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Abstract

Compared to investigations involving later life stages, there are relatively limited reports of the effects of bacteria on egg hatching and very early survival of salmonid larvae. The present study investigated the effects of this by exposing eyed eggs of rainbow trout (*Oncorhynchus mykiss*) and Black Sea salmon (*Salmo labrax*) to a selection of bacterial fish pathogens, including *Aeromonas hydrophila*, *Lactococcus garvieae*, *Pseudomonas putida*, and *Yersinia ruckeri*. Mortality rates of 17.66% and 20.3% resulted from exposure to *A. hydrophila* isolates in rainbow trout and Black Sea salmon, respectively, while the mortality rates in their respective control groups were 1% and 2.6%. Further, cumulative mortality rates due to exposure to the other bacterial isolates tested were higher than that of the control group. Blue-sac fry syndrome, spine deformities, darkening of skin color, and hemorrhages were observed in fish exposed to these bacteria. Thus, the present study describes the pathogenic effects of bacterial contamination on the performance of the early stages of trout grown in hatchery systems.

Keywords

KeyWords Plus: [ONCORHYNCHUS-MYKISS WALBAUM](#); [BLACK-SEA REGION](#); [RAINBOW-TROUT](#); [FLAVOBACTERIUM-PSYCHROPHILUM](#); [ANTIMICROBIAL RESISTANCE](#); [CAUSATIVE AGENT](#); [FRY SYNDROME](#); [BROODSTOCK](#); [TURKEY](#); [EGGS](#)

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