

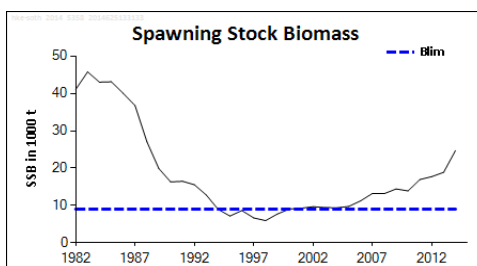
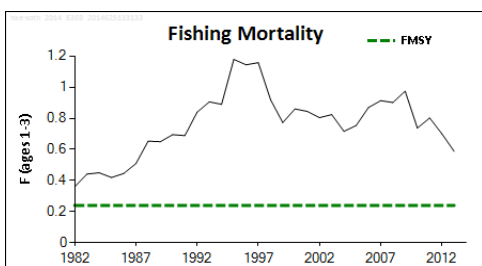
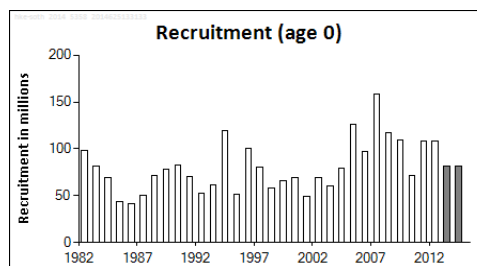
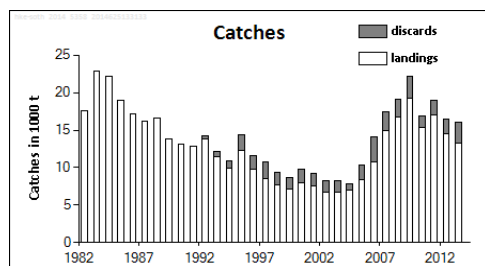
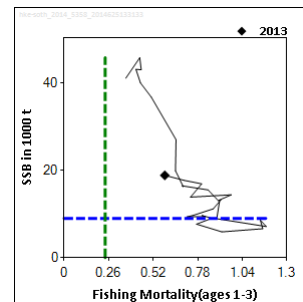
**ECOREGION** Bay of Biscay and Atlantic Iberian waters  
**STOCK** Hake in Divisions VIIIc and IXa (Southern stock)

**Advice for 2015**

ICES advises on the basis of the MSY approach that catches should be no more than 8417 tonnes in 2015. If discard rates do not change from the average of the years 2011–2013, this implies landings of no more than 7302 tonnes.

**Stock status**

Fishing pressure				
	2011	2012	2013	
<b>MSY (<math>F_{MSY}</math>)</b>	✗	✗	✗	Above target
<b>Precautionary approach (<math>F_{pa}, F_{lim}</math>)</b>	?	?	?	Undefined
Stock size				
	2012	2013	2014	
<b>MSY (<math>B_{trigger}</math>)</b>	?	?	?	Undefined
<b>Precautionary approach (<math>B_{pa}, B_{lim}</math>)</b>	?	?	?	Above $B_{lim}$



**Figure 7.3.7.1** Hake in Divisions VIIIc and IXa. Summary of stock assessment (weights in thousand tonnes). Assumed recruitments are shaded. Top right: SSB/F for the time-series over the years. Predicted values are shaded.

Fishing mortality is well above the  $F_{MSY}$  proxy in 2013. SSB has increased since 1998. Most recruitments since 2005 have been above the historical mean.

**Management plans**

A recovery plan was agreed by the EU in 2005 ([EC Reg. No. 2166/2005](#), Appendix 7.3.7). The aim of the plan is to rebuild the stock to safe biological limits, set as a spawning-stock biomass above 35 000 tonnes by 2016, and to reduce fishing mortality to 0.27. The main elements of the plan are a 10% annual reduction in F and a 15% constraint on TAC change between years. ICES has not evaluated the plan.

## Biology

European hake is widely distributed over the Northeast Atlantic shelf. Although there is no clear evidence of multiple populations in the Northeast Atlantic, ICES assumes two different stock units. Hake is a top predator and a cannibalistic species. Hake spawns throughout the year, with a peak in February.

## The fisheries

Hake is caught by a multigear fleet (otter trawlers, pair-trawlers, gillnetters, longliners, and artisanal). The species composition in the fishery is dependent on the area fished and the gear used. In the trawl fleet, hake is caught together with megrim, anglerfish, blue whiting, horse mackerel, mackerel, and crustaceans. Discards occur mainly in the trawl fisheries that target smaller fish than gillnetters and longliners.

