Dear Coilin,

Thank you sincerely for submitting 37 assessments to the Myers II database. Your assessments have been entered and we now wish to quality assure/quality control (QA/QC) these data for a release version of the database. Please follow the following steps 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 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 overleaf.

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 the 'Add response" button on the page. 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 in 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.

Contents

Assessment of Barents Sea capelin (*Mallotus villosus*)

Assessment ID:AFWG-CAPENOR-1964-2006-MINTO

Area ID: multinational-ICES-I

General assessment details.

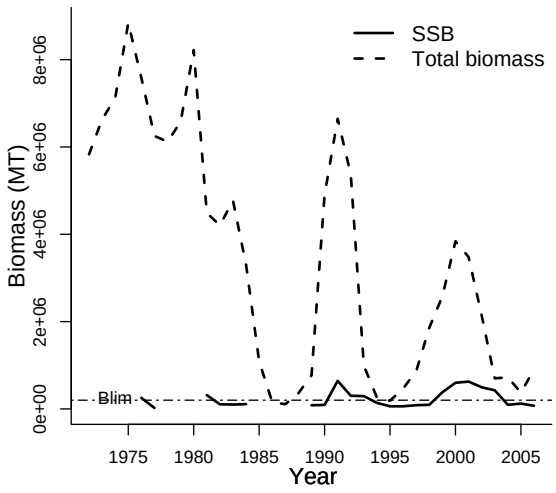
Detail	Value
Management body	ICES
Assessment group	Arctic Fisheries Working Group
Assessment authors	Anon
Assessment method	Spreadsheet assessment model used for Capelin
Publication year	2007
Timeseries span	1964-2006
Document	ICES-AFWG-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

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

Parameter	Value	Units
SSB-AGE-yr	1+	yr
REC-AGE-yr	1	yr
TB-AGE-yr		
F-AGE-yr		
M		
A50-yr		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	**Value**	**Units**
Blim-MT (SSB)	200000	MT
SSB_{2006}/B_{lim}	0.360	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1973	1972		1972	1965
Maximum year	2006	2005		2006	2006
Time series minimum	22000	3000000		107000	0
Time series maximum	643000	1140000000		8841000	2987000
Units	MT	E03		MT	MT



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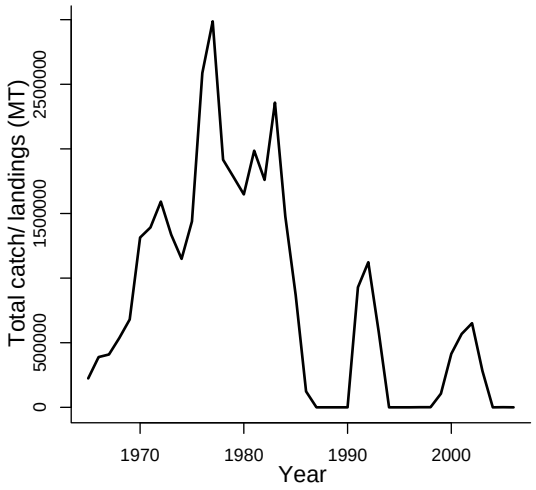

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Assessment of North-East Arctic atlantic cod (*Gadus morhua*)

Assessment ID:AFWG-CODCOASTNOR-1982-2006-MINTO

Area ID: multinational-ICES-I-II

General assessment details.

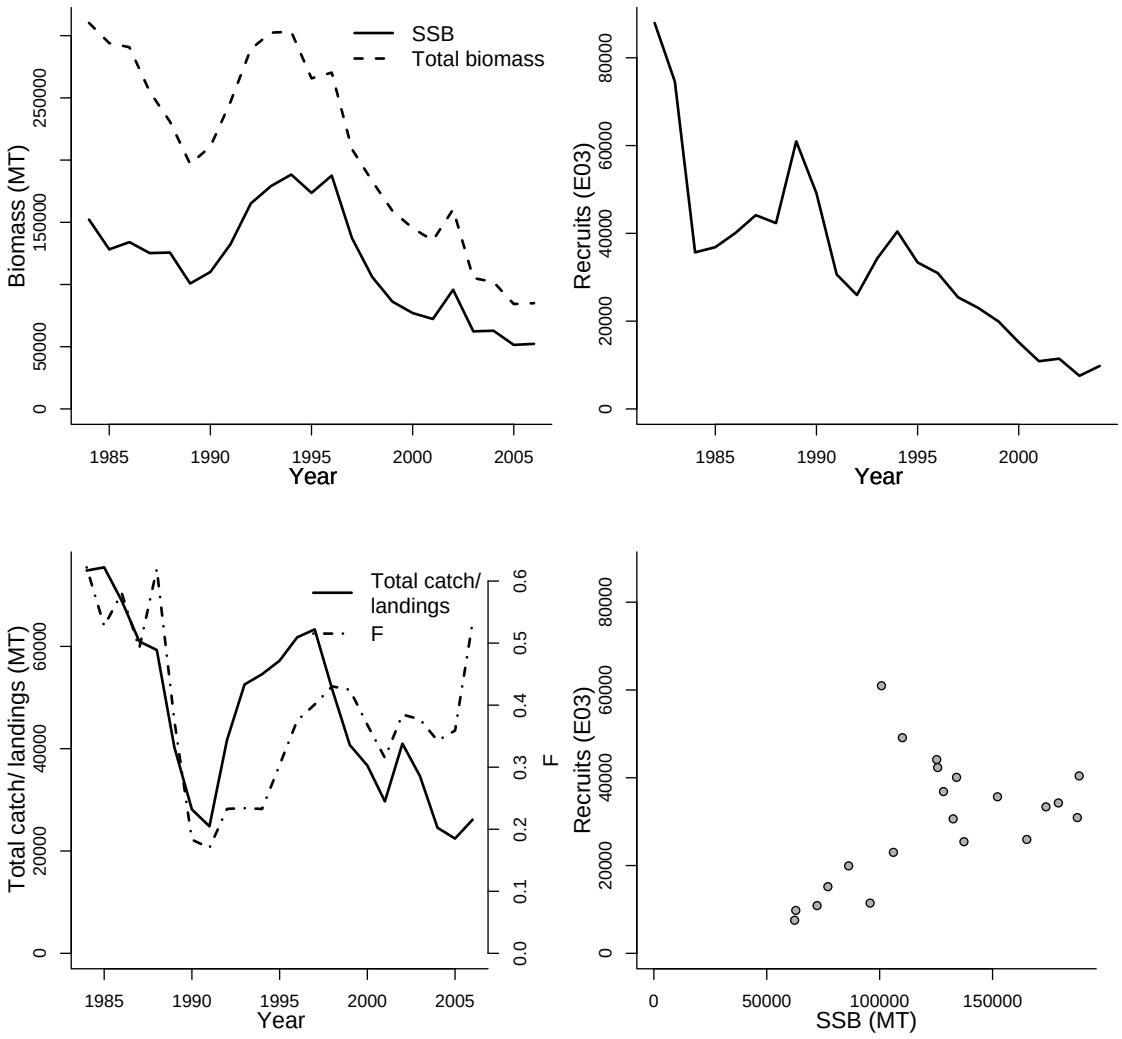
Detail	Value
Management body	ICES
Assessment group	Arctic Fisheries Working Group
Assessment authors	Anon
Assessment method	Virtual Population Analysis
Publication year	2007
Timeseries span	1982-2006
Document	ICES-AFWG-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

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

Parameter	Value	Units
A50-yr	5	yr
SSB-AGE-yr	2+	yr
REC-AGE-yr	2	yr
M-1/yr	0.2	1/yr
TB-AGE-yr		
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	Value	Units

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1984	1982	1984	1984	1984
Maximum year	2006	2004	2006	2006	2006
Time series minimum	51445	7539	0.1699	84309	22432
Time series maximum	188357	87938	0.6221	310230	75451
Units	MT	E03	1/T	MT	MT



Assessment of North-East Arctic atlantic cod (*Gadus morhua*)

Assessment ID:AFWG-CODNEAR-1943-2006-MINTO

Area ID: multinational-ICES-I-II

General assessment details.

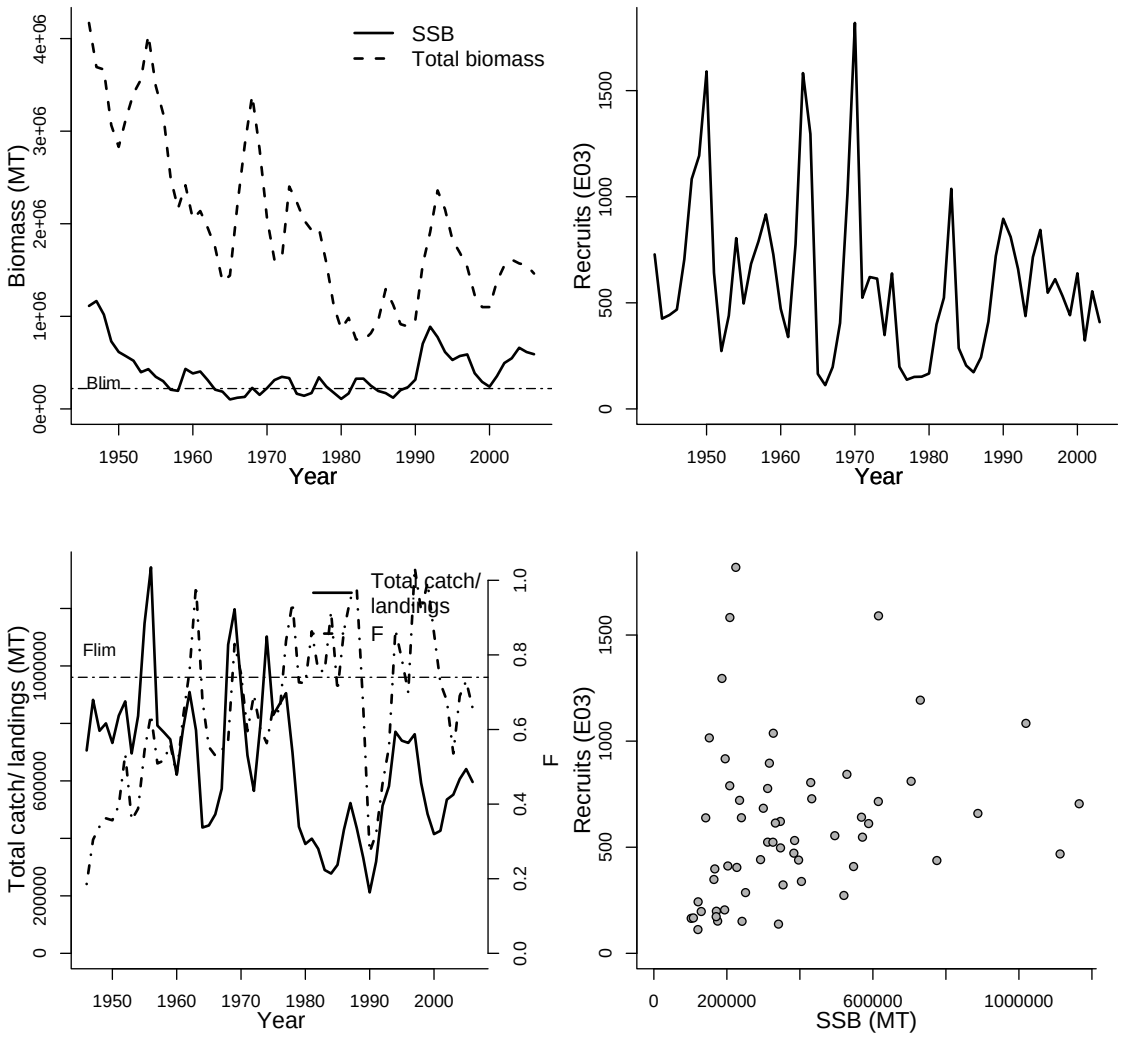
Detail	Value
Management body	ICES
Assessment group	Arctic Fisheries Working Group
Assessment authors	Anon
Assessment method	Extended Survivor Analysis
Publication year	2007
Timeseries span	1943-2006
Document	AFWG-NEAR-Gadusmorhua-2007.pdf (pdf not in database)
Recorder	MINTO
Date entered	2009-03-10

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

Parameter	Value	Units
A50-yr	6.5	yr
SSB-AGE-yr	3+	yr
REC-AGE-yr	3	yr
M-1/yr	0.2	1/yr
TB-AGE-yr		
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	**Value**	**Units**
Blim-MT (SSB)	220000	MT
Bpa-MT (SSB)	460000	MT
F0.1-1/yr (F)	0.15	1/yr
Flim-1/yr (F)	0.74	1/yr
Fpa-1/yr (F)	0.4	1/yr
Fmax-1/yr (F)	0.28	1/yr
SSB_{2006}/B_{lim}	2.685	
F_{2006}/F_{lim}	0.889	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1946	1943	1946	1946	1946
Maximum year	2006	2003	2006	2006	2006
Time series minimum	102315	112.039	0.1857	738675	212000
Time series maximum	1165059	1818.949	1.0347	4168882	1343068
Units	MT	E03	1/T	MT	MT



Assessment of North-East Arctic golden redfish (*Sebastes norvegicus*)

Assessment ID:AFWG-GOLDREDNEAR-1986-2006-MINTO

Area ID: multinational-ICES-I-II

General assessment details.

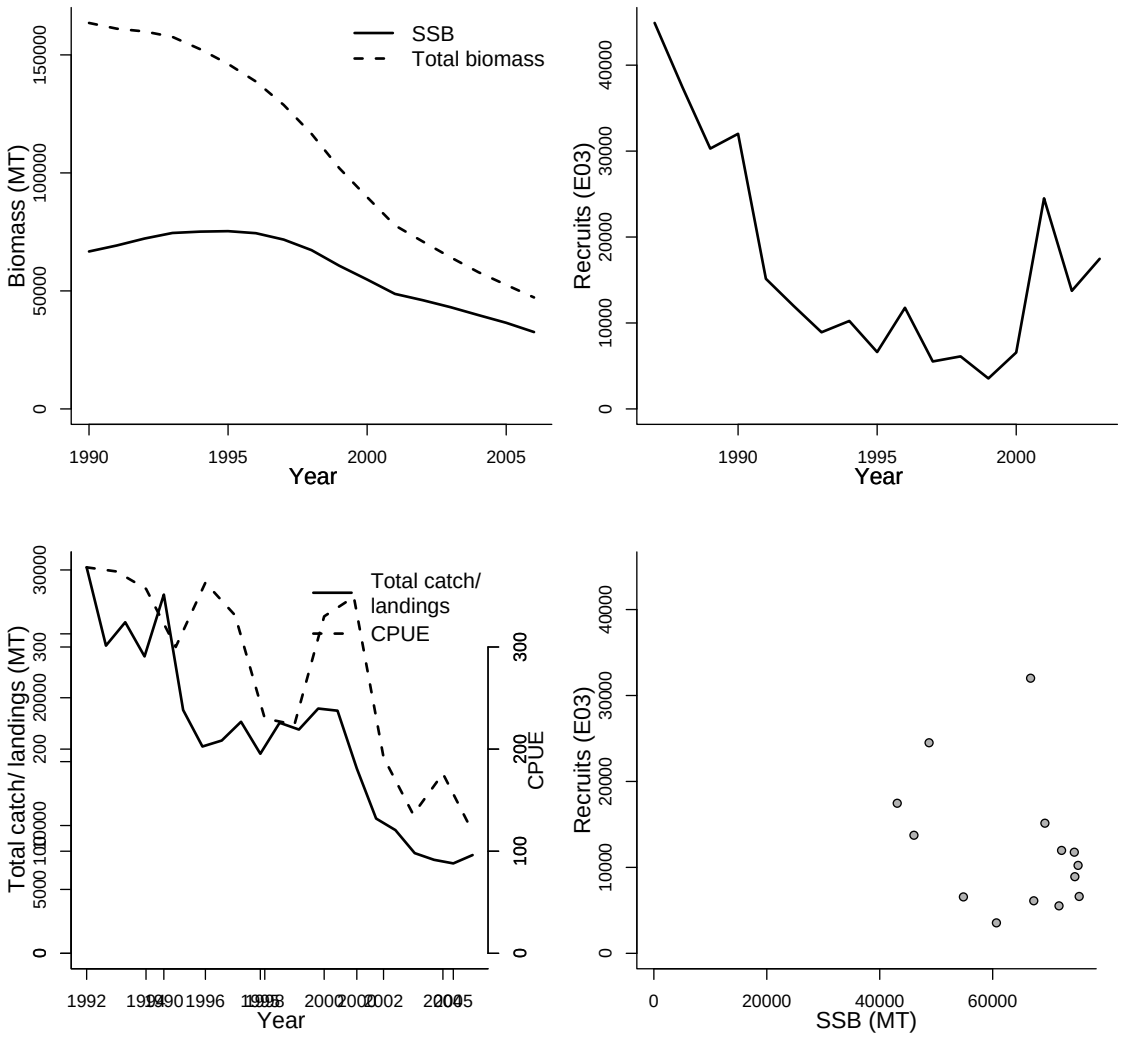
Detail	Value
Management body	ICES
Assessment group	Arctic Fisheries Working Group
Assessment authors	Anon
Assessment method	Globally Applicable area-Disaggregated General Ecosystem Toolbox - An ecosystem-based management tool used for assessment
Publication year	2007
Timeseries span	1986-2006
Document	ICES-AFWG-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

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

Parameter	Value	Units
A50-yr	12	yr
REC-AGE-yr	3	yr
SSB-AGE-yr	15+	yr
M-1/T	0.10	1/T
TB-AGE-yr		
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	**Value**	**Units**

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1990	1987		1990	1986
Maximum year	2006	2003		2006	2006
Time series minimum	32572	3547		47231	7037
Time series maximum	75317	44912		163536	30203
Units	MT	E03		MT	MT



Assessment of North-East Arctic haddock (*Melanogrammus aeglefinus*)

Assessment ID:AFWG-HADNEAR-1947-2006-MINTO

Area ID: multinational-ICES-I-II

General assessment details.

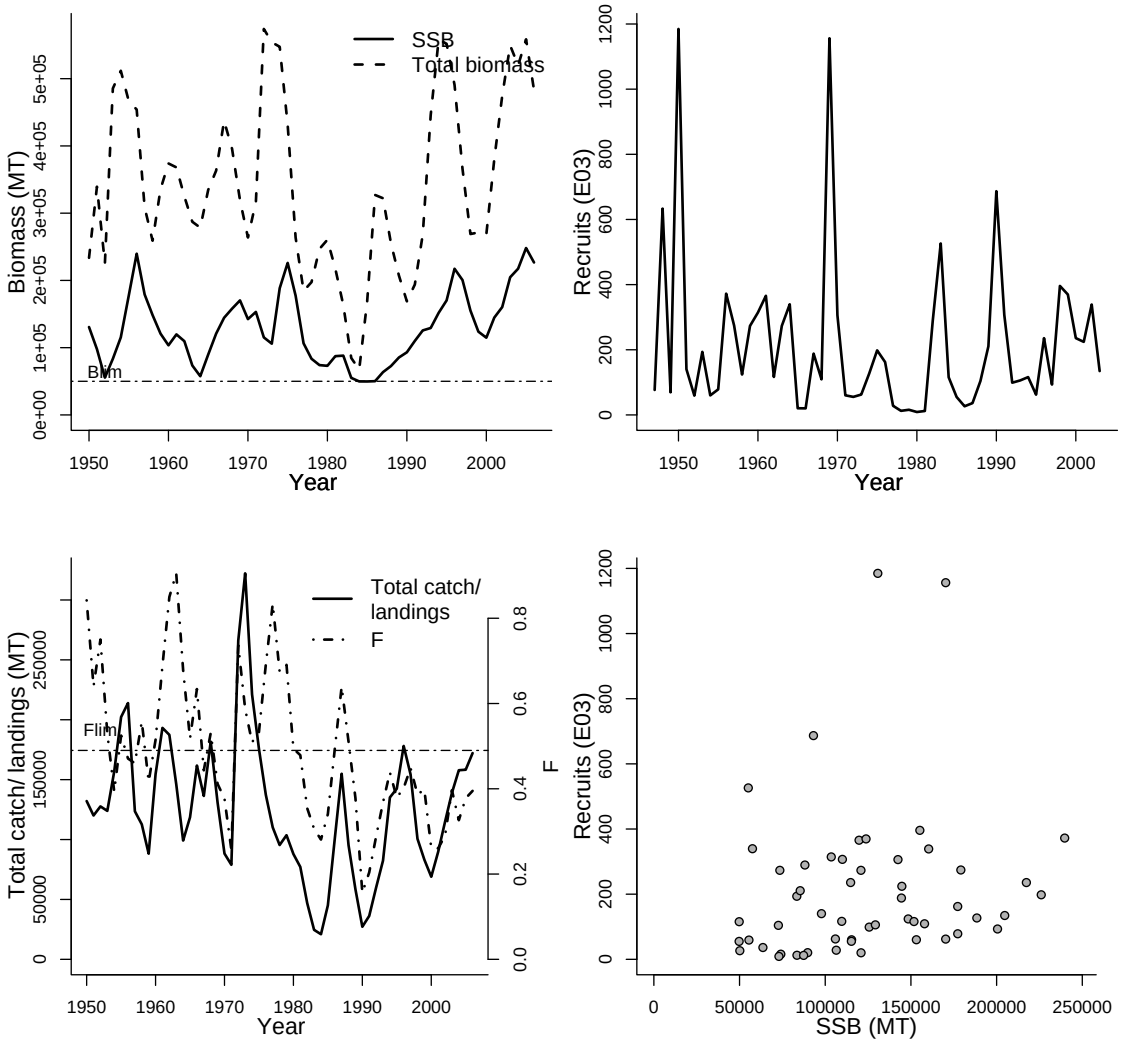
Detail	Value
Management body	ICES
Assessment group	Arctic Fisheries Working Group
Assessment authors	Anon
Assessment method	Virtual Population Analysis
Publication year	2007
Timeseries span	1947-2006
Document	ICES-AFWG-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

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

Parameter	Value	Units
A50-yr	6	yr
SSB-AGE-yr	3+	yr
REC-AGE-yr	3	yr
M-1/T	0.2+cod mortality	1/T
TB-AGE-yr		
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	**Value**	**Units**
Blim-MT (SSB)	50000	MT
Bpa-MT (SSB)	80000	MT
Flim-1/yr (F)	0.49	1/yr
Fpa-1/yr (F)	0.35	1/yr
SSB_{2006}/B_{lim}	4.533	
F_{2006}/F_{lim}	0.806	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1950	1947	1950	1950	1950
Maximum year	2006	2003	2006	2006	2006
Time series minimum	49753	8.961	0.1562	67367	20945
Time series maximum	248181	1184.843	0.9053	573954	322226
Units	MT	E03	1/T	MT	MT



Assessment of North-East Arctic pollock (*Pollachius virens*)

Assessment ID:AFWG-POLLNEAR-1957-2006-MINTO

Area ID: multinational-ICES-I-II

General assessment details.

