

TU NTWG Poster

Get to Know Your Native

YELLOWSTONE CUTTHROAT TROUT

Oncorhynchus clarkii bouvieri

DIT Yellowstone cutthroat trout primarily feeds aquatic and terrestrial invertebrates. In some populations, they can be piscivorous, eating small fish.

LIFESPAN Yellowstone cutthroat trout typically live 2-3 years in small streams, and 6-9 years in larger rivers and lakes.

SIZE Size varies based on available habitat. Adults are generally 9-40" in small streams, 14-18" in larger rivers, and can exceed 24" and 5 lbs. in lakes.

HABITAT Yellowstone cutthroat trout prefer clear, cool, well-oxygenated streams with an abundance of gravel, moss, and algae growth. They also thrive in ponds and lakes.

SPAWNING Yellowstone cutthroat trout spawn from April through July, depending on local factors. Gravid mature fish migrate into streams and create a gravel nest in the water when the eggs are born.

A Species in Time
Over two million years ago, Yellowstone cutthroat trout evolved and began their journey up the Snake River basin. When glaciers receded 6,000-10,000 years ago, some moved across the Continental Divide into Yellowstone Lake and River drainage, covering large portions of Wyoming and Montana. Others remained on the Pacific side of the divide and now inhabit Idaho and Wyoming in the Snake River watershed above Shoshone Falls in Idaho, and small portions of northeast Nevada and northwest Utah.

A Keystone Species

A keystone species is an animal whose presence is vital to the survival of other animals in the surrounding area. In the Yellowstone Lake ecosystem, for example, Yellowstone cutthroat trout are a key food source for osprey, eagles, river otters, and grizzly bears. Osprey, who eat fish almost exclusively, were affected the most—after the native trout population collapsed, osprey nests in the lake area dropped from 60 nests in 2005 to only 1 in 2006.

YELLOWSTONE LAKE Paradise Nearly Lost

Before 1960, Yellowstone Lake and the connecting waters had contained the largest population of Yellowstone cutthroat trout in the country, with an estimated 3.5 million living in the lake alone. Then in 1964, the first non-native lake trout was caught by an angler and reported to authorities. By 2005, predation by the invasive lake trout had reduced the lake's trout population by 95%. The entire lake ecosystem suffered cascading ecological effects. In 2008, a scientific review panel recommended doubling nesting osprey operations. A coalition of conservation groups came together and helped the National Park Service meet funds for a similar osprey mitigation effort. Since 1994, over a million of the non-natives have been removed. Recent research shows small fish are an essential dietary item. Mitigation efforts will be ongoing until the trout return to dominance. For more information on this restoration success story, visit epa.gov/yell-lake, www.lake-trout.com

SPAWNING (Label): Rise fish along lateral line

SPAWNING (Label): Large, rounded spots generally should (but) fly

SPAWNING (Label): Change red fins on forehead, pelvic and anal fins

COLOR (Label): Bright red fish under the jaw to key identifier. Gill plates will have a crimson hue.

COLOR (Label): Lake dwellers are characterized by yellowish brown or brown bodies, becoming paler toward the belly. Stream dwellers can have more silver bodies below.

They're a North American Treasure!

What's In a Spot?
The Yellowstone cutthroat pattern on the poster has large spots. However, in some portions of its range (primarily in the Snake River headwaters in Wyoming and Idaho), a "fine spotted" phenotype is dominant and is referred to locally as the Snake River cutthroat trout. Current analysis shows no genetic differences between the two. Until more genetic DNA testing is developed, both are considered and managed as Yellowstone cutthroat trout, but sometimes being separately.

HISTORIC AND CURRENT RANGE
Yellowstone cutthroat trout only inhabit 4% of their original range. With stocking of fish in many areas, lake with Yellowstone cutthroat trout populations have increased from 6% to more than 20%.

Legend
Yellowstone Cutthroat Trout Population
Current Range
Historic Range

Threats and Current Status
Yellowstone cutthroat trout (YCT) have similar habitat needs of other species of trout. However, they are more sensitive than non-native trout to habitat damage, water pollution, and warmer temperatures.

Non-native Species—Lake brown, rainbow and brook trout are predators of and compete for available food resources.

Habitat Alteration—cut and rainbow trout are closely related and share common spawning patterns, producing hybrids that can overwhelm pure YCT populations.

Habitat Degradation—Roads, culverts, grazing, logging, and development can all impact habitat, creating impassable barriers for spawning runs and high sediment levels in spawning sites, and increased water temperatures.

Whirling Disease—A disease affecting the bony structure of young YCT, preventing normal movement, access to food, and increasing exposure to predators.

Climate Change—Drought and higher air temperatures increase wildfire potential, reduce stream flows, and increase water temperatures, each consequence impacting spawning, increasing thermal stress and exposure to disease.

