

## Southern Appalachian Creature Feature Podcasts

### Sicklefin Conservation

On the bank of the Little Tennessee River, downstream from the town of Franklin, biologists squeeze tiny yellow eggs from a fish into a plastic bag. Unlike caviar, these eggs won't be eaten, but rather trucked to a lab in Knoxville, Tenn., to join an effort to keep a rare fish off the endangered species list.

The fish is a sicklefin redhorse, a recently discovered species found only in the western tip of North Carolina and a small bit of North Georgia. The extremely limited range of the animal and the precarious state of the streams where it lives raise questions about its long-term well-being, and whether it needs protection under the Endangered Species Act.

These eggs are part of a project to conserve the fish and expand its range, undertaken by the North Carolina Wildlife Resources Commission, Eastern Band of Cherokee Indians, U.S. Fish & Wildlife Service, and Conservation Fisheries, Inc., a Knoxville-based non-profit specializing in the captive propagation and rearing of the region's most imperiled fish.

Biologists collected 27,000 eggs from seven different fish in this, the second year of the project. The eggs were taken to CFI's Knoxville laboratory where they'll be fertilized, hatch, and grow for about three months.

In the Tuckasegee River, spawning sicklefins swim from as far away as Fontana Reservoir. But instead of swimming well up the Tuckasegee River, they turn and swim up the Oconaluftee River, spawning below Ela Dam, and fueling a lot of speculation.

There is some thought the fish might imprint on a river, returning to that spot for spawning. With that in mind, Steve Fraley, a biologist with the N.C. Wildlife Resources Commission, hypothesizes that decades of pollution may have wiped out sicklefin that spawned in the Tuckasegee River, while those spawning in the cleaner Oconaluftee River would have survived, though the construction of Ela Dam cut short their migration.

Once the fish in CFI's aquaria are about 1.5 inches long, about half will be moved to a hatchery operated by Cherokee Fisheries and Wildlife Management. From there, they'll be released above Ela Dam, where biologists hope they'll expand their range up into the Oconaluftee River. The remainder of the fish will be put in the Tuckasegee River, above Dillsboro Dam. The fish hatched this year will return to spawn in about 5 to 7 years, well after the scheduled removal of Dillsboro Dam.

The sicklefin, which derives its name from its long, sickle-shaped dorsal fin, was first recognized as a distinct fish species by Roanoke College professor Robert Jenkins in 1992. Looking at

various redhorse specimens, he noticed some specimens from the Little Tennessee River basin were different, and it became clear that instead of being an odd fit for other species, this was a new species, the sicklefin redhorse, which is also found in the Hiwassee River basin.

For WNCW, and the U.S. Fish & Wildlife Service, this is Gary Peeples.