

A Hunter of Dragons

By Paul Skawinski, Citizen Lake Monitoring Network Statewide Educator, Extension Lakes



Dragonhunter of September by Vicki DeLoach, Flickr, CC 4.0 <https://creativecommons.org/licenses/by-nc-nd/4.0/> used an

This male dragonhunter, an impressively large yellow-and-black dragonfly, takes a break on an ironwood tree. His curved abdomen and long, spiny arms are trademarks of the species, perfect for grabbing any unlucky insect that happens to fly by.

After reading our cover article about some of the research taking place this summer at Trout Lake Station, we thought you might want to learn more about the dragonfly larva Madeline is holding on the front page – a dragonhunter (*Hagenius brevistylus*). Measuring almost three and a half inches long as an adult, the dragonhunter is the largest of the clubtails (family Gomphidae), so large and fierce that it catches and eats other dragonflies! This aggressive and curious insect also feeds on deer flies, damselflies, butterflies, and other large insects. Dragonhunters are common in northern Wisconsin, and their range includes most of eastern North America.

The Larval (Nymph) Stage

Like other dragonflies, dragonhunters spend their “childhood” at the bottom of aquatic

environments, especially in flowing waters with forested shorelines. Even in their youth, they are aggressive predators of other insects and small animals. The dragonhunter’s flat, round, dark body allows it to blend in with leaves that accumulate along the water’s edge. It has strikingly large back legs compared to its other legs, making it look somewhat like a spider or a very large tick. This dragonfly spends multiple years in its larval stage before transforming into a flying adult.

The Final Countdown

After growing and molting several times as an aquatic nymph, the dragonhunter will crawl out of the water onto a sturdy plant or other object, dry in the sun, and break out of its larval case into an adult dragonfly for its final few months of



life. After pumping its wings full of hemolymph (insect "blood"), it will take flight as one of the most feared insects of the aquatic world (if you're another insect). The dragonhunter's head and body is black with bright yellow stripes and its massive wings allow it to chase fast-flying prey (up to 25 mph!) and hold onto its catch with leg spines.

As adults, dragonhunters focus their attention on eating, mating, and laying eggs. Females will dip the tip of their abdomen into the water to drop a small group of eggs, which fall to the bottom. Eggs laid in early summer will hatch within a month and begin feeding, while eggs laid at the end of the summer may lie dormant until the following spring when conditions will be more favorable for the young nymph.

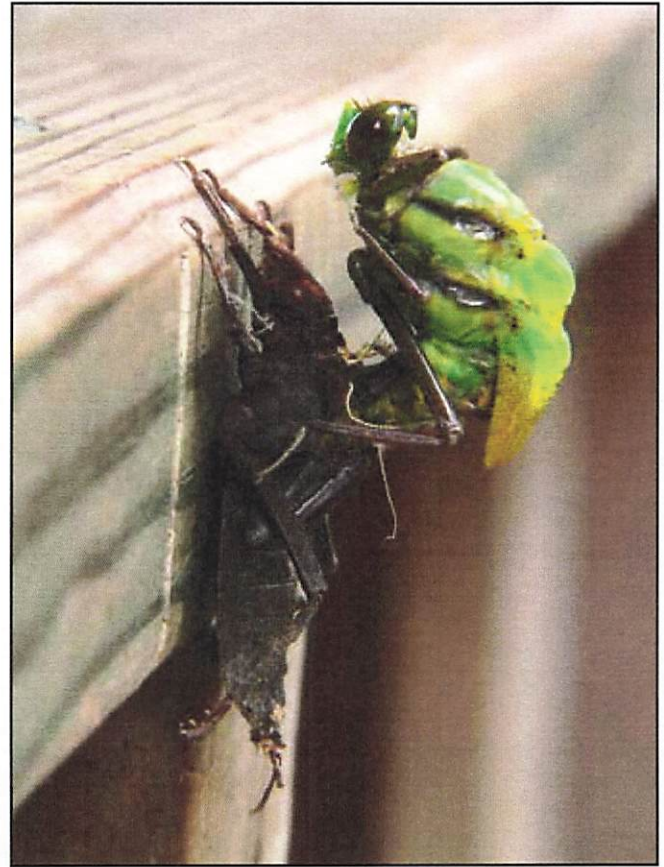


This ebony jewelwing damselfly, a common insect along the banks of flowing waters, is one of the dragonhunter's favorite foods. Observing the discarded wings of an ebony jewelwing floating on the water is a clue that a dragonhunter may be lurking just upstream.

A Recent Threat

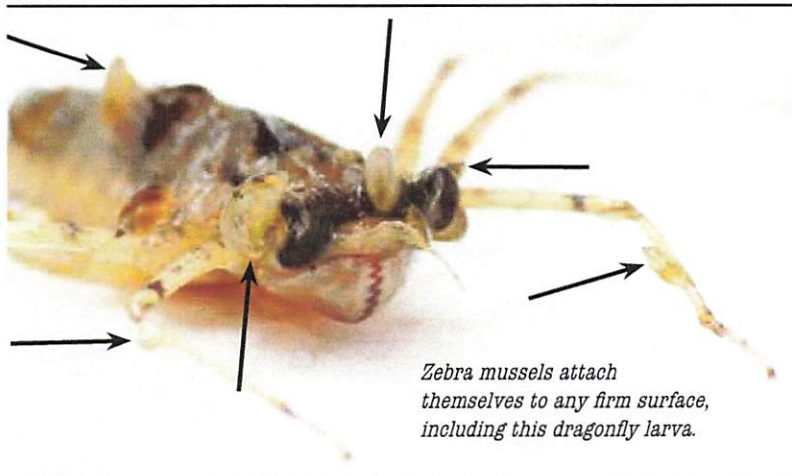
A recent and maybe unexpected threat to dragonhunters is the invasive zebra mussel that arrived in the Great Lakes in ballast water from the Black and Caspian Seas. Zebra mussels will attach themselves to any firm surface, including the bodies of aquatic animals like dragonfly larvae. While the more slender dragonfly nymphs tend to burrow into the sediments, dragonhunter larvae have wide bodies and spend their time walking along the bottom. This leaves them more exposed to zebra mussels looking for a surface to colonize.

Although some of our lakes are frozen now, dragonhunters are still busy at the bottom, slowly crawling through autumn's leaves and stalking their next meal. ♡



Paul Skawinski

Emerging from its larval case, this dragonfly will pump its wings full of hemolymph (insect "blood") and take off looking for a meal.



Zebra mussels attach themselves to any firm surface, including this dragonfly larva.

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