YOU Can HELP PROTECT NATIVE TROUT

- Never introduce non-native species into any body of water or land area.
- Follow state and local fishing regulations.
- Use barbless hooks.
- Practice careful catch and release.
- Wash in disinfectant water and boots after each angling adventure.
- Leave no trace.
- Take only memories.

To help even more, become active in a local conservation group, like Trout Unlimited.

This poster was funded by numerous TU State Councils and Chapters, Western Native Trout Initiative, ORVIS, and friends of the Yellowstone cutthroat trout. For more information, visit westernnativetrout.org | yellowstone-cutthroat-trout.com

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LIFESPAN

Brook trout are relatively short-lived in small streams, averaging about 3 years. They typically live 4-5 years, but may live longer in some habitats. They rarely reach maturity at age 1.

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BROOK TROUT

SIZE Brook trout grow in size greatly depending on the resources available. In small, headwater streams, brook trout typically grow to 8-12 inches. However, in the northern portion of its range and in fertile habitats, brook trout can reach lengths of 18 inches.

HABITAT Brook trout require cold, clean water. They prefer temperatures between 12-18°C or 55-65°F and can be found in small streams, rivers, larger ponds, and larger lakes.

Dark green or blue black with white flecks dorsally on back.

CLEAR LAKES
CLEAR LAKE HOOP FERRARI'S GREAT LAKES and engage into the tributaries to open. Historically, brook trout populations were found in Lake Superior, Lake Michigan, and Lake Huron.

DIETARY ASSESS Spring-fed streams in the upper Great Lakes region of Michigan, Wisconsin, Iowa, and Illinois often support robust brook trout populations.

DIET Brook trout feed on a wide variety of organisms including worms, beetles, crustaceans, insects, mollusks, fishes, amphipods, and/or small mammals depending on the food resources available in their local environment.

Salvelinus fontinalis

Traditionally a char, brook trout are also known as Rainbow, Spotted Trout, Brook Char, Spotted Char, Crayfish, among others.

Red spots with blue dots
Front edge of the white is lighter in color
Rills and lower fin rays are not in spawning mode

Stewardship

Given the wide distribution of brook trout from the Midwest to Maine in the Northeast, Appalachians and the entire range of habitats among their territories, it is critically important to understand the local requirements regarding feeding the brook trout. Some areas are abundant, but require specific water quality and habitat management. If we are to be good stewards of the natural resource, we must follow the science and direction from government and local conservation organizations.

Advocating fish helps maintain strong populations and quality fisheries where angling pressure is high. If you practice catch and release, you can help reduce fish mortality by following these stress-reducing practices:

- Use the proper size tackle to land the fish quickly, which can help minimize stress.
- Use barbless hooks to avoid hook removal and minimize damage to the fish.
- Minimize air exposure and avoid excessive handling to reduce levels of moisture and oxygen loss to the fish.
- Do not handle fish with dry hands.
- Do not squeeze the fish.
- Do not touch the gills of the fish.
- Leave the fish in the water while removing the hook, holding the gills down in the water when making them easier to handle.
- Place brook trout deep in the water immediately after the hook is set, and give the fish time to recover before releasing.
- If the fish is exhausted, hold it in a container of oxygenated water being aerated and gently pour it back and forth until it is able to swim.

Avoid fishing during the hottest part of the day when water temperatures typically rise above 20 degrees. However, some temperatures can add additional stress on brook fish, and decrease the likelihood of them surviving after they are released.

SPAWNING SEASON

Spawning typically begins in September and October. The start of spawning is dependent on water temperature and varies across the water range (earlier in northern latitudes).

An Indicator Species

Brook trout are considered an indicator species for the overall health of the watershed. If brook trout are present and abundant in the watershed, it may be considered healthy. Brook trout are very sensitive to changes in water quality, temperature, and habitat quality. Changes in the landscape from natural resource extraction, forestry, agriculture, and other developments have eliminated brook trout from many of the watersheds throughout their native range.

Life Histories

The diversity of brook trout populations in the eastern US are found in small, headwater streams where the water is cold and has little to no flow. Throughout New England, many tributaries and lakes also hold populations of brook trout. These fish spend their entire lives in freshwater environments which means they also never use saltwater to spawn. There are some unique life histories that brook trout take advantage of when the habitat is available:

- Anadromous Lake "Trout"** or Sea Trout? Found along the New England coast, these fish spend their entire lives in the ocean, but return to freshwater to spawn. Historically, brook trout were found in Lake Ontario, Lake Michigan, and Lake Huron.
- Coincident Brook Trout:** These fish are found in the upper Great Lakes region of the water range. They are opportunistic, meaning they spend part of their life in the Great Lakes and use tributaries to spawn.

