Black scabbardfish (*Aphanopus carbo*) in subareas 1, 2, 4–8, 10, and 14, and divisions 3.a, 9.a, and 12.b (Northeast Atlantic and Arctic Ocean)

ICES advice on fishing opportunities

ICES advises that when the maximum sustainable yield (MSY) approach is applied, catches should be no more than 1 889 tonnes in each of the years 2026 and 2027.

Non-fisheries conservation considerations

Conservation aspects and associated management measures may exist at a national or regional level but were not reviewed by ICES.

Stock development over time

Fishing pressure on the stock is above the $F_{MSY\ proxy}$, and the stock-size indicator is below $I_{trigger}$.

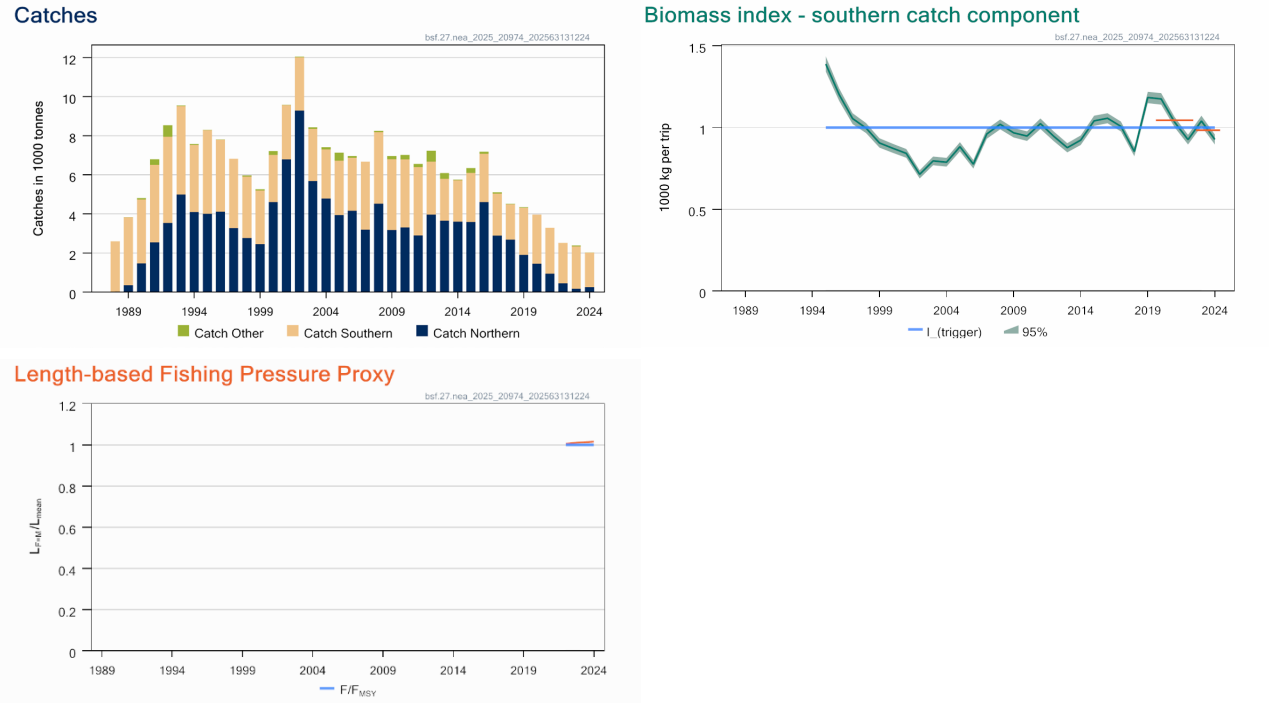

Figure 1 Black scabbardfish in the Northeast Atlantic. ICES estimates of catches (in thousand tonnes) in the northern component (subareas 5, 6, 7, and 12), southern component (Subarea 8 and Division 9.a), and subareas 1–4, 10, and 14 (labelled as "catch other"). The fishing pressure proxy ($L_{F=M\ 2024}/L_{mean}$) from the length-based indicator (LBI) method is used for the evaluation of the exploitation status. The proxy fishing pressure $L_{F=M}/L_{mean}$ (inverse of the indicator ratio, f) from the LBI method is used for the evaluation of the exploitation status. The standardized biomass index in the southern component of the assessed area (CPUE in kg.trip^{-1}). The horizontal orange lines indicate the average of the biomass index for 2023 to 2024 and for 2020, 2021, and 2022.

