ECOREGIONWidely distributed and migratory stocksSTOCKTusk (*Brosme brosme*) in Subareas I and II (Arctic)

Advice for 2013 and 2014

Based on the ICES approach for data-limited stocks, ICES advises that catches should be no more than 9040 t.

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

Stock status



Figure 9.4.12.1.1Tusk in Subareas I and II. Left: Landings by area (in tonnes). Right: Cpue ([kg/hook] × 1000) for
tusk for ICES Division IIa.

The only information on abundance of tusk is from an index that may not be accurate (i.e. the index is not standardized and does not take possible changes in fishing patterns into account), which implies that it should not be read as showing precise changes in abundance over time. The plots above are interpreted as showing that increased catches since 2006 have not had a detrimental effect on the stock.

Management plans

No specific management objectives are known to ICES.

Biology

The life history traits are in line with other members of the gadoid family and suggest that tusk is less vulnerable to fishing mortality than typical deep-water species.

The fisheries

Tusk is taken in a mixed fisheries with ling and as a bycatch in fisheries for cod, mainly in longline fisheries. The exploitation is influenced by regulations aimed at other groundfish species, e.g. cod and haddock. Catches are primarily by Norwegian vessels and since 2003, EU vessels have been subject to a restricted TAC.

The major fisheries are the Norwegian longline and gillnet fisheries, but there are also bycatches by other gears, i.e. trawls and handline. Other nations catch tusk as a bycatch in trawl fisheries.

Legislation enacted in 2000 to regulate the cod fishery has resulted in a continuous reduction in the number of longliners in the fishery for tusk, ling, and blue ling. By 2011 only 37 vessels above 21 m were in the fishery.

| Catch distribution | Total catch (2011) was 11.7 kt, where 100% were landings (90% longlines, 9% gillnets, and 1% |
|--------------------|--|
| | other gear types.) |

Quality considerations

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The Norwegian cpue index is not standardized. A standardized cpue series will be presented in 2013.

The advice is based on a precautionary reduction of catches because of missing or non-representative data. The methods applied to derive quantitative advice for data-limited stocks are expected to evolve as they are further developed and investigated.

| Scientific basis | |
|----------------------|--|
| Assessment type | No assessment. |
| Discards and bycatch | No discard information is available. |
| Indicators | Landings for all relevant fleets and Norwegian cpue. |
| Other information | None. |
| Working group report | WGDEEP |

ECOREGIONWidely distributed and migratory stocksSTOCKTusk (*Brosme brosme*) in Subareas I and II (Arctic)

Reference points

No reference points have been proposed for this stock. Adult abundance as measured by the commercial index is above the average of the time-series. However, the status of the stock relative to historical levels is unknown and it may have been higher in the past. The level of the biomass relative to $B_{trigger}$ is therefore unknown.

Outlook for 2013 and 2014

No reliable assessment can be presented for this assessment unit and fishing possibilities cannot be projected.

ICES approach to data-limited stocks

For data-limited stocks without information on abundance or exploitation ICES considers that a precautionary reduction of catches should be implemented. The resulting limit should stay in place at least two years unless stock information shows a change that merits updating the advice.

For this stock, ICES advises that catches should decrease by 20% compared to the average catch of the last three years, corresponding to catches of no more than 9040 t in 2013 and subsequent years.

Additional considerations

The major part of the fishery is managed through input controls. The available information show no negative affect on the stock from the current fishing effort. However, it is unknown if the current exploitation is appropriate in regard to MSY; ICES therefore advises no increase in effort.

Comparison with previous assessment and advice

The basis for the assessment has not changed. The basis for the advice this year is the ICES approach to data-limited stocks.

Source

ICES. 2012. Report of the Working Group on the Biology and Assessment of Deep-Sea Fisheries Resources (WGDEEP), 29 March-5 April 2012, ICES Headquarters, Copenhagen. ICES CM 2012/ACOM:17.

| Year | ICES | Predicted | TAC | ICES landings |
|------|--|----------------|-----------------|---------------|
| | Advice | catch corresp. | EU | Subareas |
| | | to advice | Subareas I, II, | I and II |
| | | | and XIV | |
| 2003 | Reduce effort by 30% ¹ | - | 0.035 | 7.9 |
| 2004 | Biennial ¹ | - | 0.035 | 7.4 |
| 2005 | Effort should be reduced by 30% of 1998 effort ¹ | - | 0.035 | 7.1 |
| 2006 | Biennial ¹ | - | 0.035 | 10.0 |
| 2007 | Reduce catches to 5 000 t | 5 | 0.025 | 10.7 |
| 2008 | Biennial | 5 | 0.23 | 11.9 |
| 2009 | Constrain catches to 5 000 t | 5 | 0.24 | 9.6 |
| 2010 | Biennial | 5 | 0.02 | 12.7 |
| 2011 | Less than 9 900 t and a reduction below recent levels (2005–2008) should be considered | < 9.9 | 0.02 | 11.7 |
| 2012 | No new advice, same as 2011 | <9.9 | 0.02 | |
| 2013 | 20% reduction in catches (last 3 years' average) | <9.04 | | |
| 2014 | No new advice, same as 2013 | - | | |

Tusk in Subareas I and II. ICES advice, management, and landings. Table 9.4.12.1.1