Legend

BROOK TROUT IN THE EASTERN UNITED STATES

- Brook Trout Habitat
- Current Distribution
- Historical Distribution in Canada

MADE Wild steelhead watersheds with steelhead trout populations that the other Eastern Brook Trout have never been introduced. Made in the USA was developed by the National Fish and Wildlife Foundation in partnership with the U.S. Fish and Wildlife Service. Made in the USA is a mark of quality and a mark of pride.

New England

Brook trout are introduced throughout New England in streams, rivers, lakes, and ponds. New England brook trout populations are the most diverse in the eastern United States.

Mid-Atlantic

Brook trout are relatively widespread throughout the lower boundaries of major watersheds including the Chesapeake Bay and the Delaware and Ohio Rivers.

Business Opportunities

As the co-owner and operator of the water range, brook trout are a key part of the local economy. There are many opportunities for business development from brook trout in the eastern United States.

In the United States, current range is about 1/3 of historic range.

They're an Eastern Treasure!

Conservation & Advocacy

Many groups are working to protect, restore, and enhance brook trout and the watersheds they inhabit. Trout Unlimited, the Eastern Brook Trout Coalition, state and federal agencies, colleges and universities, and many other public and volunteer organizations are working throughout the water range to improve the quality of these indicator resources through the greatest scientific, strategic planning, monitoring, and scientific research.

You can help these efforts by volunteering with your local Trout Unlimited Chapter or local watershed organization and assisting with their restoration projects. You can also help support your policies concerning the management and protection of our outdoor resources and with your local, state, and federal representatives requesting legislation that protects their resources.

Threats and Current Status

Brook trout were distributed and diverse throughout their entire native range. However, past and current land-use and development have led to widespread declines in brook trout populations. The threats to brook trout vary across the water landscape, but some of the most common threats include:

Habitat Fragmentation: Loss of stream connectivity such as culvert projects.

Water quality degradation: due to chemical runoff, drainage, acid rain, wastewater discharge, ineffective sewage systems, and industrial development.

Loss of habitat: from historical land-use operations, changes in land use (agriculture and other human development), and habitat resource extraction.

Invasive and non-native species: such as rainbow trout, muskellunge, bass, fish, northern trout and brown trout.

Climate change: which is increasing stream temperatures and large precipitation events.



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APACHE TROUT

STATE FISH of ARIZONA

HABITAT Apache trout are generally found in small, cool streams at higher elevations.

SIZE Apache trout size varies depending on available habitat. In smaller headwater streams adults are generally 6-10" in length, while stocked fish in lakes can exceed 20".

A Species in Time

The Apache trout along with the native Gila trout likely represent the earliest living branch of an ancient trout with origins in the Gulf of California. During one of the earlier glacial periods, perhaps as much as a million years ago, these trout ascended up the Colorado River and into the headwaters of the Gila River basin. Later, in a warmer, drier time between glacial periods, the two groups of fish were isolated from each other with those in the Salt River portion of the basin evolving into the Apache trout, and those in the upper Gila, upper Verde and other tributaries of the Gila basin becoming Gila trout.



DIET Apache trout feed on aquatic and terrestrial insects and macroinvertebrates.

Fishing Tips

LAKES & STREAMS - Depending on where you fish, regulations and allowable tackle may vary, so be sure to check your local regulations. Using light tackle, Apache trout can be caught by a variety of methods, including wet or dry flies, small lures, or natural baits. Any grass, mosquito, mayfly, caddisfly or stonefly imitation will work, as well as terrestrial patterns such as ants, beetles or hoppers. Those fishing with lures should try small spinners and those looking for the authentic "sit and cane pole" experience can try worms or grasshoppers. In any case, but especially in small streams, Apache trout are wary, so take your time and be stealthy when approaching promising habitat.

FIGUETTES - Catch and release is an important way to conserve the resource and ensure angler access to the future. Barbless hooks and rubberized nets will reduce injury to the fish. Keep the fish in the water and get your hands wet before touching them.

Fly Box

- DRY FLIES** - Royal Coachman, Adams, Royal Wulf, Parachute Adams
- WET FLIES** - Peacock Lady, Pleasant Tail, Her's Ear, Zig Bug, Woolly Buggie, Woolly Worm, Muddler Minnow
- LURES** - Father Martin, Super Duper, Rooster Tail

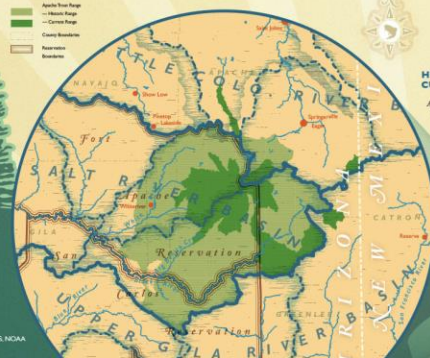


Oncorhynchus apache

COLOR Apache trout are typically yellowish-gold with a darker olive back and a yellowish underbelly, leading to the former name "Yellowbelly." Dark bold spots occur on dorsal and tail fins; irregular spots on the body sometimes extend below the lateral line. The fins are yellow in orange. In the poorest streams, two black dots on each side of the jugal give the fish a "mashed hands" look.

