

ELECTROFISHING EFFECTS ON ENDANGERED FISH SPECIES

Session: In-Person

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Electrofishing is a sampling method commonly permitted by NOAA Fisheries for research on fish species covered by the Endangered Species Act (ESA). Electrofishing uses an electric current to stun fish and enable their capture, and is an efficient method for immobilizing fish. However, electroshock can cause mortality, spinal injuries, and short-term stress effects on fish, while long-term health effects are poorly understood and insufficiently studied. The purpose of this study was to evaluate the current state of the literature on electrofishing and its health effects on fish, particularly salmonids. This research was part of a project to update language on the effects of fish sampling methods in the NOAA Fisheries Research Permitting Team's Biological Opinion Statement, which is used to permit sampling methods for which an ESA take exemption is needed. My methods consisted of using publicly available research databases to find relevant literature, which I then evaluated and synthesized. The results of my review showed that fish subjected to electrofishing can experience reduced growth associated with spinal injuries, making them less competitive and more vulnerable to predation. I also found a notable absence of recent literature on electrofishing health effects, and frequent references in the available literature of the need for further research on the long term and population level effects of electrofishing. Further research on the health effects of electrofishing could limit its usage, better inform operators, and minimize harm to listed fish species.