

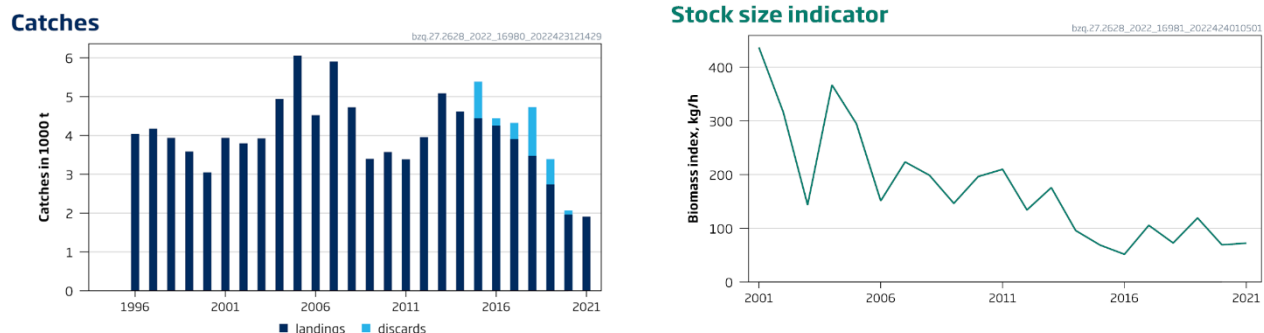
## Flounder (*Platichthys* spp.) in subdivisions 26 and 28 (east of Gotland and Gulf of Gdansk)

### ICES stock advice

ICES has not been requested to provide advice on fishing opportunities for this stock for 2023 or 2024.

### Stock development over time

Fishing pressure on the stock is below the  $F_{MSY}$  proxy (Figure 2). No reference points for stock size have been defined for this stock.



**Figure 1** Flounder in subdivisions 26 and 28. Summary of the stock assessment. Discard data are available since 2015. No discard estimate is available for 2021. Stock-size indicator is a biomass index ( $\text{kg h}^{-1}$ ) of flounder  $\geq 20$  cm, from the Baltic International Trawl Survey (BITS-Q4).

### Catch scenarios

ICES has not been requested to provide advice on fishing opportunities for this stock.

### Basis of the advice

ICES has not been requested to provide advice on fishing opportunities for this stock.

**Table 1** Flounder in subdivisions 26 and 28. The basis of the advice.

Advice basis	No advice requested
Management plan	The EU multiannual plan for the Baltic Sea (EU, 2016, 2019) applies to by-catches of this stock taken when fishing for the target stocks described in the plan

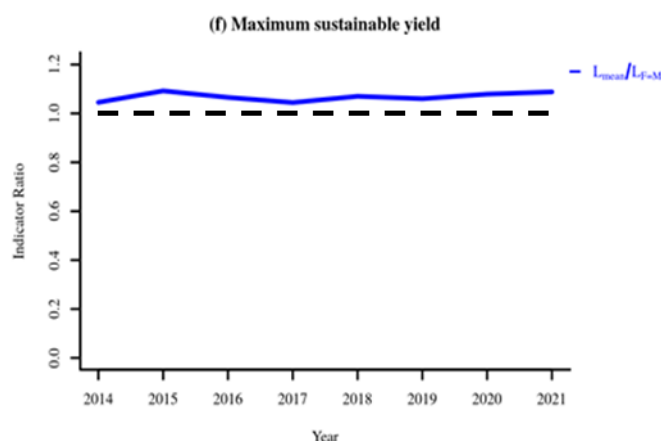
### Quality of the assessment

Two flounder species – European flounder (*Platichthys flesus*) and Baltic flounder (*Platichthys solemdali*) – occur in the Baltic Sea, both of which are present in the stock area. The proportions of both species in this area are estimated at approximately 45% and 55%, respectively. However, it is not possible at this stage to separate the proportions of the two species in either the stock assessment or the fisheries.

Discard estimates for 2021 were not available (due to COVID-19 restrictions). Despite this, length sampling from the fisheries is considered adequate to provide a reliable length-based indicator (LBI) of flounder exploitation.

