

Dear Laurence,

Thank you sincerely for submitting assessments to the Myers II database. We have entered 8 of your assessments, and now wish to quality assure/quality control (QA/QC) these data for a release version of the database. Please follow the steps below to ensure that your assessments have been dutifully represented:

QA/QC steps

For each assessment:

1. Ensure that the General assessment details are correct.
2. Ensure that the units for all Biometrics and Time Series shown are correct. To aid in this, we have included the minimum, maximum, first year, and last year of the spawning stock biomass, recruitment, fishing mortality, total biomass, and catch (where provided).
3. If there are blank values in the Biometrics table, please include these in your response (see below), where they are available. Please note that in the Biometrics table, the following abbreviations are used:
 - SSB-AGE-yr = Ages for which the spawning stock biomass is defined
 - REC-AGE = Age at recruitment
 - F-AGE-yr = Ages for which the fishing mortality is defined
 - TB-AGE-yr = Ages for which the total biomass is defined
 - M = Natural mortality
 - A50-yr = The age at 50% maturity
 - L50-cm = The length at 50% maturity
 - MORATOR-yr-yr = Moratorium years
 - LME = Large Marine Ecosystem
4. To ensure that the recruitment time series has been offset by the age at recruitment so that yearclass matches up with spawner biomass, please make sure that the difference between the last year of the recruitment and last year of the SSB time series is equal to the age at recruitment supplied (unless there is another reason, e.g. estimates unavailable).
5. Provide Large Marine Ecosystem (LME) designation(s) for your stock (unless it is a high seas stock). Please enter a primary, secondary and tertiary LME (if they exist) in the issue you submit (see below). A map of the LMEs is provided on the last page of this document.

QA/QC submission process

If you (or someone else) submitted the assessments via the RAM legacy site, please log into : <http://www.marinebiodiversity.ca/RAMlegacy/ramlegacy-bug-reporting> and locate the issue(s) associated with your spreadsheet submission(s). Once you locate your assessment, open the associated issue and choose "Add response". At the top of this response write:

QAQC: Assessment ID (this ID is located at the top of each assessment in the current document)

If you did not submit via the RAM Legacy site, please go to the url above and click "Submit a new issue" with the title: *QAQC: Assessment ID* (located at the top of each assessment in this pdf).

If you found no issues with the QA/QC document, please type:

"QA/QC correct". If you have found issues, please update the assessment spreadsheet accordingly or write the details of corrections to be made in the dialogue box. Once we have received and processed your response, the assessment will be flagged as quality controlled and the data it contains will be used for analyses.

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Assessment of Northwest Pacific Ocean shortfin mako (*Isurus oxyrinchus*)

Assessment ID:IMARM-SFMAKONWPAC-1990-2003-FAUCONNET
Issue URL: <http://www.marinebiodiversity.ca/RAMlegacy/ramlegacy-bug-reporting/400>

Area ID: multinational-UNKNOWN-NWPAC

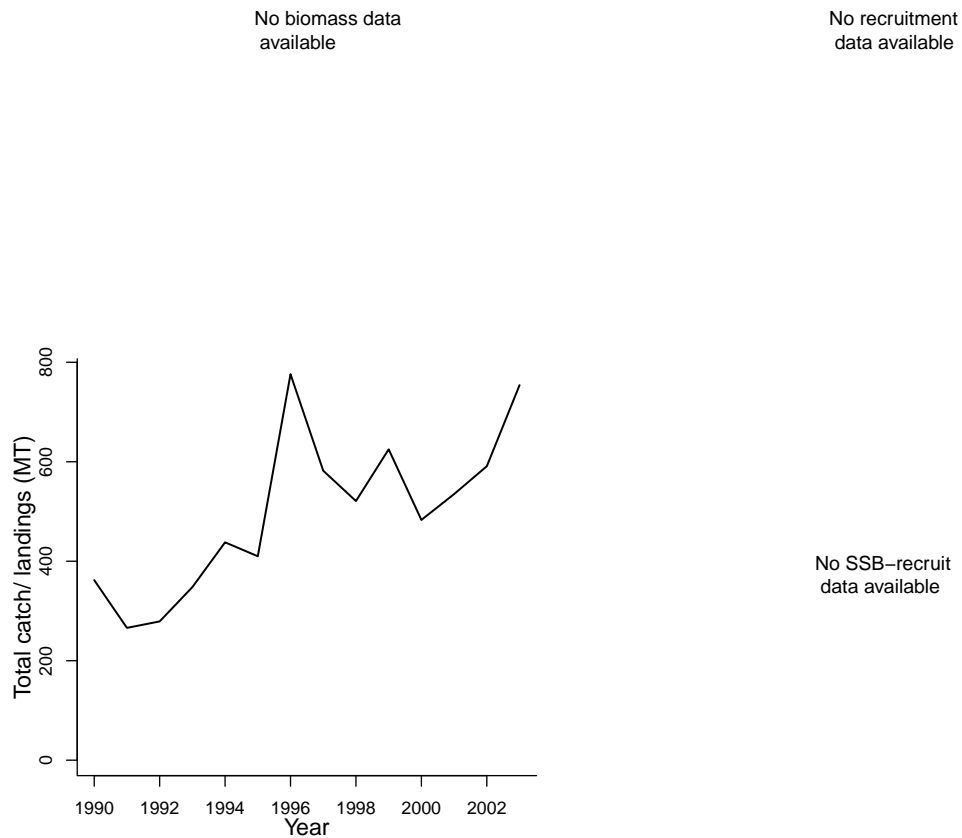
General assessment details.

