

Help Native Fish Thrive in Fossil Creek

Native Arizona Fish Suffered New Predators and Water Diversion

For almost 100 years, much of Fossil Creek's pristine native fish habitat has run dry. Local power production redirected almost all Fossil Springs' water into a flume system for delivery to power plants downstream. Non-native sport fish, introduced for recreation, eliminated many of the 10 native species entirely.

A Restored Refuge For Native Fish in Peril

In the spring of 2005, the local power plants ceased operations and all the water diverted from the springs area was returned to Fossil Creek's original channel. After several years of planning, a group of biologists from Federal and State agencies implemented the Fossil Creek Native Fish Restoration Project. This project involved removing all non-native fish from Fossil Creek so that native fish species can exist without the pressure of non-native fish.

Returning full flows back to this rare travertine system resumed the rapid formation of travertine dams and their pools, renewing the diverse aquatic and riparian habitats. To keep this stream natural and wild, scientists continue to monitor fish, other wildlife, plants, and travertine development.

Doing Your Part Keeps Fish Habitat Healthy

Fish and people can share Fossil Creek. By understanding the things we do and how they affect the fish habitat, we can act in ways that will benefit native fish. Here's how you can help:

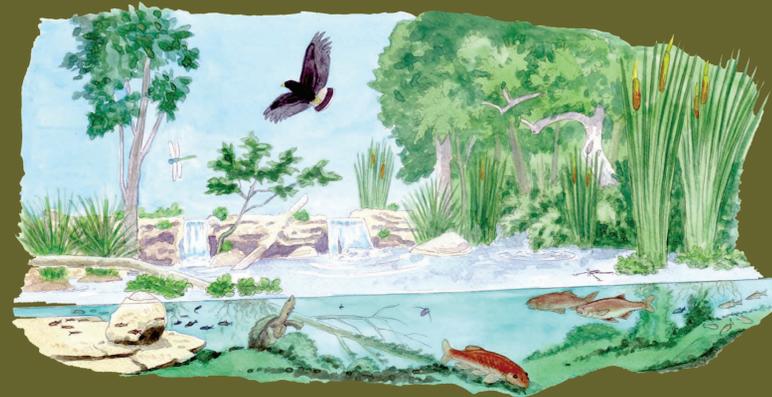
- Observe current fishing regulations; restrictions in Fossil Creek are necessary to protect the native fish.
- Do not dump your bait bucket in or near the creek.
- Do not move or release any fish, tadpoles, or crayfish.
- Practice "Leave No Trace" principles while recreating.
- Pack out your litter, including toilet paper, and bury your human waste at least 200 feet from the creek.
- Protect travertine formations by not altering the natural dams or water flow.
- Report illegal stockings by calling the Operation Game Thief hotline @ 1-800-325-0700. Rewards up to \$1,000 are available.



Funded by
Coconino National Forest and
the Arizona Natural History Association



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Pools Form Behind Travertine Dams

In pools behind dams, water currents slow down, organic debris settles and plants are able to grow along the shallow streamside. Roundtail chub and Sonora suckers actively hunt invertebrates thriving in the nutrient rich sediments. Young fish find safety hiding in the vegetation.



Northern Crayfish

Orconectes virilis
With no native crayfish in Arizona, these introduced predators harm our native fish, frogs, and even plants. You can help Fossil Creek's native fish by harvesting these good eating crayfish with your Arizona Game and Fish Fishing License.



Roundtail Chub

Gila robusta
Where pools form behind travertine dams, roundtail chub actively hunt small fish, aquatic invertebrates and any terrestrial insects that fall in the water. In turn, early settlers to Arizona fished for chub to supplement their food needs.



Desert Sucker

Catostomus clarki
With firm, sharp edges on their lips, desert suckers graze on plant materials and scrape algae off rocks in riffles and rapids. As juveniles, they eat insect larvae and other aquatic invertebrates.



Sonora Sucker

Catostomus insignis
Look for the large Sonora suckers on the bottom of pools, sifting and plowing through the gravels and organic debris for plentiful aquatic invertebrates and algae. Some fish grow to 2.5 feet and weigh several pounds.

Water Runs Full Force from Fossil Springs

A series of springs gushes 46 cubic feet, or 344 gallons, every second into Fossil Creek. That's over one million gallons of water per hour, or almost 30 million gallons each day!

Monkeyflower and maidenhair fern envelop the springs and provide cover for rare wildlife like the lowland leopard frog, headwater chub and Fossil springsnail.



Travertine Dams Grow by Inches Each Month

Travertine forms where water, supersaturated with carbon dioxide, mixes with calcium in the water and oxygen from the air. This mixing occurs best where the water flows over objects near the surface, like rocks, sticks and existing natural dams, adding layers of new travertine. During your visit, see if you can find travertine beginning to coat a twig or even a green leaf!



Riffles Run Over Rocks

Fast moving water, called riffles, keep the gravel, cobble and bedrock bottoms clear of sediment. Speckled and longfin dace dart after insects that breed in this oxygen-rich habitat. Also look for suckers, with lips like ice scrapers, grazing the ever-growing algae off smooth rocks.

Headwater Chub

Gila nigra
The headwater chub looks similar to the roundtail chub, occupies similar habitat, and eats the same things as roundtail chub. It's different in that it is a little smaller and lighter in color than the roundtail chub. Headwater chub are in Fossil Creek above the Fossil Springs dam, while roundtail chub occur below the dam.



Longfin Dace

Agosia chrysogaster
Both dace favor habitats with shallow moving water under 1.5 feet deep where they feed on invertebrates, detritus and algae. They are important prey for a variety of birds, turtles, snakes and other fish.



Speckled Dace

Rhinichthys osculus

