

 **Opinion no. 75: Proposal for Bay of Biscay sole exploitation rules**

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Context

The Bay of Biscay sole (sole Villab) exploitation method is currently governed by a multiannual plan (regulation EU 388/2006), designed to ensure the stock recovers with a biomass objective of 13,000t. According to the most recent ICES opinion, this objective was achieved in 2010, and it is now necessary according to the provisions of this plan: a) to define a long-term fishing mortality target, b) to define the rate of reduction to apply to achieve this objective.

In 2010 the members of the SWW RAC proposed¹ an approach for setting the fishing possibilities of this stock, based on the application of Fixed Multiannual TACs (FMTs). The members of this RAC have since repeated their wish to see this approach implemented, maximising visibility for all stakeholders, whilst authorising a gradual reduction of the compatible fishing mortality rates while respecting the international commitments². Work carried out by STECF in 2010 demonstrated that the application of a multiannual TAC of 4,250 t from 2011 would have allowed the exploitation of this stock with fishing mortality equal to Fmsy in 2017³.

SWW RAC's members once again wish to express their dismay at the current institutional conflict, preventing the adoption of long-term management plans including the rules for exploitation. They also wish to reaffirm their attachment to long-term management and to the expected benefits of this type of management, and they would also like to see the adoption of an FMT approach for Bay of Biscay sole. They consider that it would be extremely useful if cases could be referred to the ICES and STECF to enable them to examine the different exploitation rules aimed at achieving MSY in a multiannual perspective. Finally, they underline the fact that it is currently impossible to adopt management plans could not on its own be responsible for the absence of long term management in the setting of fishing possibilities, in the same way as for Bay of Biscay anchovies or horse mackerel.

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¹ Opinion 28 of March 2010

² Opinion on fishing possibilities: Opinion 28 of June 2010, Opinion 48 of July 2011, Opinion 68 of November 2012

³ Impact Assessment of Bay of Biscay sole (STECF-11-01)



Proposals for sole VIII exploitation rules

Three types of option could be tested. SWW RAC stresses its preference for the option of a fixed multiannual TAC:

- Fixed TAC until fishing mortality corresponds to F_{MSY} ;
- Gradual reduction of fishing mortality to achieve F_{MSY} ;
- Rules in the absence of an analytic assessment of the stock.

Fixed TAC

1. Rules for the setting of the Bay of Biscay sole stock TAC are set so as to achieve the objective of F_{MSY} by 2020, i.e. $F = 0.26$;
2. The TAC is set at a constant value until fishing mortality is equal to F_{MSY} . Different levels of TAC are tested within the 3500 and 4500 tonnes band (every 100 tonnes);
3. When fishing mortality is equal to F_{MSY} , the TAC is set so as to maintain fishing mortality at the level of F_{MSY} (0.26);
4. When the rule of paragraph 3 applies, the TAC that has been set for a year must not correspond to a variation of 10% less or 10% more than the TAC of the previous year;
5. By derogation of paragraph 2, if fishing mortality increases in the two years preceding the opinion on the state of the stock, the TAC is reduced by 10% compared with that of the previous year. The level of the TAC determined in this way becomes the reference for the Fixed TAC for the application of the rule of paragraph 2;
6. If the spawning biomass is assessed as being lower than the limit biomass ($B_{lim} = 13,000$ tonnes), the TAC is set at a level corresponding to F_{MSY} .

Gradual reduction of fishing mortality:

1. The Bay of Biscay sole stock TAC is determined so as to allow a gradual reduction in fishing mortality F (for the age classes under consideration) and this is the case until the target F_{MSY} is attained (0.26) in the period 2015-2020 (a simulation is carried out for each of the years);
2. When F is equal to F_{MSY} , the TAC is set in agreement with F_{MSY} ;
3. The TAC set for a year must not correspond to a variation of 15% less or 15% more than the TAC of the previous year;
4. If the spawning stock biomass (SSB) is assessed at a level less than the limit Biomass (B_{lim}), the rules of paragraph 1, 2 and 3 do not apply and the TAC is set so that F is equal to F_{MSY} .

