

Norway lobster (*Nephrops norvegicus*) in Division 9.a, functional units 26–27 (Atlantic Iberian waters East, western Galicia, and northern Portugal)

ICES advice on fishing opportunities

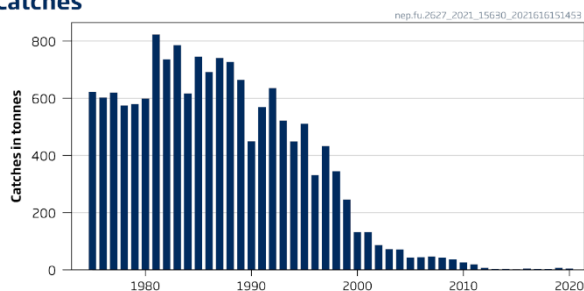
ICES advises that when the MSY approach and precautionary considerations are applied, there should be zero catch in 2022.

To ensure that the stocks in functional units 26–27 are exploited sustainably, management should be implemented at the functional unit level.

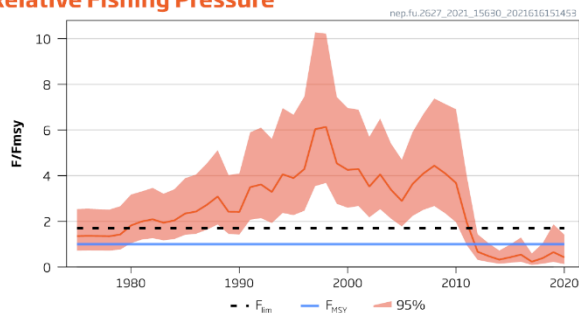
Stock development over time

Fishing pressure on the stock is below F_{MSY} and the biomass is below $MSY B_{trigger}$ and B_{lim} .

Catches



Relative Fishing Pressure



Relative Biomass

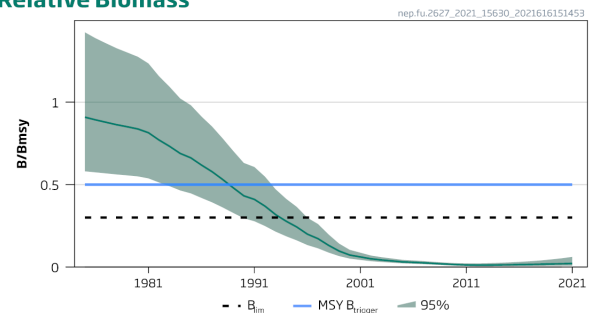


Figure 1 Norway lobster in Division 9.a, functional units (FUs) 26–27. Summary of the stock assessment.

Catch scenarios

Table 1 Norway lobster Norway lobster in Division 9.a, FUs 26–27. The basis for the catch scenarios.

Variable	Value	Notes
F_{2021}/F_{MSY}	0.43	Status quo F/F_{MSY}
B_{2022}/B_{MSY}	0.023	Short term forecast (STF) with status quo F/F_{MSY}
Catch (2021)	4.798	STF of catch under status quo F/F_{MSY} ; tonnes. Discarding is assumed to be negligible.

Table 2 Norway lobster in Division 9.a, FUs 26–27. Catch scenarios for 2021. All weights are in tonnes. The figures in the table are rounded. Calculations were done with unrounded inputs, and computed values may not match exactly when calculated using the rounded figures in the table.

Basis	Total catch (2022)	F ₂₀₂₂ /F _{MSY}	B ₂₀₂₃ /B _{MSY}	% B change [^]	% advice change ^{^^}
ICES advice basis					
MSY approach : F = 0	0	0	0.026	11.2	0
Other scenarios					
F = F ₂₀₂₀ = F _{sq}	5.193	0.43	0.025	8.2	-

[^] Biomass 2023 relative to biomass 2022.

^{^^} Advice value for 2022 relative to the advice value for 2021.