**Catch distribution** Total catch (2013) as estimated by ICES = 16.4 kt, where 13.54 kt were landings (4.46 kt trawlers, 5.74 kt other fleets, and 3.33 kt unallocated) and 2.87 kt discards (17% of the total catch).

## Effects of the fisheries on the ecosystem

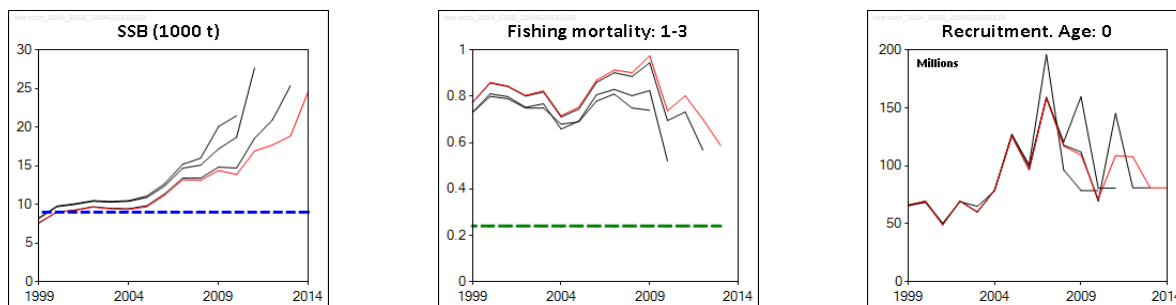
Because hake is a top predator, its abundance has implications on the survival of conspecifics (cannibalism) and other species, e.g. blue whiting, horse mackerel, and sardine.

## Quality considerations

Assessment data arrived after the ICES data call deadline, thus reducing time to review and audit the assessment results. Although the data were used, the delay may reduce ICES quality assurance.

The P-TR lpue series has not been updated since 2011. The SP-CORUTR lpue series was not updated in 2013. These lpue series, used to calibrate the model, are the main source of information trends for large fish. The influence of this lack of update on the quality of the assessment has not been evaluated.

The retrospective analysis shows a tendency in the assessment to overestimate SSB and underestimate F.



**Figure 7.3.7.2** Hake in Divisions VIIIc and IXa. Historical assessment results (final-year recruitment estimates included). This stock was benchmarked in 2014, resulting in no changes to the assessment model.

## Scientific basis

<b>Stock data category</b>	1 ( <a href="#">ICES, 2014a</a> ).
<b>Assessment type</b>	Length–age analytical assessment (GADGET).
<b>Input data</b>	Commercial catches (international landings, discards and length frequencies from catch sampling); three survey indices (SpGFS-WIBTS-Q4, SPGFS-caut-WIBTS-Q4, and PtGFS-WIBTS-Q4); two commercial indices (SP-CORUTR and P-TR); annual maturity data from commercial catch; natural mortality constant value (0.4) used.
<b>Discards and bycatch</b>	Included in the assessment since 1992. Data series from the main fleets raised to the landings.
<b>Indicators</b>	None.
<b>Other information</b>	Benchmarked in WKSOUTH 2014 (ICES, 2014b).
<b>Working group</b>	Working Group for the Bay of Biscay and the Iberian waters Ecoregion ( <a href="#">WGBIE</a> ).

**ECOREGION** Bay of Biscay and Atlantic Iberian waters  
**STOCK** Hake in Divisions VIIIc and IXa (Southern stock)

**Reference points**

	<i>Type</i>	<i>Value</i>	<i>Technical basis</i>
MSY approach	MSY $B_{\text{trigger}}$	Not defined.	
	$F_{\text{MSY}}$	0.24	$F_{\text{max}}$ (ICES, 2010).
Precautionary approach	$B_{\text{lim}}$	9000 t	A biomass that produces a recruitment that is at or above average (WKSOUTH; ICES, 2014b).
	$B_{\text{pa}}$	Not defined.	
	$F_{\text{lim}}$	Not defined.	
	$F_{\text{pa}}$	Not defined.	

(Last changed in: 2014)



Basis:  $F_{2014} = 0.59$  (average 2011–2013 scaled to 2013); SSB (2015) = 25 646 t; landings (2014) = 14 844 t; discards (2014) = 2 545 t; R (2014) = GM (1989–2012) = 81 million.