Catch scenarios

ICES framework for category 3 stocks was applied (rfb rule, method 2.1, ICES, 2025a). The advice is based on the average of the last three years of catch in the whole Northeast Atlantic (2022–2024), multiplied by the ratio of the mean of the last two index values (index A) and the mean of the three preceding values (index B), a ratio of observed mean length in the catch relative to the target mean length, a biomass safeguard, and a precautionary multiplier. The stability clause was not applied since the change from the average three last years of catches [A_y] was between +20% and −30%. Standardized landings per unit effort (LPUE, in kg.trip^{-1}) of the Portuguese deep-water longline fishery targeting the black scabbardfish in ICES Division 9.a were used as an indicator of stock development. Discarding is considered to be negligible.

Table 1 Black scabbardfish in the Northeast Atlantic. The basis for the catch scenarios*. Catches are in tonnes.

Average last three years of catch [A_y] (2022–2024)	2 311 tonnes
Stock biomass trend	
Index A (2023, 2024)	984 kg.trip^{-1}
Index B (2020, 2021, 2022)	1 045 kg.trip^{-1}
r: Index ratio (A/B)	0.94
Fishing pressure	
Mean catch length ($L_{mean} = L_{2024}$)	108.82
Maximum sustainable yield (MSY) proxy length ($L_{F=M}$)	110.5
Fishing pressure proxy ($L_{F=M}/L_{mean}$)	1.02
f: multiplier for relative mean length in catches ($L_{mean}/L_{F=M}$)	0.98
Biomass safeguard	
Last index value (I_{2024})	927 kg.trip^{-1}
Index trigger value ($I_{trigger} = I_{loss} \times 1.4$)	1 000 kg.trip^{-1}
b: multiplier for index relative to trigger $\min\{I_{2024}/I_{trigger}, 1\}$	0.93
Precautionary multiplier to maintain biomass above B_{lim} with 95% probability	
m: multiplier (generic multiplier based on life history)	0.95
rfb calculation**	1 889 tonnes
Stability clause (+20%/−30% compared to A_y, only applied if b ≥ 1)	Not applied
Discard rate	Negligible
Catch advice for 2026 and 2027 (A_y × stability clause)	1 889 tonnes
Projected landings corresponding to advice***	1 889 tonnes
% advice change^	Not applicable

* 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.
** Formula [$Ay+1 = Ay \times r \times f \times b \times m$]
*** [Advised catch for 2026 and 2027] × [1 – discard rate]. All catches are assumed to be landed.
^ The advice for 2026 is not comparable with the advice for 2025. The stock was benchmarked recently (ICES, 2025a). Following the recommendations of the benchmark, because of changes in the fishery and assessment method, ICES uses recent average catch, rather than recent advice, as the basis for the catch scenario (ICES, 2025a).

Basis of the advice

Table 2 Black scabbardfish in the Northeast Atlantic. The basis of the advice.

Advice basis	Maximum sustainable yield (MSY) approach
Management plan	An EU multiannual management plan (MAP) has been agreed by the EU for this stock (EU, 2019). There is no agreement with all contracting parties regarding this plan, and it is not used as the basis of the advice for this shared stock.

Quality of the assessment

The stock was benchmarked in 2025 (ICES, 2025b), and the recommendation was to apply the ICES rfb rule (ICES, 2025a) for category 3 stocks, with a single piece of advice being provided for the whole stock, despite the differences in fisheries and spatial demographic structure between the northern and the southern components.

It is important to keep requesting fishery-independent data from surveys occurring in the northern area.

