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**Report of the ICES Advisory
Committee 2009**

**Book 4
The Faroe Plateau Ecosystem**

International Council for the Exploration of the Sea
Conseil International pour l'Exploration de la Mer

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BOOK 4

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4 FAROE PLATEAU ECOSYSTEM

4.1 Ecosystem overview

This Section has not been updated in 2009. The most recent ecosystem overview is available in ICES Advisory Report 2008, Section 4.1. This overview can also be found on the ICES website: <http://www.ices.dk/committe/acom/comwork/report/2008/2008/4.1-4.2%20Faroe%20plateau%20ecosystem%20overview.pdf>.

4.2 Human impacts on the ecosystem

4.2.1 Fishery effects on benthos and fish communities

This Section has not been updated in 2009. The most recent description on Fishery effects on benthos and fish communities is available in ICES Advisory Report 2008, Section 4.2. This description can also be found on the ICES website: <http://www.ices.dk/committe/acom/comwork/report/2008/2008/4.1-4.2%20Faroe%20plateau%20ecosystem%20overview.pdf>.

4.3 Assessments and Advice

4.3.1 Assessment and advice regarding protection of biota and habitats

In 2009, ICES has not provided advice regarding protection of biota and habitats for this area.

4.3.2 Assessments and Advice regarding fisheries

Mixed fisheries and fisheries interactions

This Section has not been updated in 2009. The most recent description on mixed fisheries and fisheries interactions is available in ICES Advisory Report 2008, Section 4.3. This description can also be found on the ICES website: <http://www.ices.dk/committe/acom/comwork/report/2008/2008/4.3%20Faroe%20Islands%20Fisheries%20Advice.pdf>

Single-stock exploitation boundaries and critical stocks

The state and the limits to exploitation of the individual stocks are presented in the stock sections. The state of stocks and single-stock exploitation boundaries are summarized in the table below.

Table 4.3.2.1 Single-stock exploitation boundaries in the Faroe Plateau ecoregion.

Species	State of the stock				ICES considerations in relation to single-stock exploitation boundaries			Upper limit corresponding to single-stock exploitation boundary for agreed management plan or precautionary limits. Tonnes or effort in 2010
	Spawning biomass in relation to precautionary limits	Fishing mortality in relation to precautionary limits	Fishing mortality in relation to highest yield	Fishing mortality in relation to agreed target	In relation to agreed management plan	In relation to precautionary limits	In relation to high long-term yield	
Faroe Plateau Cod	Reduced reproductive capacity	Harvested unsustainably	Overfished	Above target	Reduce fishing mortality by 25%	Closure of the fishery. Rebuilding plan.	F is above $F_{0.1}$ and F_{max}	Closure of the fishery. Rebuilding plan
Faroe Bank Cod	Unknown	Unknown	Unknown	Unknown	-	Closure of the fishery.	-	Closure of the fishery.
Faroe Haddock	Increased risk	Harvested sustainable	Overfished	Below agreed target	Current F is below management target	Closure of the fishery. Develop recovery plan	F is above $F_{0.1}$	Closure of the fishery. Develop recovery plan
Faroe Saithe	Unknown	Unknown	Unknown	Unknown	-	Initial reduction of fishing effort by 20%	-	Initial reduction of fishing effort by 20%

The advice for Ling appears in ICES Advice 2008, Section 9.4.10 on Widely Distributed Stocks. This is a biennial advice.

4.4 Stock summaries

4.4.1 Cod in Subdivision Vb₁ (Faroe Plateau)

State of the stock

Spawning biomass in relation to precautionary limits	Fishing mortality in relation to precautionary limits	Fishing mortality in relation to highest yield	Fishing mortality in relation to agreed target	Comment
Reduced reproductive capacity	Harvested unsustainably	Overfished	Above target	Historically lowest SSB

Based on the most recent estimates of SSB (in 2009) and fishing mortality (in 2008), ICES classifies the stock as suffering reduced reproductive capacity and as being harvested unsustainably. Most year classes from 2001 onwards have been around one third of the long-term average.

Management objectives

The management objective is to achieve sustainable fisheries. An effort management system was implemented in the Faroese demersal fisheries in Division Vb in 1996. From the outset the aim of the effort management system was to harvest on average 33% in numbers of the exploitable stock of cod. This translates into an average F of approximately 0.45, above the F_{pa} of 0.35. ICES considers this to be inconsistent with the precautionary approach.

Reference points

	Type	Value	Technical basis
Precautionary approach	B_{lim}	21 000 t	Lowest observed SSB (1998)
	B_{pa}	40 000 t	$B_{lim}e^{1.645\sigma}$, assuming a σ of about 0.40 to account for the relatively large uncertainties in the assessment.
	F_{lim}	0.68	$F_{pa}e^{1.645\sigma}$, assuming a σ of about 0.40 to account for the relatively large uncertainties in the assessment.
	F_{pa}	0.35	Close to F_{max} (0.34) and F_{med} (0.38) values from the 1998 assessment.
Targets	F_y	~ 0.45	Harvest on average 33% of the exploitable stock in numbers

(unchanged since 1998)

Yield and spawning biomass per Recruit

F-reference points:

	Fish Mort Ages 3-7	Yield/R	SSB/R
Average last 3 years	0.61	1.35	2.75
F_{max}	0.25	1.45	5.73
$F_{0.1}$	0.12	1.31	9.64
F_{med}	0.33	1.44	4.65

Candidates for reference points which are consistent with high long-term yields and a low risk of depleting the productive potential of the stock are in the range of $F_{0.1}$ – F_{max} .

Single-stock exploitation boundaries

ICES advises on the basis of the precautionary approach to close the fishery in the fishing season 2009/2010 and to develop a recovery plan aimed at rapidly rebuilding the stock to above B_{pa} .

Exploitation boundaries in relation to existing management plans

The management objective implied in the effort management scheme is to achieve an average exploitation rate equivalent to a fishing mortality of 0.45, compared to the current estimate of 0.76 in 2008, and 0.60 for the last twelve

years. Assuming proportionality between effort and F , adherence to the management plan would imply a 25% reduction in effort for 2010 compared with the average fishing mortality the last five years.

Exploitation boundaries in relation to high long-term yield, low risk of depletion of production potential, and considering ecosystem effects

The current fishing mortality estimated as 0.76, and the average F for 1997-2008 = 0.60, is well above rates that would support an optimal yield and low risk of stock depletion ($F_{0.1}$ and F_{max}).

Exploitation boundaries in relation to precautionary limits

Taking into account the current perception of the stock abundance and recruitment, fishing at any level will lead to the stock remaining below B_{pa} in 2011. ICES therefore recommends a closure of the fishery in the fishing season 2009/2010 and a development of a recovery plan aimed at rapidly rebuilding the stock to above B_{pa} .

Short-term implications

Outlook for 2010

Basis: $F(2009) = F(2006-2008) = 0.61$; $SSB(2010) = 21000$ t ; landings (2009) = 9000 t.

Rationale	F (2010)	Basis	SSB (2010)	Landings (2010)	SSB (2011)	% change SSB ¹⁾
Zero catch	0	$F=0$	21	0	32	54
Management target ref. point	0.45	$F(\text{management plan})$	21	8	24	15
<i>Status quo</i>	0.61	F_{sq}	21	11	22	4
Precautionary limits	0.04	$F_{pa} * 0.1$	21	1	31	51
	0.09	$F_{pa} * 0.25$	21	2	30	45
	0.18	$F_{pa} * 0.5$	21	4	28	37
	0.26	$F_{pa} * 0.75$	21	5	27	30
	0.32	$F_{pa} * 0.90$	21	6	26	25
	0.35	F_{pa}	21	7	25	22
	0.39	$F_{pa} * 1.1$	21	7	25	20
0.44	$F_{pa} * 1.25$	21	8	24	16	

Weights in '000 t. Shaded scenarios are not considered consistent with the precautionary approach.

¹⁾ SSB 2011 relative to SSB 2010.

Management considerations

The present management has led to a fishing that is not sustainable. Fishing mortalities since 1996 have been well above F_{pa} and is estimated in 2008 above F_{lim} . SSB estimated in 2009 is the lowest in the time series. Therefore ICES advises to close the cod fisheries; this advice must include all fleets presently not in the fishing days regulations, e.g. the single trawlers. Moreover, ICES recommends a rebuilding plan. A rebuilding plan should take into account that cod is a by-catch in the saithe trawl fishery and that cod and haddock are caught together in longline fisheries. The advice for saithe is not as restrictive as for cod. There can be a fishery for saithe, whereas the fishery for cod (and haddock) should be kept to a minimum. The only way to achieve this goal in the effort management system would be to close more areas for cod and haddock fishing and for a longer time than now, preferably all year round. In order to ensure future recruitment, the nursery areas close land should be closed to all commercial fishing. A recovery plan should include monitoring the trajectory of the stock, clearly stating specified reopening criteria, and monitoring the fishery when it is re-opened.

When considering future management, protection mechanisms should be included to ensure that appropriate action is taken when one or more stocks or fisheries develop in an unfavourable way.

An expected benefit of the effort management system was more stability for the fishing fleet. The fleets were expected to target the most abundant fish species, thus reducing the fishing mortality on stocks that are in bad shape. However, low prices on saithe and haddock and high prices for cod have kept the fishing mortality high on cod. Hence, targeting of cod appears to be influenced by economic factors in addition to the relative abundance of the stocks.

The effort management system needs to consider changes in catchability of the fishery. For baited hook gear, catchability is related to the amount of food available in the ecosystem. Therefore, low ecosystem production may decrease cod production and increase the catchability of longline gear. Also, the ever increasing efficiency in an effort system needs to be carefully monitored.

Factors affecting the fisheries and the stock

Regulations and their effects

An effort management system was implemented 1st of June 1996. Fishing days are allocated to all fleets fishing in shallow waters (< 380 m depth) for the period 1 September–31 August. In addition the majority of the shallow areas (< ca. 200 m) are closed for trawling, and are mainly utilized by longliners. The main spawning areas for cod are closed for nearly all fishing gears during spawning time.

Changes in fishing technology and fishing patterns

The effort management system invites improvement of fishing technology and fishing patterns. Presently, ICES is not able to quantify these changes.

Impacts of the environment on the fish stock

The productivity of the Faroe Shelf ecosystem is important to the cod stock. The recruitment depends both on the stock size and on the productive state of the Faroe Shelf ecosystem. The indices of primary production has been low since 2002 except for 2004 and 2008 when it was estimated above average. The estimate of the primary production in 2009 will not be available until July but preliminary estimates suggest it to be higher than in 2008. It will have little effect on the spawning biomass in 2011, but more effect on the total biomass. The above average primary production in 2008-2009 may also result in a reduction in the fishing mortality since most of the cod catches are taken by longlines, and it has been demonstrated that the primary production and the catchability of longlines are negatively correlated.

Scientific basis

Data and methods

The stock is assessed by an analytical method (XSA) using landings-at-age data and age-disaggregated indices from two surveys .

There are no discard data, but discarding is not considered to be a major problem in this fishery.

Uncertainties in assessment and forecast

Although there has been a tendency to underestimate SSB in recent years, there is no doubt that the stock size is among the lowest observed in the time-series. This is confirmed by the summer survey and commercial biomass indices, but the 2009 spring survey showed an increase, which was due to one extraordinary large haul.

