

Flounder (*Platichthys flesus*) in subdivisions 22 and 23 (Belt Seas and the Sound)

ICES advice on fishing opportunities

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.

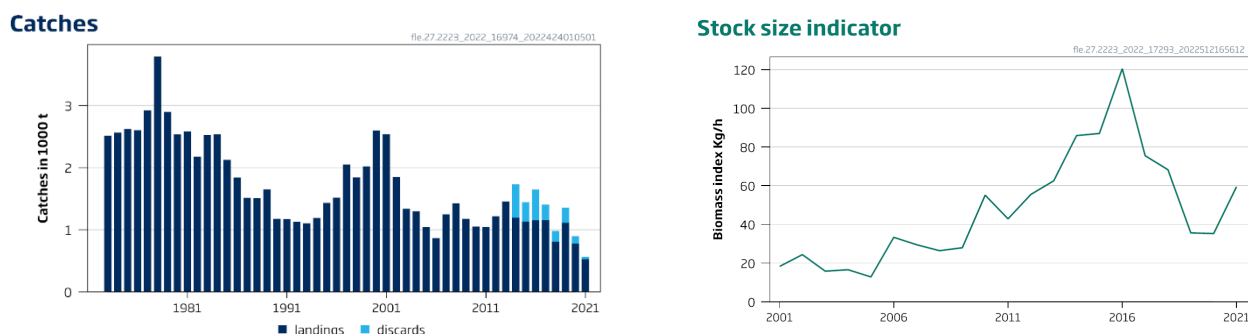


Figure 1 Flounder in subdivisions 22 and 23. Left panel: ICES landings and estimates of discards in thousand tonnes. Discard data are only considered of sufficient quality since 2014. Right panel: combined biomass index (kg h^{-1}) of flounder equal to or larger than 20 cm, from the Baltic International Trawl Survey (BITS-Q1 and Q4).

Catch scenarios

ICES has been requested to provide information on stock status but 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 22 and 23. 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 bycatches of this stock taken when fishing for the target stocks described in the plan

Quality of the assessment

The length sampling from the fishery is considered adequate to provide a reliable length-based indicator of flounder exploitation.

Issues relevant for the advice

ICES assesses that fishing pressure on the stock is below the F_{MSY} proxy (Figure 2).

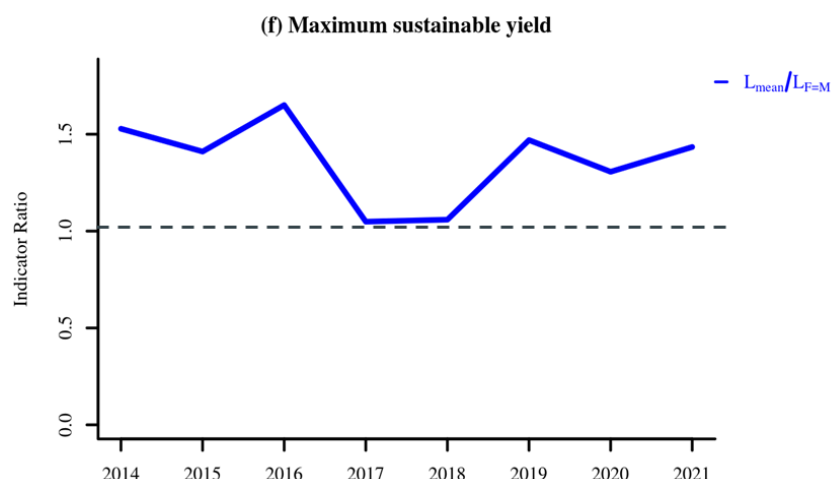


Figure 2 Flounder in subdivisions 22 and 23. Index ratio $L_{mean}/L_{F=M}$ from the length-based indicator (LBI) method (ICES, 2018) used for the evaluation of the exploitation status. The exploitation status is below the F_{MSY} proxy (dotted line) when the index ratio value is higher than one.

Catches are mainly taken as bycatch. This stock is currently not regulated by a TAC.

Reference points

Table 2 Flounder in subdivisions 22 and 23. Reference points, values, and their technical basis.

Framework	Reference point	Value	Technical basis	Source
MSY approach	MSY $B_{trigger}$	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 22 and 23. Basis of the assessment and advice.

ICES stock data category	3 (ICES, 2022b)
Assessment type	Survey trends based assessment (ICES, 2022a)
Input data	Commercial catches; two survey biomass indices (BITS-Q1, G2916 and BITS-Q4, G8863)
Discards and bycatch	Flounder in the Belt Seas and the Sound is mostly a bycatch species. Discard estimates are included.
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 22 and 23. ICES advice, landings and catch. All weights are in thousand tonnes.

