Haddock (*Melanogrammus aeglefinus*) in Division 5.b (Faroes grounds)

ICES advice on fishing opportunities

ICES advises that when the MSY approach is applied, catches in 2021 should be no more than 11 440 tonnes. ICES is not in a position to advise on the corresponding level of fishing effort.

Note: This advice sheet is abbreviated due to the COVID-19 disruption. The previous advice issued for 2020 is attached as Annex 1.

Stock development over time

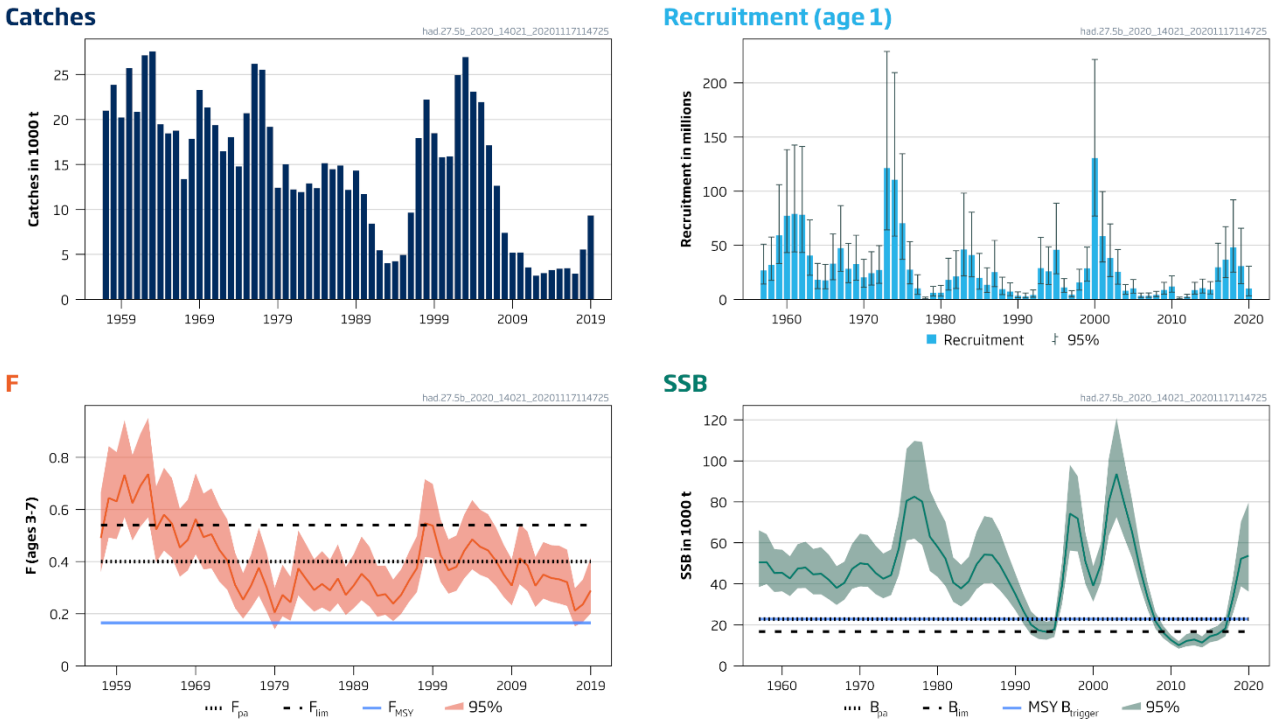

Figure 1 Haddock in Division 5.b (Faroes grounds). Summary of the stock assessment with 95% confidence intervals. Catches, recruitment (R), fishing mortality (F), and spawning-stock biomass (SSB).

Stock and exploitation status

Table 1 Haddock in Division 5.b (Faroes grounds). State of the stock and fishery relative to reference points.

		Fishing pressure				Stock size			
		2017	2018	2019		2018	2019	2020	
Maximum sustainable yield	F_{MSY}	✗	✗	✗	Above	MSY $B_{trigger}$	✓	✓	✓ Above trigger
Precautionary approach	F_{pa},F_{lim}	✓	✓	✓	Harvested sustainably	B_{pa},B_{lim}	✓	✓	✓ Full reproductive capacity
Management plan	F_{MGT}	–	–	–	Not applicable	B_{MGT}	–	–	– Not applicable

Catch scenarios

Table 2 Haddock in Division 5.b (Faroes grounds). Assumptions made for the interim year and in the forecast. All weights are in tonnes.

Variable	Value	Notes
$F_{ages\ 3–7}$ (2020)	0.162	Based on catch estimate of 7146 tonnes in 2020.
SSB_{2021}	90392	Based on F = 0.162; in tonnes.
$R_{age\ 1}$ (2021)	10170	Median of resampled estimates from 2000–2019; in thousands.
Landings (2020)	7146	Catch estimate for 2020 based on catch statistics to the end of September adjusted for the entire year; in tonnes.
Discards (2020)	0	Discarding is considered negligible; in tonnes.

