

## Norway lobster (*Nephrops norvegicus*) in Division 4.b, Functional Unit 6 (central North Sea, Farn Deep)

### ICES advice on fishing opportunities

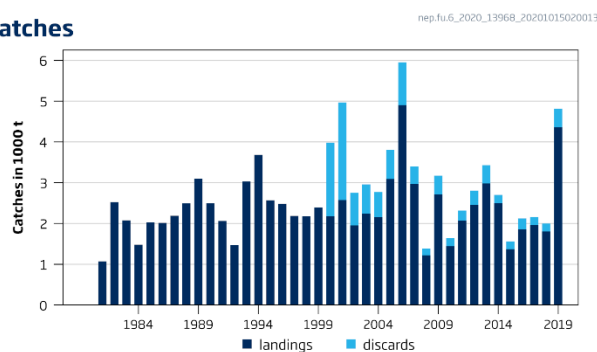
ICES advises that when the EU multiannual plan (MAP) for the North Sea is applied, catches in 2021 that correspond to the F ranges in the MAP are between 1991 tonnes and 2310 tonnes, assuming recent discard rates. The entire range is considered precautionary when applying the ICES advice rule.

To ensure that the stock in Functional Unit (FU) 6 is exploited sustainably, management should be implemented at the functional unit level. Any substantial transfer of the current surplus fishing opportunities from other FUs to FU 6 could rapidly lead to overexploitation.

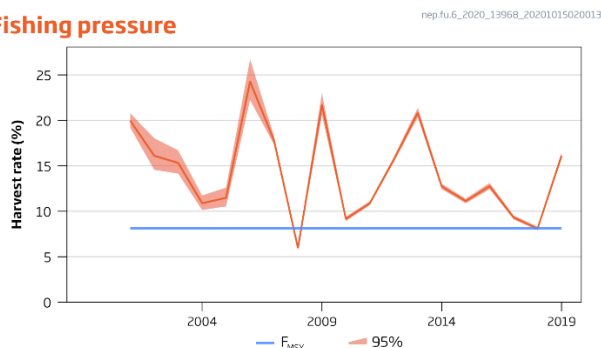
*Note: This advice sheet is abbreviated due to the COVID-19 disruption. The previous advice issued for 2020 is attached as Annex 1.*

### Stock development over time

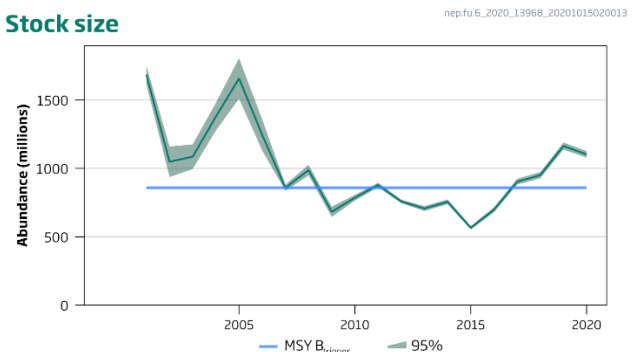
#### Catches



#### Fishing pressure



#### Stock size



**Figure 1** Norway lobster in Division 4.b, Functional Unit 6. Summary of the stock assessment. Long-term trends in catches, fishing pressure (F), and underwater TV survey (UWTV) abundance for animals greater than 17 mm carapace length (used as F and spawning-stock biomass [SSB] proxies). Discard data have only been included since 2000. Blue lines show proxies for  $MSY B_{trigger}$  and  $F_{MSY}$ . Shaded areas for abundance and harvest rates indicate 95% confidence intervals.

### Stock and exploitation status

**Table 1** Norway lobster in Division 4.b, Functional Unit 6. State of the stock and the fishery relative to reference points.

		Fishing pressure			Stock size		
		2017	2018	2019	2018	2019	2020
Maximum sustainable yield	$F_{MSY}$	✗	✓	✗ Above	$MSY B_{trigger}$	✓	✓ Above trigger
Precautionary approach	$F_{pa} F_{lim}$	?	✓	? Undefined	$B_{pa} B_{lim}$	✓	✓ Above possible reference points
Management plan	$F_{MGT}$	✗	✓	✗ Above range	$B_{MGT}$	✓	✓ Above

## Catch scenarios

**Table 2** Norway lobster in Division 4.b, Functional Unit 6. The basis for the catch scenarios.

Variable	Value	Notes
Stock abundance	1102 million individuals	UWTV 2020
Mean weight in projected landings	28.8 g	Average 2017–2019
Mean weight in projected discards	11.0 g	Average 2017–2019
Projected discard rate (total)	21.3%	Average 2017–2019 (percentage by number)
Discard survival ratio	15.0%	Percentage by number
Projected dead discard ratio	18.7%	Average 2017–2019 (percentage by number)

