

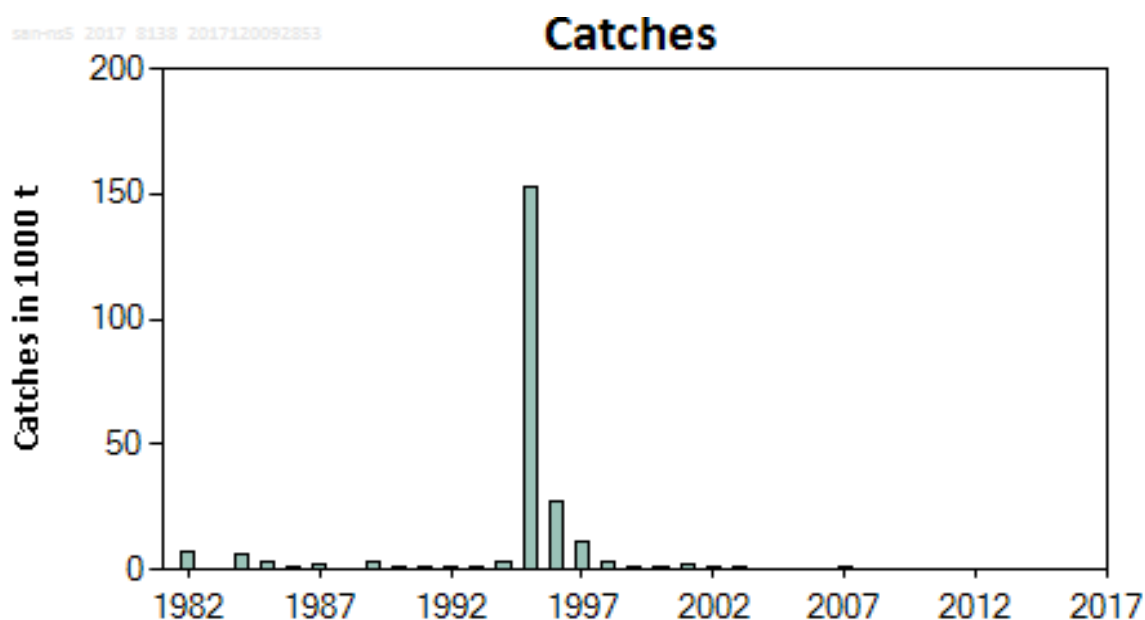
## Sandeel (*Ammodytes* spp.) in Division 4.a, Sandeel Area 5r (Northern North Sea, Viking and Bergen banks)

### ICES stock advice

ICES advises that when the precautionary approach is applied, catches should not increase. This corresponds to zero catch in each of the years 2017 and 2018.

### Stock development over time

Only catch statistics are available. No landings have occurred since 2004 (except for 4 tonnes landed in 2007). The available information is inadequate to evaluate stock status or trends. The state of the stock is therefore unknown.



**Figure 1** Sandeel on the Viking and Bergen banks, Sandeel Area 5r. ICES estimates of catch (in thousand tonnes).

### Stock and exploitation status

**Table 1** Sandeel on the Viking and Bergen banks, Sandeel Area 5r. State of the stock and fishery relative to reference points.

Table 2 – Assessment on the fishing and biological status, based on the state of the stock and fishery, relative to reference points.										
		Fishing pressure				Stock size				
		2014	2015	2016			2015	2016	2017	
Maximum sustainable yield	F <sub>MSY</sub>	?	?	?	Undefined	MSY B <sub>escapement</sub>	?	?	?	Undefined
Precautionary approach	F <sub>pa</sub> , F <sub>lim</sub>	?	?	?	Undefined	B <sub>pa</sub> , B <sub>lim</sub>	?	?	?	Undefined
Management plan	F <sub>MGT</sub>	-	-	-	Not applicable	SSB <sub>MGT</sub>	-	-	-	Not applicable
Qualitative evaluation	-	➡	➡	➡	Very low	-	?	?	?	Unknown

## Catch options

For stocks without information on abundance or exploitation, ICES considers that a precautionary reduction of catches should be implemented, unless there is ancillary information clearly indicating that the current level of exploitation is appropriate for the stock (ICES, 2012).

For this stock, current catches are zero. ICES advises that when the precautionary approach is applied, catches should not increase unless there is evidence that this will be sustainable (ICES, 2012). This corresponds to zero catch in both 2017 and 2018.

**Table 2** Sandeel on the Viking and Bergen banks, Sandeel Area 5r. For stocks in ICES categories 3–6, one catch option is possible.