Detail	Value
Management body	UNKNOWN
Assessment group	Institute of Marine Affairs and Resource Management - National Taiwan Ocean University, 2 Pei-Ning Road, Keelung 20224, Taiwan
Assessment authors	Chang, Jui-Han
Assessment method	Virtual Population Analysis
Publication year	2009
Timeseries span	1990-2003
Document	Chang-Liu-2009-Shortfin-mako-NWPAC.pdf (pdf in database)
Recorder	FAUCONNET
Date entered	2009-06-11
Date last loaded	2011-03-03
QA/QC complete	YES
Date approved	2011-03-03

Biometrics provided. Note that the assumed timeseries to which the reference point pertains is indicated in parentheses.

primary LME			secondary LME		tertiary LME		
-99 - Pacific High Seas			-98 - Atlantic High Seas		-97 - Indian High Seas		
Parameter	Value	Units					
SSB-AGE-yr	17-21	yr					
F-AGE-yr-yr	0-22	yr-yr					
F-AGE-yr-yr	0-18	yr-yr					
REC-AGE							
SSB-SEX-sex							
TB-AGE-yr							
M							
A50-yr							
L50-cm							

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year					1990
Maximum year					2003
Time series minimum					266
Time series maximum					776
Units					MT



Assessment of Atlantic bonnethead shark (*Sphyrna tiburo*)

Assessment ID:SEFSC-BHEADSHARATL-1950-2005-FAUCONNET
Issue URL: <http://www.marinebiodiversity.ca/RAMlegacy/ramlegacy-bug-reporting/326>

Area ID: USA-NMFS-ATL

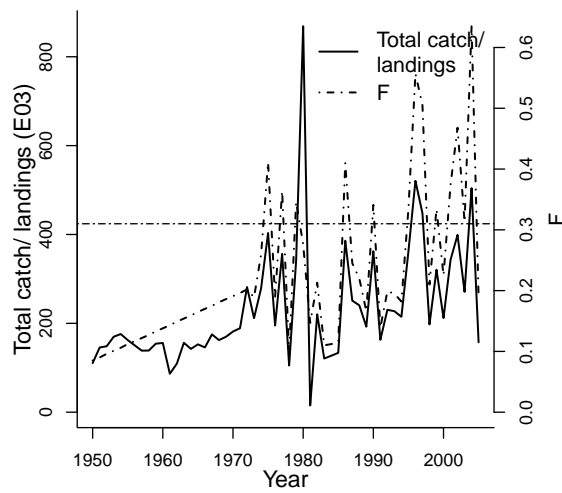
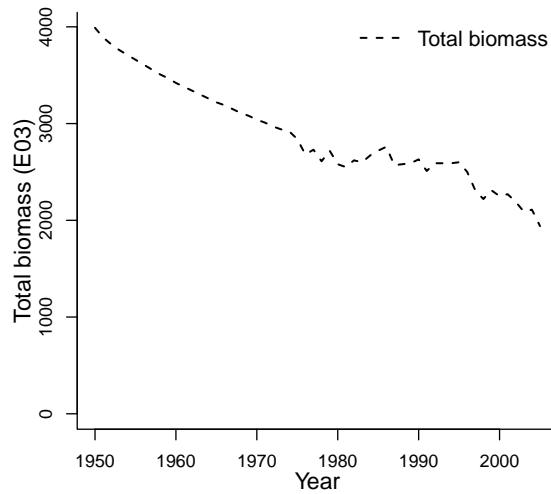
General assessment details.

