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**A NEW SPECIES OF *LASPEYRESIA* FROM MICHIGAN  
(LEPIDOPTERA: OLETHREUTIDAE)**

William E. Miller<sup>1</sup>

ABSTRACT

*Laspeyresia lacustrina* is described from four specimens, all female, captured in flight at two locations in Lower Michigan. On the exterior, the moth most resembles *L. populana* Busck and several other eastern species; its genitalia most resemble the western *L. lautiuscula* Heinrich. With wing length 8.4 to 9.4 mm, *L. lacustrina* is among the largest North American members of the genus.

Identification of Michigan State University olethreutids obtained in faunal surveys revealed four specimens of an apparently undescribed *Laspeyresia* from two Lower Michigan localities. The moth is named and described as follows:

*Laspeyresia lacustrina*, new species

**FEMALE:** Head. Length of labial palpus segment 2 approximately 0.9 eye diameter, segment 3 approximately 0.3 length of segment 2; scaling spreading, obscuring part of segment 3; scaling of palpus, front, and crown light brown. **Thorax.** Dorsal scaling brown, darker than head, most scales white-tipped; venter shining white, femora varying from pure white to light brown, tibiae and tarsi light brown banded with white. Tegula white anteriorly and posteriorly, brown medially. **Forewing.** Length 8.4 to 9.4 mm, 2.7 to 3.1 times width at greatest dimensions; pattern as in Figure 1, costal area marked by approximately 10 apically angled white fasciae tinged with brown, dorsal area with fewer but wider white fasciae forming conspicuous markings near middle and tornus, one or two metallic fasciae in medial area of apical third; fringe white to brown, a black line extending around termen; underside of forewing brown, paler than upper side. Veins Cu<sub>1</sub>, M<sub>3</sub>, and M<sub>2</sub> approximate at termen. **Hindwing.** Broader than forewing; apex acute, termen round; ground color brown, fringe white; underside of hindwing brown, paler than upper side. Veins Cu<sub>1</sub> and M<sub>3</sub> short stalked. **Abdomen.** Dorsal scaling shining brown, venter paler brown; genitalia as in Figure 3, sterigma rectangular in outline, caudal margin of ostium with a V-shaped indentation from sterigma, ductus bursae short, asymmetrical, with sleeve sclerotized ¼ of its length; anterior apophyses longer than posterior apophyses; two thorn-shaped subequal signa as in *L. gallaesaliciana* (Riley).

**MALE:** Unknown. It will probably resemble the female exteriorly as sexual dimorphism is not pronounced in *Laspeyresia*. Like the female, genitalia may resemble those of *L. lautiuscula* Heinrich.

**HOLOTYPE FEMALE:** Michigan, Ingham Co., T. 4 N., R. 2 W., Sec. 35, 12 June 1966 (Julian P. Donahue), genitalia preparation 404 (J. T. Eschle), in collection of Michigan State University, East Lansing.

**PARATYPES:** Two females. Michigan, Berrien Co., T. 5 S., R. 19 W., Sec. 29, Grand Mere Dunes, 6 June 1968 (D. Cosper), genitalia preparation 66 (K. Lindstrom), wing slide XII.29.75 (W. E. Miller), in collection of Michigan State University; same data as holotype, genitalia preparation 29 (K. A. Kohn) (NMNH 16851), in National Museum of Natural History. One specimen not a paratype, same data as preceding except 15 June 1968, on indefinite loan to the North Central Forest Experiment Station.

*Laspeyresia lacustrina* is similar exteriorly to *L. populana* Busck, *L. flexiloqua* Heinrich, *L. garacana* (Kearfott), and *L. multilineata* (Kearfott), but differs from all of

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these in female genitalia. In female genitalia, *L. lacustrina* resembles the western *L. lautiuscula* and the eastern *L. gallaesaliciana*, but differs from both these strikingly patterned species by its subdued forewing pattern (Figs. 1-2) and larger size. The above comparisons are based on types or on specimens I compared and judged to be conspecific with types, as well as on information in Heinrich (1926).

The known flight period for *L. lacustrina* is June 6-15. The food plant is unknown, available specimens having been captured in flight. Typically, *Laspeyresia* are seed and inner bark feeders on woody plants. In wing length, *L. lacustrina* is among the largest North American members of the genus.

I thank Roland L. Fischer, Michigan State University, Julian P. Donahue, then of the same institution, and Richard L. Brown, Cornell University, for generously providing specimens and assistance.

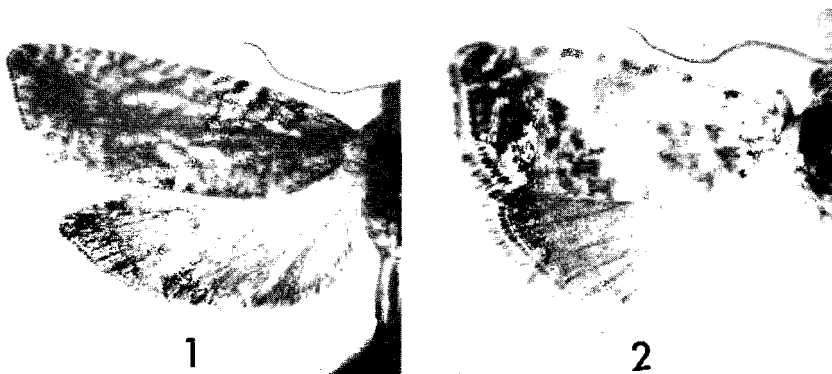


Fig. 1. *Laspeyresia lacustrina* holotype female. Forewing length 9.4 mm.

Fig. 2. *L. lautiuscula* male reared from *Salix* sp., Seattle, Wash. Forewing length 6.1 mm.

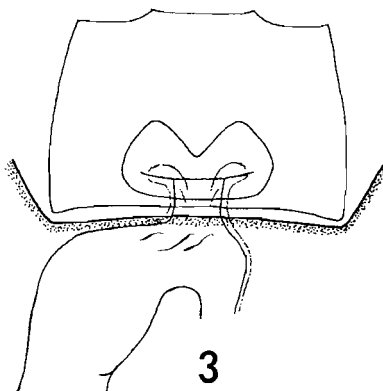


Fig. 3. *L. lacustrina* female genitalia: sterigma and neighboring structures.

#### LITERATURE CITED

- Heinrich, C. 1926. Revision of the North American moths of the subfamilies Laspeyresinae and Olethreutinae. U.S. Natl. Mus. Bull. 132, 216 p.