

## EU request to ICES on in-year advice for Anchovy (*Engraulis encrasicolus*) in Division 9.a (Atlantic Iberian waters)

### Advice summary

ICES advises that catches of 15 000 tonnes in 2017, if taken entirely in the southern part of Division 9.a, can not be considered sustainable. ICES does not have sufficient information to be able to advise if this level of catch would be sustainable for the entire Division 9.a.

ICES is not in a position to advise on a catch level in 2017 that is deemed to be sustainable in accordance with ICES precautionary approach for category 3 stocks for short-lived species.

### Request

The present advice is in response to the following request from the European Commission:

*ICES is requested:*

- a) *To advise on whether catches of 15,000 t in 2017 are also deemed sustainable, in accordance with ICES precautionary approach for data-limited (category 3) stocks.*
- b) *To advise on the catch level in 2017 that is deemed sustainable, in accordance with ICES precautionary approach for data-limited (category 3) stocks.*

*Background information included in the request: In its advice for anchovy in Division IXa (Atlantic Iberian waters) of 14 July 2016, ICES indicated historical high levels of biomass but did not provide catch advice for 2017. On 21 October 2016, ICES advised that catches of 15 000 t in 2016 could be considered sustainable. In 2016 the anchovy TAC in area IX, X and Union waters of CECAF 34.1.1 was set at 10,622 t and in 2017 it has been set at 12 500 t.*

### Elaboration on the advice

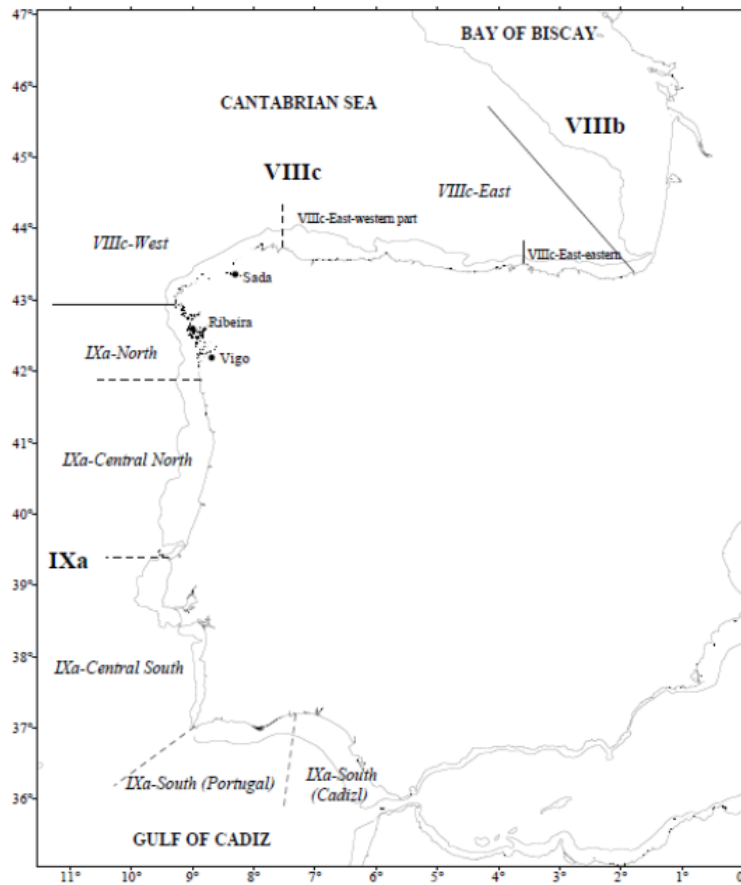
This advice is in response to the EU special request. The latest assessment for this stock is available at ICES (2017a).

Most of the fishery for this anchovy stock takes place in Subdivision 9.a South (Figure 1). The fleets in the northern and western parts of Division 9.a (targeting sardine) occasionally target anchovy when abundant. This occurred in 1995, 2011, 2014, 2015, and 2016. A biomass stock size indicator in 2017 is only available for the southern component and is below the time-series average. In 2017 there is an increase of biomass in 9.a North, which is a small part of the western area. Estimates for the rest of the western area are not available.

The harvest rates for anchovy in the southern part of Division 9.a, calculated using the biomass indicator and observed catches, have fluctuated between 0.10 and 0.49 during 1999–2016, with a mean of 0.26 (Table 1); this is assuming a catchability of 1 for the surveys. A sensitivity analysis over a range of potential survey catchabilities (0.6 to 1.6) suggests that these harvest rates lead to spawning per recruit (SPR) levels above 50%, which is considered a sustainable level of exploitation.

Catches of 15 000 t in 2017, if entirely taken in 9.a South, would not be considered sustainable because they would imply a harvest rate in this area far above the ones observed in the past and an SPR value below 50%. Since ICES does not have a biomass index for the rest of Division 9.a, it is not possible to determine if catches of 15 000 t in 2017 in the entire Division 9.a would be sustainable.

There is a need to further develop the methodologies for providing catch advice for short-lived species in category 3 (ICES, 2016) before the framework can be used as the basis for in-year advice for anchovy in Division 9.a. ICES is therefore not in position to provide the advice as stated in point b in the Request section above.



**Figure 1** Anchovy in Division 9.a. ICES divisions in southern Europe. The terminology “9.a West” refers to the geographical area covering from Subdivision 9.a North to Subdivision 9.a Central–South, whereas “9.a South” refers to the rest of Division 9.a.

**Table 1** Anchovy in Division 9.a. Harvest rates for anchovy in 9.a South, with catchability assumed equal to 1 for all surveys. Stock sizes are calculated as the average of the PELAGO, ECOCADIZ, and BOCADEVA survey values.

Year	Stock size indicator in 9.a South	Landings in 9.a South	Discards in 9.a South	Harvest rate in 9.a South (q = 1)
1989		5352		
1990		5750		
1991		5717		
1992		2995		
1993		1960		
1994		3035		
1995		571		
1996		1831		
1997		4613		
1998		9543		
1999	24763	5942		0.24
2000		2360		
2001	24913	8655		0.35
2002	21335	8262		0.39
2003	24565	4968		0.20
2004	18177	5617		0.31
2005	14339	4423		0.31
2006	30301	4381		0.145
2007	33451	5610		0.168
2008	32845	3204		0.098
2009	23163	2954		0.128
2010	9867	2929		0.30
2011	16379	6294		0.38
2012		4810		
2013	10593	5240		0.49
2014	29902	8921	130	0.30
2015	27203	6704	176	0.25
2016	49764	6443	156	0.133
2017	13797 *			

\* Provisional estimate (computed with the PELAGO survey only). Averaging needed with the ECOCADIZ estimate (survey in late July).

### Sources and references

ICES. 2016. General context of ICES advice. *In* Report of the ICES Advisory Committee, 2016. ICES Advice 2016, Book 1, Section 1.2.

ICES. 2017a. Anchovy (*Engraulis encrasicolus*) in Division 9.a (Atlantic Iberian waters). *In* Report of the ICES Advisory Committee, 2017. ICES Advice 2017, ane.27.9a.

ICES. 2017b. Working Group on Southern Horse Mackerel, Anchovy and Sardine (WGHANSA), 24–29 June 2017, Bilbao, Spain. ICES CM 2017/ACOM:17.