

Southern Africa Stocks

v4.61 (Apr-02-2023)

Not present Present Preferred

Stock	B/Bmsy	Time Series Types			
		U/Umsy	B/Bmgt	U/Umgt	
1. ANCHOSA [Anchovy South Africa]	TB SSB	ER F	TB SSB	ER F	
2. CHAKESA [Shallow water cape hake South Africa]	TB SSB	ER F	TB SSB	ER F	
3. CHSQUIDSA [Cape Hope squid South Africa]	TB SSB	ER F	TB SSB	ER F	
4. CRLOBSTERSA12 [West coast rock lobster South Africa Areas 1-2]	TB SSB	ER F	TB SSB	ER F	
5. CRLOBSTERSA34 [West coast rock lobster South Africa Areas 3-4]	TB SSB	ER F	TB SSB	ER F	
6. CRLOBSTERSA56 [West coast rock lobster South Africa Areas 5-6]	TB SSB	ER F	TB SSB	ER F	
7. CRLOBSTERSA7 [West coast rock lobster South Africa Area 7]	TB SSB	ER F	TB SSB	ER F	
8. CRLOBSTERSA8 [West coast rock lobster South Africa Area 8]	TB SSB	ER F	TB SSB	ER F	
9. CTRACSA [Cape horse mackerel South Africa South coast]	TB SSB	ER F	TB SSB	ER F	
10. DEEPCHAKESA [Deep water cape hake South Africa]	TB SSB	ER F	TB SSB	ER F	
11. DVANGSASC [Devil anglerfish South Africa South coast]	TB SSB	ER F	TB SSB	ER F	
12. DVANGSAWC [Devil anglerfish South Africa West coast]	TB SSB	ER F	TB SSB	ER F	
13. ECSOLESASC [East coast sole South Africa South coast]	TB SSB	ER F	TB SSB	ER F	
14. HAKESPFAF [Hake spp Southern Africa]	TB SSB	ER F	TB SSB	ER F	
15. KINGKLIPSASC [Kingklip South Africa South coast]	TB SSB	ER F	TB SSB	ER F	
16. KINGKLIPSAWC [Kingklip South Africa West coast]	TB SSB	ER F	TB SSB	ER F	
17. PTOOTHFISHPEI [Patagonian toothfish South Africa Subantarctic Prince Edward Islands]	TB SSB	ER F	TB SSB	ER F	
18. SAABALONESA [South African abalone South Africa]	TB SSB	ER F	TB SSB	ER F	
19. SARDSAS [Sardine South Africa (South Component)]	TB SSB	ER F	TB SSB	ER F	
20. SARDSAW [Sardine South Africa (West Component)]	TB SSB	ER F	TB SSB	ER F	
21. SSLOBSTERSASC [Southern spiny lobster South Africa South coast]	TB SSB	ER F	TB SSB	ER F	

Anchovy South Africa [ANCHOSA]

Metadata	
Scientific Name	Engraulis encrasicolus
Current Assess ID	MARAM-ANCHOSA-1949-2019-deMoor
Area	South Africa
Management Authority	South African national management, Fisheries Branch of Department of Agriculture, Forestry and Fisheries
Assessor	Marine Resource Assessment and Management Group, Department of Mathematics and Applied Mathematics, University of Cape Town, Rondebosch, 7701, South Africa
Asmts in RAM	2015, 2019, 2011

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	TB0-MT	2015	5,261,270
SSB0	SSB0-MT	2019	2,754,300
MSY	-	-	-
M	M-1/yr	2019	1.2
TBlim	TBlim-MT	2019	536,000
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2019	1,546,700	-	-
SSB	SSB-MT	2019	1,455,800	-	-
TN	TN-E00	2015	9.94×10^{11}	Both	0+
R	R-E00	2019	3.88×10^{11}	-	-
F	-	-	-	-	-
ER	ER-ratio	2019	0.081	Both	-
TC	TC-MT	2019	164,400		
TL	TL-MT	2019	164,400		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Anchovy South Africa [ANCHOSA]

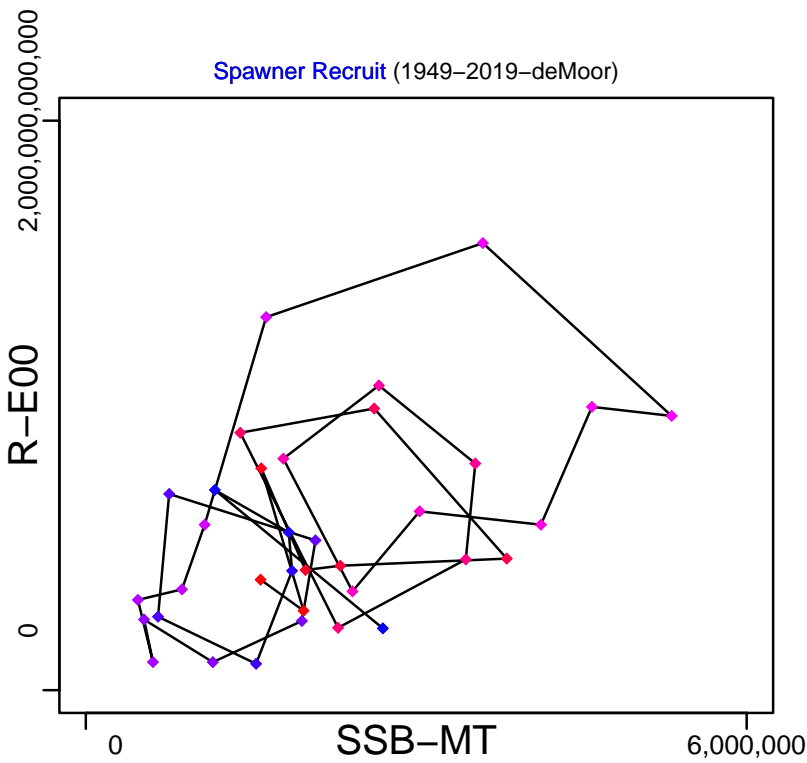
Kobe MSY*



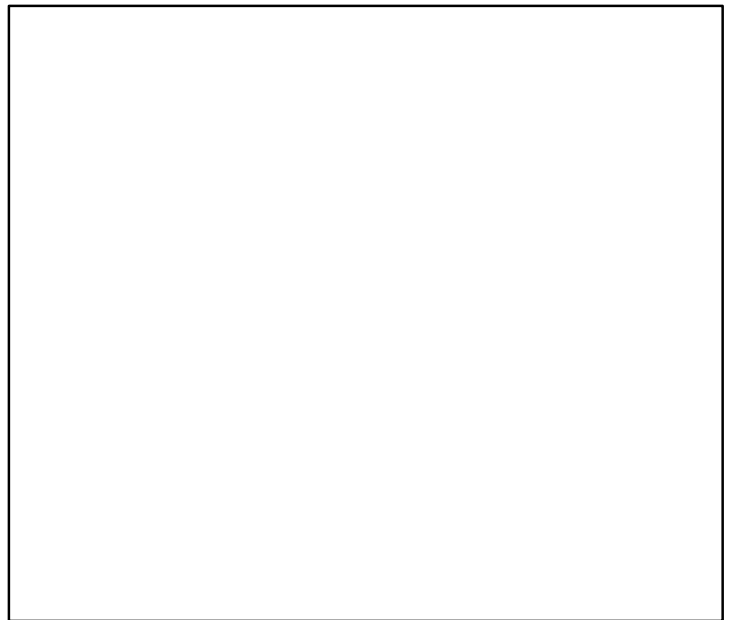
Kobe MGT*



Spawner Recruit (1949–2019–deMoor)

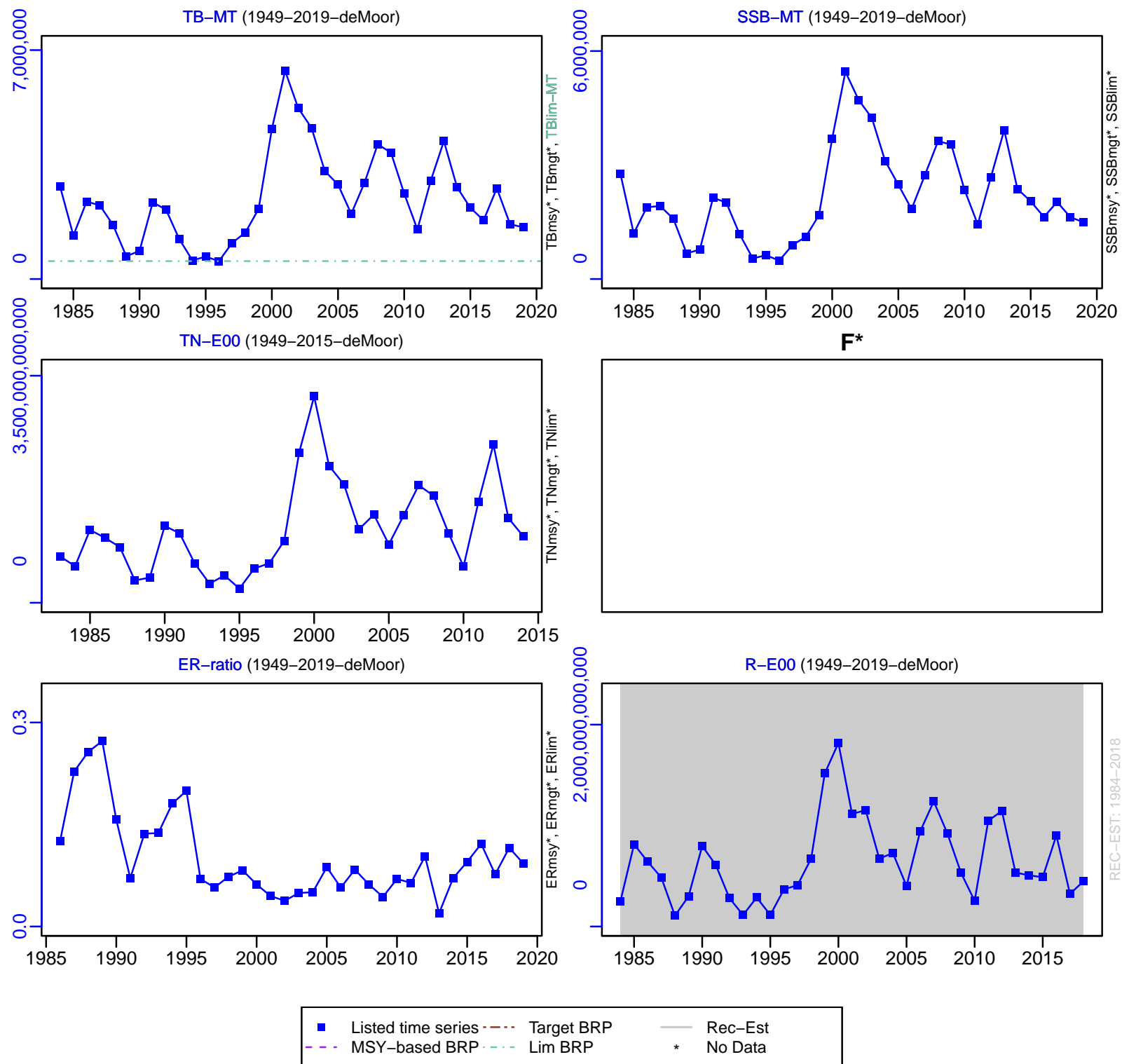


Production*



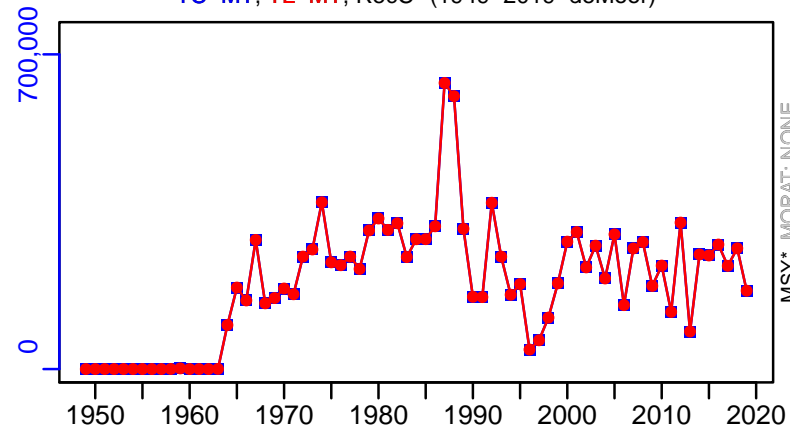
◆ Start Year ◆ End Year * No Data

Anchovy South Africa [ANCHOSA]

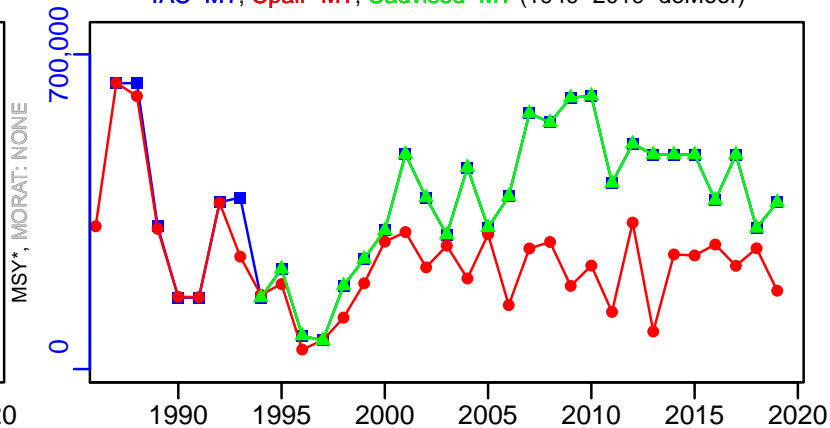


Anchovy South Africa [ANCHOSA]

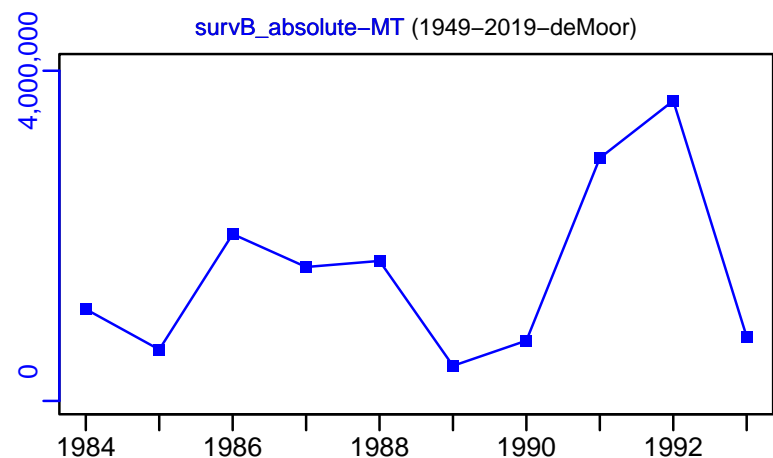
TC-MT, TL-MT, RecC* (1949–2019–deMoor)



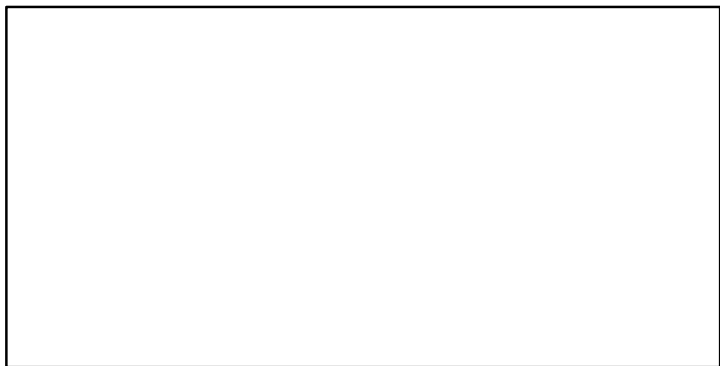
TAC-MT, Cpair-MT, Cadvised-MT (1949–2019–deMoor)



survB_absolute-MT (1949–2019–deMoor)



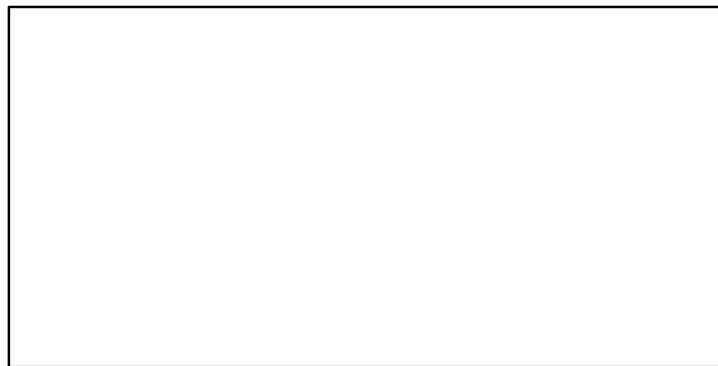
EFFORT*



CPUE*



CdivMSY*



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

Shallow water cape hake South Africa [CHAKESA]

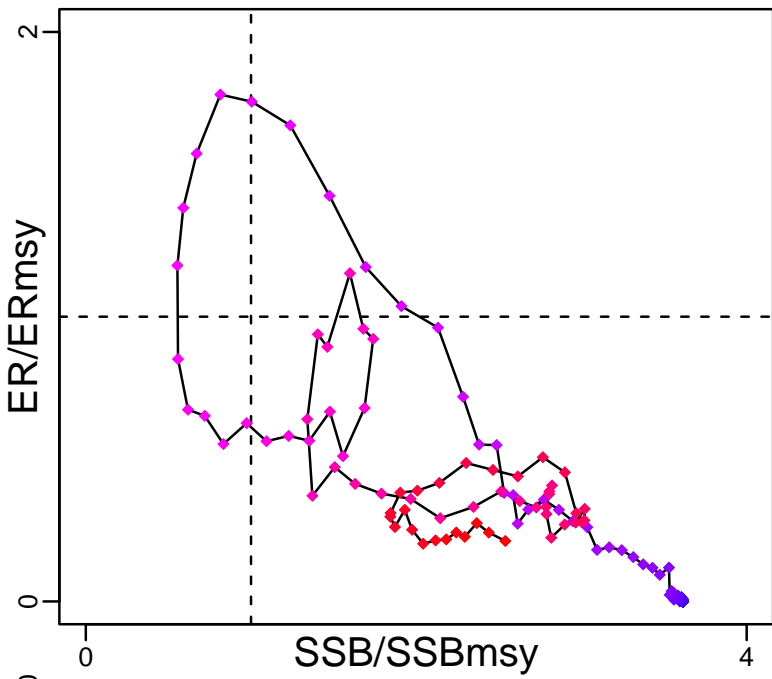
Metadata	
Scientific Name	Merluccius capensis
Current Assess ID	MARAM-CHAKESA-1900-2021-ROSSGILLESPIE
Area	South Africa
Management Authority	South African national management, Fisheries Branch of Department of Agriculture, Forestry and Fisheries
Assessor	Marine Resource Assessment and Management Group, Department of Mathematics and Applied Mathematics, University of Cape Town, Rondebosch, 7701, South Africa
Asmts in RAM	2021, 2013, 2015

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2021	198,715
SSBmsy	SSBmsy-MT	2021	95,675
Fmsy	Fmsy-1/yr	2013	0.32
ERmsy	ERmsy-ratio	2021	0.4
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2021	95,675
Fmgt	-	-	-
ERmgt	ERmgt-ratio	2021	0.4
TB0	TB0-MT	2021	777,623
SSB0	SSB0-MT	2021	345,826
MSY	MSY-MT	2021	79,486
M	M-1/yr	2021	0.555
TBlim	TBlim-MT	2013	43,000
SSBlim	SSBlim-MT	2021	53,041
Flim	-	-	-
ERlim	-	-	-

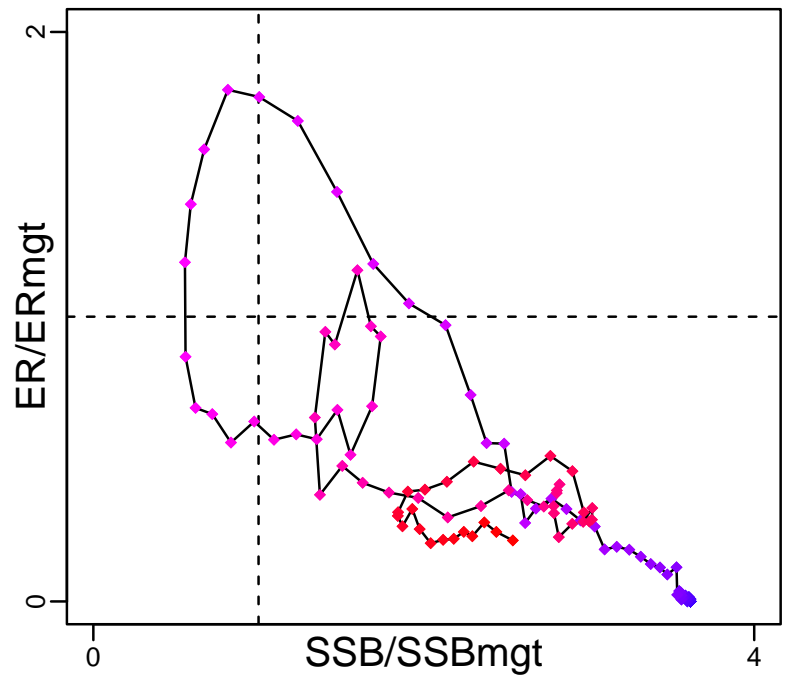
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2021	660,767	Both	0+
SSB	SSB-MT	2021	242,925	Females	-
TN	-	-	-	-	-
R	R-E00	2021	500,565,000	Both	-
F	-	-	-	-	-
ER	ER-ratio	2021	0.086	Both	0+
TC	TC-MT	2021	27,625		
TL	TL-MT	2021	27,625		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2021	3.325		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2021	2.539		
F/Fmsy	-	-	-		
ER/ERmsy	ERdivERmsy-dimensionless	2021	0.212		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2021	2.539		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Shallow water cape hake South Africa [CHAKESA]

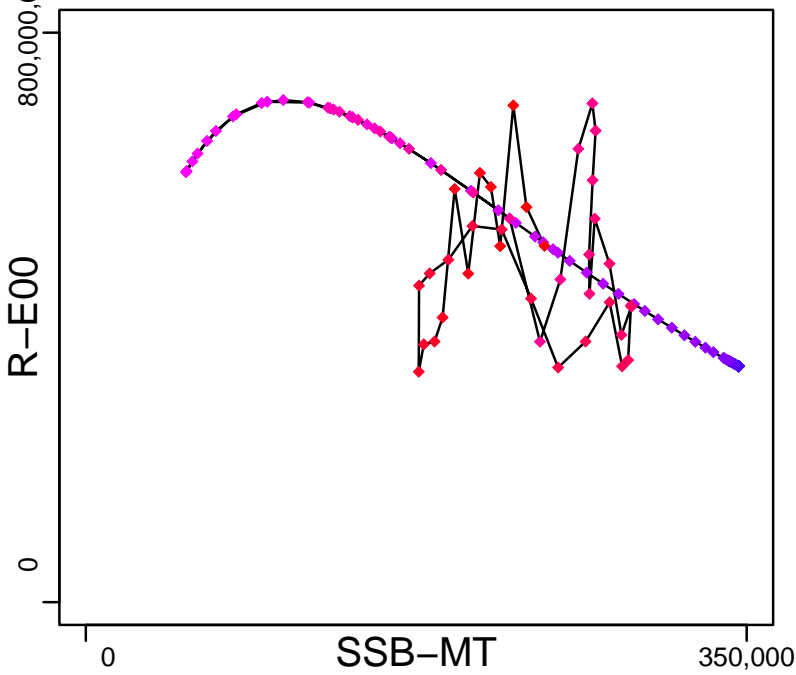
Kobe MSYpref (1900–2021–ROSSGILLESPIE)



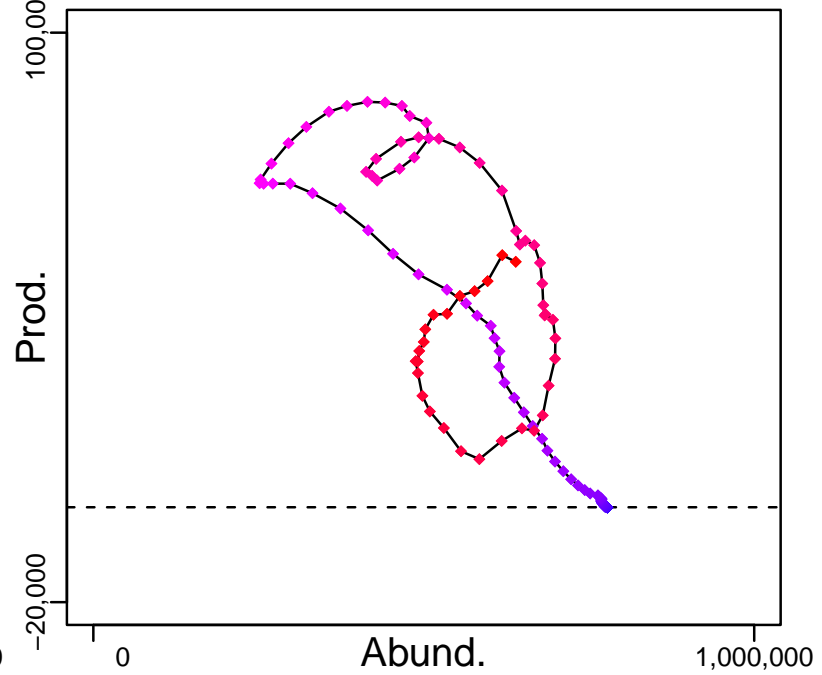
Kobe MGTpref (1900–2021–ROSSGILLESPIE)



Spawner Recruit (1900–2021–ROSSGILLESPIE)



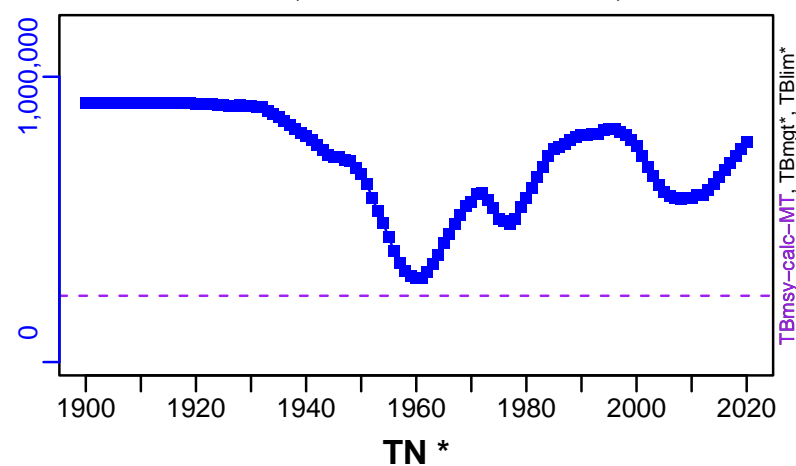
Production (1900–2021–ROSSGILLESPIE)



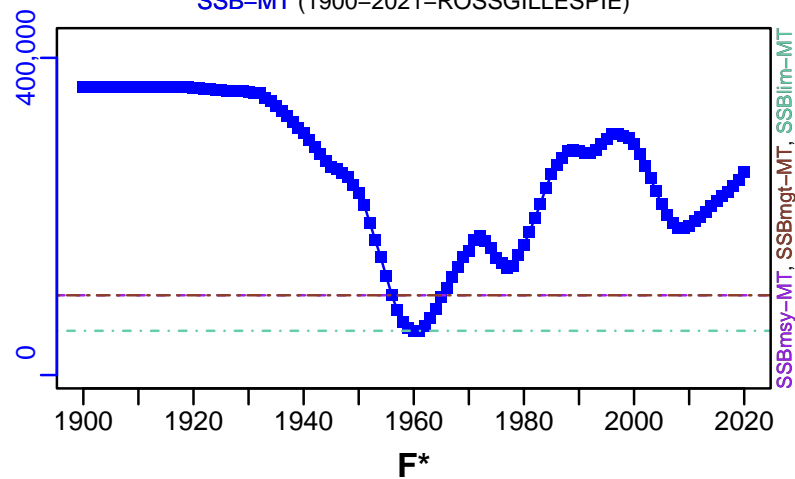
◆ Start Year ◆ End Year * No Data

Shallow water cape hake South Africa [CHAKESA]

TB-MT (1900–2021–ROSSGILLESPIE)



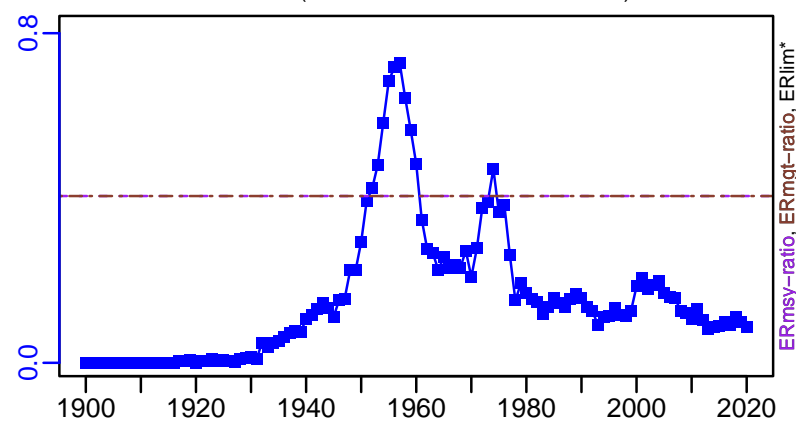
SSB-MT (1900–2021–ROSSGILLESPIE)



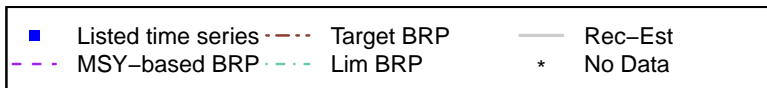
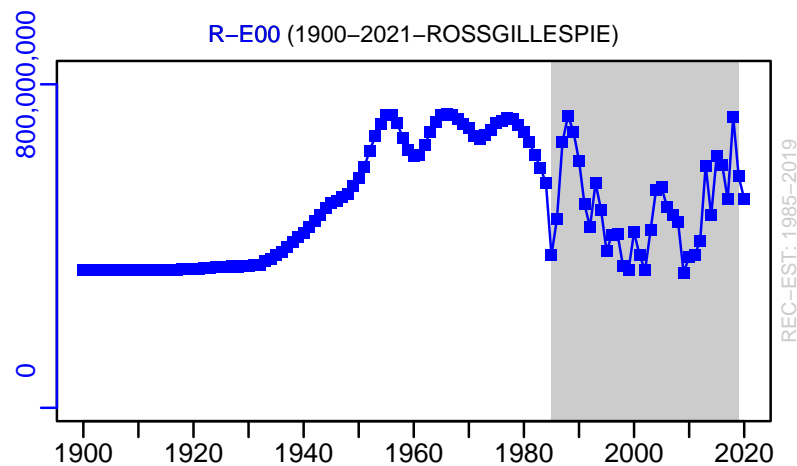
TN *

F*

ER-ratio (1900–2021–ROSSGILLESPIE)

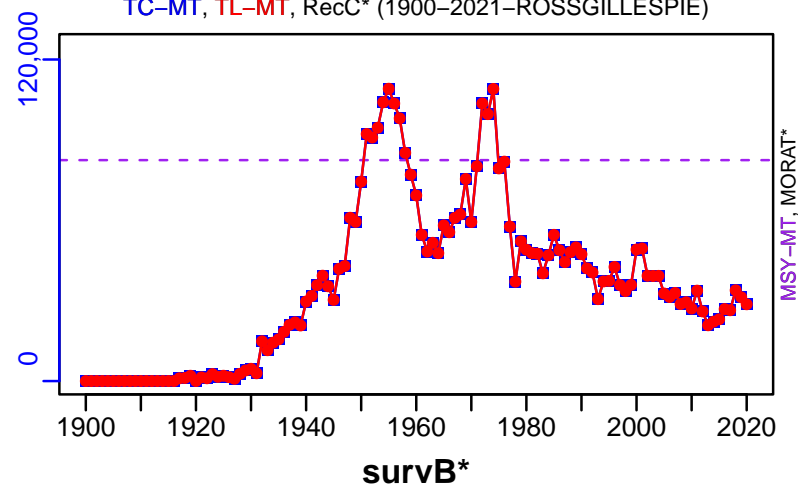


R-E00 (1900–2021–ROSSGILLESPIE)



Shallow water cape hake South Africa [CHAKESA]

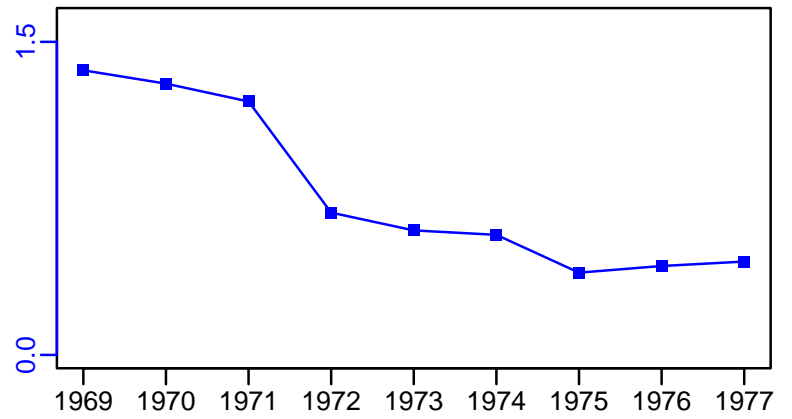
TC-MT, TL-MT, RecC* (1900–2021–ROSSGILLESPIE)



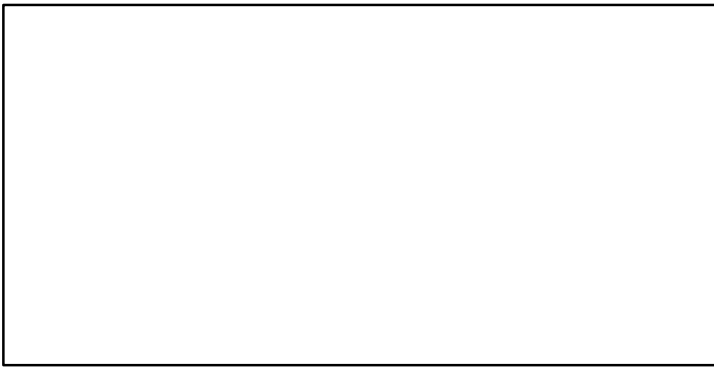
TAC*, Cpair*, Cadv*



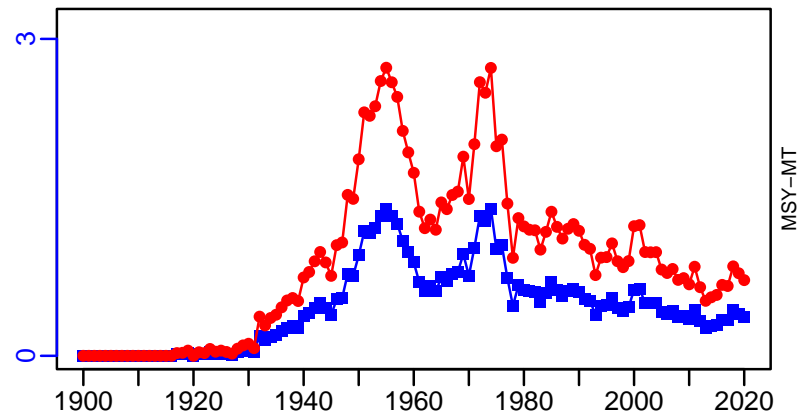
CPUE-index (1900–2021–ROSSGILLESPIE)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1900–2021–ROSSGILLESPIE)



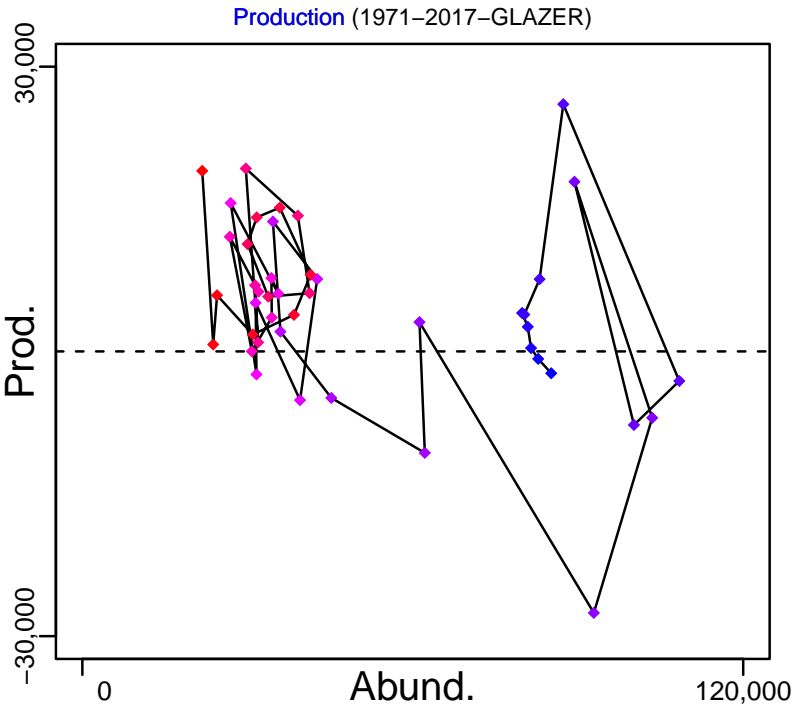
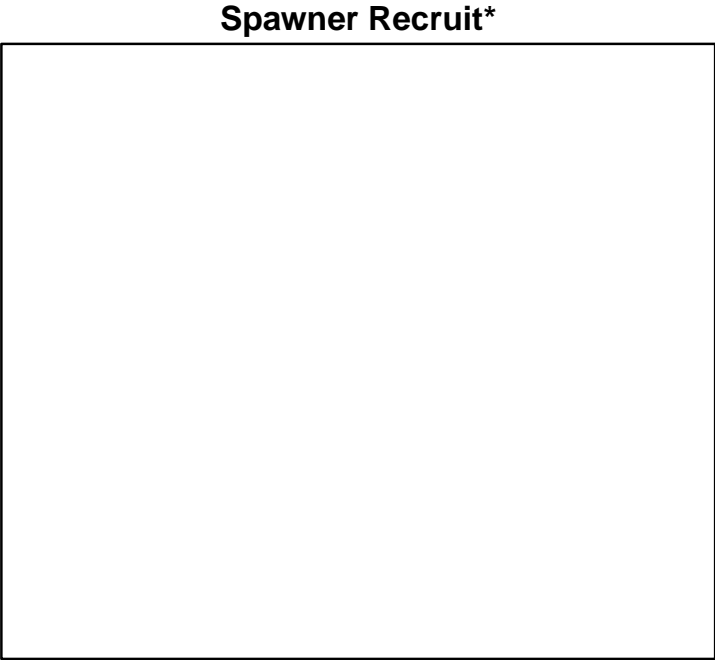
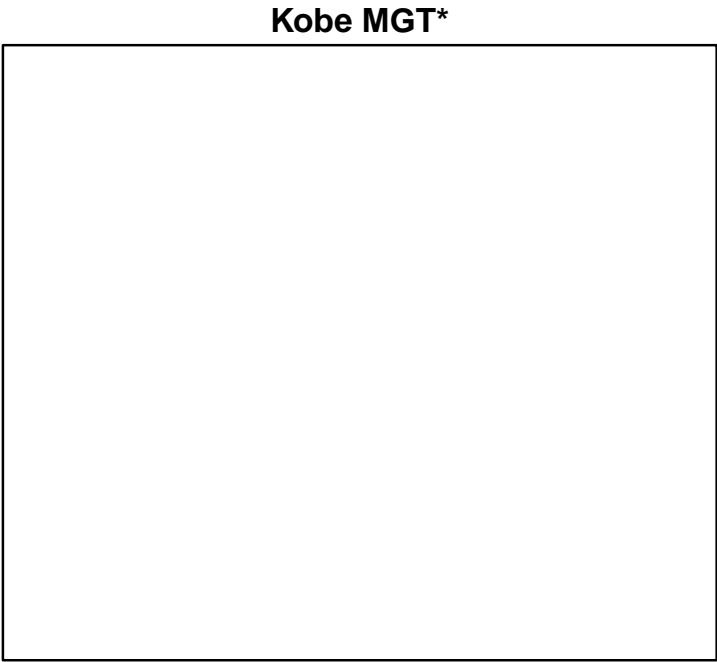
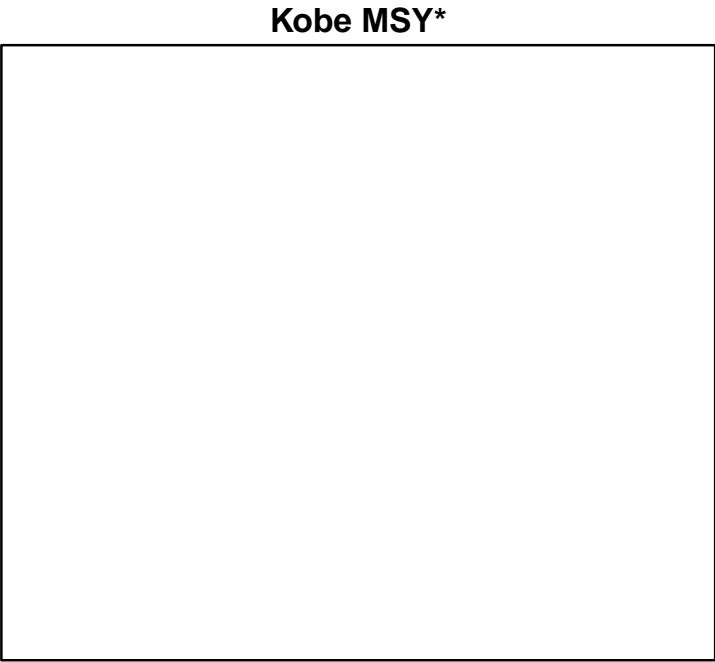
■ 1st listed time series ▲ 3rd listed time series — MORAT
● 2nd listed time series - - - MSY * No Data

Cape Hope squid South Africa [CHSQUIDSA]

Metadata	
Scientific Name	Loligo reynaudii
Current Assess ID	FBDAFF-CHSQUIDSA-1971-2017-GLAZER
Area	South Africa
Management Authority	South African national management, Fisheries Branch of Department of Agriculture, Forestry and Fisheries
Assessor	Fisheries Branch of Department of Agriculture, Forestry and Fisheries
Asmts in RAM	2013, 2017

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-pr-MT	2017	34,059
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	TB0-MT	2017	85,146
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2017	31,424	Both	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	R-MT	2017	19,244	Both	-
F	-	-	-	-	-
ER	ER-ratio	2017	0.202	Both	-
TC	TC-MT	2017	6812		
TL	TL-MT	2017	6812		
TB/TBmsy	TB-MT/TBmsy-pr-MT	2017	0.923		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

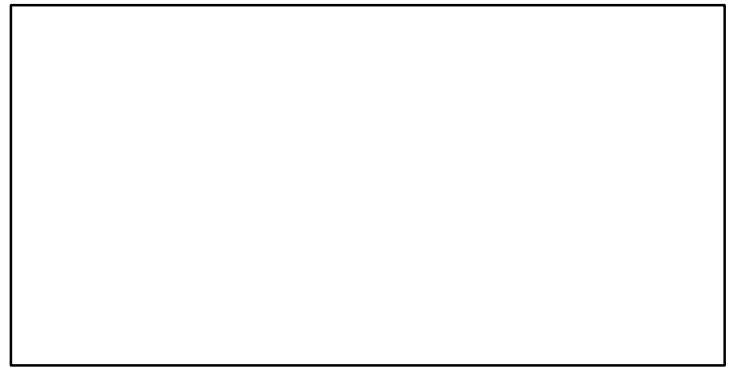
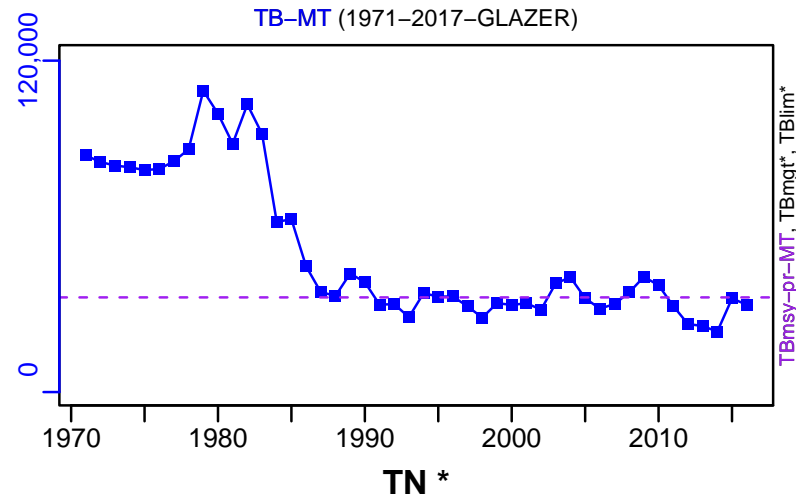


◆ Start Year ◆ End Year * No Data

Cape Hope squid South Africa [CHSQUIDSA]

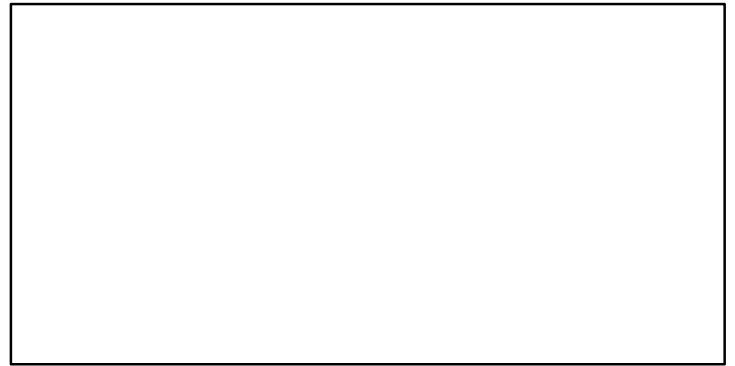
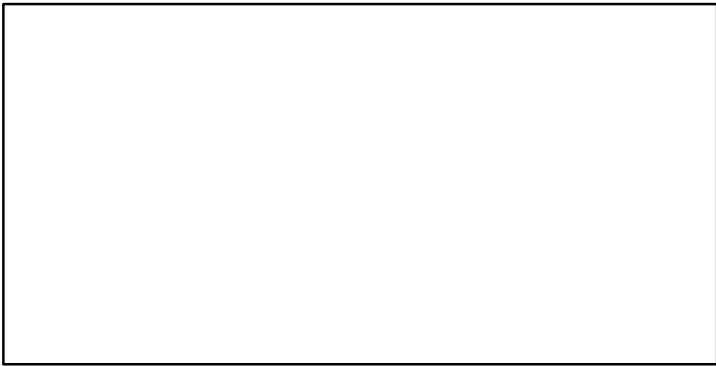
TB-MT (1971-2017-GLAZER)

SSB*



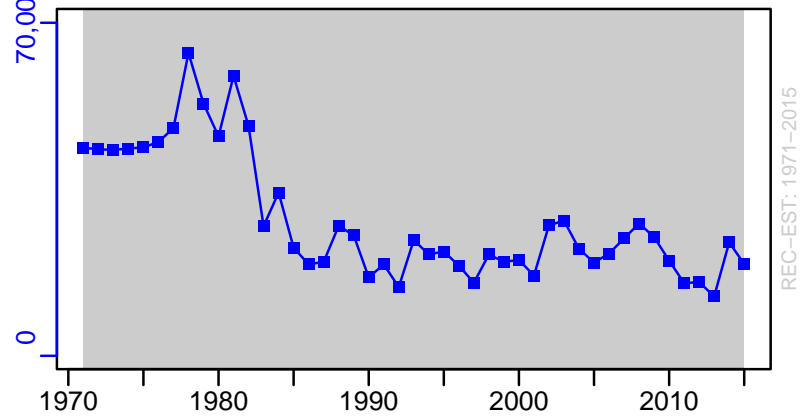
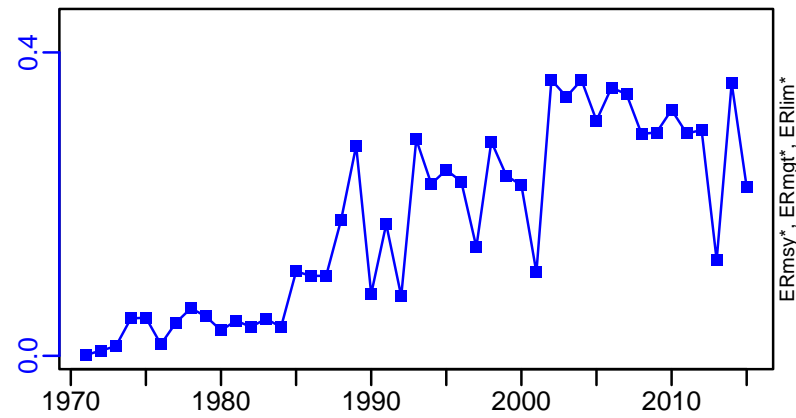
TN *

