

# US West Coast Stocks

## v4.44 (Dec-21-2018)

Not present Present Preferred

Stock	B/Bmsy	Time Series Types			
		U/Umsy	B/Bmgt	U/Umgt	
1. ARFLOUNDPACOAST [Arrowtooth flounder Pacific Coast]	TB SSB	ER F	TB SSB	ER F	
2. AUROCKPCOAST [Aurora rockfish Pacific Coast]	TB SSB	ER F	TB SSB	ER F	
3. BGROCKPCOAST [Blackgill rockfish Pacific Coast]	TB SSB	ER F	TB SSB	ER F	
4. BLACKROCKCAL [Black rockfish California]	TB SSB	ER F	TB SSB	ER F	
5. BLACKROCKORECOAST [Black rockfish Oregon]	TB SSB	ER F	TB SSB	ER F	
6. BLACKROCKWASH [Black rockfish Washington]	TB SSB	ER F	TB SSB	ER F	
7. BLUEROCKCAL [Blue rockfish California]	TB SSB	ER F	TB SSB	ER F	
8. BNKROCKCAL [Bank Rockfish California]	TB SSB	ER F	TB SSB	ER F	
9. BOCACCSPACOAST [Bocaccio Southern Pacific Coast]	TB SSB	ER F	TB SSB	ER F	
10. BRNROCKPCOAST [Brown rockfish Pacific Coast]	TB SSB	ER F	TB SSB	ER F	
11. CABEZNCAL [Cabezon Northern California]	TB SSB	ER F	TB SSB	ER F	
12. CABEZORECOAST [Cabezon Oregon Coast]	TB SSB	ER F	TB SSB	ER F	
13. CABEZSCAL [Cabezon Southern California]	TB SSB	ER F	TB SSB	ER F	
14. CALSCORPSCAL [California scorpionfish Southern California]	TB SSB	ER F	TB SSB	ER F	
15. CHILISPCOAST [Chilipepper Southern Pacific Coast]	TB SSB	ER F	TB SSB	ER F	
16. CHROCKCPCOAST [China rockfish Central Pacific Coast]	TB SSB	ER F	TB SSB	ER F	
17. CHROCKNPCOAST [China rockfish Northern Pacific Coast]	TB SSB	ER F	TB SSB	ER F	
18. CHROCKSPACOAST [China rockfish Southern Pacific Coast]	TB SSB	ER F	TB SSB	ER F	
19. CMACKPCOAST [Pacific chub mackerel Pacific Coast]	TB SSB	ER F	TB SSB	ER F	
20. COWCODSCAL [Cowcod Southern California]	TB SSB	ER F	TB SSB	ER F	
21. CPRROCKPCOAST [Copper rockfish Pacific Coast]	TB SSB	ER F	TB SSB	ER F	
22. CROCKPCOAST [Canary rockfish Pacific Coast]	TB SSB	ER F	TB SSB	ER F	
23. DKROCKPCOAST [Darkblotched rockfish Pacific Coast]	TB SSB	ER F	TB SSB	ER F	
24. DSOLEPCOAST [Dover sole Pacific Coast]	TB SSB	ER F	TB SSB	ER F	
25. ESOLEPCOAST [English sole Pacific Coast]	TB SSB	ER F	TB SSB	ER F	
26. GOPHERSPACOAST [Gopher rockfish Southern Pacific Coast]	TB SSB	ER F	TB SSB	ER F	
27. GRNSTROCKPCOAST [Greenstriped rockfish Pacific Coast]	TB SSB	ER F	TB SSB	ER F	
28. GRSPROCKNCAL [Greenspotted rockfish Pacific Coast North]	TB SSB	ER F	TB SSB	ER F	
29. GRSPROCKSCAL [Greenspotted rockfish Pacific Coast South]	TB SSB	ER F	TB SSB	ER F	
30. KELPGREENLINGORECOAST [Kelp greenling Oregon Coast]	TB SSB	ER F	TB SSB	ER F	
31. LINGCODNPCOAST [Lingcod Northern Pacific Coast]	TB SSB	ER F	TB SSB	ER F	
32. LINGCODSPACOAST [Lingcod Southern Pacific Coast]	TB SSB	ER F	TB SSB	ER F	
33. LNOSEKAPACOAST [Longnose skate Pacific Coast]	TB SSB	ER F	TB SSB	ER F	
34. LSTHORNHPCOAST [Longspine thornyhead Pacific Coast]	TB SSB	ER F	TB SSB	ER F	
35. PGEODWA [Pacific Geoduck Washington]	TB SSB	ER F	TB SSB	ER F	
36. PHAKEPCOAST [Pacific hake Pacific Coast]	TB SSB	ER F	TB SSB	ER F	
37. POPERCHPCOAST [Pacific ocean perch Pacific Coast]	TB SSB	ER F	TB SSB	ER F	
38. PSOLEPCOAST [Petrale sole Pacific Coast]	TB SSB	ER F	TB SSB	ER F	
39. REXSOLEPCOAST [Rex sole Pacific Coast]	TB SSB	ER F	TB SSB	ER F	

40. SABLEFPCOAST [Sablefish Pacific Coast]	TB SSB	ER F	TB SSB	ER F
41. SARDPCOAST [Pacific sardine Pacific Coast]	TB SSB	ER F	TB SSB	ER F
42. SBELLYROCKPCOAST [Shortbelly rockfish Pacific Coast]	TB SSB	ER F	TB SSB	ER F
43. SHCROCKPCOAST [Sharpchin rockfish Pacific Coast]	TB SSB	ER F	TB SSB	ER F
44. SNROCKPCOAST [Splitnose Rockfish Pacific Coast]	TB SSB	ER F	TB SSB	ER F
45. SPSDOGPCOAST [Spotted spiny dogfish Pacific Coast]	TB SSB	ER F	TB SSB	ER F
46. SSTHORNHPCOAST [Shortspine thornyhead Pacific Coast]	TB SSB	ER F	TB SSB	ER F
47. STFLOUNNPCOAST [Starry flounder Northern Pacific Coast]	TB SSB	ER F	TB SSB	ER F
48. STFLOUNSPCOAST [Starry flounder Southern Pacific Coast]	TB SSB	ER F	TB SSB	ER F
49. WROCKPCOAST [Widow rockfish Pacific Coast]	TB SSB	ER F	TB SSB	ER F
50. YEYEROCKPCOAST [Yelloweye rockfish Pacific Coast]	TB SSB	ER F	TB SSB	ER F
51. YTROCKNPCOAST [Yellowtail rockfish Northern Pacific Coast]	TB SSB	ER F	TB SSB	ER F

## Arrowtooth flounder Pacific Coast [ARFLOUNDPCOAST]

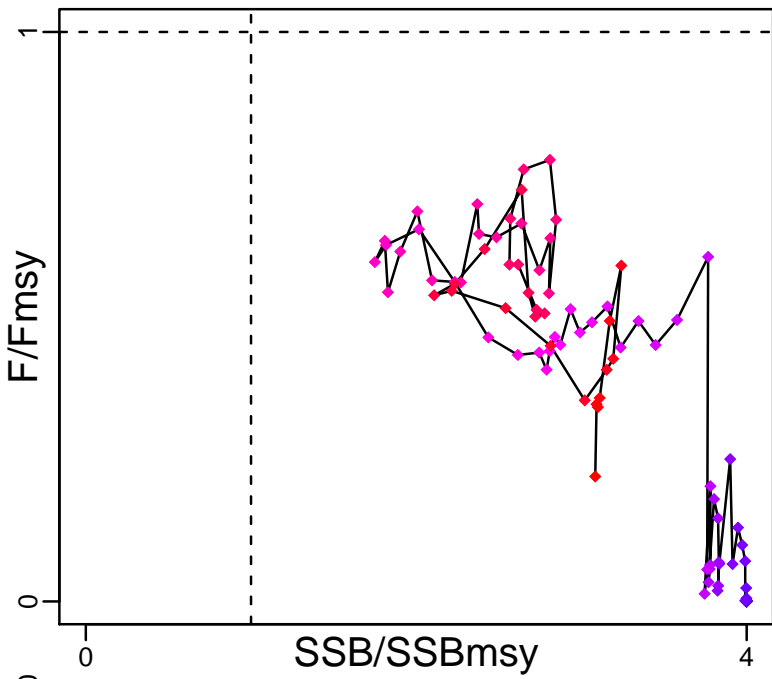
Metadata	
<b>Scientific Name</b>	Atheresthes stomias
<b>Current Assess ID</b>	NWFSC-ARFLOUNDPCOAST-1914-2015-SISIMP2016
<b>Area</b>	Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northwest Fisheries Science Center
<b>Asmts in RAM</b>	2015, 2007

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2007	44,591
<b>SSBmsy</b>	SSBmsy-MT	2015	20,078
<b>Fmsy</b>	Fmsy-1/yr	2015	0.7
<b>ERmsy</b>	ERmsy-ratio	2007	0.131
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	SSB0-MT	2007	80,313
<b>MSY</b>	MSY-MT	2007	5844
<b>M</b>	M-1/yr	2007	0.166
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2015	10,039
<b>Flim</b>	Flim-1/yr	2015	0.7
<b>ERlim</b>	-	-	-

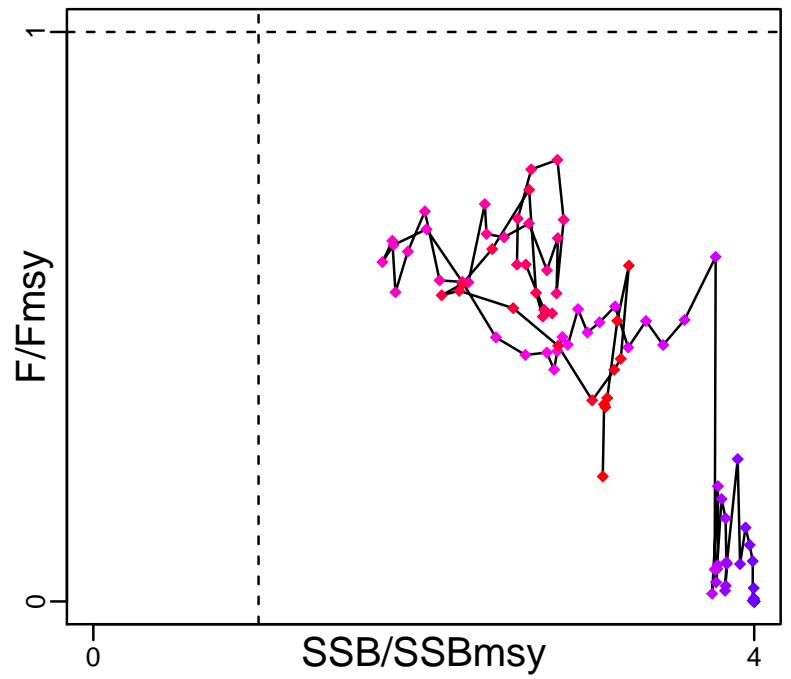
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	79,800	-	3+
<b>SSB</b>	SSB-MT	2015	62,600	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2015	28,300,000	-	0
<b>F</b>	F-1/yr	2015	0.154	-	-
<b>ER</b>	ER-calc-ratio	2015	0.018	-	-
<b>TC</b>	TC-MT	2015	1440		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2007	1.868		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2015	3.119		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2015	0.219		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2007	0.218		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Arrowtooth flounder Pacific Coast [ARFLOUNDPCOAST]

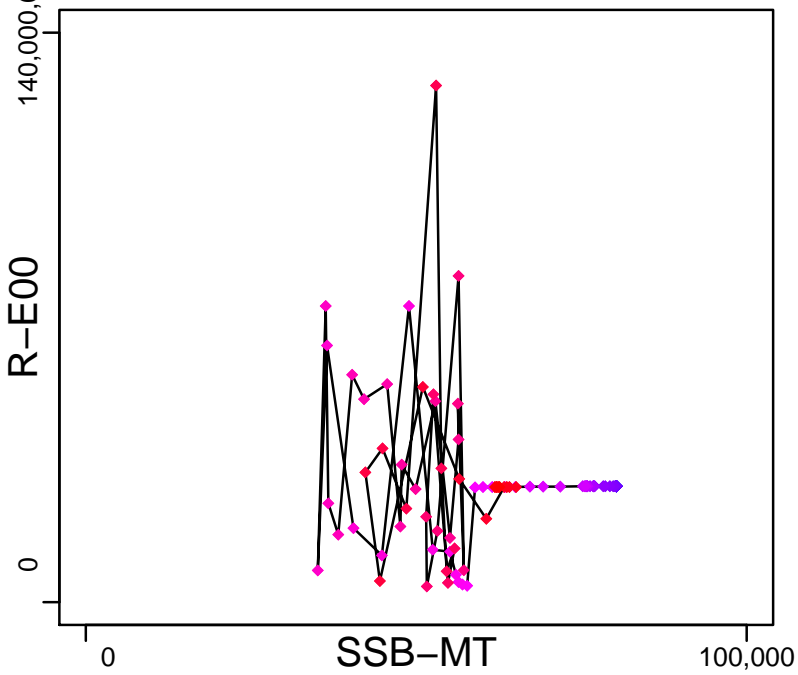
Kobe MSYpref (1914–2015–SISIMP2016)



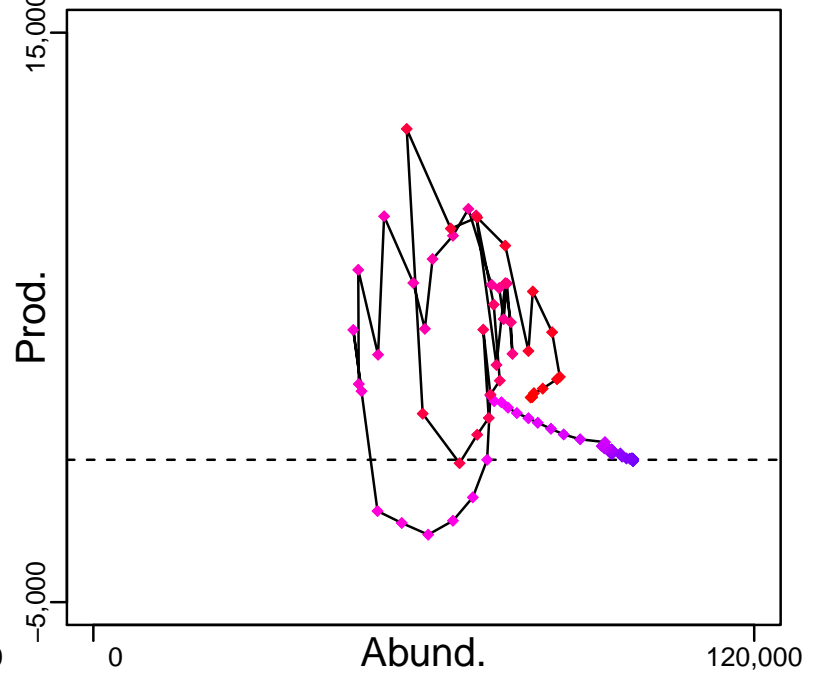
Kobe MGTpref (1914–2015–SISIMP2016)



Spawner Recruit (1914–2015–SISIMP2016)



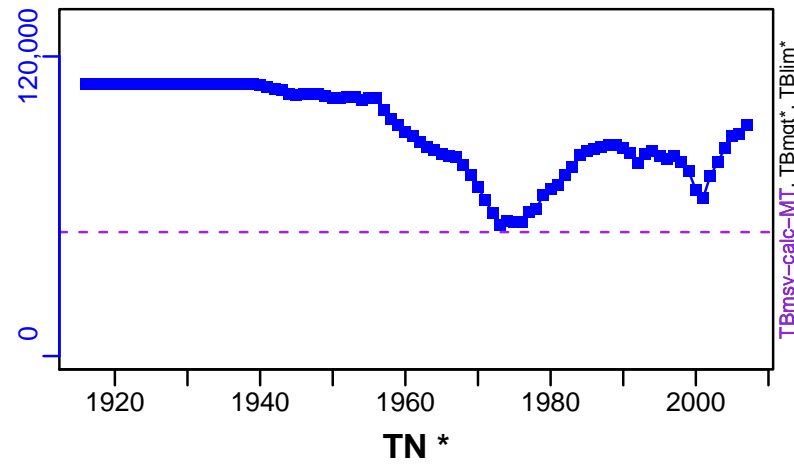
Production (1914–2015–SISIMP2016)



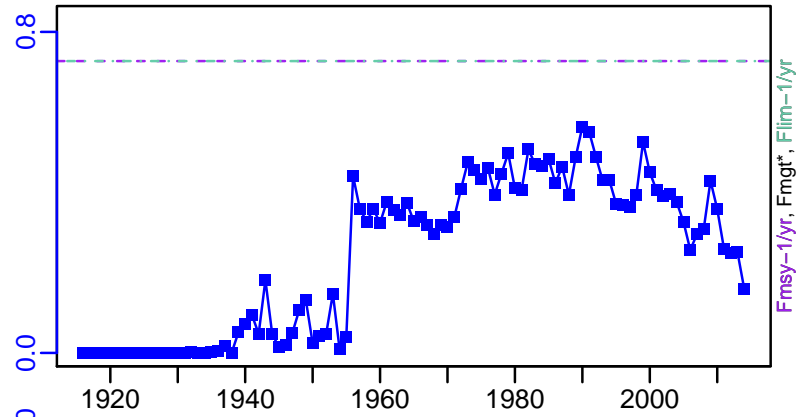
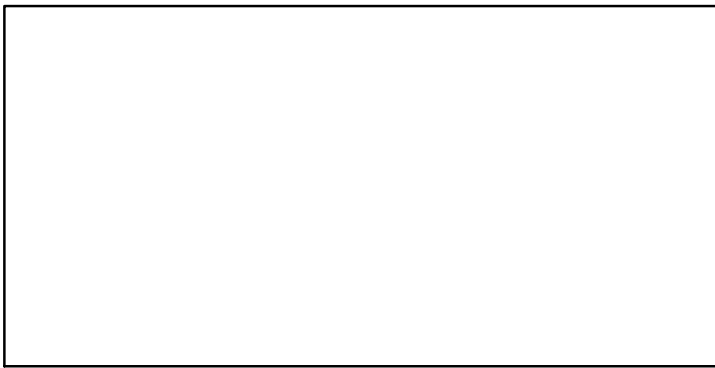
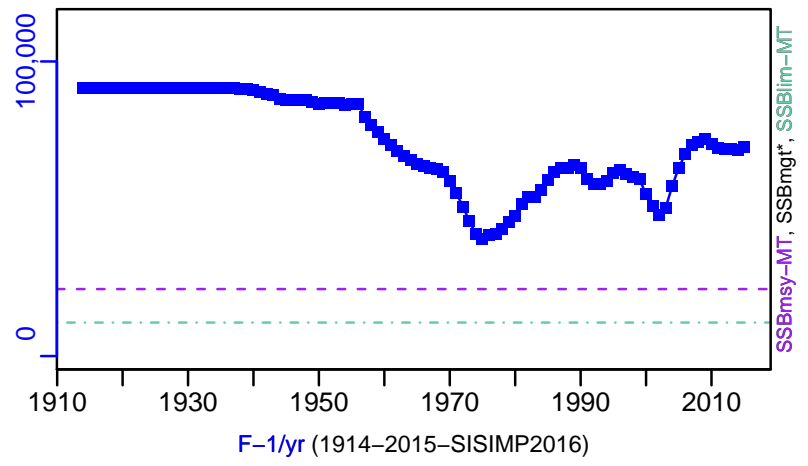
◆ Start Year ◆ End Year \* No Data

# Arrowtooth flounder Pacific Coast [ARFLOUNDCOAST]

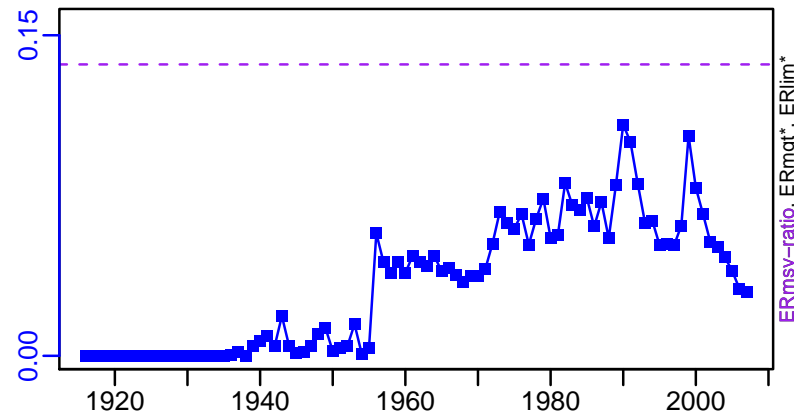
TB-MT (1916-2007-BRANCH)



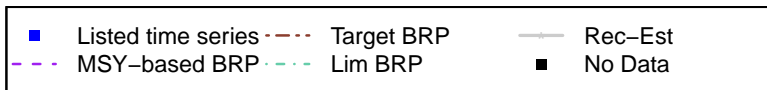
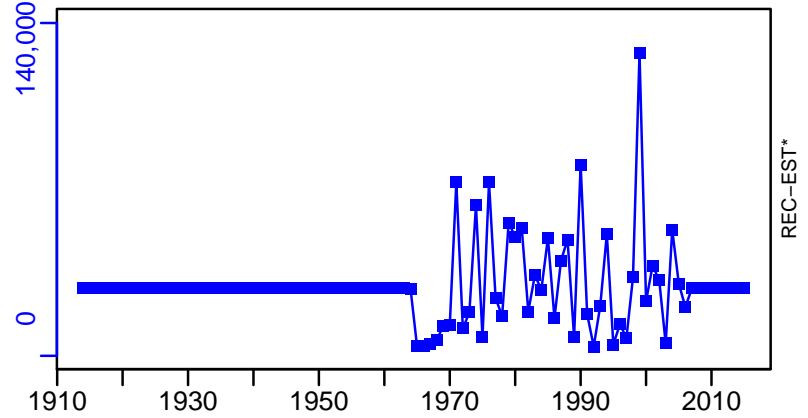
SSB-MT (1914-2015-SISIMP2016)



ER-ratio (1916-2007-BRANCH)



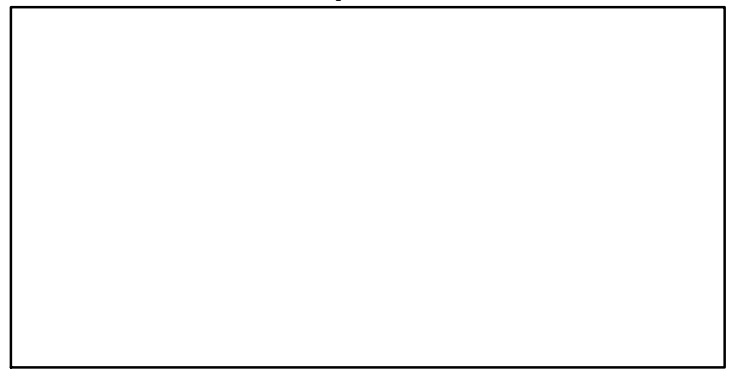
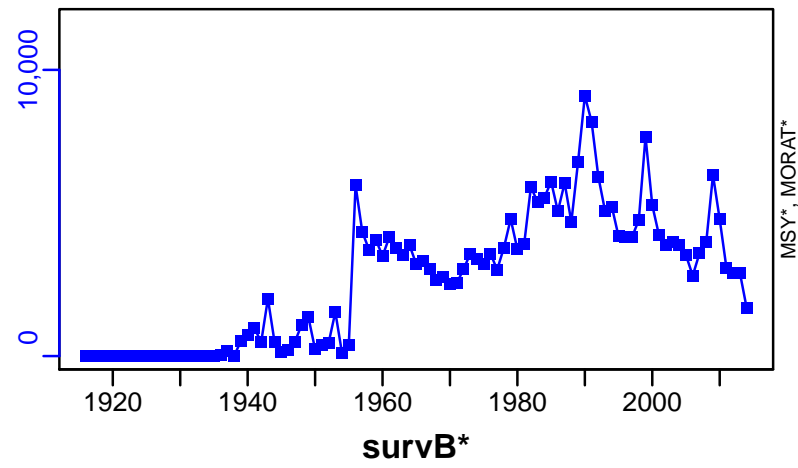
R-E00 (1914-2015-SISIMP2016)



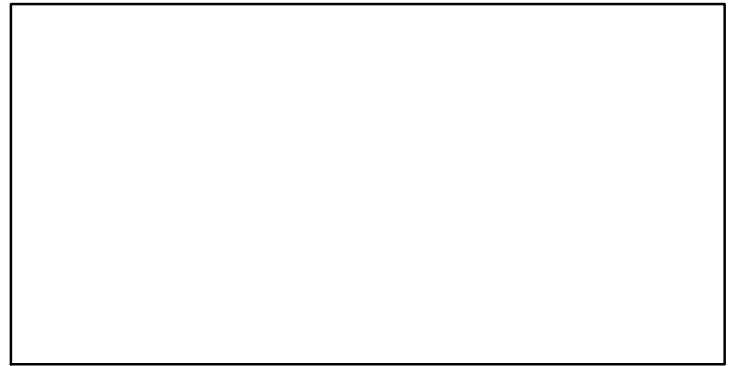
# Arrowtooth flounder Pacific Coast [ARFLOUNDP coast]

TC-MT, TL\*, RecC\* (1914-2015-SISIMP2016)

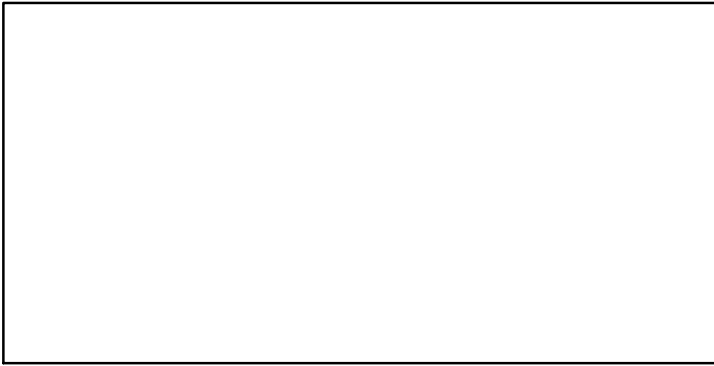
TAC\*, Cpair\*, Cadv\*



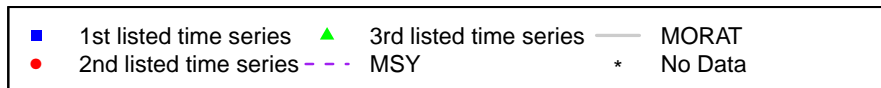
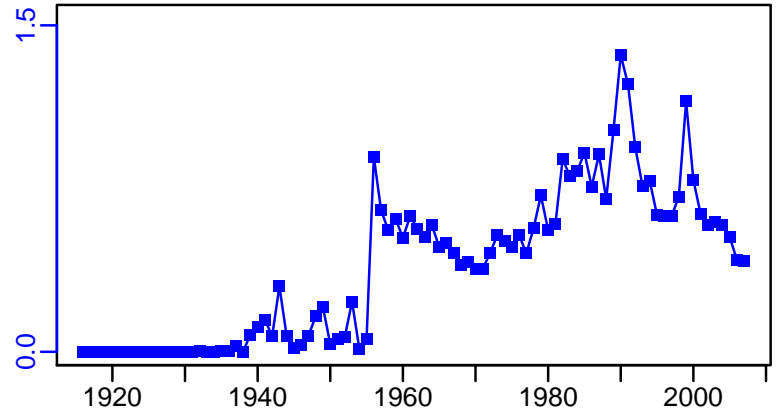
CPUE\*



EFFORT\*



CdivMSY-ratio (1916-2007-BRANCH)



## Aurora rockfish Pacific Coast [AUROCKPCOAST]

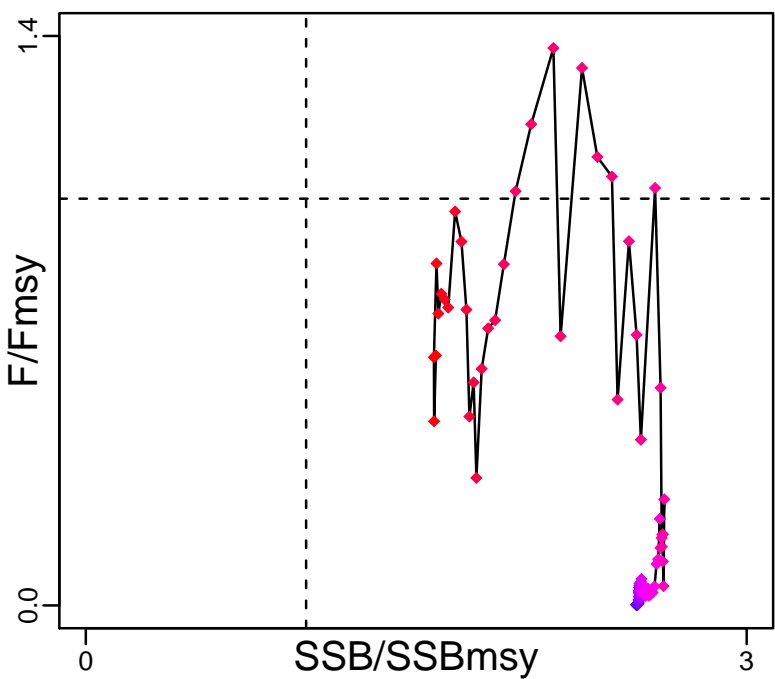
Metadata	
<b>Scientific Name</b>	Sebastes aurora
<b>Current Assess ID</b>	NWFSC-AUROCKPCOAST-1916-2013-SISIMP2016
<b>Area</b>	Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northwest Fisheries Science Center
<b>Asmts in RAM</b>	2013

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2013	1050
<b>Fmsy</b>	Fmsy-1/yr	2013	0.5
<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	2013	72
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2013	657
<b>Flim</b>	Flim-1/yr	2013	0.5
<b>ERlim</b>	-	-	-

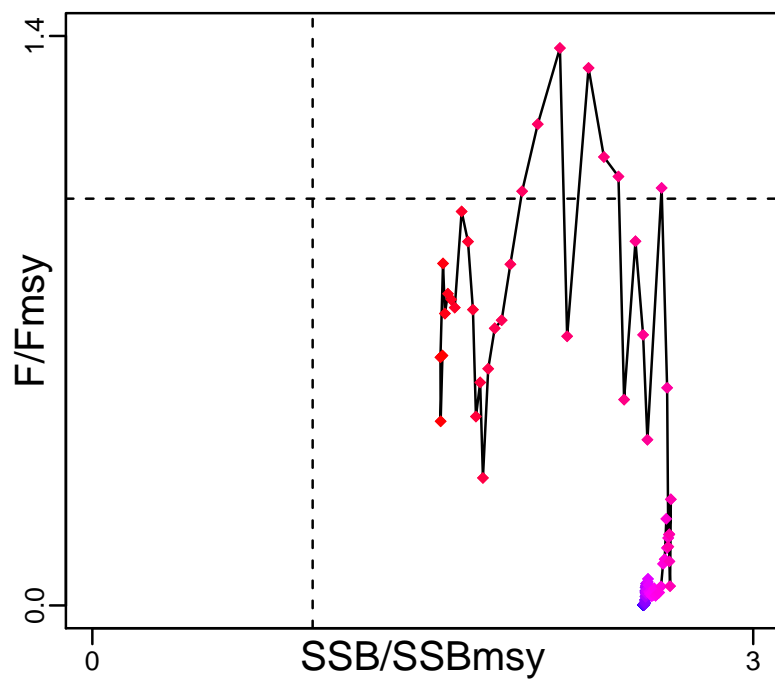
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	4370	-	0+
<b>SSB</b>	SSB-MT	2013	1670	Females	12.56
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	736,000	-	0
<b>F</b>	F-1/yr	2013	0.307	-	-
<b>ER</b>	ER-calc-ratio	2013	0.01	-	-
<b>TC</b>	TC-MT	2013	43		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	1.594		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2013	0.614		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Aurora rockfish Pacific Coast [AUROCKPCOAST]

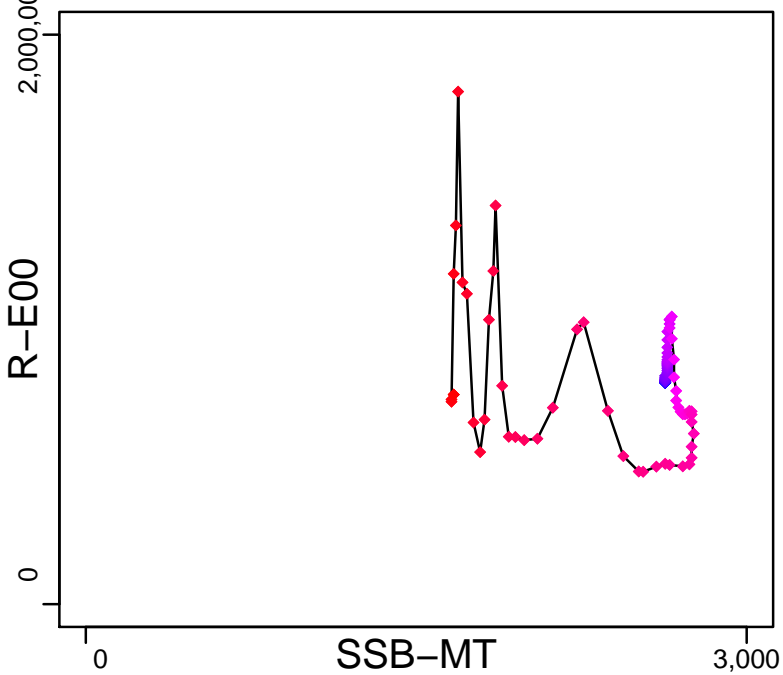
Kobe MSYpref (1916–2013–SISIMP2016)



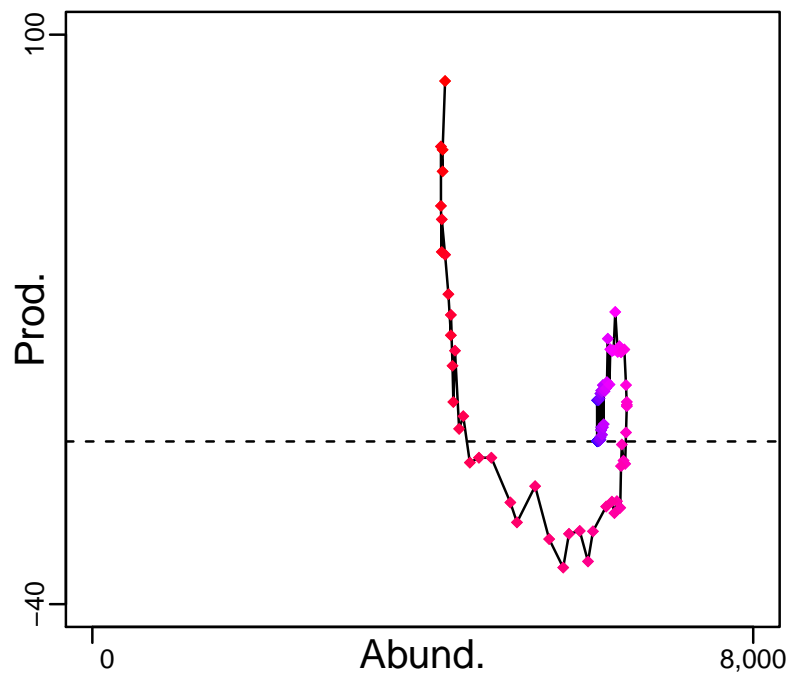
Kobe MGTpref (1916–2013–SISIMP2016)



Spawner Recruit (1916–2013–SISIMP2016)



Production (1916–2013–SISIMP2016)

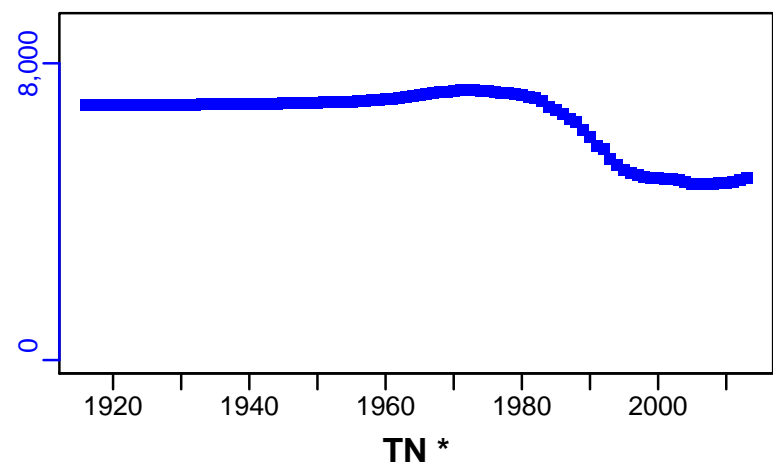


◆ Start Year ◆ End Year \* No Data

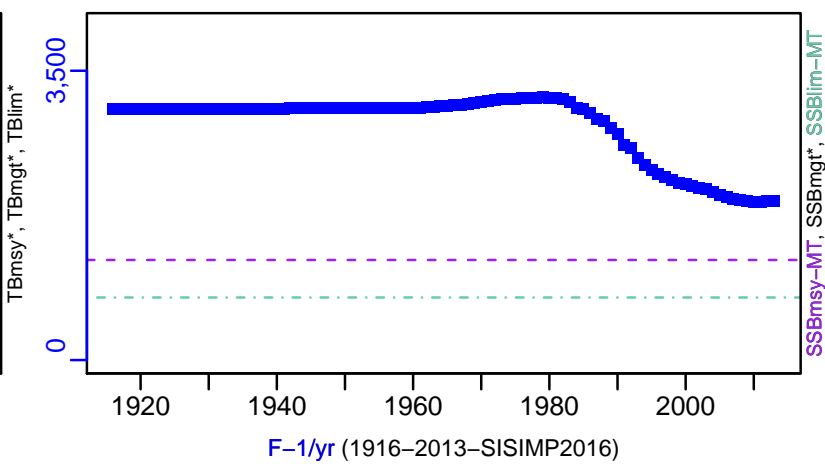


# Aurora rockfish Pacific Coast [AUROCKPCOAST]

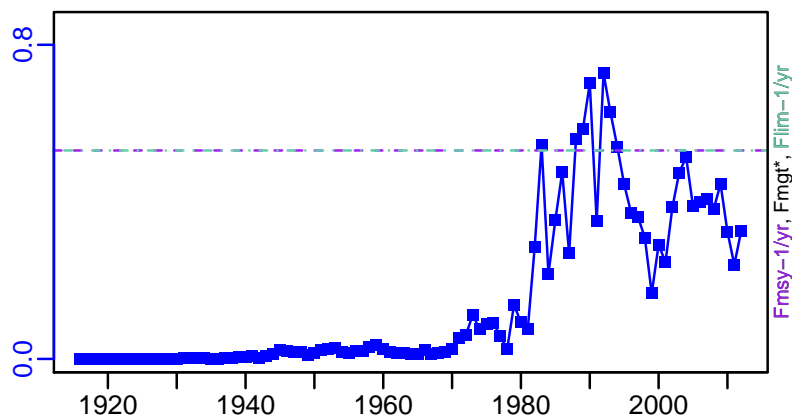
TB-MT (1916-2013-SISIMP2016)



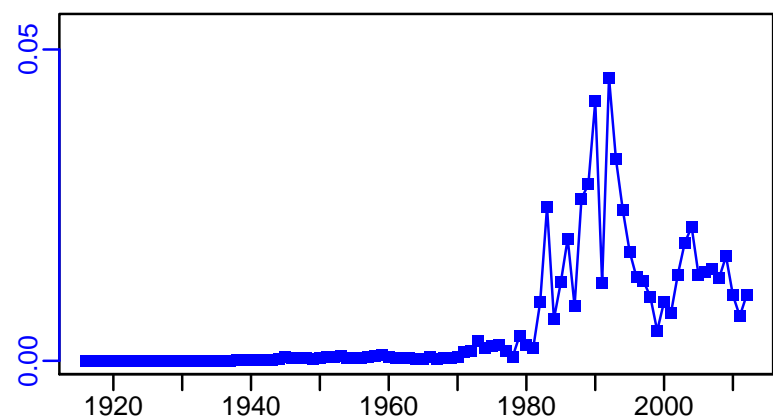
SSB-MT (1916-2013-SISIMP2016)



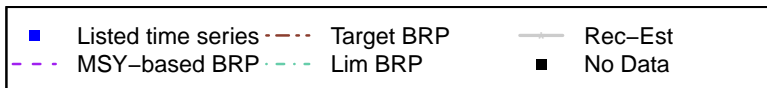
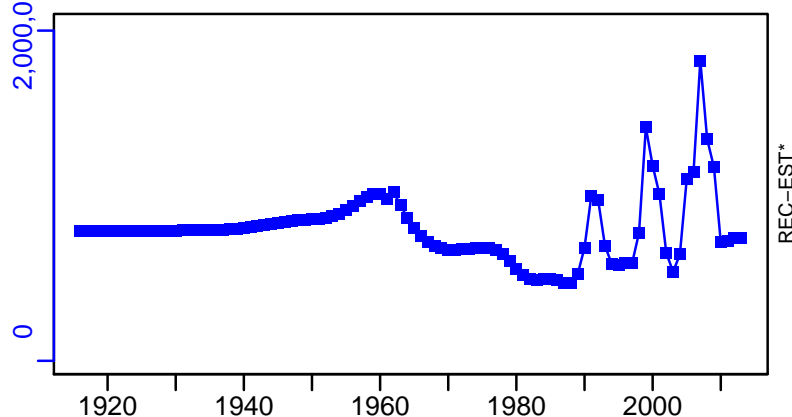
F-1/yr (1916-2013-SISIMP2016)



ER-calc-ratio (1916-2013-SISIMP2016)



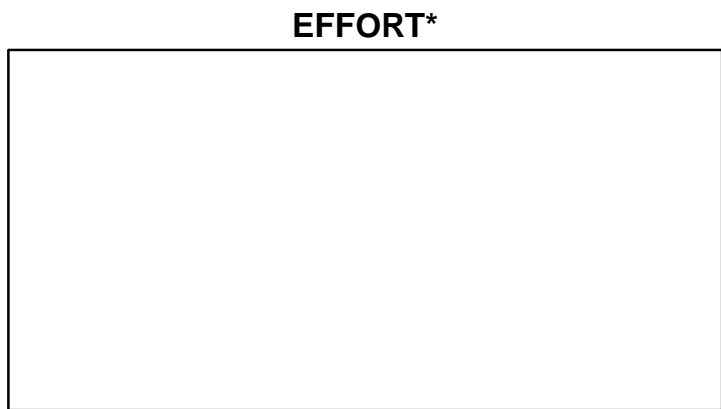
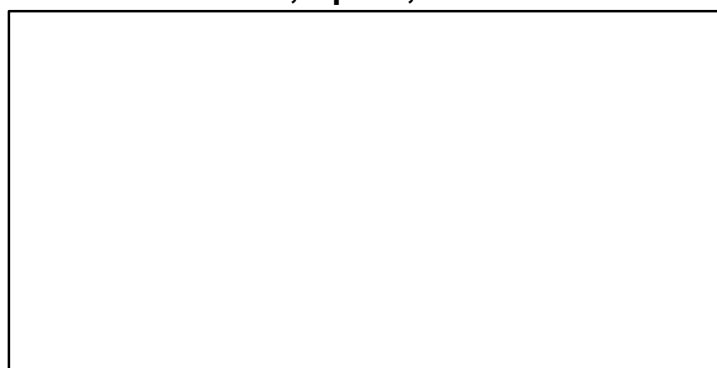
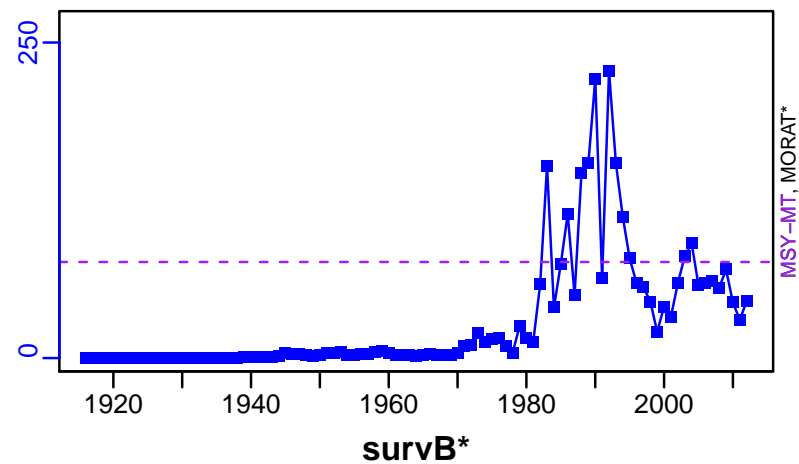
R-E00 (1916-2013-SISIMP2016)



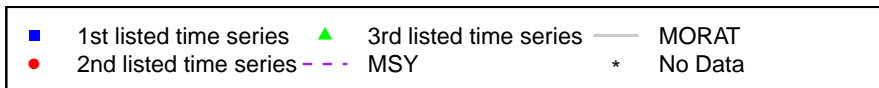
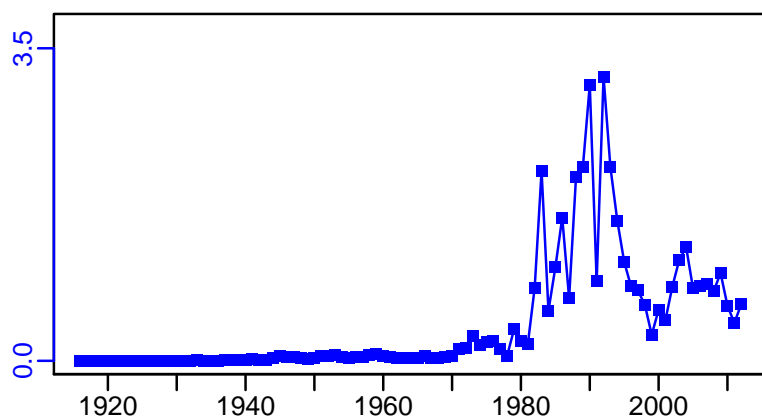
# Aurora rockfish Pacific Coast [AUROCKPCOAST]

TC-MT, TL\*, RecC\* (1916-2013-SISIMP2016)

TAC\*, Cpair\*, Cadv\*



CdivMSY-ratio (1916-2013-SISIMP2016)



## Blackgill rockfish Pacific Coast [BGROCKPCOAST]

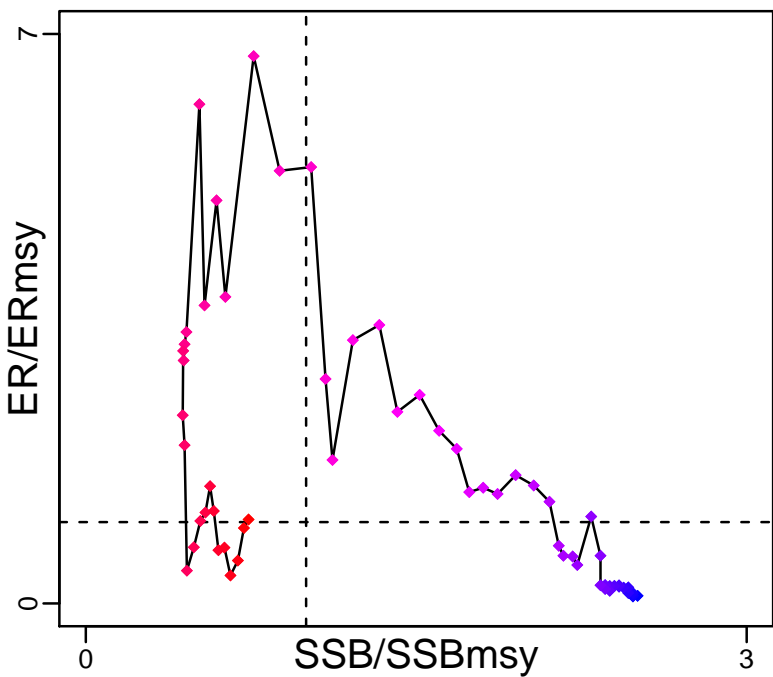
Metadata	
<b>Scientific Name</b>	Sebastes melanostomus
<b>Current Assess ID</b>	NWFSC-BGROCKPCOAST-1950-2011-STACHURA
<b>Area</b>	Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northwest Fisheries Science Center
<b>Asmts in RAM</b>	2011

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-MT	2011	5063
<b>SSBmsy</b>	SSBmsy-pr-E00larvae	2011	475,100
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-pr-ratio	2011	0.022
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2011	12,927
<b>SSB0</b>	SSB0-E00larvae	2011	1,187,800
<b>MSY</b>	MSY-MT	2011	222
<b>M</b>	M-1/yr	2011	0.07
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

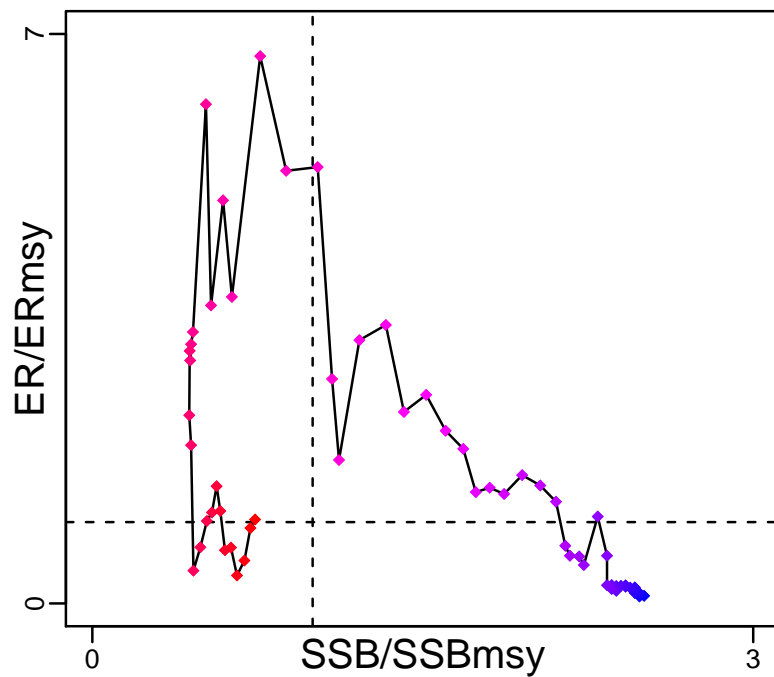
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2011	6590	-	0+
<b>SSB</b>	SSB-E00larvae	2011	359,000	Females	20+
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2011	1,920,000	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2011	0.023	Both	1+
<b>TC</b>	TC-MT	2011	149		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2011	1.302		
<b>SSB/SSBmsy</b>	SSB-E00larvae/SSBmsy-pr-E00larvae	2011	0.756		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-pr-ratio	2011	1.032		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Blackgill rockfish Pacific Coast [BGROCKPCOAST]

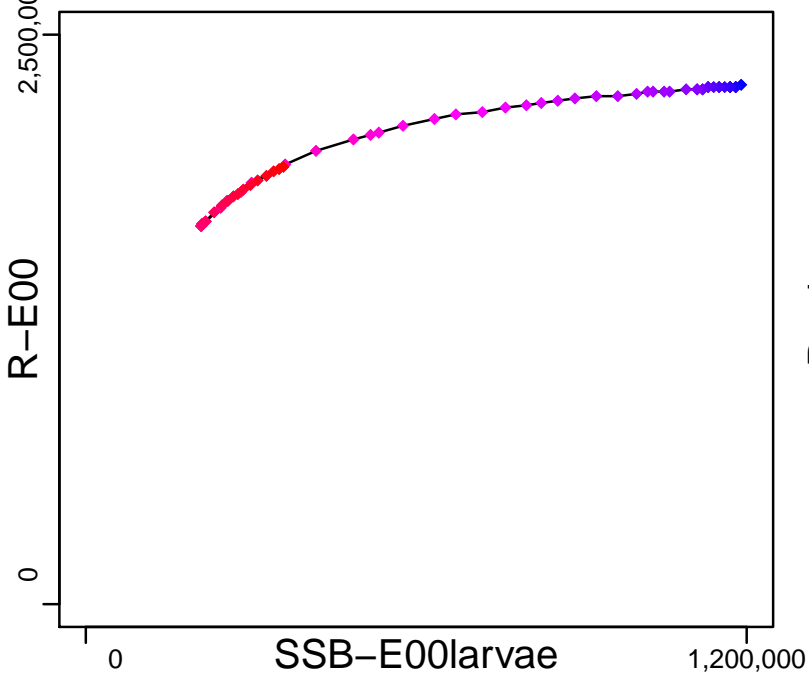
Kobe MSYpref (1950–2011–STACHURA)



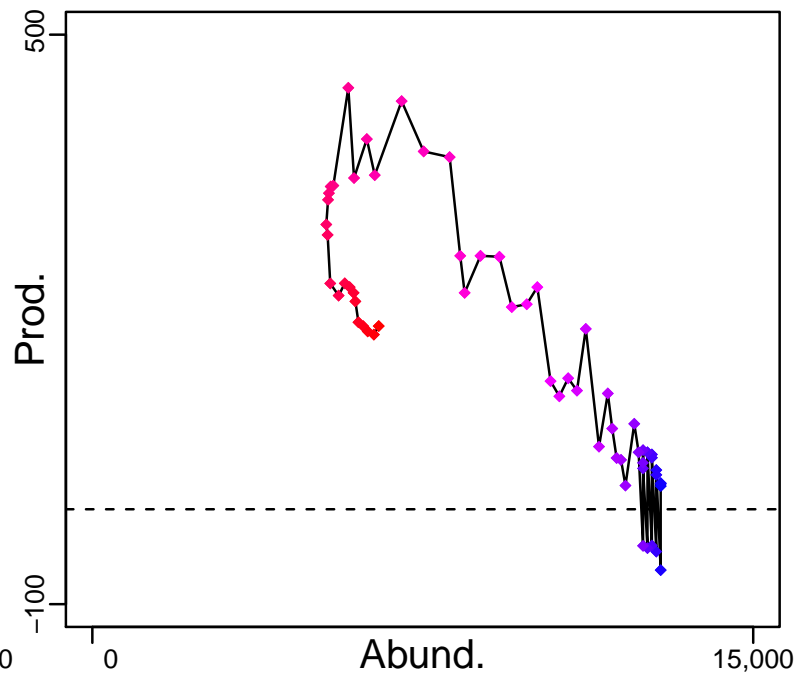
Kobe MGTpref (1950–2011–STACHURA)



Spawner Recruit (1950–2011–STACHURA)



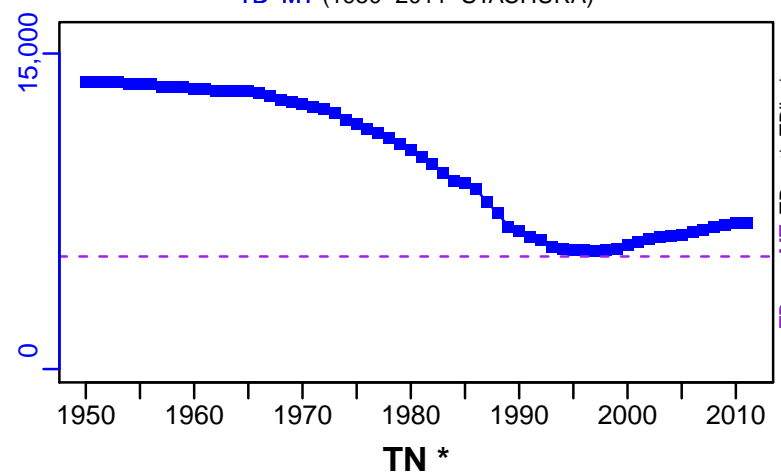
Production (1950–2011–STACHURA)



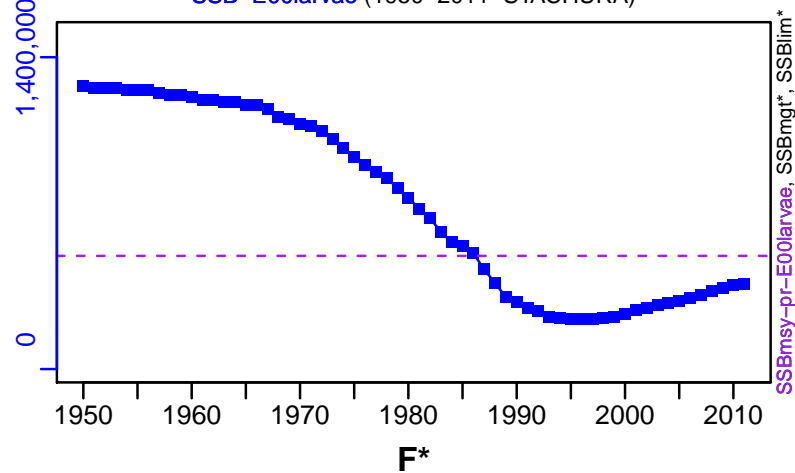
◆ Start Year ◆ End Year \* No Data

# Blackgill rockfish Pacific Coast [BGROCKPCOAST]

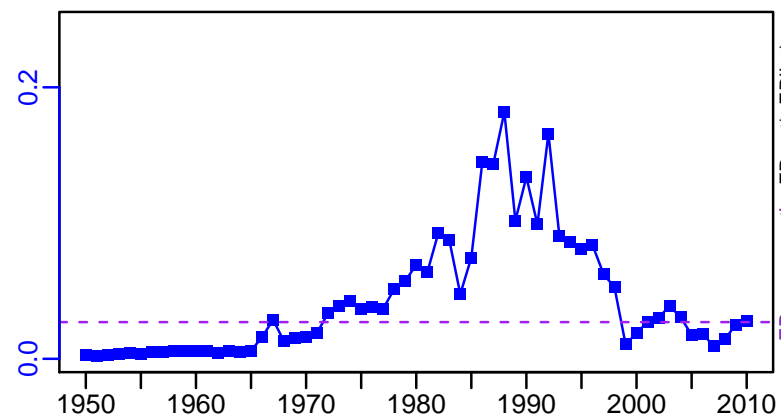
TB-MT (1950-2011-STACHURA)



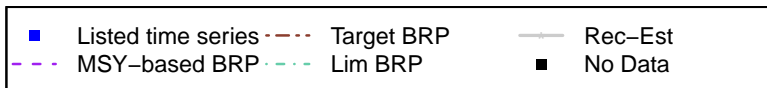
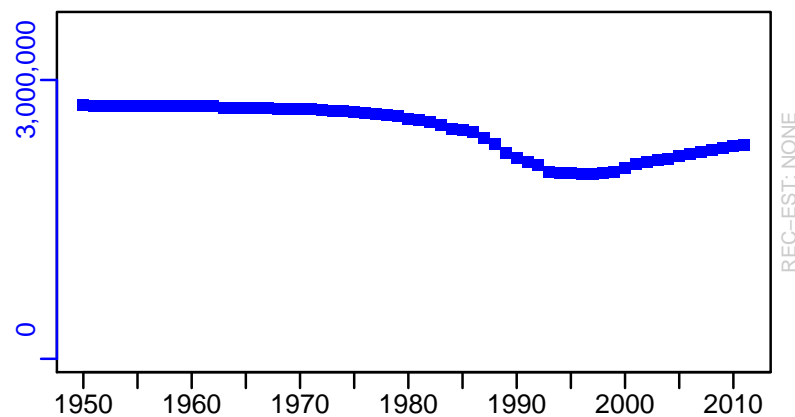
SSB-E00larvae (1950-2011-STACHURA)



ER-ratio (1950-2011-STACHURA)



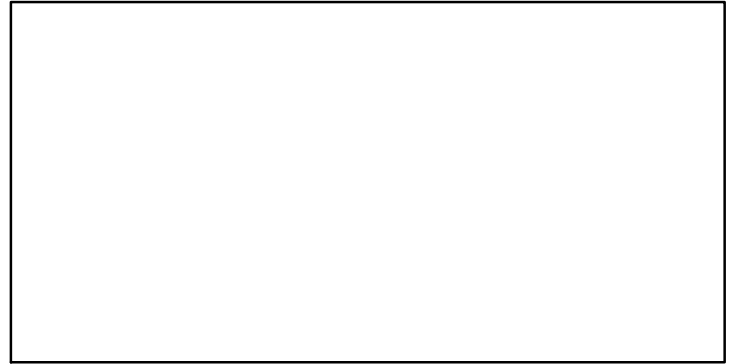
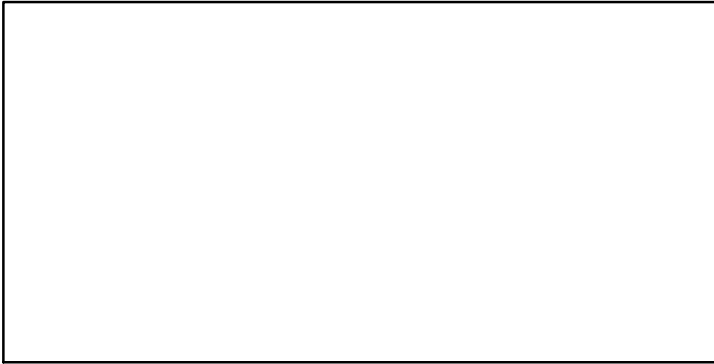
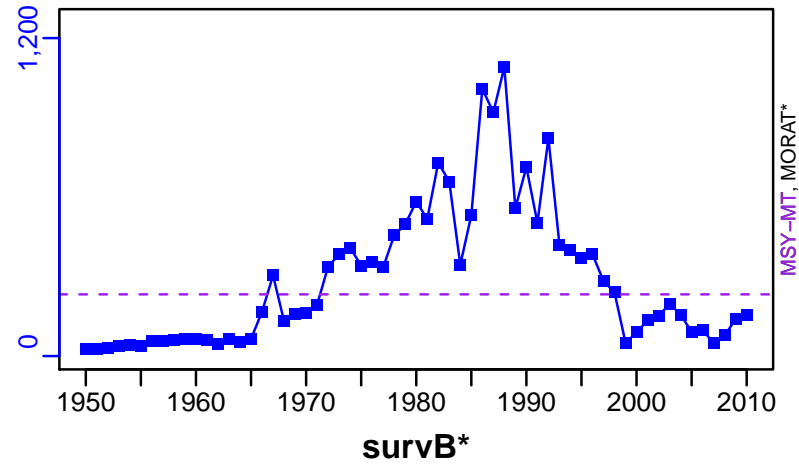
R-E00 (1950-2011-STACHURA)



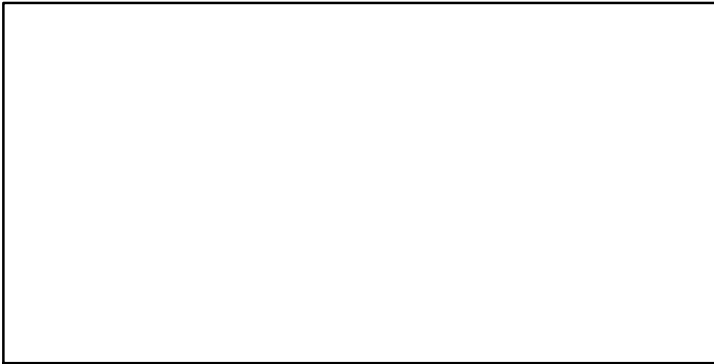
# Blackgill rockfish Pacific Coast [BGROCKPCOAST]

TC-MT, TL\*, RecC\* (1950-2011-STACHURA)

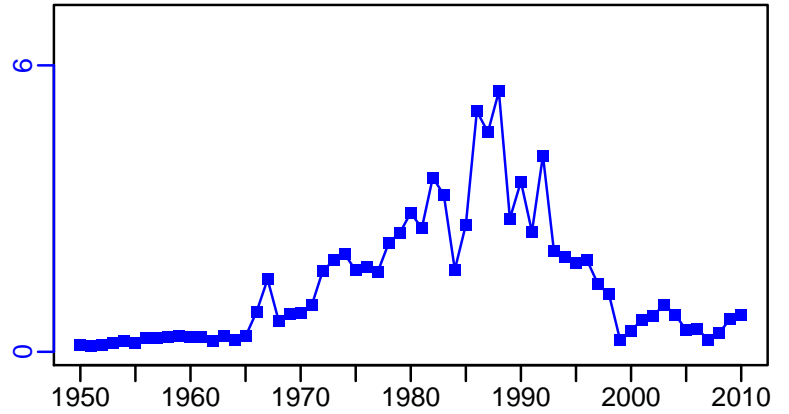
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1950-2011-STACHURA)



## Black rockfish California [BLACKROCKCAL]

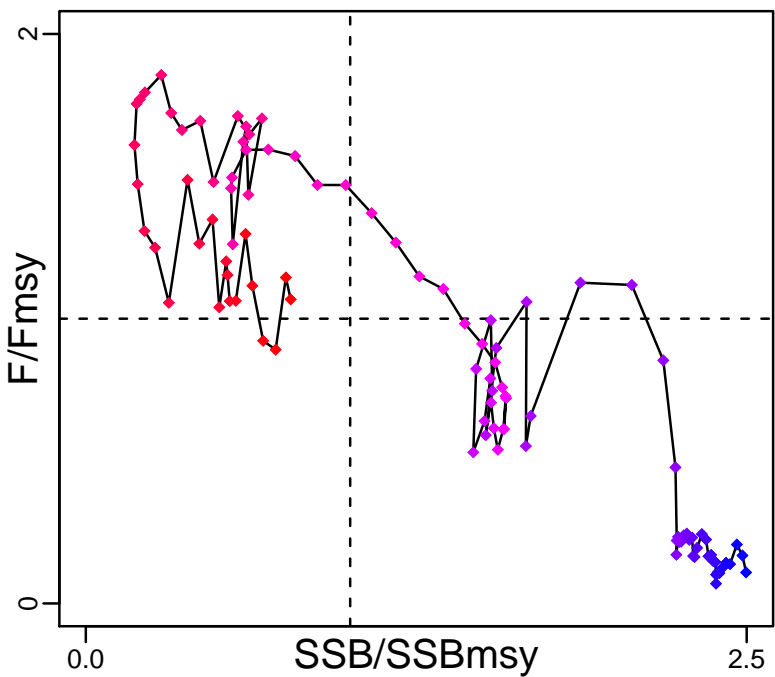
Metadata	
<b>Scientific Name</b>	Sebastes melanops
<b>Current Assess ID</b>	SWFSC-BLACKROCKCAL-1916-2015-SISIMP2016
<b>Area</b>	California
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southwest Fisheries Science Center
<b>Asmts in RAM</b>	2015

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2015	425
<b>Fmsy</b>	Fmsy-1/yr	2015	0.5
<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	2015	343
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2015	266
<b>Flim</b>	Flim-1/yr	2015	0.5
<b>ERlim</b>	-	-	-

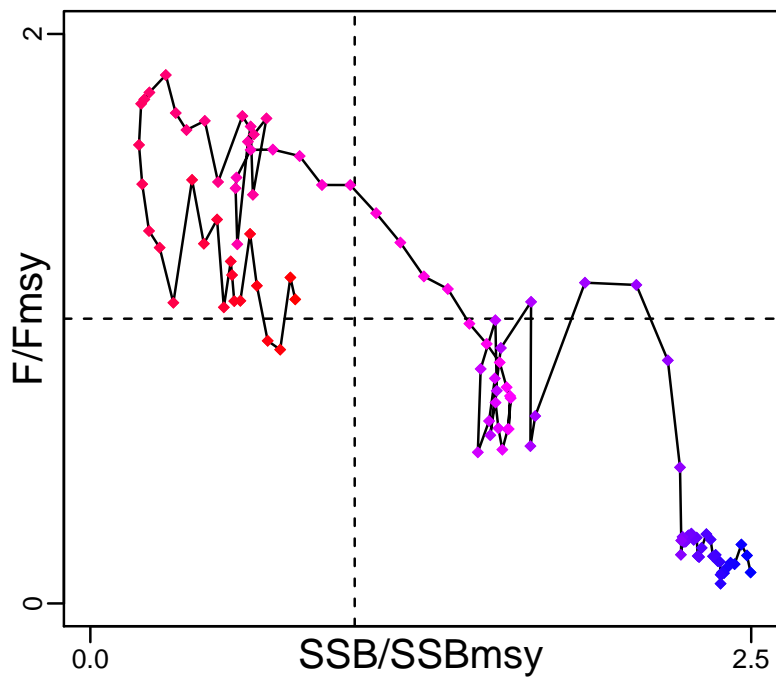
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	5770	-	3+
<b>SSB</b>	SSB-MT	2015	353	Females	7+
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2015	1,750,000	-	0
<b>F</b>	F-1/yr	2015	0.534	-	-
<b>ER</b>	ER-calc-ratio	2015	0.068	-	-
<b>TC</b>	TC-MT	2015	380		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2015	0.831		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2015	1.068		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Black rockfish California [BLACKROCKCAL]

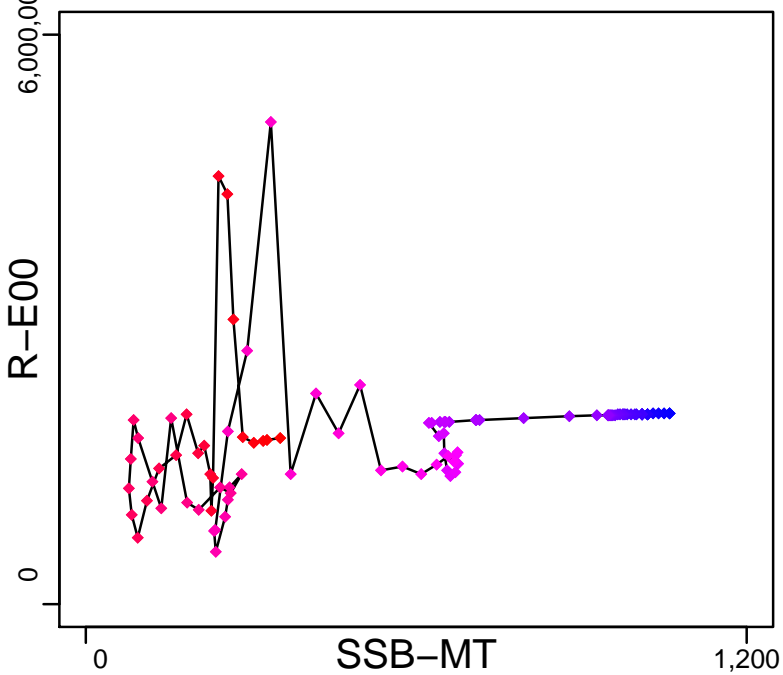
Kobe MSYpref (1916–2015–SISIMP2016)



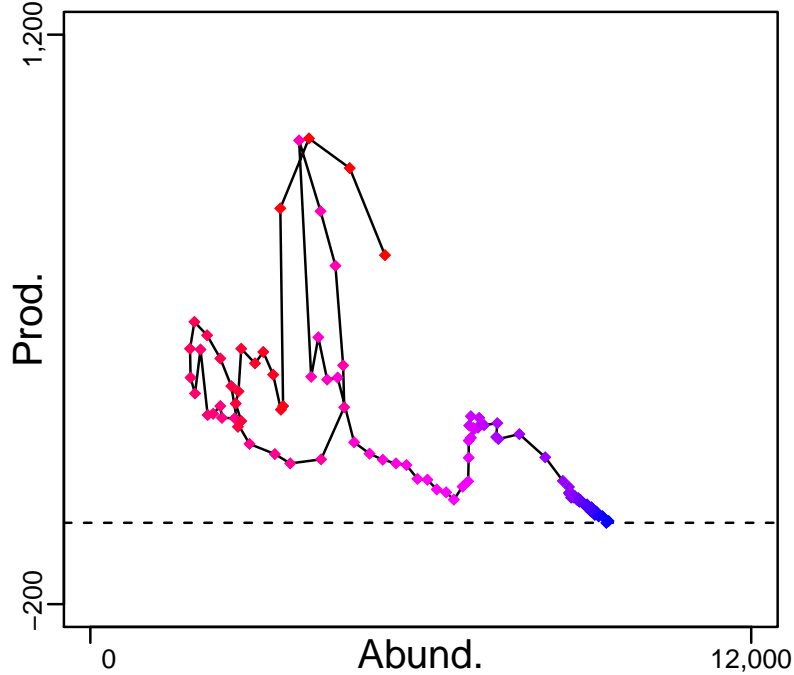
Kobe MGTpref (1916–2015–SISIMP2016)



Spawner Recruit (1916–2015–SISIMP2016)



Production (1916–2015–SISIMP2016)

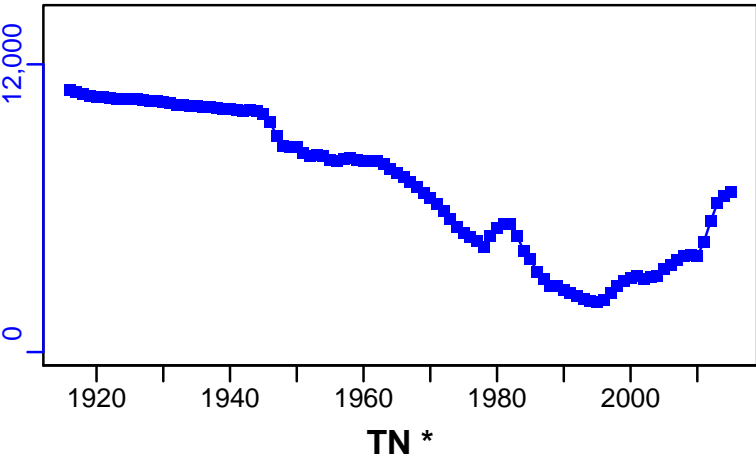


◆ Start Year ◆ End Year \* No Data

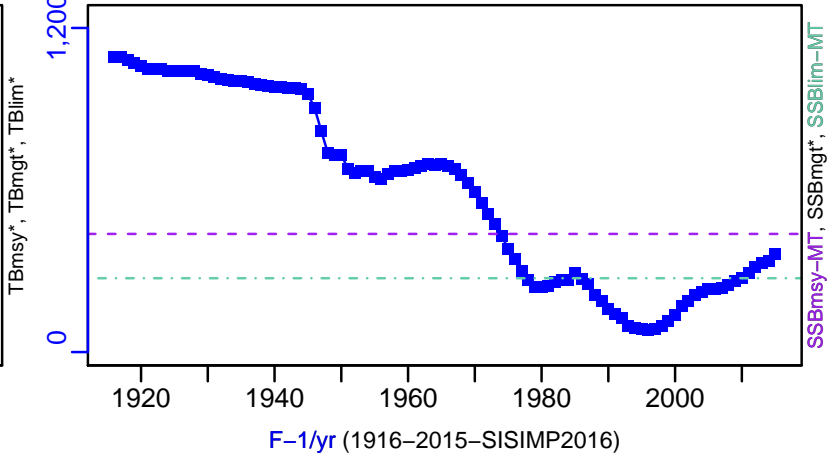


# Black rockfish California [BLACKROCKCAL]

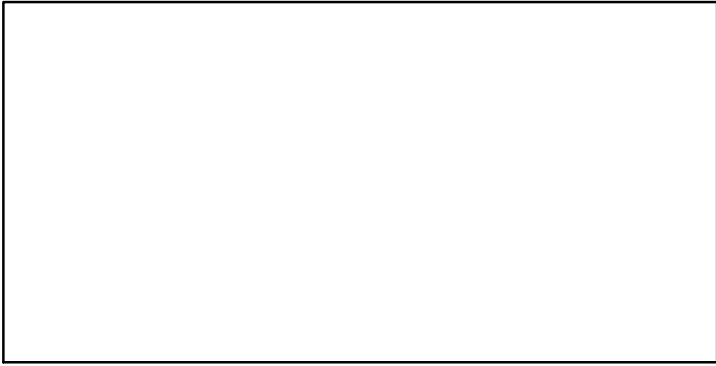
TB-MT (1916-2015-SISIMP2016)



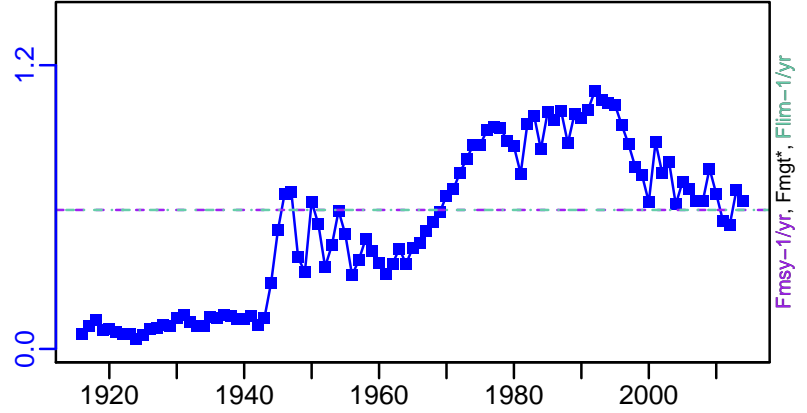
SSB-MT (1916-2015-SISIMP2016)



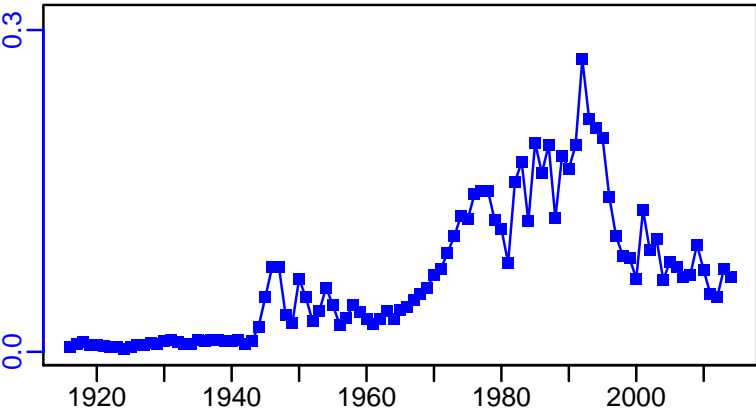
TN \*



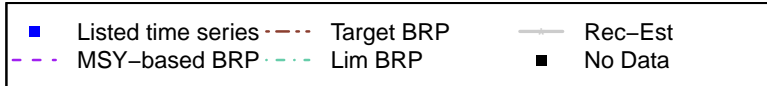
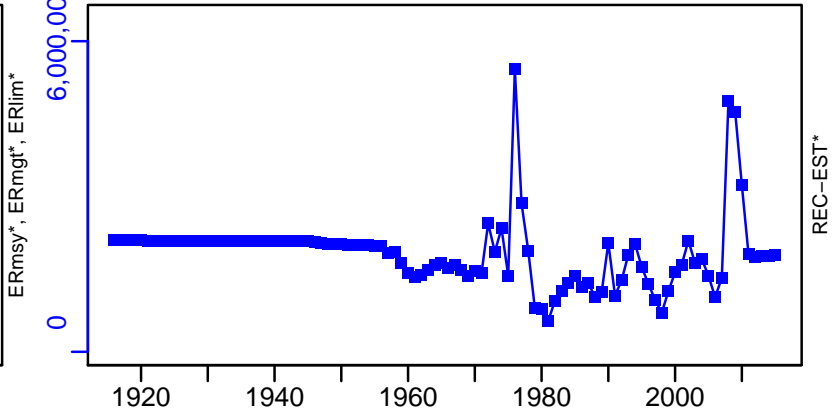
F-1/yr (1916-2015-SISIMP2016)



ER-calc-ratio (1916-2015-SISIMP2016)

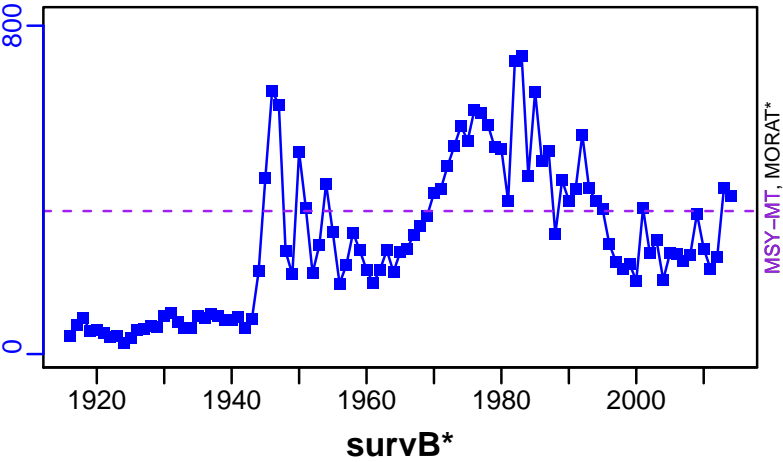


R-E00 (1916-2015-SISIMP2016)

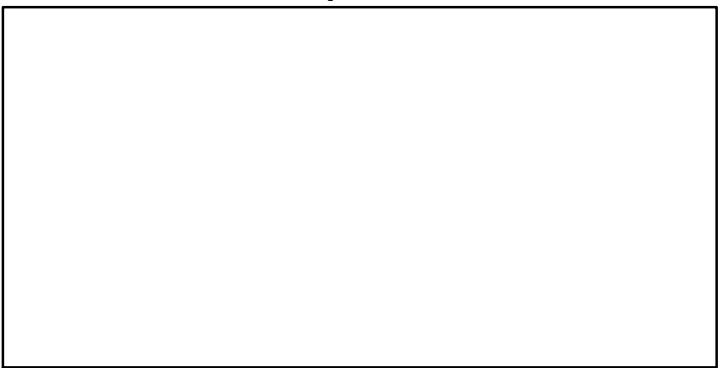


Black rockfish California [BLACKROCKCAL]

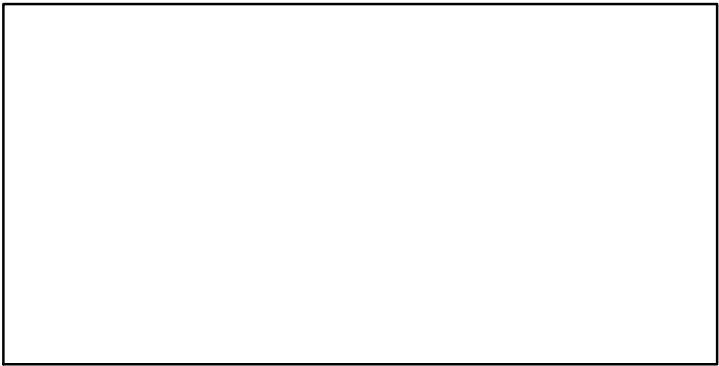
TC-MT, TL\*, RecC\* (1916-2015-SISIMP2016)



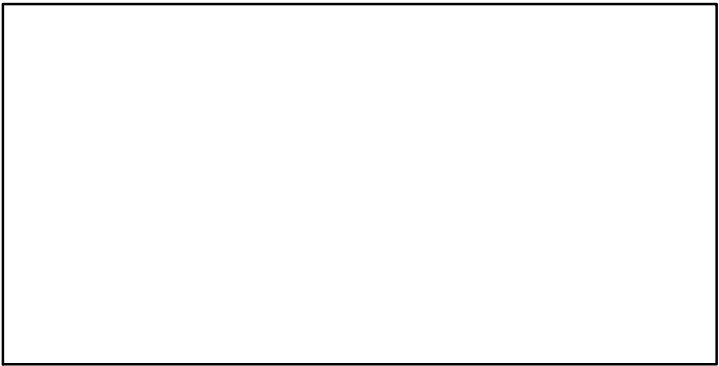
TAC\*, Cpair\*, Cadv\*



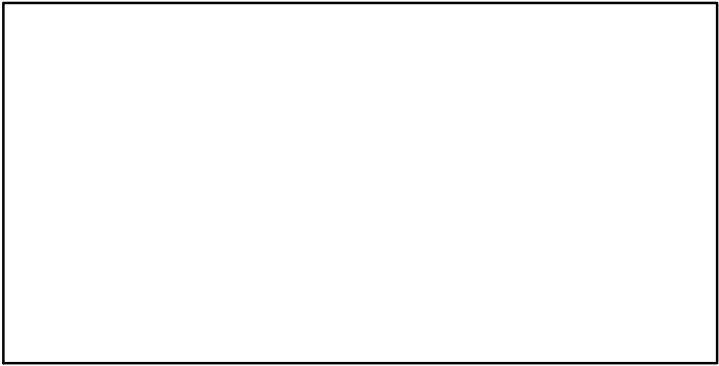
survB\*



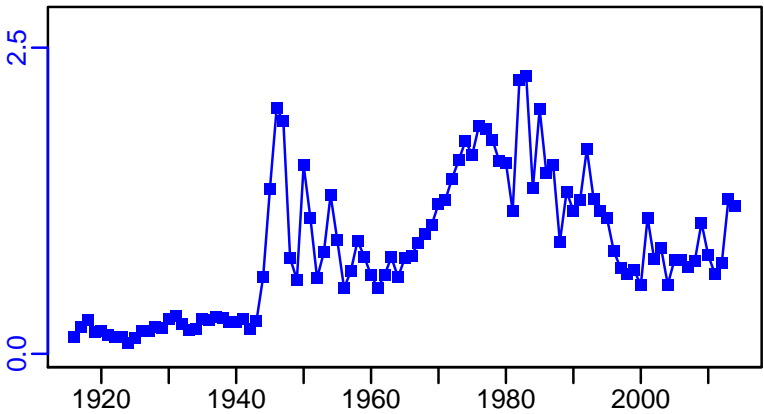
CPUE\*



EFFORT\*



CdivMSY-ratio (1916-2015-SISIMP2016)



## Black rockfish Oregon [BLACKROCKORECOAST]

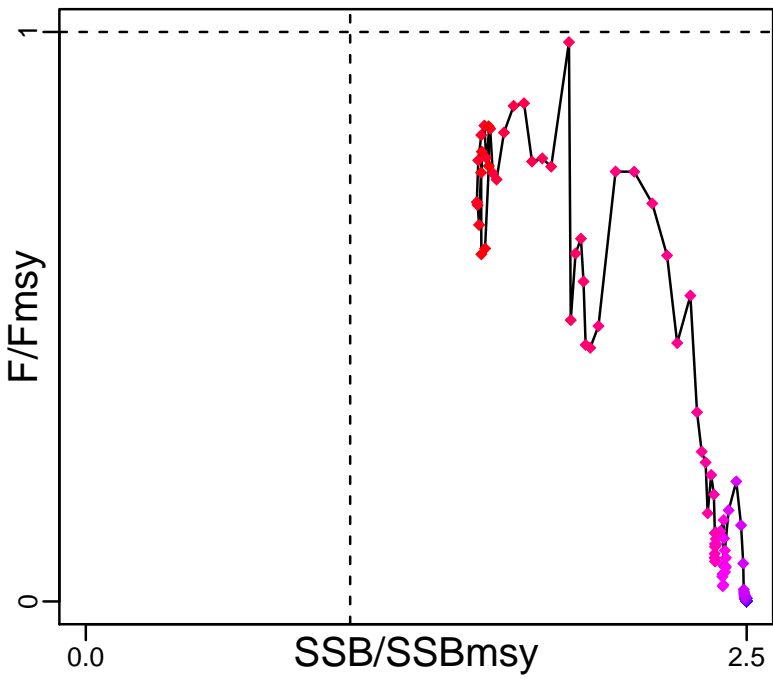
Metadata	
<b>Scientific Name</b>	Sebastes melanops
<b>Current Assess ID</b>	NWFSC-BLACKROCKORECOAST-1892-2015-SISIMP2016
<b>Area</b>	Oregon Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northwest Fisheries Science Center
<b>Asmts in RAM</b>	2015

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2015	554
<b>Fmsy</b>	Fmsy-1/yr	2015	0.5
<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	2015	518
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2015	346
<b>Flim</b>	Flim-1/yr	2015	0.5
<b>ERlim</b>	-	-	-

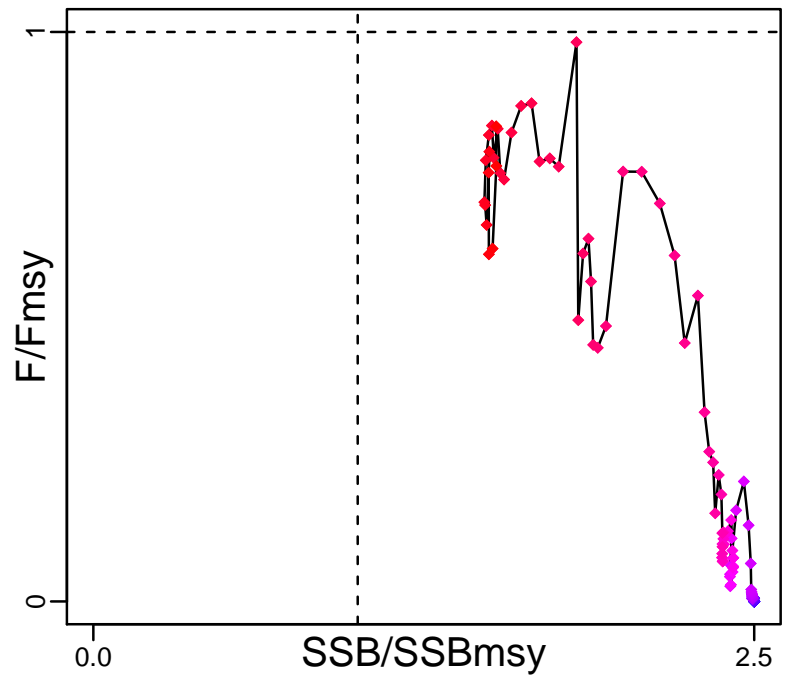
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	8060	-	3+
<b>SSB</b>	SSB-MT	2015	838	Females	7+
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2015	3,510,000	-	0
<b>F</b>	F-1/yr	2015	0.417	-	-
<b>ER</b>	ER-calc-ratio	2015	0.06	-	-
<b>TC</b>	TC-MT	2015	485		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2015	1.514		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2015	0.834		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Black rockfish Oregon [BLACKROCKORECOAST]

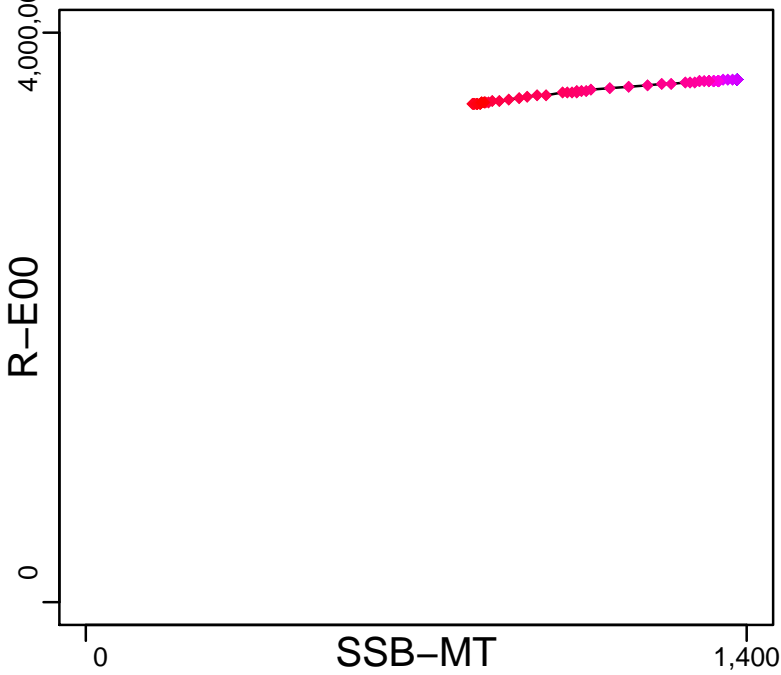
Kobe MSYpref (1892–2015–SISIMP2016)



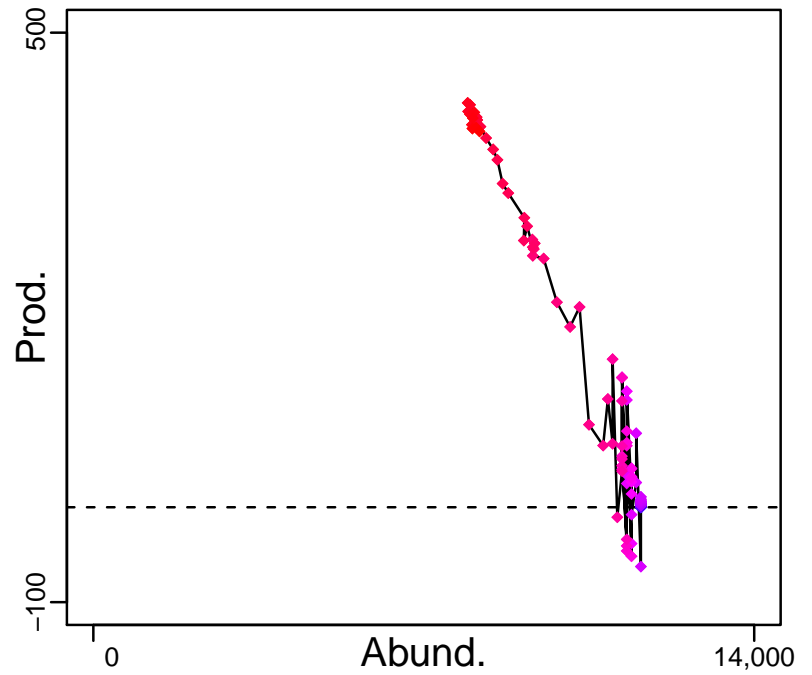
Kobe MGTpref (1892–2015–SISIMP2016)



Spawner Recruit (1892–2015–SISIMP2016)



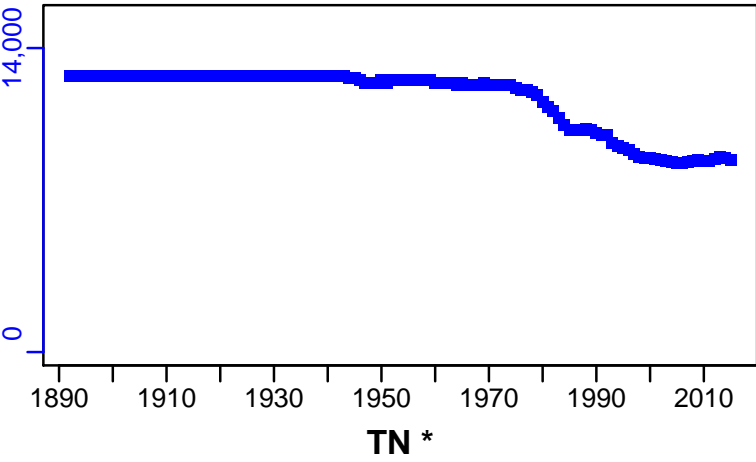
Production (1892–2015–SISIMP2016)



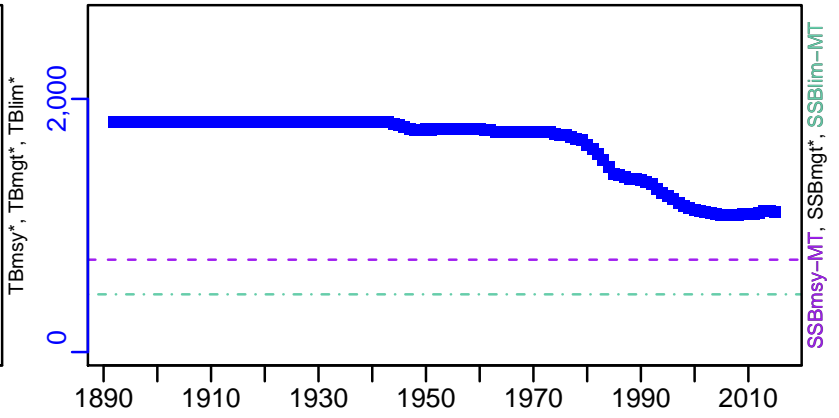
◆ Start Year ◆ End Year \* No Data

# Black rockfish Oregon [BLACKROCKORECOAST]

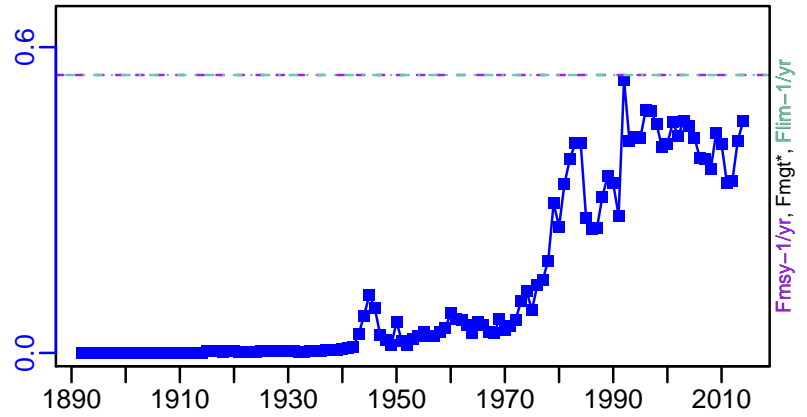
TB-MT (1892–2015–SISIMP2016)



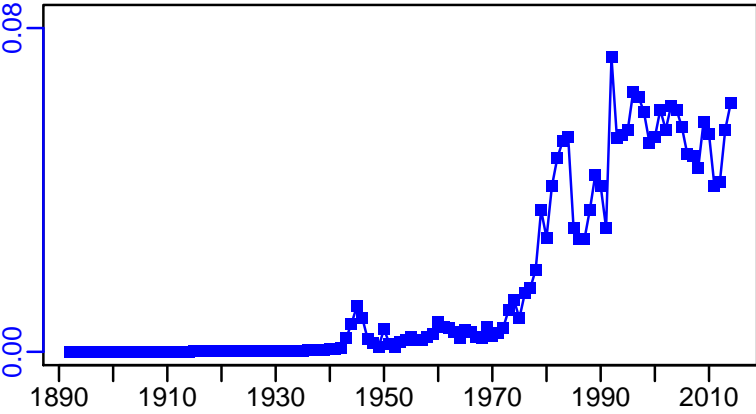
SSB-MT (1892–2015–SISIMP2016)



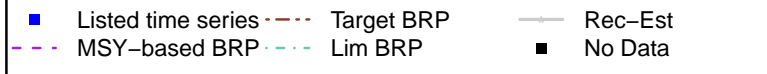
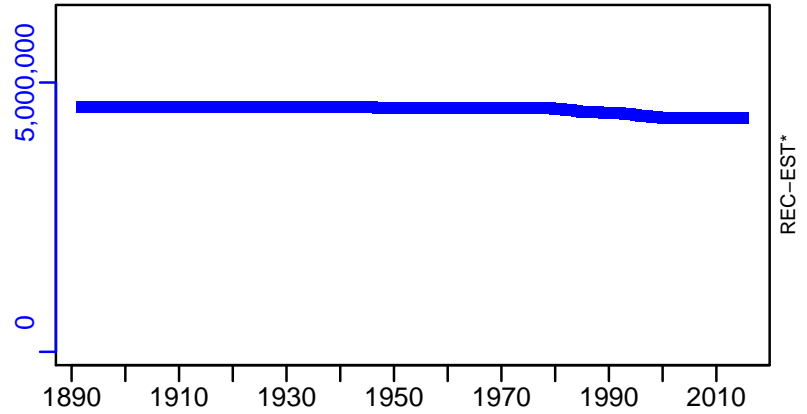
F-1/yr (1892–2015–SISIMP2016)



ER-calc-ratio (1892–2015–SISIMP2016)



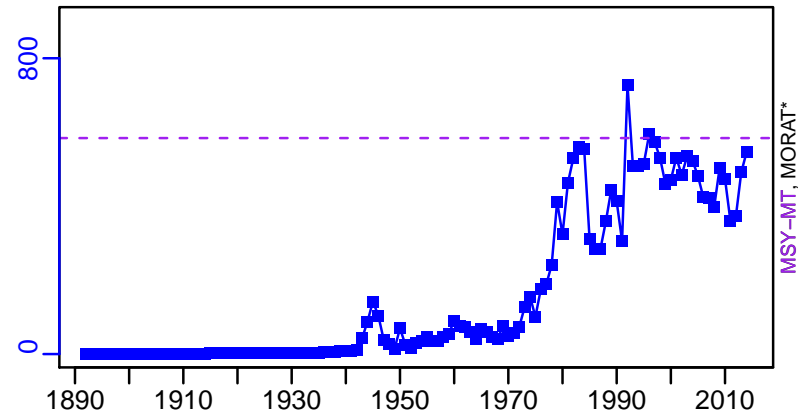
R-E00 (1892–2015–SISIMP2016)



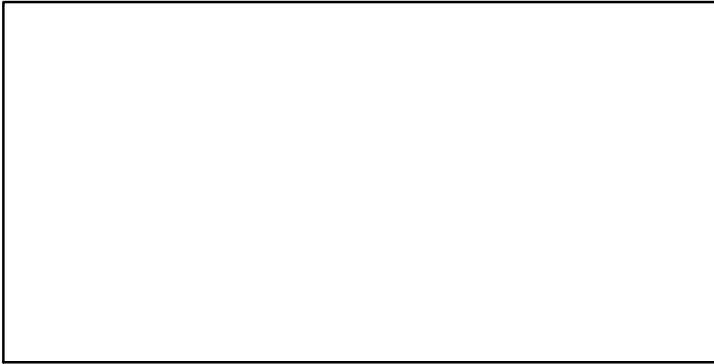
# Black rockfish Oregon [BLACKROCKORECOAST]

TC-MT, TL\*, RecC\* (1892-2015-SISIMP2016)

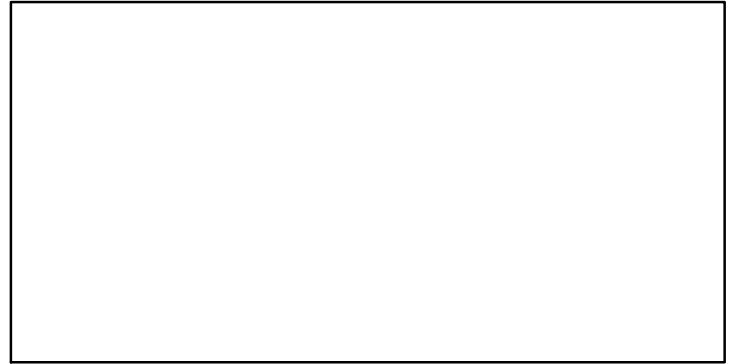
TAC\*, Cpair\*, Cadv\*



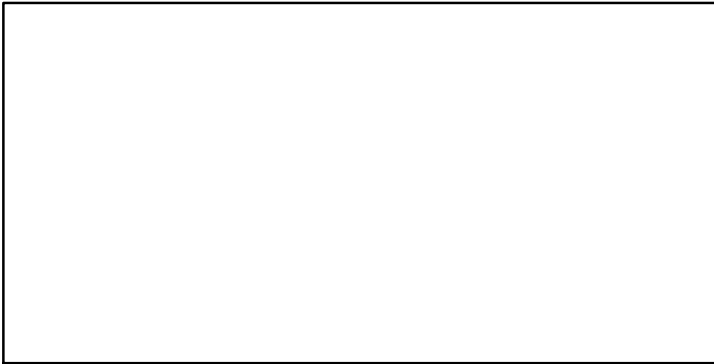
survB\*



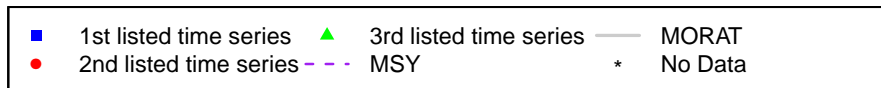
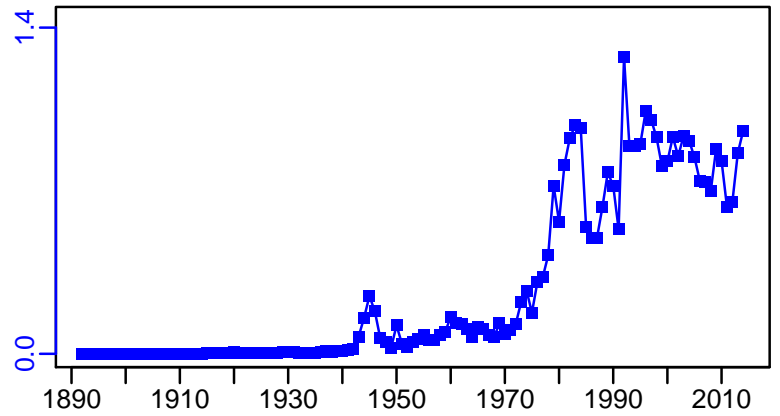
CPUE\*



EFFORT\*



CdivMSY-ratio (1892-2015-SISIMP2016)



## Black rockfish Washington [BLACKROCKWASH]

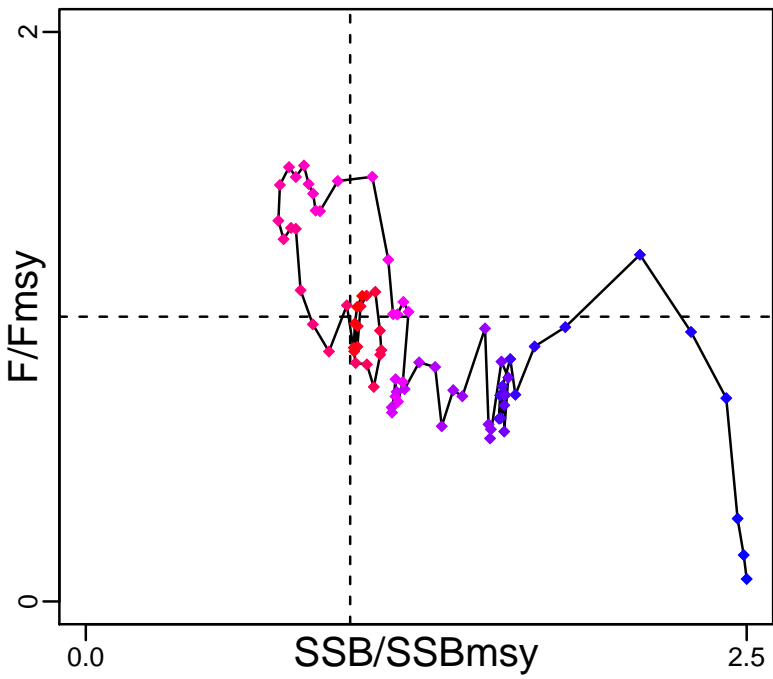
Metadata	
<b>Scientific Name</b>	Sebastes melanops
<b>Current Assess ID</b>	NWFSC-BLACKROCKWASH-1940-2015-SISIMP2016
<b>Area</b>	Washington
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northwest Fisheries Science Center
<b>Asmts in RAM</b>	2015

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2015	542
<b>Fmsy</b>	Fmsy-1/yr	2015	0.5
<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>	SSBlim-MT	2015	339
<b>Flim</b>	Flim-1/yr	2015	0.5
<b>ERlim</b>	-	-	-

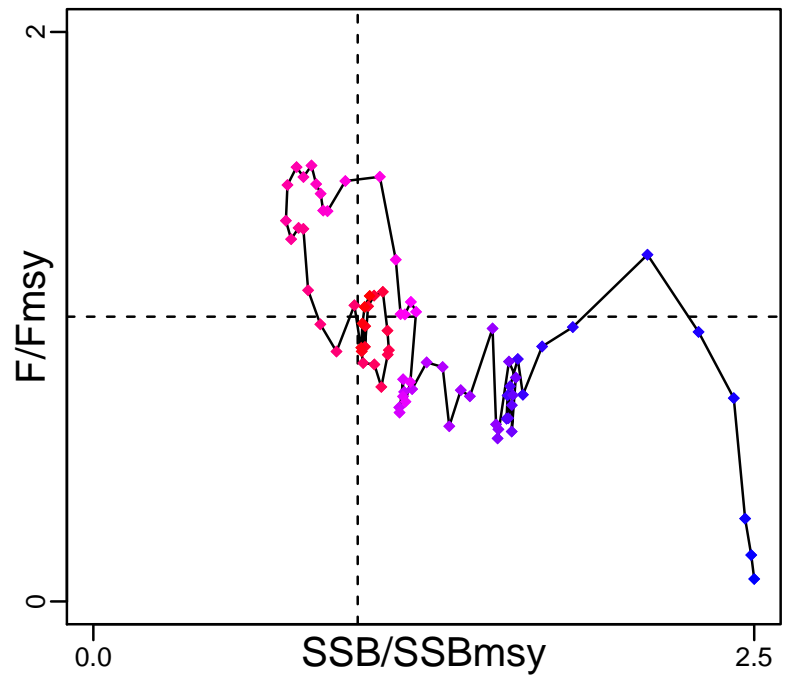
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	5640	-	3+
<b>SSB</b>	SSB-MT	2015	582	Females	7+
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2015	1,910,000	-	0
<b>F</b>	F-1/yr	2015	0.536	-	-
<b>ER</b>	ER-calc-ratio	2015	0.063	-	-
<b>TC</b>	TC-MT	2015	356		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2015	1.074		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2015	1.073		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Black rockfish Washington [BLACKROCKWASH]

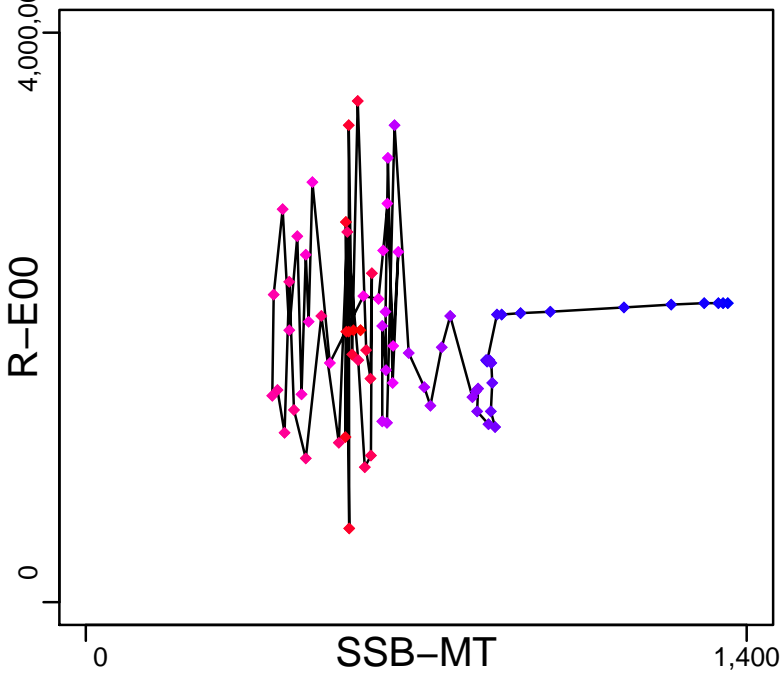
Kobe MSYpref (1940–2015–SISIMP2016)



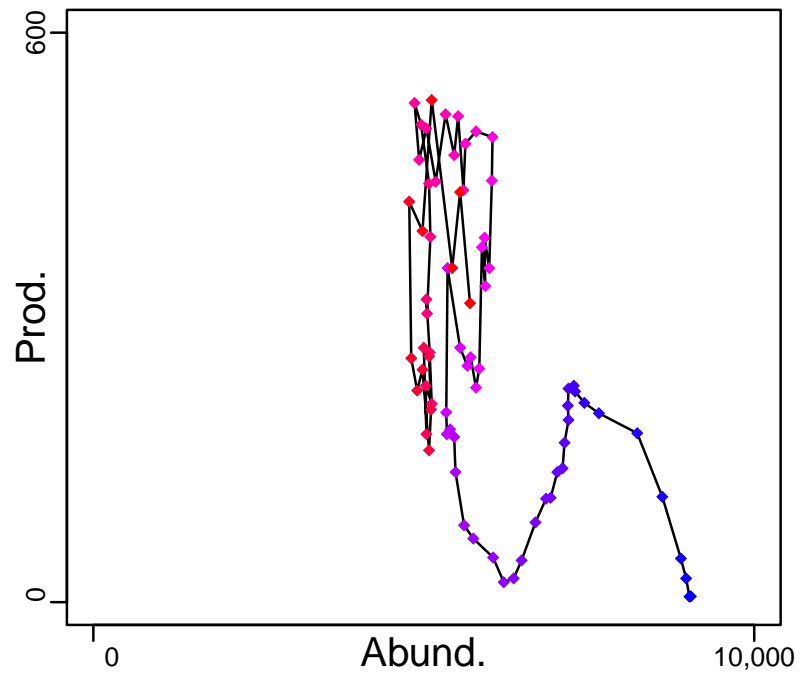
Kobe MGTpref (1940–2015–SISIMP2016)



Spawner Recruit (1940–2015–SISIMP2016)



Production (1940–2015–SISIMP2016)

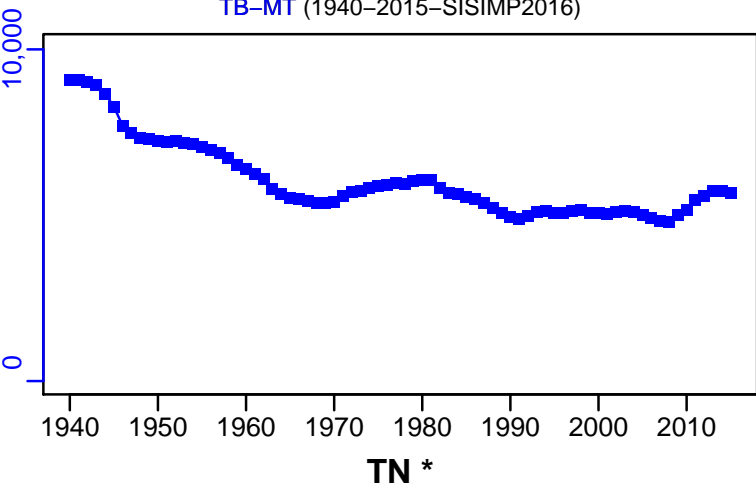


◆ Start Year ◆ End Year \* No Data

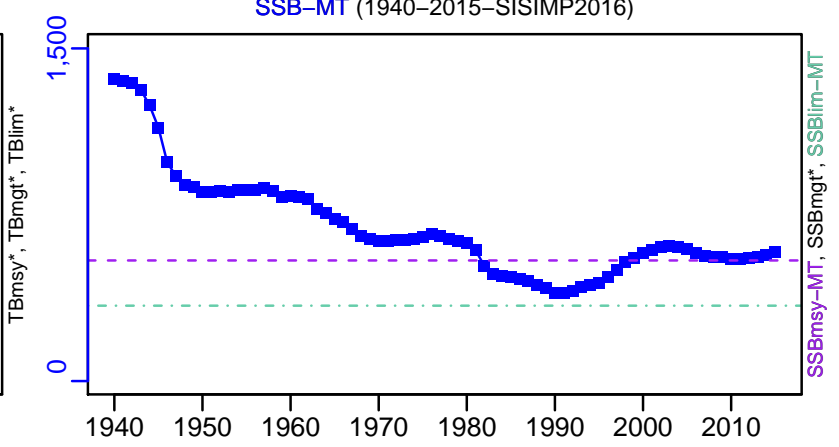


# Black rockfish Washington [BLACKROCKWASH]

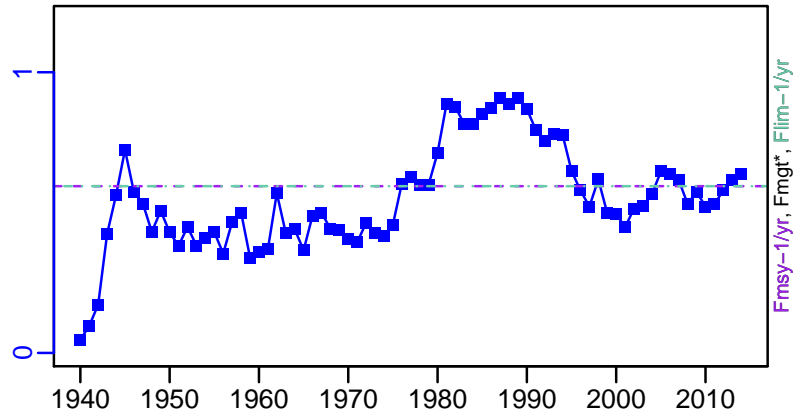
TB-MT (1940-2015-SISIMP2016)