Detail	Value
Management body	NMFS
Assessment group	Southeast Fisheries Science Center
Assessment authors	Brooks, Liz
Assessment method	Age-structured surplus production model
Publication year	2007
Timeseries span	1950-2005
Document	SmallcoastalAtl2007-SEFSC.pdf (pdf in database)
Recorder	FAUCONNET
Date entered	2009-05-08
Date last loaded	2010-02-25
QA/QC complete	NO
Date approved	

Biometrics provided. Note that the assumed timeseries to which the reference point pertains is indicated in parentheses.

primary LME			secondary LME			tertiary LME		
6 - Southeast U.S. Continental Shelf			7 - Northeast U.S. Continental Shelf			na		
Parameter	Value	Units	Reference points			Parameter	Value	Units
SSB-AGE-yr	3.5	yr	Fmsy-1/yr (F)	0.31	1/yr	Fcurrent-1/T (F)	0.19	1/T
SSB-SEX-sex	1	sex	MSY-MT (TB)	568871	MT	SPRmsy-E00	0.42	E00
REC-AGE-yr	age 1?	yr	SSFmsy-E00	1.99E+06	E00	Nmsy-E00	1.92E+06	E00
TB-AGE-yr			BH-h-dimless	0.44	dimless	F_{2005}/F_{msy}	0.606	
F-AGE-yr								
M								
A50-yr								
L50-cm								

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year			1950	1950	1950
Maximum year			2005	2005	2005
Time series minimum			0.085	1940	15.111
Time series maximum			0.635	3990	868.767
Units			1/yr	E03	E03



Assessment of Atlantic blacknose shark (*Carcharhinus acronotus*)

Assessment ID:SEFSC-BNOSESHARATL-1950-2005-FAUCONNET
Issue URL: <http://www.marinebiodiversity.ca/RAMlegacy/ramlegacy-bug-reporting/324>

Area ID: USA-NMFS-ATL

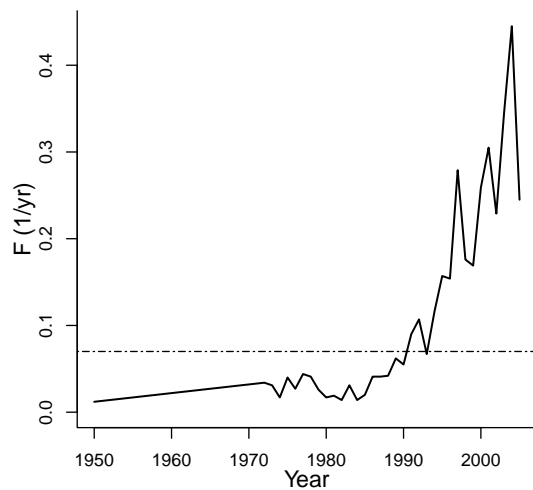
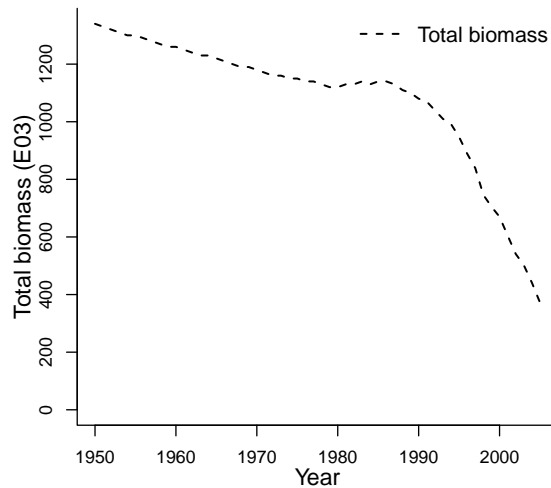
General assessment details.

