



Hoosier National Forest Highlights



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MONITORING ON THE HOOSIER NATIONAL FOREST

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What is monitoring and why is it done?

The Hoosier's monitoring program looks at how well we are moving forest resources towards the desired condition described in the Forest Plan. Monitoring is done to evaluate the results of the Hoosier's management actions. As the Forest plans individual projects, monitoring questions and resources to measure are identified. The information collected about each project answers three questions: was the management done right; did it work; and was the planning guidance correct?

What is an example of a monitoring project?

The Hoosier is conducting a habitat and species inventory of mussel species in rivers that go through the Forest to enable managers to target specific sites and watersheds for species conservation and habitat restoration.

Sedimentation is extremely detrimental to mussels and is implicated in the decline and extinction of many species. Restoring wetlands and enhancing riparian corridors and buffers can improve water quality and reduce siltation. These treatments benefit not only mussels, but all native aquatic life. Improved riparian corridors and protection of tributary streams within the watershed benefits habitat and increases the number of mussels.

Objectives of monitoring these mussels were to revisit sites previously monitored in 1998 and 1999 and revisit them in 2009 and 2010. New survey sites were also included.

2009

Sites were revisited from a 1998 survey of Perry and Crawford County. An additional 30 sites were chosen using a random survey design.

A total of 31 live freshwater mussels of nine species were collected. Live mussels were observed in the Little Blue River and its tributaries, Oil Creek, and Middle Fork Anderson River systems.

Findings from this study were similar to those in 1998. No site appears to have a significant mussel community. In 1998, surveyors' concluded that the damming of the Ohio River had affected mussel communities. Most sites in the downstream half of each system exhibit lake and pond characteristics produced by the Ohio River locks and dams. Effects were observed for several miles upstream. These affects include decreased flow creating large pools and increased sediment deposition. These impacts not only reduce possible mussel habitat but also may deter fish from traveling upstream.

2010

Sites were revisited from a 1999 survey of four watersheds of the East Fork of the White River. A total of 21 live freshwater mussels of three species were collected. Live mussels were observed in the Lost River and its tributaries and Beaver Creek.

Findings from this study are similar to 1999. No site appears to have a significant mussel community. Where present, live mussels were few and scattered. Presence of a few live mussels and shells in Beaver Creek and Lost River is likely due to fish carrying larvae upstream from the East Fork White River. The East Fork has many mussel species including two Federally Endangered Species.

2011

Mussel occurrence surveys are underway in eight watersheds on the northern end of the Forest. Previous surveys have not been conducted in these watersheds.

What other monitoring projects are being conducted on the Forest?

The Hoosier also monitors Indiana bat, American woodcock, turkeys, and grouse. These efforts are usually done in the spring. Vegetation treatments to improve wildlife habitat are also monitored for their effectiveness. When timber is harvested the harvesting activity is monitored to be sure there are no permanent negative effects.

For more information on monitoring or mussels contact Amanda Kunzmann at 812-547-9238 or Dale Weigel at 812-276-4774.

Photos and Captions:



A surveyor has just found a mussel in the Little Blue River. The mussel is a *Tritogonia verrucosa* - its common name is a pistolgrip mussel.



Picture to left and below are men surveying for mussels in the Little Blue River. The surveyors actually walk transects in the river and feel with their hands for mussels.

