

8.3.6 Dab (*Limanda limanda*) in subdivisions 22–32 (Baltic Sea)

ICES stock advice

ICES advises that when the precautionary approach is applied, catches in 2017 should be no more than 3069 tonnes. If discard rates do not change from the average of the last three years (2013–2015), this implies landings of no more than 1657 tonnes.

Stock development over time

The stock size indicator from surveys has increased by a factor of three since the early 2000s.

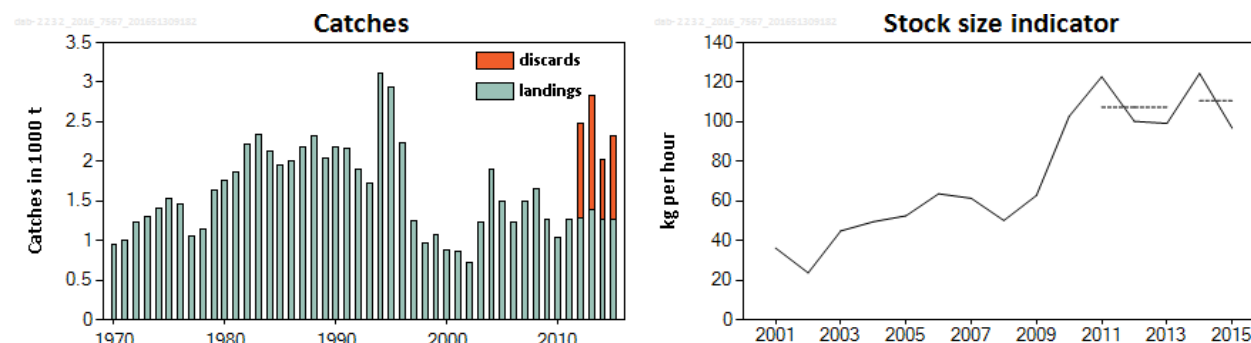


Figure 8.3.6.1 Dab in subdivisions 22–32. Left: ICES landings and ICES estimates of discards (in thousand tonnes). Discard data have only been included since 2012. Right: geometric mean of 1st and 4th quarters biomass index (kg hour⁻¹) of fish ≥ 15 cm from the Baltic International Trawl Survey (BITS–Q1+Q4) in subdivisions 22, 23, and 24. Dashed lines indicate the average biomass index of the respective year range.

Stock and exploitation status

Table 8.3.6.1 Dab in subdivisions 22–32. State of the stock and fishery relative to reference points.

		Fishing pressure				Stock size				
		2013	2014	2015		2013	2014	2015		
Maximum sustainable yield	F _{MSY}	?	?	?	Undefined	MSY	?	?	?	Undefined
Precautionary approach	F _{pa} , F _{lim}	?	?	?	Undefined	B _{trigger} B _{pa} , B _{lim}	?	?	?	Undefined
Management plan	F _{MGT}	-	-	-	Not applicable	SSB _{MGT}	-	-	-	Not applicable
Qualitative evaluation	-	→	→	→	Stable	-	→	↗	↘	Decreasing

Catch options

The ICES framework for category 3 stocks was applied (ICES, 2012). The geometric mean of the biomass hour⁻¹ of dab larger than or equal to 15 cm from the Baltic International Trawl Survey in quarters 1 and 4 (BITS–Q1+Q4) was used as the index of stock development. The advice is based on a comparison of the two latest index values (index A) with the three preceding values (index B), multiplied by the recent advised catch.

The index is estimated to have increased by less than 20% and thus the uncertainty cap was not applied in estimating the catch advice. The stock size indicator has been stable since 2010 after a threefold increase since the early 2000s; therefore, no additional precautionary buffer was applied. Discarding is known to take place; the discard ratio is variable and has been estimated based on a three-year average.

Table 8.3.6.2 Dab in subdivisions 22–32. For stocks in ICES data categories 3–6, one catch option is provided.

