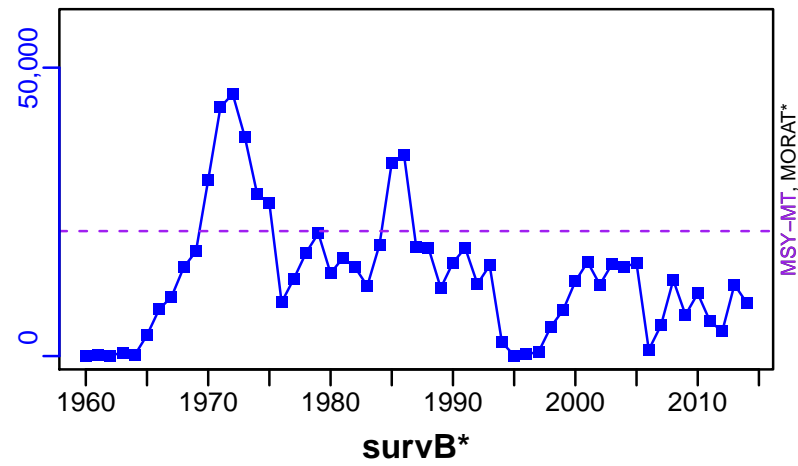
◆ Start Year ◆ End Year \* No Data

# Yellowtail flounder Grand Banks [YELL3LNO]

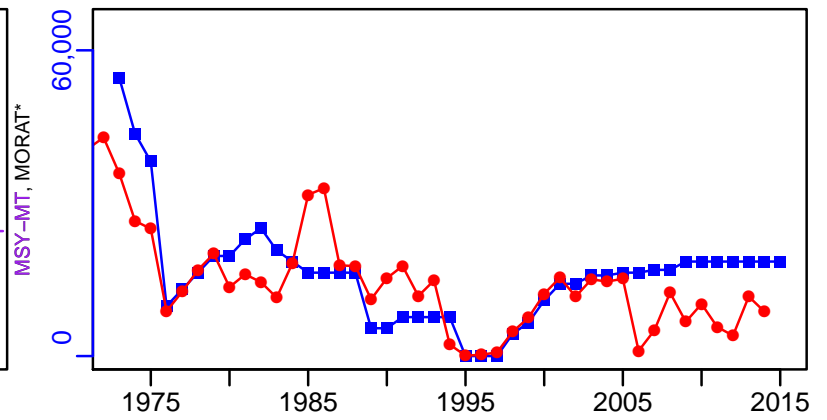


# Yellowtail flounder Grand Banks [YELL3LNO]

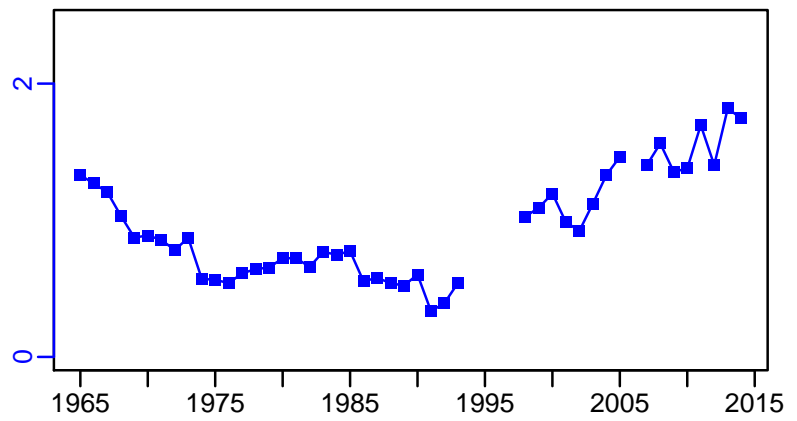
TC-MT, TL\*, RecC\* (1960-2015-WATSON)



