

Seafood fraud incidents control: histological based methods as reliable tools for fresh and frozen/thawed products discrimination.

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Freezing is one of the commonest methods applied for seafood shelf-life extension and long-term preservation. Nevertheless, the quality decay caused by water crystallization and cellular dehydration is responsible of significant reduction of the frozen-thawed products commercial value. Therefore, according to the European Legislation on food labelling, the declaration of freezing process represents a mandatory information for the protection of consumers' rights. In fact, the lack of such information, besides entailing a non-conformity, can favor commercial frauds. The present work aims to present the development and validation of a histological approach, based on quali-quantitative histological markers, for the discrimination between fresh and thawed-frozen fishery products. In particular, the results of the application of the histological method on *Merluccius merluccius* and *Octopus vulgaris*, respectively selected as study models for white meat fish and cephalopods species, will be presented.