

11.2.2 EU request to ICES on the effect of increased quota flexibility in 2015–2016 on Baltic Sea herring and sprat

ICES response

The proposed flexibility for Baltic pelagic stocks would, if utilized, result in reduced F in 2015 and the transfer of fishing possibilities to 2016 will result in an increase in F in 2016 of a similar magnitude to the flexibility (approximately +20% or +30%) if these are fully utilized. Thus it is expected that F in 2015 will have a greater than 50% probability of being below F_{MSY} and F in 2016 will have a greater than 50% probability of being above F_{MSY} . It is expected that the mean F over the two years will be similar to the F that would result from 100% of each annual TAC being taken in its respective year and it is likely to have a slightly positive, but effectively negligible impact on precautionary biomass considerations defined by the probability of $SSB < B_{lim}$ during the two years.

Request

Background

To mitigate the effects of the Russian ban on the import of canned fisheries products, the European Commission has been asked to allow for an increase in the proportion the 2015 quotas of Baltic herring and Baltic sprat that can be carried over to 2016.

Request

ICES is asked, as a matter of urgency, to assess the level of risk to those stocks (in terms of the fishing mortality exceeding F_{MSY}), if the amount of the 2015 TAC that will not be fished in 2015 and may be carried over to 2016, is increased from the current limit of 10% to either (a) 20% or (b) 30%.

This arrangement is exceptional and would apply only for one year; i.e. from 2015 to 2016.

For the purpose of this calculation, ICES should assume that the long-term management arrangements currently in place regarding the fixing of TACs for these stocks will be adhered to unchanged in 2016.

Elaboration on the response

Currently ICES does not evaluate risk or probability of catch options resulting in F s that exceed F_{MSY} , or SSB less than B_{lim} ; rather ICES gives deterministic catch options and gives the most likely outcome in terms of values of F and SSB . ICES has examined the current estimated SSB and potential changes in SSB for the relevant sprat and herring stocks; these are not expected to be of any immediate concern. An examination of stock–recruitment plots supports the view that, for these stocks in their current state the flexibility of 20% or 30% banking of TAC in 2015, and borrowing of TAC in 2016, will not impact the expected mean recruitment for 2017. To evaluate the impact of changes in target F due to the suggested flexibility ICES examined MSY evaluations for Baltic herring and sprat stocks (ICES, 2015a), and concluded that the curves are reasonably flat, close to the values of F_{MSY} . Thus, a reduced yield followed by a balanced increase in yield is unlikely to substantively change the mean F over the period.

In the context of the request ICES makes the following observations:

- For the Baltic herring stocks the proposed flexibility would, if utilized, result in reduced F in 2015. The change in F will be of a similar order as the proposed level of flexibility of either –20% or –30%. The transfer of fishing possibilities to 2016 will result in an increase in F in 2016 of a similar magnitude (approximately +20% or +30%) if these are fully utilized. Thus it is expected that F in 2015 will have a greater than 50% probability of being below F_{MSY} and F in 2016 will have a greater than 50% probability of being above F_{MSY} . It is expected that the mean F over the two years will be similar to the F that would result from 100% of each annual TAC being taken in its respective year.

- There is concern that for Baltic sprat the catches are exceeding safe biological limits – F in 2014 was high, estimated to be above F_{lim} and biomass is declining, though still above $MSY_{B_{trigger}}$. The TAC in 2015 (calculated as EU + Russian autonomous quotas) is set 10% higher than ICES MSY advice (ICES, 2015b), which leads to a higher than 50% probability of $F > F_{MSY}$. Implementing the flexibility at 10% or greater and reducing the TAC in 2015 would likely reduce the probability of $F < F_{MSY}$ to more than 50%, but banking all of that reduction for 2016 and then taking it in 2016 will result in a much higher probability of exceeding F_{MSY} for Baltic sprat in 2016.
- For all stocks the proposed flexibility, if utilized, is expected to result in a slightly higher biomass on 1 January 2016 than would be expected from a complete taking of the TAC in 2015. In terms of biomass the flexibility described is likely to have a slightly positive, but effectively negligible impact on precautionary considerations defined by the probability of $SSB < B_{lim}$ during the two years.

ICES catch advice for 2016 given this year (2015) did not account for any banked TAC for these stocks that would be taken in 2015. The flexibility advice given here also assumes that no un-utilized 2014 TAC will be carried forward into 2016. Carrying forward a quota for a number of years and then taking the quota without explicitly accounting for this in a forecast may lead to a much higher F in that specific year than intended.

Suggestions

The advice on flexibility provided by ICES in 2014 (ICES, 2014) was given as a ‘one-time advice’ in response to the request that stated: “This arrangement is exceptional and would apply only for one year; i.e. from 2014 to 2015”. The present request contains a similar clause (see above) “This arrangement is exceptional and would apply only for one year; i.e. from 2015 to 2016.” While a continued flexibility of 10% is unlikely to be major concern, flexibilities of 20–30% carried forward over several years and not accounted for in the advice may be a problem if biomass declines close to $MSY_{B_{trigger}}$. If a requirement for flexibility is to continue at this level, ICES would need information on the magnitude of banked quota at the end of the year in which it has been banked as this information needs to be correctly included in the intermediate year assumptions ICES uses in its catch advice.

Sources and references

- ICES. 2014. EU request to ICES on the effect of increased quota flexibility for 2014 –2015 on pelagic stocks and Baltic salmon. *In* Report of the ICES Advisory Committee, 2014. ICES Advice 2014, Book 11, Section 11.2.1.2. 2 pp.
- ICES. 2015a. Report of the Joint ICES–MYFISH Workshop to consider the basis for FMSY ranges for all stocks (WKMSYREF3), 17–21 November 2014, Charlottenlund, Denmark. ICES CM 2014/ACOM:64. 156 pp.
- ICES. 2015b. Sprat (*Sprattus sprattus*) in Subdivisions 22–32 (Baltic Sea). *In* Report of the ICES Advisory Committee, 2015. ICES Advice 2015, Book 8, Section 8.3.18. 8 pp.