

Whiting (*Merlangius merlangus*) in Division 3.a (Skagerrak and Kattegat)

ICES stock advice

ICES advises that when the precautionary approach is applied, catches should be no more than 400 tonnes in each of the years 2018 and 2019.

Stock development over time

Catches have been relatively low in recent years after a substantial industrial fishery ceased in the mid-1990s. The state of the stock is not known.

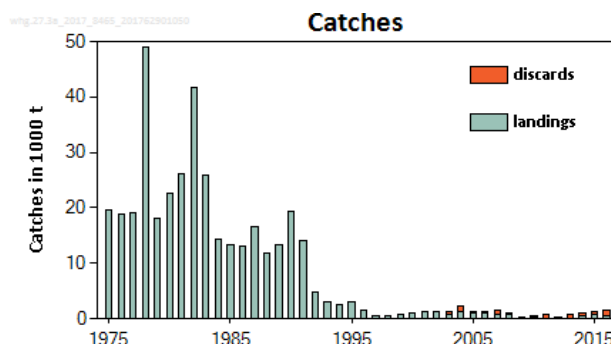


Figure 1 Whiting in Division 3.a. Summary of the stock assessment. ICES estimates of catch.

Stock and exploitation status

Table 1 Whiting in Division 3.a. State of the stock and fishery relative to reference points.

		Fishing pressure				Stock size			
		2013	2014	2015		2014	2015	2016	
Maximum Sustainable Yield	F_{MSY}	?	?	?	Undefined	$MSY B_{Trigger}$?	?	?
Precautionary Approach	F_{pa}, F_{lim}	?	?	?	Undefined	B_{pa}, B_{lim}	?	?	?
Management plan	F_{MGT}	—	—	—	Not applicable	B_{MGT}	—	—	—
Qualitative evaluation	—	?	?	?	Unknown	—	?	?	?

Catch options

The ICES framework for category 5 stocks was applied (ICES, 2012). For stocks without information on abundance or exploitation, ICES considers that a precautionary reduction of catches should be implemented unless there is supporting information clearly indicating that the current level of exploitation is appropriate for the stock. The precautionary buffer has not been applied since 2012 (for the 2013 advice); therefore, it is applied again this year.

Table 2 Whiting in Division 3.a. The basis for the catch options.

Recent advised catch (2016–2017)	500 tonnes	
Discard rate (2014–2016)	57%	
Precautionary buffer	Applied	0.8
Catch advice*	400 tonnes	
Landings corresponding to the catch advice**	172 tonnes	

* [Recent advised catch (2016–2017)] × [precautionary buffer].

** [Recent advised catch (2016–2017)] × [precautionary buffer] × [1 – discard rate].

Basis of the advice

Table 3 Whiting in Division 3.a. The basis of the advice.

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

Quality of the assessment

Survey abundance indices exist for whiting in Division 3.a. However, the advice is based entirely on catch information because of the inability of the surveys to track cohorts; the most probable reason for this is unknown stock mixing with whiting in Subarea 4 and the western Baltic. Linkages between this and the neighbouring whiting stocks should be considered in future benchmarks of this stock.

Issues relevant for the advice

Whiting in Division 3.a are taken as bycatch in demersal fisheries and are mostly discarded. This stock is fully implemented under the EU landing obligation from 1 January 2017.

The TAC has been limiting since 2013.

Reference points

No reference points are defined for this stock.

Basis of the assessment

Table 4 Whiting in Division 3.a. Basis of the assessment and advice.

ICES stock data category	5 (ICES, 2016).
Assessment type	No assessment.
Input data	Commercial catches (international landings; ICES, 2017).
Discards and bycatch	Used to provide advice. Discard information is available from 2003.
Indicators	None.
Other information	None.
Working group	Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK)

Information from stakeholders

No updated information is available.

History of the advice, catch, and management

Table 5 Whiting in Division 3.a. ICES advice and official landings. All weights are in tonnes.

