

## Anchovy (*Engraulis encrasicolus*) in Division 9.a (Atlantic Iberian waters)

### ICES advice on fishing opportunities

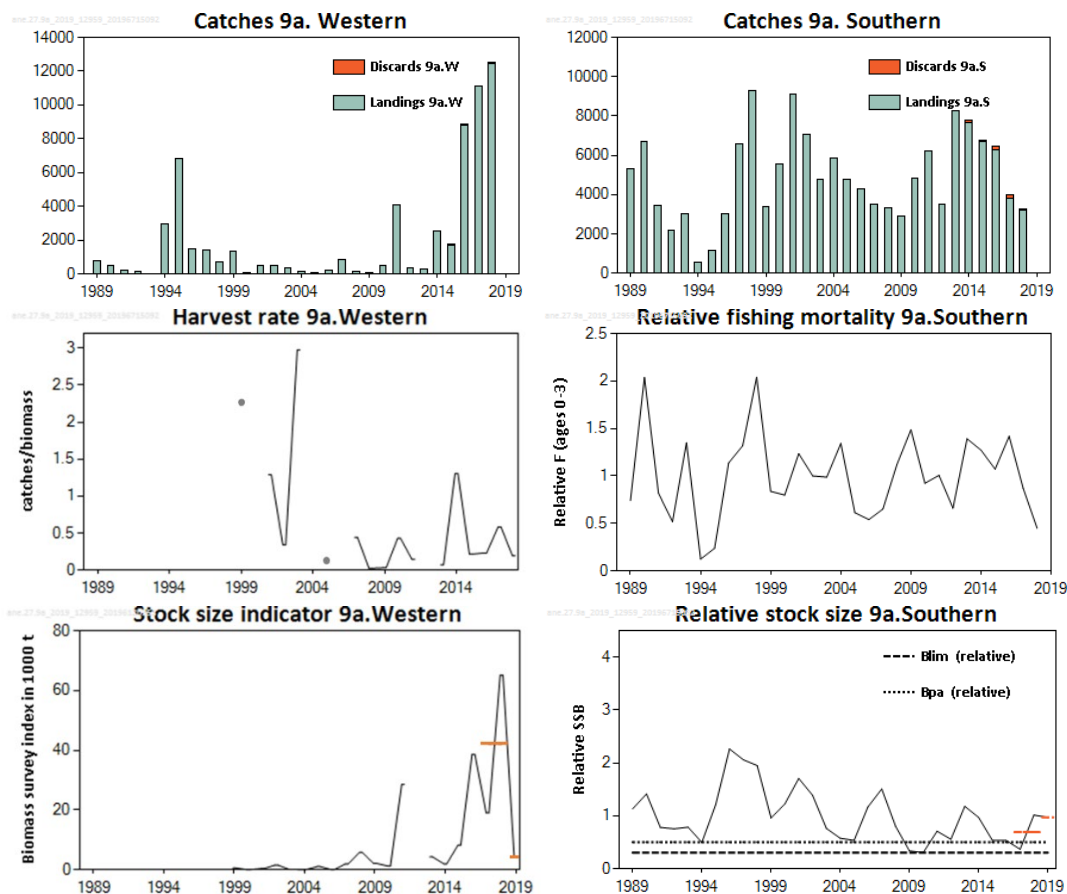
ICES advises that when the precautionary approach is applied, catches from the **western component** should be no more than 2662 tonnes and catches from the **southern component** should be no more than 6290 tonnes. The advice is for the period 1 July 2019 to 30 June 2020.

### Stock development over time

ICES considers that there are two components of the anchovy stock in the area: the **western and the southern components**. These components show different dynamics and are therefore assessed separately.

The **western component** biomass size indicator shows a 90% decrease from 2018 to 2019, after a period of an increasing trend observed since 2014. The harvest rate in 2018 (0.19) was below the median (0.28) of the historical time-series.