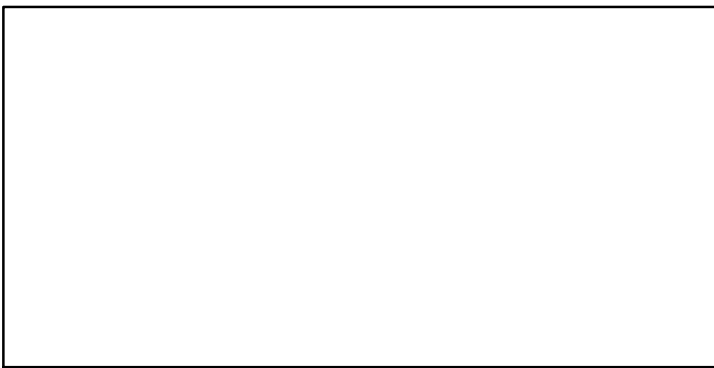
TAC-MT, Cpair-MT, Cadv\* (1960-2015-WATSON)



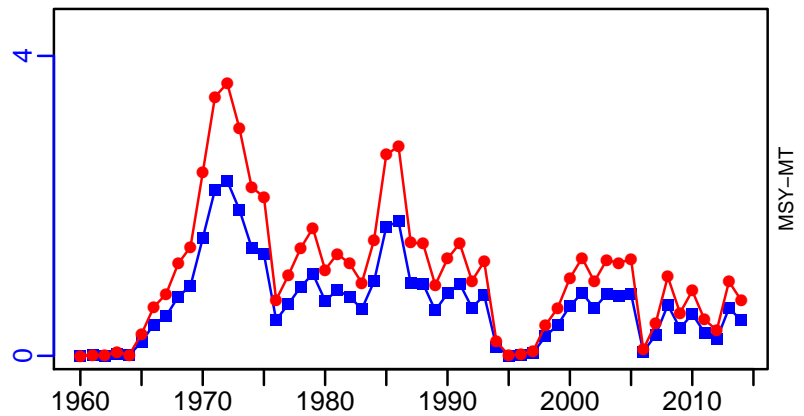
CPUE-index (1960-2015-WATSON)



EFFORT\*



TC-MT/MSY-MT, CdivMEANC-ratio, (1960-2015-WATSON)



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

## Yellowtail flounder Southern Gulf of St. Lawrence [YELL4T]

Metadata	
<b>Scientific Name</b>	Limanda ferruginea
<b>Current Assess ID</b>	DFO-SG-YELL4T-1960-2016-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>	2016

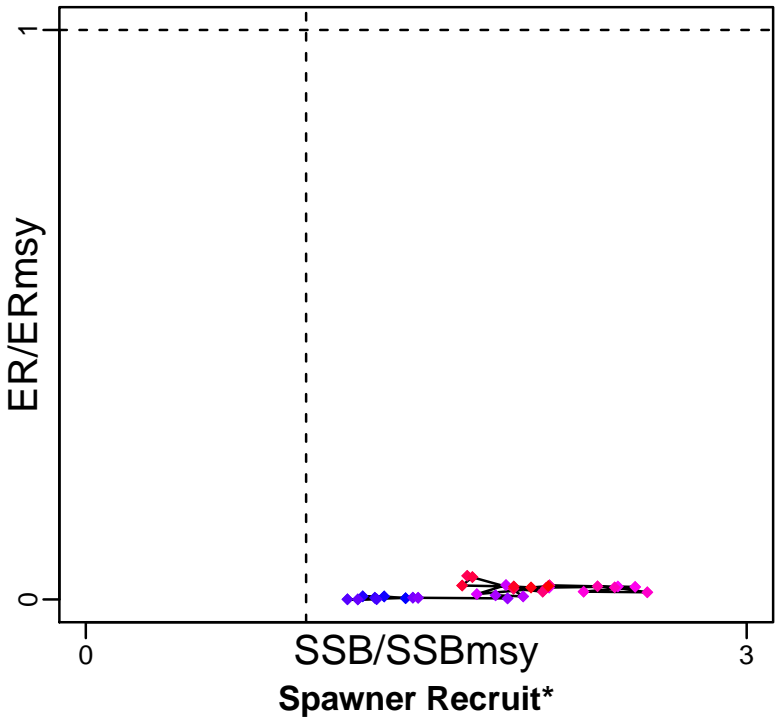
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-est-MT	2016	43,813
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-est-ratio	2016	0.086
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-est-MT	2016	5432
<b>M</b>	-	-	-
<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	2016	91,980	-	1-7+
<b>TN</b>	TN-E00	2016	351,648,350	-	5-Apr
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2016	0.002	-	4
<b>TC</b>	-	-	-		
<b>TL</b>	TL-MT	2016	95		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-est-MT	2016	2.099		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-est-ratio	2016	0.023		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

