

## SHORT-TERM LIVE STORAGE OF BLUEFIN TUNA

*Concept paper presented by Norway*

### Background

During the Commission meeting in 2019, Norway presented a “Draft recommendation to amend Recommendation 18-02 on establishing a multi-annual management plan for bluefin tuna in the eastern Atlantic and the Mediterranean Sea”. The aim was to ensure that the recommendation covered the kind of scientific research that Norway considered conducting, namely, to explore the effect of short-term live storage in cages on meat quality. The bluefin tuna in Norwegian waters have a high quality of the meat. The challenge is to ensure that an even greater amount of the fish maintain the excellent quality after it has been caught. The Norwegian Ministry of Trade, Industry and Fisheries decided to prioritize research on this topic and to examine short-term live storage of bluefin tuna more closely. In addition to quality being a major aspect of short-term live storage of bluefin tuna, the ability to not overflow the market with bluefin tuna, but rather provide it with the amount needed, is of essential importance.

The ICCAT Commission did not deem it necessary to amend the Recommendation 18-02 in line with the Norwegian proposition in 2019, given that the fishery in question was related to research and within the Norwegian allocated quota. Norway was asked to provide information on the research in the annual fishing plan and to report to the Standing Committee for Research and Statistics (SCRS). In the fishing plan for 2020 and for 2021, Norway informed that a quota was allocated to a scientific pilot study aimed at possible future short-term live storage of bluefin tuna in cages in Norway. The results from the study were reported in 2020, and will be reported for 2021 to the SCRS.

Norway has an ambition of moving this concept forward. Short-term live storage of adult bluefin tuna (>100 kg) is as Norway understands it, a new concept within the ICCAT regulations of bluefin tuna. We do not have a definition of this concept in the current Recommendation, although it conceptually will contain links that are similar to the regulations on farming. The question is how we best can incorporate regulations concerning this concept into the bluefin tuna regulations.

### Short-term live storage concept

Numerous Atlantic bluefin tuna are annually migrating to and actively feeding in very productive Norwegian waters at high northern latitudes primarily from August to October. Bluefin tuna caught in Norwegian waters are among the largest and fattiest in the population since they are caught close to the northernmost distribution area as well as late in the feeding period, just before they start their extensive southward migration to their spawning areas. Earlier scientific studies have shown that it is primarily the largest bluefin tuna which migrate furthest to the North during the feeding period. These large adult bluefin tuna have also, in general, high fat content because they have been feeding and storing fat for a long period from after spawning until very late in the most active feeding period. The excellent feeding conditions for bluefin tuna in Norwegian waters ensures high quality of the meat of the fish.

Due to their large size and high fat content when bluefin tuna are caught in Norwegian waters during late summer and autumn, it is assumed that the bluefin tuna will survive for a long time without any feeding. Since bluefin tuna have already built up their energy reserves and fat content over a long period when large adult bluefin tuna are caught late in the season in Norwegian waters, it is assumed that they should be in very good condition to handle such a short-term live storage, without the supply of any food, in large pens.

Short-term live storage of bluefin tuna does not aim at fattening or increasing the total biomass of the fish, but at restituting the muscle before slaughtering to avoid burnt meat and ensure that the quality of the meat is as good as possible. Norway has extensive experience with short-term live storage of cod, and lessons could be drawn from this fishery. However, there is obviously a need for research specifically aimed at bluefin tuna in order to examine any special requirements this species has, in the lines that we are doing today.

Norway is of the opinion that, as of today, Recommendation 19-04 does not cover short-term live storage. Recommendation 19-04 paragraph 3 letter m) and n) is as follows:

“m) “fattening” or “farming” means caging of bluefin tuna in farms and subsequent feeding aiming to fatten and increase their total biomass.”

“n)“farm” means a marine area clearly defined by geographical coordinates, used for the fattening or farming of bluefin caught by traps and/or purse seine vessels. A farm could have several farming locations, all of them defined by geographical coordinates (with a clear definition of longitude and latitude for each one of the points of the polygon).”

In order to better explore the various aspects of short-term live storage of bluefin tuna, including the response of the market, the Norwegian Ministry of Trade, Industry and Fisheries is considering opening up for an exploratory short-term live storage fishery. This type of regulation implies that the industry will, provided that they follow a strict set of regulations, be able to transfer fish from purse seiners to a short-term live storage cage. The industry will be required to co-operate with the Institute of Marine Research, and to provide samples from fish if possible. We have attached a set of images describing the procedure of how we, as of today, are planning on transferring the tuna to cages. The attachments also contains images describing the transport cage and the transfer channel.

#### **Request for comments from Panel 2**

To move on with the concept on short-term live storage we need the views of the members of Panel 2 on whether the concept requires any amendment to the current recommendation, and if, how it can best be incorporated in the management of bluefin tuna.

We would appreciate the views of Panel 2 members on whether regulations concerning short-term live storage of bluefin tuna should be a part of the bluefin tuna recommendation, or a separate regulation. We would also appreciate input and comments to the concept of short-term live storage of bluefin tuna in general.

Norway is considering submitting a document for discussion to Panel 2 in 2022 with possible amendments to the current management plan for bluefin tuna, or a separate regulation. This document should take into account the inputs from Panel 2 to this concept paper.