

CONSERVATION OF WESTSLOPE CUTTHROAT TROUT BY REMOVAL OF BROOK TROUT USING ELECTROFISHING

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From 1995 to 2004 we employed repeated electrofishing to remove nonnative brook trout (*Salvelinus confluentus*) from approximately 15.2 km in six streams to conserve sympatric, native westslope cutthroat trout. We successfully eradicated brook trout from 10.7 km in four of these streams. In the two other streams we suppressed brook trout, but dense riparian vegetation, beaver dams, and abundant woody debris prevented us from eradicating them. Costs to eradicate nonnative trout using electrofishing were similar to costs estimated for piscicide treatments. Electrofishing eradication may be preferred in locations where native fish are sympatric with nonnative fish because most of the native fish can be saved during removal efforts. We recommend conducting at least six removal treatments of two to three passes per treatment within two to three years, targeting mature adults during the first year, trampling nonnative redds, conducting at least one removal during late fall or early winter period, and eradicating adults first, then focusing on the smaller fish (age-0 and age-1). Fish barriers must be installed at lower boundaries of treatment areas to prevent re-invasion of nonnative fish. Native cutthroat trout populations responded positively to brook trout removal, but this response often took two to three years.