

2nd Global Summit on

Aquaculture & Fisheries

July 11-13, 2016 Kuala Lumpur, Malaysia

Effect of Eurasian perch (*Perca fluviatilis* L.) and pikeperch (*Sander lucioperca*) duoculture in recirculating aquaculture system

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Recently, the intensive aquaculture (*monoculture*) of both species Eurasian perch (*Perca fluviatilis*) and pikeperch (*Sander lucioperca*) mainly in recirculation aquaculture systems is raised in Europe. The aim of the present study was to investigate the effects of monoculture and three different duoculture groups of these two percids on growth performance, survival and feed utilization. Five months-old pond-reared and habituated perch (Pe) and pikeperch (Sa) with initial weight of 11.3 ± 2.2 and 11.4 ± 2.1 g, respectively were used in growth trial lasted 82 days. Fifteen tanks (70 L) of special construction allowed separation and counting of uneaten food were used and the fish were equally divided to 5 groups with three replicates. Each tank contained 80 fish. Duoculture groups contained 75% of perch and 25% of pikeperch (75Pe25Sa), 50% of perch and 50% of pikeperch (50Pe50Sa) and 25% of perch and 75% of pikeperch (25Pe75Sa) were established. Moreover, monoculture of perch (100Pe) and pikeperch (100Sa) were tested as two controls. Significantly higher ($p < 0.05$) final body weight was found for pikeperch in group 25Pe75Sa compare to monoculture group (100Ca). Moreover, significantly lower final body weight was found for perch in group 75Pe25Sa compare to monoculture group (100Pe). Intraspecific comparison showed significantly better growth potential for pikeperch. There were significant difference in FCR between groups with better food utilization in group 25Pe75Sa followed by monoculture of pikeperch. Poorest FCR was found in duoculture combinations with majority of perch. Especially, comparison of monocultures presented better food utilization for pikeperch than perch. There was no significant difference in mortality between groups.

Biography

Vlastimil Stejskal has completed his PhD at Faculty of Fisheries and Protection of Water of University of South Bohemia in Ceske Budejovice. He is the lab Leader of Laboratory of controlled reproduction and intensive fish culture. He has published or co-authored 19 papers in reputed journals with IF.

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