For the **southern component**, the assessment is indicative of trends only. The relative spawning-stock biomass (SSB) has been fluctuating without a trend over the time-series. Most of the values, including the last two years, are above  $B_{pa}$ . Relative fishing mortality (F) has been fluctuating with no clear trend.



**Figure 1** Anchovy in Division 9.a. Summary of the stock assessments (left column; **western component**, right column; **southern component**). Catches (in tonnes). Discard estimates are included since 2014. Stock size indicator (in thousand tonnes) and harvest rates, the ratio of catches/stock size indicator, are presented for the **western component**. SSB and F for the **southern component** are expressed as relative to the average of the time-series (years correspond to the beginning of the management period, i.e. 1989 corresponds to the beginning of the period 1 July 1989 to 30 June 1990). The red lines in the stock size indicator and SSB plots indicate the average values of the respective years.

### Stock and exploitation status

For the **western component** of the stock, ICES cannot assess the stock and exploitation status relative to maximum sustainable yield (MSY) and precautionary approach (PA) reference points because the reference points are undefined.

For the **southern component** of the stock, ICES assesses that the relative spawning–stock size is above  $B_{pa}$  and  $B_{lim}$ . ICES does not use  $F$  reference points to determine exploitation status for short-lived species (ICES, 2017); therefore, no reference points for fishing pressure have been defined for this stock.

**Table 1.1** Anchovy in Division 9.a. State of the **western component** and fishery relative to reference points. Fishing pressure for a year corresponds to  $F$  in the management period, i.e 2015 corresponds to the period 1 July 2015 to 30 June 2016.

		Fishing pressure			Stock size					
		2016	2017	2018	2017	2018	2019			
Maximum sustainable yield	$F_{MSY}$	?	?	?	Undefined	MSY	?	?	?	Undefined
Precautionary approach	$F_{pa}, F_{lim}$	?	?	?	Undefined	$B_{pa}, B_{lim}$	?	?	?	Undefined
Management plan	$F_{MGT}$	-	-	-	Not applicable	SSB <sub>MGT</sub>	-	-	-	Not applicable
Qualitative evaluation	-	→	↗	↘	Decreasing	-	↗	↗	↘	Decreasing

**Table 1.2** Anchovy in Division 9.a. State of the **southern component** and fishery relative to reference points. Fishing pressure for a year corresponds to  $F$  in the management period, i.e 2015 corresponds to the period 1 July 2015 to 30 June 2016.

		Fishing pressure			Stock size					
		2016	2017	2018	2017	2018	2019			
Maximum sustainable yield	$F_{MSY}$	?	?	?	Undefined	MSY $B_{trigger}$	?	?	?	Undefined
Precautionary approach	$F_{pa}, F_{lim}$	?	?	?	Undefined	$B_{pa}, B_{lim}$	0	✓	✓	Full reproductive capacity
Management plan	$F_{MGT}$	-	-	-	Not applicable	$B_{MGT}$	-	-	-	Not applicable
Qualitative evaluation	-	↗	↘	↘	Decreasing	-	-	-	-	Not applicable

### Catch scenarios

Since 2018 ICES has provided catch options separately for the two identified stock components of anchovy in Division 9.a: the **western component** (distributed in subdivisions 9.a North, Central–North, and Central–South), and the **southern component** (distributed in subdivision 9.a South). The current advice refers to the period 1 July 2019 to 30 June 2020.

#### Western component

The ICES framework for category 3 stocks was applied (ICES, 2012). The combined PELACUS and PELAGO acoustic biomass estimate was used as the index of stock development. The advice is calculated as the ratio between the last index value (index A) and the average of the two preceding values (index B), multiplied by the advised catch for 2018 (1 July 2018 to 30 June 2019).

The **western component** of the stock has decreased significantly, and the application of the “1 versus 2” advice rule gave an indicator ratio of 0.1. In this advice, an uncertainty cap of 80% was applied as suggested for short-lived species (ICES, 2018a).

