

CASHIERS LIVING

Dam removal to be a godsend for Tuckaseegee ecology

By David Joy
Staff Writer

With removal of the Dillsboro Dam beginning earlier this month, it will not be long before the Tuckaseegee River flows unobstructed from Cullowhee to Lake Fontana. While the dam was a critical issue between Duke Energy and Jackson County officials over the past five years, the removal will ultimately mean more unobstructed habitat for species native to the river.

According to the Fish and Wildlife Service, the impact that the dam has had on the ecosystem of the Tuckaseegee River is evident by data collected in the mile of slack water gathered behind the dam.

The federally endangered Appalachian elktoe mussel was found above and below the dam, but not in the reservoir. Furthermore, there were 38 species of fish found downstream, 24 species upstream, and only 11 species in the reservoir directly behind the dam. The variation in species is attributed entirely to the dam holding up flows and breaking migratory routes.

Gary Peeples of the Fish and Wildlife Service said that the Appalachian elktoe mussel was the species of greatest concern regarding the environmental impact of the dam.

"The Appalachian elktoe mussel, which is a federally endangered species, was of the greatest concern," Peeples explained. "Removing the dam will allow the populations below the dam to meet back with the population upstream. For all of the species, it opens up habitat and allows communities that were separated to come back."

The Appalachian elktoe mussel is a unique species only found in the mountain streams of western North Carolina and eastern Tennessee. In the few remaining populations found, the numbers are very low and only consist of old individuals.

Due to the extremely small numbers of these surviving populations, they are vulnerable of being wiped out by a single event, from pollution

to flooding. Because these mussels contribute to filtering toxins from the Tuckaseegee River, the declining population also signals a decline in the quality of the river. The removal of the dam will allow populations that have been separated for nearly a century to reconnect and hopefully repopulate.

Another species of great concern is the sicklefin redhorse, a large sucker fish surviving almost entirely in western North Carolina waters. This species was not discovered until 1992, but is uniquely identifiable by the sickle-shaped dorsal fin which differs from other closely related species. Gary Peeples says that removing the dam will open up spawning routes for the species and allow the fish to repopulate upstream.

Other species that will see a great impact from dam removal include the protected hellbender, the second largest salamander species in the world, and the wavy-rayed lampmussel, a mussel species of special concern in the state.

The removal of the dam will be a godsend for all of the species in the Tuckaseegee River, including noteworthy game fish such as smallmouth bass, rock bass, rainbow trout, brown trout, and brook trout. These benefits will also mean big opportunities for sportsmen.

"Removing the dam will create some better habitat for trout below the dam," Chris Goudreau of the North Carolina Wildlife Resources Commission said. "And it will also add about a mile of wade-able stream for fishermen."

The Wildlife Commission will have to re-evaluate the boundaries marking different regulations along the Tuckaseegee River, as the Dillsboro Dam has always marked the transition from "Delayed Harvest" water upstream and "Hatchery Supported" water downstream.

"Determining a new barrier will be something that we have to talk about internally," Goudreau said.

Regardless of what new boundary is decided upon,



Photo courtesy of U.S. Fish and Wildlife Service

Researchers with the U.S. Fish and Wildlife Service collect and record data on the Appalachian elktoe mussels in the Tuckaseegee River.



Photo courtesy of U.S. Fish and Wildlife Service

Appalachian elktoe mussels are a federal and state endangered species that have been separated by the Dillsboro Dam for nearly 100 years.

possibly the bridge directly below the dam, fishermen will undoubtedly see increases in productivity through this stretch of river. Furthermore, the removal of the dam will be a great step in returning the river to a natural state and increasing the health and viability of its ecosystem.

On the right, the wavy-rayed lampmussel is another species of special concern in the Tuckaseegee River.

Photo courtesy of U.S. Fish and Wildlife Service



At left, a N.C. Wildlife Commission biologist cradles a hellbender, the second largest salamander in the world.

Photo by Jeff Humphries

Below, a diver with the U.S. Fish and Wildlife Service surfaces with an Appalachian elktoe mussel found in the Tuckaseegee River.

Photo courtesy of U.S. Fish and Wildlife Service

