

Dear Trevor,

Thank you sincerely for submitting assessments to the Myers II database. We have entered 17 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 Pacific Coast arrowtooth flounder (*Reinhardtius stomias*)

Assessment ID: NWFSC-ARFLOUNDP coast-1916-2007-BRANCH
Issue URL: <http://www.marinebiodiversity.ca/RAMlegacy/ramlegacy-bug-reporting/22>

Area ID: USA-NMFS-PCOAST

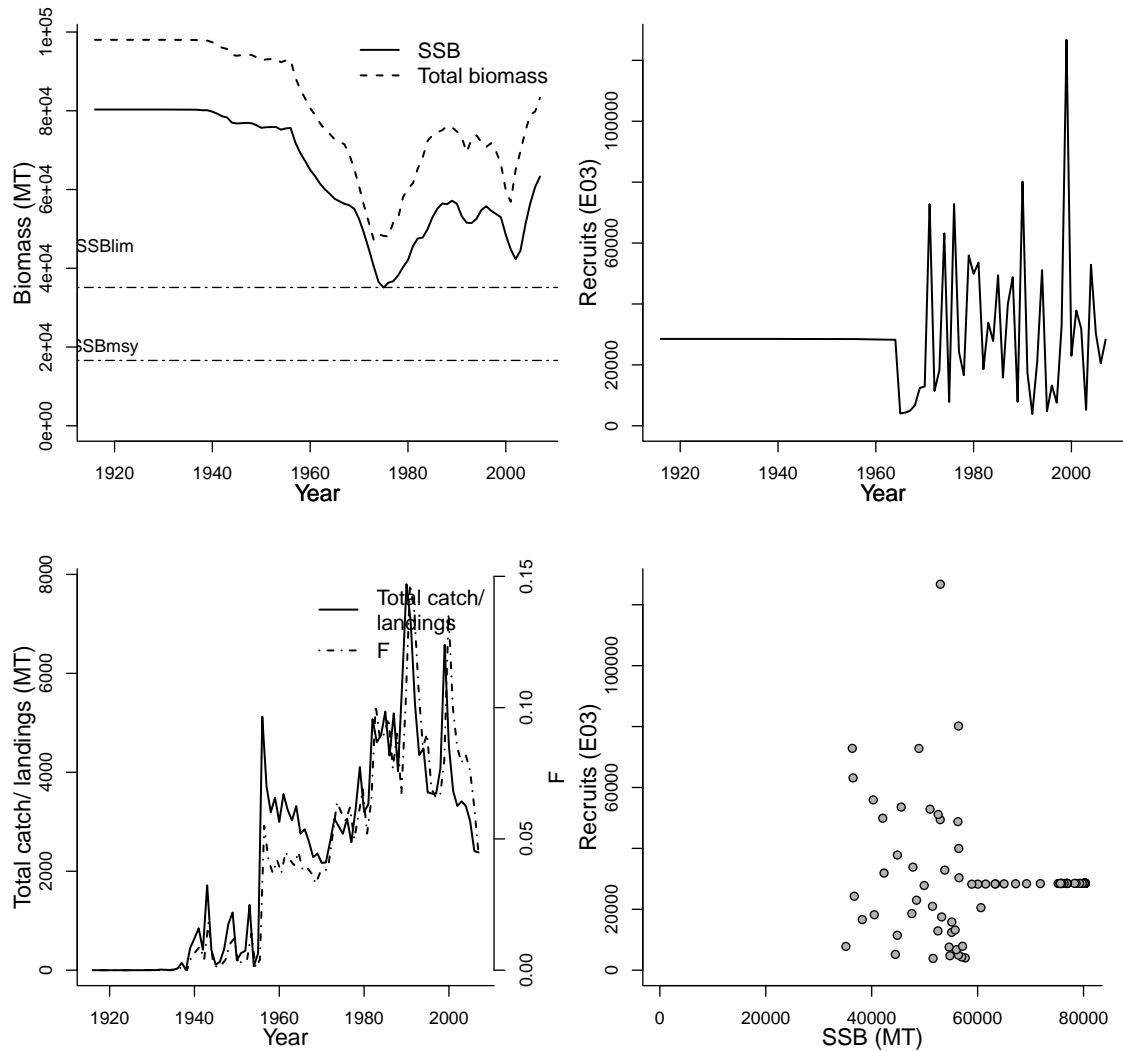
General assessment details.

Detail	Value
Management body	NMFS
Assessment group	Northwest Fisheries Science Center
Assessment authors	Kaplan, I.C.
Assessment method	Stock Synthesis v2.0 model
Publication year	2007
Timeseries span	1916-2007
Document	NWFSC-ARFLOUNDP coast-2007-Arrowtooth flounder.pdf (pdf in database)
Recorder	BRANCH
Date entered	2008-11-19
Date last loaded	2010-03-16
QA/QC complete	YES
Date approved	2009-04-27

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

primary LME			secondary LME			tertiary LME		
3 - California Current			2 - Gulf of Alaska			na		
			Reference points					
Parameter			Parameter	Value	Units			
SSB-AGE-yr			SSBlim-MT (SSB)	35129	MT			
SSB-SEX-sex			SSBmsy-MT (SSB)	16593	MT			
REC-AGE-yr			Fmsy-1/yr (F)	0.21	1/yr			
F-AGE-yr-yr			SSB0-MT (SSB)	80313	MT			
TB-AGE-yr			R0-E03 (R)	28528	E03			
L50-cm			SSBtarget-MT (SSB)	30780	MT			
M-1/yr			SSBmin-ratio (SSB)	0.25	ratio			
A50-yr			Ftarget-1/yr (F)	0.11	1/yr			
M			SPRtarget-ratio (SPR)	0.4	ratio			
			MSY-MT (TB)	5844	MT			
			BH-h-dimless	0.902	dimless			
			SSB_{2007}/SSB_{lim}	1.802				
			F_{2006}/F_{msy}	0.210				
			SSB_{2007}/SSB_{msy}	3.815				

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1916	1916	1916	1916	1916
Maximum year	2007	2007	2006	2007	2007
Time series minimum	35128.8	3867.56	0	47228.2	0
Time series maximum	80313.5	126747	0.147	98022.2	7802
Units	MT	E03	1/yr	MT	MT



Assessment of Northern Pacific Coast black rockfish (*Sebastes melanops*)

Assessment ID: NWFSC-BLACKROCKNPCOAST-1914-2006-BRANCH

Issue URL: <http://www.marinebiodiversity.ca/RAMlegacy/ramlegacy-bug-reporting/38>

Area ID: USA-NMFS-NPCOAST

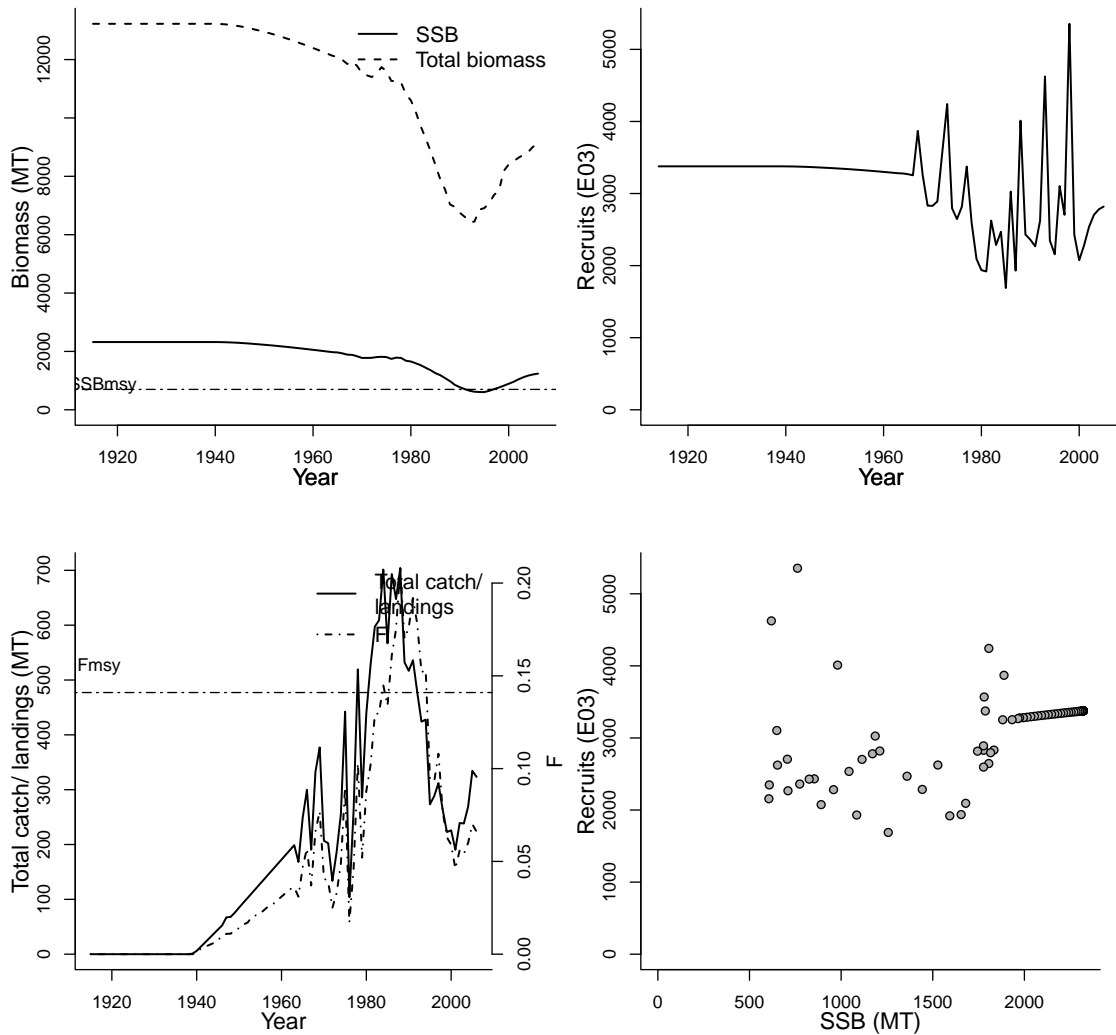
General assessment details.

Detail	Value
Management body	NMFS
Assessment group	Northwest Fisheries Science Center
Assessment authors	Wallace F.R.
Assessment method	Stock Synthesis v2.0 model
Publication year	2008
Timeseries span	1914-2006
Document	NWFSC-BLACKROCKNPCOAST-2007-Black rockfish NOR WA.pdf (pdf in database)
Recorder	BRANCH
Date entered	2008-11-20
Date last loaded	2010-03-16
QA/QC complete	YES
Date approved	2009-04-27

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

primary LME			secondary LME		tertiary LME
3 - California Current			na		na
			Reference points		
Parameter	Value	Units	Parameter	Value	Units
			BH-h-dimless	0.6	dimless
			SSBlim-E06larvae	606	E06larvae
SSB-AGE-yr	10.31	yr	SSBmsy-E06lar (SSB)	698.62	E06larvae
SSB-SEX-sex	1	sex	Fmsy-1/yr (F)	0.141	1/yr
REC-AGE-yr	1	yr	SSB0-MT (SSB)	2321	MT
F-AGE-yr-yr	3+	yr-yr	R0-E03 (R)	3377	E03
TB-AGE-yr	0+	yr	SSBtarget-MT (SSB)	928.4	MT
L50-cm	43.7	cm	SSBmin-ratio (SSB)	0.25	ratio
M-1/yr	0.16	1/yr	Ftarget-1/yr (F)	0.065	1/yr
A50-yr	10.31	yr	SPRtarget-ratio (SPR)	0.4	ratio
M			MSY-MT (TB)	700	MT
			SSB_{2006}/SSB_{lim}	2.045	
			F_{2006}/F_{msy}	0.468	
			SSB_{2006}/SSB_{msy}	1.774	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1915	1914	1915	1915	1915
Maximum year	2006	2005	2006	2006	2006
Time series minimum	605.66	1688.87	0	6437	0
Time series maximum	2320.71	5354.79	0.208	13226	703.9
Units	MT	E03	1/yr	MT	MT



Assessment of Southern Pacific Coast black rockfish (*Sebastes melanops*)

Assessment ID: NWFSC-BLACKROCKSPCOAST-1915-2007-BRANCH
Issue URL: <http://www.marinebiodiversity.ca/RAMlegacy/ramlegacy-bug-reporting/37>

Area ID: USA-NMFS-SPCOAST

General assessment details.