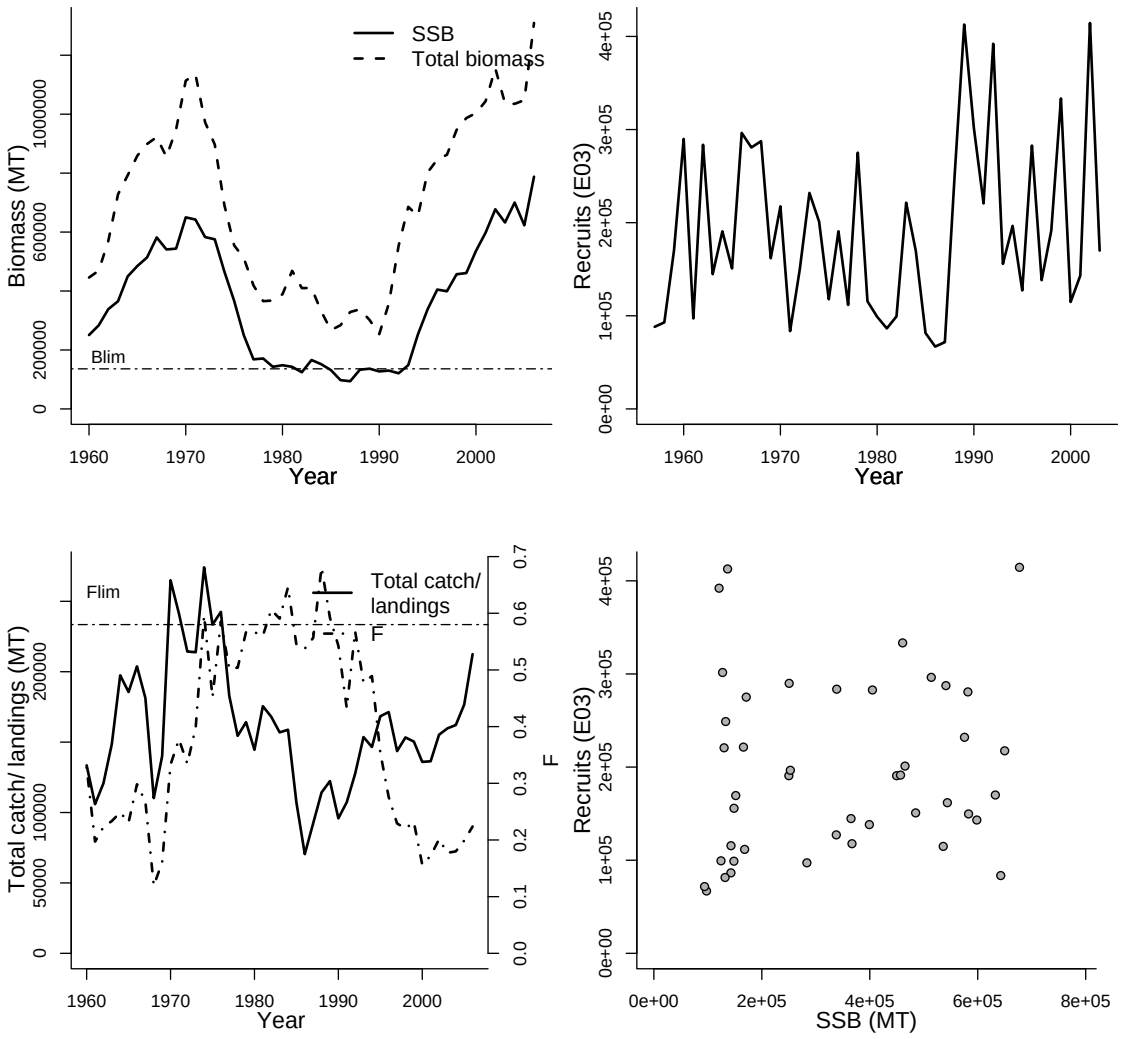
Detail	Value
Management body	ICES
Assessment group	Arctic Fisheries Working Group
Assessment authors	Anon
Assessment method	Extended Survivor Analysis
Publication year	2007
Timeseries span	1957-2006
Document	ICES-AFWG-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

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

Parameter	Value	Units
A50-yr	5	yr
SSB-AGE-yr	4+	yr
REC-AGE-yr	3	yr
M-1/yr	0.2	1/yr
TB-AGE-yr		
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	**Value**	**Units**
Blim-MT (SSB)	136000	MT
Bpa-MT (SSB)	220000	MT
F0.1-1/yr (F)	0.14	1/yr
Fmax-1/yr (F)	0.32	1/yr
Flim-1/yr (F)	0.58	1/yr
Fpa-1/yr (F)	0.35	1/yr
SSB_{2006}/B_{lim}	5.793	
F_{2006}/F_{lim}	0.386	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1960	1957	1960	1960	1960
Maximum year	2006	2003	2006	2006	2006
Time series minimum	93950	66951	0.1193	253730	70458
Time series maximum	787915	414480	0.681	1309499	274121
Units	MT	E03	1/T	MT	MT



Assessment of North-East Arctic atlantic cod (*Gadus morhua*)

Assessment ID:AFWG-CODNEAR-1943-2006-MINTO

Area ID: multinational-ICES-I-II

General assessment details.

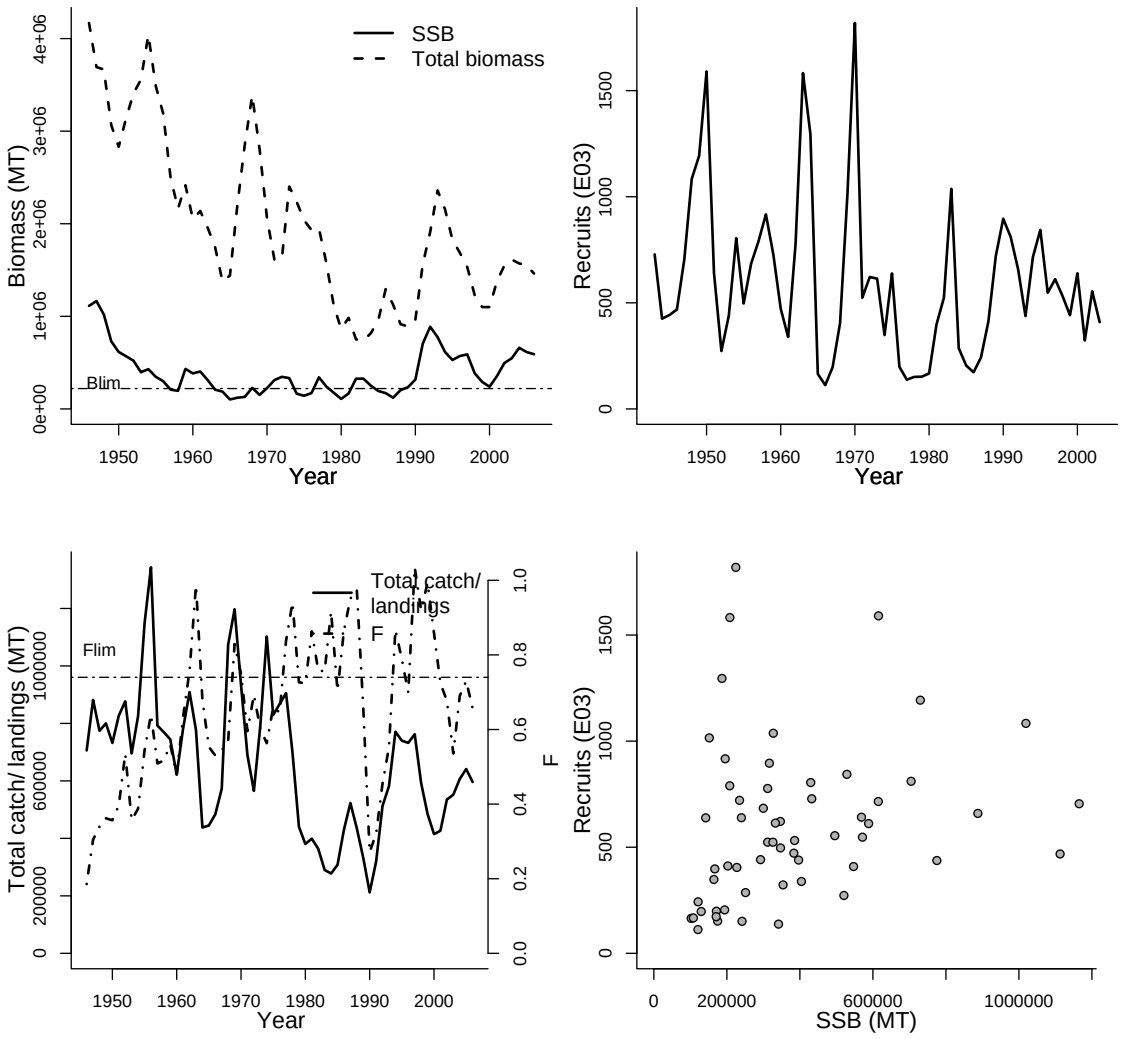
Detail	Value
Management body	ICES
Assessment group	Arctic Fisheries Working Group
Assessment authors	Anon
Assessment method	Extended Survivor Analysis
Publication year	2007
Timeseries span	1943-2006
Document	AFWG-NEAR-Gadusmorhua-2007.pdf (pdf not in database)
Recorder	MINTO
Date entered	2009-03-10

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

Parameter	Value	Units
A50-yr	6.5	yr
SSB-AGE-yr	3+	yr
REC-AGE-yr	3	yr
M-1/yr	0.2	1/yr
TB-AGE-yr		
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	**Value**	**Units**
Blim-MT (SSB)	220000	MT
Bpa-MT (SSB)	460000	MT
F0.1-1/yr (F)	0.15	1/yr
Flim-1/yr (F)	0.74	1/yr
Fpa-1/yr (F)	0.4	1/yr
Fmax-1/yr (F)	0.28	1/yr
SSB_{2006}/B_{lim}	2.685	
F_{2006}/F_{lim}	0.889	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1946	1943	1946	1946	1946
Maximum year	2006	2003	2006	2006	2006
Time series minimum	102315	112.039	0.1857	738675	212000
Time series maximum	1165059	1818.949	1.0347	4168882	1343068
Units	MT	E03	1/T	MT	MT



Assessment of 22-24-IIIa herring (*Clupea harengus*)

Assessment ID:HAWG-HERR2224IIIa-1991-2006-MINTO

Area ID: multinational-ICES-22-24-IIIa

General assessment details.

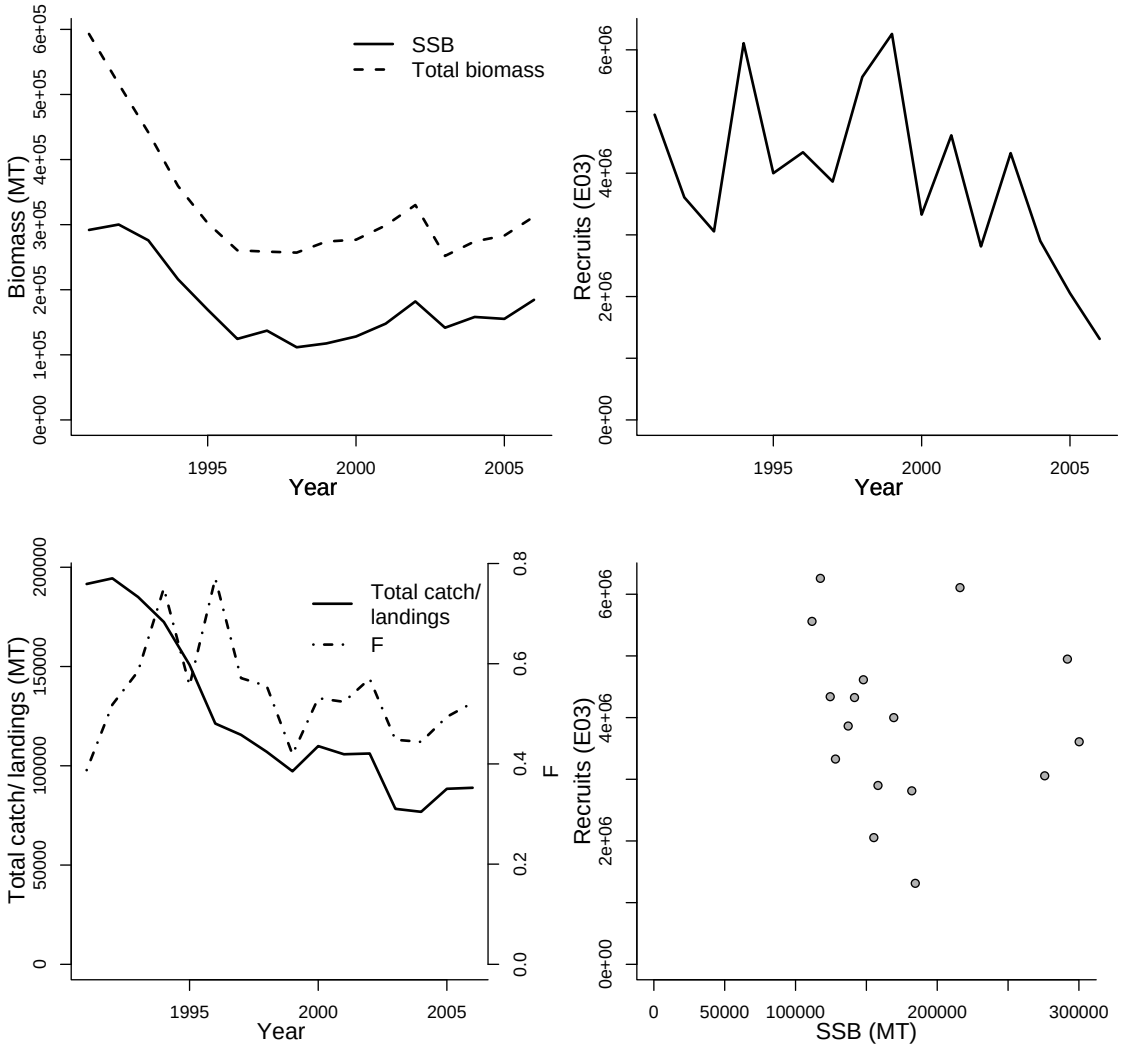
Detail	Value
Management body	ICES
Assessment group	Herring Assessment Working Group for the Area South of 62N
Assessment authors	Anon
Assessment method	Integrated Catch-at-age Analysis
Publication year	2007
Timeseries span	1991-2006
Document	ICES-HAWG-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

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

Parameter	Value	Units
A50-yr	2-3	yr
SSB-AGE-yr	2+	yr
REC-AGE-yr	0	yr
TB-AGE-yr	0+	yr
M-1/yr	0.2 for 2+	1/yr
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	**Value**	**Units**
F0.1-1/yr (F)	0.22	1/yr
Fmax-1/yr (F)	0.53	1/yr

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1991	1991	1991	1991	1991
Maximum year	2006	2006	2006	2006	2006
Time series minimum	111615	1313450	0.3875	251938	76815
Time series maximum	300193	6257570	0.7704	592997	194411
Units	MT	E03	1/yr	MT	MT



Assessment of North Sea herring (*Clupea harengus*)

Assessment ID:HAWG-HERRNS-1960-2007-MINTO

Area ID: multinational-ICES-IV

General assessment details.

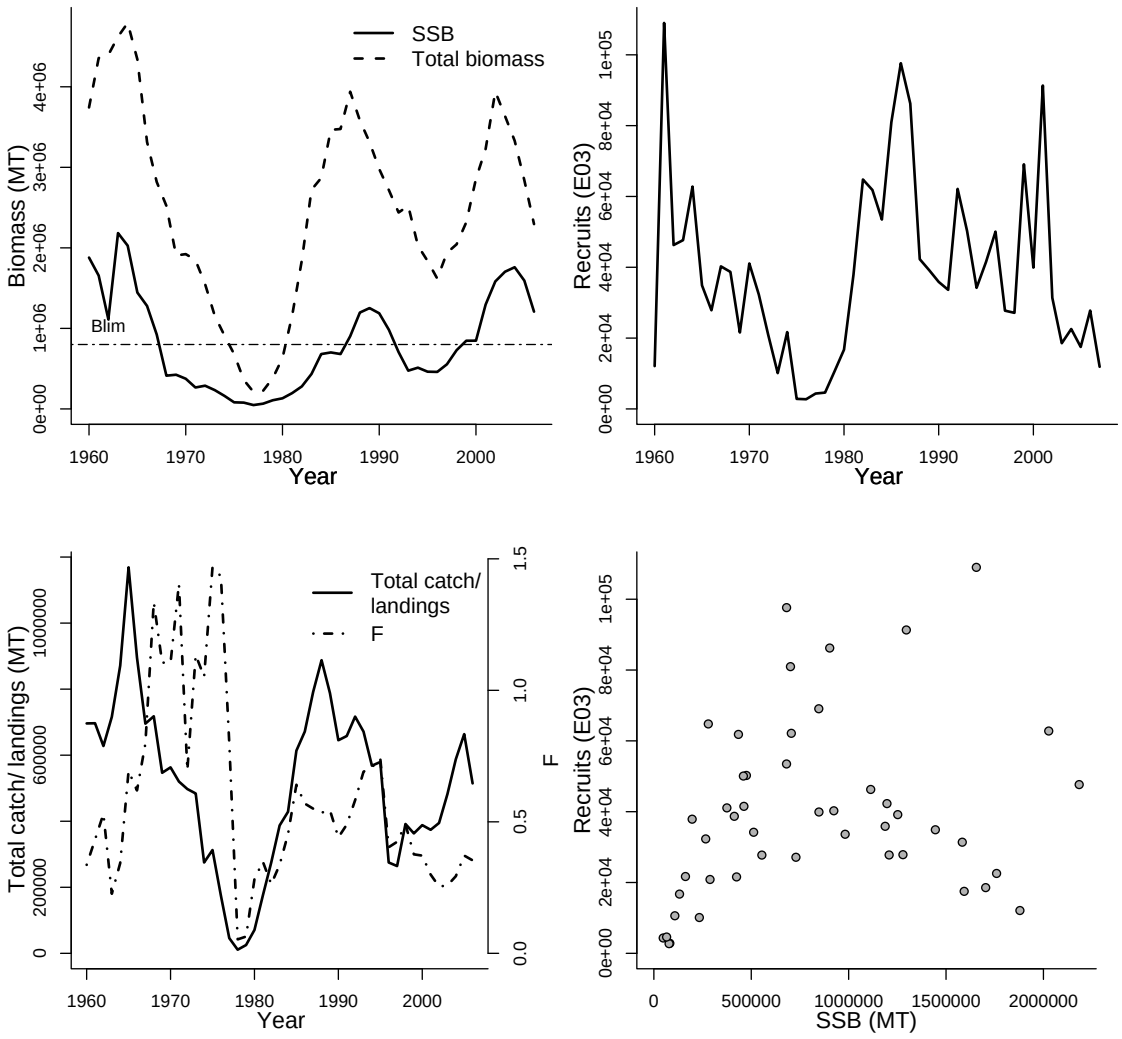
Detail	Value
Management body	ICES
Assessment group	Herring Assessment Working Group for the Area South of 62N
Assessment authors	Anon
Assessment method	Integrated Catch-at-age Analysis
Publication year	2007
Timeseries span	1960-2007
Document	ICES-HAWG-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

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

Parameter	Value	Units
A50-yr	2	yr
SSB-AGE-yr	2+	yr
REC-AGE-yr	0	yr
TB-AGE-yr	0+	yr
M-1/yr	0.1 for 4+	1/yr
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	**Value**	**Units**
F0.1-1/yr (F)	0.22	1/yr
Fpa-1/yr (F)	0.25	1/yr
Bpa-MT (SSB)	1300000	MT
Blim-MT (SSB)	800000	MT
SSB_{2006}/B_{lim}	1.510	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1960	1960	1960	1960	1960
Maximum year	2006	2007	2006	2006	2006
Time series minimum	47975	2732.61	0.053	211261	11000
Time series maximum	2183501	109000	1.4676	4792818	1168800
Units	MT	E03	1/yr	MT	MT



Assessment of West of Scotland herring (*Clupea harengus*)

Assessment ID:HAWG-HERRVIa-1957-2006-MINTO

Area ID: multinational-ICES-VIa

General assessment details.

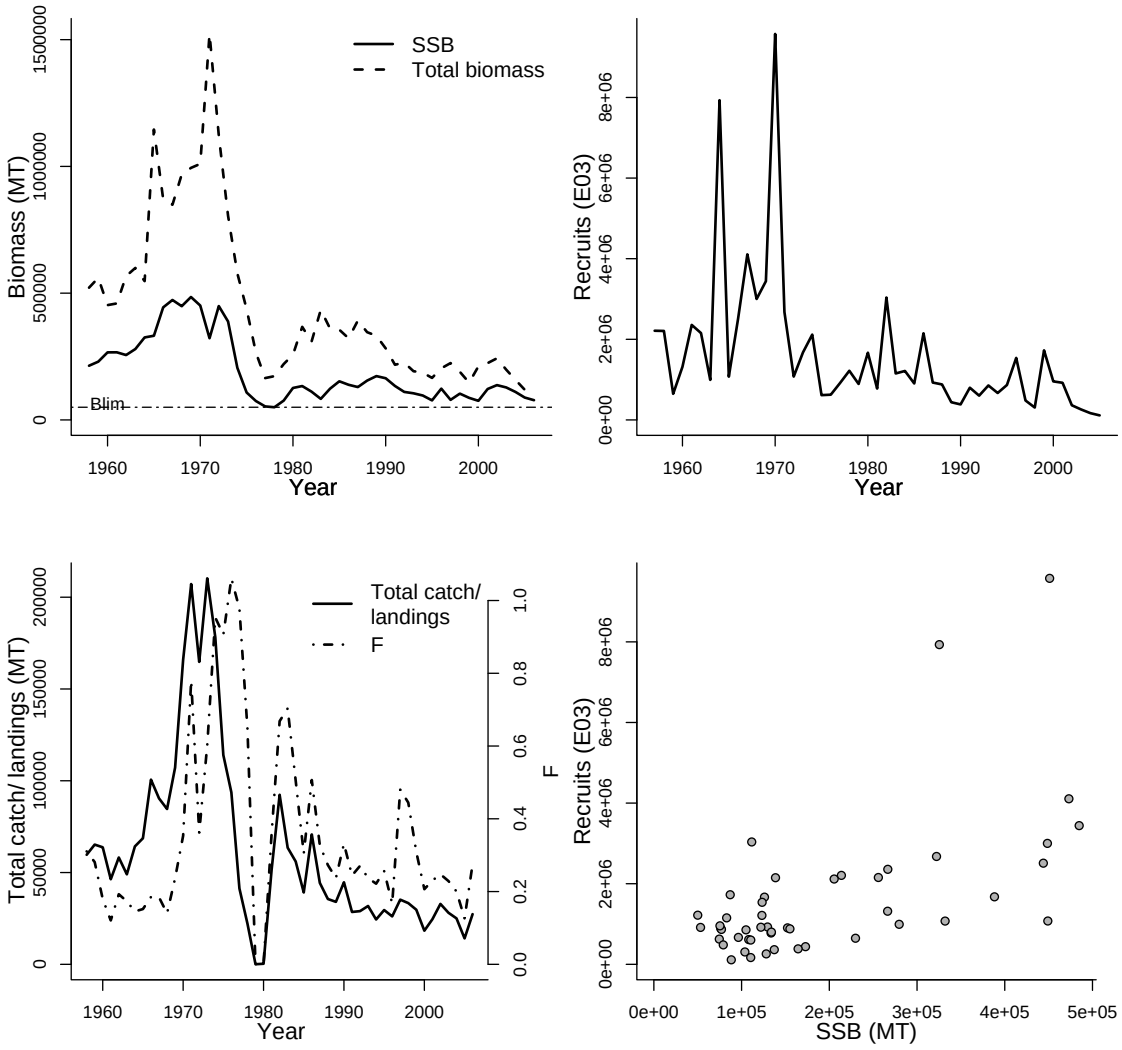
Detail	Value
Management body	ICES
Assessment group	Herring Assessment Working Group for the Area South of 62N
Assessment authors	Anon
Assessment method	Integrated Catch-at-age Analysis
Publication year	2007
Timeseries span	1957-2006
Document	ICES-HAWG-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

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

Parameter	Value	Units
A50-yr	2	yr
SSB-AGE-yr	2+	yr
REC-AGE-yr	1	yr
TB-AGE-yr	1+	yr
M-1/yr	0.1 for 4+	1/yr
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	**Value**	**Units**
F0.1-1/yr (F)	0.17	1/yr
Blim-MT (SSB)	50000	MT
SSB_{2006}/B_{lim}	1.556	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1958	1957	1958	1958	1958
Maximum year	2006	2005	2006	2006	2006
Time series minimum	50015	112240	0.0004	111054	60
Time series maximum	484835	9575740	1.0609	1522522	210270
Units	MT	E03	1/yr	MT	MT



Assessment of VIa, VIIb and VIIc herring (*Clupea harengus*)

Assessment ID:HAWG-HERRVIaVIIbc-1969-2000-MINTO

Area ID: multinational-ICES-VIa-VIIb-VIIc

General assessment details.