There is no change in the advice since last year because the stock status has remained below B_{lim} for the last 20 years.

Basis of the advice

Table 3 Norway lobster in Division 9.a, FUs 2627. The basis of the advice.

Advice basis	MSY approach
Management plan	The EU multiannual plan (MAP; EU, 2019) for stocks in the Western Waters and adjacent waters applies to this stock. The MAP stipulates that when the F _{MSY} ranges are not available, fishing opportunities should be based on the best available scientific advice.

Quality of the assessment

This stock was benchmarked in 2021 (ICES, 2021c).

The collection of data from the commercial fishery and research surveys during 2020 has been impacted by COVID-19 restrictions to a varying degree across member states. For this stock, the impact of COVID-19 on the perception of the stock status and advice is considered minimal.

Issues relevant for the advice

A single TAC covers the entire ICES subareas 9 and 10 and EU waters of CECAF 34.1.1. ICES advises that the management area should be consistent with the assessment area (Figure 2).

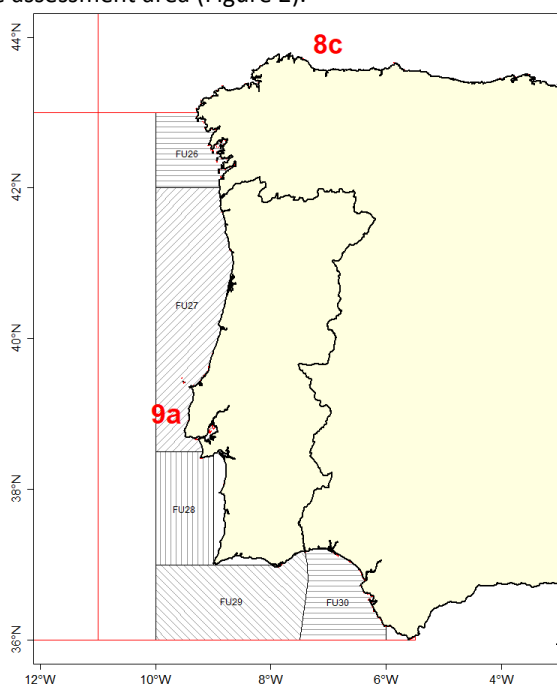


Figure 2 Norway lobster in Division 9.a, FUs 26–27. Map of functional units in Division 9a.

Reference points

Table 4 Norway lobster in Division 9.a, FUs 26–27. Reference points, values, and their technical basis.

Framework	Reference point	Value	Technical basis	Source
MSY approach	MSY $B_{trigger}$	0.5	Relative value. B_{MSY} is estimated directly from the assessment model and changes when the assessment is updated.	ICES (2021c)
	F_{MSY}	1	Relative value. F_{MSY} is estimated directly from the assessment model and changes when the assessment is updated.	ICES (2021c)
Precautionary approach	B_{lim}	$0.3 \times B_{MSY}$	Relative value (equilibrium yield at this biomass is 50% of the MSY).	ICES (2021c)
	B_{pa}	Not defined		
	F_{lim}	$1.7 \times F_{MSY}$	Relative value (the F that drives the stock to the proxy of B_{lim})	ICES (2021c)
	F_{pa}	Not defined		
Management Plan	B_{MGT}	Not defined		
	F_{MGT}	Not defined		

* No reference points are defined for this stock in terms of absolute values. The SPiCT-estimated values of the ratios F/F_{MSY} and B/B_{MSY} are used to estimate stock status relative to the MSY reference points.

Basis of the assessment

Table 5 Norway lobster in Division 9.a, FUs 26–27. The basis of the assessment.

