

West Africa Stocks

v4.495 (Apr-21-2021)

Not present Present Preferred

Stock	B/Bmsy	Time Series Types			
		U/Umsy	B/Bmgt	U/Umgt	
1. ANCHOCWACIV-BEN [Anchovy Central West Africa Cote Divoire-Benin]	TB SSB	ER F	TB SSB	ER F	
2. ANCHOCWAGAB-AGO [Anchovy Central West Africa Gabon-Angola]	TB SSB	ER F	TB SSB	ER F	
3. ANCHONWA [Anchovy North West Africa]	TB SSB	ER F	TB SSB	ER F	
4. BCROAKCWAGIN-LBR [Bobo croaker Central West Africa Guinea-Liberia]	TB SSB	ER F	TB SSB	ER F	
5. BGRUNTCWACIV-BEN [Bigeye grunt Central West Africa Cote Divoire-Benin]	TB SSB	ER F	TB SSB	ER F	
6. BGRUNTCWACOG-AGO [Bigeye grunt Central West Africa Congo.-Angola]	TB SSB	ER F	TB SSB	ER F	
7. BHAKECWAAGO [Benguela hake Central West Africa Angola]	TB SSB	ER F	TB SSB	ER F	
8. BONGACWAGAB-COD [Bonga Central West Africa Gabon-Congo DR]	TB SSB	ER F	TB SSB	ER F	
9. BONGANWA [Bonga North West Africa]	TB SSB	ER F	TB SSB	ER F	
10. BRMSPPCWACIV-BEN [Seabream Central West Africa Cote Divoire-Benin]	TB SSB	ER F	TB SSB	ER F	
11. BRMSPPCWAGAB-AGO [Seabream Central West Africa Gabon-Angola]	TB SSB	ER F	TB SSB	ER F	
12. BRMSPPCWAGIN-LBR [Seabream Central West Africa Guinea-Liberia]	TB SSB	ER F	TB SSB	ER F	
13. CATCWAGAB [Catfish Central West Africa Gabon]	TB SSB	ER F	TB SSB	ER F	
14. CATCWAGIN-LBR [Catfish Central West Africa Guinea-Liberia]	TB SSB	ER F	TB SSB	ER F	
15. CHMACKCWAGAB-AGO [Cunene horse mackerel Central West Africa Gabon-Angola]	TB SSB	ER F	TB SSB	ER F	
16. CHMACKCWAGNB-LBR [Cunene horse mackerel Central West Africa Guinea Bissau-Liberia]	TB SSB	ER F	TB SSB	ER F	
17. CHMACKNWA [Cunene horse mackerel North West Africa]	TB SSB	ER F	TB SSB	ER F	
18. CMACKNWA [Chub mackerel North West Africa]	TB SSB	ER F	TB SSB	ER F	
19. CROAKSPPCWACIV-BEN [Croaker Central West Africa Cote Divoire-Benin]	TB SSB	ER F	TB SSB	ER F	
20. CROAKSPPCWAGAB-AGO [Croaker Central West Africa Gabon-Angola]	TB SSB	ER F	TB SSB	ER F	
21. CROAKSPPCWAGIN-LBR [Croaker Central West Africa Guinea-Liberia]	TB SSB	ER F	TB SSB	ER F	
22. CSHRIMPCWA [Coastal shrimp Central West Africa]	TB SSB	ER F	TB SSB	ER F	
23. CUTTLECWAGHA [Cuttlefish Central West Africa Ghana]	TB SSB	ER F	TB SSB	ER F	
24. DRSHRIMPCWA [Deep water rose shrimp Central West Africa]	TB SSB	ER F	TB SSB	ER F	
25. GGRUNTCWAGAB-AGO [Grey grunt Central West Africa Gabon-Angola]	TB SSB	ER F	TB SSB	ER F	

26. GGRUNTCWAGIN-LBR [Grey grunt Central West Africa Guinea-Liberia]	TB SSB	ER F	TB SSB	ER F
27. HAKENWAMAR [Hake North West Africa Morocco]	TB SSB	ER F	TB SSB	ER F
28. HAKESPPNWA [Hake spp North West Africa]	TB SSB	ER F	TB SSB	ER F
29. HMACKNWA [Horse mackerel North West Africa]	TB SSB	ER F	TB SSB	ER F
30. LDENTCWAAGO [Large eye dentex Central West Africa Angola]	TB SSB	ER F	TB SSB	ER F
31. MSARDCWACIV-BEN [Madeiran sardinella Central West Africa Cote Divoire-Benin]	TB SSB	ER F	TB SSB	ER F
32. MSARDNWA [Madeiran sardinella North West Africa]	TB SSB	ER F	TB SSB	ER F
33. OCTOCWAGNB [Octopus Central West Africa Guinea Bissau]	TB SSB	ER F	TB SSB	ER F
34. RPANDCWACIV-BEN [Red pandora Central West Africa Cote Divoire-Benin]	TB SSB	ER F	TB SSB	ER F
35. RSARDCWACIV-BEN [Round sardinella Central West Africa Cote Divoire-Benin]	TB SSB	ER F	TB SSB	ER F
36. RSARDNWA [Round sardinella North West Africa]	TB SSB	ER F	TB SSB	ER F
37. SARDINCWAGAB-AGO [Sardinella Central West Africa Gabon-Angola]	TB SSB	ER F	TB SSB	ER F
38. SARDINCWAGNB-LBR [Sardinella Central West Africa Guinea Bissau-Liberia]	TB SSB	ER F	TB SSB	ER F
39. SARDNWAZAB [Sardine North West Africa Zone A+B]	TB SSB	ER F	TB SSB	ER F
40. SARDNWAZC [Sardine North West Africa Zone C]	TB SSB	ER F	TB SSB	ER F
41. SCADSPPCWAGNB-LBR [Scad spp Central West Africa Guinea Bissau-Liberia]	TB SSB	ER F	TB SSB	ER F
42. SOLECWAAGO [Sole Central West Africa Angola]	TB SSB	ER F	TB SSB	ER F
43. SOLECWAGNB-GIN [Sole Central West Africa Guinea Bissau-Guinea]	TB SSB	ER F	TB SSB	ER F
44. SPSHRIMPCWA [Southern pink shrimp Central West Africa]	TB SSB	ER F	TB SSB	ER F
45. THREADCWACIV-BEN [Threadfin Central West Africa Cote Divoire-Benin]	TB SSB	ER F	TB SSB	ER F
46. THREADCWAGAB-AGO [Threadfin Central West Africa Gabon-Angola]	TB SSB	ER F	TB SSB	ER F
47. THREADCWAGIN-LBR [Threadfin Central West Africa Guinea-Liberia]	TB SSB	ER F	TB SSB	ER F

Anchovy Central West Africa Cote Divoire-Benin [ANCHOCWACIV-BEN]

Metadata	
Scientific Name	Engraulis encrasicolus
Current Assess ID	FAO-SPNWA-ANCHOCWACIV-BEN-1990-2017-ASHBROOK
Area	Central West Africa Cote Divoire-Benin
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO Working Group on the Assessment of Small Pelagic Fish Off Northwest Africa
Asmts in RAM	2017

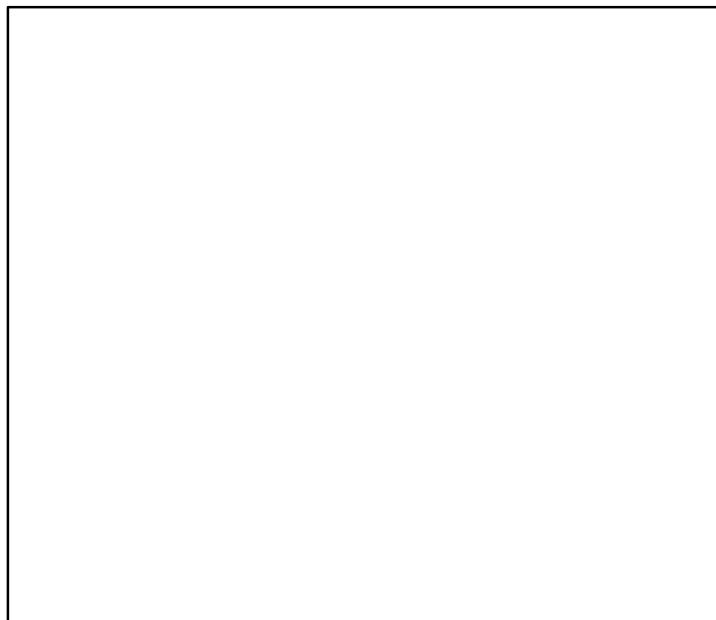
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2017	49,713		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	ERdivERmsy-dimensionless	2017	0.44		
TB/TBmgt	TBdivTBmgt-dimensionless	2017	1.37		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



Kobe MGT*



Spawner Recruit*



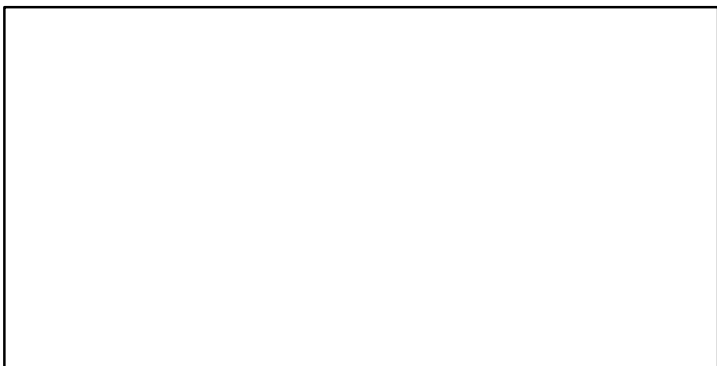
Production*



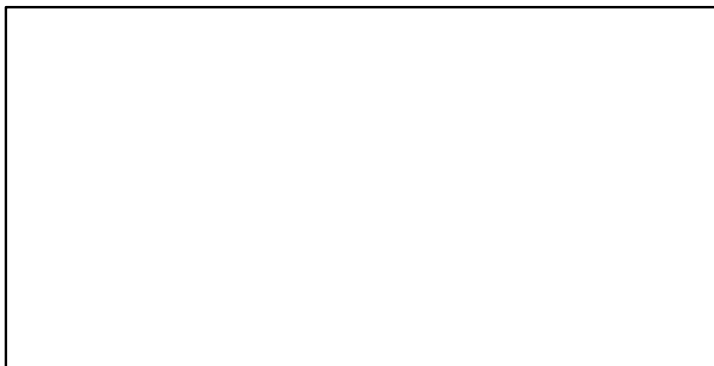
◆ Start Year ◆ End Year * No Data

Anchovy Central West Africa Cote Divoire–Benin [ANCHOCWACIV–BEN]

TB*



SSB*



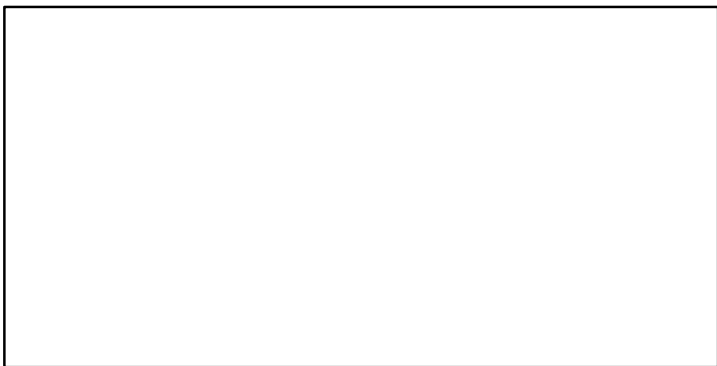
TN *



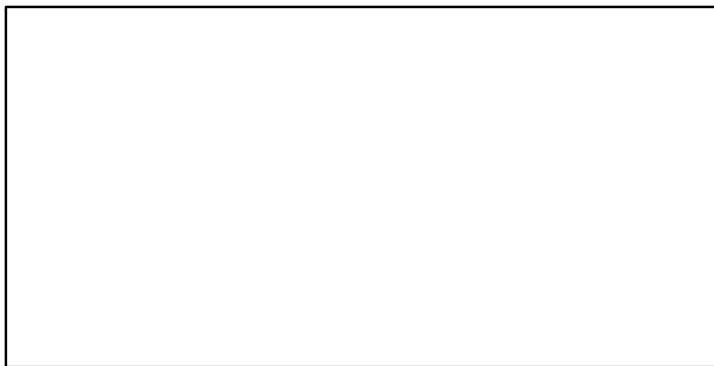
F*



ER*

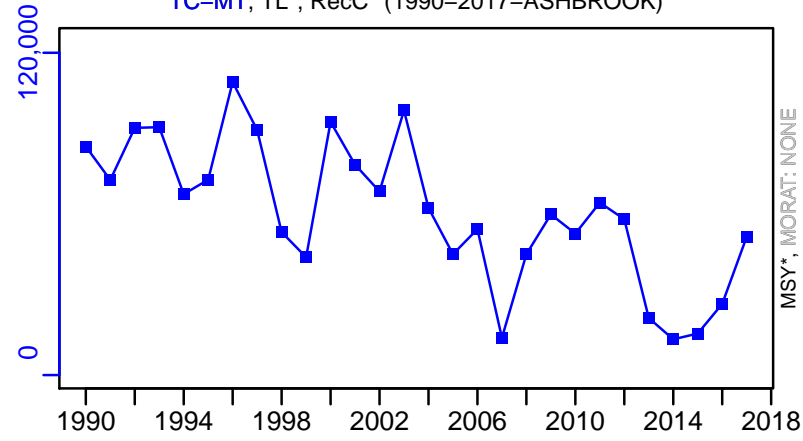


Recruits*



Anchovy Central West Africa Cote Divoire–Benin [ANCHOCWACIV–BEN]

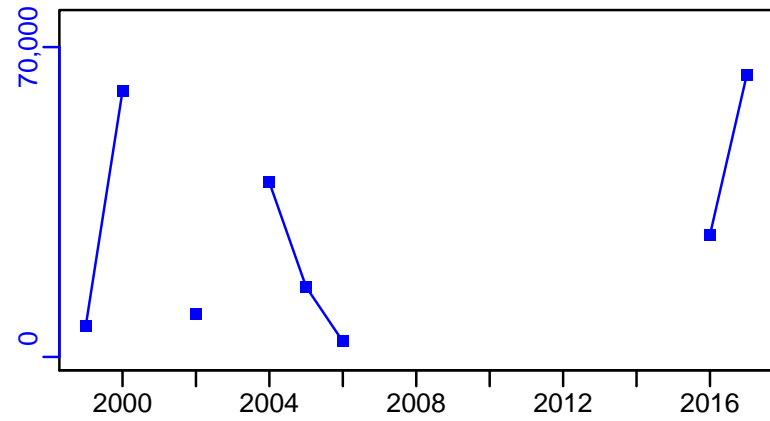
TC–MT, TL*, RecC* (1990–2017–ASHBROOK)



TAC*, Cpair*, Cadv*



survB_absolute–MT (1990–2017–ASHBROOK)



CPUE*



EFFORT*



CdivMSY*



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

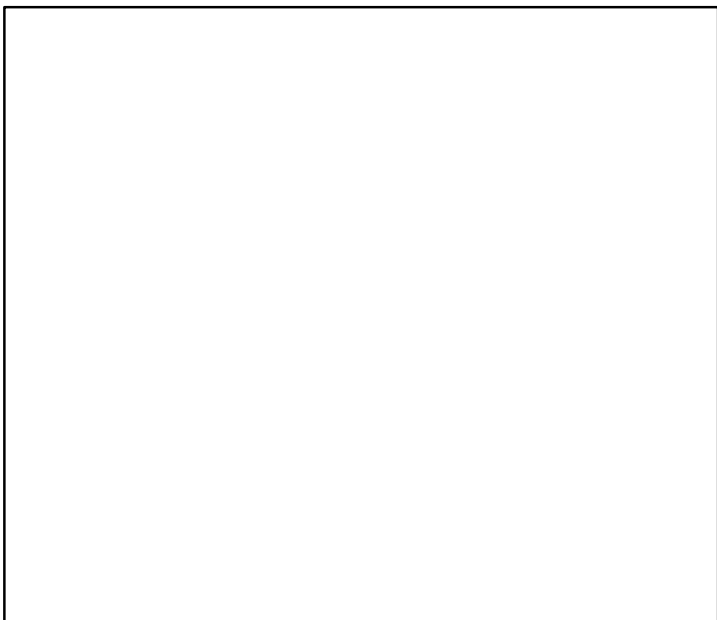
Anchovy Central West Africa Gabon-Angola [ANCHOCWAGAB-AGO]

Metadata	
Scientific Name	Engraulis encrasicolus
Current Assess ID	FAO-SPNWA-ANCHOCWAGAB-AGO-1995-2017-ASHBROOK
Area	Central West Africa Gabon-Angola
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO Working Group on the Assessment of Small Pelagic Fish Off Northwest Africa
Asmts in RAM	2017

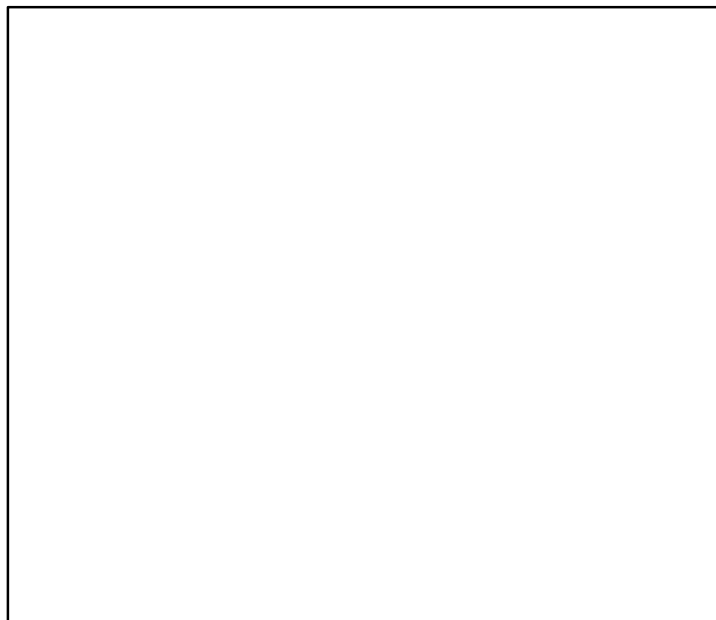
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2017	372		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	ERdivERmsy-dimensionless	2017	0.23		
TB/TBmgt	TBdivTBmgt-dimensionless	2017	1.22		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

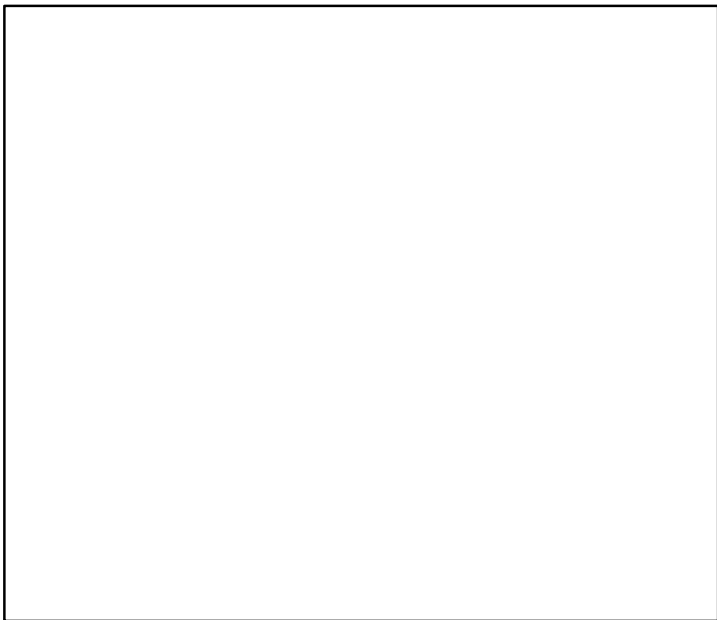
Kobe MSY*



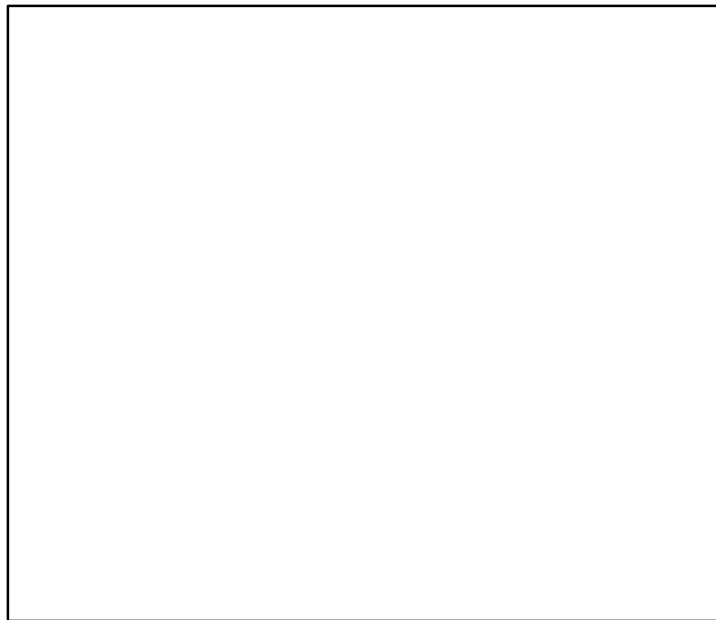
Kobe MGT*



Spawner Recruit*



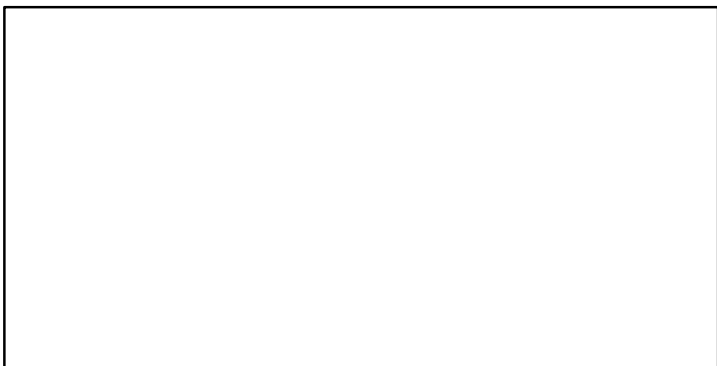
Production*



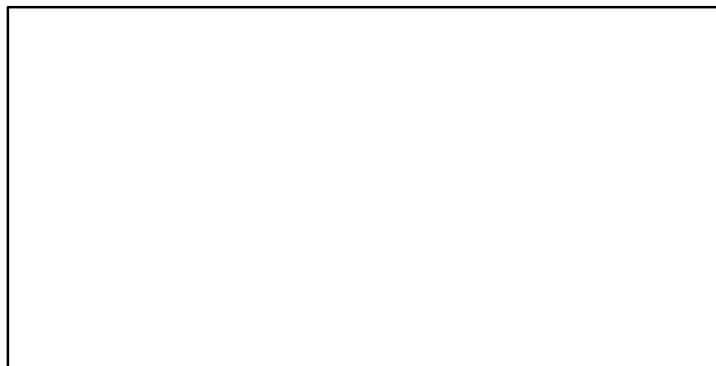
◆ Start Year ◆ End Year * No Data

Anchovy Central West Africa Gabon–Angola [ANCHOCWAGAB–AGO]

TB*



SSB*



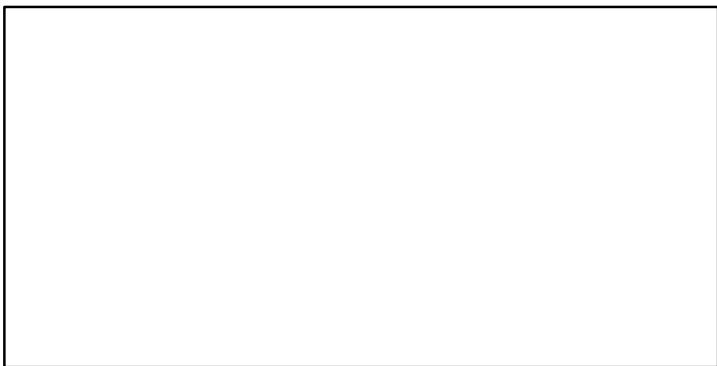
TN *



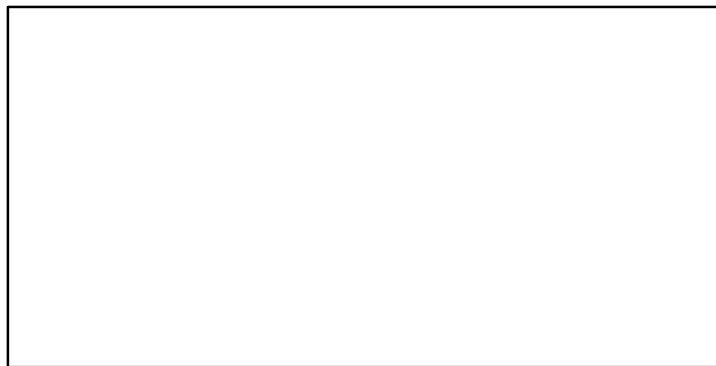
F*



ER*

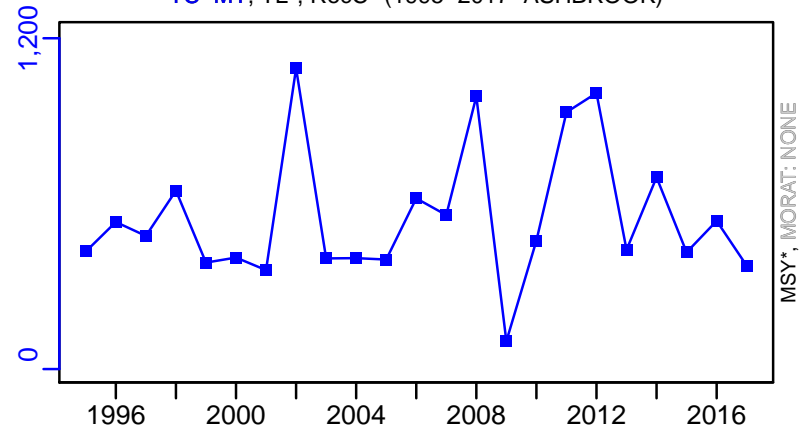


Recruits*



Anchovy Central West Africa Gabon–Angola [ANCHOCWAGAB-AGO]

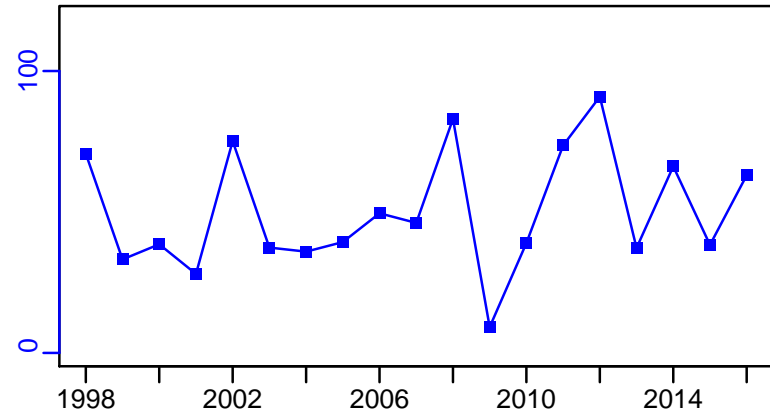
TC–MT, TL*, RecC* (1995–2017–ASHBROOK)



TAC*, Cpair*, Cadv*



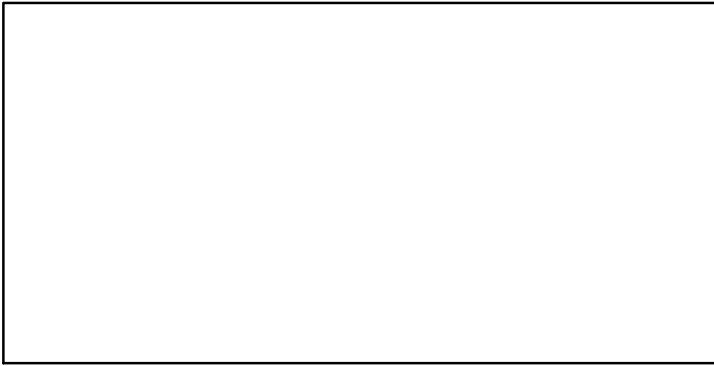
survB_index–index (1995–2017–ASHBROOK)



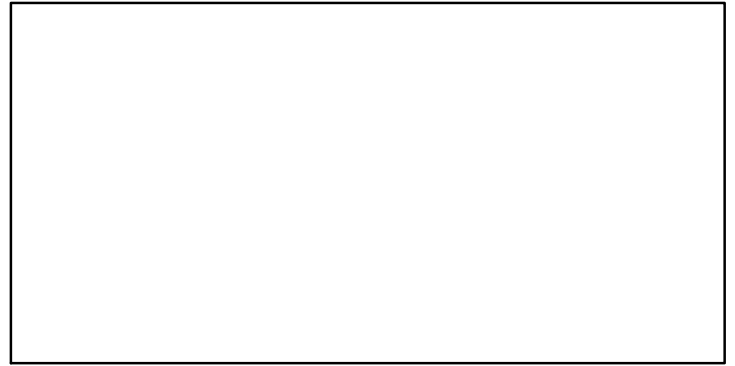
CPUE*



EFFORT*



CdivMSY*



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

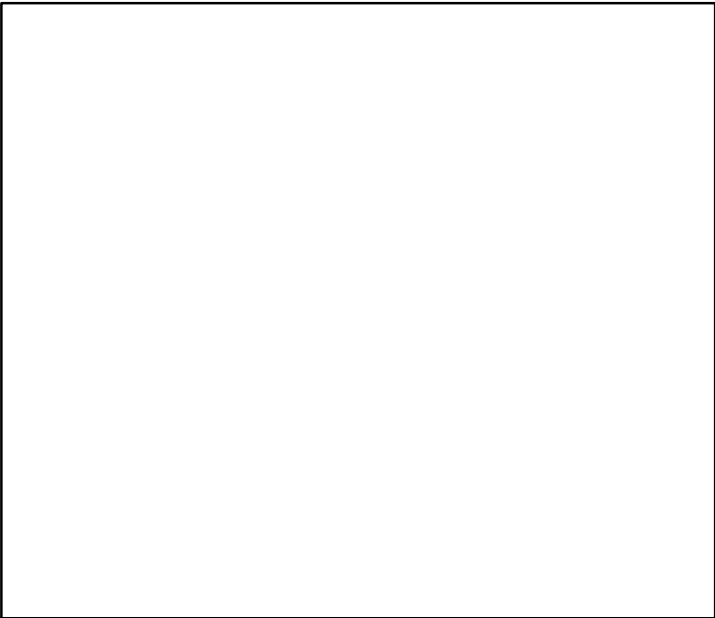
Anchovy North West Africa [ANCHONWA]

Metadata	
Scientific Name	Engraulis encrasicolus
Current Assess ID	FAO-SPNWA-ANCHONWA-1990-2016-ASHBROOK
Area	North West Africa
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO Working Group on the Assessment of Small Pelagic Fish Off Northwest Africa
Asmts in RAM	2010, 2016

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	M-1/yr	2016	1.35
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2010	143,000	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	F-1/yr	2010	0.84	-	-
ER	ER-calc-ratio	2010	0.839	-	-
TC	TC-MT	2016	28,566		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

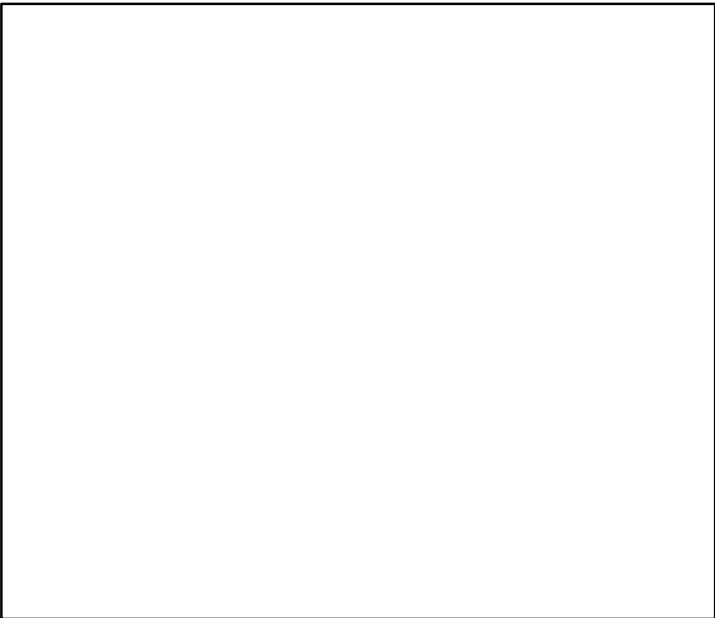
Kobe MSY*



Kobe MGT*



Spawner Recruit*



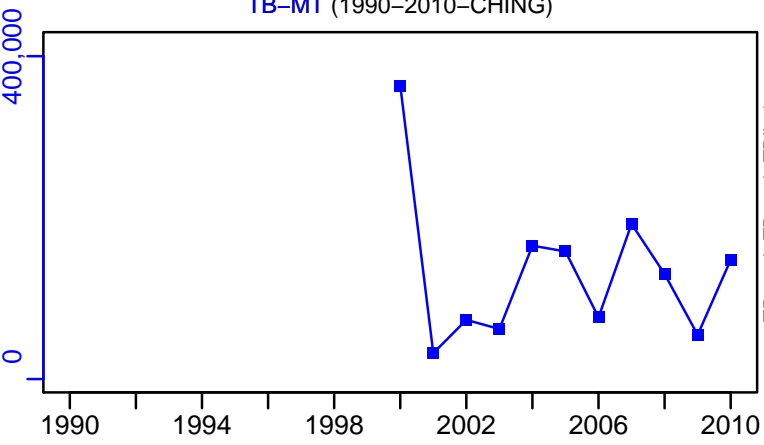
Production*



◆ Start Year ◆ End Year * No Data

Anchovy North West Africa [ANCHONWA]

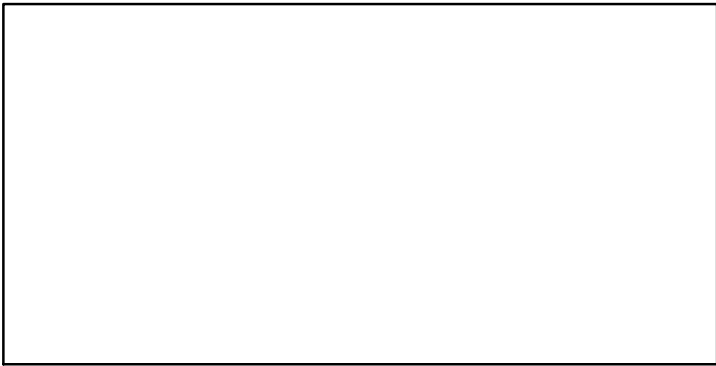
TB-MT (1990-2010-CHING)



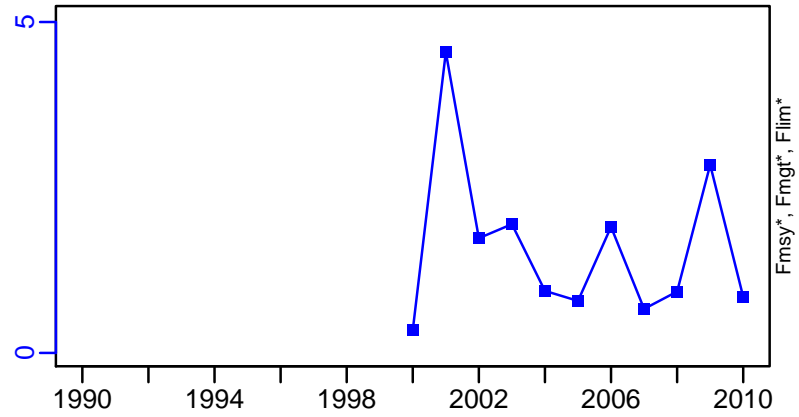
SSB*



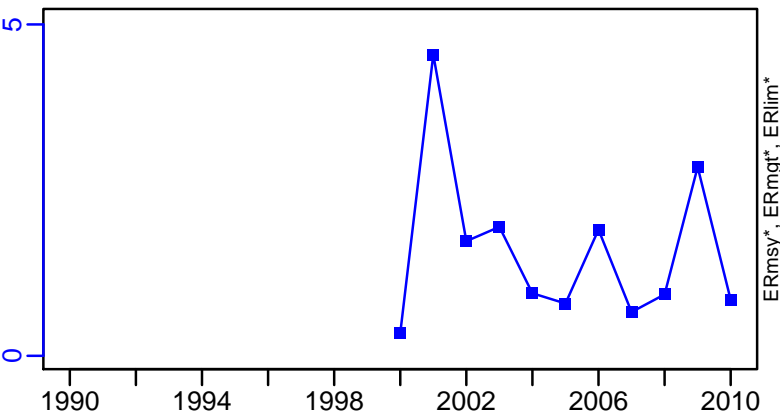
TN *



F-1/yr (1990-2010-CHING)



ER-calc-ratio (1990-2010-CHING)

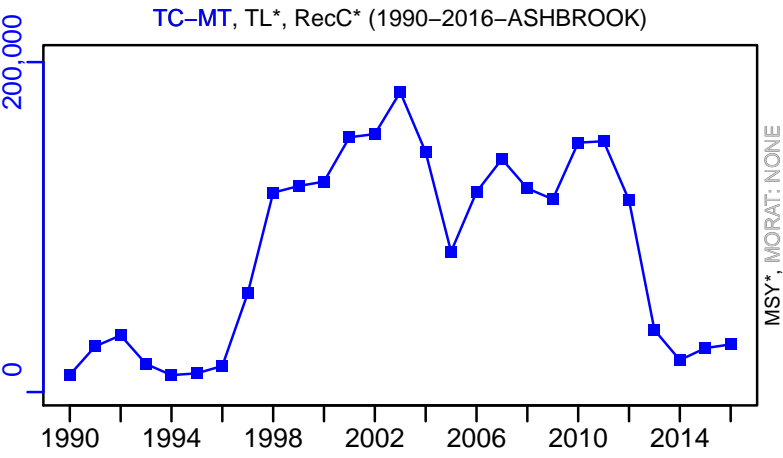


Recruits*



Anchovy North West Africa [ANCHONWA]

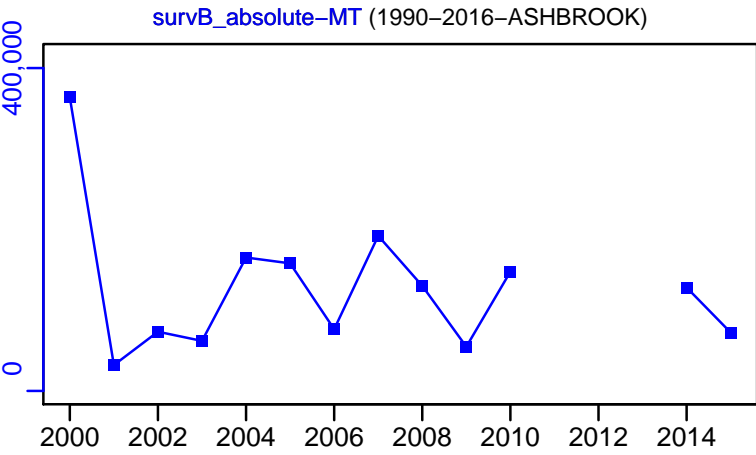
TC-MT, TL*, RecC* (1990-2016-ASHBROOK)



TAC*, Cpair*, Cadv*



survB_absolute-MT (1990-2016-ASHBROOK)



CPUE*



EFFORT*



CdivMSY*



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

Bobo croaker Central West Africa Guinea-Liberia [BCROAKCWAGIN-LBR]

Metadata	
Scientific Name	Pseudotolithus elongatus
Current Assess ID	FAO-DR-BCROAKCWAGIN-LBR-1994-2007-CHING
Area	Central West Africa Guinea-Liberia
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO/CECAF Working Group on the Assessment of Demersal Resources
Asmts in RAM	2007

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2007	9070		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



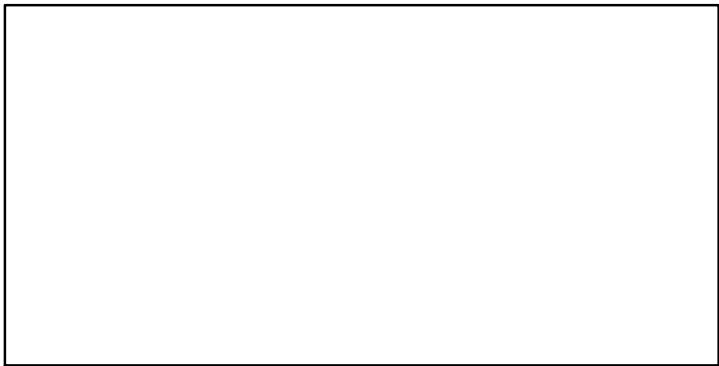
◆ Start Year ◆ End Year * No Data

Bobo croaker Central West Africa Guinea–Liberia [BCROAKCWAGIN–LBR]

TB*



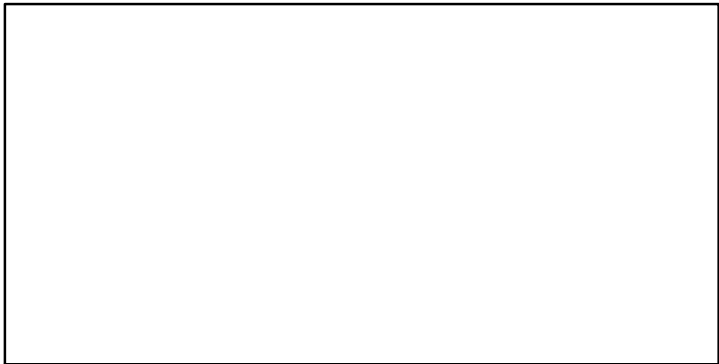
SSB*



TN *



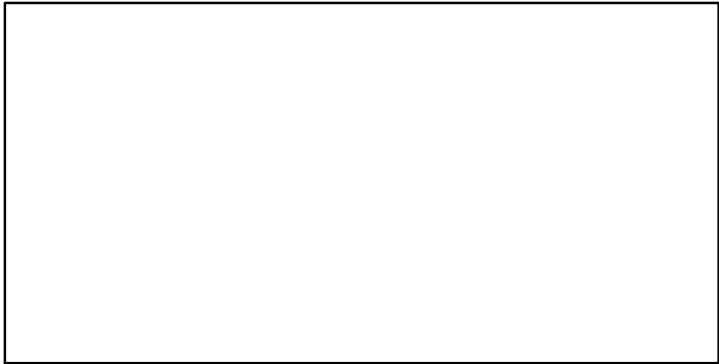
F*



ER*



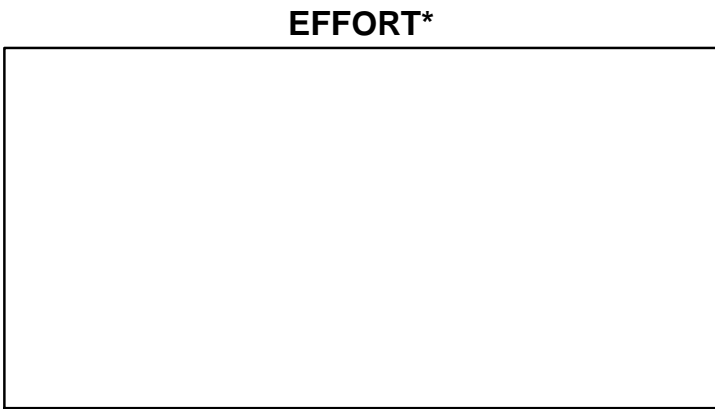
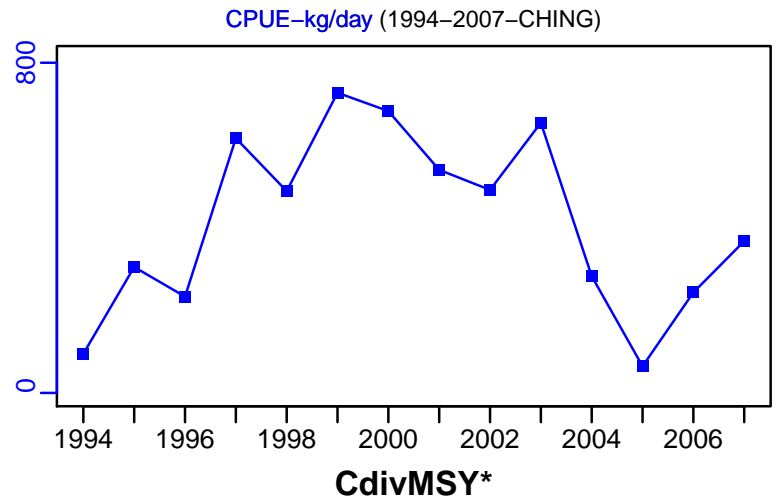
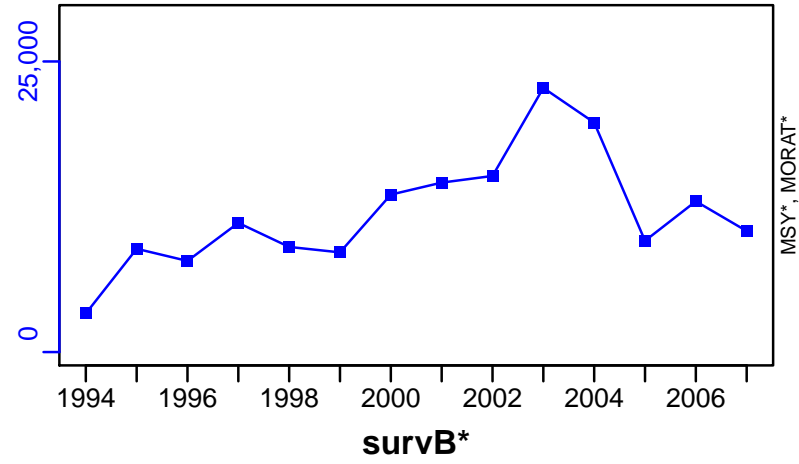
Recruits*



Bobo croaker Central West Africa Guinea-Liberia [BCROAKCWAGIN-LBR]

TC-MT, TL*, RecC* (1994-2007-CHING)

TAC*, Cpair*, Cadv*



Bigeye grunt Central West Africa Cote Divoire-Benin [BGRUNTCWACIV-BEN]

Metadata	
Scientific Name	Brachydeuterus auritus
Current Assess ID	FAO-DR-BGRUNTCWACIV-BEN-1990-2006-CHING
Area	Central West Africa Cote Divoire-Benin
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO/CECAF Working Group on the Assessment of Demersal Resources
Asmts in RAM	2006

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2006	21,400		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

TB*



SSB*



TN *



F*



ER*

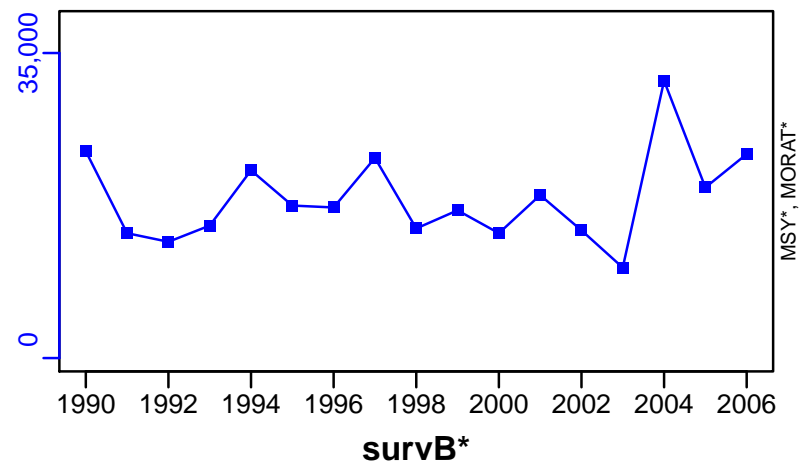


Recruits*



Bigeye grunt Central West Africa Cote Divoire–Benin [BGRUNTCWACIV–BEN]

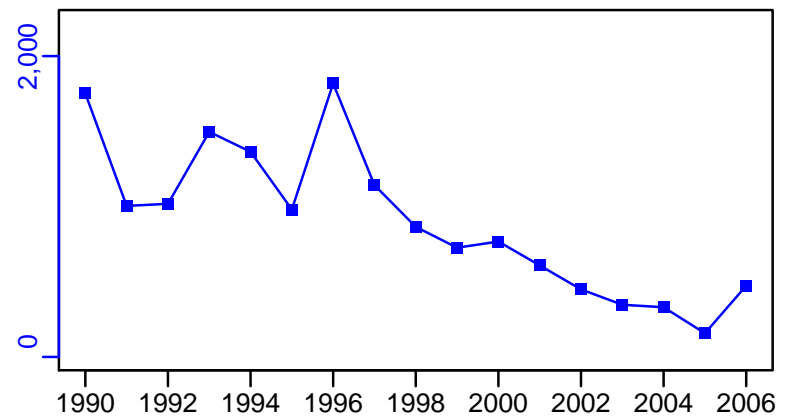
TC–MT, TL*, RecC* (1990–2006–CHING)



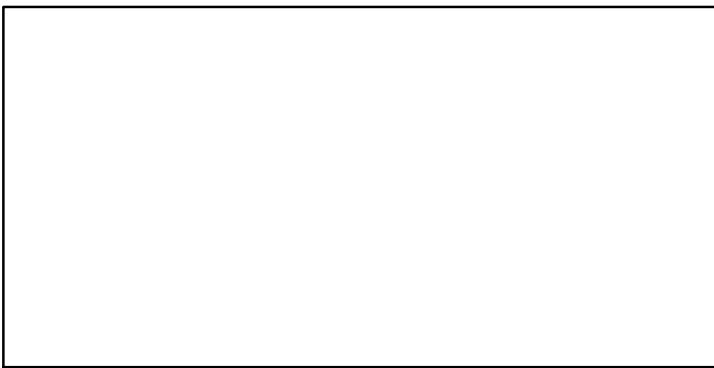
TAC*, Cpair*, Cadv*



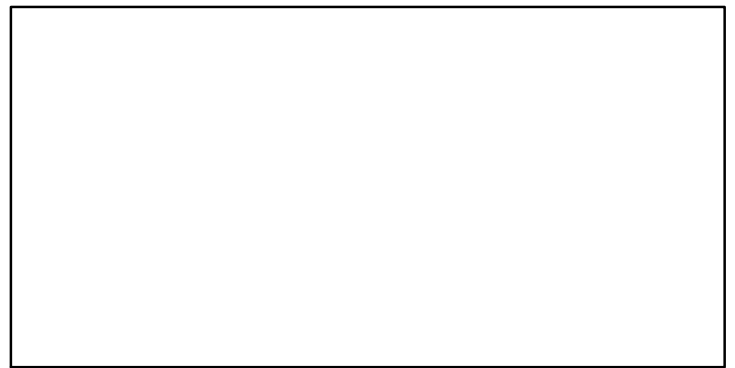
CPUE–kg/day (1990–2006–CHING)



EFFORT*



CdivMSY*



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

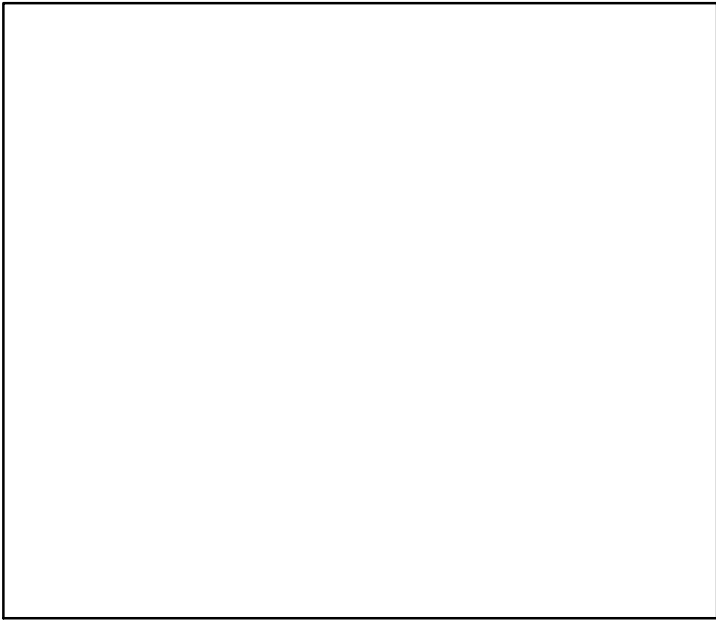
Bigeye grunt Central West Africa Congo_Angola [BGRUNTCWACOG_AGO]

Metadata	
Scientific Name	Brachydeuterus auritus
Current Assess ID	FAO-DR-BGRUNTCWACOG_AGO-1995-2007-CHING
Area	Central West Africa Congo_Angola
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO/CECAF Working Group on the Assessment of Demersal Resources
Asmts in RAM	2007