Comparison with previous assessment and advice

The assessment and the advice are the same as last year.

Source of information

Report of the North-Western Working Group, 29 April – 5 May 2009 (ICES CM 2009/ACOM:04).

Fishing Year	ICES Advice	Predicted catch corresp. to advice	Agreed TAC	ICES Landings
1987	No increase in F	<31		21.4
1988	No increase in F (Revised estimate)	<29 (23)		23.2
1989	No increase in F	<19		22.1
1990	No increase in F	<20		13.5
1991	TAC	<16		8.8
1992	No increase in F	<20		6.4
1993	No fishing	0		6.1
1994	No fishing	0	8.5/12.5 ^{1,2}	9.0
1995	No fishing	0	12.5 ¹	23.0
1996	F at lowest possible level	-	20 ²	40.4
1997	80% of F(95)	<24	-	34.3
1998	30% reduction in effort from 1996/97	-	-	24.0
1999	F less than proposed F_{pa} (0.35)	<19		18.3
2000	F less than proposed F_{pa} (0.35)	<20		21.0
2001	F less than proposed F_{pa} (0.35)	<16		28.2
2002	75% of F(2000)	<22		38.5
2003	75% of F(2001)	<32		24.5
2004	25% reduction in effort	-		13.2
2005	Rebuilding plan involving large reduction	-		9.9
2006	Rebuilding plan involving large reduction	-		10.5
2007	Rebuilding plan involving large reduction in effort	-		8.1
2008	No fishing. Development of a rebuilding plan.	0		10.5
2009	No fishing. Development of a rebuilding plan.	0		
2010	No fishing. Development of a rebuilding plan.	0		

Fishing year: 1 September–31 August the following year

Weights in '000 t.

¹⁾ In the quota year 1 September–31 August the following year.

²⁾ The TAC was increased during the quota year.

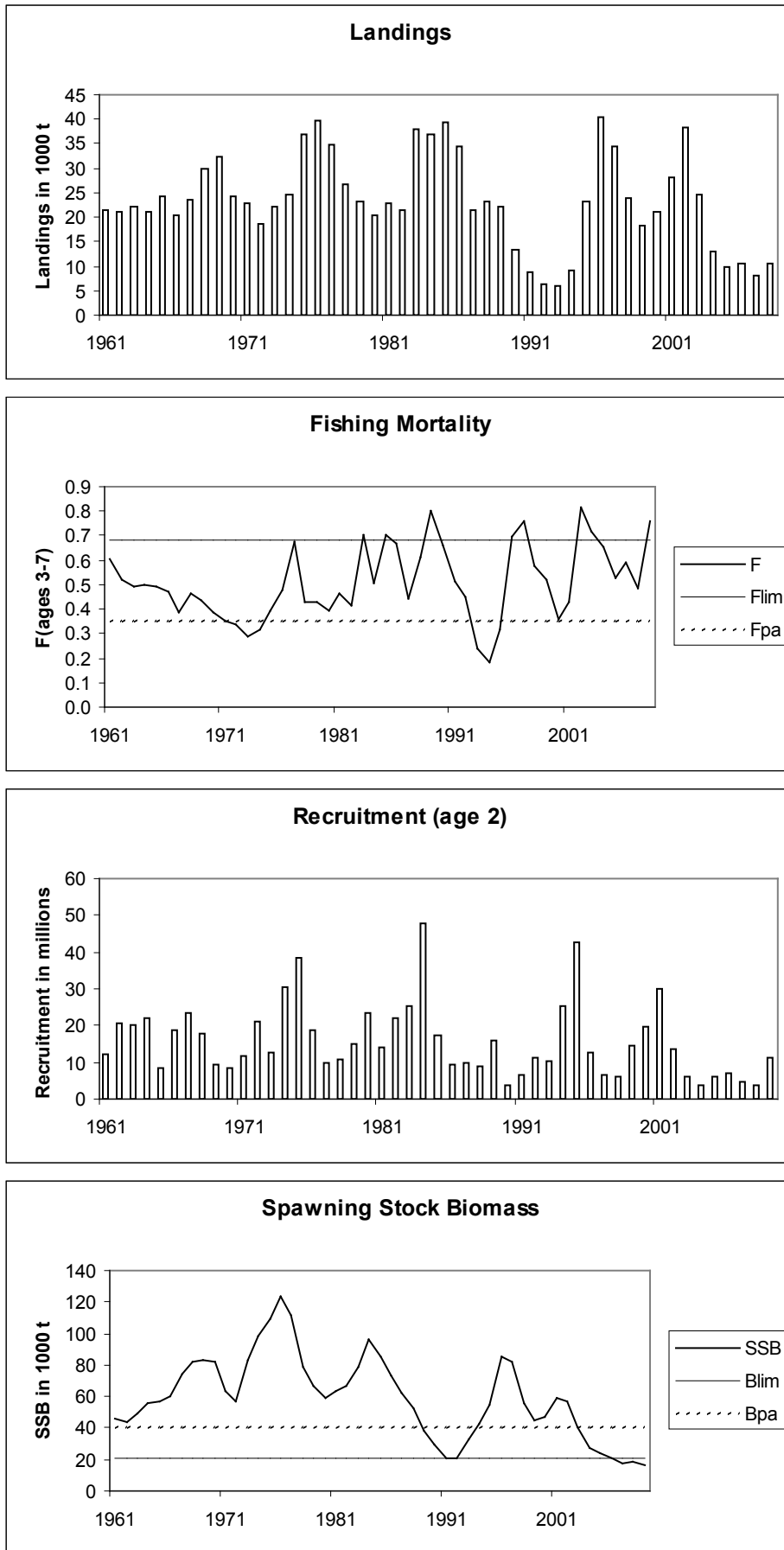


Figure 4.4.1.1 Faroe Plateau cod (Subdivision Vb₁). Landings, fishing mortality, recruitment, and SSB.

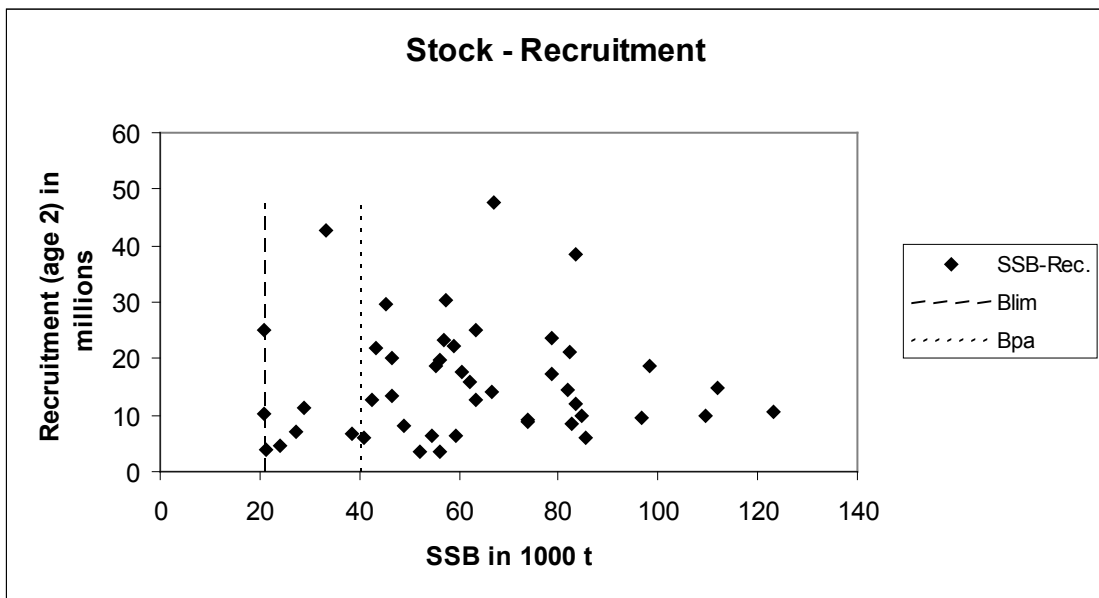
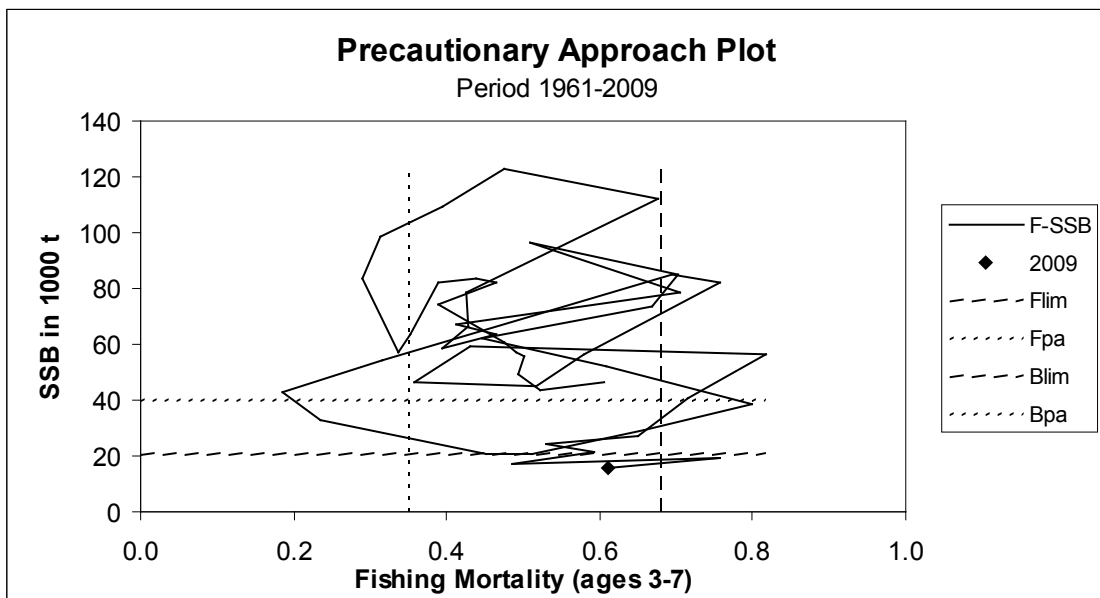
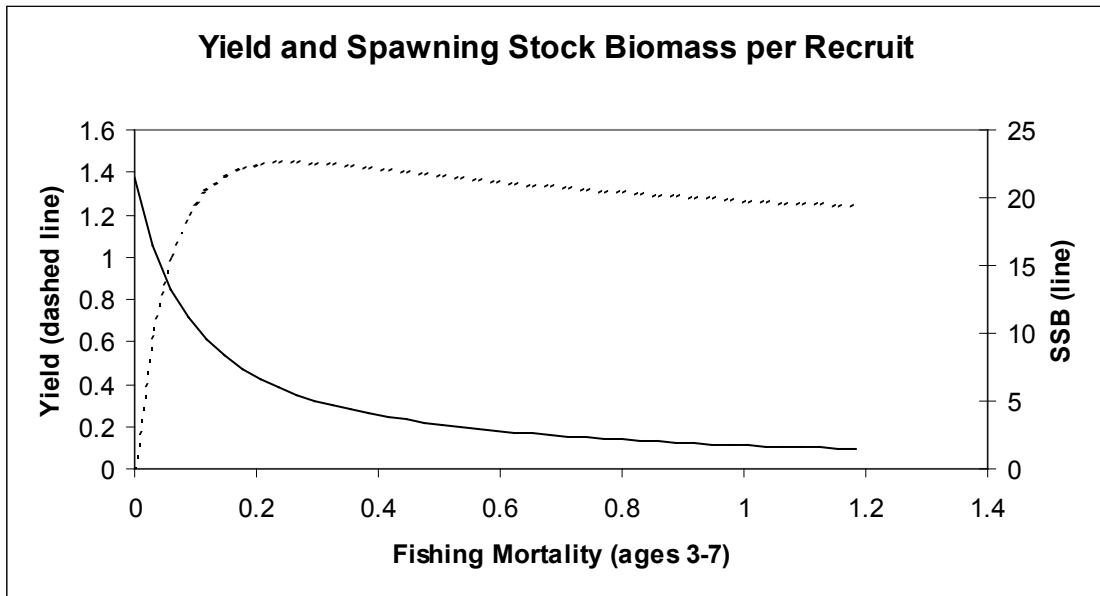


Figure 4.4.1.2 Faroe Plateau cod (Subdivision Vb1). Stock and recruitment. Yield and SSB; precautionary approach.