Fishery and biological time-series data from the Fishery Committee for the Eastern Central Atlantic (CECAF) area are required to provide complete information on stock status for the stock distribution area.

Issues relevant for the advice

The stock was benchmarked in 2025 (ICES, 2025b). There are differences in fisheries and spatial demographic structure between the northern (subareas 6, 7, and 12 and Division 5.b) and southern (Subarea 8 and Division 9.a) fishing areas. There is a biomass index available for the northern component, based on the Scottish deep water survey; however, it is not used as a basis for the advice. The biomass index used to represents the stock is only from the southern area (Subarea 8 and Division 9.a), the area where most of the current catches are taken. In the northern area, the fishery has changed from

a targeted fishery to a bycatch fishery, with landings from this area declining. There are currently no directed fisheries for black scabbardfish in the northern area.

The fishing pressure indicator is based on data from both areas.

The advice is likely robust if current fishing patterns remain.

Data from the full fishery and biological time-series from the CECAF area are required to provide complete information on stock status for the stock distribution area.

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

The previously used assessment model incorporated a standardized fishing effort from the French bottom deep-water fishery in the northern component (subareas 5, 6, 7, and 12) and from the Portuguese deep-water longline fishery in the southern component (Subarea 8 and Division 9.a), taking into consideration the species' migratory cycle in the Northeast Atlantic. Since 2016, bottom-trawling fisheries in EU and UK waters, including EU and UK vessels in international waters, are prohibited at depths greater than 800 m (EU, 2016). This, combined with changes in fishing areas, has led to a decrease in activity in the areas where the species mainly occurs and has reduced the reliability of fishery-dependent data. Given the consequent marked reduction in effort targeted to black scabbardfish of the French trawl fleet that operates in the northern component, the former assessment model could not be updated.

Since 2023, a single advice value is provided for the whole stock despite the spatial demographic structure of the stock, which differs between the northern and southern components. The current assessment method does not have the possibility to separate the two area components for advice (ICES, 2025b, 2025c). Information related to the southern component, where the majority of the catches are now taken, is provided to ICES, and it is now accepted as a proxy for biomass trends for the stock. Because of limited catches from the northern component, the data from this component is also limited; however, the exploitation patterns are known to be different between areas and over time.

Reference points

Table 3 Black scabbardfish in the Northeast Atlantic. Reference points, values, and their technical basis.

Framework	Reference point	Value	Technical basis	Source
Maximum sustainable yield (MSY) approach	MSY $B_{trigger\ proxy}$	Not defined		
	$F_{MSY\ proxy}$	$\frac{L_{mean}}{L_{F=M}} = 1$ *	Relative value from length-based indicator (LBI) analysis. $L_{F=M}$ is based on L_c (length at 50% of modal abundance), which is taken from pooled data (2022–2024) from the French and Portuguese fisheries length sampling.	ICES (2022)
Precautionary apprach	B_{lim}	Not defined		
	B_{PA}	Not defined		
	F_{PA}	Not relevant		
Management plan				
	SSB_{MGT}	Not applicable		
	F_{MGT}	Not applicable		

* No reference points are defined for this stock in terms of absolute values. The LBI-estimated values of the ratio $L_{mean}/L_{F=M}$ are used to estimate exploitation status relative to the proxy MSY reference point.

Basis of the assessment

Table 4 Black scabbardfish in the Northeast Atlantic. Basis of the assessment and advice.

ICES stock data category	3 (ICES, 2023)
Assessment type	Trends from a biomass index (southern component only) and length-based indicator (ICES, 2025b; 2025c)
Input data	Commercial catches (international landings and length frequencies from catch sampling) and commercial indices (standardized LPUE from Portuguese longliners). Growth parameters: L_{inf} = 136 cm, k = 0.17 years^{-1} (Vieira *et al*., 2009); L_{mat} = 103 cm (Figueiredo *et al*., 2003).
Discards and bycatch	Discards are considered negligible
Indicators	Length-based indicator (LBI)
Other information	Last benchmarked in 2025 (ICES, 2025b)
Working group	Working Group on the Biology and Assessment of Deep-Sea Fisheries Resources (WGDEEP)

History of the advice, catch, and management

Table 5 Black scabbardfish in the Northeast Atlantic. ICES advice, official landings, and total allowable catches (TACs). All weights are in tonnes.

