

Hellgrammite (Dobsonfly larvae)

Corydalus cornutus

**Hellgrammite
(larvae)**



PHOTO BY B. M. DREES
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**Dobsonfly
(adult)**



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Hellgrammites are the aquatic larvae of dobsonflies, spending almost all of their lives in larval form. Although the winged adult form looks very different from the larval form, they both have pincer-like jaws.

Northern Pineywoods

Hellgrammite (Dobsonfly larvae)

Corydalus cornutus



APPEARANCE

Length: 2.75 inches (7 cm)

Distinguishing Characteristics

- Yellowish to brown
- Stout, segmented, caterpillar-like bodies
- Large pinching mandibles
- Six legs on the thorax
- Eight feathery appendages on the abdomen
- Four claws at the rear of their abdomen

LIFE HISTORY

Range: North America

Diet: Aquatic insects and small invertebrates

Predators: Fish, frogs, other aquatic predators

Sexual maturity: Up to three years

Mating: Immediately after emergence from pupae stage as dobsonflies, from April through May

Eggs: Up to 3,000 in each egg mass. Eggs are produced from May through August. Females lay circular egg masses at night on rocks, leaves, trees, bridges and other suitable sites that hang over water. When the egg masses dry, they look chalky and white. Each female lays two egg masses during her two-week long adult life.

Incubation: Two weeks

Young: After hatching, the larvae, hellgrammites, drop into water. Hellgrammites hide under rocks in streams. They can stay in this larval stage as long as four years, but usually only two to three years. Hellgrammites may shed their exoskeletons as many as 12 times before they emerge as pupae. The pupae crawl several feet onto land and burrow 2 to 4 inches (5 to 10 cm) into wet soils, moss, decaying vegetation or beneath rocks and logs. They emerge as dobsonflies two weeks later.

Life span: As hellgrammites, larvae live two to three years. As dobsonflies, adults live about two weeks.

HABITAT

Hellgrammites are aquatic and live in the shallow, fast flowing portions of streams, creeks, and small rivers, hiding beneath rocks and logs.

BEHAVIOR

Hellgrammites are *nocturnal* (active at night). Hellgrammites are also poor swimmers, but voracious predators. To catch prey, they hide under large rocks and other shelter in fast flowing stretches of streams, creeks and small rivers and attack prey as it swims or crawls past.

NOW YOU KNOW!

- The short-lived adult dobsonflies are among the largest flying insects in Texas.
- Dobsonflies are reddish to grayish brown with strongly veined wings and small white spots on their forewings. They have long, thin antennae. Their bodies are about 5 inches (13 cm) long with a wingspan of 4 to 5 inches (10 to 13 cm).
- Male dobsonflies have long, sickle-shaped, pincer-like jaws up to 1 inch (2.54cm) which are used to grasp females during mating. Adult dobsonflies are terrestrial and seek shelter in tree canopies near water. They hide by day under leaves, are weak fliers and are attracted to lights. They are nocturnal.
- Adult dobsonflies don't eat, and after mating, they die.

HELLGRAMMITES AND PEOPLE

Hellgrammites make excellent fish bait and are often used as such, especially for largemouth bass. But be extremely cautious when handling hellgrammites because they bite. For that reason, they are also called "toe biters."