

# US Alaska Stocks

## v4.61 (Apr-02-2023)

Not present Present Preferred

Stock	Time Series Types			
	B/Bmsy	U/Umsy	B/Bmgt	U/Umgt
1. ALPLAICBSAI [Alaska plaice Bering Sea and Aleutian Islands]	TB SSB	ER F	TB SSB	ER F
2. ALSKABSAI [Alaska skate Bering Sea and Aleutian Islands]	TB SSB	ER F	TB SSB	ER F
3. ARFLOUNDBSAI [Arrowtooth flounder Bering Sea and Aleutian Islands]	TB SSB	ER F	TB SSB	ER F
4. ARFLOUNDGA [Arrowtooth flounder Gulf of Alaska]	TB SSB	ER F	TB SSB	ER F
5. ATKABSAI [Atka mackerel Bering Sea and Aleutian Islands]	TB SSB	ER F	TB SSB	ER F
6. ATKAGA [Atka mackerel Gulf of Alaska]	TB SSB	ER F	TB SSB	ER F
7. BIGSKAGA [Big skate Gulf of Alaska]	TB SSB	ER F	TB SSB	ER F
8. BKINGCRABPI [Blue king crab Pribilof Islands]	TB SSB	ER F	TB SSB	ER F
9. BKINGCRABSMI [Blue king crab Saint Matthews Island]	TB SSB	ER F	TB SSB	ER F
10. DSOLEGA [Dover sole Gulf of Alaska]	TB SSB	ER F	TB SSB	ER F
11. DUSROCKGA [Dusky rockfish Gulf of Alaska]	TB SSB	ER F	TB SSB	ER F
12. FLSOLEBSAI [Flathead sole Bering Sea and Aleutian Islands]	TB SSB	ER F	TB SSB	ER F
13. FLSOLEGA [Flathead sole Gulf of Alaska]	TB SSB	ER F	TB SSB	ER F
14. GHALBSAI [Greenland halibut Bering Sea and Aleutian Islands]	TB SSB	ER F	TB SSB	ER F
15. GKCRABAIES [Golden king crab Aleutian Islands Eastern segment]	TB SSB	ER F	TB SSB	ER F
16. GKCRABAIWS [Golden king crab Aleutian Islands Western segment]	TB SSB	ER F	TB SSB	ER F
17. GKCRABPI [Golden king crab Pribilof Islands]	TB SSB	ER F	TB SSB	ER F
18. GPOCTOBSAI [Giant Pacific octopus Bering Sea and Aleutian Islands]	TB SSB	ER F	TB SSB	ER F
19. GPOCTOGA [Giant Pacific octopus Gulf of Alaska]	TB SSB	ER F	TB SSB	ER F
20. HERRPWS [Pacific herring Prince William Sound]	TB SSB	ER F	TB SSB	ER F
21. HERRSITKA [Pacific herring Sitka]	TB SSB	ER F	TB SSB	ER F
22. HERRTOG [Pacific herring Togiak District]	TB SSB	ER F	TB SSB	ER F
23. KMFLOUNBSAI [Kamchatka flounder Bering Sea and Aleutian Islands]	TB SSB	ER F	TB SSB	ER F
24. LNOSESKAGA [Longnose skate Gulf of Alaska]	TB SSB	ER F	TB SSB	ER F
25. NROCKBSAI [Northern rockfish Bering Sea and Aleutian Islands]	TB SSB	ER F	TB SSB	ER F
26. NROCKGA [Northern rockfish Gulf of Alaska]	TB SSB	ER F	TB SSB	ER F
27. NRSOLEEBSAI [Northern rock sole Eastern Bering Sea and Aleutian Islands]	TB SSB	ER F	TB SSB	ER F
28. NRSOLEGA [Northern rock sole Gulf of Alaska]	TB SSB	ER F	TB SSB	ER F
29. PCODAI [Pacific cod Aleutian Islands]	TB SSB	ER F	TB SSB	ER F
30. PCODBS [Pacific cod Bering Sea]	TB SSB	ER F	TB SSB	ER F
31. PCODGA [Pacific cod Gulf of Alaska]	TB SSB	ER F	TB SSB	ER F
32. PERCHEBSAI [Pacific ocean perch Eastern Bering Sea and Aleutian Islands]	TB SSB	ER F	TB SSB	ER F
33. PHALNPAC [Pacific halibut North Pacific]	TB SSB	ER F	TB SSB	ER F
34. POPERCHGA [Pacific ocean perch Gulf of Alaska]	TB SSB	ER F	TB SSB	ER F

35. REXSOLEGA [Rex sole Gulf of Alaska]	TB SSB	ER F	TB SSB	ER F
36. REYEROCKBSAI [Rougheye rockfish Bering Sea and Aleutian Islands]	TB SSB	ER F	TB SSB	ER F
37. REYEROCKGA [Rougheye rockfish Gulf of Alaska]	TB SSB	ER F	TB SSB	ER F
38. RKCRAIBAIWS [Red king crab Aleutian Islands Western segment]	TB SSB	ER F	TB SSB	ER F
39. RKCRAIBBB [Red king crab Bristol Bay]	TB SSB	ER F	TB SSB	ER F
40. RKCRAIBNS [Red king crab Norton Sound]	TB SSB	ER F	TB SSB	ER F
41. RKCRAIBPI [Red king crab Pribilof Islands]	TB SSB	ER F	TB SSB	ER F
42. RSOLEGA [Rock sole Gulf of Alaska]	TB SSB	ER F	TB SSB	ER F
43. SABLEFEBSAIGA [Sablefish Eastern Bering Sea / Aleutian Islands / Gulf of Alaska]	TB SSB	ER F	TB SSB	ER F
44. SNOWCRABBS [Snow crab Bering Sea]	TB SSB	ER F	TB SSB	ER F
45. SRAKEROCKBSAI [Shortraker rockfish Bering Sea and Aleutian Islands]	TB SSB	ER F	TB SSB	ER F
46. SRAKEROCKGA [Shortraker rockfish Gulf of Alaska]	TB SSB	ER F	TB SSB	ER F
47. SSTHORNHGA [Shortspine thornyhead Gulf of Alaska]	TB SSB	ER F	TB SSB	ER F
48. TANNERCRABBSAI [Tanner crab Bering Sea and Aleutian Islands]	TB SSB	ER F	TB SSB	ER F
49. WPOLLAI [Walleye pollock Aleutian Islands]	TB SSB	ER F	TB SSB	ER F
50. WPOLLBOGO [Walleye pollock Bogoslof]	TB SSB	ER F	TB SSB	ER F
51. WPOLLEBS [Walleye pollock Eastern Bering Sea]	TB SSB	ER F	TB SSB	ER F
52. WPOLLGA [Walleye pollock Gulf of Alaska]	TB SSB	ER F	TB SSB	ER F
53. WPOLLSEGA [Walleye pollock Southeast Gulf of Alaska]	TB SSB	ER F	TB SSB	ER F
54. WVSCALLALASKA [Weathervane scallop Alaska]	TB SSB	ER F	TB SSB	ER F
55. YEYEROCKGA [Yelloweye rockfish Gulf of Alaska]	TB SSB	ER F	TB SSB	ER F
56. YSOLEBSAI [Yellowfin sole Bering Sea and Aleutian Islands]	TB SSB	ER F	TB SSB	ER F

## Alaska plaice Bering Sea and Aleutian Islands [ALPLAICBSAI]

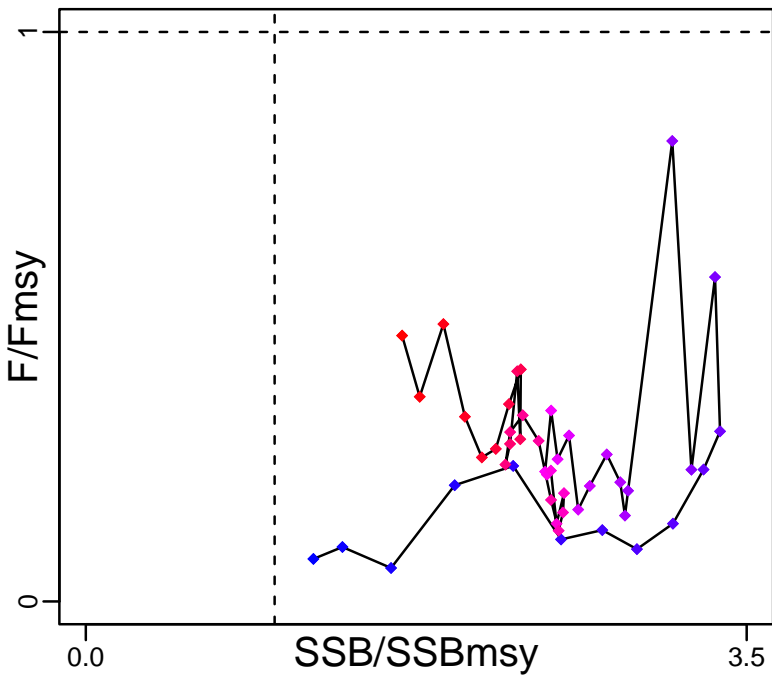
Metadata	
<b>Scientific Name</b>	Pleuronectes quadrituberculatus
<b>Current Assess ID</b>	AFSC-ALPLAICBSAI-1974-2021-SISIMP2022
<b>Area</b>	Bering Sea and Aleutian Islands
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2010, 2016, 2021, 2015, 2019

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2021	100,306
<b>Fmsy</b>	Fmsy-1/yr	2021	0.17
<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	0.25
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	Flim-1/yr	2019	0.147
<b>ERlim</b>	-	-	-

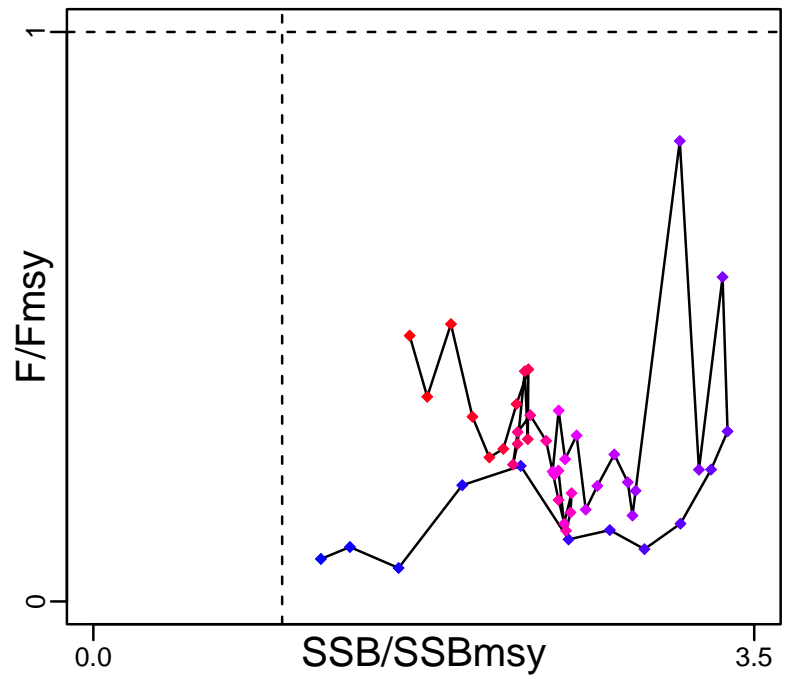
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	485,000	Both	1+
<b>SSB</b>	SSB-MT	2021	158,325	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2021	412,768	-	1
<b>F</b>	F-1/yr	2021	0.079	-	-
<b>ER</b>	ER-calc-ratio	2015	0.04	-	-
<b>TC</b>	TC-MT	2021	20,078		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2021	1.578		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2021	0.467		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Alaska plaice Bering Sea and Aleutian Islands [ALPLAICBSAI]

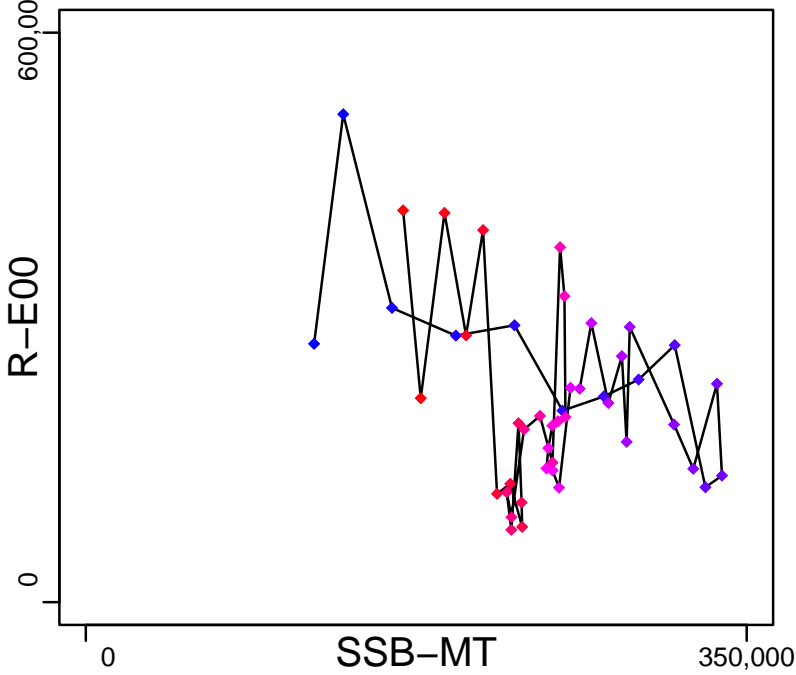
Kobe MSYpref (1974–2021–SISIMP2022)



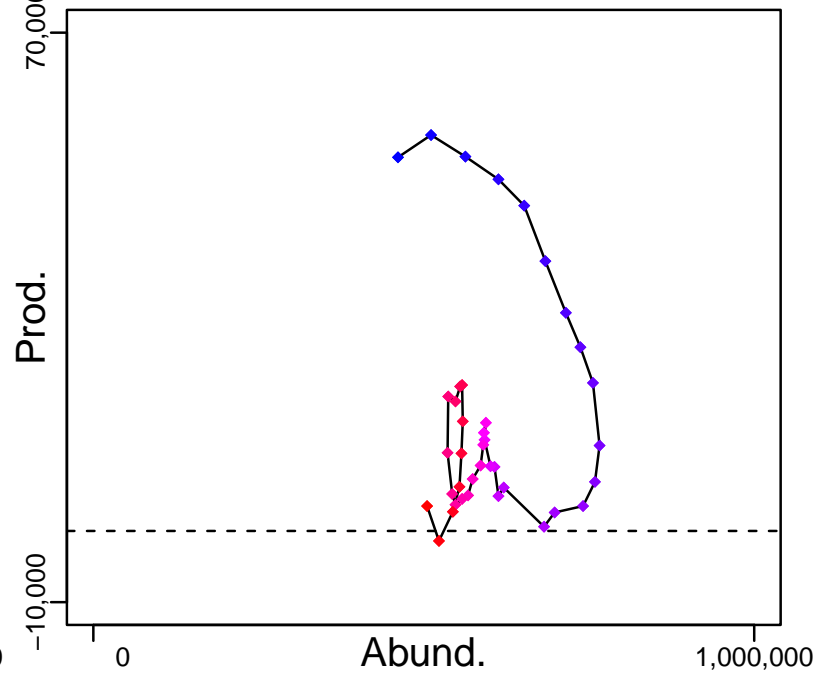
Kobe MGTpref (1974–2021–SISIMP2022)



Spawner Recruit (1974–2021–SISIMP2022)



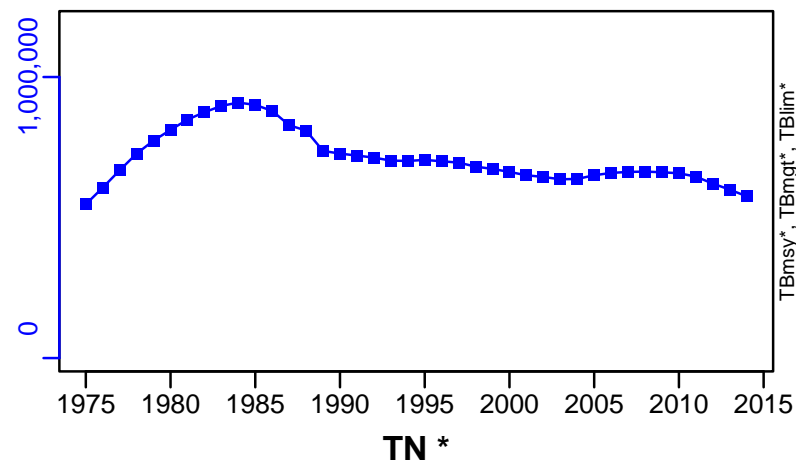
Production (1975–2015–SISIMP2016)



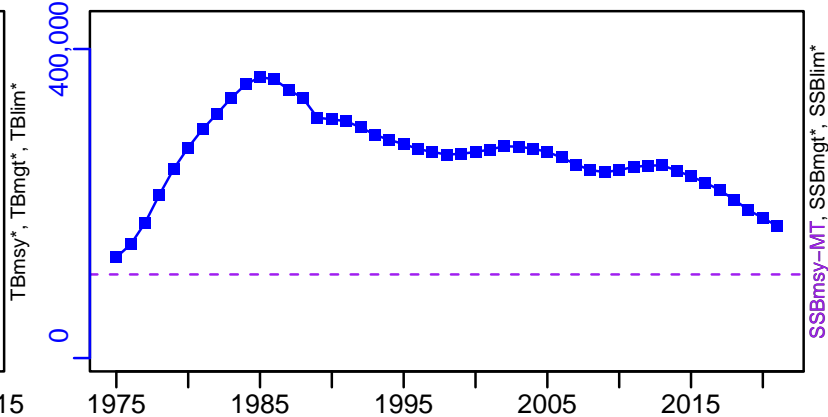
◆ Start Year ◆ End Year \* No Data

# Alaska plaice Bering Sea and Aleutian Islands [ALPLAICBSAI]

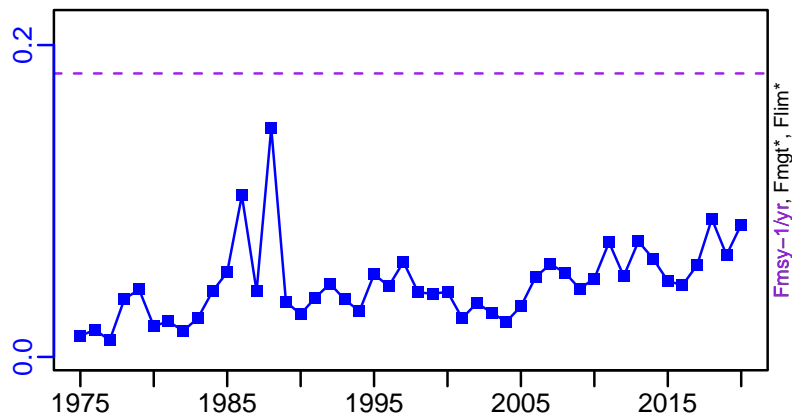
TB-MT (1975–2015–SISIMP2016)



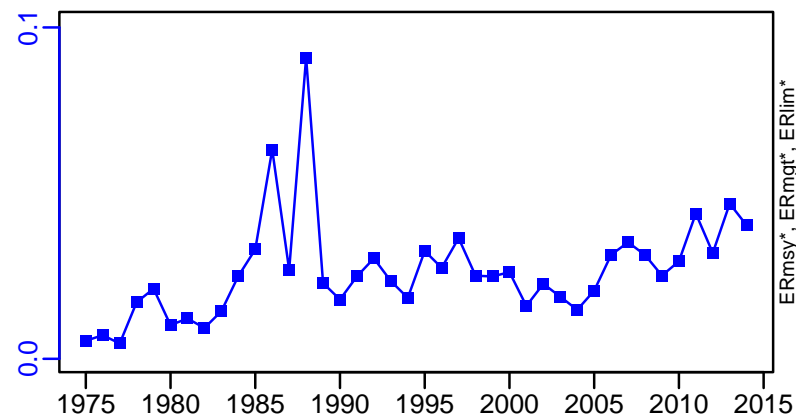
SSB-MT (1974–2021–SISIMP2022)



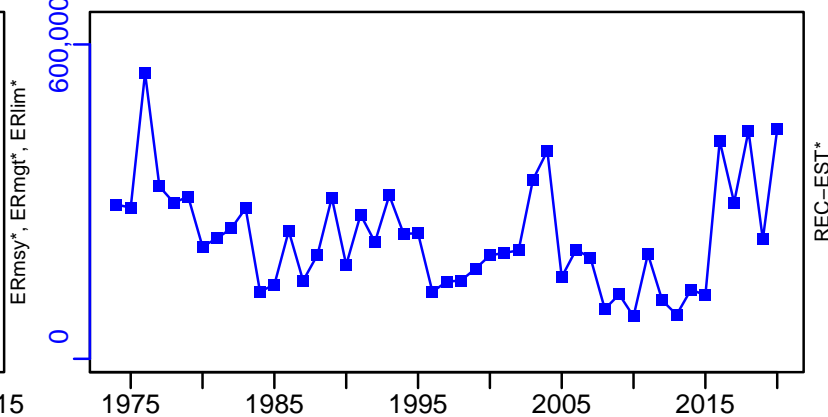
F-1/yr (1974–2021–SISIMP2022)



ER-calc-ratio (1975–2015–SISIMP2016)

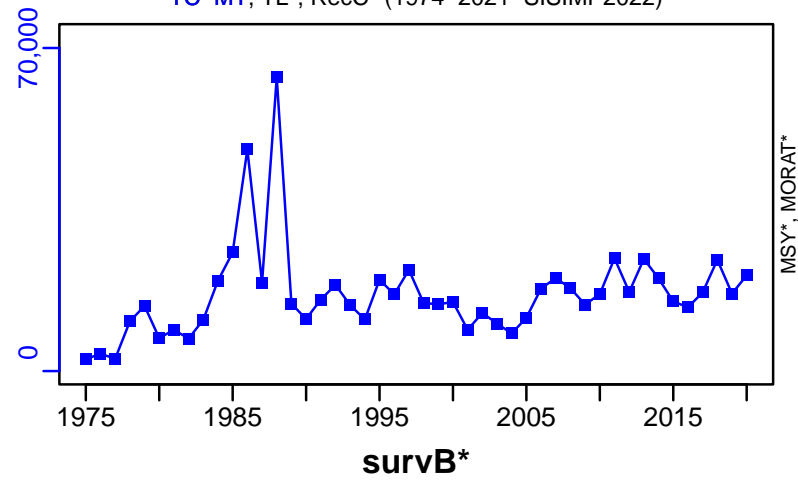


R-E00 (1974–2021–SISIMP2022)



# Alaska plaice Bering Sea and Aleutian Islands [ALPLAICBSAI]

TC-MT, TL\*, RecC\* (1974-2021-SISIMP2022)



TAC\*, Cpair\*, Cadv\*



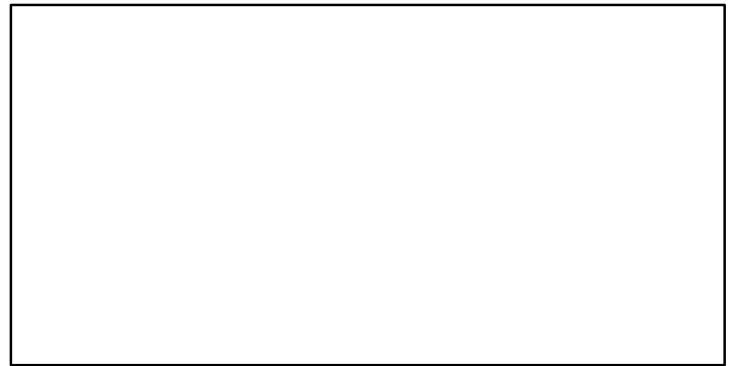
CPUE\*



EFFORT\*



CdivMSY\*



## Alaska skate Bering Sea and Aleutian Islands [ALSKABSAI]

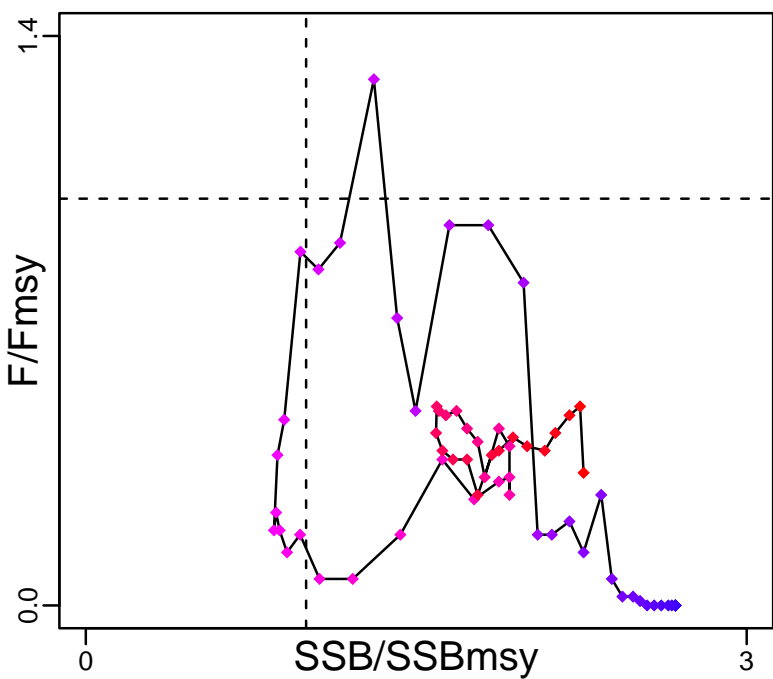
Metadata	
<b>Scientific Name</b>	Bathyraja parmifera
<b>Current Assess ID</b>	AFSC-ALSKABSAI-1950-2020-SISIMP2021-2
<b>Area</b>	Bering Sea and Aleutian Islands
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2015, 2016, 2018, 2020, 2010

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2020	62,400
<b>Fmsy</b>	Fmsy-1/yr	2020	0.092
<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>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	Flim-1/yr	2020	0.078
<b>ERlim</b>	-	-	-

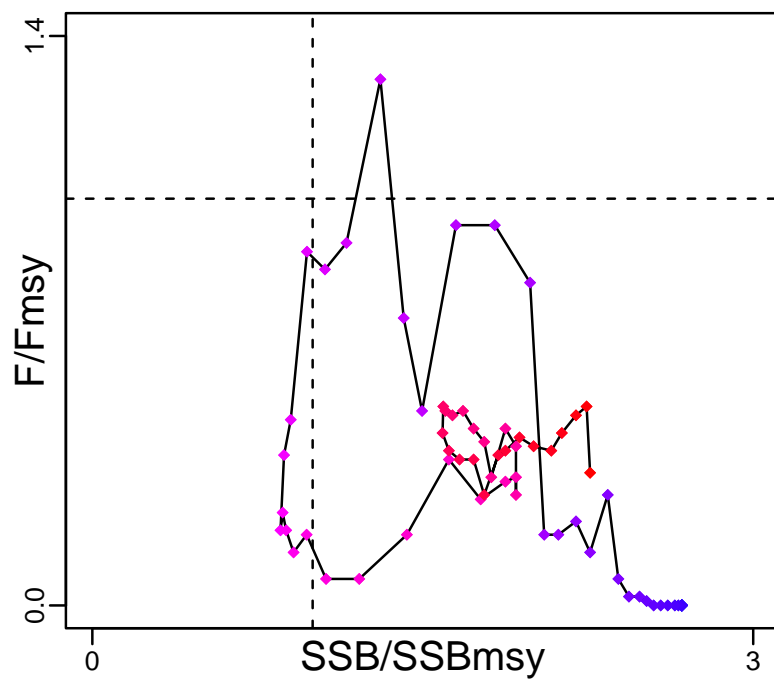
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	519,000	Both	0+
<b>SSB</b>	SSB-MT	2020	142,000	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2020	24,900,000	-	1
<b>F</b>	F-1/yr	2020	0.03	-	-
<b>ER</b>	ER-ratio	2018	0.052	-	-
<b>TC</b>	TC-MT	2020	15,500		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2020	2.276		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2020	0.326		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Alaska skate Bering Sea and Aleutian Islands [ALSKABSAI]

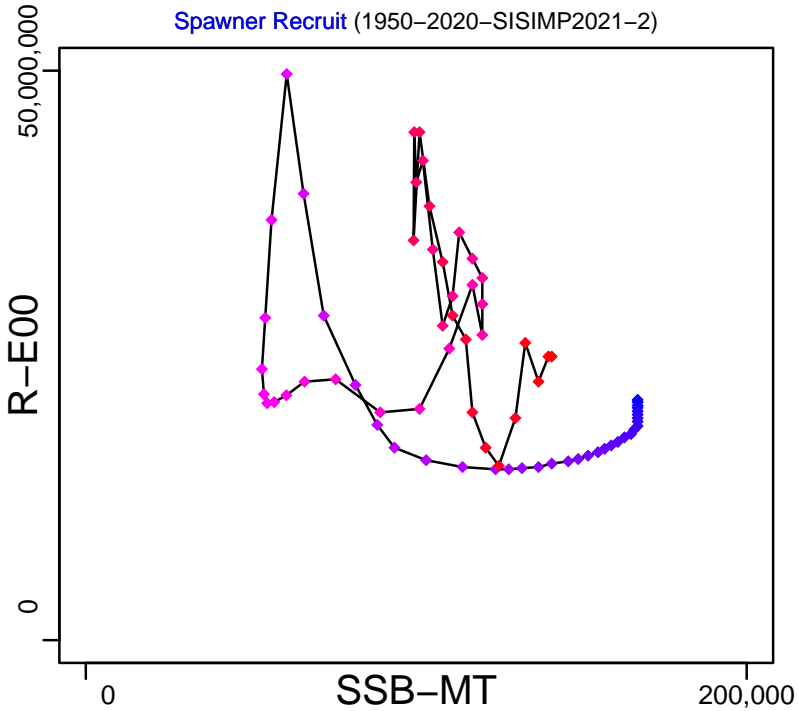
Kobe MSYpref (1950–2020–SISIMP2021–2)



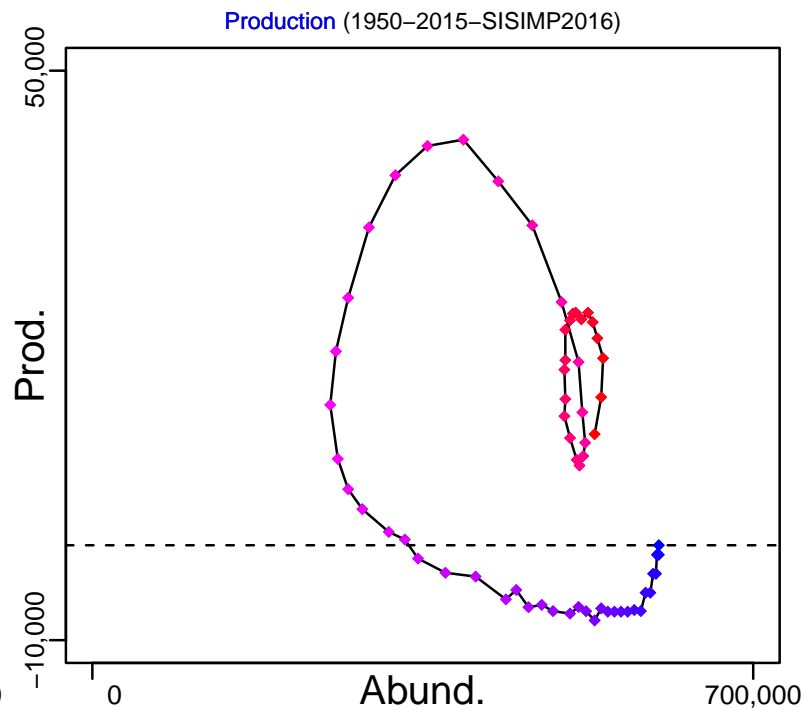
Kobe MGTpref (1950–2020–SISIMP2021–2)



Spawner Recruit (1950–2020–SISIMP2021–2)



Production (1950–2015–SISIMP2016)

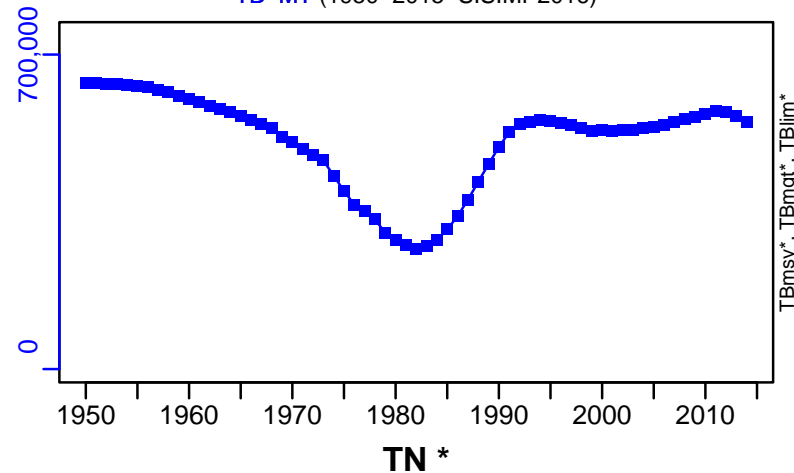


◆ Start Year ◆ End Year \* No Data

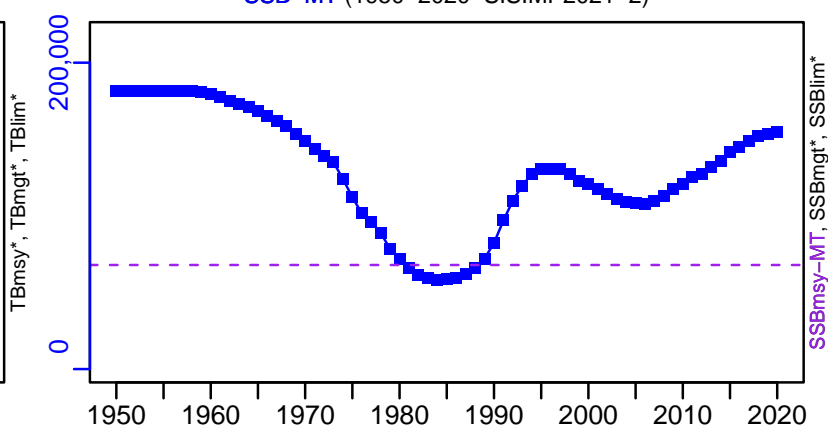


# Alaska skate Bering Sea and Aleutian Islands [ALSKABSAI]

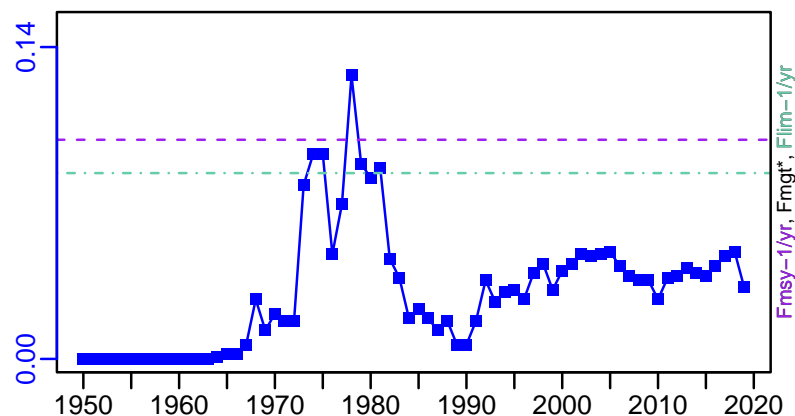
TB-MT (1950–2015–SISIMP2016)



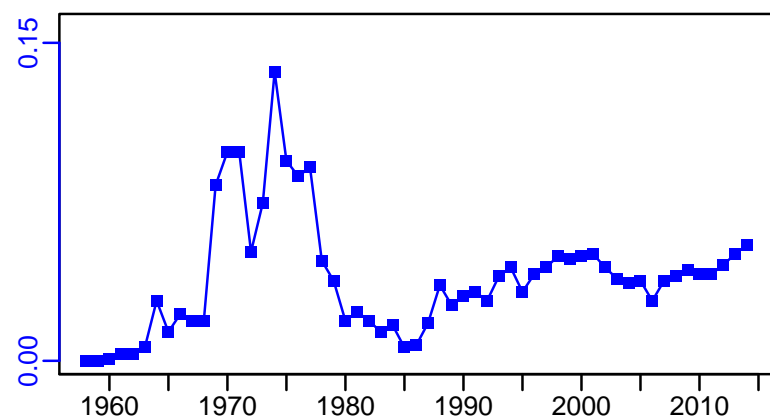
SSB-MT (1950–2020–SISIMP2021–2)



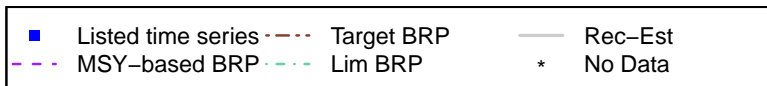
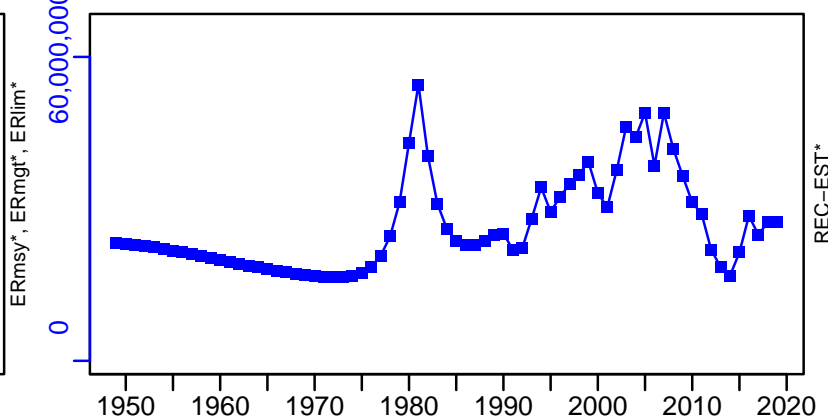
F-1/yr (1950–2020–SISIMP2021–2)



ER-ratio (1950–2018–SISIMP2021)



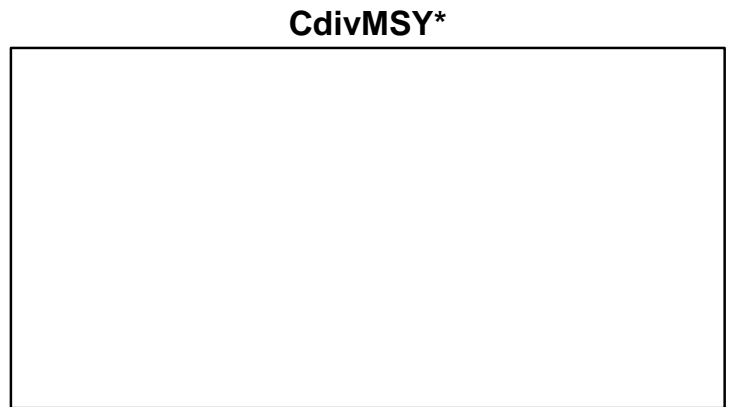
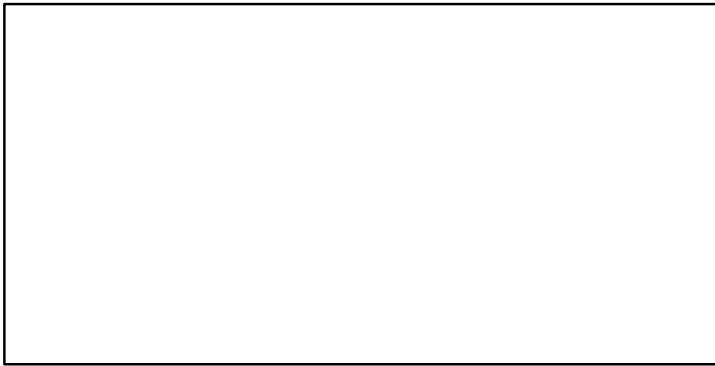
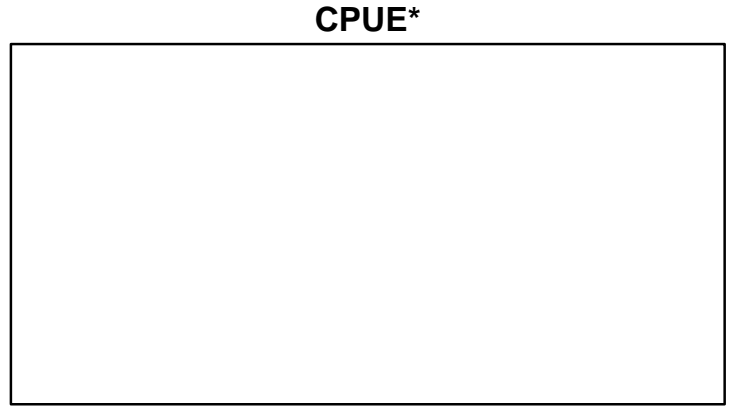
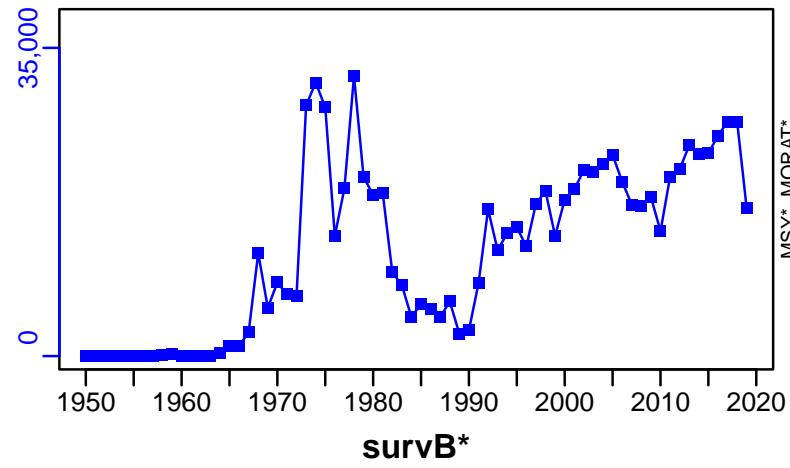
R-E00 (1950–2020–SISIMP2021–2)



# Alaska skate Bering Sea and Aleutian Islands [ALSKABSAI]

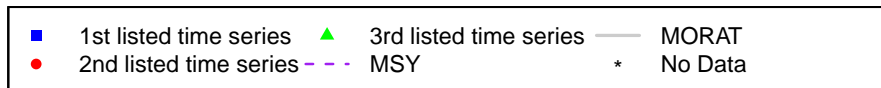
TC-MT, TL\*, RecC\* (1950-2020-SISIMP2021-2)

TAC\*, Cpair\*, Cadv\*



EFFORT\*

CdivMSY\*



## Arrowtooth flounder Bering Sea and Aleutian Islands [ARFLOUNDBSAI]

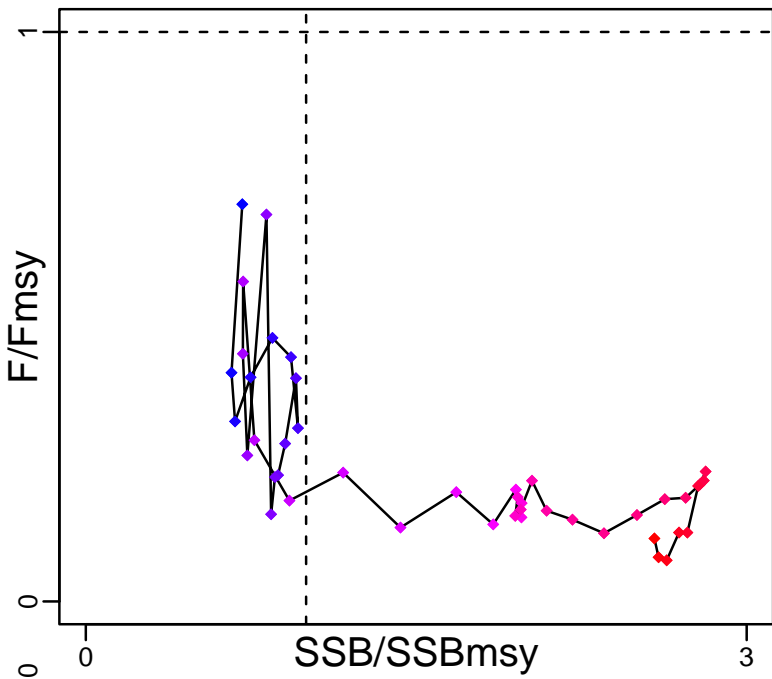
Metadata	
<b>Scientific Name</b>	Atheresthes stomias
<b>Current Assess ID</b>	AFSC-ARFLOUNDBSAI-1975-2020-SISIMP2022
<b>Area</b>	Bering Sea and Aleutian Islands
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2010, 2016, 2017, 2018, 2020, 2015, 2019, 2020

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2020	195,589
<b>Fmsy</b>	Fmsy-1/yr	2020	0.16
<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>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	Flim-1/yr	2020	0.152
<b>ERlim</b>	-	-	-

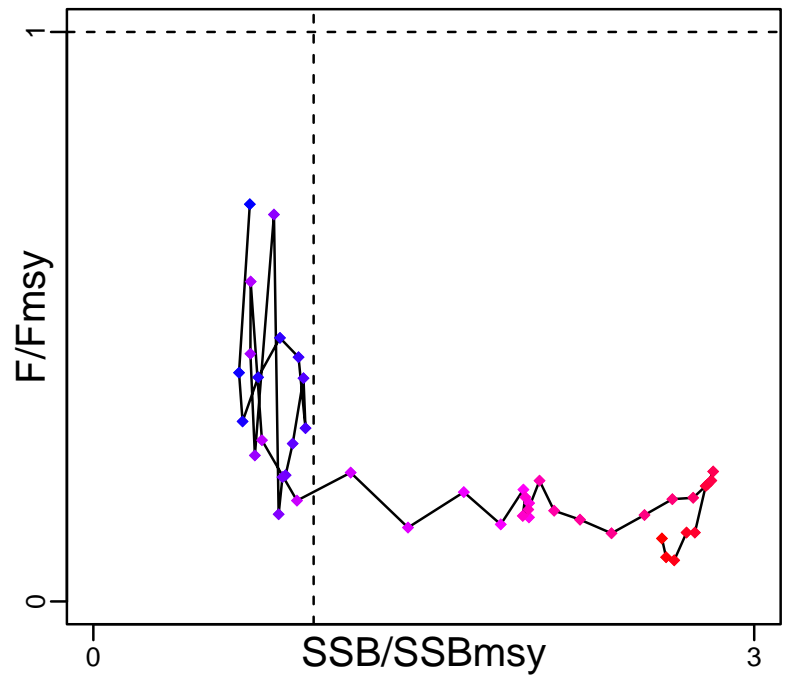
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	908,000	Both	1+
<b>SSB</b>	SSB-MT	2020	503,360	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2020	209,624,992	-	1
<b>F</b>	F-1/yr	2020	0.018	-	-
<b>ER</b>	ER-calc-ratio	2015	0.022	-	-
<b>TC</b>	TC-MT	2020	10,681		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2020	2.574		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2020	0.111		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Arrowtooth flounder Bering Sea and Aleutian Islands [ARFLOUNDBSAI]

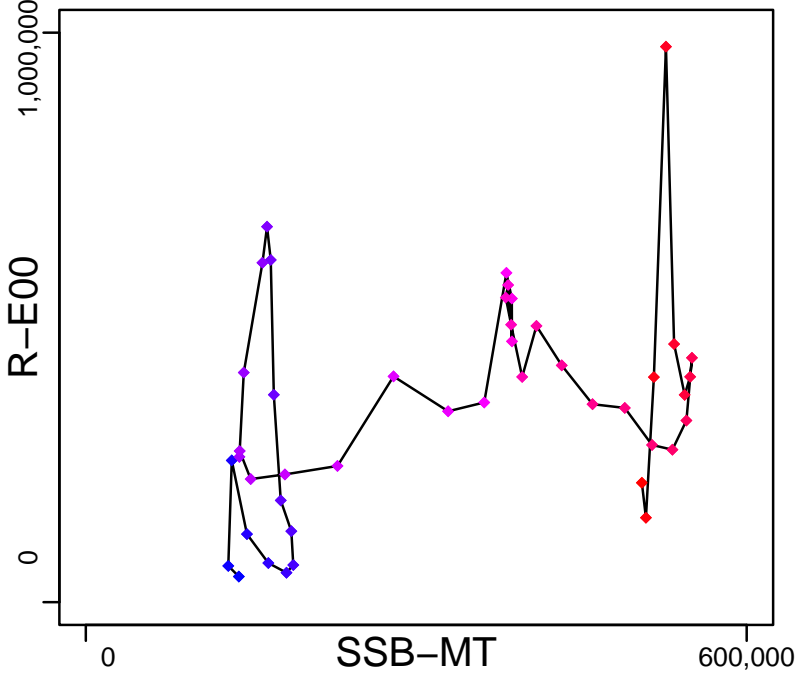
Kobe MSY<sub>pref</sub> (1975–2020–SISIMP2022)



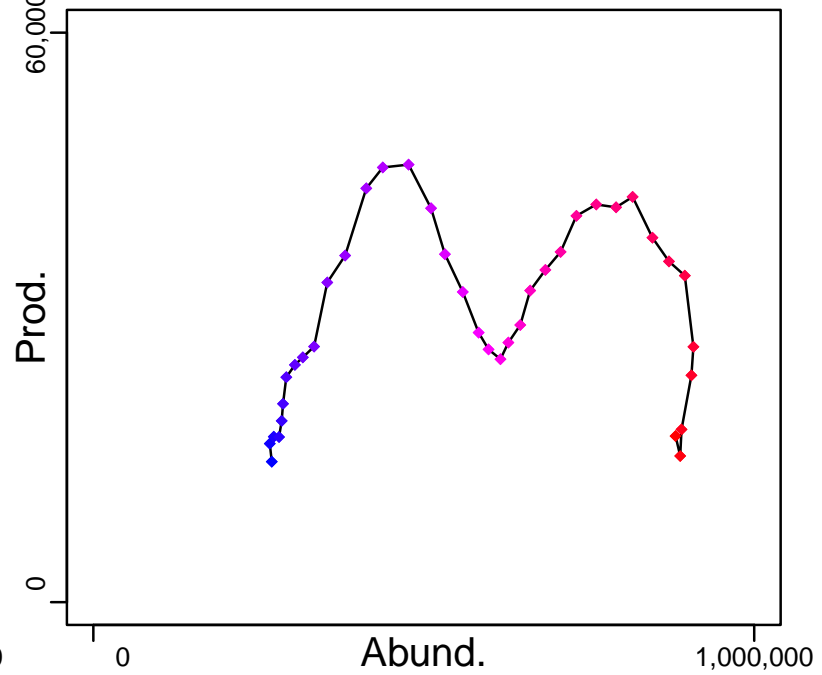
Kobe MGT<sub>pref</sub> (1975–2020–SISIMP2022)



Spawner Recruit (1975–2020–SISIMP2022)



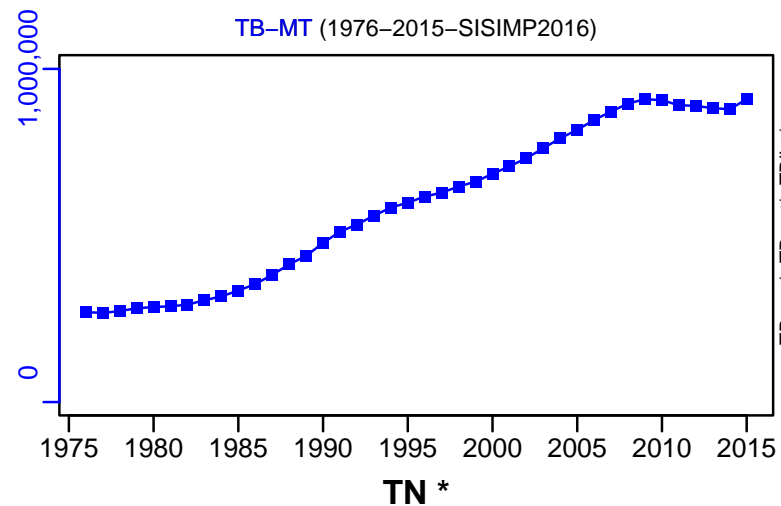
Production (1976–2015–SISIMP2016)



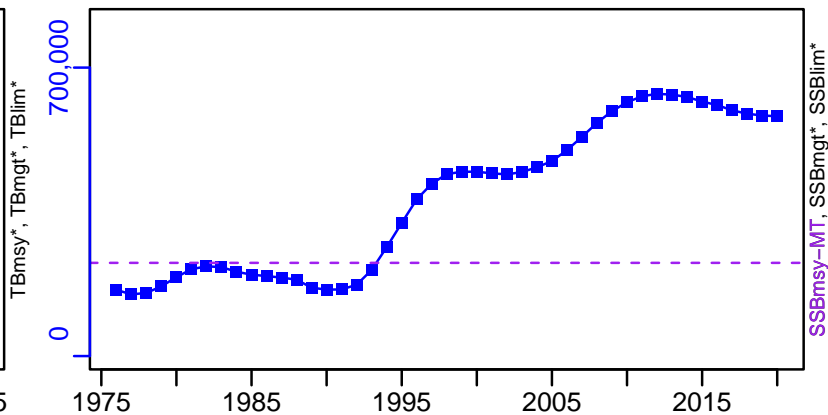
◆ Start Year ◆ End Year \* No Data

# Arrowtooth flounder Bering Sea and Aleutian Islands [ARFLOUNDBSAI]

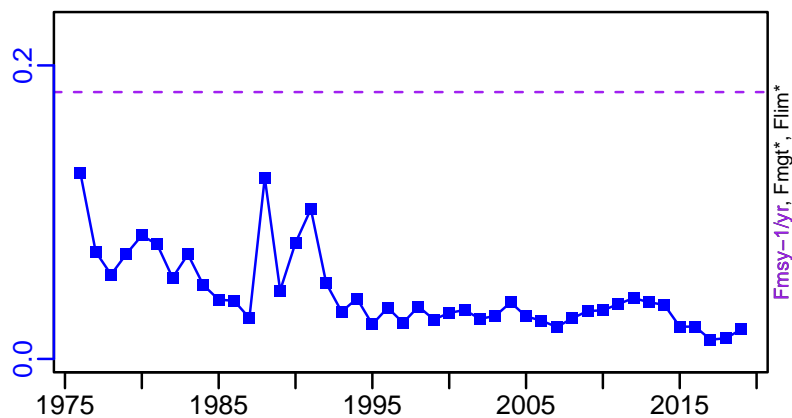
TB-MT (1976–2015–SISIMP2016)



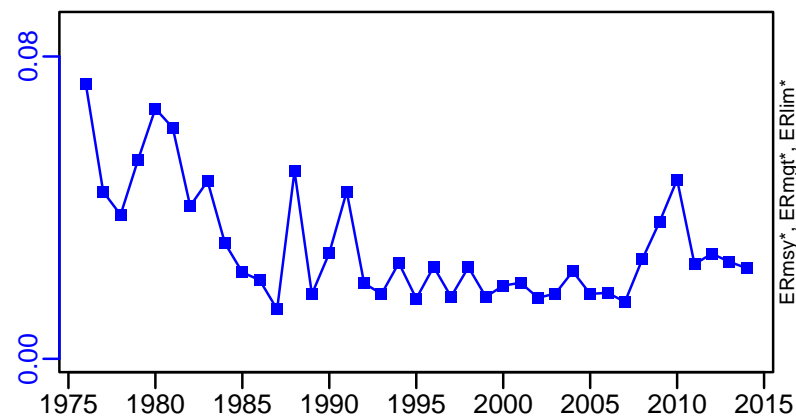
SSB-MT (1975–2020–SISIMP2022)



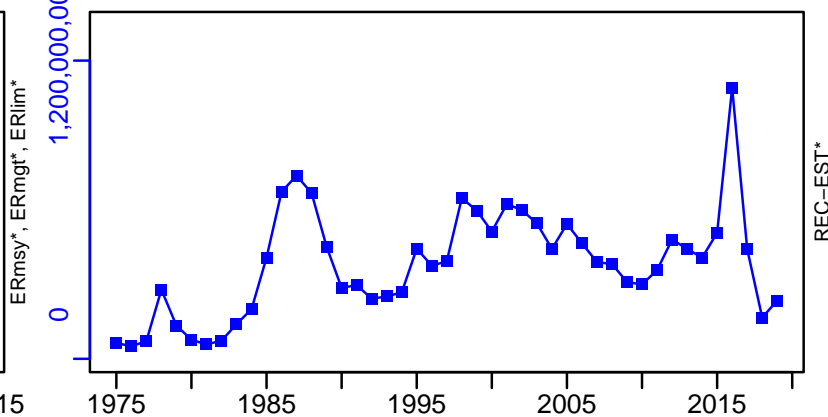
F-1/yr (1975–2020–SISIMP2022)



ER-calc-ratio (1976–2015–SISIMP2016)



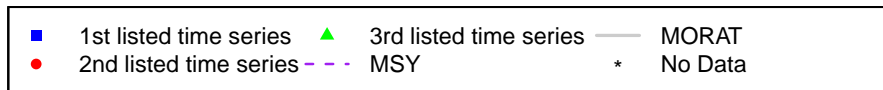
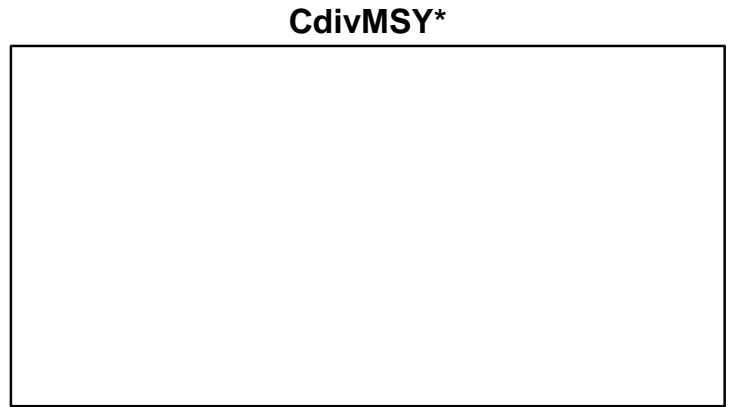
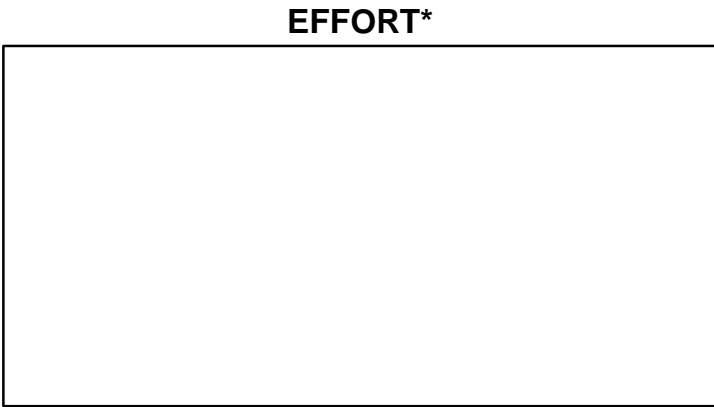
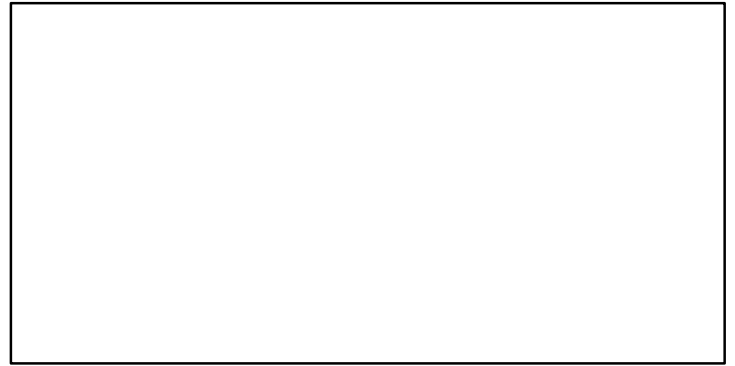
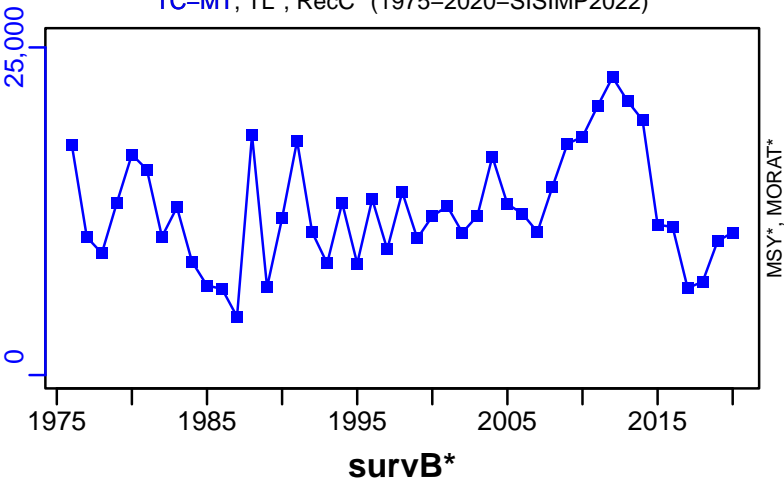
R-E00 (1975–2020–SISIMP2022)



# Arrowtooth flounder Bering Sea and Aleutian Islands [ARFLOUNDBSAI]

TC-MT, TL\*, RecC\* (1975-2020-SISIMP2022)

TAC\*, Cpair\*, Cadv\*



## Arrowtooth flounder Gulf of Alaska [ARFLOUNDGA]

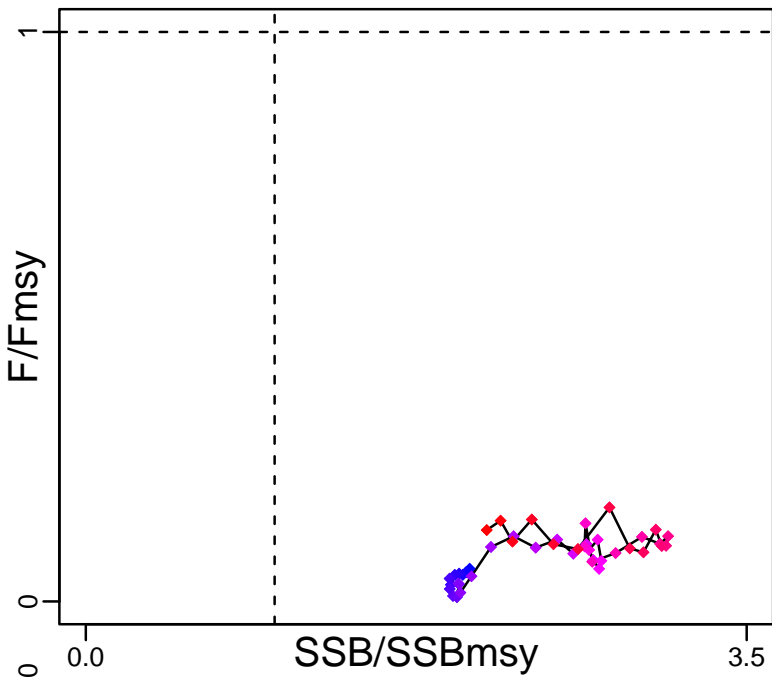
Metadata	
<b>Scientific Name</b>	Atheresthes stomias
<b>Current Assess ID</b>	AFSC-ARFLOUNDGA-1976-2021-SISIMP2022
<b>Area</b>	Gulf of Alaska
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2010, 2016, 2017, 2015, 2019, 2021

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2010	1,125,923
<b>SSBmsy</b>	SSBmsy-MT	2021	356,544
<b>Fmsy</b>	Fmsy-1/yr	2021	0.225
<b>ERmsy</b>	ERmsy-ratio	2010	0.226
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2010	254,271
<b>M</b>	M-1/yr	2010	0.2
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	Flim-1/yr	2019	0.21
<b>ERlim</b>	-	-	-

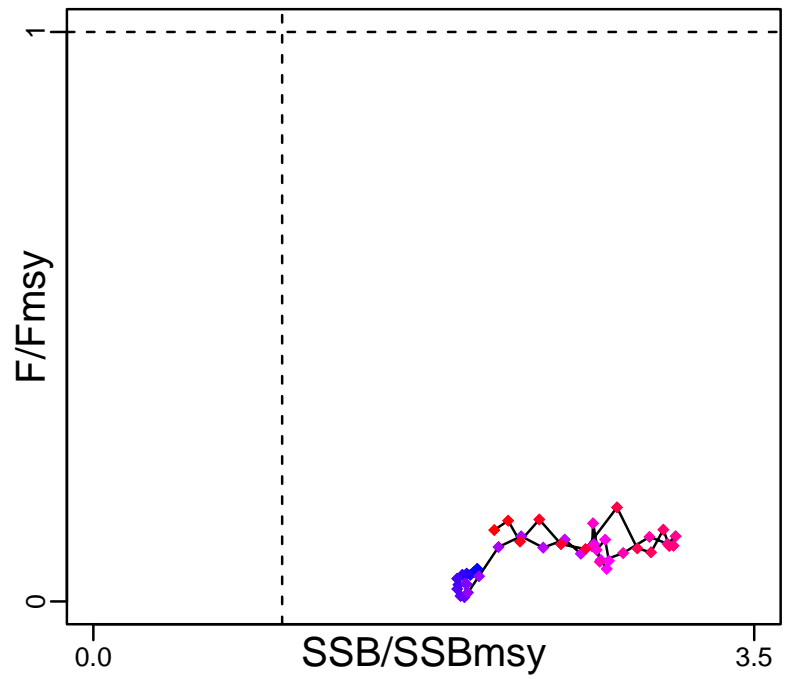
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	2,090,000	-	1+
<b>SSB</b>	SSB-MT	2021	730,753	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2021	$4.36 \times 10^8$	-	1
<b>F</b>	F-1/yr	2021	0.028	-	-
<b>ER</b>	ER-calc-ratio	2015	0.018	-	-
<b>TC</b>	TC-MT	2021	21,122		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2010	1.901		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2021	2.05		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2021	0.125		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2010	0.046		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Arrowtooth flounder Gulf of Alaska [ARFLOUNDGA]

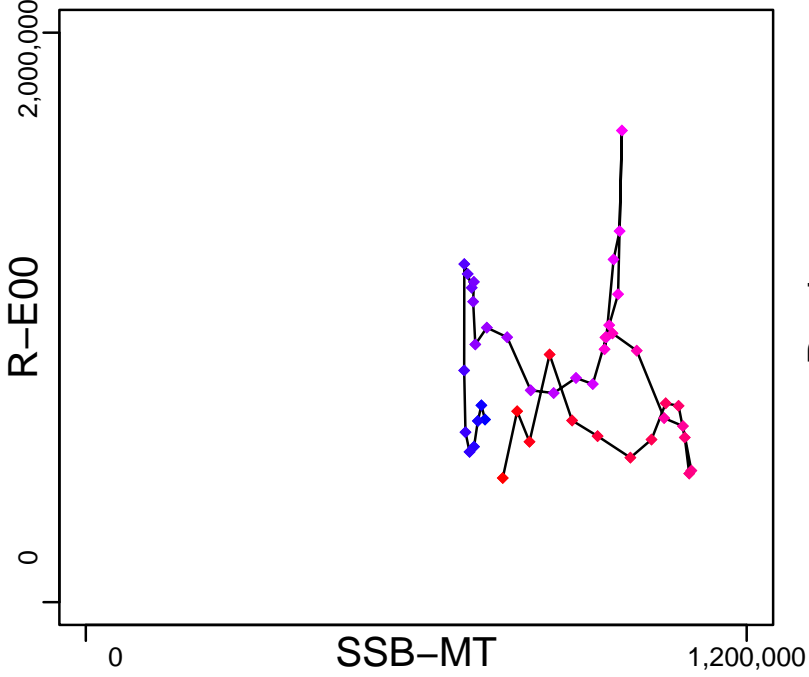
Kobe MSYpref (1976–2021–SISIMP2022)



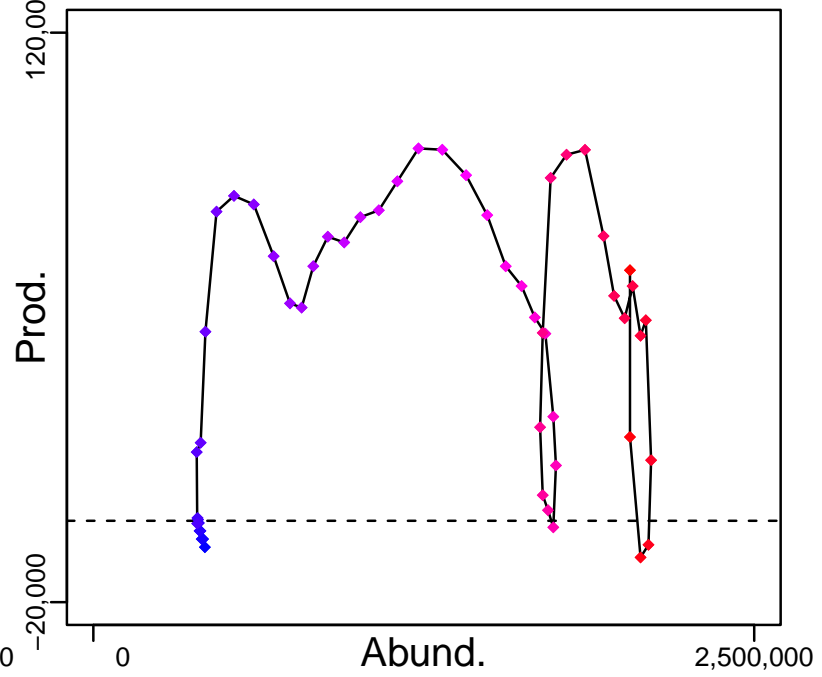
Kobe MGTpref (1976–2021–SISIMP2022)



Spawner Recruit (1976–2021–SISIMP2022)



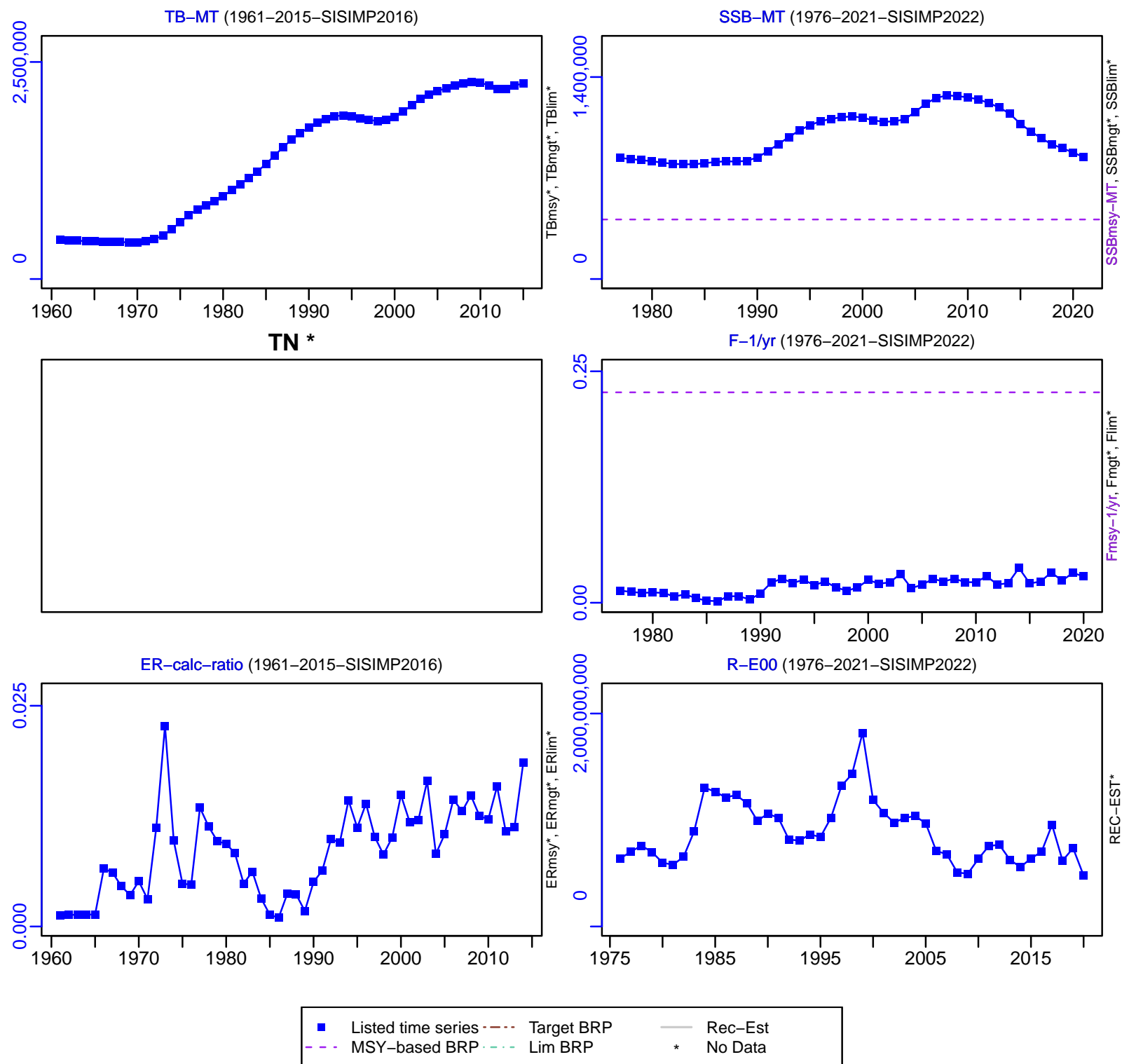
Production (1961–2015–SISIMP2016)



◆ Start Year ◆ End Year \* No Data

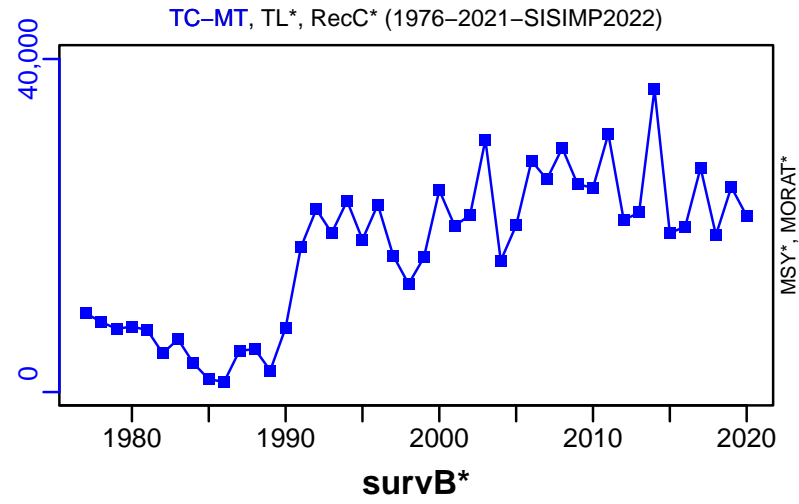


# Arrowtooth flounder Gulf of Alaska [ARFLOUNDGA]



# Arrowtooth flounder Gulf of Alaska [ARFLOUNDGA]

TC-MT, TL\*, RecC\* (1976-2021-SISIMP2022)



TAC\*, Cpair\*, Cadv\*



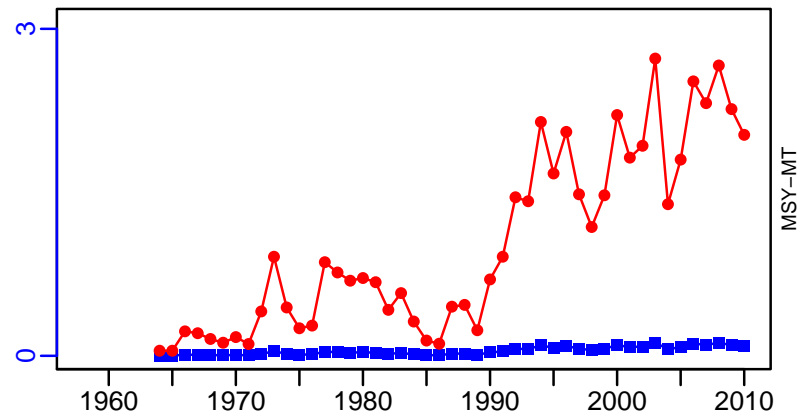
CPUE\*



EFFORT\*



TC-MT/MSY-MT, CdivMEANC-ratio, (1958-2010-STACHURA)



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

## Atka mackerel Bering Sea and Aleutian Islands [ATKABSAI]

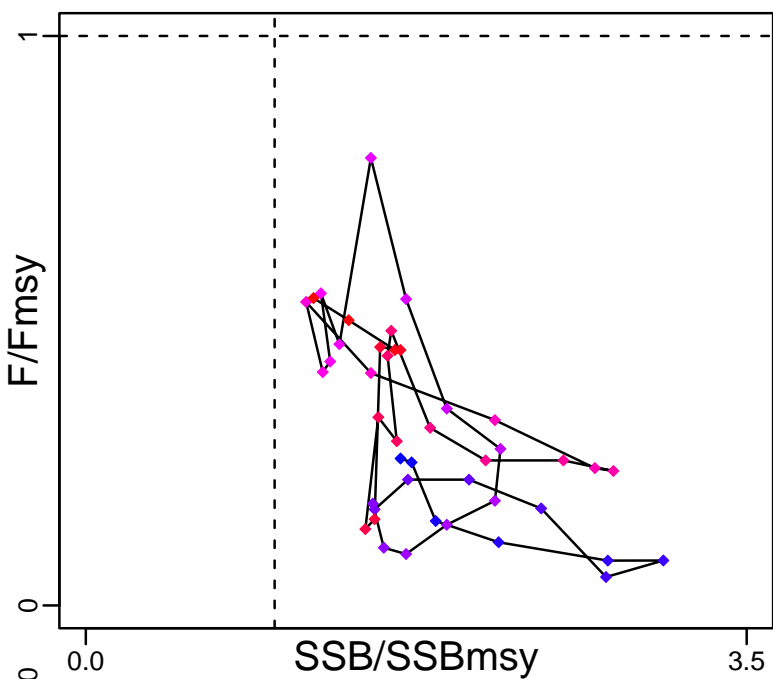
Metadata	
<b>Scientific Name</b>	Pleurogrammus monopterygius
<b>Current Assess ID</b>	AFSC-ATKABSAI-1977-2020-SISIMP2021-2
<b>Area</b>	Bering Sea and Aleutian Islands
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2011, 2016, 2017, 2018, 2015, 2019, 2020

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2020	102,000
<b>Fmsy</b>	Fmsy-1/yr	2020	0.593
<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	2011	0.3
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	Flim-1/yr	2020	0.464
<b>ERlim</b>	-	-	-

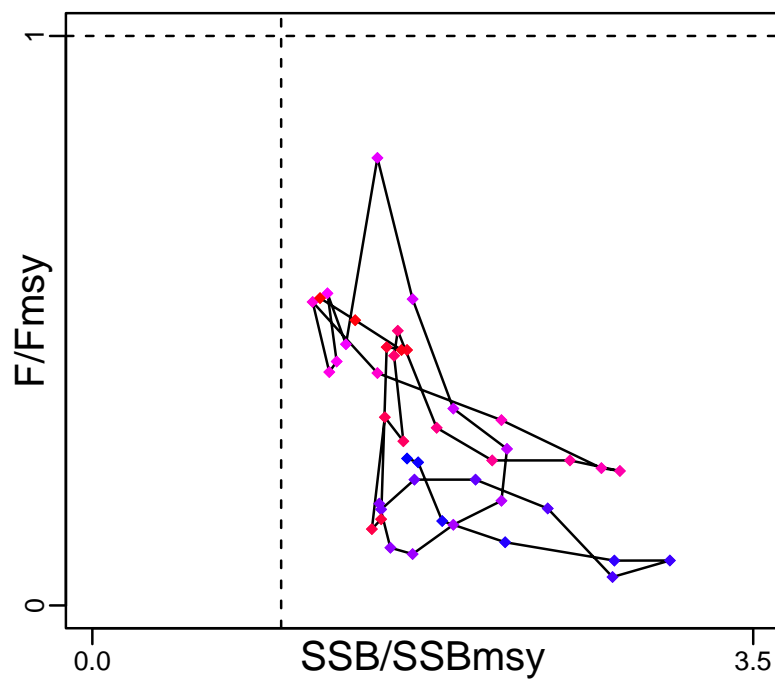
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	589,000	-	1+
<b>SSB</b>	SSB-MT	2020	114,000	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2020	$4.47 \times 10^8$	-	1
<b>F</b>	F-1/yr	2020	0.32	-	-
<b>ER</b>	ER-calc-ratio	2015	0.053	-	-
<b>TC</b>	TC-MT	2020	57,200		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2020	1.118		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2020	0.54		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Atka mackerel Bering Sea and Aleutian Islands [ATKABSAI]

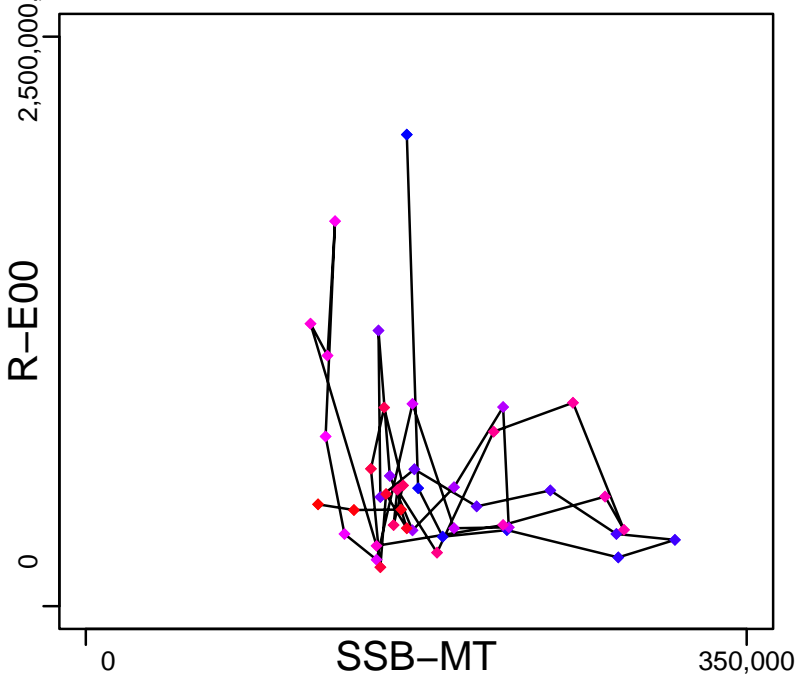
Kobe MSYpref (1977–2020–SISIMP2021–2)



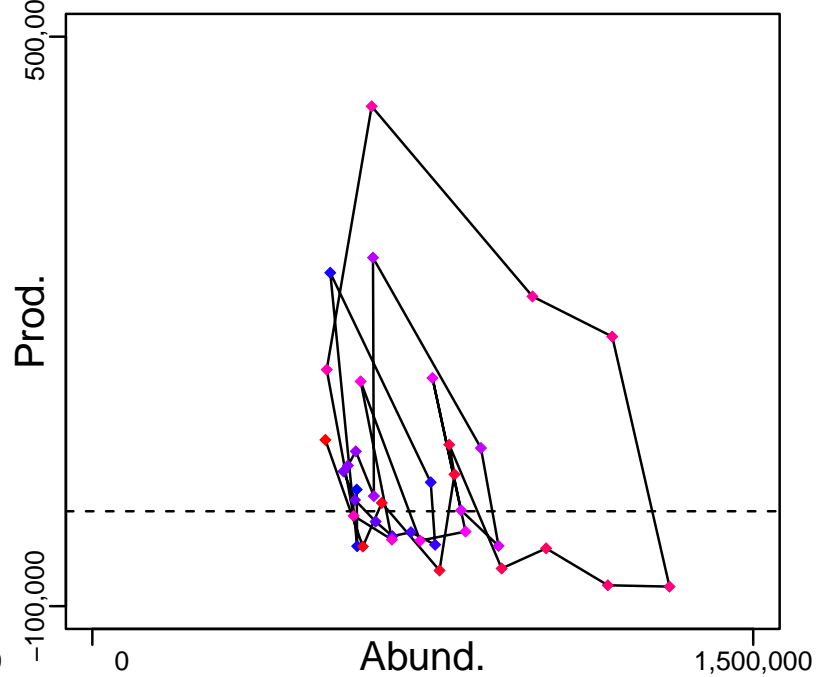
Kobe MGTpref (1977–2020–SISIMP2021–2)



Spawner Recruit (1977–2020–SISIMP2021–2)



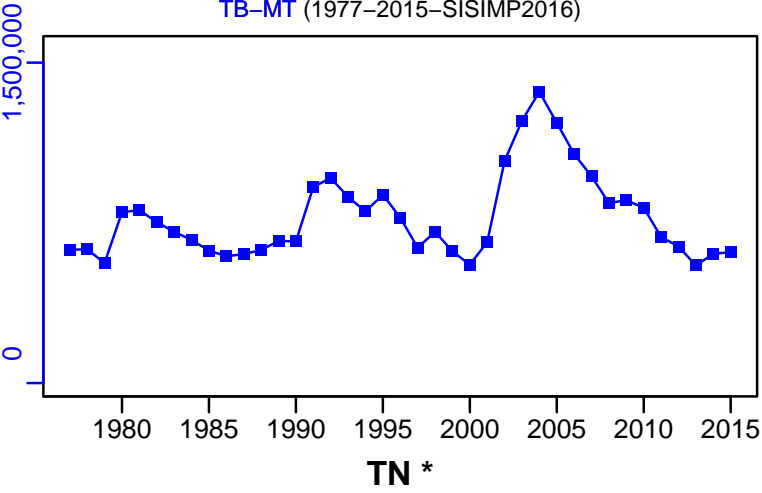
Production (1977–2015–SISIMP2016)



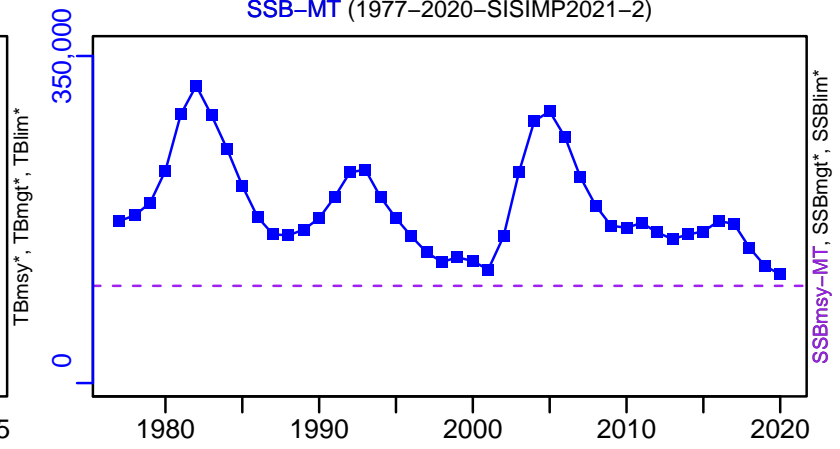
◆ Start Year ◆ End Year \* No Data

# Atka mackerel Bering Sea and Aleutian Islands [ATKABSAI]

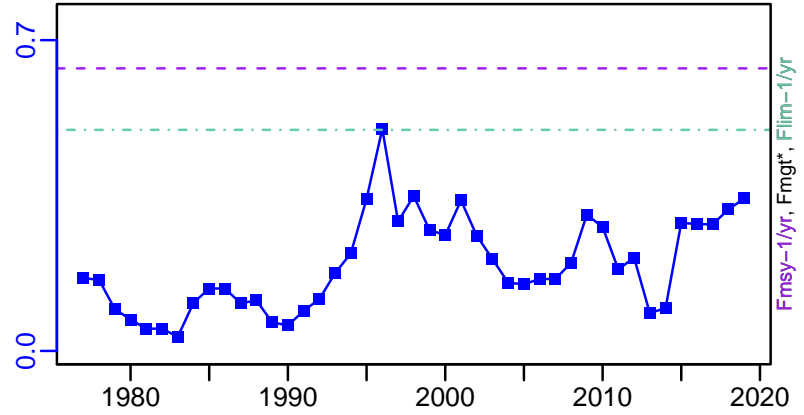
TB-MT (1977–2015–SISIMP2016)



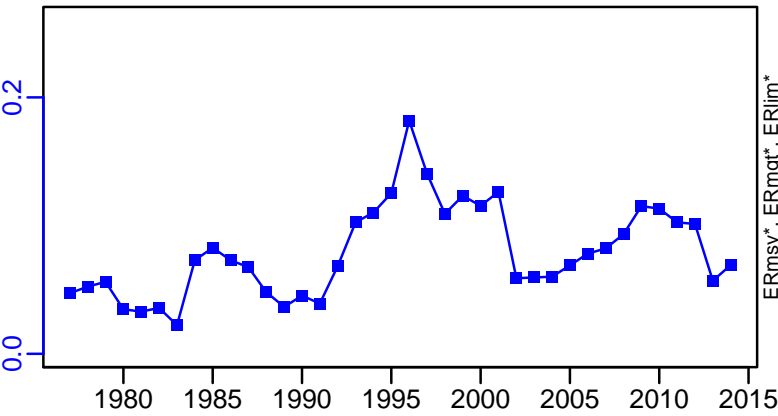
SSB-MT (1977–2020–SISIMP2021–2)



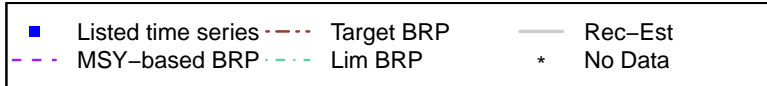
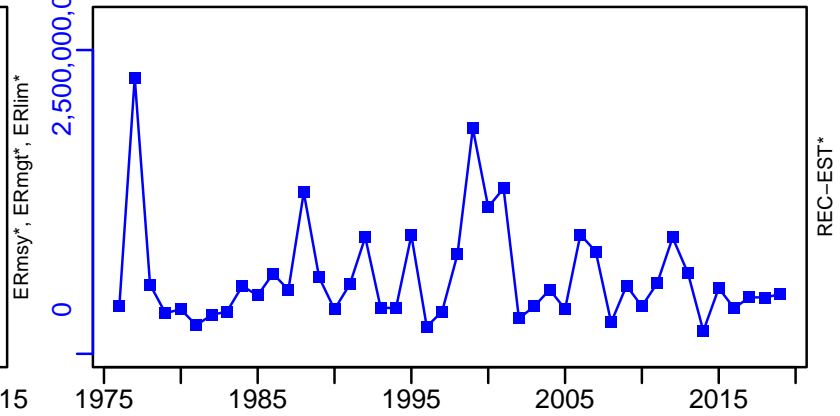
F-1/yr (1977–2020–SISIMP2021–2)



ER-calc-ratio (1977–2015–SISIMP2016)



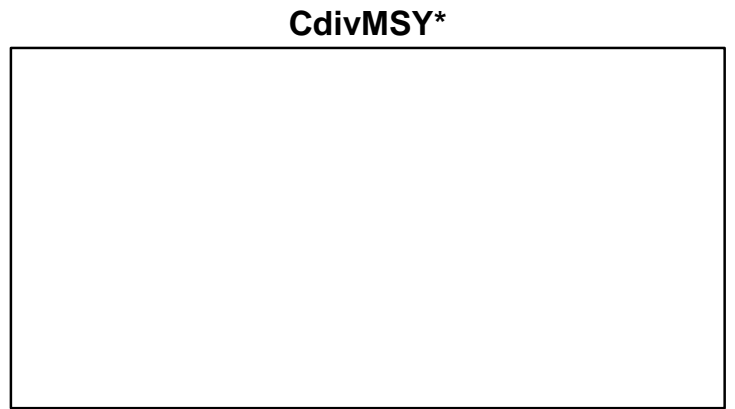
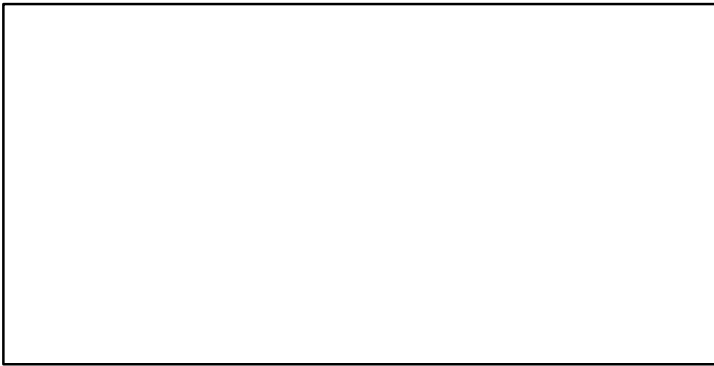
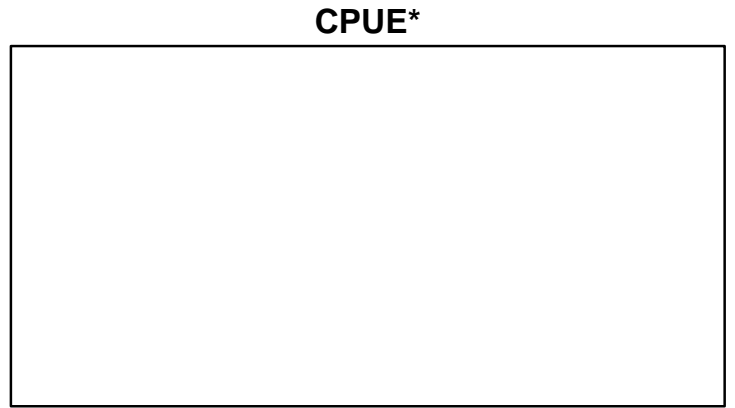
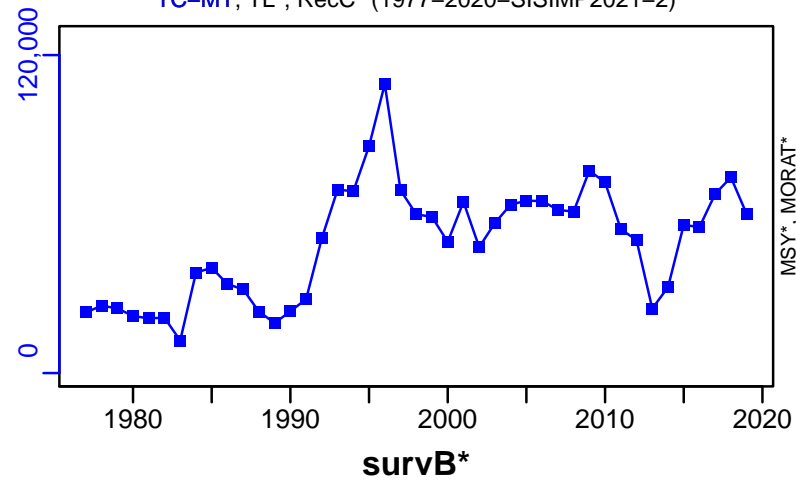
R-E00 (1977–2020–SISIMP2021–2)



# Atka mackerel Bering Sea and Aleutian Islands [ATKABSAI]

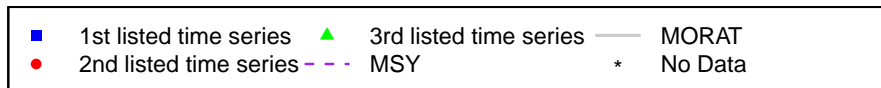
TC-MT, TL\*, RecC\* (1977-2020-SISIMP2021-2)

TAC\*, Cpair\*, Cadv\*



EFFORT\*

CdivMSY\*



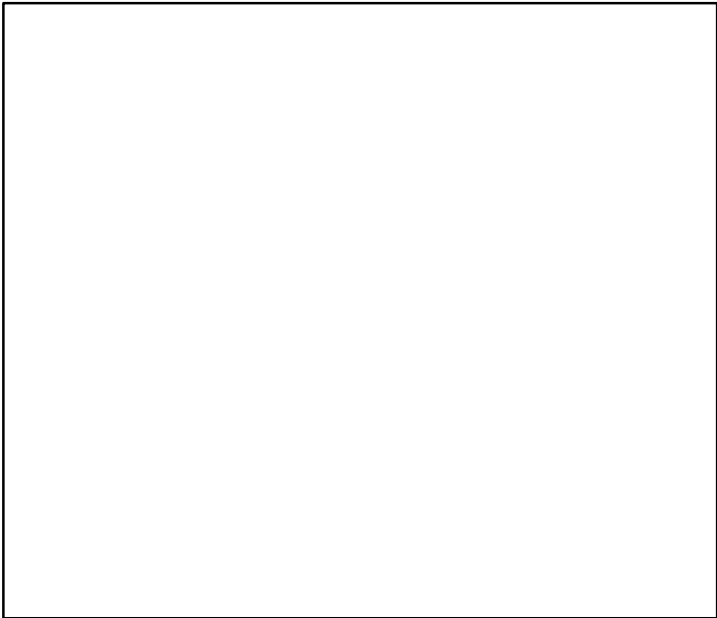
## Atka mackerel Gulf of Alaska [ATKAGA]

Metadata	
<b>Scientific Name</b>	Pleurogrammus monopterygius
<b>Current Assess ID</b>	AFSC-ATKAGA-1977-2015-SISIMP2021
<b>Area</b>	Gulf of Alaska
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2014, 2015

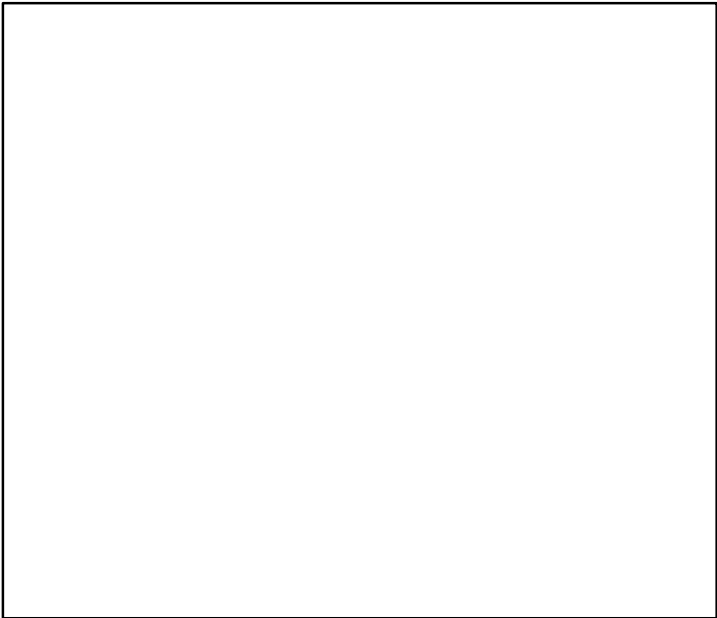
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2015	1228		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

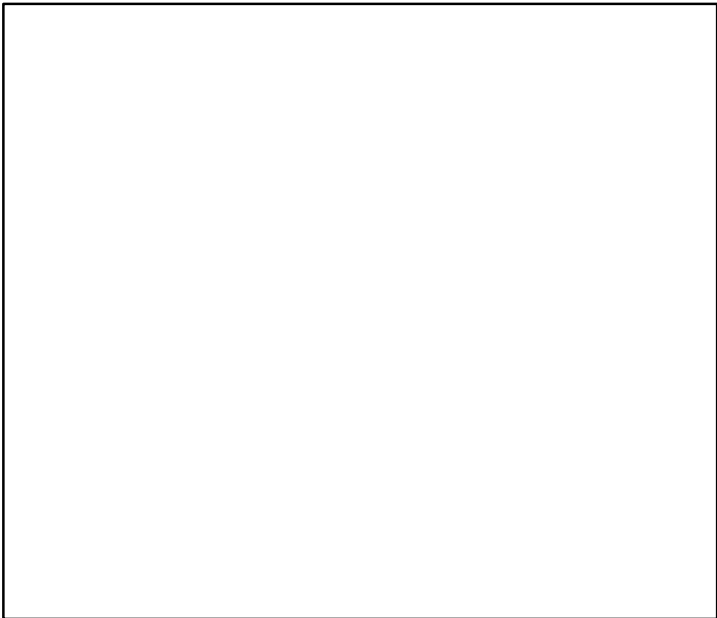
Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data



Atka mackerel Gulf of Alaska [ATKAGA]

TB\*



SSB\*



TN \*



F\*



ER\*



Recruits\*

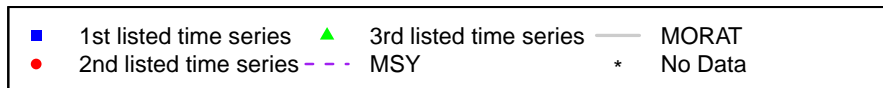
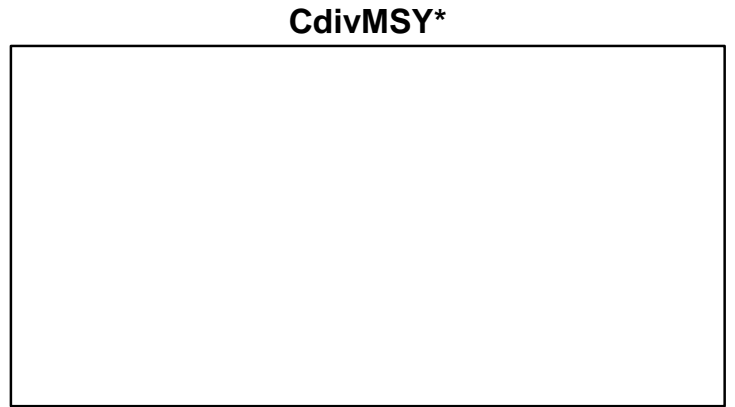
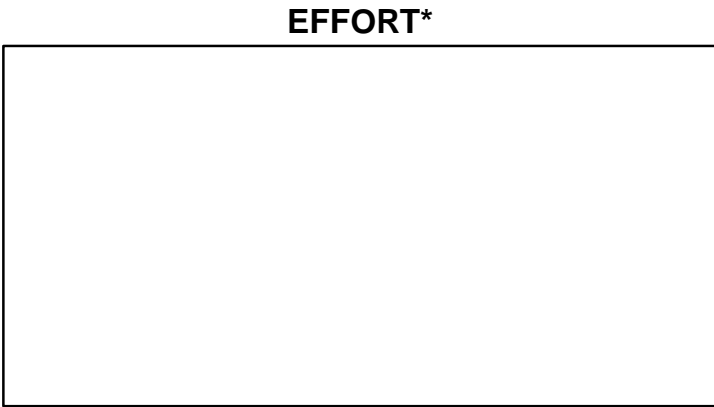
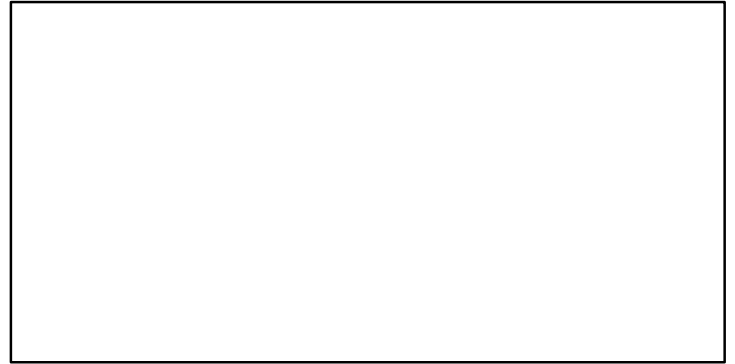
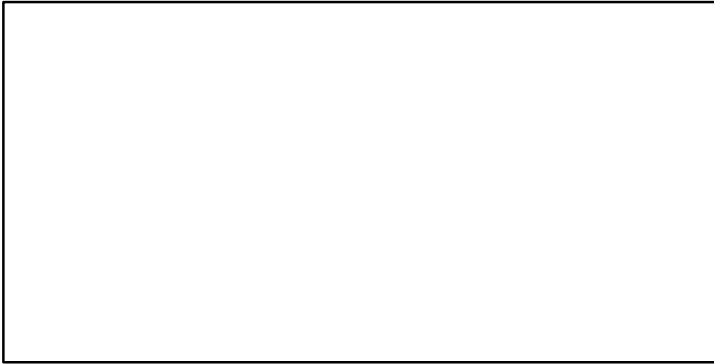
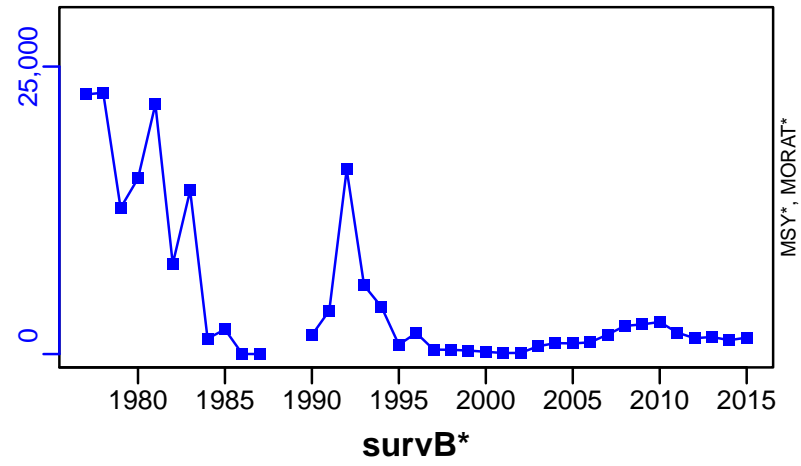


■ Listed time series	- - - Target BRP	— Rec-Est
- - - MSY-based BRP	· · · Lim BRP	* No Data

# Atka mackerel Gulf of Alaska [ATKAGA]

TC-MT, TL\*, RecC\* (1977-2015-SISIMP2021)

TAC\*, Cpair\*, Cadv\*

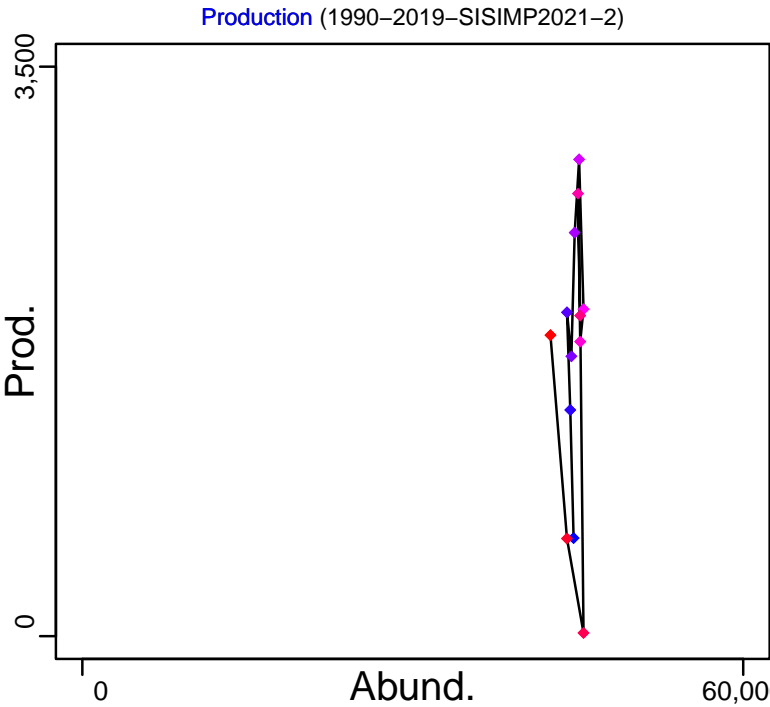
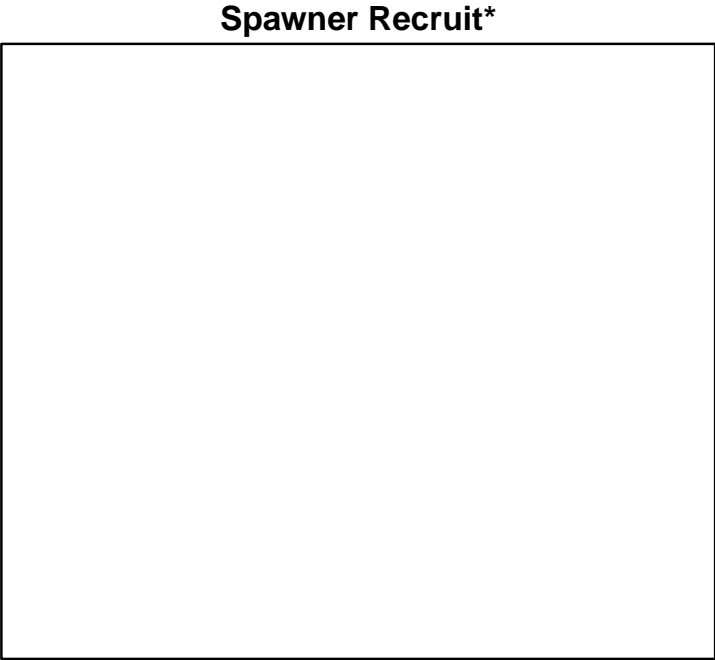
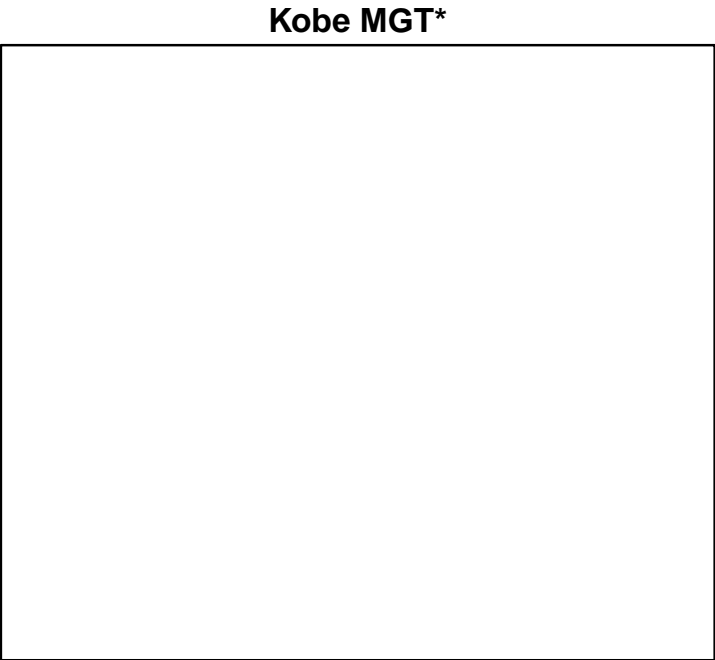
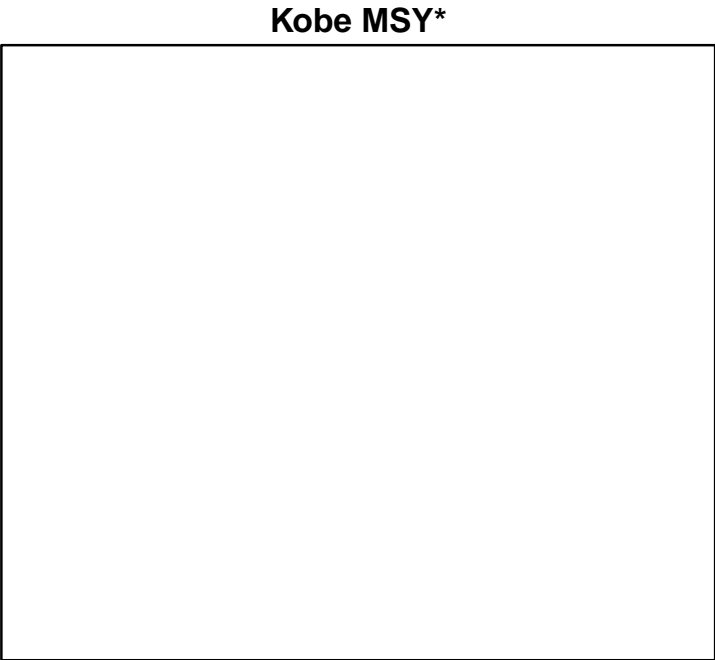


## Big skate Gulf of Alaska [BIGSKAGA]

Metadata	
<b>Scientific Name</b>	Raja binoculata
<b>Current Assess ID</b>	AFSC-BIGSKAGA-1990-2019-SISIMP2021-2
<b>Area</b>	Gulf of Alaska
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2019

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2019	0.1
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	ERlim-ratio	2019	0.1