Year	ICES advice	Catch corresponding to advice in subareas 6–9 and in divisions 5.b and 12.b **	Catch corresponding to advice in Division 5.b, subareas 6–7, and Division 12.b	Catch corresponding to advice in Subarea 8 and Division 9.a	EU + UK TAC in subareas 5–7 and 12 ^	EU TAC in subareas 8–10	ICES landings in Division 5.b, subareas 6–7, and Division 12.b	ICES landings in subareas 8 and 9
2003	Significant effort reduction		-	-	3100	4000*	5661	2665
2004	Biennial		-	-	3100	4000*	4768	2503
2005	Significant effort reduction		-	-	3100	4000*	3923	2772
2006	Biennial		-	-	3100	4000*	4127	2726
2007	Constrain catches to the level before the expansion period (1990–1996)		3500	-	3000	4000	3192	3481
2008	Biennial		3500	-	3000	4000	4532	3647
2009	Constrain catches to the 50% level before the expansion period (1993–1997)		2000	2800	2700	3600	3160	3620
2010	Biennial		2000	2800	2400	3300	3202	3470
2011	Same advice as previously		2000	2800	2400	3300	2733	3494
2012	No new advice, same as 2011		2000	2800	2200	3300	3592	2711
2013	No more than 20% (in Division 5.b, subareas 6 and 7, and Division 12.b) or 5% (in subareas 8 and 9) catch increase		4700	3700	3100	3700	3332	2140
2014	No new advice, same as 2013		4700	3700	4000	3700	3048	2118
2015	Same catch as in 2013		2802	2726	3649	3700	3291	2532
2016	No new advice, same as 2015		2802	2726	3357	3700	3545	2476
2017	Precautionary approach (same value as advised catches for 2016)		≤ 2802	≤ 2726	2954	3330	2709	2151

Year	ICES advice	Catch corresponding to advice in subareas 6–9 and in divisions 5.b and 12.b **	Catch corresponding to advice in Division 5.b, subareas 6–7, and Division 12.b	Catch corresponding to advice in Subarea 8 and Division 9.a	EU + UK TAC in subareas 5–7 and 12 ^	EU TAC in subareas 8–10	ICES landings in Division 5.b, subareas 6–7, and Division 12.b	ICES landings in subareas 8 and 9
2018	Precautionary approach (same value as advised catches for 2016)		≤ 2802	≤ 2726	2600	2997	2545	1801
2019	Precautionary approach	≤ 5914	≤ 2812	≤ 2735	2470	2832	1839	2409
2020	Precautionary approach (same value as advised catches for 2019)	≤ 5914	≤ 2812	≤ 2735	2470	2832	1350	2507
2021	Precautionary approach	≤ 4506	≤ 2143	≤ 2084	1929	2266	907	2348
2022	Precautionary approach (same value as advised catches for 2021)	≤ 4506	≤ 2143	≤ 2084	1929	2266	390	2063
2023	Precautionary approach	≤ 4214	***	***	1813	2130	120	2163
2024	Precautionary approach (same value as advised catches for 2023)	≤ 4214	***	***	1370	2327	197	1761
2025	Precautionary approach (same value as advised catches for 2024)	≤ 4214	***	***	1370	2327		
2026	Maximum sustainable yield (MSY) approach	≤ 1889	***	***				
2027	MSY approach (same value as advised catches for 2026)	≤ 1889	***	***				

* Subarea 8 not included.
** Total advice for entire assessed stock.
*** Total advice not split by region.
^ The UK quota was included in the EU TAC until 2020.

Table 6 Black scabbardfish in in the Northeast Atlantic. History of ICES advice, the agreed total allowable catch (TAC), and ICES landings in subareas 1, 2, 4, 10, and 14 and in divisions 3.a and 5.a (adjacent areas). Weights are in tonnes.

