

8.3.9 Flounder (*Platichthys flesus*) in subdivisions 26 and 28 (east of Gotland and Gulf of Gdansk)

ICES stock advice

ICES advises that when the precautionary approach is applied, catches in 2017 should be no more than 2527 tonnes. If the discard rate does not change from 2015, this implies landings of no more 2085 tonnes.

Stock development over time

The stock size indicator from surveys has decreased since 2012 and has been stable in the last two years.

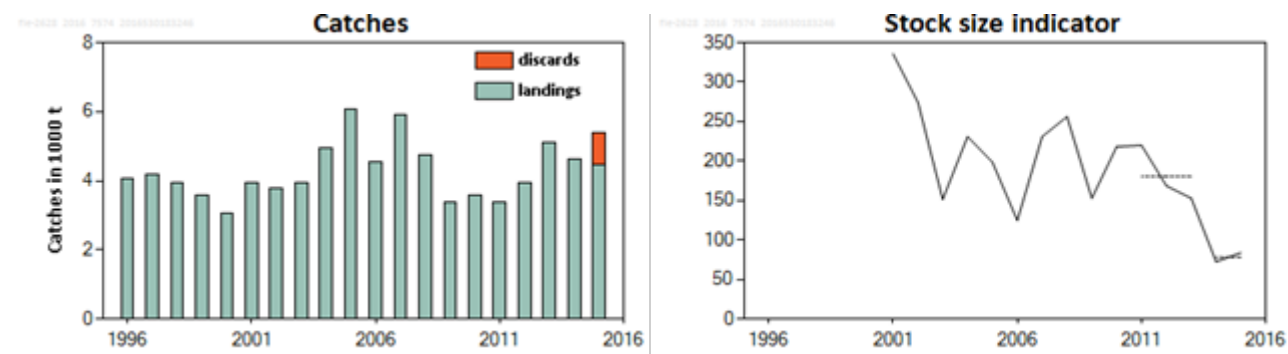


Figure 8.3.9.1 Flounder in subdivisions 26 and 28. Left panel: ICES catches. Discard data have only been included in 2015. Right panel: Combined biomass index from the 1st and 4th quarters (kg hr⁻¹; weighted average per depth stratum area) of fish equal to or larger than 20 cm, from the Baltic International Trawl Survey (BITS). The dashed line indicates the average biomass index of the respective year range.

Stock and exploitation status

Table 8.3.9.1 Flounder in subdivisions 26 and 28. 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}	?	?	?	MSY $B_{trigger}$?	?
Precautionary approach	F_{pa} , F_{lim}	?	?	?	B_{pa} , B_{lim}	?	?
Management plan	F_{MGT}	-	-	-	SSB_{MGT}	-	-
Qualitative evaluation	-	↘	↘	→	-	↘	↘
				Stable			Stable

Catch options

The ICES framework for category 3 stocks was applied (ICES, 2012). The Baltic International Trawl Survey (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 landings.

The index is estimated to have decreased by more than 20% and thus the uncertainty cap was applied to calculate the catch advice. The stock status relative to candidate reference points is unknown. The precautionary buffer was applied in 2014 and was therefore not applied again. Discarding is known to take place and the discard rate has been estimated based on 2015 data.

Table 8.3.9.2 Flounder in subdivisions 26 and 28. For stocks in ICES data categories 3–6, one landing option is provided.

Index A (2014, 2015)		78
Index B (2011, 2012, 2013)		180
Index ratio (A/B)		0.43
Uncertainty cap	Applied	0.8
Recent advised landings for 2016		2606 t
Discard rate (2015)		0.175
Precautionary buffer	Not applied	-
Catch advice*		2527 t
Landings corresponding to the catch advice		2085 t

*(Recent advised landings) × cap/(1 – discard rate).

Basis of the advice

Table 8.3.9.3 Flounder in subdivisions 26 and 28. The basis of the assessment and advice.

Advice basis	Precautionary approach.
Management plan	There is no management plan for flounder in this area. There is a proposed EU management plan for the Baltic Sea where bycatch of this species is considered. The plan has not been formally implemented.

Quality of the assessment

The discard ratio in both subdivisions varies between countries, fleets, vessels, and even individual hauls of the same vessel and trip. Discard estimates for 2015 were used in this year's advice because sampling coverage increased compared to the previous years.

Issues relevant for the advice

Catches are mainly taken as bycatch, and this stock is currently not regulated by a TAC. New fishing effort data (days at sea) indicate a decreasing trend since 2012 (Figure 8.3.9.2).

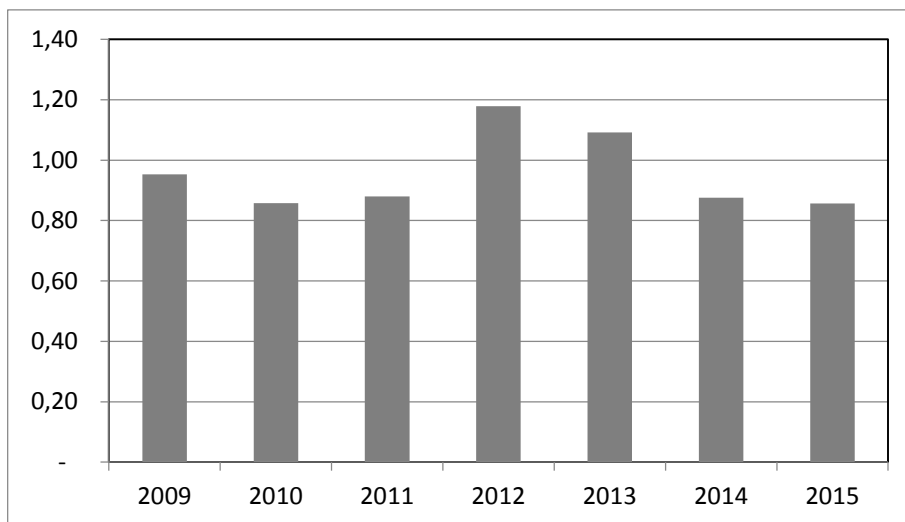


Figure 8.3.9.2 Flounder in subdivisions 26 and 28. Standardized fishing effort (days at sea) weighted by the mean of demersal fish landings by country. Includes only those countries that have flounder landings.