Index A (2014, 2015)		111.6
Index B (2011, 2012, 2013)		107.4
Index ratio (A/B)		1.03
Uncertainty cap	Not applied	-
Recent advised catch for 2016		2980 t
Discard rate (mean over 2013–2015)		0.46
Precautionary buffer	Not applied	-
Catch advice*		3069 t
Landings corresponding to the catch advice		1657t

*(recent advised catch) × (index ratio).

Basis of the advice

Table 8.3.6.3 Dab in subdivisions 22–32. The basis of the advice.

Advice basis	Precautionary approach.
Management plan	There is no management plan for dab in this area.

Quality of the assessment

Only survey data for subdivisions 22–24 are used. These subdivisions are considered to contain the bulk of the stock.

Issues relevant for the advice

Catch are mainly bycatch and this stock is not currently regulated by a TAC. The effort of active and passive fisheries of Denmark and Germany has not increased in the last years.

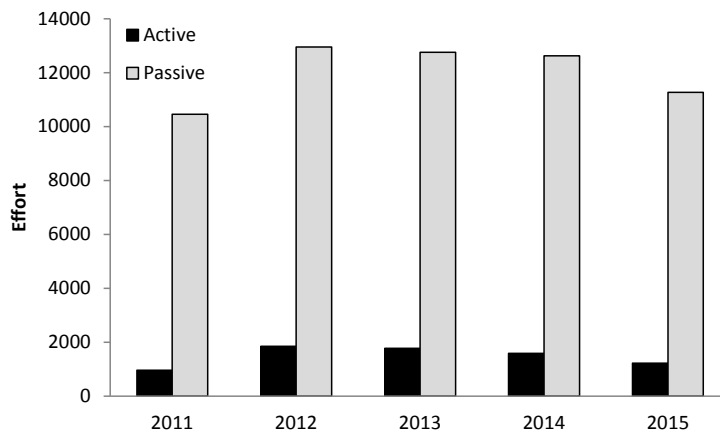


Figure 8.3.19.2 Dab in subdivisions 22–32. Reported effort (days at sea) for demersal fisheries of Denmark and Germany in subdivisions 22 and 24.

Reference points

No reference points are defined for this stock.

Basis of the assessment

Table 8.3.6.4 Dab in subdivisions 22–32. The basis of the assessment.

ICES stock data category	3.2.0 (ICES, 2016a)
Assessment type	Survey trends (ICES, 2016b).
Input data	Commercial landings and survey data from the Baltic International Trawl Survey (BITS–Q1+Q4).
Discards and bycatch	Discard data from 2012 onwards were used in the advice.
Indicators	Commercial effort
Other information	This stock was benchmarked in 2014 (WKBALFLAT; ICES, 2014).
Working group	Baltic Fisheries Assessment Working Group (WGBFAS)

Information from stakeholders

There is no available information.

History of the advice, catch, and management

Table 8.3.6.5 Dab in subdivisions 22–32. History of ICES advice, the agreed TAC, and official landings. Weights in thousand tonnes.

Year	ICES advice	Predicted landings corresp. to advice	Agreed TAC	Landings (ICES estimates)	Catches (ICES estimates)
2000	No advice	-	-	0.876	
2001	No advice	-	-	0.861	
2002	No advice	-	-	0.715	
2003	No advice	-	-	1.233	
2004	No advice	-	-	1.894	
2005	No advice	-	-	1.495	
2006	No advice	-	-	1.228	
2007	No advice	-	-	1.504	
2008	No advice	-	-	1.648	
2009	No advice	-	-	1.268	
2010	No advice	-	-	1.041	
2011	No advice	-	-	1.268	
2012	Catches should not be increased	-	-	1.285	2.476
2013	No more than 20% catch increase	≤ 1.4	-	1.384	2.842
2014	No more than 20% landings increase	≤ 1.4		1.267	2.026
2015	Increased landings by no more than 3%	≤ 1.428		1.268	2.323
2016	Precautionary approach (≤ 12% increase in catch)	≤ 2.980*			
2017	Precautionary approach (≤ 3% increase in catch)	≤ 3.069*			

*Catch advice.

History of catch and landings

Table 8.3.6.6 Dab in subdivisions 22–32. Catch distribution by fleet in 2015 as estimated by ICES.