Rationale	Catch total (2015)	Landings (2015) <sup>3</sup>	Discards (2015)	Basis	F total <sup>1</sup> (2015)	F landings (2015)	F disc. (2015)	SSB (2016)	%SSB change <sup>2</sup>	%TAC change <sup>3</sup>
MSY approach	8.417	7.302	1.116	$F_{MSY} (F_{2014} \times 0.41)$	0.24	0.21	0.03	38.829	51%	-55%
EU recovery plan	15.997	13.844	2.153	$F = F_{2014} \times 0.9$	0.53	0.46	0.07	27.142	6%	-15%
Zero catch	0.000	0.000	0.000	$F = 0$	0.00	0.00	0.00	52.703	106%	-100%
Other options	2.141	1.860	0.281	$F_{2014} \times 0.1$	0.06	0.05	0.01	49.183	92%	-89%
	6.133	5.324	0.810	$F_{2014} \times 0.3$	0.17	0.15	0.02	42.650	66%	-67%
	9.759	8.462	1.297	$F_{2014} \times 0.5$	0.28	0.25	0.04	36.840	44%	-48%
	13.040	11.296	1.744	$F_{2014} \times 0.7$	0.40	0.35	0.05	31.690	24%	-31%
	15.976	13.826	2.150	$TAC_{2014} \times 0.85$	0.53	0.46	0.07	27.333	7%	-15%
	15.997	13.844	2.153	$F_{2014} \times 0.9$	0.53	0.46	0.07	27.142	6%	-15%
	17.361	15.017	2.344	$F_{2014} \times 1$	0.59	0.51	0.08	25.077	-2%	-8%
	18.820	16.266	2.554	$TAC_{2014}$	0.67	0.58	0.09	21.726	-15%	0%
	21.666	18.706	2.960	$TAC_{2014} \times 1.15$	0.82	0.71	0.11	18.932	-26%	15%

Weights in thousand tonnes.

<sup>1</sup> Note that small differences in F may result from non-linearity in the effort–F relationship in length-based models.

<sup>2</sup> SSB 2016 relative to SSB 2015.

<sup>3</sup> Landings 2015 relative to TAC 2014.



### ***MSY approach***

Because MSY  $B_{\text{trigger}}$  has not been identified for this stock, the ICES MSY approach has been applied without consideration of SSB in relation to MSY  $B_{\text{trigger}}$ .

Following the ICES MSY approach implies a reduction in fishing mortality to 0.24, resulting in catches of no more than 8417 t in 2015. If the discard rate remains as the mean of the last three years, this would result in landings of no more than 7302 t. This is expected to lead to an SSB of 38 829 t in 2016.

### ***Management plan***

Following the agreed recovery plan ([EC Reg. No. 2166/2005](#)), a 10% reduction in F would lead to a TAC of 13 844 t, inside the 15% boundaries around the 2014 TAC (16 266 t). If the discard rate remains at the mean of the last three years, the catches would thus be 15 997 t. This catch is expected to lead to an SSB of 27 142 t in 2016. ICES did not evaluate the plan; however, some elements of the recovery plan were evaluated by ICES in 2010 (ICES, 2010).

The current recovery plan uses target values based on precautionary reference points that are no longer appropriate.

### ***Additional considerations***

A number of regulatory measures are adopted for fishing southern hake, including minimum mesh sizes, closed areas, and seasonal restrictions ([EC No. 850/98](#)). Fishing effort limitations corresponding to a 10% reduction were initiated in 2005. TACs have been ineffective at regulating the fishery in recent years, as landings greatly exceeded the TACs.

The minimum landing size for southern hake is 27 cm. There is no match between minimum landing size and the trawl mesh size currently enforced. This results in high discard rates.

Hake in the ICES area is managed and assessed as two separate stocks. There is no biological basis for the current ICES stock definition of northern and southern hake. These stocks have similar biology with an unknown degree of mixing.

SSB has increased in recent years, most likely as a result of high recruitment in recent years (2005–2012). The fast growth rate and the assumed high natural mortality generate a rapid turn-over of the hake stock dynamics. This means that short-term projections of SSB and landings are more sensitive to variations in recruitment.

### ***Data requirements***

Hake is a top predator. Improving the trophic information, e.g. sampling of stomach contents, will eventually lead to better ecosystem advice. Hake otoliths are currently collected but not used in the assessment due to lack of a validated ageing method. The utility of the current sampling and its level should be re-evaluated.

### ***Management considerations***

The objective of the recovery plan was to rebuild the stock within safe biological limits, meaning to reach a SSB of 35 000 t by 2015. Since the plan's enforcement, the stock historical perception has changed and this SSB value is no longer valid. ICES has now established  $B_{\text{lim}}$  at 9000 t and will work towards developing an appropriate  $B_{\text{pa}}$  value. Given the current  $B_{\text{lim}}$ , it is expected that  $B_{\text{pa}}$  will be below the target biomass in the recovery plan.

