

ville, two females, two males, 22.VI.84 (male genit. prep. LDG 047); Bullitt Co., near Shepherdsville, one female, 8.VII.88 (all L. D. Gibson, in L. D. Gibson collection). MISSOURI: Cape Girardeau, one female, 25.VII.78; Independence, one female, 30.VI.76; Clay Co., Coolie Lk., one female, 18.VII.68; one female, 22.VII.72 (all J. R. Heitzman, in J. R. Heitzman collection). ILLINOIS: *E. uta* holotype; Oconee, two females, 8–15.VII; one female 1–7.VII (female genit. prep. USNM 70670); Decatur, one female, 8–15.VII; Putnam Co., M. O. Glenn, one female, 30.VII.74; one male, 18.VII.73; one female, 3.VIII.65; one male, 25.VII.74 (male genit. prep. WEM 176923); one female, 13.VIII.43 (female genit. prep. USNM 70320) (*E. uta* paratype); (all in NMNH); Putnam Co., M. O. Glenn, one male, 23.VI.56, "5057"; one male, date missing, "5157"; one female, 5.VII.53; one female, 24.VII.68; one female, 11.VIII.74; one female, 15.VII.64; one female, 5.VIII.61 (abdomen missing); one female, 28.VII.64; one female, 2.VII.56; one female, 15.IX.54; one female, 28.VII.56; one female, 21.VII.56; one female, 23.VII.73; one female, 10.VII.39; one female, [illegible].VII.65; one female, 17.VII.64; one female, 29.VI.64; one female, 5.VIII.47 (*E. uta* paratype) (all in Illinois Natural History Survey Collection). FLORIDA: Liberty Co., Torreya St. Pk., one female, 7.VII.88 (female genit. prep. LDG 131) (D. Profant, in D. Profant collection).

## LITERATURE CITED

- BLANCHARD, A. & E. C. KNUDSON. 1983. New North American species of Eucosmini (Lepidoptera: Tortricidae). *Proc. Entomol. Soc. Wash.* 85:845–852.
- CLARKE, J. F. G. 1953. New species of Olethreutidae from Illinois (Lepidoptera). *J. Wash. Acad. Sci.* 43:226–231.
- GODFREY, G. L., E. D. CASHATT & M. O. GLENN. 1987. Microlepidoptera from the Sandy Creek and Illinois River region: An annotated checklist of the suborders Dacnonypha, Monotrysis, and Ditrysis (in part) (Insecta). *Ill. Nat. Hist. Surv. Spec. Pub.* 7. 44 pp.
- HEINRICH, C. 1923. Revision of the North American moths of the subfamily Eucosminae of the family Olethreutidae. *U.S. Natl. Mus. Bull.* 123. 298 pp.
- KEARFOTT, W. D. 1907. New North American Tortricidae. *Trans. Am. Entomol. Soc.* 33:1–98.
- KLOTS, A. B. 1942. Type material of North American microlepidoptera other than Aegeriidae in the American Museum of Natural History. *Bull. Am. Mus. Nat. Hist.* 79:391–424.
- MEYRICK, E. 1912. On some impossible specific names in micro-Lepidoptera. *Entomol. Mon. Mag.* 23:32–36.
- MILLER, W. E. 1987. Guide to the olethreutine moths of Midland North American (Tortricidae). *U.S. Dept. Agr. Handb.* 660. 104 pp.

LORAN D. GIBSON, 8496 Pheasant Drive, Florence, Kentucky 41042, AND WILLIAM E. MILLER, Department of Entomology, University of Minnesota, St. Paul, Minnesota 55108.

RECEIVED FOR PUBLICATION 28 JANUARY 1993; REVISED AND ACCEPTED 27 JULY 1993.

*Journal of the Lepidopterists' Society*  
48(1), 1994, 71–73

ADDITIONAL DATA ON THE GEOGRAPHICAL DISTRIBUTION AND  
ADULT ACTIVITY OF THE DIURNAL, MIMETIC PLUME MOTH,  
*OIDAEMATOPHORUS CHAMELAI* (PTEROPHORIDAE)

**Additional key words:** Costa Rica, Mexico, *Croton*, *Cordia*.

An extraordinary, black pterophorid with enlarged scale tufts on the hind legs was described from Mexico by Gielis (1992), but neither its strikingly wasp-like appearance

nor its diurnal behavior, unusual for the family, were emphasized. In addition to the type series of seven specimens, most of which were collected by Chemsak in 1985–86, we have taken a larger number in more recent years, documenting a more extensive flight period. Moreover, two specimens from Costa Rica were erroneously recorded from Mexico by Gielis.

**Geographical distribution.** *Oidaematophorus chamelai* has been recorded along the immediate Pacific coast of Middle America, in Mexico near Elota in central Sinaloa, and Chamela, Jalisco, and in northwestern Costa Rica in Guanacaste Province. An inland occurrence in Mexico, indicated on the mapped distribution by Gielis in the vicinity of Guadalajara, evidently was based on his misinterpretation of the label on specimens from Costa Rica ("C.R.: Playa Tamarindo, Guan. Prov.") as the State of Guanajuato, Mexico. A specimen from south of Elota, Sinaloa, was illustrated and cited but not mapped.

