

ECOREGION **Baltic Sea**
STOCK **Plaice in Subdivisions 24-32 (Baltic Sea)**

Advice for 2013

Based on the ICES approach for data-limited stocks, ICES advises that catches should be no more than 900 tonnes.

This is the first year that ICES is providing quantitative advice for data-limited stocks (see Quality considerations).

Stock status

F (Fishing Mortality)	
	2009–2011
MSY (F_{MSY})	? Unknown
Precautionary approach (F_{pa}, F_{lim})	? Unknown
SSB (Spawning-Stock Biomass)	
	2007–2011
MSY ($B_{trigger}$)	? Unknown
Precautionary approach (B_{pa}, B_{lim})	? Unknown
Qualitative evaluation	↗ Increasing

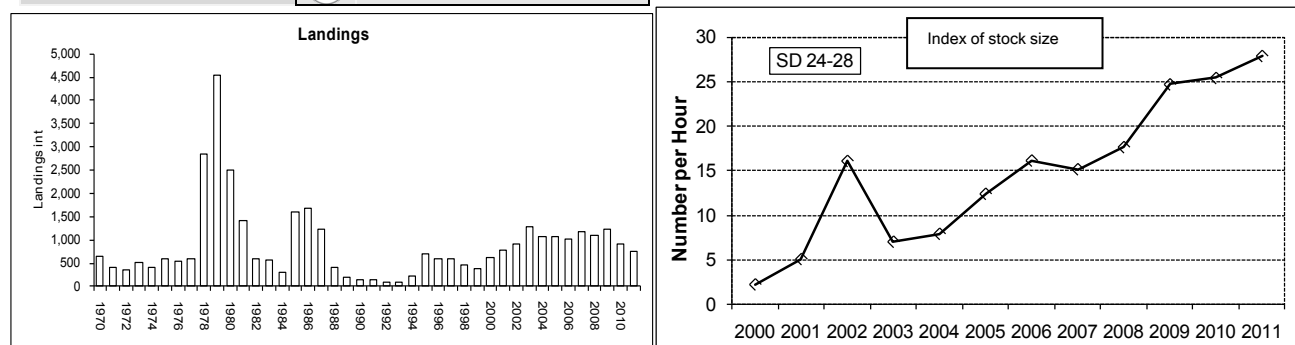


Figure 8.4.10.1 Plaice in Subdivisions 24–32 (Baltic Sea). Official landings (Subdivisions 24–32, in tonnes, left panel). Combined 1st and 4th quarters cpue (no./hr) (weighted average per depth stratum area), of fish equal to or larger than 20 cm, from the Baltic International Trawl Survey (BITS-Q1+Q4) in Subdivisions 24–28 (right panel, from ICES DATRAS database).

Survey trends have increased steadily since the early 2000s by about five times. The average stock size indicator (number/hour) in the last two years (2010–2011) is 39% higher than the abundance indices in the three previous years (2007–2009).

The stock definition has changed; plaice in Subdivisions 22–23 are considered in Section 8.4.11.

Management plans

No specific management objectives are known to ICES.

Biology

Distribution of plaice in the Baltic Sea extends eastwards to the Gulf of Gdansk and northwards to the Gotland area, but it is also found sporadically farther north. The distribution of this species is dependent on salinity.

Based on information on biology and fishery of plaice ICES decided that the plaice from Subdivisions 22 (the Belts) and 23 (the Sound), which were previously assumed to be part of the Baltic Sea stock, should be considered a separate stock unit together with Subdivision 21 (Kattegat) (ICES, 2012a).

There are indications that the spawning areas are likely to be located in the southern part of Subdivision 25 and 26, but the exact spawning locations are not known. Nursery areas are located in shallow waters down to 10 m depth.

Plaice spawn in February–March in the basins.

The fisheries

The fishery is mainly concentrated around Bornholm (Subdivisions 24 and 25) and is dominated by Denmark.

Catch distribution No information on total catch, 748 t landings (mainly trawl gear).

Quality considerations

Data collection, especially on the amount of discards, needs to be improved in order to get a better estimate of plaice catches in the Baltic Sea.

The advice is based on a combined abundance index from two surveys, used as an indicator of stock size. The uncertainty associated with the index values is not available.

The methods applied to derive quantitative advice for data-limited stocks are expected to evolve as they are further developed and validated. The harvest control rules are expected to stabilize stock size, but they may not be suitable if the stock size is low and/or overfished.

Scientific basis

Assessment type	Survey trends.
Input data	Commercial landings and survey data from Baltic International Trawl Survey (BITS-Q1+Q4).
Discards and bycatch	Discard data not used.
Indicators	None.
Other information	None.
Working group report	WGBFAS

ECOREGION **Baltic**
STOCK **Plaice in Subdivisions 24–32 (Baltic Sea)****Reference points**

No reference points are defined for this stock.

