Highly defatted insect meal in Siberian sturgeon juveniles feeds

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Recent investigations highlighted that insect protein meals can be a more sustainable alternative to conventional protein used so far in aquaculture. *Hermetia illucens* (HI) is a good candidate due to its valuable nutritional properties. The aim of this research was to evaluate the effects of fishmeal (FM) substitution by a highly defatted HI larvae meal in sturgeon juveniles feeds.
Four diets were formulated: a control (70% of FM - CF), two diets where FM was replaced by 25 (HI25) and 50% (HI50) of HI and a vegetable protein based diet without HI (CV).
352 *Acipenser baerii* were distributed in 16 fiberglass tanks. Each diet was assigned to 4 groups of 22 fish and feed was distributed to apparent satiation.
At the end of the trial (118 days) fish growth performances were calculated, and whole body (WBC) proximate and fatty acid (FA) composition were analyzed.
Data were statistically analyzed by one way ANOVA. Significance level was set at $P<0.05$.
Results indicate that the inclusion of HI affected fish performances and WBC. Generally, up to 25% of FM substitution, fish performance was comparable to those of fish fed CF or CV while the 50% substitution induced a worsening of performance parameters and the same trend was observed for WBC. Lauric acid and total saturated FA contents were higher in fisg fed HI when compared to CF and CV groups. Monounsaturated, polyunsaturated, and n3 and n6 FA contents showed differences among groups, with lowest values for CF; however, no differences were found in the n3/n6 FA ratio in WB of CF and HI25 groups.