

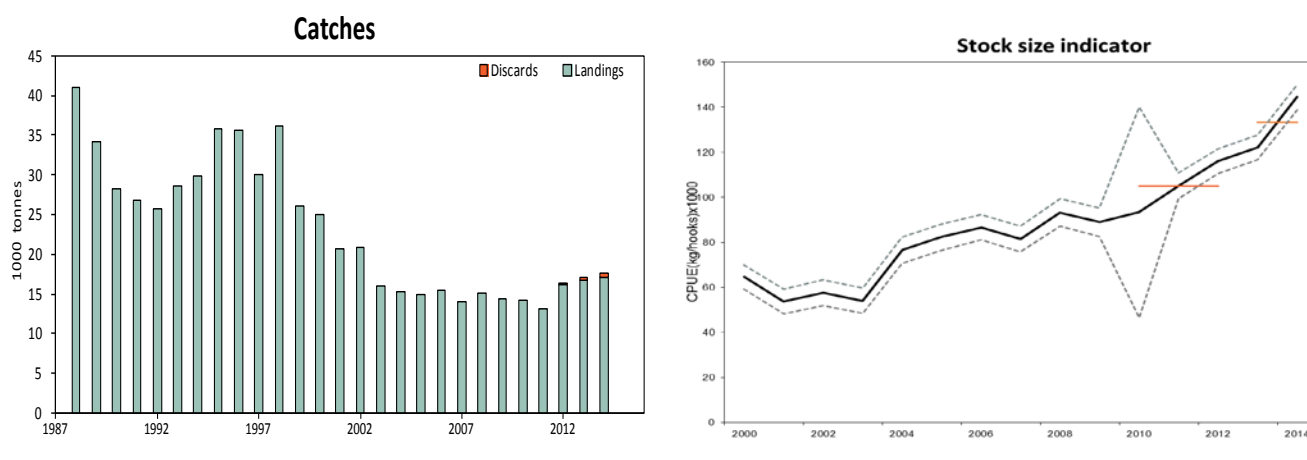
### 9.3.24 Ling (*Molva molva*) in Subareas VI-IX, XII, and XIV, and in Divisions IIIa and IVa (other areas)

#### ICES stock advice

ICES advises that when the precautionary approach is applied, catches should be no more than 14 746 tonnes in each of the years 2016 and 2017. Discarding is considered to be negligible.

#### Stock development over time

Catches have been stable since 2003. A standardized cpue based on data from the Norwegian longline fleet show an increasing trend since 2003 to present.



**Figure 9.3.24.1** Ling in other areas. Standardized cpue from the Norwegian longline fleet targeting ling for all areas combined ( $\text{kg hook}^{-1} \times 1000$ ). Red horizontal lines indicate the average cpue index of the respective year range used to calculate the advice.

#### Stock and exploitation status

**Table 9.3.24.1** Ling in the other areas. State of the stock and fishery, relative to reference points.

		Fishing pressure				Stock size			
		2012	2013	2014		2012	2013	2014	
Maximum Sustainable Yield	$F_{MSY}$	?	?	?	Undefined	MSY	?	?	?
Precautionary approach	$F_{pa}$ , $F_{lim}$	?	?	?	Undefined	$B_{pa}$ , $B_{lim}$	?	?	?
Management Plan	$F_{MGT}$	-	-	-	Not applicable	$SSB_{MGT}$	-	-	-
Qualitative evaluation	-	?	?	?	Undefined	-	↗	↗	↗
									Increasing

## Catch options

The ICES framework for category 3 stocks was applied (ICES, 2012). The standardized cpue series from the Norwegian longline reference fleet was applied as index for the stock development. The advice is based on a comparison of the two latest index values (index A) with the three preceding values (index B), combined with the revised 2012 catch advice. The index is estimated to have increased by more than 20%, which means that 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 for the revised 2012 advice. Discarding is considered to be negligible.

**Table 9.3.24.2** Ling in other areas. For stocks in ICES categories 3-6, one catch option is provided.

Index A (2013–2014)		133.3
Index B (2010–2012)		104.9
Index ratio (A/B)		1.27
Uncertainty cap	Applied	1.2
Revised previous advice (2012–2015)**		12 288 t
Discard rate		Negligible
Precautionary buffer	Not applied	-
Catch advice*		14 746 t

\* (Revised previous advice × cap).

\*\* The 2012 advice was based on a qualitative evaluation of multiple indices and gave catch advice of 10 800 tonnes. A combined index (Table 9.3.24.8) is now available. This has been used to re-calculate the 2012 catch advice of 12 288 tonnes which is now used as a baseline for the present advice [average catch 2009–2011 (13 601) × Index ratio (1.13) × PA buffer (0.8) = 12 288 tonnes].

