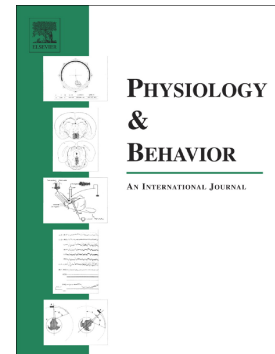


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High risk no gain-Metabolic performance of hatchery reared Atlantic salmon smolts, effects of nest emergence time, hypoxia avoidance behaviour and size

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Abstract

When animals are reared for conservational releases it is paramount to avoid reducing genetic and phenotypic variation over time. This requires an understanding of how diverging behavioural and physiological traits affect performance both in captivity and after release. In Atlantic salmon, emergence time from the spawning gravel has been linked to certain behavioural and physiological characteristics and to the concept of stress coping styles. Early emerging fry has for example been shown to be bolder and more aggressive and to have higher standard metabolic rates compared to late emerging fry. The first aim was therefore to examine if emergence latency affect the behavioural stress coping response also beyond the fry and parr stage. This was done using a hypoxia avoidance test, where an active behavioural avoidance response can be related to higher risk taking. No behavioural differences were

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