

8.3.3 Brill (*Scophthalmus rhombus*) in subdivisions 22–32 (Baltic Sea)

ICES stock advice

ICES advises that when the precautionary approach is applied, catches in 2017 should be no more than 18 tonnes. All catches are assumed to be landed.

Stock development over time

The survey index was highest in 2011, declined in 2012, and has remained stable since then.

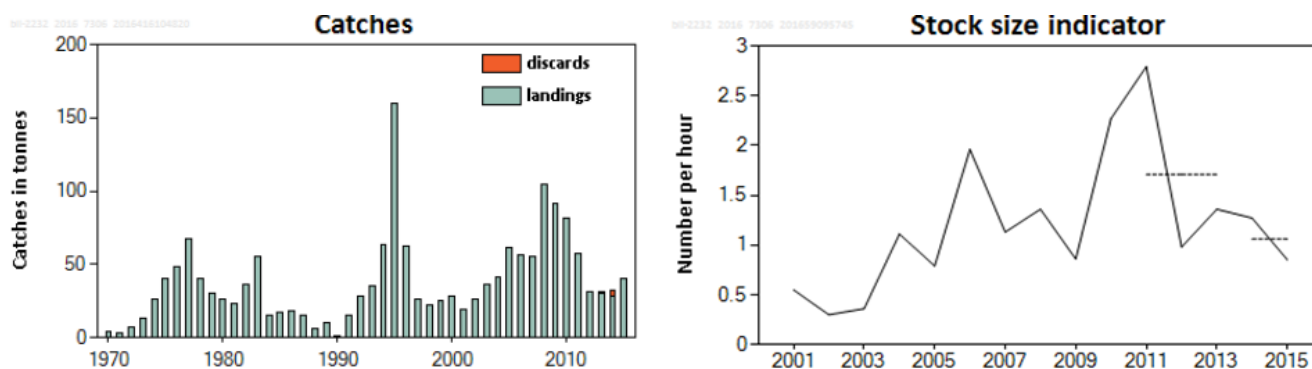


Figure 8.3.3.1 Brill in subdivisions 22–32. Left: landings and discards (weights in tonnes; discard data available for 2012–2015). Right: Combined 1st and 4th quarter cpues (number hour⁻¹; weighted average per depth stratum area) of fish equal to or larger than 20 cm, from the Baltic International Trawl Survey (BITS–Q1+Q4) in subdivisions 22, 23, and 24. Dashed lines denote the average cpue of the respective year range.

Stock and exploitation status

Table 8.3.3.1 Brill in subdivisions 22–32. State of the stock and fishery relative to reference points.

		Fishing pressure				Stock size				
		2013	2014	2015		2013	2014	2015		
Maximum sustainable yield	F_{MSY}	?	?	?	Undefined	MSY	?	?	?	Undefined
Precautionary approach	F_{pa}	?	?	?	Undefined	$B_{trigger}$?	?	?	Undefined
	F_{lim}					B_{pa}, B_{lim}	?	?		
Management plan	F_{MGT}	-	-	-	Not applicable	SSB_{MGT}	-	-	-	Not applicable
Qualitative evaluation	-	→	→	→	Stable	-	→	→	→	Stable

Catch options

The ICES framework for category 3 stocks was applied (ICES, 2012). The Baltic International Trawl Survey (BITS-Q1+Q4) cpue (number hour⁻¹) is 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 catch.

The index is estimated to have decreased by more than 20% and thus the uncertainty cap was applied in estimating the catch advice. The stock status relative to candidate reference points is unknown. The precautionary buffer was applied previously (ICES, 2013) and has not been used again.

Table 8.3.3.2 Brill in subdivisions 22–32. For stocks in ICES data categories 3–6, one catch option is provided.

Index A (2014, 2015)		1.06
Index B (2011, 2012, 2013)		1.71
Index ratio (A/B)		0.62
Uncertainty cap	Applied	0.80
Recent advised catch for 2016		23 t
Discard rate (2015)		0%
Precautionary buffer	Not applied	-
Catch advice*		18 t
Landings corresponding to the advised catch		18 t

* (Recent advised catch) × cap.

