

mayfly

representative species

FEATURES

Mayflies undergo incomplete metamorphosis (egg, nymph, adult). Few changes in structure have occurred in these insects in the past 300 million years, except for a smaller size. The nymph is aquatic and has seven pairs of gills along the abdomen. The nymph usually has three tails attached to the end of its abdomen. One set of wing pads, which look like small wings, are visible on the nymph that is one-fourth to one inch in length. Each nymph has six, large, hooked legs and one pair of antennae. The nymph's last molt results in a winged subimago stage that must molt again before becoming an adult. Mayflies are the only insects that must molt again after reaching the winged stage. The adult has two pairs of long, lacy wings that are folded upright at rest. The forewings are triangular while the hindwings are small and rounded. Mayflies are soft-bodied. Two or three hairlike tails are present at the tip of the abdomen. The adult's mouthparts are not fully developed and are not used.

BEHAVIORS

Mayfly nymphs live in streams, ponds and lakes under rocks, in silt or swimming in the water. Adults are found near water. The female of most mayfly species deposits eggs on top of the water. Eggs then drift to the bottom. Females of other mayfly species crawl under the water and attach eggs to vegetation or other submerged objects. The mayfly nymph lives for about one year in the water before transforming to the subimago stage from which it molts into the adult stage. Some mayfly adults live for only two hours. No adults live longer than three days. Adult mayflies do not feed. They mate, lay eggs (if female) and die. Nymphs eat live and decaying plants and aquatic organisms.

TAXONOMY

Kingdom: Animalia
Phylum: Arthropoda
Class: Insecta
Order: Ephemeroptera
Family:

ILLINOIS STATUS

common, native

ILLINOIS RANGE





adult



adult

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swimming mayfly nymph



nymph



two-tailed mayfly nymphs

Aquatic Habitats

lakes, ponds and reservoirs; rivers and streams

Woodland Habitats

none

Prairie and Edge Habitats

none