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Lipid composition of raw and cooked *Rapana venosa* from the Black Sea

Albena MERDZHANOVA, Veselina PANAYOTOVA,* Diana A. DOBREVA, Rostitsa STANCHEVA, and Katya PEYCHEVA

Department of Chemistry, Medical University of Varna, Varna, 9002, Bulgaria

Abstract. *Rapana venosa* is an edible mollusc with nutritional and economic importance. There is limited information about its lipid composition. The aim of the present study is to provide information about lipid composition, fatty acid profiles, fat soluble vitamins and cholesterol content of raw and cooked *Rapana venosa*. Cooking did not affect the ratio of lipid classes, but fatty acids composition varied significantly. Considerable variations were observed in fatty acid distribution of total lipids and neutral lipids. Fatty acid groups of phospholipids remained unaffected by temperature treatment. The most abundant fatty acids in all lipid classes of raw and cooked specimens were palmitic acid (C16:0) and eicosapentaenoic acid (C20:5n-3). The sum of omega-3 polyunsaturated fatty acids (PUFA) was higher than omega-6 PUFA in all lipid fractions. The results of the present study showed that cooking process affected cholesterol, fat soluble vitamins and carotenoids content differently. Larger variations were observed for vitamin A, β-carotene and astaxanthin and to lesser for vitamin E. Cholesterol and vitamin D_3 were also affected by the thermal stress. The present study revealed that *Rapana venosa* meat could be a good source of high quality nutritional lipids, which are well preserved even after culinary treatment.

Keywords: *Rapana venosa*, cooking, lipid composition, cholesterol, vitamins, carotenoids.

*Corresponding author: veselina.ivanova@hotmail.com