### ***Uncertainties in assessment and forecast***

The retrospective analysis shows a trend to overestimate SSB and underestimate F.

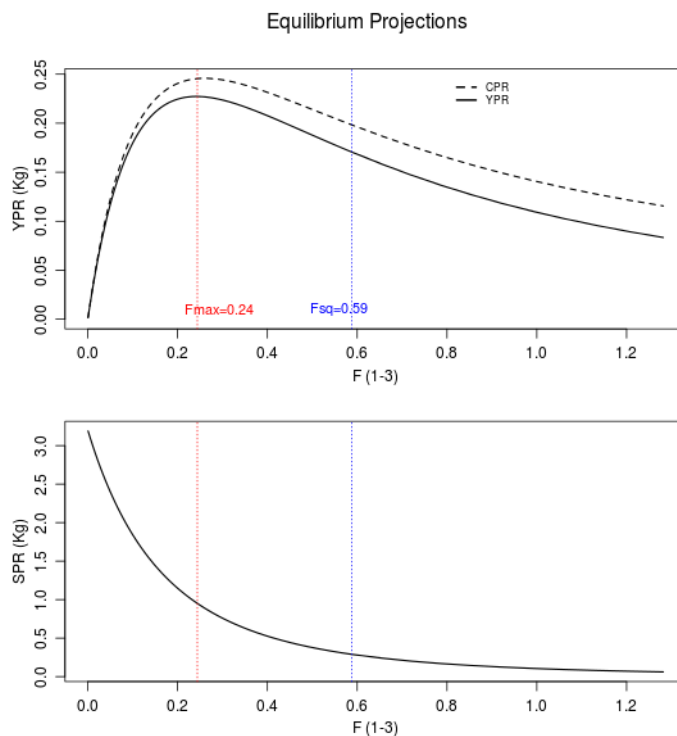
### ***Comparison with previous assessment***

The basis for the assessment has not changed from last year. Compared to the 2013 assessment, the SSB in 2013 was revised downwards by 26% and the F in 2012 was revised upwards by 23% in the current assessment.

Last year's advice was based on the transition to the MSY approach. This year's advice is based on the MSY approach.

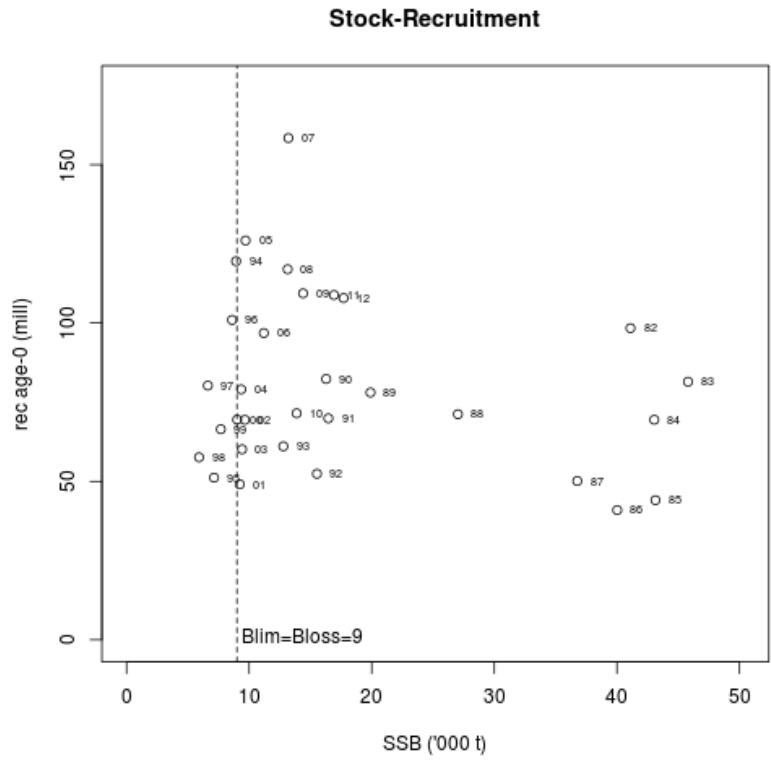
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**Figure 7.3.7.3** Hake in Divisions VIIIc and IXa. Equilibrium projections of long-term yield-per-recruit (upper panel) and SSB-per-recruit (lower panel) at different fishing mortality rates.