Detail	Value
Management body	NMFS
Assessment group	Southeast Fisheries Science Center
Assessment authors	Brooks, Liz
Assessment method	Age-structured surplus production model
Publication year	2007
Timeseries span	1950-2005
Document	SmallcoastalAtl2007-SEFSC.pdf (pdf in database)
Recorder	FAUCONNET
Date entered	2009-05-06
Date last loaded	2010-07-21
QA/QC complete	NO
Date approved	

Biometrics provided. Note that the assumed timeseries to which the reference point pertains is indicated in parentheses.

primary LME			secondary LME			tertiary LME
6 - Southeast U.S. Continental Shelf			7 - Northeast U.S. Continental Shelf			na
Parameter	Value	Units	Reference points			
			Parameter	Value	Units	
SSB-AGE-yr	4.5	yr	Fmsy-1/yr (F)	0.07	1/yr	
SSB-SEX-sex	1	sex	Fcurrent-1/T (F)	0.24	1/T	
REC-AGE			MSY-MT (TB)	89.415	MT	
TB-AGE-yr			SPRmsy-E00	0.71	E00	
F-AGE-yr			SSFmsy-E00	349060	E00	
M			Nmsy-E00	570753	E00	
A50-yr			BH-h-dimless	0.24	dimless	
L50-cm			F_{2005}/F_{msy}	3.500		

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year			1950	1950	
Maximum year			2005	2005	
Time series minimum			0.012	372	
Time series maximum			0.445	1340	
Units			1/yr	E03	



Assessment of Atlantic blacktip shark (*Carcharhinus limbatus*)

Assessment ID:SEFSC-BTIPSHARATL-1981-2004-FAUCONNET
Issue URL: <http://www.marinebiodiversity.ca/RAMlegacy/ramlegacy-bug-reporting/321>

Area ID: USA-NMFS-ATL

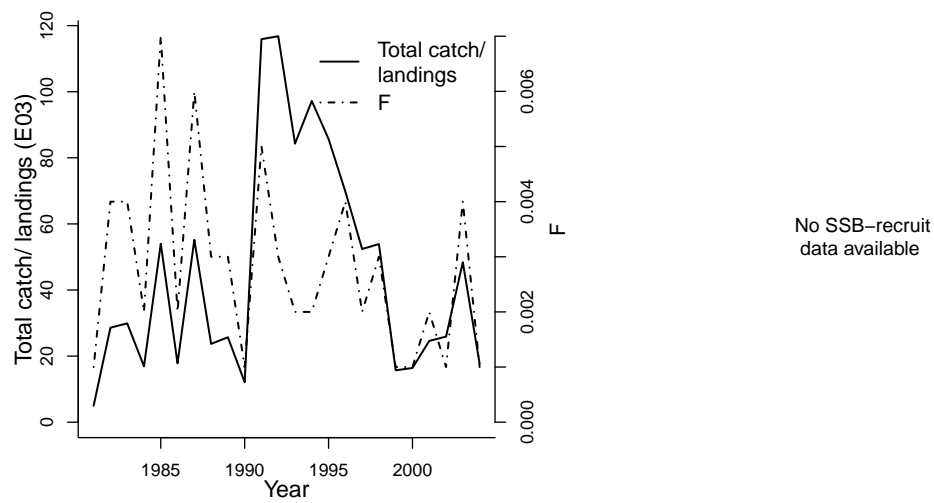
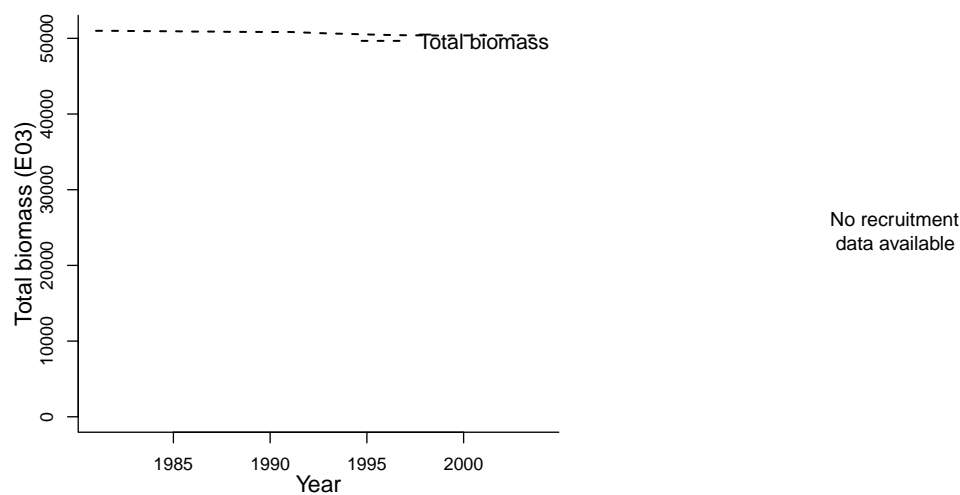
General assessment details.

