



U.S Fish & Wildlife Service

National Conservation Training Center

Course Description

Principles and Techniques of Electrofishing (Online)

CSP2C01

Target Audience

Primary U.S. Fish and Wildlife Service and National Marine Fisheries Service biologists responsible for conducting project review of potential impacts to listed, proposed, or candidate endangered species. Action agency biologists and consultants are welcome to attend.

Summary and Objectives

This class builds knowledge and skills that will enable biologists to increase the standardization and efficiency of electrofishing sampling while operating in a safer manner. Participants learn how to apply electrical circuit and field concepts to various challenges related to sampling, equipment performance, selection of suitable equipment, equipment trouble-shooting, fish injury, and safety..

Upon completion of this course, participants will be able to:

- Improve standardized sampling and efficiency by developing power/power density goal settings (power and electric field standardization), manipulating waveform attributes (type, frequency, duty cycle, voltage, etc.), evaluating electrode design and placement; and incorporating efficiency factors in sampling designs;
- Evaluate equipment by estimating effective operating range across water conductivities based on equipment specifications, electrode resistance, and power required for successful electrofishing;
- Evaluate equipment by considering waveform control, metering, and safety features;
- Operate electrofishing equipment safely;
- Develop a safety program for staff;
- Use a fish injury risk model to assess and minimize electrofishing-induced fish injury;
- Evaluate the usefulness of catch per unit effort data to detect trends;
- Describe a process to estimate capture probabilities and then use these estimates to adjust catch per effort data to abundance estimates; and
- Understand and apply concepts presented in the electrofishing literature.

Curriculum Category

Aquatic Species Biology and Conservation

Wildlife Biology and Field Techniques

Course Type

Online Self Study

Tuition

\$50

Instructional Hours

28

Credits/ CEUs

2.0

College Credits

1 semester hour

Course Contact

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Course Frequency

Anytime

Registration Link

[DOI Talent](#)