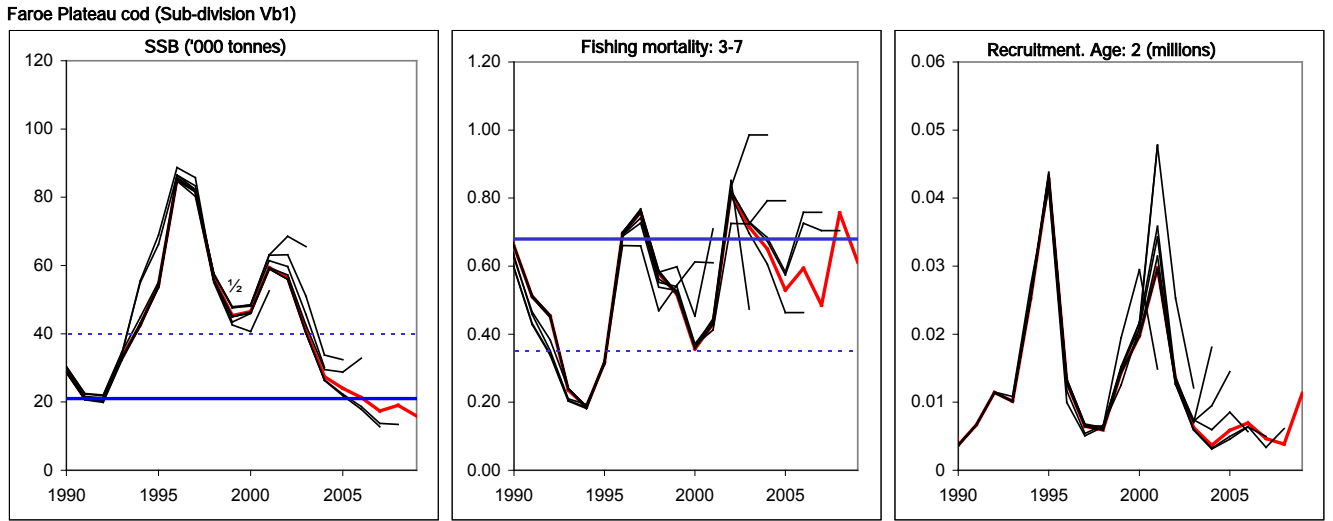


Figure 4.4.1.3 Faroe Plateau cod (Subdivision Vb₁). Historical performance of the assessments.

Table 4.4.1.1. Faroe Plateau cod (Subdivision Vb₁).

Year	Recruitment Age 2 thousands	SSB tonnes	Landings tonnes	Mean F Ages 3-7
1961	12019	46439	21598	0.6059
1962	20654	43326	20967	0.5226
1963	20290	49054	22215	0.4944
1964	21834	55362	21078	0.5017
1965	8269	57057	24212	0.4909
1966	18566	60629	20418	0.4743
1967	23451	73934	23562	0.3900
1968	17582	82484	29930	0.4642
1969	9325	83487	32371	0.4375
1970	8608	82035	24183	0.3882
1971	11928	63308	23010	0.3526
1972	21320	57180	18727	0.3358
1973	12573	83547	22228	0.2886
1974	30480	98434	24581	0.3139
1975	38319	109566	36775	0.3947
1976	18575	123077	39799	0.4749
1977	9995	112057	34927	0.6757
1978	10748	78497	26585	0.4259
1979	14997	66722	23112	0.4273
1980	23582	58886	20513	0.3945
1981	14000	63561	22963	0.4648
1982	22127	67031	21489	0.4138
1983	25157	78539	38133	0.7057
1984	47755	96761	36979	0.5082
1985	17314	84768	39484	0.7015
1986	9506	73664	34595	0.6694
1987	9904	62198	21391	0.4457
1988	8699	52070	23182	0.6085
1989	15979	38319	22068	0.7989
1990	3694	29045	13487	0.6584
1991	6685	21060	8750	0.5111
1992	11421	20749	6396	0.4527
1993	10129	33114	6107	0.2357
1994	25200	42583	9046	0.1860
1995	42798	54367	23045	0.3166
1996	12874	85325	40422	0.6949
1997	6458	81986	34304	0.7582
1998	5934	56096	24005	0.5786
1999	14373	45330	18306	0.5170
2000	19743	46517	21033	0.3567
2001	29783	59394	28183	0.4298
2002	13372	56355	38457	0.8166
2003	6266	40718	24501	0.7151
2004	3666	27434	13178	0.6506
2005	5875	23998	9906	0.5293
2006	6940	21328	10480	0.5936
2007	4663	17372	8009	0.4848
2008	3835	19063	10523	0.7562
2009	11321	15877		
Average	15685	59178	23017	0.5107

Table 4.4.1.2. Faroe Plateau cod (Subdivision Vb₁). Nominal catch statistics.

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Denmark	8	30	10	-	-	-	-	-	-	-	-	-	-
Faroe Islands	34,492	21,303	22,272	20,535	12,232	8,203	5,938	5,744	8,724	19,079	39,406	33,556	23,308
France	4	17	17	-	-	- ¹	3 ²	1 ²	-	2 ²	1 ²	-	-
Germany	8	12	5	7	24	16	12	+	2 ²	2	+	+	-
Norway	83	21	163	285	124	89	39	57	36	38	507	410	405
Greenland	-	-	-	-	-	-	-	-	-	-	-	-	-
UK (E/W/NI)	-	8	-	-	-	1	74	186	56	43	126	61 ²	27 ²
UK (Scotland)	-	-	-	-	-	-	-	-	-	-	-	-	-
United Kingdom	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	34,595	21,391	22,467	20,827	12,380	8,309	6,066	5,988	8,818	19,164	40,040	34,027	23,740

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008 [*]
Denmark	-	-	-	-	-	-	-	-	-	-
Faroe Islands	19,156	-	29,762	40,602	30,259	17,540	13,556	11,629	9,905	9,293
France	-	1	9 ²	20	14	2	-	7	1 ²	-
Germany	39	2	9	6	7	3 ²	-	1 ²	-	-
Iceland	-	-	-	5	-	-	-	-	-	-
Norway	450	374	531 [*]	573	447	414	201	49	71	43
Greenland	-	-	-	-	-	-	-	5	-	-
Portugal	-	-	-	-	-	1	-	-	-	-
UK (E/W/NI) ²	51	18	50	42	15	15	24	1	3	-
UK (Scotland) ¹	-	-	-	-	-	-	-	-	358	-
United Kingdom	-	-	-	-	-	-	-	-	-	439
Total	19,696	395	30,361	41,248	30,742	17,975	13,781	11,692	10,338	9,775

* Preliminary

¹) Included in Vb2.

²) Reported as Vb.

Table 4.4.1.3. Faroe Plateau cod (Subdivision Vb₁).

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Officially reported	34,595	21,391	22,467	20,827	12,380	8,309	6,066	5,988	8,818	19,164	40,040	34,027	23,740
Faroese catches in IIA within Faroe area jurisdiction			715	1,229	1,090	351	154						
Expected misreporting/discard										3330			
French catches as reported to Faroese authorities				12	17								
Catches reported as Vb2:													
UK (E/W/NI)					-	-	+	1	1	-	-	-	-
UK (Scotland)					205	90	176	118	227	551	382	277	265
Used in the assessment	34,595	21,391	23,182	22,068	13,487	8,750	6,396	6,107	9,046	23,045	40,422	34,304	24,005

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
Officially reported	19,696	395	30,361	41,248	30,742	17,975	13,781	11,692	10,338	9,775
Faroese catches in Vb1		21,793 ¹								
Correction of Faroese catches in Vb1 ¹			-1,766	-2,409	-1,795	-1,041	-804	-690	-588	-749
Correction of Faroese catches in Vb1 ²										3,325
Faroese catch on the Faroe-Iceland ridge Greenland ³	-1,600	-1,400	-700	-600	-4,700	-4,000	-4,200	-800	-1,800	-1,828
France ³									6	
Catches reported as Vb2:										
UK (E/W/NI)	-	-	-	-	-	-	-	-	-	-
UK (Scotland)	210	245	288	218	254	244	1,129	278	53	
United Kingdom										
Used in the assessment	18,306	21,033	28,183	38,457	24,501	13,178	9,906	10,480	8,009	10,523

¹⁾ Preliminary

¹⁾ In order to be consistent with procedures used previous years.

²⁾ Data from the Coastal Guard (CG) regarded more reliable than the preliminary Statlant: 12608 - 9293 = 3325.

CG catch Vb1+Vb2 = 12756 t. CG catch Vb2 = 148 t, i.e. CG catch Vb1 = 12756-148 = 12608 t.

³⁾ Reported to Faroese Coastal Guard.

4.4.2 Cod in Subdivision Vb₂ (Faroe Bank)

Single-stock exploitation boundaries

The new data (landings and survey indices) available for this stock do not change the perception of the stock and give no reason to change the advice from that given last year in 2008. Therefore, the advice for the fishery in 2010 is the same as the advice given in 2008 for the 2009 fishery: *“Because of the very low stock size ICES advises that the fishery should be closed. Reopening the fishery should not be considered until both survey indices indicate a biomass at or above the average of the period 1996–2002”*

Source of information

Report of the North-Western Working Group, 29 April - 5 May 2009 (ICES CM 2009/ACOM:04).

