

ECOREGION **Widely distributed and migratory stocks**
STOCK **Black scabbardfish (*Aphanopus carbo*) in Subareas VI, VII, and Divisions Vb, XIIb**

Advice Summary for 2011

ICES advises that catches in 2011 should be less than 2000 t.

Stock status

Fishing mortality	2007	2008	2009
F_{MSY}	Unknown	Unknown	Unknown
F_{PA}/F_{lim}	Unknown	Unknown	Unknown
Spawning Stock Biomass (SSB)	2008	2009	2010
$MSY B_{trigger}$	Unknown	Unknown	Unknown
B_{PA}/B_{lim}	Unknown	Unknown	Unknown

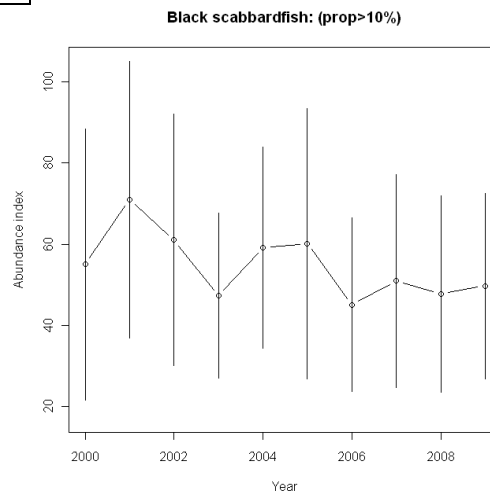
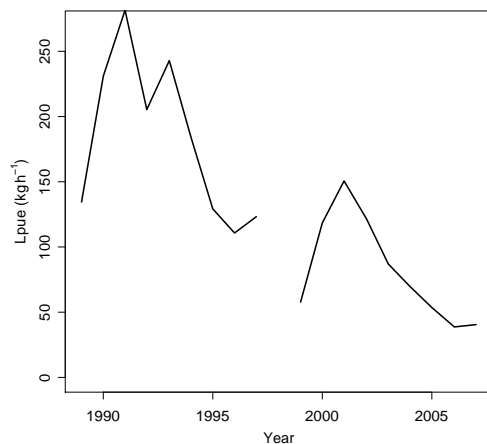


Figure 9.4.16.1.1 Black scabbardfish in Subareas VI, VII, and Divisions Vb, XIIb. Left panel: Lpues for French trawlers in a reference area (28 statistical rectangles to the northwest of Scotland) in Vb and VI: directed lpue of the reference fleet (landings for fishing trip where blue ling > 10% of total landings). Right panel: Lpue of French trawlers (tally book) for the overall rectangles derived defined as tows where the total catch include > 10% of black scabbardfish.

Lpue is lower than in early years of the fishery. After 2000 there is some inconsistencies between the series but the tally book index, which is considered to be more reliable, does not show any significant trend.

Management plans

No specific management objectives are known to ICES.

In the light of the EU policy paper on fisheries management (17 May 2010, [COM\(2010\) 241](#)) this stock is classified under category 6.

Biology

In ICES Subareas VI, VII, and Divisions Vb, XIIb there is a predominance of immature black scabbardfish.

Black scabbardfish in relation to some of the species included in the deep-water group has a relative fast growth rate.

The fisheries

In Subareas VI, VII, and XII, and Division Vb, black scabbardfish is mainly taken in mixed trawl fisheries along with roundnose grenadier and sharks, although some trawl fisheries can target specific species within the mixed fishery. Due to the mixed nature of the trawl fisheries in Subareas VI, VII, and XII, and Division Vb any measure taken to manage this species in these areas should take into account the advice given for other species taken in the same mixed fishery.

Effects of the fisheries on the ecosystem

Deep-water trawls impact ocean floor which includes potential damage to deep-water coral communities. As this fishery is part of mixed fisheries, any effort on black scabbardfish also impacts other commercial and non commercial deep-water species.

Quality considerations

Assessment could be improved with the addition of appropriate fisheries independent data. Current coordinated deep-water surveys in Subareas VI and VII provide useful data but the area of coverage is small relative to the assessment unit.

Scientific basis

Assessment type	Commercial cpue trends based assessment
Input data	Cpue on French trawl fleet and French commercial tally books
Discards and by-catch	There is no black scabbardfish discards
Indicators	-
Other information	-
Working group report	WGDEEP

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 Divisions Vb, XIIb

Reference points

No reference points have been defined for this assessment unit.

