

**ECOREGION Celtic Sea and West of Scotland + North Sea**  
**STOCK Anglerfish (*Lophius piscatorius* and *L. budegassa*) in Division IIIa, and Subareas IV and VI**

**Advice for 2013**

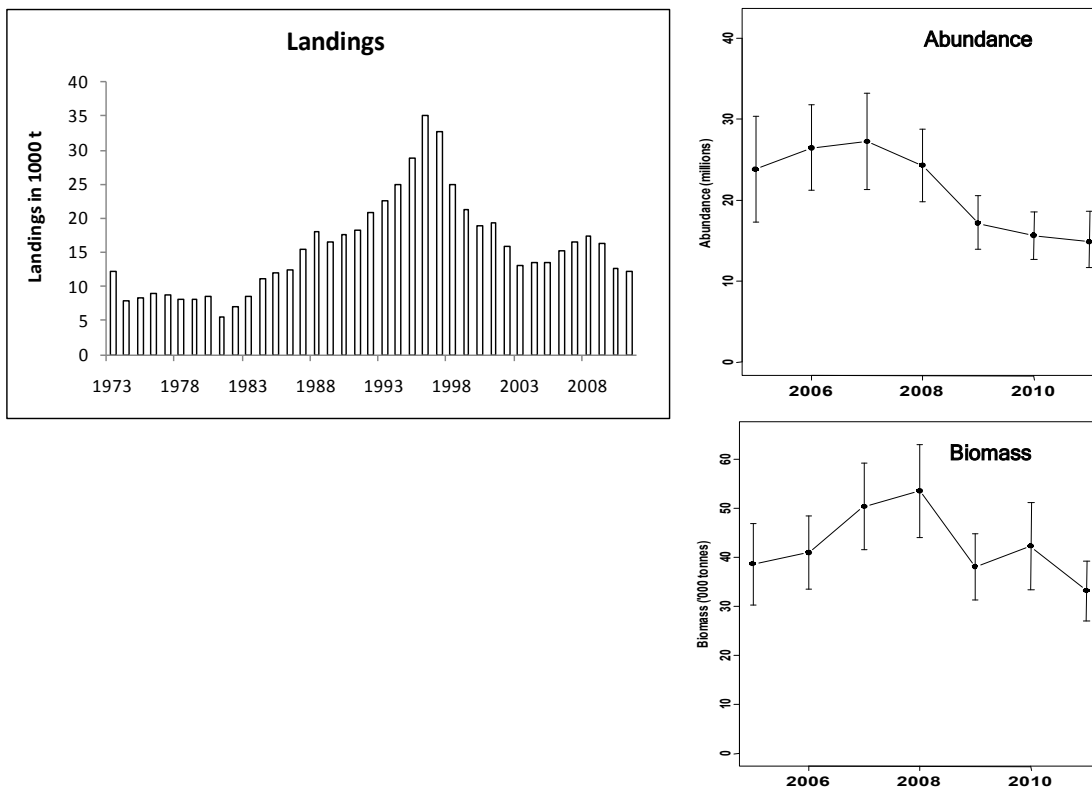
Based on the ICES approach to data-limited stocks, ICES advises that catches should be reduced by 20% in relation to the average of the last three years. Due to the uncertainty in the landings data, ICES is not able to quantify the resulting catch.

This is the first year ICES is providing quantitative advice for data-limited stocks (see Quality considerations).

ICES advises that the management area should be consistent with the assessment area.

**Stock status**

<b>F (Fishing Mortality)</b>	
2009–2011	
<b>MSY (<math>F_{MSY}</math>)</b>	Unknown
<b>Precautionary approach (<math>F_{pa}, F_{lim}</math>)</b>	Unknown
<b>SSB (Spawning-Stock Biomass)</b>	
2007–2011	
<b>MSY (<math>B_{trigger}</math>)</b>	Unknown
<b>Precautionary approach (<math>B_{pa}, B_{lim}</math>)</b>	Unknown
<b>Qualitative evaluation</b>	Decreasing



**Figure 5.4.29.1** Anglerfish (*Lophius piscatorius* and *L. budegassa*). Upper left: Official landings (thousand tonnes) in Subareas IV and VI and Division IIIa. Right: Total abundance (millions) (upper panel) and stock biomass (thousand tonnes, with 95% confidence limits) (lower panel) from SCO-IV-VI-AMISS-Q2.

Recent dedicated anglerfish surveys, the Scottish and Irish anglerfish and megrim industry/science survey for the Northern shelf (SCO-IV-VI-AMISS-Q2) in Division IVa and Subarea VI, indicate a decline in abundance and biomass

since 2008. The average biomass over this area in the last two years (2010–2011) is 20% lower than the average biomass of the three previous years (2007–2009).

