A NEW SPECIES OF ETHMIA FROM THE FLORIDA KEYS
(OECOPHORIDAE: ETHMIINAE)

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ABSTRACT. Ethmia powelli is described from Upper Matecumbe Key based on 123
specimens. It is related to E. humilis Powell and E. julia Powell, in the confusella species-
group, by genitalic characters, and is distinguished from E. farrella Powell by the small
wingspan and fewer forewing black spots.

Additional key words: Ethmia powelli, E. farrella.

The genus Ethmia was monographed for the known New World fauna by Powell (1973). In Florida seven species are now recorded
(Florida Lepidoptera Survey), mostly being Caribbean elements present
in southern Florida. The new species was collected after the publication
of Powell's (1973) monograph and is described here to make the name
available for a revision of Kimball (1965). Description of the species
has awaited collection of more specimens, but only recently has one
additional individual been collected. Capuse (1981) reviewed the Cuban
ethmiines but did not include the species described from Florida. Spec-
imens are deposited with the Florida State Collection of Arthropods
(FSCA) and my own collection (JBH), with paratypes distributed to the
University of California, Berkeley (UCB), and the National Museum

Ethmia powelli Heppner, new species
(Figs. 1–4)

Forewing length 4.0–4.7 mm (N = 100) (male); 4.1–4.9 mm (N = 23) (female).

Male (Fig. 1). Head. Silvery gray-white with black central mark on vertex; labial palpus
silvery gray-white with lateral black mark on each segment and black laterally near base.
Thorax. Silvery white; legs white, with fore- and mid-tibiae and tarsi marked with black;
hind legs white. Forewing. Ground color silvery white with numerous black spots (costal
spots at base and ⅓ from base; cubital area with elongated spots near base and at hindwing,
with a small round spot near dorsal margin; a large elongate spot mid-wing and another
along tornus); terminal black spots extending along costa on apical ⅓; fringe silvery; venter
silvery gray. Hindwing. Unicolorous pale gray with dark gray at margin; fringe gray;
venter similar. Abdomen. Silvery white with darker gray dorsum. Genitalia (Fig. 3).
Tegumen with slightly bulbous terminal points; vinculum rounded, without saccus; valva
subquadrate with prolonged distal end having 3 large spines and 2 smaller truncated
central spines, with a large curved hooklike process on dorsal margin near apex; anellus
an elongated tube (troughlike), dorsally open; aedeagus similar to that of E. humilis, with
bulbous phallobase; cornutus indistinct.

Female (Fig. 2). Similar to male; forewing terminal black spots slightly larger on average
than in male. Genitalia (Fig. 4). Setose ovipositor; posterior apophyses 3 × length of
anterior apophyses; sterigma composed of fused anterior apophyses extensions; ductus
FIGS. 1, 2. *Ethmia powelli* paratypes, Islamorada, Monroe Co., Florida. 1, Male, 2, Female.

bursae with sclerotized collar at ostium, then spiralled to ovate corpus bursae; signum a small sclerotized depression.

**Type material.** Holotype: male, 1 mi [1.6 km] SW Islamorada, Upper Matecumbe Key, 23-VI-1974, J. B. Heppner (slide JBH 1773) (FSCA). Paratypes: 99 males, 23 females, same data as holotype. Paratypes distributed to FSCA, UCB, USNM, and author's personal collection. Additional specimen: Key Largo, Monroe Co., 30-VIII-1986 (1 male), L. C. Dow (FSCA).

**Hosts.** Unknown. One species in the *confusella* species-group feeds on *Bourreria ovata* (Boraginaceae).

**Remarks.** Thus far, *Ethmia powelli* has been collected only twice in the Florida Keys. There are no records of it from any Neotropical locality; thus, the species may be native to Florida. Relations of *E. powelli* by some genital characters appear nearest to *E. humilis*.

**FIG. 3.** *Ethmia powelli* male genitalia, aedeagus omitted (JBH 1773).
Powell and *E. julia* Powell in the *confusella* species-group. This is a primarily tropical group with several species also occurring in S Florida (includes records of West Indian species recently found in the Florida Keys). Forewing maculation, however, is more similar to *E. farrella* Powell. In the key to species in Powell (1973), *E. powelli* keys to couplet 118, differing from *E. farrella* in having fewer black spots on the forewings, and in being significantly smaller, 4.0–4.9 mm versus 6.5–7.0 mm for *E. farrella*. The male genitalia are particularly diagnostic, having 5 spines on the distal end of the valva, and the central 3 of these being truncated; *E. humilis* has only 3 curved spines on the valva, likewise for *E. julia*. Female genitalia are not very similar to the other species; the sterigma is most similar only to the Central and South American *Ethmia catapeltica* Meyrick. The female ductus bursae in *E. humilis* is not coiled as in most *Ethmia* species and the sterigma is very different in *E. farrella*.

*Ethmia powelli* appears to be one of the smallest species in *Ethmia*. The species is named in honor of Professor J. A. Powell, University of California, Berkeley.

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**LITERATURE CITED**


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