Detail	Value
Management body	NMFS
Assessment group	Southeast Fisheries Science Center
Assessment authors	Carlson, John
Assessment method	State-space age-structured production model
Publication year	2006
Timeseries span	1981-2004
Document	LargeCoastalAtl2006-SEFSC.pdf (pdf in database)
Recorder	FAUCONNET
Date entered	2009-05-05
Date last loaded	2010-07-21
QA/QC complete	NO
Date approved	

Biometrics provided. Note that the assumed timeseries to which the reference point pertains is indicated in parentheses.

primary LME				secondary LME			tertiary LME
6 - Southeast U.S. Continental Shelf				7 - Northeast U.S. Continental Shelf			na
Parameter	Value	Units		Reference points			
SSB-AGE-yr	7.5	yr		Parameter	Value	Units	
SSB-SEX-sex	1	sex		Fmsy-1/T (F)	0.2	1/T	
A50-yr	7.5	yr		MSY-MT (TB)	1.49E+04	MT	
REC-AGE				R0-E00	1.50E+06	E00	
TB-AGE-yr				SPRmsy-E00	0.62	E00	
F-AGE-yr				BH-h-dimless	0.38	dimless	
M				F_{2004}/F_{msy}	0.005		
L50-cm							

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year			1981	1981	1981
Maximum year			2004	2004	2004
Time series minimum			0.001	50365.1	5
Time series maximum			0.007	50996.3	116.8
Units			1/yr	E03	E03



Assessment of Gulf of Mexico blacktip shark (*Carcharhinus limbatus*)

Assessment ID:SEFSC-BTIPSHARGM-1981-2004-FAUCONNET
Issue URL: <http://www.marinebiodiversity.ca/RAMlegacy/ramlegacy-bug-reporting/322>

Area ID: USA-NMFS-GM

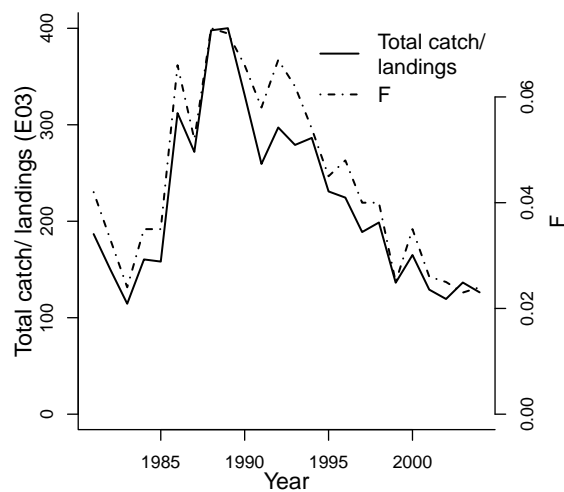
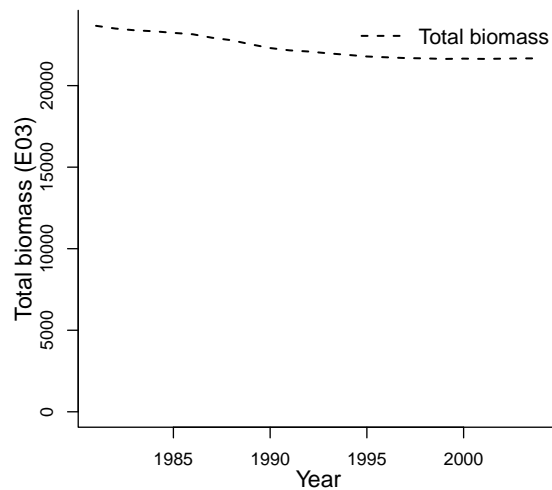
General assessment details.

