

A NEW SPECIES OF MOTH INJURIOUS TO PINE
(LEPIDOPTERA: BLASTOBASIDAE)

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The species of moth described in this paper was received from Mr. Karl F. Wenger, Leader, Lake City Research Center, Southeastern Forest Experiment Station, U. S. Department of Agriculture, Lake City, Florida, through the Insect Identification and Parasite Introduction Research Branch, U. S. Department of Agriculture. Additional material was collected by Mr. Charles P. Kimball and a few specimens came from miscellaneous sources. Mr. Wenger submitted larvae, pupae, and adults for identification; some of each are preserved in the U. S. National Museum.

The length of the type series and large quantity of larvae received indicate that the species is abundant, presumably all along the Atlantic seaboard, within the range of its foodplants, and does considerable damage to the flowers and young cones of pines.

The figures for this paper were drawn by Mrs. Caroline Lutz, staff artist, Department of Zoology, United States National Museum.

Holcocera lepidophaga, new species

(Figures 1-2a)

Alar expanse 11-17 mm.

Labial palpus white, shaded anteriorly and laterally on second segment, with fuscous. Antenna ochreous white with narrow dark annulations; scape white. Head ochreous white with slight infuscation posteriorly; collar white. Thorax and forewing ochraceous-buff; extreme edge of costa ochreous white to outer third; underside of wing light fuscous; cilia pale ochraceous-buff. Hind wing grayish-fuscous; cilia pale ochraceous-buff. Legs white except: foreleg suffused with fuscous on outer side; tarsi of midleg fuscous; hind tibia tinged with ochreous and hind tarsi suffused with fuscous; abdomen white above tinged with ochreous beneath. The entire insect presents a glossy appearance.

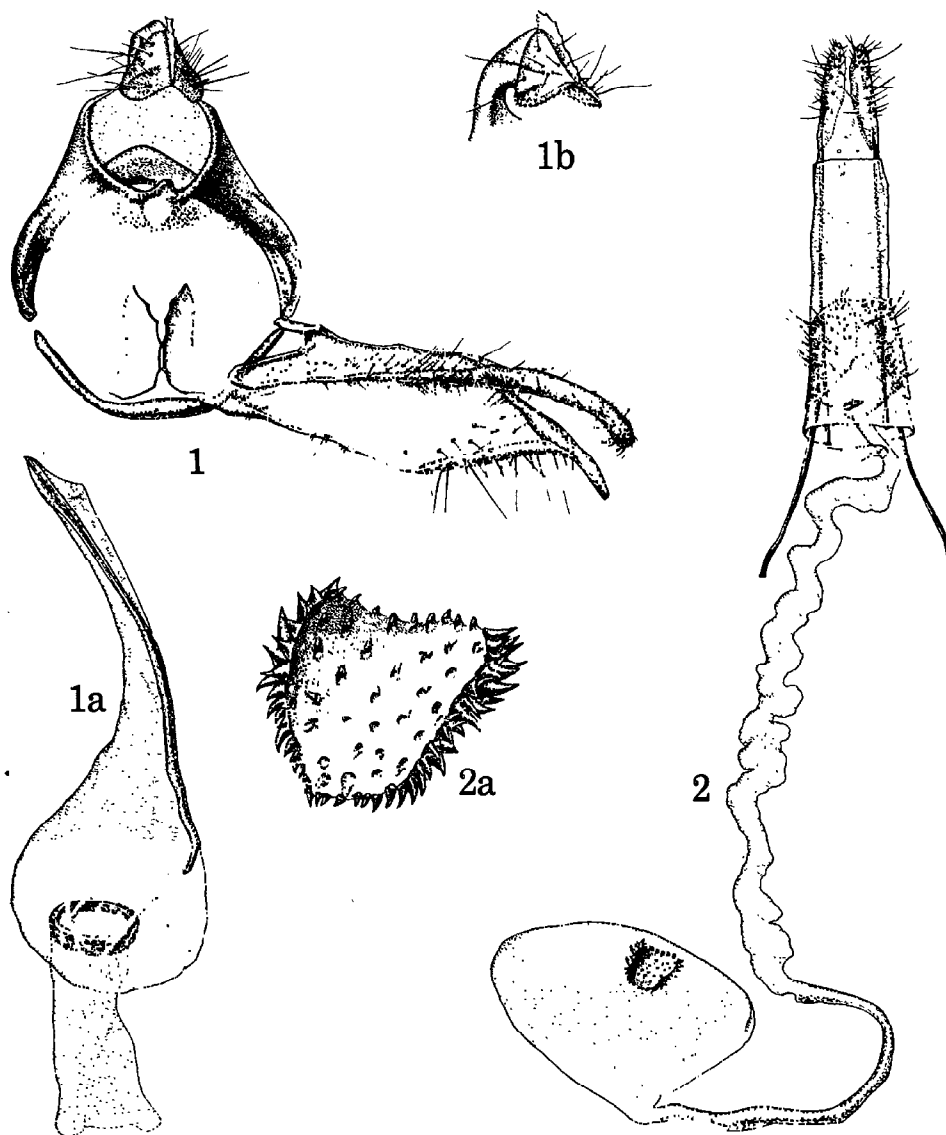
MALE GENITALIA: Costal edge of harpe produced into a bluntly pointed digitate process; cucullus long, curved, sharply pointed. Anellus composed of two sclerotized crescentic plates. Gnathos terminating in a broad sub-rectangular plate; posterior edge produced as a short, blunt point. Uncus divided distally into three winglike pieces arranged in a triangle. Aedeagus membranous except for a slender sclerotized rod and, basally, a sclerotized ring.