Year	ICES advice	Catch corresponding to advice	EU TAC in subareas 1–4	ICES landings in other areas*
2003	Status quo exploitation level	-	30	112
2004	Biennial	-	30	136
2005	Fishery should not be allowed to expand, unless proven to be sustainable	-	30	427
2006	Biennial	-	30	102
2007	Fishery should not be allowed to expand, unless proven to be sustainable	-	15	3
2008	Biennial	-	15	75
2009	Fishery should not be allowed to expand, unless proven to be sustainable	-	12	182
2010	Biennial	-	12	338
2011	Fishery should not be allowed to expand, and a reduction in catches should be considered	-	12	337
2012	No new advice, same as 2011	-	9	916
2013	Fisheries should not be allowed to expand until they can be shown to be sustainable	-	9	621
2014	No new advice, same as 2013	-	9	398
2015	Should be maintained at same level as in 2013	366	9	508
2016	No new advice, same as 2015	366	9	441
2017	Precautionary approach (same advised catches value as given for 2016)	≤ 366	9	364
2018	Precautionary approach (same advised catches value as given for 2016)	≤ 366	9	157
2019	Precautionary approach (5 914 tonnes**)	≤ 367	-	86
2020	Precautionary approach (same value as advised catches for 2019)	≤ 367	-	107
2021	Precautionary approach (4 506 tonnes**)	≤ 280	-	33
2022	Precautionary approach (same value as advised catches for 2021)	≤ 280	-	63
2023	Precautionary approach (4 214 tonnes**)	***	-	104
2024	Precautionary approach (same value as advised catches for 2023)	***	-	72
2025	Precautionary approach (4 214 tonnes**)	***	-	-
2026	Maximum sustainable yield (MSY) approach	-	-	-
2027	MSY approach (same as for 2026)	-	-	-

* Subareas 1–4, 10, and 14 and Division 5.a.

** Total advice for entire assessed stock.

*** Total advice not split by region.

History of the catch and landings

Table 7 Black scabbardfish in the Northeast Atlantic. Catch distribution by fleet in 2024 as estimated by ICES.

Catch (2024)	Landings			Discards
2030 tonnes	13% bottom trawl (northern component)	87% longline (southern component)	1% bottom trawl and longline (other areas)	Negligible
	254 tonnes	1761 tonnes	15 tonnes	

Table 8 Black scabbardfish in the Northeast Atlantic. History of ICES estimated landings in subareas 6, 7, and 12 and in Division 5.b, presented by each country participating in the fishery. All weights are in tonnes.

Year	ICES estimated landings by country in subareas 6, 7, and 12 and Division 5.b												
	Faroe Islands	France	UK (E,W,S)	Spain	Germany	Ireland	Netherlands *	Lithuania *	Estonia *	Poland *	Russian Fed.	Iceland	Total
1988	0	0	0	0	0	0	0	0	0	0	0	0	0
1989	46	308	0	0	0	0	0	0	0	0	0	0	354
1990	12	1449	0	0	0	0	0	0	0	0	0	0	1461
1991	1	2536	0	0	0	0	0	0	0	0	0	0	2537
1992	7	3540	0	0	0	0	0	0	0	0	0	0	3547
1993	1315	3511	0	0	150	8	0	0	0	0	0	0	4984
1994	893	3102	2	0	91	3	0	0	0	0	0	0	4091
1995	550	3437	18	0	3	0	0	0	0	0	0	0	4008
1996	244	3775	37	41	2	0	0	0	0	0	0	0	4099
1997	123	2806	237	99	0	0	0	0	0	0	0	0	3265
1998	56	2416	149	136	0	0	0	0	0	0	0	0	2757
1999	13	2109	198	109	0	1	11	0	0	0	0	0	2440
2000	117	3745	426	327	0	59	7	0	0	0	0	0	4681
2001	406	5007	729	116	0	68	0	3	225	0	226	0	6779
2002	1362	4626	1080	1125	0	1050	23	9	0	2	0	0	9277
2003	1497	3423	104	446	0	160	2	13	7	3	7	0	5663
2004	859	3093	197	230	0	293	0	86	5	0	5	0	4768
2005	593	2881	101	239	0	79	0	5	12	0	11	0	3920
2006	758	2214	65	1009	0	72	0	1	5	0	3	0	4127
2007	754	2299	53	9	0	69	0	0	7	0	0	0	3192
2008	1747	2687	26	53	0	0	14	0	0	0	5	0	4532
2009	1165	1795	81	103	0	0	0	0	0	0	0	0	3144
2010	916	2002	104	290	0	0	0	0	0	0	0	0	3312
2011	493	2121	1	113	0	0	0	0	0	0	0	0	2728