Outlook for 2011

No reliable assessment can be presented for this assessment unit and fishing possibilities cannot be projected.

In the last 10 years there is not an obvious response from the stock to fishery. However it is not known if this catch level is sustainable in the long term. The cpue index indicates that the current abundance of the stock is around 20% of the initial levels (start of the fishery). Under these circumstances there should be no increase in the exploitation above the previously advised landings, and catches should be constrained to 2000 t (50% of the level before the expansion of the fishery, 1993-1997).

Additional considerations

Information collected under the French deep-water sampling programme indicates that there are no discards of this species in the French trawl fishery. This implies that lpue are equivalent to cpue for this species.

Assessment and management area

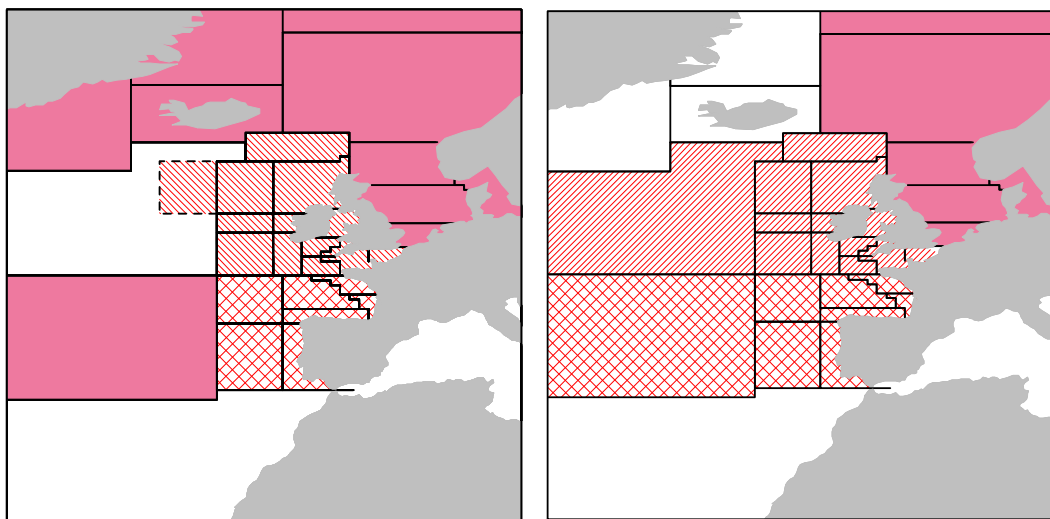


Figure 9.4.16.1.2 Black scabbardfish. ICES assessment units (left) (solid pink – I, II, III, IV, Va, X, XIV; diagonal lines – Vb, VI, VII, XIIb; cross-hatched – VIII, IX). Management areas for EU TAC, excluding CECAF areas, are shown to the right (solid pink – I, II, III, IV; diagonal lines – V, VI, VII, XII; cross-hatched – VII, XI, X).

Sources

ICES. 2010. Report of the Working Group on the Biology and Assessment of Deep-Sea Fisheries Resources, 7–13 April 2010, ICES Headquarters, Copenhagen. ICES CM 2010/ACOM:17

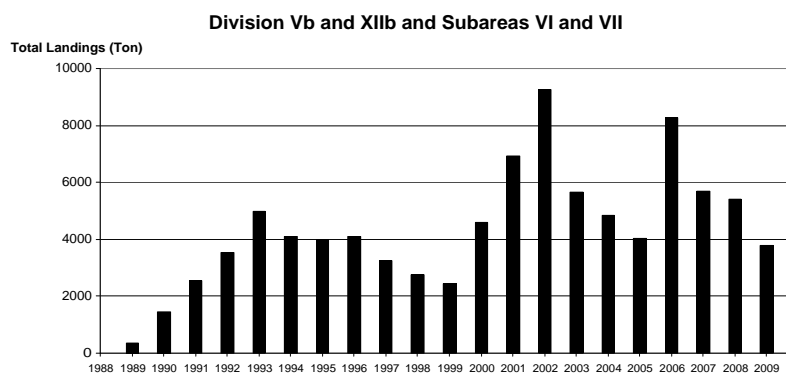


Figure 9.4.16.1.3 Black scabbardfish in Subareas VI, VII, and Divisions Vb, XIIb. Annual total landings (tonnes) from 2000 to 2009 (2009 landings are preliminary).

