

- Historically, the Madison and Gibbon rivers (below Gibbon Falls) were inhabited by west-slope cutthroat trout, Arctic grayling, mountain whitefish, mottled sculpin, mountain sucker, and longnose dace. Today, some of those species survive (some in extremely depleted numbers) and brown trout, rainbow trout, and brook trout have been added to the mix.
- When Heart Lake was first sampled for fish, Yellowstone cutthroat trout, mountain whitefish, speckled dace, redbreast shiner, Utah sucker, Utah chub, and the mottled sculpin were found. Lake trout are now present.
- Lewis and Shoshone lakes were historically fishless because of waterfalls on the Lewis River. Today, the lakes support lake trout, brown trout, brook trout, Utah chub, and redbreast shiner.
- The lower Lamar River and Soda Butte Creek historically were home to Yellowstone cutthroat trout, longnose dace, longnose sucker, and mountain sucker. Today, those species persist, but native trout are threatened by hybridization with rainbow trout and competition with brook trout.

Fish: Species Descriptions

Cutthroat Trout (*Oncorhynchus clarkii*)

In the greater Yellowstone ecosystem, cutthroat trout are considered a keystone species, upon which many other species depend. For example, they spawn in shallow water, where they become an important food resource for other Yellowstone wildlife, including the grizzly bear. They are at great risk from hybridization and competition with non-native trout, and predation by non-native lake trout.

Yellowstone Cutthroat Trout (*Oncorhynchus clarkii bouvieri*)

- Includes two forms of the same subspecies:
 - Yellowstone cutthroat (large spotted form)
 - Snake River cutthroat (fine spotted form)
- Yellowstone cutthroat is native to the Yellowstone River, its tributaries, the Snake River, and the Falls River.
- Snake River cutthroat is native to Snake River drainage in and beyond Yellowstone and Grand Teton national parks.
- Require cold, clean water in streams or lakes.
- Spawn in rivers or streams in early May

through mid-July.

- Most important foods are aquatic insects — mayflies, stoneflies, caddisflies, etc.—and other small aquatic animals, plus terrestrial insects that fall into the water.
- Also eat smaller fish, fish eggs, small rodents, frogs, algae and other plants, and plankton.

While the Yellowstone cutthroat trout is historically a Pacific drainage species, it has (naturally) traveled across the Continental Divide into the Atlantic drainage. One possible such passage in the Yellowstone area is Two Ocean Pass, south of the park in the Teton Wilderness. Here, it's possible for a fish to swim across the Continental Divide at the headwaters of Pacific Creek and Atlantic Creek and, thus, swim from the Pacific to the Atlantic watersheds and vice versa.

Management

Yellowstone Lake and Yellowstone River together contain the largest inland population of cutthroat trout in the world. For many years, the fish in Yellowstone Lake have been intensively monitored and studied. In the 1960s, fisheries managers determined that angler harvest was excessive and negatively impacting the fishery. Increasingly restrictive angling regulations were put into place, which helped restore cutthroat trout population numbers and age structure. Whirling disease and illegally introduced lake trout in Yellowstone Lake now pose a serious threat to the cutthroat trout population.

Westslope Cutthroat Trout (*Oncorhynchus clarkii lewisii*)

- Evolved from a common ancestor of the Yellowstone and Snake River forms of the species, and shares their food and habitat requirements.
- Originally throughout the Madison and Gallatin river drainages in Yellowstone National Park.
- Currently reduced to small headwater populations due to competition and interbreeding with non-native fish.
- Habitat loss and pollution negligible in the park.

Management

This subspecies is at risk through interbreeding with non-native rainbow trout and transplanted Yellowstone cutthroat trout. Two genetically pure

populations of westslope cutthroat trout have been found in Yellowstone: Last Chance Creek, a tributary of Grayling Creek in the Madison River drainage, and the Oxbow/Geode Creek complex in the Yellowstone River drainage. An intensive effort is underway to restore westslope cutthroat trout in Specimen Creek, a tributary of the Gallatin River.

Arctic Grayling (*Thymallus arcticus montanus*)

- Used to share similar habitat with westslope cutthroat trout and whitefish (with which it is sometimes confused).
- Displaced by non-native species.
- Native, river-dwelling form (fluvial) extinct in the park.
- Because of stocking in the 1920s, grayling live in Grebe, Wolf, and Cascade lakes.
- In these lakes, grayling spawn in June.
- Like trout, grayling eat mostly insects.

Management

Current efforts on behalf of the grayling include habitat surveys in the upper reaches of Grayling Creek to determine if a restoration project is possible in that location. Yellowstone National Park, Gallatin National Forest, and Montana Fish, Wildlife and Parks are working together on this project.

Mountain Whitefish (*Prosopium williamsoni*)

- Slender silver fish, sometimes confused with grayling.
- Lives in Yellowstone's rivers and streams.
- Requires deep pools, clear and clean water, and is very sensitive to pollution.
- Unlike other native fish, the whitefish spawns in the fall.
- Generally feeds along the bottom, eating aquatic insect larvae.
- Compete with trout for the same food.
- The whitefish has persisted in its native waters, unlike grayling.

Fish: Native Nongame Fish

Suckers

- Bottom-dwelling fish that use ridges on their jaws to scrape flora and fauna from rocks.
- Eaten by birds, bears, otters, and large cutthroat trout.
- Habitat distinguishes species:
 - Mountain sucker (*Catostomus*



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Volunteer Angler Report Anglers contribute to the fisheries database by filling out a Volunteer Angler Report card that is issued with each fishing license. This information helps managers monitor the status of fisheries throughout the park.

platyrhynchus): cold, fast, rocky streams and some lakes.

- Longnose sucker (*C. catostomus*): Yellowstone River drainage below the Grand Canyon; Yellowstone Lake and its surrounding waters (introduced). Equally at home in warm and cold waters, streams and lakes, clear and turbid waters.
- Utah sucker (*C. ardens*): Snake drainage.

Mottled sculpin (*Cottus bairdi*)

- Lives in shallow, cold water throughout Yellowstone except in the Yellowstone River above Lower Falls and in Yellowstone Lake.
- Eats small insects, some fish and plants.
- Eaten by trout.

Minnows

- Small fish living in a variety of habitats and eating a variety of foods.
- All four species eaten by trout.
 - Utah chub (*Gila atratria*): Largest of the minnows (12 inches); native to Snake River drainage; seems to prefer slow, warm waters with abundant aquatic vegetation.
 - Longnose dace (*Rhinichthys cataractae*): Most often found behind rocks and in eddies of cold, clear waters of the Yellowstone and Snake river drainages.
 - Redside shiner (*Richardsonius balteatus*): Minnow of lakes; native to the Snake River drainage; has been introduced to Yellowstone Lake, where it might compete with native trout because its diet is similar to that of young trout.
 - Speckled dace (*Rhinichthys osculus*): Lives in the Snake River drainage.