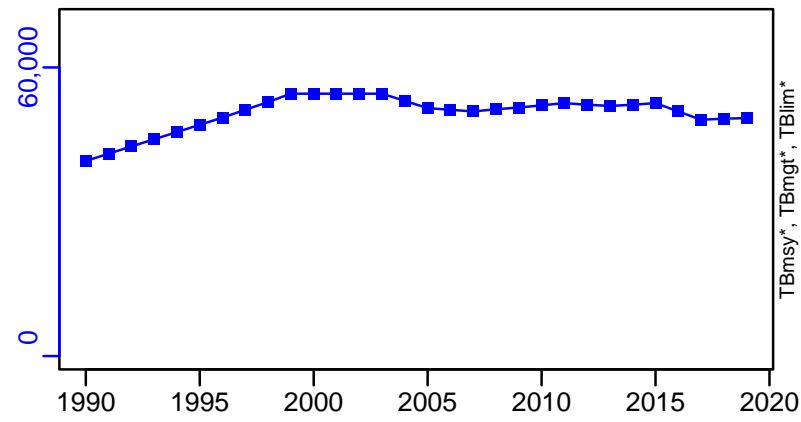
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2019	42,800	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2019	0.03	-	-
<b>TC</b>	TC-MT	2019	1370		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2019	0.3		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		



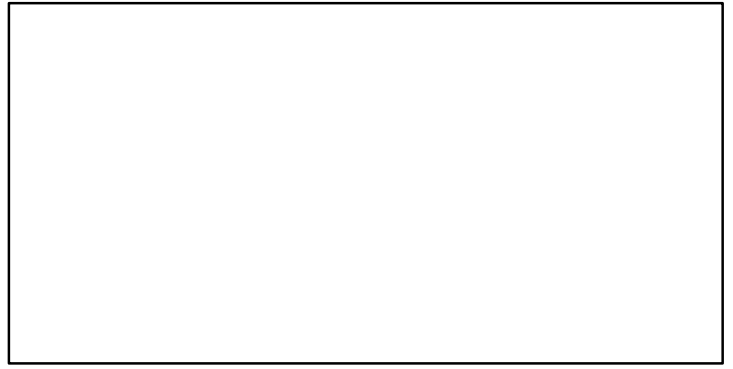
◆ Start Year ◆ End Year \* No Data

# Big skate Gulf of Alaska [BIGSKAGA]

TB-MT (1990-2019-SISIMP2021-2)



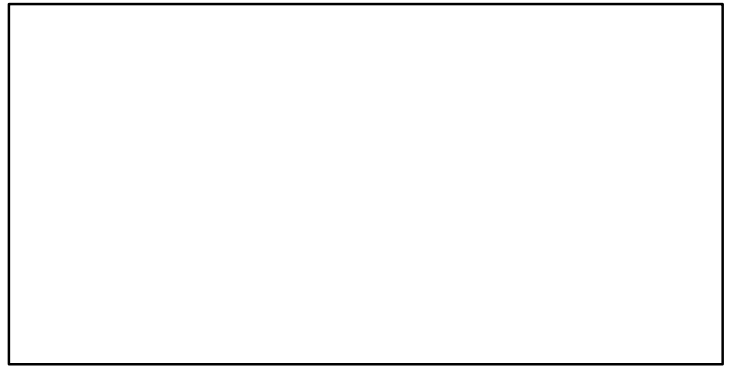
SSB\*



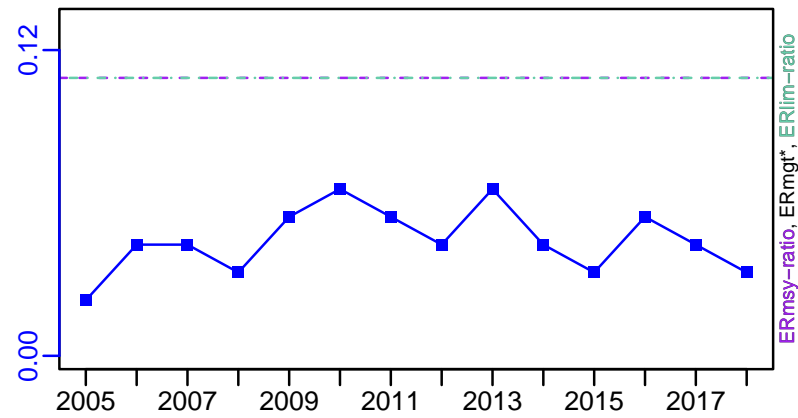
TN \*



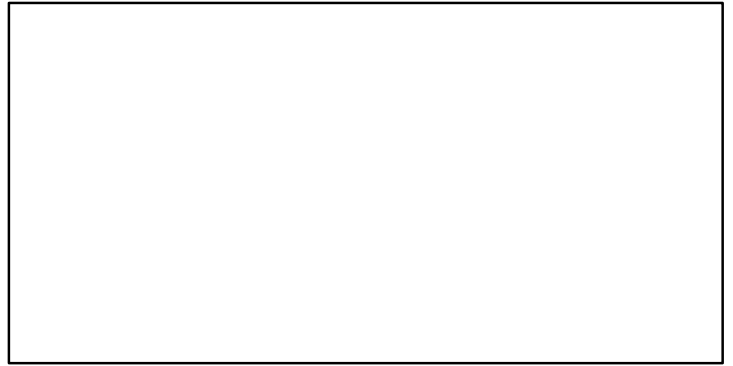
F\*



ER-ratio (1990-2019-SISIMP2021-2)



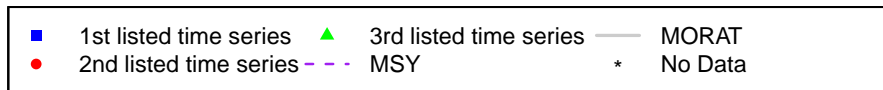
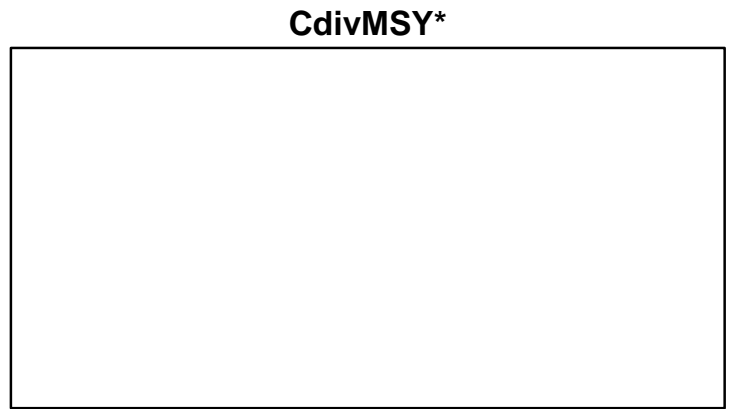
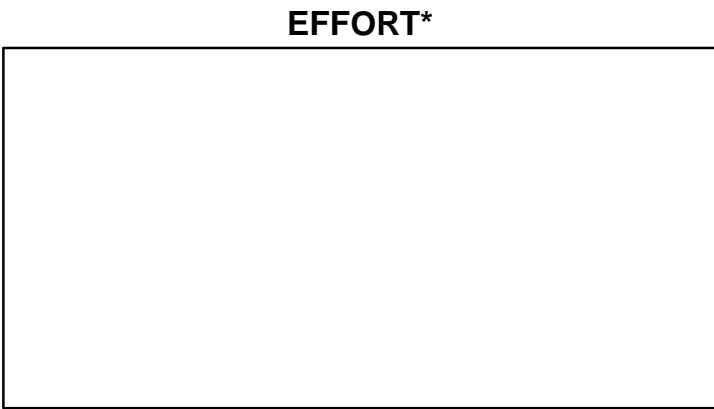
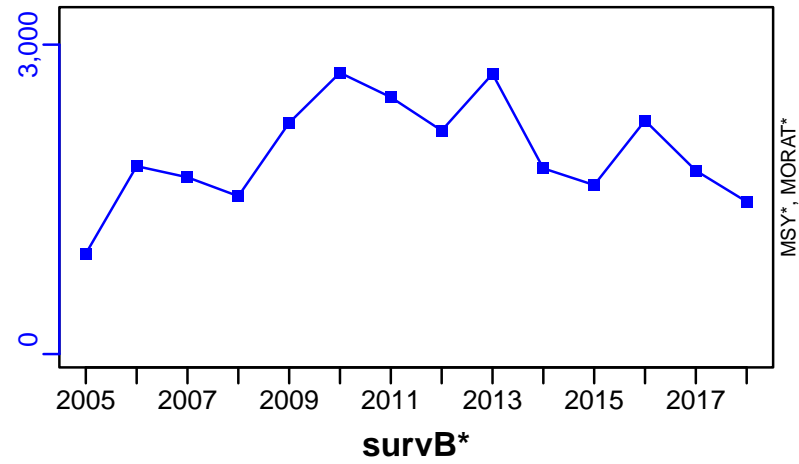
Recruits\*



# Big skate Gulf of Alaska [BIGSKAGA]

TC-MT, TL\*, RecC\* (1990-2019-SISIMP2021-2)

TAC\*, Cpair\*, Cadv\*



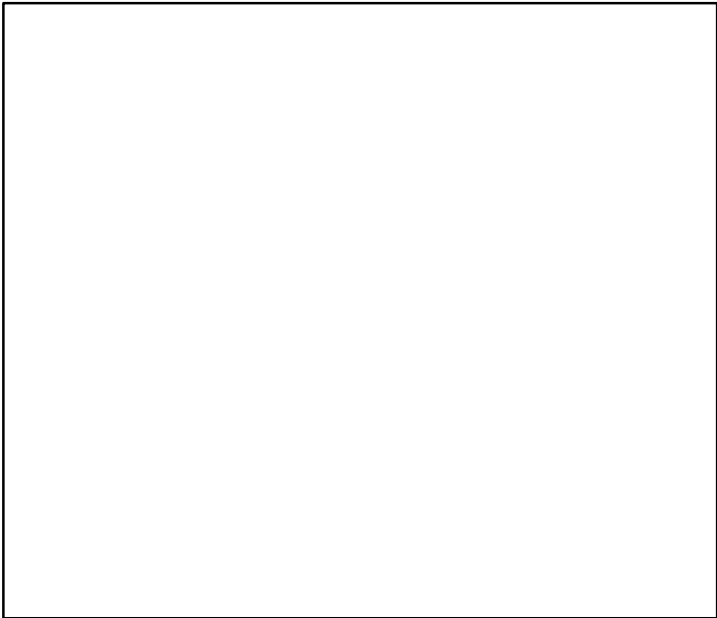
## Blue king crab Pribilof Islands [BKINGCRABPI]

Metadata	
<b>Scientific Name</b>	Paralithodes platypus
<b>Current Assess ID</b>	AFSC-BKINGCRABPI-1974-2021-SISIMP2021-2
<b>Area</b>	Pribilof Islands
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2008, 2019, 2021, 2017, 2016

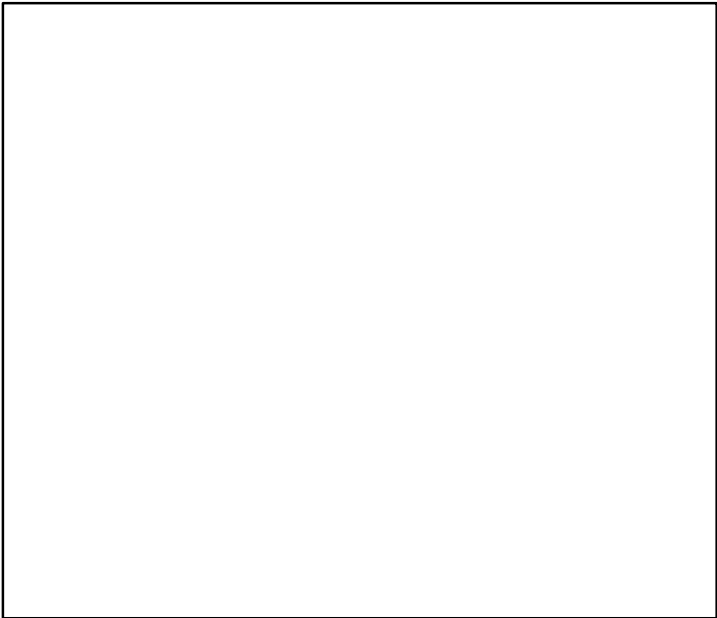
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2008	4209
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2008	594	-	-
<b>SSB</b>	SSB-MT	2008	345	Males	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2008	0	-	-
<b>TC</b>	TC-MT	2021	0		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2008	0.082		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

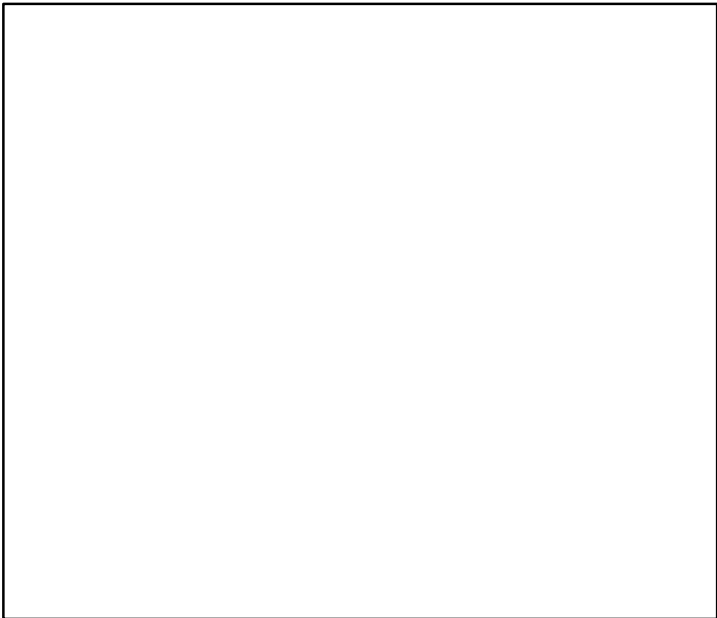
Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



Production\*

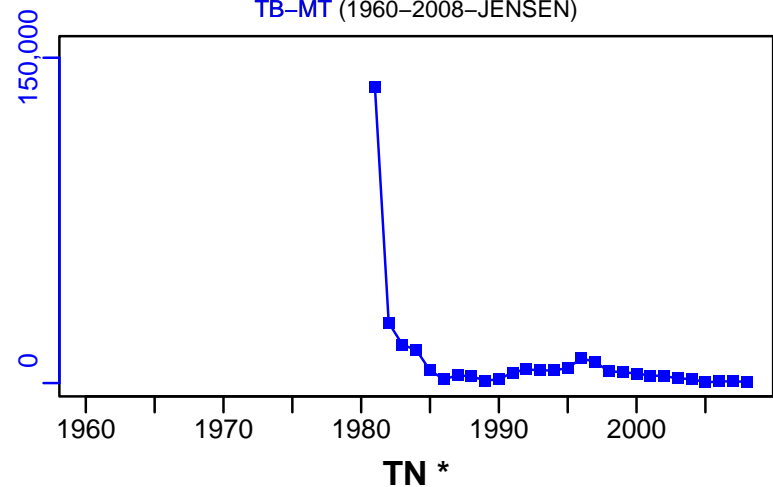


◆ Start Year   ◆ End Year   \* No Data

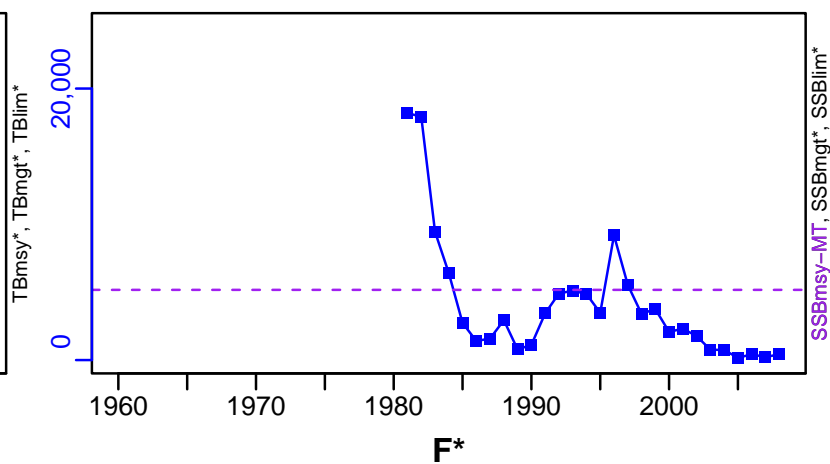


# Blue king crab Pribilof Islands [BKINGCRABPI]

TB-MT (1960-2008-JENSEN)



SSB-MT (1960-2008-JENSEN)



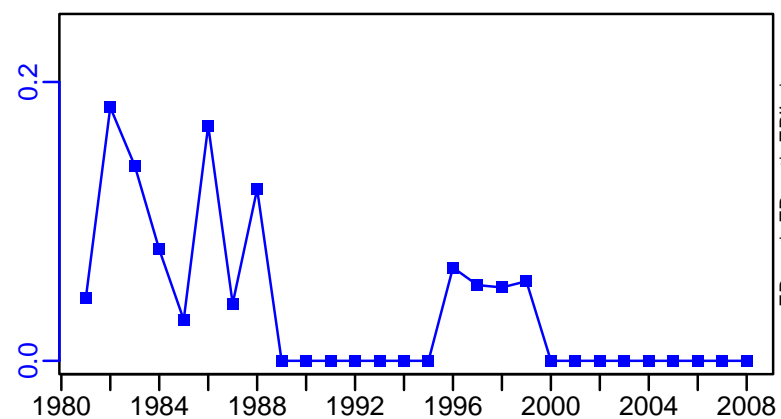
TN \*



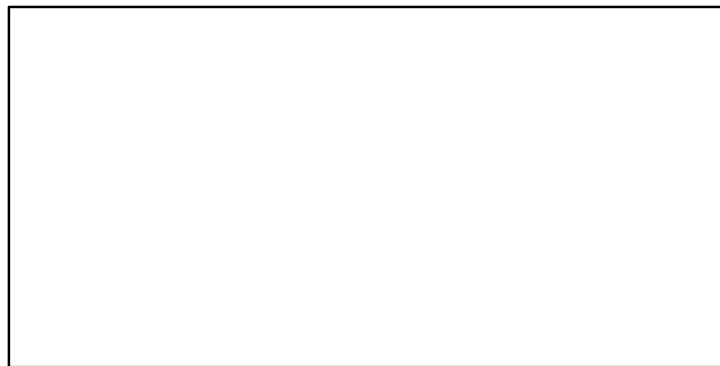
F\*



ER-ratio (1960-2008-JENSEN)

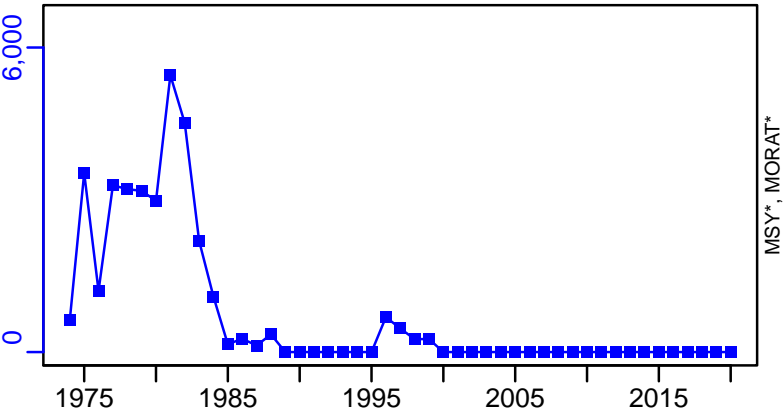


Recruits\*



Blue king crab Pribilof Islands [BKINGCRABPI]

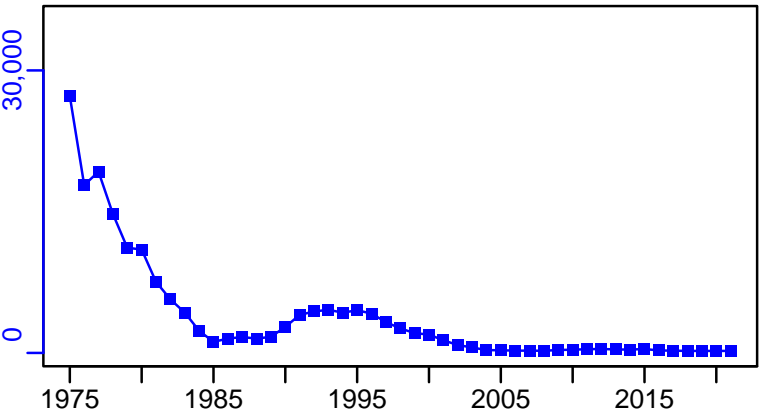
TC-MT, TL\*, RecC\* (1974-2021-SISIMP2021-2)



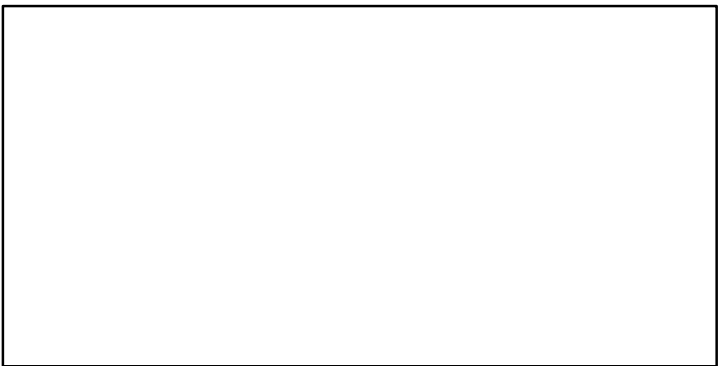
TAC\*, Cpair\*, Cadv\*



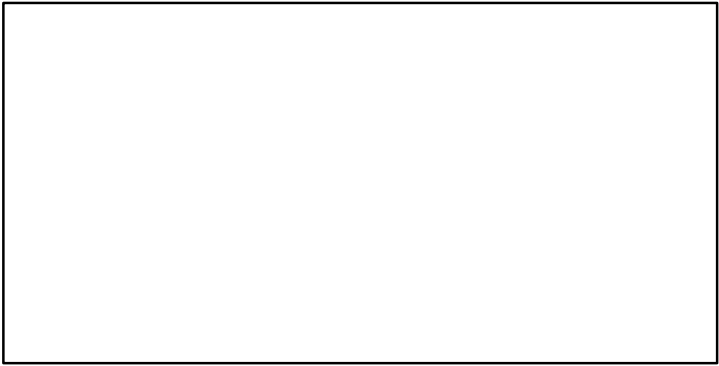
survB-MT (1974-2021-SISIMP2021-2)



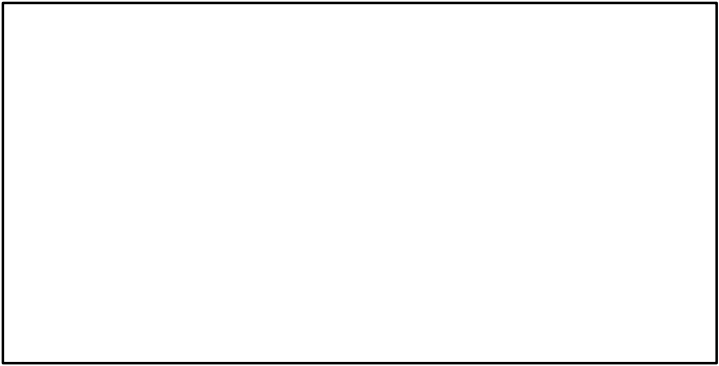
CPUE\*



EFFORT\*



CdivMSY\*

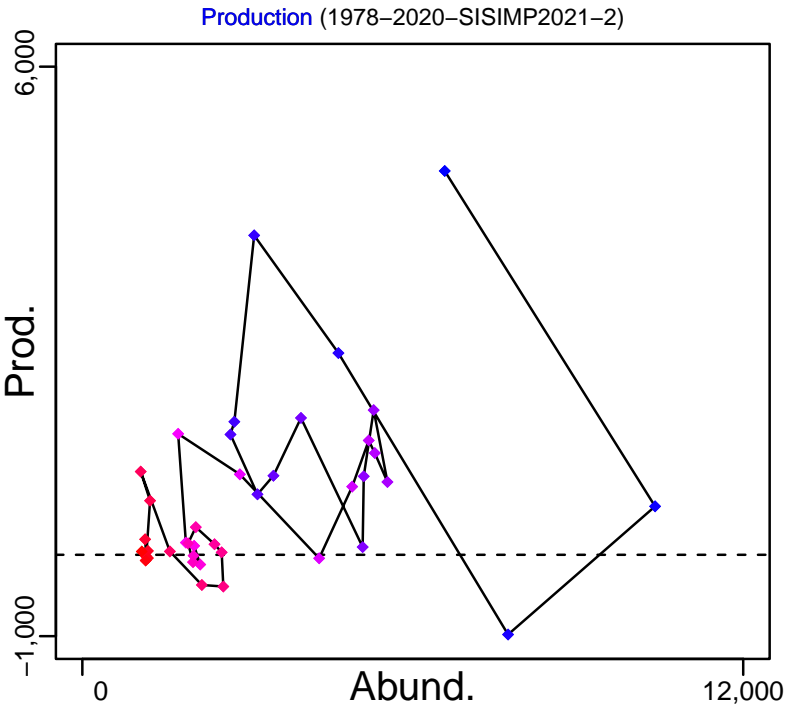
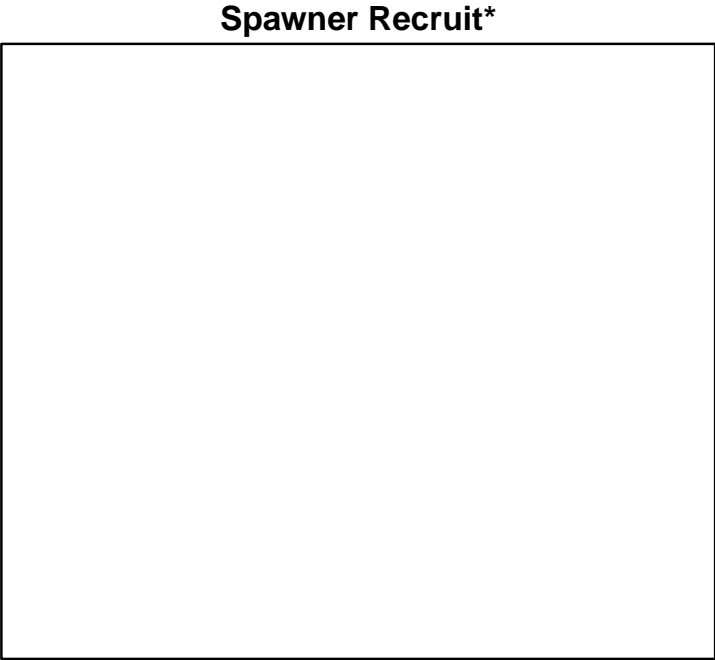
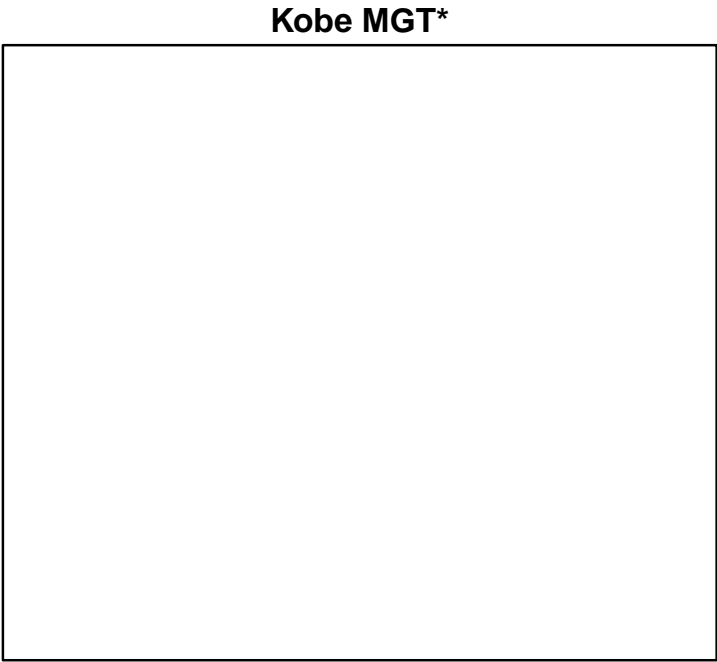
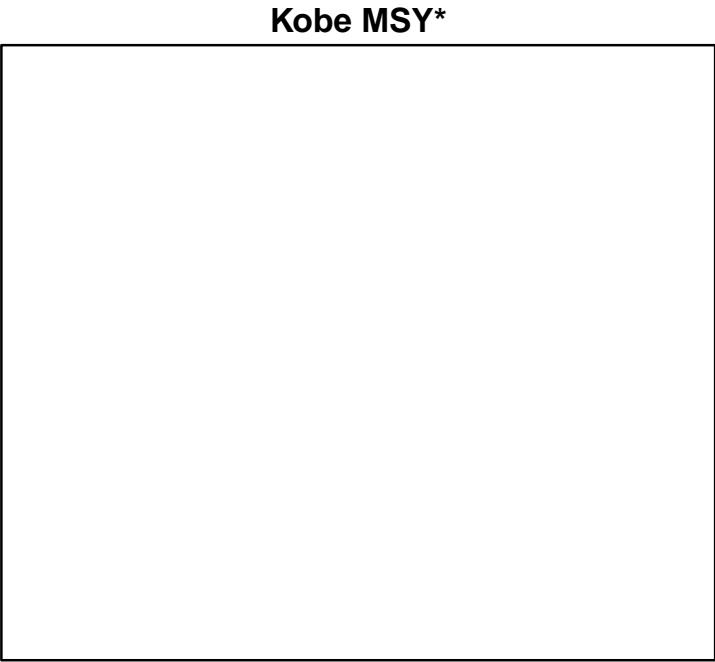


## Blue king crab Saint Matthews Island [BKINGCRABSMI]

Metadata	
<b>Scientific Name</b>	Paralithodes platypus
<b>Current Assess ID</b>	AFSC-BKINGCRABSMI-1978-2020-SISIMP2021-2
<b>Area</b>	Saint Matthews Island
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2008, 2016, 2017, 2018, 2019, 2020

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-MT	2020	3340
<b>SSBmsy</b>	SSBmsy-MT	2008	3351
<b>Fmsy</b>	Fmsy-pr-1/yr	2008	0.18
<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>	-	-	-
<b>TBlim</b>	TBlim-MT	2020	1670
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

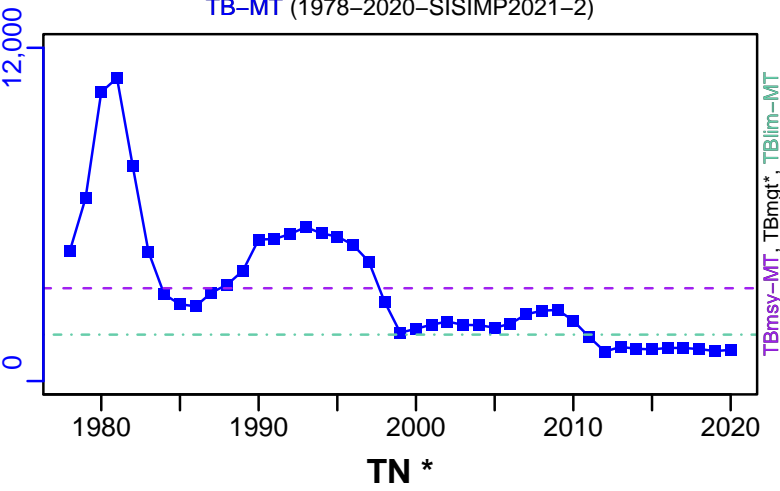
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2020	1120	-	-
<b>SSB</b>	SSB-MT	2018	1309	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2020	0	-	-
<b>TC</b>	TC-MT	2020	0		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2020	0.335		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2008	1.453		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		



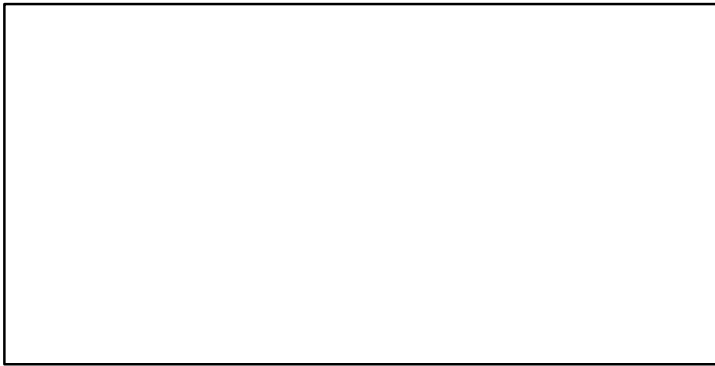
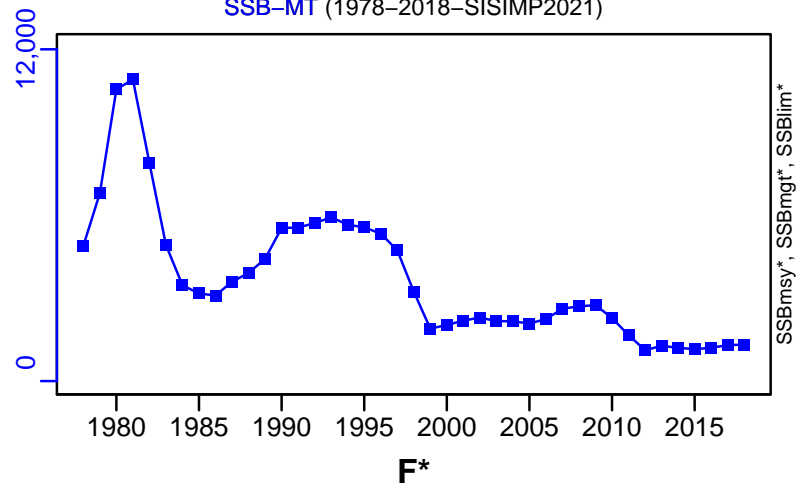
◆ Start Year ◆ End Year \* No Data

# Blue king crab Saint Matthews Island [BKINGCRABSMI]

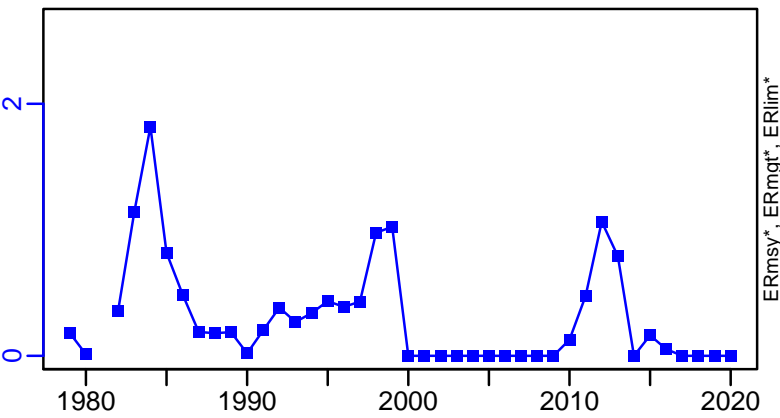
TB-MT (1978-2020-SISIMP2021-2)



SSB-MT (1978-2018-SISIMP2021)



ER-calc-ratio (1978-2020-SISIMP2021-2)

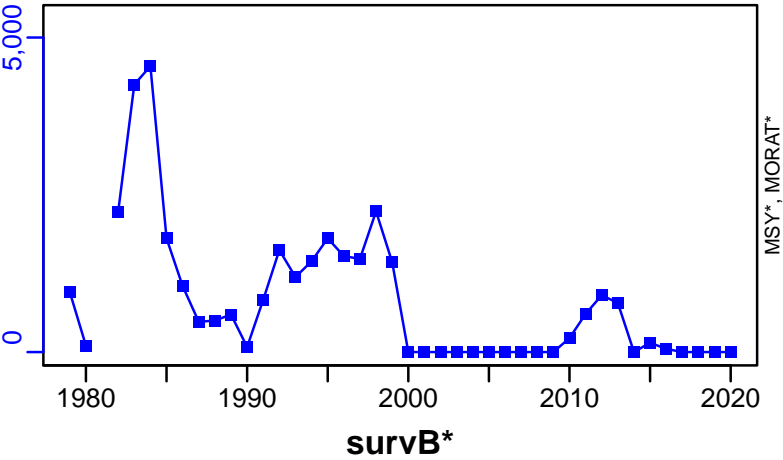


Recruits\*



Blue king crab Saint Matthews Island [BKINGCRABSMI]

TC-MT, TL\*, RecC\* (1978-2020-SISIMP2021-2)



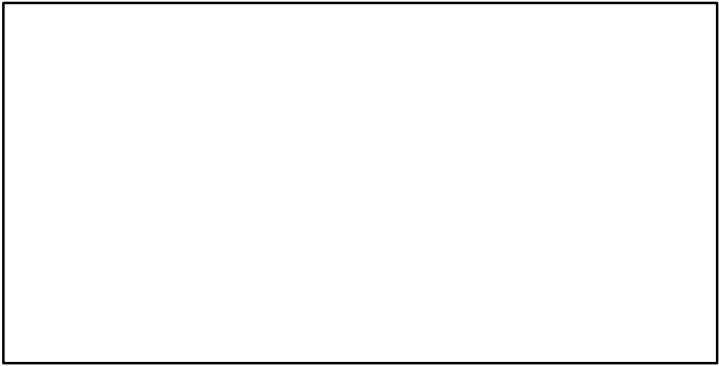
TAC\*, Cpair\*, Cadv\*



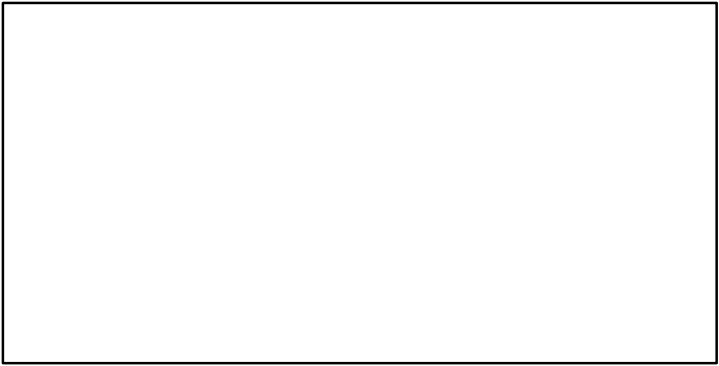
CPUE\*



EFFORT\*



CdivMSY\*



## Dover sole Gulf of Alaska [DSOLEGA]

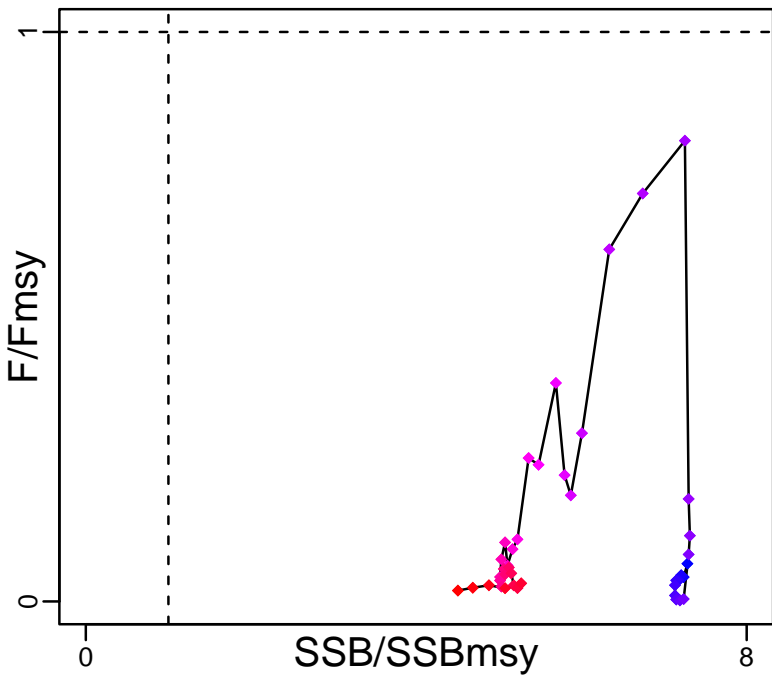
Metadata	
<b>Scientific Name</b>	Microstomus pacificus
<b>Current Assess ID</b>	AFSC-DSOLEGA-1978-2019-SISIMP2021-2
<b>Area</b>	Gulf of Alaska
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2009, 2015, 2016, 2017, 2019

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2019	6660
<b>Fmsy</b>	Fmsy-1/yr	2019	0.11
<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	2009	0.085
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	Flim-1/yr	2019	0.177
<b>ERlim</b>	-	-	-

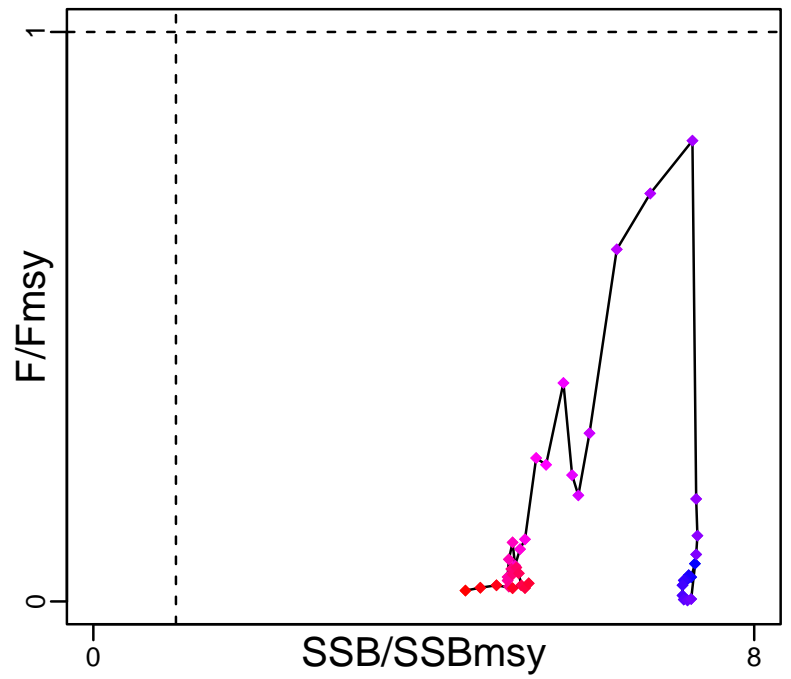
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	141,000	-	0+
<b>SSB</b>	SSB-MT	2019	28,900	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2019	11,600,000	-	0
<b>F</b>	F-1/yr	2019	0.002	-	-
<b>ER</b>	ER-calc-ratio	2015	0.003	-	-
<b>TC</b>	TC-MT	2019	144		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2019	4.339		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2019	0.019		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Dover sole Gulf of Alaska [DSOLEGA]

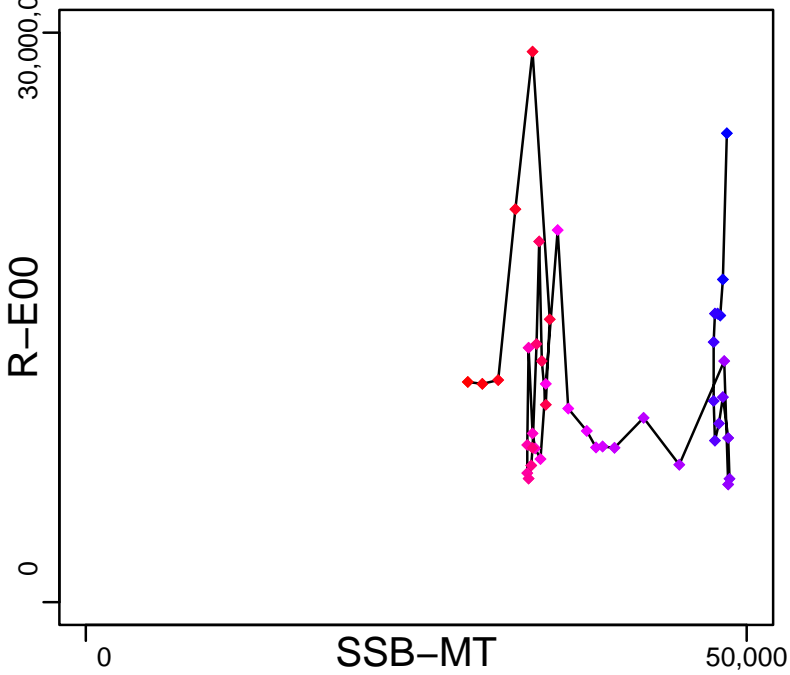
Kobe MSYpref (1978–2019–SISIMP2021–2)



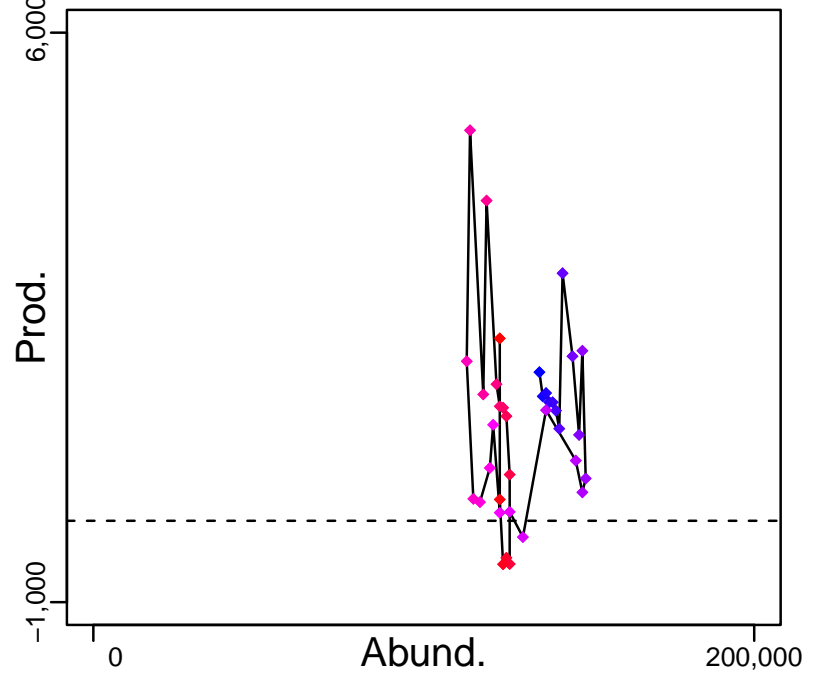
Kobe MGTpref (1978–2019–SISIMP2021–2)



Spawner Recruit (1978–2019–SISIMP2021–2)



Production (1978–2015–SISIMP2016)

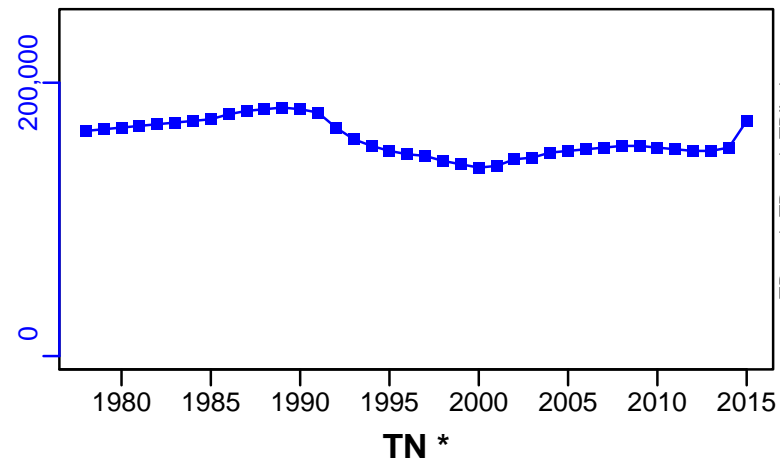


◆ Start Year ◆ End Year \* No Data

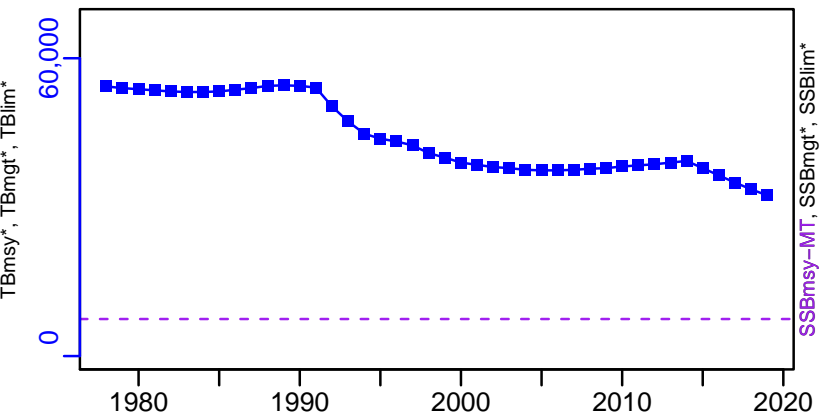


# Dover sole Gulf of Alaska [DSOLEGA]

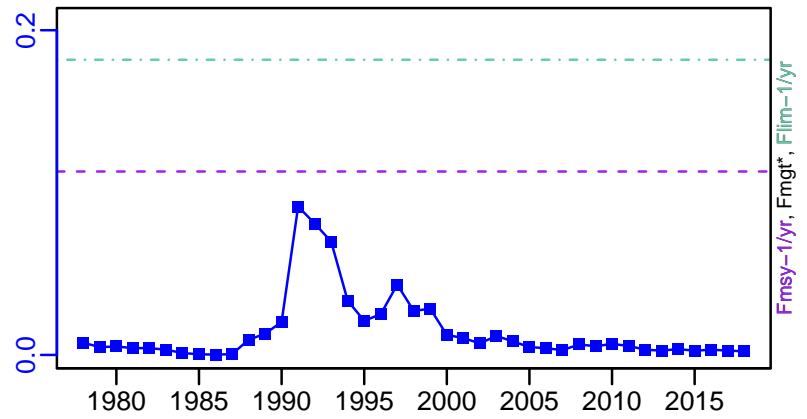
TB-MT (1978–2015–SISIMP2016)



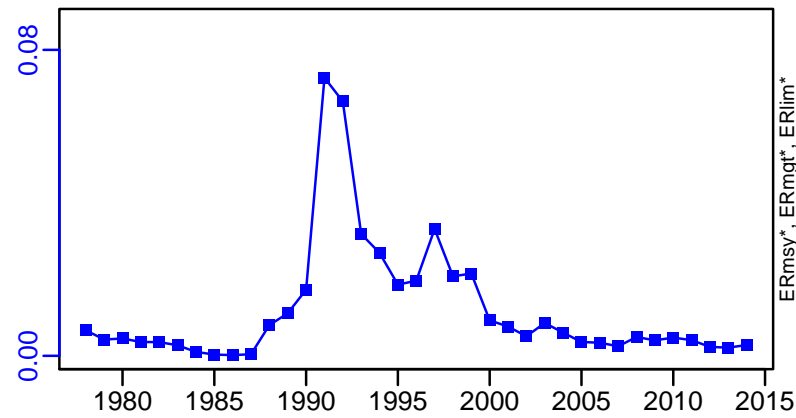
SSB-MT (1978–2019–SISIMP2021–2)



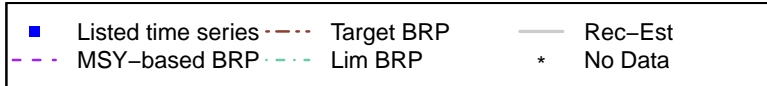
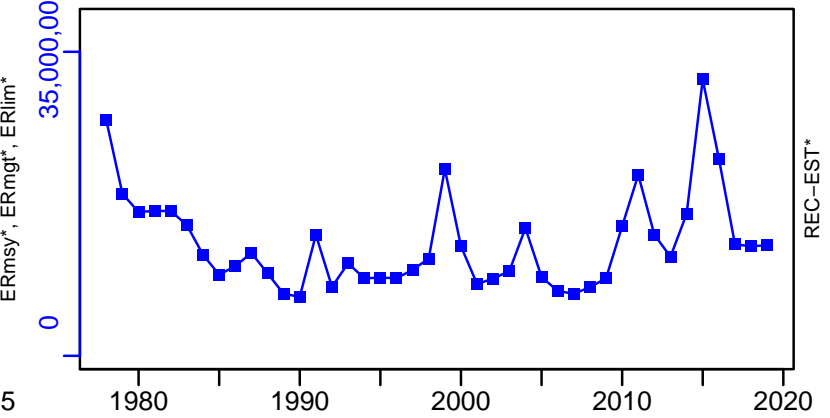
F-1/yr (1978–2019–SISIMP2021–2)



ER-calc-ratio (1978–2015–SISIMP2016)



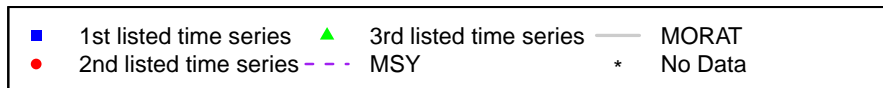
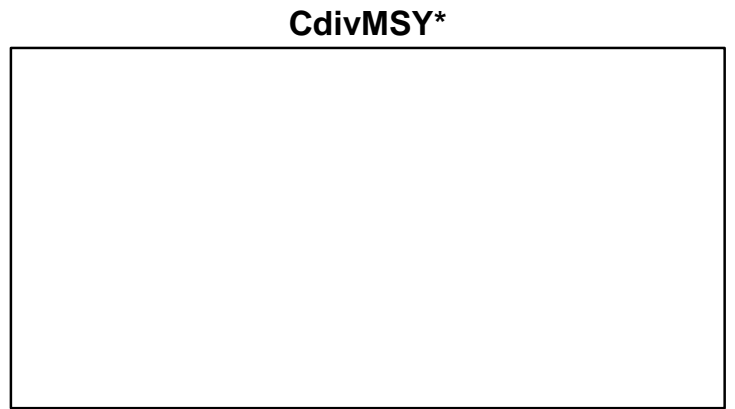
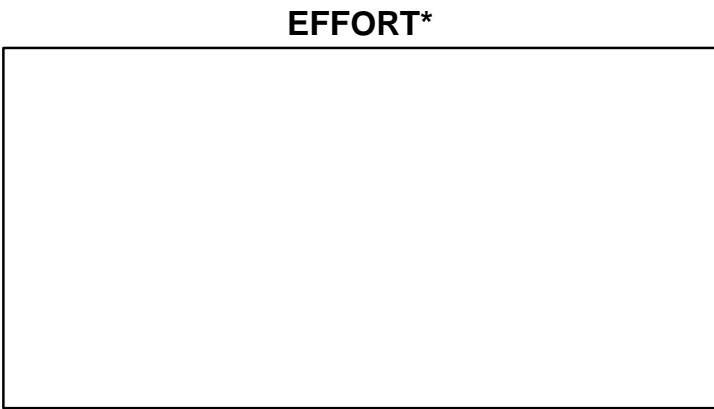
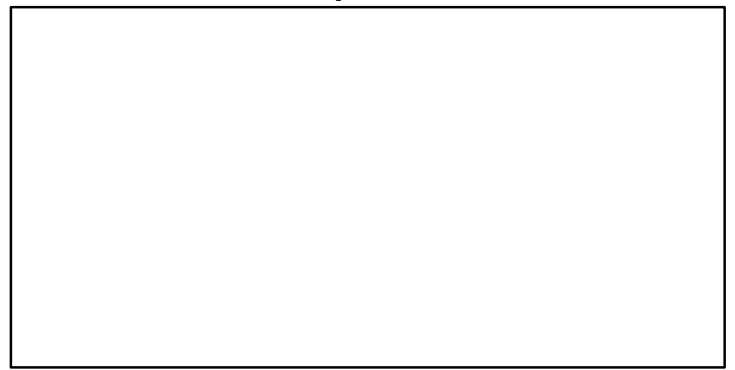
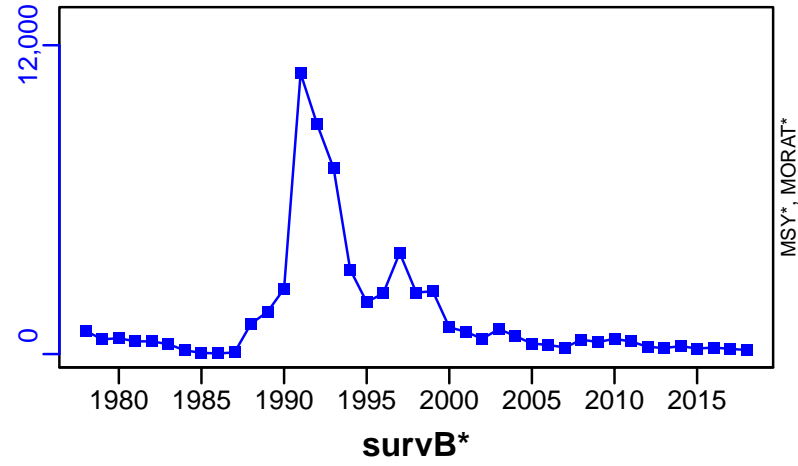
R-E00 (1978–2019–SISIMP2021–2)



# Dover sole Gulf of Alaska [DSOLEGA]

TC-MT, TL\*, RecC\* (1978-2019-SISIMP2021-2)

TAC\*, Cpair\*, Cadv\*



## Dusky rockfish Gulf of Alaska [DUSROCKGA]

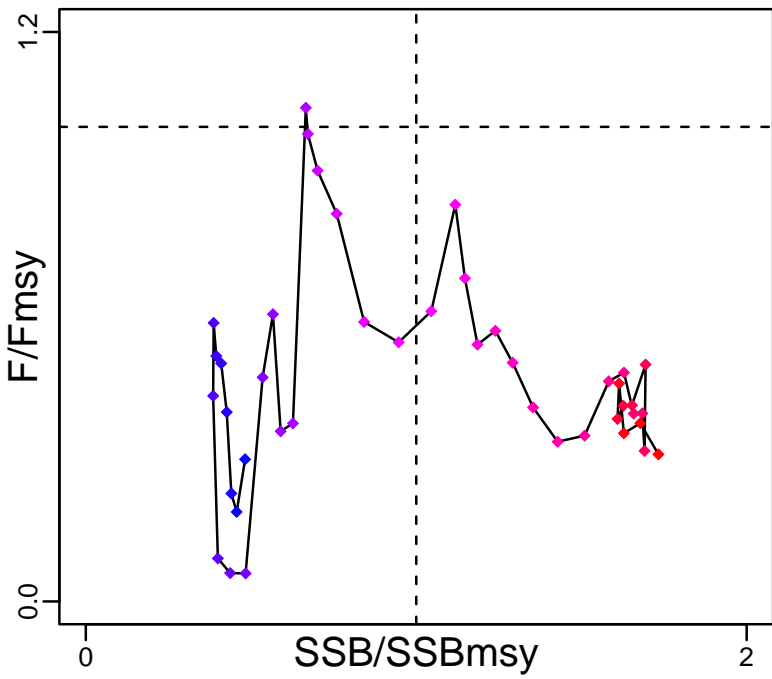
Metadata	
<b>Scientific Name</b>	Sebastes variabilis
<b>Current Assess ID</b>	AFSC-DUSROCKGA-1973-2020-SISIMP2022
<b>Area</b>	Gulf of Alaska
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2010, 2016, 2018, 2020, 2015, 2018, 2020

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2020	21,299
<b>Fmsy</b>	Fmsy-1/yr	2020	0.114
<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	0.07
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	Flim-1/yr	2020	0.06
<b>ERlim</b>	-	-	-

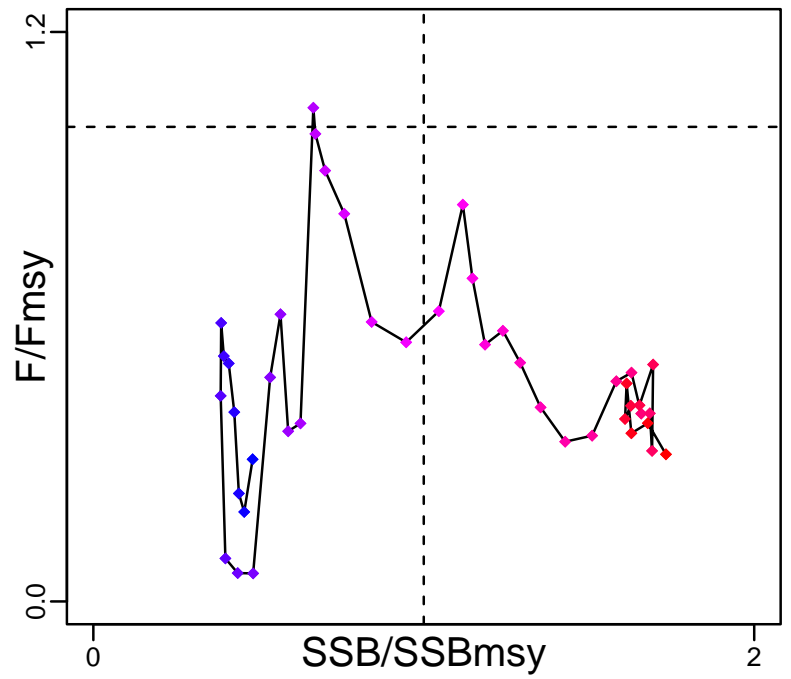
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	63,100	-	4+
<b>SSB</b>	SSB-MT	2020	38,202	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2020	2,220,000	-	4
<b>F</b>	F-1/yr	2020	0.035	-	-
<b>ER</b>	ER-calc-ratio	2015	0.045	-	-
<b>TC</b>	TC-MT	2020	2198		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2020	1.794		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2020	0.31		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Dusky rockfish Gulf of Alaska [DUSROCKGA]

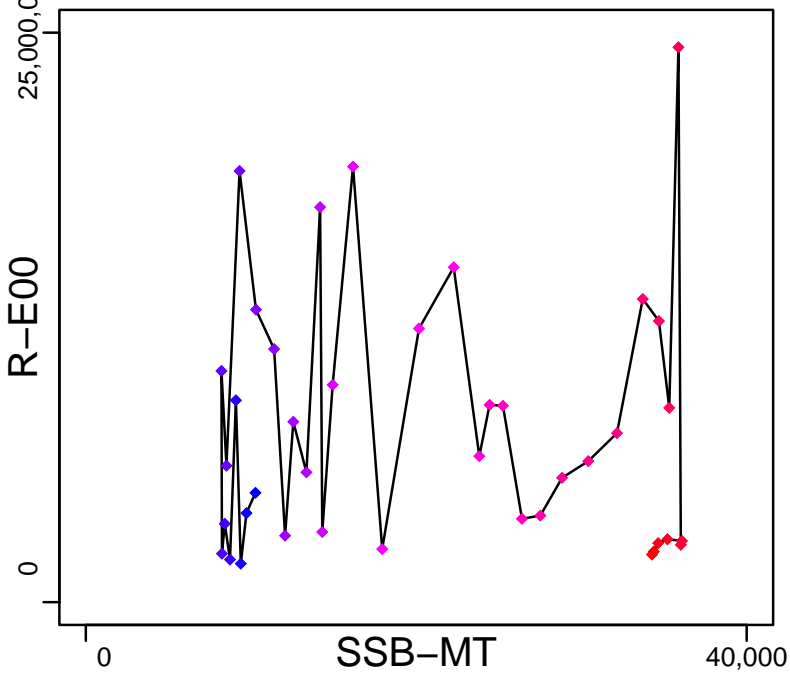
Kobe MSYpref (1973–2020–SISIMP2022)



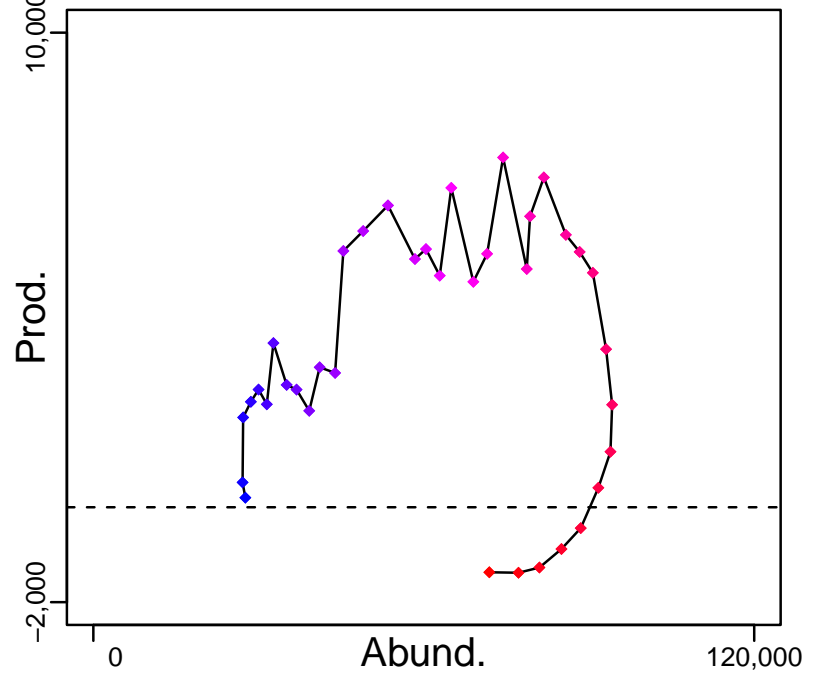
Kobe MGTpref (1973–2020–SISIMP2022)



Spawner Recruit (1973–2020–SISIMP2022)



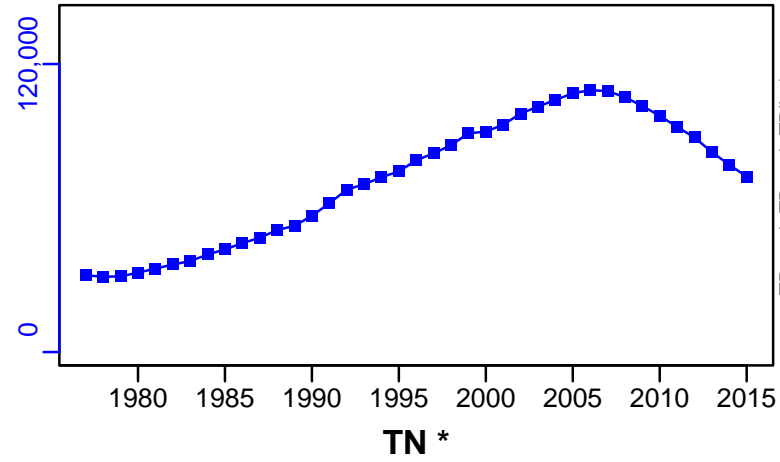
Production (1977–2015–SISIMP2016)



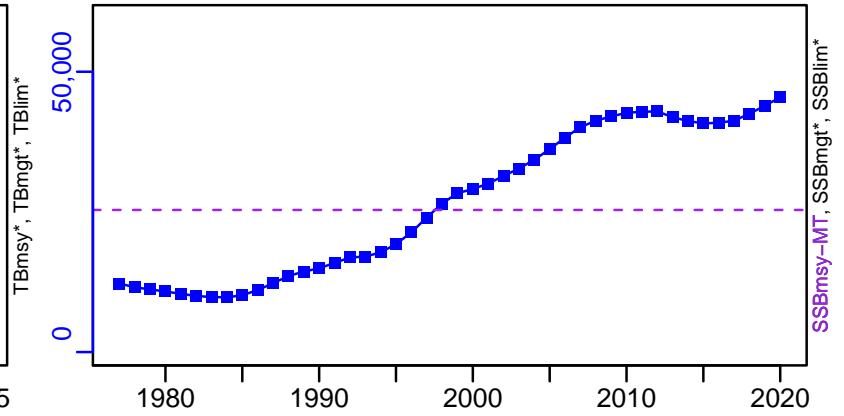
◆ Start Year ◆ End Year \* No Data

# Dusky rockfish Gulf of Alaska [DUSROCKGA]

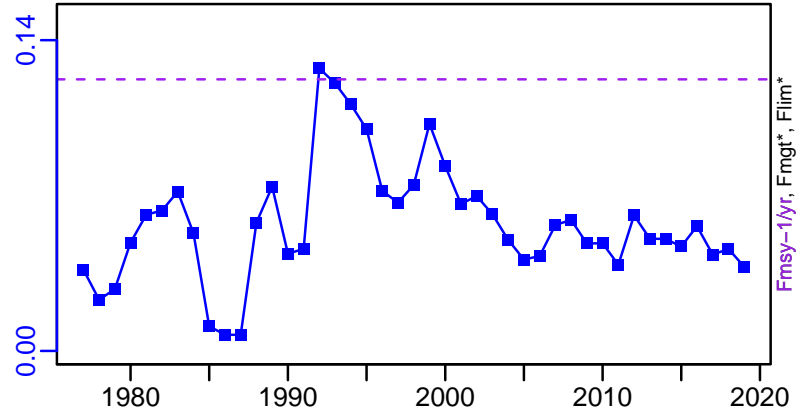
TB-MT (1977–2015–SISIMP2016)



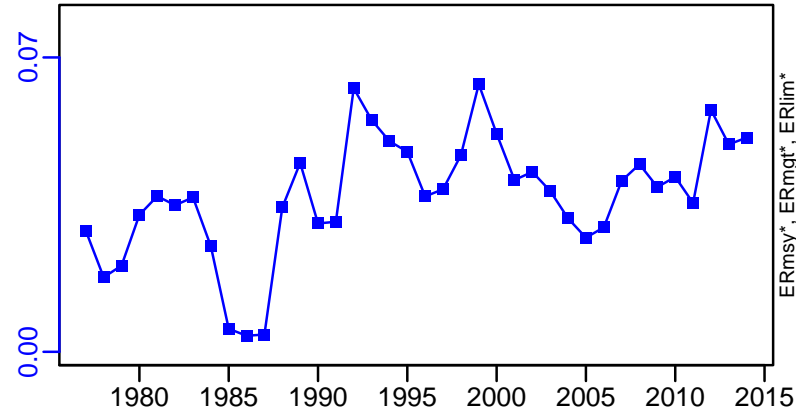
SSB-MT (1973–2020–SISIMP2022)



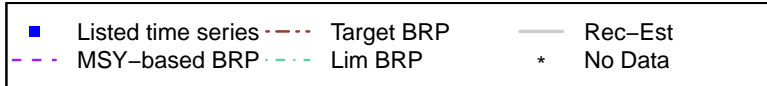
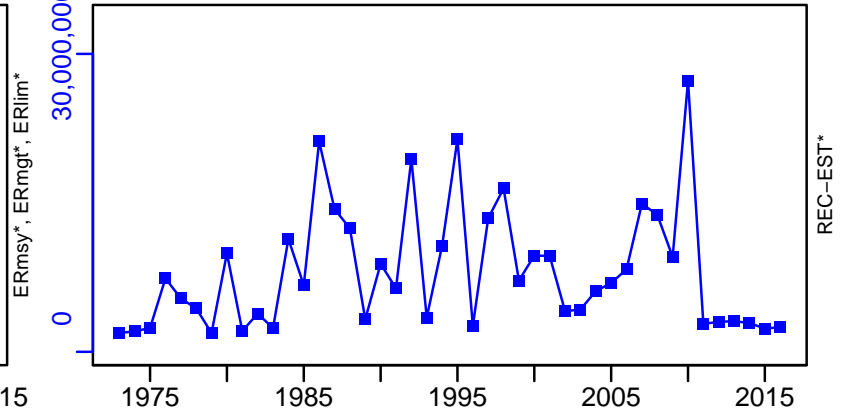
F-1/yr (1973–2020–SISIMP2022)



ER-calc-ratio (1977–2015–SISIMP2016)



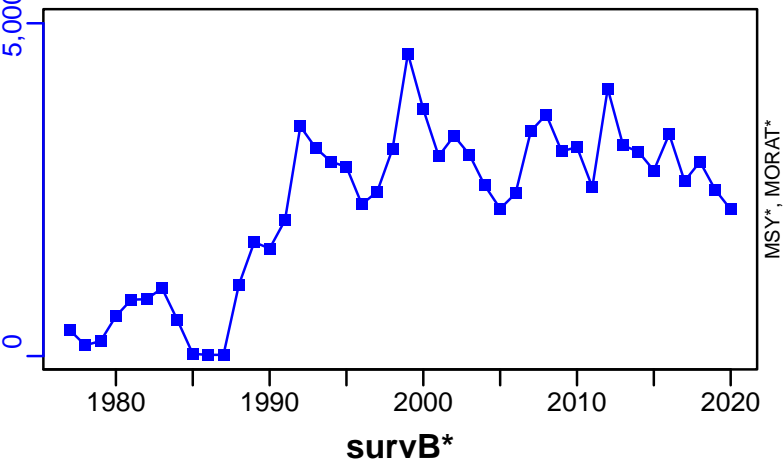
R-E00 (1973–2020–SISIMP2022)



# Dusky rockfish Gulf of Alaska [DUSROCKGA]

TC-MT, TL\*, RecC\* (1973-2020-SISIMP2022)

TAC\*, Cpair\*, Cadv\*



CPUE\*

EFFORT\*

CdivMSY\*

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

## Flathead sole Bering Sea and Aleutian Islands [FLSOLEBSAI]

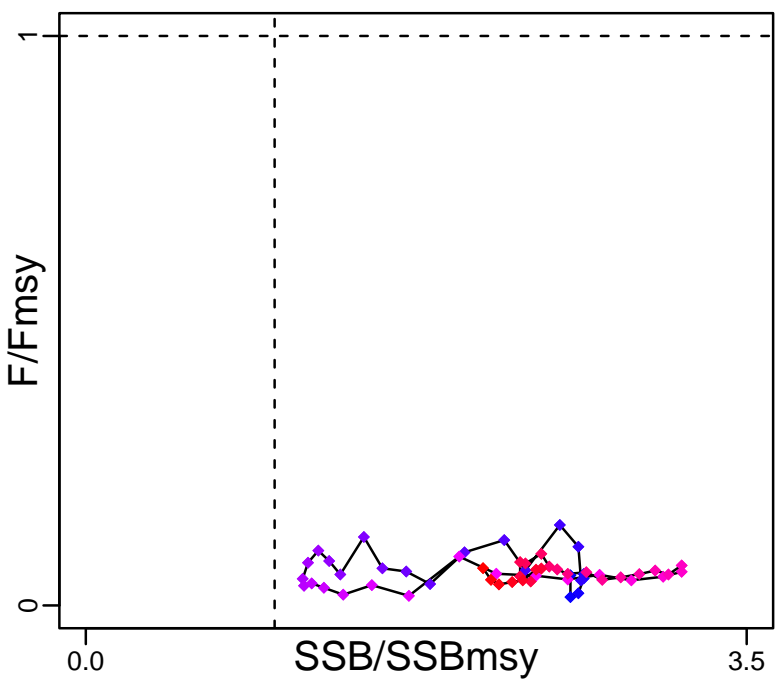
Metadata	
<b>Scientific Name</b>	Hippoglossoides elassodon
<b>Current Assess ID</b>	AFSC-FLSOLEBSAI-1964-2020-SISIMP2022
<b>Area</b>	Bering Sea and Aleutian Islands
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2018, 2018, 2020, 2020, 2010, 2016, 2015

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2020	71,300
<b>Fmsy</b>	Fmsy-1/yr	2020	0.46
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	SSB0-MT	2010	336,027
<b>MSY</b>	MSY-MT	2010	83,321
<b>M</b>	M-1/yr	2010	0.2
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	Flim-1/yr	2020	0.495
<b>ERlim</b>	-	-	-

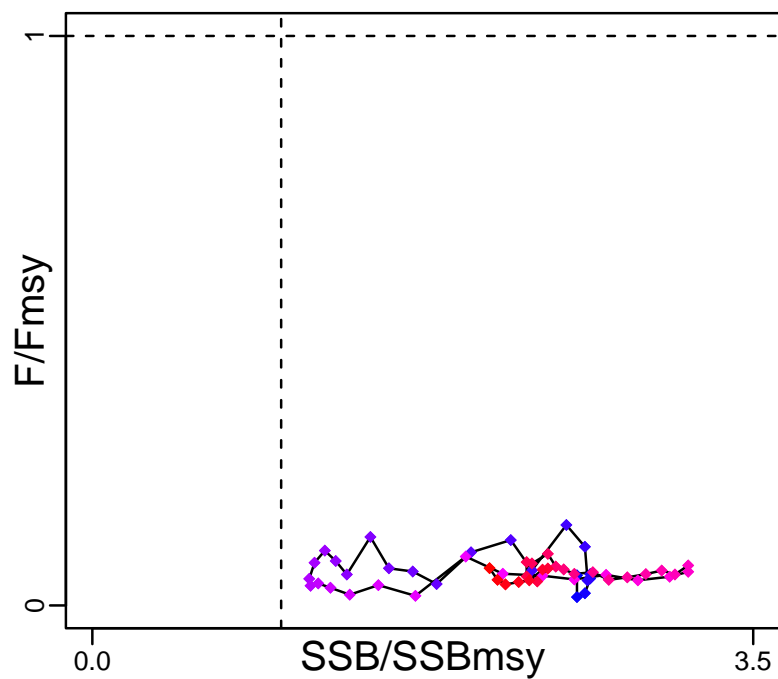
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	738,000	-	3+
<b>SSB</b>	SSB-MT	2020	148,000	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2020	958,000	-	0
<b>F</b>	F-1/yr	2020	0.03	-	-
<b>ER</b>	ER-calc-ratio	2015	0.021	-	-
<b>TC</b>	TC-MT	2020	15,900		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2020	2.076		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2020	0.065		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Flathead sole Bering Sea and Aleutian Islands [FLSOLEBSAI]

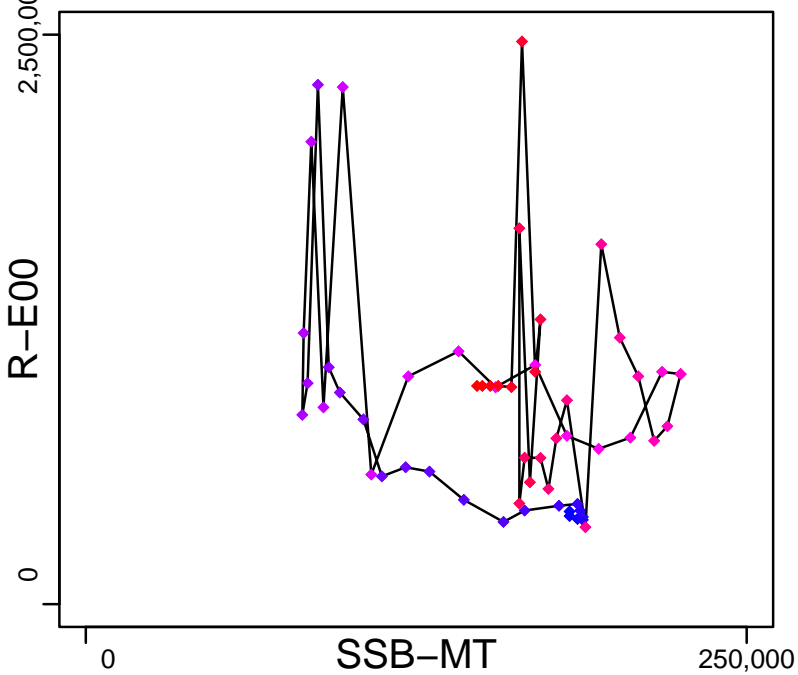
Kobe MSYpref (1964–2020–SISIMP2021–2)



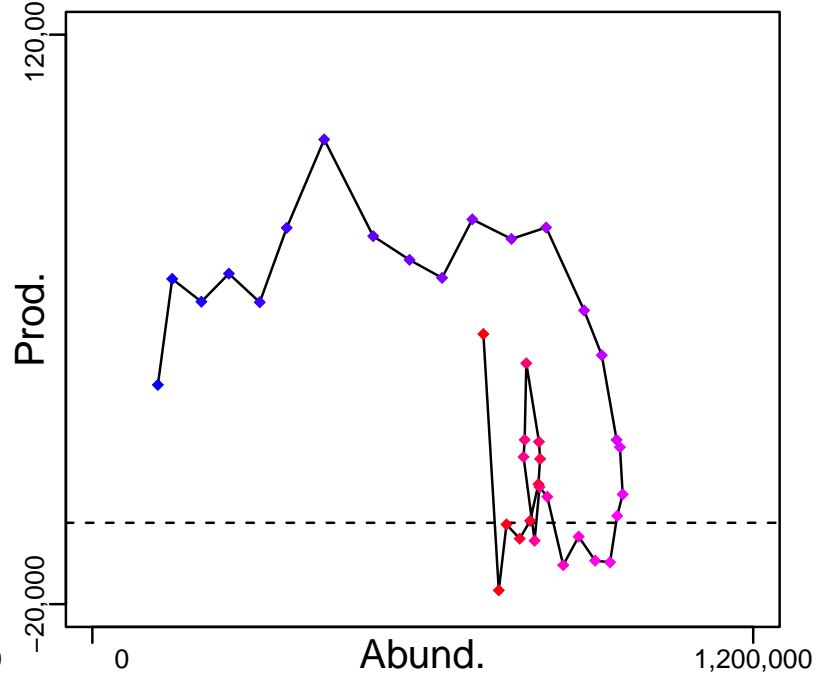
Kobe MGTpref (1964–2020–SISIMP2021–2)



Spawner Recruit (1964–2020–SISIMP2021–2)



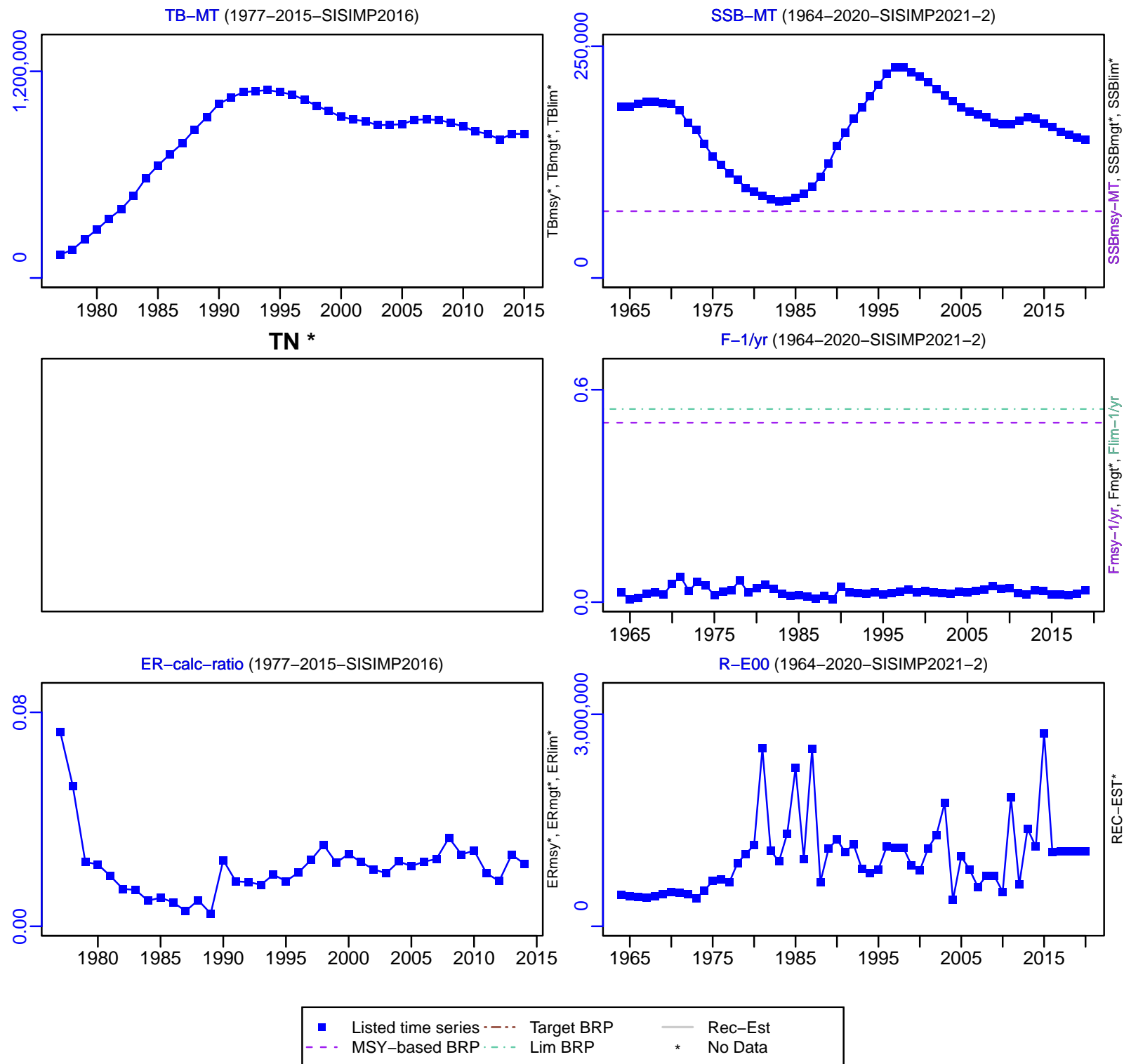
Production (1977–2015–SISIMP2016)



◆ Start Year ◆ End Year \* No Data

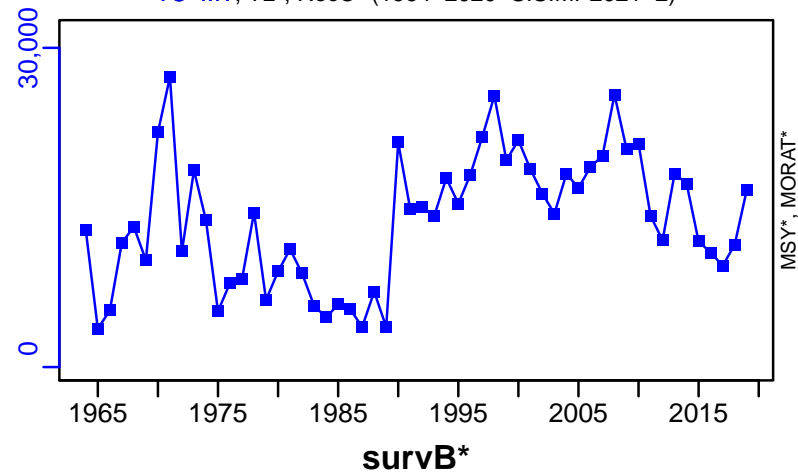


# Flathead sole Bering Sea and Aleutian Islands [FLSOLEBSAI]



# Flathead sole Bering Sea and Aleutian Islands [FLSOLEBSAI]

TC-MT, TL\*, RecC\* (1964-2020-SISIMP2021-2)



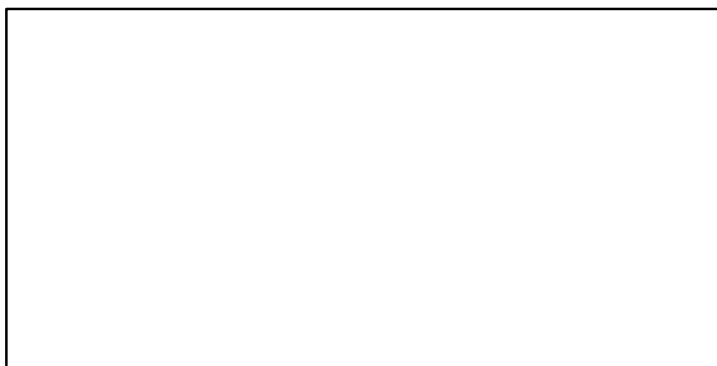
TAC\*, Cpair\*, Cadv\*



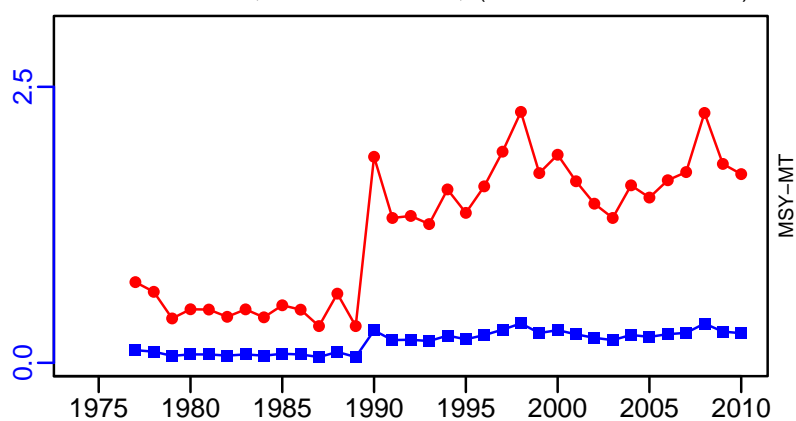
CPUE\*



EFFORT\*



TC-MT/MSY-MT, CdivMEANC-ratio, (1974-2010-STACHURA)



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

## Flathead sole Gulf of Alaska [FLSOLEGA]

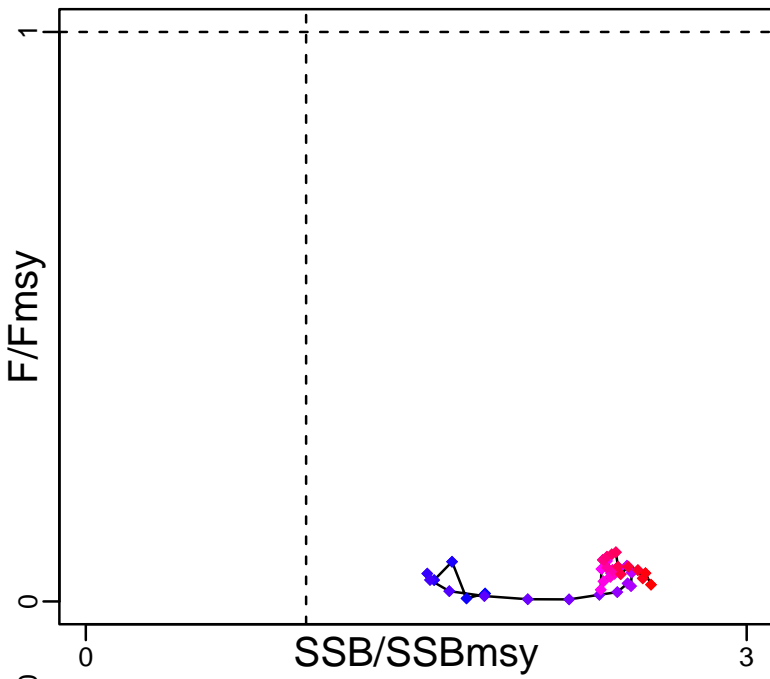
Metadata	
<b>Scientific Name</b>	Hippoglossoides elassodon
<b>Current Assess ID</b>	AFSC-FLSOLEGA-1978-2019-SISIMP2021-2
<b>Area</b>	Gulf of Alaska
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2010, 2015, 2016, 2017, 2018, 2019

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2019	32,000
<b>Fmsy</b>	Fmsy-1/yr	2019	0.36
<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	0.2
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	Flim-1/yr	2019	0.36
<b>ERlim</b>	-	-	-

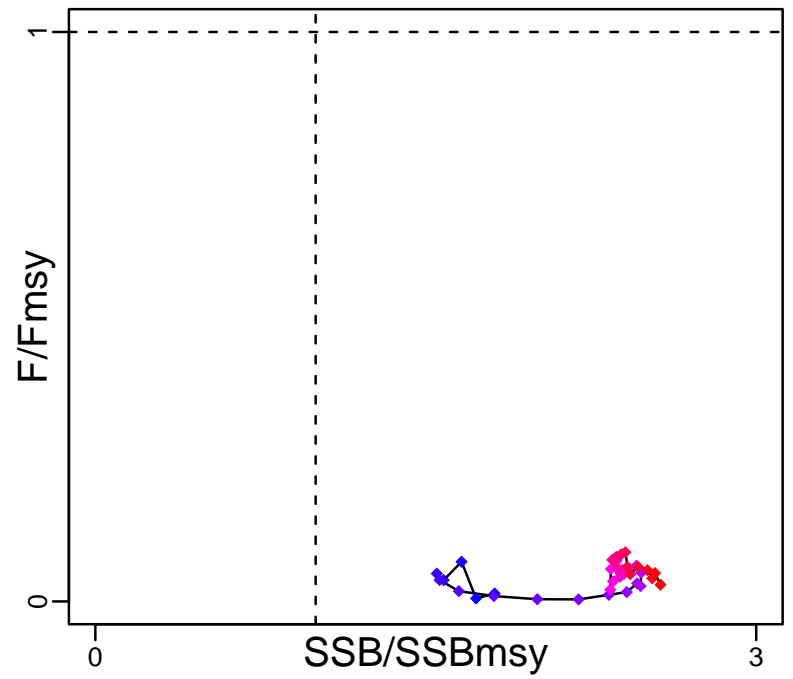
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	258,000	-	3+
<b>SSB</b>	SSB-MT	2019	83,300	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2019	$3.7 \times 10^8$	-	0
<b>F</b>	F-1/yr	2019	0.011	-	-
<b>ER</b>	ER-calc-ratio	2015	0.011	-	-
<b>TC</b>	TC-MT	2019	2670		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2019	2.603		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2019	0.029		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Flathead sole Gulf of Alaska [FLSOLEGA]

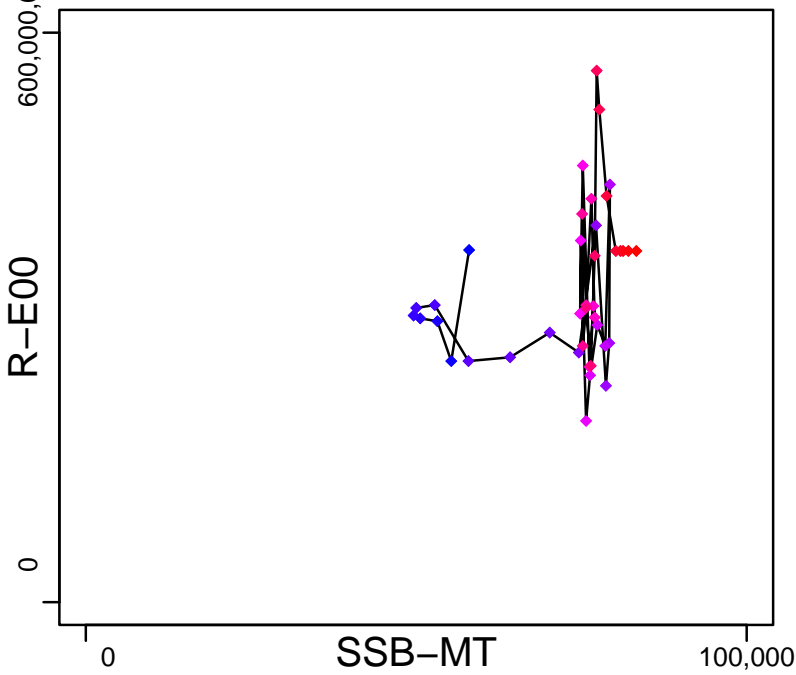
Kobe MSYpref (1978–2019–SISIMP2021–2)



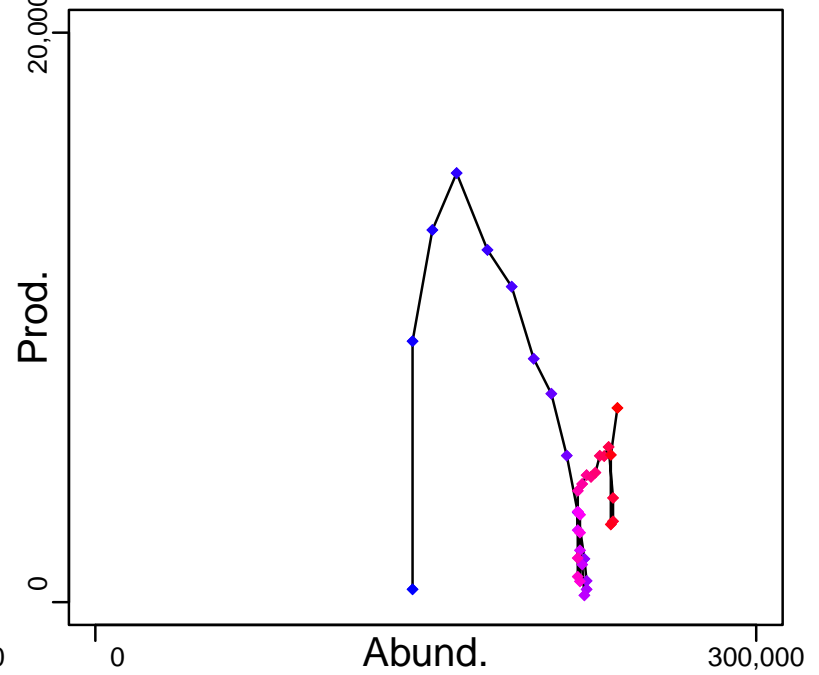
Kobe MGTpref (1978–2019–SISIMP2021–2)



Spawner Recruit (1978–2019–SISIMP2021–2)



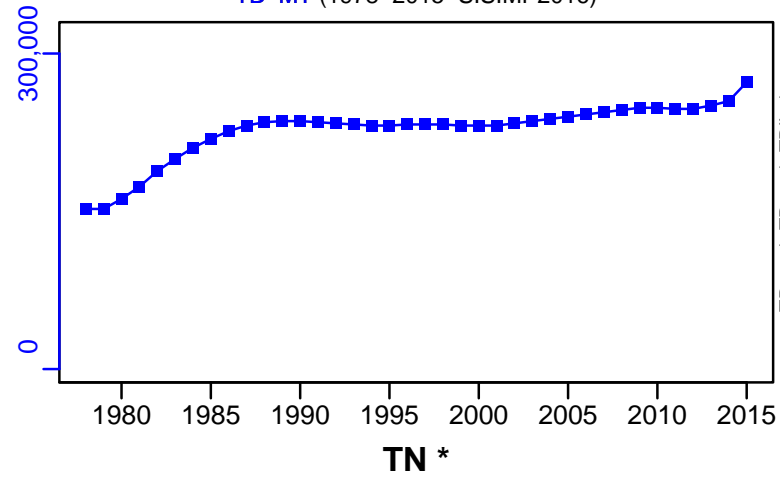
Production (1978–2015–SISIMP2016)



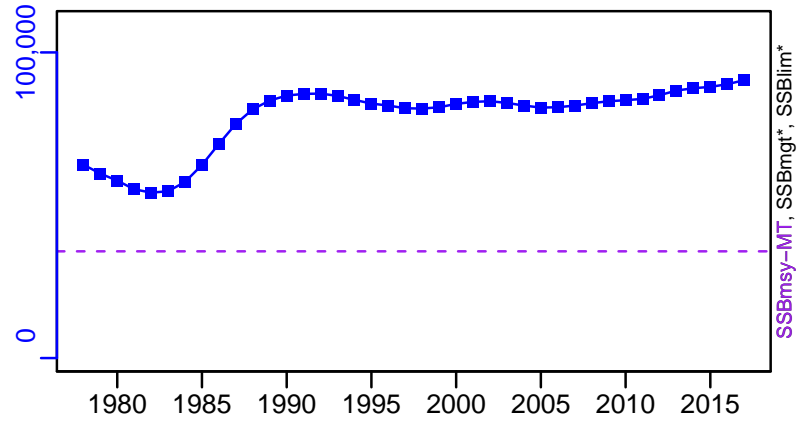
◆ Start Year ◆ End Year \* No Data

# Flathead sole Gulf of Alaska [FLSOLEGA]

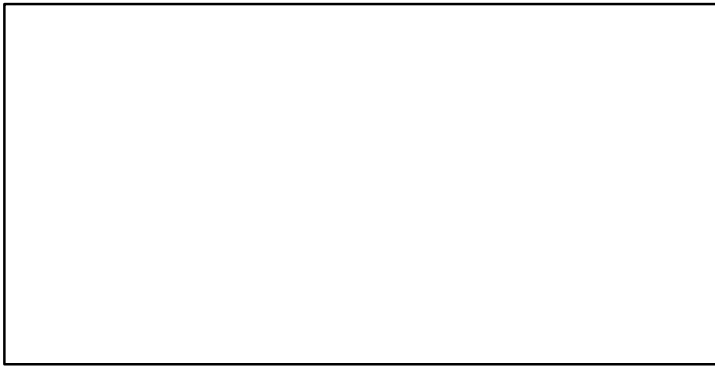
TB-MT (1978–2015–SISIMP2016)



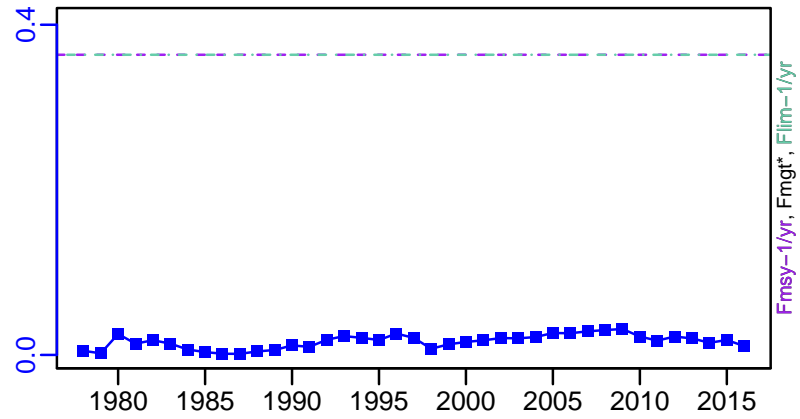
SSB-MT (1978–2019–SISIMP2021–2)



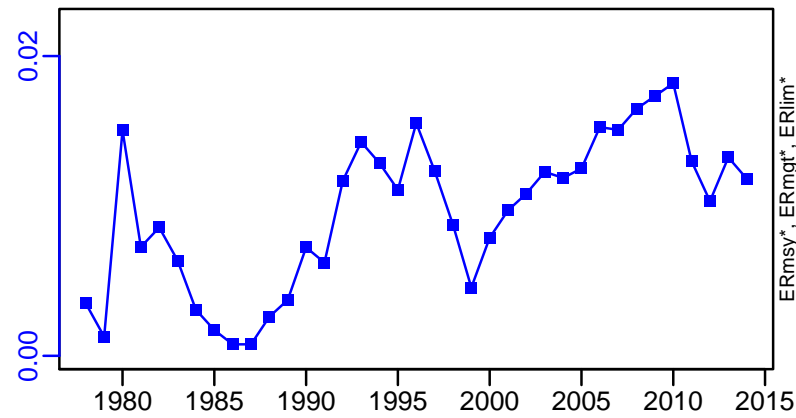
TN \*



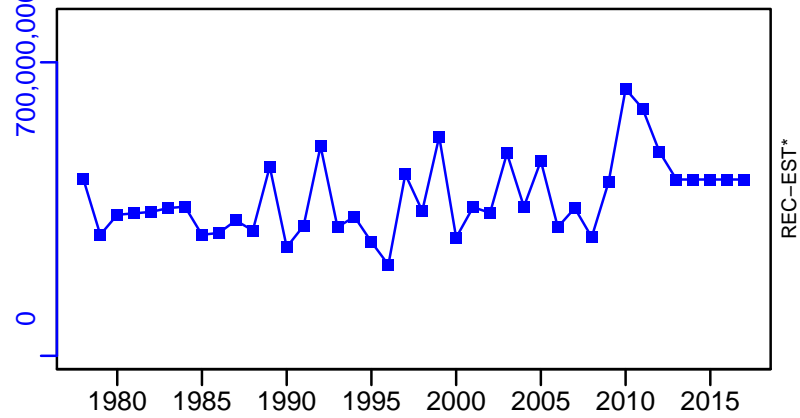
F-1/yr (1978–2019–SISIMP2021–2)



ER-calc-ratio (1978–2015–SISIMP2016)



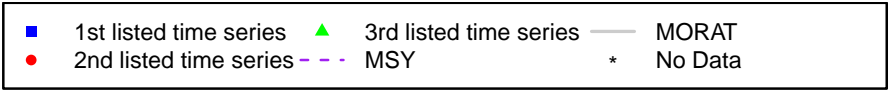
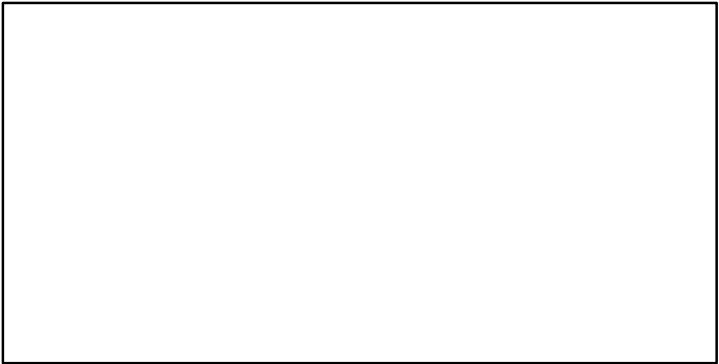
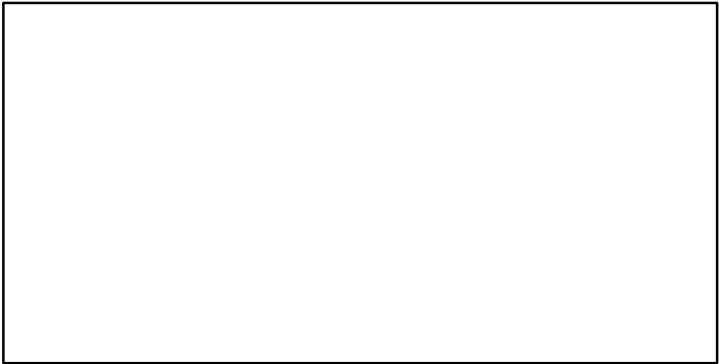
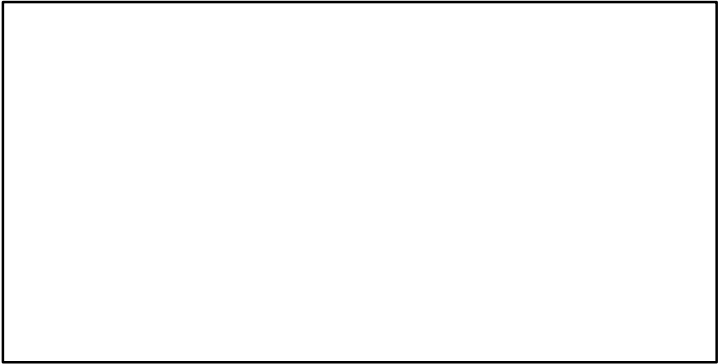
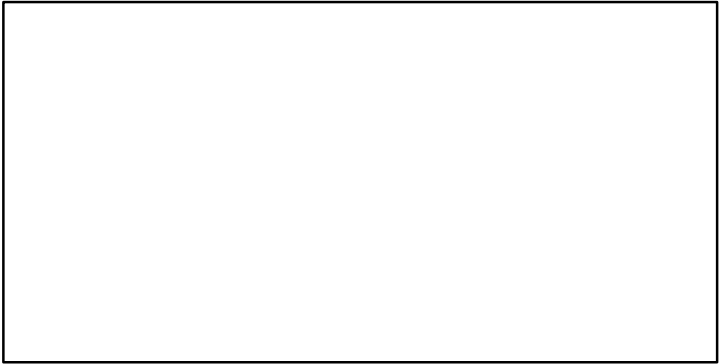
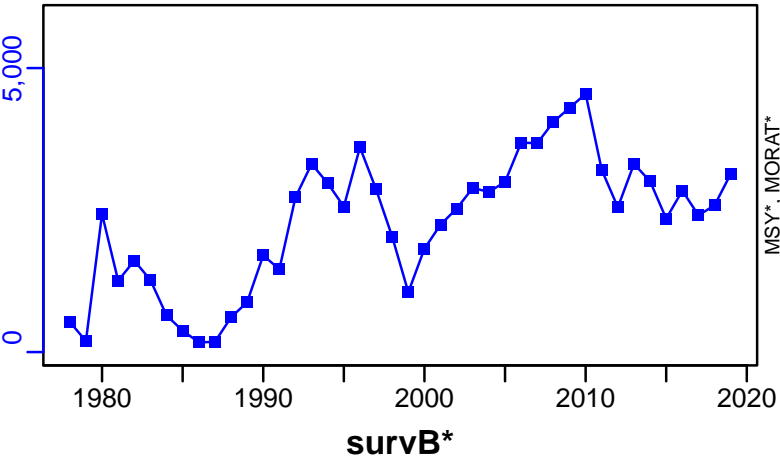
R-E00 (1978–2019–SISIMP2021–2)



Flathead sole Gulf of Alaska [FLSOLEGA]

TC-MT, TL\*, RecC\* (1978-2019-SISIMP2021-2)

TAC\*, Cpair\*, Cadv\*



## Greenland halibut Bering Sea and Aleutian Islands [GHALBSAI]

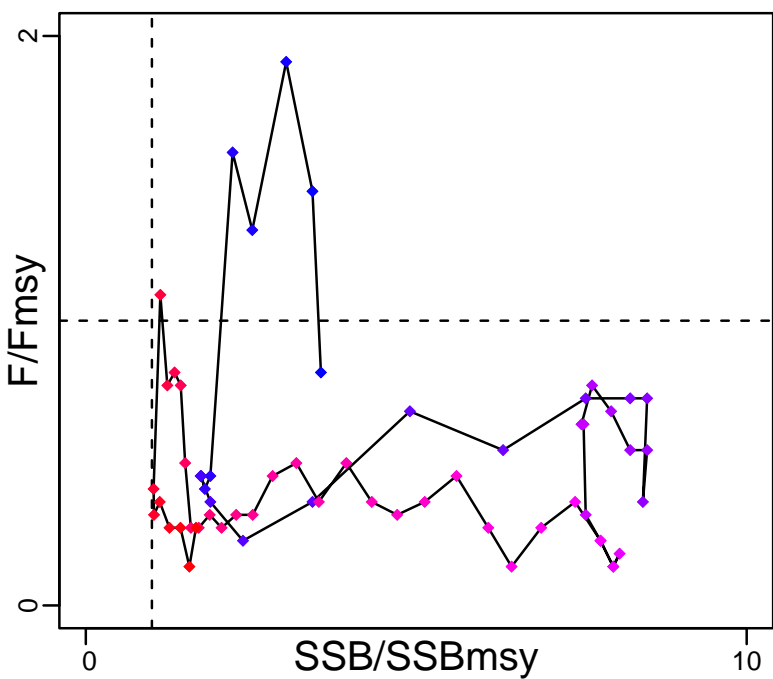
Metadata	
<b>Scientific Name</b>	Reinhardtius hippoglossoides
<b>Current Assess ID</b>	AFSC-GHALBSAI-1960-2020-SISIMP2022
<b>Area</b>	Bering Sea and Aleutian Islands
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2016, 2017, 2018, 2018, 2015, 2020, 2020

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2020	31,200
<b>Fmsy</b>	Fmsy-1/yr	2020	0.22
<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	2015	0.11
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	Flim-1/yr	2020	0.245
<b>ERlim</b>	-	-	-

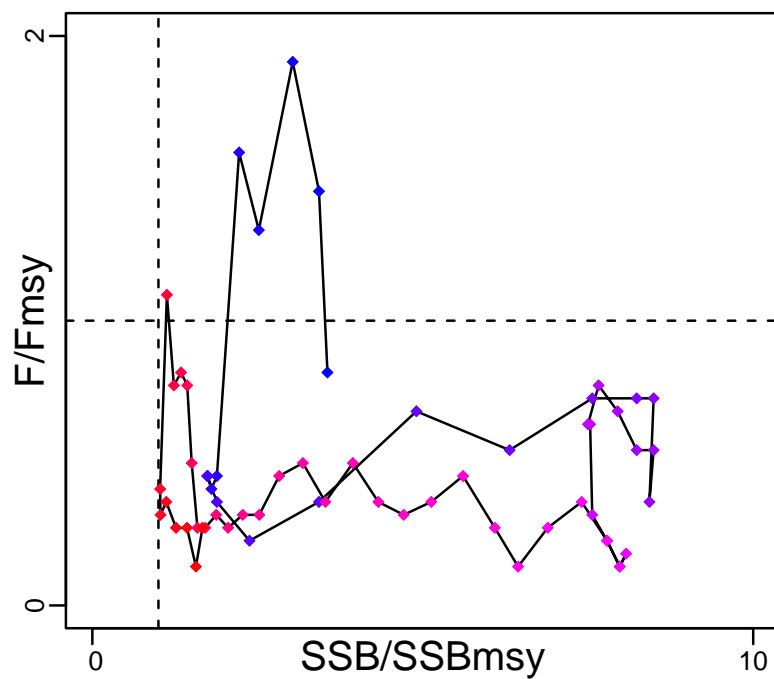
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	122,000	-	1+
<b>SSB</b>	SSB-MT	2020	52,900	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2020	6,840,000	-	0
<b>F</b>	F-1/yr	2020	0.06	-	-
<b>ER</b>	ER-ratio	2015	0.02	-	-
<b>TC</b>	TC-MT	2020	2850		
<b>TL</b>	TL-MT	2015	1650		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2020	1.696		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2020	0.273		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Greenland halibut Bering Sea and Aleutian Islands [GHALBSAI]

