

## Changes in Dietary and Muscle Fatty Acids Composition in Siberian Sturgeon (*Acipenser baeri* Brandt 1869) Fed with Different Levels of Lecithin

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### Abstract

This study was carried out to evaluate the effects of different dietary levels of lecithin on fatty acid compositions of diets and muscle of Siberian sturgeon (*Acipenser baeri*) juveniles. Fish with initial average weight of  $32.9 \pm 0.3$  g were fed 5 times daily with five isoenergetic and isoprotein diets (each with triplicate groups) with different lecithin levels includes 0, 2.5, 7.5 and 10% for 8 weeks. This study showed that using 10% of dietary lecithin significantly increase some fatty acids e.g. C14:0, DHA, EPA, SFA and HUFA ( $P < 0.05$ ). The amount of MUFA and PUFA were not affected by different types of diet ( $P > 0.05$ ). Linoleic acid (C18:2n6), showed an increase in fish fed diet containing 2.5% lecithin, but the amount of arachidonic acid (C20:4n6) did not show any differences among the treatments ( $P > 0.05$ ). The results of this study showed positive effect in fatty acids composition of Siberian sturgeon juveniles with supplementation of lecithin in diet. It is recommended to use lecithin more than 2.5% in Siberian sturgeon juvenile diet in this weight range to increase unsaturated fatty acids.

Keywords: *Lecithin, Growth, Fatty acids, Siberian sturgeon.*

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