Apache trout have a signature yellowish underbelly.

The fins typically have a lighter colored leading edge with a white or yellowish tip.



HISTORIC AND CURRENT RANGE

Apache trout are found only in the streams and stocked lakes of the White Mountains in East-Central Arizona. These fish were favorites of pioneers in the region in the late 1800s with hunters, sportsmen and scientists showing early interest in harvesting hundreds of "Yellowbelly" in a single trip. Apache trout currently occupy about 120 miles of stream in this region, making up approximately 2% of their historic range in the watersheds of the upper Salt and Little Colorado rivers.

Current range is about 2% of historic range.

Threats and Current Status

Inclusion in small riparian reserves and a very limited range have the Apache trout particularly vulnerable to habitat loss from forest fires and human development, hybridization with rainbow trout, and competition from non-native species.

After being listed as one of the first "endangered" species in 1968, successful conservation work increased the range of the Apache trout from about 30 to 70 miles of stream in Arizona, and the current listing as a "threatened" species. This work continues through the efforts of Trout Unlimited, the Arizona Game and Fish Department and the Fort Apache Indian Reservation. If you would like to help with these conservation efforts please contact: www.trout.org

In 1986, the Apache trout was designated as the State Fish of Arizona.

Fishing with Natives

The Arizona Game and Fish Department and the White Mountain Apache Tribe in western Arizona separately managed all the Apache trout fisheries in the state. After the formal listing as an endangered species, fishing was reintroduced in 1973 when the Apache trout was downlisted to the "threatened" category. The present status of Apache trout are found in the Mazoni Baldy Wilderness and continue to be closely monitored with limited fishing managed by the White Mountain Apache Tribe. In addition to ongoing recovery efforts to increase the wild and naturally reproducing populations, Apache trout are raised at the Williams Creek National Fish Hatchery and in Arizona's trout hatcheries at Silver Creek and Torino creek for stocking in select Arizona lakes and streams for recreational fishing.

It's an Arizona Treasure!

Check your local fishing regulations —

- AZ** www.azgfd.com
- WA** www.watoutdoor.org
- SC** scnr.com/recreation

Map data sources: ESRI, USGS, NOAA



This poster is funded by Trout Unlimited and the Victoria Beane Trust Initiative. For more information, please go to www.trout.org or fish.west.us@trout.org

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GILA TROUT

Oncorhynchus gilae

DIET Gila trout feed on insects and terrestrial insects and their larvae. Larger adults will also feed on other fish.

HABITAT Gila trout are generally found in cool, fast-moving, higher elevations.

SIZE Gila trout are native to mountain habitat. Adults are generally less than 12" in small headwater streams, but can reach 15" in larger streams and up to 20" in isolated lakes.

A Species in Time

Native Gila trout along with the closely related Apache trout likely represent the earliest living branch of anadromous trout with origins in the Gulf of California. During one of the earlier glacial periods, perhaps as much as a million years ago, these trout ascended up the Colorado River and into the headwaters of the Gila River basin. Later, in a warmer, drier time between glacial periods, the two groups of fish were isolated from each other with those in the Salt River portion of the basin ending up in the Apache trout, and those in the upper Gila, upper Verde and other tributaries of the Gila basin becoming Gila trout.

SPAWNING SEASON Spring - Typically beginning in April when water temperatures rise to the mid 50's and 60's.

LIFESPAN Gila trout generally live 4-6 years.

Maryland fish was first seen in collection along the lateral line.

For an equally vibrant orange to red color in the gill coverings.

COLOR Gila trout are generally yellowish gold in color, described as "looking like silver from the Rio Grande and Colorado rivers." They have small, purple spots by the mouth, and the central region of the body has a row of small, dark spots. The lateral line is yellowish-orange and light blue-green along the lateral line. Smaller fish may exhibit more vibrant colors.

Legend

- Water
- Mountain
- Subalpine
- Lower
- Alpine

Gila Trout Range

- Historic Range
- Current Range

Threats and Current Status

Gila trout are listed as "endangered" by the U.S. Fish and Wildlife Service and are listed as "critically imperiled" by the IUCN. The species is currently listed as "critically imperiled" by the IUCN. The species is currently listed as "critically imperiled" by the IUCN.

