

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

ICES stock advice

ICES advises that when the precautionary approach is applied, catches in 2016 should be no more than 2156 tonnes. If discard rates do not change from the 2012–2014 average, this implies landings of no more than 1063 tonnes*.

Stock development over time

The stock size indicator (relative SSB) has increased fivefold since 2002.

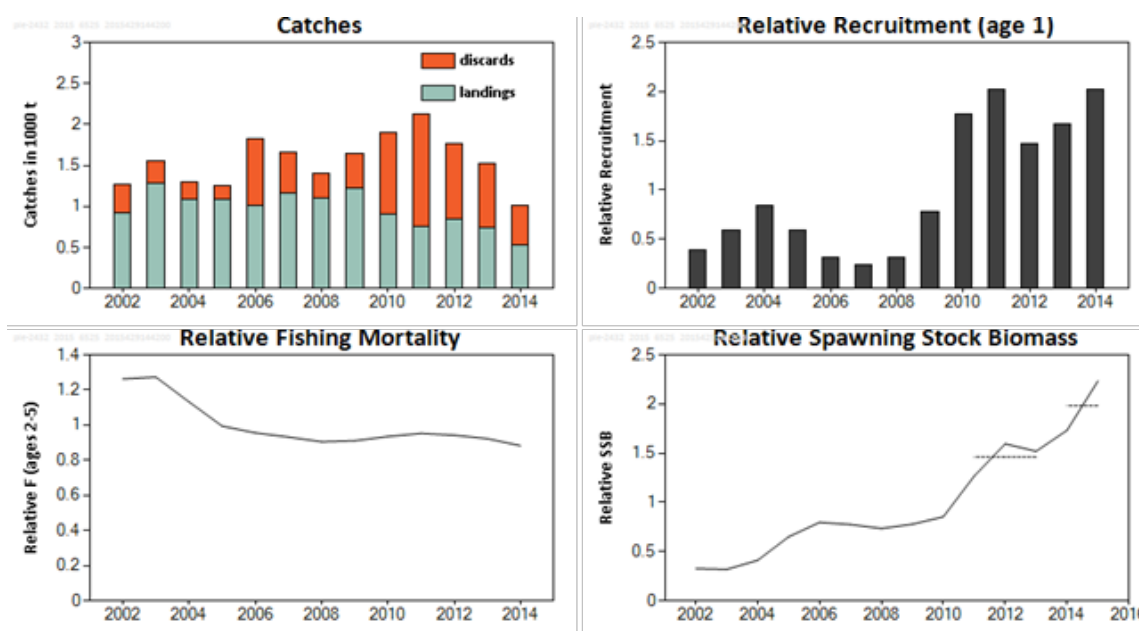


Figure 8.3.14.1 Plaice in Subdivisions 24–32. Summary of stock assessment (catch weights in thousand tonnes). Recruitment, F, and SSB are relative to the mean of the time-series. The dashed lines in the SSB plot indicate the average values of the respective years.

Stock and exploitation status

Table 8.3.14.1 Plaice in Subdivisions 24–32. State of the stock and fishery, relative to reference points.

		Fishing pressure				Stock size			
		2012	2013	2014		2013	2014	2015	
Maximum Sustainable Yield	F_{MSY}	?	?	?	Undefined	?	?	?	Undefined
Precautionary approach	F_{pa} , F_{lim}	?	?	?	Undefined	?	?	?	Undefined
Management Plan	F_{MGT}	-	-	-	Not applicable	-	-	-	Not applicable
Qualitative evaluation	-	→	→	→	Stable	↗	↗	✓	Above possible candidate reference points

* version 2: value corrected.

Catch options

The ICES framework for category 3 stocks was applied (ICES, 2012). The trends in relative SSB were 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 increased 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 exploitation on the stock is considered to be stable and the stock size indicator is steadily increasing; therefore, no additional precautionary buffer was applied. Discarding is known to take place and the discard ratio has been estimated, based on a three-year average.

Table 8.3.14.2 Plaice in Subdivisions 24–32. For stocks in ICES data categories 3–6, one catch option is provided.