**Figure 7.3.7.4** Hake in Divisions VIIIc and IXa. Stock–recruitment relationship.

**Table 7.3.7.1**

Hake in Divisions VIIIc and IXa. ICES advice, management, and landings, discards, and catches.

Year	ICES Advice	Predicted landings corresp. to advice	Agreed TAC <sup>b</sup>	ICES landings	Discards	ICES estimated catch
1987	Precautionary TAC; juvenile protection	15.0	25.0	16.2	-	-
1988	TAC; juvenile protection	15.0	25.0	16.4	-	-
1989	TAC; juvenile protection	15.0	20.0	13.8	-	-
1990	TAC; juvenile protection	15.0	20.0	13.2	-	-
1991	Precautionary TAC	10.0	18.0	12.8	-	-
1992	Precautionary TAC	10.3	16.0	13.8	0.5	14.3
1993	F = 10% of F <sub>91</sub>	1.0	12.0	11.5	0.7	12.2
1994	F lowest possible, at least reduced by 80%	2.0	11.5	9.9	1.0	10.9
1995	F lowest possible	-	8.5	12.2	2.1	14.3
1996	F lowest possible	-	9.0	9.7	1.9	11.6
1997	F lowest possible	-	9.0	8.5	2.3	10.8
1998	60% reduction in F	4.0	8.2	7.7	1.7	9.4
1999	Reduce F below F <sub>pa</sub>	9.5	9.0	7.2	1.5	8.7
2000	20% reduction from 1994–98 average landings	< 7.7	8.5	7.9	1.8	9.7
2001	Reduce F below F <sub>pa</sub> ; no increase in landings	8.5	8.9	7.6	1.7	9.2
2002	F below F <sub>pa</sub>	< 8.0	8.0	6.7	1.5	8.2
2003	Lowest possible catch / rebuilding plan	0	7.0	6.7	1.4	8.1
2004	Zero catch	0	5.95	6.9	1.1	8.0
2005	Zero catch	0	5.968	8.3	2.0	10.3
2006	Zero catch	0	6.661	10.8	3.2	14.0
2007	Zero catch	0	6.128	14.9	3.0	17.9
2008	Zero catch	0	7.047	16.8	2.4	19.2
2009	Zero catch	0	8.104	19.2	3.2	22.4
2010	Reach B <sub>pa</sub> in 2011	4.9	9.300	15.7 <sup>c</sup>	1.6	17.3
2011	See scenarios	< 9.9	10.695	17.1	1.95	19.0
2012	MSY transition	< 14.3	12.299	14.6	2.06	16.6
2013	MSY transition	< 10.6	14.144	13.54	2.87	16.41
2014	MSY transition	< 13.123 <sup>a</sup>	16.266			
2015	MSY approach	< 8.417 <sup>a</sup>				

Weights in thousand tonnes.

<sup>a</sup> This values refer to total catch, including discards.<sup>b</sup> Applies to ICES Division VIIIc and Subareas IX and X; EU waters of CECAF 34.1.1.<sup>c</sup> Note that the total 2010 landings include 0.36 kt from France that were not included in the assessment (see Table 7.3.7.2).



**le 7.3.7.2**

Hake in Divisions VIIIc and IXa. ICES landings estimates (thousand tonnes) by country and gear.

