

Old problems and new challenges in research on new aquatic species in trade

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Research on new aquatic species for human consumption has a long tradition in Germany.

Already in the early 1970th interest in underutilized marine species such as blue whiting, great silver smelt and Alaska pollock was increasing due to overfishing of traditional North Atlantic fish stocks. Blue whiting was discussed as substitute for deep frozen cod or saithe fillet blocks, but research revealed high *Anisakis* prevalence and abundance which stopped the production. The success story of Alaska pollock started. Today Alaska pollock is the most important marine fish species on the German market.

Between 1975 and 1985 utilization of Antarctic krill (*Euphausiasuperba*) as possible protein resource for human consumption was in the focus of international research projects, including characterization of the raw material and product development. High fluoride content and endogenous enzymatic activities impeded further product development and the interest of industry in commercializing of krill products was low at that time. Today krill oil is highly demanded as dietary supplement.

Within the last 10 years, research on new aquatic species focused more and more on the risks and benefits of tropical and subtropical species imported into the European Union. The variety of these species increases each year. Often no or minimal knowledge is existing on the chemical composition, species authentication, parasite status, sensory and storage characteristics and on possible risks (contaminants, natural toxins). Characterisation of imported deep frozen fillets of pangasius, tilapia or farmed barramundi showed that the nutritious value in terms of iodine and long chain polyunsaturated fatty acids is not comparable to traditional marine species or to rainbow trout and salmon from aquaculture. Further pangasius fillets, but also deep sea scallops and other imported fish species are often treated with an excess of water and water binding additives. On the other hand, species like cobia and barramundi are highly delicious and can contain considerable amounts of selenium.

The increasing import of tropical reef fish species like red snapper and grouper will increase the risk of ciguatera fish poisoning for European consumers. The global trade of new species as wet fish via air cargo will additionally increase the risk of food borne parasitic infections. Measures have to be evaluated to assure the safety of the consumer.



TAFT 2015

5th Trans-Atlantic Fisheries
Technology conference
(45th WEFTA meeting)

Program Book

Towards a better use of aquatic resources

A photograph of a laboratory setting, showing a large number of petri dishes arranged on a table. The dishes contain various colored liquids or cultures, ranging from yellow to pink. In the background, there is a laboratory bench with equipment and a person's hand visible.

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