

SHEPPARD CREEK: A CASE STUDY OF A BROOK TROUT ELECTROFISHING REMOVAL EFFORT AND LESSON LEARNED^{AFS}

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Sheppard Creek contains one of the last, remnant westslope cutthroat trout (*Oncorhynchus clarki lewisi*) populations in the Stillwater River basin. Unfortunately, recent monitoring indicated that this population was declining rapidly. The imminent threat to cutthroat trout persistence was judged to be competition from non-native brook trout, rather than habitat degradation. The Flathead National Forest, along with numerous partners, installed a barrier to block any further invasion and then began a systematic removal of brook

trout by means of electrofishing. Electrofishing crews made multiple passes over 3.8 mi of habitat every year for three years. All brook trout were counted and removed, while cutthroat trout were released unharmed. No habitat restoration took place. Following three consecutive years of work, the brook trout population decreased by 95 percent from an estimated total population of 5622 to 283. Cutthroat trout numbers are estimated to have climbed from 252 to 864. These results demonstrate that electrofishing removal of brook trout can be an effective method to stabilize and possibly recover a cutthroat trout population. A lesson learned is that this method is less controversial than chemical treatment and can be quickly implemented. This is a labor-intensive method but costs can be reduced by selectively focusing efforts on key spawning areas and employing volunteers. The long-term prognosis of this project is uncertain. Crews may be able to ultimately remove all brook trout, but if not, periodic efforts should be able to keep Sheppard Creek cutthroat trout numbers more secure.