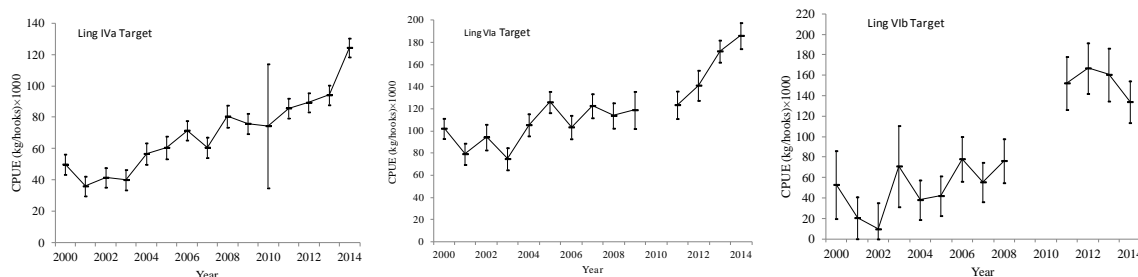
## Basis of the advice

**Table 9.3.24.3** Ling in other areas. The basis of the advice.

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

## Quality of the assessment

The advice is based on a standardized cpue series from the Norwegian longline reference fleet which shows an increasing trend. Other time-series covering smaller areas of the stock distribution show a similar trend.



**Figure 9.3.24.2** Ling in other areas. Cpue series for ling for the period 2000–2014 based on data when ling appeared to have been targeted (>30% of total catch). The bars denote the 95% confidence intervals.

## Issues relevant for the advice

There is no information available for this stock.

## Reference points

No reference points are defined for this stock.

## Basis of the assessment

**Table 9.3.24.4** Ling in other areas. The basis of the assessment.

ICES stock data category	3.2 (ICES, 2015a).
Assessment type	Cpue trends-based assessment (ICES, 2015b).
Input data	Standardized cpue series from the Norwegian longline reference fleet.
Discards and bycatch	Discards are estimated at < 5% of the catch and are considered negligible.
Indicators	None.
Other information	None.
Working group	Working Group on the Biology and Assessment of Deep-Sea Fisheries Resources ( <a href="#">WGDEEP</a> ).

## Information from stakeholders

There is no available information.

## History of advice, catch, and management

**Table 9.3.24.5** Ling in other areas. History of ICES advice, the agreed TAC, and ICES estimates of landings. Weights in thousand tonnes.

Year	ICES advice	Predicted catch corresp. to advice	TAC EU Subarea III	TAC EU Subarea IV (EU waters)	TAC EU Subarea IV (Norwegian waters)	TAC EU Subareas VI, VII, VIII, IX, X, XII, and XIV	TAC Faroe Subareas VI, VII, VIII, IX, X, XII, and XIV (EU waters)	TAC Norway Subareas VI, VII, VIII, IX, X, XII, and XIV (EU waters)	ICES landings Other areas*
2003	30% reduction on fishing effort**	-	0.136	4.666		14.966	0.8	9.5	16.2
2004	Biennial**	-	0.136	4.666		14.966	0.8	9.5	15.5
2005	Effort reduced by 30%	-	8.136	3.966	1	14.966	0.8	5.78	15.3
2006	Biennial	-	0.136	4.666	1	14.966	-	-	15.4
2007	Reduce about 30% in catches	10	0.119	3.173	1	11.976	0.25	5.78	13.9
2008	Biennial	10	0.100	2.856	0.85	10.776	0.25	5.638	15.0
2009	Constrain catches	10	0.100	2.856	0.85	10.776	0.25	5.638	14.4
2010	Biennial	10	0.092	2.428	0	7.003		6.140	14.1
2011	Constrain catches to 2003–2008 average, and a reduction in catches should be considered	15	0.092	2.428	NA	7.804	NA	6.360	13.1
2012	No new advice, same as 2011	15	0.092	2.428	NA	7.824	NA	6.340	16.1***
2013	Reduce catches by 20%	10.8		2.428	0.85	8.024	0.33	6.140	18.8***
2014	No new advice, same as 2013	10.8	0.087	1.942	0.95	7.300		5.500	17.5***
2015	No new advice, same as 2013	10.8	0.087	2.428	0.95	8.464	0.2	5.500	
2016	Precautionary approach	14.7							
2017	Biennial	14.7							

\* Divisions IIIa and IVa, and in Subareas VI, VII, VIII, IX, XII, and XIV.