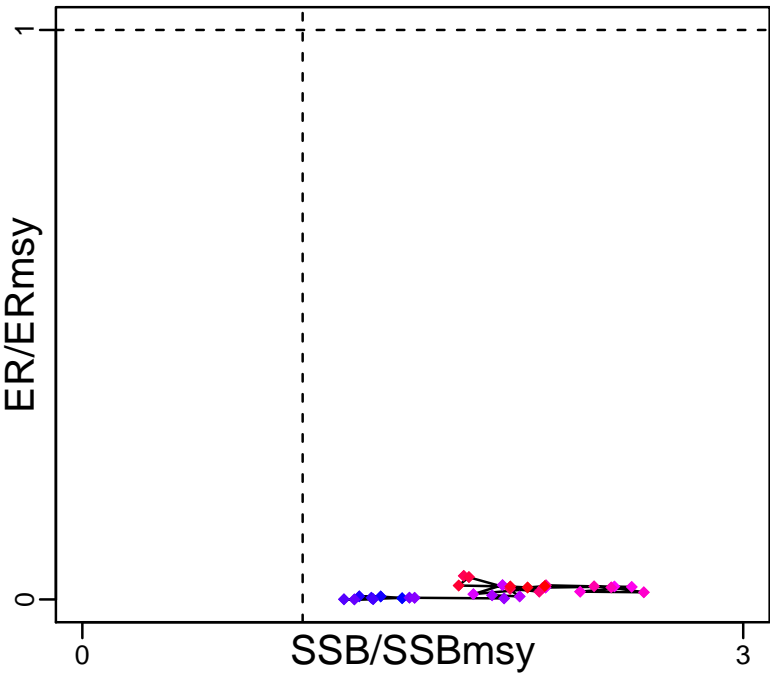


Yellowtail flounder Southern Gulf of St. Lawrence [YELL4T]

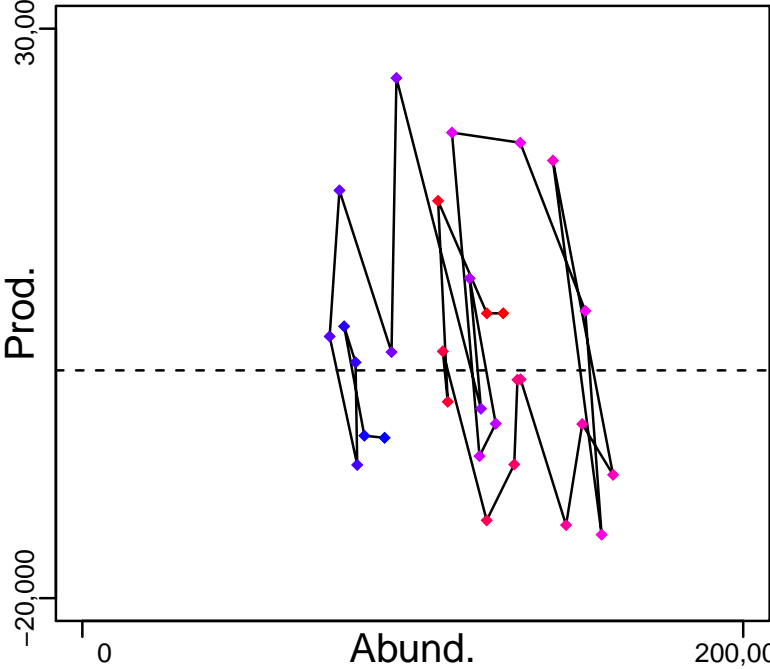
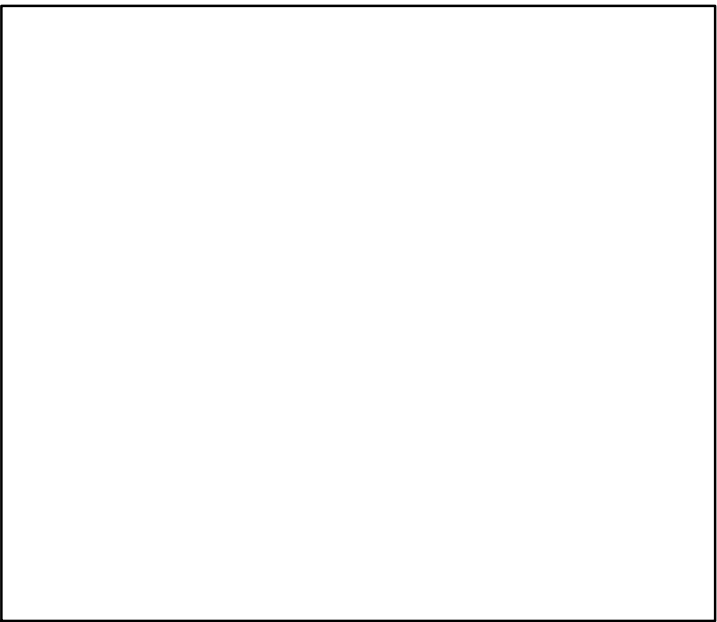
Kobe MSYpref (1960–2016–ASHBROOK)