**Table 3** Norway lobster in Division 4.b, Functional Unit 6. Annual catch scenarios. All weights are in tonnes.

### Catch scenarios assuming recent discard rates

Basis	Total catch	Dead removals	Projected landings	Projected dead discards	Projected surviving discards	% harvest rate *	% Advice change **
	PL + PDD + PSD	PL + PDD	PL	PDD	PSD	for PL + PDD	
ICES advice basis							
EU MAP <sup>^</sup> : F <sub>MSY</sub>	2310	2277	2093	184	33	8.1	–3.1
F = MAP F <sub>MSY lower</sub>	1991	1963	1804	159	28	7.0	–3.1
F = MAP F <sub>MSY upper</sub> ***	2310	2277	2093	184	33	8.1	–3.1
Other scenarios							
MSY approach	2310	2277	2093	184	33	8.1	–3.1
F <sub>2019</sub>	4579	4514	4149	365	64	16.1	92
F <sub>2017–2019</sub>	3176	3132	2878	253	45	11.2	33

### Catch scenarios assuming zero discards

Basis	Total catch	Projected landings	Projected discards <sup>^^</sup>	% Harvest rate *	% Advice change **
ICES advice basis					
EU MAP <sup>^</sup> : F <sub>MSY</sub>	2236	2026	210	8.1	–6.2
F = MAP F <sub>MSY lower</sub>	1927	1747	181	7.0	–6.2
F = MAP F <sub>MSY upper</sub> ***	2236	2026	210	8.1	–6.2
Other scenarios					
MSY approach	2236	2026	210	8.1	–6.2
F <sub>2019</sub>	4433	4017	416	16.1	86
F <sub>2017–2019</sub>	3075	2786	289	11.2	29

<sup>^</sup> EU multiannual plan (MAP) for the North Sea (EU, 2018).

<sup>^^</sup> Represents the amount that otherwise would have been discarded, but is now landed under the landing obligation.

\* Calculated for dead removals.

\*\* Advice basis values for 2021 relative to the 2020 advice values (MAP advice of 2384, 2055, and 2384 tonnes, respectively); other option values are relative to F<sub>MSY</sub>.

\*\*\* F<sub>MSY upper</sub> = F<sub>MSY</sub> for this stock.

## History of the advice, catch, and management

**Table 4** Norway lobster in Division 4.b, Functional Unit 6. ICES advice and catch estimates. All weights are in tonnes.

Year	ICES advice	Landings corresponding to advice	Catch corresponding to advice	ICES landings	ICES total discards *
2004				2153	615
2005				3094	715
2006	No increase in effort			4903	1 051
2007	No increase in effort, harvest rate < 15%	3500		2966	432
2008	No new advice, same as for 2007	3500		1220	166
2009	No increase in effort and landings (2007)	< 3000		2713	461
2010	Harvest rate no greater than that equivalent to fishing at $F_{2008}$	< 1200		1443	201
2011	MSY transition	< 1900		2070	246
2012	MSY transition	< 1400		2460	345
2013	MSY transition	< 1400		2982	450
2014	MSY transition	< 1026		2503	198
2015	(Update November) MSY approach	< 1127		1371	190
2016	MSY approach	< 680	$\leq 738$ **	1854	272 ^^^
2017	MSY approach		$\leq 1143$ ***	1963	198 ^^^
2018	MSY approach		$\leq 1876$ ^	1807	190 ^^^
2019	MAP ^^ F ranges (Harvest rate = 7.0–8.12%)		1709-1982 ^	4359	454 ^^^
2020	Management Plan		2055–2384 ^		
2021	Management Plan		1991–2310 ^		

\* Dead + surviving discards.

\*\* Assuming all catches are landed and selection patterns do not change.

\*\*\* Assuming discarding below the minimum conservation reference size (MCRS) only.

^ Assuming discard rates average of the last three years.

^^ EU multiannual plan (MAP) for the North Sea (EU, 2018).