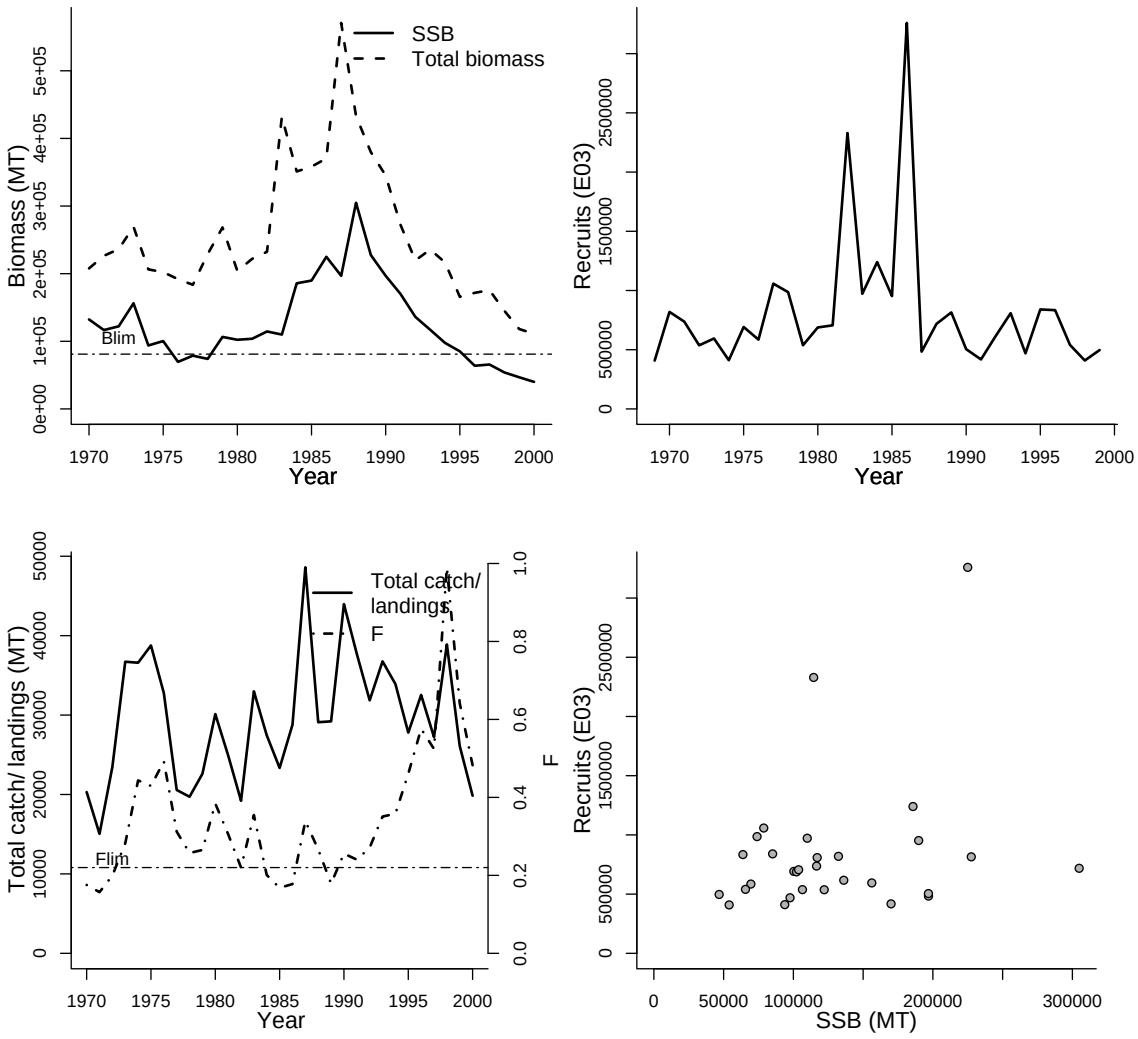
Detail	Value
Management body	ICES
Assessment group	Herring Assessment Working Group for the Area South of 62N
Assessment authors	Anon
Assessment method	Virtual Population Analysis
Publication year	2007
Timeseries span	1969-2000
Document	ICES-HAWG-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

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

Parameter	Value	Units
A50-yr	1	yr
SSB-AGE-yr	1+	yr
REC-AGE-yr	1	yr
TB-AGE-yr	1+	yr
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	**Value**	**Units**
Blim-MT (SSB)	81000	MT
Bpa-MT (SSB)	110000	MT
Flim-1/yr (F)	0.22	1/yr
Fpa-1/yr (F)	0.33	1/yr
SSB_{2000}/B_{lim}	0.494	
F_{2000}/F_{lim}	2.193	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1970	1969	1970	1970	1970
Maximum year	2000	1999	2000	2000	2000
Time series minimum	39994	408071	0.1569	111116	15044
Time series maximum	304867	3259194	0.9901	570764	48600
Units	MT	E03	1/yr	MT	MT



Assessment of North Sea sprat (*Sprattus sprattus*)

Assessment ID:HAWG-SPRATNS-1995-2007-MINTO

Area ID: multinational-ICES-IV

General assessment details.

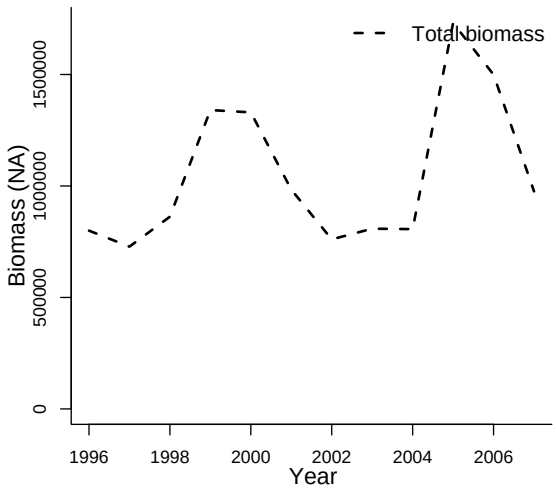
Detail	Value
Management body	ICES
Assessment group	Herring Assessment Working Group for the Area South of 62N
Assessment authors	Anon
Assessment method	Catch-Survey Analysis (like a state space approach)
Publication year	2007
Timeseries span	1995-2007
Document	ICES-HAWG-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

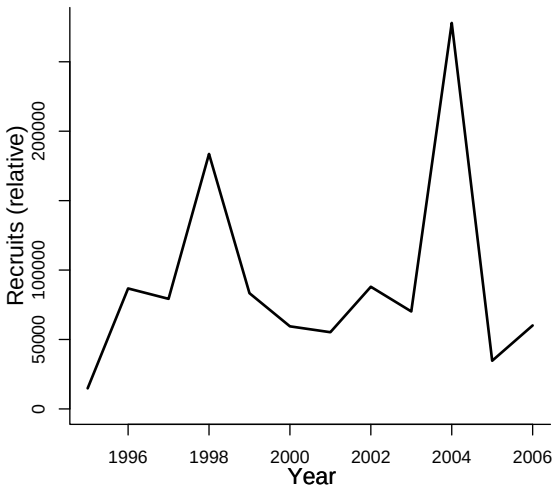
Biometrics provided. Note that the assumed timeseries to which the reference point pertains is indicated in parentheses.

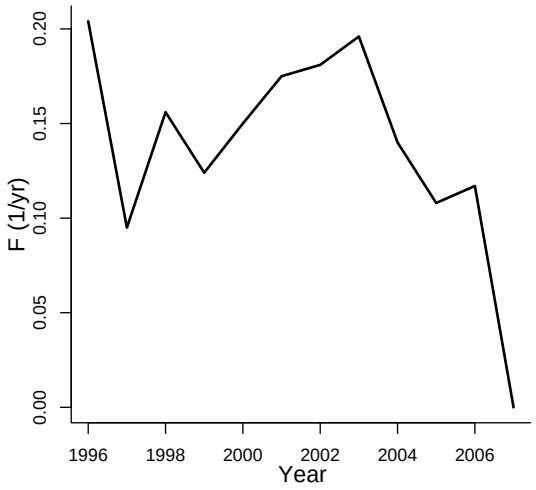
Parameter	Value	Units
SSB-AGE-yr	1+	yr
REC-AGE-yr	1	yr
TB-AGE-yr	1+	yr
M-1/yr	0.75	1/yr
F-AGE-yr		
M		
A50-yr		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	Value	Units

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year		1995	1996	1996	
Maximum year		2006	2007	2007	
Time series minimum		14821.9	0	727854	
Time series maximum		277968.1	0.204	1731263	
Units		relative	1/yr	relative	







No SSB−recruit data available

Assessment of Iceland Grounds capelin (*Mallotus villosus*)

Assessment ID:NWWG-CAPEICE-1977-2007-MINTO

Area ID: multinational-ICES-Va

General assessment details.

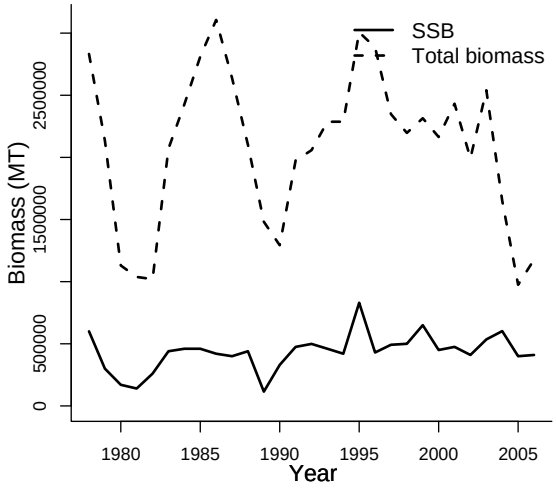
Detail	Value
Management body	ICES
Assessment group	North-Western Working Group
Assessment authors	Anon
Assessment method	acoustic surveys
Publication year	2007
Timeseries span	1977-2007
Document	ICES-NWWG-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

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

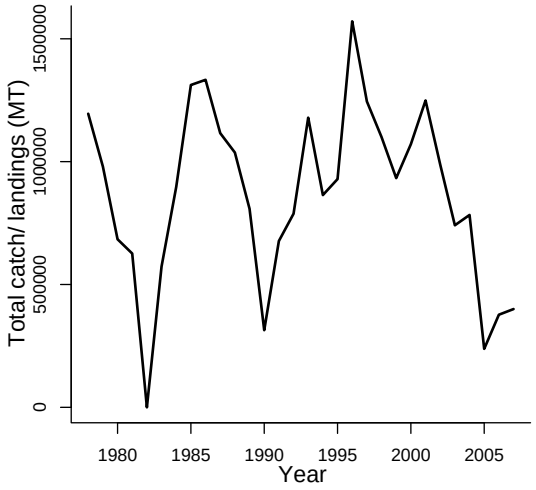
Parameter	Value	Units
A50-yr	2	yr
SSB-AGE-yr	2+	yr
REC-AGE-yr	1	yr
TB-AGE-yr	NULL	yr
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	Value	Units

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1978	1977		1978	1978
Maximum year	2006	2005		2006	2007
Time series minimum	115000	49000000		975000	0
Time series maximum	830000	251000000		3106000	1571000
Units	MT	E03		MT	MT



No recruitment data available



No SSB−recruit data available

Assessment of Faroe Plateau atlantic cod (*Gadus morhua*)

Assessment ID:NWWG-CODFAPL-1959-2006-MINTO

Area ID: multinational-ICES-Vb1

General assessment details.

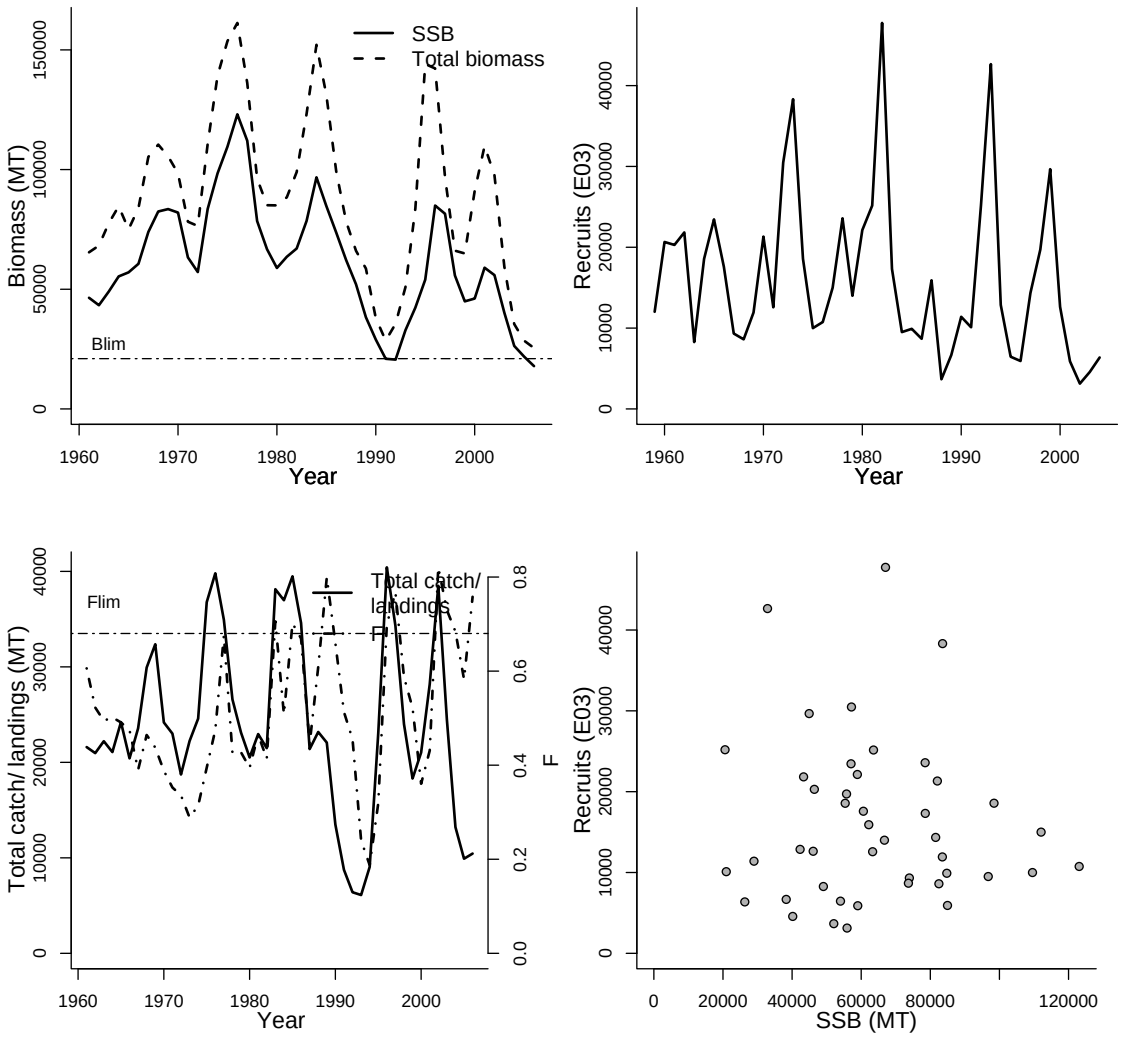
Detail	Value
Management body	ICES
Assessment group	North-Western Working Group
Assessment authors	Anon
Assessment method	Extended Survivor Analysis
Publication year	2007
Timeseries span	1959-2006
Document	ICES-NWWG-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

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

Parameter	Value	Units
A50-yr	3	yr
SSB-AGE-yr	2+	yr
REC-AGE-yr	2	yr
TB-AGE-yr		
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	Value	Units
Blim-MT (SSB)	21000	MT
Bpa-MT (SSB)	40000	MT
F0.1-1/yr (F)	0.12	1/yr
Fmax-1/yr (F)	0.25	1/yr
Flim-1/yr (F)	0.68	1/yr
Fpa-1/yr (F)	0.35	1/yr
SSB_{2006}/B_{lim}	0.851	
F_{2006}/F_{lim}	1.115	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1961	1959	1961	1961	1961
Maximum year	2006	2004	2006	2006	2006
Time series minimum	17878	3128	0.1877	25436	6107
Time series maximum	123077	47753	0.8206	161260	40422
Units	MT	E03	1/T	MT	MT



Assessment of Iceland Grounds atlantic cod (*Gadus morhua*)

Assessment ID:NWWG-CODICE-1952-2006-MINTO

Area ID: multinational-ICES-Va

General assessment details.

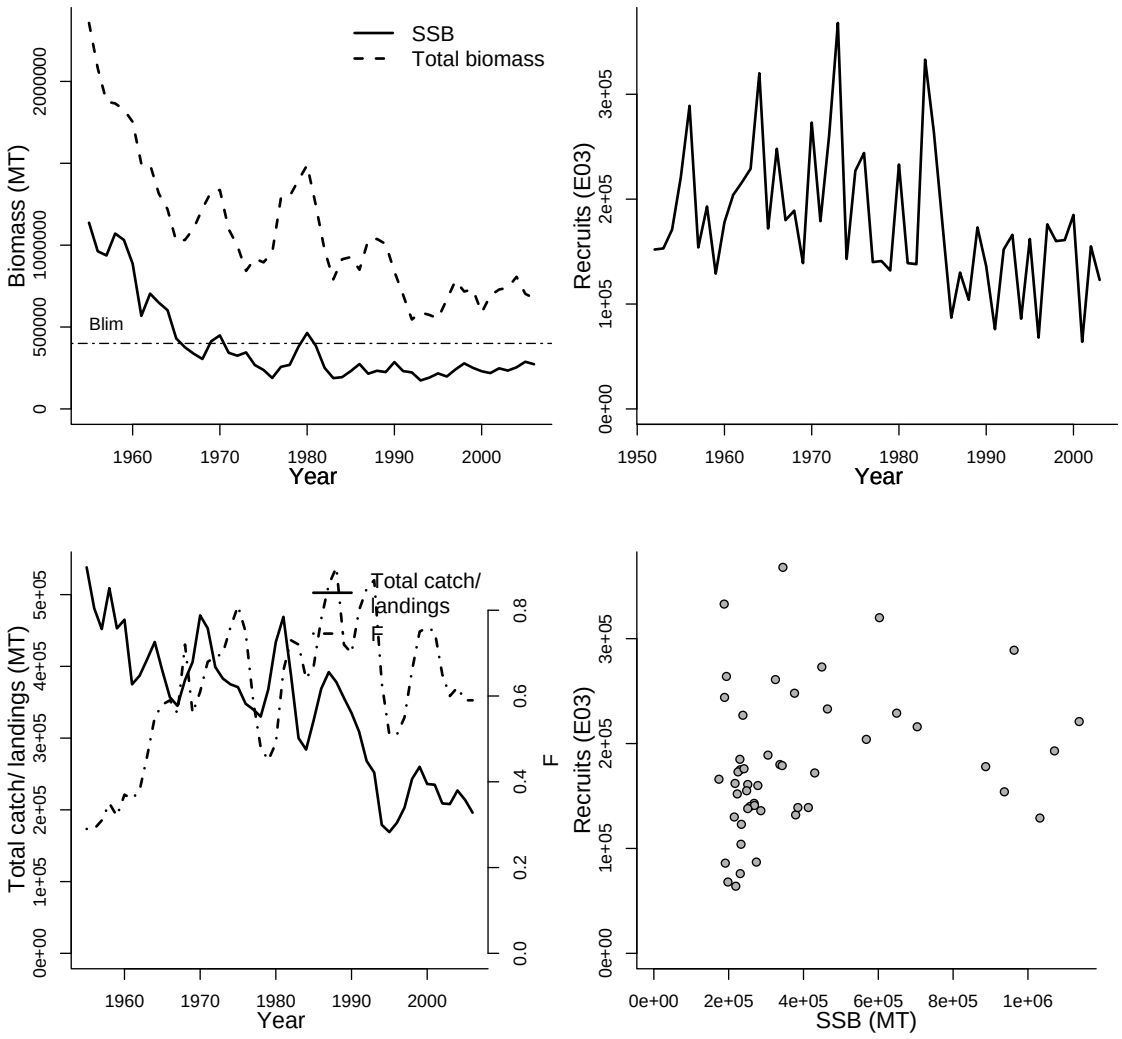
Detail	Value
Management body	ICES
Assessment group	North-Western Working Group
Assessment authors	Anon
Assessment method	an AD-Model builder statistical Catch at Age Model
Publication year	2007
Timeseries span	1952-2006
Document	ICES-NWWG-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

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

Parameter	Value	Units
A50-yr	6.5	yr
SSB-AGE-yr	3+	yr
REC-AGE-yr	3	yr
TB-AGE-yr	4+	yr
M-1/T	0.25	1/T
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	**Value**	**Units**
Blim-MT (SSB)	400000	MT
F0.1-1/yr (F)	0.15	1/yr
Fmax-1/yr (F)	0.34	1/yr
SSB_{2006}/B_{lim}	0.682	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1955	1952	1955	1955	1955
Maximum year	2006	2003	2006	2006	2006
Time series minimum	174000	64000	0.29	546000	169000
Time series maximum	1137000	368000	0.9	2357000	538000
Units	MT	E03	1/T	MT	MT



Assessment of Faroe Plateau haddock (*Melanogrammus aeglefinus*)

Assessment ID:NWWG-HADFAPL-1955-2007-MINTO

Area ID: multinational-ICES-Vb1

General assessment details.