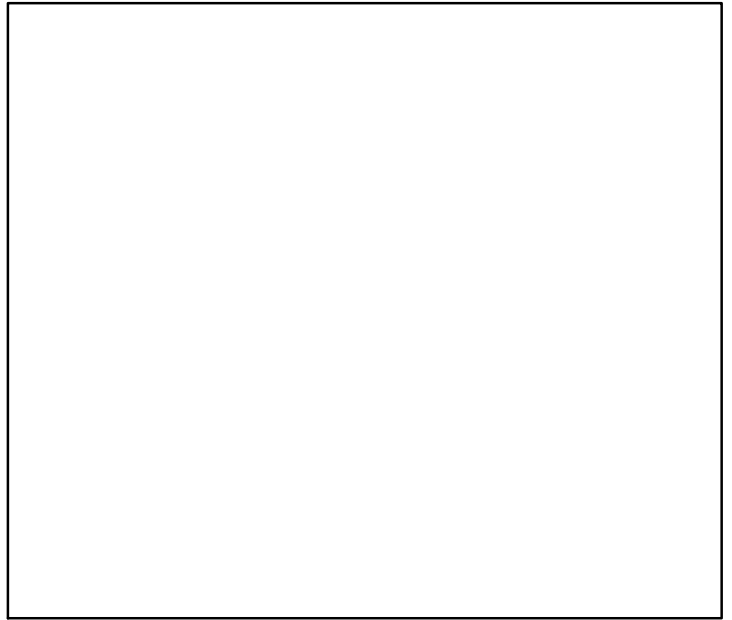
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-index	2007	144	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2007	4790		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

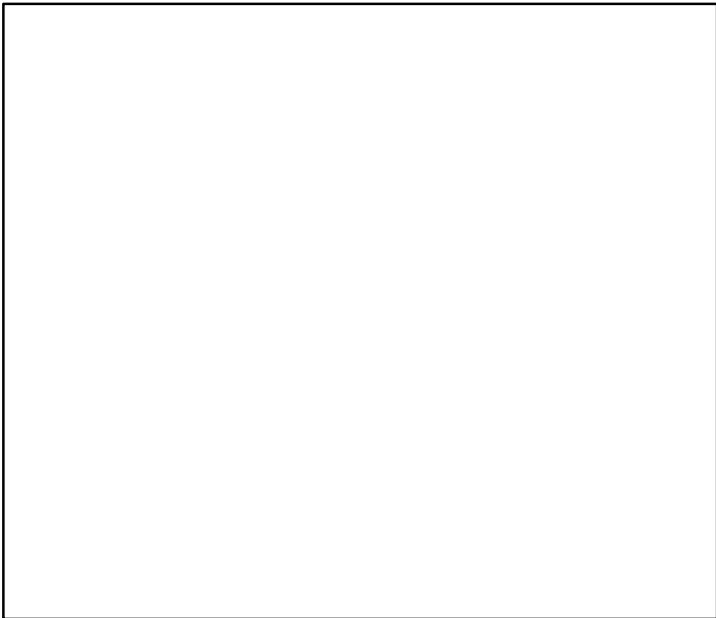
Kobe MSY*



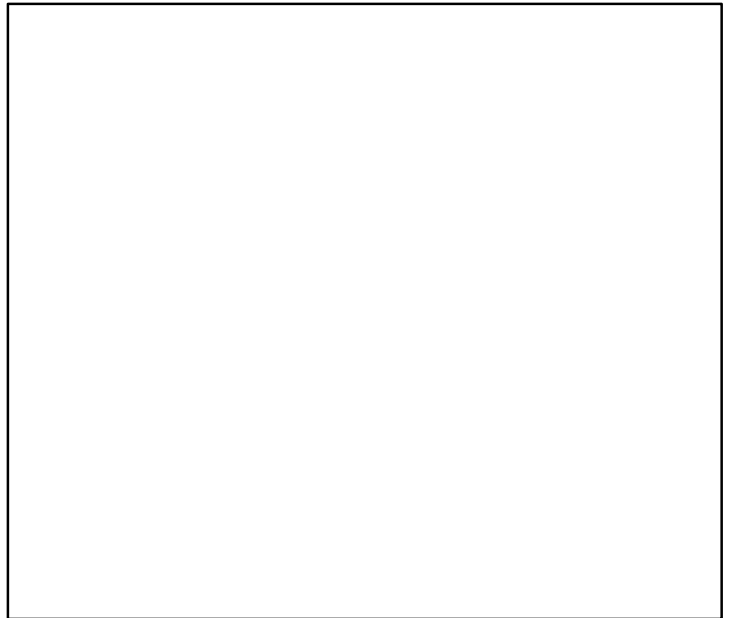
Kobe MGT*



Spawner Recruit*



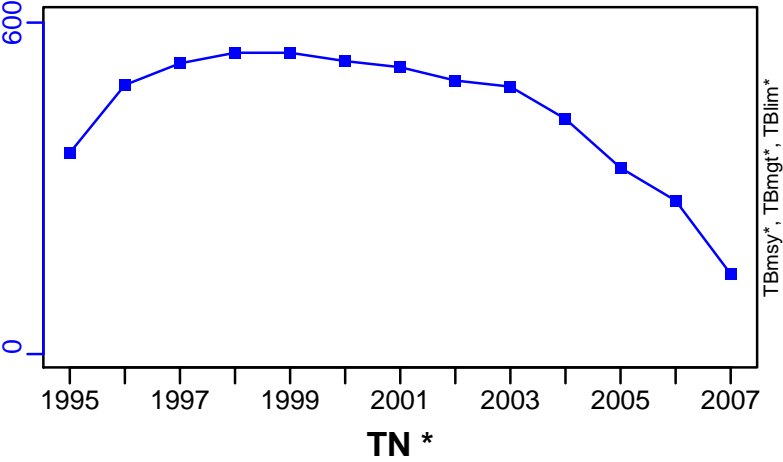
Production*



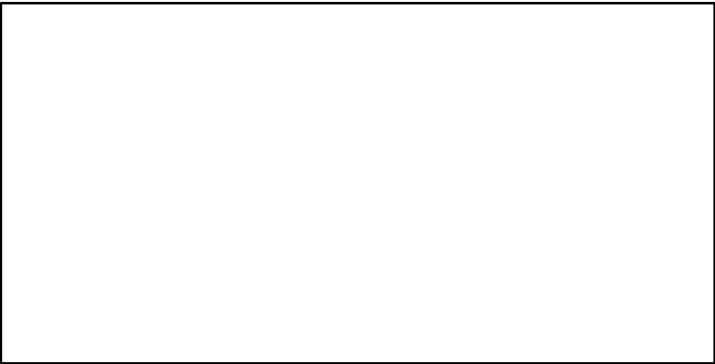
◆ Start Year ◆ End Year * No Data

Bigeye grunt Central West Africa Congo_Angola [BGRUNTCWACOG_AGO]

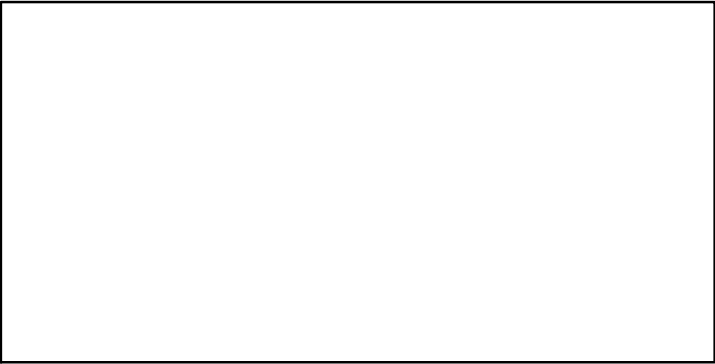
TB-index (1995–2007–CHING)



SSB*



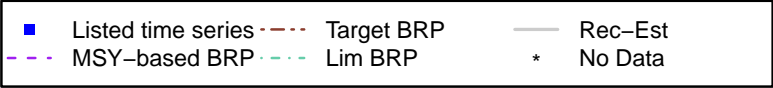
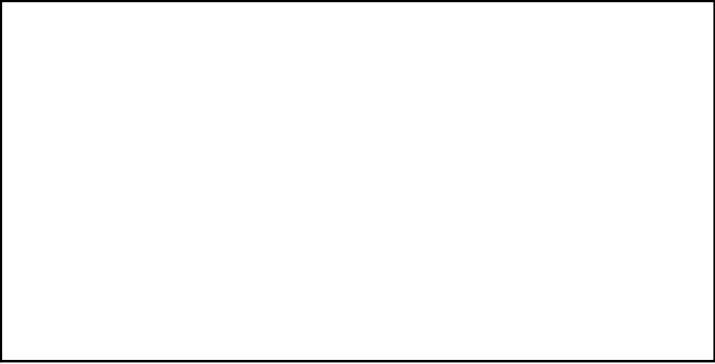
F*



ER*



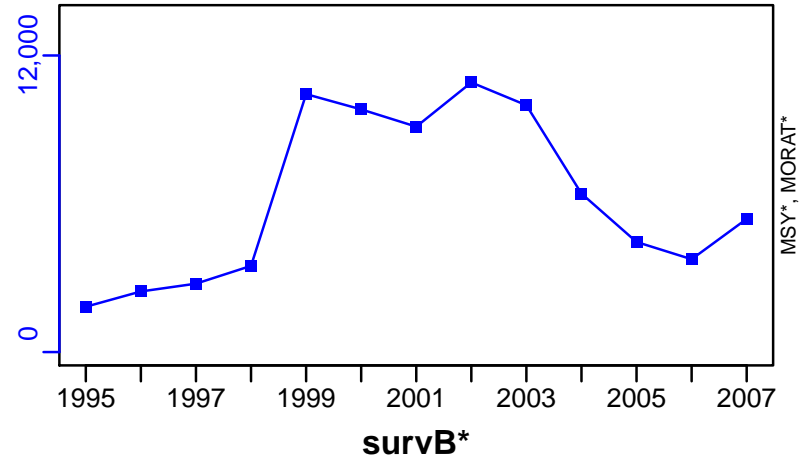
Recruits*



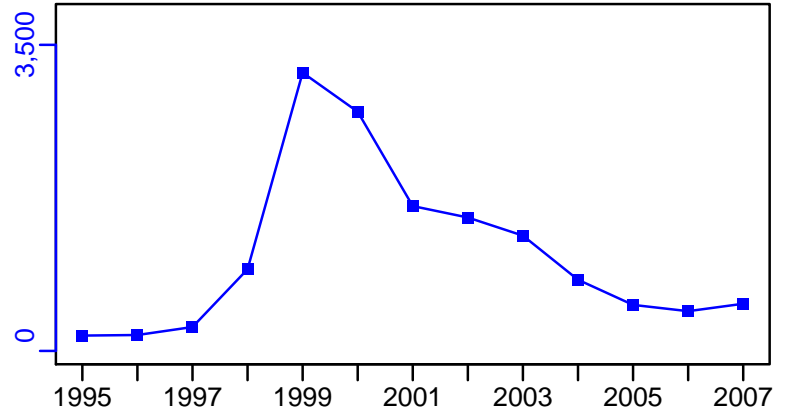
Bigeye grunt Central West Africa Congo_Angola [BGRUNTCWACOG_AGO]

TC-MT, TL*, RecC* (1995-2007-CHING)

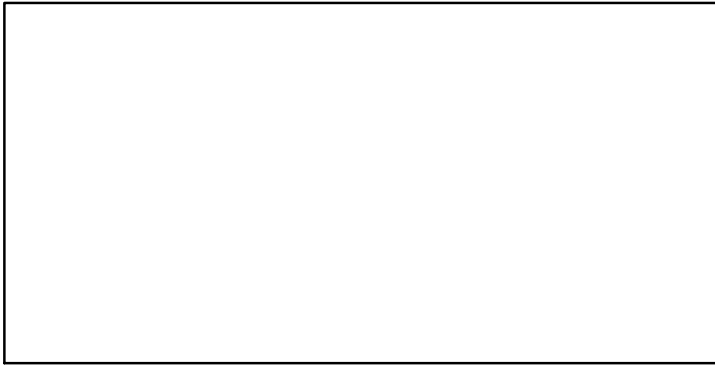
TAC*, Cpair*, Cadv*



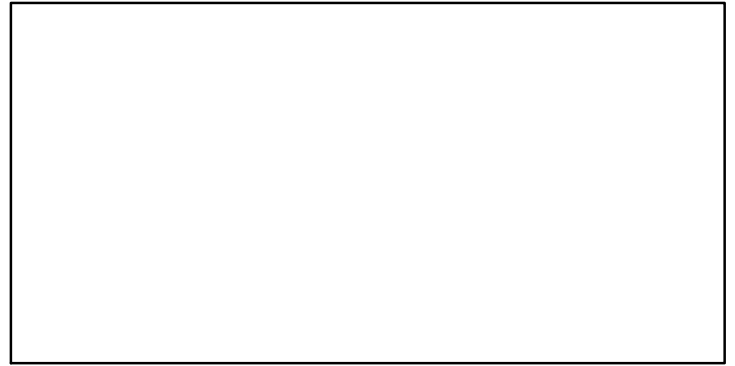
CPUE-kg/day (1995-2007-CHING)



EFFORT*



CdivMSY*



Benguela hake Central West Africa Angola [BHAKECWAAGO]

Metadata	
Scientific Name	Merluccius polli
Current Assess ID	FAO-DR-BHAKECWAAGO-1994-2010-ASHBROOK
Area	Central West Africa Angola
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO/CECAF Working Group on the Assessment of Demersal Resources
Asmts in RAM	2010, 2007

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2010	4675		
TL	-	-	-		
TB/TBmsy	TBdivTBmsy-dimensionless	2010	1.81		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	ERdivERmsy-dimensionless	2010	0.42		
TB/TBmgt	TBdivTBmgt-dimensionless	2010	1.65		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

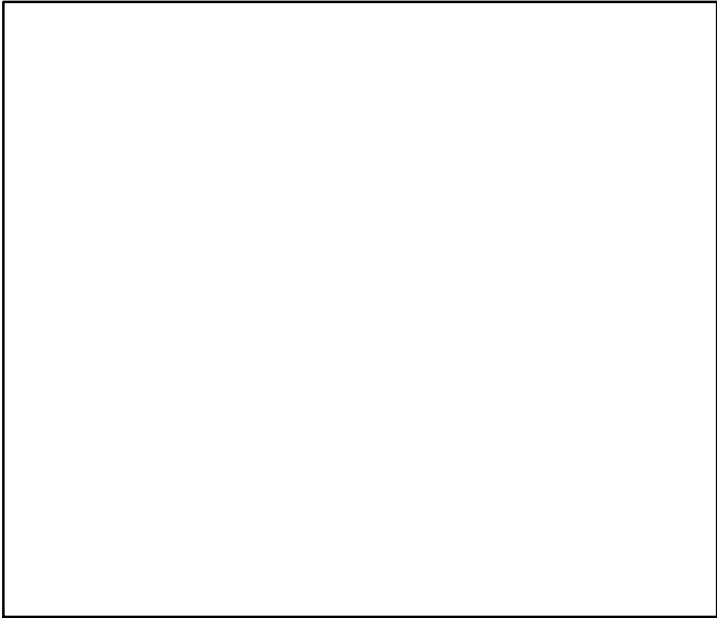
Kobe MSY*



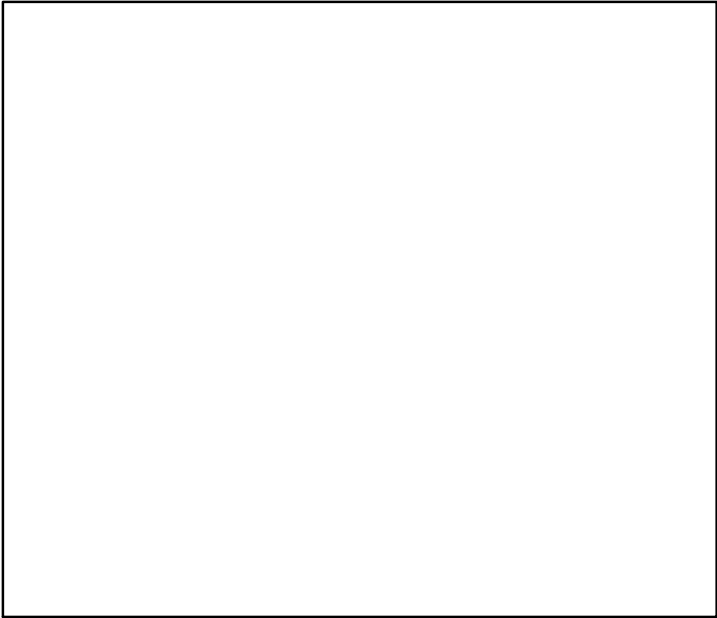
Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

TB*



SSB*



TN *



F*



ER*

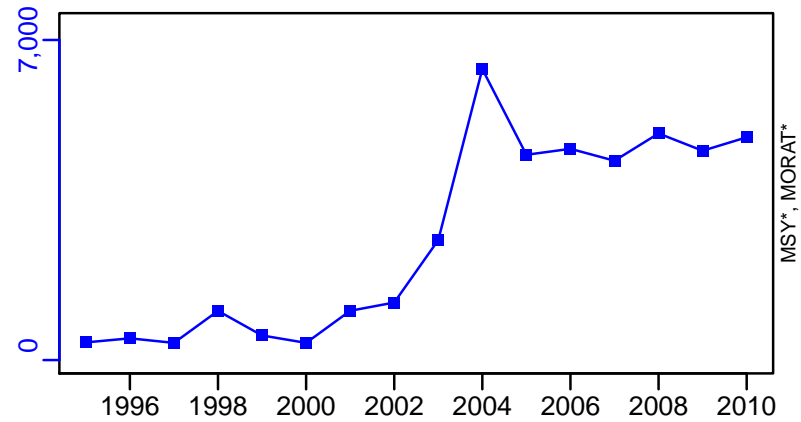


Recruits*



Benguela hake Central West Africa Angola [BHAKECWAAGO]

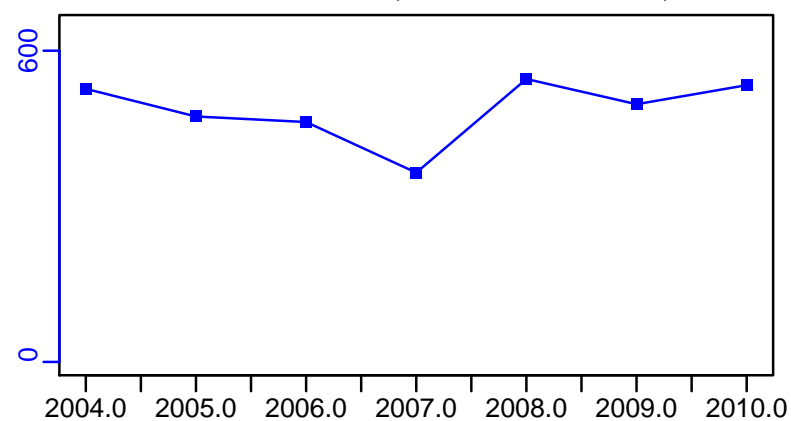
TC-MT, TL*, RecC* (1994-2010-ASHBROOK)



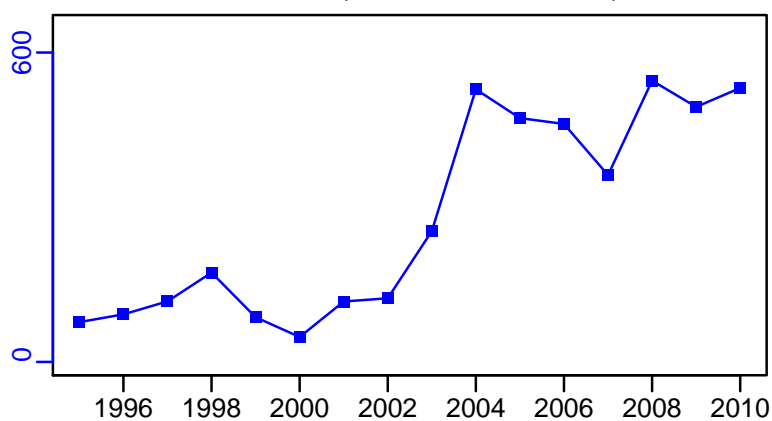
TAC*, Cpair*, Cadv*



survB_index-1-index (1994-2010-ASHBROOK)



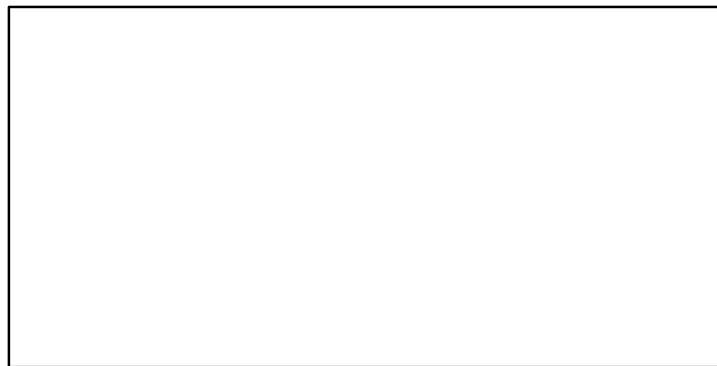
CPUE-index (1994-2010-ASHBROOK)



EFFORT*



CdivMSY*



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

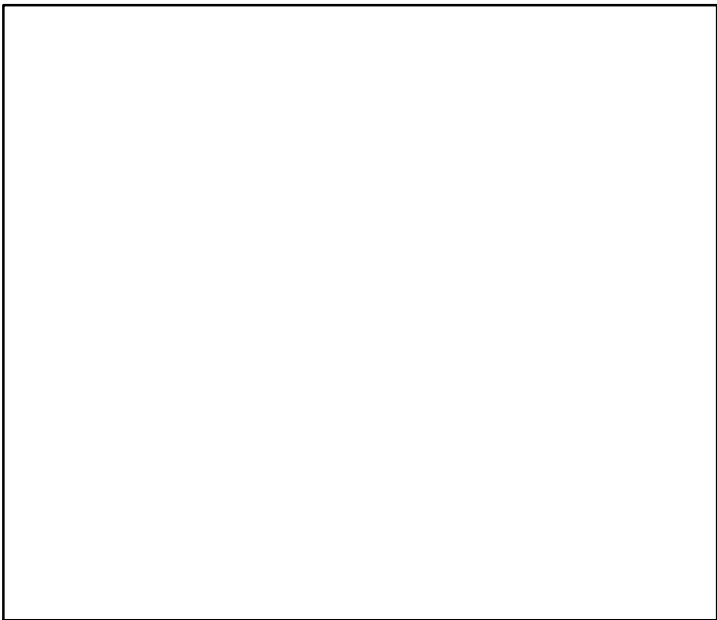
Bonga Central West Africa Gabon-Congo DR [BONGACWAGAB-COD]

Metadata	
Scientific Name	Ethmalosa fimbriata
Current Assess ID	FAO-SPNWA-BONGACWAGAB-COD-1995-2017-ASHBROOK
Area	Central West Africa Gabon-Congo DR
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO Working Group on the Assessment of Small Pelagic Fish Off Northwest Africa
Asmts in RAM	2017

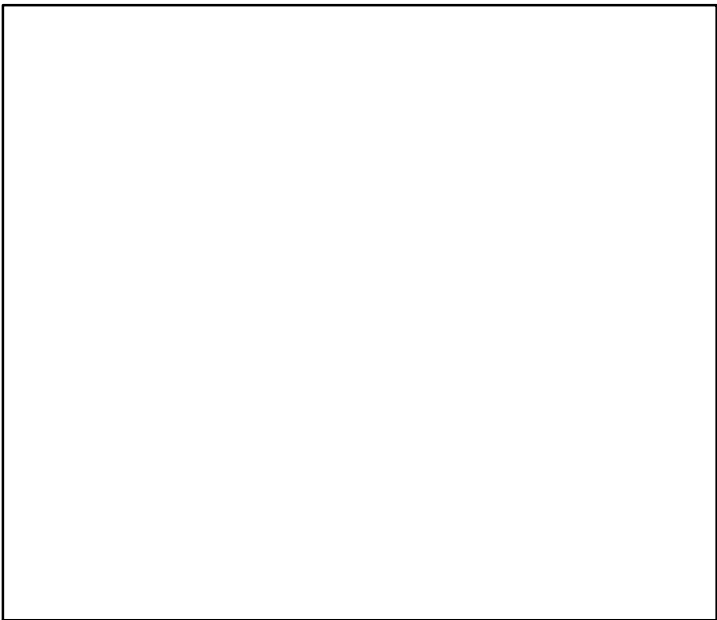
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2017	3370		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	ERdivERmsy-dimensionless	2017	0.16		
TB/TBmgt	TBdivTBmgt-dimensionless	2017	1.34		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

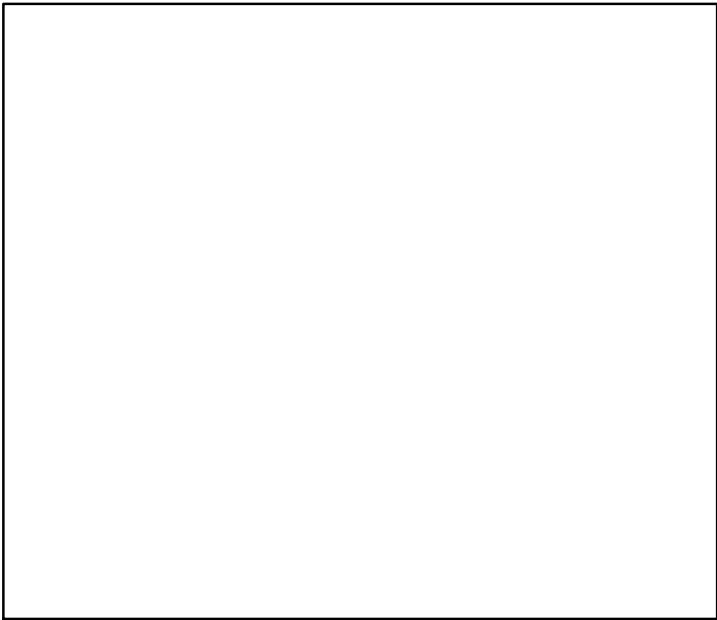
Kobe MSY*



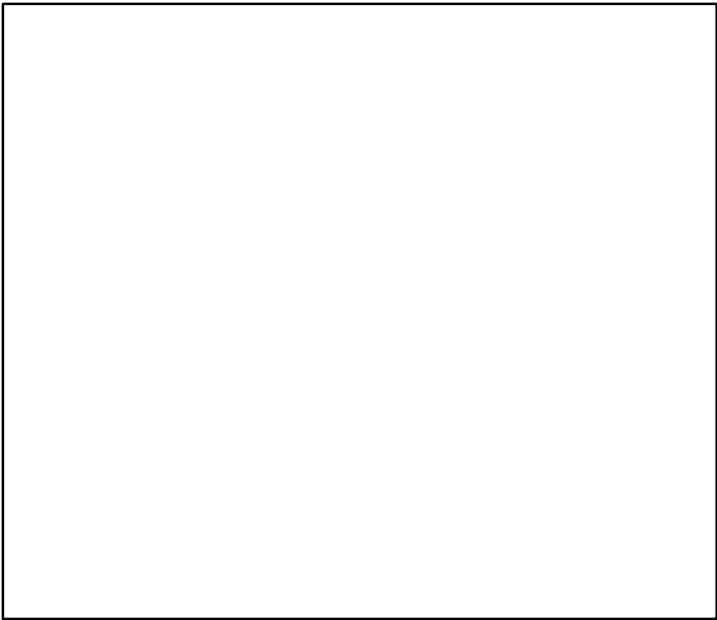
Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

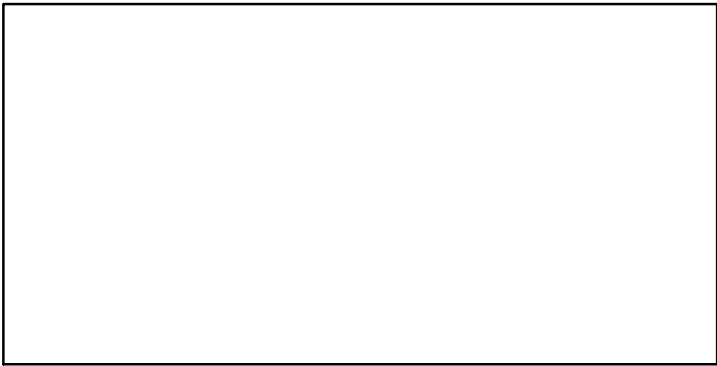
TB*



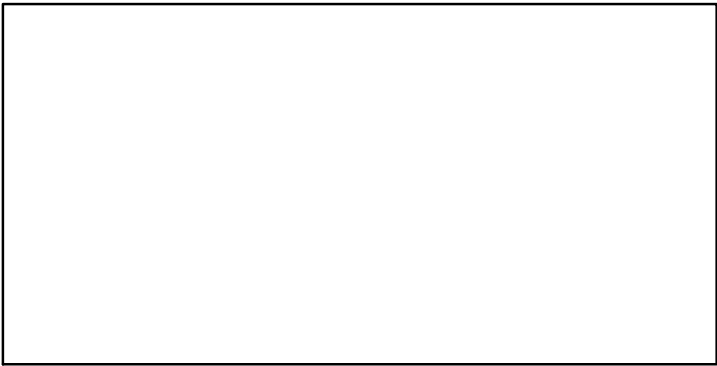
SSB*



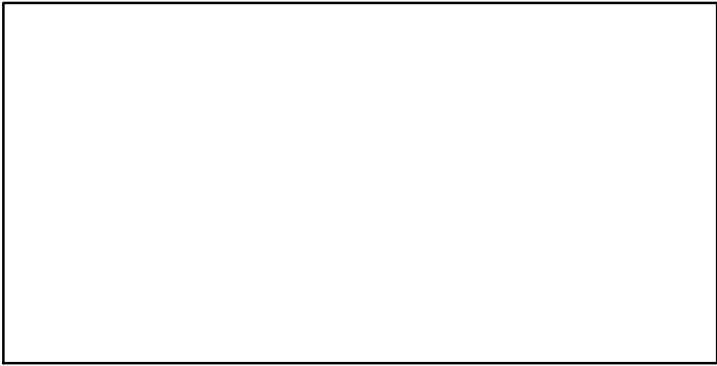
TN *



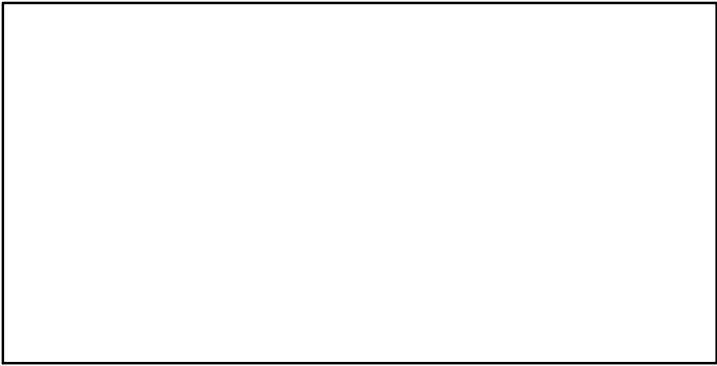
F*



ER*

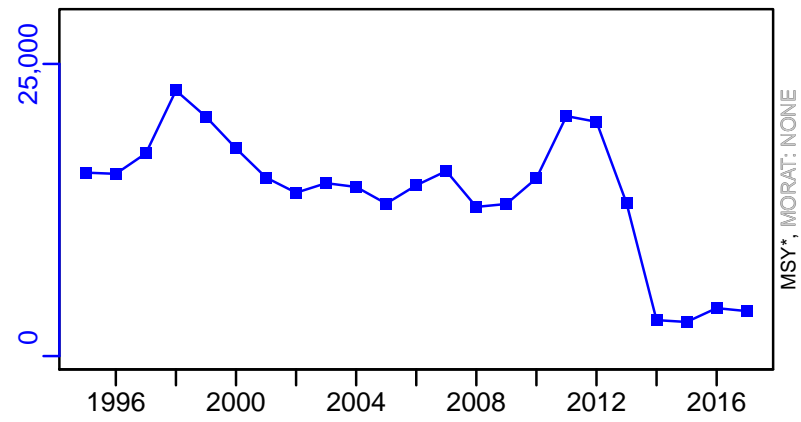


Recruits*



Bonga Central West Africa Gabon–Congo DR [BONGACWAGAB–COD]

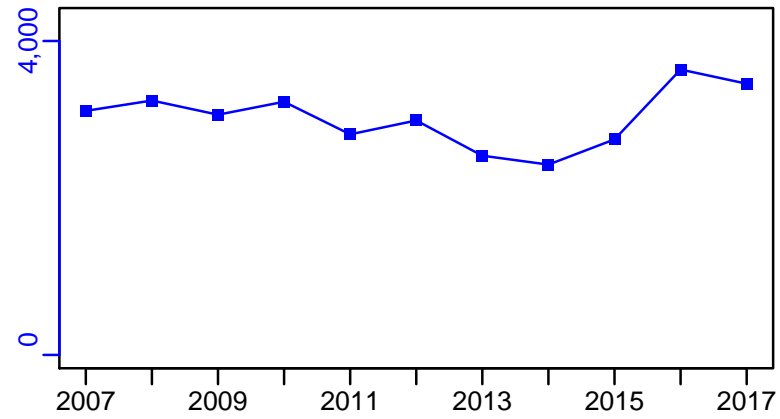
TC–MT, TL*, RecC* (1995–2017–ASHBROOK)



TAC*, Cpair*, Cadv*



survB_index–index (1995–2017–ASHBROOK)



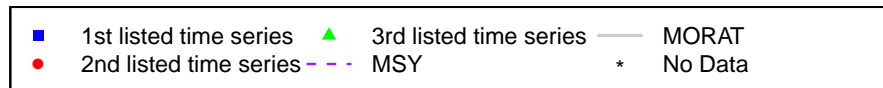
CPUE*



EFFORT*



CdivMSY*



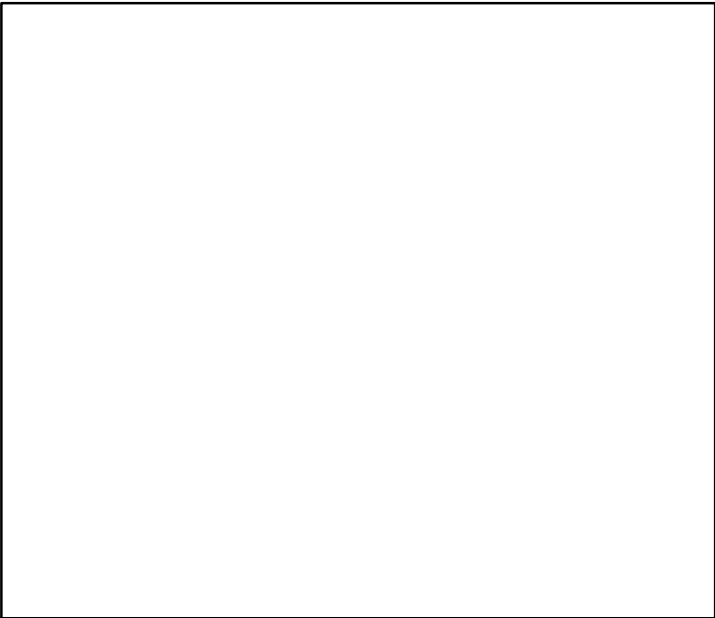
Bonga North West Africa [BONGANWA]

Metadata	
Scientific Name	Ethmalosa fimbriata
Current Assess ID	FAO-SPNWA-BONGANWA-1990-2016-ASHBROOK
Area	North West Africa
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO Working Group on the Assessment of Small Pelagic Fish Off Northwest Africa
Asmts in RAM	2010, 2016

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2016	67,544		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

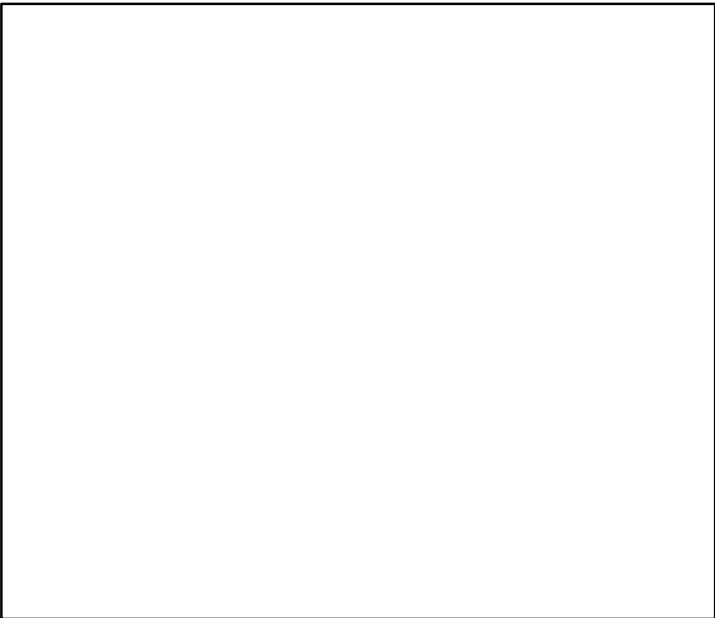
Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

TB*



SSB*



TN *



F*



ER*



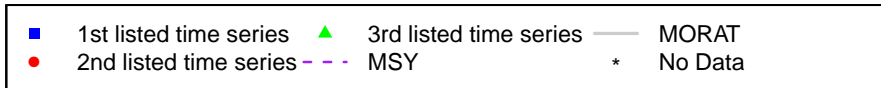
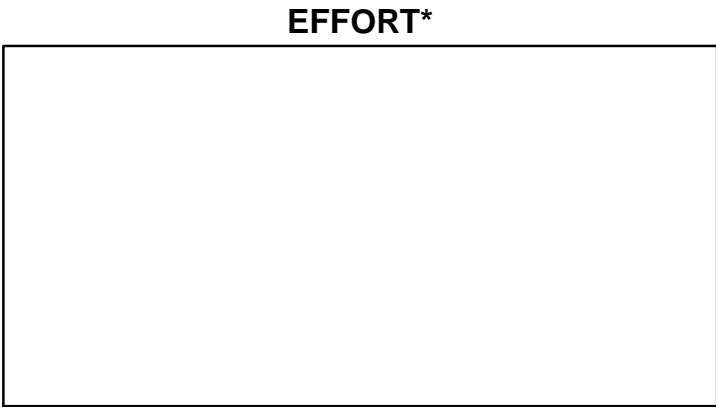
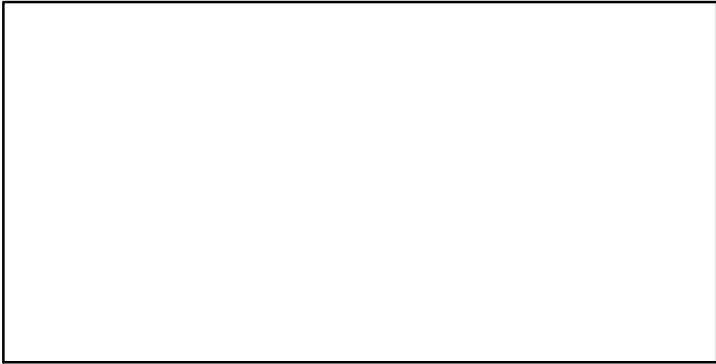
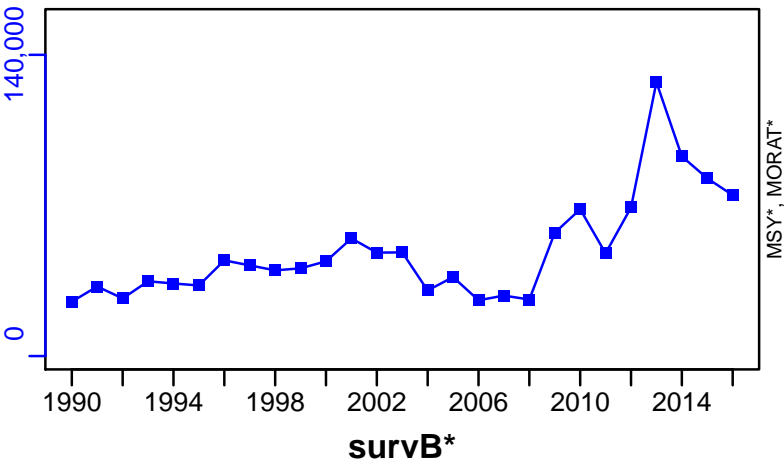
Recruits*



Bonga North West Africa [BONGANWA]

TC-MT, TL*, RecC* (1990-2016-ASHBROOK)

TAC*, Cpair*, Cadv*



Seabream Central West Africa Cote Divoire-Benin [BRMSPPCWACIV-BEN]

Metadata	
Scientific Name	Dentex spp
Current Assess ID	FAO-DR-BRMSPPCWACIV-BEN-1990-2007-CHING
Area	Central West Africa Cote Divoire-Benin
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO/CECAF Working Group on the Assessment of Demersal Resources
Asmts in RAM	2007

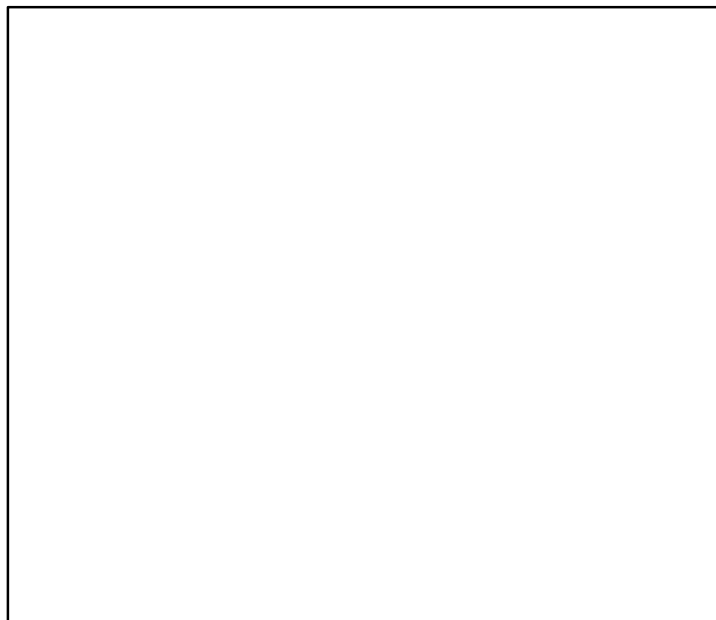
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-index	2007	24	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2007	9450		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*

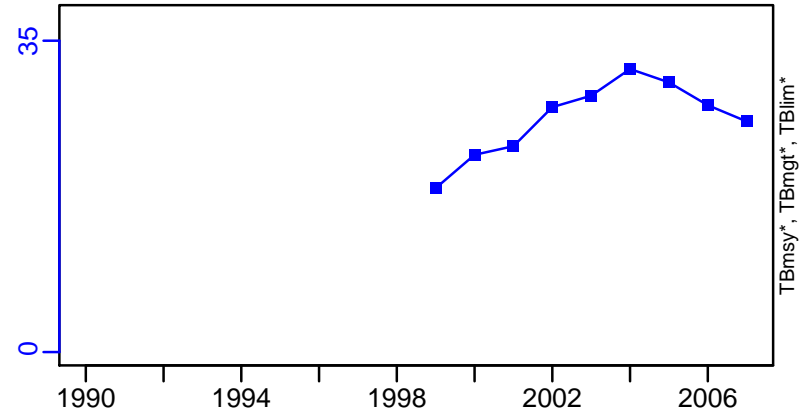


◆ Start Year ◆ End Year * No Data

Seabream Central West Africa Cote Divoire–Benin [BRMSPPCWACIV–BEN]

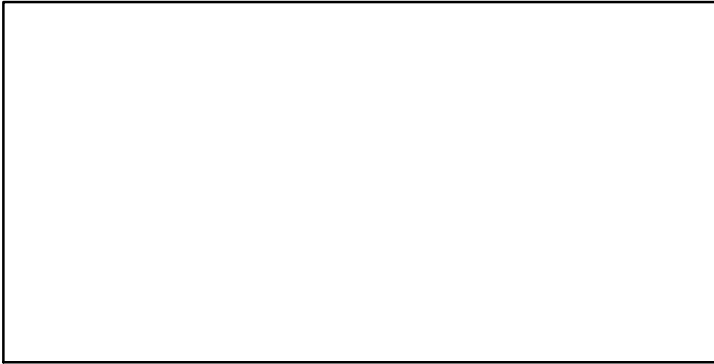
TB–index (1990–2007–CHING)

SSB*



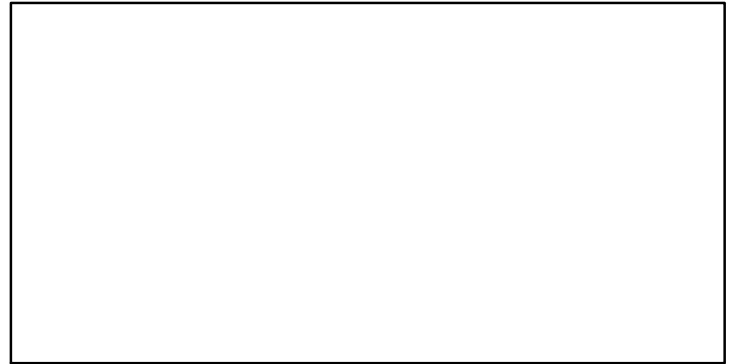
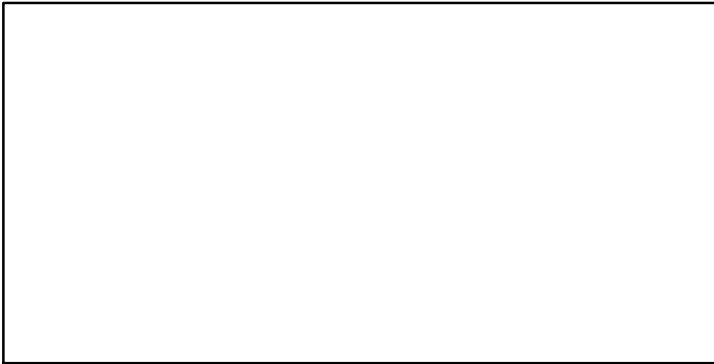
TN *

F*



ER*

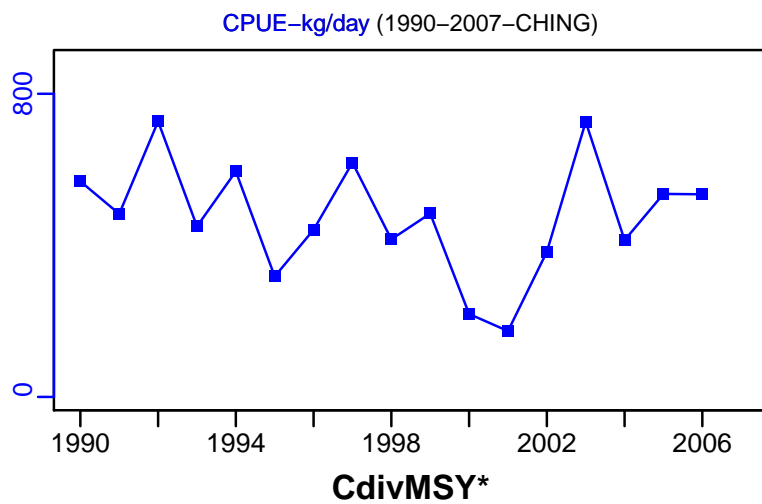
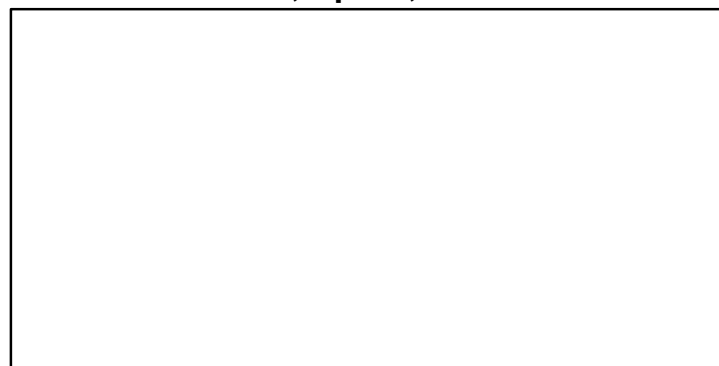
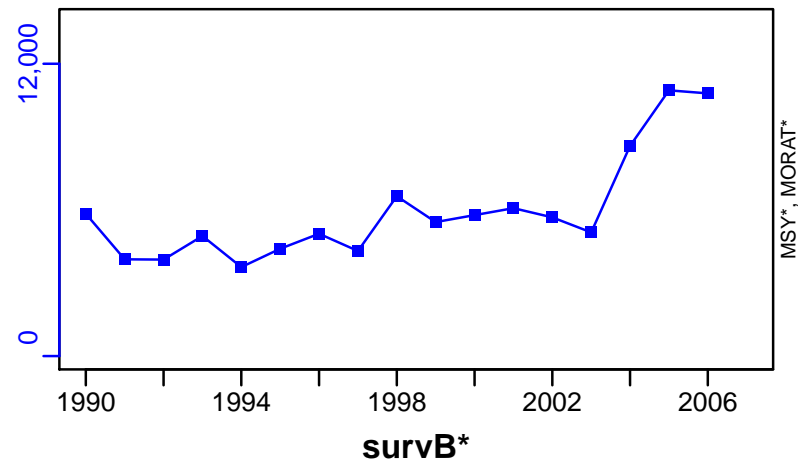
Recruits*



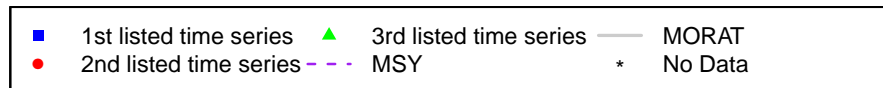
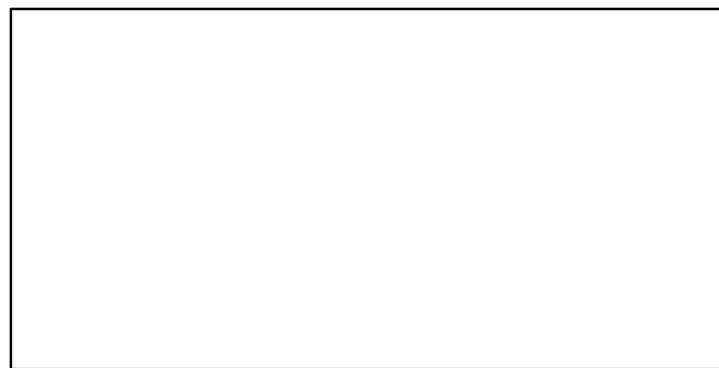
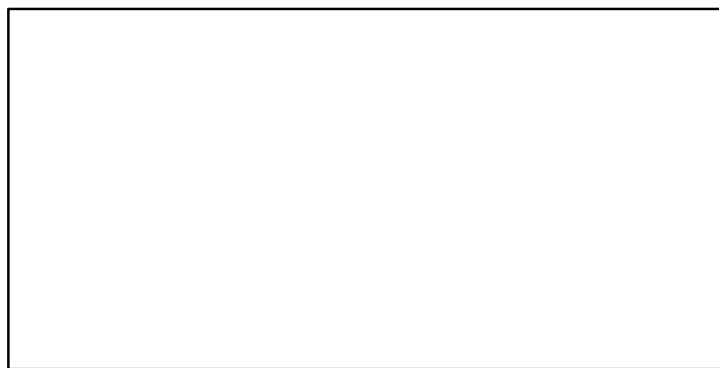
Seabream Central West Africa Cote Divoire–Benin [BRMSPPCWACIV–BEN]

TC–MT, TL*, RecC* (1990–2007–CHING)

TAC*, Cpair*, Cadv*



EFFORT*



Seabream Central West Africa Gabon-Angola [BRMSPPCWAGAB-AGO]

Metadata	
Scientific Name	Dentex spp
Current Assess ID	FAO-DR-BRMSPPCWAGAB-AGO-1995-2007-CHING
Area	Central West Africa Gabon-Angola
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO/CECAF Working Group on the Assessment of Demersal Resources
Asmts in RAM	2007

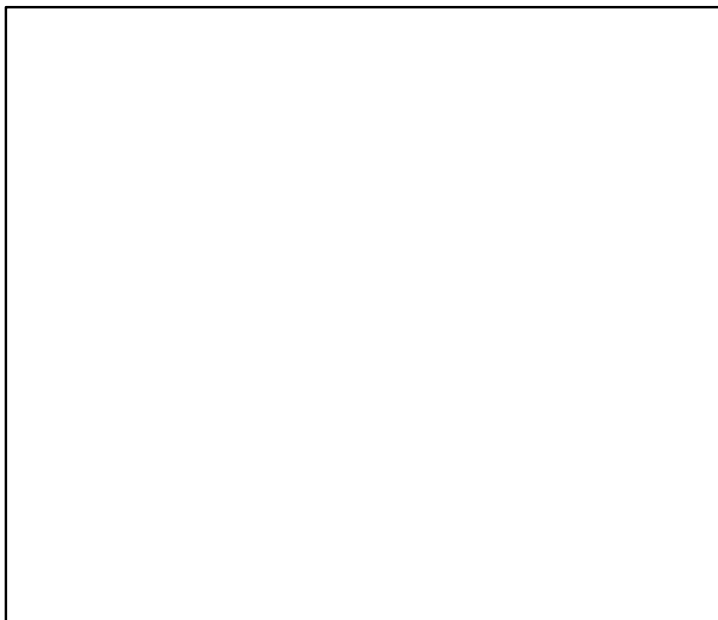
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-index	2007	154	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2007	13,300		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