F*



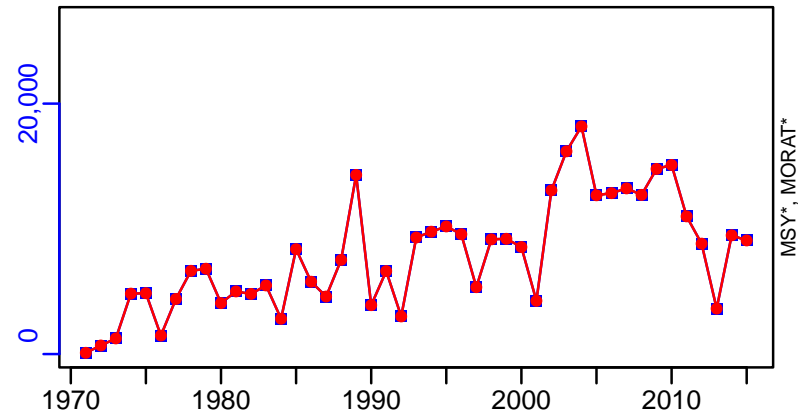
ER-ratio (1971-2017-GLAZER)

R-MT (1971-2017-GLAZER)

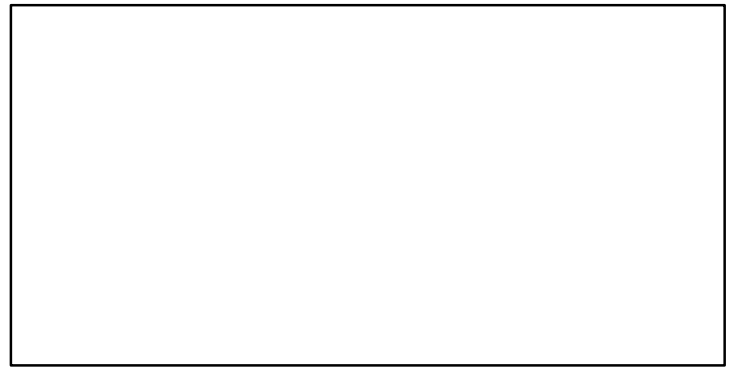


Cape Hope squid South Africa [CHSQUIDSA]

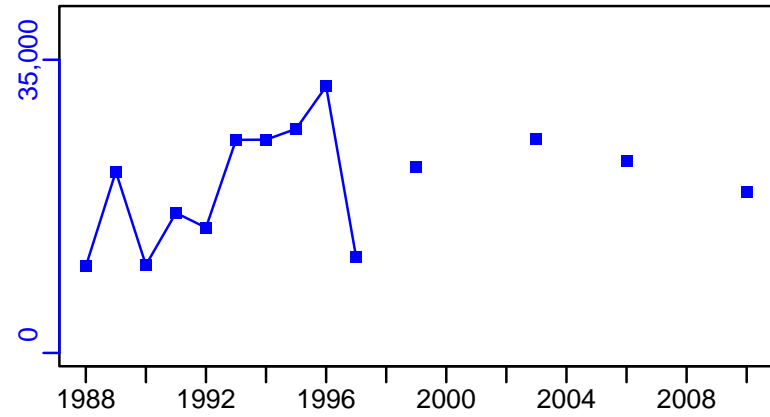
TC-MT, TL-MT, RecC* (1971-2017-GLAZER)



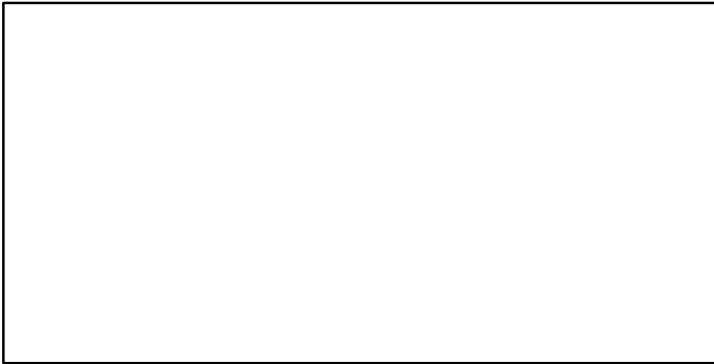
TAC*, Cpair*, Cadv*



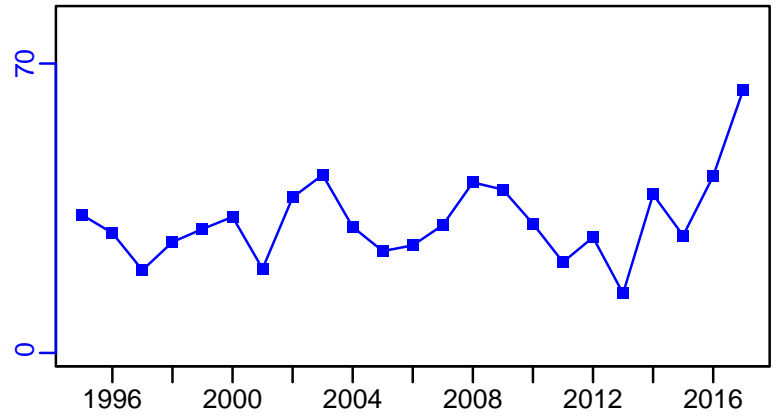
survB_index-1-index (1971-2017-GLAZER)



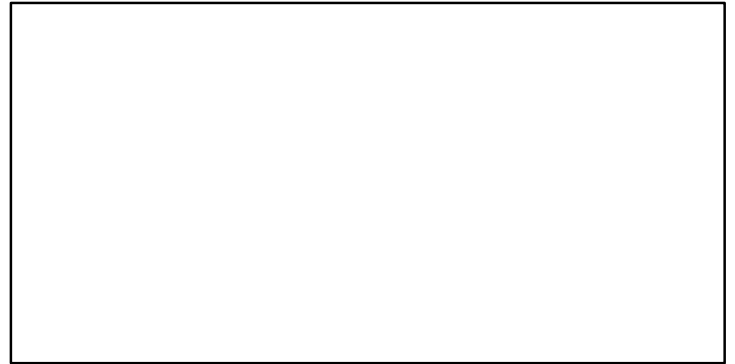
EFFORT*



CPUE-1-index (1971-2017-GLAZER)



CdivMSY*



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

West coast rock lobster South Africa Areas 1-2 [CRLOBSTERSA12]

Metadata	
Scientific Name	Jasus lalandii
Current Assess ID	MARAM-CRLOBSTERSA12-1910-2020-Johnston
Area	South Africa Areas 1-2
Management Authority	South African national management, Fisheries Branch of Department of Agriculture, Forestry and Fisheries
Assessor	Marine Resource Assessment and Management Group, Department of Mathematics and Applied Mathematics, University of Cape Town, Rondebosch, 7701, South Africa
Asmts in RAM	2012, 2014, 2020

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	TB0-MT	2020	70,589
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2020	0.11
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2020	1261	Males	-
SSB	SSB-relative	2020	0.04	Females	-
TN	-	-	-	-	-
R	R-E00	2020	1,746,541	-	-
F	-	-	-	-	-
ER	ER-ratio	2020	0.011	-	-
TC	TC-MT	2020	14		
TL	TL-MT	2020	14		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

West coast rock lobster South Africa Areas 1–2 [CRLOBSTERSA12]

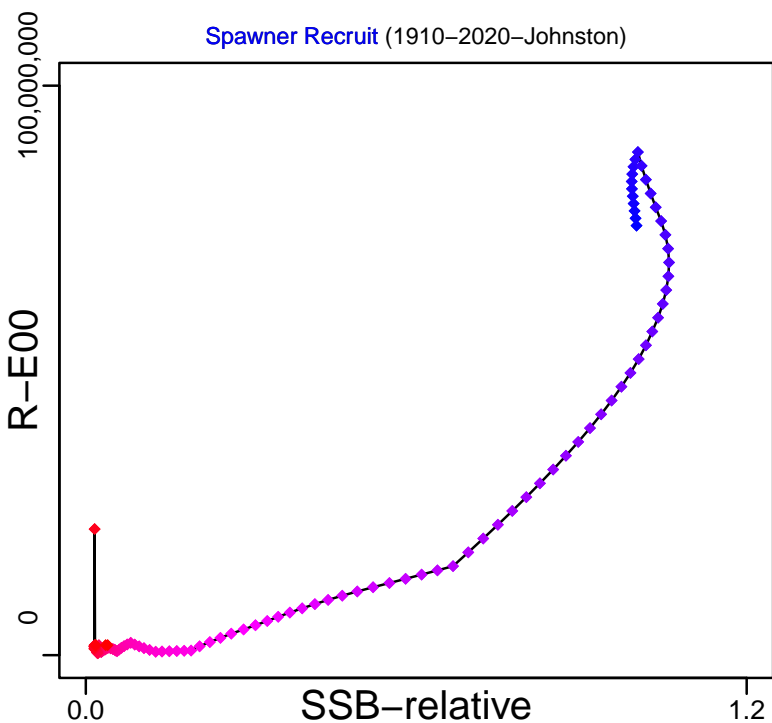
Kobe MSY*



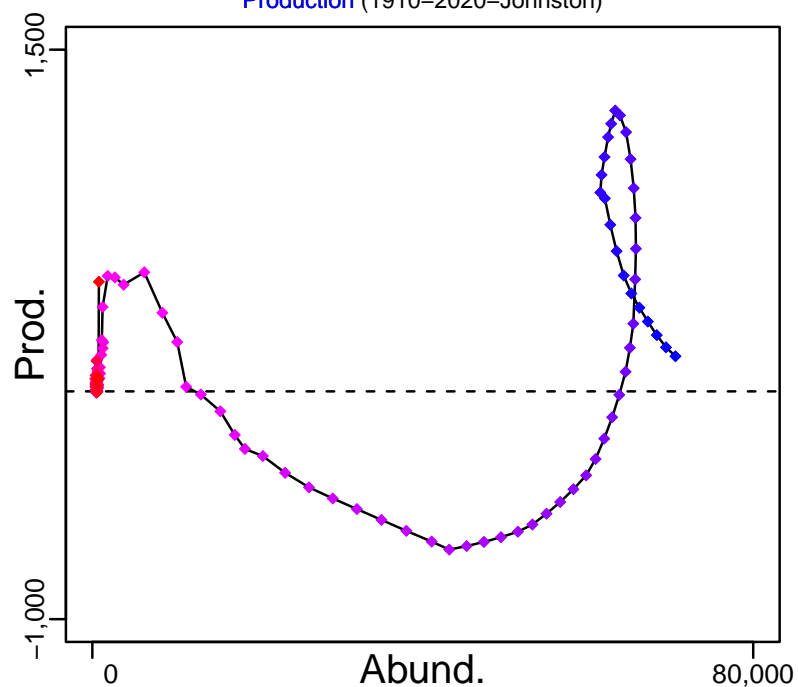
Kobe MGT*



Spawner Recruit (1910–2020–Johnston)



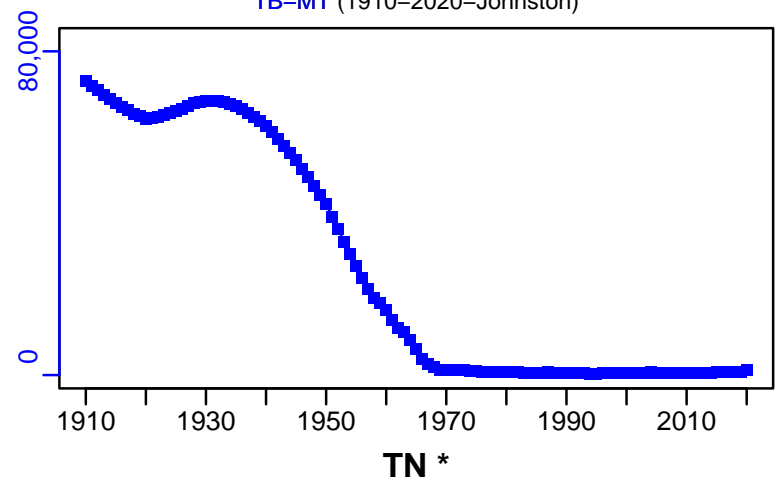
Production (1910–2020–Johnston)



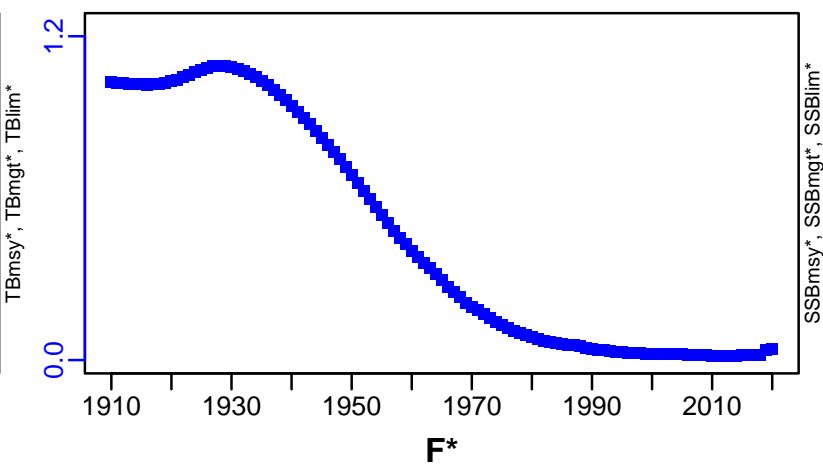
◆ Start Year ◆ End Year * No Data

West coast rock lobster South Africa Areas 1-2 [CRLOBSTERSA12]

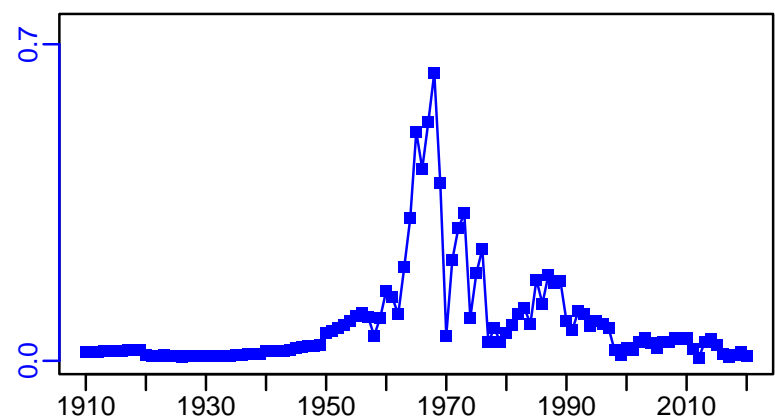
TB-MT (1910-2020-Johnston)



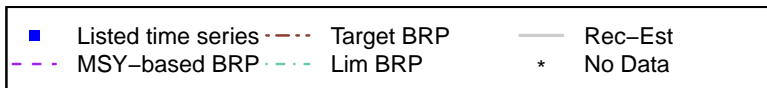
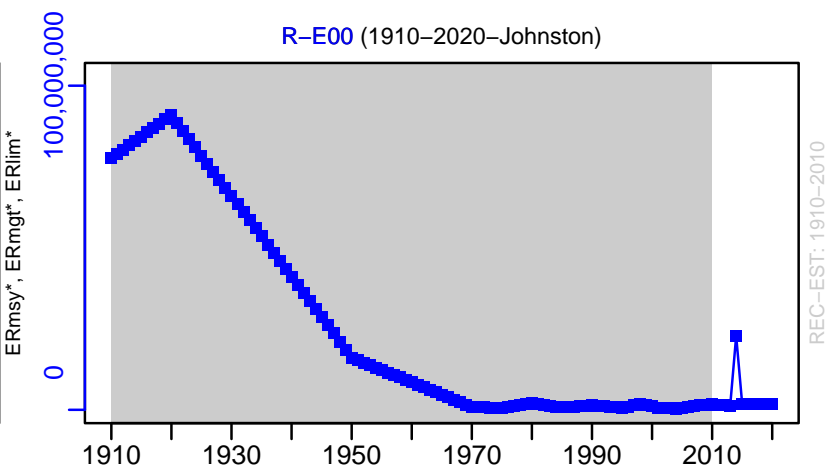
SSB-relative (1910-2020-Johnston)



ER-ratio (1910-2020-Johnston)



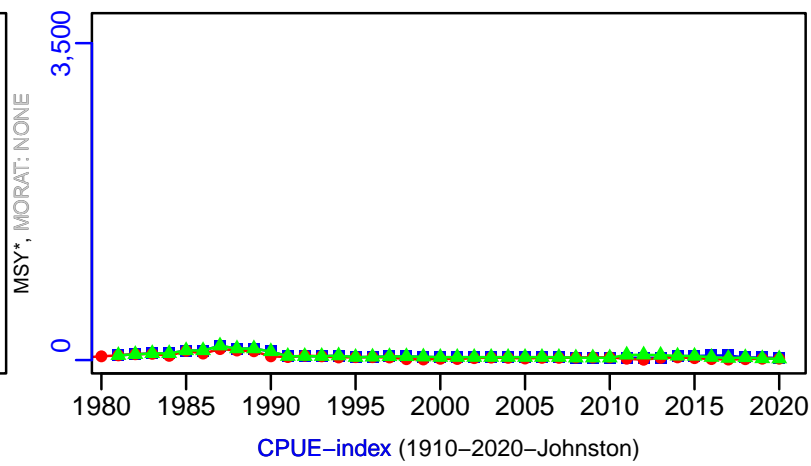
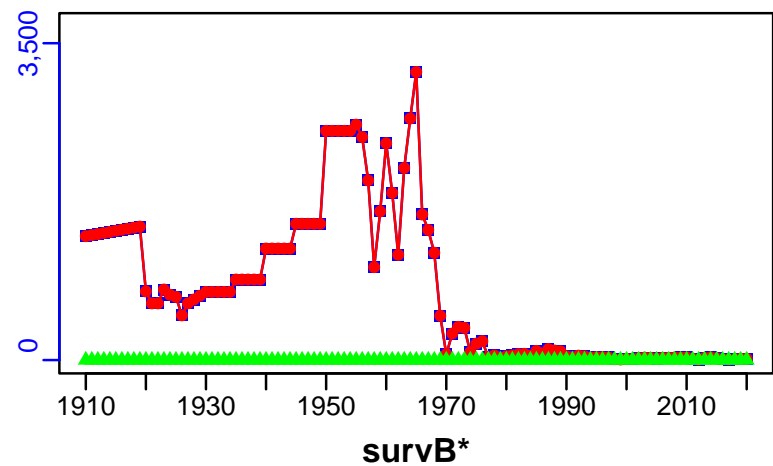
R-E00 (1910-2020-Johnston)



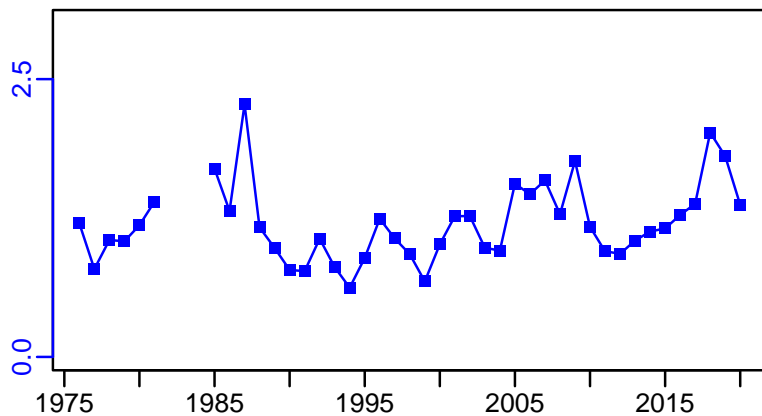
West coast rock lobster South Africa Areas 1-2 [CRLOBSTERSA12]

TC-MT, TL-MT, RecC-MT (1910-2020-Johnston)

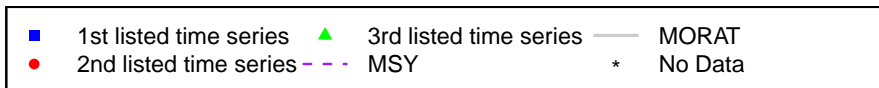
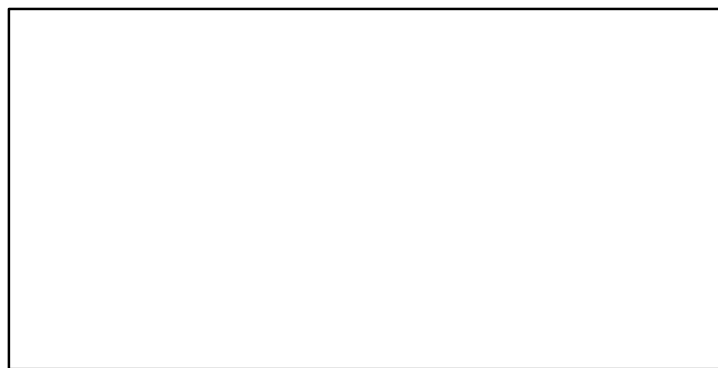
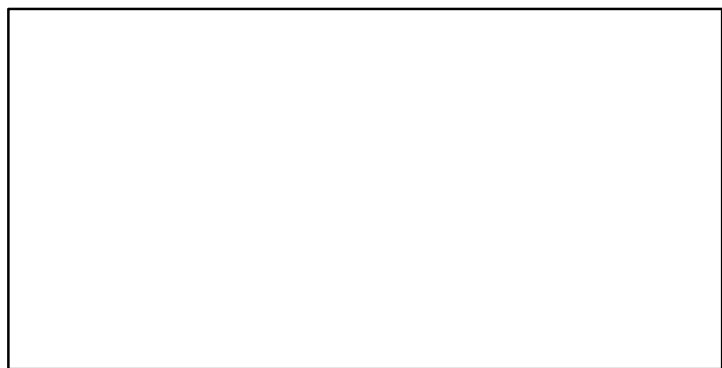
TAC-MT, Cpair-MT, Cadvised-MT (1910-2020-Johnston)



EFFORT*



CdivMSY*



West coast rock lobster South Africa Areas 3-4 [CRLOBSTERSA34]

Metadata	
Scientific Name	Jasus lalandii
Current Assess ID	MARAM-CRLOBSTERSA34-1910-2020-Johnston
Area	South Africa Areas 3-4
Management Authority	South African national management, Fisheries Branch of Department of Agriculture, Forestry and Fisheries
Assessor	Marine Resource Assessment and Management Group, Department of Mathematics and Applied Mathematics, University of Cape Town, Rondebosch, 7701, South Africa
Asmts in RAM	2012, 2014, 2020

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	TB0-MT	2020	160,176
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2020	0.11
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2020	2846	Males	-
SSB	SSB-relative	2020	0.045	Females	-
TN	-	-	-	-	-
R	R-E00	2020	36,713,488	-	-
F	-	-	-	-	-
ER	ER-ratio	2020	0.028	-	-
TC	TC-MT	2020	220		
TL	TL-MT	2020	81		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

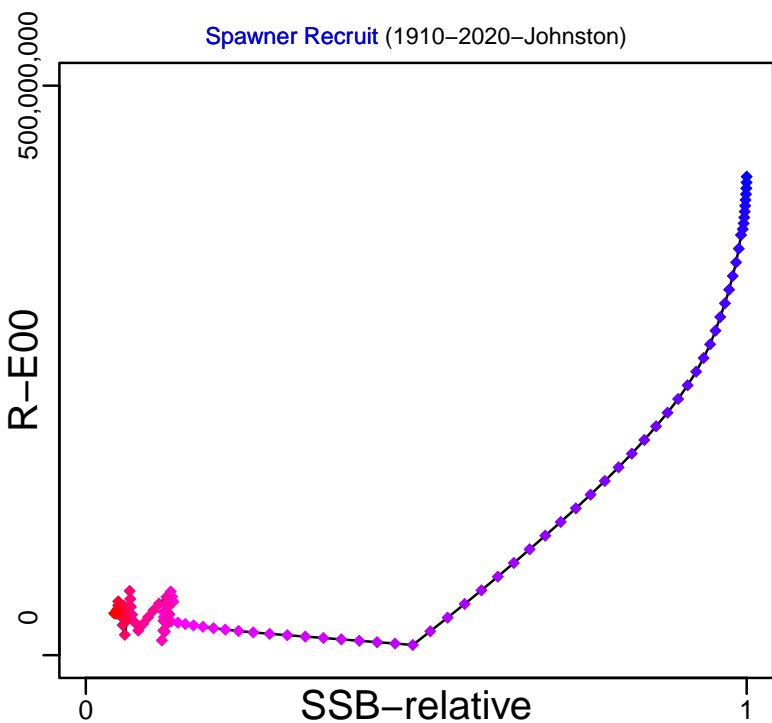
Kobe MSY*



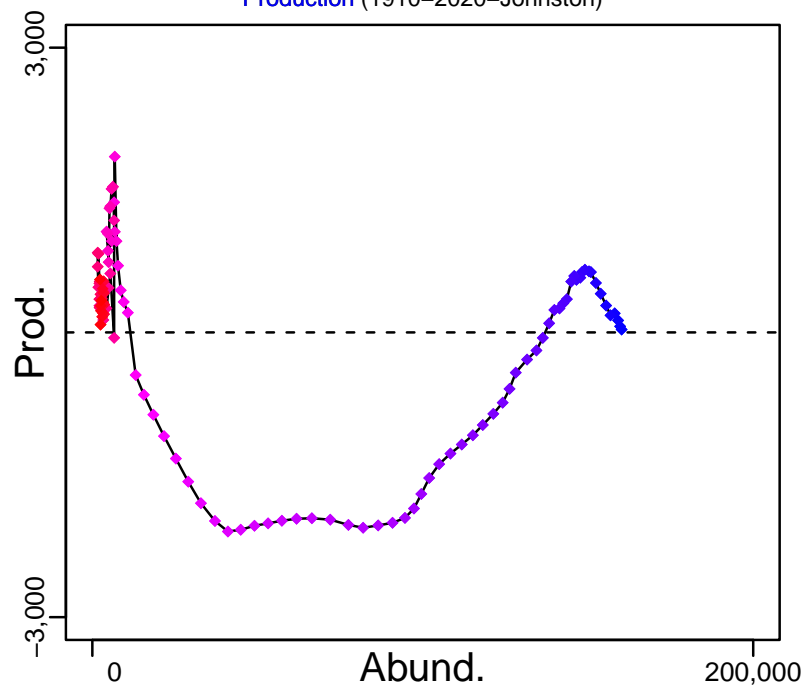
Kobe MGT*



Spawner Recruit (1910–2020–Johnston)



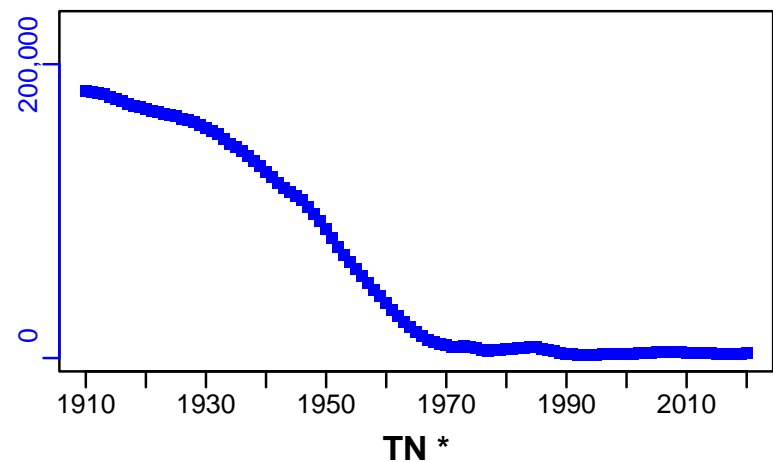
Production (1910–2020–Johnston)



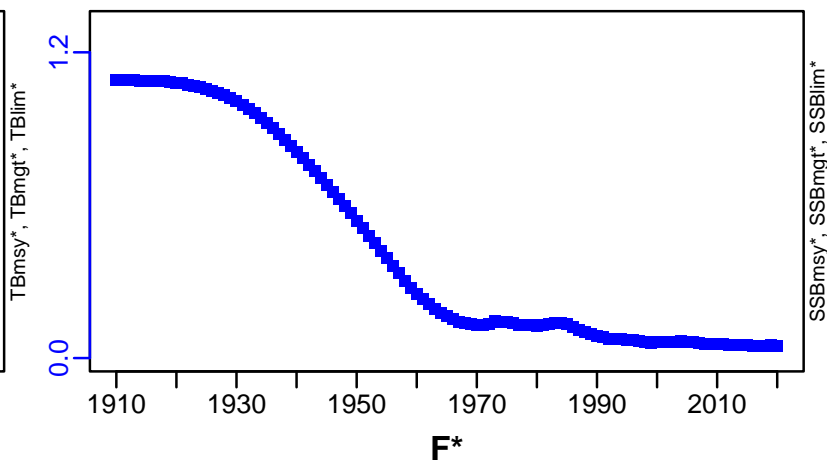
◆ Start Year ◆ End Year * No Data

West coast rock lobster South Africa Areas 3–4 [CRLOBSTERSA34]

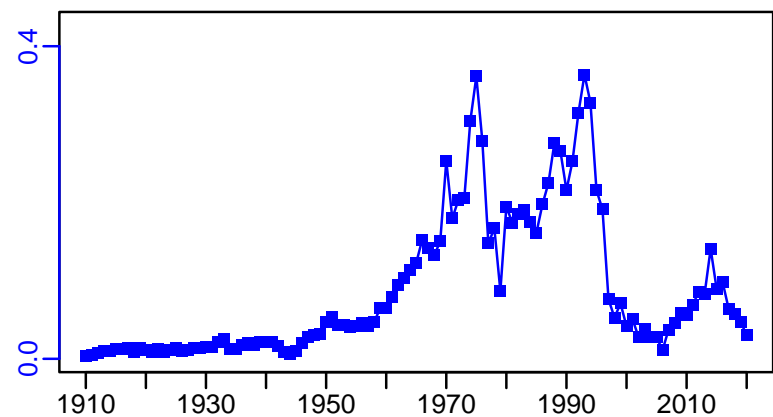
TB–MT (1910–2020–Johnston)



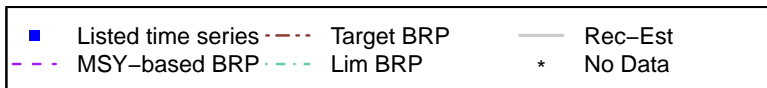
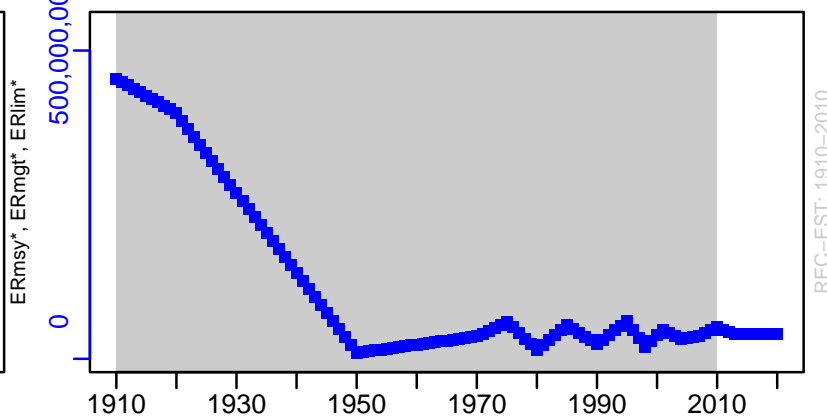
SSB–relative (1910–2020–Johnston)



ER–ratio (1910–2020–Johnston)

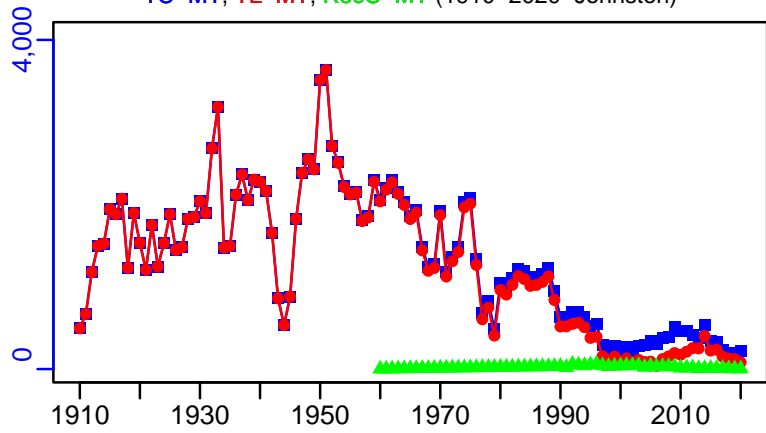


R–E00 (1910–2020–Johnston)

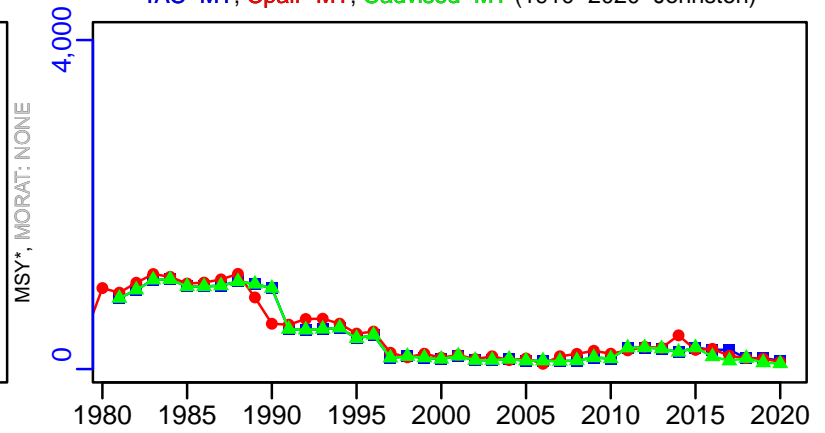


West coast rock lobster South Africa Areas 3-4 [CRLOBSTERSA34]

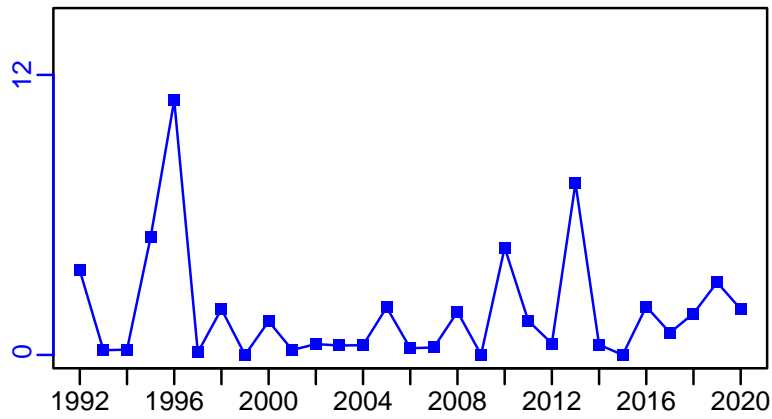
TC-MT, TL-MT, RecC-MT (1910-2020-Johnston)



TAC-MT, Cpair-MT, Cadvised-MT (1910-2020-Johnston)

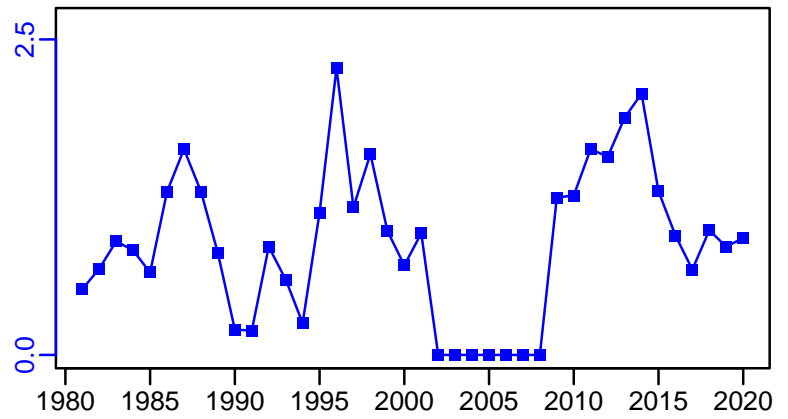


survB_index-index (1910-2020-Johnston)

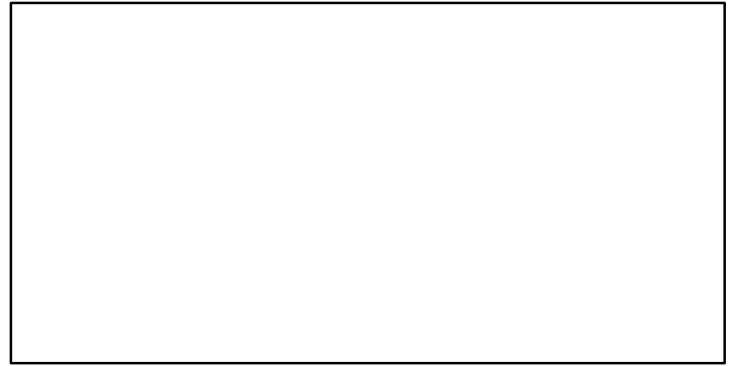
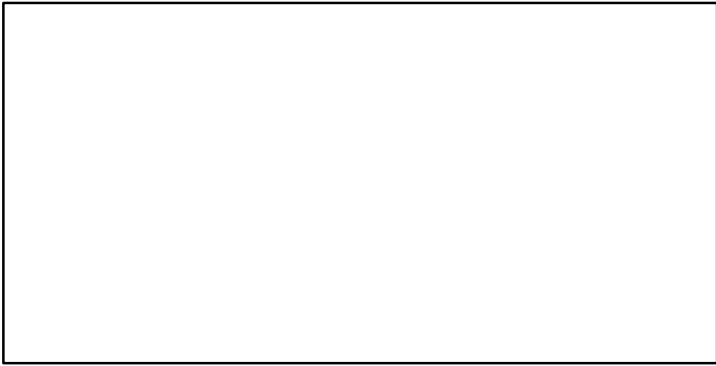


EFFORT*

CPUE-index (1910-2020-Johnston)



CdivMSY*



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

West coast rock lobster South Africa Areas 5-6 [CRLOBSTERSA56]

Metadata	
Scientific Name	Jasus lalandii
Current Assess ID	MARAM-CRLOBSTERSA56-1910-2020-Johnston
Area	South Africa Areas 5-6
Management Authority	South African national management, Fisheries Branch of Department of Agriculture, Forestry and Fisheries
Assessor	Marine Resource Assessment and Management Group, Department of Mathematics and Applied Mathematics, University of Cape Town, Rondebosch, 7701, South Africa
Asmts in RAM	2012, 2014, 2020

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	TB0-MT	2020	230,233
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2020	0.11
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2020	3352	Males	-
SSB	SSB-relative	2020	0.034	Females	-
TN	-	-	-	-	-
R	R-E00	2020	28,029,094	-	-
F	-	-	-	-	-
ER	ER-ratio	2020	0.016	-	-
TC	TC-MT	2020	138		
TL	TL-MT	2020	54		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

West coast rock lobster South Africa Areas 5–6 [CRLOBSTERSA56]

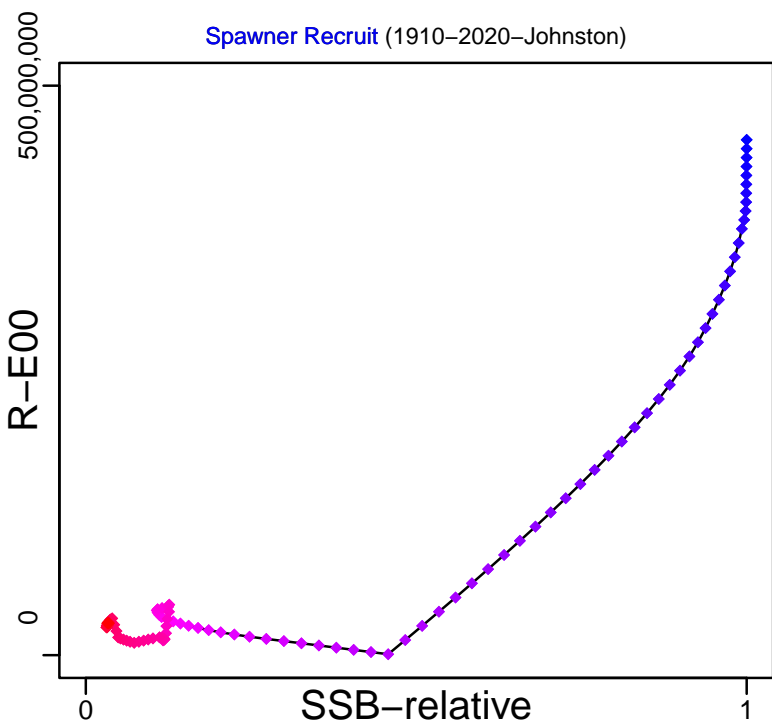
Kobe MSY*



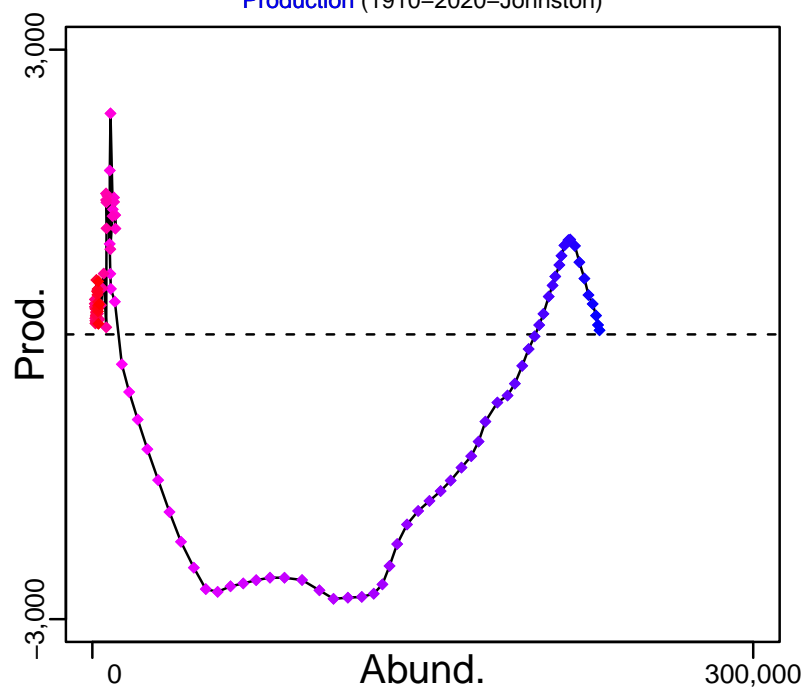
Kobe MGT*



Spawner Recruit (1910–2020–Johnston)



Production (1910–2020–Johnston)

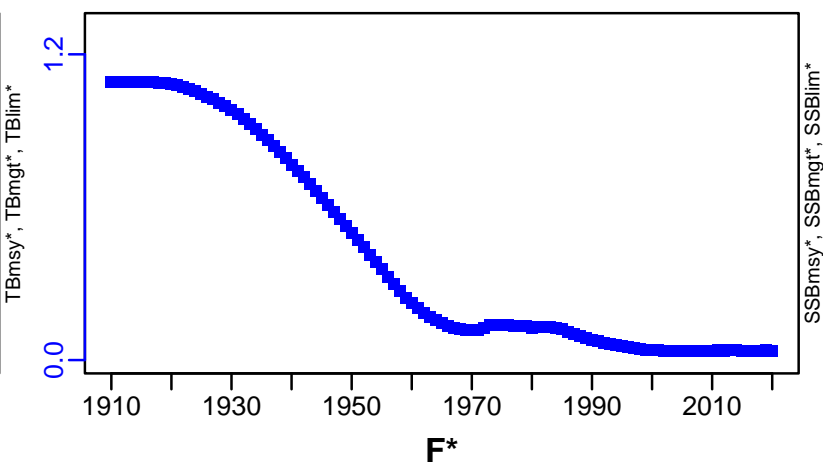
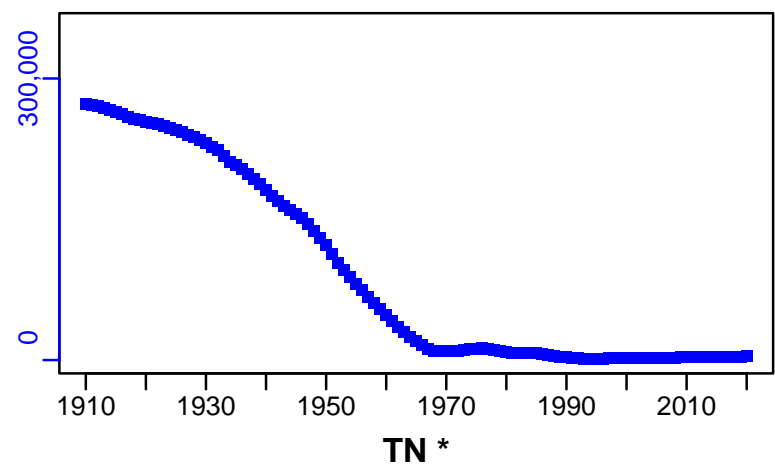


◆ Start Year ◆ End Year * No Data

West coast rock lobster South Africa Areas 5–6 [CRLOBSTERSA56]

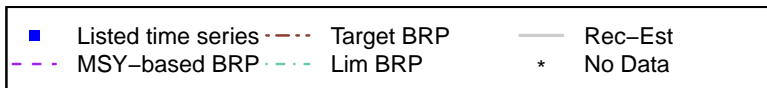
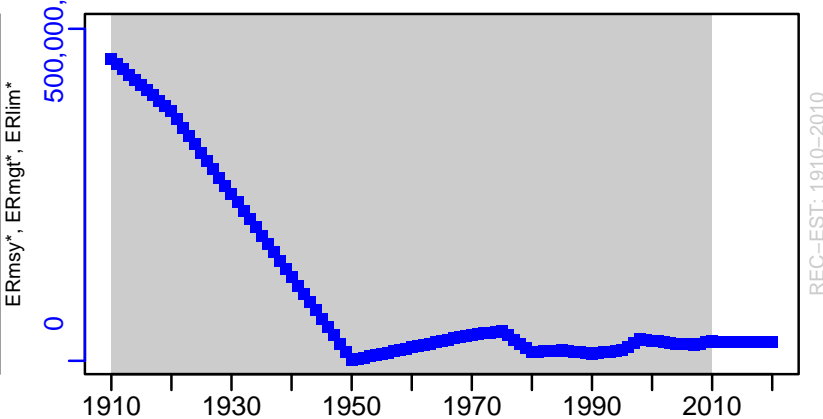
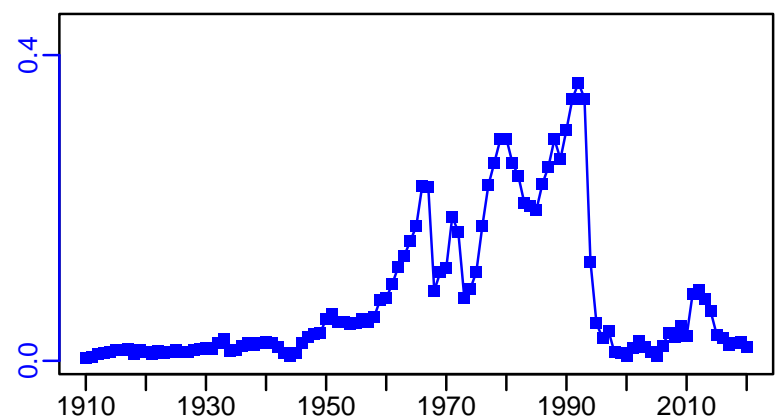
TB–MT (1910–2020–Johnston)

SSB–relative (1910–2020–Johnston)



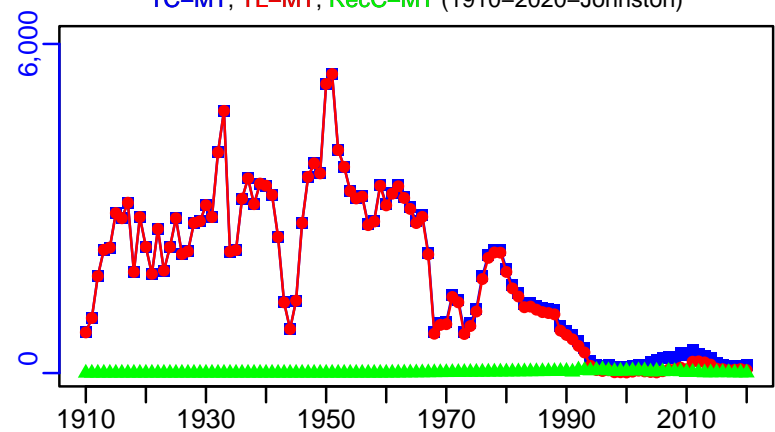
ER–ratio (1910–2020–Johnston)

R–E00 (1910–2020–Johnston)

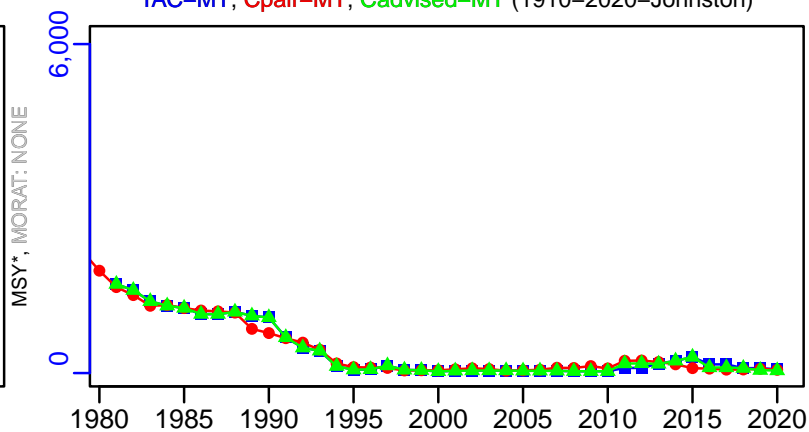


West coast rock lobster South Africa Areas 5-6 [CRLOBSTERSA56]