### Management plans

No specific management objectives are known to ICES.

### Biology

Anglerfish mature at large size, resulting in a large proportion of the catch consisting of immature fish. This makes the stock susceptible to recruitment overfishing and management measures are required to ensure sufficient numbers to survive to spawning size. Catches of anglerfish on the northern shelf (from Division VIb to Division IIIa) come from the same biological stock. Spawning appears to occur largely in deep water off the edge of the continental shelf, although mature females are rarely encountered.

### The fisheries

Anglerfish are caught in a targeted anglerfish fishery and as a bycatch in other demersal fisheries, including roundfish fisheries in Division VIa, the haddock fishery on Rockall Bank, *Nephrops* fisheries, and fisheries in deeper waters. In the North Sea, anglerfish are caught mainly as a bycatch in demersal fisheries for mixed roundfish and *Nephrops* and to a lesser extent in small-meshed *Pandalus* fisheries. A Norwegian large-meshed gillnet fishery targeting fish over 60 cm has developed along the Norwegian coast since the early 1990s.

<b>Catch distribution</b>	Total landings value is not available; official total landings in 2011 were 8662 t in Division IIIa and Subarea IV; 3570 t in Subarea VI. Discards from the Scottish fleet were minimal in 2011 (<0.5 t). Official landings in Division IIa (outside the stock distribution area): 5077 t.
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### Effects of the fisheries on the ecosystem

The directed fishery takes place in deep water on the continental shelves in areas where cold-water corals (*Lophelia spp.*) occur, particularly at Rockall. However, demersal trawling is prohibited in several large areas at Rockall, and near the Wyville–Thomson ridge, which affords protection for corals in those areas.

### Quality considerations

Although landings data have improved in recent years, there is still concern about underreporting and area misreporting, therefore ICES is not able to provide quantified advice. Accurate estimates of growth parameters are needed to facilitate the development of an analytical assessment. A dedicated Scottish and Irish industry/science anglerfish survey has operated from 2005–2011. The survey does not cover the southern and eastern parts of the North Sea and Skagerrak (Divisions IIIa, IVb, and IVc). Fisheries in these areas account for approximately 11% of landings in the North Sea and Skagerrak since 2005, which adds uncertainty to the perception of stock trends.

The advice is based on biomass values from a combined survey. The methods applied to derive quantitative advice for data-limited stocks are expected to evolve as they are further developed and validated. The harvest control rules are expected to stabilize stock size, but they may not be suitable if the stock size is low and/or the stock overfished.

### Scientific basis

<b>Assessment type</b>	Survey trends.
<b>Input data</b>	Dedicated anglerfish surveys in Subarea VI and Division IVa (Scotland/Ireland) SCO-IV-VI-AMISS-Q2.
<b>Discards and bycatch</b>	Not relevant to this assessment.
<b>Indicators</b>	Abundance and biomass in Subarea VI and Division IVa.
<b>Other information</b>	The stock was benchmarked in 2012, but no revision to assessment method was accepted.
<b>Working group report</b>	<a href="#">WGCSE</a>

**ECOREGION** Celtic Sea and West of Scotland+ North Sea  
**STOCK** Anglerfish (*Lophius piscatorius* and *L. budegassa*) in Division IIIa, and Subareas IV and VI

#### Reference points

No reference points have been defined for these stocks. Because of identified problems with growth estimates and uncertainties in ageing, previous reference points are no longer considered to be valid.

#### Outlook for 2013

No analytical assessment can be presented for this stock. Because of major uncertainties concerning catch-at-age data for anglerfish as well as limited knowledge about population dynamics, a forecast cannot be presented.

#### *ICES approach to data-limited stocks*

For data-limited stocks for which biomass estimates are available, ICES uses as harvest control rule an index-adjusted *status quo* catch. The advice is based on a comparison of the two most recent biomass values with the three preceding values, combined with recent catch or landings data. Knowledge about the exploitation status also influences the advised catch.

For this stock the biomass is estimated to have decreased by 20% in 2007–2009 (average of the three years) and 2010–2011 (average of the two years). This implies a 20% decrease in catches. Due to the uncertainty of landings, ICES is not able to quantify the resulting catch. Considering that the effort in the main fisheries has decreased significantly no additional precautionary reduction is needed.

#### Additional considerations

The distribution of anglerfish in the North Sea, Kattegat, and Skagerrak is associated with the distribution to the west of Scotland (Divisions VIa and VIb). It is likely that catches from these areas come from the same biological stock. Genetic studies have found no evidence of separate stocks and particle-tracking studies have indicated interchange of larvae between areas.

