

Annex 1 for Ex Com 6th November 2018

Pages 1-3 were sent to Ex Com 3rd September 2018 and no comments received

Rebuilding plan for Western Baltic Spring Spawning Herring

Draft provided by Claus Reedz Sparrevohn, Denmark Pelagic Producers Organisation

Introduction

The ICES advice for Western Baltic Spring Spawning herring (WBSS) in 2019 is for a zero TAC.¹ The rationale behind this advice is that "*There are no catch scenarios that will rebuild the stock above Blim by 2020. ICES advises zero catch under such circumstances*". This means that the standard interpretation of the ICES advice rule is that a zero advice will be issued if the stock cannot be rebuilt above Blim within a period of one year. The standard ICES way of providing advice is used when there is not an agreed and evaluated management or rebuilding or recovery plan in place. This situation applies to WBSS herring, since Norway has not endorsed the Baltic Sea Multiannual Plan (MAP).

This document sets out to provide a first step for a BSAC Focus Group to deal with remedial measures for the western herring stock. The establishment of such a Focus Group was decided by the BSAC at its Executive Committee meeting on 28th June 2018. The task of the Focus Group will be to formulate a rebuilding strategy for WBSS herring, basically by applying alternative Harvest Control Rules (HCR).

There is an infinite number of harvest control rules, each of which will influence the rebuilding trajectory differently. One extreme option is the one used by ICES, whereby catches are set at zero. Such a strategy will lead to the quickest rebuilding, but with the socio-economic consequence that the fishery and the adjacent industry relying on the fishery will be seriously affected. Another extreme option is to continue the fishery as if nothing has happened, a strategy which will lead to the industry being less affected, but also involving a longer rebuilding phase, or potentially, if the fishing pressure stays high, to no rebuilding at all.

Method

In this document it is proposed to look at two alternative rebuilding HCRs for WBSS herring.

¹ <http://ices.dk/sites/pub/Publication%20Reports/Advice/2018/2018/her.27.20-24.pdf>

One variant is to apply a strategy when SSB is below Blim, and fishing mortality is strongly reduced. This is achieved by introducing a third biomass reference point (Blim2), which is the biomass at which fishing mortality will be set to zero (Fig. 1).

All other reference points for WBSS herring (i.e. F_{msy} , Blim, MSY Btrigger) will stay the same, whilst the evaluation will only look at different choices for Blim2. The most extreme cases are $Blim2 = Blim$, which means that F is set to zero when the stock is below Blim and $Blim2 = 0$, which means a linear reduction of F from F at Blim down to the origin.

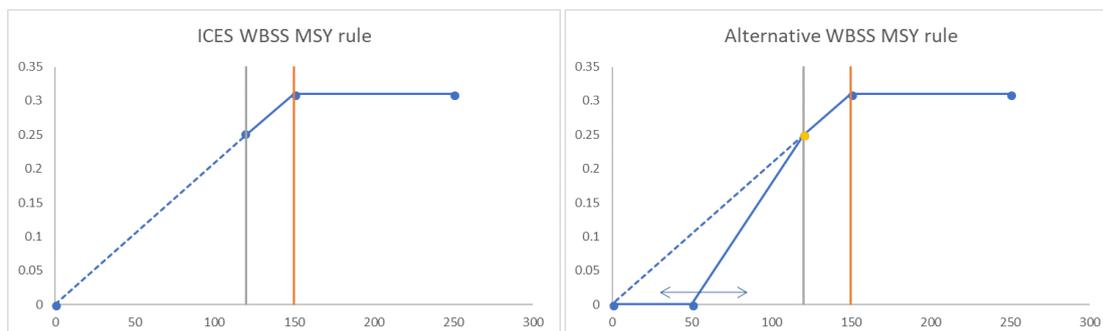


Fig. 1. Illustration of the relationship between SSB (on the x-axis) and the resulting fishing mortality (on the y-axis). The red line shows Blim and the grey line the additional reference point (Blim2), which triggers a zero advice.

Another variant is to implement a minimum TAC which will be set when SSB is in-between a predefined band around Blim (Fig. 2). Applying such a strategy will result in a lower catch than the advised catch under a standard ICES method when approaching SSB from the left. On the other hand, the catch will stay at a minimum level, also when SSB falls below Blim, and it will stay at that minimum level until SSB is half of Blim (or alternatively some other value than half).