The advice rule with an uncertainty cap of 80% is considered precautionary and as such the PA buffer was not considered. Discarding is generally considered negligible in this area (mean 0.02% of total catch). For the last semester of 2018, it was 0.01%.

**Table 2.1** Anchovy in Division 9.a. **Western component.** The basis for the catch scenarios.

Index A (2019)		4129
Index B (2017–2018)		42072
Index ratio (A/B)		0.1
Uncertainty cap	Applied	0.2
Advised catch for 1 July 2018 to 30 June 2019		13308 tonnes
Discard rate (Last semester of 2018)		negligible
Catch advice 1 July 2019 to 30 June 2020*		2662 tonnes
% advice change**		-80%

\* (Advised catch) × (Uncertainty cap).

\*\*Advice value 1 July 2019 to 30 June 2020 relative to the advice value 1 July 2018 to 30 June 2019.

The decrease of the advised catches results from a 90% decrease of the survey biomass in 2019 compared with the mean of the two previous years.

### **Southern component**

The ICES framework for category 3 stocks was applied (ICES, 2012). The SSB estimated by the assessment model was used as the index of stock size development. The advice is calculated as the ratio between the last index value (index A) and the average of the two preceding values (index B), multiplied by the advised catches for 2018 (1 July 2018 to 30 June 2019). In this advice, an uncertainty cap of 80% was applied as suggested for short-lived species (ICES, 2018a). The index has increased by 41% and thus the 80% uncertainty cap was not applied.

The advice rule with an uncertainty cap of 80% is considered precautionary and as such the PA buffer was not considered.

Discards mostly occur in the Spanish trawl fishery, which has no anchovy quota. Discards were reported for this fishery and for the Spanish purse-seine fishery in 2018. Discarding in the purse-seine fishery is considered negligible. For the last semester of 2018 the ratio of discards from these fisheries relative to catch from all gears in the same period was 1.5%.

**Table 2.2** Anchovy in Division 9.a. **Southern component.** The basis for the catch scenarios.\*

Index A (2019)		0.97
Index B (2017–2018)		0.69
Index ratio (A/B)		1.41
Uncertainty cap	Not applied	-
Advised catch for 1 July 2018 to 30 June 2019 <sup>+</sup>		4476 tonnes
Discard rate (Last semester of 2018)		0.015
Catch advice 1 July 2019 to 30 June 2020**		6290 tonnes
% advice change <sup>^</sup>		41%

<sup>+</sup> ICES revised advice for anchovy in Division 9.a for 1 July 2018 to 30 June 2019, published 24 June 2019 (ICES, 2019a).

\* 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.

\*\* (Advised catch) × (index ratio).

<sup>^</sup> Advice value 1 July 2019 to 30 June 2020 relative to the advice value 1 July 2018 to 30 June 2019.

The increase of the advised catches results from the SSB in 2019 being 41% higher compared with the mean of the two previous years.

### **Basis of the advice**

**Table 3.1** Anchovy in Division 9.a. **Western component.** The basis of the advice.

Advice basis	Precautionary approach
Management plan	ICES is not aware of any agreed precautionary management plan for anchovy in this area

**Table 3.2** Anchovy in Division 9.a. **Southern component.** The basis of the advice.

Advice basis	Precautionary approach
Management plan	ICES is not aware of any agreed precautionary management plan for anchovy in this area

