A NEW NORTH AMERICAN CALOSIMA
(LEPIDOPTERA: COLEOPHORIDAE: BLASTOBASINAES)

DAVID ADAMSKI

Research Associate, Dept. of Entomology, NHB-127, Smithsonian Institution, Washington, D.C. 20560, USA

ABSTRACT.—Calosima munroei n. sp. is described from Marin and Contra Costa counties of coastal California. New host records for the genus include Cupressus goveniana Gordon, C. sargentii Jepson (Cupressaceae), and dead Salix sp. (Salicaceae). A photograph of the imago and illustrations of wing venation, male and female genitalia are included.

KEY WORDS: Blastobasidae, California, Calosima munroei n. sp., Cupressaceae, Gelechioidea, Holcocerini, hostplants, Nearctic, Salicaceae, taxonomy, USA.

The Blastobasinae are probably one of the most commonly collected groups of Gelechioidea in the Americas. Yet this group is one of the least known to science. Generally, species are gray or brown with low interspecific variation, making identifications difficult without the examination of the genitalia.

Whether one follows the familial concept of Meyrick (1894) for Blastobasidae or the subfamilial concept Blastobasinae within Coleophoridae of Hodges (1998), the taxon is accepted as a monophyletic group. Although several authors (Meyrick, 1894; Dietz, 1900, 1910; Walsingham, 1907; McDunnough, 1961; Powell, 1976, 1980; Hodges, 1983) contributed insightful ideas that helped to develop a modern scheme of relationships within Blastobasinae, they did not give definitive characters for it. Adamski and Brown (1989) were the first to corroborate these intuitive ideas of monophyly for the Blastobasinae, and give supportive evidence for generic placement of species within.

Calosima was established by Dietz (1910), recognizing two species, C. argyrospendella Dietz and C. dianella Dietz. Four other North American species have been transferred to the genus (Adamski and Hodges, 1996), and one species is described from the Galápagos (Adamski and Landry, 1997). Several other undescribed species of Calosima are currently recognized by the author in a monograph of Costa Rican Holcocerini (in prep.).

Most Calosima are small to medium-sized moths. Most species are pale gray or pale brown in color, with some species having distinct wing maculations, while other species are concolorous, having a satin shine. Several Calosima are known to occur in southeastern and southwestern United States, but C. argyrospendella, C. elyella (Dietz), and C. melanostriatella (Dietz) are known in the Northeast. Foodplants vary from seeds within cones of Cupressaceae and Pinaceae, pineapple (Bromeliaceae), and dried orange (Rutaceae) and dead willow (Salicaceae).

The Methuen Handbook of Colour (Kornerup and Wanscher, 1978) is used as a color standard for the description of the adult vestiture. Genitalia were dissected as described by Clarke (1941), except mercurochrome and chlorazol black are used as stains. Pinned specimens and genital preparations were examined using dissecting and compound microscopes. Wing measurements were made using a calibrated ocular micrometer.

The purpose of this work, as others in the Tropical Lepidoptera journal Festschrift, is to honor Eugene Munroe for his lifetime achievements and excellence in the systematics of Lepidoptera, particularly on the Pyralidae. It seems appropriate that on his 80th birthday, I celebrate with others the accomplishments of a colleague and friend with the description of Calosima munroei n. sp.
M2 and M3 approximate; M, and CuA, and CuA, fused basally. Hindwing (Fig. 2): Pale grayish brown; venation with M2 and M3 fused basally with CuA; cubitus 4-branched. Abdomen: Pale grayish brown. Male genitalia (Fig. 3): Uncus posteriorly projecting, slightly dilated, ventrally keeled; posterolateral arms of ganthos narrow, median lobe present; dorsal strut not reaching base of uncus; vinctimum narrow; upper part of valva setose, fused with lower part of valva at base; lower part of valva distally narrowed into an elongate process with a somewhat rounded apex, ventral margin setose; juxta, a weak rounded plate; aedeagus bulbous at base gradually narrowed to a pointed apex; annulus slightly sclerotized, and with microsetae. Female genitalia (Fig. 4): Telescopic ovipositor with two subsegments; eighth sternum setose to near apex of notch; ostium approximate to eight sternum; antrum slightly denticate; posterior part of ductus bursae narrow, anterior part slightly wider; anterior part of ductus bursae and corpus bursae denticate; ductus seminalis anterior to seventh segment; signum absent.

Types.—Holotype ♀, "Carson Ridge, Marin Co[unty], California, II-10-1957, J. Powell", "Emerged 11-27-1957, Reared from Cupressus goveniana cones". The holotype is not dissected, and is deposited in Essig Museum of Entomology, University of California, Berkeley, California.


Distribution.—Marin and Contra Costa counties of coastal California.

Hosts.—C. munroei was reared from cones of Cupressus goveniana Gordon, Cupressus sargentii Jepson [Cupressaceae], and one specimen from dead willow [Salicaceae].

Remarks.—Specimens of Calosima munroei are generally larger than most specimens of other species within the genus. In addition, most other species tend to be paler in maculation, but this could be a result of age and exposure to light.

Etymology.—This species is named in honor of Eugene Munroe,
ADAMSKI: New North American *Calosima*

whose encouragement when I was a graduate student, and later when I became a member of the Systematic Entomology Laboratory, USDA, at the Smithsonian Institution, was greatly appreciated.

**DISCUSSION**

*Calosima munroei* is closely related to an eastern species, *Calosima elyella*. Although *C. munroei* is distinctly larger, both species have distinct wing maculation, and genitalia. *Calosima elyella* and *C. munroei* have forewings paler on the area of the cell, but the former species has an incomplete submedian fascia and two distinct small spots near the distal part of the cell. *C. munroei* has a complete and wider submedian fascia and the two discal spots appear to have merged into one large spot. This discal spot is nearly as distinct as the submedian fascia.

The male genitalia of *C. elyella* differ from *C. munroei* in having an uncus more laterally flattened, and ventral margin of the distal portion of the lower part of the valva more emarginate.

**ACKNOWLEDGMENTS**

I thank Jerry A. Powell, University of California, Berkeley, for loan of the specimens examined and Carl Hansen of the Office of Imaging, Printing and Photographic Services for the photograph of the holotype.

**REFERENCES**

Adamski, D., and R. L. Brown

Adamski, D., and R. L. Hodges

Adamski, D., and B. Landry

Clarke, J. F. G.

Dietz, W. G.

Hodges, R. L.

Kornerup, A., and J. H. Wanschner
McDunnough, J. H.

Meyrick, E.

Powell, J. A.

Walsingham, T. de G.