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LIVING

More than any other month of the year, August is a time of insects.

The natural soundscape resonates with the incessant calls of crickets, long-horned grasshoppers, locusts and cicadas.



OUR CHANGING SEASONS
Drew Monkman

Monarch, sulphur and cabbage butterflies abound in fields, gardens and along roadsides, often sharing these habitats with small, red or yellow meadowhawk dragonflies. Goldenrods become veritable insect magnets with their offerings of pollen and nectar. Among the various guests, we can find wasps,

hover flies, ants, long-horned beetles, soldier beetles, ambush bugs, wasps, honey bees, bumble bees and crab spiders. A close examination of a milkweed plant will often reveal black, yellow and white monarch caterpillars, tuft-covered tussock moth caterpillars and the red and black milkweed bug.

An equally entertaining spectacle is happening by cover of darkness. Beautiful underwing moths are out patrolling woodlands and field edges. Unassuming at first glance, these moths of the genus *Catocala* (kah-TOCK-uh-lah) are called underwings because of the incredible contrast between the nondescript fore wings and the bright, usually colourful, under or hind wings. In Greek, "kato" means below or behind and "kalos" means beautiful. There couldn't be a more apt name for these insects than "beautiful below."

Sitting on tree bark, these moths are almost perfectly camouflaged when the mottled brown or grey forewings are closed. However, when they are open, the totally unexpected bright colours of the hind wings are exposed. In many species, they are boldly marked with black bands on an orange or yellow background. When the forewings close, however, the insect effectively "disappears."

The bright hind wings also become suddenly visible when the moth takes flight. In fact, the explosion of colour during the take-off flight can be quite startling.

The question arises as to why evolution has bestowed such contrast between the fore and hind wings of these insects. As you would probably guess, it all has to do with not ending up as a predator's breakfast. In the case of underwing moths, the main predators are birds. The first line of defense is camouflage, as the moth blends into the tree bark on which it has chosen to spend the daylight hours. However, if a bird should happen to see and attack the moth, it suddenly lifts its forewings, exposes the dazzling under wings, and startles the bird long enough to make an escape. An alternative explanation is that the bright colours serve as an easy target for the bird, causing it to peck at the hind wing rather than the critical head area.

In addition to their surprising beauty, there are many other reasons why people enjoy studying underwing moths. First of all, their names are intriguing. Because moths are often associated with night, mystery, death and even love and marriage, we have names such as the dejected underwing, forsaken underwing, widow underwing, old maid underwing and sweetheart underwing, to name a few. The Kawarthas alone



A youthful underwing moth (top photo); above, from left to right: pink, white and yellow-banded underwings.

boasts between 30 and 40 different species.

According to Tim Dyson, a local expert on underwings, what species you can expect to attract depends on the types of tree to be found where you live. In other words, different moths prefer different tree species on which to lay their eggs. This is because the caterpillars are adapted to eating

only certain types of leaves. Where hawthorn is prevalent, for example, expect to find woody underwings. In areas where basswood trees are common, watch for the yellow-banded underwing. Oaks are the host tree for *Ilia* underwings, while poplars draw in sleepy, white and once-married underwings. A host of different species come to hickory trees.

The fact that some underwing species fly until Thanksgiving or later also makes them an interesting group to observe. Some of the late-flying species to watch for include the sweetheart, darling and white. As surely as heavy morning mists and changing leaves, by the time white underwings (*Catocala relictica*) become common, summer is usually draw-

ing to a close. Whites are found as often in urban areas as in the countryside. Even on cold fall nights, when most other moths have stopped flying, white underwings continue to be attracted to lights.

As I have already mentioned, underwing moths can be attracted to lights. A surer way to attract them, however, is to use a sugary bait. One common recipe calls for a mixture of stale beer, over-ripe bananas, molasses or brown sugar and a shot of rum. A favourite method of Dyson's, however, is to simply use mashed, over-ripe bananas. They will yield results as much as anything. About the only bait to stay away from is white sugar and anything containing preservatives.

Wait until about sunset and spread two or three tablespoons of the concoction on tree bark along roadsides, driveways or simply on scattered trees on your property. Place the bait at about chest height.

After it gets dark, take a dim flashlight and quietly check the bait sites for moths. Warm, humid nights with a slight breeze seem to give the best results. Don't be surprised if moth species other than underwings are attracted to the bait, or even small mammals such as flying squirrels or deer mice. Dyson regularly sees spring peepers and grey treefrogs at his bait sites. They aren't there for the mashed bananas, but rather for the delicious moths and other insects that have come to feed.

Occasionally, when bait drops to the ground, snails, slugs and small insects come to enjoy the feast. All of this activity sometimes attracts blue-spotted salamanders. Dyson is always careful not to step directly beneath the baited spots on trees. You never know what you might be stepping on.

Because the moths' wings are usually open when they are feeding, you should be able to get a good look at the colour and pattern of the under wings. Along with the pattern on the fore wings, identification should be fairly easy in most cases. With experience, the patterns on the fore wings alone are usually sufficient to put a name to the moth.

The best English-language identification guide currently available is *A Field Guide to Moths of Eastern North America*, published by the Virginia Museum of Natural History. The author is Charles Covell.

The photographic opportunities are another reason why moth baiting is so interesting. However, one needs to be patient, silent and stealthy. The *Catocala* all have extremely sensitive hearing, and the slightest snap of a twig or crunch of a dead leaf will frighten them away. With any luck though, most will return to the same bait within a few minutes. Just be sure to turn off your light and stay still.

If your camera does not have a "see-in-the-dark" feature, you can use a dim flashlight to help focus. Note that bright flashlights often cause the moth to fly away. Small LED flashlights are ideal, and all you really need to find and focus on the moths for pictures.

There are wonderful images on the Internet of underwing moths. To see more of Tim Dyson's spectacular moth images and to take a virtual night nature walk replete with owls and frogs, go to <http://www.huffmantaxidermy.net/oehlke/tdboindex.htm>.

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Tim Dyson, special to The Examiner