## Quality of the assessment

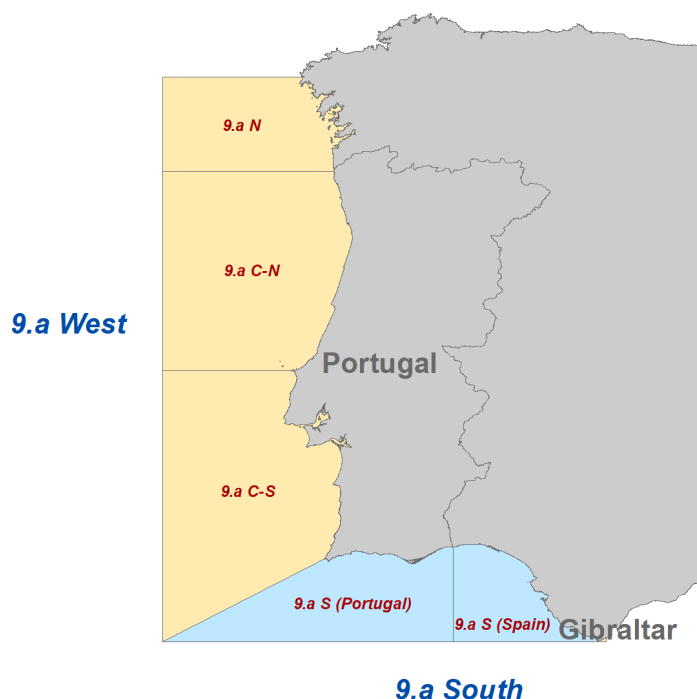
A benchmark assessment was conducted in 2018 (ICES, 2018b). New information indicated that the advice should be given separately for two components of the anchovy stock in the area, the **western and the southern components**. These components show different dynamics and they are therefore assessed separately.

Advised catches were calculated according to recently suggested rules for category 3 short-lived stocks (ICES, 2018a), whereby the one-over-two rule is recommended to be constrained by an uncertainty cap of  $\pm 80\%$  of the former catch advice. This rule is considered to be more consistent with a precautionary approach for short-lived species but needs further investigation. This approach differs from the standard ICES guidelines for category 3 and 4 stocks (ICES, 2012) of adopting a one-over-two rule and a 20% uncertainty cap which was the approach used previously.

Catch data for 1 July 2018 to 30 June 2019 are preliminary as the fishing is not over when the assessment is conducted. It was not possible to estimate a total discard rate for the period 1 July 2018 to 30 June 2019 because no data for 2019 are available at present.

## Issues relevant for the advice

From 2018 on, ICES provides catch options separately for the two identified stock components of anchovy in Division 9.a: the **western component** (distributed in subdivisions 9.a North, Central–North, and Central–South), and the **southern component** (distributed in subdivision 9.a South). If the management wishes to set a TAC for the whole of Division 9.a, then both advised catches for the two components could be summed, but there should be a provision to protect the smaller component from overexploitation, such as the fixing of a sub-TAC. For the catch period 1 July 2019 to 30 June 2020, the sum of the advised catches is 8952 tonnes, of which not more than 2662 tonnes should be taken from the western area.



**Figure 2** Anchovy in Division 9.a. The splitting of ICES Division 9.a is not yet formally adopted by ICES. In the current advice the terminology “9.a West” refers to the geographical area that includes subdivisions 9.a North, 9.a Central–North, and 9.a Central–South, whereas “9.a South” refers to subdivisions 9.a South–Portugal and 9.a South–Spain.

## Reference points

No reference points are defined for the **western component** of the stock.

The reference points for the **southern component** are relative to the average of the time-series.

**Table 4** Anchovy in Division 9a. **Southern component**. Reference points, values, and their technical basis.

Framework	Reference point	Value	Technical basis	Source
Precautionary approach	$B_{lim}$	0.31	$B_{loss}$ in 2010	(ICES, 2019b)
	$B_{pa}$	0.50	$B_{pa} = B_{lim} \times 1.64$	(ICES, 2019b)
	$F_{lim}$	Not defined		
	$F_{pa}$	Not defined		

## Basis of the assessment

**Table 5.1** Anchovy in the Division 9.a. **Western component**. Basis of the assessment and advice.

ICES stock data category	3 (ICES, 2018c).
Assessment type	Survey trends-based assessment (ICES, 2019b).
Input data	PELACUS (subdivision 9.a North ) and PELAGO (subdivisions 9.a Central–North, Central–South) acoustic spring survey indices.
Discards and bycatch	Discard estimates are available for some fisheries since 2014 and are considered negligible.
Indicators	None.
Other information	A recruitment index from an autumn survey (JUVESAR) is under development. The stock was benchmarked in 2018 (ICES, 2018b).
Working group	Working Group on Southern Horse mackerel, Anchovy and Sardine (WGHANSA)