Basis of the advice

Table 8.3.3.3 Brill in subdivisions 22–32. The basis of the advice.

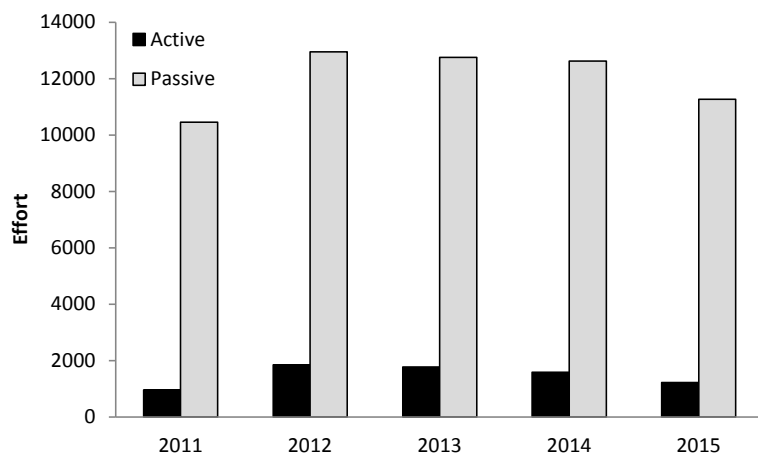
Advice basis	Precautionary approach
Management plan	There is no management plan for brill in this area. There is a proposed EU management plan for the Baltic Sea where bycatch of this species is considered. The plan has not been formally implemented.

Quality of the assessment

The advice is based on a combined abundance index from two surveys, used as an indicator of stock size. The index is considered uncertain due to the low catch rate in the surveys.

Issues relevant for the advice

Catches are mainly taken as bycatch, and this stock is currently not regulated by a TAC. Fishing effort of active and passive gears of Denmark and Germany has been stable in the last years.

**Figure 8.3.39.2** Brill in subdivisions 22–32. Reported effort (days at sea) of Denmark and Germany in subdivisions 22 and 24.

Reference points

No reference points are defined for this stock.

Basis of the assessment

Table 8.3.3.4 Brill in subdivisions 22–32. The basis of the assessment.

ICES stock data category	3.2.0 (ICES, 2016a)
Assessment type	Survey trends-based assessment (ICES, 2016b).
Input data	Commercial landings and survey data from the Baltic International Trawl Survey (BITS–Q1+Q4).
Discards and bycatch	Discards are included in the assessment since 2012.
Indicators	None
Other information	None
Working group	Baltic Fisheries Assessment Working Group (WGBFAS)

Information from stakeholders

There is no available information.

History of the advice, catch, and management

Table 8.3.3.5 Brill in subdivisions 22–32. History of ICES advice, the agreed TAC, and official landings. Weights in thousand tonnes.

Year	ICES advice	Predicted catch corresp. to advice	Agreed TAC	Landings (ICES estimates)	Catches (ICES estimates)
2000	No advice	-	-	0.028	
2001	No advice	-	-	0.019	
2002	No advice	-	-	0.027	
2003	No advice	-	-	0.036	
2004	No advice	-	-	0.041	
2005	No advice	-	-	0.062	
2006	No advice	-	-	0.056	
2007	No advice	-	-	0.056	
2008	No advice	-	-	0.105	
2009	No advice	-	-	0.092	
2010	No advice	-	-	0.082	
2011	No advice	-	-	0.057	
2012	Catches should not be increased	-		0.030	0.031
2013	No more than 20% catch increase	< 0.068		0.031	0.320
2014	Decrease catches by 4% (20% increase, followed by 20% PA reduction)	< 0.029		0.028	0.320
2015	Same advice as last year	< 0.029		0.040	0.040
2016	Precautionary approach (20% decrease in previous advised catch)	≤ 0.023			
2017	Precautionary approach (20% decrease in previous advised catch)	≤ 0.018			

History of catch and landings

Table 8.3.3.6 Brill in subdivisions 22–32. Catch distribution by fleet in 2015 as estimated by ICES.

