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Nature Notes

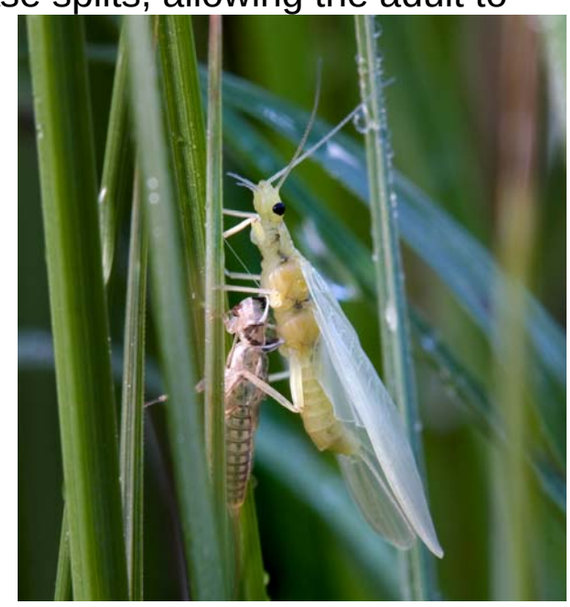
Hidden Treasures

An exciting world teeming with life exists on the bottom of creeks and streams. Macro-invertebrates, (small but visible without magnification and without a spine) are small aquatic insects that cling to the bottoms of rocks in streams. They are a crucial, foundational part of the aquatic food chain. Hundreds of macro-invertebrate species are found in our local creeks.

Stonefly nymph. Photo from Wikimedia File: Larve de plecoptere.JPG

One insect found in our streams is the stonefly (Order Plecoptera). There are about 500 species of stonefly in North America but they all share some important characteristics. The eggs of the stonefly are laid in water where they hatch into a nymph having 2 tails, long antennae, flat body, widely separated legs and bony plates covering each segment of its body. Depending on the species, the nymphs can grow to a length of 5–50mm through a series of instars, or shedding of its exoskeleton as it grows. Stoneflies can be carnivores, herbivores or omnivores but all are favourite foods of fish, birds, mammals and amphibians.

When fully developed, the nymph crawls out of the water and dries on a rock, branch or log. The nymphal case splits, allowing the adult to emerge, looking much like a nymph with wings. The adult either crawls or flies into a branch where the males drum their abdomen on a branch to attract a female to mate. The females start the whole cycle over again by laying their eggs by flying over the surface of the water and dipping the tip of their abdomen into the water, releasing the eggs. Some species of stoneflies may live several weeks but most die shortly after mating.



Adult stonefly on nymphal case. Photo by: Richard Batz, Munich aka Makro Freak

Take a moment to lift a rock in one of the streams of the Kimberley Nature Park to see what kind of tiny life is to be found clasping the rock bottom so as not to be swept downstream in the stream current.

Visit www.rockies.net/kimberley/naturepark for a hard copy of this article or to learn more about Nature Park events.