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REQUEST TO THE SCRS TO ESTABLISH A LENGTH-WEIGHT RELATIONSHIP (L-W) FOR FATTENED BLUEFIN TUNA

(Submitted by the EU)

The EU would like to submit the attached request to the SCRS (see **Appendix 1**) for comments by other CPCs and possible endorsement at the Annual Meeting.

During the presentation of the draft revision of Recommendation 19-04 at the Panel 2 meeting in March 2021, the EU raised the need for a specific algorithm for fattened fish to ensure accuracy of calculating the weight of bluefin tuna subject to carry over and to be able to calculate growth rates of fish from carryover cages, considering that the current algorithm, developed on the basis of wild fish before bluefin tuna is fattened in farms, is not accurate for those cases. The importance of developing this new algorithm was also highlighted at the 14th meeting of the IMM in June 2021.

At the Panel 2 meeting in September 2021, it was noted that the algorithm would need to be developed before the next fishing season to avoid difficulties. During this meeting the EU committed to prepare a request for submission to the SCRS.

Appendix 1

ESTABLISHMENT OF A LENGTH-WEIGHT RELATIONSHIP (L-W) FOR FATTENED BLUEFIN TUNA

The determination of weight of live bluefin tuna at the moment of caging is done by recording the caging operations with stereoscopic cameras and the application of a programme (Annex 9 Rec 19-04) by which a percentage (20%) of the caged individuals are measured.

The average length of the caged individuals is then transformed into a weight by applying a length-weight relationship (L-W) for wild fish, and estimate the weight at catch for quota uptake purposes.

Once the fish have been fattened for several months in a farm, the current length-weight relationship cannot be applied, as it does not take into account the increase in length and *weight under farming conditions*. It becomes then necessary to use a different algorithm to reflect the changes in the size-weight relationship experienced by the tuna when fattened.

Rec. 19-04 establishes several obligations for which an estimation of the weight of fattened bluefin tuna is needed and which cannot be implemented at the moment:

- Weight estimation of the BFT carried over (carry-over assessment);
- Weight at the time of caging at the farm of destination, of fattened BFT relocated from one farm to another (inter-farm transfers);
- Estimation of the growth rates and eventual estimation of total farming capacity, when cages for which carryover has taken place are involved.

Consequently, the SCRS should establish an average length-weight relationship, with its 95% confidence interval, *for live BFT fattened in farms*.

The algorithm will be used to transform the length into weight for individuals that have been fattened on the farm based on measurements taken by the stereoscopic camera on live tuna. It is therefore believed that the data on length measurements to be used for the development of the algorithm should be the straight fork (SFL) and the weight would be in round weight (RWT) of the harvested individuals after fattening.

This algorithm should at least take into account geographical specificities of the various farming areas, fattening practices and different fattening durations.

Ideally, this algorithm should be established in time for use at the end of next year's caging season, i.e. August 2022.