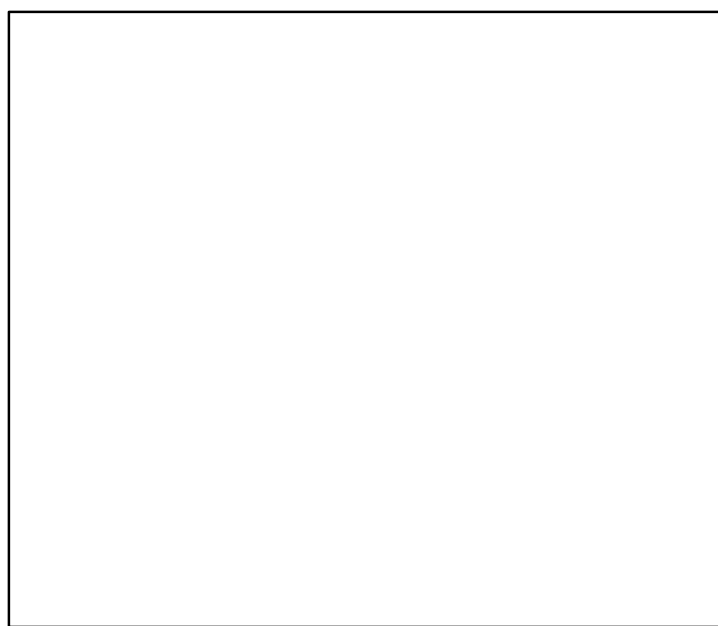
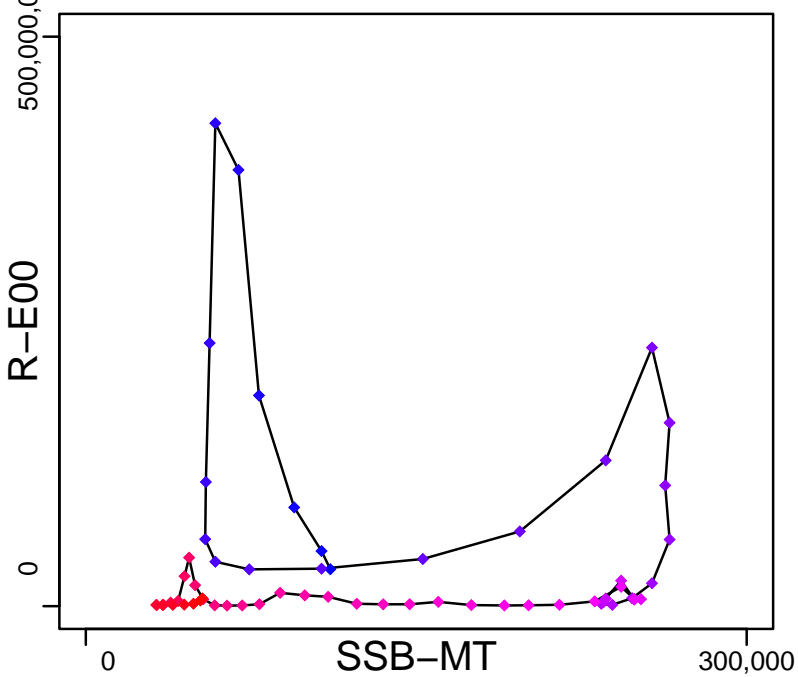
Kobe MSYpref (1960–2020–SISIMP2021–2)



Kobe MGTpref (1960–2020–SISIMP2021–2)



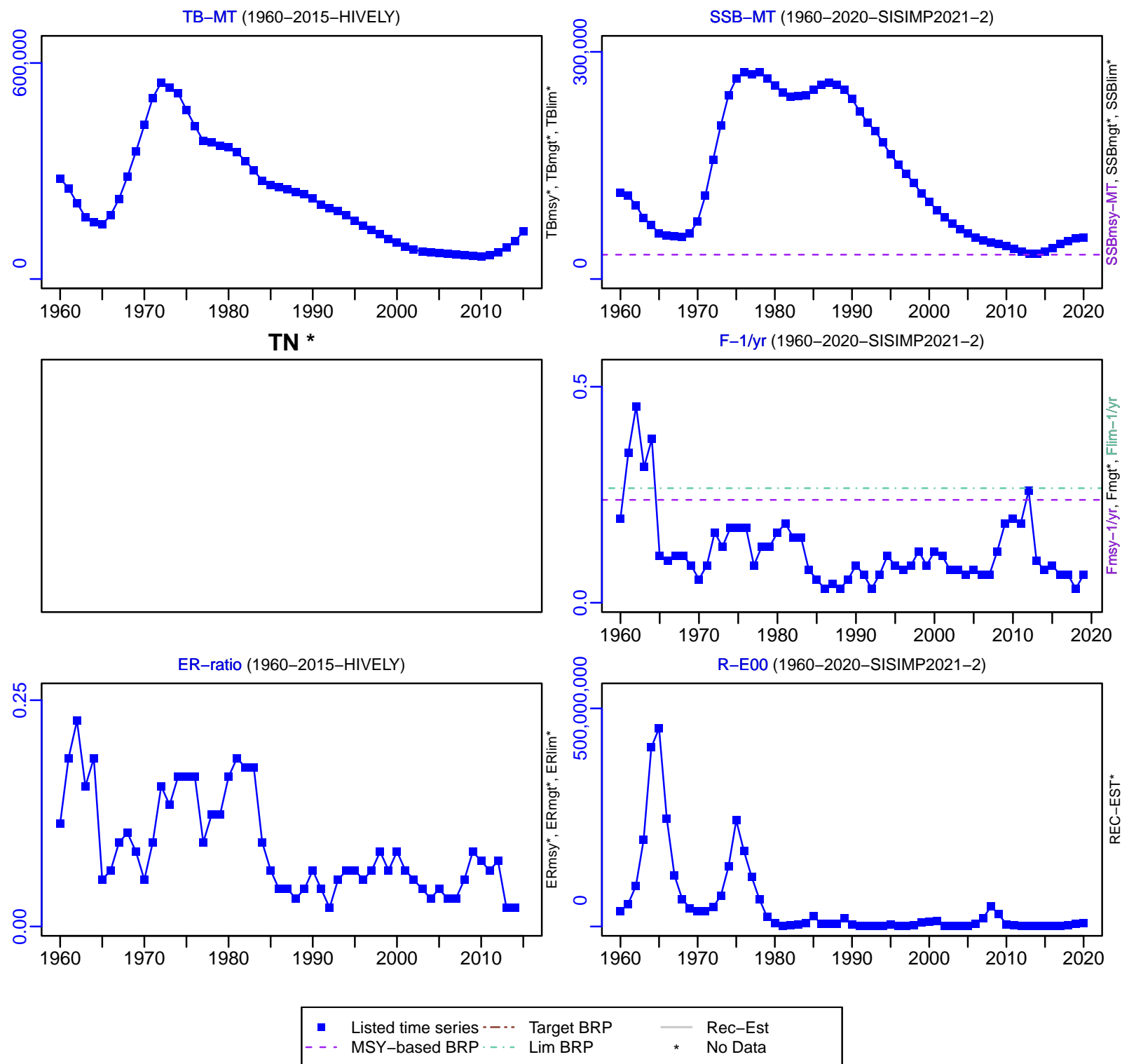
Spawner Recruit (1960–2020–SISIMP2021–2)



◆ Start Year ◆ End Year \* No Data



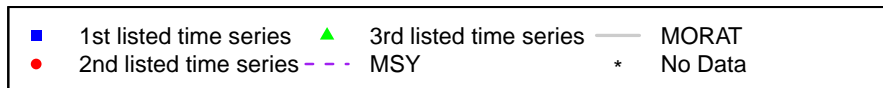
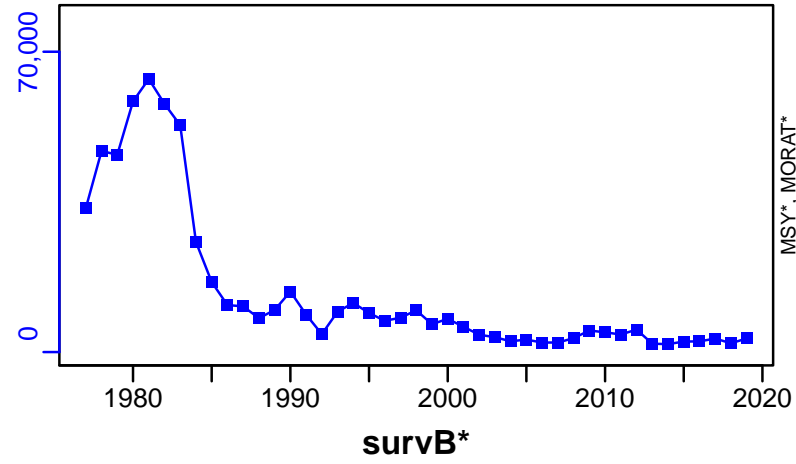
# Greenland halibut Bering Sea and Aleutian Islands [GHALBSAI]



# Greenland halibut Bering Sea and Aleutian Islands [GHALBSAI]

TC-MT, TL\*, RecC\* (1960-2020-SISIMP2021-2)

TAC\*, Cpair\*, Cadv\*



## Golden king crab Aleutian Islands Eastern segment [GKCRABAIES]

Metadata	
<b>Scientific Name</b>	Lithodes aequispinus
<b>Current Assess ID</b>	AFSC-GKCRABAIES-1985-2017-SISIMP2021
<b>Area</b>	Aleutian Islands Eastern segment
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2016, 2017

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2017	6954
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	SSB-MT	2017	13,455	-	-
TN	-	-	-	-	-
R	R-E00	2017	4,700,000	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2017	2104		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2017	1.935		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Golden king crab Aleutian Islands Eastern segment [GKCRABAIES]

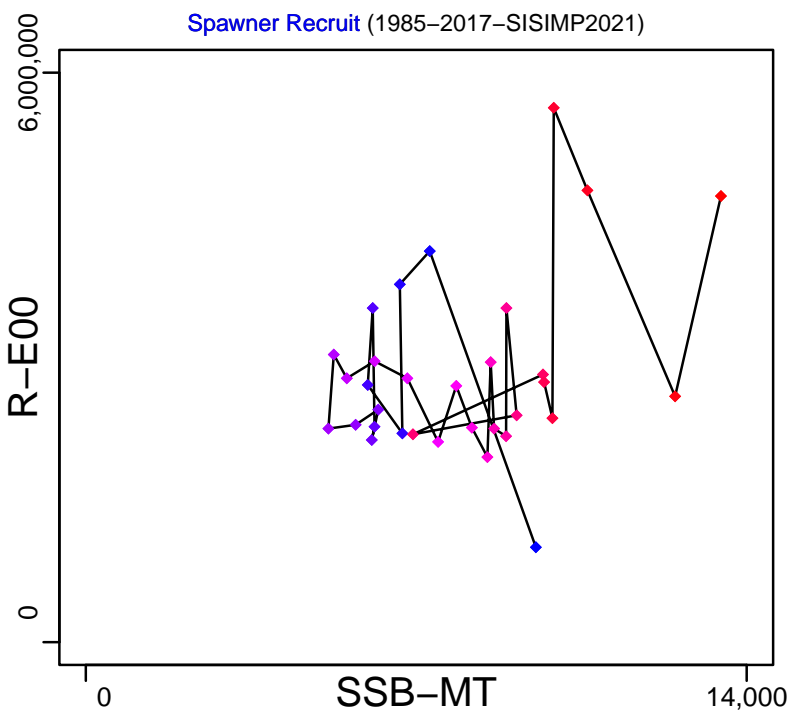
**Kobe MSY\***



**Kobe MGT\***



Spawner Recruit (1985–2017–SISIMP2021)



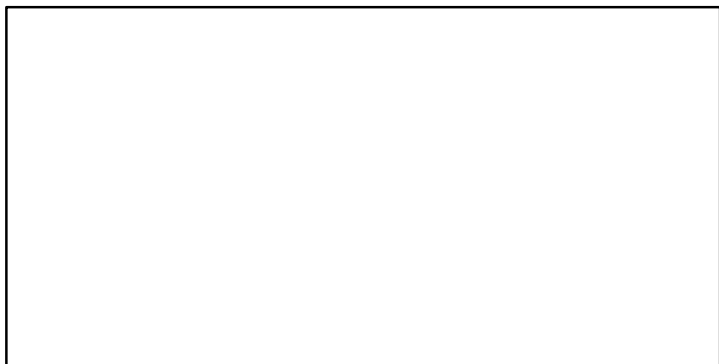
**Production\***



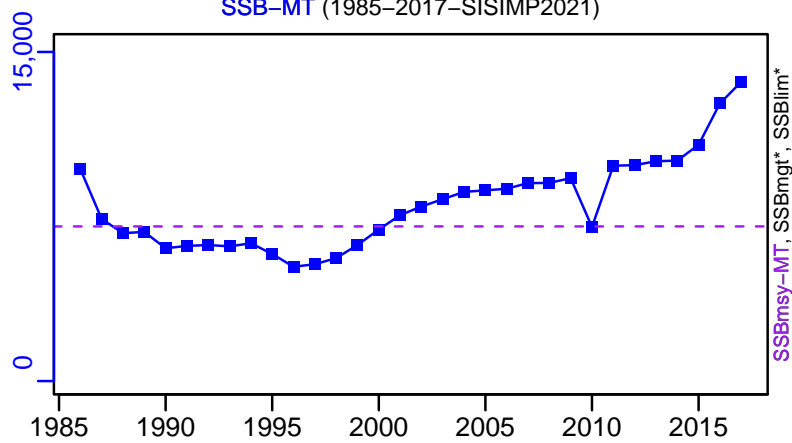
◆ Start Year ◆ End Year \* No Data

# Golden king crab Aleutian Islands Eastern segment [GKCRABAIES]

TB\*



SSB-MT (1985-2017-SISIMP2021)



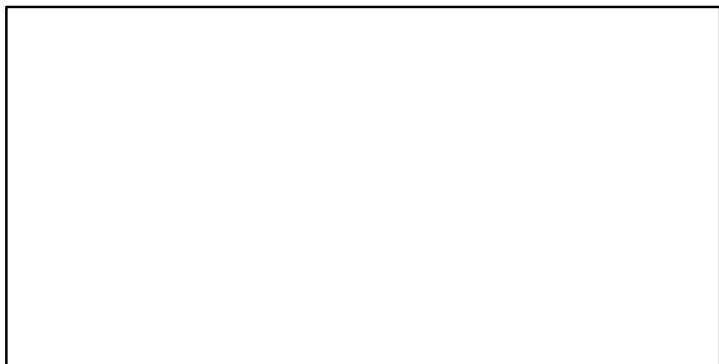
TN \*



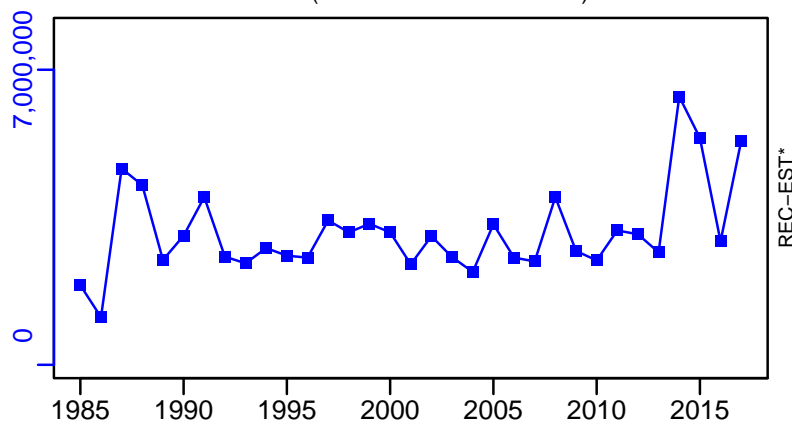
F\*



ER\*



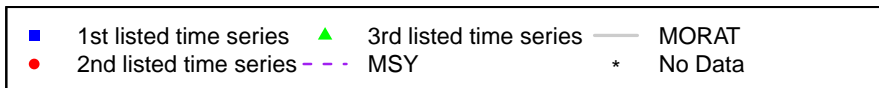
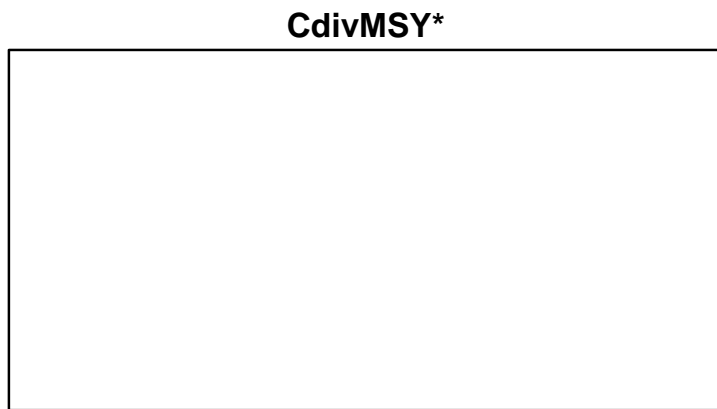
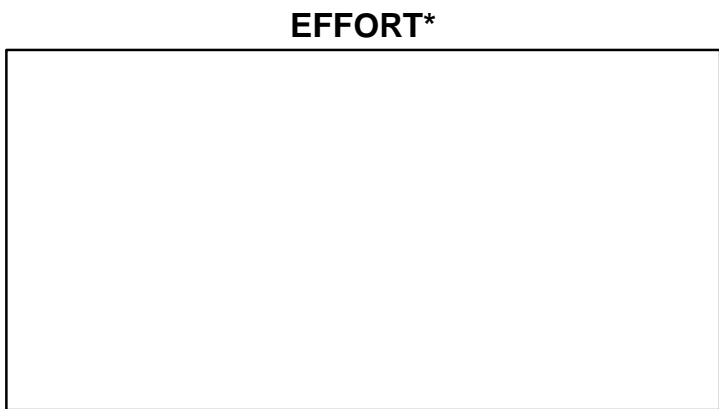
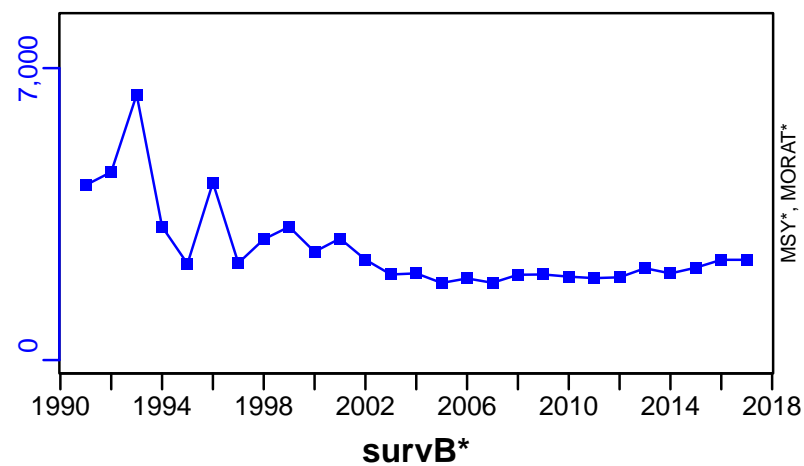
R-E00 (1985-2017-SISIMP2021)



# Golden king crab Aleutian Islands Eastern segment [GKCRABAIES]

TC-MT, TL\*, RecC\* (1985-2017-SISIMP2021)

TAC\*, Cpair\*, Cadv\*



## Golden king crab Aleutian Islands Western segment [GKCRABAIWS]

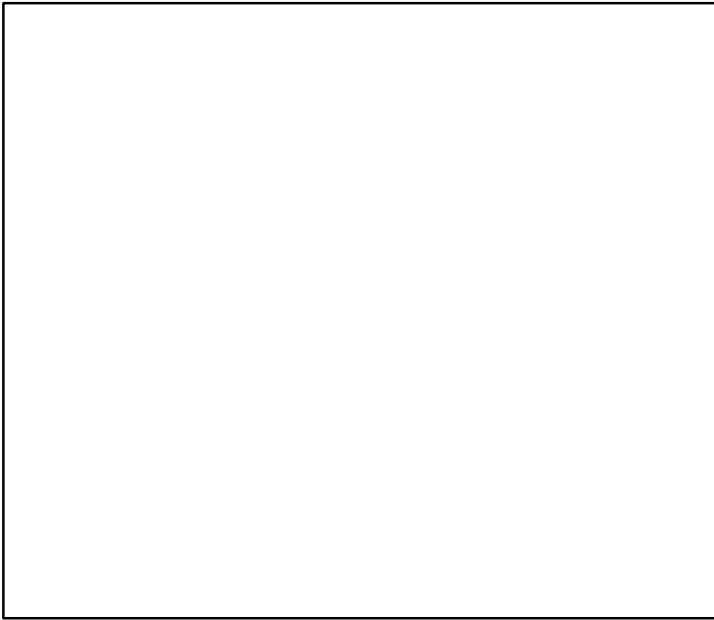
Metadata	
<b>Scientific Name</b>	Lithodes aequispinus
<b>Current Assess ID</b>	AFSC-GKCRABAIWS-1985-2017-SISIMP2021
<b>Area</b>	Aleutian Islands Western segment
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2016, 2017

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2017	5138
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

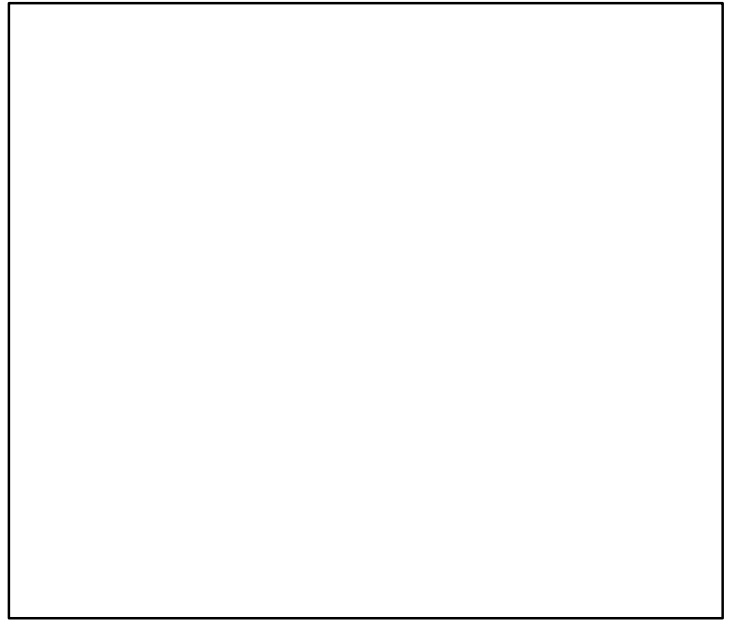
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2017	6269	-	-
TN	-	-	-	-	-
R	R-E00	2017	2,060,000	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2017	1425		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2017	1.22		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Golden king crab Aleutian Islands Western segment [GKCRABAIWS]

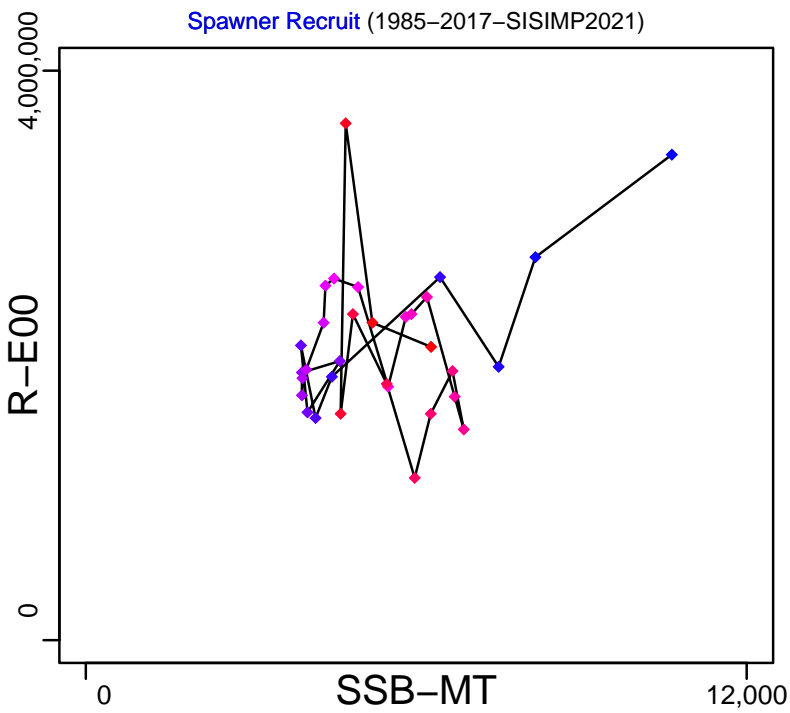
Kobe MSY\*



Kobe MGT\*



Spawner Recruit (1985–2017–SISIMP2021)



Production\*



◆ Start Year ◆ End Year \* No Data

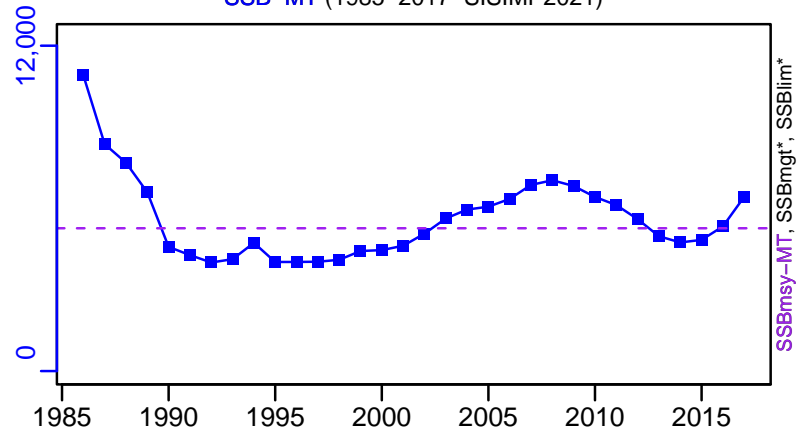


# Golden king crab Aleutian Islands Western segment [GKCRABAIWS]

TB\*



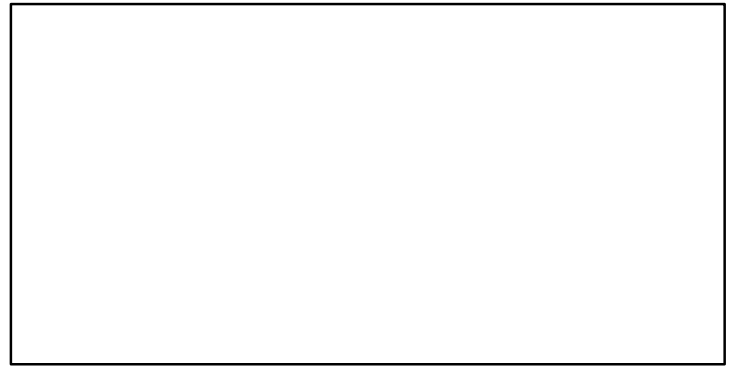
SSB-MT (1985-2017-SISIMP2021)



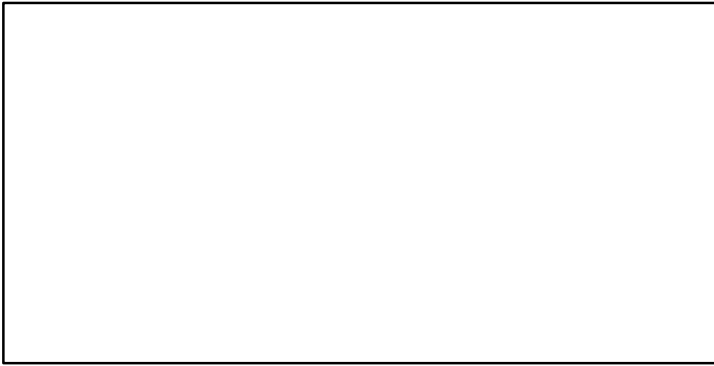
TN \*



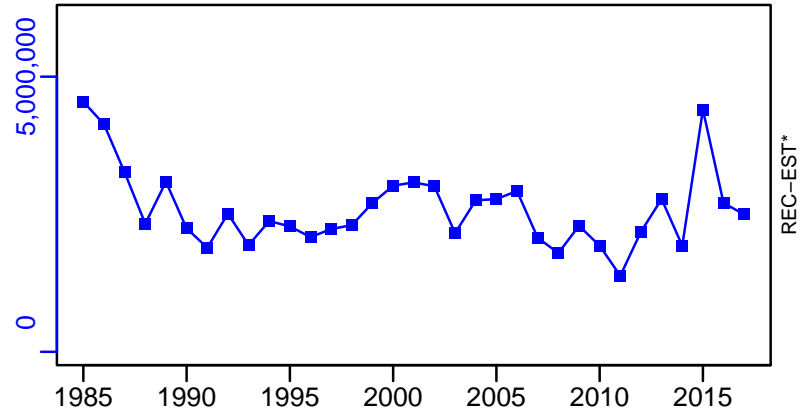
F\*



ER\*



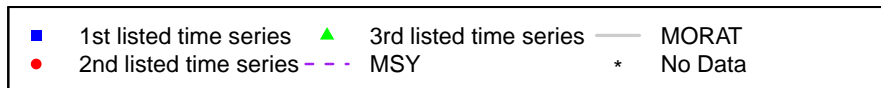
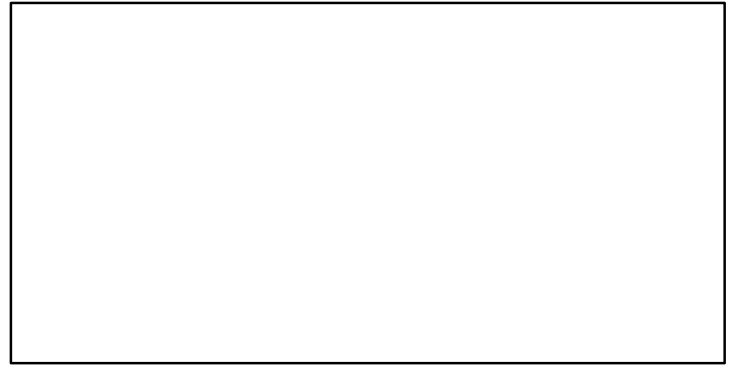
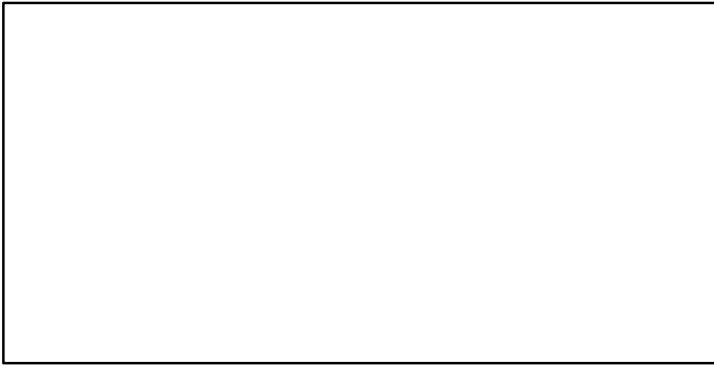
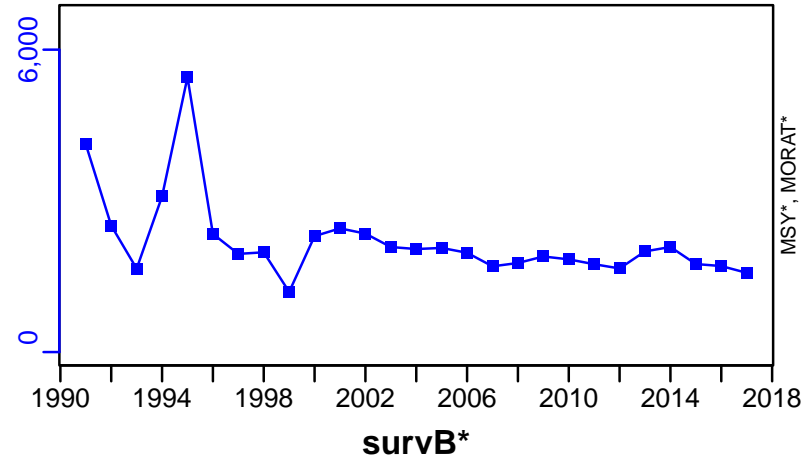
R-E00 (1985-2017-SISIMP2021)



# Golden king crab Aleutian Islands Western segment [GKCRABAIWS]

TC-MT, TL\*, RecC\* (1985-2017-SISIMP2021)

TAC\*, Cpair\*, Cadv\*



## Golden king crab Pribilof Islands [GKCRABPI]

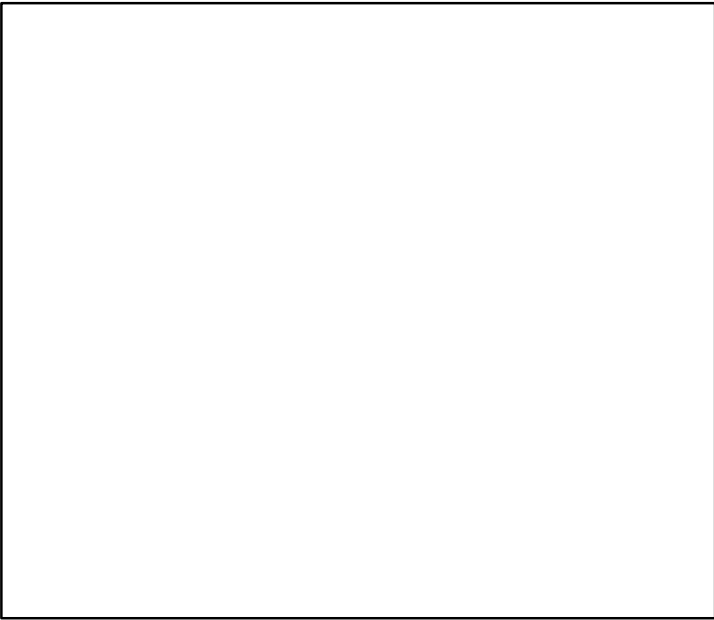
Metadata	
<b>Scientific Name</b>	Lithodes aequispinus
<b>Current Assess ID</b>	AFSC-GKCRABPI-1982-2016-SISIMP2021
<b>Area</b>	Pribilof Islands
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2016, 2009

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

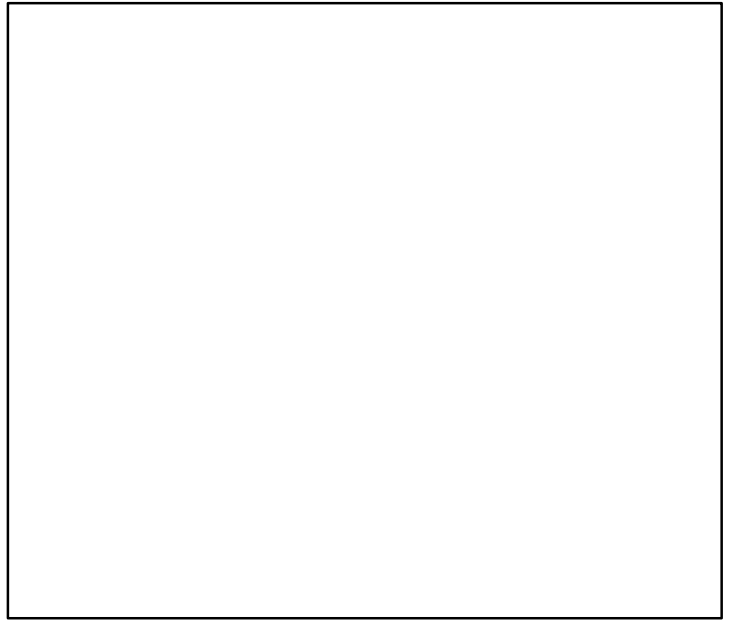
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2016	0		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Golden king crab Pribilof Islands [GKCRABPI]

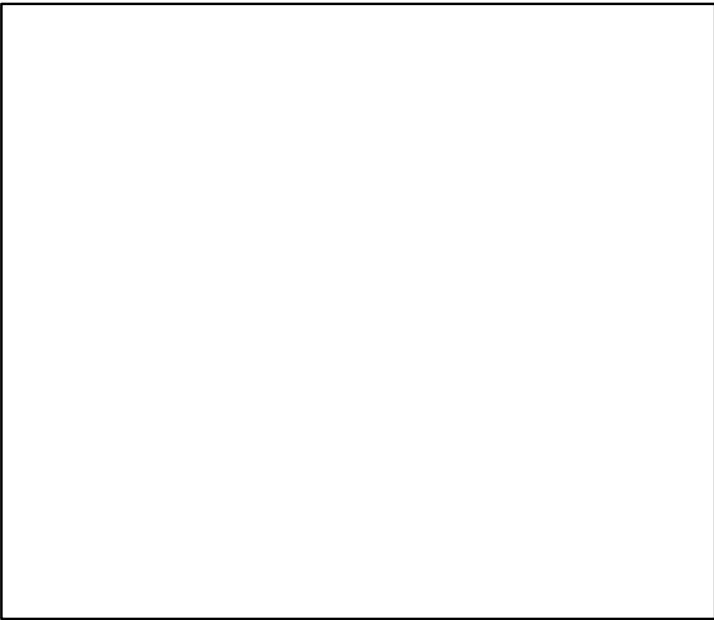
**Kobe MSY\***



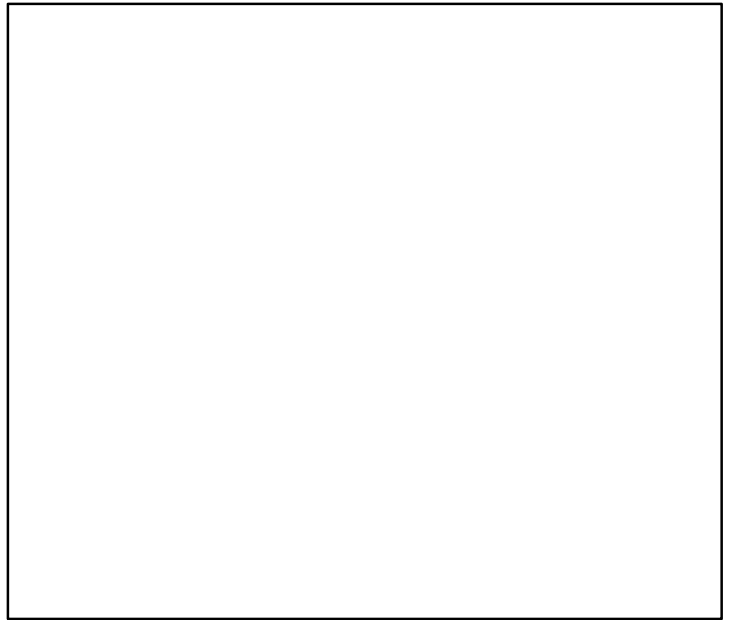
**Kobe MGT\***



**Spawner Recruit\***



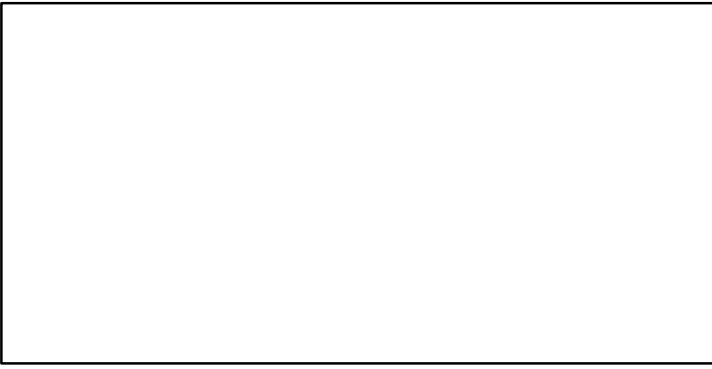
**Production\***



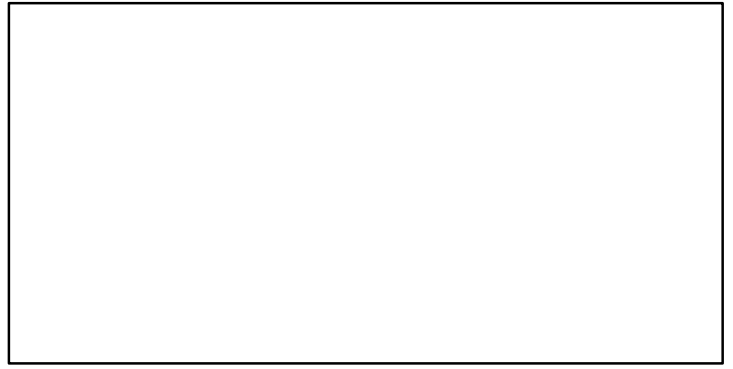
◆ Start Year ◆ End Year \* No Data

Golden king crab Pribilof Islands [GKCRABPI]

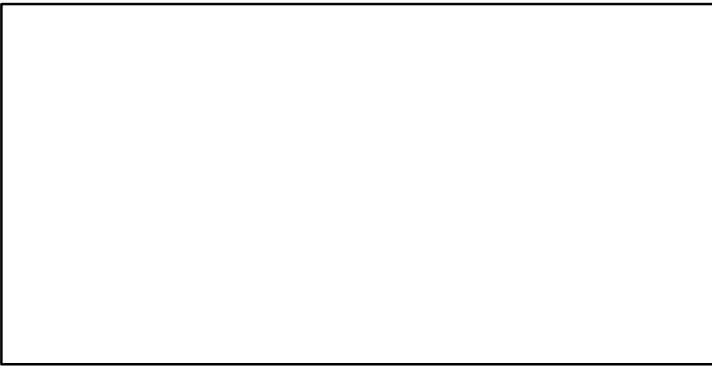
**TB\***



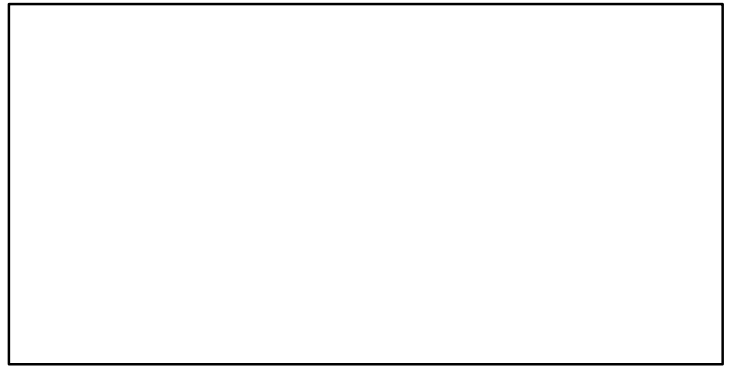
**SSB\***



**TN \***



**F\***



**ER\***

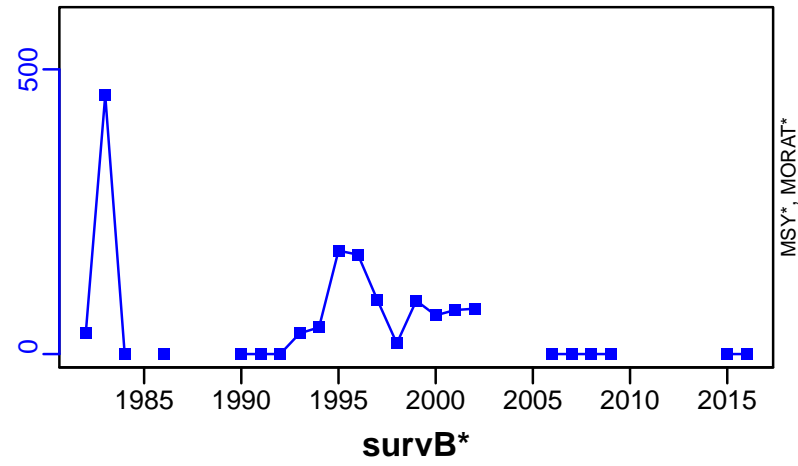


**Recruits\***

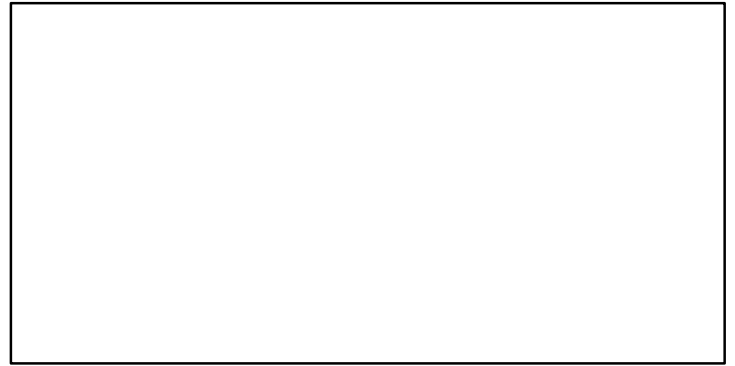


# Golden king crab Pribilof Islands [GKCRABPI]

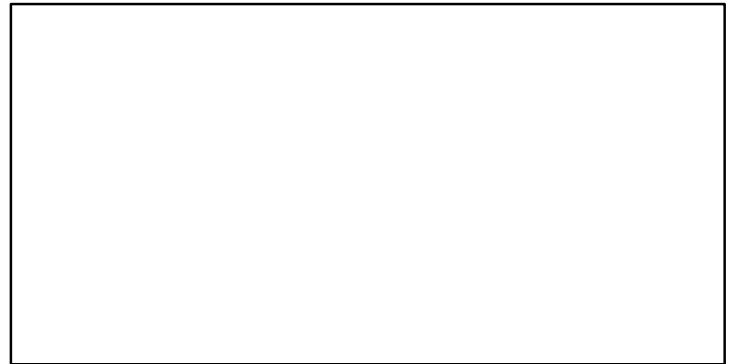
TC-MT, TL\*, RecC\* (1982-2016-SISIMP2021)



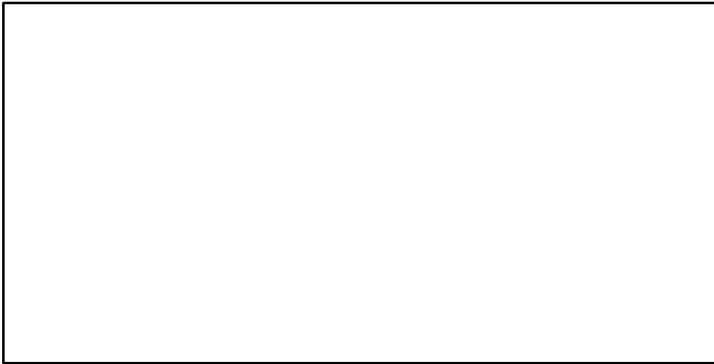
TAC\*, Cpair\*, Cadv\*



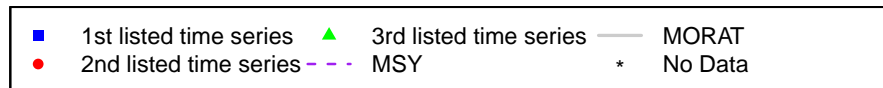
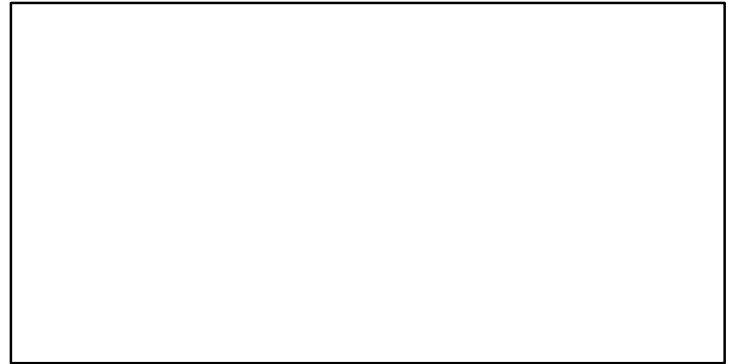
CPUE\*



EFFORT\*



CdivMSY\*



## Giant Pacific octopus Bering Sea and Aleutian Islands [GPOCTOBSAI]

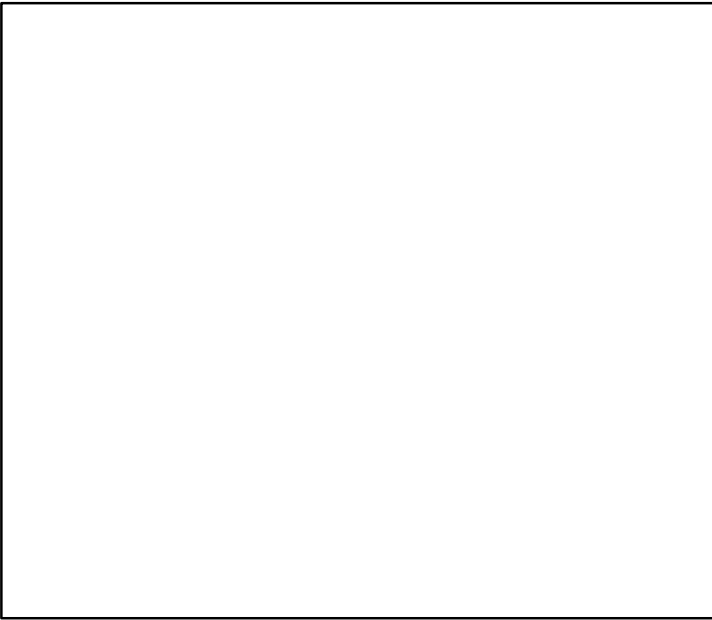
Metadata	
<b>Scientific Name</b>	Enteroctopus dofleini
<b>Current Assess ID</b>	AFSC-GPOCTOBSAI-1997-2019-SISIMP2021-2
<b>Area</b>	Bering Sea and Aleutian Islands
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2014, 2015, 2017, 2019

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

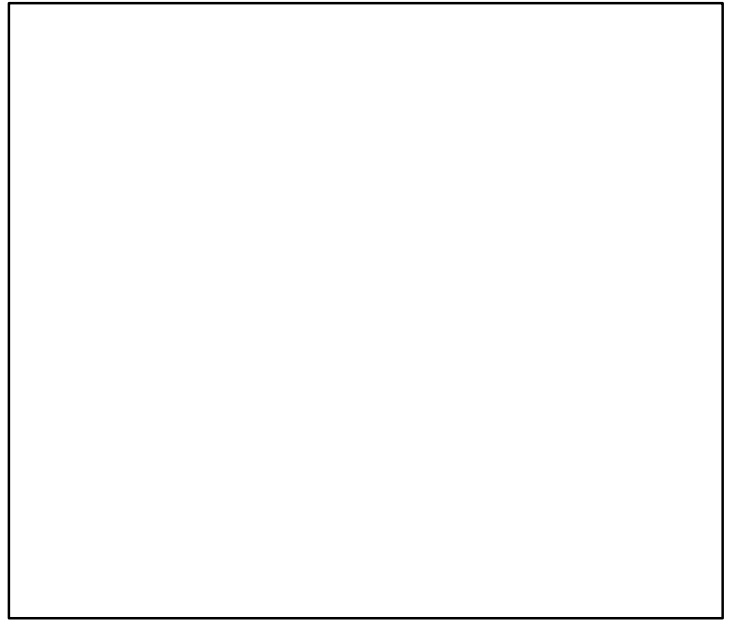
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2019	268		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Giant Pacific octopus Bering Sea and Aleutian Islands [GPOCTOBSAI]

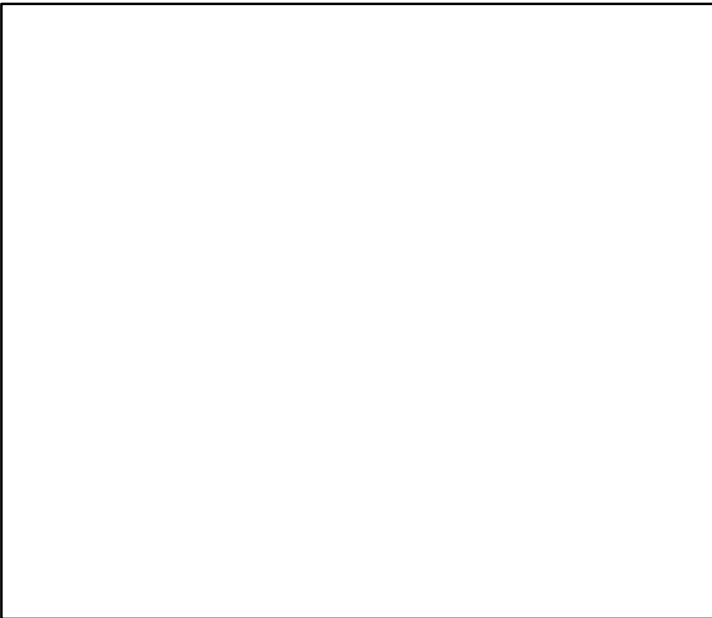
**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



**Production\***

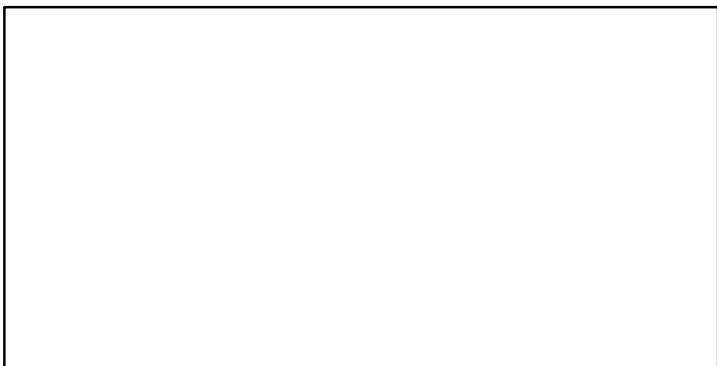


◆ Start Year ◆ End Year \* No Data

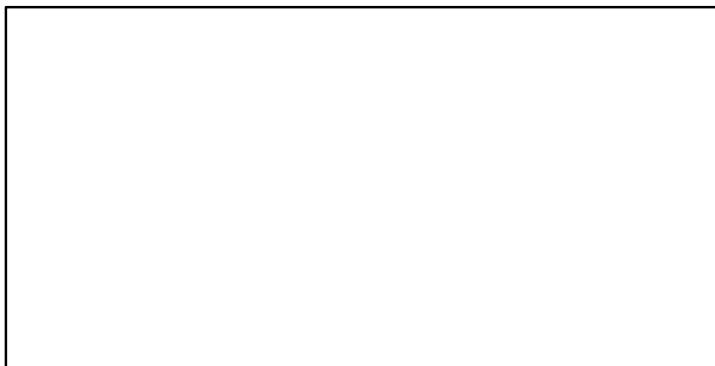


Giant Pacific octopus Bering Sea and Aleutian Islands [GPOCTOBSAI]

**TB\***



**SSB\***



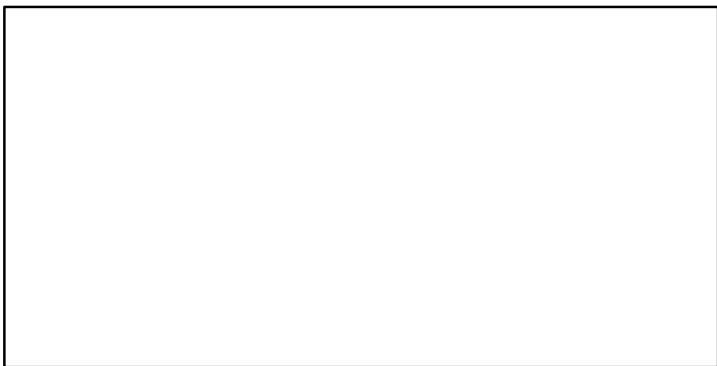
**TN \***



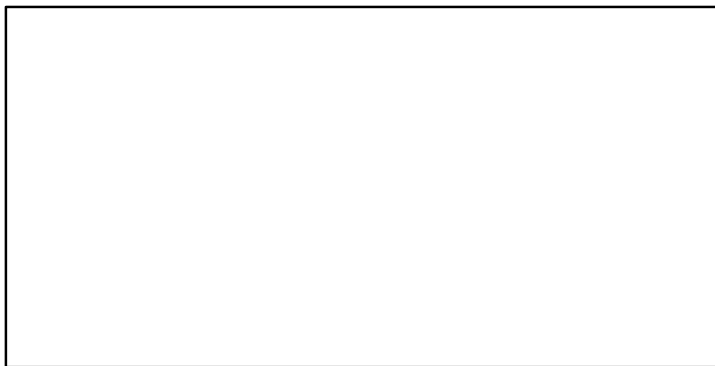
**F\***



**ER\***



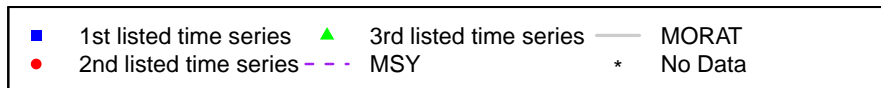
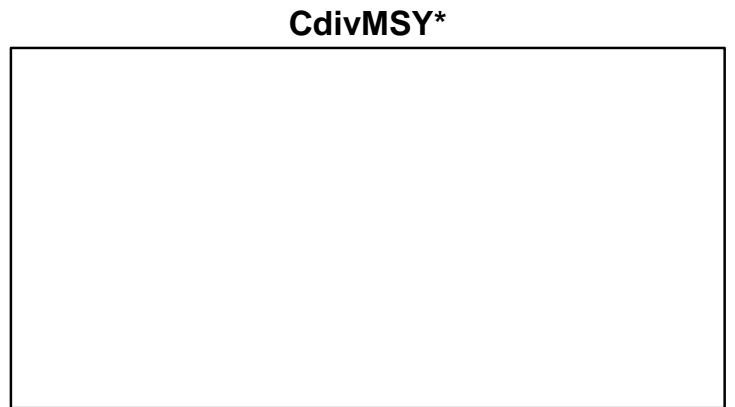
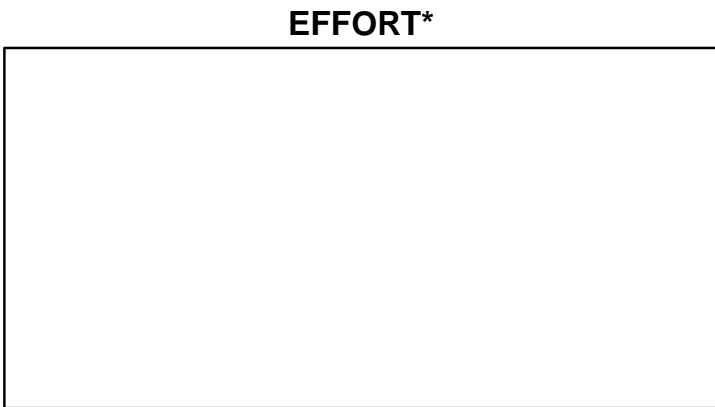
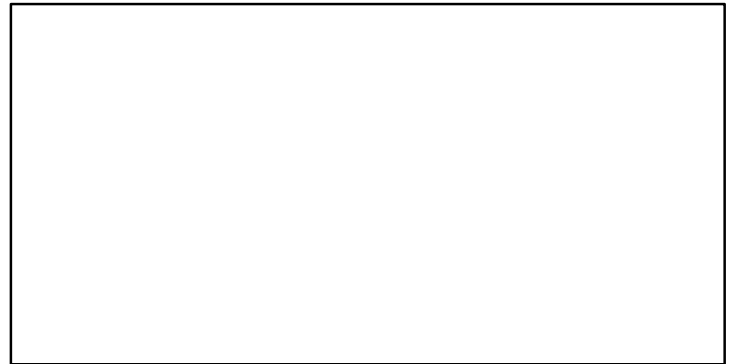
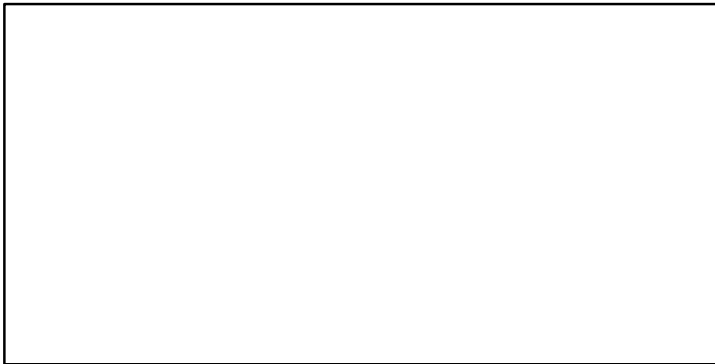
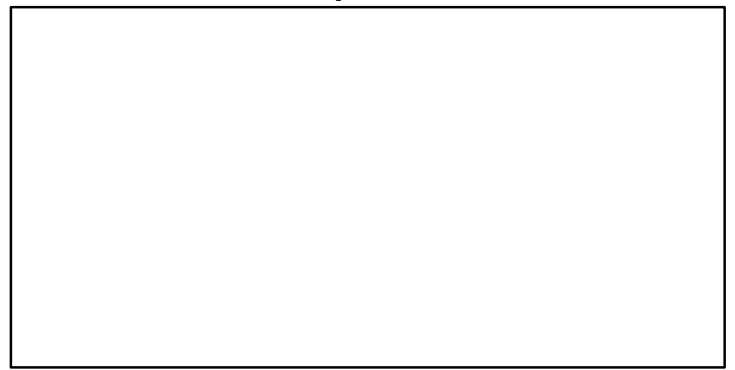
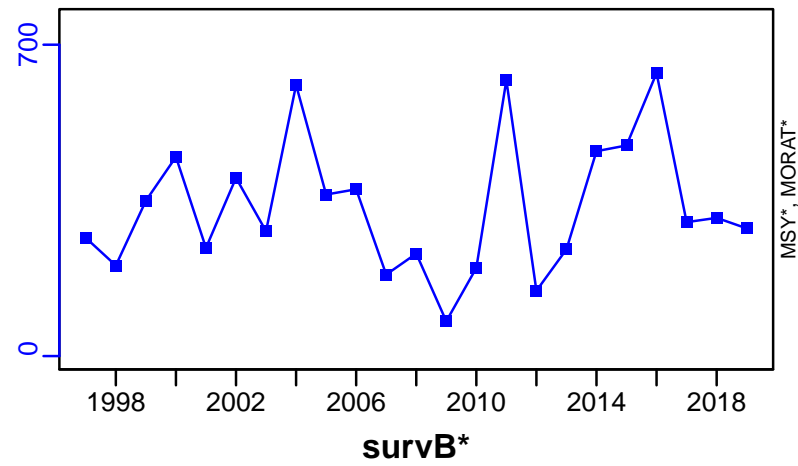
**Recruits\***



# Giant Pacific octopus Bering Sea and Aleutian Islands [GPOCTOBSAI]

TC-MT, TL\*, RecC\* (1997-2019-SISIMP2021-2)

TAC\*, Cpair\*, Cadv\*

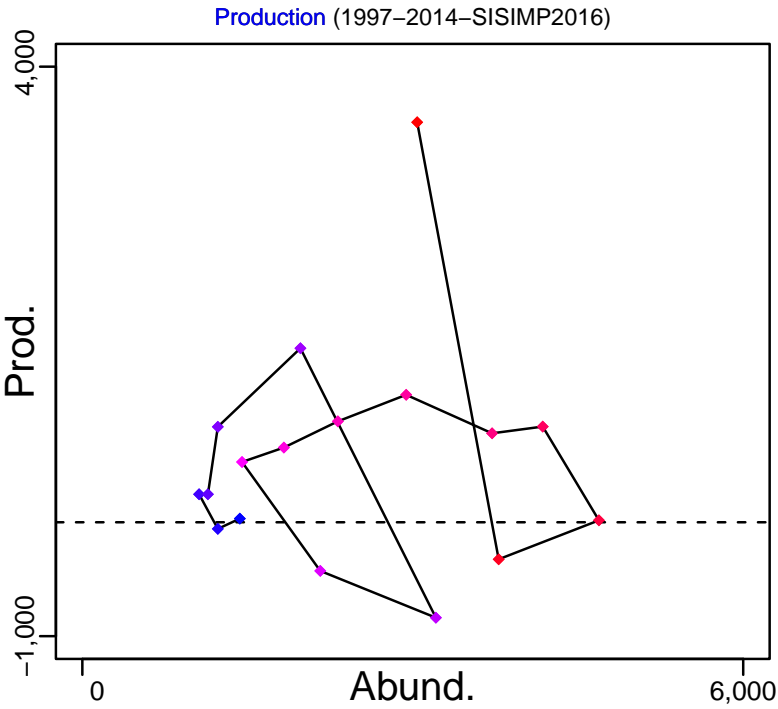
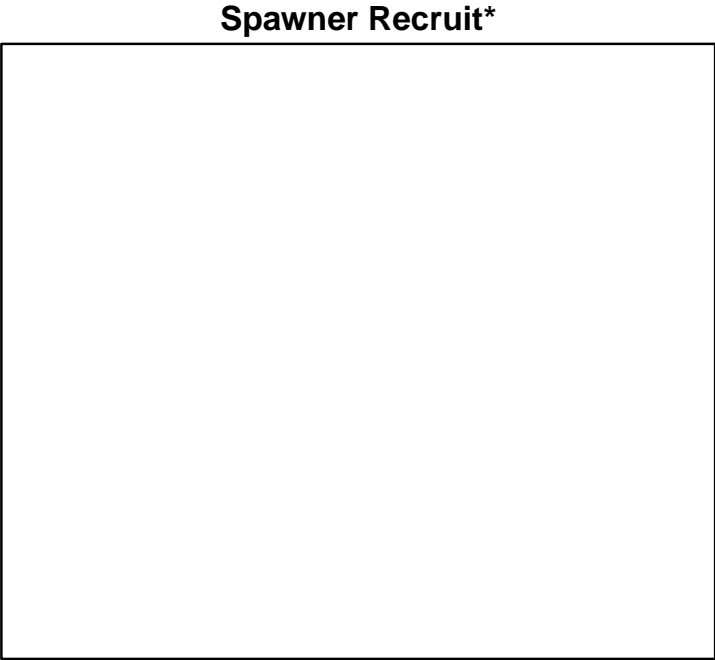
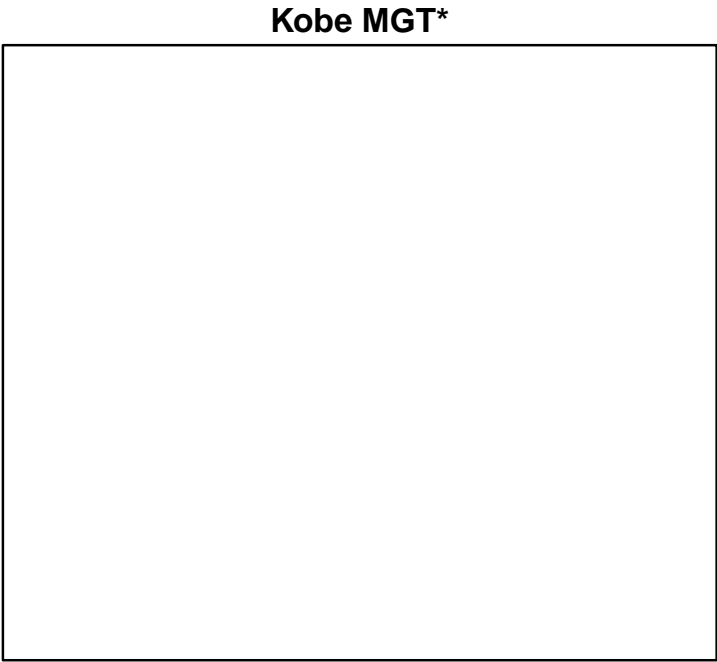
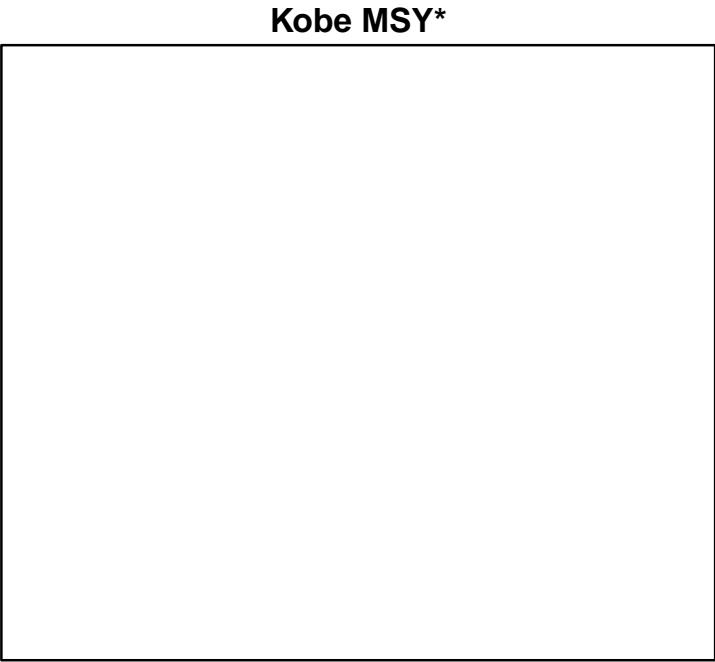


## Giant Pacific octopus Gulf of Alaska [GPOCTOGA]

Metadata	
<b>Scientific Name</b>	Enteroctopus dofleini
<b>Current Assess ID</b>	AFSC-GPOCTOGA-1997-2016-SISIMP2021
<b>Area</b>	Gulf of Alaska
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2014, 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	-	-	-

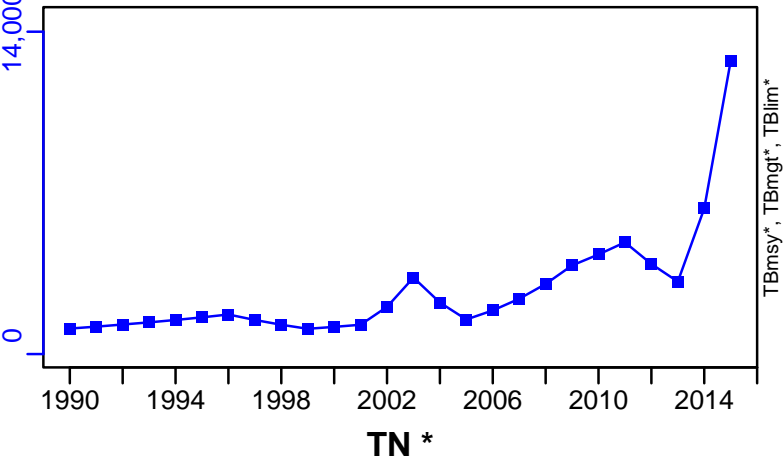
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2014	12,300	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-calc-ratio	2014	0.213	-	-
TC	TC-MT	2016	382		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



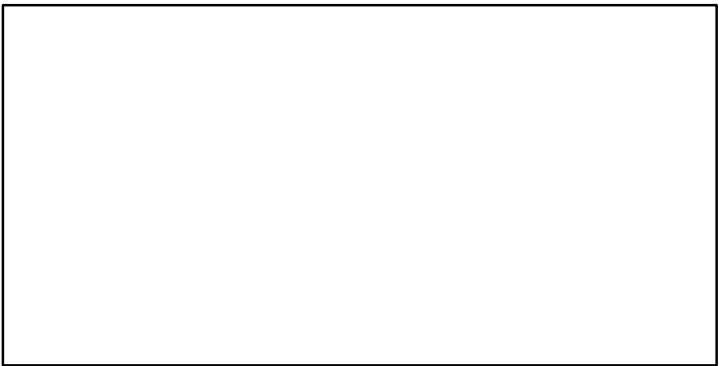
◆ Start Year ◆ End Year \* No Data

Giant Pacific octopus Gulf of Alaska [GPOCTOGA]

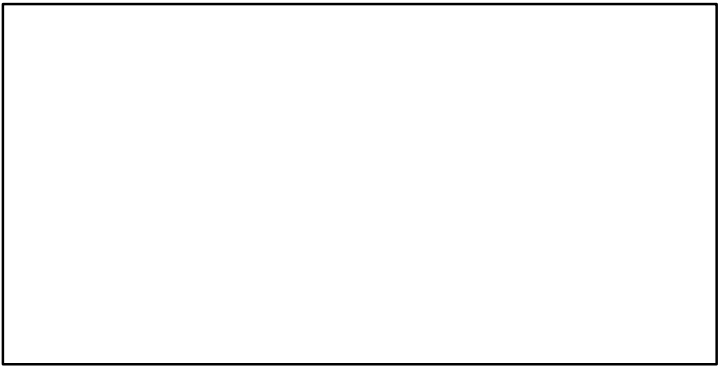
TB-MT (1997–2014–SISIMP2016)



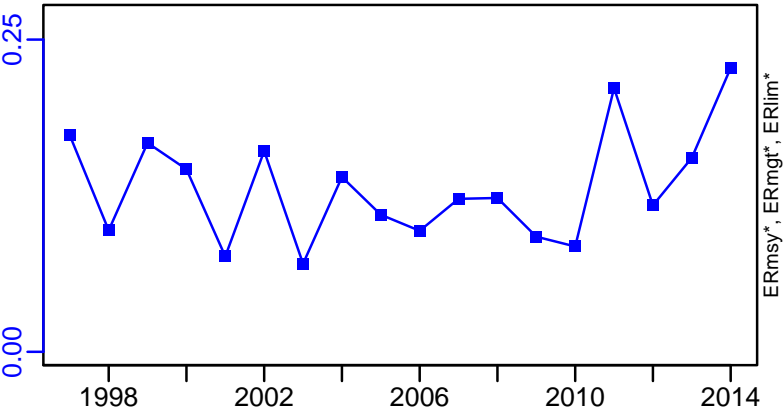
SSB\*



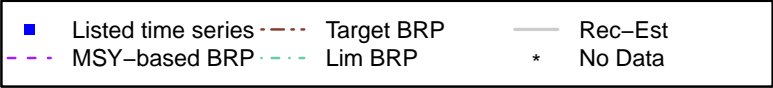
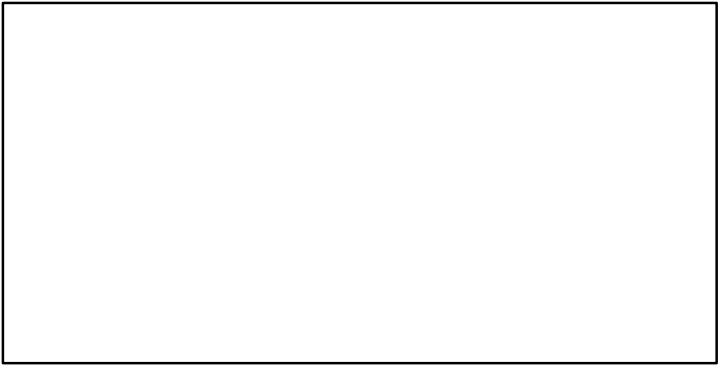
F\*



ER-calc-ratio (1997–2014–SISIMP2016)

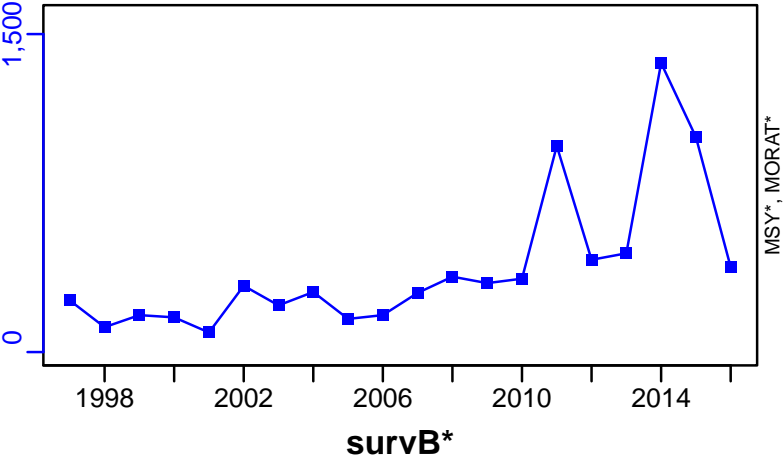


Recruits\*



Giant Pacific octopus Gulf of Alaska [GPOCTOGA]

TC-MT, TL\*, RecC\* (1997-2016-SISIMP2021)



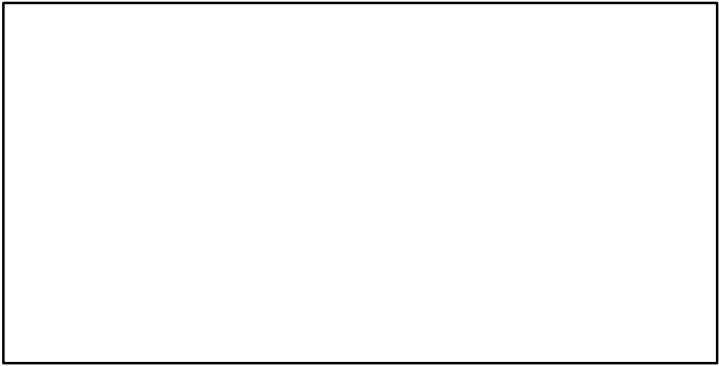
TAC\*, Cpair\*, Cadv\*



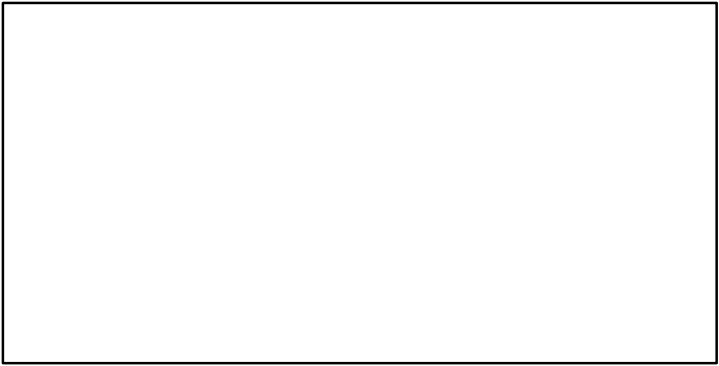
CPUE\*



EFFORT\*



CdivMSY\*



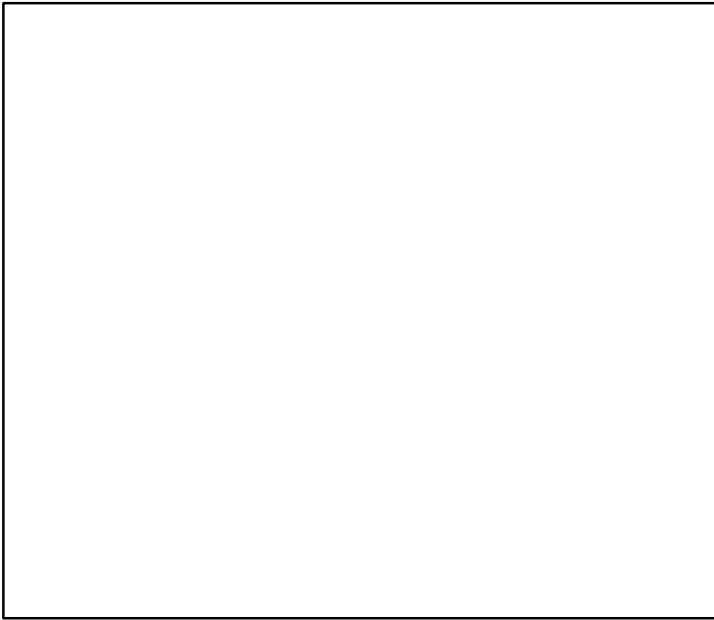
## Pacific herring Prince William Sound [HERRPWS]

Metadata	
<b>Scientific Name</b>	Clupea pallasii
<b>Current Assess ID</b>	ADFG-HERRPWS-1980-2006-COLLIE
<b>Area</b>	Prince William Sound
<b>Management Authority</b>	State of Alaska
<b>Assessor</b>	Alaska Department of Fish and Game
<b>Asmts in RAM</b>	2006

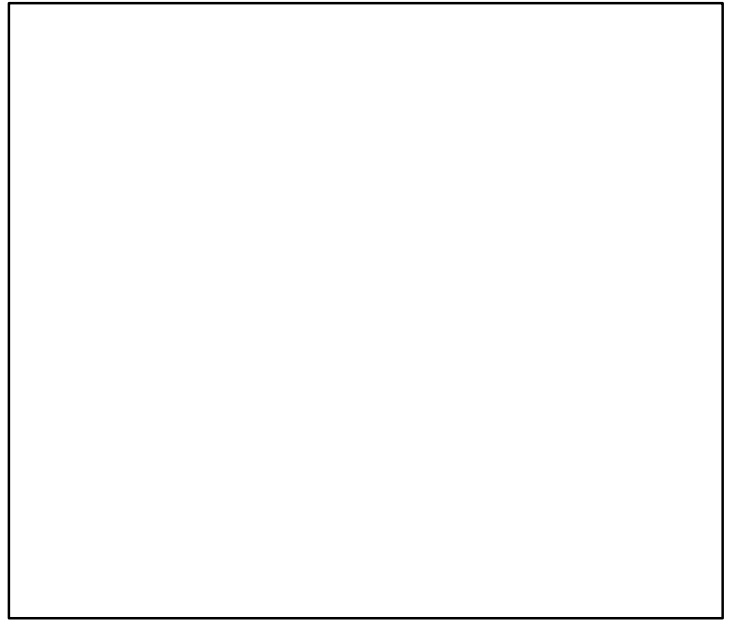
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2006	0.25
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2006	9500	Both	3+
TN	-	-	-	-	-
R	R-E00	2006	30,300,000	-	3
F	F-1/yr	2006	0	Both	3+
ER	-	-	-	-	-
TC	TC-E00	2006	0		
TL	TL-MT	2006	0		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

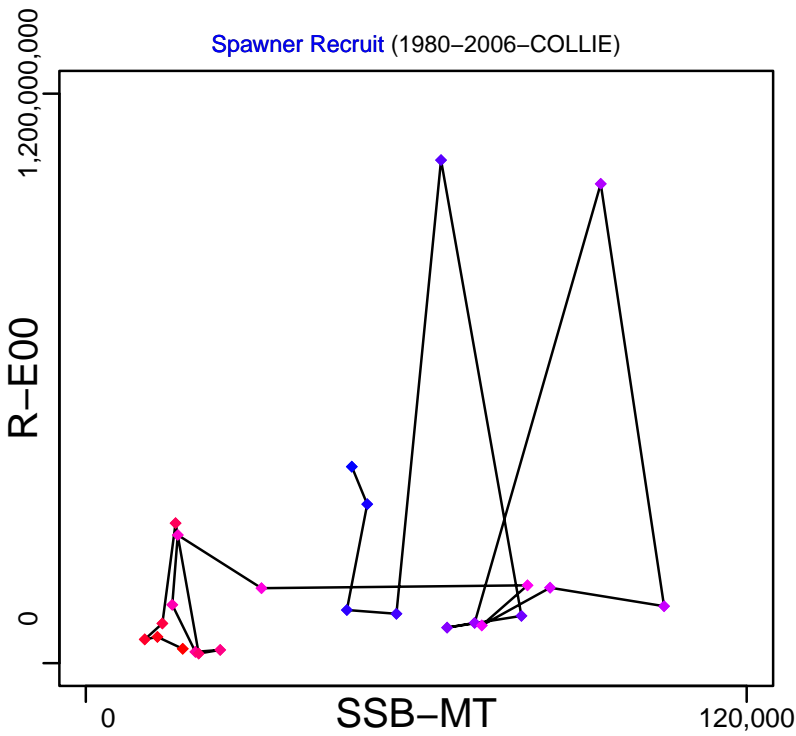
**Kobe MSY\***



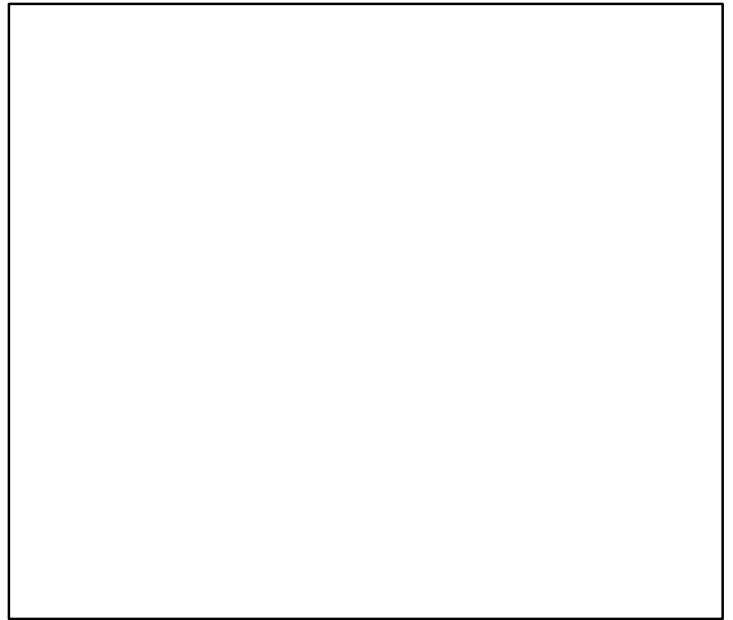
**Kobe MGT\***



Spawner Recruit (1980–2006–COLLIE)



**Production\***



◆ Start Year ◆ End Year \* No Data

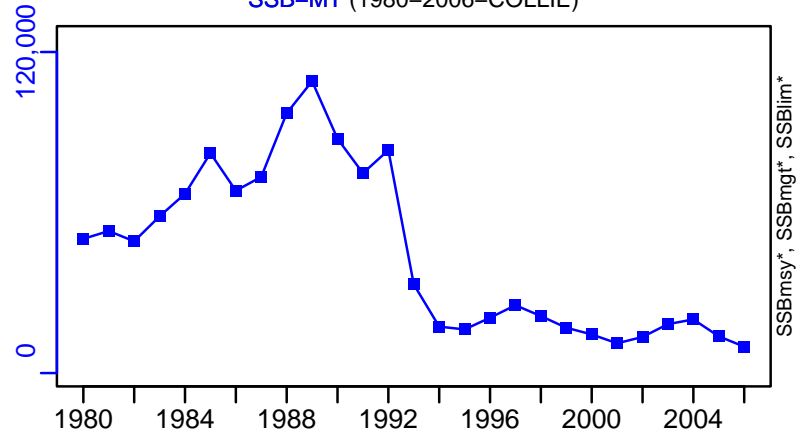


Pacific herring Prince William Sound [HERRPWS]

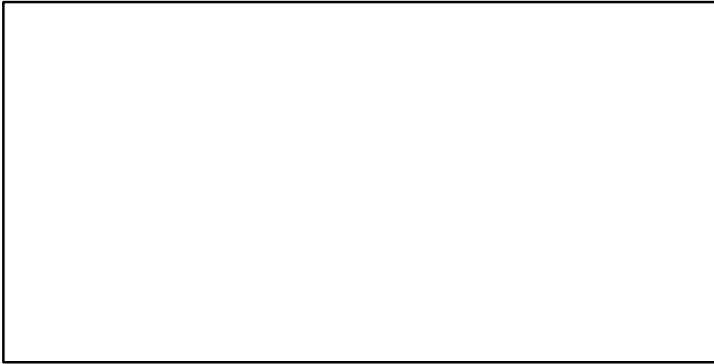
TB\*



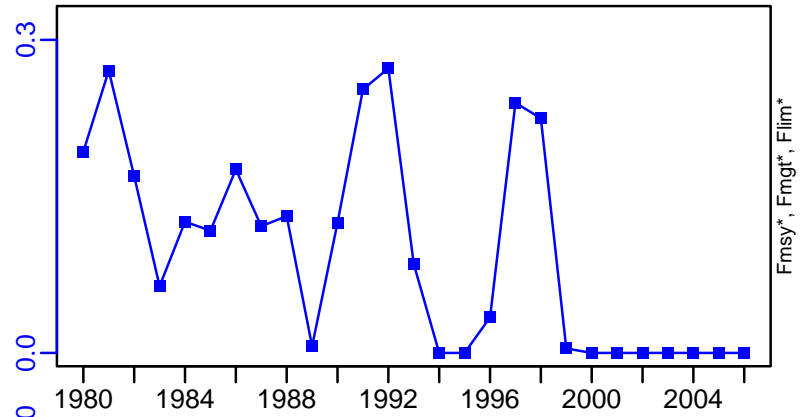
SSB-MT (1980–2006–COLLIE)



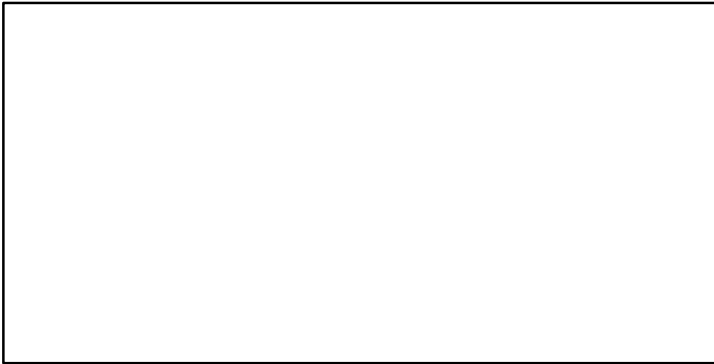
TN \*



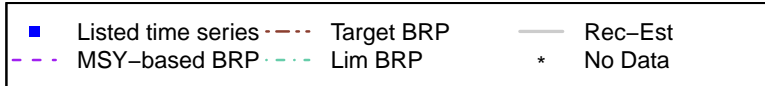
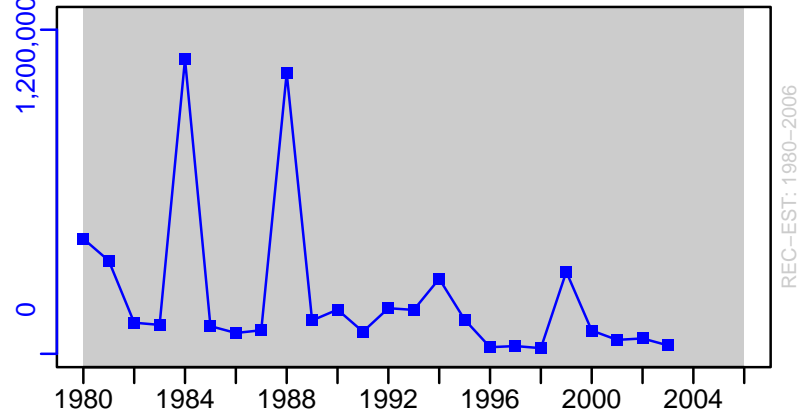
F-1/yr (1980–2006–COLLIE)



ER\*



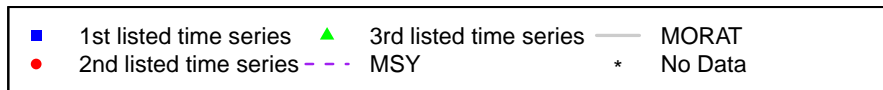
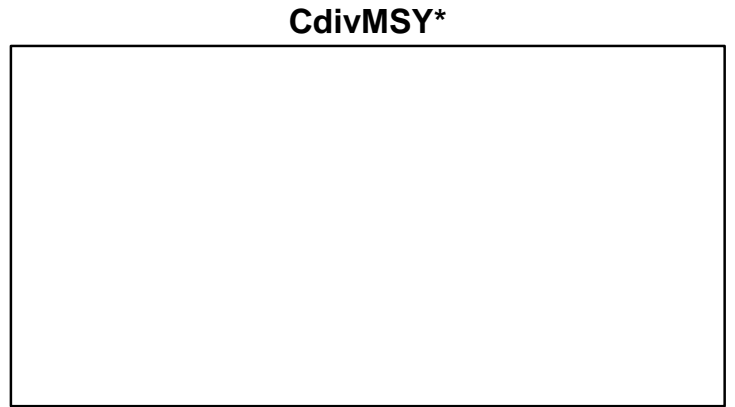
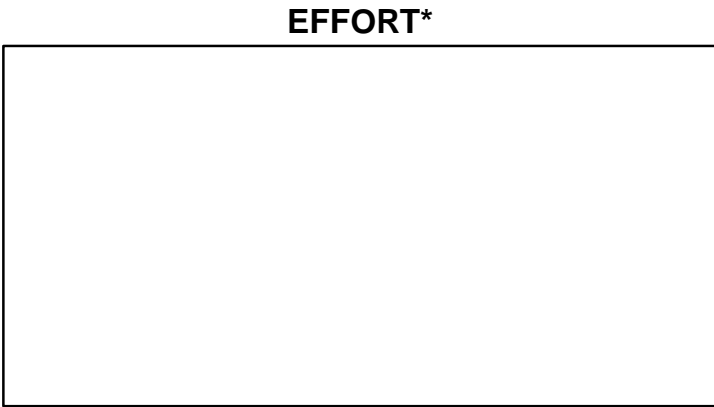
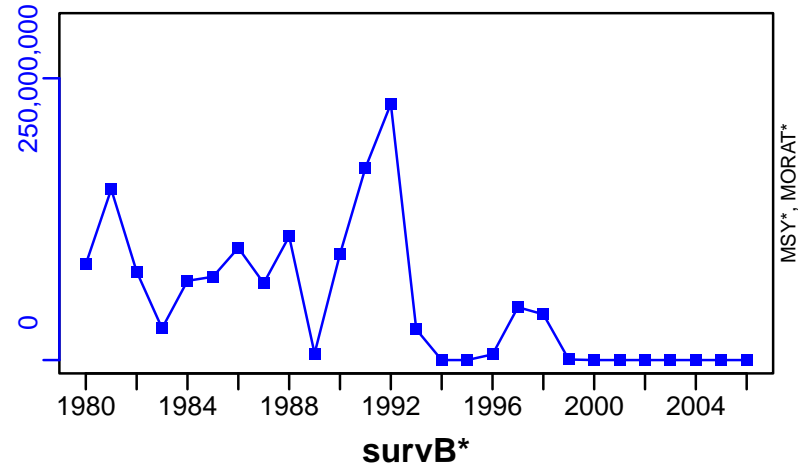
R-E00 (1980–2006–COLLIE)



# Pacific herring Prince William Sound [HERRPWS]

TC-E00, TL\*, RecC\* (1980-2006-COLLIE)

TAC\*, Cpair\*, Cadv\*



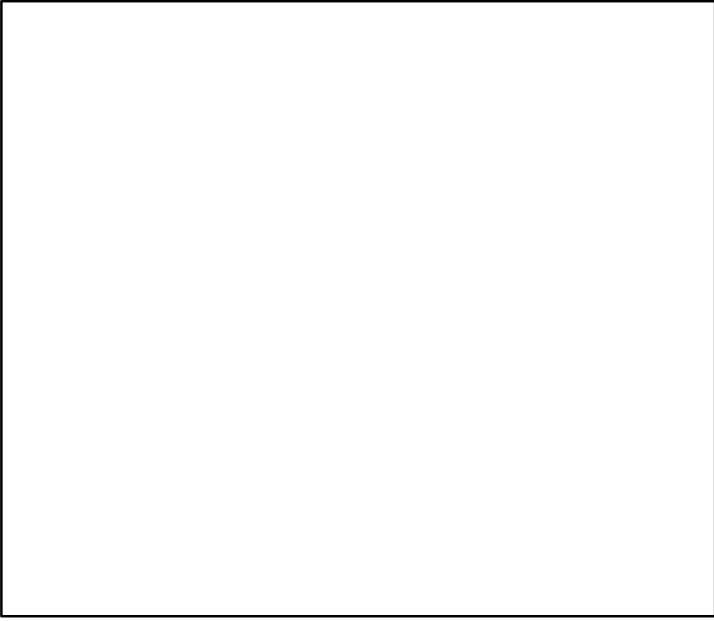
## Pacific herring Sitka [HERRSITKA]

Metadata	
<b>Scientific Name</b>	Clupea pallasii
<b>Current Assess ID</b>	ADFG-HERRSITKA-1978-2007-COLLIE
<b>Area</b>	Sitka
<b>Management Authority</b>	State of Alaska
<b>Assessor</b>	Alaska Department of Fish and Game
<b>Asmts in RAM</b>	2007

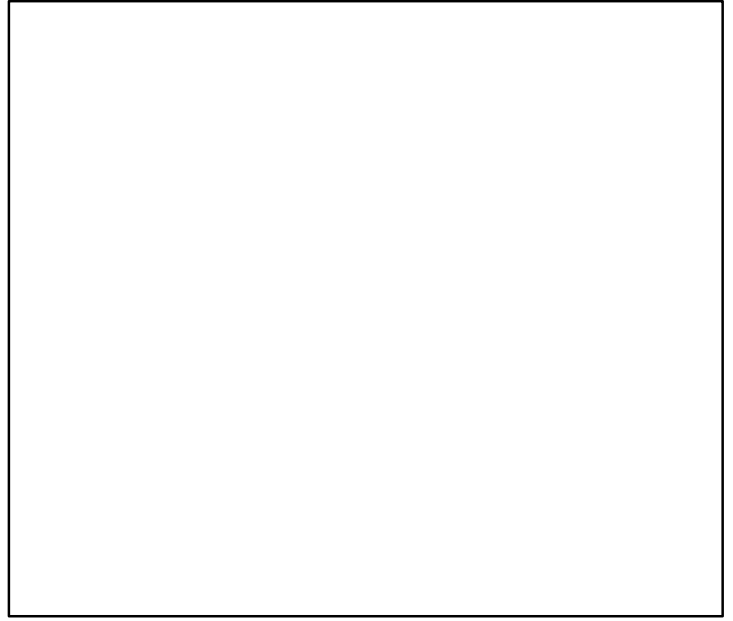
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2007	0.2
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2007	98,400	-	3+
SSB	SSB-MT	2007	82,900	Both	3+
TN	-	-	-	-	-
R	R-E00	2007	$1.14 \times 10^8$	-	3
F	F-1/yr	2007	0.118	Both	3+
ER	-	-	-	-	-
TC	TC-E00	2007	69,600,000		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

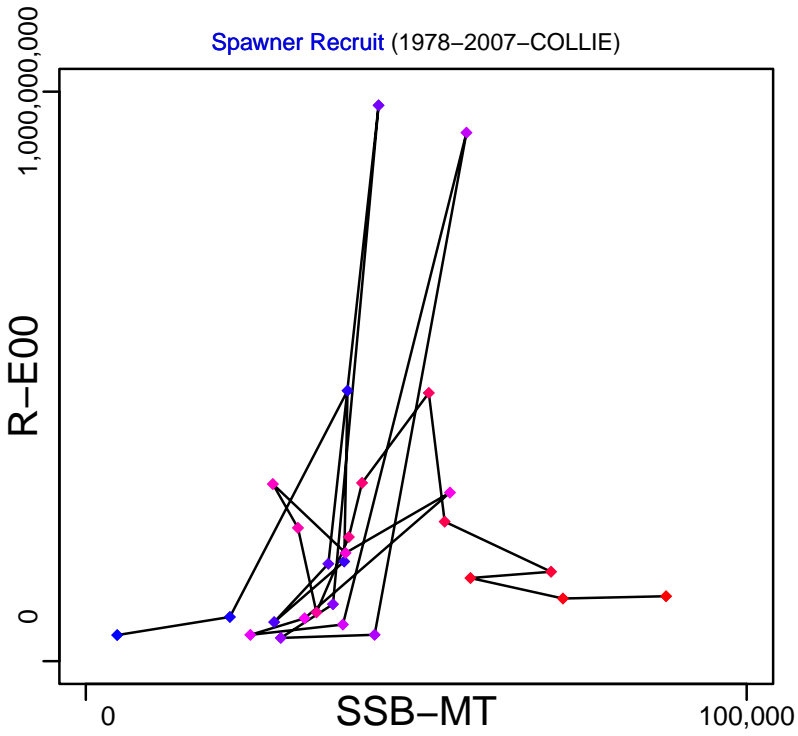
Kobe MSY\*



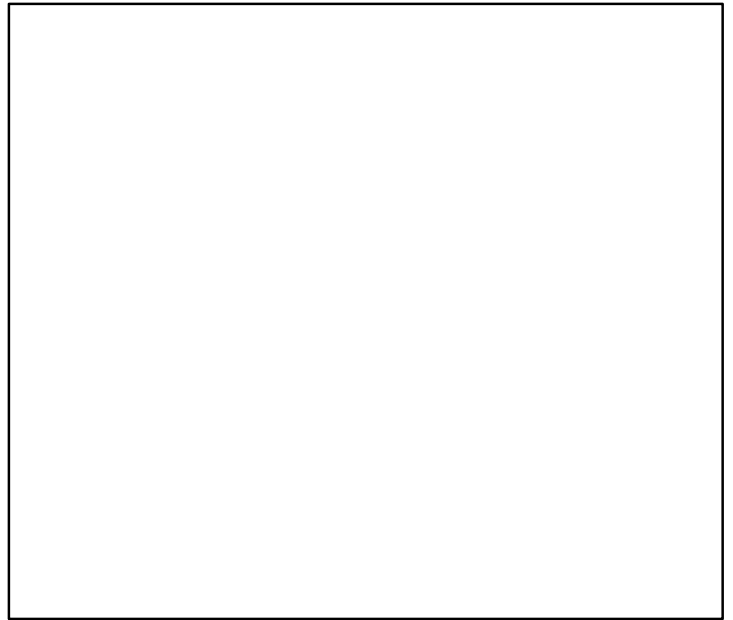
Kobe MGT\*



Spawner Recruit (1978–2007–COLLIE)



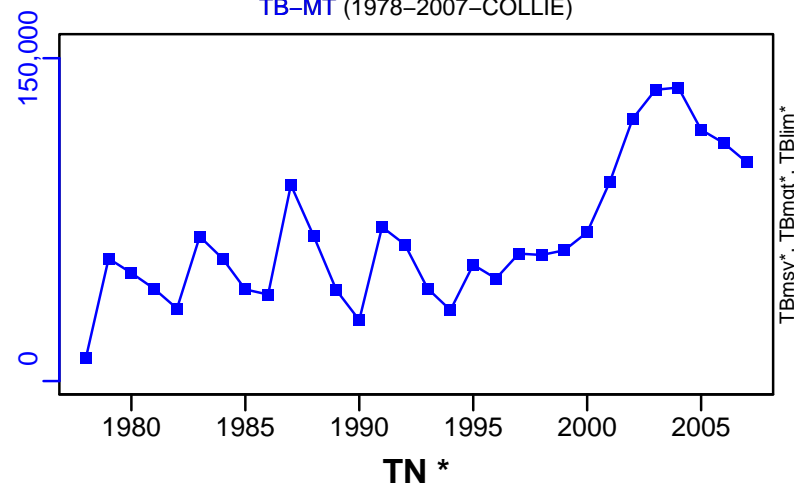
Production\*



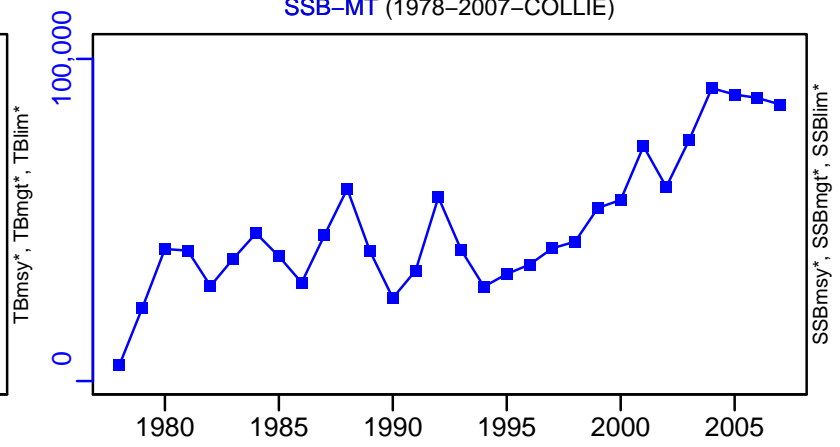
◆ Start Year ◆ End Year \* No Data

# Pacific herring Sitka [HERRSITKA]

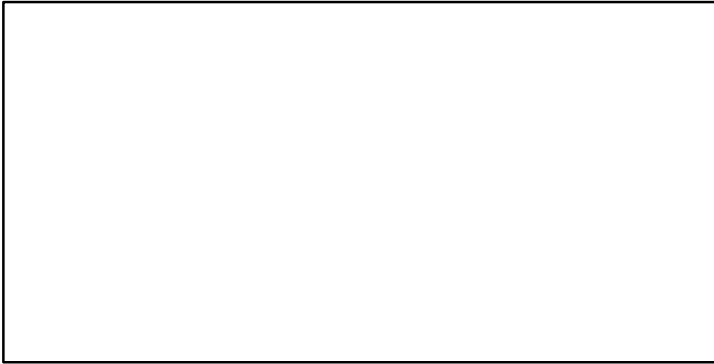
TB-MT (1978-2007-COLLIE)



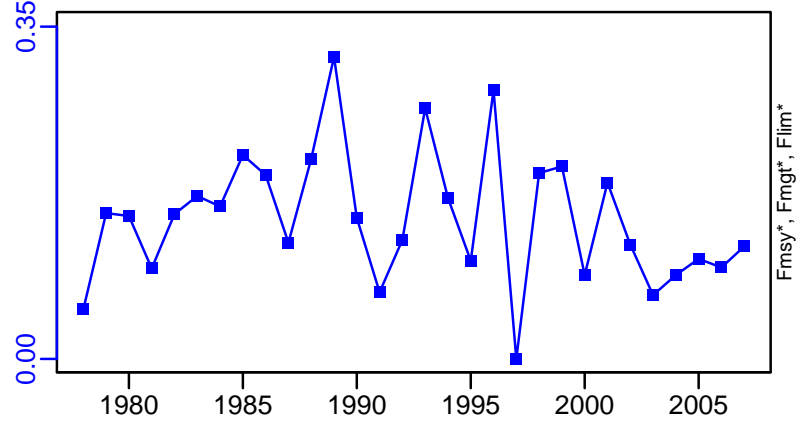
SSB-MT (1978-2007-COLLIE)



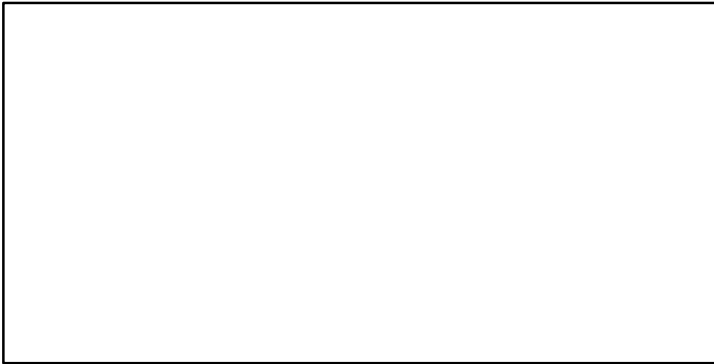
TN \*



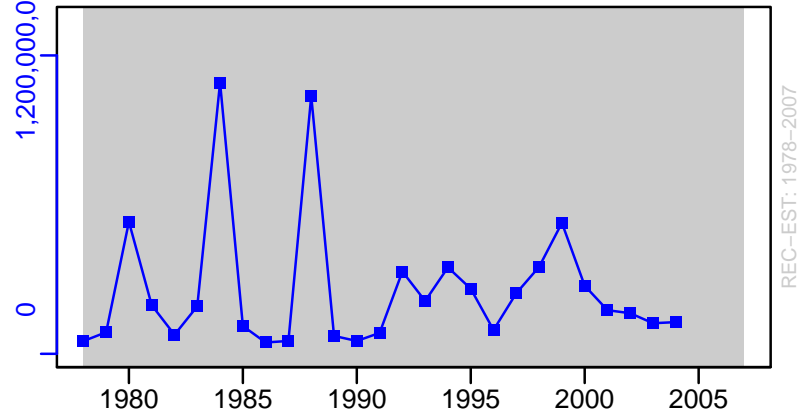
F-1/yr (1978-2007-COLLIE)



ER\*

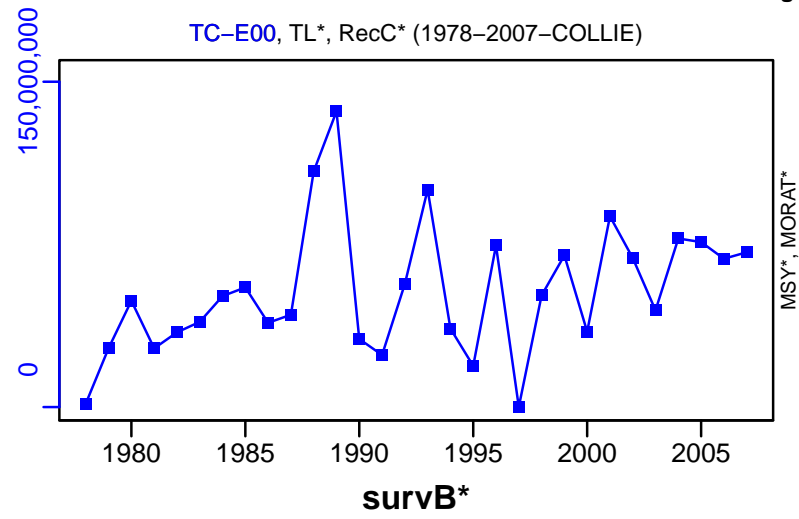


R-E00 (1978-2007-COLLIE)

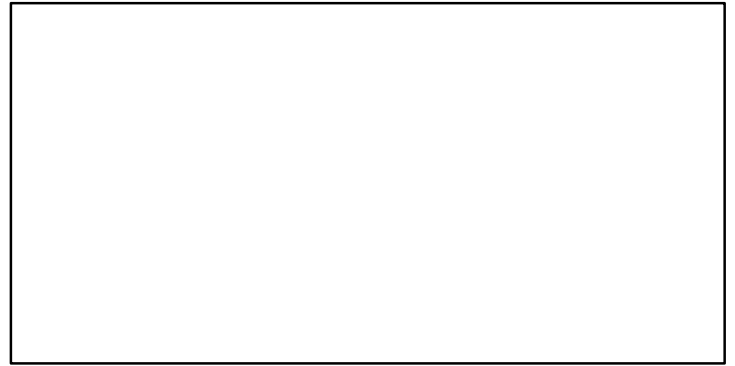


Pacific herring Sitka [HERRSITKA]

TC-E00, TL\*, RecC\* (1978-2007-COLLIE)



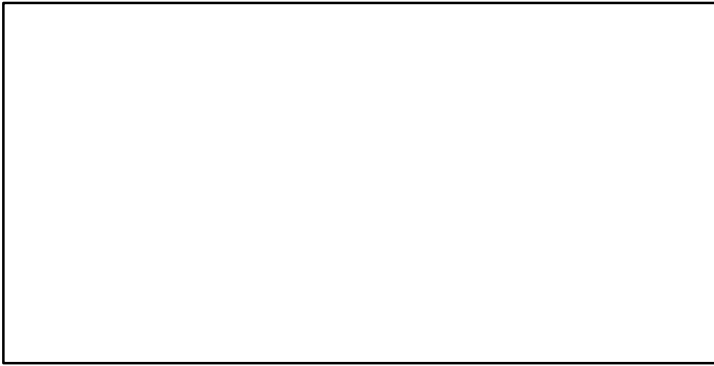
TAC\*, Cpair\*, Cadv\*



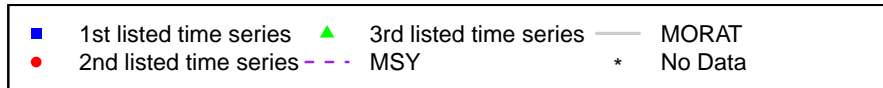
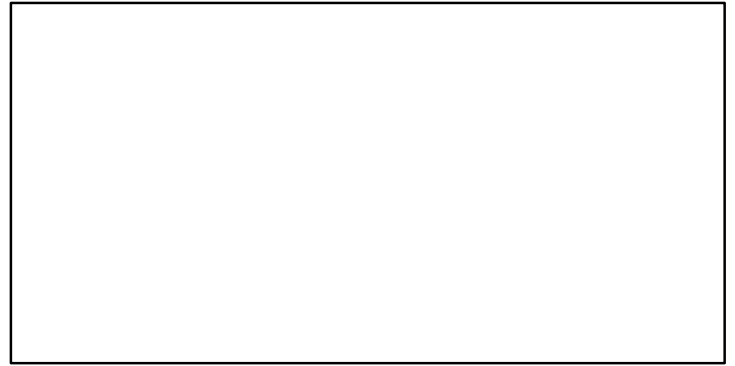
CPUE\*



