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Authors: Nermin Berik, Ekrem Cem Çankırılıgil, Güzin Gül



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Mineral Content of Smooth Scallop (*Flexopecten glaber*) Caught Canakkale, Turkey and Evaluation in terms of Food Safety

Nermin Berik^a, Ekrem Cem Çankırılıgil^b, Güzin Gül^c

^aDepartment of Fisheries and Processing Technology, Faculty of Marine Sciences and Technology, Canakkale Onsekiz Mart University, 17100 Canakkale-TURKEY.

^bCentral Fisheries Research Institute, Vali Adil Yazar Cad., No:14, 61250 Yomra, Trabzon-TURKEY*

^cInstitute of Marine Sciences and Management, Istanbul University, Vefa, 34134 Istanbul-TURKEY.

*Corresponding author: Tel:+905376526494, e-mail: ekremcem19@gmail.com

Abstract

In this research, one of the most promising scallop species, smooth scallop (*Flexopecten glaber*) was studied. According to our findings, smooth scallop has beneficial micro and macro minerals, fat, and carbohydrate just before the spawning. While the ratios protein, ash and water decreased from autumn to summer, ratio of crude fat increased till reproduction season in late spring and decreased in summer ($P<0.05$). In digestive glands, aluminum, bromine, cadmium, calcium, chromium, copper, iron, manganese, nickel, and zinc were detected more compared to adductor muscles ($P<0.05$). However; boron, magnesium and potassium were found more in adductor muscles ($P<0.05$) and there were no significant statistically differences in cobalt and lead ($P>0.05$). Most of the elements in the both tissues except K and Mg increased till summer. On the other hand, two of the most toxic metals, cadmium and aluminum were mostly accumulated in the digestive gland of smooth scallop. It is recommended that; digestive gland of scallops should be removed before consuming in terms of food safety. Besides, scallops are convenient to be processed, because of easy removal muscle tissue from internal organs.

Keywords: Scallop, trace metals, *Flexopecten glaber*, adductor muscle, digestive gland, seafood.

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