Table 3 Haddock in Division 5.b (Faroes grounds). Annual catch scenarios. All weights are in tonnes.

Basis	Total catch (2021)	F_{total} (2021)	SSB_{2022}	% SSB change *	% Advice change **
ICES advice basis					
MSY approach: F_{MSY}	11440	0.165	94854	+5	−1
Other scenarios					
F = 0	0	0	110764	+23	−100
F = F_{2020}	11250	0.162	94950	+5	−3
F = F_{pa}	24277	0.40	79692	−12	+109
F = F_{lim}	30378	0.54	72440	−20	+162

* SSB_{2022} relative to SSB_{2021} (90 392 tonnes).
** The advice value for 2021 relative to the advice value for 2020 as issued in 2019 (11 590 tonnes).

Quality of the assessment

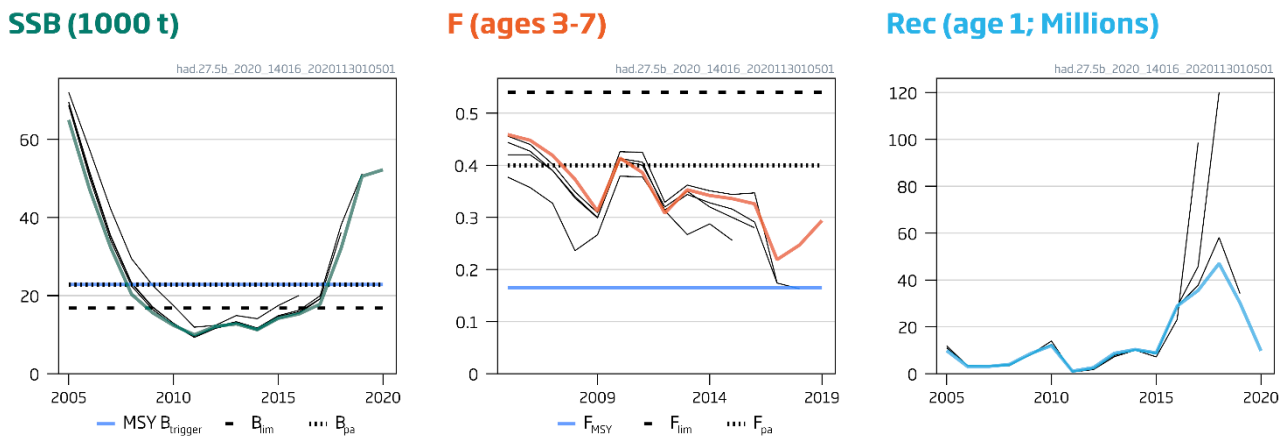

Figure 2 Haddock in Division 5.b (Faroes grounds). Historical assessment results. Results of the last five assessments are plotted, with the solid coloured line representing the current assessment.

History of the advice, catch, and management

Table 4 Haddock in Division 5.b (Faroes grounds). ICES advice and catch. All weights are in tonnes.

Year	ICES advice	Catch corresponding to advice	Agreed TAC *	ICES catch
1987	No increase in F	17000		14882
1988	No increase in F	18000		12178
1989	No increase in F	11000		14325
1990	No increase in F	11000		11726
1991	TAC	11000		8429
1992	TAC	13000–15000		5476
1993	Reduction in F	8000		4026
1994	No fishing	0	6200	4252
1995	No fishing	0	6200	4948
1996	TAC	8300	12600	9642
1997	F = F(95)	9300		17924
1998	F = F(96)	16000		22210
1999	F < proposed F_{pa} (0.25)	9000		18482
2000	F < proposed F_{pa} (0.25)	22000		15799
2001	F < proposed F_{pa} (0.25)	20000		15891
2002	No fishing	0		24929
2003	F < proposed F_{pa} (0.25)	12000		26942
2004	F < proposed F_{pa} (0.25)	21000		23100
2005	F< proposed F_{pa} (0.25)	19000		21944
2006	F < proposed F_{pa} (0.25)	18000		17154
2007	F < 0.20	16000		12630
2008	F_{pa}	14000		7388
2009	No fishing and recovery plan	0		5196
2010	No fishing and recovery plan	0		5202
2011	No direct fishing; minimize bycatch, implement recovery plan	0		3546
2012	No direct fishing; minimize bycatch, implement recovery plan	0		2634
2013	No direct fishing; minimize bycatch, implement recovery plan	0		2924
2014	No direct fishing; minimize bycatch, implement recovery plan	0		3252
2015	No direct fishing; minimize bycatch, implement recovery plan	0		3421
2016	No direct fishing; minimize bycatch, implement recovery plan	0		3470
2017	MSY approach (F ≤ 0.17)	≤ 3500		2863
2018	MSY approach (F ≤ 0.165)	≤ 4570		5549
2019	MSY approach	≤ 7366		9334 **
2020	MSY approach	≤ 11590		
2021	MSY approach	≤ 11440		

* Not applicable since 1997.
** Preliminary.

Summary of the assessment

Table 5 Haddock in Division 5.b (Faroes grounds). Assessment summary.

Year	Recruitment			SSB			Catch	F		
	Age 1	97.5 percentile	2.5 percentile	SSB	97.5 percentile	2.5 percentile		Mean $F_{ages\ 3–7}$	97.5 percentile	2.5 percentile
	Thousands			Tonnes			Tonnes			
1957	26820	51017	14099	50418	66163	38420	20995	0.49	0.67	0.36
1958	31703	57612	17446	50614	64275	39857	23871	0.64	0.84	0.49
1959	59229	105893	33129	45313	56972	36039	20239	0.63	0.82	0.49
1960	77343	138341	43241	45384	56662	36351	25727	0.73	0.94	0.57
1961	79034	142556	43817	42668	53477	34044	20831	0.62	0.81	0.48
1962	78269	141355	43338	47440	59375	37905	27151	0.69	0.89	0.53
1963	40403	73345	22256	47955	60573	37965	27571	0.74	0.95	0.57
1964	18221	33315	9966	44624	57081	34886	19490	0.52	0.69	0.40
1965	17660	32356	9639	44963	57909	34911	18479	0.58	0.76	0.44
1966	33079	60506	18084	41982	54265	32479	18766	0.55	0.72	0.42
1967	47321	86617	25853	38015	48649	29705	13381	0.45	0.60	0.34
1968	28342	51776	15514	40519	50840	32293	17852	0.48	0.64	0.37
1969	32483	59217	17819	47315	59551	37593	23272	0.56	0.74	0.43
1970	20273	37055	11092	49985	64466	38757	21361	0.49	0.66	0.37
1971	24127	44056	13213	49672	63849	38643	19393	0.51	0.68	0.37
1972	27140	49693	14822	45366	58757	35027	16485	0.45	0.61	0.32
1973	121306	229078	64236	42510	54809	32971	18035	0.41	0.56	0.29
1974	110652	209584	58420	44251	56769	34494	14773	0.31	0.43	0.22
1975	70384	134511	36829	57234	73924	44312	20715	0.25	0.36	0.181
1976	27558	53426	14215	80503	105922	61184	26211	0.31	0.43	0.22
1977	10193	22733	4570	82523	109790	62028	25555	0.38	0.53	0.27
1978	957	2170	422	80178	109241	58847	19200	0.30	0.43	0.21
1979	6091	11981	3096	62983	85784	46243	12424	0.21	0.30	0.140
1980	6189	13058	2934	57950	77448	43361	15016	0.27	0.39	0.190
1981	18038	38076	8545	52313	70325	38914	12233	0.24	0.34	0.173
1982	21259	44959	10052	40659	52890	31256	11937	0.37	0.52	0.27
1983	46165	98130	21718	37790	49320	28955	12894	0.33	0.47	0.24
1984	41009	80526	20884	41236	53171	31981	12378	0.29	0.41	0.21
1985	19889	42397	9330	49483	65354	37467	15143	0.31	0.44	0.22
1986	13608	29112	6361	54297	73062	40352	14477	0.29	0.41	0.21
1987	25284	54471	11736	54040	72263	40412	14882	0.34	0.47	0.24
1988	9518	20448	4430	49075	65248	36911	12178	0.27	0.38	0.195
1989	7185	15294	3376	42115	54830	32349	14325	0.31	0.43	0.22
1990	3259	6908	1538	34870	44978	27034	11726	0.35	0.50	0.25
1991	2767	5846	1310	26963	35138	20690	8429	0.32	0.46	0.23
1992	4091	8697	1924	20106	26584	15206	5476	0.27	0.38	0.188
1993	28915	57344	14580	17332	22960	13083	4026	0.28	0.39	0.196
1994	25899	48501	13830	16566	21528	12748	4252	0.24	0.33	0.172
1995	45828	88783	23655	17756	22376	14090	4948	0.27	0.37	0.199
1996	11088	19129	6428	39355	51068	30328	9642	0.33	0.44	0.25
1997	4345	7998	2361	74261	98088	56222	17924	0.38	0.50	0.28
1998	15483	27871	8601	71880	92562	55820	22210	0.55	0.72	0.42
1999	28580	48262	16924	50779	64682	39865	18482	0.54	0.70	0.41
2000	130661	221664	77020	38998	48587	31300	15799	0.43	0.56	0.32
2001	58546	99582	34421	49607	60037	40988	15891	0.37	0.49	0.28
2002	38312	69746	21045	80146	101095	63539	24929	0.38	0.50	0.29
2003	25407	46022	14027	93699	120944	72591	26942	0.44	0.58	0.34
2004	8036	13810	4676	79205	100560	62385	23100	0.49	0.64	0.37
2005	10170	18324	5644	65202	80769	52635	21944	0.46	0.60	0.35
2006	3201	5778	1773	47723	58420	38985	17154	0.44	0.58	0.34
2007	3282	5912	1822	33274	40505	27335	12631	0.40	0.53	0.31
2008	4222	7395	2410	21829	26345	18087	7393	0.35	0.46	0.26