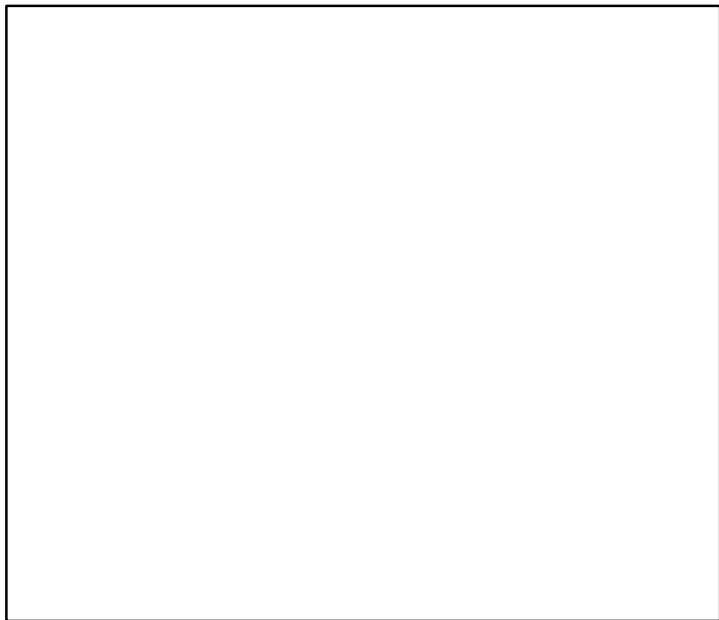
Kobe MSY*



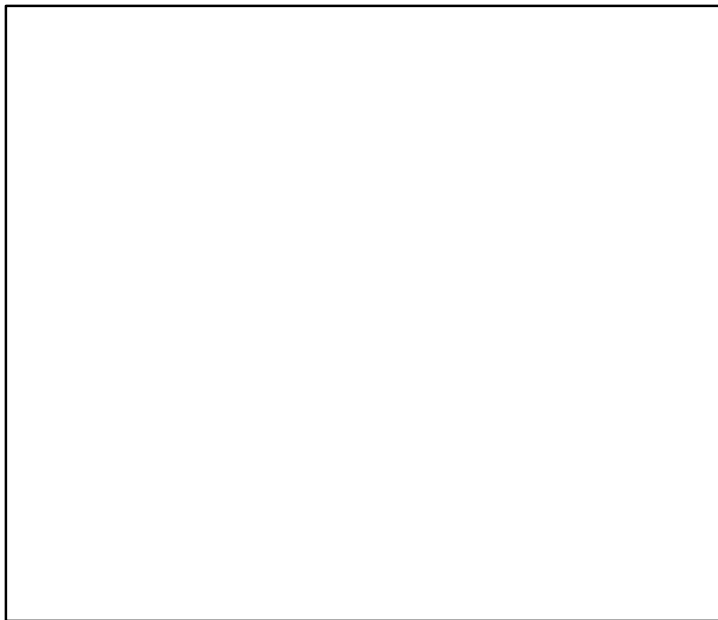
Kobe MGT*



Spawner Recruit*



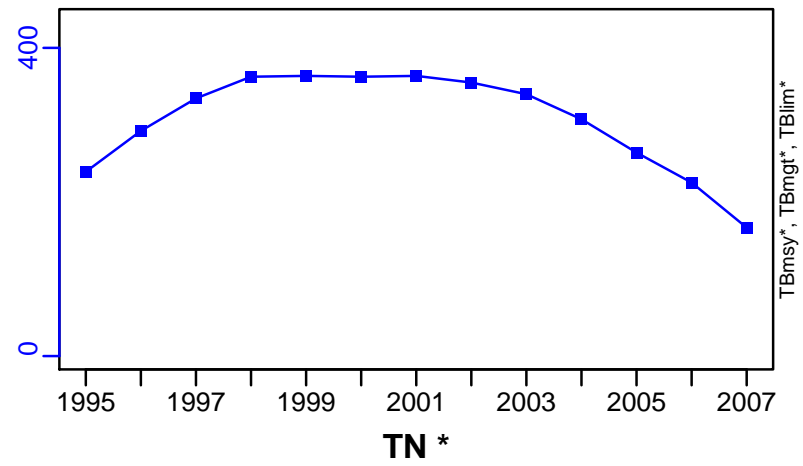
Production*



◆ Start Year ◆ End Year * No Data

Seabream Central West Africa Gabon–Angola [BRMSPPCWAGAB–AGO]

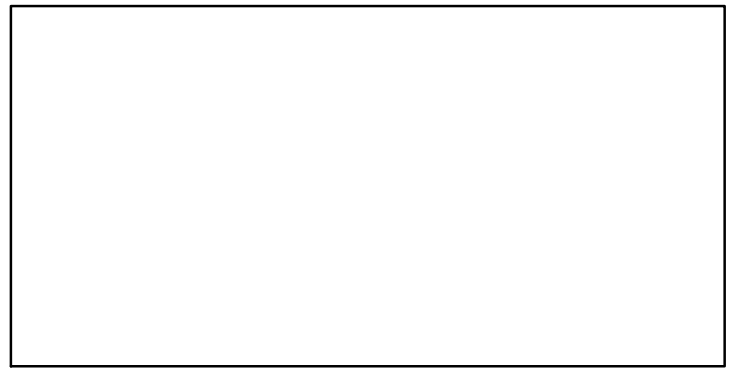
TB-index (1995–2007–CHING)



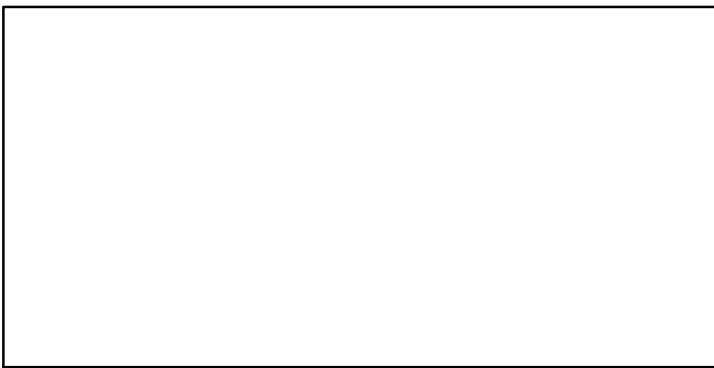
SSB*



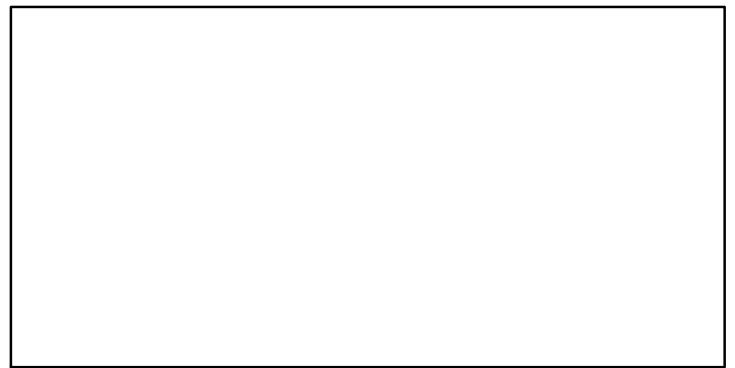
F*



ER*



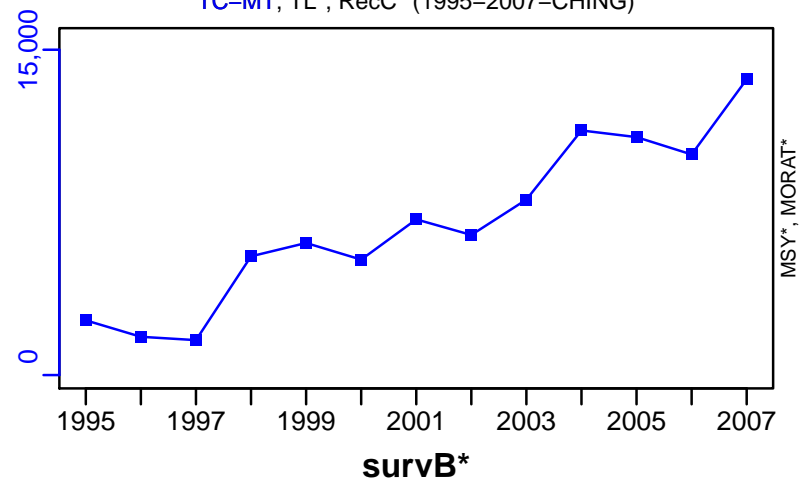
Recruits*



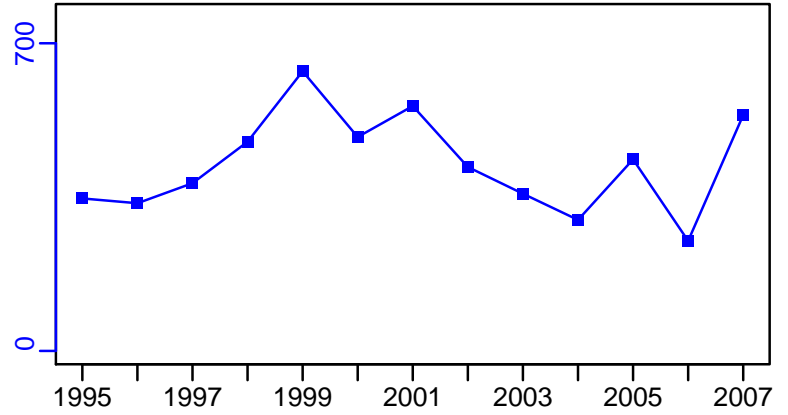
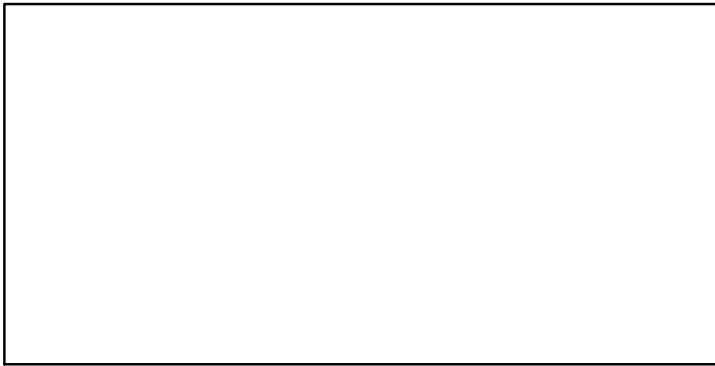
Seabream Central West Africa Gabon–Angola [BRMSPPCWAGAB–AGO]

TC–MT, TL*, RecC* (1995–2007–CHING)

TAC*, Cpair*, Cadv*

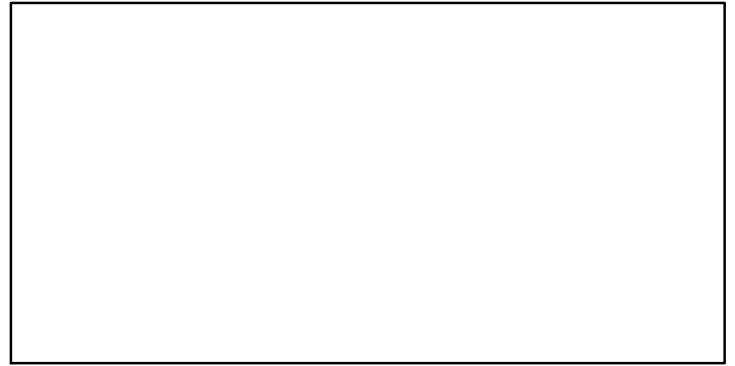
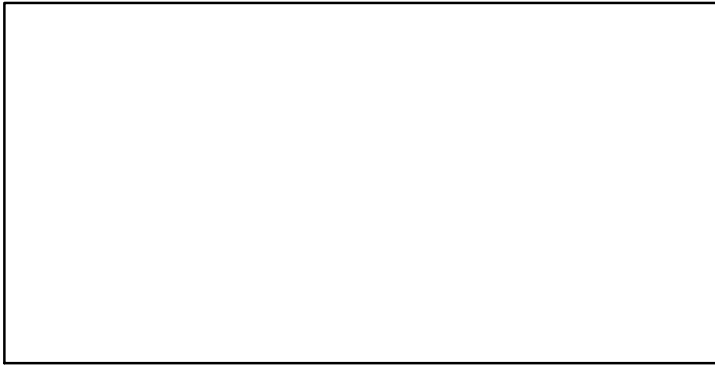


CPUE–kg/day (1995–2007–CHING)



EFFORT*

CdivMSY*



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

Seabream Central West Africa Guinea-Liberia [BRMSPPCWAGIN-LBR]

Metadata	
Scientific Name	Dentex spp
Current Assess ID	FAO-DR-BRMSPPCWAGIN-LBR-1994-2007-CHING
Area	Central West Africa Guinea-Liberia
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO/CECAF Working Group on the Assessment of Demersal Resources
Asmts in RAM	2007

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2007	4910		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



Kobe MGT*



Spawner Recruit*



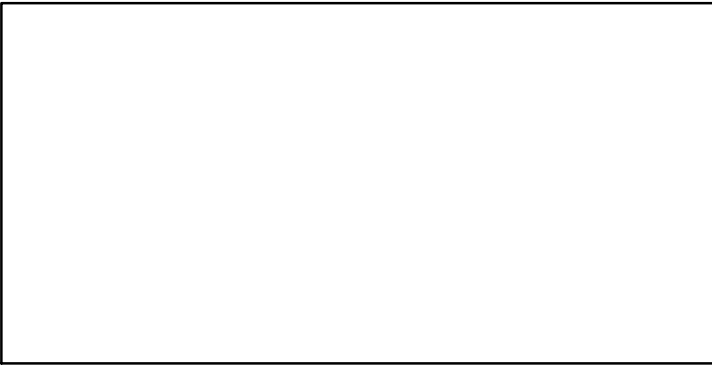
Production*



◆ Start Year ◆ End Year * No Data

Seabream Central West Africa Guinea–Liberia [BRMSPPCWAGIN–LBR]

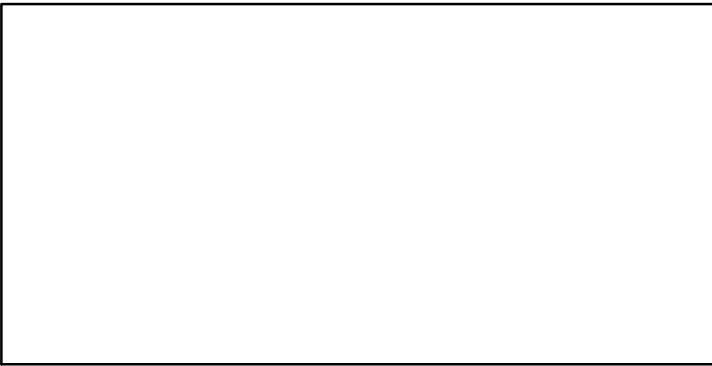
TB*



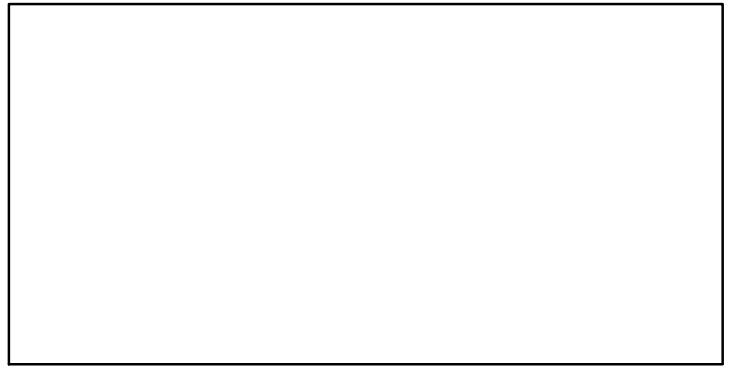
SSB*



TN *



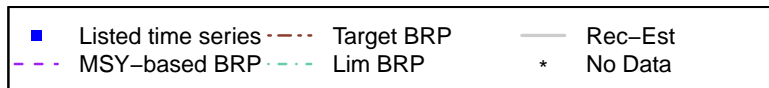
F*



ER*



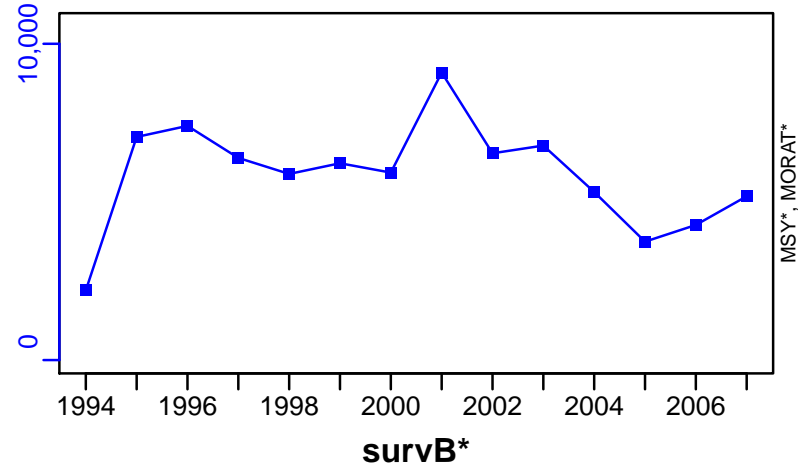
Recruits*



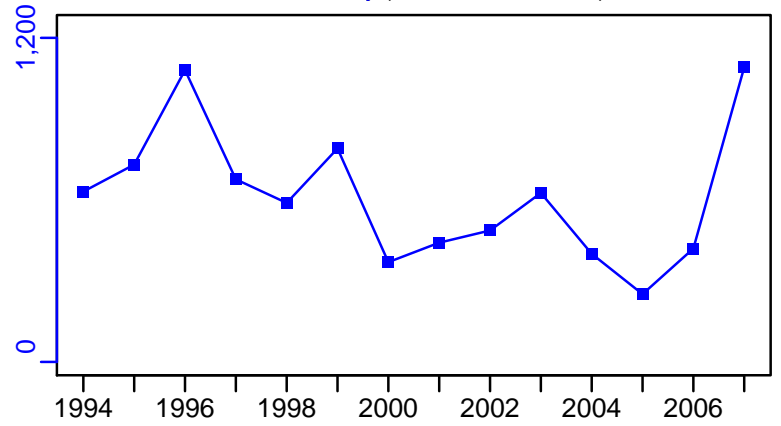
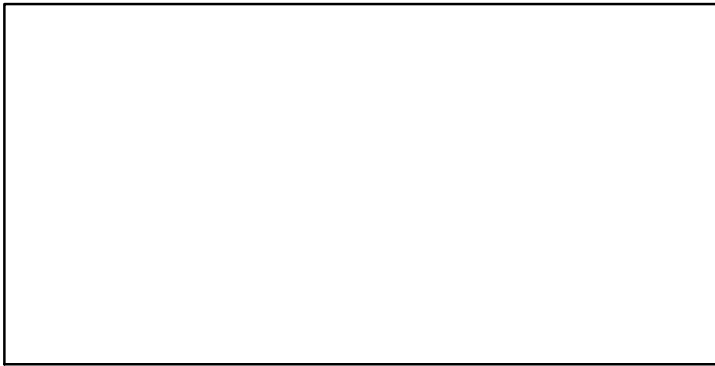
Seabream Central West Africa Guinea-Liberia [BRMSPPCWAGIN-LBR]

TC-MT, TL*, RecC* (1994-2007-CHING)

TAC*, Cpair*, Cadv*

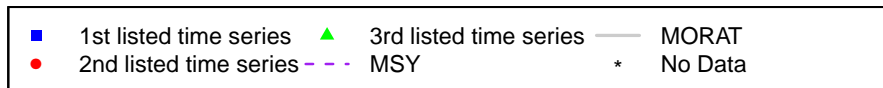
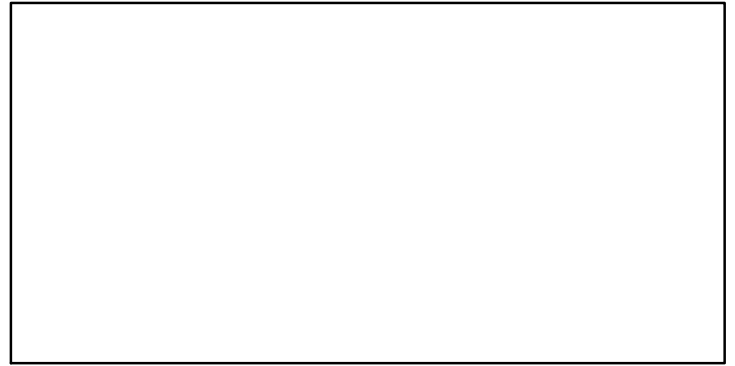
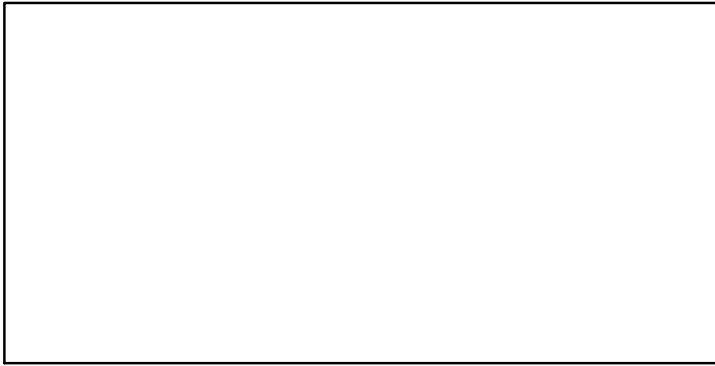


CPUE-MT/day (1994-2007-CHING)



EFFORT*

CdivMSY*



Catfish Central West Africa Gabon [CATCWAGAB]

Metadata	
Scientific Name	Arius spp
Current Assess ID	FAO-DR-CATCWAGAB-1995-2007-CHING
Area	Central West Africa Gabon
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO/CECAF Working Group on the Assessment of Demersal Resources
Asmts in RAM	2007

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-index	2007	11	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2007	547		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



Kobe MGT*



Spawner Recruit*



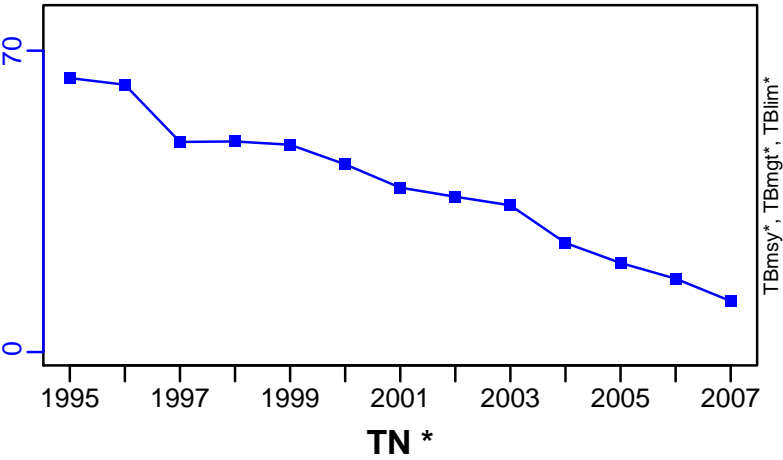
Production*



◆ Start Year ◆ End Year * No Data

Catfish Central West Africa Gabon [CATCWAGAB]

TB-index (1995–2007–CHING)



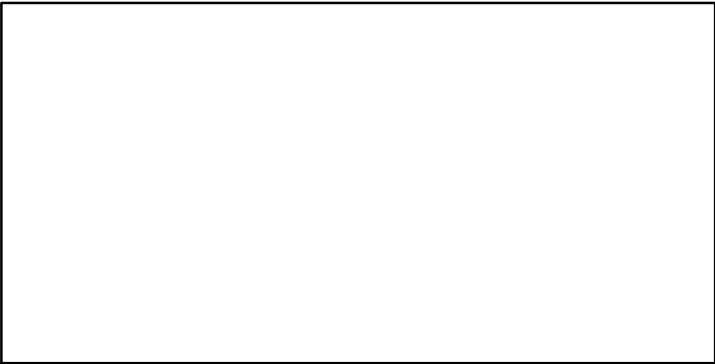
SSB*



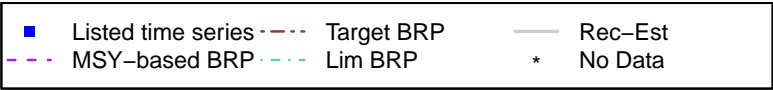
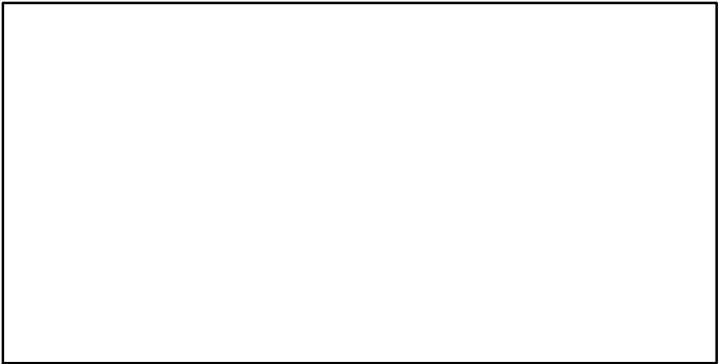
F*



ER*

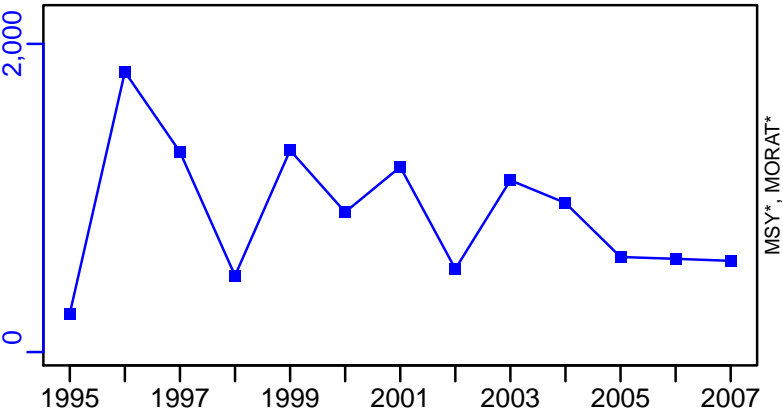


Recruits*



Catfish Central West Africa Gabon [CATCWAGAB]

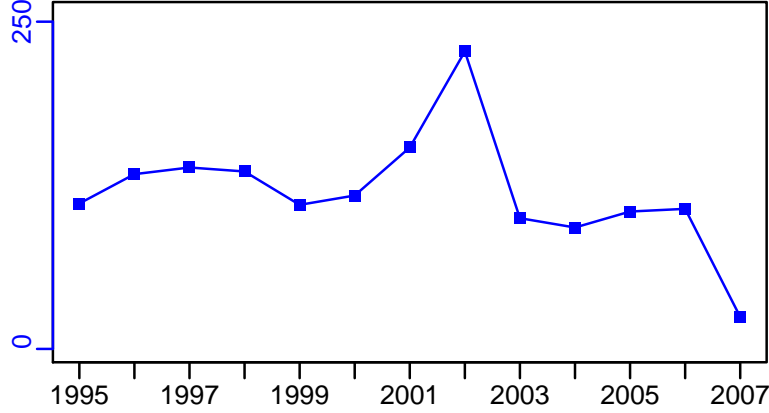
TC-MT, TL*, RecC* (1995-2007-CHING)



TAC*, Cpair*, Cadv*



CPUE-kg/day (1995-2007-CHING)



EFFORT*



Catfish Central West Africa Guinea-Liberia [CATCWAGIN-LBR]

Metadata	
Scientific Name	Arius spp
Current Assess ID	FAO-DR-CATCWAGIN-LBR-1994-2008-CHING
Area	Central West Africa Guinea-Liberia
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO/CECAF Working Group on the Assessment of Demersal Resources
Asmts in RAM	2008

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2008	2470		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



Kobe MGT*



Spawner Recruit*



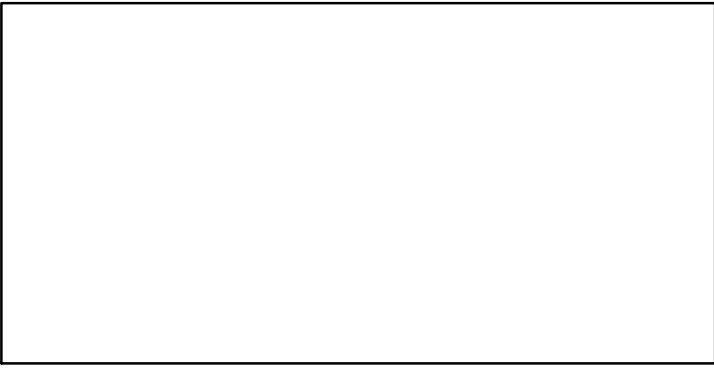
Production*



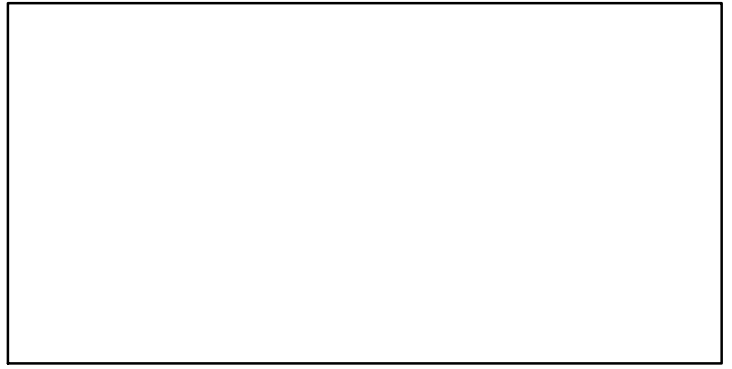
◆ Start Year ◆ End Year * No Data

Catfish Central West Africa Guinea–Liberia [CATCWAGIN–LBR]

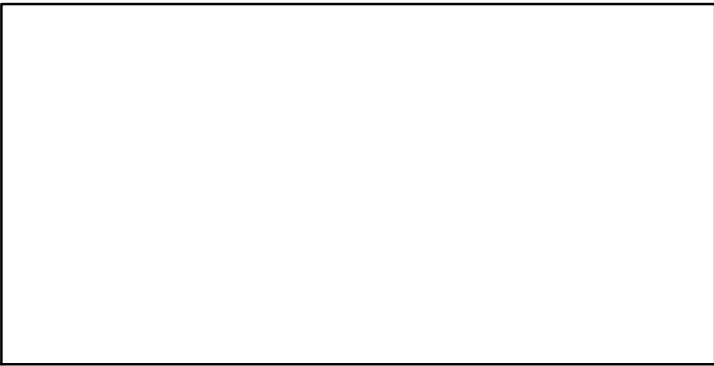
TB*



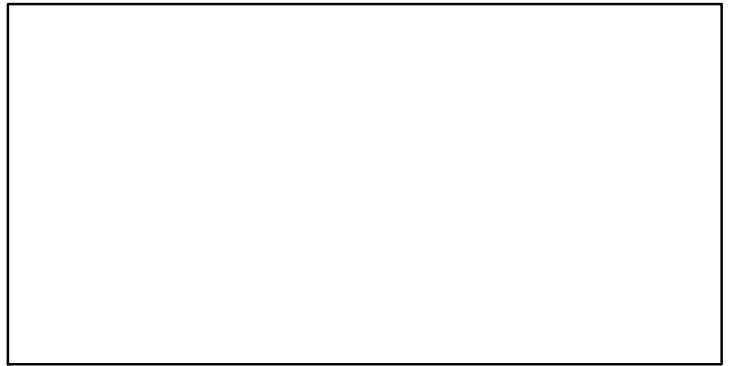
SSB*



TN *



F*



ER*

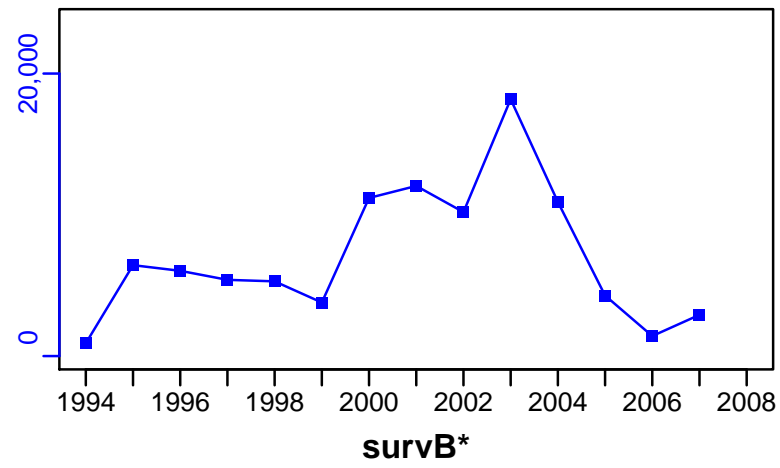


Recruits*



Catfish Central West Africa Guinea-Liberia [CATCWAGIN-LBR]

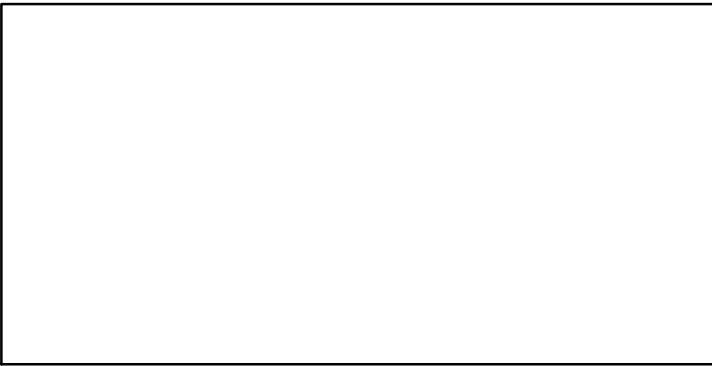
TC-MT, TL*, RecC* (1994-2008-CHING)



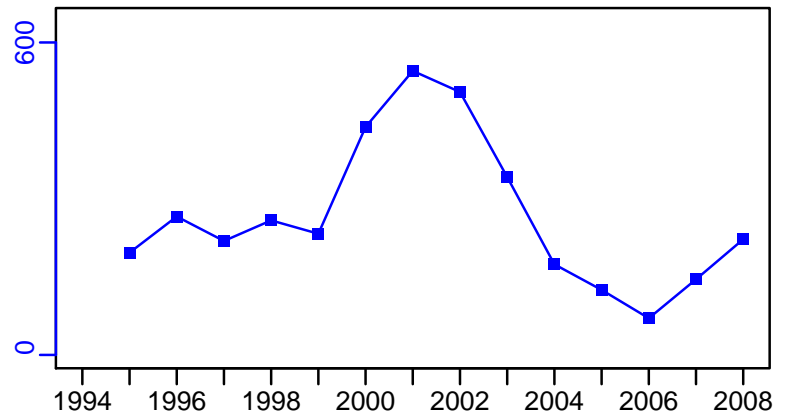
TAC*, Cpair*, Cadv*



survB*



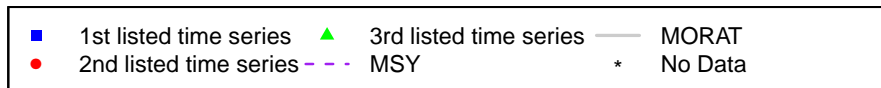
CPUE-MT/day (1994-2008-CHING)



EFFORT*



CdivMSY*



**Cunene horse mackerel Central West Africa Gabon-Angola
[CHMACKCWAGAB-AGO]**

Metadata	
Scientific Name	Trachurus trecae
Current Assess ID	FAO-SPNWA-CHMACKCWAGAB-AGO-1990-2017-ASHBROOK
Area	Central West Africa Gabon-Angola
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO Working Group on the Assessment of Small Pelagic Fish Off Northwest Africa
Asmts in RAM	2017

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2017	48,000		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	ERdivERmsy-dimensionless	2017	1.21		
TB/TBmgt	TBdivTBmgt-dimensionless	2017	0.78		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

TB*



SSB*



TN *



F*



ER*

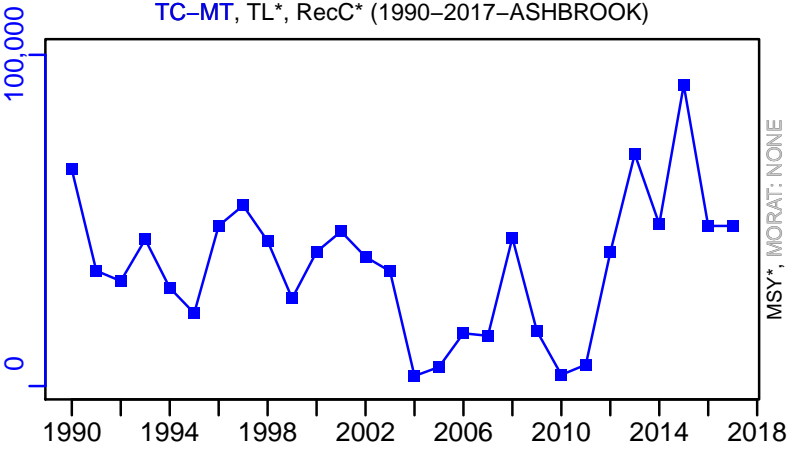


Recruits*



Cunene horse mackerel Central West Africa Gabon–Angola [CHMACKCWAGAB-AGO]

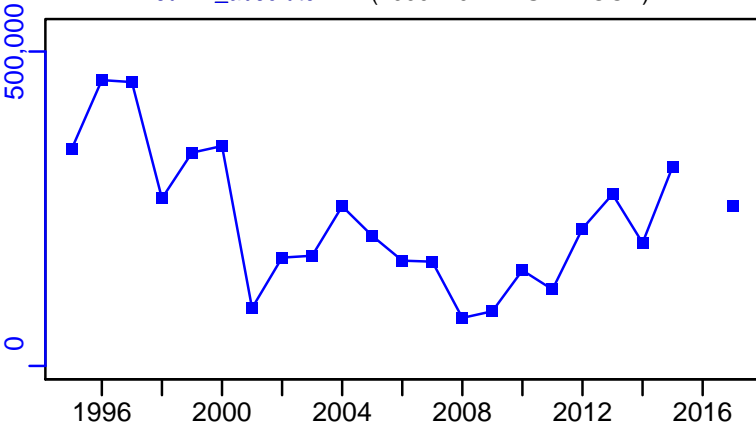
TC–MT, TL*, RecC* (1990–2017–ASHBROOK)



TAC*, Cpair*, Cadv*



survB_absolute–MT (1990–2017–ASHBROOK)



CPUE*



EFFORT*



CdivMSY*



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

**Cunene horse mackerel Central West Africa Guinea Bissau-Liberia
[CHMACKCWAGNB-LBR]**

Metadata	
Scientific Name	Trachurus trecae
Current Assess ID	FAO-SPNWA-CHMACKCWAGNB-LBR-1990-2017-ASHBROOK
Area	Central West Africa Guinea Bissau-Liberia
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO Working Group on the Assessment of Small Pelagic Fish Off Northwest Africa
Asmts in RAM	2017

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2017	31,487		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	ERdivERmsy-dimensionless	2017	1.13		
TB/TBmgt	TBdivTBmgt-dimensionless	2017	0.75		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

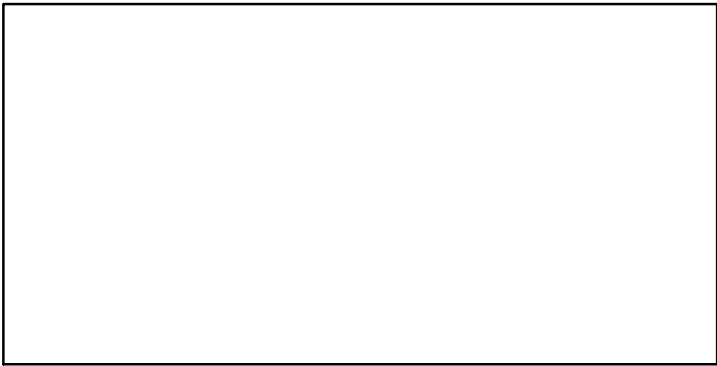
TB*



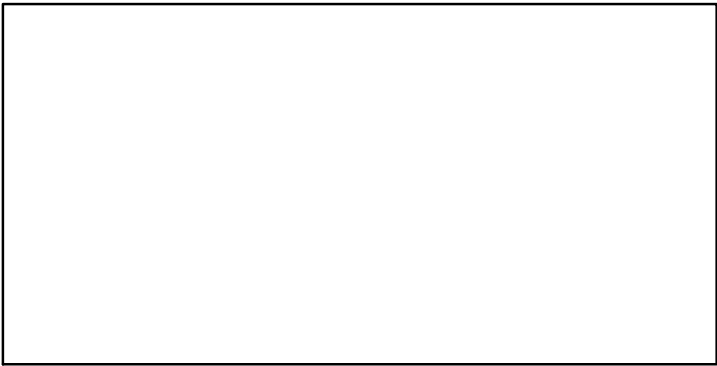
SSB*



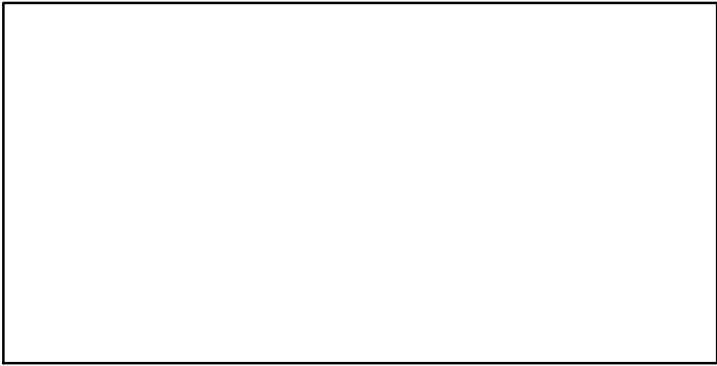
TN *



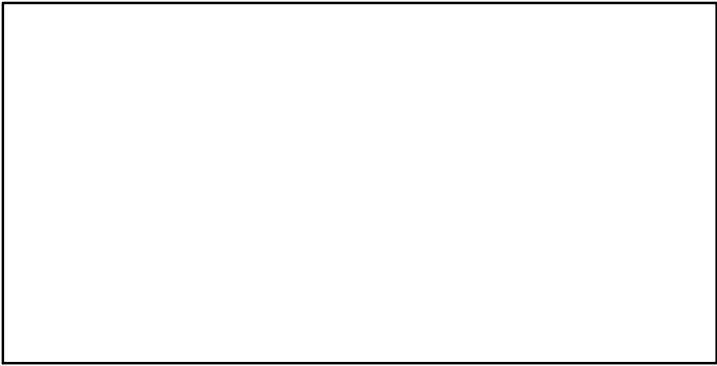
F*



ER*

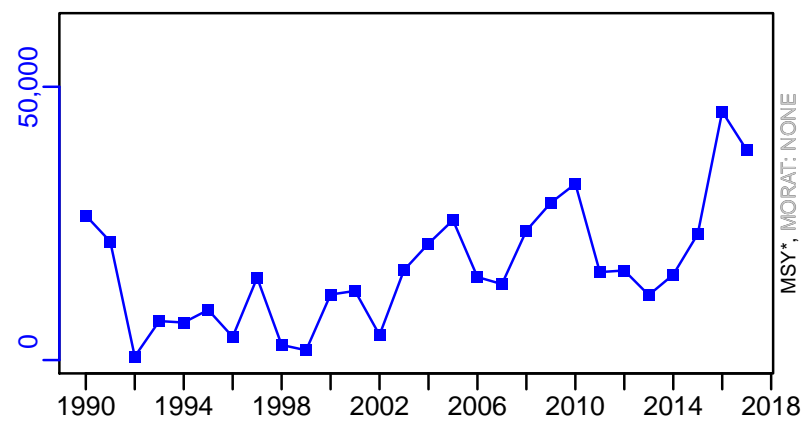


Recruits*



Cunene horse mackerel Central West Africa Guinea Bissau–Liberia [CHMACKCWAGNB–LBR]

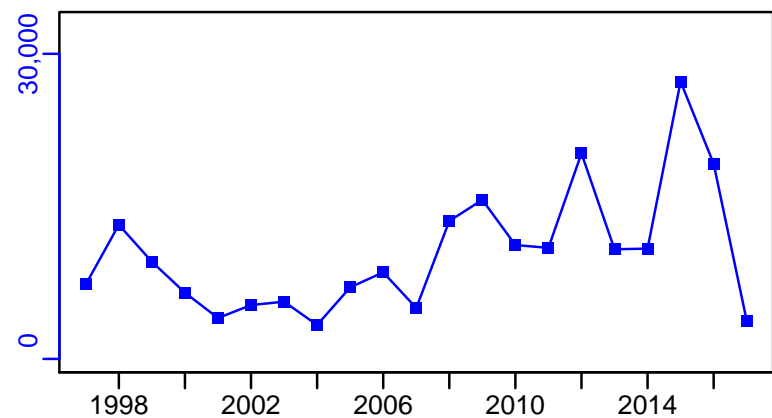
TC–MT, TL*, RecC* (1990–2017–ASHBROOK)



TAC*, Cpair*, Cadv*



survB_index–index (1990–2017–ASHBROOK)



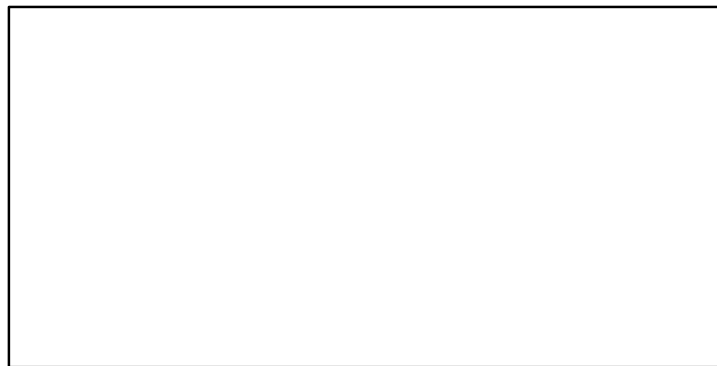
CPUE*



EFFORT*



CdivMSY*



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

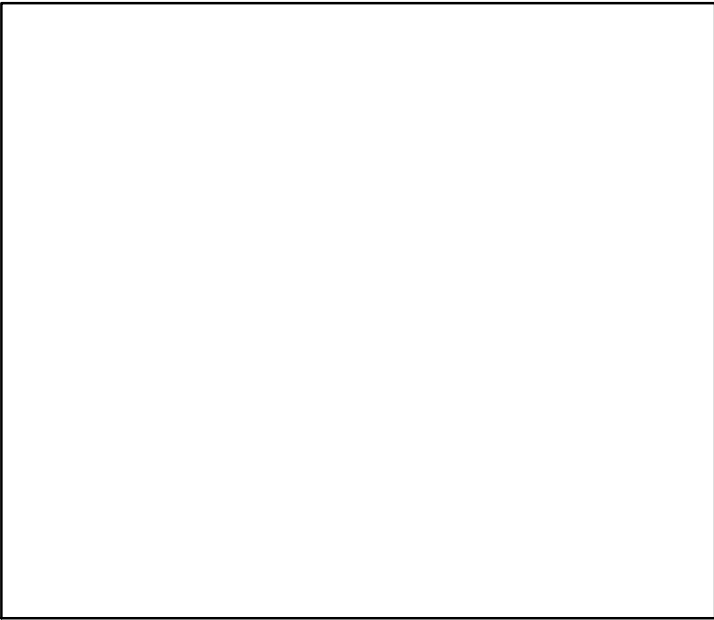
Cunene horse mackerel North West Africa [CHMACKNWA]

Metadata	
Scientific Name	Trachurus trecae
Current Assess ID	FAO-SPNWA-CHMACKNWA-1990-2016-ASHBROOK
Area	North West Africa
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO Working Group on the Assessment of Small Pelagic Fish Off Northwest Africa
Asmts in RAM	2010, 2016

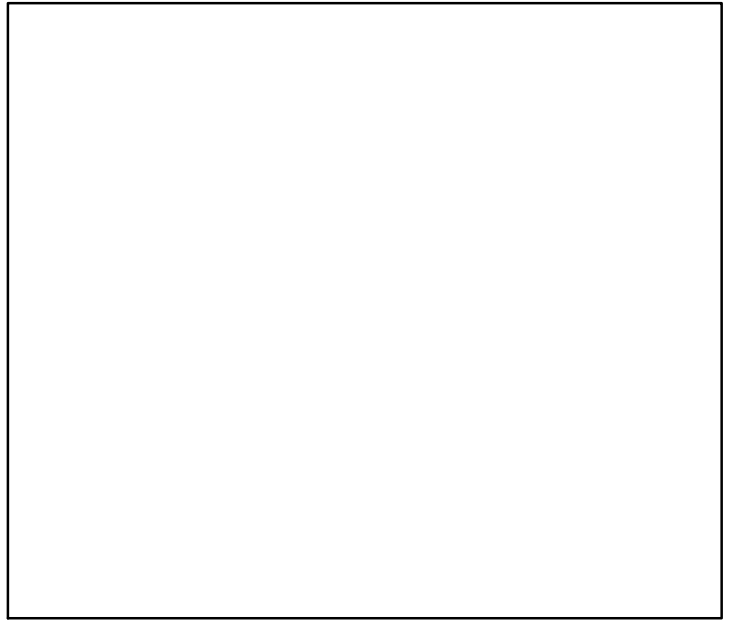
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	Fmsy-1/yr	2010	0.53
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2010	253,000	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	F-1/yr	2010	1.39	-	-
ER	ER-calc-ratio	2010	1.391	-	-
TC	TC-MT	2016	235,883		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	F-1/yr/Fmsy-1/yr	2010	2.623		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

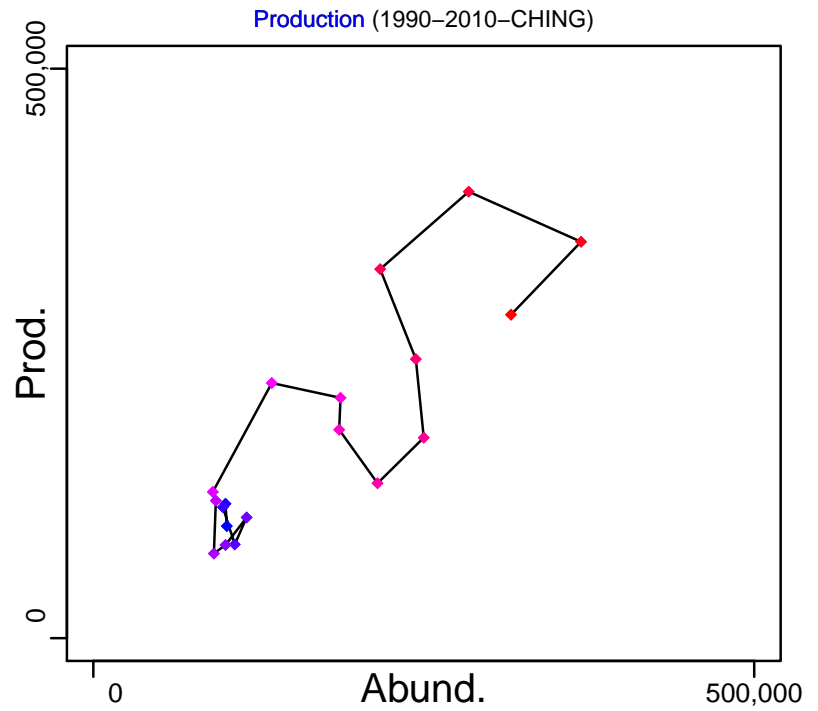
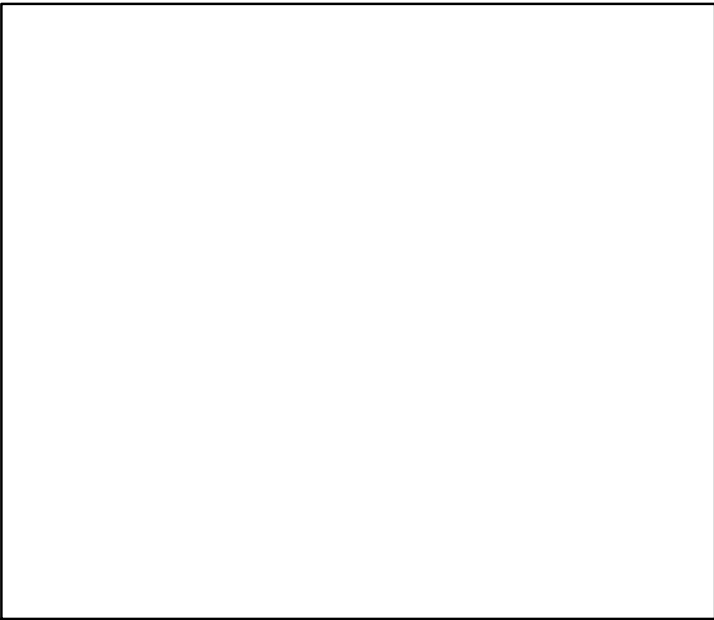
Kobe MSY*