Recent advised catch (2016)	0 tonnes	
Discard rate	Negligible	
Precautionary buffer	Not applicable	-
Catch advice	0 tonnes	

## Basis of the advice

**Table 3** Sandeel on the Viking and Bergen banks, Sandeel Area 5r. The basis of the advice.

Advice basis	Precautionary approach
Management plan	ICES is not aware of any agreed precautionary management plan for sandeel in this area.

## Quality of the assessment

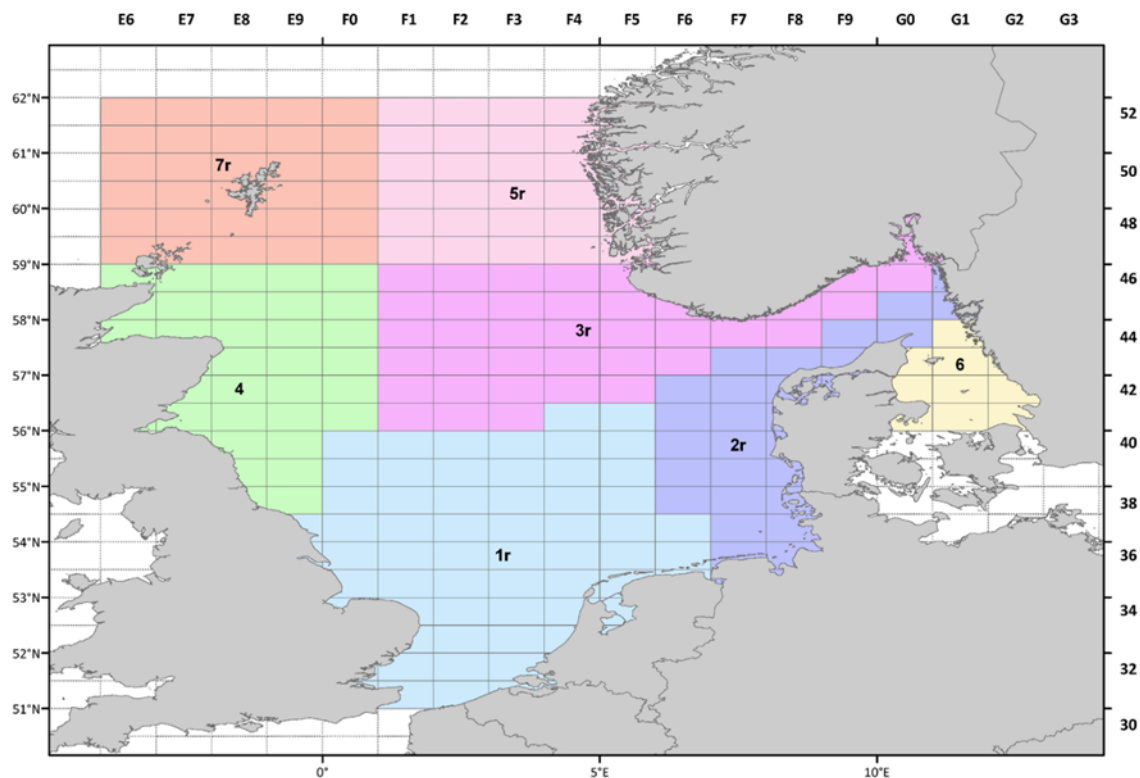
The available information is inadequate to evaluate stock status or trends.

This stock was benchmarked in the period between the 2016 and 2017 assessments (ICES, 2017a). ICES statistical rectangles included in this sandeel area were changed.

## Issues relevant for the advice

In 2017 the name of this sandeel area was changed from Sandeel Area 5 to Sandeel Area 5r because of a change in the statistical rectangles included in the stock area (ICES, 2017a).

Although the Norwegian acoustic survey conducted on the Viking Bank during 2005–2016 cannot be used as an indicator for stock trends at this time, it suggests that the stock in this area is very small. Sandeel fisheries on the Viking Bank area have been closed since 2009 because of very low estimates of sandeel abundance from the acoustic surveys (ICES, 2017a).



**Figure 2** Sandeel on the Viking and Bergen banks, Sandeel Area 5r. Sandeel are largely sedentary after settlement and form a complex of local (sub-)stocks in the North Sea. To avoid local depletion, ICES advice for sandeel is provided separately for seven areas in Division 3.a and Subarea 4. Advice for sandeel in Division 4.a, Sandeel Area 5r is defined as rectangles 47–52 F1–F5. ICES revised this sandeel area by ICES statistical rectangle at the 2016 benchmark (ICES, 2017a).