**Table 5.2** Anchovy in the Division 9.a. **Southern component**. Basis of the assessment and advice.

ICES stock data category	3 (ICES, 2018c).
Assessment type	Model trend-based assessment, Gadget (ICES, 2019b) that uses catches in the model and in the forecast.
Input data	Commercial landings, ages and length frequencies from landing and survey sampling. Survey indices for subdivision 9.a South: PELAGO and ECOCÁDIZ.
Discards and bycatch	Discard estimates are available for some fisheries since 2014. Discards from purse-seiners are negligible, most of the discards are reported for Spanish bottom trawlers.
Indicators	None.
Other information	A recruitment index from an autumn survey (ECOCADIZ-RECLUTAS) and a SSB index from a DEPM survey (BOCADEVA) are under development. The stock was benchmarked in 2018 (ICES, 2018b).
Working group	Working Group on Southern Horse mackerel, Anchovy and Sardine (WGHANSA)

## Information from stakeholders

There is no additional information available.

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

**Table 6** Anchovy in Division 9.a. ICES advice, the agreed TAC, and official landings. All weights are in tonnes.

Year	ICES advice	Catch/landings corresponding to advice	Agreed TAC*	Official landings	ICES catches**
1987	Not assessed	-	4600	5516	n/a
1988	Not assessed	-	6000	4173	4721
1989	Not assessed	-	6000	5259	5944
1990	Not assessed	-	9000	2889	6487
1991	Not assessed	-	9000	3753	5922
1992	Not assessed	-	12000	2351	3166
1993	If required, precautionary TAC	-	12000	1130	1984
1994	If required, precautionary TAC	-	12000	1619	3388
1995	If required, precautionary TAC	-	12000	10106	12956
1996	If required, precautionary TAC	-	12000	6256	4595
1997	If required, TAC at pre-95 catch level	-	12000	4614	5295
1998	No advice		12000	8717	10962
1999	If required, TAC at pre-95 catch level	4600	13000	7486	7409
2000	Fishery less than pre-95 level and develop and implement management plan	4600	10000	2717	2502
2001	Average catch excl. 95 and 98	4900	10000	5907	9098
2002	Average catch excl. 95 and 98	4900	8000	5636	8806
2003	Average catch excl. 95, 98, and 01	4700	8000	6146	5269
2004	Average catch excl. 95, 98, 01, and 02	4700	8000	6644	5844
2005	Average catch excl. 95, 98, 01, and 02	4700	8000	4596	4515
2006	Average catch excl. 95, 98, 01, and 02	4700	8000	4131	4491
2007	Average catch 1988–2005 excl. 95, 98, 01, 02	4800	8000	6282	6454
2008	Average catch 1988–2006 excl. 95, 98, 01, 02	4800	8000	3244	3508
2009	Same advice as last year	4800	8000	2349	3013
2010	Same advice as last year	4800	8000	3291	3210
2011	See scenarios	-	7600	10134	10076
2012	Reduce catches	-	8600	5589	5589
2013	Historical fishery appears sustainable	-	8800	5632	5632
2014	Historical fishery appears sustainable	-	8800	7739	10332
2015	No catch advice	-	9700	9420	9597
2016	in-year-advice	≤ 15000	15000	13583	13740
2017	No catch advice	-	12500	13277	14705
2018	No catch advice	-	12500	13640	13732
2018–2019***	Precautionary approach	<b>Western component</b> ≤ 13308; <b>Southern component</b> ≤ 3760	17068	15435	15463
2019–2020***	Precautionary approach	<b>Western component</b> ≤ 2662 <b>Southern component</b> ≤ 6290	-		

\* TAC for subareas 9 and 10 and CECAF 34.1.1.

\*\* Catch estimates since 2014. Catches are estimated for Division 9.a. In previous years discarding is considered negligible and landings are assumed equal to catch.