Isolation and fragmentation in small streams and headwater streams have particularly reduced the ability to have a larger range and current status.

Nonnative trout - Gila trout do not compete well with brown and brook trout, which are particularly vulnerable to hybridization.

Habitat degradation - Roads, logging, grazing, mining and development have reduced the quality of the habitat.

Climate change - Rising air and water temperatures and lower snowpack and streamflow have reduced the quality of the habitat.

HISTORIC AND CURRENT RANGE

Gila trout are native to mountain streams in the Gila, Salt, Prescott, Apache and Verde River drainage in Arizona and New Mexico. Although the current range includes over 800 miles of stream, the trout are now listed as nearly extinct in the headwaters of the drainage.

It's a Southwest Treasure!

Fishing for Natives

The Game and Fish Department of Arizona and New Mexico manage all the Gila trout fisheries in the Southwest. Gila trout fisheries are managed by the Arizona Game and Fish Department and the New Mexico Game and Fish Department. For more information on Gila trout fisheries, please contact the Arizona Game and Fish Department or the New Mexico Game and Fish Department.

Fishing Tips

GILA TROUT

LAKES & STREAMS - Depending on where you fish, regulations and allowable tackle may vary, so be sure to check your local regulations. Using light tackle, Gila trout can be caught by a variety of methods, including wet or dry flies, small lures, or natural baits. Any gear, waders, waders, raskitski or waders you use will work, as well as terrestrial game waders, waders, boots or boots. These fishing methods are all equally effective and there is no one "right" way to fish. If you are a beginner, it is best to start with simple methods and work your way up to more complex techniques. In any case, be especially careful in small streams. Gila trout are very sensitive to pollution and habitat degradation, so please be careful of your approach to fishing in these areas.

WADERS & BOOTS - Catch and release fishing is recommended and may be required in many areas. Keep the fish in the water at all times, handle fish only with wet hands and as little as possible, and use soft-bottom boots and rubberized soles. Good angling practices like those conserve the resource and create angler access to the future.

Fly Box

DRY FLIES - Royal Coachman, Adams, Royal Wulf, Parula, Adams

WET FLIES - Phoenix Lady, Phoenix Tail, Heron, Fat, Big Woody, Sedge, Wood Wren, Haddock, Heron

LURES - Rubber Martin, Super Duper, Rubber Tail

Check your state fishing regulations at www.azgfd.com or www.nmstate.gov

This poster is funded by Trout Unlimited and the Western Flycatcher Trust. For more information, please go to www.trout.org or www.westernflycatchertrust.org/gila-trout

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RIO GRANDE CUTTHROAT TROUT

Oncorhynchus clarki virginalis

HABITAT - Rio Grande cutthroat trout grows in fast flowing, well-oxygenated streams, rivers, and riparian areas. They are found in the mountains of the Southwest and in the Rio Grande basin.

DIET - Rio Grande cutthroat trout are opportunistic feeders, eating a variety of insects, plants, and small animals.

SPAWNING SEASONS - Rio Grande cutthroat trout are spawning from April to July, with peak spawning occurring in May and June.

SIZE - Rio Grande cutthroat trout can grow to a maximum length of 24 inches and weigh up to 10 pounds.

STATUS - Rio Grande cutthroat trout are a native species and are listed as a "sensitive" species by the U.S. Fish and Wildlife Service.

Color - Rio Grande cutthroat trout have a distinctive color pattern, including a bright red-orange stripe along the side of the body, a dark lateral line, and a greenish-brown back with dark spots.

LIFESPAN - Rio Grande cutthroat trout have a lifespan of 3 to 7 years.

Historic and Current Range - The historic range of Rio Grande cutthroat trout extends from the headwaters of the Rio Grande in the mountains of the Southwest to the Gulf of California. The current range is much more limited, primarily to the headwaters of the Rio Grande in the mountains of the Southwest.

Fishing & Natives - Rio Grande cutthroat trout are a popular sport fish and are also an important part of the diet of many native peoples in the Southwest.

Threats and Current Status - The primary threats to Rio Grande cutthroat trout are habitat loss, overfishing, and non-point source pollution. The current status of Rio Grande cutthroat trout is "sensitive" and they are listed as such by the U.S. Fish and Wildlife Service.

Fishing Tips

24 RIO GRANDE CUTTHROAT

IDENTITY - Small, mostly male fish grow to a maximum length of 24 inches. They are found in the mountains of the Southwest and in the Rio Grande basin. They are a popular sport fish and are also an important part of the diet of many native peoples in the Southwest.

STATUS - Rio Grande cutthroat trout are a native species and are listed as a "sensitive" species by the U.S. Fish and Wildlife Service.