Year	ICES advice/single-stock exploitation boundaries**	Predicted catch corresp. to advice	Predicted landings corresp. to advice	Agreed TAC	ICES landings*	ICES catches*
1987	Precautionary TAC	-		17000	16657	16657
1988	Precautionary TAC	-		17000	11764	11764
1989	Precautionary TAC	-		17000	13283	13283
1990	Precautionary TAC	-		17000	19423	19423
1991	TAC	-		17000	14041	14041
1992	No advice	-		17000	4921	4921
1993	Precautionary TAC	-		17000	3047	3047
1994	If required, precautionary TAC	-		17000	2536	2536
1995	If required, precautionary TAC	-		15200	3090	3090
1996	If required, precautionary TAC	-		15200	1493	1493
1997	If required, TAC equal to recent catches	-		15200	414	414
1998	No advice			15200	486	486
1999	TAC, average period 1993–1996	6000		8000	858	858
2000	TAC, average period 1996–1998	1500		4000	992	992
2001	TAC, average period 1996–1998	1500		2500	1184	1184
2002	TAC, average period 1996–1998	1500		2000	1227	1227
2003	TAC, average period 1996–1998	1500		1500	841	1270
2004	TAC, average period 1996–1998	1500		1500	1305	2214
2005	average period 1996–1998	1500		1500	1042	1341
2006	average period 1996–1998	1500		1500	967	1298
2007	average period 1996–1998	1500		1500	907	1468
2008	Recent average catches	1050		1050	876	1117
2009	Same advice as last year	1050		1050	229	357
2010	Same advice as last year	1050		1050	245	536
2011	No advice	-		1050	113	907
2012	Reduce catch	-		1050	63	340
2013	20% Reduction in catches (last 3 years' average)	< 500		1050	155	746
2014	No new advice, same as for 2013	< 500		1050	439	1018
2015	No new advice, same as for 2014	< 500	< 212	1050	713	1317
2016	Precautionary approach (same advised catch value as given for 2015)	≤ 500		1050	545	1660
2017	Precautionary approach (same advised catch value as given for 2015)	≤ 500		1050		
2018	Precautionary approach	≤ 400				
2019	Precautionary approach	≤ 400				

* Includes bycatch in small-mesh industrial fishery.

** Single-stock boundary and the exploitation of this stock should be conducted in the context of mixed fisheries, protecting stocks outside safe biological limits.

History of the catch and landings

Table 6 Whiting in Division 3.a. Catch distribution by fleet in 2016 as estimated by ICES.

Table 6: Whiting in Division 51a: catch distribution by fleet in 2016 as estimated by ICES			
Catch (2016)	Landings		Discards
1660 tonnes	consumption 39%	Total industrial (Denmark) 61%	1115 tonnes
	545 tonnes		

Table 7 Whiting in Division 3.a. History of commercial catch and landings; both the official and ICES estimated values are presented by area for each country participating in the fishery. All weights are in tonnes.

Year	Denmark			Norway	Sweden	Others	Landings	ICES estimate of discards	ICES estimate of catch
	Human consumption	Industrial bycatch	Total						
1975	-	-	19018	57	611	4	19690		
1976	-	-	17870	48	1002	48	18968		
1977	-	-	18116	46	975	41	19178		
1978	-	-	48102	58	899	32	49091		
1979	-	-	16971	63	1033	16	18083		
1980	-	-	21070	65	1516	3	22654		
1981	1027	23915	24942	70	1054	7	26073		
1982	1183	39758	40941	40	670	13	41664		
1983	1311	23505	24816	48	1061	8	25933		
1984	1036	12102	13138	51	1168	60	14417		
1985	557	11967	12524	45	654	2	13225		
1986	484	11979	12463	64	477	1	13005		
1987	443	15880	16323	29	262	43	16657		
1988	391	10872	11263	42	435	24	11764		
1989	917	11662	12579	29	675	-	13283		
1990	1016	17829	18845	49	456	73	19423		
1991	871	12463	13334	56	527	97	14041		
1992	555	3340	3895	66	959	1	4921		
1993	261	1987	2248	42	756	1	3047		
1994	174	1900	2074	21	440	1	2536		
1995	85	2549	2634	24	431	1	3090		
1996	55	1235	1290	21	182	-	1493		
1997	38	264	302	18	94	-	414		
1998	35	354	389	16	81	-	486		
1999	37	695	732	15	111	-	858		
2000	59	777	836	17	138	1	992		
2001	61	970	1031	27	126	+	1184		
2002	101	975	1076	23	127	1	1227		
2003	93	654	747	20	72	2	841	429	1270
2004	93	1120	1213	17	74	1	1305	909	2214
2005	49	907	956	13	73	0	1042	299	1341
2006	591	290	881	n/a	86	n/a	967	331	1298
2007	532	278	810	14	82	1	907	561	1468
2008	522	288	810	14	52	n/a	876	241	1117
2009	12	173	185	10	34	-	229	128	357
2010	41	165	206	10	30	-	245	291	536
2011	40	44	84	8	20	0	113	794	907
2012	30	7	37	16	10	1	63	277	340
2013	29	102	131	8	15	1	155	591	746
2014	49	346	395	5	38	1	439	579	1018
2015	74	572	646	6	56	5	713	604	1317
2016	129	335	464	13	62	6	545	1115	1660

Summary of the assessment

There is no assessment for this stock.

Sources and references

ICES. 2012. ICES Implementation of Advice for Data-limited Stocks in 2012 in its 2012 Advice. ICES CM 2012/ACOM:68. 42 pp.

ICES. 2016. Advice basis. *In* Report of the ICES Advisory Committee, 2016. ICES Advice 2016, Book 1, Section 1.2.

ICES. 2017. Report of the Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK), 26 April–5 May 2017, ICES Headquarters, Copenhagen, Denmark. ICES CM 2017/ACOM:21. In preparation.