



Stonefly nymphs change into adults throughout the year, and adults are often seen flying in winter or crawling on snow or ice. The adult that emerges in summer is nocturnal and generally does not eat. The fall- or winter-emerging adult eats blue-green algae and plant materials. The nymph is a predator or scavenger.

HABITATS

- | | |
|---|--|
| <input type="checkbox"/> bottomland forests | <input checked="" type="checkbox"/> rivers & streams |
| <input checked="" type="checkbox"/> lakes, ponds & reservoirs | <input type="checkbox"/> swamps |
| <input type="checkbox"/> Lake Michigan | <input type="checkbox"/> temp water supplies |
| <input type="checkbox"/> marshes | <input type="checkbox"/> wet prairies & fens |
| <input type="checkbox"/> peatlands | |

ILLINOIS STATUS

- | | | |
|--|-------------------------------------|-------------------------------------|
| <input checked="" type="checkbox"/> common | <input type="checkbox"/> endangered | <input type="checkbox"/> threatened |
| <input checked="" type="checkbox"/> native | <input type="checkbox"/> exotic | |

ILLINOIS RANGE

statewide

BIBLIOGRAPHY

Illinois Department of Natural Resources. 1999. *Biodiversity of Illinois, Volume I: Aquatic Habitats* CD-ROM.

stonefly

representative species

Kingdom: Animalia
Division/Phylum: Arthropoda
Class: Insecta
Order: Plecoptera
Family:

FEATURES

Stoneflies undergo incomplete metamorphosis (egg, nymph, adult). The one-half to one and one-half inch nymph is tan, brown, gold and black. The nymph has six legs with two hooks on the tip of each. The stonefly nymph breathes through its skin or through gills under its legs. Its body is flattened, which aids it in crawling around and under rocks. The nymph has two sets of wing pads and two tails (sensory feelers). The adult has two tails as well and two pairs of long, folded wings. The body is elongate and soft. When at rest the wings are held flat over the abdomen. The mouthparts are for chewing.

BEHAVIORS

Stonefly nymphs are aquatic. Adults live near cold streams or lake shores. The female deposits eggs on the surface of the water body, and they drift to the bottom. The nymph lives successfully only where a high level of oxygen is found. When the amount of oxygen in the water decreases, the stonefly nymph does "pushups" to increase water flow over the gills, therefore increasing the amount of oxygen available and taken in. After one to two years, the nymph crawls out of the water to molt to the adult stage.