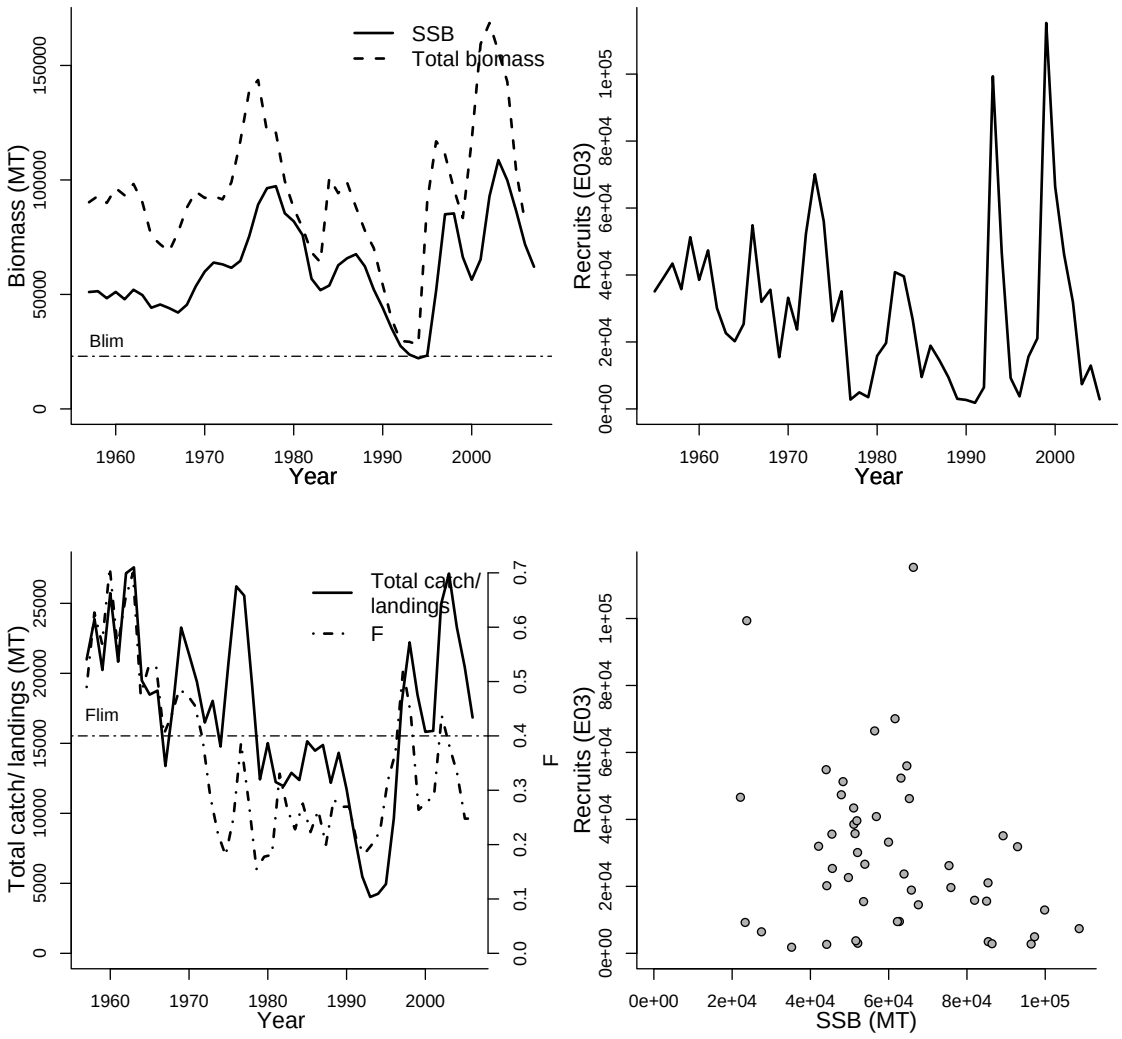
Detail	Value
Management body	ICES
Assessment group	North-Western Working Group
Assessment authors	Anon
Assessment method	Extended Survivor Analysis
Publication year	2007
Timeseries span	1955-2007
Document	ICES-NWWG-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

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

Parameter	Value	Units
A50-yr	3	yr
SSB-AGE-yr	2+	yr
REC-AGE-yr	2	yr
TB-AGE-yr		
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	Value	Units
Blim-MT (SSB)	23000	MT
Bpa-MT (SSB)	35000	MT
F0.1-1/yr (F)	0.15	1/yr
Fmax-1/yr (F)	0.61	1/yr
Flim-1/yr (F)	0.4	1/yr
Fpa-1/yr (F)	0.25	1/yr
SSB_{2007}/B_{lim}	2.700	
F_{2007}/F_{lim}	0.619	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1957	1955	1957	1957	1957
Maximum year	2007	2005	2007	2006	2006
Time series minimum	22125	1826	0.155	27998	4026
Time series maximum	108674	115282	0.7101	168570	27571
Units	MT	E03	1/T	MT	MT



Assessment of Iceland Grounds haddock (*Melanogrammus aeglefinus*)

Assessment ID:NWWG-HADICE-1977-2007-MINTO

Area ID: multinational-ICES-Va

General assessment details.

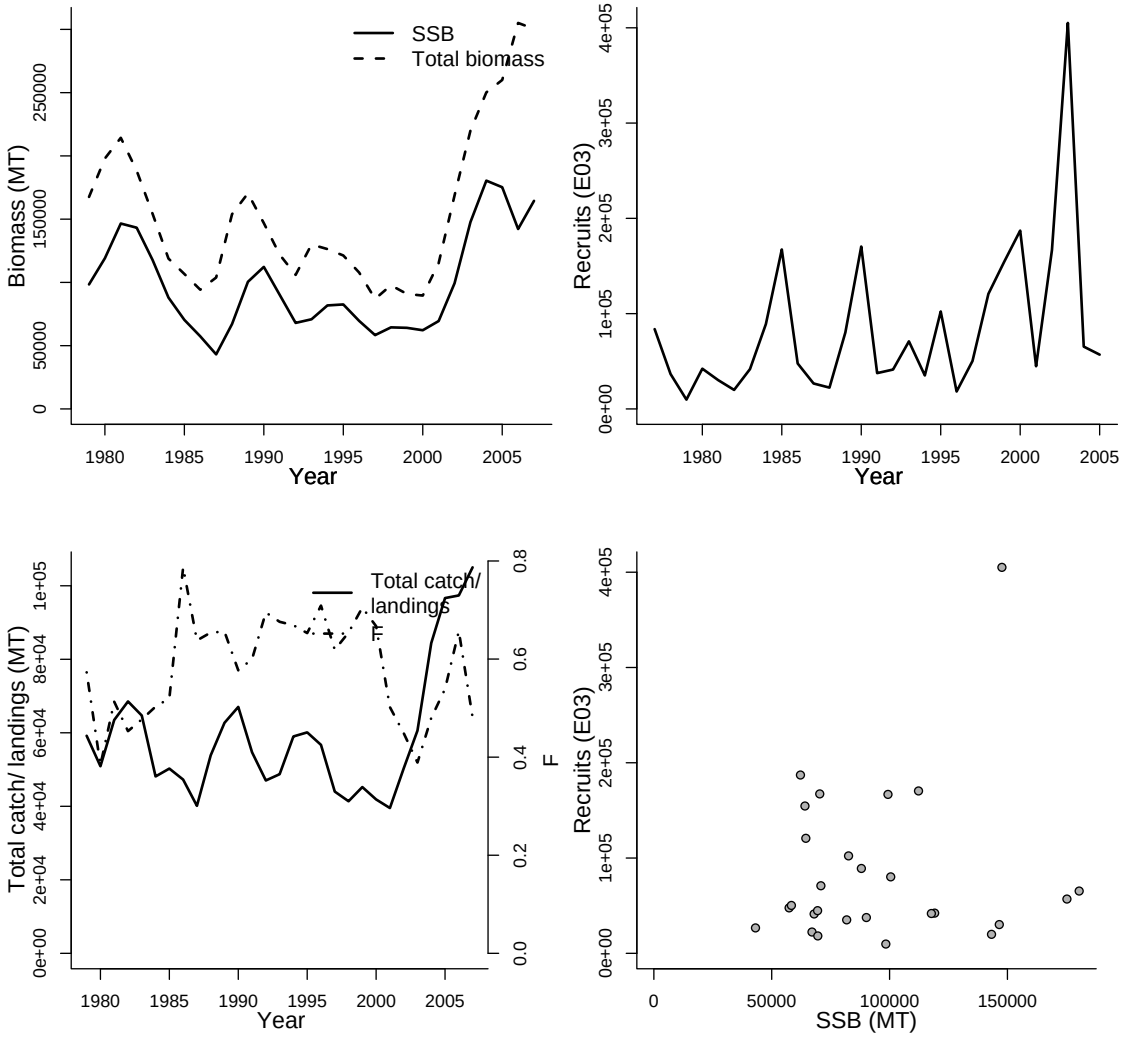
Detail	Value
Management body	ICES
Assessment group	North-Western Working Group
Assessment authors	Anon
Assessment method	A general approach to fitting VPA models. ADAPT is based on minimising the sum-of-squares over any number of indices of abundance to find best-fit parameters.
Publication year	2007
Timeseries span	1977-2007
Document	ICES-NWWG-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

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

Parameter	Value	Units
A50-yr	4	yr
SSB-AGE-yr	1+	yr
REC-AGE-yr	2	yr
TB-AGE-yr	3+	yr
M-1/T	0.2	1/T
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	**Value**	**Units**
F0.1-1/yr (F)	0.16	1/yr
Fmax-1/yr (F)	0.44	1/yr
Fpa-1/yr (F)	0.47	1/yr

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1979	1977	1979	1979	1979
Maximum year	2007	2005	2007	2007	2007
Time series minimum	43116	9758	0.384	86966	39530
Time series maximum	180435	405094	0.787	305098	105012
Units	MT	E03	1/T	MT	MT



Assessment of Faroe Plateau pollock (*Pollachius virens*)

Assessment ID:NWWG-POLLFAPL-1958-2006-MINTO

Area ID: multinational-ICES-Vb1

General assessment details.

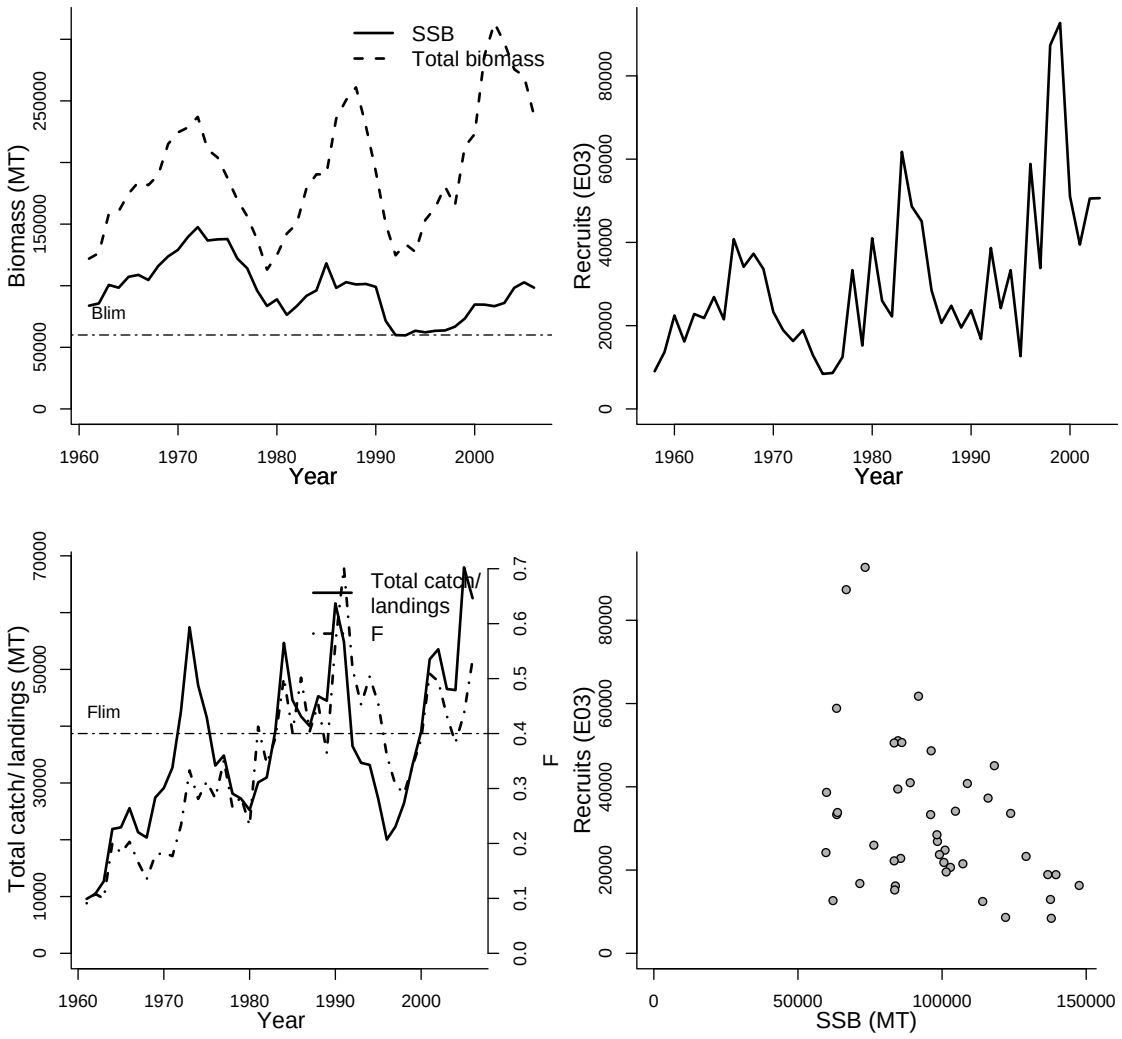
Detail	Value
Management body	ICES
Assessment group	North-Western Working Group
Assessment authors	Anon
Assessment method	Extended Survivor Analysis
Publication year	2007
Timeseries span	1958-2006
Document	ICES-NWWG-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

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

Parameter	Value	Units
A50-yr	4	yr
SSB-AGE-yr	3+	yr
REC-AGE-yr	3	yr
TB-AGE-yr		
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	Value	Units
Blim-MT (SSB)	60000	MT
Bpa-MT (SSB)	85000	MT
F0.1-1/yr (F)	0.14	1/yr
Fmax-1/yr (F)	0.45	1/yr
Flim-1/yr (F)	0.4	1/yr
Fpa-1/yr (F)	0.28	1/yr
SSB_{2006}/B_{lim}	1.640	
F_{2006}/F_{lim}	1.336	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1961	1958	1961	1961	1961
Maximum year	2006	2003	2006	2006	2006
Time series minimum	59693	8415	0.0911	113051	9592
Time series maximum	147569	92717	0.7025	313275	67972
Units	MT	E03	1/T	MT	MT



Assessment of Kattegat and Skagerrak atlantic cod (*Gadus morhua*)

Assessment ID:WGBFAS-CODKAT-1970-2006-MINTO

Area ID: multinational-ICES-IIIa

General assessment details.

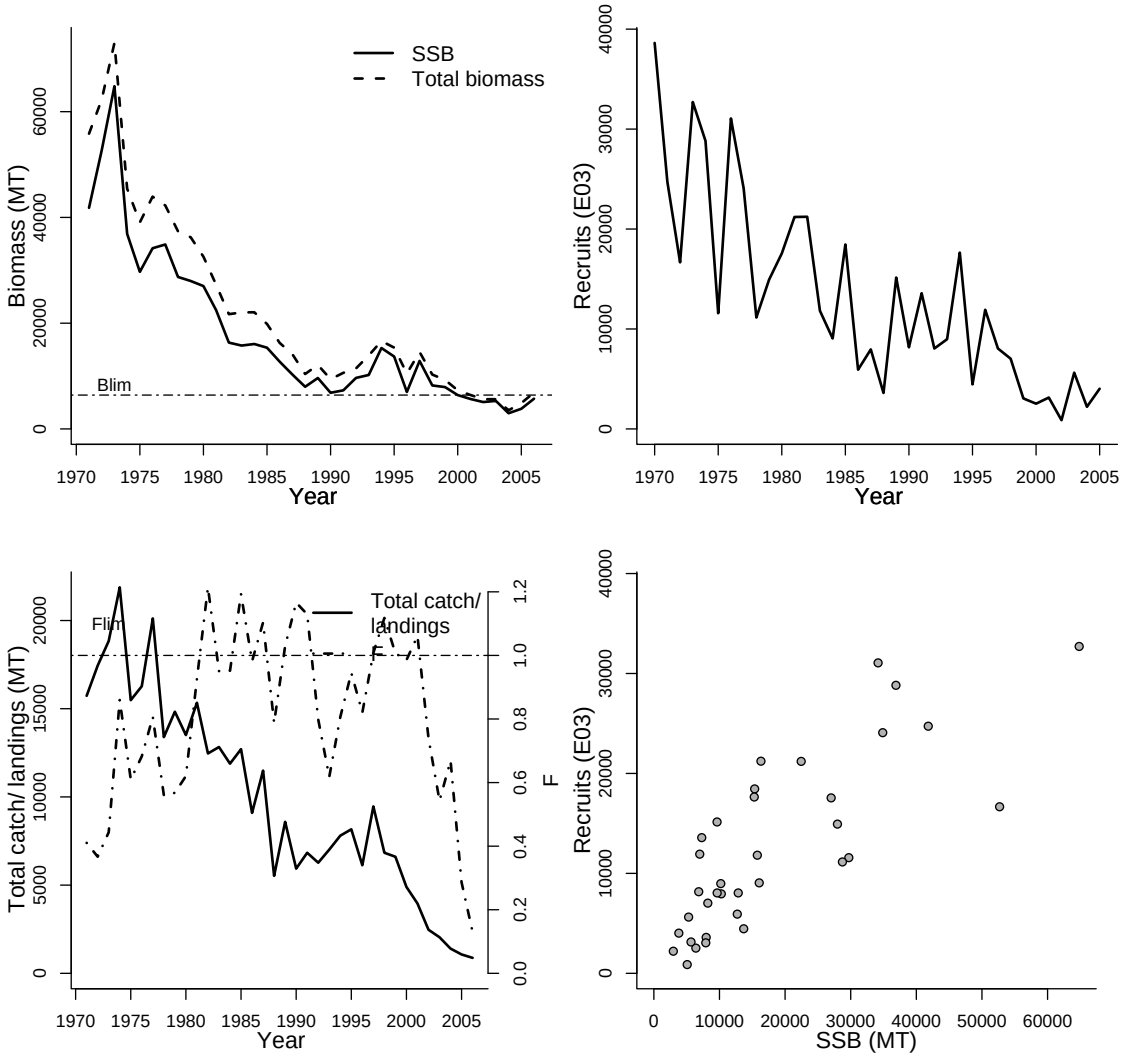
Detail	Value
Management body	ICES
Assessment group	Baltic Fisheries Assessment Working Group
Assessment authors	Anon
Assessment method	The ADAPT approach with year effects in a catch multiplier
Publication year	2007
Timeseries span	1970-2006
Document	ICES-WGBFAS-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

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

Parameter	Value	Units
A50-yr	3	yr
SSB-AGE-yr	1+	yr
REC-AGE-yr	1	yr
TB-AGE-yr	1+	yr
M-1/yr	0.2	1/yr
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	**Value**	**Units**
Flim-1/yr (F)	1	1/yr
Fpa-1/yr (F)	0.6	1/yr
Bpa-MT (SSB)	10500	MT
Blim-MT (SSB)	6400	MT
SSB_{2006}/B_{lim}	0.892	
F_{2006}/F_{lim}	0.130	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1971	1970	1971	1971	1971
Maximum year	2006	2005	2006	2006	2006
Time series minimum	2966	876	0.1299	3521	876
Time series maximum	64817	38619	1.2141	72999	21880
Units	MT	E03	1/yr	MT	MT



Assessment of Irish Sea atlantic cod (*Gadus morhua*)

Assessment ID:WGNSDS-CODIS-1968-2006-MINTO

Area ID: multinational-ICES-VIIa

General assessment details.