YEAR	SPAIN										PORTUGAL			FRANCE	TOTAL			
	ART	GILLNET	LONGLINE	Cd-Trw	Pr-Bk TRW	Pa-Trw	Ba-Trw	DISC	LAND	ART	TRAWL	DISC	LAND	TOTAL	UNALLOCATED	DISC	LAND	CATCH
1972	7.10	-	-	-	10.20	-	-	-	17.3	4.70	4.10	-	8.8	-	-	-	26.1	26.1
1973	8.50	-	-	-	12.30	-	-	-	20.8	6.50	7.30	-	13.8	0.20	-	-	34.8	34.8
1974	1.00	2.60	2.20	-	8.30	-	-	-	14.1	5.10	3.50	-	8.6	0.10	-	-	22.8	22.8
1975	1.30	3.50	3.00	-	11.20	-	-	-	19.0	6.10	4.30	-	10.4	0.10	-	-	29.5	29.5
1976	1.20	3.10	2.60	-	10.00	-	-	-	16.9	6.00	3.10	-	9.1	0.10	-	-	26.1	26.1
1977	0.60	1.50	1.30	-	5.80	-	-	-	9.2	4.50	1.60	-	6.1	0.20	-	-	15.5	15.5
1978	0.10	1.40	2.10	-	4.90	-	-	-	8.5	3.40	1.40	-	4.8	0.10	-	-	13.4	13.4
1979	0.20	1.70	2.10	-	7.20	-	-	-	11.2	3.90	1.90	-	5.8	-	-	-	17.0	17.0
1980	0.20	2.20	5.00	-	5.30	-	-	-	12.7	4.50	2.30	-	6.8	-	-	-	19.5	19.5
1981	0.30	1.50	4.60	-	4.10	-	-	-	10.5	4.10	1.90	-	6.0	-	-	-	16.5	16.5
1982	0.27	1.25	4.18	0.49	3.92	-	-	-	10.1	5.01	2.49	-	7.5	-	-	-	17.6	17.6
1983	0.37	2.10	6.57	0.57	5.29	-	-	-	14.9	5.19	2.86	-	8.0	-	-	-	22.9	22.9
1984	0.33	2.27	7.52	0.69	5.84	-	-	-	16.7	4.30	1.22	-	5.5	-	-	-	22.2	22.2
1985	0.77	1.81	4.42	0.79	5.33	-	-	-	13.1	3.77	2.05	-	5.8	-	-	-	18.9	18.9
1986	0.83	2.07	3.46	0.98	4.86	-	-	-	12.2	3.16	1.79	-	4.9	0.01	-	-	17.2	17.2
1987	0.53	1.97	4.41	0.95	4.41	-	-	-	11.4	3.47	1.33	-	4.8	0.03	-	-	16.2	16.2
1988	0.70	1.99	2.97	0.99	3.98	-	-	-	10.6	4.30	1.71	-	6.0	0.02	-	-	16.7	16.7
1989	0.56	1.86	1.95	0.90	3.92	-	-	-	9.2	2.74	1.85	-	4.6	0.02	-	-	13.8	13.8
1990	0.59	1.72	2.13	1.20	4.13	-	-	-	9.8	2.26	1.14	-	3.4	0.03	-	-	13.2	13.2
1991	0.42	1.41	2.20	1.21	3.63	-	-	-	8.9	2.71	1.25	-	4.0	0.01	-	-	12.8	12.8
1992	0.40	1.48	2.05	0.98	3.79	-	-	0.14	8.7	3.77	1.33	0.33	5.1	-	0.5	13.8	14.3	
1993	0.37	1.26	2.74	0.54	2.67	-	-	0.24	7.6	3.04	0.87	0.44	3.9	-	0.7	11.5	12.2	
1994	0.37	1.90	1.47	0.32	-	0.82	1.90	0.29	6.8	2.30	0.79	0.71	3.1	-	1.0	9.9	10.9	
1995	0.37	1.59	0.96	0.46	-	2.34	2.94	0.93	8.6	2.56	1.03	1.18	3.6	-	2.1	12.2	14.3	
1996	0.23	1.15	0.98	0.98	-	1.46	2.17	0.91	7.0	2.01	0.76	0.99	2.8	-	1.9	9.7	11.6	
1997	0.30	1.04	0.76	0.88	-	1.32	1.78	1.07	6.1	1.52	0.90	1.20	2.4	-	2.3	8.5	10.8	
1998	0.32	0.75	0.62	0.53	-	0.88	1.95	0.57	5.0	1.67	0.97	1.11	2.6	-	1.7	7.7	9.4	
1999	0.33	0.60	0.00	0.57	-	0.87	1.59	0.35	4.0	2.12	1.09	1.17	3.2	-	1.5	7.2	8.7	
2000	0.26	0.85	0.15	0.58	-	0.83	1.98	0.62	4.7	2.09	1.16	1.21	3.3	-	1.83	7.90	9.7	
2001	0.32	0.55	0.11	1.20	-	1.06	1.12	0.37	4.4	2.02	1.20	1.29	3.2	-	1.66	7.58	9.2	
2002	0.22	0.58	0.12	0.88	-	1.37	0.75	0.38	3.9	1.81	0.97	1.11	2.8	-	1.49	6.70	8.2	
2003	0.37	0.43	0.17	1.25	-	1.36	1.07	0.41	4.7	1.13	0.96	1.05	2.1	-	1.46	6.74	8.2	
2004	0.48	0.42	0.13	1.06	-	1.66	1.13	0.22	4.9	1.27	0.80	0.69	2.1	-	0.91	6.94	7.9	
2005	0.72	0.63	0.09	0.88	-	2.77	1.14	0.38	6.2	1.10	0.96	1.60	2.1	-	1.98	8.30	10.3	
2006	0.48	0.71	0.35	0.63	-	4.70	1.81	2.65	8.7	1.22	0.91	0.61	2.1	-	3.26	10.80	14.1	
2007	0.83	1.80	0.89	0.50	-	6.71	2.07	1.19	12.8	1.41	0.72	1.31	2.1	-	2.50	14.93	17.4	
2008	1.12	2.64	1.51	0.53	-	6.32	2.44	1.45	14.6	1.27	0.94	0.86	2.2	-	2.31	16.77	19.1	
2009	1.41	2.92	2.10	0.55	-	7.37	2.54	0.98	16.9	1.39	0.96	1.96	2.4	-	2.93	19.24	22.2	
2010	0.72	1.71	1.88	0.68	-	6.33	1.71	1.00	13.0	1.61	0.73	0.58	2.3	0.36	1.58	15.74	17.3	
2011	0.42	1.09	0.76	0.53	-	2.18	1.48	1.21	6.5	1.72	0.49	0.74	2.2	-	1.95	17.07	19.0	
2012	0.34	0.85	1.08	0.50	-	1.64	1.42	1.35	5.8	1.79	0.81	0.60	2.6	-	6.14	1.95	14.57	16.52
2013	0.64	1.75	1.11	0.62	-	1.86	1.16	2.22	7.2	1.93	0.81	0.65	2.7	0.31	3.33	2.87	13.54	16.41