Fishing Year	ICES Advice	Predicted catch corresp. to advice	Agreed TAC	Official Landings
1987	No assessment	-		3.5
1988	No assessment	-		3.1
1989	Addition to Faroe Plateau TAC	~2.0		1.4
1990	Access limitation may be required	-		0.6
1991	Access limitation may be required	-		0.4
1992	No fishing	0.3		0.3
1993	TAC	0.5		0.4
1994	TAC	0.5		1.0
1995	Precautionary TAC	0.5		1.2
1996	Precautionary TAC	0.5	1.0	2.5
1997	Effort at present levels	0.7	Not applicable	3.9
1998	Effort at present levels	-		3.5
1999	Effort not to exceed that exerted in 1996–	-		1.3
2000	Effort not to exceed that of 1996–1998	-		1.2 ¹⁾
2001	Effort not to exceed that of 1996–1999	-		1.8 ¹⁾
2002	Effort not to exceed that of 1996–2000	-		1.9 ¹⁾
2003	Effort not to exceed that of 1996–2001	-		5.7 ¹⁾
2004	Effort not to exceed that of 1996–2002	-		4.3 ¹⁾
2005	Effort not to exceed that of 1996–2002	-		1.0 ¹⁾
2006	Effort not to exceed that of 1996–2002	-		0.95 ¹⁾
2007	Effort not to exceed that of 1996–2002	-		0.45 ¹⁾
2008	No fishing	0		0.22 ¹⁾
2009	No fishing	0		
2010	Same advice as last year	0		

Fishing year: 1 September–31 August the following year

Weights in '000 t.

¹⁾ Working group estimates.

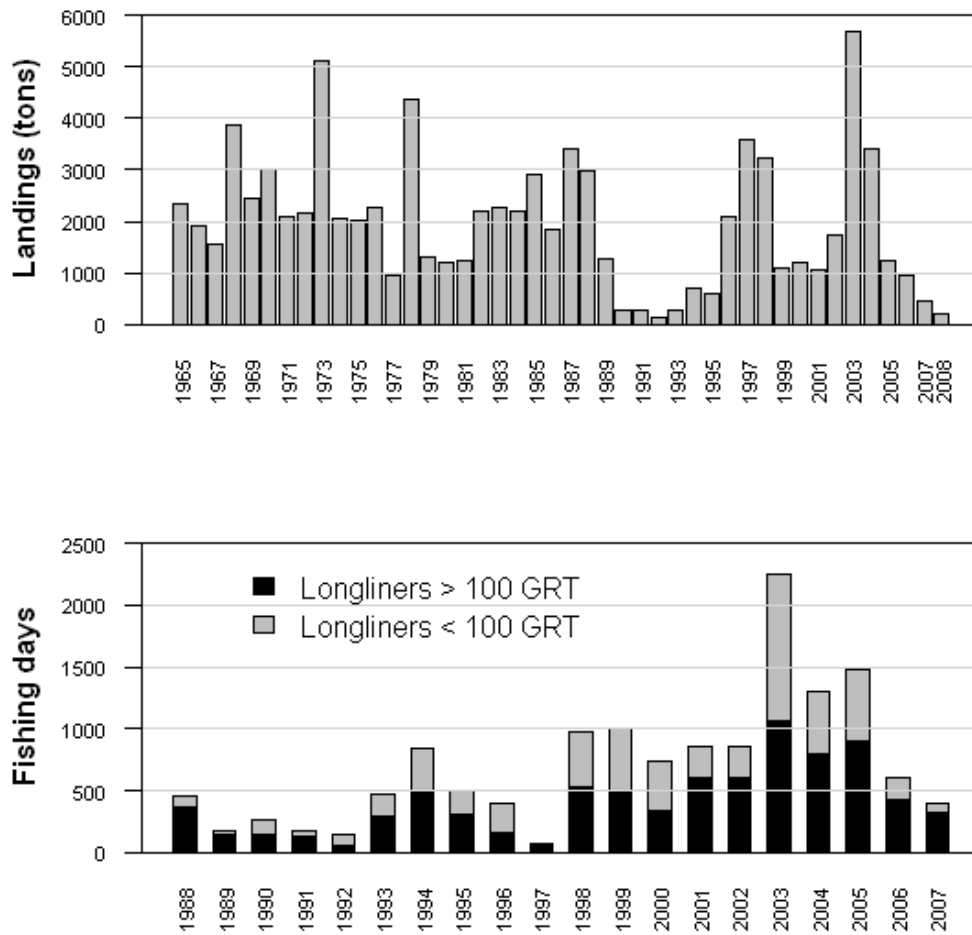


Figure 4.4.2.1. Reported landings 1965–2008. Since 1992 only catches from Faroese and Norwegian vessels are considered to be taken on the Faroe Bank. Lower plot: fishing days 1988–2007 for longline gear type in the Faroe Bank (exerted). Note that the fishing days for 2008 were not available to ICES.

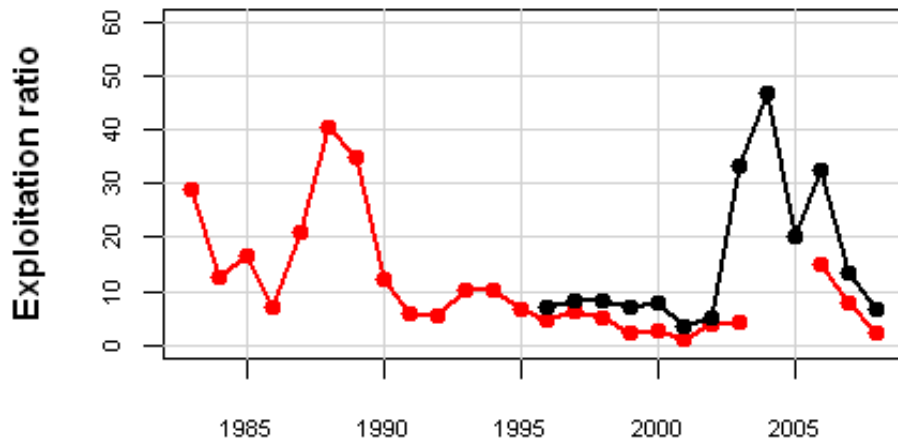


Figure 4.4.2.2. Faroe Bank (Subdivision Vb₂) cod. Exploitation ratio (ratio of landings to survey interpreted as an index of exploitation rate) where the red lines denote spring and the black line summer.

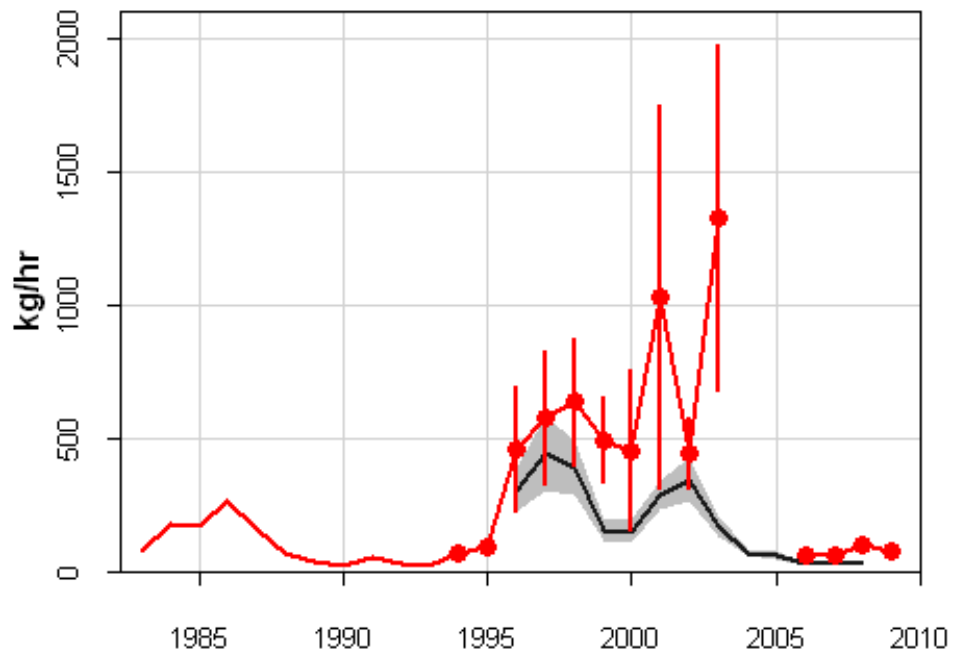


Figure 4.4.2.3. Faroe Bank (Subdivision Vb₂) cod. Catch-per-unit-effort in the spring (red lines) and summer (black line) groundfish survey. Vertical bars and shaded areas show the standard error in the estimation of indexes.

Table 4.4.2.1.

Faroe Bank (Subdivision Vb₂) cod. Nominal catches (tonnes) by countries 1986–2008 as officially reported to ICES. From 1992 the catches by Faroe Islands and Norway are used in the assessment.

	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996		
Faroe Islands	1836	3409	2966	1270	289	297	122	264	717	561	2051		
Norway	6	23	94	128	72	38	32	2	8	40	55		
UK (E/W/NL)	-	-	-	-	2 ²	1 ²	74 ²	186 ²	56 ²	43 ²	126 ³		
UK (Scotland)	63 ³	47 ³	37 ³	14 ³	205 ³	90 ³	176 ³	118 ³	227 ³	551 ³	382 ³		
Total	1905	3479	3091	1412	566	425	330	385	953	1152	2488		
Used in assessment					289	297	154	266	725	601	2106		
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	
Faroe Islands	3459	3092	1001		1094	1840	5957	3607	1270	1005	471	232 [*]	
Norway	135	147	88	49	51	25	72	18	37	10	7	1 [*]	
UK (E/W/NL)	61 ³	27 ³	51 ³	18 ³	50 ³	42 ³	15 ³	15 ³	24 ³	1 ³			
UK (Scotland)	277 ³	265 ³	210 ³	245 ³	288 ³	218 ³	254 ³	244 ³	1129 ³	278 ³	53		
Total	3871	3504	1350	312	1483	2125	6298	3884	2460	1294	531	233[*]	
Correction of Faroese catches in Vb2					-65	-109	-353	-214	-75	-60	-28	-14	
Used in assessment	3594	3239	1089	1194	1080	1756	5676	3411	1232	955	450	219 [*]	
[*] Preliminary													
¹ Includes Vb1.													
² Included in Vb1.													
³ Reported as Vb.													

4.4.3 Faroe haddock in ICES Division Vb

State of the stock

Spawning biomass in relation to precautionary limits	Fishing mortality in relation to precautionary limits	Fishing mortality in relation to highest yield	Fishing mortality in relation to agreed target	Comment
Increased risk	Harvested sustainable	Overfished	Below agreed target	

Based on the most recent estimates of SSB (in 2009) and fishing mortality (2008), ICES classifies the stock as being at risk of reduced reproductive capacity but being harvested sustainably. The fishing mortality in 2008 is estimated just below F_{pa} . SSB increased until 2003 as a result of strong recruitments, including the record-high 1999 year class, but has declined since. Recruitment of the year classes from 2003 onwards has been well below average.

Management objectives

The effort management system implemented in the Faroese demersal fisheries in Division Vb since 1996 aims at harvesting on average 33% of the haddock exploitable stock in numbers. This translates into an average F of 0.45, above the F_{pa} of 0.25. ICES considers this to be inconsistent with the precautionary approach.

Reference points

	Type	Value	Technical basis
Precautionary approach	B_{lim}	22 000 t	Lowest observed SSB
	B_{pa}	35 000 t	$B_{lim}e^{1.645\sigma}$, assuming a σ of about 0.3 to account for the uncertainties in the assessment.
	F_{lim}	0.40	$2 \times$ std. dev. above F_{pa}
	F_{pa}	0.25	$F_{med}(1998) = 0.25$.
Targets	F_y	~ 0.45	harvesting on average 33% of the exploitable stock in numbers.