Significant landings of anglerfish are taken in Division IIa. Anglerfish in Division IIa are not considered to be part of the same biological stock as Division IIIa and Subareas IV and VI. ICES has not provided advice on anglerfish in Division IIa.

#### *Regulations and their effects*

The current EU-agreed TAC for Subarea IV and the EC waters of Division IIa as well as the EU–Norway-agreed TAC for the Norwegian North Sea EEZ do not include Division IIIa: no internationally agreed management rules for anglerfish appear to exist in Division IIIa.

Information from several fisheries indicates that underreporting of total landings has been a problem in recent years due to restrictive individual vessel quotas. In 2005 the TACs of the North Sea and Subarea VI were raised to countermand underreporting practices, but the extent to which this has resolved the reporting problems in this fishery is not known. However, improved compliance and the registration of “buyers and sellers” legislation in Scotland and Ireland should make it more difficult to make unreported landings of this species (and others). The legislation came into effect at the beginning of 2006. Enforcement of anglerfish quotas has been increased since 2006. This is expected to have led to improved data on total catches of anglerfish.

Estimates accounting for area misreporting indicate that the percentage of the catch in the years 1993–2002 averaged 60% from Division IIIa and Subarea IV, and 40% from Divisions VIa and VIb. In previous years, these proportions have been used to allocate TAC between these areas. The ratio in biomass between ICES Subareas IV and VI from recently developed surveys was approximately 45:55 (IV:VI) in 2011 and has fluctuated around 50:50 since the surveys began in 2005, although the surveys do not cover all of Subarea IV.

Ghost fishing and discarding of fish not suitable for consumption due to long soaking times are considered to be a problem in some offshore gillnet fisheries carried out by “flag-vessels” targeting anglerfish in Subareas IV, VI, and VII.

How effective the regulations (Council Regulation (EC) No. 43/2009) on gear length and soak time have been in mitigating this phenomenon is unknown.

International effort trends for the main gears in ICES Subarea IV and Division VIa, as collated and presented by the STECF effort group, show effort reductions in TR1 (larger meshed trawls, the main gear catching anglerfish) in both areas, particularly in Division VIa (48% between 2003 and 2010; around 35% in 2011).

#### Changes in fishing technology and fishing patterns

Until the mid-1980s, anglerfish was taken mainly as a bycatch in bottom-trawl groundfish fisheries. Restrictive TACs for other species in Division VIa led to increased fishing pressure on anglerfish in that area, where they are now caught in a targeted anglerfish fishery and as a bycatch in other demersal fisheries.

The fishery has expanded into deeper waters since the mid-nineties, areas believed to have been a refuge for adult anglerfish, so this fishery increases the vulnerability of the stock to overexploitation. Immature fish are subjected to exploitation for a number of years prior to first maturity.

#### Comparison with previous assessment and advice

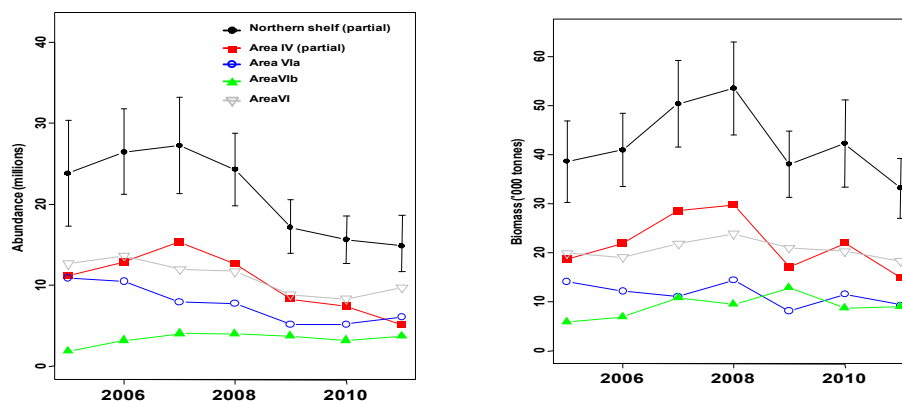
The basis for the assessment (analysis of survey trends) has not changed since last year. Last year the basis for advice was the precautionary considerations, this year it is the ICES approach to data-limited stocks.

#### Assessment and management area

Two TACs are set: i) EC waters of Division IIa and Subarea IV, and ii) Division Vb (EC) and Subareas VI, XII, and XIV. The assessment presented here is based on survey information from Division IVa and Subarea VI.