Outlook for 2013

No analytical assessment can be presented for this stock. Therefore, detailed management options cannot be presented.

ICES approach to data-limited stocks

For data-limited stocks for which an abundance index is available, ICES uses as harvest control rule an index-adjusted *status quo* catch. The advice is based on a comparison of the two most recent index values with the three preceding values, combined with recent catch or landings data. Knowledge about the exploitation status also influences the advised catch.

For this stock the abundance is estimated to have increased by more than 20% in 2007–2009 (average of the three years) and 2010–2011 (average of the two years). This implies an increase of catches of at most 20% in relation to last year's average landings, corresponding to catches of no more than 900 t in 2013.

Considering that the abundance has increased continually since 2003, no additional precautionary reduction is needed.

Additional considerations

Landings are mainly from bycatch in the cod fishery and in a mixed flatfish fishery. Quotas have been restrictive for some nations, but the TAC has not been fished.

Comparison with previous assessment and advice

A new stock definition was considered this year. Plaice from Subdivisions 22 and 23 are no longer considered as being part of the Baltic Sea stock (i.e. Subdivision 24–32).

Assessment and management area

Due to the new stock definition, the advice (Subdivisions 24–32) and the management (Subdivisions 22–32) areas are different.

Sources

- ICES. 2012a. Report of the Baltic Fisheries Assessment Working Group, ICES Headquarters, 12–19 April 2012. ICES CM 2012/ACOM:10.
- ICES. 2012b. Report of the Workshop on the Evaluation of Plaice Stocks (WKPESTO), 28 February–1 March 2012, ICES Headquarters, Copenhagen. ICES CM 2012/ACOM:32. 59 pp.

Table 8.4.10.1 Plaice in Subdivisions 24–32 (Baltic Sea). ICES advice, management, and official landings.

Year	ICES Advice	Predicted catch corresp. to advice ¹	Agreed TAC ²	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	
2013	No more than 20% catch increase	≤0.9		

Weights in thousand tonnes.

¹ Before 2013 the advice was for Subdivisions 22–32.

² For Subdivisions 22–32.

Table 8.4.10.2 Plaice in Subdivisions 24–32 (Baltic Sea). Total landings (tonnes) by subdivision.

Year	Total by SD						Total
	24 ¹	25	26	27	28	29	SD 24-32
1970	659						659
1971	423						423
1972	370						370
1973	323	174	30				527
1974	198	114	86				398
1975	297	158	142				597
1976	307	164	76				547
1977	300	265	26				591
1978	1914	633	290				2837
1979	3751	555	224				4530
1980	2073	383	53				2509
1981	1138	239	27				1404
1982	464	49	64	7	1		585
1983	456	84	12	24	2		578
1984	199	109		4	1		313
1985	1429	123	49	5	1		1607
1986	1446	178	59	9	1		1693
1987	1020	198	5	12	1		1236
1988	389	16	1	9	1		416
1989	188	15		6	1		210
1990	152	6					158
1991	126	4	1	2			133
1992	81	7		1			89
1993	76	4					80
1994	163	50	4				217
1995	447	243	3		1		694
1996	368	206	15	1			590
1997	264	316	3	1			584
1998	325	118	14	1			458
1999	234	155	1				390

Table 8.4.10.2 (cont) Plaice in Subdivisions 24–32 (Baltic Sea). Total landings (tonnes) by subdivision.

Year	Total by SD						Total
	24 ³	25	26	27	28	29	SD 24-32
2000	207	420	3				630
2001	225	562	3				790
2002	309	603	3				915
2003	438	830	13	0	0		1281
2004	289	781	11	0	0		1081
2005	289	781	11	0	0		1081
2006	284	725	3				1012
2007	617	550	0	0	0		1167
2008	665	437	0		0		1102
2009	744	481	0	0			1226
2010	473	420	9	0			903
2011 ²	437	309	1	0			748

² Preliminary data**Table 8.4.10.3** Plaice in Subdivisions 24–32 (Baltic Sea). Combined 1st and 4th quarters cpue (no./hr) (weighted average per depth stratum area) from the Baltic International Trawl Survey (BITS-Q1+Q4) of fish equal to or larger than 20 cm in Subdivisions 24–28, data from ICES DATRAS database.

Year	SD 24–28 (no./hr)
2000	2.22
2001	5.07
2002	16.09
2003	7.02
2004	7.91
2005	12.40
2006	16.14
2007	15.16
2008	17.64
2009	24.69
2010	25.40
2011	27.87