Detail	Value
Management body	NMFS
Assessment group	Southeast Fisheries Science Center
Assessment authors	Carlson, John
Assessment method	State-space age-structured production model
Publication year	2006
Timeseries span	1981-2004
Document	LargeCoastalAtl2006-SEFSC.pdf (pdf in database)
Recorder	FAUCONNET
Date entered	2009-05-04
Date last loaded	2010-07-21
QA/QC complete	NO
Date approved	

Biometrics provided. Note that the assumed timeseries to which the reference point pertains is indicated in parentheses.

primary LME			secondary LME	tertiary LME	
5 - Gulf of Mexico			na	na	
Parameter	Value	Units	Reference points		
			Parameter	Value	Units
SSB-AGE-yr	6.5	yr	Fmsy-1/T (F)	0.20	1/T
SSB-SEX-sex	1	sex	MSY-MT (TB)	2.42E+04	MT
A50-yr	6.5	yr	R0-E00	1.50E+07	E00
REC-AGE			SPRmsy-E00	0.62	E00
TB-AGE-yr			BH-h-dimless	0.40	dimless
F-AGE-yr			F_{2004}/F_{msy}	0.120	
M					
L50-cm					

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year			1981	1981	1981
Maximum year			2004	2004	2004
Time series minimum			0.023	21636.06	114.5
Time series maximum			0.073	23667.92	400.1
Units			1/yr	E03	E03



Assessment of Atlantic finetooth shark (*Carcharhinus isodon*)

Assessment ID:SEFSC-FTOOTHSHARATL-1976-2005-FAUCONNET
Issue URL: <http://www.marinebiodiversity.ca/RAMlegacy/ramlegacy-bug-reporting/323>

Area ID: USA-NMFS-ATL

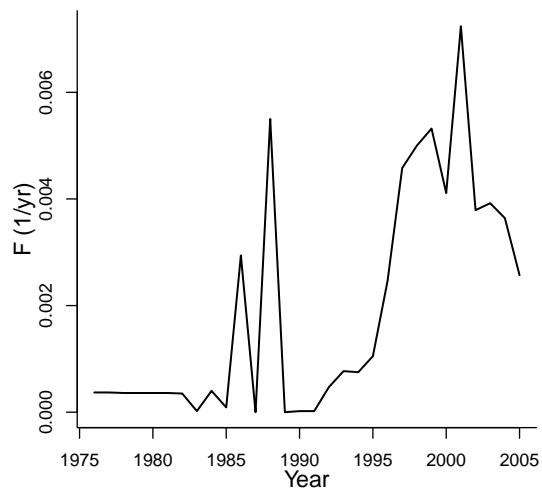
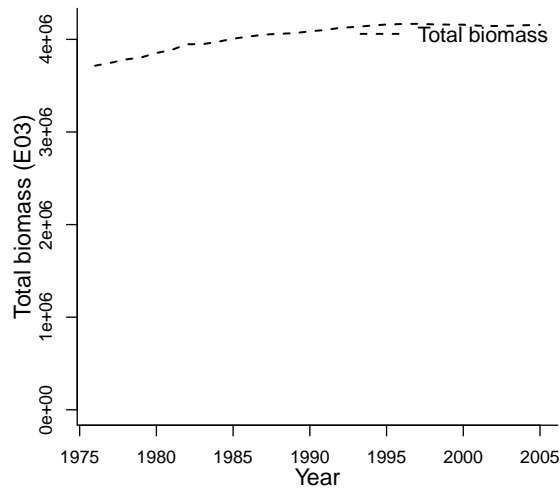
General assessment details.