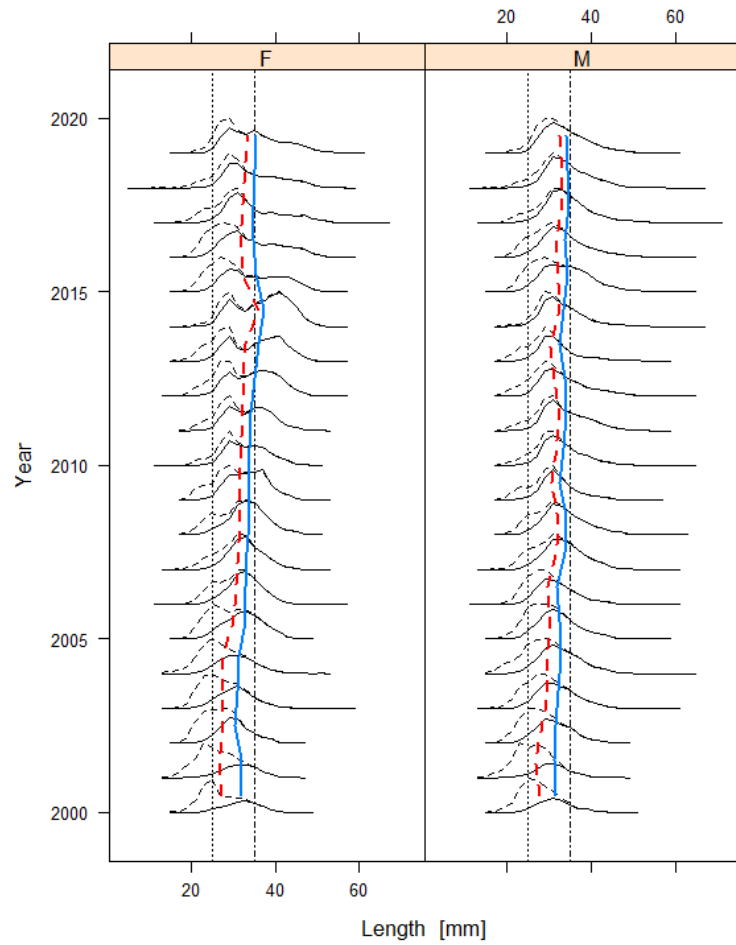
^^^ Since 2016, discard estimates include below minimum size (BMS) landings as reported to ICES.

## Summary of the assessment

**Table 5** Norway lobster in Division 4.b, Functional Unit 6. Assessment summary.

Year	UWTV abundance *	95% CI	Landings	Discard ratio (by number)	Mean weight landings	Mean weight discards	Number removed	Harvest rate (by number)
	millions		tonnes	%	grammes		millions	%
2001	1685	67	2574	67	21	9.6	373	20
2002	1048	112	1953	46	20	9.5	181	16.1
2003	1085	90	2245	42	22	9.6	177	15.3
2004	1377	101	2153	42	23	9.2	160	10.9
2005	1657	148	3094	35	24	10.3	200	11.5
2006	1244	114	4903	31	23	10.6	314	24
2007	858	23	2966	25	25	10.9	159	17.8
2008	987	39	1220	25	27	11.0	61	5.9
2009	682	38	2713	29	24	10.5	157	22
2010	785	21	1443	23	25	11.7	74	9.2
2011	878	17	2070	23	27	11.0	99	10.9
2012	758	13	2460	27	27	10.2	124	15.7
2013	706	18	2982	30	28	9.8	154	21
2014	755	18	2503	14.9	30	13.6	98	12.7
2015	565	81	1371	29	29	10.0	66	11.1
2016	697	19	1854	29	28	10.2	93	12.8
2017	902	21	1963	22	29	10.3	87	9.3
2018	950	23	1807	21	29	11.2	79	8.1
2019	1163	26	4359	20	28	11.6	193	16.1
2020	1102	24						

\* For Norway lobster greater than 17 mm carapace length.



**Figure 2** Norway lobster in Farn Deep (FU 6). Catch length–frequency distribution and mean size in catches (red dashed line) and landings (blue line). Vertical lines are minimum landing size (25 mm) and 35 mm.

## Sources and references

EU. 2018. Regulation (EU) 2018/973 of the European Parliament and of the Council of 4 July 2018 establishing a multiannual plan for demersal stocks in the North Sea and the fisheries exploiting those stocks, specifying details of the implementation of the landing obligation in the North Sea and repealing Council Regulations (EC) No 676/2007 and (EC) No 1342/2008. Official Journal of the European Union, L 179: 1–13. <http://data.europa.eu/eli/reg/2018/973/oj>.

ICES. 2020. Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK). ICES Scientific Reports, 2:61. 1140 pp. <http://doi.org/10.17895/ices.pub.6092>.

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## Annex 1

ICES Advice on fishing opportunities, catch, and effort  
Greater North Sea ecoregion  
Published 8 November 2019