**Seasonal occurrence.** In Mexico we have taken adults of *O. chamelai* during each month that we have visited the Estación de Biología Chamela: July, August, September, October, December; while the Costa Rica specimens were collected in June. Whether or not the species flies during the dry season (December–June in Mexico, January–April in Costa Rica) cannot be determined from our sampling.

**Mimetic appearance and diurnal activity.** *Oidaematophorus chamelai* and two closely related South American species, *O. ochracealis* (Walker) and *O. paraochracealis* Gielis, differ markedly from typical members of the genus in having the wings relatively broad and uniformly black with purplish iridescence or "brown-black" (Gielis 1992). *Oidaematophorus chamelai* is particularly wasp-like, an image enhanced by broad, cream-colored, dorsolateral spots on abdominal segments 2 + 3 that render the appearance of the constricted petiole of many ichneumonids and sphecids, and by seemingly aposematic red tegulae and large yellowish "eyespot" of the metathorax. Another pair of cream colored dorsal spots at the base of segment 8, which were lacking on the Sinaloa female Gielis illustrated, are variable from a trace to conspicuous in both sexes. The male has long, white, eversible hair brushes flanking the genitalia that were not mentioned by Gielis. The enlarged scale tufts of the hind tibiae (misinterpreted as the first tarsal segment in the original description) and tarsi in the male and tarsi only in the female are reminiscent of many ctenuchine Arctiidae, such as *Macrocneme*, that are believed to be members of mimetic assemblages. D. L. Janzen has reared one species of *Macrocneme* and two of the closely related *Poliopastea* from *Mesechites trifida* (Apocynaceae), a plant family well known for its cardiac glycosides. The diurnal, aposematic larvae and adults of these two genera are superficially quite similar and presumably are distasteful to vertebrate predators (Janzen in litt., Dietz 1994).

While nearly all Nearctic and Neotropical pterophorids that we have encountered are nocturnal, *O. chamelai* (and presumably the other species of the *O. ochracealis* complex) are primarily diurnal. We have observed adults of *O. chamelai* at flowers of three shrub and tree species of *Croton* (Euphorbiaceae) at the Estación de Biología Chamela. Their time of activity corresponded with that of other flower visitors such as cerambycid and scarabaeid beetles, wasps, bees, and hesperiids. In Costa Rica, males were collected by sweeping inflorescences of an arboreal *Cordia* (Boraginaceae), 5–6 m above the ground, employing an extensible tropical net. In addition, however, about 7 individuals of 17 taken at Chamela were attracted nocturnally to ultraviolet or white lights.

**Location of specimens.** The holotype is housed in the Essig Museum of Entomology, University of California, Berkeley (UCB), along with later collections. Specimens also are deposited in the Instituto de Biodiversidad, Santa Domino de Heredia, Costa Rica (INBio); Instituto de Biología, Universidad Nacional Autónoma de México, Mexico City (UNAM); Los Angeles County Museum of Natural History (LACM); U. California, Riverside (UCR); and the U. S. National Museum of Natural History, Washington, D.C. (NMNH). The type series was erroneously cited as LACM; the specimens had been on loan to J. P. Donahue from UCB and UCR and were so labelled when forwarded to Gielis, but their ownership was not communicated.

**Material examined.** COSTA RICA: Playa Tamarindo, Guan. Prov., 2 ♂, VI-14-86, "arboreal *Croton* fls. 15–18 ft. above ground, tropical net" (Chemsak, H. Katsura, A. & M. Michelbacher). MEXICO: Estacion de Biología Chamela, Jalisco, ♂ Holotype, ♀ VII-

8/16-85 (Chemsak, Katsura, Michelbacher); 2 ♂, ♀ X-13/23-86 (Chemsak); ♀ VII-12/15-87 (Chemsak & E. G. Linsley); 2 ♀ X-16/19-87, ♂ X-21/22-87, blacklight (Chemsak & Powell); ♂ IX-27/28-88, blacklight (P. A. Opler); ♀ XII-1-88 (Chemsak); 2 ♂, ♀ VII-23-90, 1 ♂ at light (Chemsak); ♀ VII-13-92, ♂ VII-20-92, at lights (Chemsak); 1 ♂, VII-15-93, at *Croton* flowers (B. Eya).

We thank D. H. Janzen for unpublished observations on ctenuchid biology in Costa Rica and J. P. Donahue for review and comments on the manuscript.

#### LITERATURE CITED

- DIETZ, R. E. III. 1994. Systematics and biology of the genus *Macrocneme* Hübner (Lepidoptera: Ctenuchidae). Univ. Calif. Publ. Entomol. In press.
- GIELIS, C. 1992. Neotropical Pterophoridae 6. The *Oidaematophorus ochracealis* complex (Lepidoptera). Phegea 20:81-94.

J. A. POWELL AND J. A. CHEMSAK, *Essig Museum of Entomology, University of California, Berkeley, California 94720.*

*Received for publication 6 April 1993; revised and accepted 4 September 1993.*