

After 24 hours the cocoon was removed and one side was carefully cut away with a razor blade exposing the moth within.

Under magnification the structures were observed to comprise extensions of the chitin from the mesothorax and to arise immediately above the junction of the wing from a broad base, tapering slightly towards the middle, and terminating in a thickened spear shaped point, dark brown in colour and highly polished. These projections I have termed "thoracic spurs." In a fully developed moth the "thoracic spurs" (no longer flexible) lie in a horizontal plane and are concealed by the scales of the thorax.

From the foregoing observations it would appear that the adult *Actias luna*, having emerged from the pupal case, employs a pair of "thoracic spurs" to sever the threads of the cocoon with an abrasive cutting action.

NOTES ON LARVAL FOODPLANTS OF SOME SPHINGIDS IN ONTARIO, CANADA

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Since 1963 systematic rearing of caterpillars of sphingids and some other lepidopterous families has been carried out during the summer by the Department of Entomology, Royal Ontario Museum, University of Toronto. In 1963, 1964 and 1966 this was done by our summer field party at the Biological Station of Queen's University, Kingston, Ontario, near Chaffeys Locks, Ontario. In the course of the rearing program it was found that certain species either prefer foodplants other than those recorded in the literature or refuse those which are commonly thought to be preferred. When we take as a guideline the foodplant records of Forbes (1948), Ferguson (1954), and McGugan (1958), then we find the following accord or discord.

Ceratomia amyntor (Huebner). It is commonly thought that this sphingid feeds on elm. Forbes and Ferguson list only "elm". We knew from amateur collectors in Toronto that for some years they used to look for *amyntor* caterpillars on basswood, in addition to elm. Also McGugan has basswood as foodplant in two cases of nineteen. We reared the species in 1966 successfully on basswood. In Chaffeys Locks caterpillars of *amyntor* were found on basswood.

Sphinx gordius Cramer. Forbes lists apple, ash and wax-myrtle, Ferguson blueberry, *Comptonia* and *Myrica* as foodplants. Apple and ash, however, were refused by our caterpillars in 1964. They took only

Myrica gale in Chaffeys Locks. The same was true for caterpillars which we had in 1965 from Algonquin Park, Ontario. We also tried tamarack, the foodplant which McGugan gives as the main foodplant, but the caterpillar only nibbled on it for a few days and then died. It was, however, possible to change the almost grown up caterpillars from *Myrica* to the common blueberry (*Vaccinium* sp.).

Cressonia juglandis robinsonii Butler. In 1963 we had many eggs of this species which hatched. The caterpillars, however, refused walnut and hickory completely; they accepted *Ostrya* instead. This plant, which is mentioned a few times in older literature, but not in Forbes (who lists only walnut and hickory) or Ferguson who says nothing definitive about the foodplant. Ferguson does mention that he found a Sphingid caterpillar on introduced copper beech which was probably *juglandis* but failed to yield an adult. In 1964 we found one caterpillar on *Carya cordiformis*. The caterpillars we had from eggs, however, again preferred *Ostrya* and took only small bits from *Carya* leaves offered together with the *Ostrya* leaves. The same was repeated in 1966. As the species, however, occurs quite frequently in localities where no *Ostrya* is available, we used our caterpillars in 1966 for some experiments with nearly related foodplants. We gave them *Carpinus*, *Corylus*, *Alnus* and *Fagus* all of which they eat without any discrimination; however, they refused the related *Betula*. The fact that *juglandis* feeds on this great variety of trees and shrubs, all belonging to the order Fagales, in addition to the Juglandales, may account for its occurrence around Lake Nipigon and in places like Sudbury, Ontario, where only *Corylus* and *Alnus* would readily be available.

Smerinthus jamaicensis Drury. Forbes states that wild cherry is the preferred host, which Ferguson lists together with birch, poplar and willow. In 1966 our caterpillars refused cherry and settled down only after we gave them *Salix* (any species of *Salix*). On this food they soon began to thrive. Later we switched them to a hybrid poplar and it seems that this plant was preferred over willow. Toronto collectors say that they look only on willow to find *S. jamaicensis* caterpillars.

Paonias excaecata (J. E. Smith). Here is another apparent disagreement to Forbes who lists "wild cherry". In 1966 our caterpillars were first given only wild cherry, which, after some hesitation, they began to accept. As we knew that in this area they feed on basswood, we added basswood and the caterpillars switched from cherry to basswood. At Chaffeys Locks we found eggs of *excaecata* on basswood leaves. These eggs hatched in due course. Ferguson says of this species: "probably

a rather general feeder on deciduous trees," and McGugan has white birch as the preferred foodplant.

Paonias myops (J. E. Smith). In 1965 we reared this species without difficulty on *Prunus pensylvanicus*. Forbes lists "wild cherry and other Rosaceae"; while Ferguson lists "probably" *Prunus virginiana* and *Prunus serotina*, and McGugan lists *Amelanchier*.

Pachysphinx modesta (Harris). In 1964 we reared this species on *Populus tremuloides*. In 1966, we found one full grown caterpillar on the same tree. Forbes lists "poplar and willow," Ferguson lists "aspen," and McGugan list "aspen," yellow birch, and willow in order of preference.

Celerio gallii intermedia Kirby. In 1966 we obtained three eggs from a female caught at light in Geraldton, Ontario. These eggs, which were laid on *Epilobium angustifolium*, produced pupae in only 24 days. One adult male emerged 17 days after pupation. This indicates a partial second generation, which was, as far as I know, previously unknown. The eclosed pupa resulted from a brown caterpillar, while two female pupae from black ones hatched the following spring. In 1967 we reared this species successfully on grapevine.

LITERATURE CITED

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- FORBES, W. T. M., 1948. Lepidoptera of New York and neighboring states. II. Geometridae, Sphingidae, Notodontidae, Lymantriidae. Cornell Univ. Agric. Exp. St. Memoir 274, 263 pp.
- McGUGAN, B. M. (Co-ordinator), 1958. Forest Lepidoptera of Canada recorded by the Forest Insect Survey. Volume I. Papilionidae to Arctiidae. Forest Biology Div., Can. Dept. Agric., Publ. 1034, pp. 1-76.

ADDENDUM TO MITES FROM NOCTUID MOTHS

Too late for inclusion in my paper on mites from noctuid moths (Jour. Lepidopterists' Society 21 (3): 169-179), I learned of a publication by G. L. van Eynhoven (1964) in which are cited a number of records of the occurrence of the cheyletid mite *Cheletomorpha lepidopterorum* on moths of various species including several noctuids. Van Eynhoven's paper is entitled "*Cheletomorpha lepidopterorum* (Shaw, 1794) (= *Ch. venustissima*) (Acari, Cheyletidae) on Lepidoptera." It appears as No. 136 of Volume 11 in *Beaufortia, Series of Miscellaneous Publications, Zoological Museum—Amsterdam*, pages 53-60 (December 17, 1964). The mites are said to attach themselves to the wings of their hosts. Van Eynhoven regards the association as phoretic rather than parasitic.

Figures 2 and 3 in my paper were rotated 90° clockwise from their intended positions. Thus the explanations should be corrected as follows: in fig. 2, the pale antler-like cuticular outgrowths of the nodular sclerite appear just below the center of the photo; in fig. 3, the upraised hindwing appears at the upper left, and the base of the abdomen at the bottom of the photo.

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