### Norway lobster (*Nephrops norvegicus*) in Division 4.b, Functional Unit 6 (central North Sea, Farn Deep)

#### ICES advice on fishing opportunities

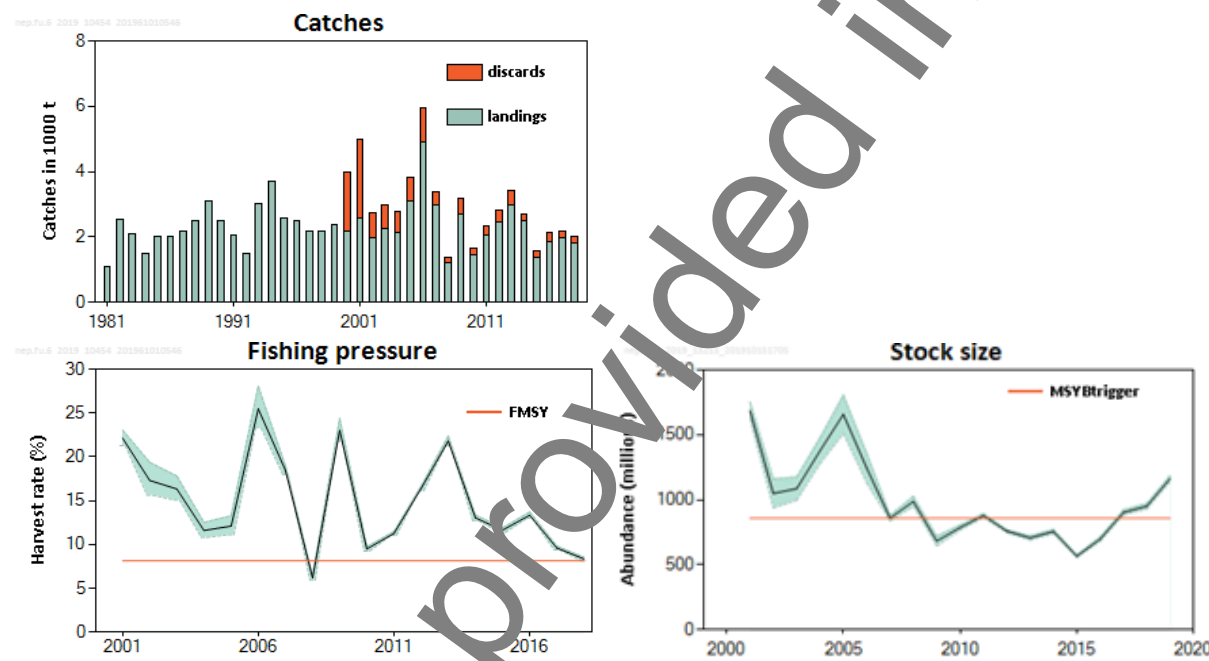
**Please note: The present advice replaces the advice given in June 2019 for catches in 2020.**

ICES advises that when the EU multiannual plan (MAP) for the North Sea is applied, catches in 2020 that correspond to the F ranges in the MAP are between 2055 tonnes and 2384 tonnes. The entire range is considered precautionary when applying the ICES advice rule.

In order to ensure the stock in Functional Unit (FU) 6 is exploited sustainably, management should be implemented at the functional unit level. Any substantial transfer of the current surplus fishing opportunities from other FUs to FU 6 could rapidly lead to overexploitation.

#### Stock development over time

The stock abundance has increased since 2015, and currently it is above MSY  $B_{trigger}$ . The harvest rate has shown a decreasing trend since 2013, and is just above  $F_{MSY}$  in 2018.



**Figure 1** Norway lobster in Division 4.b, Functional Unit (FU) 6. Summary of the stock assessment. Long-term trends in catches, fishing pressure and underwater TV survey (UWTV) abundance for animals greater than 17 mm carapace length (used as  $F_{MSY}$  and  $B_{trigger}$  proxies). Discard data have only been included since 2000. Orange lines show proxies for MSY  $B_{trigger}$  and  $F_{MSY}$ . Shaded areas for abundance and harvest rates indicate 95% confidence intervals.

#### Stock and exploitation status

ICES assesses that fishing pressure on the stock is above  $F_{MSY}$ ; the stock size is above MSY  $B_{trigger}$ .

**Table 1** Norway lobster in Division 4.b, Functional Unit 6. State of the stock and fishery relative to reference points.

		Fishing pressure				Stock size			
		2016	2017	2018		2017	2018	2019	
Maximum sustainable yield	$F_{MSY}$	✗	✗	✗	Above	✓	✓	✓	Above trigger
Precautionary approach	$F_{pa}, F_{lim}$	?	?	?	Undefined	✓	✓	✓	Above possible reference point
Management plan	$F_{MGT}$	✗	✗	✗	Above	✓	✓	✓	Above

## Catch scenarios

**Table 2** Norway lobster in Division 4.b, Functional Unit 6. The basis for the catch scenarios.

Variable	Value	Notes
Stock abundance	1 163 million individuals	UWTV 2019
Mean weight in wanted catch	28.71 g	Average 2016–2018
Mean weight in unwanted catch	10.55 g	Average 2016–2018
Unwanted catch proportion	24%	Average 2016–2018 (proportion by number)
Discard survival ratio	15%	Only applies in scenarios where discarding is allowed.
Dead unwanted catch proportion	21%	Average 2016–2018 (proportion by number); only applies in scenarios where discarding is allowed.

