

Plaice (*Pleuronectes platessa*) in subdivisions 24–32 (Baltic Sea, excluding the Sound and Belt Seas)

ICES advice on fishing opportunities

ICES advises that when the precautionary approach is applied, catches in 2021 should be no more than 3297 tonnes.

Note: This advice is abbreviated due to the Covid-19 disruption. Last year's advice is attached as Annex 1.

Stock development over time

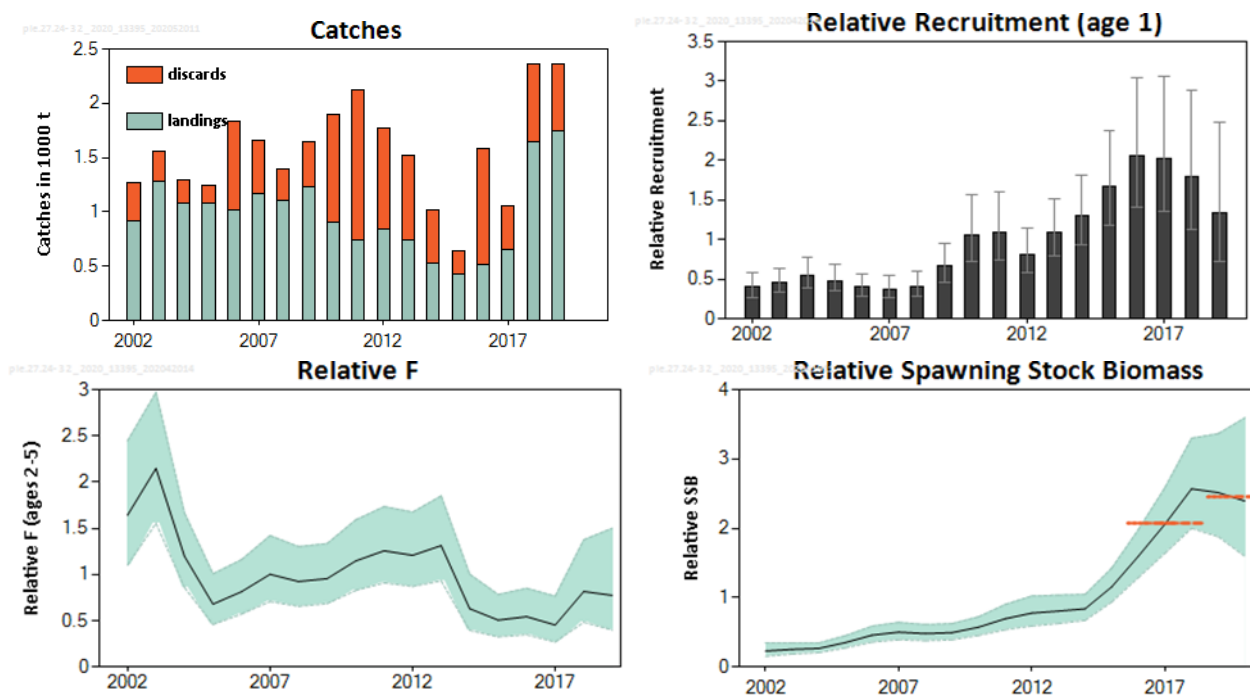


Figure 1 Plaice in subdivisions 24–32. Summary of stock assessment (catch weights in thousand tonnes). Recruitment, F, and SSB are relative to the mean of the time-series. The dashed lines in the SSB plot indicate the average values of the respective years. Relative recruitment, F, and SSB show confidence intervals (95%) in the plots.

Stock and exploitation status

Table 1 Plaice in subdivisions 24–32. State of the stock and the fishery relative to reference points.

		Fishing pressure				Stock size				
		2017	2018	2019		2018	2019	2020		
Maximum sustainable yield	F_{MSY}	✓	✓	✓	Below proxy	$B_{trigger}$	✓	✓	✓	Above proxy
	proxy									
Precautionary approach	F_{pa}	✓	✓	✓	Below possible reference points	B_{pa}, B_{lim}	✓	✓	✓	Above possible reference points
	F_{lim}									
Management plan	F_{MGT}	-	-	-	Not applicable	SSB_{MGT}	-	-	-	Not applicable