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Threats and Current Status - The primary threats to Rio Grande cutthroat trout are habitat loss, overfishing, and non-point source pollution. The current status of Rio Grande cutthroat trout is "sensitive" and they are listed as such by the U.S. Fish and Wildlife Service.

Map - A map of the Rio Grande basin showing the historic and current range of Rio Grande cutthroat trout. The historic range is shown in green and the current range is shown in yellow.

Logos - Logos for various organizations including the U.S. Fish and Wildlife Service, the National Audubon Society, and the Rio Grande Water Conservancy District.

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Get to Know Your Native

INTERIOR REDBAND TROUT

Oncorhynchus mykiss

DIET
In streams and rivers, Redband Trout primarily eat aquatic insects and terrestrial arthropods, such as worms and lake bugs. Redband frequently feed on elk fish.

HABITAT
Redband are highest in mountain streamflow, in cold lakes.

LIFESPAN
Redband Trout reach maturity at five years, depending on sex. In high flows, adults can live to 10 years.

HISTORIC and CURRENT RANGE
The original Redband Trout population on flood benches for the Pacific Slope, Cascades, and British Columbia is thought to have been the same. However, historical "wild" populations that were once in the Pacific Northwest, the Columbia River basin, the Snake River basin, the Okanogan and Fraser River basins, and the Adirondack, Connecticut, Massachusetts, and Pennsylvania basins are thought to have been introduced.

A Species in Time
Redband Trout are historic forms of Rainbow Trout inhabiting drainages east of the Cascade Mountains. Three major forms that span the Cascade—the Columbia, Upper Cowlitz, and Klaskanin Rivers—largely shaped the diversity and distribution of Redband Trout over the last historical lake fluctuations. Glaciation, and volcanic activity also led to periodic disruptions, isolation, and migration events that created further diversity within these drainages. These repeatedly adaptable trout have been able to adapt to diverse and dynamic habitats over their evolutionary history.

Color
Large pinkish spots on body, decreasing in size to greenish black and brownish black spots on the sides. Yellowish or orange on the sides.

Size
Adults range up to 100 cm, but all species up to 100 cm.

Spawning Season
Spawning occurs in spring and summer, and is dependent on the timing of snowmelt runoff. Spawning typically occurs in late spring and early summer.

Threats and Current Status
The original form of Redband Trout in California, Oregon, Washington, Idaho, Utah, and Montana was considered to be an anadromous form of rainbow trout. However, genetic studies indicate that the original form of Redband Trout was anadromous. Genetic studies indicate that the original form of Redband Trout was anadromous. Genetic studies indicate that the original form of Redband Trout was anadromous.

Fishing Tips
In rivers and streams, Redband Trout are easily spotted. In lakes and still water, fish the edges, ledges, and outcrops. When fishing from the shoreline, cast to existing fish or structure. If available, use a boat or personal watercraft to cover more water. Redband can be caught using flies, artificial lures, and old standard stream and gamefish flies. Redband Trout are also caught using spinners, but beware you are not fishing in a restricted area. Check local regulations for use of the strongest fishing tools in freshwater. When fishing repeatedly and stripping line from angler reels.

Catch & Release
Redband Trout helps maintain strong populations and quality fisheries when angling practices in high, if you consider catch-and-release, you can help reduce fish mortality by following these simple catch-and-release practices:
1. Use the proper netting to land the fish gently, when you have a netting net.
2. Use barbless hooks, or carefully remove any barb and use a hook repair kit.
3. Use wet netting to remove the fish from the net.
4. Do not handle the fish by the gills, eyes, or fins.
5. Do not touch the fish.
6. Do not touch or hold fish by the eye, gill covers, or fins.
7. Leave the fish in the water while removing the hook. Redband Trout breathe from the gills, so when in the water, they can breathe. They will breathe when in the water, so when in the water, they can breathe. They will breathe when in the water, so when in the water, they can breathe.

Fishing Etiquette
1. Treat without the net, you can be treated.
2. Talk to your angler about how to best fish together.
3. Don't over-pull, because generally accepted fishing practices. Be patient with people's mistakes and show your understanding on how to fish with others.

They're a Western Treasure!

Don't Forget! Check with state fish and game agencies or current regulations. They provide information on current fishing information.

Partners: Oregon Department of Fish and Wildlife, Washington Department of Fish and Wildlife, Idaho Department of Fish and Game, Utah Department of Wildlife Resources, Montana Department of Fish, Wildlife and Parks, British Columbia Ministry of Forests, Lands, Natural Resource Operations and Rural Development, Alberta Environment and Sustainable Development, Saskatchewan Environment and Forestry, Manitoba Conservation, Ontario Ministry of Natural Resources and Forestry, New Brunswick Department of Environment and Forestry, Nova Scotia Department of Environment and Forestry, Prince Edward Island Department of Environment and Forestry, Newfoundland and Labrador Department of Environment and Forestry, Yukon Department of Environment and Forestry, Northwest Territories Department of Environment and Forestry, Nunavut Department of Environment and Forestry.

