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Czech Journal of Animal Sc

Effect of size sorting on the survival, growth and cannibalism in pikeperch (*Sander lucioperca* L.) larvae during intensive culture in RAS

M. Szczepkowski, Z. Zakęś, B. Szczepkowska, I. Piotrowska

https://doi.org/10.17221/3837-CJAS

Citation: Szczepkowski M., Zakęś Z., Szczepkowska B., Piotrowska I. (2011): Effect of size sorting on the survival, growth and cannibalism in pikeperch (*Sander lucioperca* L.) larvae during intensive culture in RAS. Czech J. Anim. Sci., 56: 483-489.

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The aim of the experiment was to determine the impact of sorting on the growth, survival, and cannibalism of pikeperch larvae during intensive culture in recirculation systems. Larvae aged 48 days post-hatch (DPH) were reared in three groups – small specimens (group S – average body weight 40 mg), large specimens (group L – average body weight 76 mg), and unsorted ones (group U – average body weight 55 mg). After three weeks of rearing, there were no statistically significant differences in specific growth rates among the groups. However, increases in biomass were higher in the sorted groups. Survival exceeded 50% in the sorted groups and 39% in group U. Higher cannibalism was noted in group U than in the sorted groups. Significant differences among the sorted groups were observed in cannibalism, which was higher in group L, and in natural and manipulation losses, which were higher in group S ($P < 0.05$). During the first two weeks of rearing, the lowest cannibalism rates were observed in group S, the difference between groups S and U was statistically significant ($P < 0.05$). The results of the experiment indicate that the sorting of pikeperch larvae has a positive impact on the survival rate, however, it has no impact on growth during their rearing in the RAS.

Keywords:

pikeperch; larvae; sorting; RAS; growth; survival; cannibalism

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Contact
Ing. Gabriela Vladyková
Executive Editor (Editoria
publication)
e-mail: cjas@cazv.cz
Ing. Kateřina Kheilová
Executive Editor (submis
editorial system)
e-mail: cjas@af.czu.cz
Address
Czech Journal of Animal
Czech Academy of Agricu
Sciences
Slezská 7
120 00 Praha 2
Czech Republic