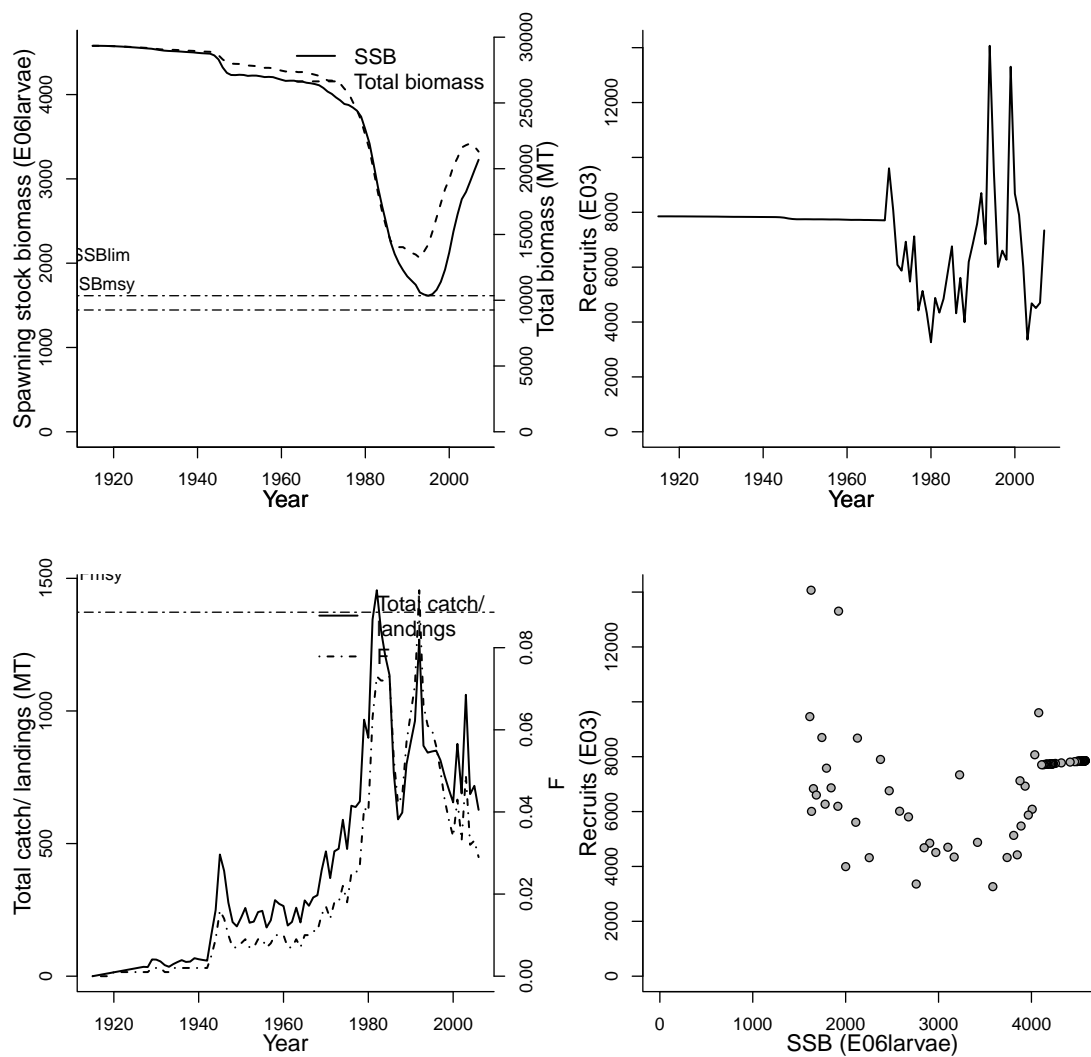
Detail	Value
Management body	NMFS
Assessment group	Northwest Fisheries Science Center
Assessment authors	Sampson, D.B.
Assessment method	Stock Synthesis v2.0 model
Publication year	2007
Timeseries span	1915-2007
Document	NWFSC-BLACKROCKSPCOAST-2007-Black rockfish OR CA.pdf (pdf in database)
Recorder	BRANCH
Date entered	2008-11-19
Date last loaded	2010-03-16
QA/QC complete	YES
Date approved	2009-05-01

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

primary LME			secondary LME	tertiary LME	
3 - California Current			na	na	
			Reference points		
			Parameter	Value	Units
Parameter	Value	Units	BH-h-dimless	0.6	dimless
			SSBlim-MT (SSB)	1614	MT
SSB-AGE-yr	7.1	yr	SSBmsy-E06lar (SSB)	1444.6	E06larvae
SSB-SEX-sex	1	sex	Fmsy-1/yr (F)	0.08864	1/yr
REC-AGE-yr	0	yr	SSB0-E06lar (SSB)	4578	E06larvae
F-AGE-yr-yr	2+	yr-yr	R0-E03 (R)	7852	E03
TB-AGE-yr	0+	yr	SSBtarget-MT (SSB)	1831.4	MT
L50-cm	39.53	cm	SSBmin-ratio (SSB)	0.25	ratio
M-1/yr	0.16	1/yr	Ftarget-1/yr (F)	0.07227	1/yr
A50-yr	7.1	yr	SPRtarget-ratio (SPR)	0.5	ratio
M			MSY-MT (TB)	1064.6	MT
			SSB_{2007}/SSB_{lim}	1.999	
			F_{2006}/F_{msy}	0.327	
			SSB_{2007}/SSB_{msy}	2.233	

Time series minima and maxima

	SSB	R	F	TB	Catch
Minimum year	1915	1915	1915	1915	1915
Maximum year	2007	2007	2006	2007	2006
Time series minimum	1614.2	3264	0	13206	0
Time series maximum	4578.5	14068	0.094	29344	1455.3
Units	E06larvae	E03	1/yr	MT	MT



Assessment of California blue rockfish (*Sebastes mystinus*)

Assessment ID: NWFSC-BLUEROCKCAL-1916-2007-BRANCH
 Issue URL: <http://www.marinebiodiversity.ca/RAMlegacy/ramlegacy-bug-reporting/39>

Area ID: USA-NMFS-CAL

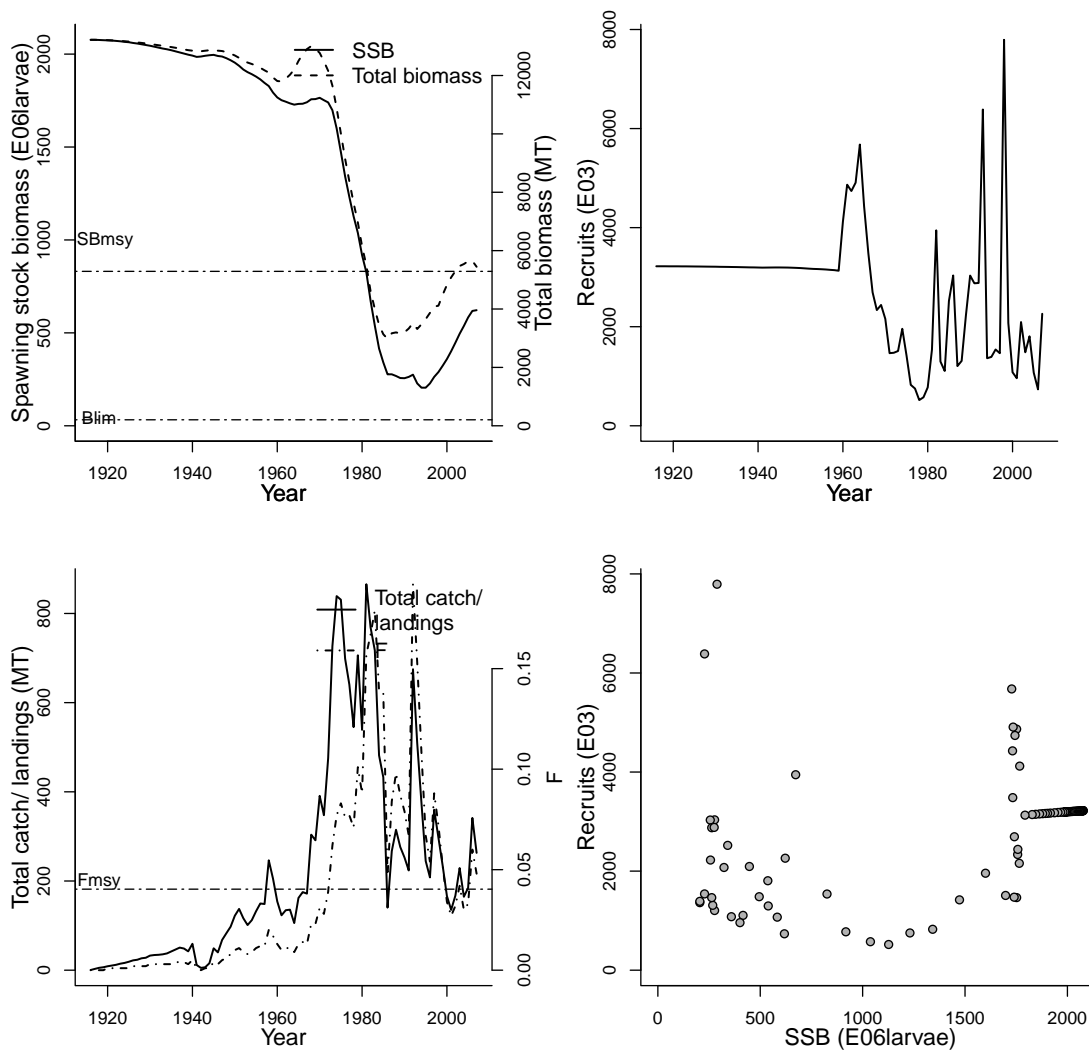
General assessment details.

Detail	Value
Management body	NMFS
Assessment group	Northwest Fisheries Science Center
Assessment authors	Key, M
Assessment method	Stock Synthesis v2.0 model
Publication year	2008
Timeseries span	1916-2007
Document	NWFSC-BLUEROCKCAL-2007-Blue rockfish CA.pdf (pdf in database)
Recorder	BRANCH
Date entered	2008-11-21
Date last loaded	2009-06-02
QA/QC complete	YES
Date approved	2009-06-02

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

primary LME			secondary LME	tertiary LME	
3 - California Current			na	na	
			Reference points		
			Parameter	Value	Units
Parameter	Value	Units	Blim-MT (TB)	205	MT
			SSB _{msy} -E06lar (SSB)	831	E06larvae
SSB-AGE-yr	6+	yr	F _{msy} -1/yr (F)	0.0403	1/yr
SSB-SEX-sex	1	sex	SSB0-MT (SSB)	2077	MT
REC-AGE-yr	0	yr	R0-E03 (R)	3220	E03
F-AGE-yr-yr	1+	yr-yr	SSB _{target} -E06lar (SSB)	831	E06larvae
TB-AGE-yr	1+	yr	SSB _{min} -ratio (SSB)	0.25	ratio
L50-cm	29	cm	F _{target} -1/yr (F)	0.0403	1/yr
M-1/yr	0.12	1/yr	SPR _{target} -ratio (SPR)	0.5	ratio
A50-yr	6	yr	MSY-MT (TB)	275	MT
M			B0-MT	13223	MT
			BH-h-dimless	0.58	dimless
			F_{2007}/F_{msy}	1.191	
			SSB_{2007}/SSB_{msy}	0.748	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1916	1916	1916	1916	1916
Maximum year	2007	2007	2007	2007	2007
Time series minimum	205	519	0	2979	0.4
Time series maximum	2077	7792	0.192	13223	865.6
Units	E06larvae	E03	1/yr	MT	MT



Assessment of Southern Pacific Coast bocaccio (*Sebastes paucispinis*)

Assessment ID: NWFSC-BOCACCSPCOAST-1951-2006-BRANCH
Issue URL: <http://www.marinebiodiversity.ca/RAMlegacy/ramlegacy-bug-reporting/61>