Map: Shows the distribution of Redband Trout in the Pacific Northwest and the Columbia River basin. The map includes a legend for the different forms of Redband Trout: Columbia River, Upper Cowlitz, Klaskanin, Snake River, Okanogan and Fraser River, Adirondack, Connecticut, Massachusetts, and Pennsylvania.

UTAH TU Poster

STATE FISH of UTAH

Get to Know Your Native BONNEVILLE CUTTHROAT TROUT

Oncorhynchus clarkii utah

SIZE
In streams, fish will grow up to 12 inches, depending on the size of the stream. In lakes, they can reach 200 inches.

LIFESPAN
While Bonneville cutthroat trout can live up to 10 years, most will live between 6 and 8 years.

HABITAT
Bonneville cutthroat can be found in ponds, ditches, and/or high, and slow-moving runs of streams. In lakes, they prefer open water during summer and winter, but they stay near shorelines during spring and fall.

A Species in Time
The Bonneville cutthroat trout historically occupied streams and lakes in Utah, Nevada, Wyoming and Idaho, that drained into the historic Lake Bonneville basin. Bonneville cutthroat trout was an important food source for Native Americans and pioneer settlers. The Bonneville cutthroat trout became Utah's state fish in 1957.

DIET
Bonneville cutthroat trout primarily eat aquatic invertebrates, including mayflies, caddisflies, damselfly nymphs, freshwater shrimp, and snails. They will also eat terrestrial invertebrates, including earthworms, ants, and beetles.

SPAWNING
Bonneville cutthroat trout spawn in gravel, typically during or towards "leaf" season. When a suitable habitat is not present, they will spawn along gravel shorelines in lakes.

Restoring BONNEVILLE CUTTHROAT TROUT
A broad partnership of states, federal agencies, and non-profit organizations have worked together to restore Bonneville cutthroat trout within their historic range. Agencies and their partners identify and prioritize population recovery and conservation. They have worked to restore populations by reintroducing associated fish, reconstructed habitats to prevent overpopulation of nonnative fish, reconnected habitats and Bonneville cutthroat trout populations by removing barriers to fish movement, and restored habitat by improving land uses and reconstructing degraded streams. These efforts secure conservation populations as well as provide the public the opportunity to fish for this iconic native trout species.

COLOR
Bonneville cutthroat trout are a vibrant silver-gray in chromed color on the upper body, with shades of bronze and pink on the flanks during spawning.

It's a Western Treasure!

Threats
Threats to Bonneville cutthroat trout include habitat degradation through warming stream temperatures, sediment, and human development; hybridization and competition with non-native trout, and susceptibility to disease and parasites from aquatic invasive species. Genetically poor, isolated populations are particularly vulnerable.

Current Status
A species that was once thought to be extinct, Bonneville cutthroat trout now occupy 43 percent of their native range. State and federal management agencies have established three native fish special conservation status in order to help direct efforts toward securing their persistence.

Fishing Tips for BONNEVILLE CUTTHROAT
Fly fishing is an especially effective way to target cutthroat trout with nymphs, small streamers, and dry flies. Terrestrial patterns like hoppers and beetles can yield some exciting action during the summer. Small spinners and natural baits like night crawlers can also be effective. Trout lightly to small streams to avoid spooking fish.

YOU Can HELP conserve native cutthroat trout

- Have more aquatic species diversity in streams
- Follow fishing regulations
- Clean boots, waders, and gear to prevent the spread of aquatic invasive species

A Prehistoric Fish
Bonneville cutthroat trout evolved in and occupied historic Lake Bonneville during the late Pleistocene Era. Following the desiccation of the lake some 10,000 years ago, Bonneville cutthroat trout remained in suitable cold water habitat within what is now referred to as the Bonneville Basin. Once abundant, Bonneville cutthroat trout were displaced by settlers who altered habitat, over-fished the species, and introduced nonnative trout that competed and/or hybridized with the native trout. Bonneville cutthroat trout were thought to be extinct before a number of remnant populations were discovered in small, isolated streams in Utah beginning in the 1970s.

The species has been petitioned to be listed as endangered under the Endangered Species Act several times since 1978, but the discovery of remnant populations, along with collaborative restoration efforts within its native range by agencies and partners, has helped alleviate factors that would warrant that listing. Today, after an aggressive, coordinated recovery effort by a multi-agency conservation team, there are now at least 203 Bonneville cutthroat trout populations that occupy about 2,728 miles of streams in habitat in 73 watersheds in Utah, Idaho, Nevada, and Wyoming.