Year	ICES estimated landings by country in subareas 6, 7, and 12 and Division 5.b												
	Faroe Islands	France	UK (E,W,S)	Spain	Germany	Ireland	Netherlands *	Lithuania *	Estonia *	Poland *	Russian Fed.	Iceland	Total
2012	138	1752	34	117	0	0	0	0	0	0	0	0	2042
2013	583	2155	57	109	0	0	0	0	0	0	0	0	2904
2014	921	2055	110	149	0	0	3	0	0	0	0	0	3239
2015	750	2197	124	224	0	0	5	0	0	0	0	0	3301
2016	1428	2479	96	247	0	0	1	0	0	0	0	0	4251
2017	429	1840	101	221	0	0	0	0	0	0	0	0	2592
2018	553	1677	65	249	0	0	0	0	0	0	0	0	2544
2019	489	1196	45	108	0	0	0	0	0	0	0	0	1838
2020	419	822	20	88	0	0	0	0	0	0	0	0	1350
2021	143	689	68	7	0	0	0	0	0	0	0	0	907
2022	16	367	5	2	0	0	0	0	0	0	0	0	390
2023	1	102	14	3	0	0	0	0	0	0	0	0	120
2024	6	168	12	9	0	0	0	0	0	0	0	0	197

* Official landings

Table 9 Black scabbardfish in the Northeast Atlantic. History of ICES estimated landings in Subarea 8 and in Division 9.a, presented by each country participating in fishery. All weights in tonnes.

Year	ICES estimated landings by country in Subarea 8 and in Division 9.a			
	Portugal	Spain	France	Total
1988	2602	0	0	2602
1989	3473	0	0	3473
1990	3274	0	0	3274
1991	3978	0	1	3979
1992	4389	0	9	4398
1993	4513	0	11	4524
1994	3429	0	5	3434
1995	4272	0	0	4272
1996	3686	3	0	3689
1997	3553	1	1	3555
1998	3147	4	2	3153
1999	2741	0	11	2753
2000	2371	1	35	2407
2001	2744	1	28	2773
2002	2692	1	35	2728

Year	ICES estimated landings by country in Subarea 8 and in Division 9.a			
	Portugal	Spain	France	Total
2003	2630	1	34	2665
2004	2463	1	39	2503
2005	2746	1	25	2772
2006	2674	0	52	2726
2007	3453	1	28	3481
2008	3602	1	45	3647
2009	3601	1	19	3620
2010	3453	0	17	3470
2011	3476	0	18	3494
2012	2668	30	14	2711
2013	2130	3	7	2140
2014	2109	0	9	2118
2015	2527	0	5	2532
2016	2456	17	3	2476
2017	2117	32	2	2151
2018	1727	65	9	1801
2019	2302	83	25	2409
2020	2369	99	39	2507
2021	2245	73	30	2348
2022	1994	44	25	2063
2023	2092	58	13	2163
2024	1725	33	3	1761

Table 10 Black scabbardfish in the Northeast Atlantic. History of ICES estimated landings in subareas 2, 4, 10, and 14 and in Division 5.a, presented by each country participating in the fishery. All weights are in tonnes.

