

A solution to reduce the recruitment of zoonotic parasites in comercial fish stocks

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Abstract

The increasingly presence of anisakids in the viscera and muscle of commercially important fish species provoked the search of solutions to reduce this negative impact. Verification studies to prove the inactivation of the anisakid larvae were made using a technological system (TEDEPAD[®]) under laboratory conditions and at sea in Grand Sole fishing ground. This process would contribute to a reduction of viable infective larvae, which otherwise would re-infest the food system if remained untreated. As a consequence, a minimization of the incidence of infective parasite larvae in the water mass of the fishing grounds and on fish stocks of commercial interest is expected. The cost-benefit analysis suggested important benefits from different perspectives such as, the minimization of the dispersion of viable parasite larvae, reduction of the recruitment of parasites in commercially important species, reduction in sanitary expenses, increase of the consumer confidence that derives in highest fish purchases, etc. Overall, all these issues will improve the environmental health of the fishing grounds and, in parallel, will provide an important economic positive impact for the fishing sector. Finally, the device help to achieve FAO/OMS CAC/GL88-2016 recommendations, which underlines that where feasible, material derived from on-board evisceration of fish showing signs of infection by parasites communicable to humans should not be disposed of at sea unless it has undergone a treatment that kills the parasites, in order not to maintain the parasite life cycle.

Keywords: Zoonotic parasites, anisakids, TEDEPAD, environmental health, discarding.

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