Reference points

No reference points are defined for this stock.

Basis of the assessment

Table 8.3.9.4 Flounder in subdivisions 26 and 28. The basis of the assessment and advice.

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 and Q4).
Discards and bycatch	2015 discard rates are used in the advice.
Indicators	Commercial effort (ICES, 2016b)
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 8.3.9.5 Flounder in subdivisions (SDs) 26 and 28. History of ICES advice, the agreed TAC, and official landings. Weights in thousand tonnes.

Year	ICES advice*	Predicted landings corresp. to advice	Agreed TAC	ICES estimated landings SDs 22–32	ICES estimated landings SDs 26 and 28	ICES estimated catch
2000	No advice	-	-	14.9	3.0	
2001	No advice	-	-	17.6	3.9	
2002	No advice	-	-	19.4	3.8	
2003	No advice	-	-	15.2	3.9	
2004	No advice	-	-	18.2	4.9	
2005	No advice	-	-	20.1	6.1	
2006	No advice	-	-	17.2	4.5	
2007	No advice	-	-	19.4	5.9	
2008	No advice	-	-	16.8	4.7	
2009	No advice	-	-	15.1	3.4	
2010	No advice	-	-	16.2	3.6	
2011	No advice	-	-	15.3	3.4	
2012	Reduce catches	-		15.9	4.0	
2013	Catches should be reduced by 5%	< 15.1*		21.1	5.1	
2014	Landings should be reduced by 15%	< 13.5*		20.6	4.6	
2015	Landings should be reduced by 36%	< 3.257		16.8	4.4	5.4
2016	Precautionary approach (≥ 20% decrease)	≤ 2.606				
2017	Precautionary approach (≥ 20% decrease)**	≤ 2.527				

* Advice prior to 2015 was for flounder in subdivisions 22–32.

** For 2017 catch advice is given.

History of catch and landings

Table 8.3.9.6 Flounder in subdivisions 26 and 28. Catch distribution by fleet in 2015 as estimated by ICES.

Total catch (2015)	Landings		Discards
5388 t	Trawls (79%)	Passive gears (21%)	945 t
	4443 t		

Table 8.3.9.7 Flounder in subdivisions 26 and 28. History of ICES landings per country. Weights in tonnes.

Year	Denmark	Finland	Germany	Poland	Sweden	Estonia	Latvia	Lithuania	Russia	Total
1996	0	0	19	2556	79	44	289	316	740	4043
1997	10	0	16	1730	401	101	362	554	1001	4175
1998	0	0	2	1370	135	146	362	737	1188	3940
1999	0	0	0	1435	47	92	505	547	964	3590
2000	9	0	0	721	28	65	415	575	1236	3049
2001	15	0	0	548	182	100	613	1127	1355	3941
2002	42	0	0	626	52	91	596	1077	1314	3798
2003	1	0	0	648	17	122	673	1066	1402	3929
2004	1	0	0	1955	18	89	769	834	1277	4943
2005	0	0	0	1743	124	133	1716	949	1393	6058
2006	4	0	0	1675	22	83	1155	355	1231	4524
2007	2	2	0	1829	20	92	1043	268	2650	5905
2008	0	0	0	1451	19	91	577	629	1960	4727
2009	0	0	0	1472	17	77	364	499	969	3398
2010	0	0	0	1727	15	93	250	462	1030	3577
2011	1	1	0	1437	20	89	280	418	1139	3387
2012	0	10	0	1501	14	81	622	651	1079	3959
2013	22	8	0	1581	45	76	1399	949	1010	5089
2014	1	0	0	1210	0	79	1578	698	1047	4614
2015	0	0	0	981	18	55	2025	258	1106	4443

Summary of the assessment

Table 8.3.9.8 Flounder in subdivisions 26 and 28. Biomass index (kg hour⁻¹; weighted average per depth stratum area) of fish equal to or larger than 20 cm, from the BITS from 1st and 4th quarters and combined (geometric mean).

Year	Biomass index 1st quarter	Biomass index 4th quarter	Combined index
2001	278.9	404.1	335.8
2002	238.2	316.5	274.6
2003	159.9	143.3	151.4
2004	145.6	366.0	230.9
2005	128.5	307.0	198.6
2006	103.8	150.2	124.8
2007	238.7	223.2	230.8
2008	330.1	198.8	256.2
2009	160.9	145.1	152.8
2010	242.2	196.4	218.1
2011	230.4	209.9	219.9
2012	211.7	134.2	168.5
2013	132.7	175.8	152.8
2014	82.7	63.5	72.5
2015	97.3	72.4	83.9

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. 2014. Report of the Benchmark Workshop on Baltic Flatfish Stocks (WKBALFLAT), 27–31 January 2014, Copenhagen, Denmark. ICES CM 2014/ACOM:39. 320 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.