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Flying Tigers

When you think of moths, do you picture a mass of dull, nondescript flying insects mobbing a porchlight on a summer's evening? Nothing could be further from the truth! Moths are an incredibly diverse and colorful group. Some families such as the tiger moth family, the Arctiidae, rival butterflies in beauty and grace. Tiger moths are common, easily observed and collected, and can provide both an evenings's entertainment and a splash of color to any insect collection.

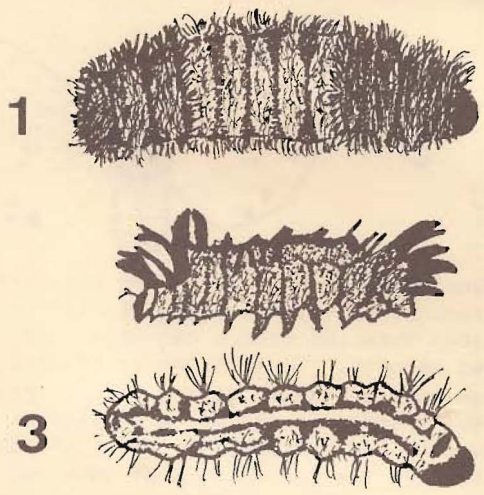
Tiger moths get their name from their bold, contrasting coloration, which often includes gold and black strips much like those of the jungle cat. In various geometric patterns, red, white, and gray round out the colors of the tiger moth rainbow. You can usually identify adult tiger moths by color patterns alone; but, in general, these insects are also heavy-bodied, slow, and deliberate fliers. When at rest, they fold their wings rooflike over their bodies. There are approximately 260 species of tiger moths in North America.

The Tiger Moth Life Cycle

The life of a tiger moth begins when an adult moth lays an egg on the surface of a food plant. A few days later, the egg hatches and the larva begins feeding on plant food. Tiger moth larvae are distinctively hairy, which is a common characteristic of the family. Have you ever seen caterpillars covered by a dense coat of prickly hairs or by a sparser coat with long, hairy tufts concentrated at the head and posterior regions? They are almost always tiger moth larvae.

The plant diet of tiger moths is varied. Larvae of tiger moths such as the banded woollybear (Fig. 1) feed on several species of food plants. Others, like the milkweed tussock moth (Fig. 2), feed on only a single food plant. The lichen moths have a unique diet. Their larvae feed either directly on lichens or solely on the algal layer within the lichen. Since lichens are sensitive to air pollution, you may not find many lichen moths in or near cities. The painted lichen moth (Fig. 4) may be common in some locales.

Behaviorally, tiger moth larvae are of two types: they either enjoy company or live as hermits. Larvae of most species are solitary and rarely occur in large groups. For example, the banded woollybear is often seen scurrying alone across roads in late summer and early autumn. The fall webworm (Fig. 3) is one of the more social of tiger moths. Large aggregations of fall webworm larvae live in web nests on their food plants--trees such as black walnut and elm. For the fall webworm, there is safety in numbers. If you find a fall webworm nest, gently tap the surface with a stick or your finger and watch what happens. The larvae immediately begin jerking their bodies back and forth in unison, presumably to dislodge predators or parasites. If you're patient, you may see this show repeated when a real parasite lands on the nest.



Tiger moths may have one to several generations per year, depending on the species and latitude. The milkweed tussock moth and banded woollybear each produce two generations per season in the Northeastern U.S., whereas the fall webworm may produce up to four generations yearly in the South. Most tiger moths overwinter as partially grown caterpillars that resume feeding and growth the following spring. During the winter, look under downed logs, bark, or your firewood stack for overwintering woollybear caterpillars. When they've eaten their fill, larvae retire to protected spots where they spin silken cocoons and pupate. After a few weeks, the next generation of adult tiger moths emerges to begin the cycle anew.