Total catch (2015)	Landings	Discards
40 t	bycatch in trawl and gillnet fisheries	0 t
	40 t	

Table 8.3.3.7 Brill in subdivisions 22–32. History of ICES landings and ICES estimates of catch. Weights in tonnes.

Year	Denmark landings			Germany (FRG) landings	Sweden landings		Total landings			ICES discards	Total catch
	SD 22	SD 23	SDs 24–28		SD 22	SD 23	SDs 24–28	SD 22	SD 23		
1970	4						4	0	0		4
1971	3						3	0	0		3
1972	7						7	0	0		7
1973	11		2				11	0	2		13
1974	25		1				25	0	1		26
1975	38		1	1			39	0	1		40
1976	45		1	2			47	0	1		48
1977	60		2	5			65	0	2		67
1978	37			3			40	0	0		40
1979	30						30	0	0		30
1980	26						26	0	0		26
1981	22			1			23	0	0		23
1982	19					17	19	0	17		36
1983	13					42	13	0	42		55
1984	12					3	12	0	3		15
1985	16					1	16	0	1		17
1986	15					3	15	0	3		18
1987	12					3	12	0	3		15
1988	5					1	5	0	1		6
1989	9					1	9	0	1		10
1990						1	0	0	1		1
1991	15						15	0	0		15
1992	28						28	0	0		28
1993	29	5	1				29	5	1		35
1994	57	4	1			1	57	4	2		63
1995	134	12	1		5	8	134	17	9		160
1996	56	6					56	6	0		62
1997	25				1		25	1	0		26
1998	21				1		21	1	0		22
1999	24				1		24	1	0		25
2000	27				1		27	1	0		28
2001	19						19	0	0		19
2002	25		0		1		25	1	0		27*
2003	35		1		0		35	0	1		36
2004	39		1		1	0	39	1	1		41
2005	50	9	3		0	0	50	9	3		62
2006	42	9	2	3	0	0	45	9	2		56
2007	50			5	0	0	55	0	0		56
2008	81	9	3	11	1	1	92	10	3		105
2009	70	7	2	11	1	0	82	8	3		92*
2010	65	4	1	10	0	0	76	5	1		82
2011	46	5	1	4	1	0	50	6	1		57
2012	24	4	0	2	1	0	26	4	0	0**	31*
2013	24	6	0	1	1	0	25	7	0	0**	31*
2014	19	5	0	2	1	0	21	6	0	4	32*
2015	29	7	0	3	1	0	32	8	0	0	40

*Discrepancies between total catches (subdivisions 22–28) and catches per subdivision are due to rounding.

**Discard estimates were less than 1% in 2012 and 2013.

Summary of the assessment

Table 8.3.3.8 Brill in subdivisions 22–32. Survey index (number hour⁻¹) of fish equal to or larger than 20 cm from BITS–Q1+Q4 combined indices (arithmetic mean), cpue.

Year	cpue, SDs 22–24
2001	0.5
2002	0.3
2003	0.4
2004	1.1
2005	0.8
2006	2.0
2007	1.1
2008	1.4
2009	0.9
2010	2.3
2011	2.8
2012	1.0
2013	1.36
2014	1.27
2015	0.85

Sources and references

ICES. 2012. ICES Implementation of Advice for Data-limited Stocks in 2012 in its 2012 Advice. ICES CM 2012/ACOM 68. 42 pp.

ICES. 2013. Report of the Baltic Fisheries Assessment Working Group (WGBFAS), 10–17 April 2013, ICES Headquarters, Copenhagen, Denmark. ICES CM 2013/ACOM:10. 747 pp.

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ICES. 2016a. General context of ICES advice. *In* Report of the ICES Advisory Committee, 2016. ICES Advice 2016, Book 1, Section 1.2.

ICES. 2016b. Report of the Baltic Fisheries Assessment Working Group (WGBFAS), 12–19 April 2016, ICES Headquarters, Copenhagen, Denmark. ICES CM 2016/ACOM:11.