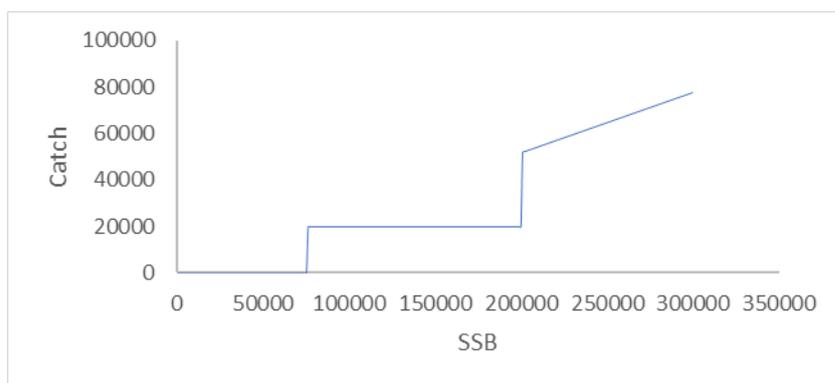


Fig. 2. Illustration of the relationship between SSB and the resulting catch advice. Basically, the idea is to impose a constant catch strategy when stock size is around Blim, but also to advise a zero catch when/if SSB continues to decrease.

It is proposed to evaluate these two alternative HCRs in two different ways. One way is to use an MSE (management strategy evaluation) like approach. Such a method is appropriate when a medium-term to long-term timeline is evaluated. In the case of a short-term evaluation, it is suggested to apply the forecast used by ICES and expand that to cover a period up until 2025.

Comments from Søren Anker Pedersen, Marine Ingredients

Firstly, Marine Ingredients Denmark fully supports and agrees to the **BSAC recommendations for the fishery in the Baltic Sea in 2019, including Herring SDs 22-24.**

Secondly, I have read the attached "Rebuilding plan for Western Baltic Spring Spawning Herring" by Claus Sparrevohn and I have some comments and suggestions.

What I am missing from the rebuilding plan is to include a plan for investigating the main problem for the WBH stock - the low and reducing recruitment to the stock and the fishery over the years, and especially after 2013. How can you talk about rebuilding without mentioning reproduction and recruitment?

The changes in the stock are mainly caused by changed and lower recruitment and not because of the fishery. What are the causes of the reduced recruitment? What does ICES say? And what is ICES (Germany) doing to investigate it? It would be good to have a review of what has been done to investigate the lacking recruitment and what should/could be done to improve and "rebuild" recruitment.

There seems to be a need for more research on the stock-recruitment relationship for WBH (Herring SDs 22-24). Simply to increase SSB Blim from 90,000 t to 120,000 t as done by ICES does not make sense to me.

Secretariat added:

Information on a Benchmark on pelagic stocks WKPELA that took place 12th-16th February 2018. One of the stocks deal with was herring SDs 20-24. No one from BSAC attended.

Benchmark report:

<http://ices.dk/sites/pub/Publication%20Reports/Expert%20Group%20Report/acom/2018/WKPELA/WKPELA%202018%20Report.pdf>

Focus Group Rebuilding plan for Western Baltic Spring Spawning Herring (WBSS)

Report from the meeting by Skype/Webex Friday 28th September 2018, 10.00 CET

Taking part: Claus Reedz Sparrevohn Denmark Pelagic Producers Organisation, Mart Undrest, Estonian Fishermen's Association, BSAC Secretariat (Sally Clink+Ewa Milewska).

Apologies: Søren Anker Pedersen, Marine Ingredients Denmark and Michael Andersen, Danish Fishermen PO.

Introduction

Claus Reedz Sparrevohn stated that the situation with respect to the western Baltic herring has now almost reached the decision-making stage for the TACs and quotas for 2019, so the Focus Group has to take a more long-term approach. This requires being active in reformulating a rebuilding plan for the WBSS. It is to be expected that the stock will remain under B_{lim} for a number of years from now on.

[Mart Undrest and Claus Reedz Sparrevohn could only speculate over what the fisheries interests thought about the Commission proposal for a TAC of 6.404 tonnes, or whether they would try to achieve a TAC value of the MAP of 26 849 tonnes.]

Claus Reedz Sparrevohn recalled that the ACOM outgoing chair Eskild Kirkegaard had informed that the Baltic MAP was designed and tested to be able to provide catch advice when stocks are below B_{lim} . The BSAC is not in consensus on following the Baltic MAP for western Baltic herring (the BSAC recommendation was 13.425 tonnes, and the OIG recommended a zero TAC²), and it might not be evaluated as being precautionary. If ICES says that the plan is precautionary and fit for purpose, there might not be a need to do any work on this.

Agreed action: contact ICES and ask if there is an evaluation of the Baltic MAP and can it be made available.

The meeting agreed to continue discussions, assuming that ICES does not give a positive answer on the MAP. The meeting then dealt with the following questions:

1) Is the Focus Group in place and are all that want to participate aware of it?

Claus Reedz Sparrevohn asked if the BSAC Focus Group is formally in place and whether there has been any contact with the other interest group. The Secretariat informed that the ExCom had received a copy of the draft rebuilding plan and comments had been invited [none received].