EFFORT\*



CdivMSY\*

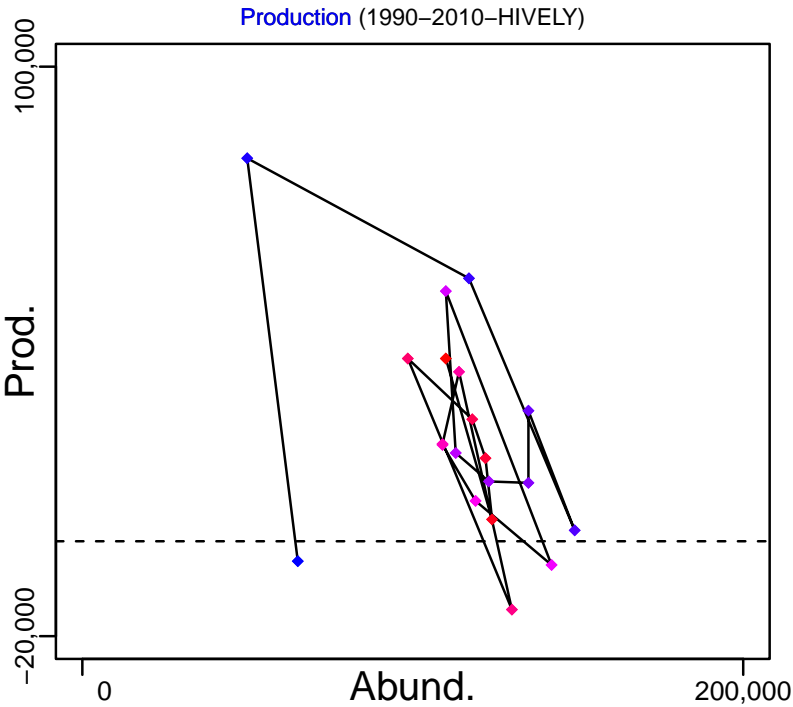
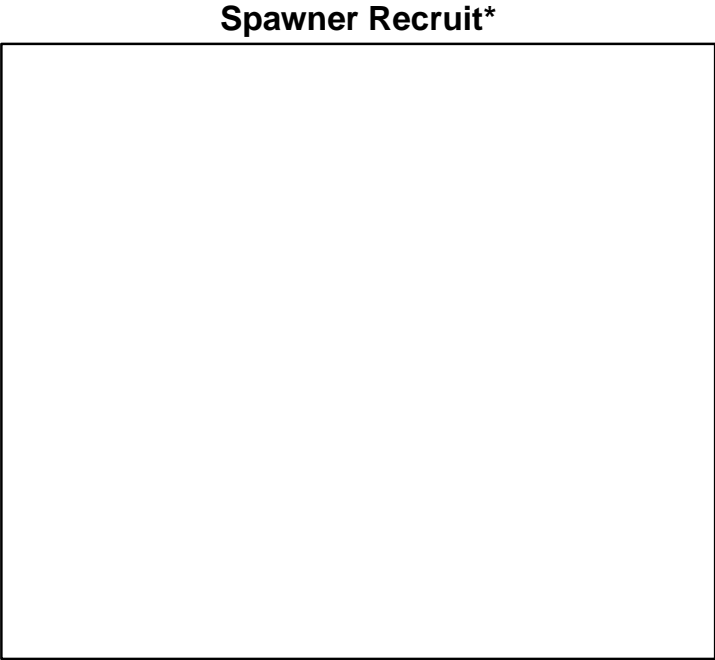
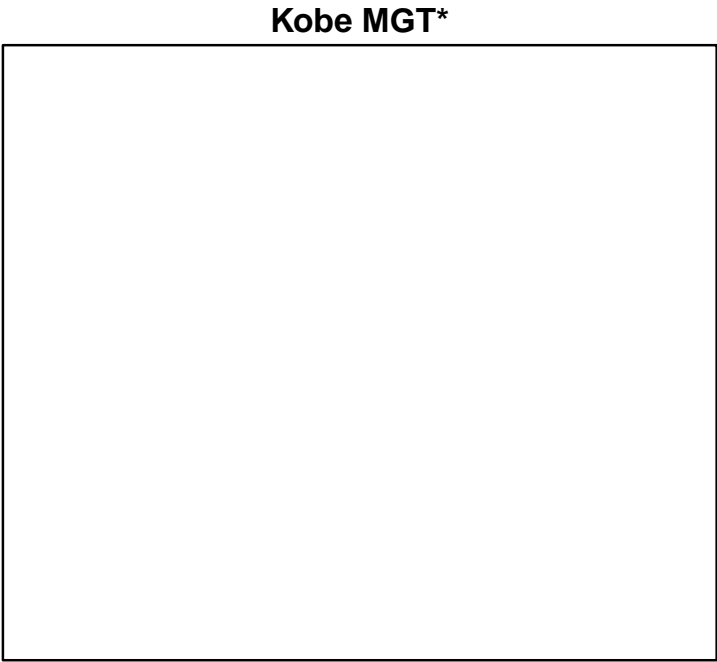
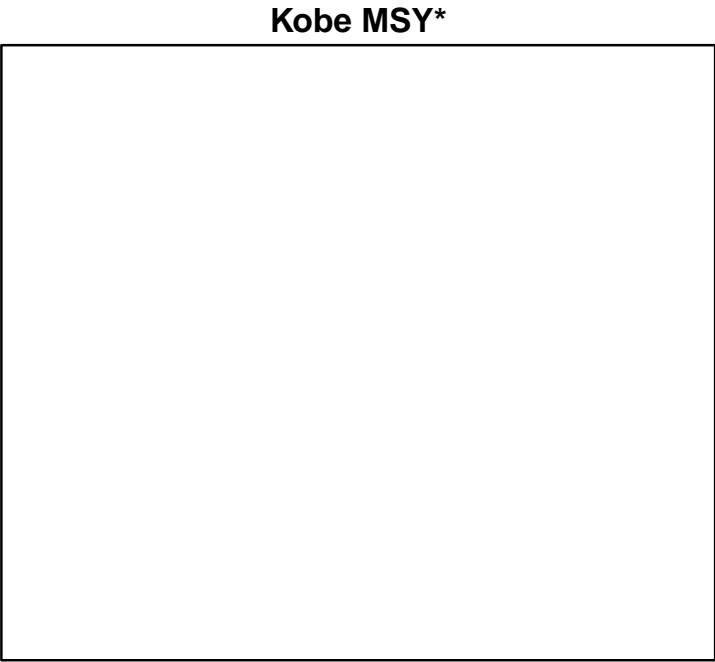


## Pacific herring Togiak District [HERRTOG]

Metadata	
<b>Scientific Name</b>	Clupea pallasii
<b>Current Assess ID</b>	ADFG-HERRTOG-1990-2010-HIVELY
<b>Area</b>	Togiak District
<b>Management Authority</b>	State of Alaska
<b>Assessor</b>	Alaska Department of Fish and Game
<b>Asmts in RAM</b>	2010

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2010	133,000	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-ratio	2010	0.18	-	-
TC	TC-MT	2010	23,900		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

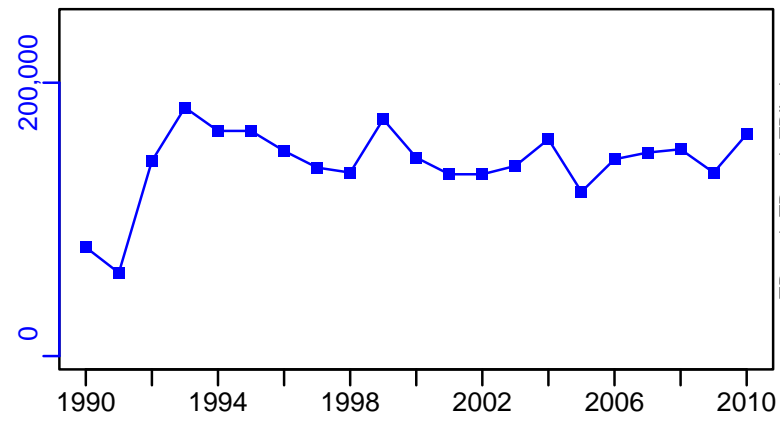


◆ Start Year ◆ End Year \* No Data



# Pacific herring Togiak District [HERRTOG]

TB-MT (1990–2010–HIVELY)



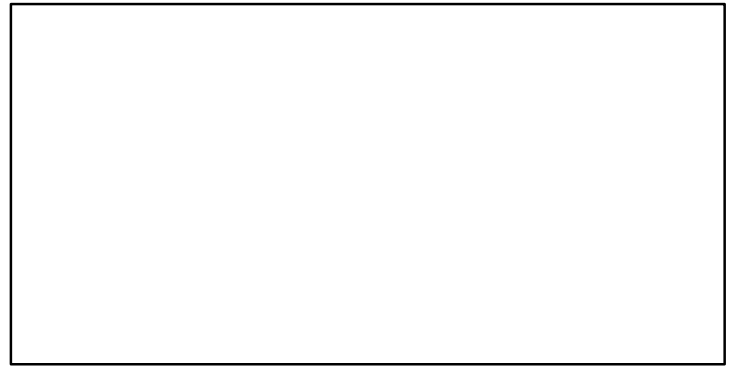
SSB\*



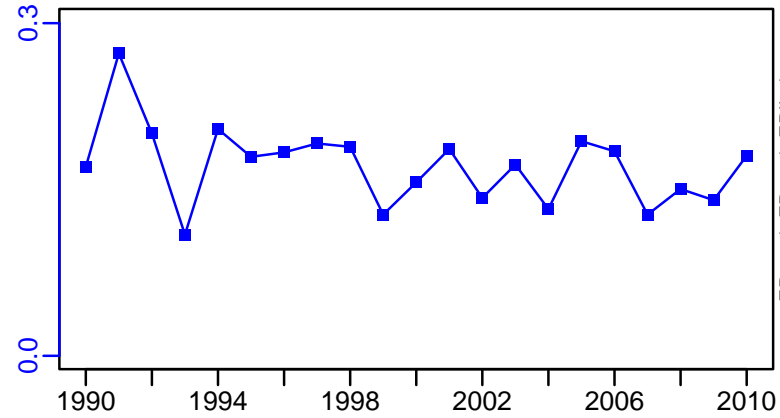
TN \*



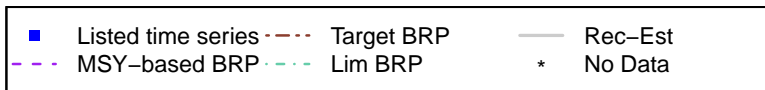
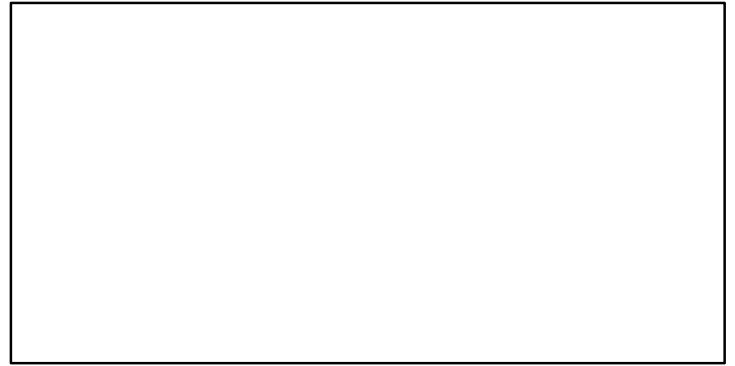
F\*



ER-ratio (1990–2010–HIVELY)



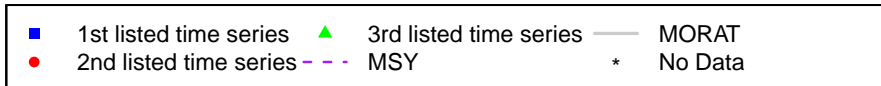
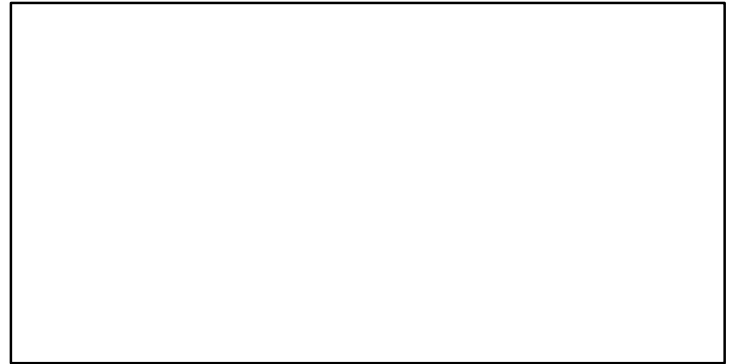
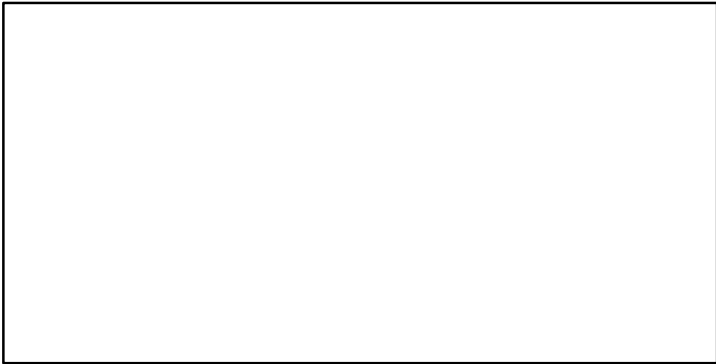
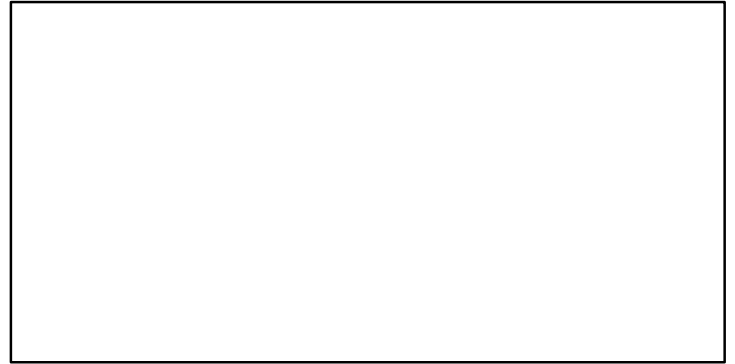
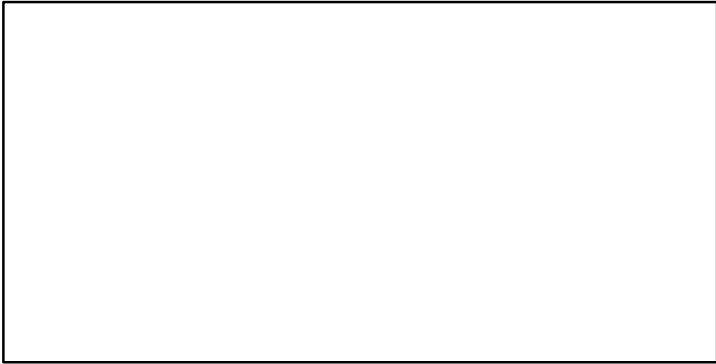
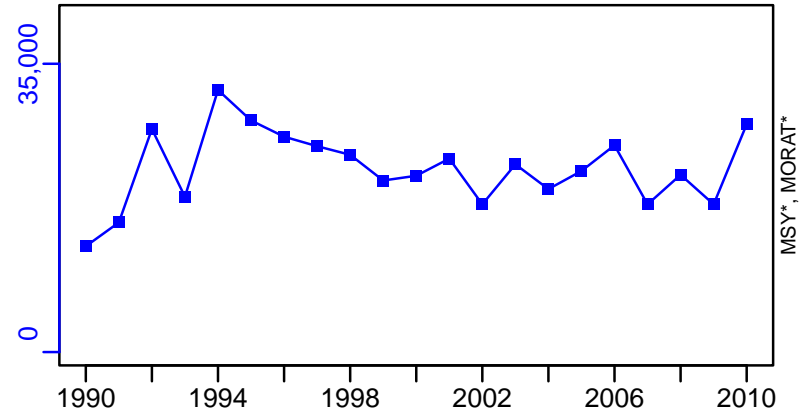
Recruits\*



Pacific herring Togiak District [HERRTOG]

TC-MT, TL\*, RecC\* (1990-2010-HIVELY)

TAC\*, Cpair\*, Cadv\*



## Kamchatka flounder Bering Sea and Aleutian Islands [KMFLOUNBSAI]

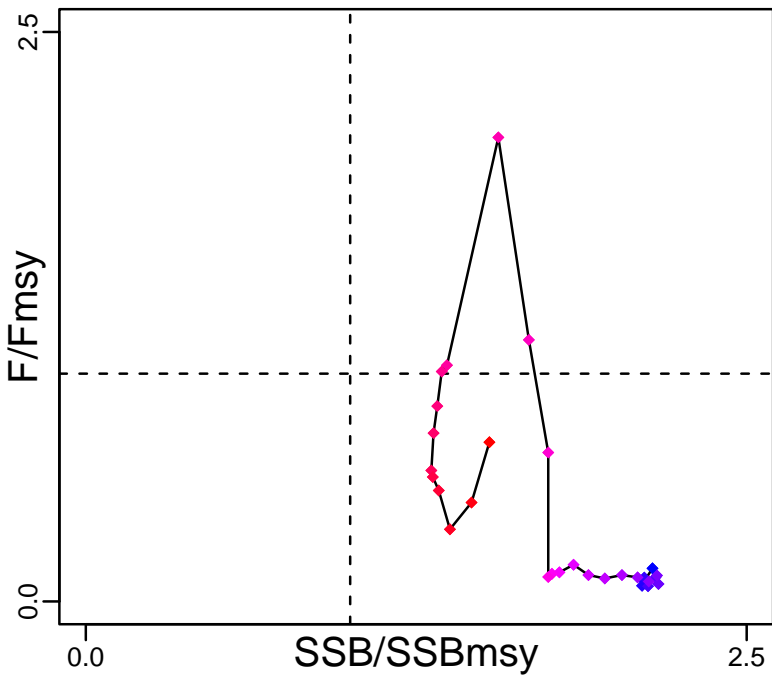
Metadata	
<b>Scientific Name</b>	Atheresthes evermanni
<b>Current Assess ID</b>	AFSC-KMFLOUNBSAI-1991-2020-SISIMP2021-2
<b>Area</b>	Bering Sea and Aleutian Islands
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2016, 2017, 2018, 2015, 2018, 2020

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2020	35,500
<b>Fmsy</b>	Fmsy-1/yr	2020	0.108
<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>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	Flim-1/yr	2020	0.123
<b>ERlim</b>	-	-	-

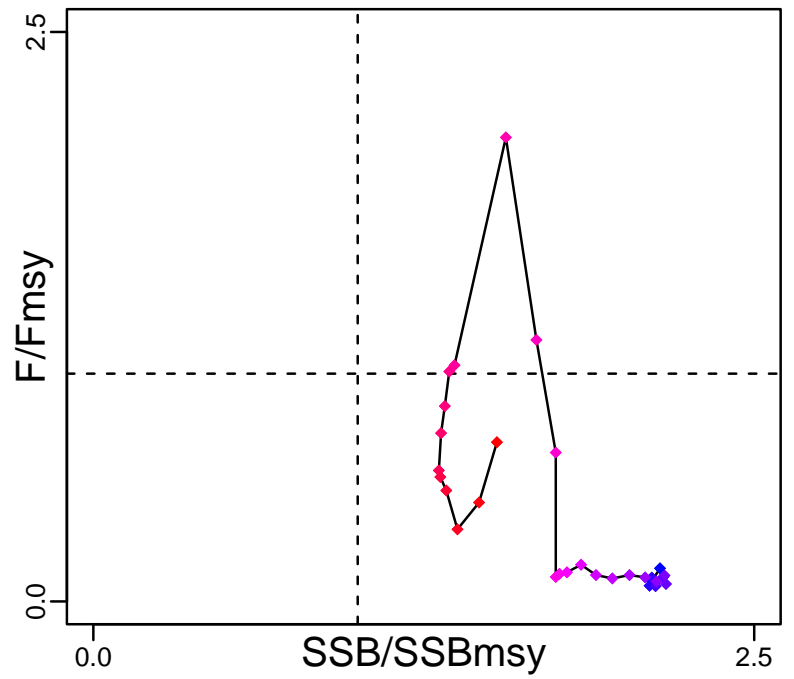
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	168,000	Both	2+
<b>SSB</b>	SSB-MT	2020	54,200	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2020	11,700,000	-	2
<b>F</b>	F-1/yr	2020	0.076	-	-
<b>ER</b>	ER-ratio	2017	0.032	-	-
<b>TC</b>	TC-MT	2020	4490		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2020	1.527		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2020	0.699		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Kamchatka flounder Bering Sea and Aleutian Islands [KMFLOUNBSAI]

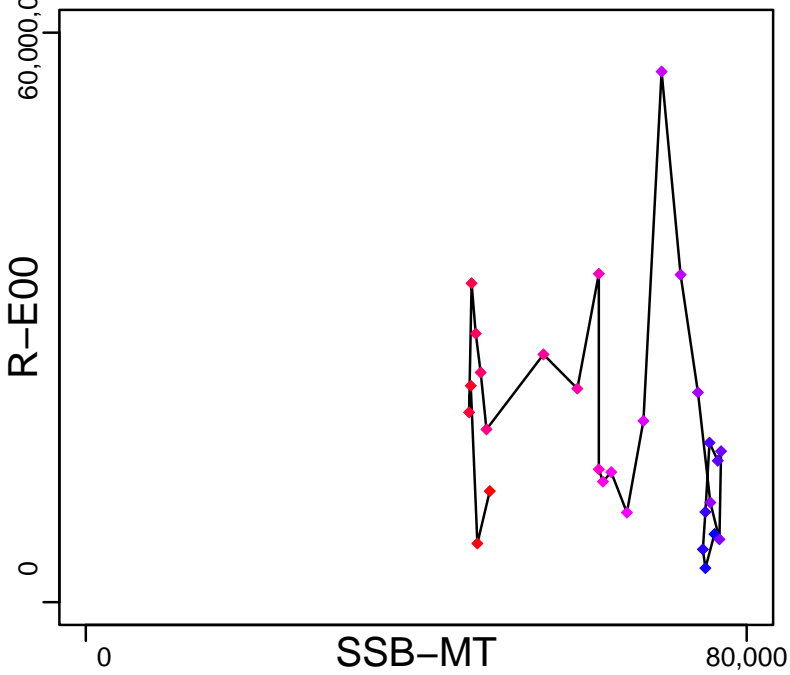
Kobe MSYpref (1991–2020–SISIMP2021–2)



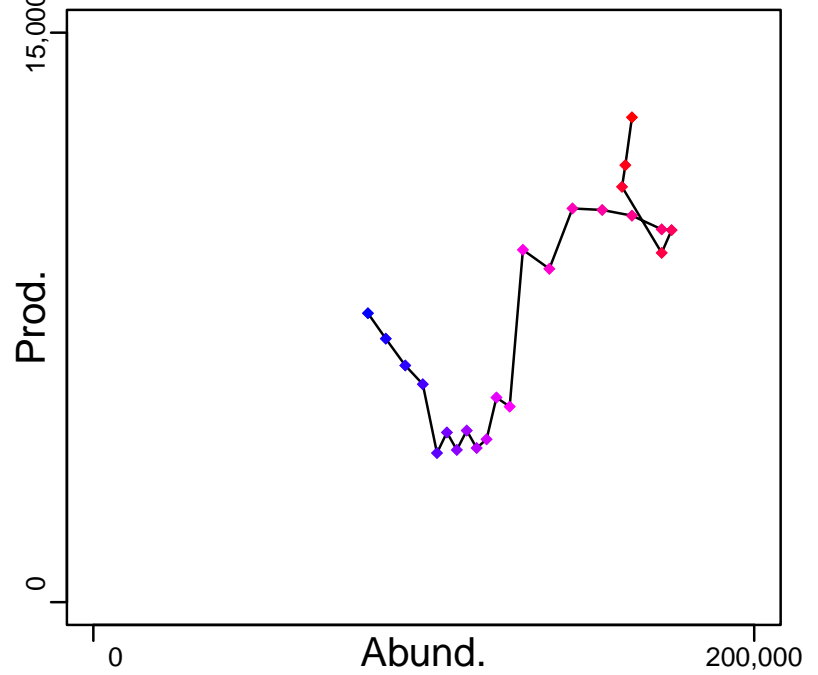
Kobe MGTpref (1991–2020–SISIMP2021–2)



Spawner Recruit (1991–2020–SISIMP2021–2)



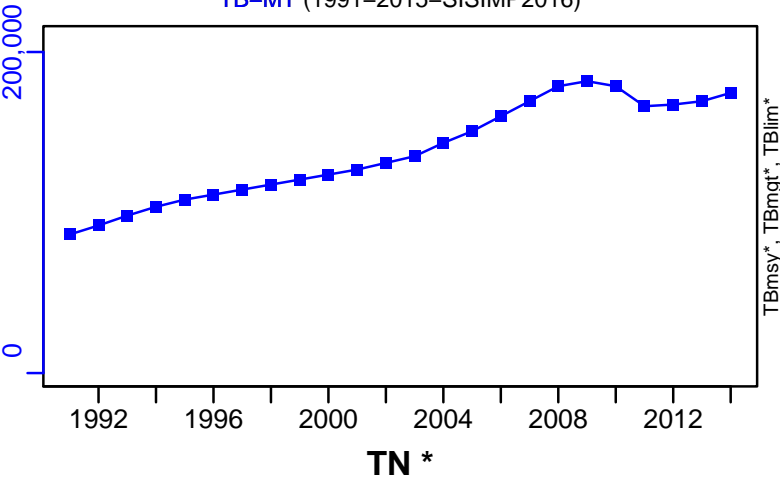
Production (1991–2015–SISIMP2016)



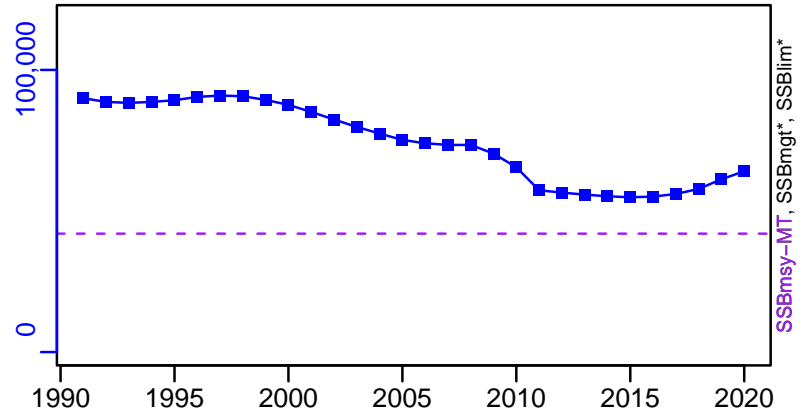
◆ Start Year ◆ End Year \* No Data

# Kamchatka flounder Bering Sea and Aleutian Islands [KMFLOUNBSAI]

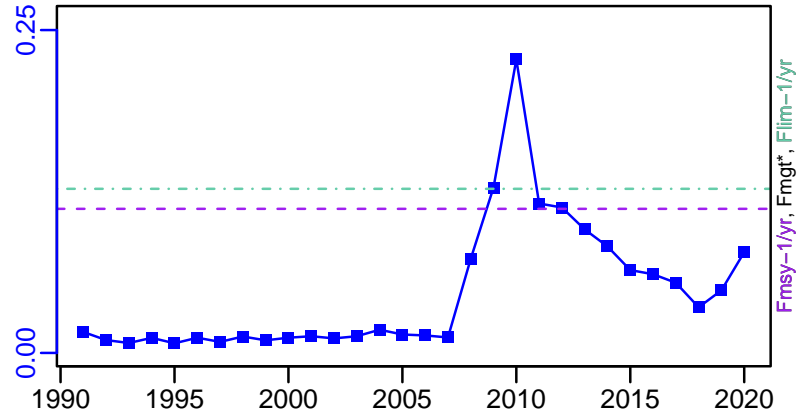
TB-MT (1991–2015–SISIMP2016)



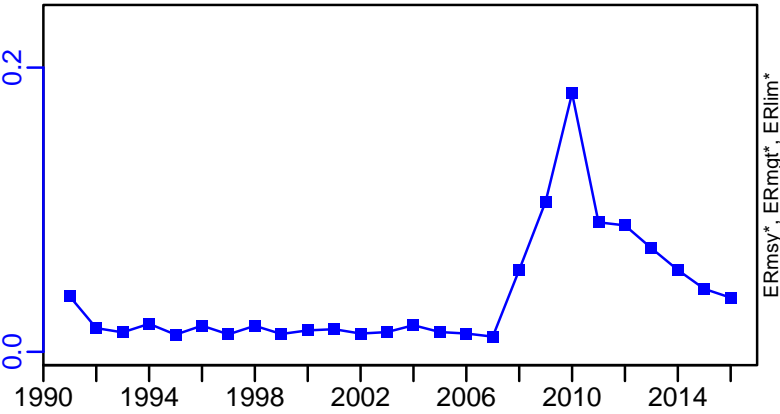
SSB-MT (1991–2020–SISIMP2021–2)



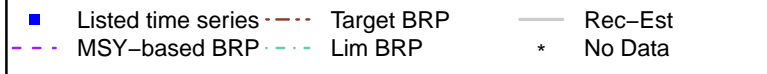
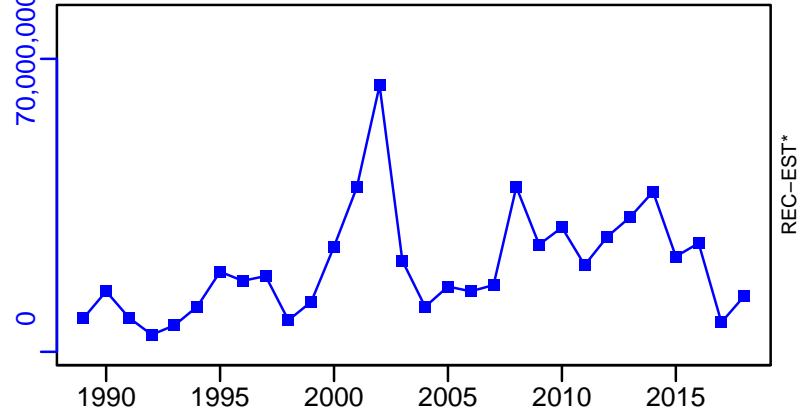
F-1/yr (1991–2020–SISIMP2021–2)



ER-ratio (1990–2017–SISIMP2021)



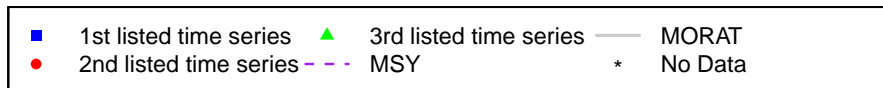
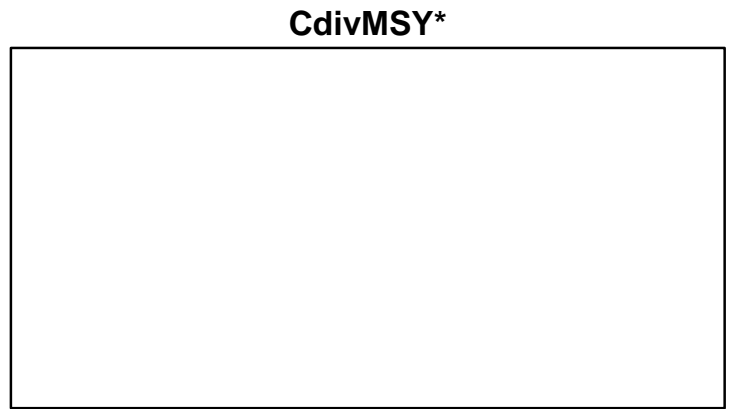
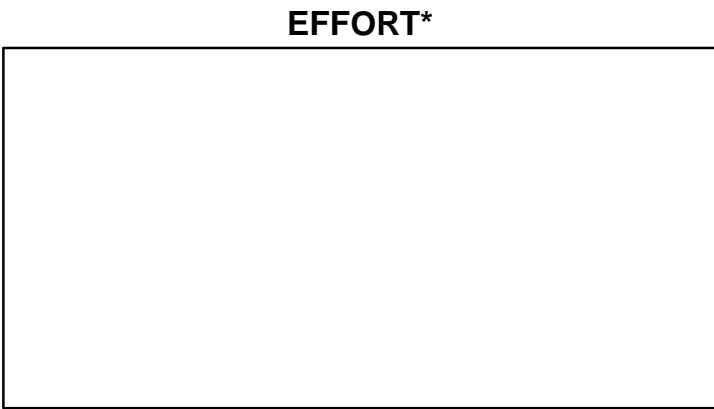
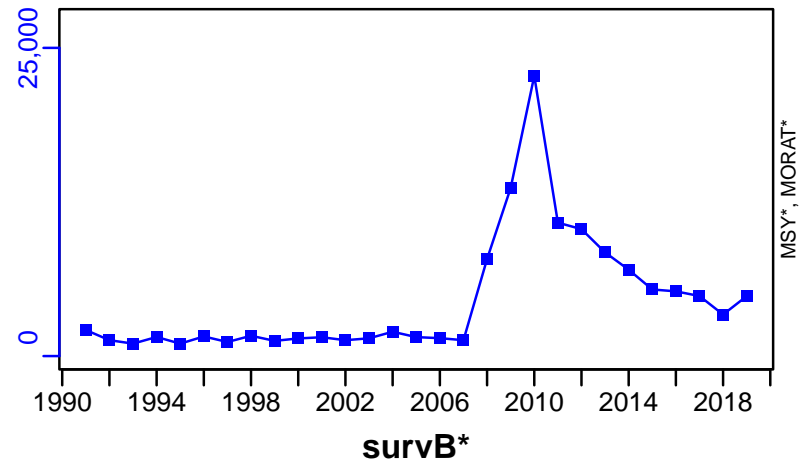
R-E00 (1991–2020–SISIMP2021–2)



# Kamchatka flounder Bering Sea and Aleutian Islands [KMFLOUNBSAI]

TC-MT, TL\*, RecC\* (1991-2020-SISIMP2021-2)

TAC\*, Cpair\*, Cadv\*

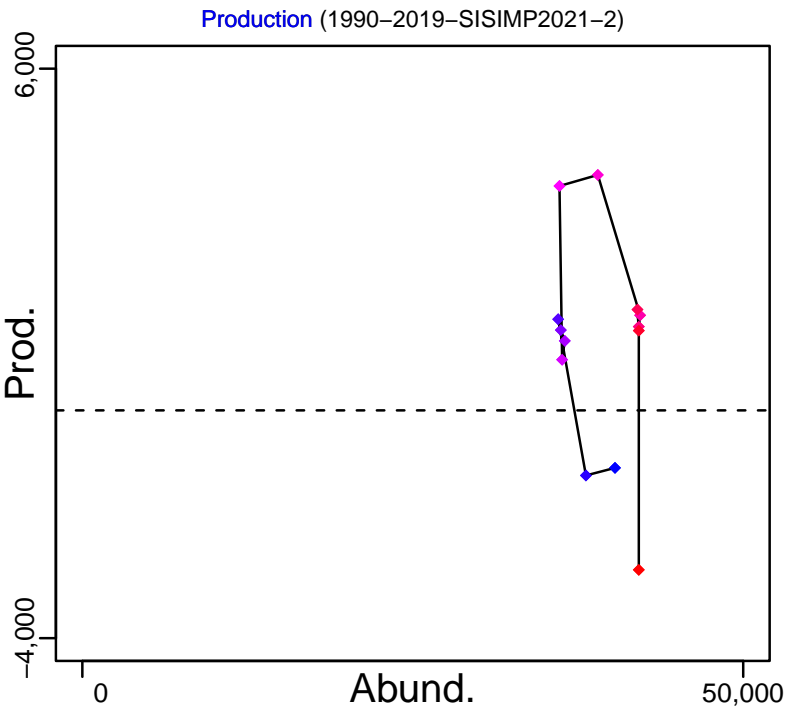
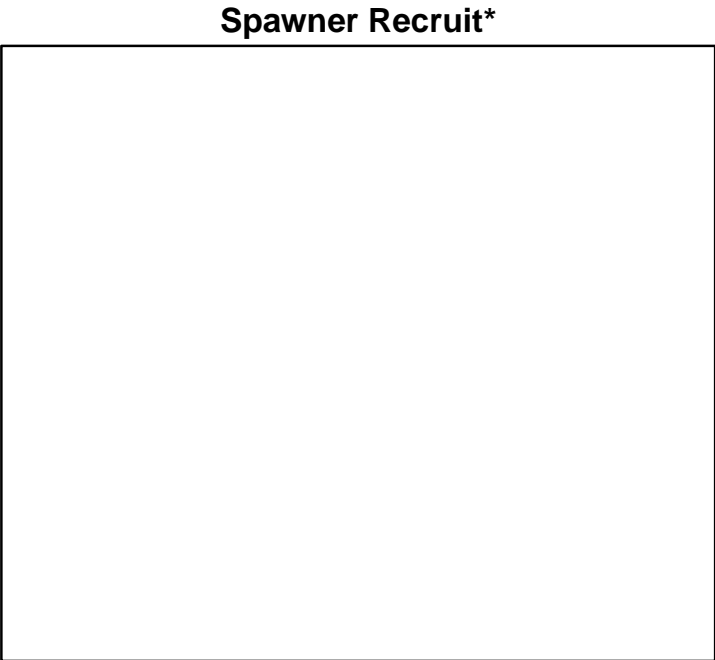
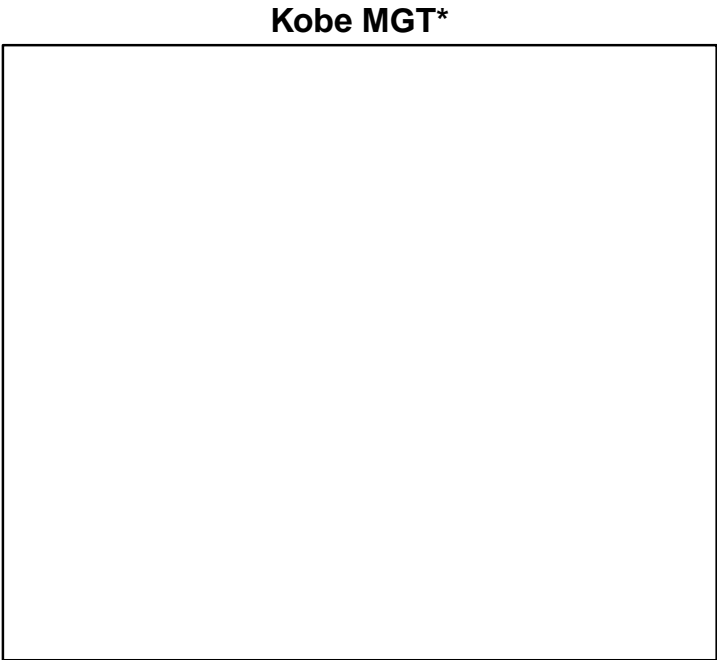
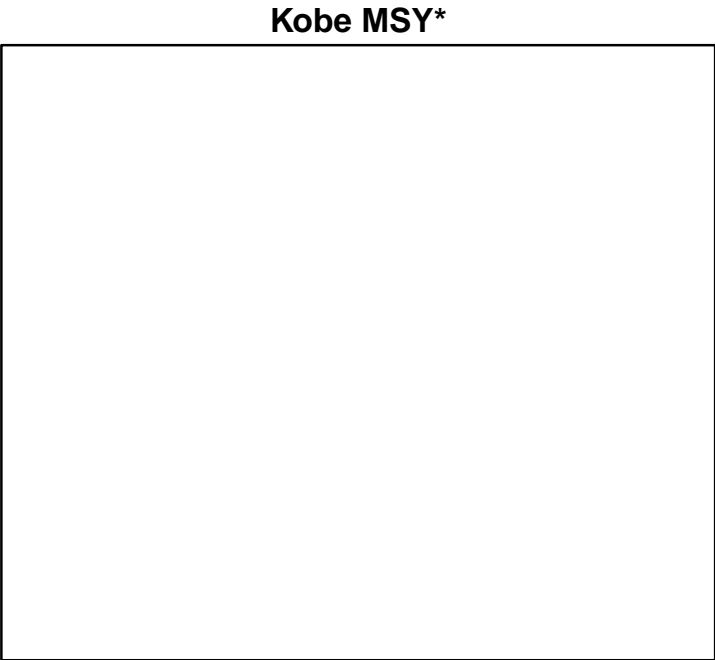


## Longnose skate Gulf of Alaska [LNOSESKAGA]

Metadata	
<b>Scientific Name</b>	Raja rhina
<b>Current Assess ID</b>	AFSC-LNOSESKAGA-1990-2019-SISIMP2021-2
<b>Area</b>	Gulf of Alaska
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2019

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	2019	34,500	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-calc-ratio	2019	0.024	-	-
TC	TC-MT	2019	914		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



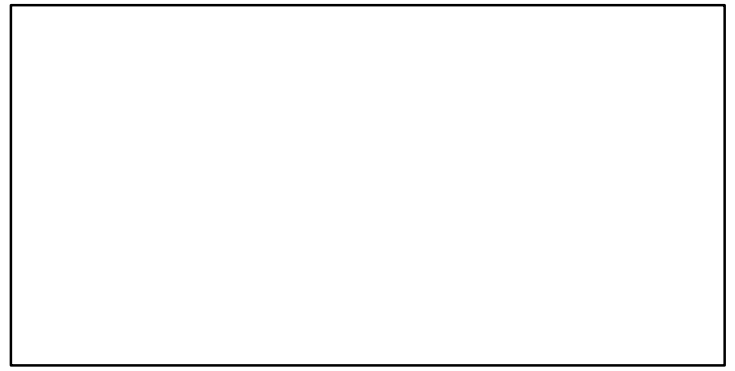
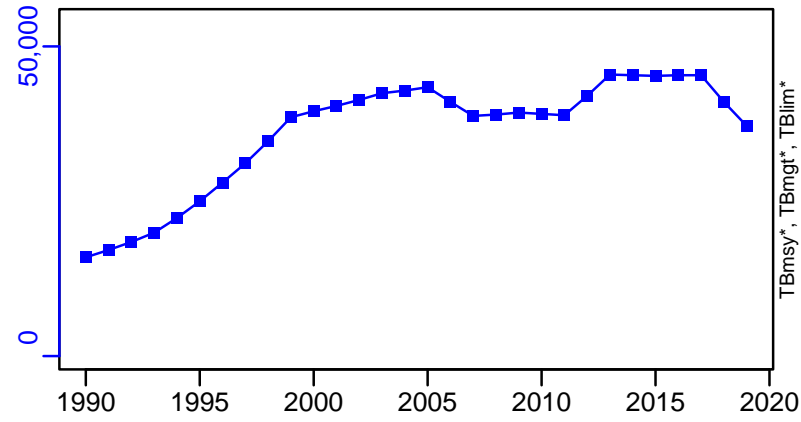
◆ Start Year ◆ End Year \* No Data



# Longnose skate Gulf of Alaska [LNOSESKAGA]

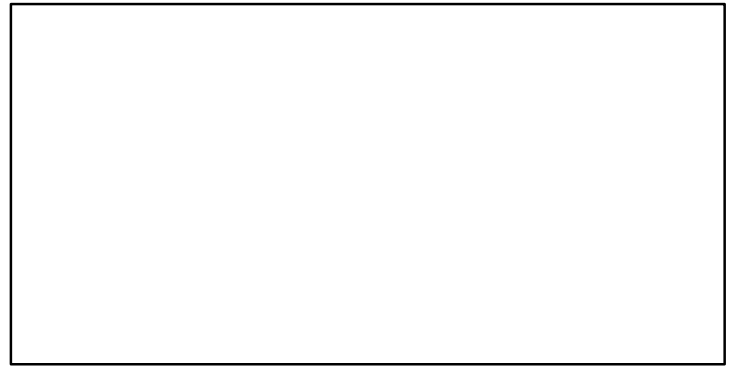
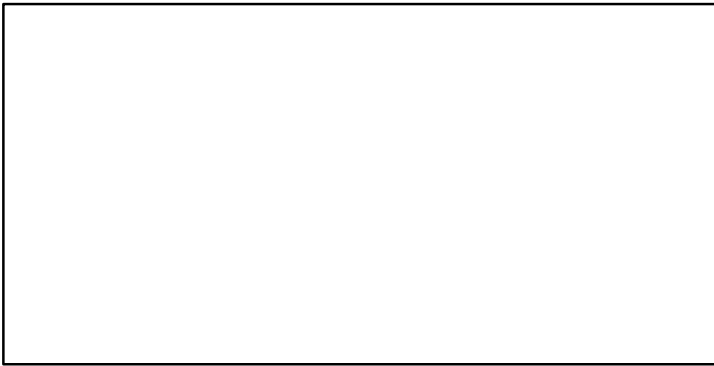
TB-MT (1990-2019-SISIMP2021-2)

SSB\*



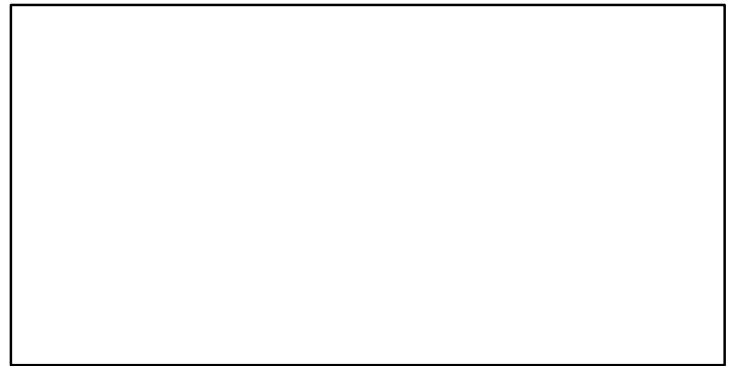
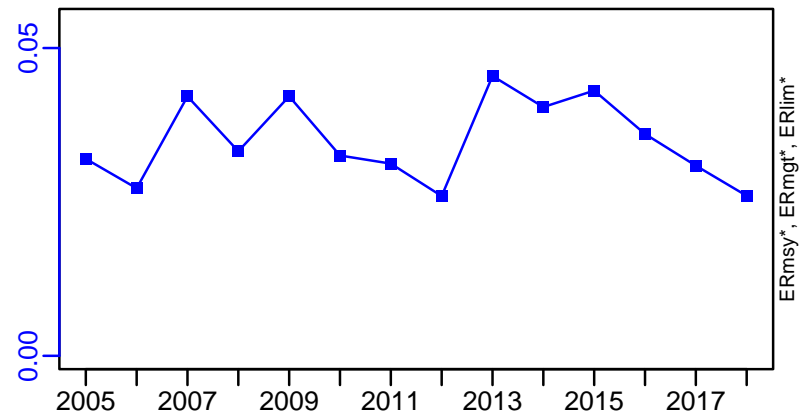
TN \*

F\*



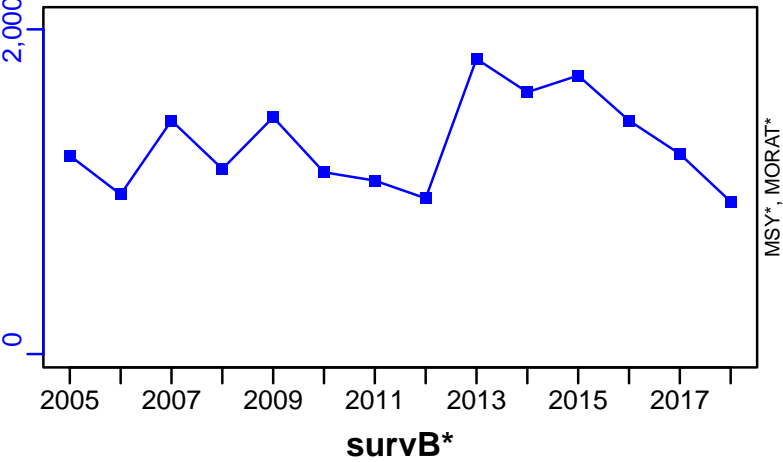
ER-calc-ratio (1990-2019-SISIMP2021-2)

Recruits\*



Longnose skate Gulf of Alaska [LNOSESKAGA]

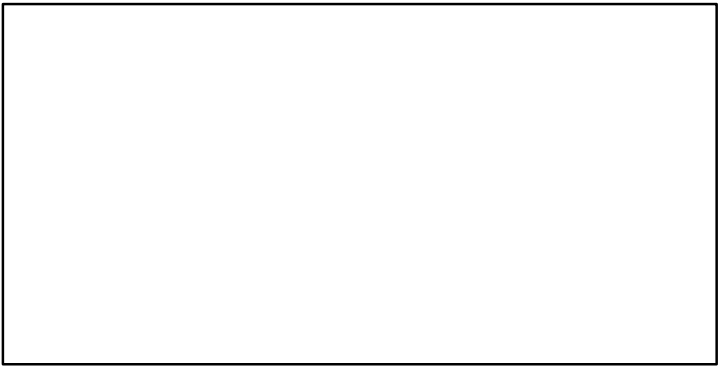
TC-MT, TL\*, RecC\* (1990-2019-SISIMP2021-2)



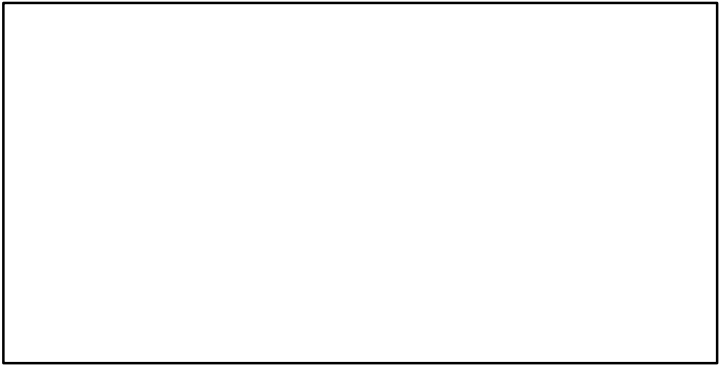
TAC\*, Cpair\*, Cadv\*



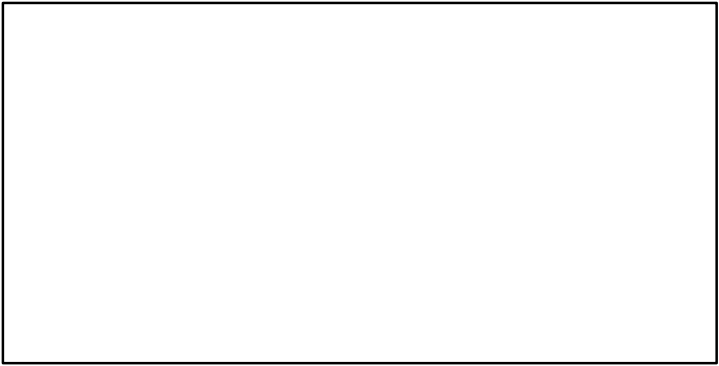
CPUE\*



EFFORT\*



CdivMSY\*



## Northern rockfish Bering Sea and Aleutian Islands [NROCKBSAI]

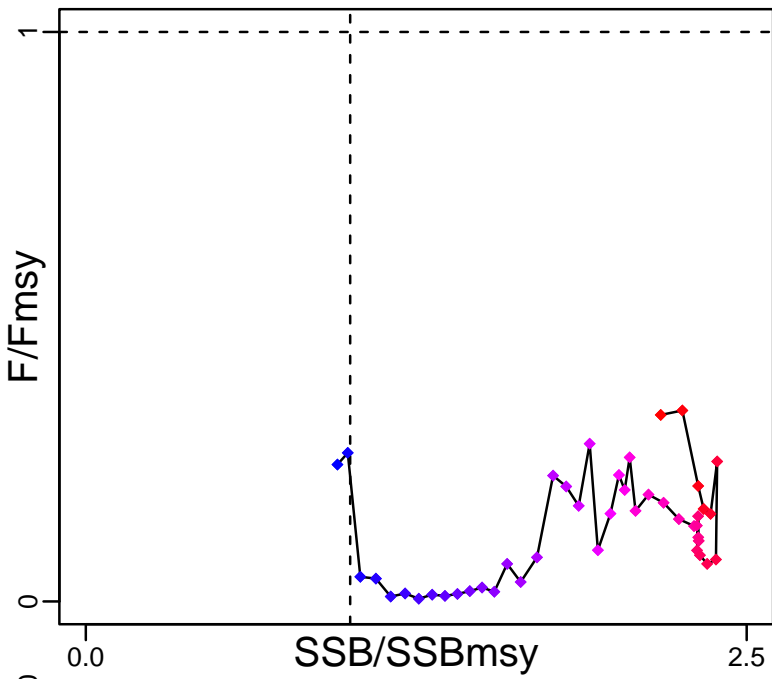
Metadata	
<b>Scientific Name</b>	Sebastes polyspinis
<b>Current Assess ID</b>	AFSC-NROCKBSAI-1974-2021-SISIMP2022
<b>Area</b>	Bering Sea and Aleutian Islands
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2011, 2016, 2017, 2018, 2021, 2015, 2019

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2021	60,119
<b>Fmsy</b>	Fmsy-1/yr	2021	0.085
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	Fmgt-1/yr	2016	0.07
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	M-1/yr	2011	0.043
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	Flim-1/yr	2019	0.055
<b>ERlim</b>	-	-	-

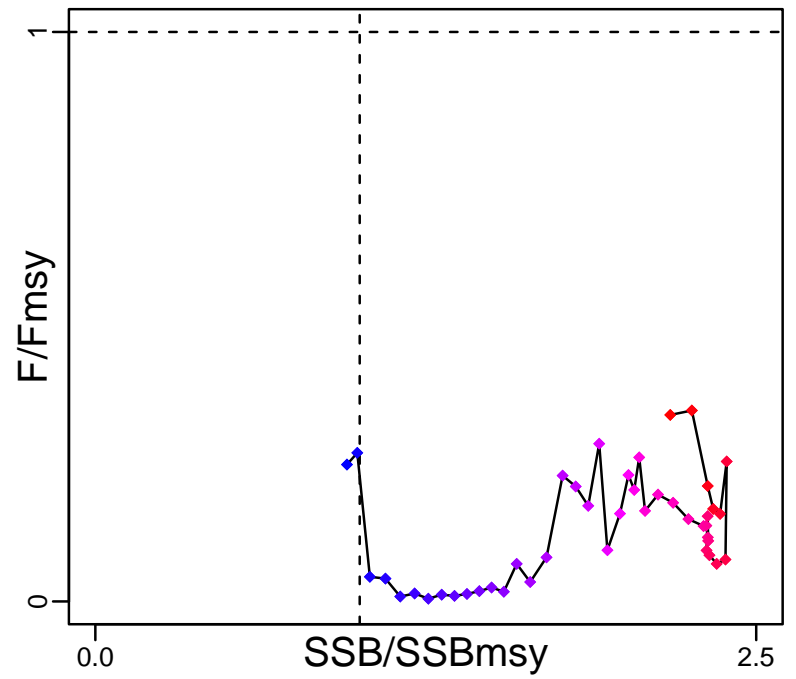
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	220,000	-	3+
<b>SSB</b>	SSB-MT	2021	125,932	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2021	63,498,500	-	3
<b>F</b>	F-1/yr	2021	0.028	-	-
<b>ER</b>	ER-calc-ratio	2015	0.011	-	-
<b>TC</b>	TC-MT	2021	8443		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2021	2.095		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2021	0.328		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2016	0.295		
<b>ER/ERmgt</b>	-	-	-		

# Northern rockfish Bering Sea and Aleutian Islands [NROCKBSAI]

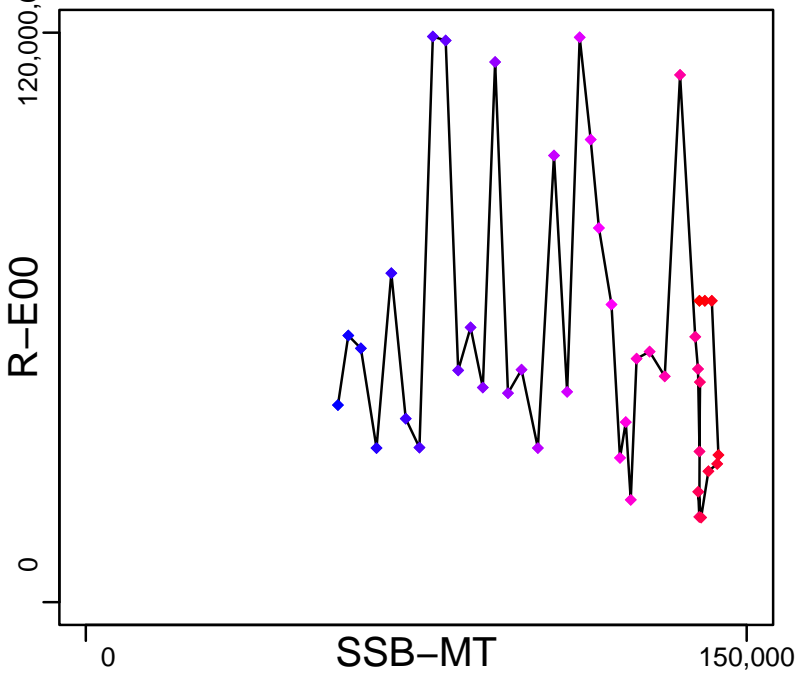
Kobe MSYpref (1974–2021–SISIMP2022)



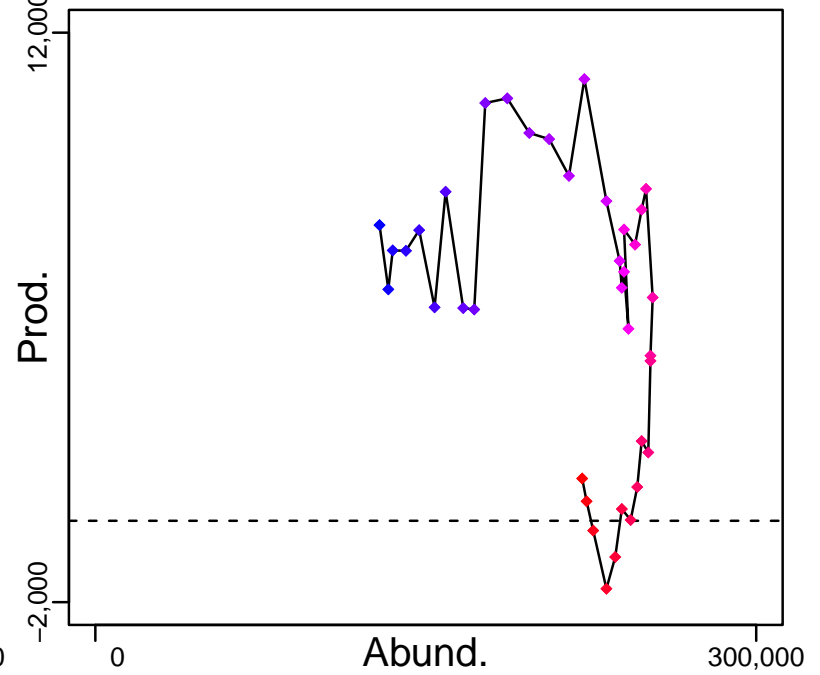
Kobe MGTpref (1974–2021–SISIMP2022)



Spawner Recruit (1974–2021–SISIMP2022)



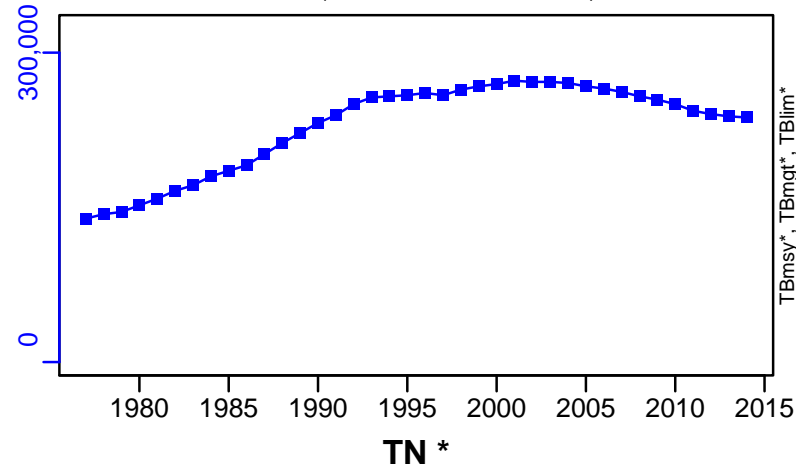
Production (1977–2015–SISIMP2016)



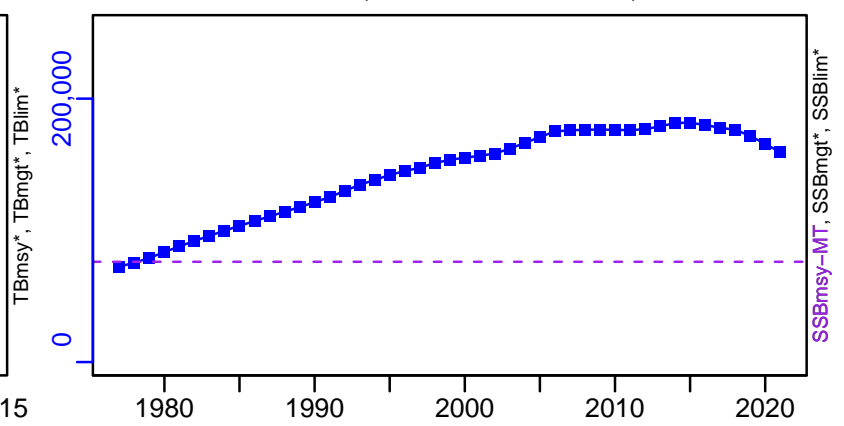
◆ Start Year ◆ End Year \* No Data

# Northern rockfish Bering Sea and Aleutian Islands [NROCKBSAI]

TB-MT (1977–2015–SISIMP2016)



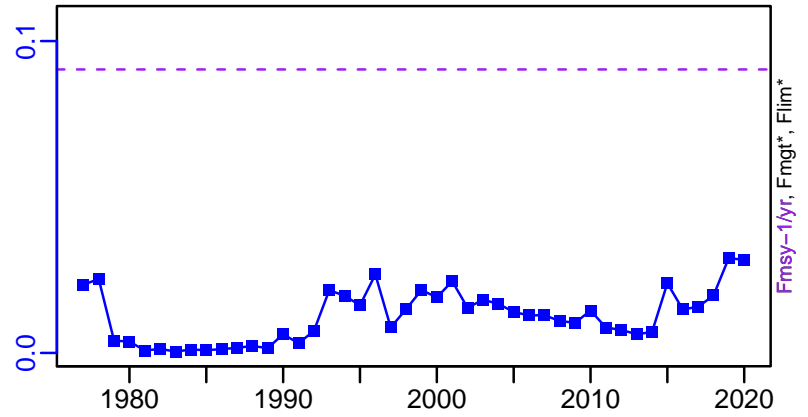
SSB-MT (1974–2021–SISIMP2022)



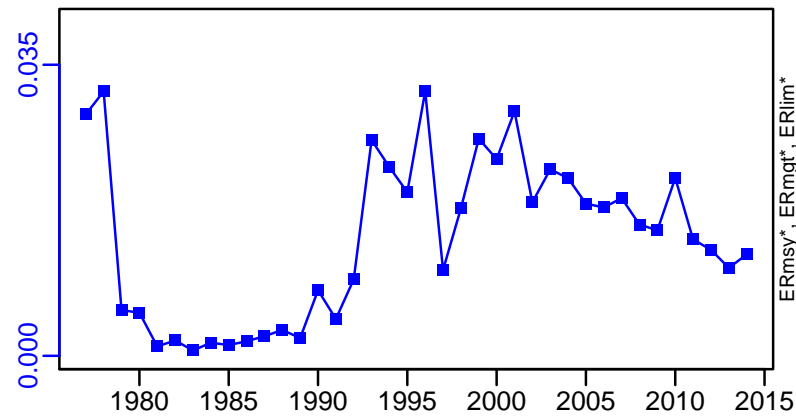
TN \*



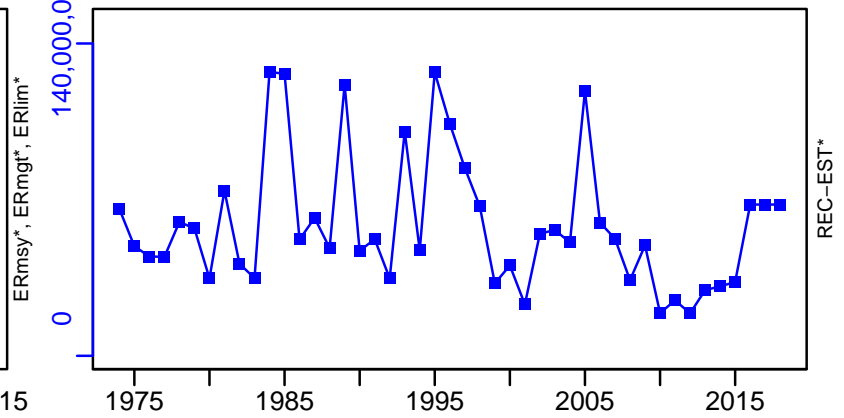
F-1/yr (1974–2021–SISIMP2022)



ER-calc-ratio (1977–2015–SISIMP2016)



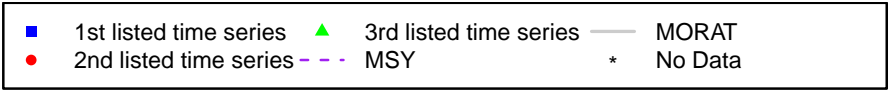
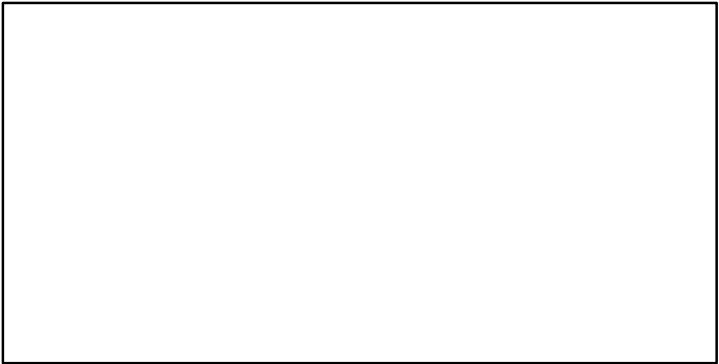
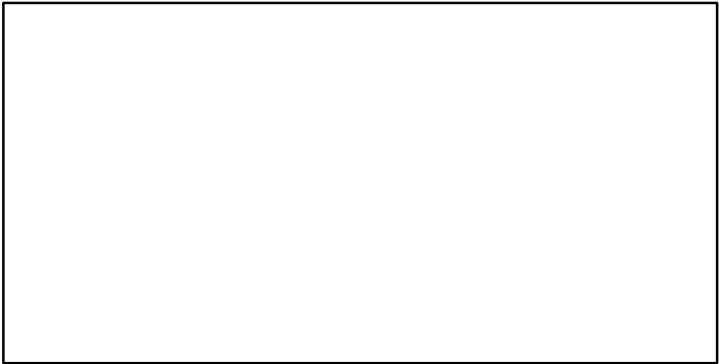
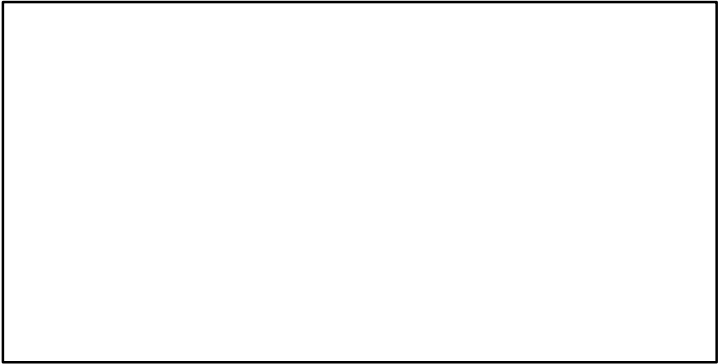
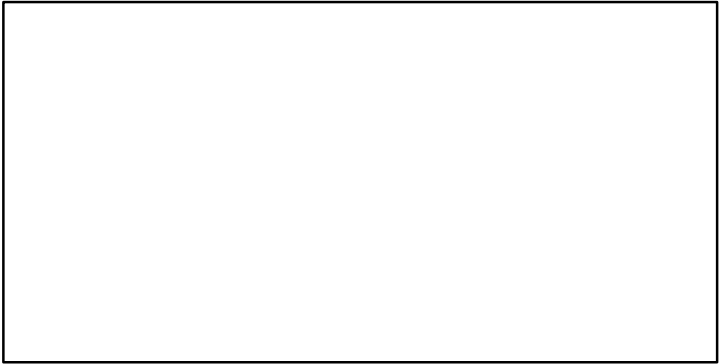
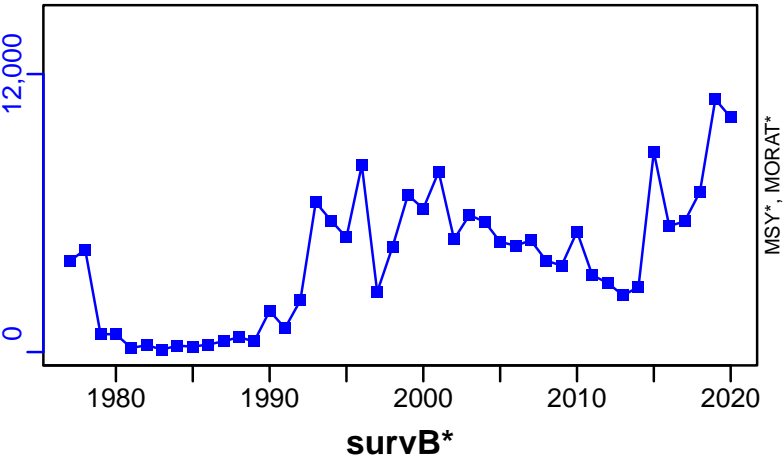
R-E00 (1974–2021–SISIMP2022)



Northern rockfish Bering Sea and Aleutian Islands [NROCKBSAI]

TC-MT, TL\*, RecC\* (1974-2021-SISIMP2022)

TAC\*, Cpair\*, Cadv\*



## Northern rockfish Gulf of Alaska [NROCKGA]

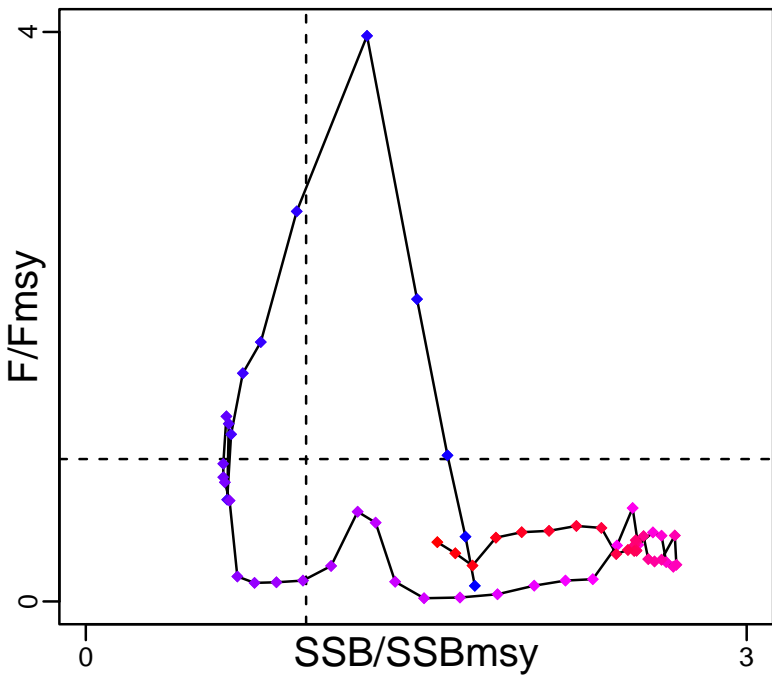
Metadata	
<b>Scientific Name</b>	Sebastes polyspinis
<b>Current Assess ID</b>	AFSC-NROCKGA-1961-2020-SISIMP2021-2
<b>Area</b>	Gulf of Alaska
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2010, 2016, 2017, 2018, 2015, 2018, 2020

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2010	64,270
<b>SSBmsy</b>	SSBmsy-MT	2020	28,200
<b>Fmsy</b>	Fmsy-1/yr	2020	0.073
<b>ERmsy</b>	ERmsy-ratio	2010	0.094
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2010	6070
<b>M</b>	M-1/yr	2010	0.06
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	Flim-1/yr	2020	0.064
<b>ERlim</b>	-	-	-

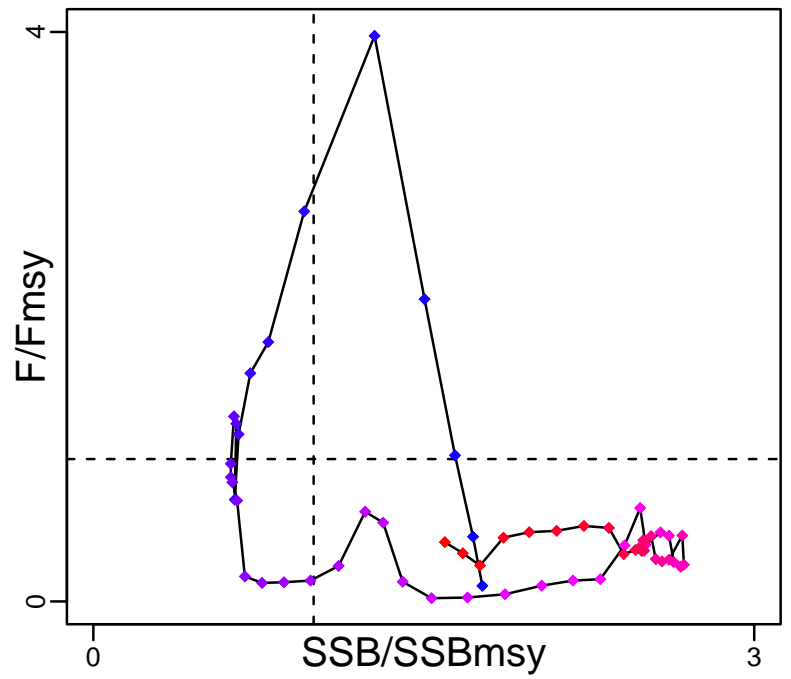
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	81,900	-	2+
<b>SSB</b>	SSB-MT	2020	42,600	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2020	10,500,000	-	2
<b>F</b>	F-1/yr	2020	0.03	-	-
<b>ER</b>	ER-ratio	2017	0.054	-	-
<b>TC</b>	TC-MT	2020	2750		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2010	1.603		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2020	1.511		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2020	0.416		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2010	0.366		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Northern rockfish Gulf of Alaska [NROCKGA]

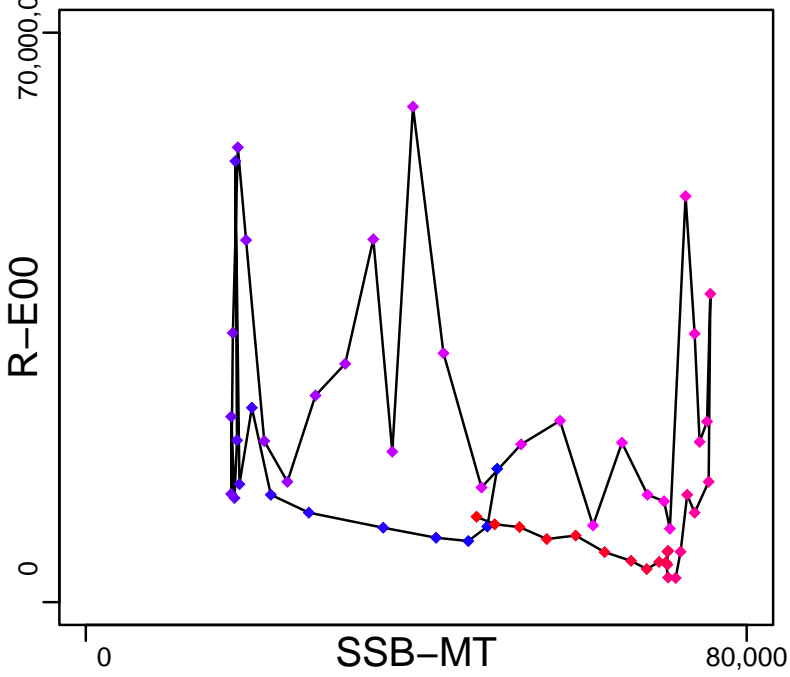
Kobe MSYpref (1961–2020–SISIMP2021–2)



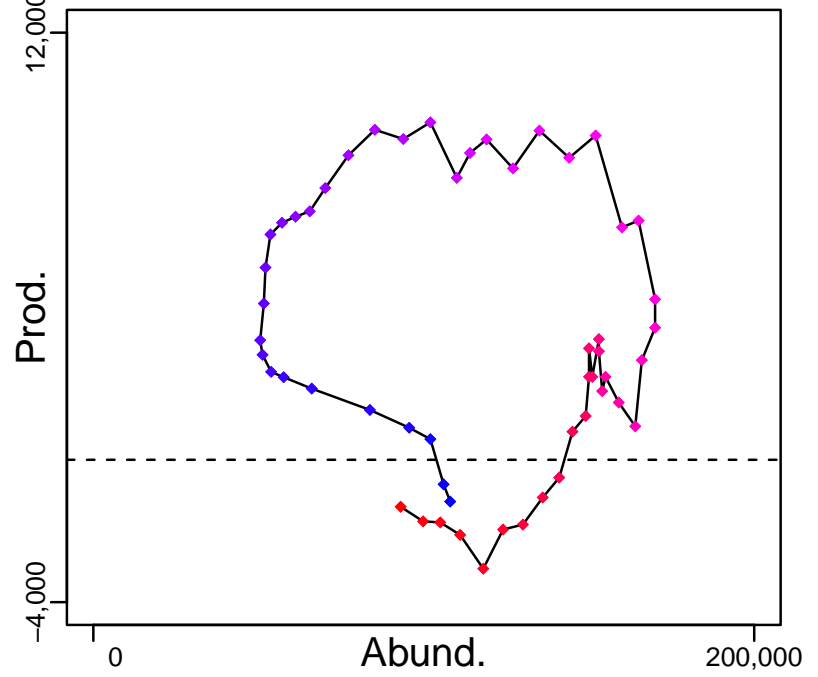
Kobe MGTpref (1961–2020–SISIMP2021–2)



Spawner Recruit (1961–2020–SISIMP2021–2)



Production (1961–2015–SISIMP2016)

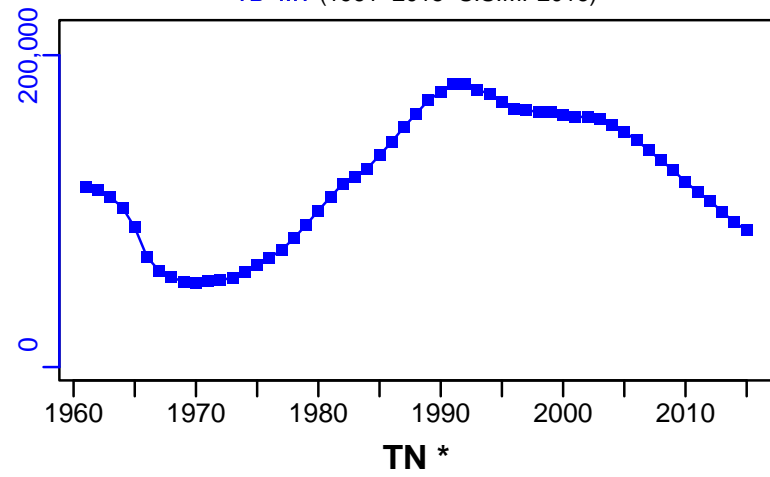


◆ Start Year ◆ End Year \* No Data

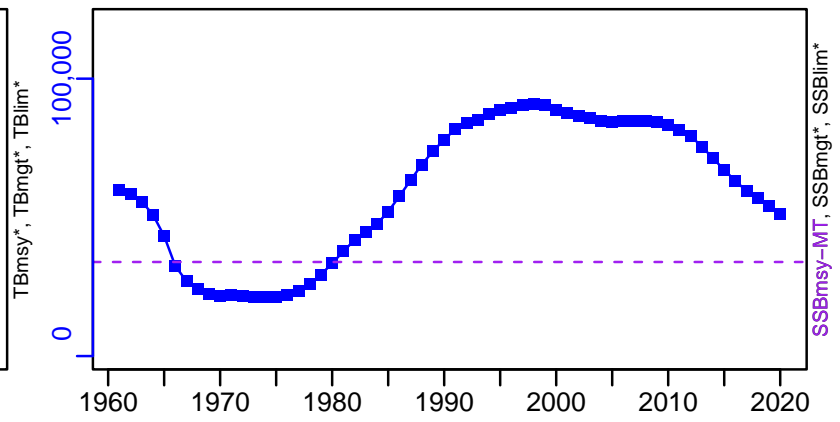


# Northern rockfish Gulf of Alaska [NROCKGA]

TB-MT (1961–2015–SISIMP2016)



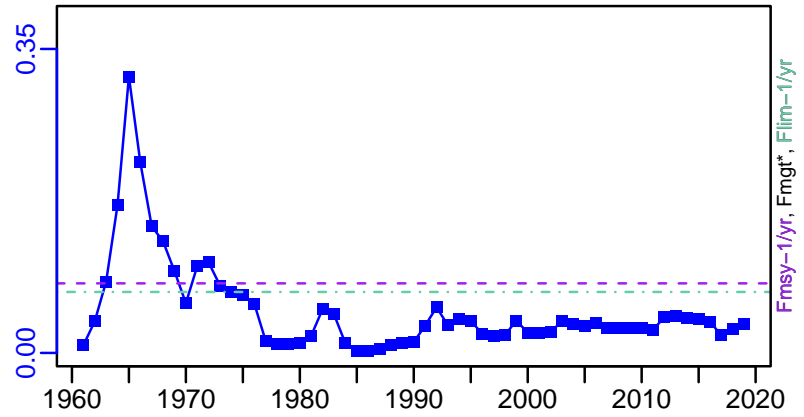
SSB-MT (1961–2020–SISIMP2021–2)



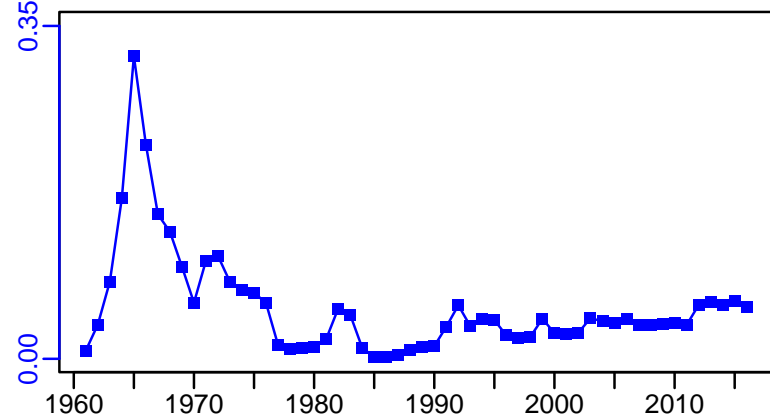
TN \*



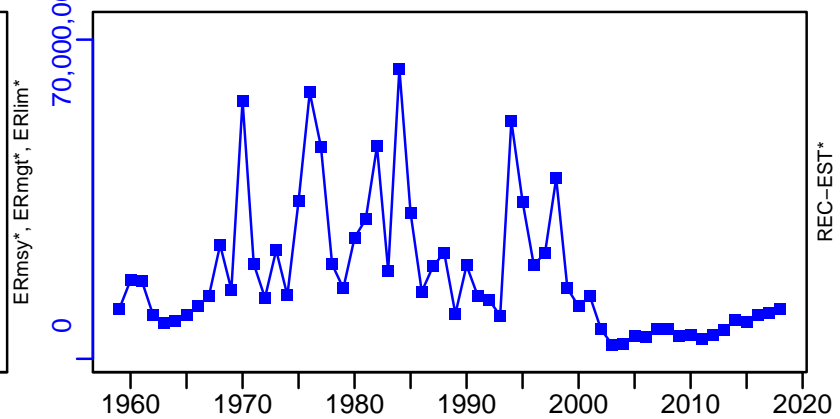
F-1/yr (1961–2020–SISIMP2021–2)



ER-ratio (1959–2017–SISIMP2021)

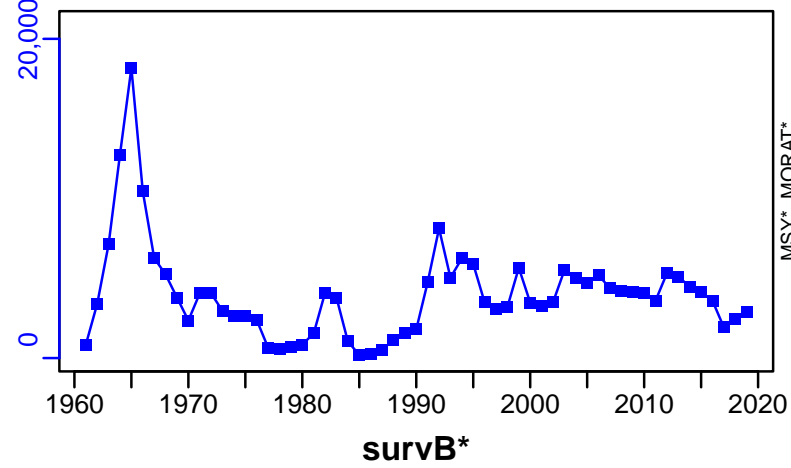


R-E00 (1961–2020–SISIMP2021–2)

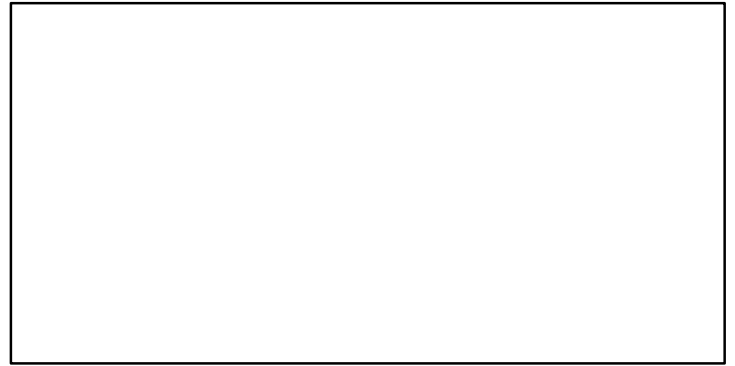


# Northern rockfish Gulf of Alaska [NROCKGA]

TC-MT, TL\*, RecC\* (1961-2020-SISIMP2021-2)



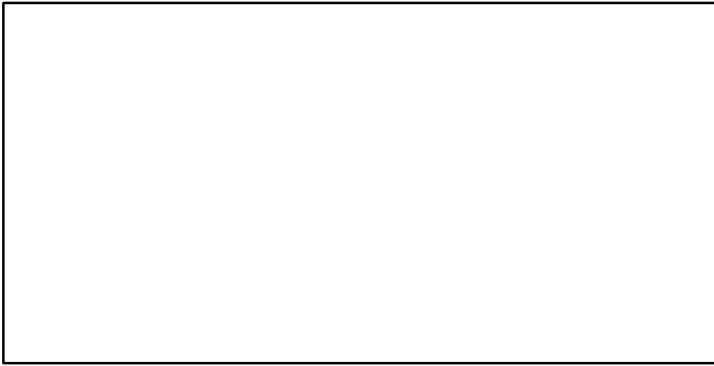
TAC\*, Cpair\*, Cadv\*



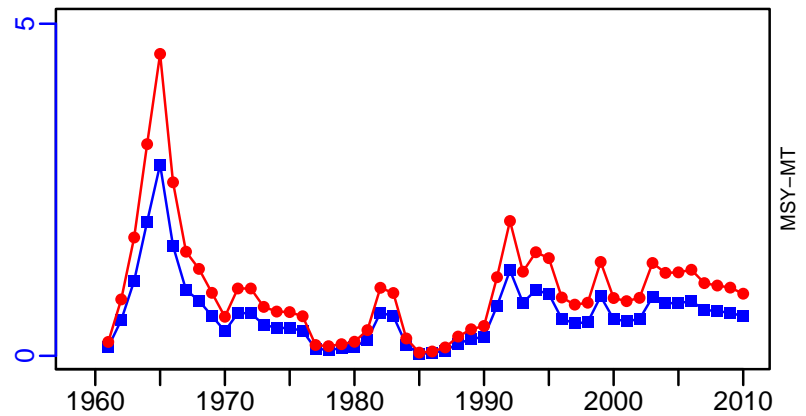
CPUE\*



EFFORT\*



TC-MT/MSY-MT, CdivMEANC-ratio, (1959-2010-STACHURA)



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

## Northern rock sole Eastern Bering Sea and Aleutian Islands [NRSOLEEBSAI]

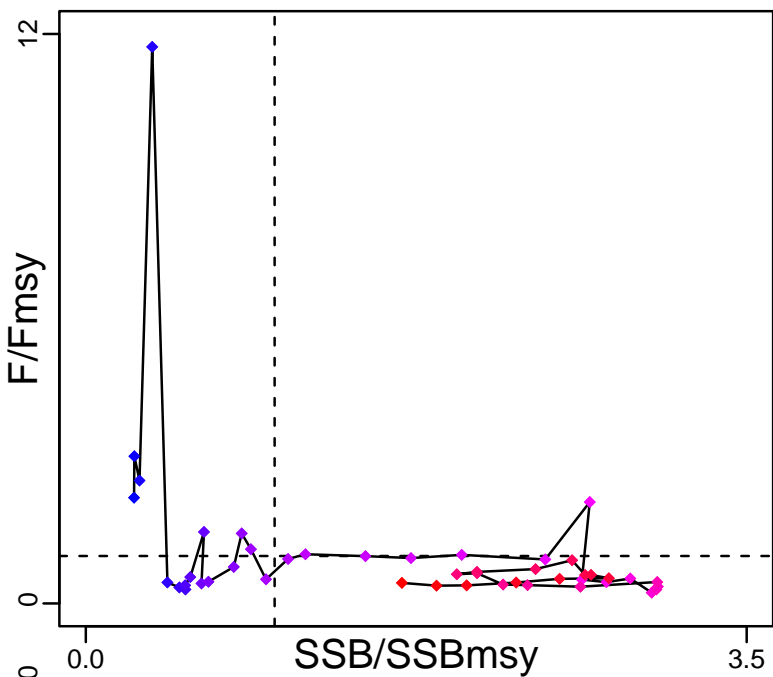
Metadata	
<b>Scientific Name</b>	Lepidopsetta polyxystra
<b>Current Assess ID</b>	AFSC-NRSOLEEBSAI-1974-2020-SISIMP2022
<b>Area</b>	Eastern Bering Sea and Aleutian Islands
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2016, 2018, 2020, 2012, 2015, 2018, 2020

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2020	187,790
<b>Fmsy</b>	Fmsy-1/yr	2020	0.157
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2012	259,310
<b>M</b>	M-1/yr	2012	0.18
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	Flim-1/yr	2020	0.278
<b>ERlim</b>	-	-	-

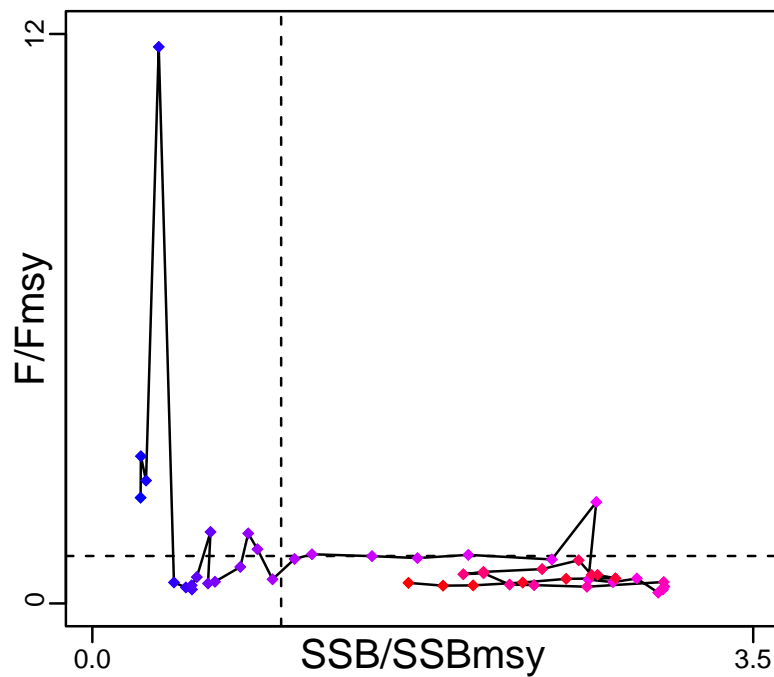
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	1,270,000	-	2+
<b>SSB</b>	SSB-MT	2020	314,380	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2020	471,095,001	-	1
<b>F</b>	F-1/yr	2020	0.068	-	-
<b>ER</b>	ER-calc-ratio	2015	0.038	-	-
<b>TC</b>	TC-MT	2020	25,514		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2020	1.674		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2020	0.433		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Northern rock sole Eastern Bering Sea and Aleutian Islands [NRSOLEEBSAI]

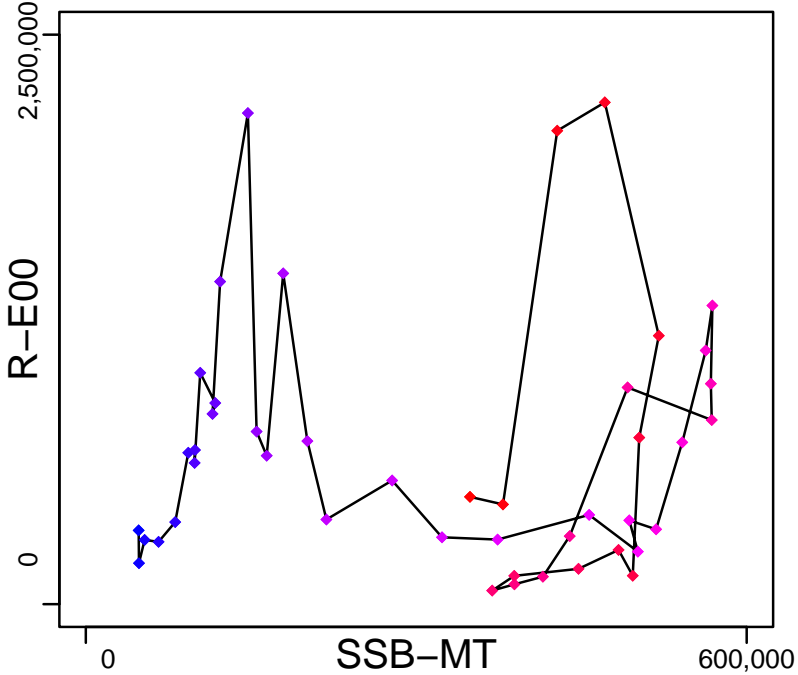
Kobe MSYpref (1974–2020–SISIMP2022)



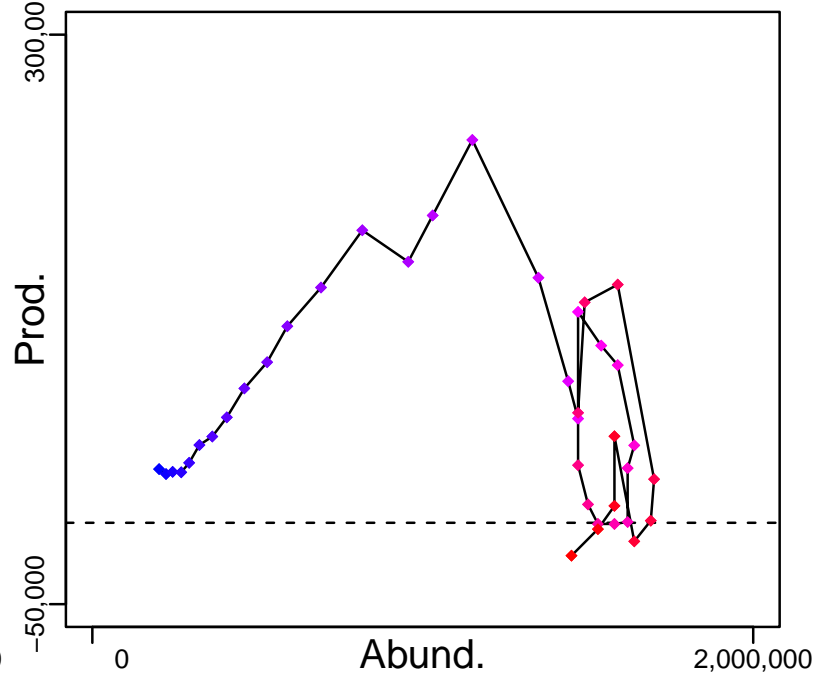
Kobe MGTpref (1974–2020–SISIMP2022)



Spawner Recruit (1974–2020–SISIMP2022)



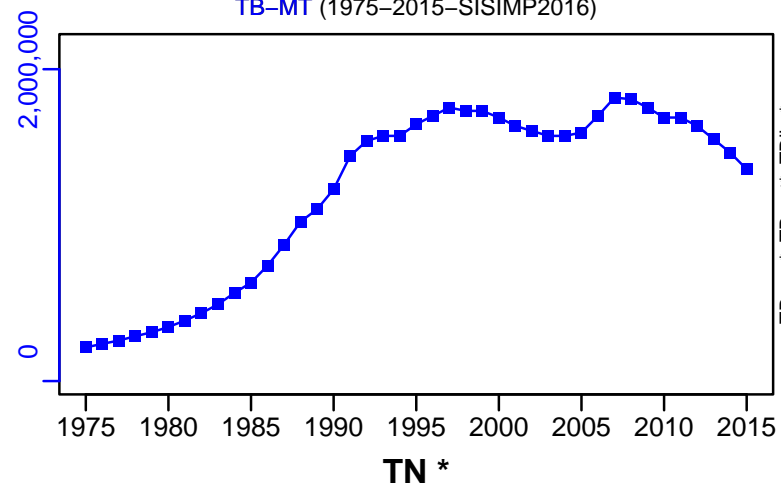
Production (1975–2015–SISIMP2016)



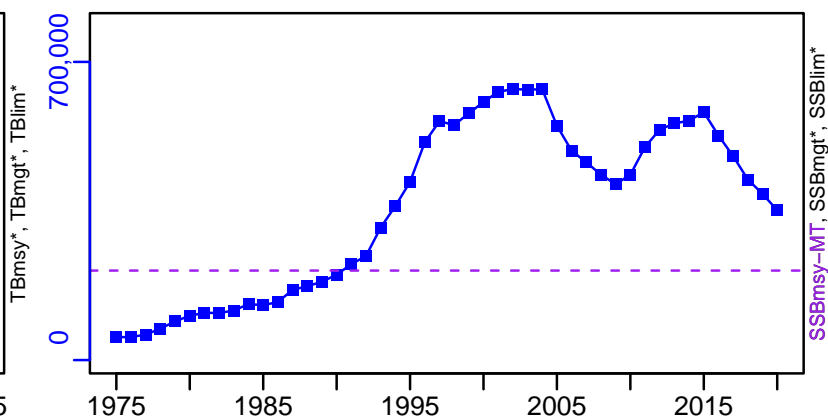
◆ Start Year ◆ End Year \* No Data

# Northern rock sole Eastern Bering Sea and Aleutian Islands [NRSOLEEBSAI]

TB-MT (1975–2015–SISIMP2016)



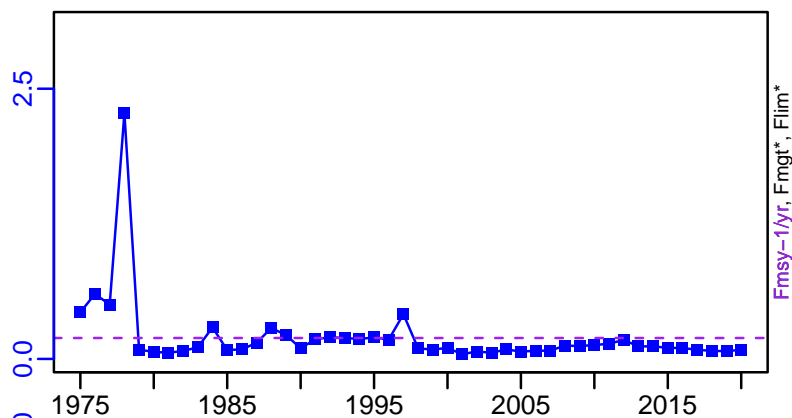
SSB-MT (1974–2020–SISIMP2022)



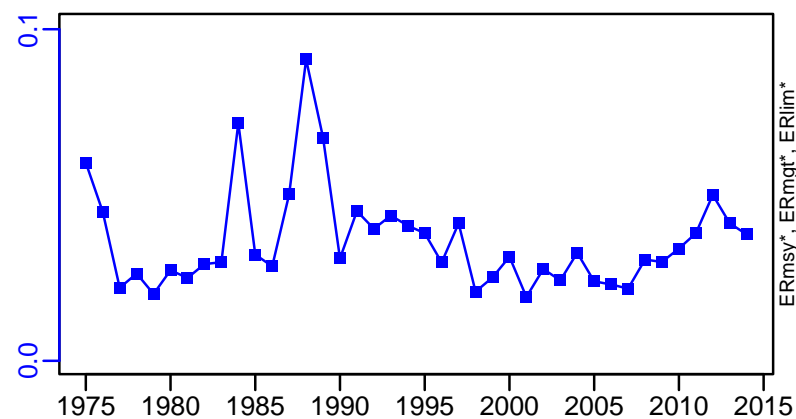
TN \*



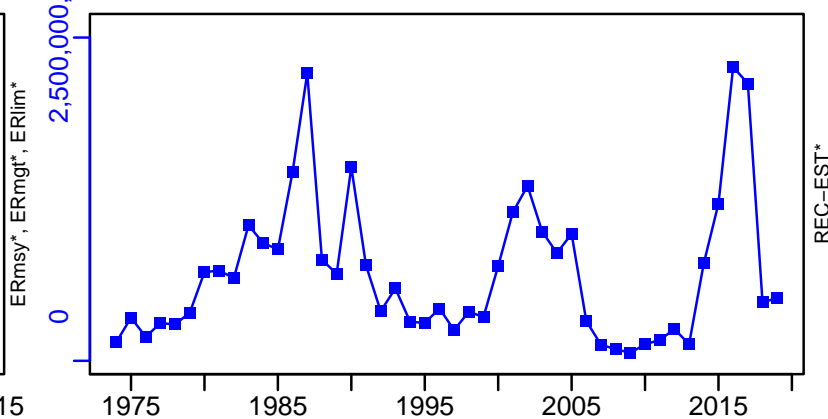
F-1/yr (1974–2020–SISIMP2022)



ER-calc-ratio (1975–2015–SISIMP2016)



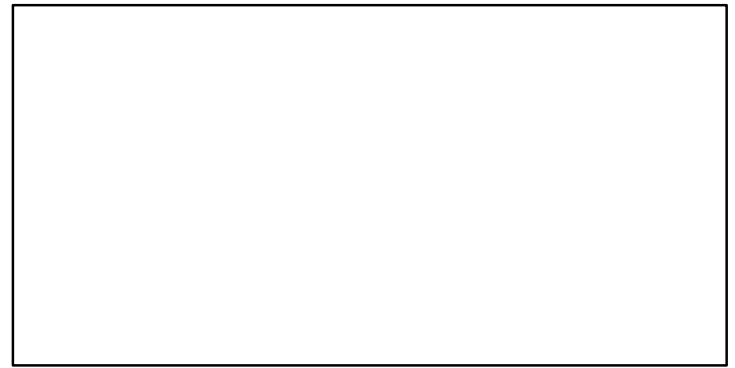
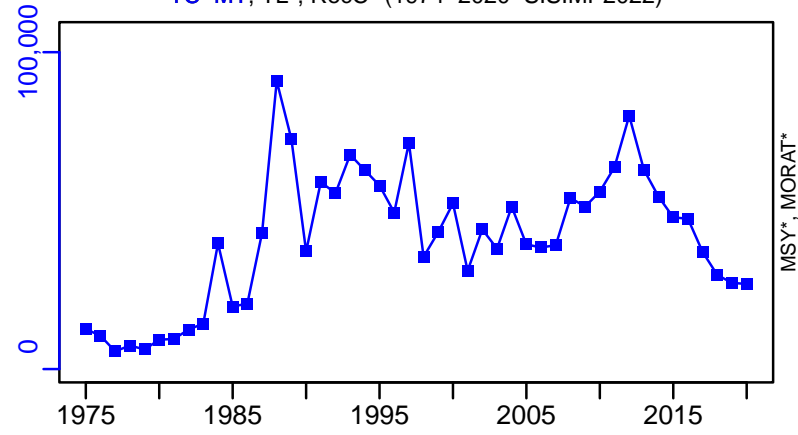
R-E00 (1974–2020–SISIMP2022)



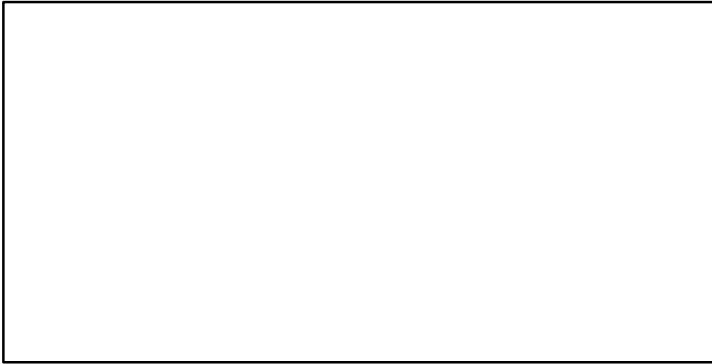
# Northern rock sole Eastern Bering Sea and Aleutian Islands [NRSOLEEBSAI]

TC-MT, TL\*, RecC\* (1974-2020-SISIMP2022)

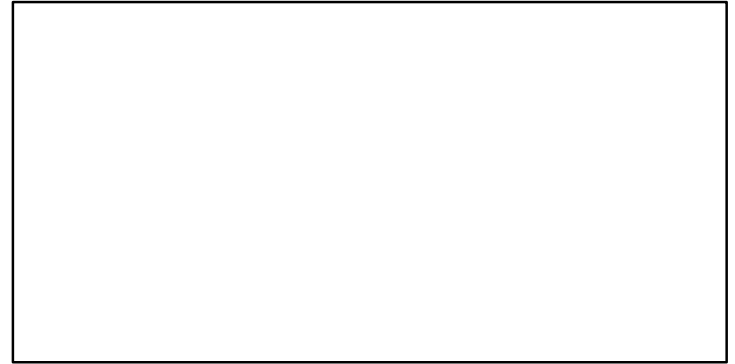
TAC\*, Cpair\*, Cadv\*



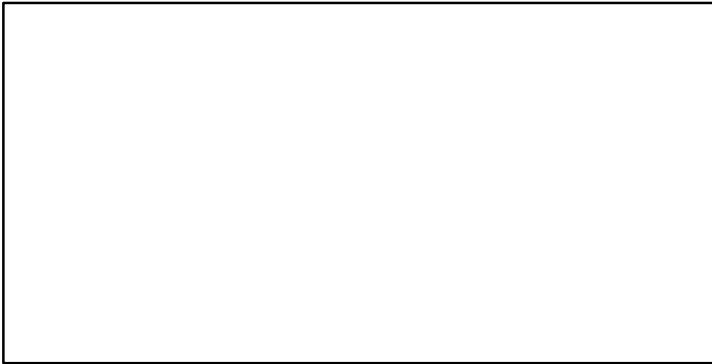
survB\*



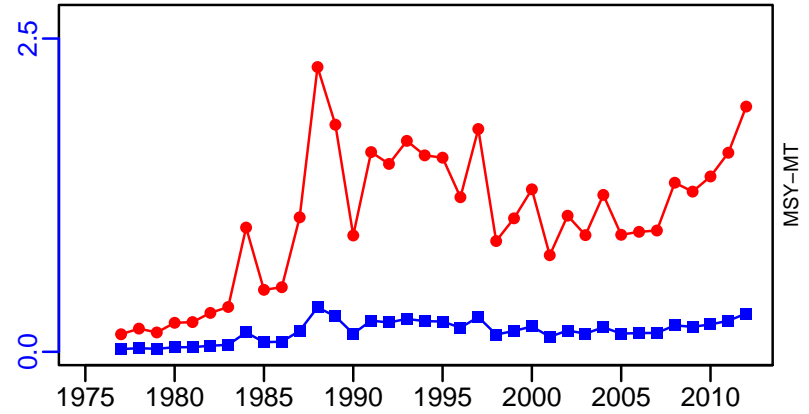
CPUE\*



EFFORT\*



TC-MT/MSY-MT, CdivMEANC-ratio, (1975-2012-HIVELY)



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

## Northern rock sole Gulf of Alaska [NRSOLEGA]

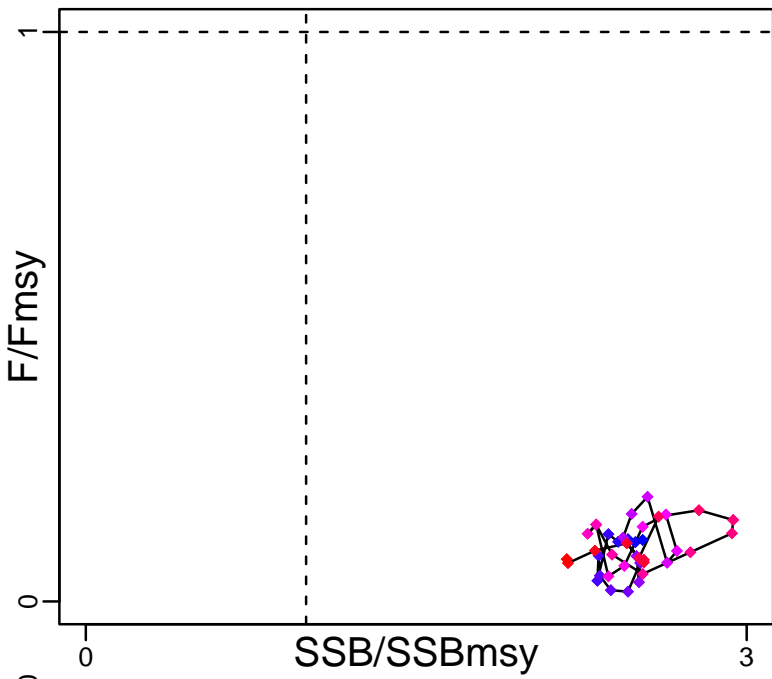
Metadata	
<b>Scientific Name</b>	Lepidopsetta polyxystra
<b>Current Assess ID</b>	AFSC-NRSOLEGA-1977-2019-SISIMP2021-2
<b>Area</b>	Gulf of Alaska
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2015, 2016, 2017, 2018, 2018, 2019

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2019	18,000
Fmsy	Fmsy-1/yr	2019	0.462
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	Flim-1/yr	2018	0.462
ERlim	-	-	-