Kobe MGT*



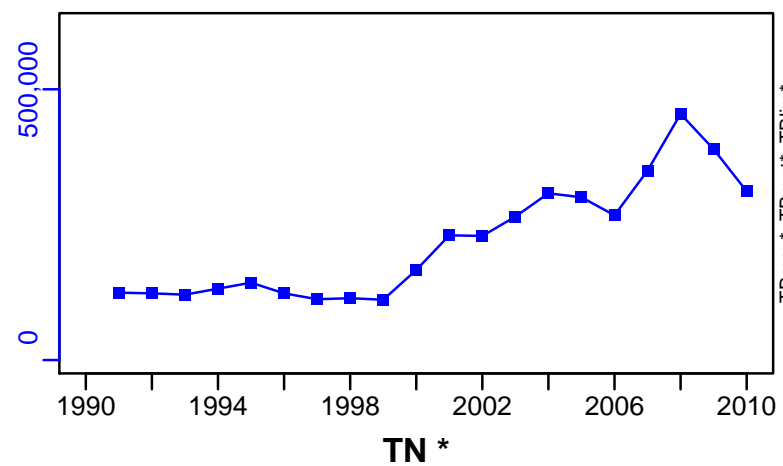
Spawner Recruit*



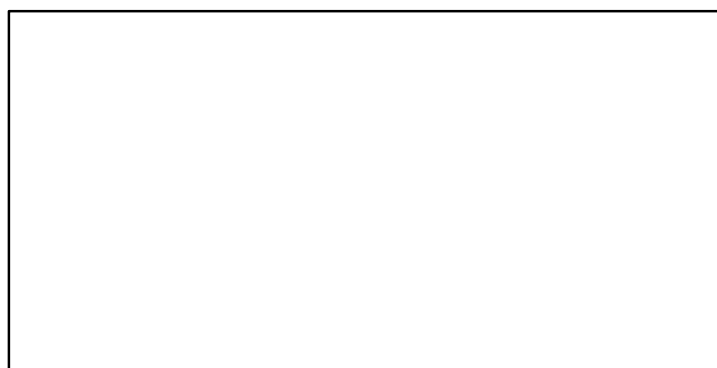
◆ Start Year ◆ End Year * No Data

Cunene horse mackerel North West Africa [CHMACKNWA]

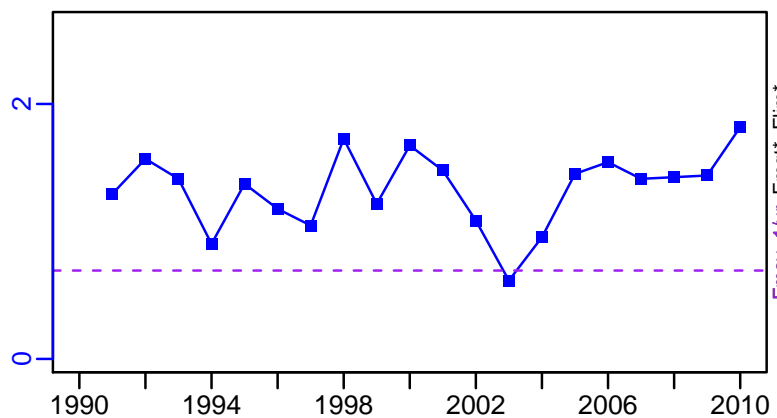
TB-MT (1990–2010–CHING)



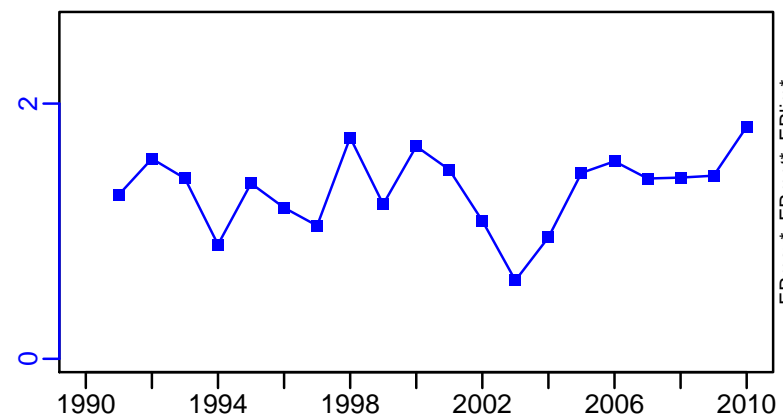
SSB*



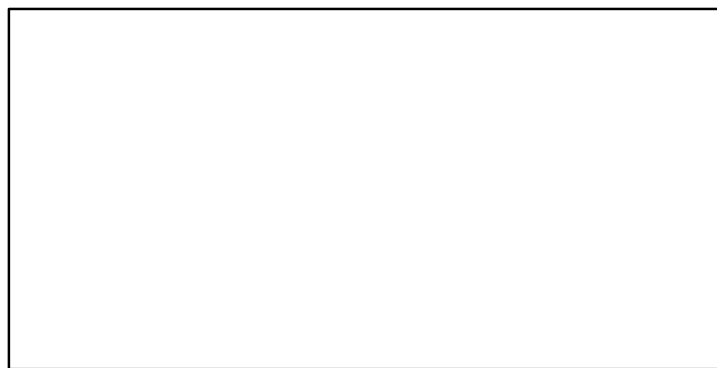
F-1/yr (1990–2010–CHING)



ER-calc-ratio (1990–2010–CHING)



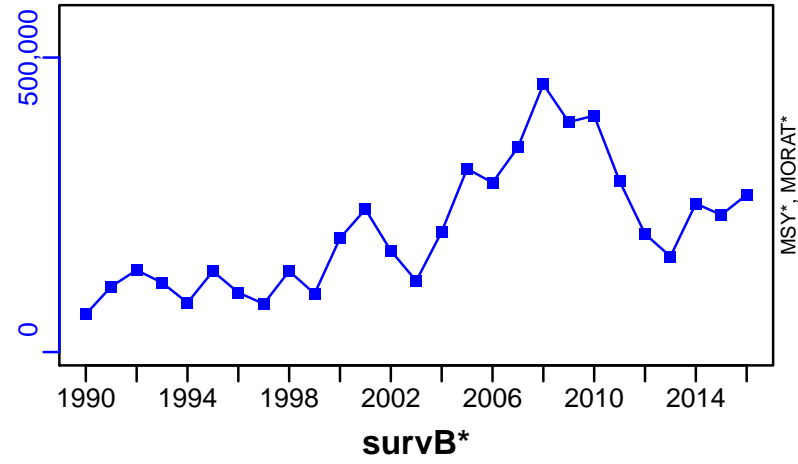
Recruits*



Cunene horse mackerel North West Africa [CHMACKNWA]

TC-MT, TL*, RecC* (1990–2016–ASHBROOK)

TAC*, Cpair*, Cadv*

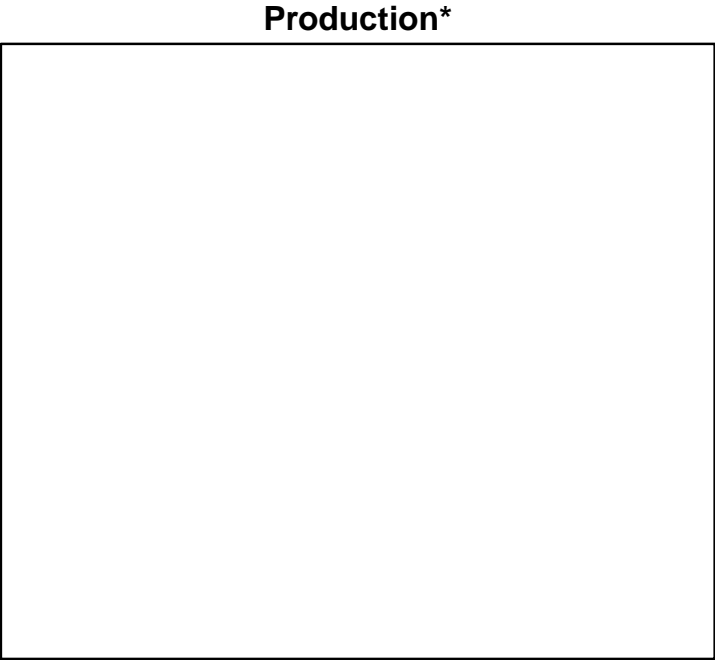
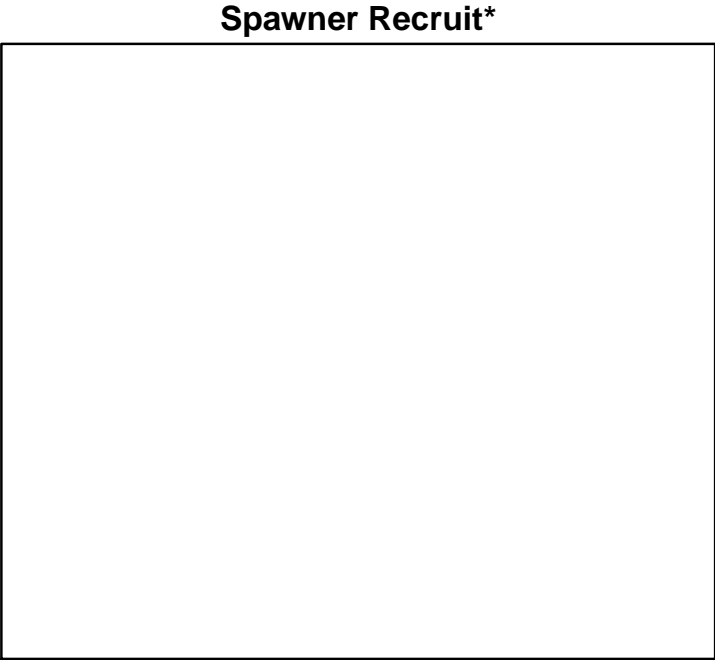
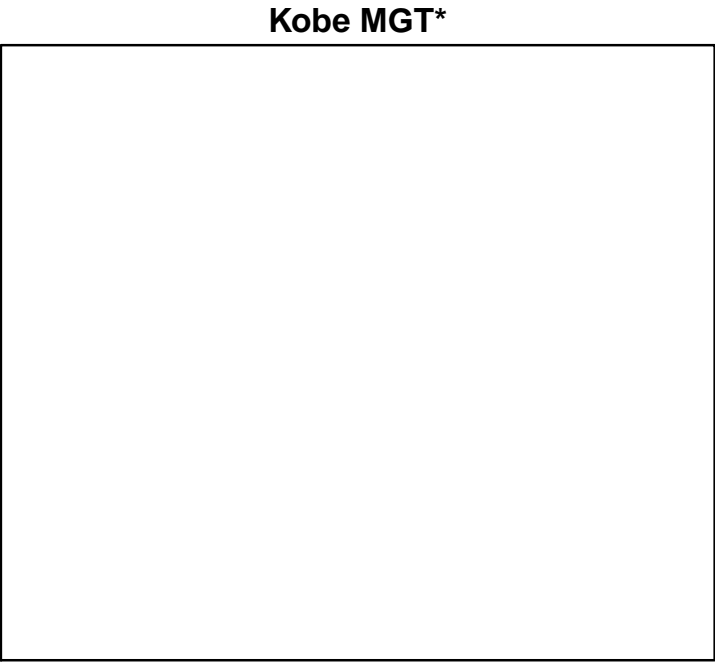


Chub mackerel North West Africa [CMACKNWA]

Metadata	
Scientific Name	Scomber japonicus
Current Assess ID	FAO-SPNWA-CMACKNWA-1990-2013-ASHBROOK
Area	North West Africa
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO Working Group on the Assessment of Small Pelagic Fish Off Northwest Africa
Asmts in RAM	2010, 2013

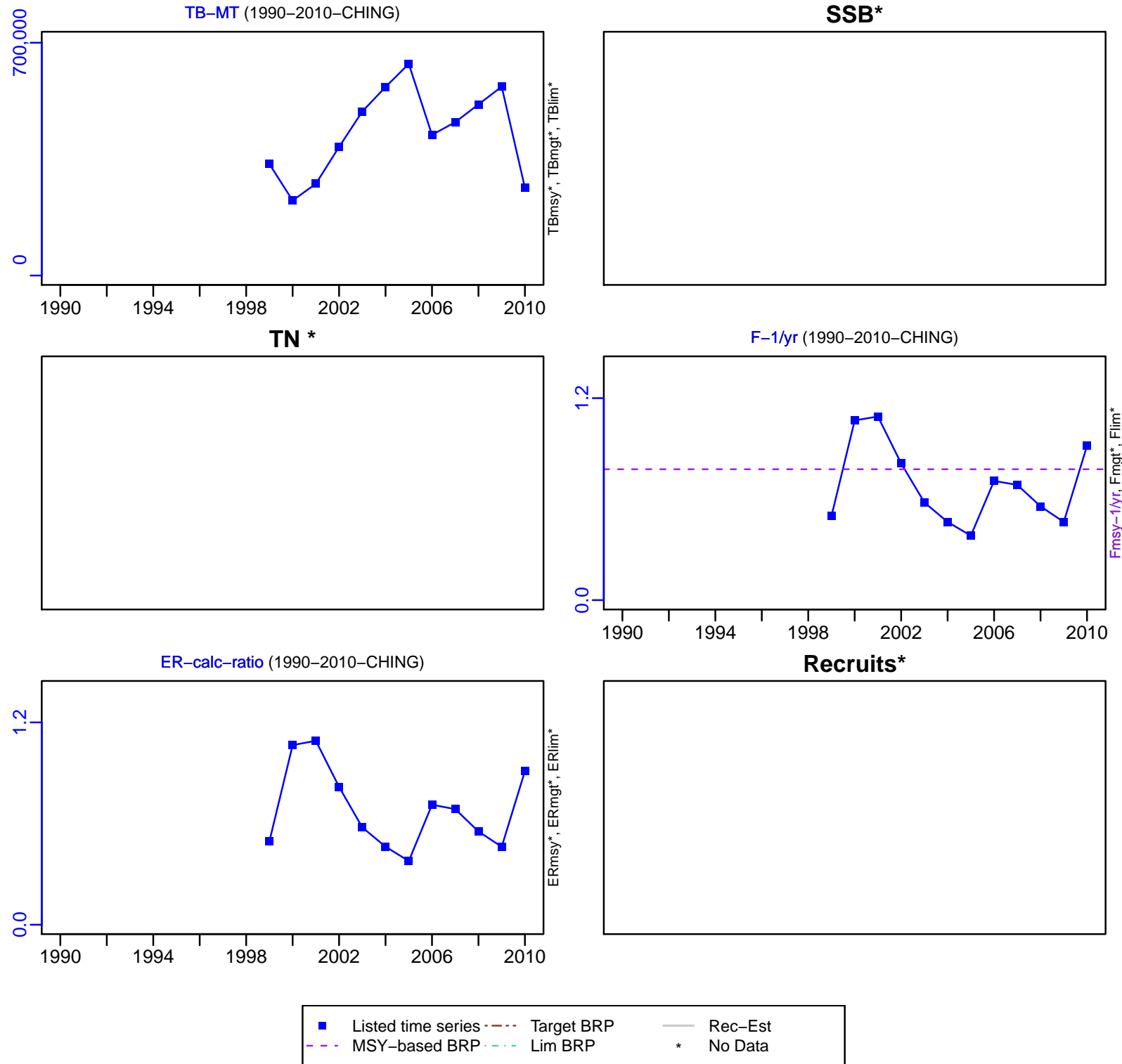
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	Fmsy-1/yr	2010	0.67
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2013	255,485
M	M-1/yr	2013	0.58
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2010	262,000	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	F-1/yr	2010	0.79	-	-
ER	ER-calc-ratio	2010	0.786	-	-
TC	TC-MT	2013	332,542		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	F-1/yr/Fmsy-1/yr	2010	1.179		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



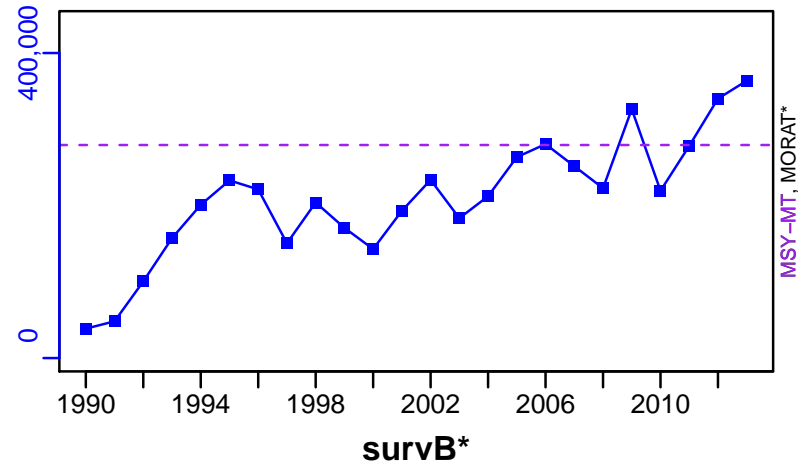
◆ Start Year ◆ End Year * No Data

Chub mackerel North West Africa [CMACKNWA]



Chub mackerel North West Africa [CMACKNWA]

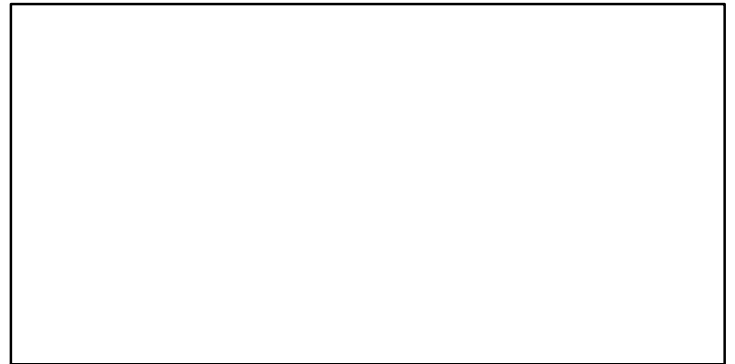
TC-MT, TL*, RecC* (1990–2013–ASHBROOK)



TAC*, Cpair*, Cadv*



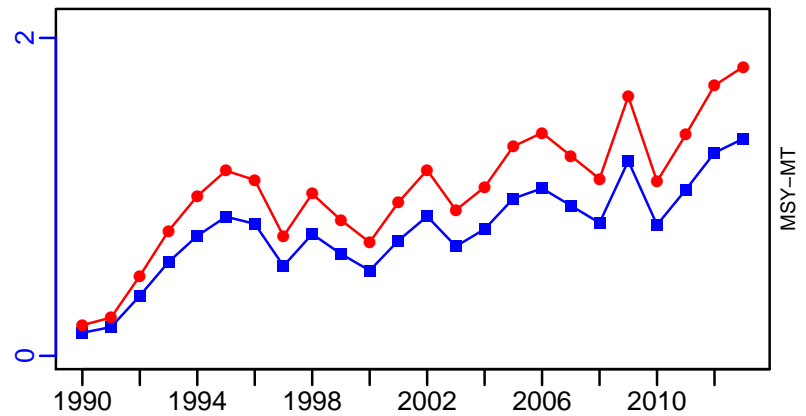
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1990–2013–ASHBROOK)



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

Croaker Central West Africa Cote Divoire-Benin [CROAKSPPCWACIV-BEN]

Metadata	
Scientific Name	Pseudotolithus spp
Current Assess ID	FAO-DR-CROAKSPPCWACIV-BEN-1990-2006-CHING
Area	Central West Africa Cote Divoire-Benin
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO/CECAF Working Group on the Assessment of Demersal Resources
Asmts in RAM	2006

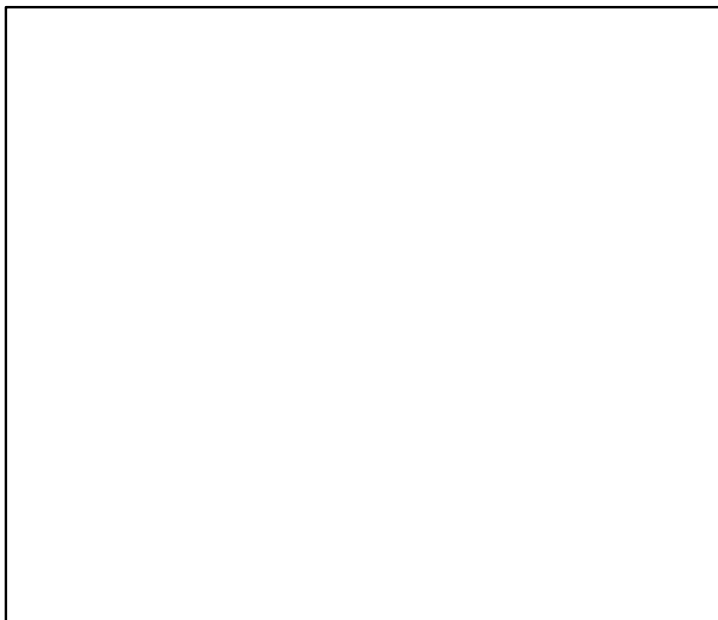
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2006	2790		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

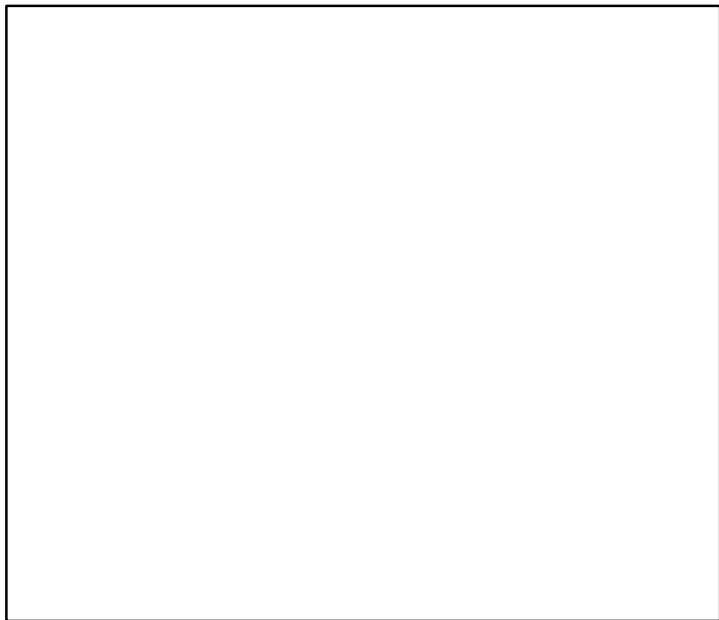
Kobe MSY*



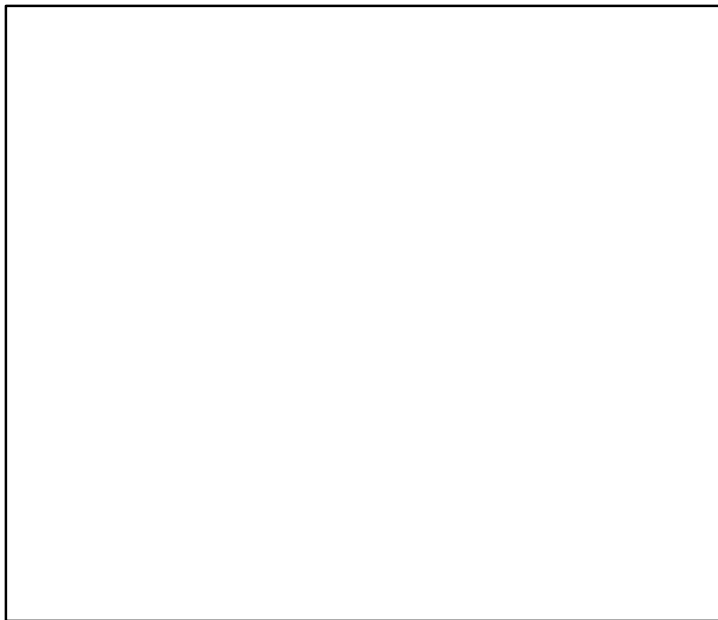
Kobe MGT*



Spawner Recruit*



Production*

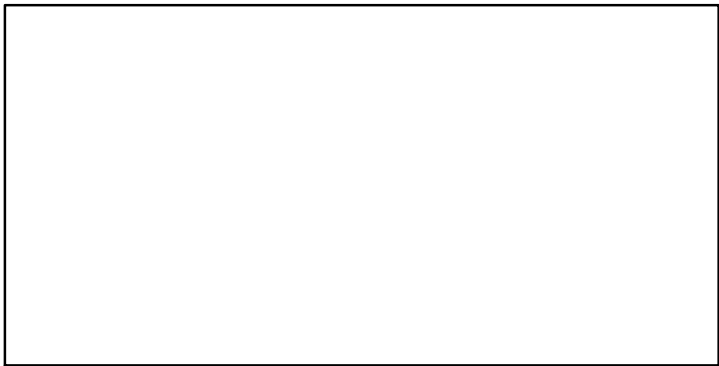


◆ Start Year ◆ End Year * No Data

TB*



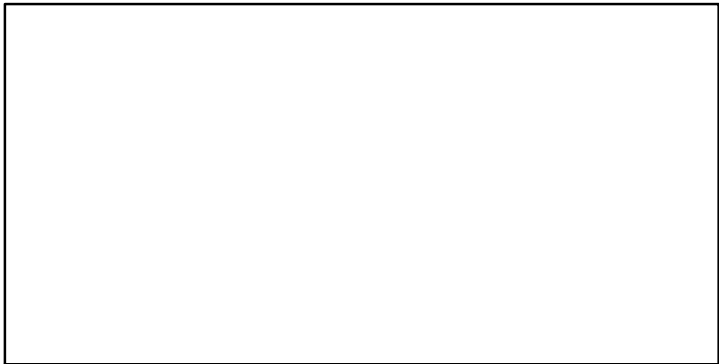
SSB*



TN *



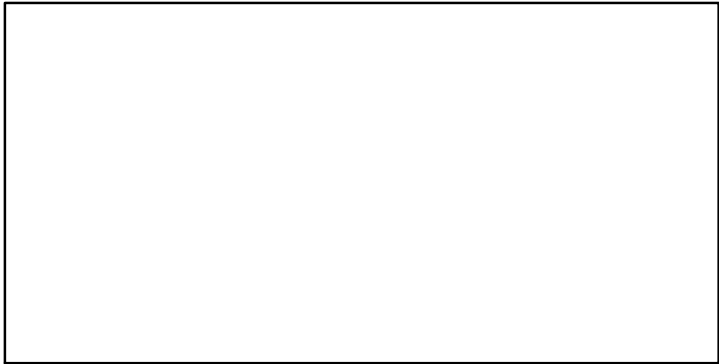
F*



ER*

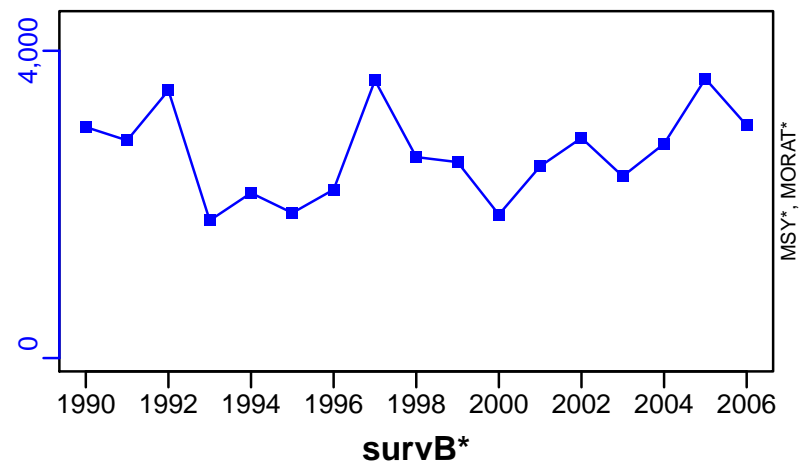


Recruits*

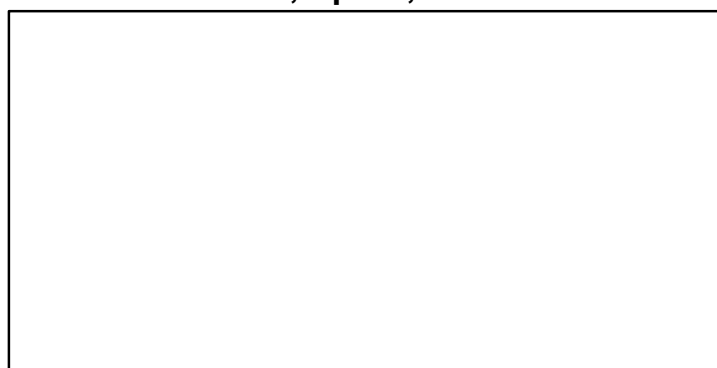


Croaker Central West Africa Cote Divoire–Benin [CROAKSPPCWACIV–BEN]

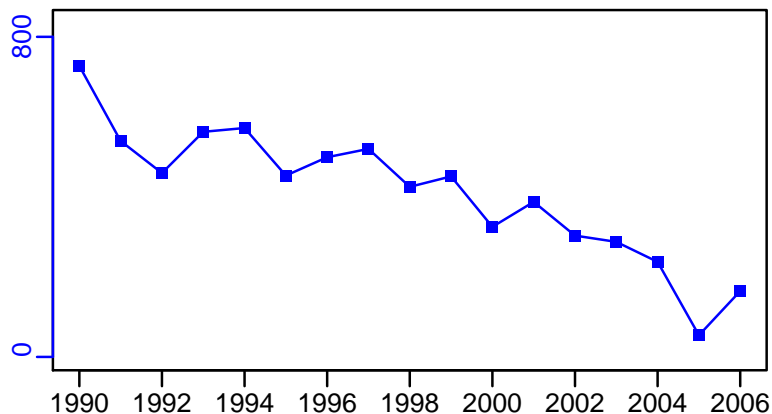
TC–MT, TL*, RecC* (1990–2006–CHING)



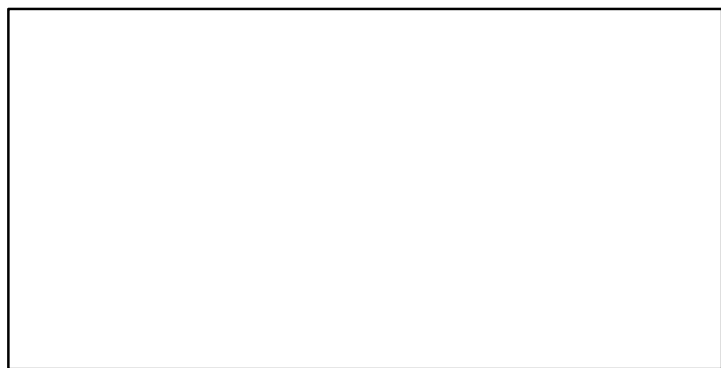
TAC*, Cpair*, Cadv*



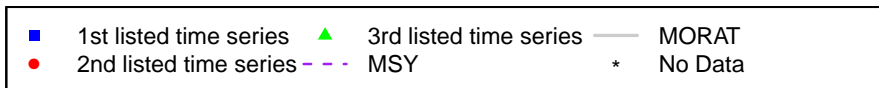
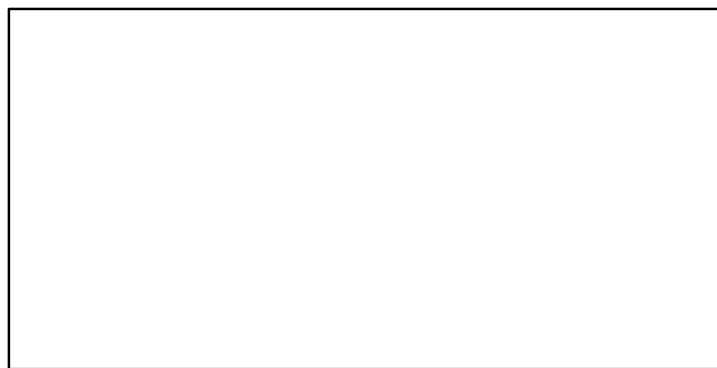
CPUE–kg/day (1990–2006–CHING)



EFFORT*



CdivMSY*



Croaker Central West Africa Gabon-Angola [CROAKSPPCWAGAB-AGO]

Metadata	
Scientific Name	Pseudotolithus spp
Current Assess ID	FAO-DR-CROAKSPPCWAGAB-AGO-1990-2007-CHING
Area	Central West Africa Gabon-Angola
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO/CECAF Working Group on the Assessment of Demersal Resources
Asmts in RAM	2007

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-index	2007	351	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2007	38,700		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*

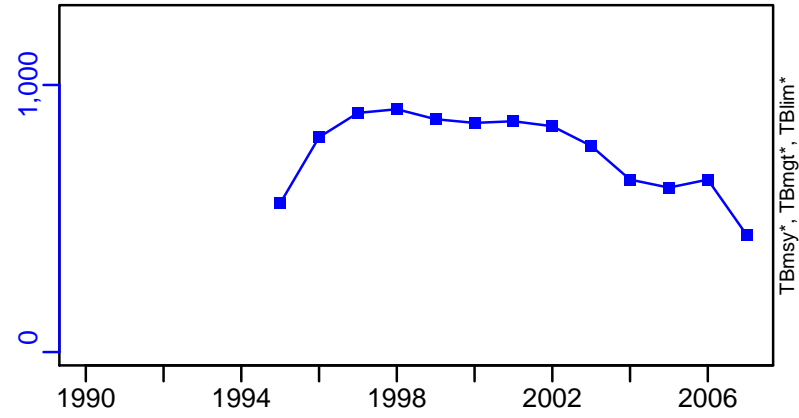


◆ Start Year ◆ End Year * No Data

Croaker Central West Africa Gabon–Angola [CROAKSPPCWAGAB–AGO]

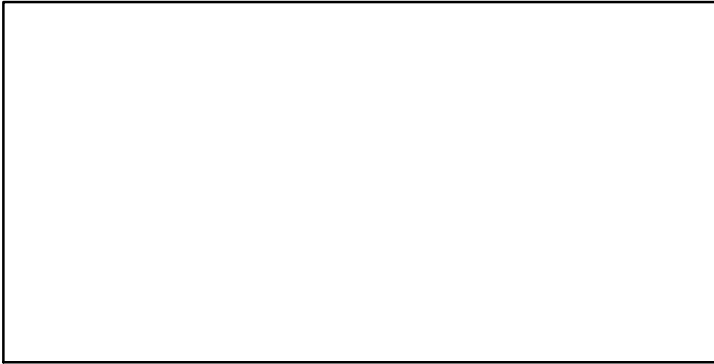
TB-index (1990–2007–CHING)

SSB*



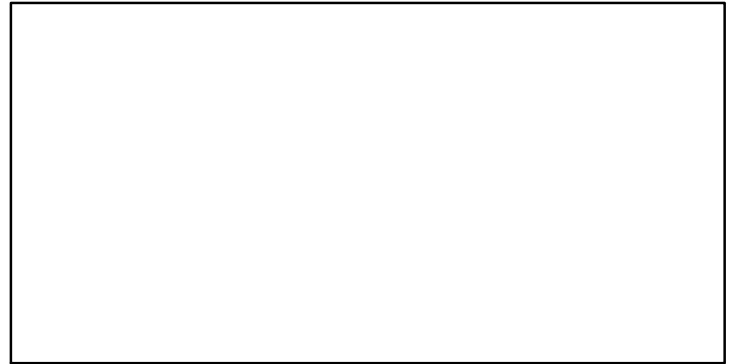
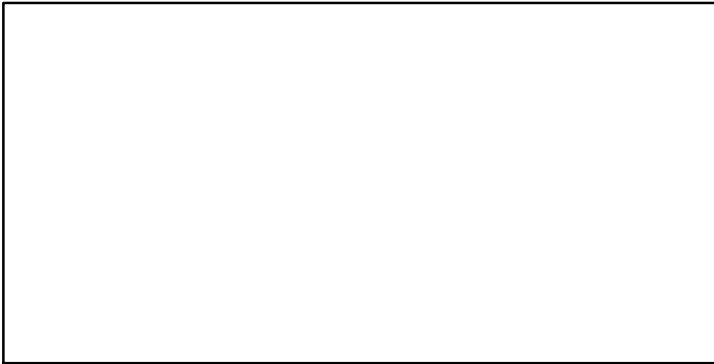
TN *

F*



ER*

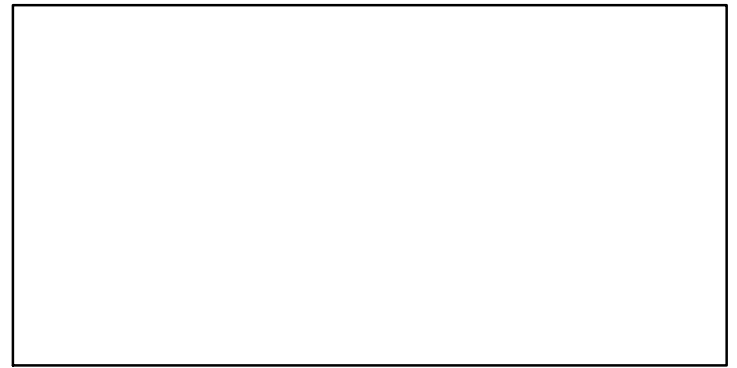
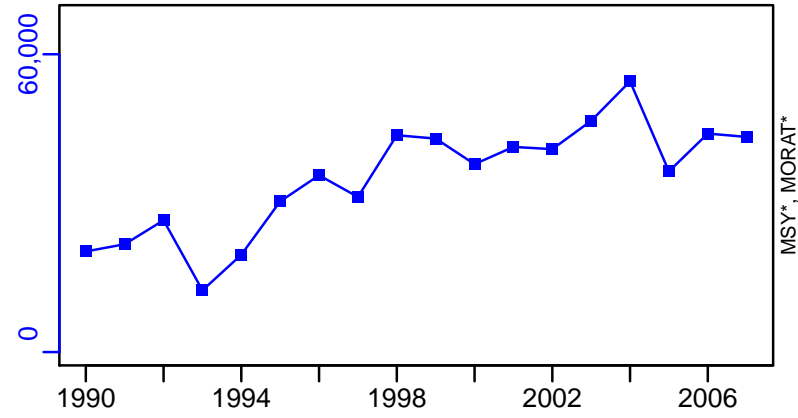
Recruits*



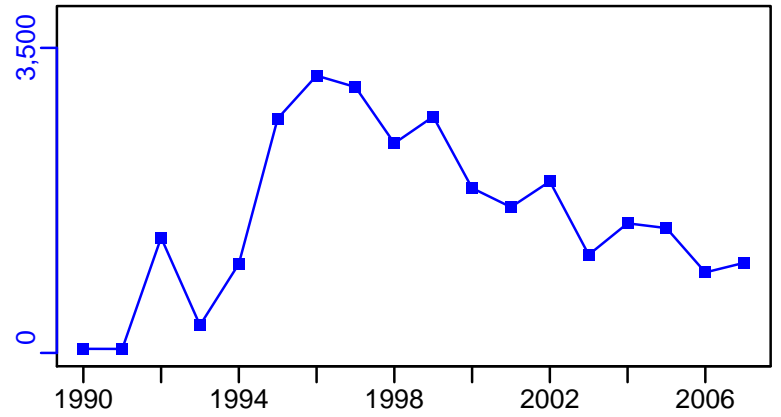
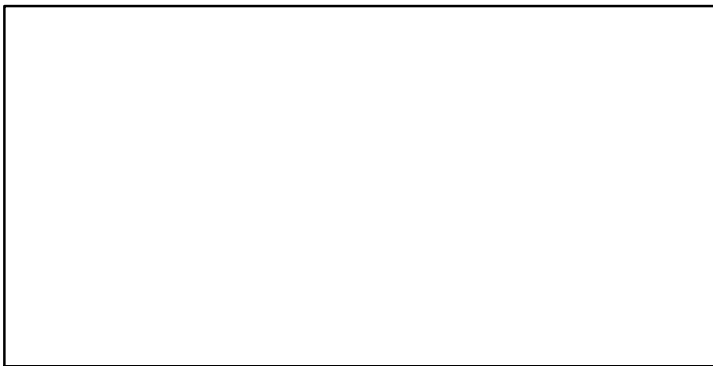
Croaker Central West Africa Gabon–Angola [CROAKSPPCWAGAB–AGO]

TC–MT, TL*, RecC* (1990–2007–CHING)

TAC*, Cpair*, Cadv*

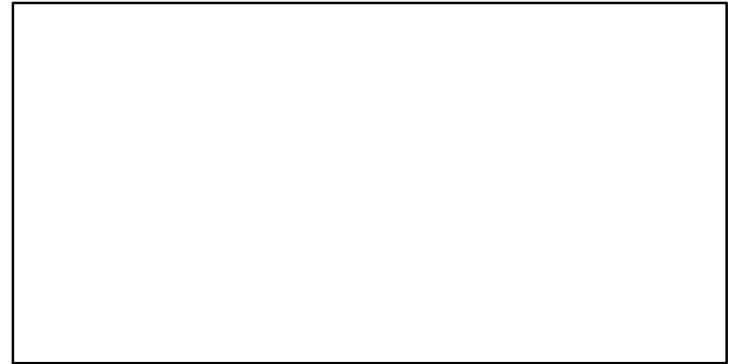
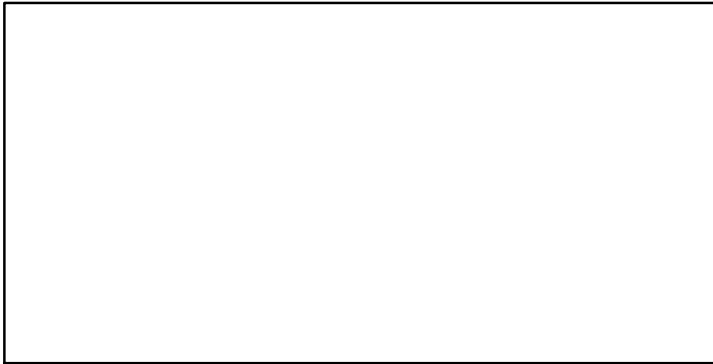


CPUE–kg/day (1990–2007–CHING)



EFFORT*

CdivMSY*



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

Croaker Central West Africa Guinea-Liberia [CROAKSPPCWAGIN-LBR]

Metadata	
Scientific Name	Pseudotolithus spp
Current Assess ID	FAO-DR-CROAKSPPCWAGIN-LBR-1994-2007-CHING
Area	Central West Africa Guinea-Liberia
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO/CECAF Working Group on the Assessment of Demersal Resources
Asmts in RAM	2007

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-index	2007	40	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2007	4730		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



Kobe MGT*



Spawner Recruit*



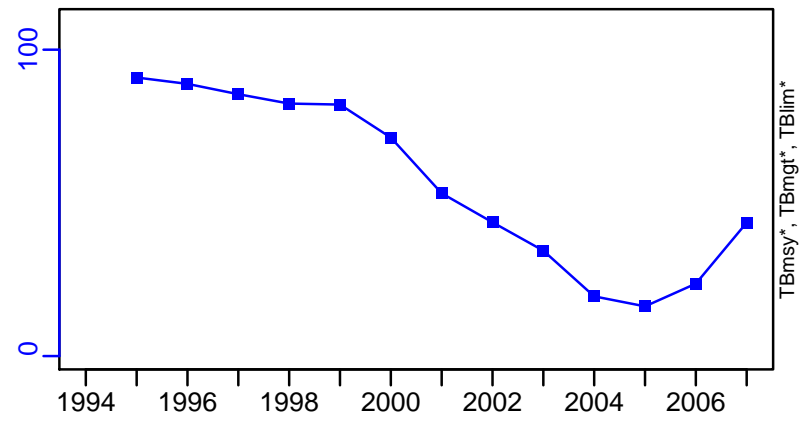
Production*



◆ Start Year ◆ End Year * No Data

Croaker Central West Africa Guinea–Liberia [CROAKSPPCWAGIN–LBR]

TB-index (1994–2007–CHING)



SSB*



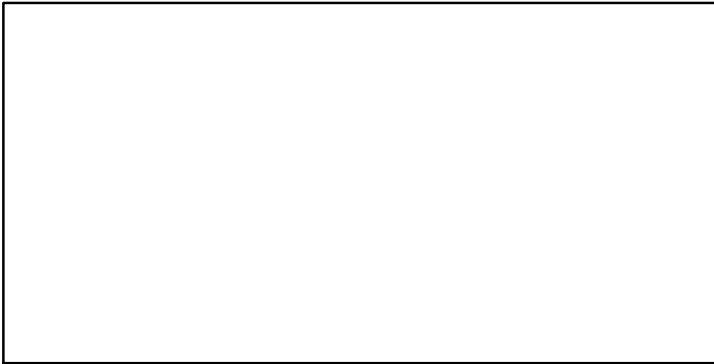
TN *



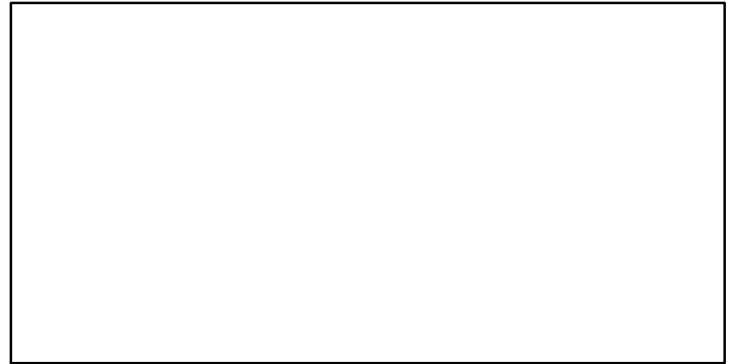
F*



ER*

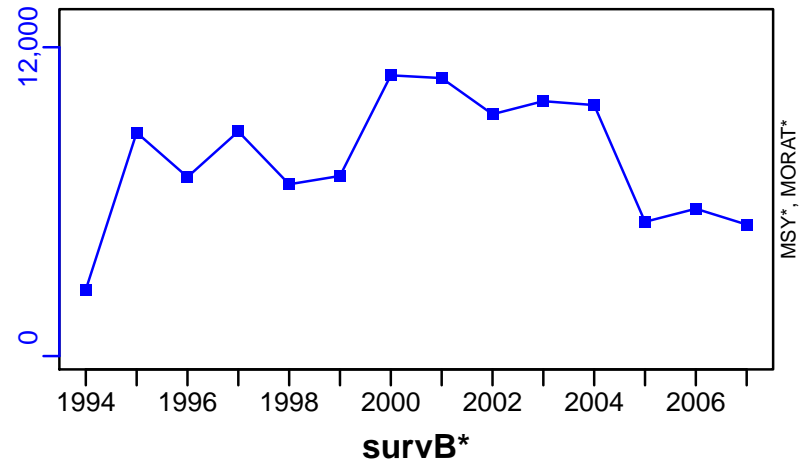


Recruits*



Croaker Central West Africa Guinea–Liberia [CROAKSPPCWAGIN–LBR]

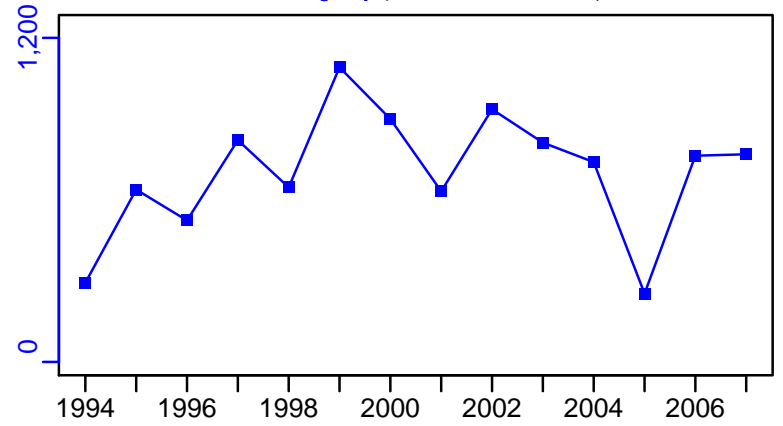
TC–MT, TL*, RecC* (1994–2007–CHING)



TAC*, Cpair*, Cadv*



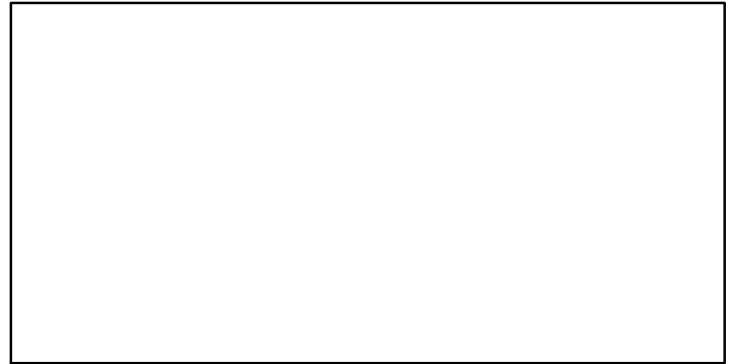
CPUE–kg/day (1994–2007–CHING)



EFFORT*



CdivMSY*



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

Coastal shrimp Central West Africa [CSHRIMPCWA]

Metadata	
Scientific Name	Penaeus spp
Current Assess ID	FAO-DR-CSHRIMPCWA-1990-2007-CHING
Area	Central West Africa
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO/CECAF Working Group on the Assessment of Demersal Resources
Asmts in RAM	2007

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2007	6580		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



Kobe MGT*



Spawner Recruit*



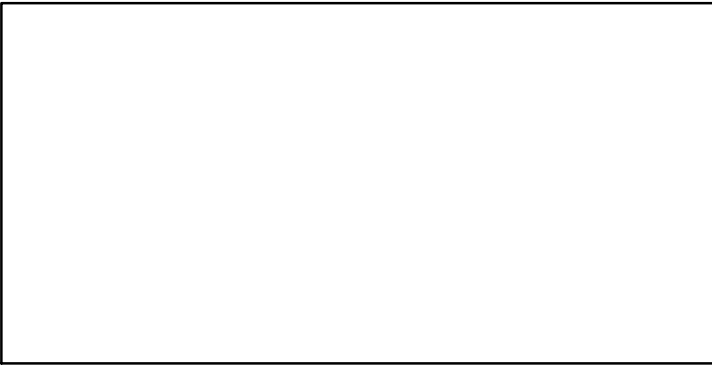
Production*



◆ Start Year ◆ End Year * No Data

Coastal shrimp Central West Africa [CSHRIMPCWA]

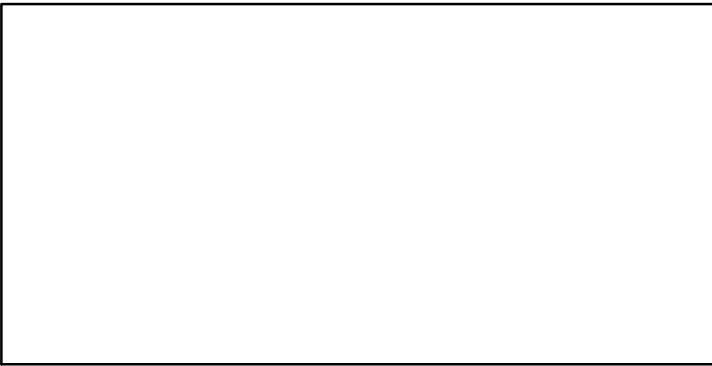
TB*



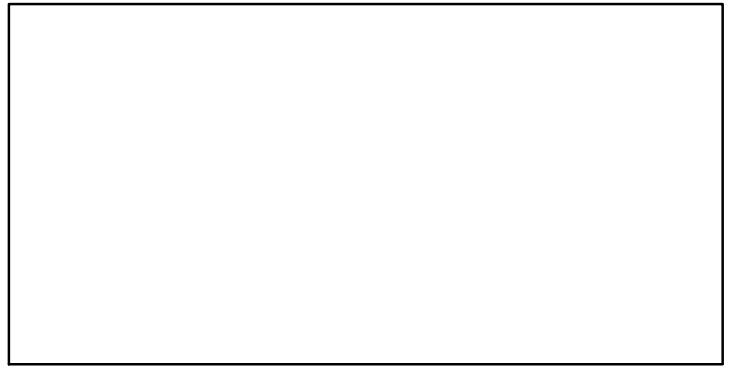
SSB*



TN *



F*



ER*



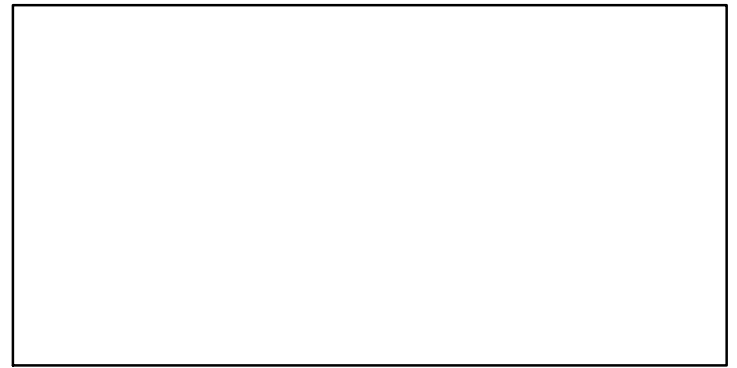
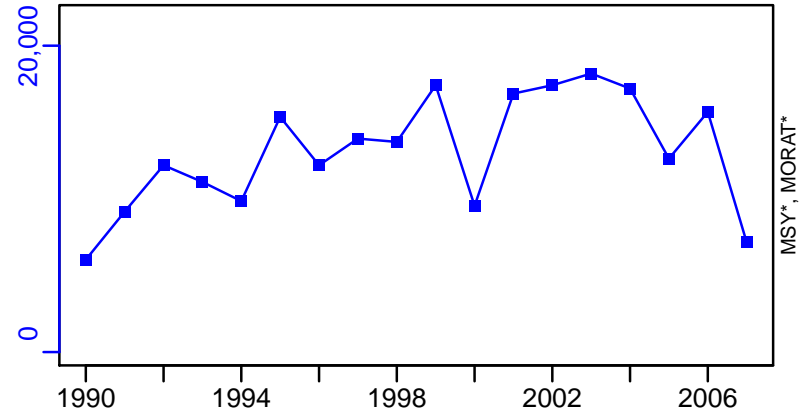
Recruits*