² <http://www.bsac.dk/BSAC-Resources/BSAC-Statements-and-recommendations/BSAC-recommendations-for-the-fishery-in-2019>

Information on the Focus Group is on the agenda for the ExCom on 6th November.³ Mart Undrest agreed to present the point at the ExCom and allow for half an hour of discussion and invite participation of the other interest group. Information on the evaluation of the MAP is awaited.

2) Where do we go from now?

- a. Formulating a rebuilding plan, content, HCR, other measures.
- b. Do we aim at evaluating it ourselves or should we hire a consultancy company? [NB: check against budget]

3) Information on the work the PELAC has done in connection to a rebuilding plan for Western Horse mackerel

The meeting agreed that there is no need to start from scratch on this work. Claus Reedz Sparrevohn informed of the work done within the PELAC (Pelagic AC) on the western horse mackerel, and which is being carried out with the consultancy with Landmark Fisheries.

Claus Reedz Sparrevohn informed that carrying out this work with designing plans for specific species has been successful, for example with boarfish. For the horse mackerel, the PELAC has been delivering a management plan and evaluation.

The build-up of the process is similar, but the difference is that the WBSS is under B_{lim}.

It was discussed whether to hire a consultancy, and for that, the need to look at the BSAC budget was highlighted.

Claus Reedz Sparrevohn informed he will be talking to the consultancy Landmark, and he will check on costs. Only the industry is paying for the costs of the work with western horse mackerel.

4) Aligning the work being done on Western horse mackerel with the work that might be initiated on WBSS

To be considered at a later stage.

³ [http://www.bsac.dk/Meetings/BSAC-meetings/BSAC-Executive-Committee-meeting-\(3\)](http://www.bsac.dk/Meetings/BSAC-meetings/BSAC-Executive-Committee-meeting-(3))

Update after e mail contact to ICES

ICES Secretariat (Ruth Fernández García, Advisory Programme Professional Officer) has informed that basically, the Baltic MAP can be considered precautionary because the reference points used in it for the different stocks (and the Fmsy ranges = Fmsy uppers and lowers for the stocks) were considered precautionary by ICES BEFORE they were incorporated in the MAP.⁴

She added that some stocks do not have Fmsy or Fmsy ranges (e.g. eastern Baltic cod). Moreover, when the MAP plan was agreed, there were two separate stocks for herring SD 30 and herring SD 31 and now there is a single stock for both subdivisions. There are also new Fmsy values and new ranges for herring in SDs 30+31, but those are not included in the existing Baltic MAP.

She then highlighted the revised reference points for herring in SDs 22-24 in 2018, so the ones in the Baltic MAP are not the most updated ones. This stock is dealt with by the ICES Herring Advice working group (HAWG).

For WBSS:

Existing MAP biomass reference points: Blim 90 000 tonnes, MSY Btrigger 110 000 tonnes
Updated biomass reference points: Blim 120 000, 150 000 tonnes (Ref: Report of the Benchmark Workshop on Pelagic Stocks (WKPELA 2018), 12–16 February 2018 ICES HQ, Copenhagen, Denmark.)⁵

On page 3 Table 4 of the 2018 ICES advice for Herring in subdivisions 20–24, spring spawners (31st May 2018), the basis of the advice states:

An EU Baltic Sea Multiannual Plan (MAP; EU, 2016) was established in 2016 and applies to herring in subdivisions 22–24, which is part of the distribution area of the WBSS stock. The MAP is in the process of being updated (EC, 2018); the main change is the reference to latest reference points rather than to a fixed list. This plan is not adopted by Norway and, thus, not used as basis of the advice for this shared stock.⁶

The proposal to move from a fixed list of reference points to using latest available reference points is contained in the draft proposal for a MAP for North western waters,⁷ and far from being adopted, so not relevant here.

Norway does not acknowledge the Baltic MAP, as referred to in the report from the benchmark workshop, see footnote 5.

⁴ EU request to ICES to provide Fmsy ranges for selected North Sea and Baltic Sea Stocks (version 4, 30th June 2015):

http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2015/Special_Requests/EU_FMSY_ranges_for_selected_NS_and_BS_stocks.pdf

⁵

https://www.researchgate.net/publication/326573496_Report_of_the_Benchmark_Workshop_on_Pelagic_Stocks_WKPELA_2018_12-16_February_2018_ICES_HQ_Copenhagen_Denmark

⁶ <http://www.ices.dk/sites/pub/Publication%20Reports/Advice/2018/2018/her.27.20-24.pdf>

⁷ Proposal, see Article 17:

[https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018PC0149R\(01\)&from=EN](https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52018PC0149R(01)&from=EN)