\*\*\* Catch advice given for the **western and southern component** from 1 July in the year *y* to 30 June in the year *y*+1.

## History of the catch and landings

**Table 7.1** Anchovy in the Division 9.a. **Western component.** Catch distribution by fleet in 2018 (calendar year) as estimated by ICES.

Catch (2018)	Landings		Discards*
	99% purse-seiners	1% other gear types	
9233 tonnes	9233 tonnes		1 tonne

**Table 7.2** Anchovy in the Division 9.a. **Southern component.** Catch distribution by fleet in 2018 as estimated by ICES.

Catch (2018)	Landings		Discards*
	100% purse-seiners	0% other gear types	
4499 tonnes	4408 tonnes		91 tonnes

\* Discards from purse-seiners are negligible (1 tonne); most of the discards (90 tonnes) are reported for Spanish bottom trawlers.

**Table 8** Anchovy in Division 9.a. History of commercial catch and landings; both the official and ICES estimated values are presented by area for each country participating in the fishery. All weights are in tonnes.

Year	Official landings			ICES catch									
	Portugal	Spain	Total	Portugal*				Spain**			Total	Total	Total
	Total 9.a	Total 9.a	9.a	9.a C-N	9.a C-S	9.a S	Total	9.a N	9.a S	Total	West	South	9.a
1943	-	-	-	7121	355	2499	9975	-	-	-	-	-	-
1944	-	-	-	1220	55	5376	6651	-	-	-	-	-	-
1945	-	-	-	781	15	7983	8779	-	-	-	-	-	-
1946	-	-	-	0	335	5515	5850	-	-	-	-	-	-
1947	-	-	-	0	79	3313	3392	-	-	-	-	-	-
1948	-	-	-	0	75	4863	4938	-	-	-	-	-	-
1949	-	-	-	0	34	2684	2718	-	-	-	-	-	-
1950	4145	11645	15790	31	30	3316	3377	-	-	-	-	-	-
1951	4145	13784	17929	21	6	3567	3594	-	-	-	-	-	-
1952	3619	13243	16862	1537	1	2877	4415	-	-	-	-	-	-
1953	4656	17103	21759	1627	15	2710	4352	-	-	-	-	-	-
1954	1550	16959	18509	328	18	3573	3919	-	-	-	-	-	-
1955	5031	27290	32321	83	53	4387	4523	-	-	-	-	-	-
1956	5574	23699	29273	12	164	7722	7898	-	-	-	-	-	-
1957	7810	23921	31731	96	13	12501	12610	-	-	-	-	-	-
1958	13562	28807	42369	1858	63	1109	3030	-	-	-	-	-	-
1959	3132	22808	25940	12	1	3775	3788	-	-	-	-	-	-
1960	6815	32992	39807	990	129	8384	9503	-	-	-	-	-	-
1961	9890	30098	39988	1351	81	1060	2492	-	-	-	-	-	-
1962	3557	37718	41275	542	137	3767	4446	-	-	-	-	-	-
1963	4638	22493	27131	140	9	5565	5714	-	-	-	-	-	-
1964	5714	27337	33051	0	0	4118	4118	-	-	-	-	-	-
1965	7610	44581	52191	7	0	4452	4460	-	-	-	-	-	-
1966	4461	41226	45687	23	35	4402	4460	-	-	-	-	-	-
1967	3824	36754	40578	153	34	3631	3818	-	-	-	-	-	-
1968	1161	14078	15239	518	5	447	970	-	-	-	-	-	-
1969	1364	12636	14000	782	10	582	1375	-	-	-	-	-	-
1970	1193	23127	24320	323	0	839	1162	-	-	-	-	-	-
1971	0	91	91	257	2	67	326	-	-	-	-	-	-
1972	0	1563	1563	-	-	-	-	-	-	-	-	-	-
1973	126	2458	2584	6	0	120	126	-	-	-	-	-	-
1974	437	2845	3282	113	1	124	238	-	-	-	-	-	-
1975	372	3114	3486	8	24	340	372	-	-	-	-	-	-
1976	88	8703	8791	32	38	18	88	-	-	-	-	-	-
1977	3261	11306	14567	3027	1	233	3261	-	-	-	-	-	-
1978	1022	9023	10045	640	17	354	1011	-	-	-	-	-	-
1979	790	20879	21669	194	8	453	655	-	-	-	-	-	-
1980	994	994	1988	21	24	935	980	-	-	-	-	-	-
1981	1370	1370	2740	426	117	435	978	-	-	-	-	-	-
1982	699	715	1414	48	96	512	656	-	-	-	-	-	-

