

Native Aquatic Species

The Custer Gallatin National Forest is home to 8 of the 13 aquatic ecosystem types in Montana. As such, the Forest provides habitat for a wide variety of aquatic species. Among these are native species – such as cutthroat trout - or communities – such as prairie fish - of conservation concern. These species and their habitats are a management priority for the Forest and our partners.

Native Fish Species – Cutthroat Trout

The Custer Gallatin National Forest is inhabited by two subspecies of native cutthroat trout, the Yellowstone and westslope cutthroat. Historically westslope cutthroat trout inhabited the upper Missouri River system down to Fort Benton, Montana and the headwaters of the Judith, Marias, and Milk Rivers. Yellowstone cutthroat trout historically inhabited the upper portions of the Snake River drainage in eastern Idaho and the Yellowstone River in northwestern Wyoming and Montana. Cutthroat trout are Montana's official state fish and are an important part of our Montana heritage after being discovered by Lewis and Clark on the 1805 Corps of Discovery journey.

History

Yellowstone cutthroat trout became isolated in the headwaters of the Snake River after the creation of Shoshone Falls 30,000-60,000 years ago. Between 8000-12000 years ago Yellowstone cutthroat trout entered the Yellowstone River Drainage from the Snake River Drainage at Two Ocean Pass in what is now Yellowstone National Park, Wyoming. Yellowstone cutthroat trout subsequently colonized all suitable habitats within the drainage. Since the late 1800s the occupied range of stream dwelling Yellowstone cutthroat trout in the state of Montana has decreased by approximately 90%.

Yellowstone Cutthroat Trout
(Oncorhynchus clarki bouvieri)



Westslope Cutthroat Trout
(Oncorhynchus clarki lewisi)



Current distribution and abundance of westslope cutthroat trout is also severely restricted compared to historical conditions. Genetically unaltered westslope cutthroat trout are believed to exist in less than about 3 percent of the historic range within the upper Missouri River basin.

Causes for the decline of native cutthroat include; competition with and predation by non-native fish species, genetic introgression, over fishing, and habitat degradation. Many of the remaining genetically pure populations are located in small isolated headwater streams and are very vulnerable to extinction through both natural and human disturbances.

Management

Due to severe reductions in distribution, westslope and Yellowstone cutthroat trout are considered Sensitive Species by Region 1 of the Forest Service, and a Species of Special Concern by the state of Montana. A Memorandum of Understanding and Conservation Agreement has been developed by a broad range of entities to expedite implementation of conservation measures for both westslope and Yellowstone cutthroat trout. The basic premise of this management plan is to protect existing populations, and ensure long-term persistence of westslope and Yellowstone cutthroat trout within their historic Montana range.

Management of cutthroat trout on the Custer Gallatin National Forest focuses on conserving and protecting genetically pure populations. Maintaining and expanding these populations is critical to achieve the long-term goal of increasing the number of pure populations of cutthroat trout throughout their historic range. The protection of westslope and Yellowstone cutthroat trout from non-native fish species is key to the survival of these populations. Forms of protection could include the construction of temporary or permanent fish barriers and/or the removal of non-native fish species from certain streams or stream segments. As of 2015, through extensive cooperative efforts between State, Federal, and Tribal agencies, along with conservation groups and industry, native cutthroat have been restored or secured in over 100 miles of stream within CGNF watersheds.

Habitat quality is also a factor that must be addressed in the conservation of native cutthroat trout populations. In order for cutthroat trout to thrive the habitat in which they live must be in very good condition. Some of our strongest cutthroat populations are found in pristine watersheds where natural processes optimize the quality a quantity of fish habitat. Protection of cutthroat habitat includes; enhancement or restoration of critical habitat components and/or watersheds, reducing the negative effects of current land management practices, and ensuring that future land management activities result in either a beneficial or benign effect on cutthroat trout habitat.

Native Fish Species – Prairie fish

The Custer Gallatin National Forest is home to a variety of native prairie fish, from Iowa darter, a small headwater relative of walleye, to brassy minnows, white suckers, and lake chub. Although many of these species aren't well known, they are the ecosystem foundation supporting many more well-known native species such as sauger, or non-native species like walleye and smallmouth bass. They also provide information regarding water quality and quantity, riparian habitat condition, and other habitat variables.

Therefore, an emerging emphasis for our watershed program is understanding the current and potential distribution of native prairie fishes on our East Zone (Ashland and Sioux Ranger Districts). In addition to fish sampling, we are mapping flow regimes of streams on these landscapes as well as barriers to Aquatic Organism Passage (AOP). For prairie fish, even ephemeral or intermittent streams can be critical for spawning migrations; therefore, we are already beginning the process of removing or modifying culverts on primary tributaries of the Tongue River to ensure Forest streams are accessible.

Iowa Darter
(Etheostoma exile)



Native Species – Spadefoots

A native species that looks similar to a toad, spadefoots are amphibians that use their specially designed hind feet to burrow in sandy soils. Their distribution is limited on our montane districts, and breeding habitat is sparse. Therefore, we have created additional breeding sites for the species where they exist to provide more resiliency to the populations in those locations.