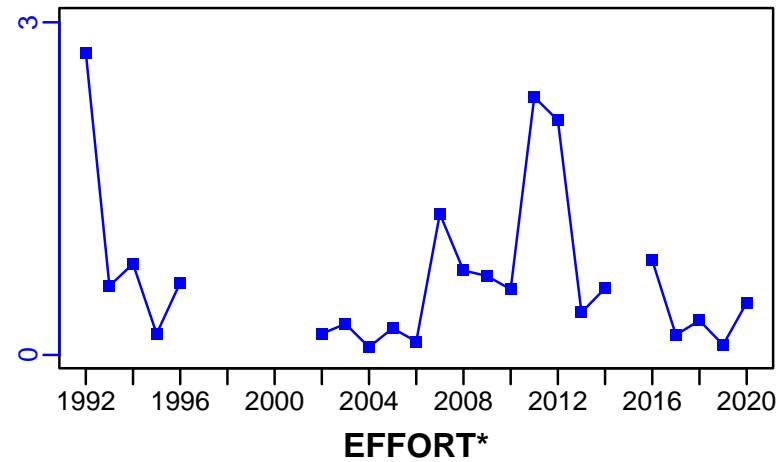
TC-MT, TL-MT, RecC-MT (1910-2020-Johnston)



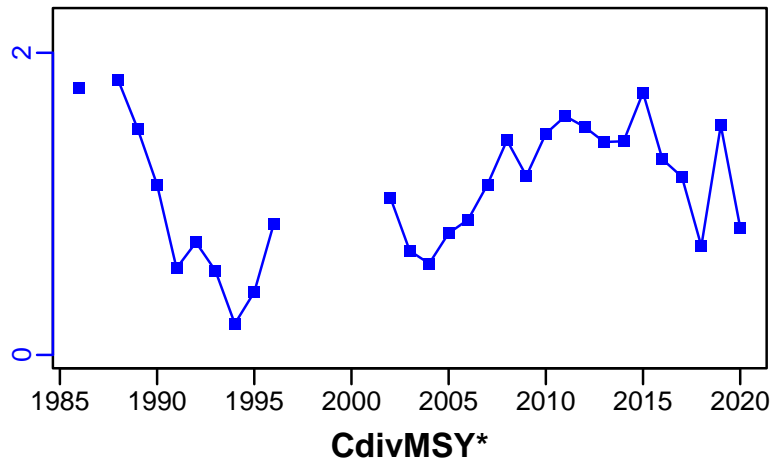
TAC-MT, Cpair-MT, Cadvised-MT (1910-2020-Johnston)



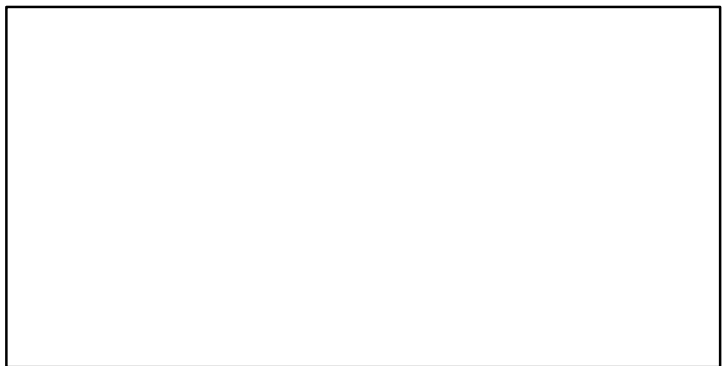
survB_index-index (1910-2020-Johnston)



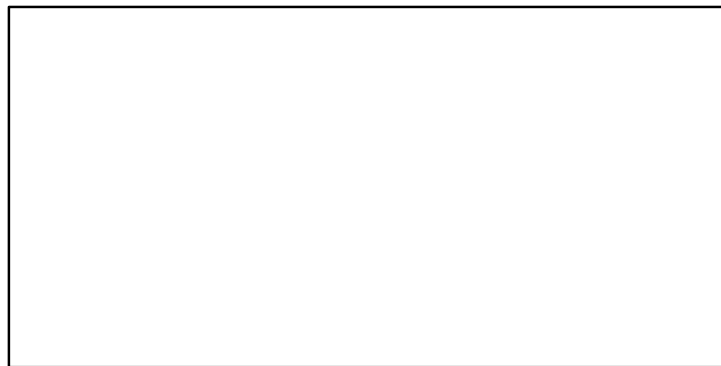
CPUE-index (1910-2020-Johnston)



EFFORT*



CdivMSY*



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

West coast rock lobster South Africa Area 7 [CRLOBSTERSA7]

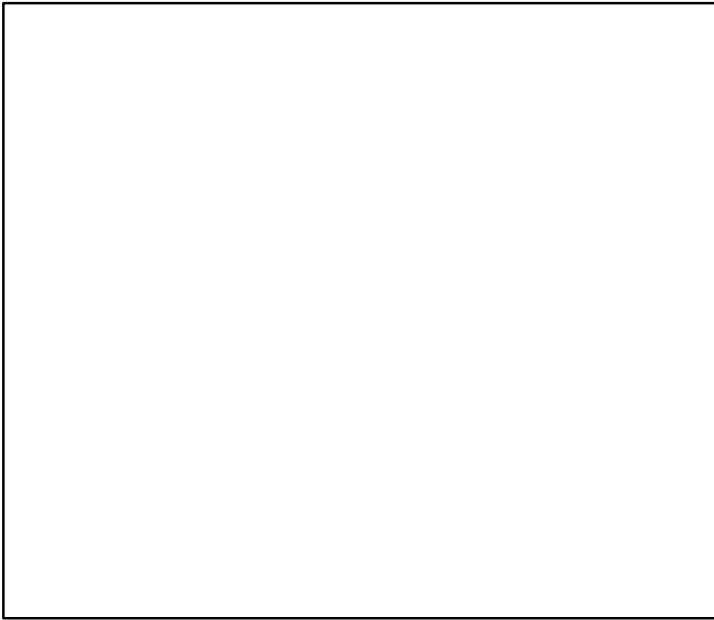
Metadata	
Scientific Name	Jasus lalandii
Current Assess ID	MARAM-CRLOBSTERSA7-1910-2020-Johnston
Area	South Africa Area 7
Management Authority	South African national management, Fisheries Branch of Department of Agriculture, Forestry and Fisheries
Assessor	Marine Resource Assessment and Management Group, Department of Mathematics and Applied Mathematics, University of Cape Town, Rondebosch, 7701, South Africa
Asmts in RAM	2012, 2014, 2020

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	TB0-MT	2020	419,875
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2020	0.11
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

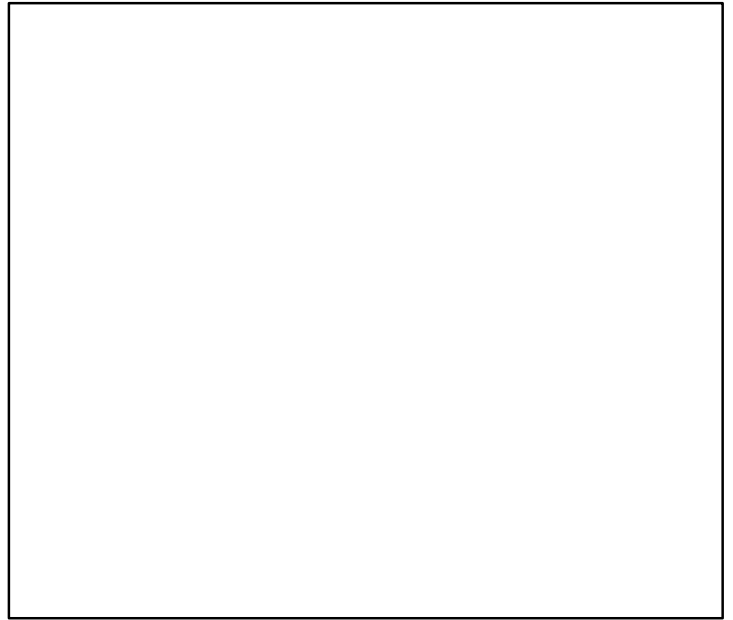
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2020	1450	Males	-
SSB	SSB-relative	2020	0.015	Females	-
TN	-	-	-	-	-
R	R-E00	2020	6,361,961	-	-
F	-	-	-	-	-
ER	ER-ratio	2020	0.057	-	-
TC	TC-MT	2020	172		
TL	TL-MT	2020	82		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

West coast rock lobster South Africa Area 7 [CRLOBSTERSA7]

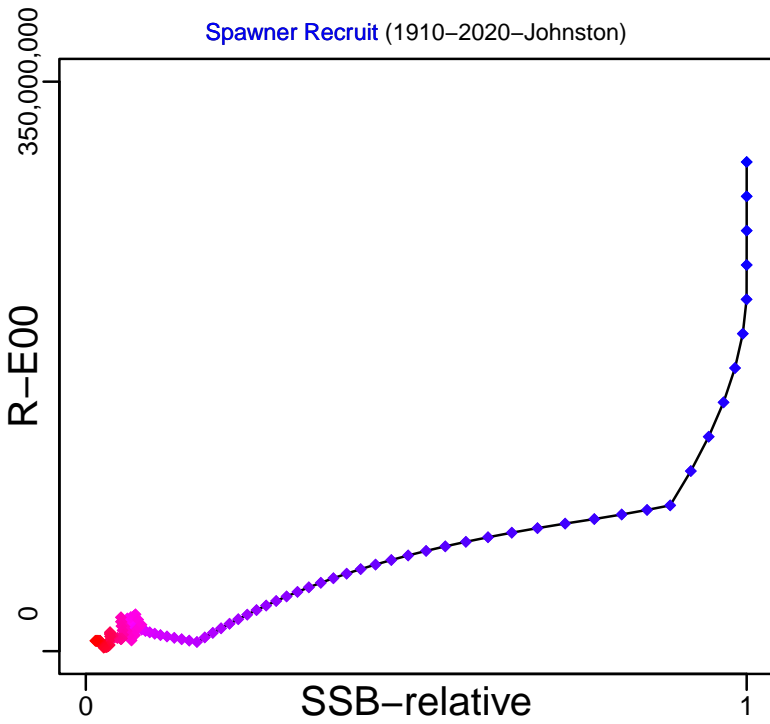
Kobe MSY*



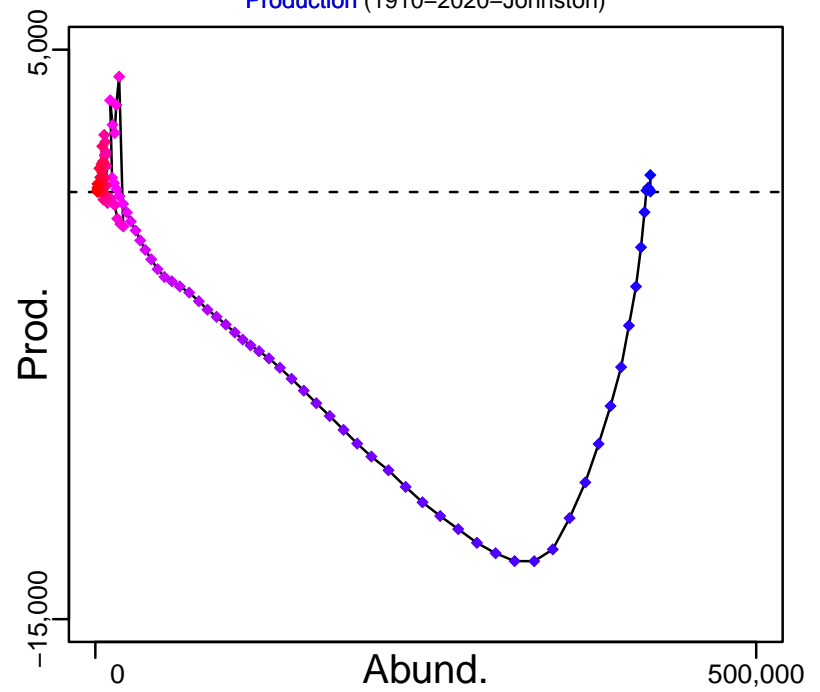
Kobe MGT*



Spawner Recruit (1910–2020–Johnston)



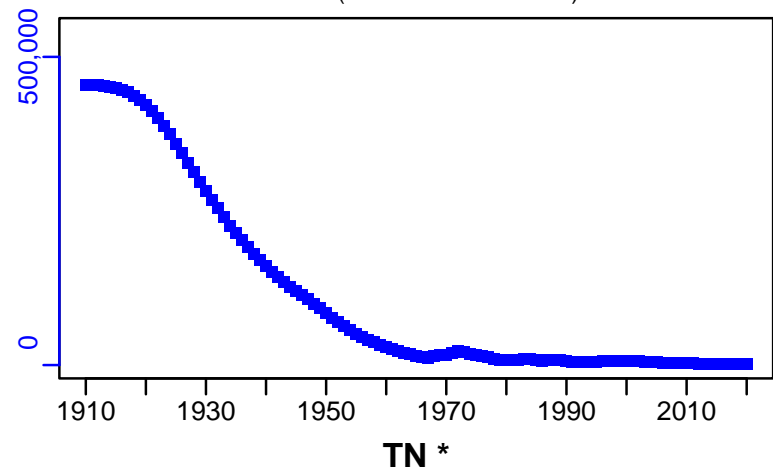
Production (1910–2020–Johnston)



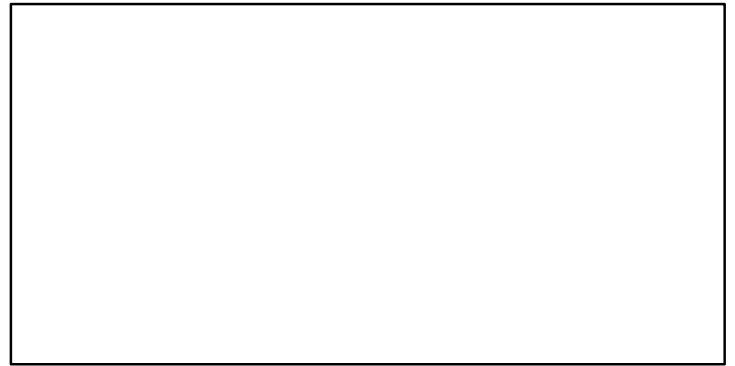
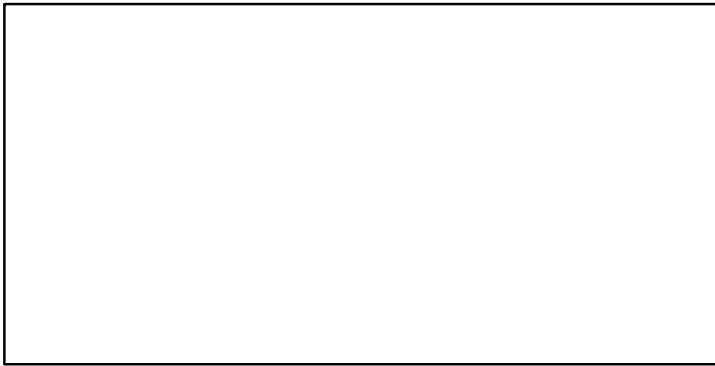
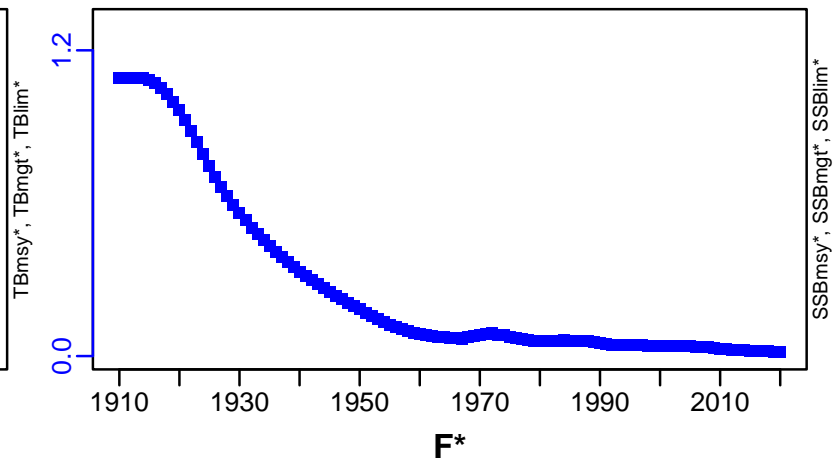
◆ Start Year ◆ End Year * No Data

West coast rock lobster South Africa Area 7 [CRLOBSTERSA7]

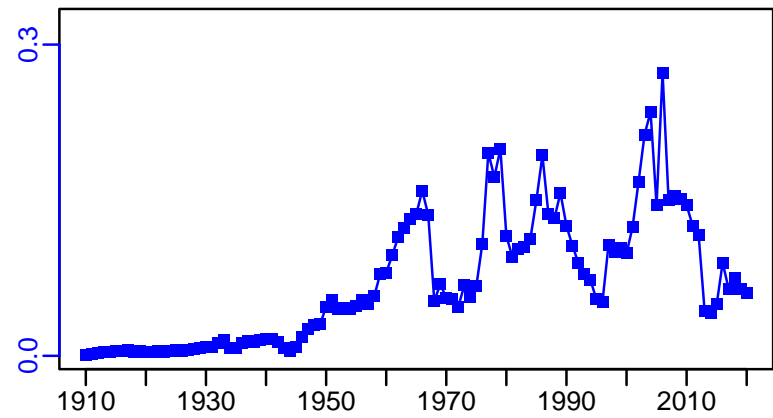
TB-MT (1910-2020-Johnston)



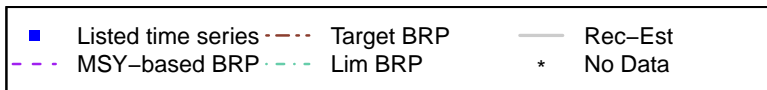
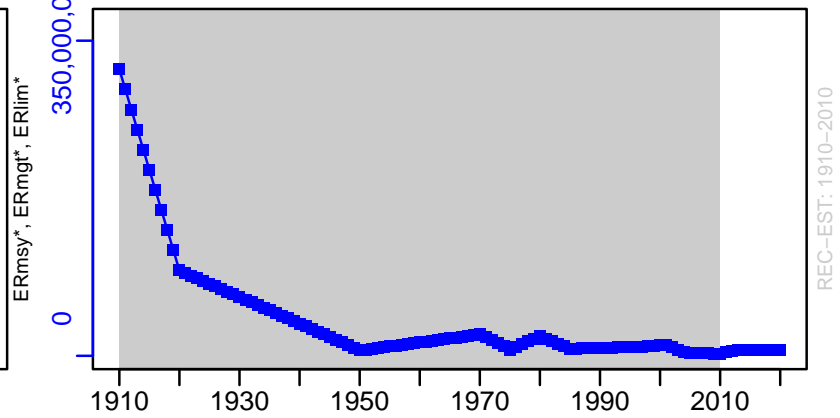
SSB-relative (1910-2020-Johnston)



ER-ratio (1910-2020-Johnston)

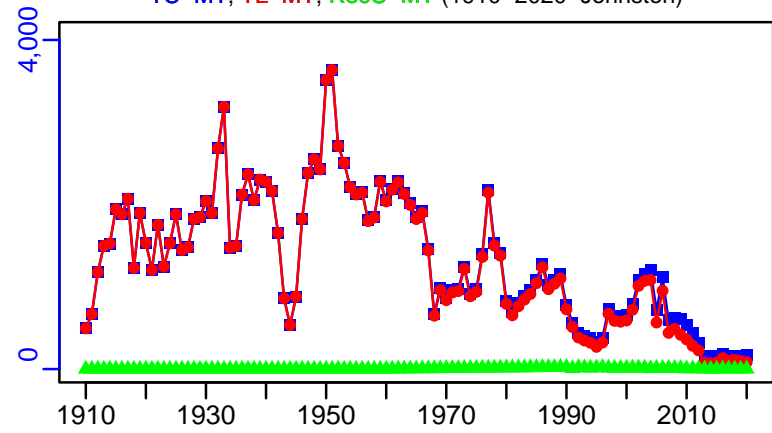


R-E00 (1910-2020-Johnston)

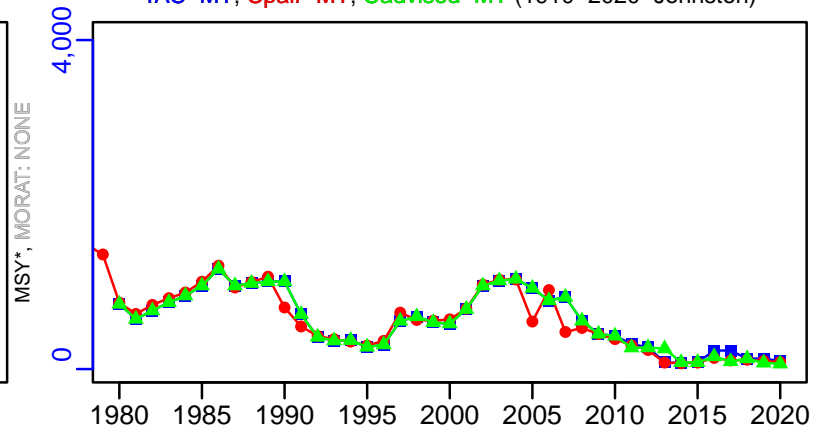


West coast rock lobster South Africa Area 7 [CRLOBSTERSA7]

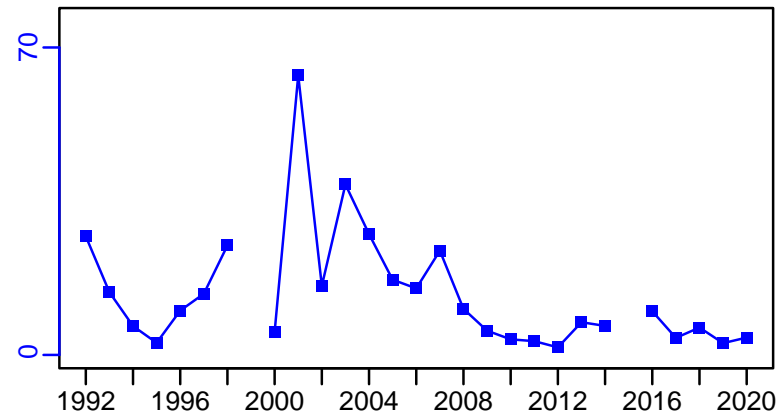
TC-MT, TL-MT, RecC-MT (1910-2020-Johnston)



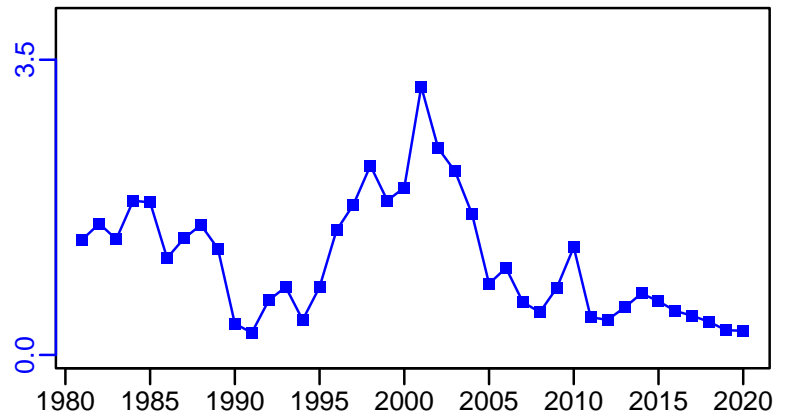
TAC-MT, Cpair-MT, Cadvised-MT (1910-2020-Johnston)



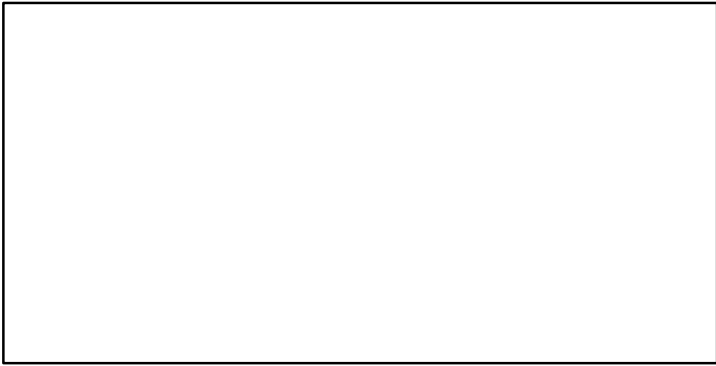
survB_index-index (1910-2020-Johnston)



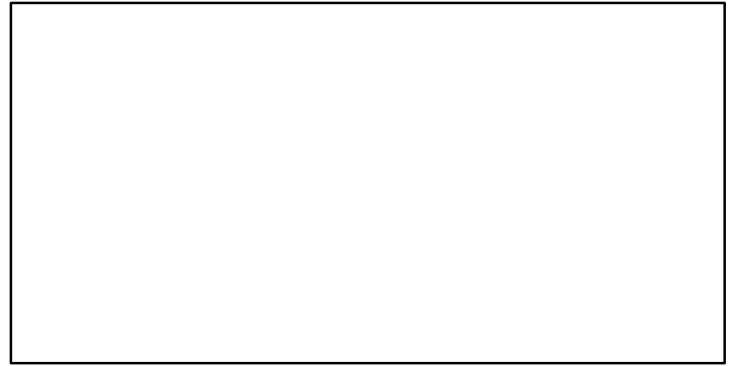
CPUE-index (1910-2020-Johnston)



EFFORT*



CdivMSY*



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

West coast rock lobster South Africa Area 8 [CRLOBSTERSA8]

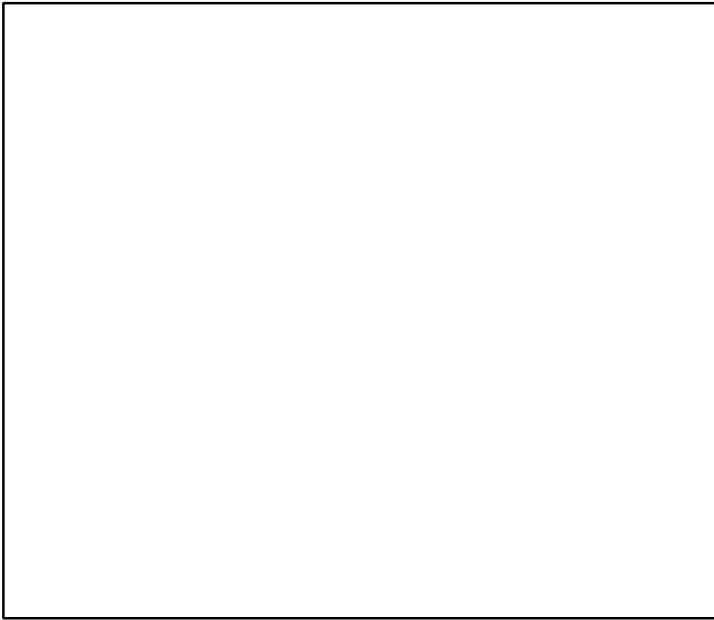
Metadata	
Scientific Name	Jasus lalandii
Current Assess ID	MARAM-CRLOBSTERSA8-1910-2020-Johnston
Area	South Africa Area 8
Management Authority	South African national management, Fisheries Branch of Department of Agriculture, Forestry and Fisheries
Assessor	Marine Resource Assessment and Management Group, Department of Mathematics and Applied Mathematics, University of Cape Town, Rondebosch, 7701, South Africa
Asmts in RAM	2012, 2014, 2020

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	TB0-MT	2020	220,174
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2020	0.11
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

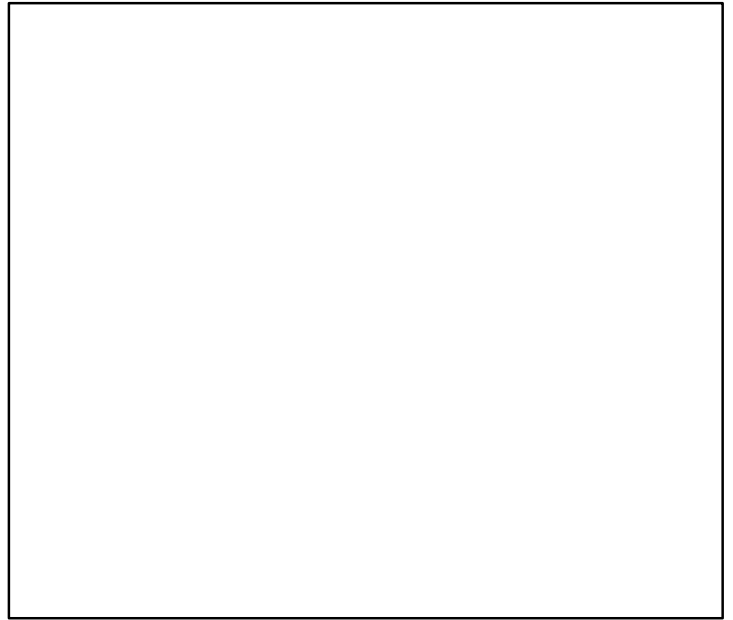
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2020	6655	Males	-
SSB	SSB-relative	2020	0.147	Females	-
TN	-	-	-	-	-
R	R-E00	2020	541,906,576	-	-
F	-	-	-	-	-
ER	ER-ratio	2020	0.054	-	-
TC	TC-MT	2020	1199		
TL	TL-MT	2020	359		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

West coast rock lobster South Africa Area 8 [CRLOBSTERSA8]

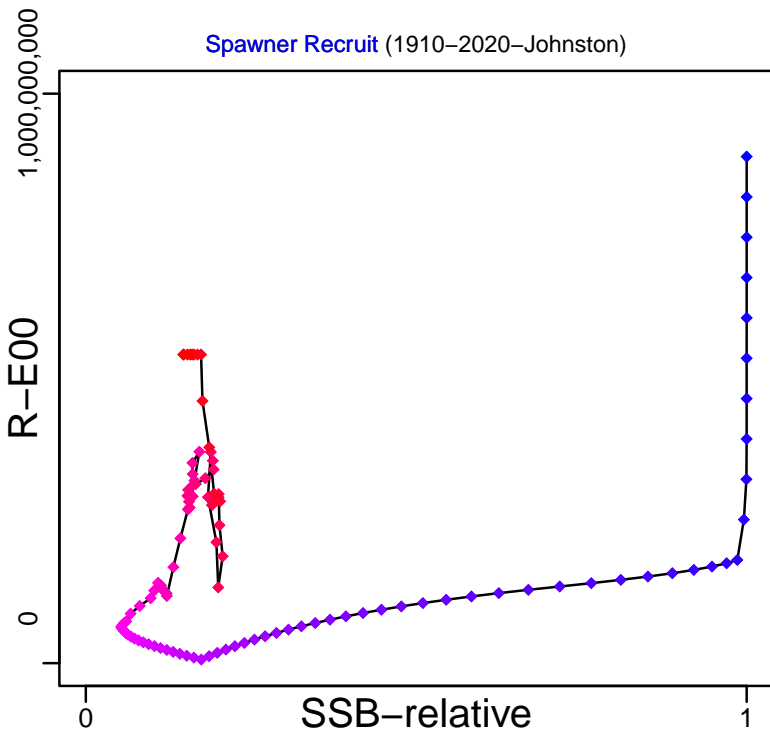
Kobe MSY*



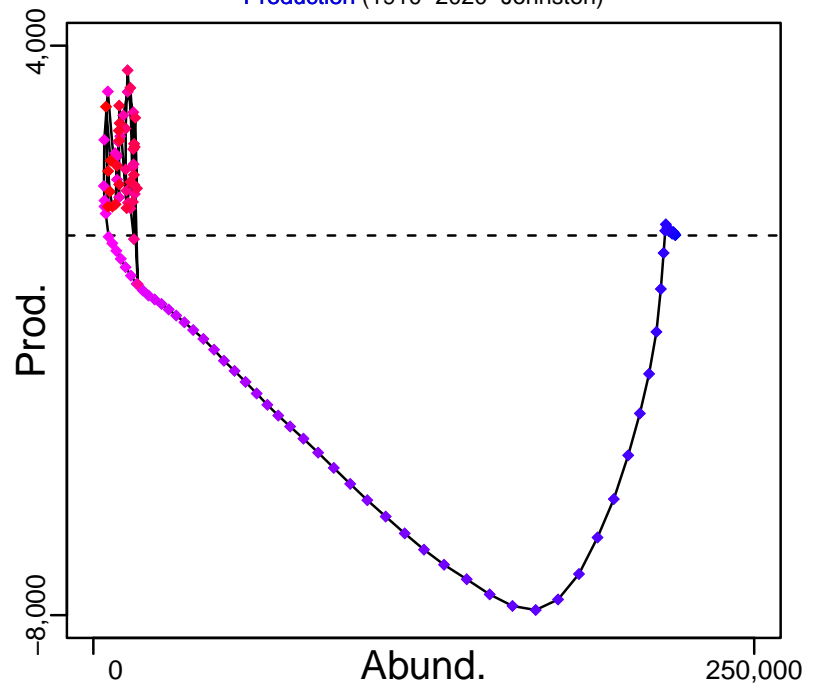
Kobe MGT*



Spawner Recruit (1910–2020–Johnston)



Production (1910–2020–Johnston)

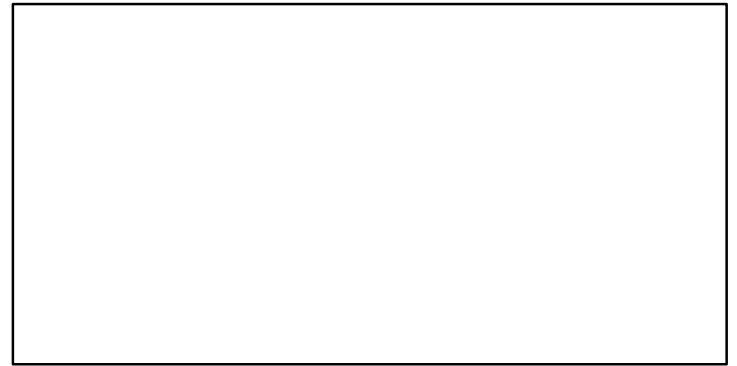
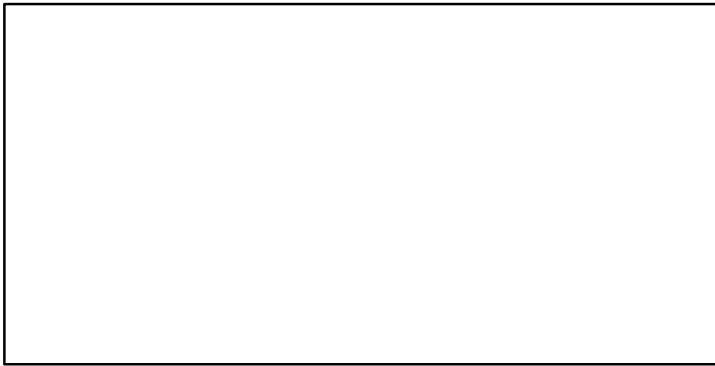
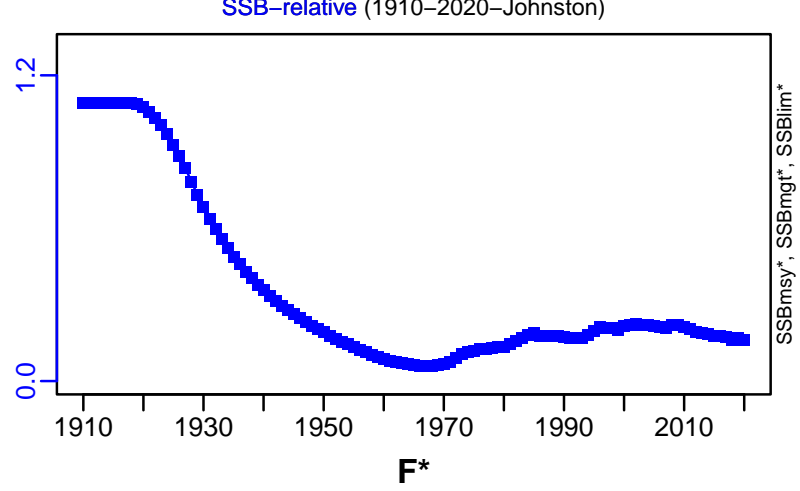
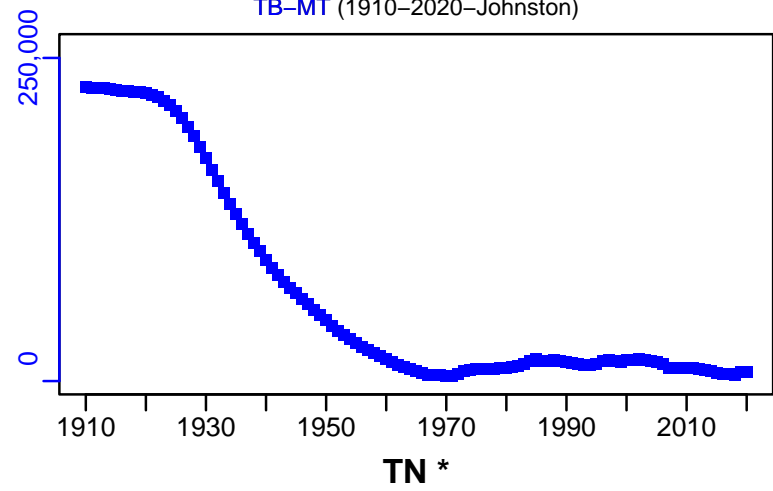


◆ Start Year ◆ End Year * No Data

West coast rock lobster South Africa Area 8 [CRLOBSTERSA8]

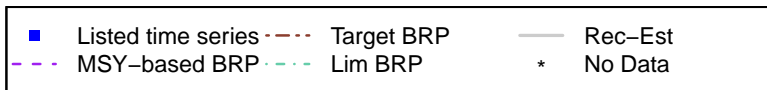
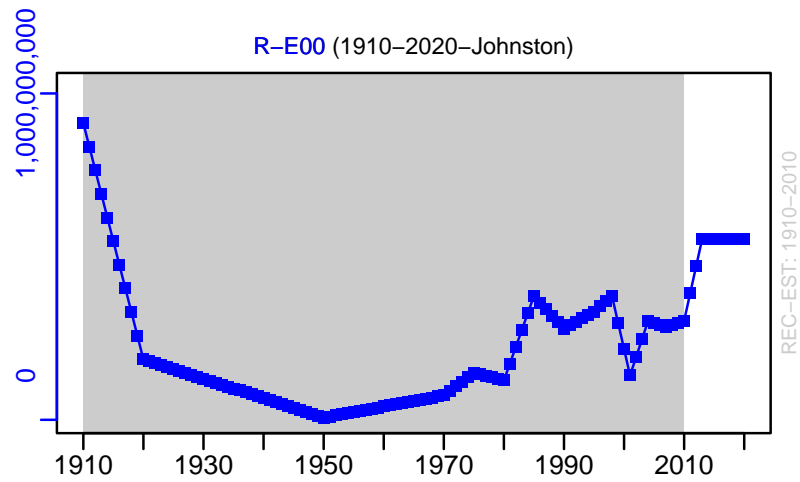
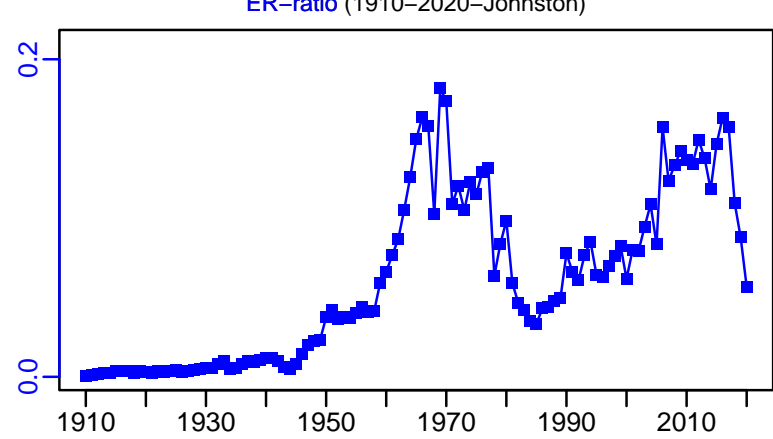
TB-MT (1910–2020–Johnston)

SSB-relative (1910–2020–Johnston)



ER-ratio (1910–2020–Johnston)

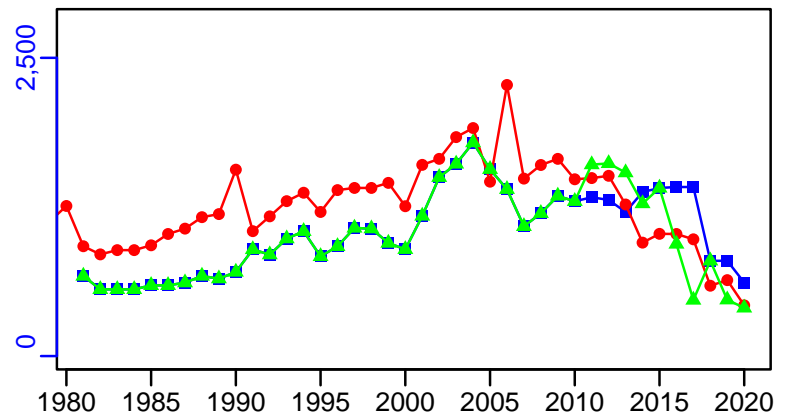
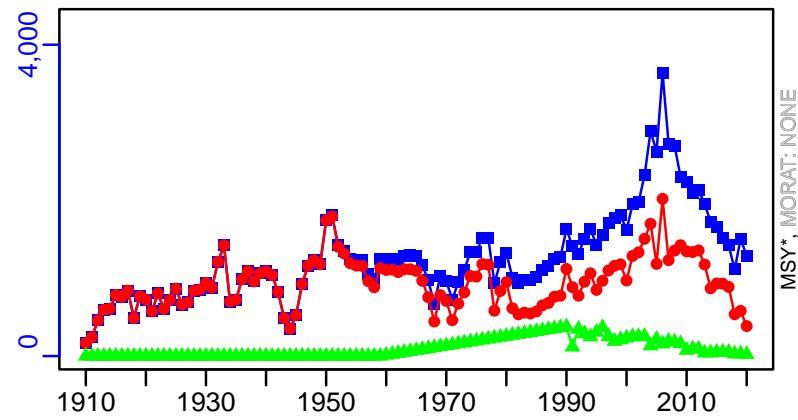
R-E00 (1910–2020–Johnston)



West coast rock lobster South Africa Area 8 [CRLOBSTERSA8]

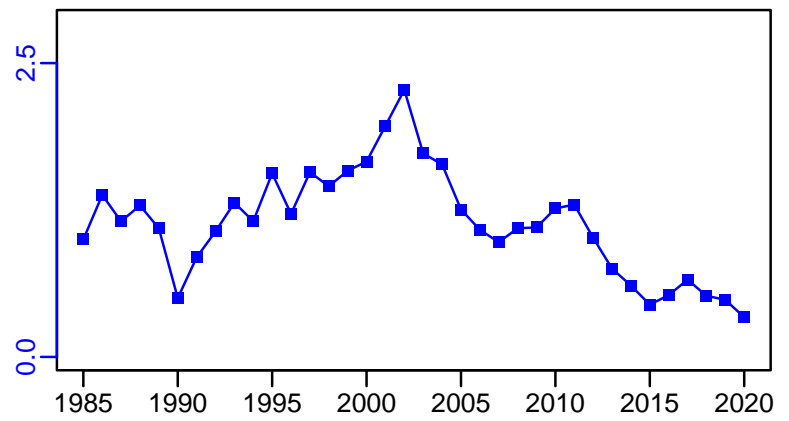
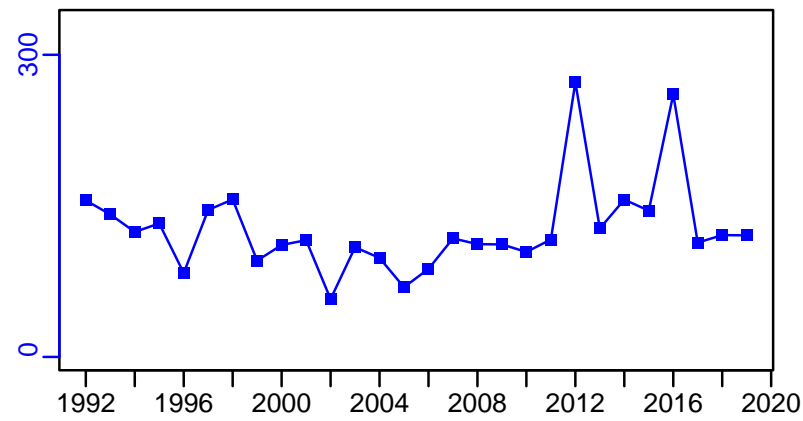
TC-MT, TL-MT, RecC-MT (1910-2020-Johnston)

TAC-MT, Cpair-MT, Cadvised-MT (1910-2020-Johnston)



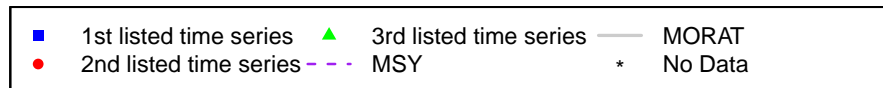
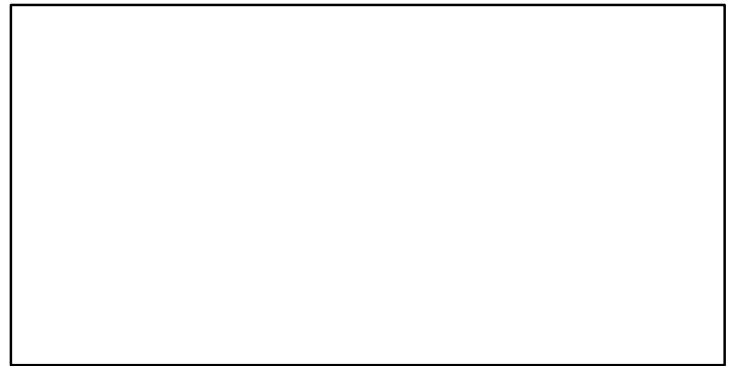
survB_index-index (1910-2020-Johnston)

CPUE-index (1910-2020-Johnston)



EFFORT*

CdivMSY*



Cape horse mackerel South Africa South coast [CTRACSA]

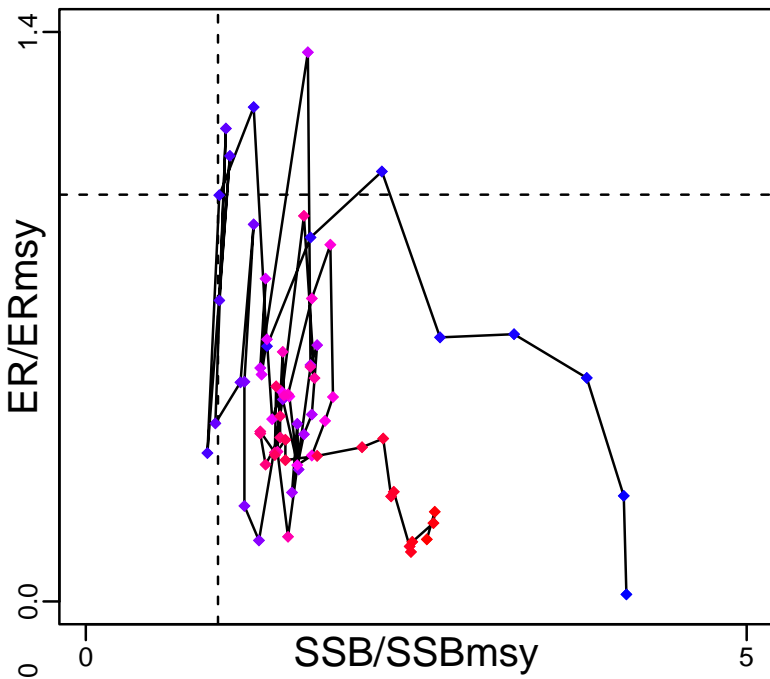
Metadata	
Scientific Name	Trachurus capensis
Current Assess ID	MARAM-CTRACSA-1949-2020-Johnston
Area	South Africa South coast
Management Authority	South African national management, Fisheries Branch of Department of Agriculture, Forestry and Fisheries
Assessor	Marine Resource Assessment and Management Group, Department of Mathematics and Applied Mathematics, University of Cape Town, Rondebosch, 7701, South Africa
Asmts in RAM	2013, 2020

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2020	247,929
SSBmsy	SSBmsy-MT	2020	189,115
Fmsy	Fmsy-1/yr	2020	0.19
ERmsy	ERmsy-ratio	2020	0.23
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	TB0-MT	2020	847,122
SSB0	SSB0-MT	2020	773,044
MSY	MSY-MT	2020	56,066
M	M-1/yr	2020	0.3
TBlim	TBlim-MT	2020	174,526
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