ICES stock data category	2 (ICES, 2021a).
Assessment type	Surplus Production Model in Continuous Time (SPiCT) (ICES, 2021b).
Input data	Commercial landings (Spanish 1975–2020 and Portuguese 1984–2020); Spanish North Coast Bottom Trawl Survey (SP-NSGFS-WIBTS-Q4 [G2784] and Portuguese International Bottom Trawl Survey (PTGFS-WIBTS-Q4 [G8899]) combined index (1983–2020).
Discards and bycatch	Not included and considered negligible.
Indicators	One commercial index (SP-MATR) for the period 1990–2020; Mean size in commercial catches.
Other information	Last benchmarked in 2021 (ICES, 2021c).
Working group	Working Group for the Bay of Biscay and the Iberian Waters Ecoregion (WGBIE).

History of the advice, catch, and management

Table 6 Norway lobster in Division 9.a, FUs 26–27. History of ICES advice, the agreed TAC, and ICES estimates of landings. All weights are in tonnes.

Year	ICES advice	Predicted catches corresponding to advice	Agreed TAC *	ICES landings
2003	Zero catches	0	600	73
2004	Zero catches	0	600	71
2005	Zero catches	0	540	43
2006	Zero catches	0	486	44
2007	Zero catches	0	437	47
2008	Zero catches	0	415	42
2009	Zero catches	0	374	36
2010	No new advice, same as for 2009	0	337	26
2011	Zero catches	0	303	19
2012	No new advice, same as for 2011	0	273	7
2013	Zero catches	0	246	3
2014	No new advice, same as for 2013	0	221	3
2015	Zero catch and reduce by-catch	0	254	2
2016	No new advice, same as for 2015	0	320	5
2017	Precautionary approach (zero catch)	0	336	3
2018	Precautionary approach (zero catch)	0	381	2
2019	Precautionary approach (zero catch)	0	401	7
2020	Precautionary approach (zero catch)	0	386	5**

Year	ICES advice	Predicted catches corresponding to advice	Agreed TAC *	ICES landings
2021	Precautionary approach (zero catch)	0	374	
2022	MSY approach	0		

* Subareas 9 and 10; EU waters of CECAF 34.1.1.

** Preliminary.

History of catch and landings

Table 7 Norway lobster in Division 9.a, FUs 26–27. Catch distribution by fleet in 2020 as estimated by ICES.

Catch (2020)	Landings	Discards
5 tonnes	100% mixed Nephrops/demersal fishery	Negligible
	5 tonnes	

Table 8 Norway lobster in Division 9.a, FUs 26–27. History of commercial catch and landings; both the official and ICES estimated values are presented by area for each country participating in the fishery. All weights are in tonnes.

Year	Official landings			Total ICES landings
	Spain		Portugal	
	FU 26 *	FU 27	FU 27	FUs 26–27
1975	622			622
1976	603			603
1977	620			620
1978	575			575
1979	580			580
1980	599			599
1981	823			823
1982	736			736
1983	786			786
1984	604		14	618
1985	750		15	765
1986	657		37	694
1987	671		71	742
1988	631		96	727
1989	620		88	708
1990	401		48	449
1991	549		54	603
1992	584		52	636
1993	472		50	522
1994	426		22	448
1995	501		10	511
1996	264	50	17	331
1997	359	68	6	433
1998	295	42	8	345
1999	194	48	6	248
2000	102	21	9	132
2001	105	21	6	132
2002	59	24	4	87
2003	39	26	8	73
2004	38	24	9	71
2005	16	16	11	43
2006	15	17	12	44
2007	20	17	10	47
2008	17	12	13	42
2009	10	16	10	36
2010	9	13	4	26
2011	7	8	4	19
2012	2	4	1	7
2013	1	0.47	1	3

Year	Official landings			Total ICES landings
	Spain		Portugal	
	FU 26 *	FU 27	FU 27	FUs 26–27
2014	0.88	0.95	1.43	3
2015	0.57	0.13	0.83	2
2016	1.21	0.45	3	5
2017	0.29	0.47	2	2
2018	0.71	1.31	0	2
2019	3	1	4	7
2020	1	2	2	5**

* Prior to 1996, Spanish landings recorded in FU 26 include landings in FU 27.