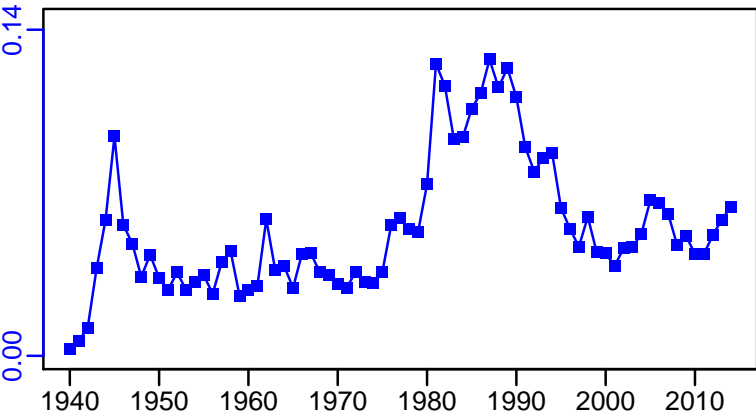
SSB-MT (1940-2015-SISIMP2016)



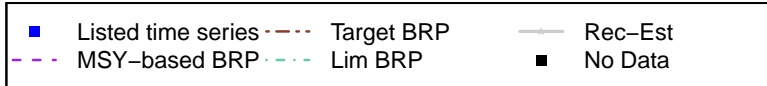
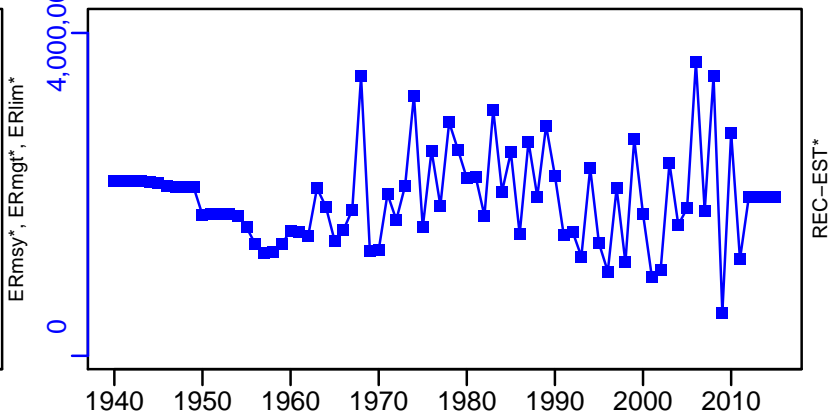
F-1/yr (1940-2015-SISIMP2016)



ER-calc-ratio (1940-2015-SISIMP2016)

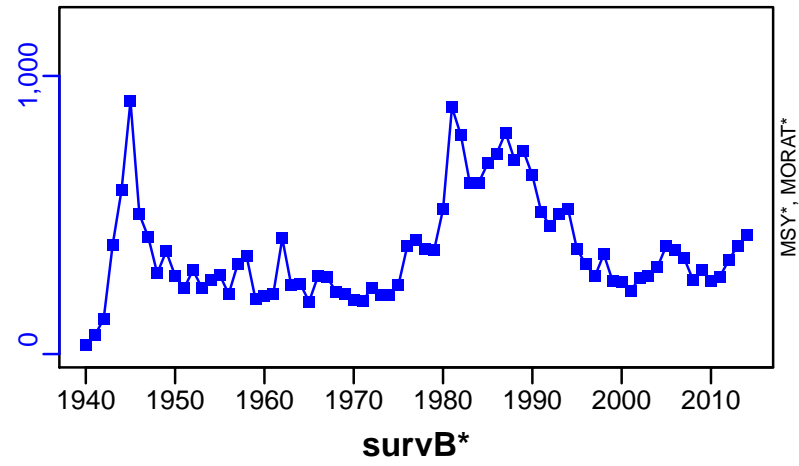


R-E00 (1940-2015-SISIMP2016)

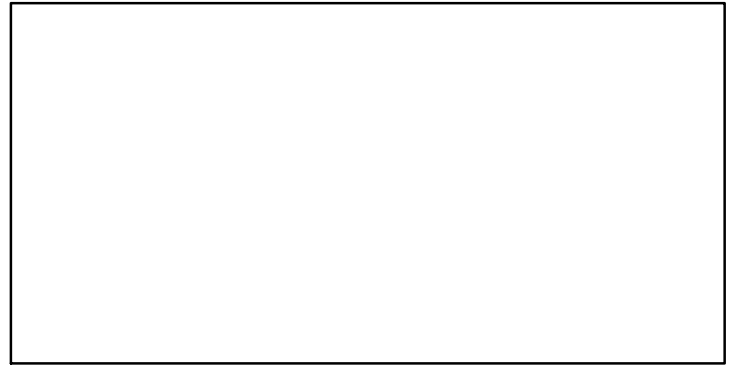


# Black rockfish Washington [BLACKROCKWASH]

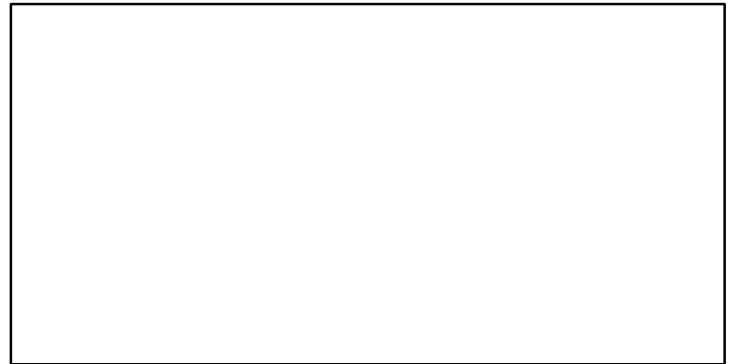
TC-MT, TL\*, RecC\* (1940-2015-SISIMP2016)



TAC\*, Cpair\*, Cadv\*



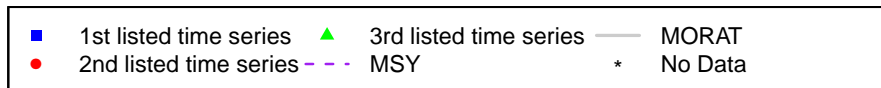
CPUE\*



EFFORT\*



CdivMSY\*



## Blue rockfish California [BLUEROCKCAL]

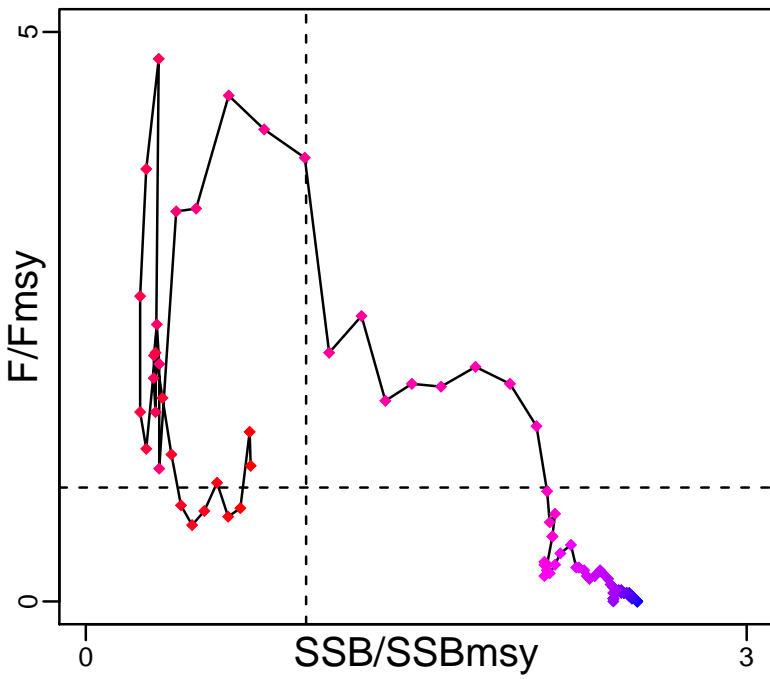
Metadata	
<b>Scientific Name</b>	Sebastes mystinus
<b>Current Assess ID</b>	NWFSC-BLUEROCKCAL-1916-2007-BRANCH
<b>Area</b>	California
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northwest Fisheries Science Center
<b>Asmts in RAM</b>	2007

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-pr-E00larvae	2007	$8.31 \times 10^8$
<b>Fmsy</b>	Fmsy-pr-1/yr	2007	0.04
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2007	13,223
<b>SSB0</b>	SSB0-MT	2007	2077
<b>MSY</b>	MSY-MT	2007	275
<b>M</b>	M-1/yr	2007	0.12
<b>TBlim</b>	TBlim-MT	2007	205
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

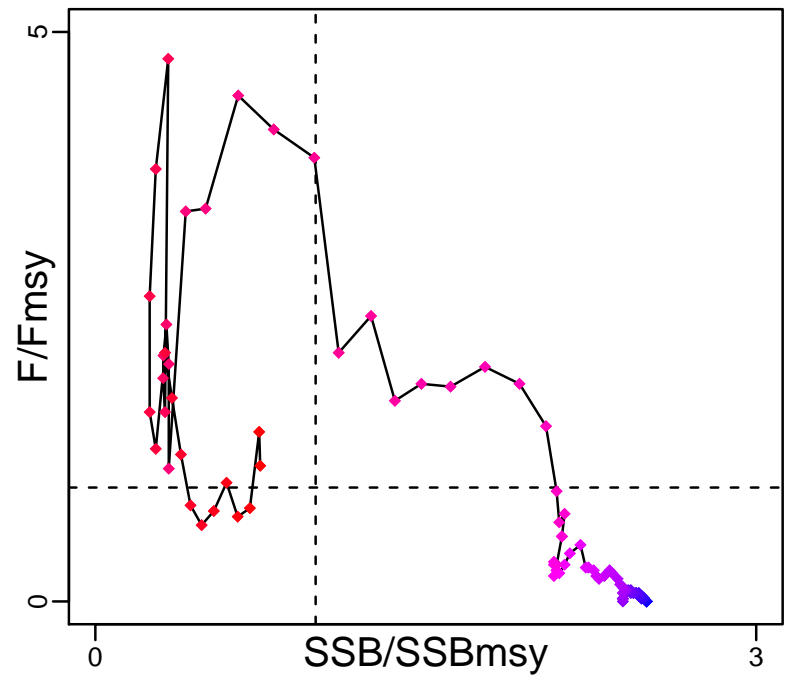
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2007	5450	-	1+
<b>SSB</b>	SSB-E00larvae	2007	$6.22 \times 10^8$	Females	6+
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2007	2,260,000	-	0
<b>F</b>	F-1/yr	2007	0.048	Both	1+
<b>ER</b>	ER-ratio	2007	0.048	-	-
<b>TC</b>	TC-MT	2007	263		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-E00larvae/SSBmsy-pr-E00larvae	2007	0.748		
<b>F/Fmsy</b>	F-1/yr/Fmsy-pr-1/yr	2007	1.191		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Blue rockfish California [BLUEROCKCAL]

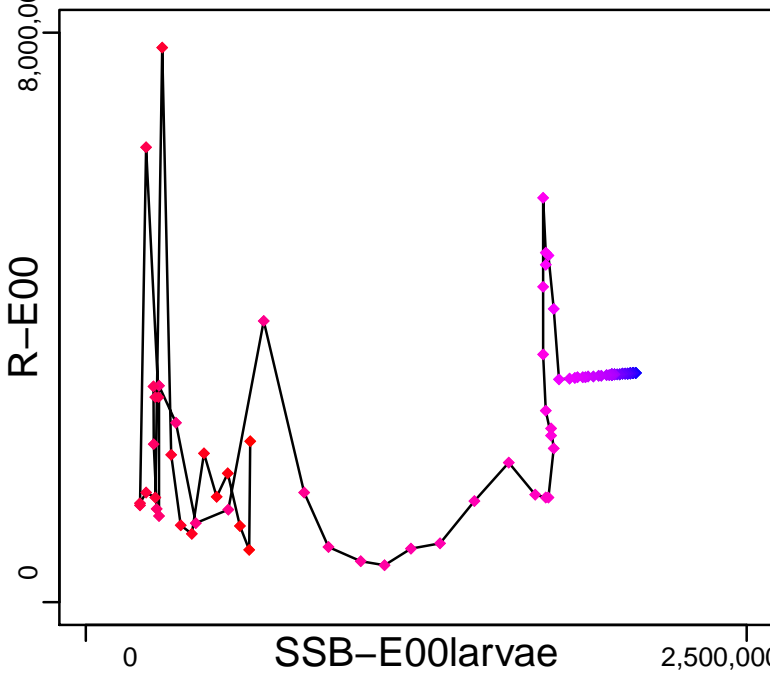
Kobe MSYpref (1916–2007–BRANCH)



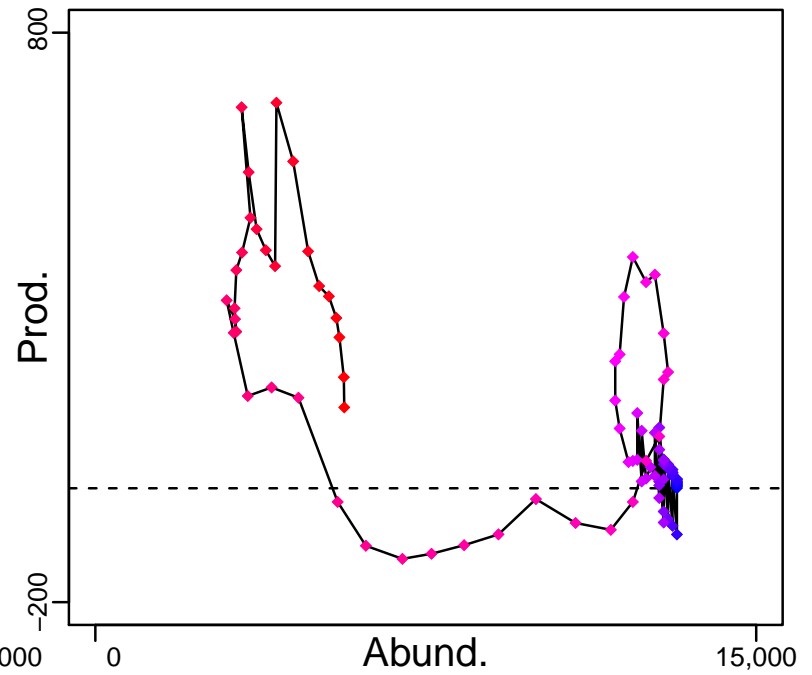
Kobe MGTpref (1916–2007–BRANCH)



Spawner Recruit (1916–2007–BRANCH)



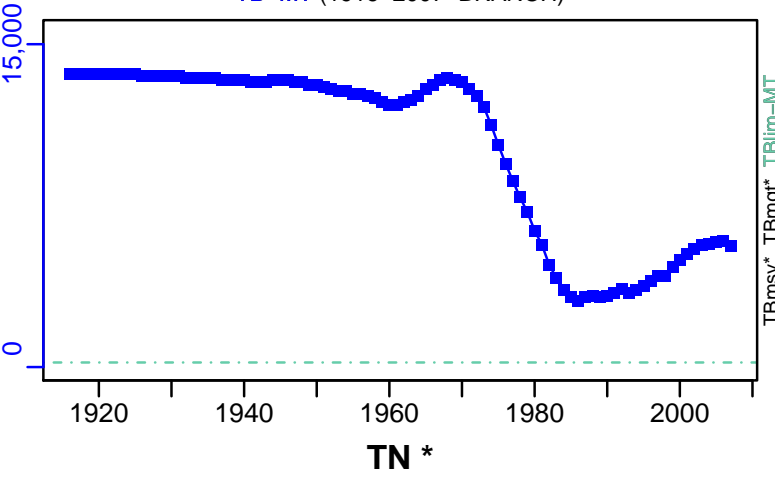
Production (1916–2007–BRANCH)



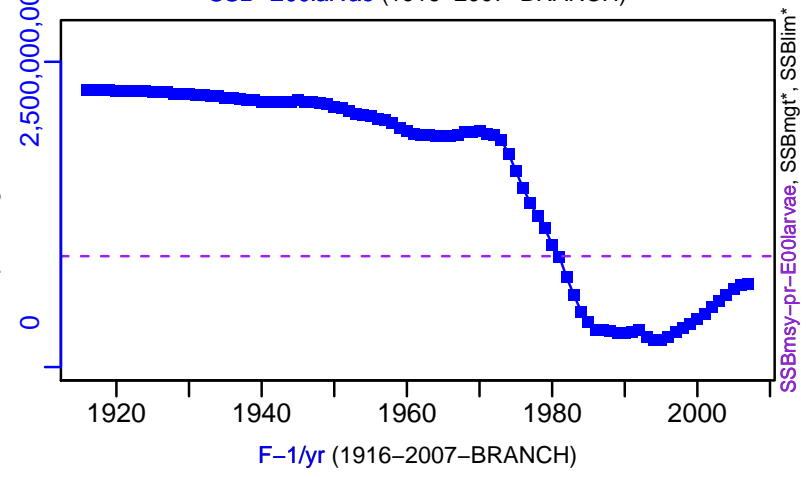
◆ Start Year ◆ End Year \* No Data

# Blue rockfish California [BLUEROCKCAL]

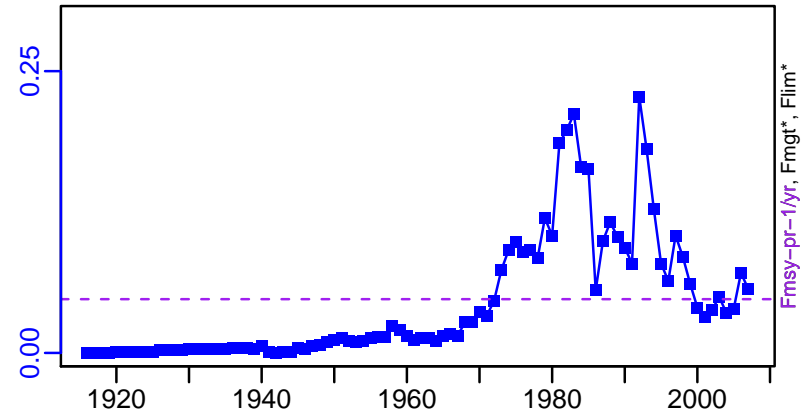
TB-MT (1916-2007-BRANCH)



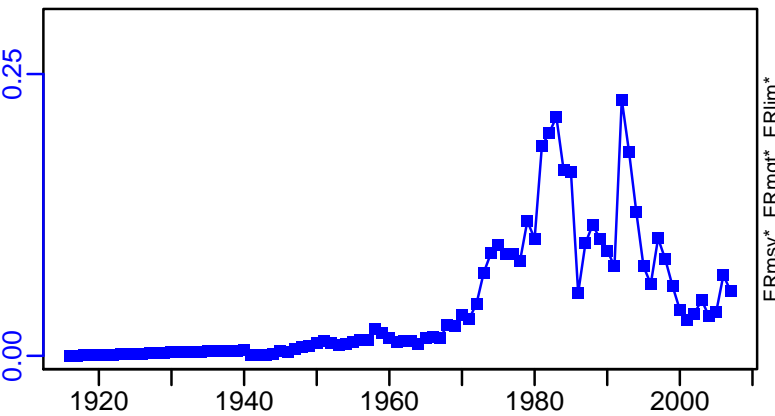
SSB-E00larvae (1916-2007-BRANCH)



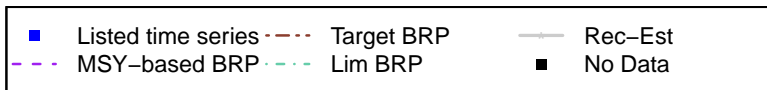
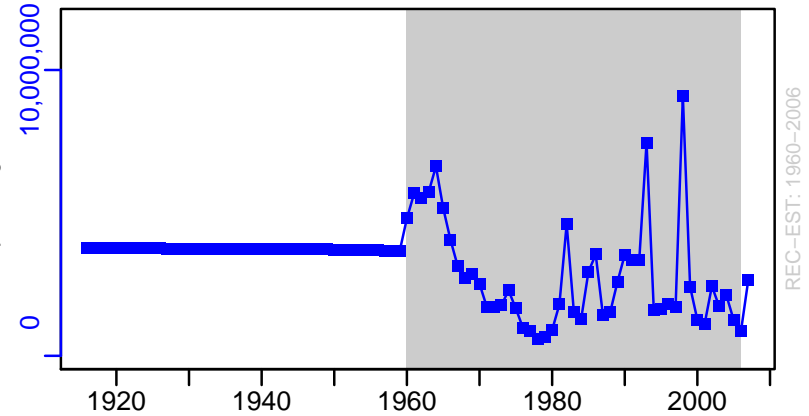
F-1/yr (1916-2007-BRANCH)



ER-ratio (1916-2007-BRANCH)



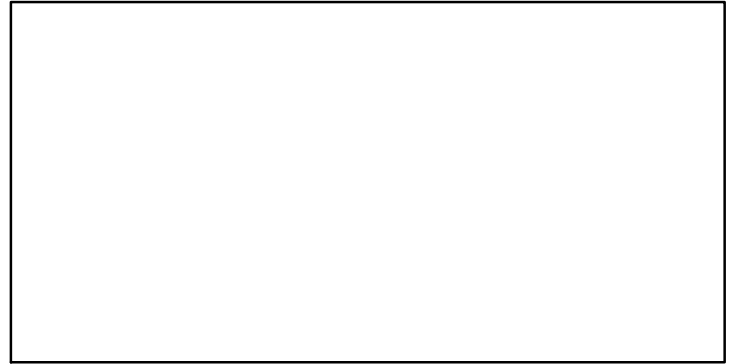
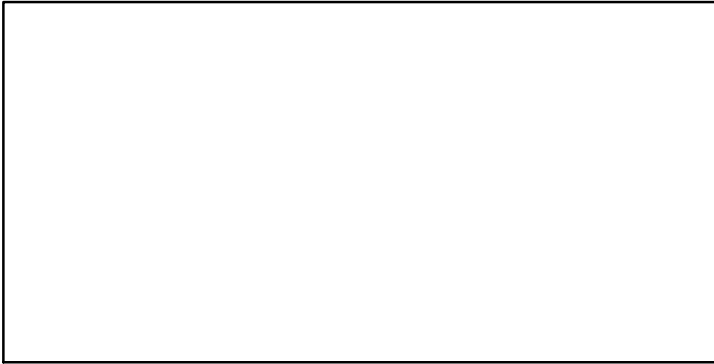
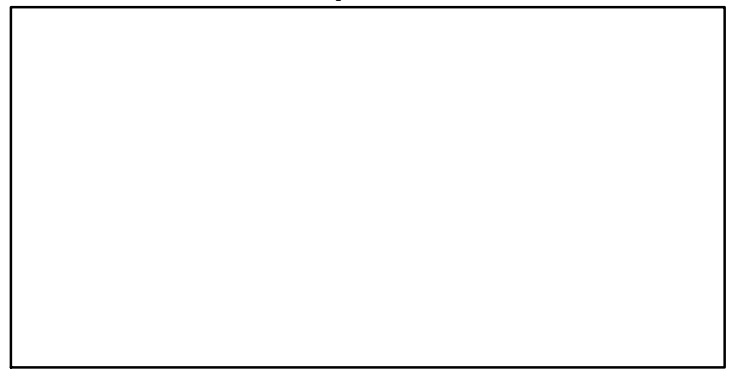
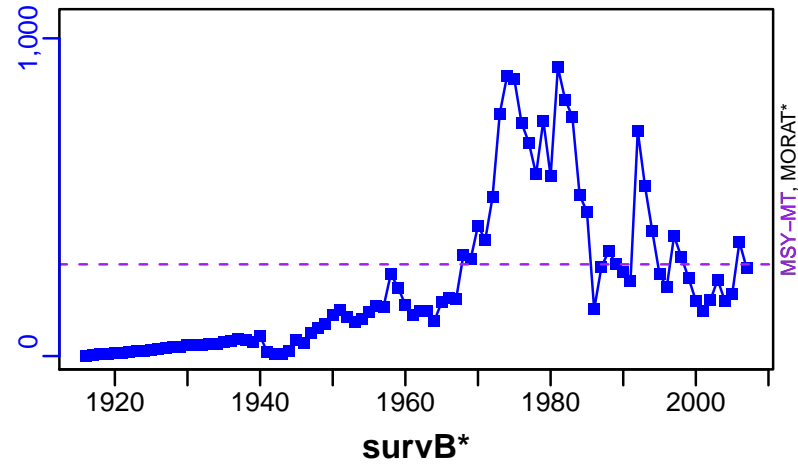
R-E00 (1916-2007-BRANCH)



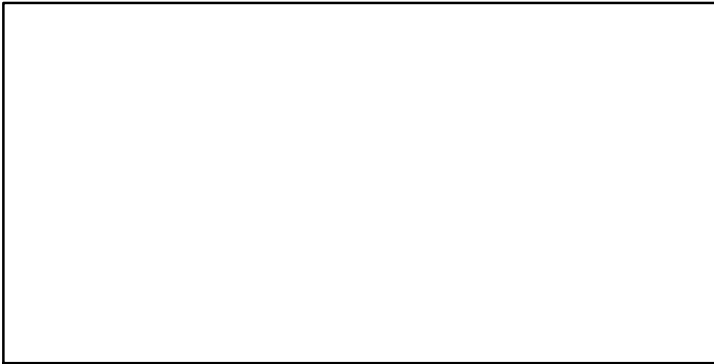
# Blue rockfish California [BLUEROCKCAL]

TC-MT, TL\*, RecC\* (1916-2007-BRANCH)

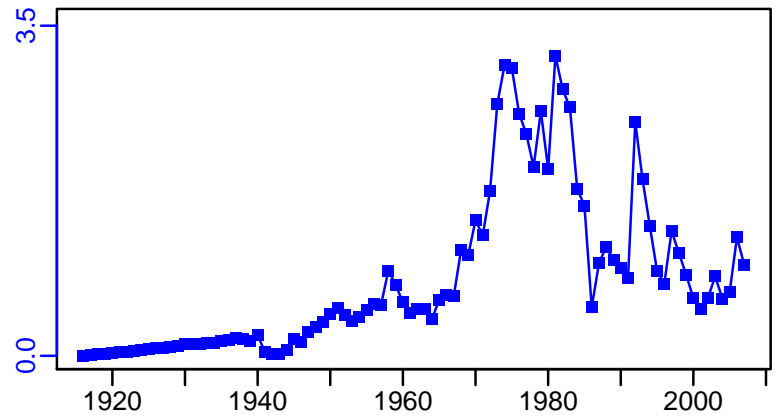
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1916-2007-BRANCH)

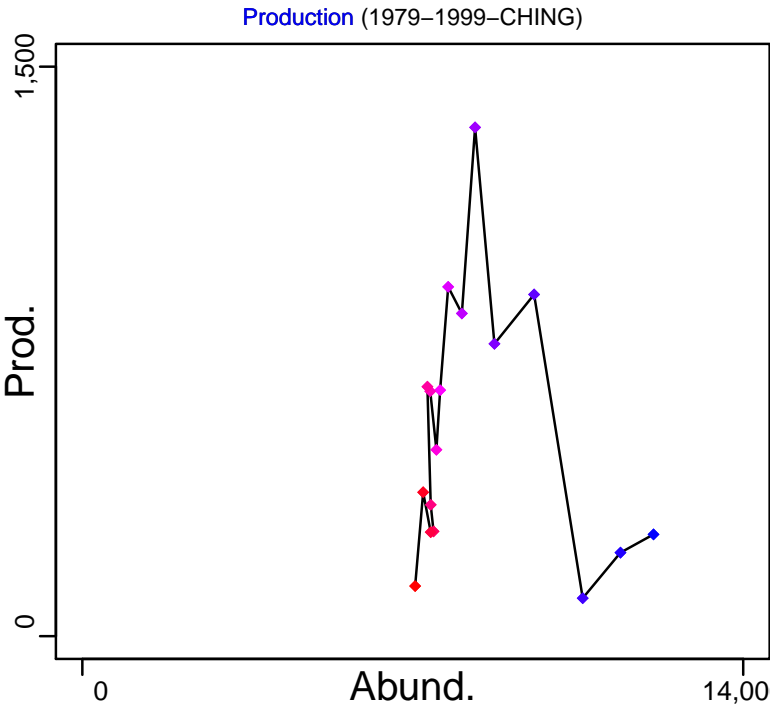
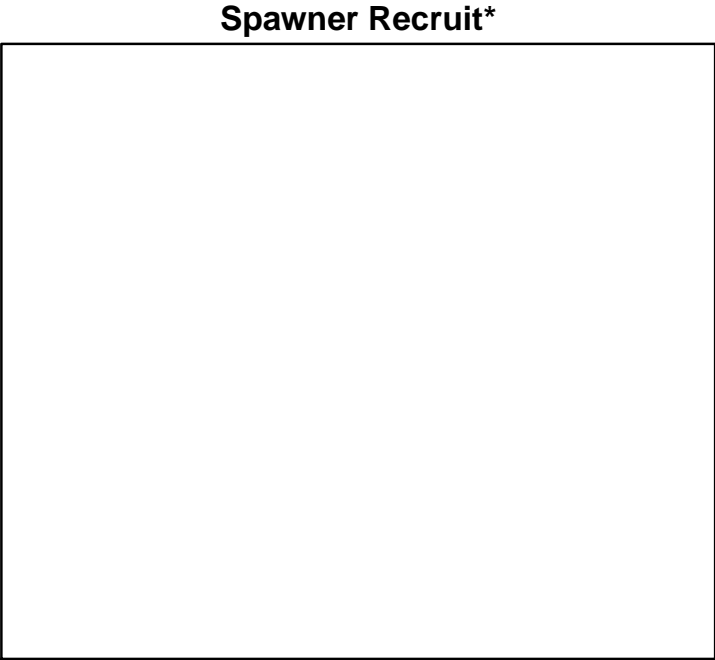
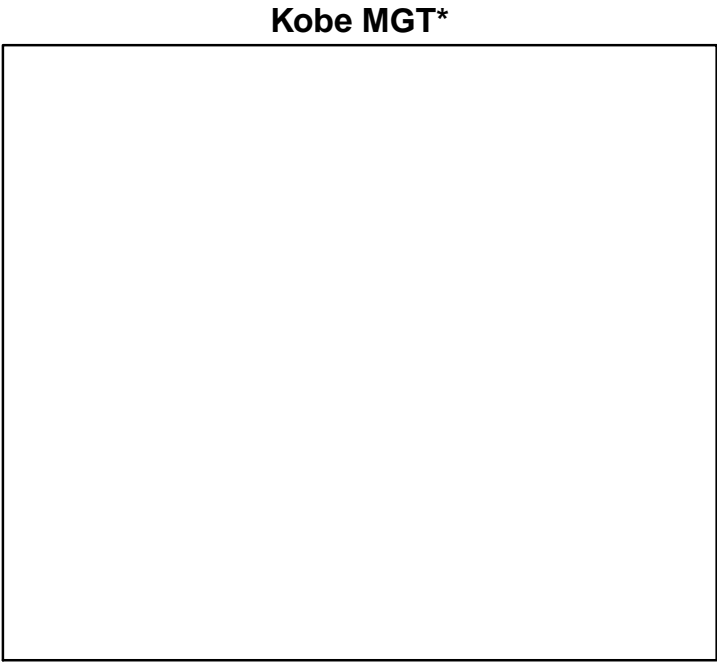
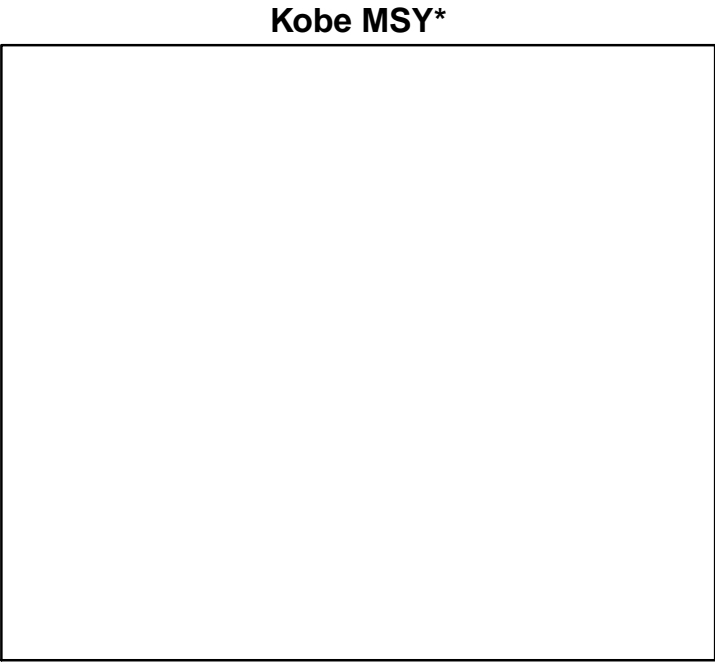


## Bank Rockfish California [BNKROCKCAL]

Metadata	
<b>Scientific Name</b>	Sebastes rufus
<b>Current Assess ID</b>	PFMC-BNKROCKCAL-1979-1999-CHING
<b>Area</b>	California
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Pacific Fishery Management Council
<b>Asmts in RAM</b>	1999

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	-	-	-
<b>M</b>	-	-	-
<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	1999	6380	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	1999	0.083	-	-
<b>TC</b>	TC-MT	1999	562		
<b>TL</b>	TL-MT	1999	562		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		



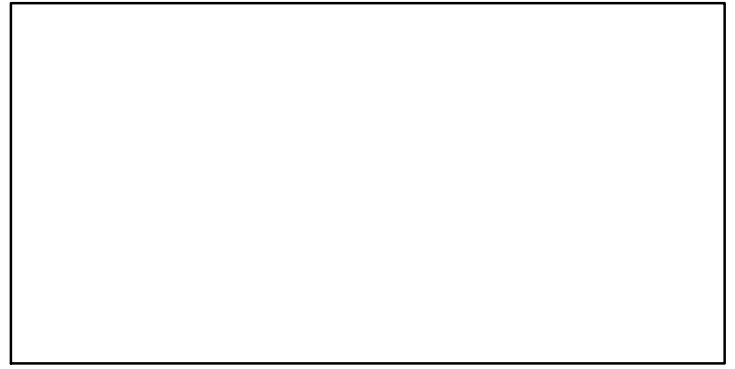
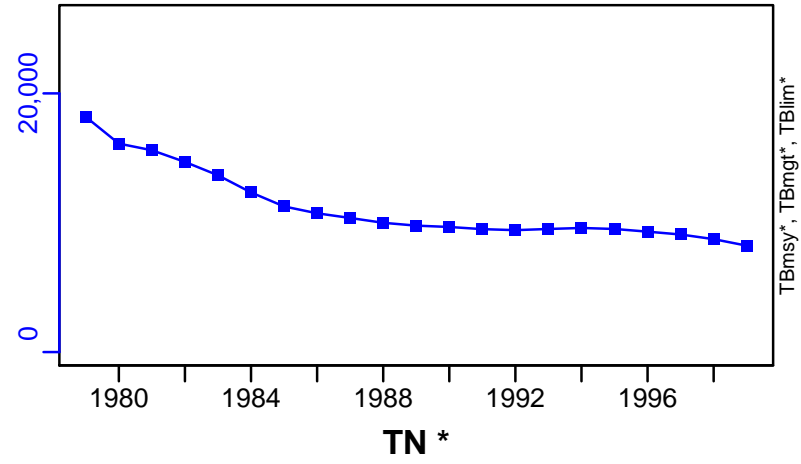
◆ Start Year ◆ End Year \* No Data



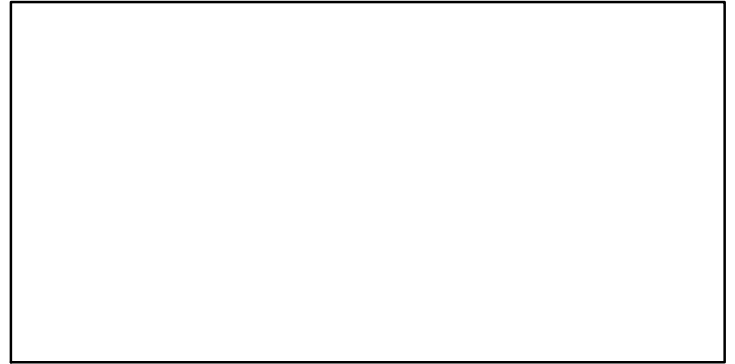
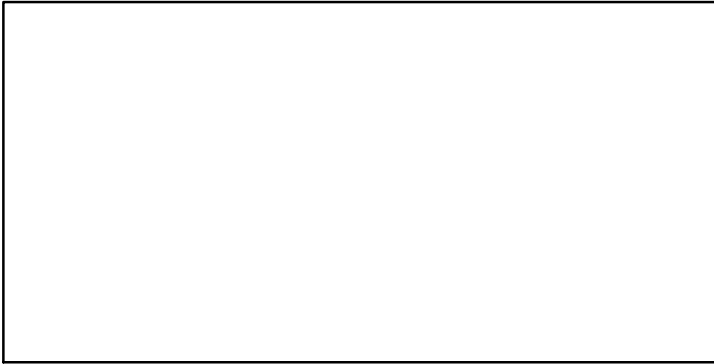
# Bank Rockfish California [BNKROCKCAL]

TB-MT (1979-1999-CHING)

SSB\*

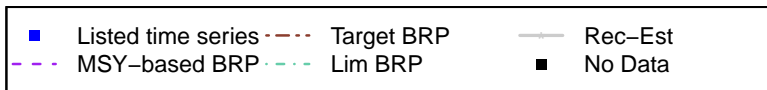
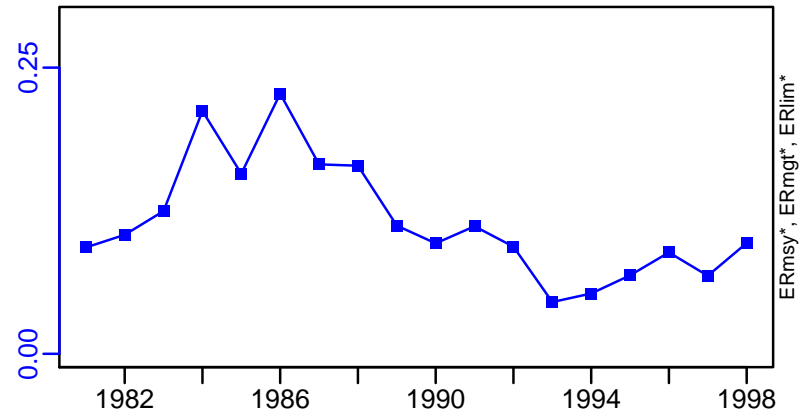


F\*



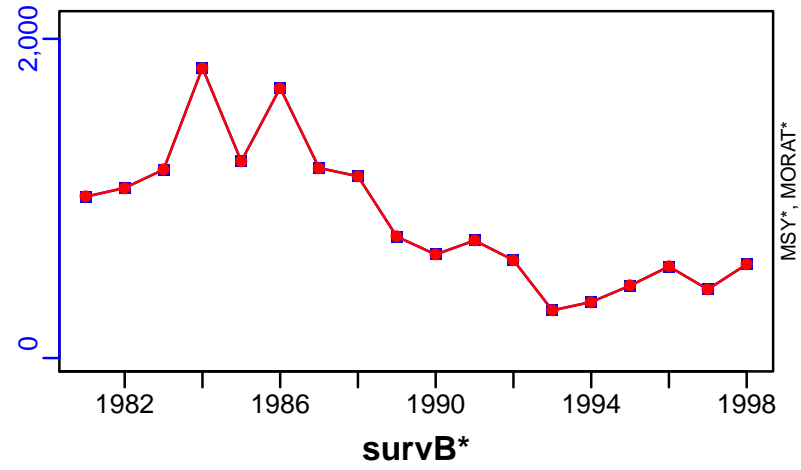
ER-ratio (1979-1999-CHING)

Recruits\*

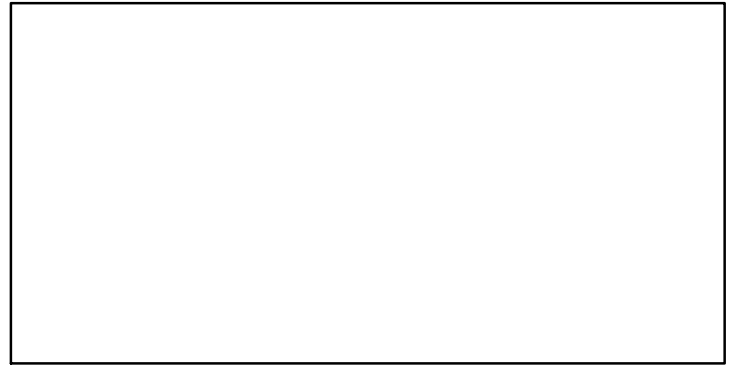


# Bank Rockfish California [BNKROCKCAL]

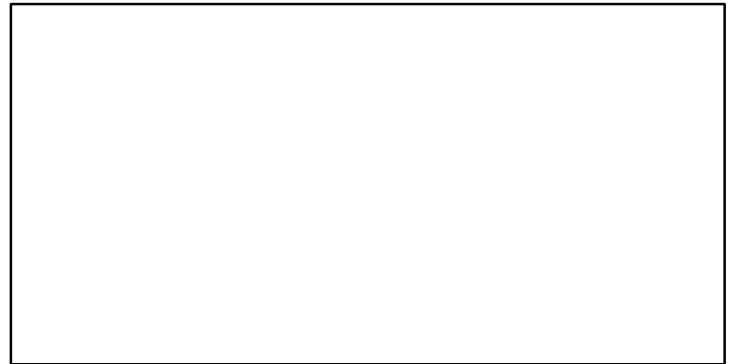
TC-MT, TL-MT, RecC\* (1979-1999-CHING)



TAC\*, Cpair\*, Cadv\*



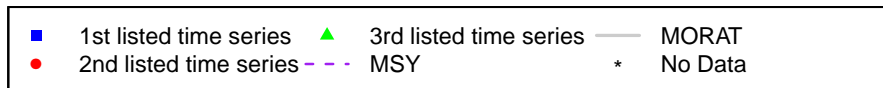
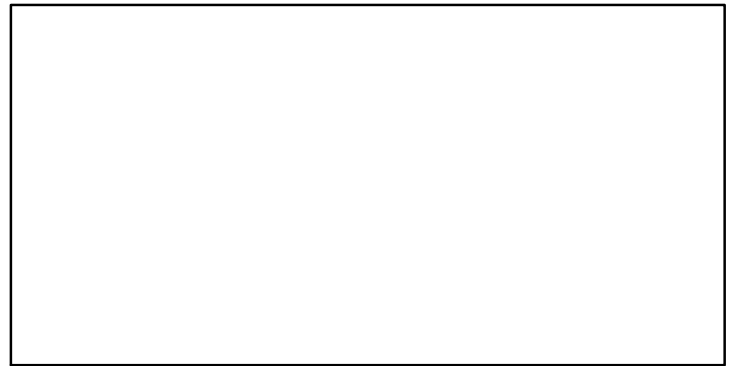
CPUE\*



EFFORT\*



CdivMSY\*



## Bocaccio Southern Pacific Coast [BOCACCSPCOAST]

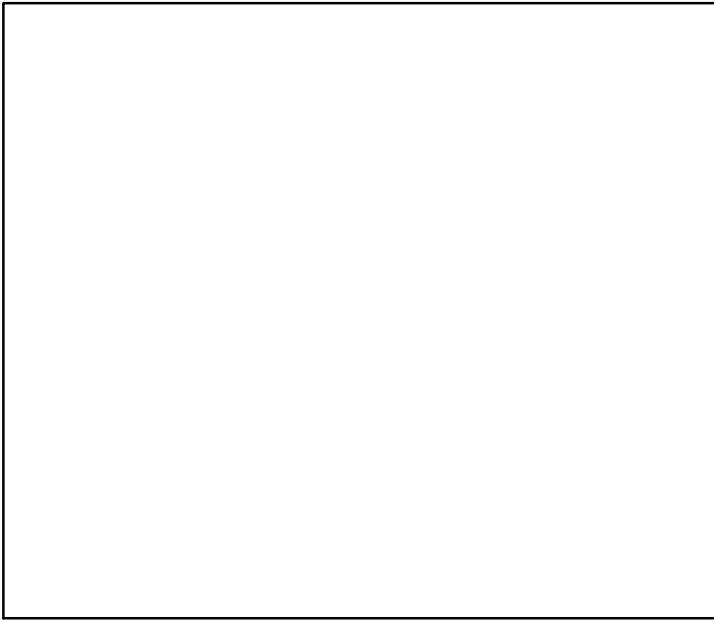
Metadata	
<b>Scientific Name</b>	Sebastes paucispinis
<b>Current Assess ID</b>	SWFSC-BOCACCSPCOAST-1935-2013-SISIMP2016
<b>Area</b>	Southern Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southwest Fisheries Science Center
<b>Asmts in RAM</b>	2009, 2013

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	Fmsy-1/yr	2013	0.5
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2009	44,070
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2013	1347
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	Flim-1/yr	2013	0.5
<b>ERlim</b>	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	19,100	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	3,860,000	-	0
<b>F</b>	F-1/yr	2013	0.105	-	-
<b>ER</b>	ER-calc-ratio	2013	0.011	-	-
<b>TC</b>	TC-MT	2013	188		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2013	0.21		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

Bocaccio Southern Pacific Coast [BOCACCSPCOAST]

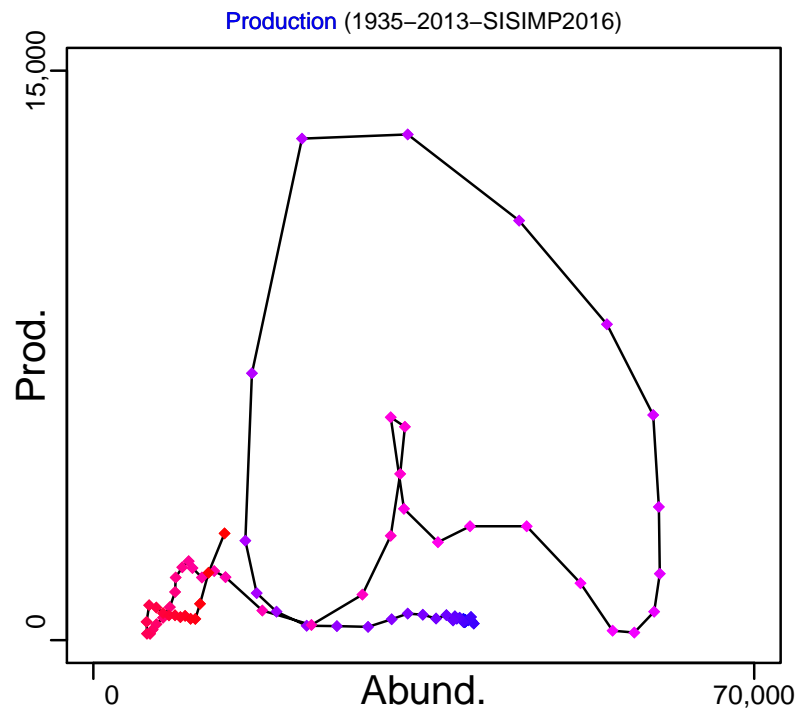
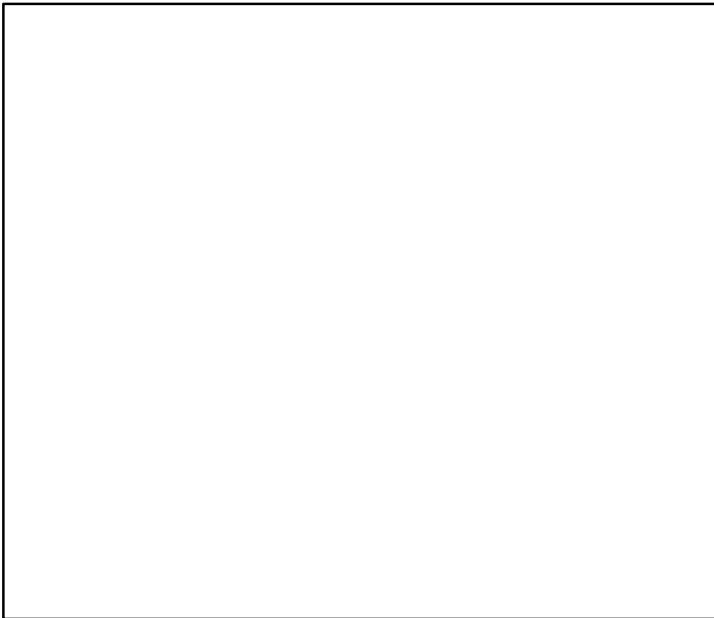
Kobe MSY\*



Kobe MGT\*



Spawner Recruit\*

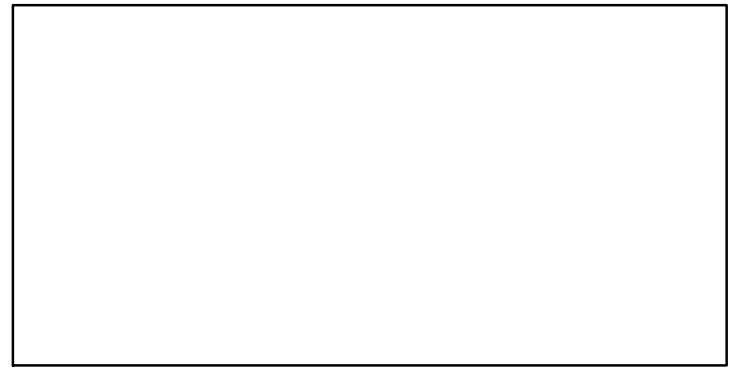
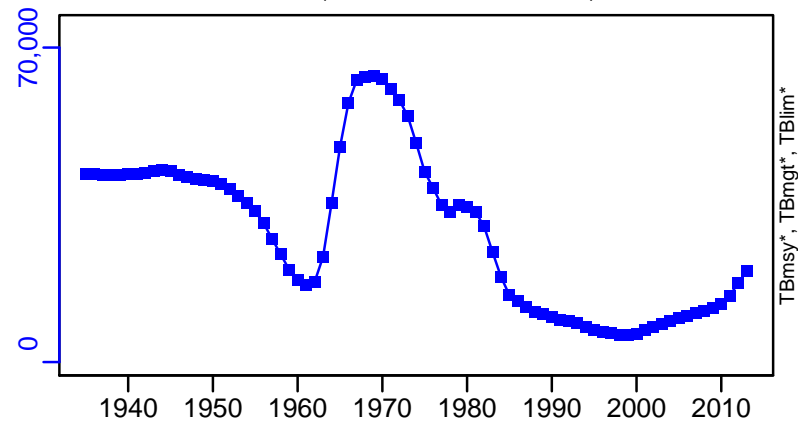


◆ Start Year ◆ End Year \* No Data

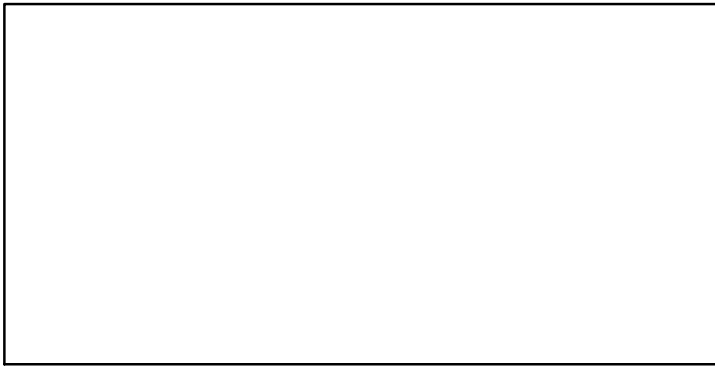
# Bocaccio Southern Pacific Coast [BOCACCSPCOAST]

TB-MT (1935–2013–SISIMP2016)

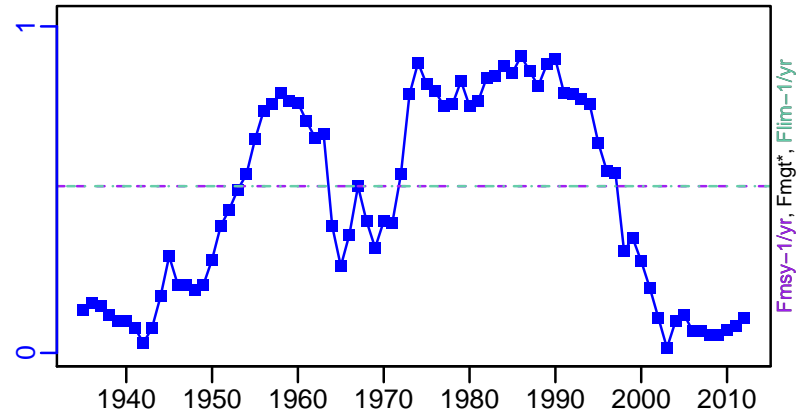
SSB\*



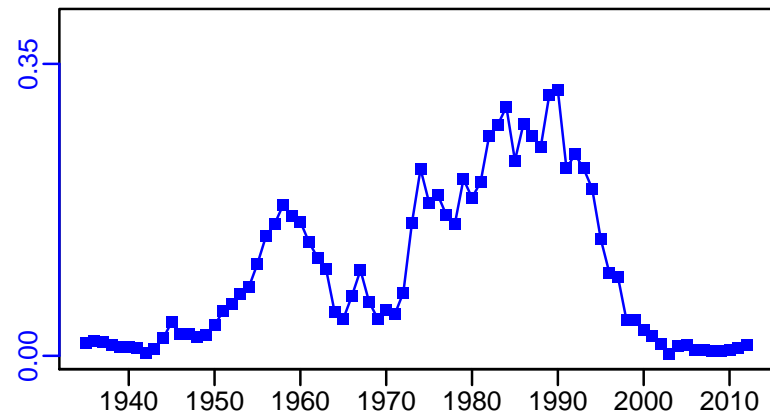
TN \*



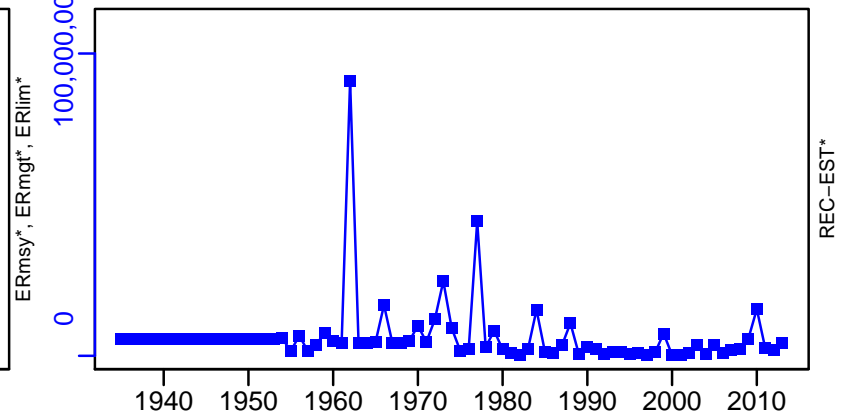
F-1/yr (1935–2013–SISIMP2016)



ER-calc-ratio (1935–2013–SISIMP2016)

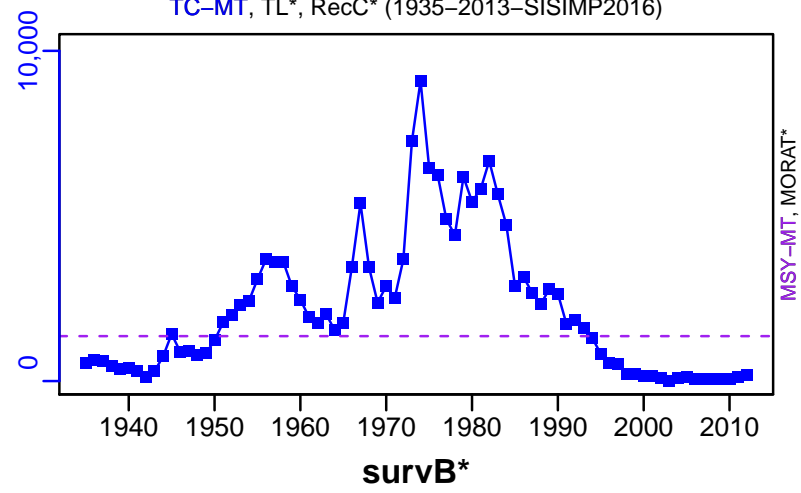


R-E00 (1935–2013–SISIMP2016)

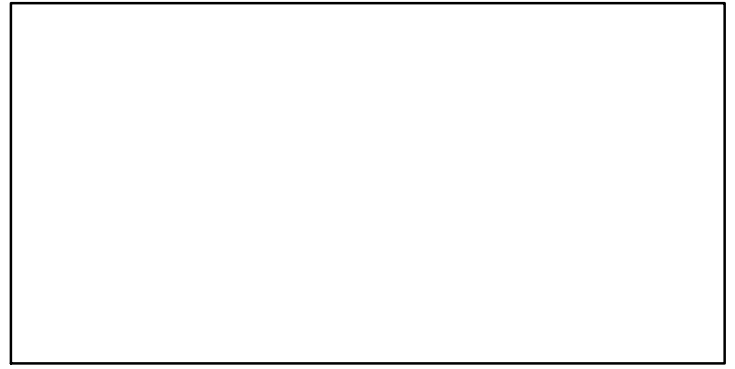


# Bocaccio Southern Pacific Coast [BOCACCSPCOAST]

TC-MT, TL\*, RecC\* (1935-2013-SISIMP2016)



TAC\*, Cpair\*, Cadv\*



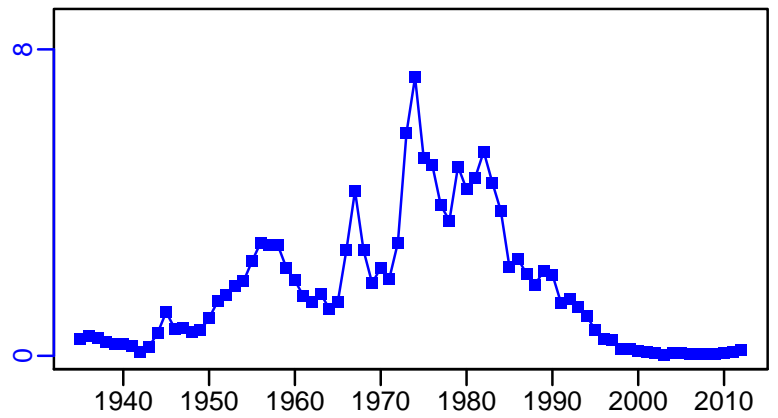
CPUE\*



EFFORT\*



CdivMSY-ratio (1935-2013-SISIMP2016)



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

## Brown rockfish Pacific Coast [BRNROCKPCOAST]

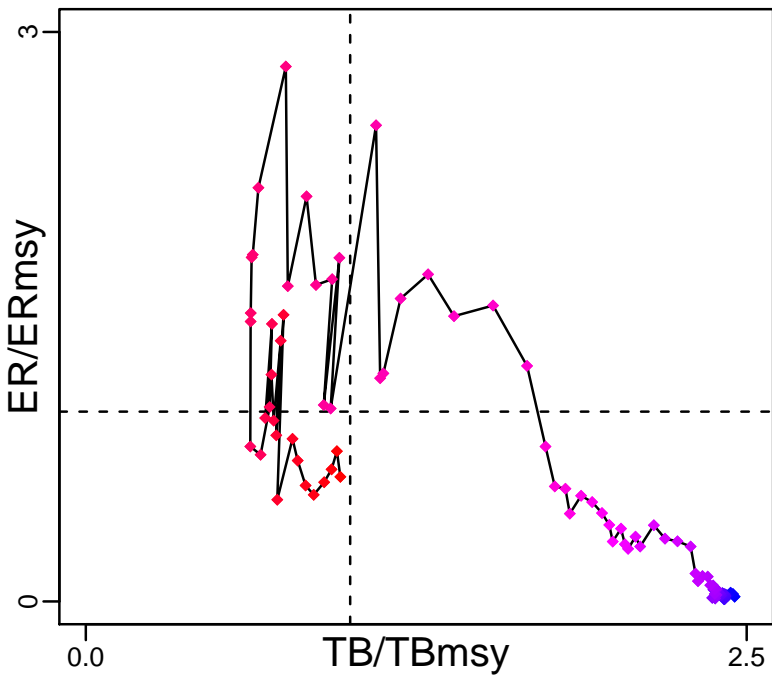
Metadata	
<b>Scientific Name</b>	Sebastes auriculatus
<b>Current Assess ID</b>	SWFSC-BRNROCKPCOAST-1916-2012-SISIMP2016
<b>Area</b>	Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southwest Fisheries Science Center
<b>Asmts in RAM</b>	2012

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2012	1455
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2012	0.103
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2012	150
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	ERlim-ratio	2012	0.103

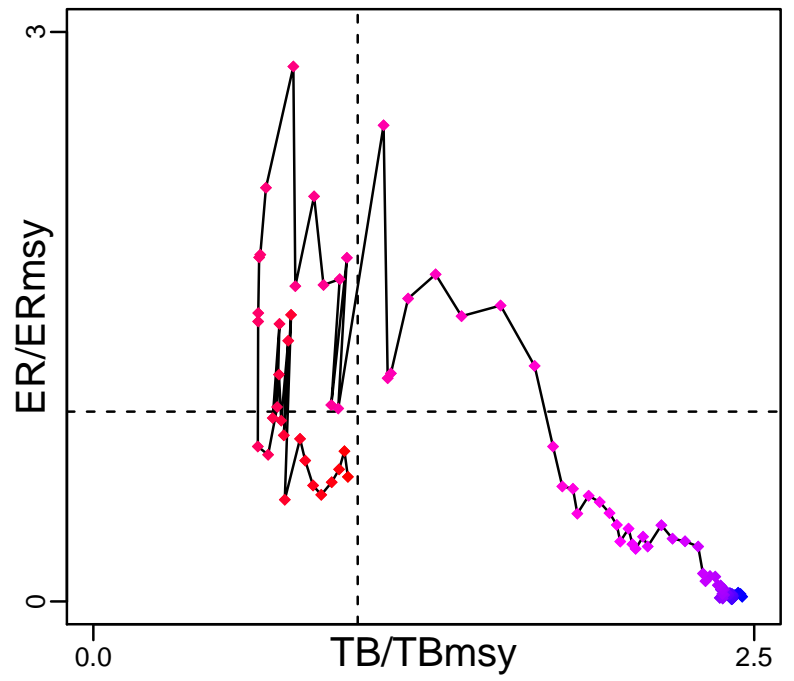
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2012	1450	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2012	0.068	-	-
<b>TC</b>	TC-MT	2012	95		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2012	0.993		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2012	0.656		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Brown rockfish Pacific Coast [BRNROCKPCOAST]

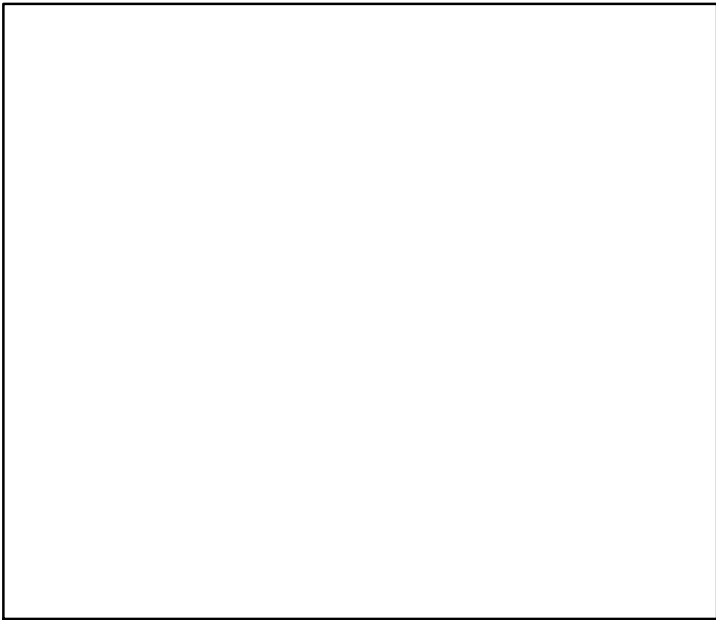
Kobe MSYpref (1916–2012–SISIMP2016)



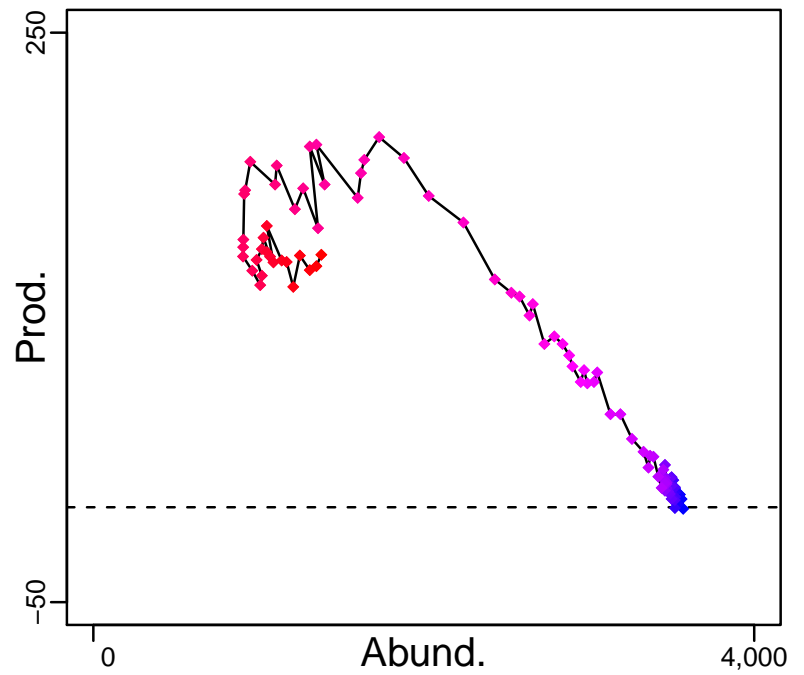
Kobe MGTpref (1916–2012–SISIMP2016)



Spawner Recruit\*



Production (1916–2012–SISIMP2016)



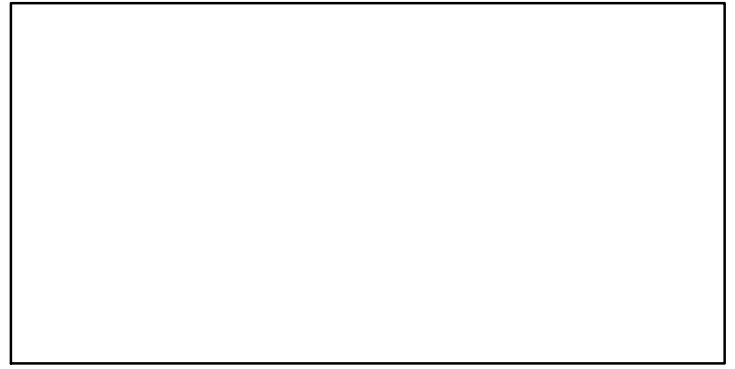
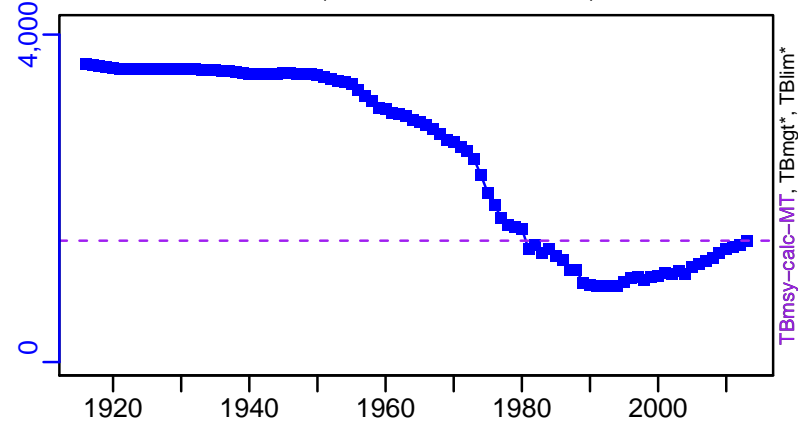
◆ Start Year ◆ End Year \* No Data



# Brown rockfish Pacific Coast [BRNROCKPCOAST]

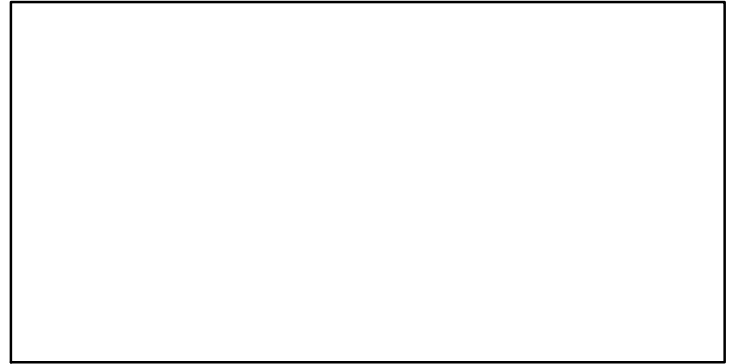
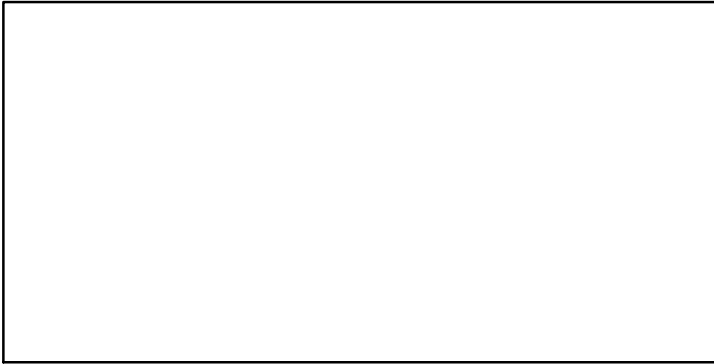
TB-MT (1916-2012-SISIMP2016)

SSB\*



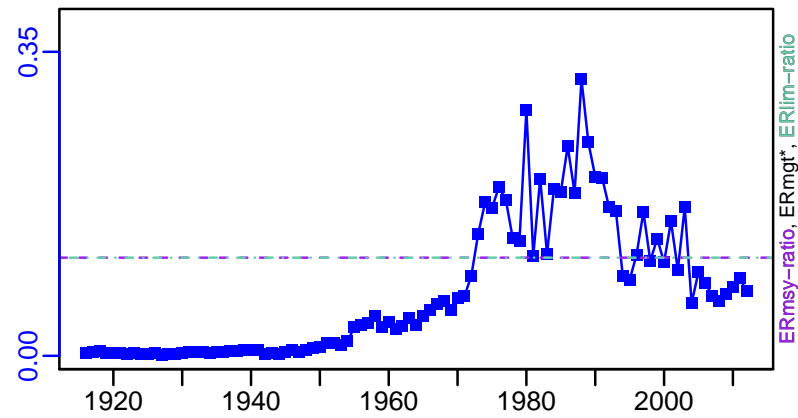
TN \*

F\*



ER-ratio (1916-2012-SISIMP2016)

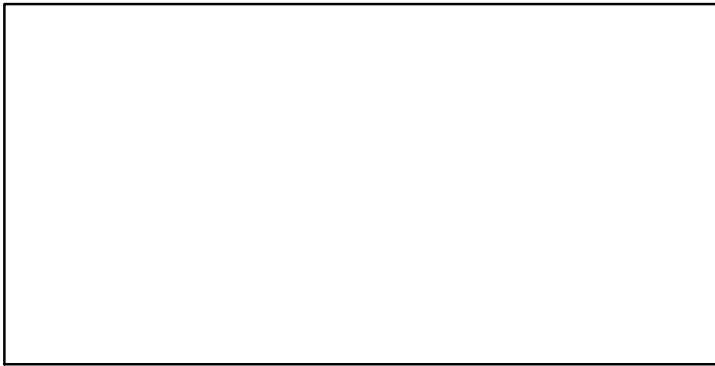
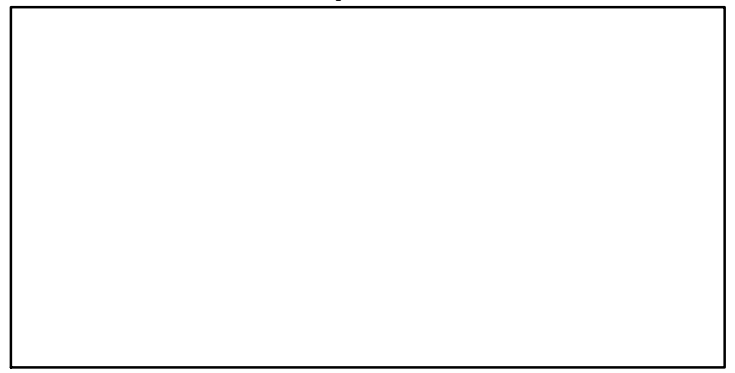
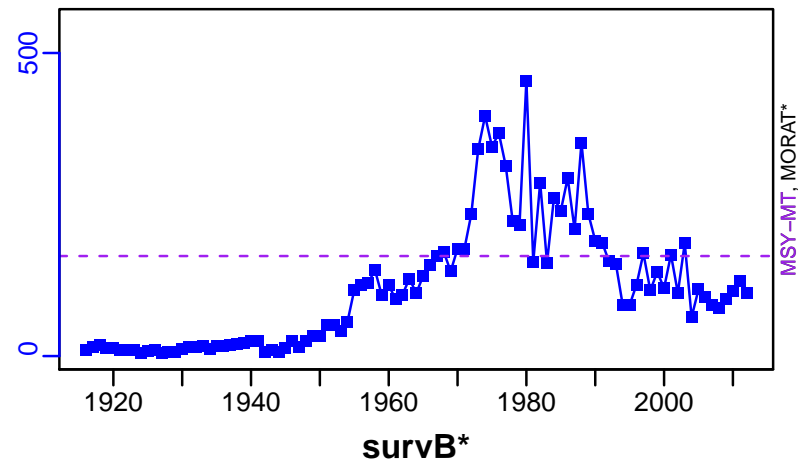
Recruits\*



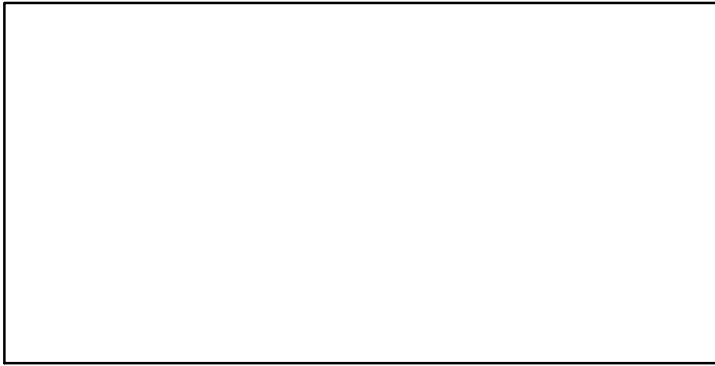
# Brown rockfish Pacific Coast [BRNROCKPCOAST]

TC-MT, TL\*, RecC\* (1916-2012-SISIMP2016)

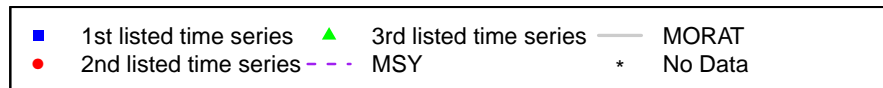
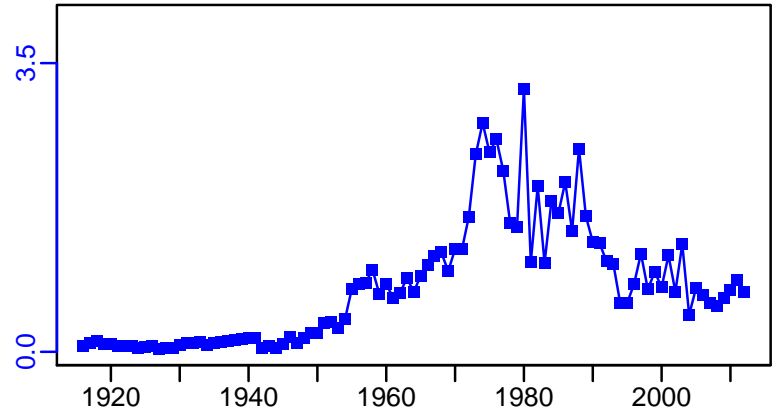
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1916-2012-SISIMP2016)



## Cabezon Northern California [CABEZNCAL]

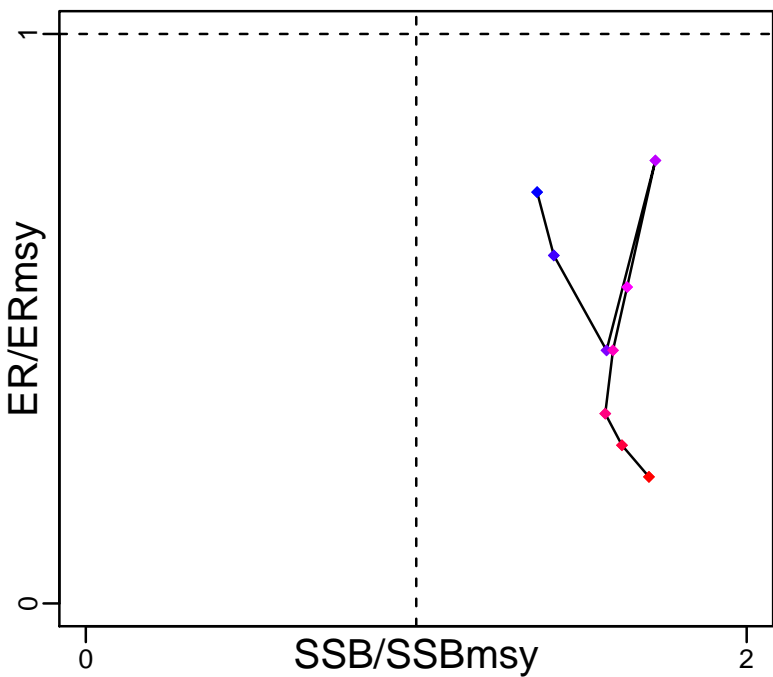
Metadata	
<b>Scientific Name</b>	Scorpaenichthys marmoratus
<b>Current Assess ID</b>	PFMC-CABEZNCAL-1930-2009-CHING
<b>Area</b>	Northern California
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Pacific Fishery Management Council
<b>Asmts in RAM</b>	2009

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2009	717
<b>SSBmsy</b>	SSBmsy-MT	2009	257
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2009	0.18
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2009	1835
<b>SSB0</b>	SSB0-MT	2009	1036
<b>MSY</b>	MSY-MT	2009	129
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

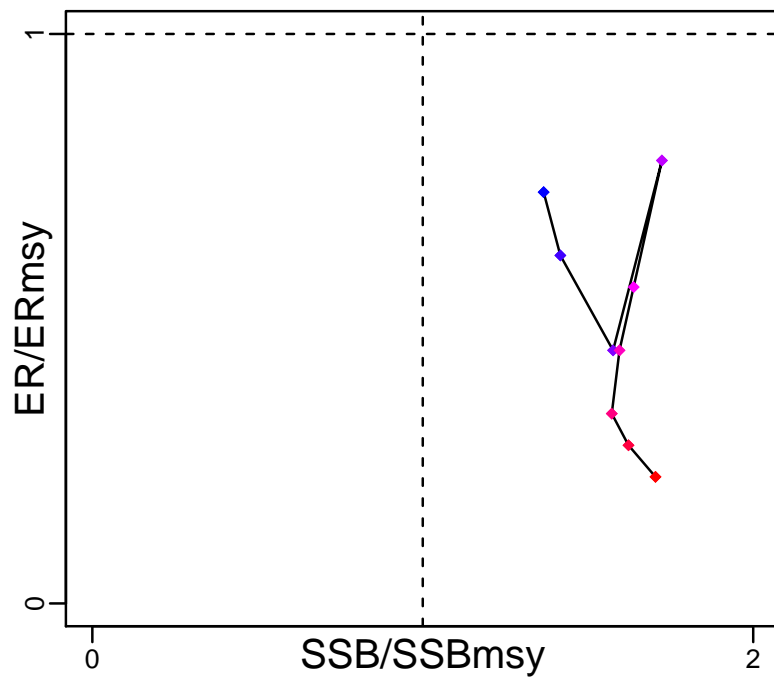
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2009	483	Both	2+
<b>SSB</b>	SSB-MT	2009	469	Females	3+
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2009	776	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2009	0.04	-	-
<b>TC</b>	TC-MT	2009	39		
<b>TL</b>	TL-MT	2009	20		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2009	0.674		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2009	1.825		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2009	0.222		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Cabazon Northern California [CABEZNCAL]

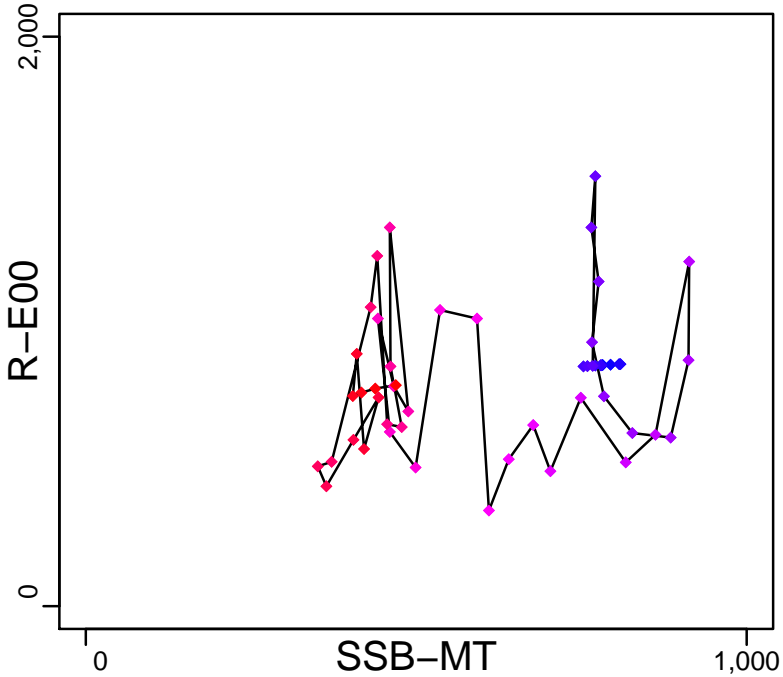
Kobe MSYpref (1930–2009–CHING)



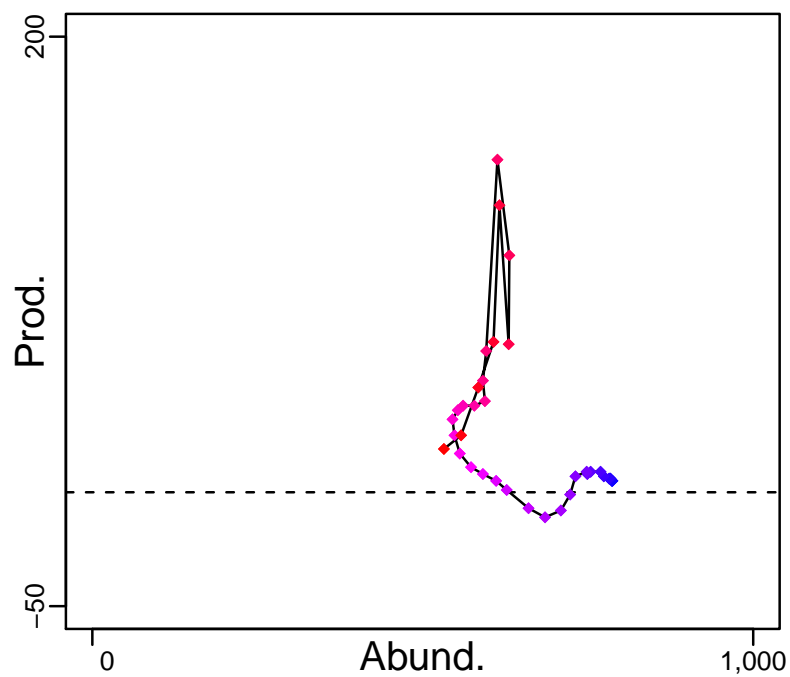
Kobe MGTpref (1930–2009–CHING)



Spawner Recruit (1930–2009–CHING)



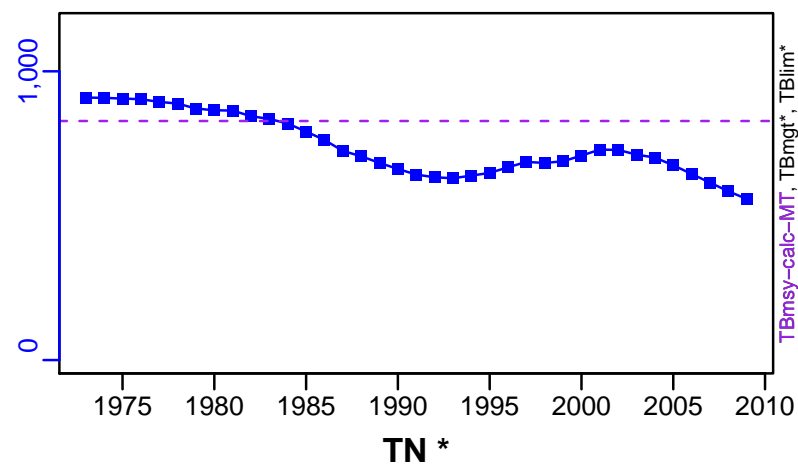
Production (1930–2009–CHING)



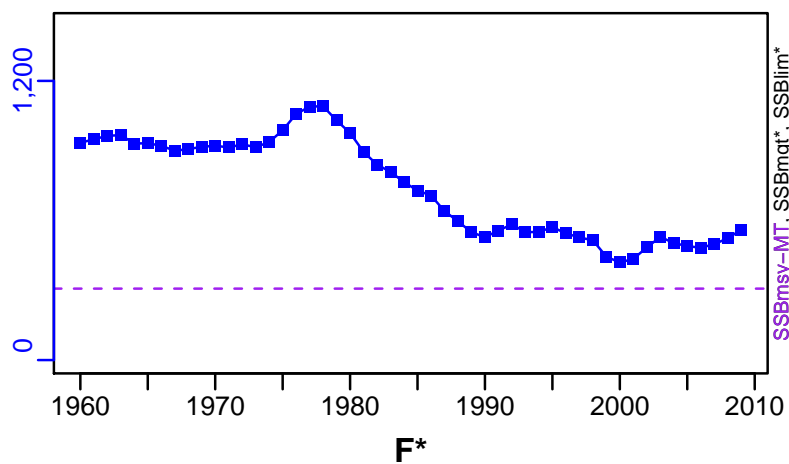
◆ Start Year ◆ End Year \* No Data

# Cabazon Northern California [CABEZNCAL]

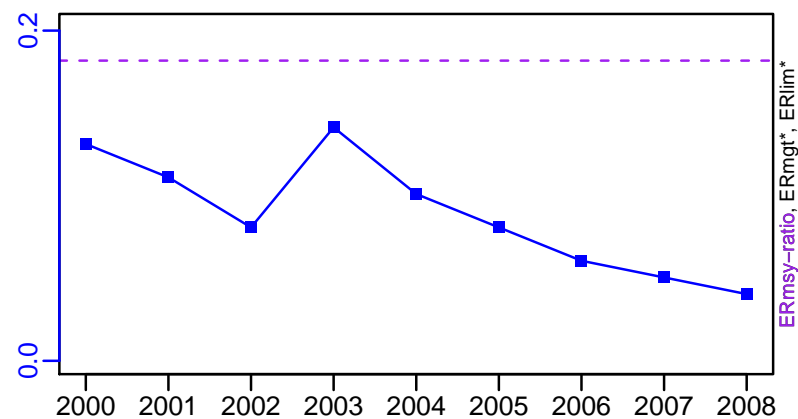
TB-MT (1930-2009-CHING)



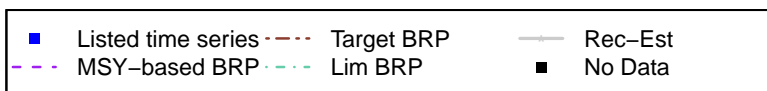
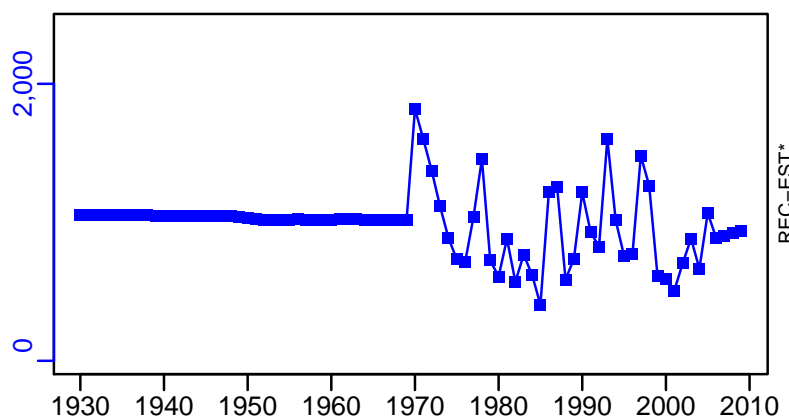
SSB-MT (1930-2009-CHING)



ER-ratio (1930-2009-CHING)

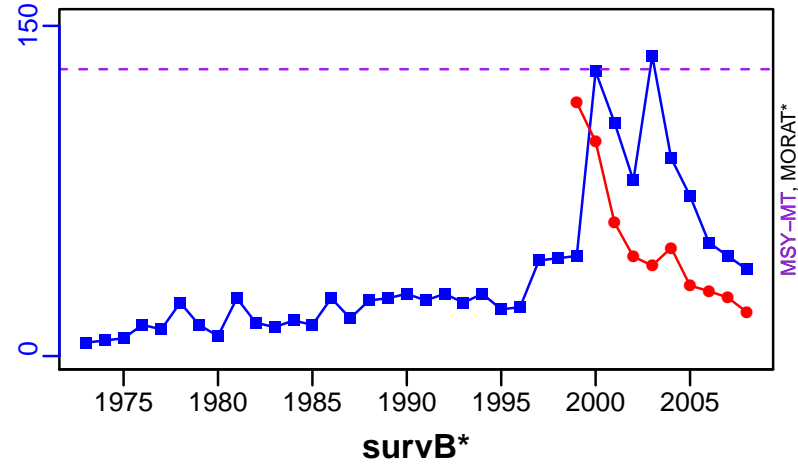


R-E00 (1930-2009-CHING)

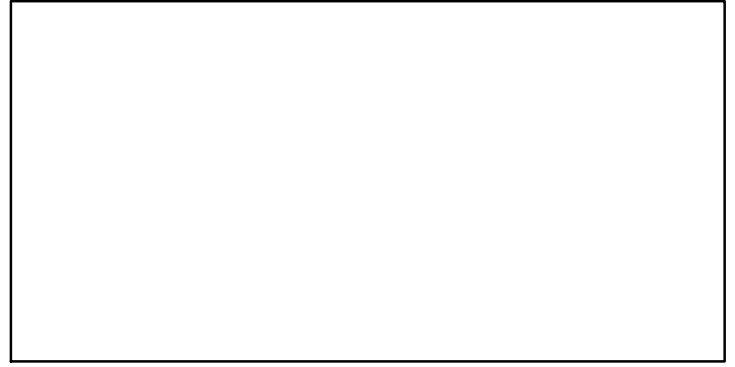


# Cabazon Northern California [CABEZNCAL]

TC-MT, TL-MT, RecC\* (1930-2009-CHING)



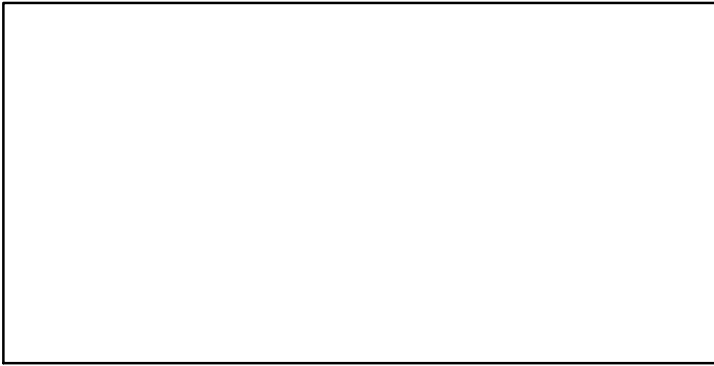
TAC\*, Cpair\*, Cadv\*



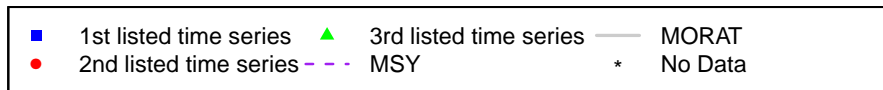
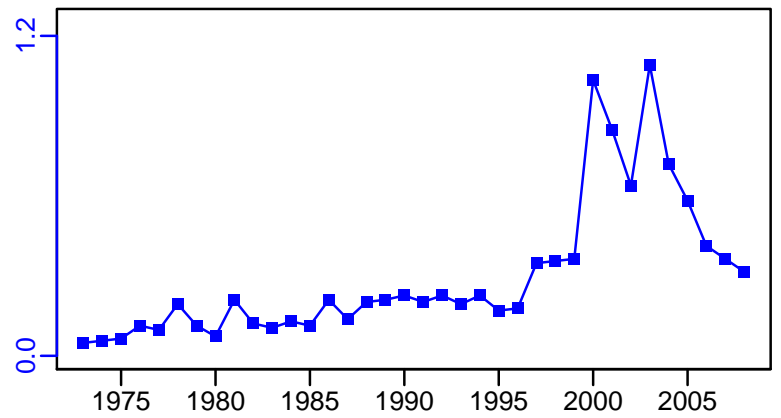
CPUE\*



EFFORT\*



CdivMSY-ratio (1930-2009-CHING)



## Cabezon Oregon Coast [CABEZORECOAST]

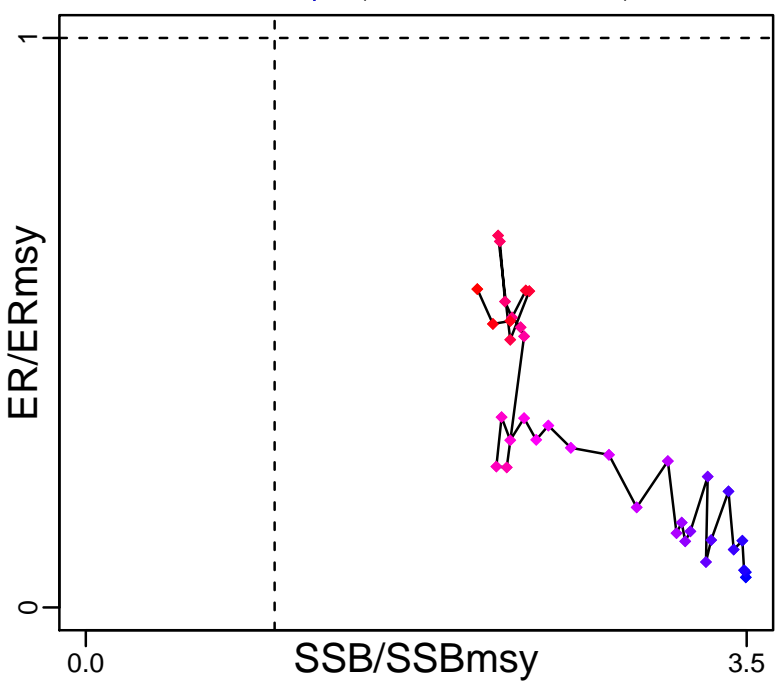
Metadata	
<b>Scientific Name</b>	Scorpaenichthys marmoratus
<b>Current Assess ID</b>	NWFSC-CABEZORECOAST-1973-2009-STACHURA
<b>Area</b>	Oregon Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northwest Fisheries Science Center
<b>Asmts in RAM</b>	2009

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2009	300
<b>SSBmsy</b>	SSBmsy-MT	2009	109
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2009	0.16
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	SSB0-MT	2009	409
<b>MSY</b>	MSY-MT	2009	48
<b>M</b>	M-1/yr	2009	0.25
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

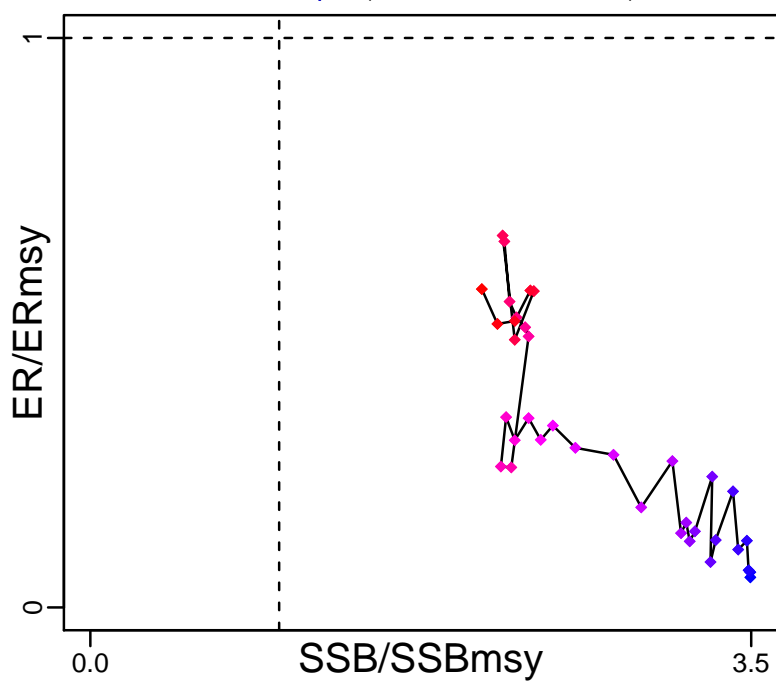
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2009	455	-	2+
<b>SSB</b>	SSB-MT	2009	214	Females	3.86
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2009	178,000	-	0
<b>F</b>	F-1/yr	2009	0.742	-	-
<b>ER</b>	ER-calc-ratio	2009	0.089	-	-
<b>TC</b>	TC-MT	2009	43		
<b>TL</b>	TL-MT	2009	43		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2009	1.517		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2009	1.963		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2009	0.559		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Cabezon Oregon Coast [CABEZORECOAST]

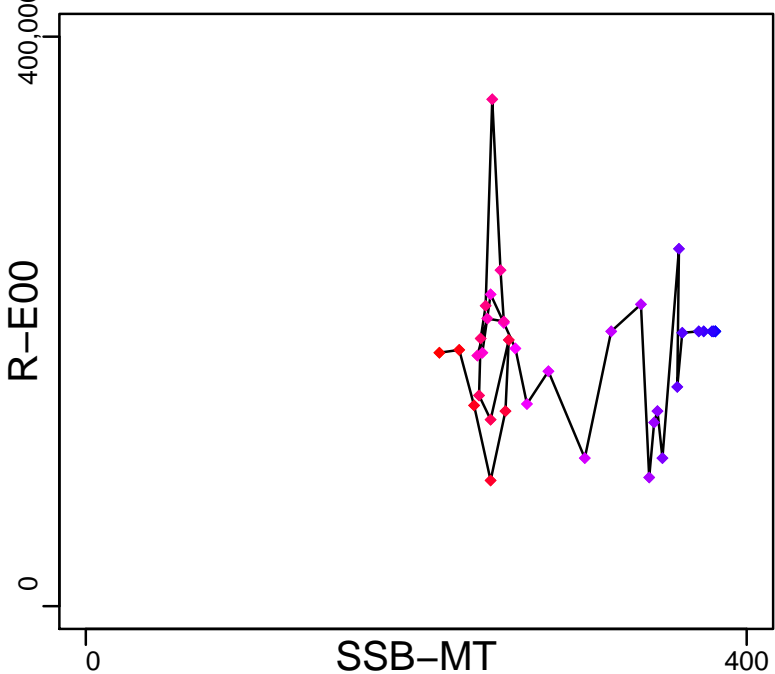
Kobe MSYpref (1973–2009–STACHURA)



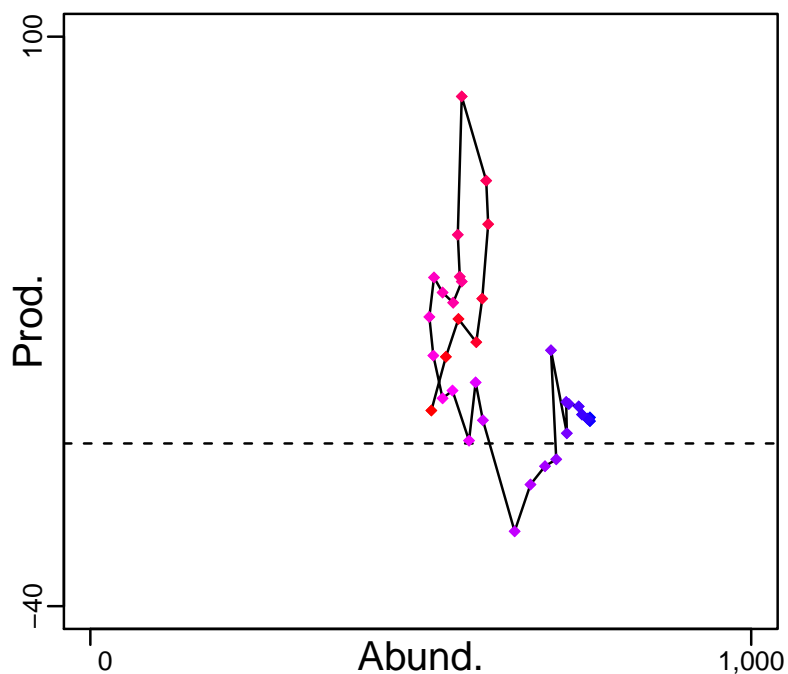
Kobe MGTpref (1973–2009–STACHURA)



Spawner Recruit (1973–2009–STACHURA)



Production (1973–2009–STACHURA)

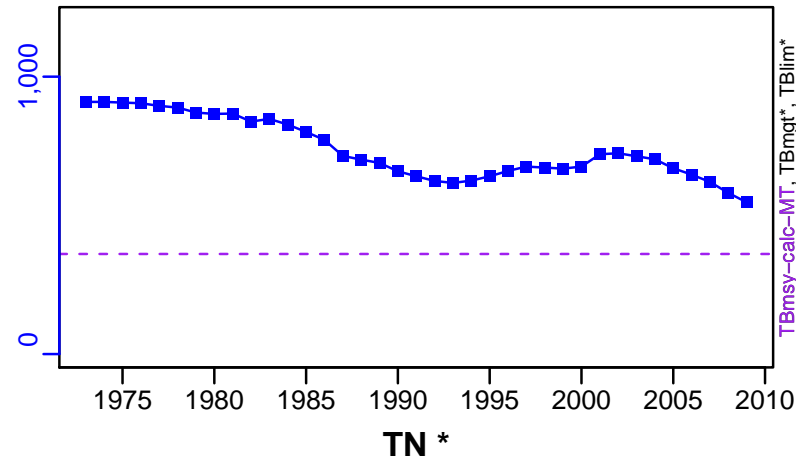


◆ Start Year ◆ End Year \* No Data

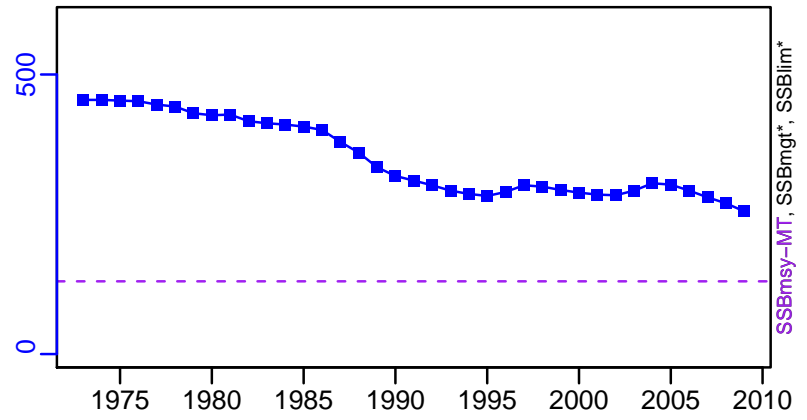


# Cabazon Oregon Coast [CABEZORECOAST]

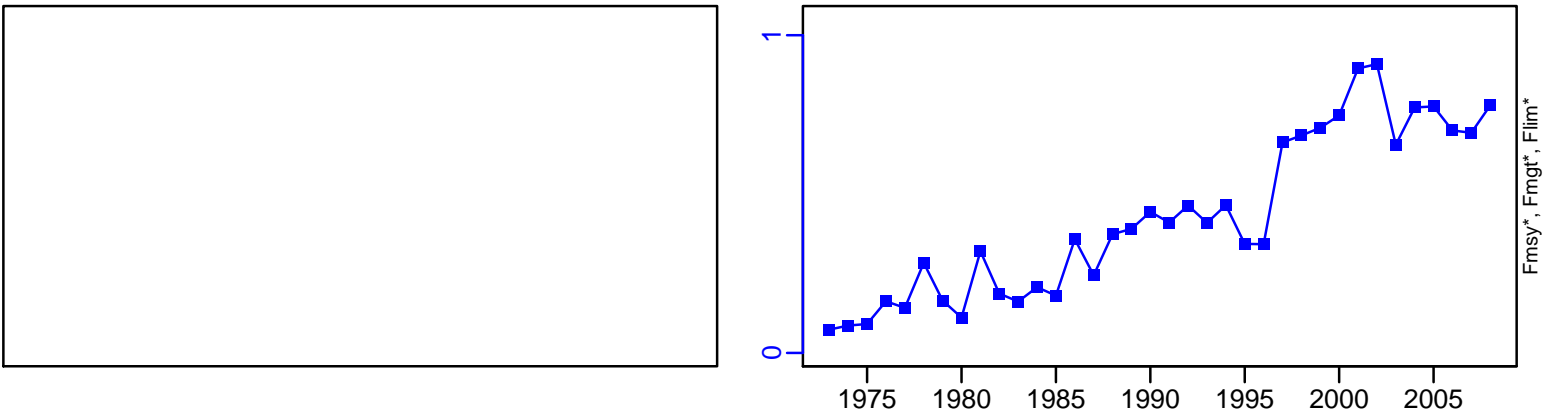
TB-MT (1973-2009-STACHURA)



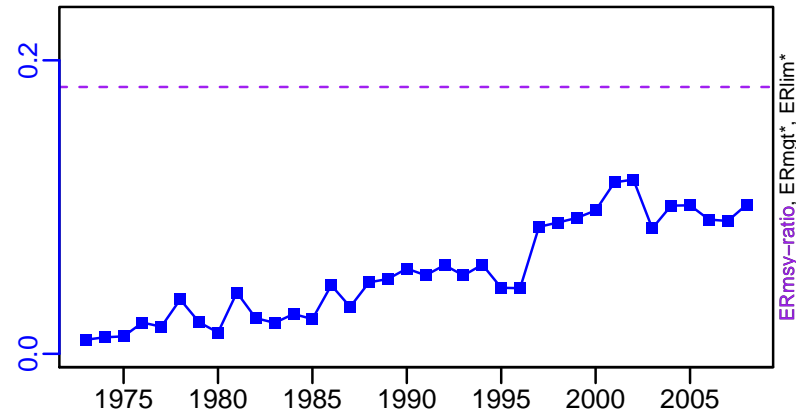
SSB-MT (1973-2009-STACHURA)



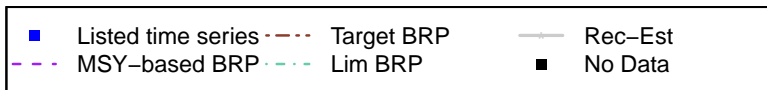
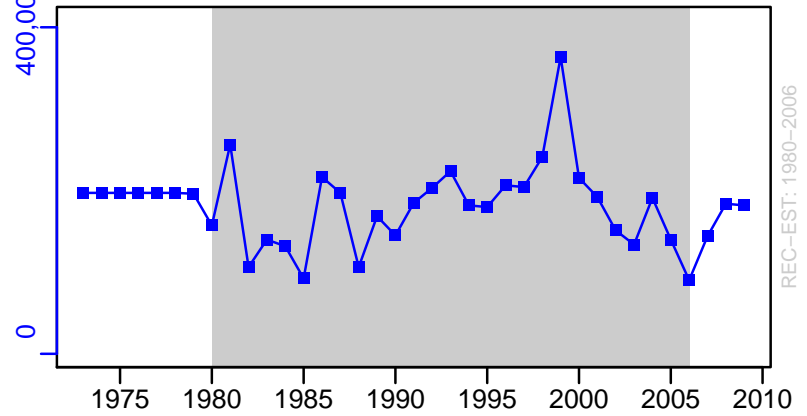
F-1/yr (1973-2009-STACHURA)



ER-calc-ratio (1973-2009-STACHURA)

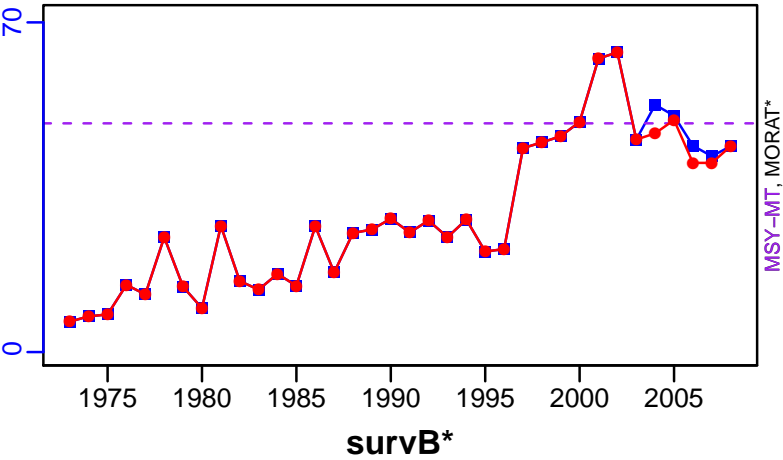


R-E00 (1973-2009-STACHURA)

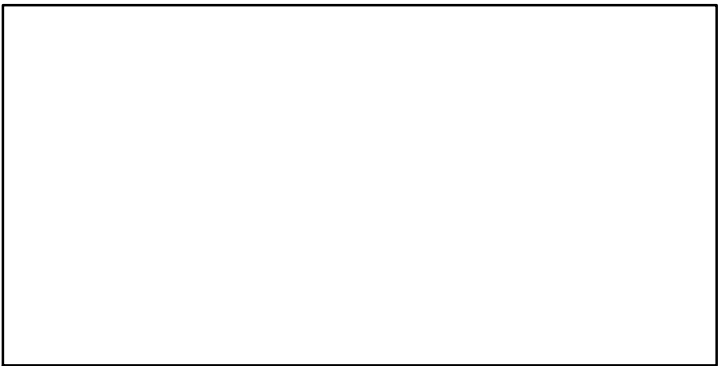


Cabezon Oregon Coast [CABEZORECOAST]

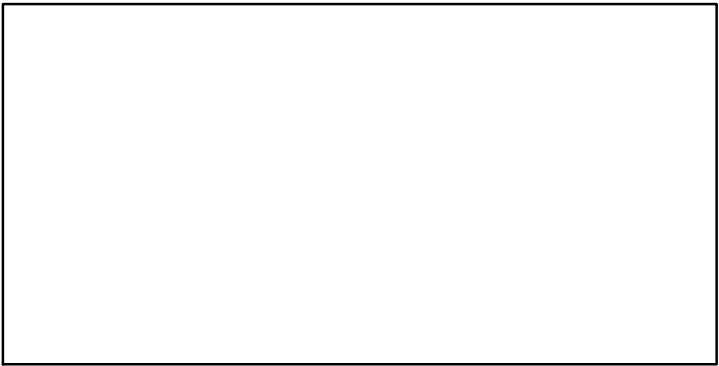
TC-MT, TL-MT, RecC\* (1973-2009-STACHURA)



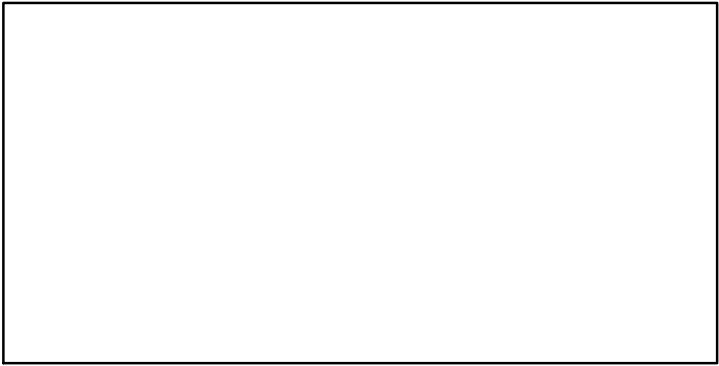
TAC\*, Cpair\*, Cadv\*



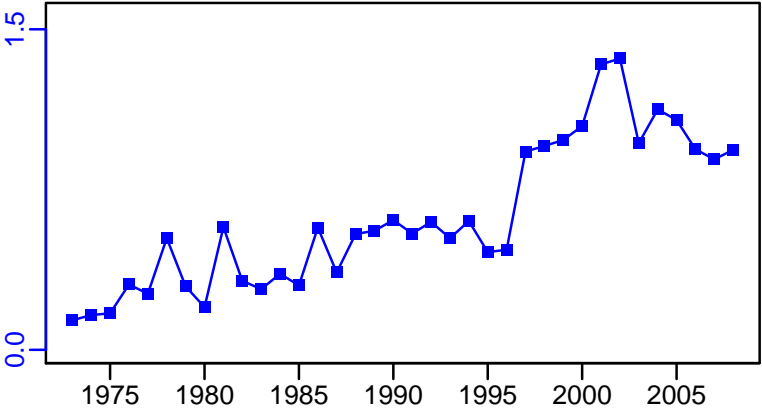
CPUE\*



EFFORT\*



CdivMSY-ratio (1973-2009-STACHURA)



## Cabezon Southern California [CABEZSCAL]

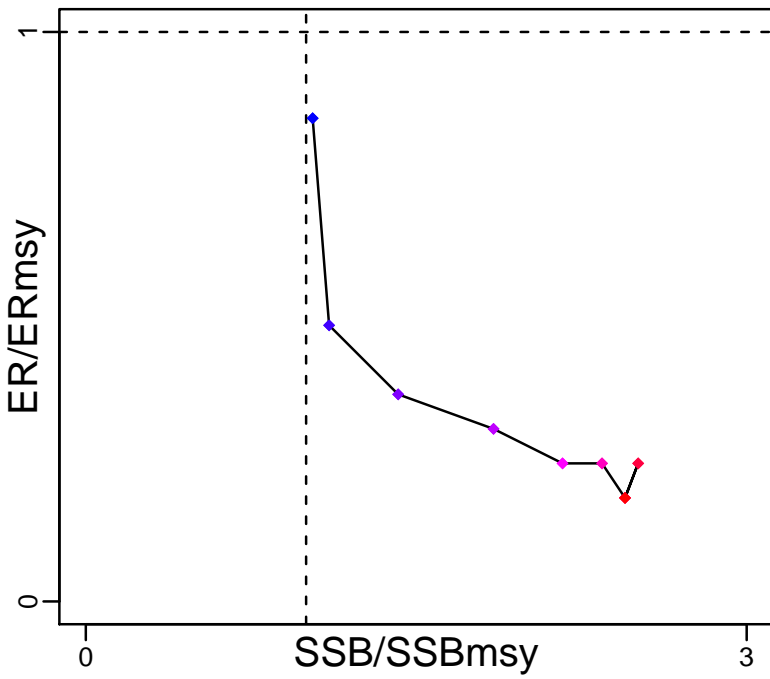
Metadata	
<b>Scientific Name</b>	Scorpaenichthys marmoratus
<b>Current Assess ID</b>	PFMC-CABEZSCAL-1930-2009-CHING
<b>Area</b>	Southern California
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Pacific Fishery Management Council
<b>Asmts in RAM</b>	2009

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2009	182
<b>SSBmsy</b>	SSBmsy-MT	2009	67
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2009	0.165
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2009	470
<b>SSB0</b>	SSB0-MT	2009	263
<b>MSY</b>	MSY-MT	2009	30
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

