

Southern Appalachian Creature Feature Podcasts

Aquatic macroinvertebrates

Greetings and welcome to the Southern Appalachian Creature Feature.

“This is not the same animal I saw flying around this morning, is it?” asked one teacher, standing knee-deep in the South Toe River, looking at an insect crawling around an ice cube tray.

The animal in question was a dragonfly. Nearly all of us have seen a dragonfly, but what most of us probably don't know is that large flying insect lived the early part of its life looking entirely different and crawling along the bottom of a stream or pond.

Young dragonflies are one of a suite of animals called benthic macroinvertebrates, which simply means animals without a backbone living in a stream or pond that you can see with your naked eye. This includes dragonflies and a host of other insects, like mayflies, stoneflies, and mosquitoes. It also includes snails, mussels, crayfish, worms and leeches.

While these small creatures escape the attention of most, they've vitally important to scientists for a variety of reasons, not least of which is they reflect the health of the stream. Testing water for a suite of chemical pollutants only tells you what's in the water at the time you test. However, these macroinvertebrates live in the water, their existence subject to the ebb and flow of water quality. Some are more tolerant of pollution than others, enabling scientists to study the number and diversity of aquatic macroinvertebrates to get a picture of how healthy the stream is.

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