Detail	Value
Management body	NMFS
Assessment group	Southeast Fisheries Science Center
Assessment authors	Brooks, Liz
Assessment method	Bayesian Biomass Model
Publication year	2007
Timeseries span	1976-2005
Document	SmallcoastalAtl2007-SEFSC.pdf (pdf in database)
Recorder	FAUCONNET
Date entered	2009-05-07
Date last loaded	2010-07-21
QA/QC complete	NO
Date approved	

Biometrics provided. Note that the assumed timeseries to which the reference point pertains is indicated in parentheses.

primary LME			secondary LME			tertiary LME
6 - Southeast U.S. Continental Shelf			7 - Northeast U.S. Continental Shelf			na
Parameter	Value	Units	Reference points			
A50-yr	5	yr	Parameter	Value	Units	
REC-AGE			F _{msy} -1/T (F)	0.030	1/T	
SSB-AGE-yr			N _{msy} -E00	3199000	E00	
SSB-SEX-sex			MSY-E00	96000	E00	
TB-AGE-yr			K-E00	6397000	E00	
F-AGE-yr			RY-E00	21000	E00	
M			r-1/yr	0.060	1/yr	
L50-cm			F ₂₀₀₅ /F _{msy}	0.086		

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year			1976	1976	
Maximum year			2005	2005	
Time series minimum			0	3715591	
Time series maximum			0.00724	4168160	
Units			1/yr	E03	



Assessment of Atlantic sandbar shark (*Carcharhinus plumbeus*)

Assessment ID:SEFSC-SBARSHARATL-1975-2004-FAUCONNET
Issue URL: <http://www.marinebiodiversity.ca/RAMlegacy/ramlegacy-bug-reporting/304>

Area ID: USA-NMFS-ATL

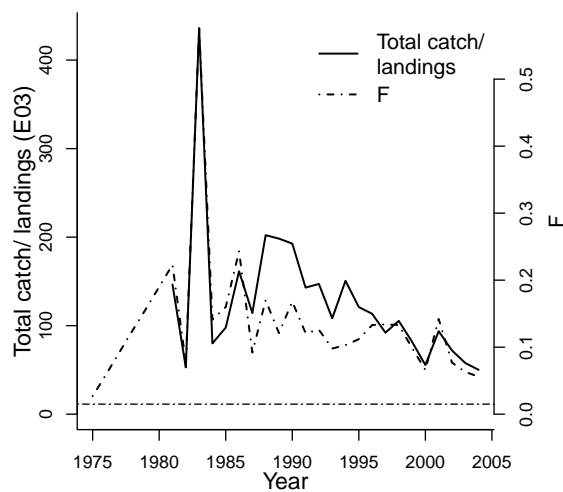
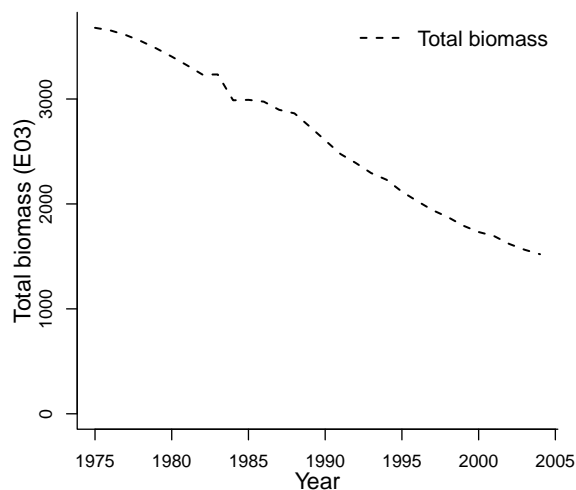
General assessment details.

Detail	Value
Management body	NMFS
Assessment group	Southeast Fisheries Science Center
Assessment authors	Carlson, John
Assessment method	State-space age-structured production model
Publication year	2006
Timeseries span	1975-2004
Document	LargeCoastalAtl2006-SEFSC.pdf (pdf in database)
Recorder	FAUCONNET
Date entered	2009-04-29
Date last loaded	2010-02-25
QA/QC complete	NO
Date approved	

Biometrics provided. Note that the assumed timeseries to which the reference point pertains is indicated in parentheses.

primary LME			secondary LME		tertiary LME
8 - Scotian Shelf			7 - Northeast U.S. Continental Shelf		na
Parameter	Value	Units	Reference points		
			Parameter	Value	Units
SSB-AGE-yr	19	yr	Fmsy-1/T (F)	0.015	1/T
SSB-SEX-sex	1	sex	Fref-1/T (F)	9.80E-05	1/T
A50-yr	19	yr	MSY-MT (TB)	403	MT
M-1/T	0.224	1/T	R0-E00	5.00E+05	E00
REC-AGE			SPRmsy-E00	0.95	E00
TB-AGE-yr			SSFmsy-E00	1127210.53	E00
F-AGE-yr			BH-h-dimless	0.32	dimless
M			F_{2004}/F_{msy}	3.733	
L50-cm					

