

MISCELLANEOUS NOTES ON COLEOPTERA

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The following miscellaneous notes on Coleoptera present facts and records that have accumulated in our file from rearings and field observations, made by the authors, or by others to whom due credit is given. Records without dates refer to material caged and reared in the laboratory.

LYMEXYLIDAE

Hylecoetus lugubris Say. Infests dying *Populus grandidentata* at Lyme, Connecticut. These tall poplars about seventy-five feet high with branches and foliage near the top were in deep woods. The dying trees are infested with *Hylecoetus lugubris* which overwinter in the larval stage in transverse galleries or mines in the sapwood. The larvae were very plentiful at the base, and up the main trunk twenty-five to thirty-five feet. The larvae are lemon yellow in color, armed with a caudal spine, and range in size up to twenty millimeters in length. The emergence hole is made leading from the main gallery by the larvae in the fall. Larvae, pupae and first adults were found in their cells in the sapwood on April 25. Adults taken flying on May 4.

Melittomma sericeum Harris. The adults of this interesting species are nocturnal. During the hot summer nights they may be found on the outer bark of dead oaks. Our specimens were taken at Harrisburg, Pa., June 26; July 6 and 23.

BUPRESTIDAE

Polycesta angulosa Duv. Found breeding in the heart-wood of dead *Coccolobis laurifolia* at Miami, Fla. Mature adults were chopped from their pupal cells on April 12.

Actenodes bellula Mann. A mature adult was chopped from the sapwood of a dead cypress (*Taxodium distichum*) at Paradise Key, Fla., on April 15. Adults were numerous on fire-killed *Lysiloma latisiliqua*, on the same date.

MELANDRYIDAE

Orchesia castanea Melsh. Hummelstown, Pa. Adults reared from dead water-soaked, down, elm limb.

Rushia longula (Lec.) Hunter's Run, Pa. Reared from *Pinus rigida*. Larvae work in sapwood of dead standing tree.

Enchodes sericea Hald. Rockville, Pa. Reared from partly decayed stump of *Liriodendron tulipifera*.

Serropalpus barbatus (Schall.) Throughout the Eastern United States this species lives in dying hemlock (*Tsuga canadensis*); in the western area it is found in other conifers, including *Abies*.

Dircaea quadrimaculata (Say). Hummelstown, Pa. Reared from dead decayed wood of *Liriodendron*, *Rhus*, *Salix*,—H. B. Kirk.

Phloeotrya voudoueri Muls. Rockville, Pa. Reared from dead, decayed *Betula lenta*,—H. B. Kirk.

ANOBIIDAE

Eucrada humeralis (Melsh.) Westbury, N. Y. Adults common on dying white oak.

Oligomerus obtusus Lec. Identified by H. C. Fall, Harrisburg, Pa., April, May, June, July, reared from *Fagus americana*.

Trichodesma klagesi Fall. Lyme, Conn. Reared from dead, dry stems of *Benzoin aestivale*.

Trichodesma gibbosa (Say). Harrisburg, Pa. Reared from *Hicoria*, and sour gum (*Nyssa sylvatica*) Marsh.

Trypopityus sericeus (Say). Identified by H. C. Fall, Inglenook, Pa. Reared from dead, hard, dry *Kalmia latifolia*.

Xyletinus harrisi Fall. Harrisburg, Pa. Reared from dead oak, July 12.

Xyletinus sp. near *X. fuscatus* Lec. and *X. lugubris* Lec. Harrisburg, Pa. Reared from dead, soft branches of *Tilia americana*.

Ptilinus ruficornis Say. Hummelstown, Pa. Reared from dead, dry branches of *Acer rubrum* in May. Carroltown, Pa., June 20, specimens submitted from correspondent who stated that they work in the floor of his house, eating the wood as they go.

BOSTRICHIDAE

Lichenophanes truncaticollis (Lec.) Harrisburg, Pa. Reared from dead, dry, hard limb of *Fraxinus*.

BRENTIDAE

Brentus anchorago (L.) Found beneath the bark of gumbo limbo (*Simaruba glauca*) at Miami, Fla.—DeLong and Knull.