Index A (2014, 2015)		1.98
Index B (2011, 2012, 2013)		1.46
Index ratio (A/B)		1.36
Uncertainty cap applied	Applied	1.20
Recent advised landings for 2015		886 t
Discard rate (average 2012–2014)		0.51
Precautionary buffer	Not applied	-
Catch advice*		2 156 t

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

Basis of the advice

Table 8.3.14.3 Plaice in Subdivisions 24–32. The basis of the advice.

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

Quality of the assessment

This stock was benchmarked in 2015 (ICES, 2015c). Discards of plaice are known to be high, with ratios around 40–70% of the total catch for vessels using active gears (e.g. trawling). Passive fishing gears have lower discards, varying between 10% and 40% of the total catch. Depending on market prices and quota of target species (e.g. cod), discards vary between quarter and years. The discarded fraction can cover all length classes and comprise as much as 100% of the catch. The sampling coverage allows reasonable discard estimations back to 2006. For the period 2002 to 2005, the sampling coverage and discard estimations are very scattered. Discard estimates are likely to be an underestimate, especially for fishing nations without a fishing quota for plaice.

Issues relevant for the advice

Both plaice stocks in the Baltic Sea show similar developments in stock size and a similar increase in advised catches for 2016, but data for the stock in Subdivisions 24–32 is insufficient to perform an analytical assessment. As catches from this stock are only a small fraction of the total catches from the area (about 25%), managers might consider to set a combined TAC for both stocks in the area (plaice in Subdivisions 21–23 and plaice in Subdivisions 24–32).

Due to an improved sampling coverage and national discard estimation, this year’s advice is based on catch compared to last year’s advice which was based on landings.

Reference points

No reference points are defined for this stock.

Basis of the assessment

Table 8.3.14.4 Plaice in Subdivisions 24–32. The basis of the assessment.

ICES stock data category	3.2.0 (ICES, 2015a).
Assessment type	Exploratory age-based analytical assessment (SAM; ICES, 2015b).
Input data	Commercial catches (international landings, catch numbers by age, mean weight in catch by age); two survey indices (BITS–Q1 and Q4); averaged maturity data (2008–2013 surveys); natural mortalities are fixed and assumed to be 0.2 (age 1) and 0.1 (age 2+).
Discards and bycatch	Used to provide advice. Discard information only available from 2002 onwards from the main fleets; however, the estimations of the first years (2002–2005) are considered uncertain.
Indicators	None.
Other information	This stock was last benchmarked in 2015 (ICES, 2015c).
Working group	Baltic Fisheries Assessment Working Group (WGBFAS).

Information from stakeholders

There is no available information.

History of advice, catch, and management

Table 8.3.14.5 Plaice in Subdivisions 24–32. History of ICES advice, the agreed TAC, and official landings. Weights in thousand tonnes.

Year	ICES advice	Predicted landings corresp. to advice*	Agreed TAC**	Official landings
2000	No advice	-	-	0.63
2001	No advice	-	-	0.79
2002	No advice	-	-	0.92
2003	No advice	-	-	1.28
2004	No advice	-	-	1.08
2005	No advice	-	-	1.08
2006	No advice	-	-	1.01
2007	No advice	-	-	1.17
2008	No advice	-	-	1.10
2009	No advice	-	-	1.23
2010	No advice	-	-	0.90
2011	No advice	-	3.041	0.75
2012	No increase in catches	-	2.889	0.85
2013	No more than 20% catch increase	≤ 0.9	3.409	0.74
2014	No more than 20% landings increase	≤ 1.0	3.409	0.53
2015	No more than 20% wanted catches increase	≤ 0.886	3.409	
2016	Precautionary approach	≤ 2.156***		

*Before 2013 the advice was for Subdivisions 22–32.

**For Subdivisions 22–32.

***2016 advice corresponds to total catch, not landings.

History of catch and landings

Table 8.3.14.6 Plaice in Subdivisions 24–32. Catch distribution by fleet in 2014 as estimated by ICES.