Year	Official landings			ICES catch									
	Portugal	Spain	Total	Portugal*				Spain**			Total	Total	Total
	Total 9.a	Total 9.a	9.a	9.a C-N	9.a C-S	9.a S	Total	9.a N	9.a S	Total	West	South	9.a
1983	1015	1115	2130	283	58	332	673	-	-	-		-	-
1984	461	463	924	214	94	84	392	-	-	-		-	-
1985	2435	2487	4922	1893	146	83	2122	-	-	-		-	-
1986	2152	3223	5375	1828	229	96	2153	-	-	-		-	-
1987	1621	3895	5516	1126	81	414	1621	-	-	-		-	-
1988	892	3281	4173	383	139	222	744	-	4263	4263		4306	4721
1989	824	4435	5259	646	141	36	823	118	5330	5448	905	5352	5944
1990	644	2245	2889	431	4	110	545	220	5726	5946	655	5750	6487
1991	222	3531	3753	187	3	22	212	15	5697	5712	205	5717	5922
1992	138	2213	2351	136	1	2	139	33	2995	3028	170	2995	3166
1993	28	1102	1130	22	1	0	23	1	1960	1961	24	1960	1984
1994	236	1383	1619	236	8	0	244	117	3035	3152	361	3035	3388
1995	2530	7576	10106	2521	9	0	2530	5329	571	5900	7859	571	12956
1996	2775	3481	6256	2711	13	51	2775	44	1780	1824	2768	1831	4595
1997	632	3982	4614	610	8	14	632	63	4600	4664	681	4613	5295
1998	1613	7104	8717	894	153	610	1657	371	8977	9349	1418	9587	11005
1999	1374	6112	7486	957	96	355	1408	413	5587	6000	1466	5942	7409
2000	265	2452	2717	71	61	178	310	10	2182	2191	142	2360	2502
2001	748	5159	5907	397	19	439	855	27	8216	8244	443	8655	9098
2002	916	4720	5636	433	90	393	915	21	7870	7891	544	8262	8806
2003	519	5627	6146	211	67	200	478	23	4768	4791	301	4968	5269
2004	663	5981	6644	83	139	434	657	4	5183	5187	226	5617	5844
2005	129	4467	4596	82	6	38	126	4	4385	4389	92	4423	4515
2006	111	4020	4131	79	15	14	108	15	4368	4383	109	4381	4491
2007	871	5411	6282	833	7	34	874	4	5576	5580	844	5610	6454
2008	335	2909	3244	211	87	37	335	5	3168	3173	303	3204	3508
2009	72	2277	2349	35	5	32	72	19	2922	2941	59	2954	3013
2010	130	3161	3291	100	2	28	130	179	2901	3080	281	2929	3210
2011	3318	6816	10134	3239	1	78	3318	541	6216	6758	378	6294	10076
2012	796	4793	5589	521	220	56	796	39	4754	4793	780	4810	5589
2013	391	5241	5632	192	131	67	391	69	5172	5241	392	5240	5632
2014	818	6921	7739	678	21	118	818	581	8933	9515	1280	9051	10332
2015	2546	6874	9420	2533	10	2	2546	173	6878	7051	2716	6880	9597
2016	6937	6647	13583	6908	10	19	6937	222	6581	6803	7140	6599	13740
2017	9051	4226	13277	8854	170	26	9051	1069	4585	5654	10094	4611	14705
2018	8306	5334	13640	7871	370	65	8306	992	4433	5426	9233	4499	13732
2018–2019***	11664	3726	15391	11487	125	52	11664	909*	2818	3726	12521	2870	15391

( - ) Not available.