#### Source

ICES. 2012. Report of the Working Group on the Celtic Seas Ecoregion (WGCSE), 9–18 May 2012, Copenhagen, Denmark. ICES CM 2012/ACOM:12.



**Figure 5.4.29.2** Anglerfish (*Lophius piscatorius* and *L. budegassa*). Total abundance (millions) and stock biomass (thousand tonnes) index from SCO-IV-VI-AMISS-Q2 (black filled circles with 95% confidence limits, labeled as “Northern shelf (partial)”), with breakdown by area: Subarea IV (red squares), Subarea VI (grey triangles), Division VIa (blue open circles), and Division VIb (green triangles).

**Table 5.4.29.1** Anglerfish (*Lophius piscatorius* and *L. budegassa*) in **Division IIIa and Subareas IV and VI combined**. ICES advice, management, and landings.

Year	ICES Advice	Predicted catch corresp. to advice	Predicted catch corresp. to advice for Division IIIa and Subarea IV	Predicted catch corresp. to advice Subarea VI	Agreed TAC <sup>1)</sup>	Official landings in Division IIa	Official landings <sup>2)</sup>	ICES Landings <sup>2)</sup>
1990	Not assessed	-	-	-	8.6	0.18	17.6	16.1
1991	Not assessed	-	-	-	8.6	0.19	18.4	16.9
1992	Not assessed	-	-	-	8.6	0.5	20.8	20.9
1993	No long-term gain in increased F <sup>3)</sup>	-	-	-	8.6	3.0	22.6	23.2
1994	No long-term gain in increased F <sup>3)</sup>	-	-	-	8.6	1.0	25.0	24.2
1995	A precautionary TAC not exceeding recent catch levels <sup>3)</sup>	-	-	-	8.6	0.6	28.9	28.1
1996	A precautionary TAC not exceeding recent catch levels <sup>3)</sup>	-	-	-	8.6	0.9	35.0	34.4
1997	Reduction in fishing effort <sup>3)</sup>	-	-	-	8.6	0.6	32.8	31.9
1998	Reduction in fishing effort <sup>3)</sup>	-	-	-	30.7	1.5	25.1	24.6
1999	Reduce fishing effort, effective implementation of the TAC <sup>3)</sup>	-	-	-	30.7	1.7	21.2	20.1
2000	40% reduction in catches	-	<9.7	<7.4	25.7	3.0	19.0	19.1
2001	2/3 of the catches in 1973–1990	-	5.7	4.3	20.5	3.6	19.3	18.6
2002	2/3 of the catches in 1973–1990	-	5.7	4.3	15.3	2.1	16.0	15.1
2003	Reduce F below F <sub>pa</sub>	<6.7	-	-	10.2	2.5	13.0	12.4
2004	Reduce F below F <sub>pa</sub>	<8.8	-	-	10.2	3.0	13.5	12.3
2005	No effort increase	-	-	-	15.0	2.7	13.6	n.a.
2006	No effort increase	-	-	-	15.0	4.3	15.2	n.a.
2007	No effort increase	-	-	-	16.5	4.6	16.4	n.a.
2008	No effort increase	-	-	-	16.5	4.1	17.3	n.a.
2009	Same advice as last year	-	-	-	16.9	4.5	16.4	n.a.
2010	No effort increase	-	-	-	16.9 <sup>4)</sup>	5.5	12.7	n.a.
2011	Decrease effort	-	-	-	15.1 <sup>5)</sup>	5.1 <sup>6)</sup>	12.2 <sup>6)</sup>	n.a.
2012	Reduce catch	-	-	-	14.344 <sup>5)</sup>			
2013	Decrease catches by 20%	-	-	-				

Weights in thousand tonnes.

<sup>1)</sup> TAC for Subarea IV and Divisions IIa (EC) plus TAC for Division Vb(EC) and Subareas VI, XII, and XIV. Except TAC before 1998, which were for Division Vb(EC) and Subareas VI, XII, and XIV.

<sup>2)</sup> Division IIIa, Subarea IV, and Division VIa.

<sup>3)</sup> For Subarea VI.

<sup>4)</sup> An additional quota of 1540 t was also available for EU vessels fishing in the Norwegian zone of Subarea IV in 2010.

<sup>5)</sup> An additional quota of 1500 t was also available for EU vessels fishing in the Norwegian zone of Subarea IV.

<sup>6)</sup> Preliminary.

n.a. = not available.

**Table 5.4.29.2** Anglerfish (*Lophius piscatorius* and *L. budegassa*) in Division IIIa and Subareas IV and VI. Officially reported landings by ICES area.

