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A New Species of Nearctic *Ernobius* Thomson (Coleoptera: Ptinidae: Ernobiinae) from Wisconsin

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Abstract

A new species of *Ernobius* is described from material collected at the Griffith State Nursery in Wood County, Wisconsin, U.S.A. ***Ernobius youngi* new species** is described from a single adult female bringing the number of *Ernobius* species known from North America north of Mexico to 31.

Worldwide, *Ernobius* currently contains about 90 species, largely from North America, Europe, and northern Africa (White 1974). The genus is in need of major revision, and no comprehensive key to North American species exists. Recent work on *Ernobius* includes a revision of Iberian species by Español (1992) and a review of Palearctic species by Johnson (1975). Johnson noted significant intraspecific variation with respect to color, size, lengths of various antennal segments, and elytral sculpture; minor intraspecific variation was noted in the male genitalia. Fall's (1905) revision represents the last major publication on North American *Ernobius*; unfortunately it relies on many of the above-noted variable characters for species determinations. Most couplets refer only to the comparative lengths of male antennal segments despite certain species (*e.g., Ernobius opicus* Fall) having been described from females only. In addition, dorsal surface sculpture and integumental color are frequently used to separate species, both of which may not be consistent for species determinations.

The new species described below was compared with descriptions of, and keys to, all North American species as provided by Fall (1905), Ruckes (1957), and White (1962, 1966, 1983). It was also compared to many Palearctic species using the key presented by Johnson (1975).

Ernobius youngi new species

(Figs. 1, 2A–D)

Diagnosis. Integument uniformly light yellowish-brown to orange-brown. Ninth antennomere equal in length to five preceding antennomeres combined (Fig. 2A). Each elytron with distinct, longitudinal carina running nearly 0.75× length of disk (Fig. 1).

Description. Holotype, female. Length 3.3 mm, width 1.4 mm. Body elongate, 2.3× longer than wide measured from pronotal to elytral apices. Integument light yellowish-brown to orange-brown throughout, including antennae and legs; maxillary and labial palpi yellowish; metathoracic ventrite orange-brown with diagonal sections of darker, brown pigmentation; abdominal slightly darker; dorsal surface mostly shining. Pubescence yellowish, moderately dense, completely recumbent; ommatidial setae absent. Surface of head, pronotum, and

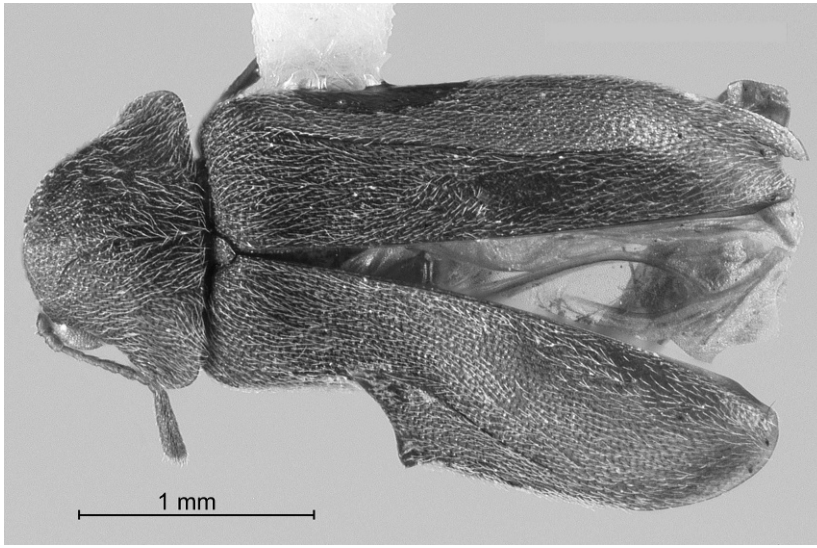

Fig. 1. *Ernobius youngi*, dorsal view.

elytra similarly punctate, margins of punctures raised, completely surrounding each puncture on head and elytra; margins of pronotal punctures partially incomplete posteriorly towards center of disk. Eyes small, separated by 2.0× vertical diameter of eye when viewed from front. Antennae 11-segmented, each with elongate, 3-segmented club. Antennomeres III and V subequal in length; antennomeres IV, VI, and VII subequal in length; antennomere VIII slightly shorter than any other antennomere; length of antennomere IX 4.4× its apical width, equal in length to 5 preceding antennomeres combined; antennomeres X and XI similar in size and shape. Antennomere ratios 5.0:1.75:2.25:1.5:2.25:1.5:1.5:1.0:7.75:7.75:9.0 from scape to apical antennomere (Fig. 2A). Terminal segment of maxillary palpi elongate, 2.6× longer than wide, inner lateral margin oblique (Fig. 2B). Terminal segment of labial palpi broad, nearly as wide as long (Fig. 2C). Pronotum slightly wider than elytra at base. Lateral pronotal margins smooth, expanded and broadly reflexed. Pronotal disk moderately rounded, 1.7× wider than long when measured at widest diameter. Each elytron with distinct longitudinal carina; disk slightly flattened dorsoventrally, beginning at carina. Procoxae contiguous. Mesocoxae narrowly separated by mesothoracic process. Metacoxae each strongly narrowing laterally, shallowly grooved for reception of metafemora. Pro-, meso-, and metatibiae terminating in 2 distinct tibial spurs of equal length. Metathoracic ventrite medially with shallow, longitudinal and darkly pigmented sulcus extending less than 0.5× length of disk from posterior margin; surface mostly rugose, smoother medially along posterior margin. Abdomen with 6 ventrites; ventrite VI smaller and weakly emarginate apically (Fig. 2D).