( 0 ) Less than 1 tonne.

\*Discarding is considered negligible and discards are not included.

\*\*Catch estimates available since 2014. In previous years discarding is considered negligible and landings are assumed equal to catch.

\*\*\* Catches from 1 July to 30 June in the following year to match the period of advice. Catch estimates of the first semester of 2019 are provisional. Discards not included.

\* Version 2: number updated



## Summary of the assessment

**Table 9.a** Anchovy in Division 9.a. **Western component.** Summary of the stock assessment. Weights are in tonnes. Years correspond to the management period, i.e. the period from 1 July to 30 June in the following year.

Year	Survey index 9.aW	Harvest rates 9.aW	Landings 9.aW	Discards 9.aW
1989/1990			803	
1990/1991			531	
1991/1992			208	
1992/1993			143	
1993/1994			14	
1994/1995			2956	
1995/1996			6803	
1996/1997			1456	
1997/1998			1420	
1998/1999			696	
1999/2000	596	2.23	1331	
2000/2001	0		111	
2001/2002	368	1.29	474	
2002/2003	1542	0.34	523	
2003/2004	112	2.98	333	
2004/2005	0		173	
2005/2006	1062	0.106	113	
2006/2007	0		198	
2007/2008	1945	0.44	862	
2008/2009	5811	0.024	142	
2009/2010	2115	0.031	66	
2010/2011	1230	0.43	529	
2011/2012	28558	0.143	4097	
2012/2013			356	
2013/2014	4284	0.073	311	
2014/2015	1947	1.304	2538	
2015/2016	8237	0.215	1774	0.152
2016/2015	38507	0.23	8874	6.5
2017/2018	19047	0.582	11090	0
2018/2019	65097	0.192	12521	1
2019/2020	4129			

**Table 9.b** Anchovy in Division 9.a. **Southern component.** Summary of the stock assessment. Weights are in tonnes. Years correspond to the management period, i.e. the period from 1 July to 30 June in the following year.

Year	Relative SSB 9.aS	Relative fishing mortality 9.aS (ages 0–3)	Landings 9.aS	Discards 9.aS
1989/1990	1.13	0.74	5319	
1990/1991	1.42	2.0	6690	
1991/1992	0.78	0.82	3469	
1992/1993	0.76	0.52	2191	
1993/1994	0.79	1.35	3017	
1994/1995	0.50	0.124	556	
1995/1996	1.21	0.24	1154	
1996/1997	2.3	1.14	3001	
1997/1998	2.1	1.32	6552	
1998/1999	1.95	2.0	9259	
1999/2000	0.96	0.84	3387	
2000/2001	1.23	0.80	5546	
2001/2002	1.71	1.24	9094	
2002/2003	1.39	1.00	7081	
2003/2004	0.76	0.99	4742	
2004/2005	0.58	1.34	5871	
2005/2006	0.54	0.61	4744	
2006/2007	1.17	0.54	4267	
2007/2008	1.51	0.65	3517	
2008/2009	0.81	1.12	3300	
2009/2010	0.34	1.49	2917	
2010/2011	0.31	0.92	4821	
2011/2012	0.71	1.01	6215	
2012/2013	0.56	0.66	3518	
2013/2014	1.18	1.39	8267	
2014/2015	0.97	1.27	7634	167.023
2015/2016	0.54	1.07	6674	93.231
2016/2015	0.54	1.42	6294	181.573
2017/2018	0.37	0.87	3788	186
2018/2019	1.02	0.45	3249*	28**
2019/2020	0.97			

\* Preliminary. 37% of the January to May official landings were added to account for catches in June 2019 not yet reported.

\*\* Corresponds to the second semester of 2018.

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