Year	IIIa	IVa	IVb	IVc	VIa	VIb	IV	VI	Total
1973	140	2085	575	41	9221	127	2701	9348	12189
1974	202	2737	1171	39	3217	435	3947	3652	7801
1975	291	2887	1864	59	3122	76	4810	3198	8299
1976	641	3624	1252	49	3383	72	4925	3455	9021
1977	643	3264	1278	54	3457	78	4596	3535	8774
1978	509	3111	1260	72	3117	103	4443	3220	8172
1979	687	2972	1578	112	2745	29	4662	2774	8123
1980	652	3450	1374	175	2634	200	4999	2834	8485
1981	549	2472	752	132	1387	331	3356	1718	5623
1982	529	2214	654	99	3154	454	2967	3608	7104
1983	506	2465	1540	181	3417	433	4186	3850	8542
1984	568	3874	1803	188	3935	707	5865	4642	11075
1985	578	4569	1798	77	4043	1013	6444	5056	12078
1986	524	5594	1762	47	3090	1326	7403	4416	12343
1987	589	7705	1768	66	3955	1294	9539	5249	15377
1988	347	7737	2061	95	6003	1730	9893	7733	17973
1989	334	7868	2121	86	5729	313	10075	6042	16451
1990	570	8387	2177	34	5615	822	10598	6437	17605
1991	595	9235	2522	26	5061	923	11783	5984	18362
1992	938	10209	3053	39	5479	1089	13301	6568	20807
1993	843	12309	3144	66	5553	681	15519	6234	22596
1994	811	14505	3445	210	5273	777	18160	6050	25021
1995	823	17891	2627	402	6354	830	20920	7184	28927
1996	702	25176	1847	304	6408	602	27327	7010	35039
1997	776	23425	2172	160	5330	899	25757	6229	32762
1998	626	16857	2088	78	4506	900	19023	5406	25055
1999	660	13326	1517	24	4284	1401	14867	5685	21212
2000	602	12338	1617	31	3311	1074	13986	4385	18973
2001	621	12861	1832	21	2660	1309	14714	3969	19304
2002	667	11048	1244	21	2280	718	12313	2998	15978
2003	478	8523	847	20	2493	643	9390	3136	13004
2004	519	8987	851	15	2453	671	9853	3124	13496
2005	458	8424	688	5	3019	958	9117	3977	13552
2006	423	10338	685	3	2785	916	11026	3701	15150
2007	433	10632	749	4	3352	1260	11385	4612	16430
2008	486	11038	769	5	3373	1630	11812	5003	17300
2009	479	10096	658	8	3029	2119	10757	5148	16389
2010	477	6979	619	11	3187	1423	7609	4610	12696
2011*	432	7477	745	8	2378	1192	8230	3570	12232

\*Preliminary.

**Table 5.4.29.3** Anglerfish (*Lophius piscatorius* and *L. budegassa*) in Division IIIa, and in Subareas IV and VI. Nominal landings (t) by country as officially reported to ICES and estimated by ICES of anglerfish in **Division VIa (west of Scotland)**.

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011*
Belgium	3	2	9	6	5	-	5	2	-	-	+	+	-	+	-	-	-	-	-	-	-
Denmark	1	3	4	5	10	4	1	2	1	+	+	-	+	+	-	-	-	-	-	-	-
Faroe Is.	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	3	2	1	2	4	1
France	1910	2308	2467	2382	2648	2899	2058	1634	1814	1132	943	739	1212	1191	1392	1314	1763	1746	1555	1160	912
Germany	1	2	60	67	77	35	72	137	50	39	11	3	27	39	39	1	-	54	79	79	-
Ireland	250	403	428	303	720	717	625	749	617	515	475	304	322	219	356	392	470	295	328	510	488
Netherlands	-	-	-	-	-	-	27	1	-	-	-	-	-	-	-	-	-	-	-	-	0
Norway	6	14	8	6	4	4	1	3	1	3	2	1	+	+	1	1	1	2	-	1	1
Russia																					
Spain	7	11	8	1	37	33	63	86	53	82	70	101	196	110	82	76	3	174	189	-	-
UK(EW&NI)	270	351	223	370	320	201	156	119	60	44	40	32	31	30	20	24	42	5	12	393	-
UK(Scot.)	2613	2385	2346	2133	2533	2515	2322	1773	1688	1496	1119	1100	705	862	1127	974	1071	1096	864	1040	-
UK (total)																					976
Total	5061	5479	5553	5273	6354	6408	5330	4506	4284	3311	2660	2280	2493	2453	3019	2785	3352	3373	3029	3187	2378
Unallocated	296	2638	3816	2766	5112	11148	7506	5234	3799	3114	2068	1882	985	1938							
As used by WG	5357	8117	9369	8039	11466	17556	12836	9740	8083	6425	4728	4162	3478	4391							

\*Preliminary.