Area ID: USA-NMFS-SPCOAST

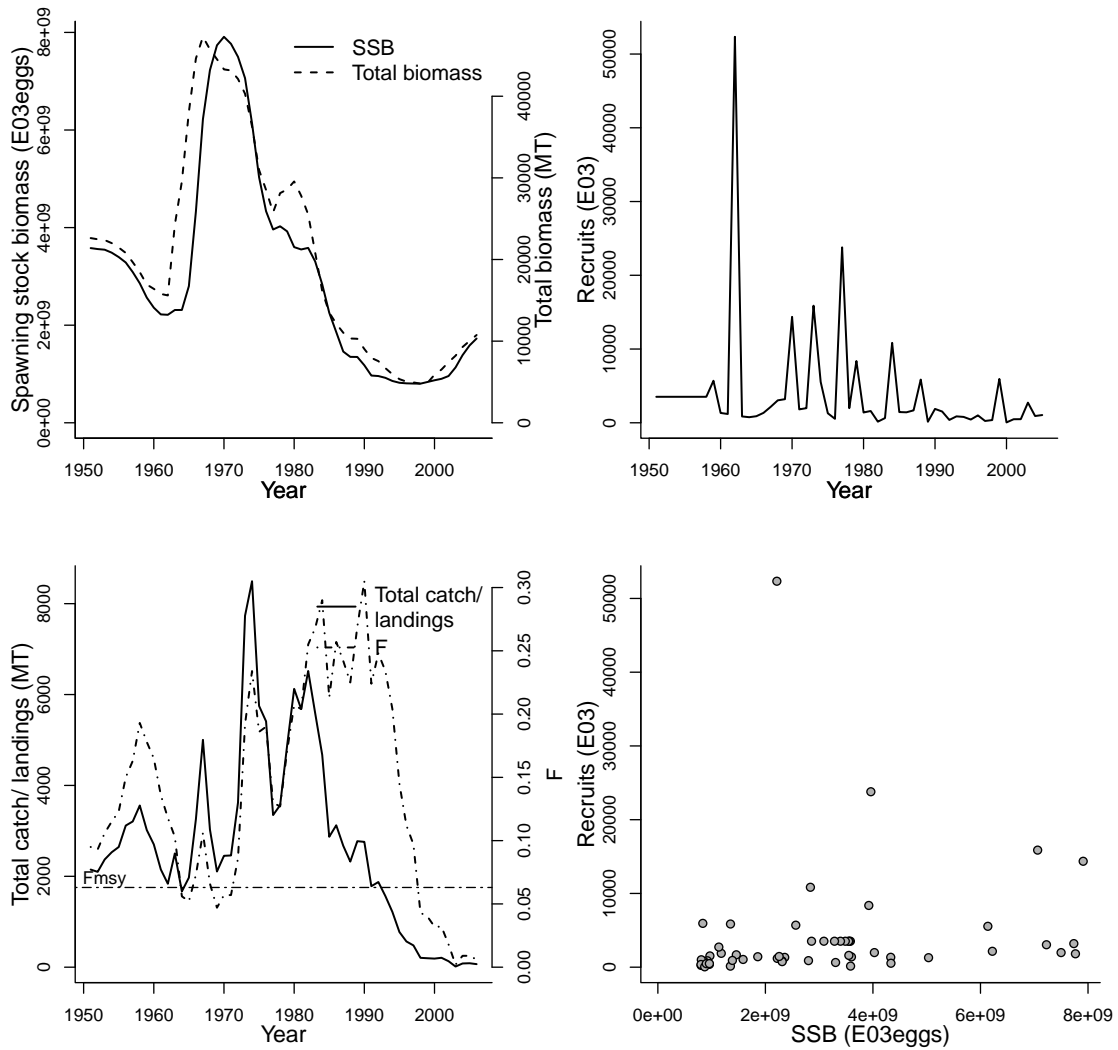
General assessment details.

Detail	Value
Management body	NMFS
Assessment group	Northwest Fisheries Science Center
Assessment authors	MacCall AD
Assessment method	Stock Synthesis v1.0 model
Publication year	2008
Timeseries span	1951-2006
Document	NWFSC-BOCACCSPCOAST-2007 Bocaccio.pdf (pdf in database)
Recorder	BRANCH
Date entered	2008-11-23
Date last loaded	2010-03-19
QA/QC complete	YES
Date approved	2010-03-19

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

primary LME			secondary LME		tertiary LME
3 - California Current			na		na
			Reference points		
Parameter	Value	Units	Parameter	Value	Units
			Fmsy-1/yr (F)	0.063	1/yr
			R0-E03 (R)	5449	E03
SSB-SEX-sex	1	sex	SSBmin-ratio (SSB)	0.25	ratio
REC-AGE-yr	1	yr	Ftarget-1/yr (F)	0.063	1/yr
F-AGE-yr-yr	1+	yr-yr	SPRtarget-ratio (SPR)	0.5	ratio
TB-AGE-yr	1+	yr	MSY-MT (TB)	1974	MT
M-1/yr	0.15	1/yr	SSBmsy-E03eggs	5429000000	E03eggs
SSB-AGE-yr			SSB0-E03eggs	13572000000	E03eggs
M			SSBtarget-E03eggs	5429000000	E03eggs
A50-yr			BH-h-dimless	0.44	dimless
L50-cm			SSBlim-E03eggs	802000000	E03eggs
			SSB_{2006}/SSB_{lim}	2.153	
			F_{2006}/F_{msy}	0.095	
			SSB_{2006}/SSB_{msy}	0.318	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1951	1951	1951	1951	1951
Maximum year	2006	2005	2006	2006	2006
Time series minimum	802000000	50	0.002	4796	14
Time series maximum	7910000000	52337	0.305	47280	8494
Units	E03eggs	E03	1/yr	MT	MT



Assessment of Southern Pacific Coast chilipepper (*Sebastes goodei*)

Assessment ID:NWFSC-CHILISPCOAST-1892-2007-BRANCH

Issue URL: <http://www.marinebiodiversity.ca/RAMlegacy/ramlegacy-bug-reporting/83>

Area ID: USA-NMFS-SPCOAST

General assessment details.

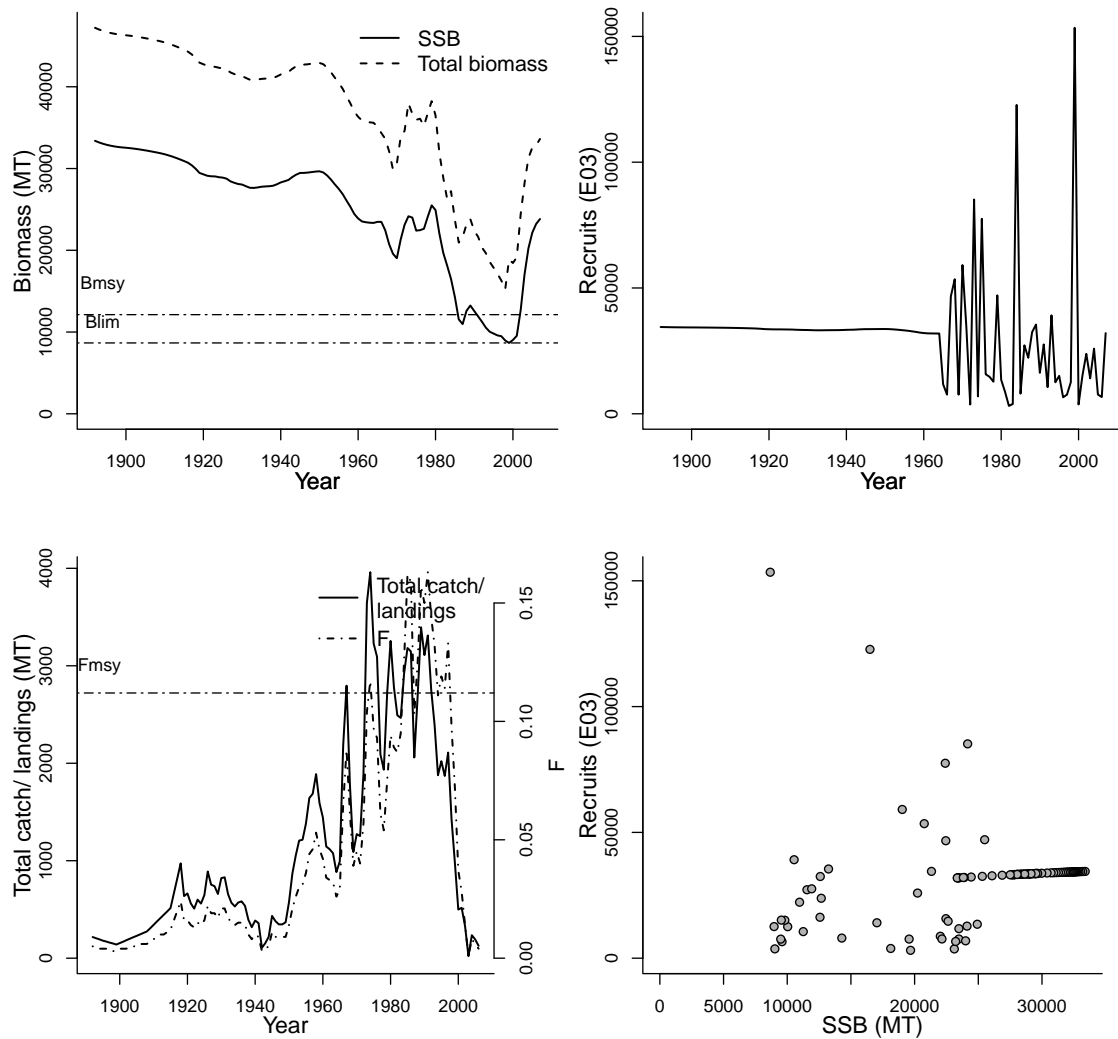
Detail	Value
Management body	NMFS
Assessment group	Northwest Fisheries Science Center
Assessment authors	Field JG
Assessment method	Stock Synthesis v2.0 model
Publication year	2007
Timeseries span	1892-2007
Document	NWFSC-CHILISPCOAST-2007-Chilipepper CA OR.pdf (pdf in database)
Recorder	BRANCH
Date entered	2008-11-21
Date last loaded	2009-03-17
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	
3 - California Current			na	na	
			Reference points		
			Parameter	Value	Units
Parameter	Value	Units	Blim-MT (TB)	8666	MT
SSB-SEX-sex	1	sex	Bmsy-MT (TB)	12126	MT
REC-AGE-yr	0	yr	Fmsy-1/yr (F)	0.112	1/yr
F-AGE-yr-yr	1-80	yr-yr	SSB0-MT (SSB)	33390	MT
TB-AGE-yr	0+	yr	R0-E03 (R)	34490	E03
M-1/yr	0.16	1/yr	SSBtarget-MT (SSB)	21034	MT
SSB-AGE-yr			SSBmin-ratio (SSB)	0.25	ratio
M			Ftarget-1/yr (F)	0.102	1/yr
A50-yr			SPRtarget-ratio (SPR)	0.4	ratio
L50-cm			MSY-MT (TB)	2164	MT
			BH-h-dimless	0.573	dimless
			TB_{2007}/B_{msy}	2.772	
			F_{2006}/F_{msy}	0.036	

Time series minima and maxima

	SSB	R	F	TB	Catch
Minimum year	1892	1892	1892	1892	1892
Maximum year	2007	2007	2006	2007	2006
Time series minimum	8666	3130	0.001	15209	21
Time series maximum	33391	153415	0.163	47214	3960
Units	MT	E03	1/yr	MT	MT



Assessment of Southern California cowcod (*Sebastes levis*)

Assessment ID: NWFSC-COWCODSCAL-1900-2007-BRANCH
Issue URL: <http://www.marinebiodiversity.ca/RAMlegacy/ramlegacy-bug-reporting/40>