### Reference points

No reference points are defined for sandeel in this area.

### Basis of the assessment

**Table 4** Sandeel on the Viking and Bergen banks, Sandeel Area 5r. The basis of the assessment.

ICES stock data category	5 ( <a href="#">ICES, 2016</a> )
Assessment type	No assessment (ICES, 2017b)
Input data	Commercial catch statistics
Discards and bycatch	Discarding is considered to be negligible.
Indicators	None
Other information	Last benchmark in 2016 ( <a href="#">ICES, 2017a</a> ).
Working group	Herring Assessment Working Group ( <a href="#">HAWG</a> )

### Information from stakeholders

There is no available information.

## History of advice, catch, and management

**Table 5** Sandeel on the Viking and Bergen banks, Sandeel Area 5r. History of ICES advice, the agreed TAC, and ICES estimates of catches. All weights are in tonnes. Values of catch for the period 2005 to 2015 are presented to the nearest thousand tonnes.

Year	ICES advice	Catch corresponding to advice	TAC	ICES catch SA 5	ICES catch SA 5r	Total ICES catch (SAs 1–7)
2005*	Exploitation to be kept below the level of 2003. Adjustment to be made conditional on the abundance of the 2004 year class.	-	661000**	0		177000
2006*	The fishery should remain closed until information is available which assures that the stock can be rebuilt to $B_{pa}$ by 2007.	-	300000**	0		293000
2007*	The fishery should remain closed until information is available which assures that the stock can be rebuilt to $B_{pa}$ by 2008.	-	173000**	0		230000
2008*	The fishery should only be allowed if monitoring information is available and shows that the stock can be rebuilt to $B_{pa}$ by 2009.	-	375000**	0		348000
2009*	The fishery should only be allowed if monitoring information is available and shows that the stock can be rebuilt to $B_{pa}$ by 2010.	-	377000**	0		353000
2010*	The fishery should only be allowed if monitoring information is available and shows that the stock can be rebuilt to $B_{pa}$ by 2011.	-	377000**	0		414000
2011	No increase in effort unless there is evidence that this is sustainable.	0	0	0		438000
2012	No increase in catches unless there is evidence that this is sustainable.	0	0	0		102000
2013	ICES advises on the basis of the approach to data-limited stocks that catches should not increase.	0	0	0		278000
2014	ICES advises on the basis of the approach to data-limited stocks that catches should not increase. This corresponds to zero catch.	0	0	0		264000
2015	ICES advises that applying the precautionary approach catches should not increase unless there is evidence that this will be sustainable. This corresponds to zero catch.	0	0	0		312000
2016	Precautionary approach	0	0	0***	0***	73420***
2017^	Precautionary approach	0				
2018^	Precautionary approach	0				

\* Advice for Subarea 4, excluding the Shetland area.

\*\* Set for EU waters of Divisions 2.a and 3.a and Subarea 4.

\*\*\* Preliminary.

^ ICES statistical rectangles included in this sandeel area were changed in the 2017 assessment and advice.

## History of catch and landings

**Table 6** Sandeel on the Viking and Bergen banks, Sandeel Area 5r. Catch distribution by fleet in 2016 as estimated by ICES (in tonnes).

Total catch (2016)	Landings	Discards
0	0	0

**Table 7** Sandeel on the Viking and Bergen banks, Sandeel Area 5r. History of total catch (in tonnes) as estimated by ICES.

Year	Catch
1982	7393
1983	0
1984	5821
1985	3004
1986	628
1987	1713
1988	0
1989	2903
1990	374
1991	1168
1992	1099
1993	586
1994	2757
1995	152274
1996	27570
1997	10772
1998	2952
1999	145
2000	303
2001	1678
2002	8
2003	44
2004	0
2005	0
2006	0
2007	4
2008	0
2009	0
2010	0
2011	0
2012	0
2013	0
2014	0
2015	0
2016	0

## Summary of the assessment

There is no assessment for sandeel in this area.

## 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. 2016. General context of ICES advice. *In* Report of the ICES Advisory Committee, 2016. ICES Advice 2016, Book 1, Section 1.2.
- ICES. 2017a. Report of the Benchmark Workshop on Sandeel Stocks (WKSAND), 31 October–4 November 2016, Bergen, Norway. ICES CM 2016/ACOM:33.
- ICES. 2017b. Sandeel in Division 3.a and Subarea 4. Section 9 *in* Report of the Herring Assessment Working Group for the Area South of 62°N (HAWG), 16–22 March 2017, ICES HQ, Denmark. ICES CM 2017/ACOM:07. Available separately at the [HAWG](#) website.