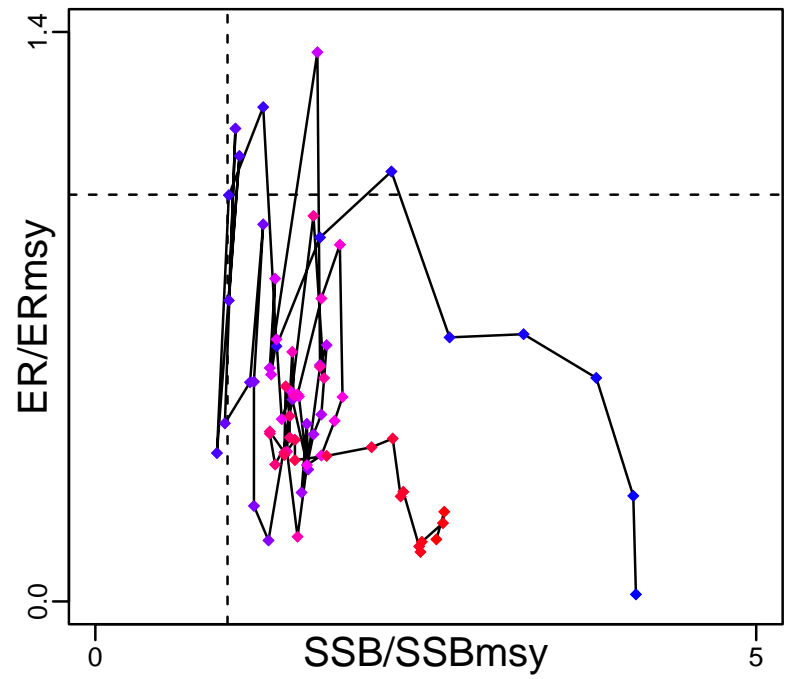
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2020	556,646	-	0+
SSB	SSB-MT	2020	488,226	-	3+
TN	-	-	-	-	-
R	R-E00	2020	1,217,793,074	-	0
F	-	-	-	-	-
ER	ER-ratio	2020	0.035	-	-
TC	TC-MT	2020	19,542		
TL	TL-MT	2020	19,542		
TB/TBmsy	TBdivTBmsy-dimensionless	2020	2.25		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2020	2.58		
F/Fmsy	-	-	-		
ER/ERmsy	ER-ratio/ERmsy-ratio	2020	0.153		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Cape horse mackerel South Africa South coast [CTRACSA]

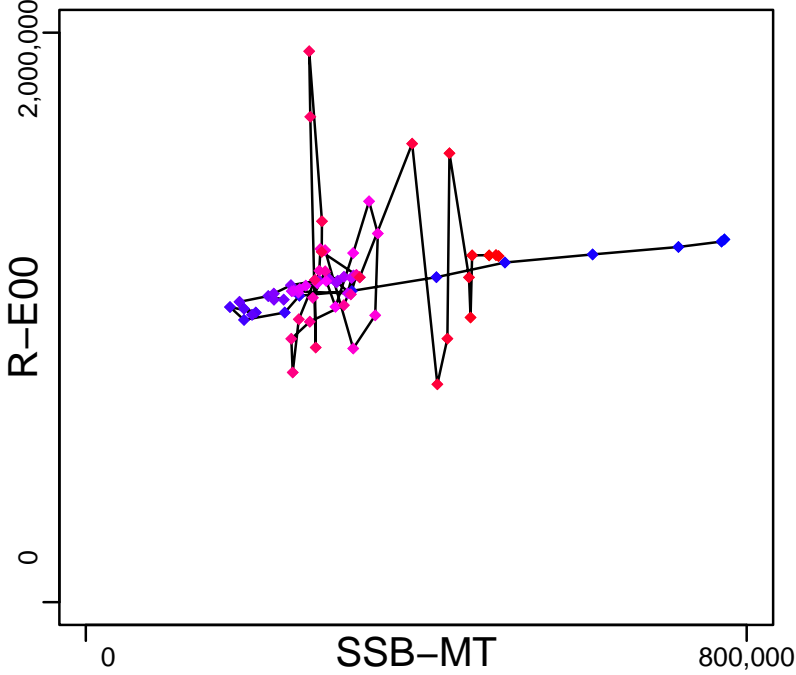
Kobe MSYpref (1949–2020–Johnston)



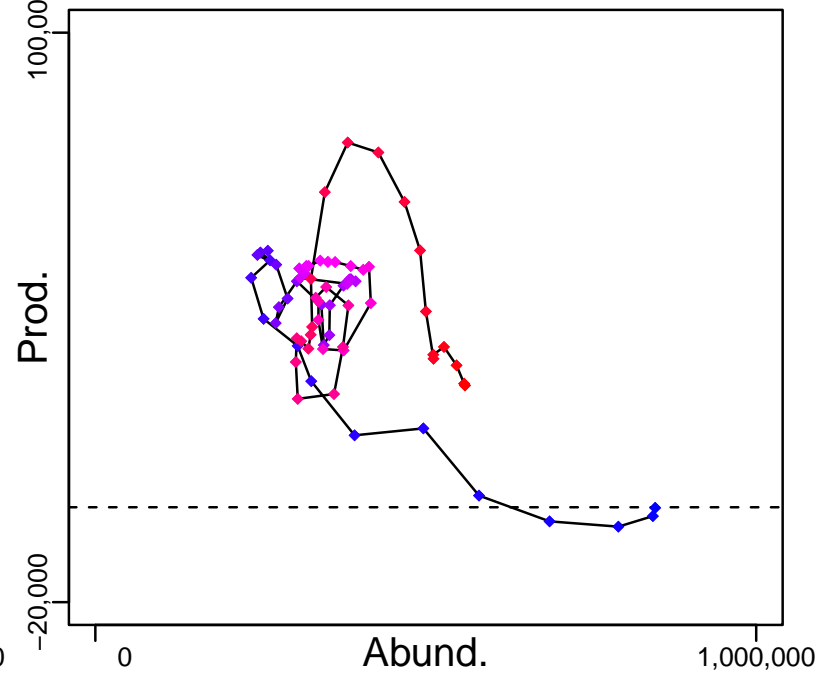
Kobe MGTpref (1949–2020–Johnston)



Spawner Recruit (1949–2020–Johnston)



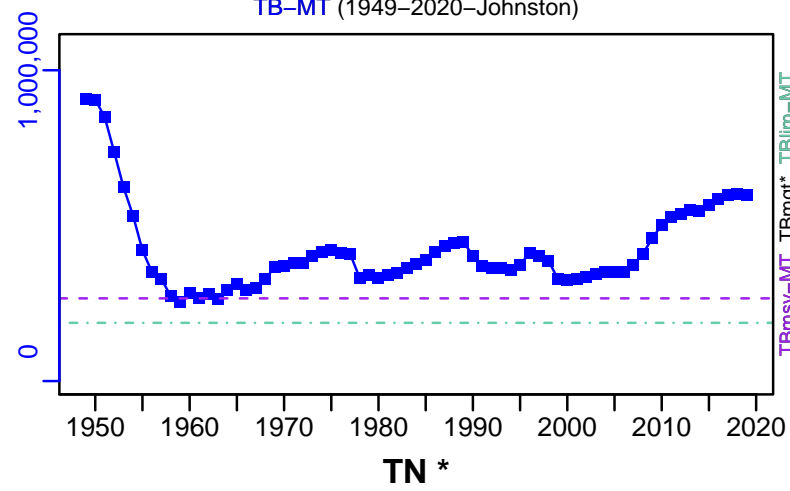
Production (1949–2020–Johnston)



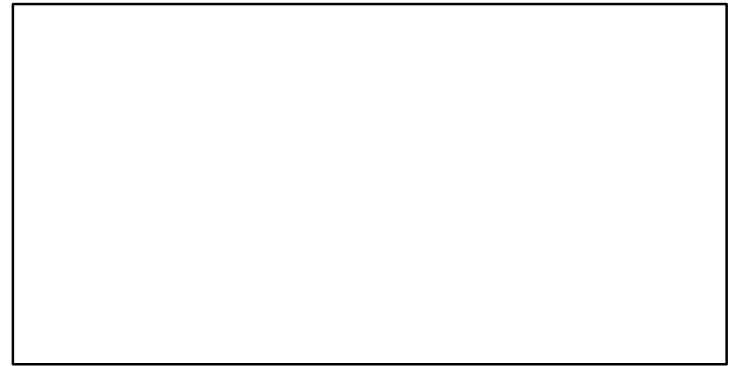
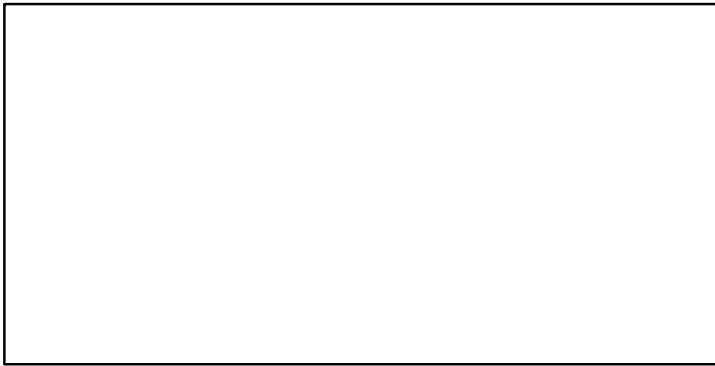
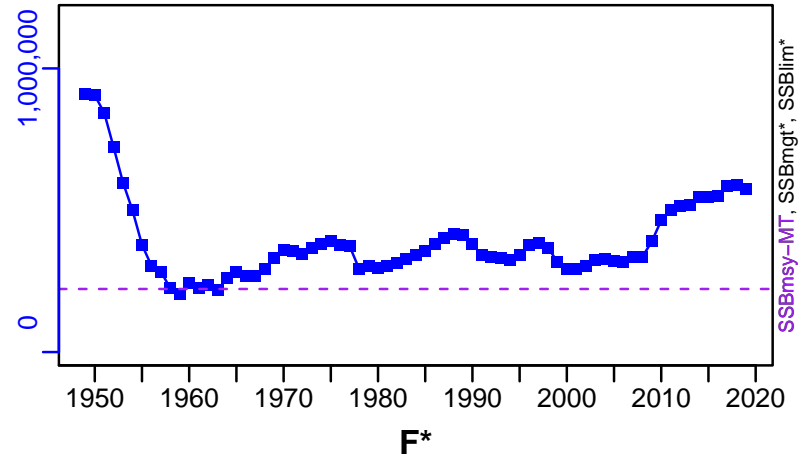
◆ Start Year ◆ End Year * No Data

Cape horse mackerel South Africa South coast [CTRACSA]

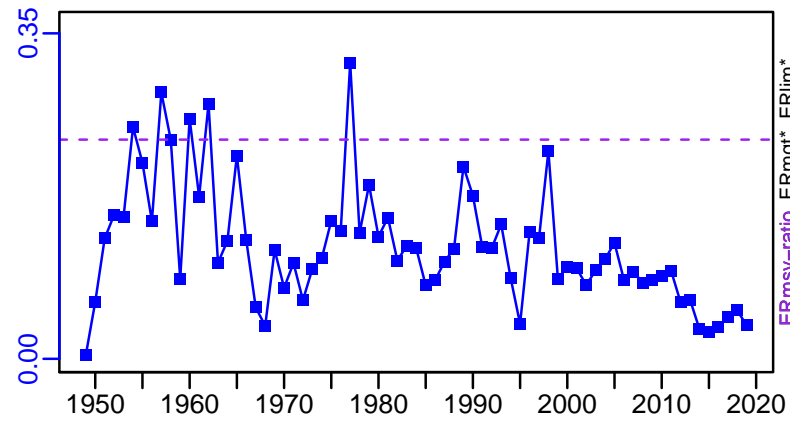
TB-MT (1949-2020-Johnston)



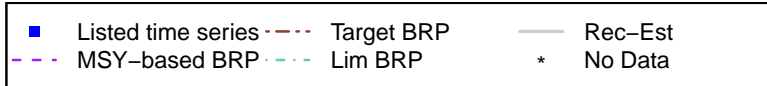
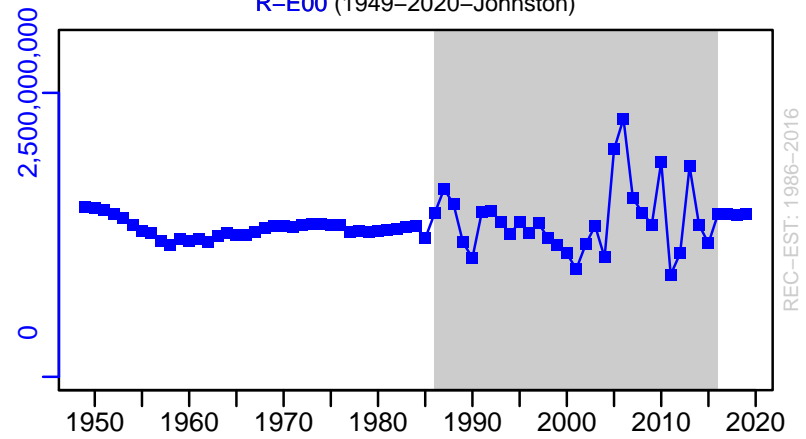
SSB-MT (1949-2020-Johnston)



ER-ratio (1949-2020-Johnston)



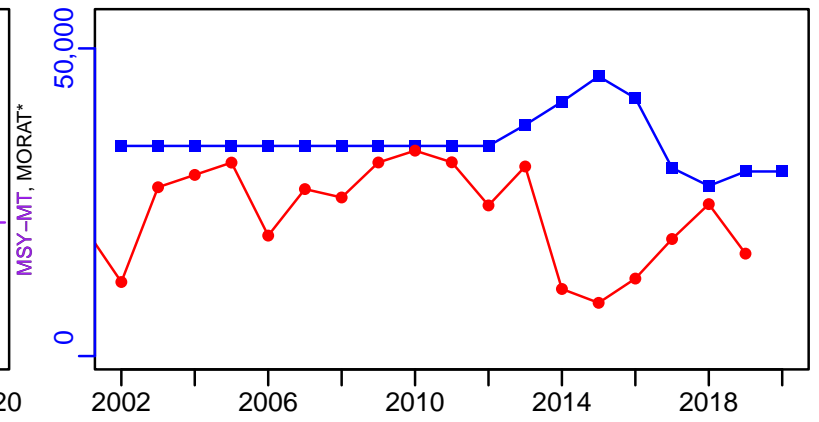
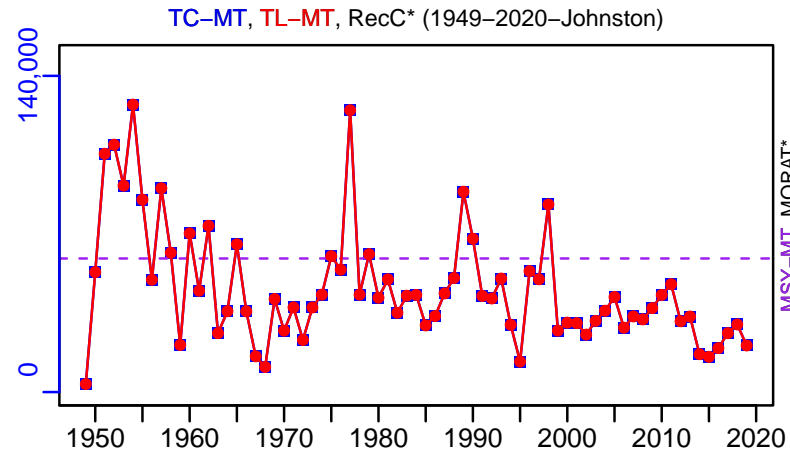
R-E00 (1949-2020-Johnston)



Cape horse mackerel South Africa South coast [CTRACSA]

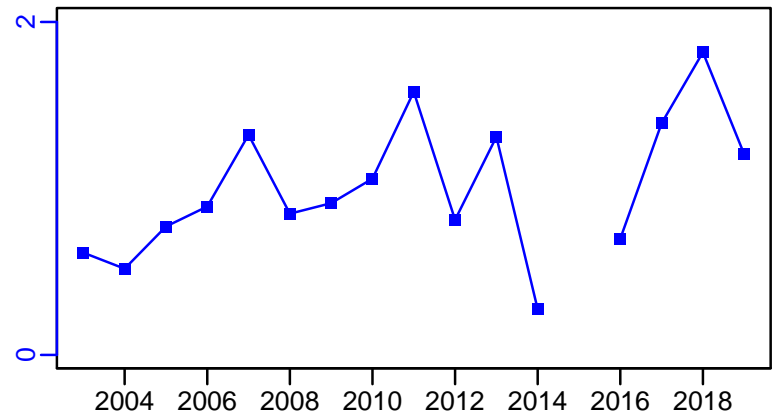
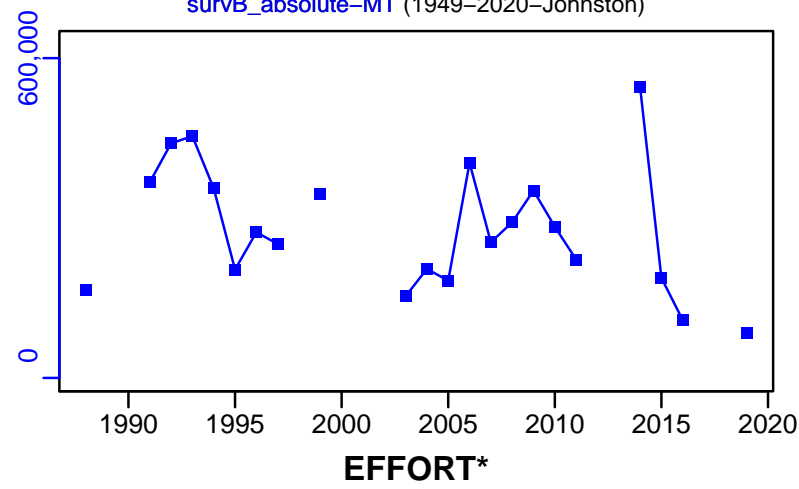
TC-MT, TL-MT, RecC* (1949–2020–Johnston)

TAC-MT, Cpair-MT, Cadv* (1949–2020–Johnston)



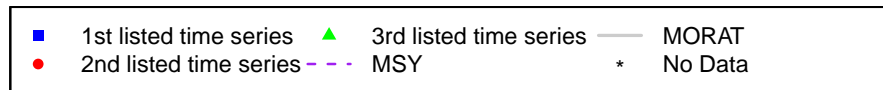
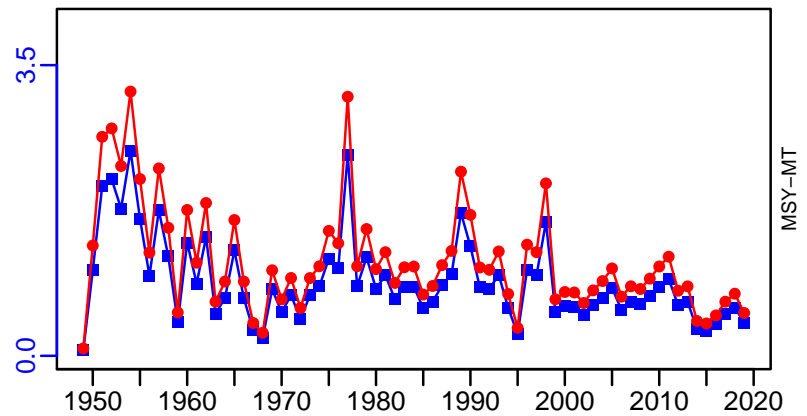
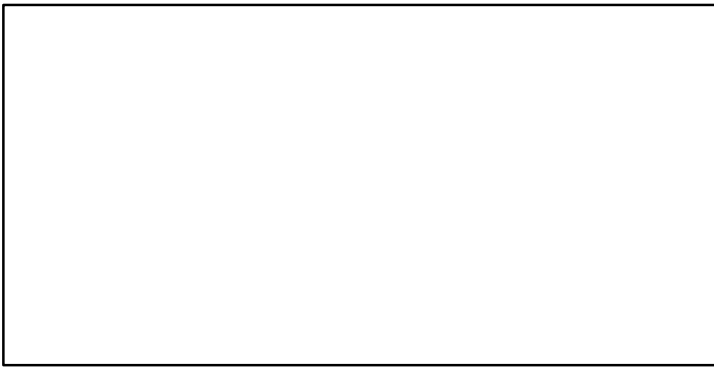
survB_absolute-MT (1949–2020–Johnston)

CPUE-index (1949–2020–Johnston)



EFFORT*

TC-MT/MSY-MT, CdivMEANC-ratio, (1949–2020–Johnston)



Deep water cape hake South Africa [DEEPCHAKESA]

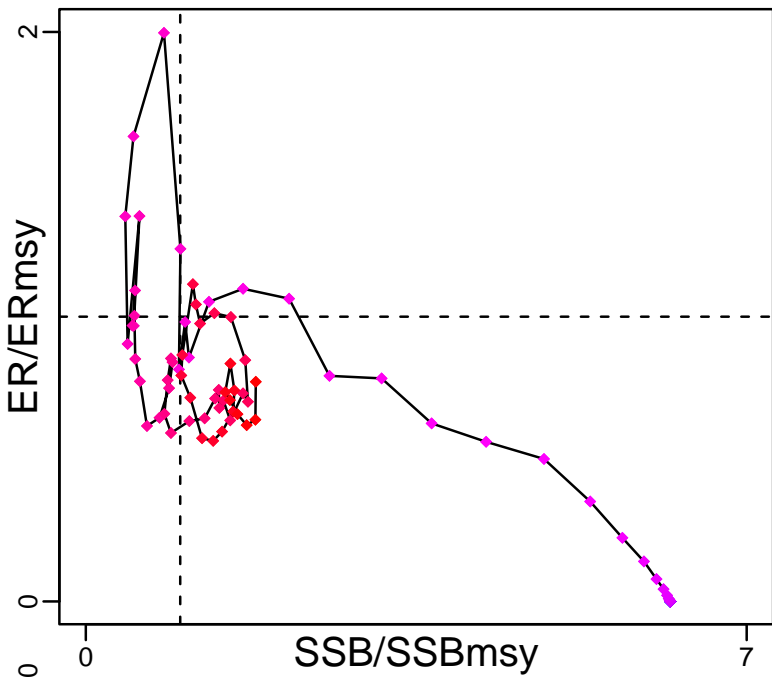
Metadata	
Scientific Name	Merluccius paradoxus
Current Assess ID	MARAM-DEEPCHAKESA-1900-2021-ROSSGILLESPIE
Area	South Africa
Management Authority	South African national management, Fisheries Branch of Department of Agriculture, Forestry and Fisheries
Assessor	Marine Resource Assessment and Management Group, Department of Mathematics and Applied Mathematics, University of Cape Town, Rondebosch, 7701, South Africa
Asmts in RAM	2021, 2013, 2015

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-calc-MT	2021	213,089
SSBmsy	SSBmsy-MT	2021	54,592
Fmsy	-	-	-
ERmsy	ERmsy-ratio	2021	0.65
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2021	54,592
Fmgt	-	-	-
ERmgt	ERmgt-ratio	2021	0.65
TB0	TB0-MT	2021	823,978
SSB0	SSB0-MT	2021	337,964
MSY	MSY-MT	2021	138,508
M	M-1/yr	2021	0.52
TBlim	TBlim-MT	2013	60,000
SSBlim	SSBlim-MT	2021	22,825
Flim	-	-	-
ERlim	-	-	-

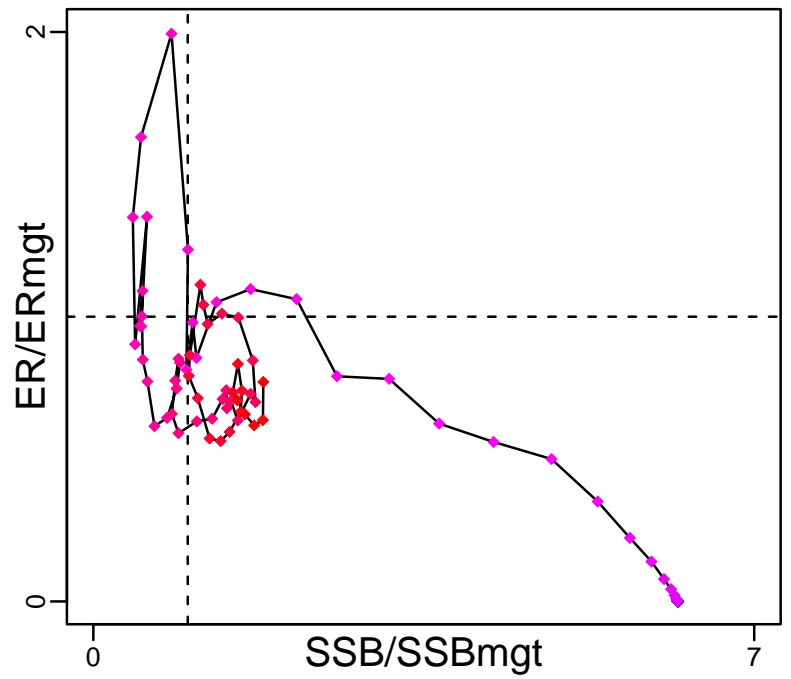
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2021	363,527	Both	0+
SSB	SSB-MT	2021	98,302	Females	-
TN	-	-	-	-	-
R	R-E00	2021	2,219,440,000	-	-
F	-	-	-	-	-
ER	ER-ratio	2021	0.501	Both	0+
TC	TC-MT	2021	110,377		
TL	TL-MT	2021	110,377		
TB/TBmsy	TB-MT/TBmsy-calc-MT	2021	1.706		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2021	1.801		
F/Fmsy	-	-	-		
ER/ERmsy	ERdivERmsy-dimensionless	2021	0.771		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2021	1.801		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Deep water cape hake South Africa [DEEPCHAKESA]

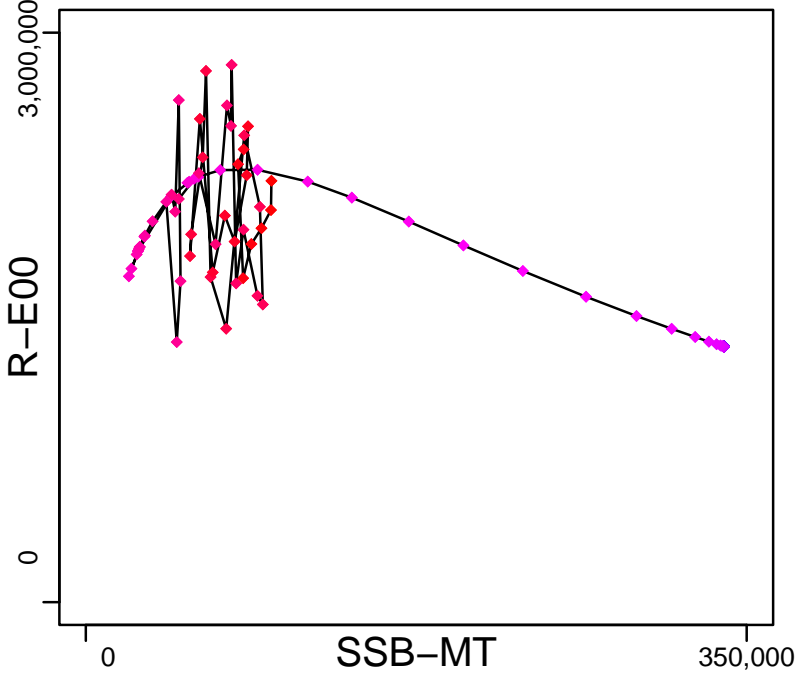
Kobe MSYpref (1900–2021–ROSSGILLESPIE)



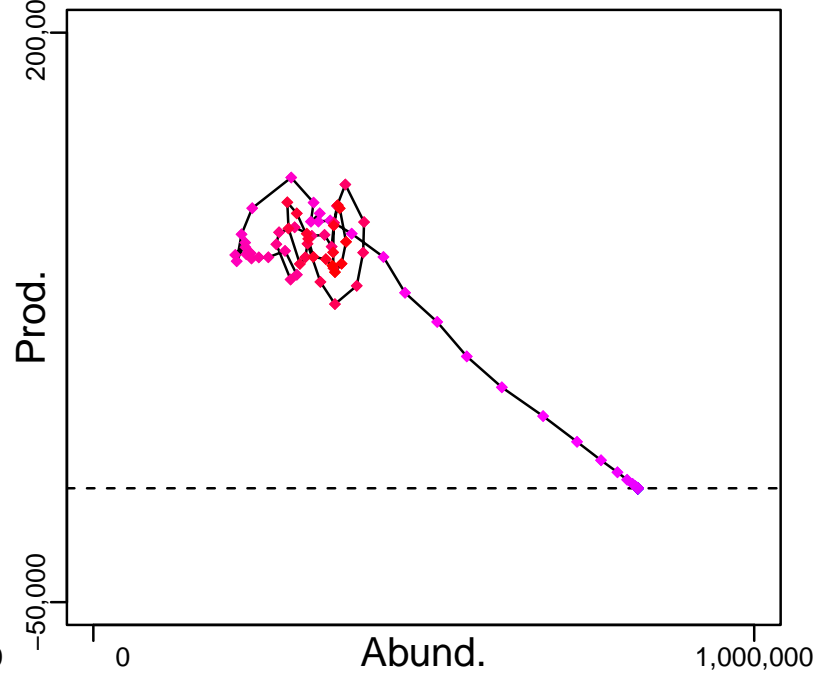
Kobe MGTpref (1900–2021–ROSSGILLESPIE)



Spawner Recruit (1900–2021–ROSSGILLESPIE)



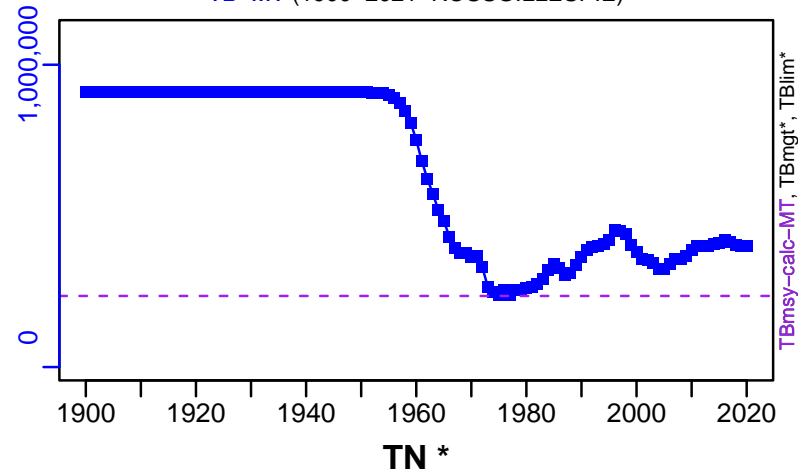
Production (1900–2021–ROSSGILLESPIE)



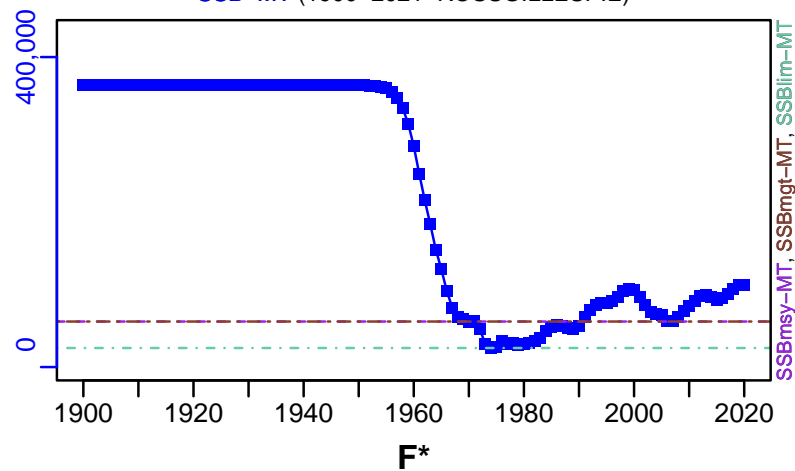
◆ Start Year ◆ End Year * No Data

Deep water cape hake South Africa [DEEPCHAKESA]

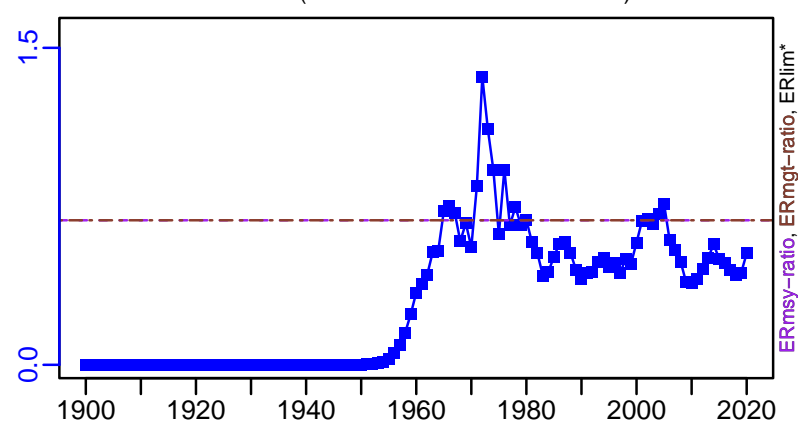
TB-MT (1900-2021-ROSSGILLESPIE)



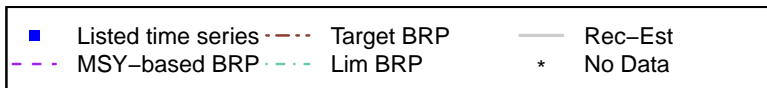
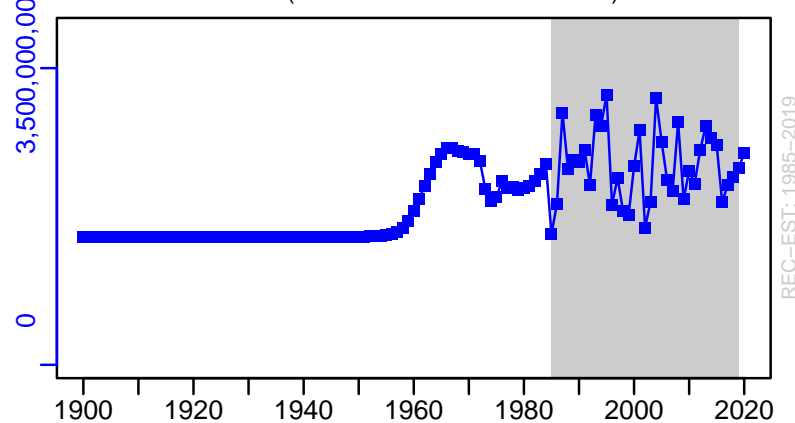
SSB-MT (1900-2021-ROSSGILLESPIE)



ER-ratio (1900-2021-ROSSGILLESPIE)

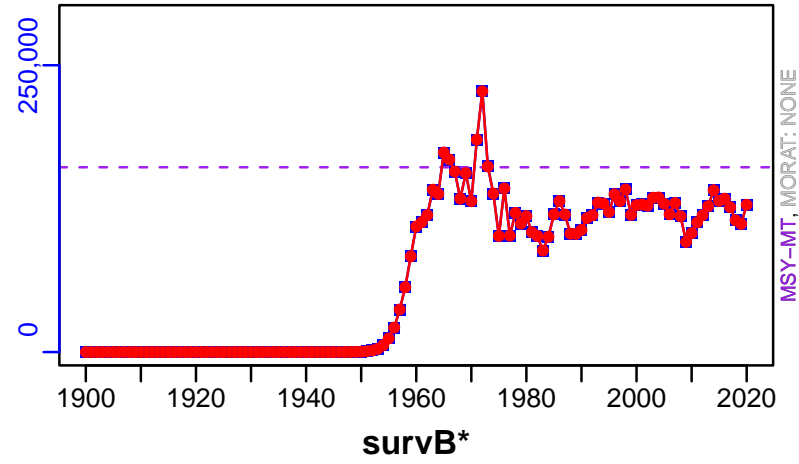


R-E00 (1900-2021-ROSSGILLESPIE)



Deep water cape hake South Africa [DEEPCHAKESA]

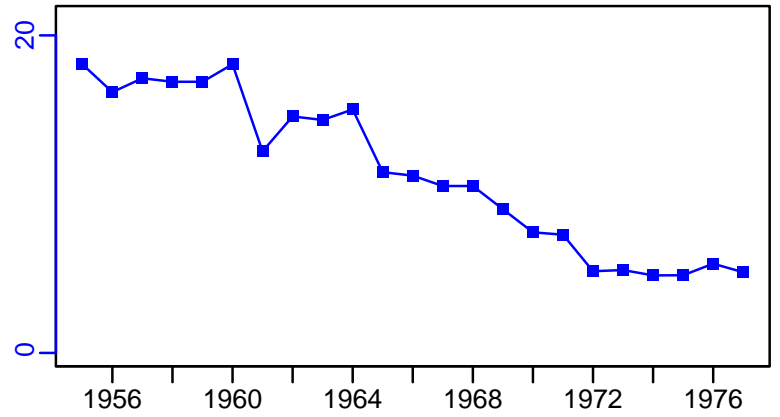
TC-MT, TL-MT, RecC* (1900–2021–ROSSGILLESPIE)



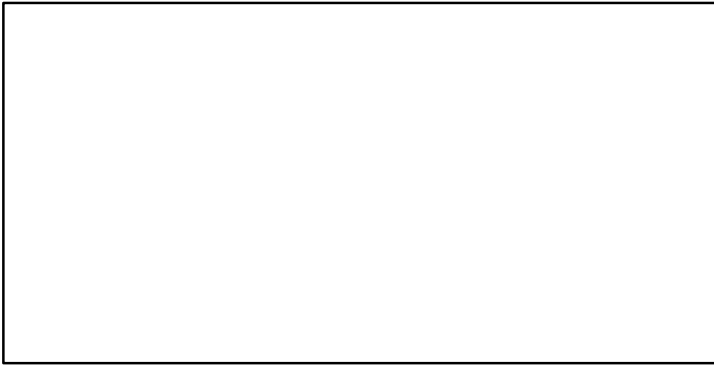
TAC*, Cpair*, Cadv*



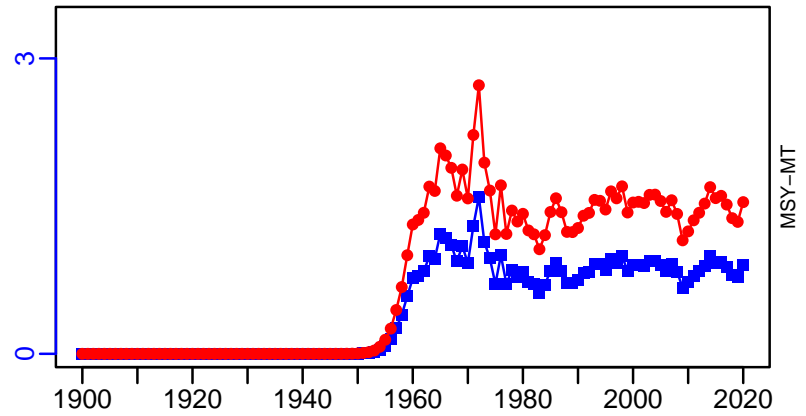
CPUE-index (1900–2021–ROSSGILLESPIE)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1900–2021–ROSSGILLESPIE)



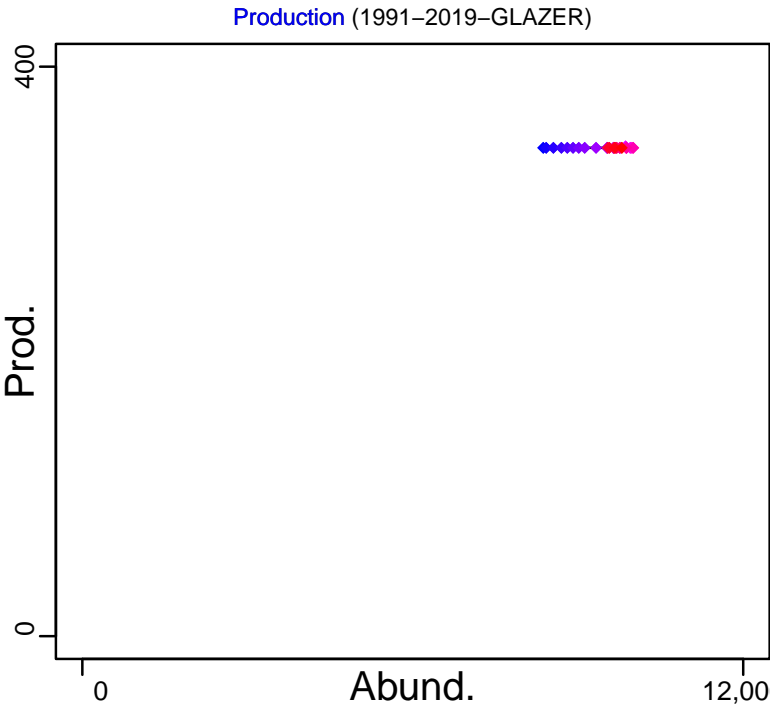
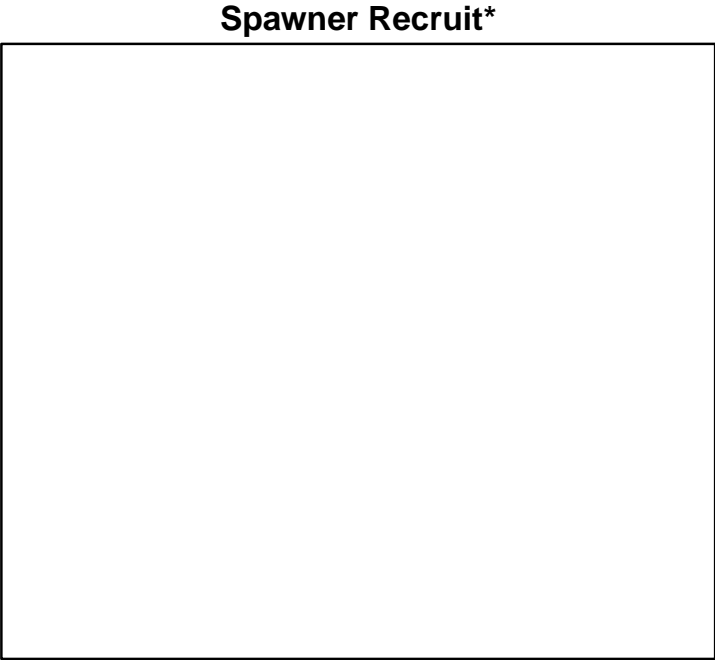
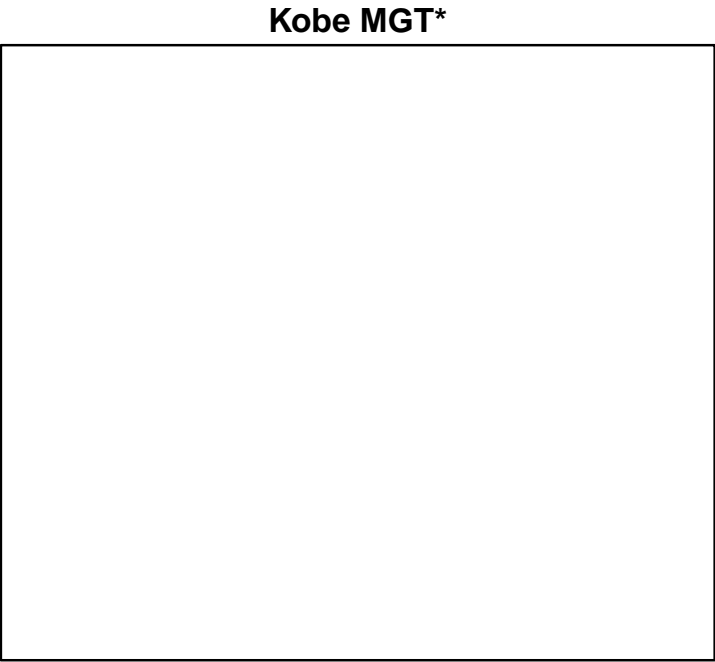
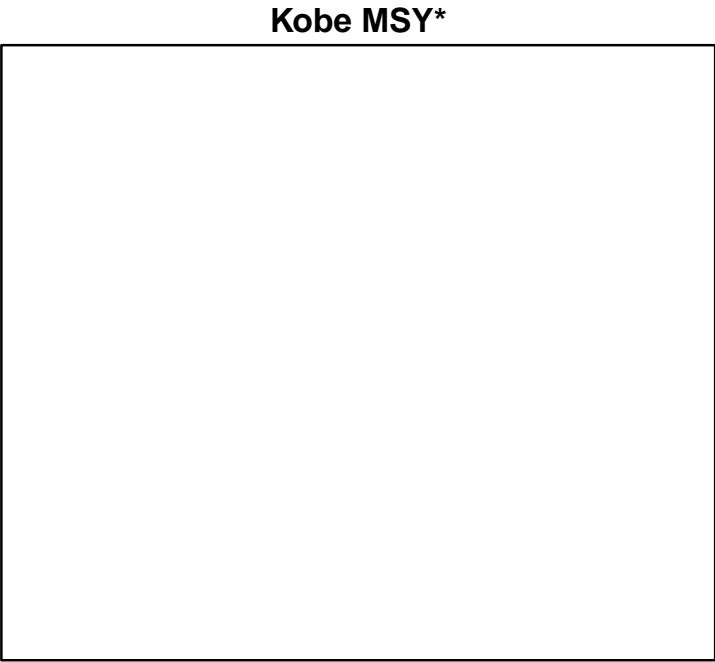
■ 1st listed time series ▲ 3rd listed time series — MORAT
● 2nd listed time series - - - MSY * No Data

Devil anglerfish South Africa South coast [DVANGSASC]

Metadata	
Scientific Name	Lophius vomerinus
Current Assess ID	DEFF-DVANGSASC-1991-2019-GLAZER
Area	South Africa South coast
Management Authority	Department of Environment, Forestry and Fisheries
Assessor	Department of Environment, Forestry and Fisheries
Asmts in RAM	2019

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	TBmgt-MT	2019	9658
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2019	9717	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-ratio	2019	0.026	-	-
TC	TC-MT	2019	255		
TL	TL-MT	2019	255		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	TBdivTBmgt-dimensionless	2019	1.006		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

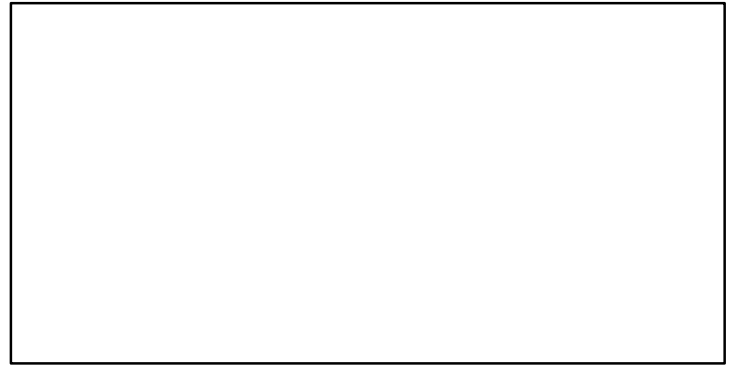
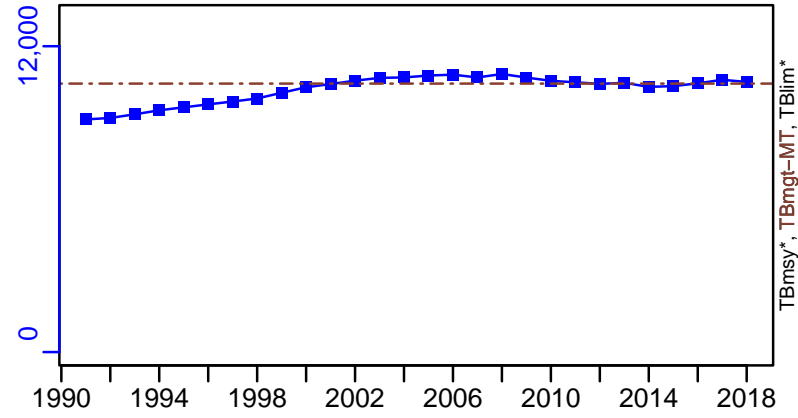


◆ Start Year ◆ End Year * No Data

Devil anglerfish South Africa South coast [DVANGSASC]

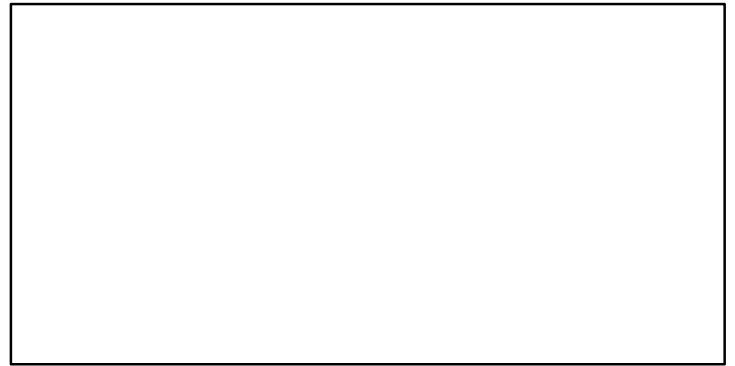
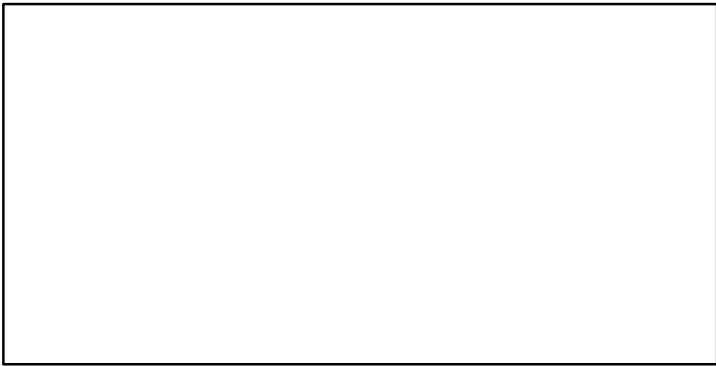
TB-MT (1991-2019-GLAZER)