Year	Recruitment			SSB			Catch	F		
	Age 1	97.5 percentile	2.5 percentile	SSB	97.5 percentile	2.5 percentile		Mean $F_{ages\ 3–7}$	97.5 percentile	2.5 percentile
	Thousands			Tonnes			Tonnes			
2009	8709	15685	4835	16285	19608	13526	5197	0.31	0.41	0.23
2010	11986	21789	6594	12614	14995	10610	5203	0.41	0.55	0.31
2011	1117	2095	596	10054	12085	8364	3546	0.39	0.52	0.29
2012	2594	4732	1422	12173	15515	9551	2634	0.31	0.42	0.23
2013	8665	15681	4788	12839	16544	9964	2924	0.35	0.48	0.26
2014	10385	18728	5758	11364	14395	8972	3252	0.34	0.46	0.25
2015	9007	16371	4956	14346	17971	11453	3421	0.33	0.46	0.24
2016	29690	51903	16983	15493	19529	12291	3470	0.32	0.45	0.23
2017	36812	67126	20187	18282	23186	14416	2863	0.21	0.30	0.151
2018	48034	91863	25116	33685	43695	25968	5549	0.24	0.33	0.168
2019	30788	65741	14418	52245	70306	38824	9334 *	0.29	0.41	0.20
2020	9946	30514	3242	53760	79871	36185				

* Preliminary.

Sources and references

ICES. 2020. North-Western Working Group (NWWG). ICES Scientific Reports, 2:51. 431 pp. http://doi.org/10.17895/ices.pub.6051.

Recommended citation: ICES. 2020. Haddock (*Melanogrammus aeglefinus*) in Division 5.b (Faroes grounds). *In* Report of the ICES Advisory Committee, 2020. ICES Advice 2020, had.27.5b. https://doi.org/10.17895/ices.advice.5934.

Annex 1

ICES Advice on fishing opportunities, catch, and effort
Faroes ecoregion
Published 29 November 2019

Haddock (*Melanogrammus aeglefinus*) in Division 5.b (Faroes grounds)

ICES advice on fishing opportunities

ICES advises that when the MSY approach is applied, catches in 2020 should be no more than 11 590 tonnes. ICES is not in a position to advise on the corresponding level of fishing effort.

Stock development over time

The spawning-stock biomass (SSB) was below B_{lim} in 2009–2017 but has been above MSY $B_{trigger}$ since 2018. The fishing mortality (F) has decreased in recent years and was just below F_{MSY} in 2018. The recruitment in 2016–2019 was higher than in previous years.

