When disturbed, adult *Hemileuca* assume a characteristic defensive posture in which the brightly colored abdomen is curled under the thorax to the head (Tuskes et al. 1996). This posture exposes the abdomen to a predator's attack. However, Steve McElfresh (pers. comm.) has observed the Greater Roadrunner, *Geococcyx californianus* Lesson (Neomorphidae), consuming large numbers of *Hemileuca* males, apparently undaunted by this display.

This study was conducted under U. S. Navy contract N68711-96-LT-COO48 to the San Diego Natural History Museum. I thank Norris Bloomfield for assistance with field work; Steve McElfresh and Jocelyn Millar for generously sharing synthetic pheromone; and Larry Gall, Felix Sperling, Jerry Powell, two anonymous referees and especially John Brown for helpful comments that greatly improved the manuscript. This research was supported in part by the Margaret C. Walker Fund for teaching and research in systematic entomology, and a Hatch grant to Felix Sperling.

LITERATURE CITED

FERGUSON, D. C. 1971. Bombycoidea, Saturniidae (part 1). Moths of America north of Mexico, Fascicle 20.2A. E. W. Classey Ltd. and R. B. D. Publ., Inc. 153 pp.

POWELL, J. A. 1987. Records of prolonged diapause in Lepidoptera. J. Res. Lepid. 25:83–109.

TUSKES, P. M. 1984. The biology and distribution of California Hemileucinae (Saturniidae). J. Lepid. Soc. 38:281–309.

TUSKES, P. M. & S. MCELFRESH. 1995. The biology and distribution of *Hemileuca electra* (Saturniidae) populations in the United States and Mexico, with descriptions of two new subspecies. J. Lepid. Soc. 49:49–71.

TUSKES, P. M., J. P. TUTTLE & M. M. COLLINS. 1996. The wild silkmoths of North America. Cornell Univ. Press, Ithaca, New York. 264 pp.

STONE, S. E. & M. J. SMITH. 1990. Buckmoths (Lepidoptera: Saturniidae: *Hemileuca*) in relation to southwestern vegetation and foodplants. Desert Plants 10, 13–18:23–30.

DANIEL RUBINOFF, *Division of Insect Biology, Department of Environmental Science, Policy, and Management, University of California, Berkeley, California 94720, USA.*

Received for publication 18 August 1997; revised and accepted 6 January 1998.

Journal of the Lepidopterists' Society
52(2), 1998, 214–216

NEW DISTRIBUTIONAL AND FOODPLANT RECORDS FOR TWENTY CUBAN MOTHS

Additional key words: distribution, larval sampling, light traps, *Estigmene acrea*.

The most recent treatment of the Cuban insect fauna is that of Bruner et al. (1975), which discussed a number of lepidopteran species of economic interest. The purpose of the present paper is to expand upon this base of knowledge, and provide new distributional and foodplant records for 20 species of Lepidoptera from Cuba. All records discussed in the text and Table 1 derive from field collections made since 1990. Larvae were removed from their wild hosts and reared individually to adults in the laboratory in petri dishes, with fresh pieces of foodplant provided daily. Voucher specimens of adults are deposited in the Entomological Collection of the Centro de Investigaciones de Medio Ambiente (CIMA) in Camagüey, Cuba.

Table 1 summarizes the rearing results for 15 moth species. In addition, foodplant relationships were determined for 4 species for which no previous Cuban data were available. These 4 species are discussed in greater detail below, as is the recent capture of *Estigmene acrea*, apparently a new record for the island of Cuba.

TABLE 1. Foodplant relationships recorded in this study for Cuban Lepidoptera.

Species	Foodplant
Geometridae	
Disclisioprocta stellata (Guenee 1857)	*Boerhaavia erecta* (Nyctaginaceae)
Noctuidae	
Hypena vetustalis Guenee 1854	*Sida rhombifolia* (Malvaceae)
Mursa phtisialis (Guenee 1854)	*Malva acuta* (Malvaceae)
Crambidae	
Hyalorista limasalis (Walker 1886)	*Hyptis verticillata* (Labiatae)
Ategunia ebulealis (Guenee 1854)	*Heterotrichum umbellatum* (Melastomataceae)
Arthromastix lauralis (Walker 1859)	*Trichostigma octandrum* (Phytolacaceae)
Bicilia iarchasalis (Walker 1859)	*Rivinia humilis* (Phytolacaceae)
Cryptobotys zoilusalis (Walker 1859)	*Xanthium struemarium* (Asteraceae)
Hileithia ductalis Moschler 1890	*Blechum pyramidatum* (Acanthaceae)
Lineodes graciealis Herr.-Sch. 1871	*Brunfelsia* sp. (Solanaceae)
Omiodes cuniculalis Guenee 1854	*Gliricidia sepium* (Leguminosae)
Salbia haemorrhoidalus Guenee 1854	*Lantana camara* (Verbenaceae)
	Syda nodiflora (Verbenaceae)
	Phyla scaberrima (Verbenaceae)
Pyralidae	
Pococera jovira (Schaus 1922)	*Gliricidia sepium* (Leguminosae)
Thyrididae	
Banisia myrsusalis (Walker 1859)	*Chrysophyllum oliviforme* (Sapotaceae)
Tortricidae	
Coelostathma parallelana Walsing. 1887	*Acacia farnesiana* (Leguminosae)

***Estigmene acrea* (Drury).** This polymorphic species has a wide distribution in the New World, from Canada to Colombia (Hampson 1901, Watson & Goodger 1986). One female was collected at Sierra de Najasa Natural Reserve, Camagüey Province, Cuba, on a wall attracted to an incandescent light. *Estigmene acrea* is not known from any of the Antillean islands (J. Rawlins, D. Ferguson, L. Hernández, in litt.) and is likely a recent introduction for Cuba, as such a conspicuous species would not remain unnoticed for very long. The female was kept alive for one day and laid a mass of eggs from which about 20 larvae emerged. These were fed on fresh cabbage leaves but died before pupation. The captured female is the white form as illustrated in Covell (1984, pl. 13, fig. 16).

