

Dragonfly Day's Second Edition is June 18 at Warriors' Path State Park

Text and Photos by Marty Silver

Warriors' Path State Park's second annual Dragonfly Day is scheduled for June 18, 2011. Guest leader Richard Connors is returning, and we will also enjoy the wisdom and guidance of Larry Everett, an expert on dragonfly nymphs. This is a free event, but space is limited, so you must pre-register. Contact Warriors' Path State Park to pre-register by calling 423-239-6786, or e-mail Marty Silver at Marty.Silver@tn.gov.



A select group of odonate enthusiasts braved the summer heat and showers to spend a day afield in the park, getting “up close and personal” with dragonflies and damselflies. Warriors' Path State Park hosted our first annual Dragonfly Day on June 18, 2010. Like all our park events, this was a day dedicated to discovering, sharing and protecting park resources.

Our guest leader for the day's events was Tennessee State Parks Biologist Richard Connors. Richard is the field biologist for the All Taxa Biodiversity Inventory project. He works tirelessly, across the state, to document and monitor the dragonflies, damselflies (and many other groups of living things) in all Tennessee State Parks and Natural Areas. Richard took the time from his very busy schedule to spend the day at Warriors' Path State park, sharing his depth of knowledge and wisdom.

First Richard taught the basics of odonates. We learned that dragonflies and damselflies are members of a unique group of insects – the Odonata (named for the teeth on their mandibles.) We also learned how to tell whether an insect is an odonate, and whether it is a dragonfly or a damselfly. For example, dragonflies at rest usually hold their wings out to the sides, while damselflies usually perch with their wings folded behind them.

Entomologists call these insects “primitive,” but we learned that they have amazingly advanced abilities. For example, odonates are capable of incredible flight speeds, sudden hovering, and rapid changes in direction. They also have extremely precise eyesight, and many species can see in all directions at once! (A unique view of the world indeed!)

Once we learned the basics of these “winged wonders,” we began to focus on the details. Richard used his personal collection of accurate and detailed odonate photos to show us how to recognize and identify the more than 70 species of dragonflies and damselflies native to Warriors' Path State Park and nearby Sullivan County. We learned how important it is to be careful observers, if we wish to accurately identify the dragonflies and damselflies we see. We were reminded that accurate identification is the first step towards protecting any resource.

So we learned to pay attention to odonate details. Do the eyes touch at one point, along a seam, or are they separated? Is the abdomen narrow or clubbed? What colors and patterns are on the thorax? It takes careful observation and patience to tell “who's who” in the odonate world.

Richard Connor's photos showed us the amazing diversity of odonates in our region. He also showed us the amazing diversity of their habits and habitats. We saw photos of tiny damselflies that inhabit boggy seeps, and huge dragonflies that eat other dragonflies! We saw common species that are found across the state, and species that are restricted to rare and disappearing habitats. We heard of how changes in

odonate populations can give clues to changing environmental conditions. For example, recent records of a formerly more southern species – the Swift Setwing – here at Warriors' Path may be a hint of climatic changes.

Through Richard's photos we also saw and began to understand odonate life cycles. These insects have incomplete metamorphosis. In other words, they do not have a resting stage (like a cocoon) between the larva and the adult. Richard showed us photos of odonates mating in the typical "wheel" formation. He showed us how in many species, the male clasps the female as she lays eggs – perhaps to keep her safe as she lays eggs, perhaps also to keep away other males! We also enjoyed photos and samples of odonate larva (also called nymphs) – and saw their fascinating bug catching lower labium. Odonate nymphs have been called "super-duper creek creature scoopers," because they can rapidly scoop up water insects with their fast moving, long and hinged lower labium.

Probably the most fascinating were the photos Richard had taken of adults emerging from their nymph stage. A nymph just crawls out of the water, locks its feet onto a suitable surface, splits its back open, and pulls itself out as a (rather damp and wrinkled) new adult!

Once we became familiar with the basics of odonate identification and life cycles, we were ready to learn where and how to find these flying wonders. We learned that some species will choose a favorite perch, and keep coming back to that perch. A dragonfly watcher need only observe from a distance until we locate that perch, and then slowly and cautiously approach it.

We learned that other species seem to fly ceaselessly and randomly. but if we watch closely, we'll see that they usually follow a specific flight pattern. To get close to these species, we need to observe until we figure out the flight pattern, and move closer while they are on a more distant part of their course.

And other species, especially some of the smaller and more delicate odonates, will skulk in the dense vegetation. It's easy to miss these species unless we take the time to look closely and slowly. A key tool for odonate watchers is patient observation!

Richard taught us that, besides the essential tool of patience, there are several other tools that can help us be better odonate watchers. We learned how to choose the best binoculars for dragonfly watching – looking especially for ones that will focus closely and will work well in dim light. We also learned which field guides could best help us identify dragonflies and damselflies. He brought along samples of several recent field guides and other very helpful publications – including a free copy for each participant of the newest ATBI checklist of dragonflies and damselflies of Warriors' Path.

Richard also strongly suggests photography as a useful tool to identify and monitor odonates. It's so much easier to check all the insect's details in a good photo than in a quick glimpse! So he shared methods for getting the best photographs of these amazing insects. We learned which camera settings are most effective for stopping the action, and which best show us the "bug" in its habitat. We learned how to get the best odonate photos out of even the simplest cameras, and how to choose the best camera and equipment for even better photos.

After a very busy morning indoors, we were enthusiastically anticipating a chance to see some live odonates out in their habitats. So after a quick lunch break, we hit the trail and visited some of the better dragonfly/damselfly locations in the park.

First stop was a little weedy patch along the lakeshore. It's a popular fishing spot, but none of us (except Richard) would have guessed it to be a rich odonate location. We got a chance to get very close to several damselfly species in the tall plants along the shore. We also got to practice watching and

photographing some fast-flying dragonflies out above the water.

Next we headed out to a damp marshy meadow beside a small pond. This meadow is home to one of the rarer odonates in the park – the Cherokee Clubtail. A few Cherokee Clubtails were kind enough to perch for us to see and photograph, We also got great views of many other species, including several species of skimmers, some spreadwings, and a very hungry dragonhunter.

Finally we visited a nearby partly-shaded stream. The star attractions here were innumerable Ebony Jewelwings, with plenty of chances to watch them mating and laying eggs (and fleeing from us!).

At the end of the day we were muddy and thoughtful. Our shoes were damp with dragonfly habitats, and our minds filled with the wonder of these fine and diverse insects. We learned to appreciate the odonates' role in the balance of nature, and our role as well. Our careful, accurate observations of these delightful insects can be an important step for protecting the odonates and their rich, diverse habitats.

(Marty Silver is a park interpretive specialist at Warriors' Path State Park in Kingsport. He has worked for Tennessee State Parks for over 30 years, sharing nature discovery with multiple thousands of park visitors and area schoolchildren.)