(unchanged since 2007)

Yield and spawning biomass per Recruit

F-reference points:

	Fish Mort Ages 3-7	Yield/R	SSB/R
Average last 3 years	0.29	0.62	2.56
F_{max}			
$F_{0.1}$	0.18	0.56	3.32
F_{med}	0.30	0.62	2.53

Candidates for reference points consistent with high long-term yields and a low risk of depleting the productive potential of the stock are in the range of $F_{0.1}$ – F_{pa} .

Single-stock exploitation boundaries

ICES advises on the basis of the precautionary approach to close the fishery in the fishing season 2009/2010 and to develop a recovery plan aimed at rapidly rebuilding the stock to above B_{pa} .

Exploitation boundaries in relation to existing management plans

The management objective implied in the effort management scheme is to achieve an average exploitation rate equivalent to a fishing mortality of 0.45, compared to the current estimate of 0.22 in 2008, and the average fishing mortality 1997-2008 of 0.36.

Exploitation boundaries in relation to high long-term yield, low risk of depletion of production potential, and considering ecosystem effects

The current fishing mortality, estimated at 0.22, and the average fishing mortality 1997-2008 of 0.36 is above $F_{0.1}$ (0.18).

Exploitation boundaries in relation to precautionary limits

Given the recent poor recruitment and slow growth and the rapidly declining SSB, the forecast indicates that even a zero fishing mortality in 2010 will not result in getting the stock above B_{pa} in 2011. ICES recommends to close the fishery in the fishing season 2009/2010 and to develop a recovery plan aimed at rapidly rebuilding the stock to above B_{pa} .

Short-term implications

Outlook for 2010

Basis: $F(2009) = F(2006-2008)$ rescaled to 2008 = 0.22 ; $SSB(2009) = 27$; $SSB(2010) = 23$; catch (2009) = 6 .

Rationale	F (2010)	Basis	Landings 2010	SSB (2011)	%SSB change ¹⁾
Zero catch	0,00	$F=0$	0	28	21
Management target reference point	0,45	F_{target}	9	18	-20
<i>Status quo</i>	0,22	F_{sq}	5	22	-2
High long-term yield	0,18	$F(\text{long-term yield}) F_{0.1}$	4	23	1
Average under current man. system	0,36	Avg. $F(1997-2008)$	8	20	-13
Precautionary limits	0,03	$F(F_{pa}) * 0.1$	1	27	18
	0,06	$F(F_{pa}) * 0.25$	2	26	14
	0,13	$F(F_{pa}) * 0.5$	3	25	7
	0,19	$F(F_{pa}) * 0.75$	4	23	1
	0,23	$F(F_{pa}) * 0.90$	5	22	-3
	0,25	F_{pa}	6	22	-5
	0,28	$F(F_{pa}) * 1.1$	6	21	-7
0,31	$F(F_{pa}) * 1.25$	7	21	-10	

Weights in '000 t. Shaded scenarios are not considered consistent with the precautionary approach.

¹⁾ SSB 2011 relative to SSB 2010.

Management considerations

SSB increased until 2003 as a result of strong recruitments, including the record-high 1999 year class. Recruitment of the year classes 2003 onwards have all been well below average. Individual fish growth has been low in recent years (Figure 4.4.3.4). As a result, SSB is estimated to have declined rapidly to below B_{pa} in 2008, and is predicted to stay below B_{pa} even in the absence of fishing. Fishing mortality does not appear to be the major driver for the decline in the stock. Despite this, the advice for haddock is the same as for the Plateau cod and applies to the same fleets. ICES advises to close the haddock fisheries; this advice must also include all fleets presently not in the fishing days regulations, e.g. the single trawlers. Moreover, ICES recommends a rebuilding plan. A rebuilding plan should take into account that haddock is a by-catch in the saithe trawl fishery and that haddock and cod are caught together in longline fisheries. The advice for saithe is not as restrictive as for haddock (and cod). There can be a fishery for saithe, whereas the fishery for haddock (and cod) should be kept to a minimum. The only way to achieve this goal in the effort management system would be to close more areas for haddock and cod fishing and for a longer time than currently, preferably year-round. A recovery plan should include monitoring the trajectory of the stock, clearly stating specified reopening criteria, and monitoring the fishery when it is reopened.

An expected benefit of the effort management system was more stability for the fishing fleet. The fleets were expected to target the most abundant fish species, thus reducing the fishing mortality on stocks that are in bad shape. This assumption is, however, not always correct; e.g. low prices on saithe and haddock and high prices for cod kept the fishing mortality higher than expected for cod. Management should include measures that avoid a disproportionate targeting of depleted stocks.

The effort management system needs to consider changes in catchability of the fishery. For baited hook gear, catchability is related to the amount of food available in the ecosystem. Therefore, low ecosystem production may decrease haddock production and increase the catchability of longline gear. Also, the ever increasing efficiency in an effort system needs to be carefully monitored.

Factors affecting the fisheries and the stock

Regulations and their effects

An effort management system was implemented 1st of June 1996. Fishing days are allocated to all fleets fishing in shallow waters (< 380 m depth) for the period 1 September–31 August. In addition the majority of the shallow areas (< ca. 200 m) are closed for trawling, and are mainly utilized by longliners.

Changes in fishing technology and fishing patterns

The effort management system invites improvement of fishing technology and fishing patterns. Presently, ICES is not able to quantify these changes.

Impacts of the environment on the fish stocks

The productivity of the Faroe Shelf ecosystem is important to the haddock stock. The recruitment depends both on the spawning-stock biomass and on the productive state of the Faroe Shelf ecosystem. The indices of primary production has been low since 2002 except for 2004 and 2008 when it was estimated above average. The estimate of the primary production in 2009 will not be available until July but preliminary estimates suggest it to be higher than in 2008. It will have little effect on the spawning biomass in 2011, but more effect on the total biomass. The above average primary production may also be responsible for the estimated low fishing mortality in 2008 since most of the haddock catches are taken by longlines, and it has been demonstrated that the primary production and the catchability of longlines are negatively correlated. This may also apply for 2009.

Scientific basis

Data and methods

The advice is based on an analytical assessment (XSA) using age-disaggregated indices from two research surveys. Recruitment estimates were available from the surveys.

No estimates of discards of haddock are available, but it is assumed that there is no strong incentive to discard in order to high-grade landings as quotas are not used in the management of this stock. Additionally, there is a ban on discarding. Hence, the landings statistics are regarded as reflecting the true level of catch and are considered to be appropriate for assessment purposes.

Uncertainties in assessment and forecast

The information used for the assessment is considered to be of high quality. In the estimation of F and SSB in recent years a consistent retrospective pattern overestimating SSB and underestimating F. Mean weight-at-age used in the short term prediction may well be optimistic, but information from surveys suggest that the reduction in growth is reversed.

Comparison with previous assessment and advice

This year's assessment confirms the trends in fishing mortality and SSB as seen in last year's assessment (Figure 4.4.3.3). SSB in 2008 has been revised 23% downward and F in 2007 has been revised 13% upward. This year the advice is the same as that given last year for no fishing and the development of a recovery plan because the continued low recruitment is forecasted to lead SSB towards B_{lim} in 2010.

Source of information

Report of the North-Western Working Group, 29 April – 5 May 2009 (ICES CM 2009/ACOM:04).

Fishing Year	ICES Advice	Predicted catch corresp. to advice	Agreed TAC	ICES Catch
1987	No increase in F	17		14.9
1988	No increase in F	18		12.2
1989	No increase in F	11		14.3
1990	No increase in F	11		11.7
1991	TAC	11		8.4
1992	TAC	13–15		5.5
1993	Reduction in F	8		4.0
1994	No fishing	0	6.2	4.3
1995	No fishing	0	6.2	4.9
1996	TAC	8.3	12.6	9.6
1997	F= F(95)	9.3		17.9
1998	F =F(96)	16		22.2
1999	F < proposed F_{pa} (0.25)	9		18.5
2000	F < proposed F_{pa} (0.25)	22		15.8
2001	F < proposed F_{pa} (0.25)	20		15.9
2002	No fishing	0		24.9
2003	F<proposed F_{pa} (0.25)	12		27.1
2004	F<proposed F_{pa} (0.25)	21		23.3
2005	F<proposed F_{pa} (0.25)	19		20.3
2006	F<proposed F_{pa} (0.25)	18		17.0
2007	F < 0.20	16		12.6
2008	F_{pa}	14		7.6
2009	No fishing and recovery plan	0		
2010	No fishing and recovery plan	0		

Fishing year: 1 September–31 August the following year
Weights in '000 t.

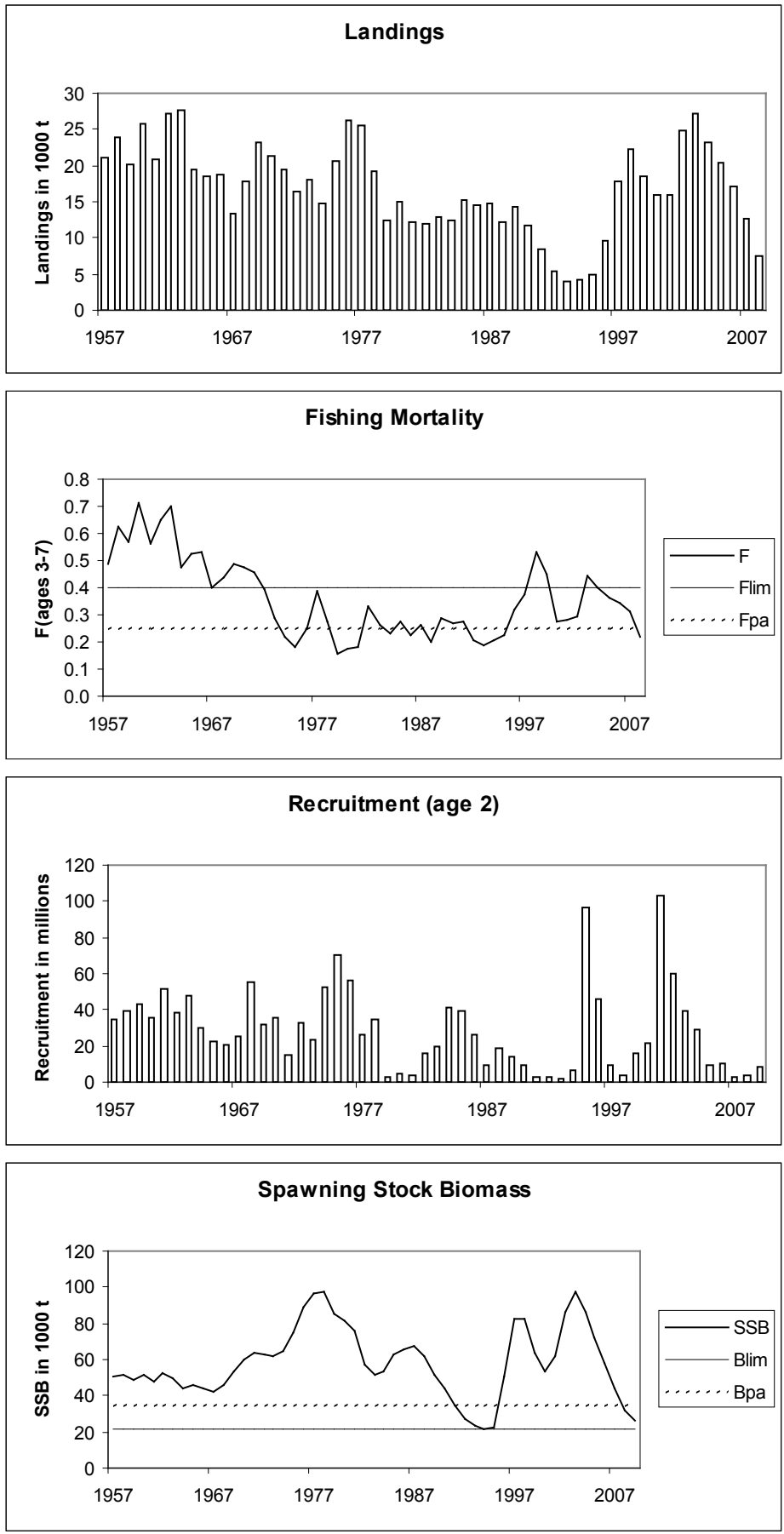


Figure 4.4.3.1 Faroe haddock (Division Vb). Landings, recruitment, fishing mortality, and SSB.

