

ELECTROFISHING AS A TECHNIQUE TO REMOVE LAKE TROUT FROM A SPAWNING SITE IN YELLOWSTONE LAKE

Patricia Bigelow, Philip Doepke, Brian Ertel, and Todd Koel, USDI National Park Service,
P.O. Box 168, Yellowstone National Park, WY 82190, pat_bigelow@nps.gov

The Yellowstone cutthroat trout of Yellowstone Lake is seriously threatened by a recently established lake trout population. The National Park Service has directed an extensive gillnetting program toward removal of the lake trout. Despite substantial removal efforts, where almost 20 km of gillnet are in place each day fishing from June through September, lake trout in Yellowstone Lake are still present in high numbers and pose a serious threat to native cutthroat trout. During the 2004 and 2005 spawning seasons, efforts were expanded to include use of electrofishing to remove lake trout congregating in shallow water for spawning. When traditional electrofishing settings were used, designed to stun and not harm fish, many lake trout were able to escape capture because the sheer density of fish in the area precluded netting them all. However, after increasing the amperage three-fold, electrofishing was found to be a very efficient means of incapacitating lake trout. Although electrofishing was used only 5 nights in 2004 and 8 nights in 2005, we captured 13 and 23 percent, respectively, of the annual spawning lake trout catch using this method.