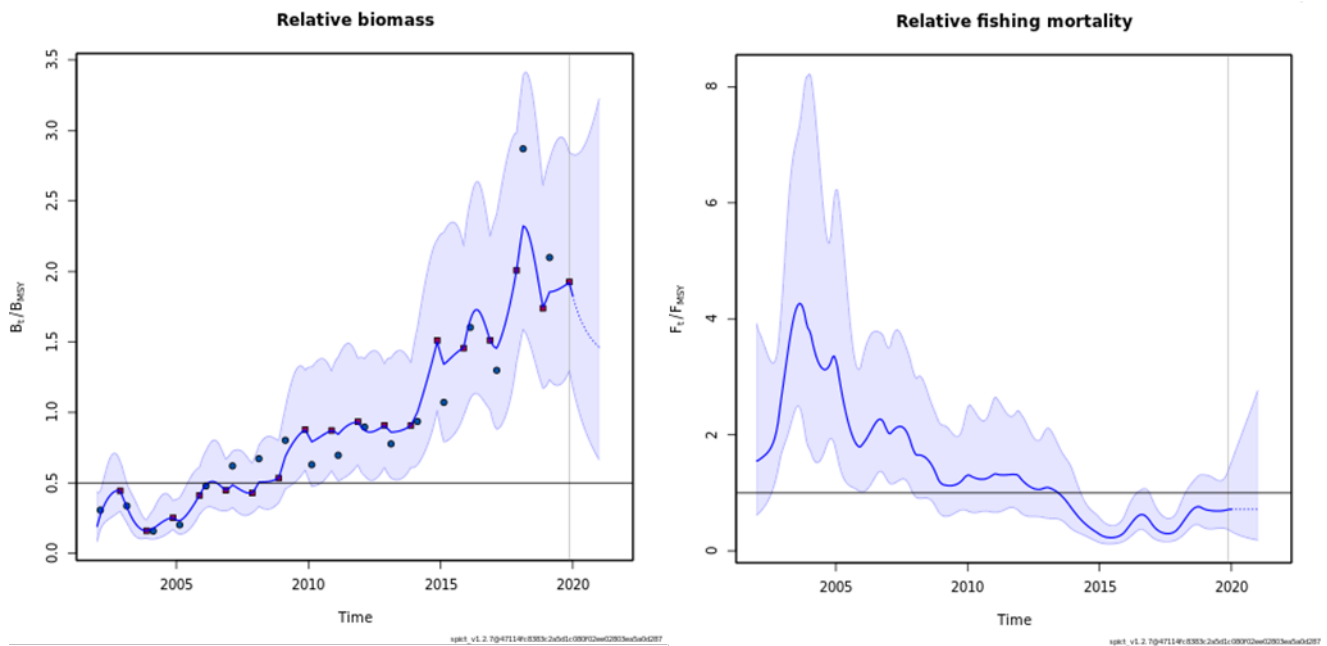


Figure 2 Plaice in subdivisions 24–32. SPiCT model results used for the evaluation of the stock and exploitation status (the proxy F_{MSY} and $MSY B_{trigger}$ are represented by horizontal lines in the right and left panels, respectively). The dots in the left panel represent Q1 and Q4 BITS indices.

Catch scenarios

The relative fishing mortality is below, and the relative stock size above, proxies of the MSY reference points; no additional precautionary buffer was, therefore, applied.

Table 2 Plaice in subdivisions 24–32. The catch scenarios table.*

Index A (2019, 2020)		2.45
Index B (2016, 2017, 2018)		2.10
Index ratio (A/B)		1.167
Uncertainty cap	not applied	-
Advised catch for 2020		2826 tonnes
Discard rate (average 2017–2019)		0.316
Precautionary buffer	not applied	-
Catch advice**		3297 tonnes
Projected landings corresponding to the advice		2255 tonnes
% change in advice ^		16.7%

* The figures in the table are rounded. Calculations were carried out with unrounded inputs and computed values may not match exactly when calculated using the rounded figures in the table.

** [Advised catch for 2020] × [index ratio].

^ Advice 2021 relative to advice 2020.

Issues relevant for the advice

Table 3 Plaice in subdivisions 24–32. Catch and landings overview and calculation of catches by management area for plaice in subdivisions 21–23 and 24–32.

Basis		Catch 2019	Landings 2019	ICES stock advice 2021 (catch)
Stock area-based	SDs 21–23	5388	4334	5176
	SDs 24–32	2359	1741	3297
Total advised catch, 2021 (SDs 21–32)				8473
Management area-based	SD 21	748	363	
	SDs 22–23	4640	3971	
	SDs 22–32	6999	5712	
Calculation				Result
Share of SD 21 of the total catch in SDs 21–23 in 2019		748 / 5388 (catch in 2019 SD 21 / catch in 2019 SDs 21–23)		0.139
Catch in 2021 for SD 21		5176 × 0.139 (ICES stock advice in 2021 (catch) for SDs 21–23 × share)		719
Catch in 2021 for SDs 22–32		8473 – 719 (total advised catch in 2021 SDs 21–32 – catch SD 21)		7754
Share of SD 21 of the total landings in SDs 21–23 in 2019		363 / 4334 (landings in 2019 SD 21 / landings in 2019 SDs 21–23)		0.084

History of the advice, catch, and management

Table 4 Plaice in subdivisions 24–32. ICES advice, TACs and ICES catch estimates. All weights are in tonnes.