Kobe MGTpref (1960–2016–ASHBROOK)



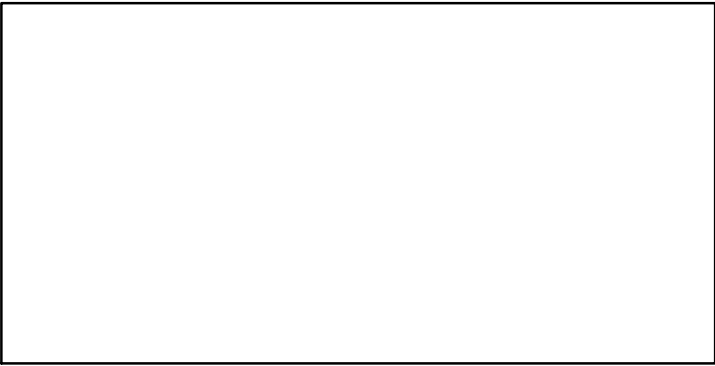
Production (1960–2016–ASHBROOK)



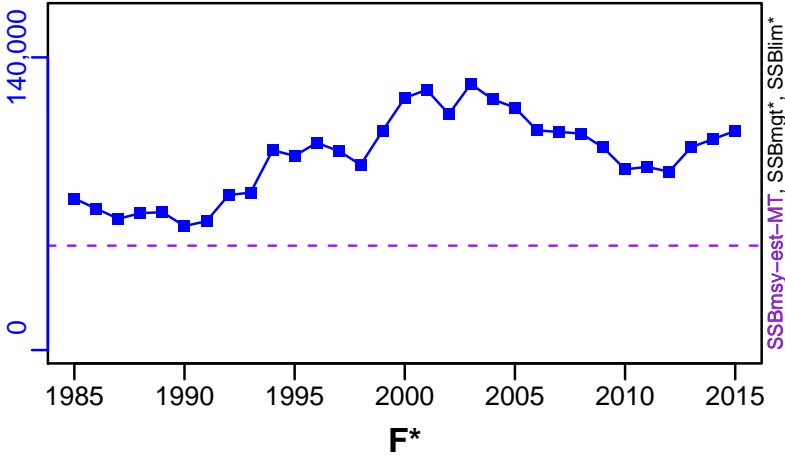
◆ Start Year ◆ End Year \* No Data

Yellowtail flounder Southern Gulf of St. Lawrence [YELL4T]