***Hymenia perspectalis* (Hübner).** Larvae of this species were collected and reared on *Alternanthera pungens* (Amaranthaceae). This species is distributed throughout the Neartic and Neotropical regions, as well as Australia and Ethiopia (Passoa 1985). Several foodplants are recorded in the literature: *Eclipta prostrana*, *Eleutheranthera ruderalis*, *Melanthera canescens*, *Wedelia trilobata* (Asteraceae); *Amaranthus hibridus*, *A. australis* (Amaranthaceae); and *Rivinia humilis* (Phytolacaeae).

***Lygropia tripunctata* (Fabricius).** This species was collected and reared on *Turbina corymbosa* and *Merremia umbellata* (Convolvulaceae), and is widely distributed from the United States to Brazil, including the Antilles (Passoa 1985). Its larvae feed on plants in the family Convolvulaceae (Bruner et al. 1975, Alayo & Valdés 1982, Passoa 1985).

***Microtyris anormalis* (Guenee).** Larvae of this species were collected and reared on *Ipomoea batatas* and *Turbina corymbosa* (Convolvulaceae). It ranges from the United States to South America, including the Antilles and West Indies (Passoa 1985). The litera-

ture I reviewed only cited convolvulaceous foodplants for this moth, but Silva and d'Araujo (1968) list *Tabemamontana coronaria* (Apocynaceae).

***Pleuroptya silicalis* (Guenee).** Larvae of this species were collected and reared on *Ipomoea batatas*, *I. setifera*, *Merremia umbellata* (Convolvulaceae) and *Rivinia humilis* (Phytolacaceae). The distribution of this species includes Panama, Guyana and Brazil (Druce 1881). Bruner et al. (1975) recorded it from Cuba on *Bouganvillea spectabilis* (Nyctaginaceae) and *Bohemeria nicea* (Urticaceae).

I thank Vitor O. Becker for identifying the Lepidoptera, and Eddy Martínez and Angela Beyra (CIMA, Camagüey, Cuba) for identifying the foodplants.

LITERATURE CITED

ALAYO, P. & E. VALDES. 1982. Lista anotada de los microlepidópteros de Cuba. Academia de Ciencias de Cuba, La Habana. 122 pp.

BRUNER, S. C., SCARAMUZZA, L. C. & A. R. OTERO. 1975. Catálogo de insectos que atacan a las plantas económicas de Cuba. Academia de Ciencias de Cuba, Instituto de Zoología, La Habana. Ed. Academia, 2da. edición, revisada y aumentada. 399 pp.

COVELL, C. V. 1984. A field guide to the moths of eastern North America. Houghton Mifflin Co., Boston. 496 pp.

DRUCE, H. 1881. Biologia Centrali-Americana. Lepidoptera, Heterocera. Vol. 1. London. 490 pp.

HAMPSON, G. F. 1901. Catalogue of the Lepidoptera Phalaenae in the collection of the British Museum, London. London, British Museum (Natural History). 690 pp.

PASSOA, S. 1985. Taxonomy of larvae and pupae of economically important Pyralidae in Honduras. Unpubl. M. Sc. Thesis, Univ. Florida, Gainesville, Florida. 486 pp.

SILVA, A. G. & A. D'ARAUJO. 1968. Quárto catálogo dos insetos que vivem sobre plantas do Brasil. Rio de Janeiro, Minestério de Agricultura, pt. 2, to. 1. 622 pp.

WATSON, A. & D. T. GOODGER. 1986. Catalogue of the neotropical tiger-moths. London, British Museum (Natural History). Occas. Pap. Syst. Entomol. No. 1. 71 pp.

AURORA BENDICHO-LOPEZ, *Centro de Investigaciones de Medio Ambiente, Ministerio de Ciencia, Tecnología y Medio Ambiente, Cisneros 105 (altos), Camagüey 70100, Cuba.*

Received for publication 17 October 1997; revised and aceepted 16 January 1998.

Journal of the Lepidopterists' Society
52(2), 1998, 216–217

NEW ANT ASSOCIATIONS FOR *GLAUCOPSYCHE LYGDAMUS* DOUBLEDAY (LYCAENIDAE)

Additional key words: myrmecophily, silvery blue, *Astragalus*.

Larval myrmecophily among the Lycaenidae is well known and documented. In North America, the silvery blue, *Glaucopsyche lygdamus* Doubleday, and its associated ants have been studied by Pierce and Mead (1981) and Pierce and Easteal (1986). Larvae of *G. lygdamus* secrete substances (e.g., sugars, amino acids) that attract and feed ants, while ants provide protection against predators and parasitoids (Pierce & Easteal 1986).

While collecting in the Ozarks (Christian County, Missouri) in April 1996, we discovered a colony of *G. lygdamus*. We attempted to find its larval host by observing adult females and searching legumes for larvae. We subsequently discovered that most larvae were found on *Astragalus crassicarpus* var. *trichocalyx* (Nutt.) (Fabaceae); *Vicia caroliniana* Walt. (Fabaceae) was also infrequently used. The larvae often were tended by ants, and we noted size discrepancies among the ants. A few ants were collected for identification purposes. In a return trip to the area in 1997, we decided to look more closely at the ant-larva relationship and collect a larger sample of larvae and their associated ant tenders. We also observed that the larger instars appeared to be tended by larger ants.