\*\* Advice for ling in the Northeast Atlantic (not split in several assessment units).

\*\*\* Includes discards.

## History of catch and landings

**Table 9.3.24.6** Ling in other areas. Catch distribution by fleet in 2014 as estimated by ICES.

Total catch	Commercial landings	Commercial discards
17.5 kt	Longline and trawl	0.5 kt
	17.0 kt	

**Table 9.3.24.7** Ling in other areas. History of total international official landings (tonnes) by area.

Year	III	IVa	IVbc	VIa	VIb	VII	VIIa	VIIbc	VIIde	VIIIf	VIIg-k	VIII	IX	XII	XIV	All areas
1988	331	11 223	379	14 556	1 765	5 057	211	865	779	444	4 415	1 028		0	3	41 056
1989	422	11 677	387	8 631	3 743	5 261	311	577	700	310	1 012	1 221		0	1	34 253
1990	543	10 027	455	6 730	1 505	4 575	169	678	799	233	1 077	1 372		3	9	28 175
1991	484	9969	490	4 795	2 662	3 977	125	749	680	302	1 394	1 139		10	1	26 777
1992	549	10 763	842	4 588	1 891	2 552	105	1 286	519	137	1 593	802		0	17	25 644
1993	642	12 810	797	5 301	1 522	2 294	219	1 434	436	223	2 334	510		0	9	28 531
1994	469	11 496	323	6 730	2 540	2 185	284	1 595	451	400	3 254	85		5	6	29 823
1995	412	13 041	659	8 847	1 638		305	1 944	1 389	602	6 131	845		50	17	35 880
1996	402	12 705	569	8 577	1 124		210	2 201	1 477	399	6 850	1 041		2	0	35 557
1997	311	11 315	699	6 746	814		264	1 780	1 472	547	5 045	1 034	0	9	61	30 097
1998	214	13 631	627	7 362	1 394		198	1 034	1 500	561	7 814	1 797	2	2	6	36 142
1999	216	9 810	446	6 899	1 175		84	1 366	1 060	312	4 189	452	1	2	1	26 013
2000	228	9 246	384	6 909	1 879		73	1 182	846	218	3 578	339	1	7	26	24 916
2001	262	7 854	284	5 143	788		87	1 226	807	220	3 360	594	0	59	36	20 720
2002	263	9 072	309	4 127	533		119	964	891	453	3 526	467	0	8	23	20 756
2003	261	6 433	234	3 246	660		112	524	787	176	2 940	436		19	83	15 912
2004	232	6 306	241	2 769	1 064		97	640	801	161	2 427	492		0	10	15 240
2005	210	6 449	149	3 028	1 142		61	429	786	184	2 053	450		1	0	14 942
2006	188	6 719	144	2 573	1 411		88	668	687	130	2 407	398		1	0	15 414
2007	174	5 858	159	3 119	1 314		43	358	710	125	1 749	312		0	5	13 927
2008	168	7 259	200	2 950	1 545		14	255	569	187	1 503	345		0	1	14 996
2009	149	7 412	193	1 423	2 756		11	131	348	52	691	182		1	3	13 352
2010	142	6 398	201	3 256	2 691		16	326	294	69	848	134		0	3	14 378
2011	140	6 508	211	2 999	1 259		28	208	425	155	936	201		0	3	13 073
2012	145	7 018	192	3 655	1 390		14	1 013	436	167	1 520	552		0	106	16 208
2013	130	7 197	176	4 660	795		30	1 010	482	224	1 608	459		0	0	16 771
2014*	134	7 746	148	4 761	774		29	532	605	334	1 557	395		0	9	17 024

\* Preliminary.

## Summary of the assessment

**Table 9.3.24.8** Ling in other areas. Combined cpue from all areas (Norwegian standardized cpue).

Year	cpue	Upper	Lower
2000	64.5426	69.9121	59.173
2001	53.6055	59.0598	48.1512
2002	57.6624	63.3505	51.9742
2003	54.0599	59.709	48.4108
2004	76.5455	82.3682	70.7227
2005	82.4	88.2535	76.5465
2006	86.6567	92.2256	81.0878
2007	81.4064	87.1106	75.7023
2008	93.2877	99.4986	87.0768
2009	88.9355	95.2096	82.6614
2010	93.2985	140.083	46.5142
2011	105.188	110.944	99.4314
2012	116.116	121.616	110.615
2013	122.14	127.676	116.604
2014	144.473	149.989	138.958

## Sources and references

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