

Dragonflies

Scientific Name:

Class - Insecta,

Order - Odonata,

Suborder - Anisoptera,

Family - Aeshnidae

Common Names:

Darners, Skimmers



Not to be mistaken for its cousin the damselfly, the adult dragonfly cannot fold its wings along its back. Dragonflies are usually much bigger and thicker bodied than damselflies. Both are very predacious in both the nymph and adult stage. Nymphs will feed on almost any creature in the lake including very small fish.

Life Cycle:

Adults mate in flight and can often be seen flying in tandem. The fertilized female 'oviposites' her eggs into woody vegetation or in some cases over open water or burrowed into the lake bottom. Metamorphosis is incomplete and when the eggs hatch they are just a smaller version of later stages. Therefore, all non-adult versions are simply referred to as nymphs. These nymphs live and grow in the lake and molt their shells 10 to 12 times before they are ready to hatch into adults. The nymphs crawl onto the shore or shore line vegetation to hatch into adults. The adults live for a few weeks to several months before mating. Most of our local dragonflies take one to two years to complete a generation but this can be as long as four years. This longer life cycle requires that most hibernate in the lakes during the winter months. Hibernation is usually done in the deeper water and this brings about spring and fall migrations to and from the shallow waters.

Appearance:

Dragonfly nymphs have large bulbous eyes and generally have a thick, cigar shaped body. In cross section, the abdomen is somewhat triangular shaped, being flat on the bottom and slightly ridged on the top. The legs of a dragonfly nymph are fairly

pronounced in comparison to most other aquatics. Dragonflies do not go through a pupa stage. The immature forms look much the same but are just different in size. Adults develop two pair of wings and the abdomen lengthens and narrows for flight.

Size:

Many Darner nymphs get up to 40 mm in length (1.5 inches) when ready to hatch into adults. Broods of all sizes less than that will be in a lake.

Colour:

Shades of black and light green are the two most common colors for dragonfly nymphs in our lakes. However, they do come in other colors including darker greens, grays, and a reddish brown.

Movement:

Dragonfly nymphs mostly crawl along weeds or the lake bottom in search of prey. However, when disturbed or otherwise in a hurry, they can use a "jet propulsion" system to rapidly propel themselves. The nymphs have internal gills for which water is sucked into the body and then expelled. This expulsion can be quite rapid to provide an emergency means of locomotion.

Habitat:

Since they are highly predacious, the dragonfly nymphs will stay near available food sources. These are generally found on the shoals or the shoal drop-offs into deeper water. When not feeding they tend to hide under submerged logs and rocks or among the bottom vegetation. They usually prefer pollution free water that is well oxygenated but certain species will live in the more stagnant ponds.

Hatches:

The main hatches of the dragonfly from nymph into adult peaks about mid July with lesser hatches both before and after that time. At lower elevations, some species will start to hatch as early as late May. To hatch, dragonfly nymphs migrate to the shoreline and crawl out on the land or up shoreline vegetation. This 'hatching' migration and often the hatching itself often occurs in the evening or at night. By early morning the new adults are taking flight. Except for the migration portion of hatching, these combinations don't fair well for the fly fisher.

Migrations and Availability:

Most of the Darner species live longer than a year and hibernate in deeper water during the winter. As soon as the water begins to warm and the ice goes off in the spring, the dragonflies will awake and begin their migration to shallower water for feeding. This spring migration starts right after ice off, will peak within a week or two and then steadily decline. The migrations for hatching peak about mid-July. The nymphs are exposed during this period and available to the trout. In the fall the dragonflies will return to deeper water for hibernation. These fall migrations occur over a longer period of time than the spring migration and usually don't start until the water has cooled considerably.