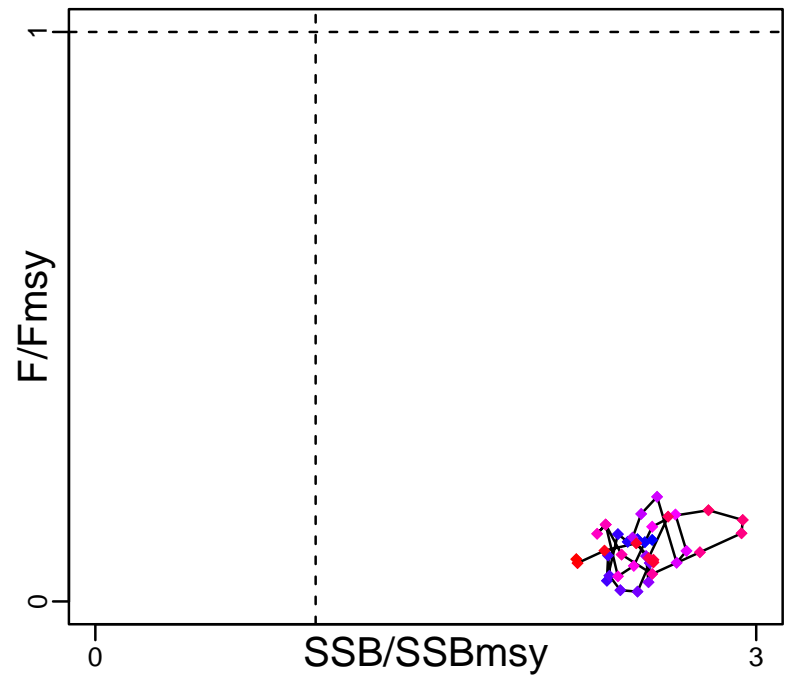
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2015	75,600	-	3+
SSB	SSB-MT	2019	41,800	-	-
TN	-	-	-	-	-
R	R-E00	2019	$1.31 \times 10^8$	-	0
F	F-1/yr	2019	0.034	-	-
ER	ER-calc-ratio	2015	0.023	-	-
TC	TC-MT	2019	1090		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2019	2.322		
F/Fmsy	F-1/yr/Fmsy-1/yr	2019	0.074		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

# Northern rock sole Gulf of Alaska [NRSOLEGA]

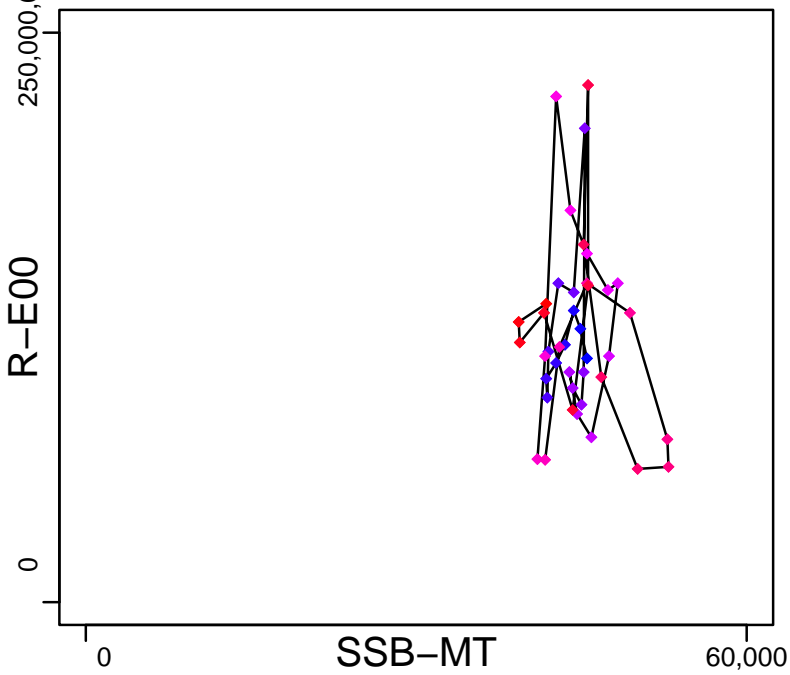
Kobe MSYpref (1977–2019–SISIMP2021–2)



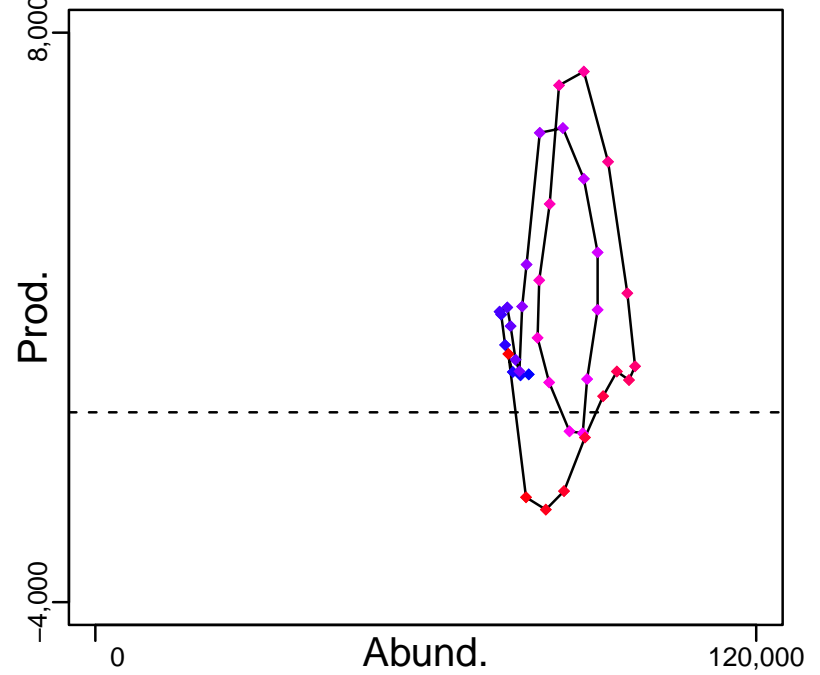
Kobe MGTpref (1977–2019–SISIMP2021–2)



Spawner Recruit (1977–2019–SISIMP2021–2)



Production (1977–2015–SISIMP2016)

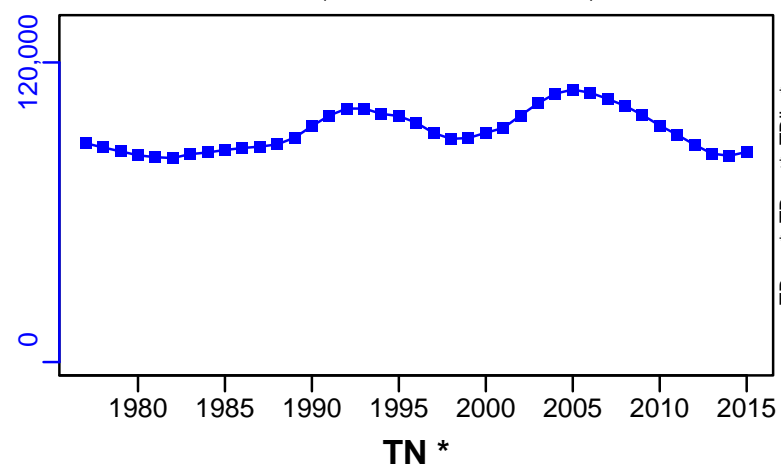


◆ Start Year ◆ End Year \* No Data

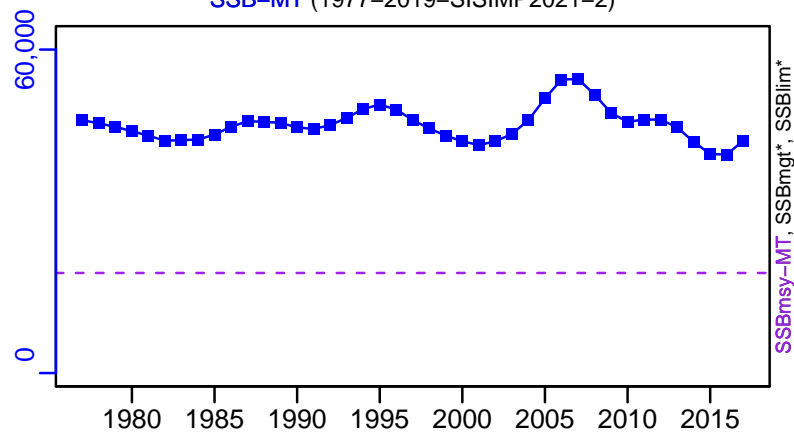


# Northern rock sole Gulf of Alaska [NRSOLEGA]

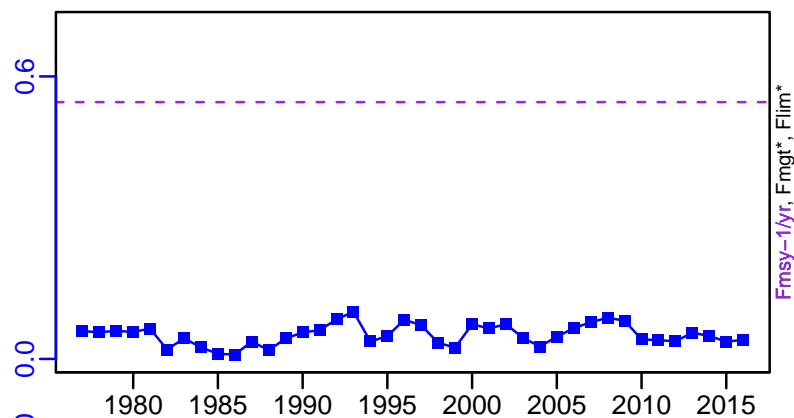
TB-MT (1977-2015-SISIMP2016)



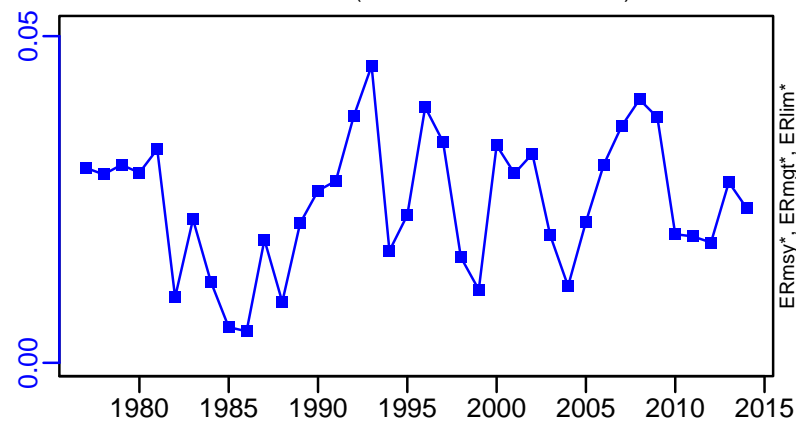
SSB-MT (1977-2019-SISIMP2021-2)



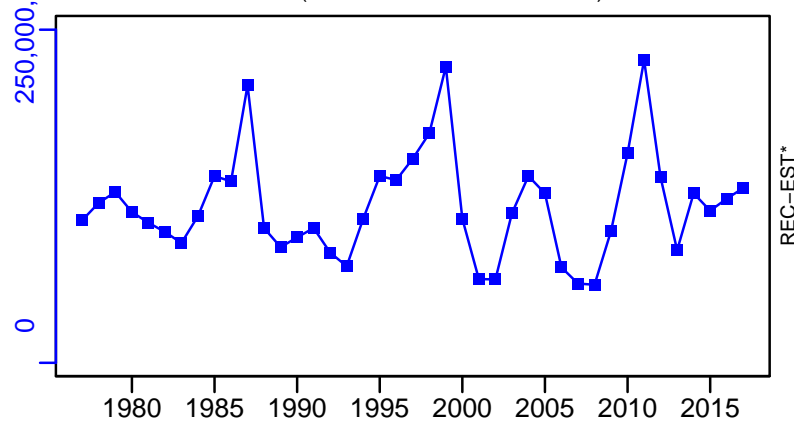
F-1/yr (1977-2019-SISIMP2021-2)



ER-calc-ratio (1977-2015-SISIMP2016)

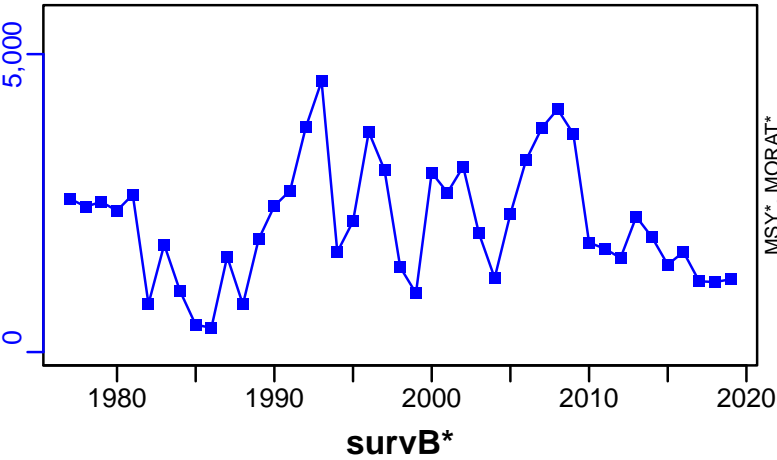


R-E00 (1977-2019-SISIMP2021-2)



Northern rock sole Gulf of Alaska [NRSOLEGA]

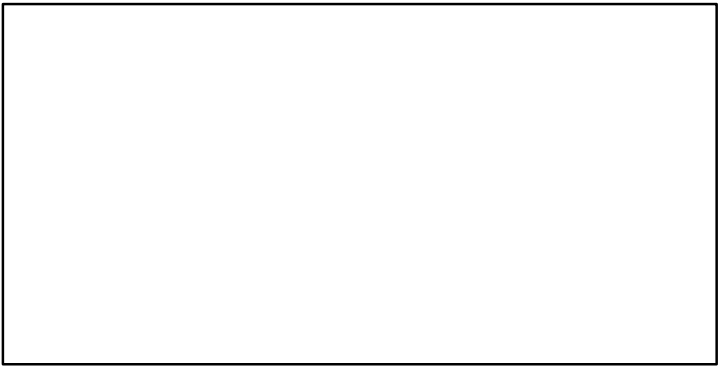
TC-MT, TL\*, RecC\* (1977-2019-SISIMP2021-2)



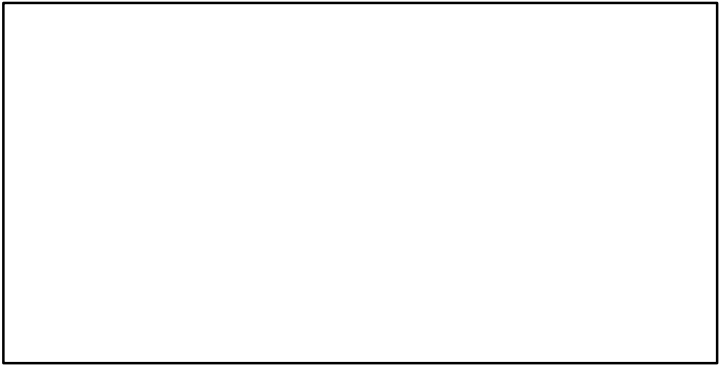
TAC\*, Cpair\*, Cadv\*



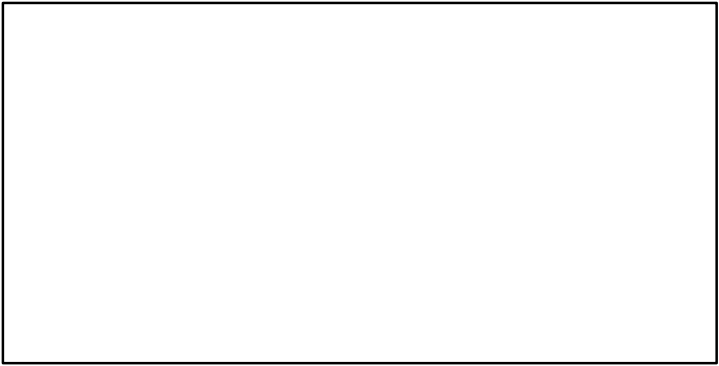
CPUE\*



EFFORT\*



CdivMSY\*

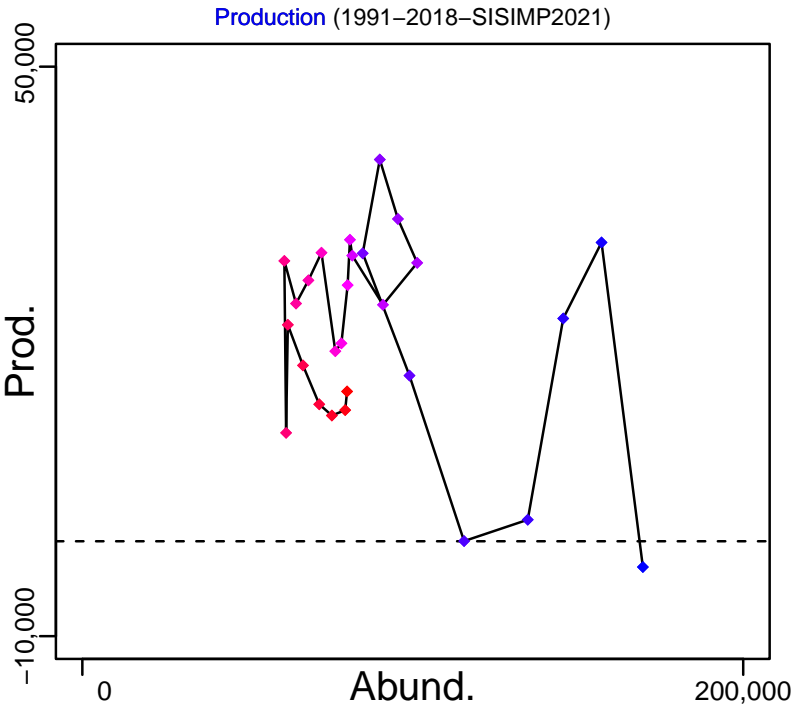
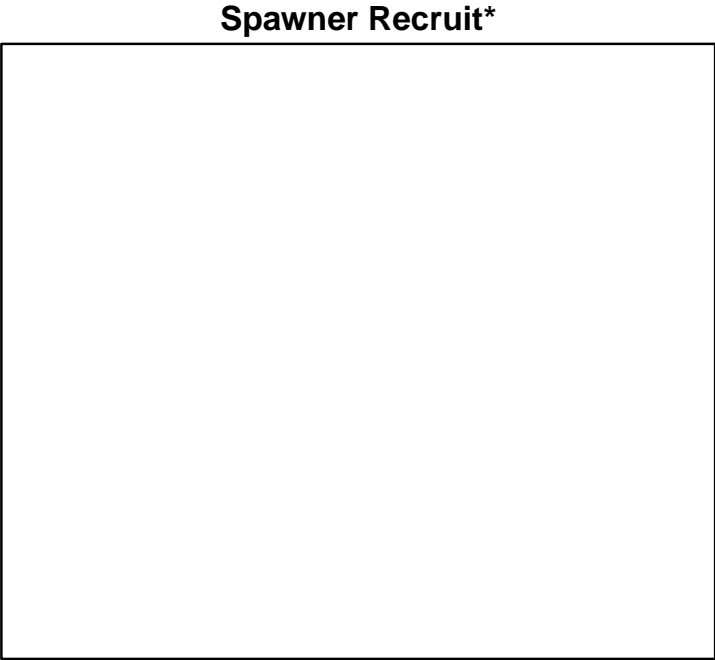
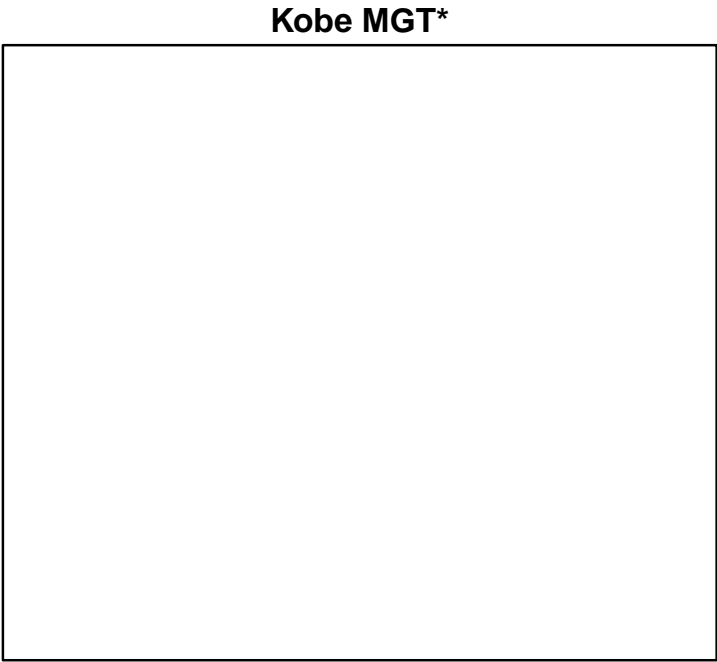
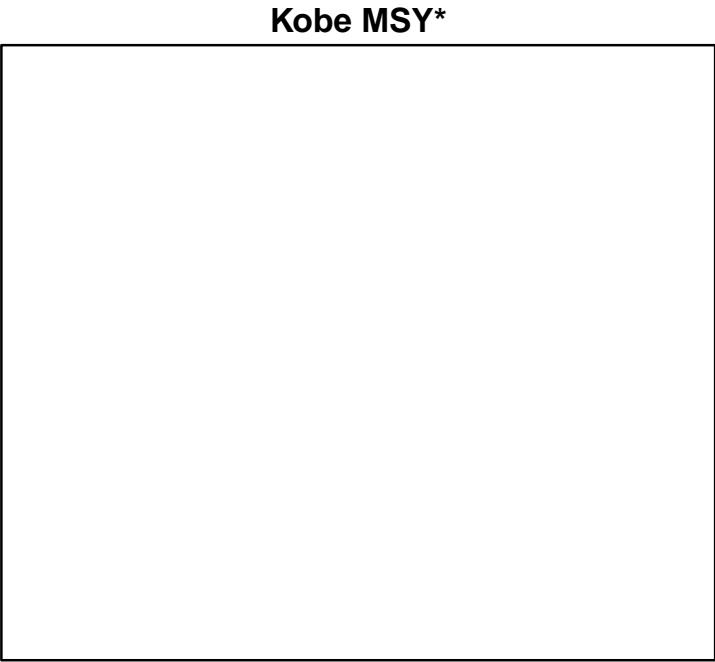


## Pacific cod Aleutian Islands [PCODAI]

Metadata	
<b>Scientific Name</b>	Gadus macrocephalus
<b>Current Assess ID</b>	AFSC-PCODAI-1964-2020-SISIMP2021-2
<b>Area</b>	Aleutian Islands
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2020, 2014, 2016, 2018, 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	TB-MT	2018	80,696	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-calc-ratio	2018	0.242	-	-
TC	TC-MT	2020	19,200		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

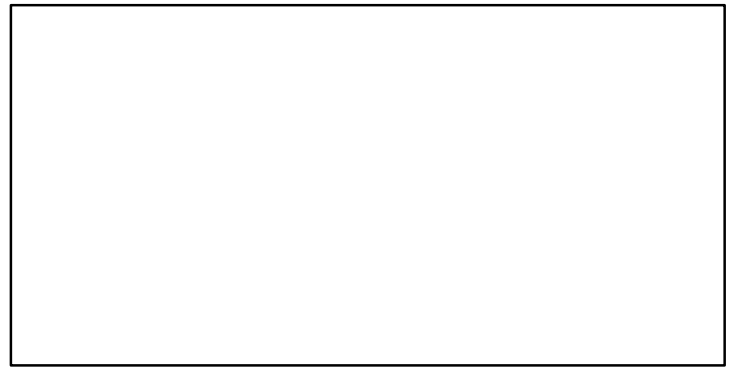
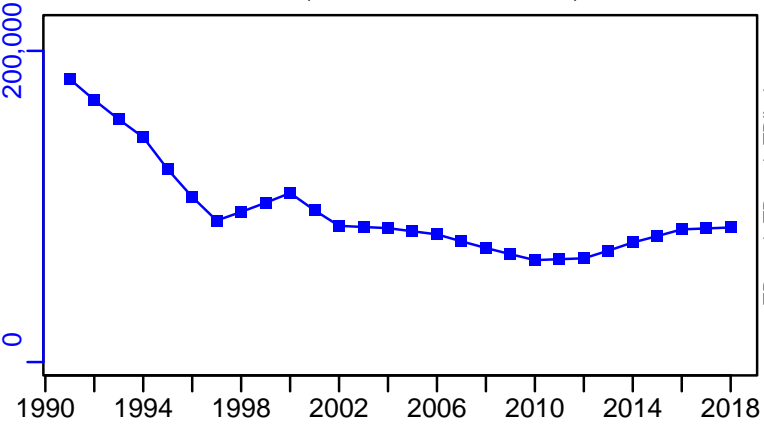


◆ Start Year ◆ End Year \* No Data

# Pacific cod Aleutian Islands [PCODAI]

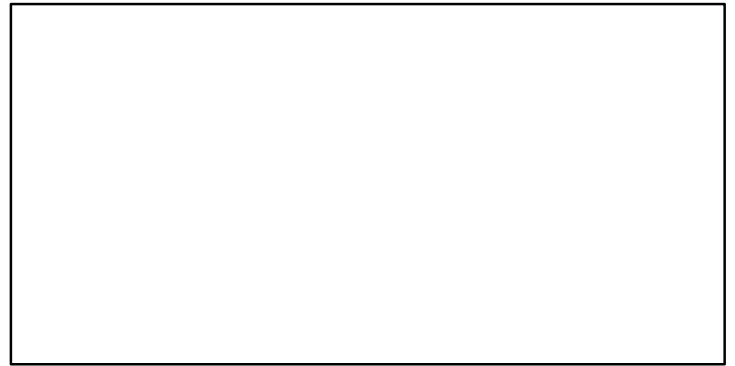
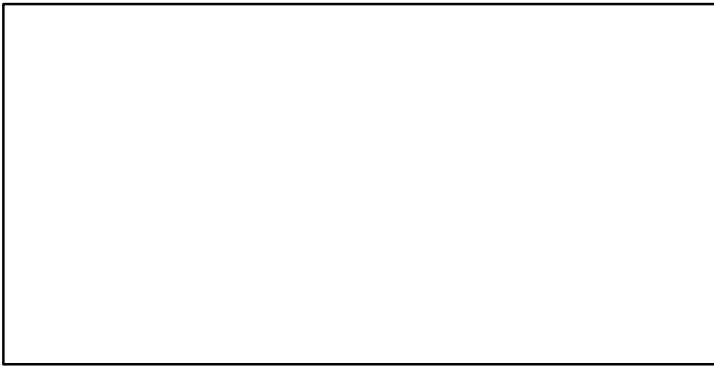
TB-MT (1991–2018–SISIMP2021)

SSB\*



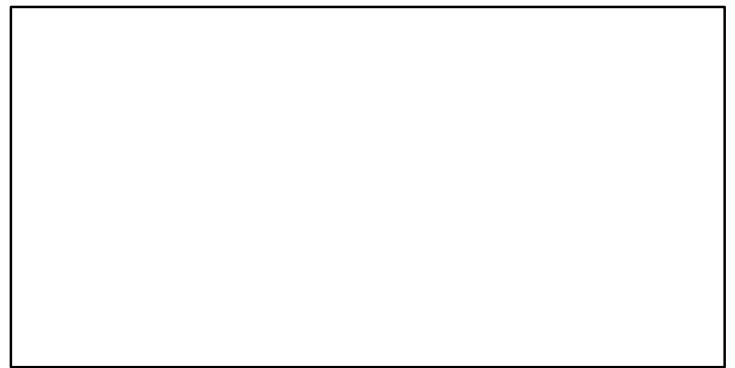
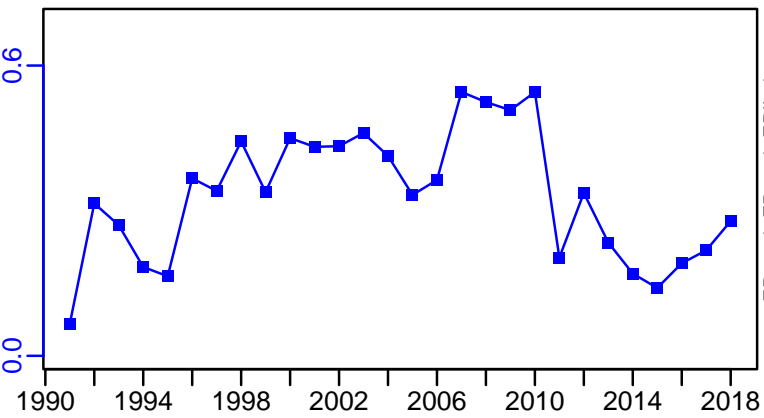
TN \*

F\*



ER-calc-ratio (1991–2018–SISIMP2021)

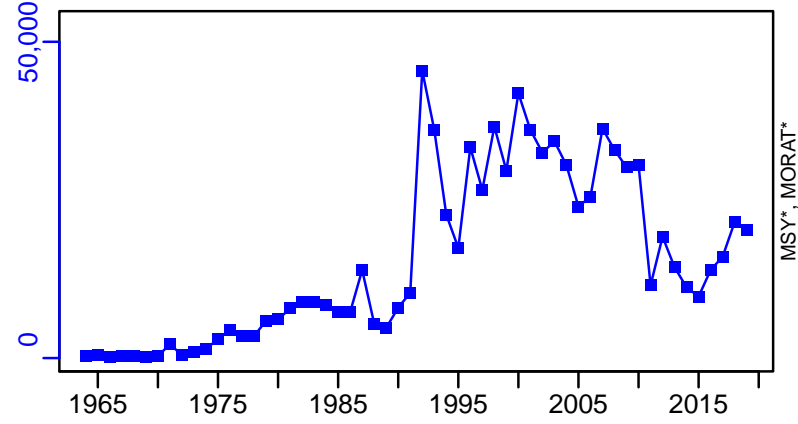
Recruits\*



# Pacific cod Aleutian Islands [PCODAI]

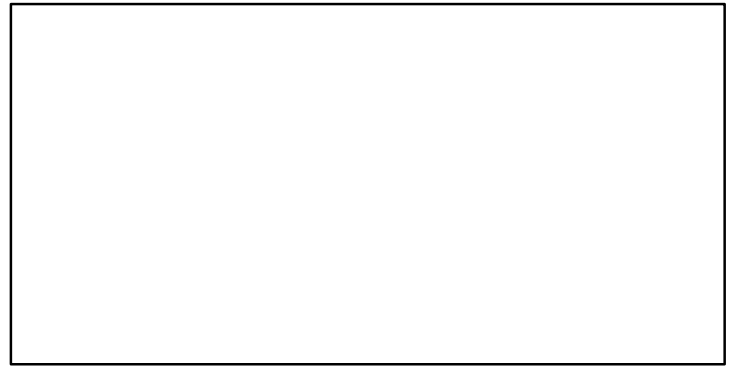
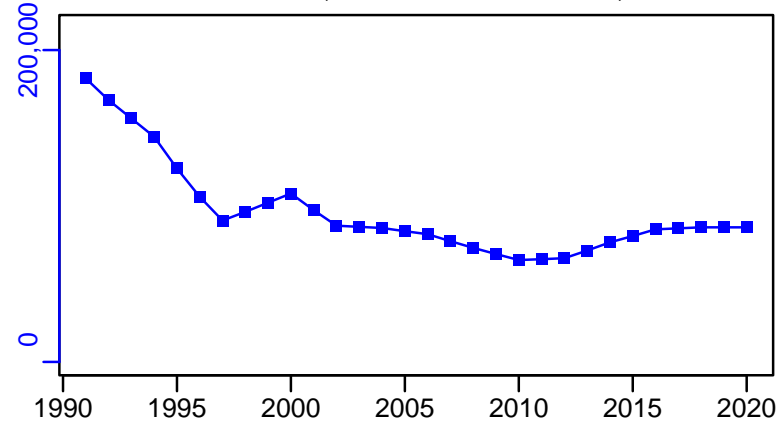
TC-MT, TL\*, RecC\* (1964-2020-SISIMP2021-2)

TAC\*, Cpair\*, Cadv\*



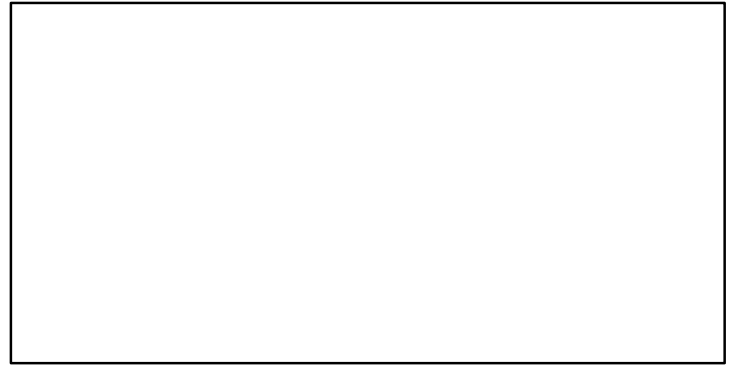
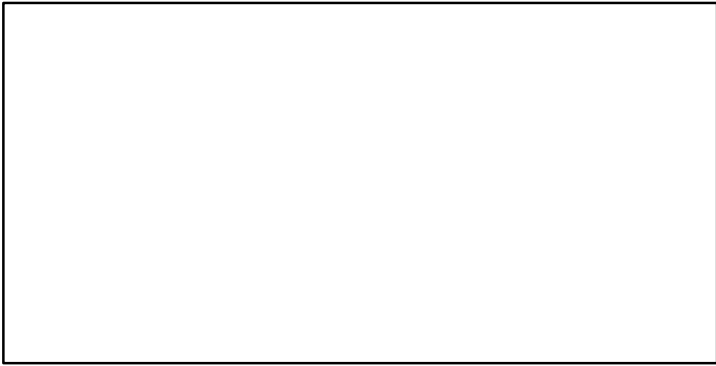
survB-MT (1964-2020-SISIMP2021-2)

CPUE\*



EFFORT\*

CdivMSY\*



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

## Pacific cod Bering Sea [PCODBS]

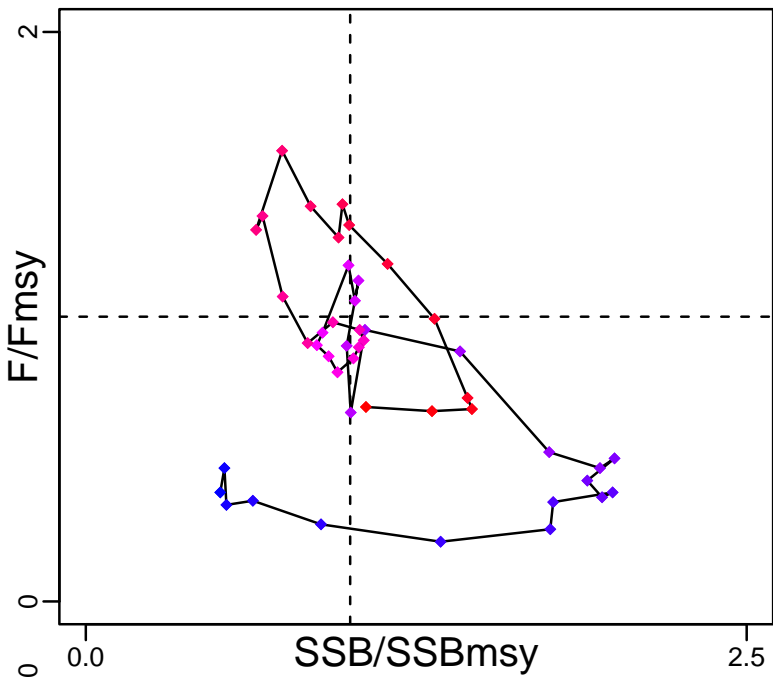
Metadata	
<b>Scientific Name</b>	Gadus macrocephalus
<b>Current Assess ID</b>	AFSC-PCODBS-1977-2021-SISIMP2022
<b>Area</b>	Bering Sea
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2015, 2016, 2017, 2018, 2019, 2020, 2021

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2021	240,366
<b>Fmsy</b>	Fmsy-1/yr	2021	0.41
<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>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	Flim-1/yr	2020	0.363
<b>ERlim</b>	-	-	-

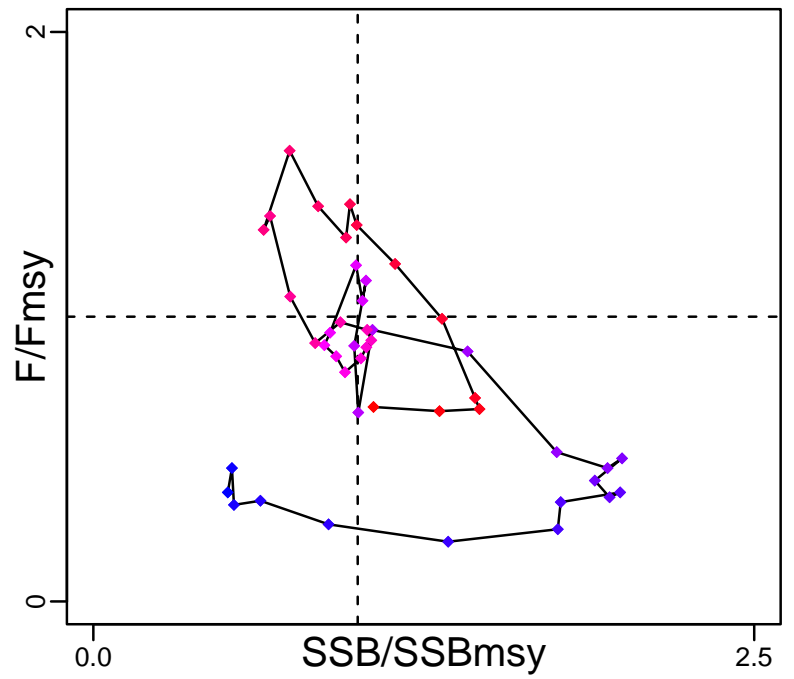
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	1,670,000	-	0+
<b>SSB</b>	SSB-MT	2021	254,718	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2021	501,019,000	-	0
<b>F</b>	F-1/yr	2021	0.28	-	-
<b>ER</b>	ER-calc-ratio	2015	0.16	-	-
<b>TC</b>	TC-MT	2021	155,639		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2021	1.06		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2021	0.683		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Pacific cod Bering Sea [PCODBS]

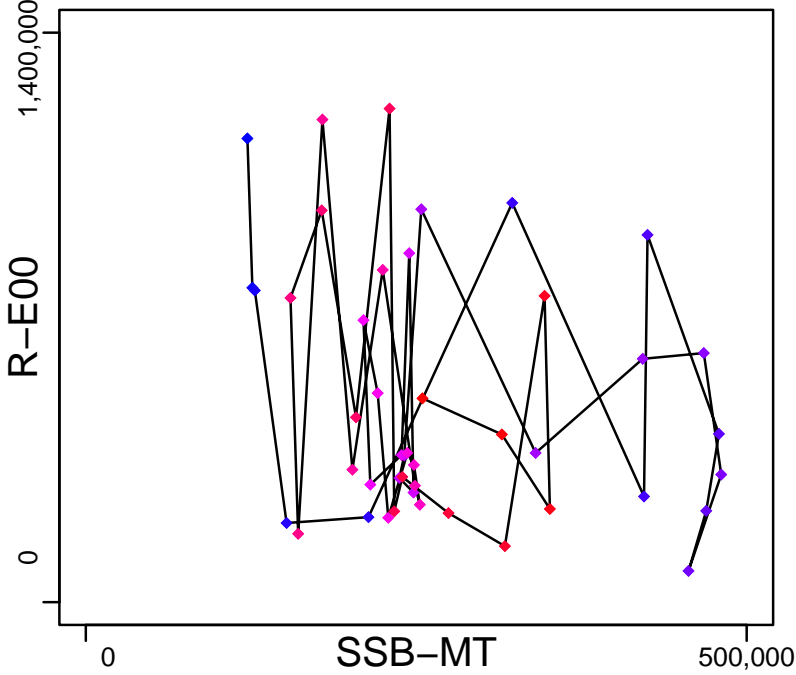
Kobe MSYpref (1977–2021–SISIMP2022)



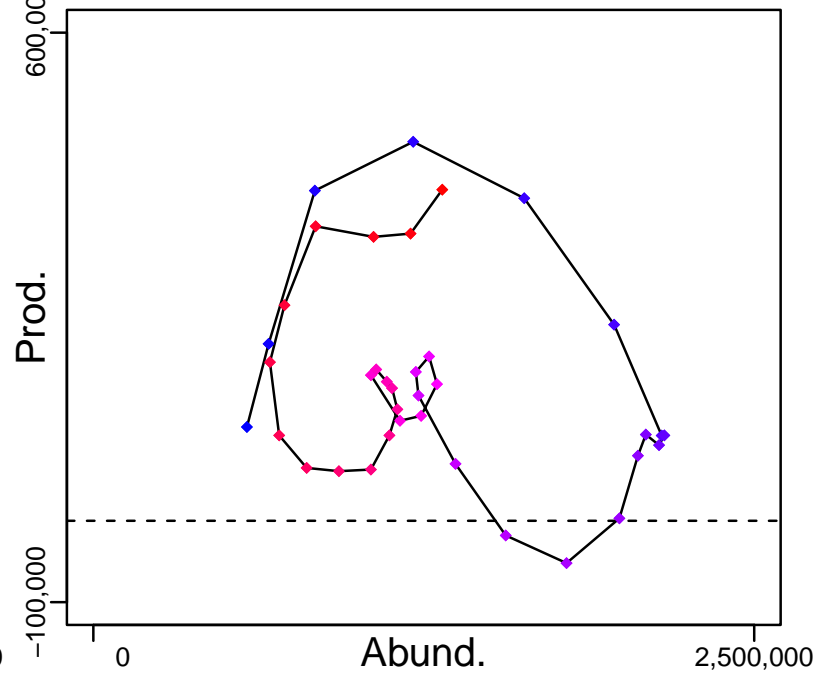
Kobe MGTpref (1977–2021–SISIMP2022)



Spawner Recruit (1977–2021–SISIMP2022)



Production (1977–2015–SISIMP2016)

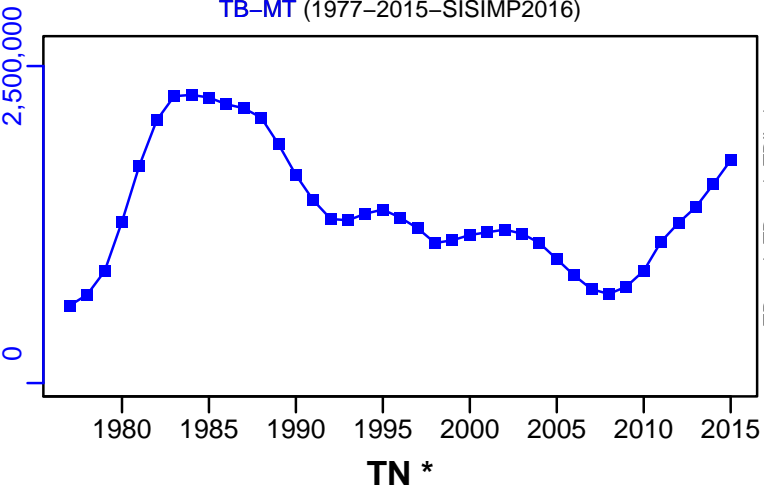


◆ Start Year ◆ End Year \* No Data

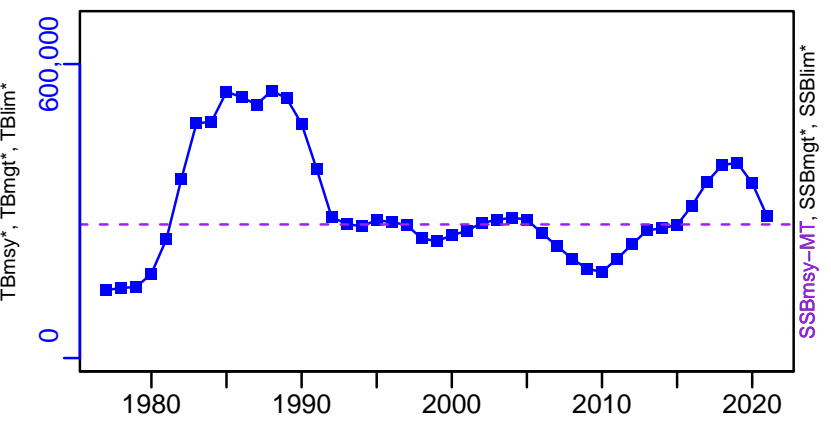


# Pacific cod Bering Sea [PCODBS]

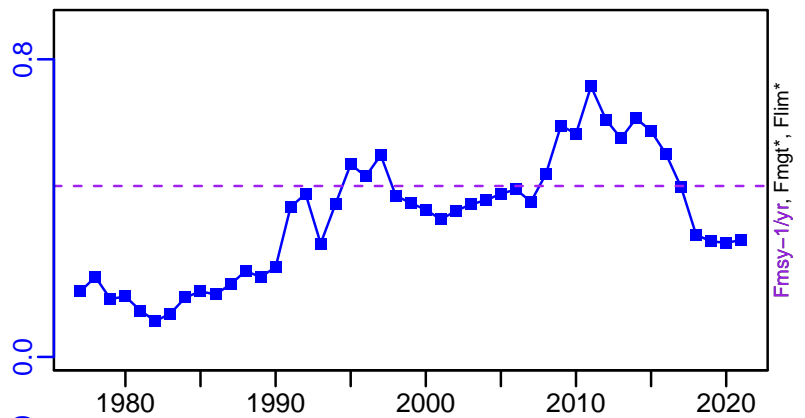
TB-MT (1977-2015-SISIMP2016)



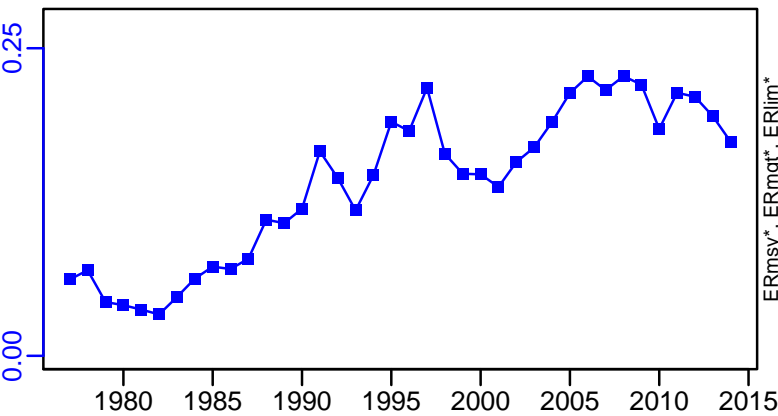
SSB-MT (1977-2021-SISIMP2022)



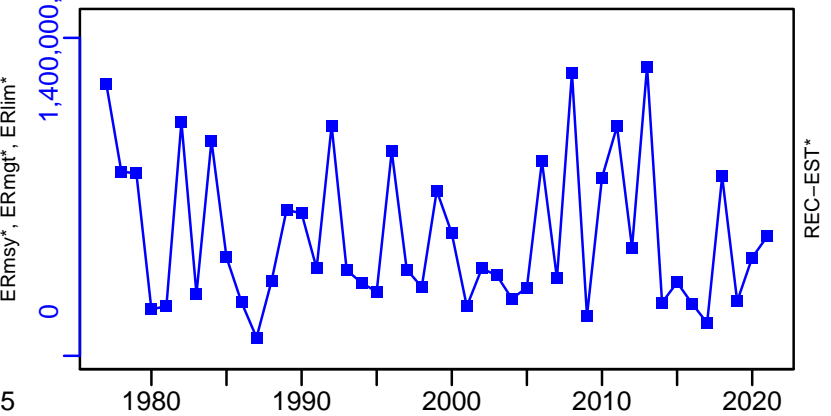
F-1/yr (1977-2021-SISIMP2022)



ER-calc-ratio (1977-2015-SISIMP2016)

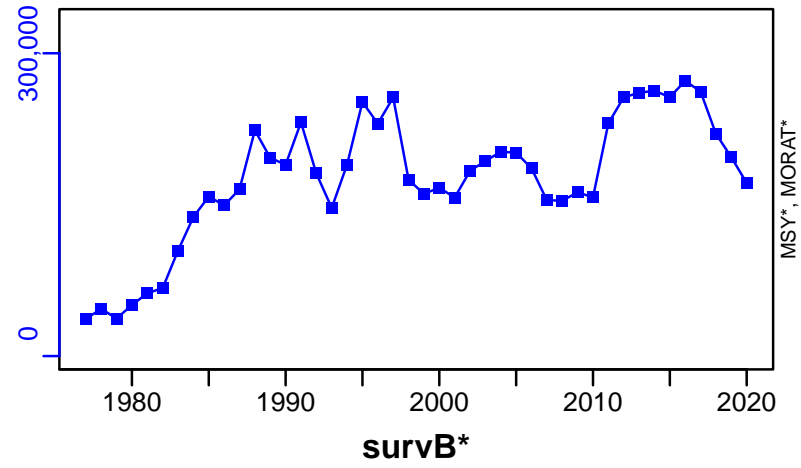


R-E00 (1977-2021-SISIMP2022)



Pacific cod Bering Sea [PCODBS]

TC-MT, TL\*, RecC\* (1977-2021-SISIMP2022)



TAC\*, Cpair\*, Cadv\*



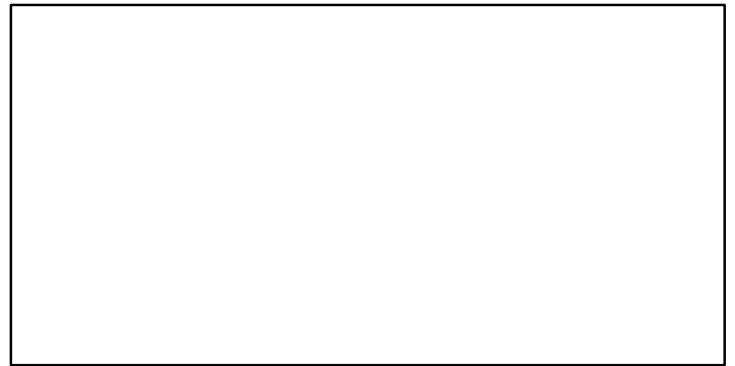
CPUE\*



EFFORT\*



CdivMSY\*



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

## Pacific cod Gulf of Alaska [PCODGA]

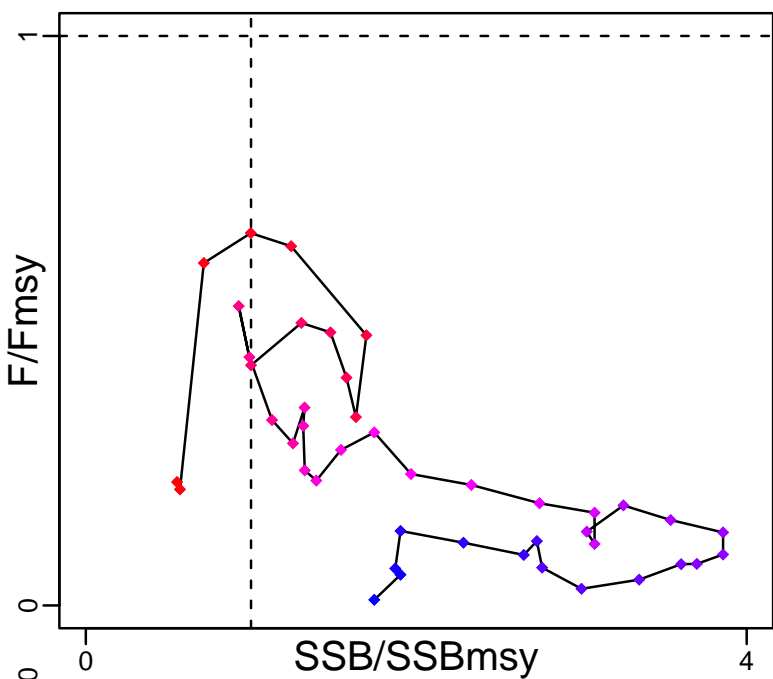
Metadata	
<b>Scientific Name</b>	Gadus macrocephalus
<b>Current Assess ID</b>	AFSC-PCODGA-1977-2020-SISIMP2021-2
<b>Area</b>	Gulf of Alaska
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2014, 2015, 2016, 2017, 2018, 2019, 2020

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2020	63,000
<b>Fmsy</b>	Fmsy-1/yr	2020	0.78
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2014	91,100
<b>Fmgt</b>	Fmgt-1/yr	2015	0.495
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	M-1/yr	2014	0.38
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2019	32,900
<b>Flim</b>	Flim-1/yr	2020	0.45
<b>ERlim</b>	-	-	-

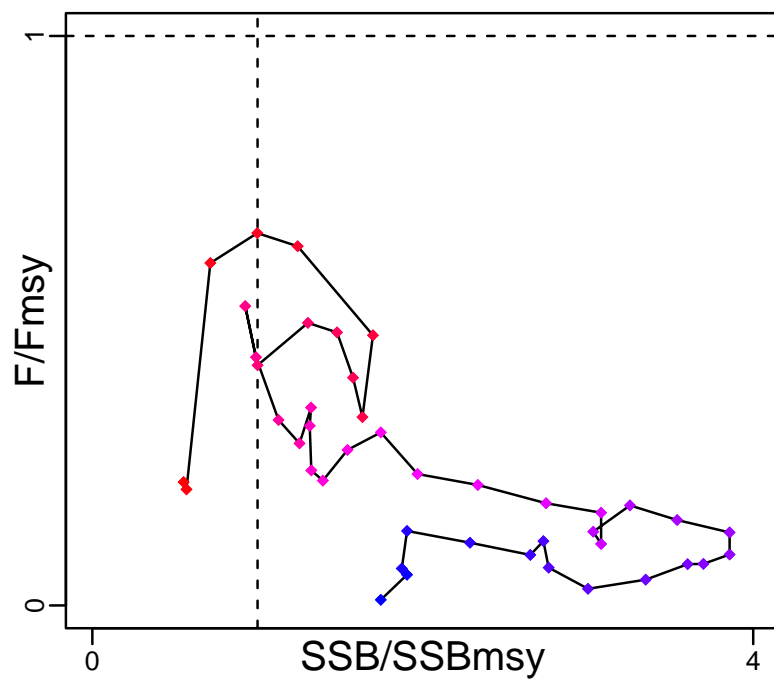
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	640,000	-	3+
<b>SSB</b>	SSB-MT	2020	34,600	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2020	$4.64 \times 10^8$	-	0
<b>F</b>	F-1/yr	2020	0.169	-	-
<b>ER</b>	ER-calc-ratio	2015	0.125	-	-
<b>TC</b>	TC-MT	2020	15,700		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2020	0.549		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2020	0.217		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2014	1.614		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2015	0.218		
<b>ER/ERmgt</b>	-	-	-		

# Pacific cod Gulf of Alaska [PCODGA]

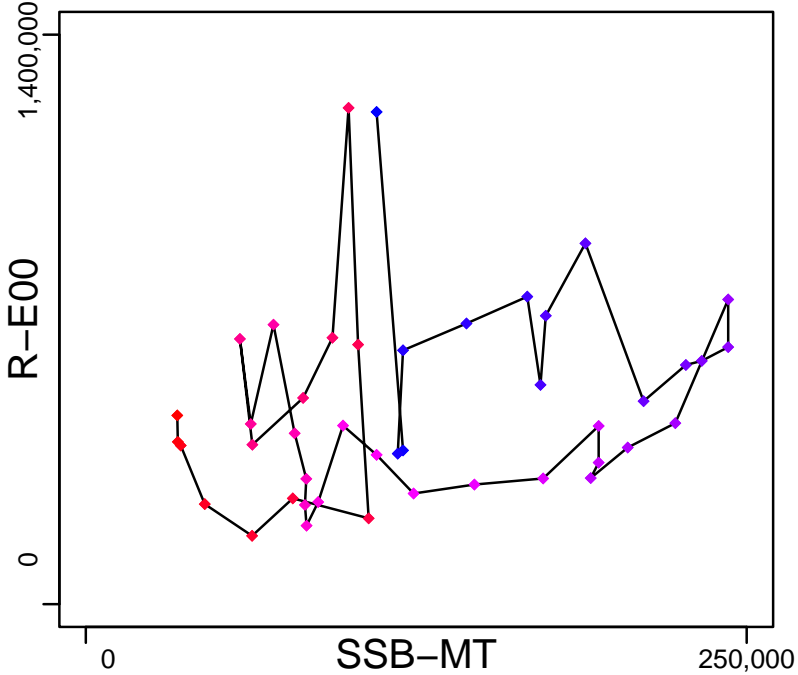
Kobe MSYpref (1977–2020–SISIMP2021–2)



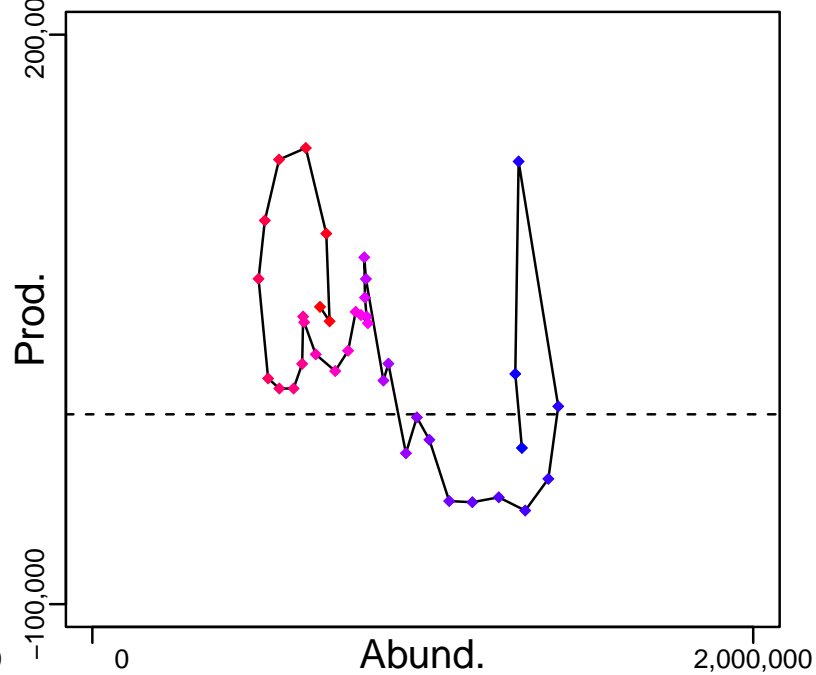
Kobe MGTpref (1977–2020–SISIMP2021–2)



Spawner Recruit (1977–2020–SISIMP2021–2)



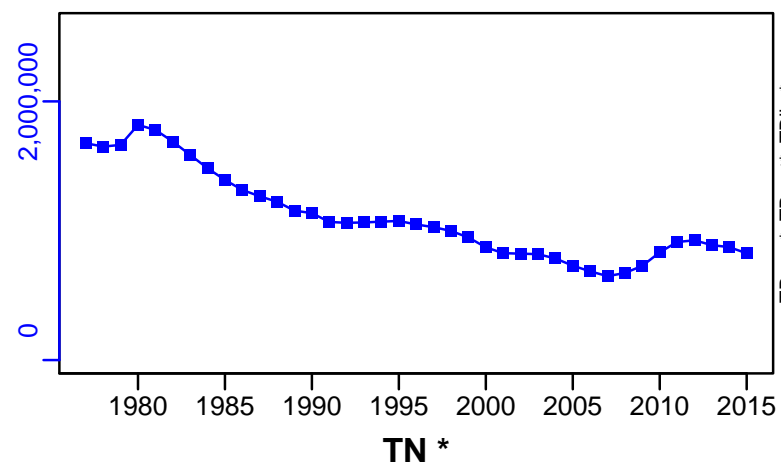
Production (1977–2015–SISIMP2016)



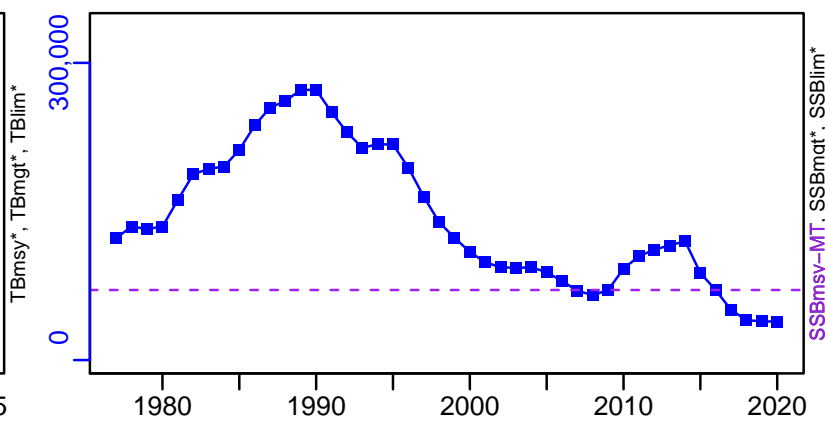
◆ Start Year ◆ End Year \* No Data

# Pacific cod Gulf of Alaska [PCODGA]

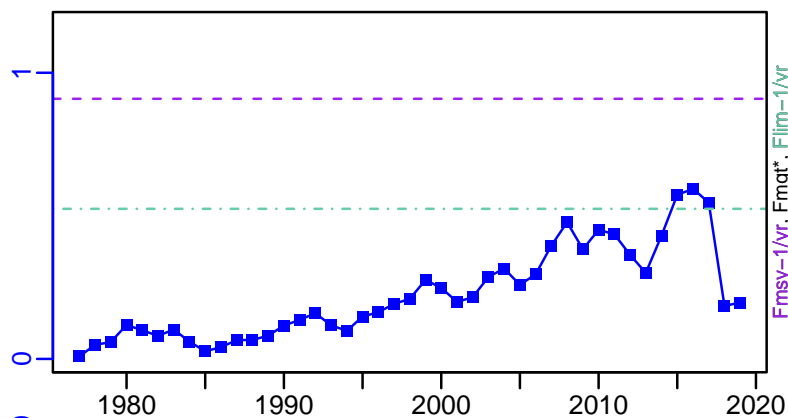
TB-MT (1977-2015-SISIMP2016)



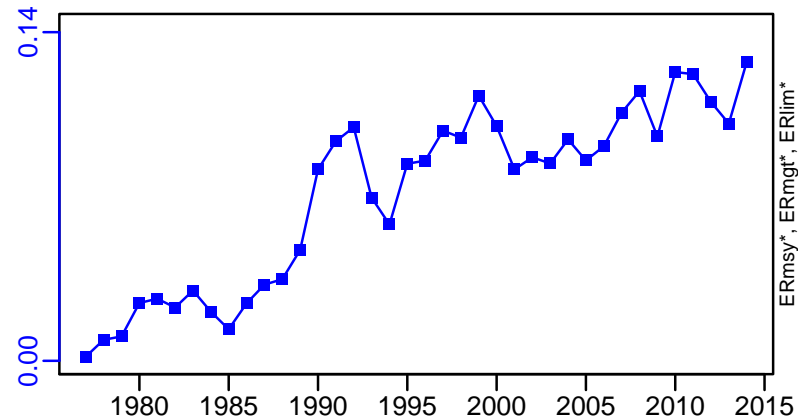
SSB-MT (1977-2020-SISIMP2021-2)



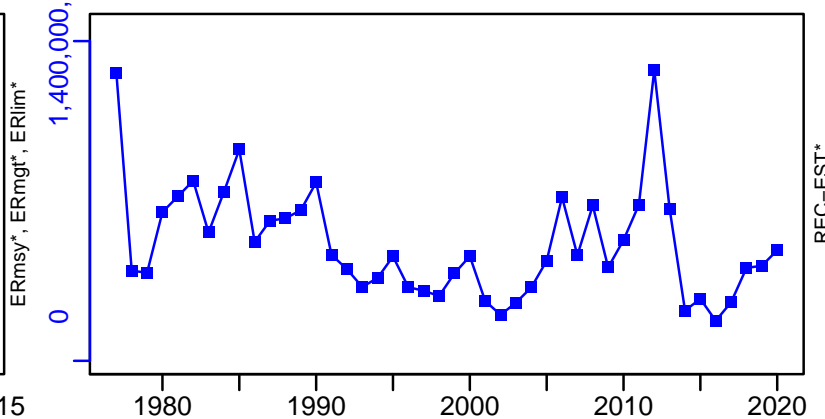
F-1/yr (1977-2020-SISIMP2021-2)



ER-calc-ratio (1977-2015-SISIMP2016)



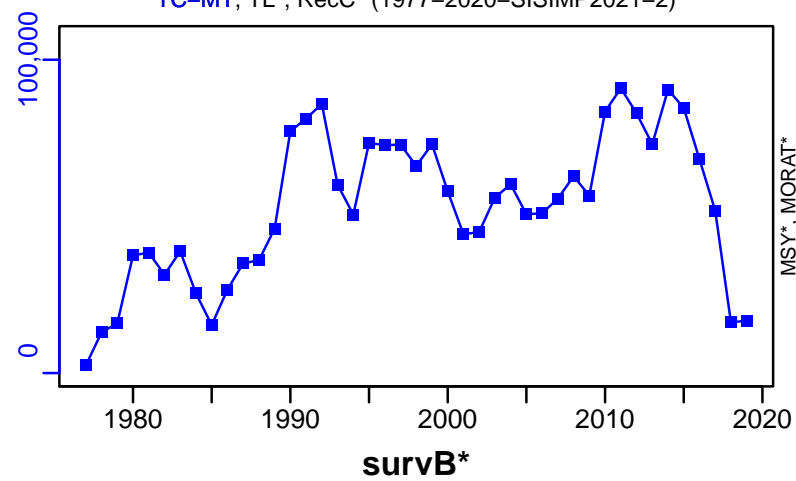
R-E00 (1977-2020-SISIMP2021-2)



# Pacific cod Gulf of Alaska [PCODGA]

TC-MT, TL\*, RecC\* (1977-2020-SISIMP2021-2)

TAC\*, Cpair\*, Cadv\*



CPUE\*

EFFORT\*

CdivMSY\*

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

## Pacific ocean perch Eastern Bering Sea and Aleutian Islands [PERCHEBSAI]

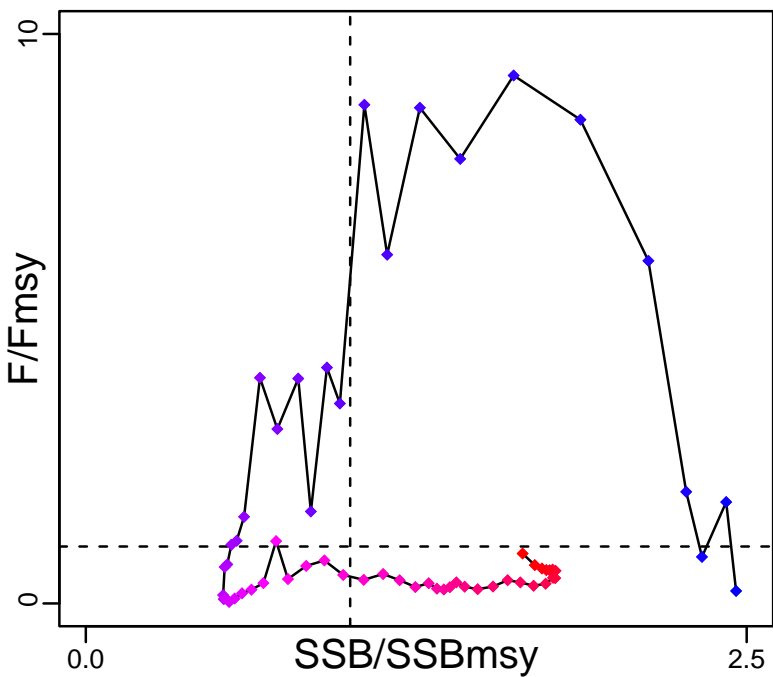
Metadata	
<b>Scientific Name</b>	Sebastes alutus
<b>Current Assess ID</b>	AFSC-PERCHEBSAI-1957-2021-SISIMP2022
<b>Area</b>	Eastern Bering Sea and Aleutian Islands
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2016, 2017, 2018, 2021, 2011, 2015, 2018, 2020

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2021	204,661
<b>Fmsy</b>	Fmsy-1/yr	2021	0.089
<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	2011	0.062
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	Flim-1/yr	2020	0.111
<b>ERlim</b>	-	-	-

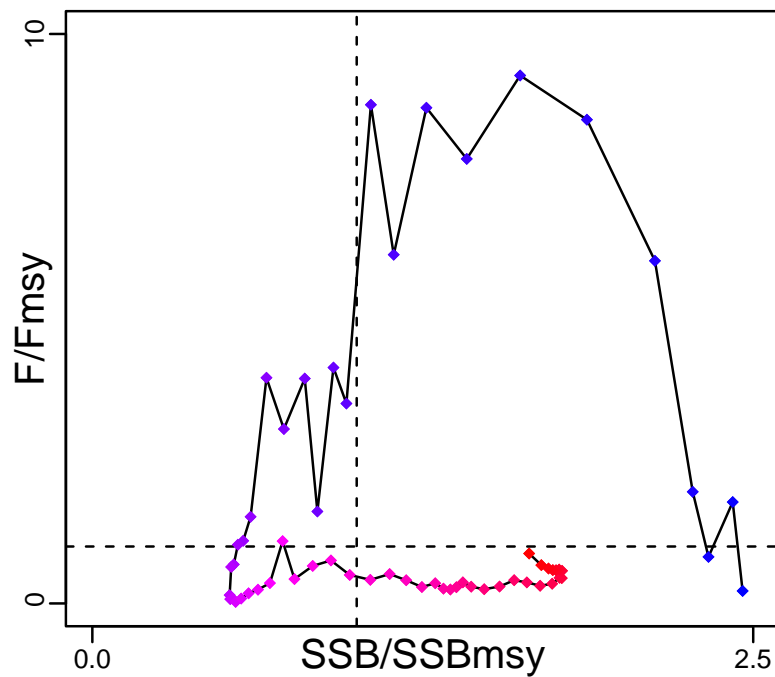
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	598,000	Both	3+
<b>SSB</b>	SSB-MT	2021	310,036	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2021	99,395,000	-	3
<b>F</b>	F-1/yr	2021	0.078	-	-
<b>ER</b>	ER-calc-ratio	2015	0.054	-	-
<b>TC</b>	TC-MT	2021	40,417		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2021	1.515		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2021	0.877		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Pacific ocean perch Eastern Bering Sea and Aleutian Islands [PERCHEBSAI]

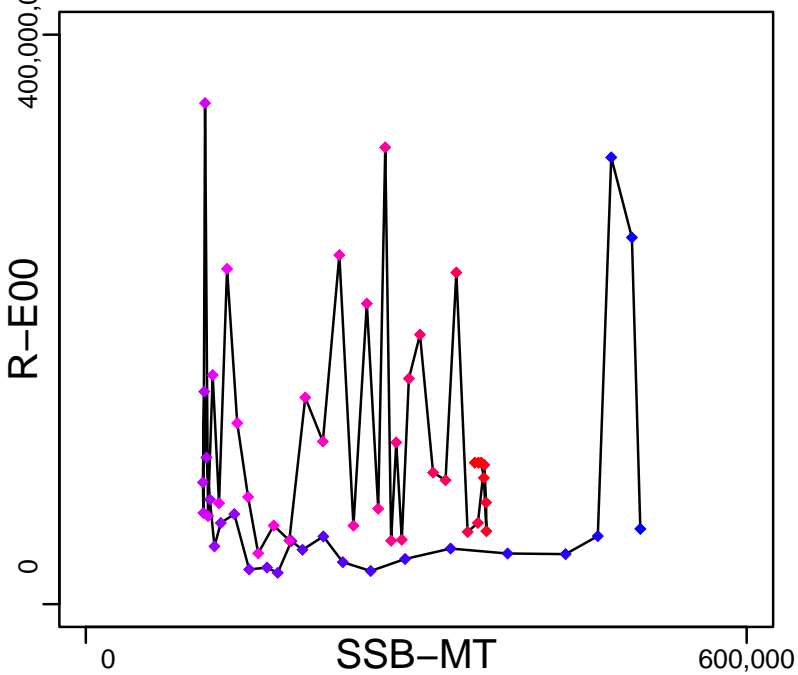
Kobe MSY<sub>pref</sub> (1957–2021–SISIMP2022)



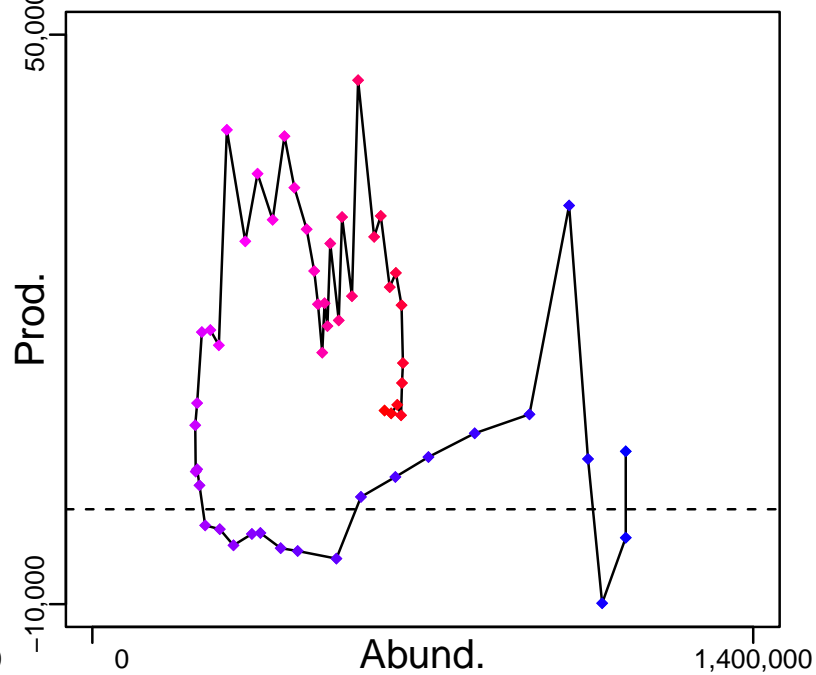
Kobe MGT<sub>pref</sub> (1957–2021–SISIMP2022)



Spawner Recruit (1957–2021–SISIMP2022)



Production (1960–2015–SISIMP2016)

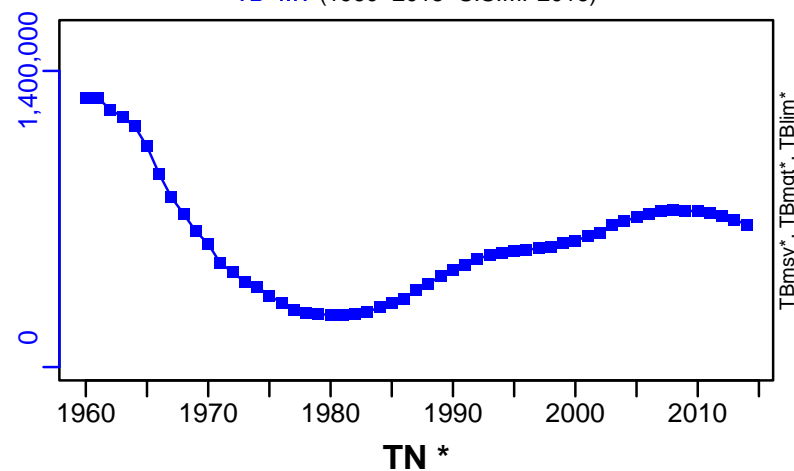


◆ Start Year ◆ End Year \* No Data

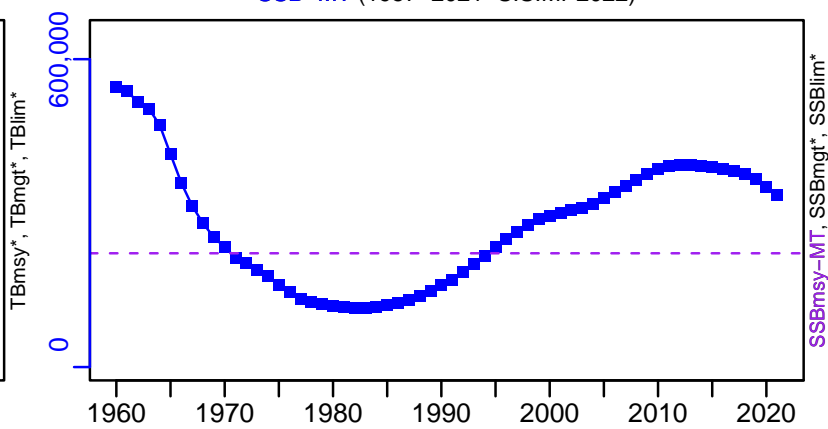


# Pacific ocean perch Eastern Bering Sea and Aleutian Islands [PERCHEBSAI]

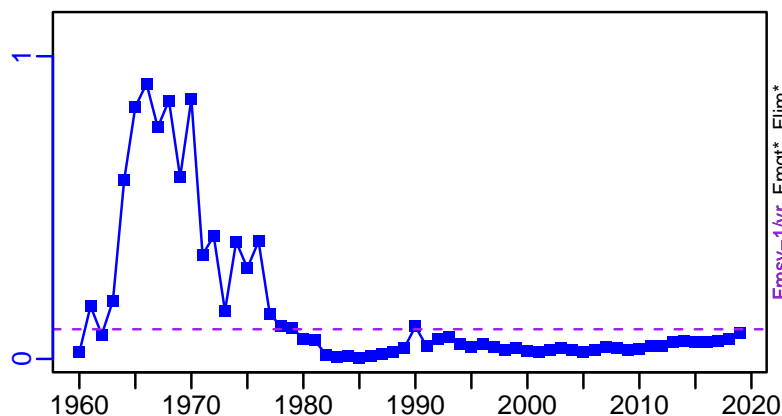
TB-MT (1960–2015–SISIMP2016)



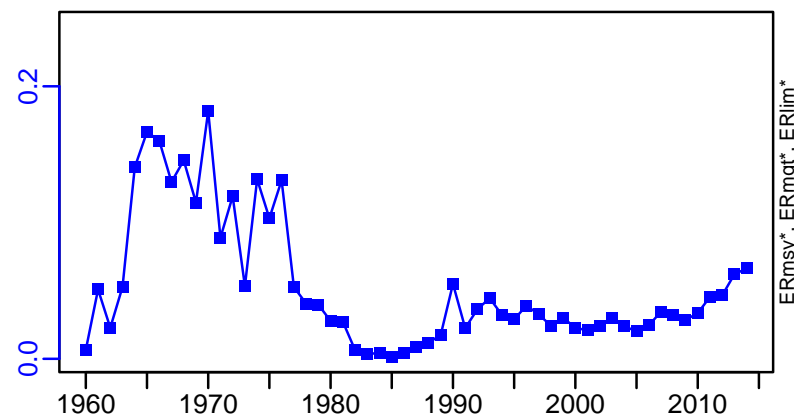
SSB-MT (1957–2021–SISIMP2022)



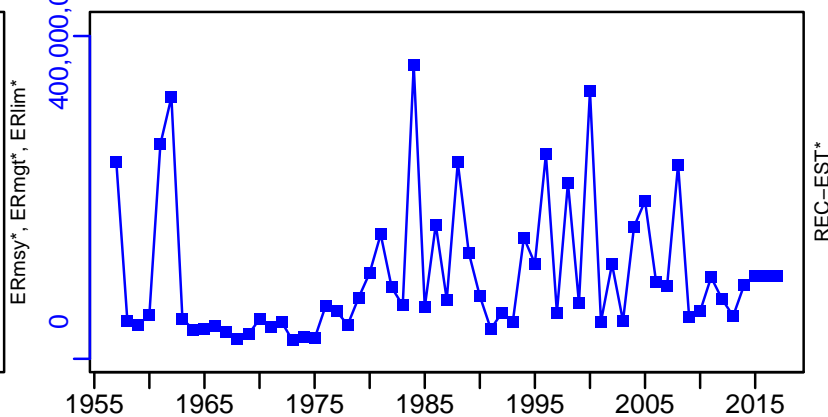
F-1/yr (1957–2021–SISIMP2022)



ER-calc-ratio (1960–2015–SISIMP2016)

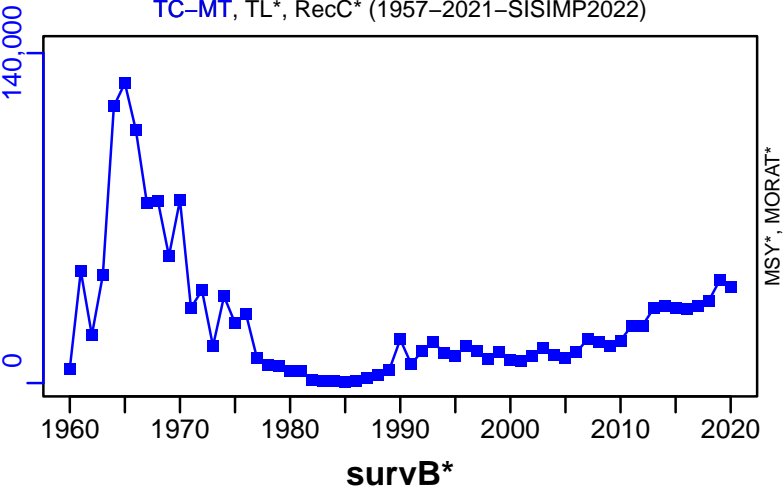


R-E00 (1957–2021–SISIMP2022)

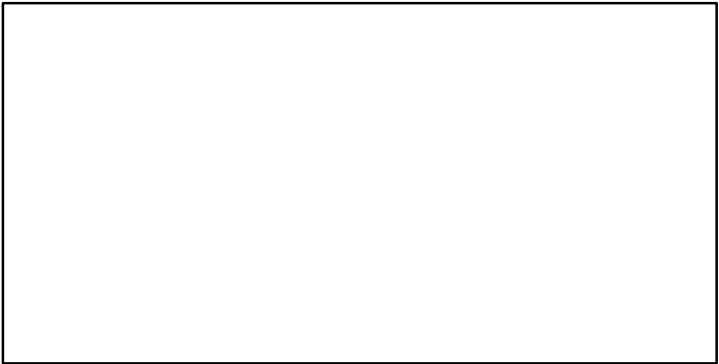


Pacific ocean perch Eastern Bering Sea and Aleutian Islands [PERCHEBSAI]

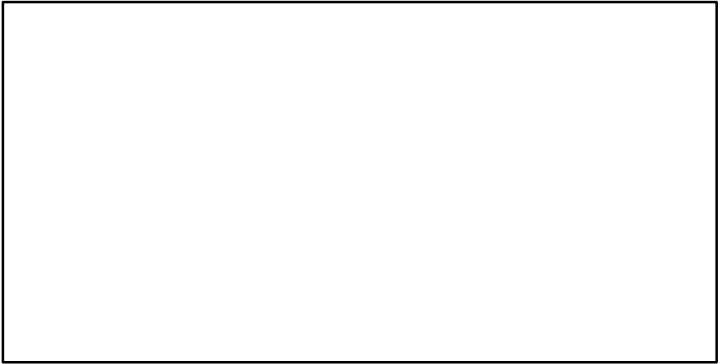
TC-MT, TL\*, RecC\* (1957-2021-SISIMP2022)



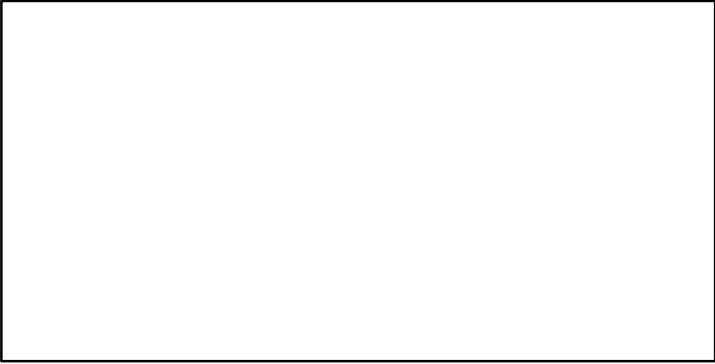
TAC\*, Cpair\*, Cadv\*



CPUE\*



EFFORT\*



CdivMSY\*



## Pacific halibut North Pacific [PHALNPAC]

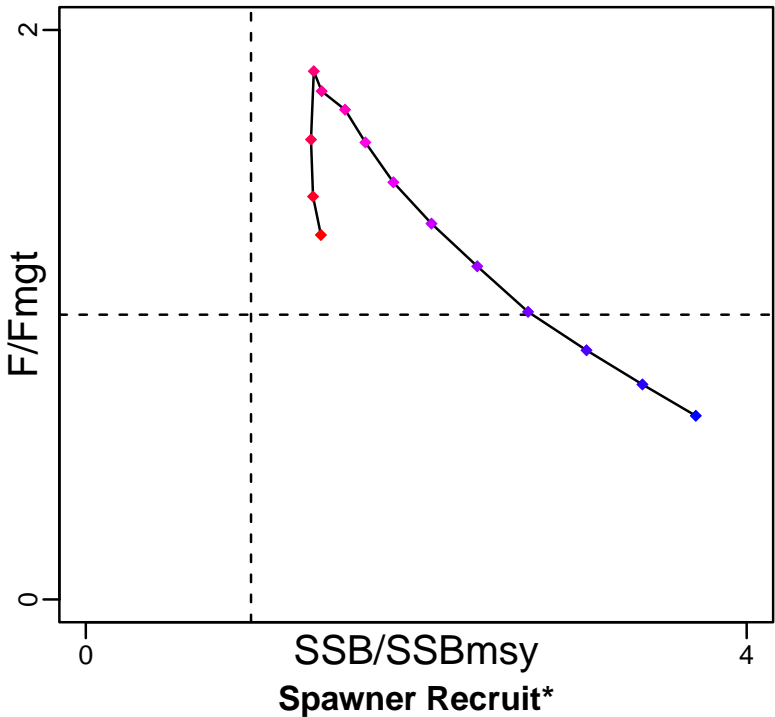
Metadata	
<b>Scientific Name</b>	Hippoglossus stenolepis
<b>Current Assess ID</b>	IPHC-PHALNPAC-1992-2020-SISIMP2022
<b>Area</b>	North Pacific
<b>Management Authority</b>	International Pacific Halibut Commission
<b>Assessor</b>	International Pacific Halibut Commission
<b>Asmts in RAM</b>	2014, 2019, 2020

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2020	70,261
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2014	65,004
<b>Fmgt</b>	Fmgt-1/yr	2014	0.2
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2019	46,720
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

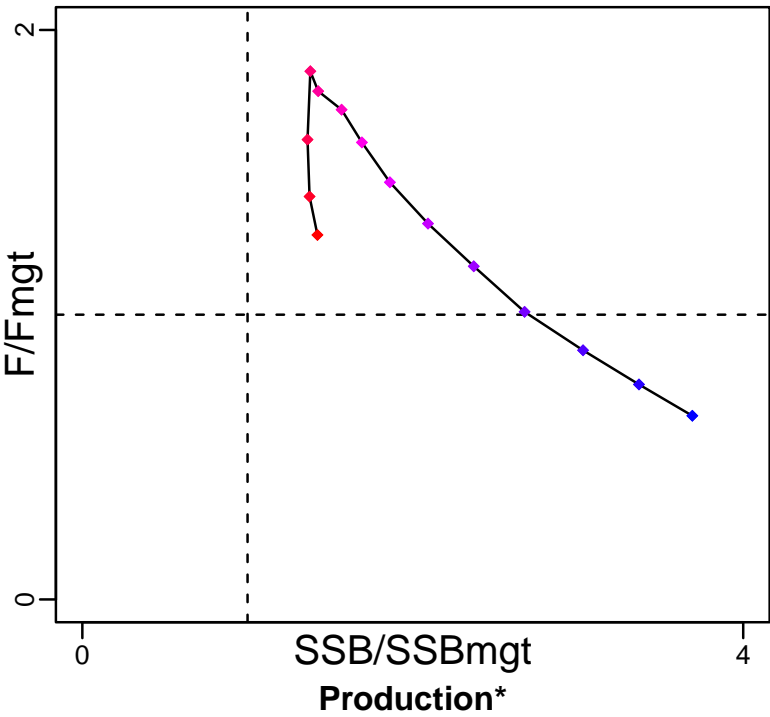
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2014	77,000	-	-
<b>SSB</b>	SSB-MT	2020	87,997	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	F-1/yr	2020	0.42	-	-
<b>ER</b>	ER-calc-ratio	2014	0.139	-	-
<b>TC</b>	TC-MT	2019	17,554		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2020	1.252		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2014	1.455		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2014	1.28		
<b>ER/ERmgt</b>	-	-	-		

Pacific halibut North Pacific [PHALNPAC]

Kobe MSYpref (1888–2014–HIVELY)



Kobe MGTpref (1888–2014–HIVELY)

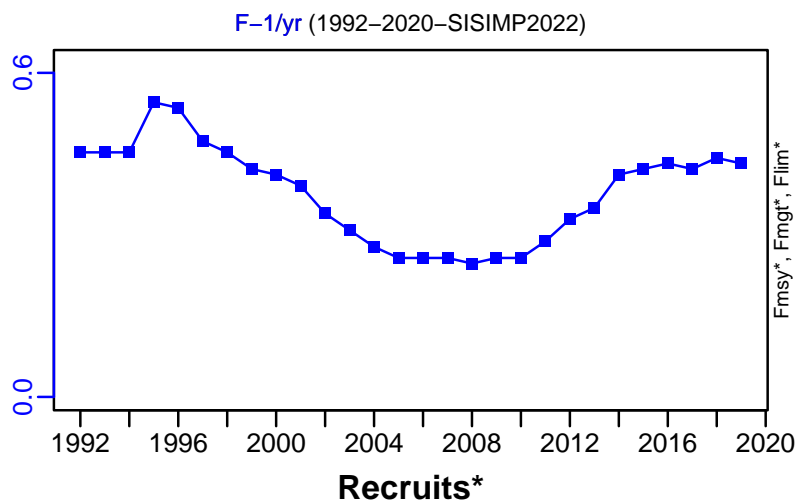
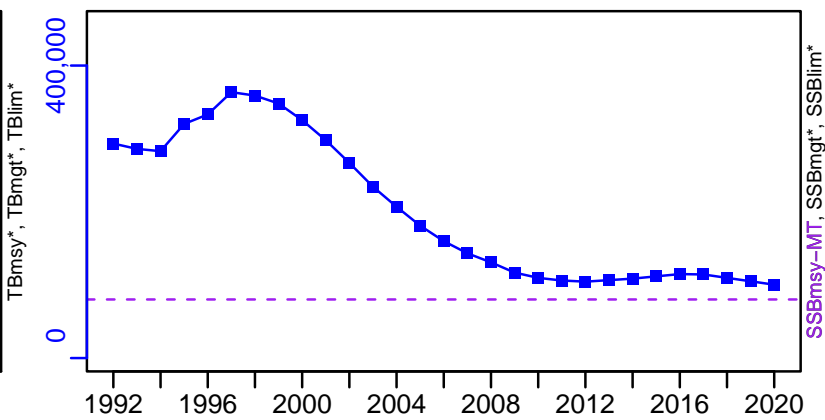
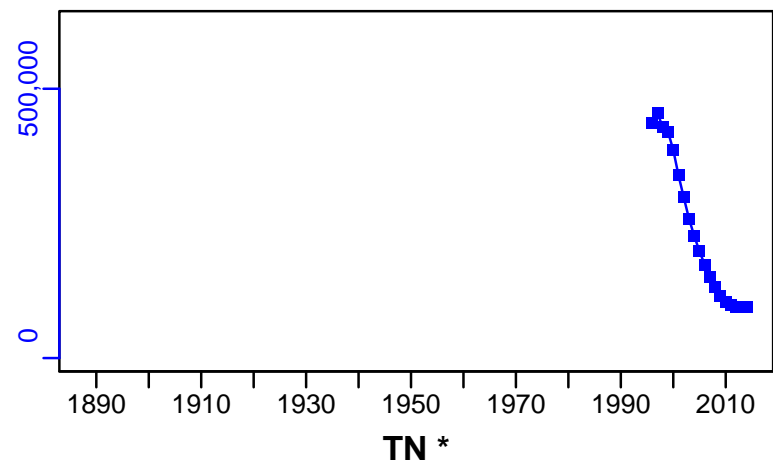


◆ Start Year ◆ End Year \* No Data

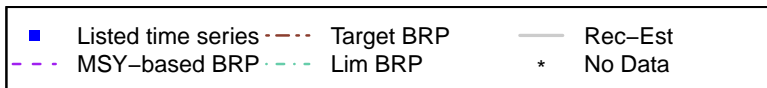
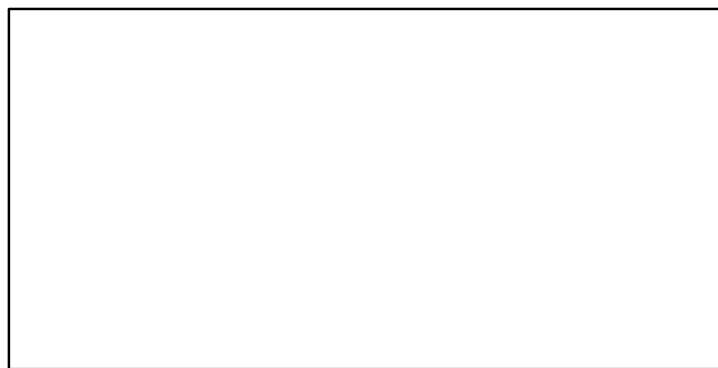
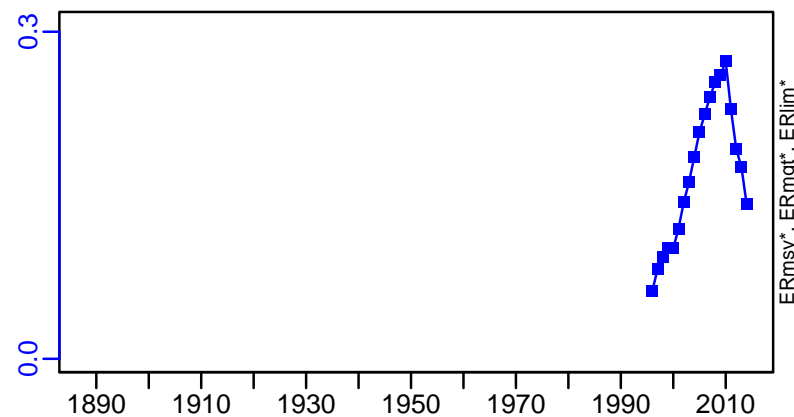
# Pacific halibut North Pacific [PHALNPAC]

TB-MT (1888–2014–HIVELY)

SSB-MT (1992–2020–SISIMP2022)

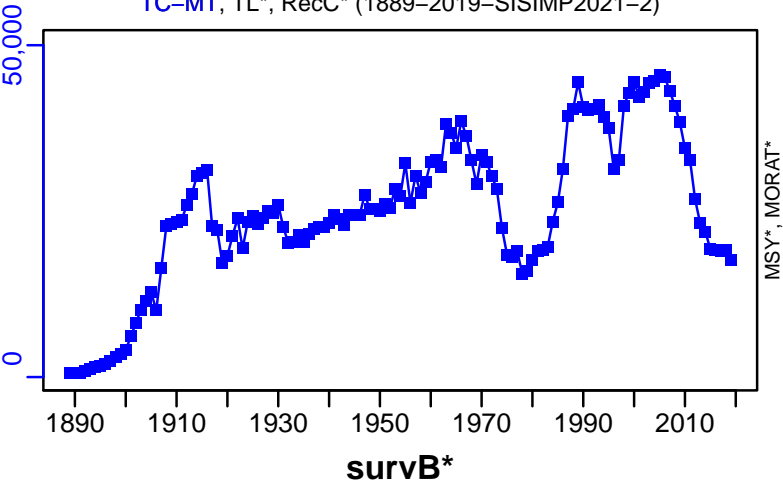


ER-calc-ratio (1888–2014–HIVELY)



Pacific halibut North Pacific [PHALNPAC]

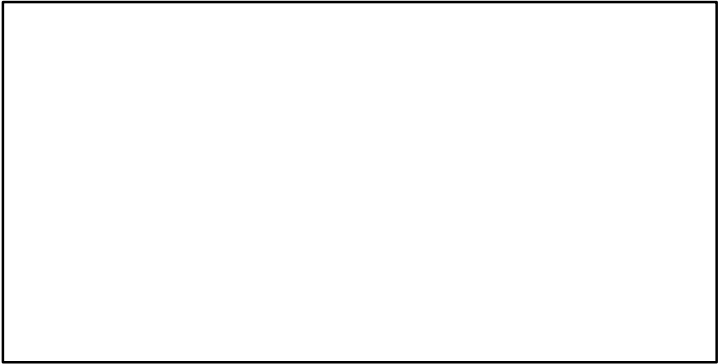
TC-MT, TL\*, RecC\* (1889-2019-SISIMP2021-2)



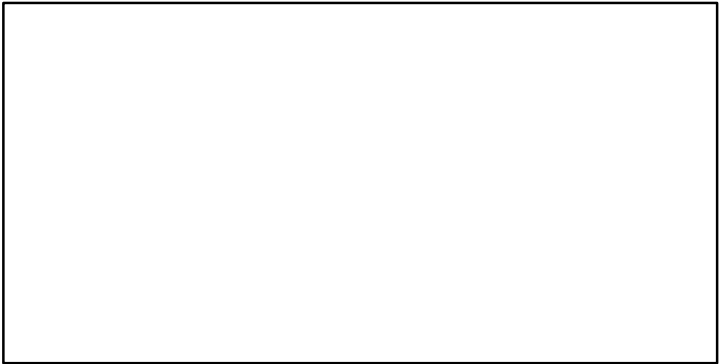
TAC\*, Cpair\*, Cadv\*



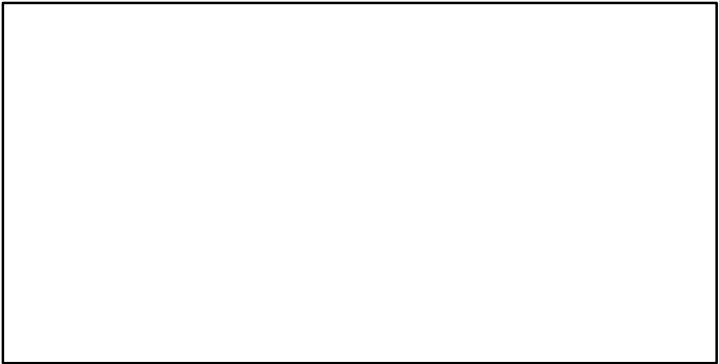
CPUE\*



EFFORT\*



CdivMSY\*



## Pacific ocean perch Gulf of Alaska [POPERCHGA]

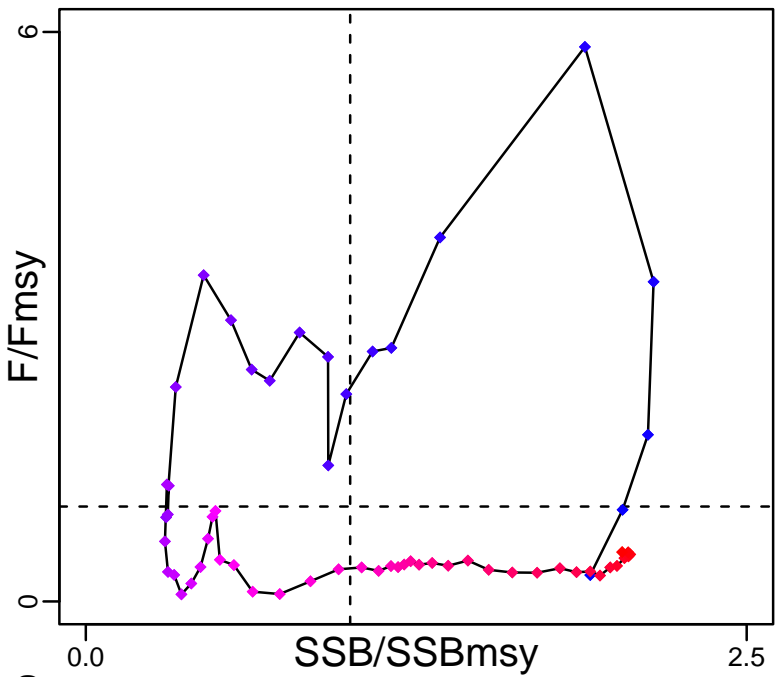
Metadata	
<b>Scientific Name</b>	Sebastes alutus
<b>Current Assess ID</b>	AFSC-POPERCHGA-1959-2021-SISIMP2022
<b>Area</b>	Gulf of Alaska
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2010, 2016, 2017, 2018, 2021, 2015, 2019, 2020

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2010	238,362
<b>SSBmsy</b>	SSBmsy-MT	2021	116,171
<b>Fmsy</b>	Fmsy-1/yr	2021	0.12
<b>ERmsy</b>	ERmsy-ratio	2010	0.085
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2010	20,243
<b>M</b>	M-1/yr	2010	0.06
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	Flim-1/yr	2020	0.1
<b>ERlim</b>	-	-	-

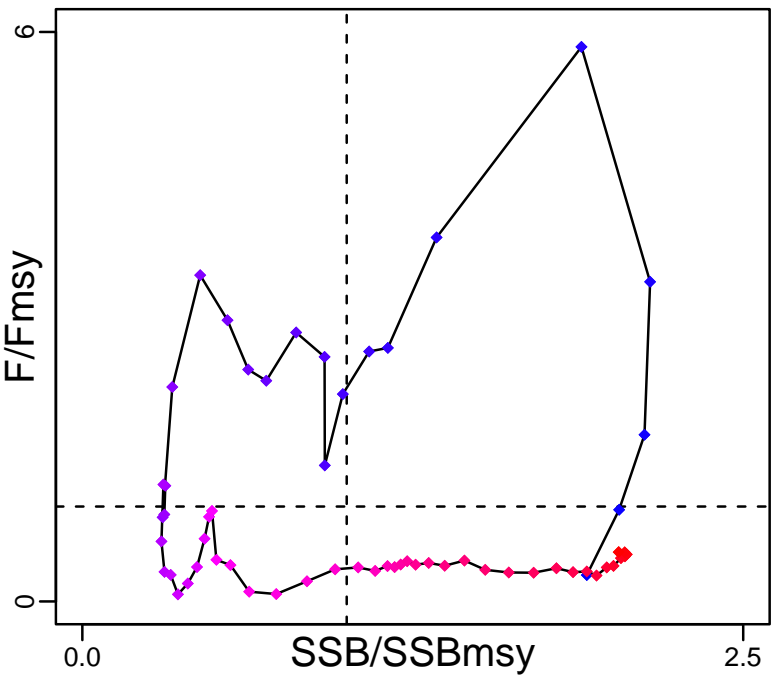
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	462,000	Both	2+
<b>SSB</b>	SSB-MT	2021	222,301	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2021	85,003,899	-	2
<b>F</b>	F-1/yr	2021	0.062	-	-
<b>ER</b>	ER-calc-ratio	2015	0.038	-	-
<b>TC</b>	TC-MT	2021	25,191		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2010	1.405		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2021	1.914		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2021	0.52		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2010	0.511		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

Pacific ocean perch Gulf of Alaska [POPERCHGA]

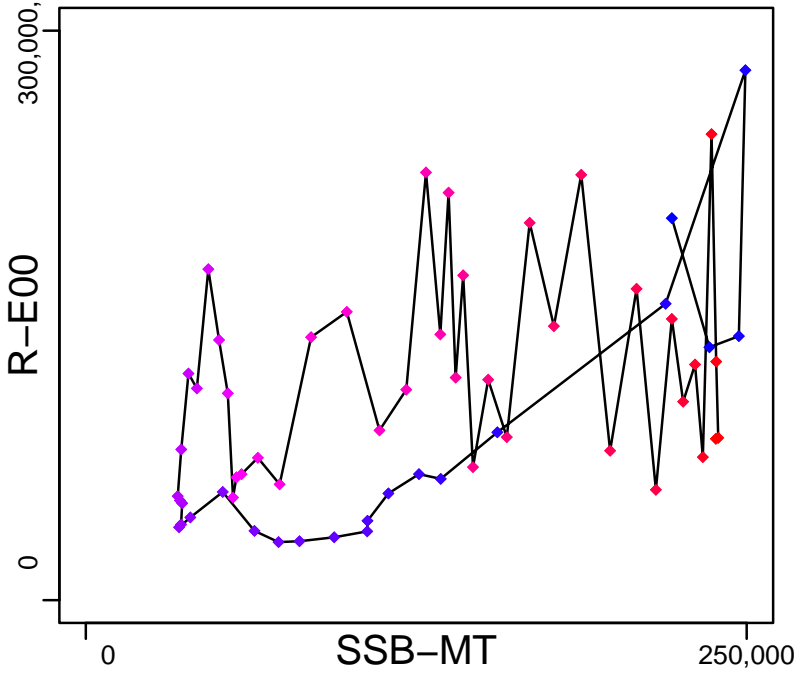
Kobe MSYpref (1959–2021–SISIMP2022)



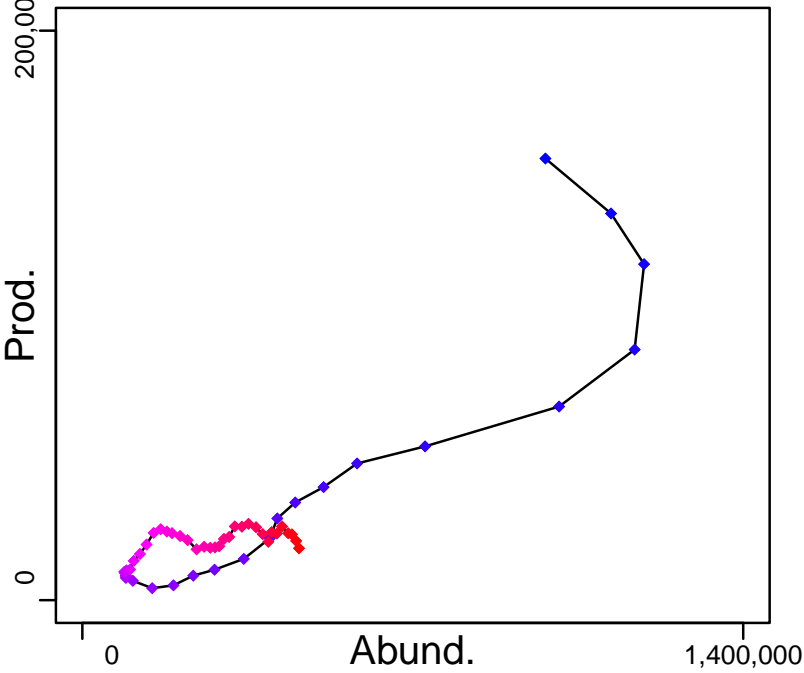
Kobe MGTpref (1959–2021–SISIMP2022)



Spawner Recruit (1959–2021–SISIMP2022)



Production (1961–2015–SISIMP2016)

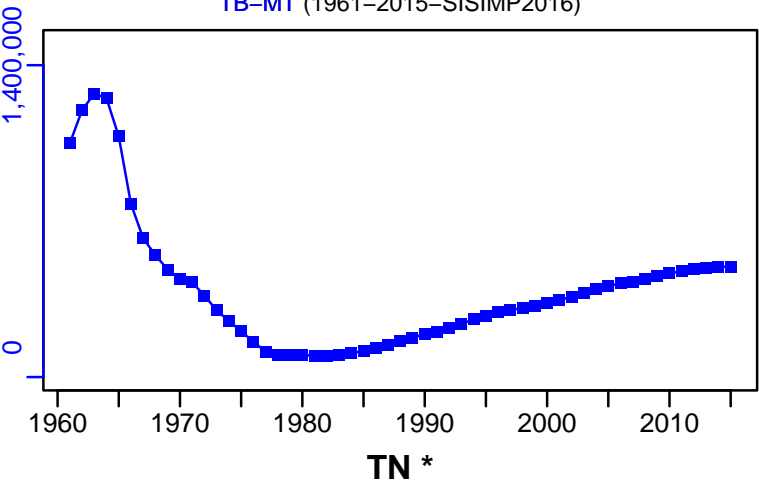


◆ Start Year ◆ End Year \* No Data

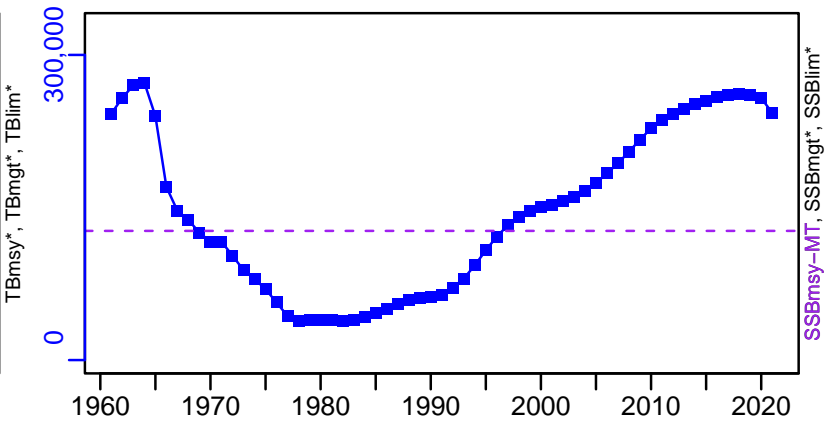


Pacific ocean perch Gulf of Alaska [POPERCHGA]

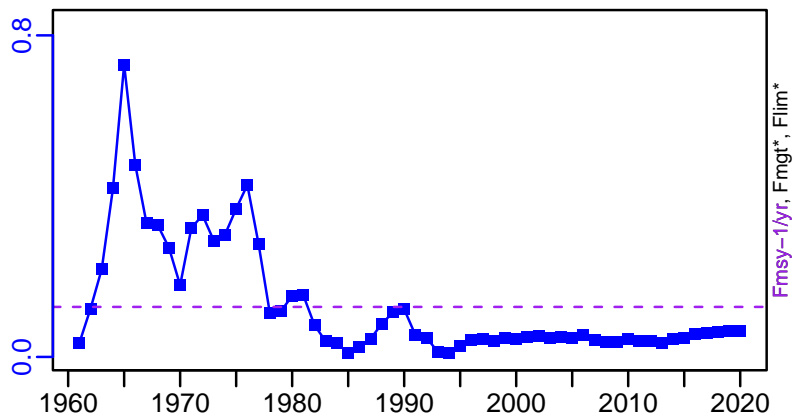
TB-MT (1961–2015–SISIMP2016)



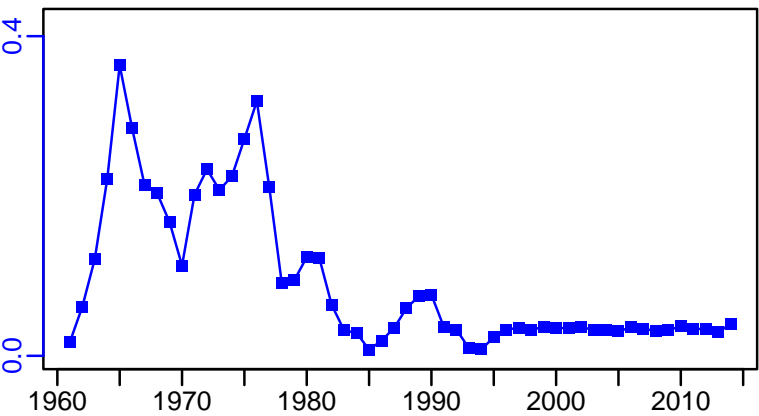
SSB-MT (1959–2021–SISIMP2022)



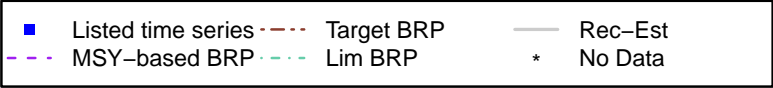
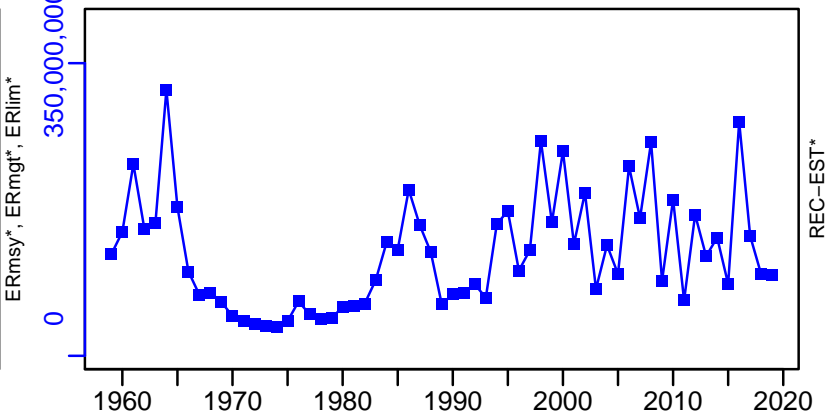
F-1/yr (1959–2021–SISIMP2022)



ER-calc-ratio (1961–2015–SISIMP2016)