\* French catches are not considered in the assessment until the full time-series is reviewed.  
Unallocated landings have been included since 2011.

Table 7.3.7.3

Hake in Divisions VIIIc and IXa. Summary of the assessment.

Year	Recruitment Age 0 thousands	SSB	Landings *** tonnes	Discards tonnes	Mean F Ages 1–3
1982	98399	41105	17592	0	0.36
1983	81484	45801	22950	0	0.442
1984	69472	43048	22179	0	0.45
1985	44095	43142	18941	0	0.419
1986	40963	40026	17161	0	0.445
1987	50132	36768	16185	0	0.509
1988	71230	27030	16653	0	0.653
1989	78077	19900	13786	0	0.65
1990	82353	16283	13190	0	0.695
1991	69916	16460	12827	0	0.689
1992	52414	15530	13798	473*	0.84
1993	61089	12788	11484	683*	0.906
1994	119541	8931	9865	994*	0.89
1995	51183	7138	12239	2102*	1.179
1996	100998	8608	9715	1910*	1.144
1997	80263	6634	8498	2270*	1.159
1998	57620	5915	7683	1681*	0.92
1999	66483	7690	7170	1519*	0.773
2000	69514	9023	7902	1835*	0.86
2001	49098	9234	7580	1662*	0.845
2002	69447	9650	6690	1492*	0.804
2003	60139	9424	6744	1461*	0.824
2004	79066	9350	6942	913	0.716
2005	126069	9706	8333	1978	0.754
2006	96858	11194	10816	3262	0.87
2007	158433	13199	14932	2504	0.914
2008	117008	13142	16795	2311	0.902
2009	109373	14399	19240	2935	0.975
2010	71505	13875	15368	1580	0.737
2011	108846	16920	17062	1948	0.802
2012	107892	17703	14573	1950	0.701
2013	81024**	18862	13231	2871	0.588
2014	81024**	24685			
<b>Average</b>	<b>80637</b>	<b>18278</b>	<b>13066</b>	<b>1260</b>	<b>0.763</b>

\* Estimated from survey abundance, discards, and discards/landings rate.

\*\* Replaced by the geometric mean 1989–2012.

\*\*\* Landings do not include the French data presented in Table 7.3.7.2.

**Annex 7.3.7**      **Extract from the recovery plan for Southern hake and *Nephrops*:  
Council Regulation (EC) No. 2166/2005**

*Article 1  
Subject matter*

*This Regulation establishes a recovery plan for the following stocks (hereinafter referred to as the stocks concerned):*

- (a) the Southern hake stock which inhabits Divisions VIIIc and IXa, as delineated by the International Council for the Exploration of the Sea (ICES);*
- (b) the Norway lobster stock which inhabits ICES Division VIIIc;*
- (c) the Norway lobster stock which inhabits ICES Division IXa.*

*Article 2  
Objective of the recovery plan*

*The recovery plan shall aim to rebuild the stocks concerned to within safe biological limits, in keeping with ICES information. This shall mean:*