Year	ICES estimated landings by country in subareas 2, 4, 10, and 14 and in Division 5.a								
	France	Faroe Islands	UK (Scot)	Iceland	Portugal**	Ireland	Spain	Unallocated	Total
1988	0	0	0	0	0	0	0	0	0
1989	3	0	0	0	0	0	0	0	3
1990	71	0	0	0	0	0	0	0	71
1991	107	0	0	0	166	0	0	0	273
1992	219	370	0	0	0	0	0	0	589
1993	34	0	0	0	2	0	0	0	36
1994*	45	0	0	1	0	0	0	0	49
1995	6	0	2	0	3	0	0	0	11
1996	6	11	1	0	0	0	0	0	18
1997	0	3	2	1	0	0	0	0	6
1998	2	33	9	0	5	0	0	0	49
1999	4	0	3	6	46	0	0	0	58
2000	2	0	3	10	112	0	90	0	217
2001	1	0	11	5	0	0	0	0	18
2002	0	2	24	13	0	0	8	0	47
2003	1	0	4	14	91	0	2	0	112
2004	5	111	0	19	2	0	0	0	136
2005	2	83	0	19	323	0	0	0	427
2006	13	10	1	23	55	0	0	0	102
2007	1	1	0	1	0	0	0	0	3
2008	0	75	0	0	0	0	0	0	75
2009	5	157	0	15	5	0	0	0	182
2010	16	53	0	109	49	0	111	0	338
2011	1	25	0	172	139	0	0	0	337
2012	0	4	0	365	458	0	39	49	916
2013	1	0	0	324	206	0	50	40	621
2014	10	30	0	358	0	0	0	0	398
2015	2	234	0	265	7	0	0	0	508
2016	9	0	36	346	50	0	0	0	441
2017	0	0	63	294	7	0	0	0	364
2018	1	0	0	142	14	0	0	0	157
2019	1	3	0	65	17	0	0	0	86
2020	4	0	0	103	0	0	0	0	107

Year	ICES estimated landings by country in subareas 2, 4, 10, and 14 and in Division 5.a								
	France	Faroe Islands	UK (Scot)	Iceland	Portugal**	Ireland	Spain	Unallocated	Total
2021	2	0	0	31	0	0	0	0	33
2022	0	0	0	63	0	0	0	0	63
2023	0	0	0	55	49	.	0	0	104
2024	0	0	0	57	15	0	0	0	72

* In 1994, there were 3 t taken by Germany.
** Catches in Division 10 are likely to include *A. intermedius*, but the proportion is not quantified.

Table 11 Black scabbardfish in the Northeast Atlantic. Catches inside and outside the NEAFC regulatory areas (RAs) as estimated by ICES. All weights are in tonnes.

Year	Inside the NEAFC RAs	Outside the NEAFC RAs	Total catch	Percentage inside the NEAFC RAs
2022	6	2 511	2 517	0.2
2023	3	2 384	2 387	0.1
2024	6	2 024	2 030	0.3

Summary of the assessment

Table 12 Black scabbardfish in the Northeast Atlantic. Assessment summary. “High” and “Low” refer to standard errors for biomass index.

Year	Biomass index			Fishing pressure proxy ($L_{F=M}/L_{mean}$)	ICES estimated landings (in tonnes)		
	Low	Value	High		Northern component	Southern component	Other areas
	Kilograms per trip						
1988					0	2602	0
1989					354	3473	3
1990					1461	3274	71
1991					2537	3979	273
1992					3547	4398	589
1993					4984	4524	36
1994					4092	3434	48
1995	1 342	1 389	1 436		4008	4272	11
1996	1 162	1 201	1 240		4099	3689	18
1997	1 021	1 055	1 088		3266	3555	5
1998	966	997	1 028		2757	3153	49
1999	877	906	935		2446	2753	53
2000	845	873	901		4600	2407	207
2001	815	842	869		6784	2773	12
2002	688	714	739		9282	2728	34