SSB*



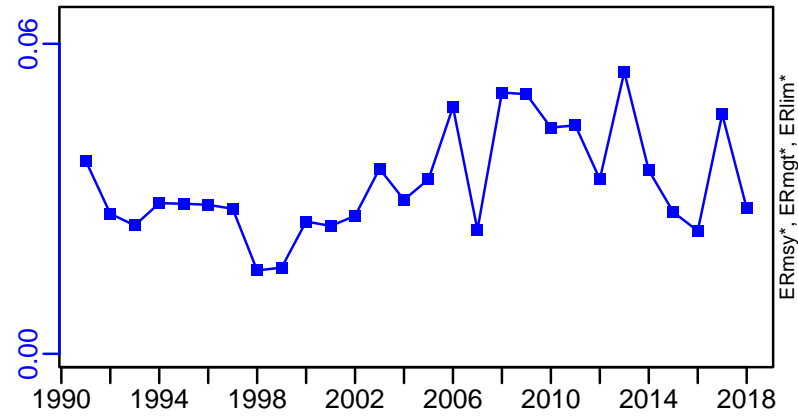
TN *

F*



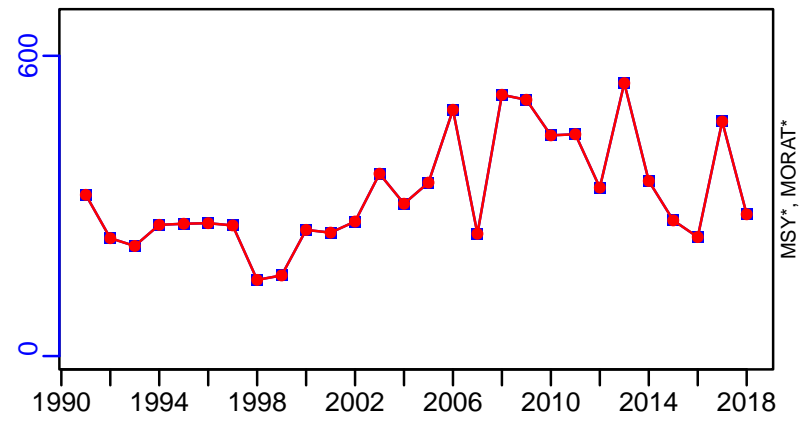
ER-ratio (1991-2019-GLAZER)

Recruits*

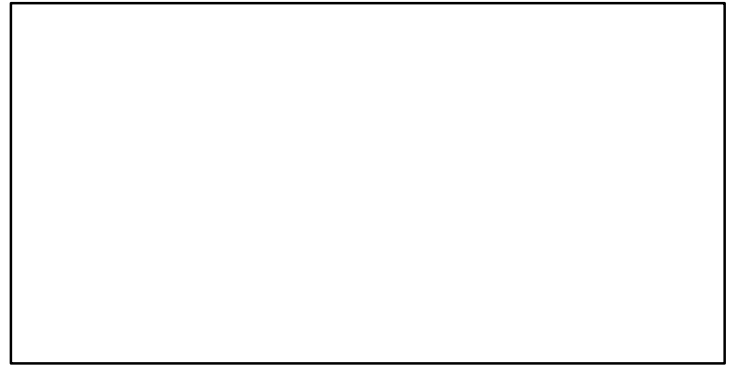


Devil anglerfish South Africa South coast [DVANGSASC]

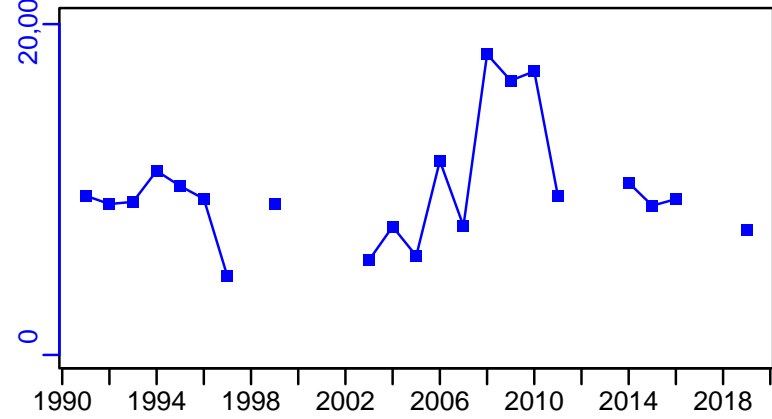
TC-MT, TL-MT, RecC* (1991-2019-GLAZER)



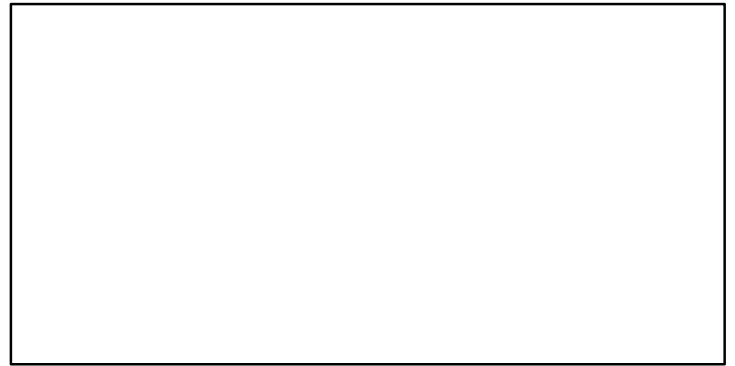
TAC*, Cpair*, Cadv*



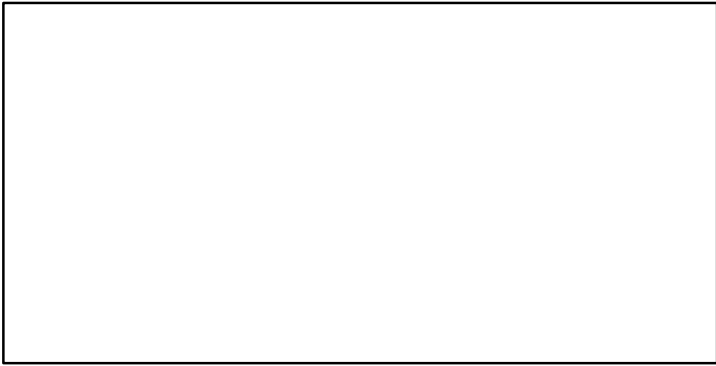
survB_absolute-MT (1991-2019-GLAZER)



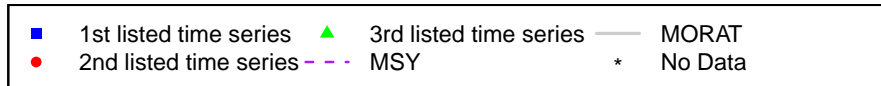
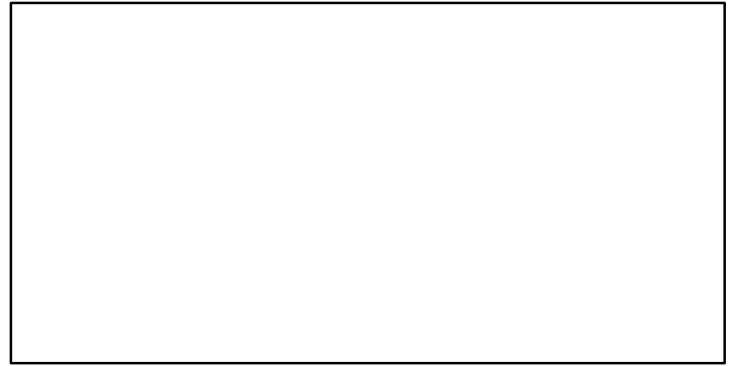
CPUE*



EFFORT*



CdivMSY*

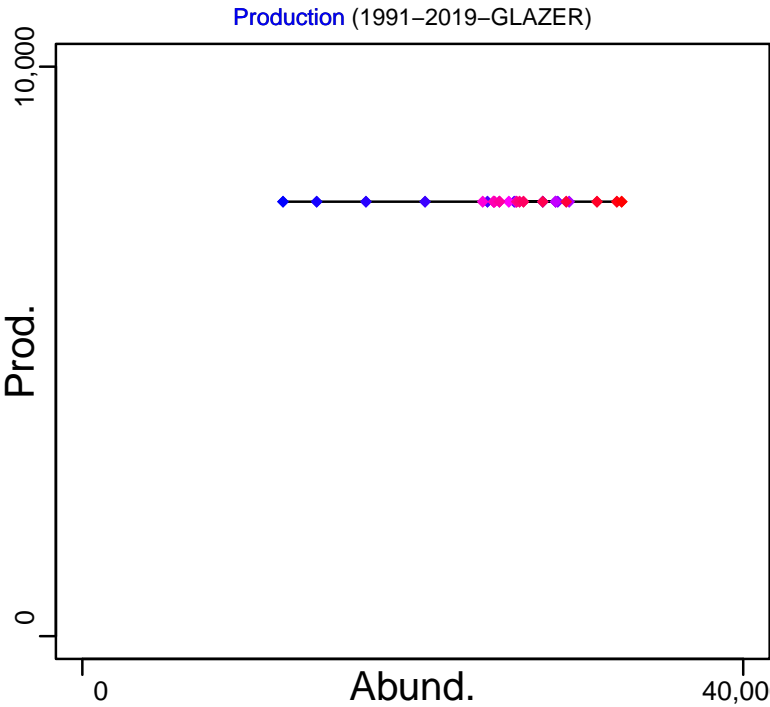
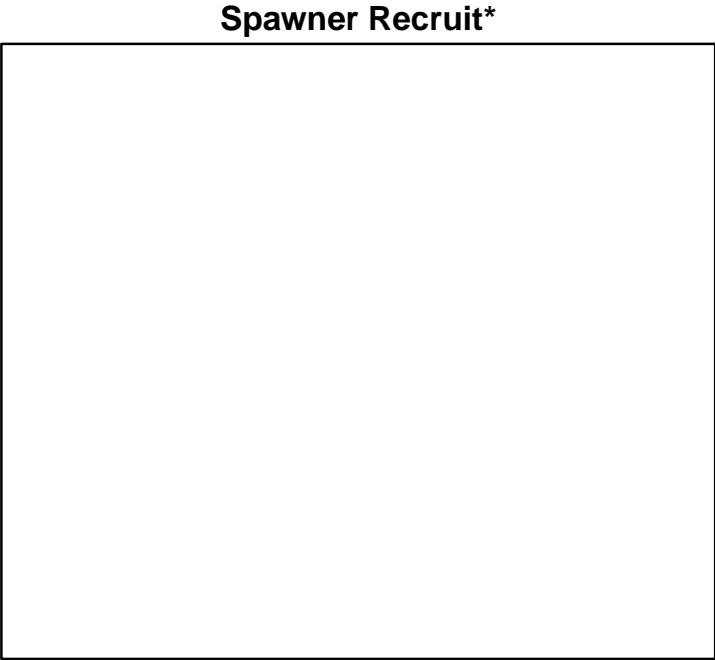
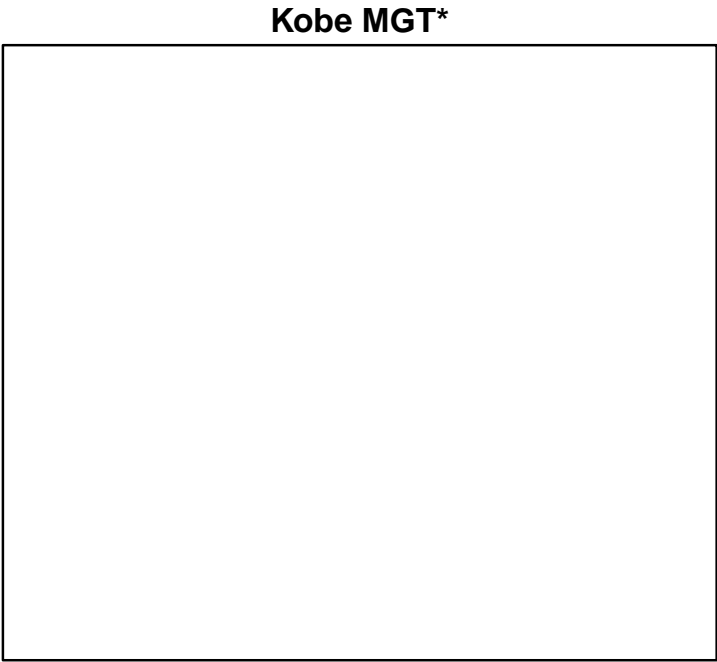
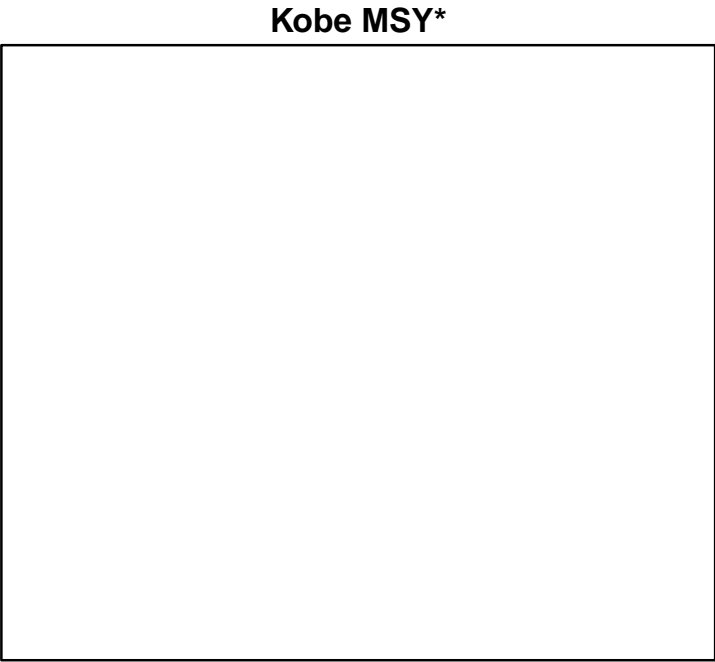


Devil anglerfish South Africa West coast [DVANGSAWC]

Metadata	
Scientific Name	Lophius vomerinus
Current Assess ID	DEFF-DVANGSAWC-1991-2019-GLAZER
Area	South Africa West coast
Management Authority	Department of Environment, Forestry and Fisheries
Assessor	Department of Environment, Forestry and Fisheries
Asmts in RAM	2019

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	TBmgt-MT	2019	31,583
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

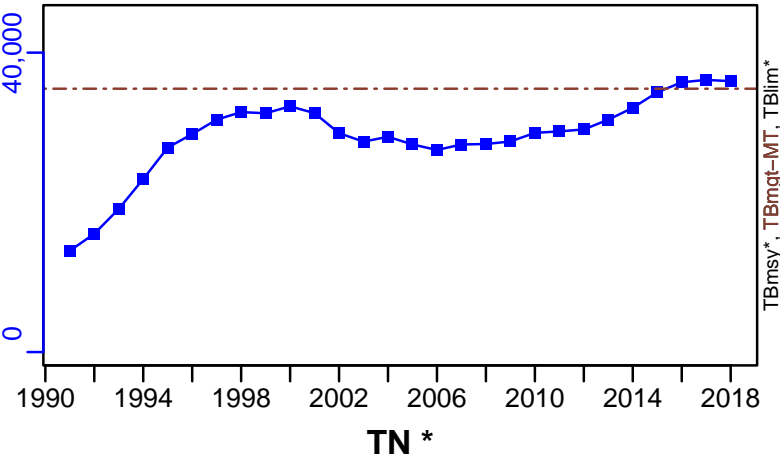
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2019	32,484	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-ratio	2019	0.223	-	-
TC	TC-MT	2019	7253		
TL	TL-MT	2019	7253		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	TBdivTBmgt-dimensionless	2019	1.029		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



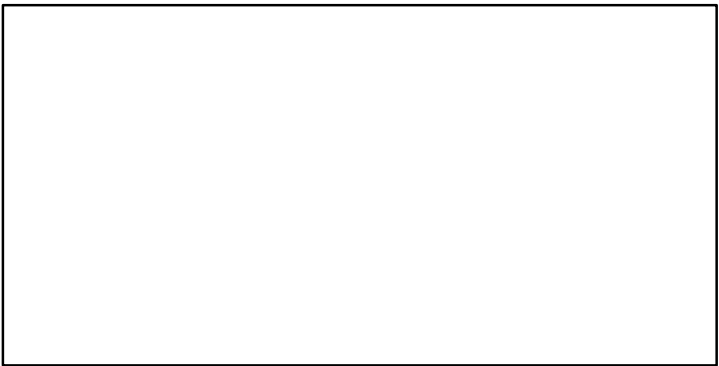
◆ Start Year ◆ End Year * No Data

Devil anglerfish South Africa West coast [DVANGSAWC]

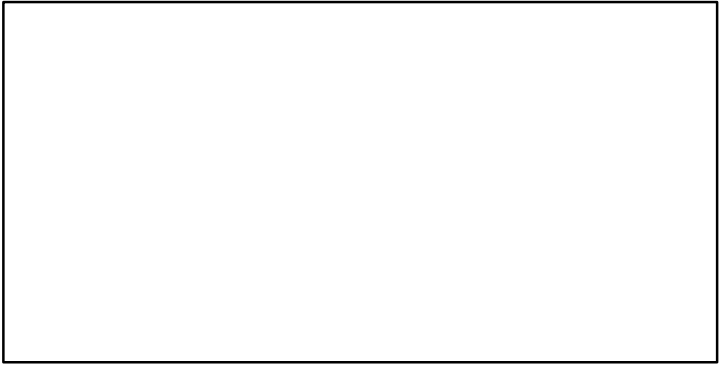
TB-MT (1991-2019-GLAZER)



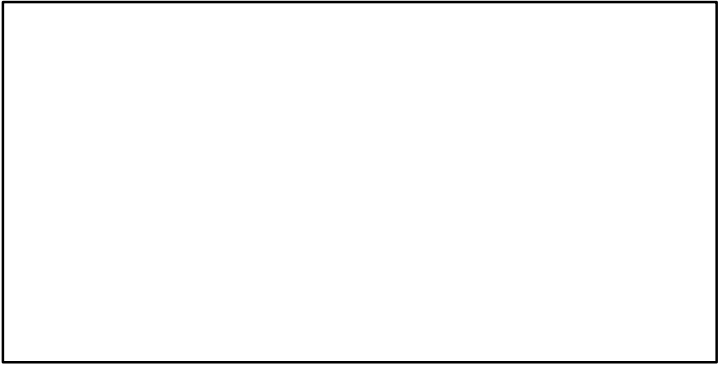
SSB*



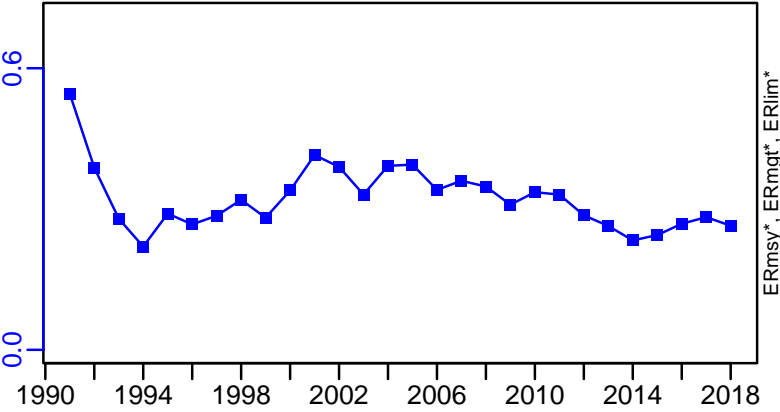
TN *



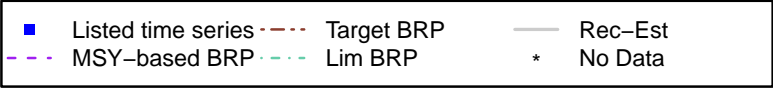
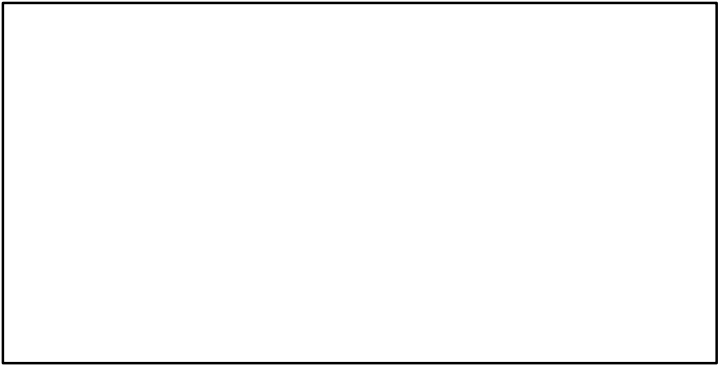
F*



ER-ratio (1991-2019-GLAZER)

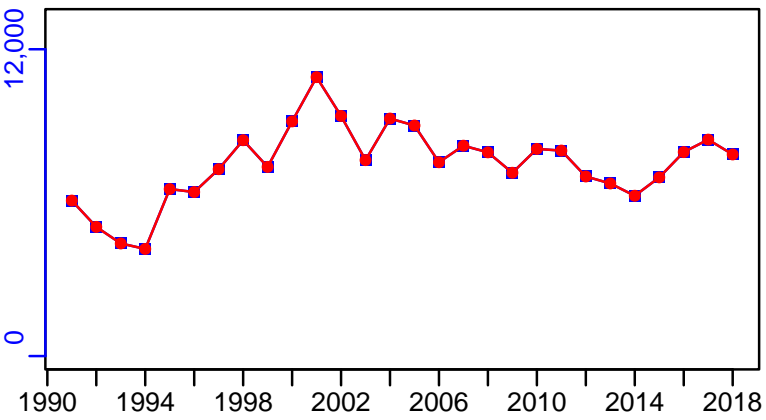


Recruits*

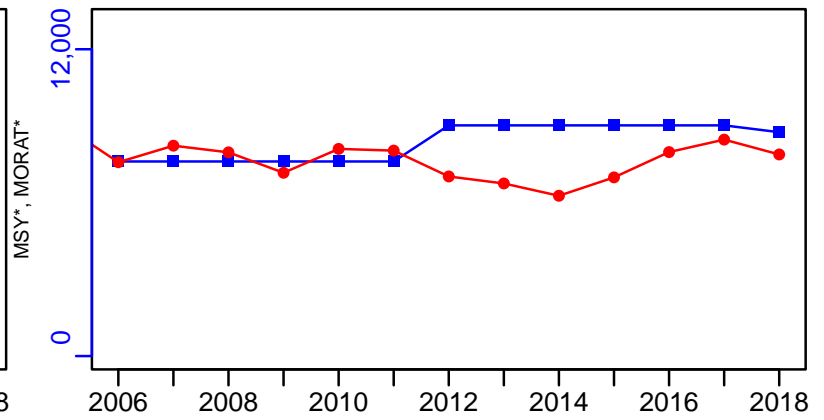


Devil anglerfish South Africa West coast [DVANGSAWC]

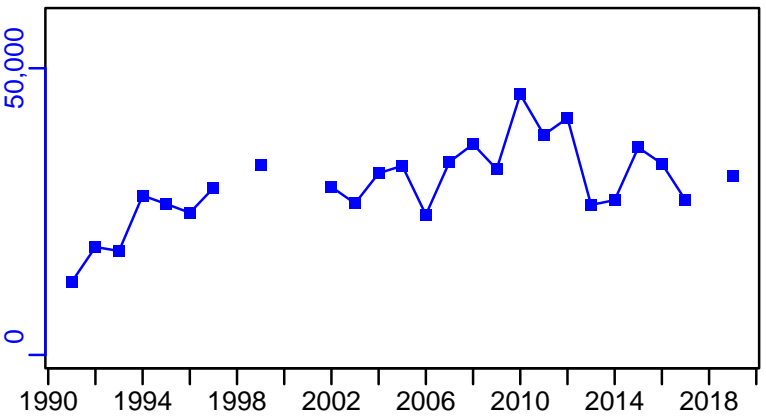
TC-MT, TL-MT, RecC* (1991-2019-GLAZER)



TAC-MT, Cpair-MT, Cadv* (1991-2019-GLAZER)



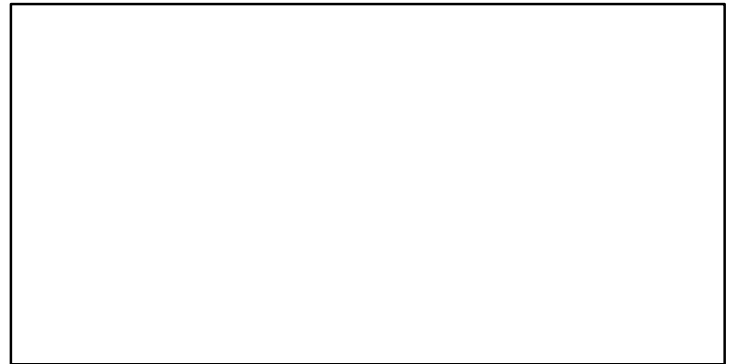
survB_absolute-MT (1991-2019-GLAZER)



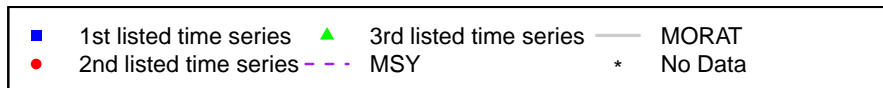
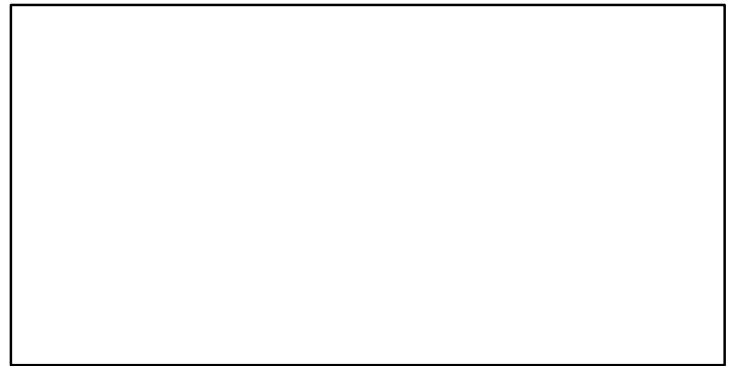
EFFORT*



CPUE*



CdivMSY*



East coast sole South Africa South coast [ECSOLEASASC]

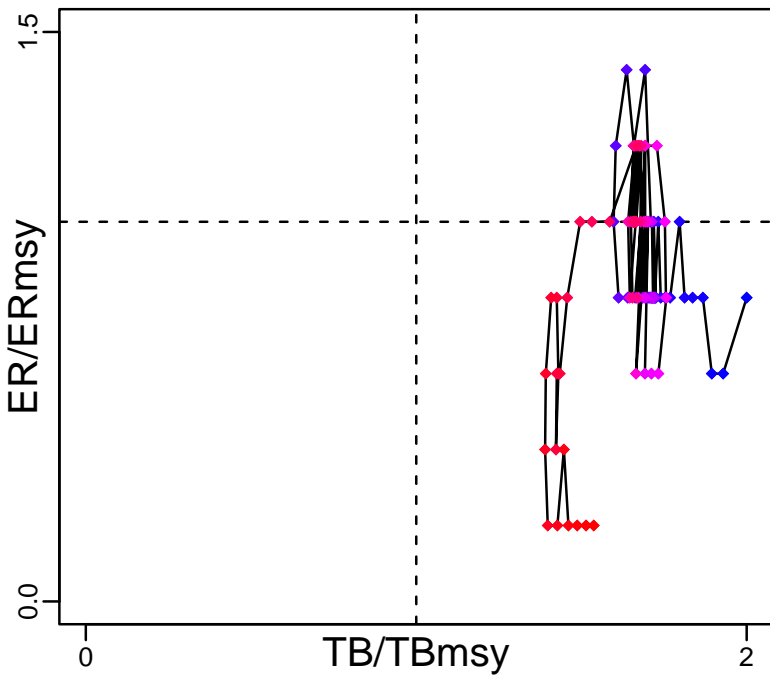
Metadata	
Scientific Name	Austroglossus pectoralis
Current Assess ID	FBDAFF-ECSOLEASASC-1920-2020-GLAZER
Area	South Africa South coast
Management Authority	South African national management, Fisheries Branch of Department of Agriculture, Forestry and Fisheries
Assessor	Fisheries Branch of Department of Agriculture, Forestry and Fisheries
Asmts in RAM	2020

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2020	9822
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	ERmsy-calc-ratio	2020	0.05
TBmgt	TBmgt-MT	2020	9822
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2020	491
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

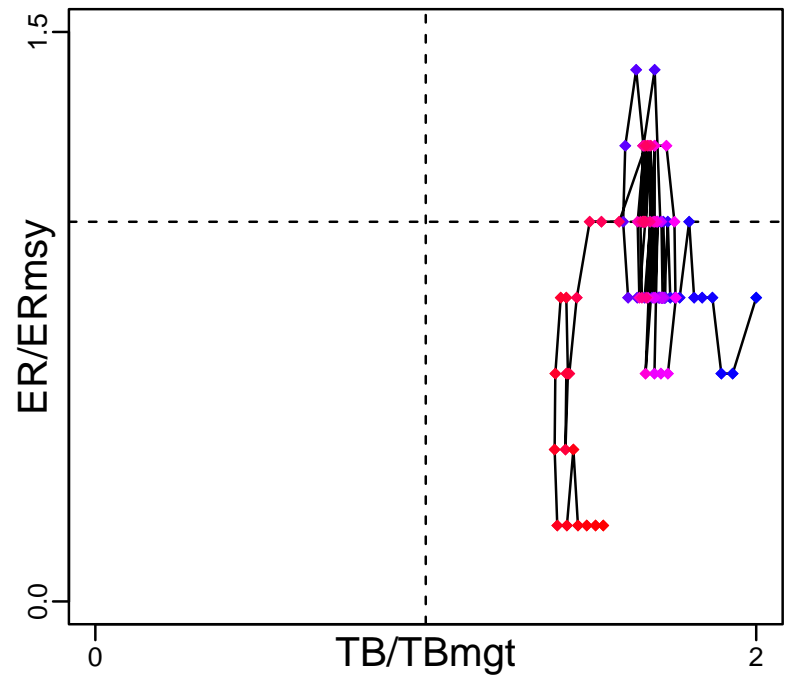
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2020	15,258	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-ratio	2020	0.01	Both	-
TC	TC-MT	2020	190		
TL	TL-MT	2020	190		
TB/TBmsy	TB-MT/TBmsy-MT	2020	1.553		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	ER-ratio/ERmsy-calc-ratio	2020	0.2		
TB/TBmgt	TB-MT/TBmgt-MT	2020	1.553		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

East coast sole South Africa South coast [ECSOLESASC]

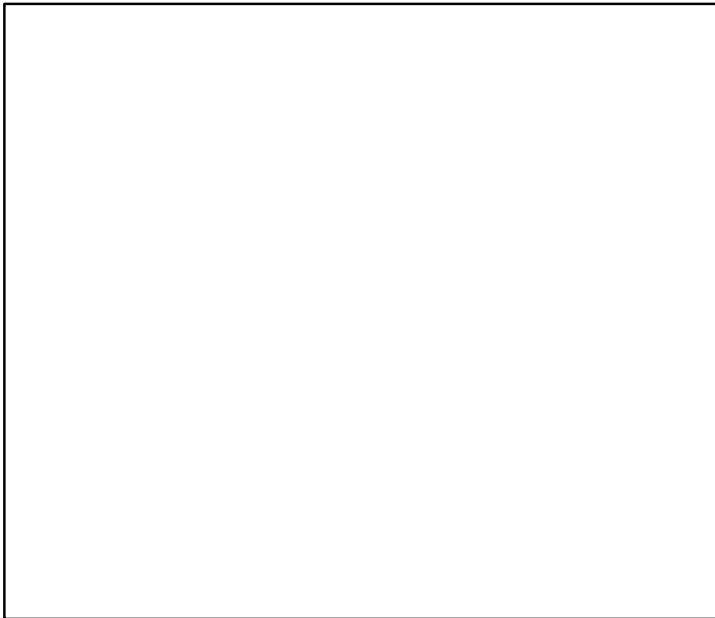
Kobe MSYpref (1920–2020–GLAZER)



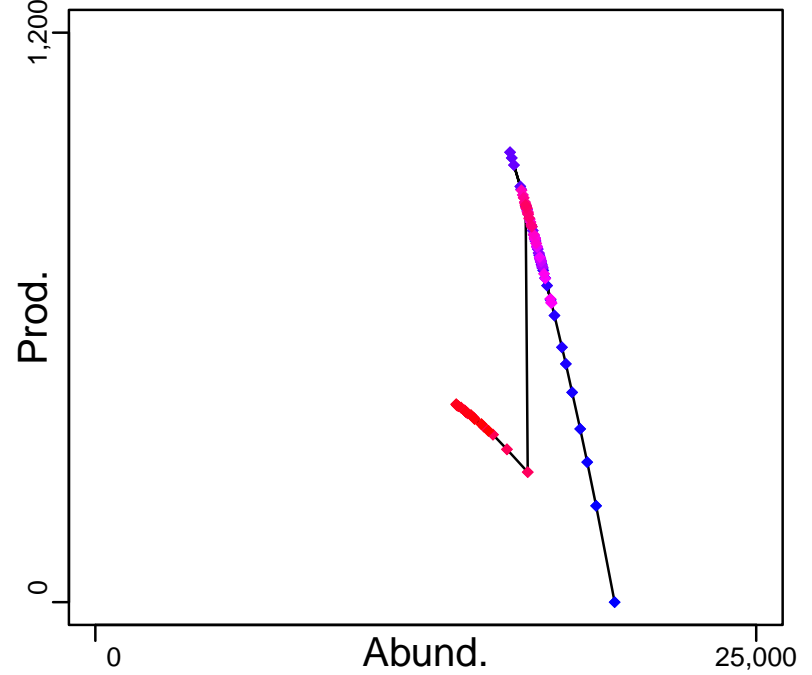
Kobe MGTpref (1920–2020–GLAZER)



Spawner Recruit*



Production (1920–2020–GLAZER)

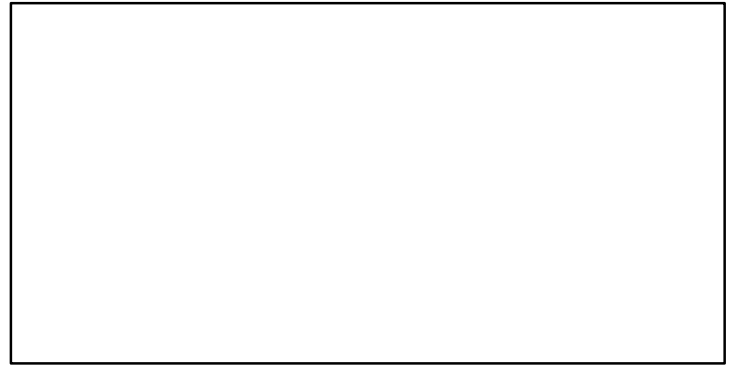
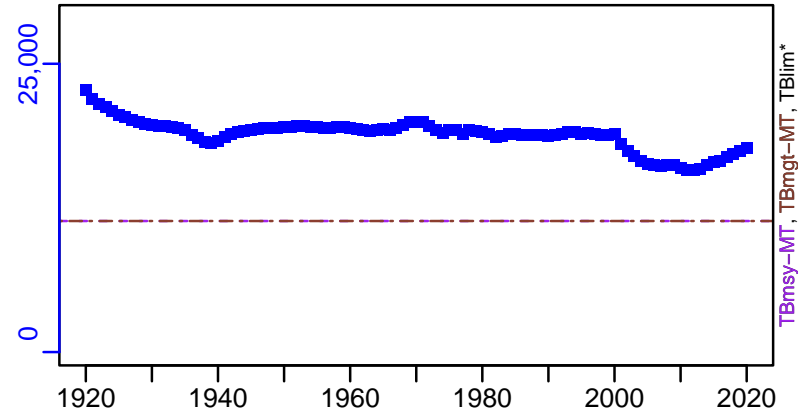


◆ Start Year ◆ End Year * No Data

East coast sole South Africa South coast [ECSOLESASC]

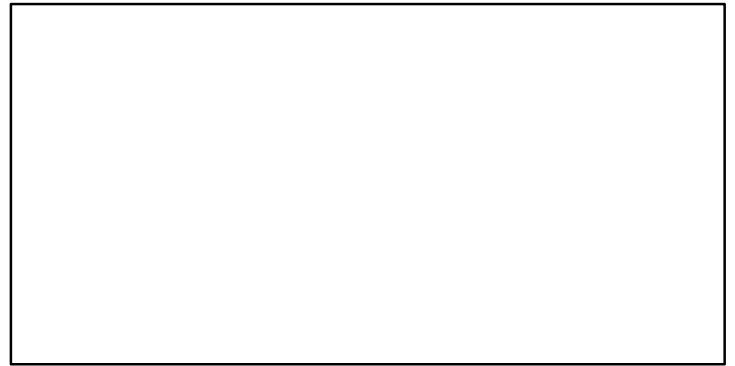
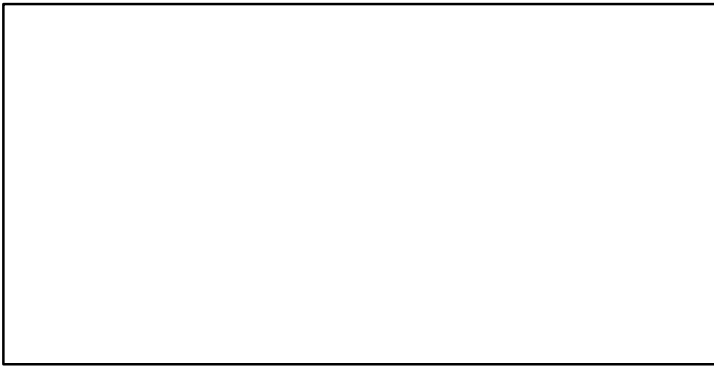
TB-MT (1920-2020-GLAZER)

SSB*



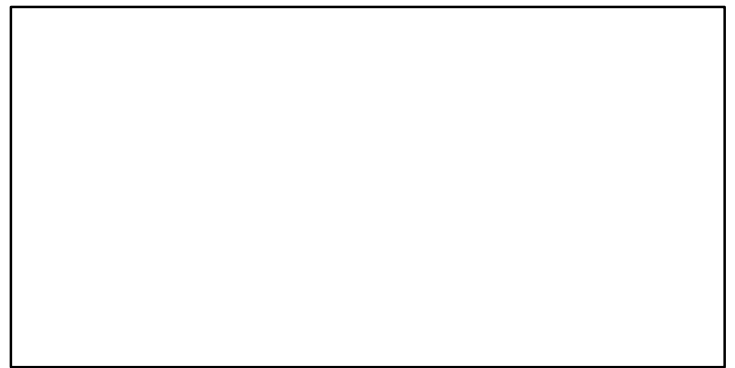
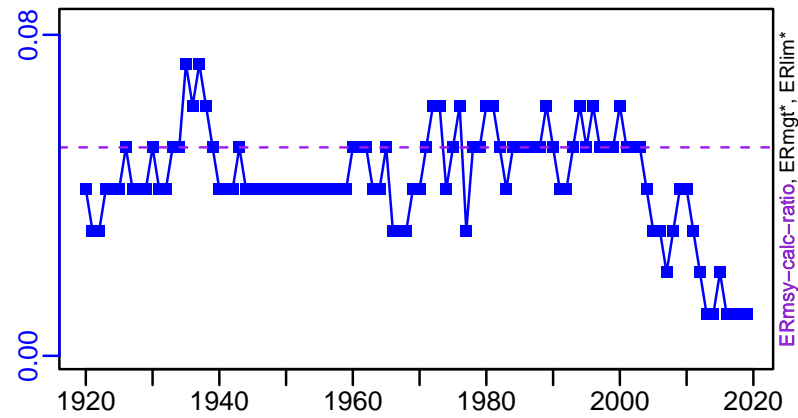
TN *

F*



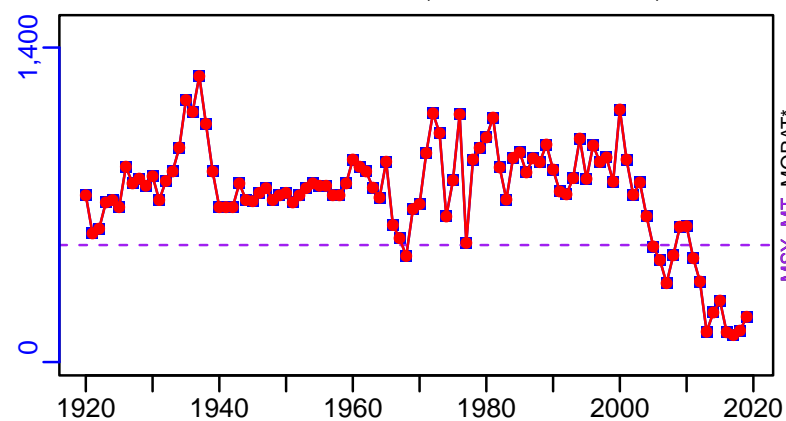
ER-ratio (1920-2020-GLAZER)

Recruits*

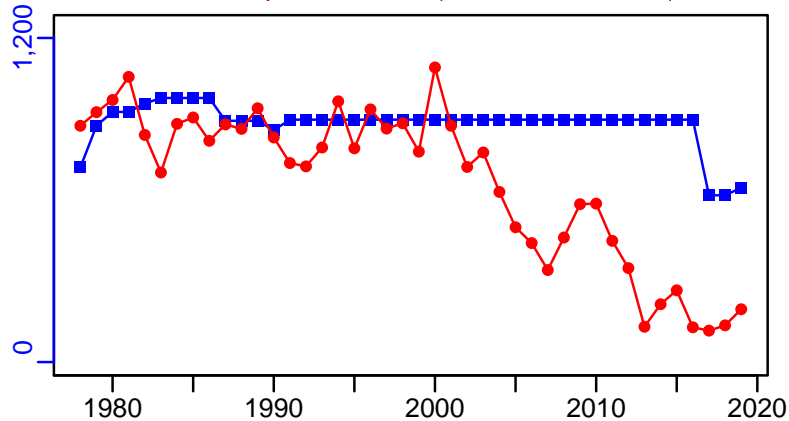


East coast sole South Africa South coast [ECSOLESASC]

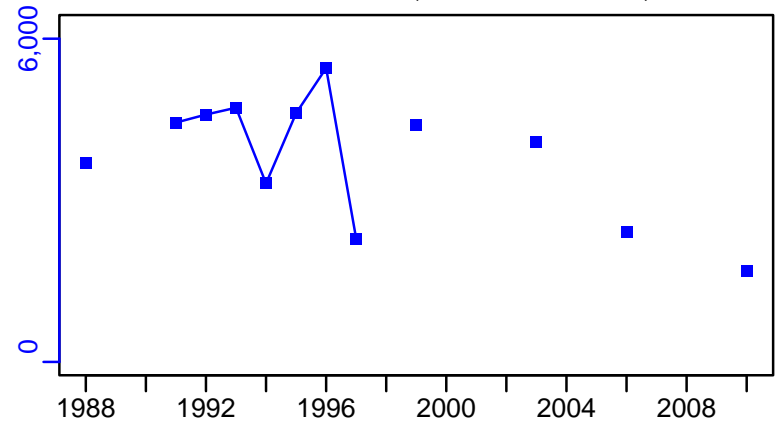
TC-MT, TL-MT, RecC* (1920-2020-GLAZER)



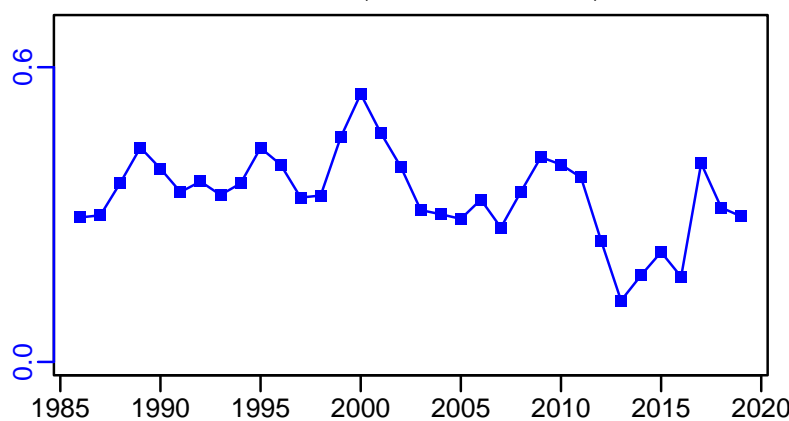
TAC-MT, Cpair-MT, Cadv* (1920-2020-GLAZER)



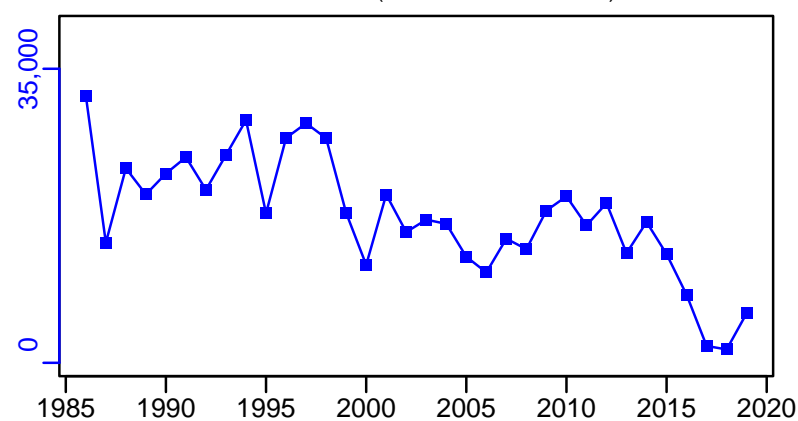
survB_index-1-index (1920-2020-GLAZER)



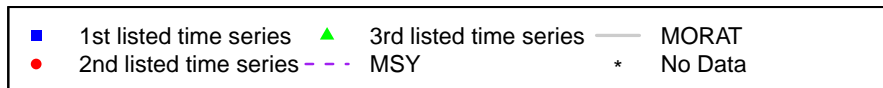
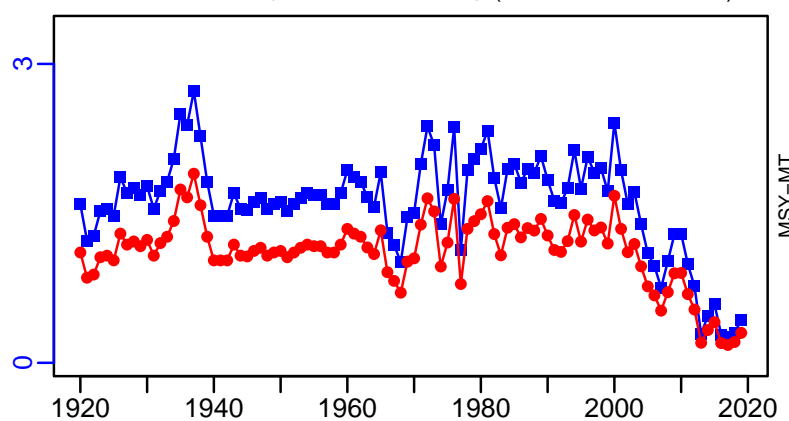
CPUE-index (1920-2020-GLAZER)



EFFORT-hour (1920-2020-GLAZER)



TC-MT/MSY-MT, CdivMEANC-ratio, (1920-2020-GLAZER)



Hake spp Southern Africa [HAKESPPSAF]

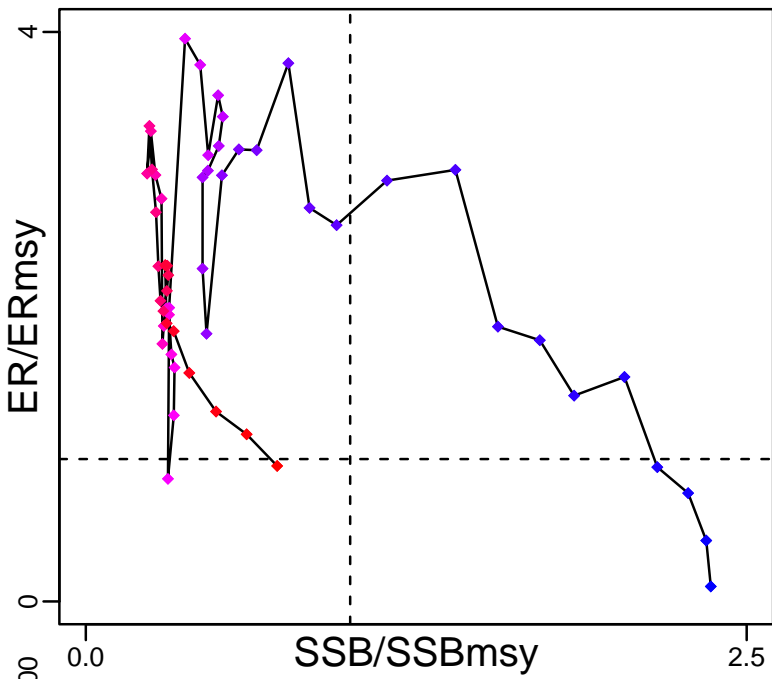
Metadata	
Scientific Name	Merluccius spp
Current Assess ID	NatMIRC-HAKESPPSAF-1964-2019-ASHBROOK
Area	Southern Africa
Management Authority	Ministry of Fisheries and Marine Resources
Assessor	National Marine Information and Research Centre
Asmts in RAM	2019