Area ID: USA-NMFS-SCAL

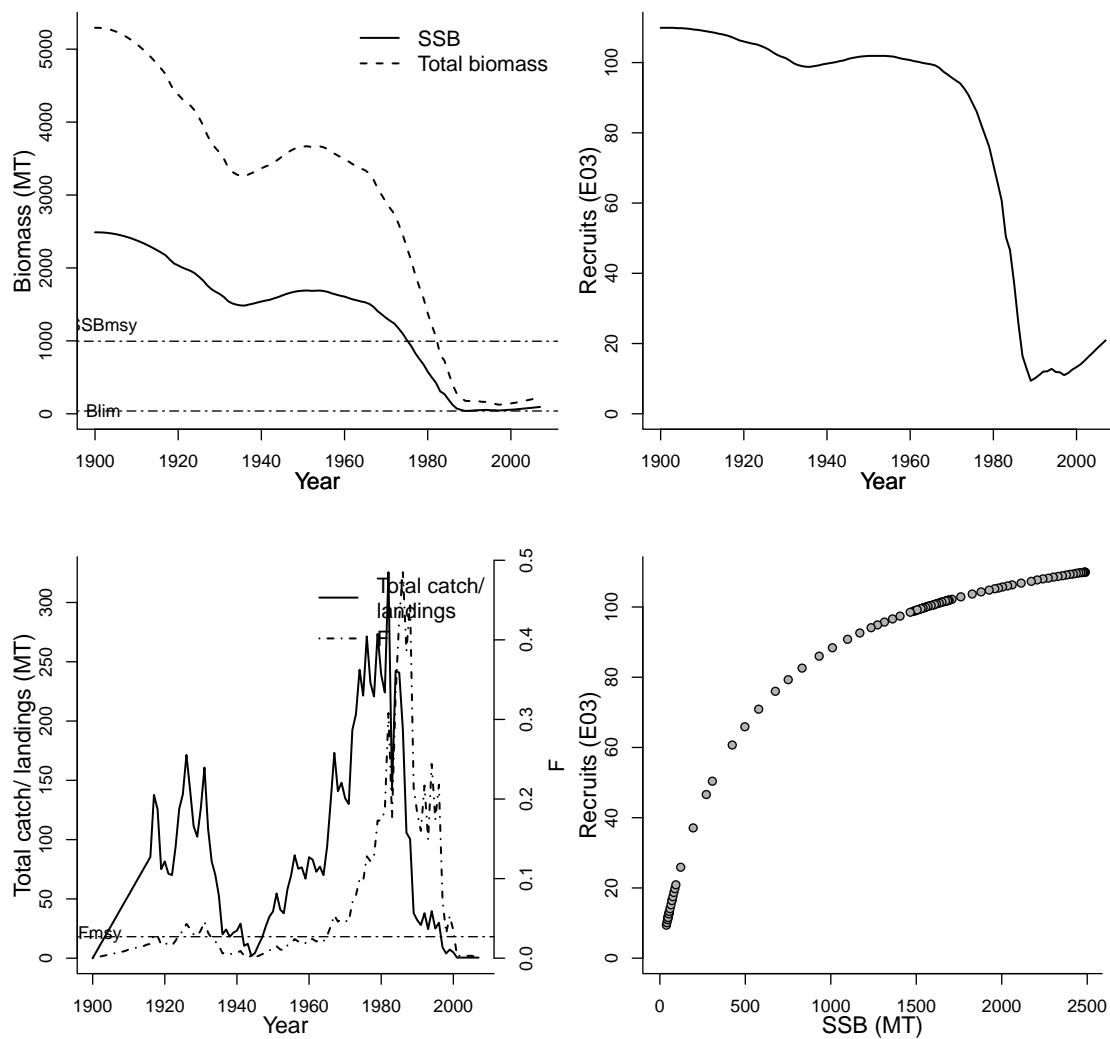
General assessment details.

Detail	Value
Management body	NMFS
Assessment group	Northwest Fisheries Science Center
Assessment authors	Dick EJ
Assessment method	Stock Synthesis v2.0 model
Publication year	2007
Timeseries span	1900-2007
Document	NWFSC-COWCODSCAL-2007-Cowcod CA.pdf (pdf in database)
Recorder	BRANCH
Date entered	2008-11-21
Date last loaded	2009-06-02
QA/QC complete	YES
Date approved	2009-06-02

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

primary LME			secondary LME	tertiary LME	
3 - California Current			na	na	
			Reference points		
			Parameter	Value	Units
Parameter	Value	Units	Blim-MT (TB)	38	MT
			SSBmsy-MT (SSB)	995	MT
SSB-AGE-yr	11+	yr	Fmsy-1/yr (F)	0.027	1/yr
SSB-SEX-sex	1	sex	SSB0-MT (SSB)	2488	MT
REC-AGE-yr	0	yr	R0-E03 (R)	109.9	E03
F-AGE-yr-yr	1+	yr-yr	SSBtarget-MT (SSB)	995	MT
TB-AGE-yr	1+	yr	SSBmin-ratio (SSB)	0.25	ratio
M-1/yr	0.055	1/yr	Ftarget-1/yr (F)	0.027	1/yr
A50-yr	11	yr	SPRtarget-ratio (SPR)	0.4	ratio
L50-cm	43	cm	MORATOR-yr-yr	2001-present	yr-yr
M			B0-MT	5291	MT
			BH-h-dimless	0.6	dimless
			F_{2007}/F_{msy}	0.074	
			SSB_{2007}/SSB_{msy}	0.094	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1900	1900	1900	1900	1900
Maximum year	2007	2007	2007	2007	2007
Time series minimum	38.3	9.4	0	124.6	0.01
Time series maximum	2488.1	109.9	0.485	5293.1	325.54
Units	MT	E03	1/yr	MT	MT



Assessment of Pacific Coast canary rockfish (*Sebastes pinniger*)

Assessment ID: NWFSC-CROCKPCOAST-1916-2007-BRANCH
Issue URL: <http://www.marinebiodiversity.ca/RAMlegacy/ramlegacy-bug-reporting/84>

Area ID: USA-NMFS-PCOAST

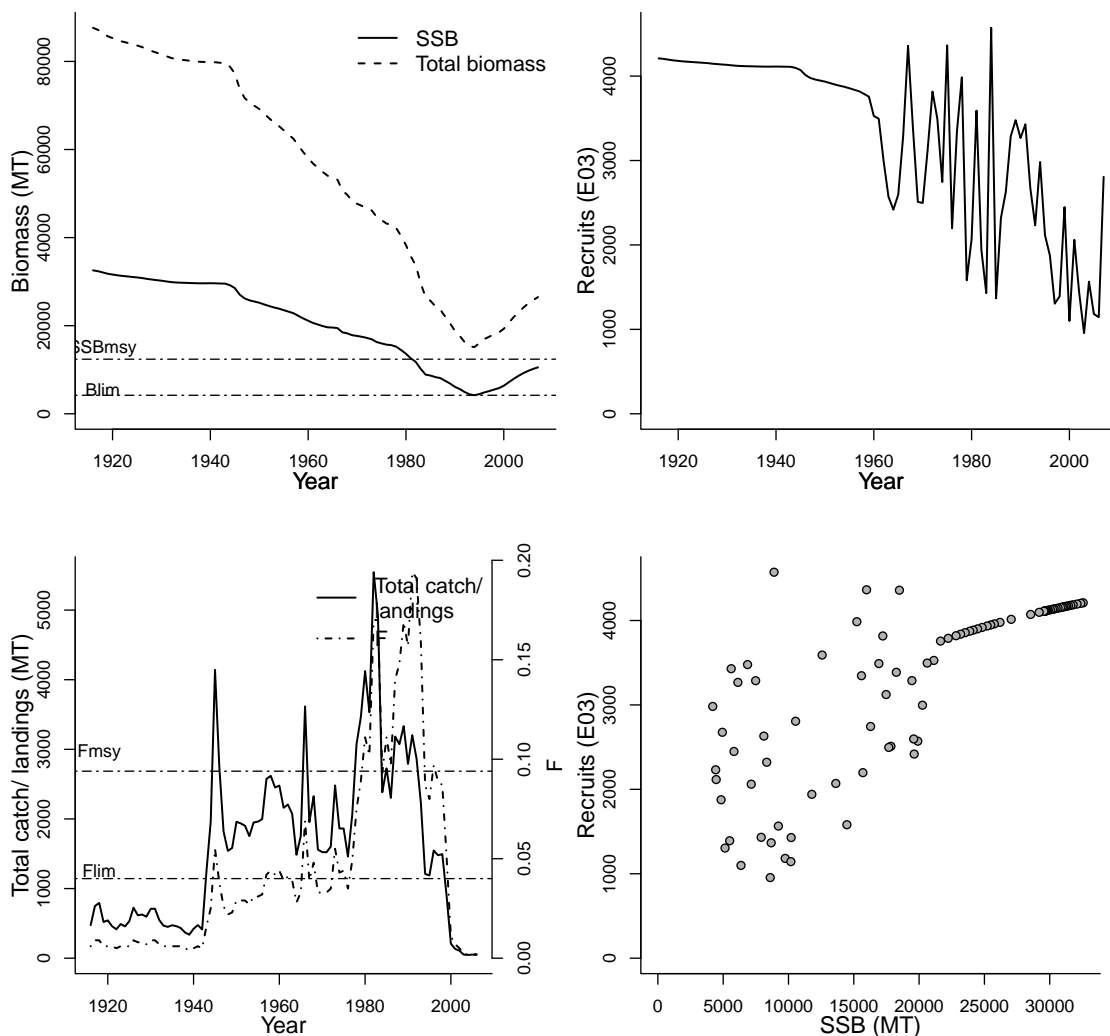
General assessment details.

Detail	Value
Management body	NMFS
Assessment group	Northwest Fisheries Science Center
Assessment authors	Stewart, Ian J.
Assessment method	Stock Synthesis v2.0 model
Publication year	2007
Timeseries span	1916-2007
Document	NWFSC-CROCKPCOAST-2007-Canary.pdf (pdf in database)
Recorder	BRANCH
Date entered	2008-11-10
Date last loaded	2009-03-17
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
3 - California Current			na	na
			Reference points	
Parameter	Value	Units	Parameter	Value Units
SSB-SEX-sex	1	sex	Blim-MT (TB)	4202 MT
REC-AGE-yr	0	yr	SSBmsy-MT (SSB)	12394 MT
F-AGE-yr-yr	5-35	yr-yr	Flim-1/yr (F)	0.04 1/yr
TB-AGE-yr	0	yr	Fmsy-1/yr (F)	0.094 1/yr
L50-cm	40.5	cm	SSB0-MT (SSB)	32561 MT
M-1/T	0.06	1/T	R0-E03 (R)	4210 E03
SSB-AGE-yr			SSBtarget-MT (SSB)	13041 MT
M			SSBmin-ratio (SSB)	0.25 ratio
A50-yr			Ftarget-1/yr (F)	0.04 1/yr
			SPRtarget-ratio (SPR)	0.5 ratio
			MSY-MT (TB)	1169 MT
			BH-h-dimless	0.511 dimless
			F_{2006}/F_{lim}	0.050
			F_{2006}/F_{msy}	0.021
			SSB_{2007}/SSB_{msy}	0.851

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1916	1916	1916	1916	1916
Maximum year	2007	2007	2006	2007	2006
Time series minimum	4202	955	0.002	15147	47
Time series maximum	32561	4572	0.194	87633	5544
Units	MT	E03	1/yr	MT	MT



Assessment of Pacific Coast darkblotched rockfish (*Sebastes crameri*)

Assessment ID: NWFSC-DKROCKPCOAST-1928-2007-BRANCH

Issue URL: <http://www.marinebiodiversity.ca/RAMlegacy/ramlegacy-bug-reporting/43>

Area ID: USA-NMFS-PCOAST

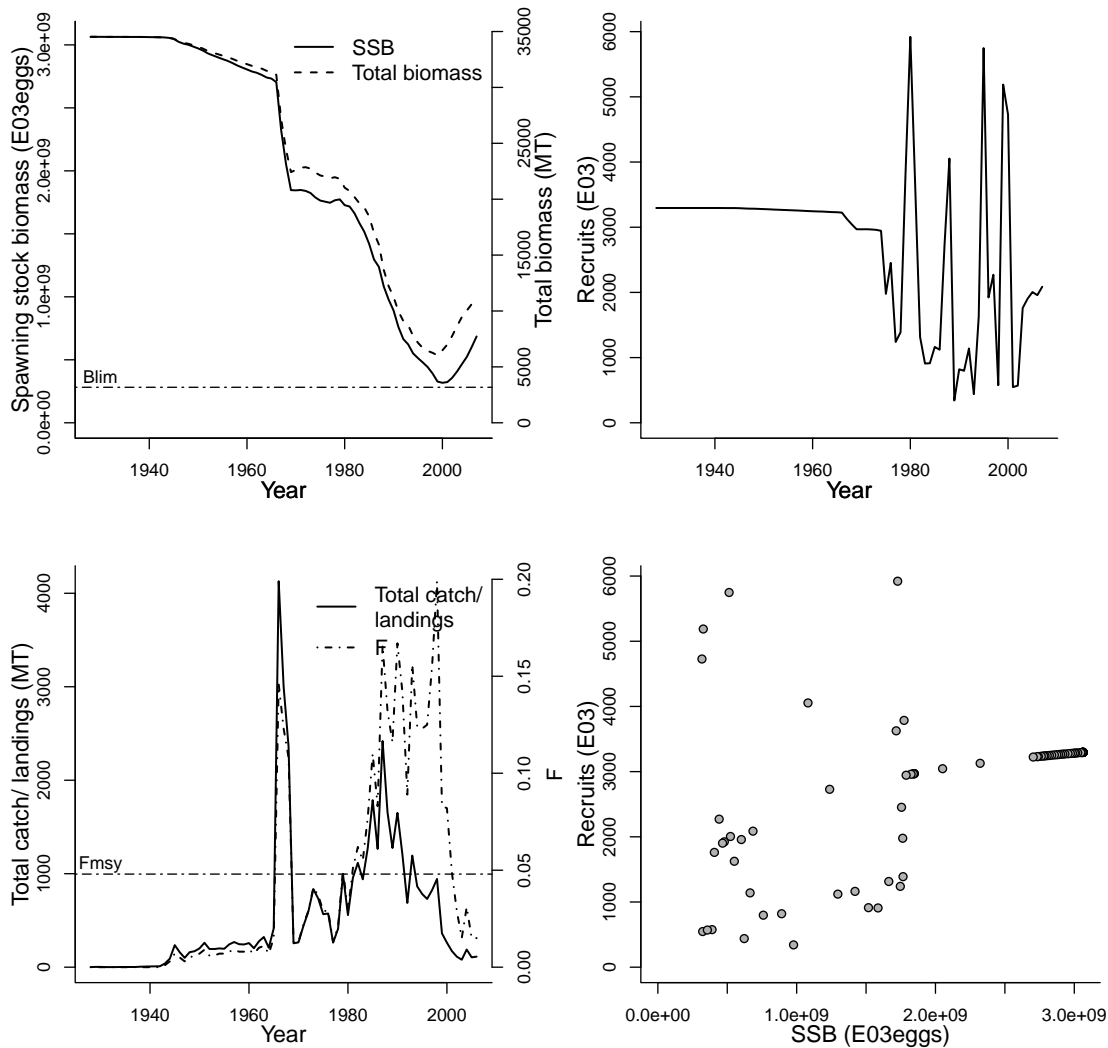
General assessment details.