Rearing and Collecting Tiger Moths

Interested in raising tiger moths? Two species in particular are good for starters. The first is the common banded woollybear, which is easily collected. Woollybears are best collected in late summer and early autumn when they're most active. Collect several for study and place them in plastic freezer containers in which you've put 2 or 3 inches of a peat moss/potting soil mixture. Make sure the container lids have adequate ventilation holes. Supply larvae with fresh food plant leaves (dandelion and plantain work well). Occasionally, mist the peat/soil mixture with water to maintain humidity. When larvae become sluggish and stop feeding, place a layer of leaf litter in the containers, and put them in an unheated garage or on a porch for the winter. With the onset of spring, woollybears will again become active. Transfer the rejuvenated woollybears to emergence cages for further rearing (emergence cages provide an airy, spacious habitat for newly emerged moths to expand and dry their wings). Construct emergence cages from a cylinder of window

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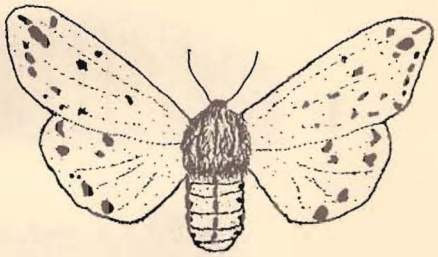

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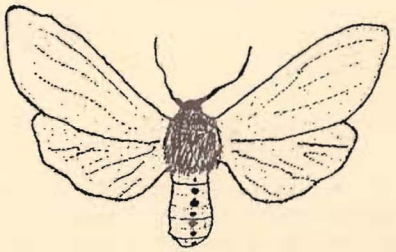
screening about 8 to 10 inches tall with a circumference just large enough to fit snugly into a clean tuna can (sharp can edges should be filed smooth). To form the cylinders, join the loose ends of the screening with staples or glue. Insert one end of each cylinder into a tuna can, and put about 2 inches of peat/soil mixture in the can portion of each cage. Another tuna can, or better yet, a plastic lid with a similar diameter can be used as a top for each emergence cage. Place one or two woollybears in each cage and provide them with fresh leaves regularly. Eventually, the larvae will pupate, and a few weeks later, adult banded woollybear moths (Fig. 5) will emerge.

Another easily reared tiger moth is the milkweed tussock moth (Fig. 6). Collect larvae of this species from milkweed plants and place them in emergence cages with milkweed foliage. Aqua-pics, obtainable from most florist shops, will keep leaves fresh while larvae feed on them. The milkweed tussock moth is a gregarious species, so place several individuals in each cage. It may be interesting to observe the feeding behavior of milkweed tussock moth larvae. Recent studies suggest that larvae of this species cut furrows into milkweed leaves. The furrows cut off the supply of sticky, white latex to areas of the leaf where larvae wish to feed. This behavior presumably allows larvae to avoid the latex that can gum up their mouthparts! See if your milkweed tussock moth larvae feed in a similar manner.



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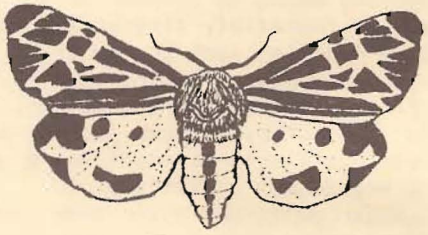

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Want to collect adult tiger moths? Most tiger moths are night fliers and can be readily collected from lights. Occasionally, adults can be flushed from vegetation or captured near host plants during the day. A good way to catch tiger moths and many other night-flying insects is by illuminating a white bed sheet with a lantern, or if you have one available, a portable black light. Choose an open area, away from strong light sources, to undertake your light trapping. String clothesline between two trees and drape the bed sheet over it. Place your light source behind the sheet (if you're using a lantern, place it a good distance from the sheet to avoid fires!) and sit back until your quarry arrives. If you're lucky, the beautiful virgin tiger moth (Fig. 7) may be attracted to your light. When a tiger moth lands on the sheet, capture it with forceps or a short-handled net. Captured moths can either be observed and released or placed in a killing jar if you wish to keep them for your collection.

The following references are helpful in identifying tiger moths and also provide collecting and rearing information.

Brewer, J. and D. Winter. 1986. Butterflies and moths: a companion to your field guide. Prentice Hall Press, NY. 194 p.

Covell, C. V. 1984. A field guide to the moths of eastern North America. Houghton Mifflin Co., Boston. 496 p.

Holland, W. J. 1968. The moth book. Dover Publications, NY. 479 p.

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