

Dobsonfly larvae

Corydalis cornutus

Hellgrammites are large – nearly three inches - making them just about the biggest thing in the Chicago River that's not a fish or reptile. Hellgrammites, another name for the larval stage of the dobsonfly, are an insect. They have brownish, segmented, caterpillarlike bodies, large jaws, six legs (as all insects do), eight appendages on each side of the abdomen (they look like legs, but they're not), and four claws at the rear of their abdomen.

Hellgrammites are very poor swimmers, but voracious predators. They consume aquatic insects and small invertebrates, and are eaten by fish, turtles and frogs. They live in the shallow, fast flowing portions of rivers, hiding beneath rocks and logs, or in clumps of leaves.

Most of the hellgrammites' life is spent in its larval stage – up to four years. The adult, among the largest flying insects in North America, lives but two weeks, just enough time to reproduce. They are clumsy fliers, spending most of their time sheltered in tree canopies near water. They hide by day under the leaves, and are active at night. If you saw one, you might mistake it for a moth. Females lay their eggs on low-hanging tree branches and other vegetation over the water. After hatching, the larval hellgrammites drop into water.

Macroinvertebrates, organisms without backbones, are ideal indicators of water quality. Unlike fish, macros are relatively immobile. So if they're absent from the river ecosystem, it is likely that pollution drove them out. Unlike chemical testing, macros can show the effects of long and short-term pollution exposure.

As a group, macros (including insect, crustaceans, mollusks, and worms), exhibit a wide range of pollution sensitivity from highly-sensitive stoneflies and mayflies down to very tolerant aquatic worms. The presence or absence of particular organisms provides a good measure of the pollution present in the river. Hellgrammites are indicators of good water quality. In other words, if there is pollution present, the dobsonfly larvae will not be found in the river.

Dobsonfly larvae make excellent fish bait and are often used as such, especially for largemouth bass. Be extremely cautious when handling hellgrammites because, being predators, they have large jaws - and they're not afraid to use them.

