

Report from the Norwegian pilot project for short term live storage of bluefin tuna in 2024

Reference is made to *Resolution by ICCAT on a pilot project for the short-term live storage of bluefin tuna (Res. 22-07)*, Article 8. According to article 8 the CPCs who engaged in the pilot project shall report to the Commission on the implementation of the pilot project by 1 October every year until the final report is due for assessment by the Commission. In 2023, bluefin tuna was successfully captured, transferred and stored in Norway for the first time. Pre-capture, capture, transfer and storage operations were monitored using various optical and hydroacoustic methods. Fish welfare was assessed by behavioral monitoring and physiological sampling. Meat quality was also recorded. Current procedures require refinement, particularly in the areas of: 1) fish identification and catch control, 2) fish capture, 3) fish transfer, 4) fish welfare and quality, and 5) live storage. The result of the project in 2023 was reported to the Commission at the 28th Regular Meeting in 2023.

In 2024, the pilot project was not conducted, revealing key learning points. The most pressing issue is securing a license to euthanize the fish in a manner that secures both the quality of the meat and fish welfare. The project has been postponed by one year to allow adequate testing of necessary methods. However, our researchers have made significant progress in developing mechanisms and methods for the project to go forward in 2025. The project activities in 2024 have focused on the following:

Fish identification and catch control:

- Both acoustic and optical systems, including stereo cameras for the transfer operation, are available and ready for application in the 2025 trials.

Fish capture:

- The purse seine net has been modified to address challenges identified in 2023, i.e. increased flotation in the small mesh panel section, which was added to avoid fish entanglement. The modified net is ready for use in the 2025 trials.

Fish Transfer:

- The transfer channel has been rebuilt with white netting for better visualization and its size has been increased to accommodate a larger number of fish.
- A “curtain system” has been installed in the channel to enable more controlled opening and closing, facilitating compliance with the ICCAT transfer regulations.

Fish welfare and quality:

- Safe and humane slaughtering of caged tuna is the most important challenge for the upscaling of BFT live storage at the moment. There is work in progress to obtain the necessary dispensations from regulatory bodies, i.e. the Norwegian Food Safety Authority, and to acquire the required equipment, i.e. diver operated explosive harpoons.

Live storage:

- The project has established collaboration with partners in the salmon aquaculture industry who have equipment and know-how regarding large-scale storage.