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Miller: Pammene Perstructana (Walker) (Lepidoptera: Tortricidae) I



# *PAMMENE PERSTRUCTANA* (WALKER) (LEPIDOPTERA: TORTRICIDAE) IDENTIFIED AFTER MORE THAN A CENTURY

William E. Miller[1]

ABSTRACT

*Sciaphila perstructana* Walker has been known only from the female holotype, and *Pammene signifera* (Heinrich) only from males. Based on associated males and females from the Great Lakes area, the two names apply to one species. The resulting synonymy leads to a new combination, *Pammene perstructana*, and finally associates a species with this long-baffling specific name.

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*Sciaphila perstructana* Walker is among myriads of British Museum (Natural History) insects laconically described by Francis Walker in the mid-19th century (Anon. 1874). It is also among 37 Walker names in Nearctic Olethreutinae (Powell 1983). Identities of many species represented by these names have been uncertain because Walker often worked from single specimens.

The Walker Nearctic olethreutine names have been resolved slowly. One reason is that Heinrich (1923, 1926), the first reviser to use genitalic characters, did not examine Walker syntypes. He relied instead on identifications made by Walsingham and C. H. Fernald, both of whom predated taxonomic use of genitalia. Use of nongenital characters led to many synonymical errors. Moreover, the Walker syntypes remained undissected until they were prepared by N. S. Obraztsov after World War II. Obraztsov also selected many lectotypes, but *Sciaphila perstructana*, like many Walker species, was represented only by a holotype. Photos of these types and their genitalia were deposited by Obraztsov in the American Museum of Natural History, New York (Diakonoff 1966). These have helped speed correction of errors, which has now progressed practically as far as specimen condition and present taxonomic methods permit.

*Sciaphila perstructana* has continued to be an enigma, however. It has been hesitantly referred to various genera (McDunnough 1959), most recently to *Cydia* (Powell 1983). The holotype is female, and males are often necessary for generic placement. Also, having been known only from the holotype, *Sciaphila perstructana* appeared to be an unusually rare moth. After assembling more than 20 specimens of a *Pammene* occurring in the Great Lakes area (Figs. 1, 3), I found that males matched the male holotype of *P. signifera* (Heinrich). The female of this species was hitherto unknown. That the female was the long-baffling *Sciaphila perstructana* became clear when I compared genitalia of *Pammene signifera* females with those of the *Sciaphila perstructana* holotype female (Fig. 2). The new findings are summarized below.

*Pammene perstructana* (Walker), New Combination
(Figs. 1-3)

*Sciaphila perstructana* Walker (1863: 343) (holotype: female, St. Martin's Falls, Albany River, Hudson Bay, no date, Barnston, genit. prep. 5319, forewing length 6.0 mm, in British Museum (Natural History), genitalia shown here in Figure 2).

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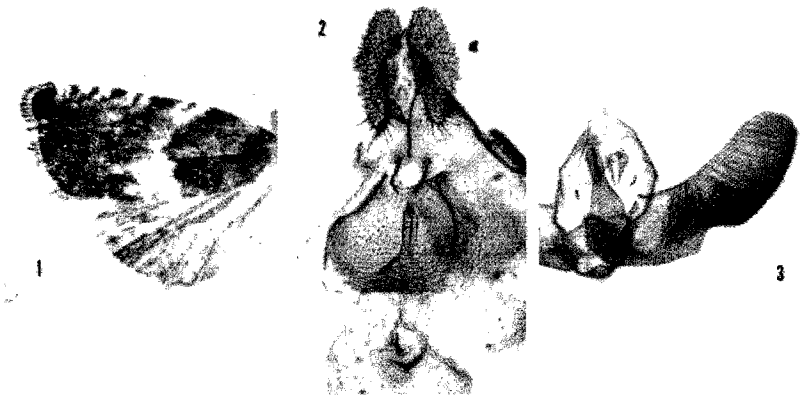


Figs. 1-3. *Pammene perstructana*: (1) wings of an example from Lake Katherine, Oneida Co., Wisconsin; (2) genitalia of holotype female; (3) genitalia of a male from Cass Lake, Cass Co., Minnesota.

*Hemimene signifera* Heinrich (1926: 22) (holotype: male, Lake of Bays, Ontario, 1-VII-20, McDunnough, forewing length 5.5 mm, in Canadian National Collection, genitalia illustrated by Heinrich 1926: Fig. 290). New Synonymy.
*Pammene signifera*; Powell (1983: 37).

I examined both of the above holotypes and the Obraztsov photos of *P. perstructana*. Nontype voucher specimens are in the University of Minnesota, St. Paul; Michigan State University Entomology Museum, East Lansing; University of Wisconsin Insectarium, Madison; University of California, Berkeley; and the Illinois Natural History Survey, Urbana.

There are five Nearctic species of *Pammene* (Powell 1983), and no larval hosts are known. The Palaearctic species number nearly 60 (Danilevsky and Kuznetsov 1968). Their larvae feed in terminals, tied leaves, flowers, fruits, galls, and related tissues of *Quercus, Salix, Acer, Fagus,* and other perennials (Swatchek 1958). Larvae of the Palaearctic *Pammene clanculana* (Tengström), a species which closely resembles *P. perstructana*, feed in seed-bearing catkins of *Betula* (Benander 1950). Should the latter two prove conspecific, the name *P. perstructana* would take precedence because of priority.

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