

INFLUENCE OF FISHERIES METHOD ON FISH QUALITY

Derveaux Sabine, Karen Bekaert and Koen Parmentier

Instituut voor Landbouw- en Visserijonderzoek - Dier - Visserij
Ankerstraat 1, 8400 Oostende, Belgium
E-mail: sabrine.derveaux@ilvo.vlaanderen.be

The importance of quality in the whole food chain, especially in fisheries, is apparent. Fish of Extra Quality is advantageous both for fishermen and consumers. Better quality fish yields a higher price and increases fishermen's earnings and cost-effectiveness of shipping companies. The consumer deserves a fresh and healthy product that meets all commercial and legal quality standards. The applied fishing method and fishing gear influence fish quality significantly.

The first goal of this project was to examine the difference in quality between fish caught with the traditional and the alternative (use of benthic release panel and T90-tail) beam trawl. If besides a decrease in fuel cost and reduced environmental impact there is proof for better fish quality using the latter method, fishermen might be convinced to switch to the alternative beam trawl. Quality was examined sensorially, physically as well as chemically. The fishermen were asked to use traditional and alternative method on either side of the vessel. During the last 24 hours of the trip, 40 individuals of a flatfish species and 40 individuals of a roundfish species were taken from each side and kept separately in small boxes. Physical damages were determined on 10 individuals, using the newly developed Injury Index Method. The other 30 were stored on ice during 3 weeks, TVB, pH and QIM-score were determined on 3 individuals at regular times. The results were similar for both fishing methods and did not show statistical difference, maybe due to variation of the results masking possible quality difference. The negative results might be explained by the presence of sand or discards in the net. Secondly, the aim was to develop an Injury Index Method to determine fish injuries by means of an objective scoring system. A scheme with characteristic damages allowed a score of 0 to 2, higher numbers presenting bigger damage.

The results offer a rough impression of the difference between both fishing methods, but the project was too short to draw important conclusions. However, they provide the basis for further work. Longer-lasting investigation, keeping several parameters constant that effect fish quality, is required to discover clear effects. The research must be extended to other fishing methods, more fish species, more extensive sampling and microbial analysis.

References

Derveaux S. and K. Bekaert. 2009. Eindrapport IVV.