PLATYSTOMIDAE

Ormiscus saltator Lec. Hummelstown, Pa. Reared from dead, dry, limb of *Acer rubrum*.

Eusphyrus walshi Lec. Identified by H. C. Fall, Harrisburg, Pa. Reared from dead twigs of *Rhus hirta*, also dead twigs of *Robinia pseudacacia* and *Hicoria*.

Allandrus bifasciatus Lec. Harrisburg, Pa. Reared from dead branches of *Tilia americana*. The larvae occur in the outer bark of branches lying on the ground.

CURCULIONIDAE

Hormorus undulatus (Uhler). In a previous article, entitled "Notes on Coleoptera in Pennsylvania, New York and Connecticut,"¹ this species is recorded as feeding in the adult stage on the leaves of Solomon's seal. At New Bloomfield, Pa., October 7, 1921, the work on the foliage of Solomon's seal was very evident, although no adults were present. The roots of the plant were then investigated. Here the larvae were found, working externally on the tubers, chewing out large sections in their feeding operations.

The insect probably overwinters in the larval stage, and transforms and emerges in May.

Otidocephalus myrmex (Hbst.) The previous notes¹ on this species were made during the winter months, and under artificial conditions. Since that time observations have been made out of doors through June. The adults appear in numbers at Harrisburg, Pa., about June 2. After this time adults

¹Entomological News, Vol. xxxii (1921).

may be found in abundance on the branches of the sycamore, and on almost every leaf. In addition to eating the pustules of sycamore blight- (*Gnomonia veneta*), they attack the leaf tissue, especially the midrib, where they chew out holes and sections which disfigure the leaves, and leave scars by which diseases may enter. After feeding, the adults oviposit in the stems, which have been newly killed by the blight. *Leiopus alpha* Say¹ mentioned in connection with *O. myrmex* is found in the adult stage at the same time. It confines itself to the dead and dying stems where it feeds exclusively on the blight pustules.

Magdalis pandura Say. Linglestown, Pa., June 14. Lemoyne, Pa. Reared May 3 from walnut—Kirk and Champlain.

Cylindrocopturus binotatus (Lec.) This species is very common at Harrisburg, Pa. It attacks weakened and possibly healthy staghorn sumac (*Rhus hirta*). It seems to prefer trees that have reached maturity and breeds in the sapwood on the main stem and branches.

Apteromechus ferratus (Say). Inglenook, Pa. Breeds in outer corky bark of sassafras, and does considerable damage; in fact, there was evidence enough to show that many trees had been killed. Adults emerge during July. Larvae in outer bark and sapwood.

STUDIES ON THE TAXONOMY AND BIOLOGY OF THE TARSONEMID MITES, TOGETHER WITH A NOTE ON THE TRANSFORMATIONS OF ACARAPIS (TARSONEMUS) WOODI RENNIE. (ACARINA)

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In the last few years frequent inquiries have been received from American entomologists in regard to the identity and habits of the Tarsonemid Mites. In response to these it has been found necessary to do some research upon these interesting and economically important acarids. It was thought at one time advisable to work out a synopsis of the American species or possibly even a monograph of them. A more serious reflection, however, showed that such an attempt at this time would be premature and ill-advised. Hence, in response largely to these inquiries I am here presenting certain additions to our knowledge of the Tarsonemid mites.

The Classification of the Tarsonemid Mites.

For many years all the species of this group were included in a single family, the Tarsonemidae. In my classification of the families and higher groups of the Acarina¹ in 1913 two families were recognized. To these should be added the family Disparipedidae of Paoli; and the long recognized and peculiarly degenerate genus *Podapolipus* of Rovelli and Grassi certainly should be accredited with family rank. The most of the genera and these four suggested families are arranged as follows, the more generalized groups being given first:

¹Ewing, H. E. New Acarina, Part 1 etc. Bul. Am. Mus. Nat. Hist., Vol. xxxii, pp. 93-121, text figs. 1-9, Pls. vii-viii.