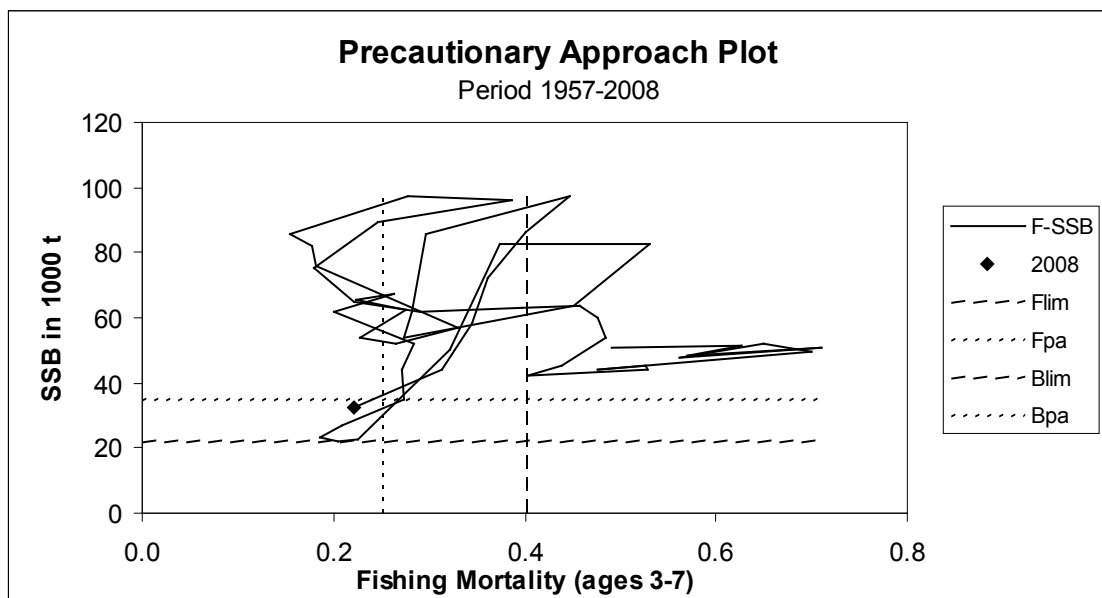
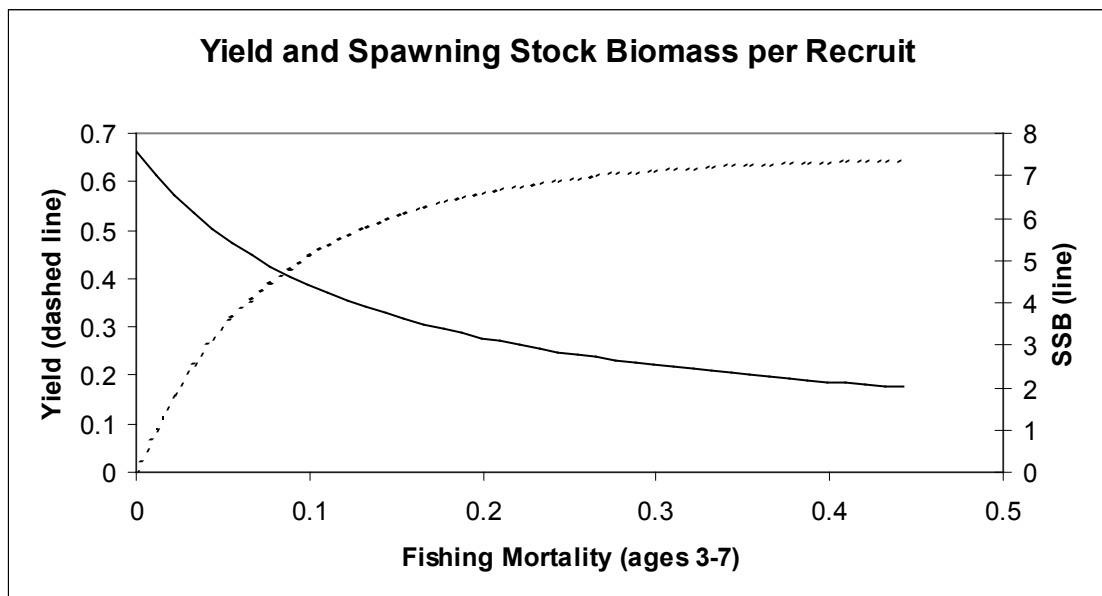
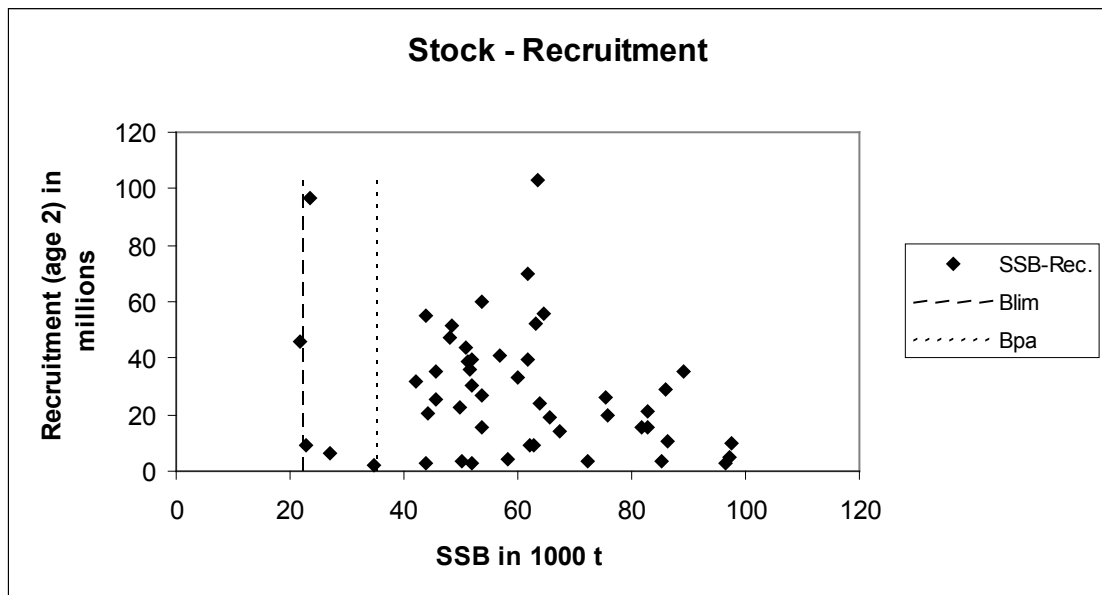


Figure 4.4.3.2 Faroe haddock (Division Vb). Stock and recruitment, yield, and SSB per recruit.

Table 4.4.3.1

Faroe haddock (Division Vb).

Year	Recruitment Age 2 thousands	SSB tonnes	Landings tonnes	Mean F Ages 3-7
1957	35106	51049	20995	0.4900
1958	39212	51409	23871	0.6270
1959	43417	48340	20239	0.5696
1960	35763	51101	25727	0.7101
1961	51279	47901	20831	0.5624
1962	38537	52039	27151	0.6506
1963	47362	49706	27571	0.7002
1964	30110	44185	19490	0.4753
1965	22644	45605	18479	0.5260
1966	20203	44027	18766	0.5288
1967	25356	42086	13381	0.4031
1968	54852	45495	17852	0.4377
1969	31976	53583	23272	0.4853
1970	35601	59958	21361	0.4762
1971	15457	63921	19393	0.4564
1972	33213	63135	16485	0.3962
1973	23703	61623	18035	0.2902
1974	52335	64632	14773	0.2206
1975	70063	75408	20715	0.1799
1976	55980	89225	26211	0.2475
1977	26197	96385	25555	0.3873
1978	35107	97245	19200	0.2781
1979	2785	85415	12424	0.1551
1980	4945	81920	15016	0.1779
1981	3492	75867	12233	0.1813
1982	15841	56823	11937	0.3307
1983	19633	51833	12894	0.2652
1984	40799	53854	12378	0.2283
1985	39499	62649	15143	0.2758
1986	26529	65675	14477	0.2235
1987	9462	67407	14882	0.2638
1988	18807	62030	12178	0.2005
1989	14280	51869	14325	0.2844
1990	9440	43873	11726	0.2715
1991	2979	34852	8429	0.2729
1992	2668	27151	5476	0.2088
1993	1825	23384	4026	0.1861
1994	6401	21759	4252	0.2043
1995	96505	22904	4948	0.2264
1996	45757	50162	9642	0.3207
1997	9064	82728	17924	0.3743
1998	3747	82670	22210	0.5310
1999	15562	63612	18482	0.4521
2000	21382	53581	15821	0.2732
2001	102864	61823	15890	0.2816
2002	59665	85960	24933	0.2962
2003	39712	97536	27128	0.4462
2004	29251	86462	23287	0.4000
2005	9533	72287	20305	0.3612
2006	10240	58369	17082	0.3450
2007	3275	44356	12656	0.3141
2008	3990	32312	7582	0.2213
2009	8906	26543		
Average	28345	58221	16905	0.3591

Haddock in Division Vb

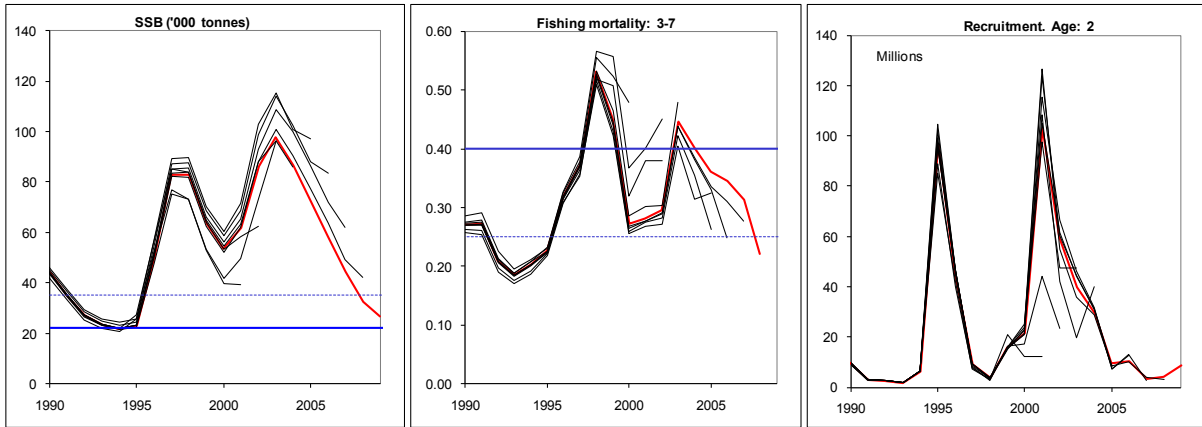


Figure 4.4.3.3 Faroe haddock (Division Vb). Historical performance of the assessment.