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2019	4,611,710
SSBmsy	SSBmsy-MT	2019	2,603,270
Fmsy	-	-	-
ERmsy	ERmsy-calc-ratio	2019	0.066
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2019	303,687
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

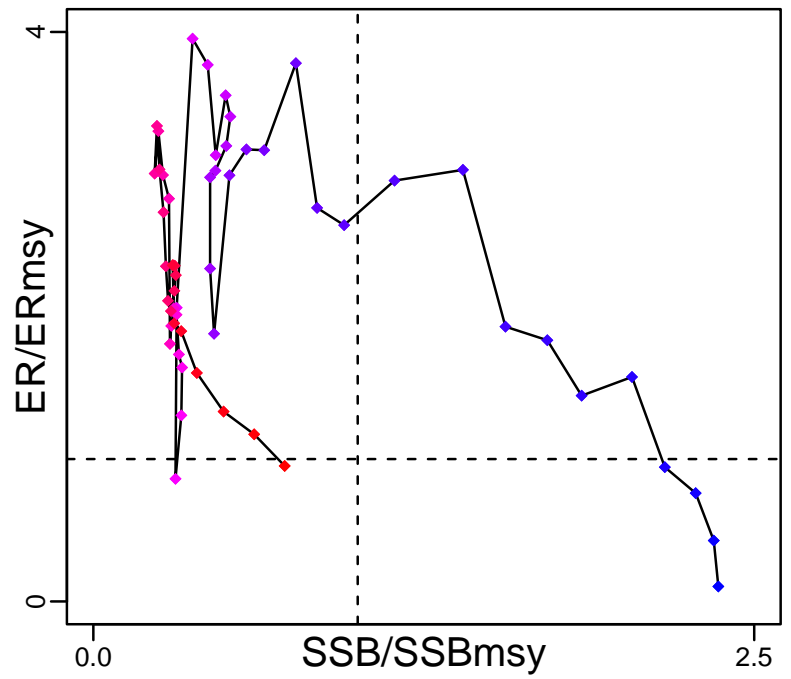
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2019	2,426,180	-	-
SSB	SSB-MT	2019	1,884,330	-	4+
TN	-	-	-	-	-
R	R-E00	2019	35,792,400,000	-	0
F	F-1/yr	2019	0.115	-	-
ER	ER-calc-ratio	2019	0.063	-	-
TC	TC-MT	2019	152,033		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-MT	2019	0.526		
SSB/SSBmsy	SSB-MT/SSBmsy-MT	2019	0.724		
F/Fmsy	-	-	-		
ER/ERmsy	ER-calc-ratio/ERmsy-calc-ratio	2019	0.952		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Hake spp Southern Africa [HAKESPPSAF]

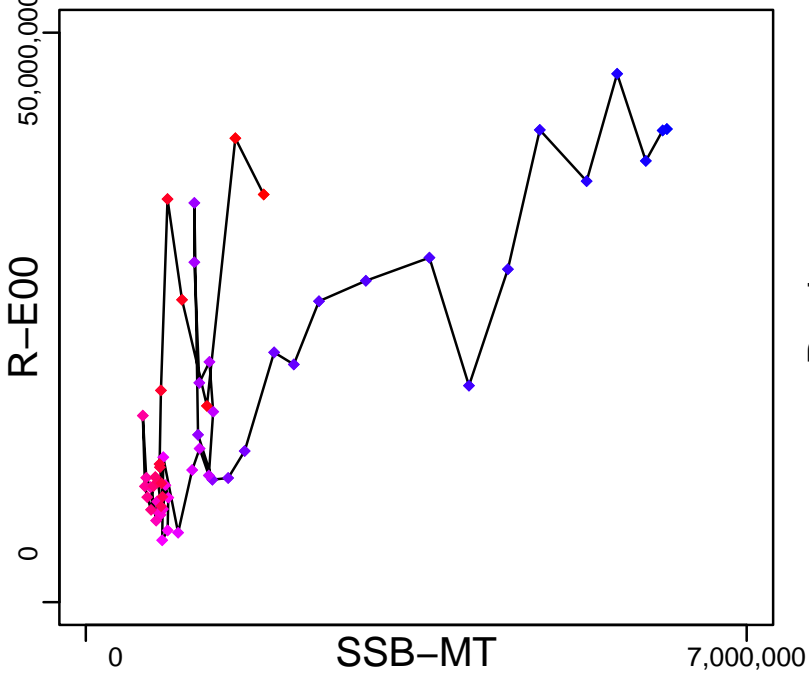
Kobe MSYpref (1964–2019–ASHBROOK)



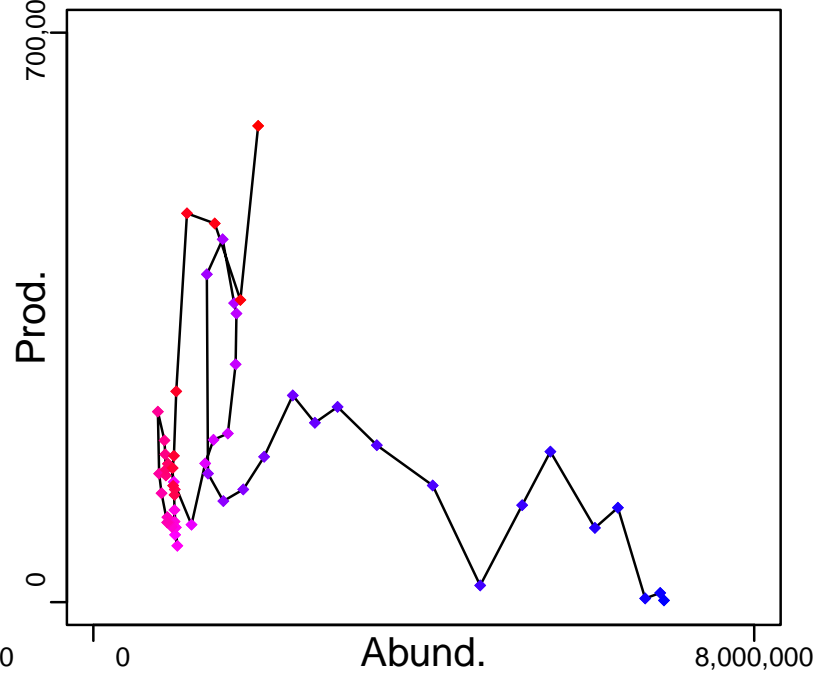
Kobe MGTpref (1964–2019–ASHBROOK)



Spawner Recruit (1964–2019–ASHBROOK)

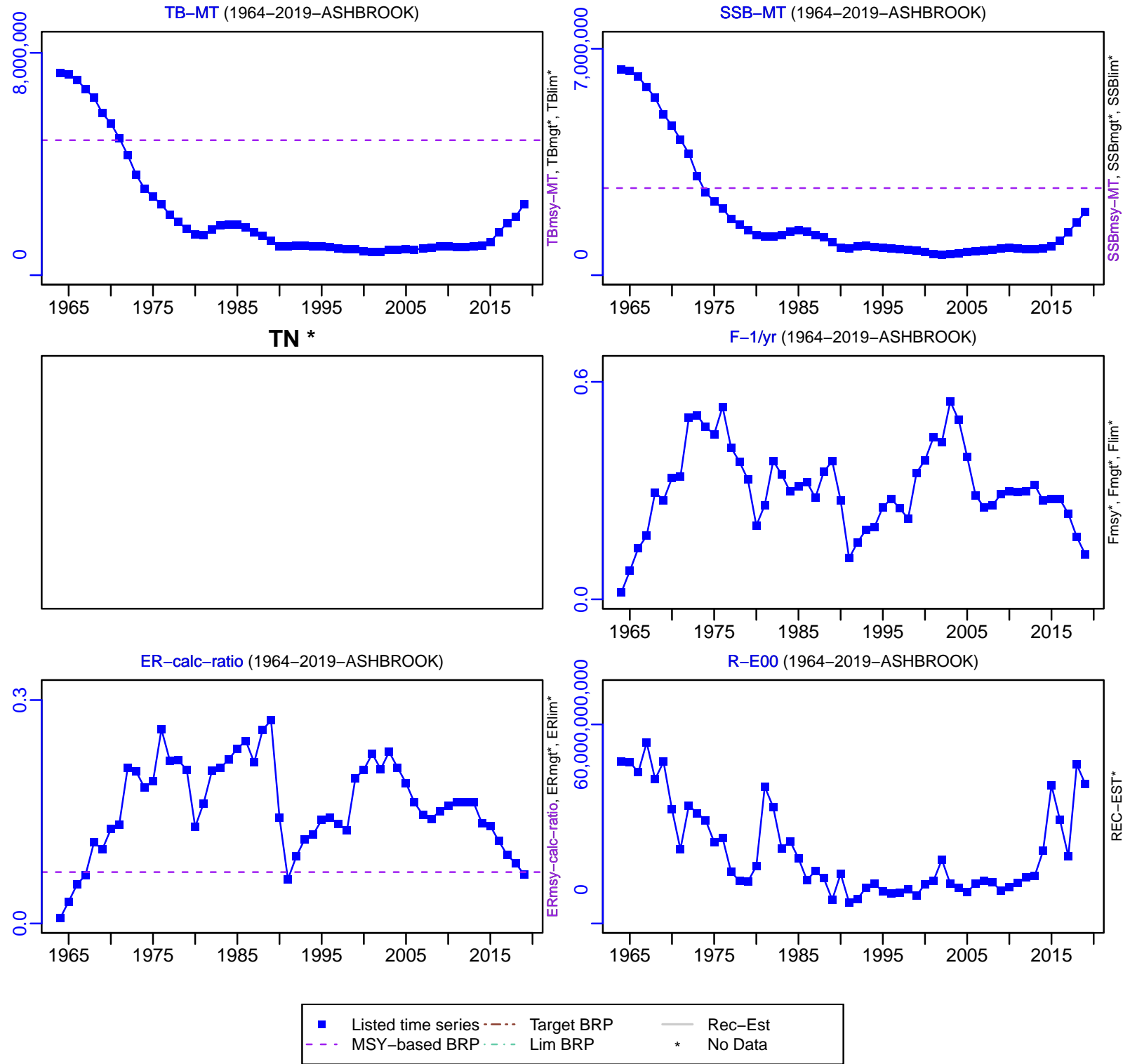


Production (1964–2019–ASHBROOK)



◆ Start Year ◆ End Year * No Data

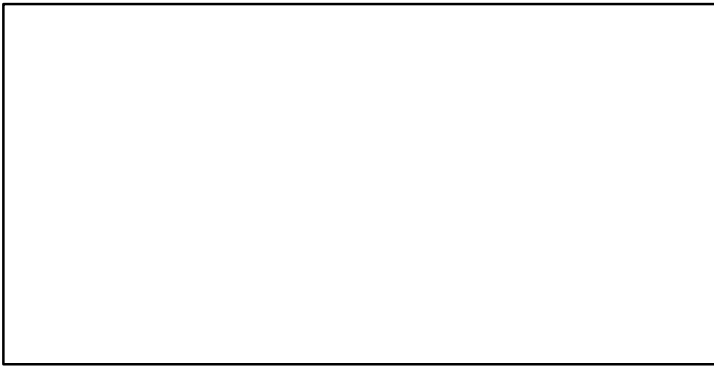
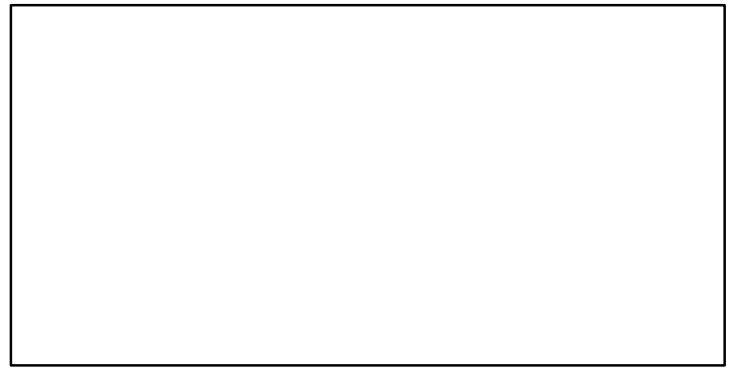
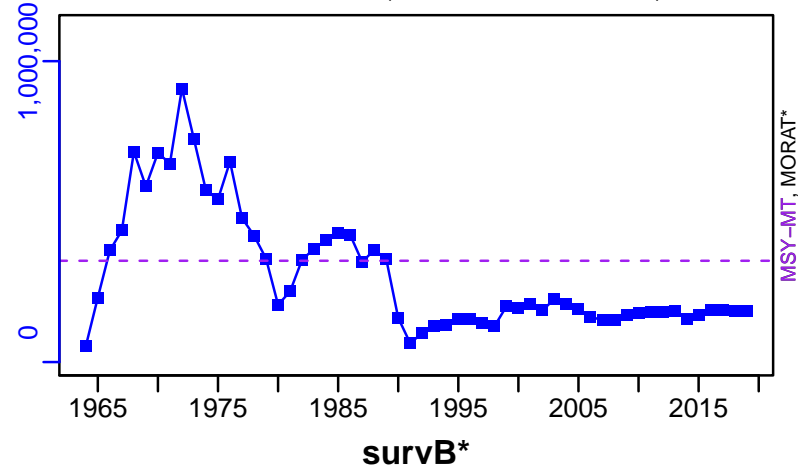
Hake spp Southern Africa [HAKESPPSAF]



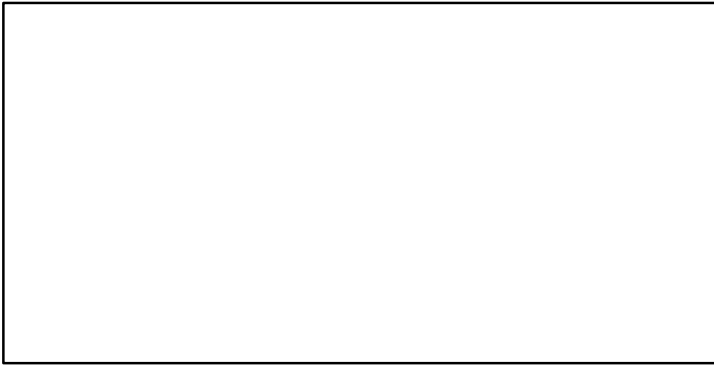
Hake spp Southern Africa [HAKESPPSAF]

TC-MT, TL*, RecC* (1964–2019–ASHBROOK)

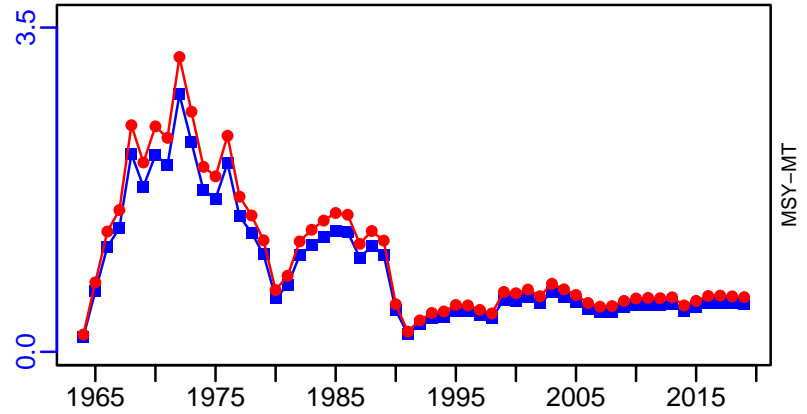
TAC*, Cpair*, Cadv*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1964–2019–ASHBROOK)



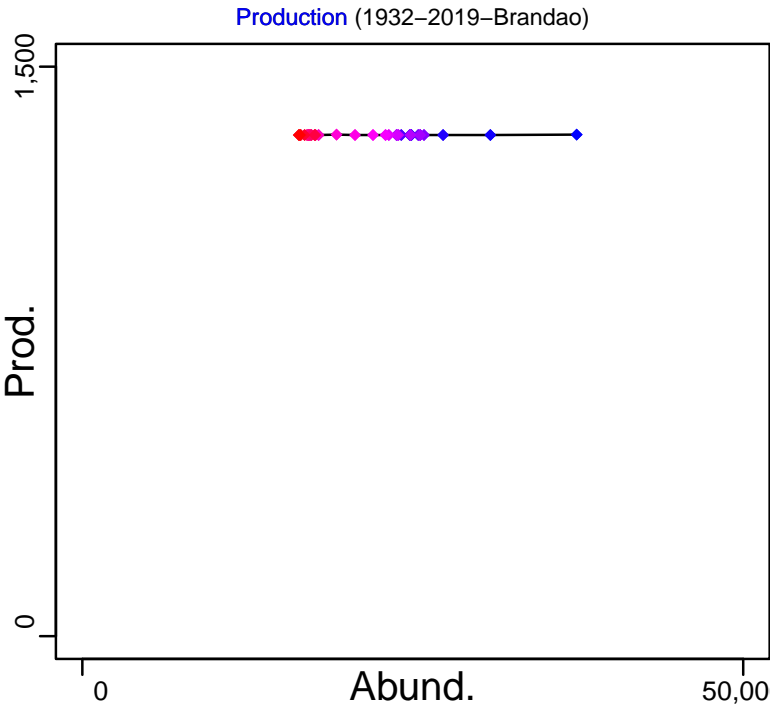
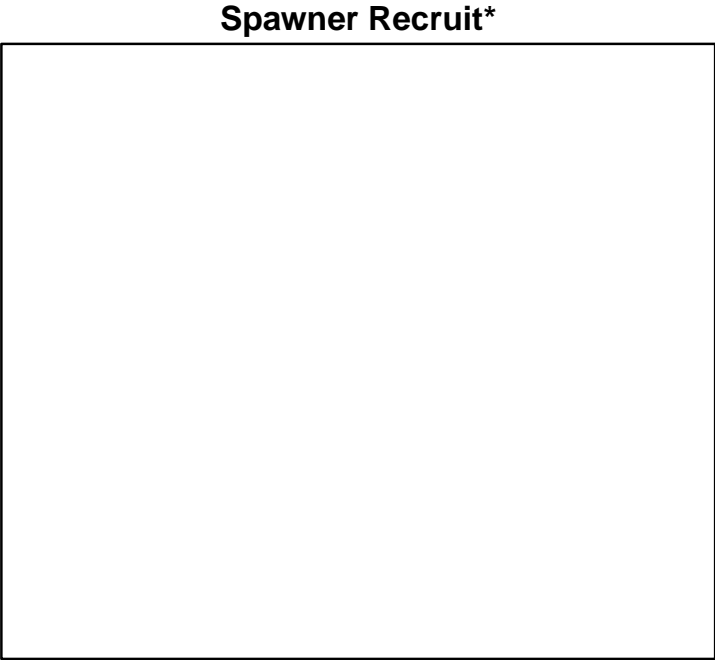
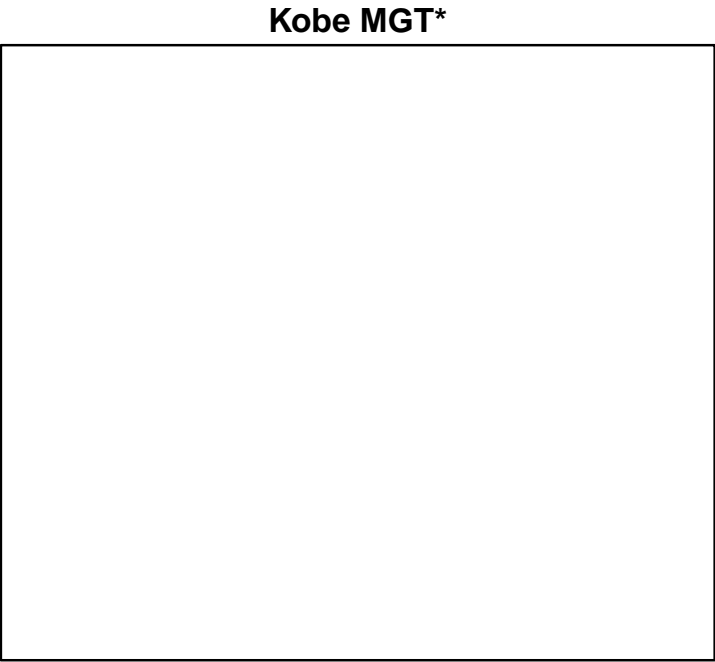
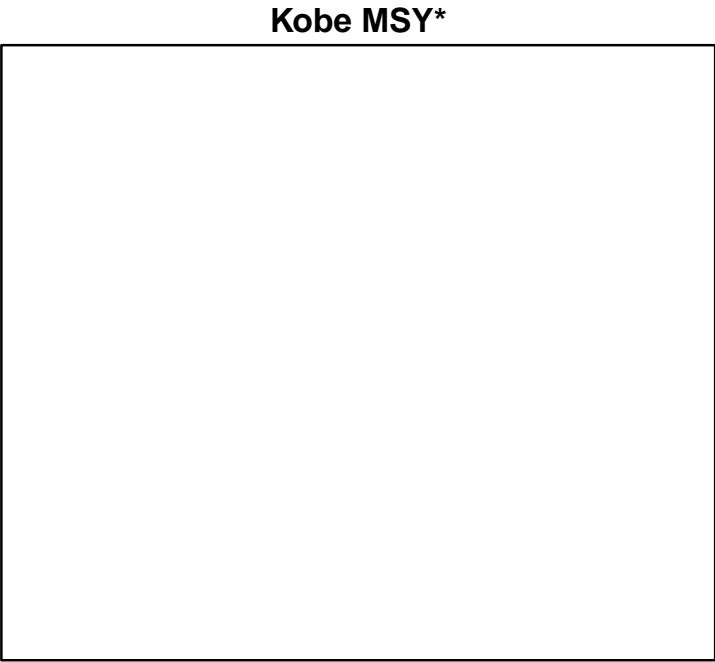
■ 1st listed time series ▲ 3rd listed time series — MORAT
● 2nd listed time series - - - MSY * No Data

Kingklip South Africa South coast [KINGKLIPSASC]

Metadata	
Scientific Name	Genypterus capensis
Current Assess ID	MARAM-KINGKLIPSASC-1932-2019-Brandao
Area	South Africa South coast
Management Authority	South African national management, Fisheries Branch of Department of Agriculture, Forestry and Fisheries
Assessor	Marine Resource Assessment and Management Group, Department of Mathematics and Applied Mathematics, University of Cape Town, Rondebosch, 7701, South Africa
Asmts in RAM	2019

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	TB0-MT	2019	50,408
SSB0	-	-	-
MSY	MSY-MT	2019	1152
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2019	16,445	-	0+
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-ratio	2019	0.076	-	-
TC	TC-MT	2019	1241		
TL	TL-MT	2019	1241		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

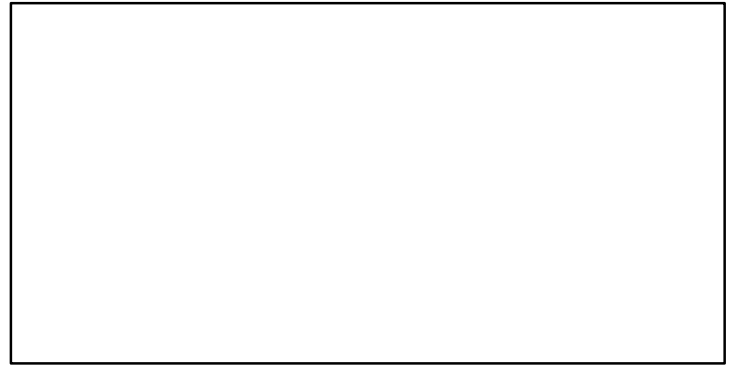
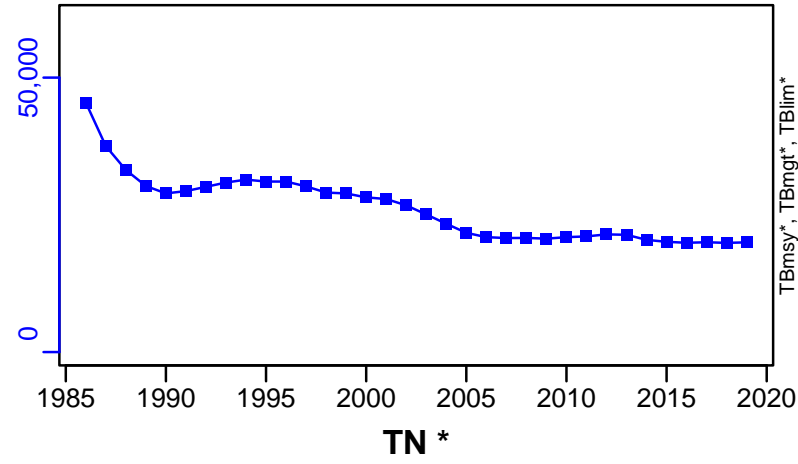


◆ Start Year ◆ End Year * No Data

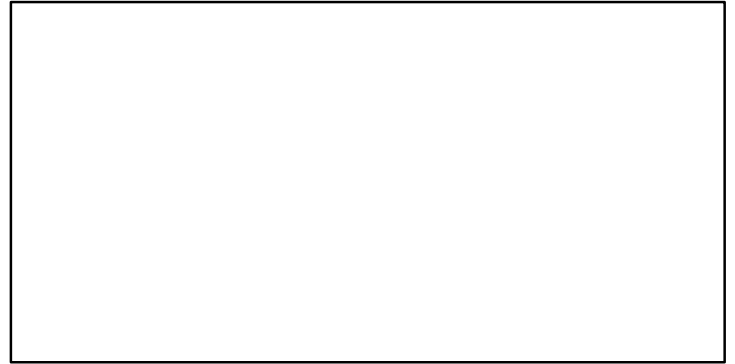
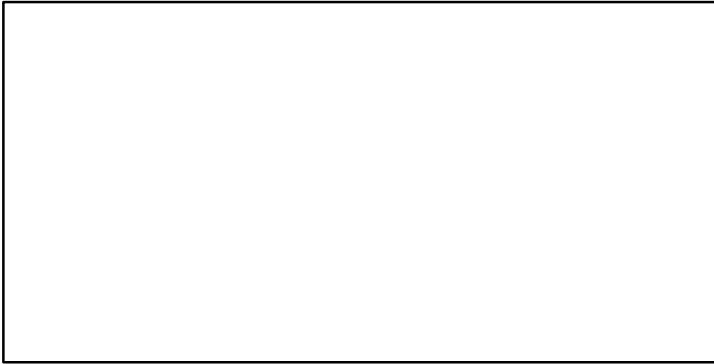
Kingklip South Africa South coast [KINGKLIPSASC]

TB-MT (1932–2019–Brandao)

SSB*

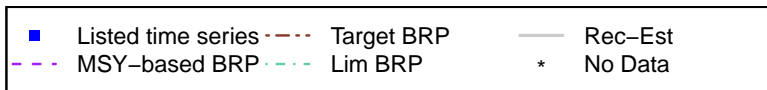
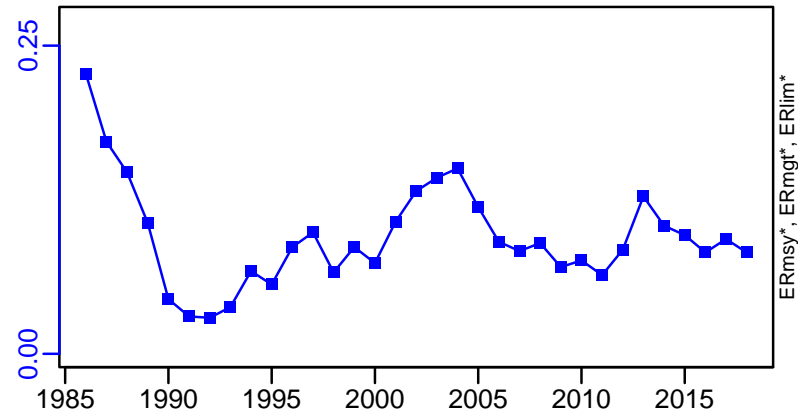


F*



ER-ratio (1932–2019–Brandao)

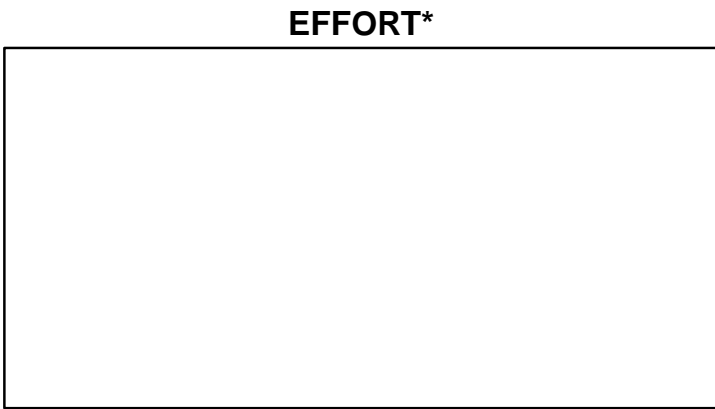
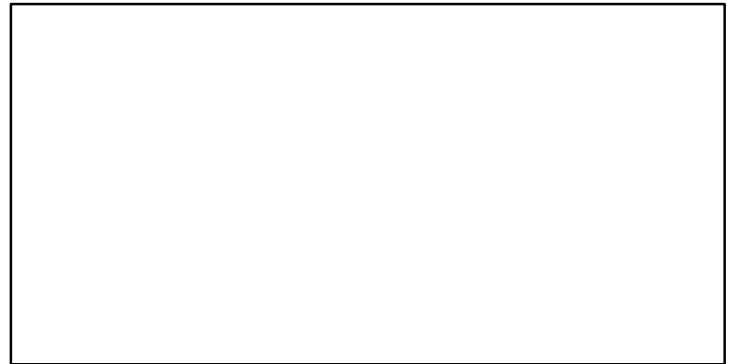
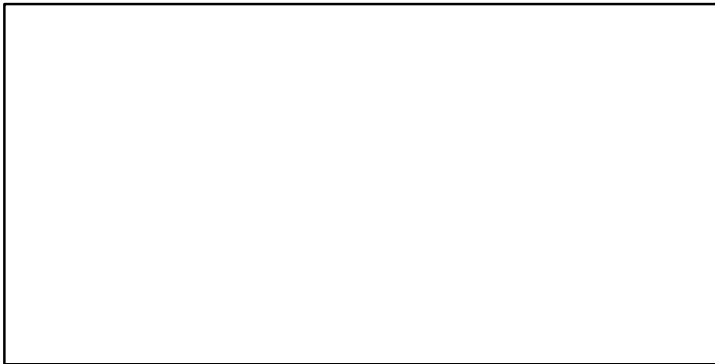
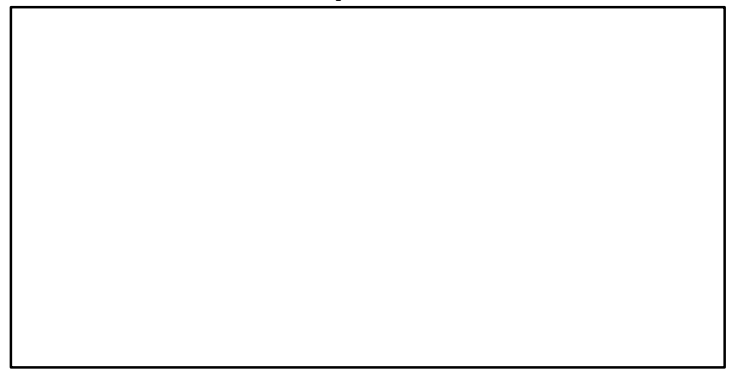
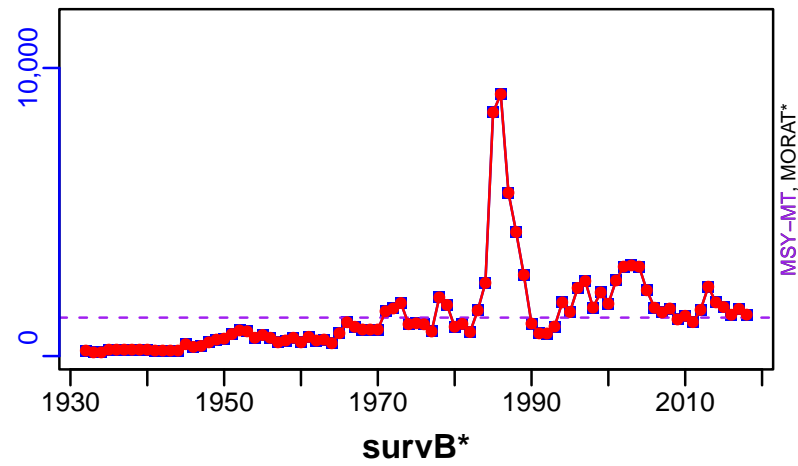
Recruits*



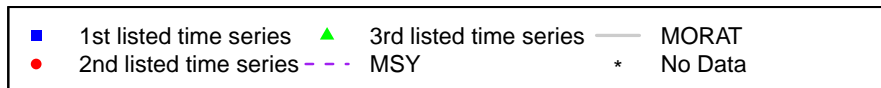
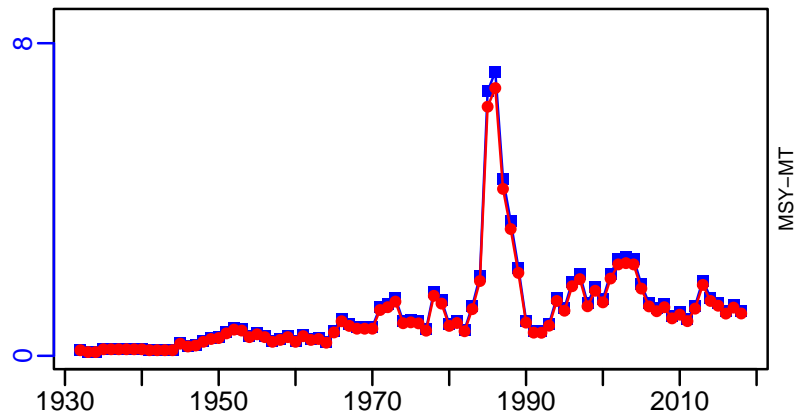
Kingklip South Africa South coast [KINGKLIPSASC]

TC-MT, TL-MT, RecC* (1932-2019-Brandao)

TAC*, Cpair*, Cadv*



TC-MT/MSY-MT, CdivMEANC-ratio, (1932-2019-Brandao)



Kingklip South Africa West coast [KINGKLIPSAWC]

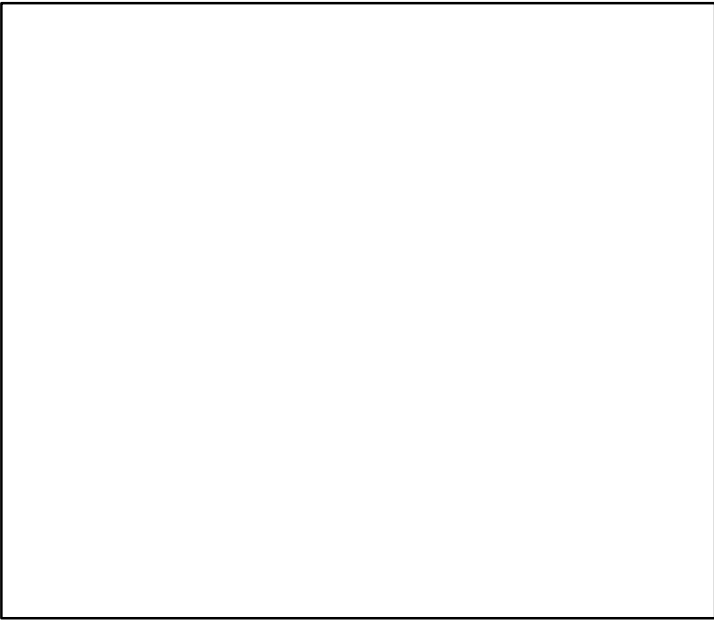
Metadata	
Scientific Name	Genypterus capensis
Current Assess ID	MARAM-KINGKLIPSAWC-1932-2020-Brandao
Area	South Africa West coast
Management Authority	South African national management, Fisheries Branch of Department of Agriculture, Forestry and Fisheries
Assessor	Marine Resource Assessment and Management Group, Department of Mathematics and Applied Mathematics, University of Cape Town, Rondebosch, 7701, South Africa
Asmts in RAM	2020

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	TB0-MT	2020	30,286
SSB0	-	-	-
MSY	MSY-MT	2020	3218
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

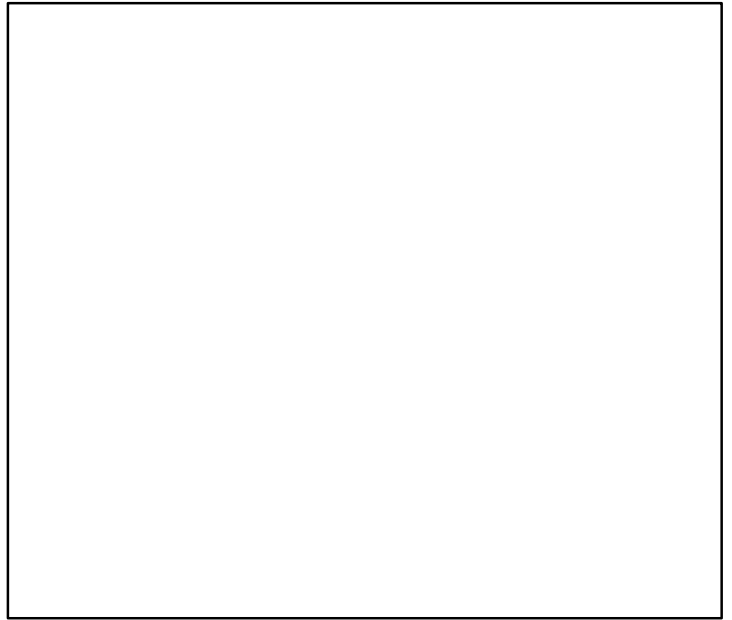
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2020	62,463	-	0+
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	ER-ratio	2020	0.02	-	-
TC	TC-MT	2020	1206		
TL	TL-MT	2020	1206		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kingklip South Africa West coast [KINGKLIPSAWC]

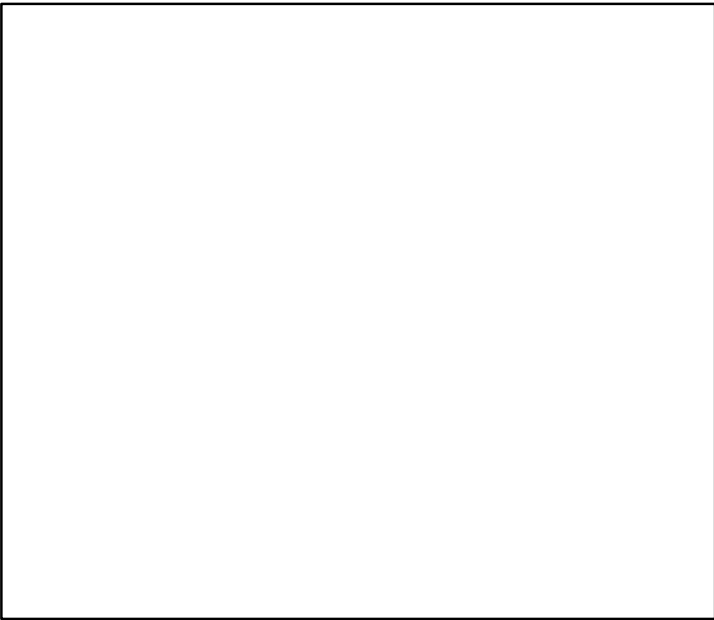
Kobe MSY*



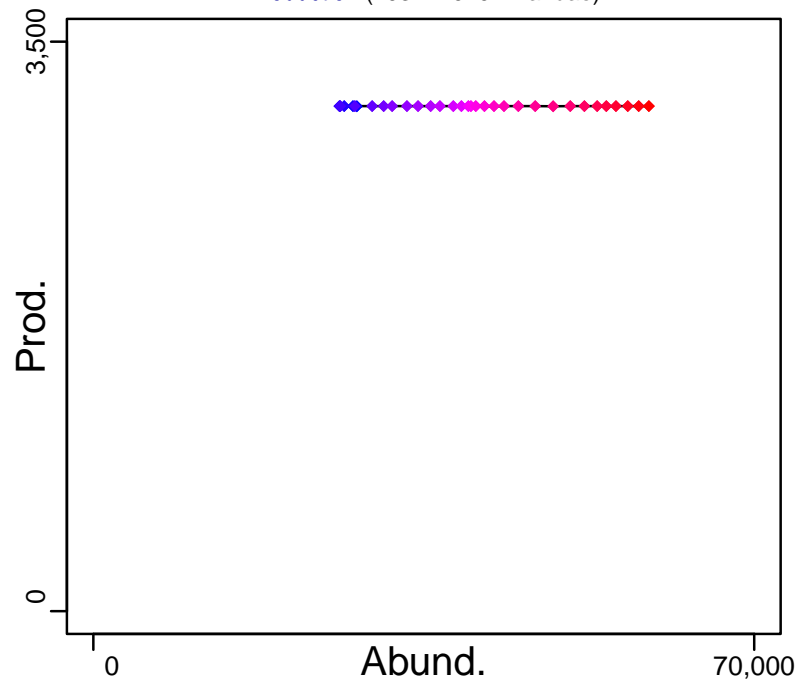
Kobe MGT*



Spawner Recruit*



Production (1932–2020–Brandao)

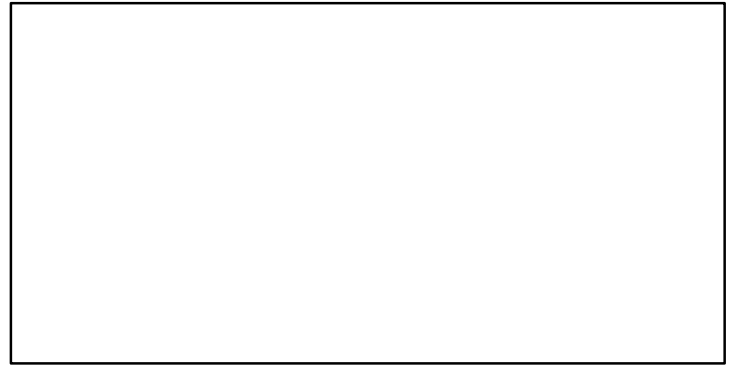
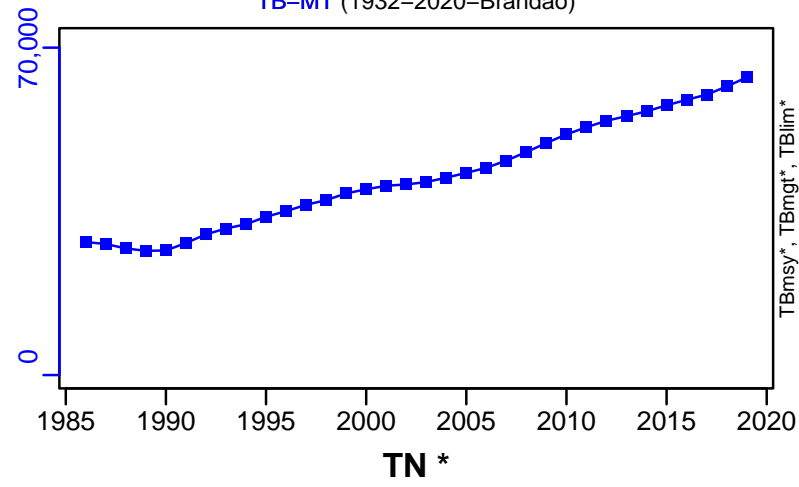


◆ Start Year ◆ End Year * No Data

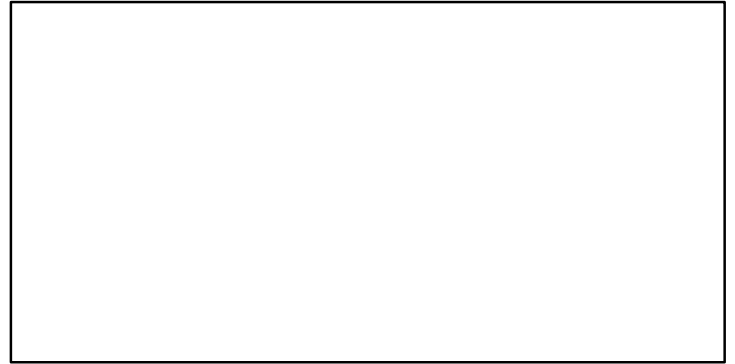
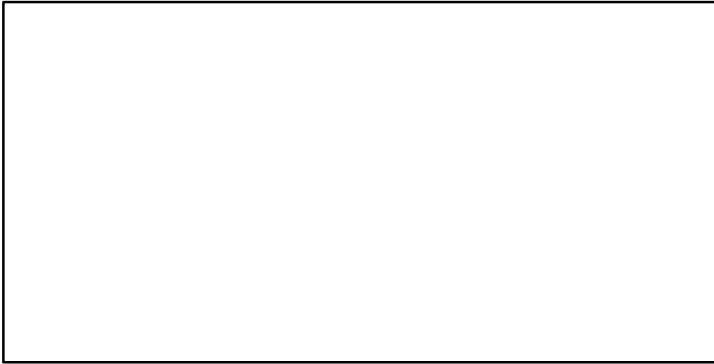
Kingklip South Africa West coast [KINGKLIPSAWC]

TB-MT (1932-2020-Brandao)

SSB*

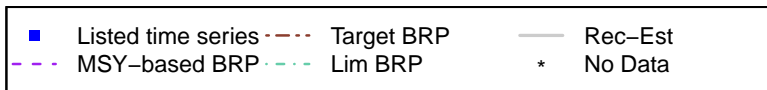
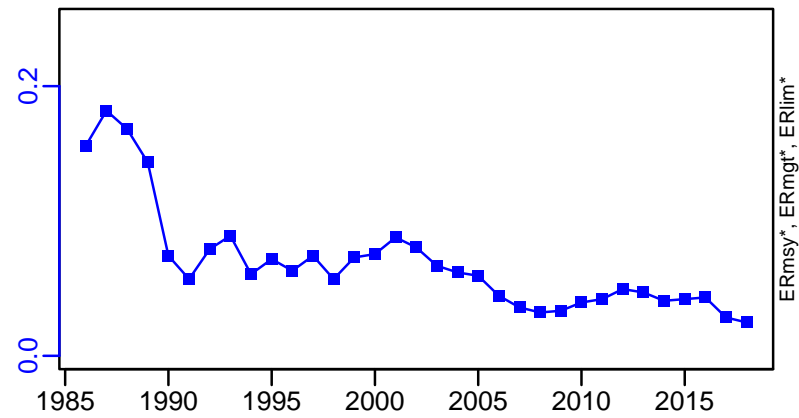


F*



ER-ratio (1932-2020-Brandao)

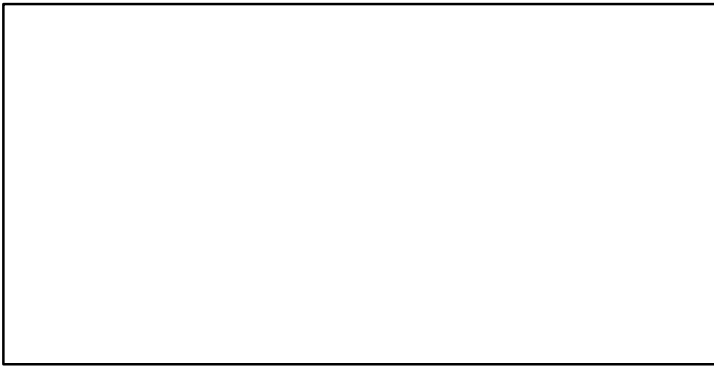
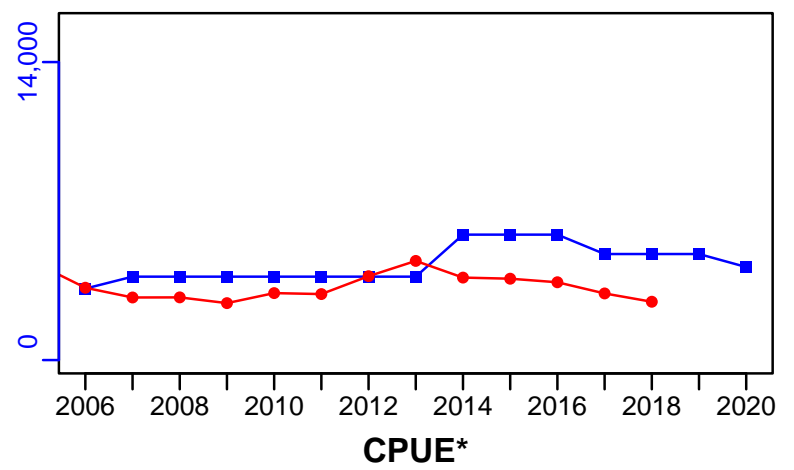
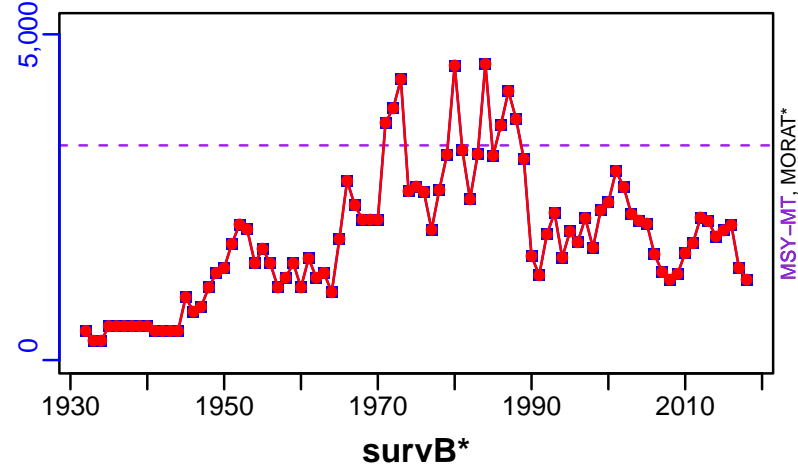
Recruits*