Table 9.4.16.1.1 Black scabbardfish in Subareas VI, VII, and Divisions Vb, XIIb. Advice, management, and landings.

Year	ICES Advice	Predicted catch corresp. to advice	TAC EU Subareas V, VI, VII, XII	ICES Landings in Vb, VI, VII, XIIb
2003	Significant effort reduction	-	3.1	5.7
2004	Biennial	-	3.1	4.8
2005	Significant effort reduction	-	3.1	4.1
2006	Biennial	-	3.1	8.3
2007	Constrain catches to the level before the expansion period (1990-96)	3.5	3.0	5.7
2008	Biennial	3.5	3.0	5.4
2009	Constrain catches to the 50% level before the expansion period (1993-97)	2.0	2.7	3.8
2010	Biennial	2.0	2.5	
2011	Same advice as previously	2.0		

Weights in '000 t.

Table 9.4.16.1.2 Black scabbardfish in Subareas VI, VII, and Divisions Vb, XIIb. Working group estimates of landings by country (tonnes).

Year	Faeroe Islands	France	UK (E,W,S)	Spain	Germany	Ireland	Netherlands *	Lithuania*	Estonia *	Poland*	Russia	Total
1988	0	0	0	0	0	0	-	0	0	0	.	0
1989	46	308	0	0	0	0	-	0	0	0	.	354
1990	12	1449	0	0	0	0	-	0	0	0	.	1461
1991	1	2536	0	0	0	0	-	0	0	0	-	2537
1992	7	3540	0	0	0	0	-	0	0	0	-	3547
1993	1315	3511	0	0	150	8	-	0	0	0	-	4984
1994	893	3102	2	0	90	3	-	0	0	0	-	4090
1995	550	3437	18	0	3	0	-	0	0	0	-	4008
1996	244	3775	37	41	2	0	-	0	0	0	-	4099
1997	123	2806	237	98	0	0	-	0	0	0	-	3264
1998	56	2416	149	134	0	0	-	0	0	0	-	2756
1999	13	2109	198	109	0	1	11	0	0	0	-	2440
2000	117	3745	426	238	0	59	7	0	0	0	-	4592
2001	406	5007	729	265	0	68	-	3	225	0	226	6929
2002	1362	4626	1080	1117	0	1050	21	9	0	2	-	9267
2003	1497	3423	104	444	0	160	-	13	7	3	7	5659
2004	859	3093	197	292	0	293	-	86	5	1	5	4831
2005	593	2881	101	364	0	79	-	5	12	0	11	4046
2006	758	2214	65	5139	0	72	-	1	5	0	3	8256
2007	754	2299	53	2507	0	69	-	0	7	0	-	5691
2008	1747	2687	26	940	0	0	14	0	0	0	1	5415
2009**	1165	1556	81	987	0	0	0	0	0	0	0	3789

* from Statland; ** preliminary

Table 9.4.16.1.3 Black scabbardfish in Subareas VI, VII, and Divisions Vb, XIIb. Working group estimates of landings by area (tonnes).

Year	Vb	VI	VI+VII	VII	XII	Total
1988	0	0	0	0	0	0
1989	170	184	0	0	0	354
1990	427	1023	0	10	0	1461
1991	135	2307	0	94	2	2537
1992	105	3113	0	322	7	3547
1993	286	3054	8	468	1168	4984
1994	160	2433	3	662	833	4091
1995	424	2634	0	641	309	4008
1996	186	3019	1	658	235	4099
1997	68	2533	2	462	201	3265
1998	180	1709	1	390	478	2758
1999	154	1820	2	355	109	2440
2000	311	3380	99	559	243	4592
2001	880	5058	105	768	118	6929
2002	1744	4928	1093	386	1119	9269
2003	1635	3162	164	245	456	5663
2004	869	3076	295	253	338	4831
2005	553	2864	79	169	381	4046
2006	784	6526	0	445	502	8256
2007	790	4503	0	257	141	5691
2008	1868	3296	0	179	75	5419
2009	1042	2397	0	88	263	3789