

## THE VARIATIONS IN PROXIMATE CONTENT AND FATTY ACID PROFILE IN DIFFERENT PARTS OF THE THORNBACK RAY (*RAJA CLAVATA*) CAUGHT FROM BLACK SEA, TURKEY

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### VARIJACIJE U HEMIJSKOM SADRŽAJU I MASNOKISELINSKOM PROFILU RAŽE (*RAJA CLAVATA*) IZ CRNOG MORA, TURSKA

#### *Abstract*

Proximate and fatty acid (FA) composition of different parts and sexes of ray (*Raja clavata*) were compared. Significant differences usually occurred ( $p < 0.05$ ) between liver samples and others body parts. The highest moisture, protein and ash contents were found for pectoral fin 78.56, 20.52 and 1.21%, respectively while fat content represented liver as 39.71%. Sexual differences were also found for both proximate and FA values. The levels of saturated (SFA), monounsaturated (MUFA) and polyunsaturated fatty acids (PUFA) varied as 27.65-32.10%, 14.93-19.01% and 34.29-39.50% in total FAME, respectively. The highest  $\Sigma$ PUFA and docosahexaenoic acid (DHA) values were observed in edible portion of liver for both sexes due to high contents of fat content despite the low values as % total FAME in comparison with other body parts. On the other hand, eicosapentaenoic acid (EPA) levels were found to be high in both calculated situation for liver samples. Significant variations among FA levels were observed for different body parts ( $p < 0.05$ ). The highest DHA and EPA values were in edible portion of liver were calculated as 6818 and 2331 mg/100 g, respectively indicating the importance of utilizing liver for this species.

**Key words:** *Raja clavata*, fatty acids, proximate composition, sexual differences, liver