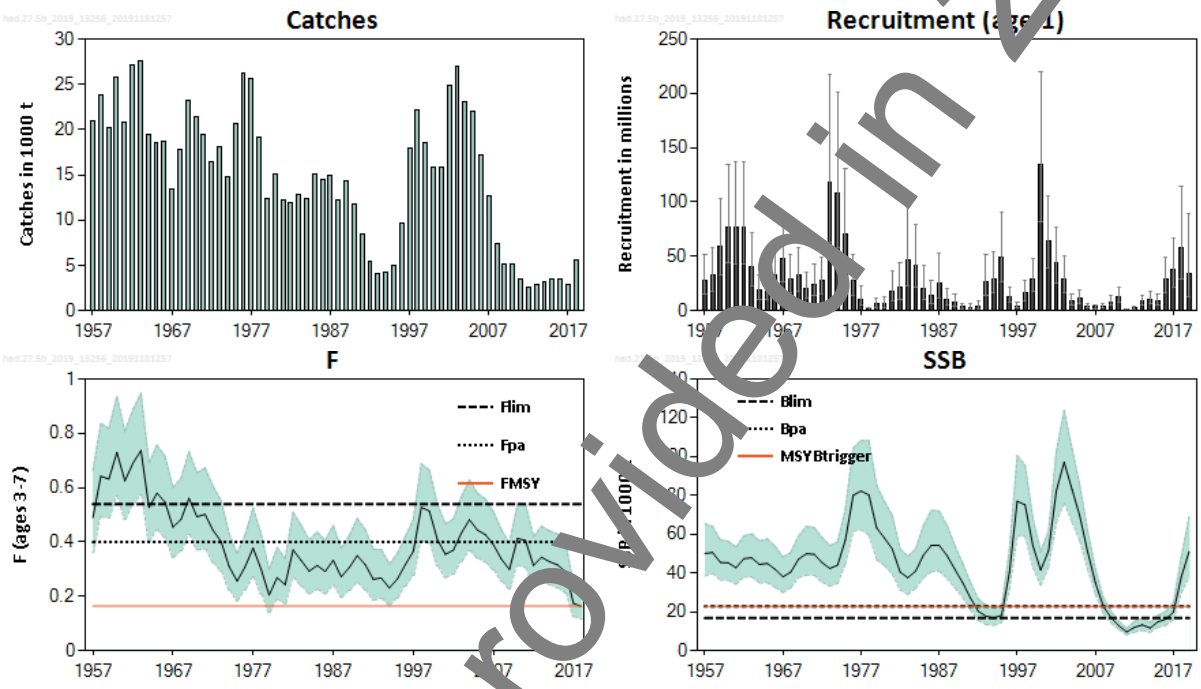

Figure 1 Haddock in Division 5.b (Faroes grounds). Summary of the stock assessment with 95% confidence intervals.

Stock and exploitation status

ICES assesses that fishing pressure on the stock is below F_{MSY}, F_{pa}, and F_{lim}, while the spawning-stock size is above MSY $B_{trigger}$, B_{pa}, and B_{lim}.

Table 1 Haddock in Division 5.b (Faroes grounds). State of the stock and fishery relative to reference points.

		Fishing pressure				Stock size			
		2016	2017	2018		2017	2018	2019	
Maximum sustainable yield	F_{MSY}	✗	✗	✓	Below	MSY $B_{trigger}$	✗	✓	✓ Above trigger
Precautionary approach	F_{pa},F_{lim}	✓	✓	✓	Harvested sustainably	B_{pa},B_{lim}	○	✓	✓ Full reproductive capacity
Management plan	F_{MGT}	–	–	–	Not applicable	B_{MGT}	–	–	– Not applicable

Advice provided in 2019

Catch scenarios

Table 2 Haddock in Division 5.b (Faroes grounds). Assumptions made for the interim year and in the forecast. All weights are in tonnes.

Variable	Value	Notes
$F_{ages\ 3–7}$ (2019)	0.163	$F_{2019} = F_{2018}$
SSB (2020)	86423	Based on $F_{2019} = 0.163$
$R_{age\ 1}$ (2020)	10386	In thousands. Median of resampled estimates fr[illegible]2000–20[illegible]
$R_{age\ 1}$ (2021)	10386	In thousands. Median of resampled estimates fr[illegible]0–2018
Total catch (2019)	7798 tonnes	Based on $F_{2019} = 0.163$
Landings (2019)	7798 tonnes	Landings = catches
Discards (2019)	0 tonnes	Negligible

Table 3 Haddock in Division 5.b (Faroes grounds). Annual catch scenarios. All weights are in tonnes.

Basis	Total catch (2020)	F_{total} (2020)	SSB (2021)	% SSB change *	% Advice change **
ICES advice basis					
MSY approach: F_{MSY}	11590	0.165	103925	20	57
Other scenarios					
F = 0	0	0	1183[illegible]	37	−100
$F = F_{2019}$	11460	0.163	104167	21	56
$F = F_{pa}$	25104	0.40	87188	1	241
$F = F_{lim}$	31839	0.54	[illegible]443	-9	332

* SSB 2021 relative to SSB 2020 (86 423 t).
** Advice value 2020 relative to advice value for 2019 as issued in 2018 (7366 t).

The catch advice for 2020 has increased compared to the advice in 201[illegible]; this is due to the increase in biomass resulting from the higher recruitment and lower fishing mortality in recent years.

Basis of the advice

Table 4 Haddock in Division 5.b (Faroes grounds). The basis of the advice.

Advice basis	MSY approach
Management plan	ICES is not aware of any agreed precautionary management plan for haddock in this area.

Quality of the assessment

The stock was benchmarked in 2017, when the assessment model and input data were changed. The 2018 recruitment estimate has been reduced significantly in the latest assessment.

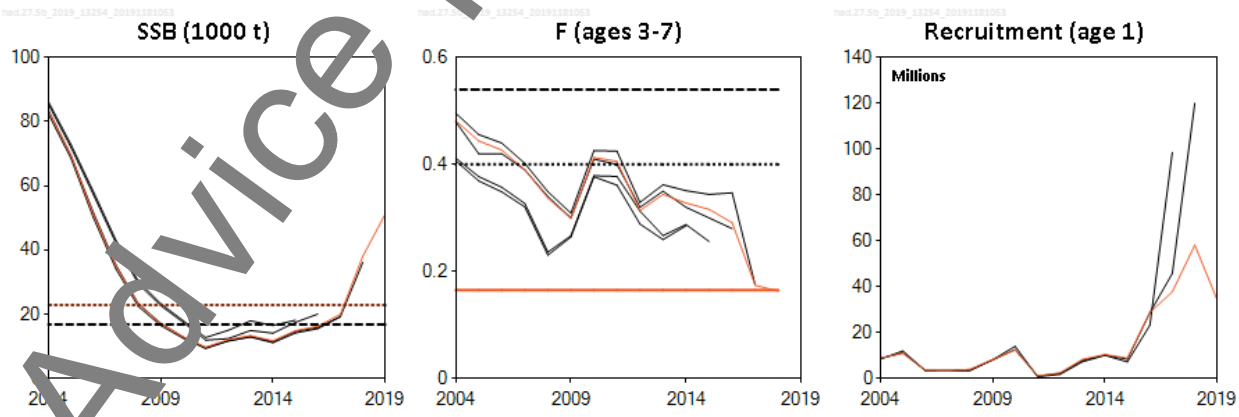

Figure 2 Haddock in Division 5.b (Faroes grounds). Historical assessment results. The age of recruitment changed from age 2 to age 1 at the 2017 benchmark; the recruitment plot therefore shows only three lines.

Advice provided in 2019

Issues relevant for the advice

An effort management system has been in place since 1996. ICES is currently not in a position to quantify the relationship between effort and F for this stock.

Faroe Plateau cod and Faroe haddock are caught in a mixed fishery.

Reference points

Table 5 Haddock in Division 5.b (Faroes grounds). Reference points, values, and their technical basis.

Framework	Reference point	Value	Technical basis	Source
MSY approach	MSY $B_{trigger}$	22 843 t	B_{pa}	ICES (2017)
	F_{MSY}	0.165	Stochastic simulations based on a segmented regression stock–recruitment relationship.	ICES (2017)
Precautionary approach	B_{lim}	16 780 t	The lowest biomass that has led to good recruitment.	ICES (2017)
	B_{pa}	22 843 t	$B_{lim} \times \exp(1.645 \times \sigma)$, where $\sigma = 0$	ICES (2017)
	F_{lim}	0.54	Stochastic simulations (ICES, 2017) that give a 50% probability of SSB > B_{lim}.	ICES (2017)
	F_{pa}	0.40	$F_{lim} \times \exp(-1.645 \times \sigma)$, where σ = 0.18.	ICES (2017)
Management plan	SSB_{mgt}	Not applicable		
	F_{mgt}	Not applicable		

Basis of the assessment

Table 6 Haddock in Division 5.b (Faroes grounds). Basis of the assessment and advice.

ICES stock data category	1 (ICES, 2018a).
Assessment type	SAM with catch-at-age data and age-disaggregated indices, using catches in the model and in the forecast (ICES, 2019).
Input data	Commercial catches (mainly Faroese catches, ages and length frequencies from catch sampling); survey indices (FO-GFS-Q1 and FO-GFS-Q3); annual maturity data from FO-GFS-Q1; natural mortality set at 0.2.
Discards and bycatch	Discarding is considered negligible.
Indicators	Co-occurence of high recruitment of haddock with sandeel abundance.
Other information	Benchmarked in 2017 (ICES, 2018b).
Working group report	North-Western Working Group (NWWG)

Information from stakeholders

There is no additional available information.

History of the advice, catch, and management

Table 7 Haddock in Division 5.b (Faroes grounds). ICES advice and catch. All weights are in tonnes.

Year	ICES advice	Catch corresponding to advice	Agreed TAC *	ICES catch
1987	No increase in F	17000		14882
1988	No increase in F	18000		12178
1989	No increase in F	11000		14325
1990	No increase in F	11000		11726
1991	TAC	11000		8429
1992	TAC	13000–15000		5476
1993	Reduction in F	8000		4026
1994	No fishing	0	6200	4252
1995	No fishing	0	6200	4948
1996	TAC	8300	12600	9642
1997	F = F(95)	9300		17924
1998	F = F(96)	16000		22210

Advice provided in 2019

Year	ICES advice	Catch corresponding to advice	Agreed TAC *	ICES catch
1999	F < proposed F_{pa} (0.25)	9000		18482
2000	F < proposed F_{pa} (0.25)	22000		15799
2001	F < proposed F_{pa} (0.25)	20000		15891
2002	No fishing	0		24929
2003	F < proposed F_{pa} (0.25)	12000		26942
2004	F < proposed F_{pa} (0.25)	21000		23100
2005	F< proposed F_{pa} (0.25)	19000		21944
2006	F < proposed F_{pa} (0.25)	18000		17154
2007	F < 0.20	16000		12630
2008	F_{pa}	14000		7388
2009	No fishing and recovery plan	0		5196
2010	No fishing and recovery plan	0		5202
2011	No direct fishing; minimize bycatch, implement recovery plan	0		3546
2012	No direct fishing; minimize bycatch, implement recovery plan	0		2634
2013	No direct fishing; minimize bycatch, implement recovery plan	0		2924
2014	No direct fishing; minimize bycatch, implement recovery plan	0		3252
2015	No direct fishing; minimize bycatch, implement recovery plan	0		3421
2016	No direct fishing; minimize bycatch, implement recovery plan	0		3470
2017	MSY approach (F ≤ 0.17)	≤ 7600		2863
2018	MSY approach (F ≤ 0.165)	≤ 4570		5588**
2019	MSY approach	≤ 7366		
2020	MSY approach	≤ 11590		

* Not applicable since 1997.
** Preliminary.

History of the catch and landings

Table 8 Haddock in Division 5.b (Faroes grounds). Catch distribution by fleet in 2018 as estimated by ICES. All weights are in tonnes.

Catch (2018)	Landings		Discards
5588	Longlines 66%	Trawls 34%	Negligible
	5588		

Advice provided in 2019

Table 9 Haddock in Division 5.b (Faroes grounds). History of commercial catch and landings in subdivisions 5.b.1. and 5.b.2; the ICES estimated catches are presented for each country participating in the fishery. All weights are in tonnes. Faroese catches used in the assessment (first column) are obtained by adding the Faroe Bank (Subdivision 5.b.2) and the Faroe Plateau (Subdivision 5.b.1) catches, with corrections by applying conversion factors for round/gutted weight.

Year	Faroe Islands	England	France	Germany	Iceland	Norway	Scotland	Spain	Greenland	Russia	Total
2000	15185	19	6	1	0	403	185	0	0	0	15799
2001	15406	4	8	2	0	323	148	0	0	0	15891
2002	24474	11	2	6	4	255	177	0	0	0	24929
2003	26419	14	4	1	0	319	185	0	0	0	26942
2004	22589	8	0	6	0	246	186	49	0	16	23100
2005	20616	1	0	0	0	257	1070	0	0	0	21944
2006	16975	1	12	1	0	58	106	0	1	0	17154
2007	12499	0	4	0	0	69	50	0	9	0	12631
2008	7284	0	3	0	0	31	65	0	0	10	7393
2009	5087	0	2	0	0	11	91	0	6	0	5197
2010	5110	0	1	0	0	6	73	0	12	0	5202
2011	3544	0	2	0	0	0	0	0	0	0	3546
2012	2631	0	1	0	2	0	0	0	0	0	2634
2013	2924	0	0	0	0	0	0	0	0	0	2924
2014	2827	350	0	0	0	2	74	0	0	0	3252
2015	2966	428	1	0	0	5	21	0	0	0	3421
2016	3201	252	5	0	0	11	0	0	0	0	3470
2017	2771	86	1	0	0	6	0	0	0	0	2863
2018*	5422	143	0	0	0	22	0	0	0	0	5588

* Preliminary.

Summary of the assessment

Table 10 Haddock in Division 5.b (Faroes grounds). Assessment summary. Weights are in tonnes.

Year	Recruitment			SSB			Catch	F		
	R age 1	97.5 percentile	2.5 percentile	SSB	97.5 percentile	2.5 percentile		F mean ages 3–7	97.5 percentile	2.5 percentile
	thousands									
1957	27611	51496	14804	[illegible]	65371	38427	20995	0.49	0.66	0.36
1958	32513	58077	18202	[illegible]	64035	40023	23871	0.64	0.84	0.49
1959	58529	102982	33265	[illegible]	56997	36292	20239	0.63	0.82	0.49
1960	76563	134811	43[illegible]	[illegible]	56395	36388	25727	0.73	0.94	0.57
1961	77020	136620	43420	[illegible]	53417	34256	20831	0.63	0.81	0.48
1962	76941	136653	43321	[illegible]	59195	38034	27151	0.69	0.89	0.54
1963	39975	71297	[illegible]	47881	60250	38052	27571	0.74	0.95	0.57
1964	18442	33126	[illegible]	44480	56543	34991	19490	0.53	0.69	0.40
1965	17856	32148	[illegible]	44981	57611	35119	18479	0.58	0.76	0.45
1966	32887	59[illegible]	18294	41949	53879	32661	18766	0.55	0.72	0.42
1967	47696	85[illegible]	26514	38053	48383	29929	13381	0.46	0.60	0.34
1968	28881	51[illegible]	16095	40518	50566	32467	17852	0.48	0.63	0.37
1969	32514	[illegible]	18151	47241	59145	37733	23272	0.56	0.73	0.43
1970	19[illegible]	35[illegible]	11127	49954	64038	38968	21361	0.49	0.66	0.37
1971	24[illegible]	43433	13499	49711	63473	38933	19393	0.50	0.67	0.38
1972	27[illegible]	48949	15131	45415	58349	35349	16485	0.44	0.61	0.33
1973	117[illegible]	217752	63522	42412	54196	33190	18035	0.40	0.55	0.29
1974	[illegible]	201403	58490	44105	56021	34723	14773	0.31	0.43	0.22
1975	7[illegible]	131262	37530	57108	73012	44669	20715	0.26	0.36	0.184
1976	[illegible]	51867	14444	80152	104406	61532	26211	0.31	0.43	0.23
1977	[illegible]	23115	4916	82270	108387	62446	25555	0.38	0.53	0.27
1978	990	2172	451	80310	108144	59641	19200	0.30	0.43	0.21
1979	6038	11636	3133	63244	85154	46972	12424	0.21	0.30	0.141
1980	6065	12431	2959	58070	76879	43864	15016	0.27	0.38	0.190