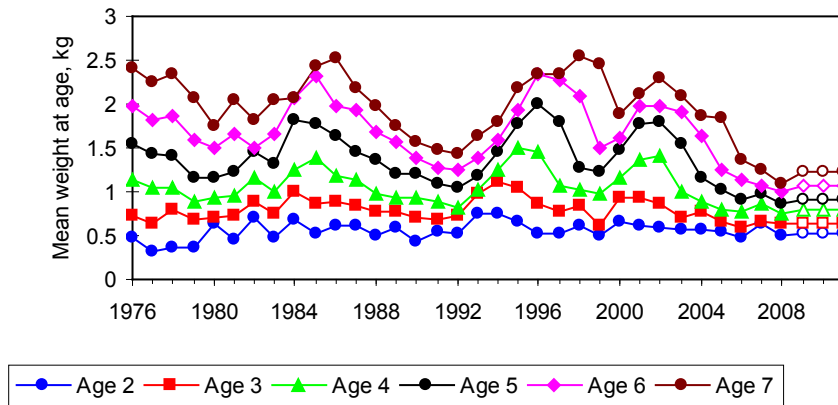


Figure 4.4.3.4 Faroe haddock (Division Vb). Mean weights-at-ages 2–7, 2009–2011 are predicted values used in the short-term prediction.

Table 4.4.3.2

Faroe Plateau (Sub-division Vb1) HADDOCK. Nominal catches (tonnes) by countries
1982-2008, I.e. Working Group estimates in Vb1.

Country	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Denmark	-	-	-	-	1	8	4	-	-	-	-	-	-
Faroe Islands	10,319	11,898	11,418	13,597	13,359	13,954	10,867	13,506	11,106	8,074	4,655	3,622	3,675
France ¹	2	2	20	23	8	22	14	-	-	-	164	-	-
Germany	1	+	+	+	1	1	-	+	+	+	-	-	-
Norway	12	12	10	21	22	13	54	111	94	125	71	28	22
UK (Engl. and Wales)	-	-	-	-	-	2	-	-	7	-	54	81	31
UK (Scotland) ³	1	-	-	-	-	-	-	-	-	-	-	-	-
United Kingdom													
Total	10,335	11,912	11,448	13,641	13,391	14,000	10,939	13,617	11,207	8,199	4,944	3,731	5,722
Working Group estimate ^{4,5}	11,937	12,894	12,378	15,143	14,477	14,882	12,178	14,325	11,726	8,429	5,476	4,026	4,252

Country	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004 #	2005	2006	2007	2008 ²
Faroe Islands	4,549	9,152	16,585	19,135	16,643	13,620 ⁸	13,457 ⁸	20,776 ⁸	21,615	18,995	18,022	15,600	11,688	7,119
France ¹				2 ^{2,7}	- ²	6	8 ⁷	2	4	1 ⁵	+	12 ⁷	4 ⁷	1 ⁷
Germany	5	-	-		33	1	2	6	1	6		1		
Greenland					30 ⁶	22 ⁶	0 ⁶	4 ⁶				1	13 ⁵	
Iceland								4						
Norway	28	45	45	71	411	355	257 ²	227	265	229	212	57	61	26
Russia										16				10 ⁷
Spain										49				
UK (Engl. and Wales)	23	5	22	30 ¹	59 ⁷	19 ⁷	4 ⁷	11 ⁷	14 ⁷	8 ⁷	1 ⁷	1 ⁷		
UK (Scotland) ¹¹	-					185 ⁷	186 ⁷	126 ⁷	106 ⁷	35 ⁷	
United Kingdom														65 ⁷
Total	4,605	9,202	16,652	19,238	17,176	14,023	13,728	21,030	22,084	19,490	18,361	15,778	11,801	7,221
Working Group estimate ^{4,5,8}	4,948	9,642	17,924	22,210	18,482	15,821	15,890	24,933	27,128	23,287	20,305	17,082	12,656	7,582

1) Including catches from Sub-division Vb2. Quantity unknown 1989-1991, 1993 and 1995-2001.

2) Preliminary data

3) From 1983 to 1996 catches included in Sub-division Vb2.

4) Includes catches from Sub-division Vb2 and Division IIa in Faroese waters.

5) Includes French and Greenlandic catches from Division Vb, as reported to the Faroese coastal guard service

6) Reported as Division Vb, to the Faroese coastal guard service.

7) Reported as Division Vb.

8) Includes Faroese landings reported to the NWWG by the Faroese Fisheries Laboratory

9) Included in Vb2

10) Includes 14 reported as Vb

Table 4.4.3.3.

Faroe Bank (Sub-division Vb2) HADDOCK. Nominal catches (tonnes) by countries,
1982-2008, I.e. Working Group estimates in Vb2.

Country	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994
Faroe Islands	1,533	967	925	1,474	1,050	832	1,160	659	325	217	338	185	353
France1	-	-	-	-	-	-	-	-	-	-	-	-	-
Norway	1	2	5	3	10	5	43	16	97	4	23	8	1
UK (Engl. and Wales)	-	-	-	-	-	-	-	-	-	-	+	+	+
UK (Scotland)3	48	13	+	25	26	45	15	30	725	287	869	102	170
Total	1,582	982	930	1,502	1,086	882	1,218	705	1,147	508	1,230	295	524

Country	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008 ²
Faroe Islands	303	338	1,133	2,810	1,110	1,565 ⁵	1,948	3,698	4,804	3,594	1,899	1,412	832	361
France1	-	-	-	-	-	-	-	-	-	-	+	-	-	-
Norway	1	40	4	60	3	48	66	28	54	17	45	1	8	-
UK (Engl. and Wales)	... ¹	... ¹	... ¹	... ¹	... ¹	... ¹	... ¹	... ¹	... ¹	... ¹	... ¹	... ¹	... ¹	... ¹
UK (Scotland)3	39	62	135	102	193	185	148	177	4	1	4	4	15	-
Total	343	440	1,272	2,972	1,306	1,798	2,162¹	3,903	5,044	3,797	1,944	1,304	855	361

1) Catches included in Sub-division Vb1.

2) Provisional data

3) From 1983 to 1996 includes also catches taken in Sub-division Vb1 (see Table 2.4.1)

4) Reported as Division Vb.

5) Provided by the NWWG

4.4.4 Faroe saithe in Division Vb

State of the stock

Spawning biomass in relation to precautionary limits	Fishing mortality in relation to precautionary limits	Fishing mortality in relation to high long-term yield	Fishing mortality in relation to agreed target	Comment
Unknown.	Unknown.	Unknown.	Unknown.	

The state of the stock is uncertain, but stock trends indicate that the spawning biomass is declining from a recent high. There are indications that fishing mortality has been increasing in recent years. Recruitment in the past 10 years has been well above the long-term average, but the mean weight-at-age has declined significantly over the same period.

Management objectives

The management objective is to achieve sustainable fisheries. An effort management system was implemented in the Faroese demersal fisheries (Division Vb) in 1996 and aims at harvesting, on average, 33% of the saithe stock in numbers. This translates into an average F of 0.45, above the F_{pa} of 0.28. ICES considers this to be inconsistent with the precautionary approach.

Reference points

	Type	Value	Technical basis
Precautionary approach	B_{lim}	60 000 t	Lowest observed SSB (1999).
	B_{pa}	85 000 t	Former MBAL.
	F_{lim}	0.40	consistent with B_{lim} of 60 000 t.
	F_{pa}	0.28	consistent with F_{lim} and previous estimate of F_{med} .
Targets	F_y	~ 0.45	Harvest on average 33% of the exploitable stock in numbers.

(unchanged since 1999)

Single-stock exploitation boundaries

Exploitation boundaries in relation to precautionary considerations

The estimates of fishing mortality and SSB are uncertain, but fishing mortality appears to be relatively high. ICES considers that fishing mortality should be reduced. ICES recommends a reduction of fishing effort of around 20% as an arbitrary step taking into account the declining trends in stock size and growth rates, and the recent measures to reduce the number of fishing days.

Management considerations

Recruitment in the past 10 years has been high and above the long-term average. An expected increase in SSB has however not occurred most likely because of high fishing mortality and reduced growth. Landings have been historical high in the last four years. ICES considers that the current catches and effort on this stock are unlikely to be sustainable and should be reduced. Noting that the number of fishing days were reduced by 10% for the current fishing year (2008/2009), ICES advises for a further reduction of effort. This advice applies to all fleets fishing saithe, including the single trawlers which are not presently regulated by fishing days but have accounted for about 20% of the annual landings on average since the introduction of the present management system.

The present spawning closures should be maintained.

The routine collection of information on by-catch of saithe in the blue whiting fishery in ICES Division Vb should be undertaken.

Factors affecting the fisheries and the stock

Regulations and their effects

The principal fleets fishing for saithe are pairtrawlers, single trawlers and jiggers. The average annual landings from these fleets since the introduction of the present management system are about 75%, 20% and 5%, respectively. The single trawlers have so far mainly been regulated by number of licenses and area closures but not by fishing days.

Limited sampling in the blue whiting fishery in Faroe waters indicates that by-catches of saithe have been minor since the mandatory use of sorting grids from 15 April 2007 in the areas west and northwest of the Faroe Islands.

Changes in fishing technology and fishing patterns

The effort management system invites improvement of fishing technology and fishing patterns. Presently, ICES is not able to quantify these changes.

Impacts of the environment on the fish stock

There has been a strong decline in weight-at-age in recent years (Figure 4.4.4.2). The reason for this is not known.

Scientific basis

Data and methods

The assessment is based on landings-at-age and commercial cpue's. The assessment is indicative of trends and cannot be compared directly with the precautionary reference points..

Uncertainties in assessment and forecast

Due to a consistent bias in the estimates of SSB and F in the final year an analytical assessment cannot be accepted. In the absence of reliable fisheries-independent information, the assessment is considered to be very uncertain.

Comparison with previous assessment and advice

Assessment and advice are unchanged from those of last year.

Source of information

Report of the North-Western Working Group, 29 April – 5 May 2009 (ICES CM 2009/ACOM:04).

Saithe (*Pollachius virens*) in the Faroes (Division Vb). Single-stock exploitation boundaries.

