Eliska Pospisilova et al., J Food Microbiol Saf Hyg 2017, 2:2 (Suppl)
DOI: 10.4172/2476-2059-C1-002

Chemical analysis and nutrition quality of selected species of tuna

Eliska Pospisilova[1,2] and **Piskata Zora**[2]
[1]University of Veterinary and Pharmaceutical Sciences Brno, Czech Republic
[2]Veterinary Research Institute Brno, Czech Republic

Food authenticity testing is one of the major challenges facing the food safety authorities. Pursuant to Council Regulation (EEC) No. 1536/1992, tunas are classified into true tunas (*Thunnus thynnus, T. albacares, T. alalunga, T. obesus* etc., *Euthynnus* sp. (*Katsuwonus pelamis*) or pseudo-tunas, i.e. bonito (*Sarda* sp., *Euthynnus* sp. (except *Euthynnus* pelamis) and *Auxis* sp.). With regard to this classification of tunas as true tunas and bonitos pursuant to the legislation, it could be beneficial to determine potential differences in their nutrient composition. A comparison between the chemical profiles of tuna and bonito species has not yet been scientifically described. Within the proposed experiment, a comparative chemical analysis of selected characteristics of the muscle tissue of tuna and bonito representatives will be carried out, and by this means chemical profiles of muscles of several representatives of the selected species of tuna (*T. albacares*) and bonito (*Sarda sarda*) will be created in order to compare their nutritional values. The chemical analysis will focus on the determination of basic chemical parameters (fats, n-3, n-6 FA, and proteins) using validated analytical techniques and advanced analytical instrumentation, with subsequent detection based on mass spectrometry and other standardized methods. The monitored parameters will be determined in both the raw muscle and muscle treated by the canning process in its own juice under pre-defined conditions, in order to determine the effect of high temperature and pressure on the given parameters.

Biography

Eliska Pospisilova is pursuing her PhD at Veterinary and Pharmaceutical University, Faculty of Veterinary Hygiene and Ecology in Brno. Currently, she works as a Researcher at Veterinary Research Institute in Brno. She deals with the adulteration of food (especially of animal origin). She completed her Graduation in Food Safety and Quality at Veterinary University in Brno. She also studied at the Czech University of Life Sciences in Prague.

pospisilova@vri.cz

Notes: