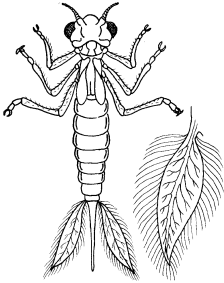


Creature Feature: Spring 2010

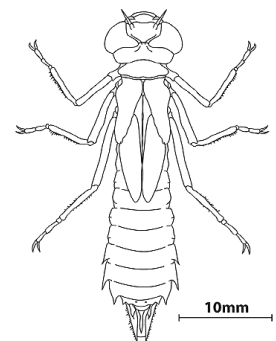
By W. Scott Douglas

Dragonflies and Damselflies



When most people are asked about aquatic insects, they think of dragonflies. These large, colorful, and acrobatic insects are frequent subjects of naturalists and artists alike. Some superstitions still persist about dragonflies as either harbingers of good luck or as dangerous stinging menaces. They are, of course neither dangerous nor lucky. Well, unless you count the fact that most eat the insects that do sting, making travel around ponds and marshes that much more tolerable. Dragonflies, and their close cousins the damselflies, have been around for hundreds of millions of years, being among the oldest Orders of insects. This longevity has resulted in incredible diversity; with representatives of the Odonata being found in almost every aquatic habitat from alpine streams to brackish marshes. The difference between dragonflies and damselflies is really obvious – dragonflies cannot fold their wings, damselflies can. So the dragonfly is like a World War II flying ace, whereas the damselfly is an aerial gymnast with a mission. The brightly colored and intricately patterned adults of both groups provide a bounty of observation opportunities for anyone who frequents aquatic habitats. But for the aquatic naturalist, the nymph of the dragonfly is just as interesting as the adult.

The Odonata nymphs hatch looking much the same as they will until they emerge as adults, an incomplete metamorphosis. Damselfly nymphs are typically skinnier than their dragonfly cousins, and have long feathery anal gills. Both types are equipped with very efficient mouthparts for capturing, holding and dismembering their prey. Their jaw is double hinged and can be extended out over twice the length of their head, allowing them to ambush their prey from either the stream bottom or while clinging to submerged plant or stick. Odonates are opportunists and eat a wide variety of other invertebrates, and even small fish or tadpoles when they can catch them. The nymphs will molt many times before emergence, and may achieve a size of two inches or more in some species. When the adult is ready to emerge, after a larval period of months or even years, it will climb out onto vertical vegetation so that it has a good launch site when its wings harden.



Odonate nymphs can tolerate a wide range of conditions, and are tolerant of pollution. You can find them in many places in the creek, but they are not abundant. If you want to find a large variety, take your net to a wetland, bog or pond. Sweep your net through the thick vegetation and you will be sure to find quite a few of these primitive looking creatures. While they seem like they would be fierce, they are quite harmless. Use a magnifying glass to get a closer look.