Conservation of native Yellowstone Cutthroat Trout in the South Fork Snake River

Background

The South Fork Snake River (SFSR) supports the largest population of native Yellowstone Cutthroat Trout *Ocorhynchus clarkii bouvieri* (YCT) in Idaho and is one of the few populations throughout the species native range with fluvial and resident life histories intact. Non-native Rainbow Trout *O. mykiss* (RBT) have established a self-sustaining population which has experienced substantial growth in numbers since the mid-1990s. Rainbow Trout are now the largest threat to YCT due to hybridization and competition. Angler opinion surveys conducted in Idaho have identified that the conservation of native trout in Idaho, including YCT, is the highest resident fish management priority in the state. Since 2004, the state fishery management plan has identified the preservation of the genetic integrity and population viability of native YCT in the SFSR as the top fishery management priority. A secondary objective of decreasing the abundance of RBT to less than 10% of the species composition in the upper river has also been a management target.

Methods

The Idaho Department of Fish and Game has used multiple management tools in effort to conserve YCT in the SFSR. Fish weirs on spawning tributaries have been used since 2001 to provide spawning refugia for YCT. Efforts have been made to work with water managers to increase spring flows to mimic a natural undammed system. Fishing regulations have been changed to increase harvest pressure on RBT. A harvest incentive program has been instituted to further increase angler harvest of RBT, and manual suppression efforts have been made to cause RBT population decline.

Conclusions

The state of Idaho continues to be committed to the long-term conservation of YCT in the SFSR, and angler opinion surveys continue to suggest Idaho anglers place native trout conservation as the highest fishery management priority. The SFSR is a highly productive ecosystem, and not all management efforts to reduce the threat of RBT to YCT have met with

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success. However, some management efforts have been effective and suggest the achievement of the genetic integrity and long-term population viability objectives stated in the Idaho Fish Management Plan are attainable as long with consistent management efforts. With effective management tools implemented and ongoing, the important population of YCT in the SFSR can continue to be a robust, connected, and ecologically significant population for all to enjoy for many decades to come.

Preferred Session Topic

1. Native Fish and Wildlife Status, Trends, and Habitat Needs
2. Invasive Species and Disease