Total catch (2014)	Landings		Total discards
1 015 t	Trawls 78%	Passive gears 22%	481 t
	534 t		

Table 8.3.14.7 Plaice in Subdivisions 24–32. History of official landings and ICES estimates of discards presented by area for each country participating in the fishery. Weights in tonnes.

Year/SD	Denmark			Germ. Dem. Rep*	Germany, FRG		Poland		Sweden**						Finland			Discards
	24(+25)	25	26+27	24	24(+25)	28	25(+24)	26	24	25	26	27	28	29	24	25	26	
1970	494				16				149									
1971	314				2				107									
1972	290				2				78									
1973	203			44	1		174	30	75									
1974	126			10	2		114	86	60									
1975	184			67	1		158	142	45									
1976	178			82	3		164	76	44									
1977	221			36	2		265	26	41									
1978	681			1 198	3		633	290	32									
1979	2 027			1 604	7		555	224	113									
1980	1 652			303	5		383	53	113									
1981	937			52	31		239	27	118									
1982	393			25	6		43	64	40	6		7	1					
1983	297			12	14		64	12	133	20		24	2					
1984	166			2	8		106		23	3		4	1					
1985	771			593	40		119	49	25	4		5	1					
1986	1 019			372	7		171	59	48	7		9	1					
1987	794			142	16		188	5	68	10		12	1					
1988	323			16	1		9	1	49	7		9	1					
1989	149			5			10		34	5		6	1					
1990	100			1	1		6		50									
1991	112				9		2	1	5	2		2						
1992	74				4		6		3	1		1						
1993	66				6		4		4									
1994	159						43	4	4	7								
1995	343				91	1	233	2	13	10	1							
1996	263				77		183	5	28	23	10	1						
1997	201				56		308	3	7	8		1						
1998	278				41		101	14	6	17		1						
1999	183				46		145	1	5	10								
2000	161				37		408	3	9	12								
2001	173				43		549	3	9	13								

Year/SD	Denmark			Germ. Dem. Rep*	Germany, FRG		Poland		Sweden**						Finland			Discards
	24(+25)	25	26+27		24	24(+25)	28	25(+24)	26	24	25	26	27	28	29	24	25	
2002* **	153	159	0		146		429	3	10	15								353
2003	326	299	2		96		480	10	16	51		0	0					271
2004	167	239			65		292	8	6	37								214
2005	164	241			108		511	11	16	28		0	0					166
2006	82	632			185		52	3	17	41			0					818
2007	408	490	0		157				41	61		0	0					491
2008	450	339			159		29	0	45	69			0					294
2009	581	359	0		120		42	0	43	79		0						418
2010	345	295	1		78		93	8	22	61	1	0						998
2011	291	233			115		37	1	33	36	0	0			1	0	0	1 377
2012	477	148	0		89	0	62	2	23	43	1	0			2	1	0	917
2013	382	196	0		47	0	45	5	29	33	0	0			1			781
2014	231	118	0		57		80	7	21	19	0	0	0	0	0			481

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

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

*** From 2002 Danish catches in SW Baltic were separated into Subdivisions 24 and 25.

Summary of the assessment

Table 8.3.14.8 Plaice in Subdivisions 24–32. Weights are given in tonnes.

Year	Relative recruitment (age 1)	Relative SSB	Landings	Discards	Relative mean F (ages 3–5)
2002	0.391	0.328	915	353	1.263
2003	0.596	0.32	1 281	271	1.273
2004	0.848	0.412	1 081	214	1.132
2005	0.59	0.651	1 081	166	0.994
2006	0.31	0.797	1 012	818	0.956
2007	0.234	0.775	1 167	491	0.932
2008	0.313	0.735	1 102	294	0.905
2009	0.774	0.778	1 226	418	0.911
2010	1.766	0.854	903	998	0.935
2011	2.022	1.268	748	1 377	0.953
2012	1.467	1.595	848	917	0.942
2013	1.665	1.519	738	781	0.923
2014	2.026	1.733	534	481	0.883
2015		2.235			

Sources and references

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