Detail	Value
Management body	NMFS
Assessment group	Northwest Fisheries Science Center
Assessment authors	Hamel OS
Assessment method	Stock Synthesis v2.0 model
Publication year	2008
Timeseries span	1928-2007
Document	NWFSC-DKROCKPCOAST-2008-Darkblotched rockfish.pdf (pdf in database)
Recorder	BRANCH
Date entered	2008-11-23
Date last loaded	2010-03-05
QA/QC complete	YES
Date approved	2009-04-27

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

primary LME			secondary LME	tertiary LME	
3 - California Current			na	na	
			Reference points		
			Parameter	Value	Units
Parameter	Value	Units	Blim-MT (TB)	3176	MT
SSB-SEX-sex	1	sex	Fmsy-1/yr (F)	0.048	1/yr
REC-AGE-yr	0	yr	R0-E03 (R)	3295	E03
F-AGE-yr-yr	1+	yr-yr	SSBmin-ratio (SSB)	0.25	ratio
TB-AGE-yr	0+	yr	Ftarget-1/yr (F)	0.041	1/yr
L50-cm	34.5	cm	SPRtarget-ratio (SPR)	0.5	ratio
M-1/yr	0.07	1/yr	MSY-MT (TB)	644	MT
SSB-AGE-yr			SSBmsy-E03eggs	937600000	E03eggs
M			SSB0-E03eggs	3064000000	E03eggs
A50-yr			SSBtarget-E03eggs	1225600000	E03eggs
			BH-h-dimless	0.6	dimless
			F_{2006}/F_{msy}	0.312	
			SSB_{2007}/SSB_{msy}	0.731	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1928	1928	1928	1928	1928
Maximum year	2007	2007	2006	2007	2006
Time series minimum	317600000	342	0	6031	1
Time series maximum	3064100000	5921	0.199	34527	4129
Units	E03eggs	E03	1/yr	MT	MT



Assessment of Pacific Coast english sole (*Parophrys vetulus*)

Assessment ID:NWFSC-ESOLEPCOAST-1876-2007-BRANCH

Issue URL: <http://www.marinebiodiversity.ca/RAMlegacy/ramlegacy-bug-reporting/21>

Area ID: USA-NMFS-PCOAST

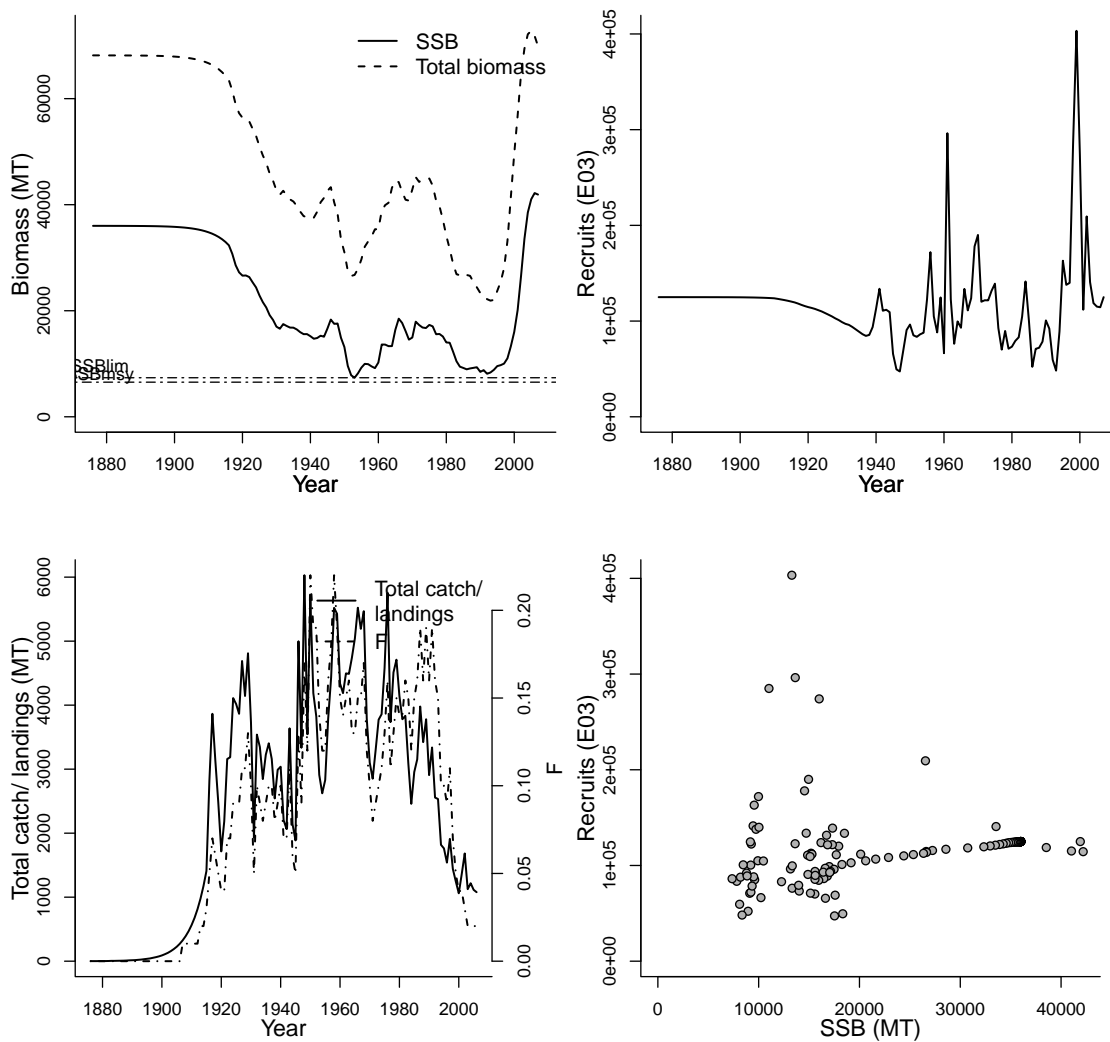
General assessment details.

Detail	Value
Management body	NMFS
Assessment group	Northwest Fisheries Science Center
Assessment authors	Stewart, Ian J.
Assessment method	Stock Synthesis v2.0 model
Publication year	2007
Timeseries span	1876-2007
Document	NWFSC-ESOLEPCOAST-2007-EnglishSole.pdf (pdf in database)
Recorder	BRANCH
Date entered	2008-11-18
Date last loaded	2010-03-17
QA/QC complete	YES
Date approved	2010-03-16

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

primary LME			secondary LME	tertiary LME
3 - California Current			na	na
			Reference points	
Parameter	Value	Units	Parameter	Value Units
SSB-AGE-yr	3+	yr	SSBlim-MT (SSB)	7364 MT
SSB-SEX-sex	1	sex	SSBmsy-MT (SSB)	6526 MT
REC-AGE-yr	0	yr	Fmsy-1/yr (F)	0.27 1/yr
F-AGE-yr-yr	1+	yr-yr	SSB0-MT (SSB)	36012 MT
L50-cm	23.3	cm	R0-E03 (R)	124990 E03
TB-AGE-yr	7.7+	yr	BH-h-dimless	0.798 dimless
A50-yr	7.7+	yr	SSBtarget-MT (SSB)	14405 MT
M			SSBmin-ratio (SSB)	0.25 ratio
			Ftarget-1/yr (F)	0.13 1/yr
			SPRtarget-ratio (SPR)	0.49 ratio
			MSY-MT (TB)	4252 MT
			SSB_{2007}/SSB_{lim}	5.691
			F_{2006}/F_{msy}	0.074
			SSB_{2007}/SSB_{msy}	6.422

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1876	1876	1876	1876	1876
Maximum year	2007	2007	2006	2007	2006
Time series minimum	7364	47349	0	21903	1
Time series maximum	42193	403289	0.22	72795	6030
Units	MT	E03	1/T	MT	MT



Assessment of Pacific Coast longnose skate (*Raja rhina*)

Assessment ID: NWFSC-LNOSESKAPCOAST-1915-2007-BRANCH
 Issue URL: <http://www.marinebiodiversity.ca/RAMlegacy/ramlegacy-bug-reporting/41>

Area ID: USA-NMFS-PCOAST

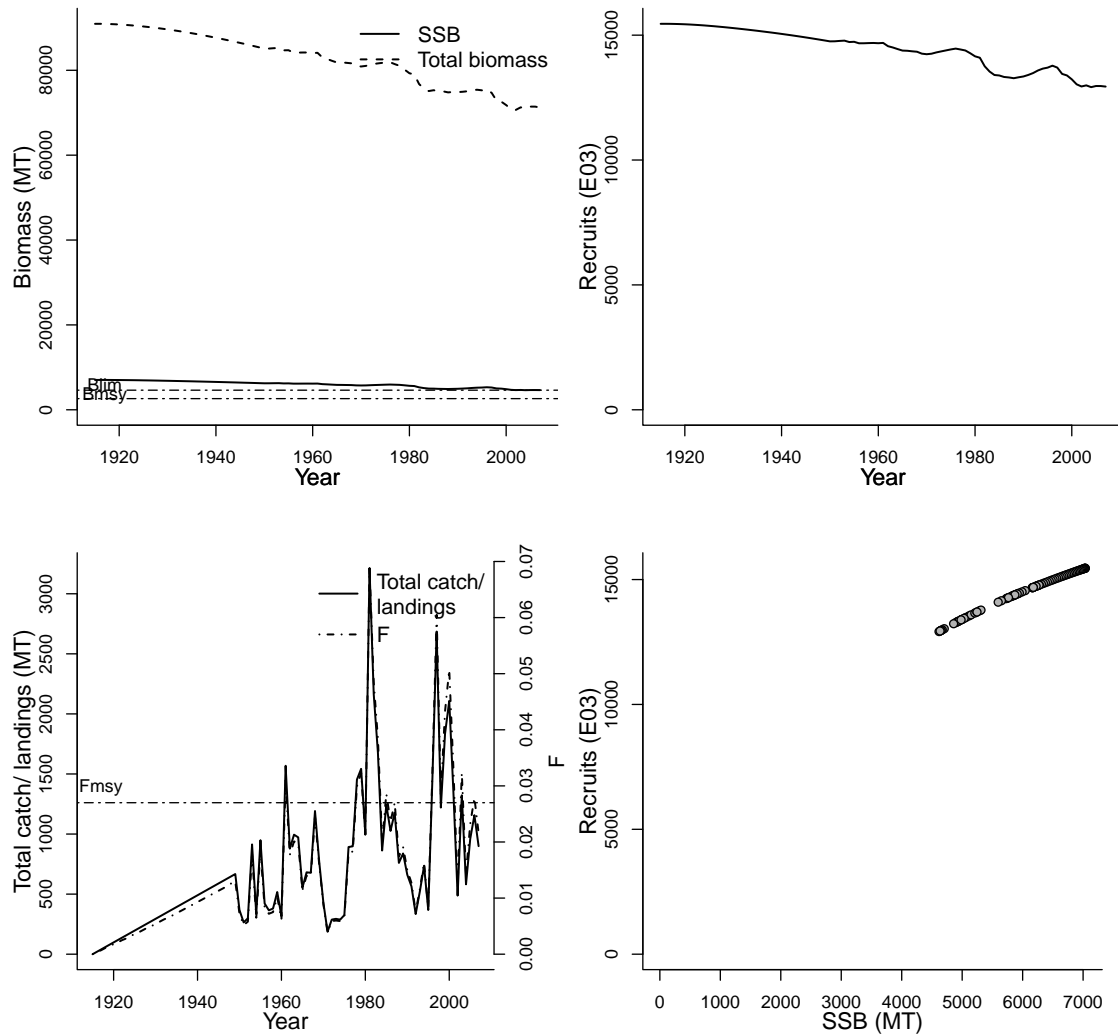
General assessment details.