**Table 3** Norway lobster in Division 4.b, Functional Unit 6. Annual catch scenarios. All weights are in tonnes.

### Catch scenarios assuming recent discard rates

Basis	Total catch	Dead removals	Wanted catch	Dead unwanted catch	Surviving unwanted catch	Harvest rate*	% advice change**
	WC+DUC+SUC	WC+DUC	WC	DUC	SUC	for WC+DUC	
ICES advice basis							
EU MAP <sup>^</sup> : $F_{MSY}$	2384	2347	2135	212	37	8.12%	20
$F = MAP F_{MSY lower}$	2055	2023	1841	182	32	7.0%	3.7
$F = MAP F_{MSY upper}^{***}$	2384	2347	2135	212	37	8.12%	20
Other options							
MSY approach	2384	2347	2135	212	37	8.12%	20
$F_{2018}$	2452	2413	2196	218	38	8.4%	23
$F_{2016-2018}$	3060	3012	2741	271	48	10.4%	54

### Catch scenarios assuming zero discards

	Total catch	Wanted catch	Unwanted catch	Harvest rate*	% advice change**
EU MAP <sup>^</sup> : $F_{MSY}$	2298	2058	240	8.12%	15.9
$F = MAP F_{MSY lower}$	1981	1774	207	7.0%	-0.047
$F = MAP F_{MSY upper}^{***}$	2298	2058	240	8.12%	15.9
Other options					
MSY approach	2298	2058	240	8.12%	15.9
$F_{2018}$	2363	2116	247	8.4%	19.2
$F_{2016-2018}$	2950	2642	308	10.4%	49

<sup>^</sup> EU multiannual plan (MAP) for the North Sea (EU, 2018).

\* Calculated for dead removals.

\*\* Total catch 2020 relative to the  $F_{MSY}$  advice value 2019 (1982 tonnes).

\*\*\* For this stock,  $F_{MSY upper} = F_{MSY}$ .

The change in the advice (20% for the EU MAP  $F_{MSY}$  scenario, assuming recent discard rates) from November 2018 results mainly from an increase in stock abundance.

## Basis of the advice

**Table 4** Norway lobster in Division 4.b, Functional Unit 6. The basis of the advice.

Advice basis	EU multiannual plan (EU MAP) for the North Sea (EU, 2018).
Management plan	The EU multiannual plan (MAP) for stocks in the North Sea and adjacent waters applies to this stock. The plan specifies conditions for setting fishing opportunities depending on stock status and making use of the $F_{MSY}$ range for the stock.  ICES considers that the $F_{MSY}$ range for this stock used in the MAP is precautionary.



## Quality of the assessment

The harvest rates for 2017 were updated to account for a revision of landings estimates, which has resulted in an increase in harvest rates for 2017.

## Issues relevant for the advice

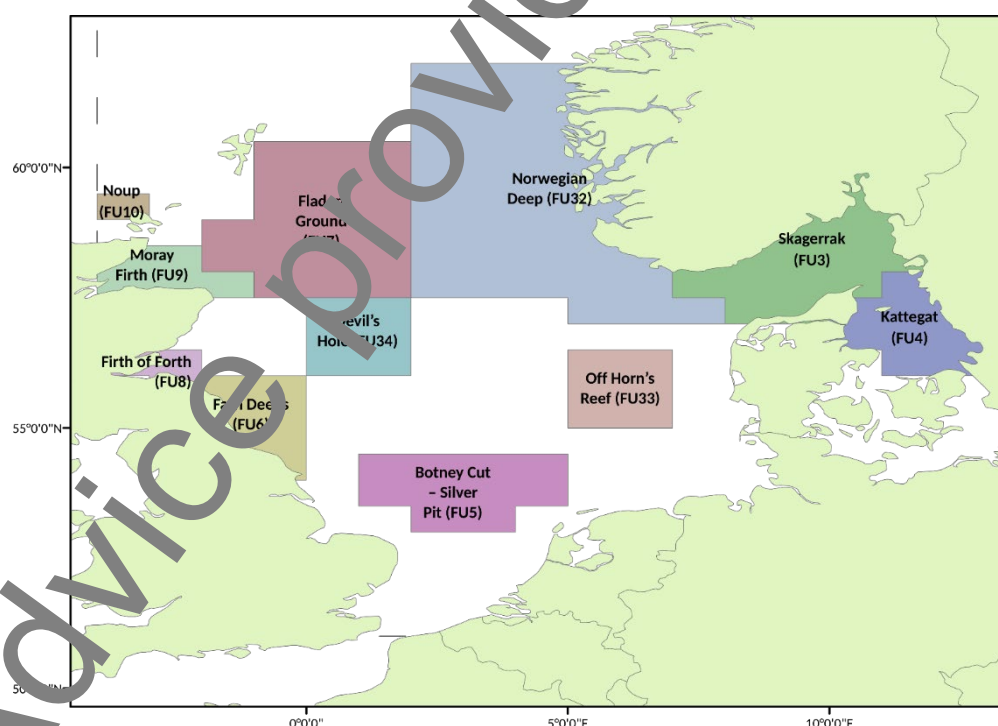
ICES was requested by the EU to provide advice based on the agreed North Sea EU MAP.