Fishing Year	ICES Advice	Predicted catch corresp. to advice	Agreed TAC	ICES Landings
1987	No increase in F	<32		40
1988	No increase in F	<32		45
1989	Reduction in F	<40		44
1990	Reduction in F	<41		62
1991	TAC	<30		55
1992	Reduction in F	<27		36
1993	Reduction in F	<37		34
1994	TAC	<26	42 ¹	33
1995	TAC	<22	39 ¹	27
1996	TAC	<39	-	20
1997	20% reduction in F from 1995 level	<21	-	22
1998	30% reduction in effort from 1996/97 level	-	-	26
1999	F below F_{pa} (0.28)	<14		33
2000	F below than F_{pa} (0.28)	<15		39
2001	Reduce fishing effort to generate F well below F_{pa} (0.28)	<17		52
2002	Reduce fishing effort to generate F below F_{pa} (0.28)	<28		54
2003	Reduce fishing effort to generate F below F_{pa} (0.28)	<47		47
2004	Reduce fishing effort to generate F below F_{pa} (0.28)	<48		46
2005	Reduce fishing effort to generate F below F_{pa} (0.28)	<32		68
2006	Reduce fishing effort to generate F below F_{pa} (0.28)	<24		67
2007	Average catch considerations	40		61
2008	Do not increase effort	-		57
2009	Reduce fishing effort by around 20%	-		
2010	Reduce fishing effort by around 20%	-		

Fishing year: 1 September–31 August the following year

Weights in '000 t.

¹⁾ In the quota year 1 September–31 August the following year.

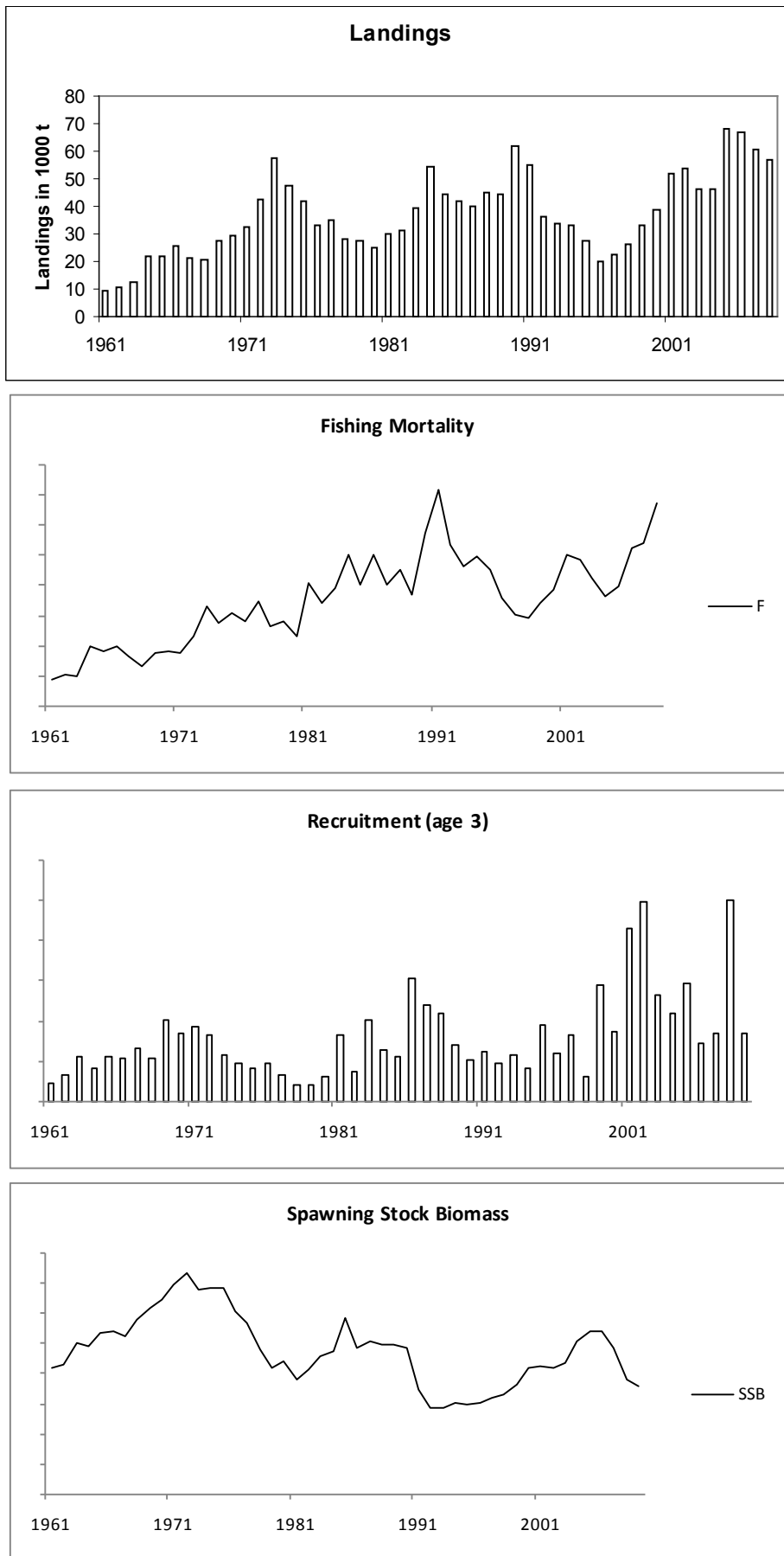


Figure 4.4.4.1. Saithe (*Pollachius virens*) in the Faroes (Division Vb). Landings, fishing mortality, Recruitment, spawning-stock biomass.

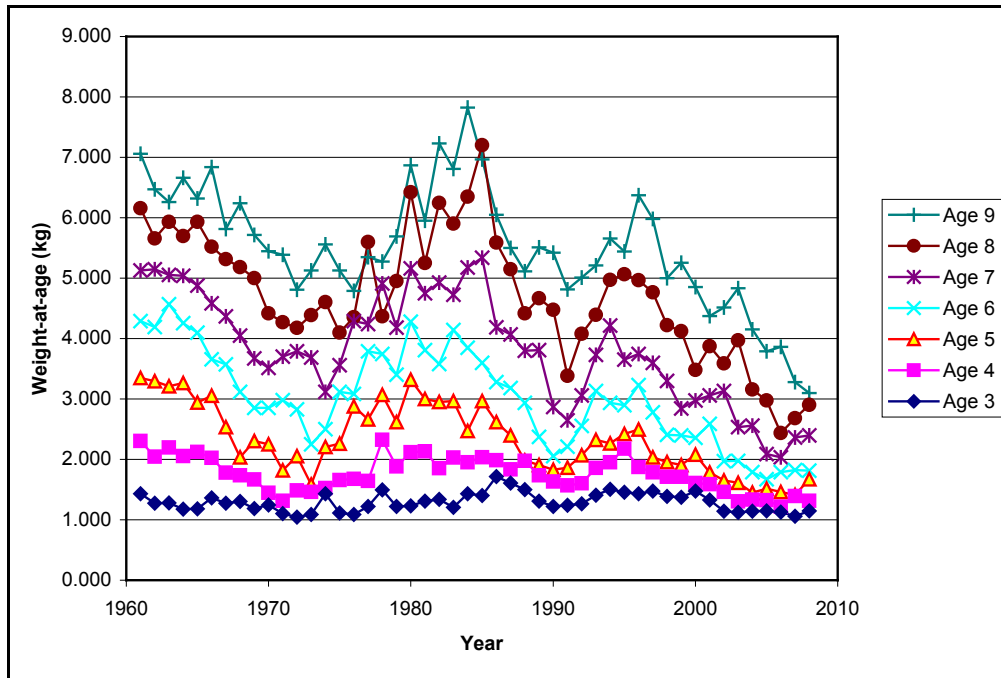


Figure 4.4.4.2 Saithe in the Faroes (Division Vb). Mean weight-at-age (kg) in the commercial catches for the period 1961–2008.

Table 4.4.4.1 Saithe (*Pollachius virens*) in the Faroes (Division Vb). Nominal catches (tonnes round weight) by countries, 1989–2008, as officially reported to ICES, and the working group estimate.

Country	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998
Denmark	-	2	-	-	-	-	-	-	-	-
Estonia	-	-	-	-	-	-	-	-	16	-
Faroe Islands	43,624	59,821	53,321	35,979	32,719	32,406	26,918	19,267	21,721	25,995
France ³	-	-	-	120	75	19	10	12	9	17
Germany	-	-	32	5	2	1	41	3	5	-
German Dem. Rep.	9	-	-	-	-	-	-	-	-	-
German Fed. Rep.	20	15	-	-	-	-	-	-	-	-
Greenland	-	-	-	-	-	-	-	-	-	-
Ireland	-	-	-	-	-	-	-	-	-	-
Netherlands	22	67	65	-	-	-	-	-	-	-
Norway	51	46	103	85	32	156	10	16	67	53
Portugal	-	-	-	-	-	-	-	-	-	-
UK (Eng. & W.)	-	-	5	74	279	151	21	53	-	19
UK (Scotland)	9	33	79	98	425	438	200	580	460	337
USSR/Russia ²	-	30	-	12	-	-	-	18	28	-
<i>Total</i>	43,735	60,014	53,605	36,373	33,532	33,171	27,200	19,949	22,306	26,065
<i>Working Group estimate</i> ^{4,5}	44,477	61,628	54,858	36,487	33,543	33,182	27,209	20,029	22,306	26,421

Country	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008 ¹
Denmark	-	-	-	-	-	-	-	34	-	-
Estonia	-	-	-	-	-	-	-	-	-	-
Faroe Islands	32,439	-	49,676	55,165	47,933	48,222	71,496	70,696	64,552	61,137
France	-	273	934	607	370	147	123	315	108	38
Germany	100	230	667	422	281	186	1	49	3	3
Greenland	-	-	-	125	-	-	-	73	-	-
Ireland	-	-	5	-	-	-	-	-	-	-
Norway	160	72	60	77	62	82	82	35	81	37
Portugal	-	-	-	-	-	5	-	-	-	-
Russia	-	20	1	10	32	71	210	104	114	38
UK (E/W/NI)	67	32	80	58	89	85	32	88	4	-
UK (Scotland)	441	534	708	540	610	748	4,322	1,011	408	-
United Kingdom	-	-	-	-	-	-	-	-	-	358
<i>Total</i>	33,207	1,161	52,131	57,004	49,377	49,546	76,266	72,405	65,270	61,611
<i>Working Group estimate</i> ^{4,5,6,7}	33,207	39,020	51,786	53,546	46,555	46,355	68,008	67,103	60,819	57,025

¹ Preliminary.

² As from 1991.

³ Quantity unknown 1989-91.

⁴ Includes catches from Sub-division Vb2 and Division IIa in Faroese waters.

⁵ Includes French, Greenlandic, Russian catches from Division Vb, as reported to the Faroese coastal guard service.

⁶ Includes Faroese, French, Greenlandic catches from Division Vb, as reported to the Faroese coastal guard service.

⁷ The 2001-2008 catches from Faroe Islands, as stated from Faroese coastal guard service, are corrected in order to be consistent with procedures used previous years.