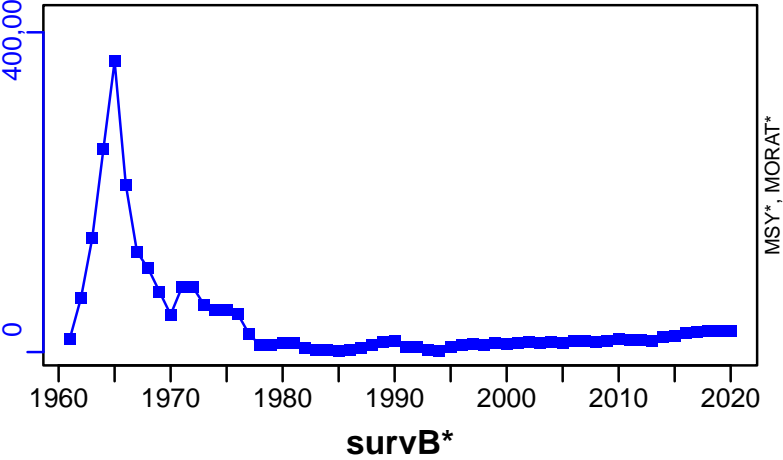


R-E00 (1959–2021–SISIMP2022)



Pacific ocean perch Gulf of Alaska [POPERCHGA]

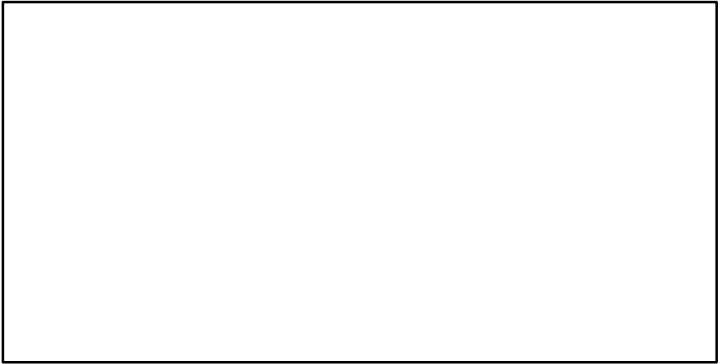
TC-MT, TL\*, RecC\* (1959-2021-SISIMP2022)



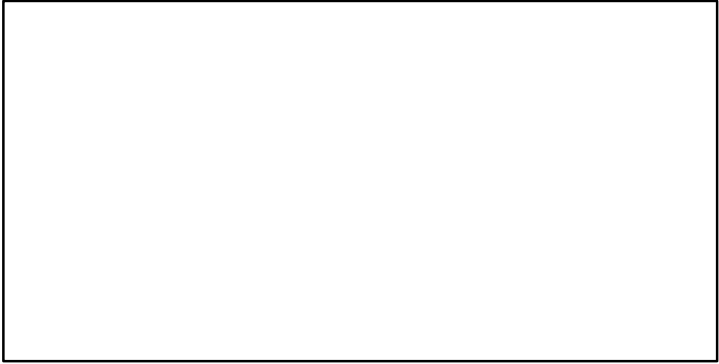
TAC\*, Cpair\*, Cadv\*



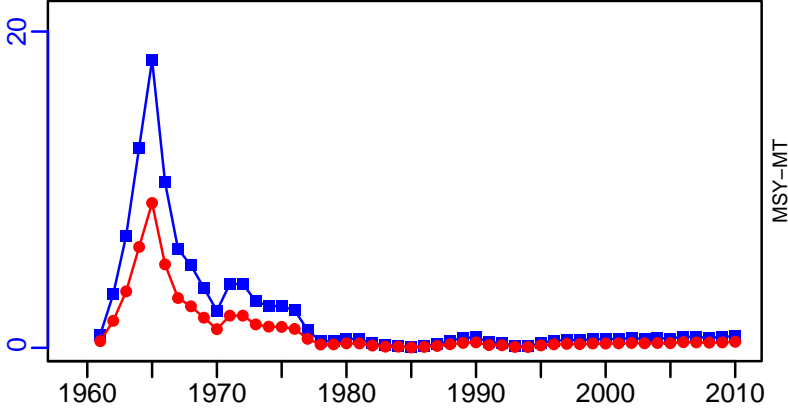
CPUE\*



EFFORT\*



TC-MT/MSY-MT, CdivMEANC-ratio, (1959-2010-STACHURA)



## Rex sole Gulf of Alaska [REXSOLEGA]

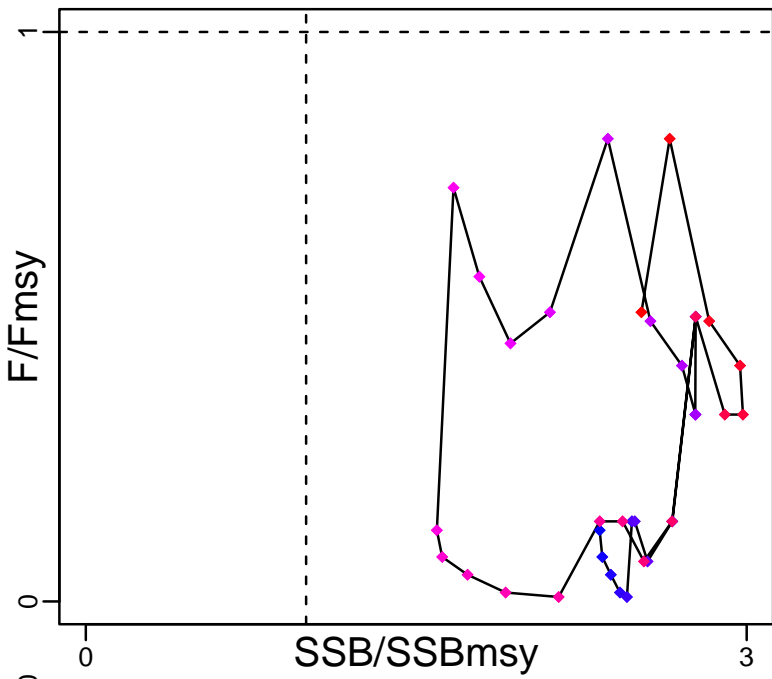
Metadata	
<b>Scientific Name</b>	Glyptocephalus zachirus
<b>Current Assess ID</b>	AFSC-REXSOLEGA-1982-2018-SISIMP2021
<b>Area</b>	Gulf of Alaska
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2011, 2014, 2016, 2017, 2018

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-MT	2016	19,896
<b>SSBmsy</b>	SSBmsy-MT	2017	19,896
<b>Fmsy</b>	Fmsy-1/yr	2017	0.128
<b>ERmsy</b>	ERmsy-ratio	2016	0.29
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	Fmgt-1/yr	2011	0.128
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-calc-MT	2016	5770
<b>M</b>	M-1/yr	2011	0.17
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	Flim-1/yr	2017	0.17
<b>ERlim</b>	ERlim-ratio	2016	0.29

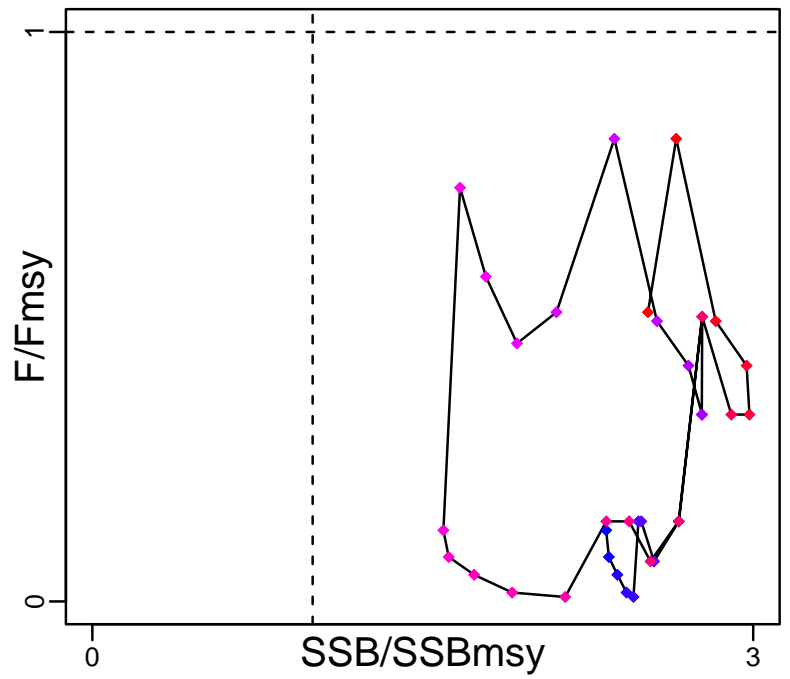
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2016	43,731	-	-
<b>SSB</b>	SSB-MT	2018	36,411	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2018	78,656,292	-	0
<b>F</b>	F-1/yr	2018	0.025	-	-
<b>ER</b>	ER-ratio	2016	0.047	-	-
<b>TC</b>	TC-MT	2018	1483		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2016	2.198		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2017	2.408		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2017	0.508		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2016	0.162		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2011	0.767		
<b>ER/ERmgt</b>	-	-	-		

# Rex sole Gulf of Alaska [REXSOLEGA]

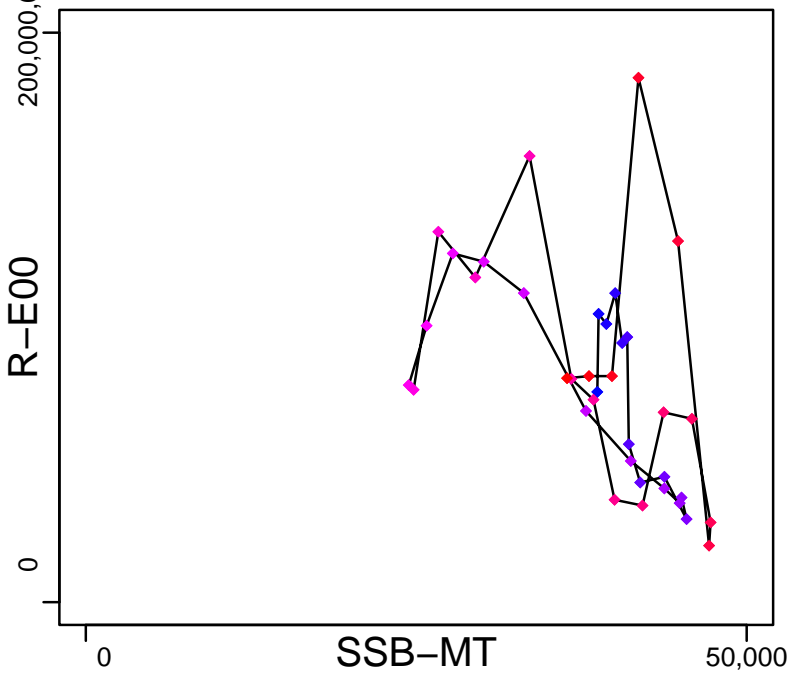
Kobe MSY<sub>pref</sub> (1982–2017–SISIMP2021)



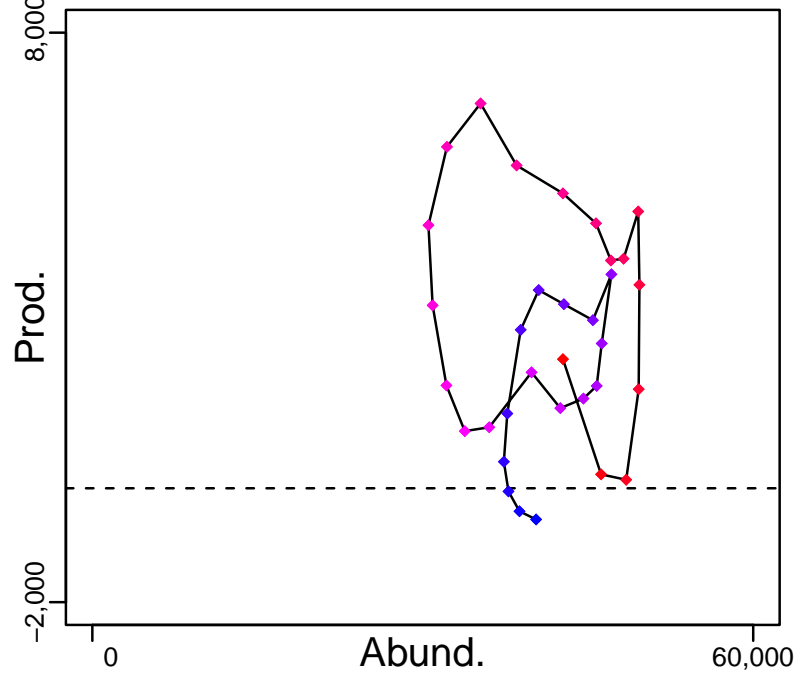
Kobe MGT<sub>pref</sub> (1982–2017–SISIMP2021)



Spawner Recruit (1982–2018–SISIMP2021)



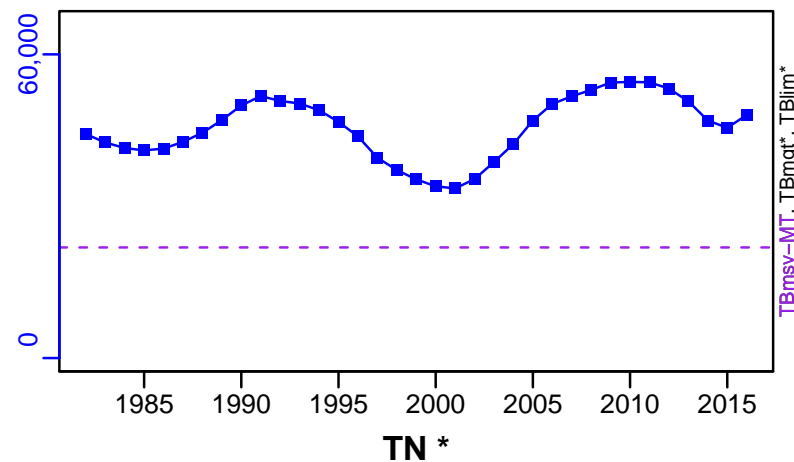
Production (1982–2016–SISIMP2021)



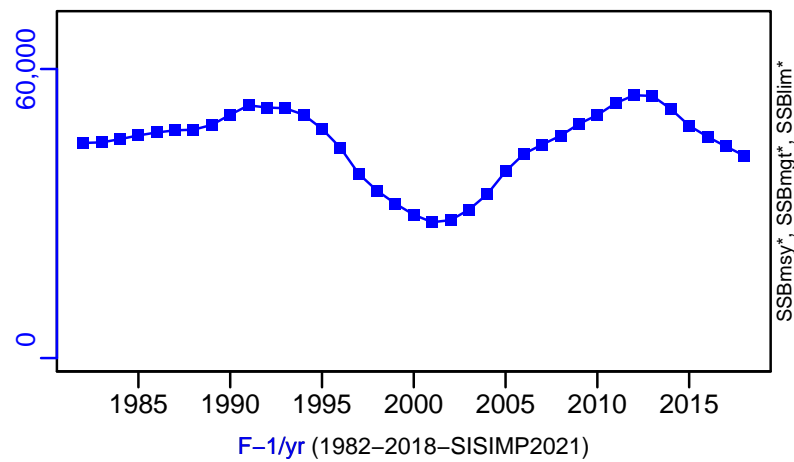
◆ Start Year ◆ End Year \* No Data

# Rex sole Gulf of Alaska [REXSOLEGA]

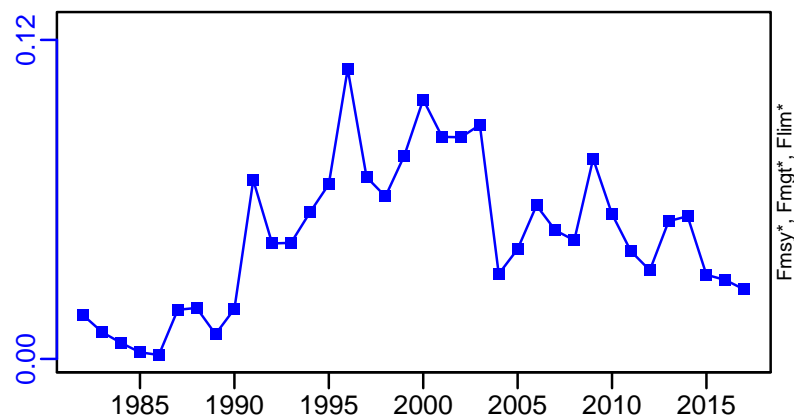
TB-MT (1982–2016–SISIMP2021)



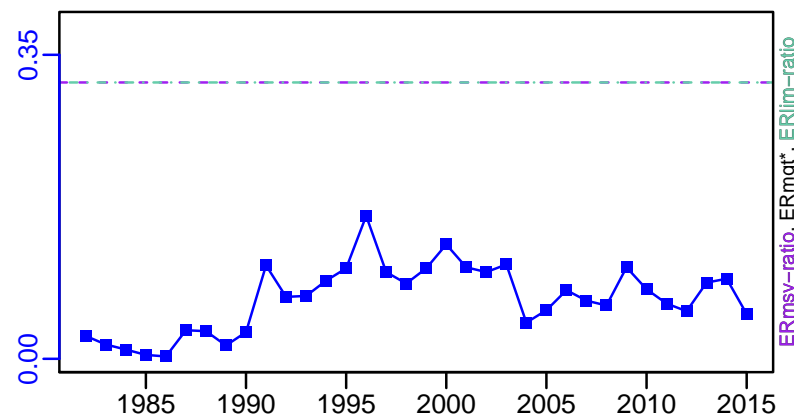
SSB-MT (1982–2018–SISIMP2021)



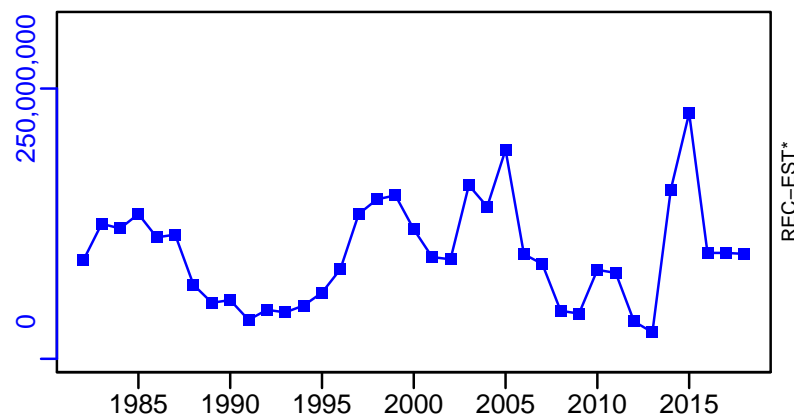
F-1/yr (1982–2018–SISIMP2021)



ER-ratio (1982–2016–SISIMP2021)

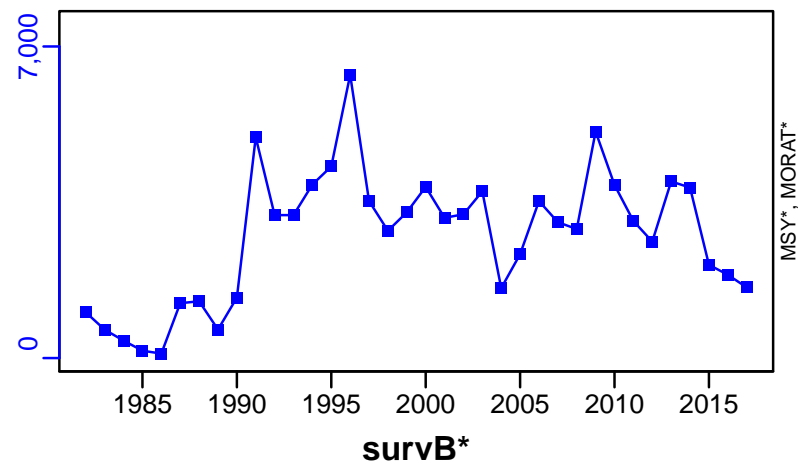


R-E00 (1982–2018–SISIMP2021)



# Rex sole Gulf of Alaska [REXSOLEGA]

TC-MT, TL\*, RecC\* (1982-2018-SISIMP2021)



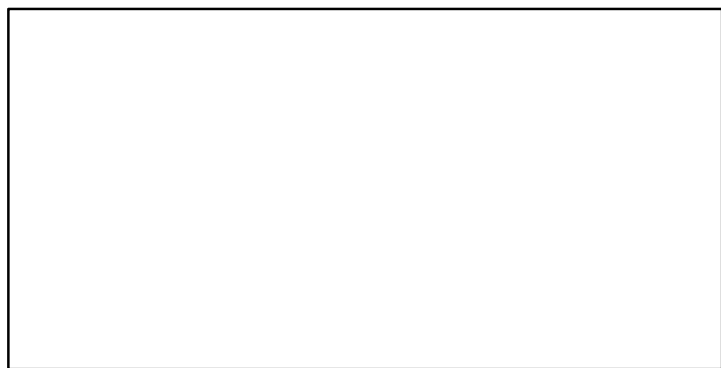
TAC\*, Cpair\*, Cadv\*



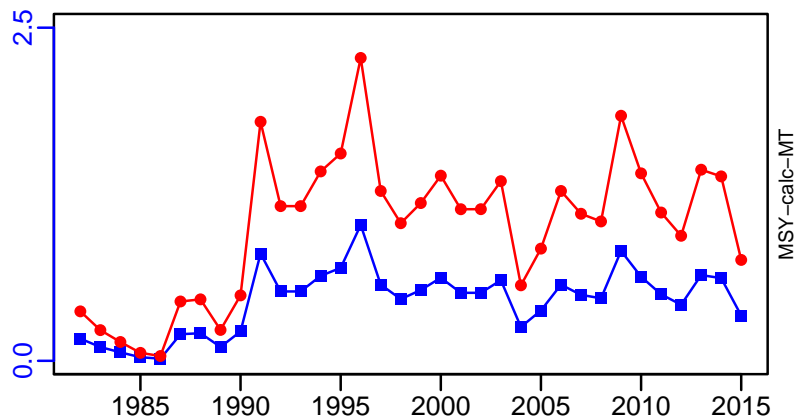
CPUE\*



EFFORT\*



TC-MT/MSY-calc-MT, CdivMEANC-ratio, (1982-2016-SISIMP2021)



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

## Rougheye rockfish Bering Sea and Aleutian Islands [REYEROCKBSAI]

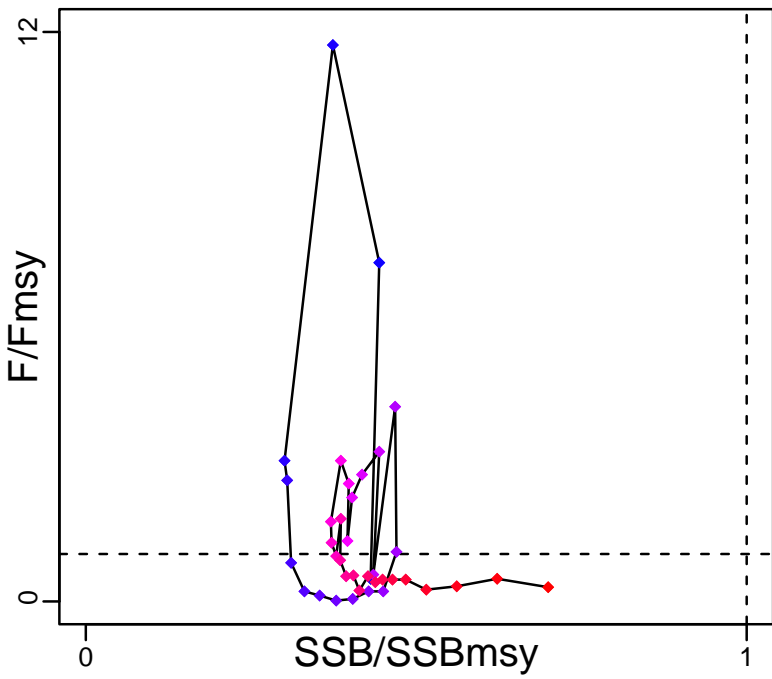
Metadata	
<b>Scientific Name</b>	Sebastes aleutianus
<b>Current Assess ID</b>	AFSC-REYEROCKBSAI-1974-2015-HIVELY
<b>Area</b>	Bering Sea and Aleutian Islands
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2015

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-pr-MT	2015	9977
<b>Fmsy</b>	Fmsy-pr-1/yr	2015	0.058
<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	2015	0.03
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

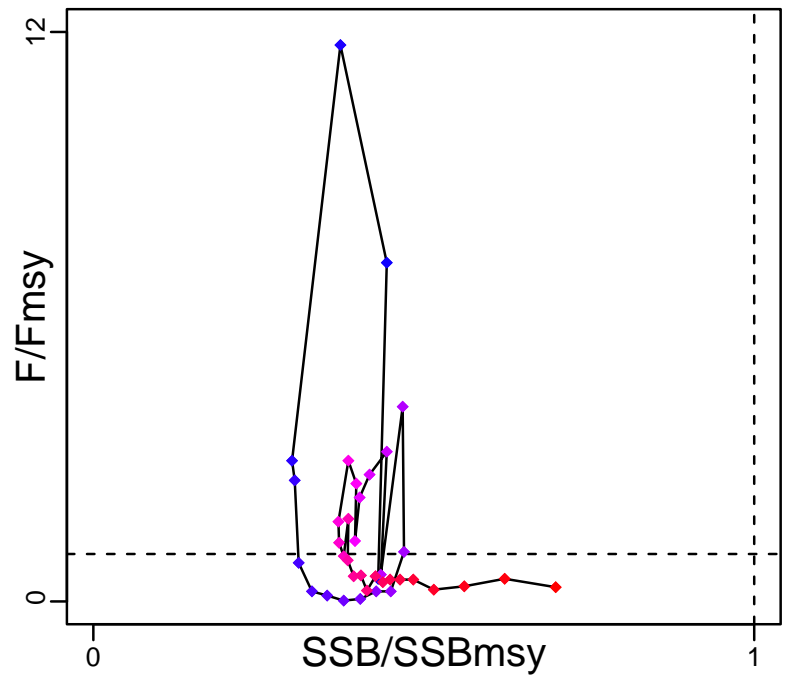
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	40,400	Both	3+
<b>SSB</b>	SSB-MT	2015	6980	Females	3+
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2015	1,560,000	-	3
<b>F</b>	F-1/yr	2015	0.017	-	-
<b>ER</b>	ER-calc-ratio	2015	0.005	-	-
<b>TC</b>	TC-MT	2015	194		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-pr-MT	2015	0.7		
<b>F/Fmsy</b>	F-1/yr/Fmsy-pr-1/yr	2015	0.3		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Rougheye rockfish Bering Sea and Aleutian Islands [REYEROCKBSAI]

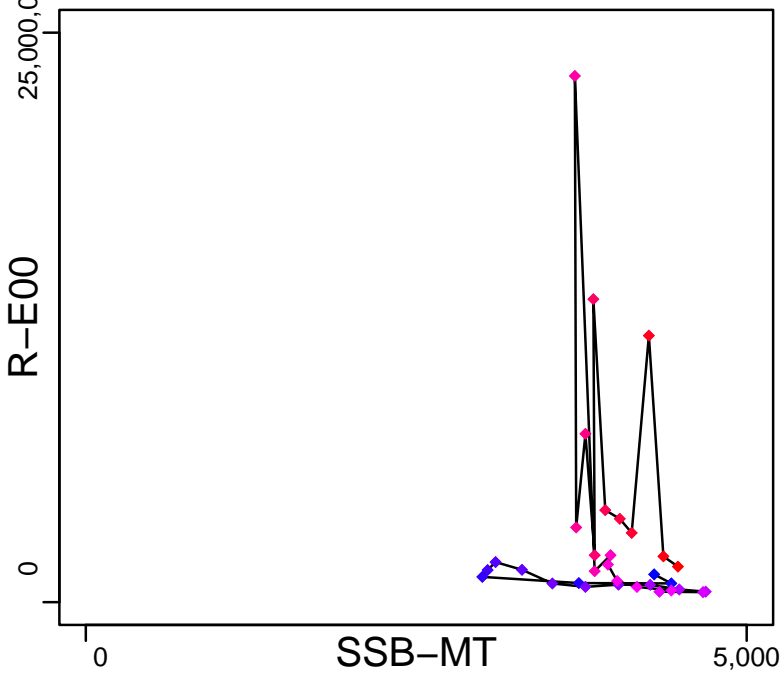
Kobe MSYpref (1974–2015–HIVELY)



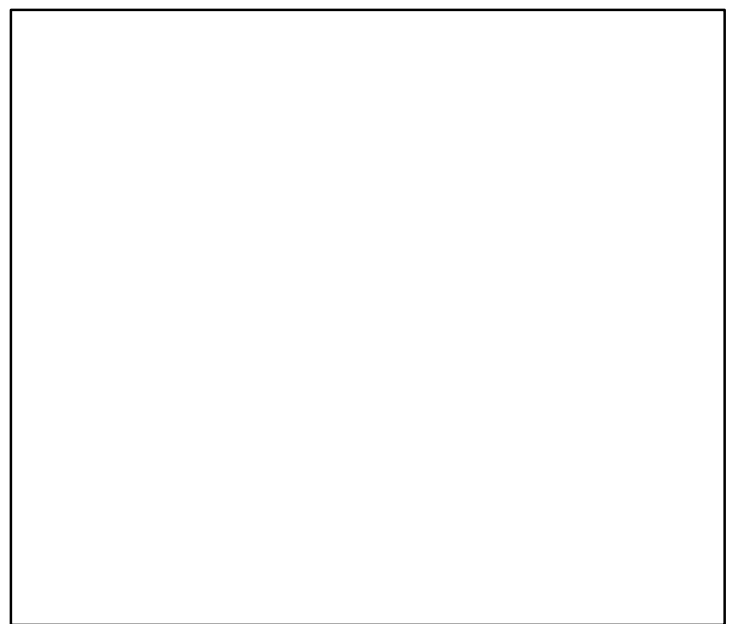
Kobe MGTpref (1974–2015–HIVELY)



Spawner Recruit (1974–2015–HIVELY)



Production\*



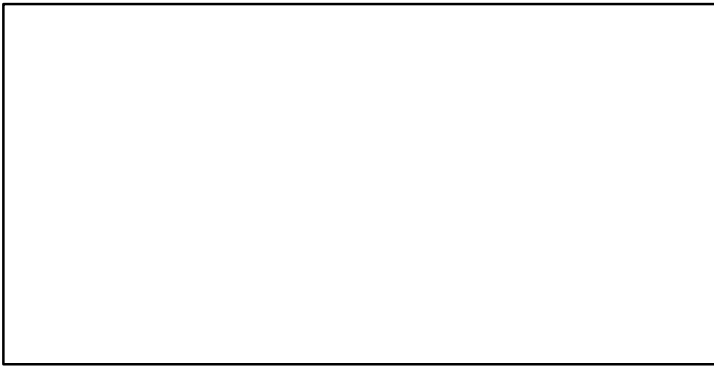
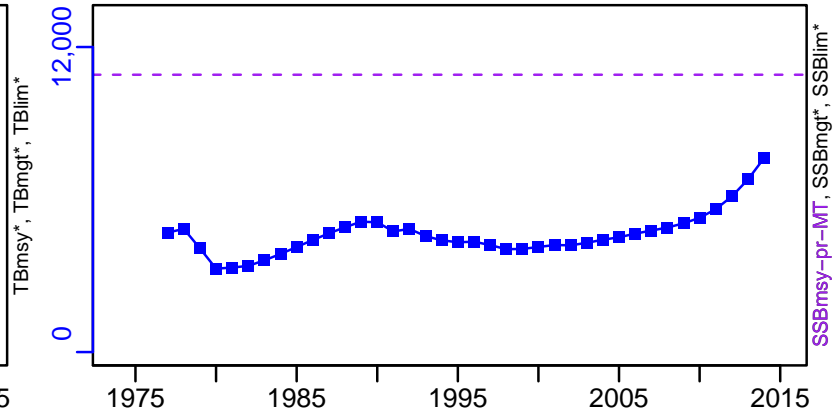
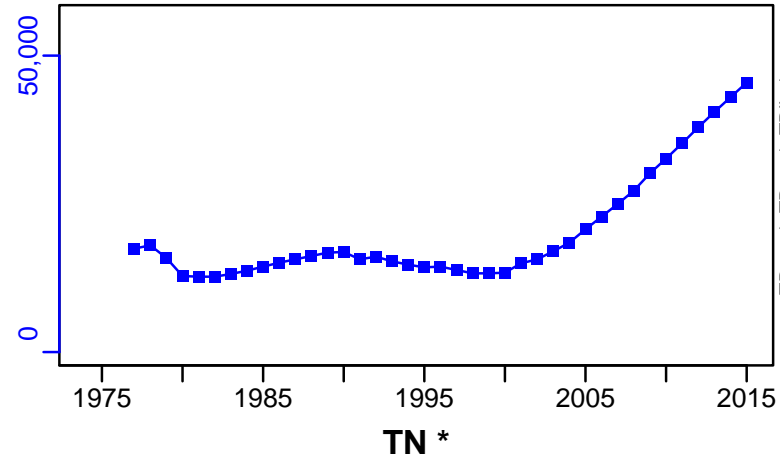
◆ Start Year ◆ End Year \* No Data



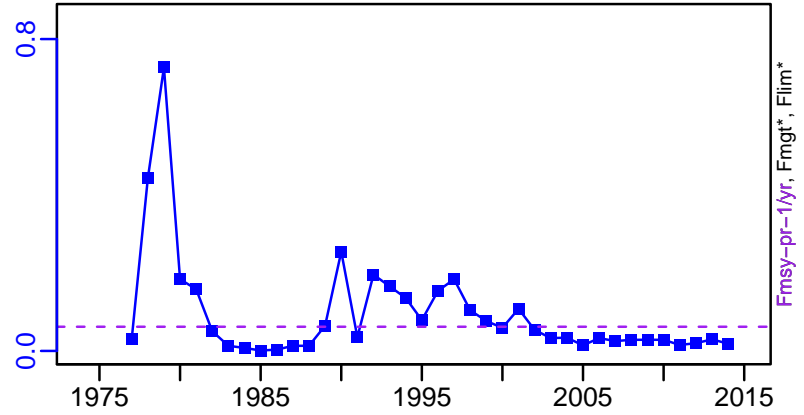
# Roughye rockfish Bering Sea and Aleutian Islands [REYEROCKBSAI]

TB-MT (1974-2015-HIVELY)

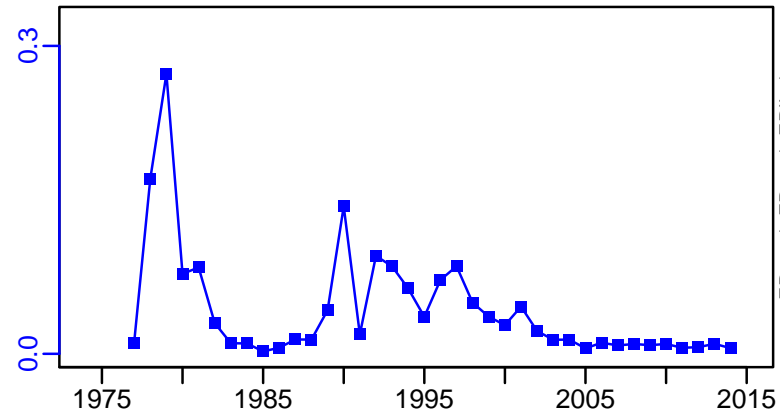
SSB-MT (1974-2015-HIVELY)



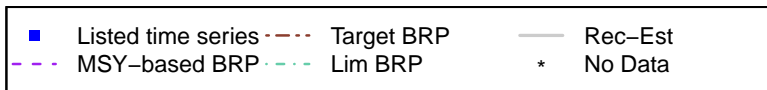
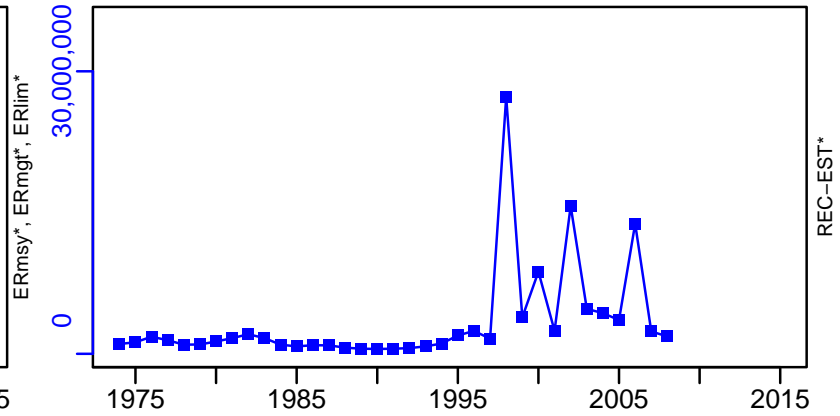
F-1/yr (1974-2015-HIVELY)



ER-calc-ratio (1974-2015-HIVELY)



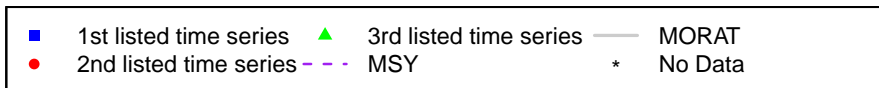
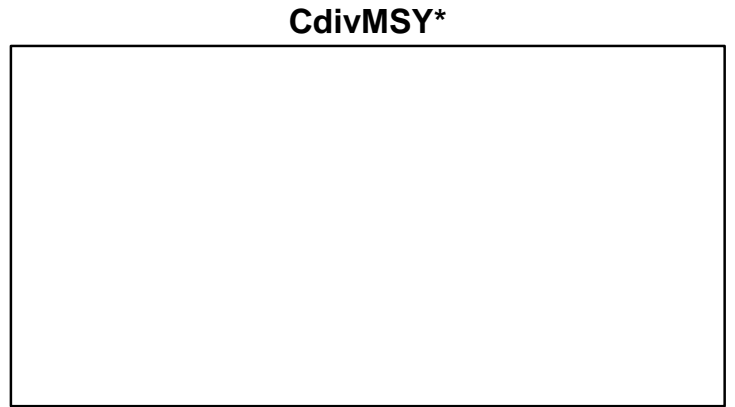
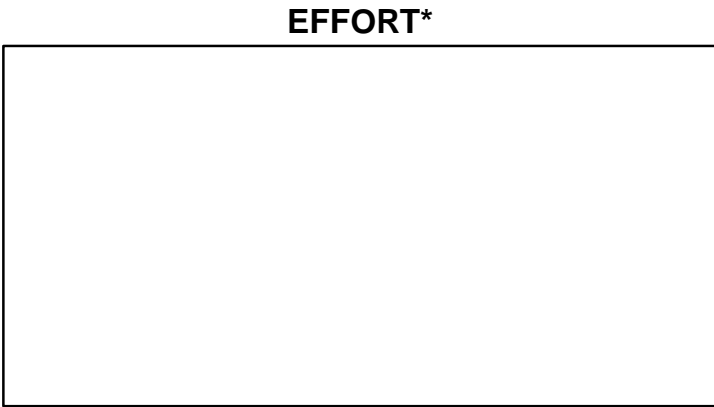
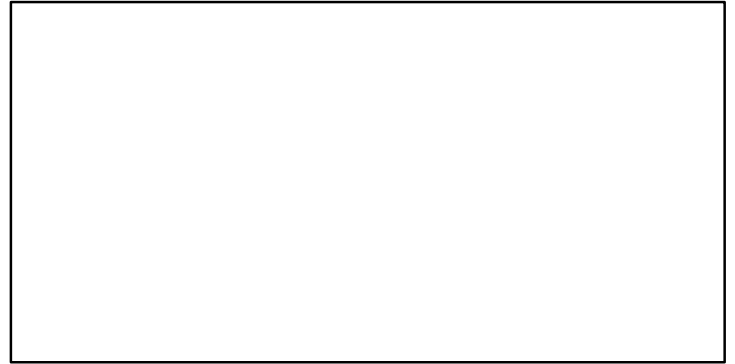
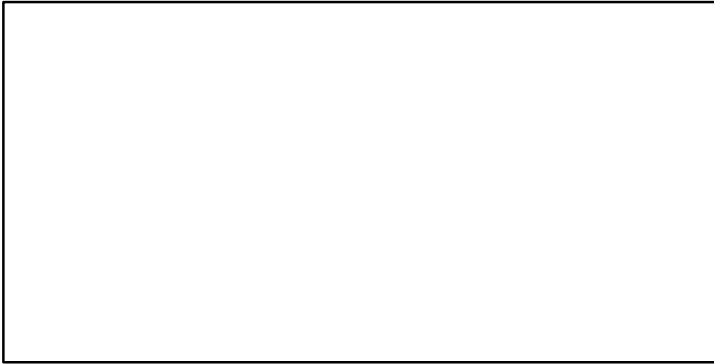
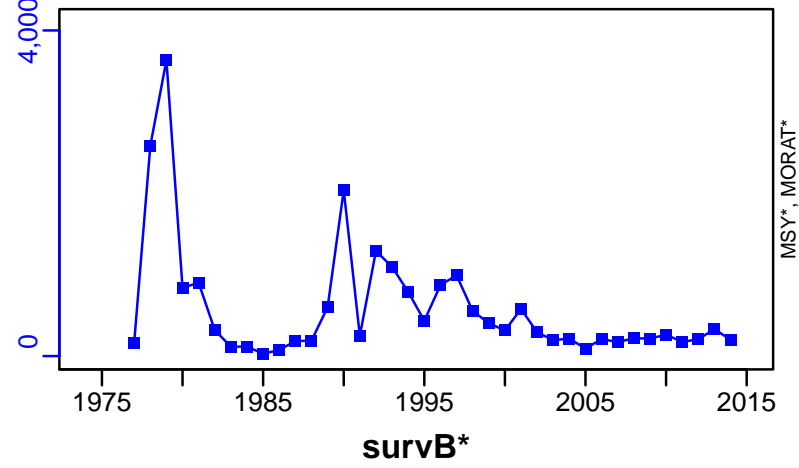
R-E00 (1974-2015-HIVELY)



# Rougheye rockfish Bering Sea and Aleutian Islands [REYEROCKBSAI]

TC-MT, TL\*, RecC\* (1974-2015-HIVELY)

TAC\*, Cpair\*, Cadv\*



## Rougheye rockfish Gulf of Alaska [REYEROCKGA]

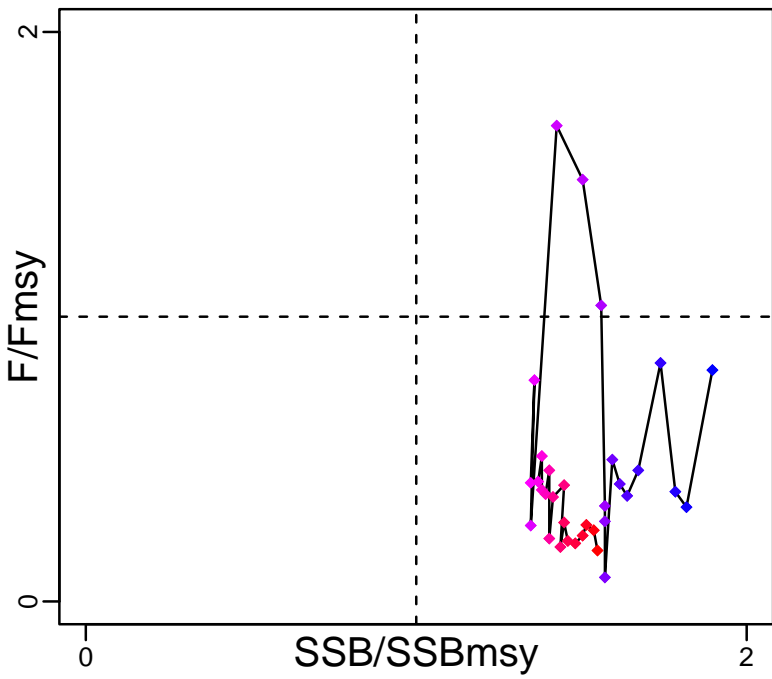
Metadata	
<b>Scientific Name</b>	Sebastes aleutianus
<b>Current Assess ID</b>	AFSC-REYEROCKGA-1974-2010-STACHURA
<b>Area</b>	Gulf of Alaska
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2010

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-pr-MT	2010	8912
<b>Fmsy</b>	Fmsy-pr-1/yr	2010	0.048
<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	0.034
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

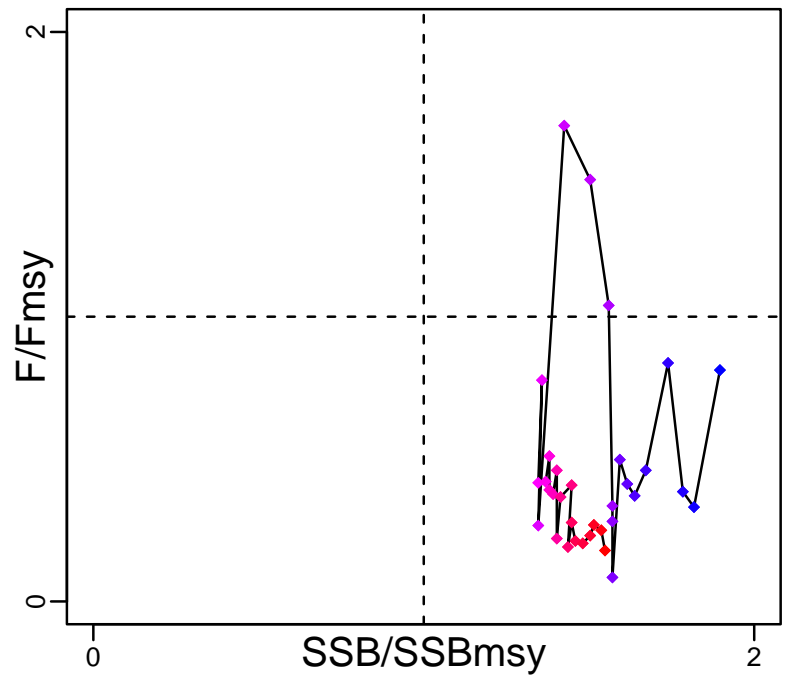
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2010	45,400	-	-
<b>SSB</b>	SSB-MT	2010	13,800	Females	19+
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2010	1,160,000	-	-
<b>F</b>	F-1/yr	2010	0.009	-	-
<b>ER</b>	ER-ratio	2010	0.006	-	-
<b>TC</b>	TC-MT	2010	445		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-pr-MT	2010	1.548		
<b>F/Fmsy</b>	F-1/yr/Fmsy-pr-1/yr	2010	0.179		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Rougheye rockfish Gulf of Alaska [REYEROCKGA]

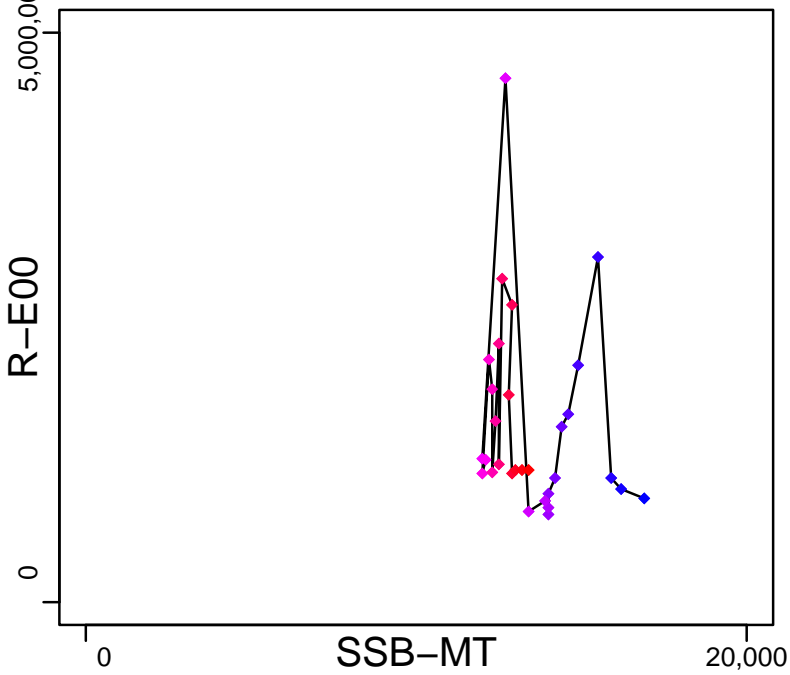
Kobe MSYpref (1974–2010–STACHURA)



Kobe MGTpref (1974–2010–STACHURA)



Spawner Recruit (1974–2010–STACHURA)



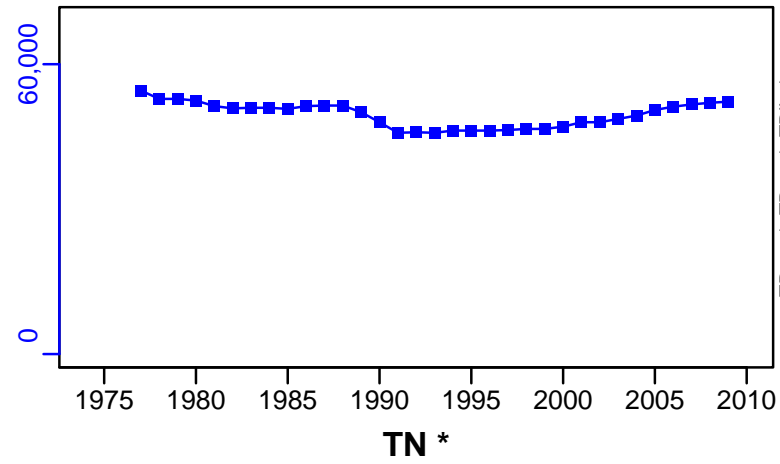
Production\*



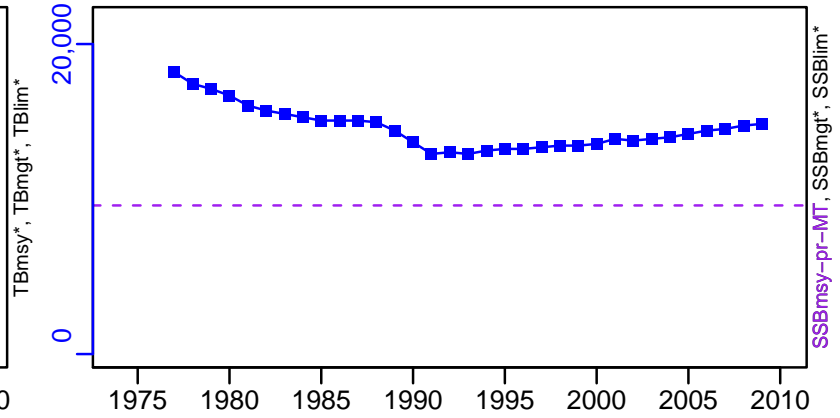
◆ Start Year ◆ End Year \* No Data

# Rougheye rockfish Gulf of Alaska [REYEROCKGA]

TB-MT (1974-2010-STACHURA)



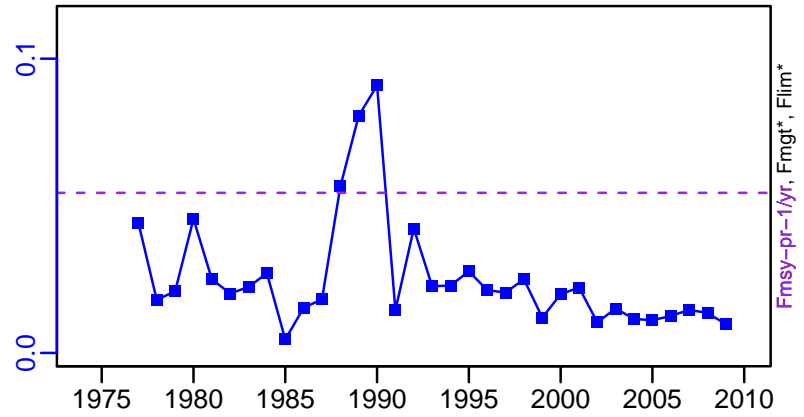
SSB-MT (1974-2010-STACHURA)



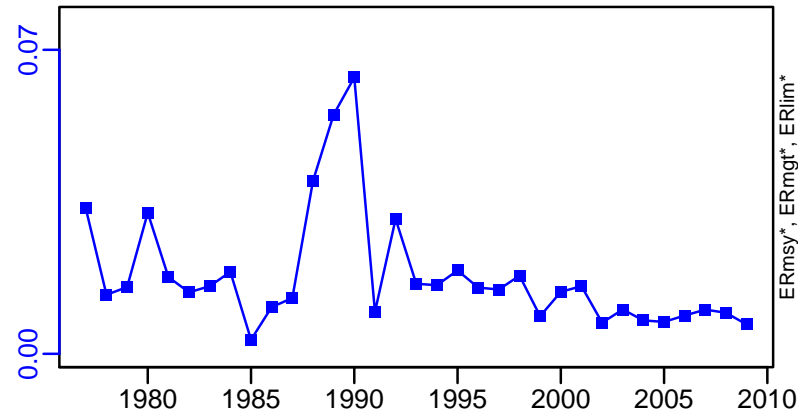
TN \*



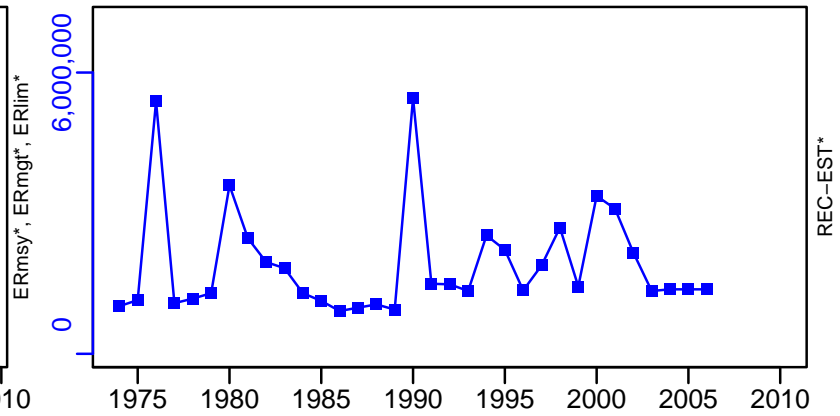
F-1/yr (1974-2010-STACHURA)



ER-ratio (1974-2010-STACHURA)

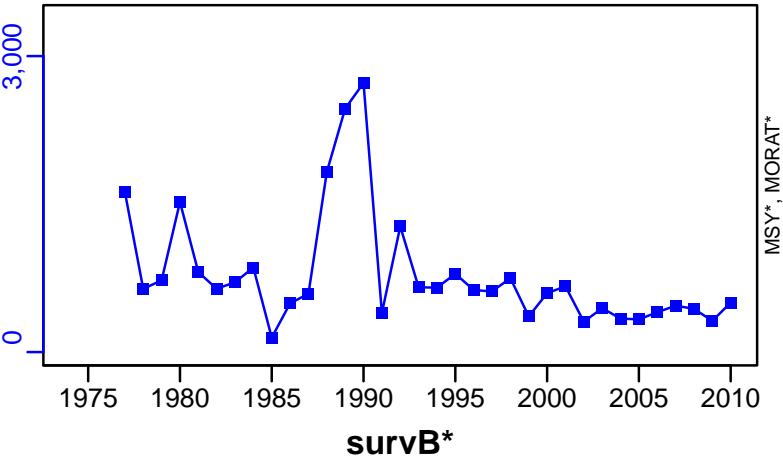


R-E00 (1974-2010-STACHURA)



Rougheye rockfish Gulf of Alaska [REYEROCKGA]

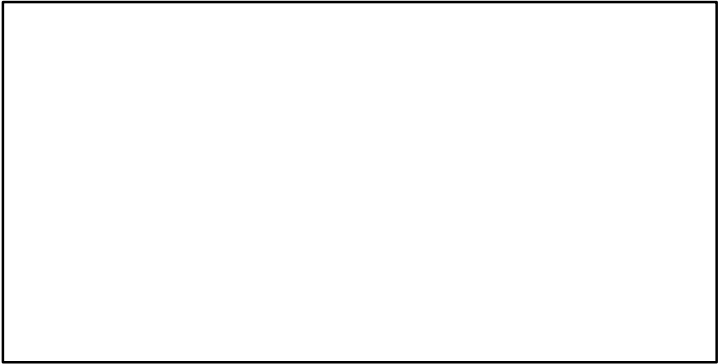
TC-MT, TL\*, RecC\* (1974-2010-STACHURA)



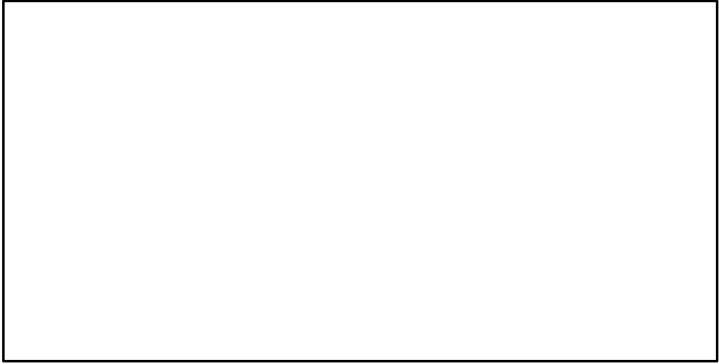
TAC\*, Cpair\*, Cadv\*



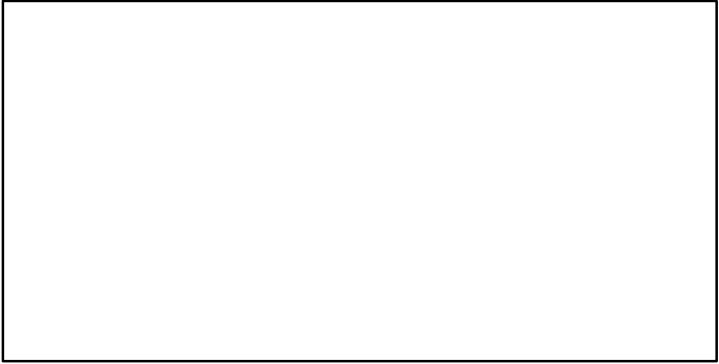
CPUE\*



EFFORT\*



CdivMSY\*



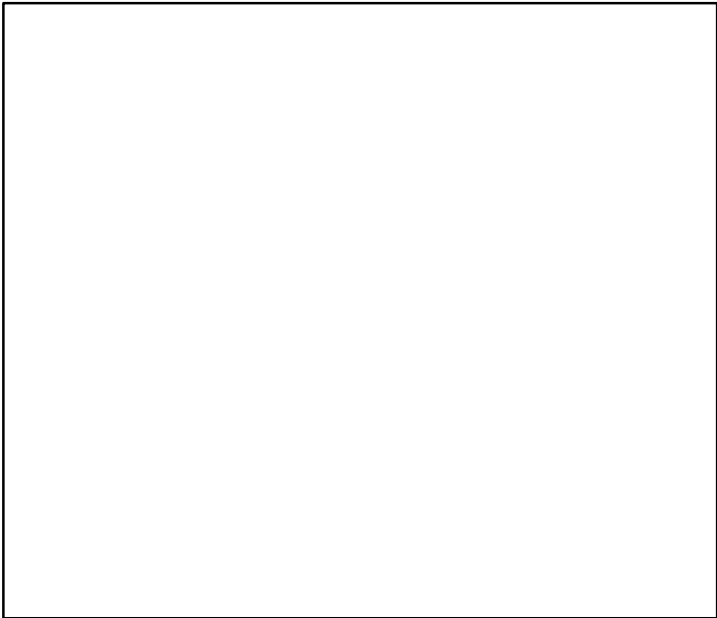
## Red king crab Aleutian Islands Western segment [RKCRAIBAIWS]

Metadata	
<b>Scientific Name</b>	Paralithodes camtschaticus
<b>Current Assess ID</b>	AFSC-RKCRAIBAIWS-1961-2017-SISIMP2021
<b>Area</b>	Aleutian Islands Western segment
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2017, 2015

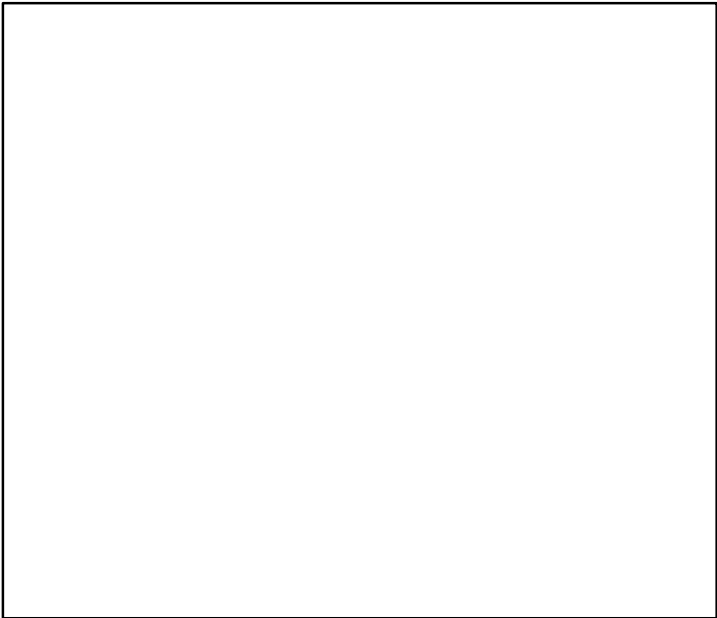
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

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

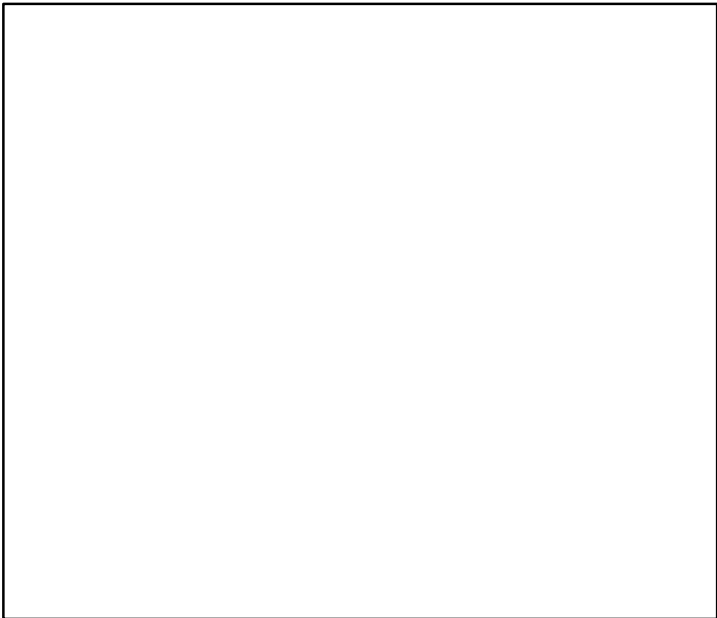
Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*



Production\*

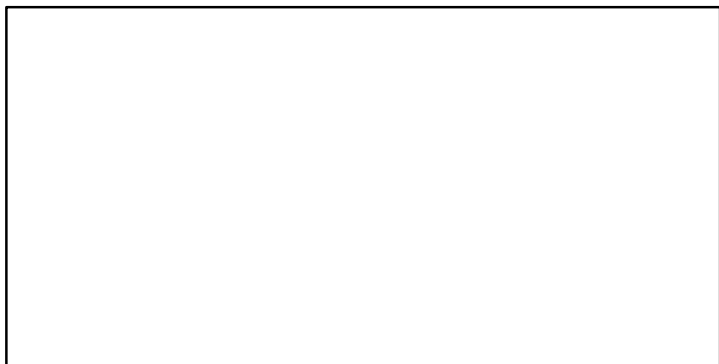


◆ Start Year   ◆ End Year   \* No Data

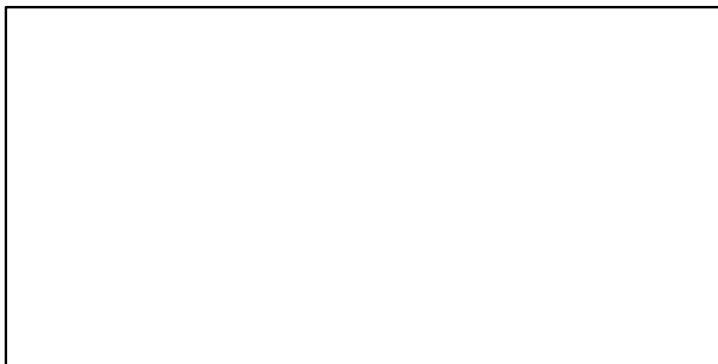


Red king crab Aleutian Islands Western segment [RKCRABAIWS]

**TB\***



**SSB\***



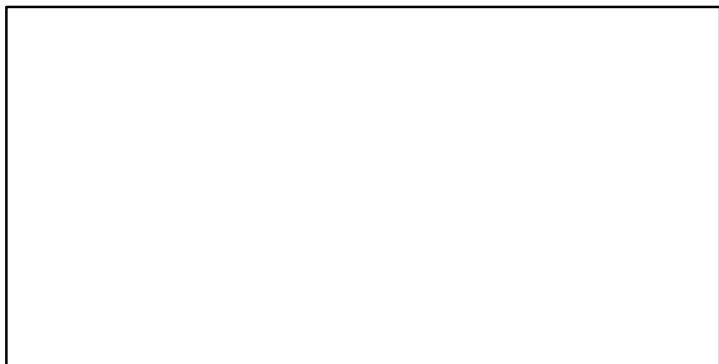
**TN \***



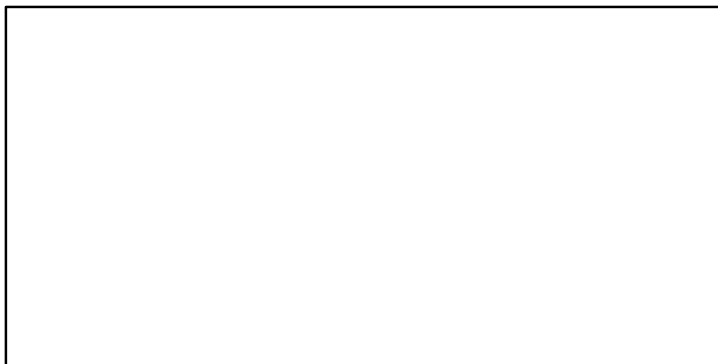
**F\***



**ER\***

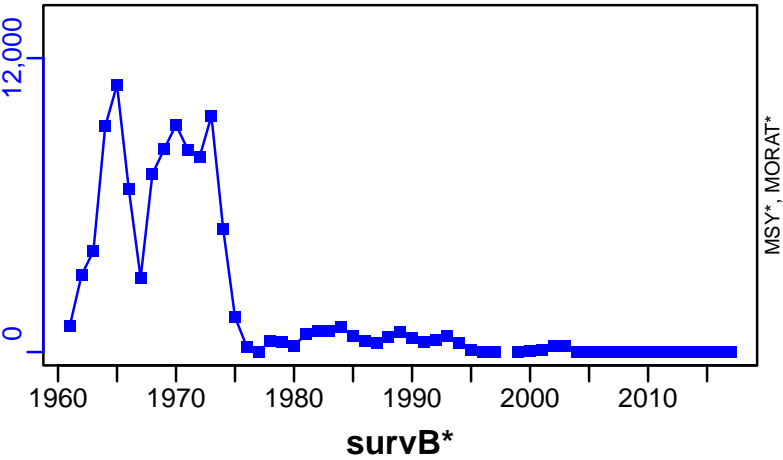


**Recruits\***



Red king crab Aleutian Islands Western segment [RKCRABAIWS]

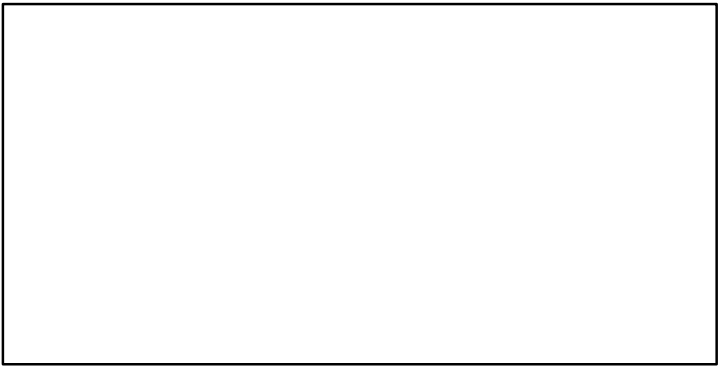
TC-MT, TL\*, RecC\* (1961-2017-SISIMP2021)



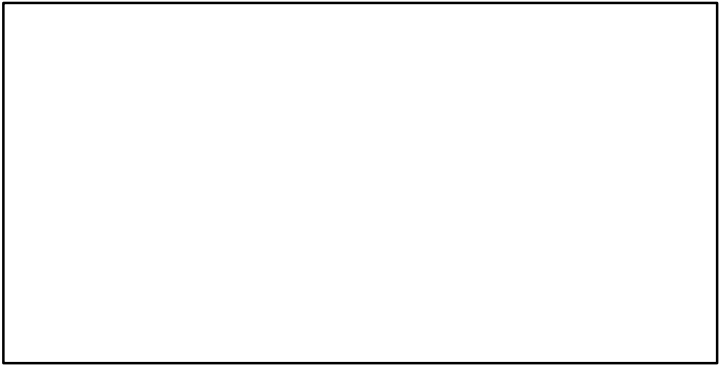
TAC\*, Cpair\*, Cadv\*



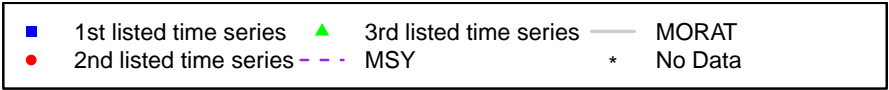
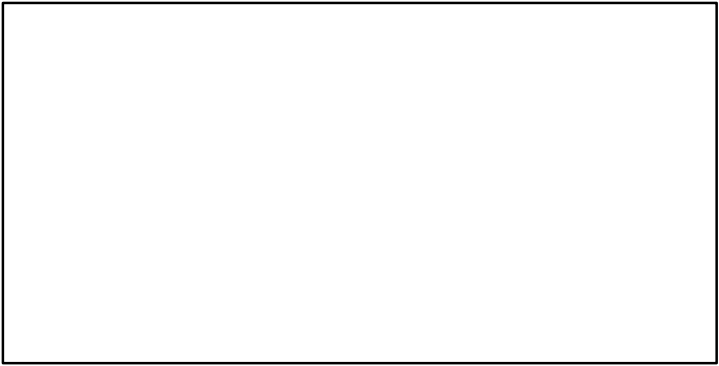
CPUE\*



EFFORT\*



CdivMSY\*



## Red king crab Bristol Bay [RKCRA BBB]

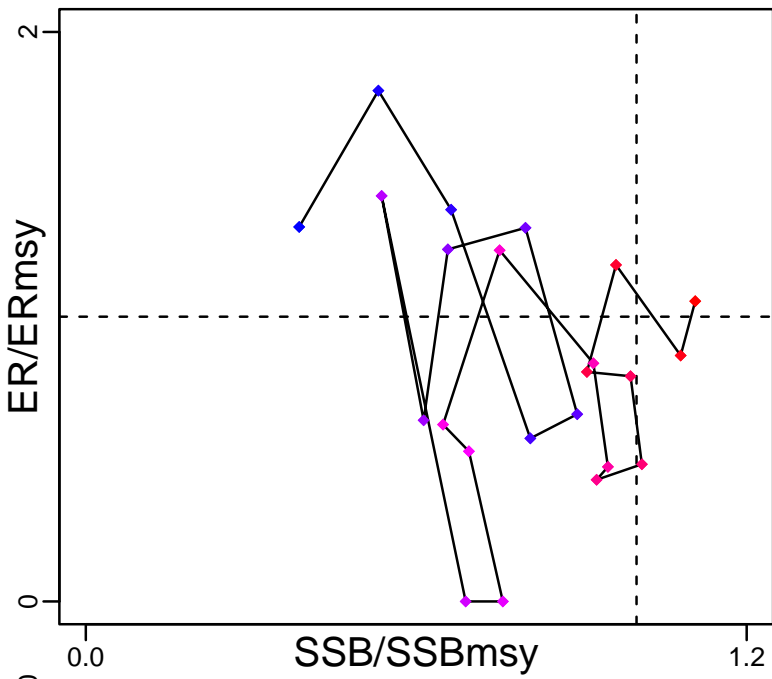
Metadata	
<b>Scientific Name</b>	Paralithodes camtschaticus
<b>Current Assess ID</b>	AFSC-RKCRA BBB-1975-2021-SISIMP2022
<b>Area</b>	Bristol Bay
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2016, 2018, 2019, 2020, 2008, 2015, 2021

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-MT	2020	25,400
<b>SSBmsy</b>	SSBmsy-MT	2021	24,200
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-pr-ratio	2008	0.33
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2008	23,646
<b>M</b>	-	-	-
<b>TBlim</b>	TBlim-MT	2020	12,700
<b>SSBlim</b>	SSBlim-MT	2018	12,740
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

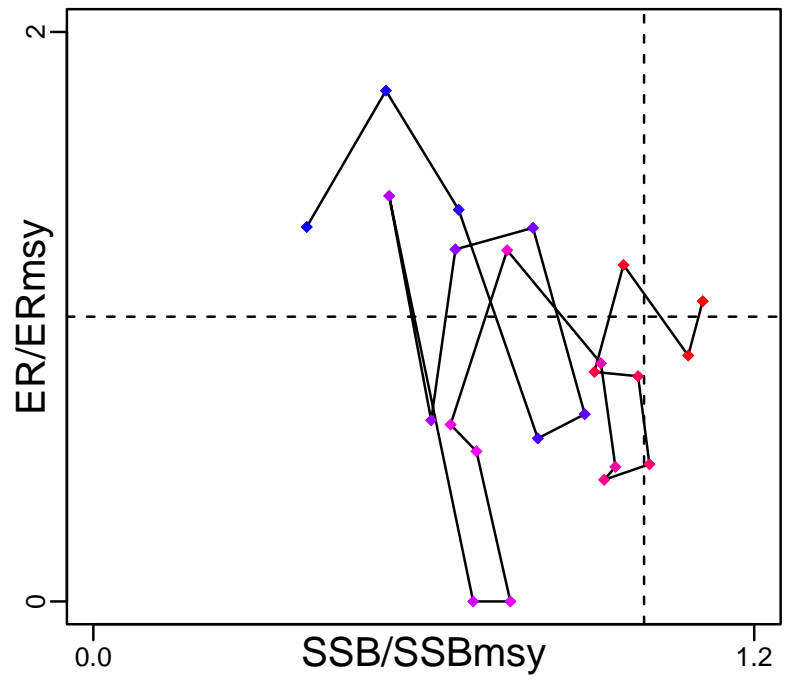
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2020	14,900	-	-
<b>SSB</b>	SSB-MT	2021	14,795	Males	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2021	3,849,000	-	-
<b>F</b>	F-1/yr	2016	0.167	-	-
<b>ER</b>	ER-calc-ratio	2020	0.156	-	-
<b>TC</b>	TC-MT	2020	2220		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2020	0.587		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2021	0.611		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-pr-ratio	2008	1.055		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Red king crab Bristol Bay [RKCRA BBB]

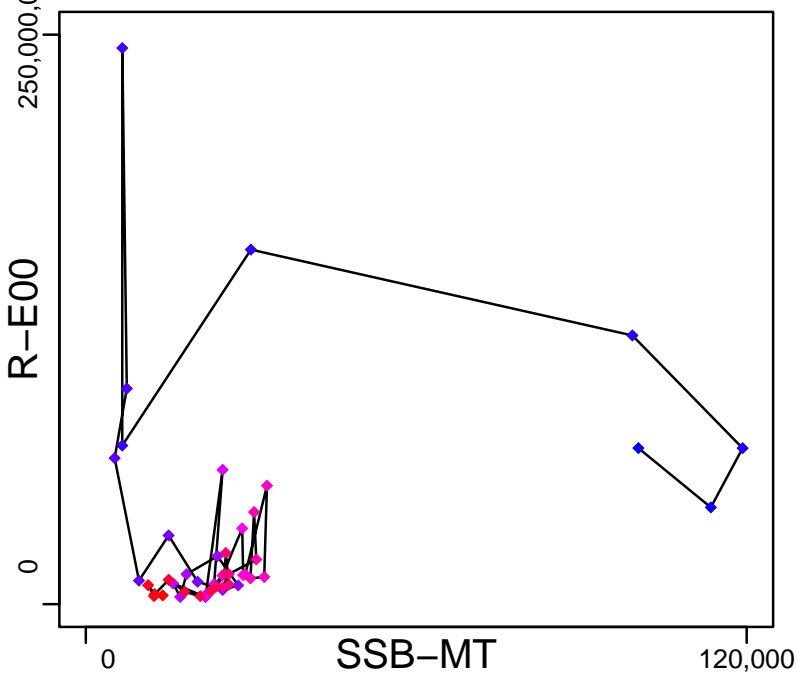
Kobe MSYpref (1960–2008–JENSEN)



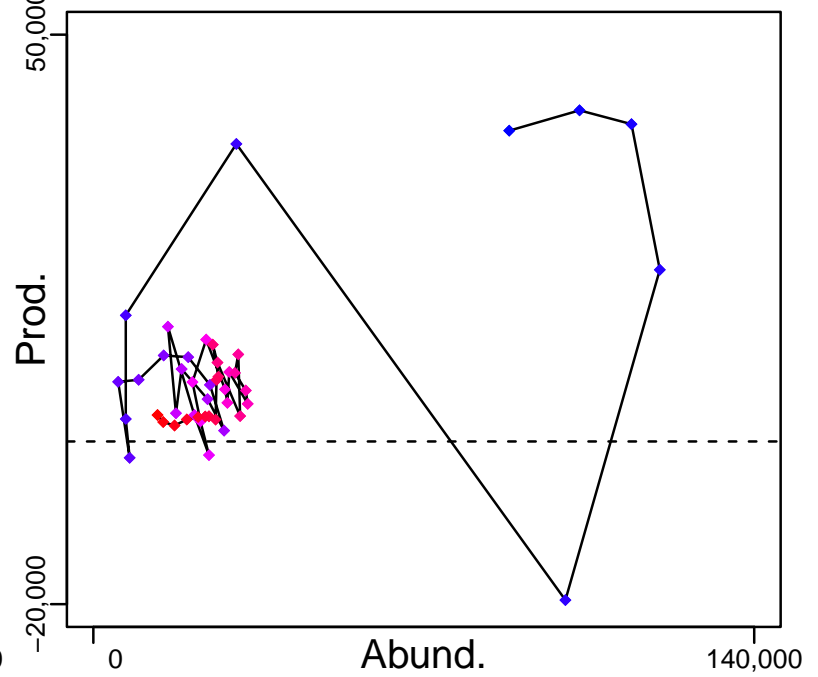
Kobe MGTpref (1960–2008–JENSEN)



Spawner Recruit (1975–2021–SISIMP2022)



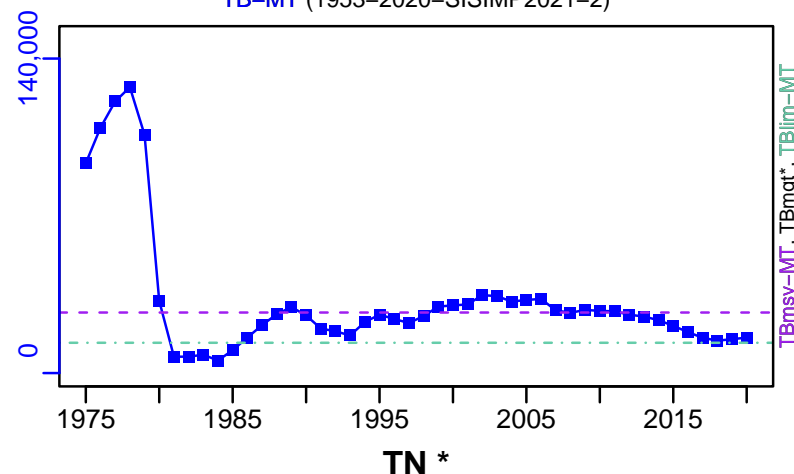
Production (1953–2020–SISIMP2021–2)



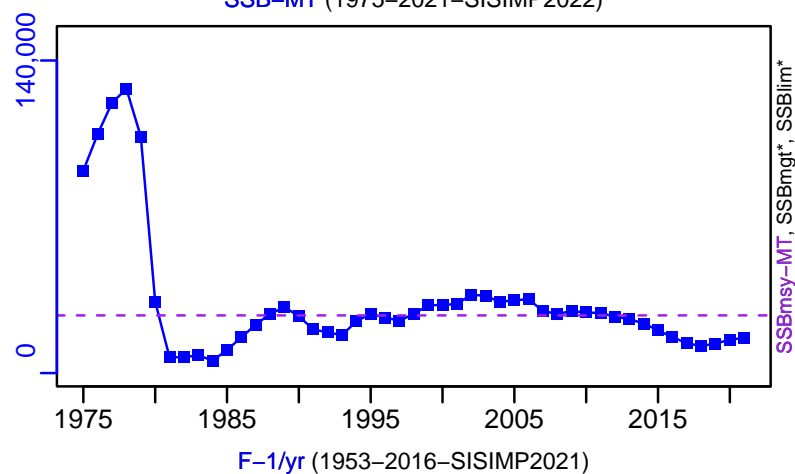
◆ Start Year ◆ End Year \* No Data

# Red king crab Bristol Bay [RKCRABBB]

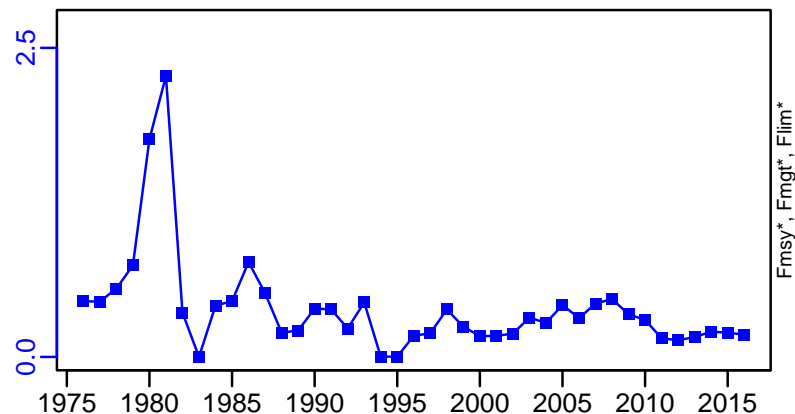
TB-MT (1953–2020–SISIMP2021–2)



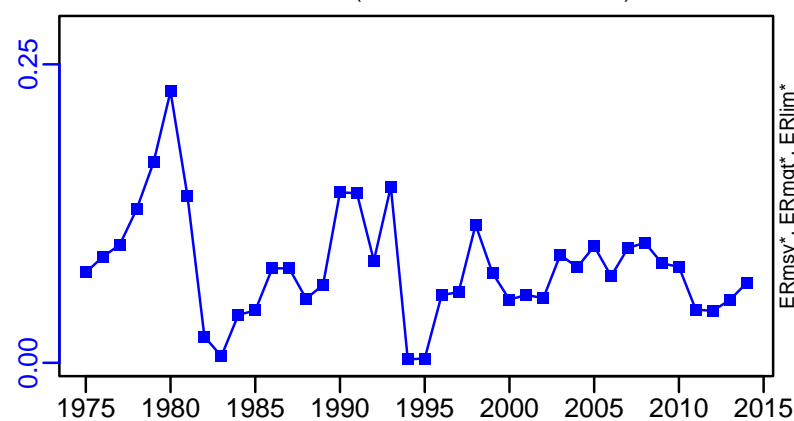
SSB-MT (1975–2021–SISIMP2022)



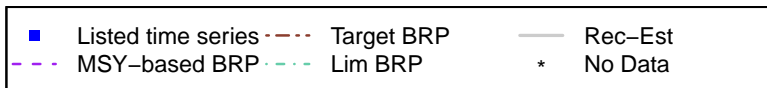
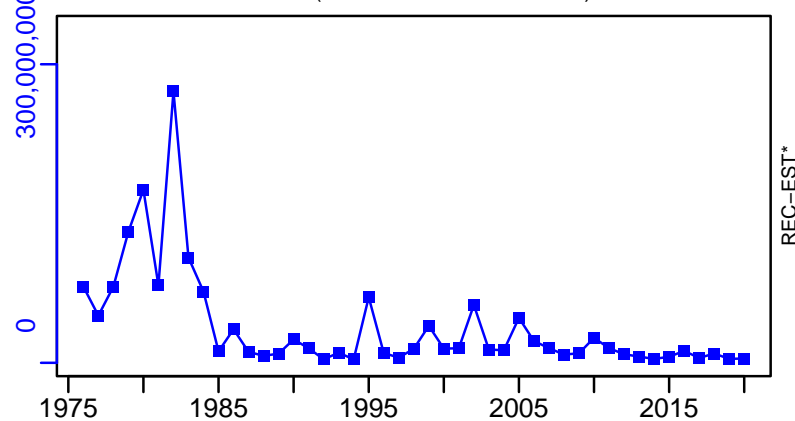
F-1/yr (1953–2016–SISIMP2021)



ER-calc-ratio (1975–2015–SISIMP2016)

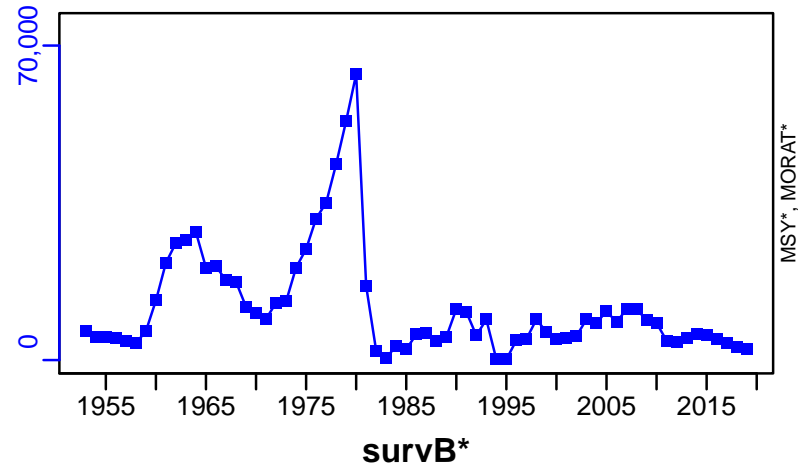


R-E00 (1975–2021–SISIMP2022)



# Red king crab Bristol Bay [RKCRA BBB]

TC-MT, TL\*, RecC\* (1953-2020-SISIMP2021-2)



TAC\*, Cpair\*, Cadv\*



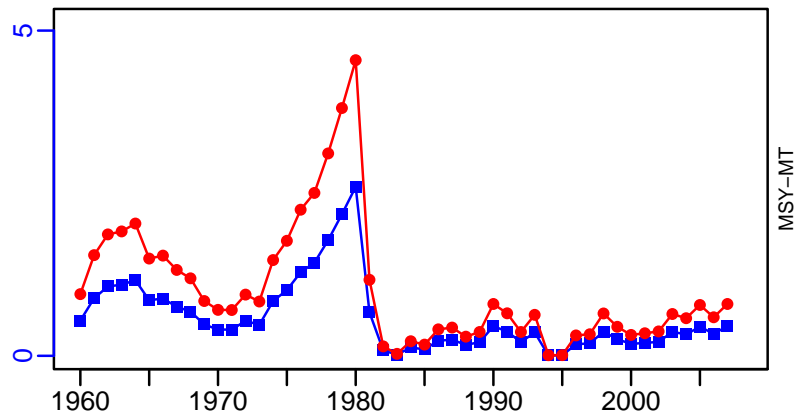
CPUE\*



EFFORT\*



TC-MT/MSY-MT, CdivMEANC-ratio, (1960-2008-JENSEN)



## Red king crab Norton Sound [RKCRA BNS]

Metadata	
<b>Scientific Name</b>	Paralithodes camtschaticus
<b>Current Assess ID</b>	AFSC-RKCRA BNS-1976-2019-SISIMP2021-2
<b>Area</b>	Norton Sound
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2008, 2016, 2017, 2019

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2019	2073
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	SSBlim-MT	2019	1016
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	SSB-MT	2019	1415	-	-
TN	-	-	-	-	-
R	R-MT	2019	386	-	0
F	-	-	-	-	-
ER	ER-ratio	2019	0.035	-	-
TC	TC-MT	2019	136		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2019	0.683		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Red king crab Norton Sound [RKCRABNS]

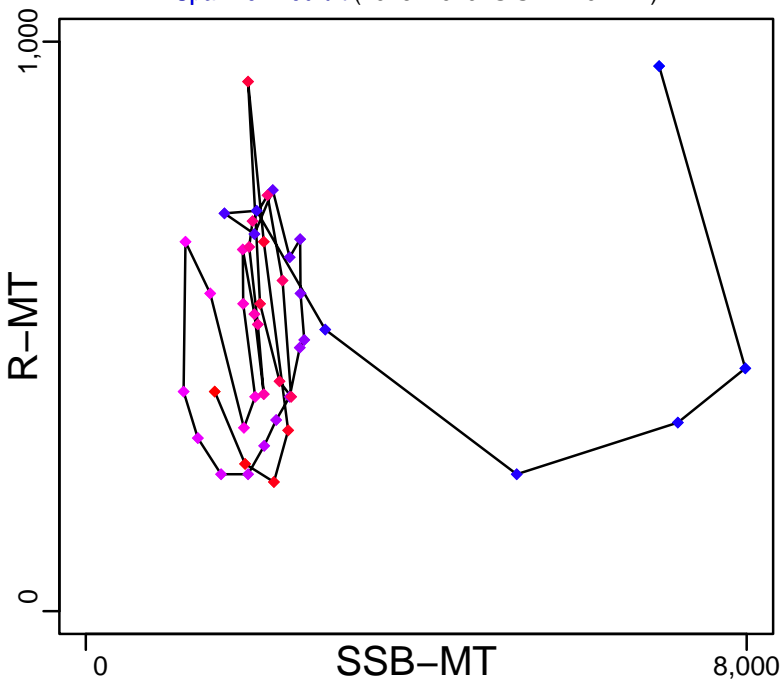
Kobe MSY\*



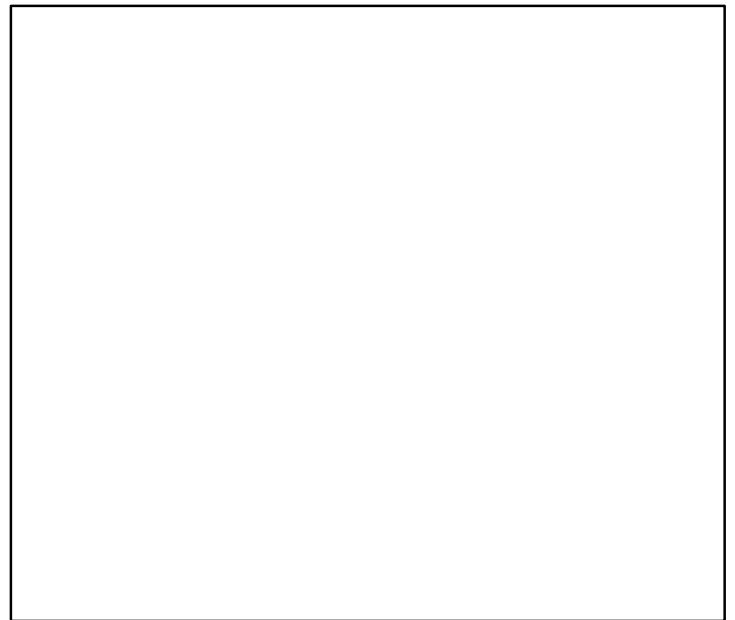
Kobe MGT\*



Spawner Recruit (1976–2019–SISIMP2021–2)



Production\*



◆ Start Year ◆ End Year \* No Data

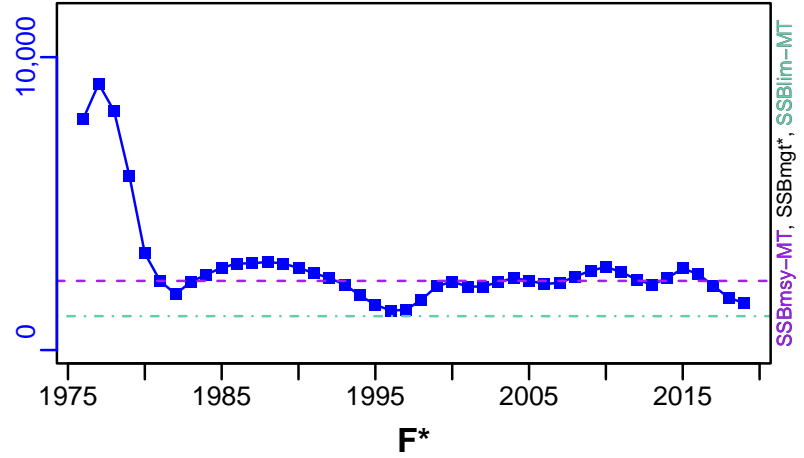


# Red king crab Norton Sound [RKCRABNS]

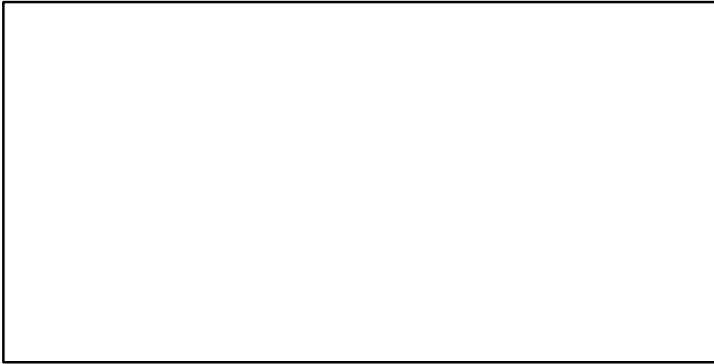
TB\*



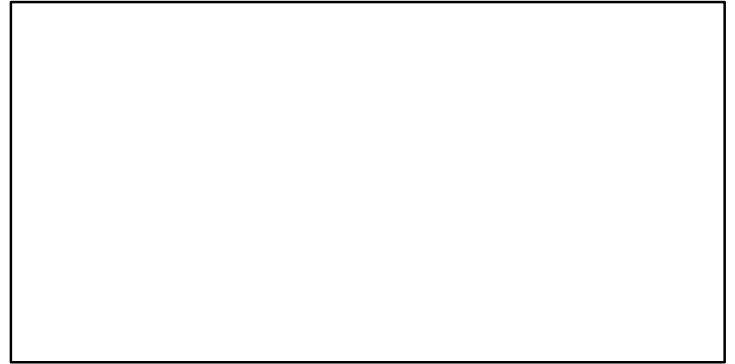
SSB-MT (1976–2019–SISIMP2021–2)



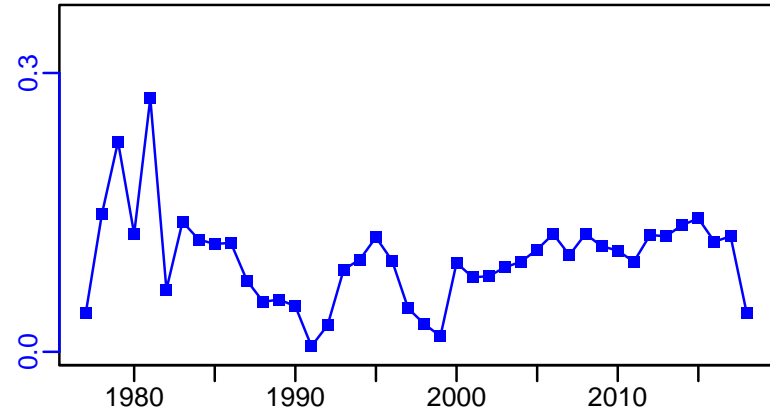
TN \*



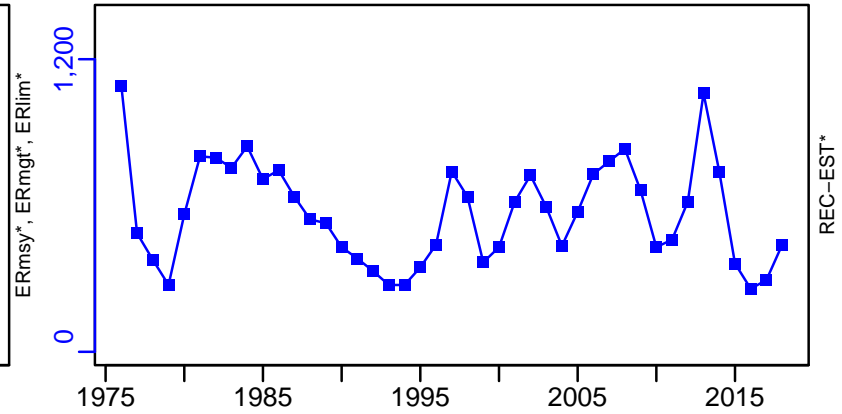
F\*



ER-ratio (1976–2019–SISIMP2021–2)



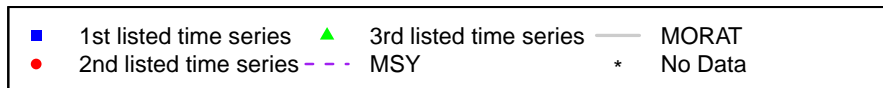
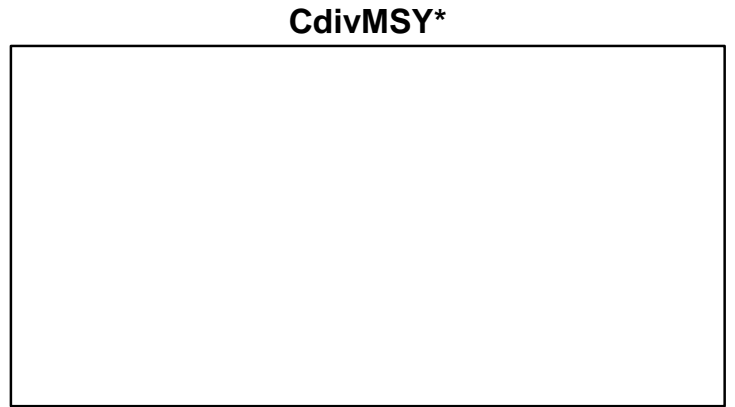
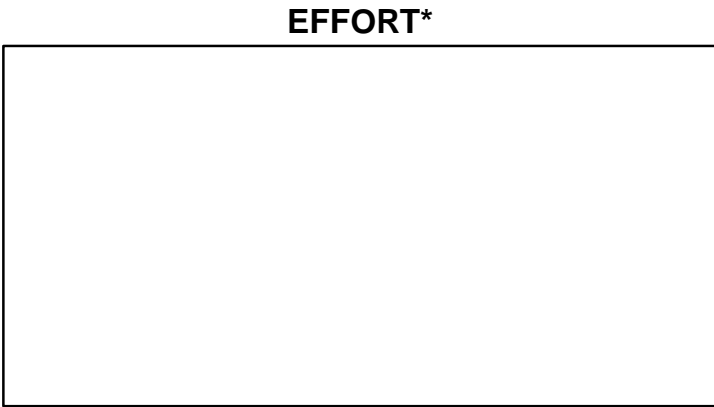
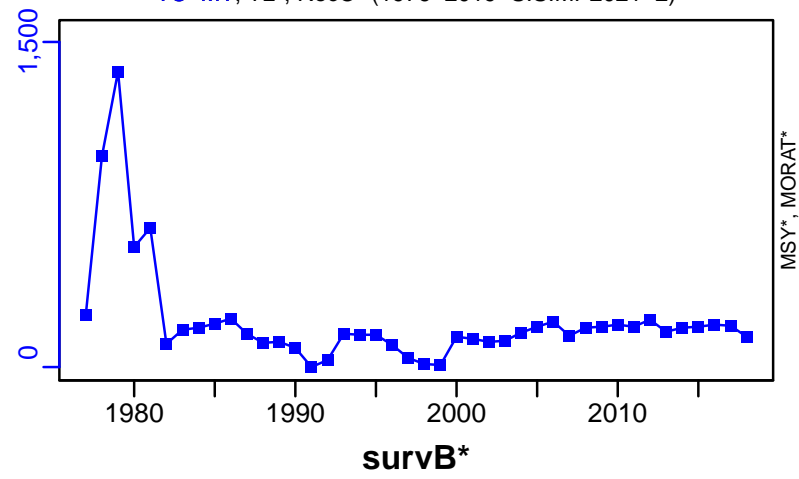
R-MT (1976–2019–SISIMP2021–2)



# Red king crab Norton Sound [RKCRABNS]

TC-MT, TL\*, RecC\* (1976-2019-SISIMP2021-2)

TAC\*, Cpair\*, Cadv\*



## Red king crab Pribilof Islands [RKCRAPI]

Metadata	
<b>Scientific Name</b>	Paralithodes camtschaticus
<b>Current Assess ID</b>	AFSC-RKCRAPI-1976-2020-SISIMP2021-2
<b>Area</b>	Pribilof Islands
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2020, 2009, 2016, 2015

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-MT	2020	1730
<b>SSBmsy</b>	SSBmsy-MT	2009	3928
<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	2009	0.18
<b>TBlim</b>	TBlim-MT	2020	867
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2020	5370	-	-
<b>SSB</b>	SSB-MT	2009	5670	Males	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2020	0	-	-
<b>TC</b>	TC-MT	2020	0		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2020	3.104		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2009	1.443		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Red king crab Pribilof Islands [RKCRABPI]

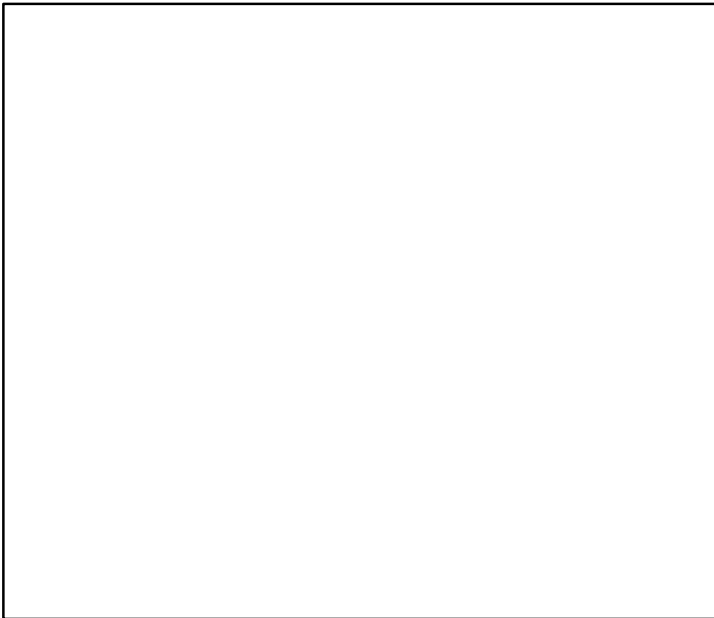
Kobe MSY\*



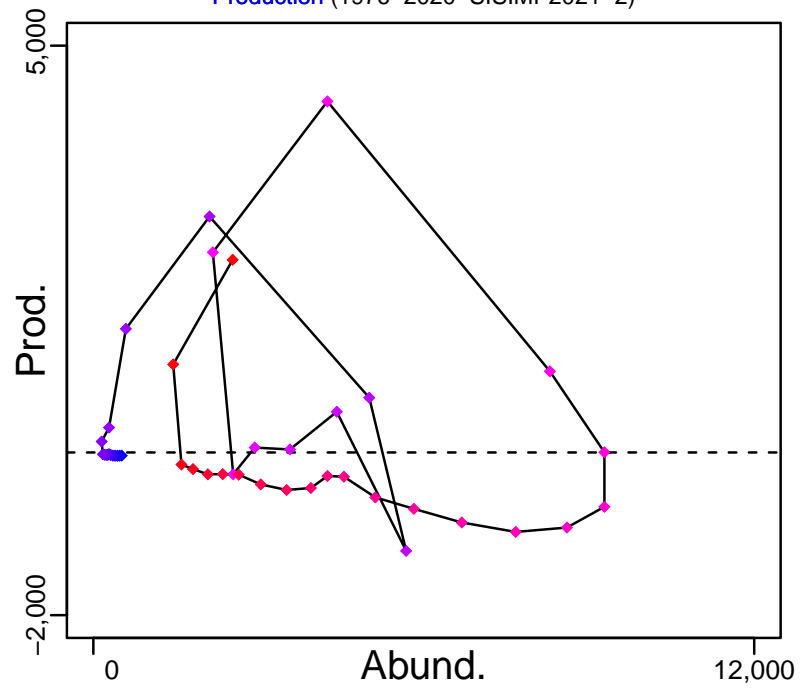
Kobe MGT\*



Spawner Recruit\*



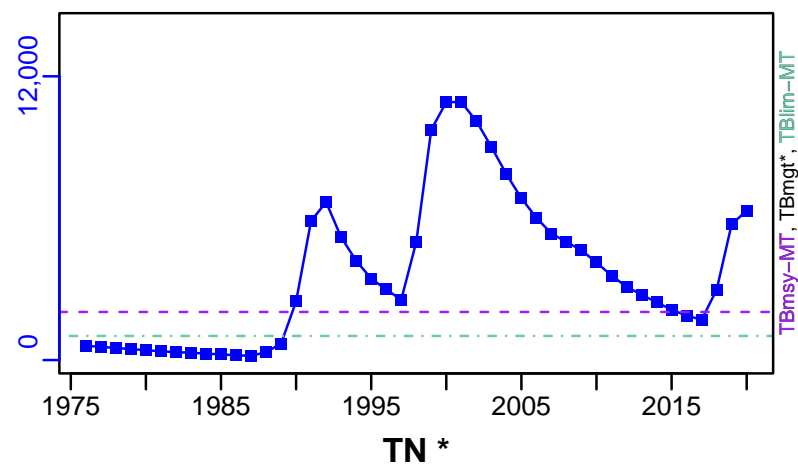
Production (1976–2020–SISIMP2021–2)



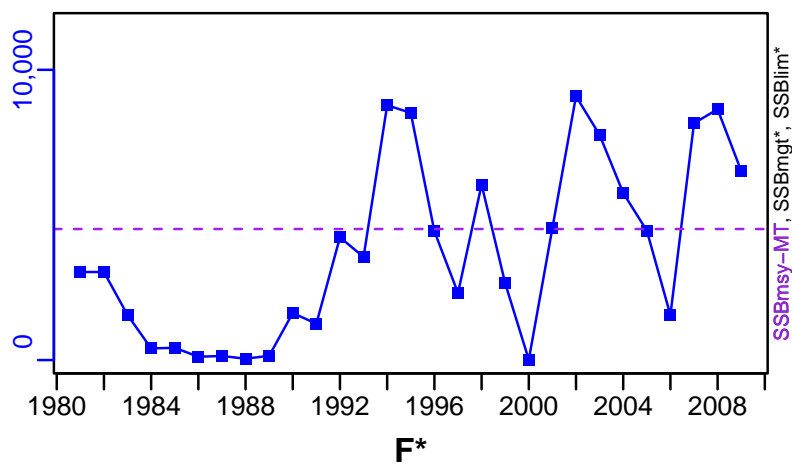
◆ Start Year ◆ End Year \* No Data

# Red king crab Pribilof Islands [RKCRABPI]

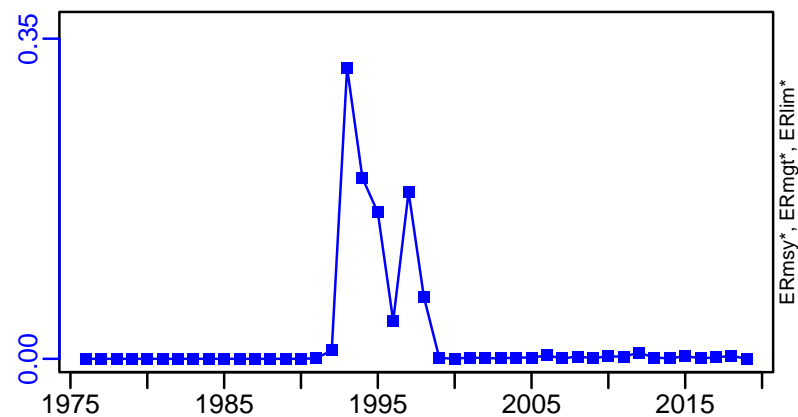
TB-MT (1976-2020-SISIMP2021-2)



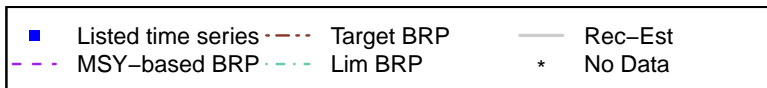
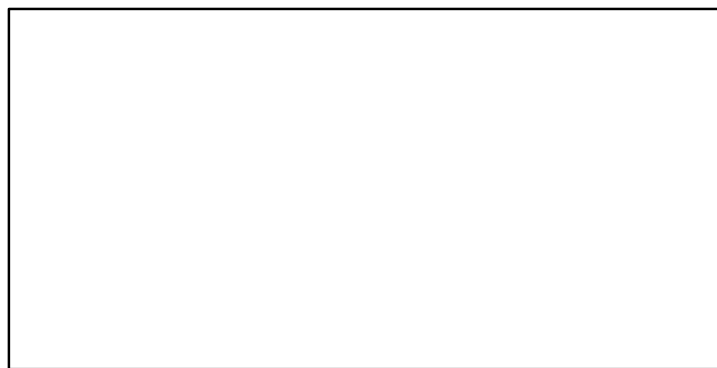
SSB-MT (1981-2009-JENSEN)



ER-calc-ratio (1976-2020-SISIMP2021-2)

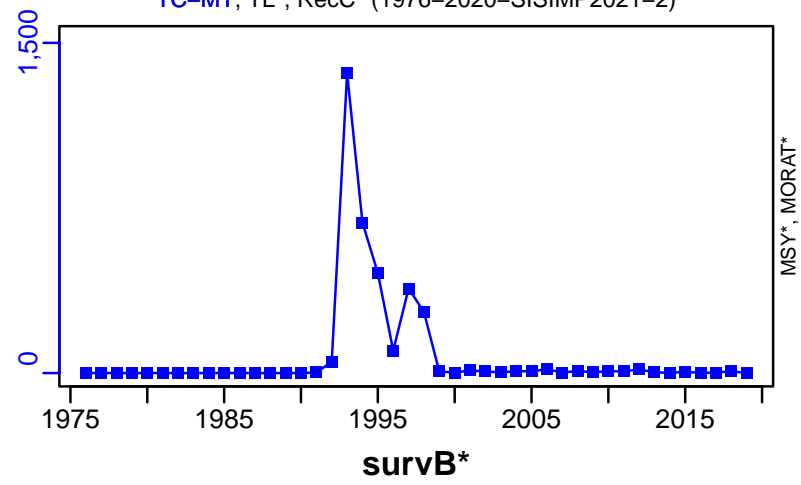


Recruits\*

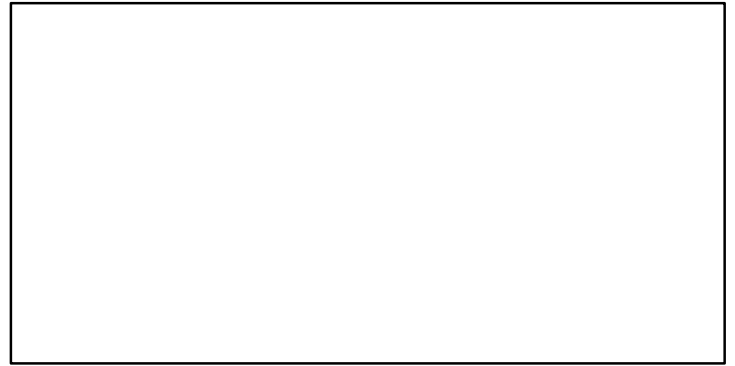


# Red king crab Pribilof Islands [RKCRA BPI]

TC-MT, TL\*, RecC\* (1976-2020-SISIMP2021-2)



