

by Candace Stoughton

Etowah River Project Manager, The Nature Conservancy



People are attracted to north Georgia for many reasons. One of our most recent newcomers, Dr. Steve Powers, the newly appointed assistant biology professor at Reinhardt College, came because

of the fish. To be precise, he moved here to observe the Etowah River's darters, what he considers to be some of the most beautiful and intriguing fishes in the world. With 76 different native species fish in the Etowah, many of which are darters, he has come to the right place.

"The breeding colors of the males are incredible, like neo-tropical migrant birds. Metallic blues, brilliant oranges and red, and a green like no other green I've ever seen before," Power said. "They are just stunning. The intensity of their colors rivals the coral reef fishes. I have never seen more impressive colors."

Powers was delighted to find a position available that would enable him to be close to his research on the tiny indigenous fish that abound in local rivers and streams.

"North Georgia and Tennessee are home to an impressive amount of darter fauna. There are lots of species of darters here," said Powers, who is involved in documenting new species of darters through his research. He recently found a new species of darter in the Forked Deer River near Jackson, Tenn. Powers named it the Chickasaw darter, after the Native American Indians whose hunting grounds were once nearby. He is also preparing to submit his research on four other new darters, one of which was found in north Georgia.

"Part of the reason many darters have never been previously described is that these fish are hard to distinguish from one another. The male darters, which are the ones who sport bright colors, only "color up" during the spawning season in the spring. In order to tell different species from one another, you have to look at them during the mating season in March and April. Like warblers and some other birds, in November 10 different species of darters will all look

the same, but if you see them in May, they will look noticeably different," he said.

Powers first became interested in darters when he was an undergraduate student at Georgetown College in Kentucky.

"My senior year I took a freshwater biology course taught by an ichthyologist who had done some ecology work with darters. We went out in the field and started collecting, and I became fascinated with the little guys. They are extremely charismatic. They live underneath of and between rocks in relatively small streams. Unlike most fishes they do not spend much time up in the water column, they basically sit down on the bottom and bounce (dart) from spot to spot."

Powers continued to be intrigued by darter behavior while earning a master's degree at Eastern Kentucky University and a Ph.D. at the University of Alabama. He has been delighted to find an abundance of species to study practically right at his doorstep.

"Right here in Moore's Creek that runs through Reinhardt's campus I've found rainbow and



Dr Steve Powers, an expert on our local darter fishes, is a new professor at Reinhardt College

tri-color shiners and Cherokee darters. Of course, we didn't keep the Cherokee darters, because they are threatened."

Powers has not seined for fish in the Etowah River yet because the water level is too high, but he is looking forward to getting out there this summer.

"The greatest importance of the Etowah for me is that several species of darters live in the Etowah and nowhere else on the planet (Etowah darter, Cherokee darter, Holiday darters) and they are likely to become extinct if unchecked/unplanned urbanization of the watershed continues. Even for those who are not interested in preserving biodiversity, clean rivers are necessary for drinking water and also recreation. There is a reason why people are leaving Atlanta to move into the Etowah watershed. That reason will disappear as the Etowah watershed becomes more and more developed," he said.

Powers' wife, Ginger Jones Powers, is a graduate assistant softball coach at North Georgia

College, and she is working on a master's degree in biology education. Together, they make a welcome addition to the community in north Georgia which cares deeply about our natural environment and all the creatures that inhabit it, even the tiny little fish at the bottom of the streams and rivers.

"Species rely on one another," says Powers. "The darters are functioning parts of these ecosystems. Humans are part of that ecosystem, too. If we start removing parts of the ecosystem, it disturbs the whole system. We should not discard any part of the system."

For more information about the Conservancy's work in the Etowah watershed visit www.nature.org/georgia. If you would like to be added to The Nature Conservancy's email updates list for the Etowah please call 770/704-7280.

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SAVING THE LAST GREAT PLACES ON EARTH

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