Year	ICES advice	Landings corresp. to advice*	Catch corresponding to advice	Agreed TAC**	Landings (ICES estimates)	Catches (ICES estimates)
2000	No advice	-		-	630	
2001	No advice	-		-	790	
2002	No advice	-		-	915	1270
2003	No advice	-		-	1281	1550
2004	No advice	-		-	1081	1300
2005	No advice	-		-	1081	1250
2006	No advice	-		-	1012	1830
2007	No advice	-		-	1167	1660
2008	No advice	-		-	1102	1400
2009	No advice	-		-	1226	1640
2010	No advice	-		-	903	1900
2011	No advice	-		3041	748	2130
2012	No increase in catches	-		2889	848	1770
2013	No more than 20% catch increase	≤ 900		3409	738	1520
2014	No more than 20% landings increase	≤ 1000		3409	534	1020
2015	No more than 20% wanted catches increase	≤ 886		3409	427	650
2016	Precautionary approach		≤ 2156	4034	521	1580
2017	Precautionary approach		≤ 2587	7862	650	1058
2018	Precautionary approach		≤ 3104	7076	1644	2355
2019	Precautionary approach		≤ 3725	10122	1741	2359
2020	Precautionary approach		≤ 2826	6894		
2021	Precautionary approach		≤ 3297			

*Prior to 2013 the advice was for subdivisions 22–32.

**For subdivisions 22–32.

Summary of the assessment

Table 5 Plaice in subdivisions 24–32. Assessment summary. Weights are in tonnes. High and low refers to 95% confidence intervals.

Year	Relative recruitment			Relative SSB			Landings	Discards	Relative F		
	age 1	high	low	Relative SSB	high	low			ages 2–5	high	low
2002	0.40	0.58	0.27	0.23	0.35	0.151	915	353	1.64	2.4	1.10
2003	0.46	0.64	0.33	0.25	0.35	0.186	1281	271	2.1	3.0	1.55
2004	0.55	0.77	0.39	0.27	0.35	0.21	1081	214	1.20	1.67	0.86
2005	0.49	0.68	0.35	0.35	0.45	0.27	1081	166	0.68	1.01	0.46
2006	0.40	0.57	0.29	0.46	0.59	0.36	1012	818	0.81	1.16	0.57
2007	0.38	0.54	0.26	0.50	0.64	0.39	1167	491	1.00	1.42	0.71
2008	0.41	0.60	0.28	0.48	0.61	0.38	1102	294	0.92	1.30	0.66
2009	0.66	0.95	0.46	0.49	0.62	0.39	1226	418	0.95	1.33	0.68
2010	1.06	1.56	0.72	0.57	0.72	0.45	903	998	1.15	1.59	0.83
2011	1.09	1.61	0.75	0.70	0.90	0.54	748	1377	1.26	1.73	0.91
2012	0.81	1.14	0.58	0.78	1.02	0.59	848	917	1.21	1.68	0.87
2013	1.09	1.51	0.79	0.80	1.04	0.63	738	781	1.31	1.85	0.93
2014	1.30	1.82	0.93	0.84	1.04	0.67	534	481	0.63	1.00	0.40
2015	1.67	2.4	1.18	1.15	1.43	0.94	427	220	0.51	0.78	0.33
2016	2.1	3.0	1.40	1.60	1.98	1.29	521	1058	0.54	0.85	0.35
2017	2.0	3.1	1.35	2.1	2.6	1.64	650*	408	0.45	0.77	0.27
2018	1.80	2.9	1.13	2.6	3.3	2.00	1644*	711	0.82	1.38	0.48
2019	1.34	2.5	0.72	2.5	3.4	1.88	1741	617	0.77	1.50	0.40
2020				2.4	3.6	1.59					

* Below minimum size (BMS) landings are included.

Sources and references

ICES. 2020. Baltic Fisheries Assessment Working Group (WGBFAS). ICES Scientific Reports, 2:45.
<http://doi.org/10.17895/ices.pub.6024>.

Annex 1

ICES. 2019. Plaice (*Pleuronectes platessa*) in subdivisions 24–32 (Baltic Sea, excluding the Sound and Belt Seas). In Report of the ICES Advisory Committee, 2019. ICES Advice 2019, ple.27.24-32. <https://doi.org/10.17895/ices.advice.4752>.

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