TAC\*, Cpair\*, Cadv\*



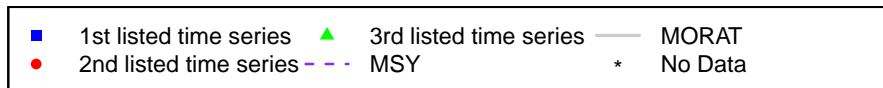
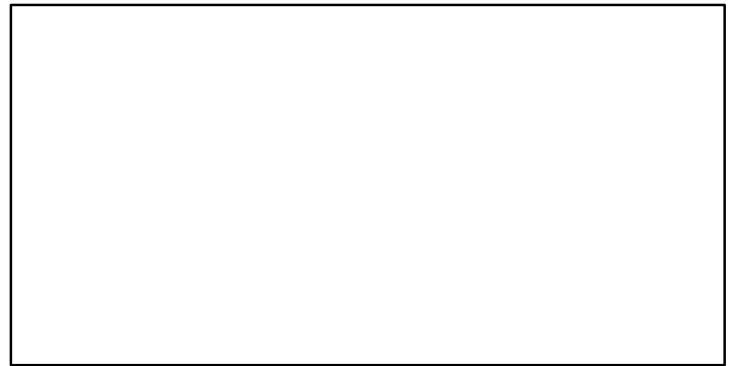
CPUE\*



EFFORT\*



CdivMSY\*



## Rock sole Gulf of Alaska [RSOLEGA]

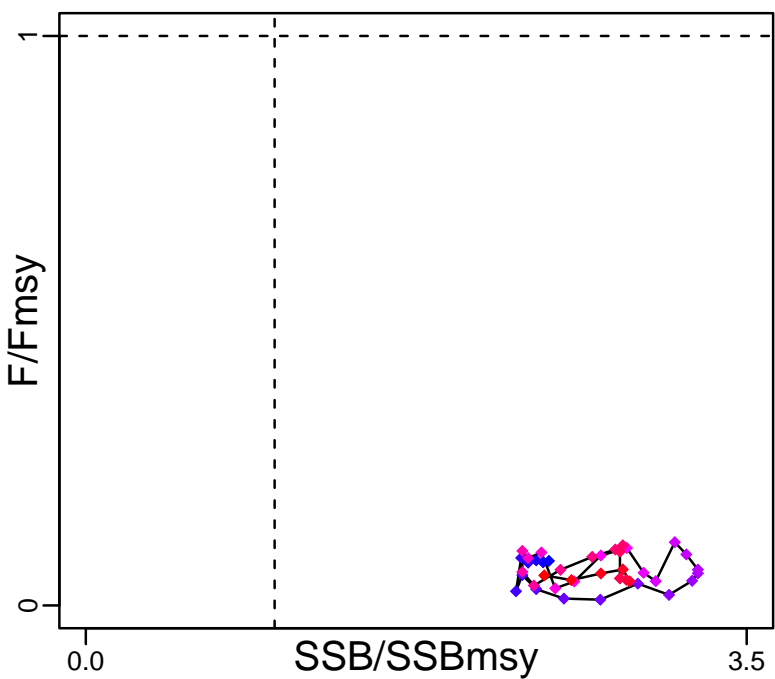
Metadata	
<b>Scientific Name</b>	Lepidopsetta bilineata
<b>Current Assess ID</b>	AFSC-RSOLEGA-1977-2017-SISIMP2021-2
<b>Area</b>	Gulf of Alaska
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2015, 2016, 2017

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2017	32,700
Fmsy	Fmsy-1/yr	2017	0.326
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	Flim-1/yr	2016	0.243
ERlim	-	-	-

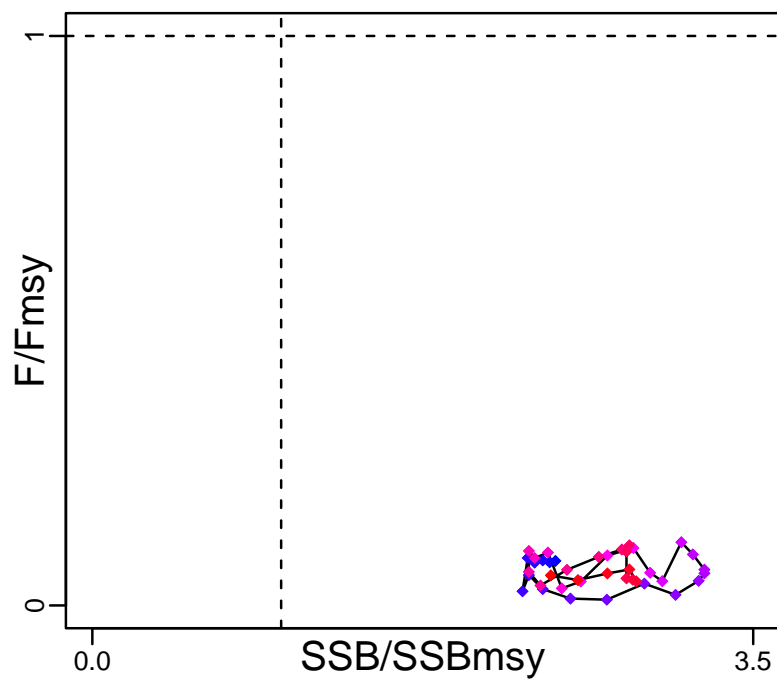
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2015	156,000	-	3+
SSB	SSB-MT	2017	76,100	-	-
TN	-	-	-	-	-
R	R-E00	2017	$2.47 \times 10^8$	-	0
F	F-1/yr	2017	0.017	-	-
ER	ER-calc-ratio	2015	0.011	-	-
TC	TC-MT	2017	1500		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2017	2.327		
F/Fmsy	F-1/yr/Fmsy-1/yr	2017	0.053		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

# Rock sole Gulf of Alaska [RSOLEGA]

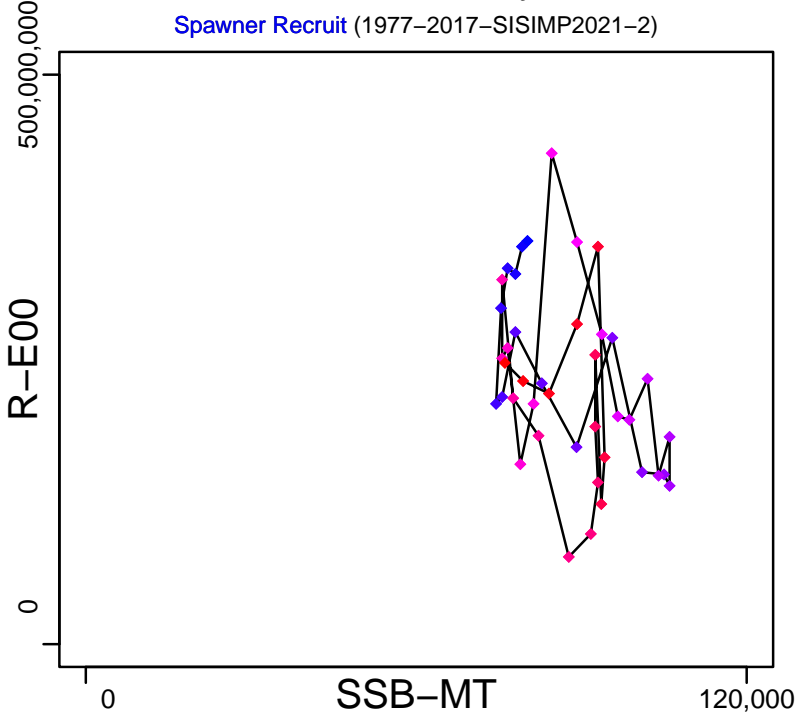
Kobe MSYpref (1977–2017–SISIMP2021–2)



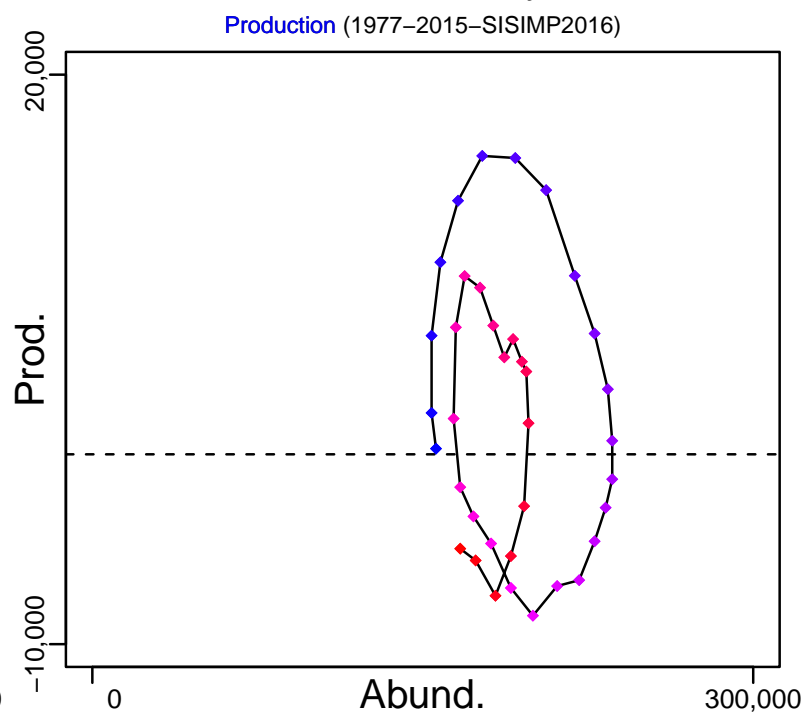
Kobe MGTpref (1977–2017–SISIMP2021–2)



Spawner Recruit (1977–2017–SISIMP2021–2)



Production (1977–2015–SISIMP2016)

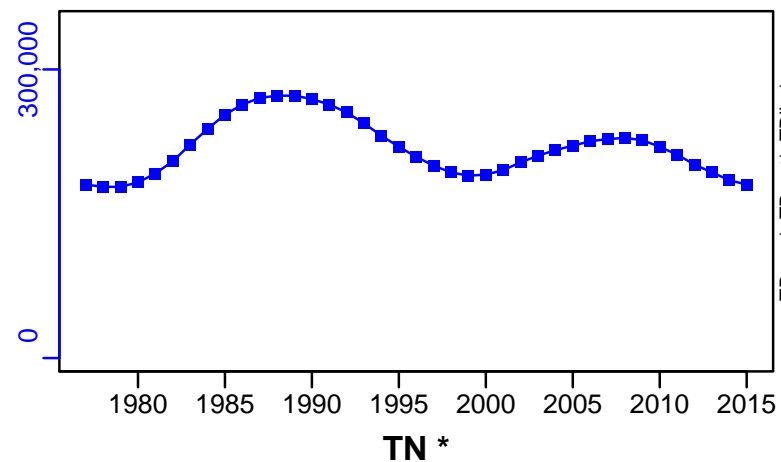


◆ Start Year ◆ End Year \* No Data

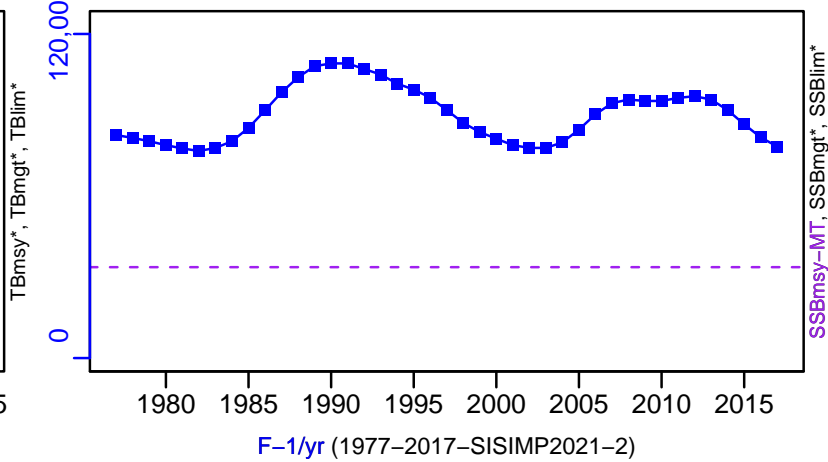


# Rock sole Gulf of Alaska [RSOLEGA]

TB-MT (1977-2015-SISIMP2016)



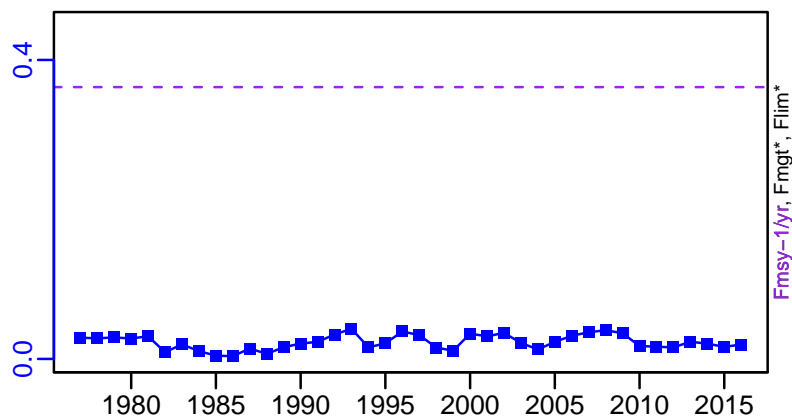
SSB-MT (1977-2017-SISIMP2021-2)



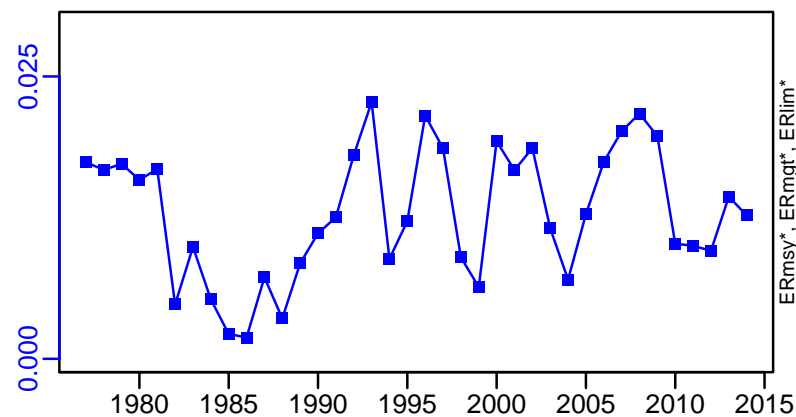
TN \*



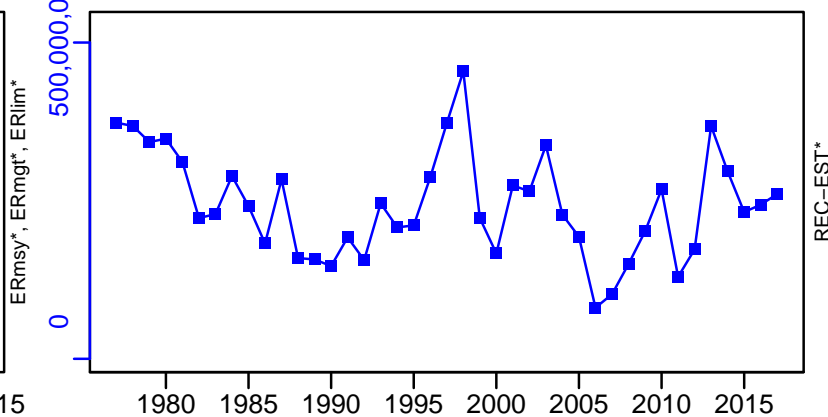
F-1/yr (1977-2017-SISIMP2021-2)



ER-calc-ratio (1977-2015-SISIMP2016)

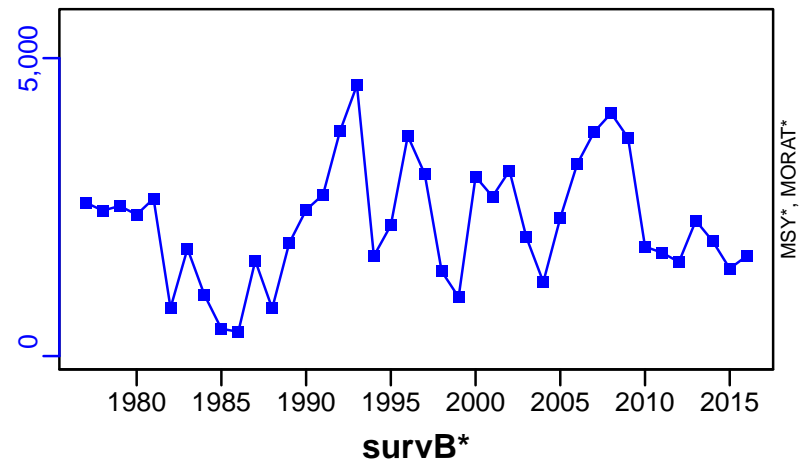


R-E00 (1977-2017-SISIMP2021-2)

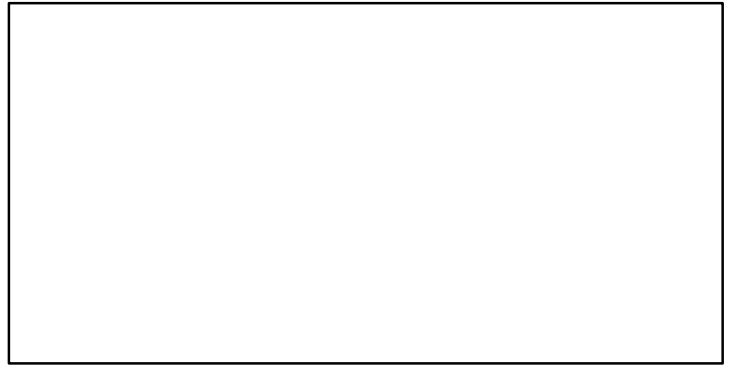


Rock sole Gulf of Alaska [RSOLEGA]

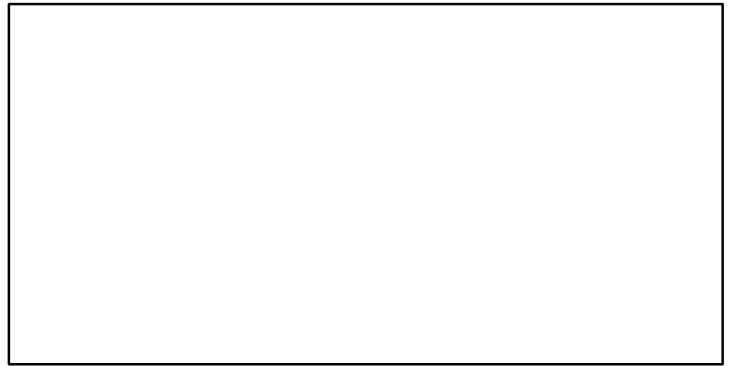
TC-MT, TL\*, RecC\* (1977-2017-SISIMP2021-2)



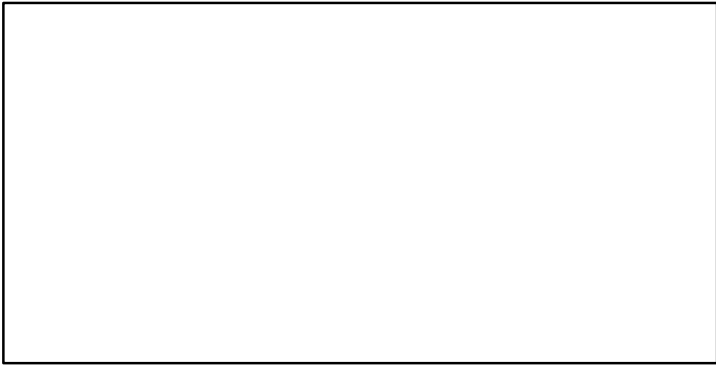
TAC\*, Cpair\*, Cadv\*



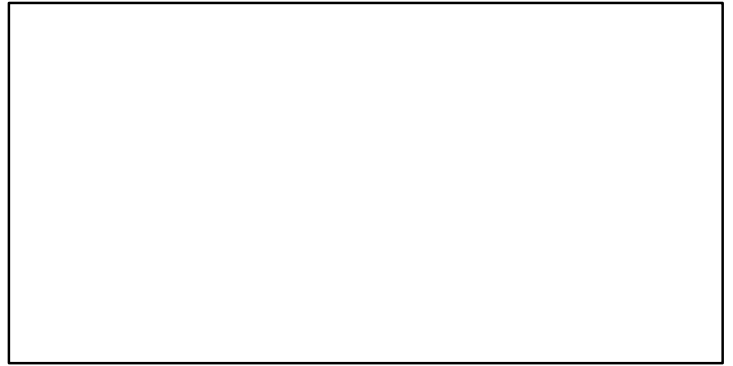
CPUE\*



EFFORT\*



CdivMSY\*



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

**Sablefish Eastern Bering Sea / Aleutian Islands / Gulf of Alaska**  
**[SABLEFEBSAIGA]**

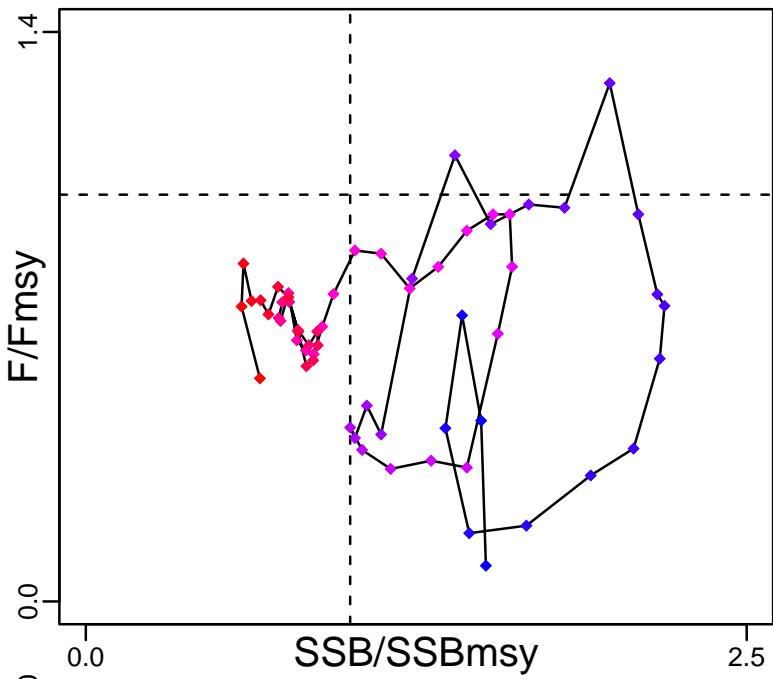
Metadata	
<b>Scientific Name</b>	Anoplopoma fimbria
<b>Current Assess ID</b>	AFSC-SABLEFEBSAIGA-1960-2020-SISIMP2021-2
<b>Area</b>	Eastern Bering Sea / Aleutian Islands / Gulf of Alaska
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2010, 2016, 2017, 2018, 2015, 2019, 2020

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2010	96,345
<b>SSBmsy</b>	SSBmsy-MT	2020	111,000
<b>Fmsy</b>	Fmsy-1/yr	2020	0.124
<b>ERmsy</b>	ERmsy-ratio	2010	0.197
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	SSB0-MT	2010	275,270
<b>MSY</b>	MSY-MT	2010	18,950
<b>M</b>	M-1/yr	2010	0.1
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2019	46,400
<b>Flim</b>	Flim-1/yr	2020	0.124
<b>ERlim</b>	-	-	-

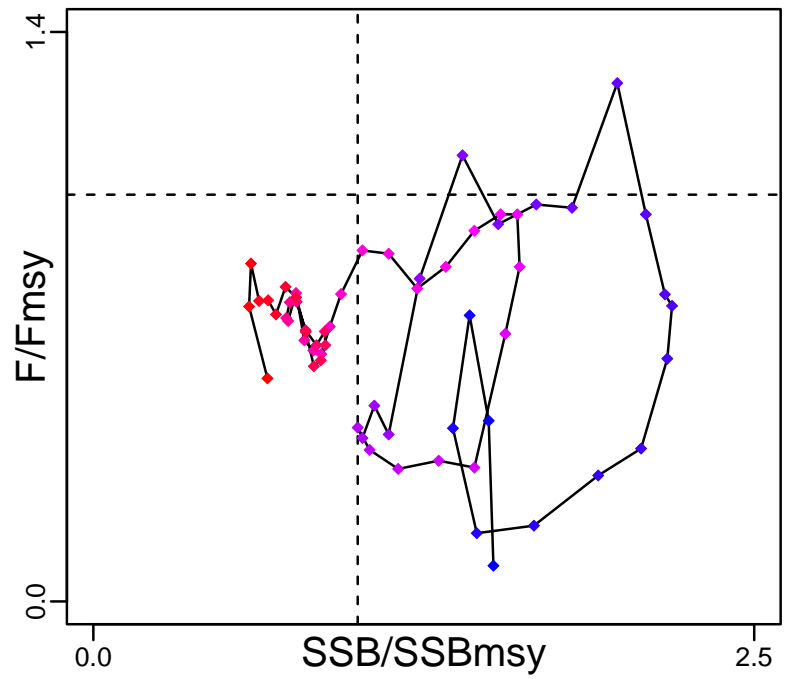
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	202,000	Both	2+
<b>SSB</b>	SSB-MT	2020	94,400	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2020	12,500,000	-	2
<b>F</b>	F-1/yr	2020	0.068	-	-
<b>ER</b>	ER-calc-ratio	2015	0.058	-	-
<b>TC</b>	TC-MT	2020	17,300		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2010	2.283		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2020	0.85		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2020	0.548		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2010	0.261		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

Sablefish Eastern Bering Sea / Aleutian Islands / Gulf of Alaska [SABLEFEBSAIGA]

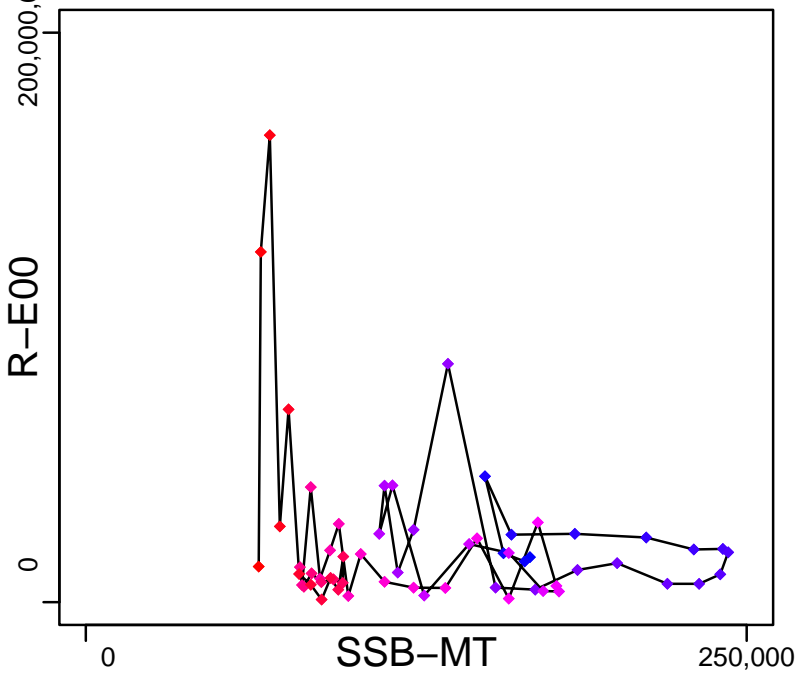
Kobe MSYpref (1960–2020–SISIMP2021–2)



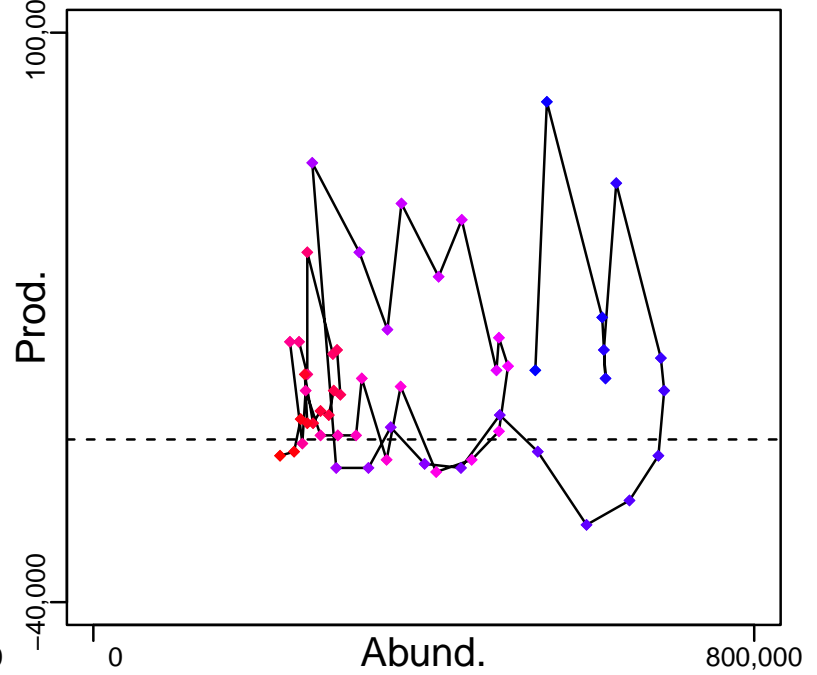
Kobe MGTpref (1960–2020–SISIMP2021–2)



Spawner Recruit (1960–2020–SISIMP2021–2)



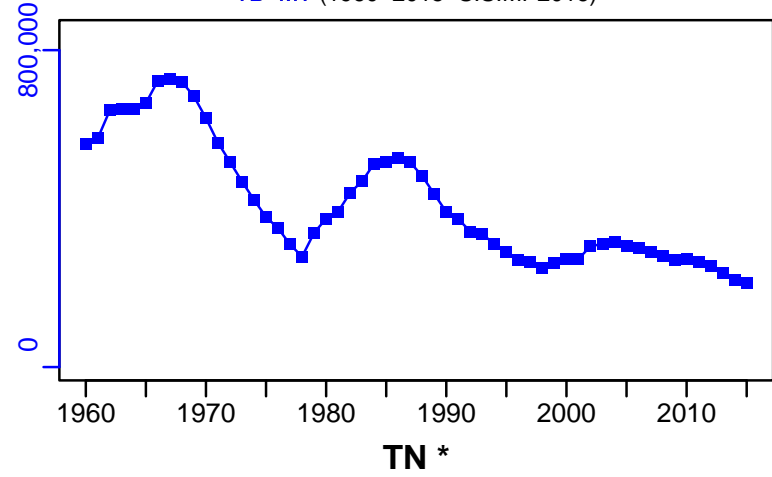
Production (1960–2015–SISIMP2016)



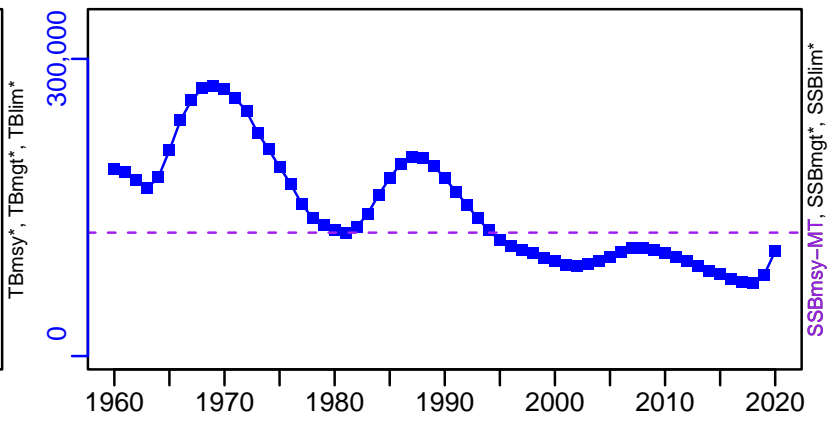
◆ Start Year ◆ End Year \* No Data

# Sablefish Eastern Bering Sea / Aleutian Islands / Gulf of Alaska [SABLEFEBSAIGA]

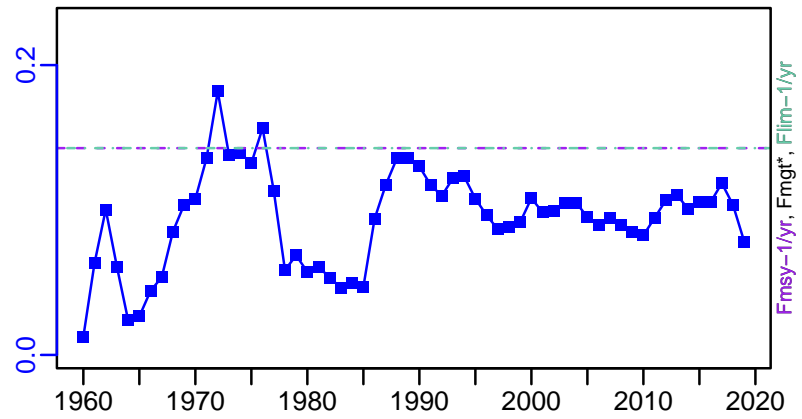
TB-MT (1960–2015–SISIMP2016)



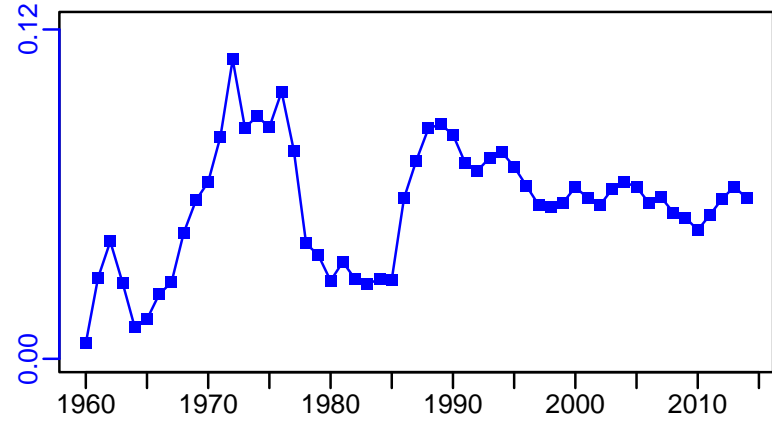
SSB-MT (1960–2020–SISIMP2021–2)



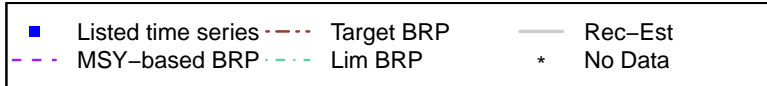
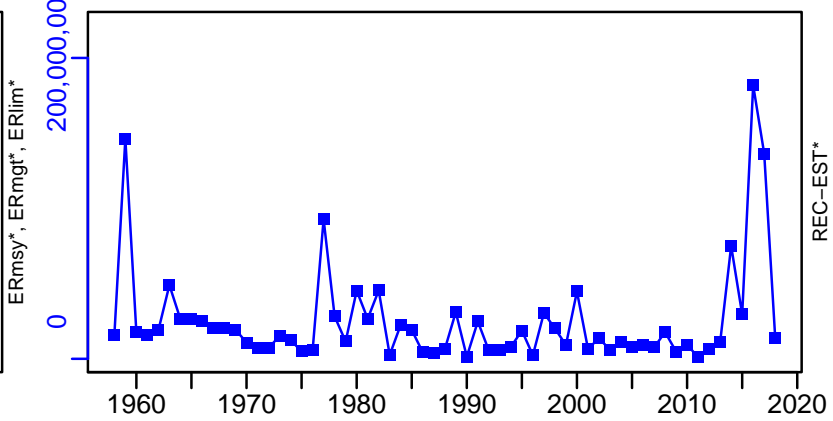
F-1/yr (1960–2020–SISIMP2021–2)



ER-calc-ratio (1960–2015–SISIMP2016)

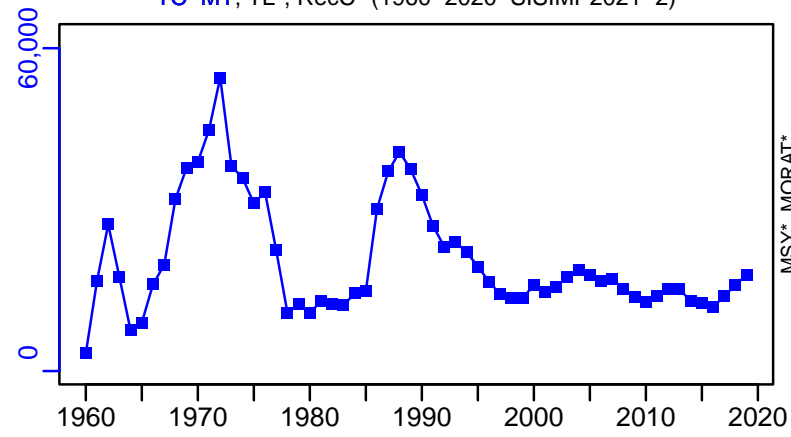


R-E00 (1960–2020–SISIMP2021–2)

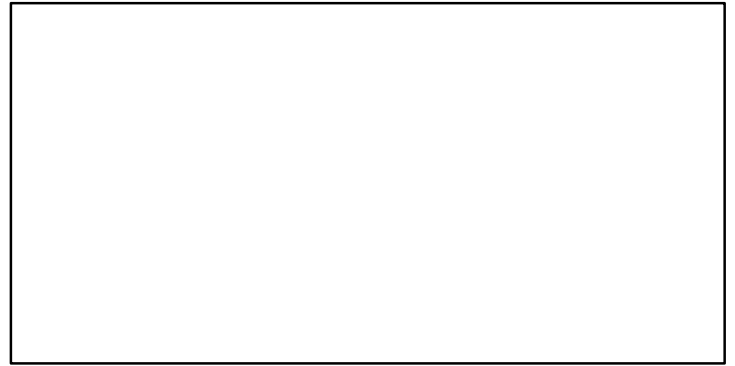


Sablefish Eastern Bering Sea / Aleutian Islands / Gulf of Alaska [SABLEFEBSAIGA]

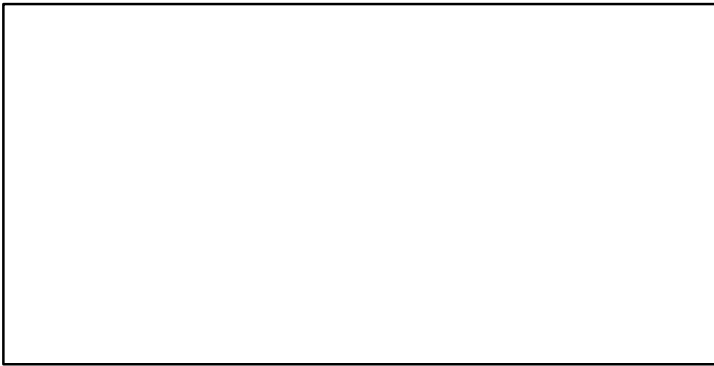
TC-MT, TL\*, RecC\* (1960-2020-SISIMP2021-2)



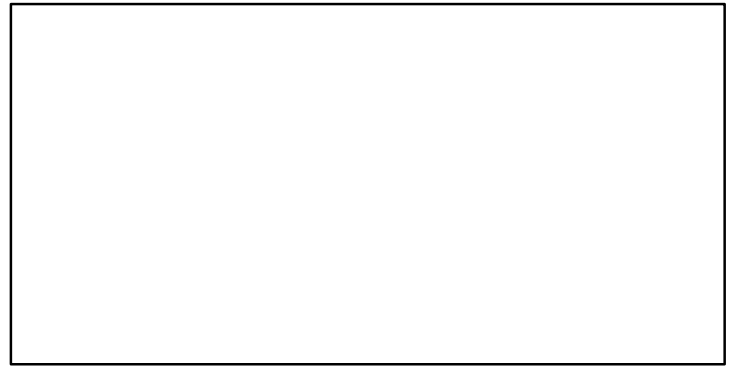
TAC\*, Cpair\*, Cadv\*



survB\*



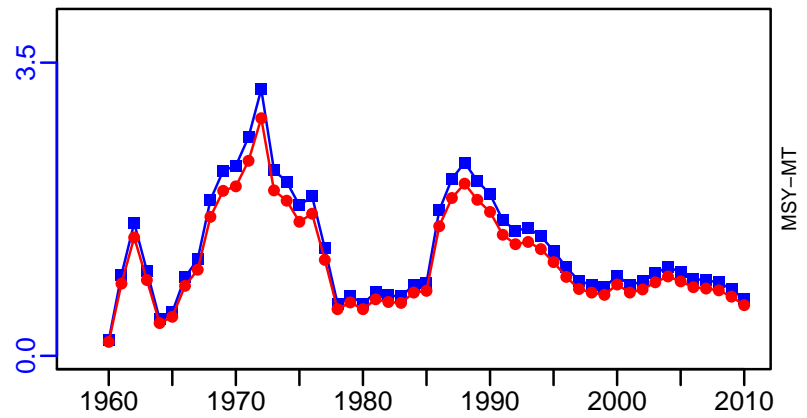
CPUE\*



EFFORT\*



TC-MT/MSY-MT, CdivMEANC-ratio, (1958-2010-STACHURA)



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

## Snow crab Bering Sea [SNOWCRABBS]

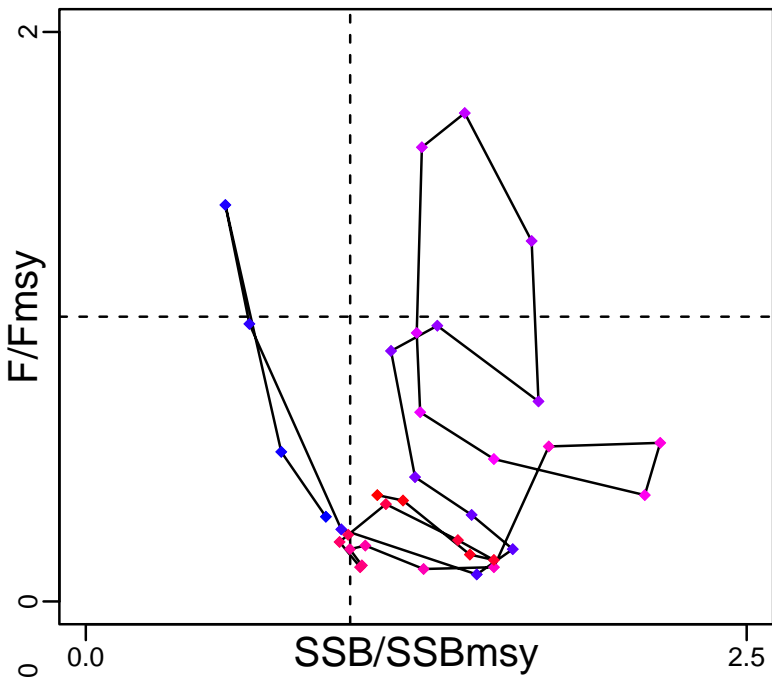
Metadata	
<b>Scientific Name</b>	Chionoecetes opilio
<b>Current Assess ID</b>	AFSC-SNOWCRABBS-1982-2020-SISIMP2021-2
<b>Area</b>	Bering Sea
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2013, 2016, 2015, 2017, 2019, 2020

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-MT	2020	153,000
<b>SSBmsy</b>	SSBmsy-MT	2016	139,400
<b>Fmsy</b>	Fmsy-pr-1/yr	2013	1.58
<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	2013	0.18
<b>TBlim</b>	TBlim-MT	2020	76,700
<b>SSBlim</b>	SSBlim-MT	2016	69,700
<b>Flim</b>	Flim-1/yr	2017	1.04
<b>ERlim</b>	-	-	-

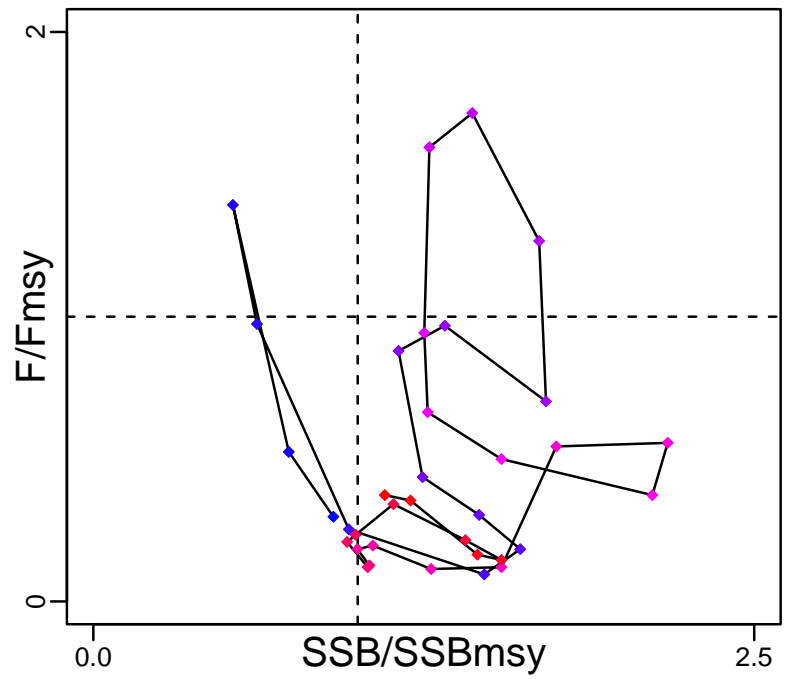
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2020	26,700	-	-
<b>SSB</b>	SSB-MT	2016	96,970	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2020	$1.28 \times 10^8$	-	0
<b>F</b>	F-1/yr	2020	3.24	-	-
<b>ER</b>	ER-calc-ratio	2020	0.985	-	-
<b>TC</b>	TC-MT	2020	26,300		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2020	0.175		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2016	0.696		
<b>F/Fmsy</b>	F-1/yr/Fmsy-pr-1/yr	2013	0.373		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Snow crab Bering Sea [SNOWCRABBS]

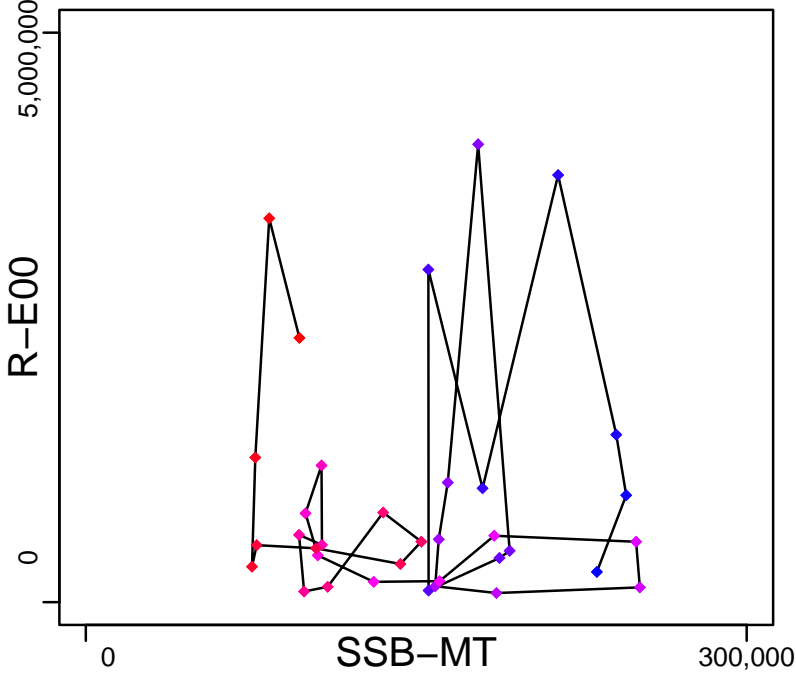
Kobe MSYpref (1978–2013–HIVELY)



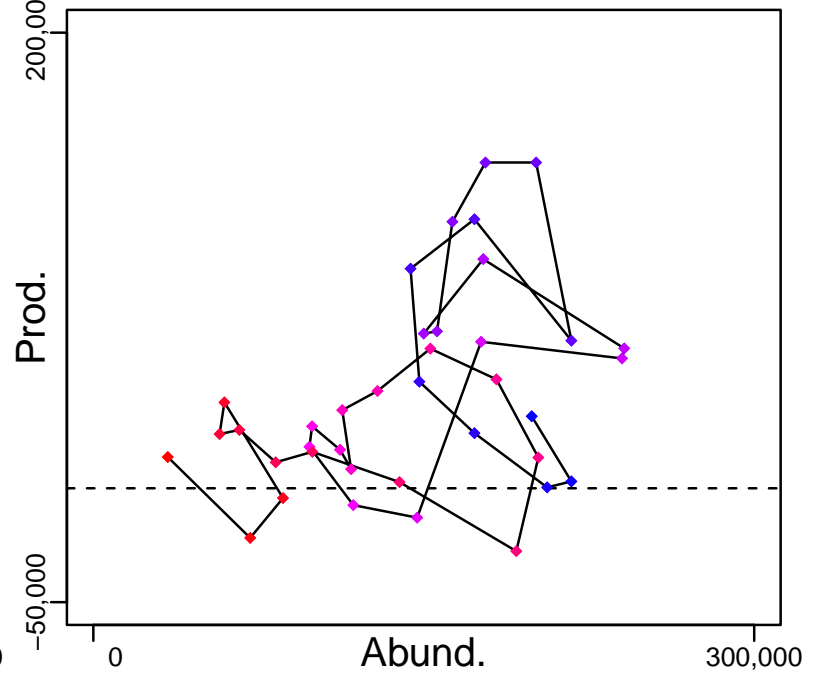
Kobe MGTpref (1978–2013–HIVELY)



Spawner Recruit (1978–2016–SISIMP2021)



Production (1982–2020–SISIMP2021–2)

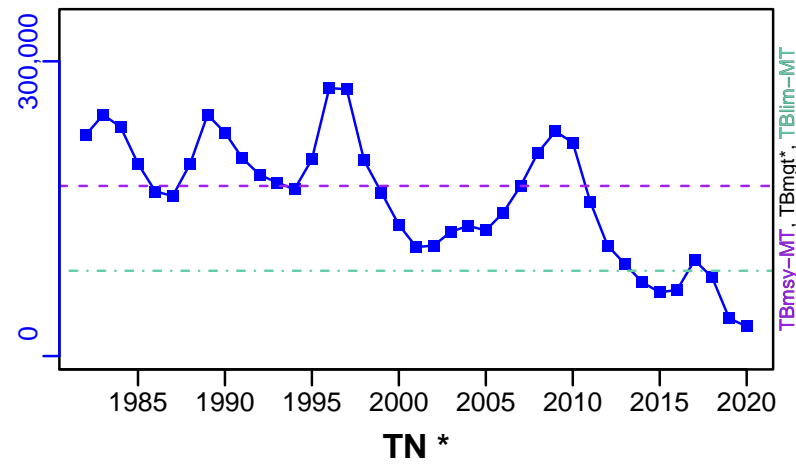


◆ Start Year ◆ End Year \* No Data

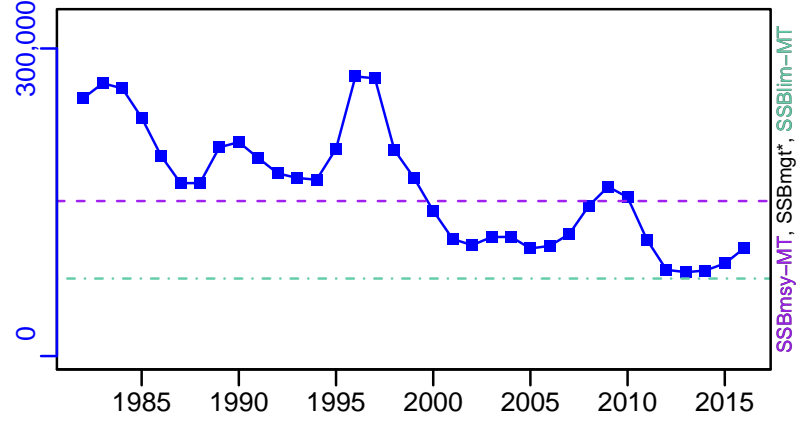


# Snow crab Bering Sea [SNOWCRABBS]

TB-MT (1982-2020-SISIMP2021-2)



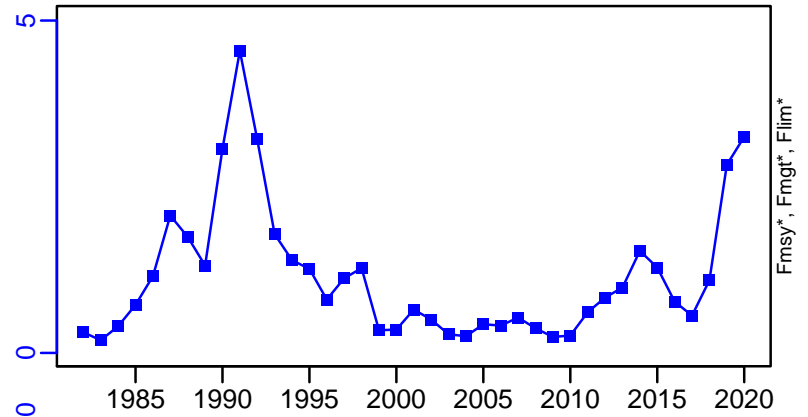
SSB-MT (1978-2016-SISIMP2021)



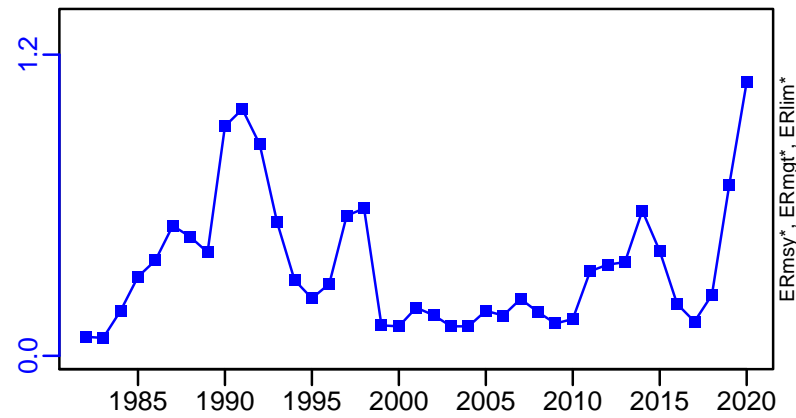
TN \*



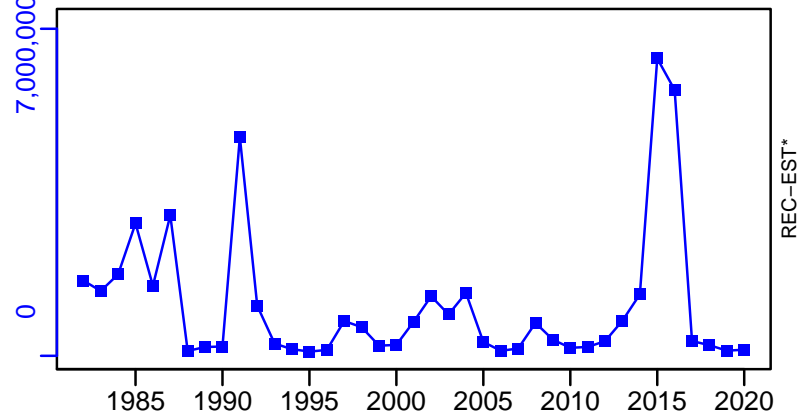
F-1/yr (1982-2020-SISIMP2021-2)



ER-calc-ratio (1982-2020-SISIMP2021-2)

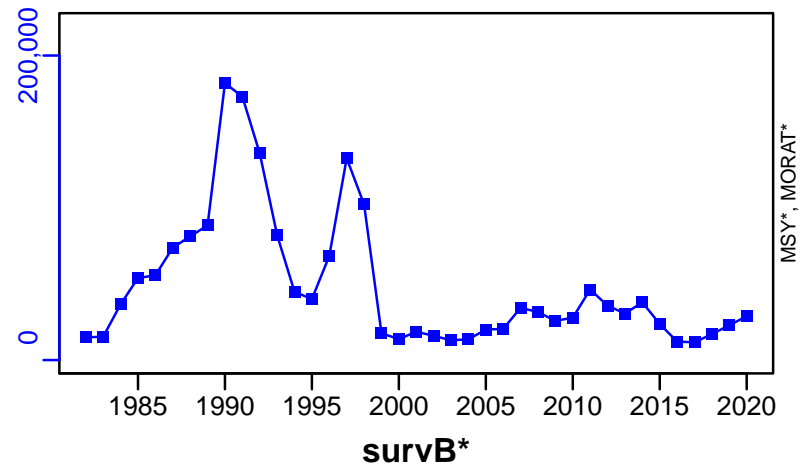


R-E00 (1982-2020-SISIMP2021-2)



# Snow crab Bering Sea [SNOWCRABBS]

TC-MT, TL\*, RecC\* (1982-2020-SISIMP2021-2)



TAC\*, Cpair\*, Cadv\*



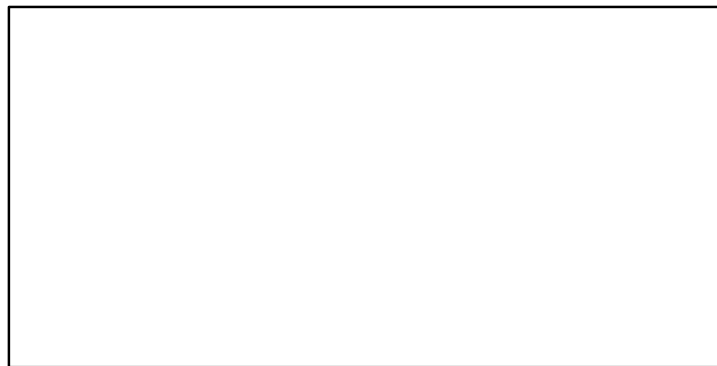
CPUE\*



EFFORT\*



CdivMSY\*



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

## Shortraker rockfish Bering Sea and Aleutian Islands [SRAKEROCKBSAI]

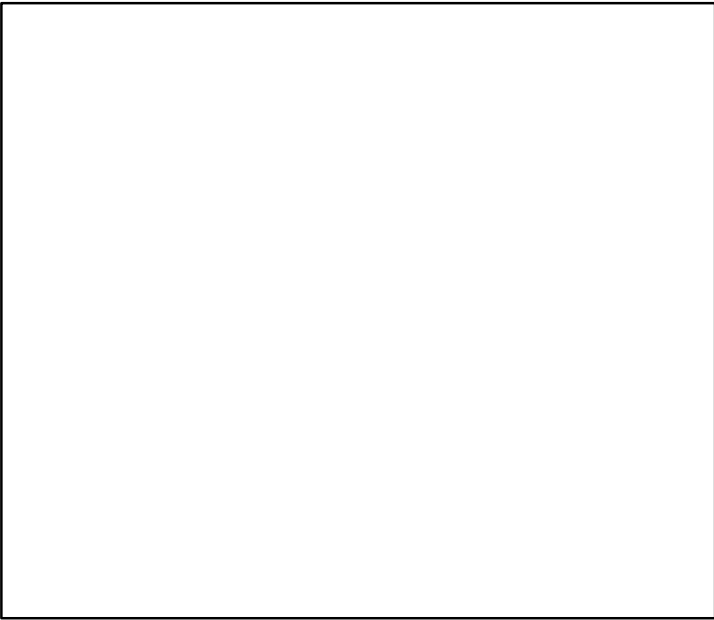
Metadata	
<b>Scientific Name</b>	Sebastes borealis
<b>Current Assess ID</b>	AFSC-SRAKEROCKBSAI-1977-2020-SISIMP2021-2
<b>Area</b>	Bering Sea and Aleutian Islands
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2010, 2018, 2020, 2016, 2014

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2016	0.031
<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	0.03
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	Flim-1/yr	2010	0.03
<b>ERlim</b>	ERlim-ratio	2016	0.031

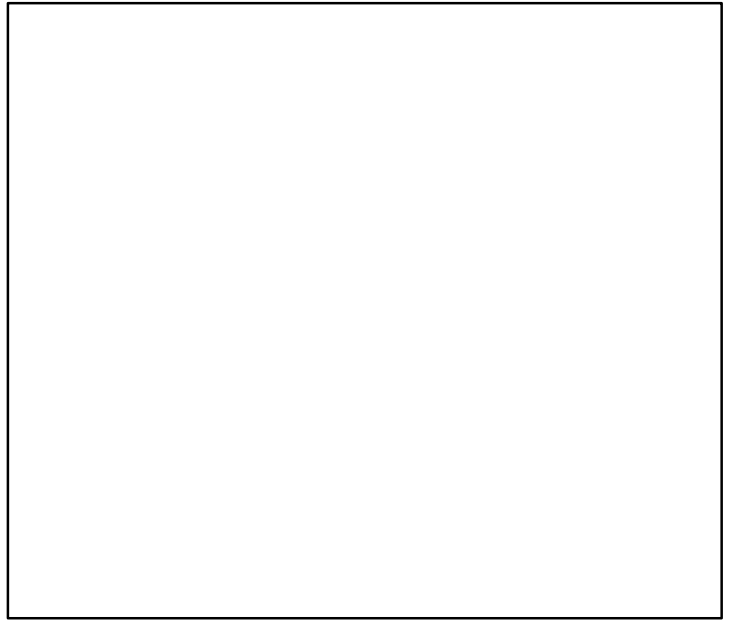
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2018	24,055	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	F-1/yr	2010	0.012	Both	-
<b>ER</b>	ER-calc-ratio	2018	0.007	-	-
<b>TC</b>	TC-MT	2020	380		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2016	0.223		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

Shortraker rockfish Bering Sea and Aleutian Islands [SRAKEROCKBSAI]

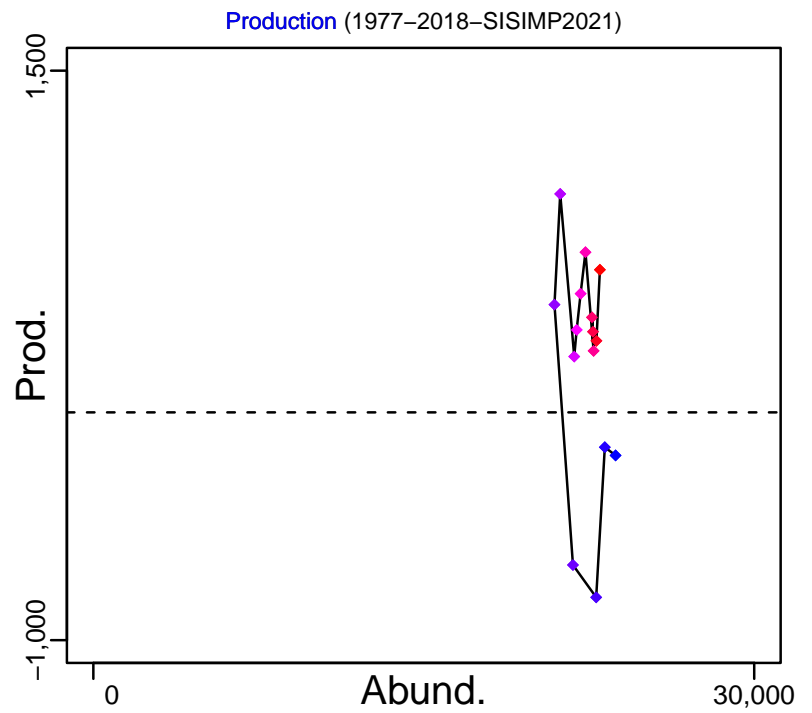
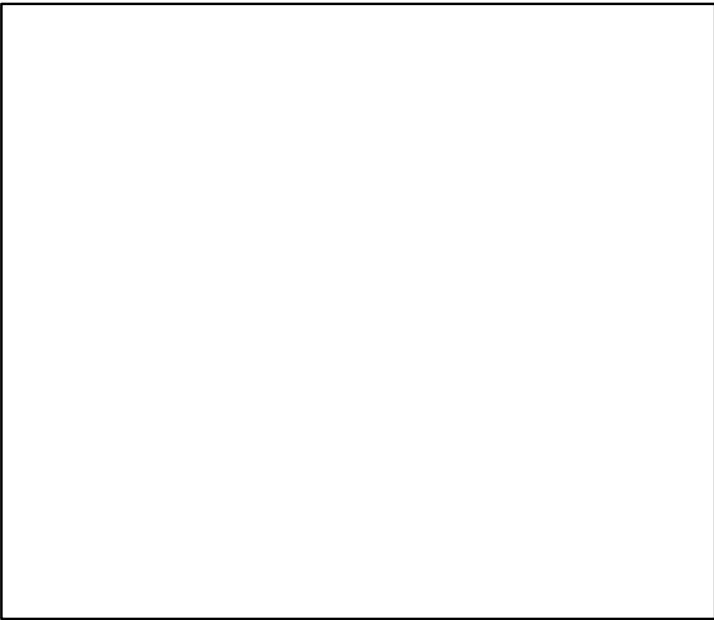
Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*

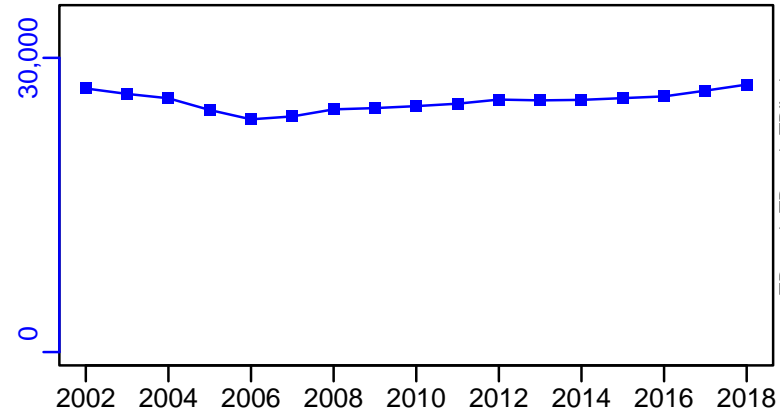


◆ Start Year ◆ End Year \* No Data

# Shortraker rockfish Bering Sea and Aleutian Islands [SRAKEROCKBSAI]

TB-MT (1977–2018–SISIMP2021)

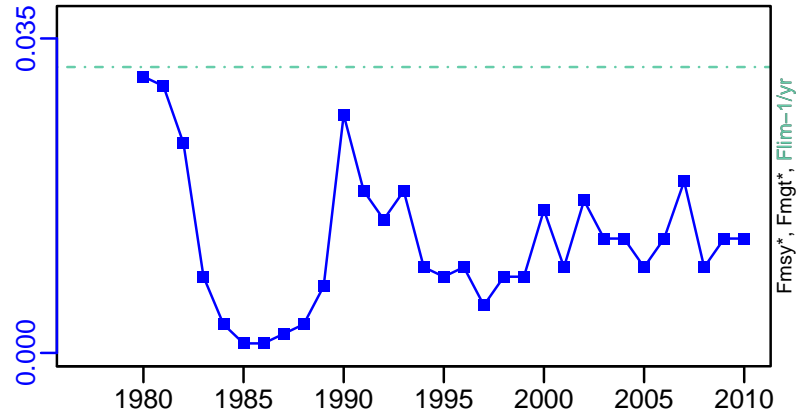
SSB\*



TN \*

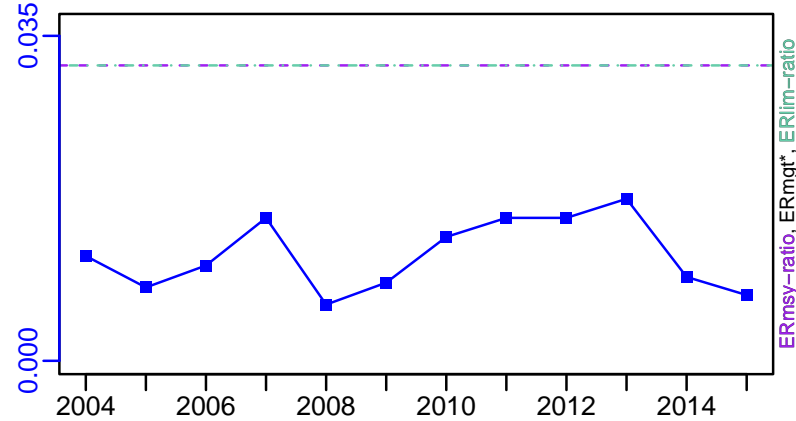


F-1/yr (1977–2010–STACHURA)



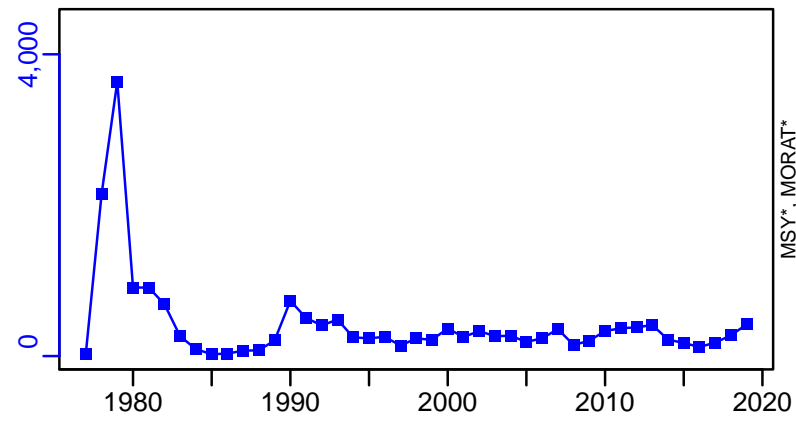
ER-ratio (2002–2016–SISIMP2021)

Recruits\*



# Shortraker rockfish Bering Sea and Aleutian Islands [SRAKEROCKBSAI]

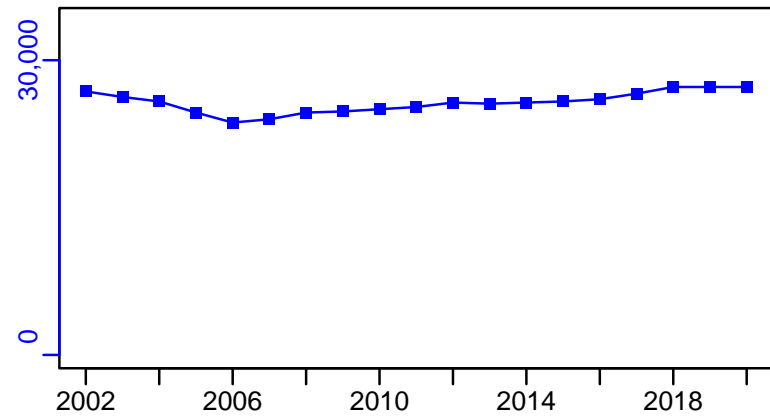
TC-MT, TL\*, RecC\* (1977-2020-SISIMP2021-2)



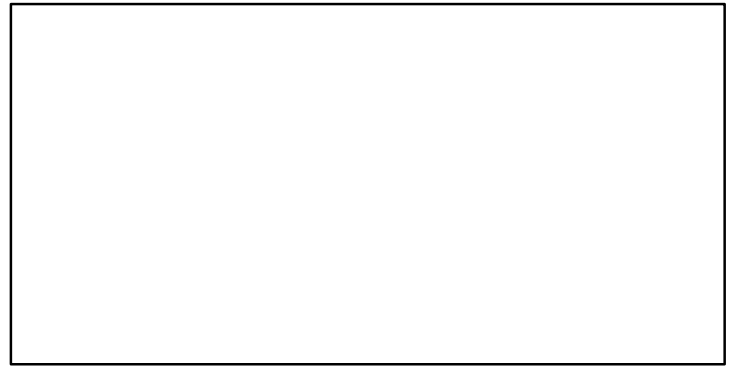
TAC\*, Cpair\*, Cadv\*



survB-MT (1977-2020-SISIMP2021-2)



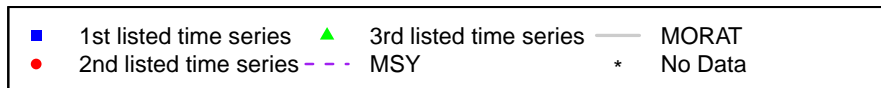
CPUE\*



EFFORT\*



CdivMSY\*



## Shortraker rockfish Gulf of Alaska [SRAKEROCKGA]

Metadata	
<b>Scientific Name</b>	Sebastes borealis
<b>Current Assess ID</b>	AFSC-SRAKEROCKGA-1991-2018-SISIMP2021-2
<b>Area</b>	Gulf of Alaska
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2016, 2017, 2018, 2014

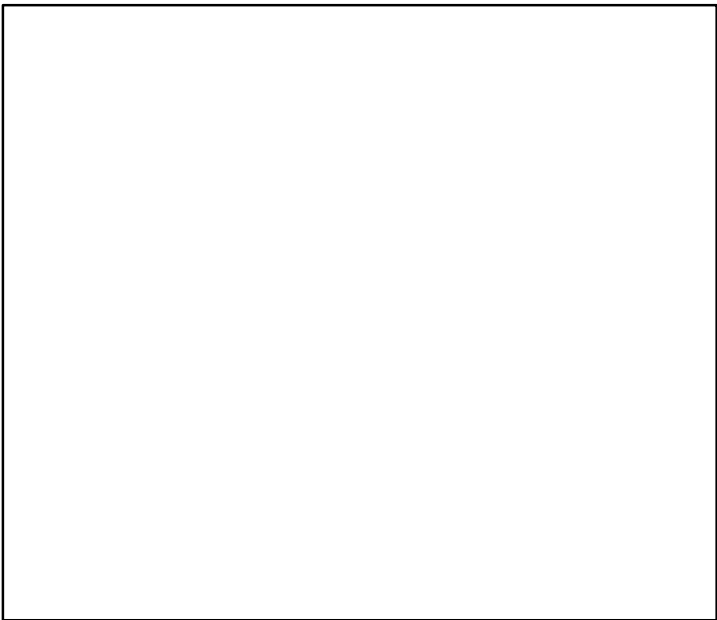
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2016	0.031
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	ERlim-ratio	2016	0.031

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2017	31,534	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-calc-ratio	2017	0.009	-	-
TC	TC-MT	2018	763		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	ER-ratio/ERmsy-ratio	2016	0.323		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

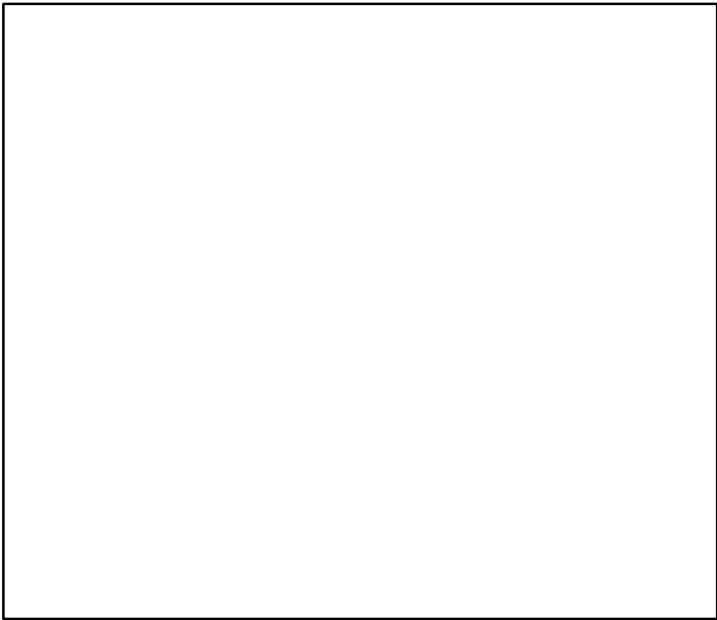
Kobe MSY\*



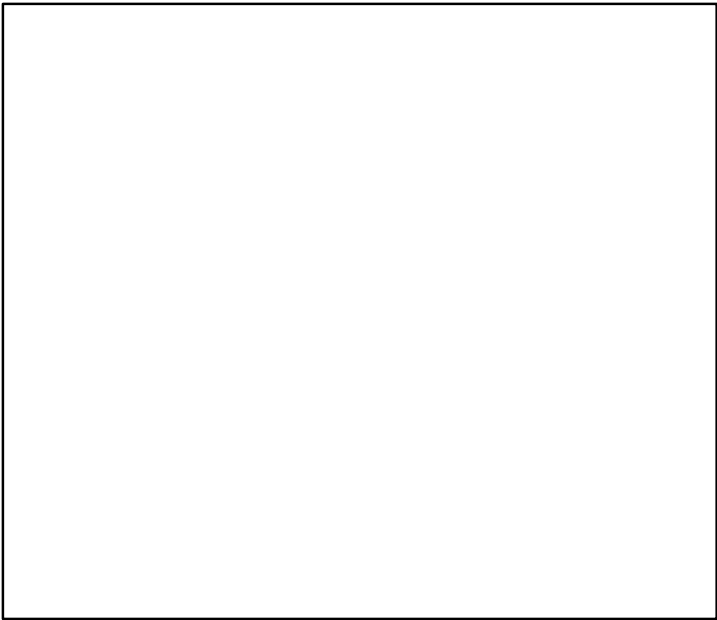
Kobe MGT\*



Spawner Recruit\*



Production\*

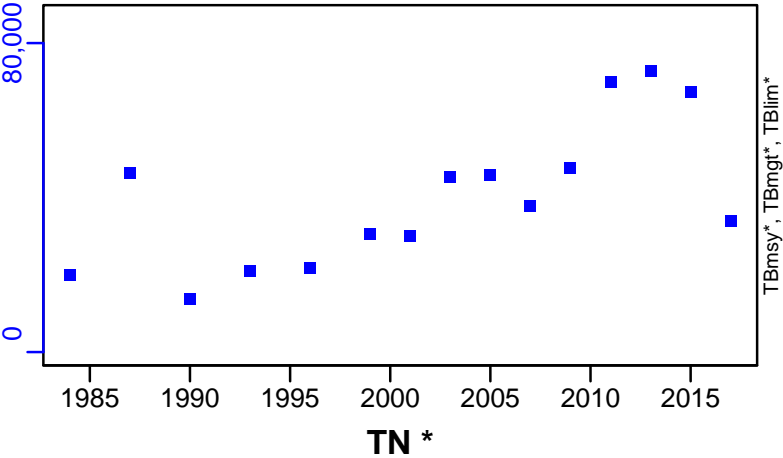


◆ Start Year    ◆ End Year    \* No Data

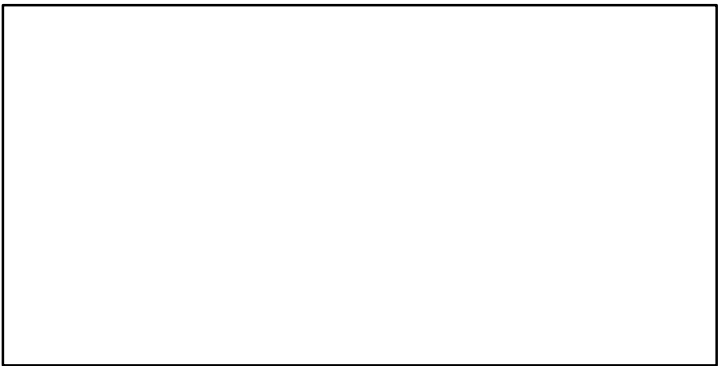


Shortraker rockfish Gulf of Alaska [SRAKEROCKGA]

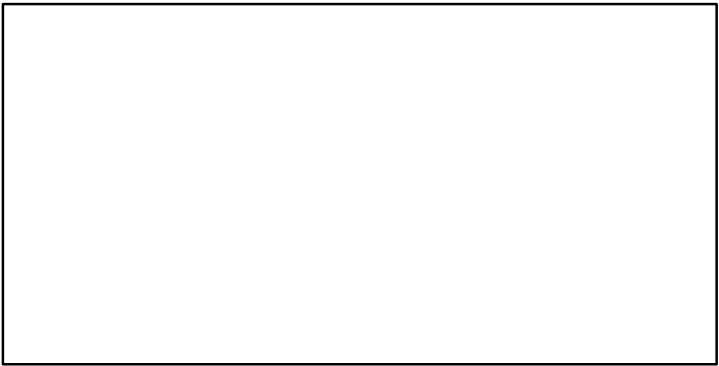
TB-MT (1984-2017-SISIMP2021)



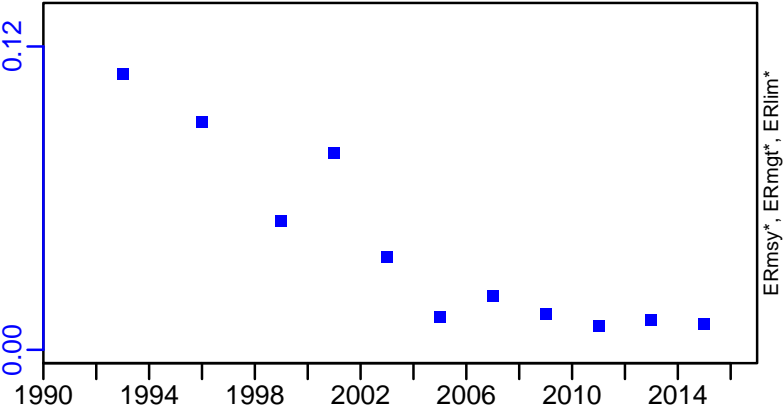
SSB\*



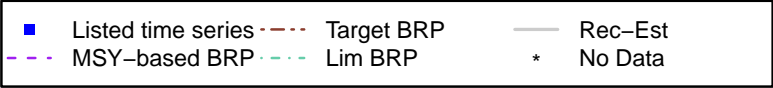
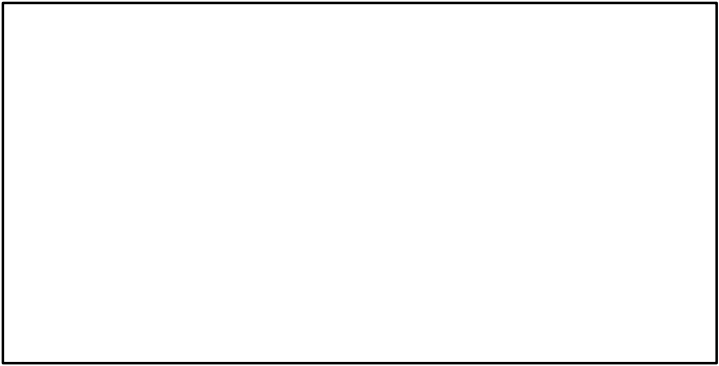
F\*



ER-calc-ratio (1984-2017-SISIMP2021)

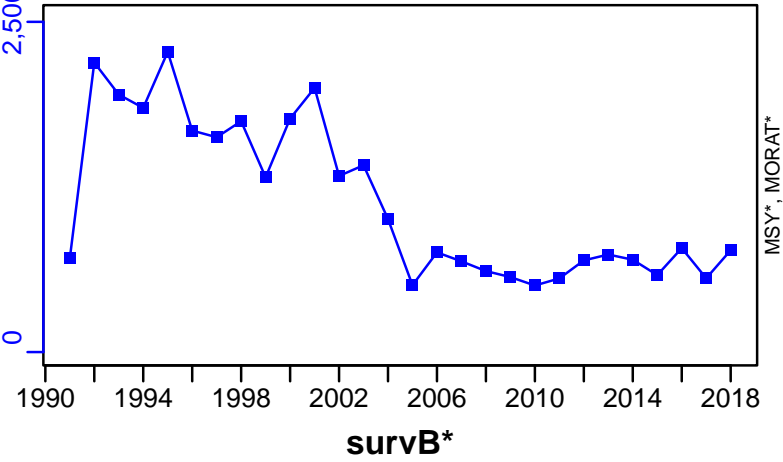


Recruits\*



Shortraker rockfish Gulf of Alaska [SRAKEROCKGA]

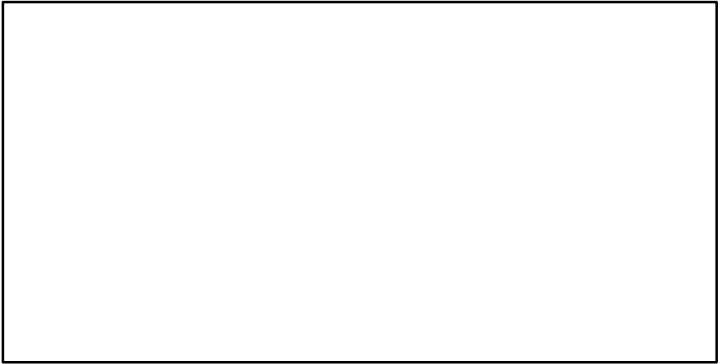
TC-MT, TL\*, RecC\* (1991-2018-SISIMP2021-2)



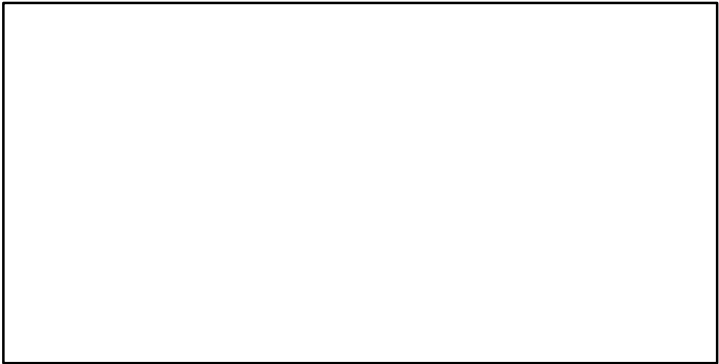
TAC\*, Cpair\*, Cadv\*



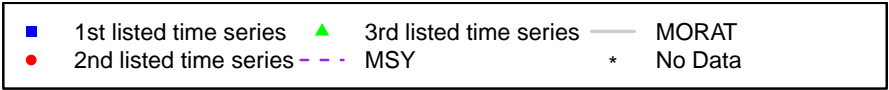
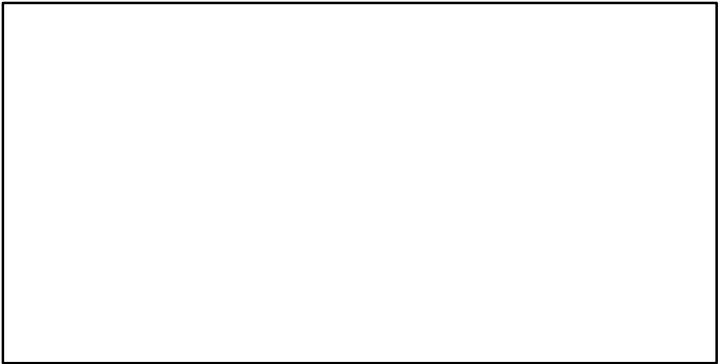
CPUE\*



EFFORT\*



CdivMSY\*



## Shortspine thornyhead Gulf of Alaska [SSTHORNHGA]

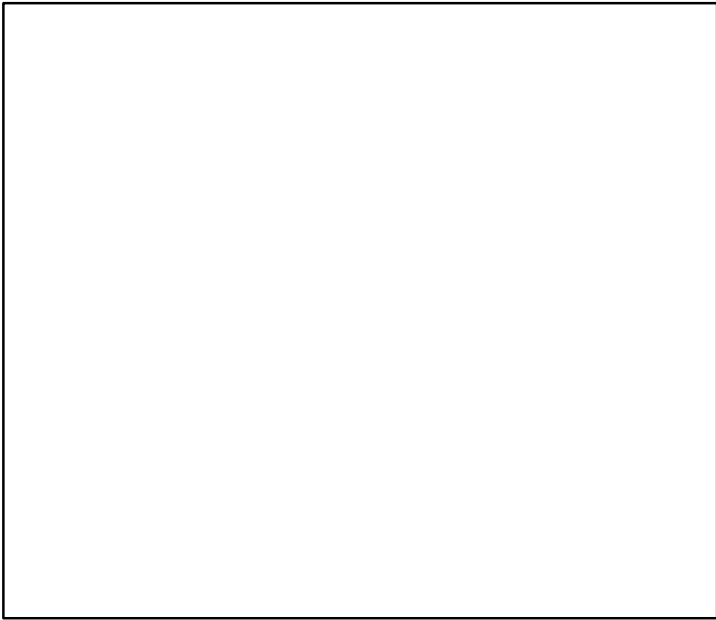
Metadata	
<b>Scientific Name</b>	Sebastolobus alascanus
<b>Current Assess ID</b>	AFSC-SSTHORNHGA-1980-2020-SISIMP2021-2
<b>Area</b>	Gulf of Alaska
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2014, 2016, 2017, 2020

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2020	0.03
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	ERlim-ratio	2020	0.03

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2020	86,800	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-ratio	2020	0.009	-	-
TC	TC-MT	2020	777		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	ER-ratio/ERmsy-ratio	2020	0.298		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Shortspine thornyhead Gulf of Alaska [SSTHORNHGA]

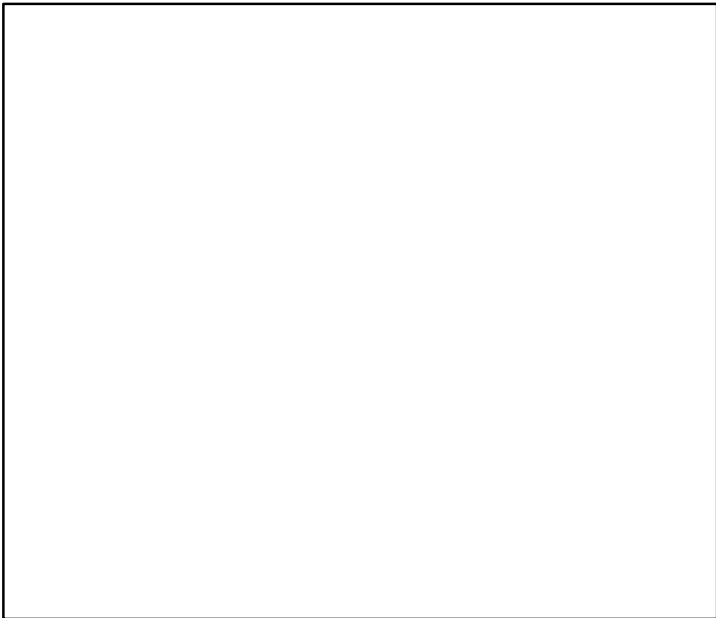
Kobe MSY\*



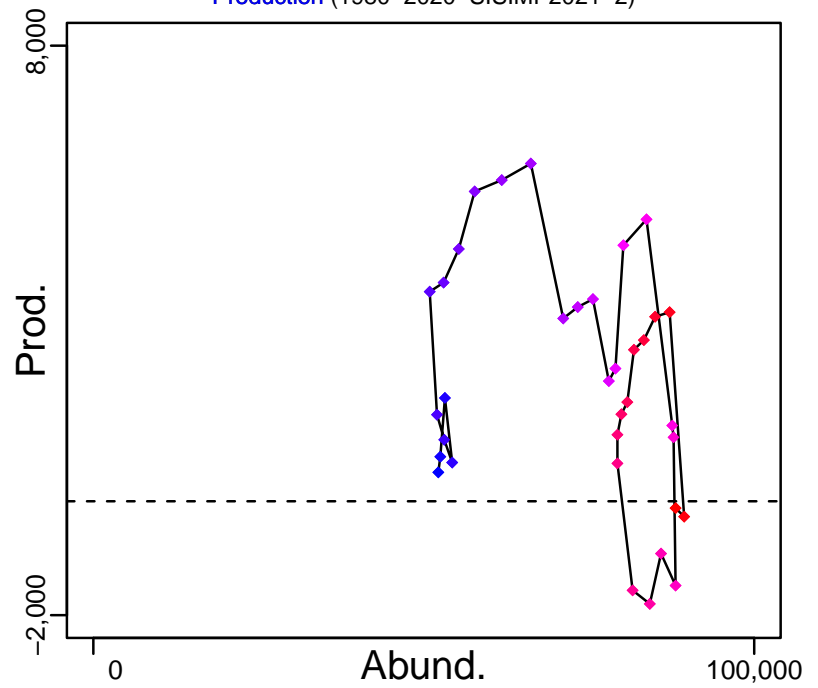
Kobe MGT\*



Spawner Recruit\*



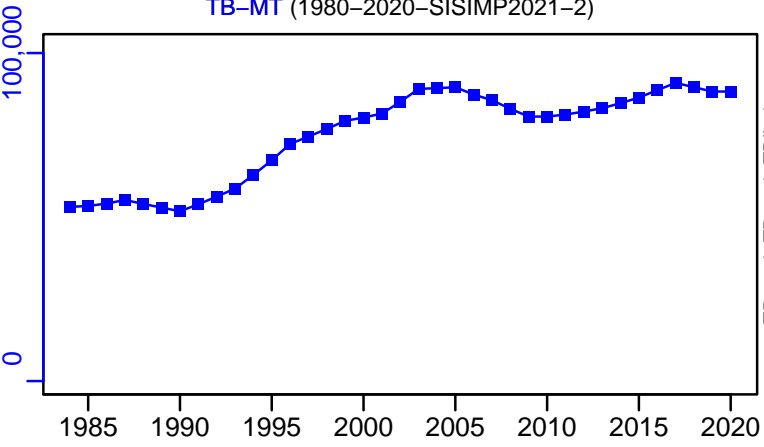
Production (1980–2020–SISIMP2021–2)



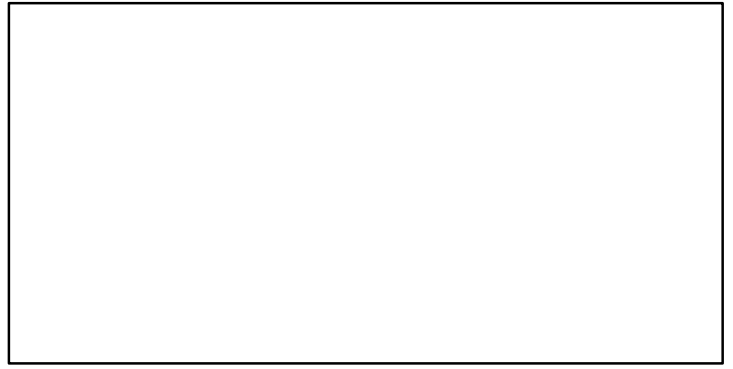
◆ Start Year ◆ End Year \* No Data

# Shortspine thornyhead Gulf of Alaska [SSTHORNHGA]

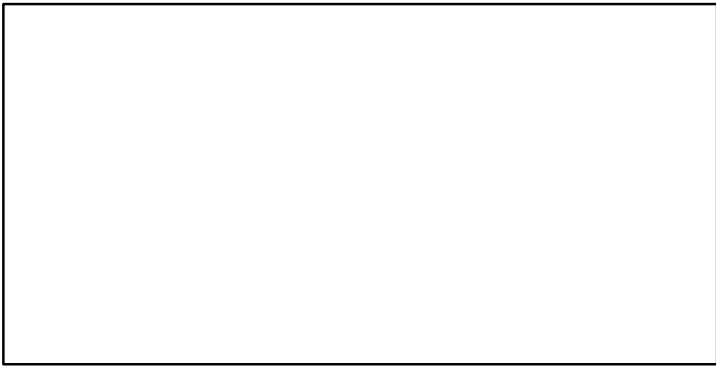
TB-MT (1980-2020-SISIMP2021-2)



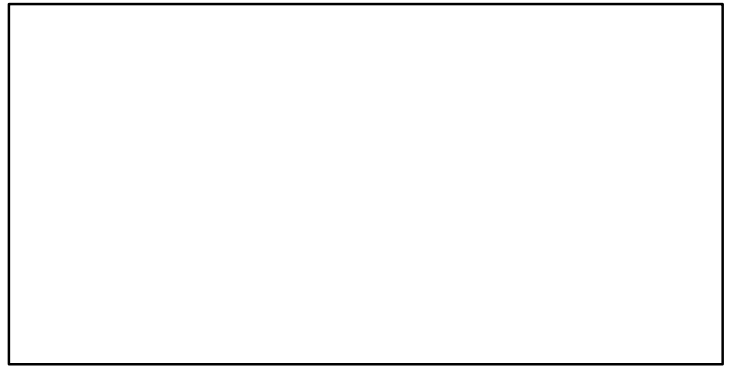
SSB\*



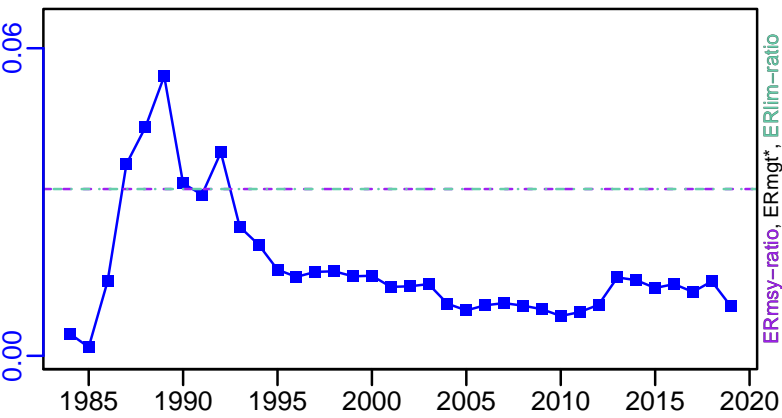
TN \*



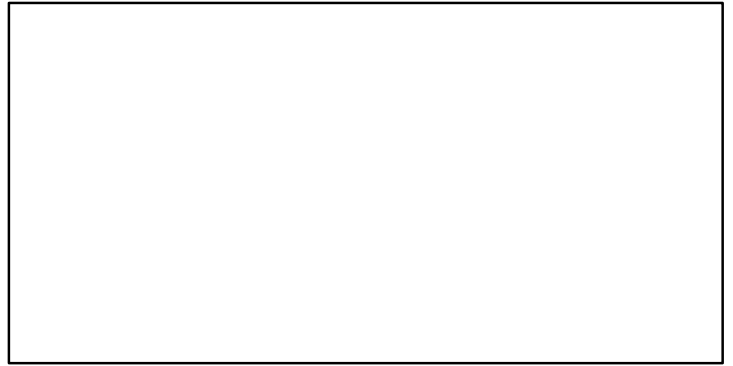
F\*



ER-ratio (1980-2020-SISIMP2021-2)



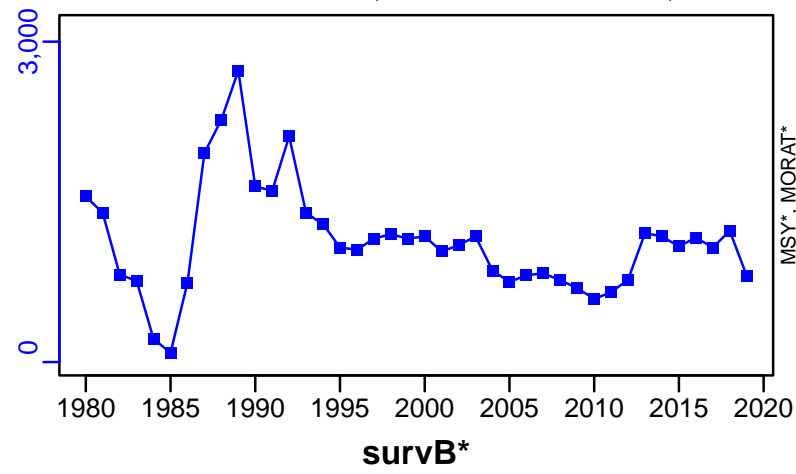
Recruits\*



# Shortspine thornyhead Gulf of Alaska [SSTHORNHGA]

TC-MT, TL\*, RecC\* (1980-2020-SISIMP2021-2)

TAC\*, Cpair\*, Cadv\*



CPUE\*

EFFORT\*

CdivMSY\*

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

## Tanner crab Bering Sea and Aleutian Islands [TANNERCRABBSAI]

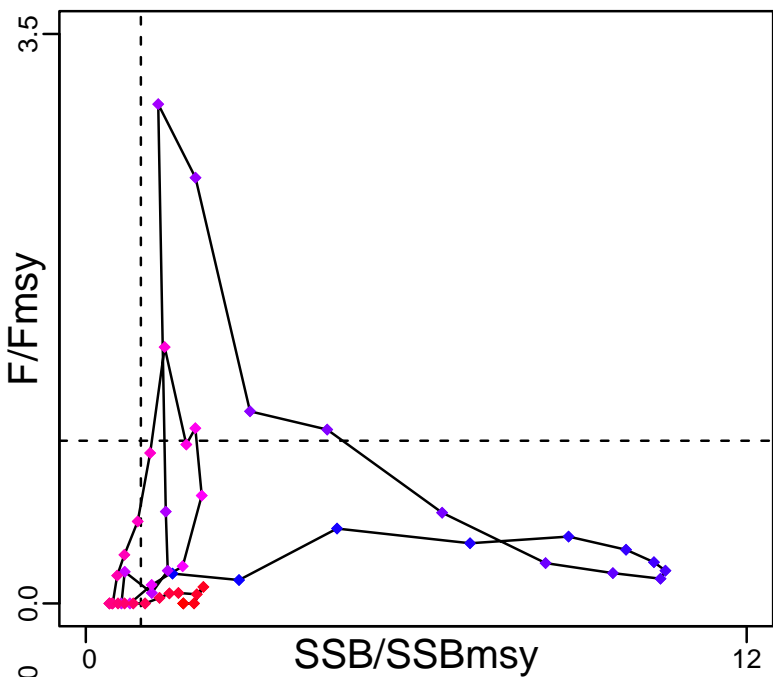
Metadata	
<b>Scientific Name</b>	Chionoecetes bairdi
<b>Current Assess ID</b>	AFSC-TANNERCRABBSAI-1948-2019-SISIMP2021-2
<b>Area</b>	Bering Sea and Aleutian Islands
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2017, 2019, 2013, 2016, 2017, 2015

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-MT	2019	41,100
<b>SSBmsy</b>	SSBmsy-MT	2017	29,170
<b>Fmsy</b>	Fmsy-pr-1/yr	2013	0.73
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2013	33,540
<b>Fmgt</b>	Fmgt-1/yr	2013	0.73
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2017	12,250
<b>M</b>	-	-	-
<b>TBlim</b>	TBlim-MT	2019	20,500
<b>SSBlim</b>	SSBlim-MT	2017	14,580
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

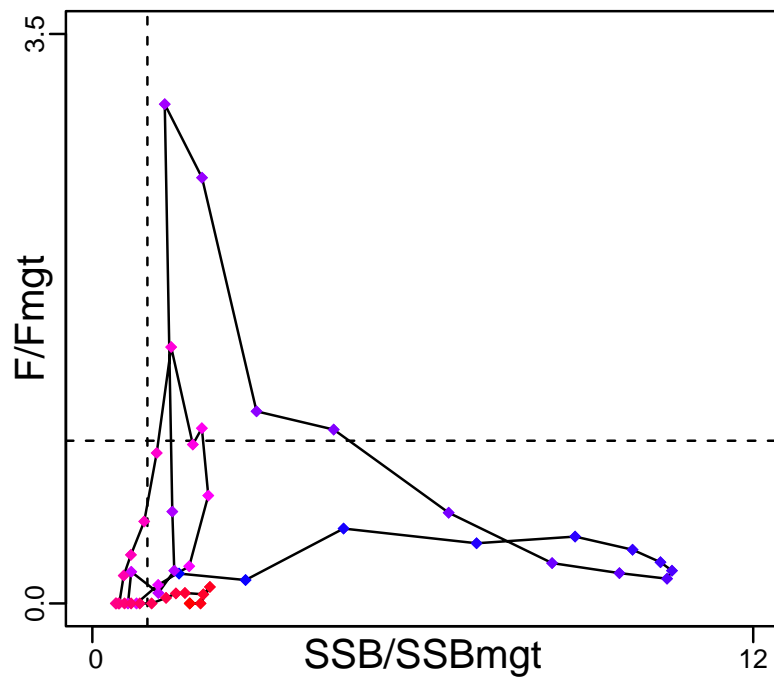
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2019	39,500	-	-
<b>SSB</b>	SSB-MT	2016	53,700	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2019	$1.23 \times 10^9$	-	0
<b>F</b>	F-1/yr	2015	0.144	-	-
<b>ER</b>	ER-ratio	2019	0.011	-	-
<b>TC</b>	TC-MT	2019	1110		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2019	0.961		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2016	2.004		
<b>F/Fmsy</b>	F-1/yr/Fmsy-pr-1/yr	2013	0		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2013	1.771		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2013	0		
<b>ER/ERmgt</b>	-	-	-		

# Tanner crab Bering Sea and Aleutian Islands [TANNERCRABBSAI]

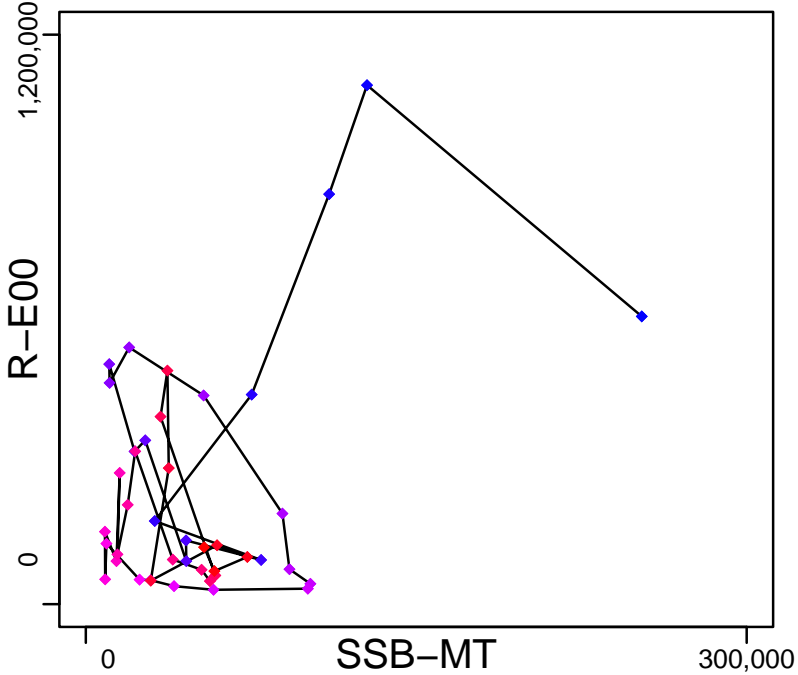
Kobe MSYpref (1949–2013–HIVELY)



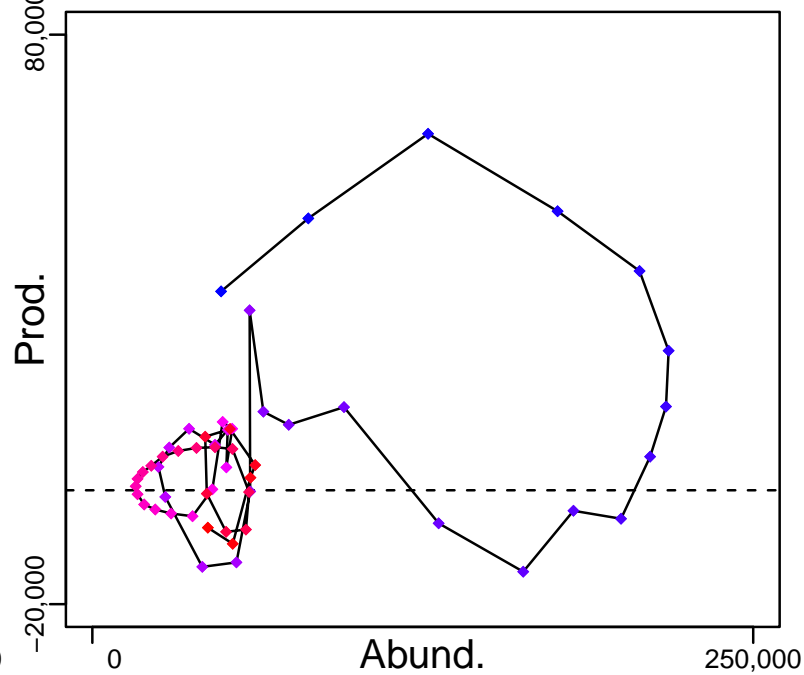
Kobe MGTpref (1949–2013–HIVELY)



Spawner Recruit (1949–2016–SISIMP2021)



Production (1948–2019–SISIMP2021–2)

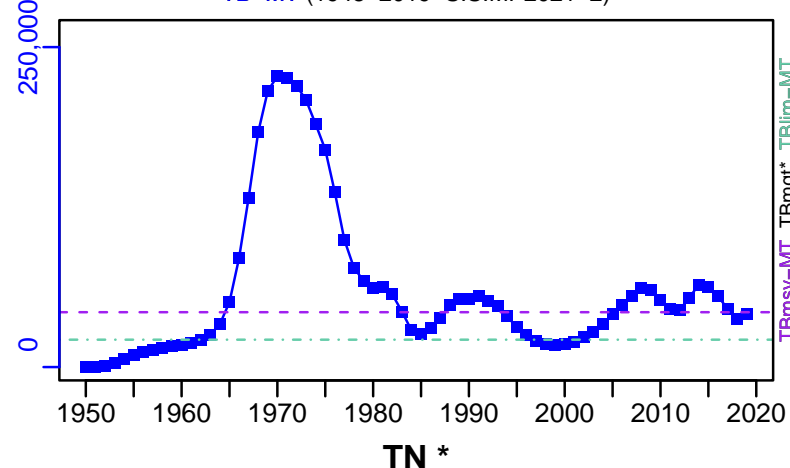


◆ Start Year ◆ End Year \* No Data

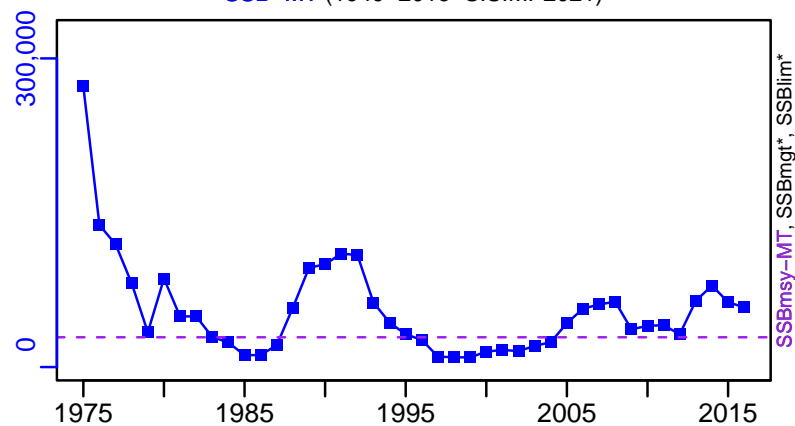


# Tanner crab Bering Sea and Aleutian Islands [TANNERCRABBSAI]

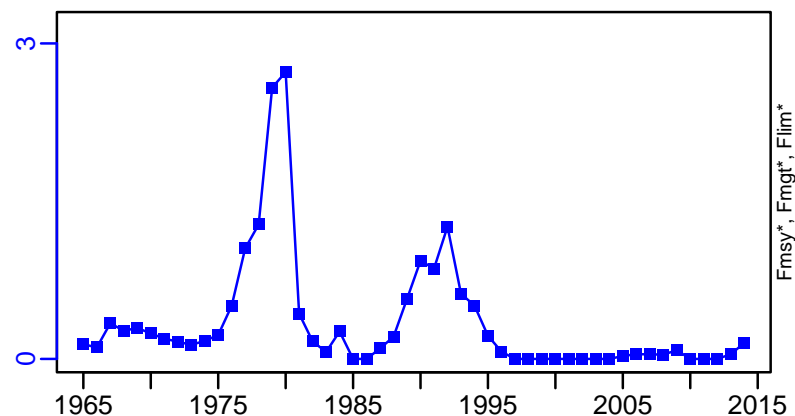
TB-MT (1948–2019–SISIMP2021–2)



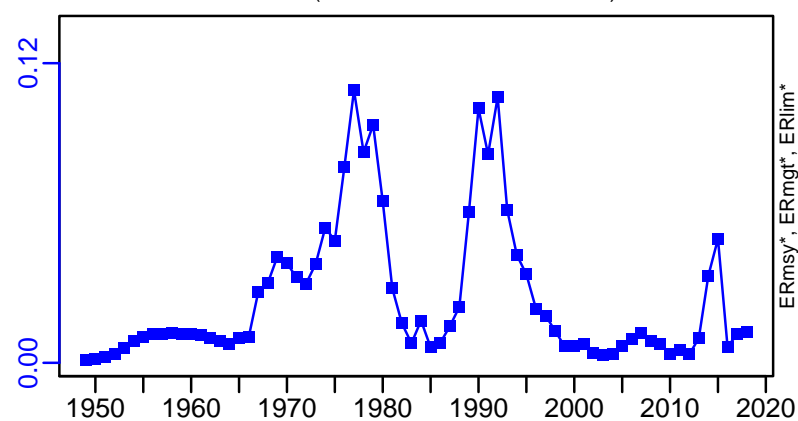
SSB-MT (1949–2016–SISIMP2021)



