

Research project IZS VE 19/12

Effectiveness of methods used in the home kitchen, in restaurants and in the canning industry for the inactivation of enteric pathogens such as viruses (Nv, Hav) in Manila clams and larvae of parasites (Anisakis) in fishery products

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The aim of the study is to test the sanitization efficacy of different treatments applied to two important Italian fishery products: Manila Clams and Bluefish, for Enteric Viruses and Anisakis respectively.

1) The risk of contracting enteric viruses such as Norovirus (Nv) and hepatitis A (Hav) from bivalve molluscs' consumption is well known. Bivalve molluscs farmed in lagoons are more exposed to the presence of these pathogens than open-sea farmed molluscs. Since the last few years mollusc farmers have been reporting this information on the label of the final packaged product: "*To be consumed cooked*", but the time and values of applied temperature are not specified. The determination of a value for enteric viruses, is also important for other potential pathogens which may be present in bivalves farmed in lagoons, such as Vibrio and enteric protozoa, being more thermo sensitive than enteric viruses.

2) A very popular Italian dish, that caused anisakidosis in human, is the marinated raw bluefish, especially anchovies and sardines. The current European legislation on the Anisakis risk in raw fish (Reg. CE 853/2004), fixed values of proven efficacy in inactivating larvae: freezing (- 20 °C) and heat treatment (> 60°C for almost 10 minutes), leaving open the possibility for other treatments of proven effectiveness. This research aims at providing the effectiveness of precise values of concentration of the salt, as well as the duration of exposure to the oil in the finished marinated product.