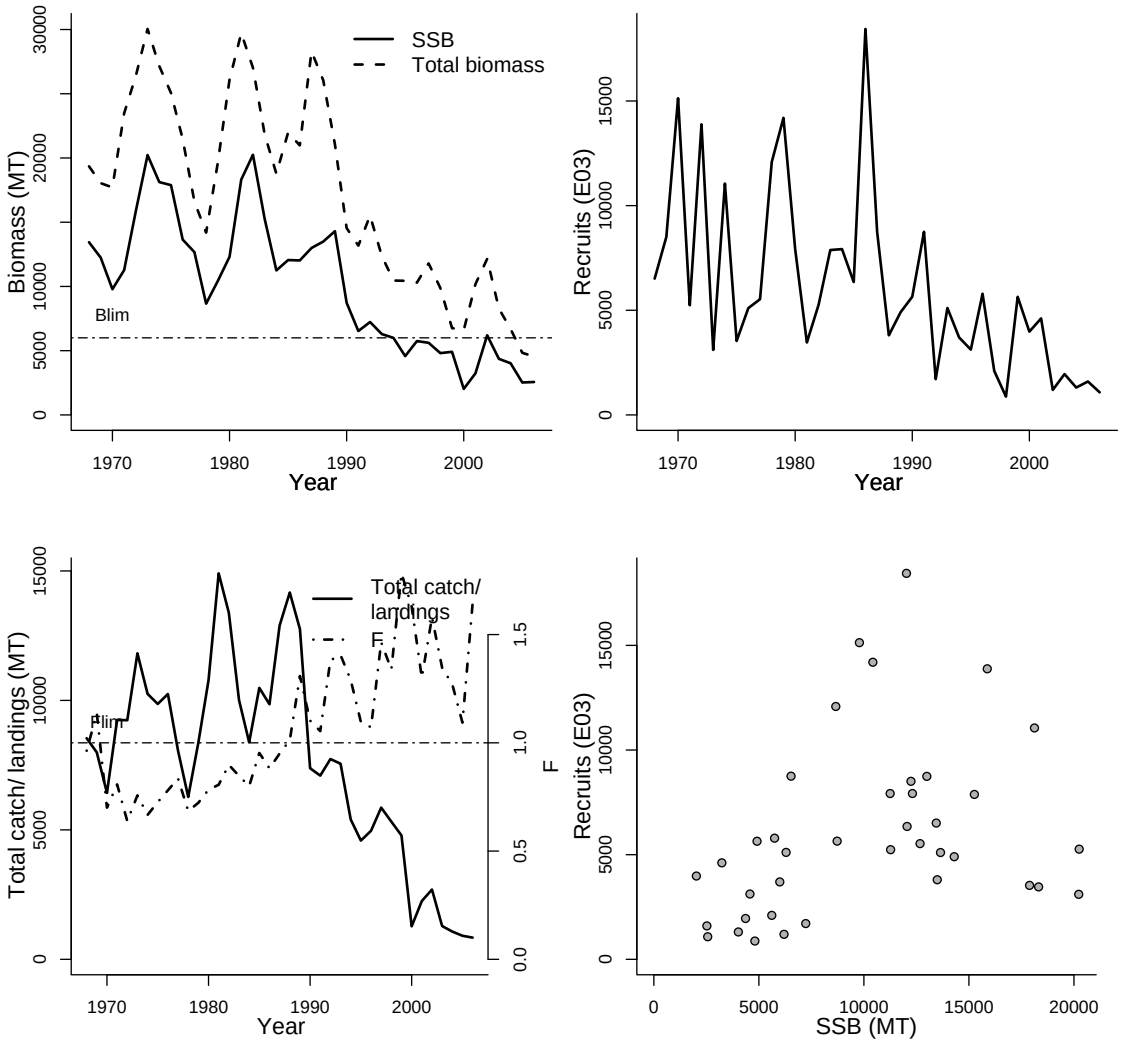
Detail	Value
Management body	ICES
Assessment group	Working Group on the Assessment of Northern Shelf Demersal Stocks
Assessment authors	Anon
Assessment method	The ADAPT approach with year effects in a catch multiplier
Publication year	2007
Timeseries span	1968-2006
Document	ICES-WGNSDS-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

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

Parameter	Value	Units
A50-yr	2	yr
SSB-AGE-yr	2+	yr
REC-AGE-yr	0	yr
TB-AGE-yr	0+	yr
M-1/T	0.2	1/T
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	**Value**	**Units**
Blim-MT (SSB)	6000	MT
Bpa-MT (SSB)	10000	MT
Fpa-1/yr (F)	0.72	1/yr
Fmax-1/yr (F)	0.32	1/yr
Flim-1/yr (F)	1	1/yr
F0.1-1/yr (F)	0.18	1/yr
SSB_{2006}/B_{lim}	0.427	
F_{2006}/F_{lim}	1.644	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1968	1968	1968	1968	1968
Maximum year	2006	2006	2006	2006	2006
Time series minimum	2025	875	0.6386	4537	838
Time series maximum	20249	18442	1.7828	30044	14907
Units	MT	E03	1/T	MT	MT



Assessment of West of Scotland atlantic cod (*Gadus morhua*)

Assessment ID:WGNSDS-CODVIa-1977-2006-MINTO

Area ID: multinational-ICES-VIa

General assessment details.

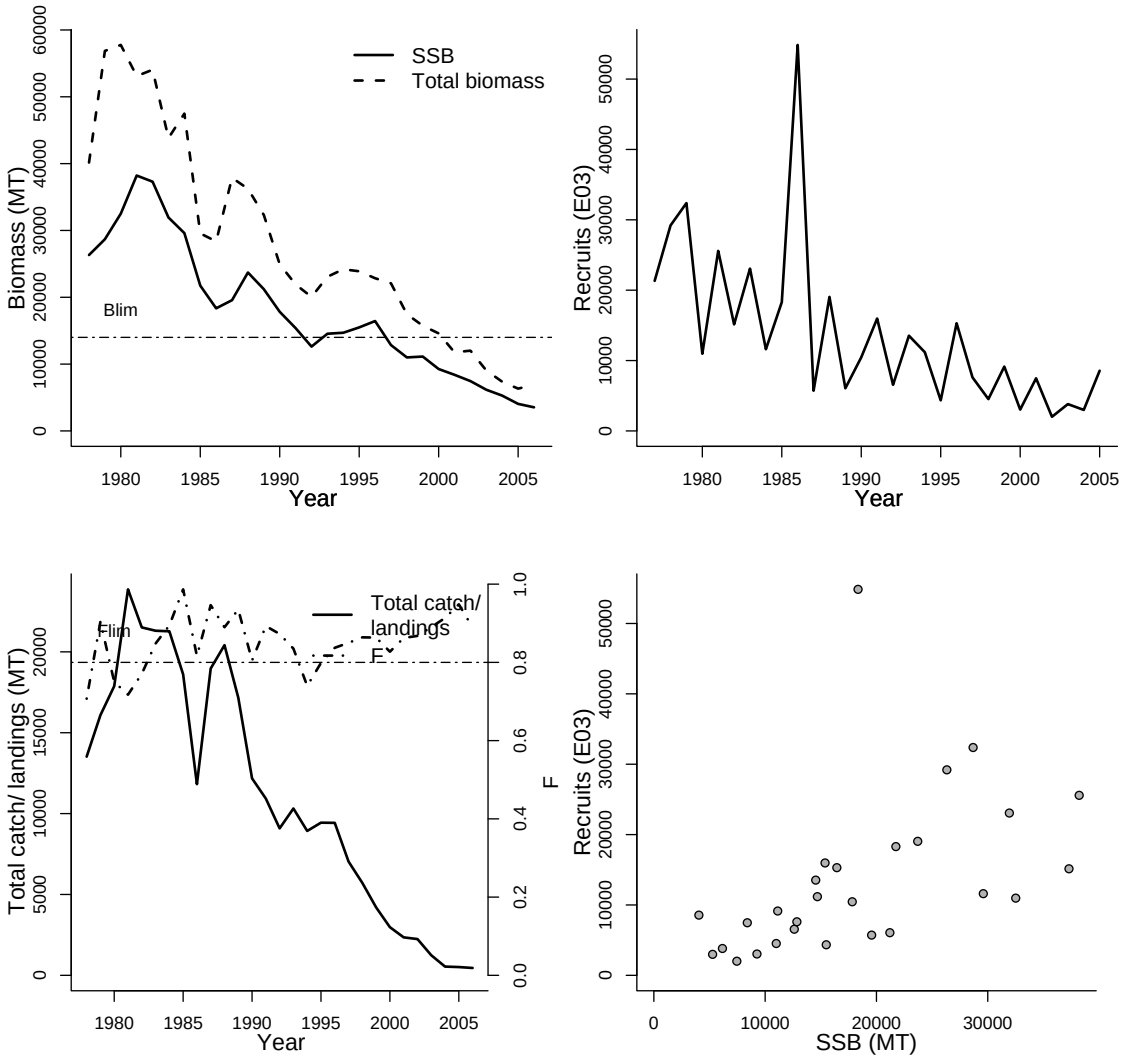
Detail	Value
Management body	ICES
Assessment group	Working Group on the Assessment of Northern Shelf Demersal Stocks
Assessment authors	Anon
Assessment method	State-space catch at age time series analysis
Publication year	2007
Timeseries span	1977-2006
Document	ICES-WGNSDS-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

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

Parameter	Value	Units
A50-yr	2	yr
SSB-AGE-yr	2+	yr
REC-AGE-yr	1	yr
TB-AGE-yr	1+	yr
M-1/T	0.2	1/T
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	**Value**	**Units**
Blim-MT (SSB)	14000	MT
Bpa-MT (SSB)	22000	MT
Fpa-1/yr (F)	0.6	1/yr
Fmax-1/yr (F)	0.19	1/yr
Flim-1/T (F)	0.8	1/T
SSB_{2006}/B_{lim}	0.252	
F_{2006}/F_{lim}	1.111	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1978	1977	1978	1978	1978
Maximum year	2006	2005	2006	2006	2006
Time series minimum	3530.6	2007.4	0.7072	6332.3	454.5
Time series maximum	38214.9	54850.9	0.9867	57758.8	23864.6
Units	MT	E03	1/T	MT	MT



Assessment of Irish Sea haddock (*Melanogrammus aeglefinus*)

Assessment ID:WGNSDS-HADIS-1991-2006-MINTO

Area ID: multinational-ICES-VIIa

General assessment details.

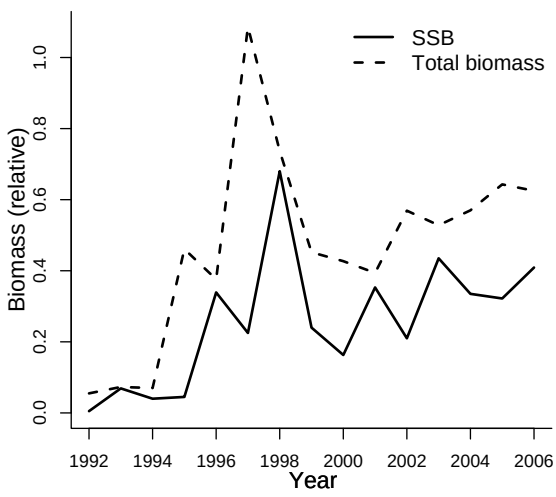
Detail	Value
Management body	ICES
Assessment group	Working Group on the Assessment of Northern Shelf Demersal Stocks
Assessment authors	Anon
Assessment method	Survey based stock assessment method
Publication year	2007
Timeseries span	1991-2006
Document	ICES-WGNSDS-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

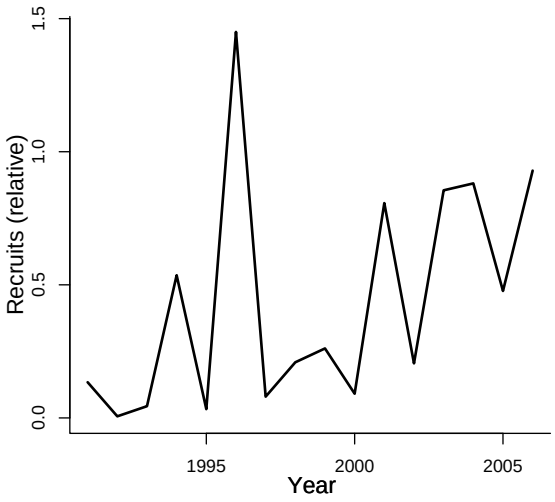
Biometrics provided. Note that the assumed timeseries to which the reference point pertains is indicated in parentheses.

Parameter	Value	Units
A50-yr	2	yr
SSB-AGE-yr	2+	yr
REC-AGE-yr	0	yr
M-1/yr	0.2	1/yr
TB-AGE-yr		
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	**Value**	**Units**
Fpa-1/yr (F)	0.5	1/yr
Fmax-1/yr (F)	0.35	1/yr

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1992	1991		1992	
Maximum year	2006	2006		2006	
Time series minimum	0.005	0.006		0.055	
Time series maximum	0.68	1.45		1.086	
Units	relative	relative		relative	





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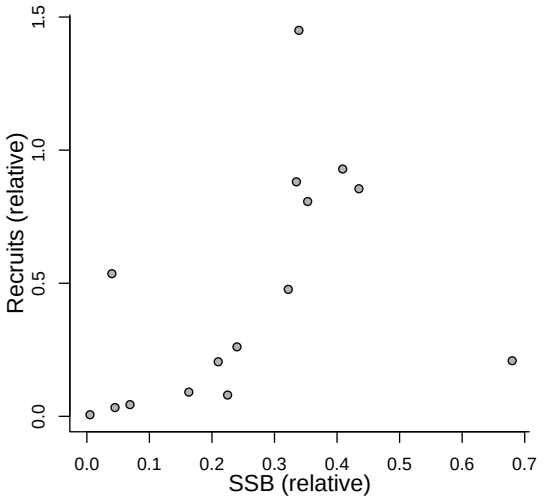


Assessment of West of Scotland haddock (*Melanogrammus aeglefinus*)

Assessment ID:WGNSDS-HADVIa-1977-2006-MINTO

Area ID: multinational-ICES-VIa

General assessment details.

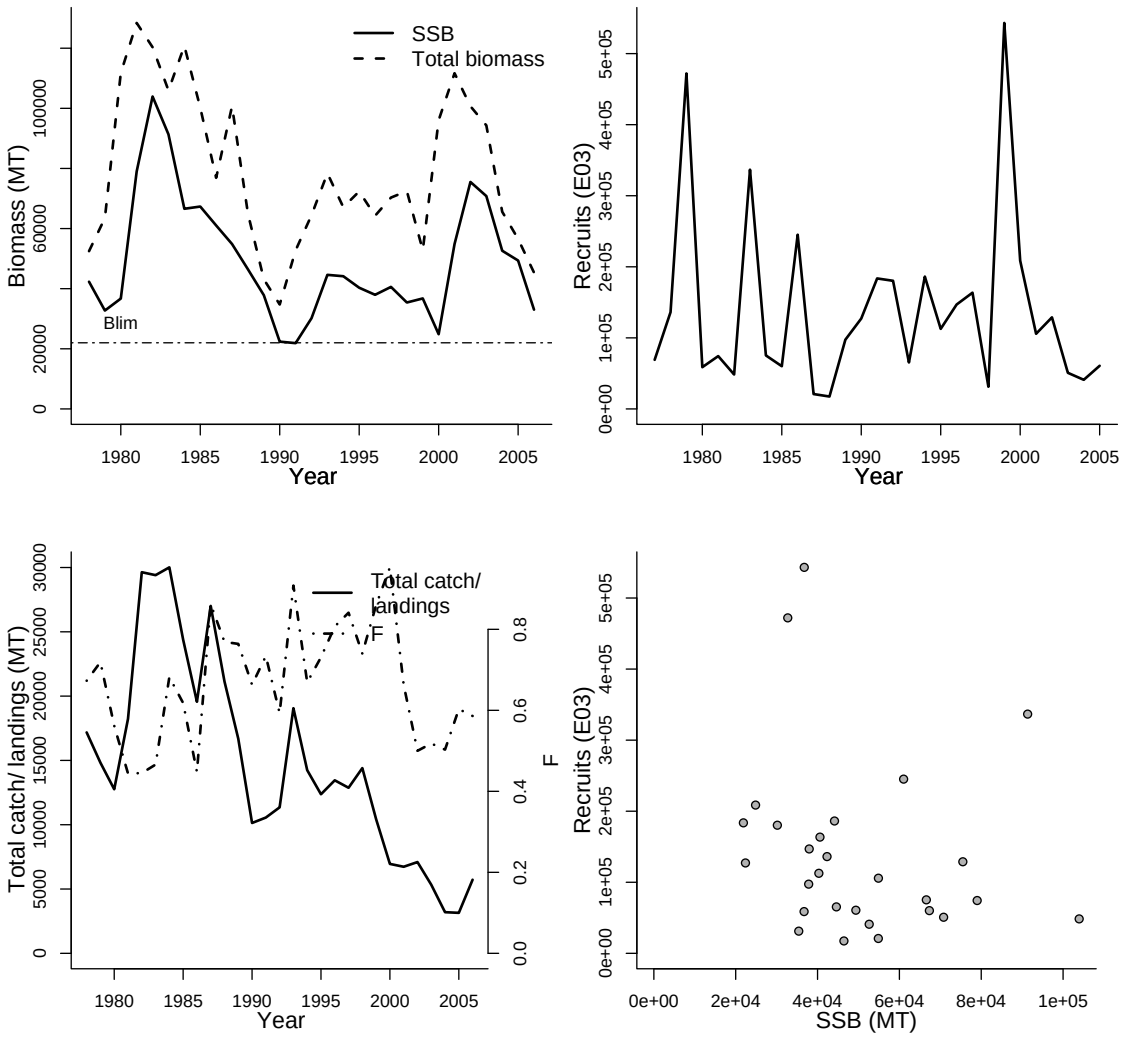
Detail	Value
Management body	ICES
Assessment group	Working Group on the Assessment of Northern Shelf Demersal Stocks
Assessment authors	Anon
Assessment method	State-space catch at age time series analysis
Publication year	2007
Timeseries span	1977-2006
Document	ICES-WGNSDS-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

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

Parameter	Value	Units
A50-yr	2	yr
SSB-AGE-yr	2+	yr
REC-AGE-yr	1	yr
TB-AGE-yr	1+	yr
M-1/T	0.2	1/T
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	**Value**	**Units**
Blim-MT (SSB)	22000	MT
Bpa-MT (SSB)	30000	MT
Fpa-1/yr (F)	0.5	1/yr
F0.1-1/yr (F)	0.19	1/yr
Fmax-1/yr (F)	0.21	1/yr
SSB_{2006}/B_{lim}	1.501	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1978	1977	1978	1978	1978
Maximum year	2006	2005	2006	2006	2006
Time series minimum	21880	17434	0.444	34739	3148
Time series maximum	103933	543159	0.953	128403	30012
Units	MT	E03	1/T	MT	MT



Assessment of Irish Sea european plaice (*Pleuronectes platessa*)

Assessment ID:WGNSDS-PLAICIS-1962-2006-MINTO

Area ID: multinational-ICES-VIIa

General assessment details.

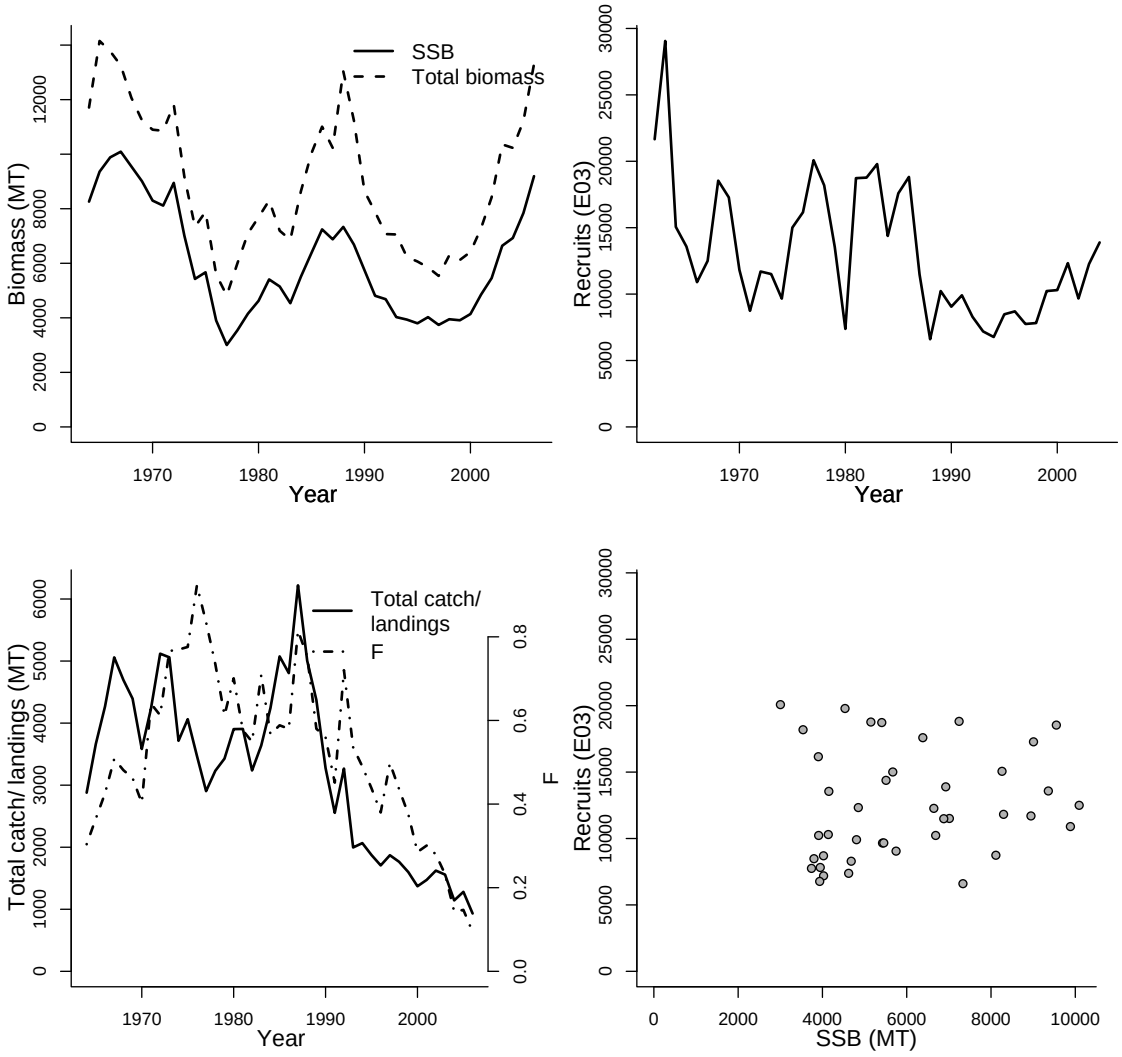
Detail	Value
Management body	ICES
Assessment group	Working Group on the Assessment of Northern Shelf Demersal Stocks
Assessment authors	Anon
Assessment method	Integrated Catch-at-age Analysis
Publication year	2007
Timeseries span	1962-2006
Document	ICES-WGNSDS-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

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

Parameter	Value	Units
A50-yr	3	yr
SSB-AGE-yr	2+	yr
REC-AGE-yr	2	yr
TB-AGE-yr	2+	yr
M-1/yr	0.12	1/yr
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	**Value**	**Units**
Fmax-1/yr (F)	0.36	1/yr
F0.1-1/yr (F)	0.13	1/yr
Fpa-1/yr (F)	0.45	1/yr
Bpa-MT (SSB)	3100	MT

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1964	1962	1964	1964	1964
Maximum year	2006	2004	2006	2006	2006
Time series minimum	3003	6600	0.0941	4819	932
Time series maximum	10092	29060	0.9231	14152	6220
Units	MT	E03	1/yr	MT	MT



Assessment of Irish Sea common european sole (*Solea vulgaris*)

Assessment ID:WGNSDS-SOLEIS-1968-2006-MINTO

Area ID: multinational-ICES-VIIa

General assessment details.