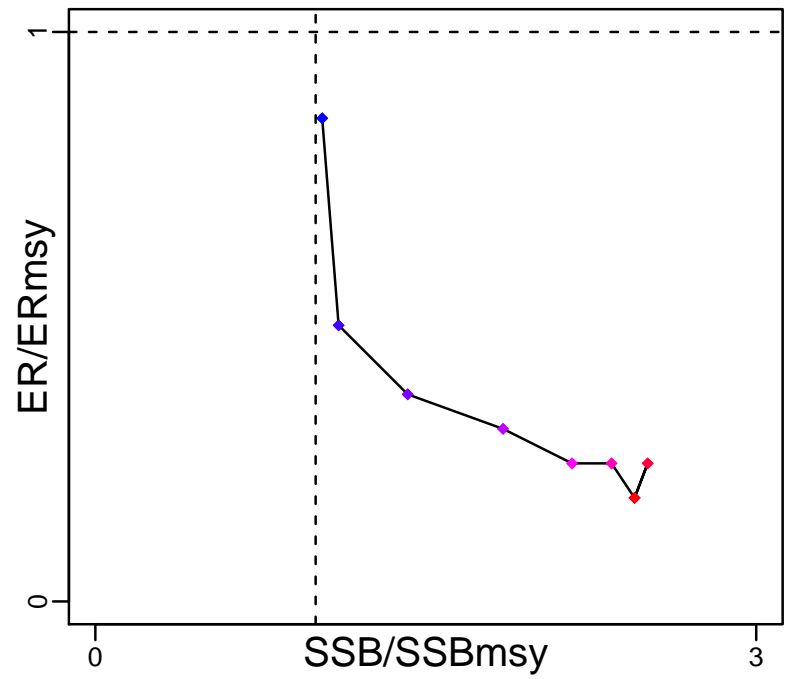
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2009	789	Both	2+
<b>SSB</b>	SSB-MT	2009	158	Females	3+
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2009	192	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2009	0.03	-	-
<b>TC</b>	TC-MT	2009	10		
<b>TL</b>	TL-MT	2009	3.9		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2009	4.34		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2009	2.358		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2009	0.182		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Cabazon Southern California [CABEZSCAL]

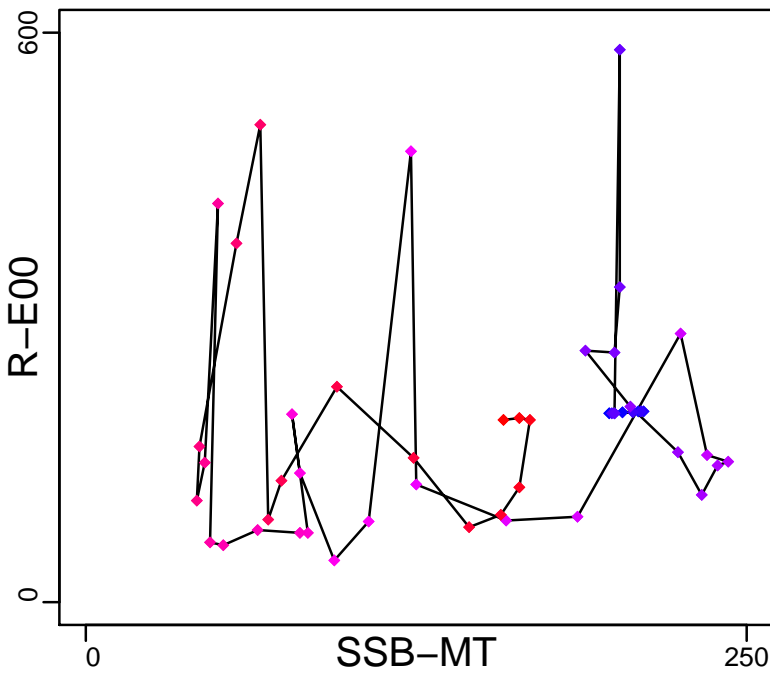
Kobe MSYpref (1930–2009–CHING)



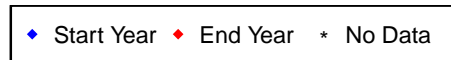
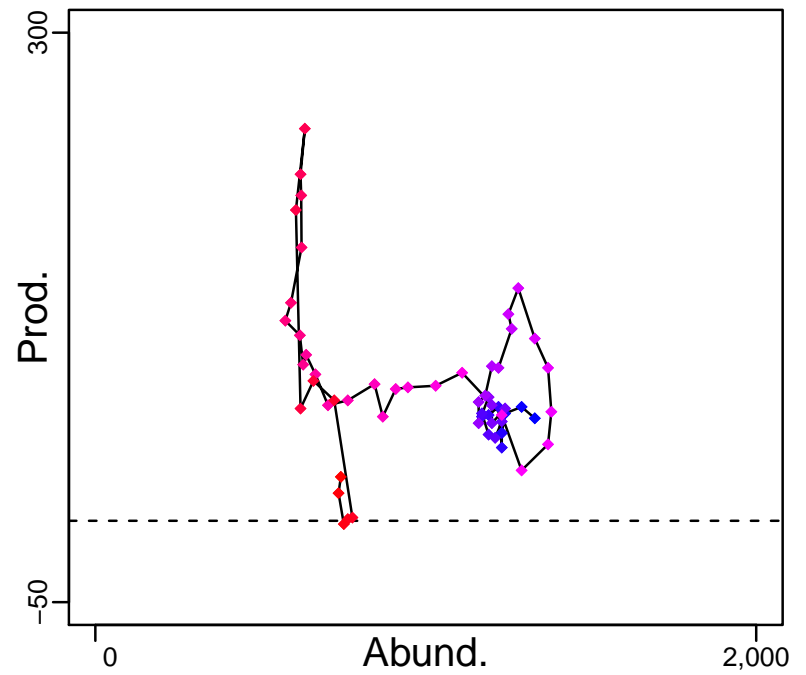
Kobe MGTpref (1930–2009–CHING)



Spawner Recruit (1930–2009–CHING)

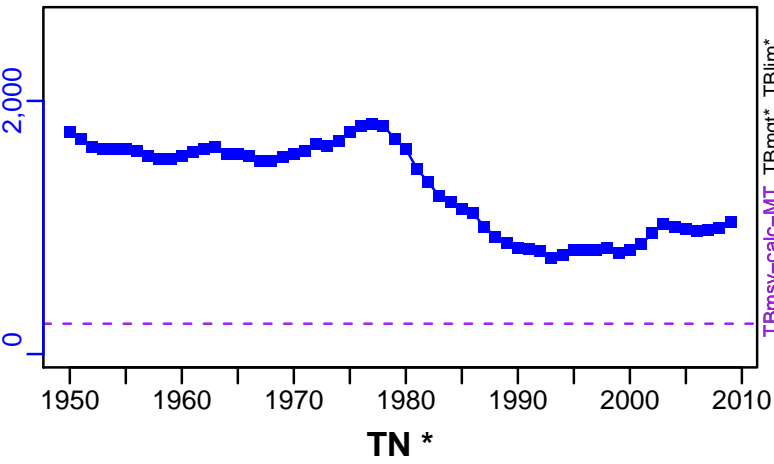


Production (1930–2009–CHING)

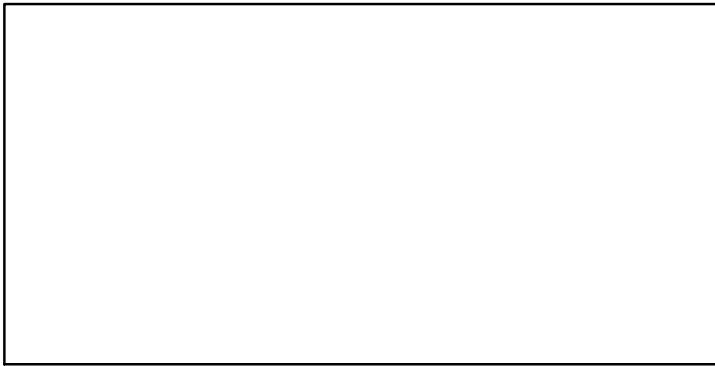
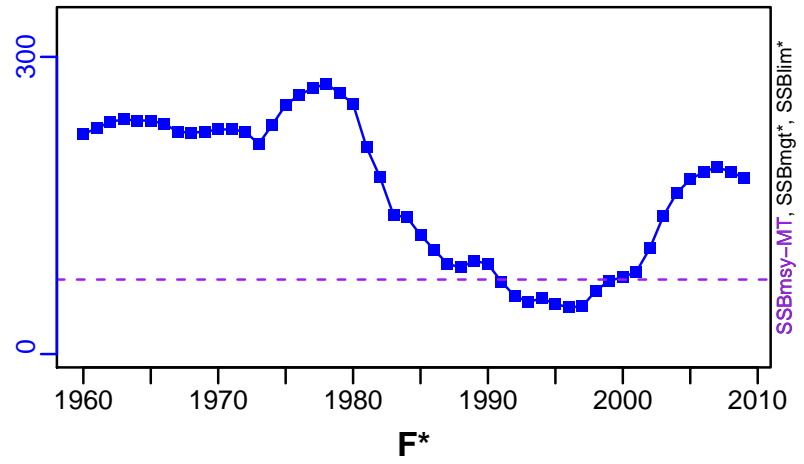


# Cabazon Southern California [CABEZSCAL]

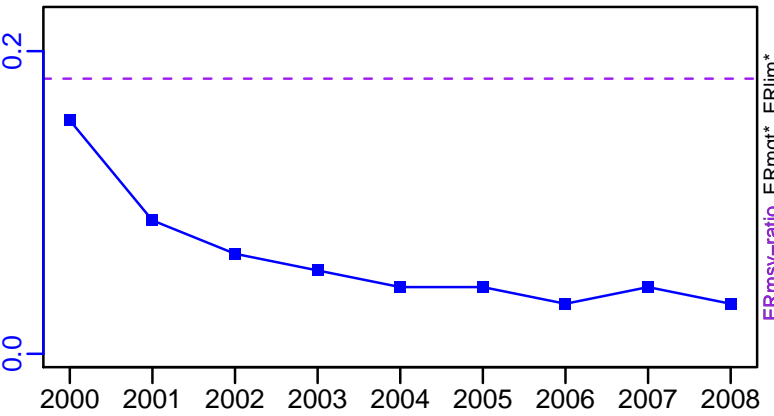
TB-MT (1930-2009-CHING)



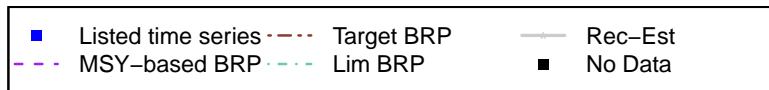
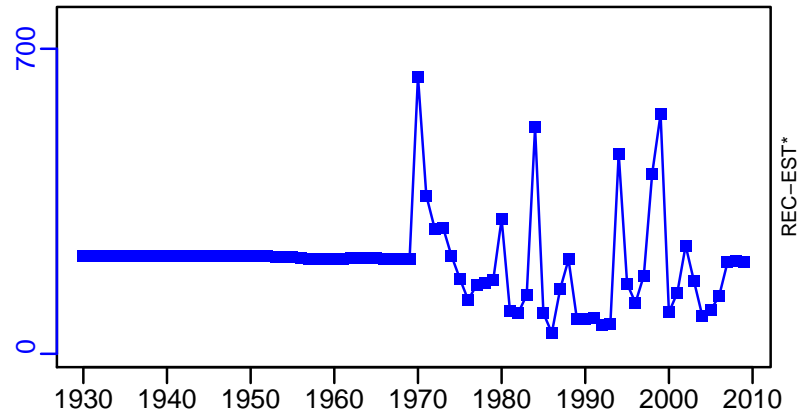
SSB-MT (1930-2009-CHING)



ER-ratio (1930-2009-CHING)



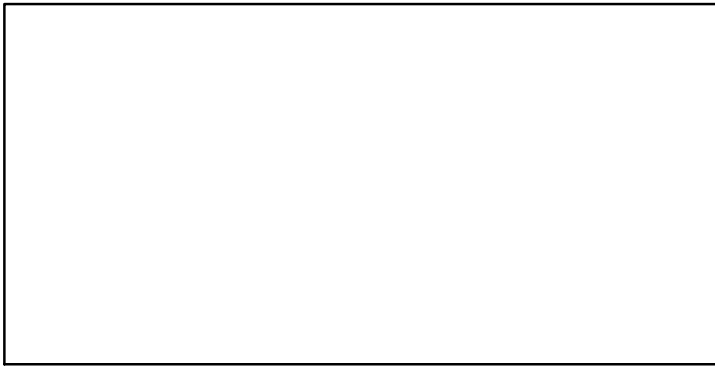
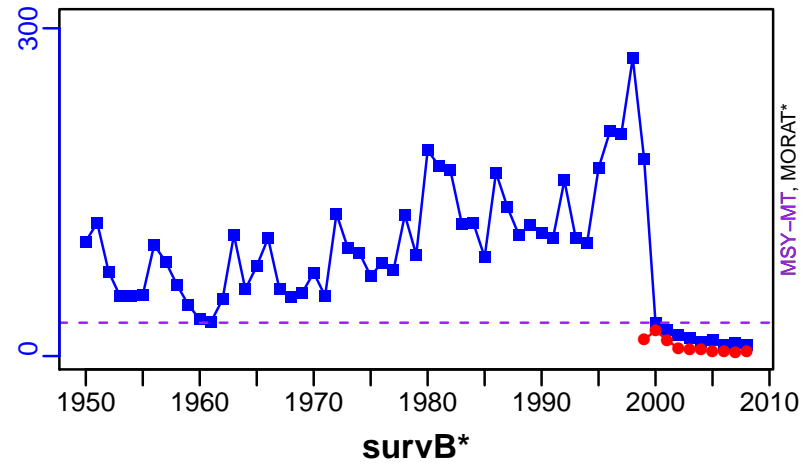
R-E00 (1930-2009-CHING)



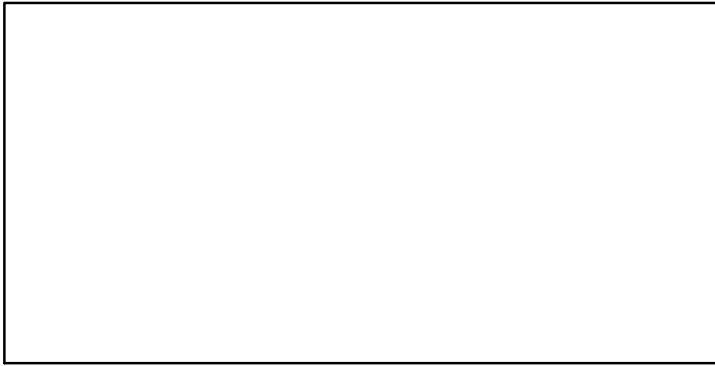
# Cabazon Southern California [CABEZSCAL]

TC-MT, TL-MT, RecC\* (1930-2009-CHING)

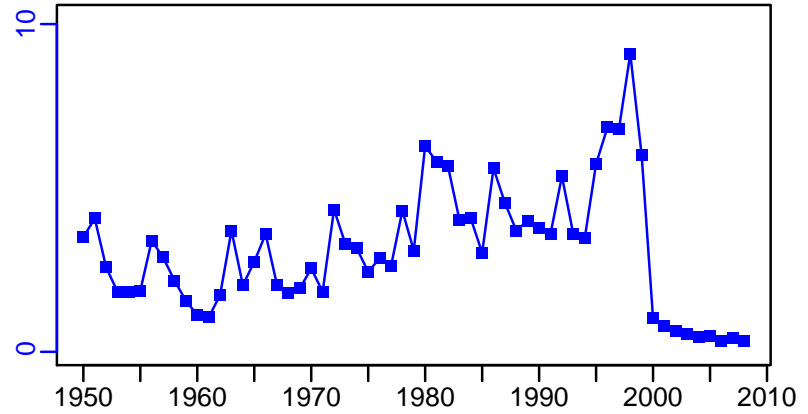
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1930-2009-CHING)



## California scorpionfish Southern California [CALSCORPSCAL]

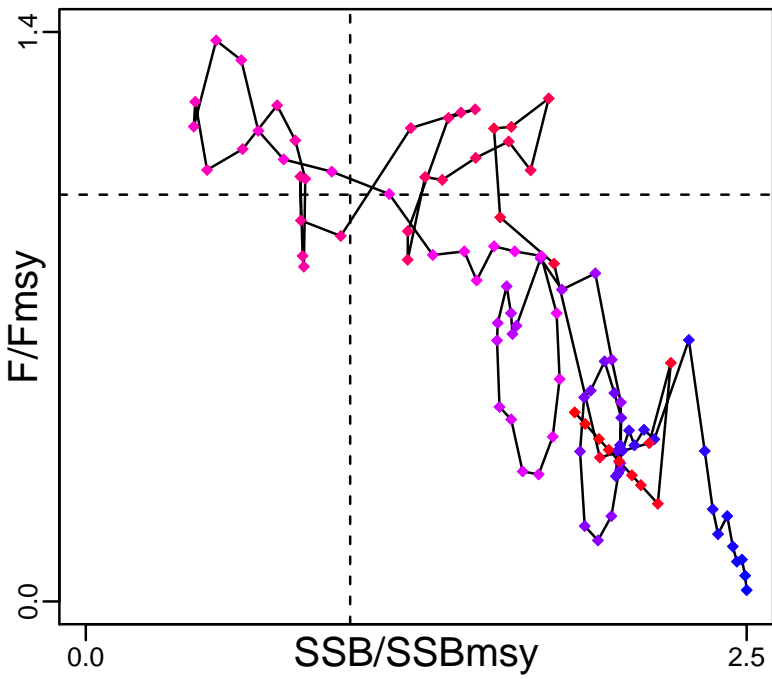
Metadata	
<b>Scientific Name</b>	Scorpaena guttata
<b>Current Assess ID</b>	SWFSC-CALSCORPSCAL-1914-2015-SISIMP2016
<b>Area</b>	Southern California
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southwest Fisheries Science Center
<b>Asmts in RAM</b>	2015, 2005

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2005	789
<b>SSBmsy</b>	SSBmsy-MT	2015	392
<b>Fmsy</b>	Fmsy-1/yr	2015	0.5
<b>ERmsy</b>	ERmsy-ratio	2005	0.161
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2005	2007
<b>SSB0</b>	SSB0-MT	2005	1024
<b>MSY</b>	MSY-MT	2005	127
<b>M</b>	M-1/yr	2005	0.25
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2015	245
<b>Flim</b>	Flim-1/yr	2015	0.5
<b>ERlim</b>	-	-	-

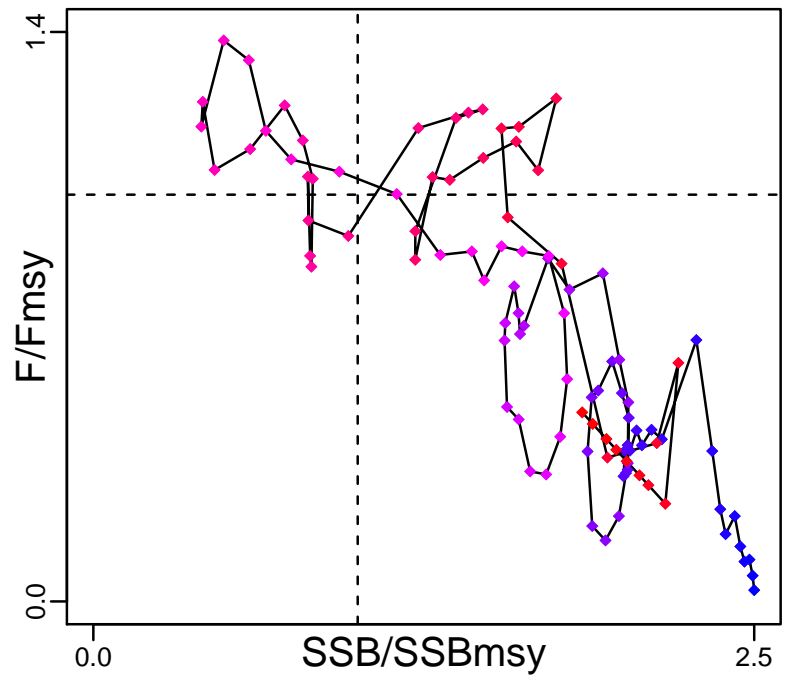
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	1550	-	2+
<b>SSB</b>	SSB-MT	2015	708	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2015	1900	-	0
<b>F</b>	F-1/yr	2015	0.232	-	-
<b>ER</b>	ER-calc-ratio	2015	0.078	-	-
<b>TC</b>	TC-MT	2015	124		
<b>TL</b>	TL-MT	2005	81		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2005	2.371		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2015	1.805		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2015	0.465		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2005	0.441		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# California scorpionfish Southern California [CALSCORPSCAL]

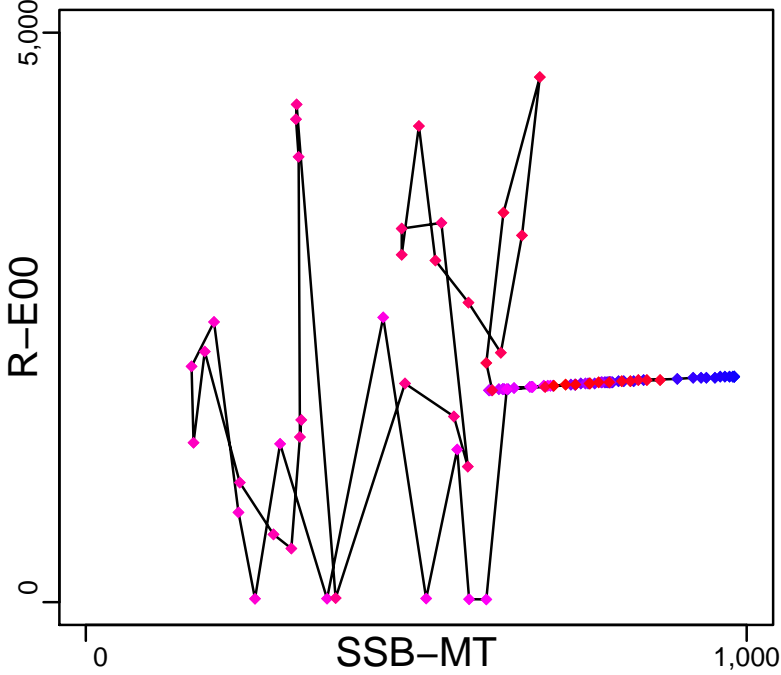
Kobe MSYpref (1914–2015–SISIMP2016)



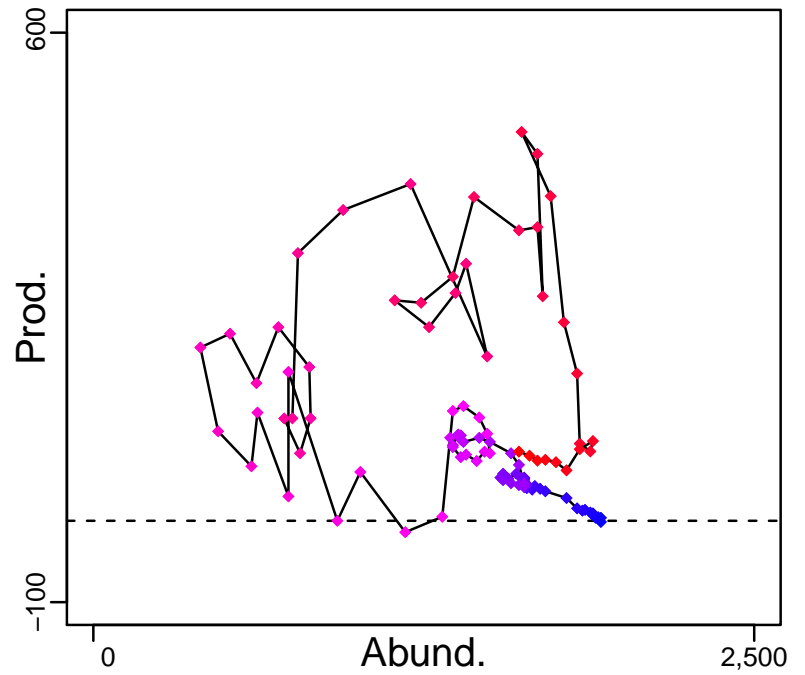
Kobe MGTpref (1914–2015–SISIMP2016)



Spawner Recruit (1914–2015–SISIMP2016)



Production (1914–2015–SISIMP2016)

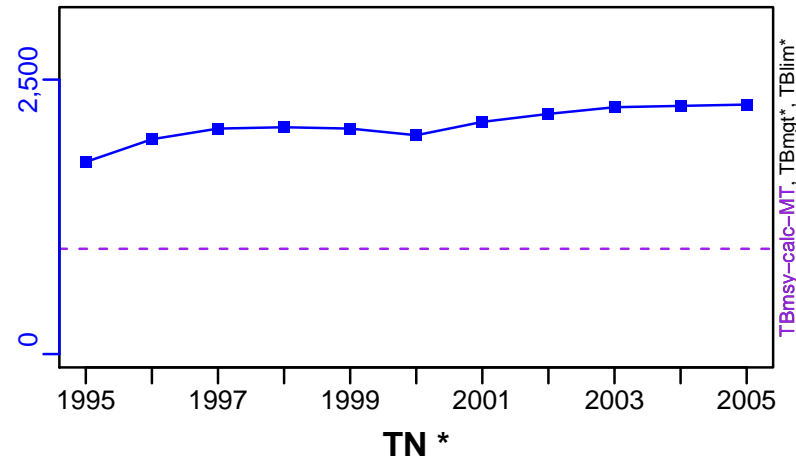


◆ Start Year ◆ End Year \* No Data

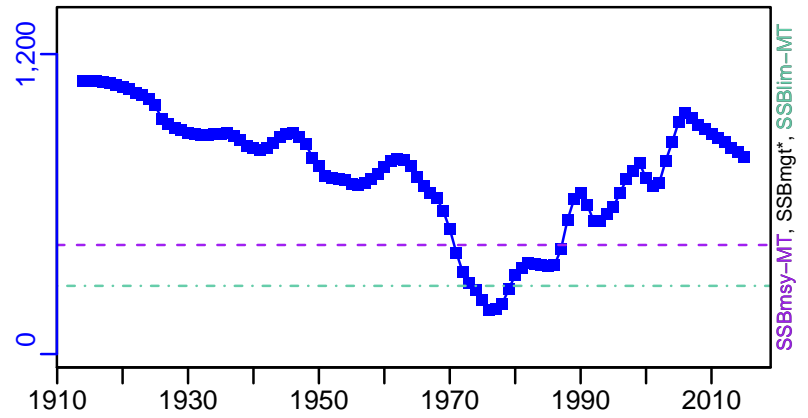


# California scorpionfish Southern California [CALSCORPSCAL]

TB-MT (1990–2005–STANTON)



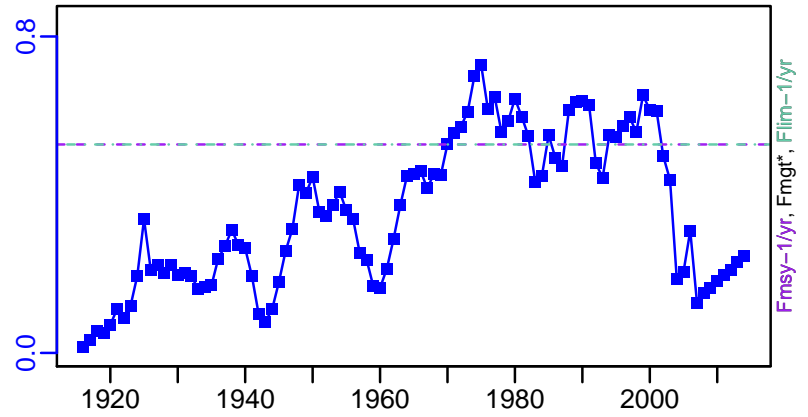
SSB-MT (1914–2015–SISIMP2016)



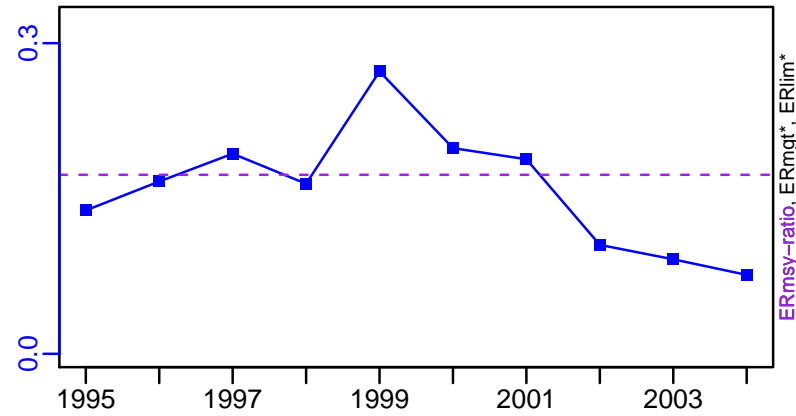
TN \*



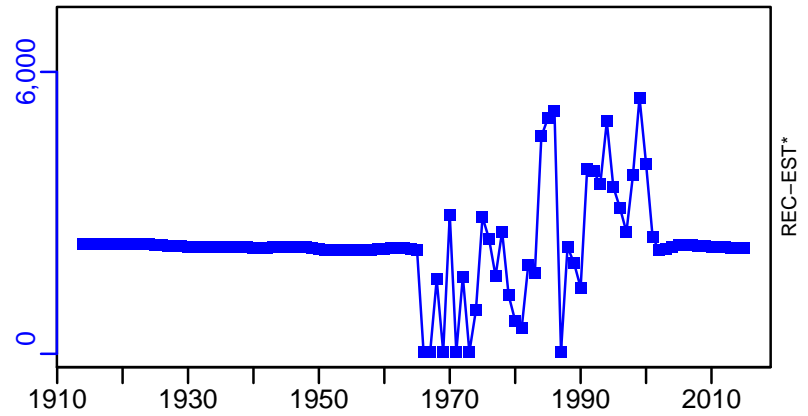
F-1/yr (1914–2015–SISIMP2016)



ER-ratio (1990–2005–STANTON)



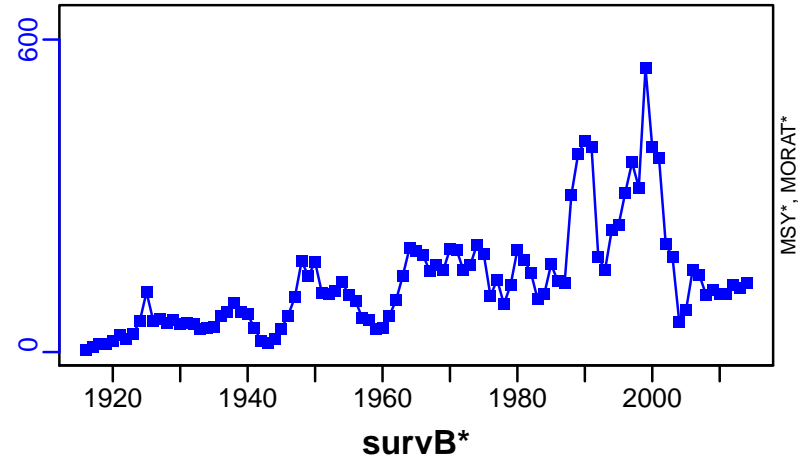
R-E00 (1914–2015–SISIMP2016)



# California scorpionfish Southern California [CALSCORPSCAL]

TC-MT, TL\*, RecC\* (1914-2015-SISIMP2016)

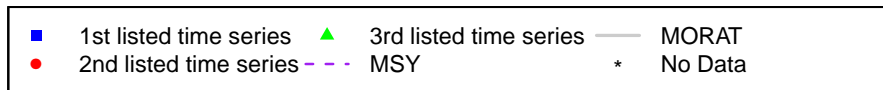
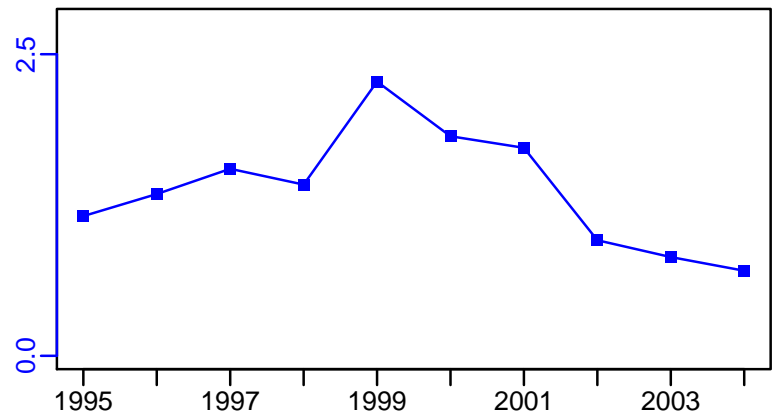
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1990-2005-STANTON)



## Chilipepper Southern Pacific Coast [CHILISPCOAST]

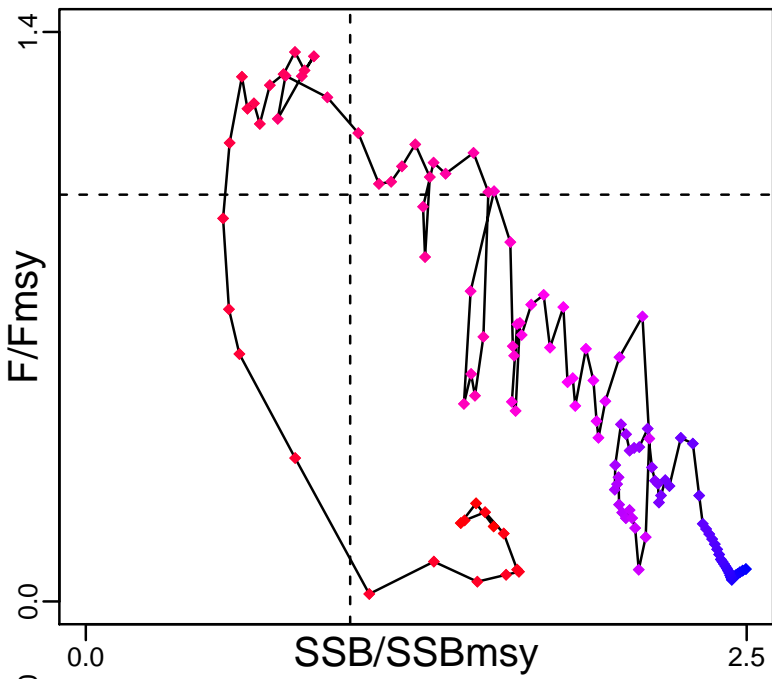
Metadata	
<b>Scientific Name</b>	Sebastes goodei
<b>Current Assess ID</b>	SWFSC-CHILISPCOAST-1892-2015-SISIMP2016
<b>Area</b>	Southern Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southwest Fisheries Science Center
<b>Asmts in RAM</b>	2007, 2015

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2007	19,321
<b>SSBmsy</b>	SSBmsy-E00larvae	2015	$2.82 \times 10^9$
<b>Fmsy</b>	Fmsy-1/yr	2015	0.5
<b>ERmsy</b>	ERmsy-ratio	2007	0.112
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2007	45,057
<b>SSB0</b>	SSB0-MT	2007	33,390
<b>MSY</b>	MSY-MT	2015	2133
<b>M</b>	M-1/yr	2007	0.16
<b>TBlim</b>	TBlim-MT	2007	8666
<b>SSBlim</b>	SSBlim-E00larvae	2015	$1.76 \times 10^9$
<b>Flim</b>	Flim-1/yr	2015	0.5
<b>ERlim</b>	-	-	-

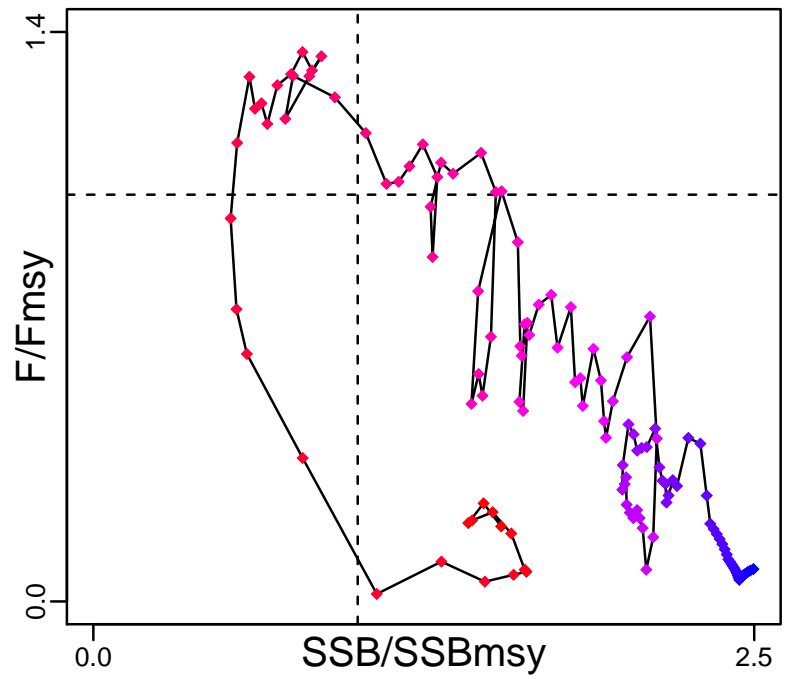
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	36,700	-	2+
<b>SSB</b>	SSB-E00larvae	2015	$4.5 \times 10^9$	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2015	37,700,000	-	0
<b>F</b>	F-1/yr	2015	0.092	-	-
<b>ER</b>	ER-calc-ratio	2015	0.009	-	-
<b>TC</b>	TC-MT	2015	325		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2007	1.739		
<b>SSB/SSBmsy</b>	SSB-E00larvae/SSBmsy-E00larvae	2015	1.597		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2015	0.184		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2007	0.035		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Chilipepper Southern Pacific Coast [CHILISPCOAST]

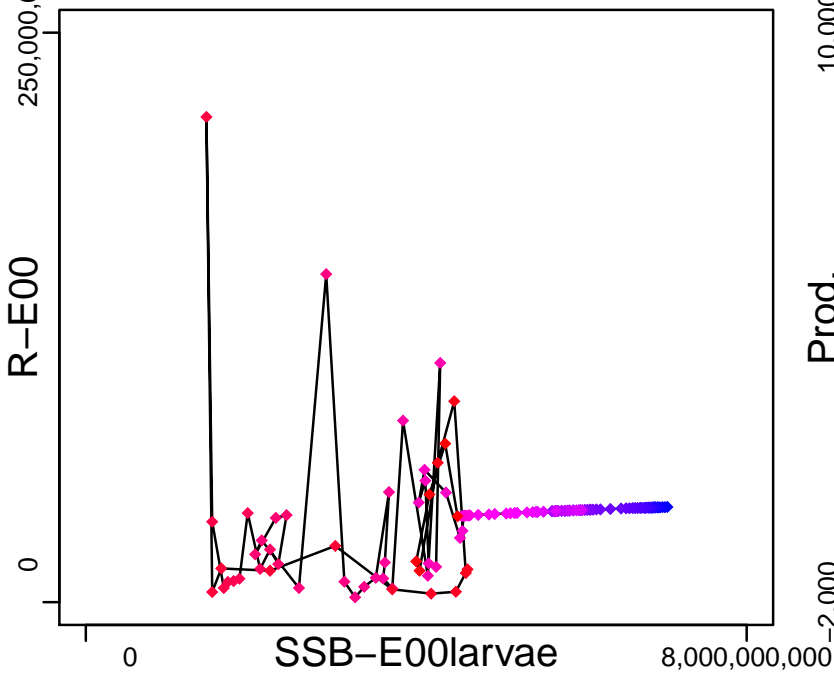
Kobe MSYpref (1892–2015–SISIMP2016)



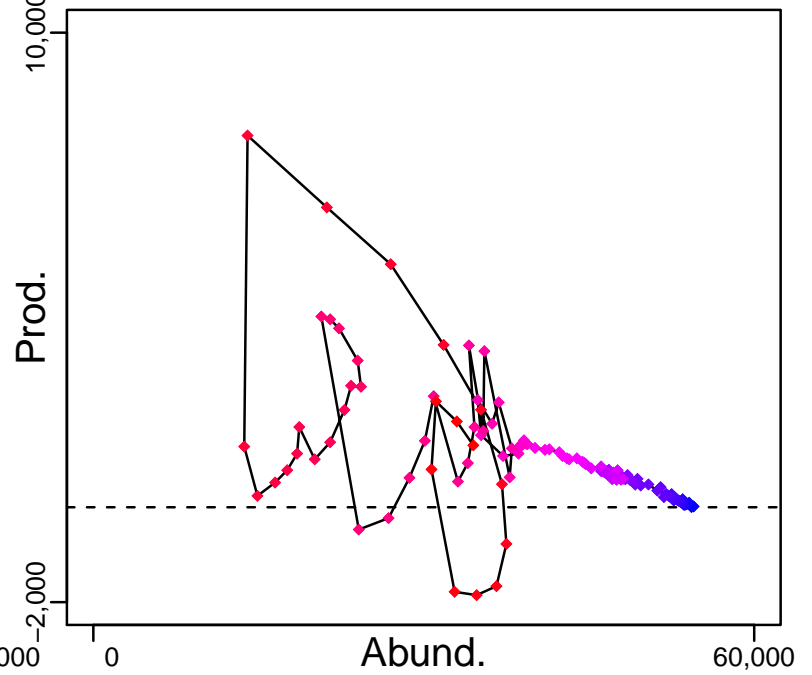
Kobe MGTpref (1892–2015–SISIMP2016)



Spawner Recruit (1892–2015–SISIMP2016)

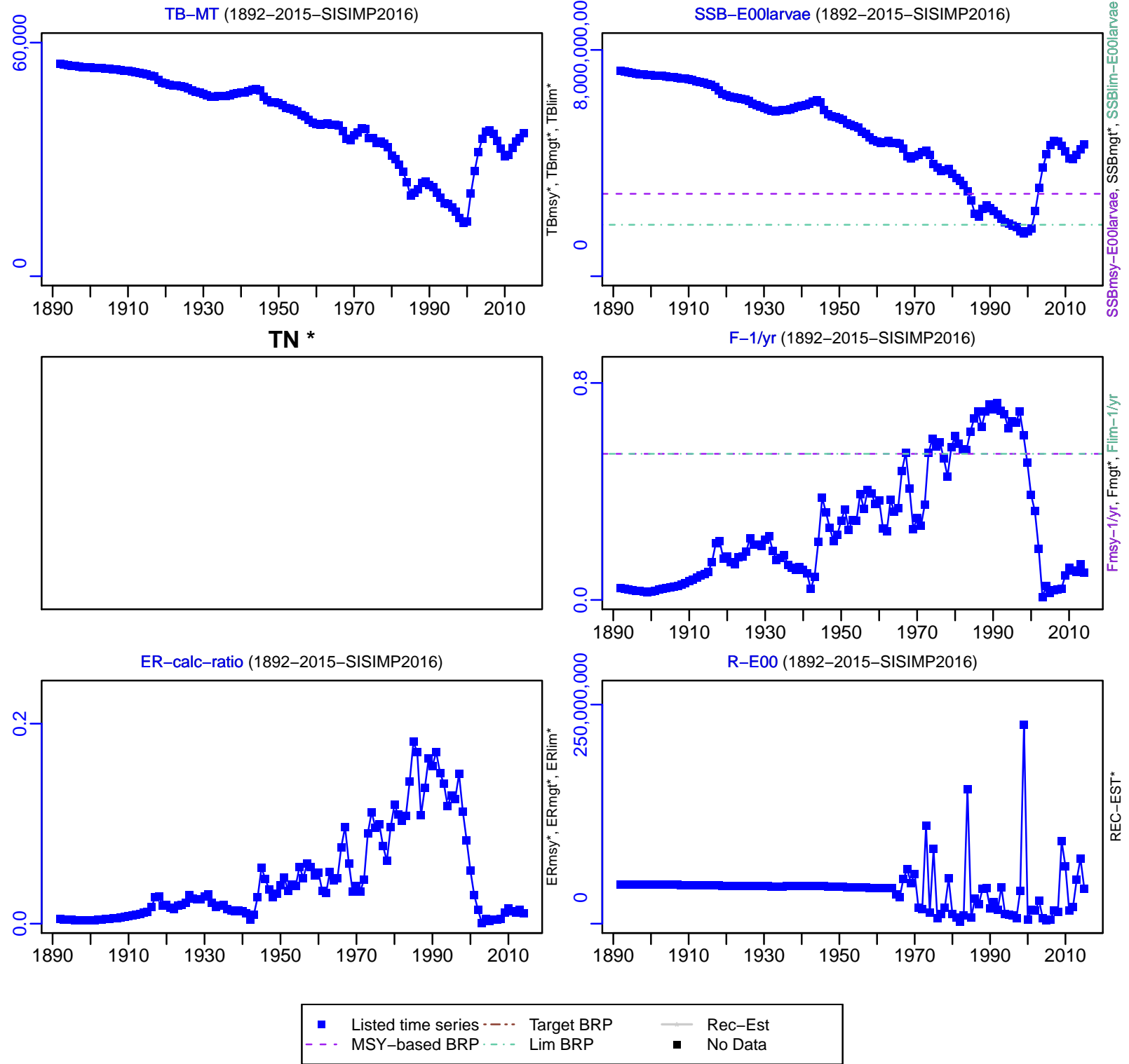


Production (1892–2015–SISIMP2016)



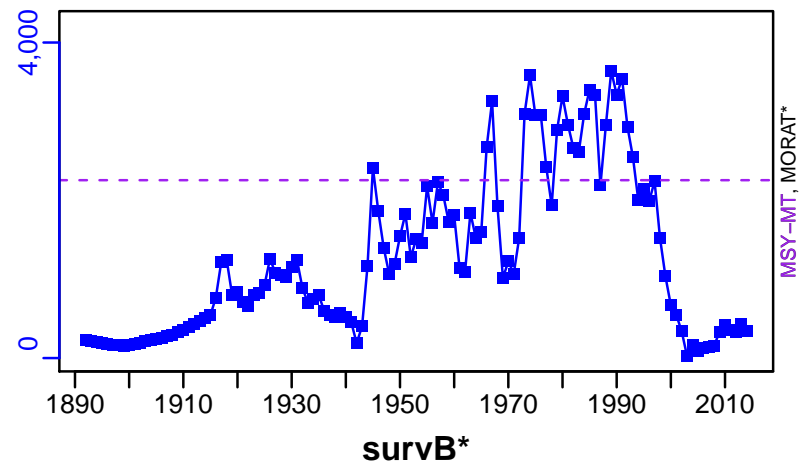
◆ Start Year ◆ End Year \* No Data

# Chilipepper Southern Pacific Coast [CHILISPCOAST]



# Chilipepper Southern Pacific Coast [CHILISPCOAST]

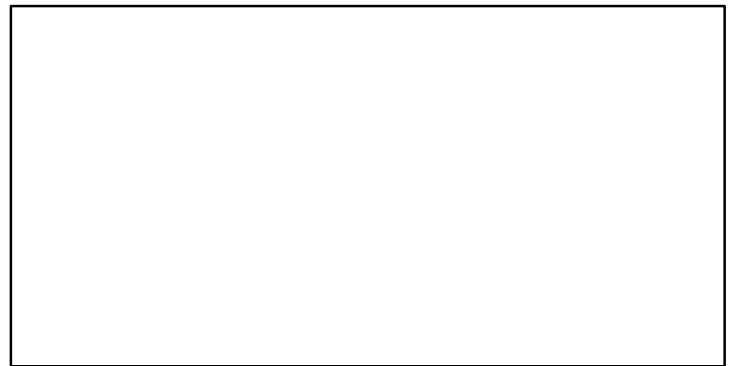
TC-MT, TL\*, RecC\* (1892-2015-SISIMP2016)



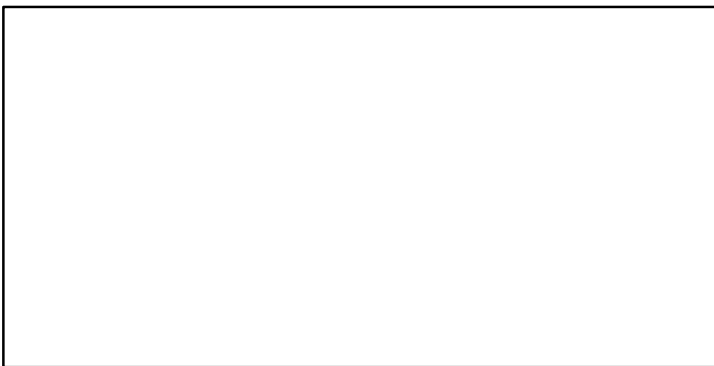
TAC\*, Cpair\*, Cadv\*



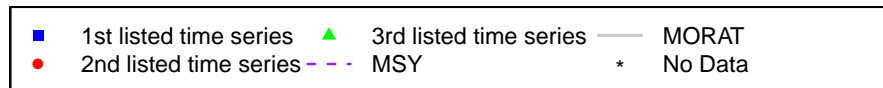
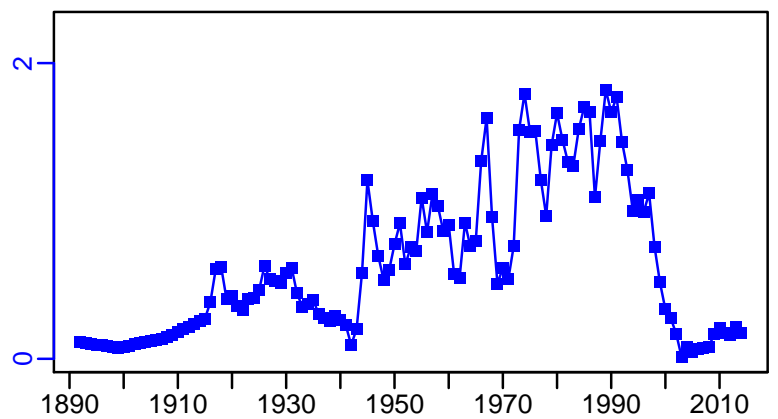
CPUE\*



EFFORT\*



CdivMSY-ratio (1892-2015-SISIMP2016)



## China rockfish Central Pacific Coast [CHROCKCPCOAST]

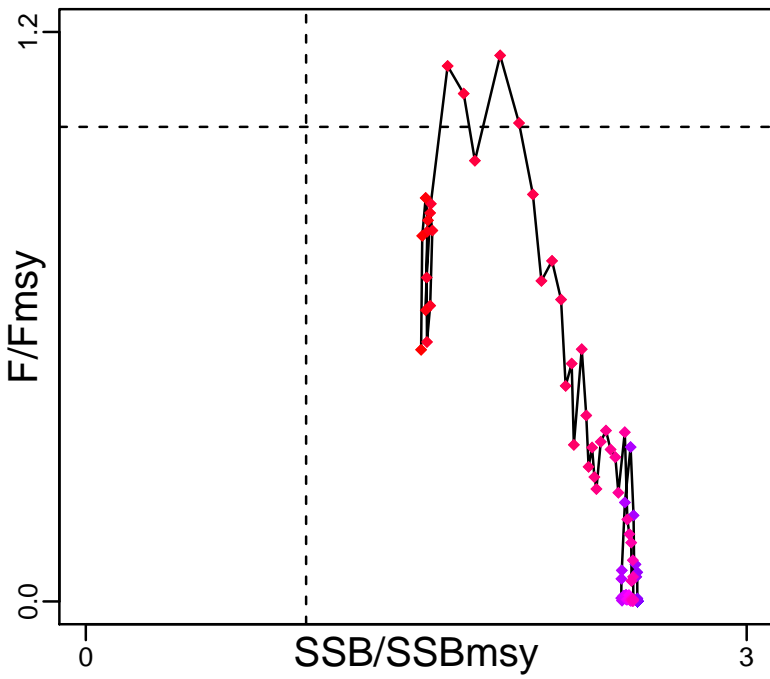
Metadata	
<b>Scientific Name</b>	Sebastes nebulosus
<b>Current Assess ID</b>	NWFSC-CHROCKCPCOAST-1900-2015-SISIMP2016
<b>Area</b>	Central Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northwest Fisheries Science Center
<b>Asmts in RAM</b>	2015

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-E00eggs	2015	$2.6 \times 10^{10}$
<b>Fmsy</b>	Fmsy-1/yr	2015	0.5
<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	2015	16
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-E00eggs	2015	$1.63 \times 10^{10}$
<b>Flim</b>	Flim-1/yr	2015	0.5
<b>ERlim</b>	-	-	-

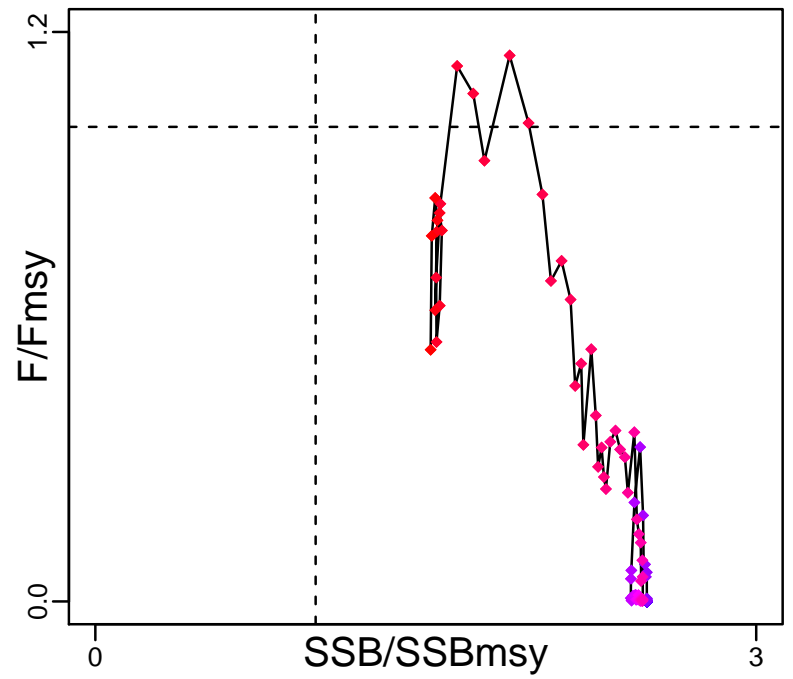
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	381	-	5+
<b>SSB</b>	SSB-E00eggs	2015	$4 \times 10^{10}$	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2015	68,200	-	0
<b>F</b>	F-1/yr	2015	0.265	-	-
<b>ER</b>	ER-calc-ratio	2015	0.019	-	-
<b>TC</b>	TC-MT	2015	7		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-E00eggs/SSBmsy-E00eggs	2015	1.54		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2015	0.53		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# China rockfish Central Pacific Coast [CHROCKCPCOAST]

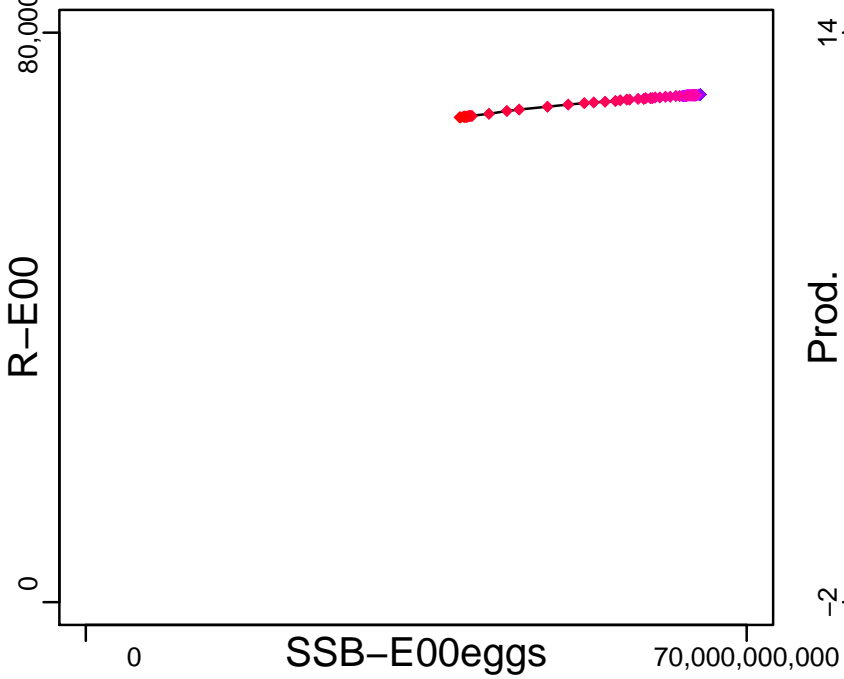
Kobe MSYpref (1900–2015–SISIMP2016)



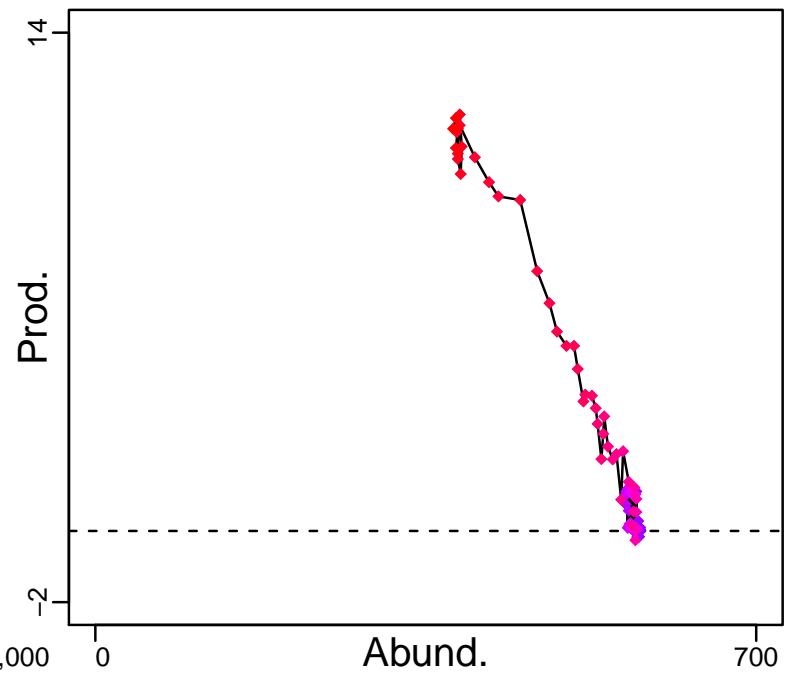
Kobe MGTpref (1900–2015–SISIMP2016)



Spawner Recruit (1900–2015–SISIMP2016)



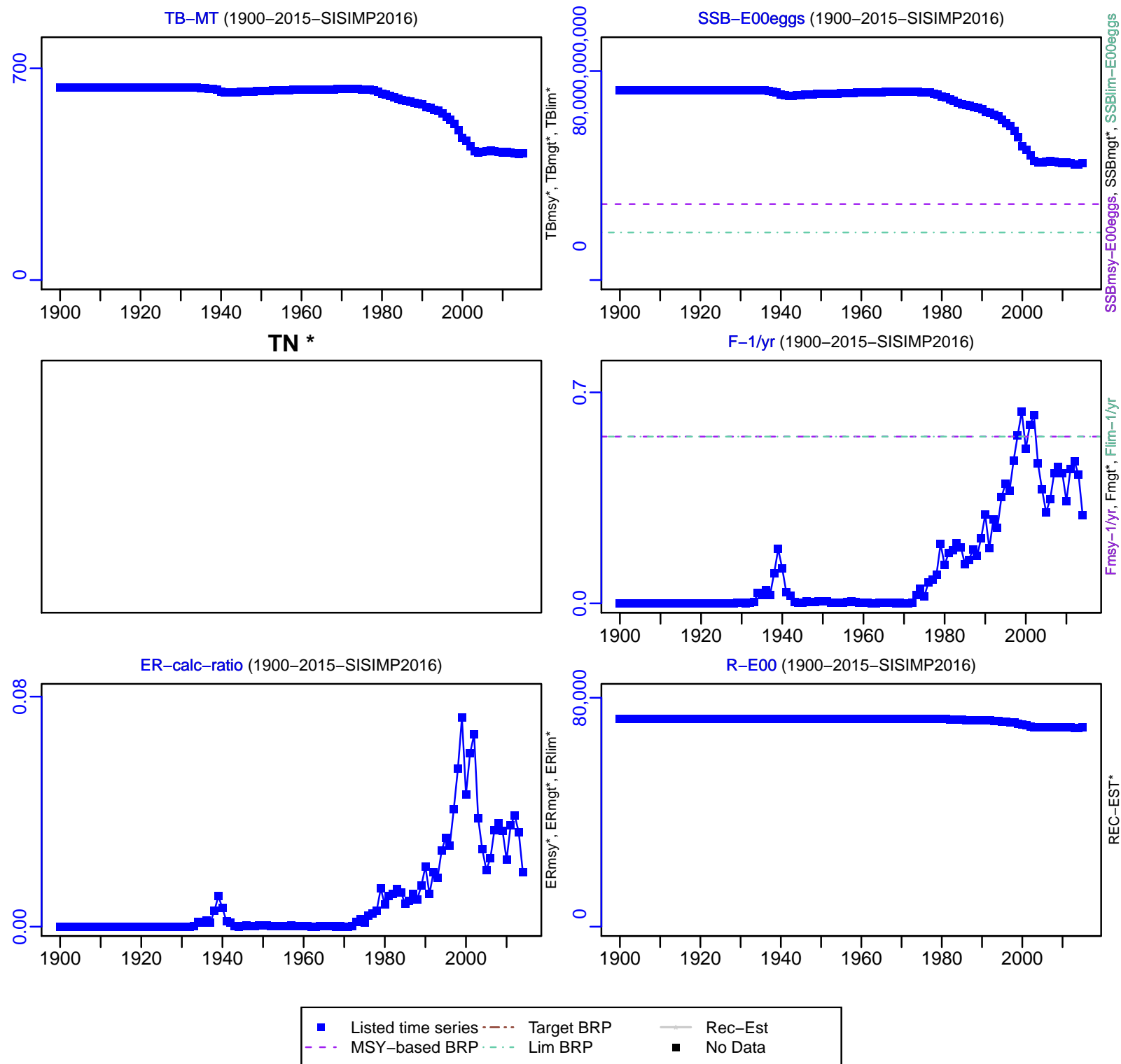
Production (1900–2015–SISIMP2016)



◆ Start Year ◆ End Year \* No Data



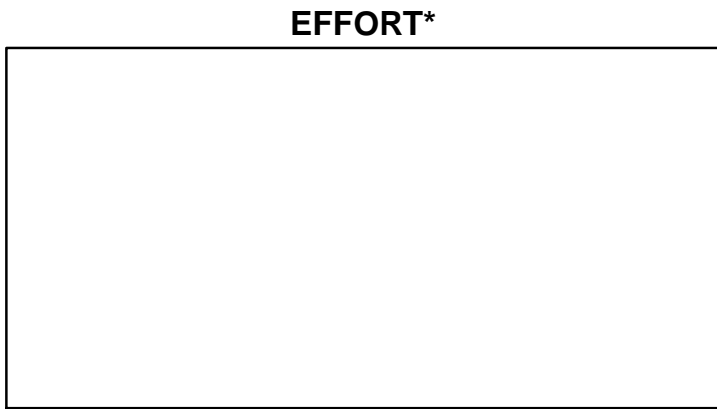
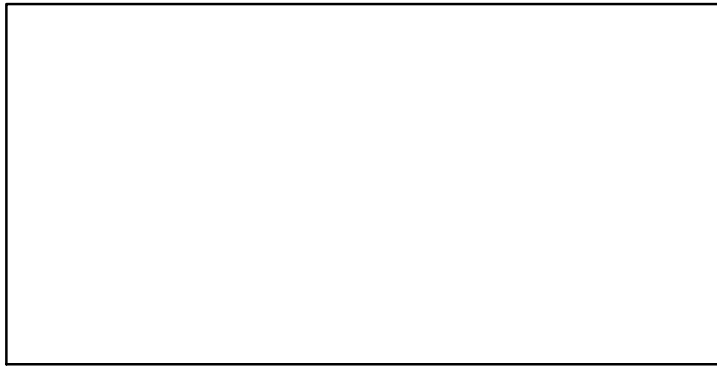
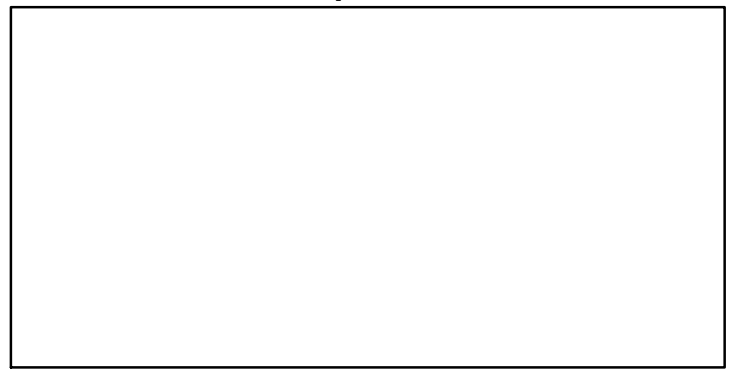
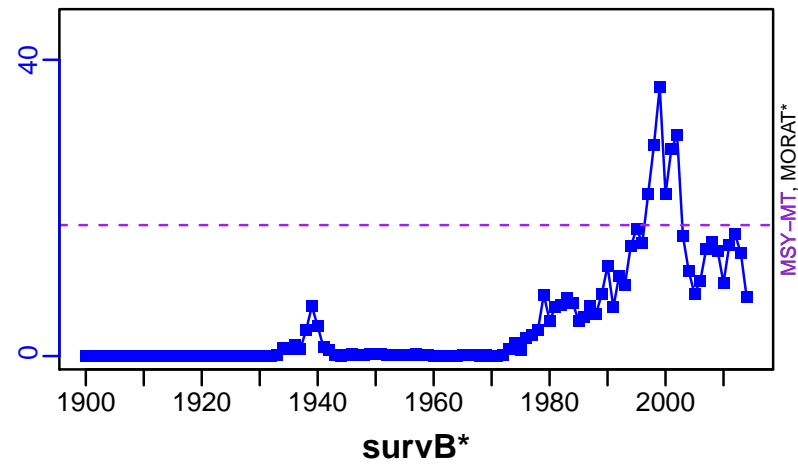
# China rockfish Central Pacific Coast [CHROCKPCOAST]



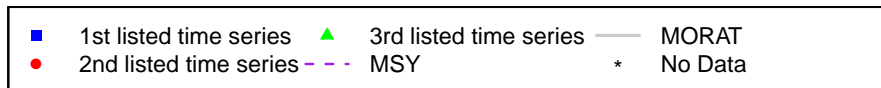
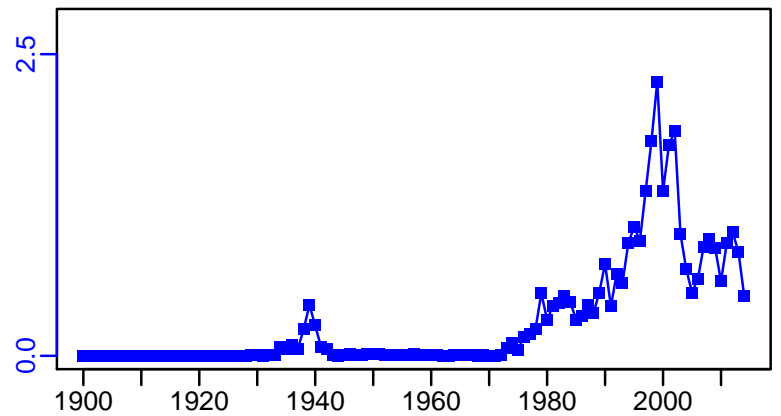
# China rockfish Central Pacific Coast [CHROCKCPCOAST]

TC-MT, TL\*, RecC\* (1900–2015–SISIMP2016)

TAC\*, Cpair\*, Cadv\*



CdivMSY-ratio (1900–2015–SISIMP2016)



## China rockfish Northern Pacific Coast [CHROCKNPCOAST]

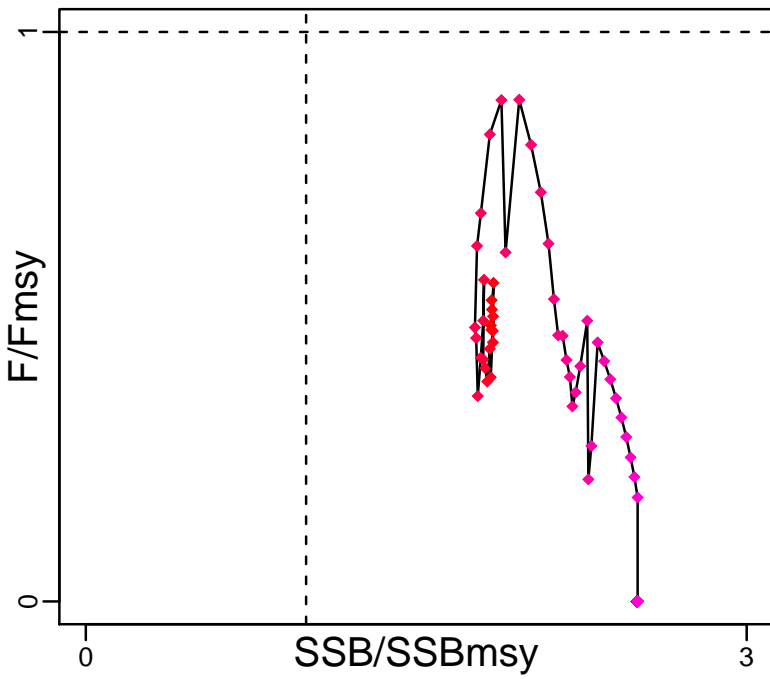
Metadata	
<b>Scientific Name</b>	Sebastes nebulosus
<b>Current Assess ID</b>	SWFSC-CHROCKNPCOAST-1900-2015-SISIMP2016
<b>Area</b>	Northern Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southwest Fisheries Science Center
<b>Asmts in RAM</b>	2015

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-E00eggs	2015	$9.76 \times 10^9$
<b>Fmsy</b>	Fmsy-1/yr	2015	0.5
<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>	SSBlim-E00eggs	2015	$6.13 \times 10^9$
<b>Flim</b>	Flim-1/yr	2015	0.5
<b>ERlim</b>	-	-	-

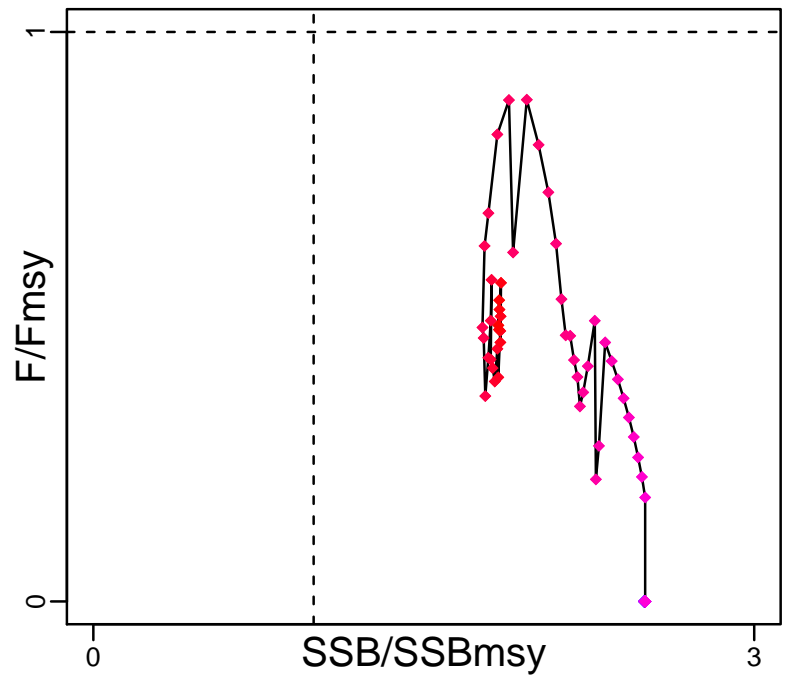
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	183	-	5+
<b>SSB</b>	SSB-E00eggs	2015	$1.79 \times 10^{10}$	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2015	33,300	-	0
<b>F</b>	F-1/yr	2015	0.242	-	-
<b>ER</b>	ER-calc-ratio	2015	0.017	-	-
<b>TC</b>	TC-MT	2015	3.02		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-E00eggs/SSBmsy-E00eggs	2015	1.839		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2015	0.485		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# China rockfish Northern Pacific Coast [CHROCKNPCOAST]

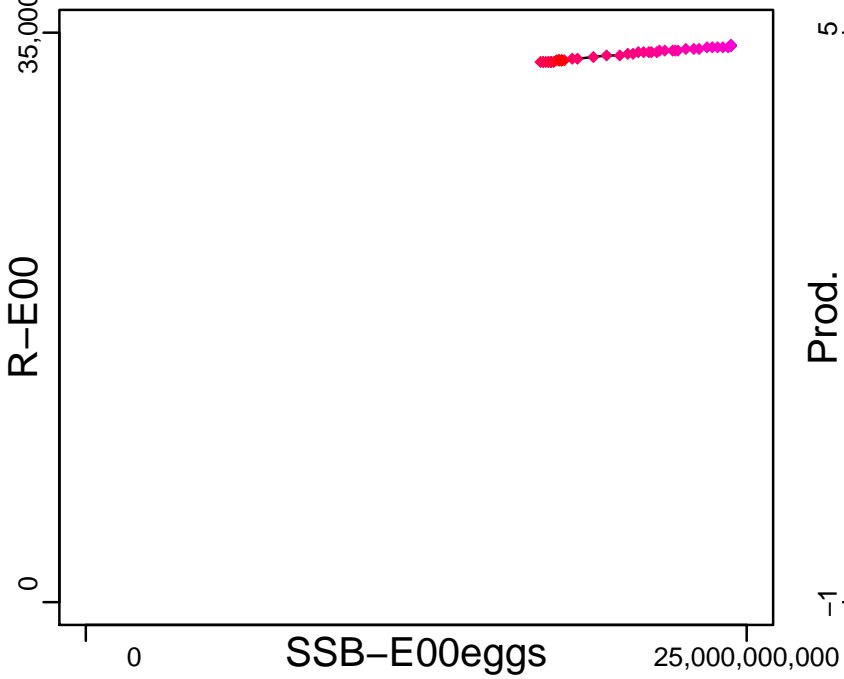
Kobe MSY<sub>pref</sub> (1900–2015–SISIMP2016)



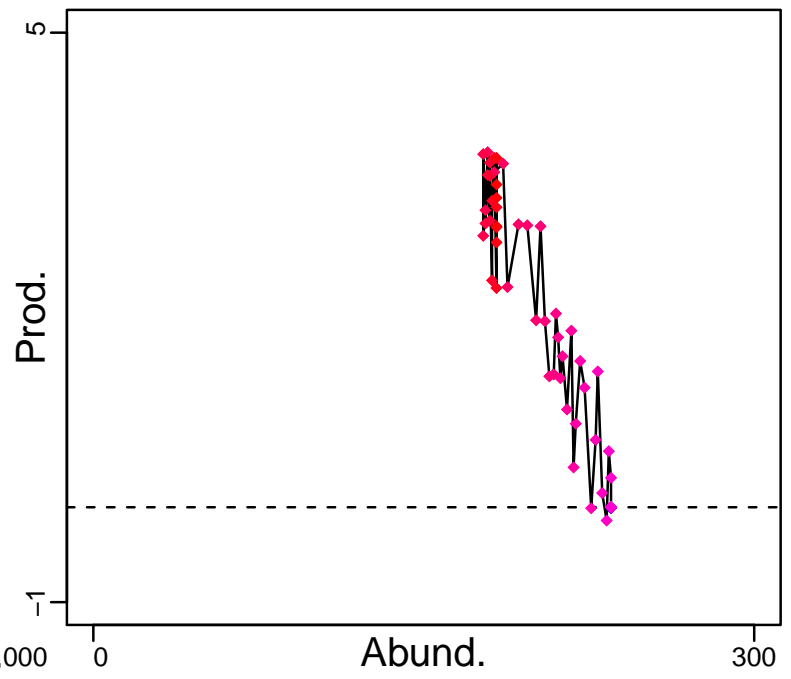
Kobe MGT<sub>pref</sub> (1900–2015–SISIMP2016)



Spawner Recruit (1900–2015–SISIMP2016)

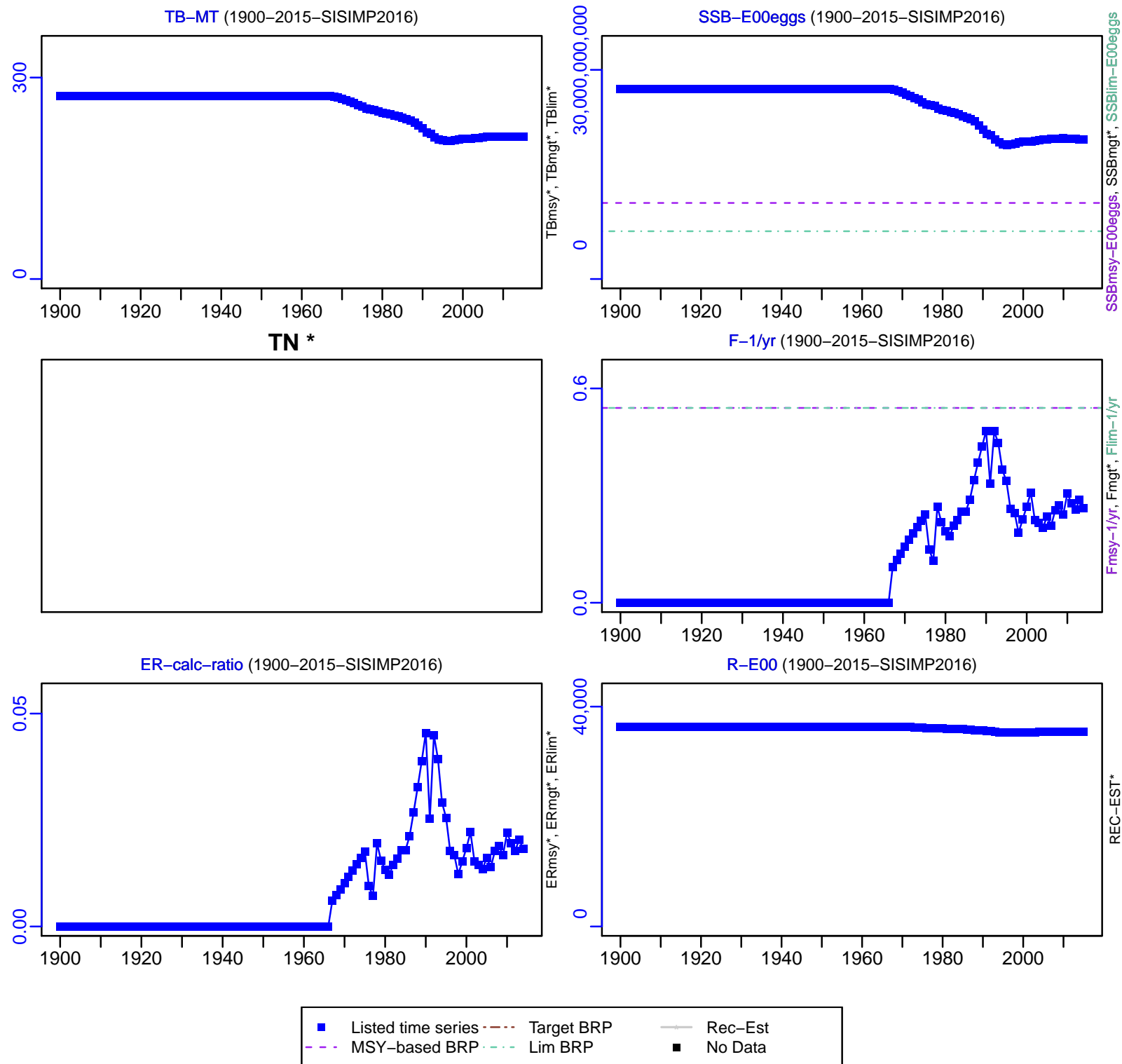


Production (1900–2015–SISIMP2016)



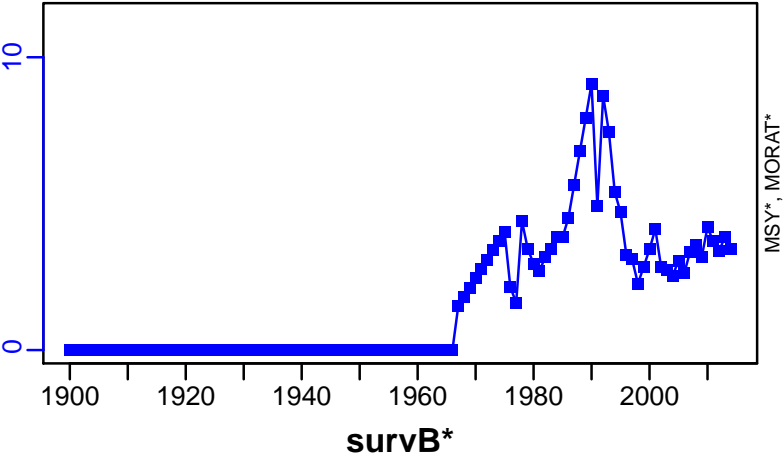
◆ Start Year ◆ End Year \* No Data

# China rockfish Northern Pacific Coast [CHROCKNP coast]

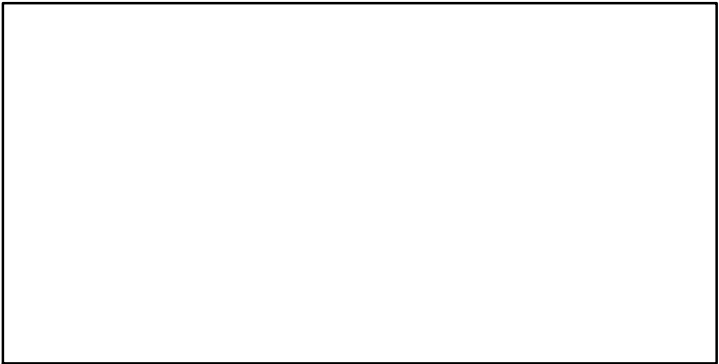


China rockfish Northern Pacific Coast [CHROCKNP COAST]

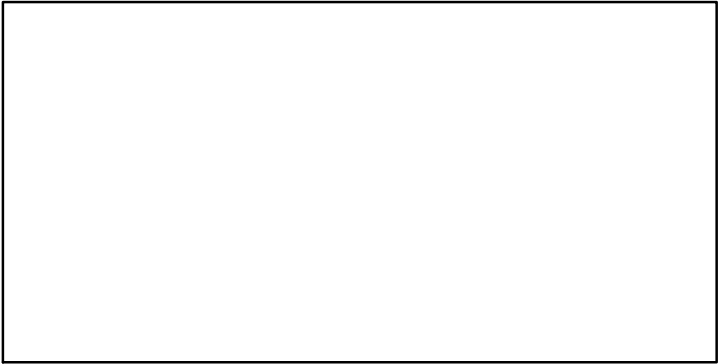
TC-MT, TL\*, RecC\* (1900-2015-SISIMP2016)



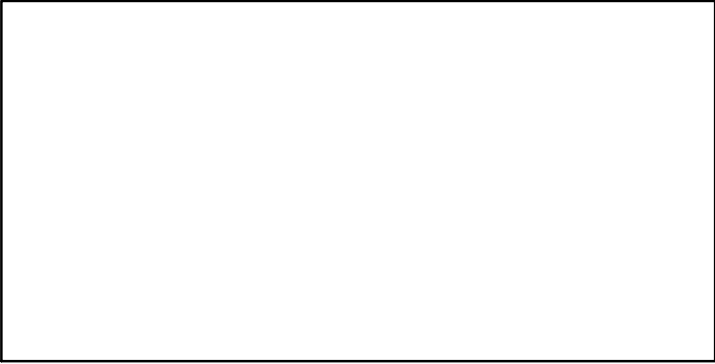
TAC\*, Cpair\*, Cadv\*



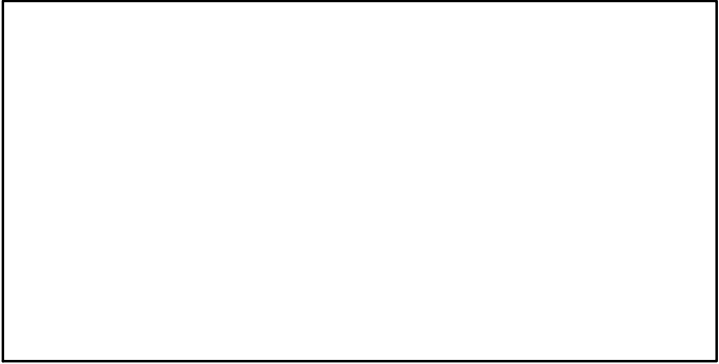
CPUE\*



EFFORT\*



CdivMSY\*



## China rockfish Southern Pacific Coast [CHROCKSPCOAST]

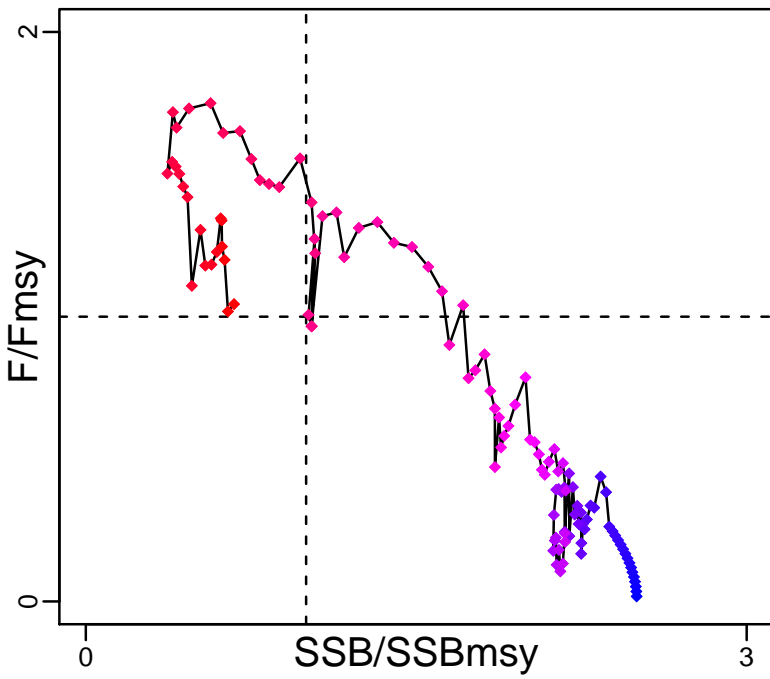
Metadata	
<b>Scientific Name</b>	Sebastes nebulosus
<b>Current Assess ID</b>	NWFSC-CHROCKSPCOAST-1900-2015-SISIMP2016
<b>Area</b>	Southern Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northwest Fisheries Science Center
<b>Asmts in RAM</b>	2015

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-E00eggs	2015	$2.66 \times 10^{10}$
<b>Fmsy</b>	Fmsy-1/yr	2015	0.5
<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	2015	21
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-E00eggs	2015	$1.66 \times 10^{10}$
<b>Flim</b>	Flim-1/yr	2015	0.5
<b>ERlim</b>	-	-	-

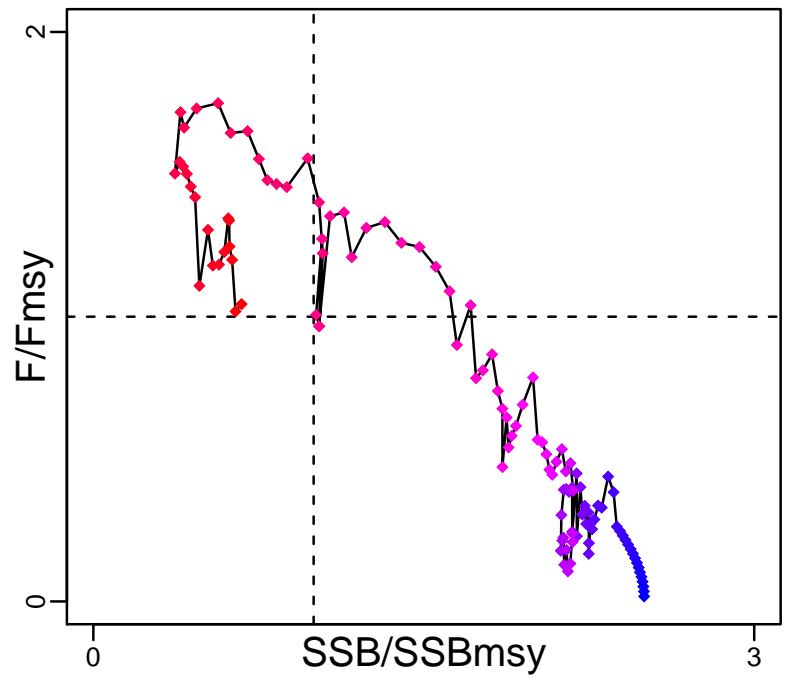
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	280	-	5+
<b>SSB</b>	SSB-E00eggs	2015	$1.86 \times 10^{10}$	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2015	130,000	-	0
<b>F</b>	F-1/yr	2015	0.522	-	-
<b>ER</b>	ER-calc-ratio	2015	0.046	-	-
<b>TC</b>	TC-MT	2015	12		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-E00eggs/SSBmsy-E00eggs	2015	0.698		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2015	1.044		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# China rockfish Southern Pacific Coast [CHROCKSPCOAST]

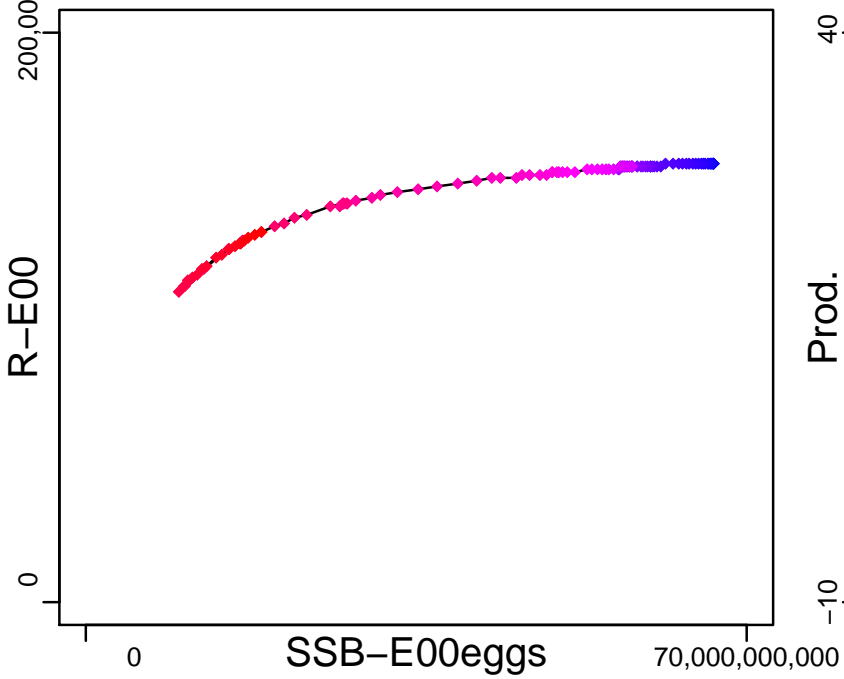
Kobe MSY<sub>pref</sub> (1900–2015–SISIMP2016)



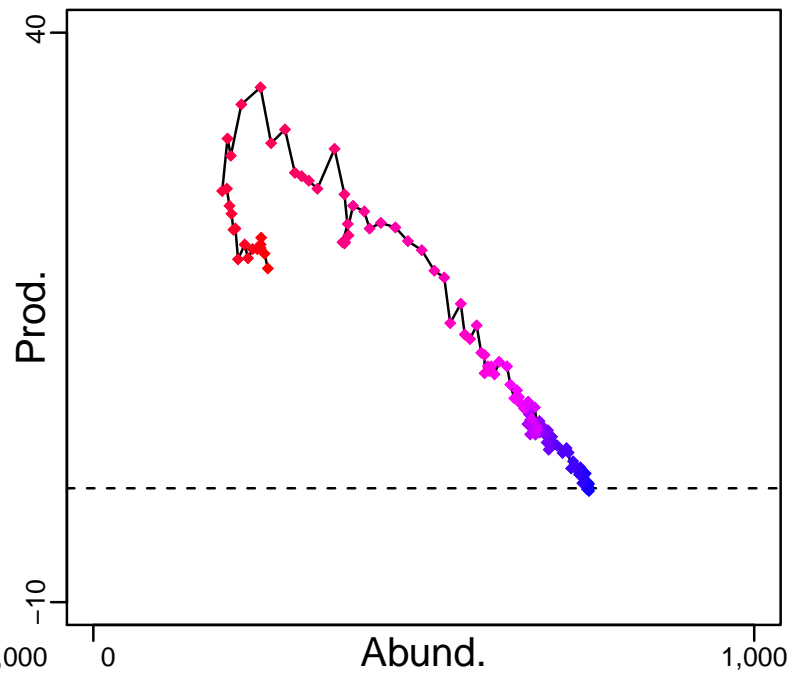
Kobe MGT<sub>pref</sub> (1900–2015–SISIMP2016)



Spawner Recruit (1900–2015–SISIMP2016)



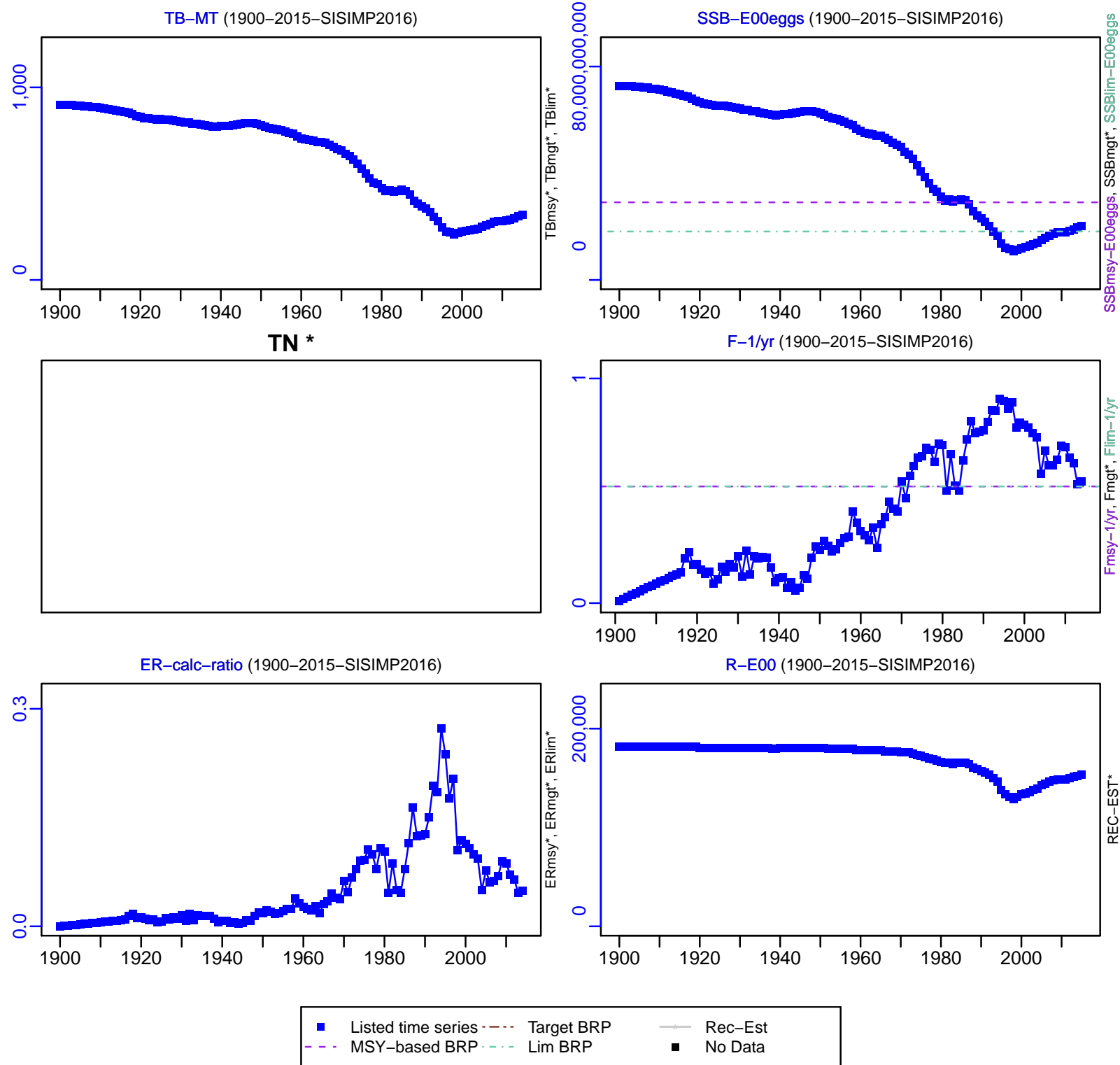
Production (1900–2015–SISIMP2016)



◆ Start Year ◆ End Year \* No Data



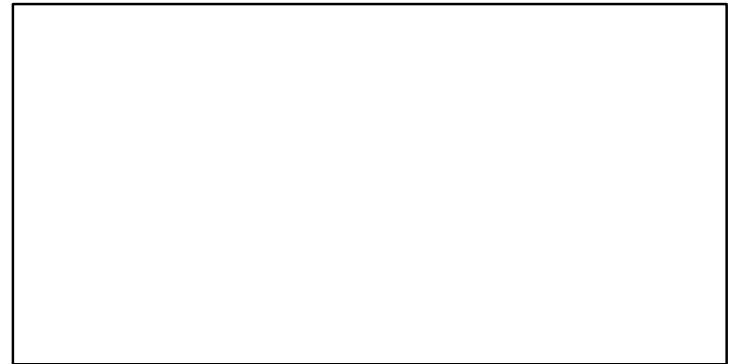
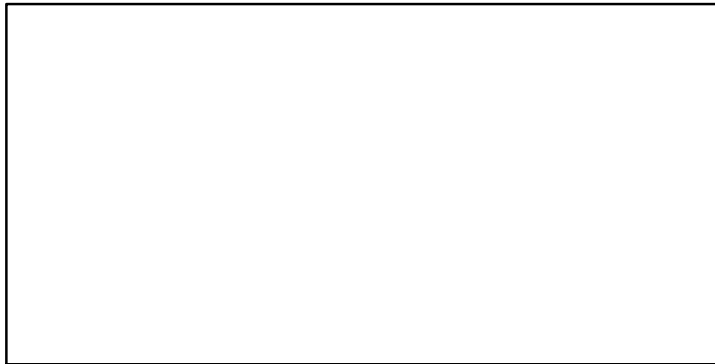
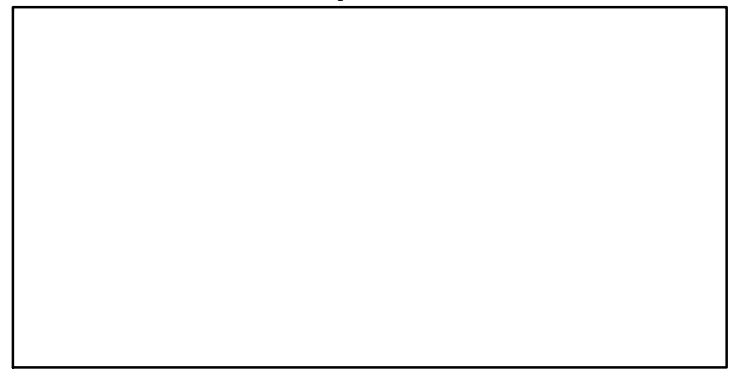
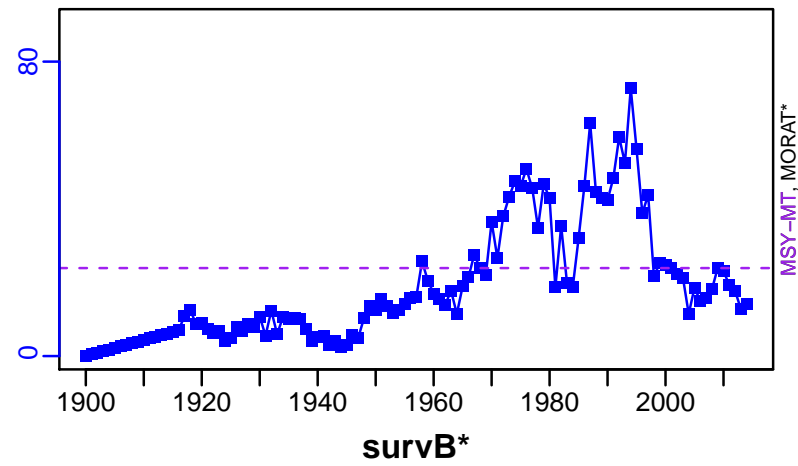
# China rockfish Southern Pacific Coast [CHROCKSPCOAST]



# China rockfish Southern Pacific Coast [CHROCKSPCOAST]

TC-MT, TL\*, RecC\* (1900-2015-SISIMP2016)

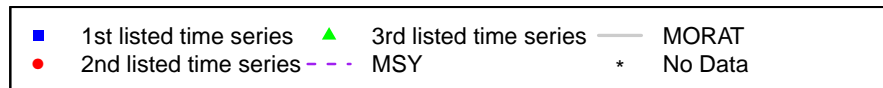
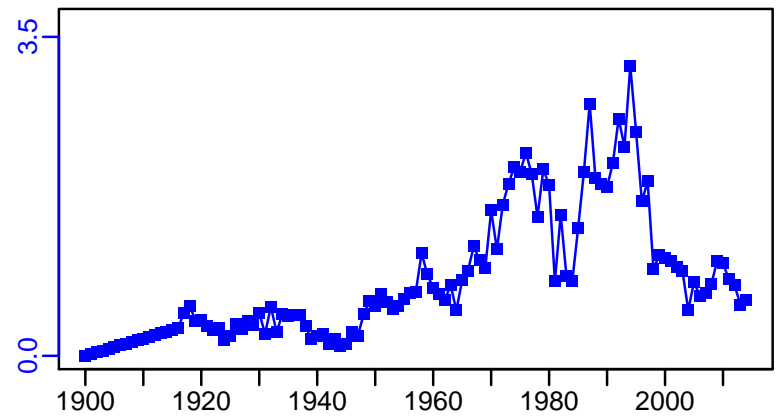
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1900-2015-SISIMP2016)



## Pacific chub mackerel Pacific Coast [CMACKPCOAST]

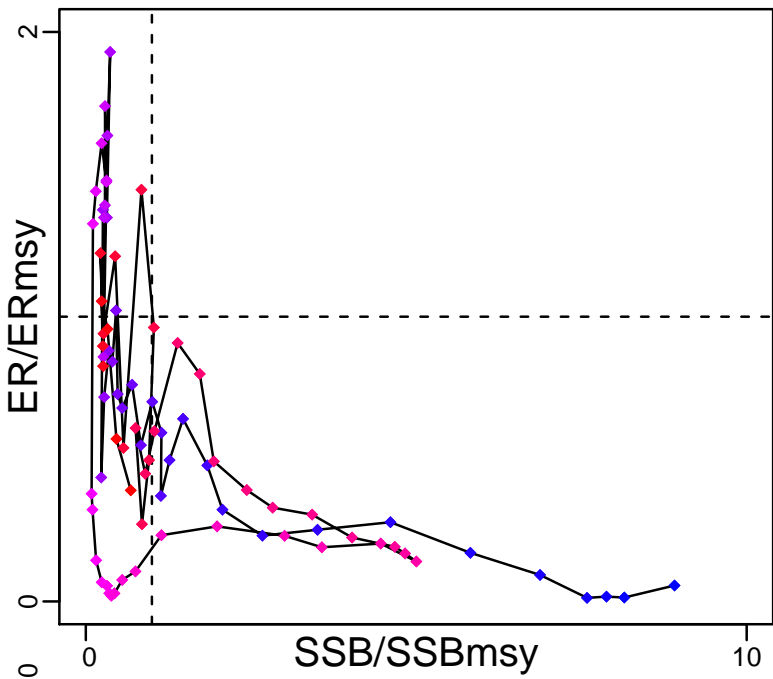
Metadata	
<b>Scientific Name</b>	Scomber japonicus
<b>Current Assess ID</b>	SWFSC-CMACKPCOAST-1983-2015-SISIMP2016
<b>Area</b>	Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southwest Fisheries Science Center
<b>Asmts in RAM</b>	2008, 2015

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2008	125,285
<b>SSBmsy</b>	SSBmsy-MT	2008	122,357
<b>Fmsy</b>	Fmsy-1/yr	2008	0.138
<b>ERmsy</b>	ERmsy-ratio	2008	0.184
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	SSB0-MT	2008	182,791
<b>MSY</b>	MSY-MT	2008	23,048
<b>M</b>	M-1/yr	2008	0.5
<b>TBlim</b>	TBlim-MT	2015	18,200
<b>SSBlim</b>	SSBlim-MT	2008	29,420
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

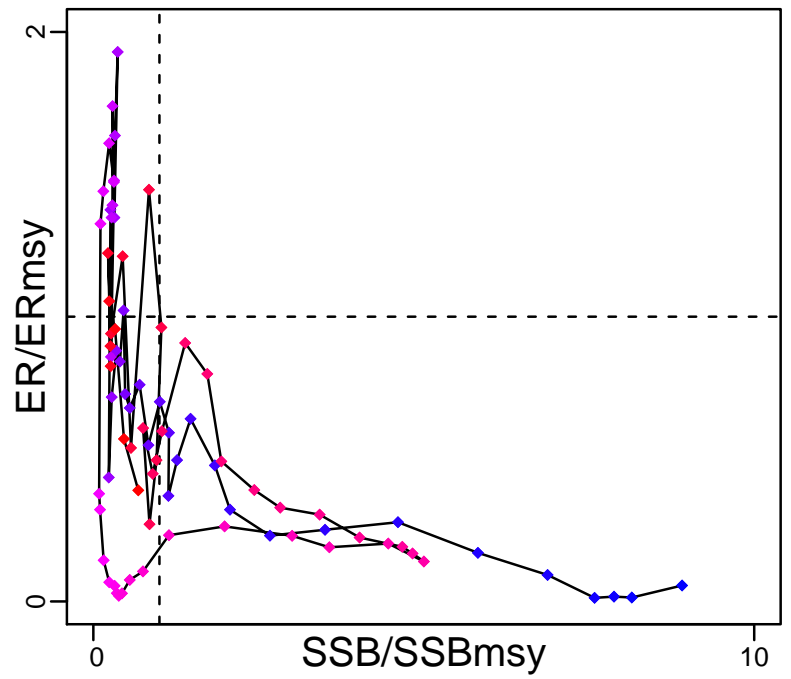
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	120,000	Both	1+
<b>SSB</b>	SSB-E00eggs	2015	40,800	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2015	$3.01 \times 10^8$	-	0
<b>F</b>	F-1/yr	2008	0.087	-	-
<b>ER</b>	ER-ratio	2015	0.104	-	-
<b>TC</b>	TC-MT	2015	10,100		
<b>TL</b>	TL-MT	2008	13,700		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2008	0.68		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2008	0.633		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2008	0.39		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Pacific chub mackerel Pacific Coast [CMACKPCOAST]

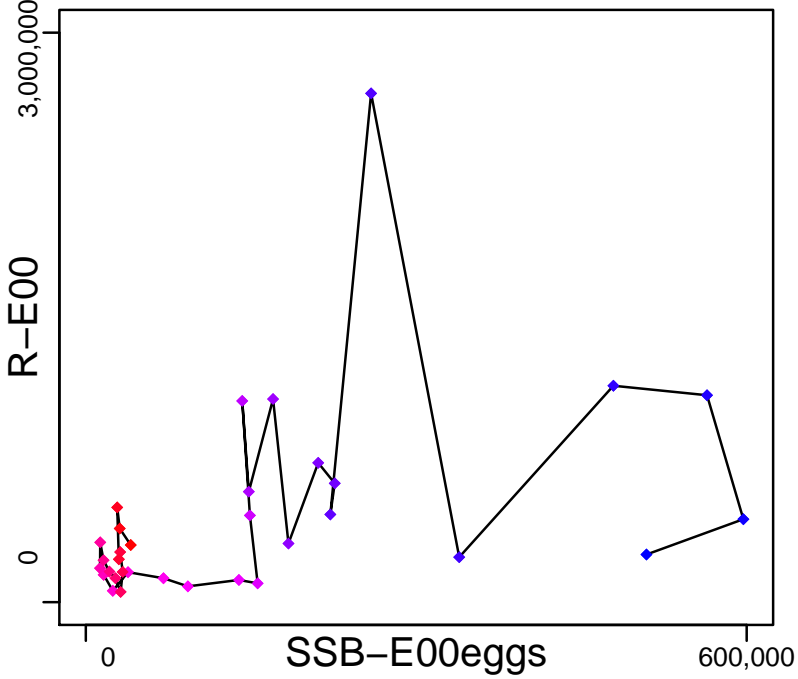
Kobe MSYpref (1929–2008–PINSKY)



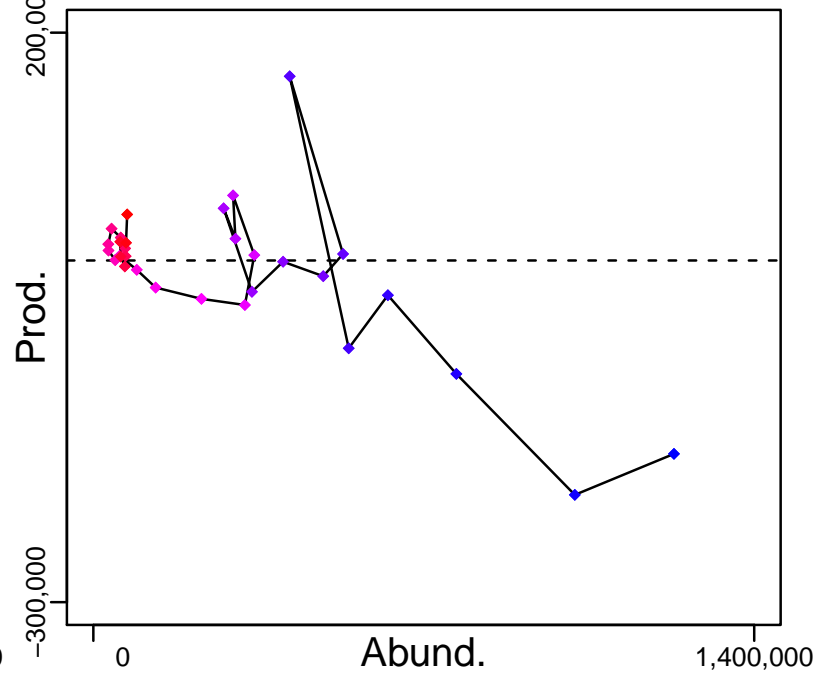
Kobe MGTpref (1929–2008–PINSKY)



Spawner Recruit (1983–2015–SISIMP2016)



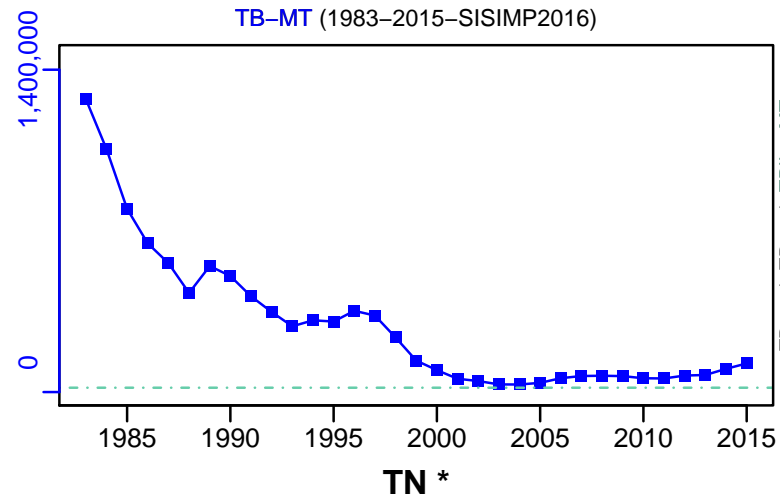
Production (1983–2015–SISIMP2016)



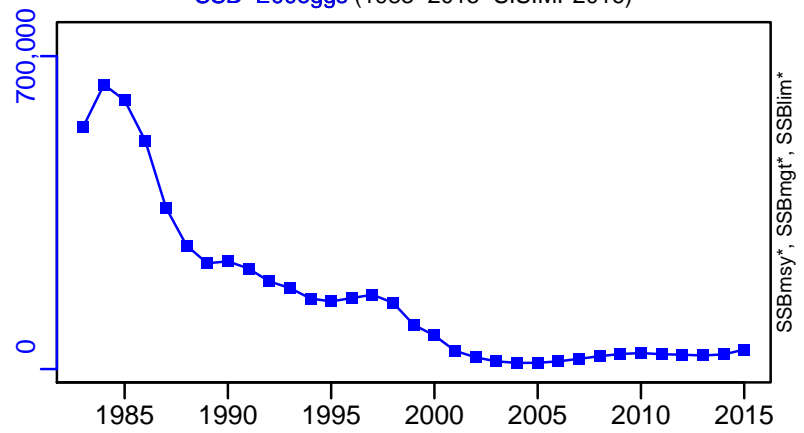
◆ Start Year ◆ End Year \* No Data

# Pacific chub mackerel Pacific Coast [CMACKPCOAST]

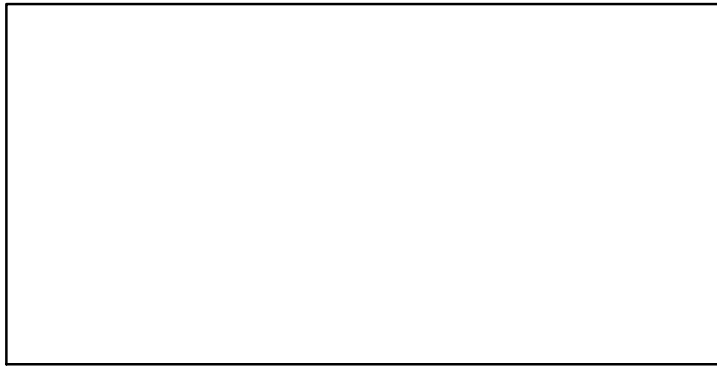
TB-MT (1983–2015–SISIMP2016)



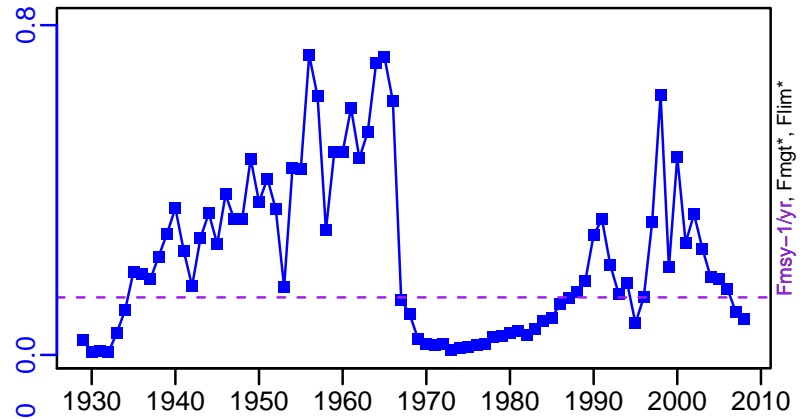
SSB-E00eggs (1983–2015–SISIMP2016)



