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Dissertation for M.sc Degree in Fishery

**The effect of different levels of Betaine
attractive in the diet on growth , feed
efficiency and survival rate of Pike
perch (*Sander lucioperca*) juvenile**

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October 2010

Abstract:

The Effects of food attractant (Betaine) on food palatability and acceptability for fingerling Pike perch (*Sander lucioperca*) were investigated in a 6-week feeding trial in Yousefpur's breeding and culture farm. The treatment used in this study Pike perch juveniles were fed for 42 days four diets containing: live food (A), biomar (B), biomar + Betaine 1% (C) and biomar + Betaine 2% (D). The trial was carried out in 1000 liter-tanks which were filled with about 400 liters of water. 200 fingerling Pike perch (with average weight 1.50 ± 0.16 g) were stocked each tank and fed up 7 meals a day. Growth, feed efficiency and survival factors were analyzed at the end of trial period. The results showed that the addition of attractant in diets led to more improvement of body weight increase (4.99 ± 0.37), specific growth rate (SGR) (3.9 ± 0.06), food efficiency (FE) (104.42 ± 4.27), and decrease in food conversion ratio (FCR) (0.93 ± 0.04) in biomar + Betaine 2% than other treatment ($P < 0.05$). The highest survival rate was in fingerling fed food with out of Betaine (34.5 ± 0.06) and The highest cannibalism (1.03 ± 0.008) was in fingerling fed food 2% Betaine ($P < 0.05$). According to these results can utter the weaning of pikeperch fingerling to artificial diet with food attractive (Betaine) was suitable.

Keywords: *Sander lucioperca* , Betaine, Growth, Feed efficiency, Survival,

Food Attractant.