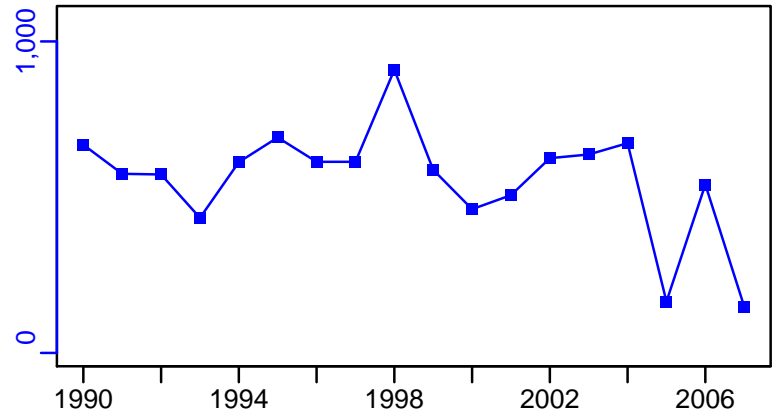
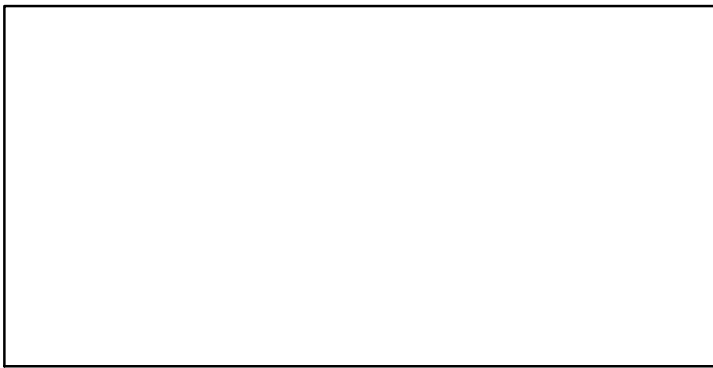
Coastal shrimp Central West Africa [CSHRIMPCWA]

TC-MT, TL*, RecC* (1990-2007-CHING)

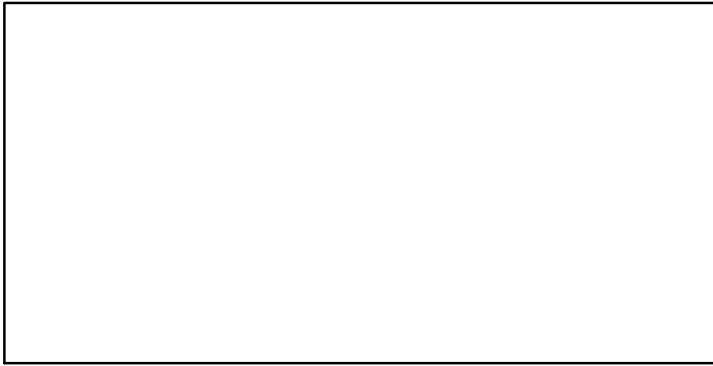
TAC*, Cpair*, Cadv*



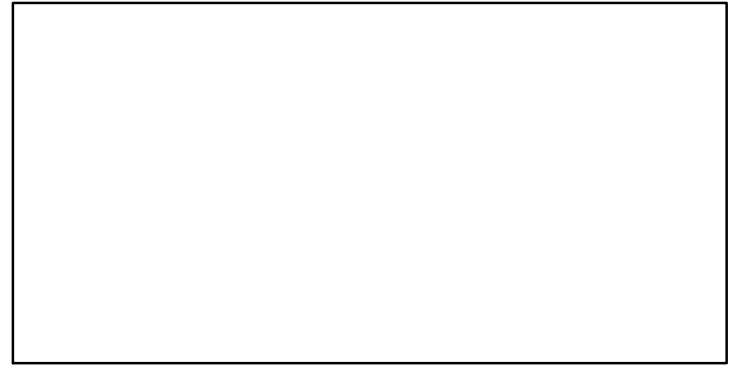
CPUE-kg/day (1990-2007-CHING)



EFFORT*



CdivMSY*



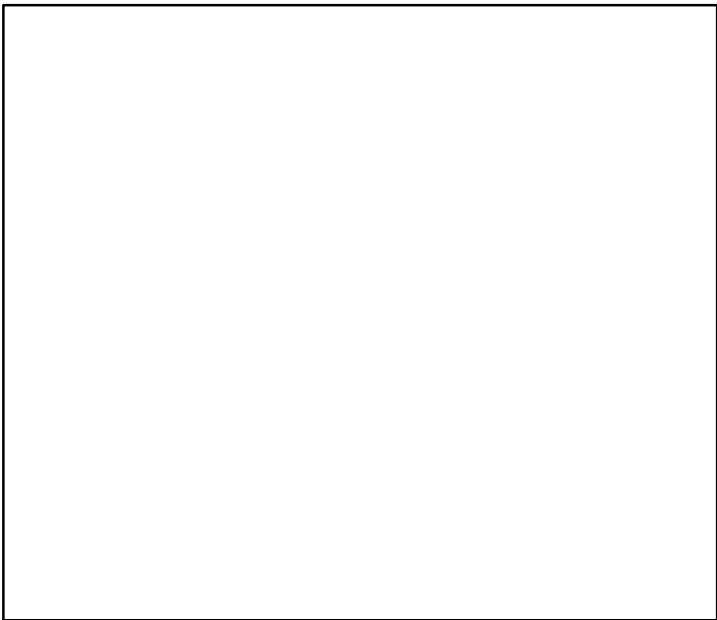
Cuttlefish Central West Africa Ghana [CUTTLECWAGHA]

Metadata	
Scientific Name	Sepia spp
Current Assess ID	FAO-DR-CUTTLECWAGHA-1990-2007-CHING
Area	Central West Africa Ghana
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO/CECAF Working Group on the Assessment of Demersal Resources
Asmts in RAM	2007

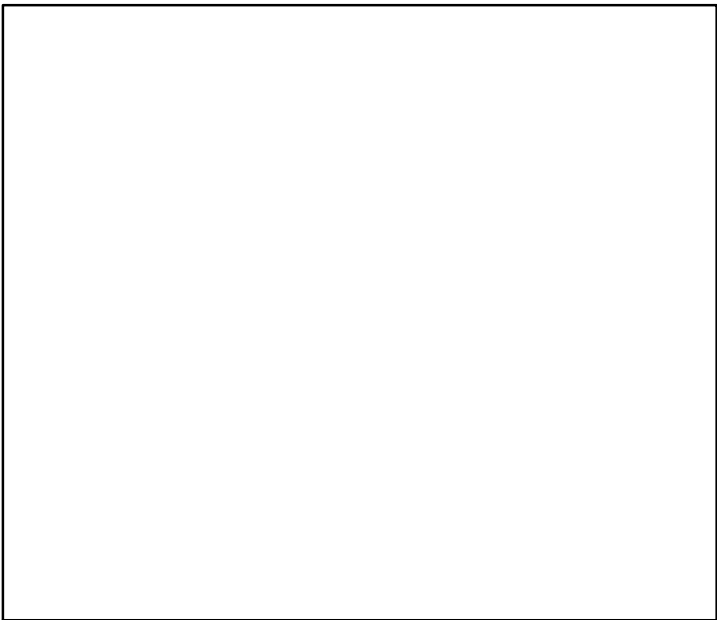
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-index	2007	242	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2007	3780		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



Kobe MGT*



Spawner Recruit*



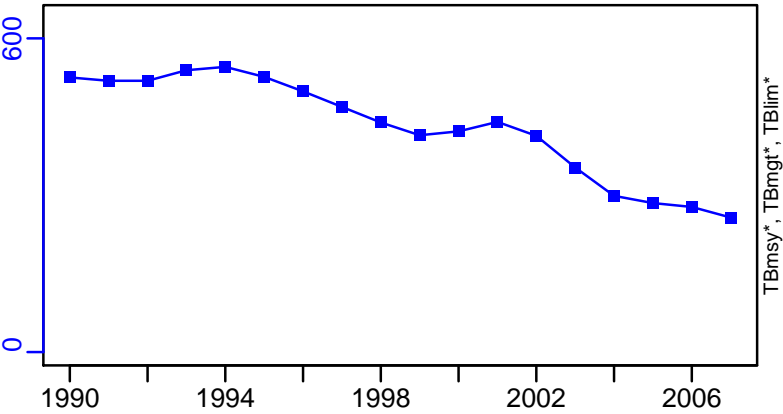
Production*



◆ Start Year ◆ End Year * No Data

Cuttlefish Central West Africa Ghana [CUTTLECWAGHA]

TB-index (1990–2007–CHING)



SSB*



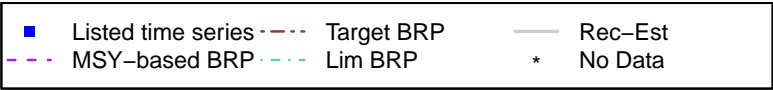
F*



ER*



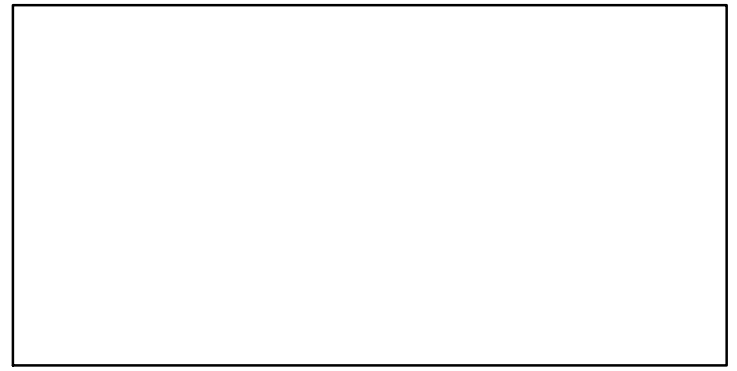
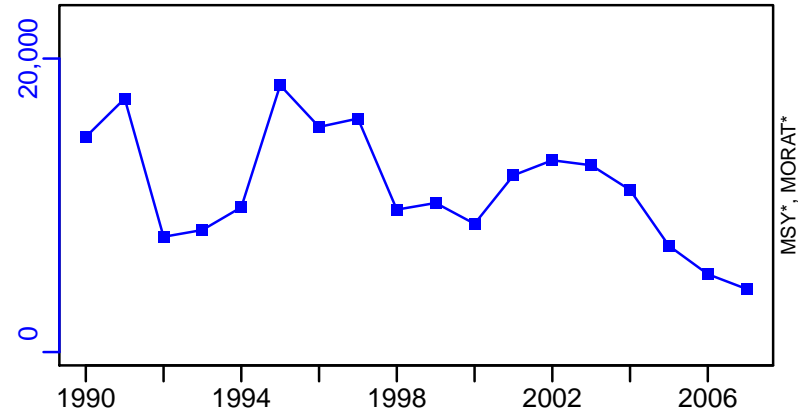
Recruits*



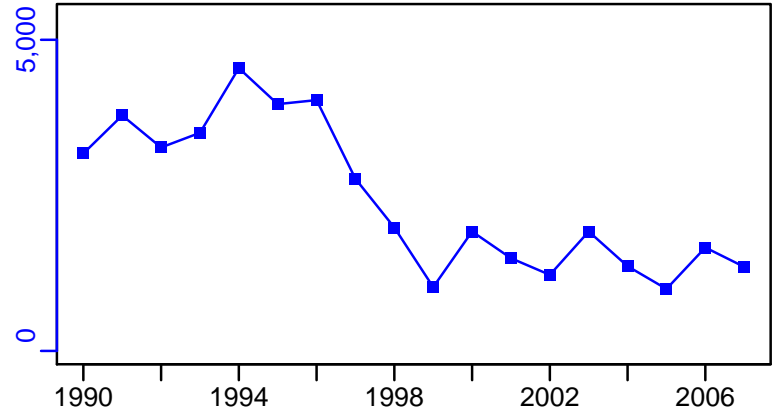
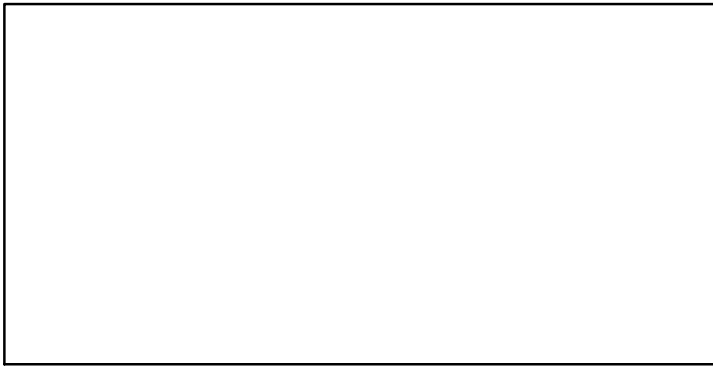
Cuttlefish Central West Africa Ghana [CUTTLECWAGHA]

TC-MT, TL*, RecC* (1990-2007-CHING)

TAC*, Cpair*, Cadv*

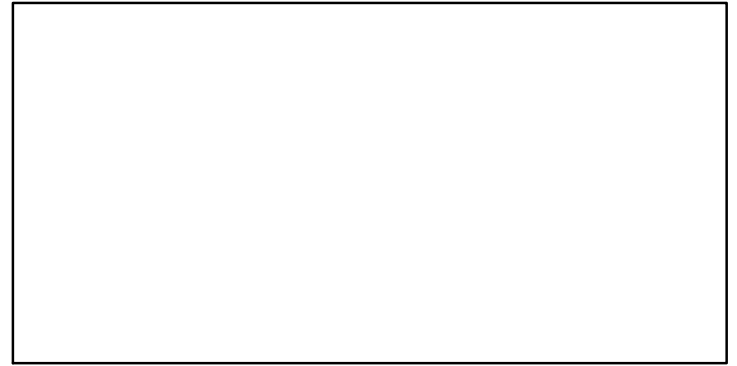
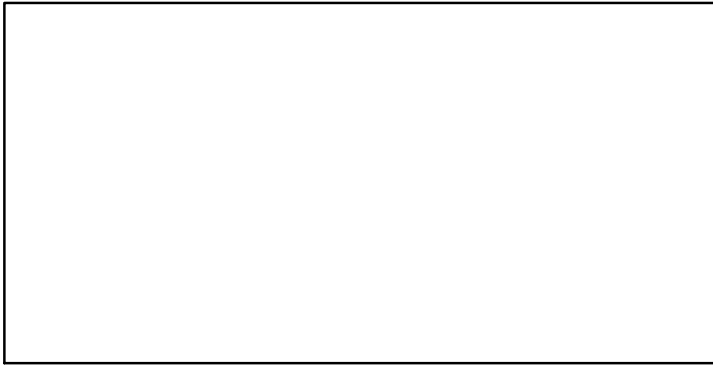


CPUE-kg/day (1990-2007-CHING)



EFFORT*

CdivMSY*



Deep water rose shrimp Central West Africa [DRSHRIMPCWA]

Metadata	
Scientific Name	Parapenaeus longirostris
Current Assess ID	FAO-DR-DRSHRIMPCWA-1990-2007-CHING
Area	Central West Africa
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO/CECAF Working Group on the Assessment of Demersal Resources
Asmts in RAM	2007

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2007	1320		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Deep water rose shrimp Central West Africa [DRSHRIMPCWA]

TB*



SSB*



TN *



F*



ER*



Recruits*

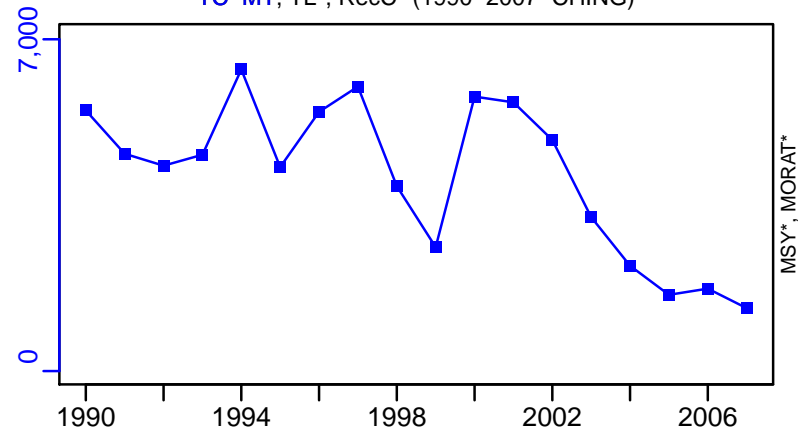


■ Listed time series	- - - Target BRP	— Rec-Est
- - - MSY-based BRP	· · · Lim BRP	* No Data

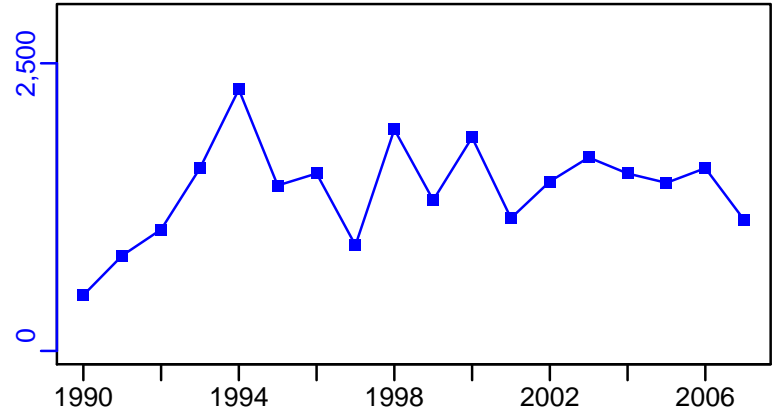
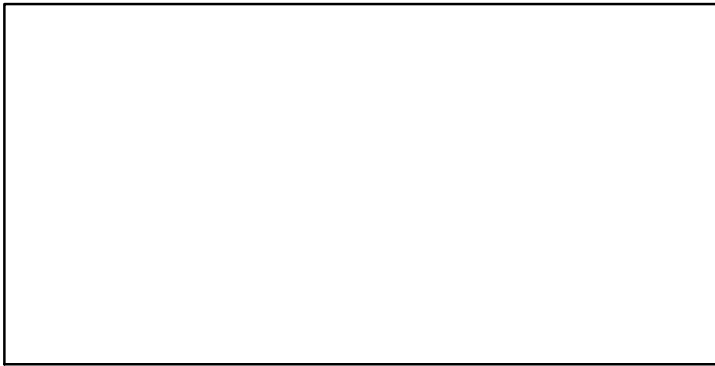
Deep water rose shrimp Central West Africa [DRSHRIMPCWA]

TC-MT, TL*, RecC* (1990-2007-CHING)

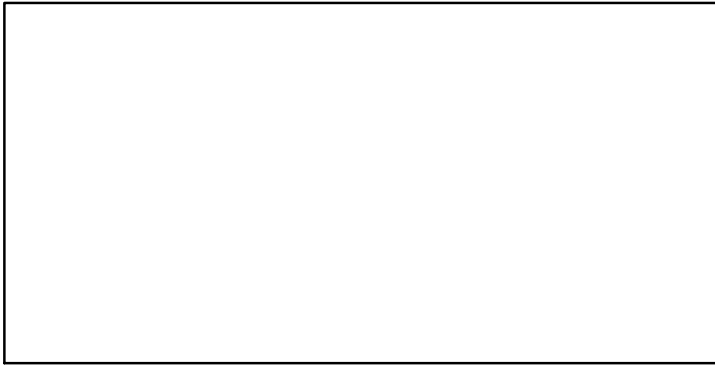
TAC*, Cpair*, Cadv*



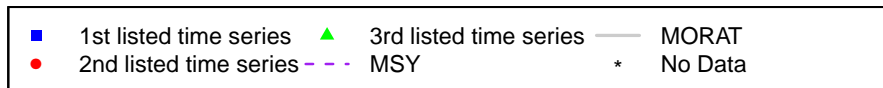
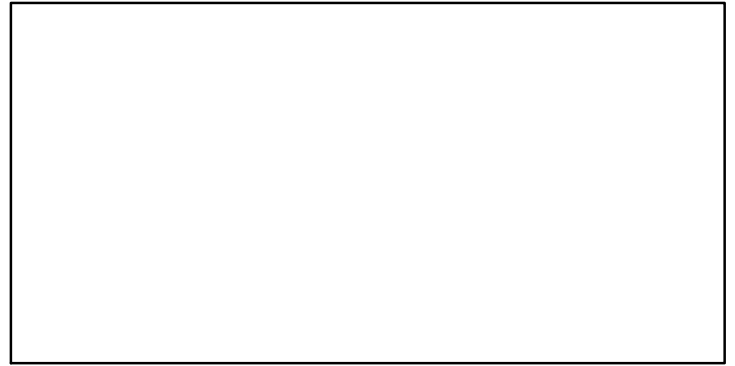
CPUE-kg/day (1990-2007-CHING)



EFFORT*



CdivMSY*



Grey grunt Central West Africa Gabon-Angola [GGRUNTCWAGAB-AGO]

Metadata	
Scientific Name	Pomadasys spp
Current Assess ID	FAO-DR-GGRUNTCWAGAB-AGO-1995-2007-CHING
Area	Central West Africa Gabon-Angola
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO/CECAF Working Group on the Assessment of Demersal Resources
Asmts in RAM	2007

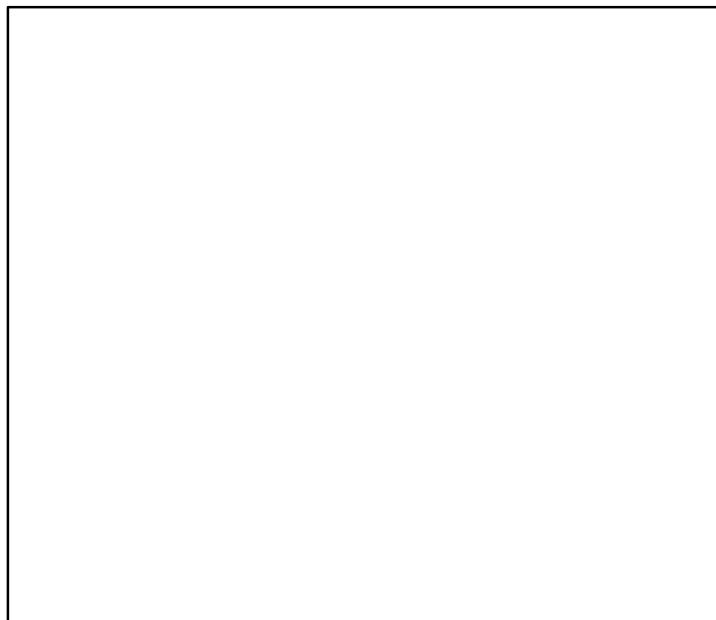
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-index	2007	19	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2007	912		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



Kobe MGT*



Spawner Recruit*



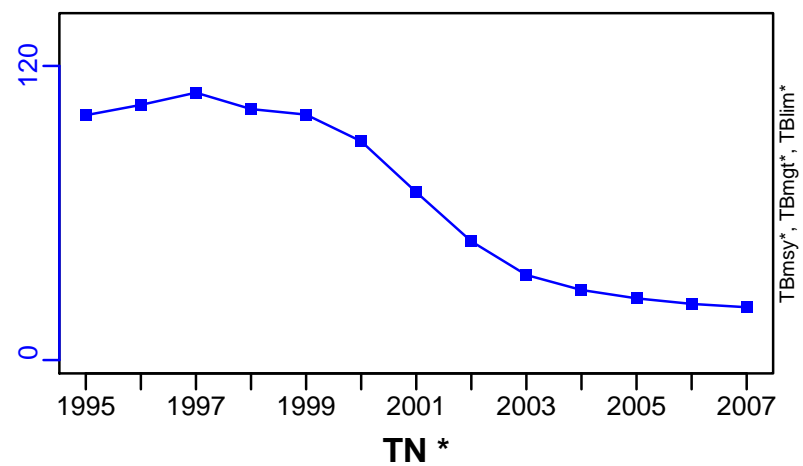
Production*



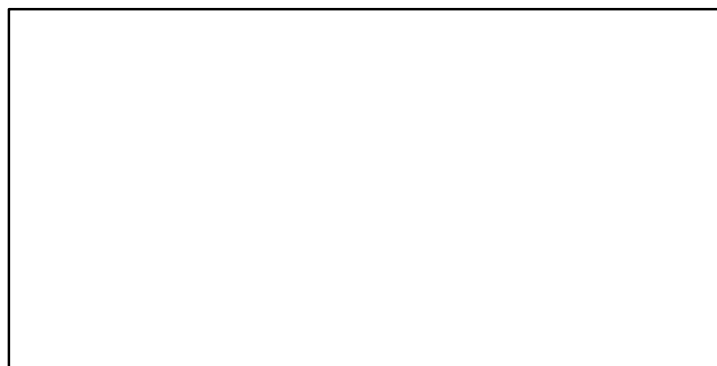
◆ Start Year ◆ End Year * No Data

Grey grunt Central West Africa Gabon–Angola [GGRUNTCWAGAB–AGO]

TB-index (1995–2007–CHING)



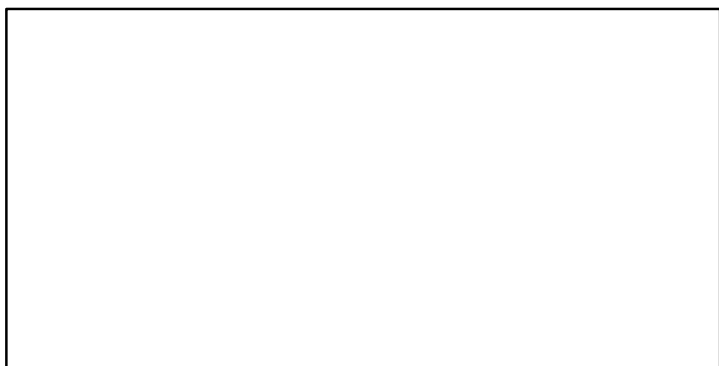
SSB*



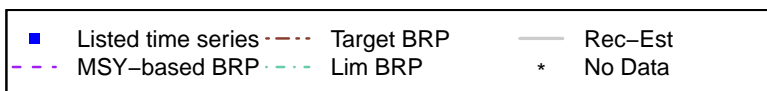
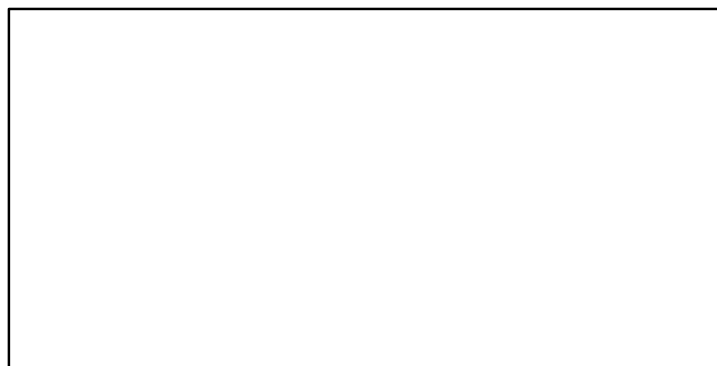
F*



ER*

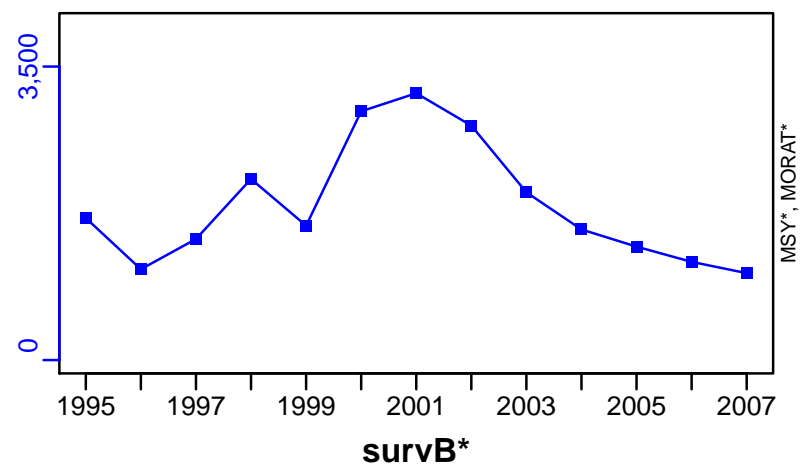


Recruits*



Grey grunt Central West Africa Gabon–Angola [GGRUNTCWAGAB–AGO]

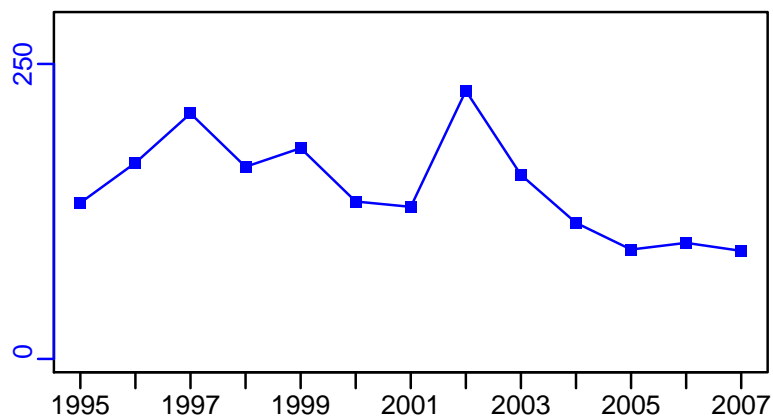
TC–MT, TL*, RecC* (1995–2007–CHING)



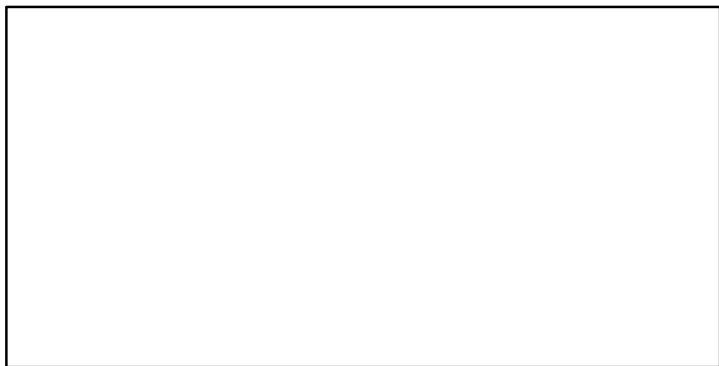
TAC*, Cpair*, Cadv*



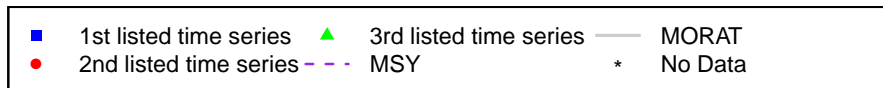
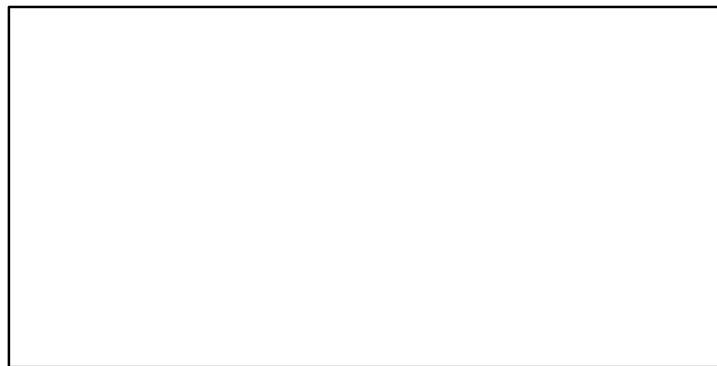
CPUE–kg/day (1995–2007–CHING)



EFFORT*



CdivMSY*



Grey grunt Central West Africa Guinea-Liberia [GGRUNTCWAGIN-LBR]

Metadata	
Scientific Name	Pomadasys spp
Current Assess ID	FAO-DR-GGRUNTCWAGIN-LBR-1994-2007-CHING
Area	Central West Africa Guinea-Liberia
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO/CECAF Working Group on the Assessment of Demersal Resources
Asmts in RAM	2007

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-index	2007	1150	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2007	2020		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*

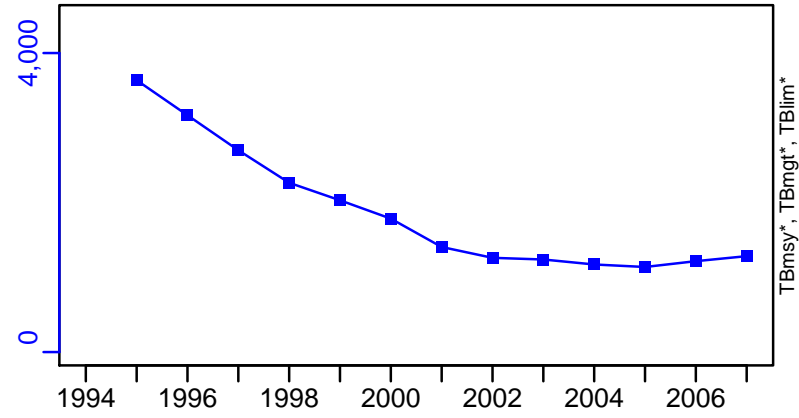


◆ Start Year ◆ End Year * No Data

Grey grunt Central West Africa Guinea–Liberia [GGRUNTCWAGIN–LBR]

TB-index (1994–2007–CHING)

SSB*



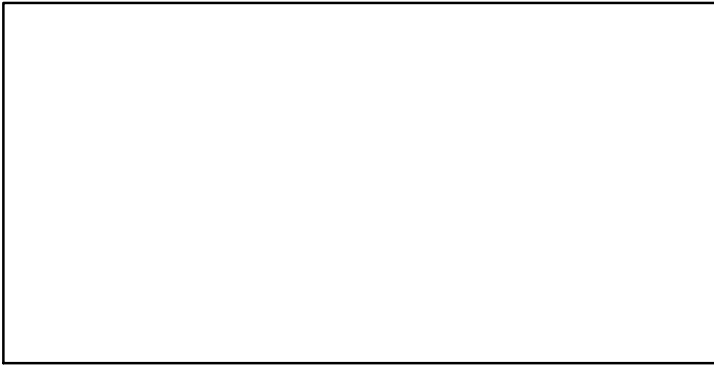
TN *

F*



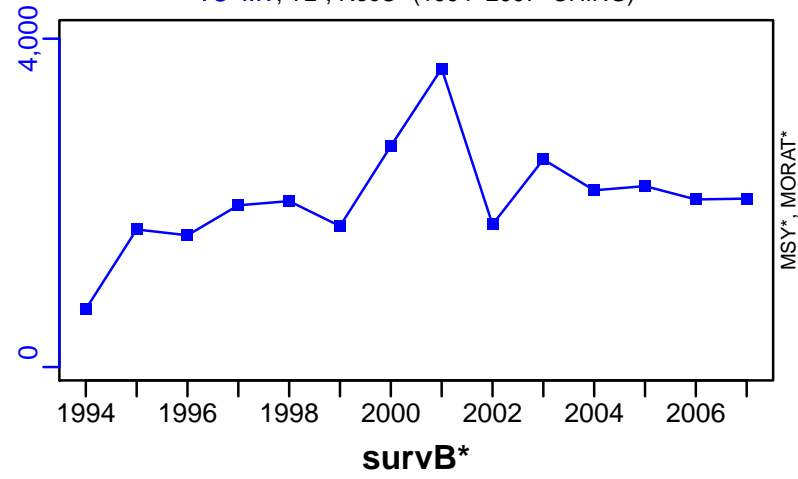
ER*

Recruits*



Grey grunt Central West Africa Guinea–Liberia [GGRUNTCWAGIN–LBR]

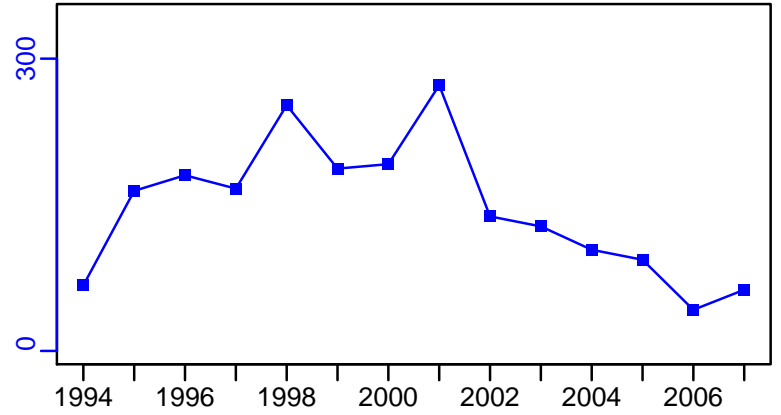
TC–MT, TL*, RecC* (1994–2007–CHING)



TAC*, Cpair*, Cadv*



CPUE–MT/day (1994–2007–CHING)



EFFORT*



CdivMSY*



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

Hake North West Africa Morocco [HAKENWAMAR]

Metadata	
Scientific Name	Merluccius merluccius
Current Assess ID	FAO-DR-HAKENWAMAR-1980-2016-ASHBROOK
Area	North West Africa Morocco
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO/CECAF Working Group on the Assessment of Demersal Resources
Asmts in RAM	2016

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2016	6232
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2016	5381		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

TB*



SSB*



TN *



F*



ER*

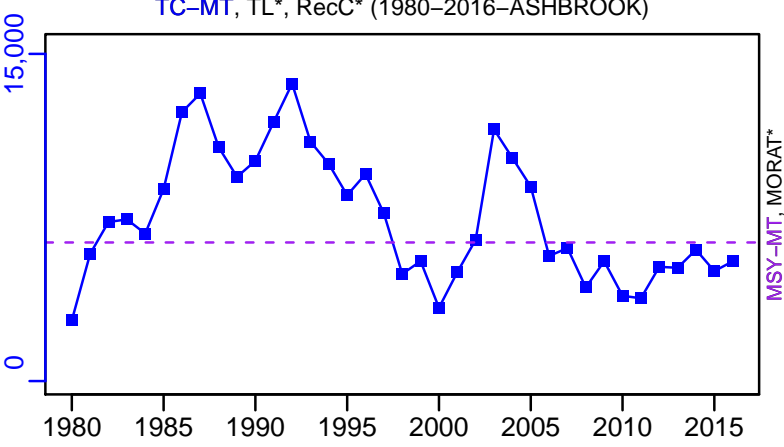


Recruits*



Hake North West Africa Morocco [HAKENWAMAR]

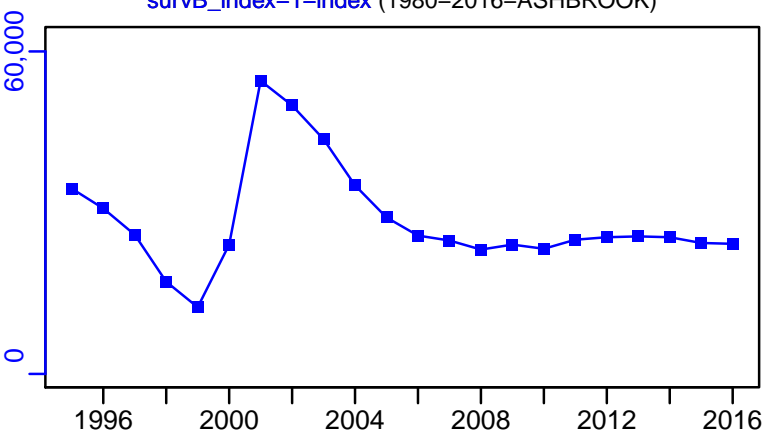
TC-MT, TL*, RecC* (1980–2016–ASHBROOK)



TAC*, Cpair*, Cadv*



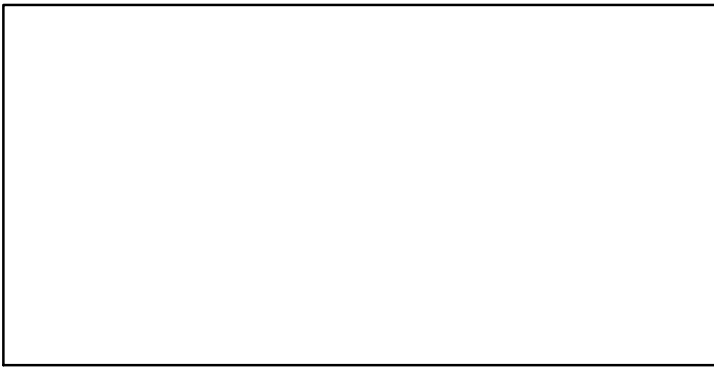
survB_index-1-index (1980–2016–ASHBROOK)



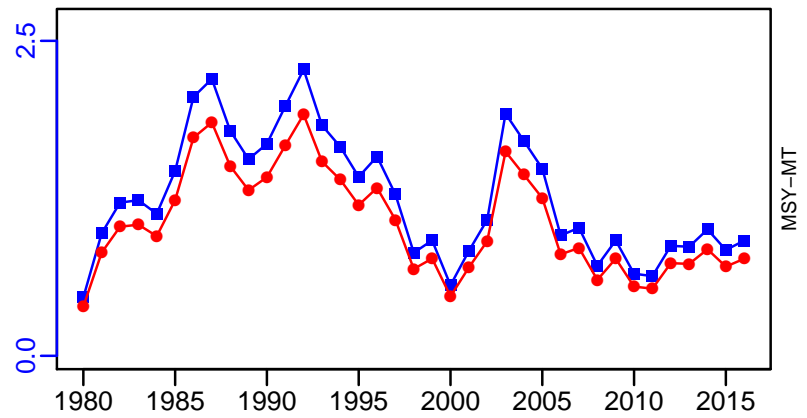
CPUE*



EFFORT*



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



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

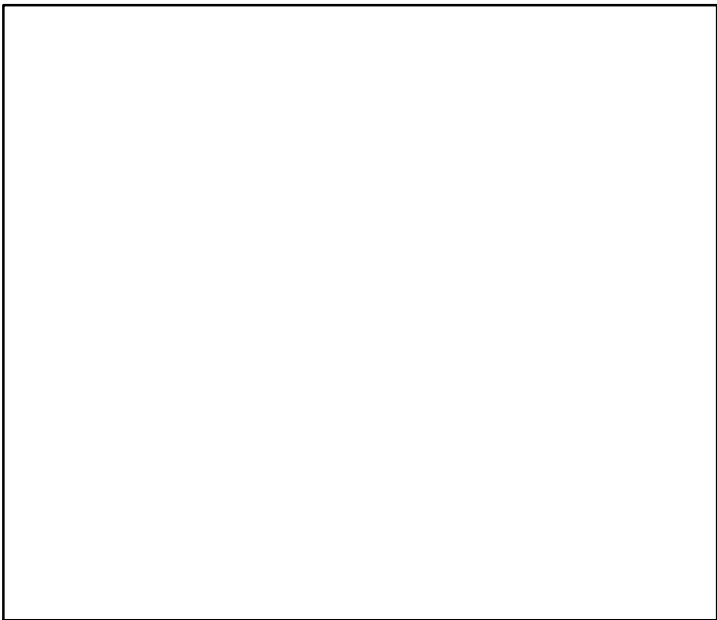
Hake spp North West Africa [HAKESPPNWA]

Metadata	
Scientific Name	Merluccius spp
Current Assess ID	FAO-DR-HAKESPPNWA-1983-2016-ASHBROOK
Area	North West Africa
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO/CECAF Working Group on the Assessment of Demersal Resources
Asmts in RAM	2016

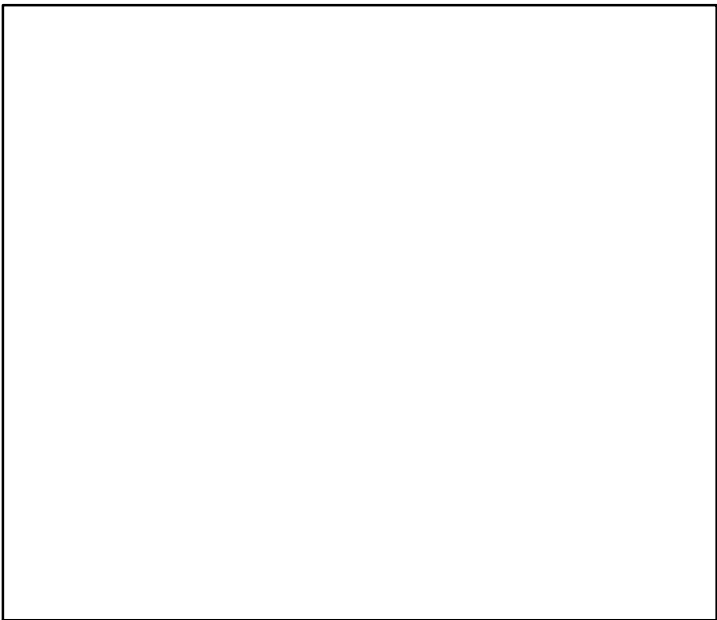
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	MSY-MT	2016	10,816
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2016	16,972		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

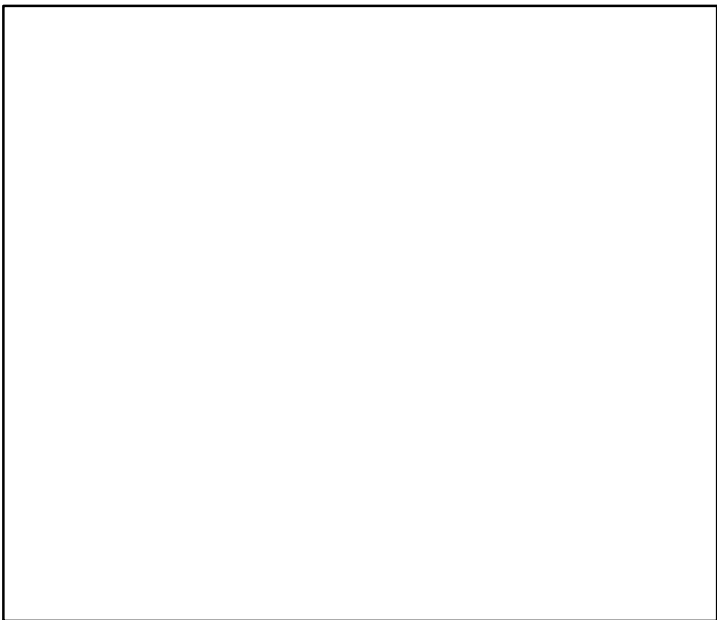
Kobe MSY*



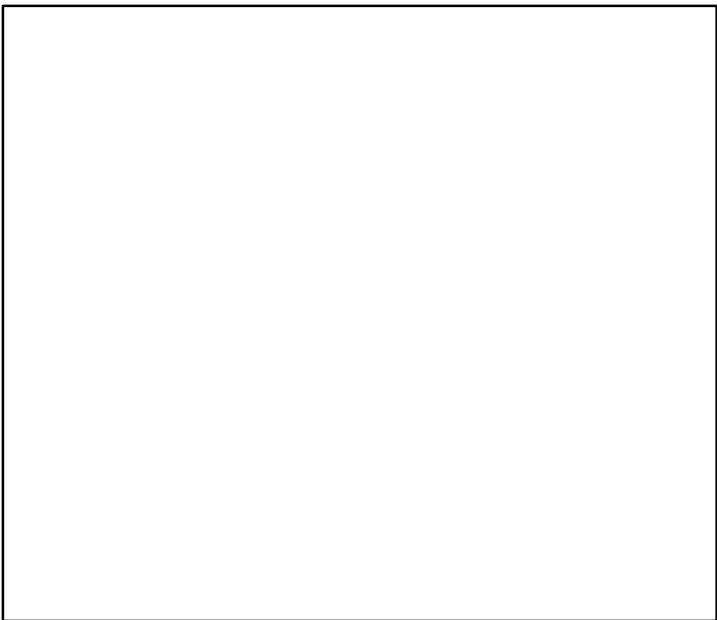
Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Hake spp North West Africa [HAKESPPNWA]

TB*



SSB*



TN *



F*



ER*

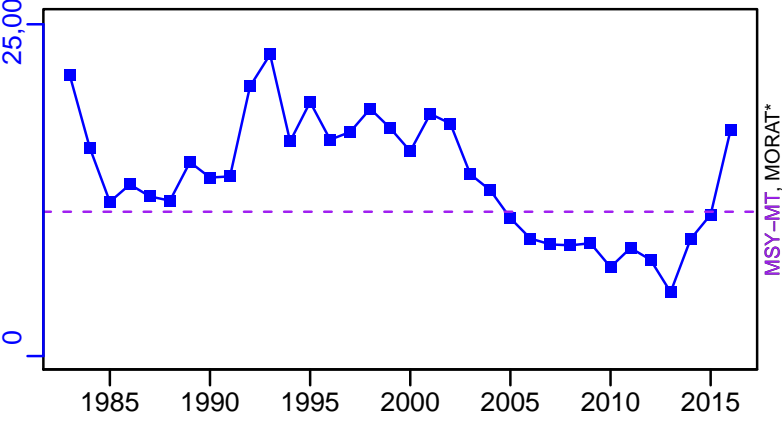


Recruits*



Hake spp North West Africa [HAKESPPNWA]

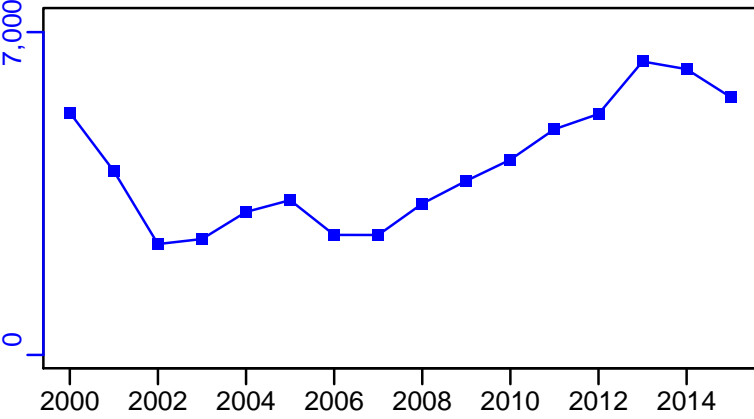
TC-MT, TL*, RecC* (1983–2016–ASHBROOK)



TAC*, Cpair*, Cadv*



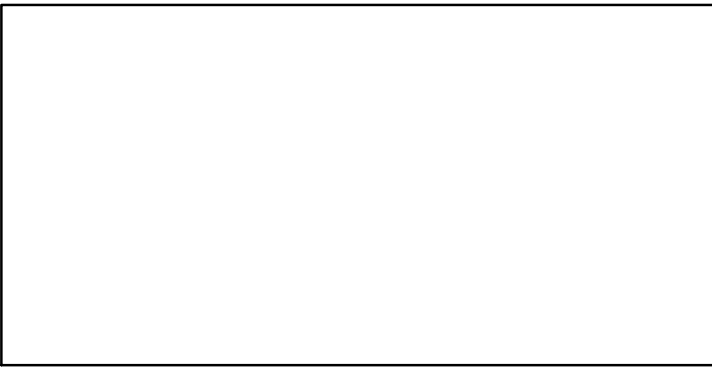
survB_index-1-index (1983–2016–ASHBROOK)



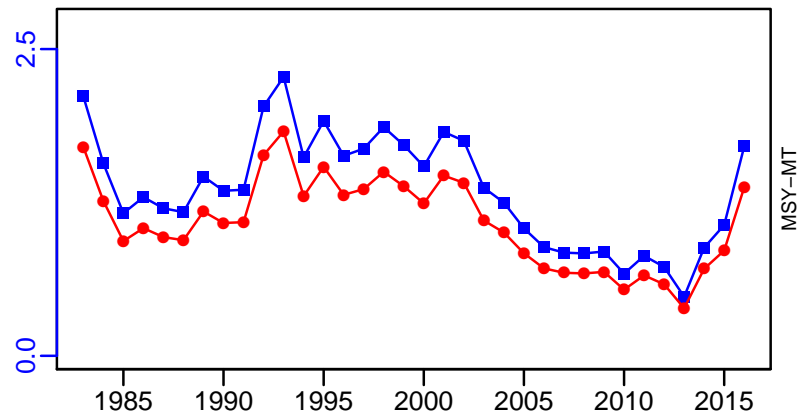
CPUE*



EFFORT*



TC-MT/MSY-MT, CdivMEANC-ratio, (1983–2016–ASHBROOK)



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

Horse mackerel North West Africa [HMACKNWA]

Metadata	
Scientific Name	Trachurus trachurus
Current Assess ID	FAO-SPNWA-HMACKNWA-1990-2016-ASHBROOK
Area	North West Africa
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO Working Group on the Assessment of Small Pelagic Fish Off Northwest Africa
Asmts in RAM	2010, 2016

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	Fmsy-1/yr	2010	0.31
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2010	153,000	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	F-1/yr	2010	0.72	-	-
ER	ER-calc-ratio	2010	0.719	-	-
TC	TC-MT	2016	158,523		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	F-1/yr/Fmsy-1/yr	2010	2.323		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



Kobe MGT*



Spawner Recruit*



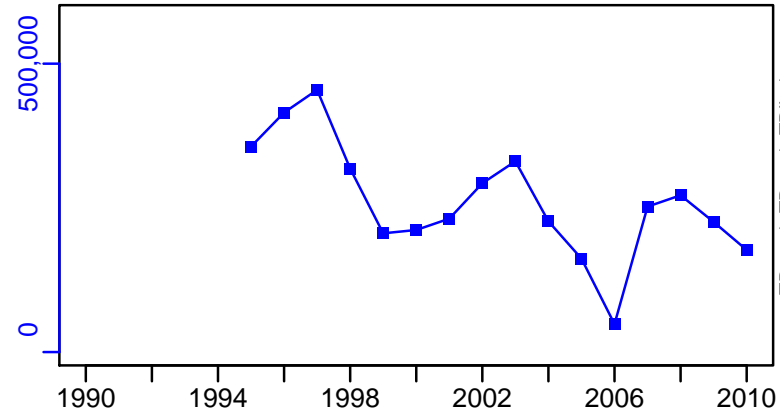
Production*



◆ Start Year ◆ End Year * No Data

Horse mackerel North West Africa [HMACKNWA]

TB-MT (1990-2010-CHING)