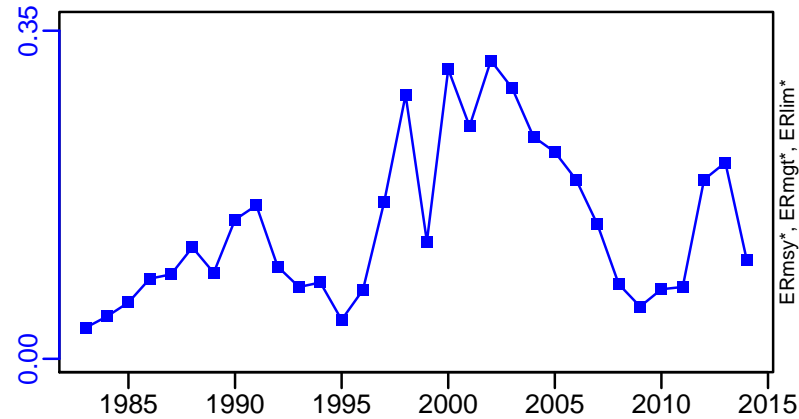
TN \*



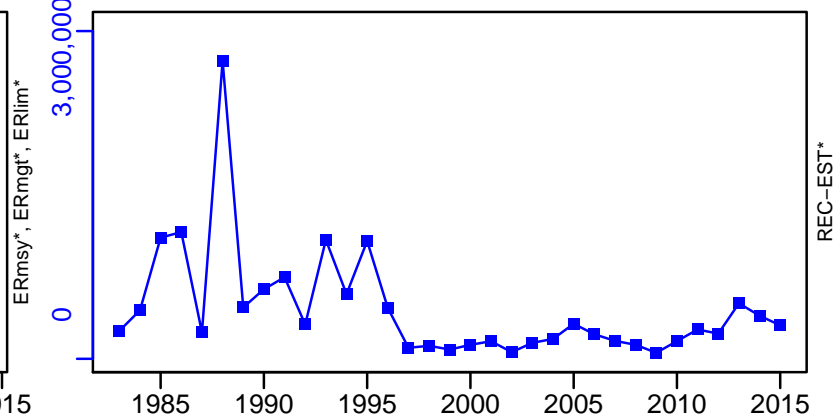
F-1/yr (1929–2008–PINSKY)



ER-ratio (1983–2015–SISIMP2016)



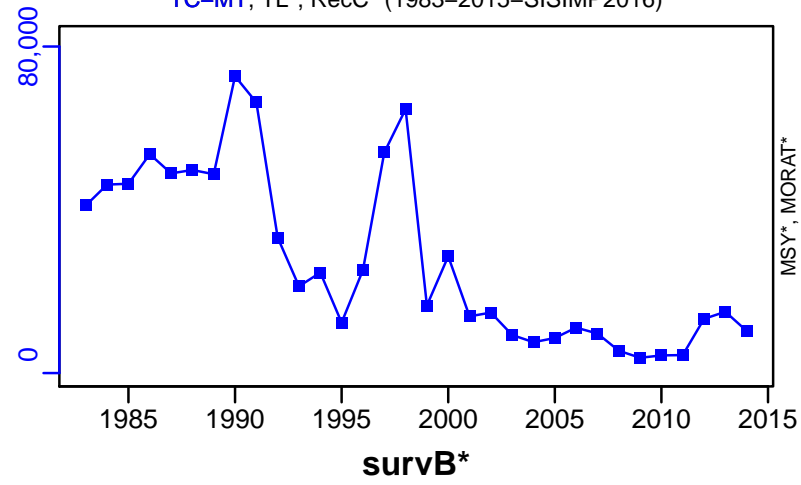
R-E00 (1983–2015–SISIMP2016)



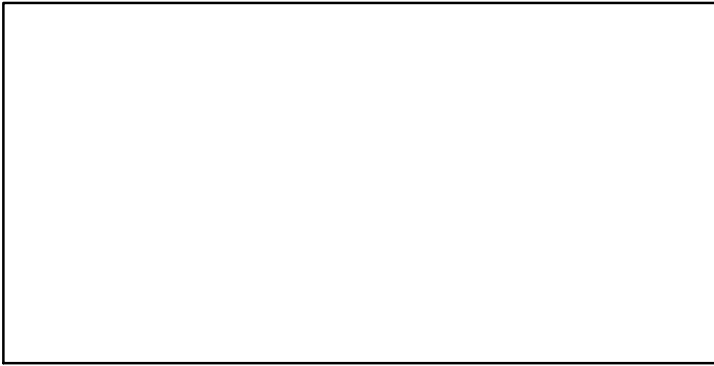
# Pacific chub mackerel Pacific Coast [CMACKPCOAST]

TC-MT, TL\*, RecC\* (1983-2015-SISIMP2016)

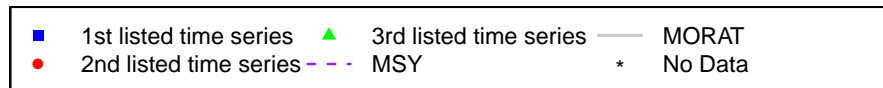
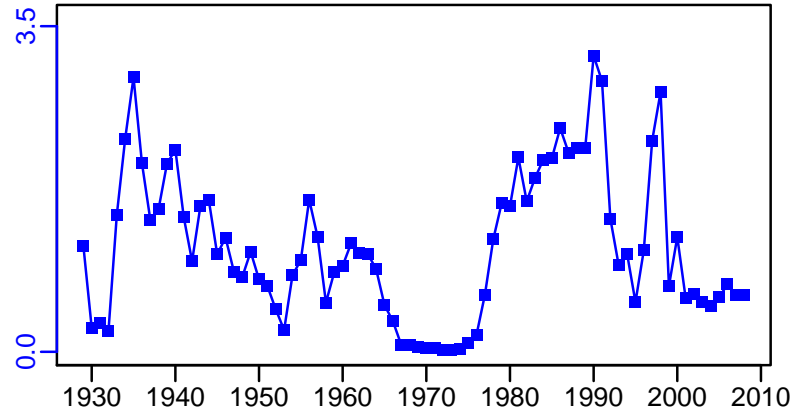
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1929-2008-PINSKY)



## Cowcod Southern California [COWCODSCAL]

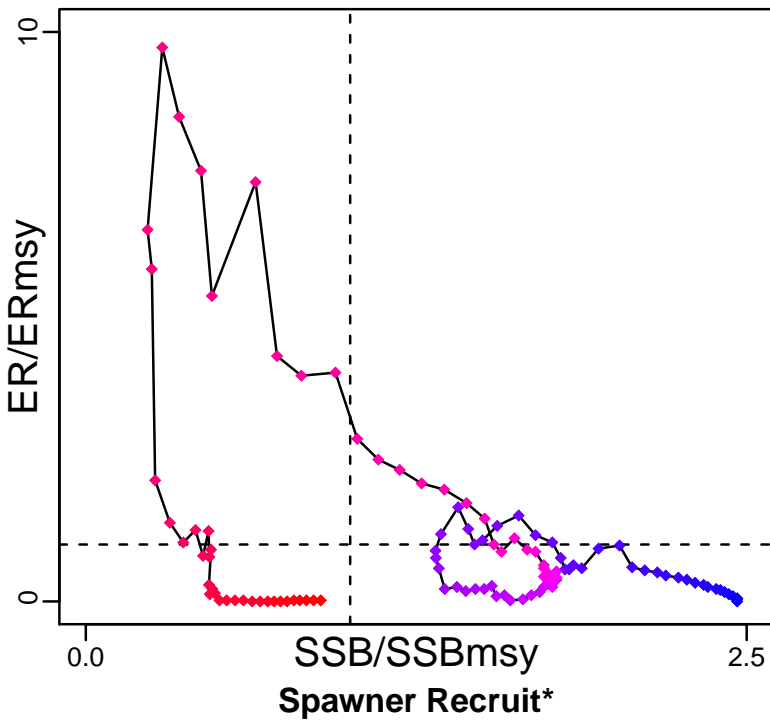
Metadata	
<b>Scientific Name</b>	Sebastes levis
<b>Current Assess ID</b>	PFMC-COWCODSCAL-1900-2015-HIVELY
<b>Area</b>	Southern California
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Pacific Fishery Management Council
<b>Asmts in RAM</b>	2015, 2012

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2015	1255
<b>SSBmsy</b>	SSBmsy-MT	2015	629
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2015	0.055
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2015	620
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	ERmgt-ratio	2015	0.05
<b>TB0</b>	TB0-MT	2015	3099
<b>SSB0</b>	SSB0-MT	2015	1549
<b>MSY</b>	MSY-MT	2015	69
<b>M</b>	M-1/yr	2015	0.06
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	ERlim-ratio	2012	0.05

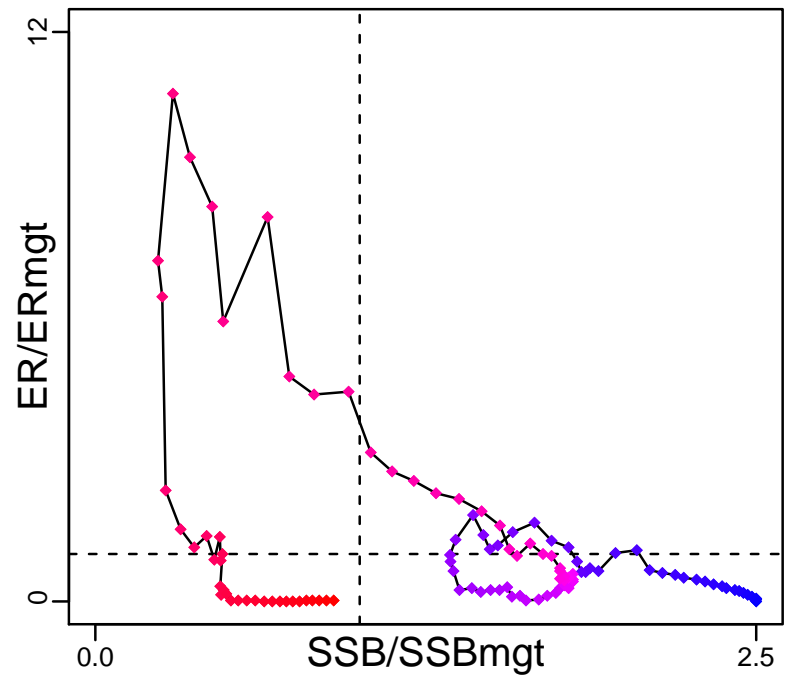
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	1120	-	11+
<b>SSB</b>	SSB-MT	2015	559	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2015	0.001	-	-
<b>TC</b>	TC-MT	2015	1.5		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2015	0.893		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2015	0.889		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2015	0.018		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2015	0.902		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Cowcod Southern California [COWCODSCAL]

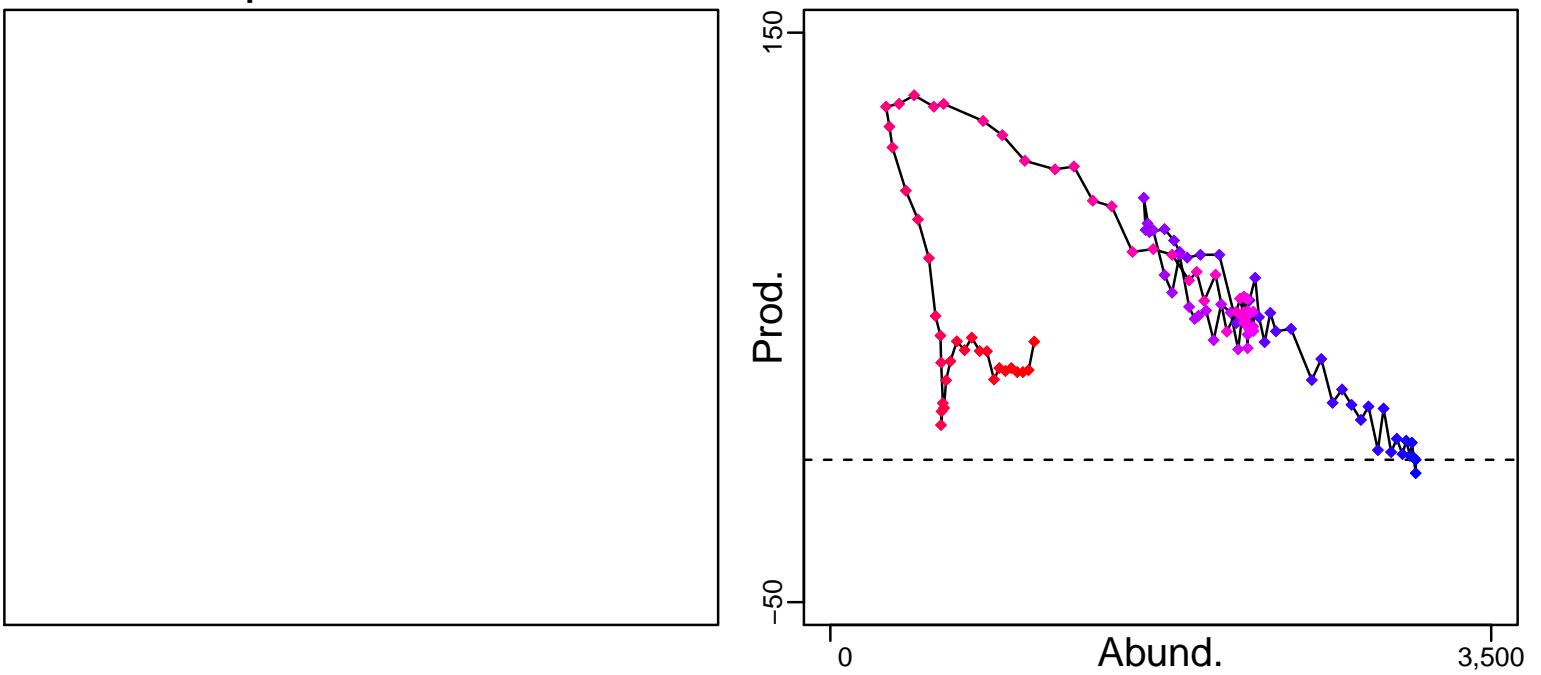
Kobe MSYpref (1900–2015–HIVELY)



Kobe MGTpref (1900–2015–HIVELY)



Production (1900–2015–HIVELY)

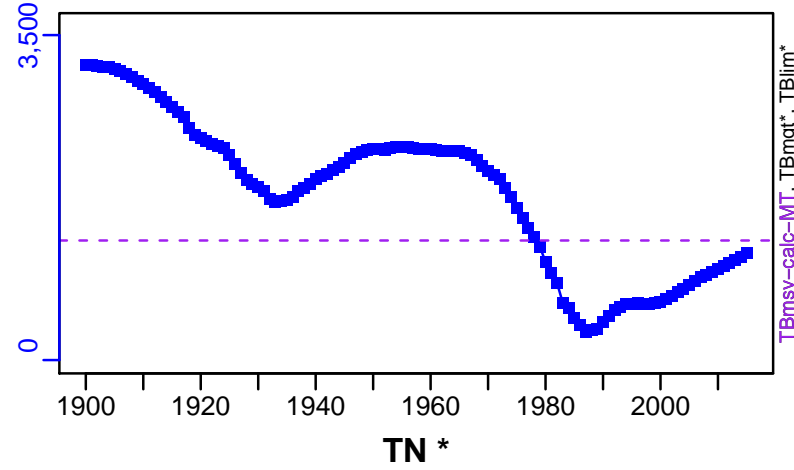


◆ Start Year ◆ End Year \* No Data

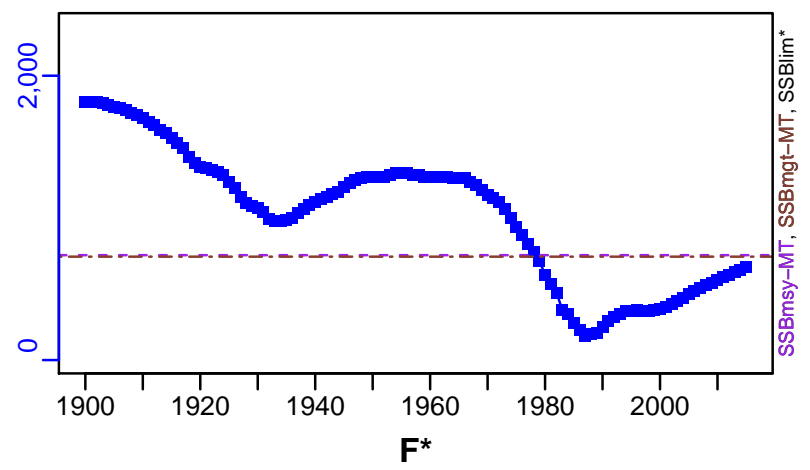


# Cowcod Southern California [COWCODSCAL]

TB-MT (1900–2015–HIVELY)

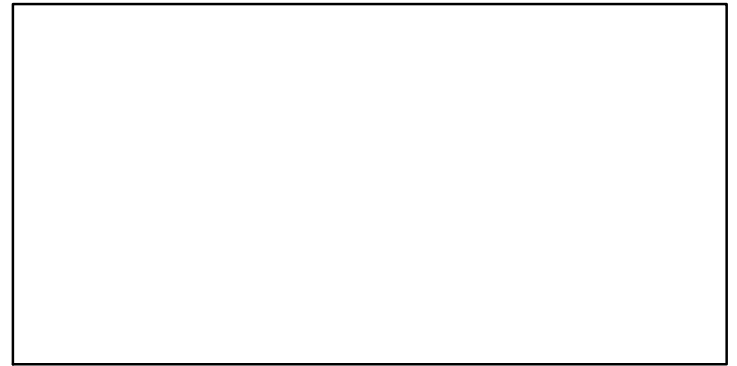
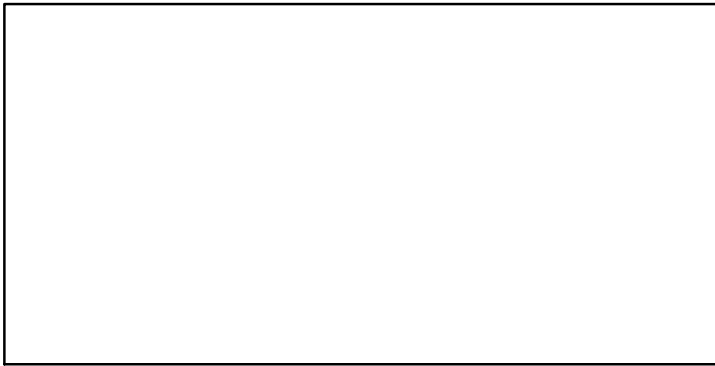


SSB-MT (1900–2015–HIVELY)

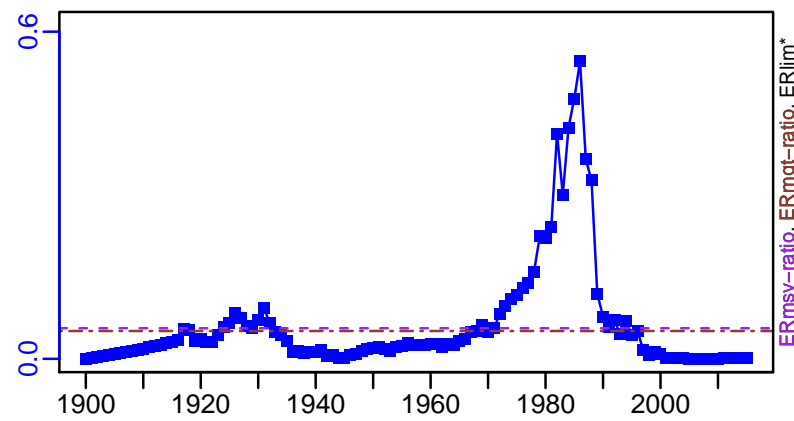


TN \*

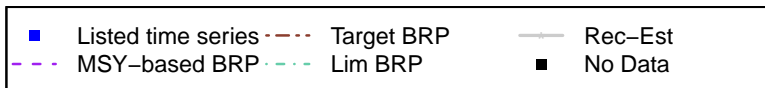
F\*



ER-ratio (1900–2015–HIVELY)



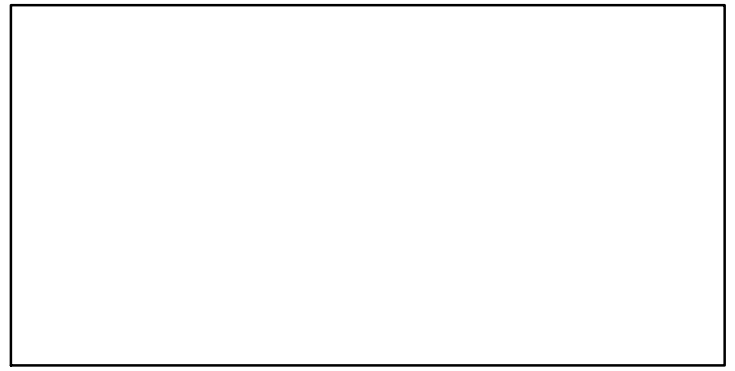
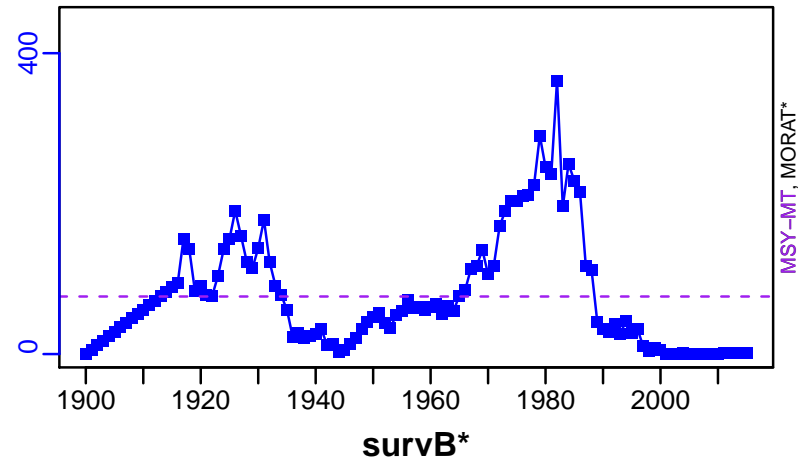
Recruits\*



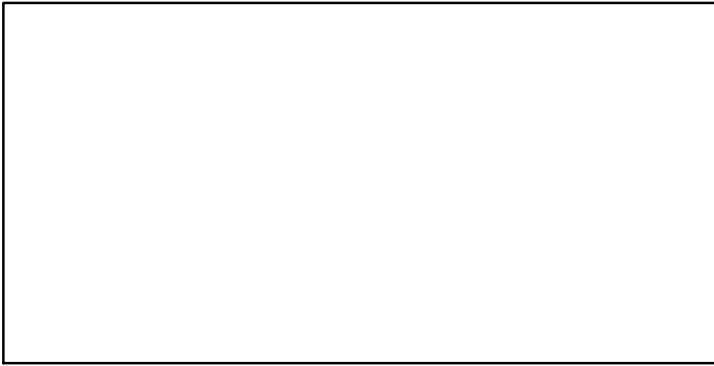
# Cowcod Southern California [COWCODSCAL]

TC-MT, TL\*, RecC\* (1900-2015-HIVELY)

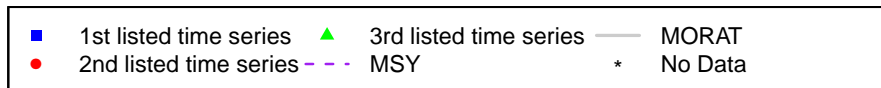
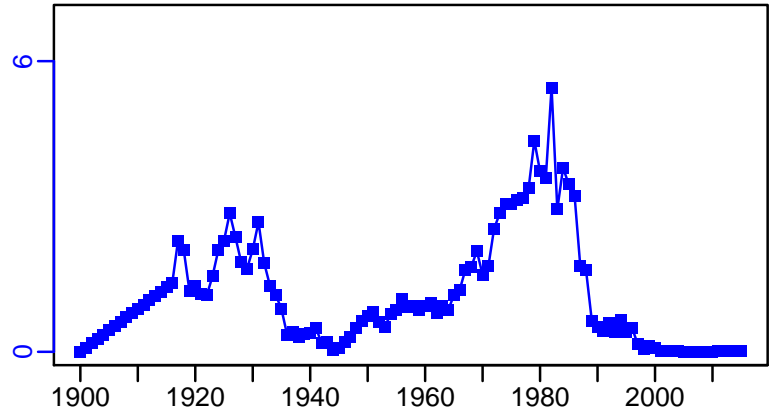
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1900-2015-HIVELY)



## Copper rockfish Pacific Coast [CPRROCKPCOAST]

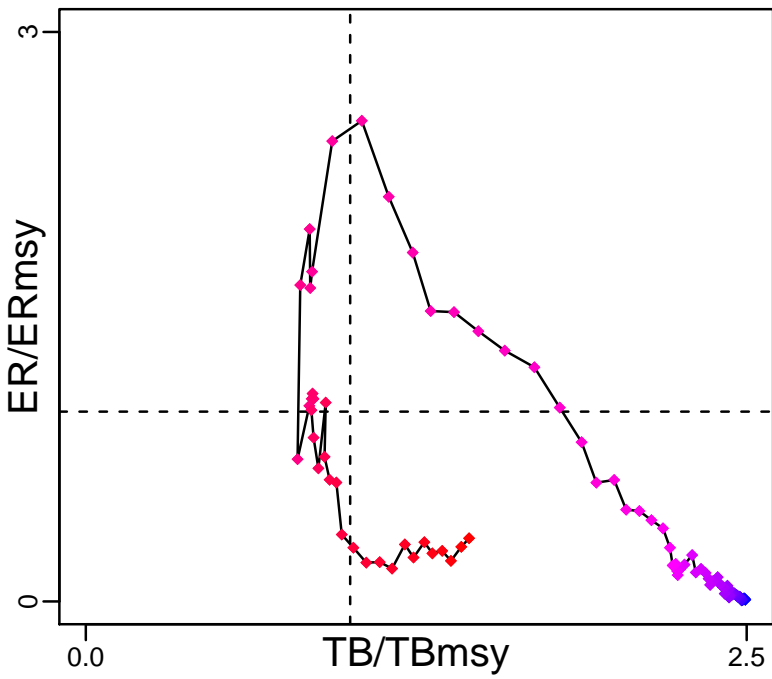
Metadata	
<b>Scientific Name</b>	Sebastes caurinus
<b>Current Assess ID</b>	SWFSC-CPRROCKPCOAST-1916-2012-SISIMP2016
<b>Area</b>	Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southwest Fisheries Science Center
<b>Asmts in RAM</b>	2012

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2012	2238
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2012	0.088
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2012	197
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	ERlim-ratio	2012	0.088

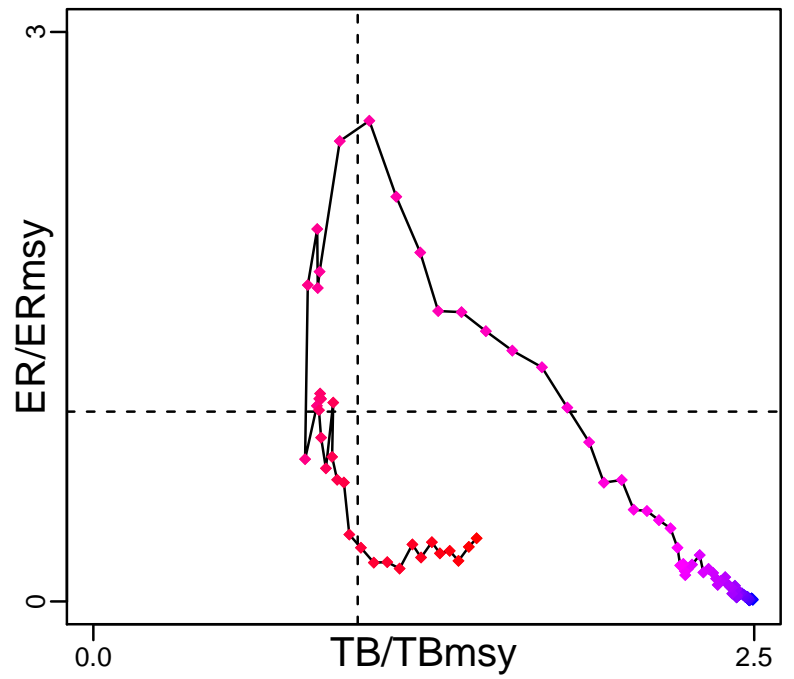
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2012	3290	-	6+
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2012	0.029	-	-
<b>TC</b>	TC-MT	2012	95		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2012	1.468		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2012	0.333		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Copper rockfish Pacific Coast [CPRROCKPCOAST]

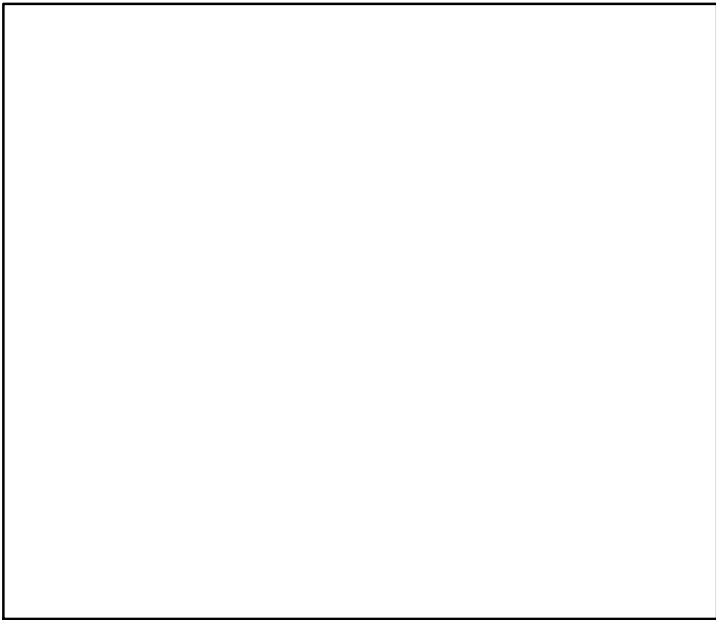
Kobe MSY<sub>pref</sub> (1916–2012–SISIMP2016)



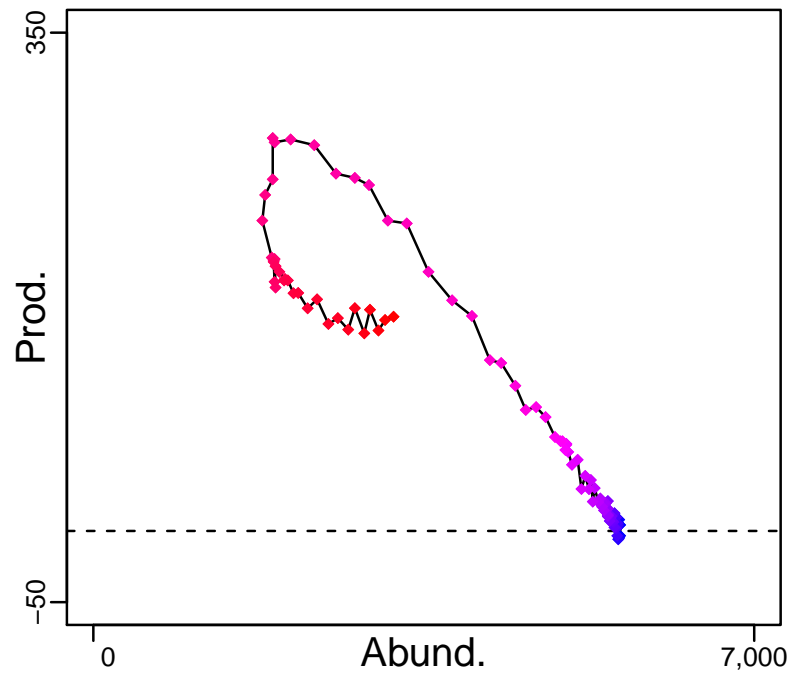
Kobe MGT<sub>pref</sub> (1916–2012–SISIMP2016)



Spawner Recruit\*



Production (1916–2012–SISIMP2016)

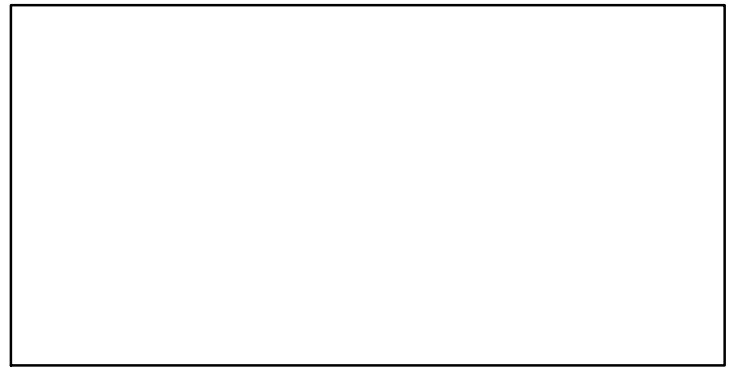
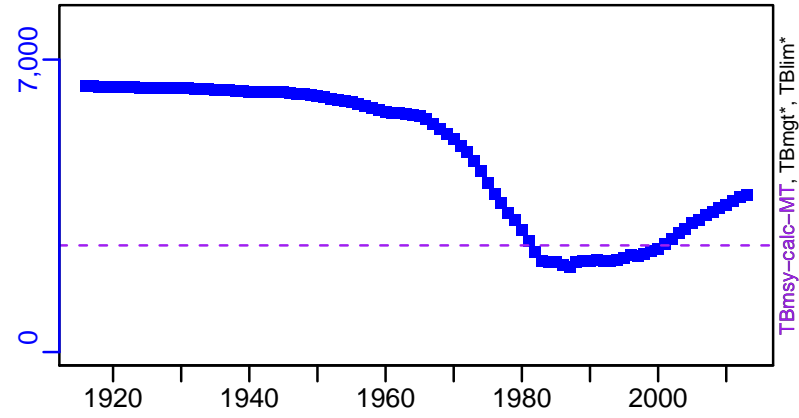


◆ Start Year ◆ End Year \* No Data

# Copper rockfish Pacific Coast [CPRROCKPCOAST]

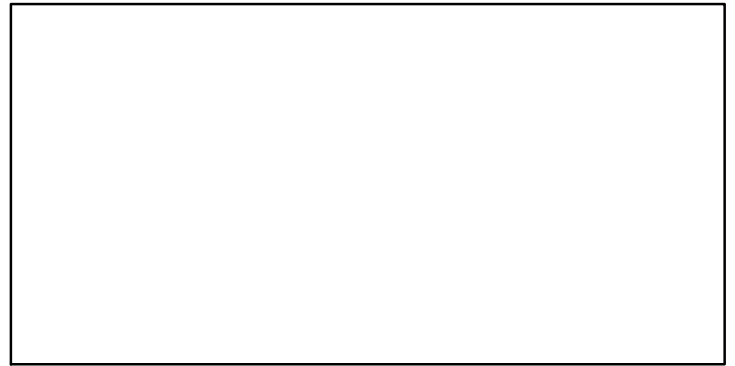
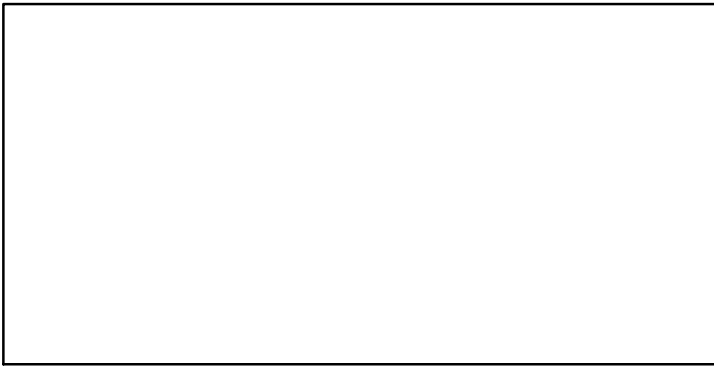
TB-MT (1916-2012-SISIMP2016)

SSB\*



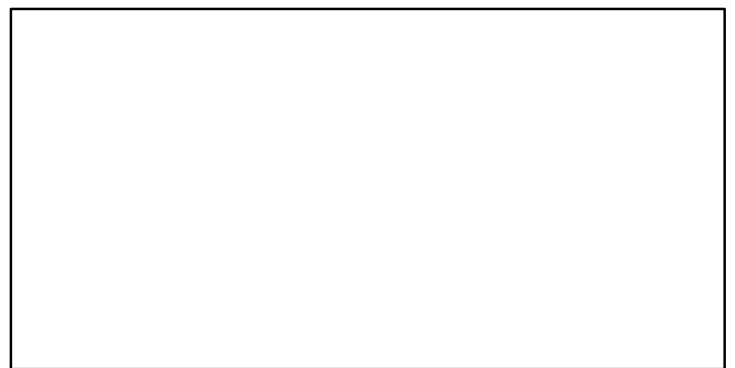
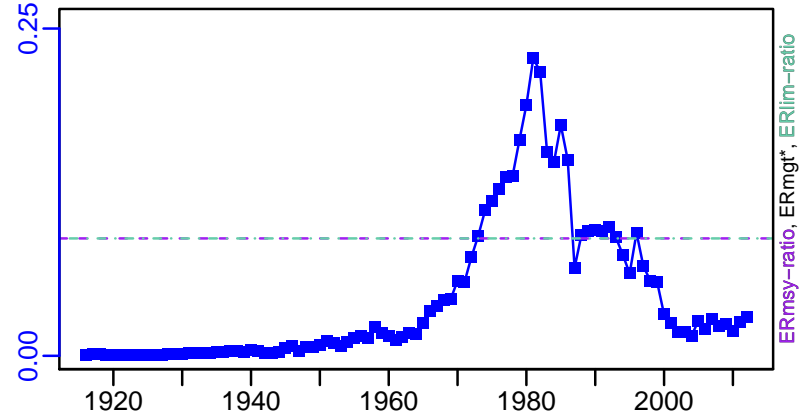
TN \*

F\*



ER-ratio (1916-2012-SISIMP2016)

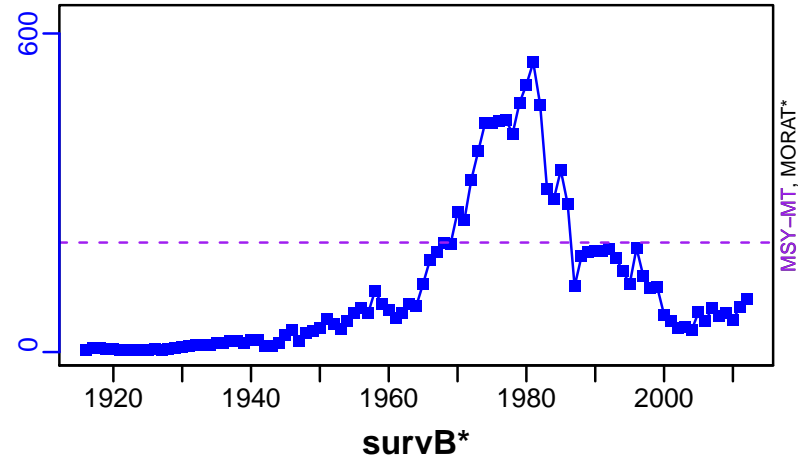
Recruits\*



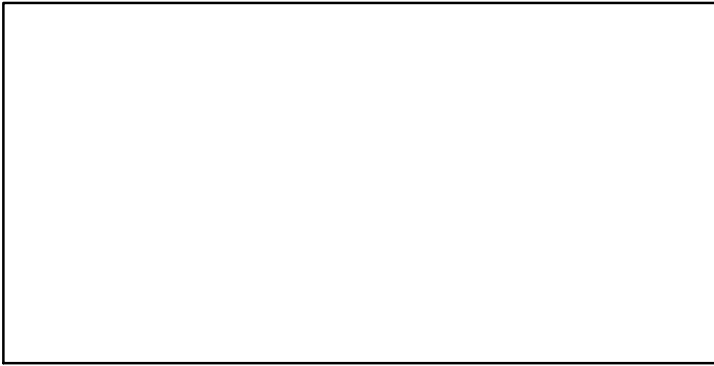
# Copper rockfish Pacific Coast [CPRROCKPCOAST]

TC-MT, TL\*, RecC\* (1916-2012-SISIMP2016)

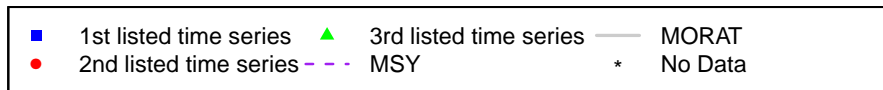
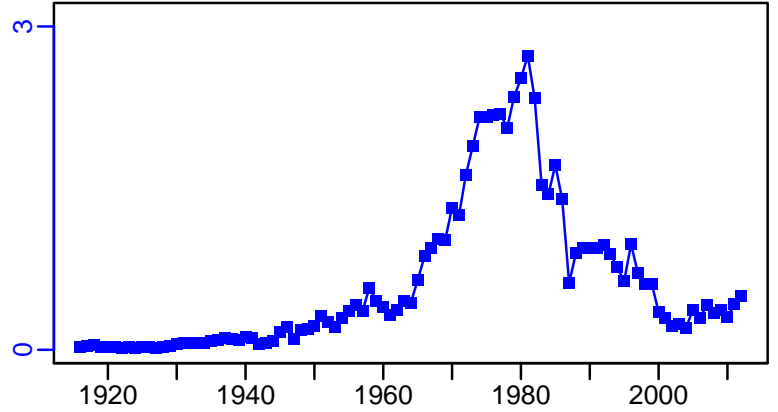
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1916-2012-SISIMP2016)



## Canary rockfish Pacific Coast [CROCKPCOAST]

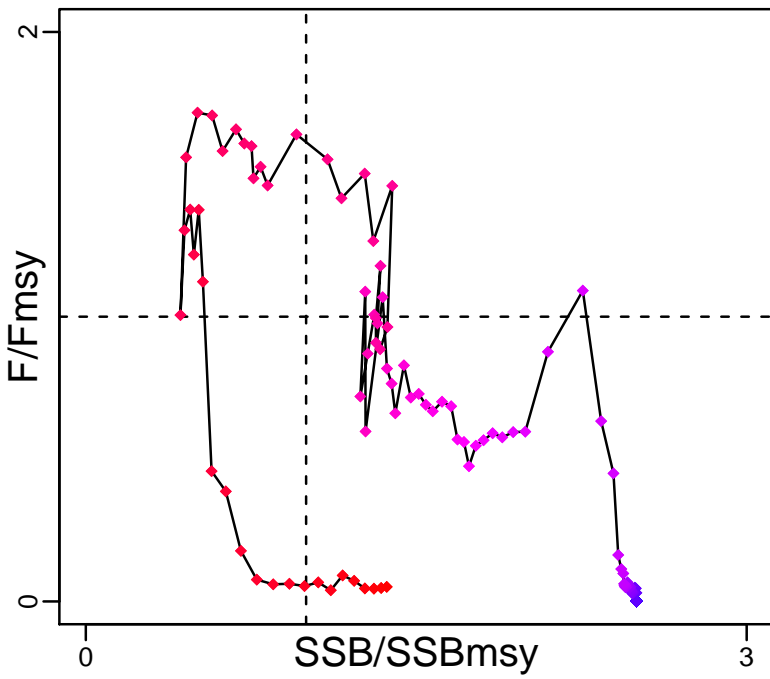
Metadata	
<b>Scientific Name</b>	Sebastes pinniger
<b>Current Assess ID</b>	NWFSC-CROCKPCOAST-1892-2015-SISIMP2016
<b>Area</b>	Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northwest Fisheries Science Center
<b>Asmts in RAM</b>	2015, 2011

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2011	26,414
<b>SSBmsy</b>	SSBmsy-E00eggs	2015	2,996,400,000
<b>Fmsy</b>	Fmsy-1/yr	2015	0.5
<b>ERmsy</b>	ERmsy-ratio	2011	0.03
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2011	70,664
<b>SSB0</b>	SSB0-MT	2011	27,846
<b>MSY</b>	MSY-MT	2015	1226
<b>M</b>	M-1/yr	2011	0.06
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-E00eggs	2015	1,872,750,000
<b>Flim</b>	Flim-1/yr	2015	0.5
<b>ERlim</b>	-	-	-

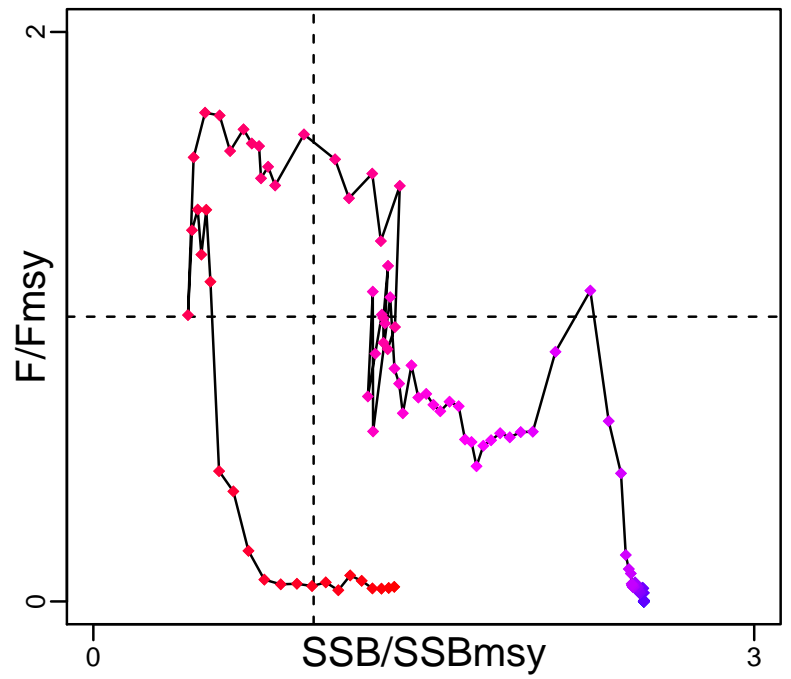
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	36,000	-	5+
<b>SSB</b>	SSB-E00eggs	2015	$4.16 \times 10^9$	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2015	2,700,000	-	0
<b>F</b>	F-1/yr	2015	0.026	-	-
<b>ER</b>	ER-calc-ratio	2015	0.001	-	-
<b>TC</b>	TC-MT	2015	42		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2011	0.61		
<b>SSB/SSBmsy</b>	SSB-E00eggs/SSBmsy-E00eggs	2015	1.387		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2015	0.051		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2011	0.171		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Canary rockfish Pacific Coast [CROCKPCOAST]

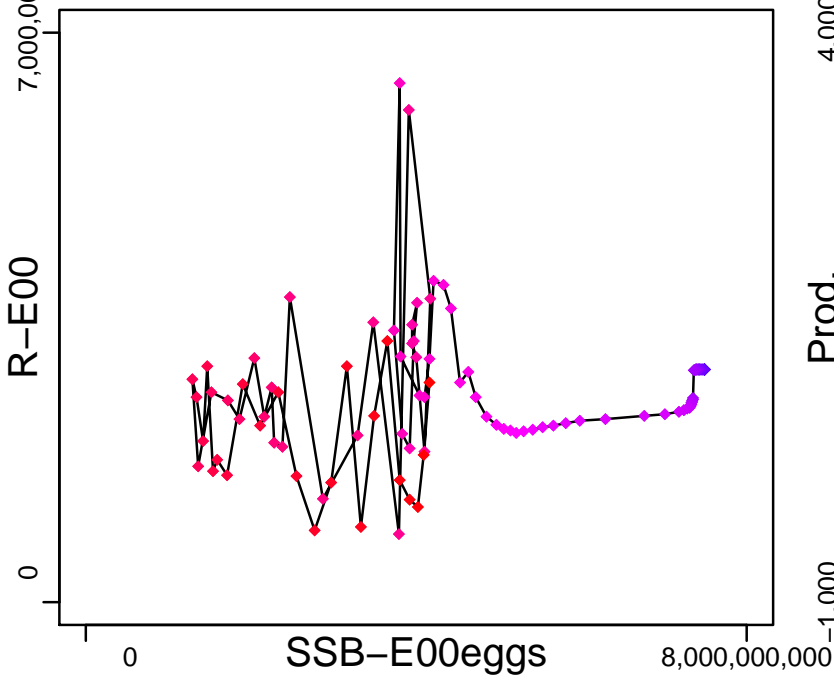
Kobe MSYpref (1892–2015–SISIMP2016)



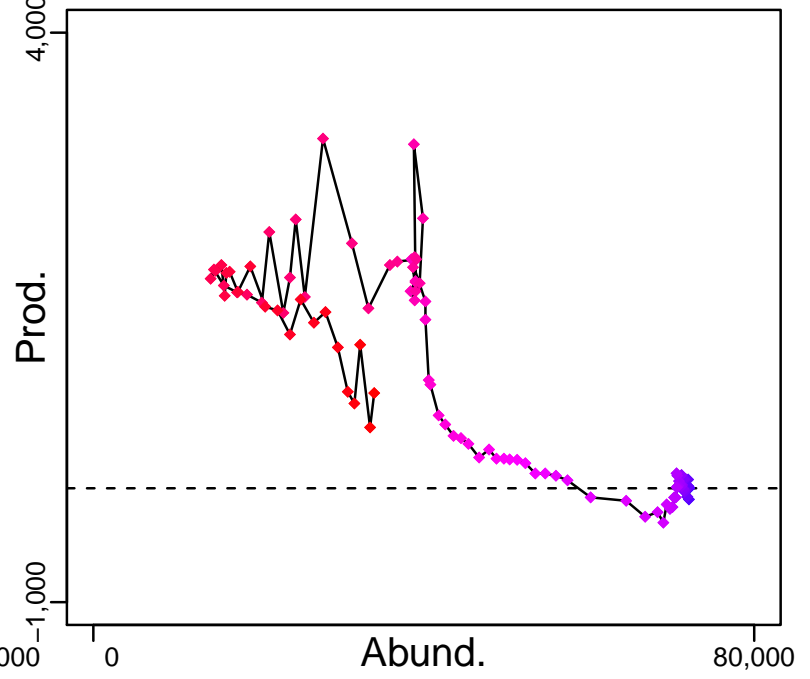
Kobe MGTpref (1892–2015–SISIMP2016)



Spawner Recruit (1892–2015–SISIMP2016)



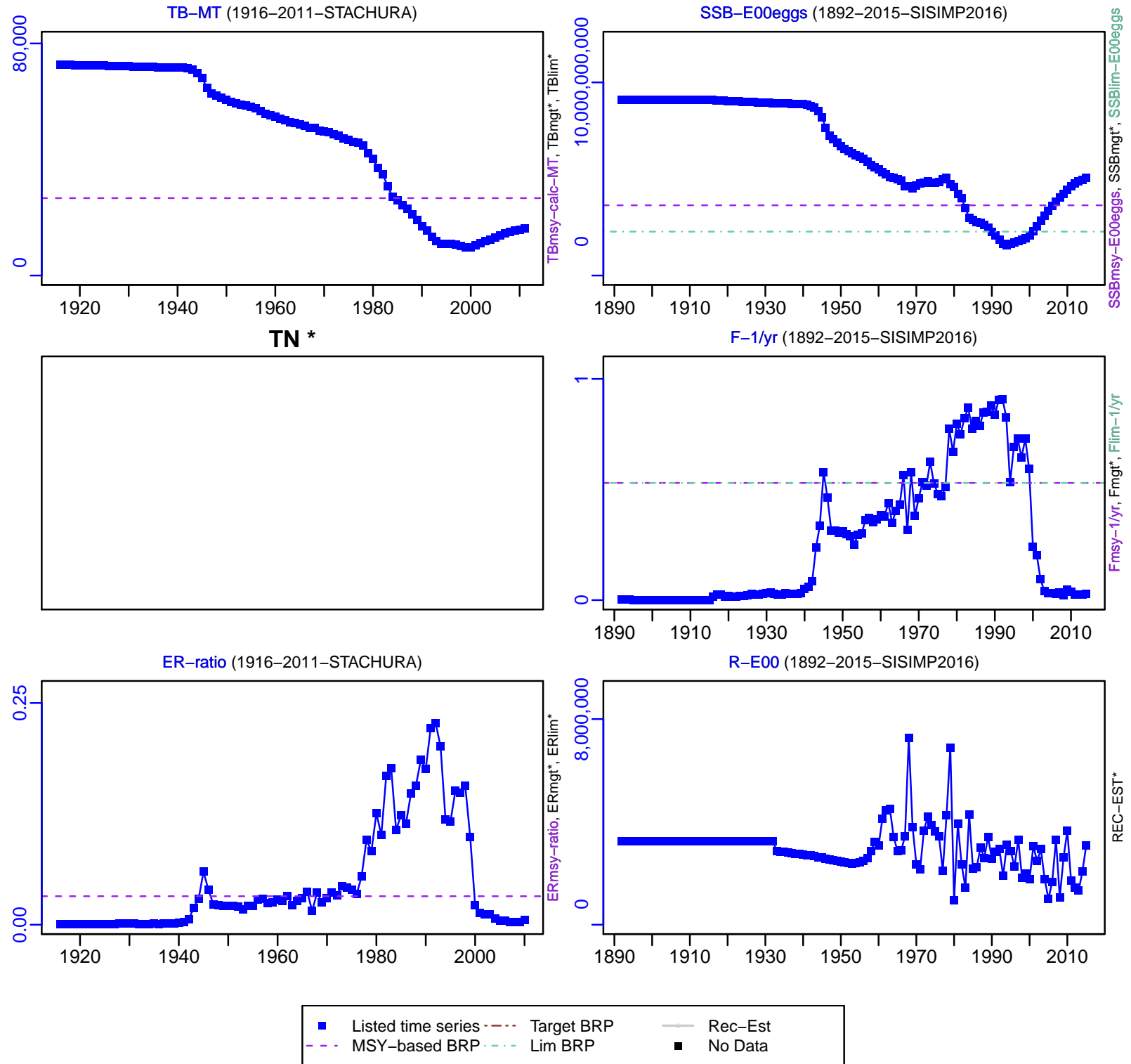
Production (1892–2015–SISIMP2016)



◆ Start Year ◆ End Year \* No Data

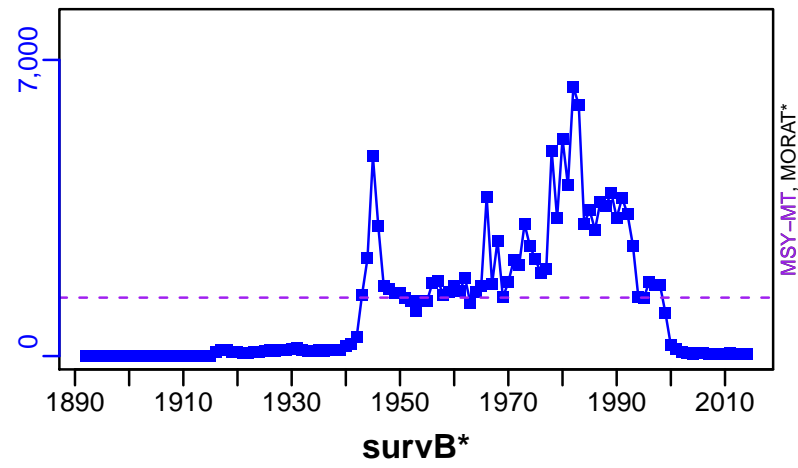


# Canary rockfish Pacific Coast [CROCKPCOAST]



# Canary rockfish Pacific Coast [CROCKPCOAST]

TC-MT, TL\*, RecC\* (1892-2015-SISIMP2016)



TAC\*, Cpair\*, Cadv\*



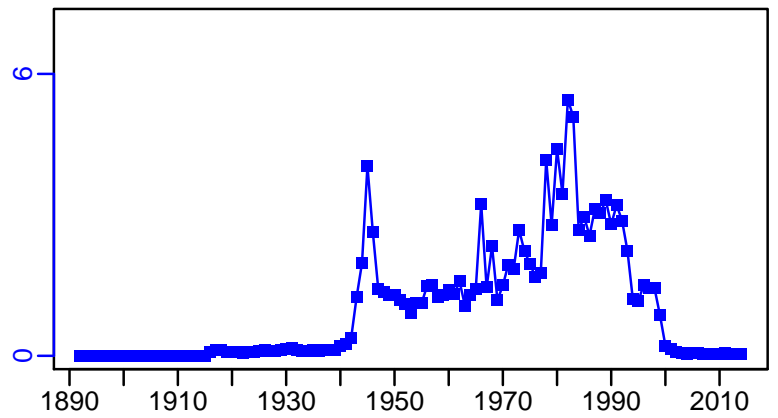
CPUE\*



EFFORT\*



CdivMSY-ratio (1892-2015-SISIMP2016)



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

## Darkblotched rockfish Pacific Coast [DKROCKPCOAST]

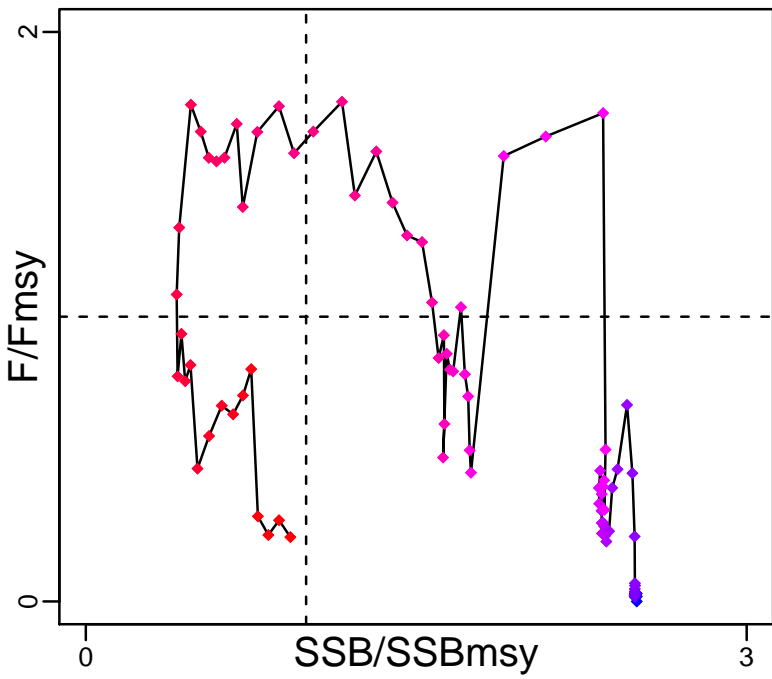
Metadata	
<b>Scientific Name</b>	Sebastes crameri
<b>Current Assess ID</b>	NWFSC-DKROCKPCOAST-1915-2015-SISIMP2016
<b>Area</b>	Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northwest Fisheries Science Center
<b>Asmts in RAM</b>	2015, 2011

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-E00eggs	2015	$1.28 \times 10^9$
<b>Fmsy</b>	Fmsy-1/yr	2015	0.5
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2011	32,710
<b>SSB0</b>	SSB0-E00eggs	2011	$2.92 \times 10^{12}$
<b>MSY</b>	MSY-MT	2015	674
<b>M</b>	M-1/yr	2011	0.07
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-E00eggs	2015	$8 \times 10^8$
<b>Flim</b>	Flim-1/yr	2015	0.5
<b>ERlim</b>	-	-	-

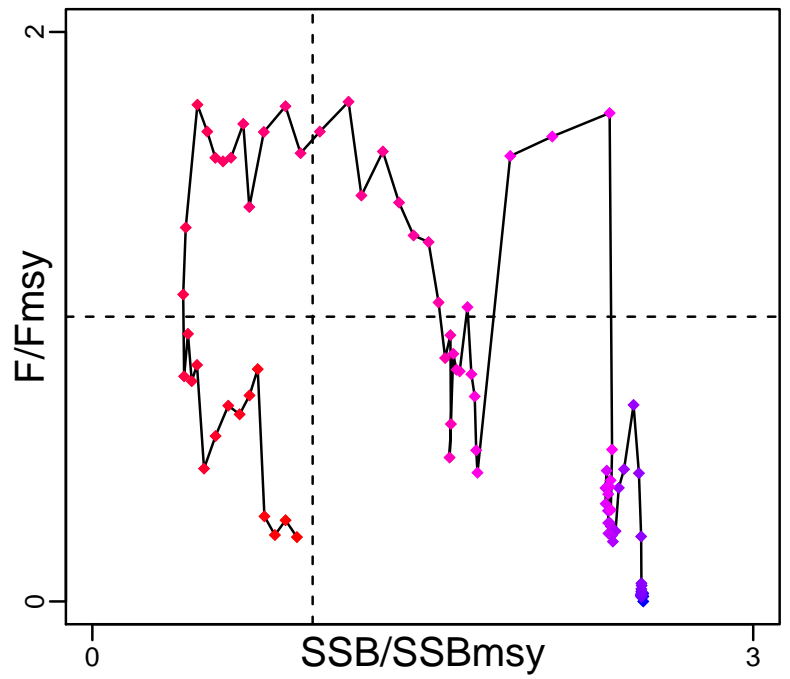
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	17,900	-	1+
<b>SSB</b>	SSB-E00eggs	2015	$1.26 \times 10^9$	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2015	2,490,000	-	0
<b>F</b>	F-1/yr	2015	0.113	-	-
<b>ER</b>	ER-calc-ratio	2015	0.006	-	-
<b>TC</b>	TC-MT	2015	104		
<b>TL</b>	TL-MT	2011	183		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-E00eggs/SSBmsy-E00eggs	2015	0.985		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2015	0.226		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Darkblotched rockfish Pacific Coast [DKROCKPCOAST]

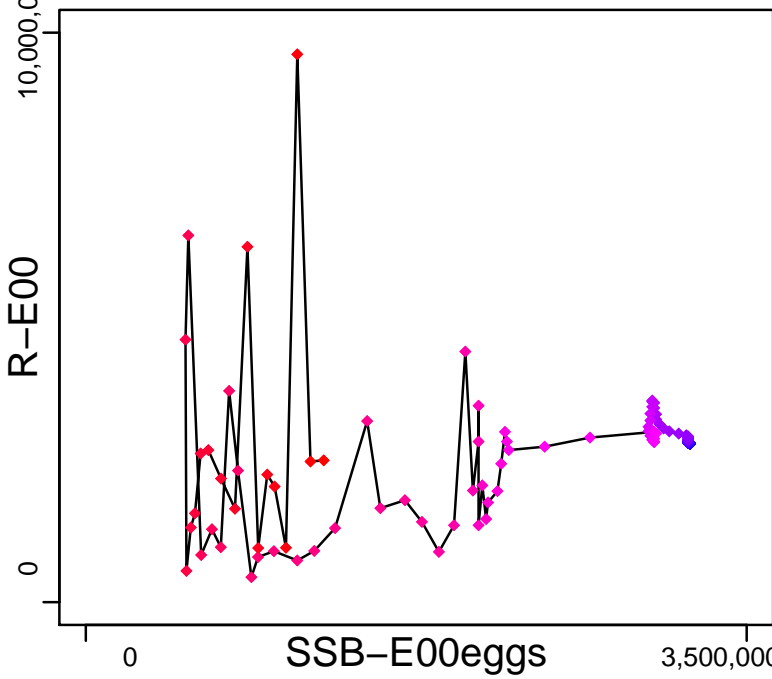
Kobe MSYpref (1915–2015–SISIMP2016)



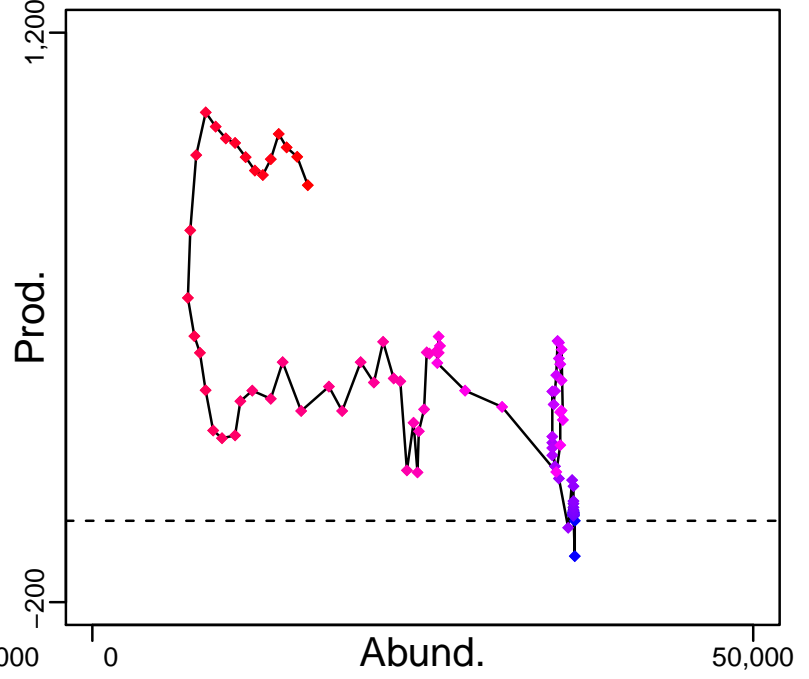
Kobe MGTpref (1915–2015–SISIMP2016)



Spawner Recruit (1915–2015–SISIMP2016)



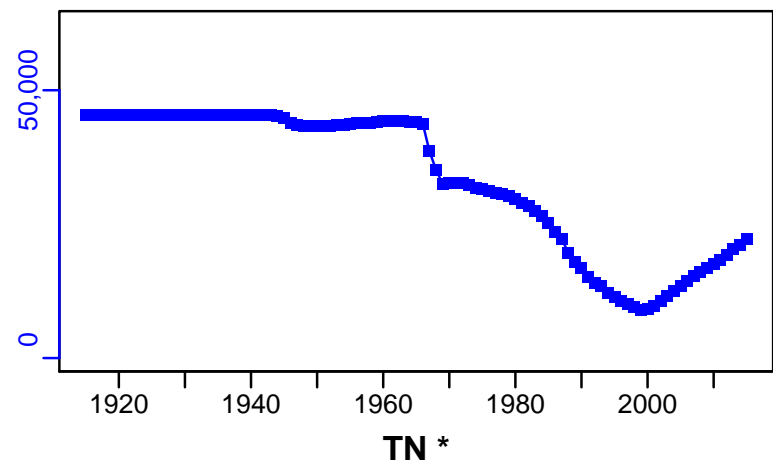
Production (1915–2015–SISIMP2016)



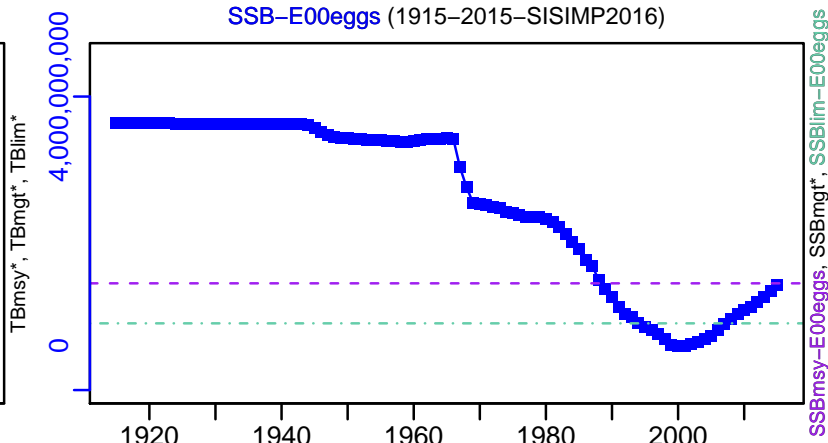
◆ Start Year ◆ End Year \* No Data

# Darkblotched rockfish Pacific Coast [DKROCKPCOAST]

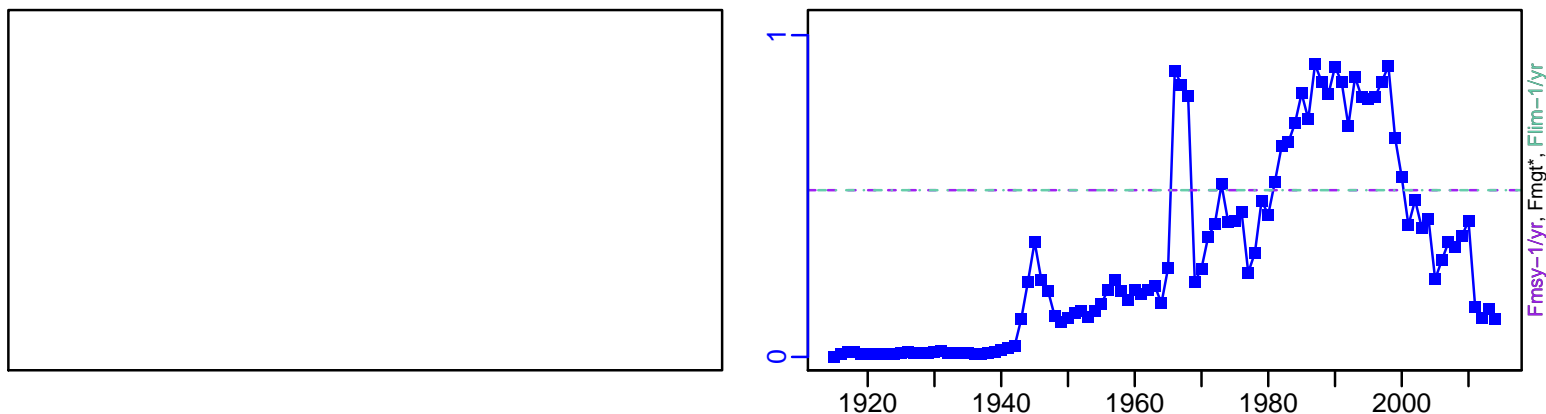
TB-MT (1915-2015-SISIMP2016)



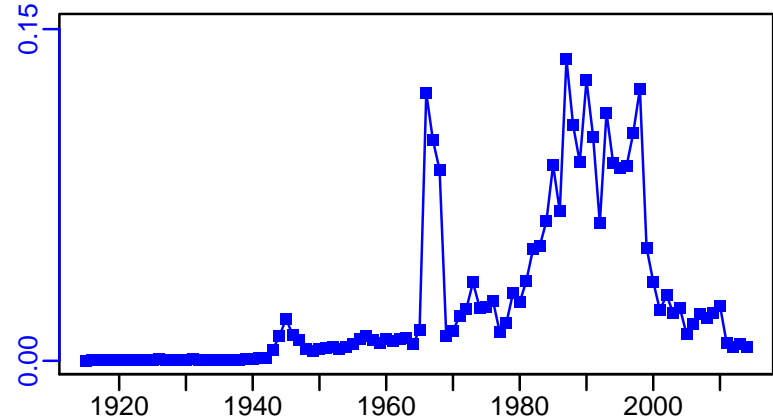
SSB-E00eggs (1915-2015-SISIMP2016)



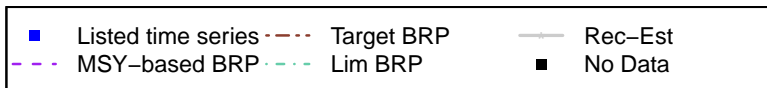
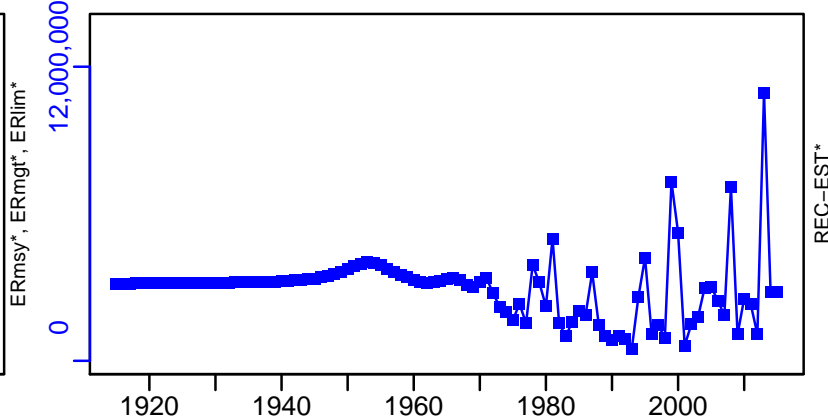
F-1/yr (1915-2015-SISIMP2016)



ER-calc-ratio (1915-2015-SISIMP2016)



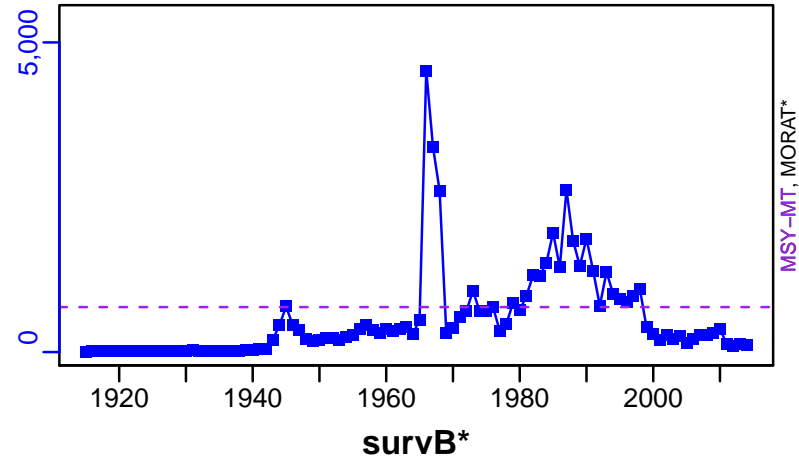
R-E00 (1915-2015-SISIMP2016)



# Darkblotched rockfish Pacific Coast [DKROCKPCOAST]

TC-MT, TL\*, RecC\* (1915-2015-SISIMP2016)

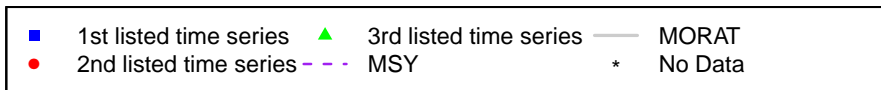
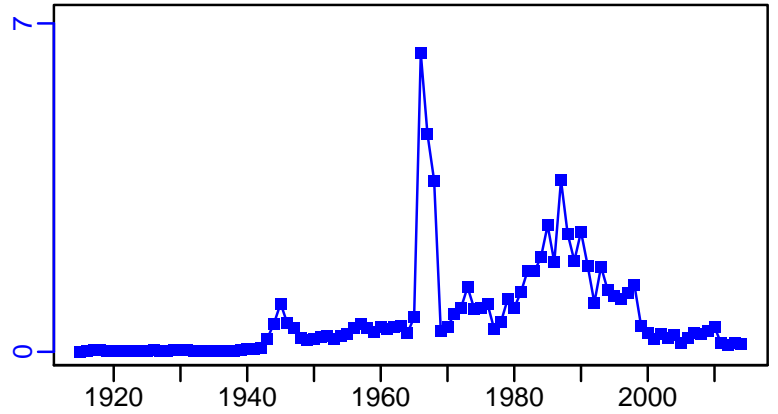
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1915-2015-SISIMP2016)



## Dover sole Pacific Coast [DSOLEPCOAST]

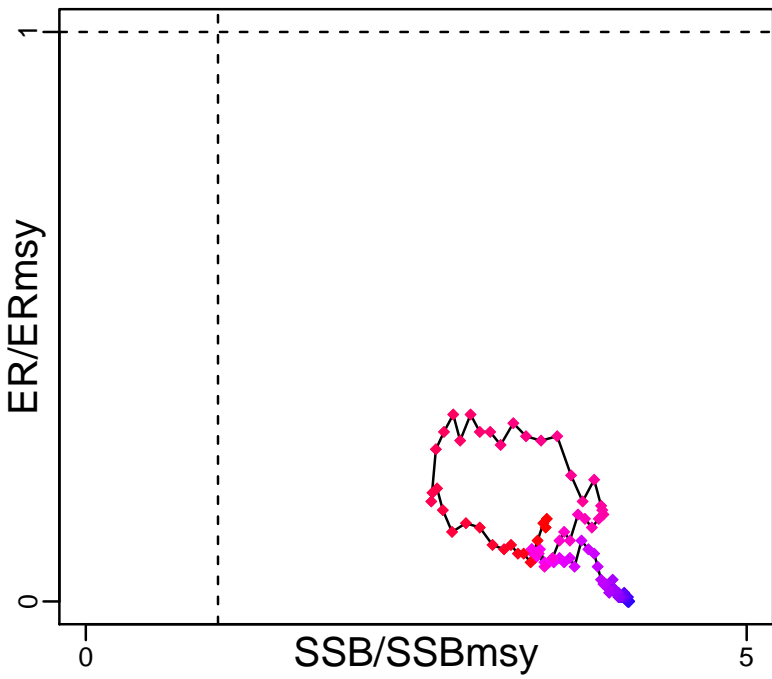
Metadata	
<b>Scientific Name</b>	Microstomus pacificus
<b>Current Assess ID</b>	SWFSC-DSOLEPCOAST-1910-2011-STACHURA
<b>Area</b>	Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southwest Fisheries Science Center
<b>Asmts in RAM</b>	2011

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2011	265,321
<b>SSBmsy</b>	SSBmsy-MT	2011	114,398
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2011	0.131
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2011	821,271
<b>SSB0</b>	SSB0-MT	2011	469,866
<b>MSY</b>	MSY-MT	2011	34,757
<b>M</b>	M-1/yr	2011	0.101
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

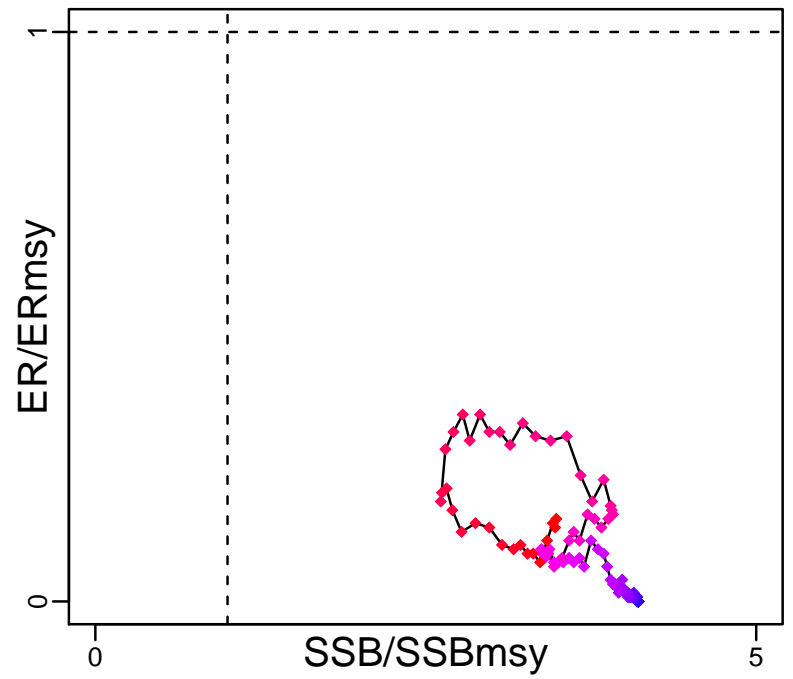
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2011	685,000	-	0+
<b>SSB</b>	SSB-MT	2011	394,000	Females	5+
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2011	376,000	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2011	0.017	Both	5+
<b>TC</b>	TC-MT	2011	11,300		
<b>TL</b>	TL-MT	2011	10,400		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2011	2.582		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2011	3.444		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2011	0.13		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

Dover sole Pacific Coast [DSOLEPCOAST]

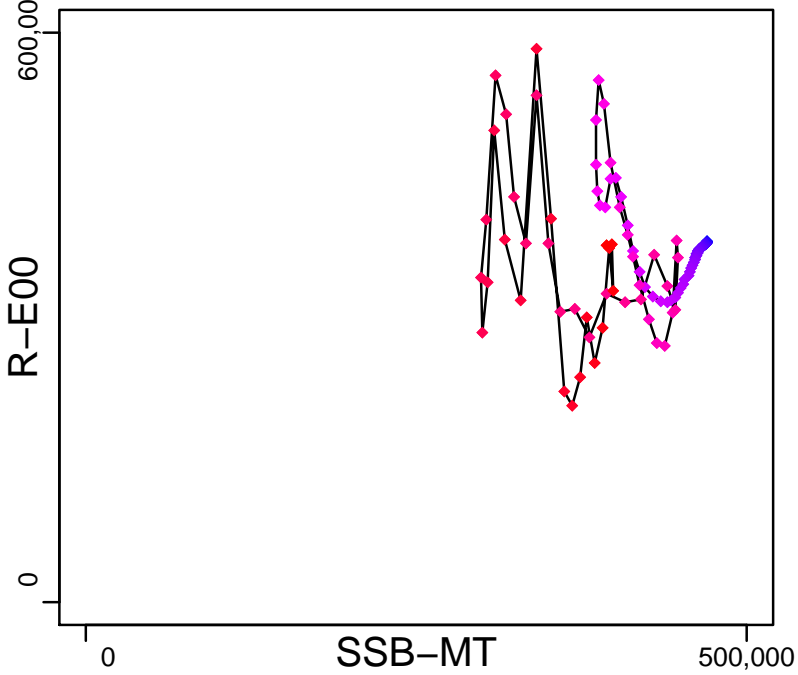
Kobe MSYpref (1910–2011–STACHURA)



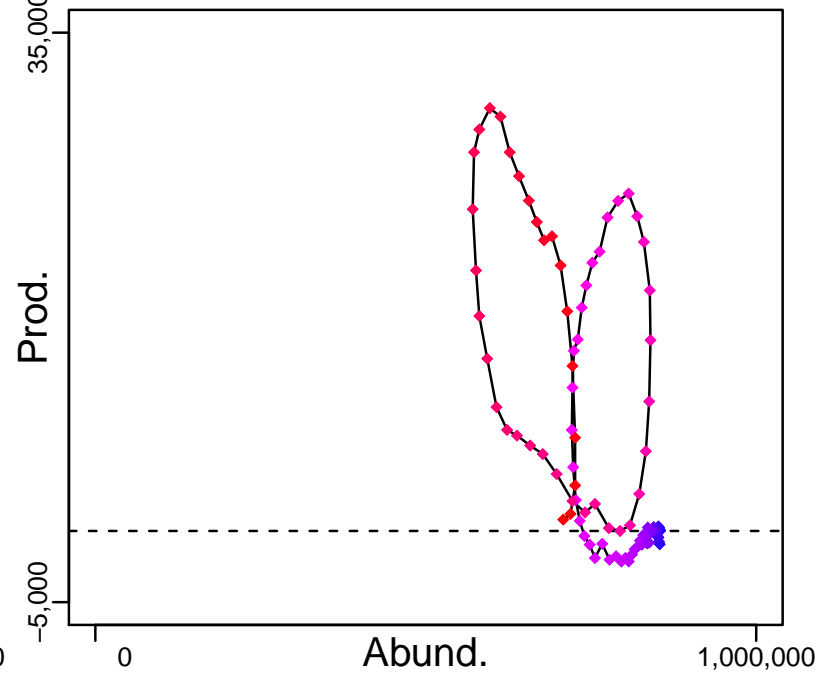
Kobe MGTpref (1910–2011–STACHURA)



Spawner Recruit (1910–2011–STACHURA)



Production (1910–2011–STACHURA)

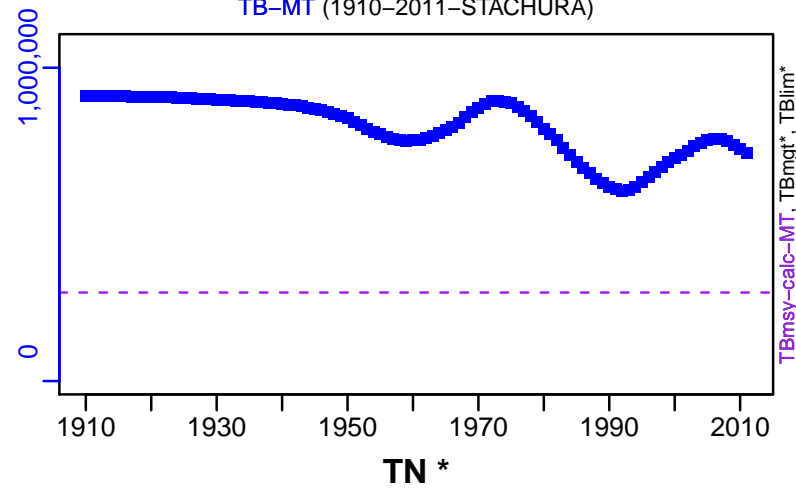


◆ Start Year ◆ End Year \* No Data

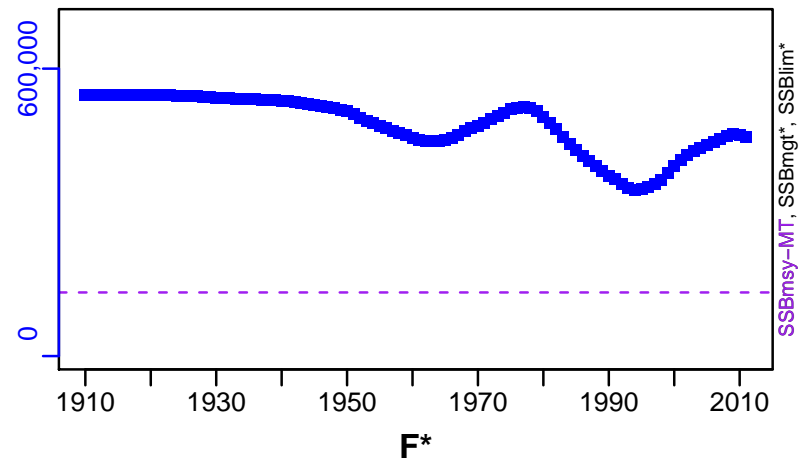


# Dover sole Pacific Coast [DSOLEPCOAST]

TB-MT (1910-2011-STACHURA)



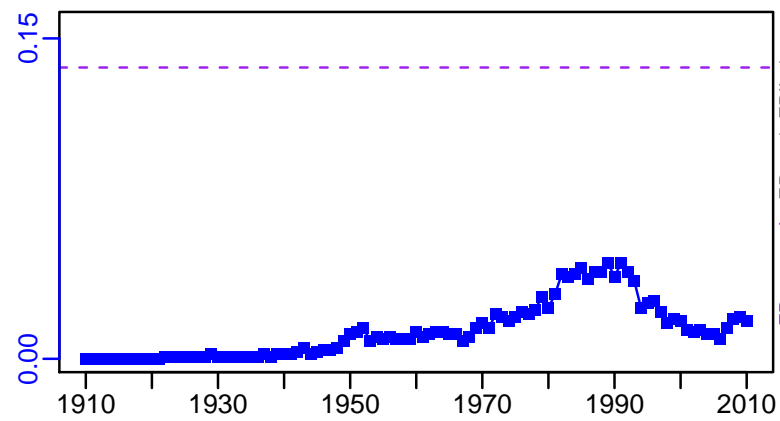
SSB-MT (1910-2011-STACHURA)



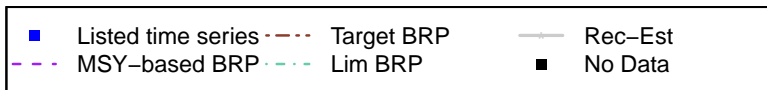
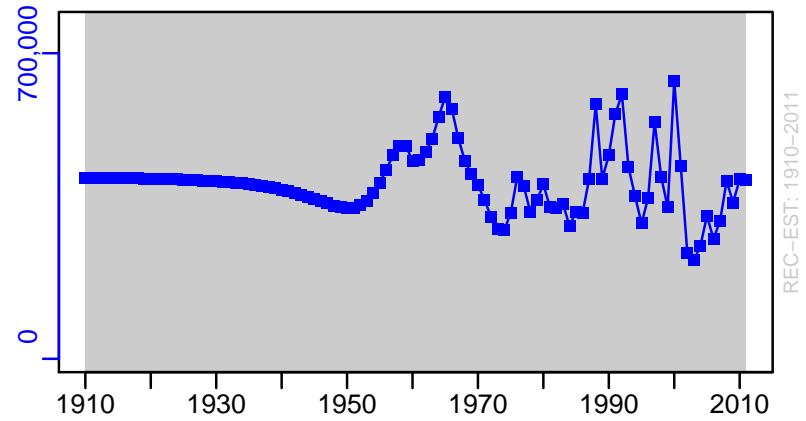
TN \*

F\*

ER-ratio (1910-2011-STACHURA)



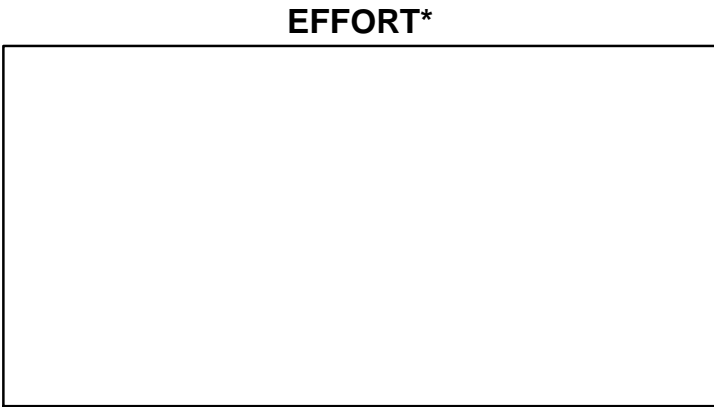
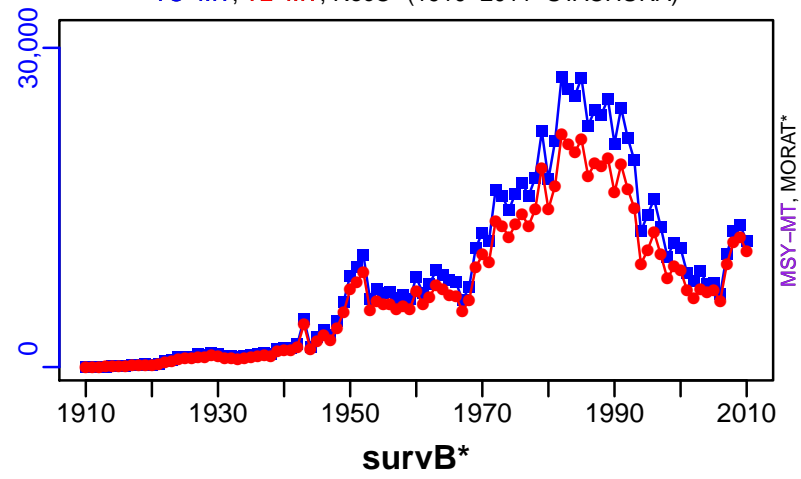
R-E00 (1910-2011-STACHURA)



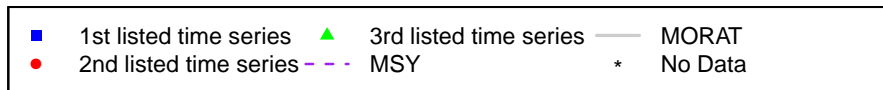
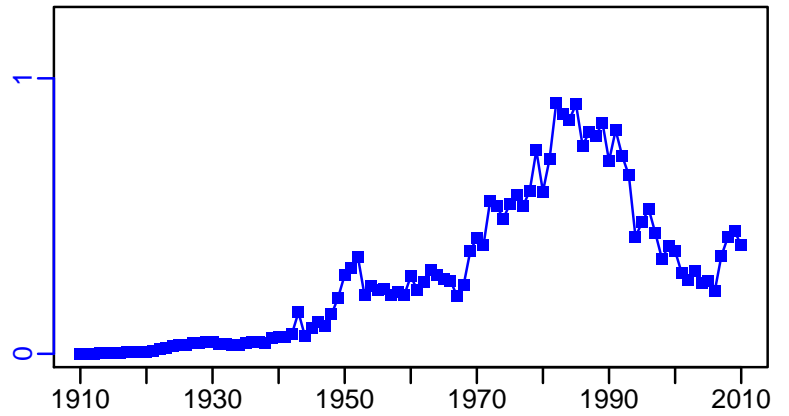
# Dover sole Pacific Coast [DSOLEPCOAST]

TC-MT, TL-MT, RecC\* (1910-2011-STACHURA)

TAC\*, Cpair\*, Cadv\*



CdivMSY-ratio (1910-2011-STACHURA)



## English sole Pacific Coast [ESOLEPCOAST]

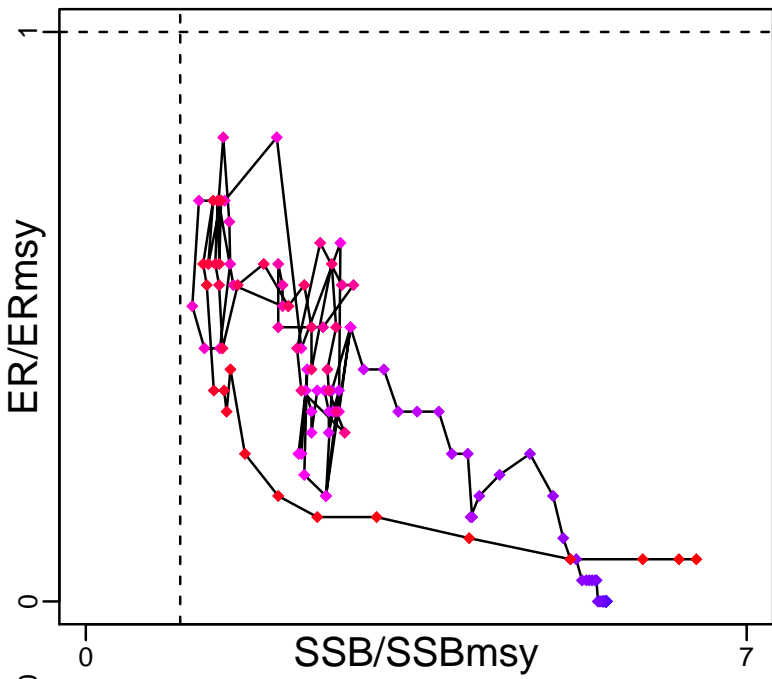
Metadata	
<b>Scientific Name</b>	Parophrys vetulus
<b>Current Assess ID</b>	NWFSC-ESOLEPCOAST-1876-2012-SISIMP2016
<b>Area</b>	Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northwest Fisheries Science Center
<b>Asmts in RAM</b>	2007, 2012

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2007	15,748
<b>SSBmsy</b>	SSBmsy-MT	2007	6526
<b>Fmsy</b>	Fmsy-1/yr	2012	0.7
<b>ERmsy</b>	ERmsy-ratio	2007	0.27
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	SSB0-MT	2007	36,012
<b>MSY</b>	MSY-MT	2012	3875
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2007	7364
<b>Flim</b>	Flim-1/yr	2012	0.7
<b>ERlim</b>	-	-	-

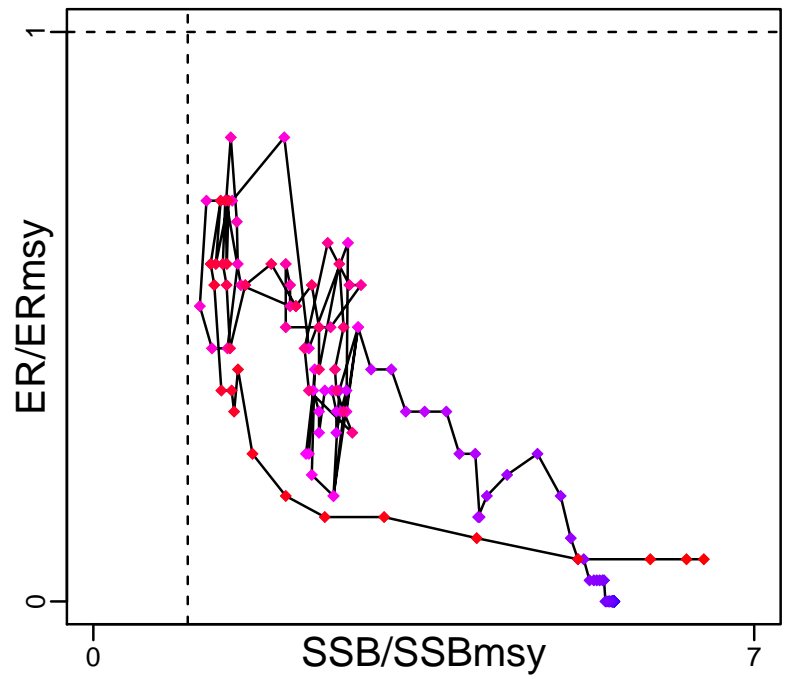
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2007	69,900	-	7.7+
<b>SSB</b>	SSB-MT	2007	41,900	Females	3+
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2007	$1.25 \times 10^8$	-	0
<b>F</b>	F-1/yr	2012	0.037	-	-
<b>ER</b>	ER-ratio	2007	0.02	-	-
<b>TC</b>	TC-MT	2007	1080		
<b>TL</b>	TL-MT	2007	886		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2007	4.439		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2007	6.42		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2012	0.053		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2007	0.074		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# English sole Pacific Coast [ESOLEPCOAST]

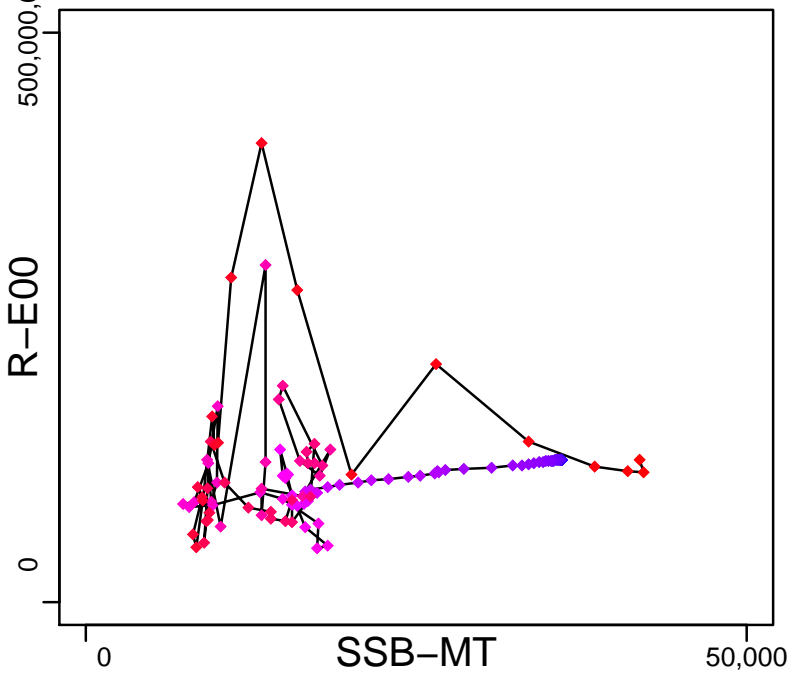
Kobe MSYpref (1876–2007–BRANCH)



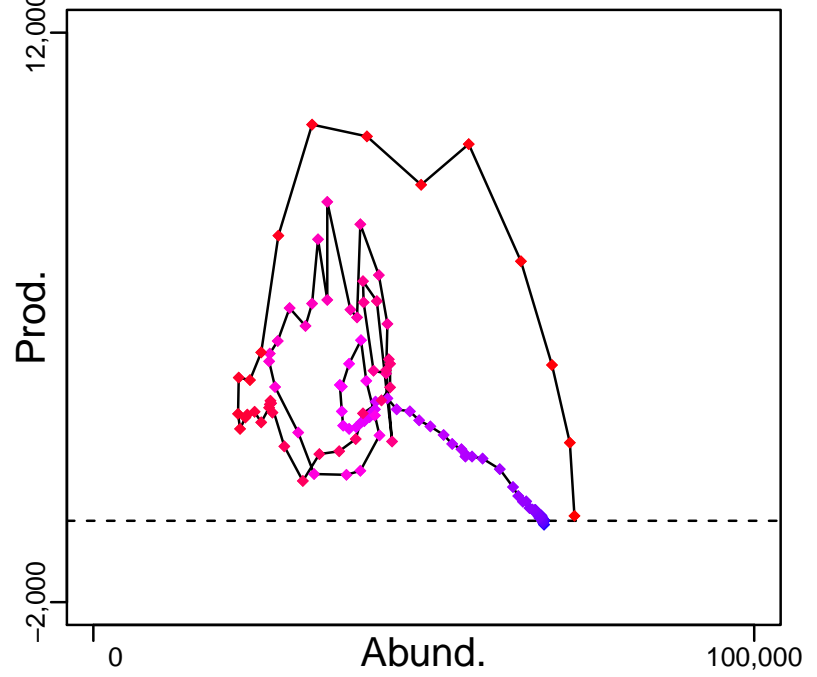
Kobe MGTpref (1876–2007–BRANCH)



Spawner Recruit (1876–2007–BRANCH)



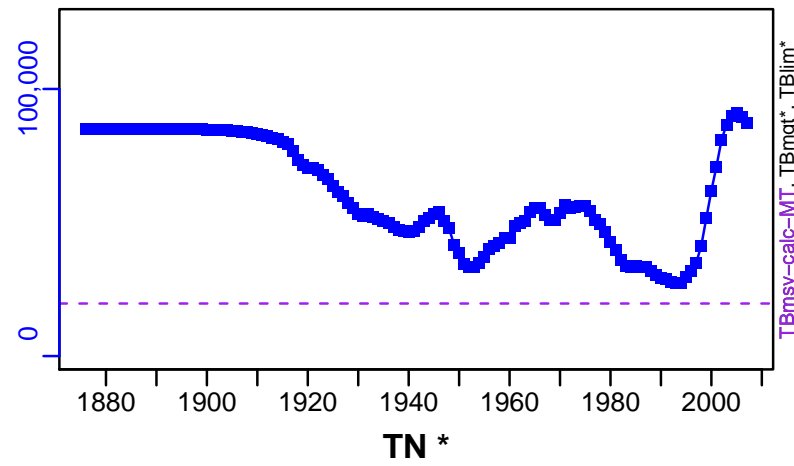
Production (1876–2007–BRANCH)



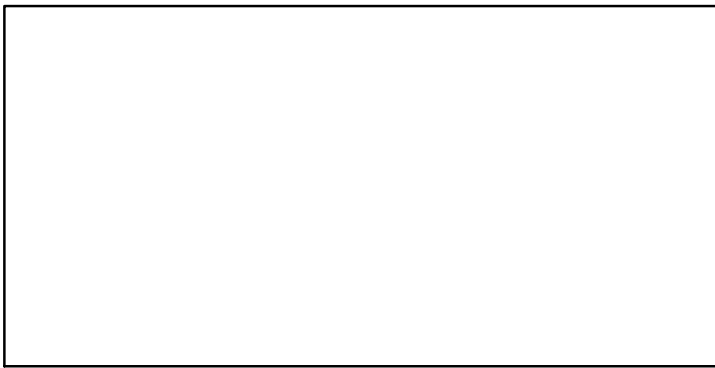
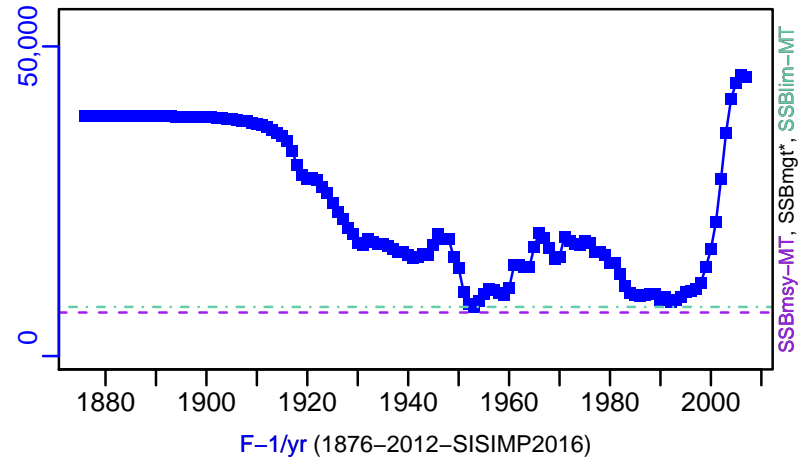
◆ Start Year ◆ End Year \* No Data

# English sole Pacific Coast [ESOLEPCOAST]

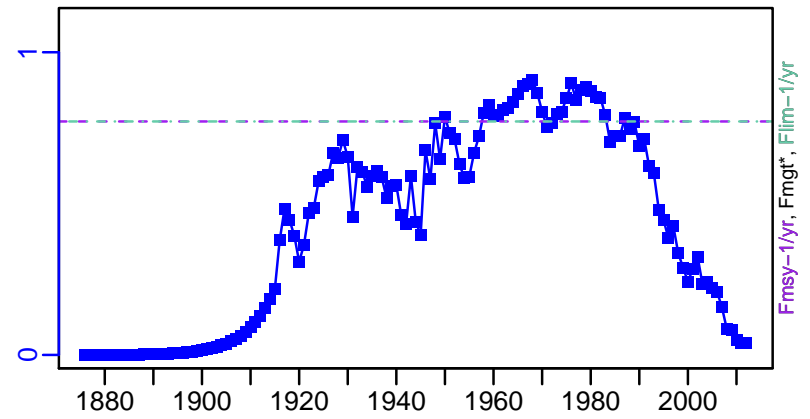
TB-MT (1876-2007-BRANCH)



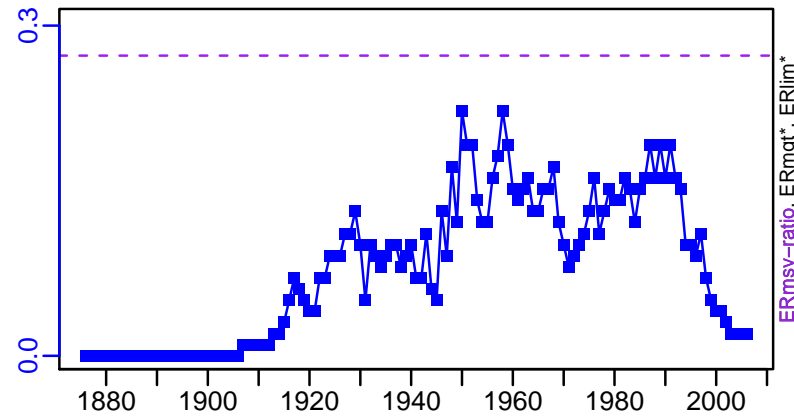
SSB-MT (1876-2007-BRANCH)



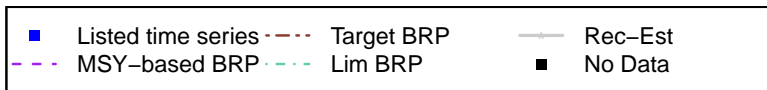
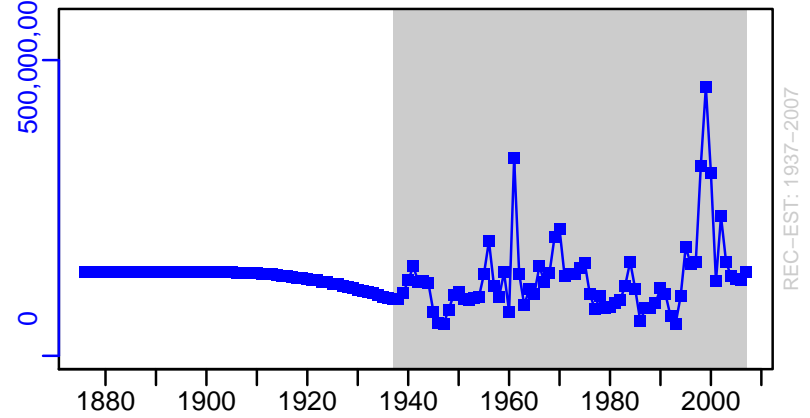
F-1/yr (1876-2012-SISIMP2016)



ER-ratio (1876-2007-BRANCH)



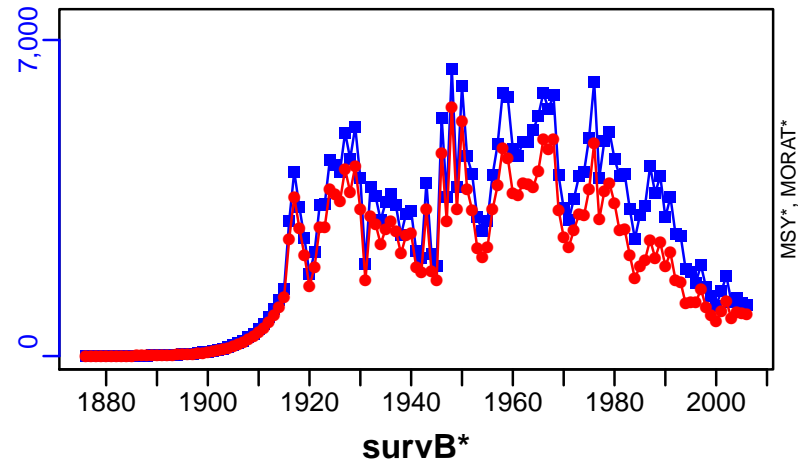
R-E00 (1876-2007-BRANCH)



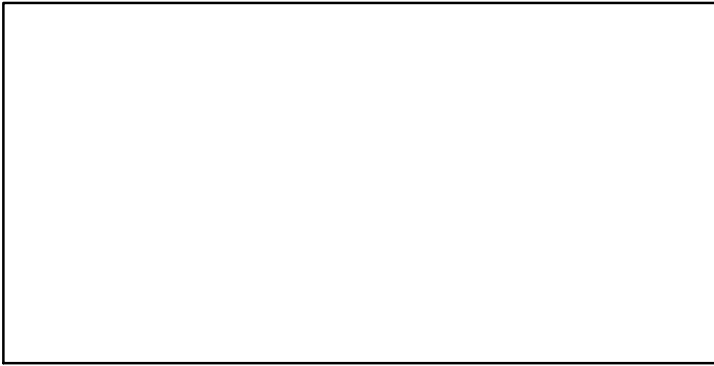
# English sole Pacific Coast [ESOLEPCOAST]

TC-MT, TL-MT, RecC\* (1876-2007-BRANCH)

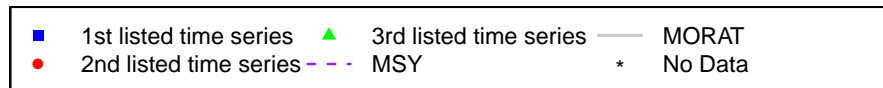
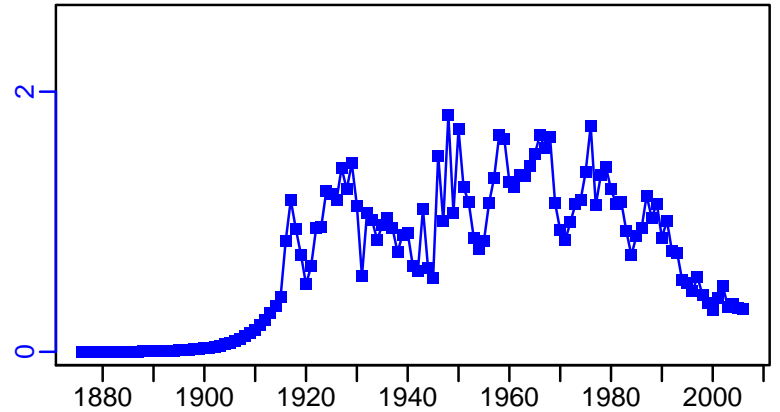
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1876-2007-BRANCH)



## Gopher rockfish Southern Pacific Coast [GOPHERSPCOAST]

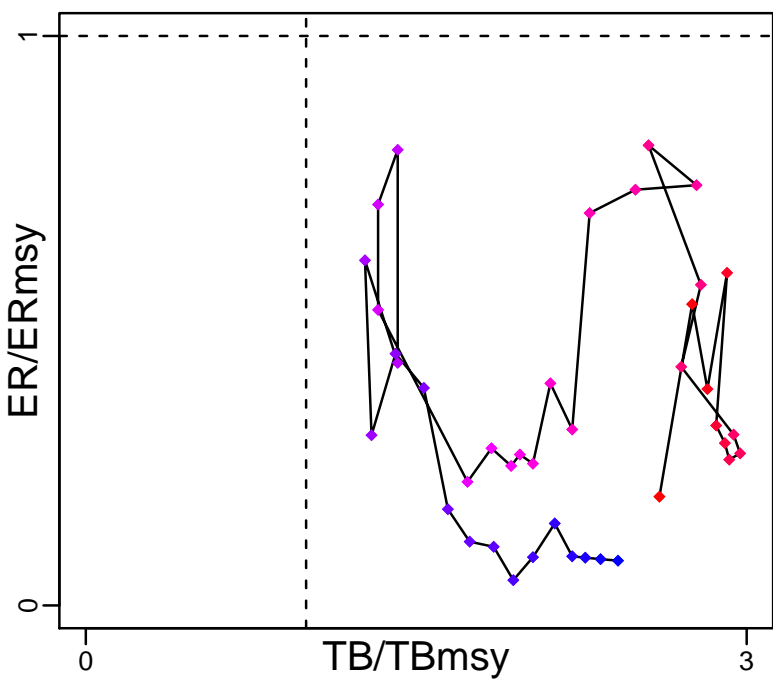
Metadata	
<b>Scientific Name</b>	Sebastes carnatus
<b>Current Assess ID</b>	SWFSC-GOPHERSPCOAST-1965-2005-STANTON
<b>Area</b>	Southern Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southwest Fisheries Science Center
<b>Asmts in RAM</b>	2005

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-MT	2005	1010
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-calc-ratio	2005	0.1
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2005	2440
<b>SSB0</b>	SSB0-MT	2005	1995
<b>MSY</b>	MSY-MT	2005	101
<b>M</b>	M-1/yr	2005	0.2
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

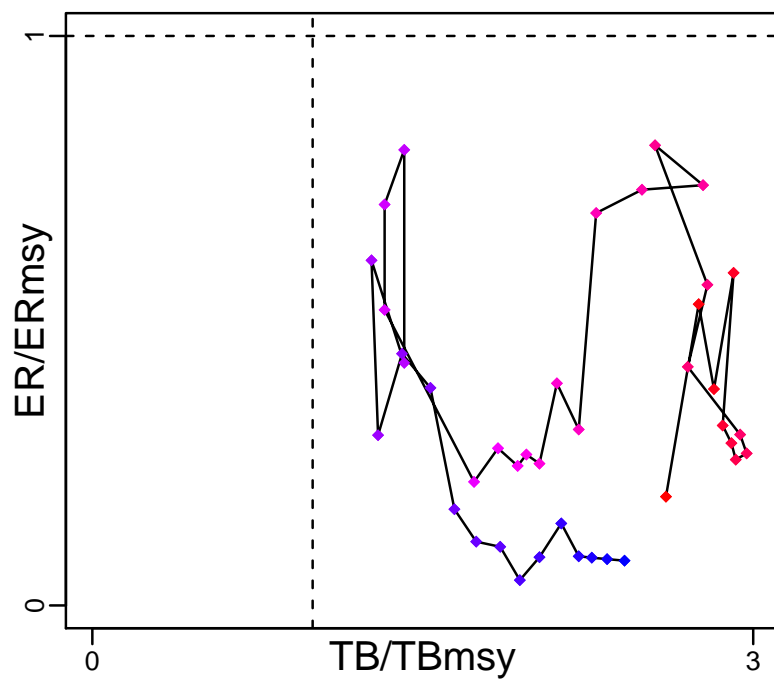
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2005	2570	-	1+
<b>SSB</b>	SSB-MT	2005	1900	Females	3+
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-MT	2005	2730	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2005	0.019	-	-
<b>TC</b>	TC-MT	2005	50		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2005	2.545		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-calc-ratio	2005	0.191		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Gopher rockfish Southern Pacific Coast [GOPHERSPCOAST]

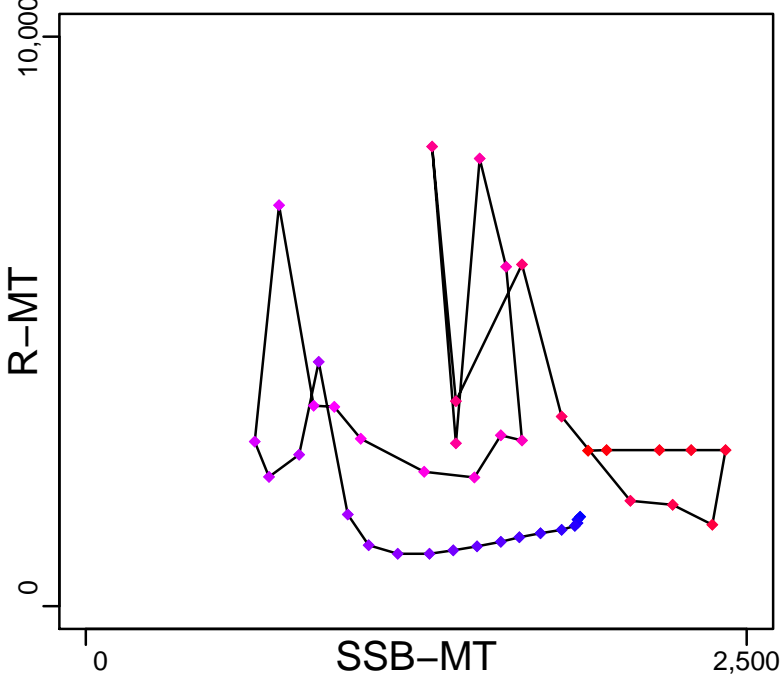
Kobe MSYpref (1965–2005–STANTON)



