

Southern Appalachian Creature Feature Podcasts

Experiment looks at mussels in the Pigeon River

Greetings and welcome to the Southern Appalachian Creature Feature.

The Pigeon River, flowing from North Carolina into Tennessee, has long been infamous for its poor water quality. The source of those issues has been a paper mill in the town of Canton, and in recent years the mill has done much to clean up the water they put back in the river.

The endangered Appalachian elktoe mussel is found in the Pigeon River, but only upstream of the paper mill, though there is hope that one day it will be found downstream as well. A Western Carolina University graduate student is finishing research that helps pave the way for possible elktoe reintroduction.

To see how mussels would fare downstream of the paper mill, Caroline Rooney took 120 wavy-rayed lampmussels and placed them at five sites at varying distances from the paper mill, including a control site upstream of the mill. All the mussels used were grown in captivity with the help of North Carolina State University and the North Carolina Wildlife Resources Commission. The mussels were placed in mussel silos – structures that held the mussels in place so the researchers could find them again, while providing a steady flow of river water to the mussels, bringing with it food and oxygen.

Of the 120 mussels, only five died, a statistically insignificant number which gives hope to the idea that one day biologists will be able to stock the Pigeon River below the mill with the Appalachian elktoe, bringing it one step closer to recovery.

For WNCW and the U.S. Fish & Wildlife Service.