**Table 5.4.29.4** Anglerfish (*Lophius piscatorius* and *L. budegassa*) in Division IIIa, and in Subareas IV and VI. Nominal landings (t) by country as officially reported to ICES and estimated by ICES of anglerfish in **Division VIb (Rockall)**.

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011*
Belgium																					
Denmark																					
Estonia	-	-	-	-	-	-	-	-	-	-	-	-	-	+	-	-	-	-	-		
Faroe Is.	-	2	-	-	-	15	4	2	2	-	1	-	-	-	-	-	-	1	4	8	+
France	-	-	29	-	-	-	1	1	-	48	192	43	191	175	293	224	327	327	637	23	14
Germany	-	-	103	73	83	78	177	132	144	119	67	35	64	66	77	72	222	0	132	87	
Ireland	272	417	96	135	133	90	139	130	75	81	134	51	26	13	35	53	70	76	91	107	108
Norway	18	10	17	24	14	11	4	6	5	11	5	3	6	5	4	6	7	5	9	12	0
Portugal	-	-	-	-	-	-	-	+	429	20	18	8	4	19	63	-	-	-	-		
Russia	-	-	-	-	-	-	-	-	-	-	1	-	-	2	4	1	1	35	-		
Spain	333	263	178	214	296	196	171	252	291	149	327	128	59	43	34	36	12	85	57		
UK(E,W&NI)	99	173	76	50	105	144	247	188	111	272	197	133	133	54	93	46	146	5	48	15	
UK(Scot)	201	224	182	281	199	68	156	189	344	374	367	317	160	294	355	478	475	1096	1141	1171	
UK (total)																					1070
Total	923	1089	681	777	830	602	899	900	1401	1074	1309	718	643	671	958	916	1260	1630	2119	1423	1192
Unallocated									-9	17	-178	-47	145	121							
As used by WG	923	1,089	681	777	830	602	899	900	1392	1091	1131	671	788	792							

\*Preliminary.



**Table 5.4.29.5** Anglerfish (*Lophius piscatorius* and *L. budegassa*) in Division IIIa, and in Subareas IV and VI. Nominal landings (t) as officially reported to ICES and estimated by ICES of anglerfish in **Subarea VI**.

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011*
Belgium	3	2	9	6	5	0	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0
Denmark	1	3	4	5	10	4	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0
Estonia	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Faroe Is.	0	2	0	0	0	15	4	2	2	0	1	0	0	2	2	3	2	2	6	12	1
France	1910	2308	2496	2382	2648	2899	2059	1635	1814	1180	1135	782	1403	1366	1685	1538	2090	2073	2192	1183	926
Germany	1	2	163	140	160	113	249	269	194	158	78	38	91	105	116	73	222	54	211	166	
Ireland	522	820	524	438	853	807	764	879	692	596	609	355	348	232	391	445	540	370.6	419	617	596
Netherlands																					
Norway	18	10	17	24	14	11	31	7	5	11	5	3	6	5	4	6	7	5	9	12	0
Portugal	6	14	8	6	4	4	1	3	430	23	20	9	4	19	64	1	1	2	0	1	1
Russia	0	0	0	0	0	0	0	0	0	0	1	0	0	2	4	1	1	35	0	0	0
Spain	340	274	186	215	333	229	234	338	344	231	397	229	255	153	116	112	15	259	246	0	0
Sweden																					
UK(E,W&NI)	369	524	299	420	425	345	403	307	171	316	237	165	164	84	113	70	188	10	60	408	0
UK(Scot)	2814	2609	2528	2414	2732	2583	2478	1962	2032	1870	1486	1417	865	1156	1482	1452	1546	2192	2005	2211	0
UK (total)																					2046
Total	5984	6568	6234	6050	7184	7010	6229	5406	5685	4385	3969	2998	3136	3124	3977	3701	4612	5003	5148	4610	3570
Unallocated																					
As used by WG	923	1089	681	777	830	602	899	5406	5685	4385	3969	2998	3136	3124							

\*Preliminary.

**Table 5.4.29.6** Anglerfish (*Lophius piscatorius* and *L. budegassa*) in Division IIIa, and in Subareas IV and VI. Nominal landings (t) by country as officially reported to ICES and estimated by ICES of anglerfish in **Division IVa**.