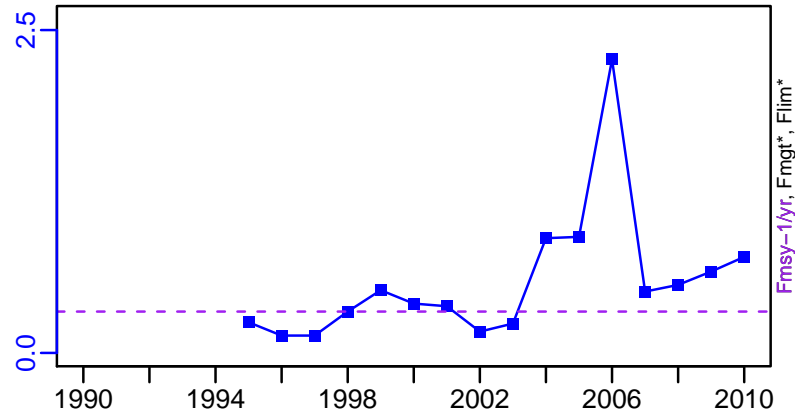
SSB*



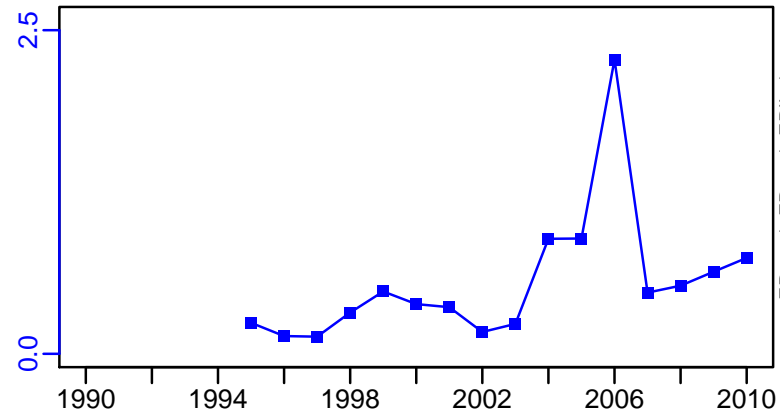
TN *



F-1/yr (1990-2010-CHING)



ER-calc-ratio (1990-2010-CHING)

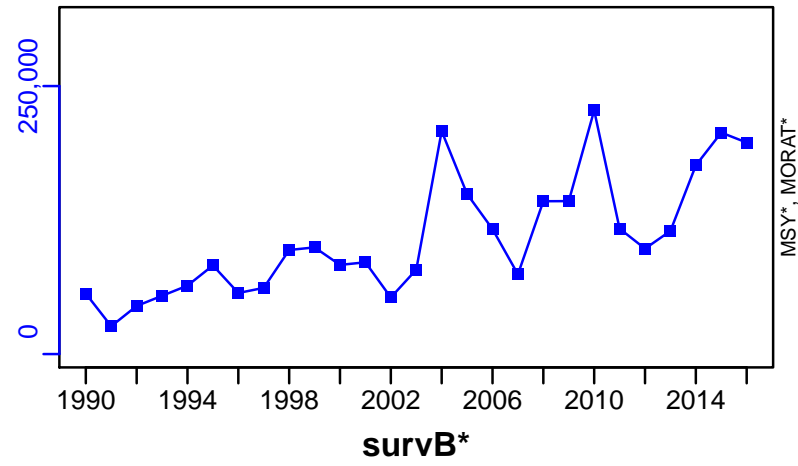


Recruits*



Horse mackerel North West Africa [HMACKNWA]

TC-MT, TL*, RecC* (1990–2016–ASHBROOK)



TAC*, Cpair*, Cadv*



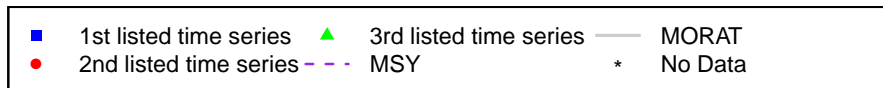
CPUE*



EFFORT*



CdivMSY*



Large eye dentex Central West Africa Angola [LDENTCWAAGO]

Metadata	
Scientific Name	Dentex macrophthalmus
Current Assess ID	FAO-DR-LDENTCWAAGO-1995-2007-CHING
Area	Central West Africa Angola
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO/CECAF Working Group on the Assessment of Demersal Resources
Asmts in RAM	2007

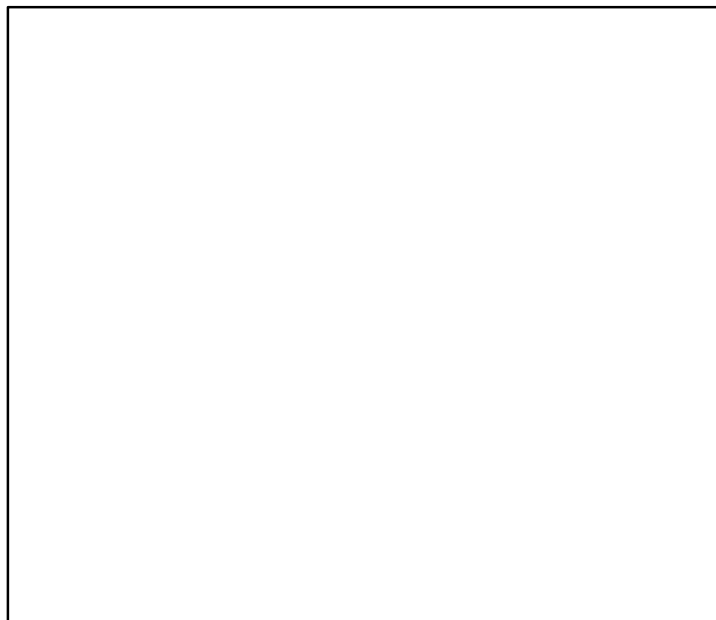
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-index	2007	155	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2007	19,100		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



Kobe MGT*



Spawner Recruit*



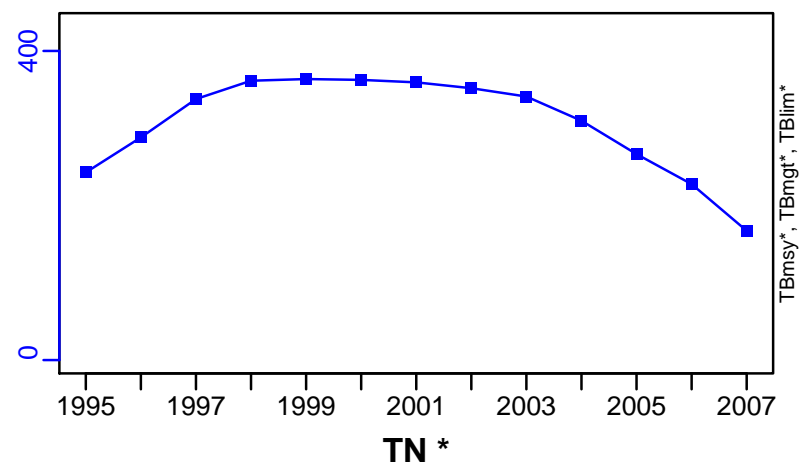
Production*



◆ Start Year ◆ End Year * No Data

Large eye dentex Central West Africa Angola [LDENTCWAAGO]

TB-index (1995–2007–CHING)



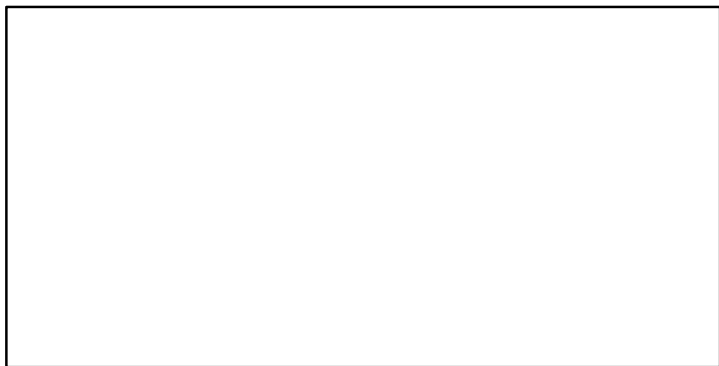
SSB*



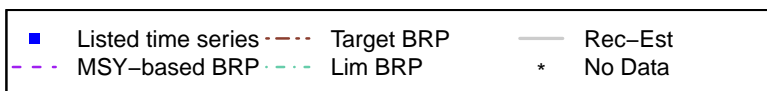
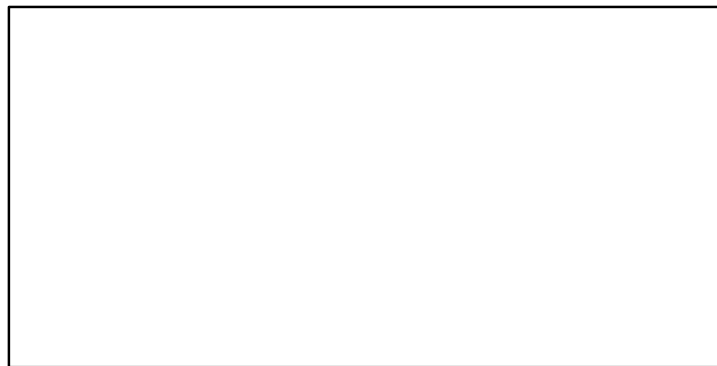
F*



ER*

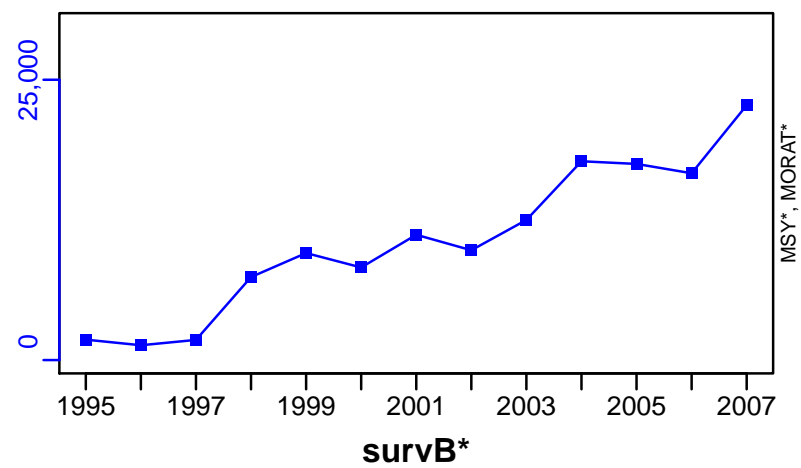


Recruits*



Large eye dentex Central West Africa Angola [LDENTCWAAGO]

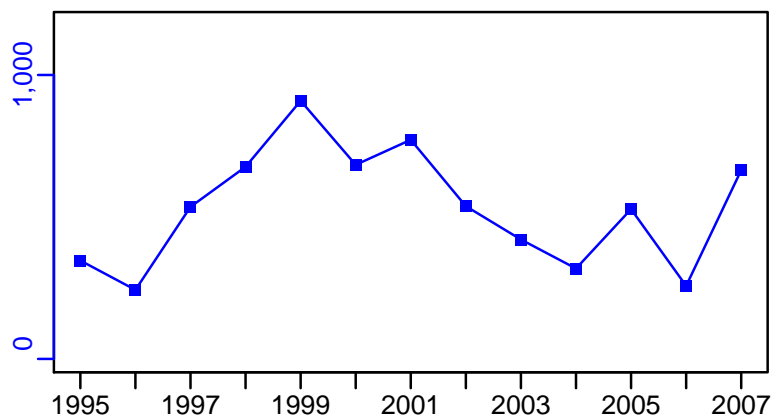
TC-MT, TL*, RecC* (1995-2007-CHING)



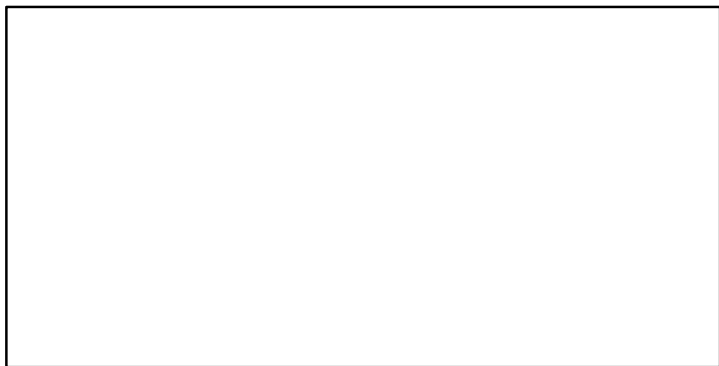
TAC*, Cpair*, Cadv*



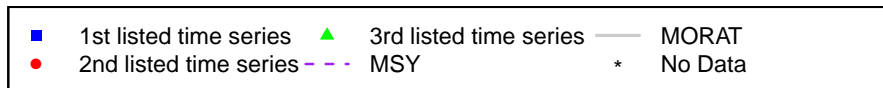
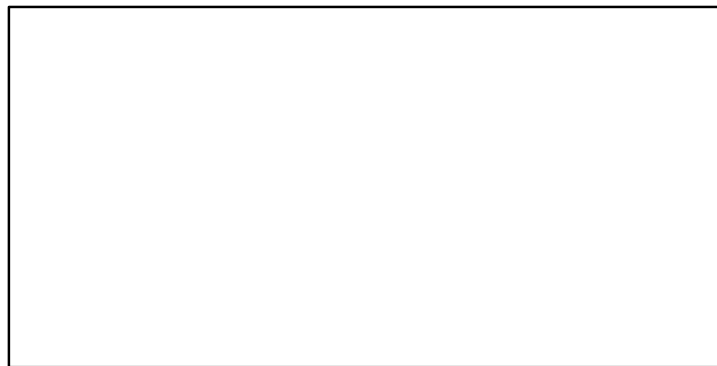
CPUE-kg/day (1995-2007-CHING)



EFFORT*



CdivMSY*



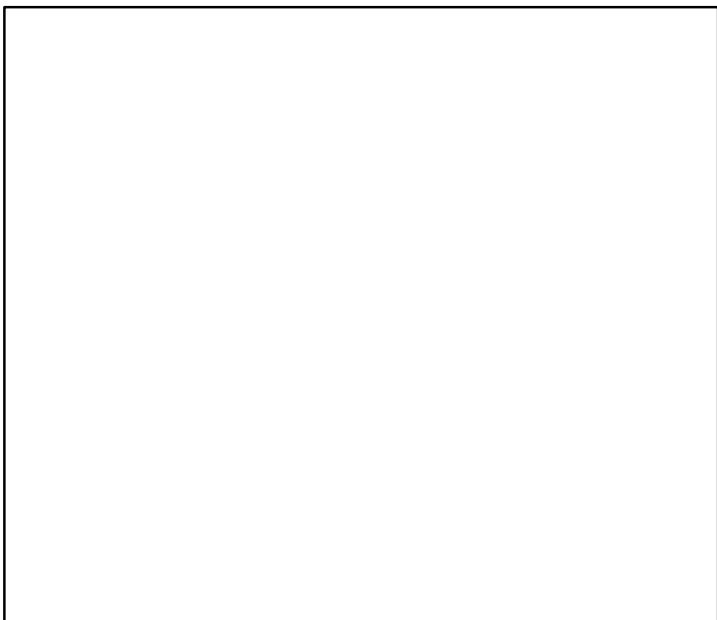
Madeiran sardinella Central West Africa Cote Divoire-Benin [MSARDCWACIV-BEN]

Metadata	
Scientific Name	Sardinella maderensis
Current Assess ID	FAO-SPNWA-MSARDCWACIV-BEN-1990-2017-ASHBROOK
Area	Central West Africa Cote Divoire-Benin
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO Working Group on the Assessment of Small Pelagic Fish Off Northwest Africa
Asmts in RAM	2017

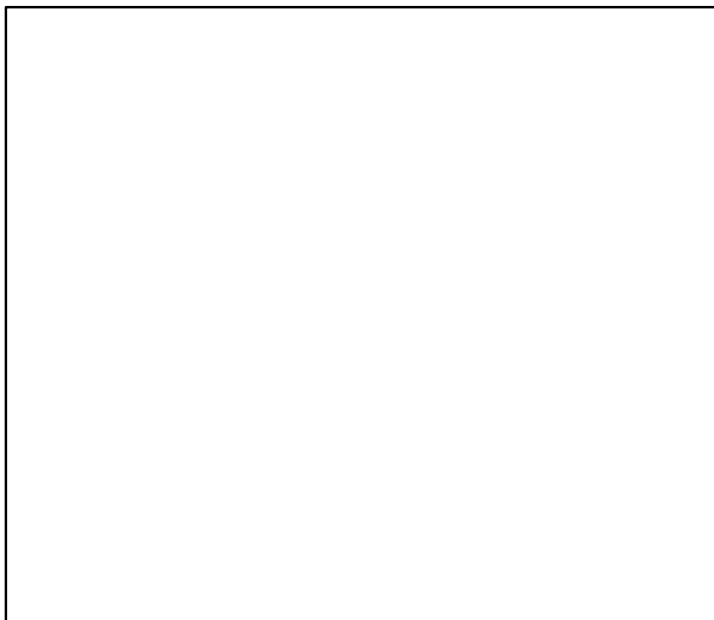
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2017	10,717		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	ERdivERmsy-dimensionless	2017	7.08		
TB/TBmgt	TBdivTBmgt-dimensionless	2017	0.09		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

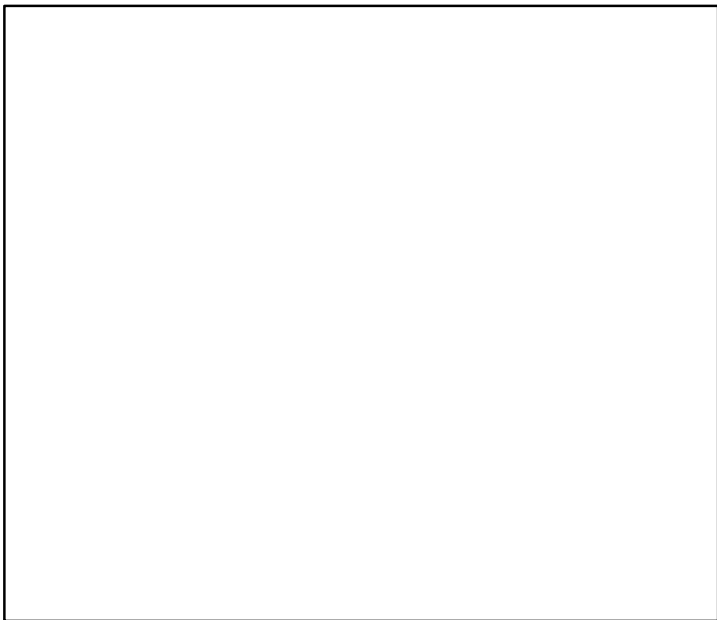
Kobe MSY*



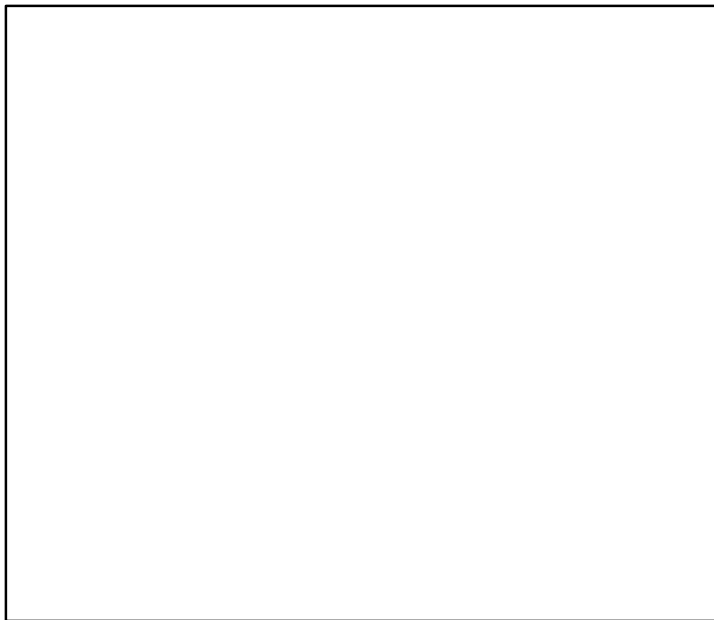
Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

TB*



SSB*



TN *



F*



ER*

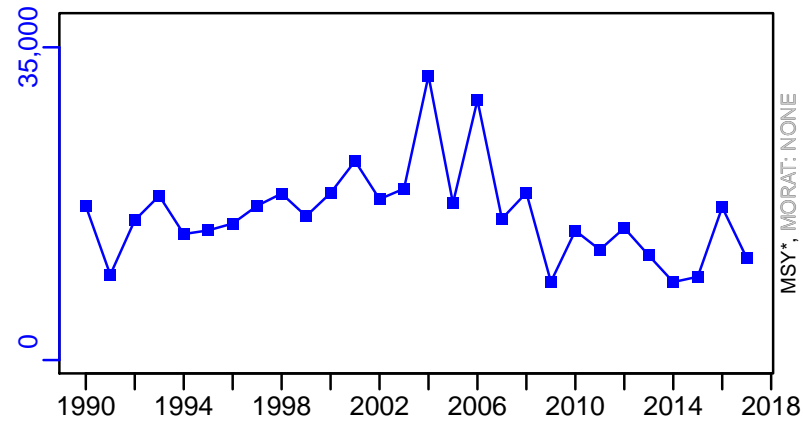


Recruits*



Madeiran sardinella Central West Africa Cote Divoire–Benin [MSARDCWACIV–BEN]

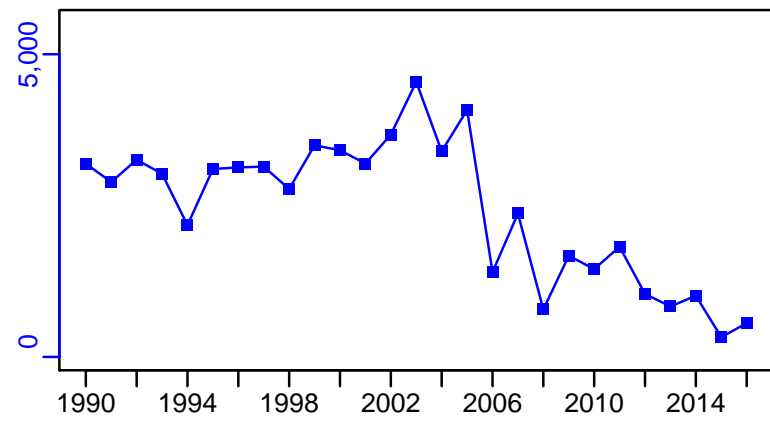
TC–MT, TL*, RecC* (1990–2017–ASHBROOK)



TAC*, Cpair*, Cadv*



survB_index–index (1990–2017–ASHBROOK)



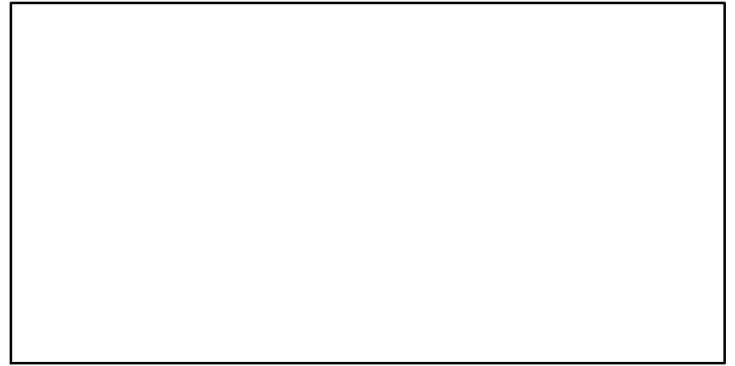
CPUE*



EFFORT*



CdivMSY*



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

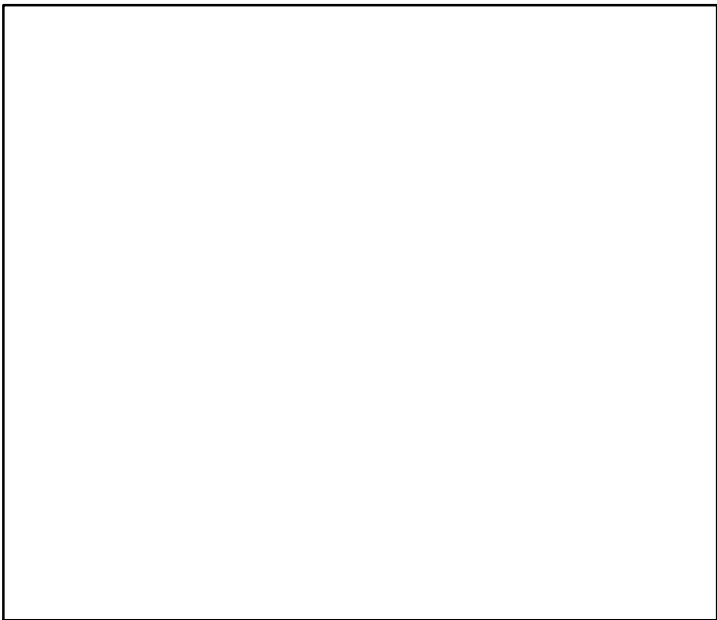
Madeiran sardinella North West Africa [MSARDNWA]

Metadata	
Scientific Name	Sardinella maderensis
Current Assess ID	FAO-SPNWA-MSARDNWA-1990-2016-ASHBROOK
Area	North West Africa
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO Working Group on the Assessment of Small Pelagic Fish Off Northwest Africa
Asmts in RAM	2016

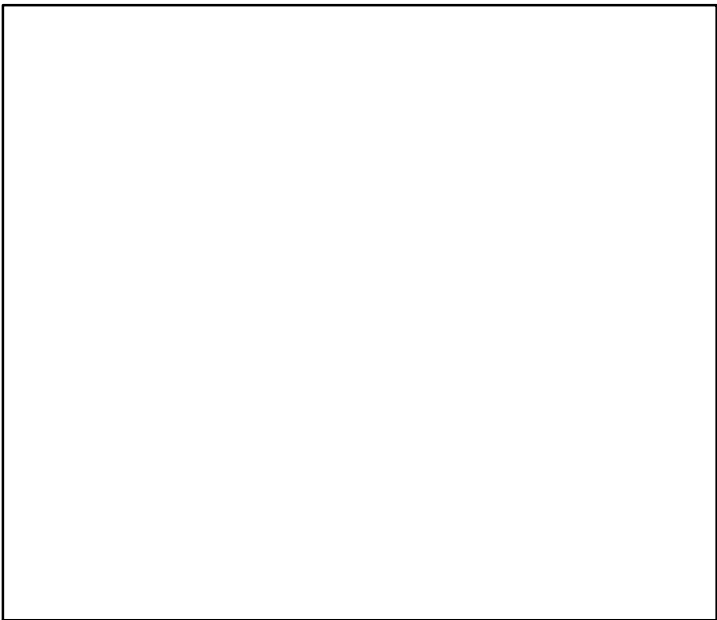
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2016	223,607		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Madeiran sardinella North West Africa [MSARDNWA]

TB*



SSB*



TN *



F*



ER*



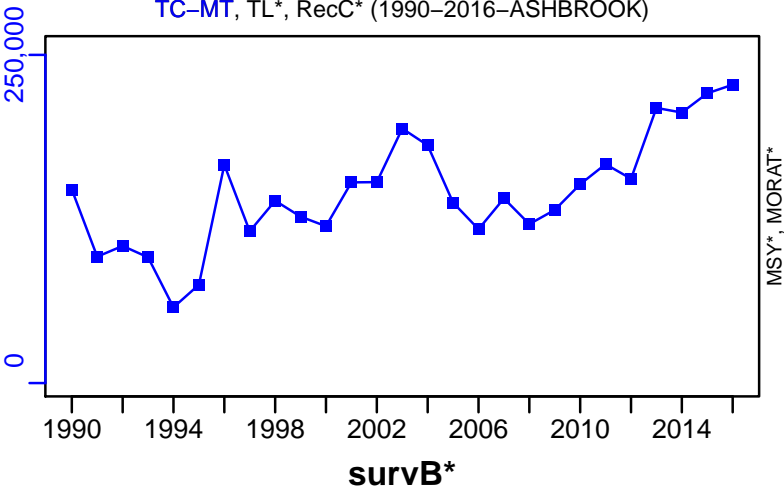
Recruits*



Madeiran sardinella North West Africa [MSARDNWA]

TC-MT, TL*, RecC* (1990–2016–ASHBROOK)

TAC*, Cpair*, Cadv*



Octopus Central West Africa Guinea Bissau [OCTOCWAGNB]

Metadata	
Scientific Name	Octopus vulgaris
Current Assess ID	FAO-DR-OCTOCWAGNB-1990-2007-CHING
Area	Central West Africa Guinea Bissau
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO/CECAF Working Group on the Assessment of Demersal Resources
Asmts in RAM	2007

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2007	1160		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



Kobe MGT*



Spawner Recruit*

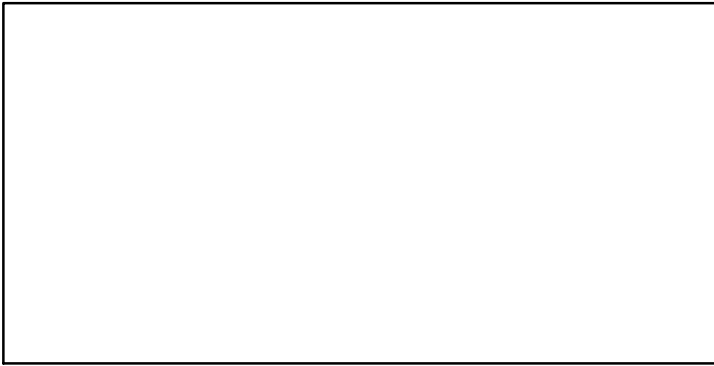


Production*

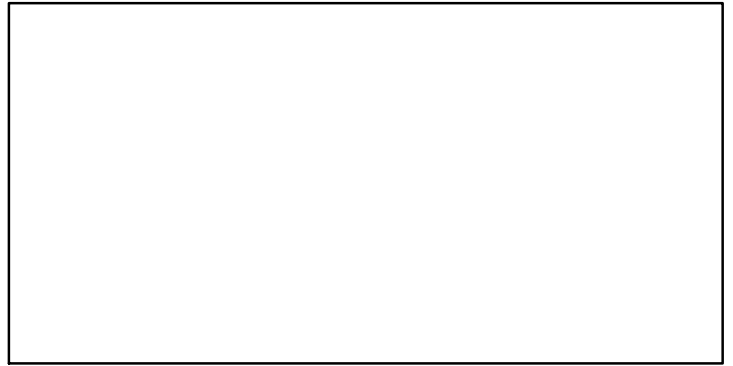


◆ Start Year ◆ End Year * No Data

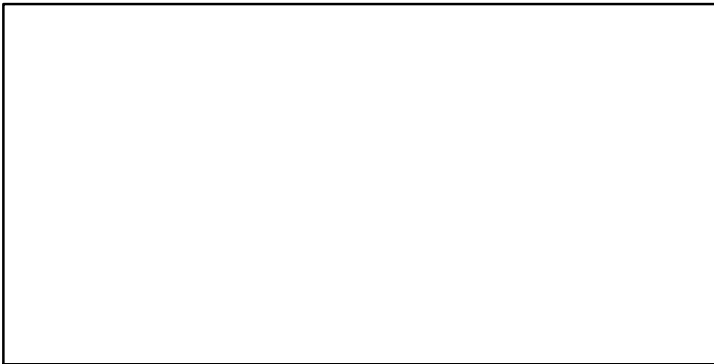
TB*



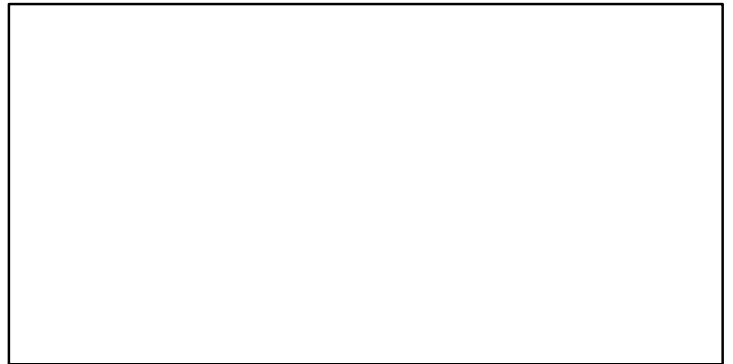
SSB*



TN *



F*



ER*



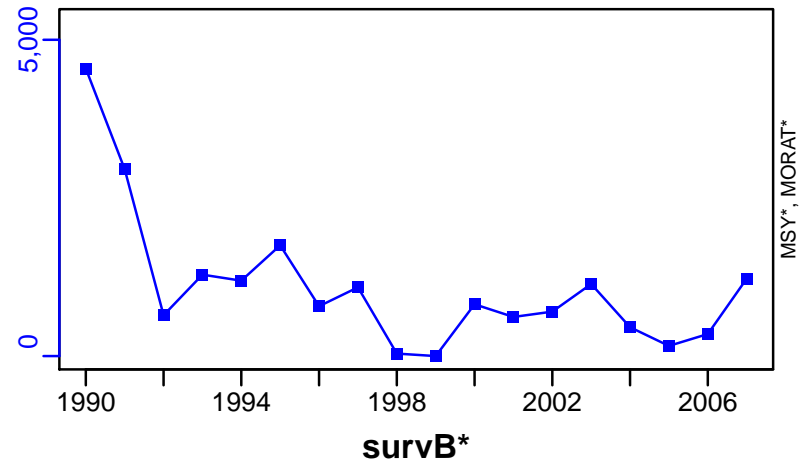
Recruits*



Octopus Central West Africa Guinea Bissau [OCTOCWAGNB]

TC-MT, TL*, RecC* (1990-2007-CHING)

TAC*, Cpair*, Cadv*



Red pandora Central West Africa Cote Divoire-Benin [RPANDCWACIV-BEN]

Metadata	
Scientific Name	Pagellus bellottii
Current Assess ID	FAO-DR-RPANDCWACIV-BEN-1990-2007-CHING
Area	Central West Africa Cote Divoire-Benin
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO/CECAF Working Group on the Assessment of Demersal Resources
Asmts in RAM	2007

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-index	2007	16	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2007	8170		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*

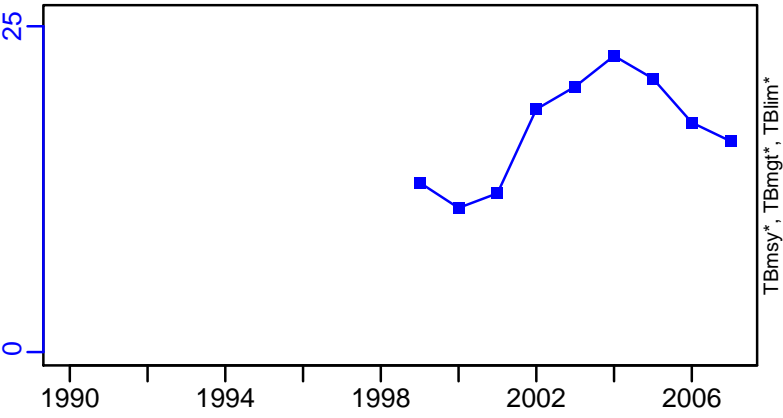


◆ Start Year ◆ End Year * No Data

Red pandora Central West Africa Cote Divoire–Benin [RPANDCWACIV–BEN]

TB–index (1990–2007–CHING)

SSB*



TN *

F*



ER*

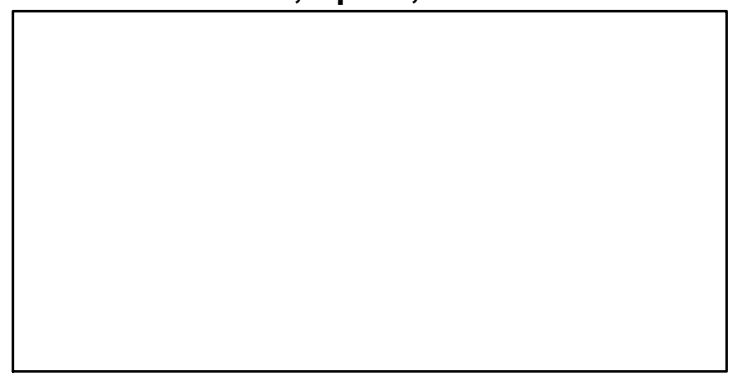
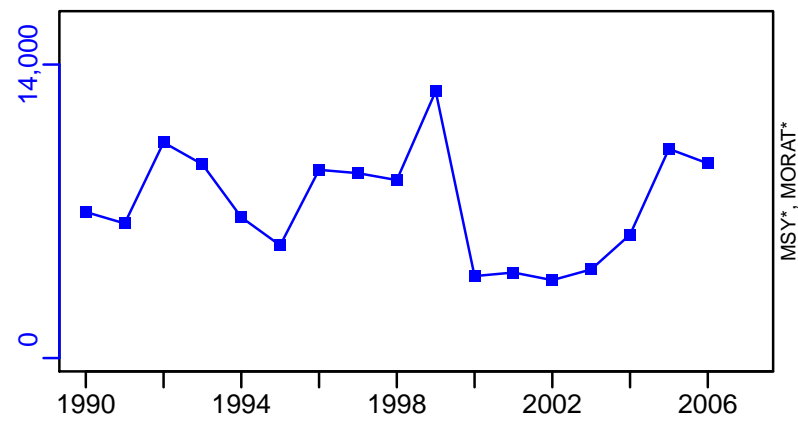
Recruits*



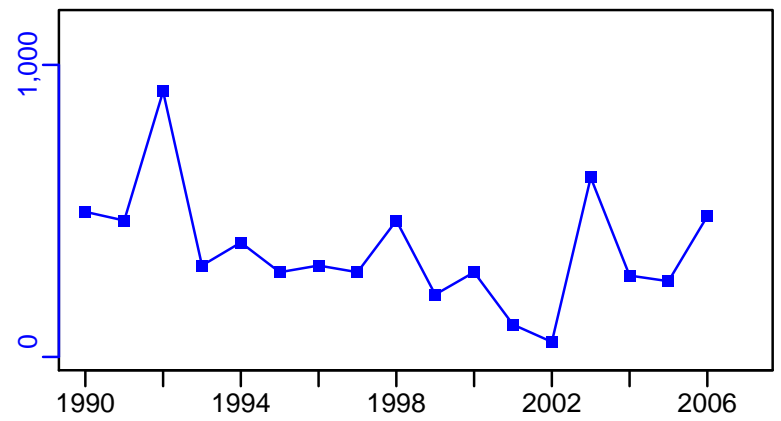
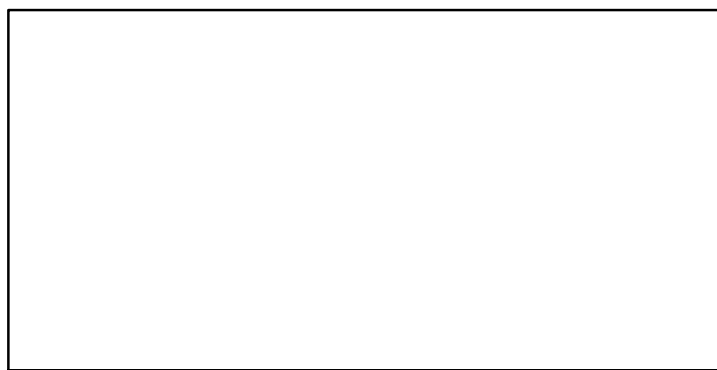
Red pandora Central West Africa Cote Divoire–Benin [RPANDCWACIV–BEN]

TC–MT, TL*, RecC* (1990–2007–CHING)

TAC*, Cpair*, Cadv*

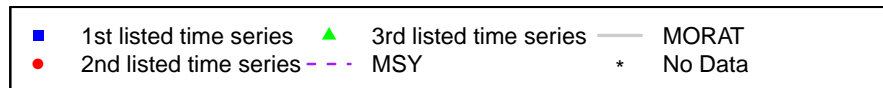
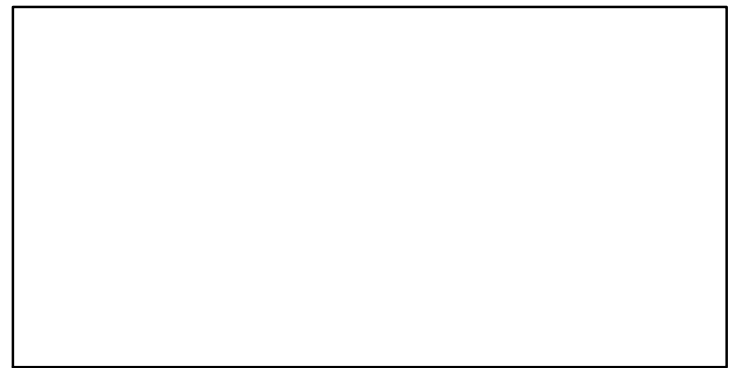
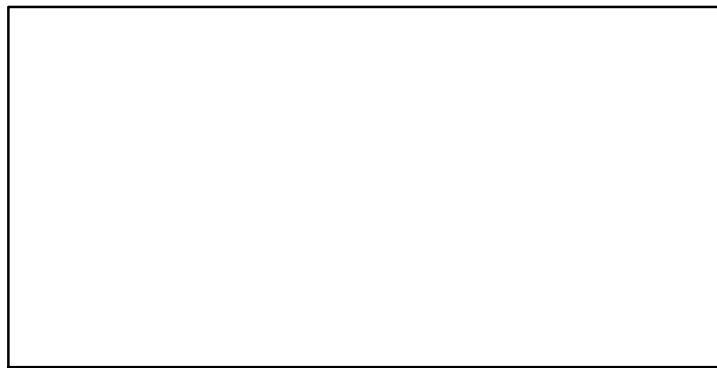


CPUE–kg/day (1990–2007–CHING)



EFFORT*

CdivMSY*



Round sardinella Central West Africa Cote Divoire-Benin [RSARDCWACIV-BEN]

Metadata	
Scientific Name	Sardinella aurita
Current Assess ID	FAO-SPNWA-RSARDCWACIV-BEN-1990-2017-ASHBROOK
Area	Central West Africa Cote Divoire-Benin
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO Working Group on the Assessment of Small Pelagic Fish Off Northwest Africa
Asmts in RAM	2017

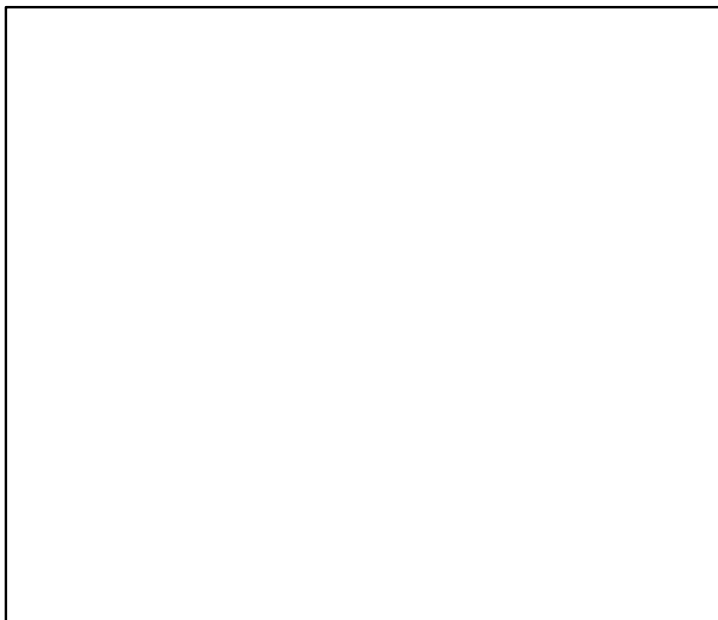
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2017	58,180		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	ERdivERmsy-dimensionless	2017	5.08		
TB/TBmgt	TBdivTBmgt-dimensionless	2017	0.19		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

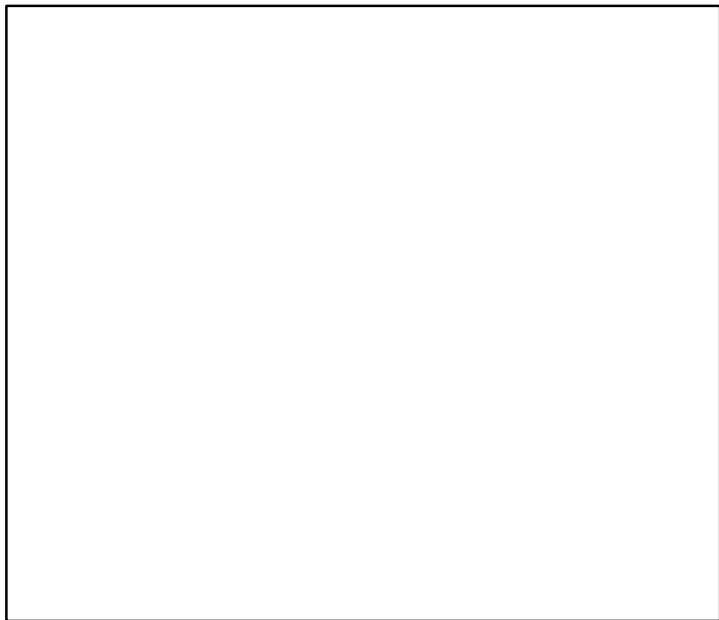
Kobe MSY*



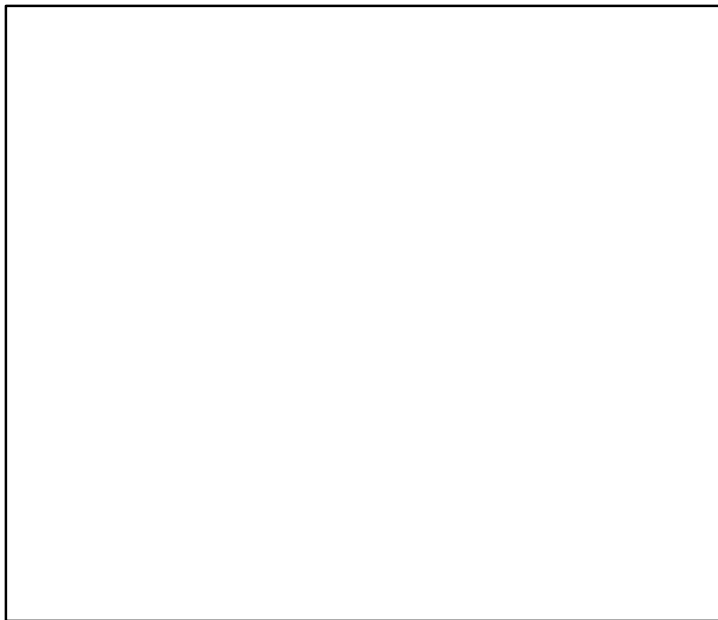
Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

TB*



SSB*



TN *



F*



ER*

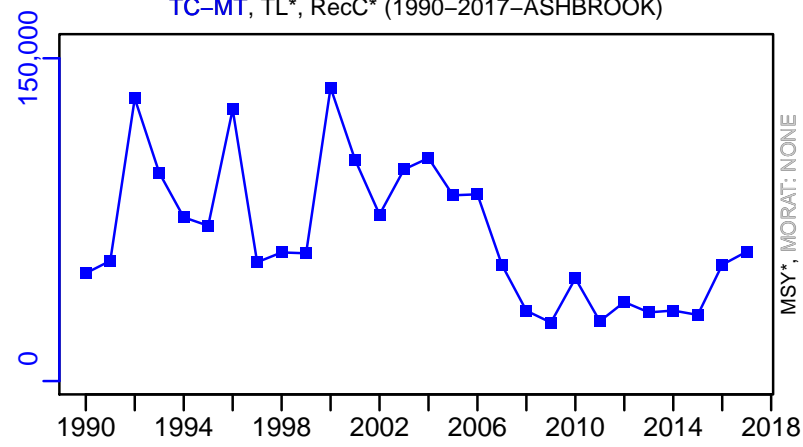


Recruits*



Round sardinella Central West Africa Cote Divoire–Benin [RSARDCWACIV–BEN]

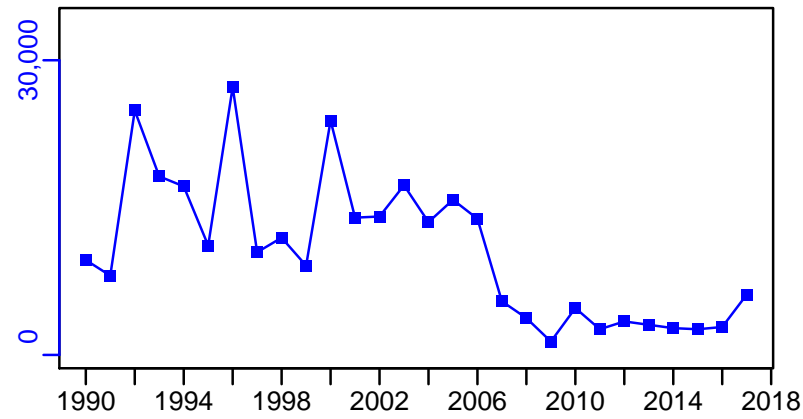
TC–MT, TL*, RecC* (1990–2017–ASHBROOK)



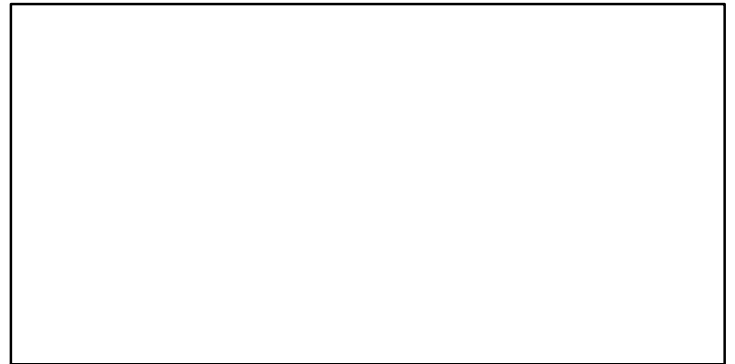
TAC*, Cpair*, Cadv*



survB_index–index (1990–2017–ASHBROOK)



CPUE*



EFFORT*



CdivMSY*



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

Round sardinella North West Africa [RSARDNWA]

Metadata	
Scientific Name	Sardinella aurita
Current Assess ID	FAO-SPNWA-RSARDNWA-1990-2016-ASHBROOK
Area	North West Africa
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO Working Group on the Assessment of Small Pelagic Fish Off Northwest Africa
Asmts in RAM	2016

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2016	501,956		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

Round sardinella North West Africa [RSARDNWA]

TB*



SSB*



TN *



F*



ER*

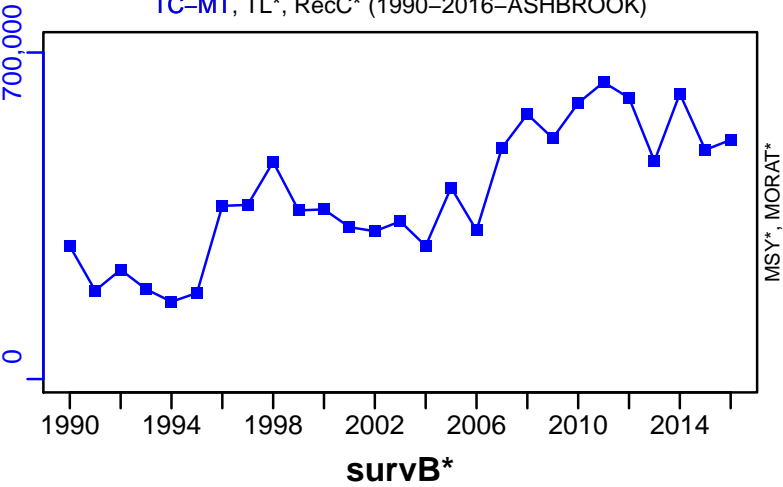


Recruits*



Round sardinella North West Africa [RSARDNWA]

TC-MT, TL*, RecC* (1990-2016-ASHBROOK)



TAC*, Cpair*, Cadv*



CPUE*



EFFORT*



CdivMSY*



Sardinella Central West Africa Gabon-Angola [SARDINCWAGAB-AGO]

Metadata	
Scientific Name	Sardinella spp
Current Assess ID	FAO-SPNWA-SARDINCWAGAB-AGO-1990-2017-ASHBROOK
Area	Central West Africa Gabon-Angola
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO Working Group on the Assessment of Small Pelagic Fish Off Northwest Africa
Asmts in RAM	2017

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2017	215,174		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	TBdivTBmgt-dimensionless	2017	1.13		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

