The Effects of Ultraviolet Light on Rainbow Trout Embryos

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There currently exists a need to develop new approaches to control aquatic invasive and nuisance species. The effects of light radiation such as ultra-violet wavelengths of light have shown negative effects, such as increased embryo mortality in early embryonic salmonid larvae. This study explores the use of light radiation for eradication of invasive fish. Experiments were conducted to evaluate dose and critical period of sensitivity for mortality of rainbow trout (*Oncorhynchus mykiss*) embryos after exposure to visual and ultra-violet light radiation. Endpoints recorded include exposure intensity, effective distance from source, duration of exposure, malformations and mortality. Introduced light may be an effective and feasible eradication technique of early life history stages of fish and invertebrate invasive species in situ, as light can be implemented and removed with minimal environmental impact.