Total catch (2015)	Landings		Discards
2323 t	demersal trawls 91%	other gears 9%	1055 t
	1268 t		

Table 8.3.6.7 Dab in subdivisions 22–32. History of ICES landings and ICES estimates of discards and catch by area. Weights in tonnes. *, **

Year	Landings									Total landings SDs 22–30	Discards	Total catch
	SD 22	SD 23	SD 24***	SD 25^	SD 26	SD 27	SD 28	SD 29	SD 30			
1970	930		20							950		
1971	985		26							1011		
1972	1182		53							1235		
1973	1223		88							1311		
1974	1314		85							1399		
1975	1424		106							1530		
1976	1369		87							1456		
1977	991		57							1048		
1978	1075		69							1144		
1979	1554		85							1639		
1980	1709		49							1758		
1981	1789		76							1865		
1982	2091		98	5		8	6		1	2209		
1983	2164		94	20		32	22		2	2334		

Year	Landings									Total landings SDs 22–30	Discards	Total catch
	SD 22	SD 23	SD 24***	SD 25^	SD 26	SD 27	SD 28	SD 29	SD 30			
1984	2001		118	3		5	4		1	2132		
1985	1832		114	3		5	3		1	1958		
1986	1876		122	1		1	1			2001		
1987	1996		185	1		1	1			2184		
1988	2149		168	1		1	1			2320		
1989	1966		69	1		2	1			2039		
1990	2009		166							2175		
1991	2071		101							2172		
1992	1815		87	1		1		4		1908		
1993	1552	7	166	1				1		1727		
1994	2811	5	244	46						3106		
1995	2695	52	177	18			1			2943		
1996	1907	37	265	17	2	1				2229		
1997	1141	5	86	12		3	1			1248		
1998	849	7	98	5		1				960		
1999	1003	3	64	1						1071		
2000	824	2	49	1						876		
2001	777	4	78	2						861		
2002	675	4	36							715		
2003	1053	1	179	< 1						1233		
2004	1698	1	196	< 1						1894		
2005	1226	35	209	25						1495		
2006	894	24	138	172						1228		
2007	1332	40	126	7						1504		
2008	1264	39	119	223		1	2			1648		
2009	1108	27	129	1		1	3			1268		
2010	950	19	69	2						1041		
2011	1192	21	53	1						1268		
2012	1173	23	89							1287	1189	2476
2013	1279	18	86	< 1						1384	1456	2842
2014	1174	11	82	< 1						1269	757	2026
2015	1223	9	35	2						1268	1055	2323

*From October to December 1990 landings of Germany Fed. Rep. are included.

**For the years 1970–1981 and 1990 the catches of subdivisions 25–28 are included in Subdivision 24.

***For the years 1970–1981 and 1990 the Swedish catches of subdivision 25–28 catches are included in Subdivision 24.

^ In 1995 Danish landings of subdivision 25–28 landings are included.

Summary of the assessment

Table 8.3.6.8 Dab in subdivisions 22–32. Geometric mean of Q1+Q4 biomass index (kg hr⁻¹) fish ≥ 15 cm in subdivisions 22, 23, and 24.

Year	cpue SDs 22–24
2001	36.30
2002	23.73
2003	44.91
2004	49.56
2005	52.57
2006	63.67
2007	61.37
2008	50.18
2009	62.84
2010	102.76
2011	122.74
2012	100.28
2013	99.00
2014	124.42
2015	98.61

Sources and references

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ICES. 2014. Report of the Benchmark Workshop on Baltic Flatfish Stocks (WKBALFLAT), 27–31 January 2014, ICES Headquarters, Copenhagen, Denmark. ICES CM 2014/ACOM:39. 316 pp.

ICES. 2016a. General context of ICES advice. *In* Report of the ICES Advisory Committee, 2016. ICES Advice 2016, Book 1, Section 1.2.

ICES. 2016b. Report of the Baltic Fisheries Assessment Working Group (WGBFAS), 12–19 April 2016, ICES Headquarters, Copenhagen, Denmark. ICES CM 2016/ACOM:11.