Detail	Value
Management body	NMFS
Assessment group	Northwest Fisheries Science Center
Assessment authors	Gertseva VV
Assessment method	Stock Synthesis v2.0 model
Publication year	2008
Timeseries span	1915-2007
Document	NWFSC-LNOSESKAPCOAST-2008-Longnose skate.pdf (pdf in database)
Recorder	BRANCH
Date entered	2008-11-23
Date last loaded	2009-06-02
QA/QC complete	YES
Date approved	2009-06-02

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

primary LME			secondary LME	tertiary LME	
3 - California Current			na	na	
			Reference points		
			Parameter	Value	Units
Parameter	Value	Units	Blim-MT (TB)	4617	MT
SSB-SEX-sex	1	sex	Bmsy-MT (TB)	2626	MT
REC-AGE-yr	0	yr	Fmsy-1/yr (F)	0.027	1/yr
F-AGE-yr-yr	2+	yr-yr	SSB0-MT (SSB)	7034	MT
TB-AGE-yr	0+	yr	R0-E03 (R)	15454	E03
L50-cm	120	cm	SSBtarget-MT (SSB)	2814	MT
M-1/yr	0.2	1/yr	SSBmin-ratio (SSB)	0.25	ratio
SSB-AGE-yr			Ftarget-1/yr (F)	0.0257	1/yr
M			SPRtarget-ratio (SPR)	0.4	ratio
A50-yr			MSY-MT (TB)	1268	MT
			BH-h-dimless	0.4	dimless
			TB_{2007}/B_{msy}	27.120	
			F_{2007}/F_{msy}	0.800	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1915	1915	1915	1915	1915
Maximum year	2007	2007	2007	2007	2007
Time series minimum	4617.13	12918.1	0	70670.6	0
Time series maximum	7034.32	15454.2	0.0688	90955.2	3212.68
Units	MT	E03	ratio	MT	MT



Assessment of Pacific Coast pacific hake (*Merluccius productus*)

Assessment ID: NWFSC-PHAKEPCOAST-1966-2008-BRANCH
Issue URL: <http://www.marinebiodiversity.ca/RAMlegacy/ramlegacy-bug-reporting/74>

Area ID: USA-NMFS-PCOAST

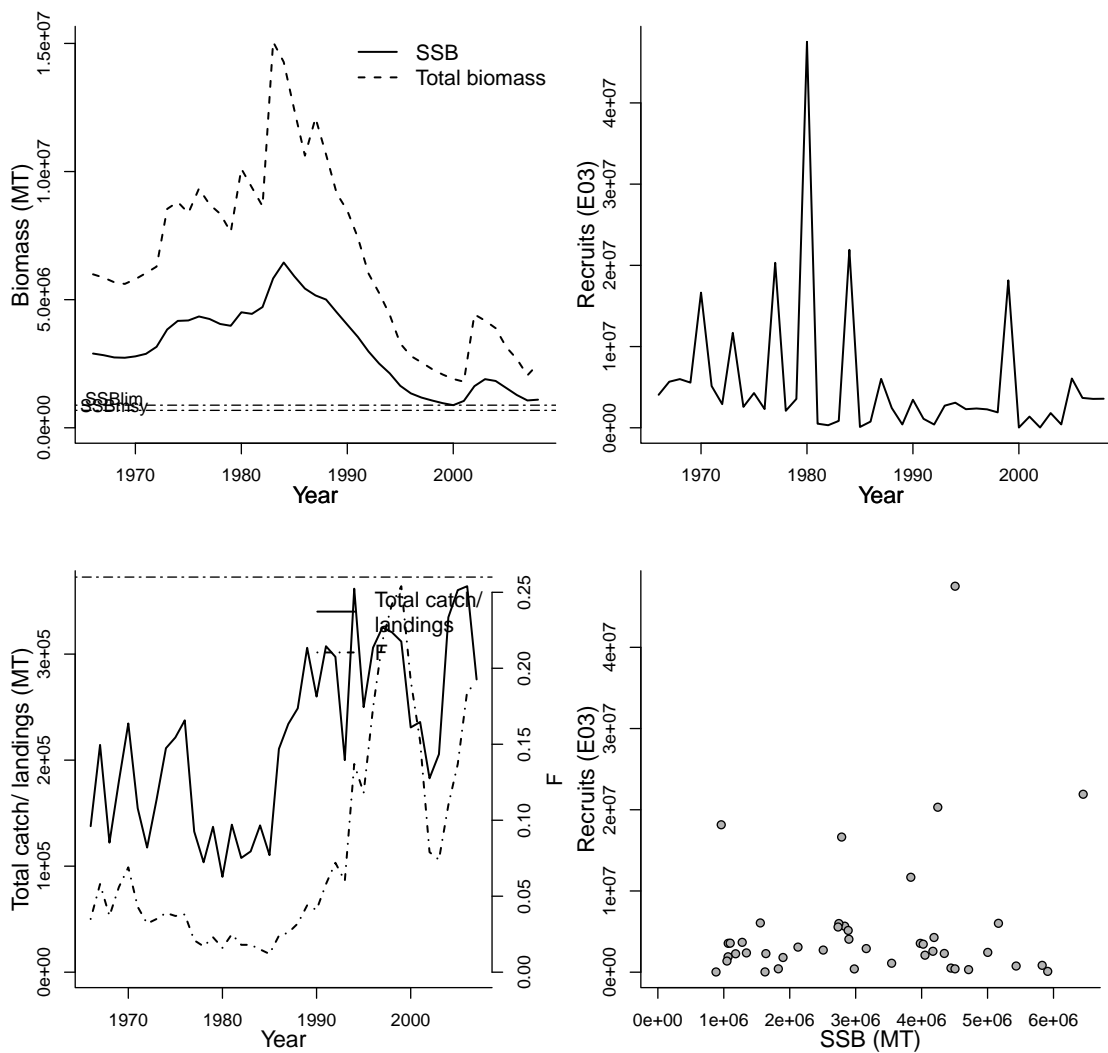
General assessment details.

Detail	Value
Management body	NMFS
Assessment group	Northwest Fisheries Science Center
Assessment authors	Helser T.E.
Assessment method	Stock Synthesis v2.0 model
Publication year	2008
Timeseries span	1966-2008
Document	NWFSC-PHAKEPCOAST-2008-Pacific-Hake-US-Canada.pdf (pdf in database)
Recorder	BRANCH
Date entered	2008-11-24
Date last loaded	2010-05-27
QA/QC complete	YES
Date approved	2010-05-27

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

primary LME			secondary LME		tertiary LME	
3 - California Current			2 - Gulf of Alaska		na	
			Reference points			
			Parameter	Value	Units	
Parameter	Value	Units	SSBlim-MT (SSB)	882000	MT	
			SSBmsy-MT (SSB)	680000	MT	
SSB-SEX-sex	1	sex	Fmsy-1/yr (F)	0.26	1/yr	
REC-AGE-yr	0	yr	SSB0-MT (SSB)	2890000	MT	
F-AGE-yr-yr	3+	yr-yr	R0-E09 (R)	4.06	E09	
TB-AGE-yr	3+	yr	SSBtarget-MT (SSB)	1170000	MT	
L50-cm	36	cm	SSBmin-ratio (SSB)	0.25	ratio	
M-1/yr	0.23	1/yr	BH-h-dimless	0.744	dimless	
SSB-AGE-yr			Ftarget-1/yr (F)	0.16	1/yr	
M			SPRtarget-ratio (SPR)	0.4	ratio	
A50-yr			MSY-MT (TB)	476750	MT	
			SSB_{2008}/SSB_{lim}	1.244		
			F_{2007}/F_{msy}	0.731		
			SSB_{2008}/SSB_{msy}	1.613		

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1966	1966	1966	1966	1966
Maximum year	2008	2008	2007	2008	2007
Time series minimum	882000	30000	0.012	1798000	89936
Time series maximum	6450000	47524000	0.254	15063000	364025
Units	MT	E03	1/yr	MT	MT



Assessment of Pacific Coast pacific ocean perch (*Sebastes alutus*)

Assessment ID: NWFSC-POPERCHPCOAST-1953-2007-BRANCH
Issue URL: <http://www.marinebiodiversity.ca/RAMlegacy/ramlegacy-bug-reporting/63>

Area ID: USA-NMFS-PCOAST

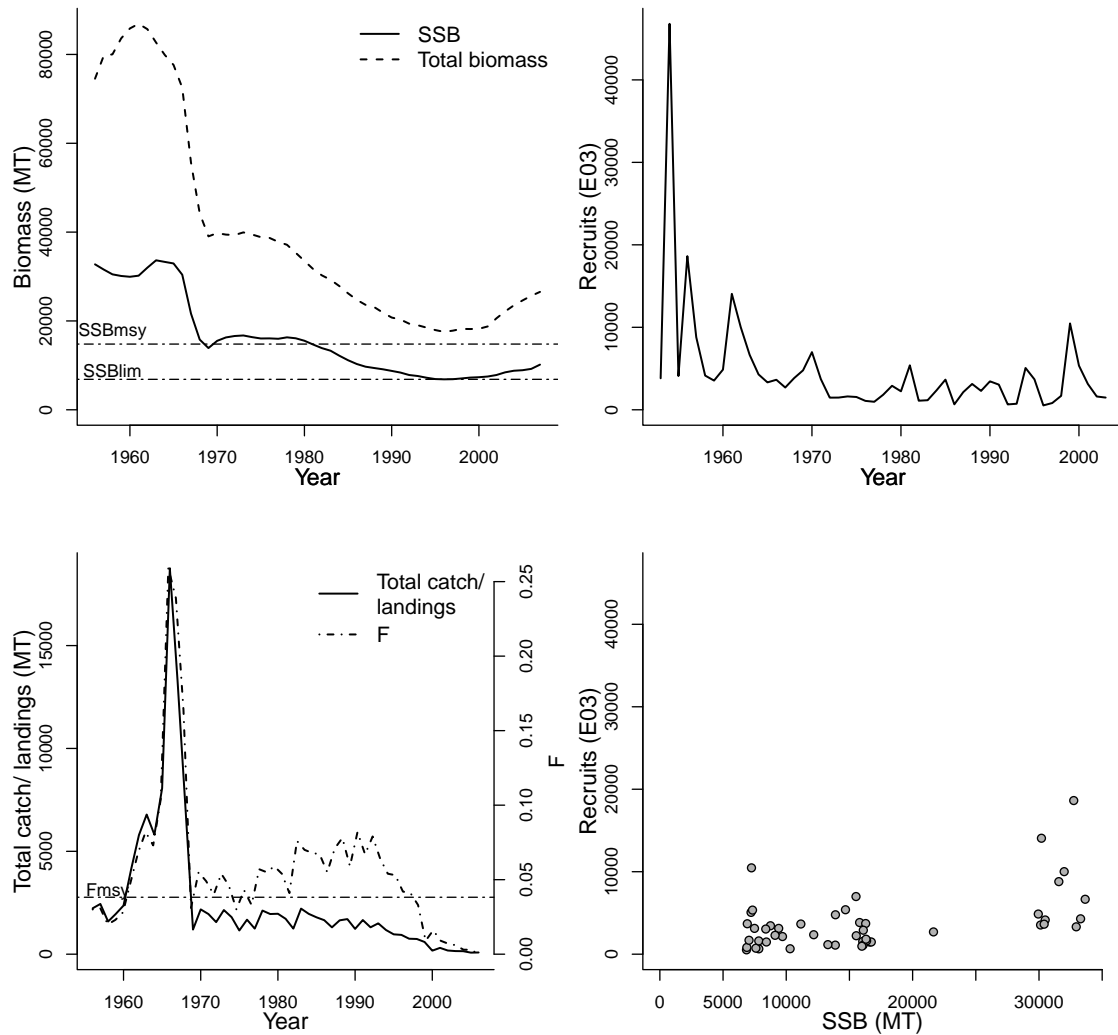
General assessment details.