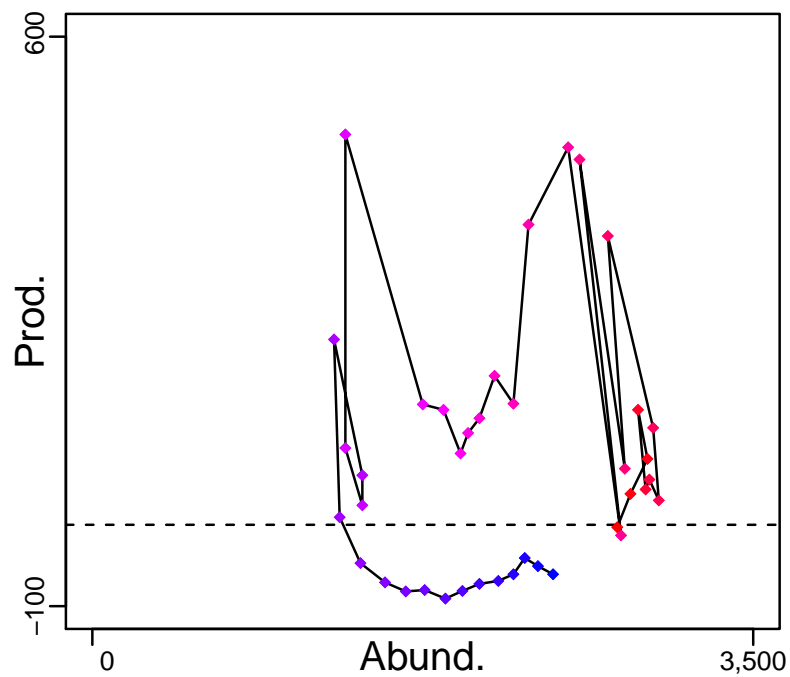
Kobe MGTpref (1965–2005–STANTON)



Spawner Recruit (1965–2005–STANTON)



Production (1965–2005–STANTON)

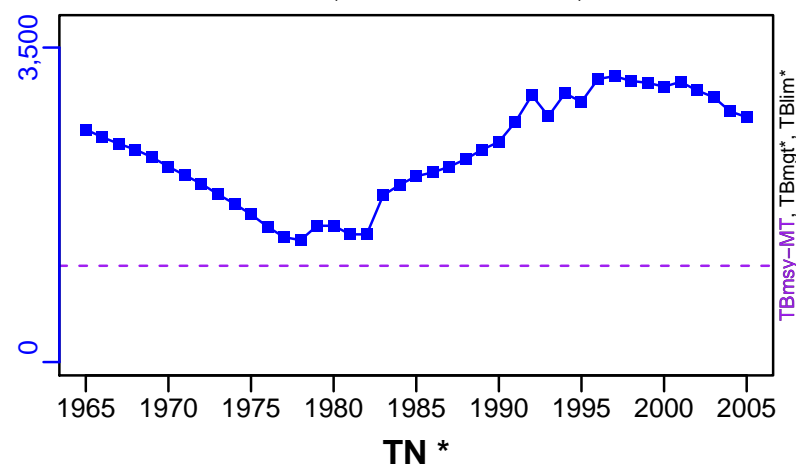


◆ Start Year ◆ End Year \* No Data

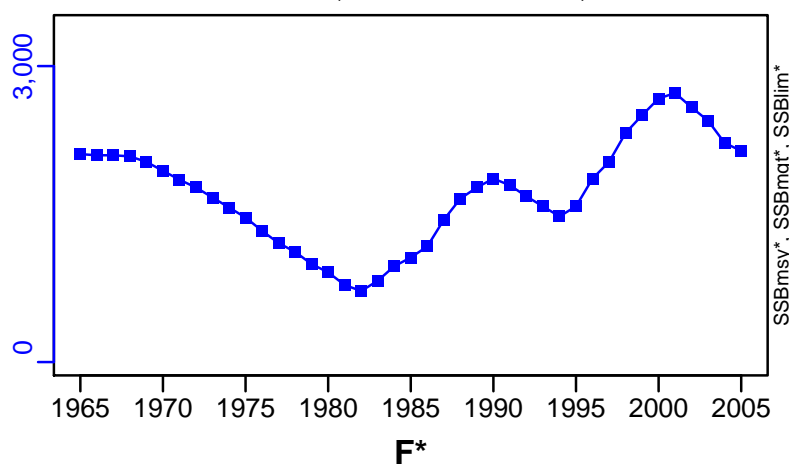


# Gopher rockfish Southern Pacific Coast [GOPHERSPCOAST]

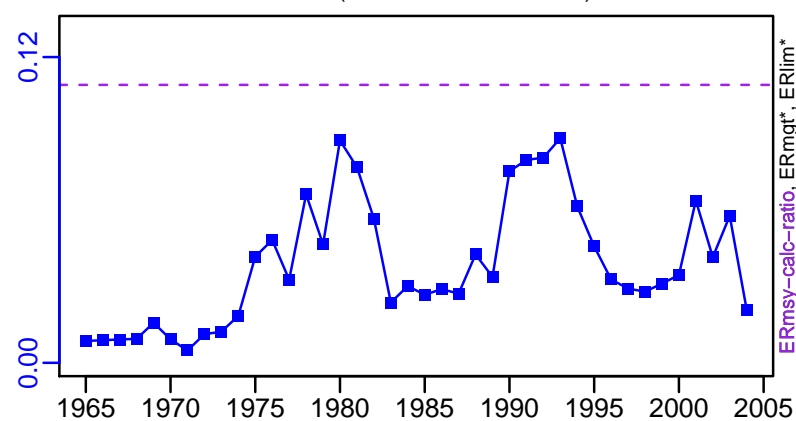
TB-MT (1965–2005–STANTON)



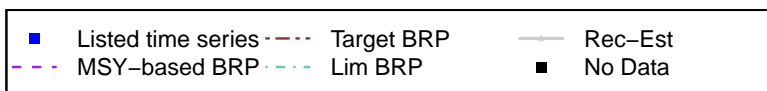
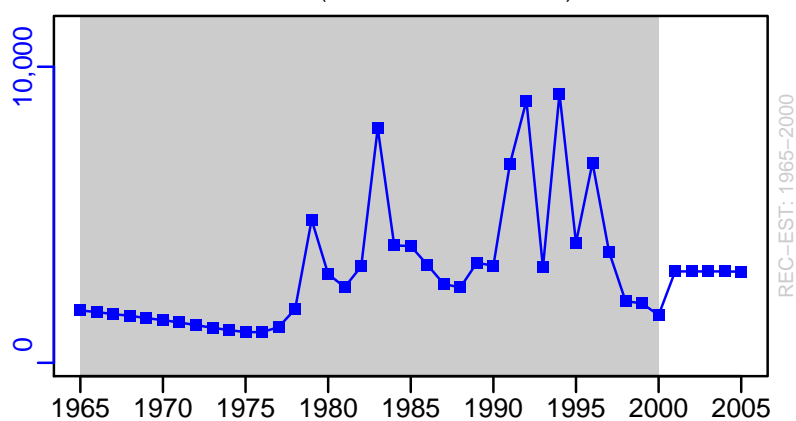
SSB-MT (1965–2005–STANTON)



ER-ratio (1965–2005–STANTON)

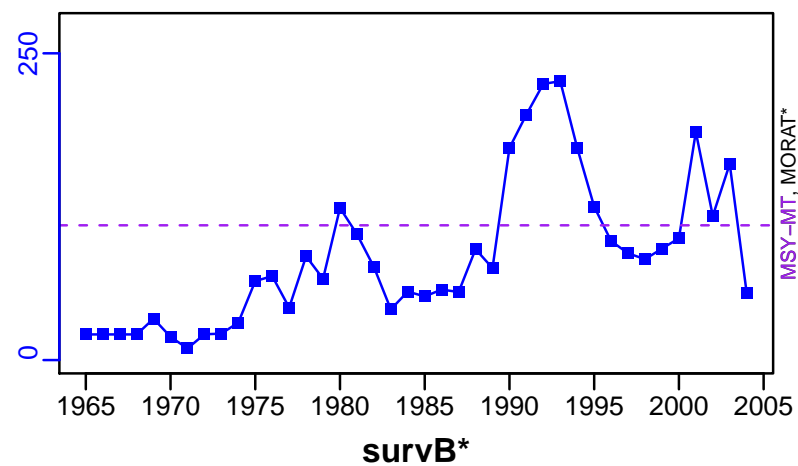


R-MT (1965–2005–STANTON)

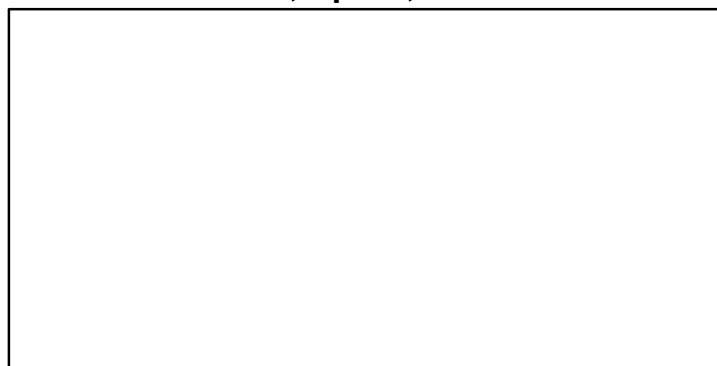


# Gopher rockfish Southern Pacific Coast [GOPHERSPCOAST]

TC-MT, TL\*, RecC\* (1965-2005-STANTON)



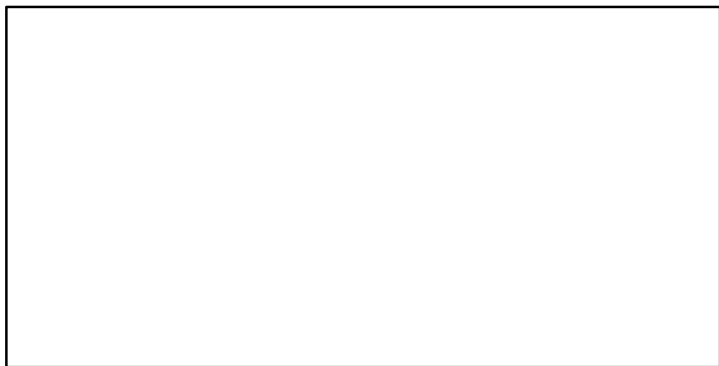
TAC\*, Cpair\*, Cadv\*



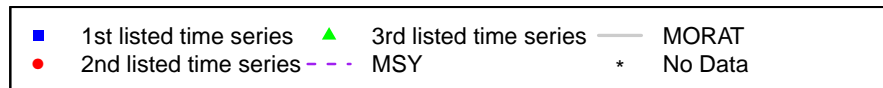
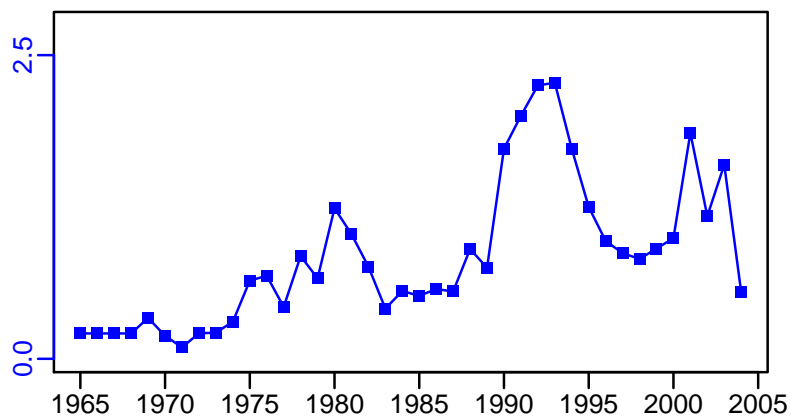
CPUE\*



EFFORT\*



CdivMSY-ratio (1965-2005-STANTON)



## Greenstriped rockfish Pacific Coast [GRNSTROCKPCOAST]

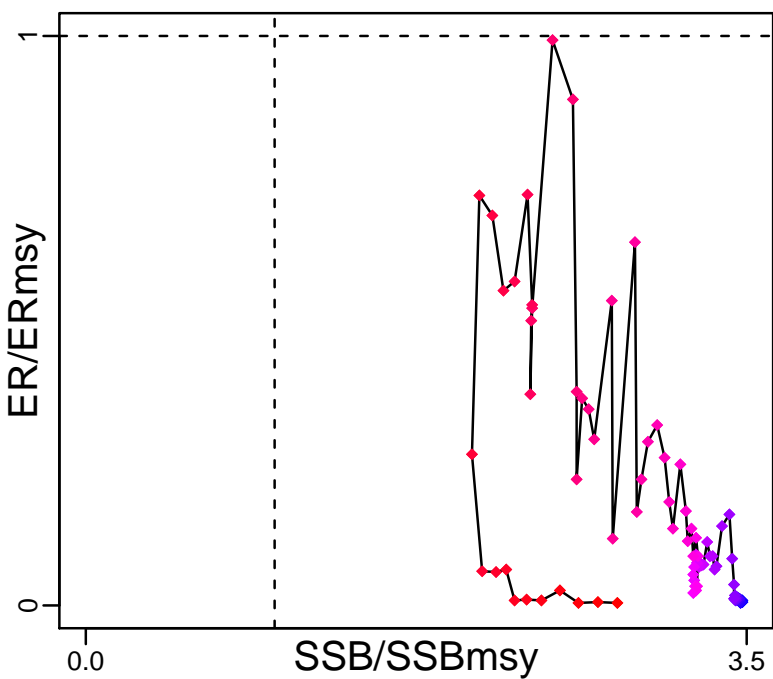
Metadata	
<b>Scientific Name</b>	Sebastes elongatus
<b>Current Assess ID</b>	PFMC-GRNSTROCKPCOAST-1916-2009-STANTON
<b>Area</b>	Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Pacific Fishery Management Council
<b>Asmts in RAM</b>	2009

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2009	11,774
<b>SSBmsy</b>	SSBmsy-E00eggs	2009	$2.039 \times 10^9$
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2009	0.068
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2009	803
<b>M</b>	M-1/yr	2009	0.08
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

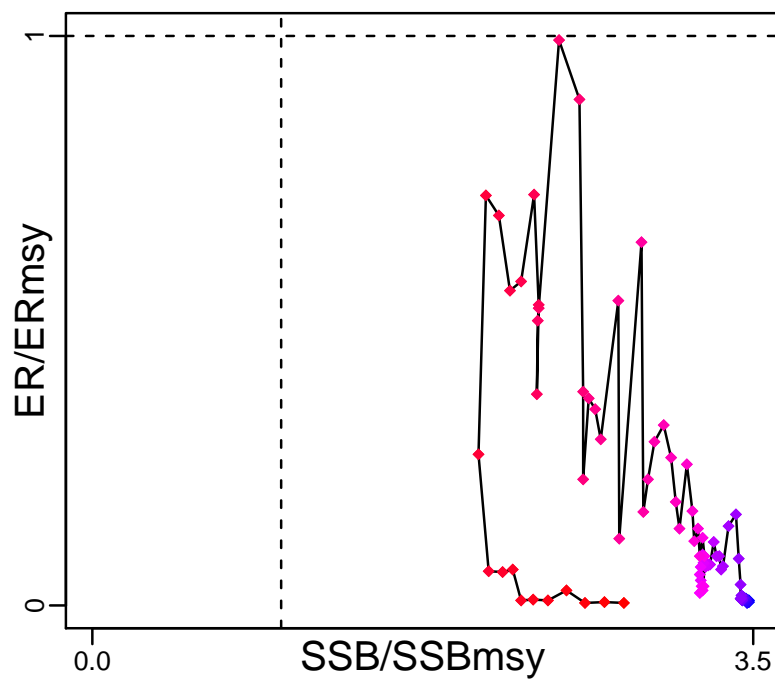
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2009	29,200	-	2+
<b>SSB</b>	SSB-E00eggs	2009	$5.74 \times 10^9$	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2009	14,700	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2009	0	-	-
<b>TC</b>	TC-MT	2009	9		
<b>TL</b>	TL-MT	2009	3.39		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2009	2.48		
<b>SSB/SSBmsy</b>	SSB-E00eggs/SSBmsy-E00eggs	2009	2.815		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2009	0.004		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Greenstriped rockfish Pacific Coast [GRNSTROCKPCOAST]

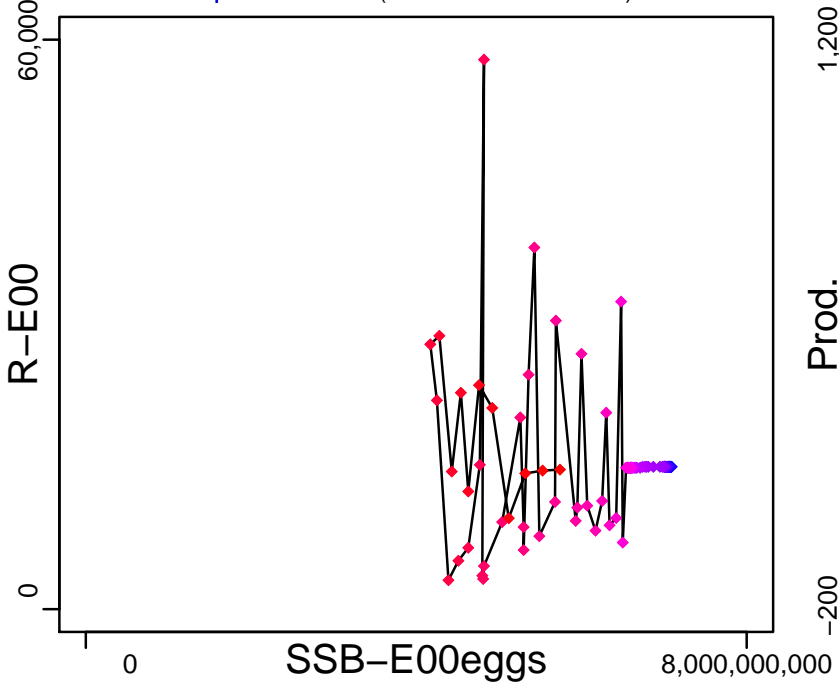
Kobe MSYpref (1916–2009–STANTON)



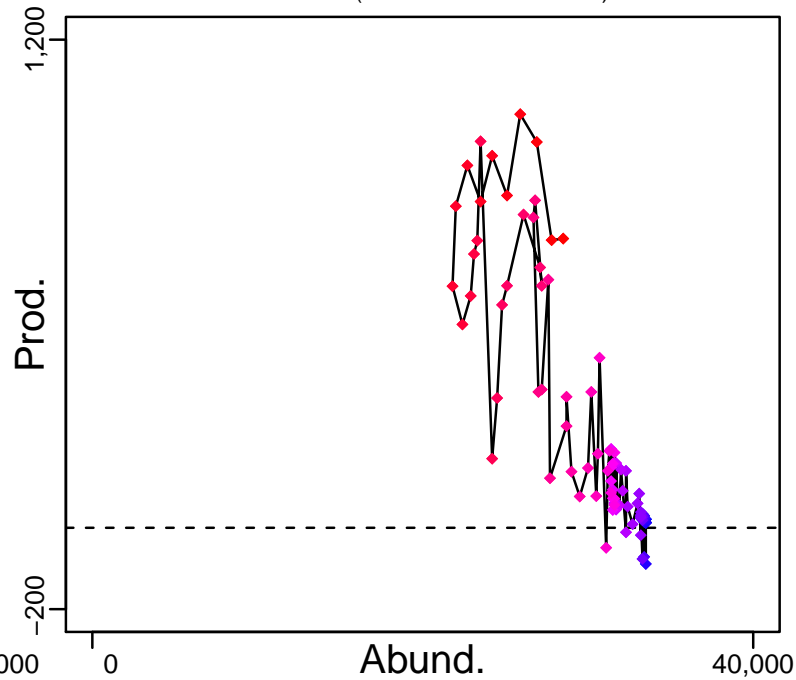
Kobe MGTpref (1916–2009–STANTON)



Spawner Recruit (1916–2009–STANTON)



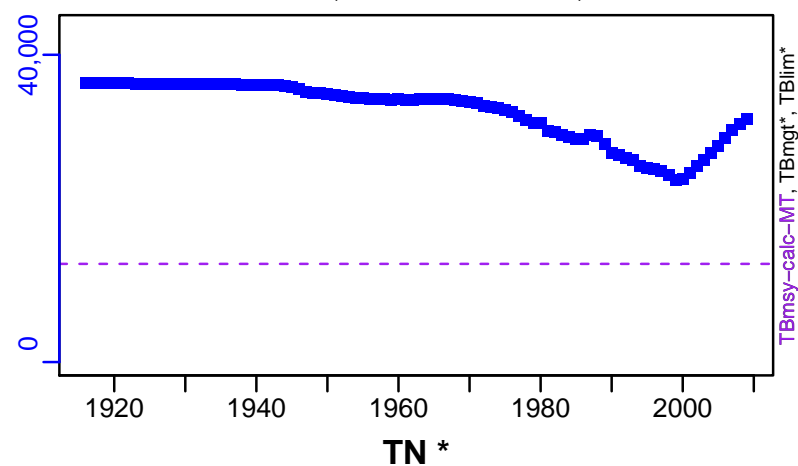
Production (1916–2009–STANTON)



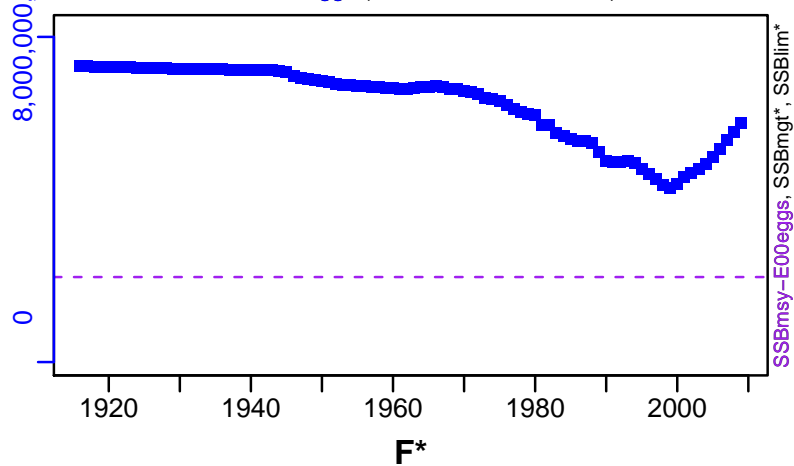
◆ Start Year ◆ End Year \* No Data

# Greenstriped rockfish Pacific Coast [GRNSTROCKPCOAST]

TB-MT (1916-2009-STANTON)



SSB-E00eggs (1916-2009-STANTON)



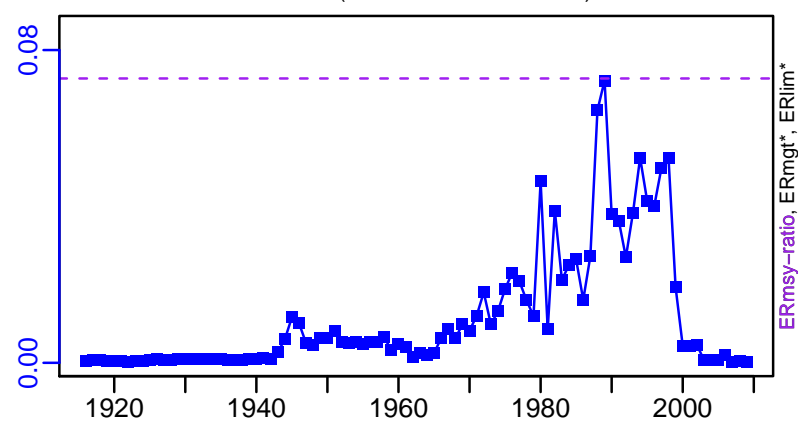
TN \*



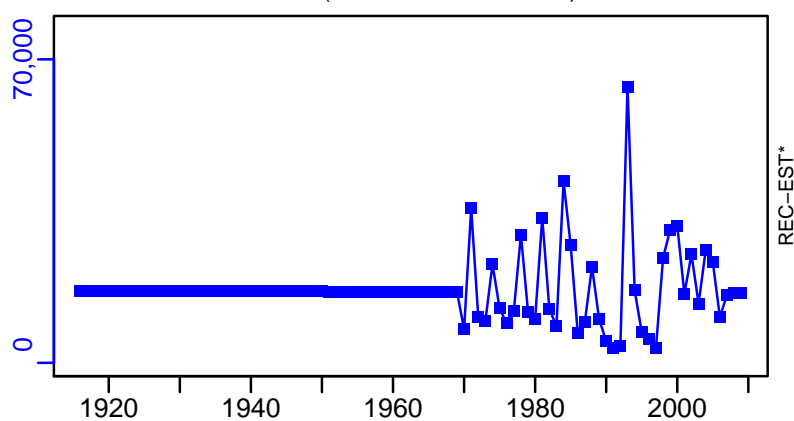
F\*



ER-ratio (1916-2009-STANTON)

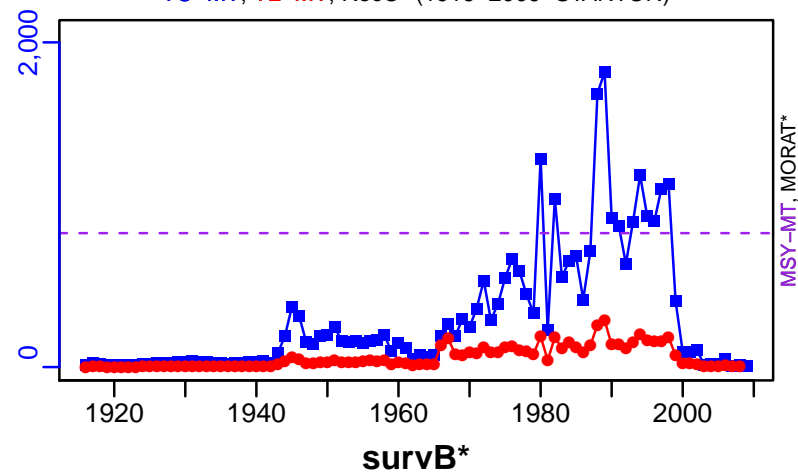


R-E00 (1916-2009-STANTON)

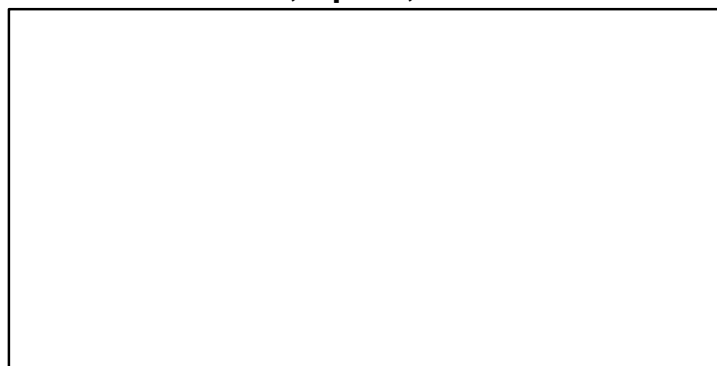


# Greenstriped rockfish Pacific Coast [GRNSTROCKPCOAST]

TC-MT, TL-MT, RecC\* (1916-2009-STANTON)



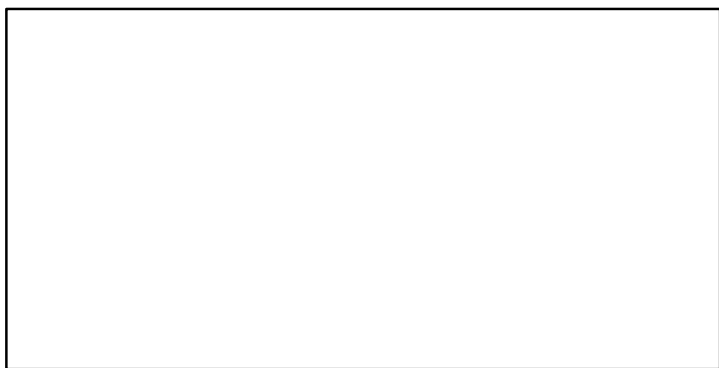
TAC\*, Cpair\*, Cadv\*



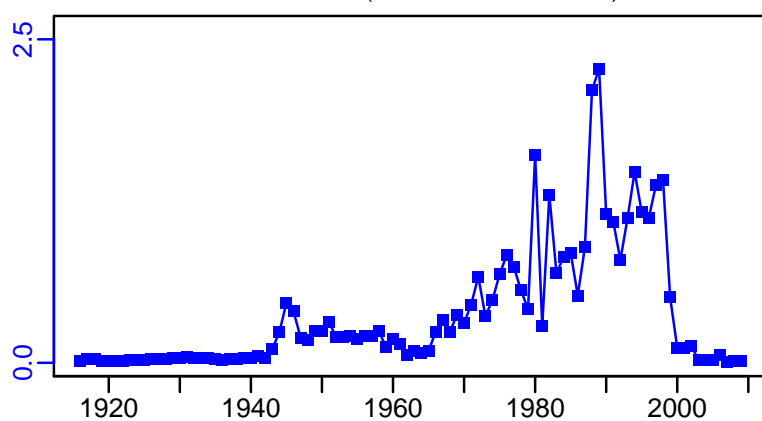
CPUE\*



EFFORT\*



CdivMSY-ratio (1916-2009-STANTON)



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

## Greenspotted rockfish Pacific Coast North [GRSPROCKNCAL]

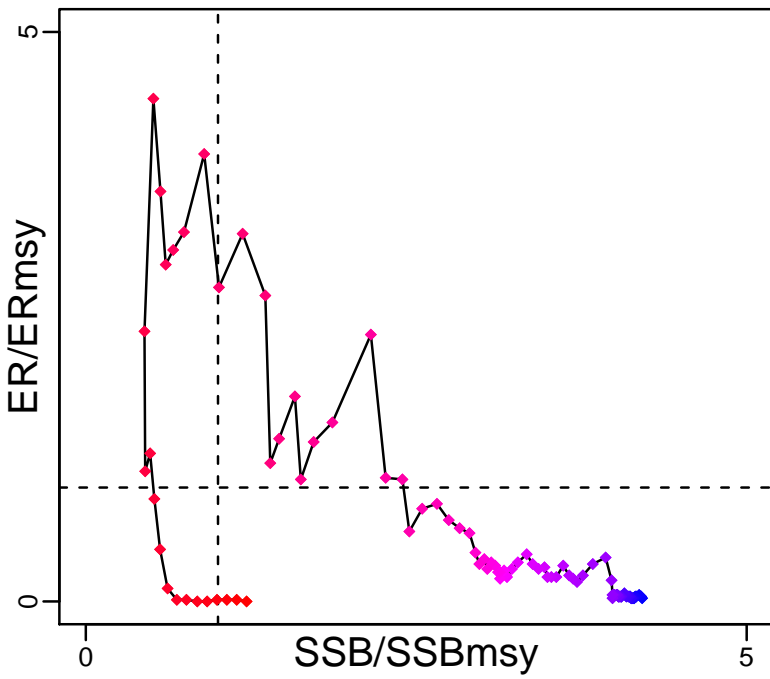
Metadata	
<b>Scientific Name</b>	Sebastes chlorostictus
<b>Current Assess ID</b>	SWFSC-GRSPROCKNCAL-1916-2010-STACHURA
<b>Area</b>	Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southwest Fisheries Science Center
<b>Asmts in RAM</b>	2010

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2010	840
<b>SSBmsy</b>	SSBmsy-E00eggs	2010	$1.34 \times 10^{11}$
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2010	0.07
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2010	3160
<b>SSB0</b>	SSB0-E00eggs	2010	$5.64 \times 10^9$
<b>MSY</b>	MSY-MT	2010	59
<b>M</b>	M-1/yr	2010	0.07
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

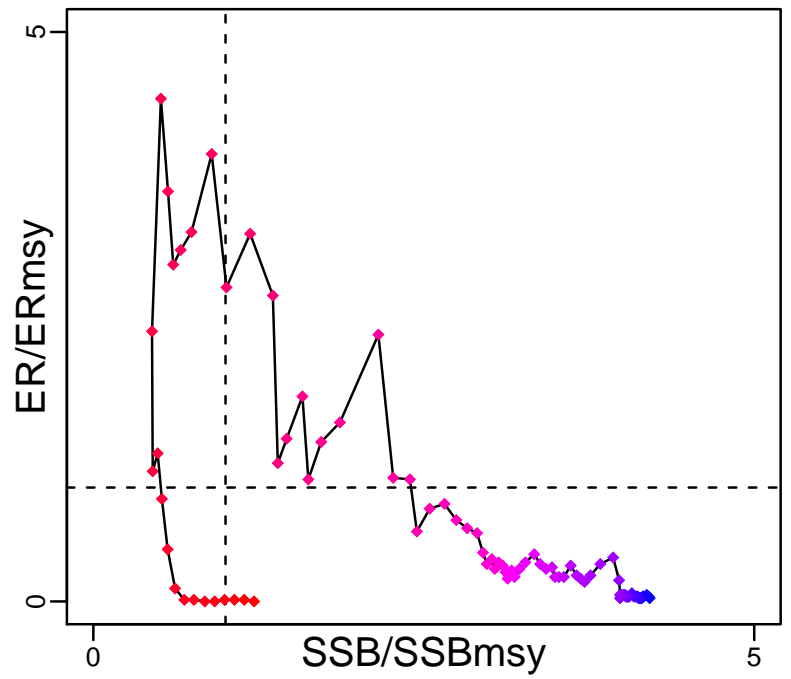
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2010	1190	-	0+
<b>SSB</b>	SSB-E00eggs	2010	$1.63 \times 10^{11}$	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2010	391,000	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2010	0	-	-
<b>TC</b>	TC-MT	2010	0.4		
<b>TL</b>	TL-MT	2010	0.37		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2010	1.417		
<b>SSB/SSBmsy</b>	SSB-E00eggs/SSBmsy-E00eggs	2010	1.216		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2010	0		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Greenspotted rockfish Pacific Coast North [GRSPROCKNCAL]

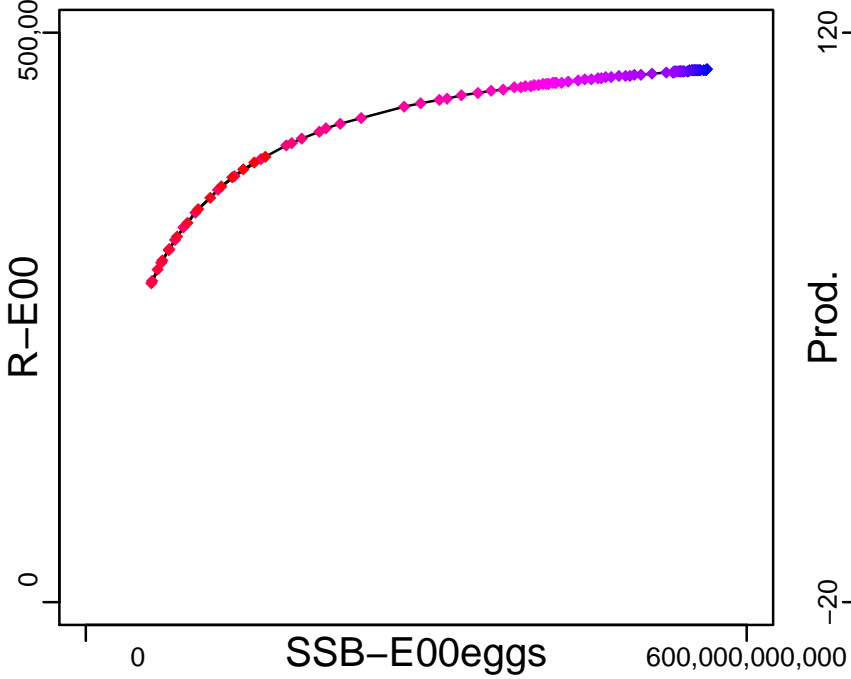
Kobe MSYpref (1916–2010–STACHURA)



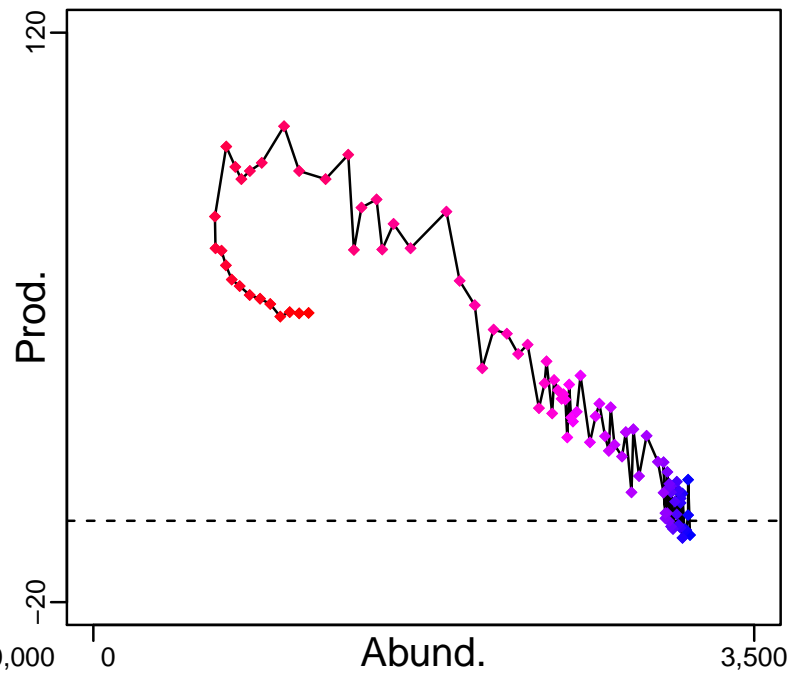
Kobe MGTpref (1916–2010–STACHURA)



Spawner Recruit (1916–2010–STACHURA)



Production (1916–2010–STACHURA)

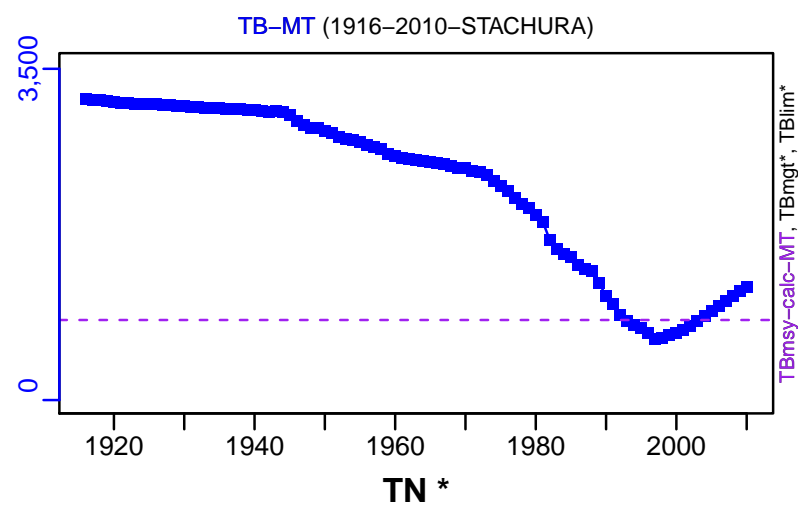


◆ Start Year ◆ End Year \* No Data

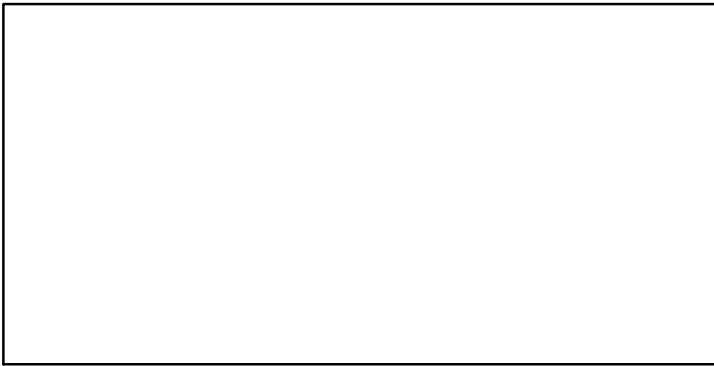
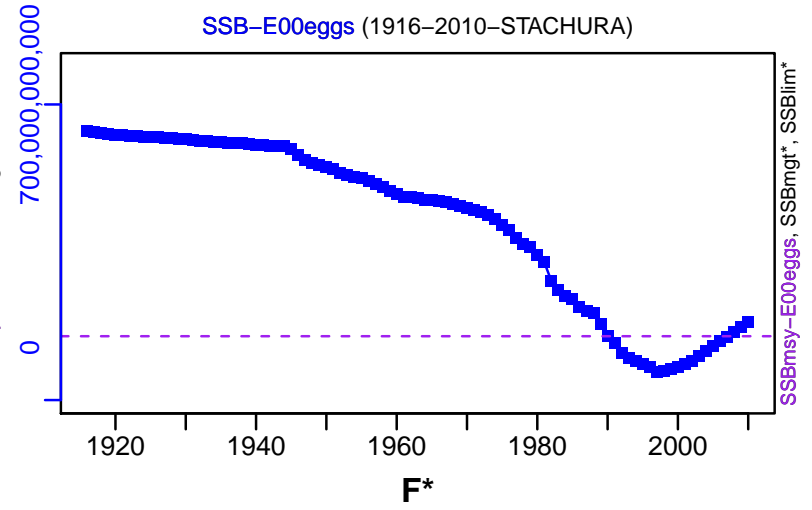


# Greenspotted rockfish Pacific Coast North [GRSPROCKNCAL]

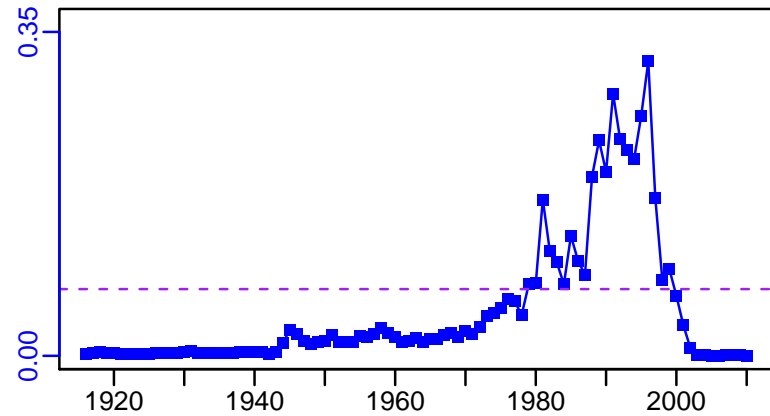
TB-MT (1916-2010-STACHURA)



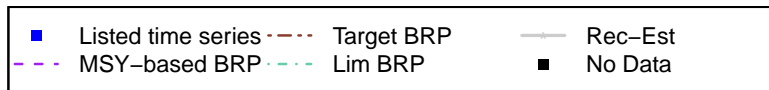
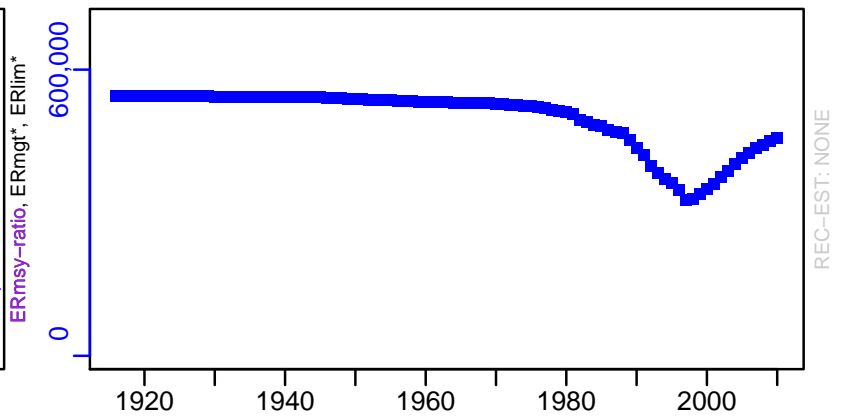
SSB-E00eggs (1916-2010-STACHURA)



ER-ratio (1916-2010-STACHURA)



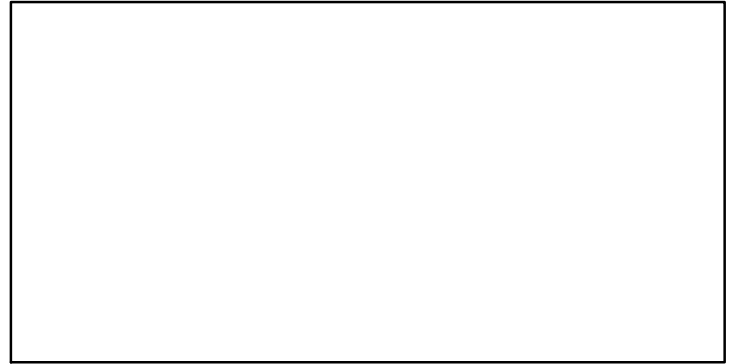
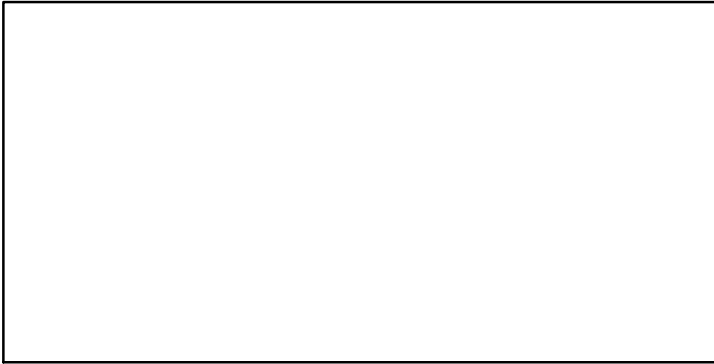
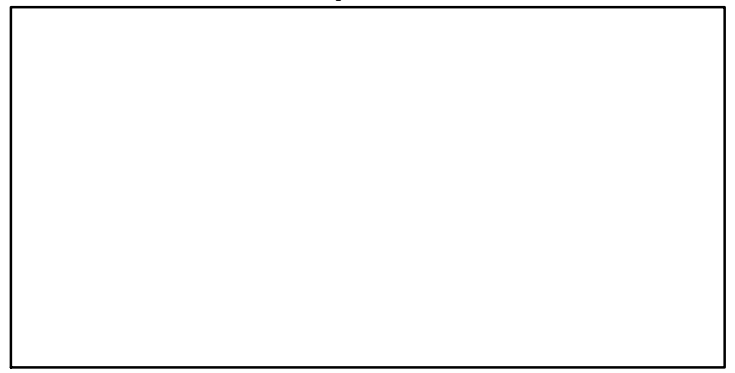
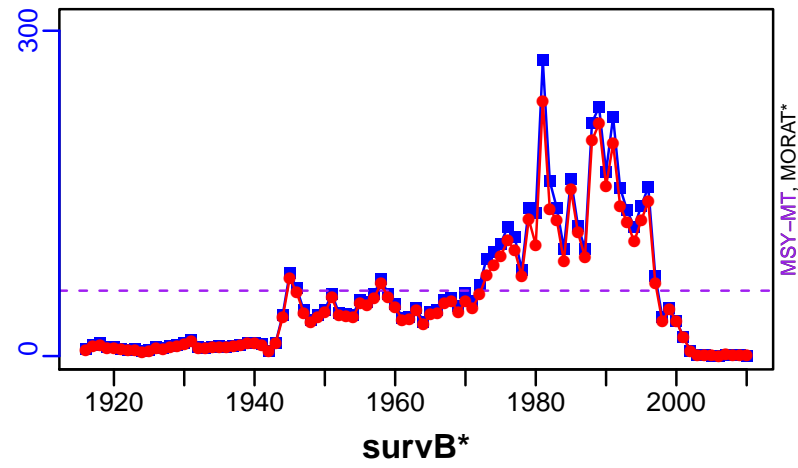
R-E00 (1916-2010-STACHURA)



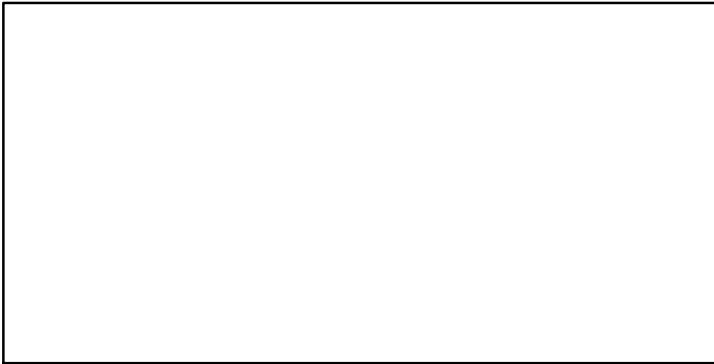
# Greenspotted rockfish Pacific Coast North [GRSPROCKNCAL]

TC-MT, TL-MT, RecC\* (1916-2010-STACHURA)

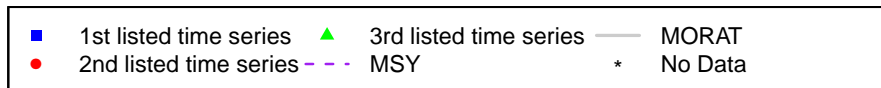
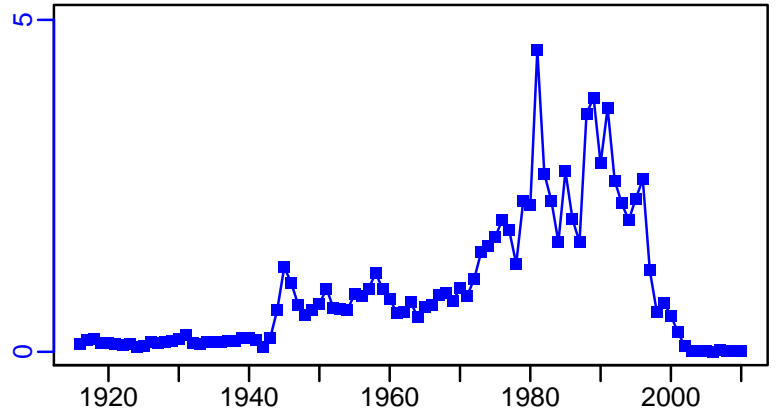
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1916-2010-STACHURA)



## Greenspotted rockfish Pacific Coast South [GRSPROCKSCAL]

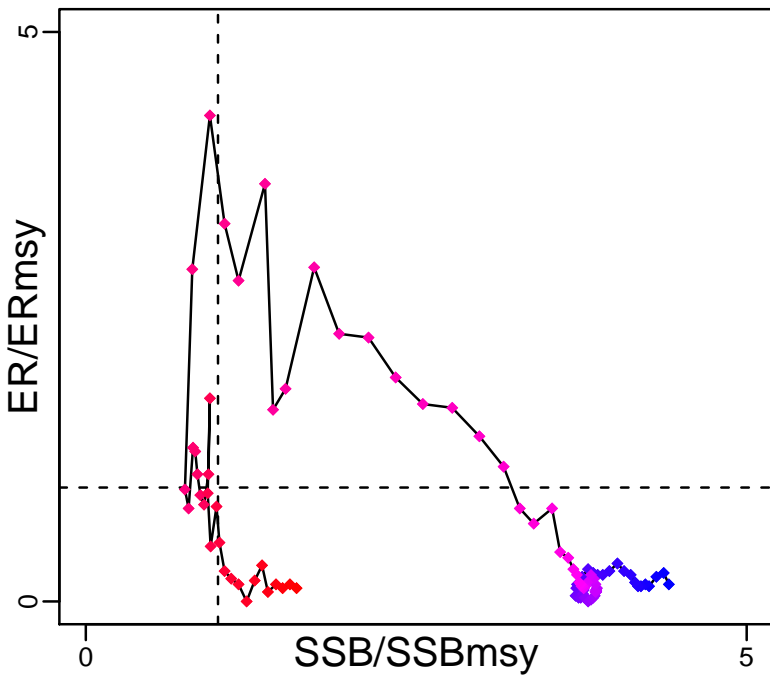
Metadata	
<b>Scientific Name</b>	Sebastes chlorostictus
<b>Current Assess ID</b>	SWFSC-GRSPROCKSCAL-1916-2010-STACHURA
<b>Area</b>	Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southwest Fisheries Science Center
<b>Asmts in RAM</b>	2010

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2010	932
<b>SSBmsy</b>	SSBmsy-E00eggs	2010	$1.8 \times 10^{11}$
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2010	0.06
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2010	4331
<b>SSB0</b>	SSB0-E00eggs	2010	$7.94 \times 10^9$
<b>MSY</b>	MSY-MT	2010	56
<b>M</b>	M-1/yr	2010	0.07
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

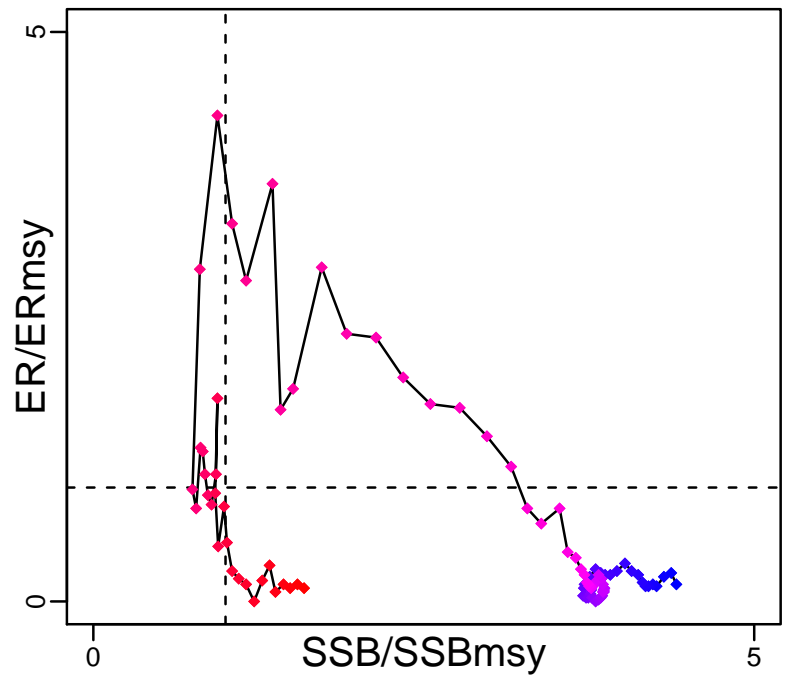
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2010	1920	-	0+
<b>SSB</b>	SSB-E00eggs	2010	$2.87 \times 10^{11}$	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2010	681,000	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2010	0.007	-	-
<b>TC</b>	TC-MT	2010	11		
<b>TL</b>	TL-MT	2010	11		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2010	2.061		
<b>SSB/SSBmsy</b>	SSB-E00eggs/SSBmsy-E00eggs	2010	1.594		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2010	0.117		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Greenspotted rockfish Pacific Coast South [GRSPROCKSCAL]

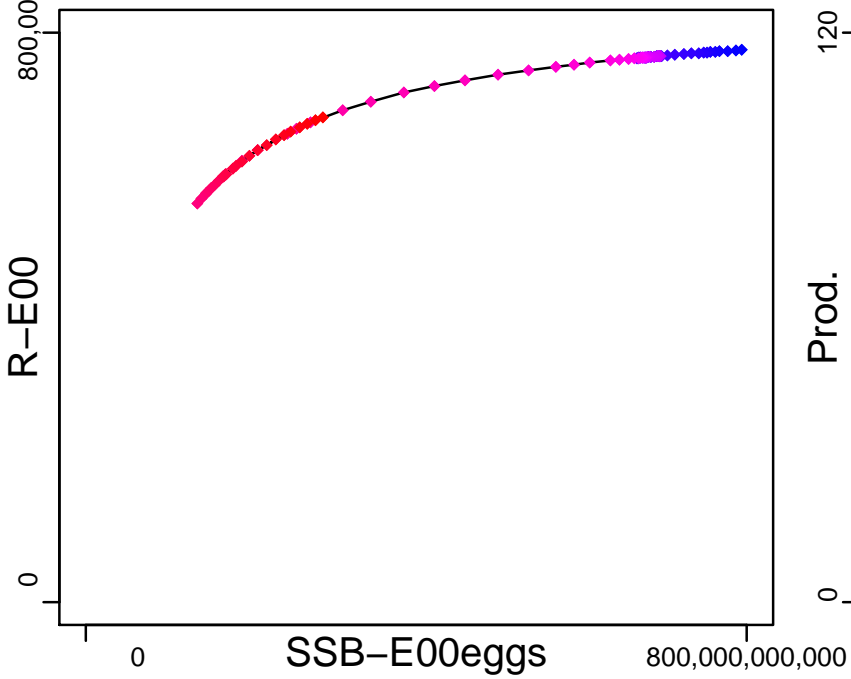
Kobe MSYpref (1916–2010–STACHURA)



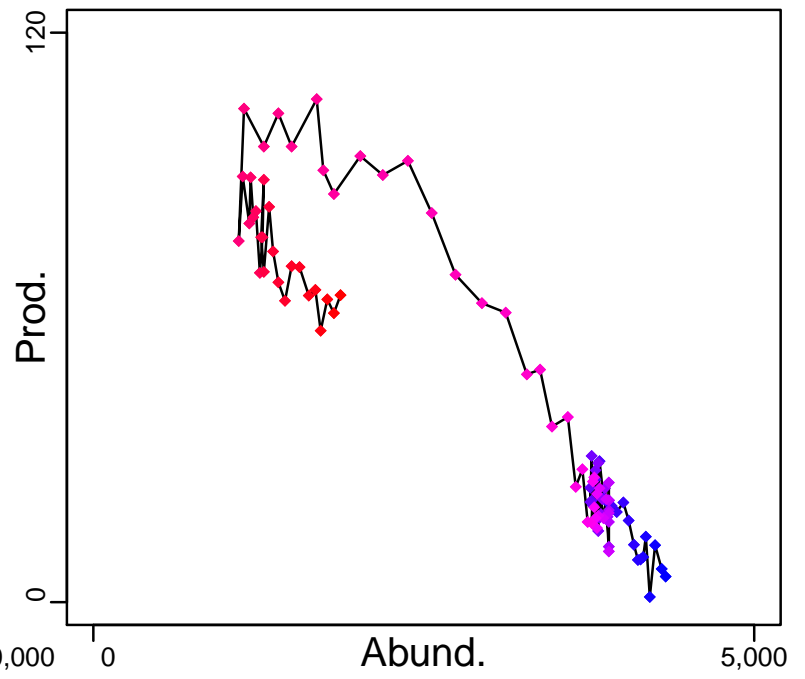
Kobe MGTpref (1916–2010–STACHURA)



Spawner Recruit (1916–2010–STACHURA)



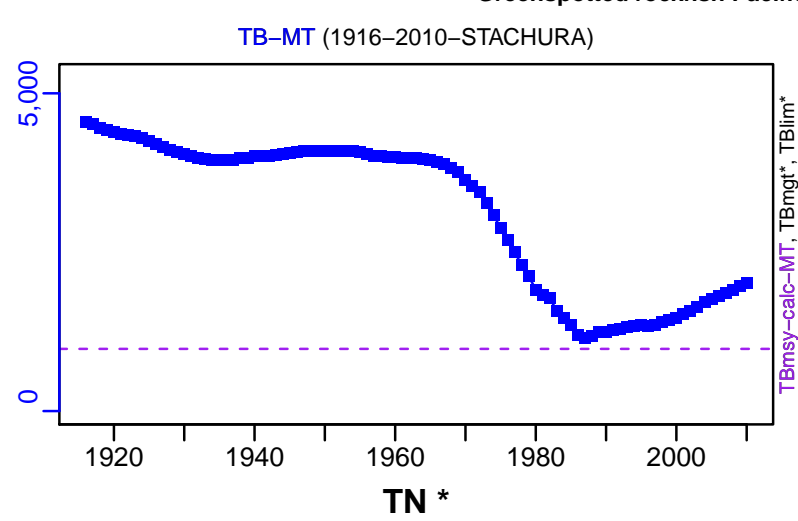
Production (1916–2010–STACHURA)



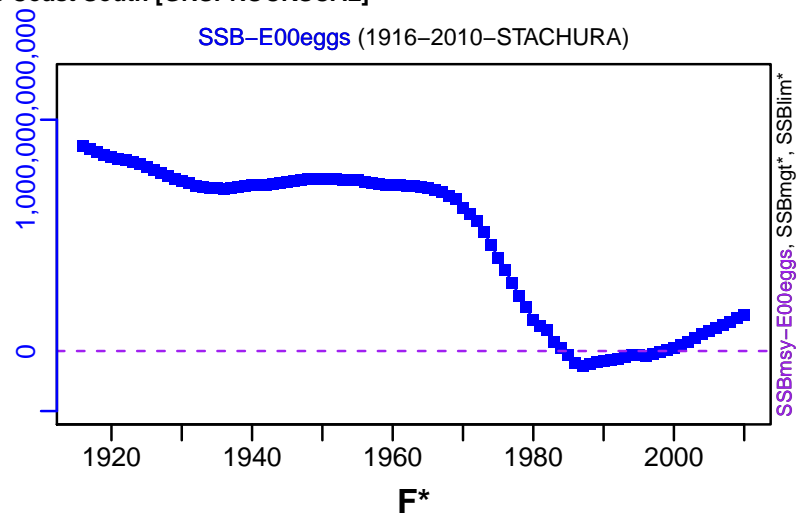
◆ Start Year ◆ End Year \* No Data

# Greenspotted rockfish Pacific Coast South [GRSPROCKSCAL]

TB-MT (1916-2010-STACHURA)

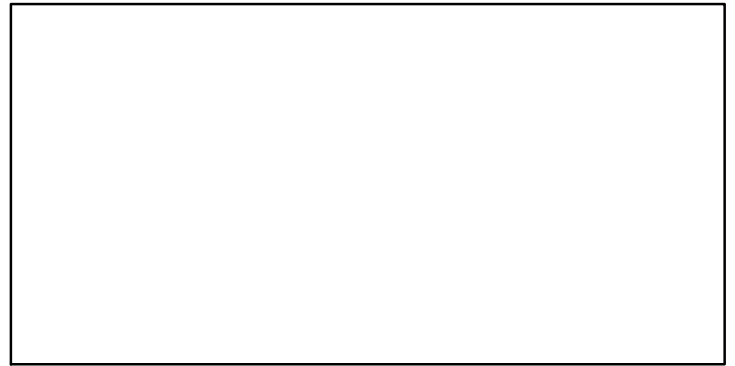
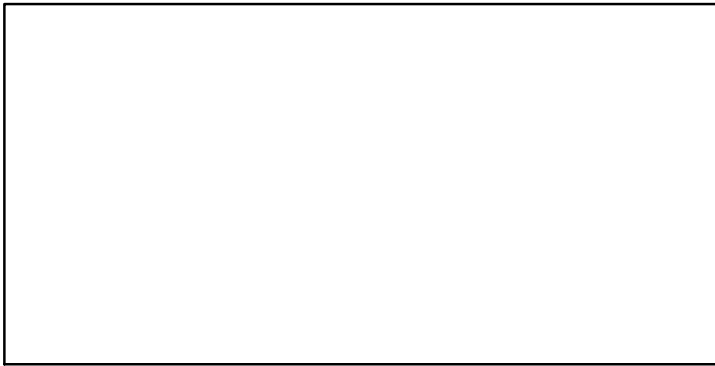


SSB-E00eggs (1916-2010-STACHURA)

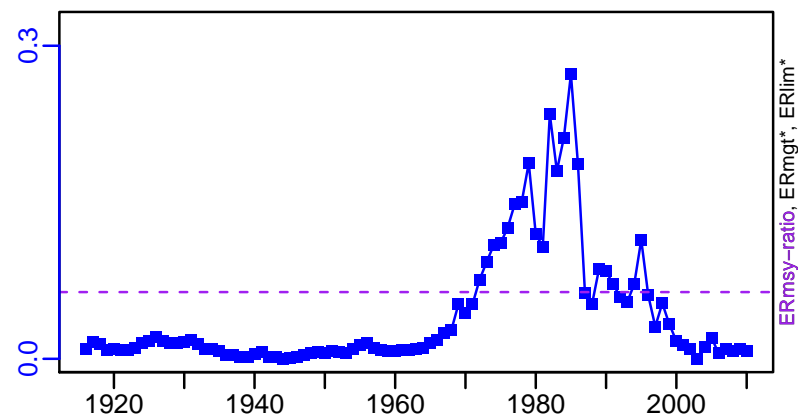


TN \*

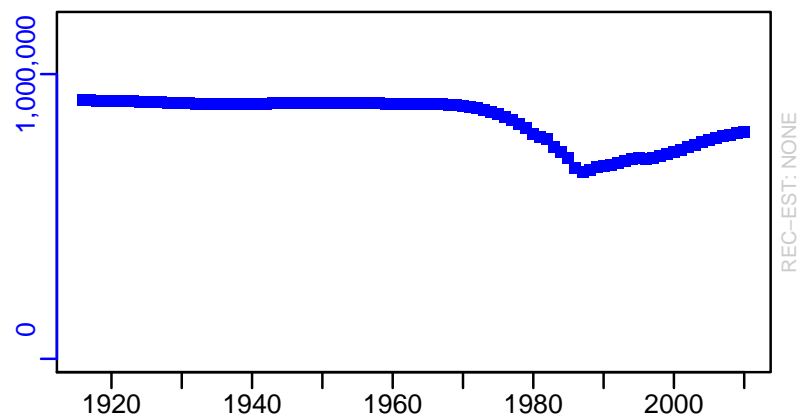
F\*



ER-ratio (1916-2010-STACHURA)



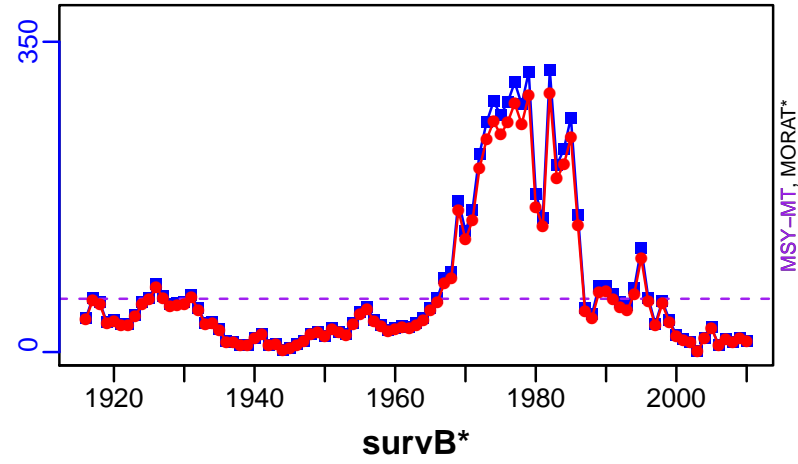
R-E00 (1916-2010-STACHURA)



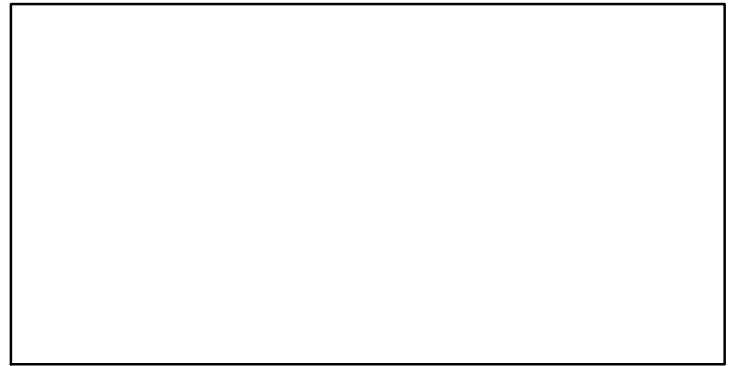
# Greenspotted rockfish Pacific Coast South [GRSPROCKSCAL]

TC-MT, TL-MT, RecC\* (1916-2010-STACHURA)

TAC\*, Cpair\*, Cadv\*



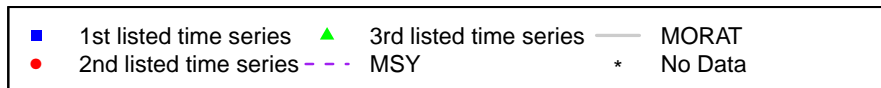
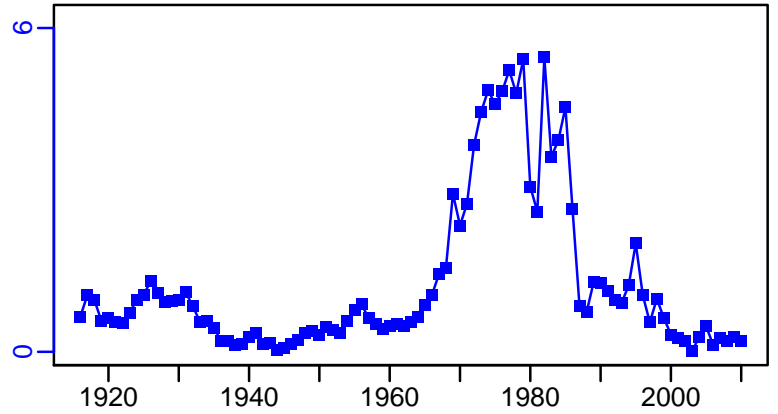
CPUE\*



EFFORT\*



CdivMSY-ratio (1916-2010-STACHURA)



## Kelp greenling Oregon Coast [KELPGREENLINGORECOAST]

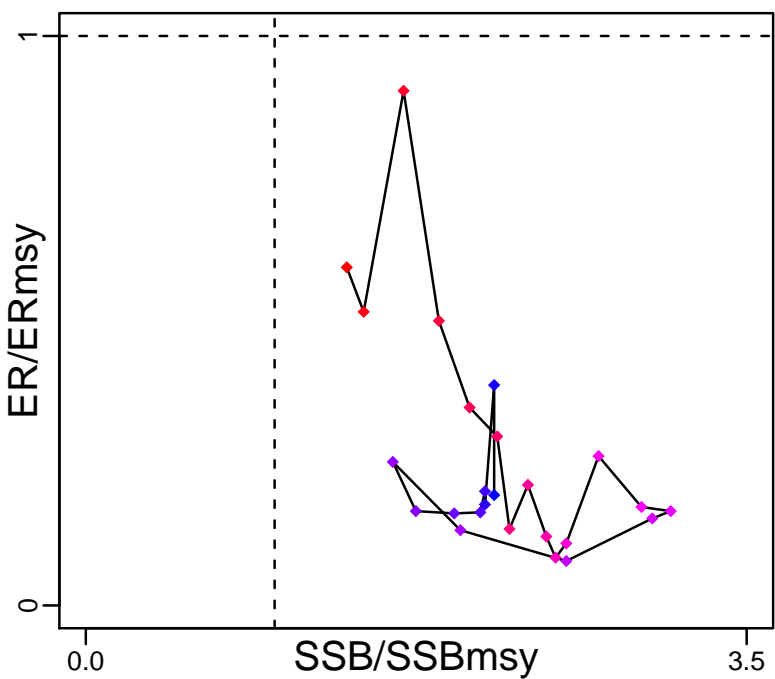
Metadata	
<b>Scientific Name</b>	Hexagrammos decagrammus
<b>Current Assess ID</b>	NWFSC-KELPGREENLINGORECOAST-1915-2015-SISIMP2016
<b>Area</b>	Oregon Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northwest Fisheries Science Center
<b>Asmts in RAM</b>	2015, 2005

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2005	656
<b>SSBmsy</b>	SSBmsy-MT	2015	159
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-pr-ratio	2005	0.125
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2005	1295
<b>SSB0</b>	SSB0-MT	2005	321
<b>MSY</b>	MSY-MT	2015	130
<b>M</b>	M-1/yr	2005	0.26
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2015	99
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

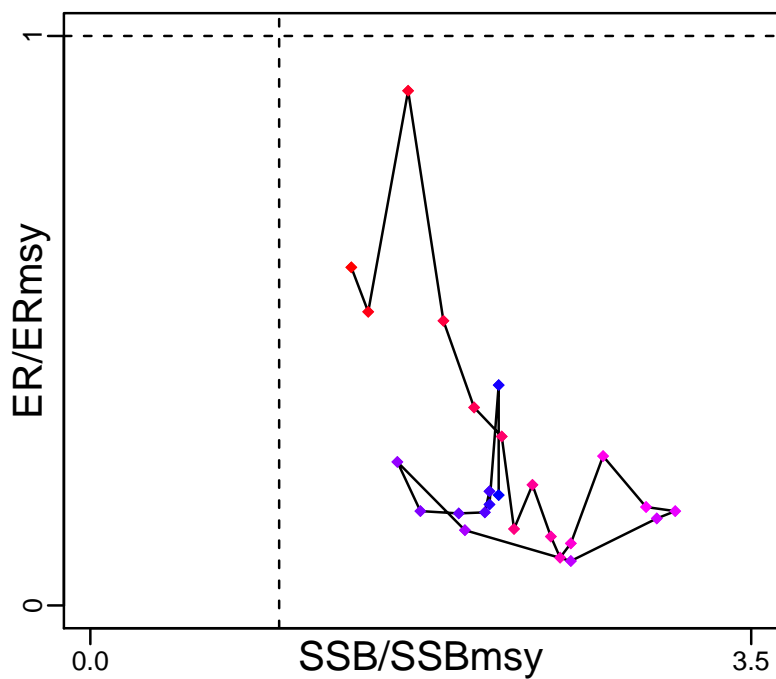
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	1130	-	0+
<b>SSB</b>	SSB-MT	2015	316	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2015	1,410,000	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2015	0.03	-	-
<b>TC</b>	TC-MT	2015	33		
<b>TL</b>	TL-MT	2005	52		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2005	0.951		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2015	1.99		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-pr-ratio	2005	0.594		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Kelp greenling Oregon Coast [KELPGREENLINGORECOAST]

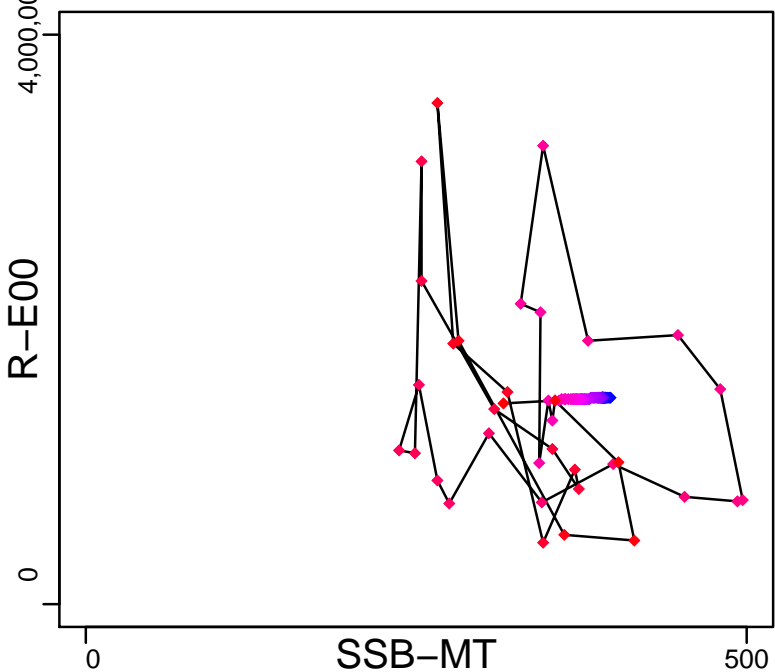
Kobe MSY<sub>pref</sub> (1979–2005–STANTON)



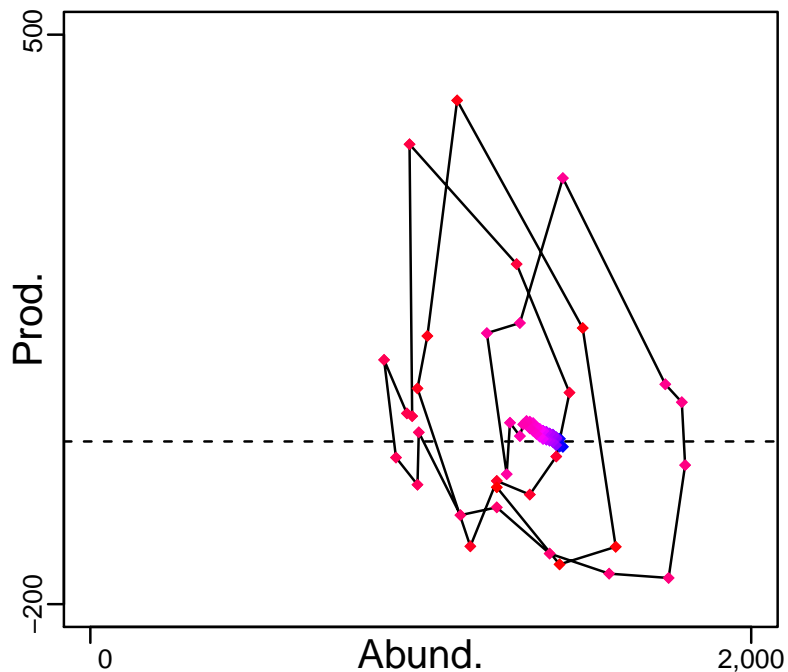
Kobe MGT<sub>pref</sub> (1979–2005–STANTON)



Spawner Recruit (1915–2015–SISIMP2016)



Production (1915–2015–SISIMP2016)

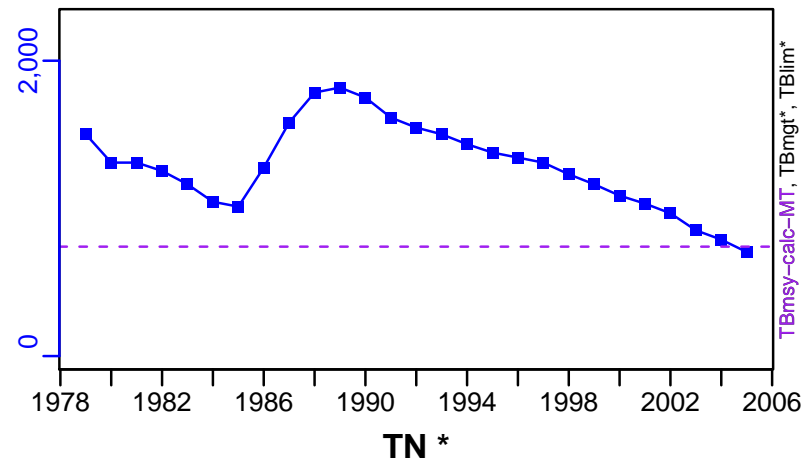


◆ Start Year ◆ End Year \* No Data

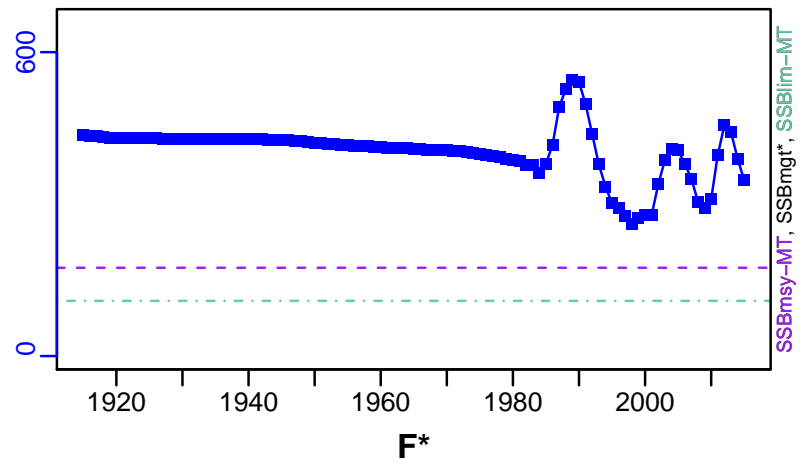


# Kelp greenling Oregon Coast [KELPGREENLINGORECOAST]

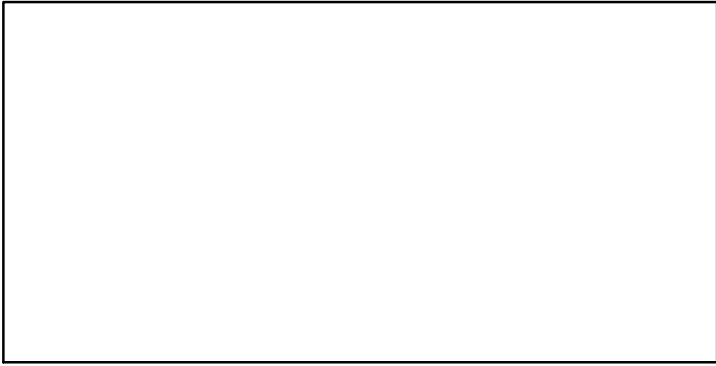
TB-MT (1979–2005–STANTON)



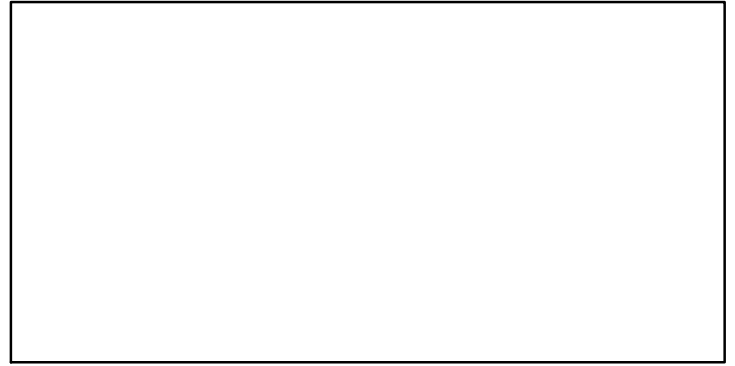
SSB-MT (1915–2015–SISIMP2016)



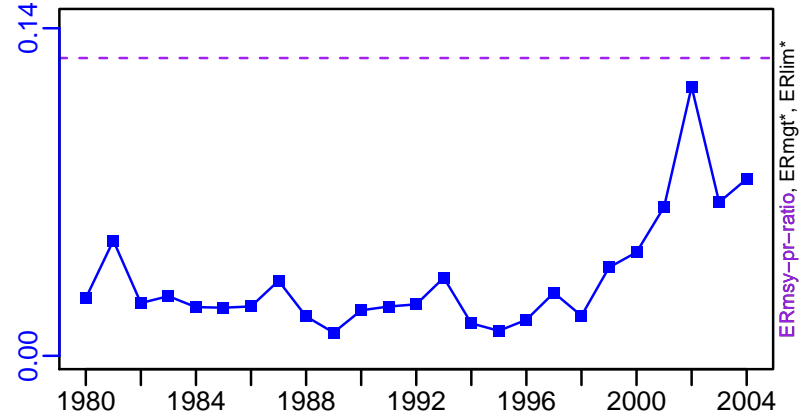
TN \*



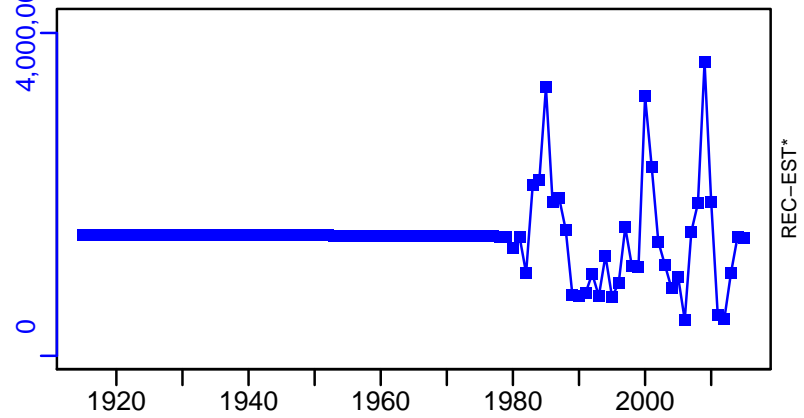
F\*



ER-calc-ratio (1979–2005–STANTON)



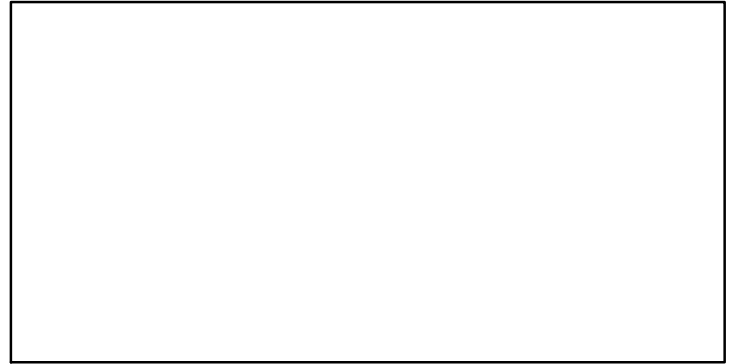
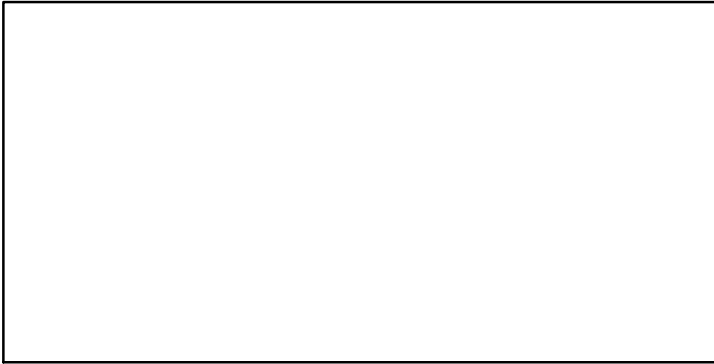
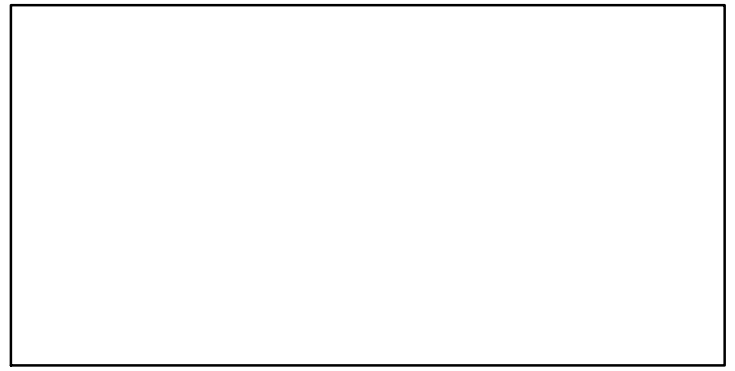
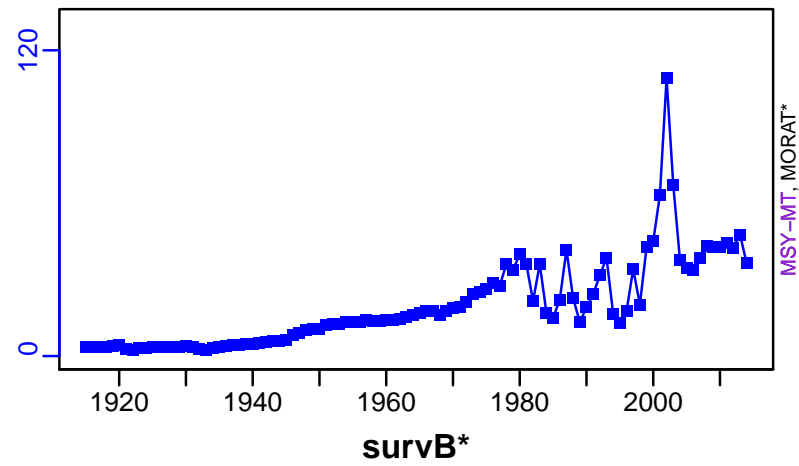
R-E00 (1915–2015–SISIMP2016)



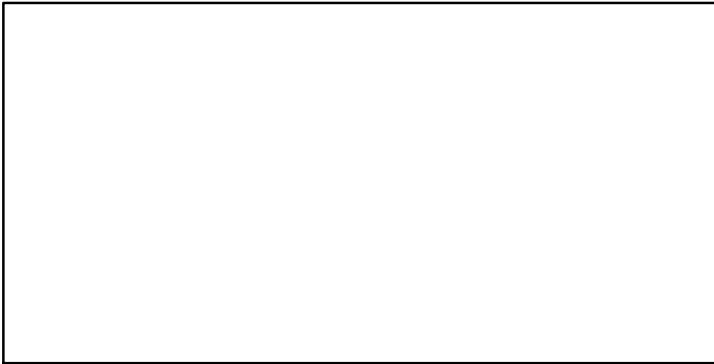
# Kelp greenling Oregon Coast [KELPGREENLINGORECOAST]

TC-MT, TL\*, RecC\* (1915-2015-SISIMP2016)

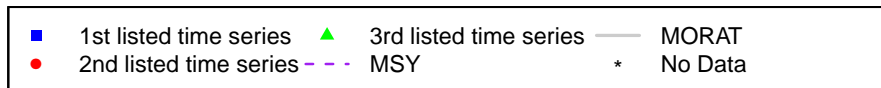
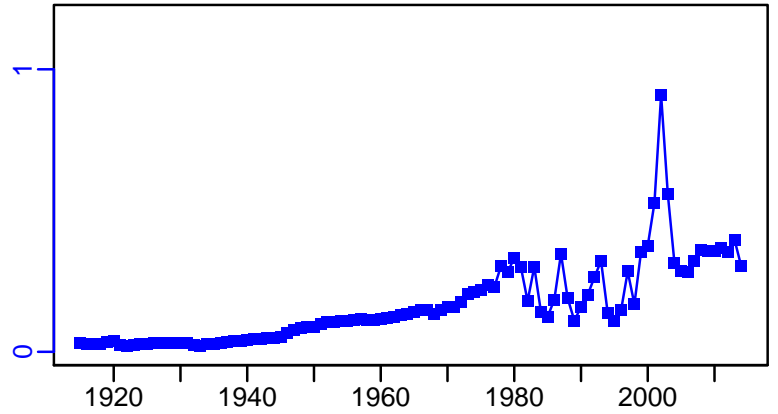
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1915-2015-SISIMP2016)



## Lingcod Northern Pacific Coast [LINGCODNPCOAST]

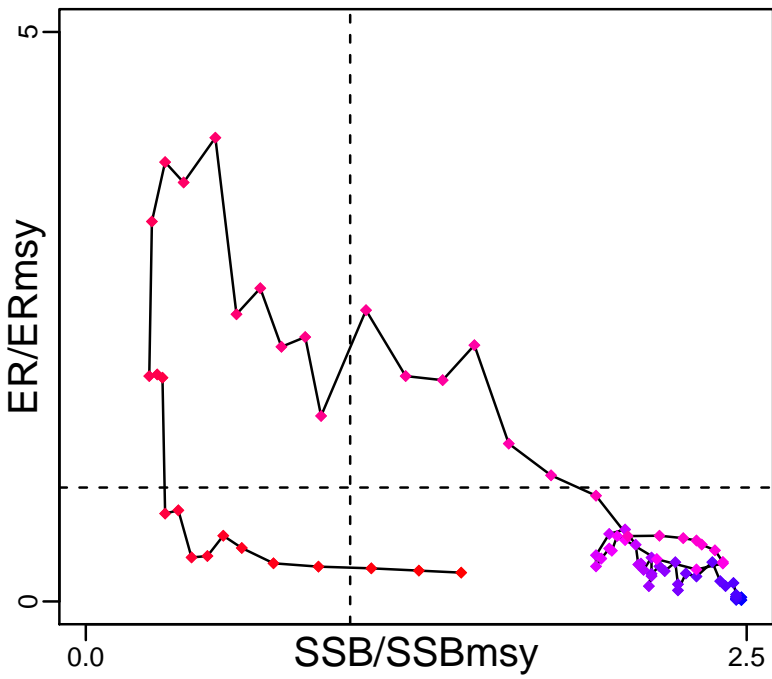
Metadata	
<b>Scientific Name</b>	Ophiodon elongatus
<b>Current Assess ID</b>	NWFSC-LINGCODNPCOAST-1928-2009-STACHURA
<b>Area</b>	Northern Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northwest Fisheries Science Center
<b>Asmts in RAM</b>	2009

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-MT	2009	12,386
<b>SSBmsy</b>	SSBmsy-extr-MT	2009	13,233
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2009	0.14
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2009	44,536
<b>SSB0</b>	SSB0-MT	2009	33,075
<b>MSY</b>	MSY-MT	2009	1734
<b>M</b>	M-1/yr	2009	0.18
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

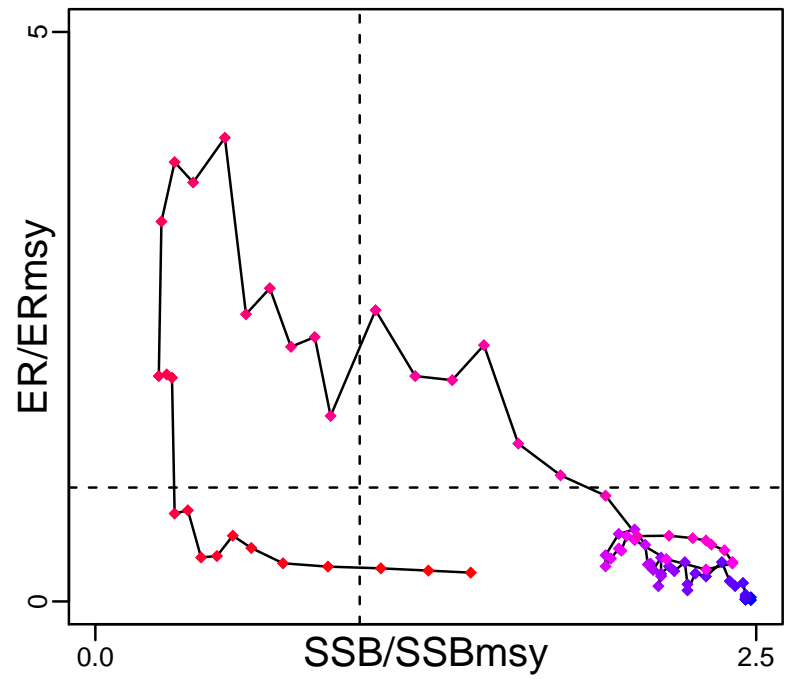
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2009	31,800	-	2+
<b>SSB</b>	SSB-MT	2009	20,500	Females	4.6
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2009	3050	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2009	0.035	-	-
<b>TC</b>	-	-	-		
<b>TL</b>	TL-MT	2009	350		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2009	2.567		
<b>SSB/SSBmsy</b>	SSBdivSSBmsy-dimensionless	2009	1.55		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2009	0.253		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Lingcod Northern Pacific Coast [LINGCODNPCOAST]

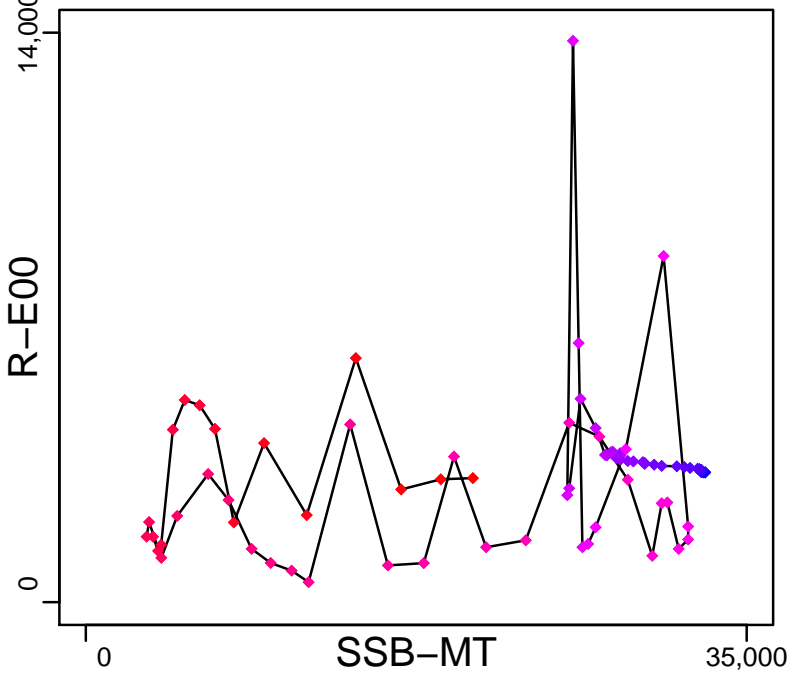
Kobe MSYpref (1928–2009–STACHURA)



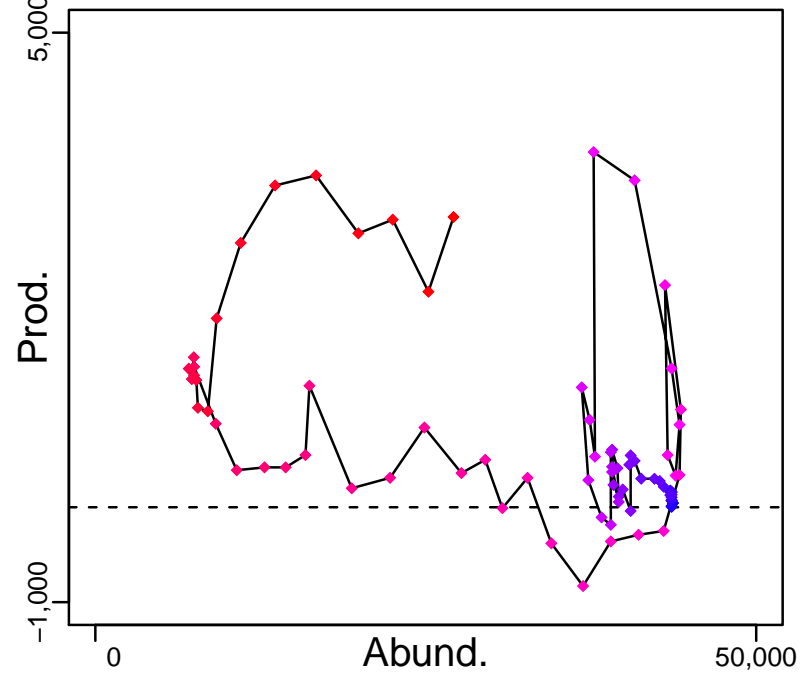
Kobe MGTpref (1928–2009–STACHURA)



Spawner Recruit (1928–2009–STACHURA)



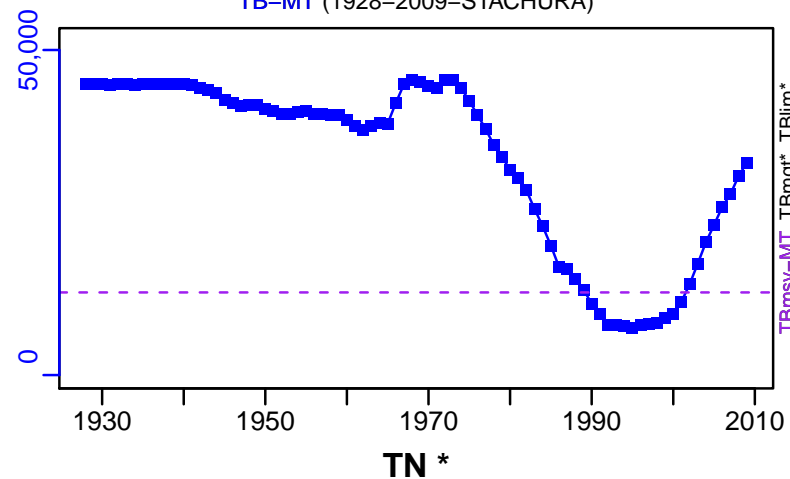
Production (1928–2009–STACHURA)



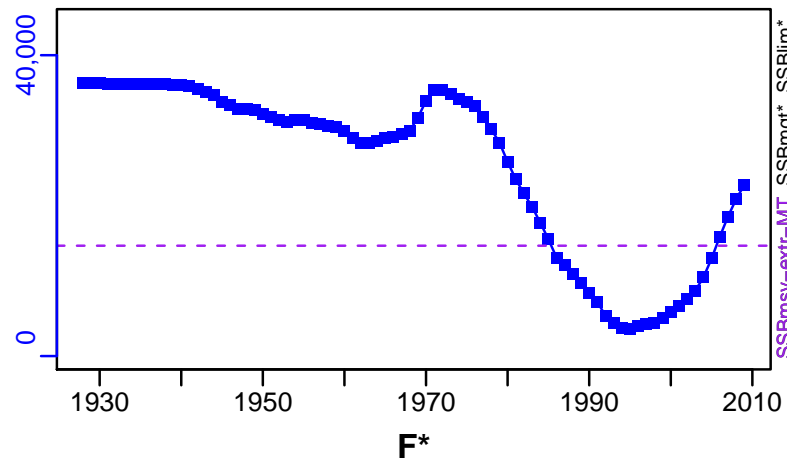
◆ Start Year ◆ End Year \* No Data

# Lingcod Northern Pacific Coast [LINGCODNPCOAST]

TB-MT (1928-2009-STACHURA)



SSB-MT (1928-2009-STACHURA)



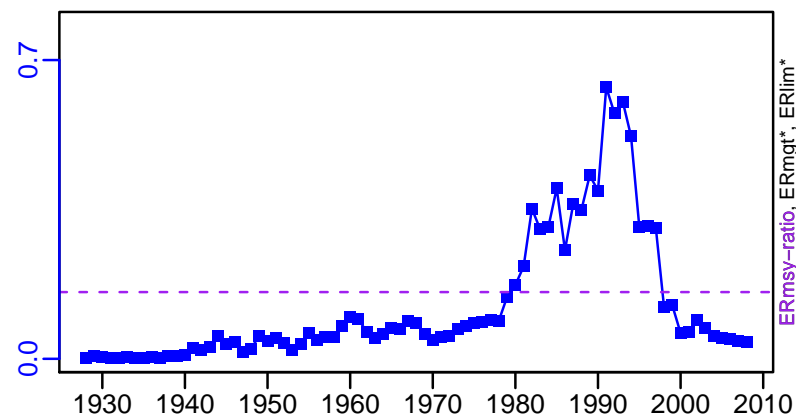
TN \*



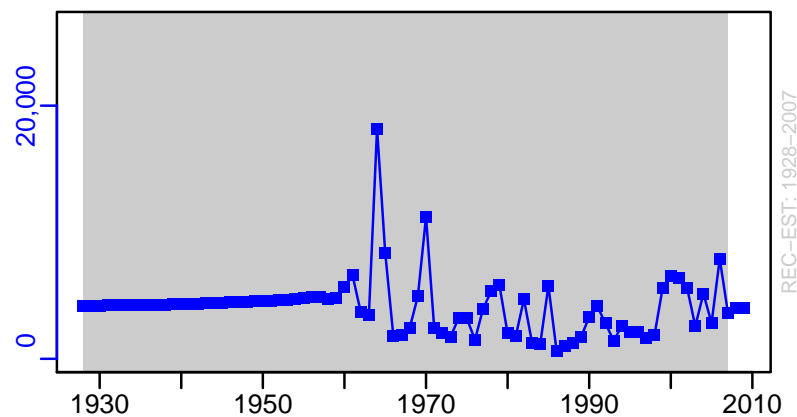
F\*



ER-ratio (1928-2009-STACHURA)



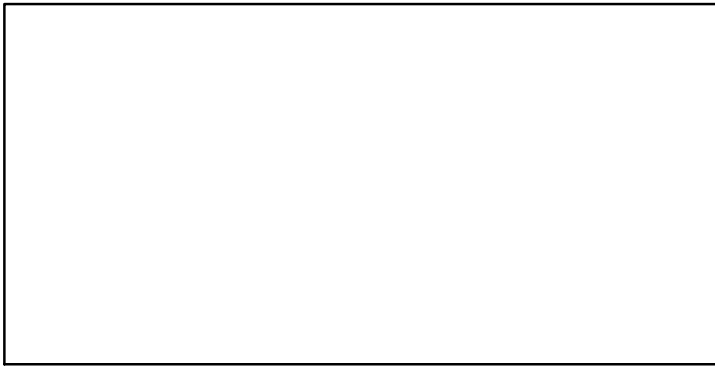
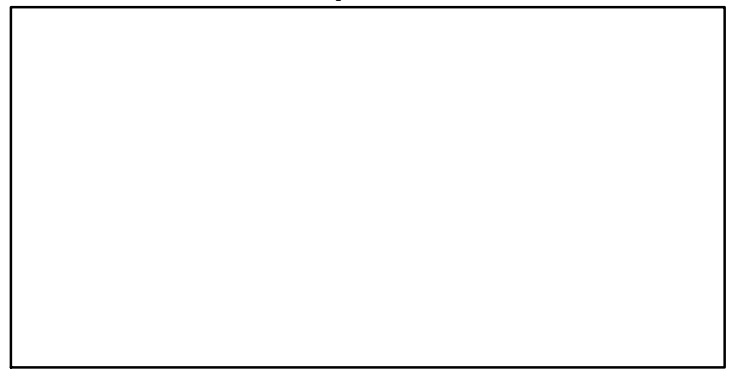
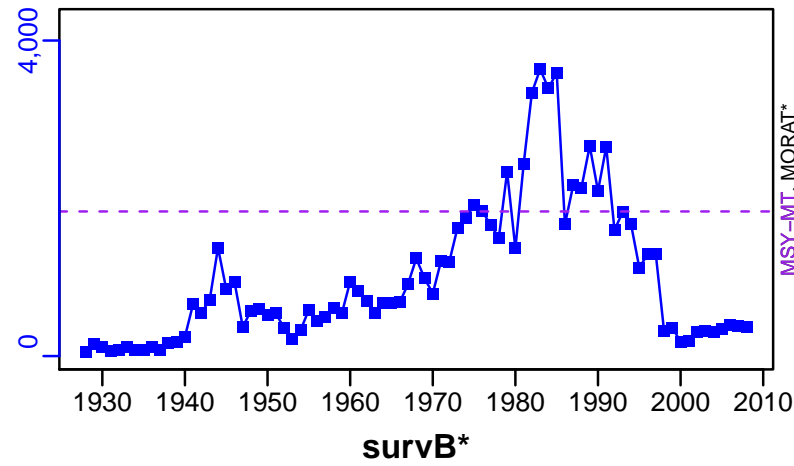
R-E00 (1928-2009-STACHURA)



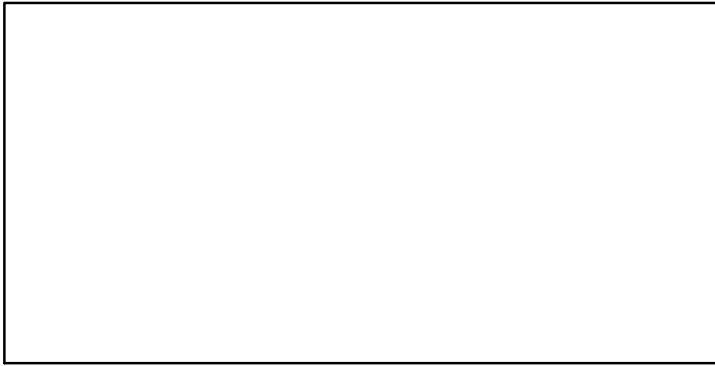
# Lingcod Northern Pacific Coast [LINGCODNPCOAST]

TL-MT, TC\*, RecC\* (1928-2009-STACHURA)

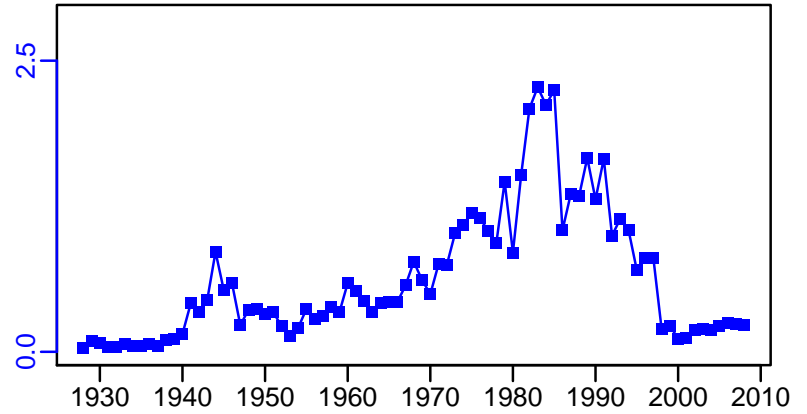
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1928-2009-STACHURA)



## Lingcod Southern Pacific Coast [LINGCODSPCOAST]

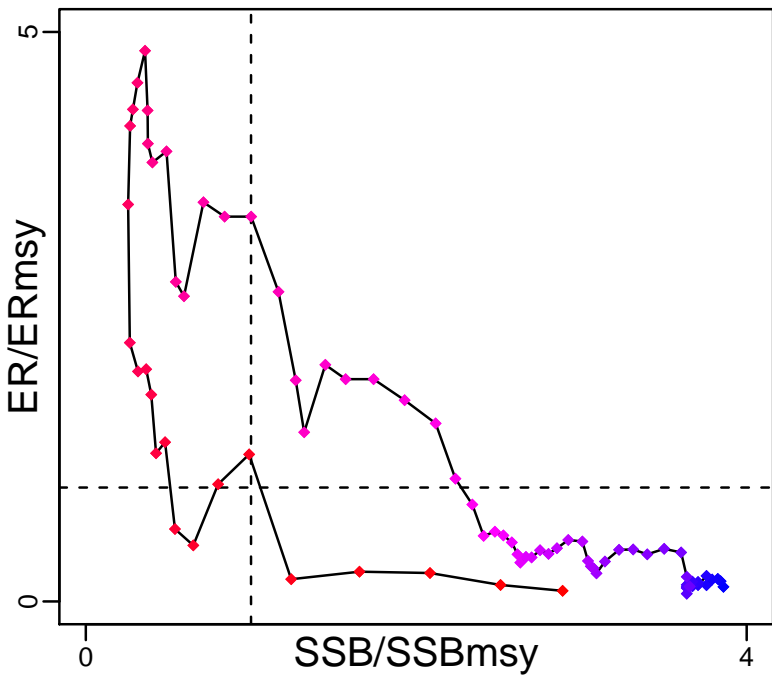
Metadata	
<b>Scientific Name</b>	Ophiodon elongatus
<b>Current Assess ID</b>	NWFSC-LINGCODSPCOAST-1928-2009-STACHURA
<b>Area</b>	Southern Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northwest Fisheries Science Center
<b>Asmts in RAM</b>	2009

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2009	16,291
<b>SSBmsy</b>	SSBmsy-MT	2009	5856
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2009	0.103
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	SSB0-MT	2009	25,311
<b>MSY</b>	MSY-MT	2009	1678
<b>M</b>	M-1/yr	2009	0.18
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

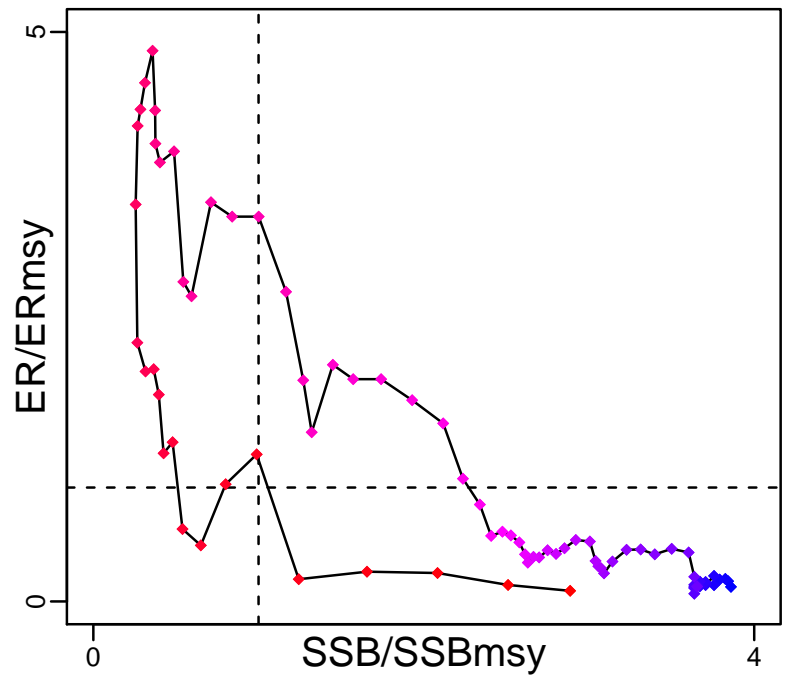
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2009	30,900	-	2+
<b>SSB</b>	SSB-MT	2009	18,700	Females	5
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2009	3440	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2009	0.01	-	-
<b>TC</b>	-	-	-		
<b>TL</b>	TL-MT	2009	171		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2009	1.897		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2009	3.193		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2009	0.093		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Lingcod Southern Pacific Coast [LINGCODSPCOAST]

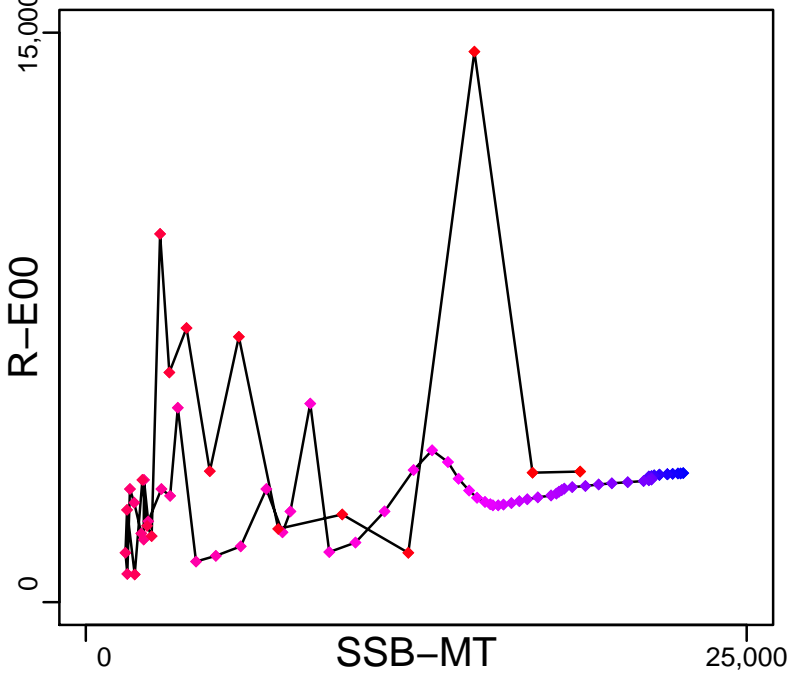
Kobe MSYpref (1928–2009–STACHURA)



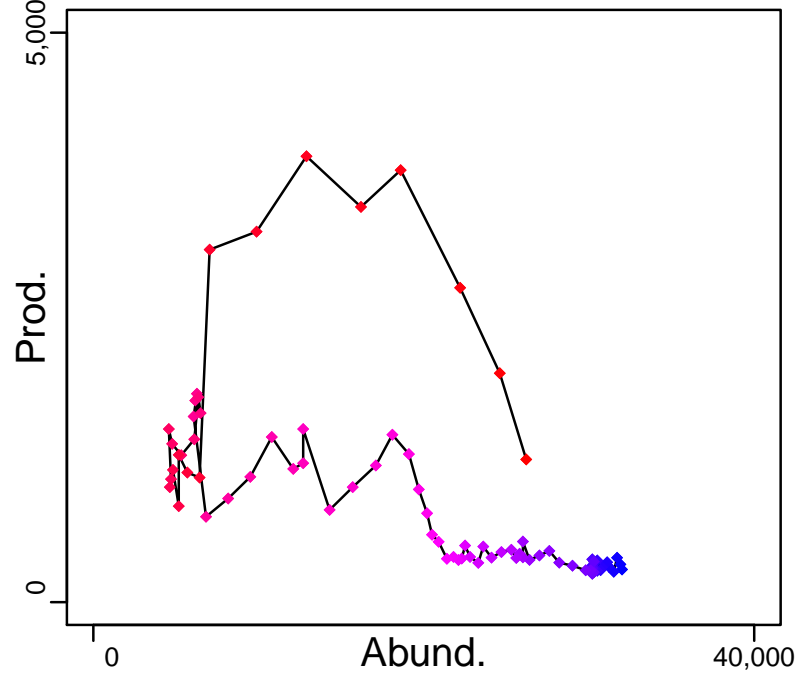
Kobe MGTpref (1928–2009–STACHURA)



Spawner Recruit (1928–2009–STACHURA)



