Evaluation Of Stocking As A Means Of Replacing Introduced Trout Populations In Lakes With Westslope Cutthroat Trout

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Conservation and restoration plans often call for the elimination and replacement of nonnative fish populations. Elimination in lakes has generally been successful only by poisoning. Poisoning is becoming increasingly problematic, however, because of legal and permit issues and potential social and political opposition. As an alternative to poisoning, we investigated the effectiveness of stocking as a means of replacing nonnative lake populations of trout. Among six lakes in the South Fork Flathead River drainage, Montana, genetic analysis indicated after stocking began that the proportion of westslope cutthroat trout (*Onchorhynchus clarkii lewisi*), alleles had progressively increased from zero, or near zero, to 0.75 up to 0.99. Some of this increase was due to hybridization and introgression with the stocked fish. Examination of individuals, however, indicated that most of the change was due to the replacement of fish in the lake with westslope cutthroat trout. The results suggest that in small headwater lakes with limited spawning and juvenile rearing habitats stocking juveniles can be an effective means of replacing introduced nonnative trout populations or hybrid swarms with westslope cutthroat trout.