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## FATTY ACIDS COMPOSITION IN BLOOD SERUM LIPIDS OF STERLETS OF DIFFERENT AGE

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**Introduction.** As the only sturgeon living in freshwater, sterlet is important for breeding in industrial fish farms, where lately cases of early mortality of this species have been detected. Hence, in order to preserve the species, it is important to study the parameters of fatty acid (FA) composition of lipid fractions of blood serum of sterlet.

**Materials and Methods.** Here we present changes of fatty acid composition in different lipid fractions of blood serum of sterlets of different age (namely two-, three- and nine-year-old) with the masses 0.3-0.4, 0.5-0.6 and 5-6 kg for the age-groups of fish, respectively. Fatty acid (FA) composition was determined using gas-chromatography on HRGC 5300 (Italy) in Palladin Institute of Biochemistry of the National Academy of Sciences of Ukraine (NASU).

**Results.** Fatty acid composition of sterlet blood serum is presented by saturated and unsaturated high-molecular weight carboxylic acids, mostly palmitic, stearic, oleic and linoleic. In the phospholipid fraction, there was a moderate increase in saturated and monounsaturated fatty acids and a slight decrease in polyunsaturated fatty acids depending on the age of fish. As for free fatty acids, there was

a drop in the saturated ones depending on the sterlet age. Among the free fatty acids of sterlet blood serum, we identified 28 acids, of them 39, 35 and 30% were saturated in 2-, 3-year-old and mature fish, respectively. Monounsaturated FA content was 14, 23 and 23% in 2-, 3-year-old and adult sterlet fish, and polyunsaturated FA content – 46, 41 and 36%, respectively. The data can be used for the theoretical verification of correcting supplementary feed and premixes.

**Conclusion.** Thus, for the first time, we studied the fatty acid composition of blood serum of sterlet of different age. Thus, according to the experimental results of studies of phospholipids in the blood serum of sterlets, there was a significant increase in the content of saturated and monounsaturated fatty acids and a decrease of the level of polyunsaturated fatty acids depending on fish age. Regarding free fatty acids, it was shown a decrease in saturated fatty acids with age.

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