Production (1928–2009–STACHURA)

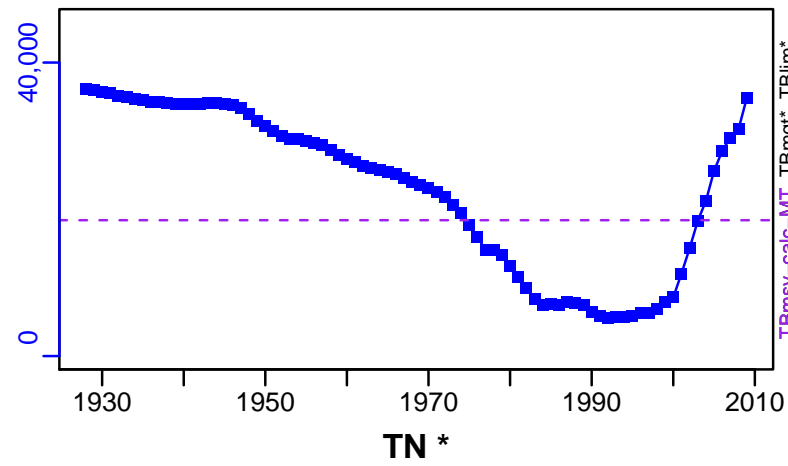


◆ Start Year ◆ End Year \* No Data

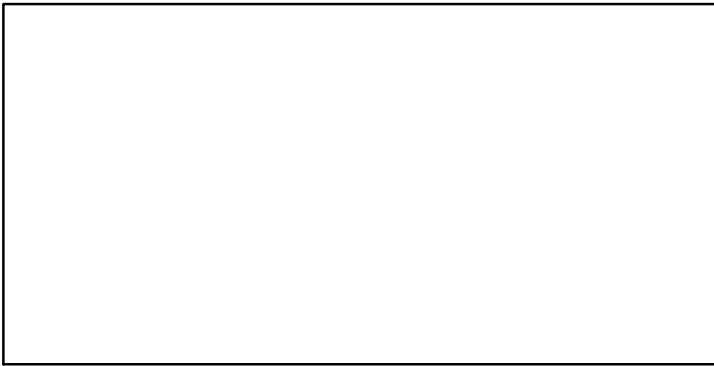
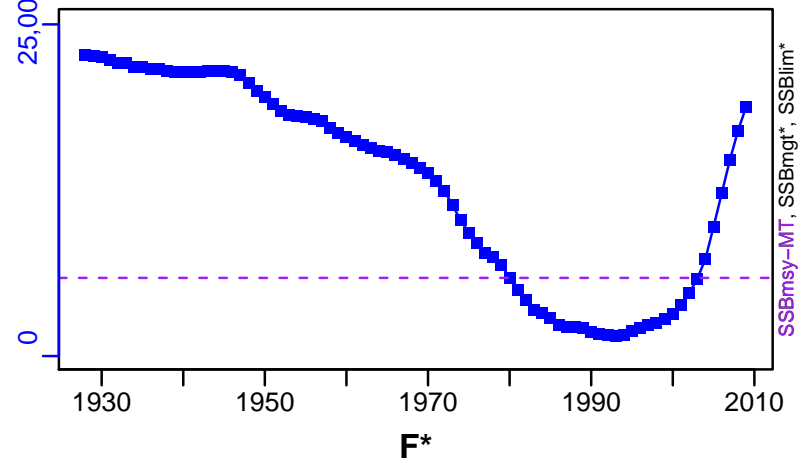


# Lingcod Southern Pacific Coast [LINGCODSPCOAST]

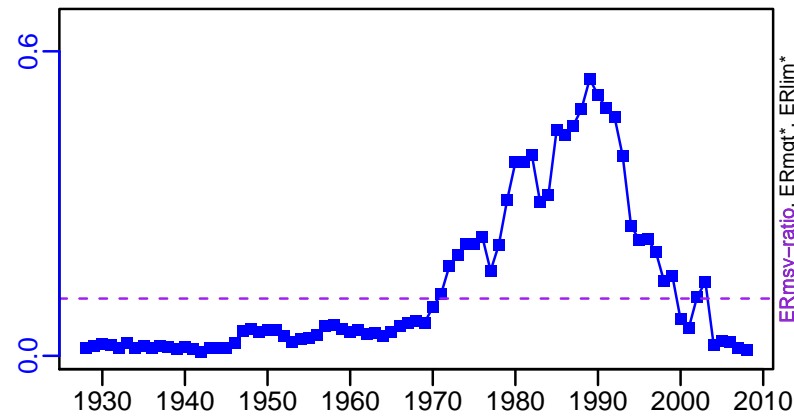
TB-MT (1928-2009-STACHURA)



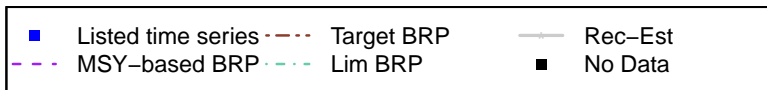
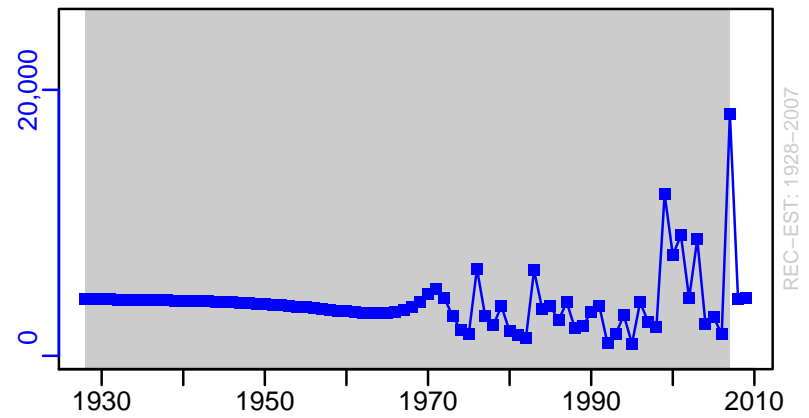
SSB-MT (1928-2009-STACHURA)



ER-ratio (1928-2009-STACHURA)



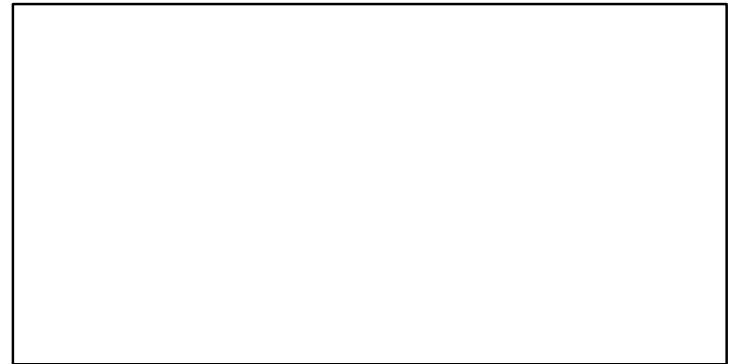
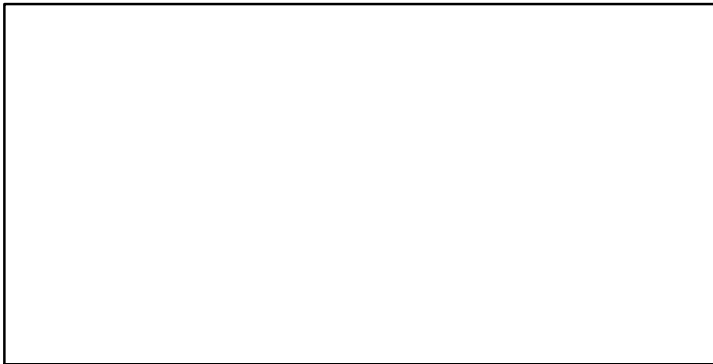
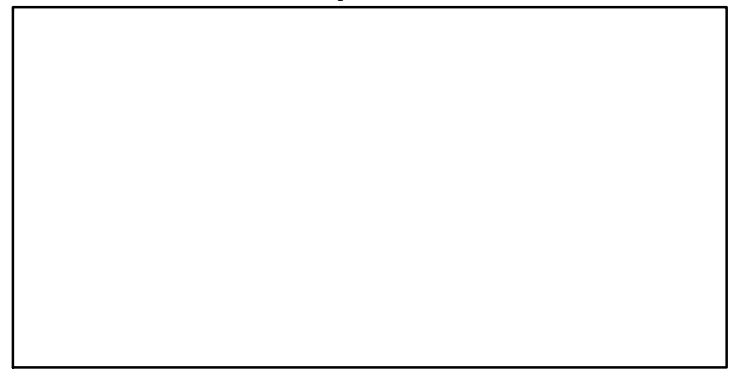
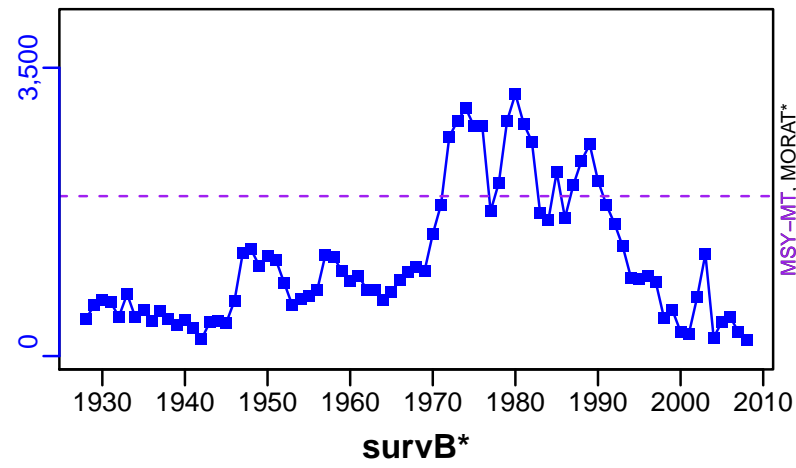
R-E00 (1928-2009-STACHURA)



# Lingcod Southern Pacific Coast [LINGCODSPCOAST]

TL-MT, TC\*, RecC\* (1928-2009-STACHURA)

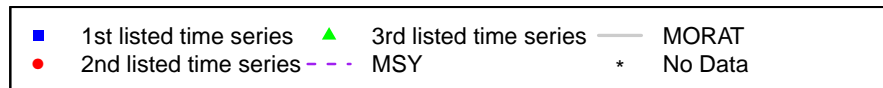
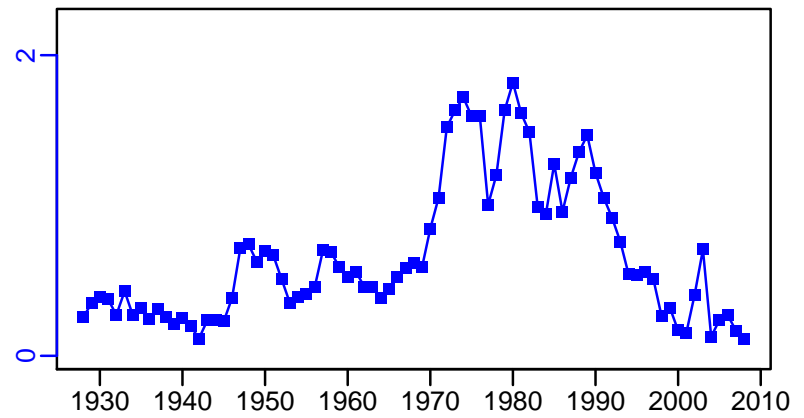
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1928-2009-STACHURA)



## Longnose skate Pacific Coast [LNOSESKAPCOAST]

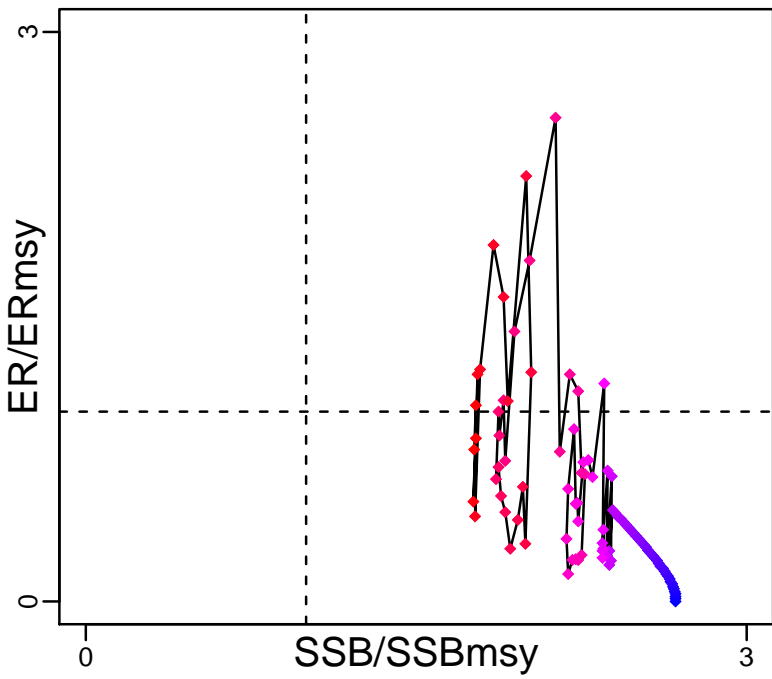
Metadata	
<b>Scientific Name</b>	Raja rhina
<b>Current Assess ID</b>	NWFSC-LNOSESKAPCOAST-1915-2007-BRANCH
<b>Area</b>	Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northwest Fisheries Science Center
<b>Asmts in RAM</b>	2007

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2007	46,963
<b>SSBmsy</b>	SSBmsy-MT	2007	2626
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2007	0.027
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	SSB0-MT	2007	7034
<b>MSY</b>	MSY-MT	2007	1268
<b>M</b>	M-1/yr	2007	0.2
<b>TBlim</b>	TBlim-MT	2007	4617
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

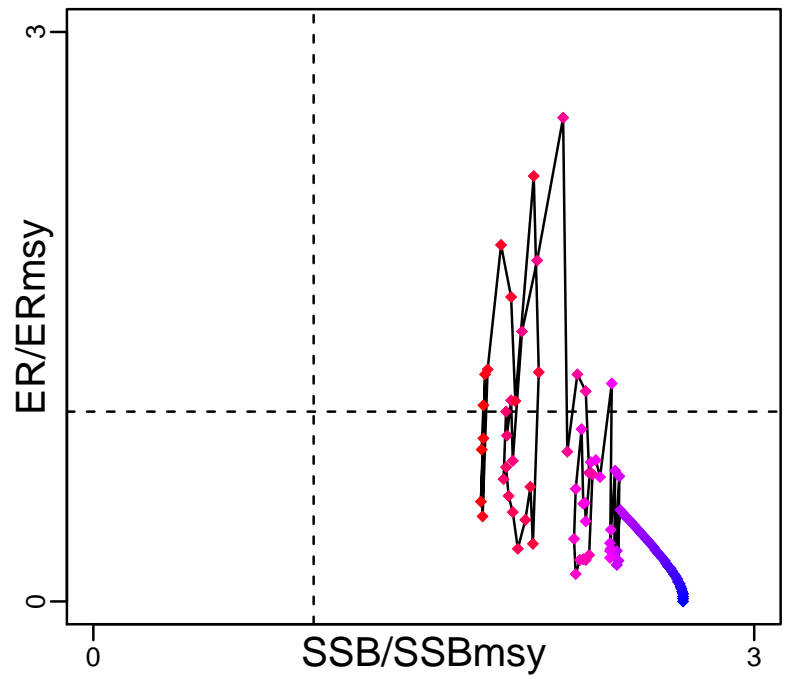
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2007	71,200	-	0+
<b>SSB</b>	SSB-MT	2007	4630	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2007	12,900,000	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2007	0.022	-	-
<b>TC</b>	TC-MT	2007	899		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2007	1.516		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2007	1.763		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2007	0.8		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Longnose skate Pacific Coast [LNOSESKAPCOAST]

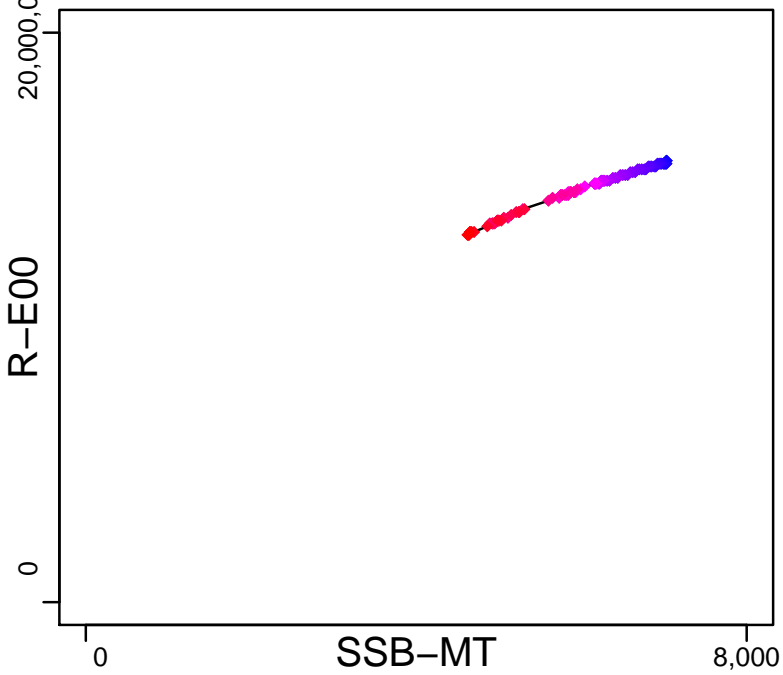
Kobe MSYpref (1915–2007–BRANCH)



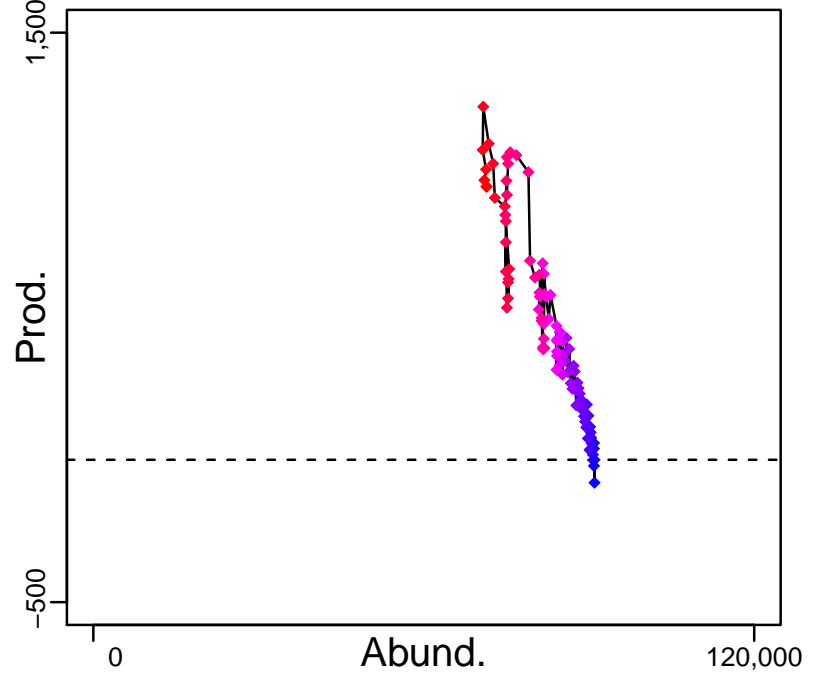
Kobe MGTpref (1915–2007–BRANCH)



Spawner Recruit (1915–2007–BRANCH)



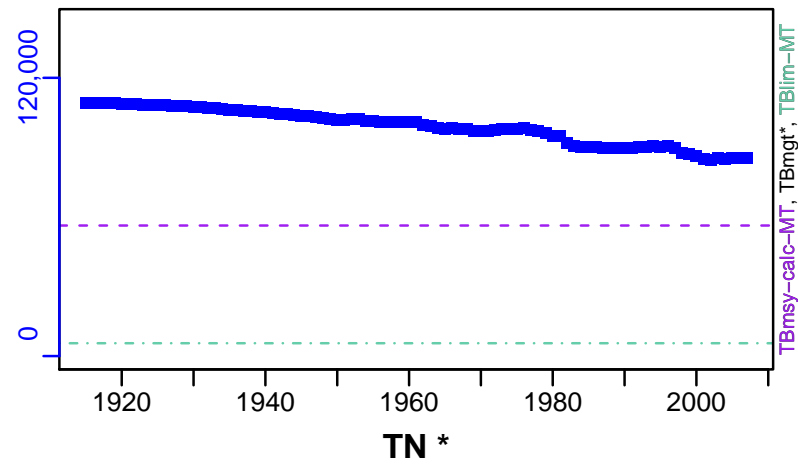
Production (1915–2007–BRANCH)



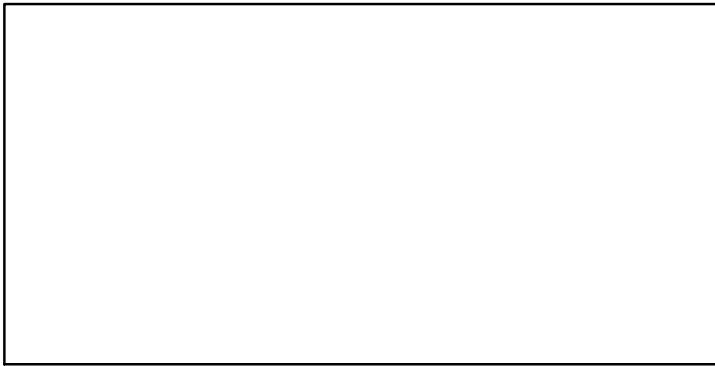
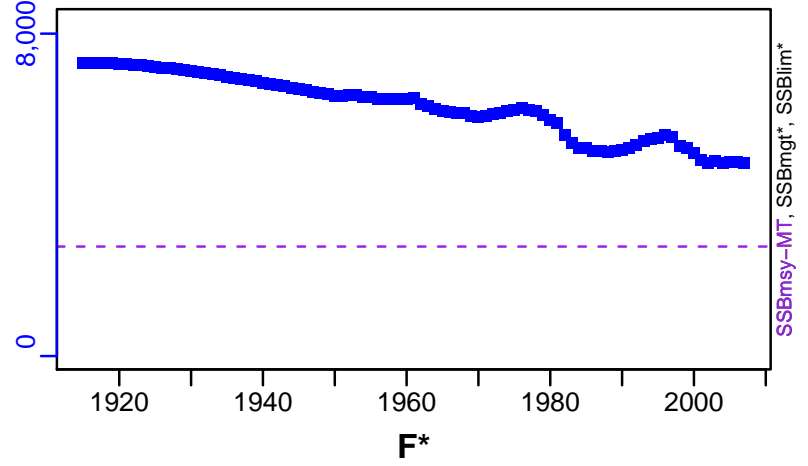
◆ Start Year ◆ End Year \* No Data

# Longnose skate Pacific Coast [LNOSESKAPCOAST]

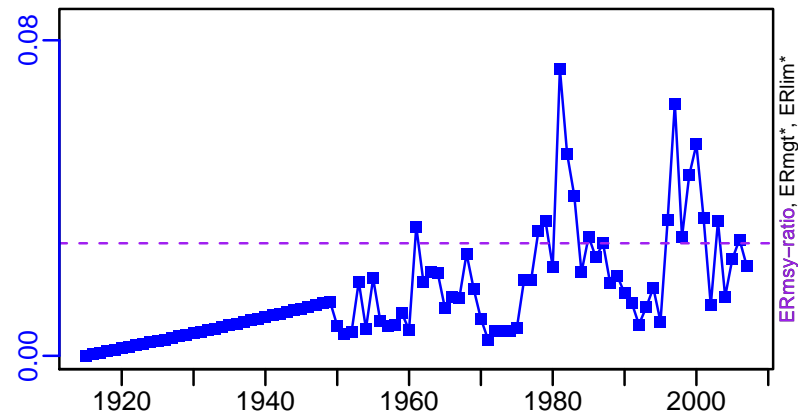
TB-MT (1915-2007-BRANCH)



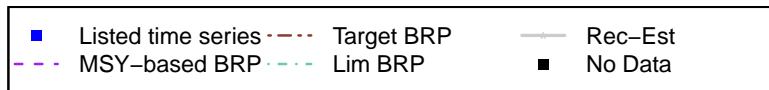
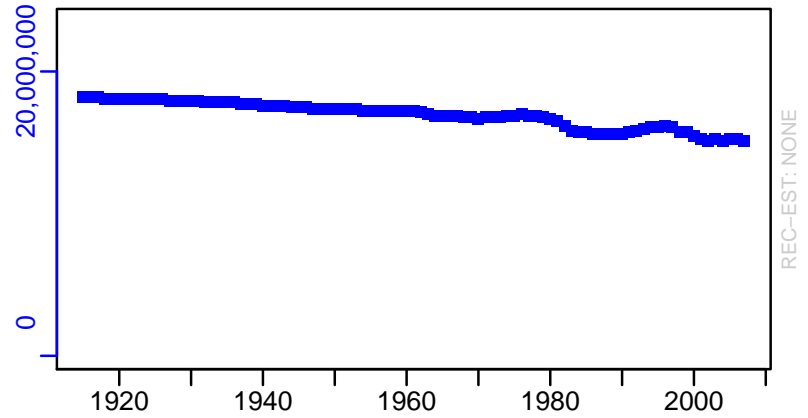
SSB-MT (1915-2007-BRANCH)



ER-ratio (1915-2007-BRANCH)



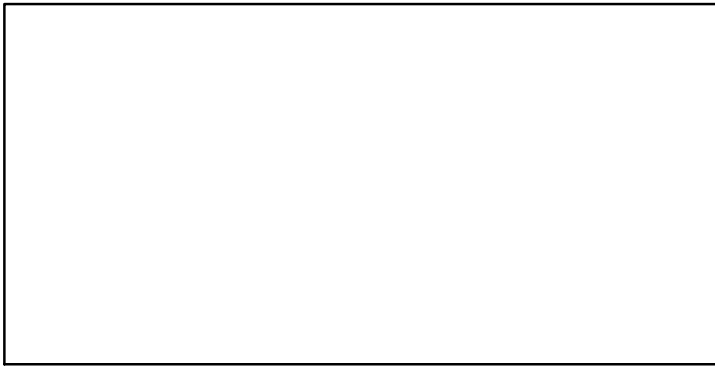
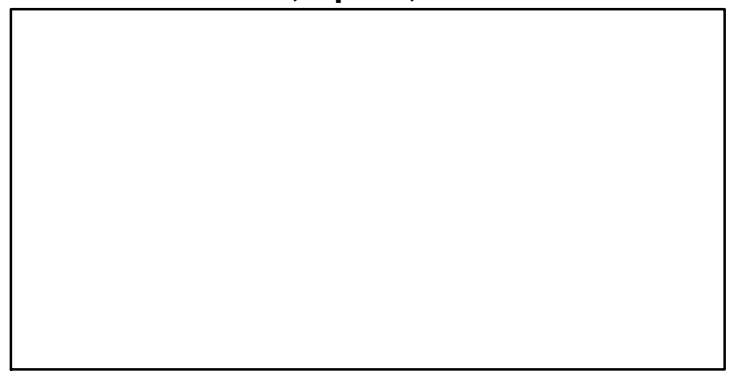
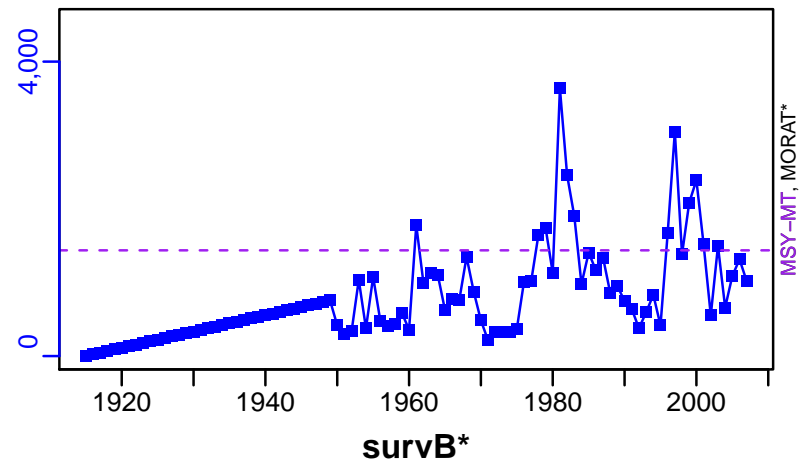
R-E00 (1915-2007-BRANCH)



# Longnose skate Pacific Coast [LNOSESKAPCOAST]

TC-MT, TL\*, RecC\* (1915-2007-BRANCH)

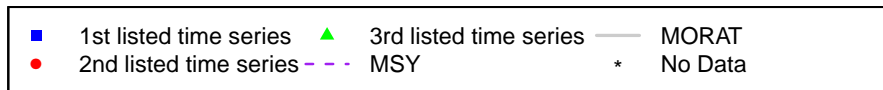
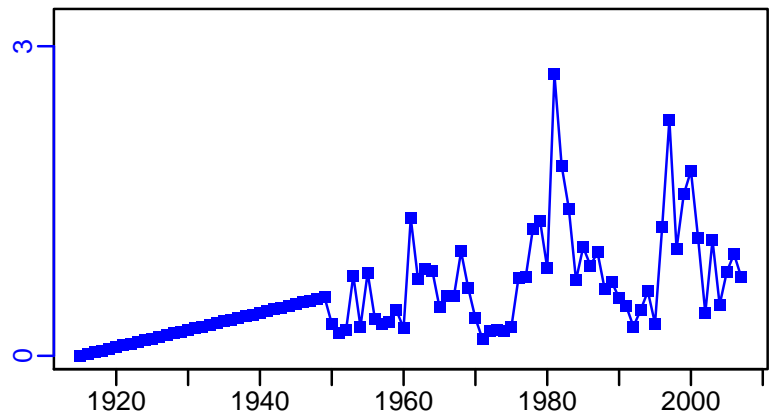
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1915-2007-BRANCH)



## Longspine thornyhead Pacific Coast [LSTHORNHPCOAST]

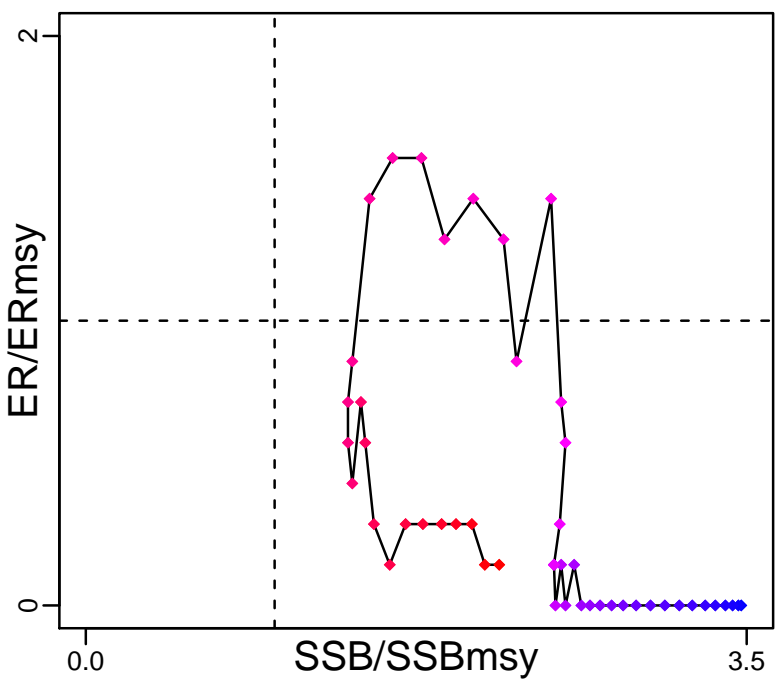
Metadata	
<b>Scientific Name</b>	Sebastes altivelis
<b>Current Assess ID</b>	NWFSC-LSTHORNHPCOAST-1964-2012-HIVELY
<b>Area</b>	Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northwest Fisheries Science Center
<b>Asmts in RAM</b>	2012

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2012	36,129
<b>SSBmsy</b>	SSBmsy-MT	2012	13,108
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2012	0.07
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2012	15,654
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	ERmgt-ratio	2012	0.06
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2012	2529
<b>M</b>	M-1/yr	2012	0.11
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

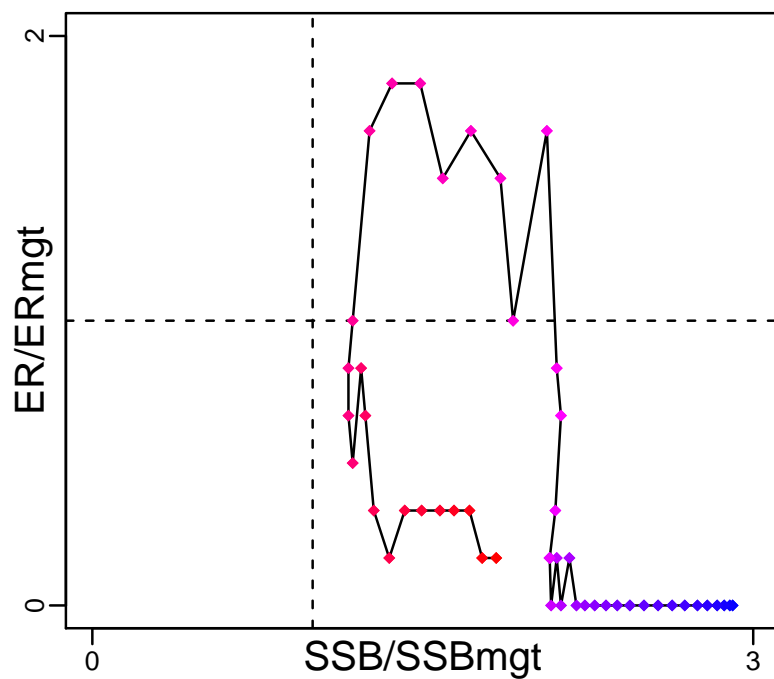
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2012	68,300	-	2+
<b>SSB</b>	SSB-MT	2012	28,700	Females	12 to 15
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2012	$1.33 \times 10^8$	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2012	0.01	-	-
<b>TC</b>	TC-MT	2012	871		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2012	1.89		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2012	2.19		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2012	0.143		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2012	1.833		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Longspine thornyhead Pacific Coast [LSTHORNHPCOAST]

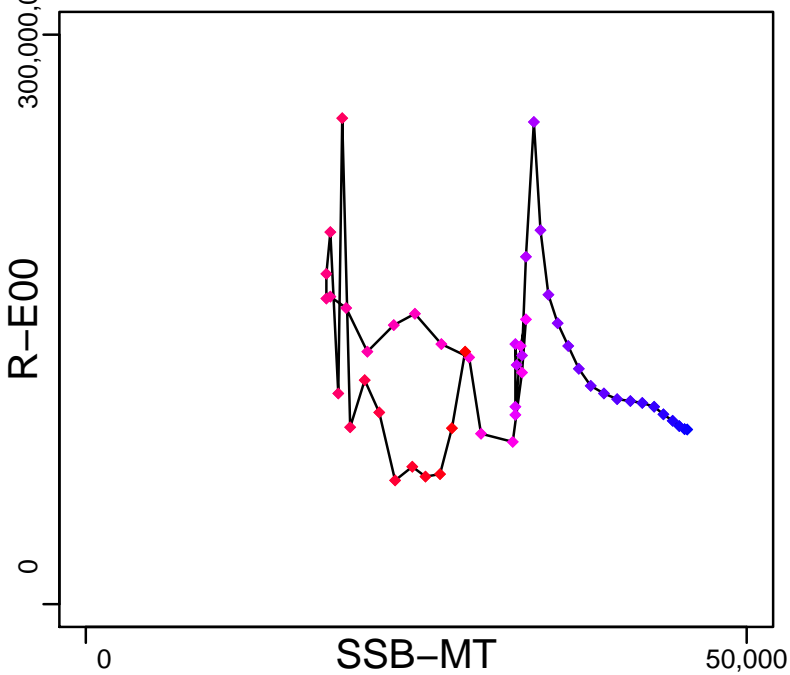
Kobe MSYpref (1964–2012–HIVELY)



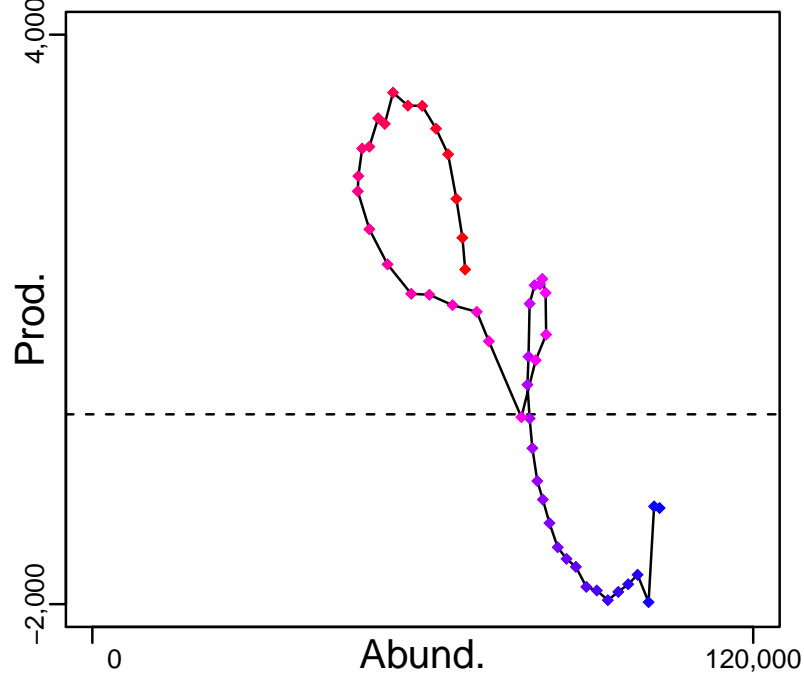
Kobe MGTpref (1964–2012–HIVELY)



Spawner Recruit (1964–2012–HIVELY)



Production (1964–2012–HIVELY)

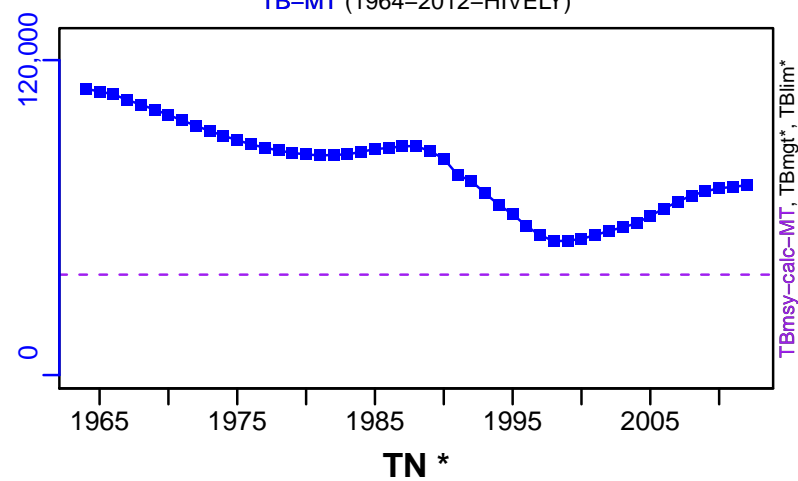


◆ Start Year ◆ End Year \* No Data

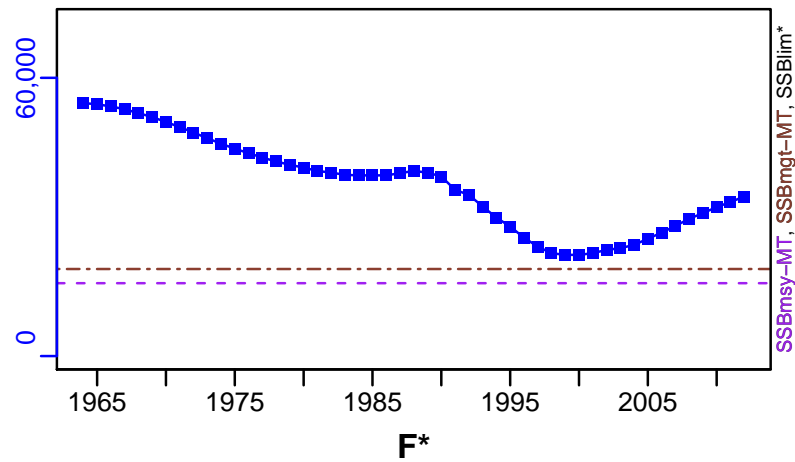


# Longspine thornyhead Pacific Coast [LSTHORNHPCOAST]

TB-MT (1964–2012–HIVELY)



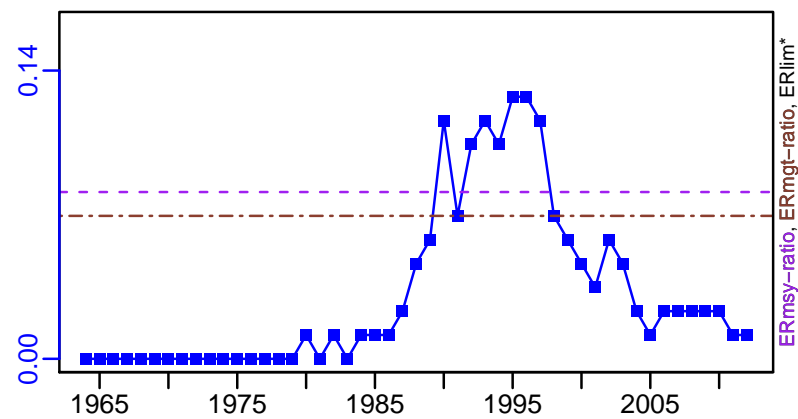
SSB-MT (1964–2012–HIVELY)



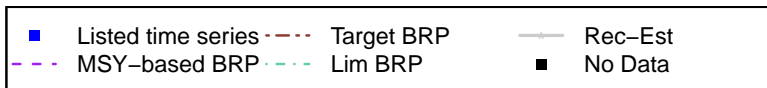
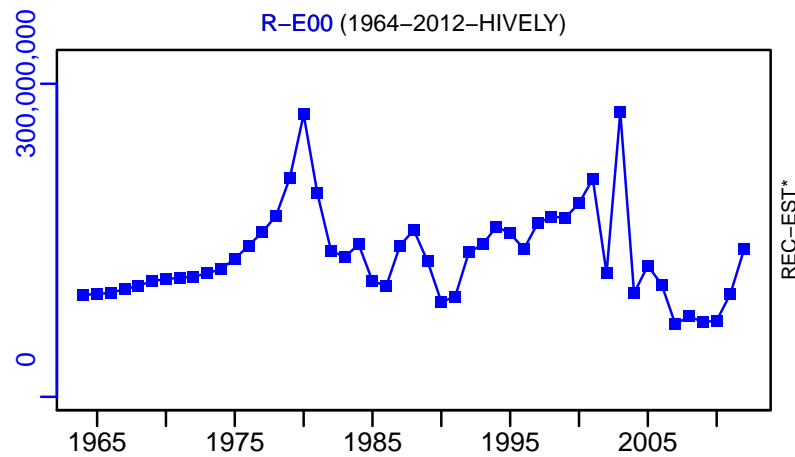
TN \*

F\*

ER-ratio (1964–2012–HIVELY)



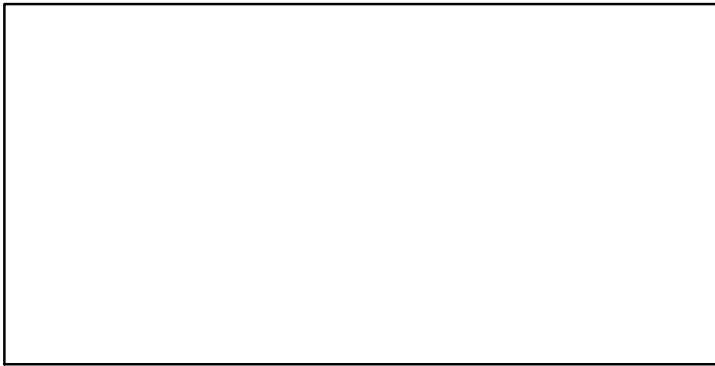
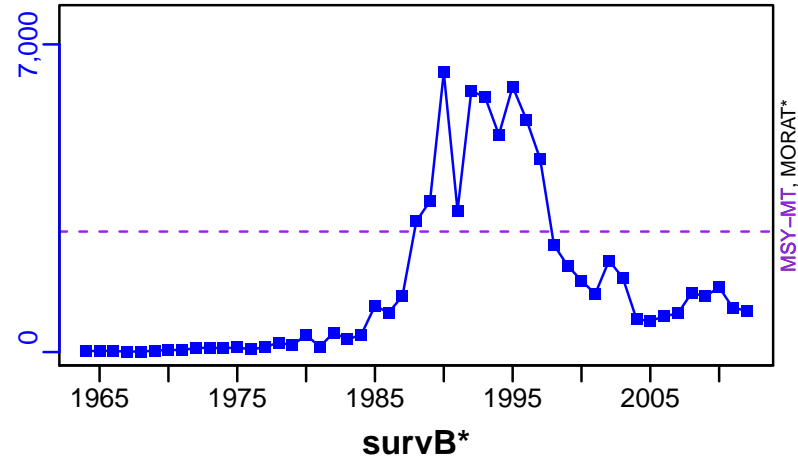
R-E00 (1964–2012–HIVELY)



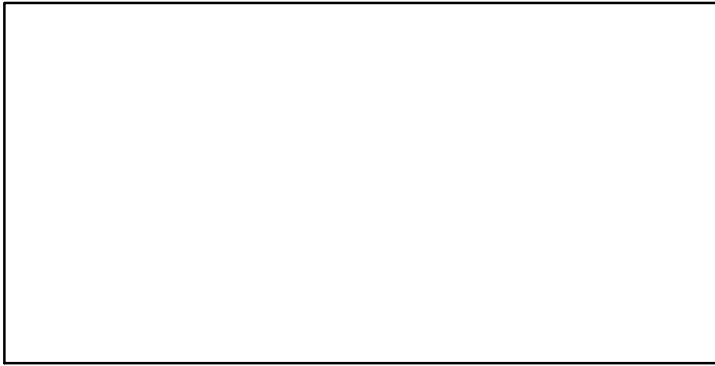
# Longspine thornyhead Pacific Coast [LSTHORNHPCOAST]

TC-MT, TL\*, RecC\* (1964–2012–HIVELY)

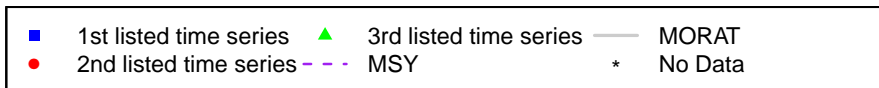
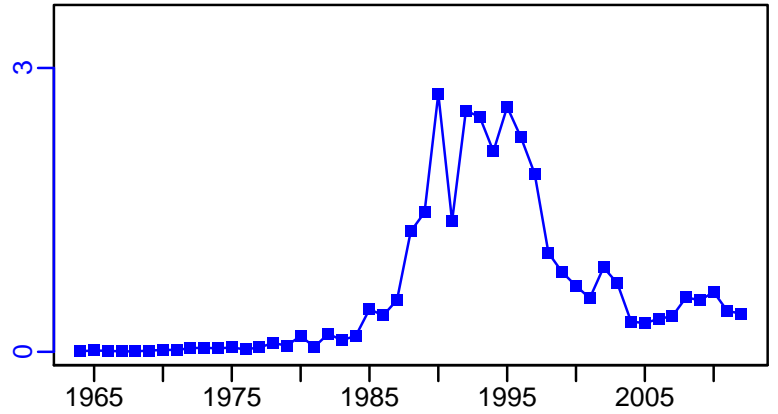
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1964–2012–HIVELY)



## Pacific Geoduck Washington [PGEODWA]

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

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

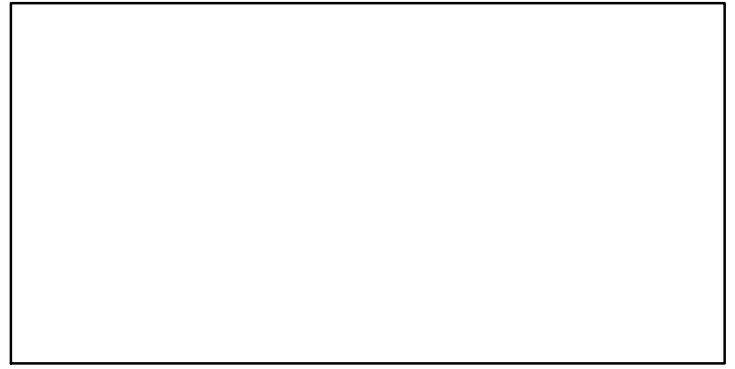
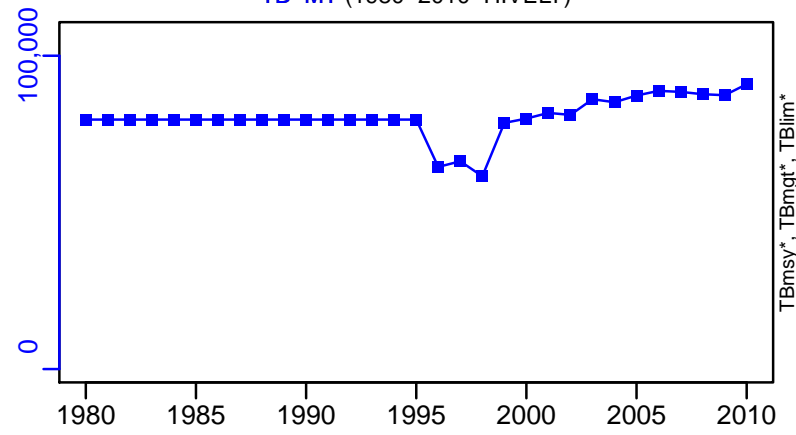
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2010	85,400	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-ratio	2010	0.025	-	-
TC	TC-MT	2010	2150		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-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



# Pacific Geoduck Washington [PGEODWA]

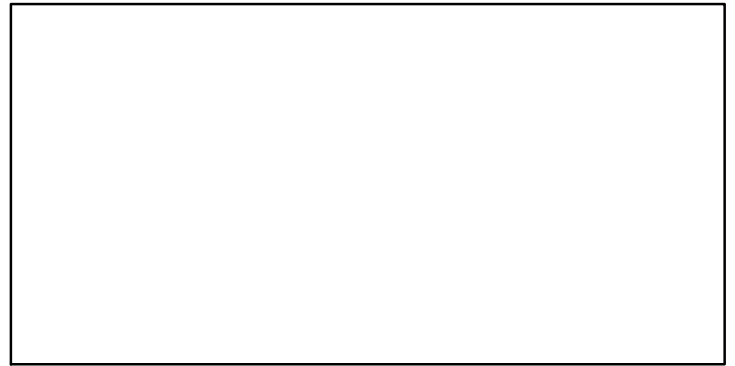
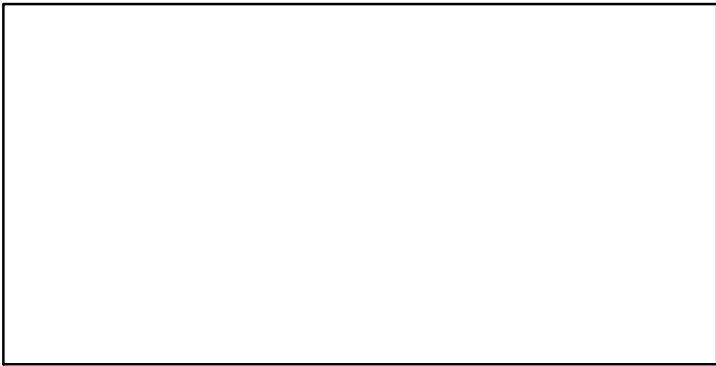
TB-MT (1980-2010-HIVELY)

SSB\*



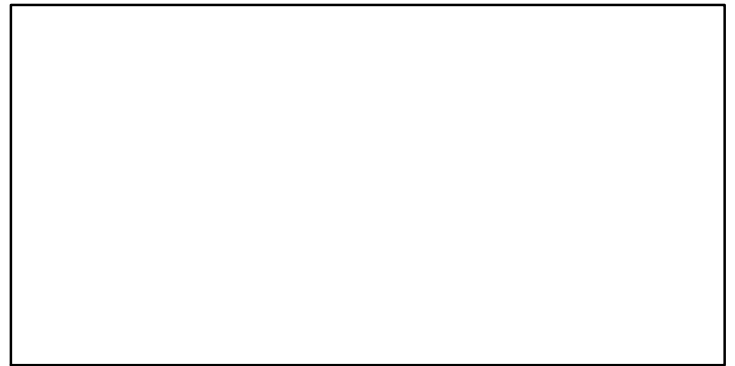
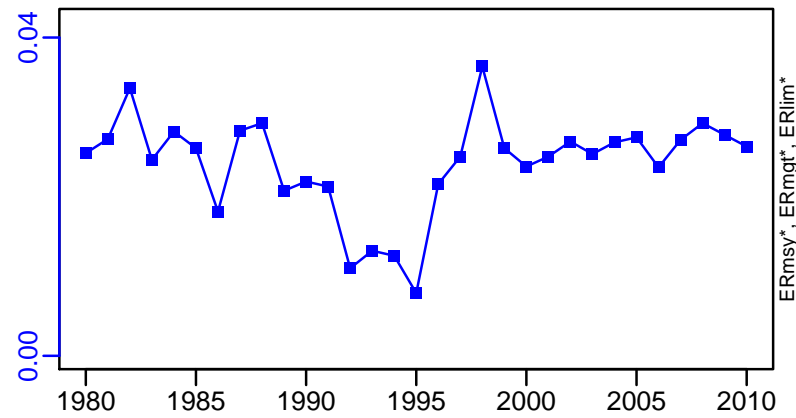
TN \*

F\*



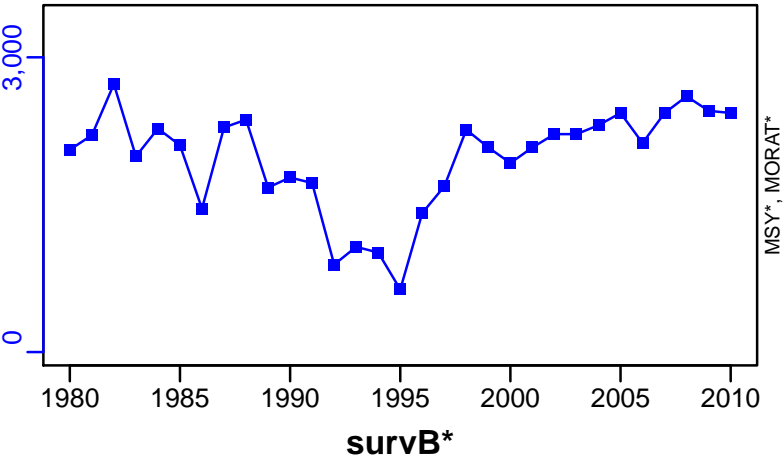
ER-ratio (1980-2010-HIVELY)

Recruits\*



Pacific Geoduck Washington [PGEODWA]

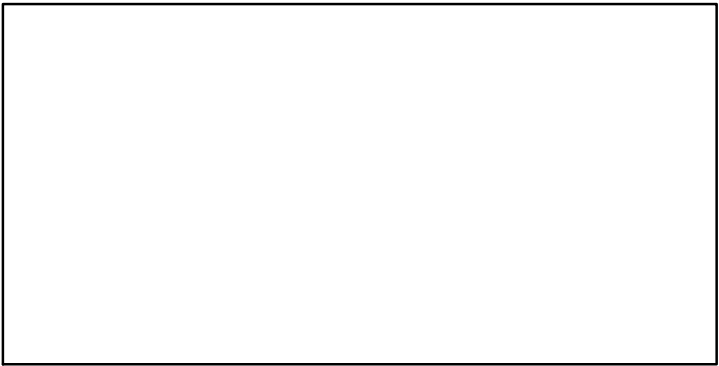
TC-MT, TL\*, RecC\* (1980-2010-HIVELY)



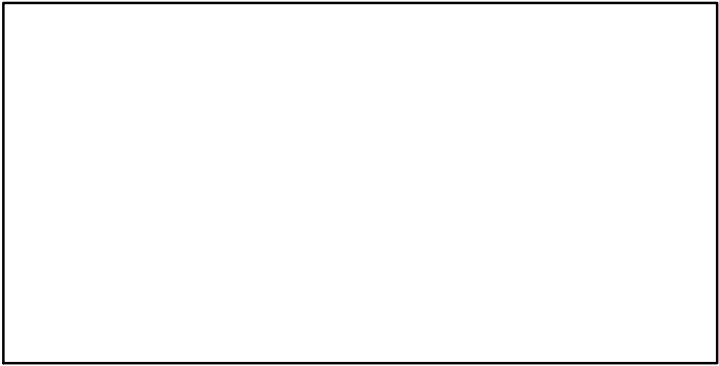
TAC\*, Cpair\*, Cadv\*



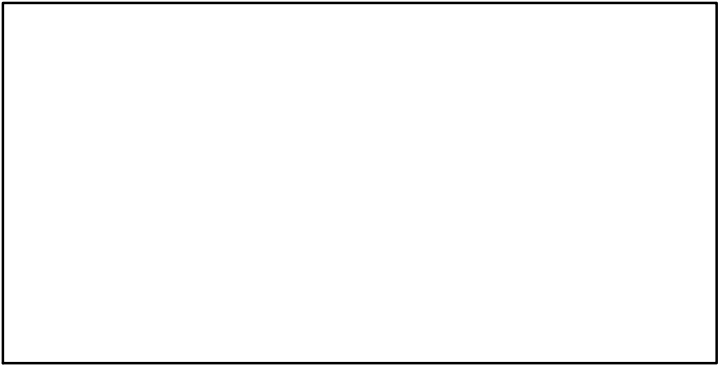
CPUE\*



EFFORT\*



CdivMSY\*



## Pacific hake Pacific Coast [PHAKEPCOAST]

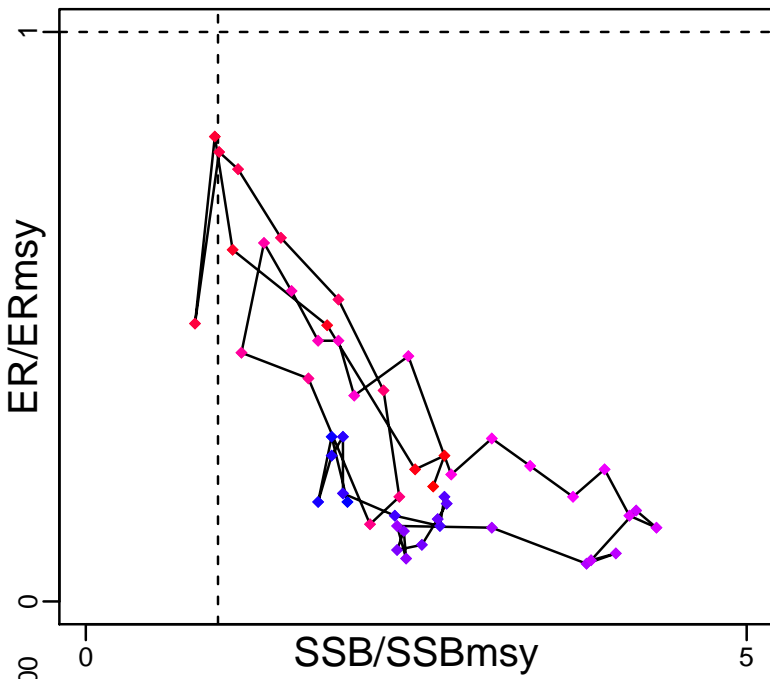
Metadata	
<b>Scientific Name</b>	Merluccius productus
<b>Current Assess ID</b>	PFMC-PHAKEPCOAST-1966-2016-WATSON
<b>Area</b>	Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Pacific Fishery Management Council
<b>Asmts in RAM</b>	2015, 2016

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2016	1,222,892
<b>SSBmsy</b>	SSBmsy-MT	2016	586,000
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2016	0.332
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2016	959,000
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	ERmgt-ratio	2016	0.19
<b>TB0</b>	-	-	-
<b>SSB0</b>	SSB0-MT	2016	2,397,000
<b>MSY</b>	MSY-MT	2016	406,000
<b>M</b>	M-1/yr	2016	0.226
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

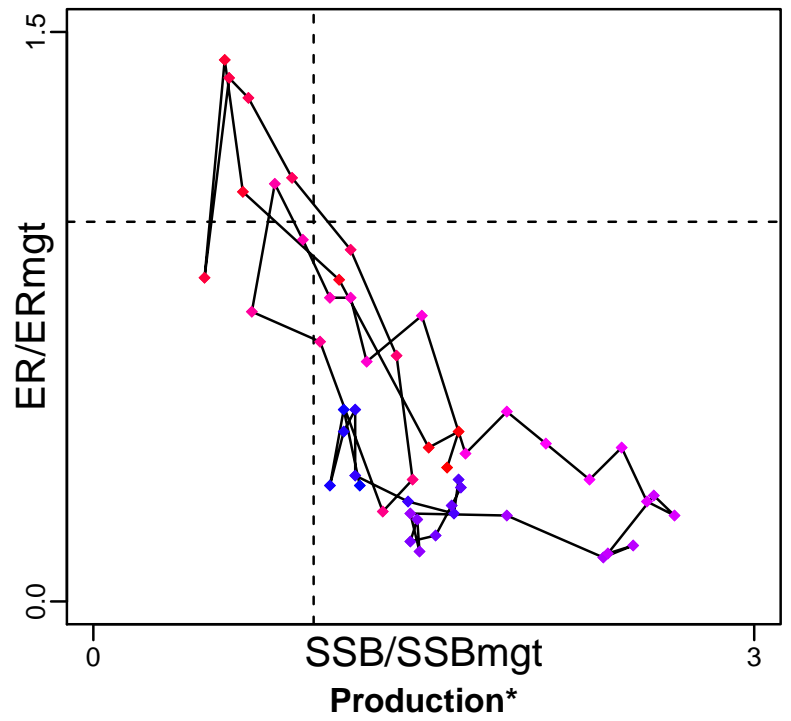
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	-	-	-	-	-
<b>SSB</b>	SSB-MT	2016	1,890,000	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2016	$1.22 \times 10^9$	-	-
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2016	0.067	-	-
<b>TC</b>	TC-MT	2016	191,000		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2016	3.225		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2016	0.202		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2016	1.971		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Pacific hake Pacific Coast [PHAKEPCOAST]

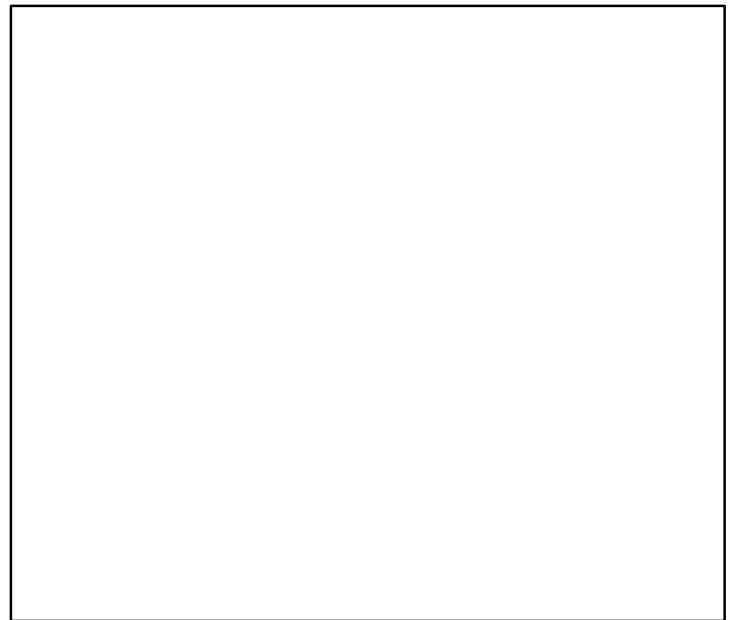
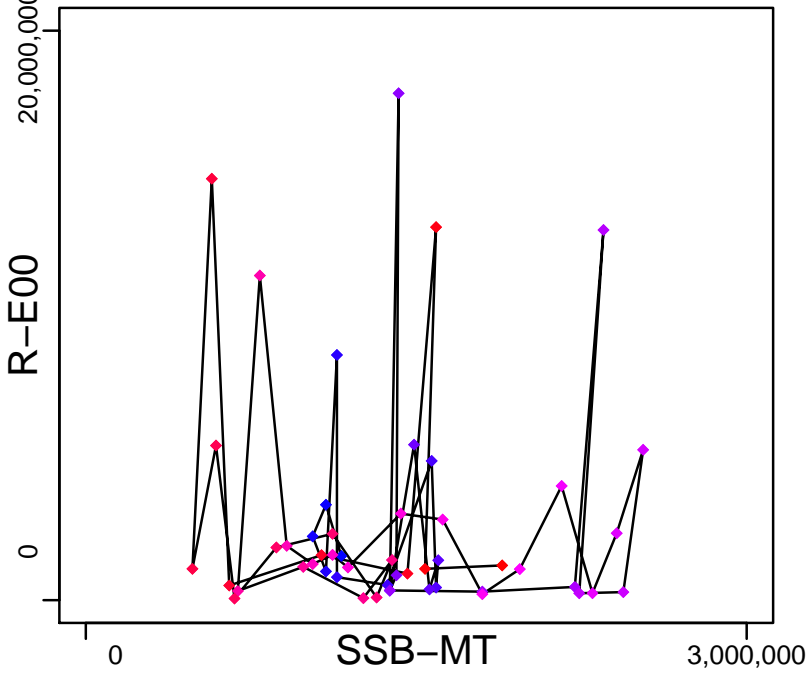
Kobe MSYpref (1966–2016–WATSON)



Kobe MGTpref (1966–2016–WATSON)



Spawner Recruit (1966–2016–WATSON)

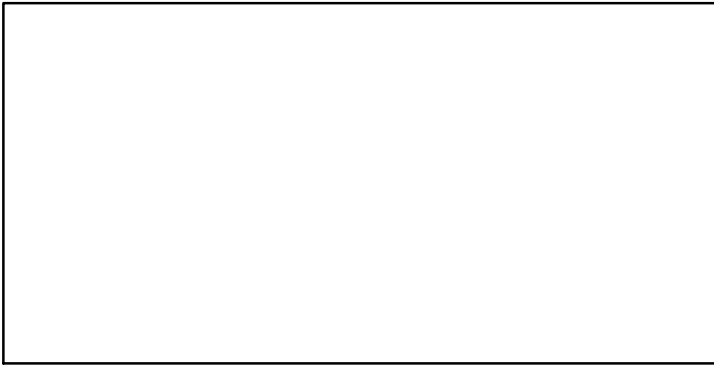


◆ Start Year ◆ End Year \* No Data

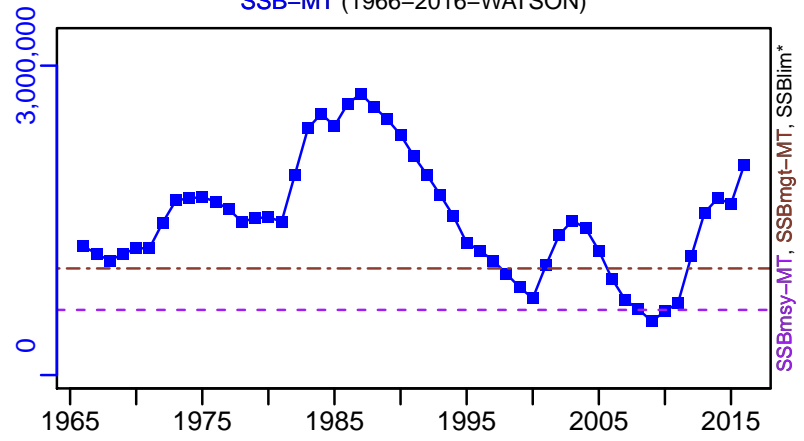


# Pacific hake Pacific Coast [PHAKEPCOAST]

TB\*



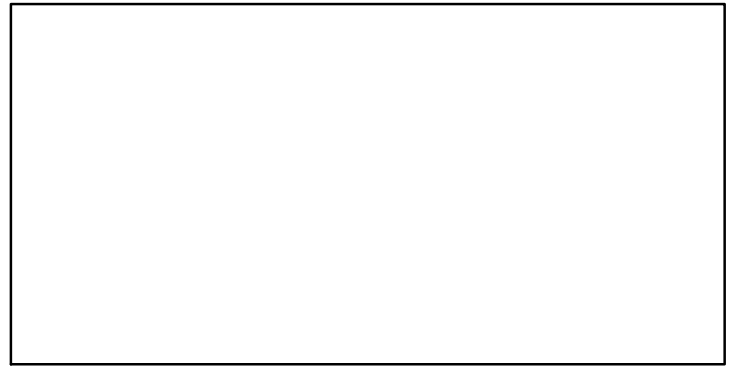
SSB-MT (1966–2016–WATSON)



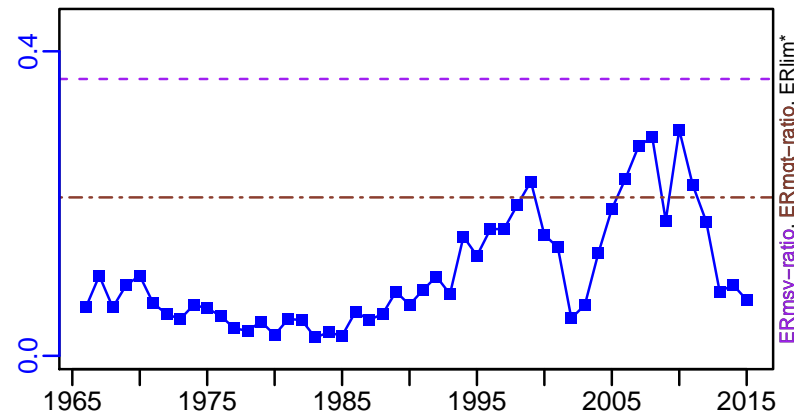
TN \*



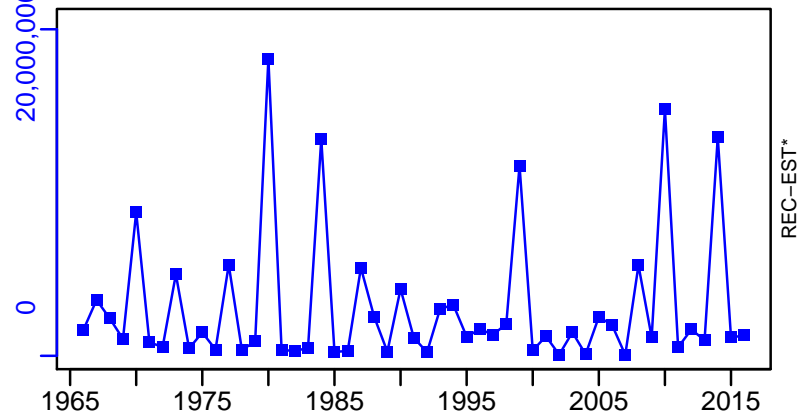
F\*



ER-ratio (1966–2016–WATSON)



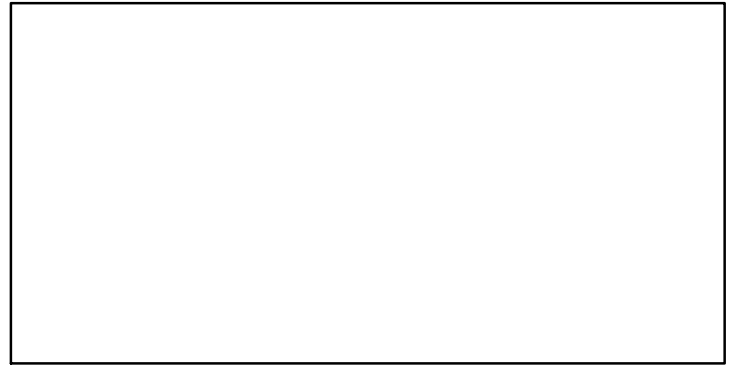
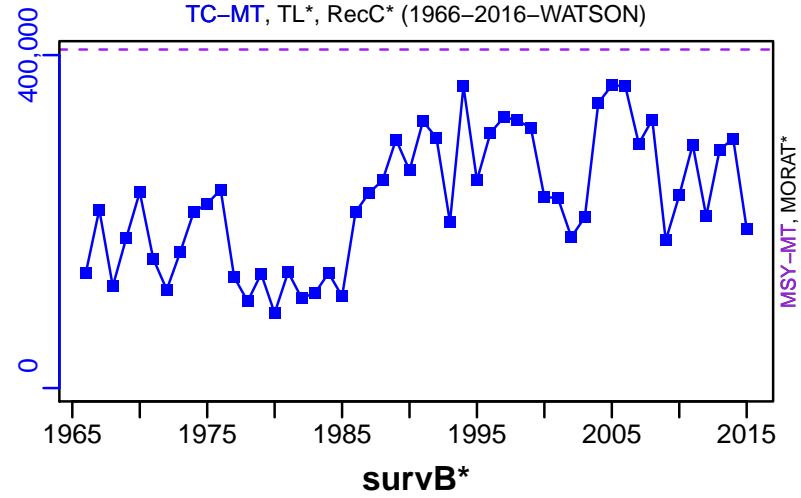
R-E00 (1966–2016–WATSON)



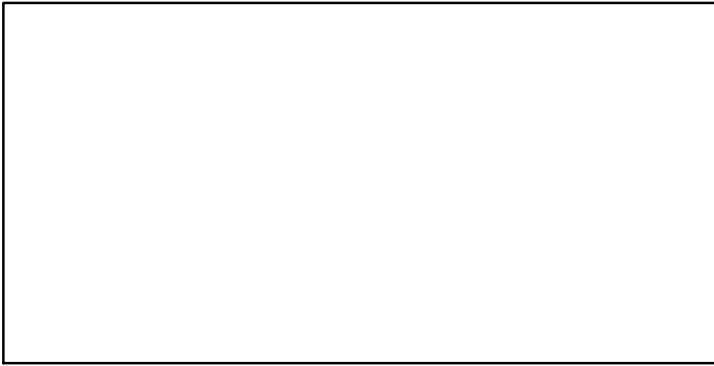
# Pacific hake Pacific Coast [PHAKEPCOAST]

TC-MT, TL\*, RecC\* (1966-2016-WATSON)

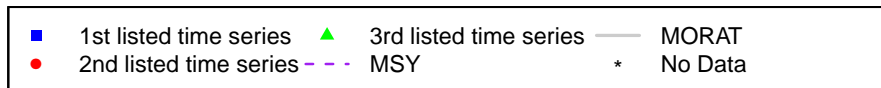
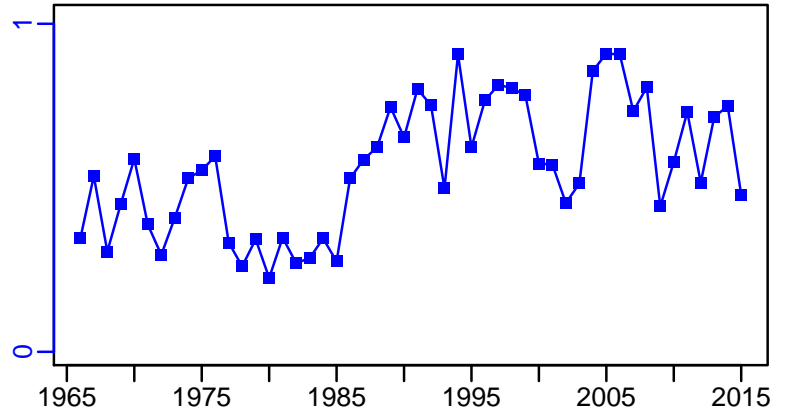
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1966-2016-WATSON)



## Pacific ocean perch Pacific Coast [POPERCHPCOAST]

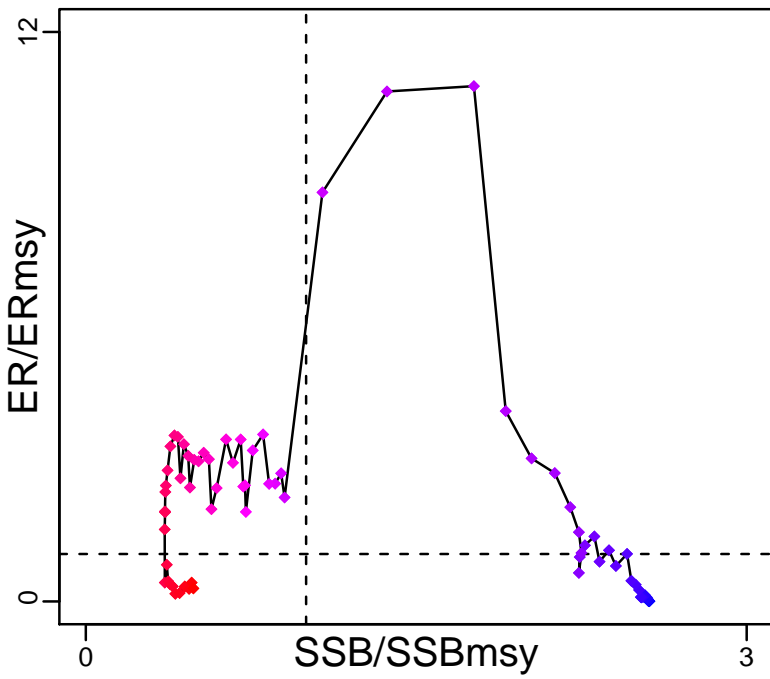
Metadata	
<b>Scientific Name</b>	Sebastes alutus
<b>Current Assess ID</b>	NWFSC-POPERCHPCOAST-1940-2011-STACHURA
<b>Area</b>	Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northwest Fisheries Science Center
<b>Asmts in RAM</b>	2011

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2011	50,381
<b>SSBmsy</b>	SSBmsy-E00eggs	2011	$2.56 \times 10^{12}$
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2011	0.021
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERMgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	SSB0-E00eggs	2011	$6.56 \times 10^{12}$
<b>MSY</b>	MSY-MT	2011	1058
<b>M</b>	M-1/yr	2011	0.05
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

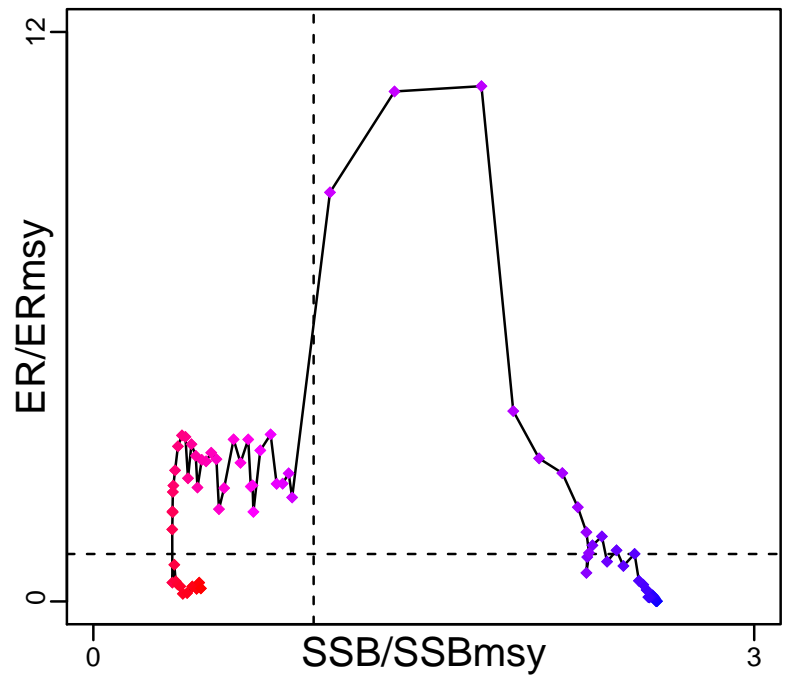
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2011	25,500	-	3+
<b>SSB</b>	SSB-E00eggs	2011	$1.25 \times 10^{12}$	-	6+
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2011	3,590,000	-	0
<b>F</b>	F-1/yr	2011	0.01	Both	3+
<b>ER</b>	ER-calc-ratio	2011	0.006	-	-
<b>TC</b>	TC-MT	2011	141		
<b>TL</b>	TL-MT	2011	91		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2011	0.506		
<b>SSB/SSBmsy</b>	SSB-E00eggs/SSBmsy-E00eggs	2011	0.488		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2011	0.275		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERMgt</b>	-	-	-		

Pacific ocean perch Pacific Coast [POPERCHPCOAST]

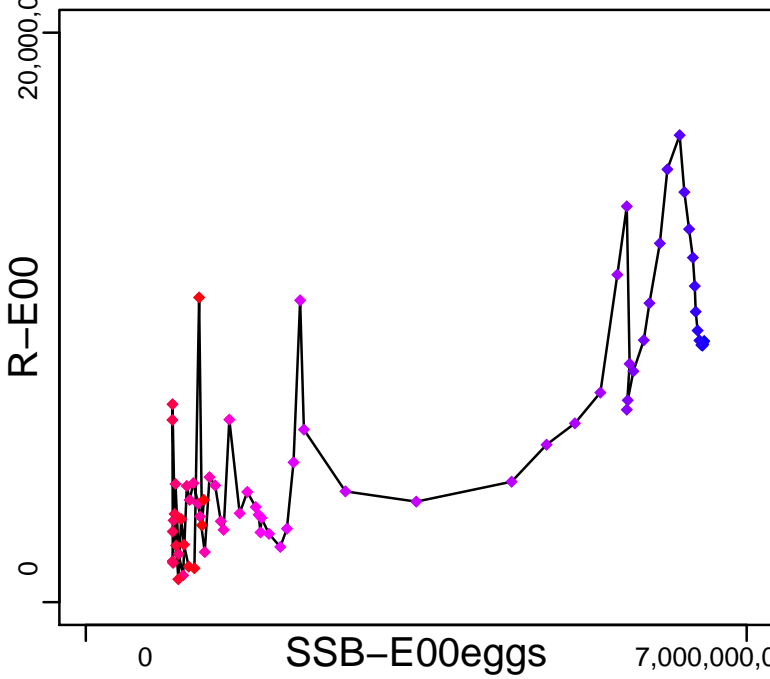
Kobe MSYpref (1940–2011–STACHURA)



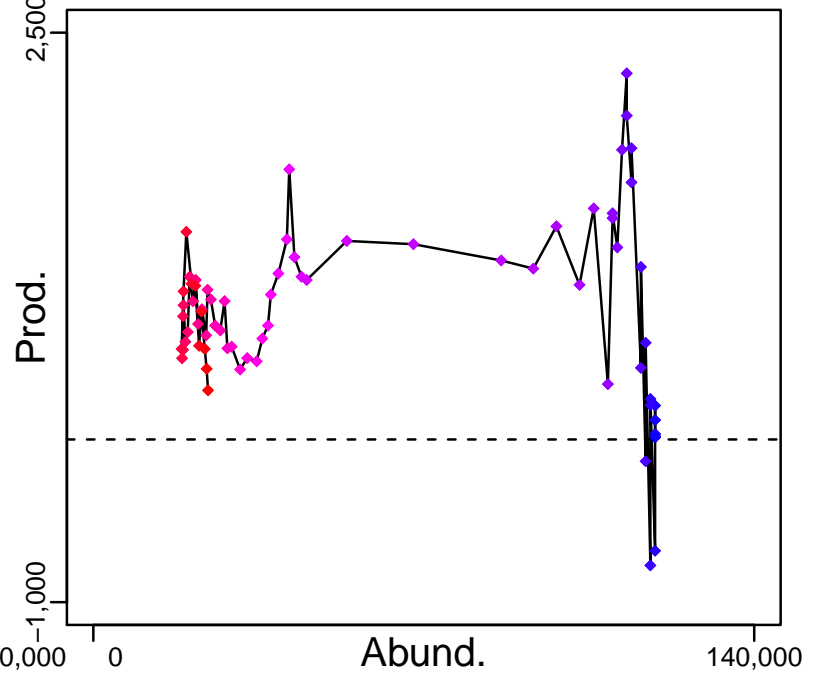
Kobe MGTpref (1940–2011–STACHURA)



Spawner Recruit (1940–2011–STACHURA)



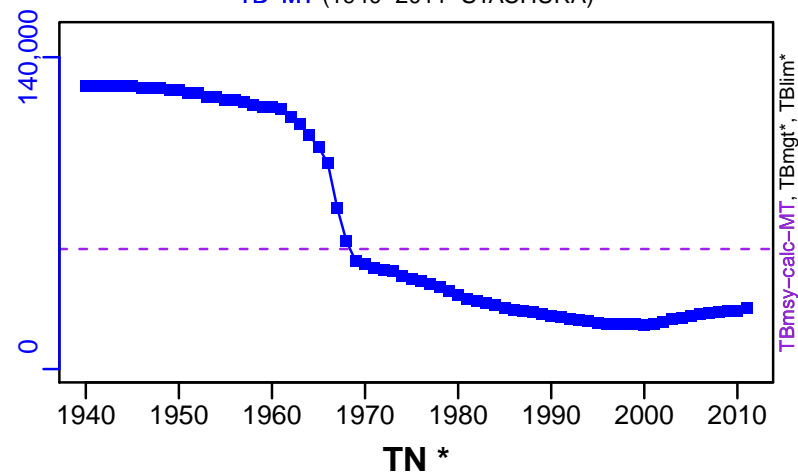
Production (1940–2011–STACHURA)



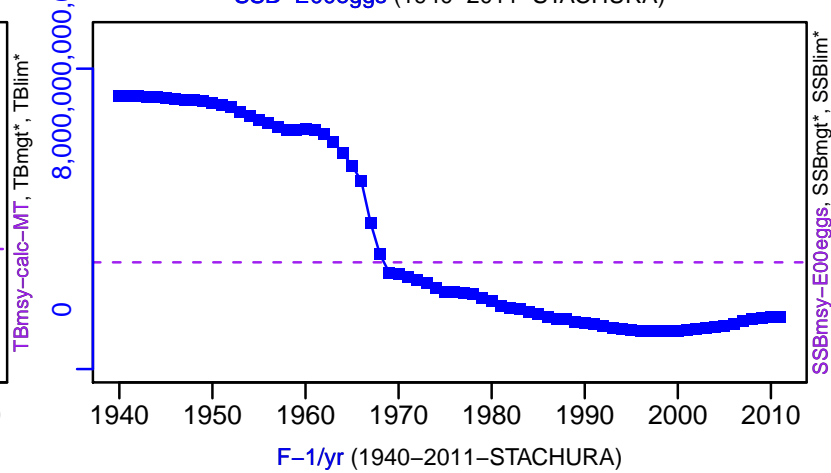
◆ Start Year ◆ End Year \* No Data

# Pacific ocean perch Pacific Coast [POPERCHPCOAST]

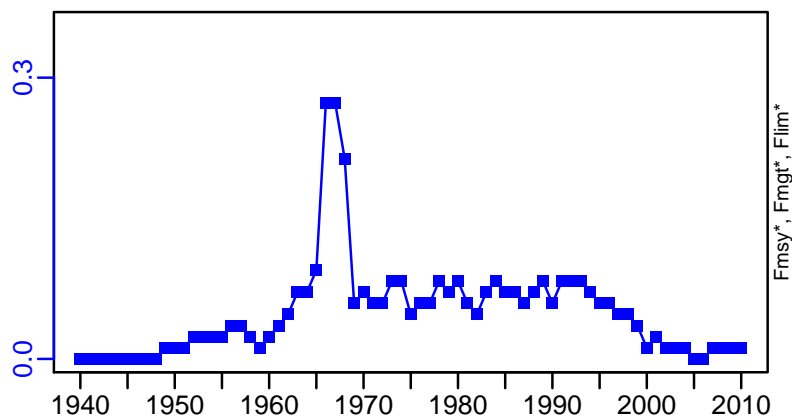
TB-MT (1940-2011-STACHURA)



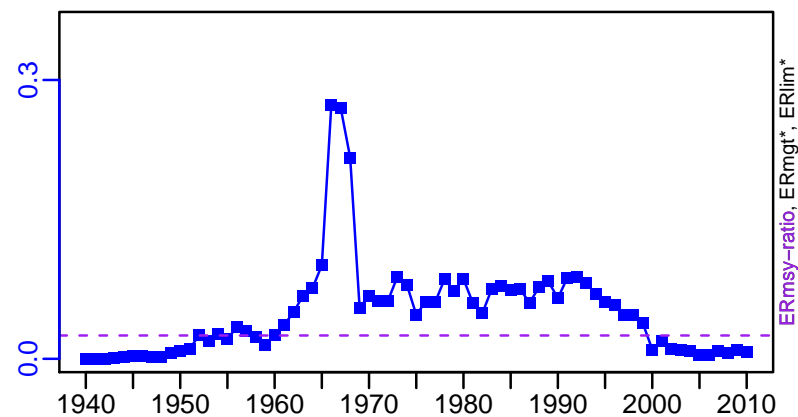
SSB-E00eggs (1940-2011-STACHURA)



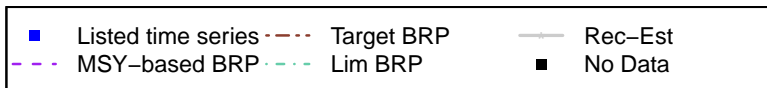
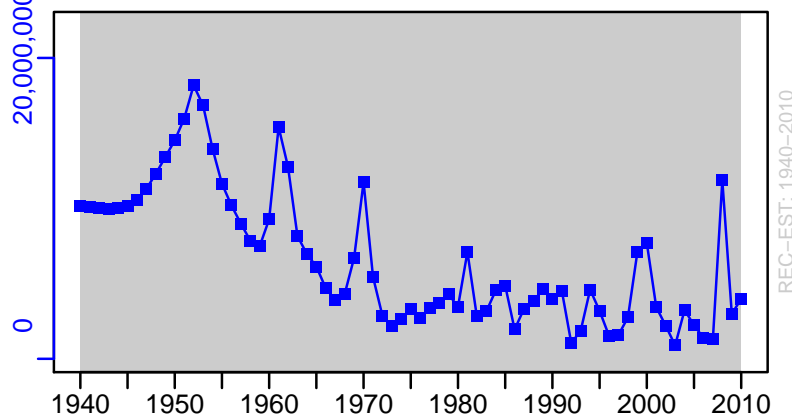
F-1/yr (1940-2011-STACHURA)



ER-calc-ratio (1940-2011-STACHURA)



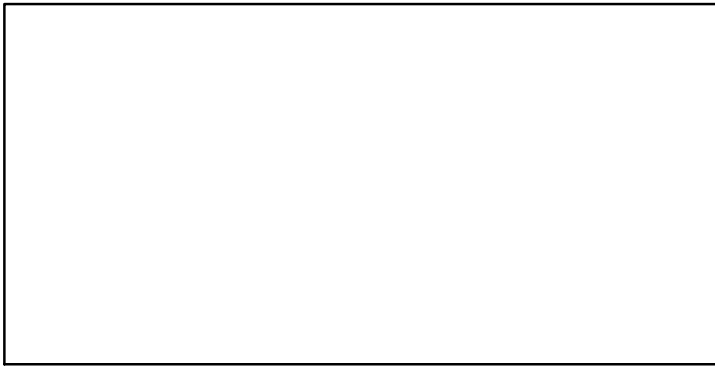
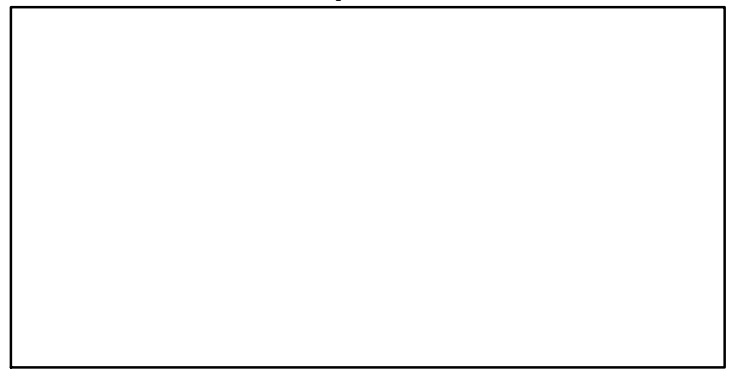
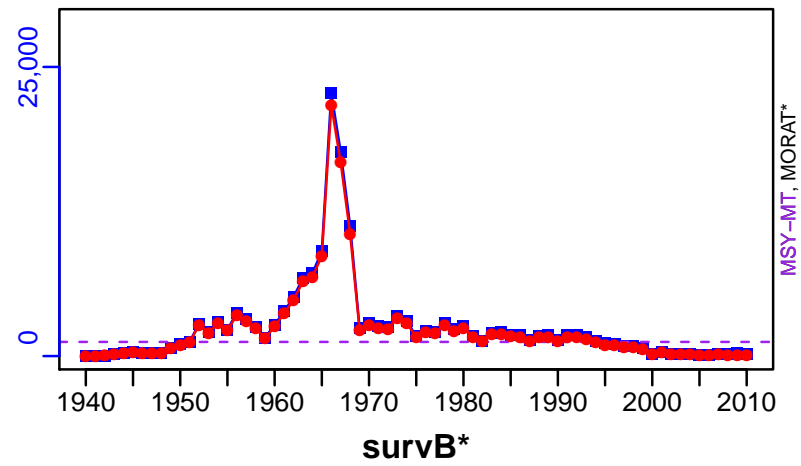
R-E00 (1940-2011-STACHURA)



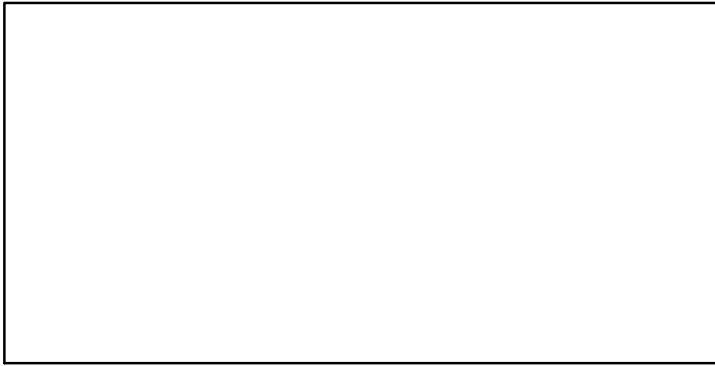
# Pacific ocean perch Pacific Coast [POPERCHPCOAST]

TC-MT, TL-MT, RecC\* (1940-2011-STACHURA)

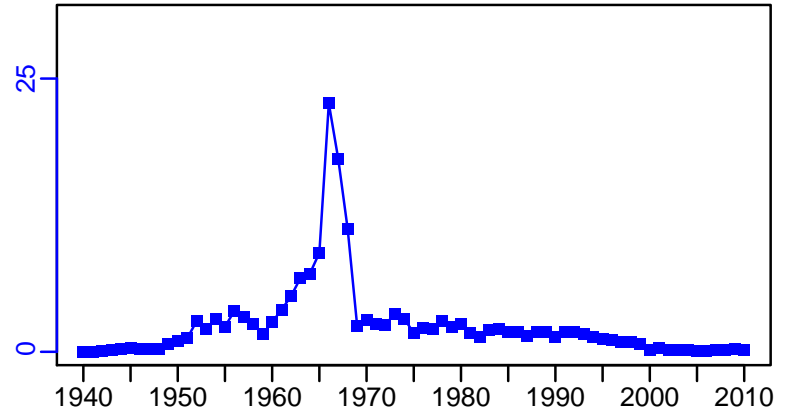
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1940-2011-STACHURA)



## Petrale sole Pacific Coast [PSOLEPCOAST]

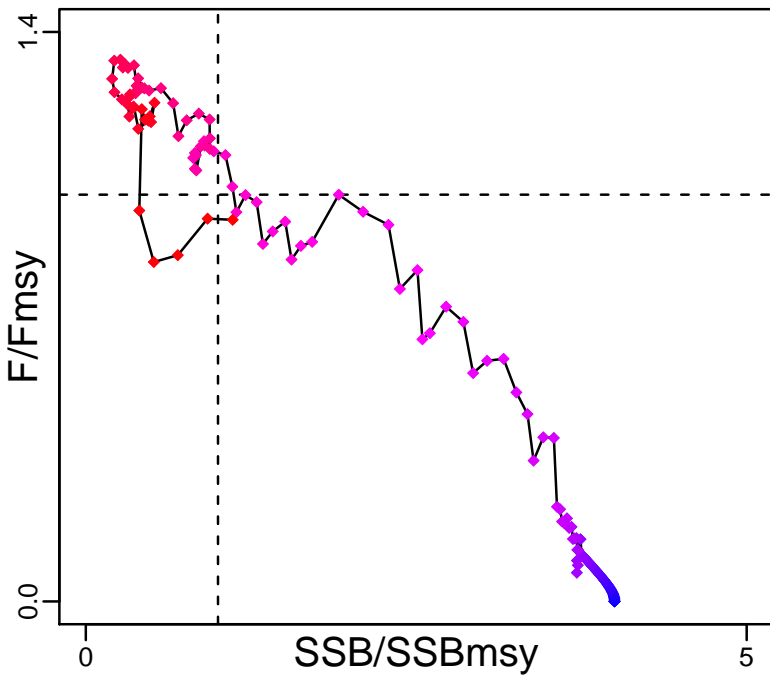
Metadata	
<b>Scientific Name</b>	Eopsetta jordani
<b>Current Assess ID</b>	NWFSC-PSOLEPCOAST-1876-2015-SISIMP2016
<b>Area</b>	Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northwest Fisheries Science Center
<b>Asmts in RAM</b>	2015, 2011

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2011	11,764
<b>SSBmsy</b>	SSBmsy-MT	2015	8369
<b>Fmsy</b>	Fmsy-1/yr	2015	0.7
<b>ERmsy</b>	ERmsy-ratio	2011	0.22
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2011	41,352
<b>SSB0</b>	SSB0-MT	2011	26,278
<b>MSY</b>	MSY-MT	2011	2588
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2015	4185
<b>Flim</b>	Flim-1/yr	2015	0.7
<b>ERlim</b>	-	-	-

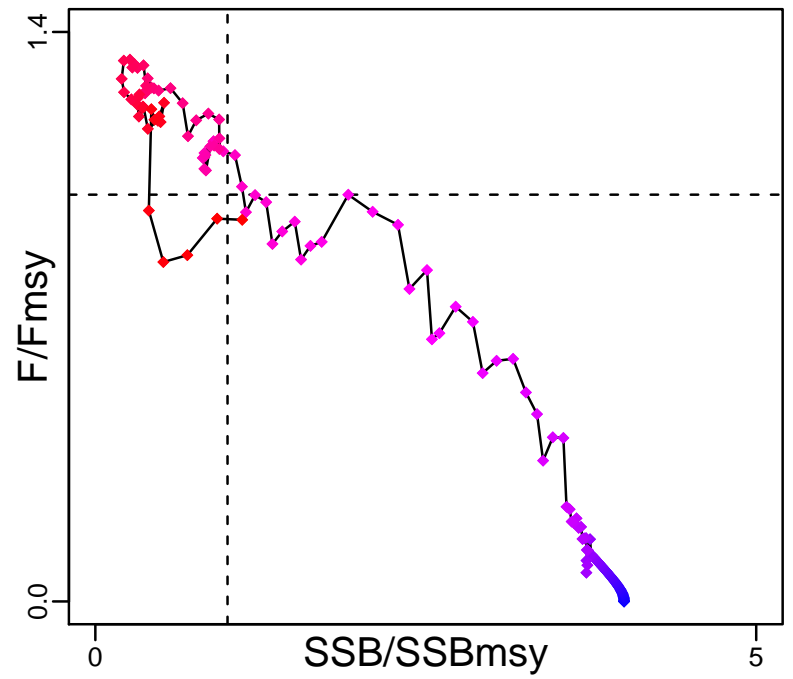
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	19,400	-	3+
<b>SSB</b>	SSB-MT	2015	10,300	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2015	14,600,000	-	0
<b>F</b>	F-1/yr	2015	0.657	-	-
<b>ER</b>	ER-calc-ratio	2015	0.127	-	-
<b>TC</b>	TC-MT	2015	2360		
<b>TL</b>	TL-MT	2011	701		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2011	1.012		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2015	1.23		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2015	0.938		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2011	0.386		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Petrale sole Pacific Coast [PSOLEPCOAST]

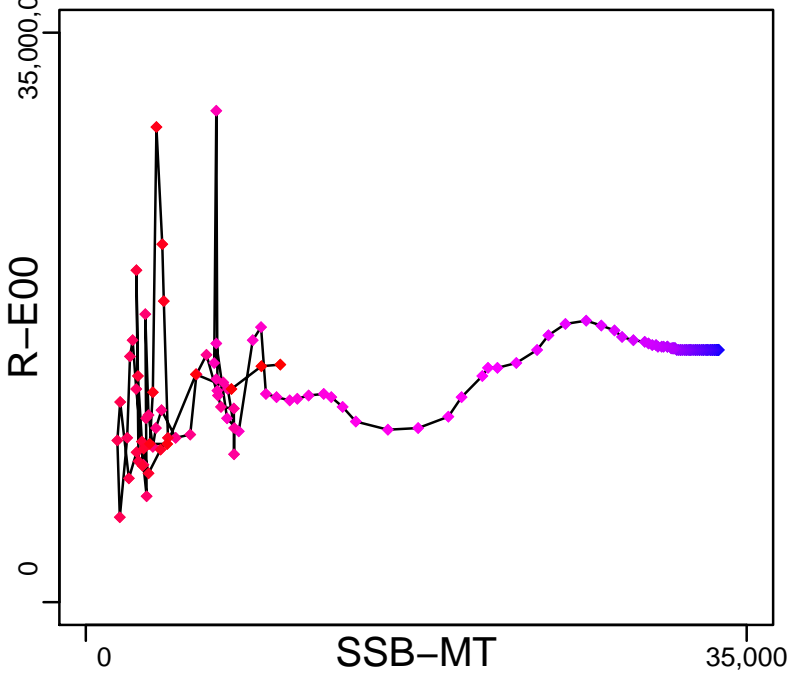
Kobe MSYpref (1876–2015–SISIMP2016)



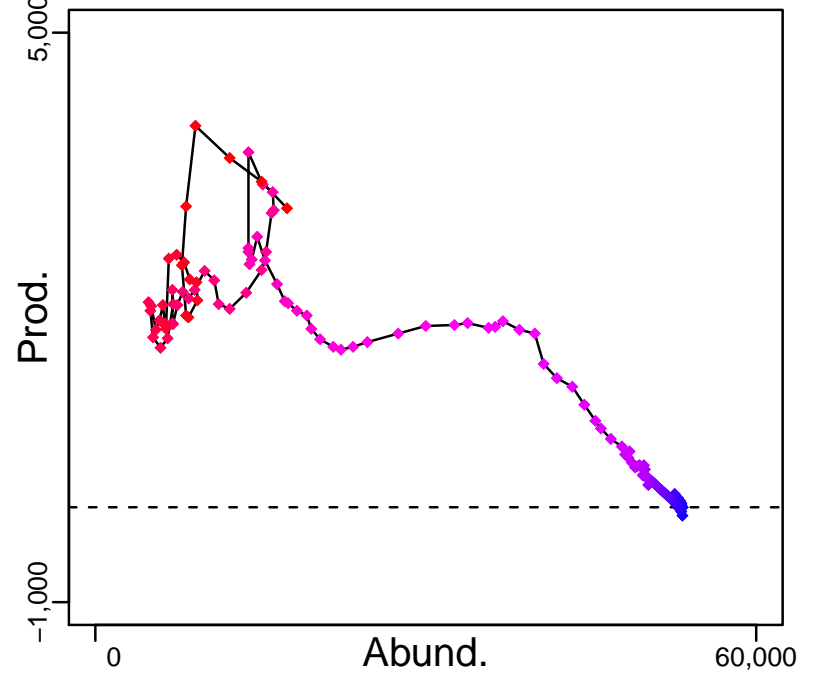
Kobe MGTpref (1876–2015–SISIMP2016)



Spawner Recruit (1876–2015–SISIMP2016)



Production (1876–2015–SISIMP2016)

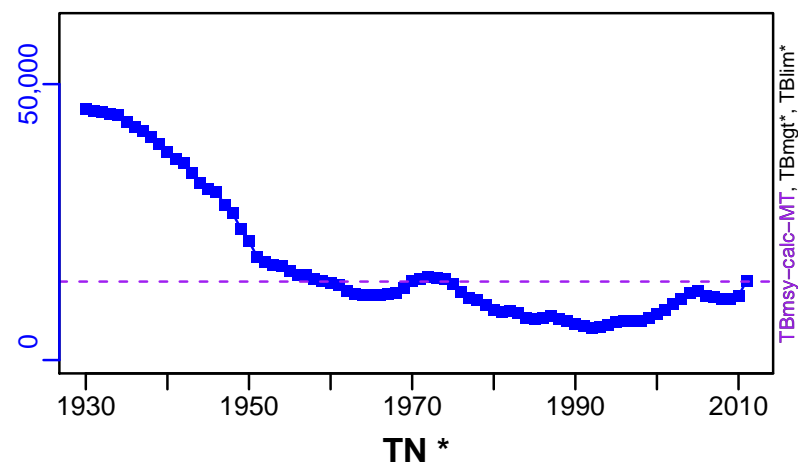


◆ Start Year ◆ End Year \* No Data

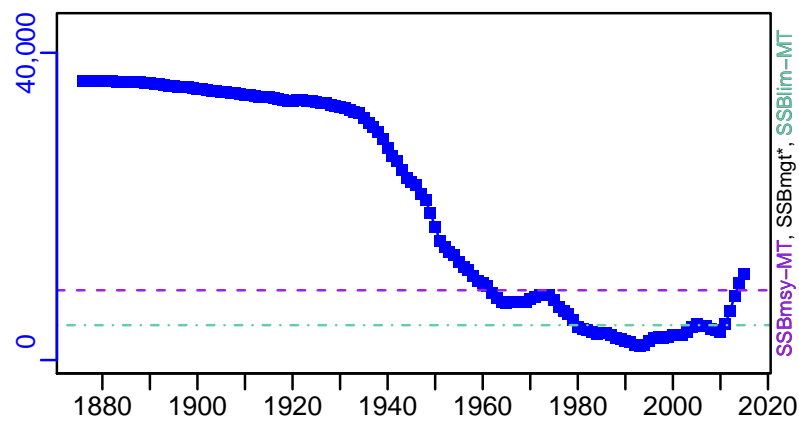


# Petrale sole Pacific Coast [PSOLEPCOAST]

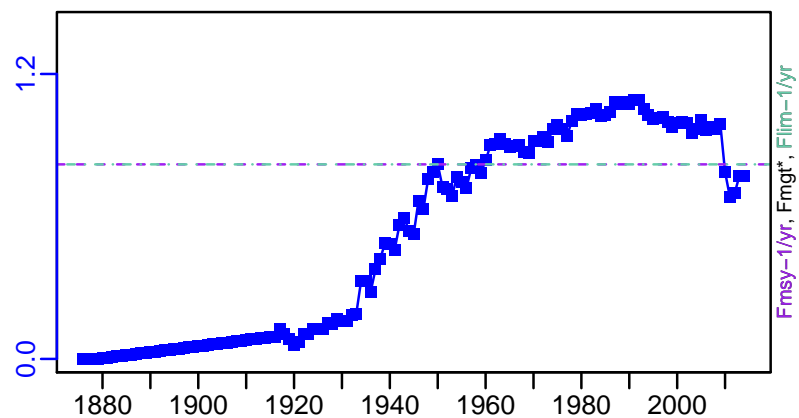
TB-MT (1930–2011–CHING)



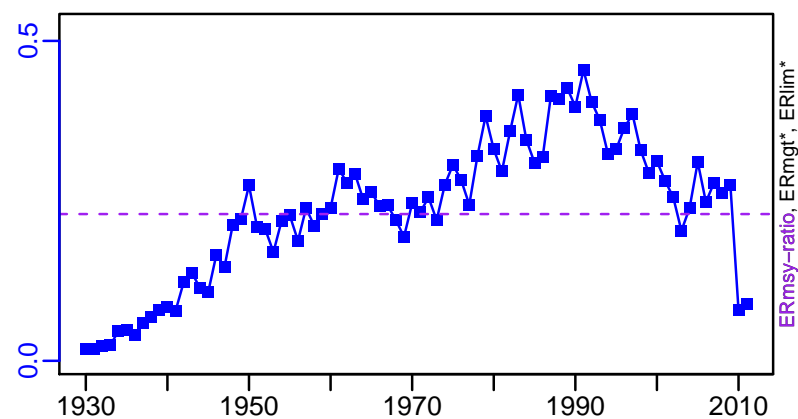
SSB-MT (1876–2015–SISIMP2016)



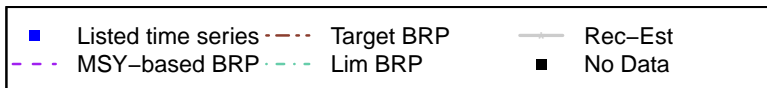
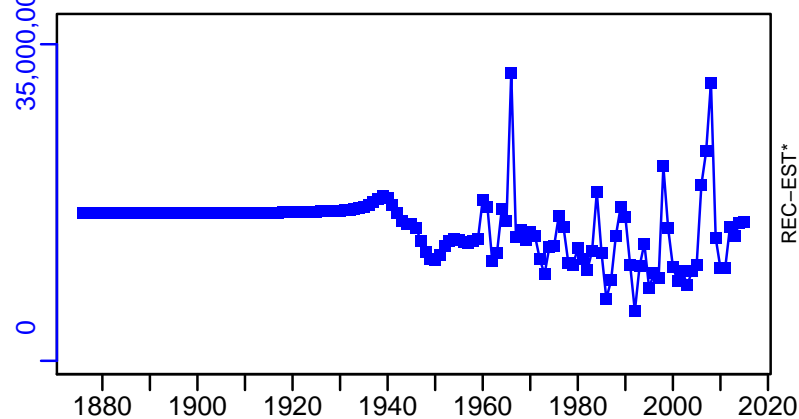
F-1/yr (1876–2015–SISIMP2016)



ER-ratio (1930–2011–CHING)



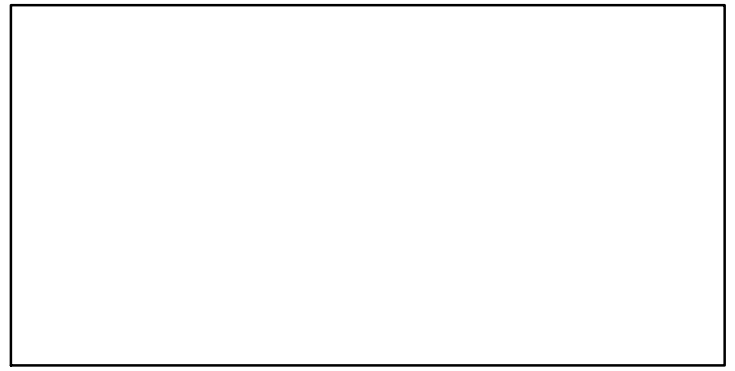
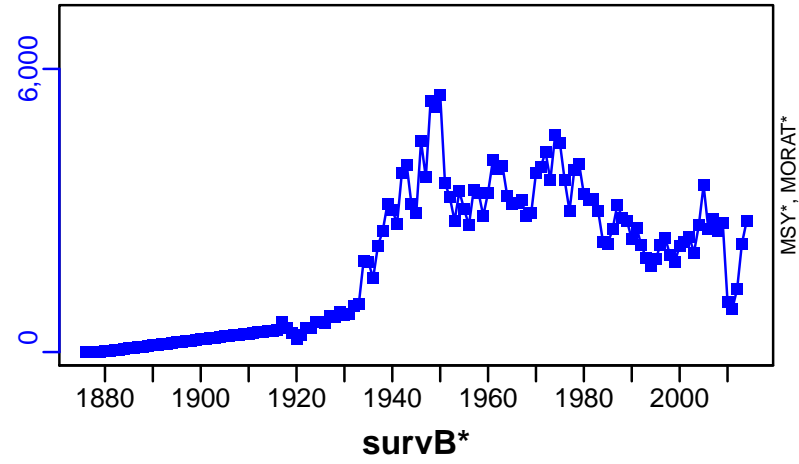
R-E00 (1876–2015–SISIMP2016)



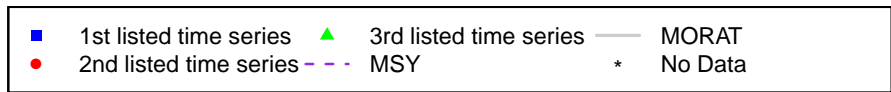
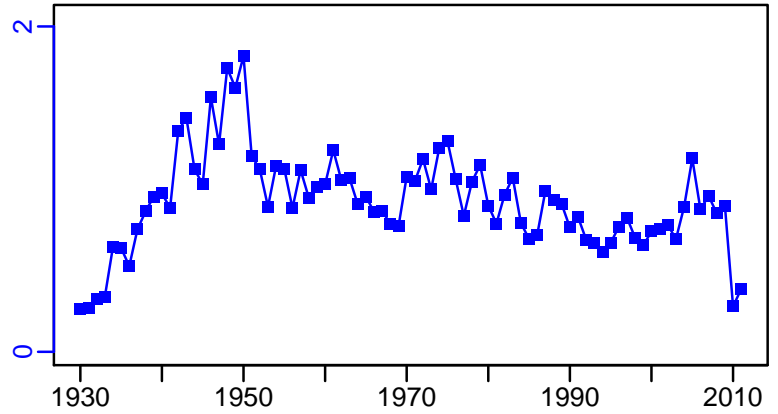
# Petrale sole Pacific Coast [PSOLEPCOAST]

TC-MT, TL\*, RecC\* (1876-2015-SISIMP2016)

TAC\*, Cpair\*, Cadv\*



CdivMSY-ratio (1930-2011-CHING)



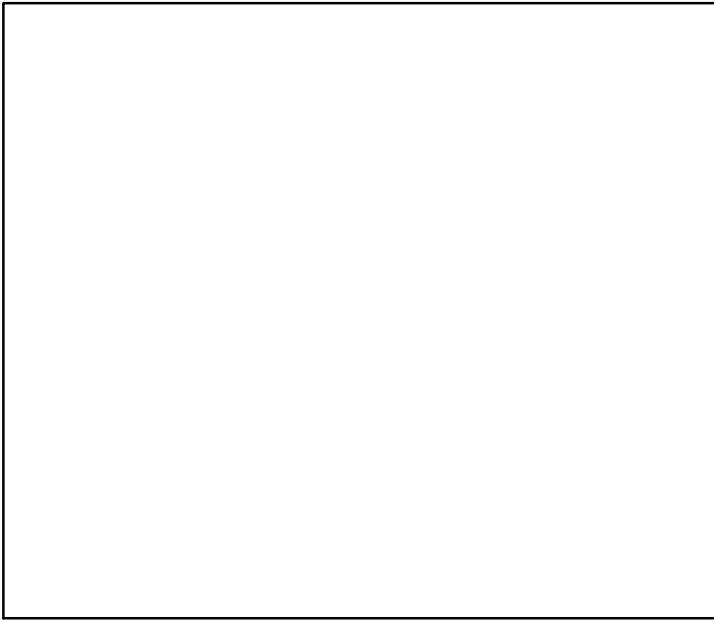
## Rex sole Pacific Coast [REXSOLEPCOAST]

Metadata	
<b>Scientific Name</b>	Glyptocephalus zachirus
<b>Current Assess ID</b>	NWFSC-REXSOLEPCOAST-1896-2012-SISIMP2016
<b>Area</b>	Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northwest Fisheries Science Center
<b>Asmts in RAM</b>	2012

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	Fmsy-1/yr	2012	0.7
<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	1646
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	Flim-1/yr	2012	0.7
<b>ERlim</b>	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2012	18,500	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	F-1/yr	2012	0.131	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	-	-	-		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2012	0.187		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

