Restoring Brook Trout in the Appalachian Mountains

Decades of clear-cutting, poor land management practices and introduced Rainbow and Brown Trout have caused the native Southern Appalachian Brook Trout to almost disappear. Now, conservationists are giving these beautiful fish a big boost.

Elizabethton, TN (PRWEB) June 10, 2018 -- For more than 130 years, the Southern Appalachian Brook Trout has constantly struggled to survive an ever-mounting combination of mostly human-induced threats. As a result, Tennessee’s only native trout species now occupies less than 15 percent of its historic range.

Since 2013, the Tennessee Aquarium and several partner organizations have worked together to propagate wild Southern Appalachian Brook Trout to help this beautiful fish reclaim some of its lost territories. On June 5, participants in this program celebrated the release of 280 juvenile trout into the chilly waters of Little Stony Creek in the Cherokee National Forest near Elizabethton, Tennessee.

“They don’t want to be in the really swift water,” says Meredith Harris, a reintroduction biologist at the Tennessee Aquarium Conservation Institute. “We want to give them the best chance of staying put, spreading out in the creek and finding good food and the resources they need to thrive.”

The Brook Trout’s range extends north into New England and Canada and westward into the Midwest, but the population in Southern Appalachian is genetically distinct. The restoration project aims to safeguard and preserve this unique community as an important component of the region’s natural heritage, says Marcia Carter, a fisheries biologist with the U.S. Forest Service.

“I think it’s the prettiest trout that we have,” Carter says. “Brook Trout are the only native trout species in Tennessee, so it’s important for us to maintain good populations to ensure their viability and also to provide recreational fishing for the public.”

The restoration program features the combined effort and resources of the Tennessee Aquarium Conservation Institute, U.S. Forest Service, Tennessee Wildlife Resources Agency and the Appalachian Chapter of Trout Unlimited. In the five years since the program’s inception, the Conservation Institute has hatched and released more than 1,400 of these distinctively olive-bodied, red-finned fish and pioneered new techniques for raising them.

“Working with the Tennessee Aquarium has been awesome since they provide facilities to raise the trout, so we can have even more fish to stock and have a faster restoration time,” Carter says. “Getting to work here with our partners doing Brook Trout restoration is just a happy day for me.”

With dappled sunlight streaming through a picturesque canopy of leaves, a team of reintroduction specialists spent a morning carefully navigating 600 meters of Little Stony Creek. Carrying bags of oxygenated water filled with the two- to three-inch fry, they clambered over algae-slick rocks and pushed up frothing rapids, stopping occasionally to hand-place juvenile trout where the stream slowed into calmer, deeper pools.

These tiny fish were the first releases that were hatched and raised in the propagation room at the Conservation Institute’s new freshwater science center on the banks of the Tennessee River. Thanks to this purpose-built facility’s improved drainage, waterproofing and temperature controls, the fish can be raised more efficiently.
and in greater comfort, says Dr. Bernie Kuhajda, the Aquarium’s manager of science programs.

“Previously, our propagation facility was in a warehouse that was not constructed for aquaculture,” Dr. Kuhajda says. “The ease and convenience of propagating this species now is immense compared to before. It’s like we went from working in a cardboard box on the side of the road to the Taj Mahal. It was that big of a step up.”

The Aquarium’s efforts with this species have fueled by grants from the Appalachian chapter of Trout Unlimited, a national organization with more than 300,000 members across 400 chapters. These grants are made possible by the sale of vanity license plates emblazoned with the profile of the Southern Appalachian Brook Trout.

In addition to its financial support, Trout Unlimited has assisted with many other aspects of the restoration effort, says Sally Petre, a rivers and streams biologist with the Tennessee Wildlife Resources Agency.

“They supply not only manpower and womanpower but funding so we can monitor the streams,” Petre says. “They usually come out and help us sample, and they also help with access points and securing funding. They’re a really important partner.”

For more information about the Aquarium’s work with Southern Appalachian Brook Trout, visit tnaqua.org/protecting-animals/southern-appalachian-brook-trout.
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