Year	Biomass index			Fishing pressure proxy ($L_{F=M}/L_{mean}$)	ICES estimated landings (in tonnes)		
	Low	Value	High		Northern component	Southern component	Other areas
	Kilograms per trip						
2003	769	796	823		5675	2665	98
2004	761	788	815		4787	2503	118
2005	854	883	911		3942	2772	408
2006	749	776	802		4150	2726	79
2007	931	961	991		3194	3481	2
2008	989	1 020	1 050		4533	3647	75
2009	939	968	998		3175	3620	167
2010	918	948	977		3311	3470	229
2011	991	1 024	1 056		2905	3494	165
2012	916	946	976		3966	2711	550
2013	848	877	905		3657	2140	297
2014	893	923	952		3600	2118	40
2015	1 010	1 041	1 073		3577	2532	243
2016	1 026	1 057	1 088		4606	2476	95
2017	976	1 007	1 037		2889	2151	70
2018	824	853	881		2687	1801	28
2019	1 149	1 184	1 219		1904	2409	21
2020	1 140	1 175	1 211		1453	2507	4
2021	1 001	1 033	1 065		938	2348	2
2022	896	926	956	1.006	453	2063	1
2023	1 007	1 040	1 073	1.012	175	2163	49
2024	896	927	958	1.015	254	1761	15

Sources and references

EU. 2019. Regulation (EU) 2019/472 of the European Parliament and of the Council of 19 March 2019 establishing a multiannual plan for stocks fished in the Western Waters and adjacent waters, and for fisheries exploiting those stocks, amending Regulations (EU) 2016/1139 and (EU) 2018/973, and repealing Council Regulations (EC) No 811/2004, (EC) No 2166/2005, (EC) No 388/2006, (EC) No 509/2007 and (EC) No 1300/2008. Official Journal of the European Union, L 83. 17 pp. http://data.europa.eu/eli/reg/2019/472/oj

EU. 2016. Regulation (EU) 2016/2336 of the European Parliament and of the Council of 14 December 2016 establishingspecific conditions for fishing for deep-sea stocks in the north-east Atlantic and provisions for fishing in internationalwaters of the north-east Atlantic and repealing Council Regulation (EC) No 2347/2002. Official Journal of the European Union, L 354. 19 pp. http://data.europa.eu/eli/reg/2016/2336/oj/eng

Figueiredo, I., Bordalo-Machado, P., Reis, S., Sena-Carvalho, D., Blasdale, T., Newton, A., and Gordo, L. S. 2003. Observations on the reproductive cycle of the black scabbardfish (*Aphanopus carbo* Lowe, 1839) in the NE Atlantic. ICES Journal of Marine Science, 60, 774–779. https://doi.org/10.1016/S1054-3139(03)00064-X

ICES. 2022. ICES technical guidance for harvest control rules and stock assessments for stocks in categories 2 and 3. In Report of ICES advisory Committee, 2022. ICES Advice 2022, Section 16.4.11. https://doi.org/10.17895/ices.advice.19801564

ICES. 2023. Advice on fishing opportunities. *In* Report of the ICES Advisory Committee, 2023. ICES Advice 2023, Section 1.1.1. https://doi.org/10.17895/ices.advice.22240624

ICES. 2025a. ICES Guidelines - Advice rules for stocks in category 2 and 3. Version 3. ICES Guidelines and Policies - Advice Technical Guidelines. 31 pp. https://doi.org/10.17895/ices.pub.28506179

ICES. 2025b. Benchmark Workshop on Selected Deep-Sea Fisheries Stocks (WKBDEEP). ICES Scientific Reports. 7:24. 148 pp. https://doi.org/10.17895/ices.pub.28882295

ICES 2025c. Working Group on the Biology and Assessment of Deep-sea Fisheries Resources (WGDEEP). ICES Scientific Reports 7:59. http://doi.org/10.17895/ices.pub.29086478

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/system/files/NEAFC_approach_to_DSS_conservation-and-management_Nov16.pdf

Vieira A. R., Farias I., Figueiredo I., Neves A., Morales-Nin B., Sequeira V., Martins M.R., Gordo L.S. 2009. Age and growth of black scabbardfish (*Aphanopus carbo* Lowe, 1839) in the southern NE Atlantic. Scientia Marina, 73S(2), 23–46. https://doi.org/10.3989/scimar.2009.73s2033

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