Lake Trout Suppression In Yellowstone Lake: The Reality Of This Battle For Cutthroat Trout Persistence

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Soon after the 1994 discovery of lake trout in Yellowstone Lake, Yellowstone National Park initiated a gillnetting program aimed at suppression of the population. In 2001 our efforts were enhanced by acquisition of a Great Lakes-style gillnetting boat and funding to support additional staff. From 2001 to 2006 we set 105,000 net nights of gillnet (100 m/night) and removed 170,000 lake trout. Despite this effort, lake trout remain abundant. A new spawning site was discovered in 2006, and increasing numbers of smaller, immature lake trout have been removed for the fifth year in a row. Suppression efforts are surely slowing the rate of population growth, but whether or not the program will be able to suppress the lake trout population to an equilibrium that allows cutthroat trout to co-exist is unknown. Recent results are encouraging, in that larger, older lake trout continue to be caught with low frequency, and the mean length of lake trout caught on spawning areas has declined each year (559 mm in 2001 as compared to 505 mm in 2006). Program effectiveness is now being evaluated through collaboration with scientists at Montana State University and USGS Cooperative Fisheries Research Units in Montana and Wyoming. Population models created during the next two years, based on information collected over the past decade, will help to guide our program. As lake trout will never be fully removed from Yellowstone Lake, the development of new, advanced techniques for improving efficiency of suppression efforts is needed for this program to continue long term.