### Issues relevant for the advice

The stock-size indicator shows a declining trend until 2015 and has been at a lower level since then (Figure 1). Since 2014, the fishing pressure is below the  $F_{MSY}$  proxy reference point.



**Figure 2** Flounder in subdivisions 26 and 28. Index ratio  $L_{mean}/L_{F=M}$  from the length-based indicator method (LBI; ICES, 2015) used for the evaluation of the exploitation status. The exploitation status is below the  $F_{MSY}$  proxy (dotted line) when the index ratio value is higher than one.

## Reference points

**Table 2** Flounder in subdivisions 26 and 28. Reference points, values, and their technical basis.

Framework	Reference point	Value	Technical basis	Source
MSY approach	MSY B trigger proxy	Not defined		
	$F_{MSY}$ proxy	$\frac{L_{mean}}{L_{F=M}} = 1$	Relative value from LBI analysis, assuming $M/K = 1.5$ . $L_{F=M}$ is based on $L_c$ (length at 50% of modal abundance), which varies each year	ICES (2022a)
Precautionary approach	$B_{lim}$	Not defined		
	$B_{pa}$	Not defined		
	$F_{lim}$	Not defined		
	$F_{pa}$	Not defined		
Management plan	$SSB_{mgt}$	Not defined		
	$F_{mgt}$	Not defined		

## Basis of the assessment

**Table 3** Flounder in subdivisions 26 and 28. Basis of the assessment and advice.

ICES stock data category	3 (ICES, 2022b)
Assessment type	Survey trends based assessment (ICES, 2022a)
Input data	Commercial landings and survey data from the Baltic International Trawl Survey (BITS–Q4 [G8863])
Discards and bycatch	Discard numbers are used in the advice
Indicators	A length-based indicator method (LBI; ICES, 2018a) using catch data from commercial sampling and the biological parameters of the BITS to assess the stock status
Other information	This stock was benchmarked in 2014 (WKBALFLAT; ICES, 2014)
Working group	Baltic Fisheries Assessment Working Group (WGBFAS)

## History of the advice, catch, and management

**Table 4** Flounder in subdivisions (SDs) 26 and 28. ICES advice and official landings. All weights are in tonnes.

Year	ICES advice*	Catches corresponding to advice*	Agreed TAC	ICES estimated landings SDs 22–32	ICES estimated landings SDs 26 and 28	ICES estimated catch SDs 26 and 28
2000	No advice	-	-	14 356	3 049	
2001	No advice	-	-	17 448	3 941	
2002	No advice	-	-	19 152	3 798	
2003	No advice	-	-	15 000	3 929	
2004	No advice	-	-	17 984	4 943	
2005	No advice	-	-	20 125	6 058	
2006	No advice	-	-	16 586	4 524	
2007	No advice	-	-	19 309	5 905	
2008	No advice	-	-	16 814	4 727	
2009	No advice	-	-	15 063	3 398	
2010	No advice	-	-	16 205	3 577	
2011	No advice	-	-	15 262	3 387	
2012	Reduce catches	-	-	15 796	3 959	
2013	Catches should be reduced by 5%	< 15 100**		21 095	5 089	
2014	Landings should be reduced by 15%	< 13 500**		20 602	4 614	
2015	Landings should be reduced by 36%	< 3 257**		16 839	4 443	5 388
2016	Precautionary approach (≥ 20% decrease)	≤ 2 606**		20 217	4 252	4 443
2017	Precautionary approach (≥ 20% decrease)	≤ 2 527		16 070	3 907	4 325
2018	Precautionary approach (≥ 36% decrease relative to the advised catch for 2017)	≤ 1 617		17 199	3 475	4 734
2019	Precautionary approach (≥ 36% decrease relative to the advised catch for 2017)	≤ 1 617		15 790	2 740	3 390
2020	No advice requested			12 517***	1 965	2 066
2021	No catch advice requested			10 471	1 911	n/a
2022	No catch advice requested					
2023	No catch advice requested					
2024	No catch advice requested					

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

\*\* Landings corresponding to the advice.