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year			1975	1975	1981
Maximum year			2004	2004	2004
Time series minimum			0.027	1520.56	50.1
Time series maximum			0.576	3678.73	436
Units			1/yr	E03	E03



Assessment of Atlantic atlantic sharpnose shark (*Rhizoprionodon terraenovae*)

Assessment ID:SEFSC-SNOSESHARATL-1950-2005-FAUCONNET
Issue URL: <http://www.marinebiodiversity.ca/RAMlegacy/ramlegacy-bug-reporting/325>

Area ID: USA-NMFS-ATL

General assessment details.

Detail	Value
Management body	NMFS
Assessment group	Southeast Fisheries Science Center
Assessment authors	Brooks, Liz
Assessment method	Age-structured surplus production model
Publication year	2007
Timeseries span	1950-2005
Document	SmallcoastalAtl2007-SEFSC.pdf (pdf in database)
Recorder	FAUCONNET
Date entered	2009-05-07
Date last loaded	2010-02-25
QA/QC complete	NO
Date approved	

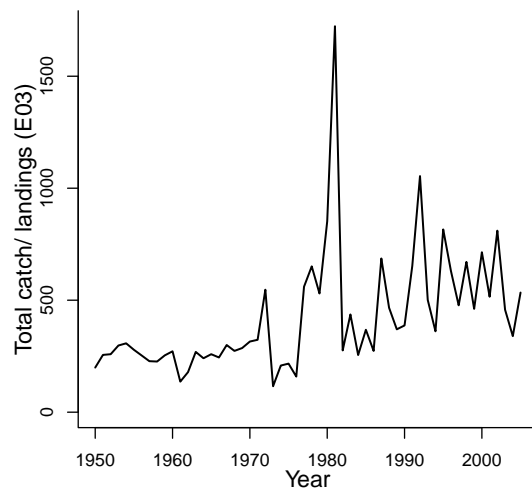
Biometrics provided. Note that the assumed timeseries to which the reference point pertains is indicated in parentheses.

primary LME			secondary LME			tertiary LME
6 - Southeast U.S. Continental Shelf			7 - Northeast U.S. Continental Shelf			na
Parameter	Value	Units	Reference points			
			Parameter	Value	Units	
SSB-AGE-yr	2.5	yr	Fmsy-1/yr (F)	0.19	1/yr	
SSB-SEX-sex	1	sex	Fcurrent-1/T (F)	0.13	1/T	
REC-AGE			MSY-MT (TB)	1.27E+06	MT	
TB-AGE-yr			r-1/yr	0.165	1/yr	
F-AGE-yr			SPRmsy-E00	0.59	E00	
M			SSFmsy-E00	4.59E+06	E00	
A50-yr			Nmsy-E00	4.62E+06	E00	
L50-cm			BH-h-dimless	0.42	dimless	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year					1950
Maximum year					2005
Time series minimum					115.836
Time series maximum					1723.362
Units					E03

No biomass data
available

No recruitment
data available



No SSB–recruit
data available

MAP KEY:

- | LME Number | LME Name |
|------------|---------------------------|
| 1 | East Baltic Sea |
| 2 | North Sea |
| 3 | Gulf of California |
| 4 | California Current |
| 5 | Chukchi Sea |
| 6 | South Sea |
| 7 | Indian Ocean |
| 8 | South East Labrador Shelf |
| 9 | North East Labrador Shelf |
| 10 | Indian Pacific Ocean |
| 11 | Indian Pacific Ocean |
| 12 | Indian Pacific Ocean |
| 13 | Indian Pacific Ocean |
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| 99 | Indian Pacific Ocean |
| 100 | Indian Pacific Ocean |



LARGE MARINE ECOSYSTEMS are areas of the ocean characterized by distinct bathymetry, hydrography, productivity, and trophic interactions. They annually produce 95 percent of the world's fish catch. They are national and regional focal areas of a global effort to reduce the degradation of linked watersheds, marine resources, and coastal environments from pollution, habitat loss, and over-fishing.

For More Information Visit: www.edc.uri.edu/lme

NORTH POLAR REGION

SOUTH POLAR REGION