

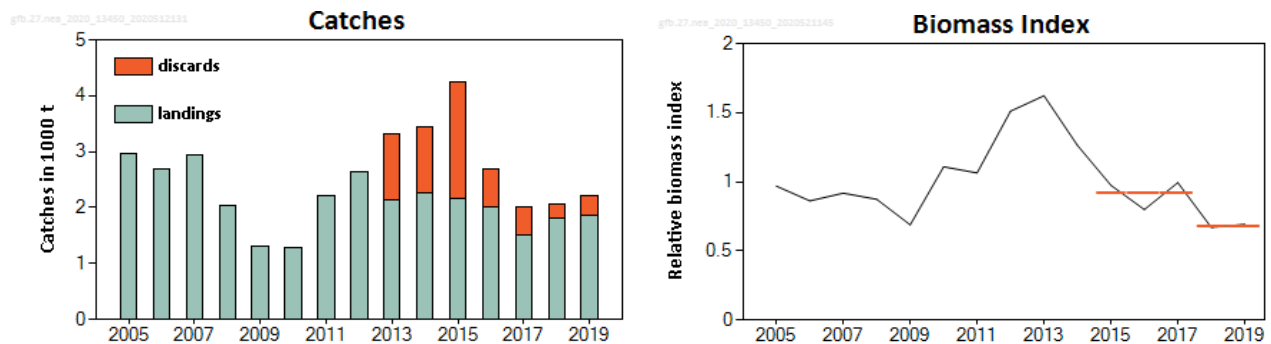
## Greater forkbeard (*Phycis blenoides*) in subareas 1–10, 12, and 14 (the Northeast Atlantic and adjacent waters)

### ICES advice on fishing opportunities

ICES advises that when the precautionary approach is applied, landings should be no more than 861 tonnes in each of the years 2021 and 2022. ICES cannot quantify the corresponding catches.

Note: This advice sheet is abbreviated due to the Covid-19 disruption. The previous advice issued for 2019 and 2020 is attached as Annex 1.

### Stock development over time



**Figure 1** Greater forkbeard in the Northeast Atlantic and adjacent waters. Left: Landings and partial discards (not fully quantified). Right: Average relative biomass indicator from six surveys (IGFS-WIBTS-Q4, EVHOE-WIBTS-Q4F, SpGFS-WIBTS-Q4, SpGFS-WIBTS-Q4, SDS, PT-CTS [UWTV {FU 28–29}]). The dotted horizontal lines indicate the average biomass indicator of the respective year range (last two and preceding three years) used to calculate the advice.

### Stock and exploitation status

**Table 1** Greater forkbeard in the Northeast Atlantic and adjacent waters. State of the stock and the fishery relative to reference points.

		Fishing pressure			Stock size					
		2017	2018	2019	2017	2018	2019			
Maximum sustainable yield	$F_{MSY}$	?	?	?	Unknown	$MSY B_{trigger}$	?	?	?	Undefined
Precautionary approach	$F_{pa}, F_{lim}$	?	?	?	Unknown	$B_{pa}, B_{lim}$	?	?	?	Undefined
Management plan	$F_{MGT}$	—	—	—	Not applicable	$B_{MGT}$	—	—	—	Not applicable
Qualitative evaluation	-	?	?	?	Unknown	-	↗	↘	↔	Stable

### Catch scenarios

The precautionary buffer was last applied in 2016. As the stock status relative to candidate reference points is unknown, the buffer has been applied this year.

**Table 2** Greater forkbeard in the Northeast Atlantic and adjacent waters. The basis for the catch scenario\*.

Index A (2018–2019)		0.68
Index B (2015–2017)		0.92
Index ratio (A/B)		0.74
Uncertainty cap	Applied	0.8
Advised landings for 2019–2020 issued in 2018		1346 tonnes
Discard rate		Substantial, but not fully quantified
Precautionary buffer	Applied	0.8
Landings advice**		861 tonnes
% advice change***		-36%

\* 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.

\*\* [advice for 2019–2020] × [uncertainty cap] × [precautionary buffer].

\*\*\* Advice value for 2021 and 2022 relative to the advice value for 2019 and 2020.

The advised catch has decreased by more than 20% because of the decreasing biomass index and the application of the precautionary buffer.

### Issues relevant for the advice

This stock is classified as Category 4 in the NEAFC categorization of deep-sea species/stocks, which implies that fisheries are primarily restricted to coastal state exclusive economic zones (EEZs). Therefore, management measures are not taken by NEAFC unless complementary to coastal state conservation and management measures (NEAFC, 2016).