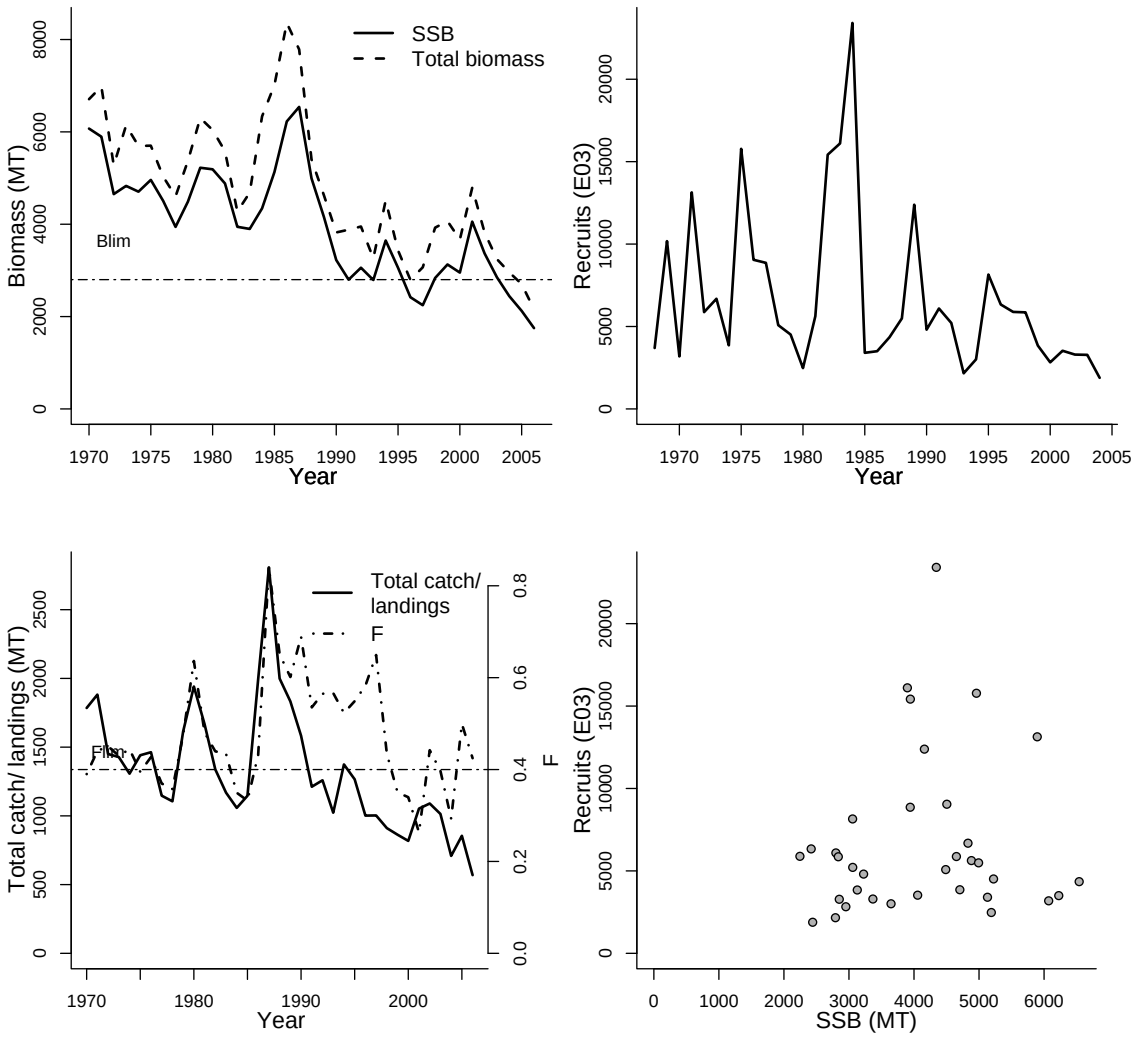
Detail	Value
Management body	ICES
Assessment group	Working Group on the Assessment of Northern Shelf Demersal Stocks
Assessment authors	Anon
Assessment method	Extended Survivor Analysis
Publication year	2007
Timeseries span	1968-2006
Document	ICES-WGNSDS-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

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

Parameter	Value	Units
A50-yr	2-3	yr
SSB-AGE-yr	2+	yr
REC-AGE-yr	2	yr
TB-AGE-yr	2+	yr
M-1/yr	0.1	1/yr
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	**Value**	**Units**
Fmax-1/yr (F)	0.51	1/yr
F0.1-1/yr (F)	0.18	1/yr
Fpa-1/yr (F)	0.3	1/yr
Bpa-MT (SSB)	3800	MT
Blim-MT (SSB)	2800	MT
Flim-1/yr (F)	0.4	1/yr
SSB_{2006}/B_{lim}	0.625	
F_{2006}/F_{lim}	1.062	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1970	1968	1970	1970	1970
Maximum year	2006	2004	2006	2006	2006
Time series minimum	1750	1886	0.263	2155	569
Time series maximum	6540	23415	0.8401	8359	2808
Units	MT	E03	1/yr	MT	MT



Assessment of West of Scotland whiting (*Merlangius merlangus*)

Assessment ID:WGNSDS-WHITVIa-1984-2007-MINTO

Area ID: multinational-ICES-VIa

General assessment details.

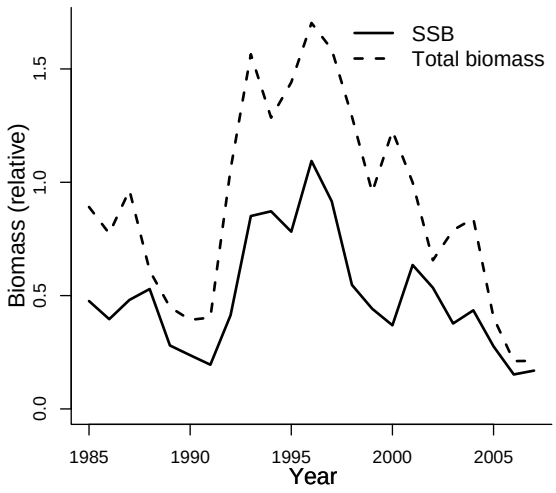
Detail	Value
Management body	ICES
Assessment group	Working Group on the Assessment of Northern Shelf Demersal Stocks
Assessment authors	Anon
Assessment method	Survey based stock assessment method
Publication year	2007
Timeseries span	1984-2007
Document	ICES-WGNSDS-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

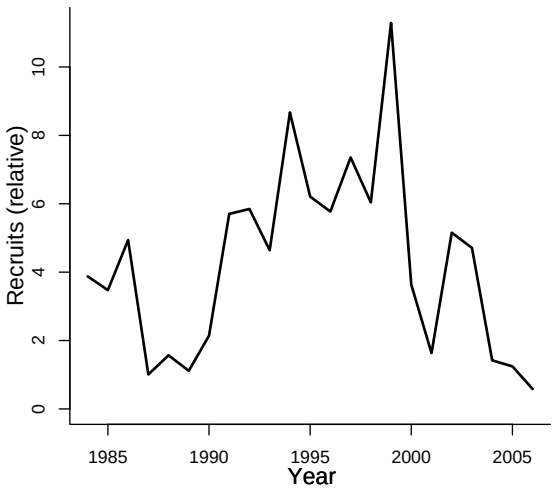
Biometrics provided. Note that the assumed timeseries to which the reference point pertains is indicated in parentheses.

Parameter	Value	Units
A50-yr	2	yr
SSB-AGE-yr	2+	yr
REC-AGE-yr	1	yr
M-1/T	0.2	1/T
TB-AGE-yr		
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	**Value**	**Units**
Blim-MT (SSB)	16000	MT
Bpa-MT (SSB)	22000	MT
Fpa-1/yr (F)	0.6	1/yr
Fmax-1/yr (F)	0.23	1/yr
Flim-1/T (F)	1	1/T
SSB_{2007}/B_{lim}	0.000	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1985	1984		1985	
Maximum year	2007	2006		2007	
Time series minimum	0.152	0.583		0.211	
Time series maximum	1.094	11.288		1.703	
Units	relative	relative		relative	





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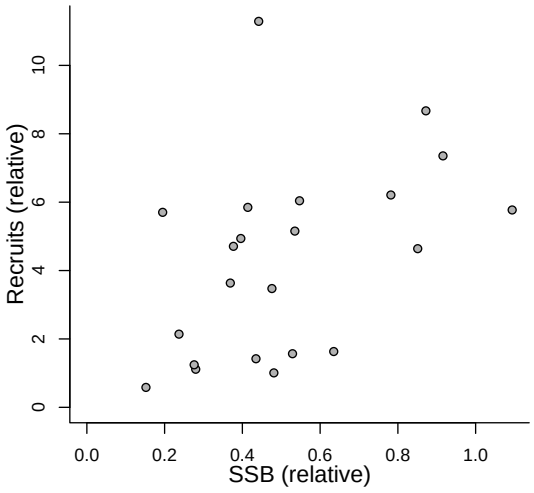


Assessment of North Sea atlantic cod (*Gadus morhua*)

Assessment ID:WGNSSK-CODNS-1962-2006-MINTO

Area ID: multinational-ICES-IV

General assessment details.

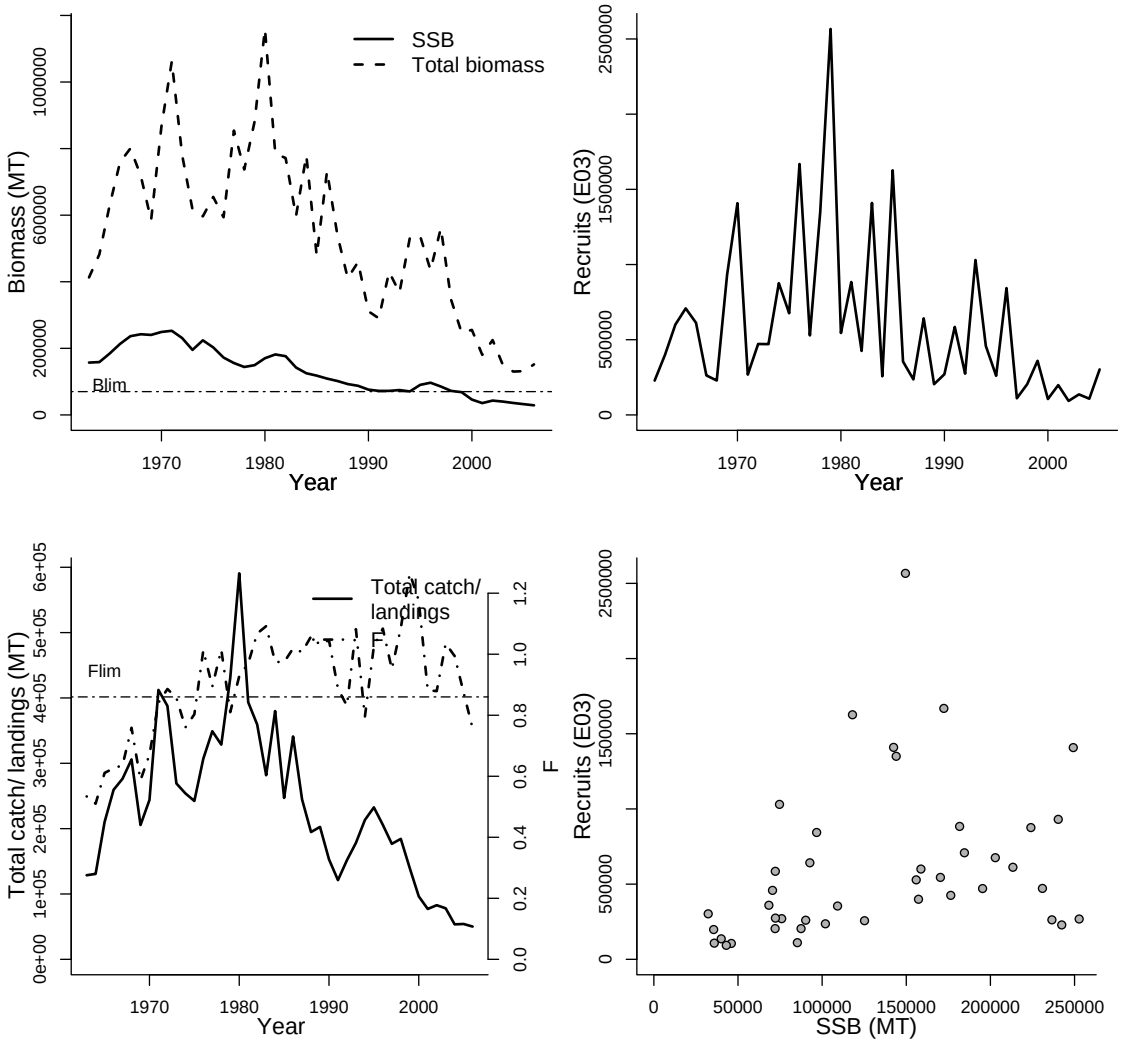
Detail	Value
Management body	ICES
Assessment group	Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak
Assessment authors	Anon
Assessment method	The ADAPT approach with year effects in a catch multiplier
Publication year	2007
Timeseries span	1962-2006
Document	ICES-WGNSSK-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

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

Parameter	Value	Units
TB-AGE-yr	1+	yr
A50-yr	3	yr
M-1/T	0.2 for 4+	1/T
REC-AGE		
SSB-AGE-yr		
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	**Value**	**Units**
Flim-1/T (F)	0.86	1/T
Fpa-1/T (F)	0.65	1/T
Blim-MT (SSB)	70000	MT
SSB_{2006}/B_{lim}	0.413	
F_{2006}/F_{lim}	0.880	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1963	1962	1963	1963	1963
Maximum year	2006	2005	2006	2006	2006
Time series minimum	28921	93222	0.51	130191	50143
Time series maximum	252747	2566638	1.265	1159434	590678
Units	MT	E03	1/T	MT	MT



Assessment of IIIa and North Sea haddock (*Melanogrammus aeglefinus*)

Assessment ID:WGNSSK-HADNS-IIIa-1963-2006-MINTO

Area ID: multinational-ICES-IIIa-IV

General assessment details.

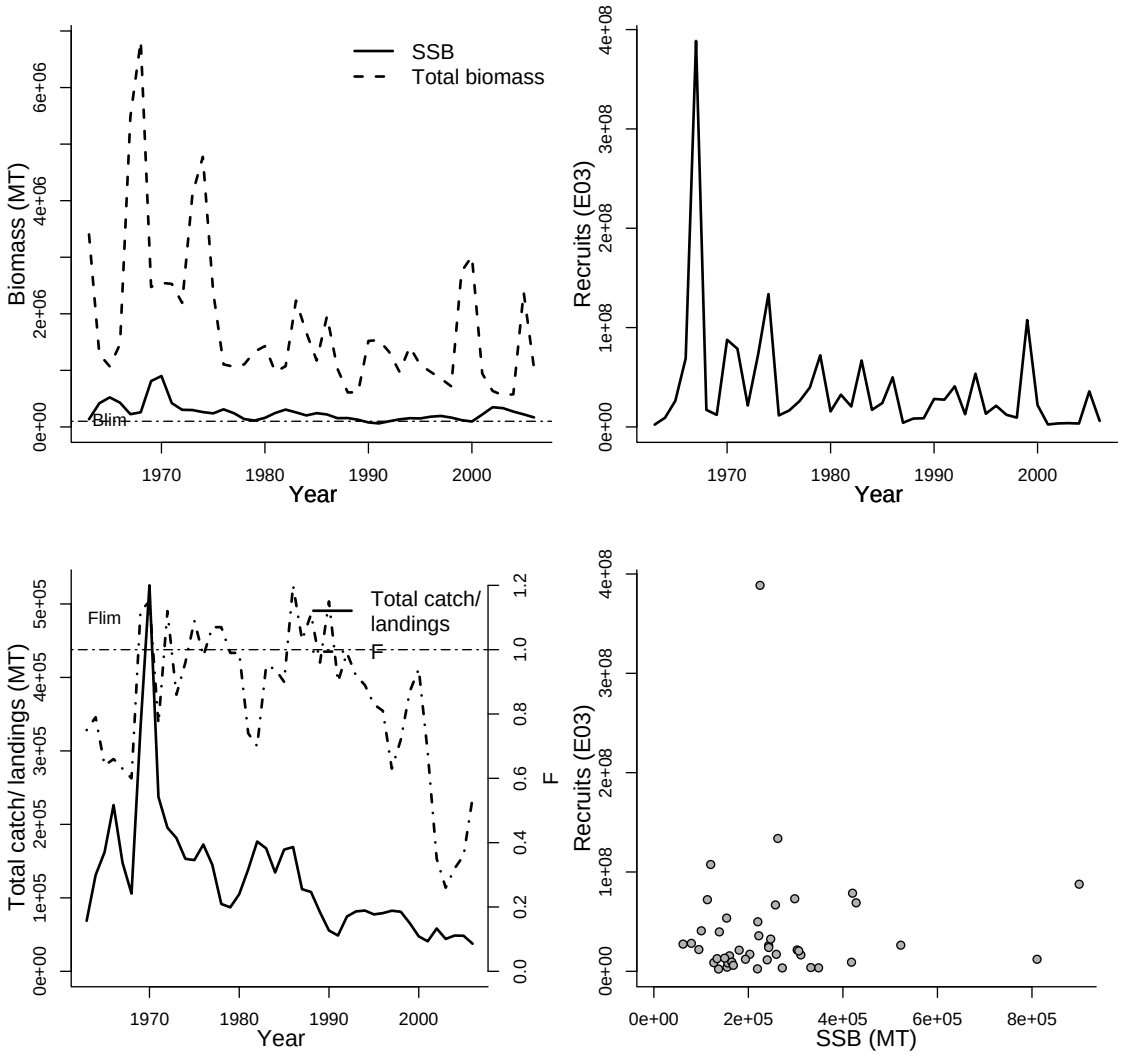
Detail	Value
Management body	ICES
Assessment group	Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak
Assessment authors	Anon
Assessment method	Extended Survivor Analysis
Publication year	2007
Timeseries span	1963-2006
Document	ICES-WGNSSK-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

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

Parameter	Value	Units
A50-yr	2	yr
SSB-AGE-yr	1+	yr
REC-AGE-yr	0	yr
TB-AGE-yr	0+	yr
M-1/T	Age specific	1/T
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	**Value**	**Units**
Blim-MT (SSB)	100000	MT
Bpa-MT (SSB)	140000	MT
Fpa-1/yr (F)	0.7	1/yr
Flim-1/yr (F)	1	1/yr
SSB_{2006}/B_{lim}	1.682	
F_{2006}/F_{lim}	0.540	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1963	1963	1963	1963	1963
Maximum year	2006	2006	2006	2006	2006
Time series minimum	61772	2316936	0.26	558318	37565
Time series maximum	899883	388564670	1.2	6823944	525325
Units	MT	E03	1/T	MT	MT



Assessment of North Sea norway pout (*Trisopterus esmarkii*)

Assessment ID:WGNSSK-NPOUTNS-1983-2007-MINTO

Area ID: multinational-ICES-IV

General assessment details.

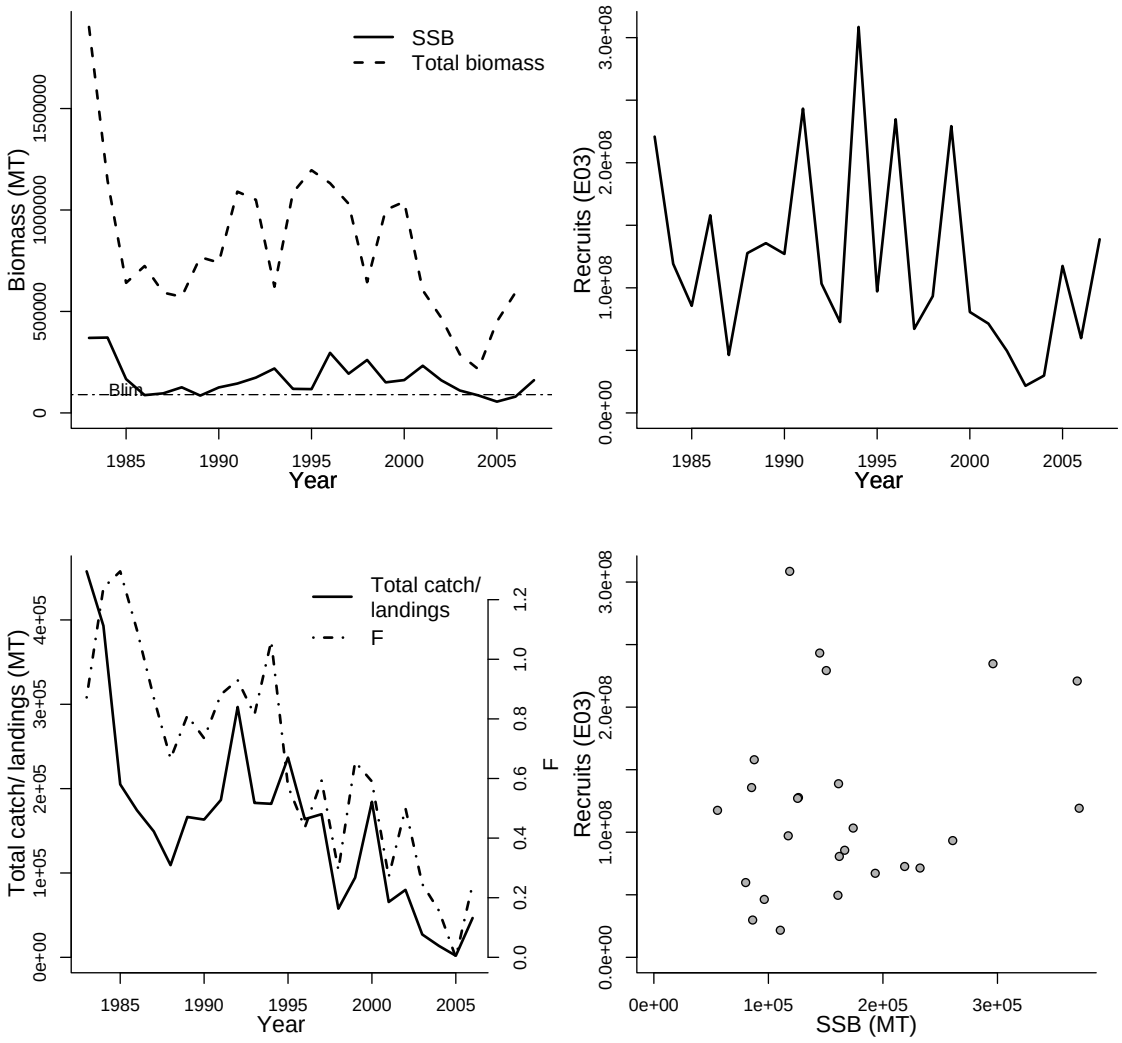
Detail	Value
Management body	ICES
Assessment group	Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak
Assessment authors	Anon
Assessment method	Seasonal XSA
Publication year	2007
Timeseries span	1983-2007
Document	ICES-WGNSSK-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

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

Parameter	Value	Units
A50-yr	1	yr
SSB-AGE-yr	1+	yr
REC-AGE-yr	0	yr
TB-AGE-yr	0+	yr
M-1/T	0.4	1/T
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	**Value**	**Units**
Blim-MT (SSB)	90000	MT
Bpa-MT (SSB)	150000	MT
SSB_{2007}/B_{lim}	1.792	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1983	1983	1983	1983	1983
Maximum year	2007	2007	2006	2006	2006
Time series minimum	55568	21662000	0	215118	1900
Time series maximum	371336	308548000	1.295	1902065	457600
Units	MT	E03	1/T	MT	MT



Assessment of Eastern English Channel european plaice (*Pleuronectes platessa*)

Assessment ID:WGNSSK-PLAIC7d-1979-2006-MINTO

Area ID: multinational-ICES-VIId

General assessment details.