Absence of validated analytic assessment

1. If the analytic assessment of the Bay of Biscay sole stock is not available or has not been validated by ICES and/or STECF, the TAC is set on the basis of the change in the abundance indices;
2. On the basis of the abundance index resulting from the scientific campaign ORHAGO, the TAC is increased by 15% if the average abundance of the stock in the two previous years is greater than or equal to 20% more than the average abundance in the three previous years.



The TAC is on the contrary reduced by 15%, if the index indicates a reduction in abundance of 20% or more according to the same criteria.

SW RAC recommendations to the European Commission

- Make a request to ICES setting out all or part of the rules of exploitation proposed by SWW RAC, and taking account of the different points mentioned.
- After consulting the stakeholders and particularly SWW RAC, send the rules to STECF in order to assess them as regards the socio-economic indicators.



Annexe – example of other management options which could be tested within the framework of STECF

Based on the most recent assessment of the sole VIIIab stock, STECF are requested to make an assessment of the following rules of exploitation specifying for each of them: the average fishing mortality in the period [2013-2020], the average TAC level, the biomass level in 2020, the average interannual percentage variation of the TAC. After analysis and selection of the 3 exploitation rules judged to be the most relevant by all the stakeholders, STECF will be asked to assess these 3 rules with respect to the socio-economic indicators.

Potential future exploitation rules:

- 1- Application of Fmsy from 2014 to 2020
- 2- Application of the transition approach updated to the MSY until 2015, then Fmsy from 2015 to 2020.
- 3- Application of the transition approach updated to the MSY in 2016, 2017 ..2020 then application of Fmsy if necessary.
- 4- Fixed multiannual TAC: update the forecasts for the application of FMT, for the [3500-4500t] band in 100t intervals, evaluating the probability that F will reach Fmsy during the period [2015-2020]. For all the FMT levels, it will be necessary to build in the following safeguard mechanisms: if fishing mortality increases for 2 consecutive years, reduction of the TAC by 10%. Under this exploitation rule, when fishing mortality reaches Fmsy, the TAC will then be set such that $F_{y+1} = F_{msy}$; within the limit of an interannual TAC variation of +10/-10%.
- 5- Application of an exploitation rule of the "anchovy" type:
If $SSB < X1$: $F_{y+1} = 0.26 * K$
If $X1 < SSB < X2$: TAC = [3,800 – 4,200t]
IF $SSB > X2$: $F_{y+1} = 0.26$
[by determining points X1 and X2, the value of the tonnage threshold to be applied between these 2 points, and the value of slope K when $SSB < X1$ authorising the highest levels of average catches associated with average interannual variability of less than 15%.]
- 6- Interannual smoothing for options 1.2 and 3: set the TAC for these 3 options at half the value theoretically defined by the application of these options and the value of the TAC of the year in progress
- 7- Gradual reduction of F (10%; 7.5% and 5%) until FMSY is reached, then Fmsy up to 2020 if necessary



Details to be taken into account:

For all the proposals of exploitation rules where it seems relevant, the ICES may propose control mechanisms for cases where the biomass is assessed as being lower than the Bmsy-trigger.

The forecasts must also wherever possible take account of carried over interannual possibilities related to the EU regulation 847/1996.

The modelling must be carried out with and without a mechanism for the limitation of interannual TAC variability (+15/-15%).

Finally, in the event that the analytic assessment of the Bay of Biscay sole stock is not available or has not been validated by ICES and/or STECF, ICES is asked to analyse a method for setting the TAC based on the changes in the abundance indices taken from ORHAGO, in the same way as the following proposal:

- If the average abundance of the stock in the two previous years is greater than or equal to 20% more than the average abundance in the three previous years, the TAC should be increased by 15%
- If the average abundance of the stock in the two previous years is lower than or equal to 20% more than the average abundance in the three previous years, the TAC should be decreased by 15%
- In all the other configurations no change should be made

Origin of the opinion : SWW RAC Sole ad-hoc group

Contributions & drafting: CNPMEM, ANOP