Detail	Value
Management body	NMFS
Assessment group	Northwest Fisheries Science Center
Assessment authors	Hamel OS
Assessment method	an AD-Model builder statistical Catch at Age Model
Publication year	2007
Timeseries span	1953-2007
Document	NWFSC-POPERCHPCOAST-2007-Pacific ocean perch.pdf (pdf in database)
Recorder	BRANCH
Date entered	2008-11-24
Date last loaded	2010-03-19
QA/QC complete	YES
Date approved	2010-03-19

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

primary LME			secondary LME	tertiary LME	
3 - California Current			na	na	
			Reference points		
			Parameter	Value	Units
Parameter	Value	Units	SSBlim-MT (SSB)	6856	MT
SSB-SEX-sex	1	sex	SSBmsy-MT (SSB)	14793	MT
REC-AGE-yr	3	yr	Fmsy-1/yr (F)	0.0382	1/yr
F-AGE-yr-yr	3+	yr-yr	SSB0-MT (SSB)	36983	MT
TB-AGE-yr	3+	yr	R0-E06 (R)	4.97	E06
M-1/yr	0.053	1/yr	SSBtarget-MT (SSB)	14793	MT
A50-yr	8	yr	SSBmin-ratio (SSB)	0.25	ratio
SSB-AGE-yr			Ftarget-1/yr (F)	0.0388	1/yr
M			SPRtarget-ratio (SPR)	0.4	ratio
L50-cm			MSY-MT (TB)	1411	MT
			BH-h-dimless	0.652	dimless
			SSB_{2007}/SSB_{lim}	1.483	
			SSB_{2007}/SSB_{msy}	0.687	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1956	1953	1956	1956	1956
Maximum year	2007	2003	2007	2007	2006
Time series minimum	6856	530	0	17543.8	75
Time series maximum	33654	46800	0.259	86898.1	18761
Units	MT	E03	1/yr	MT	MT



Assessment of Pacific Coast sablefish (*Anoplopoma fimbria*)

Assessment ID: NWFSC-SABLEFPCOAST-1900-2007-BRANCH
Issue URL: <http://www.marinebiodiversity.ca/RAMlegacy/ramlegacy-bug-reporting/42>

Area ID: USA-NMFS-PCOAST

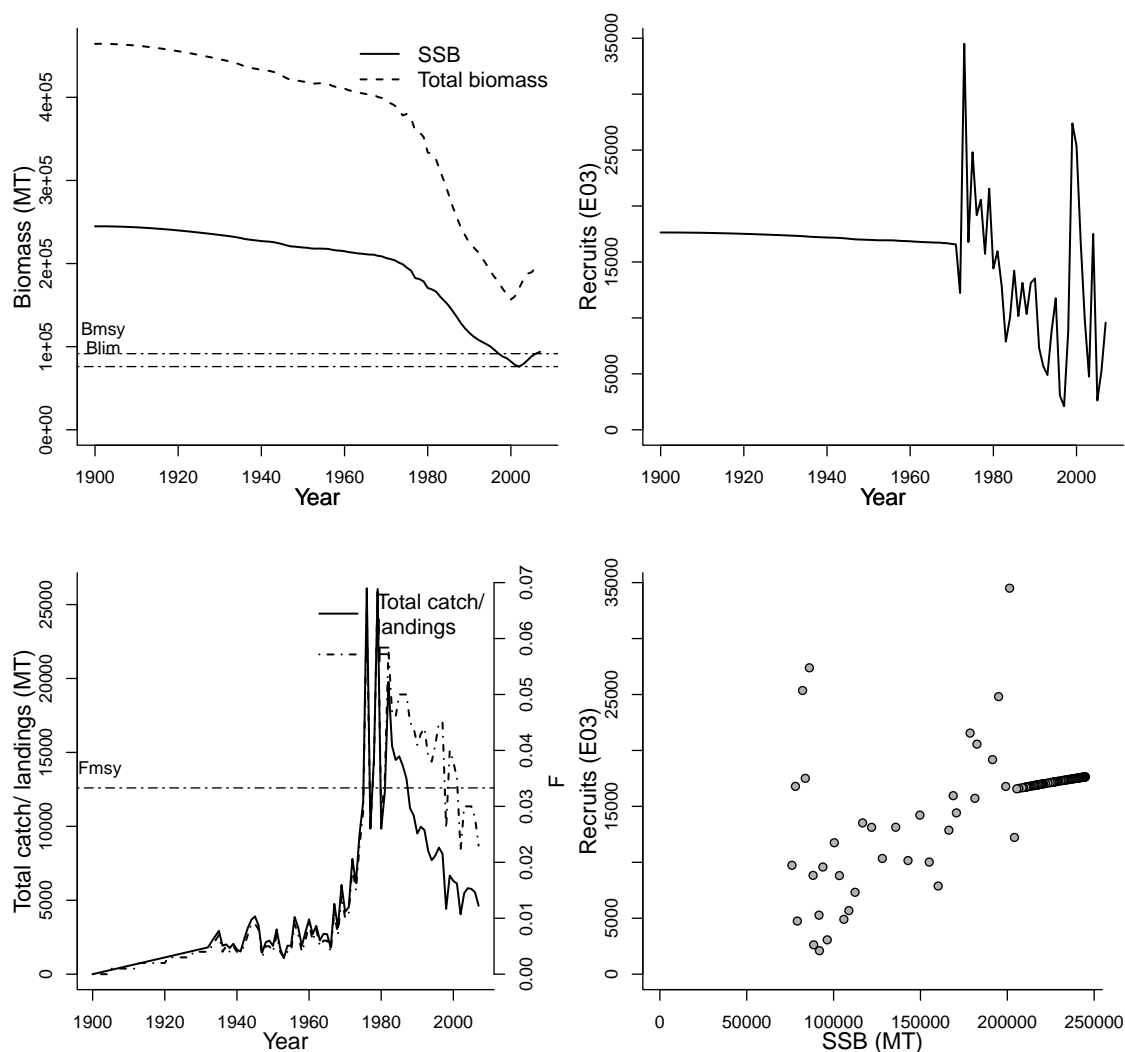
General assessment details.

Detail	Value
Management body	NMFS
Assessment group	Northwest Fisheries Science Center
Assessment authors	Schirripa MJ
Assessment method	Stock Synthesis v2.0 model
Publication year	2007
Timeseries span	1900-2007
Document	NWFSC-SABLEFPCOAST-2007-Sablefish.pdf (pdf in database)
Recorder	BRANCH
Date entered	2008-11-23
Date last loaded	2009-06-02
QA/QC complete	YES
Date approved	2009-06-02

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

primary LME			secondary LME	tertiary LME	
3 - California Current			na	na	
			Reference points		
			Parameter	Value	Units
Parameter	Value	Units	Blim-MT (TB)	76036	MT
SSB-AGE-yr	5.5	yr	Bmsy-MT (TB)	91559	MT
SSB-SEX-sex	1	sex	Fmsy-1/yr (F)	0.0333	1/yr
REC-AGE-yr	0	yr	SSB0-MT (SSB)	244688	MT
F-AGE-yr-yr	2+	yr-yr	R0-E03 (R)	17656	E03
TB-AGE-yr	2+	yr	SSBtarget-MT (SSB)	97919	MT
L50-cm	55.3	cm	SSBmin-ratio (SSB)	0.25	ratio
M-1/yr	0.07	1/yr	Ftarget-1/yr (F)	0.0313	1/yr
M			SPRtarget-ratio (SPR)	0.4	ratio
A50-yr			MSY-MT (TB)	6303	MT
			BH-h-dimless	0.48	dimless
			TB_{2007}/B_{msy}	2.126	
			F_{2007}/F_{msy}	0.691	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1900	1900	1900	1900	1900
Maximum year	2007	2007	2007	2007	2007
Time series minimum	76036.2	2103.55	0	156707	0
Time series maximum	244809	34500.6	0.069	464403	26105.8
Units	MT	E03	1/yr	MT	MT



Assessment of Pacific Coast widow rockfish (*Sebastes entomelas*)

Assessment ID: NWFSC-WROCKPCOAST-1955-2006-BRANCH
Issue URL: <http://www.marinebiodiversity.ca/RAMlegacy/ramlegacy-bug-reporting/62>

Area ID: USA-NMFS-PCOAST

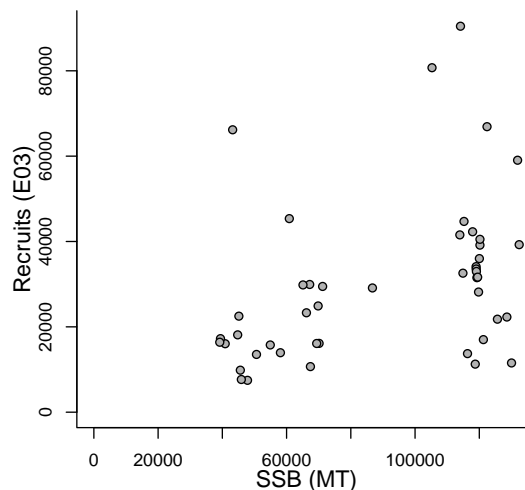
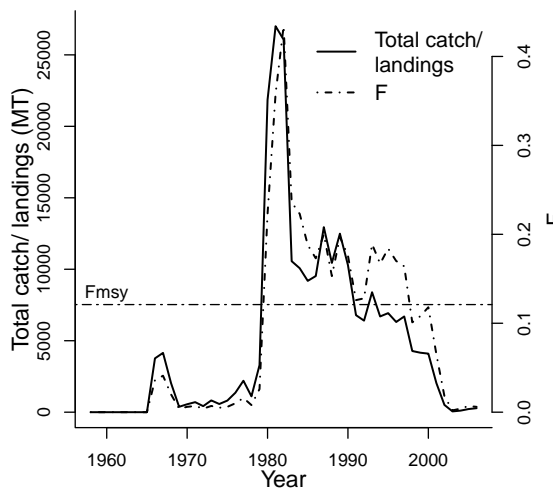
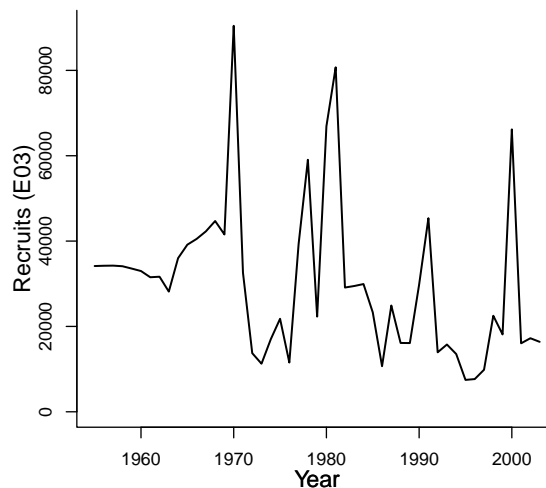
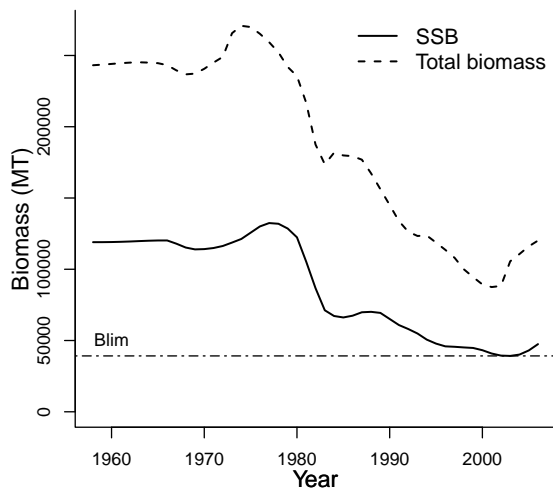
General assessment details.