The results of the 2019 UWTB became available in June 2019, and showed a significant increase in stock abundance from the 2018 level. The advice for 2020 has, therefore, been updated to reflect the more recent data.

Since 2016, the EU landing obligation was phased in for all catches of Norway lobster fisheries in ICES Subarea 4, with several exemptions still in place. Observations from the 2017–2018 fishery indicate that discarding above the minimum conservation reference size (MCRS) continues and has not changed markedly (Figure 3). Consequently, ICES is providing advice for 2020 assuming average discard rates observed over the last three years, which is considered to be a more realistic assumption.

In 2016–2018 no Norway lobster were recorded as below MCRS (BMS category) in FU 6, despite catches having been observed below the MCRS (Figure 3).

Catches have been generally higher than the level advised by ICES, highlighting the issue that current management arrangements are not sufficient to contain the fishery within the sustainable limits determined by ICES. There is a single total allowable catch (TAC) for all of ICES Subarea 4, except for the Norwegian Deep. Management should be implemented at the functional unit level, to ensure that fishing opportunities are in line with the scale of the resource for each of the stocks and the corresponding MSY approach. From April 2016, the UK has imposed a range of measures on UK vessels fishing for Norway lobster in FU 6 in an attempt to reduce fishing mortality on the stock.



**Figure 2** Norway lobster functional units (FU) in the North Sea and Skagerrak/Kattegat region.

## Reference points

**Table 5** Norway lobster in Division 4.b, Functional Unit 6. Reference points, values, and their technical basis.

Framework	Reference point	Value	Technical basis	Source
MSY approach	MSY $B_{trigger}$	858 million	UWTV survey index in 2007	ICES (2010)
	$F_{MSY}$	Harvest rate 8.12%	Proxy, equivalent to $F_{35\%SPR}$ males	ICES (2010)
Precautionary approach	$B_{lim}$	Not defined		
	$B_{pa}$	Not defined		
	$F_{lim}$	Not defined		
	$F_{pa}$	Not defined		
EU Management plan (MAP) *	MAP MSY $B_{trigger}$	858 million	MSY $B_{trigger}$	ICES (2010)
	MAP $B_{lim}$	Not defined		
	MAP $F_{MSY}$	Harvest rate 8.12%	$F_{MSY}$	ICES (2010)
	MAP range $F_{lower}$	Harvest rate 7.0–8.12%	Consistent with ranges resulting in no more than 5% reduction in long-term yield compared with MSY.	ICES (2015)
	MAP range $F_{upper}^{**}$	Harvest rate 8.12–8.12%	Consistent with ranges resulting in no more than 5% reduction in long-term yield compared with MSY.	ICES (2015)

\* EU multiannual plan (MAP) for the North Sea (EU, 2018).

\*\* For this stock,  $F_{MSY upper} = F_{MSY}$ .

## Basis of the assessment

**Table 6** Norway lobster in Division 4.b, Functional Unit 6. Basis of the assessment and advice.

ICES stock data category	1 (ICES, 2018).
Assessment type	Underwater TV survey (UWTV) linked to yield-per-recruit analysis from length data (ICES, 2019).
Input data	One survey index (UWTV); length–frequency data from the fishery. Commercial catches (international landings and length frequencies from English catch sampling and Scottish landing sampling, covering 80% of the landings); maturity data from commercial catch sampling. Natural mortalities from Morizur (1982): 0.3 for males and immature females, and 0.2 for mature females for all years.
Discards, BMS landings, and bycatch	Included in the assessment, data from the majority of the main fleets (covering 73% of the landings in 2018). BMS landings, where reported, are included as dead removals in the assessment since 2016.
Indicators	Sex ratio, length frequencies.
Other information	The latest benchmark was performed in 2013 (ICES, 2013). The latest UWTV survey (June 2019) information was used to provide advice.
Working group	Working Group on the Assessment of Demersal Stocks in the North Sea and Skagerrak (WGNSSK)

## Information from stakeholders

There is no additional available information for this stock.

## History of the advice, catch, and management

**Table 7** Norway lobster in Division 4.b, Functional Unit 6. ICES advice and catch estimates. All weights are in tonnes.