- (a) as regards the stock referred to in Article 1(a), reaching a spawning stock biomass of 35 000 tonnes during two consecutive years, according to the available scientific reports, or increasing the quantities of mature individuals within a period of 10 years so that values are reached equal to or higher than 35 000 tonnes. This figure shall be adjusted in the light of new scientific data from the STECF;*
- (b) as regards the stocks referred to in Article 1(b) and (c), rebuilding the stocks to within safe biological limits within a period of 10 years.*

*Article 5  
Procedure for setting the TAC for the Southern hake stock*

- 1. Where the fishing mortality rate for the stock referred to in Article 1(a) has been estimated by the STECF in the light of the most recent report of ICES to be above 0,3 per year, the TAC shall not exceed a level of catches which, according to a scientific evaluation carried out by the STECF in the light of the most recent report of ICES, will result in a reduction of 10 % in the fishing mortality rate in the year of its application as compared with the fishing mortality rate estimated for the preceding year.*
- 2. Where the fishing mortality rate for the stock referred to in Article 1(a) has been estimated by the STECF in the light of the most recent report of ICES to be equal to or below 0,3 per year, the TAC shall be set at a level of catches which, according to a scientific evaluation carried out by the STECF in the light of the most recent report of ICES, will result in a fishing mortality rate of 0,27 per year in the year of its application.*
- 3. Where STECF, in the light of the most recent report of ICES, is able to calculate a level of catches corresponding to the mortality rates specified in paragraphs 1 and 2 for only a part of ICES Divisions VIIIc and IXa, the TAC shall be set at a level that is compatible with both:
  - (a) the level of catch corresponding to the specified mortality rate in the area covered by the scientific advice, and*
  - (b) maintaining a constant ratio of catches between that area covered by the scientific advice and the totality of Divisions VIIIc and IXa. The ratio shall be calculated on the basis of catches in the three years preceding the year in which the decision is taken.**

*The method of calculation used shall be that provided in the Annex to this Regulation.*

*Article 7  
Constraints on variation in TACs*

*As from the first year of application of this Regulation, the following rules shall apply:*

- (a) where application of Article 5 or Article 6 would result in a TAC which exceeds the TAC of the preceding year by more than 15 %, the Council shall adopt a TAC which shall not be more than 15 % greater than the TAC of that year;*
- (b) where application of Article 5 or Article 6 would result in a TAC which is more than 15 % less than the TAC of the preceding year, the Council shall adopt a TAC which is not more than 15 % less than the TAC of that year.*

*Article 8  
Effort limitation*

- 1. The TACs referred to in Chapter II shall be complemented by a system of fishing effort limitation based on the geographical areas and groupings of fishing gear, and the associated conditions for the use of these fishing opportunities specified in Annex IVb to Council Regulation (EC) No 27/2005 of 22 December 2004 fixing for 2005 the fishing*

- opportunities and associated conditions for certain fish stocks and groups of fish stocks, applicable in Community waters and, for Community vessels, in waters where catch limitations are required* <sup>(1)</sup>.
2. *Each year, the Council shall decide by qualified majority on the basis of a proposal from the Commission on an adjustment to the maximum number of fishing days available for vessels subject to the system of fishing effort limitation referred to in paragraph 1. The adjustment shall be in the same proportion as the annual adjustment in fishing mortality that is estimated by ICES and STECF as being consistent with the application of the fishing mortality rates established according to the method described in Article 5.*
  3. *By way of derogation from paragraphs 1 and 2, each Member State concerned may implement a different method of effort management in that part of Area IXa lying east of longitude 7°23'48" Was measured according to the WGS84 standard. Such a method shall establish a reference level of fishing effort equal to the fishing effort deployed in the year 2005. For 2006 and subsequent years, the fishing effort shall be adjusted by an amount that shall be decided by qualified majority by the Council on the basis of a proposal by the Commission. This adjustment shall be proposed after considering the most recent advice from STECF in the light of the most recent report from ICES. In the absence of a decision by the Council, Member States concerned shall ensure that the fishing effort does not exceed the reference level.*
  4. *Each Member State taking up the derogation in paragraph 3 may be requested by the Commission to provide a report on the implementation of any different method of effort management. The Commission will communicate this report to all other Member States.*
  5. *For the purposes of paragraph 3, fishing effort shall be measured as the sum, in any calendar year, of the products across all relevant vessels of their installed engine power measured in kW and their number of days fishing in the area.*

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<sup>1</sup> OJ L 12, 14.1.2005, p. 1. Regulation as last amended by Regulation (EC) No 1936/2005 (OLL 311, 26.11.2005, p. 1).