FEMALE GENITALIA: Ostium membranous. Ductus bursae membranous, somewhat spiraled; inception of ductus seminalis slightly before ostium. Signum a strongly sclerotized sub-rectangular plate.

TYPE: Male, Baker County, Florida (Em. 15.IV.58. Hopkins U. S. No. 40170). U. S. N. M. No. 64924.

FOOD PLANTS: *Pinus elliottii* Engelm and *P. palustris* Mill. (According to a note accompanying the larvae: "Larvae mainly feeding into male

flower buds and flowers or among basal scale leaves of cones and vegetative buds.)”.



Figures 1-2a. *Holcocera lepidophaga*, new species. 1, Ventral view of male genitalia with left harpe and aedeagus removed; 1a, aedeagus; 1b, oblique view of distal end of uncus. 2, Ventral view of female genitalia; 2a, signum enlarged.

Described from the male type, 31 male and 6 female paratypes as follows: *Florida*: 4♂♂ 2♀♀, same data as type (April and May emergence dates); ♀, Columbia County, Em. 17.IV.58, B. H. Ebel; ♂, Torreya State Park, 29.IV.52, G. S. Walley; ♂, Siesta Key, Sarasota County, 1.V.56, C. P. Kimball; ♂, Archer, 3-82, C. V. Riley [specimen labelled "*Blastobasis* n. sp. Wlsm. .86"]; ♀, Camp Pichot, 14.II.32, P. C. Wakeley, No. 169-a^t. *Massa-*

achusetts: 24 ♂♂, 2 ♀♀, Barnstable, June, July, August dates, 1949-52, C. P. Kimball.

Paratypes in the Canadian National Collection, Ottawa, Illinois State Natural History Survey, Urbana, State Plant Board of Florida, Gainesville, C. P. Kimball Collection, and the United States National Museum.

In general appearance this species most closely resembles *Holcocera augusti* Heinrich, described from Oregon and also occurring in Washington State, but *augusti* possesses an antennal notch in the male and the larvae feed in the cones of *Pseudotsuga taxifolia*. The uncus of *lepidophaga* immediately distinguishes it from any other described blastobasid; in *augusti* the uncus is pointed. Further, the males of the two species can be separated by the sclerotized rod of the aedeagus which is attached to the basal ring in *augusti* but detached in *lepidophaga*. The females can be distinguished by the signa. In *lepidophaga* the signum is a sub-rectangular plate, not ridged; in *augusti* the signum is elongate with a high transverse ridge.

Dr. Richard Selander, University of Illinois, who has been studying the Blastobasidae for the past several years, has kindly supplied the following notes: ". . . I have specimens from Barnstable, Mass., and Siesta Key, Florida. Its nearest named relative (as far as I can determine at present) is *Holcocera elyella*. Together with *elyella*, a species from Guatemala, and three other questionable forms, it constitutes what I have been calling the *Elyella* Group of *Holcocera*. . . . The group may be defined as follows: Male antenna without a basal notch; male clasper not enlarged, not plate-like; first antennal segment (male) with a shield of scales covering pecten; a sclerotized ring at base of aedeagus, this not attached to sclerotized rod; aedeagus not forked. Female bursa with a single signum; signum a rounded oval plate, not ridged; abdominal sternum IX without a pair of callosities. The form of the uncus easily distinguishes *lepidophaga* (H22) from any other species of Blastobasidae I have seen."

ERRATUM: In the article by W. G. Genung, "Comparison of insecticides, insect pathogens and insecticide-pathogen combinations for control of cabbage looper *Trichoplusia ni* (Hbn.)", Vol. 43, No. 2, p. 66, line 15, the sentence should read:

This material was used at a rate of 60 milliliters or 1.6×10^{11} polyhedra per 100 gallons of spray per acre.