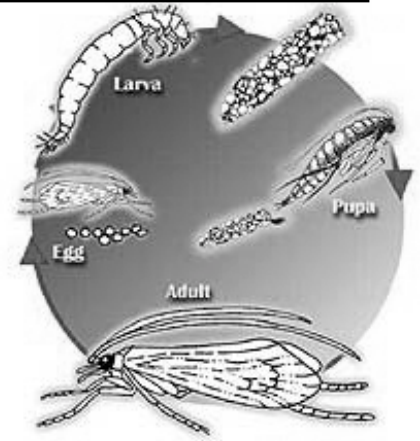




WILDLIFE NOTES



Caddis fly larvae

Trichoptera

Photo and graphic: PDWeb.com



The next time you take off your shoes and soak your tired feet in a lake or mountain stream, take a minute to look at its bottom. Look closely. Does it seem to have a life of its own? Can you see tiny clusters of sand, gravel or twigs that appear to be on their way somewhere, independent of the direction of the current?

You're not seeing things. The larvae of the caddis fly haul their houses around like a bunch of underwater RVs, at times in concentrations of more than 1,000 per square foot.

Masters of underwater construction, caddis fly larvae are found throughout New Mexico where there is fresh water. A highly specialized and skilled craftsman, the caddis constructs its case ("casefly" is one of the insect's common names) out of sand, gravel, twigs, leaves, grass, bark or pine needles.

Particular species demonstrate

preferences in building materials and architectural styles. A case is cemented together with a substance secreted by the larva, and constructed in a way that allows water to flow through and across the gills of the insect. In some species the case becomes too small for the growing larva. It is abandoned and a new, larger case is constructed. Some larva drag their cases along with them, while others cement them to rocks or are free-swimming.

As the largest group of aquatic insects in the world (there are 750 species in the United States along), the caddis figures prominently in the diets of other aquatic life. It is a staple of trout, a fact that hasn't been overlooked by trout fishermen who have concocted a myriad of imitations of the insect in all of its stages; larva, pupa and adult.

Certain families of the caddis order, whose construction skills aren't restricted to home building, are themselves fishers. One family builds silken, tube-like nets, placed with the open end upstream to catch food. Another constructs tiny, intricately woven seines much like those used by fishermen. After small animals become trapped in the seines, the larva comes out of hiding to feed on its catch.

More common are other families that are not predacious and feed on algae and other aquatic plants. More than a dozen families and close to 100 species are represented in New Mexico.

Caddis larvae remain active until they seal themselves off, like their close relatives, the butterflies. They

become pupae and undergo a metamorphosis (the cased varieties simply close the ends of their cases.) After the larva has transformed, the insect swims or crawl to the surface and emerges as a winged adult.

It is from the adult that the order Trichoptera, or "hairy wings," takes its name. The adult caddis fly resembles a small moth and is easily identified by the tent-like way the wings are folded over the body when at rest.

Most are dull in color, commonly yellowish-brown or tan, with a prominent veined pattern in the wings. Antennae are long and segmented (often approximating the length of the insect from snout to wing tip.) Although the mouth parts can take in food, adult caddis flies show little inclination to feed. They have other interests.

The adults spend the day near the water, becoming more active in the evening and after dark, when they swarm in flights of courtship. Females produce hundreds of eggs. Some species enter the water to lay their eggs; others release them on or just under the surface.

Still others deposit their eggs in gelatinous masses on rocks along the banks, relying on rain to wash them into the water and begin the life cycle all over again.

Published 1992

Wildlife Notes is published by the Department of Game and Fish. If you are interested in obtaining additional copies, please send your request to:
Department of Game and Fish/PIO
PO Box 25112, Santa Fe, NM 87504