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011*	
Belgium	2	9	3	3	2	8	4	1	5	12	-	8	1	-	-	-	-	-	-	-	-	
Denmark	1245	1265	946	1157	732	1239	1155	1024	1128	1087	1289	1308	1523	1538	1379	1311	961	1071	1134	1	841	
Faroes	1	-	10	18	20	-	15	10	6		2	+	3	11	22	2	+	-	4		0	
France	124	151	69	28	18	7	7	3	18	8	9	8	8	8	4	7	13	13	48	6	7	
Germany	71	68	100	84	613	292	601	873	454	182	95	95	65	20	84	173	186	344	216	124		
Netherlands	23	44	78	38	13	25	12	-	15	12	3	8	9	38	13	14	14	12	5	8	5	
Norway	587	635	1224	1318	657	821	672	954	1219	1182	1212	928	769	999	880	1005	831	860	859	735	490	
Sweden	14	7	7	7	2	1	2	8	8	78	44	56	8	6	5	5	20	67	...	4	9	
UK(E W&NI)	129	143	160	169	176	439	2174	668	781	218	183	98	104	83	34	99	303	13				
UK (Scotland)	7039	7887	9712	11683	15658	22344	18783	13319	9710	9559	10024	8539	6033	6284	6003	7722	8304	8658				
UK (total)																				7830	6101	6125
Total	9235	10209	12309	14505	17891	25176	23425	16857	13326	12338	12861	11048	8523	8987	8424	10338	10632	11038	10096	6979	7477	

\* Preliminary.

**Table 5.4.29.7** Anglerfish (*Lophius piscatorius* and *L. budegassa*) in Division IIIa, and in Subareas IV and VI. Nominal landings (t) by country as officially reported to ICES and estimated by ICES of anglerfish in **Division IVb**.

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010*	2011*
Belgium	357	538	558	713	579	287	336	371	270	449	579	435	180	260	207	138	179	181	134	124	112
Denmark	345	421	347	350	295	225	334	432	368	260	251	255	191	274	237	276	173	237	248	194	287
Faroese	-	-	2	-	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-	-	0
France	-	1	-	2	-	-	-	-	-	-	-	-	-	+	-	-	-	-	9	6	4
Germany	4	2	13	15	10	9	18	19	9	14	9	17	11	11	9	14	12	22	17	21	
Ireland													1	-	-	-	-	-	-	-	
Netherlands	285	356	467	510	335	159	237	223	141	141	123	62	42	25	31	33	61	58	36	46	53
Norway	17	4	3	11	15	29	6	13	17	9	15	10	12	22	16	14	24	15	21	10	11
Sweden	-	-	-	3	2	1	3	3	4	3	2	9	2	1	4	4	6	9	-	5	7
UK(E W&NI)	669	998	1285	1277	919	662	664	603	364	423	475	236	167	120	96	108	122	105			
UK (Scotland)	845	733	469	564	472	475	574	424	344	318	378	210	241	138	88	98	172	142			
UK (total)																			193	213	271
Total	2522	3053	3144	3445	2627	1847	2172	2088	1517	1617	1832	1244	847	851	688	685	749	769	658	619	745

\* Preliminary.

**Table 5.4.29.8** Anglerfish (*Lophius piscatorius* and *L. budegassa*) in Division IIIa, and in Subareas IV and VI. Nominal landings (t) by country as officially reported to ICES and estimated by ICES of anglerfish in **Division IVc**.

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011*
Belgium	13	12	34	37	26	28	17	17	11	15	15	16	9	5	4	3	3	4	6	7	6
Denmark	2	+	-	+	+	+	+	+	+	+	+	+	+	+	+	-	-		-	-	0
France	-	-	-	-	-	-	-	10	-	+	-	+	-	-	-	-	-	+	-	1	+
Germany	-	-	-	-	-	-	-	-	-	+	-	+	+	-	-	-	-	-	-	-	-
Netherlands	5	10	14	20	15	17	11	15	10	15	6	5	1	-	1	-	1	1	-	2	1
Norway	-	-	-	-	+	-	-	-	+	-	+	-	-	-	-	-	-	-	1	-	-
UK(E&W&NI)	6	17	18	136	361	256	131	36	3	1	-	-	10	3	-	-	-	...	-	-	
UK (Scotland)	-	-	-	17	-	3	1	+	+	+	-	-	-	7	-	-	-	...	-	-	-
UK (Total)																			+	1	1
Total	26	39	66	210	402	304	160	78	24	31	21	21	20	15	5	3	4	5	8	11	8

\* Preliminary.