### History of the advice, catch, and management

**Table 3** Greater forkbeard in the Northeast Atlantic and adjacent waters. History of ICES advice, the agreed TAC, and official landings. There are no TACs since 2019. Weights are in tonnes.

Year	ICES advice	Predicted catch corresp. to advice*	TAC EU subareas 1, 2, 3, and 4	TAC EU subareas 5, 6, and 7	TAC EU subareas 8 and 9	TAC EU subareas 10 and 12	Sum of EU TACs	ICES landings Northeast Atlantic
2003	Fisheries accompanied by programmes to collect data, and expand very slowly, unless proven to be sustainable							4336
2004	Biennial							3492
2005	Fisheries accompanied by programmes to collect data							2960
2006	Biennial							2686
2007	Fishery should not be allowed to expand, unless proven to be sustainable		36	2028	267	63	2394	2949
2008	Biennial		36	2028	267	63	2394	2038
2009	Fishery should not be allowed to expand, unless proven to be sustainable		31	2028	267	54	2380	1311
2010	Biennial		31	2028	267	54	2380	1288
2011	Fishery should not be allowed to expand, and a reduction in catches should be considered		31	2028	267	54	2380	2201
2012	No new advice, same as 2011		31	2028	267	54	2380	2641
2013	20% reduction in catches	1000	31	2028	267	54	2380	2143
2014	No new advice, same as 2013	1000	31	2028	267	54	2380	2269
2015	20% increase in landings	< 2628	37	2434	320	650	2856	2174
2016	No new advice, same as 2015	< 2628	37	2434	320	650	2856	2012

Year	ICES advice	Predicted catch corresp. to advice*	TAC EU subareas 1, 2, 3, and 4	TAC EU subareas 5, 6, and 7	TAC EU subareas 8 and 9	TAC EU subareas 10 and 12	Sum of EU TACs	ICES landings Northeast Atlantic
2017	Precautionary approach (36% decrease of the 2016 advice)	≤ 1682	33	2166	285	58	2540	1503
2018	Precautionary approach (same value as advised catches for 2017)	≤ 1682	29	1928	254	52	2260	1801
2019	Precautionary approach	≤ 1346	-	-	-	-	-	1850
2020	Precautionary approach	≤ 1346	-	-	-	-	-	
2021	Precautionary approach	≤ 861						
2022	Precautionary approach	≤ 861						

\* Landings advice since 2017.

**Table 4** Greater forkbeard in the Northeast Atlantic and adjacent waters. Landings inside and outside the NEAFC Regulatory Area (RA) as estimated by ICES; landings are in tonnes. Note that ICES cannot quantify catches.

Year	Inside the NEAFC RA	Outside the NEAFC RA	Total landings	Proportion of landings inside the NEAFC RA (%)
2014	0	2269	2269	0
2015	0	2175	2175	0
2016	0	2012	2012	0
2017	0	1503	1503	0
2018	0	1801	1801	0
2019	0	1850	1850	0

## Summary of the assessment

**Table 5** Greater forkbeard in the Northeast Atlantic and adjacent waters. Assessment summary. Relative combined survey biomass index from trawl surveys and catches (landings and partially reported discards). Weights are in tonnes.

Year	Relative biomass index	Landings	Discards (partial)
2005	0.97	2960	
2006	0.86	2686	
2007	0.92	2949	
2008	0.87	2038	
2009	0.69	1311	
2010	1.11	1288	
2011	1.06	2201	
2012	1.51	2641	
2013	1.62	2143	1185
2014	1.26	2269	1166
2015	0.97	2174	2068
2016	0.80	2012	677
2017	0.99	1503	513
2018	0.67	1801	263
2019	0.69	1850	366

## Sources and references

ICES. 2020. Working Group on the Biology and Assessment of Deep-sea Fisheries Resources (WGDEEP). ICES Scientific Reports. 2:38. <http://doi.org/10.17895/ices.pub.6015>

NEAFC. 2016. The NEAFC approach to conservation and management of deep-sea species and categorization of deep-sea species/stocks. Adopted at the 35th Annual Meeting, November 2016. <https://www.neafc.org/basictexts>.

*Recommended citation:* ICES. 2020. Greater forkbeard (*Phycis blennoides*) in subareas 1–10, 12, and 14 (the Northeast Atlantic and adjacent waters). In Report of the ICES Advisory Committee, 2020. ICES Advice 2020, bsf.27.nea. <https://doi.org/10.17895/ices.advice.5821>.