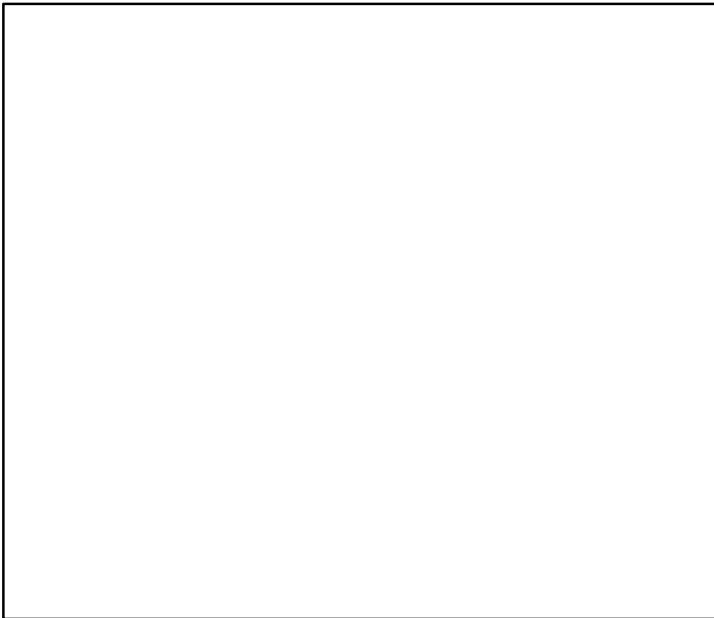
**Kobe MSY\***



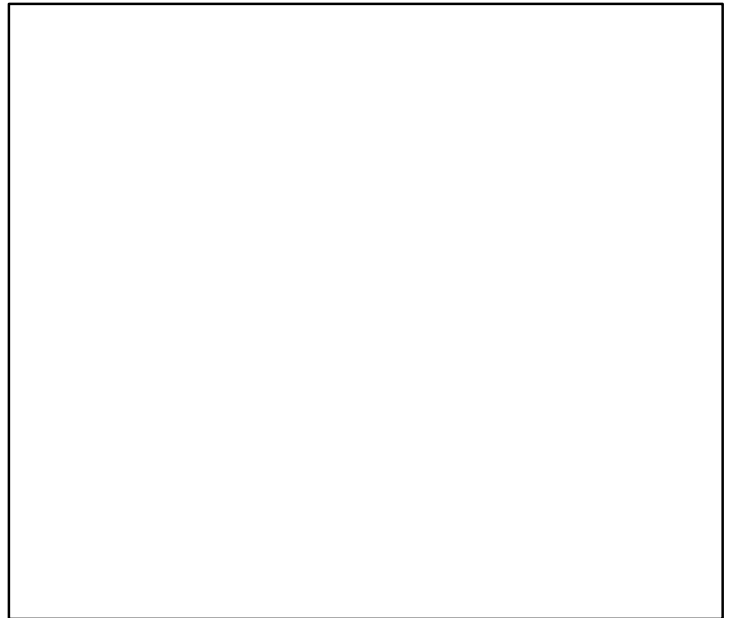
**Kobe MGT\***



**Spawner Recruit\***



**Production\***

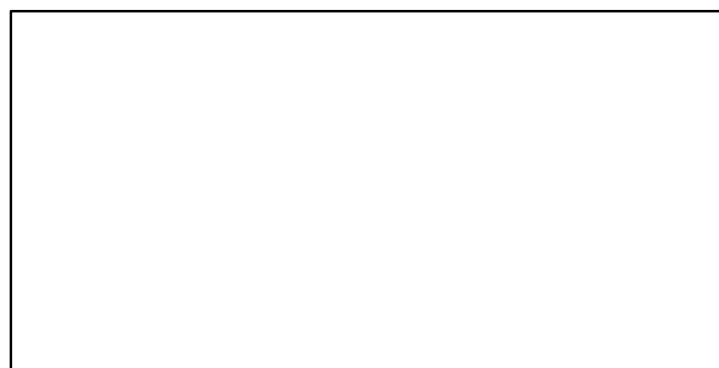
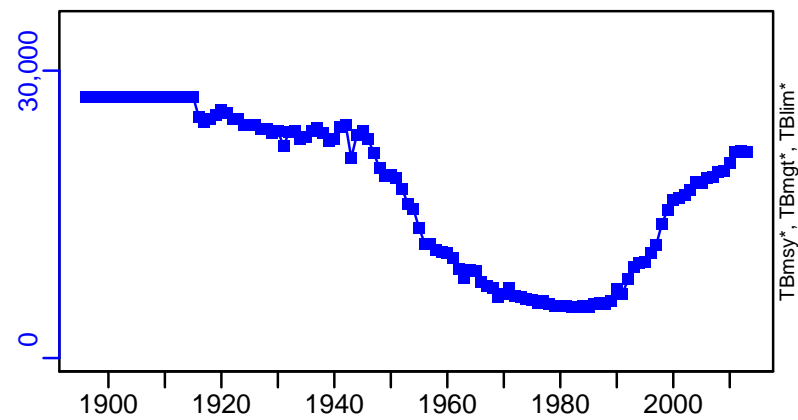


◆ Start Year   ◆ End Year   \* No Data

# Rex sole Pacific Coast [REXSOLEPCOAST]

TB-MT (1896–2012–SISIMP2016)

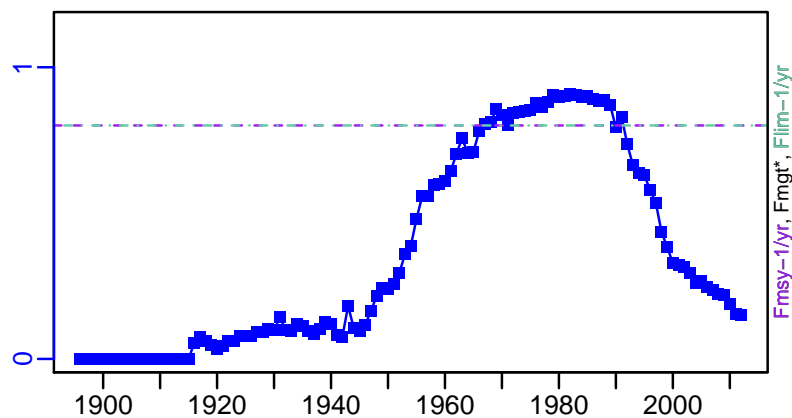
SSB\*



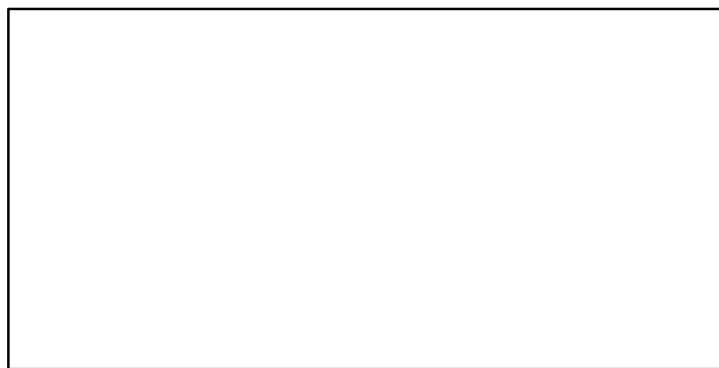
TN \*



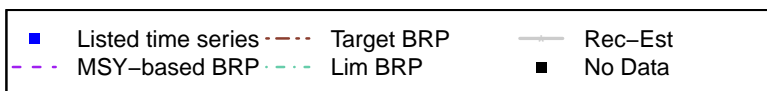
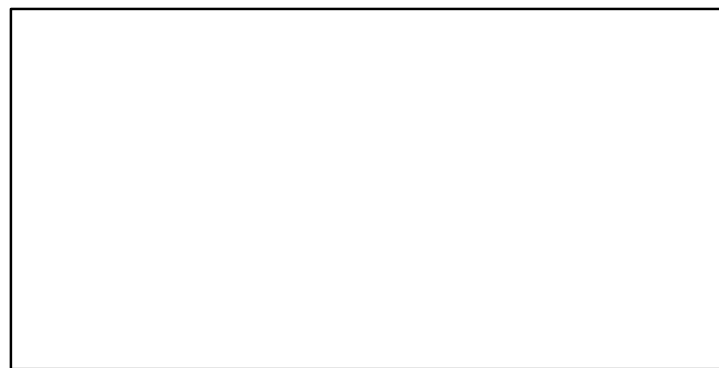
F-1/yr (1896–2012–SISIMP2016)



ER\*

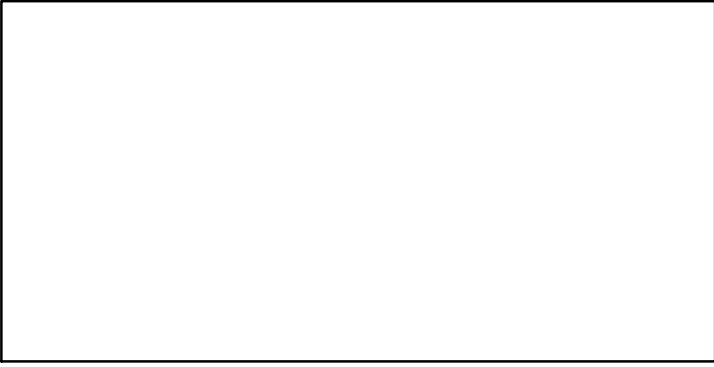


Recruits\*



Rex sole Pacific Coast [REXSOLEPCOAST]

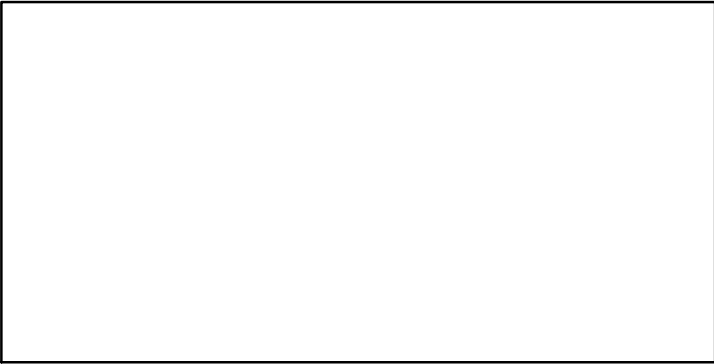
**TC\*, TL\*, RecC\***



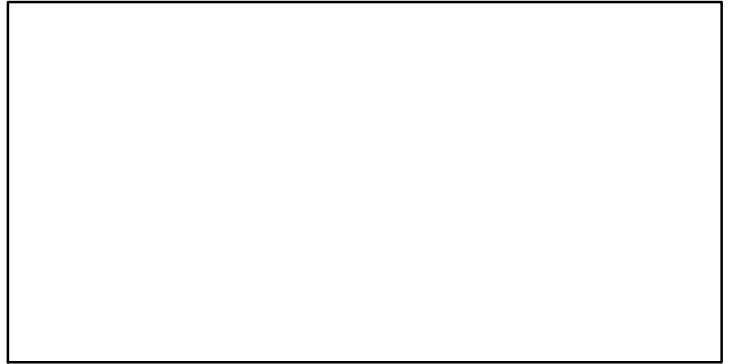
**TAC\*, Cpair\*, Cadv\***



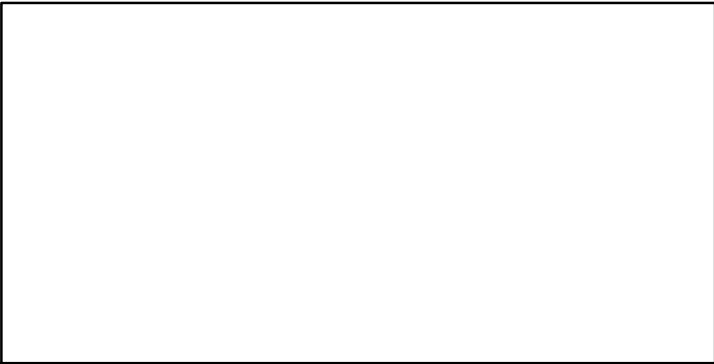
**survB\***



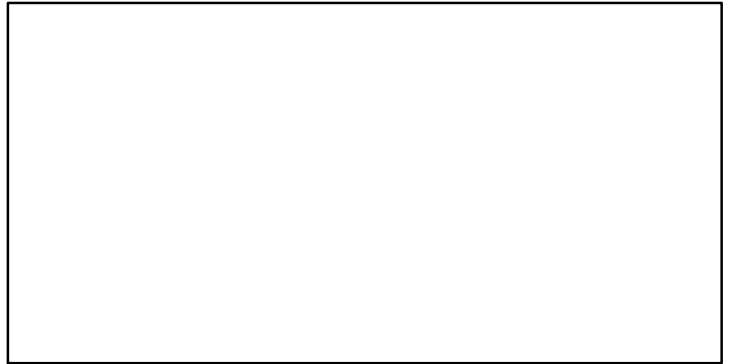
**CPUE\***



**EFFORT\***



**CdivMSY\***



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

## Sablefish Pacific Coast [SABLEFPCOAST]

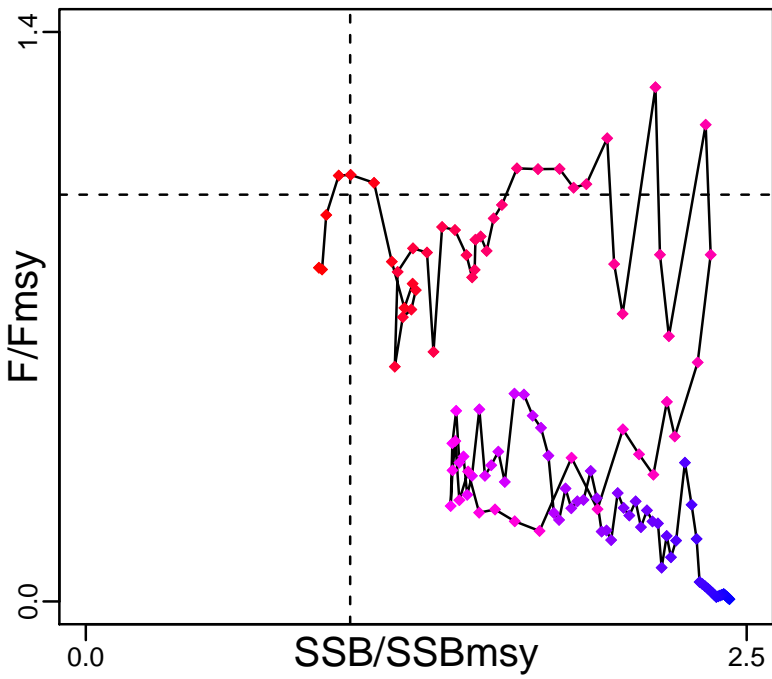
Metadata	
<b>Scientific Name</b>	Anoplopoma fimbria
<b>Current Assess ID</b>	NWFSC-SABLEFPCOAST-1900-2015-SISIMP2016
<b>Area</b>	Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northwest Fisheries Science Center
<b>Asmts in RAM</b>	2011, 2015

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	SSBmsy-MT	2015	60,249
<b>Fmsy</b>	Fmsy-1/yr	2015	0.55
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2011	537,893
<b>SSB0</b>	SSB0-MT	2011	182,136
<b>MSY</b>	MSY-MT	2015	7476
<b>M</b>	M-1/yr	2011	0.08
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2015	37,656
<b>Flim</b>	Flim-1/yr	2015	0.55
<b>ERlim</b>	-	-	-

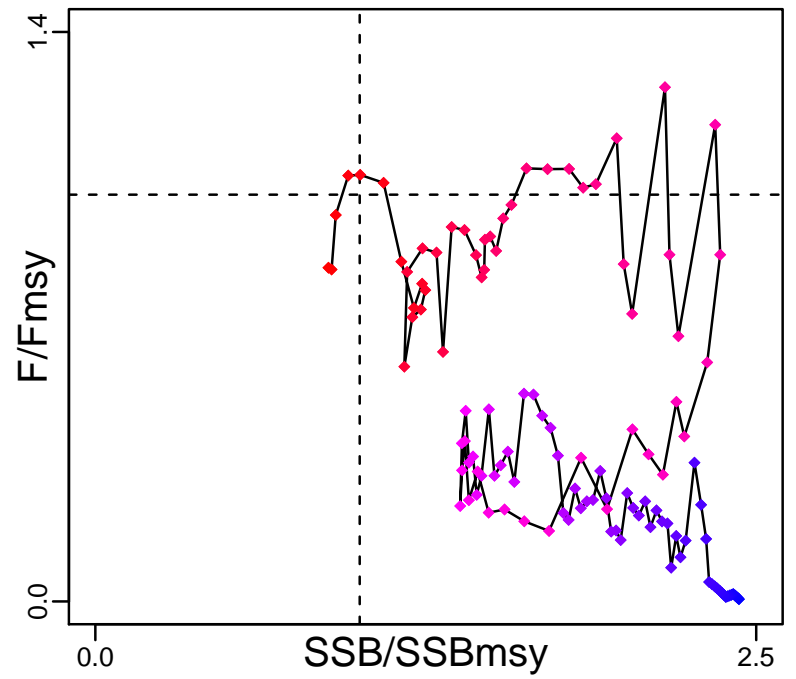
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	168,000	-	4+
<b>SSB</b>	SSB-MT	2015	52,000	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2015	13,100,000	-	0
<b>F</b>	F-1/yr	2015	0.451	-	-
<b>ER</b>	ER-calc-ratio	2015	0.026	-	-
<b>TC</b>	TC-MT	2015	4460		
<b>TL</b>	TL-MT	2011	6820		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2015	0.863		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2015	0.82		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Sablefish Pacific Coast [SABLEFPCOAST]

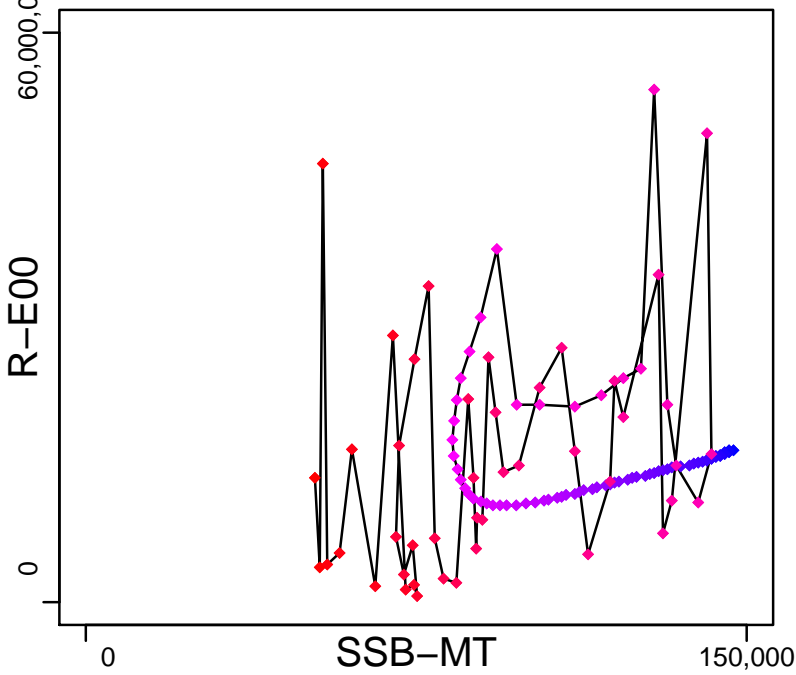
Kobe MSYpref (1900–2015–SISIMP2016)



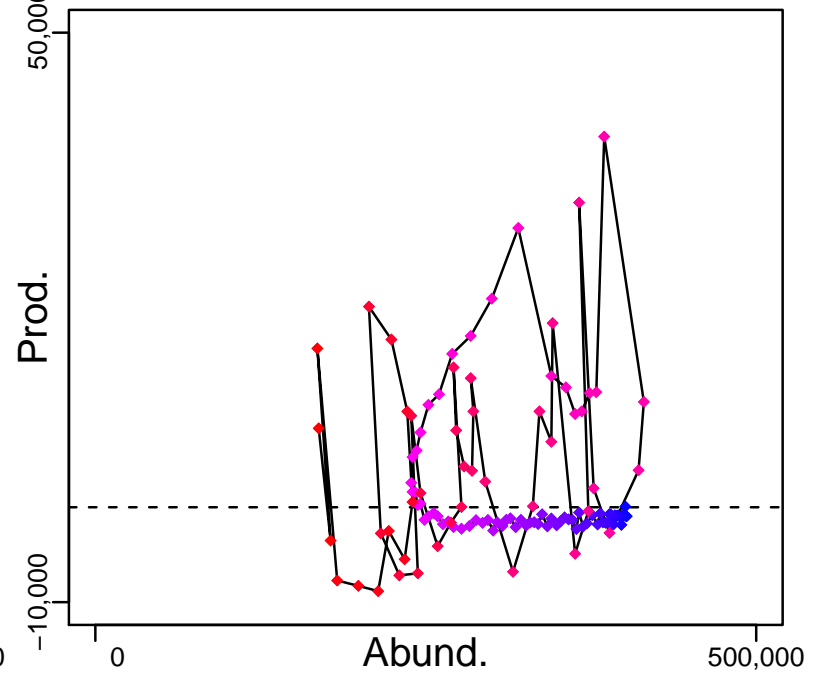
Kobe MGTpref (1900–2015–SISIMP2016)



Spawner Recruit (1900–2015–SISIMP2016)



Production (1900–2015–SISIMP2016)

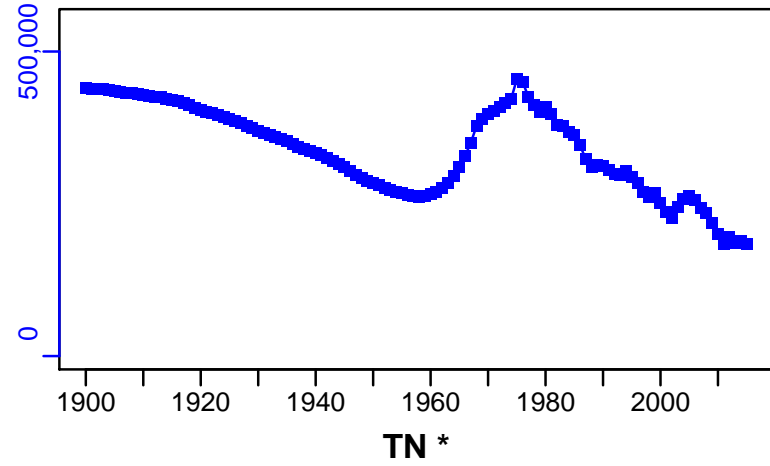


◆ Start Year ◆ End Year \* No Data

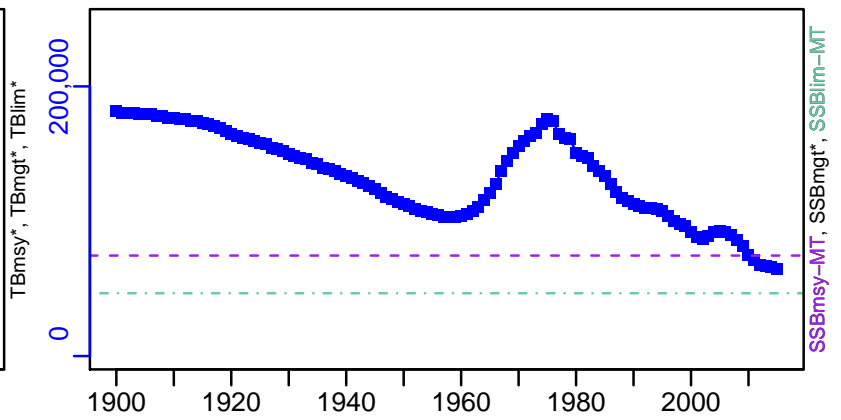


# Sablefish Pacific Coast [SABLEFPCOAST]

TB-MT (1900–2015–SISIMP2016)



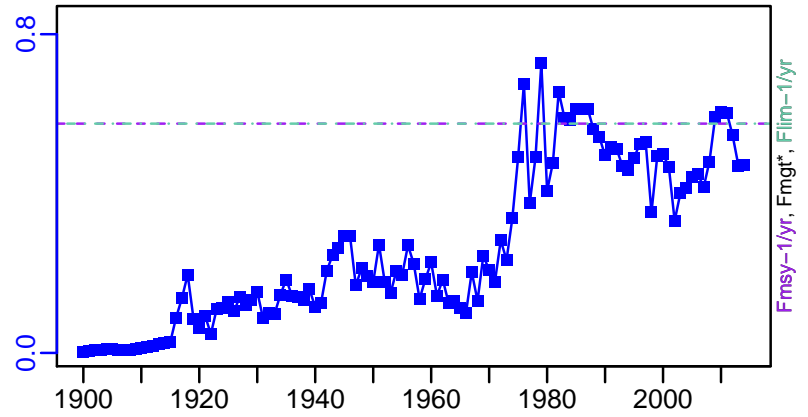
SSB-MT (1900–2015–SISIMP2016)



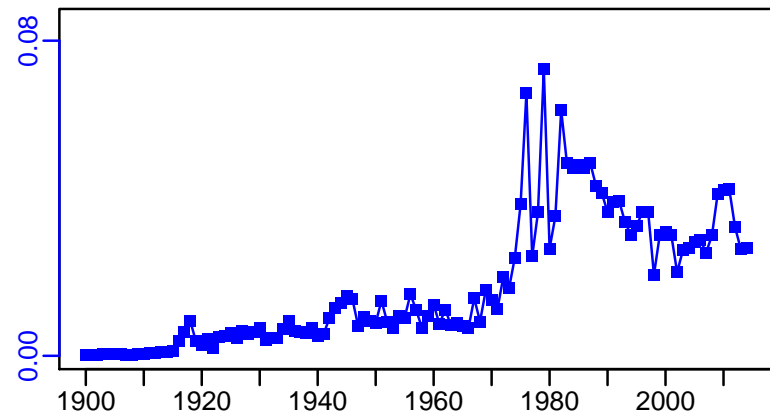
TN \*



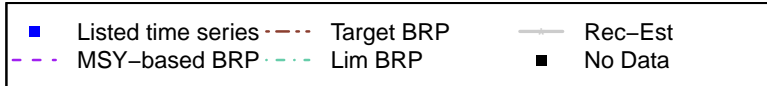
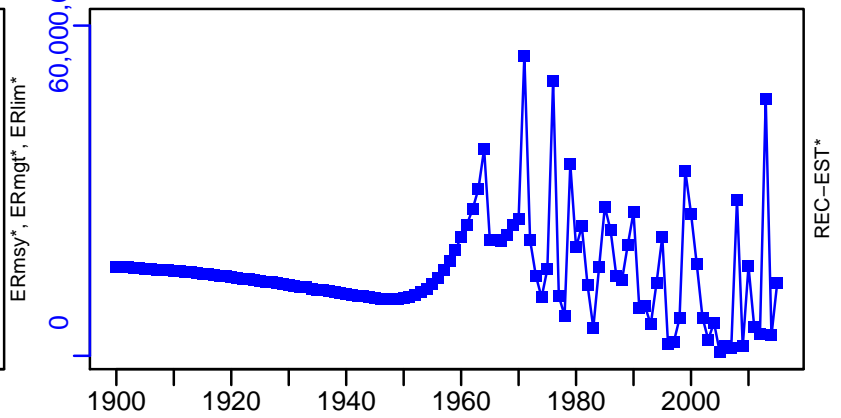
F-1/yr (1900–2015–SISIMP2016)



ER-calc-ratio (1900–2015–SISIMP2016)



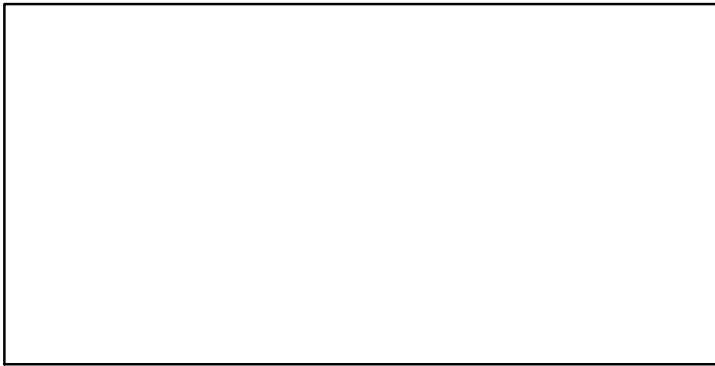
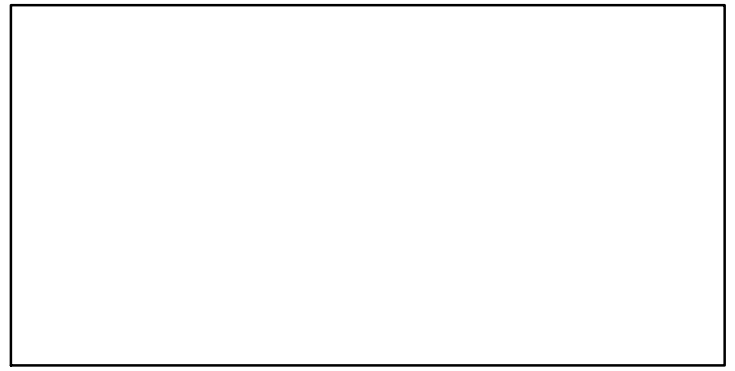
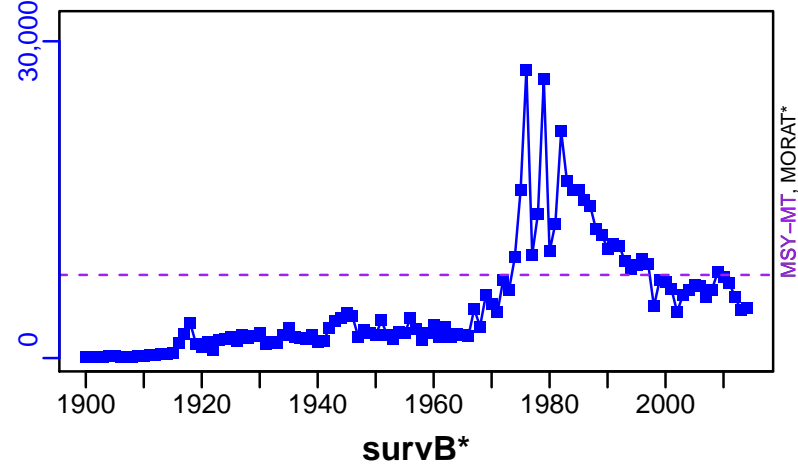
R-E00 (1900–2015–SISIMP2016)



# Sablefish Pacific Coast [SABLEFPCOAST]

TC-MT, TL\*, RecC\* (1900-2015-SISIMP2016)

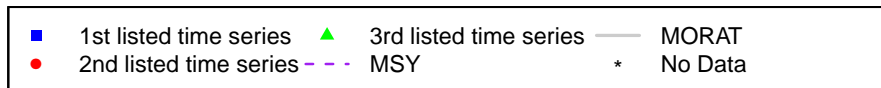
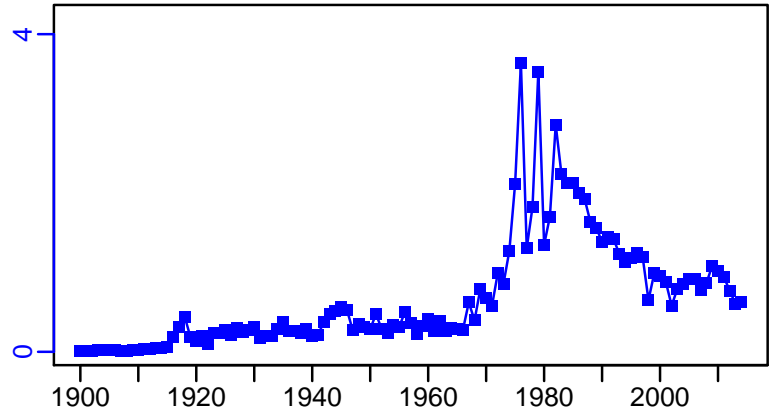
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1900-2015-SISIMP2016)

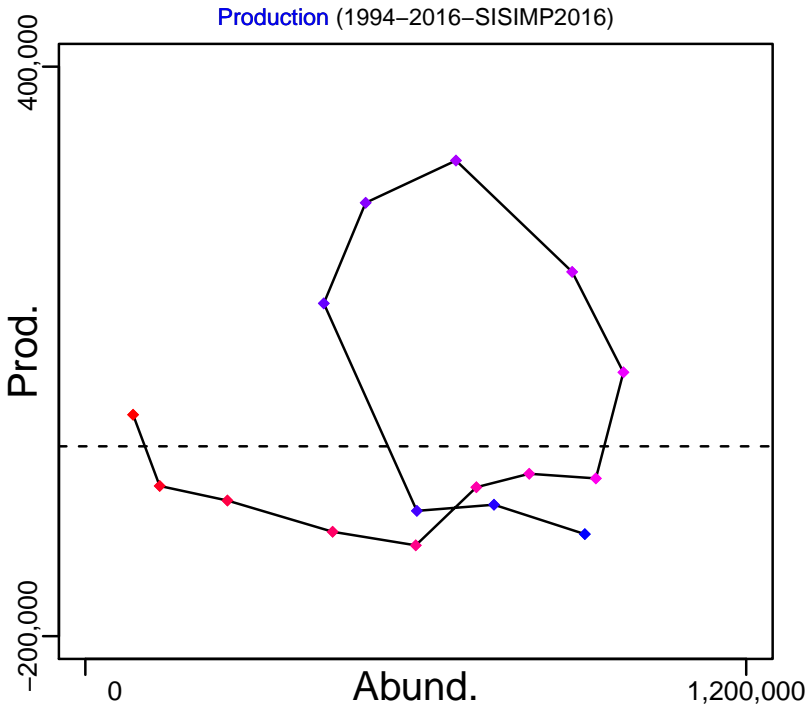
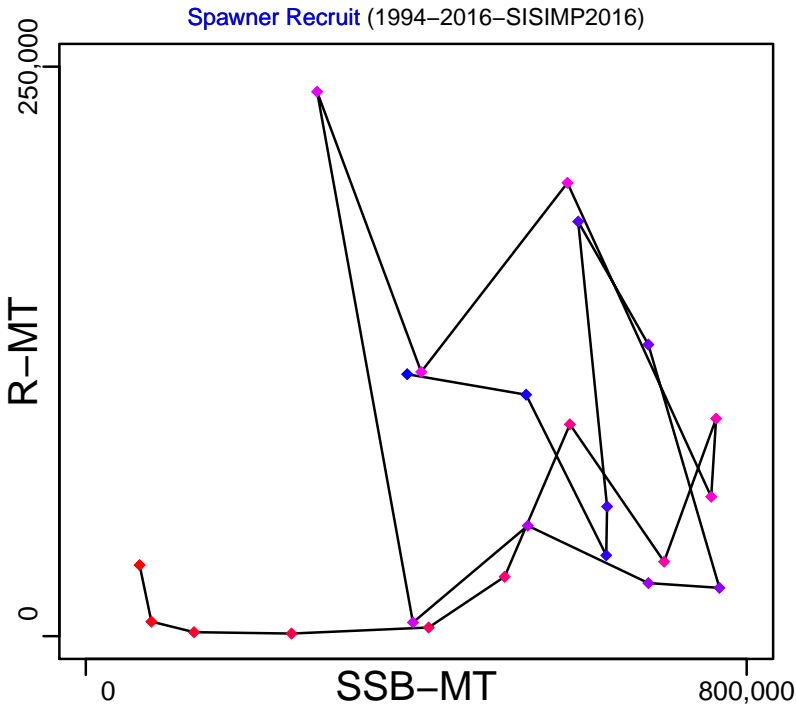
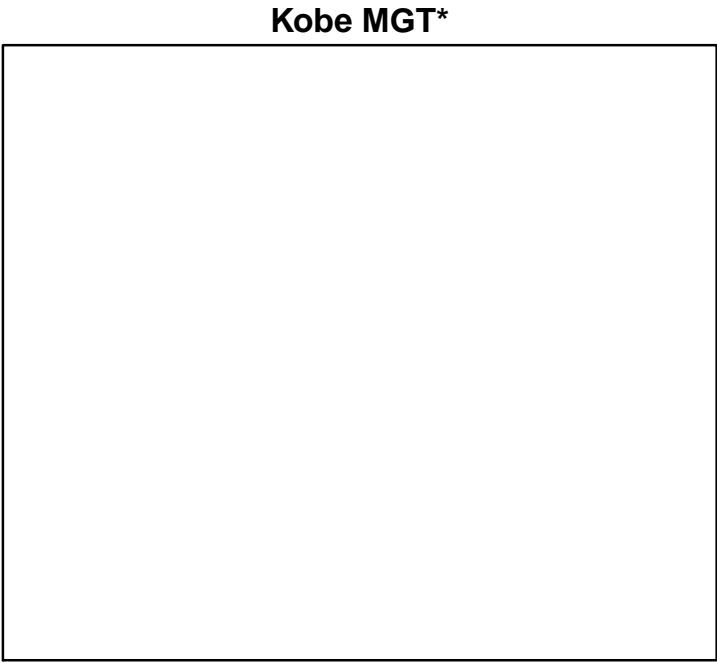
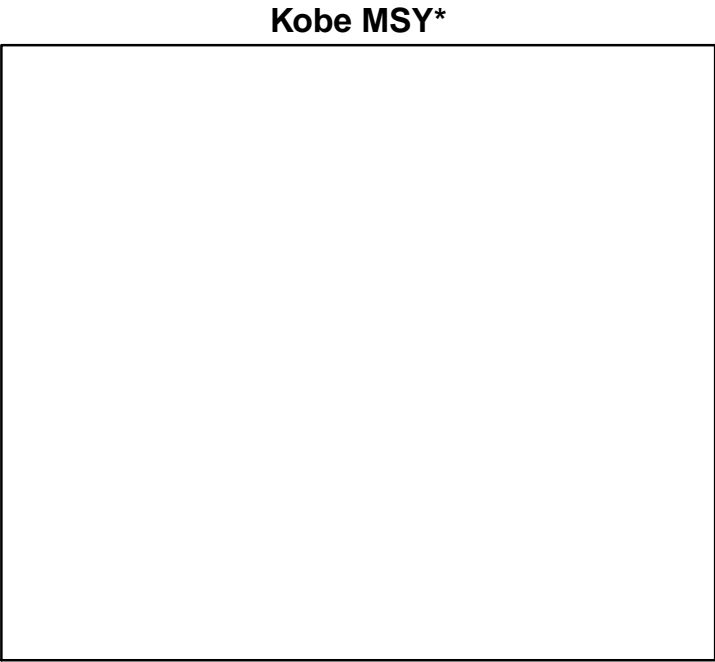


## Pacific sardine Pacific Coast [SARDPCOAST]

Metadata	
<b>Scientific Name</b>	Sardinops sagax
<b>Current Assess ID</b>	SWFSC-SARDPCOAST-1994-2016-SISIMP2016
<b>Area</b>	Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southwest Fisheries Science Center
<b>Asmts in RAM</b>	2007, 2016

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2007	0.4
TBlim	-	-	-
SSBlim	SSBlim-MT	2016	50,000
Flim	-	-	-
ERlim	-	-	-

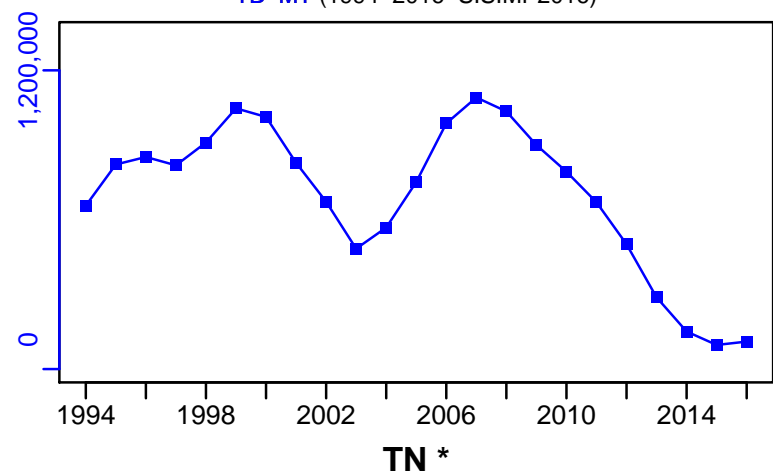
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2016	98,800	-	0+
SSB	SSB-MT	2016	65,100	-	-
TN	-	-	-	-	-
R	R-MT	2016	31,200	-	0
F	-	-	-	-	-
ER	ER-calc-ratio	2016	0.002	-	-
TC	TC-MT	2016	153		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



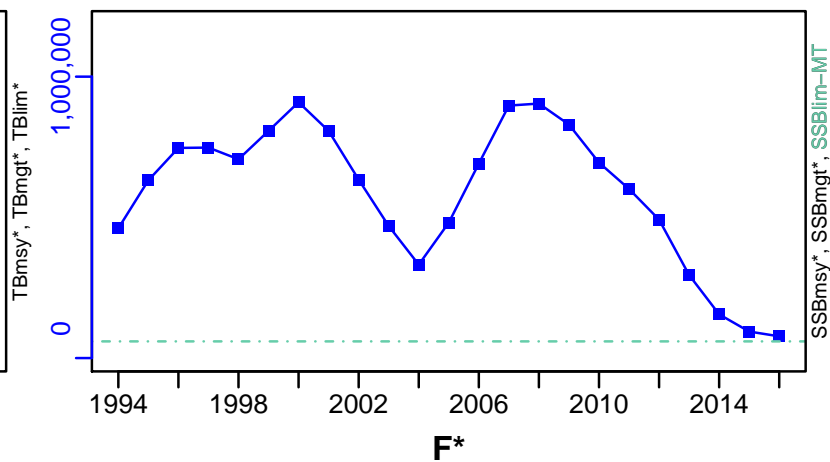
◆ Start Year ◆ End Year \* No Data

# Pacific sardine Pacific Coast [SARDPCOAST]

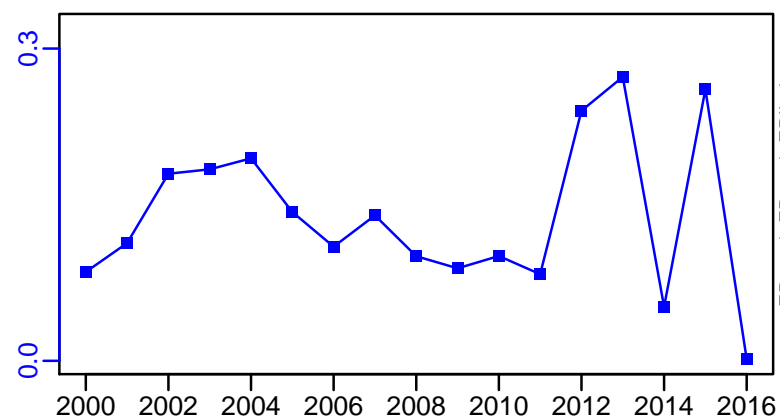
TB-MT (1994–2016–SISIMP2016)



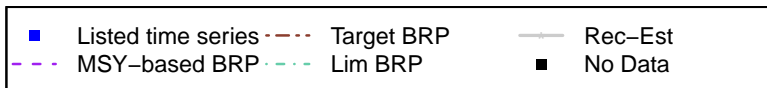
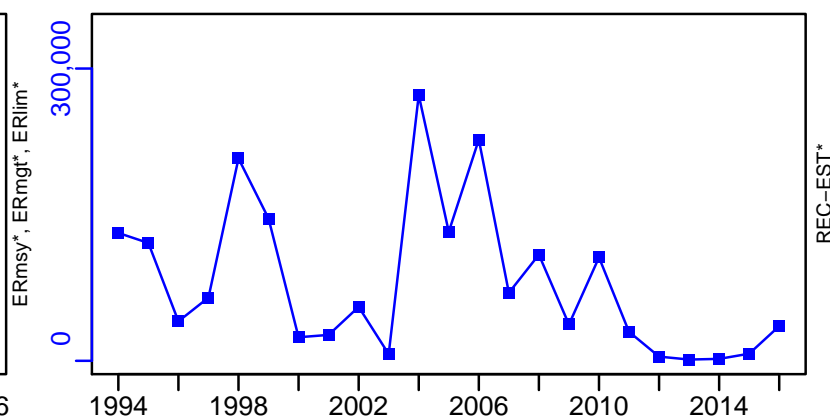
SSB-MT (1994–2016–SISIMP2016)



ER-calc-ratio (1994–2016–SISIMP2016)



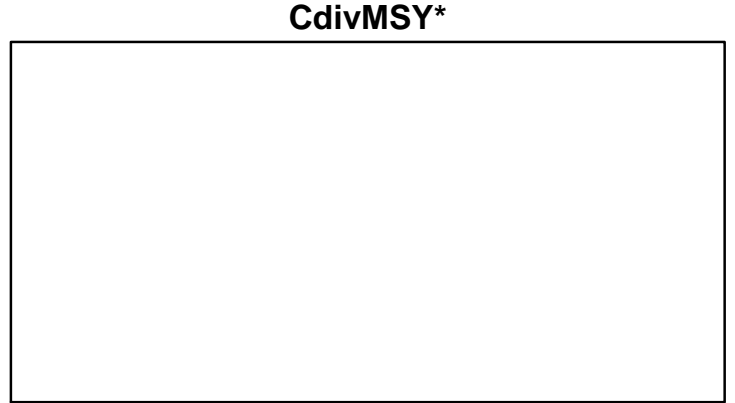
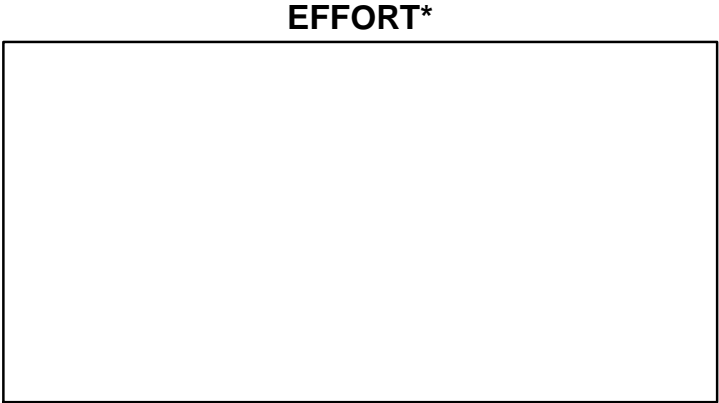
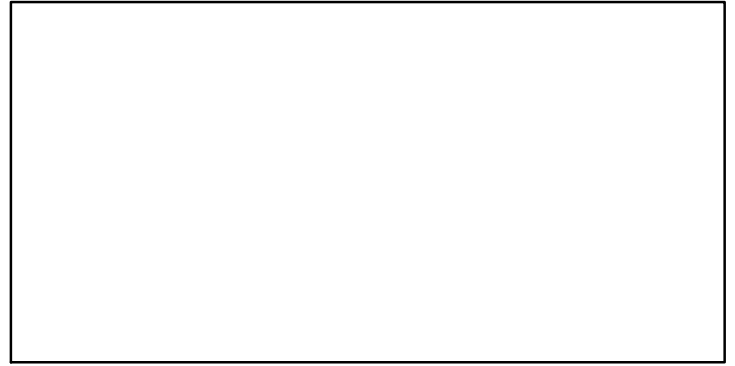
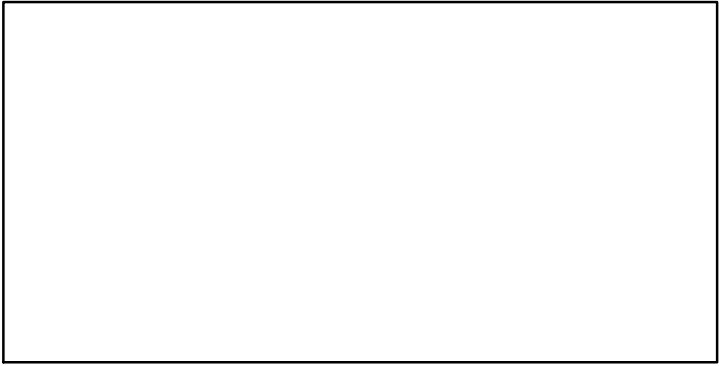
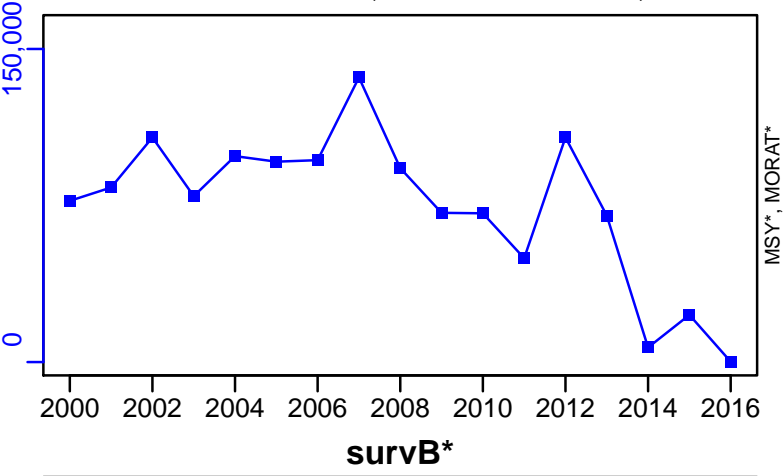
R-MT (1994–2016–SISIMP2016)



# Pacific sardine Pacific Coast [SARDPCOAST]

TC-MT, TL\*, RecC\* (1994-2016-SISIMP2016)

TAC\*, Cpair\*, Cadv\*



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

## Shortbelly rockfish Pacific Coast [SBELLYROCKPCOAST]

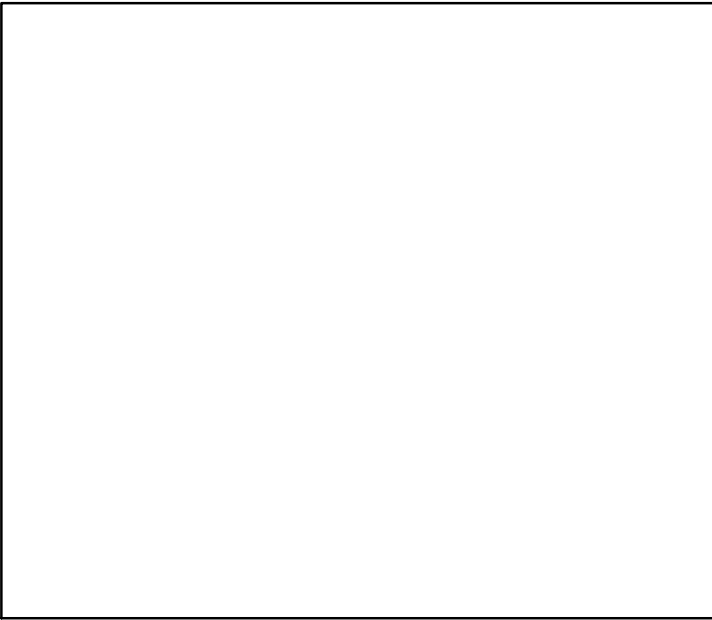
Metadata	
<b>Scientific Name</b>	Sebastes jordani
<b>Current Assess ID</b>	SWFSC-SBELLYROCKPCOAST-1950-2005-BRANCH
<b>Area</b>	Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southwest Fisheries Science Center
<b>Asmts in RAM</b>	2005

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	TB0-MT	2005	98,400
SSB0	SSB0-MT	2005	49,500
MSY	-	-	-
M	M-1/yr	2005	0.26
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

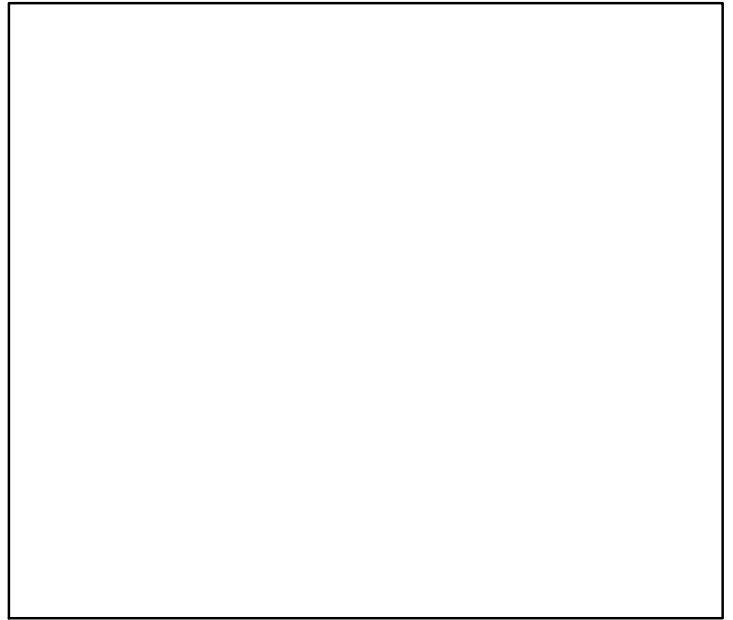
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2005	64,000	-	1+
SSB	SSB-MT	2005	33,000	Females	2+
TN	-	-	-	-	-
R	R-E00	2005	9000	-	0
F	F-1/yr	2005	0	Both	1+
ER	ER-ratio	2005	0	-	-
TC	TC-MT	2005	0		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Shortbelly rockfish Pacific Coast [SBELLYROCKPCOAST]

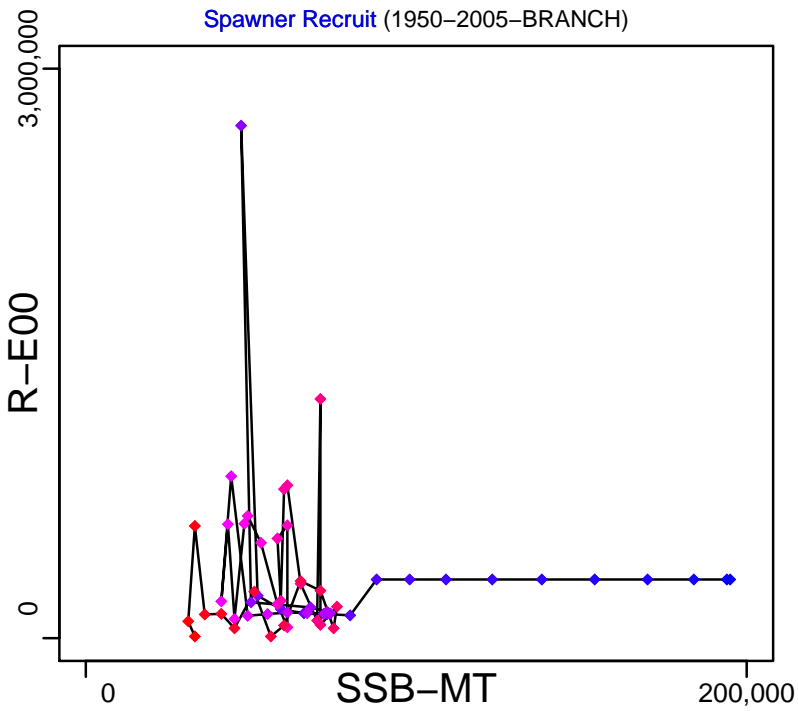
Kobe MSY\*



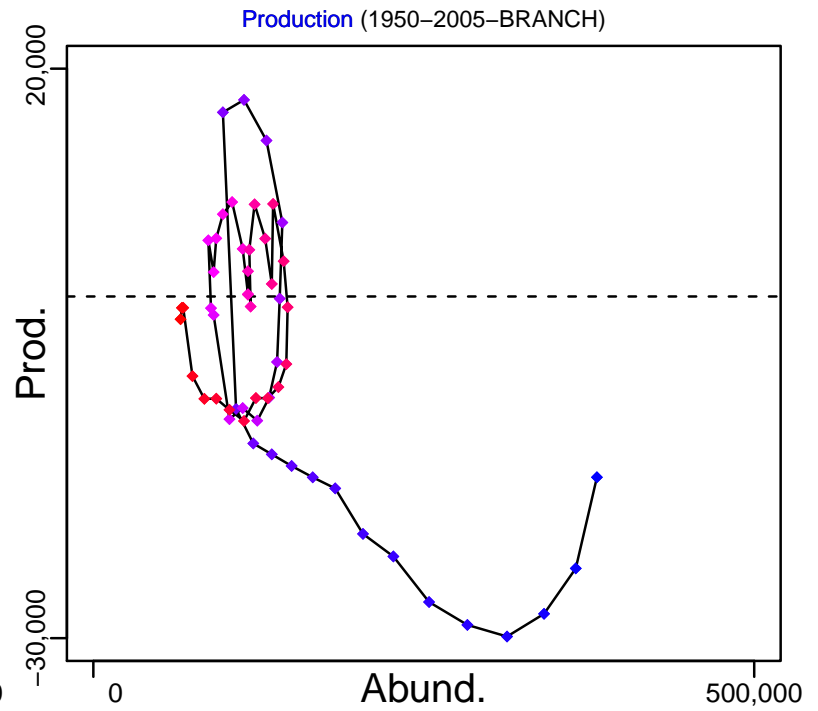
Kobe MGT\*



Spawner Recruit (1950–2005–BRANCH)



Production (1950–2005–BRANCH)

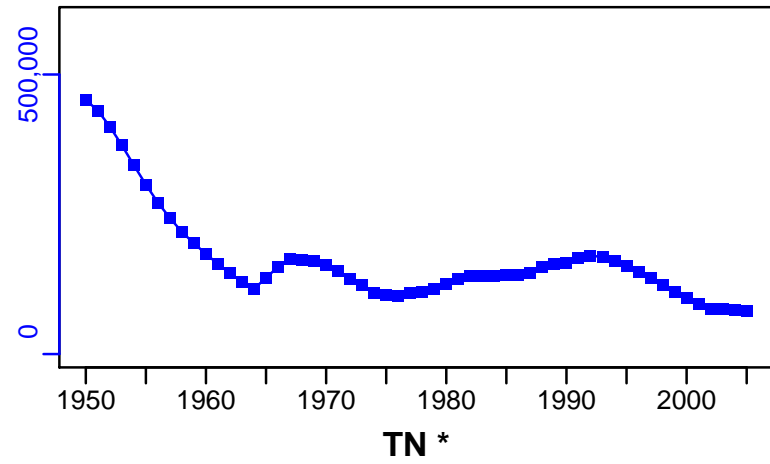


◆ Start Year ◆ End Year \* No Data

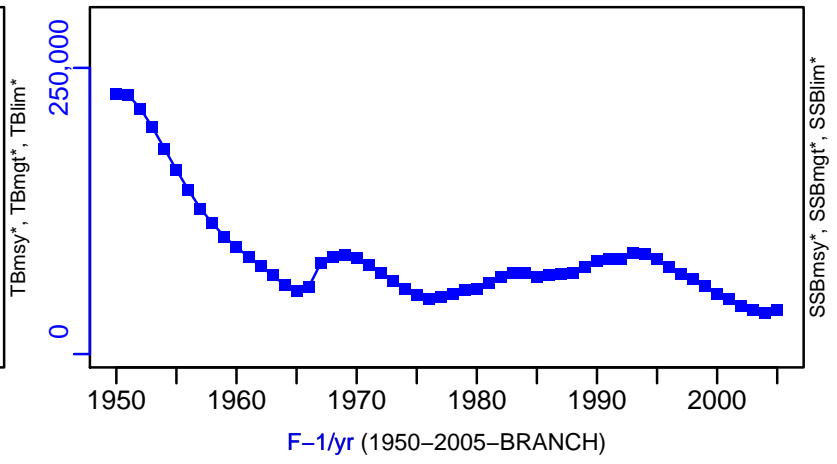


# Shortbelly rockfish Pacific Coast [SBELLYROCKPCOAST]

TB-MT (1950-2005-BRANCH)



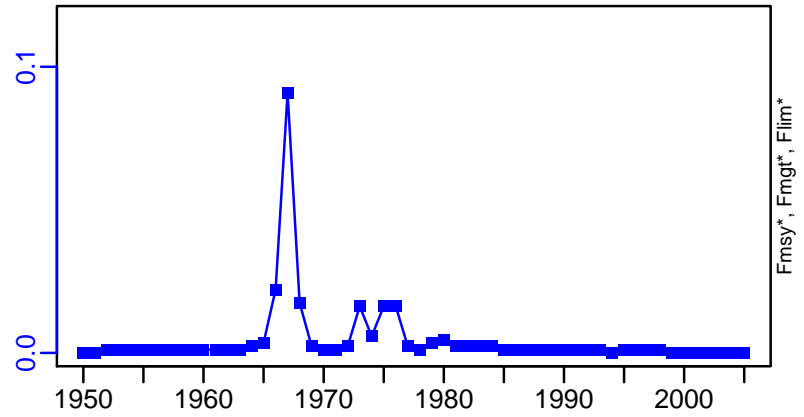
SSB-MT (1950-2005-BRANCH)



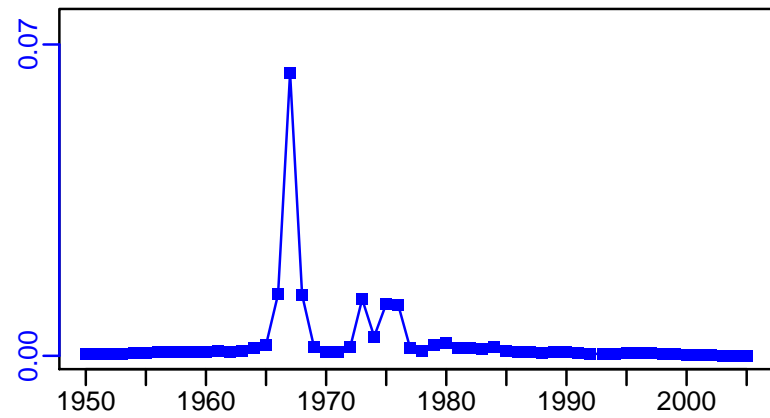
TN \*



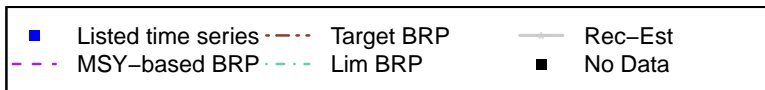
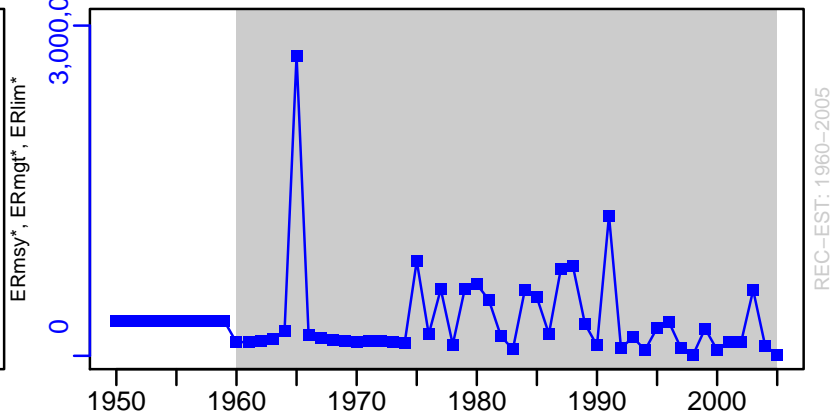
F-1/yr (1950-2005-BRANCH)



ER-ratio (1950-2005-BRANCH)

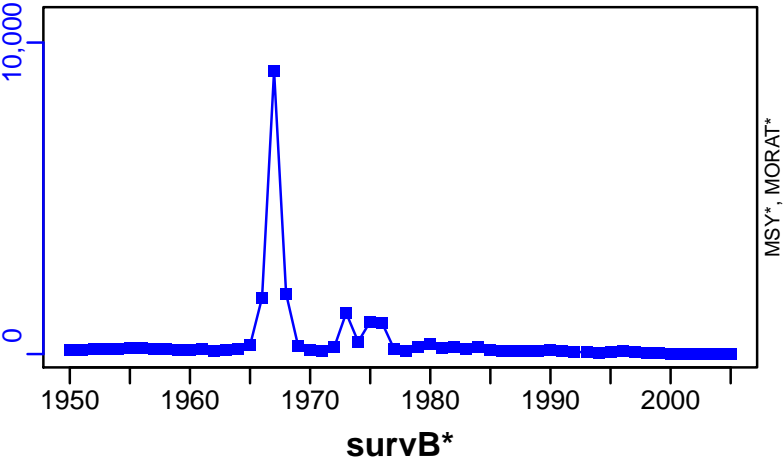


R-E00 (1950-2005-BRANCH)

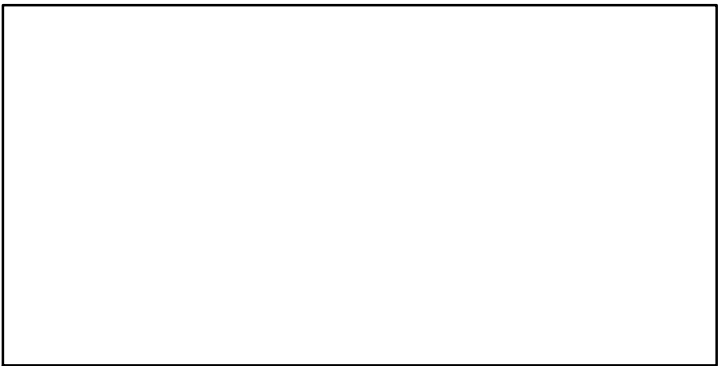


Shortbelly rockfish Pacific Coast [SBELLYROCKPCOAST]

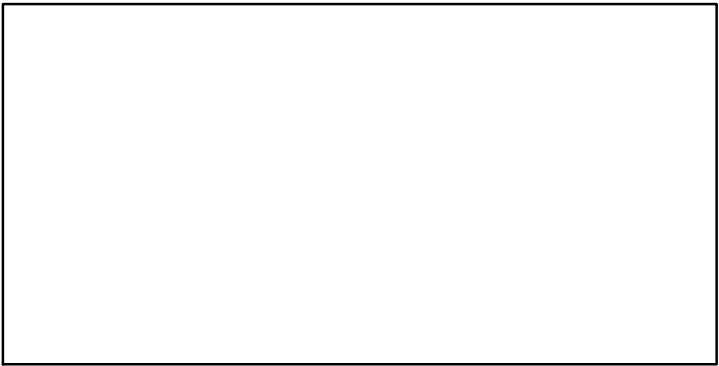
TC-MT, TL\*, RecC\* (1950-2005-BRANCH)



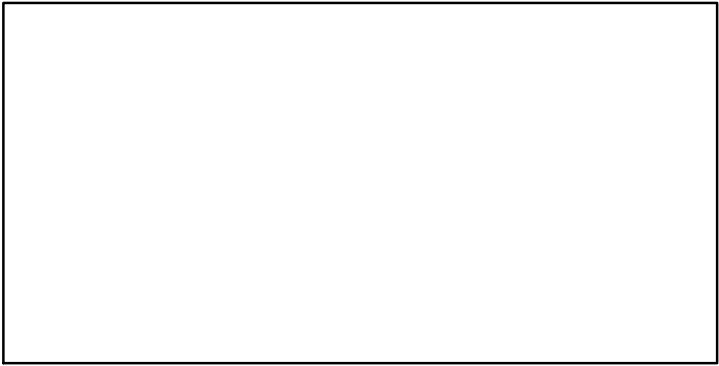
TAC\*, Cpair\*, Cadv\*



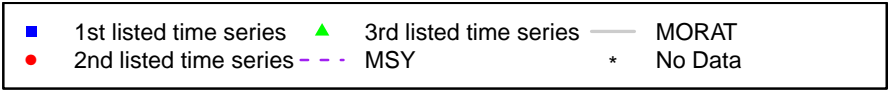
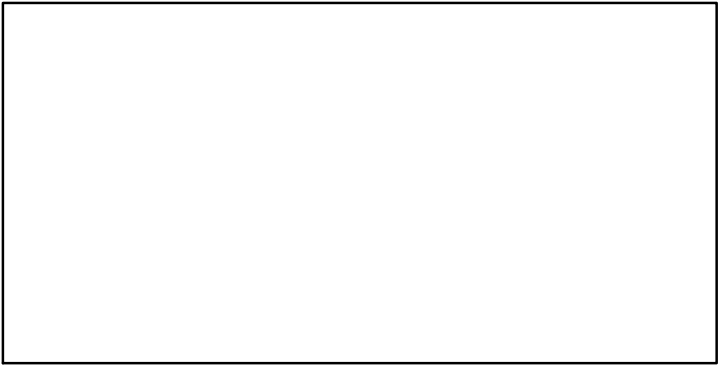
CPUE\*



EFFORT\*



CdivMSY\*



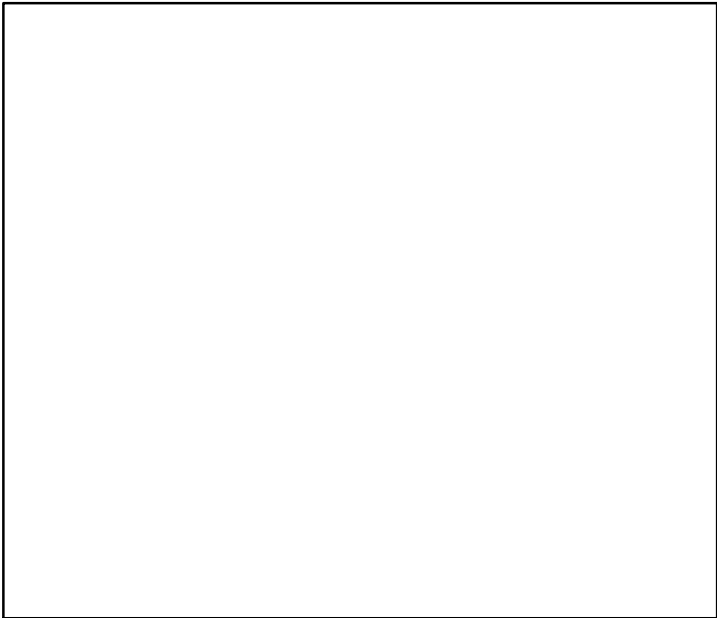
## Sharpchin rockfish Pacific Coast [SHCROCKPCOAST]

Metadata	
<b>Scientific Name</b>	Sebastes zacentrus
<b>Current Assess ID</b>	NWFSC-SHCROCKPCOAST-1892-2012-SISIMP2016
<b>Area</b>	Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northwest Fisheries Science Center
<b>Asmts in RAM</b>	2012

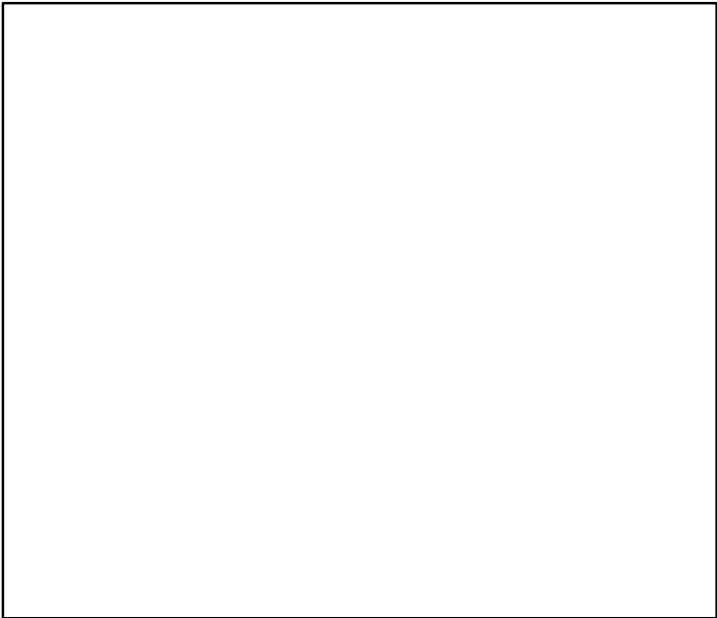
Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	-	-	-
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	Fmsy-1/yr	2012	0.5
<b>ERmsy</b>	-	-	-
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2012	270
<b>M</b>	-	-	-
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	Flim-1/yr	2012	0.5
<b>ERlim</b>	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2012	12,800	-	-
<b>SSB</b>	-	-	-	-	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	-	-	-	-	-
<b>F</b>	F-1/yr	2012	0.03	-	-
<b>ER</b>	-	-	-	-	-
<b>TC</b>	-	-	-		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	-	-	-		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2012	0.06		
<b>ER/ERmsy</b>	-	-	-		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

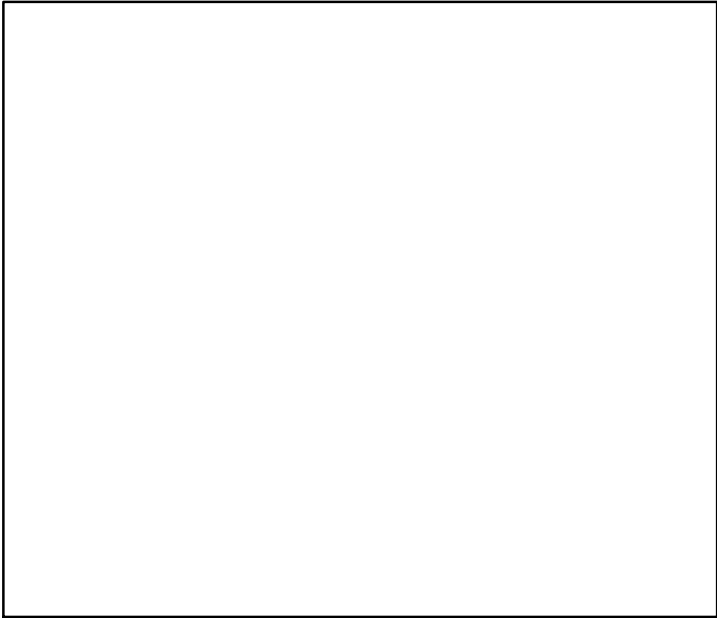
Kobe MSY\*



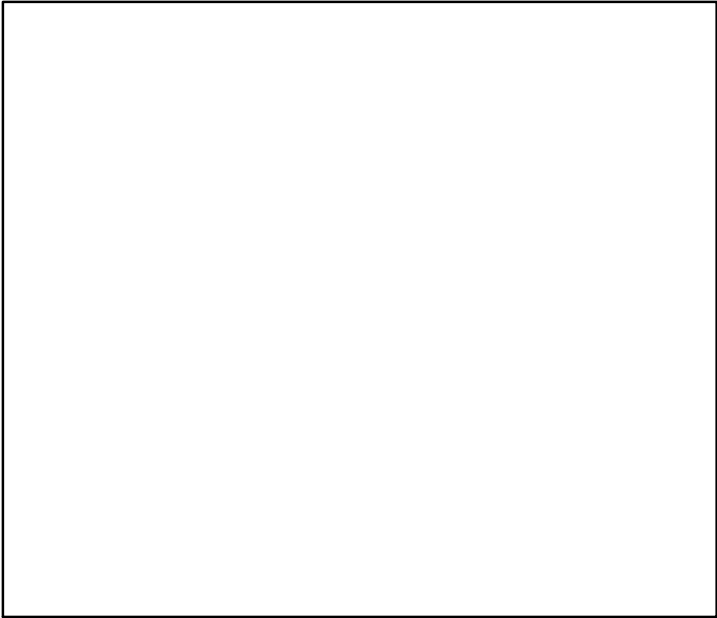
Kobe MGT\*



Spawner Recruit\*



Production\*

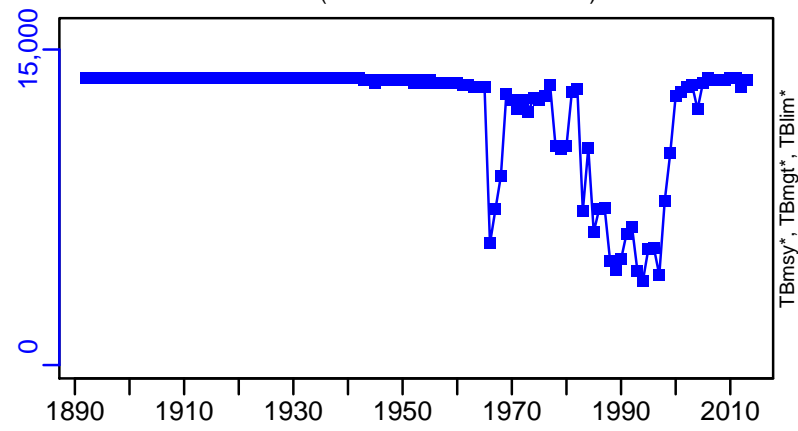


◆ Start Year   ◆ End Year   \* No Data

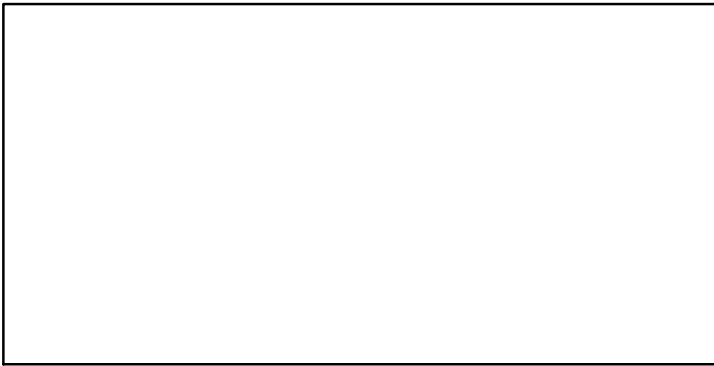
# Sharpchin rockfish Pacific Coast [SHCROCKPCOAST]

TB-MT (1892-2012-SISIMP2016)

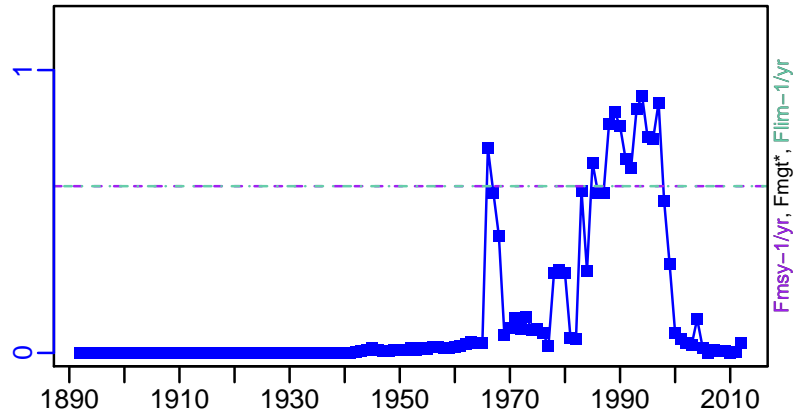
SSB\*



TN \*



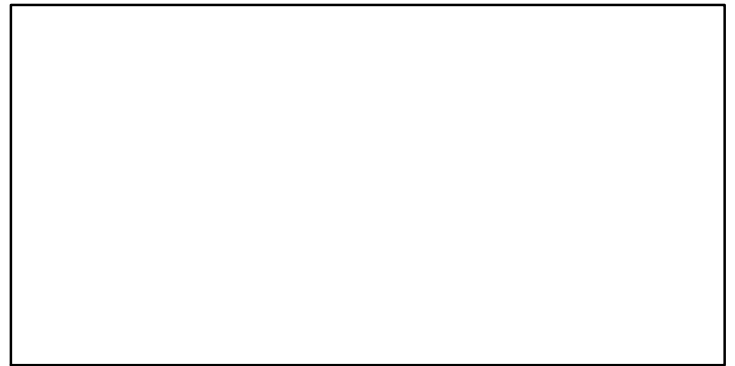
F-1/yr (1892-2012-SISIMP2016)



ER\*

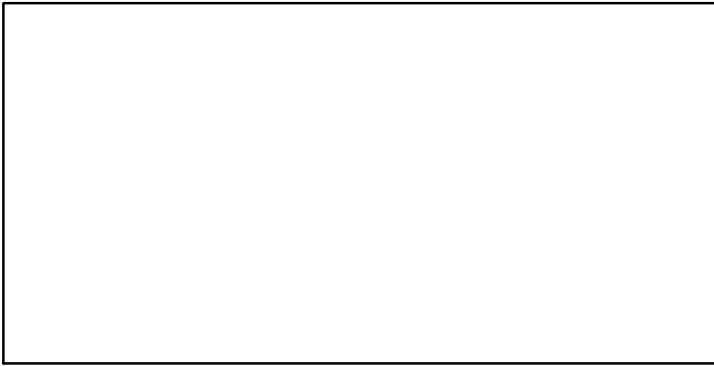


Recruits\*

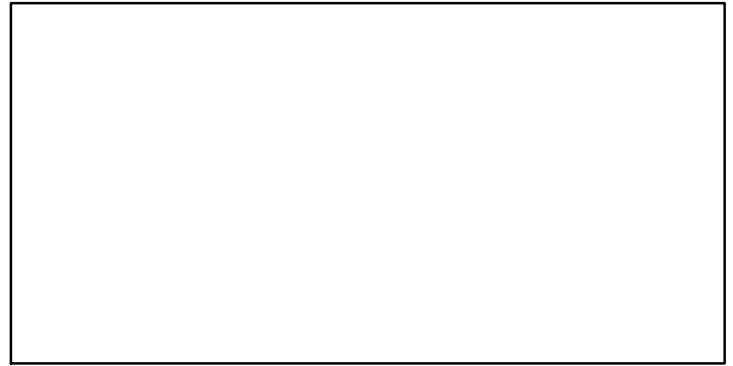


Sharpchin rockfish Pacific Coast [SHCROCKPCOAST]

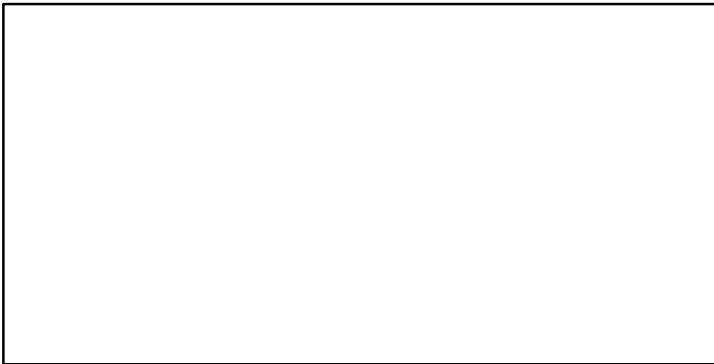
TC\*, TL\*, RecC\*



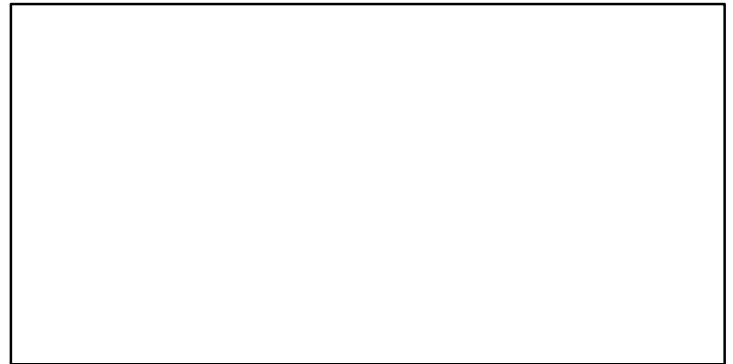
TAC\*, Cpair\*, Cadv\*



survB\*



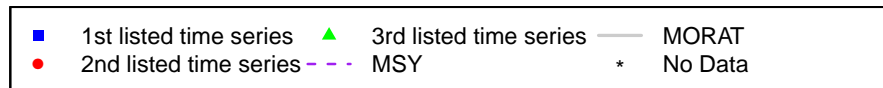
CPUE\*



EFFORT\*



CdivMSY\*



## Splitnose Rockfish Pacific Coast [SNROCKPCOAST]

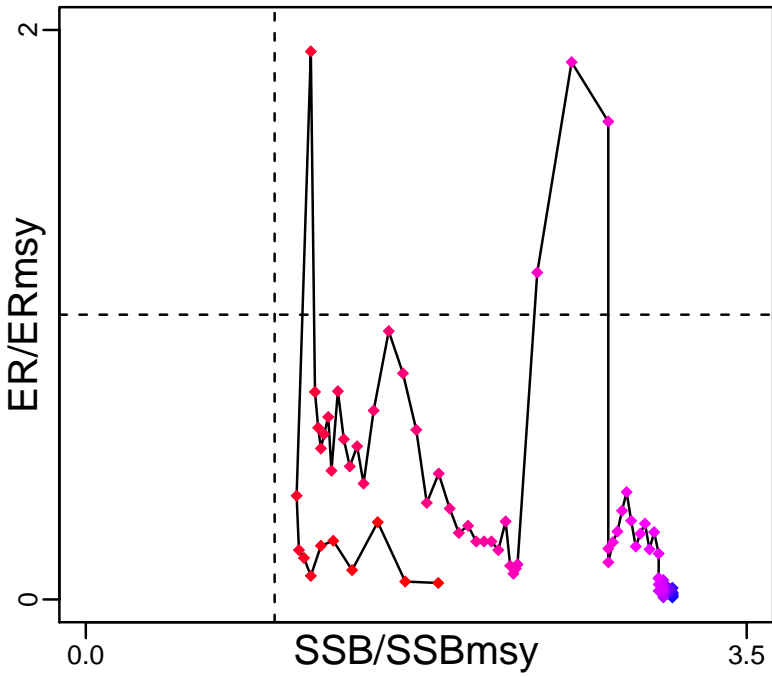
Metadata	
<b>Scientific Name</b>	Sebastes diploproa
<b>Current Assess ID</b>	NWFSC-SNROCKPCOAST-1905-2009-STANTON
<b>Area</b>	Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northwest Fisheries Science Center
<b>Asmts in RAM</b>	2009

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2009	31,859
<b>SSBmsy</b>	SSBmsy-E00eggs	2009	$4.12 \times 10^9$
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2009	0.04
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2009	87,584
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2009	1268
<b>M</b>	M-1/yr	2009	0.048
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

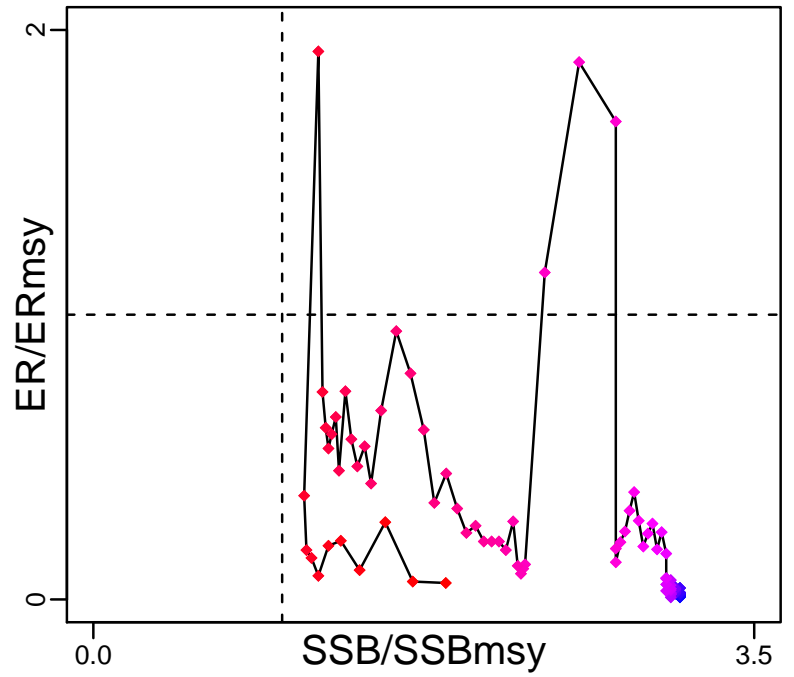
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2009	70,200	-	4+
<b>SSB</b>	SSB-E00eggs	2009	$8.43 \times 10^9$	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2009	12,700,000	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2009	0.002	-	-
<b>TC</b>	TC-MT	2009	66		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2009	2.203		
<b>SSB/SSBmsy</b>	SSB-E00eggs/SSBmsy-E00eggs	2009	2.046		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2009	0.058		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Splitnose Rockfish Pacific Coast [SNROCKPCOAST]

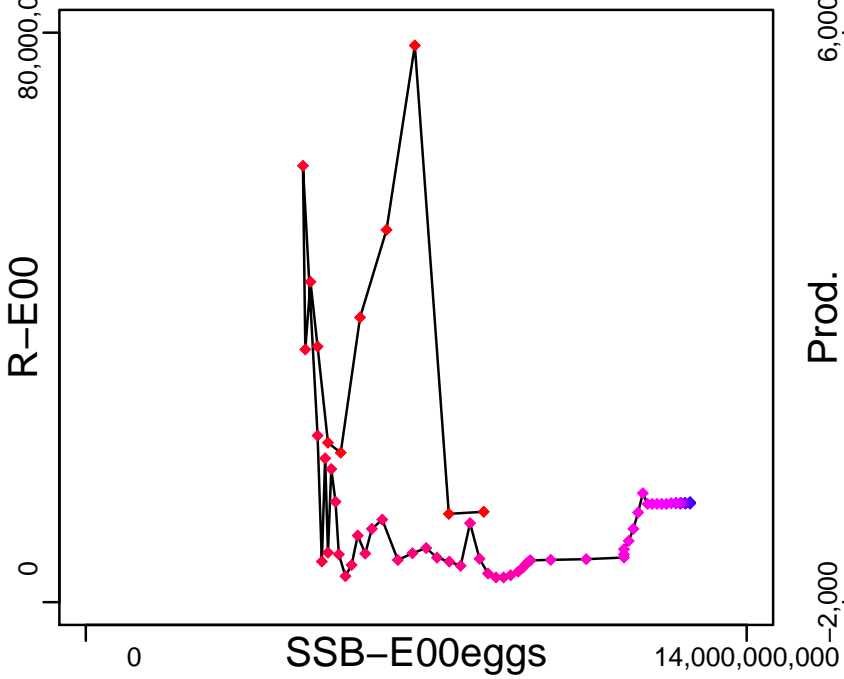
Kobe MSYpref (1905–2009–STANTON)



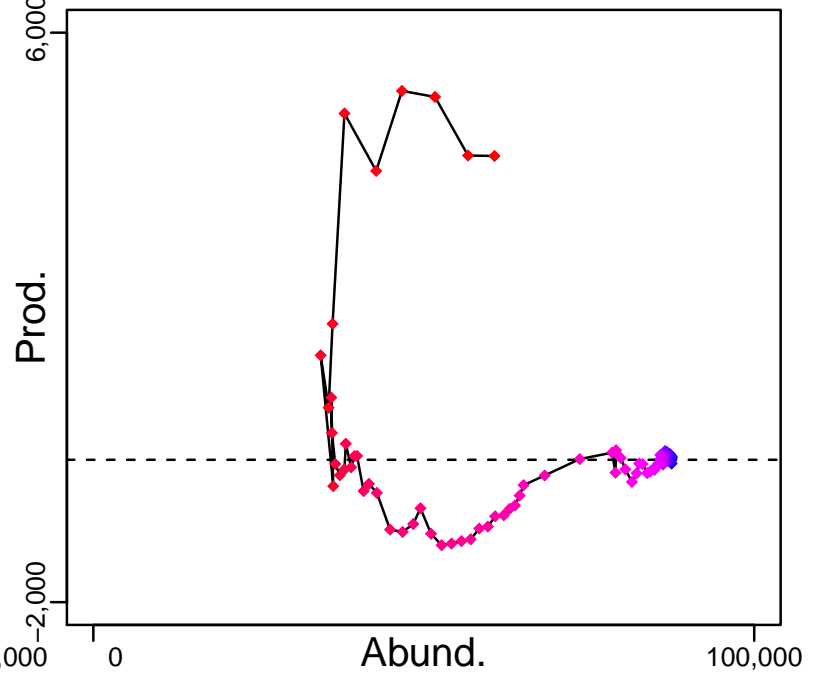
Kobe MGTpref (1905–2009–STANTON)



Spawner Recruit (1905–2009–STANTON)



Production (1905–2009–STANTON)

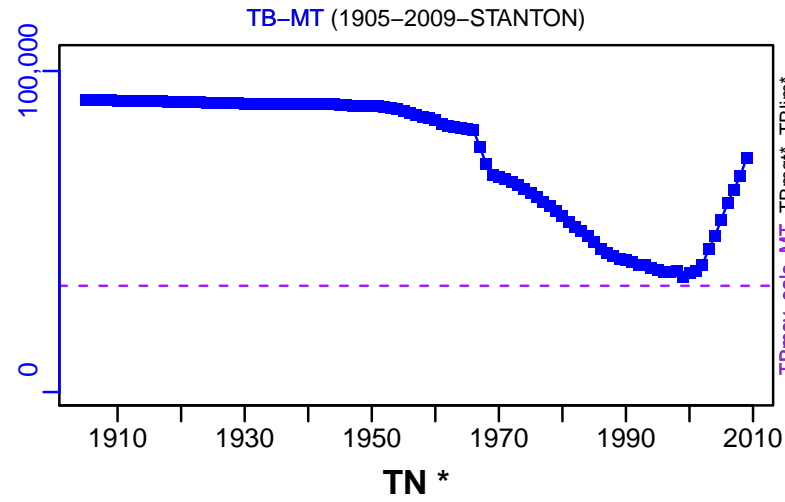


◆ Start Year ◆ End Year \* No Data

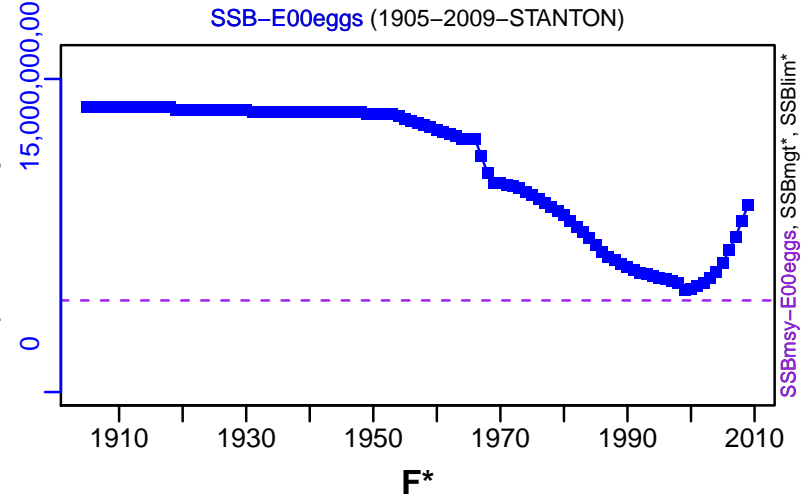


# Splitnose Rockfish Pacific Coast [SNROCKPCOAST]

TB-MT (1905-2009-STANTON)



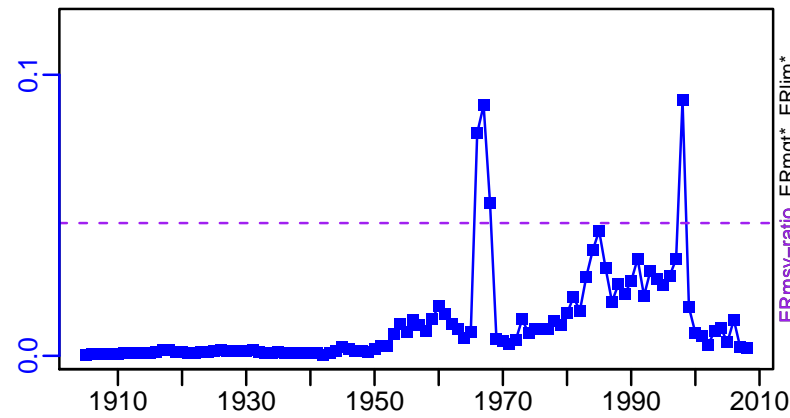
SSB-E00eggs (1905-2009-STANTON)



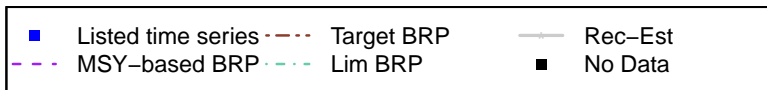
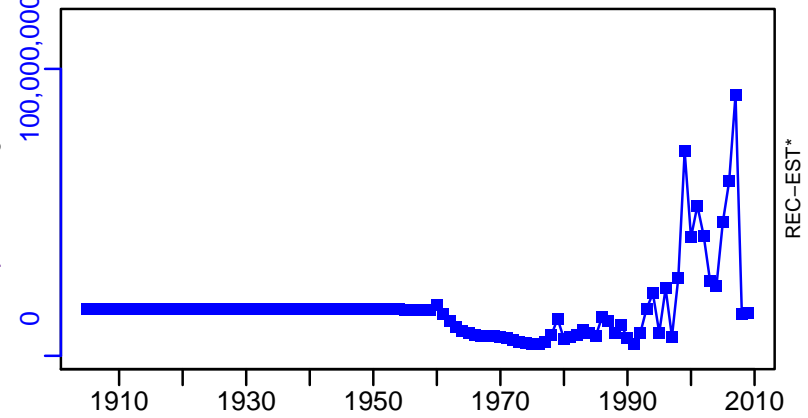
TN \*

F\*

ER-ratio (1905-2009-STANTON)



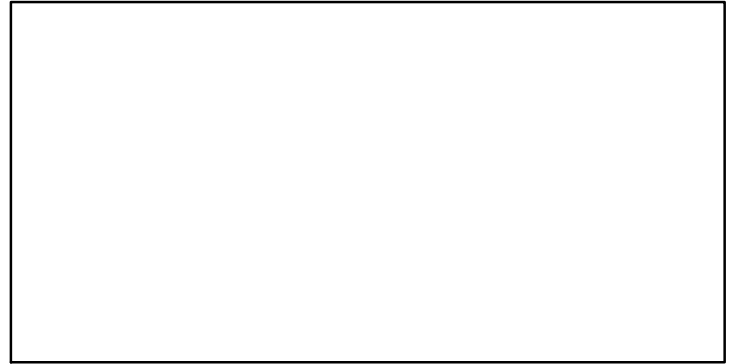
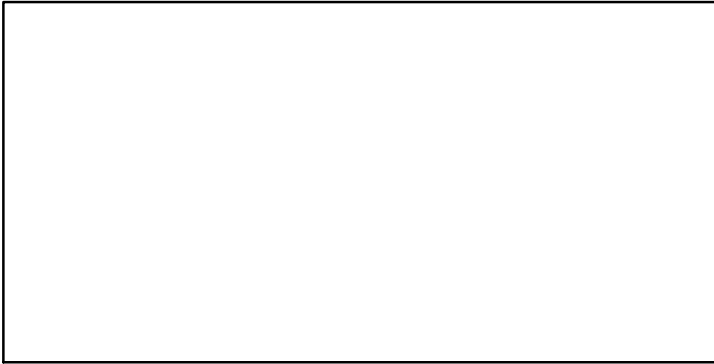
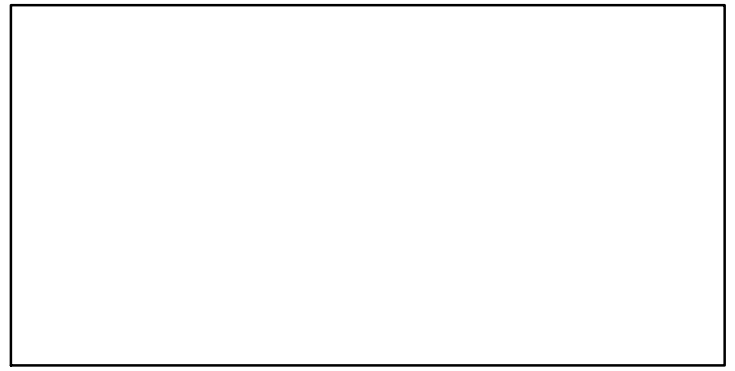
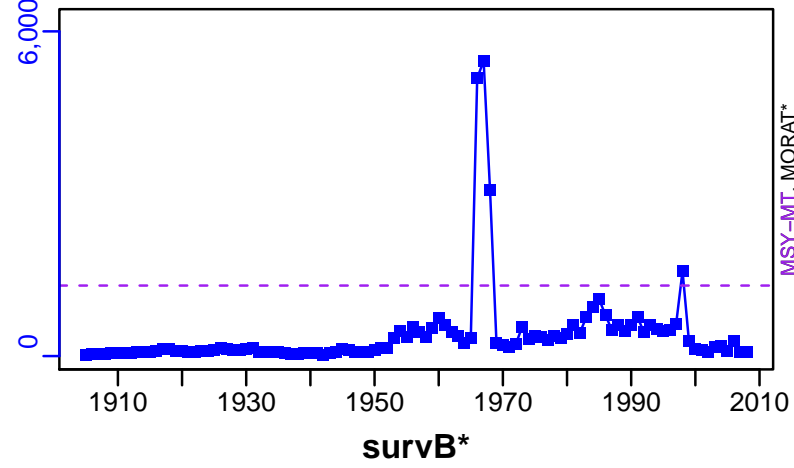
R-E00 (1905-2009-STANTON)



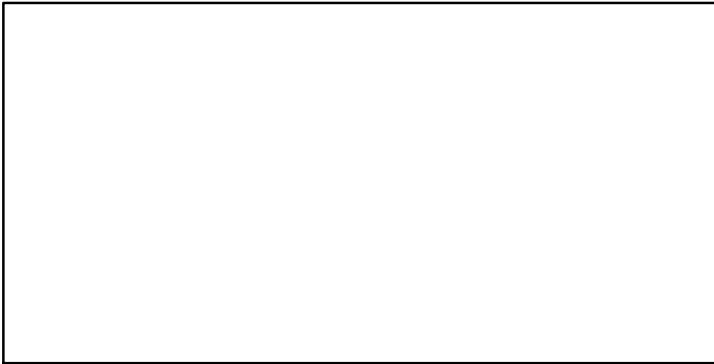
# Splitnose Rockfish Pacific Coast [SNROCKPCOAST]

TC-MT, TL\*, RecC\* (1905-2009-STANTON)

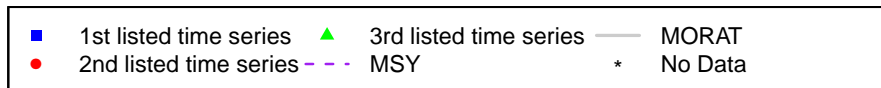
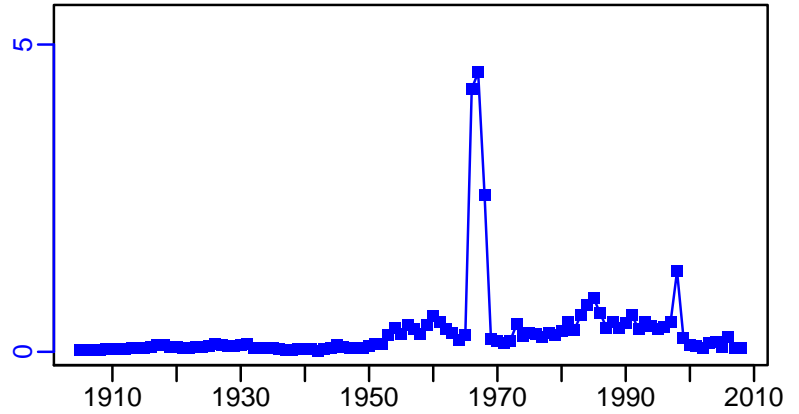
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1905-2009-STANTON)



## Spotted spiny dogfish Pacific Coast [SPSDOGPCOAST]

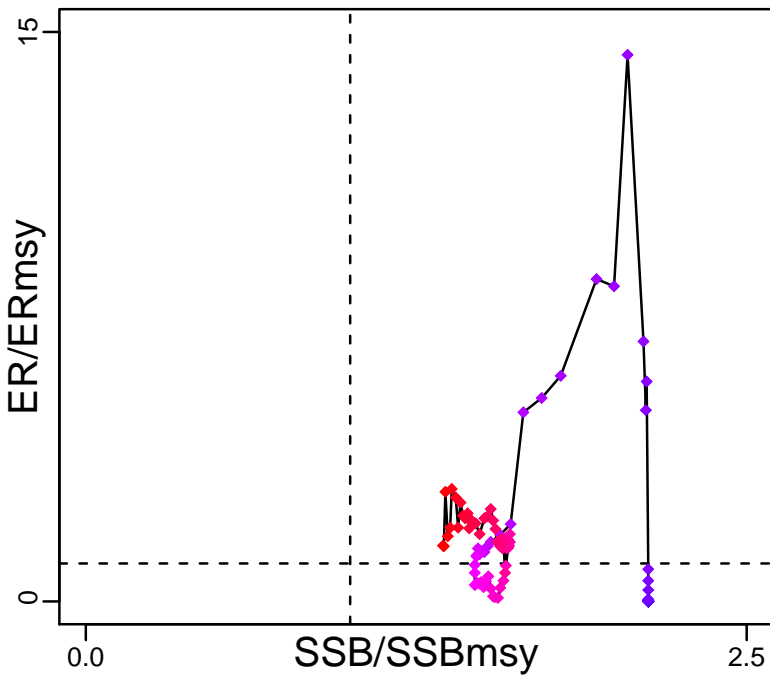
Metadata	
<b>Scientific Name</b>	Squalus suckleyi
<b>Current Assess ID</b>	NWFSC-SPSDOGPCOAST-1916-2011-STACHURA
<b>Area</b>	Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northwest Fisheries Science Center
<b>Asmts in RAM</b>	2011

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2011	160,000
<b>SSBmsy</b>	SSFmsy-E00	2011	33,229,000
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-ratio	2011	0.005
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2011	304,105
<b>SSB0</b>	-	-	-
<b>MSY</b>	MSY-MT	2011	848
<b>M</b>	M-1/yr	2011	0.064
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

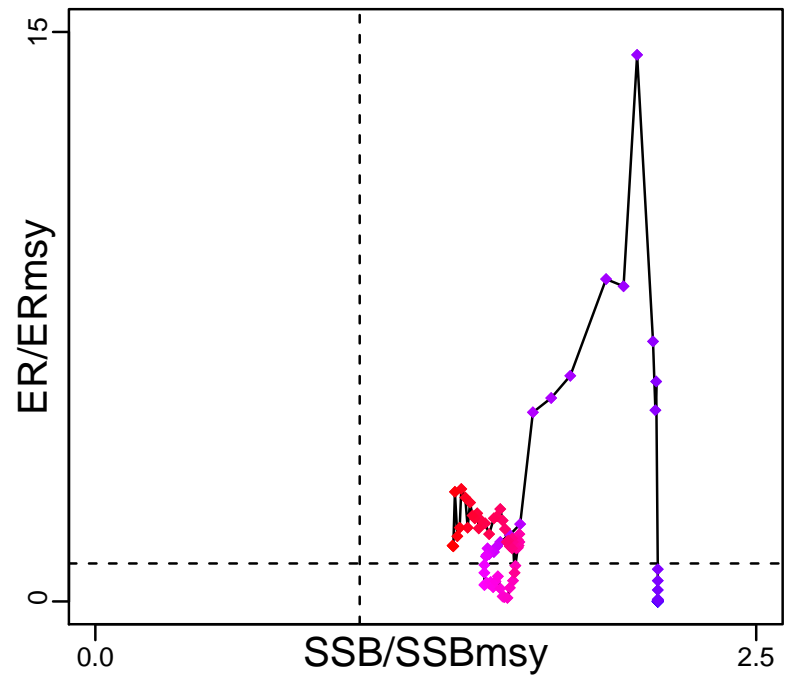
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2011	217,000	-	1+
<b>SSB</b>	SSF-E00	2011	44,600,000	Females	35.5+
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2011	17,500,000	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2011	0.008	-	-
<b>TC</b>	TC-MT	2011	1160		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2011	1.356		
<b>SSB/SSBmsy</b>	SSF-E00/SSFmsy-E00	2011	1.342		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2011	1.472		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Spotted spiny dogfish Pacific Coast [SPSDOGPCOAST]

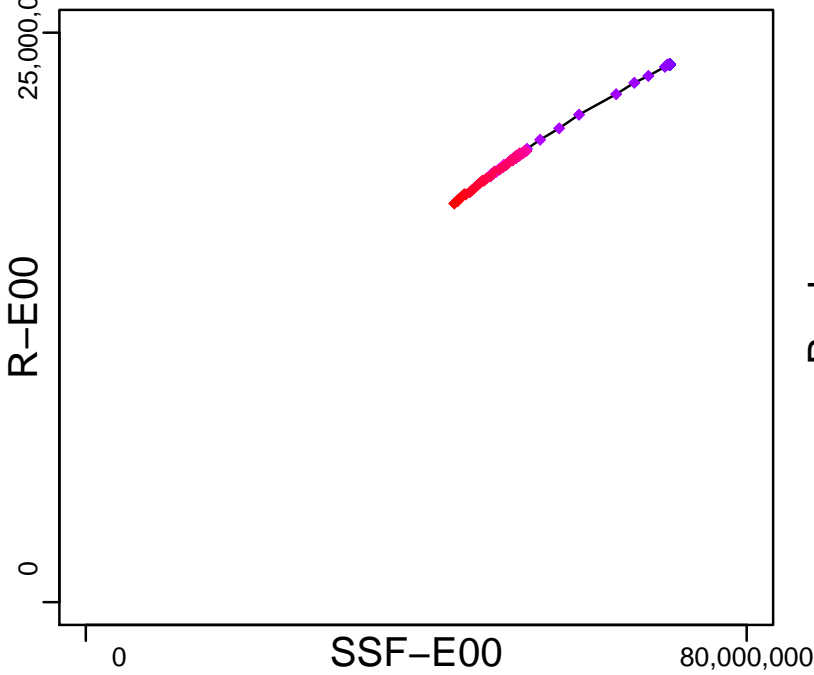
Kobe MSYpref (1916–2011–STACHURA)



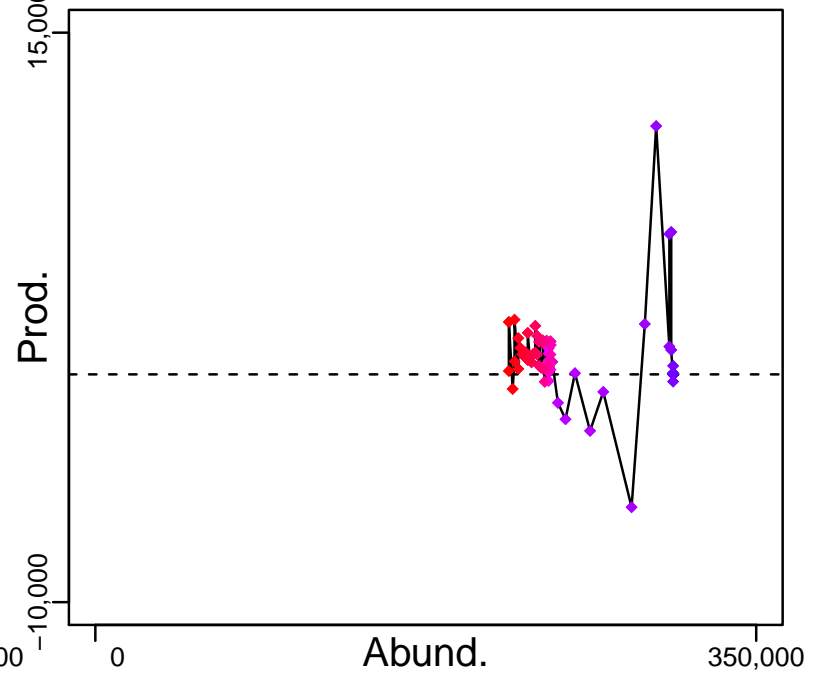
Kobe MGTpref (1916–2011–STACHURA)



Spawner Recruit (1916–2011–STACHURA)



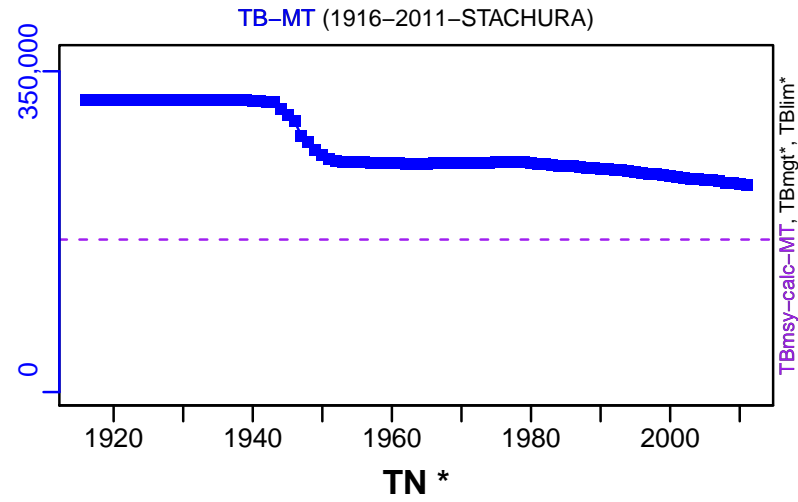
Production (1916–2011–STACHURA)



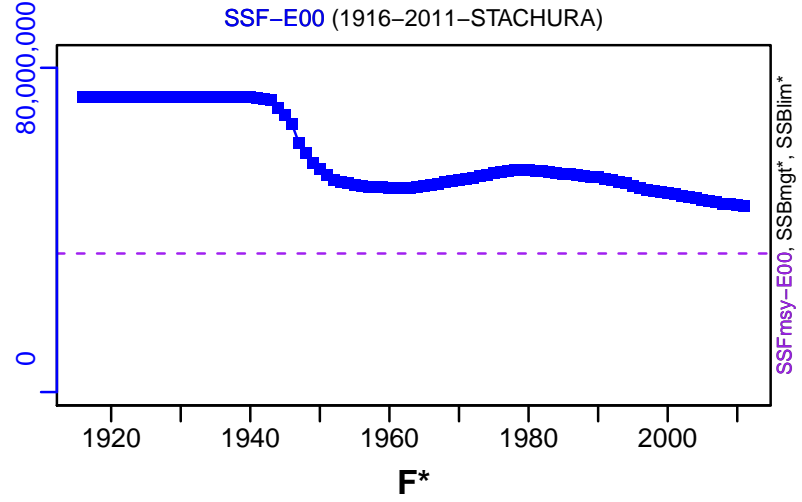
◆ Start Year ◆ End Year \* No Data

# Spotted spiny dogfish Pacific Coast [SPSDOGPCOAST]

TB-MT (1916-2011-STACHURA)



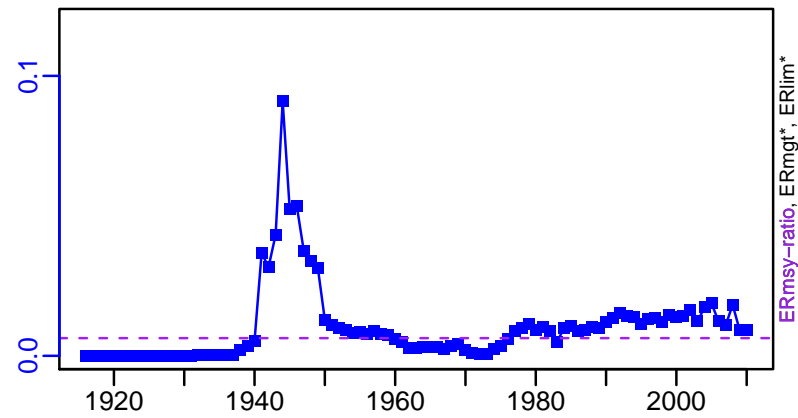
SSF-E00 (1916-2011-STACHURA)



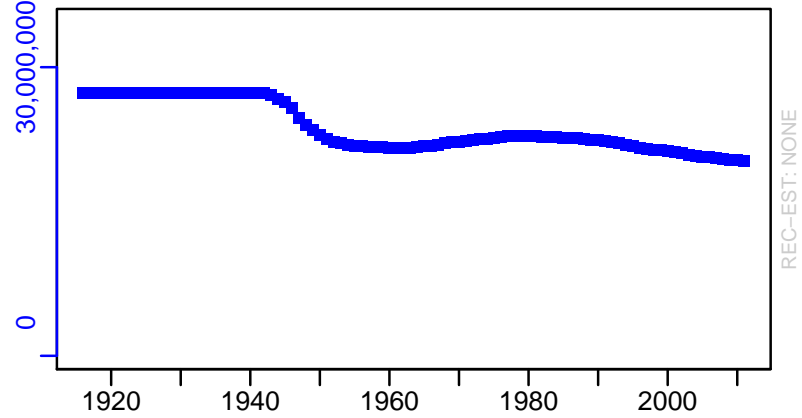
TN \*

F\*

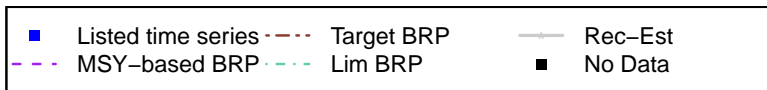
ER-ratio (1916-2011-STACHURA)



