Oceanography/Vol.4/No.16/Winter 2013/1/7-7

# Effects of Supplemental Lysine and Methionine on Growth Performance and Survival Rates of Persian Sturgeon (*Acipenser persicus*) Fingerlings

Pourali Foshtomi, Hamidreza[1*]; Yazdani Sadati, Mohammad Ali[2];
Peykaran Mana, Nemat[3]; Hafezieh, Mahmoud[4]; Daravi Ghaziani, Sajad[5]

*1- Member of Scientific Staff, International Sturgeon Research Institute, Rasht,Iran. Email: pourali_882@yahoo.com*
*2- Assistant Professor in Aquaculture, International Sturgeon Research Institute, Rasht, Iran. Email: yazdanysadati@yahoo.com*
*3- M.Sc in Aquaculture, International Sturgeon Research Institute, Rasht, Iran. Email; nemat147p@yahoo.com*
*4- Assistant Professor in Aquaculture, Iranian Fisheries Research Center, Tehran, Iran. Email: jhafezieh@yahoo.com*
*5- M.Sc in Aquaculture, International Sturgeon Research Institute, Rasht, Iran. Email: Farvahar1388@yahoo.com*

*Received Date: May 5, 2012* **Corresponding Author* *Accepted Date: October 1, 2013*



## Abstract

The Current study was conducted to evaluate the effects of dietary supplementation of lysine and/or methionine on growth performance and survival rates in Persian sturgeon (*Acipenser persicus*) fingerlings reared under culture conditions in Iran for fifty days from 15 June 2011 to 6 August 2011. Experimental fish were fed five practical diets supplemented with 0 (as a control diet), 1 and 3 % of lysine and methionine in a 2×2 factorial design experiment. The experimental groups were fed in triplicate. A total of 360 A.persicus fingerlings with an average weight of 1.8 ± 0.3 g (mean±SD) and an average total length of 7.1 ± 2 (mean±SD) cm were randomly allocated to eighteen 50-L aerated tanks (20 fish in each tank) with flow rate of about 0.2 l/min. The results indicated that there were significant differences in growth performance among treatment. Maximum weight gain (10.1± 2.5 g), body weight increase (461.9±138.6 %) and special growth rate (10.7± 0.7%) occurred at 3% dietary methionine and lysine. But the survival rates were not significantly affected by dietary lysine and methionine levels.

Keywords: *Acipenser persicus, Methionine, Lysine, Nutrition, Growth, Feed Conversion Ratio.*