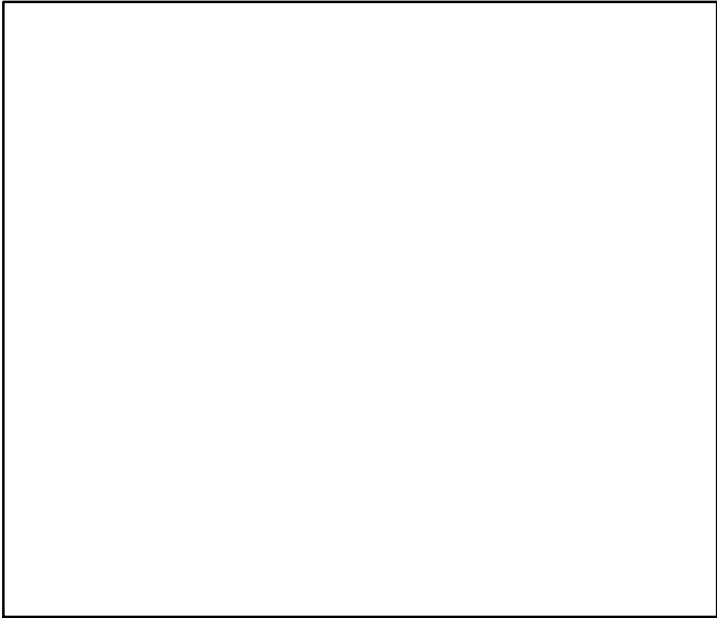
Kobe MSY*



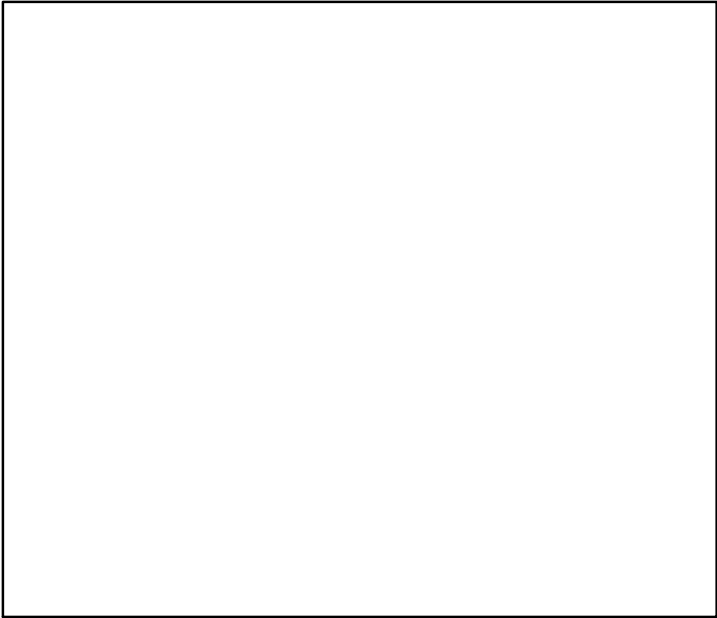
Kobe MGT*



Spawner Recruit*



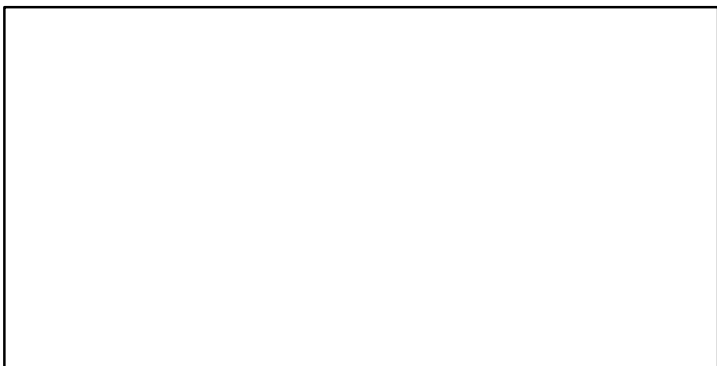
Production*



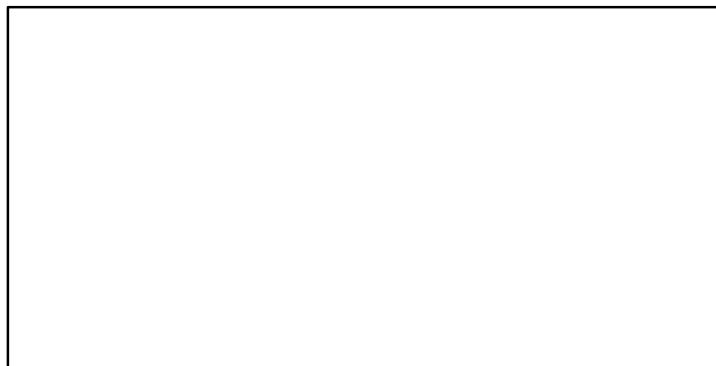
◆ Start Year ◆ End Year * No Data

Sardinella Central West Africa Gabon–Angola [SARDINCWAGAB–AGO]

TB*



SSB*



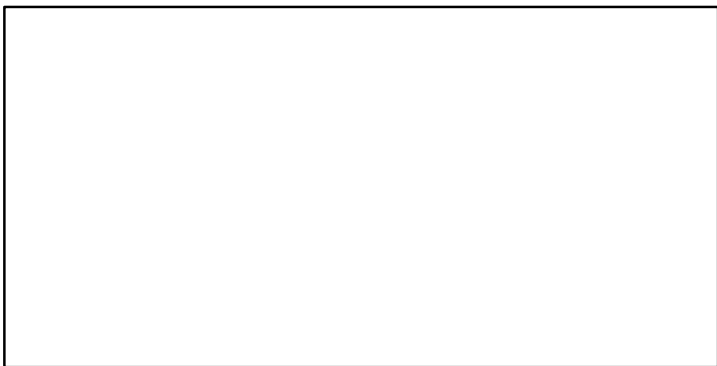
TN *



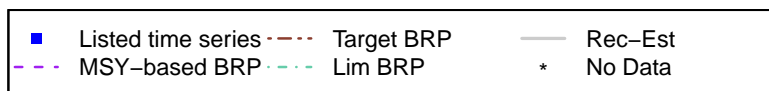
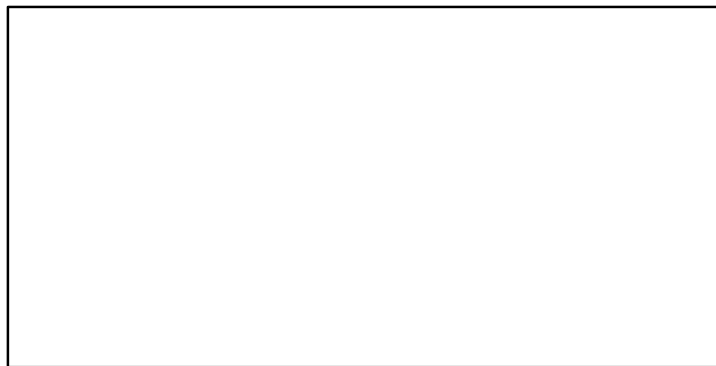
F*



ER*

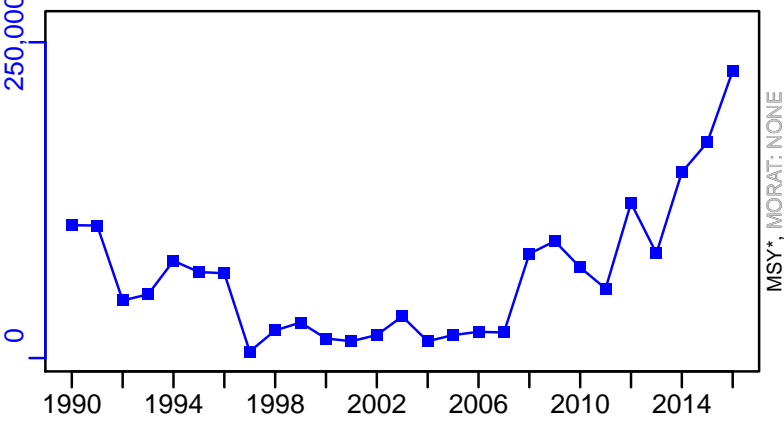


Recruits*



Sardinella Central West Africa Gabon–Angola [SARDINCWAGAB–AGO]

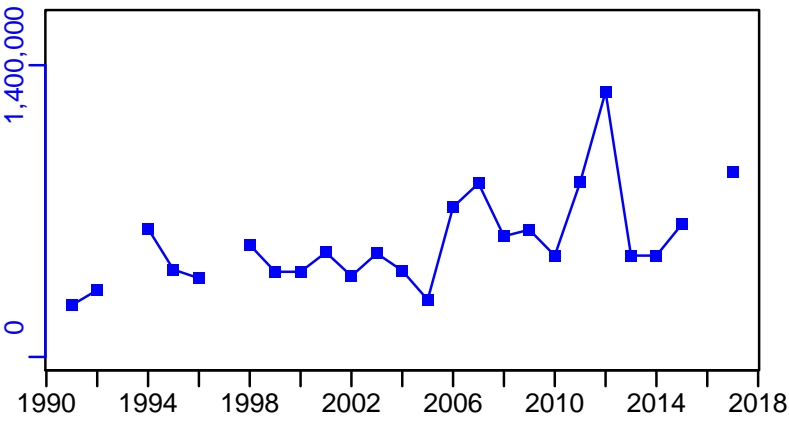
TC–MT, TL*, RecC* (1990–2017–ASHBROOK)



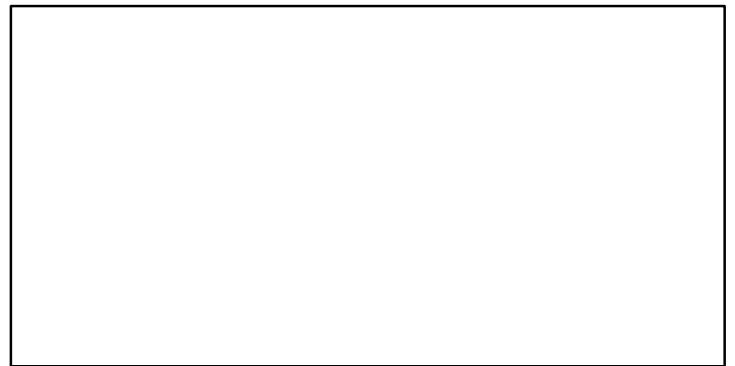
TAC*, Cpair*, Cadv*



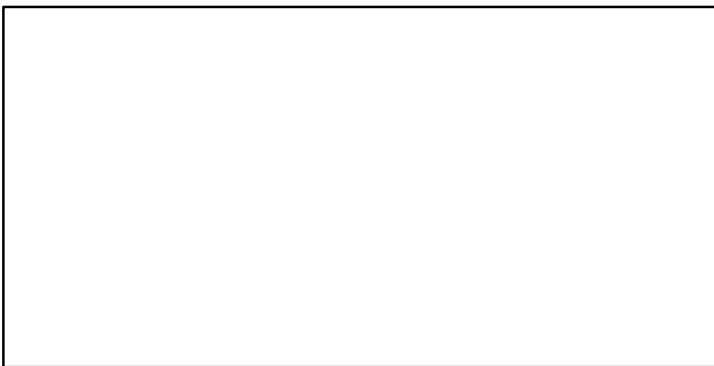
survB_index–index (1990–2017–ASHBROOK)



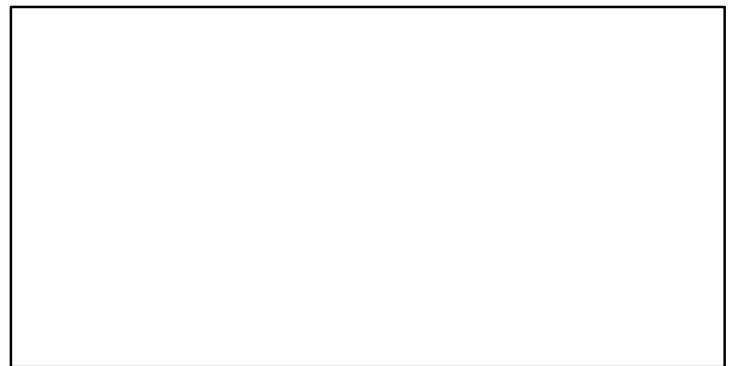
CPUE*



EFFORT*



CdivMSY*



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

Sardinella Central West Africa Guinea Bissau-Liberia [SARDINCWAGNB-LBR]

Metadata	
Scientific Name	Sardinella spp
Current Assess ID	FAO-SPNWA-SARDINCWAGNB-LBR-1990-2017-ASHBROOK
Area	Central West Africa Guinea Bissau-Liberia
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO Working Group on the Assessment of Small Pelagic Fish Off Northwest Africa
Asmts in RAM	2017

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2017	60,047		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	ERdivERmsy-dimensionless	2017	0.37		
TB/TBmgt	TBdivTBmgt-dimensionless	2017	1.29		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



Kobe MGT*



Spawner Recruit*

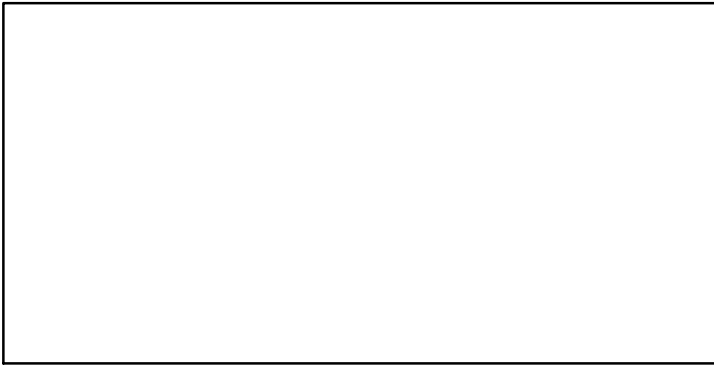


Production*



◆ Start Year ◆ End Year * No Data

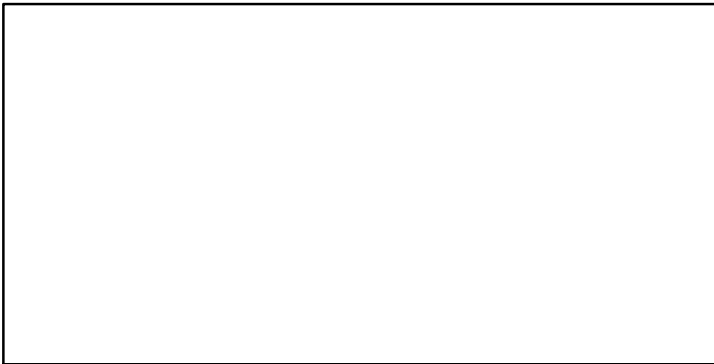
TB*



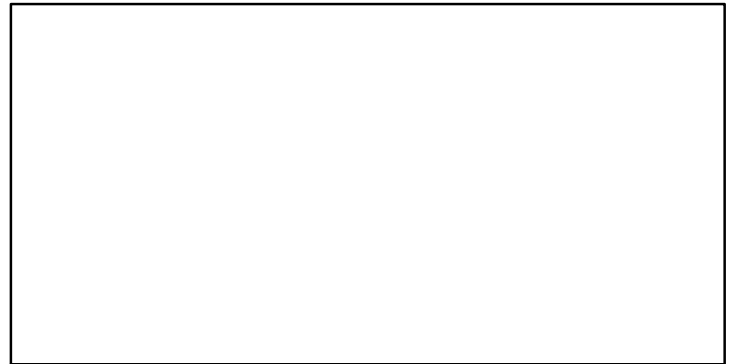
SSB*



TN *



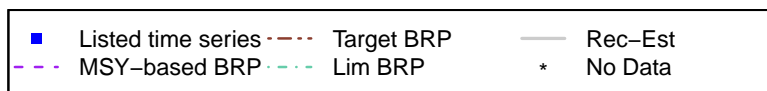
F*



ER*

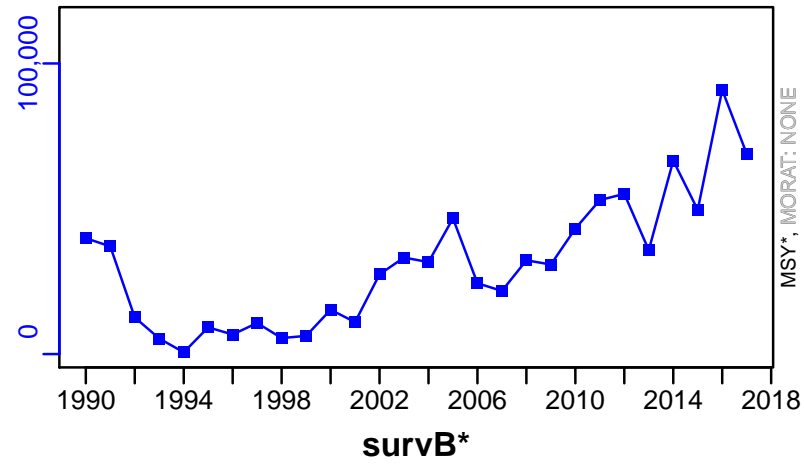


Recruits*



Sardinella Central West Africa Guinea Bissau–Liberia [SARDINCWAGNB–LBR]

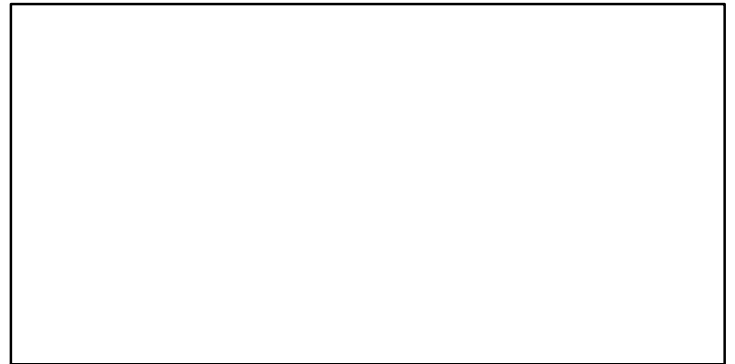
TC–MT, TL*, RecC* (1990–2017–ASHBROOK)



TAC*, Cpair*, Cadv*



CPUE*



EFFORT*



CdivMSY*



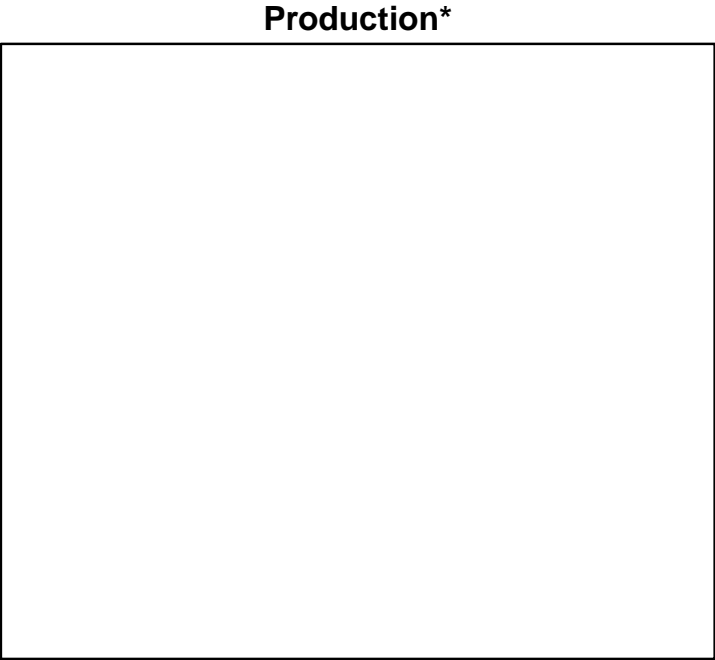
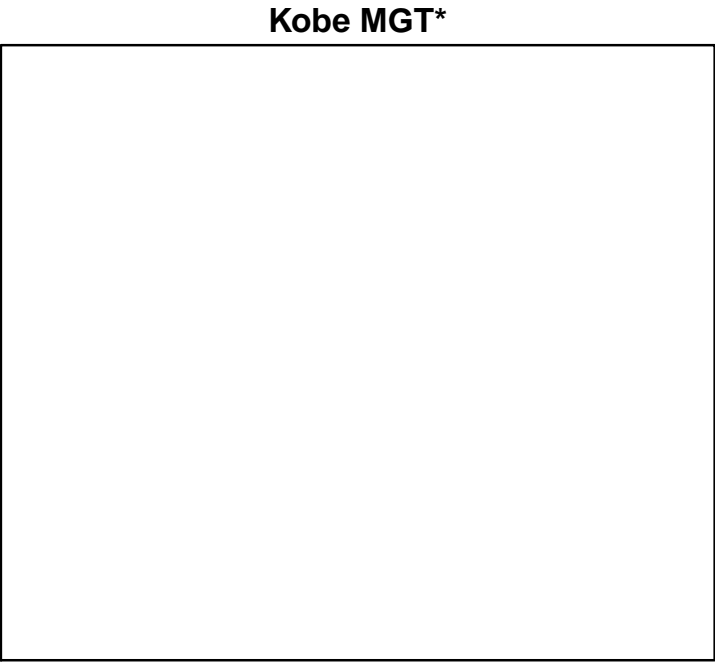
■ 1st listed time series ▲ 3rd listed time series — MORAT
● 2nd listed time series - - - MSY * No Data

Sardine North West Africa Zone A+B [SARDNWAZAB]

Metadata	
Scientific Name	Sardina pilchardus
Current Assess ID	FAO-SPNWA-SARDNWAZAB-1990-2016-ASHBROOK
Area	North West Africa Zone A+B
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO Working Group on the Assessment of Small Pelagic Fish Off Northwest Africa
Asmts in RAM	2010, 2016

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

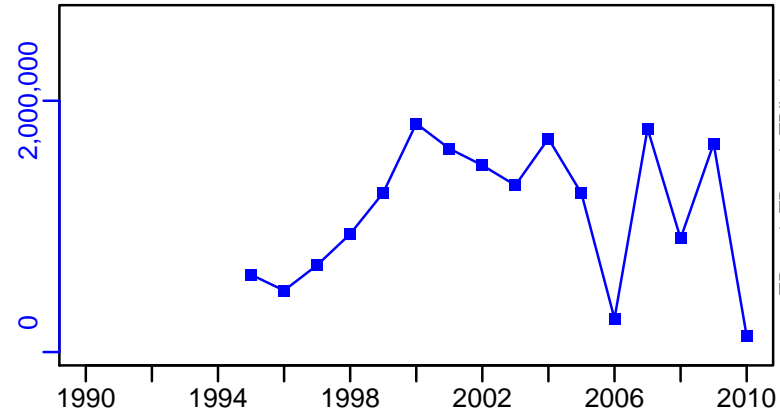
Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2010	95,500	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	F-1/yr	2010	5.28	-	-
ER	ER-calc-ratio	2010	5.288	-	-
TC	TC-MT	2016	440,485		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		



◆ Start Year ◆ End Year * No Data

Sardine North West Africa Zone A+B [SARDNWAZAB]

TB-MT (1990-2010-CHING)



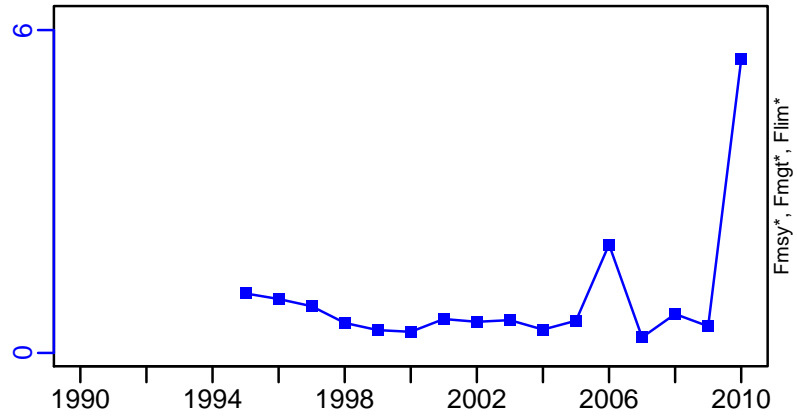
SSB*



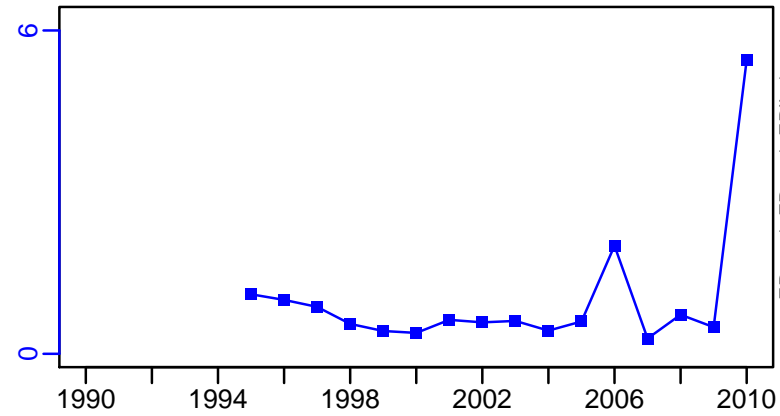
TN *



F-1/yr (1990-2010-CHING)



ER-calc-ratio (1990-2010-CHING)



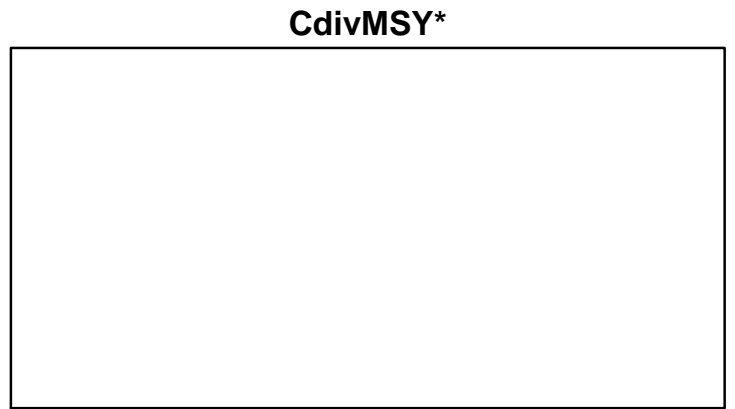
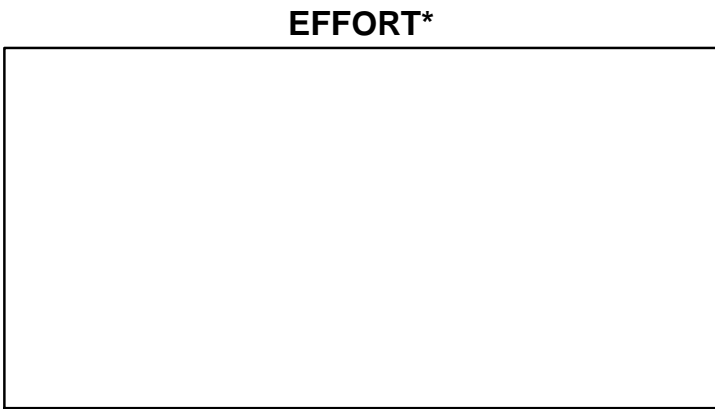
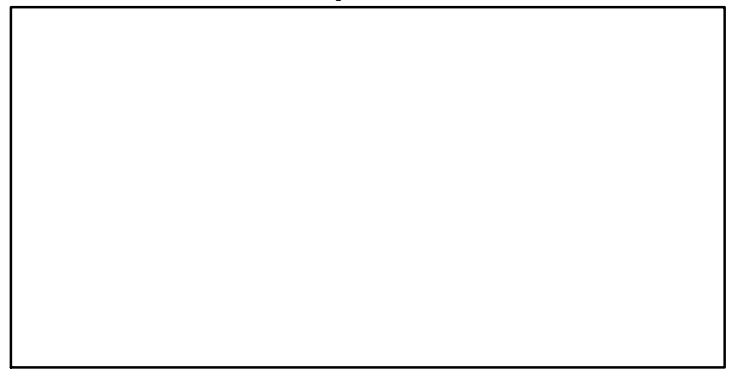
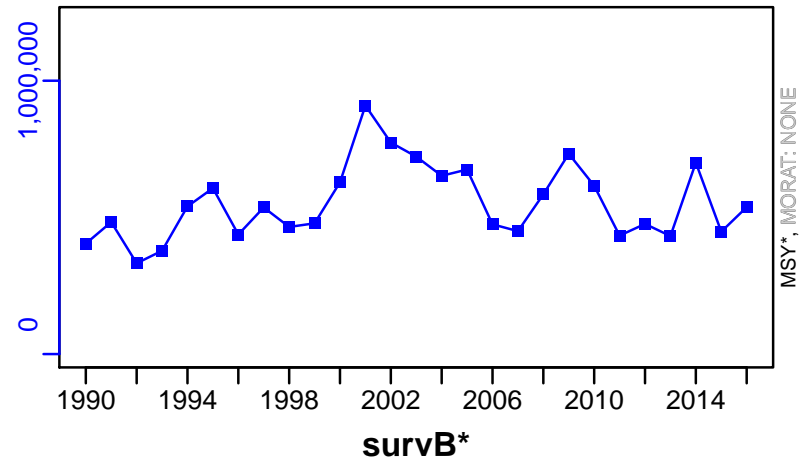
Recruits*



Sardine North West Africa Zone A+B [SARDNWAZAB]

TC-MT, TL*, RecC* (1990–2016–ASHBROOK)

TAC*, Cpair*, Cadv*



Sardine North West Africa Zone C [SARDNWAZC]

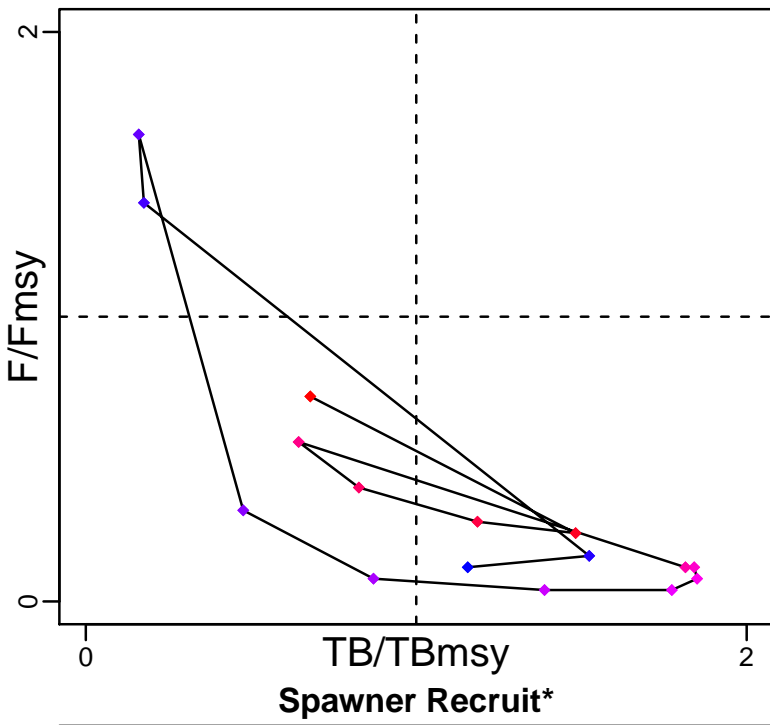
Metadata	
Scientific Name	Sardina pilchardus
Current Assess ID	FAO-SPNWA-SARDNWAZC-1990-2016-ASHBROOK
Area	North West Africa Zone C
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO Working Group on the Assessment of Small Pelagic Fish Off Northwest Africa
Asmts in RAM	2010, 2016

Reference Points			
Type	ID	Asmt Year	Value
TBmsy	TBmsy-MT	2010	3,400,129
SSBmsy	-	-	-
Fmsy	Fmsy-1/yr	2010	0.25
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-MT	2010	2,310,000	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	F-1/yr	2010	0.18	-	-
ER	ER-calc-ratio	2010	0.182	-	-
TC	TC-MT	2016	599,669		
TL	-	-	-		
TB/TBmsy	TB-MT/TBmsy-MT	2010	0.679		
SSB/SSBmsy	-	-	-		
F/Fmsy	F-1/yr/Fmsy-1/yr	2010	0.72		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

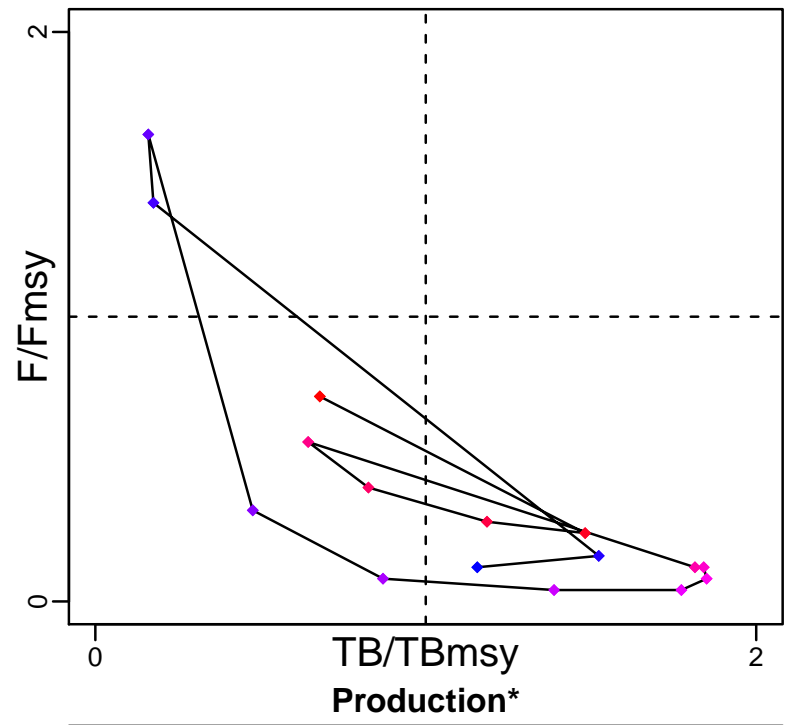
Sardine North West Africa Zone C [SARDNWAZC]

Kobe MSYpref (1990–2010–CHING)



Spawner Recruit*

Kobe MGTpref (1990–2010–CHING)



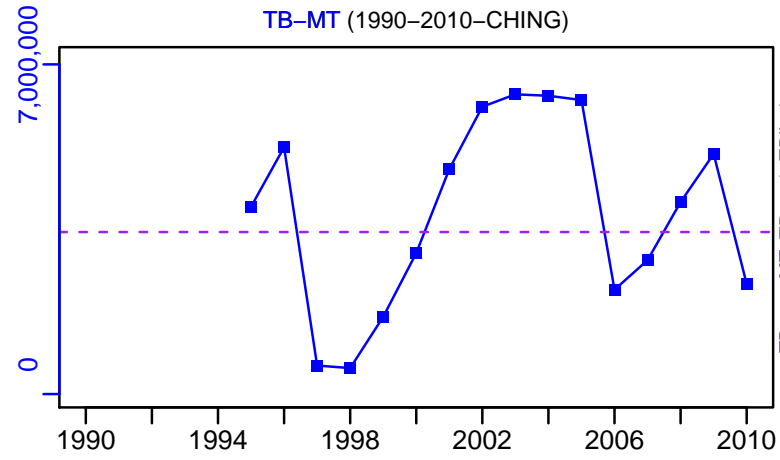
Production*

◆ Start Year ◆ End Year * No Data

Sardine North West Africa Zone C [SARDNWAZC]

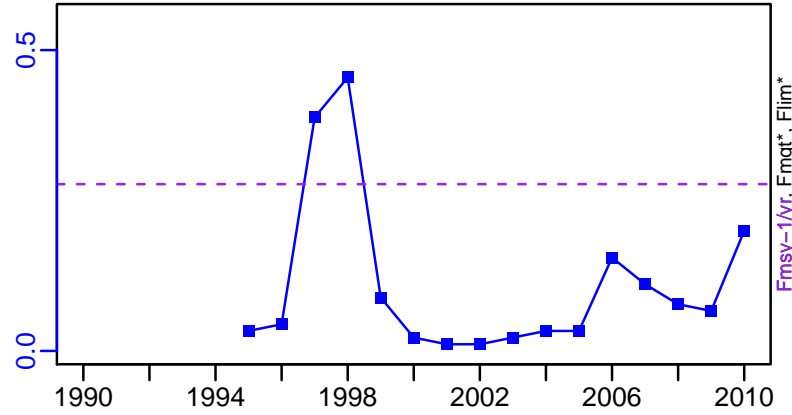
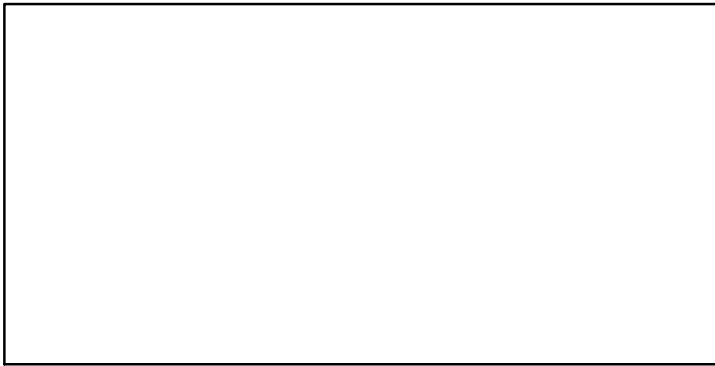
TB-MT (1990-2010-CHING)

SSB*



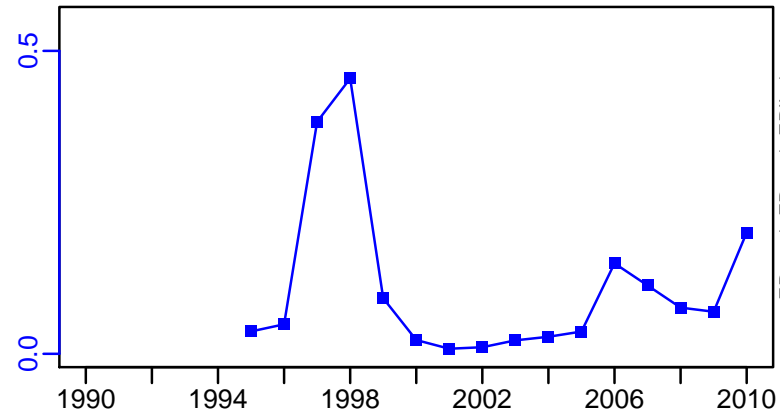
TN *

F-1/yr (1990-2010-CHING)



ER-calc-ratio (1990-2010-CHING)

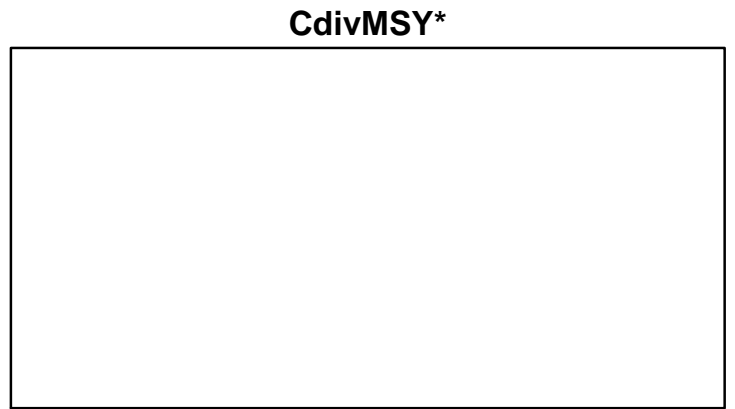
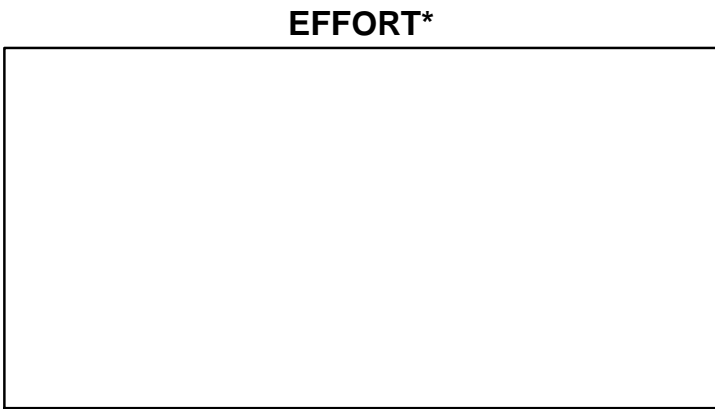
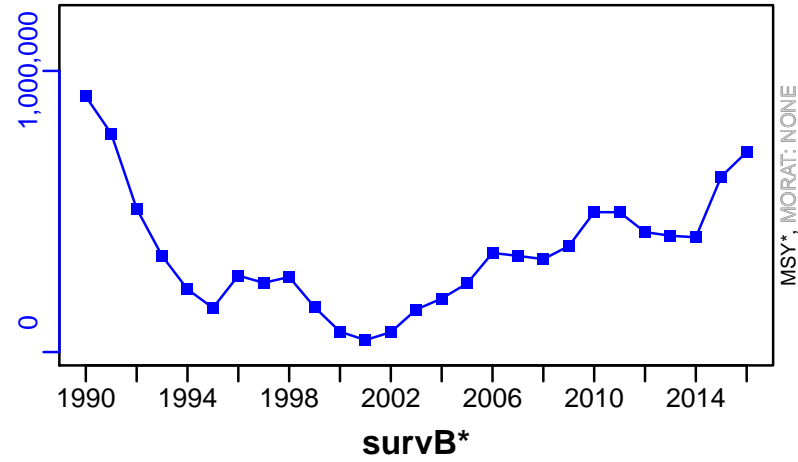
Recruits*



Sardine North West Africa Zone C [SARDNWAZC]

TC-MT, TL*, RecC* (1990–2016–ASHBROOK)

TAC*, Cpair*, Cadv*



Scad spp Central West Africa Guinea Bissau-Liberia [SCADSPPCWAGNB-LBR]

Metadata	
Scientific Name	Decapterus spp
Current Assess ID	FAO-SPNWA-SCADSPPCWAGNB-LBR-1994-2017-ASHBROOK
Area	Central West Africa Guinea Bissau-Liberia
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO Working Group on the Assessment of Small Pelagic Fish Off Northwest Africa
Asmts in RAM	2017

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2017	4796		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	ERdivERmsy-dimensionless	2017	0.86		
TB/TBmgt	TBdivTBmgt-dimensionless	2017	0.92		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

TB*



SSB*



TN *



F*



ER*

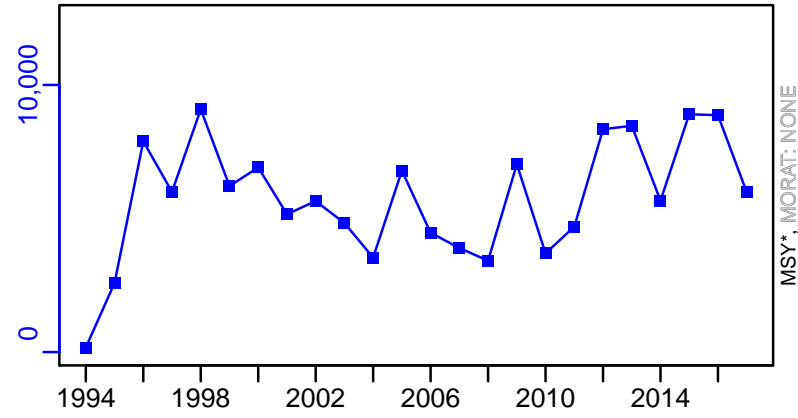


Recruits*



Scad spp Central West Africa Guinea Bissau–Liberia [SCADSPPCWAGNB–LBR]

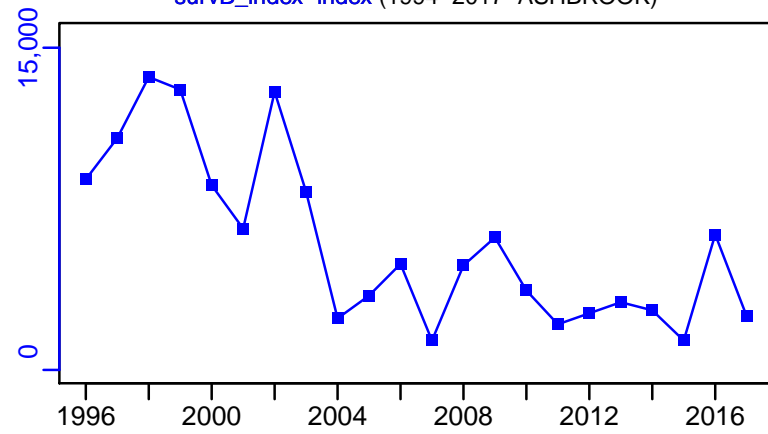
TC–MT, TL*, RecC* (1994–2017–ASHBROOK)



TAC*, Cpair*, Cadv*



survB_index–index (1994–2017–ASHBROOK)



CPUE*



EFFORT*



CdivMSY*



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

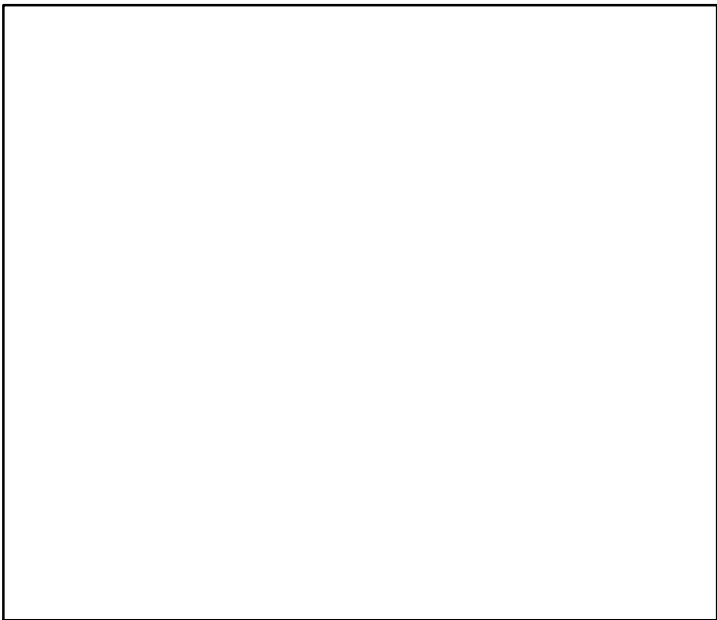
Sole Central West Africa Angola [SOLECWAAGO]

Metadata	
Scientific Name	Cynoglossus spp
Current Assess ID	FAO-DR-SOLECWAAGO-1994-2010-ASHBROOK
Area	Central West Africa Angola
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO/CECAF Working Group on the Assessment of Demersal Resources
Asmts in RAM	2010

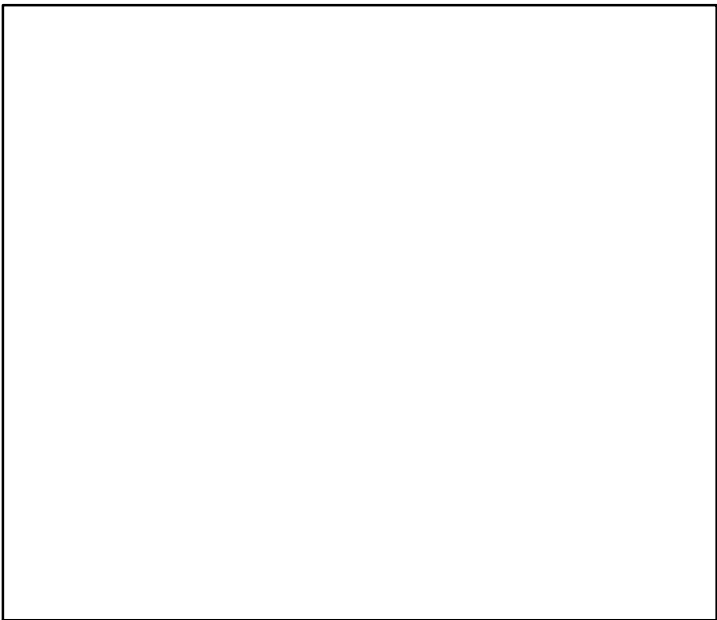
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2010	767		
TL	-	-	-		
TB/TBmsy	TBdivTBmsy-dimensionless	2010	0.74		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	ERdivERmsy-dimensionless	2010	1.72		
TB/TBmgt	TBdivTBmgt-dimensionless	2010	0.67		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

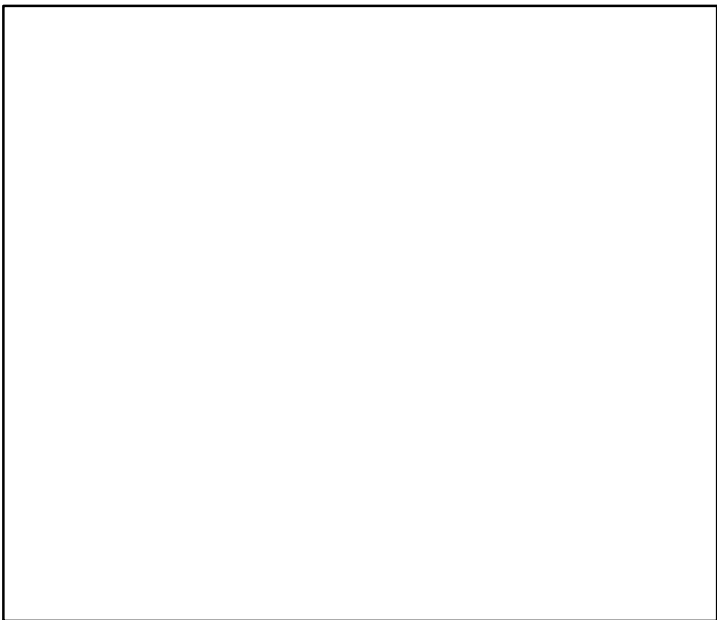
Kobe MSY*



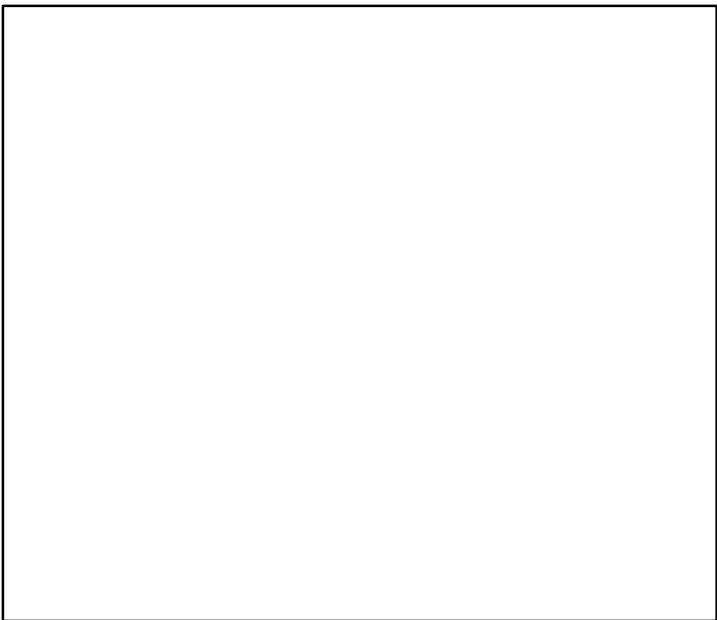
Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

TB*



SSB*



TN *



F*



ER*

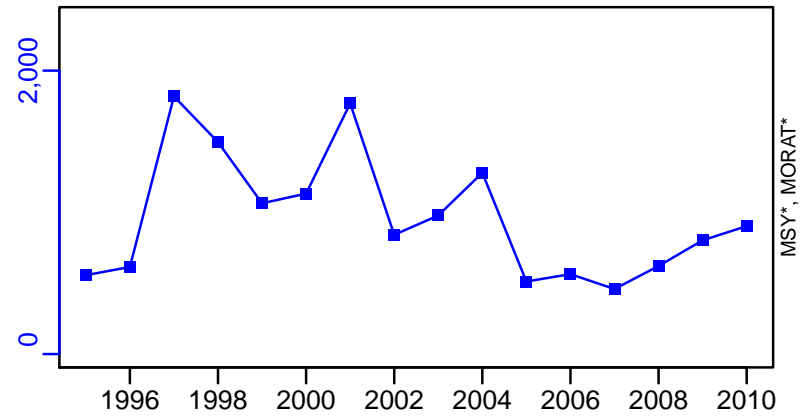


Recruits*



Sole Central West Africa Angola [SOLECWAAGO]

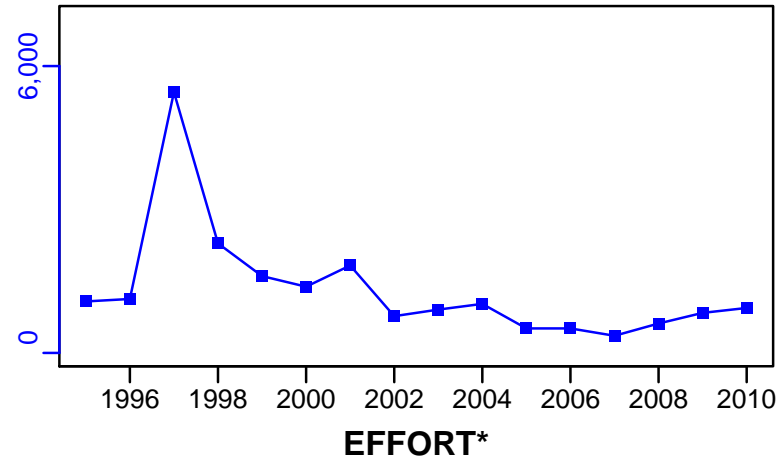
TC-MT, TL*, RecC* (1994-2010-ASHBROOK)