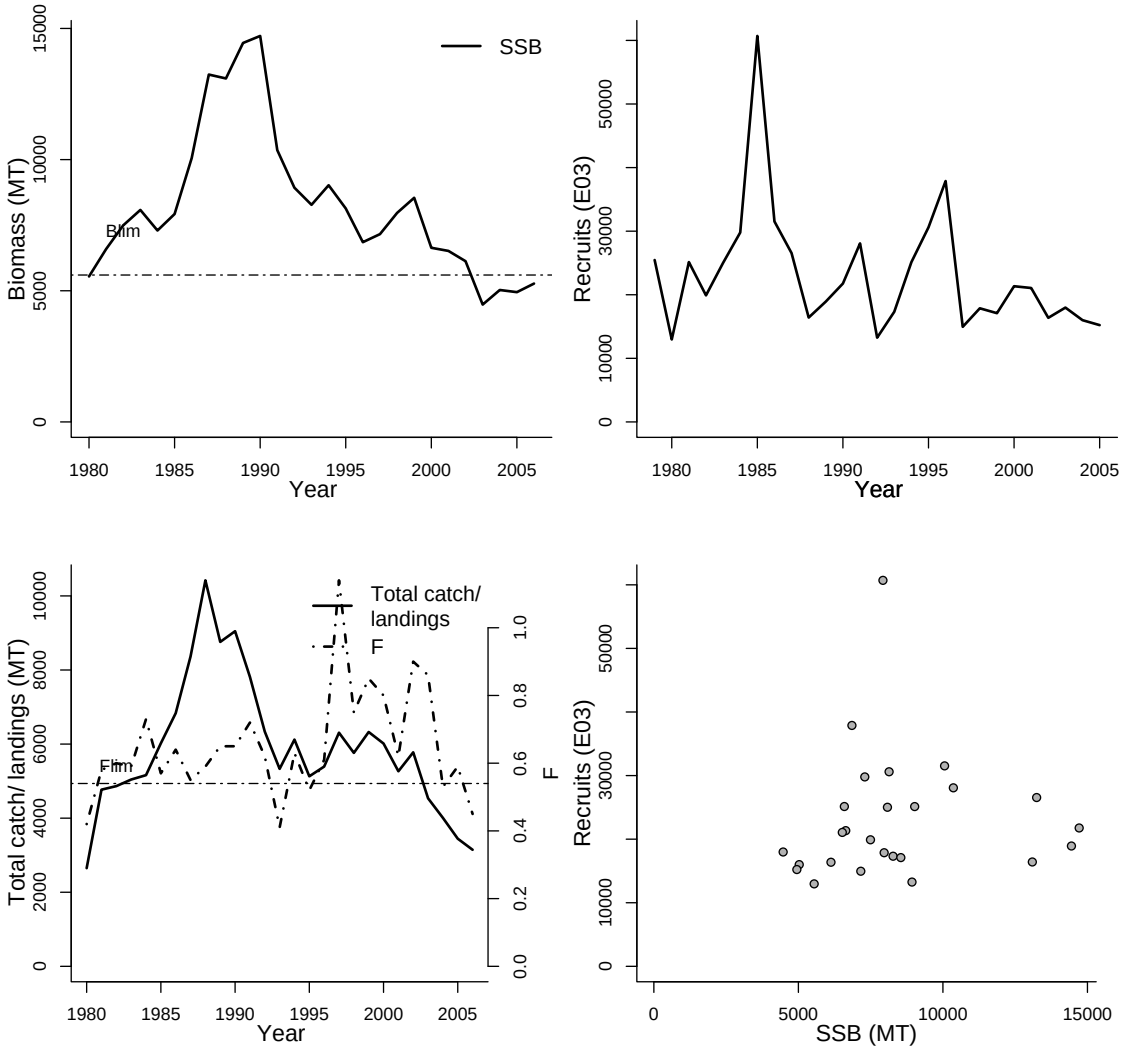
Detail	Value
Management body	ICES
Assessment group	Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak
Assessment authors	Anon
Assessment method	Extended Survivor Analysis
Publication year	2007
Timeseries span	1979-2006
Document	ICES-WGNSSK-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

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

Parameter	Value	Units
A50-yr	3	yr
SSB-AGE-yr	2+	yr
REC-AGE-yr	1	yr
TB-AGE-yr	1+	yr
M-1/yr	0.1	1/yr
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	**Value**	**Units**
Blim-MT (SSB)	5600	MT
Bpa-MT (SSB)	8000	MT
Flim-1/yr (F)	0.54	1/yr
Fpa-1/yr (F)	0.45	1/yr
SSB_{2006}/B_{lim}	0.942	
F_{2006}/F_{lim}	0.833	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1980	1979	1980		1980
Maximum year	2006	2005	2006		2006
Time series minimum	4473	12969	0.41		2650
Time series maximum	14714	60704	1.14		10420
Units	MT	E03	1/T		MT



Assessment of Kattegat and Skagerrak european plaice (*Pleuronectes platessa*)

Assessment ID:WGNSSK-PLAICIIIa-1976-2005-MINTO

Area ID: multinational-ICES-IIIa

General assessment details.

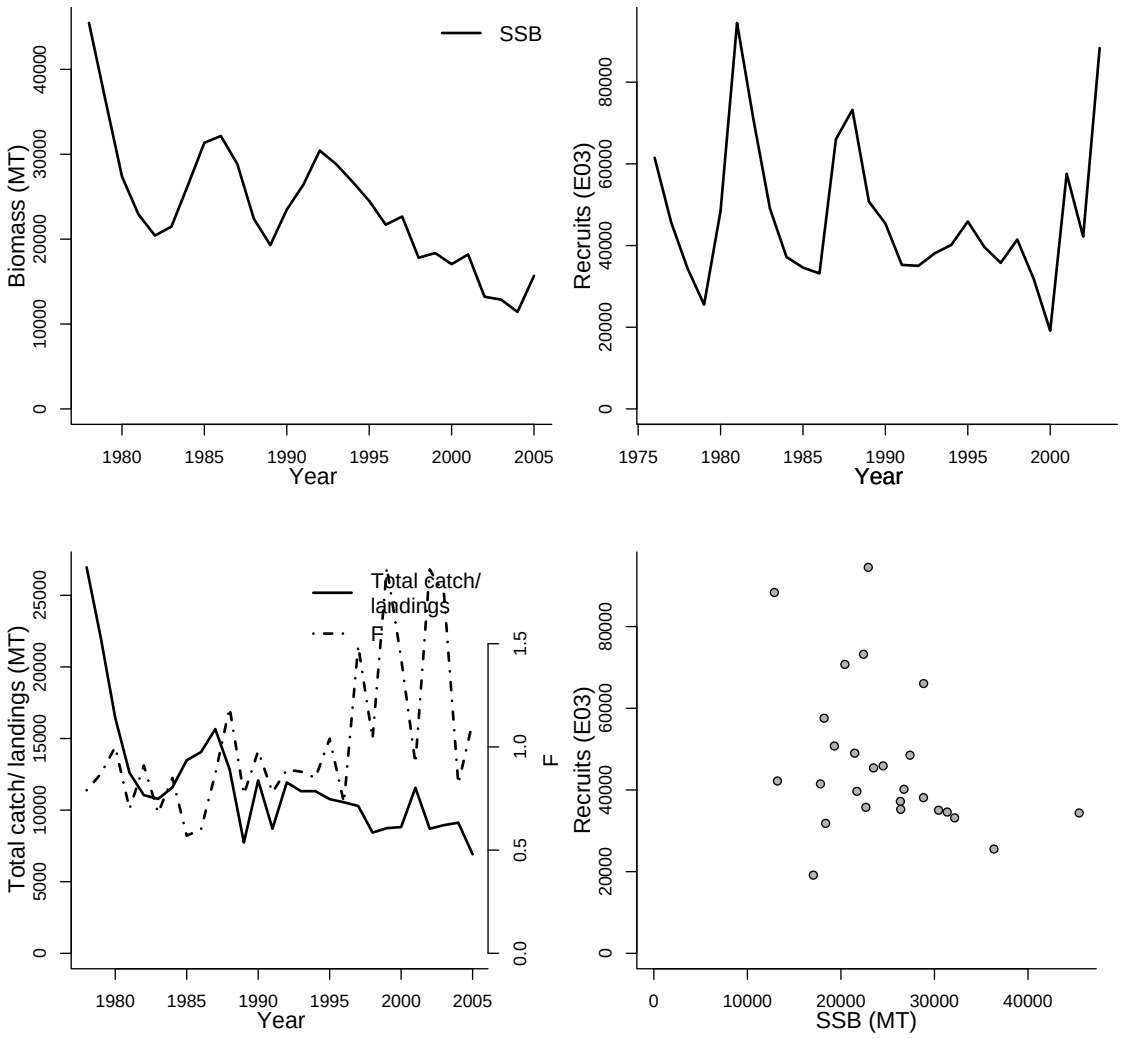
Detail	Value
Management body	ICES
Assessment group	Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak
Assessment authors	Anon
Assessment method	Extended Survivor Analysis
Publication year	2007
Timeseries span	1976-2005
Document	ICES-WGNSSK-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

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

Parameter	Value	Units
A50-yr	2	yr
SSB-AGE-yr	2+	yr
REC-AGE-yr	2	yr
M-1/T	0.1	1/T
TB-AGE-yr		
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	**Value**	**Units**
Bpa-MT (SSB)	24000	MT
Fpa-1/yr (F)	0.73	1/yr

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1978	1976	1978		1978
Maximum year	2005	2003	2005		2005
Time series minimum	11423	19141	0.57		6916
Time series maximum	45470	94503	1.87		26953
Units	MT	E03	1/T		MT



Assessment of North Sea european plaice (*Pleuronectes platessa*)

Assessment ID:WGNSSK-PLAICNS-1956-2006-MINTO

Area ID: multinational-ICES-IV

General assessment details.

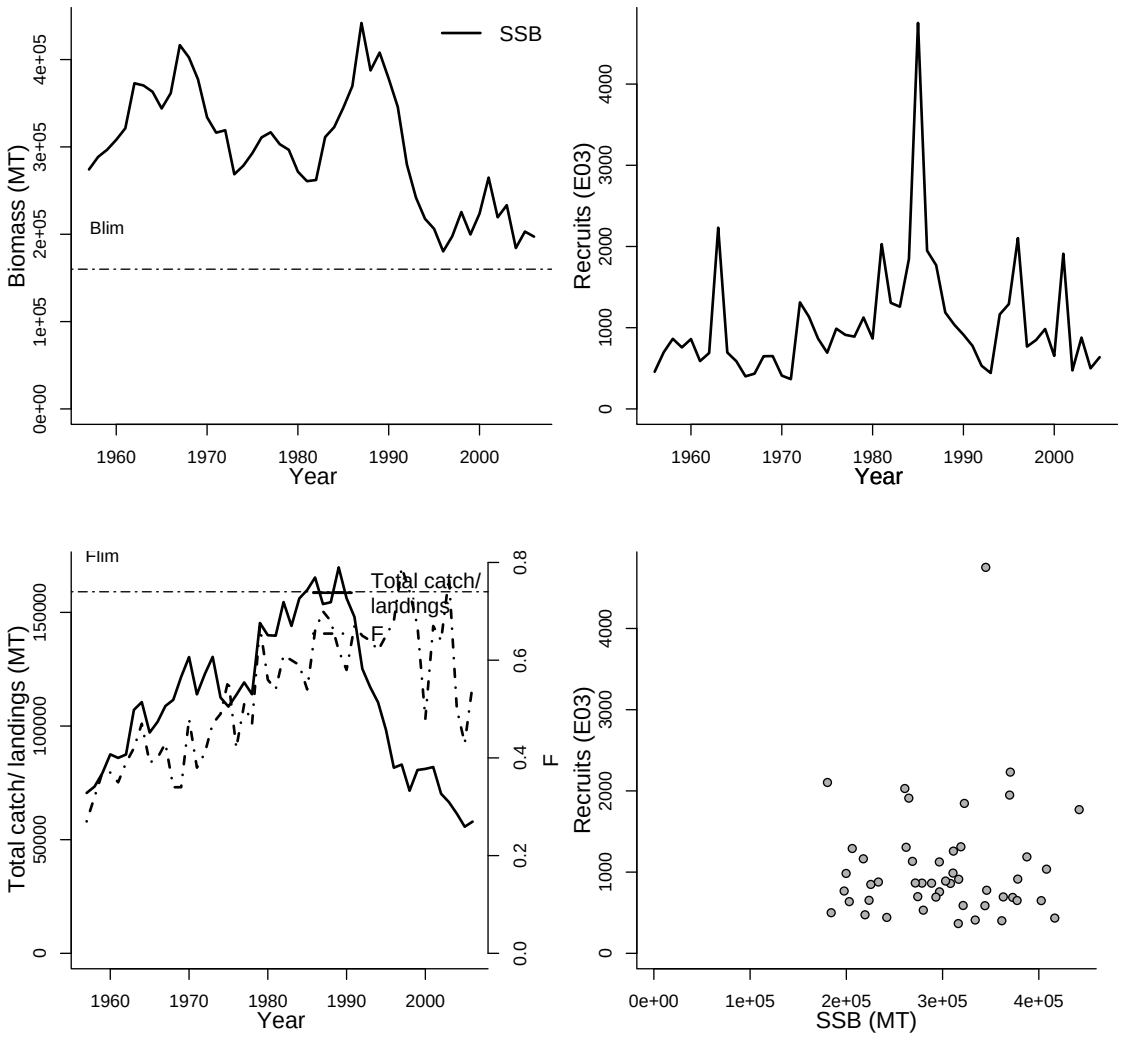
Detail	Value
Management body	ICES
Assessment group	Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak
Assessment authors	Anon
Assessment method	Extended Survivor Analysis
Publication year	2007
Timeseries span	1956-2006
Document	ICES-WGNSSK-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

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

Parameter	Value	Units
A50-yr	3	yr
SSB-AGE-yr	2+	yr
REC-AGE-yr	1	yr
M-1/T	0.1	1/T
TB-AGE-yr		
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	**Value**	**Units**
Blim-MT (SSB)	160000	MT
Bpa-MT (SSB)	230000	MT
Fpa-1/yr (F)	0.6	1/yr
Flim-1/yr (F)	0.74	1/yr
F0.1-1/yr (F)	0.17	1/yr
SSB_{2006}/B_{lim}	1.233	
F_{2006}/F_{lim}	0.743	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1957	1956	1957		1957
Maximum year	2006	2005	2006		2006
Time series minimum	180384	366.601	0.27		55700
Time series maximum	441943	4752.726	0.79		169818
Units	MT	E03	1/T		MT



Assessment of IIIa, VI and North Sea pollock (*Pollachius virens*)

Assessment ID:WGNSSK-POLLNS-VI-IIIa-1964-2006-MINTO

Area ID: multinational-ICES-IIIa-IV-VI

General assessment details.

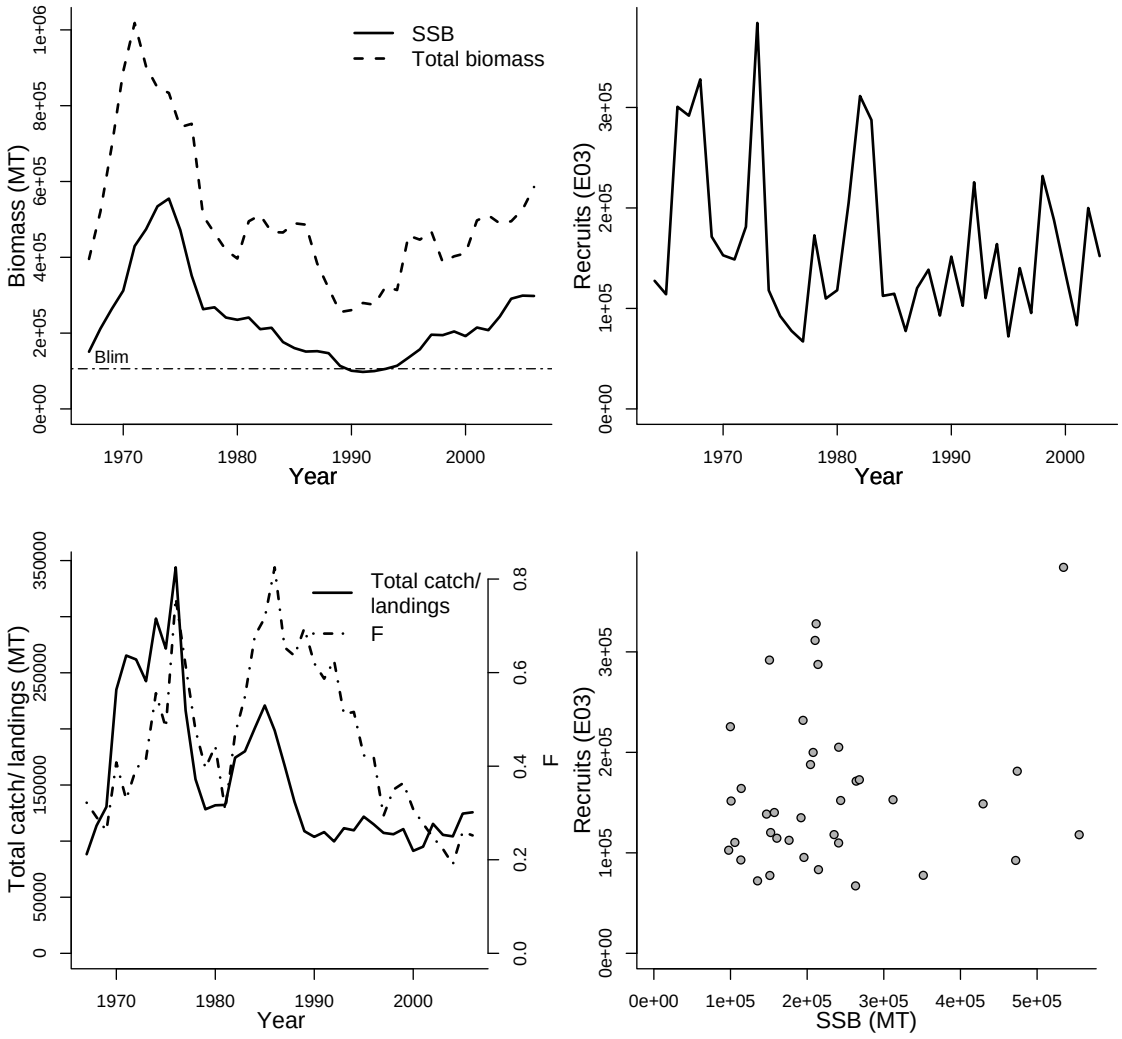
Detail	Value
Management body	ICES
Assessment group	Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak
Assessment authors	Anon
Assessment method	Extended Survivor Analysis
Publication year	2007
Timeseries span	1964-2006
Document	ICES-WGNSSK-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

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

Parameter	Value	Units
A50-yr	4	yr
SSB-AGE-yr	4+	yr
REC-AGE-yr	3	yr
TB-AGE-yr	3+	yr
M-1/T	0.2	1/T
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	**Value**	**Units**
Blim-MT (SSB)	106000	MT
Bpa-MT (SSB)	200000	MT
Fpa-1/yr (F)	0.4	1/yr
F0.1-1/yr (F)	0.11	1/yr
Fmax-1/yr (F)	0.22	1/yr
SSB_{2006}/B_{lim}	2.811	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1967	1964	1967	1967	1967
Maximum year	2006	2003	2006	2006	2006
Time series minimum	97609	67123	0.19	255620	88326
Time series maximum	554904	384108	0.825	1018303	343967
Units	MT	E03	1/T	MT	MT



Assessment of North Sea sand lance (*Ammodytes marinus*)

Assessment ID:WGNSSK-SEELNS-1983-2007-MINTO

Area ID: multinational-ICES-IV

General assessment details.

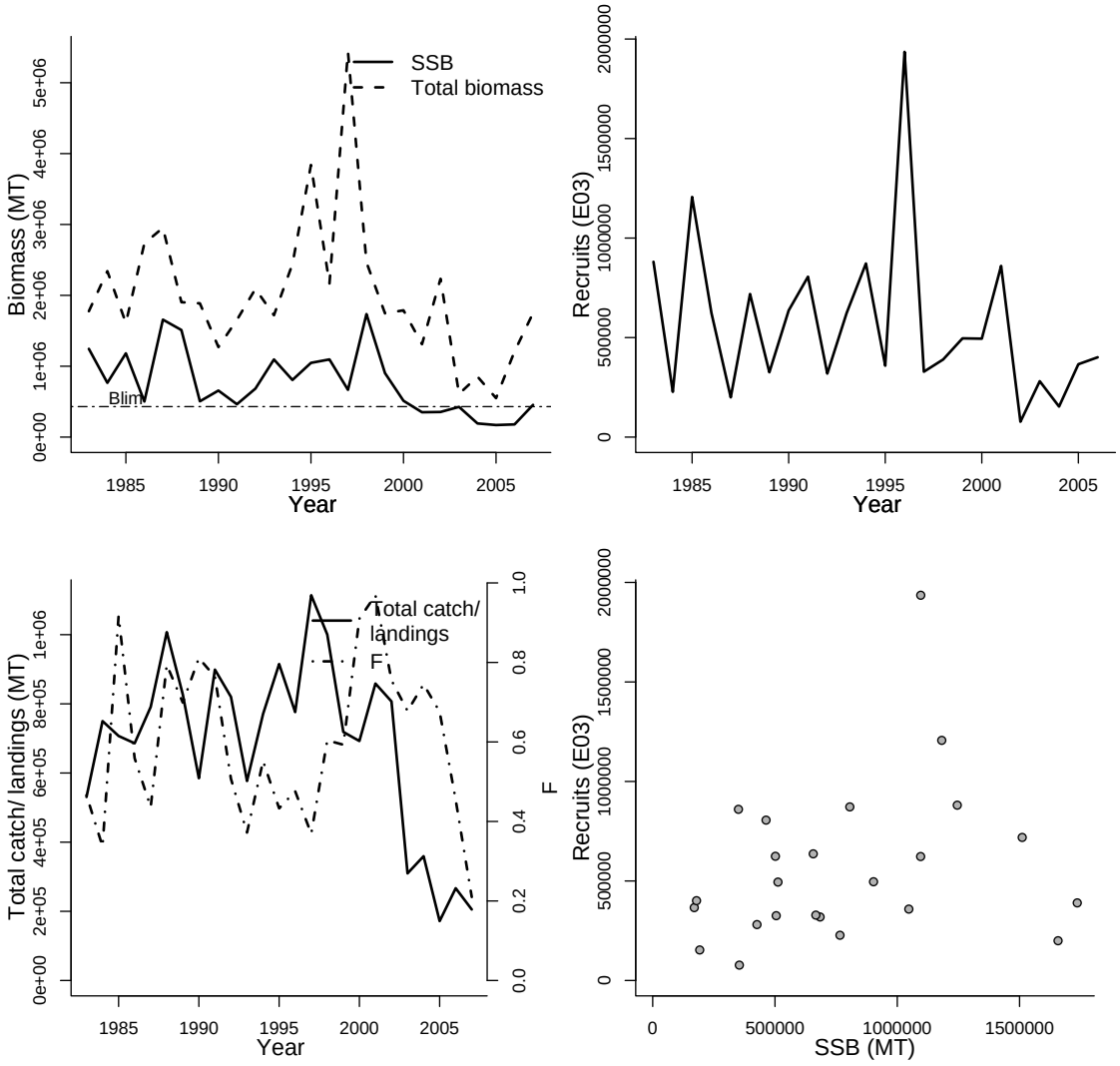
Detail	Value
Management body	ICES
Assessment group	Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak
Assessment authors	Anon
Assessment method	Seasonal XSA
Publication year	2007
Timeseries span	1983-2007
Document	ICES-WGNSSK-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

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

Parameter	Value	Units
A50-yr	2	yr
SSB-AGE-yr	2+	yr
REC-AGE-yr	0	yr
M-1/T	0.2 for 1+	1/T
TB-AGE-yr		
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	**Value**	**Units**
Blim-MT (SSB)	430000	MT
Bpa-MT (SSB)	600000	MT
SSB_{2007}/B_{lim}	1.057	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1983	1983	1983	1983	1983
Maximum year	2007	2006	2007	2007	2007
Time series minimum	169965	77203	0.21	549532	171790
Time series maximum	1735847	1935600	0.969	5435685	1114044
Units	MT	E03	1/T	MT	MT



Assessment of North Sea common european sole (*Solea vulgaris*)

Assessment ID:WGNSSK-SOLENS-1956-2006-MINTO

Area ID: multinational-ICES-IV

General assessment details.