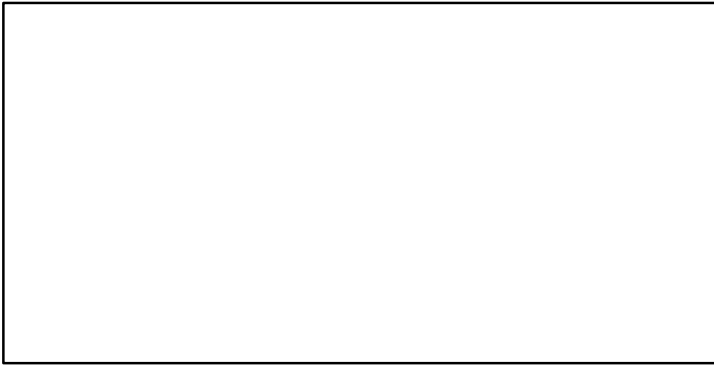
Kingklip South Africa West coast [KINGKLIPSAWC]

TC-MT, TL-MT, RecC* (1932-2020-Brandao)

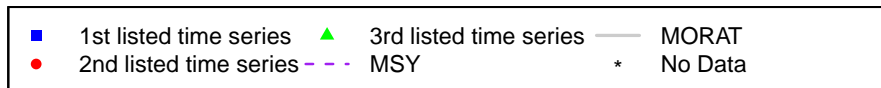
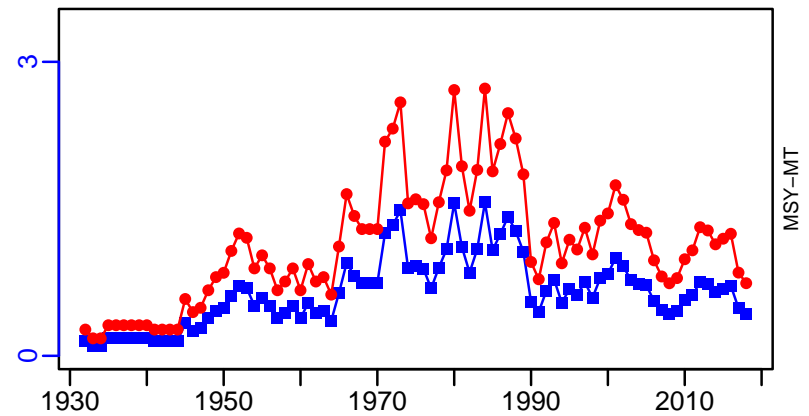
TAC-MT, Cpair-MT, Cadv* (1932-2020-Brandao)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1932-2020-Brandao)



Patagonian toothfish South Africa Subantarctic Prince Edward Islands [PTOOTHFISHPEI]

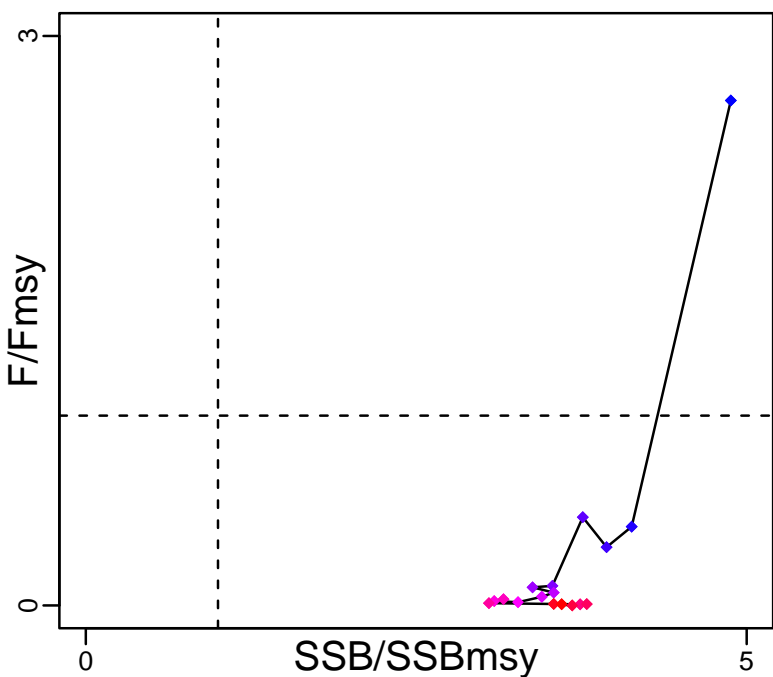
Metadata	
Scientific Name	Dissostichus eleginoides
Current Assess ID	MARAM-PTOOTHFISHPEI-1960-2020-Brandao
Area	South Africa Subantarctic Prince Edward Islands
Management Authority	South African national management, Fisheries Branch of Department of Agriculture, Forestry and Fisheries
Assessor	Marine Resource Assessment and Management Group, Department of Mathematics and Applied Mathematics, University of Cape Town, Rondebosch, 7701, South Africa
Asmts in RAM	2013, 2015, 2020

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	SSBmsy-MT	2020	6302
Fmsy	Fmsy-1/yr	2015	0.12
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	TB0-MT	2020	40,188
SSB0	SSB0-MT	2020	25,582
MSY	MSY-MT	2020	1077
M	M-1/yr	2020	0.13
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

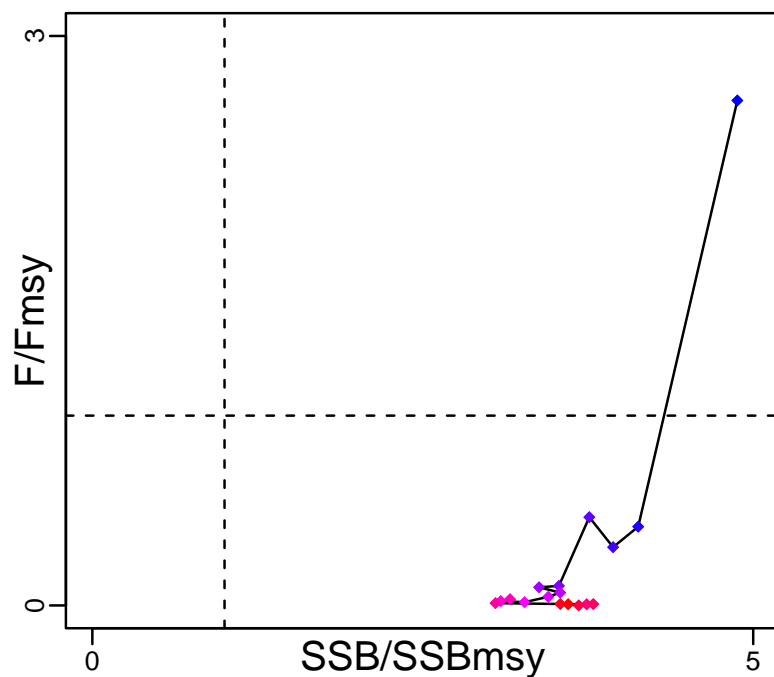
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2020	18,219	-	0+
SSB	SSB-MT	2020	10,158	Both	13+
TN	-	-	-	-	-
R	R-E00	2020	902,273	-	6
F	-	-	-	-	-
ER	ER-ratio	2020	0.032	-	-
TC	TC-MT	2020	343		
TL	TL-MT	2020	343		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSBdivSSBmsy-dimensionless	2020	1.61		
F/Fmsy	FdivFmsy-dimensionless	2013	0.006		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Patagonian toothfish South Africa Subantarctic Prince Edward Islands [PTOOTHFISHPEI]

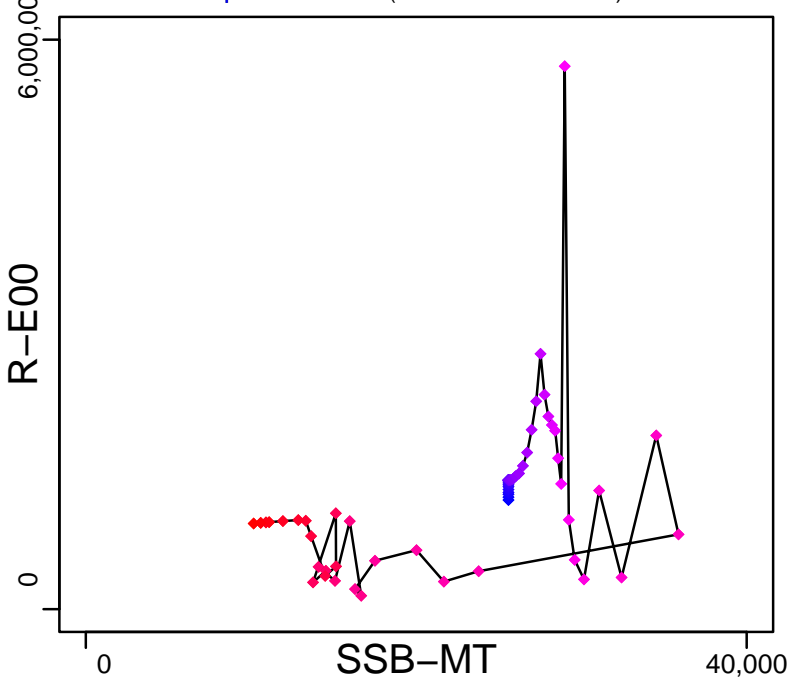
Kobe MSYpref (1960–2013–Brandao)



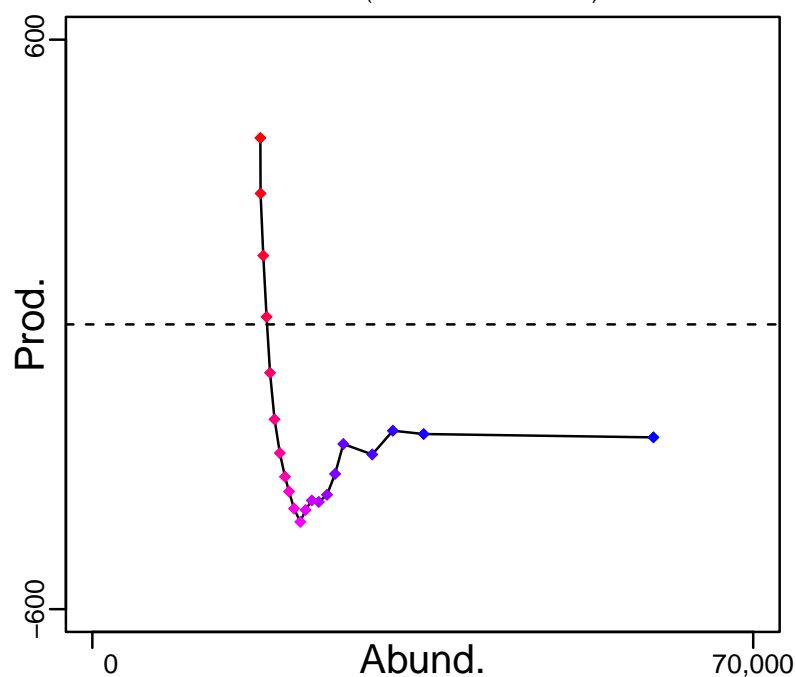
Kobe MGTpref (1960–2013–Brandao)



Spawner Recruit (1960–2020–Brandao)



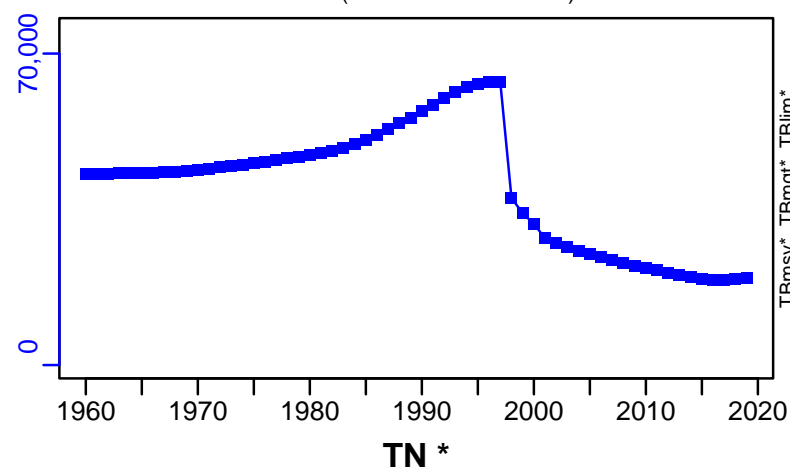
Production (1960–2020–Brandao)



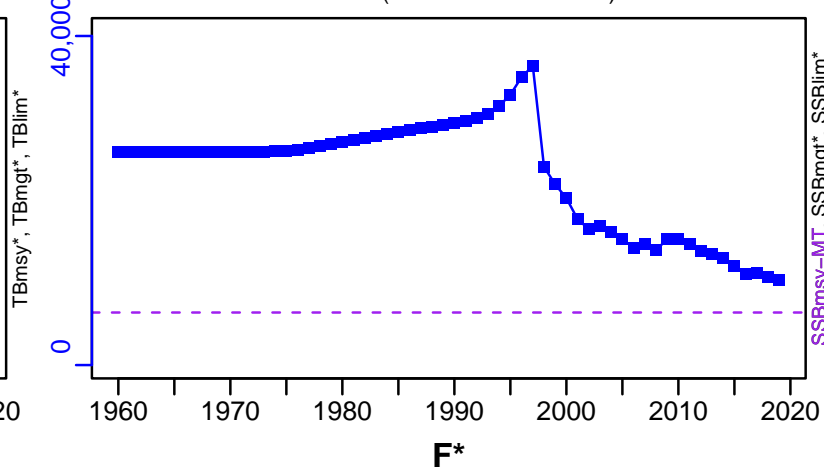
◆ Start Year ◆ End Year * No Data

Patagonian toothfish South Africa Subantarctic Prince Edward Islands [PTOOTHFISHPEI]

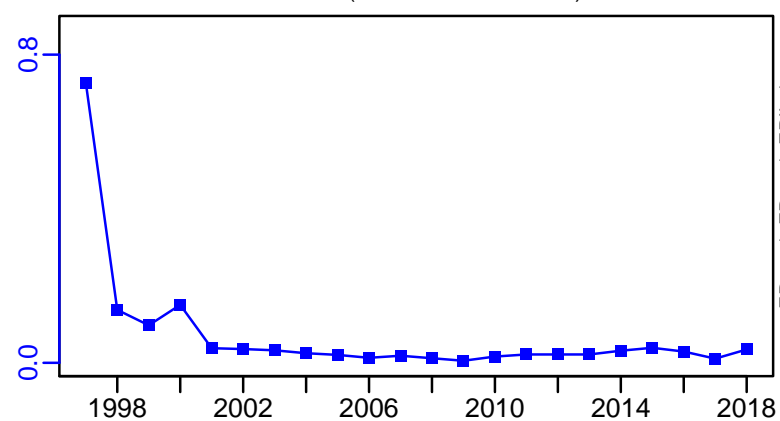
TB-MT (1960–2020–Brandao)



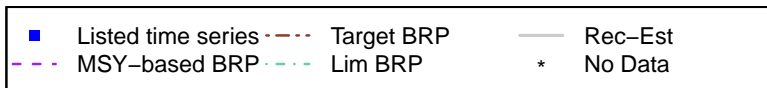
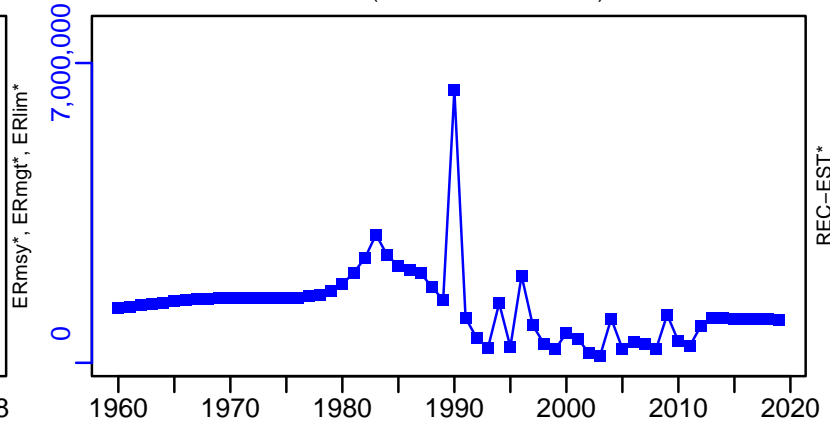
SSB-MT (1960–2020–Brandao)



ER-ratio (1960–2020–Brandao)



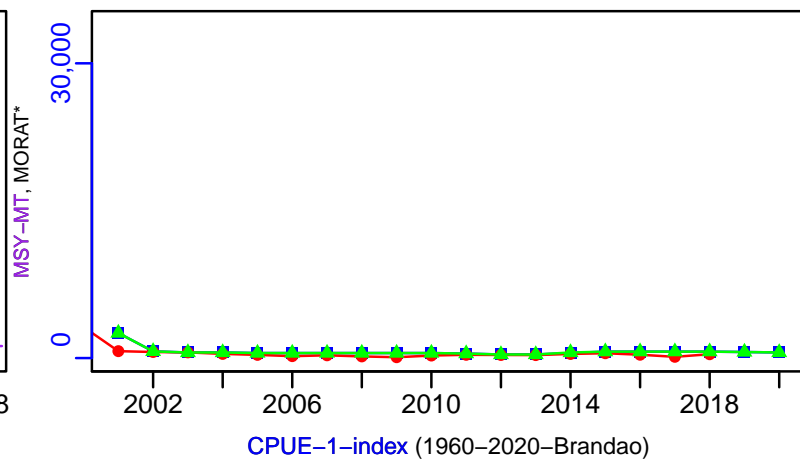
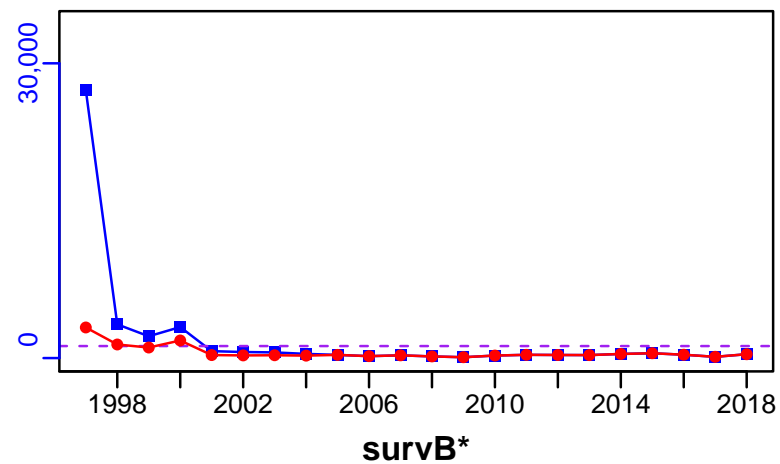
R-E00 (1960–2020–Brandao)



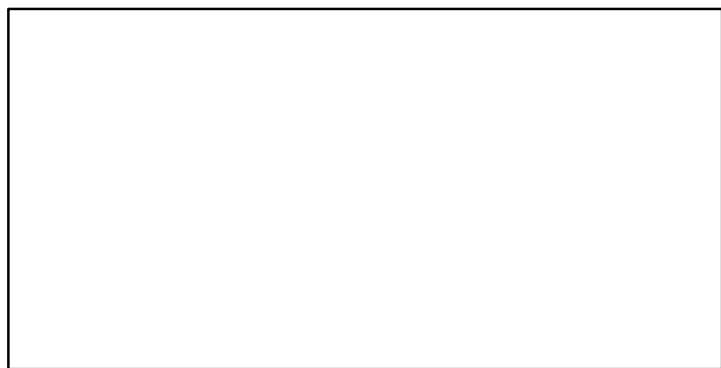
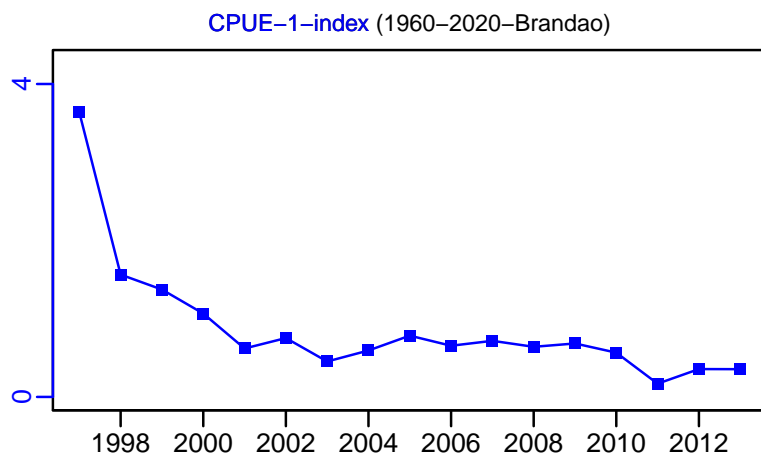
Patagonian toothfish South Africa Subantarctic Prince Edward Islands [PTOOTHFISHPEI]

TC-MT, TL-MT, RecC* (1960–2020–Brandao)

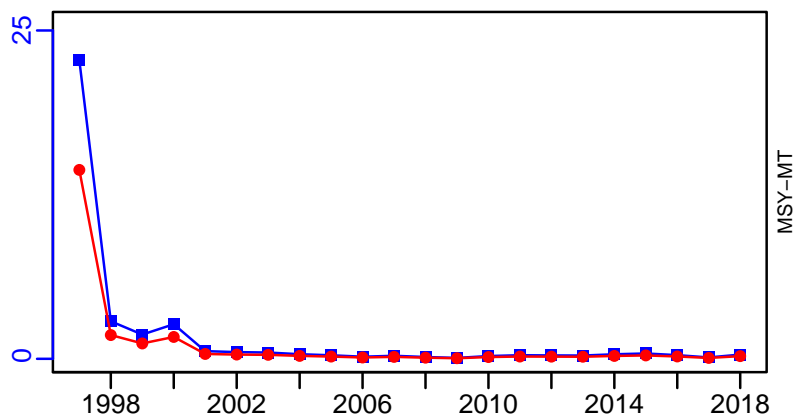
TAC-MT, Cpair-MT, Cadvised-MT (1960–2020–Brandao)



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1960–2020–Brandao)



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

South African abalone South Africa [SAABALONESA]

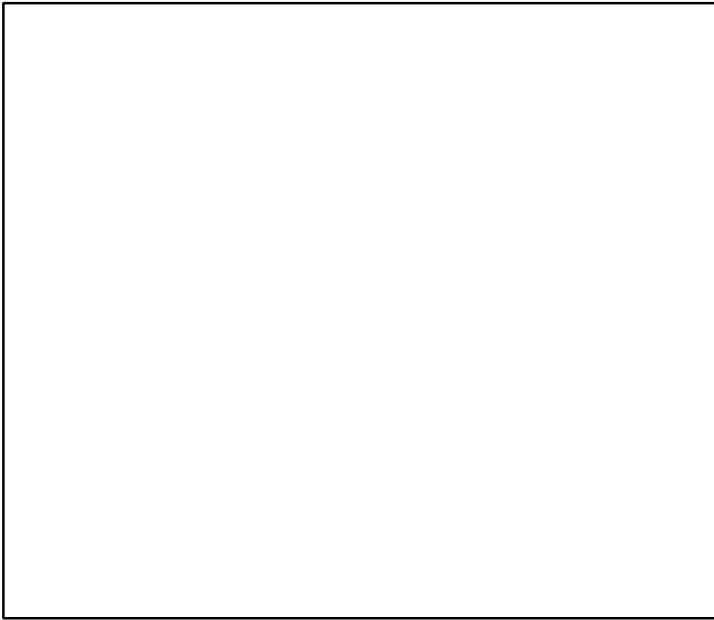
Metadata	
Scientific Name	Haliotis midae
Current Assess ID	MARAM-SAABALONESA-1951-2015-Brandao
Area	South Africa
Management Authority	South African national management, Fisheries Branch of Department of Agriculture, Forestry and Fisheries
Assessor	Marine Resource Assessment and Management Group, Department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

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

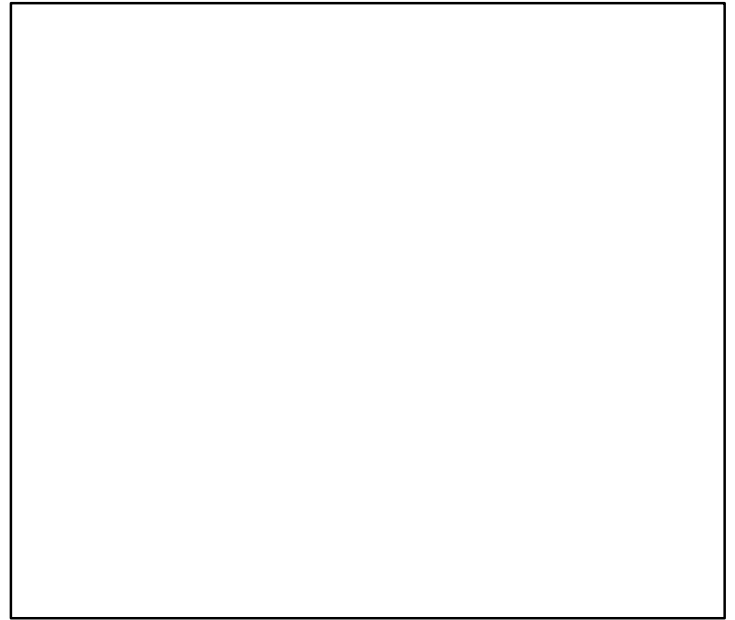
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2015	6210	-	1+
SSB	SSB-MT	2015	5080	Both	7+
TN	-	-	-	-	-
R	R-E00	2015	9,070,000	-	8
F	F-1/yr	2015	0.035	-	-
ER	ER-ratio	2015	0.16	-	-
TC	TC-MT	2015	985		
TL	TL-MT	2015	50		
TB/TBmsy	-	-	-		
SSB/SSBmsy	SSB-MT/SSBmsy-pr-MT	2015	0.439		
F/Fmsy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

South African abalone South Africa [SAABALONESA]

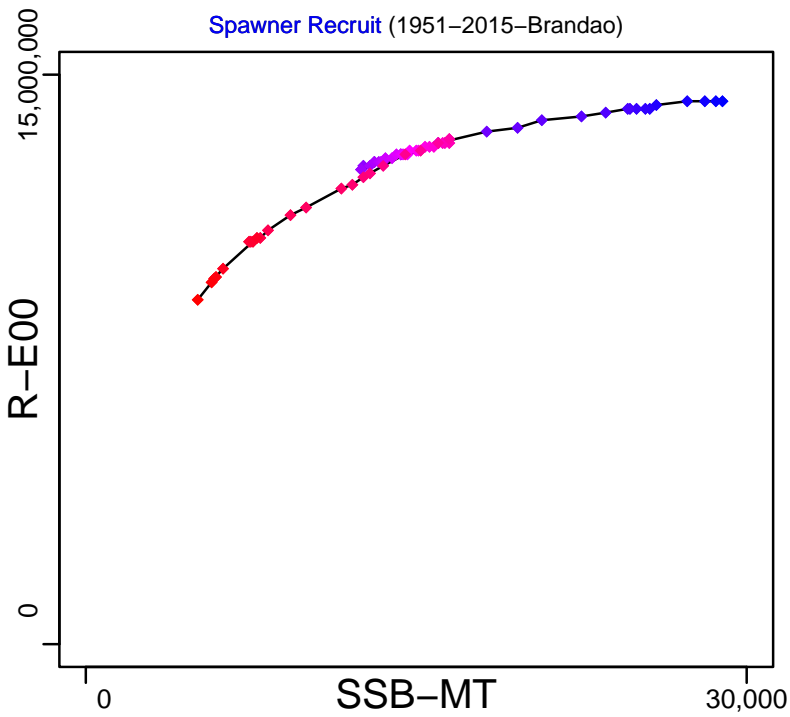
Kobe MSY*



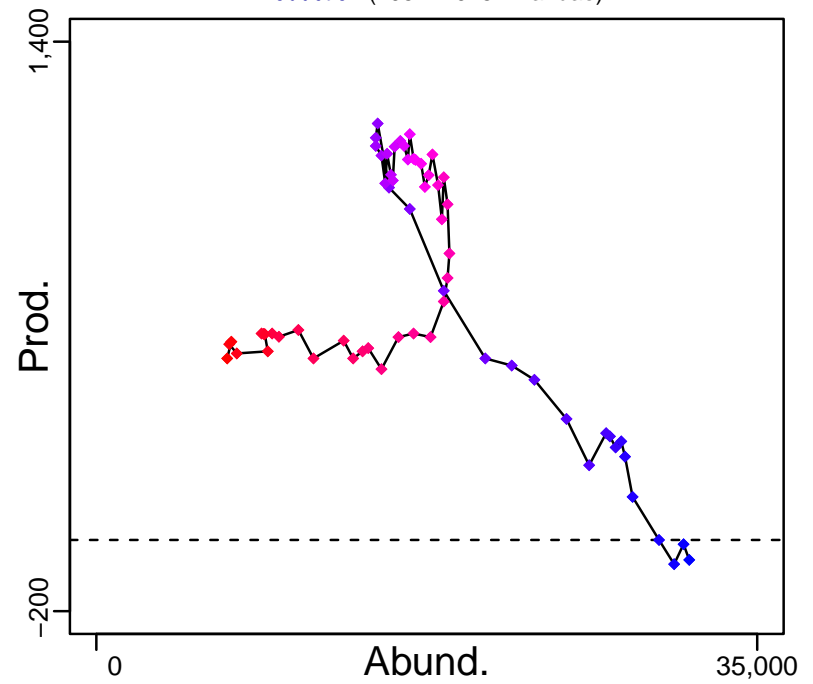
Kobe MGT*



Spawner Recruit (1951–2015–Brandao)



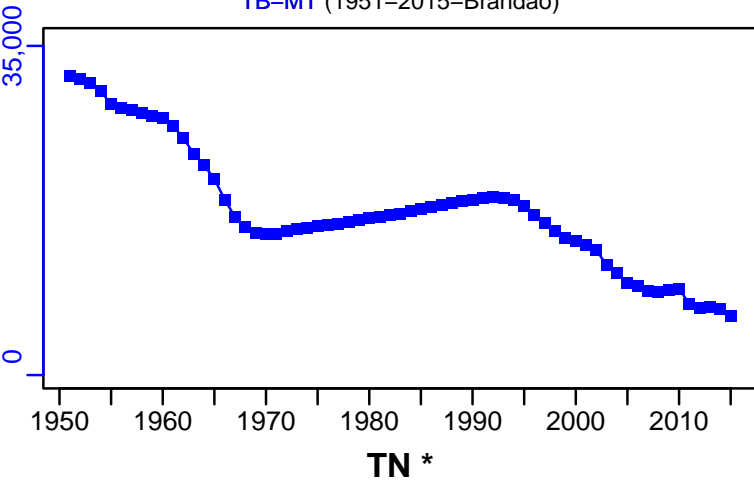
Production (1951–2015–Brandao)



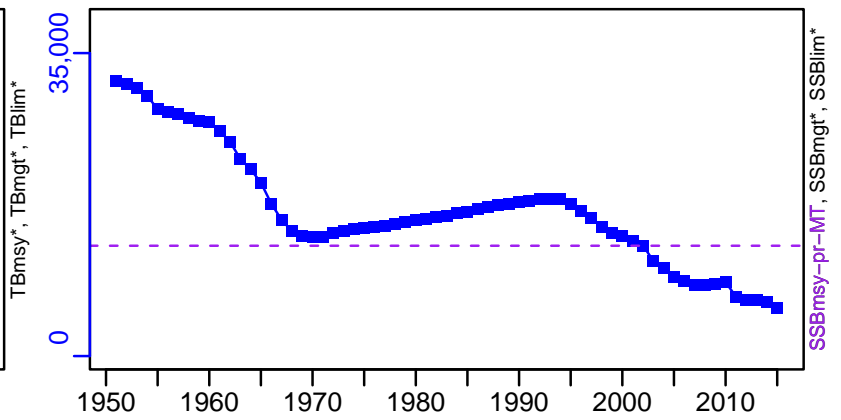
◆ Start Year ◆ End Year * No Data

South African abalone South Africa [SAABALONESA]

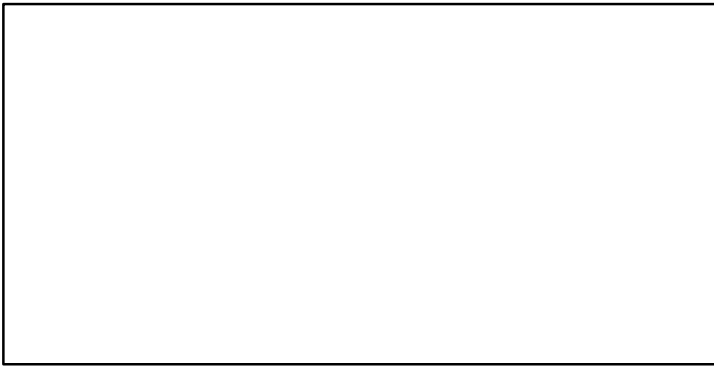
TB-MT (1951–2015–Brandao)



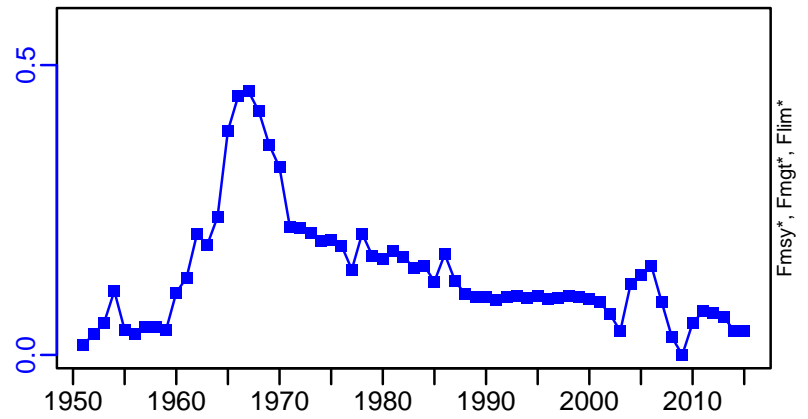
SSB-MT (1951–2015–Brandao)



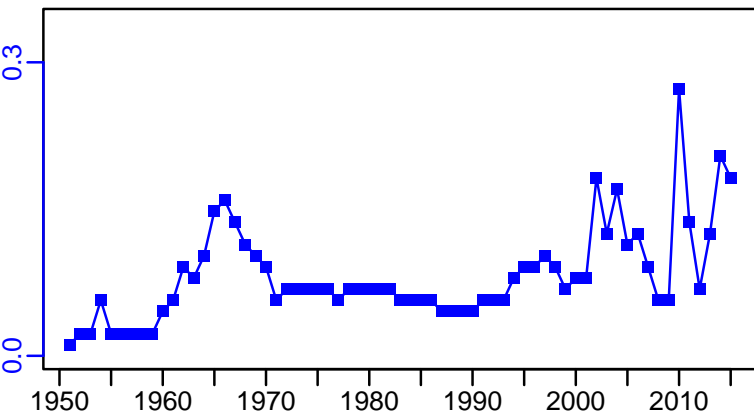
TN *



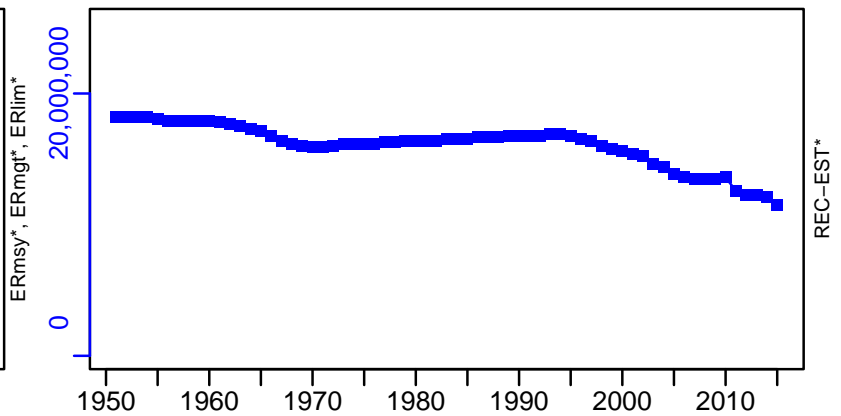
F-1/yr (1951–2015–Brandao)



ER-ratio (1951–2015–Brandao)

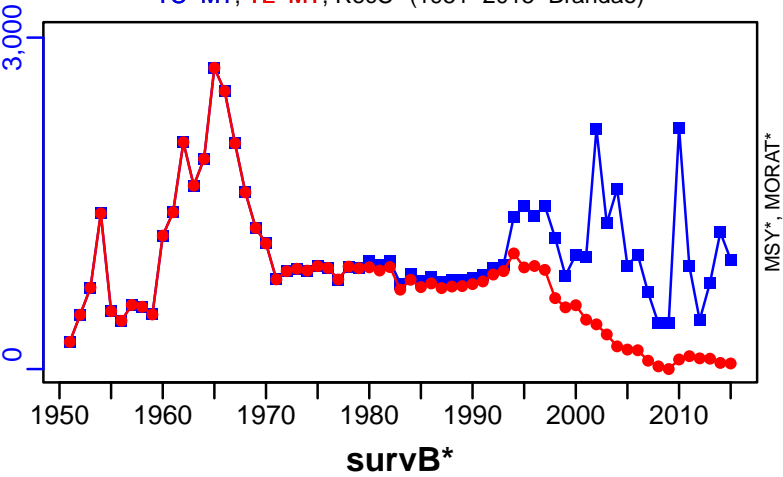


R-E00 (1951–2015–Brandao)

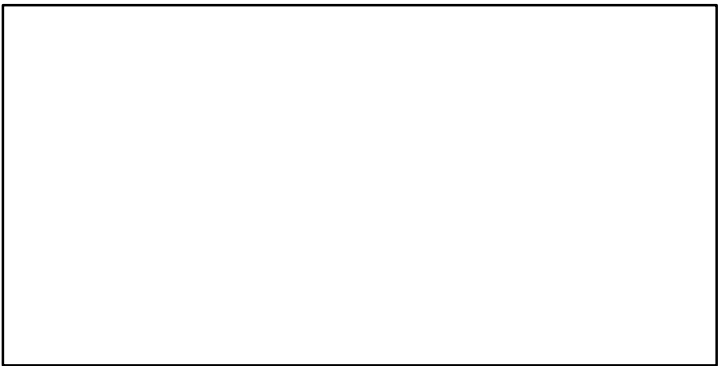


South African abalone South Africa [SAABALONESA]

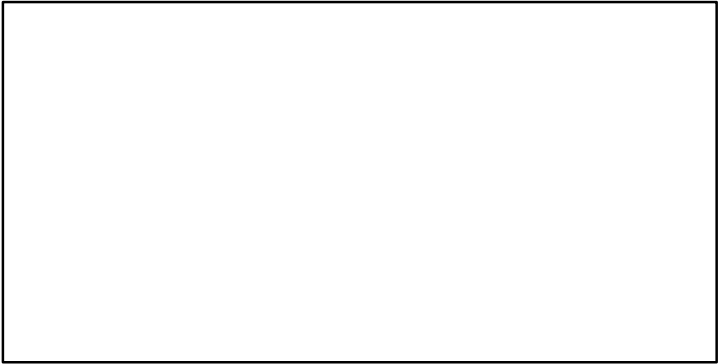
TC-MT, TL-MT, RecC* (1951-2015-Brandao)



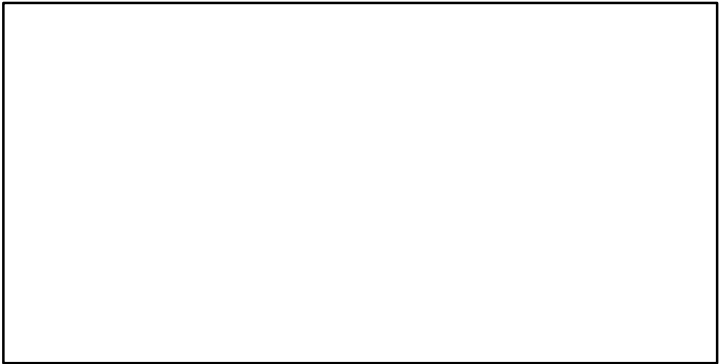
TAC*, Cpair*, Cadv*



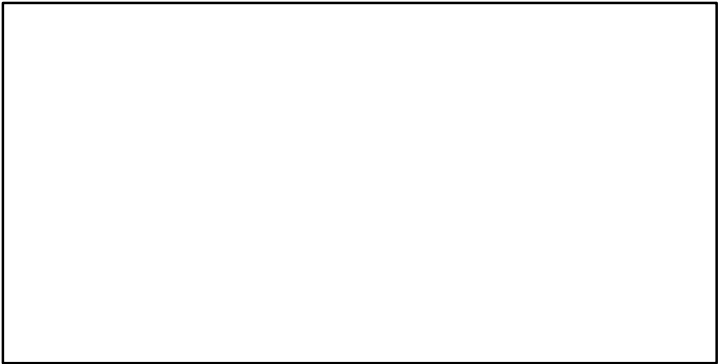
CPUE*



EFFORT*



CdivMSY*

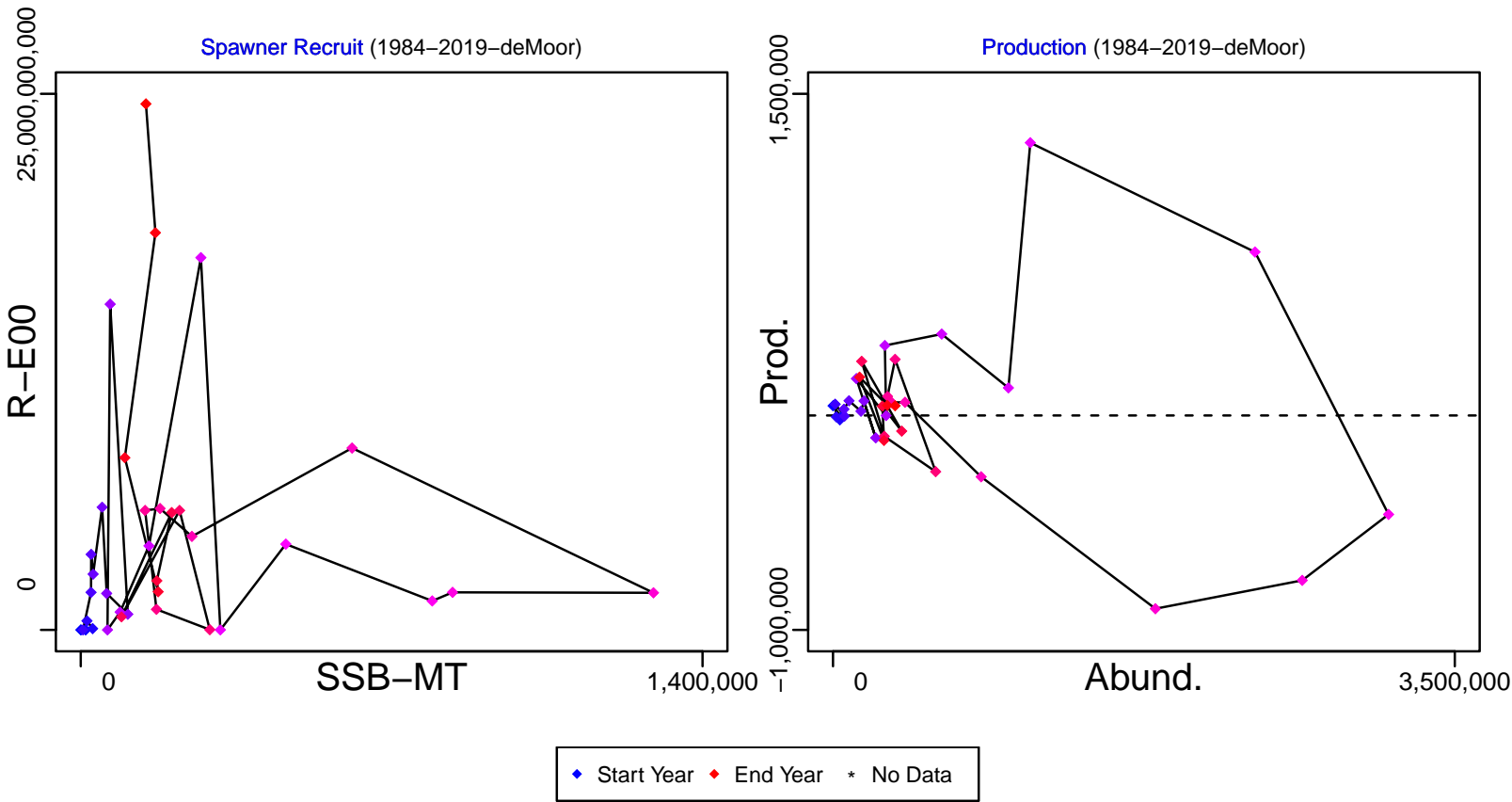
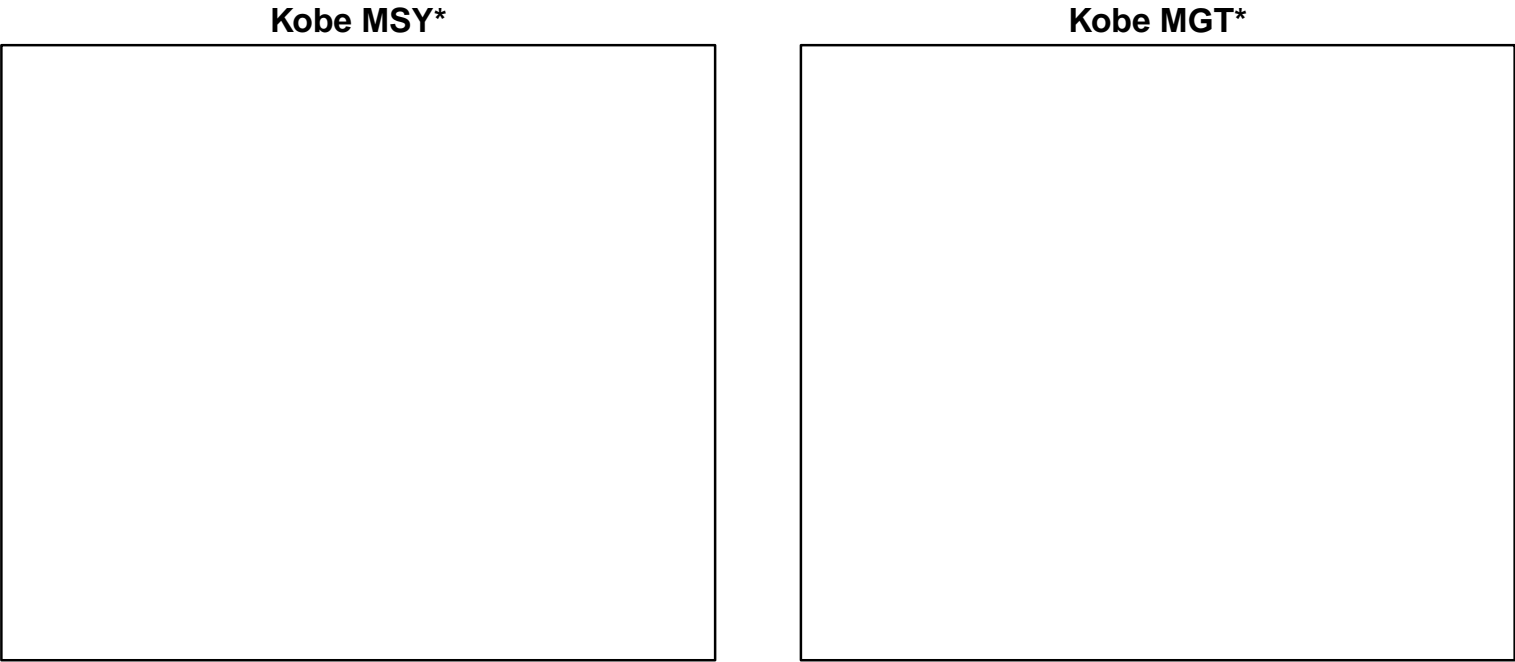


Sardine South Africa (South Component) [SARDSAS]

Metadata	
Scientific Name	Sardinops sagax
Current Assess ID	MARAM-SARDSAS-1984-2019-deMoor
Area	South Africa (South Component)
Management Authority	South African national management, Fisheries Branch of Department of Agriculture, Forestry and Fisheries
Assessor	Marine Resource Assessment and Management Group, Department of Mathematics and Applied Mathematics, University of Cape Town, Rondebosch, 7701, South Africa
Asmts in RAM	2019

