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Collecting Giant Silkmoths

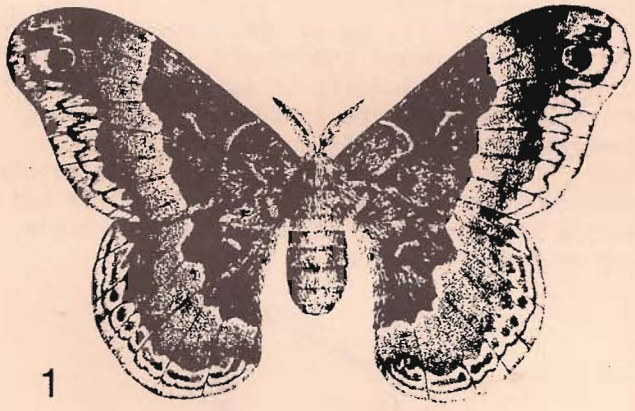
The Saturniids or giant silkmoths are among the largest and most spectacular of American moths and favorites of collectors (Fig. 1). All are beautifully and brightly colored and the largest of the group may have a wingspan that exceeds 6 inches. What insect collector has not wanted to catch or rear the lovely luna moth or the uncommon Columbia moth!

Silkmoths can be collected at any stage of their development but it is most rewarding to collect them in winter when they are in their cocoons and awaiting their emergence. This is good winter sport and needs only a minimum amount of effort, and you certainly will get the best specimens.

Several species of silkmoths spin their cocoons on trees or shrubs which become conspicuous after leaf drop. Hunting cocoons is simply just knowing where and what to look for. Several silkmoths such as the cecropia and polyphemus have a wide range of food plants; a few like the Columbia moth feed only on one tree species (Table 1). Some skill in recognizing their food plants in their winter apparel is useful. Once located, the cocoons, because of their size and shape, stand out against the narrower twigs and branches. A good cocoon hunter, in order to find the most desirable trees or shrubs, must think like the female moth. When she is ready to lay her eggs she searches for shrubs or young trees and prefers isolated ones or those at the outer edges of woods, marshes, and bogs where maneuvering is easiest. Your most profitable searches then should be along fencerows, in backyards, along railroads and roadsides, and in openings where there are small clumps of trees and shrubs.

Cecropia moth cocoons are often over 3 inches long and the largest produced by native silkmoths. They are made of tough silken threads and always attached lengthwise to the twigs or branches of the host plants (Fig. 2). Those high on the plant tend to be longer and more compact while those spun near the ground are more bulky and somewhat loosely spun. Cecropias, probably because they have such a wide variety of food plants, frequent urban areas where lilac, maple, fruit trees, and birch are planted.

Promethea moths are usually the most common of the silkmoths and their cocoons resemble curled leaves that didn't fall from the tree in autumn (Fig. 3). Actually, each cocoon is wrapped in a leaf that the larva pulled about itself as it spins its silken home. The silk covers the leaf petiole and firmly anchors the leaf and cocoon to the twig. It is about 1-2 inches long and hangs vertically from the twig. Prometheas prefer wild habitats to urban ones so hunt for them along roadsides, railroads, and forest edges for best results. When you find one there should be others nearby. "Where there's one there's four; and where there's four, there's more," is a good saying quotes Dave Eppelheimer, an avid cocoon collector. Its not uncommon to find 6 or more on a single small tree or shrub.



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Polyphemus moth cocoons are about 2 inches long but more rounded than those of Promethea moths (Fig. 4). The Polyphemus larva camouflages its cocoon by incorporating leaves into its structure and then fills the fibers with a fluid that becomes white and chalky. Like the cecropia it readily feeds on plants in urban situations, so look for these cocoon on shrubs and small trees in yards, vacant lots, and parks. Also search beneath these food plants as some cocoons are spun on the ground and others fall off the plant.

The thin papery cocoon of the highly coveted luna moth is similar in form and size to that of the Polyphemus but contains much less silk. Although it is spun among the leaves it falls to the ground in autumn and thus is more difficult to find than the latter. If you search diligently beneath its food plants you may be

Table I. Food plants of common silkmoth larvae (in order of preference).

SILKMOTH	FOOD PLANT
Cecropia moth	cherry, maple, boxelder, elderberry, willow, lilac
Polyphemus moth	maple, boxelder, basswood, plum, oak, walnut
Promethea moth	cherry, lilac, spicebush, ash, basswood, plum
Luma moth	walnut, hickory, butternut, oak, beech, birch, willow
Io moth	cherry, willow, elm, boxelder, aspen, maple, corn
Columbia moth	larch (tamarack)
Cynthia moth	ailanthus (tree of heaven)

rewarded with a cocoon or two.

Columbia moth cocoons are oval, about 1 1/4-2 inches long and comprised of tough brown silken threads. Silver streaks often mark its sides. Like the cecropia, its nearest relative, the Columbia attaches its cocoon to the twig (Fig. 5) or occasionally to the trunk of its host plant. However, it is a rarer insect and feeds only on larch (tamarack) so you must

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search for it in localities where larch thrives such as in or near acid bogs, and on young trees up to 25 ft. tall. Most cocoons are 2-6 ft. from the ground and toward the tips of the branches. Occasionally it spins its cocoon on shrubs beneath the larches. Larch cones sometimes make it difficult to spot the cocoons. The best time to collect is in autumn shortly after larches lose their needles but before the birds and other predators locate and destroy the cocoons.

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The cocoon of the Cynthia moth is spun up in a single leaf and resembles that of the Promethea moth. This species is far less common, however, and feeds only on the ailanthus or tree of heaven which is planted in urban areas.

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Introduced in eastern North America in 1861 from Asia for silk production, it has now become widespread in the Northeastern part of the United States.

The Io moth cocoon occurs on the ground as does that of the Luna moth, and though possible to locate, you must do considerable hunting. You can collect the larva, which feeds on numerous hosts, or the adult much more readily.

Silkmoths in autumn- or winter-collected cocoons will not emerge unless given a "winter period". You can overwinter cocoons in an unheated garage or in the refrigerator from October to late winter. If then brought indoors they will emerge. If you plan to have the moths mate and lay eggs and then rear the larvae, be sure to overwinter them until at least late April or until their food plant has sufficiently leafed-out.

Silkmoths can also be collected in the larval and adult stages. The conspicuous larvae or caterpillars of some attain 3 inches long and

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many are armed or adorned with tubercles, spines, or hairs. All can be handled except the Io moth which has stinging hairs on its body. When touched it feels like stinging nettles, so collect it without handling it. Blacklights attract most adult silkmoths so they can be collected this way during their summer evening flights.

Whichever way you choose, collecting these beautiful moths is a rewarding pastime.

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