Year	ICES advice	Landings corresponding to advice	Catch corresponding to advice	ICES landings	ICES total discards *
2004				2153	615
2005				3094	715
2006	No increase in effort			4903	1051
2007	No increase in effort, harvest rate < 15%	3500		2966	432
2008	No new advice, same as for 2007	3500		1220	166
2009	No increase in effort and landings (2007)	< 3000		2713	461
2010	Harvest rate no greater than that equivalent to fishing at $F_{2008}$	< 1200		1443	201
2011	MSY transition	< 1900		2070	246

Year	ICES advice	Landings corresponding to advice	Catch corresponding to advice	ICES landings	ICES total discards *
2012	MSY transition	< 1400		2460	345
2013	MSY transition	< 1400		2982	450
2014	MSY transition	< 1026		2502	198
2015	(update November) MSY approach	< 1127		1771	190
2016	MSY approach	< 680	≤ 738 **	1871	272 ^^^
2017	MSY approach		≤ 1143 ***	1963	198 ^^^
2018	MSY approach		≤ 1876 ^	1797	190 ^^^
2019	MAP^^ F ranges (Harvest rate = 7.0–8.12%)		1709–1982 ^		
2020	Management Plan		2055–2384 ^		

\* Dead + surviving discards.

\*\* Assuming all catches are landed and selection patterns do not change.

\*\*\* Assuming discarding below MCS only.

^ Assuming discard rates average of the last three years.

^^ EU multiannual plan (MAP) for the North Sea (EU, 2018).

^^^ Since 2016, discards refer to unwanted catches (including BMS landings).

## History of the catch and landings

**Table 8** Norway lobster in Division 4.b, Functional Unit 6. Catch distribution by fleet in 2018 as estimated by ICES.

Catch (2018)		Wanted catch			Unwanted catch	
99% dead	1% surviving	Mixed <i>Nephrops</i> /demersal fishery 12% TR1	Directed <i>Nephrops</i> fishery 75% TR2	13% other	85% dead	15% surviving
1997 tonnes		1807 tonnes			190 tonnes	

**Table 9** Norway lobster in Division 4.b, Functional Unit 6. ICES estimates of landings by country, total landings, and discards. All weights are in tonnes.

Year	UK (England & N. Ireland)	UK Scotland	Other countries **	Total landings	Discards
1981	1006	7	0	1073	
1982	2443	8	0	2524	
1983	2073	5	0	2078	
1984	1471	8	0	1479	
1985	2009	18	0	2027	
1986	1987	28	0	2015	
1987	2158	33	0	2191	
1988	2390	105	0	2495	
1989	2930	168	0	3098	
1990	2306	192	0	2498	
1991	1884	179	0	2063	
1992	1407	60	10	1473	
1993	2941	89	0	3030	
1994	3550	153	0	3683	
1995	2778	90	1	2569	
1996	2886	96	1	2483	
1997	2109	80	0	2189	
1998	2029	147	1	2177	
1999	2197	194	0	2391	
2000	1947	231	0	2178	1805
2001	2319	255	0	2574	2393
2002	1739	215	0	1954	795
2003	2031	214	0	2245	716
2004	1952	201	0	2153	615
2005	2936	158	0	3094	715
2006	4430	434	39	4903	1051
2007	2525	437	4	2966	432
2008	976	244	0	1220	166
2009	2299	414	0	2713	461

Year	UK (England & N. Ireland)	UK Scotland	Other countries **	Total landings	Discards
2010	1258	185	0	1443	201
2011	1806	250	14	2070	246
2012	2177	256	27	2460	345
2013	2666	305	11	2982	450
2014	2104	345	54	2503	198
2015	1186	174	11	1371	190
2016	1726	125	3	1854	272 ^
2017	1534	260	18	1812	198 ^
2018*	1557	229	21	1807	190 ^

\* Provisional.

\*\* "Other countries" includes the Netherlands, Belgium, and Denmark.

^ Since 2016, discards refer to unwanted catches (including BMS).