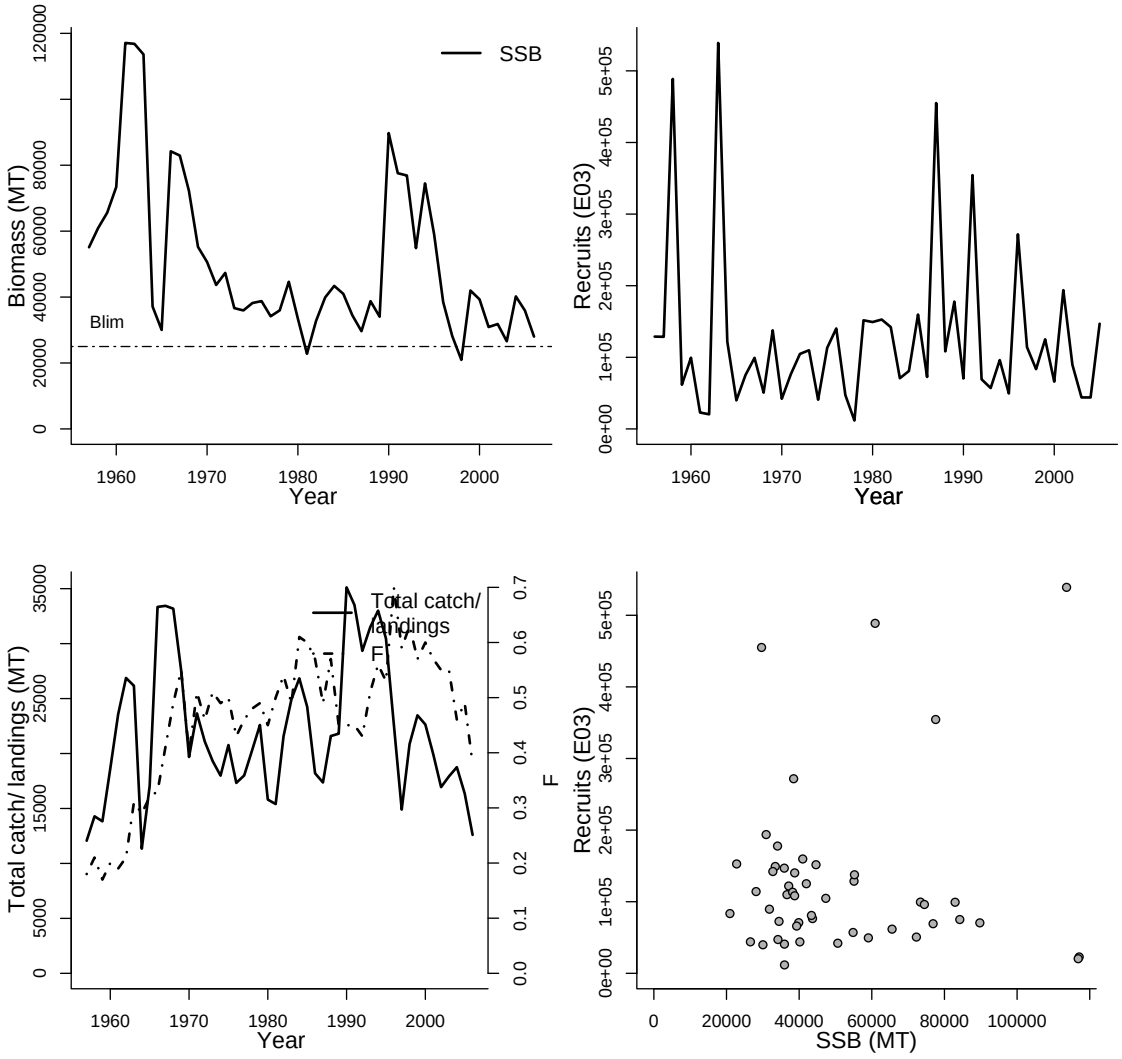
Detail	Value
Management body	ICES
Assessment group	Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak
Assessment authors	Anon
Assessment method	Extended Survivor Analysis
Publication year	2007
Timeseries span	1956-2006
Document	ICES-WGNSSK-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

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

Parameter	Value	Units
A50-yr	3	yr
SSB-AGE-yr	3+	yr
REC-AGE-yr	1	yr
M-1/T	0.1	1/T
TB-AGE-yr		
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	**Value**	**Units**
Blim-MT (SSB)	25000	MT
Bpa-MT (SSB)	35000	MT
Fpa-1/yr (F)	0.4	1/yr
F0.1-1/yr (F)	0.316	1/yr
Fmax-1/yr (F)	0.51	1/yr
SSB_{2006}/B_{lim}	1.120	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1957	1956	1957		1957
Maximum year	2006	2005	2006		2006
Time series minimum	20945	11727	0.17		11342
Time series maximum	117094	538987	0.7		35120
Units	MT	E03	1/T		MT



Assessment of Eastern English Channel common european sole (*Solea vulgaris*)

Assessment ID:WGNSSK-SOLEVIId-1981-2006-MINTO

Area ID: multinational-ICES-VIId

General assessment details.

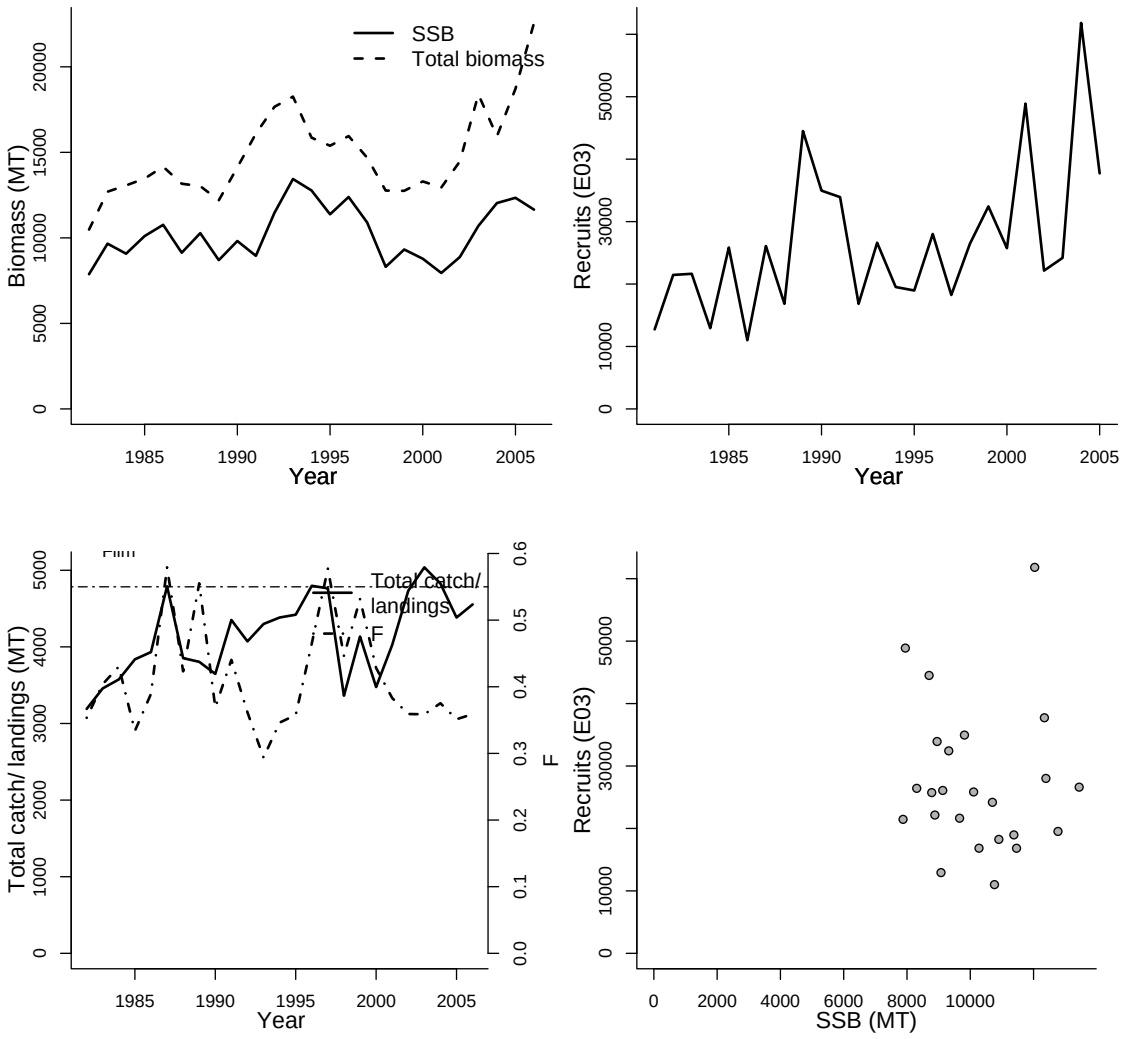
Detail	Value
Management body	ICES
Assessment group	Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak
Assessment authors	Anon
Assessment method	Extended Survivor Analysis
Publication year	2007
Timeseries span	1981-2006
Document	ICES-WGNSSK-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

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

Parameter	Value	Units
A50-yr	3	yr
SSB-AGE-yr	3+	yr
REC-AGE-yr	1	yr
TB-AGE-yr	1+	yr
M-1/T	0.1	1/T
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	**Value**	**Units**
Bpa-MT (SSB)	8000	MT
Fpa-1/yr (F)	0.4	1/yr
Flim-1/yr (F)	0.55	1/yr
F0.1-1/yr (F)	0.13	1/yr
Fmax-1/yr (F)	0.3	1/yr
F_{2006}/F_{lim}	0.653	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1982	1981	1982	1982	1982
Maximum year	2006	2005	2006	2006	2006
Time series minimum	7876	11007	0.2938	10484	3190
Time series maximum	13442	61817	0.5792	22566	5038
Units	MT	E03	1/T	MT	MT



Assessment of IIIa, VIId and North Sea whiting (*Merlangius merlangus*)

Assessment ID:WGNSSK-WHITNS-VIId-IIIa-1979-2006-MINTO

Area ID: multinational-ICES-IIIa-IV-VIId

General assessment details.

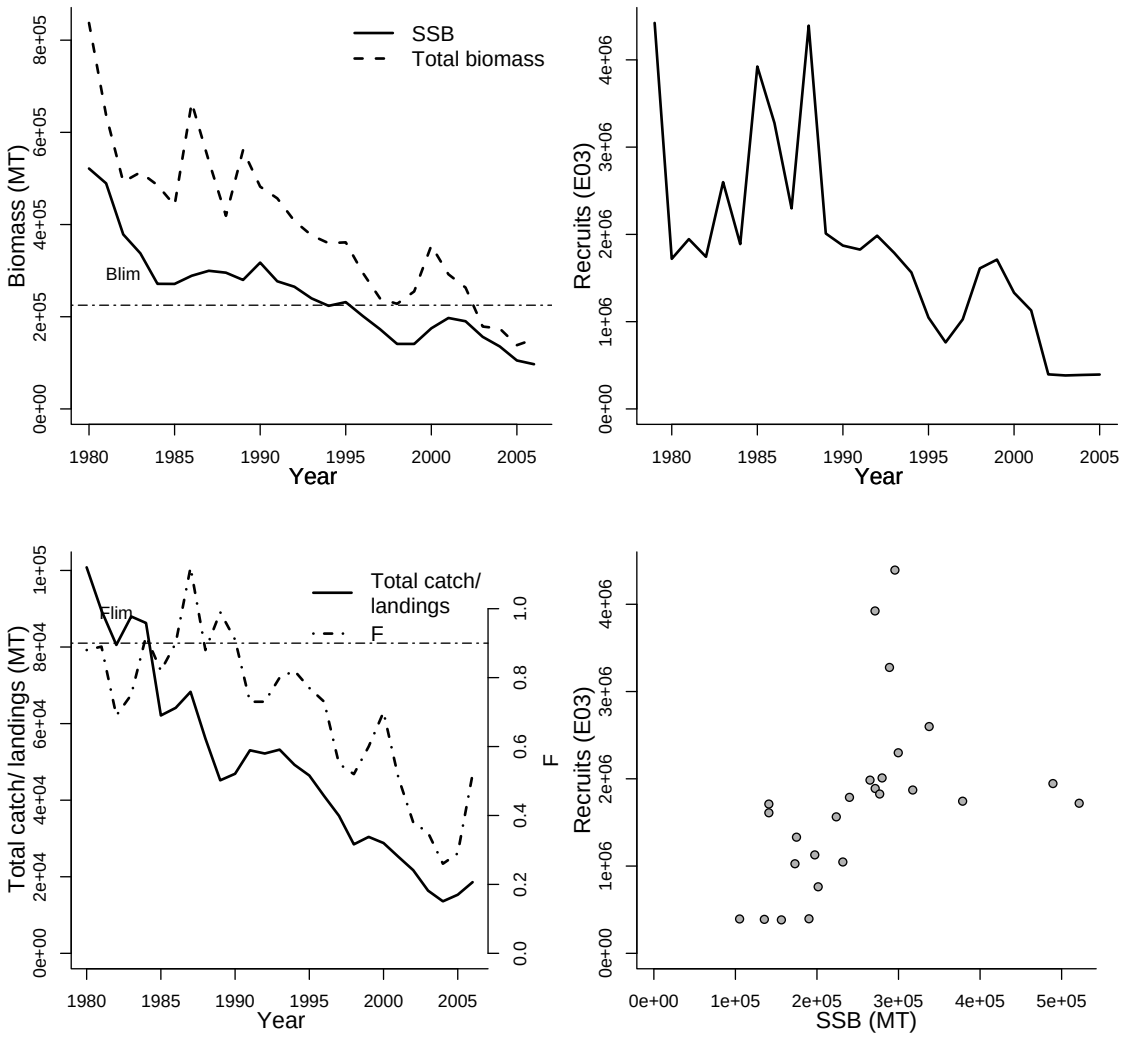
Detail	Value
Management body	ICES
Assessment group	Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak
Assessment authors	Anon
Assessment method	Extended Survivor Analysis
Publication year	2007
Timeseries span	1979-2006
Document	ICES-WGNSSK-2007.pdf (pdf in database)
Recorder	MINTO
Date entered	2009-03-10

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

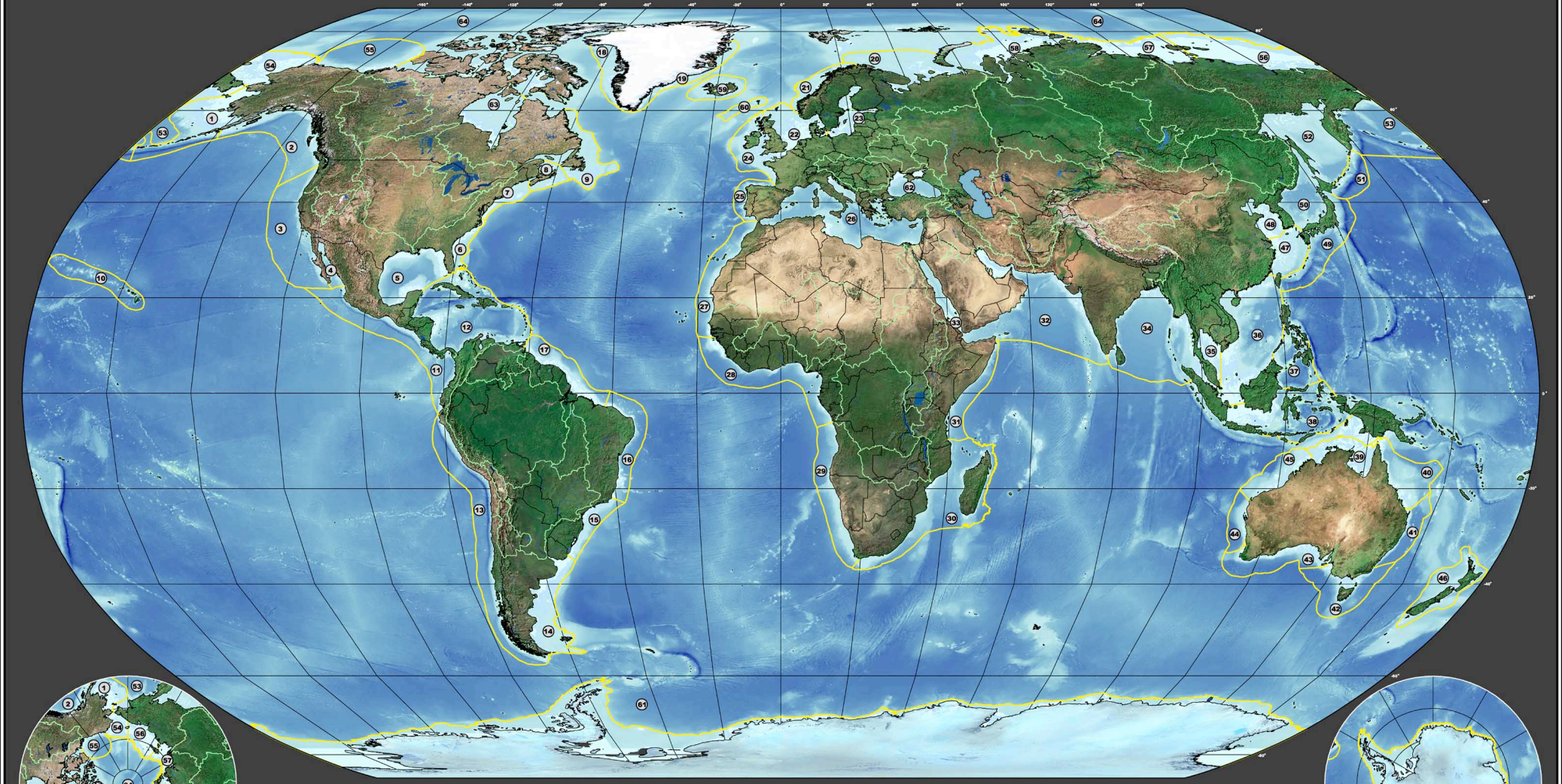
Parameter	Value	Units
A50-yr	1	yr
SSB-AGE-yr	1+	yr
REC-AGE-yr	1	yr
TB-AGE-yr	1+	yr
M-1/T	Age specific	1/T
F-AGE-yr		
M		
L50-cm		
MORATOR-yr-yr		
LME		

Reference points		
Parameter	**Value**	**Units**
Blim-MT (SSB)	225000	MT
Bpa-MT (SSB)	315000	MT
Fpa-1/yr (F)	0.65	1/yr
F0.1-1/yr (F)	0.1	1/yr
Fmax-1/yr (F)	0.19	1/yr
Flim-1/yr (F)	0.9	1/yr
SSB_{2006}/B_{lim}	0.431	
F_{2006}/F_{lim}	0.578	

Time series minima and maxima					
	SSB	R	F	TB	Catch
Minimum year	1980	1979	1980	1980	1980
Maximum year	2006	2005	2006	2006	2006
Time series minimum	96967	383532	0.26	138290	13583
Time series maximum	521533	4423048	1.12	837376	100810
Units	MT	E03	1/T	MT	MT



Large Marine Ecosystems of the World
and Linked Watersheds



MAP KEY:

LME Numbers:

1 East Bering Sea
2 Gulf of Alaska
3 California Current
4 Gulf of California
5 Gulf of Mexico
6 Southeast U.S. Continental Shelf
7 Northeast U.S. Continental Shelf
8 Scotian Shelf
9 Newfoundland-Labrador Shelf
10 Insular Pacific-Hawaiian
11 Pacific Central-American Coastal
12 Caribbean Sea
13 Humboldt Current
14 Patagonian Shelf
15 South Brazil Shelf
16 East Brazil Shelf
17 North Brazil Shelf
18 West Greenland Shelf
19 East Greenland Shelf
20 Barents Sea
21 Norwegian Shelf
22 North Sea
23 Baltic Sea
24 Celtic-Biscay Shelf
25 Iberian Coastal
26 Mediterranean Sea
27 Canary Current
28 Guinea Current
29 Benguela Current
30 Agulhas Current
31 Somali Coastal Current
32 Arabian Sea
33 Red Sea
34 Bay of Bengal
35 Gulf of Thailand
36 South China Sea
37 Sulu-Celebes Sea
38 Indonesian Sea
39 North Australian Shelf
40 Northeast Australian Shelf - Great Barrier Reef
41 East-Central Australian Shelf
42 Southeast Australian Shelf
43 Southwest Australian Shelf
44 West-Central Australian Shelf
45 Northwest Australian Shelf
46 New Zealand Shelf
47 East China Sea
48 Yellow Sea
49 Kuroshio Current
50 Sea of Japan
51 Oyashio Current
52 Sea of Okhotsk
53 West Bering Sea
54 Chukchi Sea
55 Beaufort Sea
56 East Siberian Sea
57 Laptev Sea
58 Kara Sea
59 Iceland Shelf
60 Faroe Plateau
61 Antarctic
62 Black Sea
63 Hudson Bay
64 Arctic Ocean

Large Marine Ecosystems
Watershed Bounds
Political Borders

DEPTH

Feet (ft)	Meters (m)
-36,080	-11,000
-32,800	-10,000
-29,520	-9,000
-26,240	-8,000
-22,960	-7,000
-19,680	-6,000
-16,400	-5,000
-13,120	-4,000
-9,840	-3,000
-6,560	-2,000
-3,280	-1,000
-1,640	-500
-246	-75
0	0

N W E S

SCALE = 1 : 31,700,000
Robinson Projection
Units Meters

Miles
0 300 600 900 1200

Kilometers
0 400 800 1200 1600 2000 2400

Data Sources:
Bathymetry (2-minute) : Smith and Sadnwell, 1997
Bathymetry (5-minute) : NAVOCEANO, DBDB5
Watersheds (HYDRO 1k) : USGS Eros Data Center
Terrestorial Image, Political Boundaries : ESRI

IUCN

***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

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