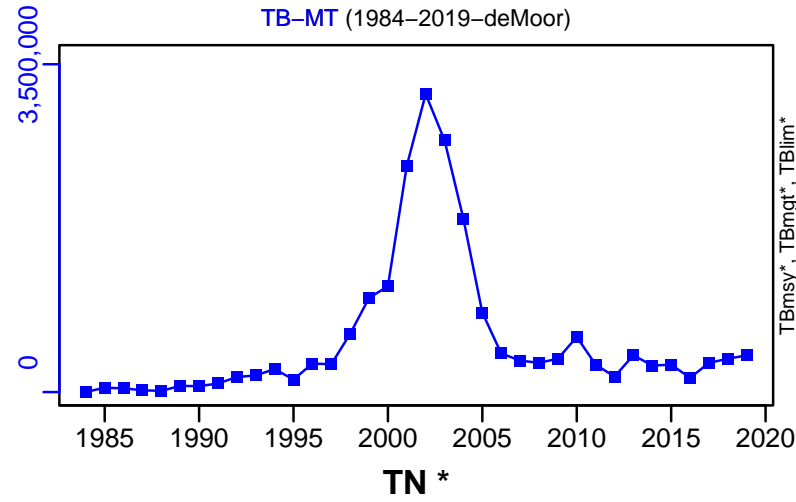
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2019	1
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2019	385,000	Both	0+
SSB	SSB-MT	2019	184,300	Both	mature
TN	-	-	-	-	-
R	R-E00	2019	2.453×10^{10}	Both	0
F	-	-	-	-	-
ER	ER-ratio	2019	0.01	Both	0+
TC	TC-MT	2019	3500		
TL	TL-MT	2019	3500		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

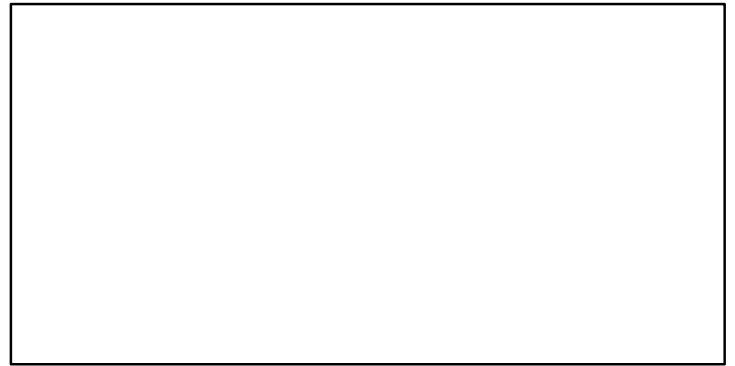
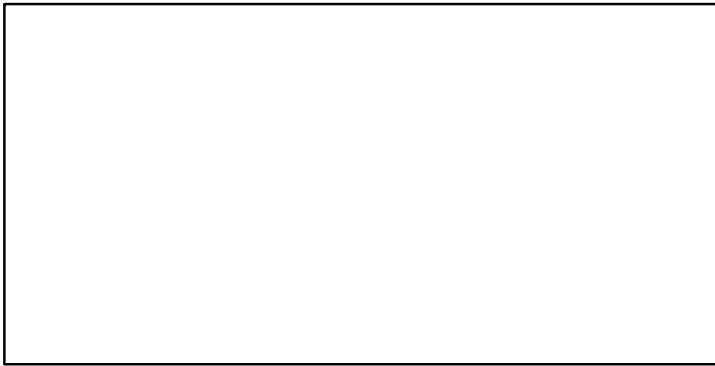
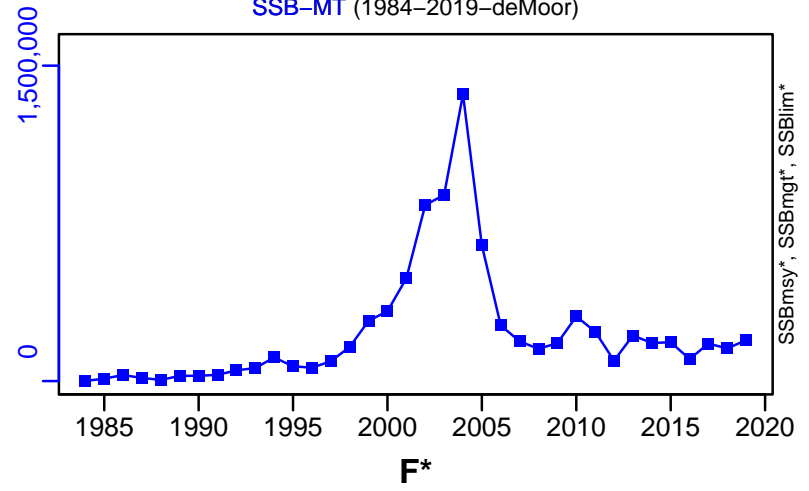


Sardine South Africa (South Component) [SARDSAS]

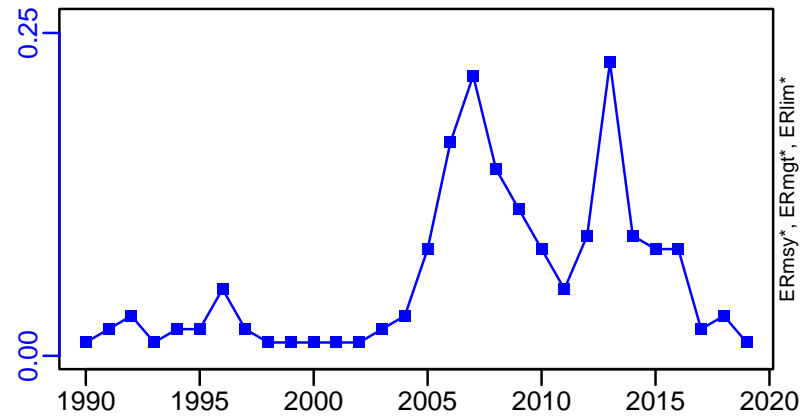
TB-MT (1984–2019–deMoor)



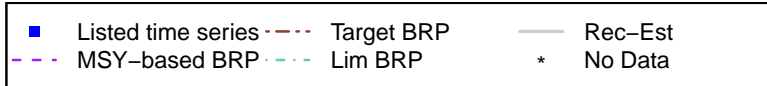
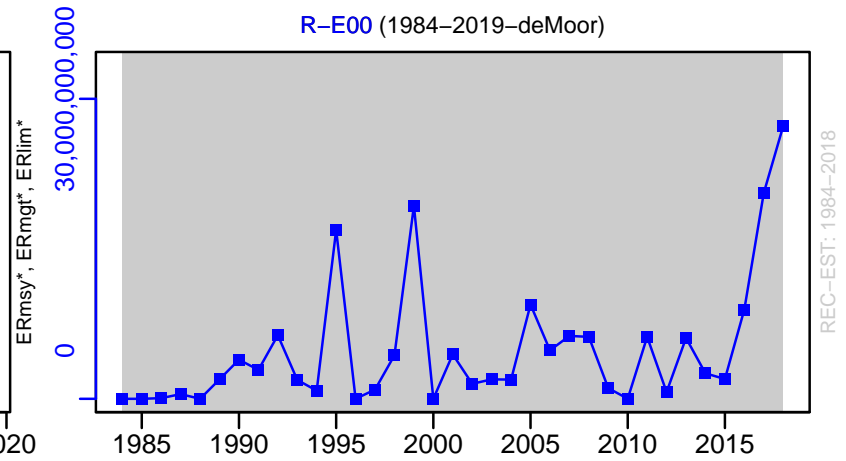
SSB-MT (1984–2019–deMoor)



ER-ratio (1984–2019–deMoor)

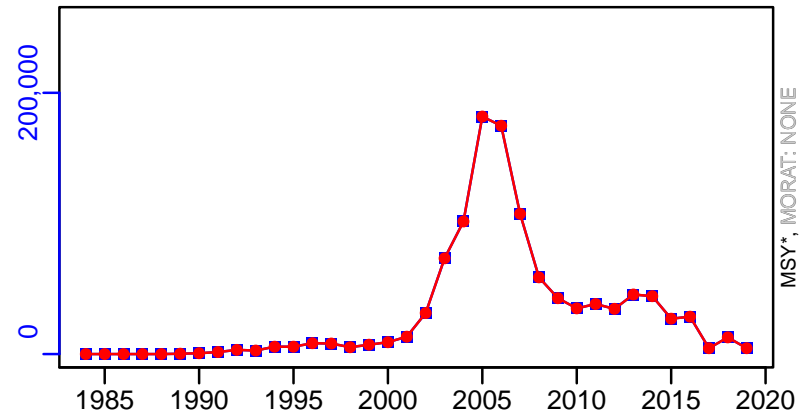


R-E00 (1984–2019–deMoor)

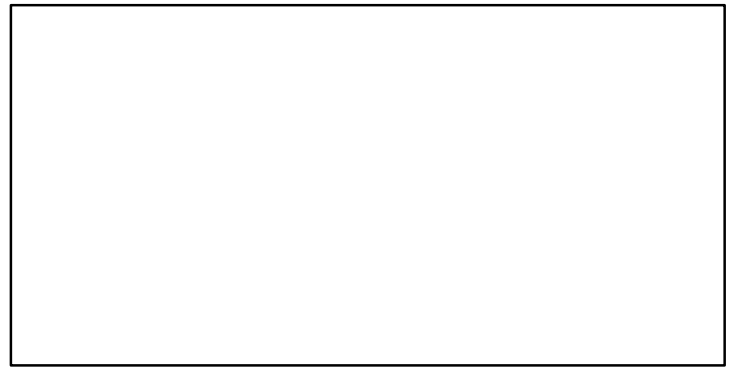


Sardine South Africa (South Component) [SARDSAS]

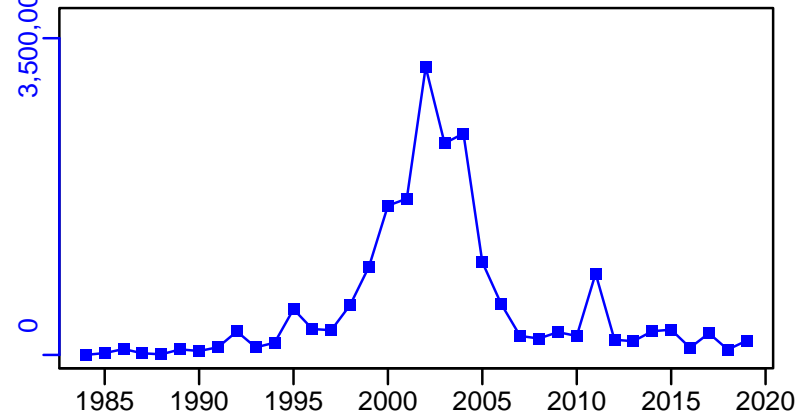
TC-MT, TL-MT, RecC* (1984-2019-deMoor)



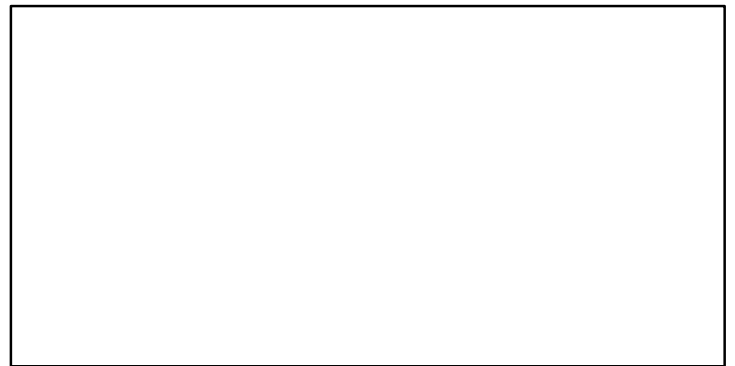
TAC*, Cpair*, Cadv*



survB_index-index (1984-2019-deMoor)



CPUE*



EFFORT*



CdivMSY*



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

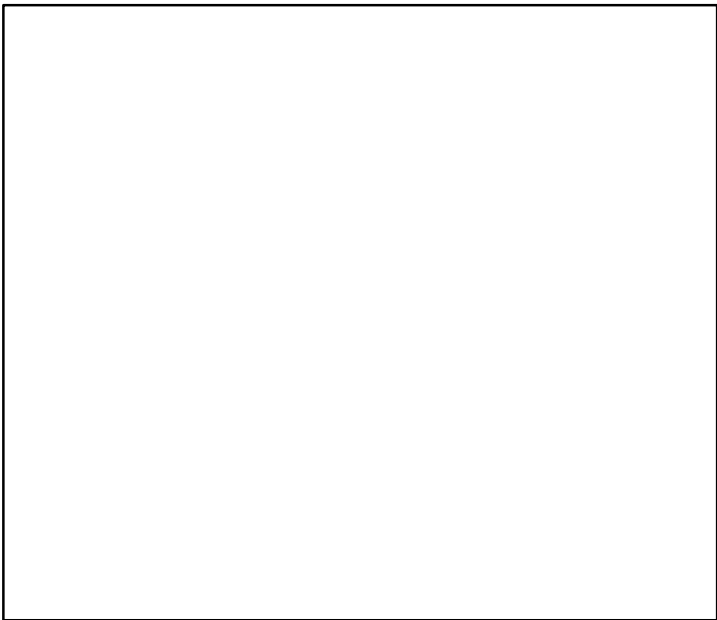
Sardine South Africa (West Component) [SARDSAW]

Metadata	
Scientific Name	Sardinops sagax
Current Assess ID	MARAM-SARDSAW-1949-2019-deMoor
Area	South Africa (West Component)
Management Authority	South African national management, Fisheries Branch of Department of Agriculture, Forestry and Fisheries
Assessor	Marine Resource Assessment and Management Group, Department of Mathematics and Applied Mathematics, University of Cape Town, Rondebosch, 7701, South Africa
Asmts in RAM	2019

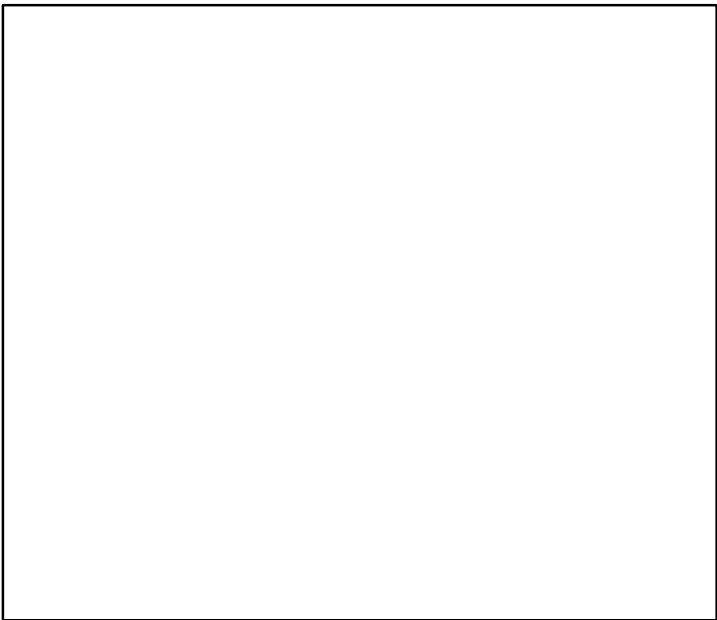
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2019	1
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2019	89,700	Both	0+
SSB	SSB-MT	2019	6800	Both	mature
TN	-	-	-	-	-
R	R-E00	2019	1.414×10^{10}	Both	0
F	-	-	-	-	-
ER	ER-ratio	2019	0.21	Both	0+
TC	TC-MT	2019	8500		
TL	TL-MT	2019	8500		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

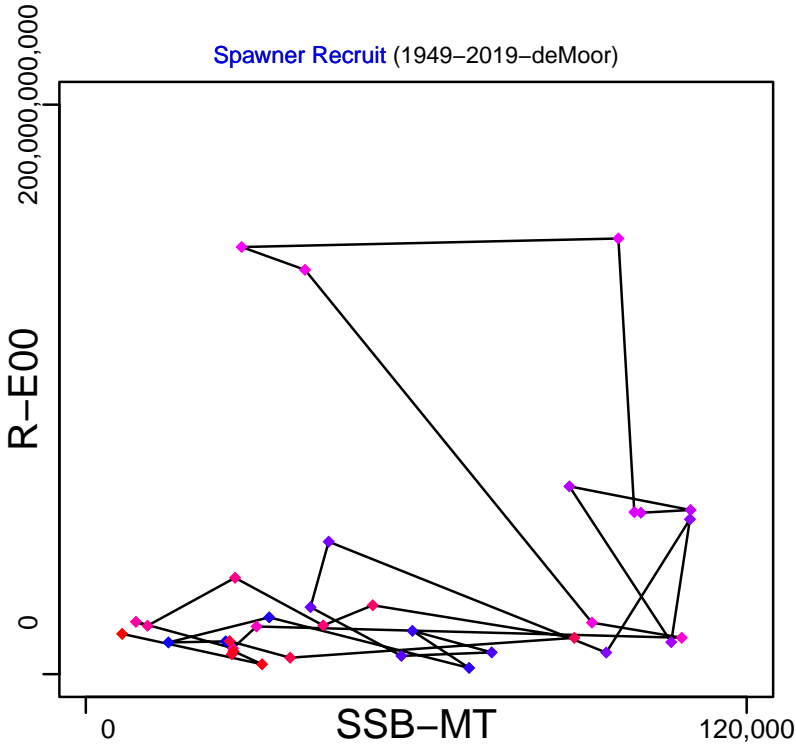
Kobe MSY*



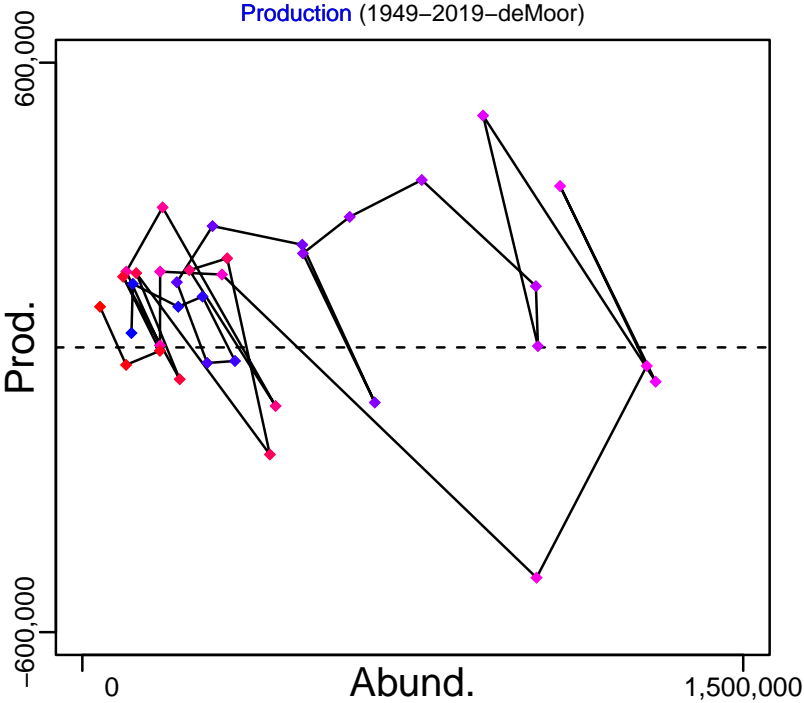
Kobe MGT*



Spawner Recruit (1949–2019–deMoor)



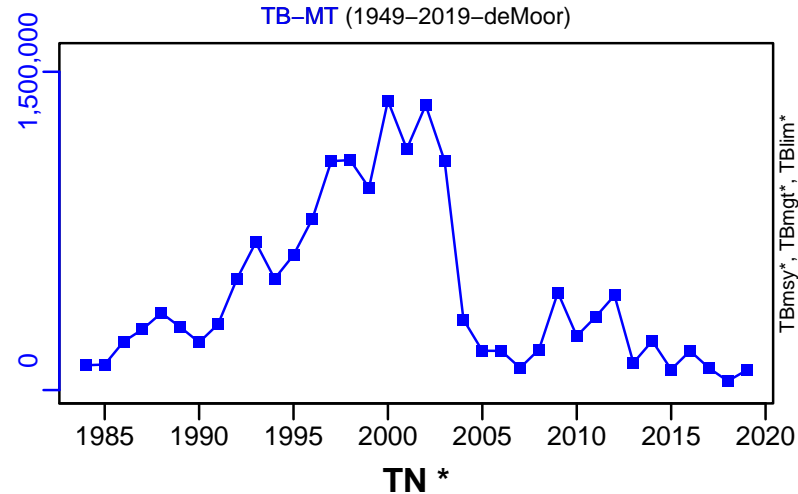
Production (1949–2019–deMoor)



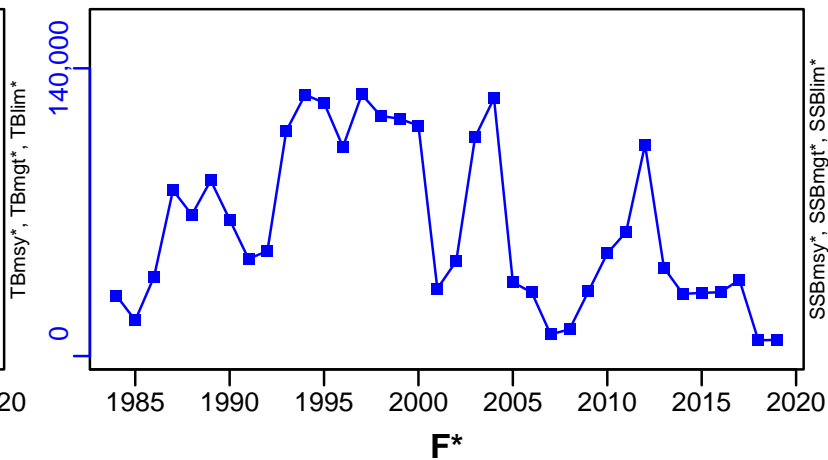
◆ Start Year ◆ End Year * No Data

Sardine South Africa (West Component) [SARDSAW]

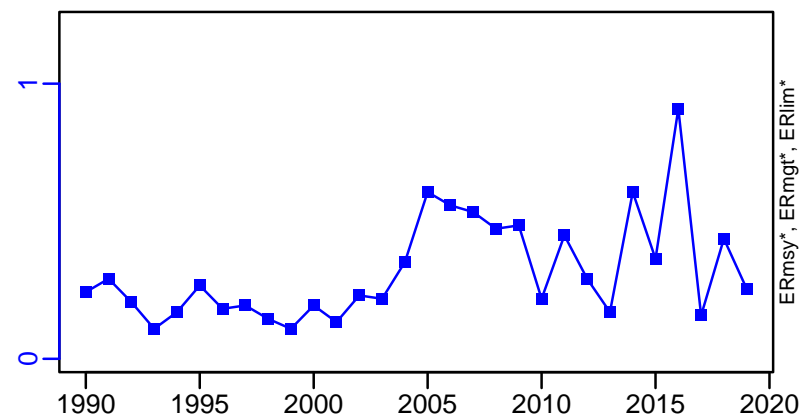
TB-MT (1949–2019–deMoor)



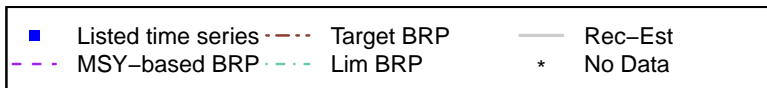
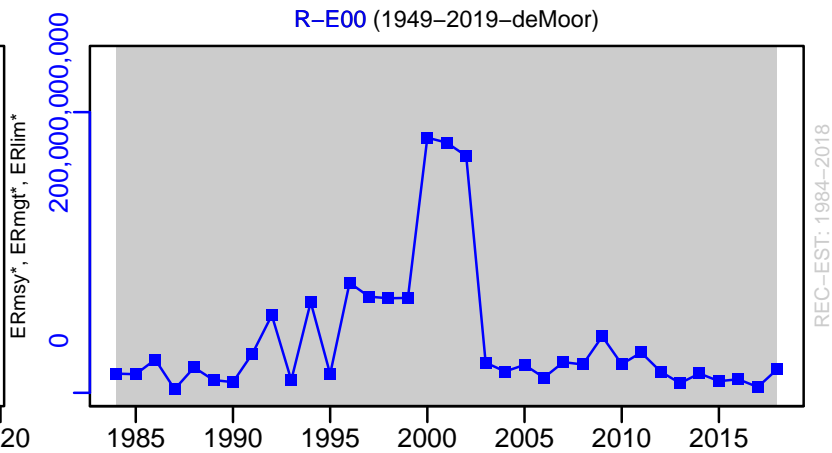
SSB-MT (1949–2019–deMoor)



ER-ratio (1949–2019–deMoor)

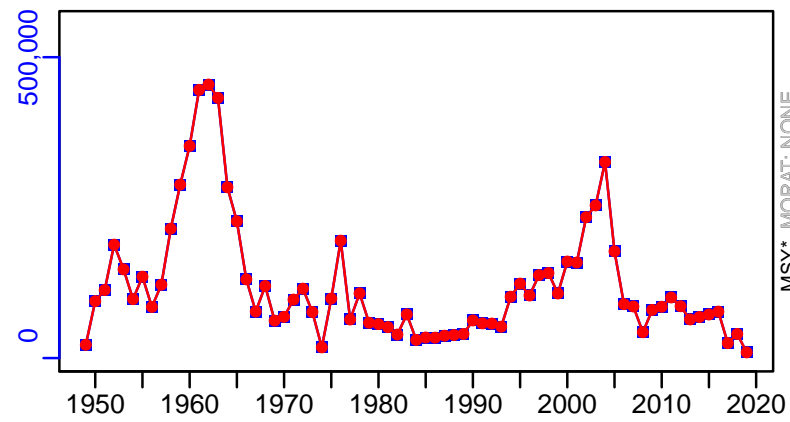


R-E00 (1949–2019–deMoor)

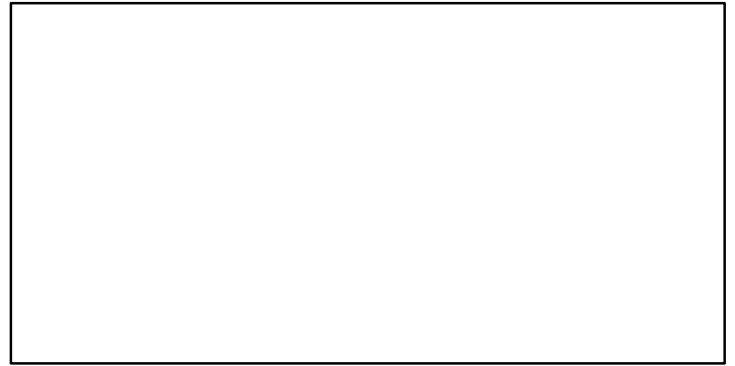


Sardine South Africa (West Component) [SARDSAW]

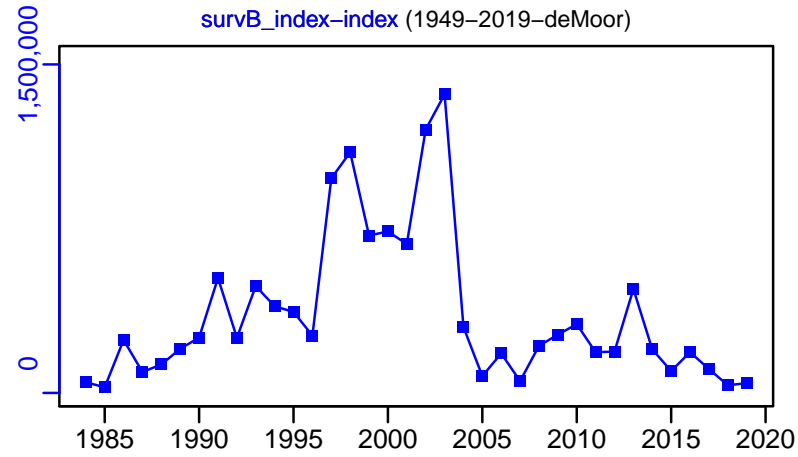
TC-MT, TL-MT, RecC* (1949-2019-deMoor)



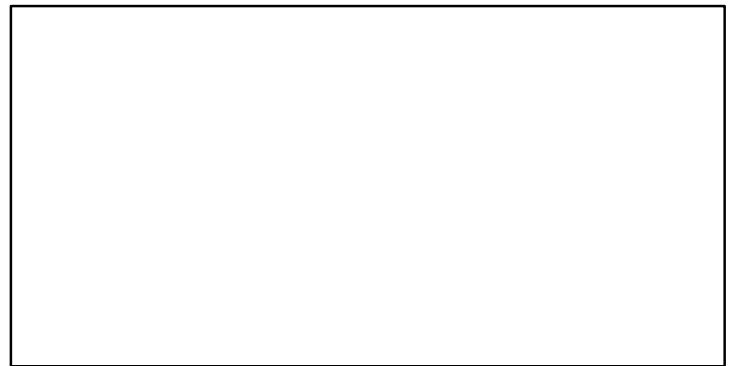
TAC*, Cpair*, Cadv*



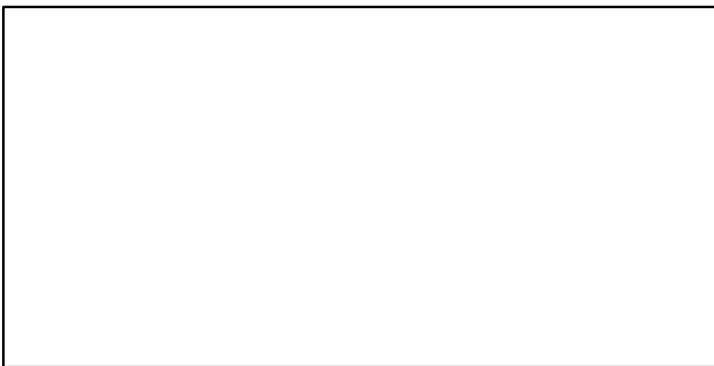
survB_index-index (1949-2019-deMoor)



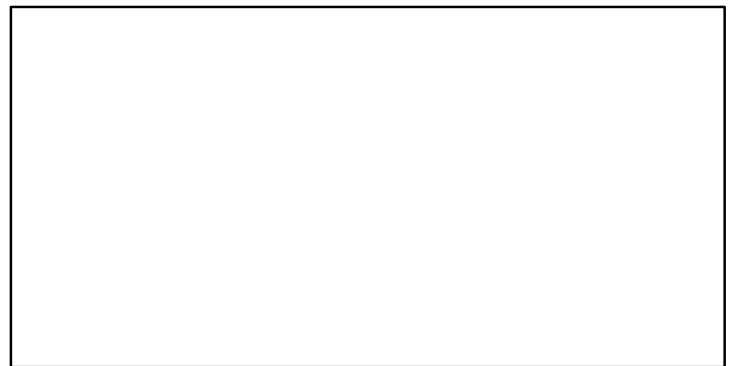
CPUE*



EFFORT*



CdivMSY*



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

Southern spiny lobster South Africa South coast [SSLOBSTERSASC]

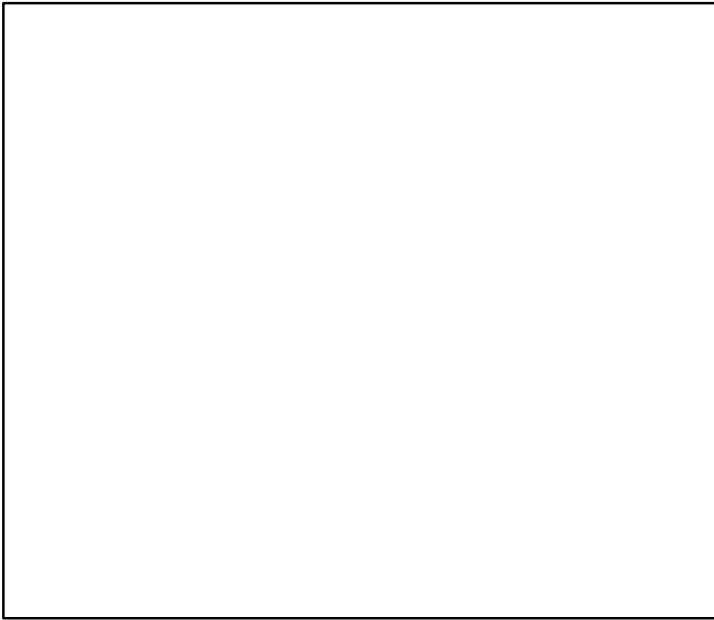
Metadata	
Scientific Name	Palinurus gilchristi
Current Assess ID	MARAM-SSLOBSTERSASC-1973-2019-Johnston
Area	South Africa South coast
Management Authority	South African national management, Fisheries Branch of Department of Agriculture, Forestry and Fisheries
Assessor	Marine Resource Assessment and Management Group, Department of Mathematics and Applied Mathematics, University of Cape Town, Rondebosch, 7701, South Africa
Asmts in RAM	2012, 2014, 2019

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	SSBmgt-MT	2019	1262
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	SSB0-MT	2019	3237
MSY	-	-	-
M	M-1/yr	2019	0.1
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

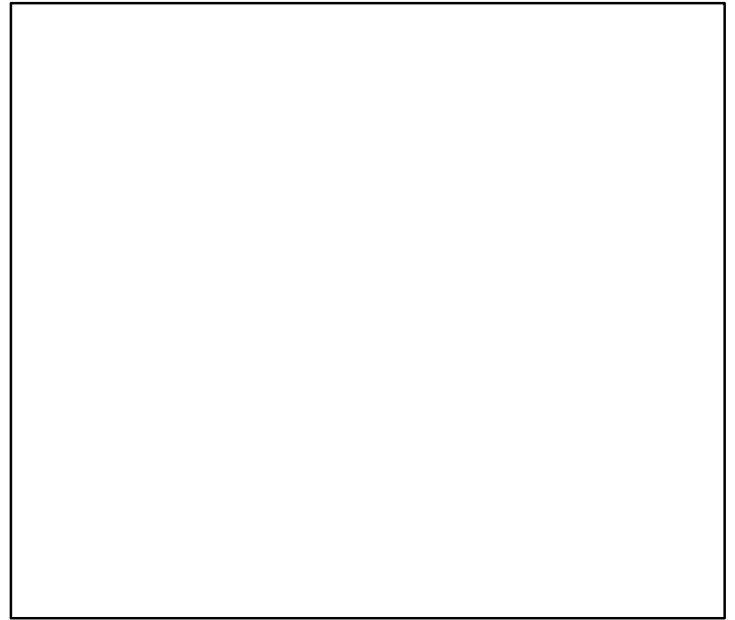
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2019	2377	Both	-
SSB	SSB-MT	2019	945	Females	-
TN	-	-	-	-	-
R	R-E00	2019	3,124,580	-	-
F	-	-	-	-	-
ER	ER-ratio	2019	0.137	-	-
TC	TC-MT	2019	321		
TL	TL-MT	2019	321		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	SSB-MT/SSBmgt-MT	2019	0.749		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Southern spiny lobster South Africa South coast [SSLOBSTERSASC]

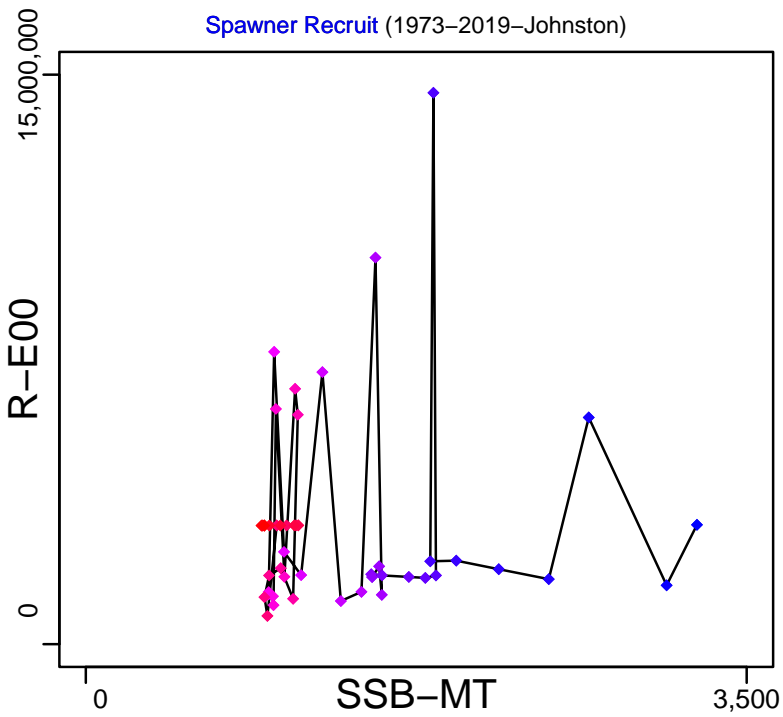
Kobe MSY*



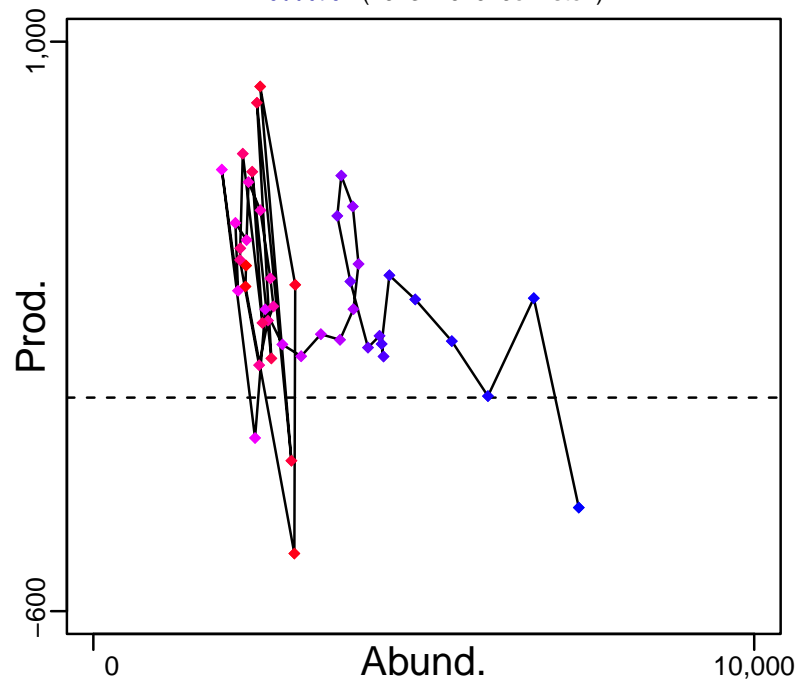
Kobe MGT*



Spawner Recruit (1973–2019–Johnston)



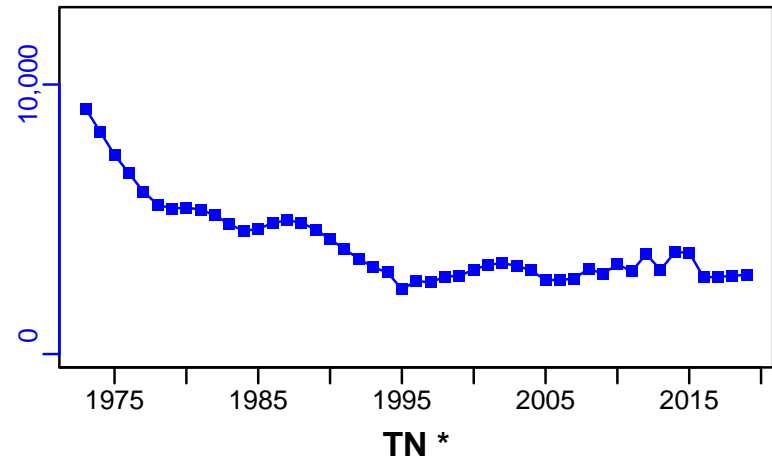
Production (1973–2019–Johnston)



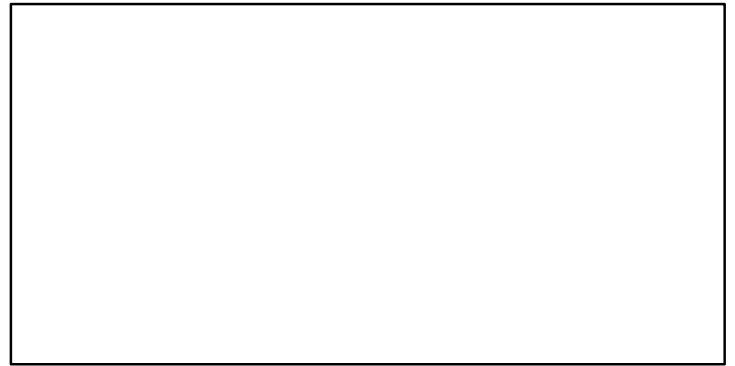
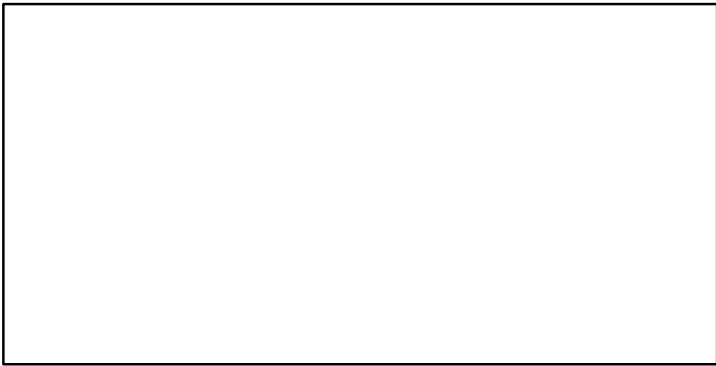
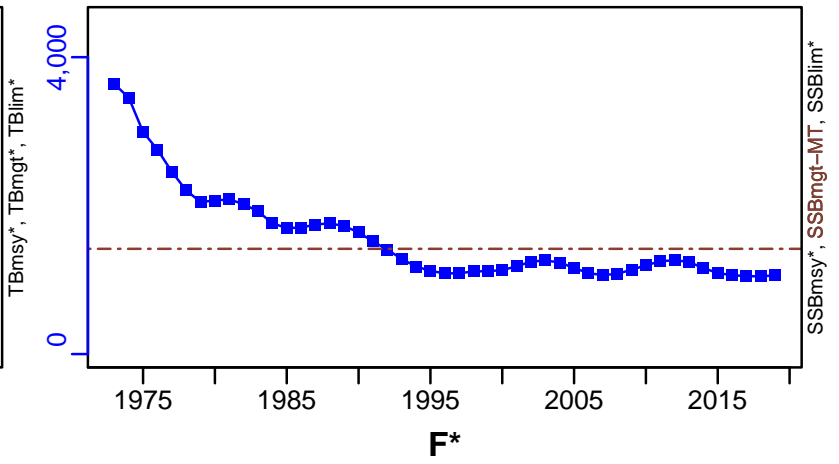
◆ Start Year ◆ End Year * No Data

Southern spiny lobster South Africa South coast [SSLOBSTERSASC]

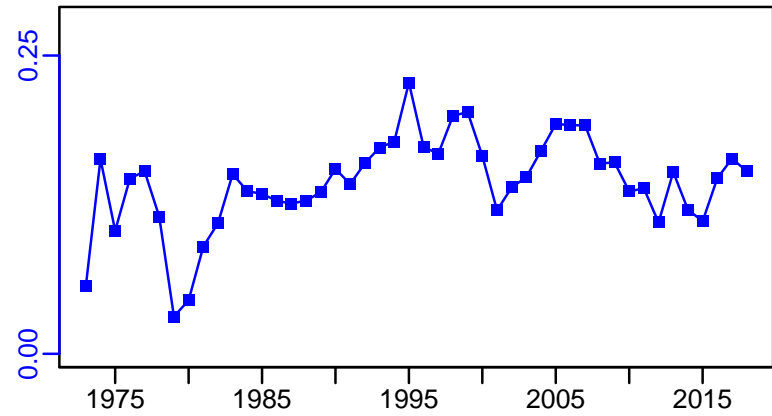
TB-MT (1973–2019–Johnston)



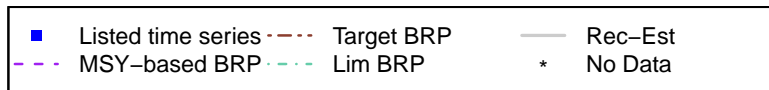
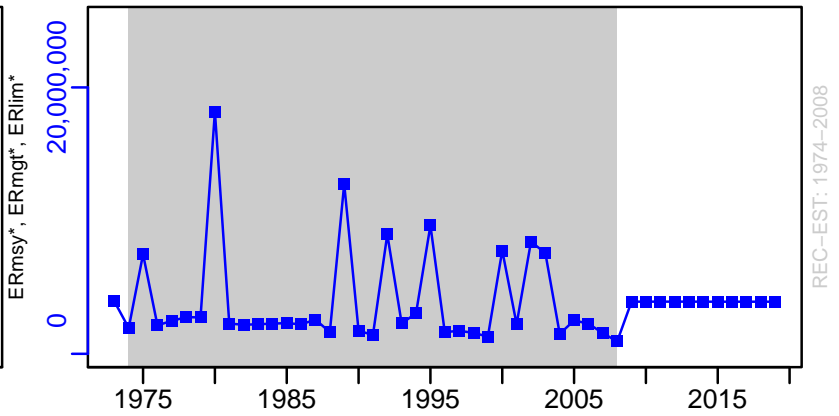
SSB-MT (1973–2019–Johnston)



ER-ratio (1973–2019–Johnston)



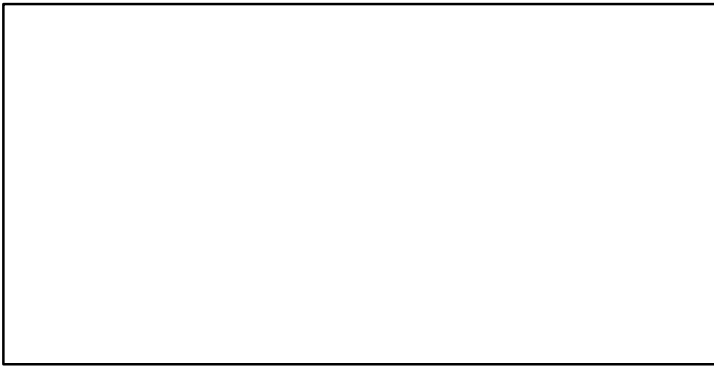
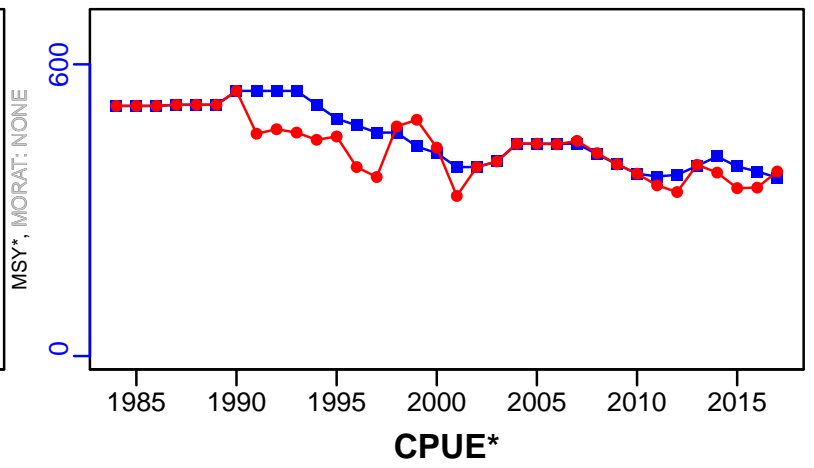
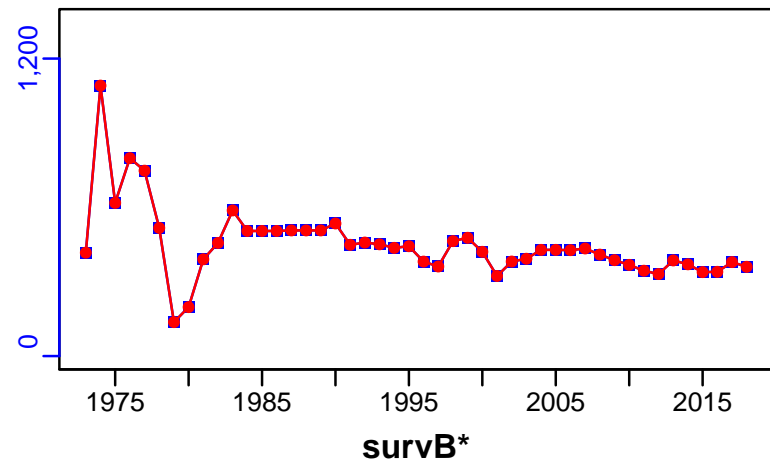
R-E00 (1973–2019–Johnston)



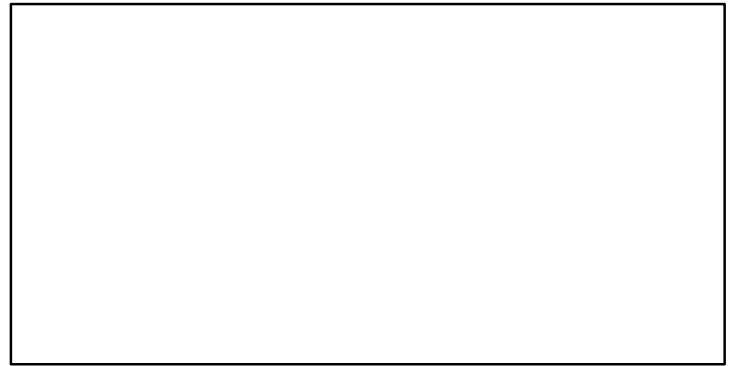
Southern spiny lobster South Africa South coast [SSLOBSTERSASC]

TC-MT, TL-MT, RecC* (1973–2019–Johnston)

TAC-MT, Cpair-MT, Cadv* (1973–2019–Johnston)



EFFORT*



CdivMSY*