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Year	Recruitment			SSB			Catch	F		
	R age 1	97.5 percentile	2.5 percentile	SSB	97.5 percentile	2.5 percentile		F mean ages 3–7	97.5 percentile	2.5 percentile
	thousands									
1981	18040	36975	8802	52409	69746	39381	12233	0.24	0.34	0.174
1982	21215	43544	10336	40578	52393	31427	11937	0.37	0.51	0.27
1983	46234	95340	22421	37611	48694	29050	12894	0.33	0.46	0.24
1984	41201	78935	21505	41109	52548	32161	12378	0.29	0.41	0.21
1985	20275	41951	9799	49334	64533	37715	15143	0.31	0.44	0.23
1986	13486	27998	6496	54284	72303	40755	14477	0.29	0.41	0.21
1987	25211	52692	12062	54333	71991	41006	14882	0.33	0.46	0.24
1988	9851	20531	4727	49086	64676	37254	12178	0.27	0.38	0.197
1989	7424	15338	3593	42013	54316	32497	14325	0.3	0.42	0.22
1990	3319	6833	1612	35137	45025	27421	11726	0.35	0.49	0.25
1991	2867	5882	1397	27259	35252	21078	8429	0.32	0.45	0.23
1992	4083	8428	1978	20415	26758	15576	5476	0.26	0.37	0.186
1993	26862	52088	13853	17752	23303	13524	4026	0.27	0.37	0.193
1994	29601	53742	16304	16944	21859	13134	4252	0.23	0.32	0.168
1995	48831	90836	26250	18210	22772	14562	4948	0.26	0.36	0.195
1996	12704	21367	7553	40496	51930	31580	9647	0.32	0.42	0.24
1997	4379	7698	2492	77045	100486	59073	17434	0.37	0.48	0.28
1998	15998	27672	9249	75175	95586	59163	22210	0.53	0.69	0.41
1999	28921	47474	17619	54080	68121	42034	18482	0.51	0.67	0.40
2000	133834	220330	81294	41519	51169	33688	15799	0.41	0.54	0.31
2001	63760	105218	38637	51470	61575	43023	15891	0.36	0.47	0.27
2002	43532	76160	24883	82278	102501	66054	24929	0.37	0.48	0.28
2003	28978	50388	16665	97185	123716	76295	26942	0.43	0.57	0.33
2004	8886	14796	5337	83195	104163	66435	23100	0.48	0.63	0.37
2005	10961	18971	6333	69532	85261	56705	21944	0.44	0.58	0.34
2006	3527	6108	2037	51088	61928	42146	17154	0.43	0.56	0.33
2007	3314	5728	1917	35088	42253	29135	12630	0.39	0.51	0.30
2008	4004	6774	2367	23066	27542	19318	7388	0.34	0.45	0.26
2009	8259	14266	4781	17026	20265	14304	5196	0.30	0.40	0.23
2010	12350	21559	7075	12953	15214	10976	5202	0.41	0.54	0.32
2011	1097	1987	605	9095	11488	8182	3546	0.41	0.54	0.31
2012	2452	4319	1392	12075	15145	9625	2634	0.31	0.42	0.24
2013	8312	14483	4770	13318	16921	10482	2924	0.34	0.46	0.26
2014	10386	17982	5998	11712	14546	9429	3252	0.33	0.44	0.24
2015	8855	15456	5071	14358	18223	12114	3421	0.32	0.43	0.23
2016	28723	48592	16978	16265	20179	13111	3470	0.29	0.40	0.21
2017	37762	67083	21256	19951	24908	15980	2863	0.174	0.24	0.126
2018	58136	114623	29486	38053	48317	29970	5588	0.163	0.23	0.117
2019	34187	88661	13182	51198	68950	38016				

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Sources and references

ICES. 2017. Report of the North-Western Working Group (NWWG), 27 April–4 May, 2017, ICES Headquarters, Copenhagen. ICES CM 2017/ACOM:08. 642 pp. https://doi.org/10.17895/ices.pub.5686.

ICES. 2018a. Advice basis. *In* Report of the ICES Advisory Committee, 2018. ICES Advice 2018, Book 1, Section 1.2. https://doi.org/10.17895/ices.pub.4503.

ICES. 2018b. Report of the Benchmark Workshop on Faroese Stocks (WKFAROE 2017), 13–17 February 2017, Copenhagen, Denmark. ICES CM 2017/ACOM:33. 239 pp. https://doi.org/10.17895/ices.pub.5687.

ICES. 2019. North Western Working Group (NWWG). ICES Scientific Reports, 1:14. http://doi.org/10.17895/ices.pub.5298.

Advice provided in 2019

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