R-E00 (1916-2011-STACHURA)



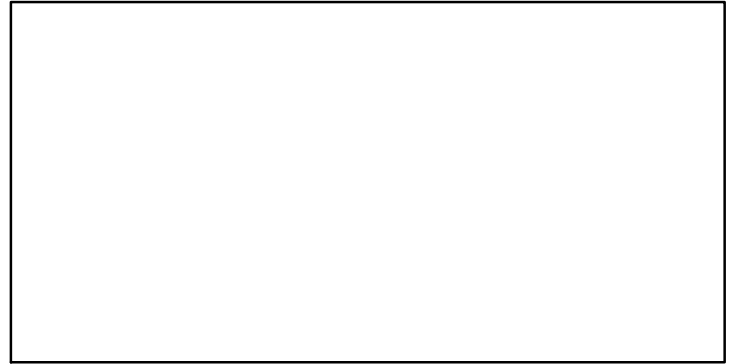
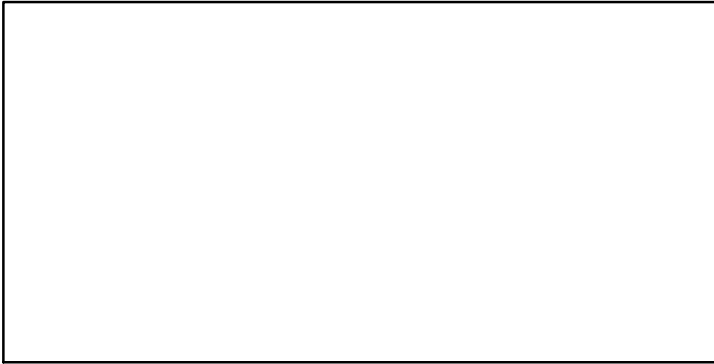
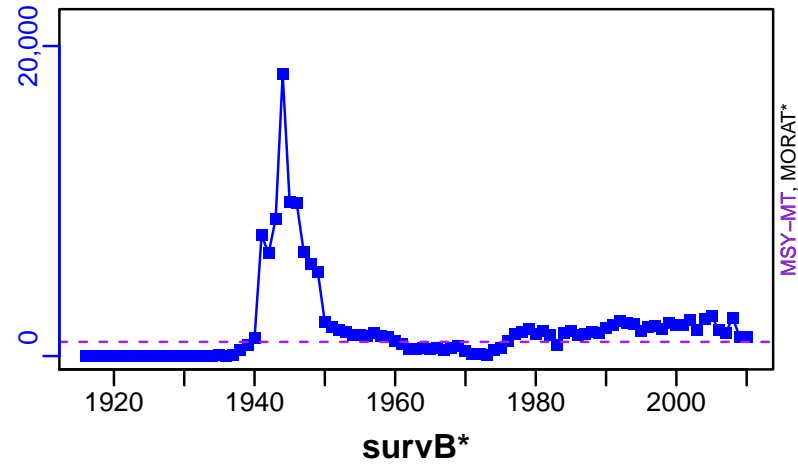
REC-EST: NONE



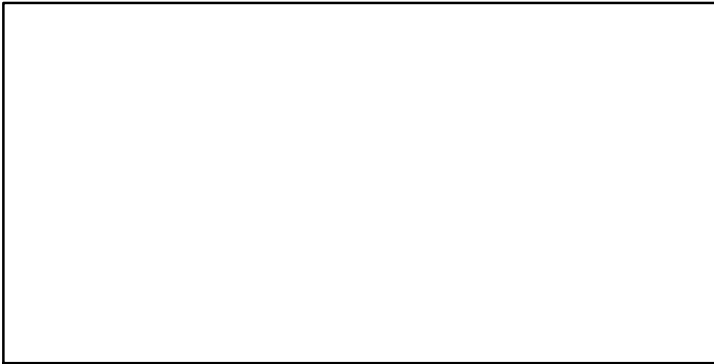
# Spotted spiny dogfish Pacific Coast [SPSDOGPCOAST]

TC-MT, TL\*, RecC\* (1916-2011-STACHURA)

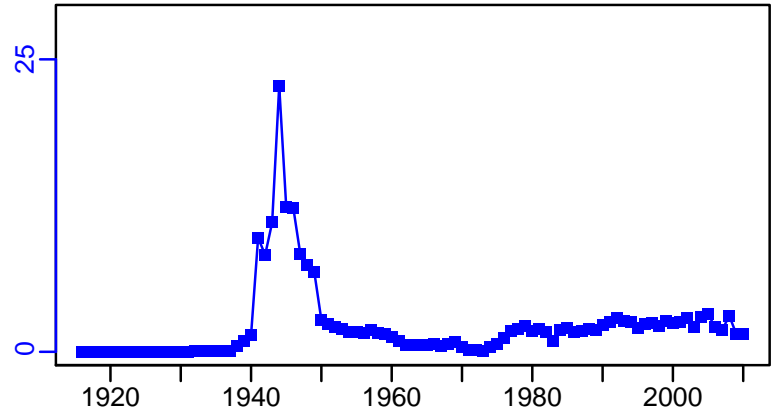
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1916-2011-STACHURA)



## Shortspine thornyhead Pacific Coast [SSTHORNHPCOAST]

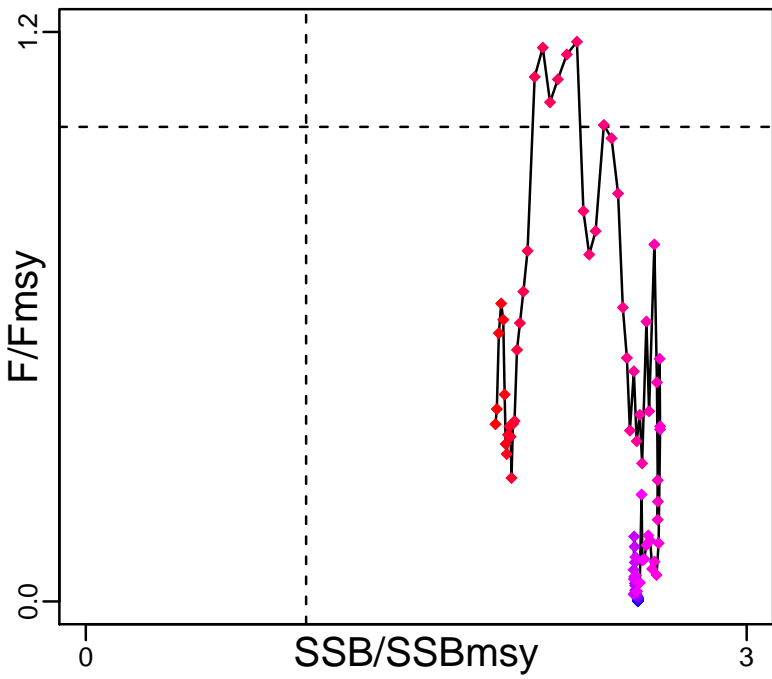
Metadata	
<b>Scientific Name</b>	Sebastes albus
<b>Current Assess ID</b>	NWFSC-SSTHORNHPCOAST-1901-2013-SISIMP2016
<b>Area</b>	Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northwest Fisheries Science Center
<b>Asmts in RAM</b>	2005, 2013

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-MT	2005	86,000
<b>SSBmsy</b>	SSBmsy-MT	2013	75,906
<b>Fmsy</b>	Fmsy-1/yr	2013	0.5
<b>ERmsy</b>	ERmsy-ratio	2005	0.018
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2005	230,500
<b>SSB0</b>	SSB0-MT	2005	130,646
<b>MSY</b>	MSY-MT	2013	2034
<b>M</b>	M-1/yr	2005	0.05
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2013	47,441
<b>Flim</b>	Flim-1/yr	2013	0.5
<b>ERlim</b>	-	-	-

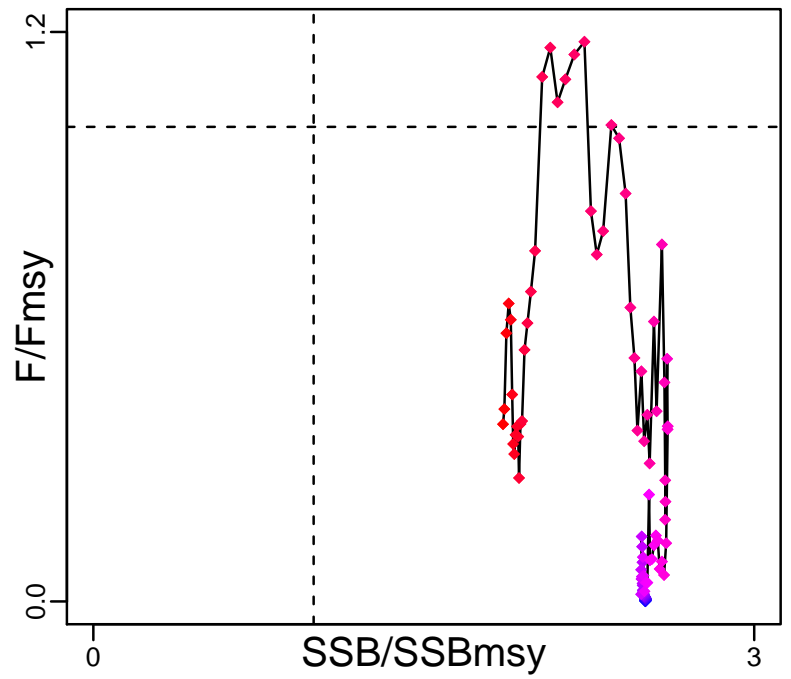
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2013	244,000	-	1+
<b>SSB</b>	SSB-MT	2013	141,000	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2013	28,800,000	-	0
<b>F</b>	F-1/yr	2013	0.187	-	-
<b>ER</b>	ER-calc-ratio	2013	0.004	-	-
<b>TC</b>	TC-MT	2013	911		
<b>TL</b>	TL-MT	2005	867		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2005	1.686		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2013	1.854		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2013	0.374		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2005	0.265		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Shortspine thornyhead Pacific Coast [SSTHORNHPCOAST]

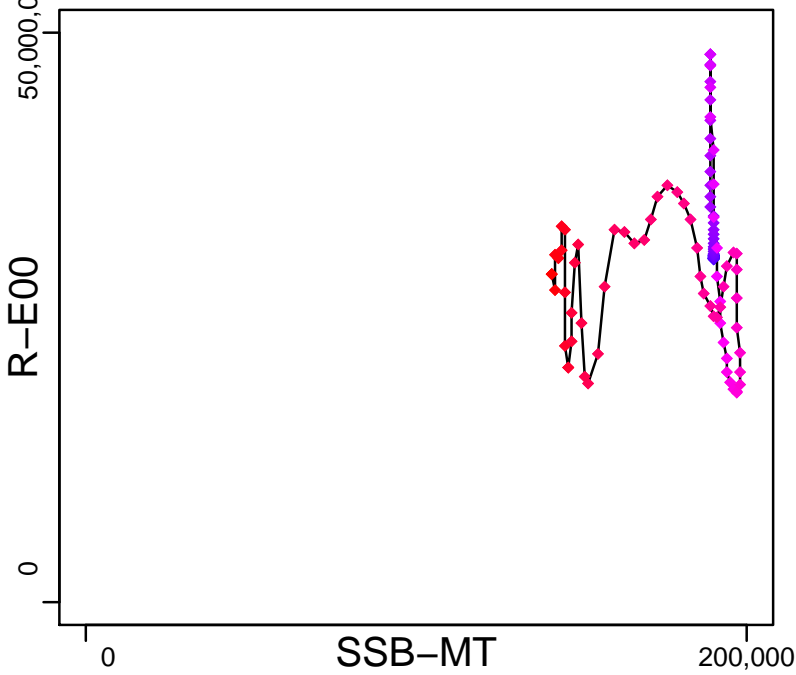
Kobe MSY<sub>pref</sub> (1901–2013–SISIMP2016)



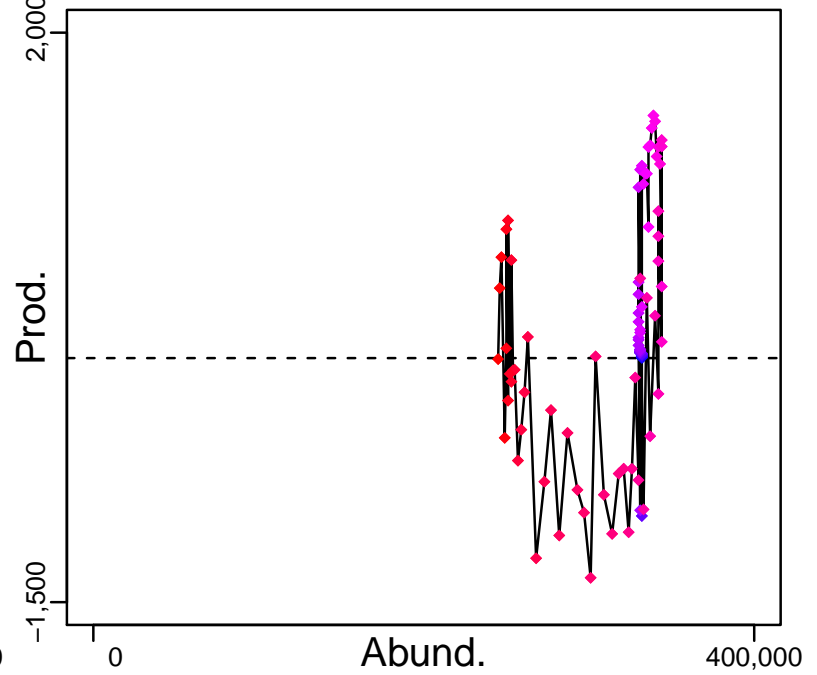
Kobe MGT<sub>pref</sub> (1901–2013–SISIMP2016)



Spawner Recruit (1901–2013–SISIMP2016)



Production (1901–2013–SISIMP2016)



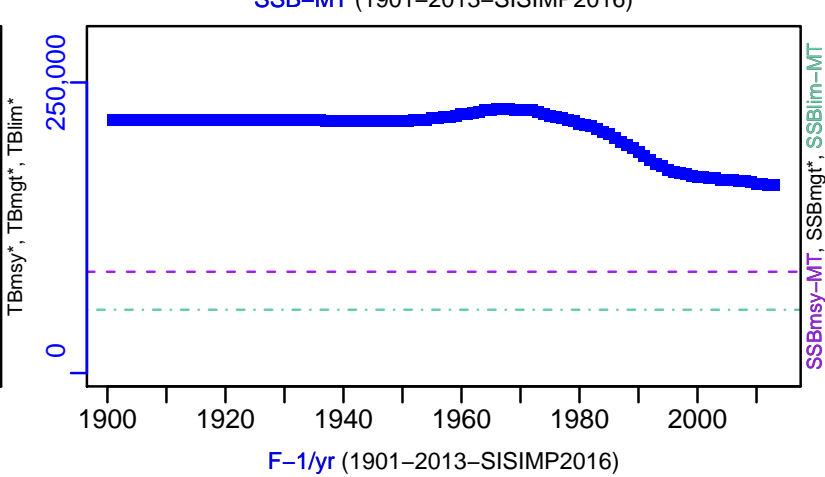
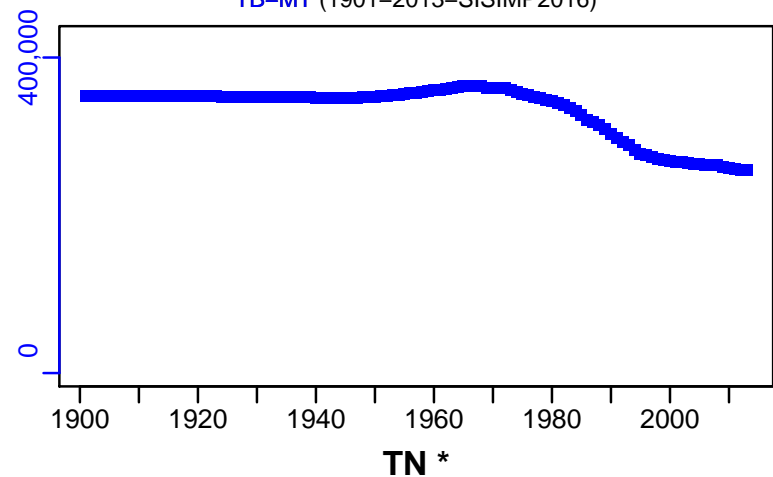
◆ Start Year ◆ End Year \* No Data



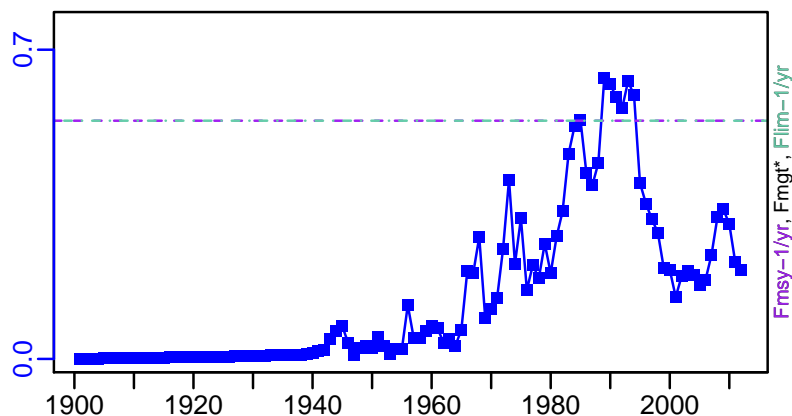
# Shortspine thornyhead Pacific Coast [SSTHORNHPCOAST]

TB-MT (1901-2013-SISIMP2016)

SSB-MT (1901-2013-SISIMP2016)

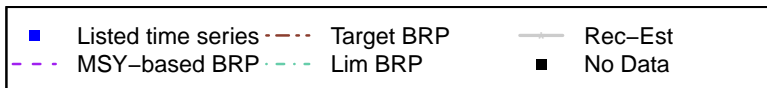
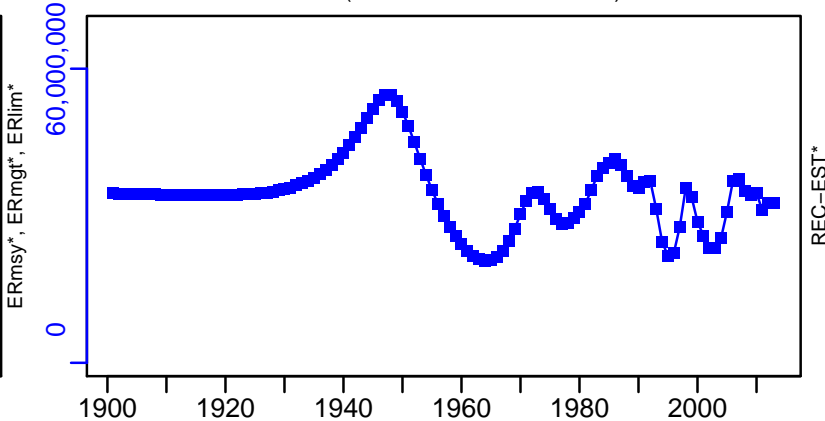
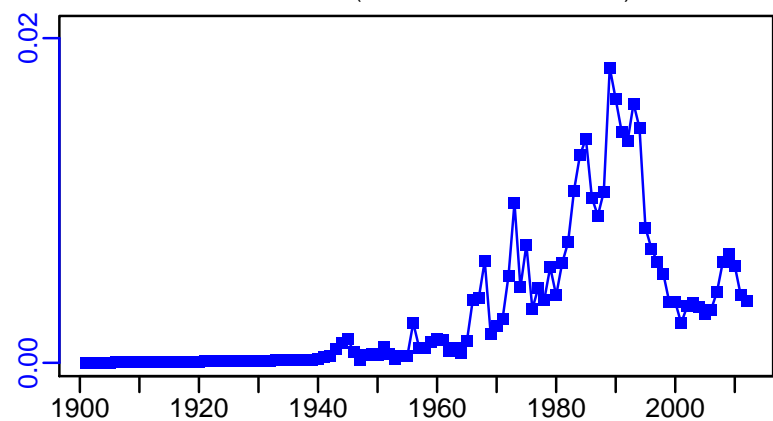


F-1/yr (1901-2013-SISIMP2016)



ER-calc-ratio (1901-2013-SISIMP2016)

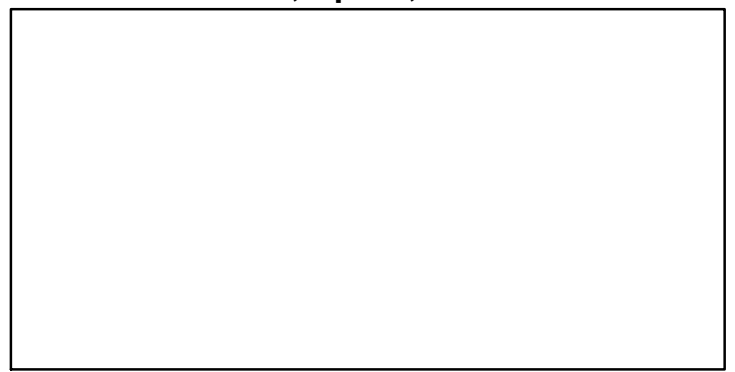
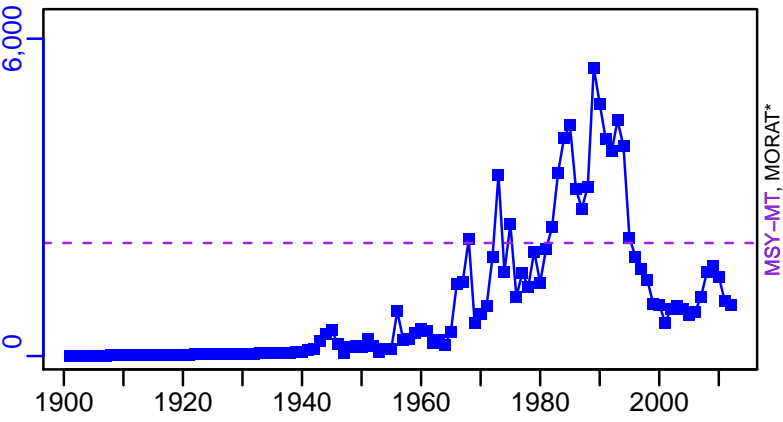
R-E00 (1901-2013-SISIMP2016)



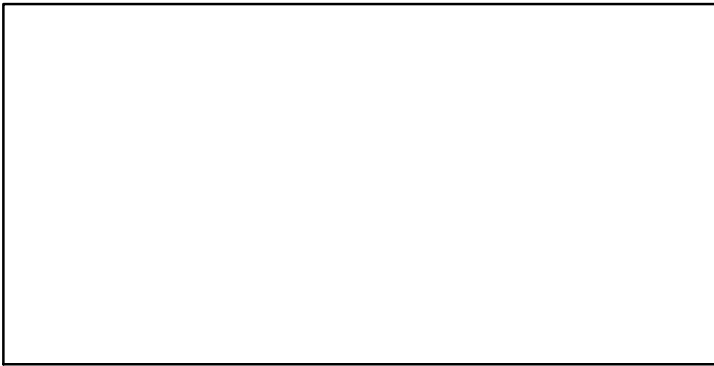
# Shortspine thornyhead Pacific Coast [SSTHORNHPCOAST]

TC-MT, TL\*, RecC\* (1901-2013-SISIMP2016)

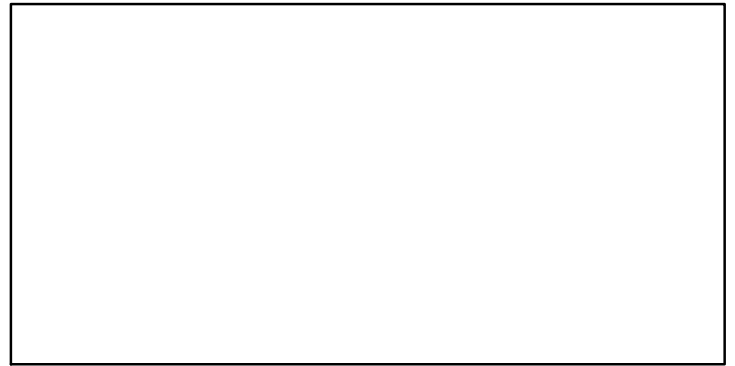
TAC\*, Cpair\*, Cadv\*



survB\*



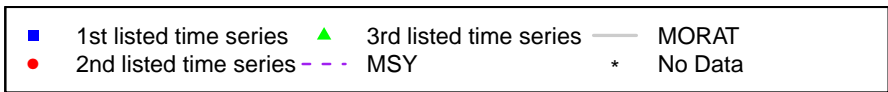
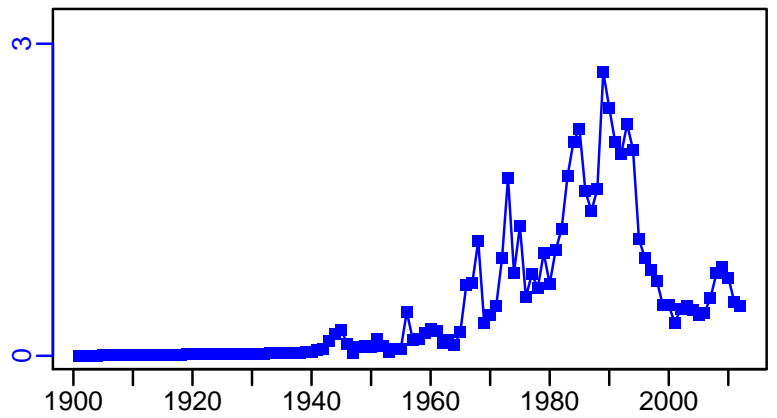
CPUE\*



EFFORT\*



CdivMSY-ratio (1901-2013-SISIMP2016)



## Starry flounder Northern Pacific Coast [STFLOUNNPCOAST]

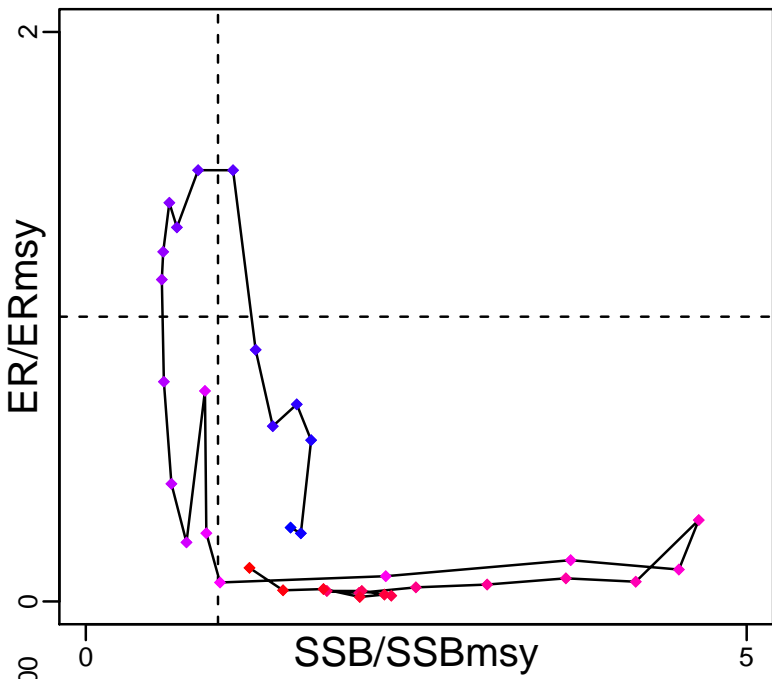
Metadata	
<b>Scientific Name</b>	Platichthys stellatus
<b>Current Assess ID</b>	SWFSC-STFLOUNNPCOAST-1970-2005-STANTON
<b>Area</b>	Northern Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southwest Fisheries Science Center
<b>Asmts in RAM</b>	2005

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2005	4840
<b>SSBmsy</b>	SSBmsy-pr-MT	2005	1930
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-pr-ratio	2005	0.169
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2005	12,102
<b>SSB0</b>	SSB0-MT	2005	4824
<b>MSY</b>	MSY-MT	2005	818
<b>M</b>	M-1/yr	2005	0.3
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

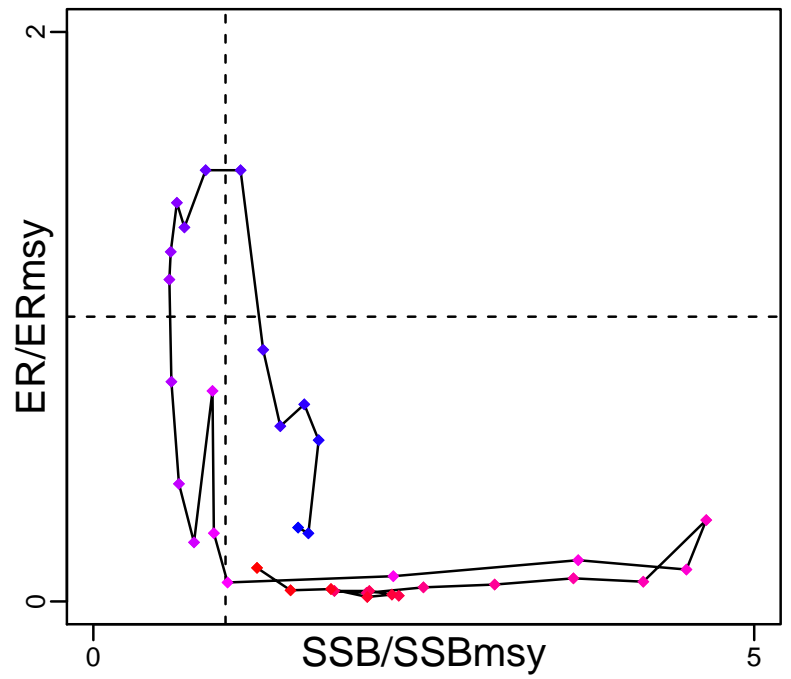
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2005	5440	-	2+
<b>SSB</b>	SSB-MT	2005	2120	Females	3+
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2005	$1.6 \times 10^9$	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-calc-ratio	2005	0.02	-	-
<b>TC</b>	TC-MT	2005	104		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2005	1.124		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-pr-MT	2005	1.098		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-pr-ratio	2005	0.118		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

Starry flounder Northern Pacific Coast [STFLOUNNPCOAST]

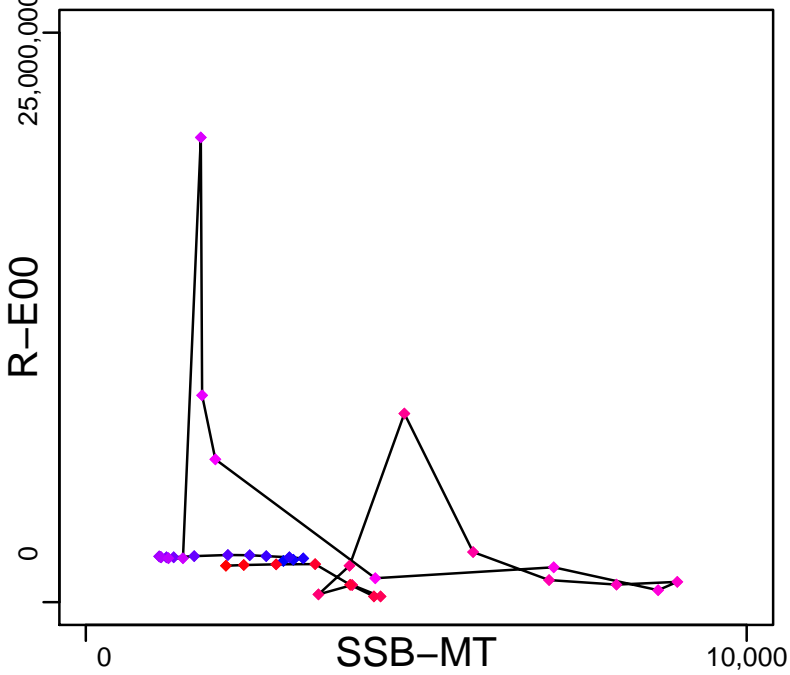
Kobe MSYpref (1970–2005–STANTON)



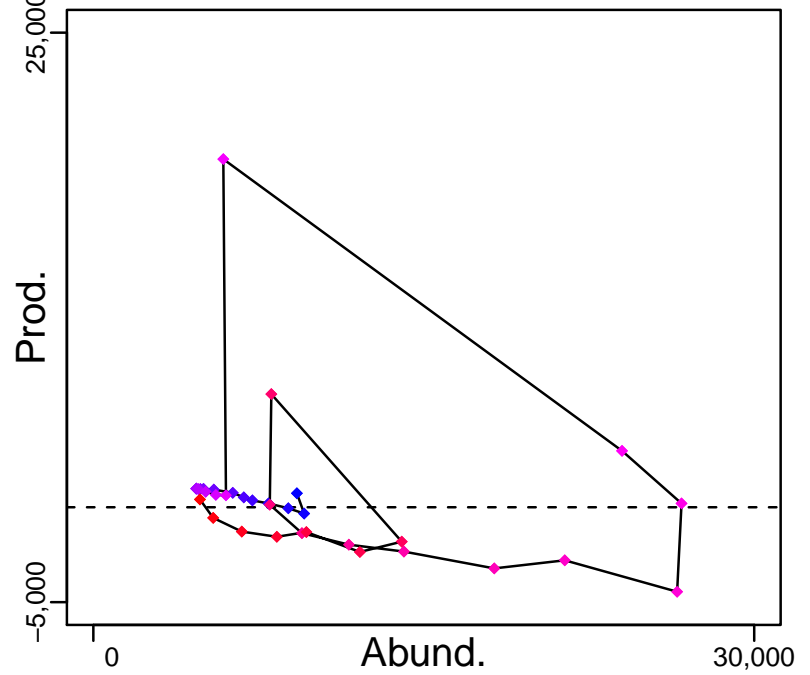
Kobe MGTpref (1970–2005–STANTON)



Spawner Recruit (1970–2005–STANTON)



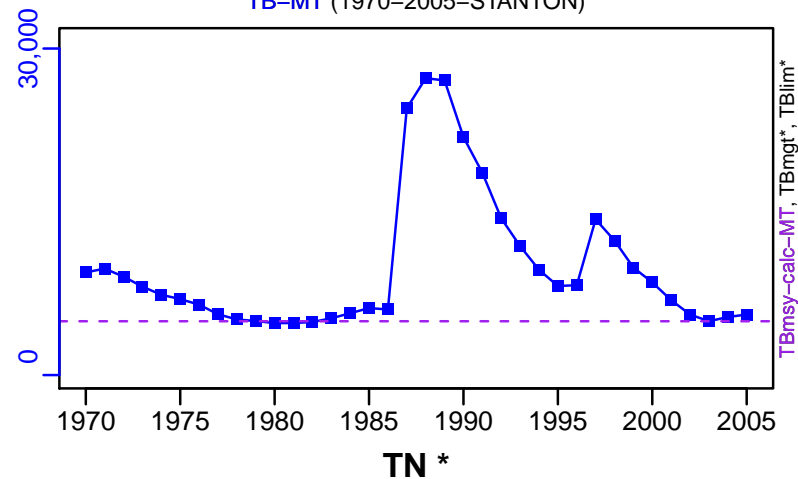
Production (1970–2005–STANTON)



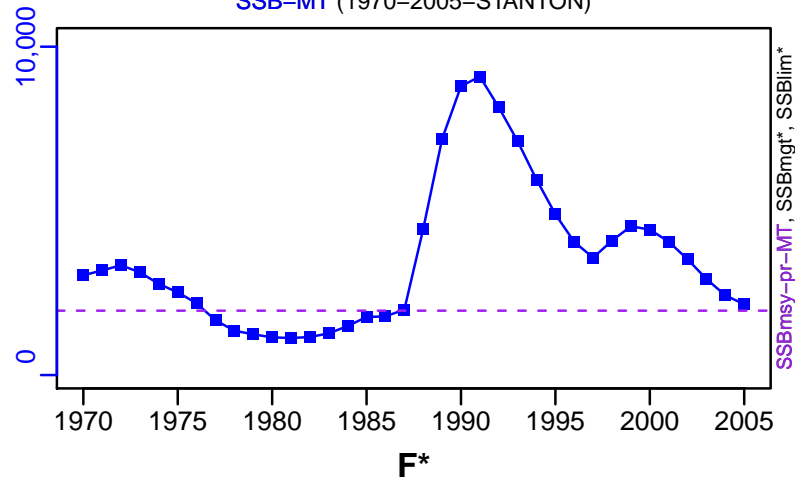
◆ Start Year ◆ End Year \* No Data

# Starry flounder Northern Pacific Coast [STFLOUNNPCOAST]

TB-MT (1970-2005-STANTON)



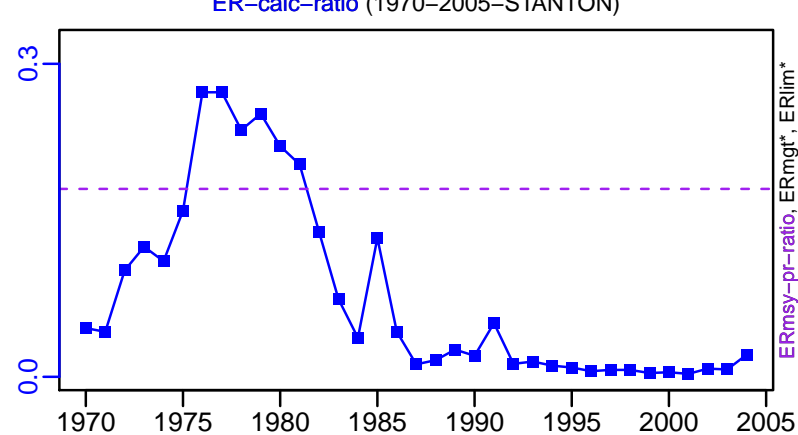
SSB-MT (1970-2005-STANTON)



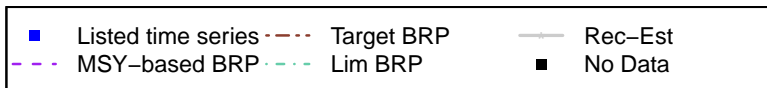
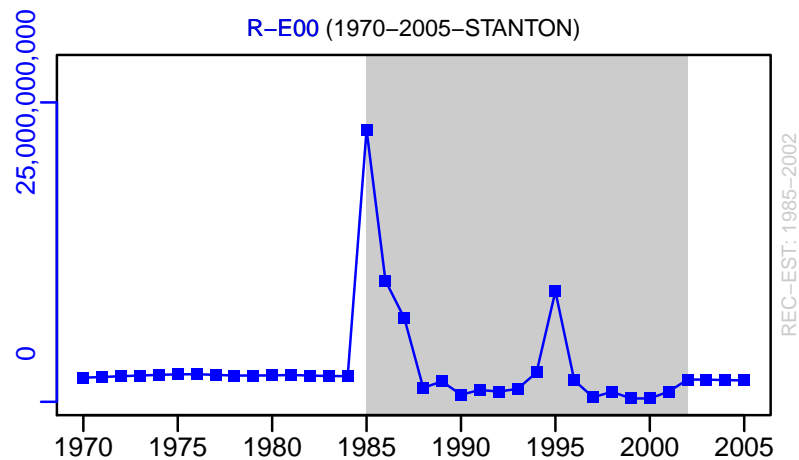
TN \*

F\*

ER-calc-ratio (1970-2005-STANTON)

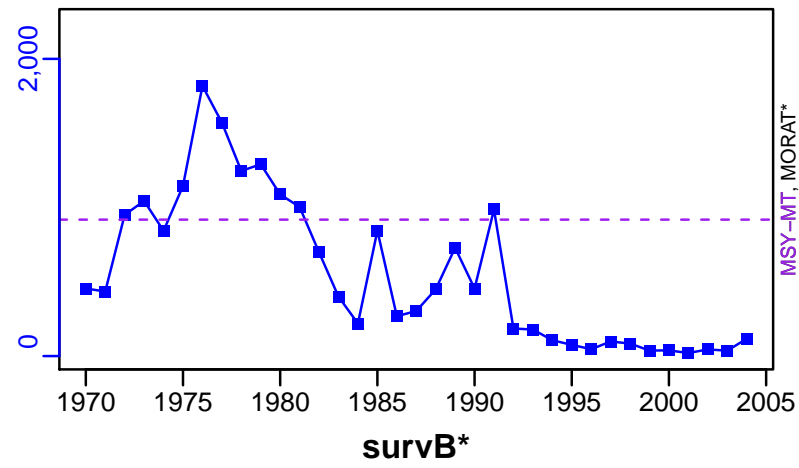


R-E00 (1970-2005-STANTON)

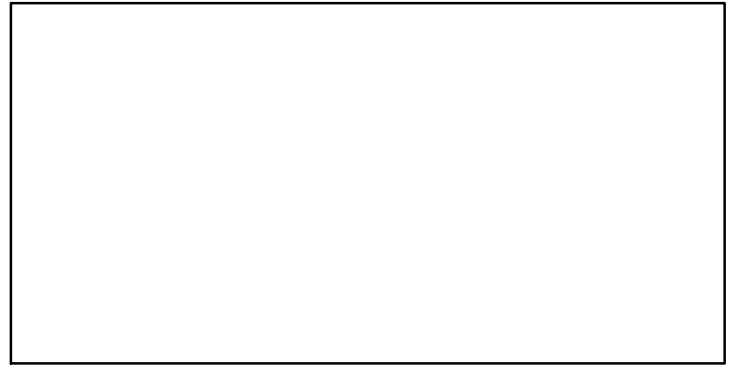


# Starry flounder Northern Pacific Coast [STFLOUNNPCOAST]

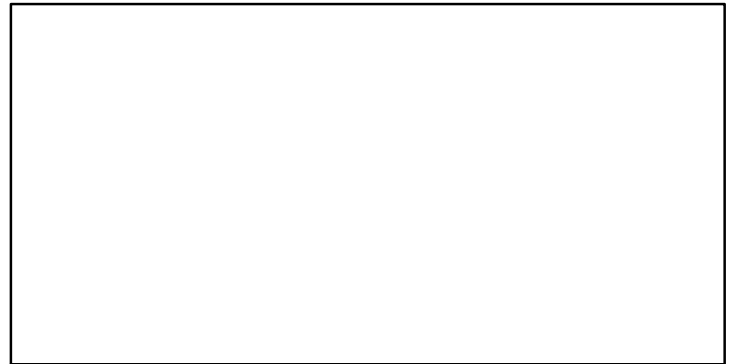
TC-MT, TL\*, RecC\* (1970-2005-STANTON)



TAC\*, Cpair\*, Cadv\*



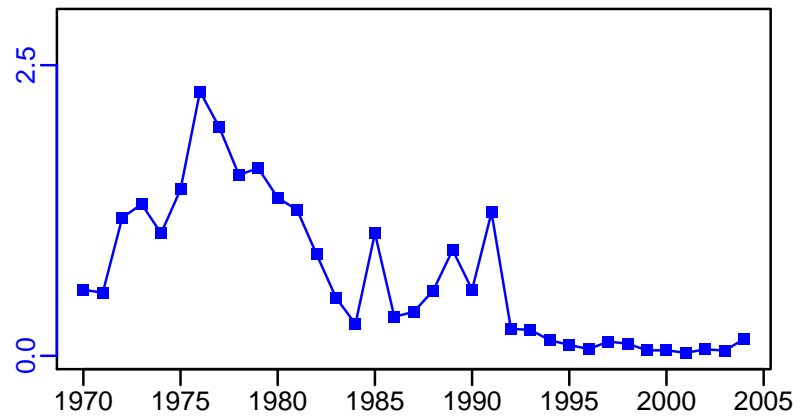
CPUE\*



EFFORT\*



CdivMSY-ratio (1970-2005-STANTON)



## Starry flounder Southern Pacific Coast [STFLOUNSPCOAST]

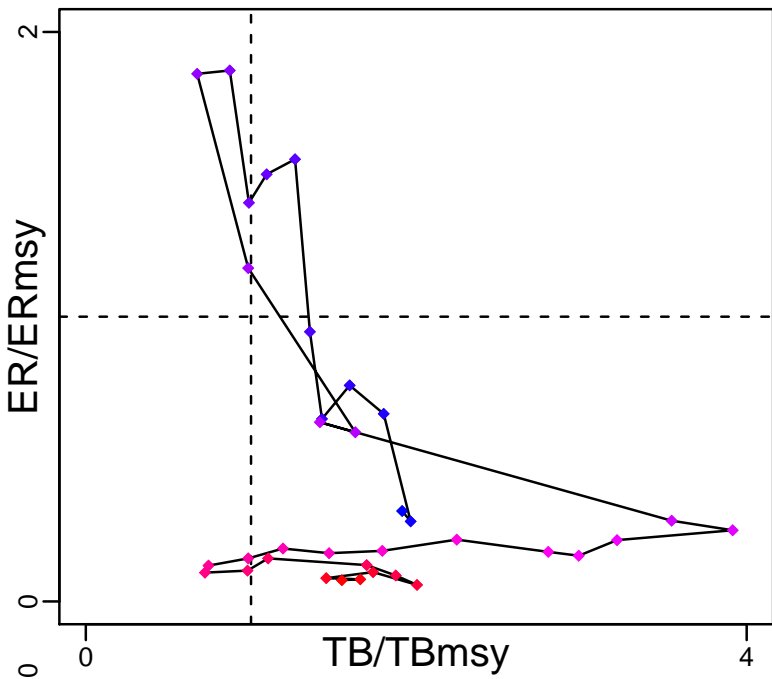
Metadata	
<b>Scientific Name</b>	Platichthys stellatus
<b>Current Assess ID</b>	SWFSC-STFLOUNSPCOAST-1970-2005-STANTON
<b>Area</b>	Southern Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Southwest Fisheries Science Center
<b>Asmts in RAM</b>	2005

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-MT	2005	2329
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	-	-	-
<b>ERmsy</b>	ERmsy-calc-ratio	2005	0.17
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2005	5854
<b>SSB0</b>	SSB0-MT	2005	2334
<b>MSY</b>	MSY-MT	2005	396
<b>M</b>	M-1/yr	2005	0.3
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	-	-	-
<b>ERlim</b>	-	-	-

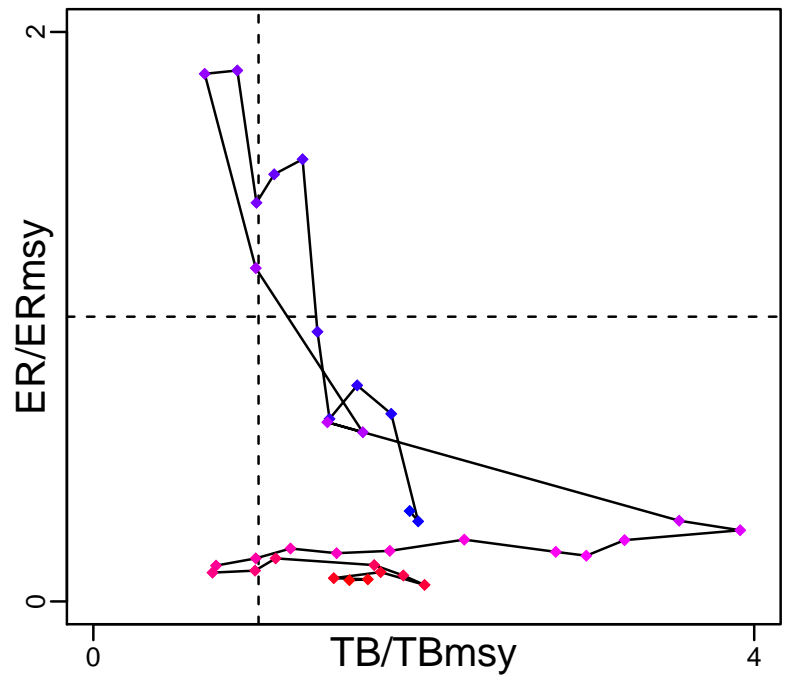
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2005	3460	-	2+
<b>SSB</b>	SSB-MT	2005	1450	Females	3+
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2005	$8.07 \times 10^8$	-	0
<b>F</b>	-	-	-	-	-
<b>ER</b>	ER-ratio	2005	0.013	-	-
<b>TC</b>	TC-MT	2005	46		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-MT	2005	1.485		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	-	-	-		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-calc-ratio	2005	0.075		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Starry flounder Southern Pacific Coast [STFLOUNSPCOAST]

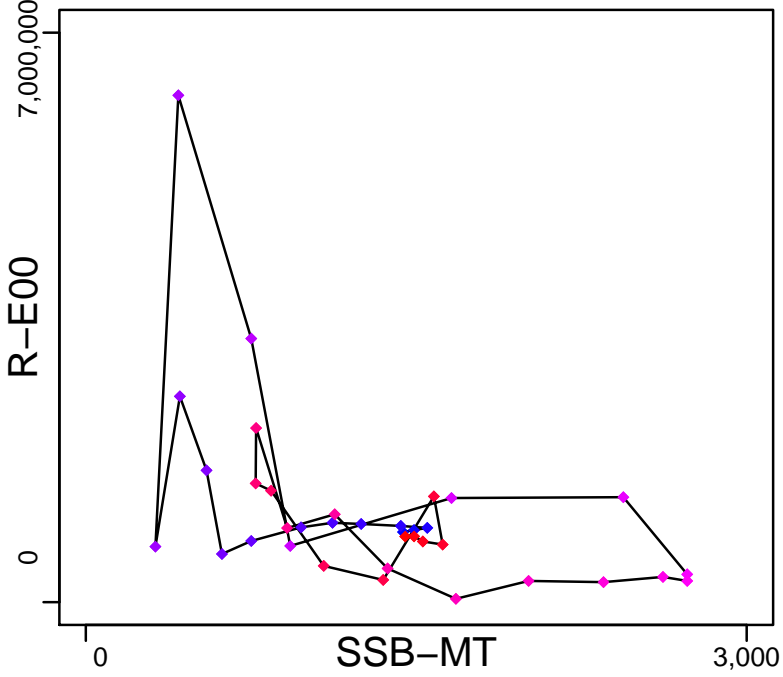
Kobe MSYpref (1970–2005–STANTON)



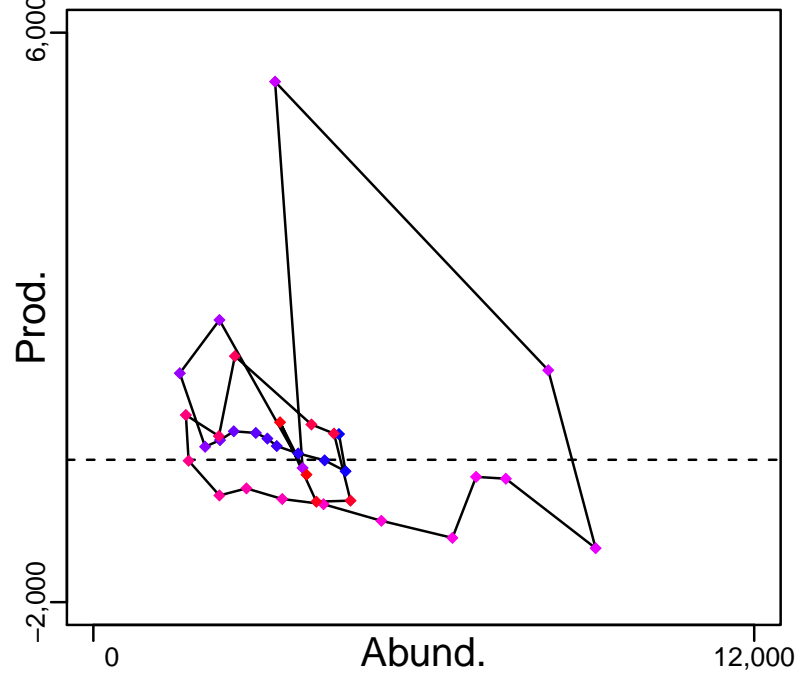
Kobe MGTpref (1970–2005–STANTON)



Spawner Recruit (1970–2005–STANTON)



Production (1970–2005–STANTON)

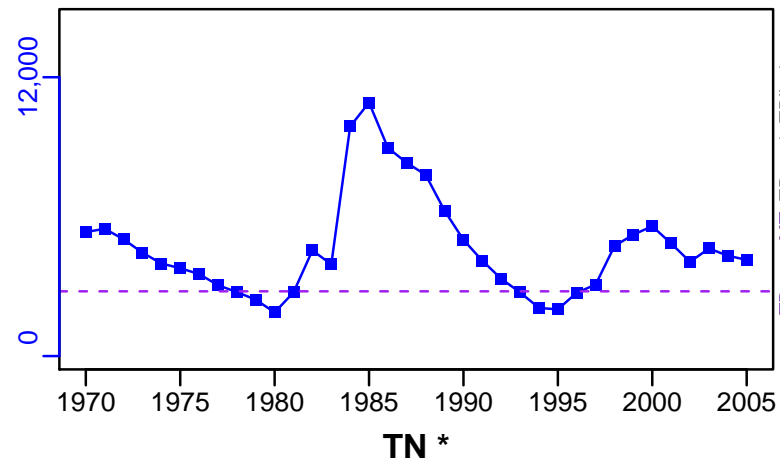


◆ Start Year ◆ End Year \* No Data

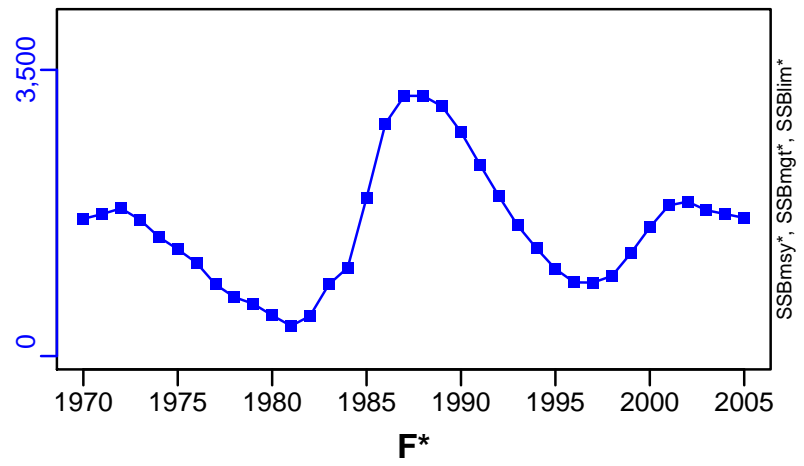


# Starry flounder Southern Pacific Coast [STFLOUNSPCOAST]

TB-MT (1970-2005-STANTON)



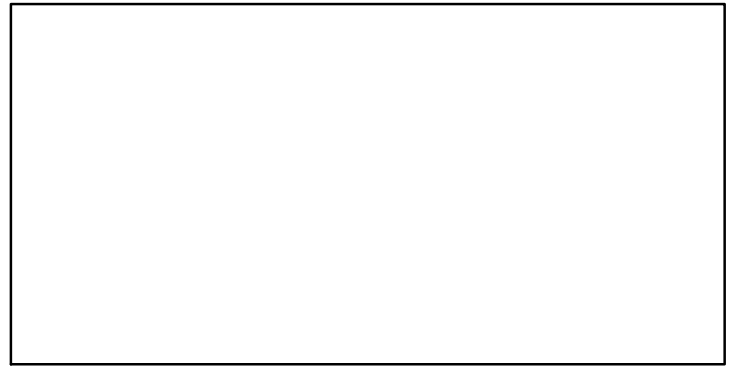
SSB-MT (1970-2005-STANTON)



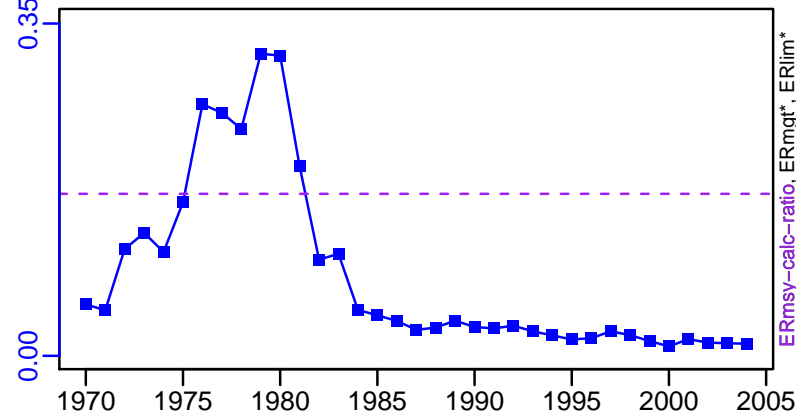
TN \*



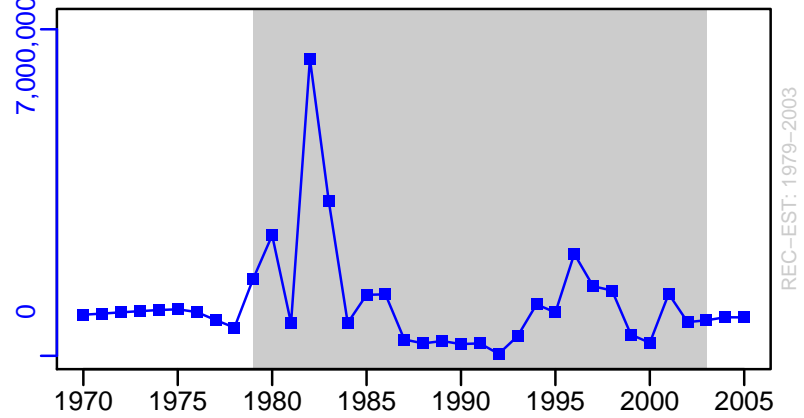
F\*



ER-ratio (1970-2005-STANTON)



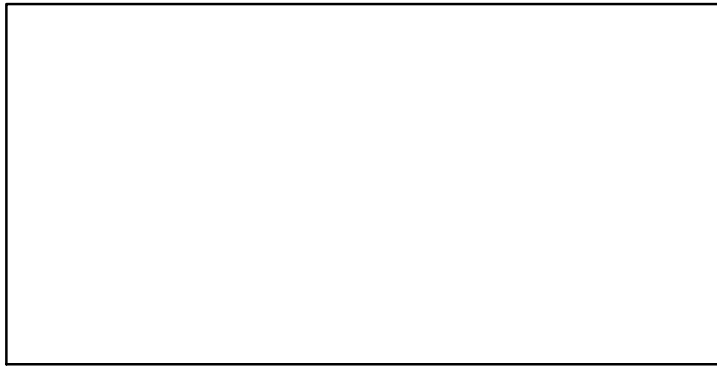
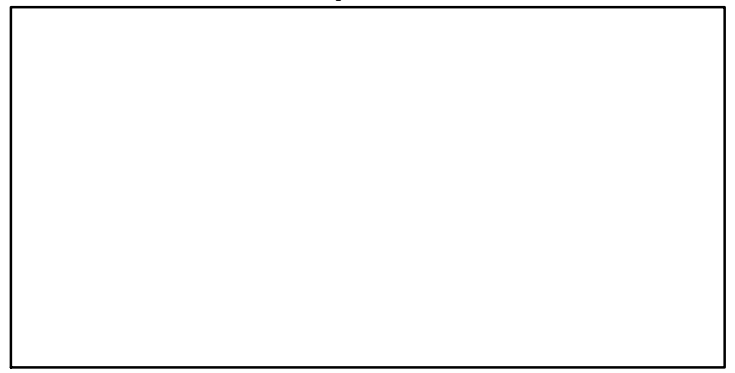
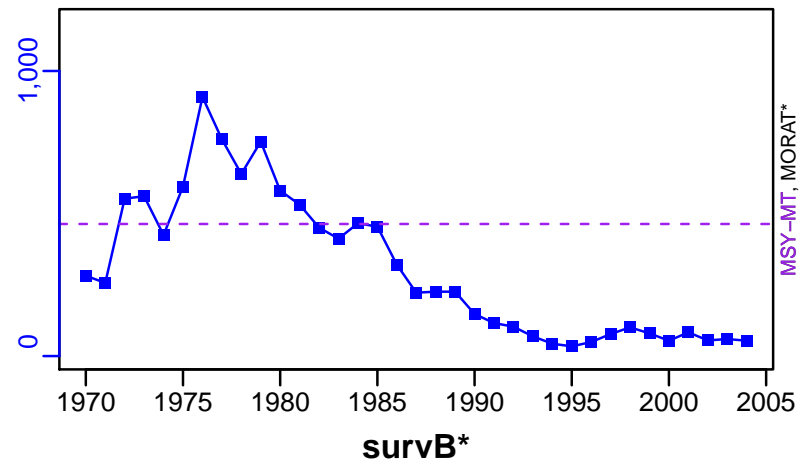
R-E00 (1970-2005-STANTON)



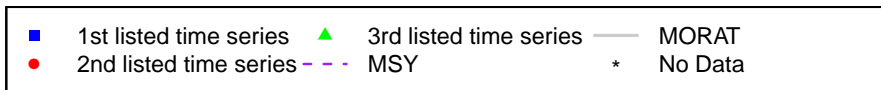
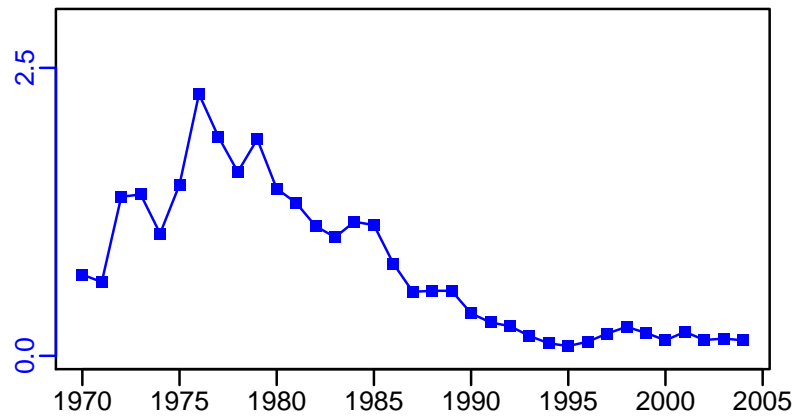
# Starry flounder Southern Pacific Coast [STFLOUNSPCOAST]

TC-MT, TL\*, RecC\* (1970-2005-STANTON)

TAC\*, Cpair\*, Cadv\*



CdivMSY-ratio (1970-2005-STANTON)



## Widow rockfish Pacific Coast [WROCKPCOAST]

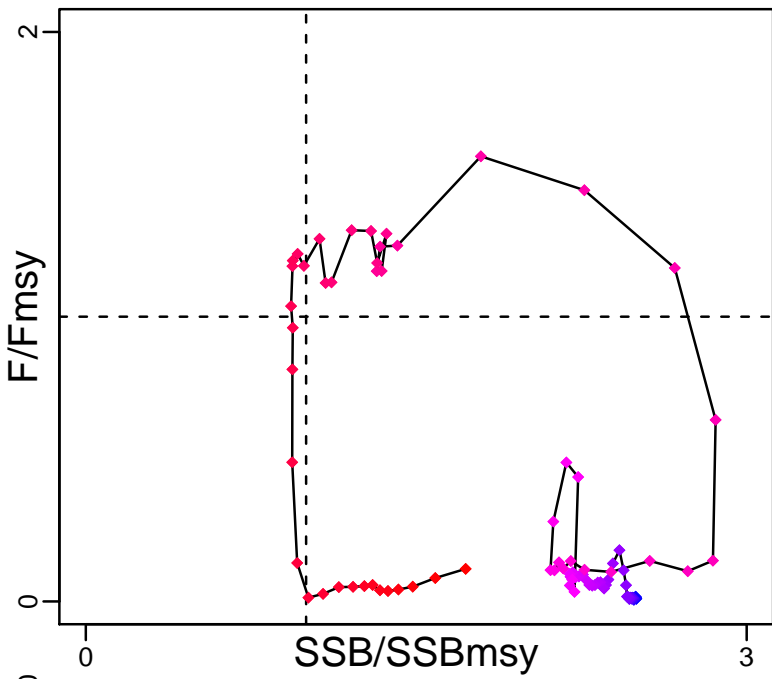
Metadata	
<b>Scientific Name</b>	Sebastes entomelas
<b>Current Assess ID</b>	NWFSC-WROCKPCOAST-1916-2015-SISIMP2016
<b>Area</b>	Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northwest Fisheries Science Center
<b>Asmts in RAM</b>	2011, 2015

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2011	45,750
<b>SSBmsy</b>	SSBmsy-MT	2015	32,283
<b>Fmsy</b>	Fmsy-1/yr	2015	0.5
<b>ERmsy</b>	ERmsy-ratio	2011	0.12
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	SSBmgt-MT	2011	28,451
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	-	-	-
<b>SSB0</b>	SSB0-MT	2011	71,126
<b>MSY</b>	MSY-MT	2015	7776
<b>M</b>	M-1/yr	2011	0.12
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-MT	2015	20,177
<b>Flim</b>	Flim-1/yr	2015	0.5
<b>ERlim</b>	-	-	-

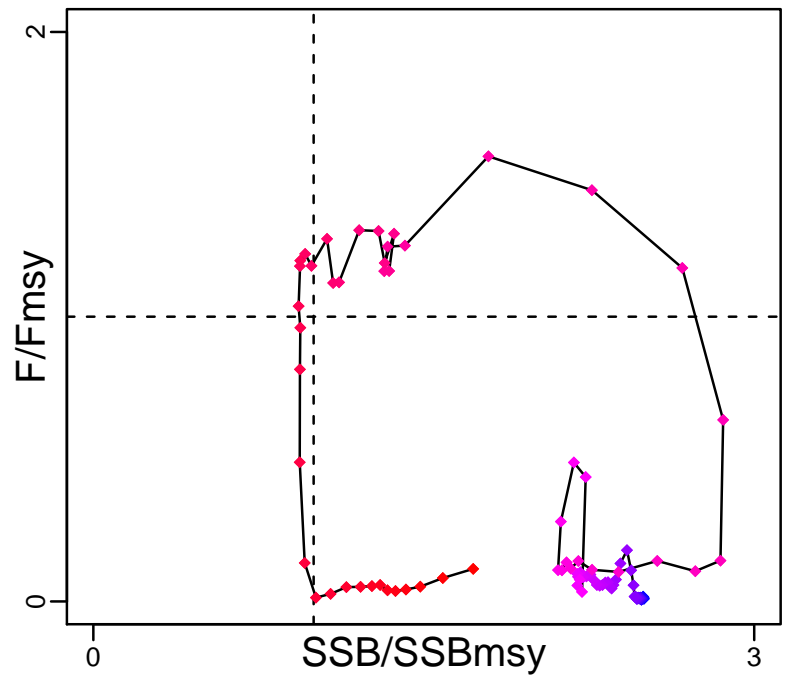
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	132,000	Both	4+
<b>SSB</b>	SSB-MT	2015	60,600	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2015	53,400,000	-	0
<b>F</b>	F-1/yr	2015	0.057	-	-
<b>ER</b>	ER-calc-ratio	2015	0.006	-	-
<b>TC</b>	TC-MT	2015	726		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2011	1.491		
<b>SSB/SSBmsy</b>	SSB-MT/SSBmsy-MT	2015	1.877		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2015	0.114		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2011	0.019		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	SSB-MT/SSBmgt-MT	2011	1.276		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Widow rockfish Pacific Coast [WROCKPCOAST]

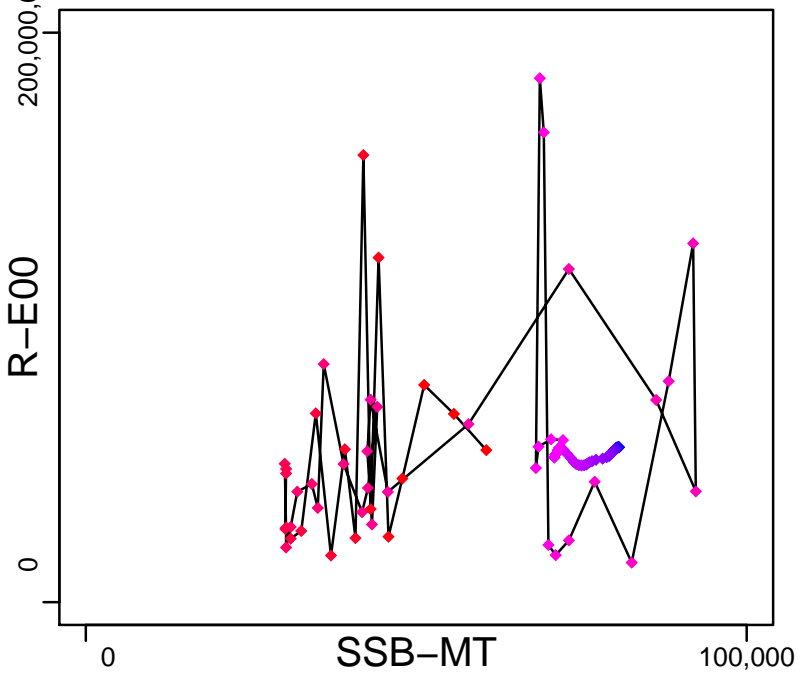
Kobe MSYpref (1916–2015–SISIMP2016)



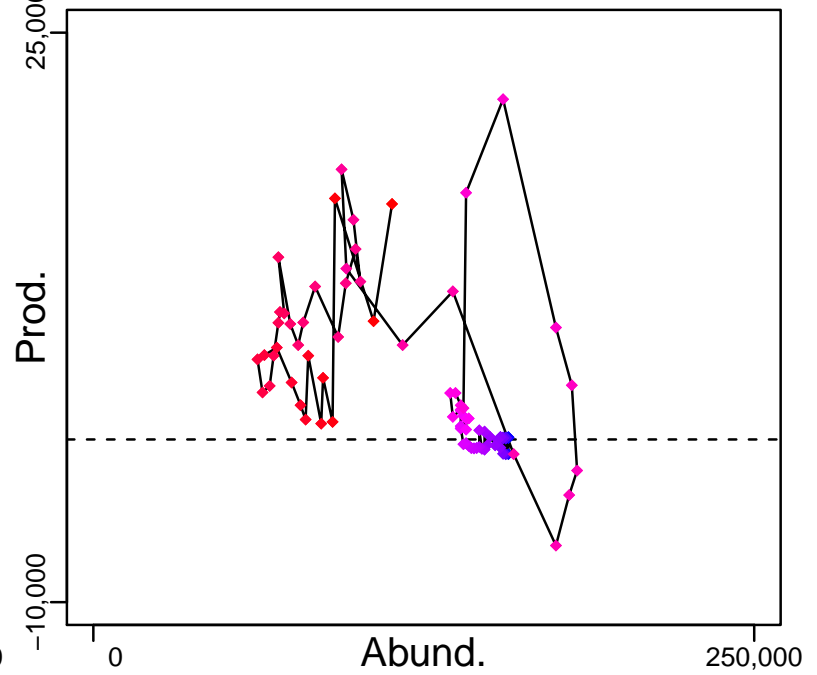
Kobe MGTpref (1916–2015–SISIMP2016)



Spawner Recruit (1916–2015–SISIMP2016)



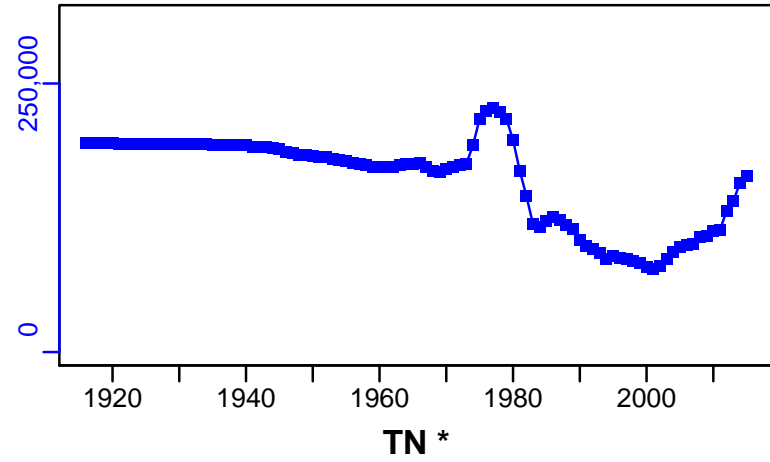
Production (1916–2015–SISIMP2016)



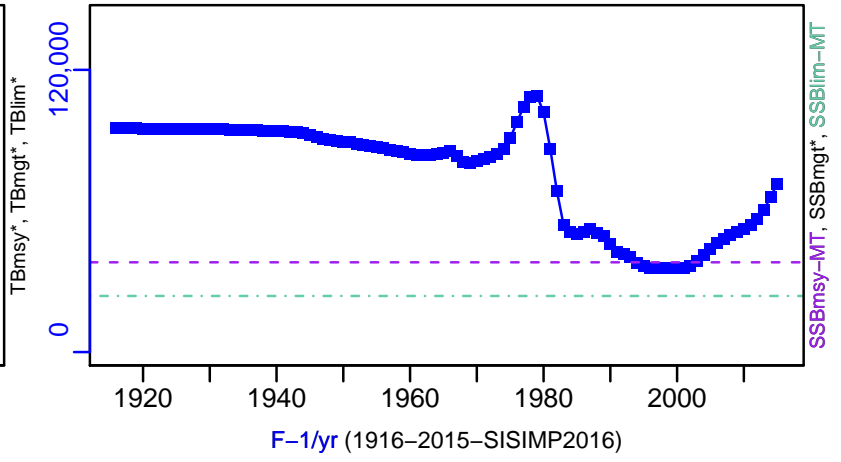
◆ Start Year ◆ End Year \* No Data

# Widow rockfish Pacific Coast [WROCKPCOAST]

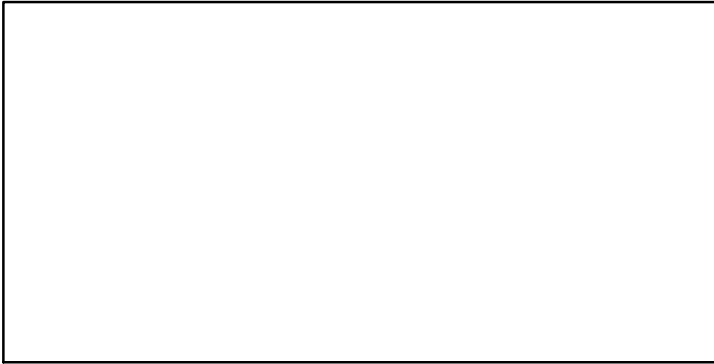
TB-MT (1916-2015-SISIMP2016)



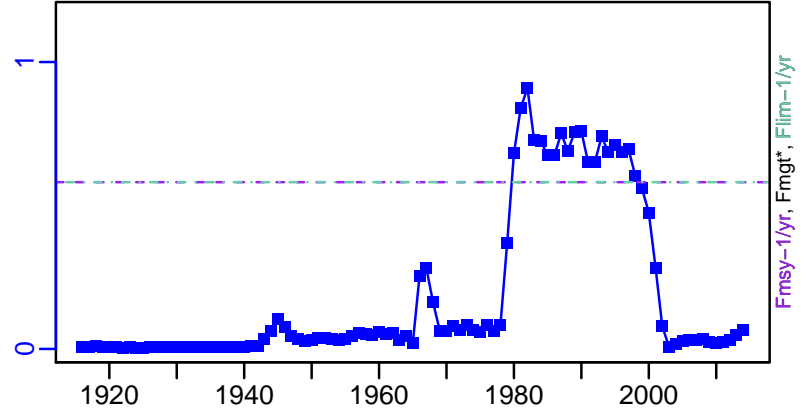
SSB-MT (1916-2015-SISIMP2016)



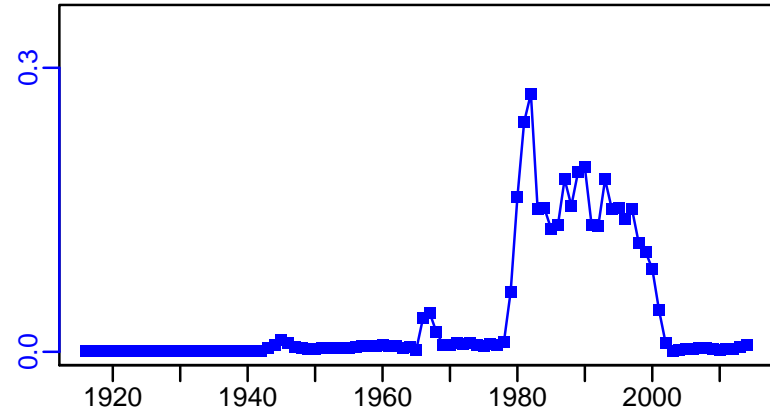
TN \*



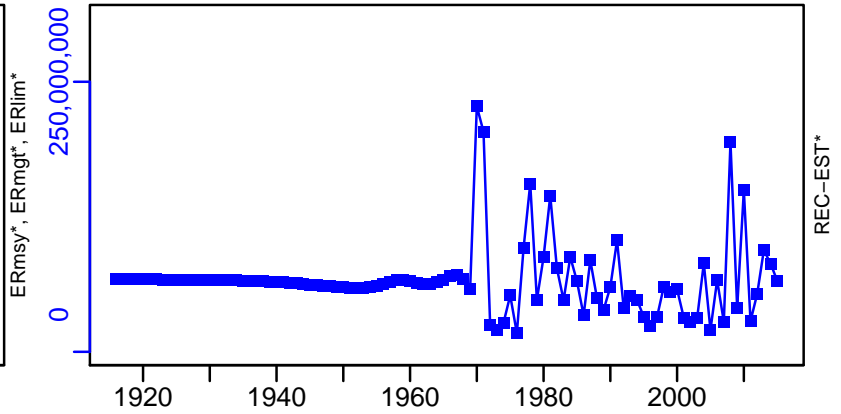
F-1/yr (1916-2015-SISIMP2016)



ER-calc-ratio (1916-2015-SISIMP2016)



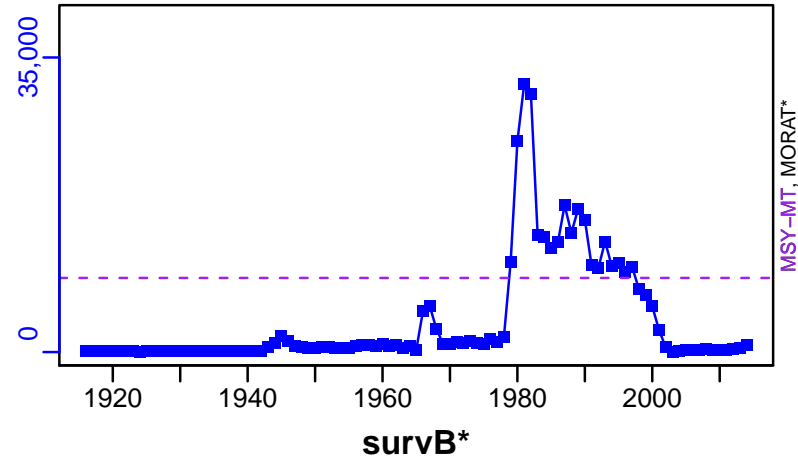
R-E00 (1916-2015-SISIMP2016)



# Widow rockfish Pacific Coast [WROCKPCOAST]

TC-MT, TL\*, RecC\* (1916-2015-SISIMP2016)

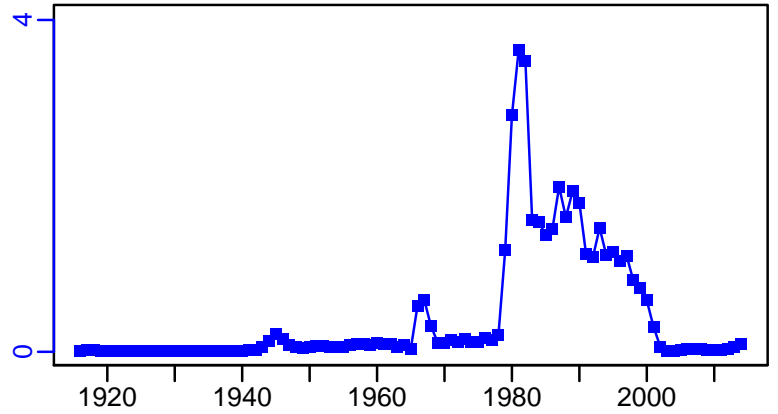
TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1916-2015-SISIMP2016)



## Yelloweye rockfish Pacific Coast [YEYEROCKPCOAST]

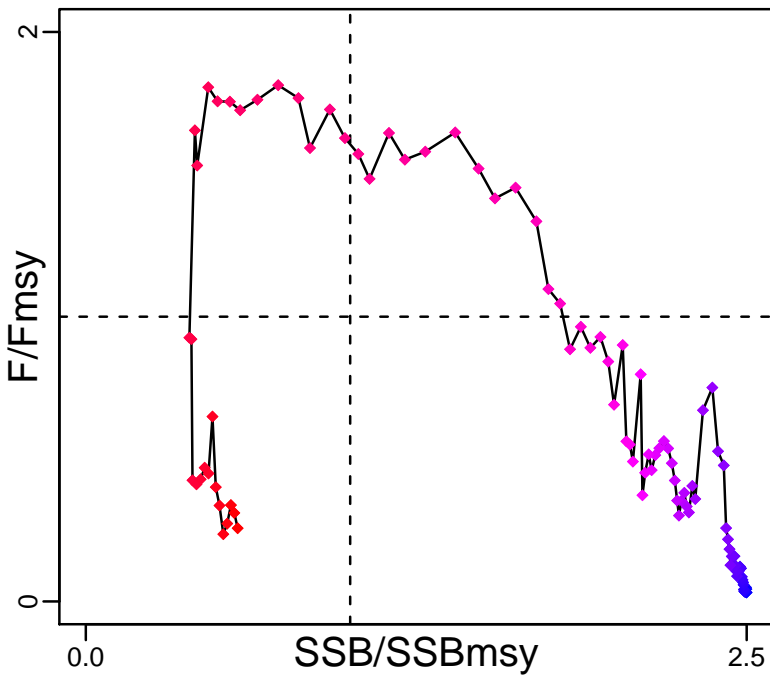
Metadata	
<b>Scientific Name</b>	Sebastes ruberrimus
<b>Current Assess ID</b>	NWFSC-YEYEROCKPCOAST-1916-2015-SISIMP2016
<b>Area</b>	Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northwest Fisheries Science Center
<b>Asmts in RAM</b>	2011, 2015

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2011	3706
<b>SSBmsy</b>	SSBmsy-E00eggs	2015	411,100,000
<b>Fmsy</b>	Fmsy-1/yr	2015	0.5
<b>ERmsy</b>	ERmsy-ratio	2011	0.017
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2011	8882
<b>SSB0</b>	SSB0-E00eggs	2011	$1.03 \times 10^9$
<b>MSY</b>	MSY-MT	2011	63
<b>M</b>	M-1/yr	2011	0.046
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	SSBlim-E00eggs	2015	256,900,000
<b>Flim</b>	Flim-1/yr	2015	0.5
<b>ERlim</b>	-	-	-

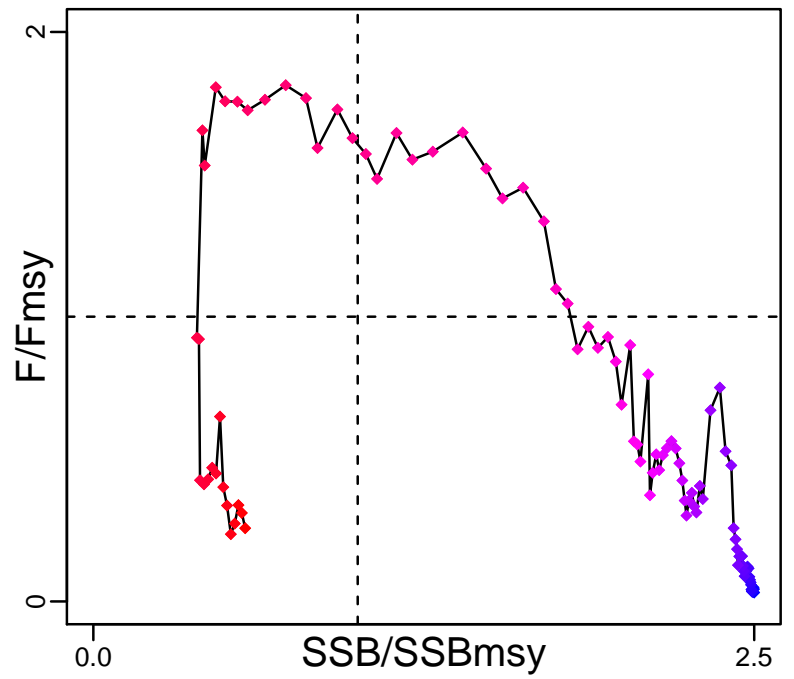
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2015	2350	-	8+
<b>SSB</b>	SSB-E00eggs	2015	$2.41 \times 10^8$	Females	-
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2015	112,000	-	0
<b>F</b>	F-1/yr	2015	0.129	-	-
<b>ER</b>	ER-calc-ratio	2015	0.004	-	-
<b>TC</b>	TC-MT	2015	9		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2011	0.591		
<b>SSB/SSBmsy</b>	SSB-E00eggs/SSBmsy-E00eggs	2015	0.587		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2015	0.257		
<b>ER/ERmsy</b>	ER-calc-ratio/ERmsy-ratio	2011	0.312		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Yelloweye rockfish Pacific Coast [YEYEROCKPCOAST]

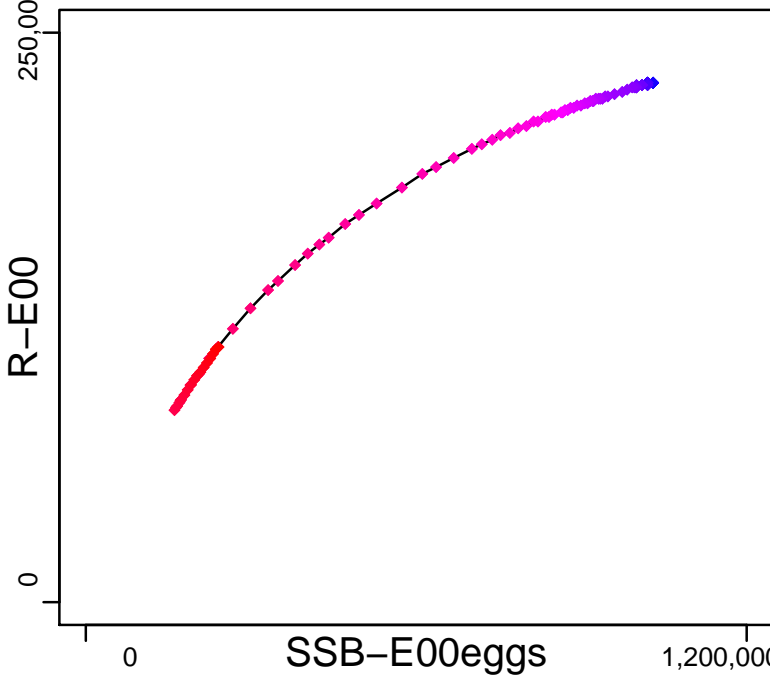
Kobe MSYpref (1916–2015–SISIMP2016)



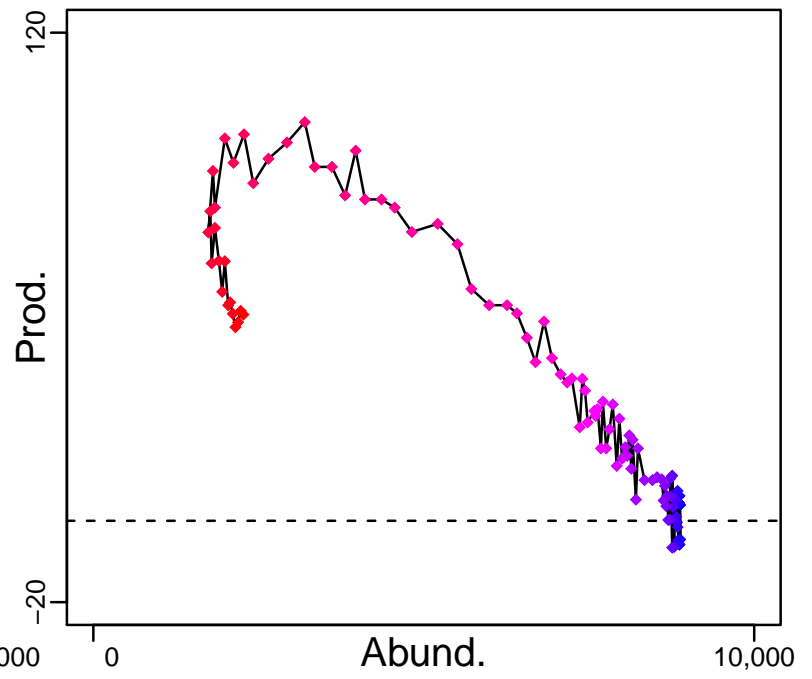
Kobe MGTpref (1916–2015–SISIMP2016)



Spawner Recruit (1916–2015–SISIMP2016)



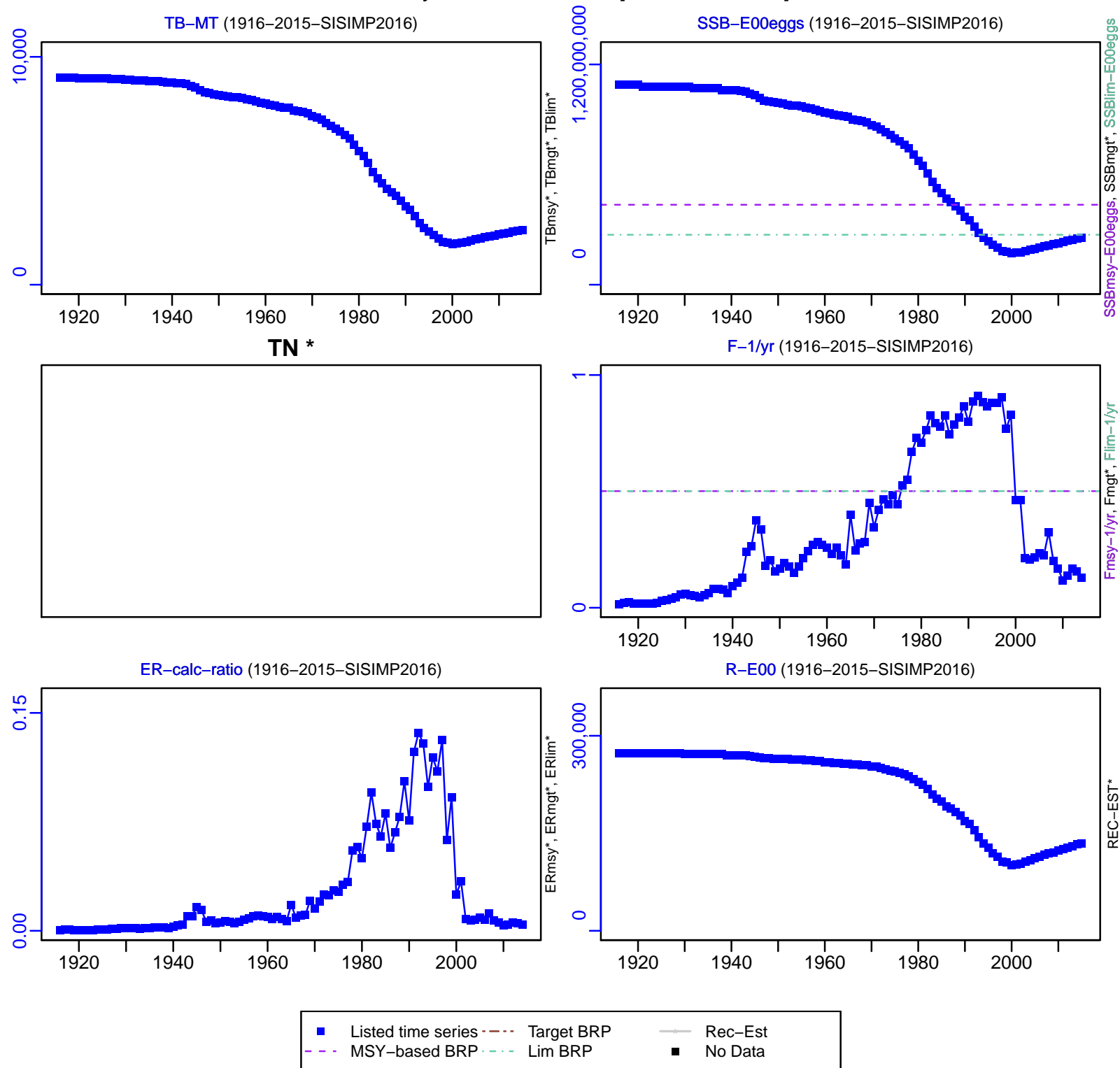
Production (1916–2015–SISIMP2016)



◆ Start Year ◆ End Year \* No Data



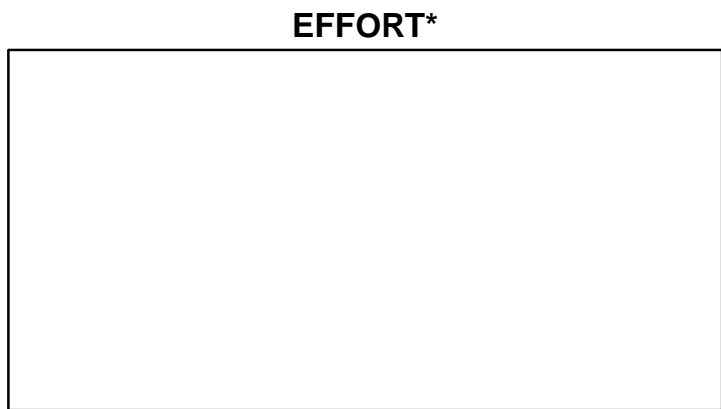
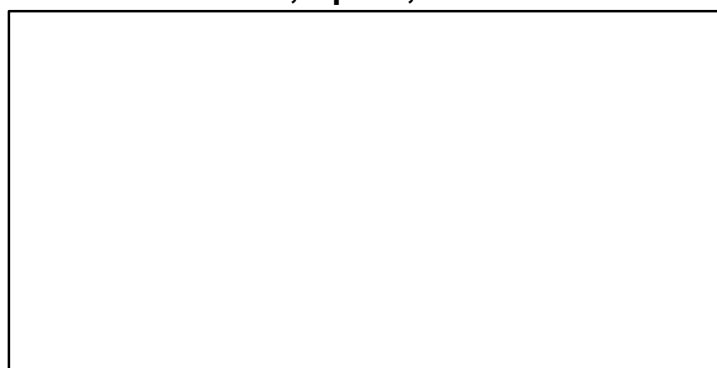
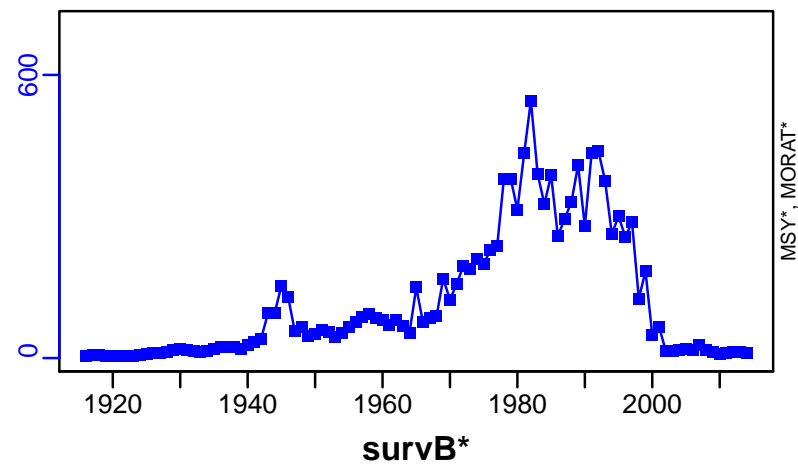
# Yelloweye rockfish Pacific Coast [YEYEROCKPCOAST]



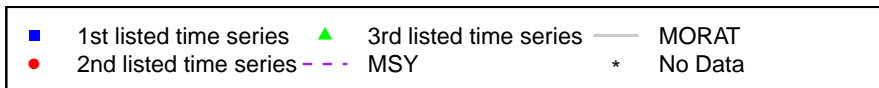
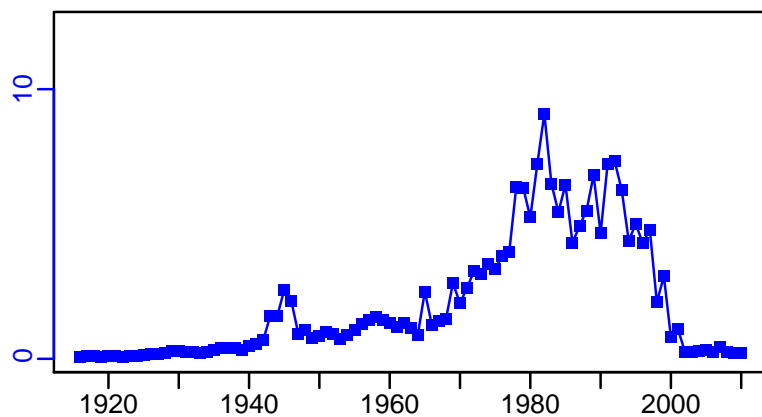
# Yelloweye rockfish Pacific Coast [YEYEROCKPCOAST]

TC-MT, TL\*, RecC\* (1916-2015-SISIMP2016)

TAC\*, Cpair\*, Cadv\*



CdivMSY-ratio (1916-2011-STACHURA)



## Yellowtail rockfish Northern Pacific Coast [YTROCKNPCOAST]

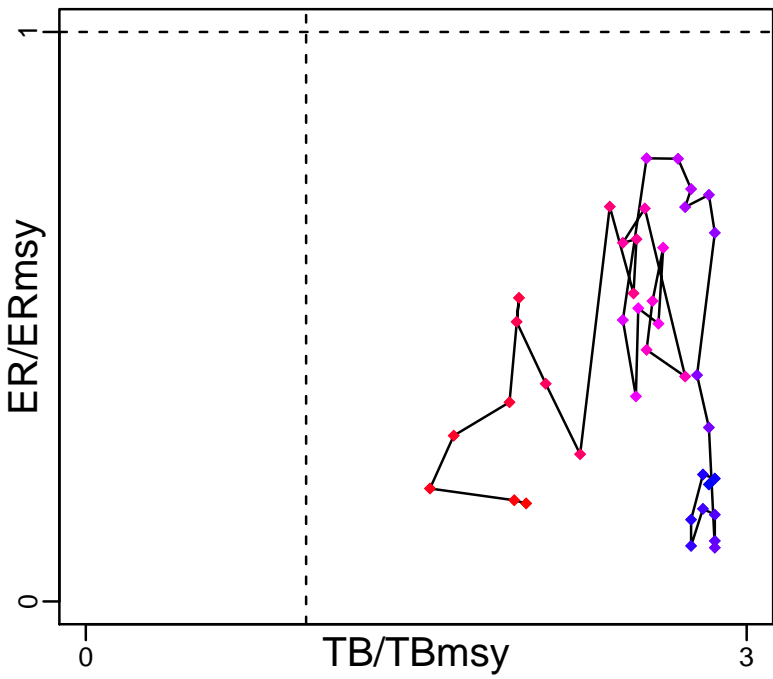
Metadata	
<b>Scientific Name</b>	Sebastes flavidus
<b>Current Assess ID</b>	NWFSC-YTROCKNPCOAST-1892-2012-SISIMP2016
<b>Area</b>	Northern Pacific Coast
<b>Management Authority</b>	National Marine Fisheries Service, US national management
<b>Assessor</b>	Northwest Fisheries Science Center
<b>Asmts in RAM</b>	2012, 2005

Reference Points			
Type	ID	Asmt Year	Value
<b>TBmsy</b>	TBmsy-calc-MT	2005	37,123
<b>SSBmsy</b>	-	-	-
<b>Fmsy</b>	Fmsy-1/yr	2012	0.5
<b>ERmsy</b>	ERmsy-ratio	2005	0.126
<b>TBmgt</b>	-	-	-
<b>SSBmgt</b>	-	-	-
<b>Fmgt</b>	-	-	-
<b>ERmgt</b>	-	-	-
<b>TB0</b>	TB0-MT	2005	120,024
<b>SSB0</b>	SSB0-MT	2005	31,016
<b>MSY</b>	MSY-MT	2012	4805
<b>M</b>	M-1/yr	2005	0.11
<b>TBlim</b>	-	-	-
<b>SSBlim</b>	-	-	-
<b>Flim</b>	Flim-1/yr	2012	0.5
<b>ERlim</b>	-	-	-

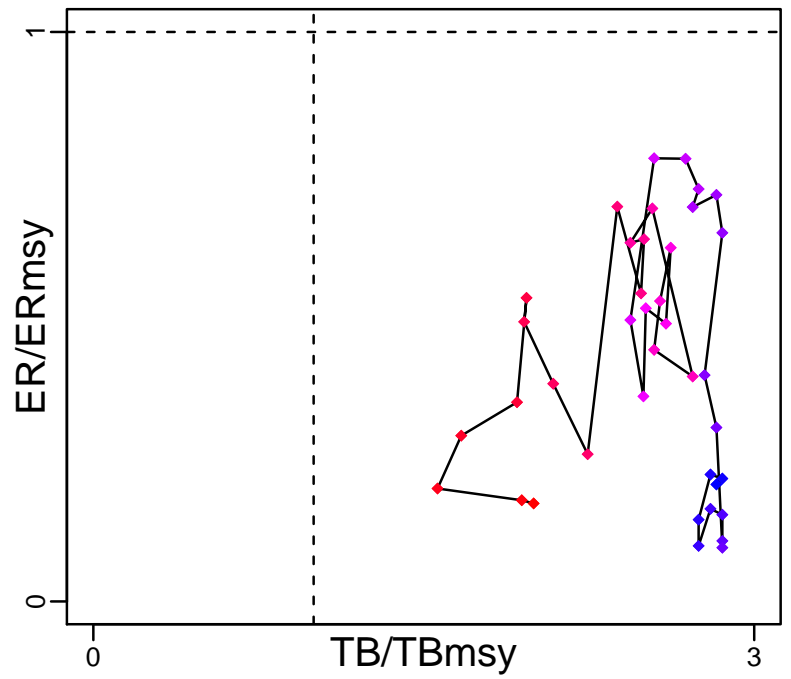
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
<b>TB</b>	TB-MT	2012	143,000	-	-
<b>SSB</b>	SSB-MT	2005	16,900	-	4+
<b>TN</b>	-	-	-	-	-
<b>R</b>	R-E00	2005	12,100,000	-	4
<b>F</b>	F-1/yr	2012	0.182	-	-
<b>ER</b>	ER-ratio	2005	0.022	-	-
<b>TC</b>	TC-MT	2005	1610		
<b>TL</b>	-	-	-		
<b>TB/TBmsy</b>	TB-MT/TBmsy-calc-MT	2005	1.999		
<b>SSB/SSBmsy</b>	-	-	-		
<b>F/Fmsy</b>	F-1/yr/Fmsy-1/yr	2012	0.364		
<b>ER/ERmsy</b>	ER-ratio/ERmsy-ratio	2005	0.172		
<b>TB/TBmgt</b>	-	-	-		
<b>SSB/SSBmgt</b>	-	-	-		
<b>F/Fmgt</b>	-	-	-		
<b>ER/ERmgt</b>	-	-	-		

# Yellowtail rockfish Northern Pacific Coast [YTROCKNPCOAST]

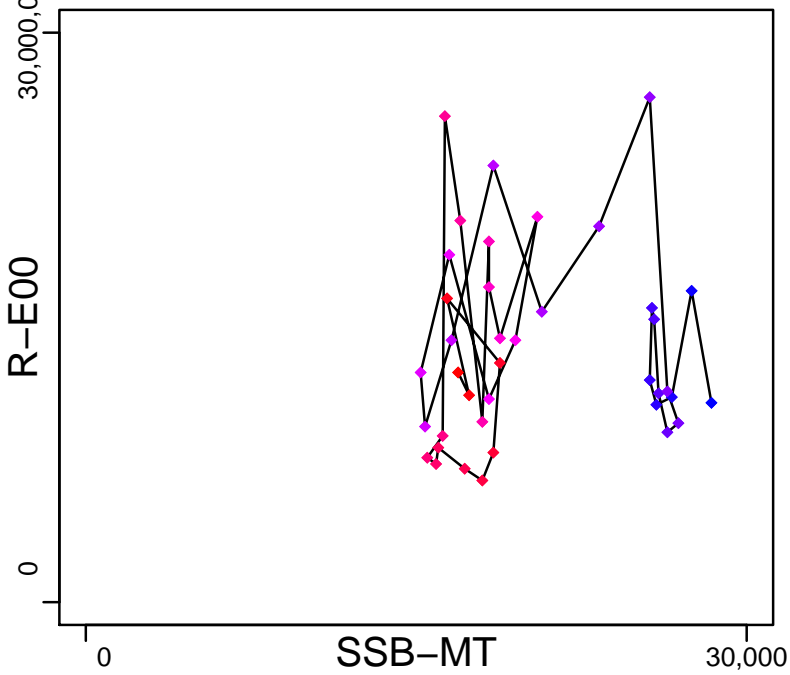
Kobe MSYpref (1967–2005–STANTON)



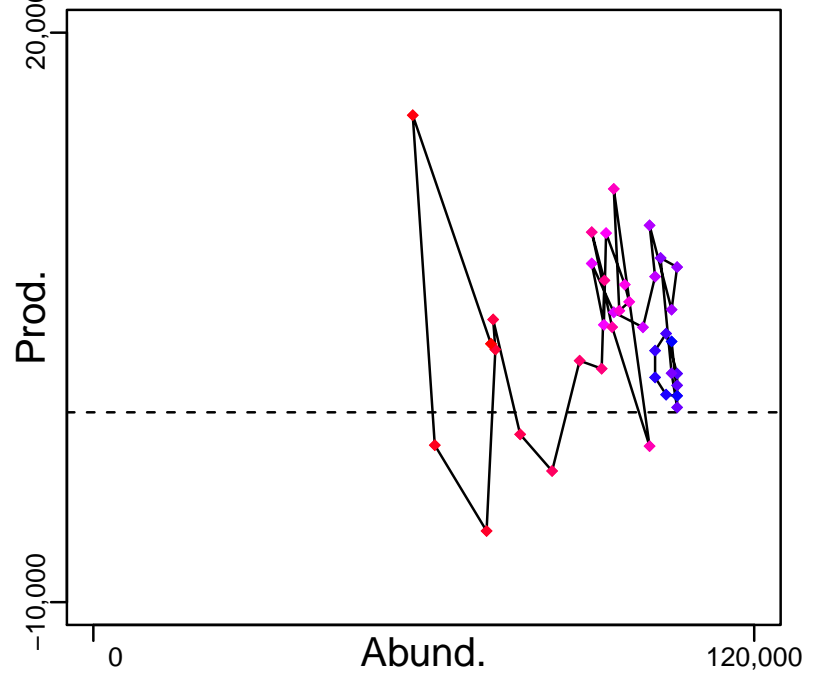
Kobe MGTpref (1967–2005–STANTON)



Spawner Recruit (1967–2005–STANTON)



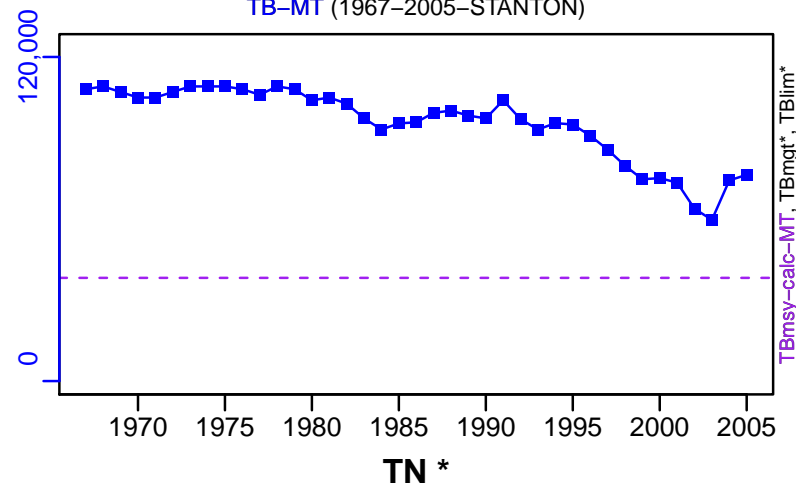
Production (1967–2005–STANTON)



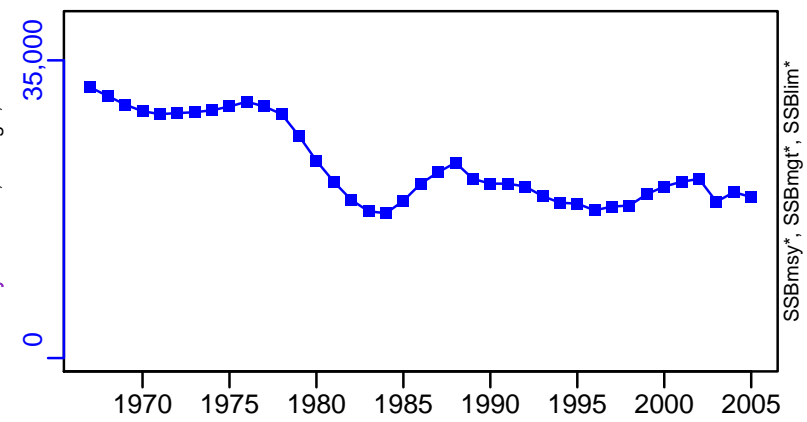
◆ Start Year ◆ End Year \* No Data

# Yellowtail rockfish Northern Pacific Coast [YTROCKNPNCOAST]

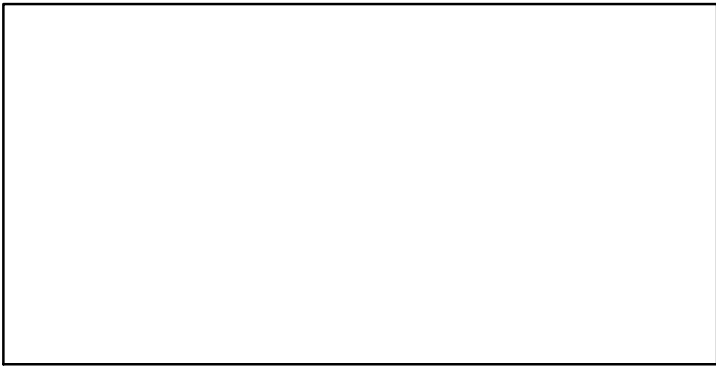
TB-MT (1967-2005-STANTON)



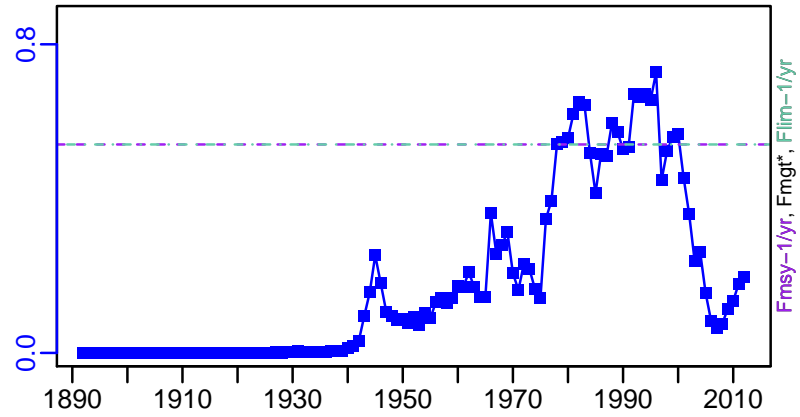
SSB-MT (1967-2005-STANTON)



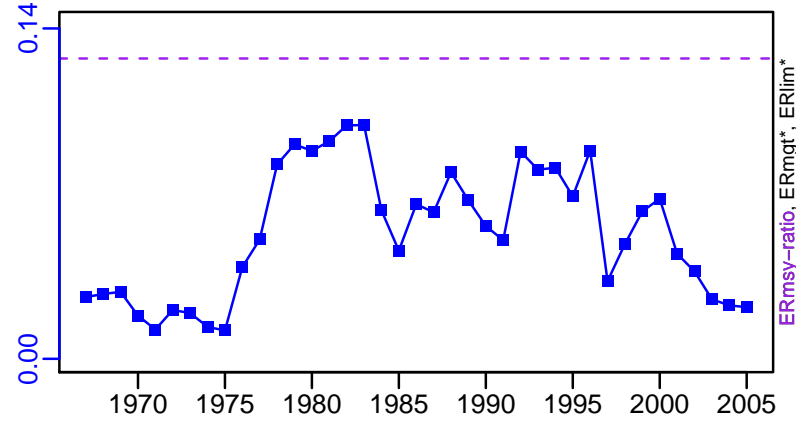
TN \*



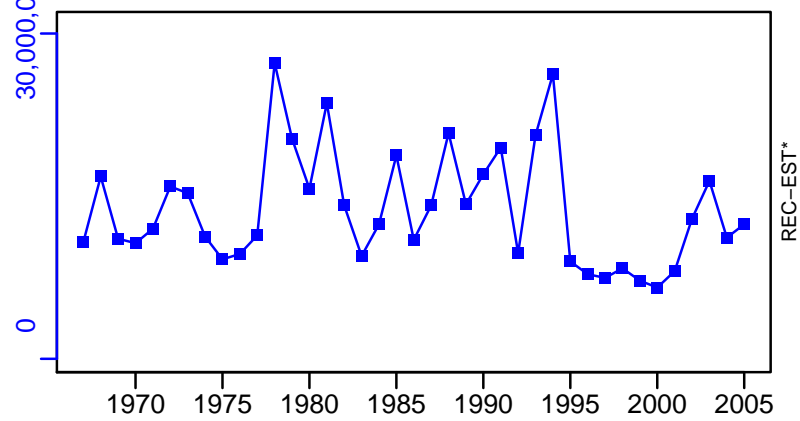
F-1/yr (1892-2012-SISIMP2016)



ER-ratio (1967-2005-STANTON)



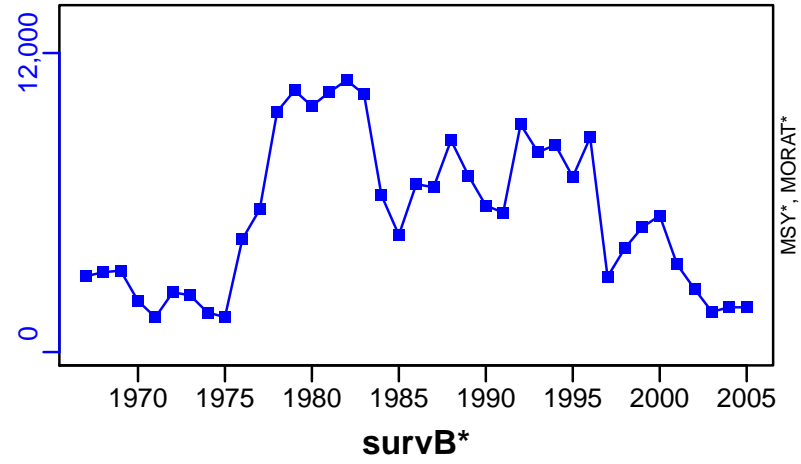
R-E00 (1967-2005-STANTON)



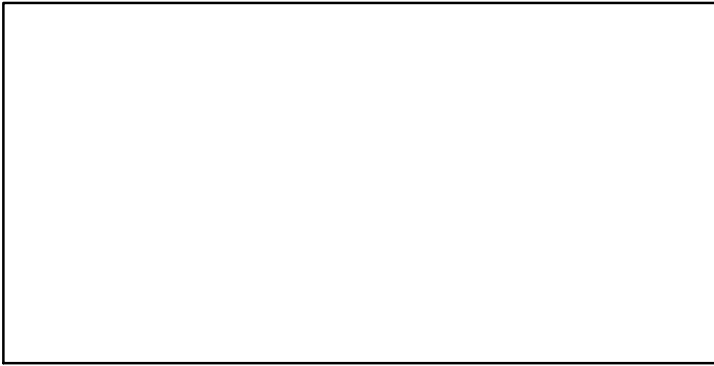
# Yellowtail rockfish Northern Pacific Coast [YTROCKNPNCOAST]

TC-MT, TL\*, RecC\* (1967-2005-STANTON)

TAC\*, Cpair\*, Cadv\*



EFFORT\*



CdivMSY-ratio (1967-2005-STANTON)