Legend

- Blue: River
- Green: Lake
- Yellow: Stream
- Orange: Wetland
- Red: Urban
- Green: Forest
- Blue: Water
- Green: Wetland
- Blue: Water

Current range of 43% of historic range

For more information, visit www.utah.gov/conservation or www.bonneville-cutthroat-trout.com

UTAH STATE FISH AND GAME

CO TU Poster

Get to Know Your Native



A Species in Time

Cutthroat trout are the only trout species native to the American Rocky Mountains. Different ecotypes and strains of cutthroat trout evolved through millions of years of geographic isolation. In Colorado, this has resulted in four distinct cutthroat trout subspecies as we understand them today: Rio Grande, Colorado River, yellowfin cutthroat, three-beam, arctic, and greenback (South Fork three-beam).



SIZE Greenback average length is 12 inches. Females are smaller than males. Females have a more rounded snout and a more pronounced hump. They can also have a dorsal fin with 10-12 rays.

DIET Greenbacks primarily feed on aquatic and terrestrial insects, but also eat small fish. Larger non-fish can also eat smaller fish.

HABITAT Greenbacks prefer lakes in clear, cold, well-oxygenated streams that have abundant aquatic insects, along grassy, well-shaded banks. They can also thrive in deeper, slower-moving, high-pH, cold, well-oxygenated stream pools.

GREENBACK CUTTHROAT TROUT

Oncorhynchus clarkii stomias



SPAWNING SEASON Greenbacks spawn in the spring or early summer following snowmelt, when water temperatures approach 50 degrees.

LIFESPAN One decade is typical for the species.

From the Brink of Extinction

Greenback cutthroat trout, Colorado's official state fish, is the only trout native to the South Forks of the Grand and Colorado rivers. It was nearly extinct in the 1930s—threatened by a combination of introduction of non-native trout, overgrazing of riparian habitat, and dam construction. In 2003, a population of about 1,000 remained in the South Fork of the Grand River Basin. Through the fish's native range, this small population was slowly established from its native range to other areas in the state, and to new native range, or non-natives, to help restore its native range.

Fishing Tips

STREAMS — Shaded, shaded, shaded! Take your time to soak up in good habitat. You can often see your quarry before you cast. Light 12-14ft fly rods that are 5-8 ft. long are perfect for tight high country streams. Approach from downstream. Keep a low profile, and pay attention to your shadow.

LAKES — Greenbacks in lakes offer your best chance to catch larger fish. Try fly fishing trends to be better in low light conditions. Fly fishing nymph patterns and streamers when the fish are not feeding on the surface and won't rise to an attractor pattern.

ETHICAL TIP — Catch and release is an important way to conserve the resource and capture angler opportunity in the future. Use barbless hooks and rubberized jugs will reduce injury to the fish. Keep the fish in the water, and get your hands wet before touching them. Always clean your gear between trips to avoid spreading aquatic nuisance species that jeopardize the fishery.

Fly Box

DRY FLIES — Emergent Adults, Royal Wulf, Iron, Bumble, etc. but also, Caddis, Crane and other wing patterns.

WET FLIES — Stone, Nymph, Cripple, John, Caddis (Stone & Paper), Ison's, etc. more fly nymphs, caddis nymphs & caddisfly pupae.

Restoring GREENBACK CUTTHROAT TROUT

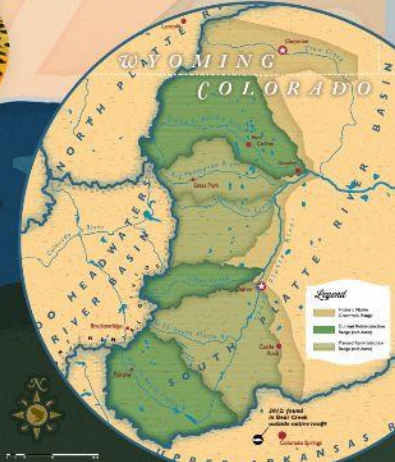
Government agencies and non-profit groups are restoring the greenback to its native range in the South Forks of the Grand. Projects generally need one by one:



- 1) Install a barrier to prevent invasion by non-native species.
- 2) Restore habitat along the stream bank.
- 3) Spawning greenback brood stock and rearing offspring to stock back.
- 4) Stock brood stock to stock the nearby suitable habitat.

* YOU CAN HELP *

Volunteers are key part of greenback restoration. Help by participating in events, such as stream cleanups, or donating and working on fly fishing gear. For more information, contact your local conservation organization.



Check your state fishing regulations www.cprw.state.co.us



This poster is funded by Trout Unlimited and the Western Native Trout Institute. For more information, please go to www.troutunlimited.org or www.greenback-cutthroat-trout.org.

Map data sources: FSI, USGS, NOAA