Detail	Value
Management body	NMFS
Assessment group	Northwest Fisheries Science Center
Assessment authors	He X
Assessment method	an AD-Model builder statistical Catch at Age Model
Publication year	2007
Timeseries span	1955-2006
Document	NWFSC-WROCKPCOAST-2007-widow.pdf (pdf in database)
Recorder	BRANCH
Date entered	2008-11-23
Date last loaded	2010-03-05
QA/QC complete	YES
Date approved	2010-03-08

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

primary LME			secondary LME	tertiary LME	
3 - California Current			na	na	
			Reference points		
Parameter	Value	Units	Parameter	Value	Units
SSB-SEX-sex	1	sex	BH-h-dimless	0.29	dimless
REC-AGE-yr	3	yr	Blim-MT (TB)	39194	MT
F-AGE-yr-yr	3+	yr-yr	SSBmsy-E06eggs (SSB)	20298	E06eggs
TB-AGE-yr	3+	yr	Fmsy-1/yr (F)	0.121	1/yr
M-1/yr	0.125	1/yr	SSB0-E06eggs (SSB)	50746	E06eggs
SSB-AGE-yr			SSBtarget-E06eggs (SSB)	20298	E06eggs
M			SSBmin-ratio (SSB)	0.25	ratio
A50-yr			Ftarget-1/yr (F)	0.121	1/yr
L50-cm			SPRtarget-ratio (SPR)	0.4	ratio
			F_{2006}/F_{msy}	0.050	
			SSB_{2006}/SSB_{msy}	2.339	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1958	1955	1958	1958	1958
Maximum year	2006	2003	2006	2006	2006
Time series minimum	39194	7470	0	87514	0
Time series maximum	132416	90448	0.434	270818	27005
Units	MT	E03	1/yr	MT	MT



Assessment of Pacific Coast yelloweye rockfish (*Sebastes ruberrimus*)

Assessment ID:NWFSC-YEYEROCKPCOAST-1923-2006-BRANCH
Issue URL: <http://www.marinebiodiversity.ca/RAMlegacy/ramlegacy-bug-reporting/65>

Area ID: USA-NMFS-PCOAST

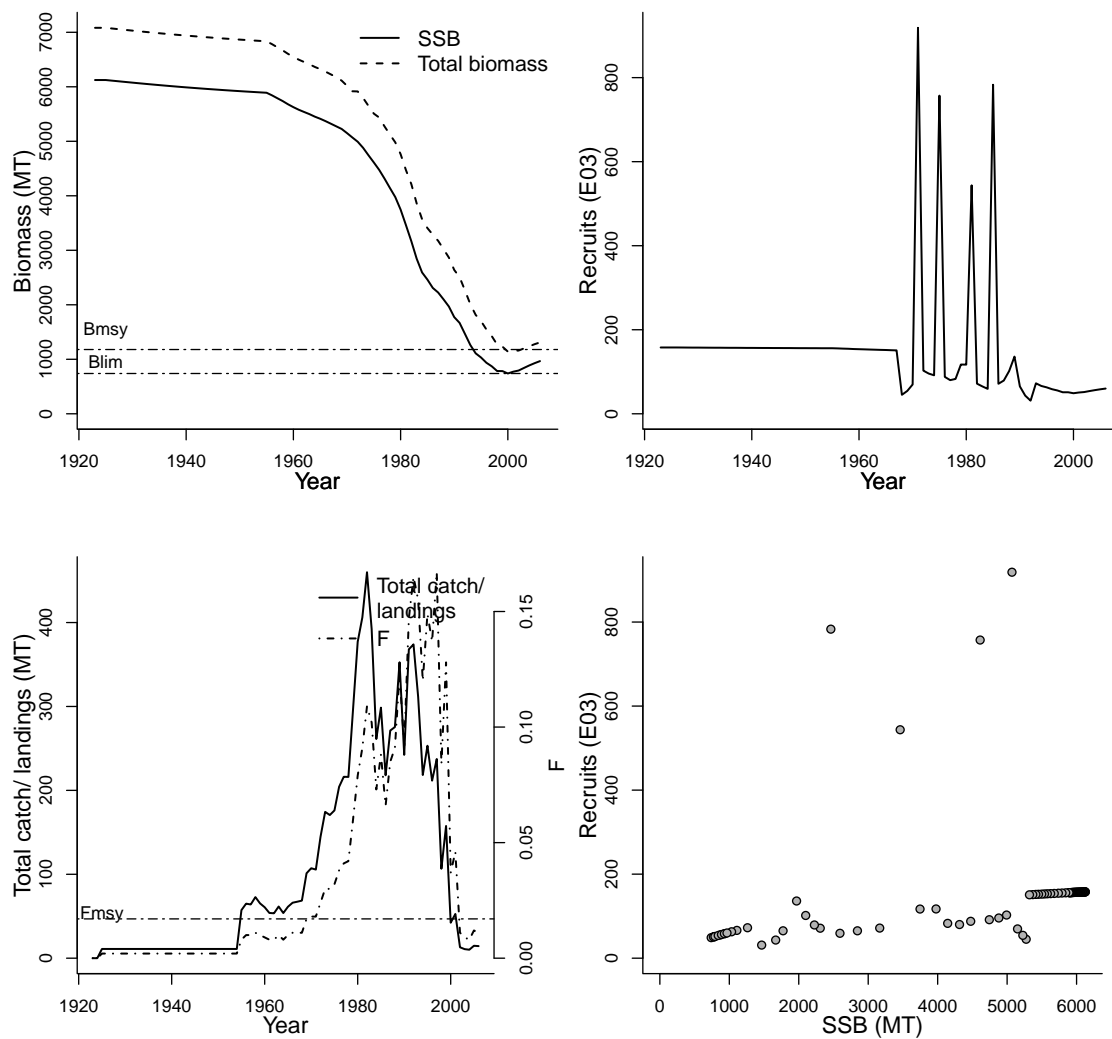
General assessment details.

Detail	Value
Management body	NMFS
Assessment group	Northwest Fisheries Science Center
Assessment authors	Wallace GR
Assessment method	Stock Synthesis v2.0 model
Publication year	2007
Timeseries span	1923-2006
Document	NWFSC-YEYEROCKPCOAST-2007-yelloweye.pdf (pdf in database)
Recorder	BRANCH
Date entered	2008-11-23
Date last loaded	2009-03-17
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	
3 - California Current			na	na	
			Reference points		
			Parameter	Value	Units
Parameter	Value	Units	Blim-MT (TB)	739	MT
SSB-SEX-sex	1	sex	Bmsy-MT (TB)	1179	MT
REC-AGE-yr	0	yr	Fmsy-1/yr (F)	0.017	1/yr
F-AGE-yr-yr	3+	yr-yr	SSB0-MT (SSB)	3062	MT
TB-AGE-yr	1+	yr	R0-E03 (R)	157.8	E03
L50-cm	36	cm	SSBtarget-MT (SSB)	1225	MT
M-1/yr	0.036	1/yr	SSBmin-ratio (SSB)	0.25	ratio
SSB-AGE-yr			Ftarget-1/yr (F)	0.018	1/yr
M			SPRtarget-ratio (SPR)	0.4	ratio
A50-yr			MSY-MT (TB)	51.4	MT
			BH-h-dimless	0.45	dimless
			TB_{2006}/B_{msy}	1.111	
			F_{2006}/F_{msy}	0.647	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1923	1923	1923	1923	1923
Maximum year	2006	2006	2006	2006	2006
Time series minimum	739.11	31.2	0	1141	0
Time series maximum	6124.01	918.6	0.167	7082.2	460
Units	MT	E03	1/yr	MT	MT



Assessment of Pacific Coast shortbelly rockfish (*Sebastes jordani*)

Assessment ID:SWFSC-SBELLYROCKPCOAST-1950-2005-BRANCH
Issue URL: <http://www.marinebiodiversity.ca/RAMlegacy/ramlegacy-bug-reporting/66>

Area ID: USA-NMFS-PCOAST

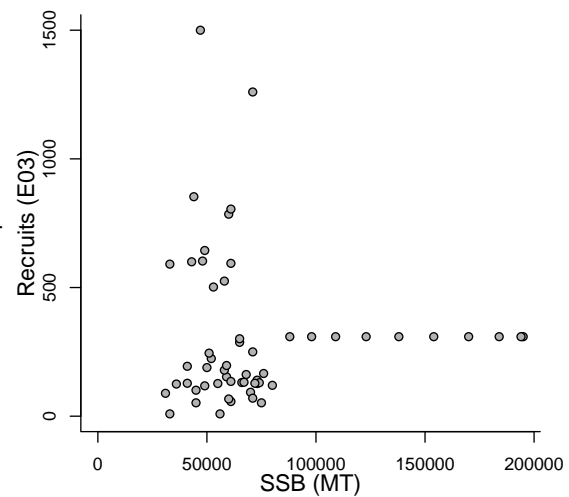
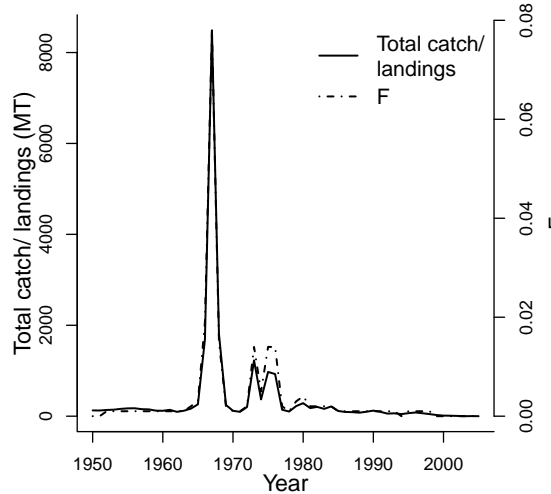
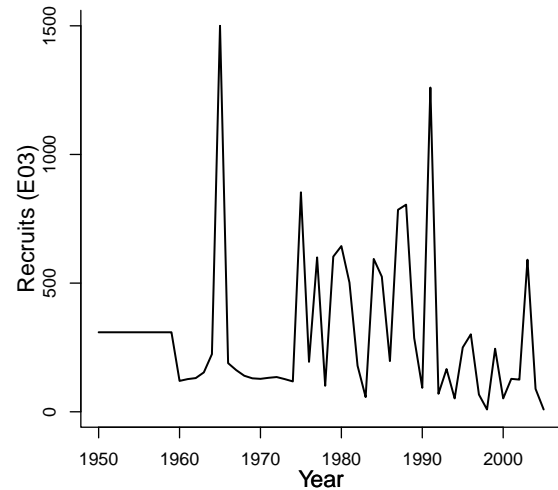
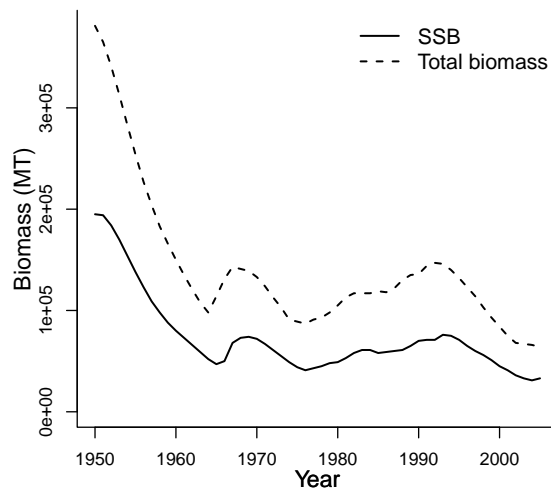
General assessment details.

Detail	Value
Management body	NMFS
Assessment group	Southwest Fisheries Science Center
Assessment authors	Field JC
Assessment method	Stock Synthesis v2.0 model
Publication year	2007
Timeseries span	1950-2005
Document	SWFSC-SBELLYROCKPCOAST-2007-Shortbelly rockfish.pdf (pdf in database)
Recorder	BRANCH
Date entered	2008-11-24
Date last loaded	2009-03-27
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	
3 - California Current			na	na	
Parameter	Value	Units			
SSB-SEX-sex	1	sex			
REC-AGE-yr	0	yr			
F-AGE-yr-yr	1+	yr-yr			
TB-AGE-yr	1+	yr			
M-1/yr	0.26	1/yr			
SSB-AGE-yr					
M					
A50-yr					
L50-cm					
			Reference points		
			Parameter	Value	Units
			R0-E03 (R)	309.248	E03
			BH-h-dimless	0.65	dimless

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1950	1950	1950	1950	1950
Maximum year	2005	2005	2005	2005	2005
Time series minimum	31000	9	0	64000	0
Time series maximum	195000	1500	0.078	381000	8491
Units	MT	E03	1/yr	MT	MT



Large Marine Ecosystems of the World and Linked Watersheds

MAP KEY:

- LME Numbers:**
1. East African Rift
 2. California Current
 3. Gulf of Mexico
 4. Northwest U.S. Continental Shelf
 5. Northeast U.S. Continental Shelf
 6. Labrador Current
 7. Newfoundland-Labrador Shelf
 8. Arctic Ocean
 9. Pacific Central American Coastal
 10. Humboldt Current
 11. Patagonian Shelf
 12. Brazil Shelf
 13. West Greenland Shelf
 14. Barents Sea
 15. North Sea
 16. Celtic Biscay Shelf
 17. Iberian Coastal Sea
 18. Canary Current
 19. Benguel Current
 20. Somali Current
 21. Somali Coastal Current
 22. Red Sea
 23. Gulf of Thailand
 24. Andaman Sea
 25. South China Sea
 26. Indonesian Sea
 27. Southeast Asian Shelf
 28. East China Sea
 29. Korea Sea
 30. Sea of Japan
 31. Sea of Okhotsk
 32. Sea of Chukotka
 33. Chukchi Sea
 34. East Siberian Sea
 35. Kara Sea
 36. Laptev Sea
 37. East Siberian Sea
 38. Arctic Ocean
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- Large Marine Ecosystems**
- Watershed Boundaries**
- Political Boundaries**

