



Evaluation of Some Biochemical and Sensory Attributes of Some Grouper

Ayşe Ozyılmaz

Iskenderun Technical University, Faculty of Marine Science and Technology, Department of Marine Technologies, Iskenderun/Hatay, TURKEY
ayse.ozyilmaz@iste.edu.tr, aylaayse@gmail.com

Abstract

The aim of this study is to evaluate proximate (lipid, moisture, and ash), fatty acid contents and sensorial characteristics of *Epinephelus caninus* (Valenciennes, 1843), *Epinephelus costae* (Staindachner, 1878), *Epinephelus marginatus* (Lowe, 1834), *Mycteroperca rubra* (Bloch, 1793) caught from Northeastern Mediterranean. Even if lipid levels of all fish used in this study changed in a small amount and this changes, in some of them, were found statistically significant ($P < 0.05$), all fish subjected to the study may considered as lean fish due to fact that their lipids amounts was found to be less than 2%. Moisture and ash contents of all fish used in this study were closer to each other. Among fatty acids, the levels of docosahexaenoic acid (DHA, C22:6n3) of *E. marginatus*, *M. rubra*, *E. costae*, *E. caninus* were calculated to be 13.17%, 7.62%, 12.19%, and 14.47%, respectively. Additionally, the highest eicosapentaenoic acid (EPA, C20:5n3) value was found in lipid of *E. marginatus* followed by *E. costae*, *E. caninus* *M. rubra*. The levels of arachidonic acid (ARA, C20:4n6) differed from each other (in the range of 7.89 to 3.59%). Differences regarding ARA was found to be statistically significant ($P < 0.05$). Moreover, sensory analysis of the cooked fish were evaluated by panelist. In general, taste can be differ from nation to nation even person to person. According to panelists, even though all fish investigated in this research were found to be very delicious, fish can be listed *E. caninus* > *E. costae* > *E. marginatus* > *M. rubra* regarding its taste.

Keywords:

grouper, lipid, taste, EPA, DHA