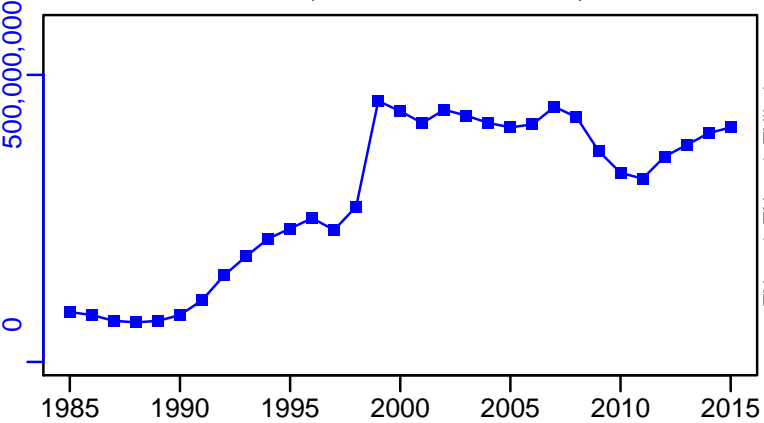
TB\*



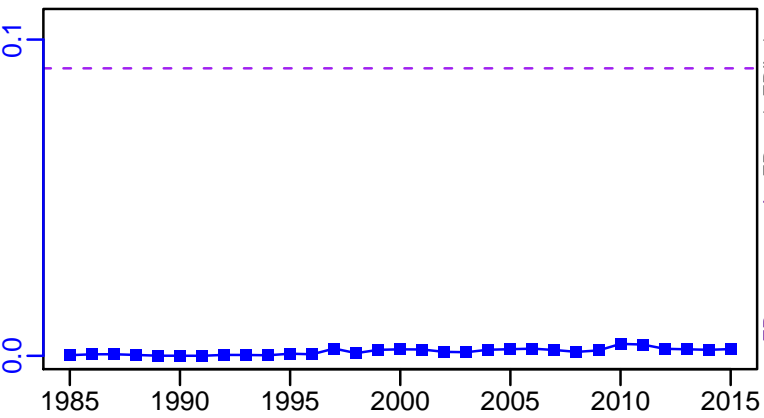
SSB-MT (1960–2016–ASHBROOK)



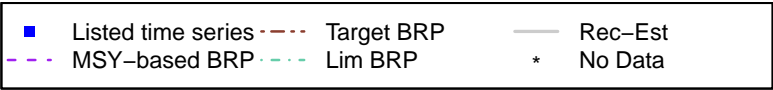
TN-E00 (1960–2016–ASHBROOK)



ER-ratio (1960–2016–ASHBROOK)



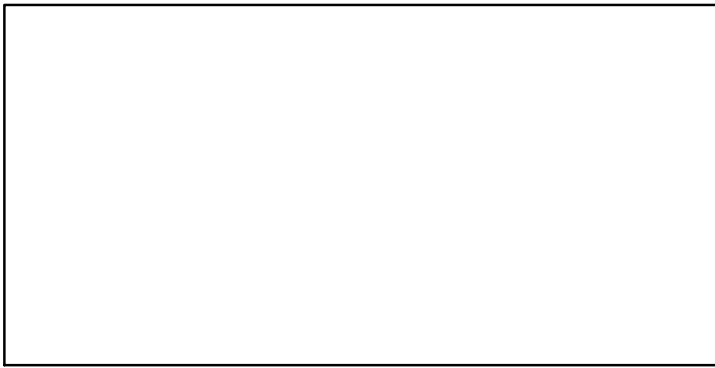
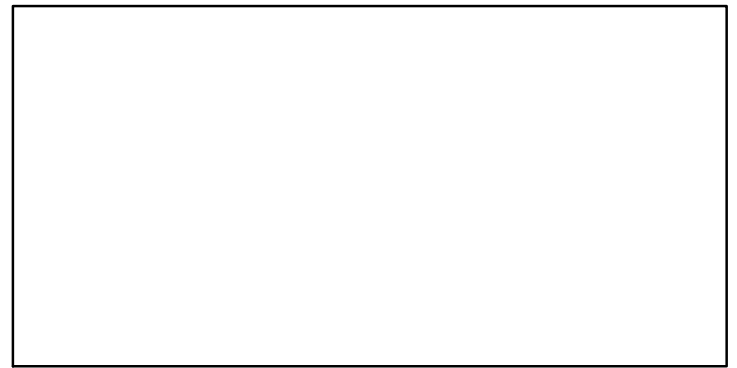
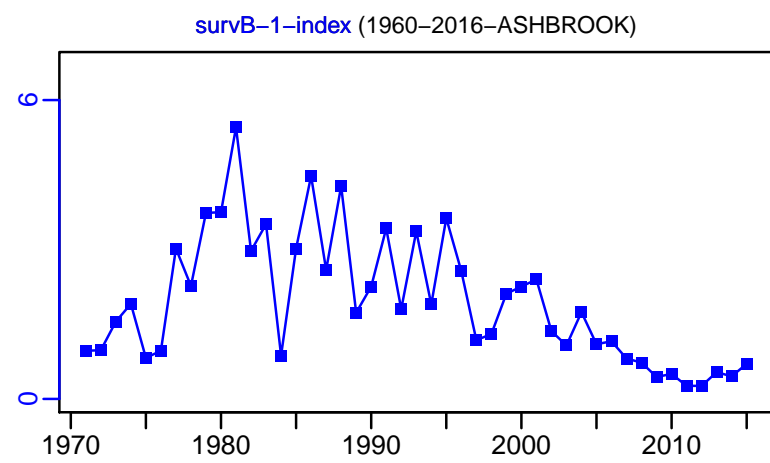
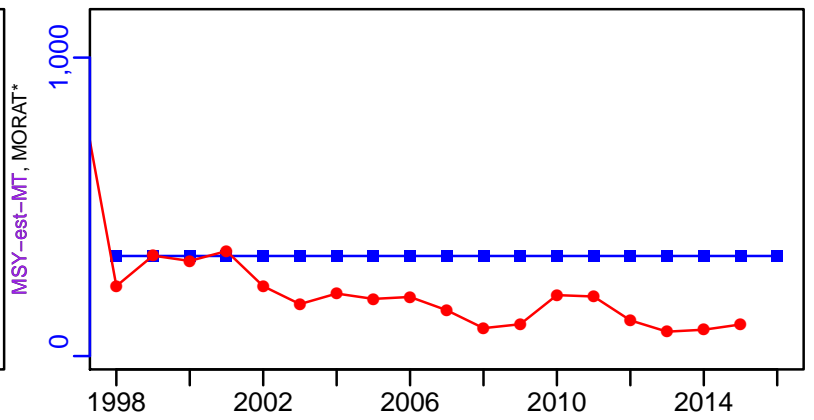
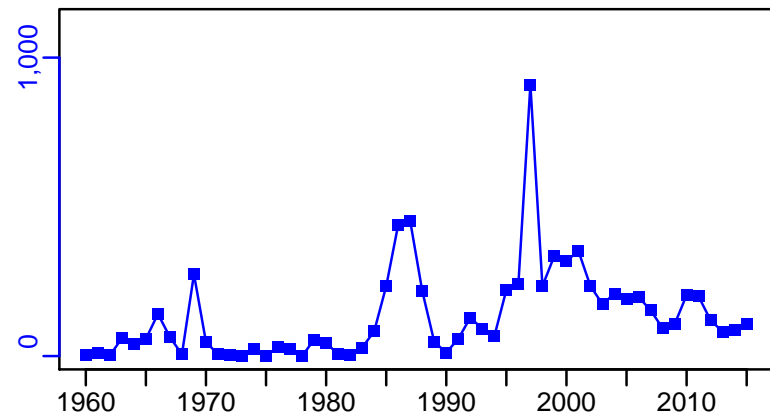
Recruits\*



# Yellowtail flounder Southern Gulf of St. Lawrence [YELL4T]

TL-MT, TC\*, RecC\* (1960–2016–ASHBROOK)

TAC-MT, Cpair-MT, Cadv\* (1960–2016–ASHBROOK)



TL-MT/MSY-est-MT, CdivMEANC-ratio, (1960–2016–ASHBROOK)