Year	ICES advice	Predicted landings corresp. to advice*	Agreed TAC	Landings (SDs 22–32, ICES estimates)	Landings (SDs 22–23, ICES estimates)	Catch (ICES estimates)
2000	No advice	-	-	14 356	2 597	
2001	No advice	-	-	17 448	2 540	
2002	No advice	-	-	19 152	1 849	
2003	No advice	-	-	15 000	1 337	
2004	No advice	-	-	17 984	1 298	
2005	No advice	-	-	20 125	1 041	
2006	No advice	-	-	16 586	866	
2007	No advice	-	-	19 309	1 250	
2008	No advice	-	-	16 814	1 427	
2009	No advice	-	-	15 063	1 176	
2010	No advice	-	-	16 205	1 053	
2011	No advice	-	-	15 262	1 044	
2012	No advice	-	-	15 796	1 219	
2013	Catches should be reduced by 5%	< 15 100	-	21 095	1 454	
2014	Landings should be reduced by 15%	< 13 500	-	20 602	1 193	1 733
2015	No more than 20% landings increase	≤ 1 745	-	16 839	1 130	1 444
2016	Precautionary approach (≤ 20% increase)	≤ 3 042**	-	20 217	1 155	1 650
2017	Precautionary approach (≤ 20% increase)	≤ 3 650**	-	16 070	1 158	1 407
2018	Precautionary approach (≤ 10% increase relative to advised catch for 2017)	≤ 4 030**	-	17 199	809	982
2019	Precautionary approach (≤ 10% increase relative to advised catch for 2017)	≤ 4 030**	-	15 790	1 114	1 355
2020	No catch advice requested	-	-	12 517***	775	897
2021	No catch advice requested	-	-	10 471***	526	564
2022	No catch advice requested	-	-			
2023	No catch advice requested	-	-			
2024	No catch advice requested	-	-			

*Prior to 2015 the advice was for subdivisions 22–32.

**Advice corresponds to total catch and not landings only.

*** Does not include reported catches from pelagic trawlers which need to be verified.

History of the catch and landings

Table 5 Flounder in subdivisions 22 and 23. Catch distribution by fleet in 2021 as estimated by ICES.

Catch (2021)	Landings		Discards
564 tonnes	Active gears 51 %	Passive gears 49%	38 tonnes
	526 tonnes		

Table 6 Flounder in subdivisions (SDs) 22 and 23. History of commercial landings; (ICES-estimated values after 2000) are presented by area for each country participating in the fishery. All weights are in tonnes.

Year	Denmark		Germany Dem. Rep.	Germany, Fed. Rep.	Sweden		Total by SD		Total SDs 22–23
	SD 22	SD 23	SD 22	SD 22	SD 22	SD 23	SD 22	SD 23	
1973	1 983		181	349			2 513		2 513
1974	2 097		165	304			2 566		2 566
1975	1 992		163	469			2 624		2 624
1976	2 038		174	392			2 604		2 604
1977	1 974		555	393			2 922		2 922
1978	2 965		348	477			3 790		3 790
1979	2 451		189	259			2 899		2 899
1980	2 185		138	212			2 535		2 535
1981	1 964		271	351			2 586		2 586
1982	1 563	104	263	248			2 074	104	2 178
1983	1 714	115	280	418			2 412	115	2 527
1984	1 733	85	349	371			2 453	85	2 538
1985	1 561	130	236	199			1 996	130	2 126
1986	1 525	65	127	125			1 777	65	1 842
1987	1 208	122	71	114			1 393	122	1 515
1988	1 162	125	92	133			1 387	125	1 512
1989	1 321	83	126	122			1 569	83	1 652
1990	941		52	183			1 176		1 176
1991	925			246			1 171		1 171
1992	713	185		227			940	185	1 125
1993	649	194		235		26	884	220	1 104
1994	882	181		44		84	926	265	1 191
1995	859	231		286		58	1 145	289	1 434
1996	1 041	227		189	2	58	1 232	285	1 517
1997	1 356			655		42	2 011	42	2 053
1998	1 372			411		61	1 783	61	1 844
1999	1 473			510		37	1 983	37	2 020
2000	1 896			660		41	2 556	41	2 597
2001	2 030			458		52	2 488	52	2 540
2002	1 490			317		42	1 807	42	1 849
2003	1 063			241		33	1 304	33	1 337
2004	952			315		31	1 267	31	1 298
2005	725	184		94		38	819	222	1 041
2006	620	182		34		30	654	212	866
2007	585	233		406		26	991	259	1 250
2008	554	199		627		47	1 181	246	1 427
2009	505	113		521		37	1 026	150	1 176
2010	557	91		376		29	933	120	1 053
2011	441	78		497	< 1	28	938	106	1 044
2012	530	98		569		22	1 099	120	1 219
2013	639	83		713		19	1 352	102	1 454
2014	513	68		589		23	1 102	91	1 193
2015	361	73		679		16	1 040	90	1 130
2016	436	63		641		15	1 077	78	1 155
2017	508	61		575	0	13	1 083	74	1 158
2018	406	59		330	< 1	15	736	73	809
2019	572	59		473	< 1	10	1 045	69	1 114
2020	377	36		350	0	12	727	48	775
2021	218	31		263	< 1	14	480	45	526

Summary of the assessment

Table 8 Flounder in subdivisions 22 and 23. Total landings and discards (tonnes, t) and stock-size indicator (kg h^{-1}). The stock size indicator is a combined biomass index of flounder equal to or larger than 20 cm, from the Baltic International Trawl Survey (BITS-Q1 and Q4). The individual indices are weighted averages per depth stratum area and the two indices are combined using geometric mean.

Year	Stock-size indicator (kg h^{-1})	Landings (t)	Discards (t)
2001	18.27	2 540	
2002	24.4	1 849	
2003	15.84	1 337	
2004	16.6	1 298	
2005	12.87	1 041	
2006	33.35	866	
2007	29.53	1 250	
2008	26.43	1 427	
2009	27.96	1 176	
2010*	55.14	1 053	
2011*	42.88	1 044	
2012*	55.50	1 219	
2013*	62.55	1 454	
2014	85.93	1 193	540
2015*	87.04	1 130	314
2016*	120.51	1 153	495
2017*	75.54	1 158	249
2018*	68.26	809	173
2019	35.62	1 114	241
2020	35.29	775	121
2021	59.50	526	38

* Minor changes in historical survey data due to updates in DATRAS database

Sources and references

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

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