Remarks. In 1971, R. E. White examined this specimen and was unable to assign it to any known *Ernobius* species. Although *Ernobius* is in need of revision, the single female of *E. youngi* is easily recognized by the distinct longitudinal

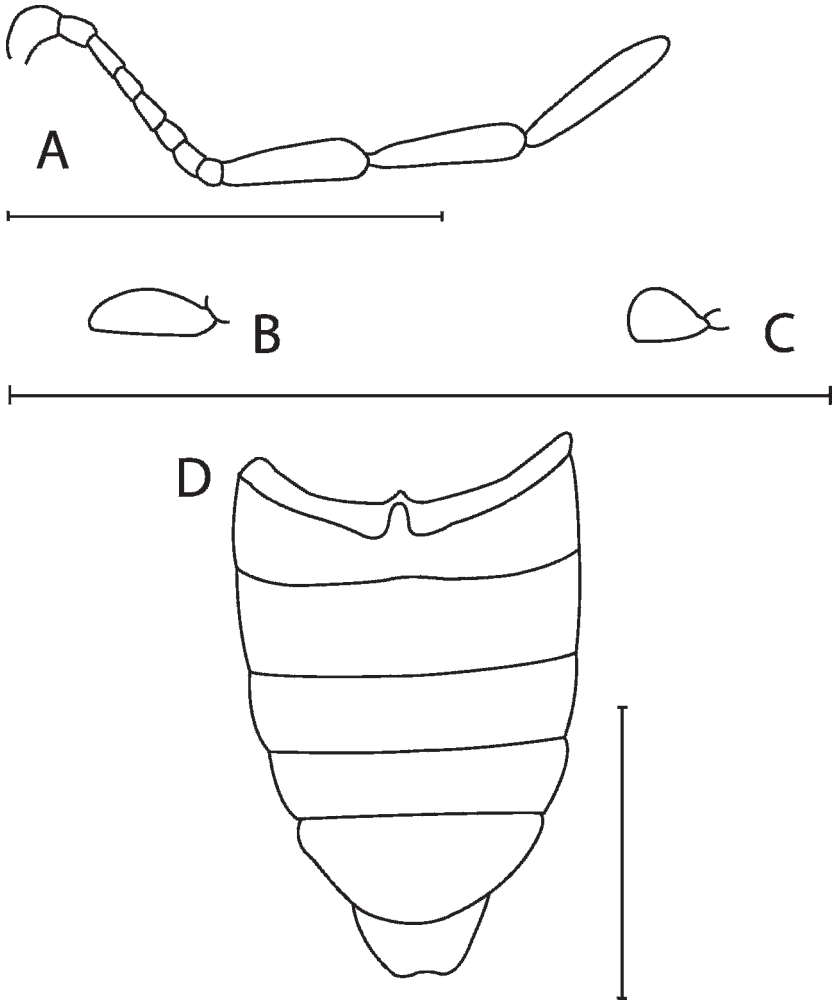

Fig. 2. *Ernobius youngi*. **A)** left antenna, ventral view; **B)** right terminal maxillary palpomere, ventral view; **C)** right terminal labial palpomere, ventral view; **D)** abdominal ventrites. Scale bar 1.0 mm.

carina on each elytron (Fig. 1), a character unique to this species of *Ernobius*. The specimen of *E. youngi* was collected on 25 July 1947 from the central region of Wisconsin, within Griffith State Nursery in Wood County. Established in Wisconsin Rapids in 1932, Griffith State Nursery was named after Edward M. Griffith, Wisconsin's first state forester, who recognized the importance of regenerating forested lands after timber harvest. This nursery is one of three state nurseries in Wisconsin (WI Department of Natural Resources). The importance of the timber, paper, and pulpwood industry near this area should be noted as rough lumber with the bark still attached was frequently brought into Wood County from such locations as Montana, Colorado, South Dakota, Canada, as

well as several other Lake States (Barrett 1950). It is therefore possible that the presently described species may not be native to Wisconsin, but may have been introduced by means of transported timber.

Etymology. *Ernobius youngi* is named in honor of Dr. Daniel K. Young, whose support and dedication to the study of Coleoptera initially influenced my decision to study entomology, and who has supported me through the study of Wisconsin Ptinidae.

Type Material. Holotype (♀): "Wood Co. Wis. Griffith St. Nursery, VII-25, 1947"; deposited in the University of Wisconsin-Madison Insect Research Collection (IRCW). The type (Fig. 1), is damaged as follows: right antenna missing, left antenna without last two antennomeres, which are point mounted below the specimen (complete antenna is illustrated), left pronotal margin partially missing, left elytron cracked and bent upwards, abdomen disarticulated and mounted on cardstock, genitalia contained in micro-vial. The form of the elytral carina on the left elytron appears more divergent from the sutural margin at the apex than the right elytral carina. Although this character is exaggerated in the image more so than on the actual specimen, there is a distinctive asymmetry at the apex of the elytra in regards to this structure. It is hypothesized that the form of the carina on the right elytron is the typical appearance of this character.

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