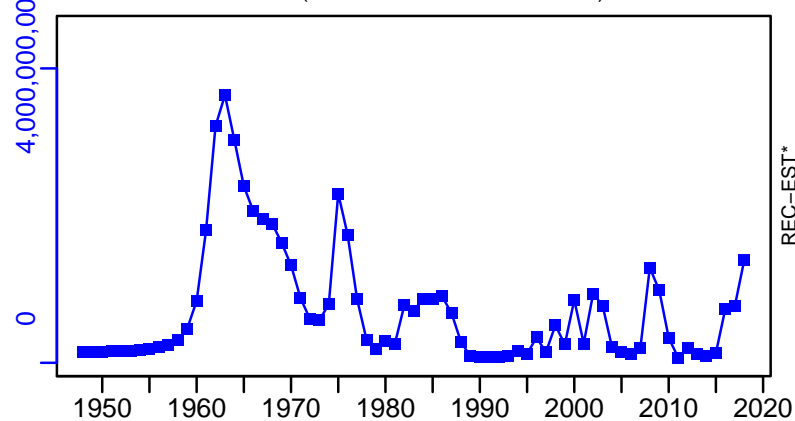
F-1/yr (1965–2015–SISIMP2016)



ER-ratio (1948–2019–SISIMP2021–2)

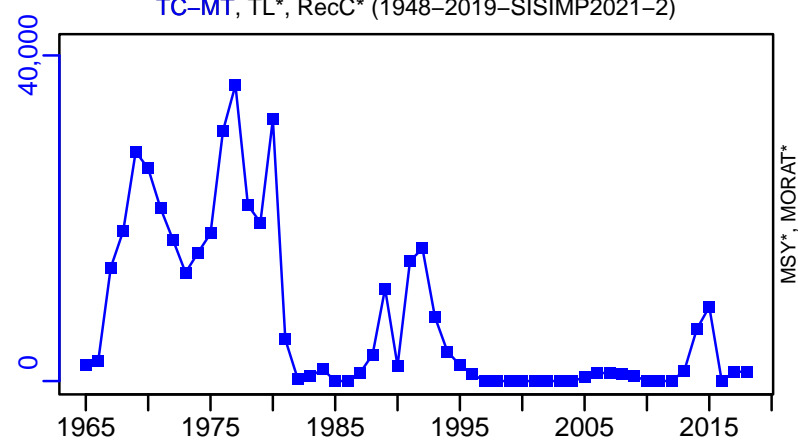


R-E00 (1948–2019–SISIMP2021–2)



# Tanner crab Bering Sea and Aleutian Islands [TANNERCRABBSAI]

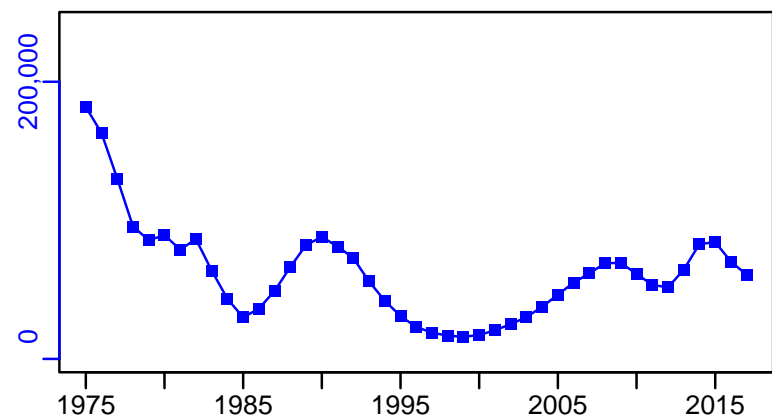
TC-MT, TL\*, RecC\* (1948-2019-SISIMP2021-2)



TAC\*, Cpair\*, Cadv\*



survB-MT (1949-2017-SISIMP2021)



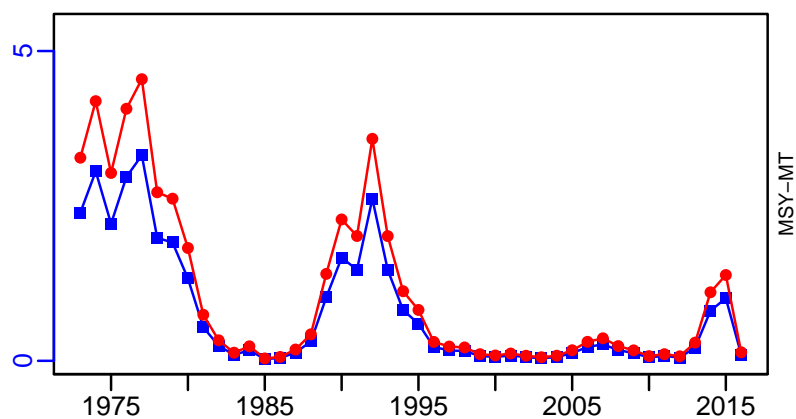
CPUE\*



EFFORT\*



TC-MT/MSY-MT, CdivMEANC-ratio, (1949-2017-SISIMP2021)



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

## Walleye pollock Aleutian Islands [WPOLLAI]

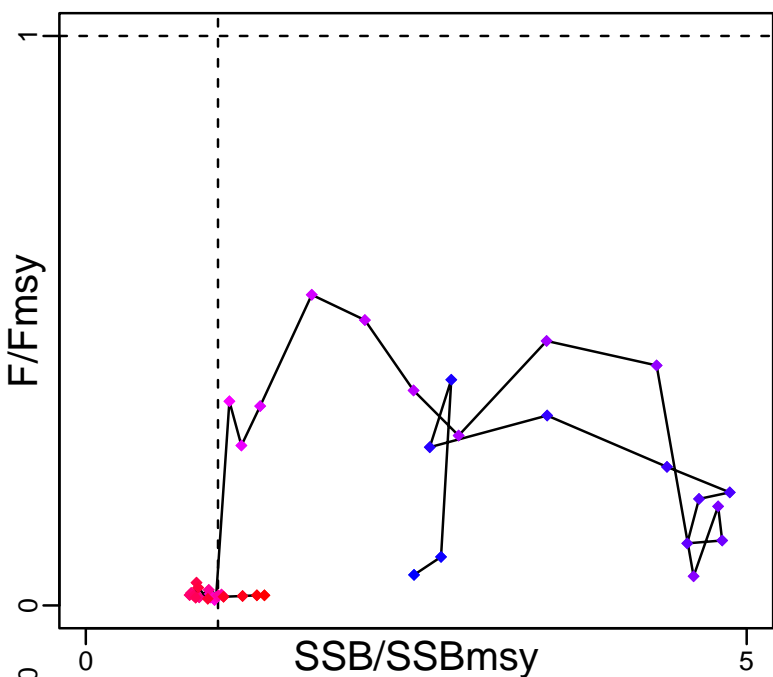
Metadata	
<b>Scientific Name</b>	Theragra chalcogramma
<b>Current Assess ID</b>	AFSC-WPOLLAI-1978-2021-SISIMP2022
<b>Area</b>	Aleutian Islands
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2013, 2015, 2016, 2018, 2018, 2020, 2021

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2021	64,916
<b>Fmsy</b>	Fmsy-1/yr	2021	0.39
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	Fmgt-1/yr	2015	0.34
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	Flim-1/yr	2020	0.432
<b>ERlim</b>	-	-	-

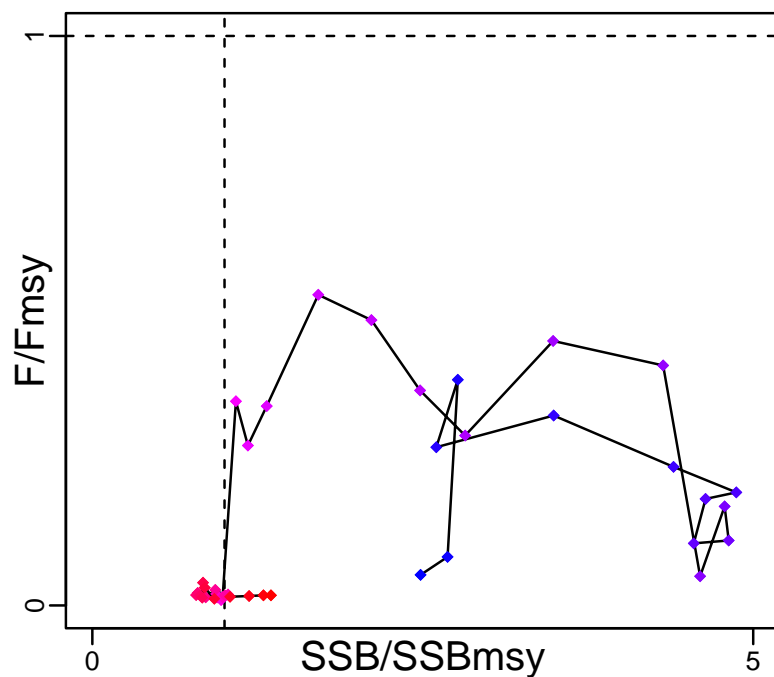
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	216,000	-	1+
<b>SSB</b>	SSB-MT	2021	89,906	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2021	$1 \times 10^8$	-	0
<b>F</b>	F-1/yr	2021	0.007	-	-
<b>ER</b>	ER-calc-ratio	2015	0.012	-	-
<b>TC</b>	TC-MT	2021	3205		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2021	1.385		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2021	0.018		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2015	0.035		
<b>ER/ERmgt</b>	-	-	-		

# Walleye pollock Aleutian Islands [WPOLLAI]

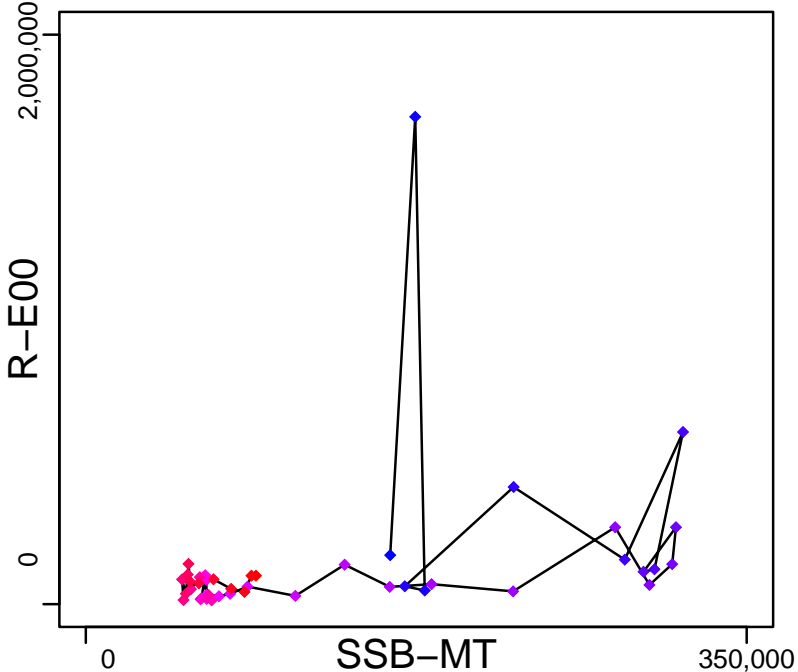
Kobe MSY<sub>pref</sub> (1978–2021–SISIMP2022)



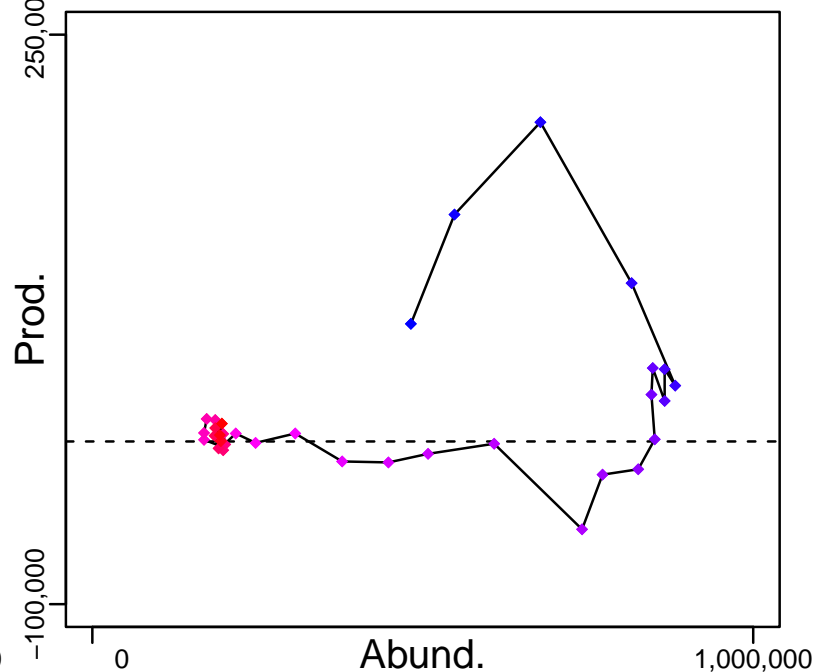
Kobe MGT<sub>pref</sub> (1978–2021–SISIMP2022)



Spawner Recruit (1978–2021–SISIMP2022)

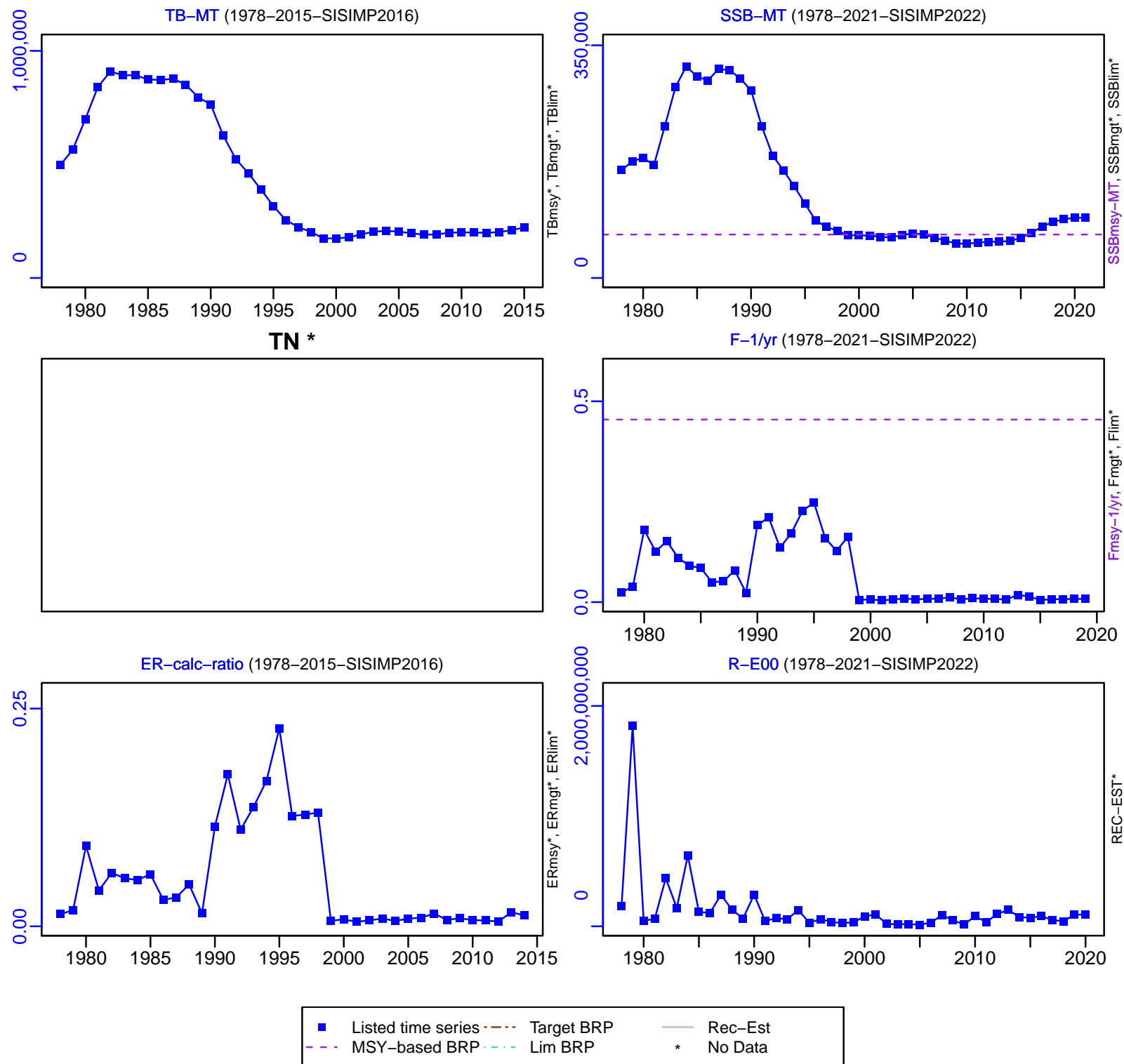


Production (1978–2015–SISIMP2016)



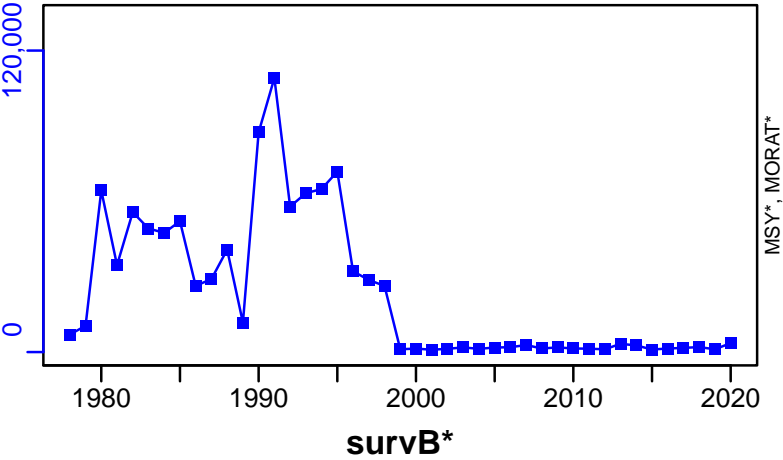
◆ Start Year ◆ End Year \* No Data

# Walleye pollock Aleutian Islands [WPOLLAI]



Walleye pollock Aleutian Islands [WPOLLAI]

TC-MT, TL\*, RecC\* (1978-2021-SISIMP2022)



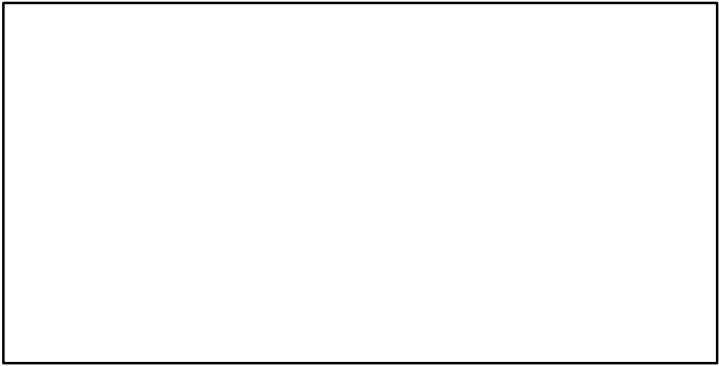
TAC\*, Cpair\*, Cadv\*



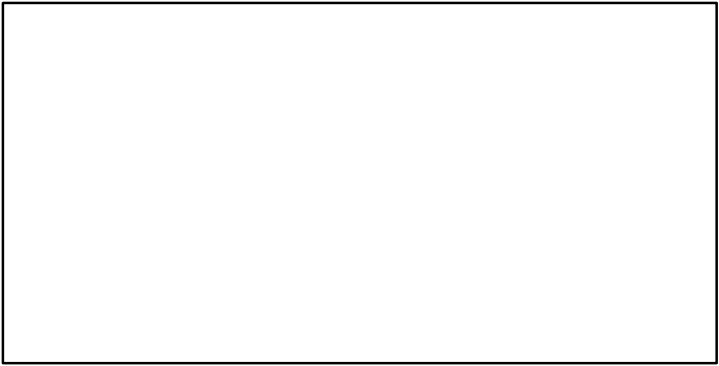
CPUE\*



EFFORT\*



CdivMSY\*



## Walleye pollock Bogoslof [WPOLLBOGO]

Metadata	
<b>Scientific Name</b>	Theragra chalcogramma
<b>Current Assess ID</b>	AFSC-WPOLLBOGO-1977-2020-SISIMP2021-2
<b>Area</b>	Bogoslof
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2014, 2017, 2020

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2017	0.092
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	ERlim-ratio	2017	0.092

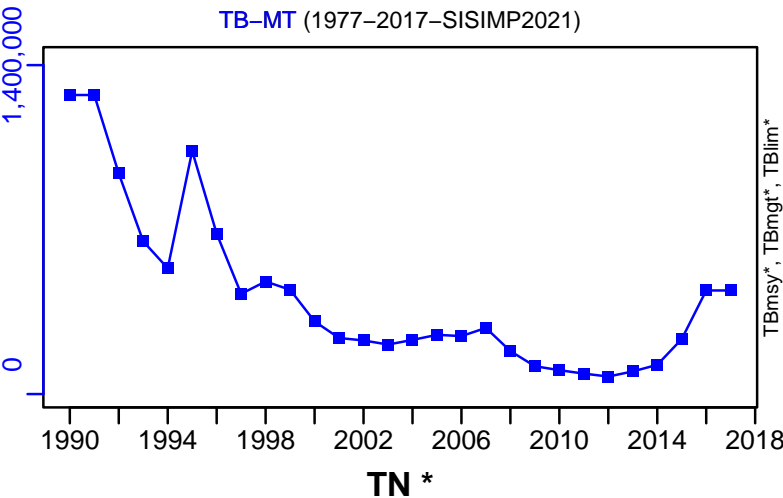
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2017	434,760	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-ratio	2017	0.003	-	-
TC	TC-MT	2020	8		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	ER-ratio/ERmsy-ratio	2017	0.035		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



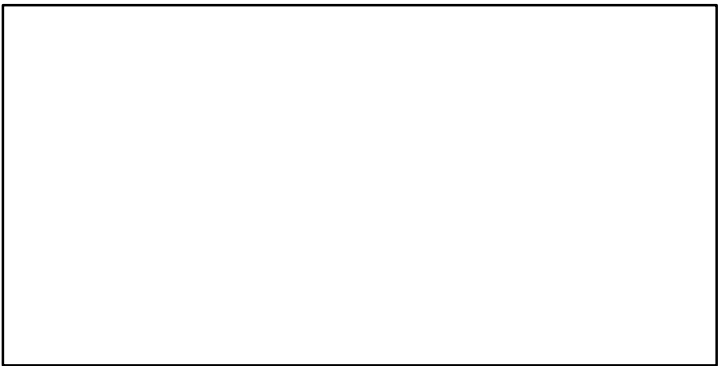


Walleye pollock Bogoslof [WPOLLBOGO]

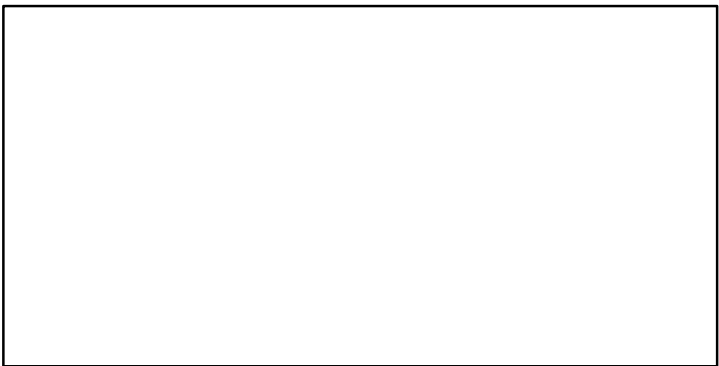
TB-MT (1977-2017-SISIMP2021)



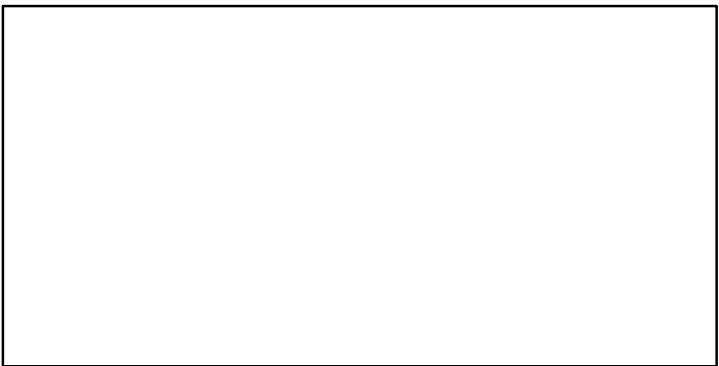
SSB\*



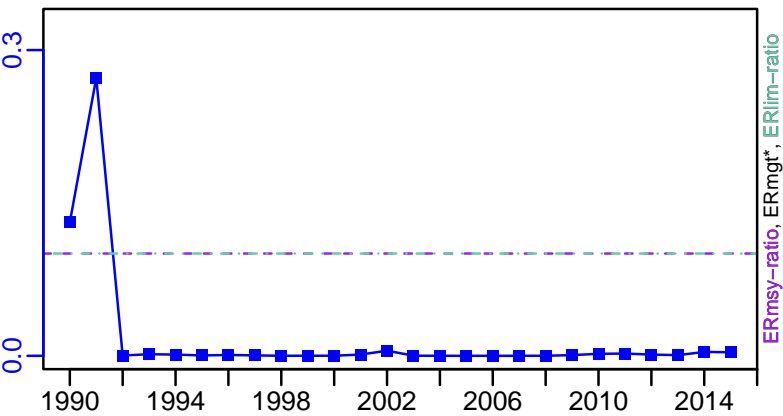
TN \*



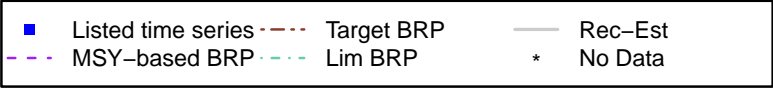
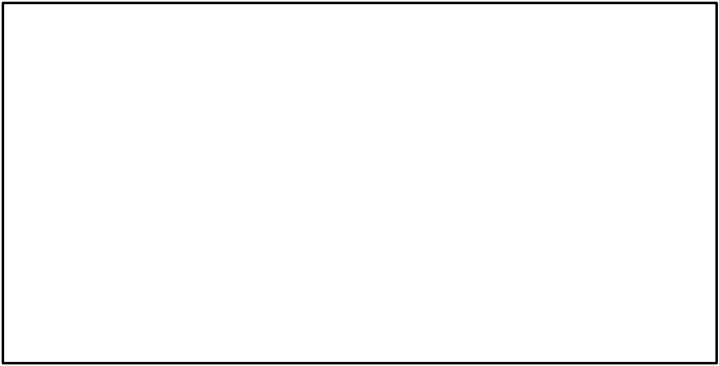
F\*



ER-ratio (1977-2017-SISIMP2021)

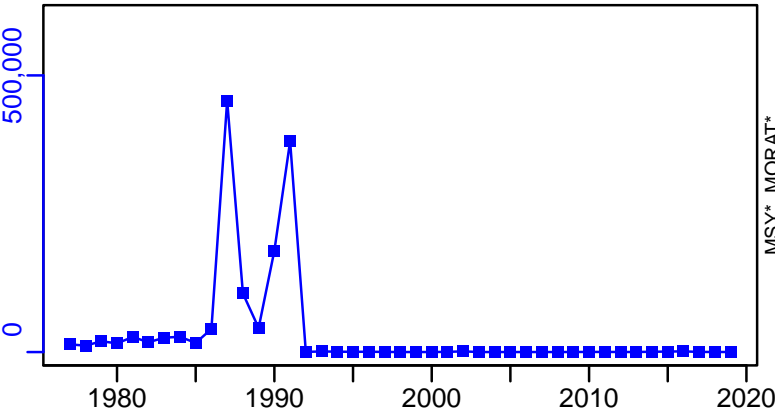


Recruits\*



Walleye pollock Bogoslof [WPOLLBOGO]

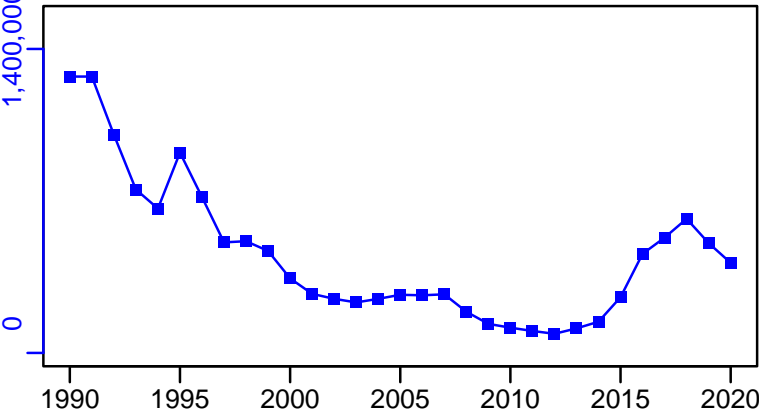
TC-MT, TL\*, RecC\* (1977-2020-SISIMP2021-2)



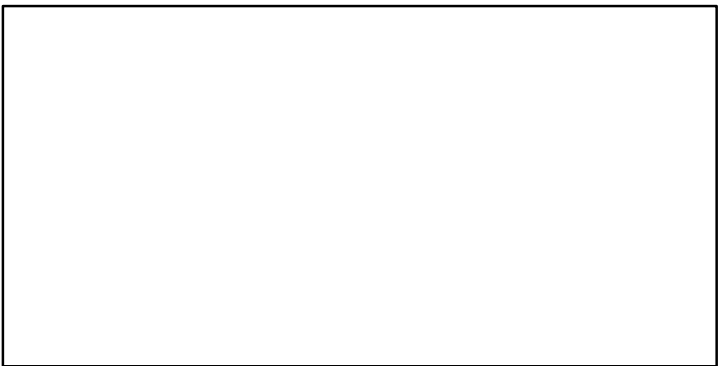
TAC\*, Cpair\*, Cadv\*



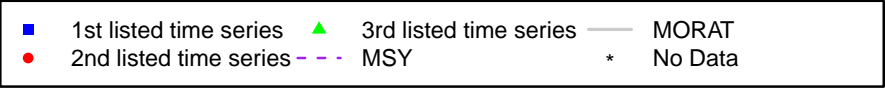
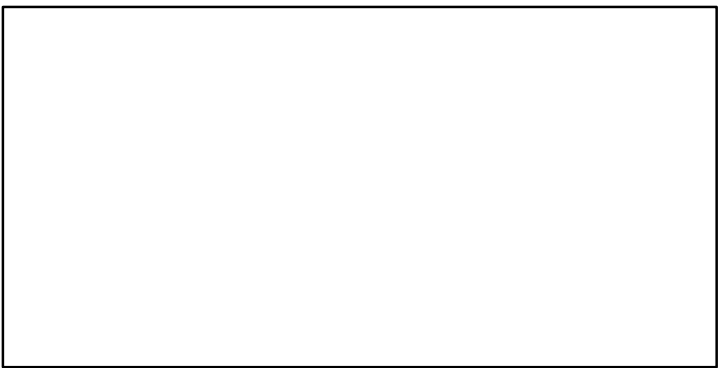
survB-MT (1977-2020-SISIMP2021-2)



CPUE\*



CdivMSY\*



## Walleye pollock Eastern Bering Sea [WPOLLEBS]

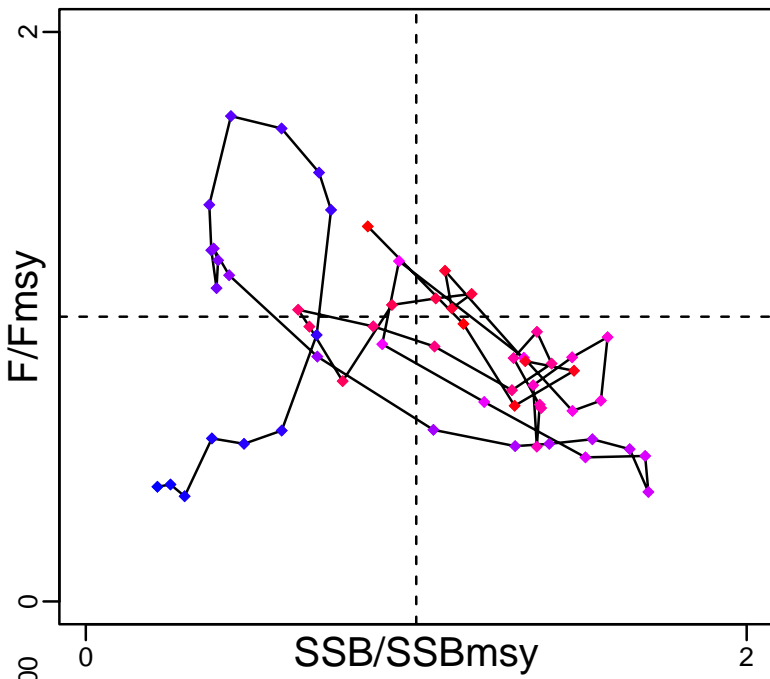
Metadata	
<b>Scientific Name</b>	Theragra chalcogramma
<b>Current Assess ID</b>	AFSC-WPOLLEBS-1963-2021-SISIMP2022
<b>Area</b>	Eastern Bering Sea
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2015, 2016, 2017, 2018, 2021, 2019, 2020

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2021	2,257,000
<b>Fmsy</b>	Fmsy-1/yr	2021	0.46
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	SSB0-MT	2015	5,162,000
<b>MSY</b>	MSY-MT	2018	1,953,300
<b>M</b>	M-1/yr	2015	0.3
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	Flim-1/yr	2020	0.508
<b>ERlim</b>	-	-	-

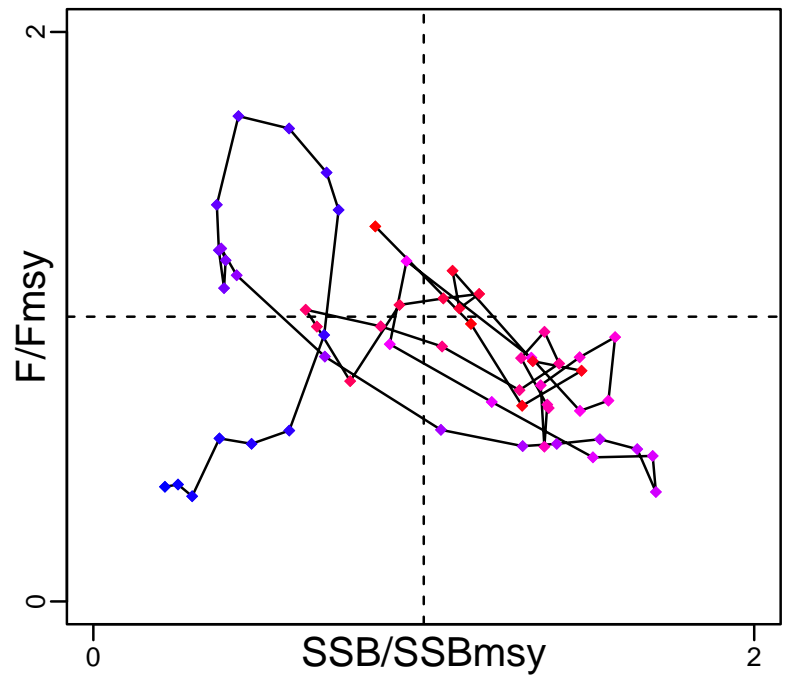
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	7,780,000	-	3+
<b>SSB</b>	SSB-MT	2021	1,797,500	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2021	20,205,199,220	-	1
<b>F</b>	F-1/yr	2021	0.606	-	-
<b>ER</b>	ER-calc-ratio	2015	0.16	-	-
<b>TC</b>	TC-MT	2021	1,367,000		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2021	0.796		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2021	1.317		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Walleye pollock Eastern Bering Sea [WPOLLEBS]

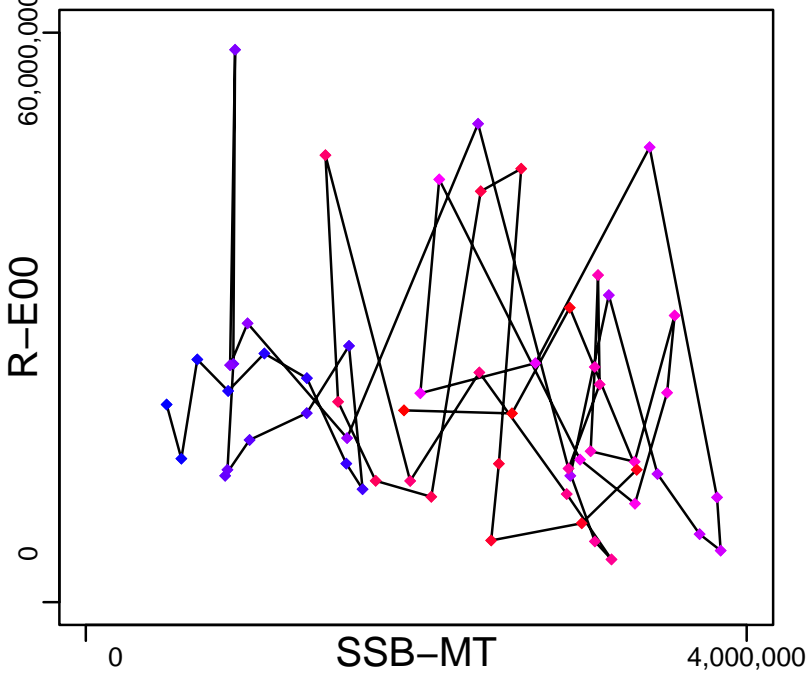
Kobe MSYpref (1963–2021–SISIMP2022)



Kobe MGTpref (1963–2021–SISIMP2022)



Spawner Recruit (1963–2021–SISIMP2022)

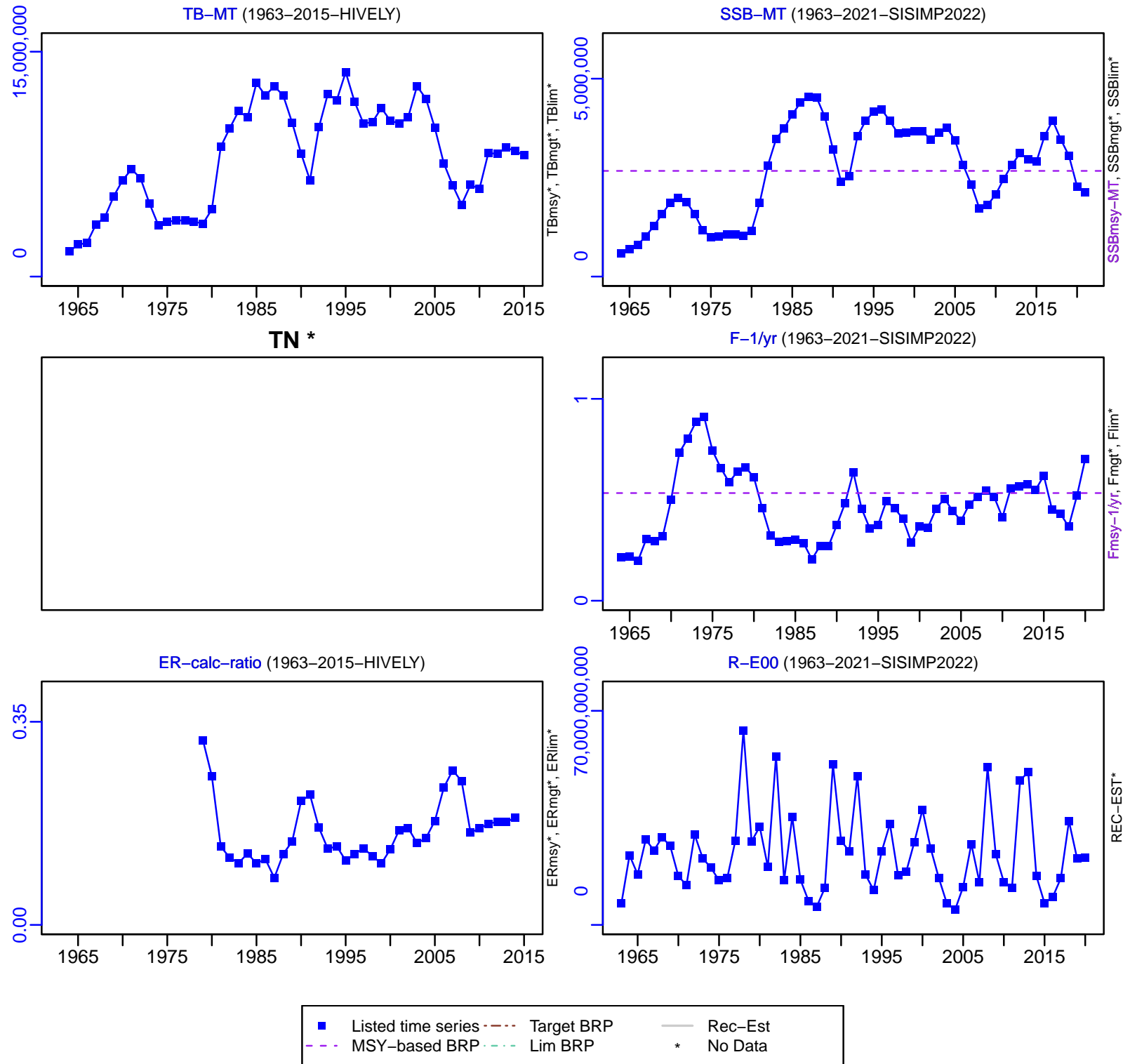


Production\*



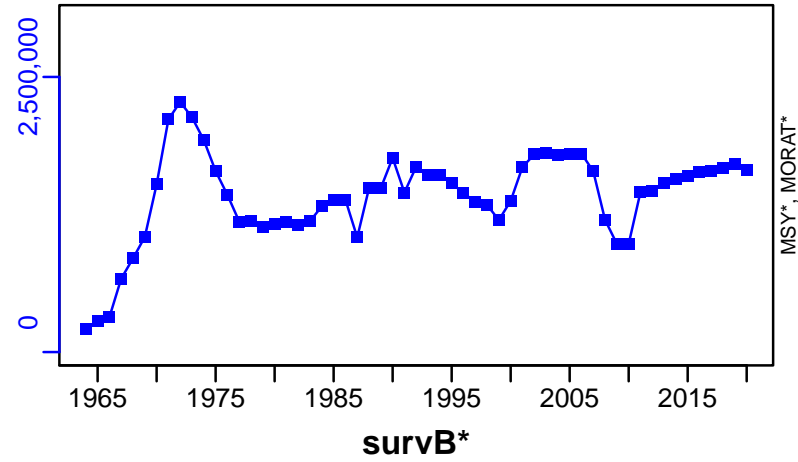
◆ Start Year ◆ End Year \* No Data

# Walleye pollock Eastern Bering Sea [WPOLLEBS]



# Walleye pollock Eastern Bering Sea [WPOLLEBS]

TC-MT, TL\*, RecC\* (1963–2021–SISIMP2022)



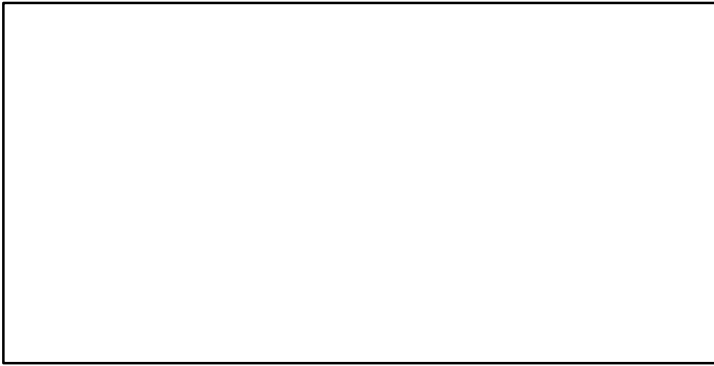
TAC\*, Cpair\*, Cadv\*



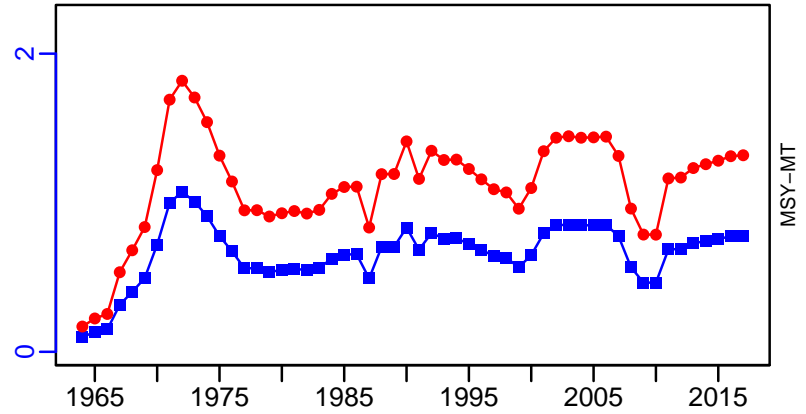
CPUE\*



EFFORT\*



TC-MT/MSY-MT, CdivMEANC-ratio, (1963–2018–SISIMP2021)



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

## Walleye pollock Gulf of Alaska [WPOLLGA]

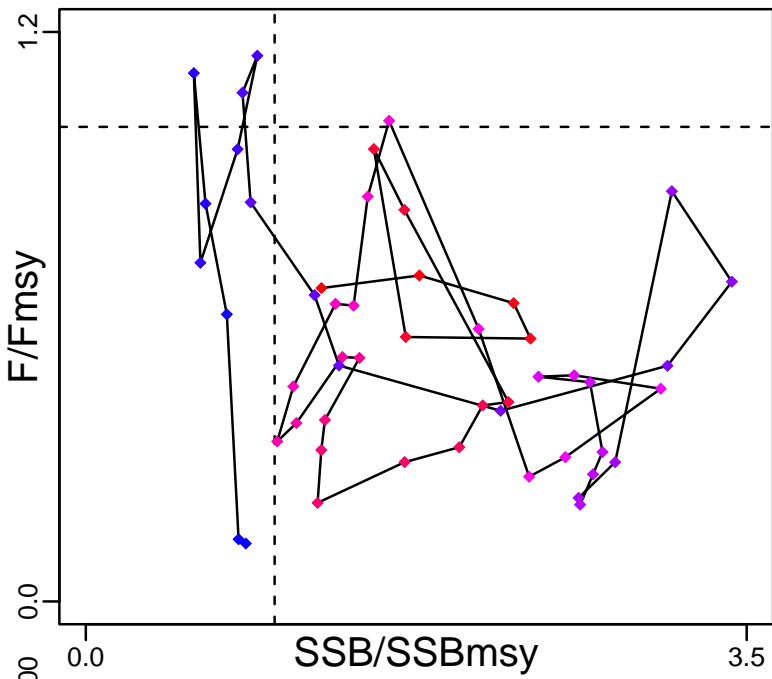
Metadata	
<b>Scientific Name</b>	Theragra chalcogramma
<b>Current Assess ID</b>	AFSC-WPOLLGA-1969-2021-SISIMP2022
<b>Area</b>	Gulf of Alaska
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2019, 2016, 2017, 2018, 2021, 2014, 2015, 2020

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2021	150,500
<b>Fmsy</b>	Fmsy-1/yr	2021	0.31
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2014	312,000
<b>Fmgt</b>	Fmgt-1/yr	2015	0.29
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	M-1/yr	2014	0.3
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	Flim-1/yr	2020	0.378
<b>ERlim</b>	-	-	-

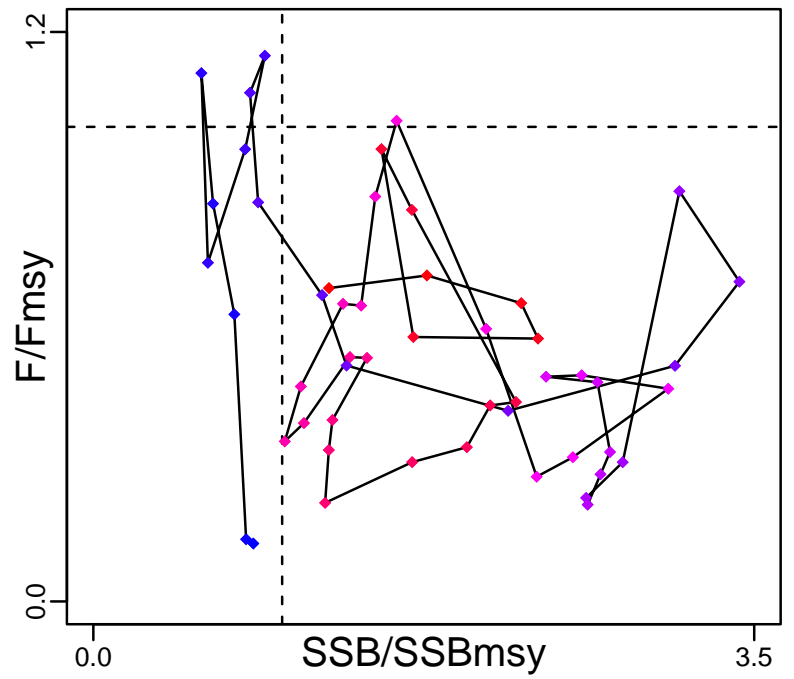
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	1,730,000	-	3+
<b>SSB</b>	SSB-MT	2021	197,189	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2021	10,759,599,610	-	1
<b>F</b>	F-1/yr	2021	0.205	-	-
<b>ER</b>	ER-calc-ratio	2015	0.127	-	-
<b>TC</b>	TC-MT	2021	107,471		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2021	1.31		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2021	0.66		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2014	1.09		
<b>F/Fmgt</b>	F-1/yr/Fmgt-1/yr	2015	0.838		
<b>ER/ERmgt</b>	-	-	-		

# Walleye pollock Gulf of Alaska [WPOLLGA]

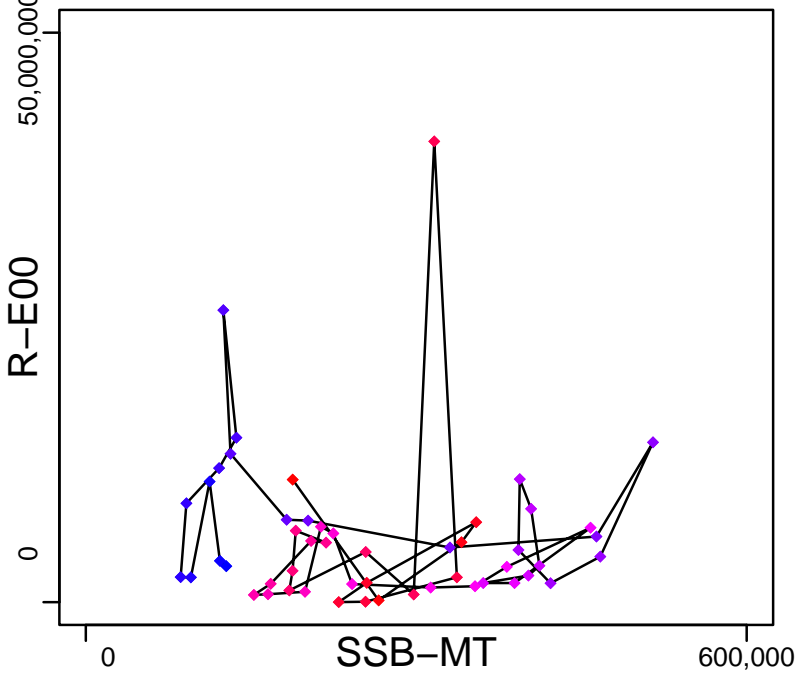
Kobe MSYpref (1969–2021–SISIMP2022)



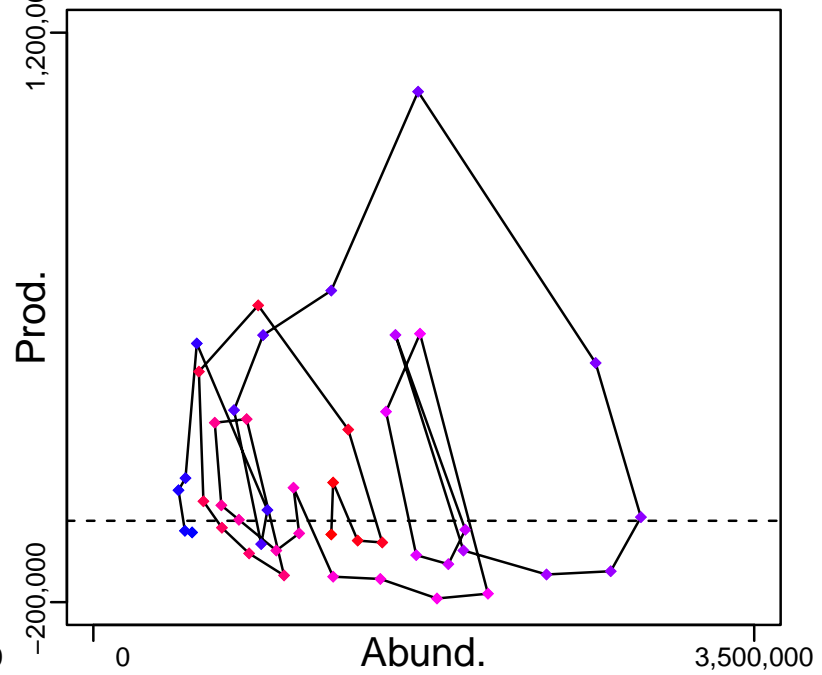
Kobe MGTpref (1969–2021–SISIMP2022)



Spawner Recruit (1969–2021–SISIMP2022)



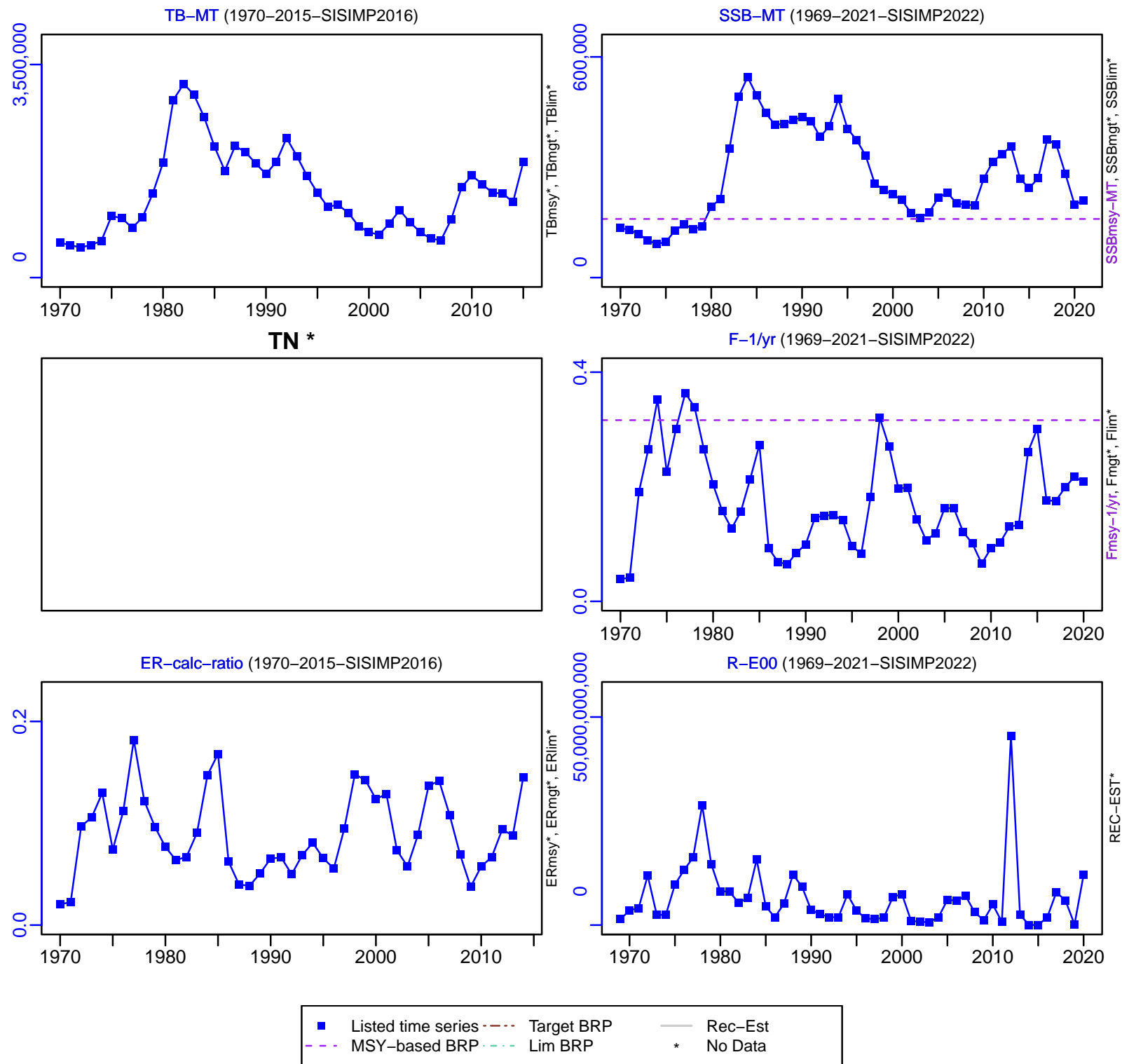
Production (1970–2015–SISIMP2016)



◆ Start Year ◆ End Year \* No Data



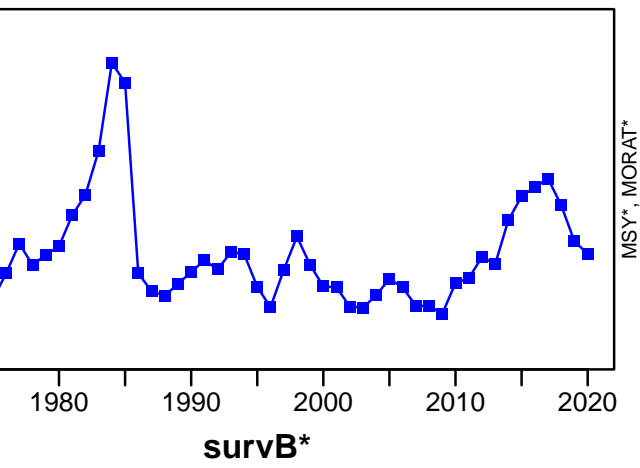
# Walleye pollock Gulf of Alaska [WPOLLGA]



# Walleye pollock Gulf of Alaska [WPOLLGA]

TC-MT, TL\*, RecC\* (1969-2021-SISIMP2022)

TAC\*, Cpair\*, Cadv\*



CPUE\*

EFFORT\*

CdivMSY\*

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

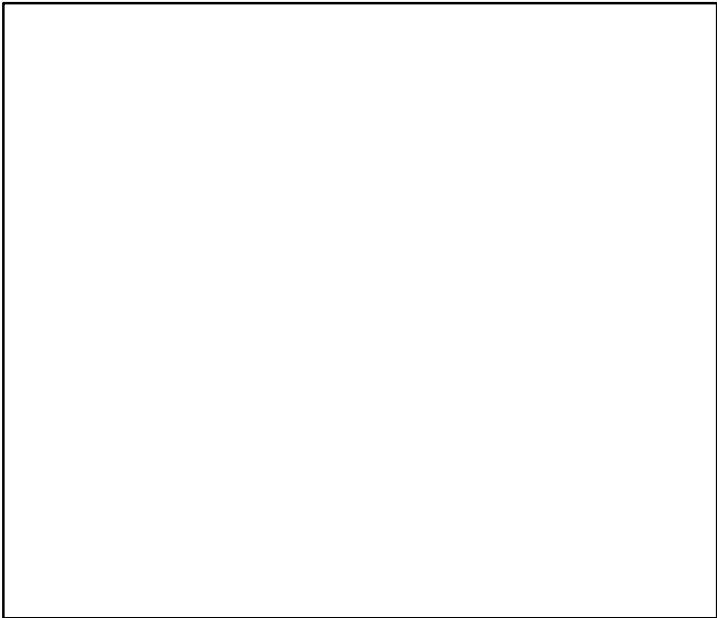
## Walleye pollock Southeast Gulf of Alaska [WPOLLSEGA]

Metadata	
<b>Scientific Name</b>	Theragra chalcogramma
<b>Current Assess ID</b>	AFSC-WPOLLSEGA-1993-2019-SISIMP2021-2
<b>Area</b>	Southeast Gulf of Alaska
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2018, 2019

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	2019	3		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

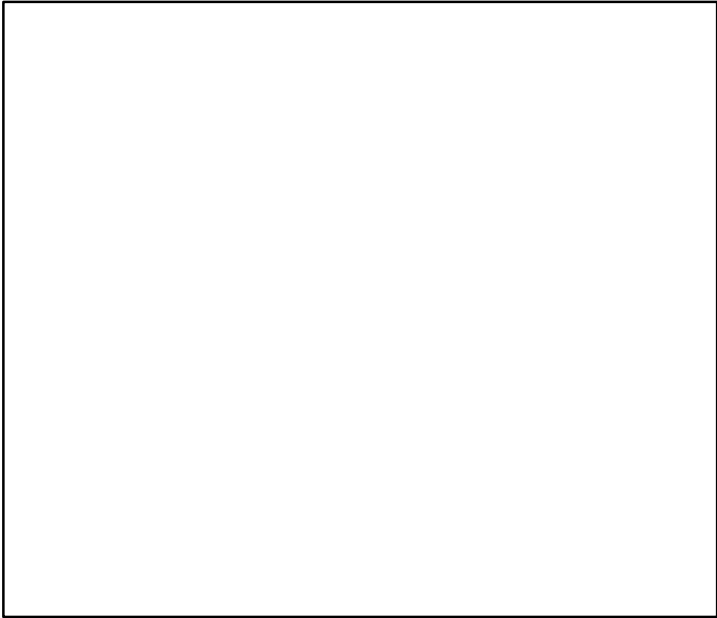
Kobe MSY\*



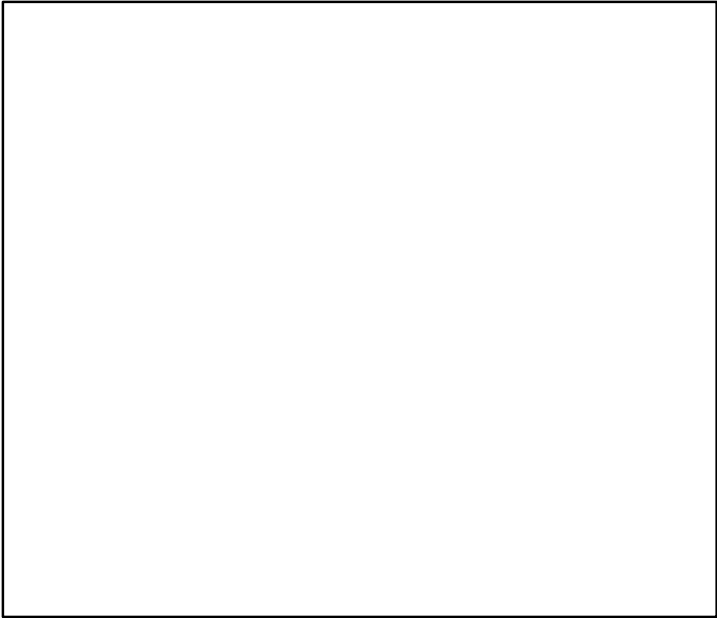
Kobe MGT\*



Spawner Recruit\*



Production\*



◆ Start Year   ◆ End Year   \* No Data

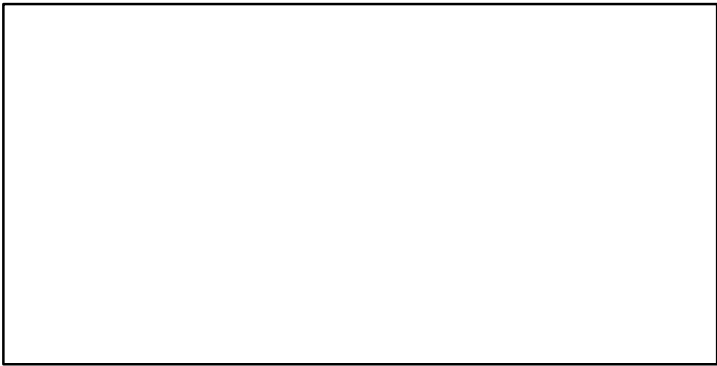
TB\*



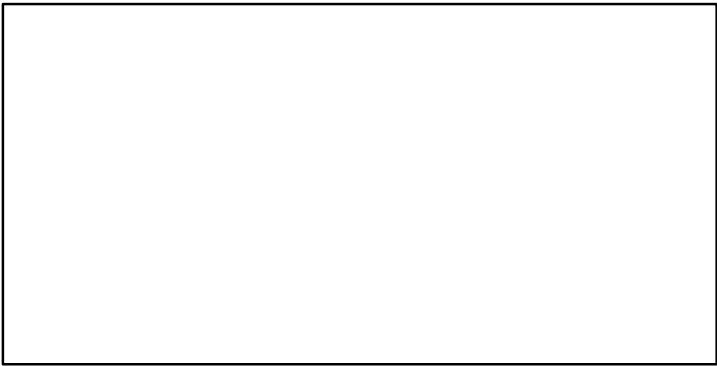
SSB\*



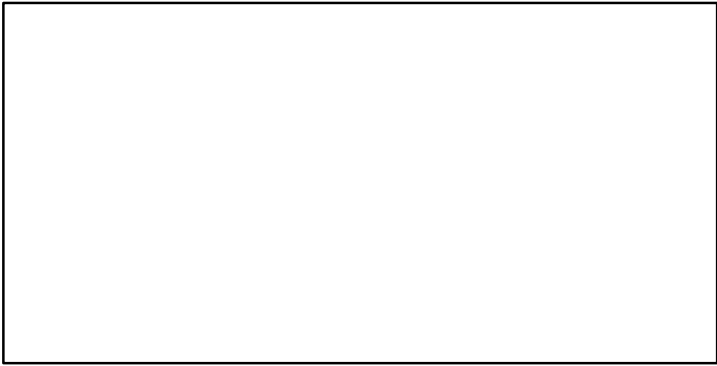
TN \*



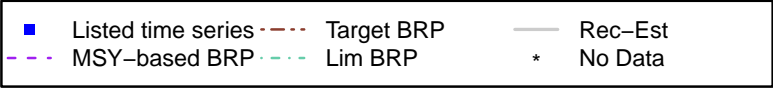
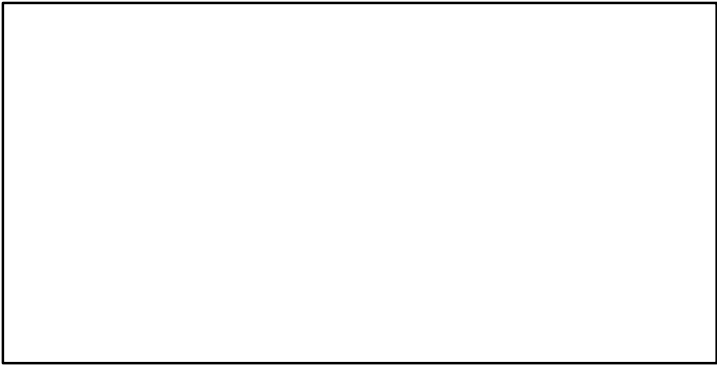
F\*



ER\*

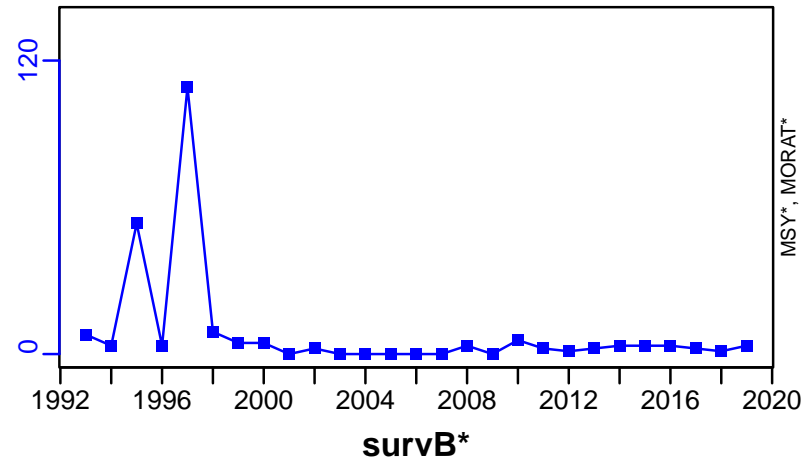


Recruits\*



# Walleye pollock Southeast Gulf of Alaska [WPOLLSEGA]

TC-MT, TL\*, RecC\* (1993-2019-SISIMP2021-2)



TAC\*, Cpair\*, Cadv\*



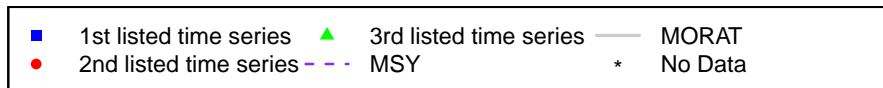
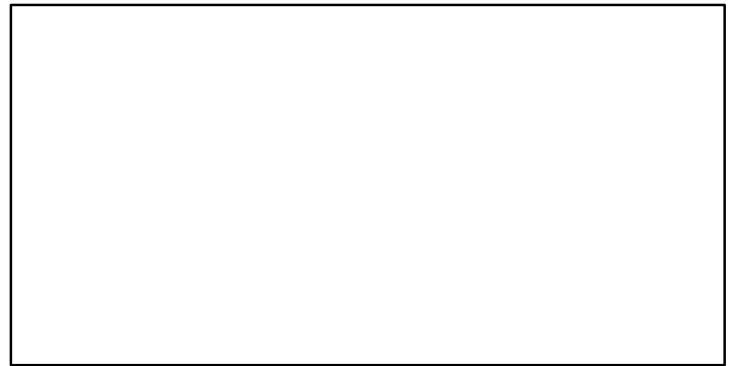
CPUE\*



EFFORT\*



CdivMSY\*



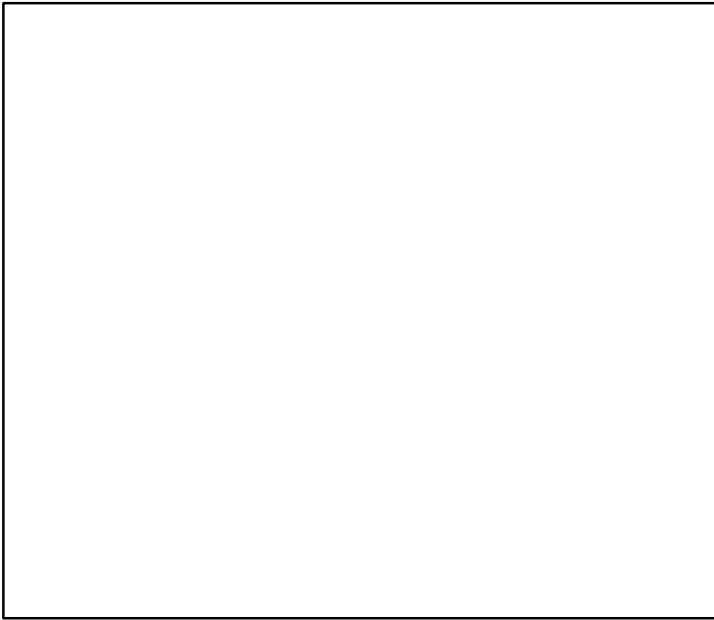
## Weathervane scallop Alaska [WVSCALLALASKA]

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

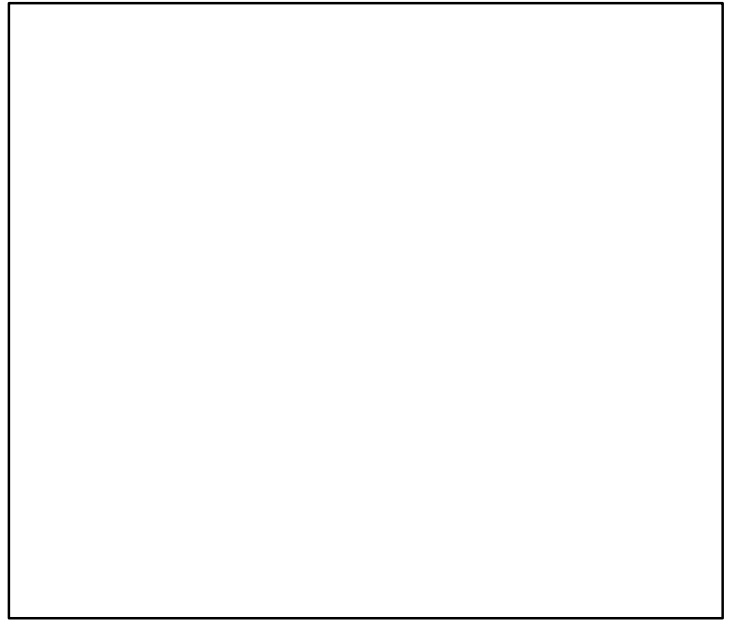
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2020	581
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

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

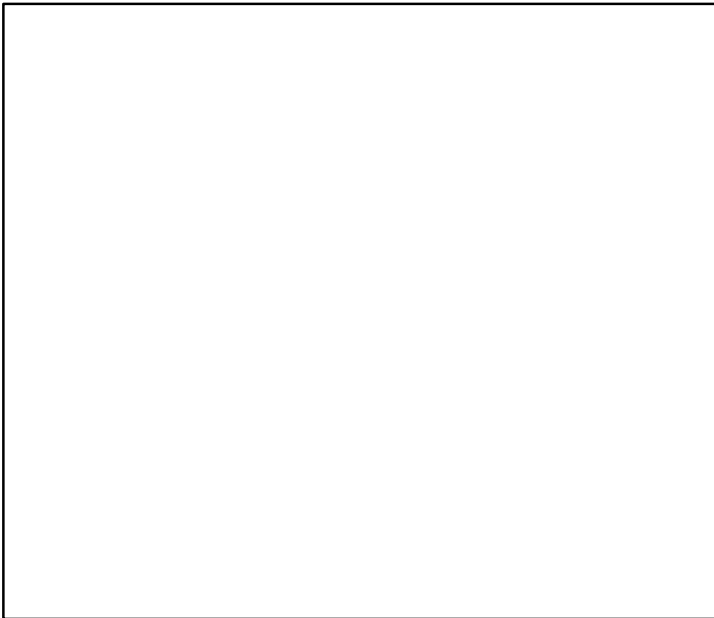
**Kobe MSY\***



**Kobe MGT\***



**Spawner Recruit\***



**Production\***

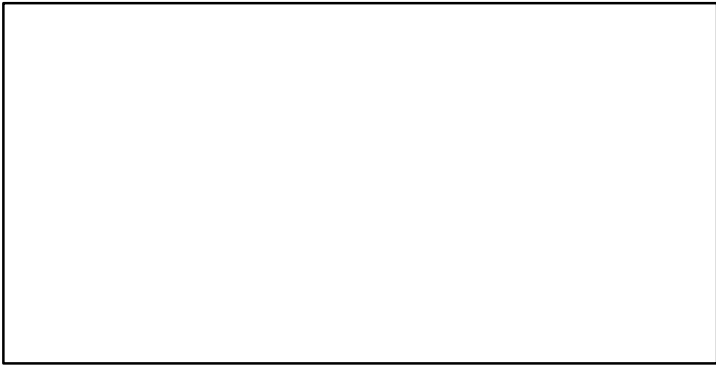


◆ Start Year   ◆ End Year   \* No Data

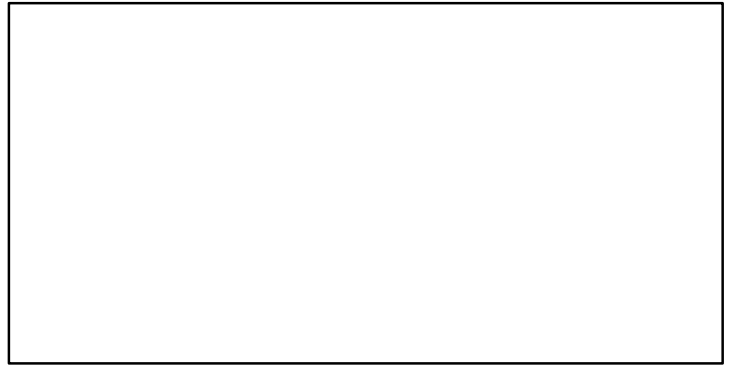


Weathervane scallop Alaska [WVSCALLALASKA]

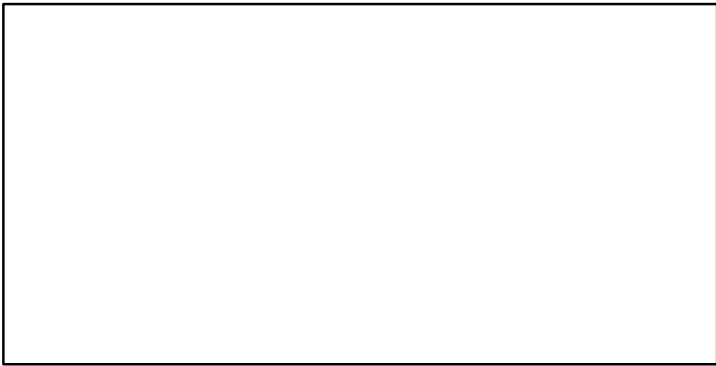
**TB\***



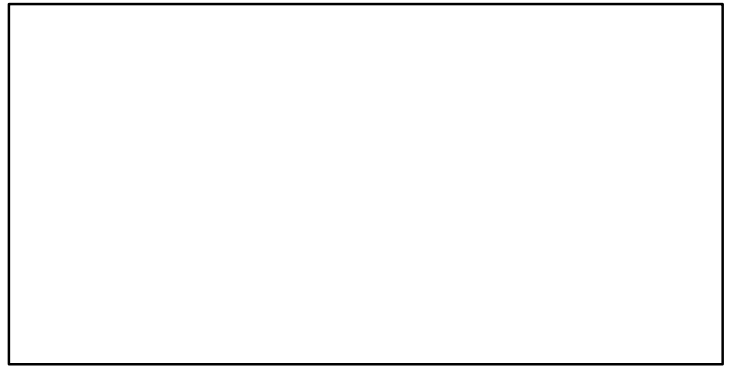
**SSB\***



**TN \***



**F\***



**ER\***

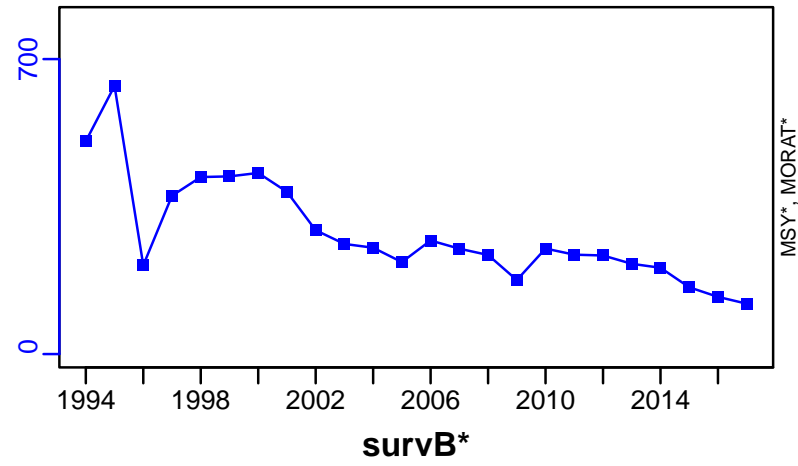


**Recruits\***



# Weathervane scallop Alaska [WVSCALLALASKA]

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



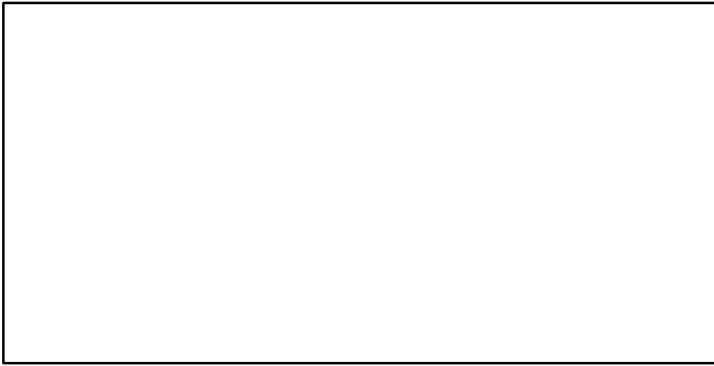
TAC\*, Cpair\*, Cadv\*



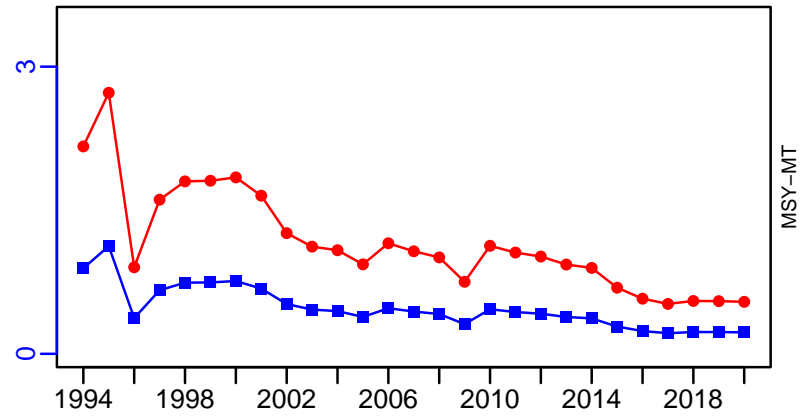
CPUE\*



EFFORT\*



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

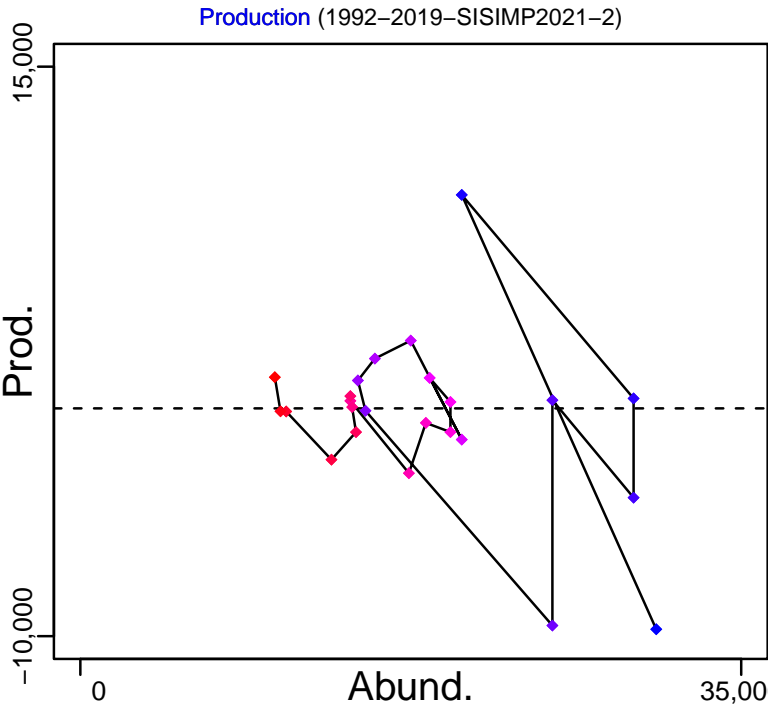
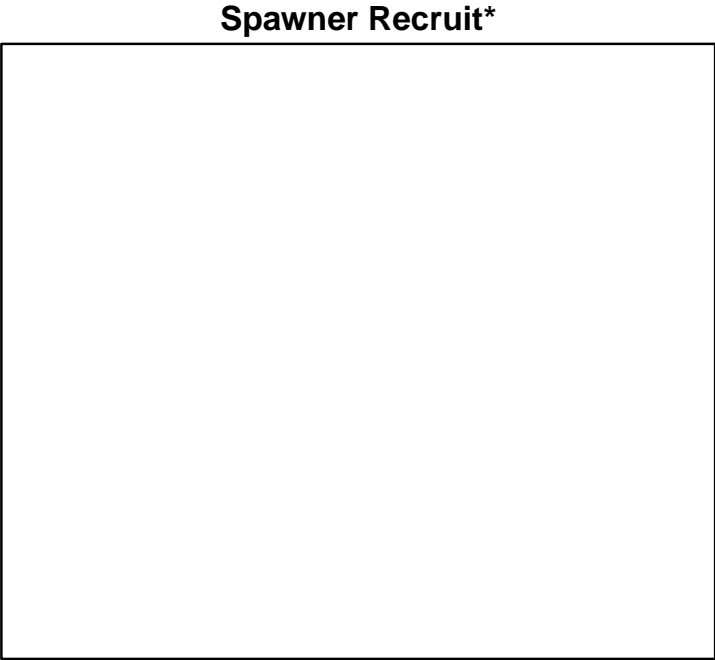
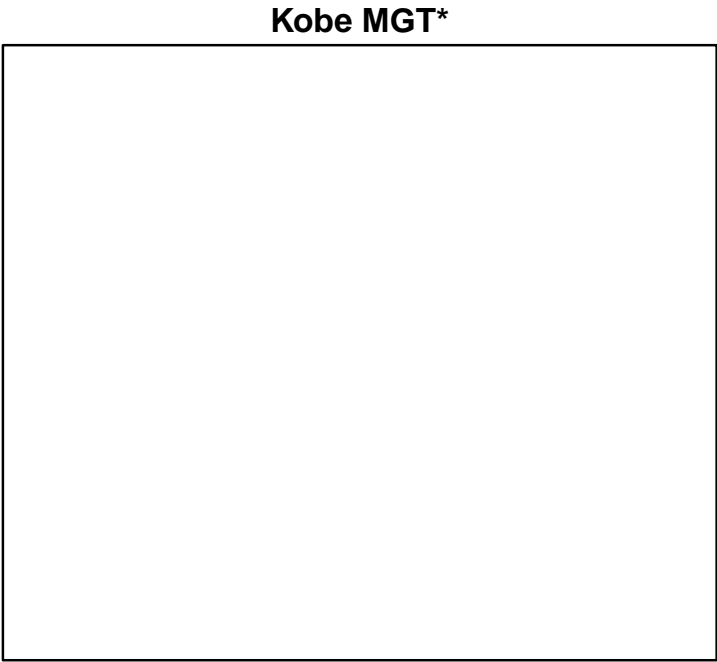
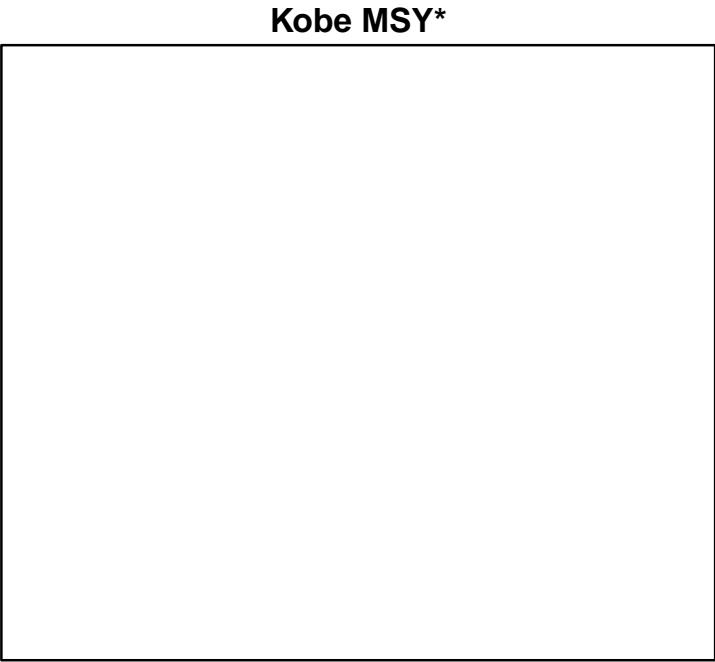


## Yelloweye rockfish Gulf of Alaska [YEYEROCKGA]

Metadata	
<b>Scientific Name</b>	Sebastes ruberrimus
<b>Current Assess ID</b>	AFSC-YEYEROCKGA-1992-2020-SISIMP2021-2
<b>Area</b>	Gulf of Alaska
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2014, 2016, 2016, 2017, 2019, 2020

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2020	0.032
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	ERlim-ratio	2020	0.032

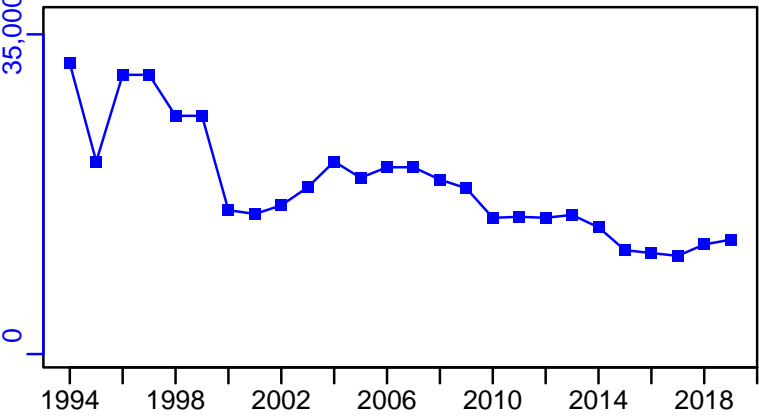
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2019	12,000	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-ratio	2020	0.015	-	-
TC	TC-MT	2020	185		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	ER-ratio/ERmsy-ratio	2020	0.481		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



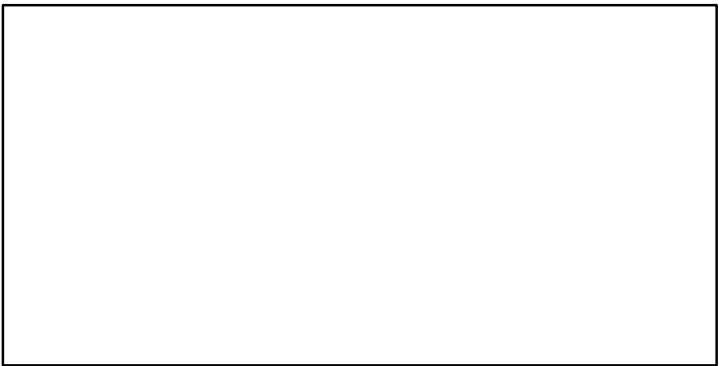
◆ Start Year ◆ End Year \* No Data

Yelloweye rockfish Gulf of Alaska [YEYEROCKGA]

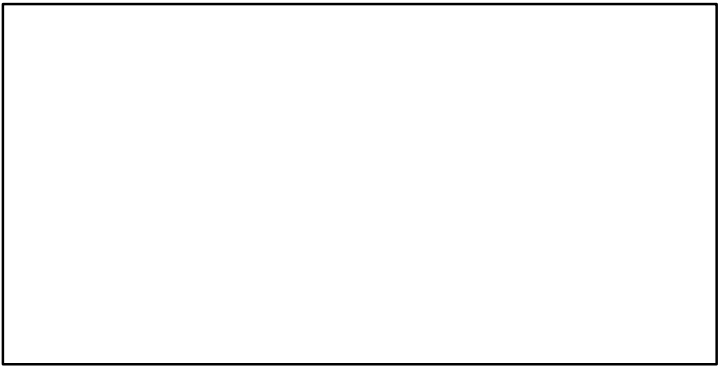
TB-MT (1992-2019-SISIMP2021-2)



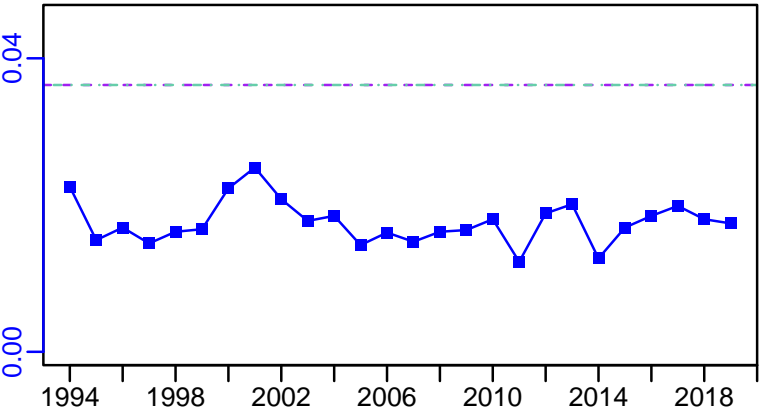
SSB\*



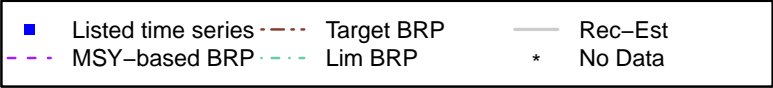
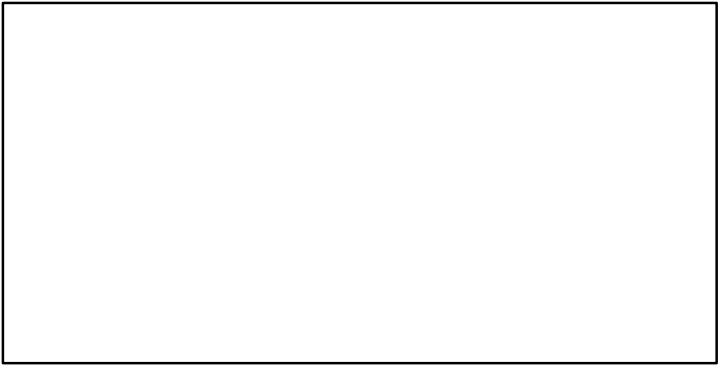
F\*



ER-ratio (1992-2020-SISIMP2021-2)

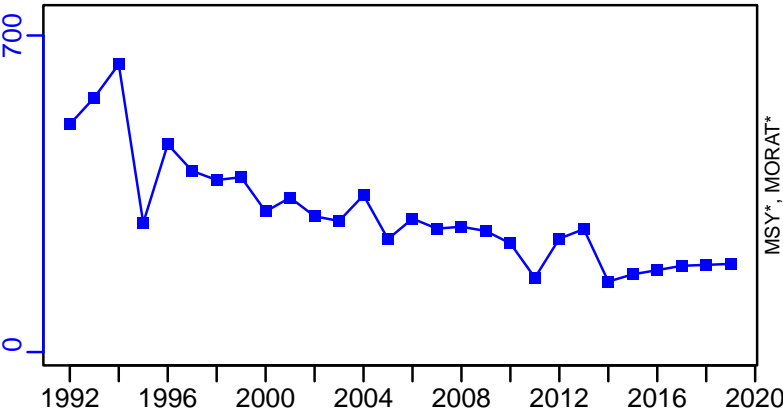


Recruits\*



Yelloweye rockfish Gulf of Alaska [YEYEROCKGA]

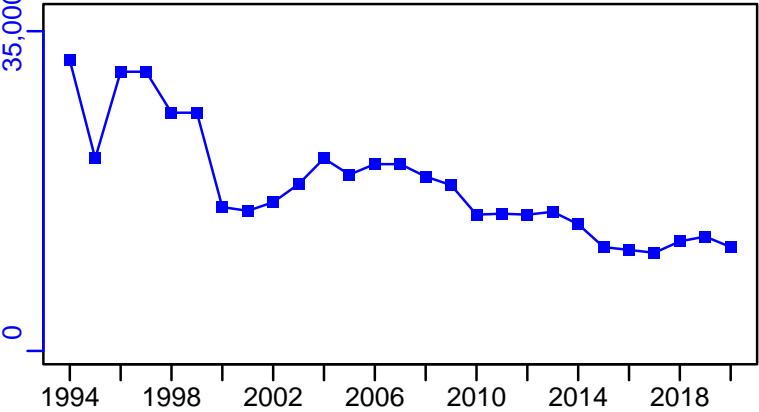
TC-MT, TL\*, RecC\* (1992-2020-SISIMP2021-2)



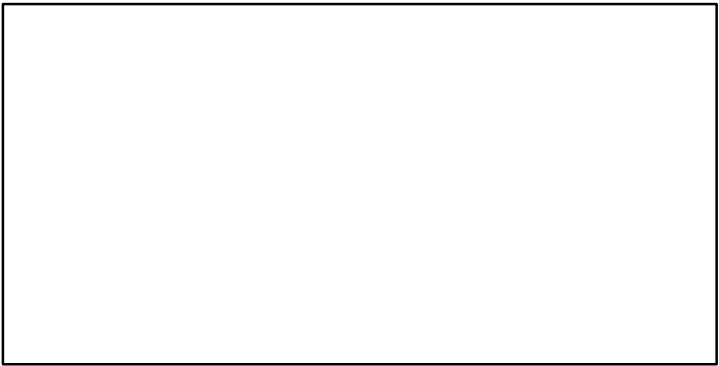
TAC\*, Cpair\*, Cadv\*



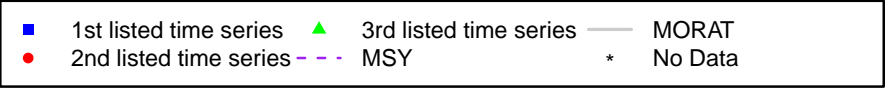
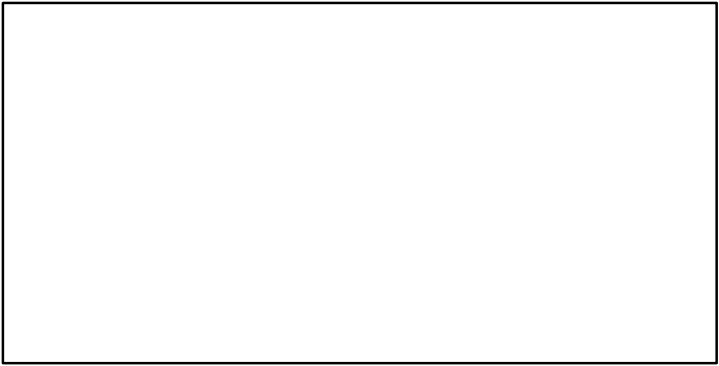
survB-MT (1992-2020-SISIMP2021-2)



CPUE\*



CdivMSY\*



## Yellowfin sole Bering Sea and Aleutian Islands [YSOLEBSAI]

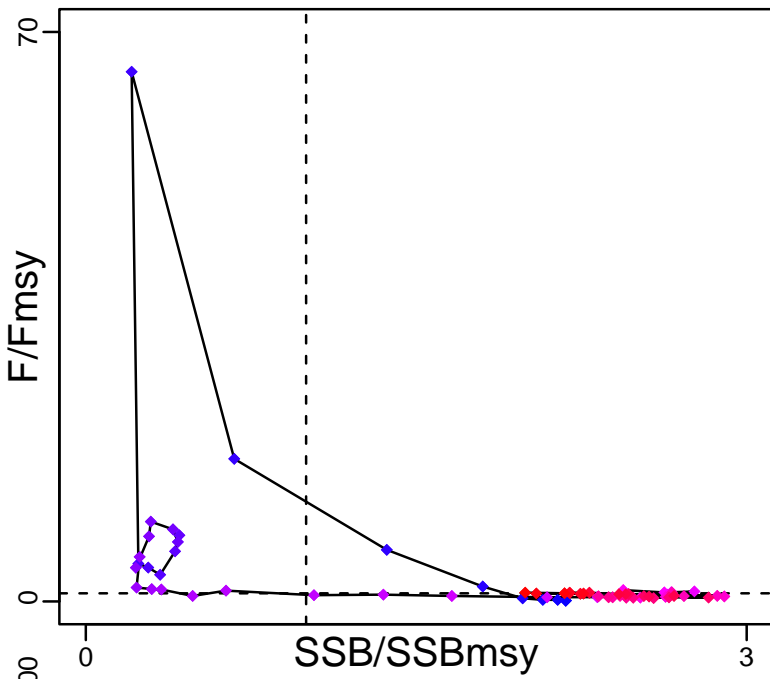
Metadata	
<b>Scientific Name</b>	Limanda aspera
<b>Current Assess ID</b>	AFSC-YSOLEBSAI-1953-2021-SISIMP2022
<b>Area</b>	Bering Sea and Aleutian Islands
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Alaska Fisheries Science Center
<b>Asmts in RAM</b>	2010, 2016, 2017, 2018, 2021, 2015, 2019, 2020

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2021	495,904
<b>Fmsy</b>	Fmsy-1/yr	2021	0.152
<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	0.12
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	Flim-1/yr	2020	0.163
<b>ERlim</b>	-	-	-

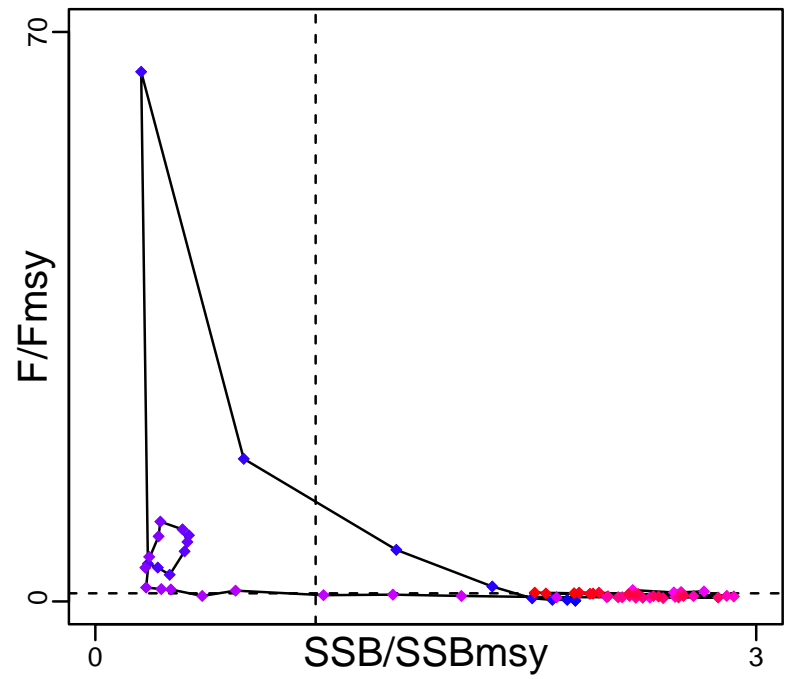
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	2,310,000	-	1+
<b>SSB</b>	SSB-MT	2021	941,735	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2021	2,627,979,994	-	1
<b>F</b>	F-1/yr	2021	0.164	-	-
<b>ER</b>	ER-calc-ratio	2015	0.067	-	-
<b>TC</b>	TC-MT	2021	133,789		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2021	1.899		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2021	1.078		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Yellowfin sole Bering Sea and Aleutian Islands [YSOLEBSAI]

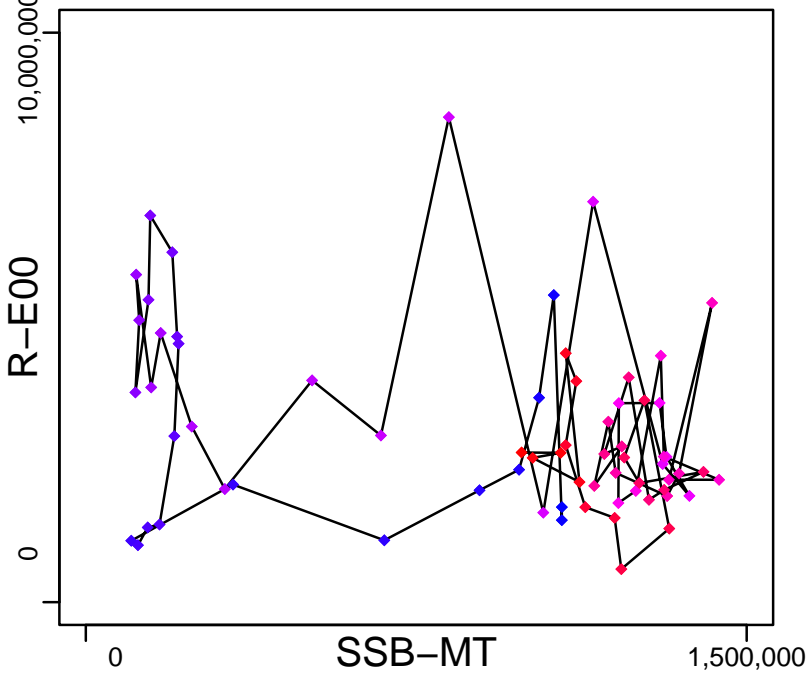
Kobe MSY<sub>pref</sub> (1953–2021–SISIMP2022)



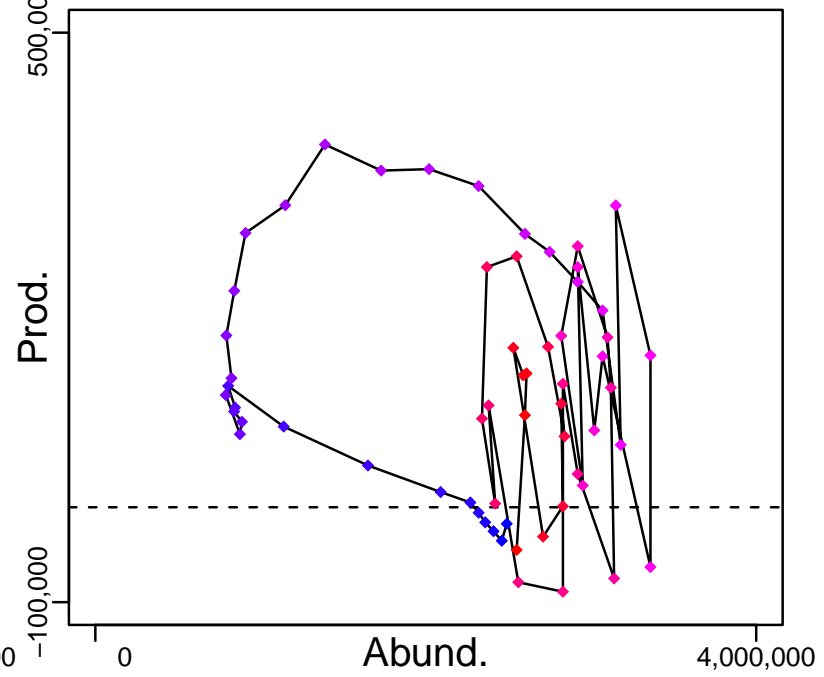
Kobe MGT<sub>pref</sub> (1953–2021–SISIMP2022)



Spawner Recruit (1953–2021–SISIMP2022)



Production (1954–2015–SISIMP2016)

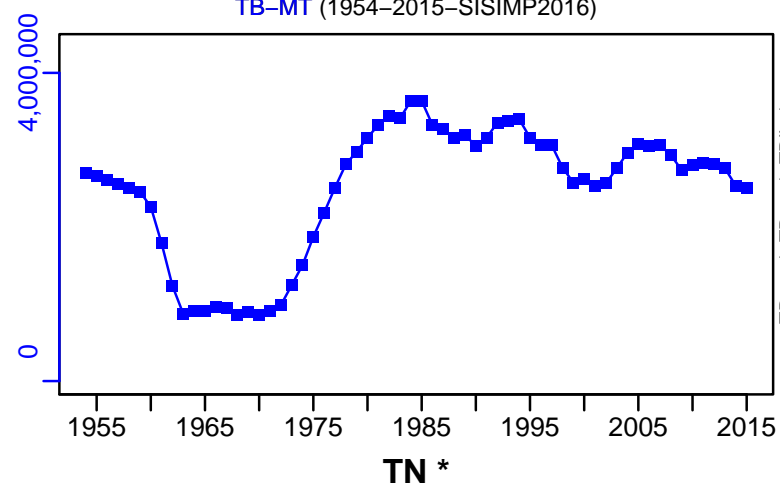


◆ Start Year ◆ End Year \* No Data

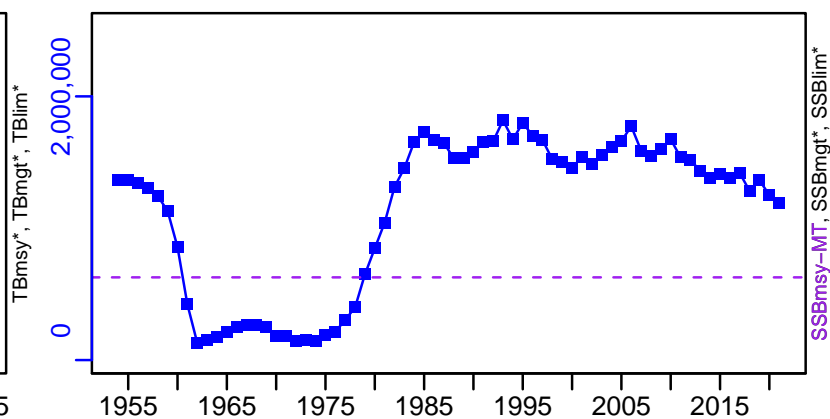


# Yellowfin sole Bering Sea and Aleutian Islands [YSOLEBSAI]

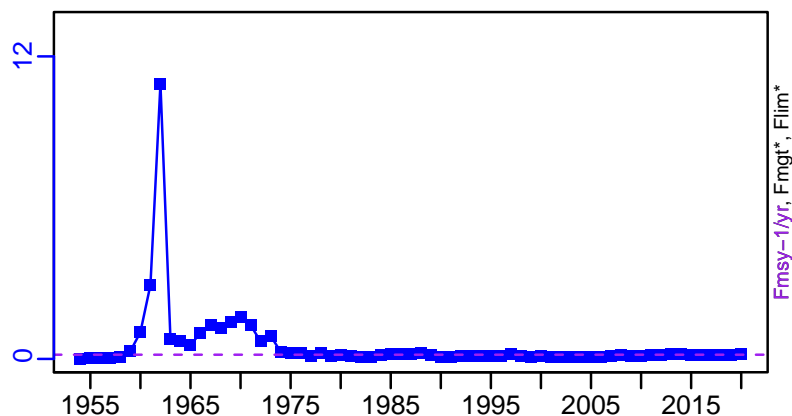
TB-MT (1954–2015–SISIMP2016)



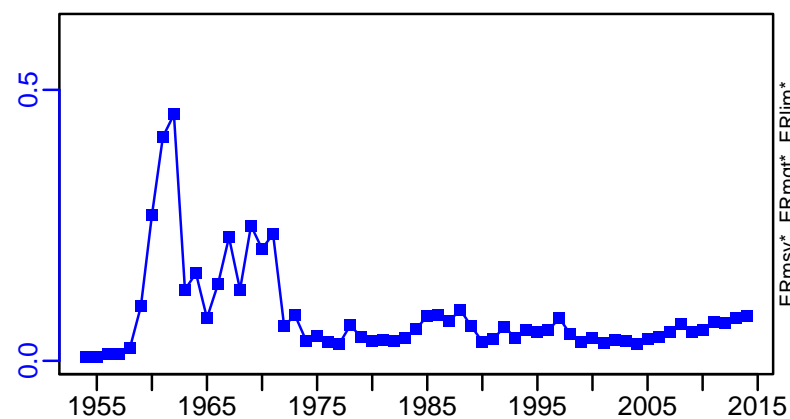
SSB-MT (1953–2021–SISIMP2022)



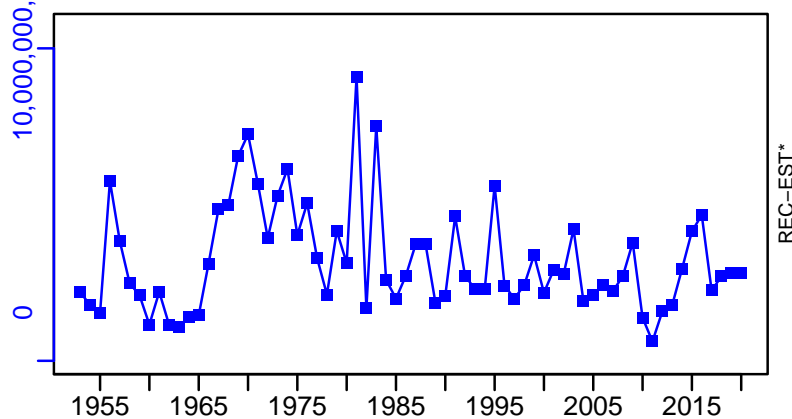
F-1/yr (1953–2021–SISIMP2022)



ER-calc-ratio (1954–2015–SISIMP2016)



R-E00 (1953–2021–SISIMP2022)



# Yellowfin sole Bering Sea and Aleutian Islands [YSOLEBSAI]

TC-MT, TL\*, RecC\* (1953-2021-SISIMP2022)

TAC\*, Cpair\*, Cadv\*