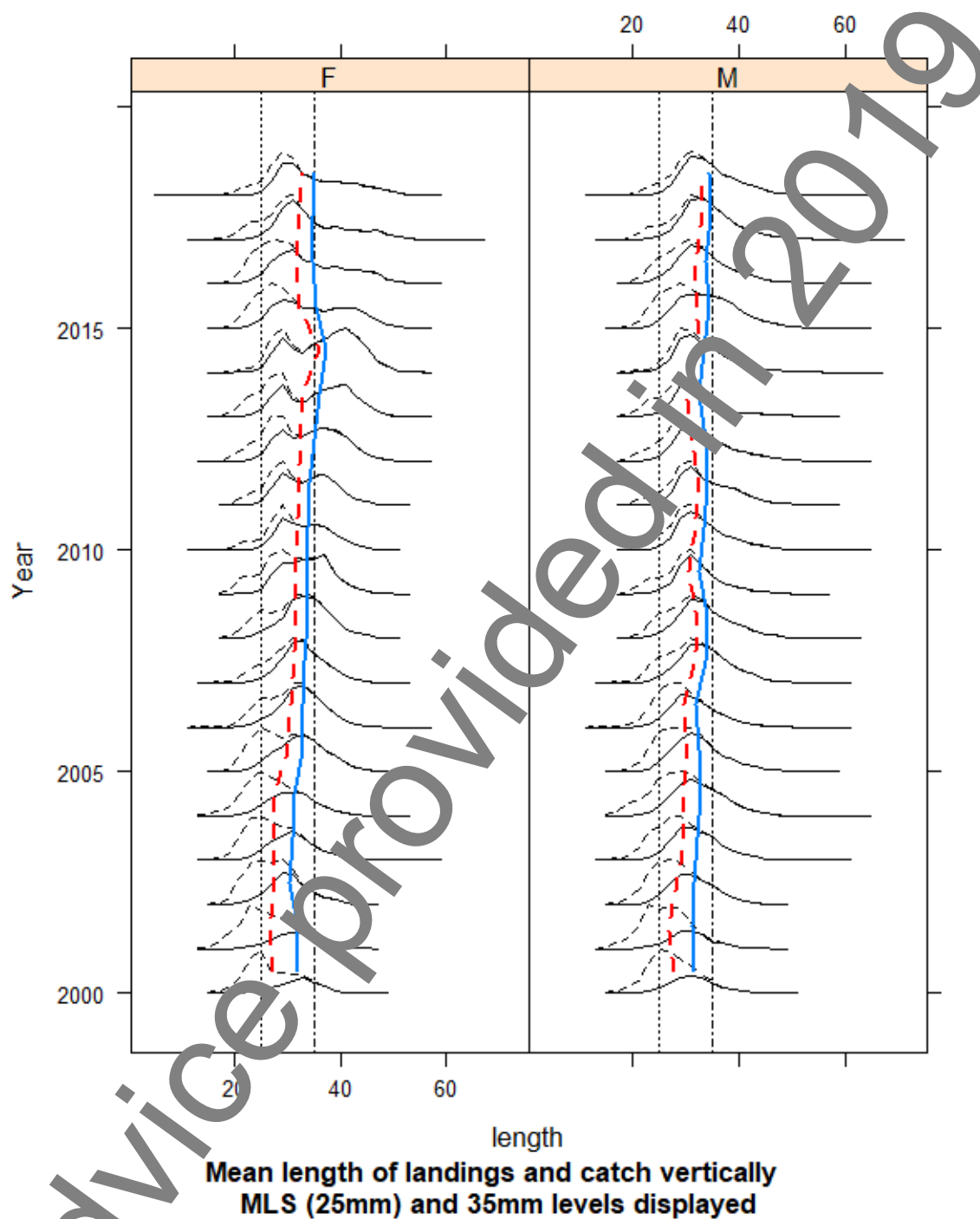
## Summary of the assessment

**Table 10** Norway lobster in Division 4.b, Functional Unit 6. Assessment summary.

Year	UWTV abundance *	95% CI	Landings	Discard ratio (by number)	Mean weight Landing	Mean weight Discards	Number removed	Harvest rate (by number)
	millions		tonnes	%	grammes	grammes	millions	%
2001	1 685	67	2 574	67	20.67	9.62	373	22.1
2002	1 048	112	1 954	46	20.00	9.50	181	17.3
2003	1 085	90	2 245	42	21.00	9.56	177	16.3
2004	1 377	101	2 153	42	23.14	9.22	160	11.6
2005	1 657	148	3 094	35	23.58	10.32	200	12.1
2006	1 244	114	4 903	31	22.53	10.58	317	25.5
2007	858	23	2 966	25	24.95	10.89	159	18.5
2008	987	39	1 220	23	26.63	10.97	61	6.2
2009	682	38	2 713	29	24.45	10.54	157	23.0
2010	785	21	1 443	25	25.18	11.74	74	9.5
2011	878	17	2 070	23	27.05	11.02	99	11.3
2012	758	13	2 460	27	27.30	10.16	124	16.4
2013	706	18	2 982	30	27.60	9.80	154	21.8
2014	755	18	2 503	14.9	29.90	13.50	98	13.0
2015	565	18	1 371	29	29.39	9.99	66	11.6
2016	697	19	1 834	29	27.97	10.23	93	13.3
2017	902	21	1 903	22	29.18	10.29	87	9.6
2018	950	23	1 807	21	28.97	11.22	79	8.4
2019	1 163	26						

\* For Norway lobster greater than 17 mm carapace length.

# Length frequencies for catch (dotted) and landed(solid): Nephrops in fu6



**Figure 3** Norway lobster in Farn Deep (FU 6). Catch length–frequency distribution and mean size in catches (red dashed line) and landings (blue line). Vertical lines are minimum landing size (25 mm) and 35 mm.

## Sources and references

- EU. 2018. Regulation (EU) 2018/973 of the European Parliament and of the council of 4 July 2018 establishing a multiannual plan for demersal stocks in the North Sea and the fisheries exploiting those stocks, specifying details of the implementation of the landing obligation in the North Sea and repealing Council Regulations (EC) No 676/2007 and (EC) No 1342/2008. Official Journal of the European Union, L 179:1–13. <http://data.europa.eu/eli/reg/2018/973/oj>.
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