** Preliminary.

Summary of the assessment

Table 9 Norway lobster in Division 9.a, FUs 26–27. Assessment summary. Weights are in tonnes.

Year	Relative Biomass	High	Low	Catches	Relative Fishing Pressure	High	Low
1975	0.91	1.42	0.58	622	1.35	2.5	0.72
1976	0.89	1.39	0.57	603	1.37	2.6	0.73
1977	0.88	1.36	0.57	620	1.36	2.5	0.73
1978	0.86	1.33	0.56	575	1.35	2.5	0.72
1979	0.85	1.30	0.56	580	1.42	2.7	0.76
1980	0.84	1.28	0.55	599	1.82	3.2	1.04
1981	0.82	1.24	0.54	823	2.00	3.3	1.20
1982	0.77	1.16	0.51	736	2.1	3.5	1.26
1983	0.73	1.09	0.49	786	1.94	3.2	1.17
1984	0.69	1.02	0.46	617	2.0	3.4	1.22
1985	0.66	0.98	0.45	746	2.3	3.9	1.41
1986	0.62	0.91	0.42	692	2.4	4.1	1.46
1987	0.58	0.85	0.39	741	2.7	4.5	1.64
1988	0.53	0.78	0.36	727	3.1	5.1	1.86
1989	0.48	0.70	0.33	665	2.4	4.0	1.45
1990	0.43	0.63	0.30	450	2.4	4.1	1.42
1991	0.41	0.61	0.28	569	3.5	5.9	2.1
1992	0.37	0.55	0.25	636	3.6	6.1	2.1
1993	0.32	0.47	0.22	522	3.3	5.6	1.93
1994	0.28	0.41	0.186	450	4.1	7.0	2.4
1995	0.24	0.37	0.162	511	3.9	6.7	2.3
1996	0.199	0.30	0.133	331	4.3	7.5	2.5
1997	0.172	0.26	0.113	433	6.0	10.3	3.5
1998	0.132	0.198	0.088	344	6.1	10.2	3.7
1999	0.097	0.142	0.066	246	4.5	7.4	2.8
2000	0.073	0.104	0.051	132	4.3	7.0	2.6
2001	0.061	0.087	0.043	132	4.3	6.9	2.7
2002	0.05	0.07	0.035	87	3.5	5.7	2.2
2003	0.043	0.06	0.03	73	4.1	6.5	2.5
2004	0.037	0.052	0.026	71	3.4	5.4	2.1
2005	0.031	0.043	0.022	43	2.9	4.7	1.78
2006	0.028	0.04	0.02	44	3.6	5.9	2.2
2007	0.025	0.036	0.018	47	4.1	6.7	2.5
2008	0.021	0.031	0.015	42	4.4	7.4	2.7
2009	0.018	0.027	0.012	37	4.1	7.1	2.4
2010	0.015	0.023	0.009	26	3.7	6.9	1.96
2011	0.013	0.022	0.007	19	1.95	4.0	0.96
2012	0.011	0.022	0.006	7	0.67	1.43	0.31
2013	0.012	0.023	0.006	3	0.48	1.05	0.22
2014	0.012	0.025	0.006	3	0.32	0.72	0.144
2015	0.013	0.028	0.007	2	0.43	0.98	0.186

Year	Relative Biomass	High	Low	Catches	Relative Fishing Pressure	High	Low
2016	0.015	0.031	0.007	5	0.54	1.29	0.23
2017	0.016	0.035	0.007	3	0.23	0.60	0.091
2018	0.017	0.04	0.007	2	0.39	1.04	0.145
2019	0.019	0.046	0.008	7	0.65	1.87	0.23
2020	0.02	0.053	0.008	5	0.43	1.42	0.128
2021	0.021	0.062	0.007				

Sources and references

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[Download the stock assessment data and figures.](#)

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