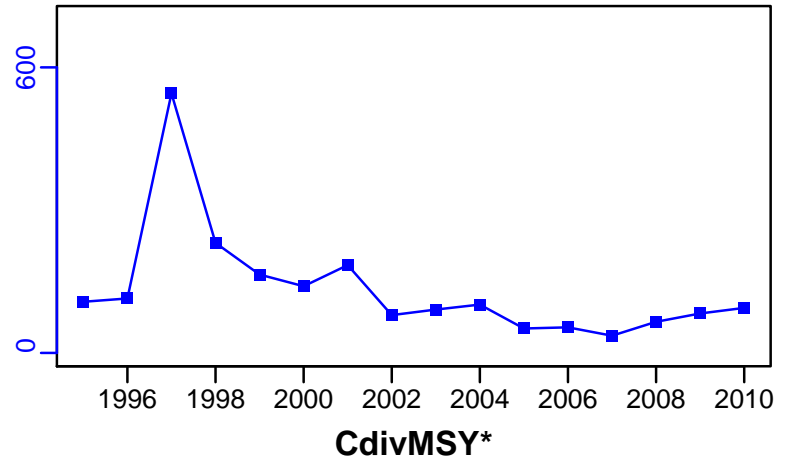
TAC*, Cpair*, Cadv*



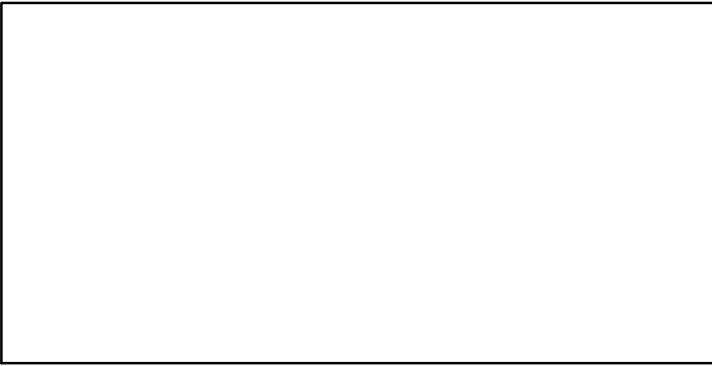
survB_index-1-index (1994-2010-ASHBROOK)



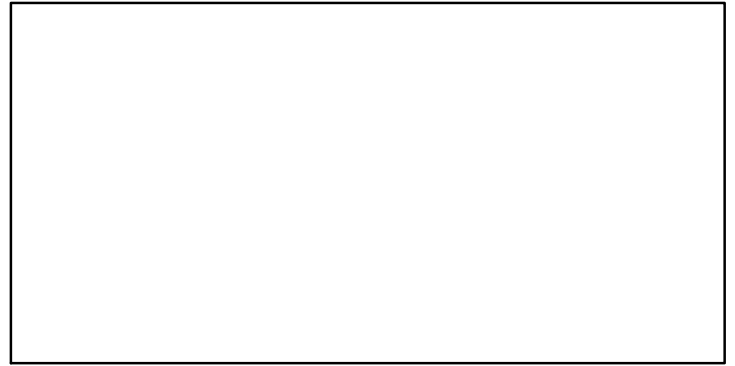
CPUE-index (1994-2010-ASHBROOK)



EFFORT*



CdivMSY*



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

Sole Central West Africa Guinea Bissau-Guinea [SOLECWAGNB-GIN]

Metadata	
Scientific Name	Cynoglossus spp
Current Assess ID	FAO-DR-SOLECWAGNB-GIN-1994-2009-ASHBROOK
Area	Central West Africa Guinea Bissau-Guinea
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO/CECAF Working Group on the Assessment of Demersal Resources
Asmts in RAM	2009

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2009	5349		
TL	-	-	-		
TB/TBmsy	TBdivTBmsy-dimensionless	2009	1.54		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	ERdivERmsy-dimensionless	2009	0.37		
TB/TBmgt	TBdivTBmgt-dimensionless	2009	1.4		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



Kobe MGT*



Spawner Recruit*

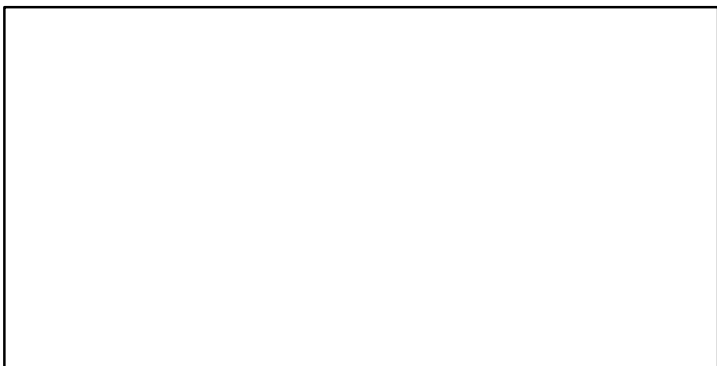


Production*

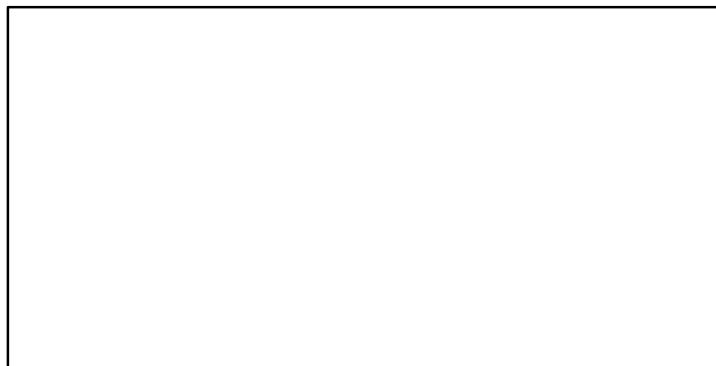


◆ Start Year ◆ End Year * No Data

TB*



SSB*



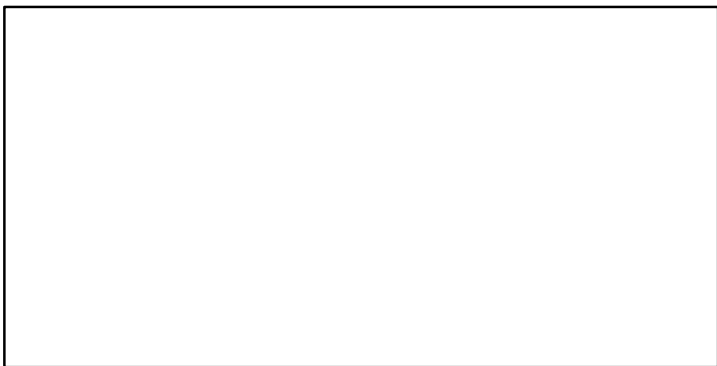
TN *



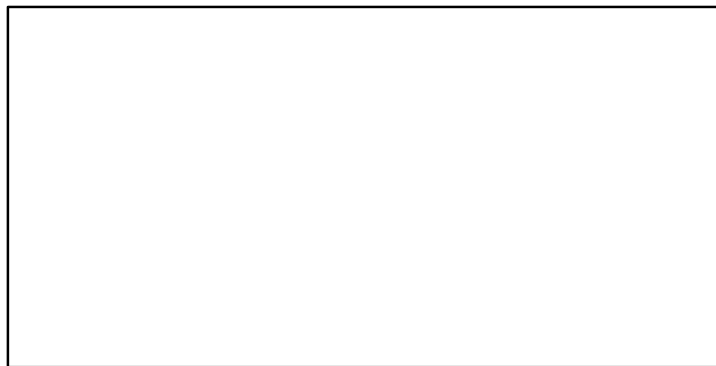
F*



ER*

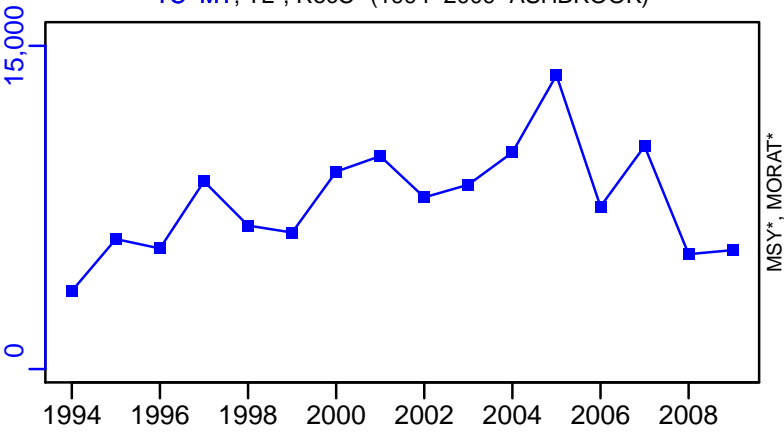


Recruits*



Sole Central West Africa Guinea Bissau–Guinea [SOLECWAGNB–GIN]

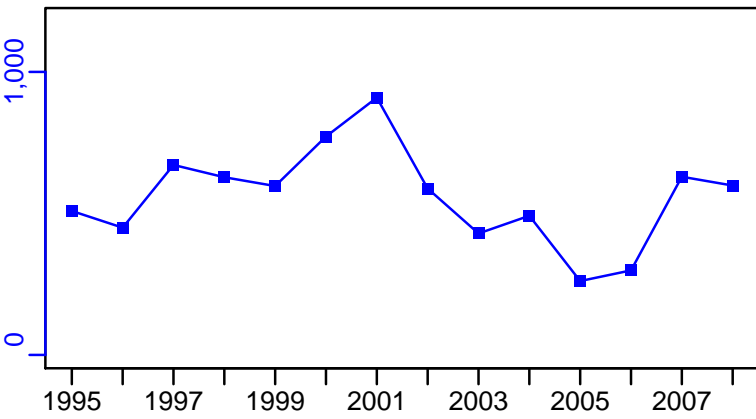
TC–MT, TL*, RecC* (1994–2009–ASHBROOK)



TAC*, Cpair*, Cadv*



survB_index–index (1994–2009–ASHBROOK)



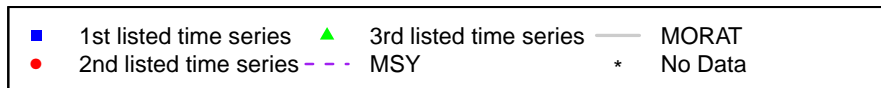
CPUE*



EFFORT*



CdivMSY*



Southern pink shrimp Central West Africa [SPSHRIMPCWA]

Metadata	
Scientific Name	Farfantepenaeus notialis
Current Assess ID	FAO-DR-SPSHRIMPCWA-1990-2007-CHING
Area	Central West Africa
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO/CECAF Working Group on the Assessment of Demersal Resources
Asmts in RAM	2007

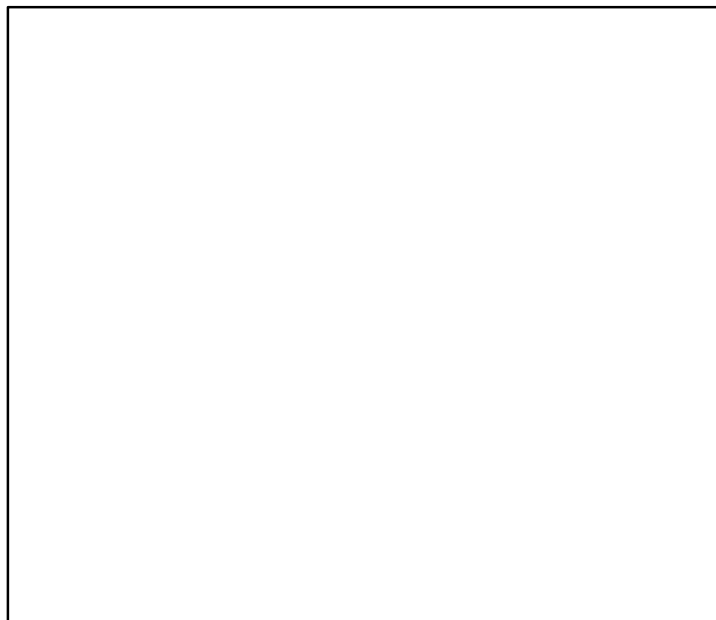
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2007	2250		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



Kobe MGT*



Spawner Recruit*



Production*



◆ Start Year ◆ End Year * No Data

TB*



SSB*



TN *



F*



ER*



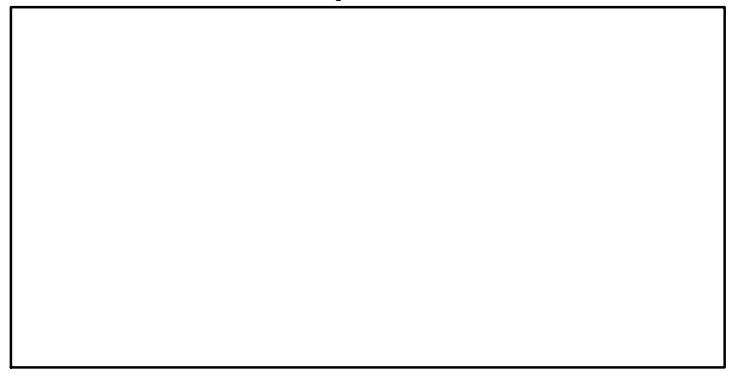
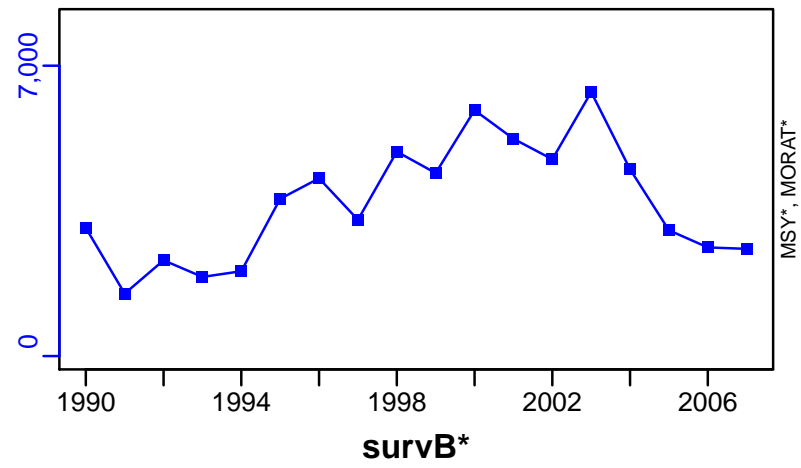
Recruits*



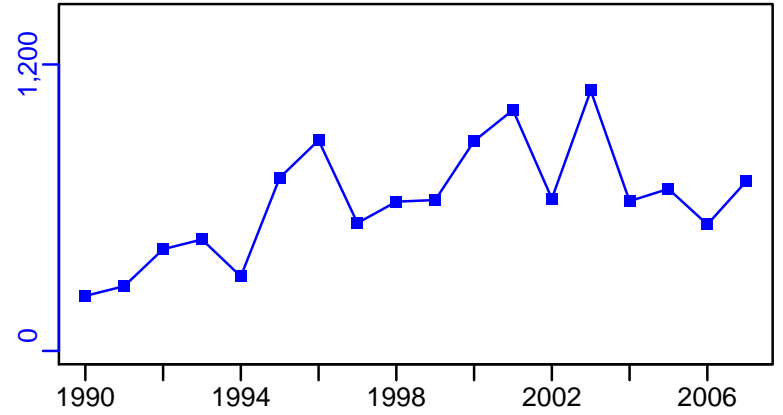
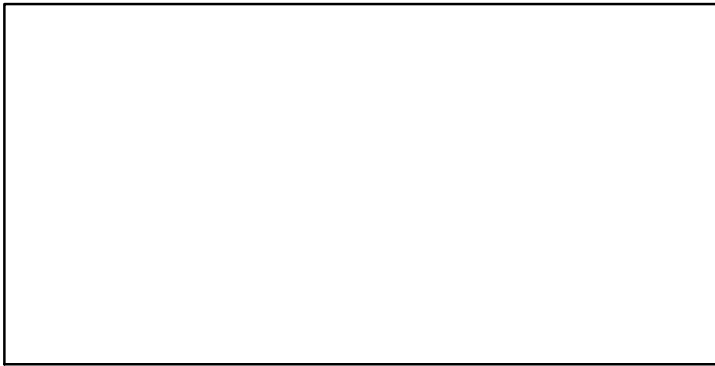
Southern pink shrimp Central West Africa [SPSHRIMPCWA]

TC-MT, TL*, RecC* (1990-2007-CHING)

TAC*, Cpair*, Cadv*

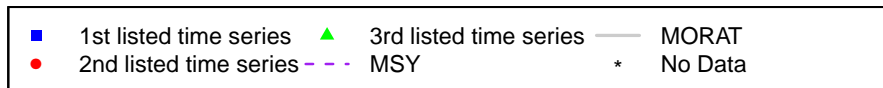
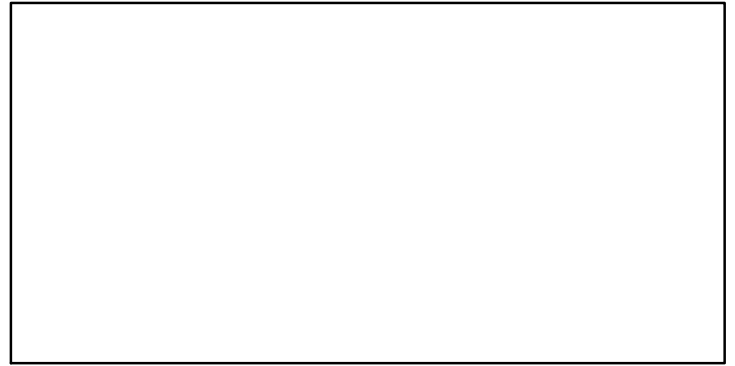
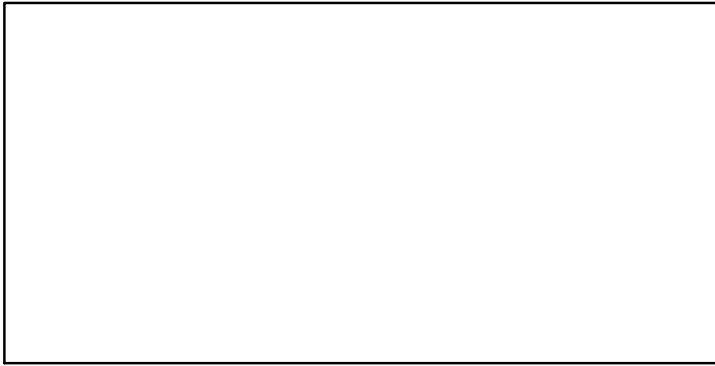


CPUE-kg/day (1990-2007-CHING)



EFFORT*

CdivMSY*



Threadfin Central West Africa Cote Divoire-Benin [THREADCWACIV-BEN]

Metadata	
Scientific Name	Galeoides decadactylus
Current Assess ID	FAO-DR-THREADCWACIV-BEN-1990-2006-CHING
Area	Central West Africa Cote Divoire-Benin
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO/CECAF Working Group on the Assessment of Demersal Resources
Asmts in RAM	2006

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-index	2006	15	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2006	3980		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



Kobe MGT*



Spawner Recruit*



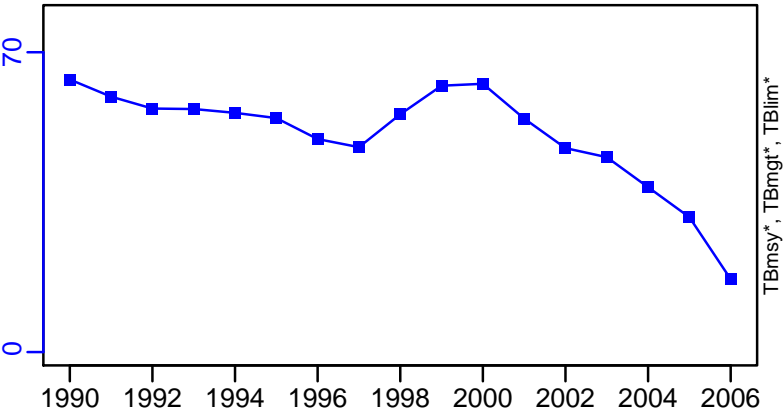
Production*



◆ Start Year ◆ End Year * No Data

Threadfin Central West Africa Cote Divoire–Benin [THREADCWACIV–BEN]

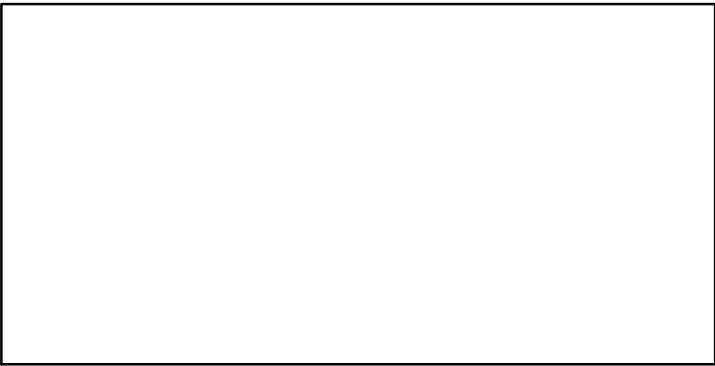
TB–index (1990–2006–CHING)



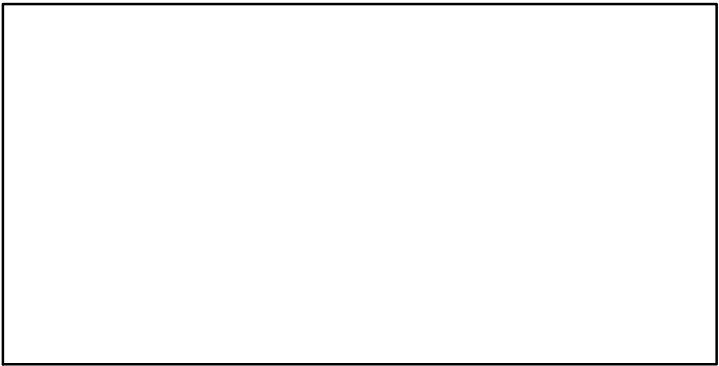
SSB*



TN *



F*



ER*

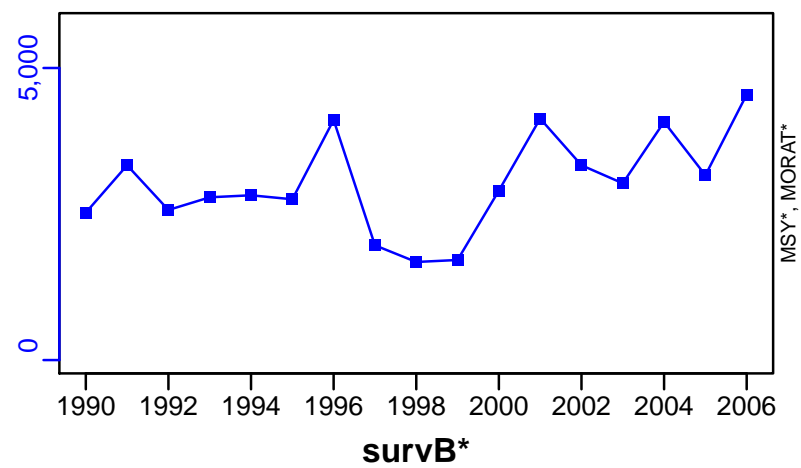


Recruits*

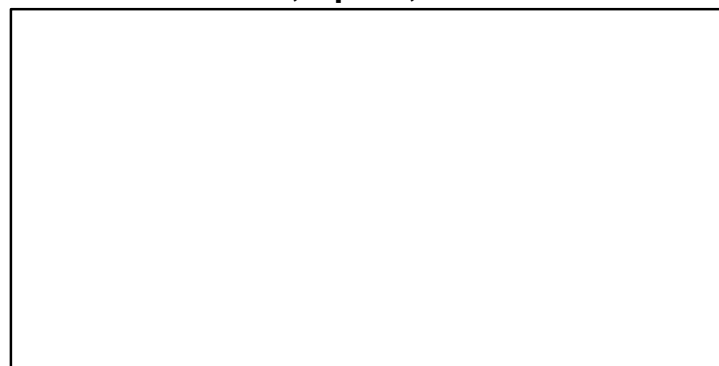


Threadfin Central West Africa Cote Divoire–Benin [THREADCWACIV–BEN]

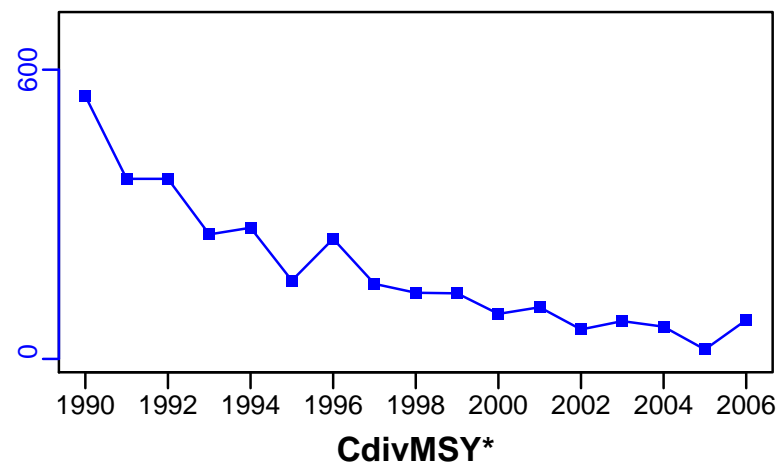
TC–MT, TL*, RecC* (1990–2006–CHING)



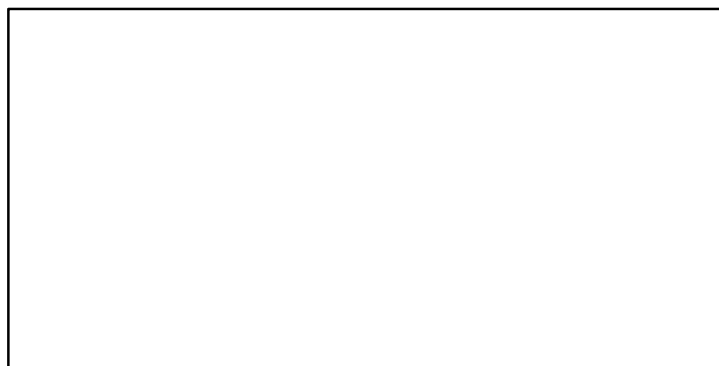
TAC*, Cpair*, Cadv*



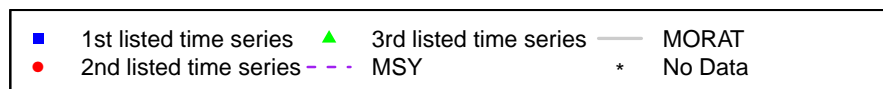
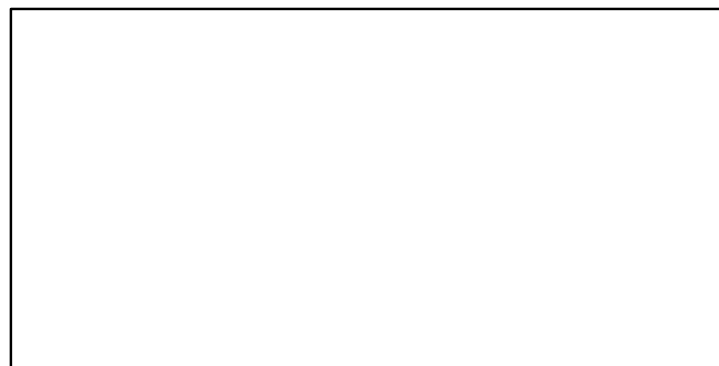
CPUE–kg/day (1990–2006–CHING)



EFFORT*



CdivMSY*



Threadfin Central West Africa Gabon-Angola [THREADCWAGAB-AGO]

Metadata	
Scientific Name	Galeoides decadactylus
Current Assess ID	FAO-DR-THREADCWAGAB-AGO-1990-2007-CHING
Area	Central West Africa Gabon-Angola
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO/CECAF Working Group on the Assessment of Demersal Resources
Asmts in RAM	2007

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

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	TB-index	2007	54	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2007	1940		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

Kobe MSY*



Kobe MGT*



Spawner Recruit*



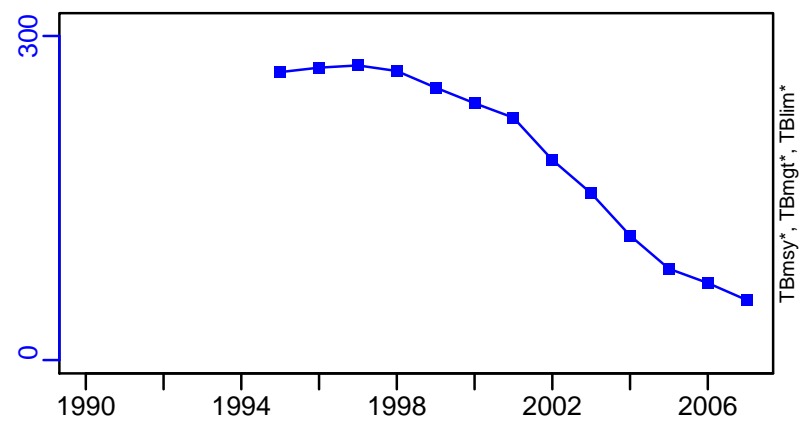
Production*



◆ Start Year ◆ End Year * No Data

Threadfin Central West Africa Gabon–Angola [THREADCWAGAB–AGO]

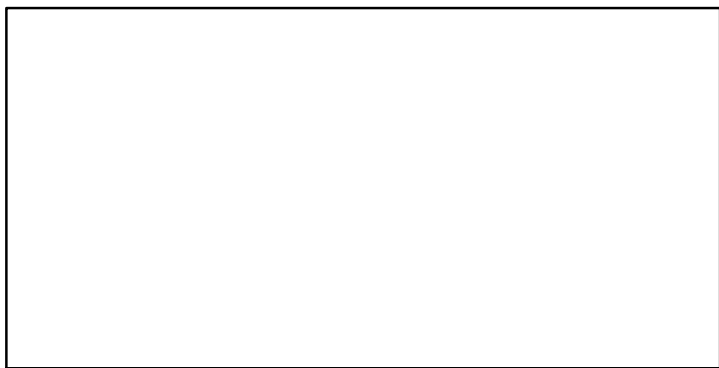
TB-index (1990–2007–CHING)



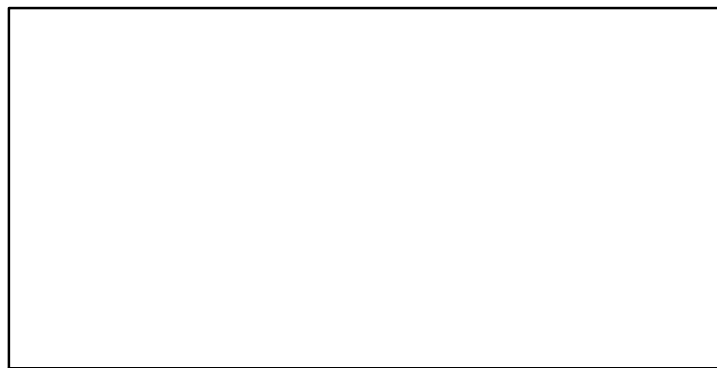
SSB*



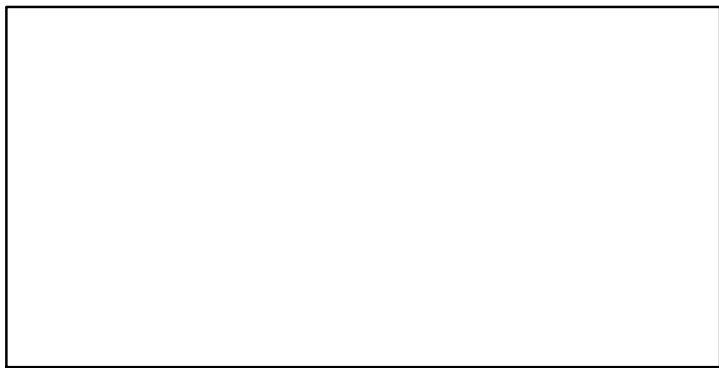
TN *



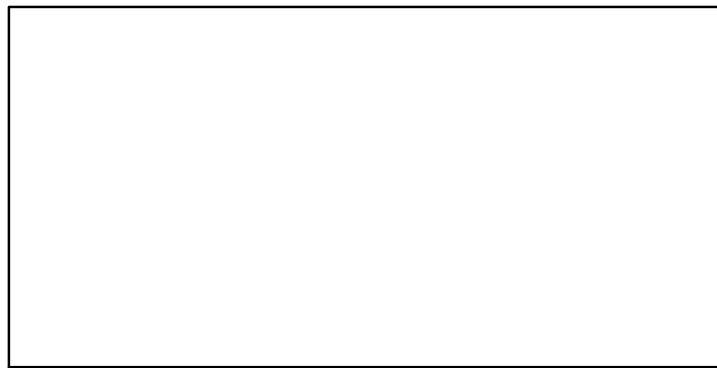
F*



ER*



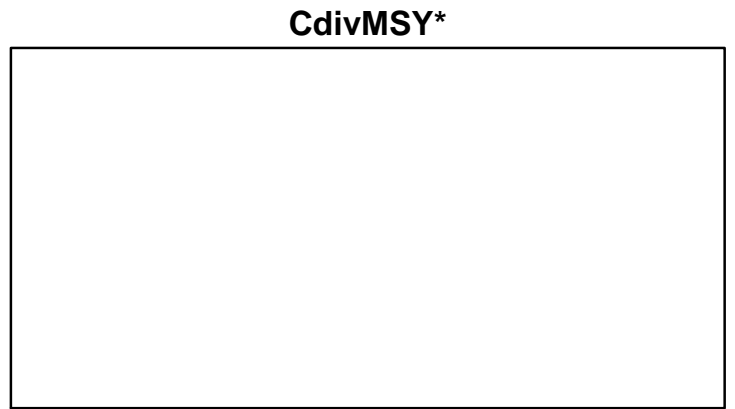
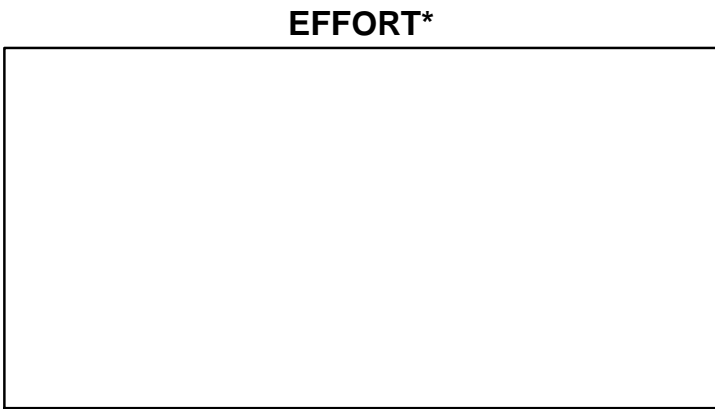
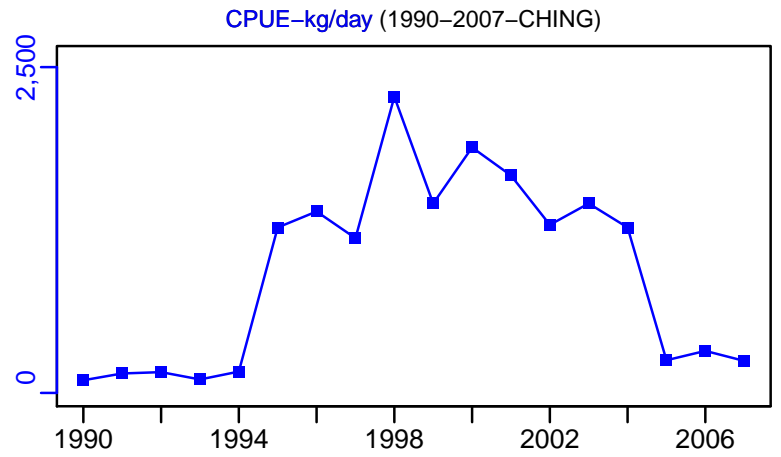
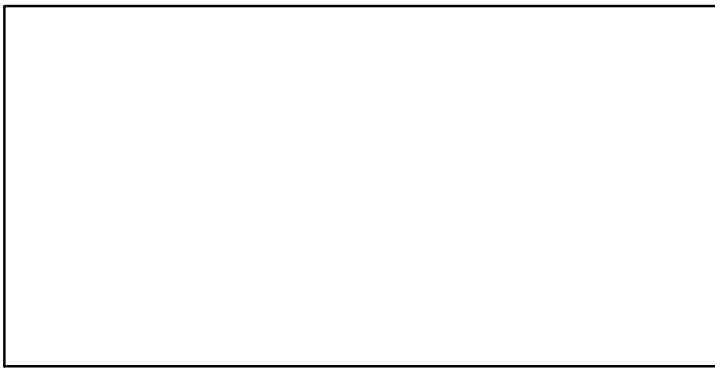
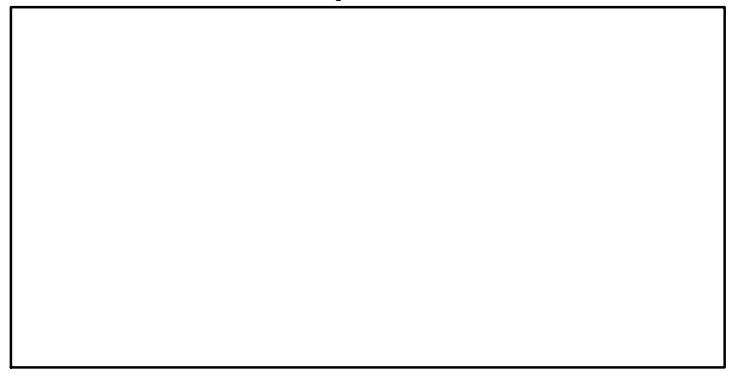
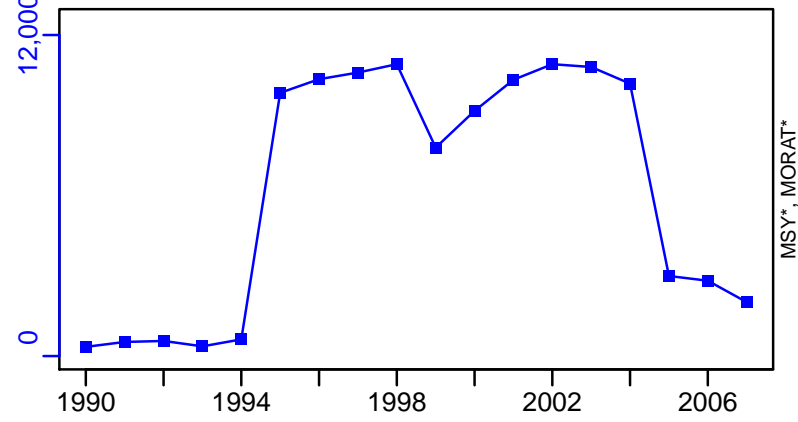
Recruits*



Threadfin Central West Africa Gabon–Angola [THREADCWAGAB–AGO]

TC–MT, TL*, RecC* (1990–2007–CHING)

TAC*, Cpair*, Cadv*



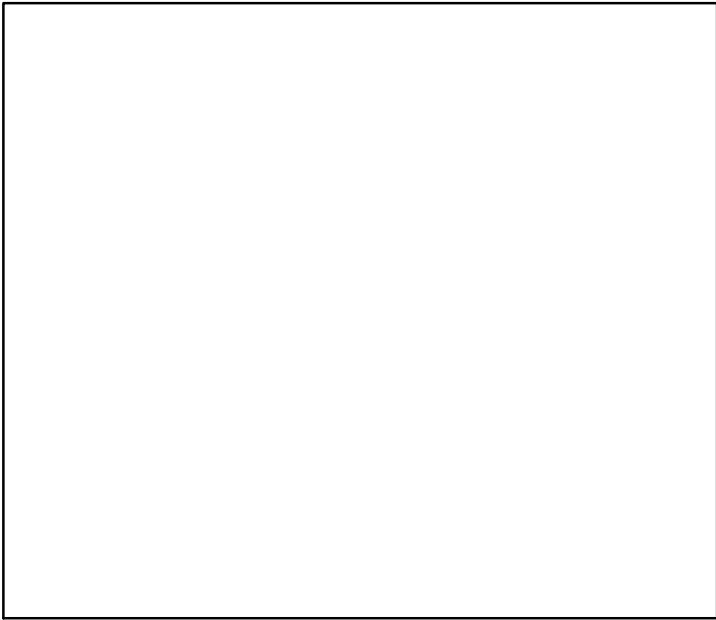
Threadfin Central West Africa Guinea-Liberia [THREADCWAGIN-LBR]

Metadata	
Scientific Name	Galeoides decadactylus
Current Assess ID	FAO-DR-THREADCWAGIN-LBR-1994-2007-CHING
Area	Central West Africa Guinea-Liberia
Management Authority	Food and Agriculture Organization of the United Nations
Assessor	FAO/CECAF Working Group on the Assessment of Demersal Resources
Asmts in RAM	2007

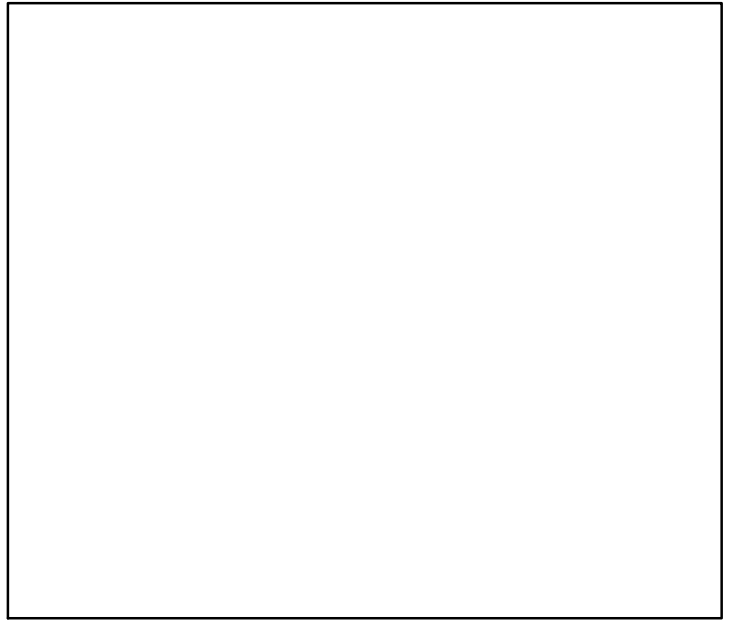
Reference Points			
Type	ID	Asmt Year	Value
TBmsy	-	-	-
SSBmsy	-	-	-
Fmsy	-	-	-
ERmsy	-	-	-
TBmgt	-	-	-
SSBmgt	-	-	-
Fmgt	-	-	-
ERmgt	-	-	-
TB0	-	-	-
SSB0	-	-	-
MSY	-	-	-
M	-	-	-
TBlim	-	-	-
SSBlim	-	-	-
Flim	-	-	-
ERlim	-	-	-

Time Series					
Type	ID	Asmt Year	Curr Value	Sex	Age
TB	-	-	-	-	-
SSB	-	-	-	-	-
TN	-	-	-	-	-
R	-	-	-	-	-
F	-	-	-	-	-
ER	-	-	-	-	-
TC	TC-MT	2007	4200		
TL	-	-	-		
TB/TBmsy	-	-	-		
SSB/SSBmsy	-	-	-		
F/Fmsy	-	-	-		
ER/ERmsy	-	-	-		
TB/TBmgt	-	-	-		
SSB/SSBmgt	-	-	-		
F/Fmgt	-	-	-		
ER/ERmgt	-	-	-		

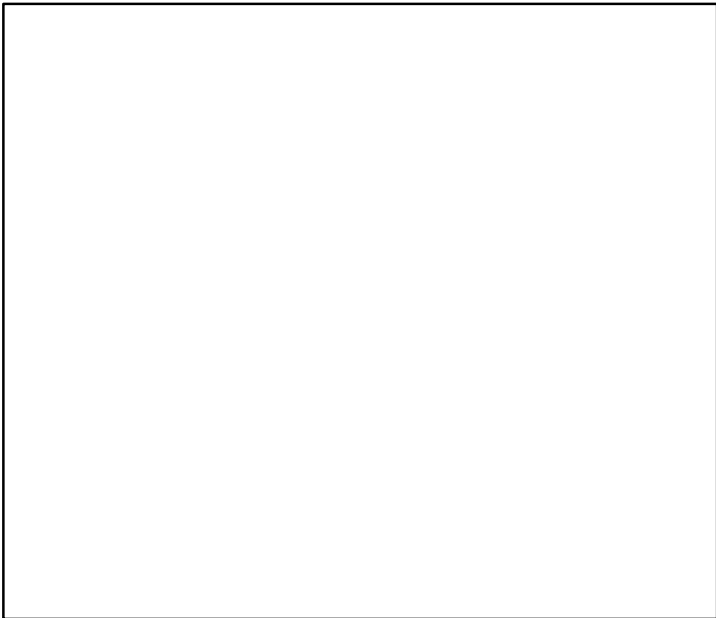
Kobe MSY*



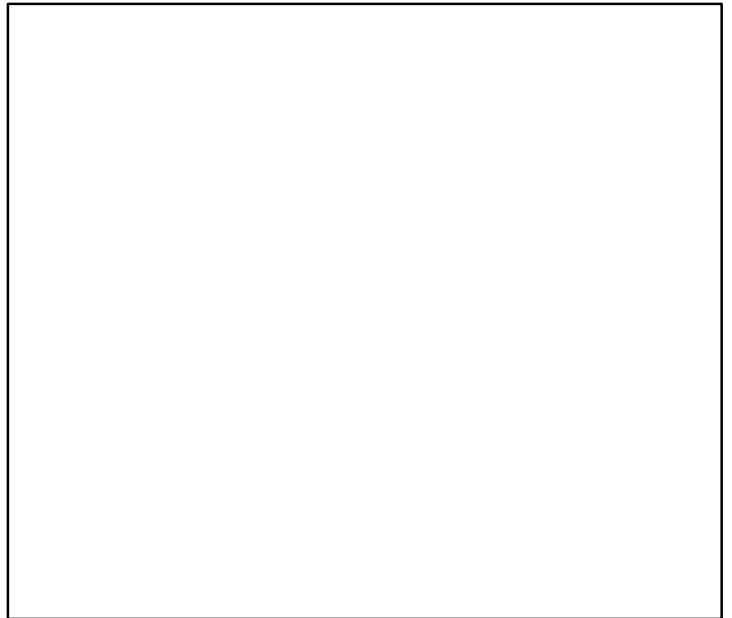
Kobe MGT*



Spawner Recruit*

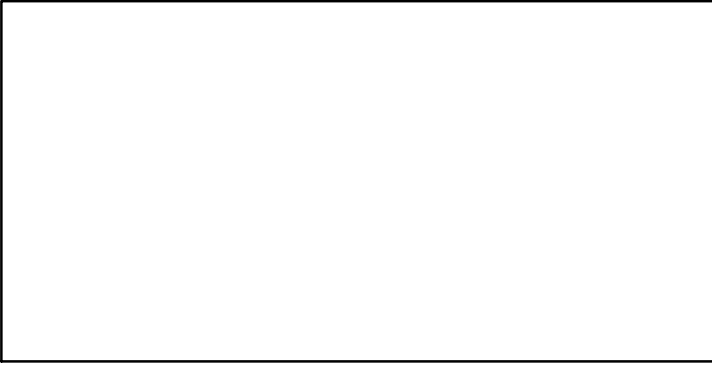


Production*



◆ Start Year ◆ End Year * No Data

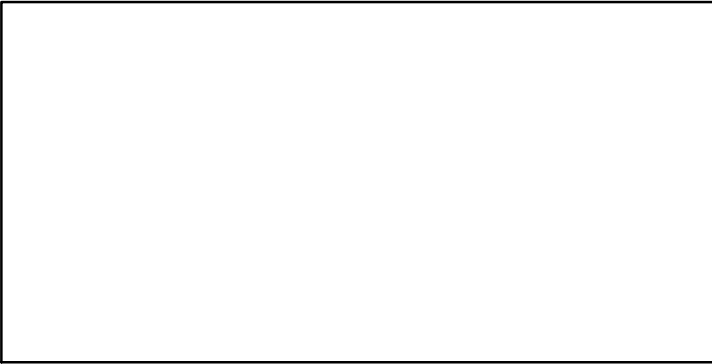
TB*



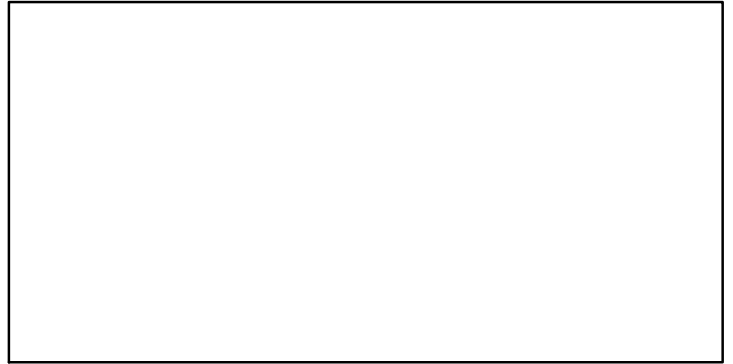
SSB*



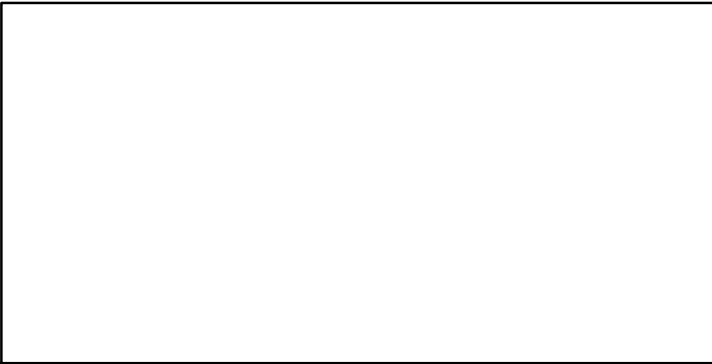
TN *



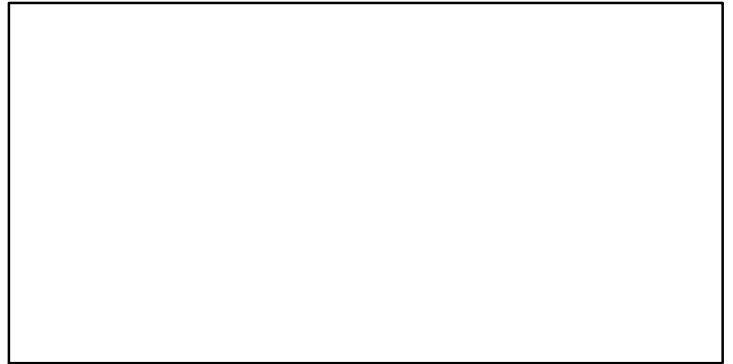
F*



ER*

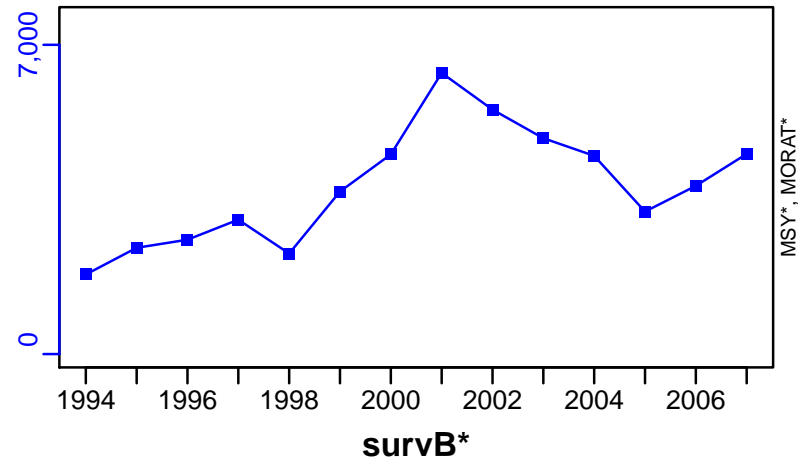


Recruits*



Threadfin Central West Africa Guinea-Liberia [THREADCWAGIN-LBR]

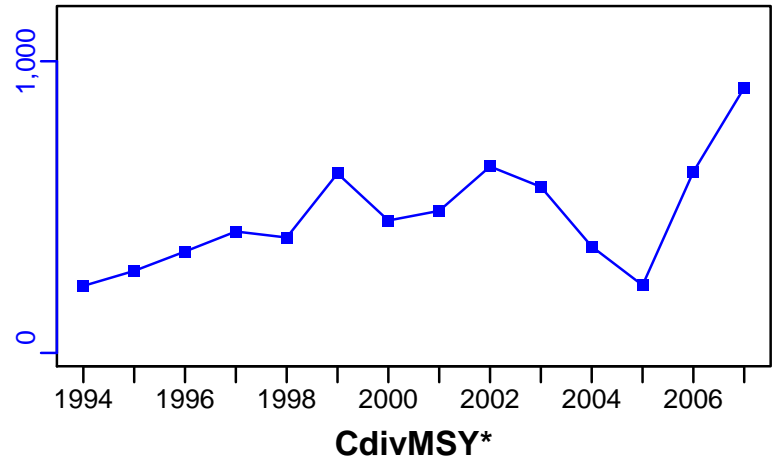
TC-MT, TL*, RecC* (1994-2007-CHING)



TAC*, Cpair*, Cadv*



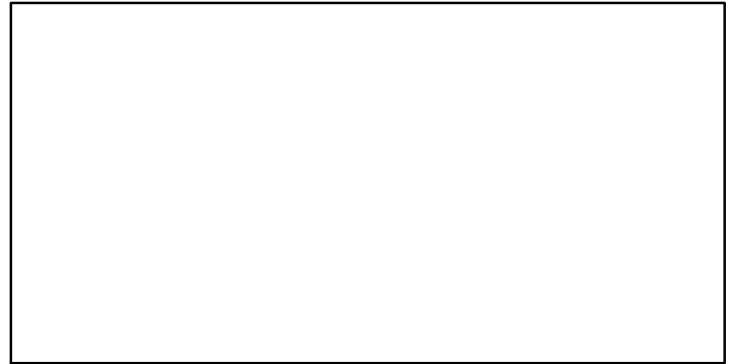
CPUE-kg/day (1994-2007-CHING)



EFFORT*



CdivMSY*



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