Weights in thousand tonnes. ¹ Advice for tusk in the Northeast Atlantic.

| | | | Sı | ıbarea | Ι | | | Division IIa | | | | | | Division IIb | | | | | | | | | | |
|-------|--------|--------|--------|---------|---------|--------|-------|--------------|--------|---------|-----------|--------|-------|--------------|--------|---------|-------|--------|-------|--------|---------|--------|-------|-------|
| Year | Norway | Russia | Faroes | Iceland | Ireland | France | Total | Faroes | France | Germany | Greenland | Norway | E & W | Scotland | Russia | Ireland | Total | Norway | E & W | Russia | Ireland | France | Total | Total |
| 1988 | | | | | | | | 115 | 32 | 13 | - | 14241 | 2 | - | | | 14403 | | - | | | | 0 | 14403 |
| 1989 | | | | | | | | 75 | 55 | 10 | - | 19206 | 4 | - | | | 19350 | | - | | | | 0 | 19350 |
| 1990 | | | | | | | | 153 | 63 | 13 | - | 18387 | 12 | + | | | 18628 | | - | | | | 0 | 18628 |
| 1991 | | | | | | | | 38 | 32 | 6 | - | 18227 | 3 | + | | | 18306 | | - | | | | 0 | 18306 |
| 1992 | | | | | | | | 33 | 21 | 2 | - | 15908 | 10 | - | | | 15974 | | - | | | | 0 | 15974 |
| 1993 | | | | | | | | - | 23 | 2 | 11 | 17545 | 3 | + | | | 17584 | | 1 | | | | 1 | 17585 |
| 1994 | | | | | | | | 281 | 14 | 2 | - | 12266 | 3 | - | | | 12566 | | - | | | | 0 | 12566 |
| 1995 | | | | | | | | 77 | 16 | 3 | 20 | 11271 | 1 | | | | 11388 | 229 | - | | | | 229 | 11617 |
| 1996 | 587 | | | | | | 587 | 0 | 12 | 5 | | 12029 | 1 | | | | 12047 | 161 | | | | | 161 | 12795 |
| 1997 | 665 | | | | | | 665 | 1 | 21 | 1 | | 8642 | 2 | + | | | 8667 | 92 | 2 | | | | 94 | 9426 |
| 1998 | 805 | | | | | | 805 | | 9 | 1 | | 14463 | 1 | 1 | - | | 14475 | 73 | + | - | | | 73 | 15353 |
| 1999 | 907 | | | | | | 907 | | 7 | + | | 16213 | | 2 | 28 | | 16250 | 26 | | 4 | | | 30 | 17187 |
| 2000 | 738 | 43 | 1 | 16 | | | 798 | | 8 | 1 | | 13120 | 3 | 2 | 58 | | 13192 | 15 | - | 3 | | | 18 | 14008 |
| 2001 | 595 | 6 | | 13 | | | 614 | 11 | 15 | + | | 11200 | 1 | 3 | 66 | 5 | 11301 | 141 | - | 5 | | | 146 | 12061 |
| 2002 | 791 | 8 | n/a | 0 | | | 799 | | 3 | | | 11303 | 1 | 4 | 39 | 5 | 11355 | 30 | - | 7 | | | 37 | 12191 |
| 2003 | 571 | 5 | | | 5 | | 581 | 6 | 2 | | | 7284 | | 3 | 21 | | 7316 | 43 | | | | | 43 | 7940 |
| 2004 | 620 | 2 | | | 1 | | 623 | 12 | 2 | | | 6607 | | 1 | 61 | 1 | 6684 | 114 | | 5 | | | 119 | 7426 |
| 2005 | 562 | | | | | | 562 | 29 | 6 | | | 6249 | | | 37 | 3 | 6324 | 148 | | 16 | | | 164 | 7050 |
| 2006 | 442 | 4 | | | | | 446 | 33 | 9 | | | 9246 | 1 | | 51 | 11 | 9351 | 168 | | 23 | | | 191 | 9988 |
| 2007 | 355 | 2 | | | | | 357 | 54 | 7 | | | 9856 | 0 | 5 | 85 | 12 | 10019 | 350 | | 17 | 1 | | 368 | 10744 |
| 2008 | 627 | 7 | | | | | 634 | 52 | 6 | | | 10848 | 1 | 3 | 56 | 0 | 10966 | 271 | | 11 | 0 | | 282 | 11882 |
| 2009 | 869 | 1 | | | | | 870 | 59 | 3 | | | 8354 | | 1 | 82 | | 8499 | 249 | | 39 | | | 288 | 9657 |
| 2010 | 725 | 1 | | | | 1 | 727 | 39 | 6 | | | 11445 | 0 | 1 | 49 | | 11540 | 334 | | 57 | | | 391 | 12658 |
| 2011* | 941 | | | | | | 941 | 59 | 3 | | | 10282 | | 1 | 41 | | 10386 | 299 | | 20 | | 5 | 324 | 11651 |

| Table 9.4.12.1.2 | Tusk in Subareas I and II. | Working group estimates | of landings (tonnes) | by country and area. |
|------------------|----------------------------|-------------------------|----------------------|----------------------|
|------------------|----------------------------|-------------------------|----------------------|----------------------|

* Preliminary.