\*\*\* Landings were corrected

## History of the catch and landings

**Table 5** Flounder in subdivisions 26 and 28. Catch distribution by fleet in 2021 as estimated by ICES.

Table 5      Founder in subdivisions 26 and 28. Catch distribution by fleet in 2021 as estimated by ICES.			
Catch (2021)	Landings		Discards
n/a	Active gears (83%)	Passive gears (17 %)	n/a
	1 911 tonnes		

**Table 6** Flounder in subdivisions 26 and 28. History of commercial 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	Finland	Germany	Poland	Sweden	Estonia	Latvia	Lithuania	Russia	Total
1996	0	0	19	2 556	79	44	289	316	740	4 043
1997	10	0	16	1 730	401	101	362	554	1 001	4 175
1998	0	0	2	1 370	135	146	362	737	1 188	3 940
1999	0	0	0	1 435	47	92	505	547	964	3 590
2000	9	0	0	721	28	65	415	575	1 236	3 049
2001	15	0	0	548	182	100	613	1 127	1 355	3 941
2002	42	0	0	626	52	91	596	1 077	1 314	3 798
2003	1	0	0	648	17	122	673	1 066	1 402	3 929
2004	1	0	0	1 955	18	89	769	834	1 277	4 943
2005	0	0	0	1 743	124	133	1 716	949	1 393	6 058

Year	Denmark	Finland	Germany	Poland	Sweden	Estonia	Latvia	Lithuania	Russia	Total
2006	4	0	0	1 675	22	83	1 155	355	1 231	4 524
2007	2	2	0	1 829	20	92	1 043	268	2 650	5 905
2008	0	0	0	1 451	19	91	577	629	1 960	4 727
2009	0	0	0	1 472	17	77	364	499	969	3 398
2010	0	0	0	1 727	15	93	250	462	1 030	3 577
2011	1	1	0	1 437	20	89	280	418	1 139	3 387
2012	0	10	0	1 501	14	81	622	651	1 079	3 959
2013	22	8	< 1	1 581	45	76	1 399	949	1 010	5 089
2014	1	< 1	0	1 210	< 1	79	1 578	698	1 047	4 614
2015	0	< 1	0	981	18	55	2 025	258	1 106	4 443
2016	0	0	1	912	16	52	1 843	295	1 133	4 252
2017	< 1	< 1	< 1	701	12	59	1 576	255	1 304	3 907
2018	8	0	0	473	20	60	1 207	214	1 493	3 475
2019	1	11	2	565	19	43	753	20	1 325	2 740
2020	0	0	< 1	273	19	46	780	77	770	1 965
2021	0	< 1	2	236	12	26	369	22	1 245	1 911

\* From 2013 onwards landings below 0.5 tonnes are given as < 1, landings ≥ 0.5 tonnes are given as 1. Zeros (0) represent true zero landings. Before 2013, a distinction between true zero landings and rounded zero landings (< 0 tonnes) is not possible.

### Summary of the assessment

**Table 7** Flounder in subdivisions 26 and 28. Total catch and stock-size indicator. The stock-size indicator is a biomass index of flounder equal to or larger than 20 cm, from the Baltic International Trawl Survey (BITS–Q4). The index is a weighted average per depth stratum area.

Year	Stock-size indicator (kg h <sup>-1</sup> )	Landings (tonnes)	Discards (tonnes)
1996		4 043	
1997		4 175	
1998		3 940	
1999		3 590	
2000		3 049	
2001*	437	3 941	
2002	317	3 798	
2003*	144	3 929	
2004*	367	4 943	
2005*	295	6 058	
2006*	151	4 524	
2007*	224	5 905	
2008	199	4 727	
2009	146	3 398	
2010	196	3 577	
2011	210	3 387	
2012	134	3 959	
2013	176	5 089	
2014	96	4 614	
2015	69	4 443	945
2016	52	4 252	191
2017	106	3 907	418
2018	73	3 475	1 259
2019	119	2 740	650
2020	69	1 965	101
2021	72	1 911	n/a

\* Minor changes in historical survey data due to update in DATRAS database.

## Sources and references

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[Download the stock assessment data and figures.](#)

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