**Table 5.4.29.9** Anglerfish (*Lophius piscatorius* and *L. budegassa*) in Division IIIa, and in Subareas IV and VI. Nominal landings (t) as officially reported to ICES and estimated by ICES of anglerfish in **Subarea IV**.

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011*
Belgium	372	559	595	753	607	323	357	389	286	476	594	459	190	265	211	141	182	184.6	140	131	118
Denmark	1592	1686	1293	1507	1027	1464	1489	1456	1496	1347	1540	1563	1714	1812	1616	1587	1134	1308	1382	195	1128
Faroes	1	0	12	18	20	0	15	10	6	0	2	10	3	11	22	2	0	0	4	0	0
France	124	152	69	30	18	7	7	13	18	8	9	8	8	8	4	7	13	13	57	13	11
Germany	75	70	113	99	623	301	619	892	463	196	104	112	76	31	93	187	198	366	233	145	0
Ireland	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0
Netherlands	313	410	559	568	363	201	260	238	166	168	132	75	52	63	45	47	76	71	41	56	59
Norway	604	639	1227	1329	672	850	678	967	1236	1191	1227	938	781	1021	896	1019	855	875	881	745	501
Sweden	14	7	7	10	4	2	5	11	12	81	46	65	10	7	9	9	26	76	0	9	16
UK(E&W&NI)	804	1158	1463	1582	1456	1357	2969	1307	1148	642	658	334	281	206	130	207	425	118	406	460	0
UK (Scotland)	7884	8620	10181	12264	16130	22822	19358	13743	10054	9877	10402	8749	6274	6429	6091	7820	8476	8800	7613	5855	0
UK (Total)																					6397
Total	11783	13301	15519	18160	20920	27327	25757	19026	14885	13986	14714	12313	9390	9853	9117	11026	11385	11812	10757	7609	8230

\* Preliminary.

**Table 5.4.29.10** Anglerfish (*Lophius piscatorius* and *L. budegassa*) in Division IIIa, and in Subareas IV and VI. Nominal landings (t) by country as officially reported to ICES and estimated by ICES of anglerfish in **Division IIIa (Skagerrak, Kattegat)**.

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011*
Belgium	15	48	34	21	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Denmark	493	658	565	459	312	367	550	415	362	377	375	369	215	311	274	227	255	287	344	270	251
Germany	-	-	1	-	-	1	1	1	2	1	-	1	-	1	1	2	1	1	1	1	2
Netherlands							-	-	-	-	-	-	3	4	4	3	1	3	-	5	0
Norway	64	170	154	263	440	309	186	177	260	197	200	242	189	130	100	137	132	144	134	158	153
Sweden	23	62	89	68	36	25	39	33	36	27	46	55	71	73	79	54	44	51	...	43	26
Total	595	938	843	811	823	702	776	626	660	602	621	667	478	519	458	423	433	486	479	477	432

\*Preliminary.

**Table 5.4.29.11** Anglerfish (*Lophius piscatorius* and *L. budegassa*) in Division IIIa, and in Subareas IV and VI. Abundance (millions of individuals – age 1 and older) and biomass (thousands of tonnes – age 1 and older) estimates from the 2005–2011 anglerfish surveys (SCO-IV-VI-AMISS-Q2) by ICES subareas and divisions.

ICES subarea / division	Abundance (millions)						
	2005	2006	2007	2008	2009	2010	2011
Subarea IV (partial)	11.168	12.844	15.304	12.613	8.279	7.366	5.150
Division VIa	10.866	10.459	7.956	7.718	5.144	5.161	6.057
Division VIb	1.800	3.174	4.000	3.952	3.688	3.131	3.669
Subarea VI	12.666	13.633	11.956	11.670	8.832	8.292	9.725
<b>Northern Shelf</b>	<b>23.833</b>	<b>26.477</b>	<b>27.261</b>	<b>24.283</b>	<b>17.111</b>	<b>15.658</b>	<b>14.875</b>

ICES subarea / division	Biomass (thousand tonnes)						
	2005	2006	2007	2008	2009	2010	2011
Subarea IV (partial)	18.642	21.921	28.534	29.721	17.058	21.944	14.949
Division VIa	14.096	12.175	11.072	14.383	8.150	11.590	9.330
Division VIb	5.879	6.889	10.786	9.442	12.852	8.745	8.974
Subarea VI	19.975	19.064	21.858	23.825	21.002	20.334	18.305
<b>Northern Shelf</b>	<b>38.617</b>	<b>40.985</b>	<b>50.392</b>	<b>53.546</b>	<b>38.060</b>	<b>42.279</b>	<b>33.254</b>