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RECORDS AND DESCRIPTIONS OF ASILIDAE IN THE
COLLECTION OF THE UNIVERSITY OF MICHIGAN
MUSEUM OF ZOOLOGY (DIPTERA)BY STANLEY W. BROMLEY¹

A LARGE collection of asilids (robber-flies) belonging to the Museum of Zoology of the University of Michigan was recently placed in my hands for study. Two new species in this collection are described in this paper, and a number of Florida records are given which supplement those contained in my forthcoming paper² on the Asilidae of that state.

A NEW *Bombomima* FROM MICHIGAN

In the fall of 1948 Dr. Curtis Sabrosky sent me some specimens of *Bombomima* from Isle Royale, Lake Superior, with the statement that he had been unable to determine the species by the use either of my keys or of Banks' key to *Dasyllis* (with which *Bombomima* was for years erroneously associated by many dipterists). Early the next year a series of the same species was sent me by the University of Michigan Museum of

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² *Ann. Ent. Soc. Amer.*, June, 1950. In press.

Zoology; some of these specimens had been determined as *Dasyllis insignis* by the late Professor James S. Hine. The species proved to be new and is described below.

Bombomima royalensis, new species

DIAGNOSIS.—Total length, 12 to 15 mm. Black; head and mesonotum with largely yellowish, brownish, or reddish pile; abdomen with yellow or orange hairs from the third tergite to the tip. Hairs at sides of first abdominal segment black. First and middle legs black-haired. Beard yellow. Scutellars yellowish. Tuft of hair in fronts of wings black. Pile of mesonotum uniformly yellowish or reddish brown.

MALE.—Vestiture of head mostly yellow, the palpal hairs and lower mystax black. Thoracic vestiture mostly yellow or reddish yellow. Legs mostly black-haired; a few yellow hairs intermingled. Coxae with yellow hairs. Wings grayish; veins brownish gray. Scutellars pale. Abdominal tergites, from third on, yellow- or reddish-yellow-haired. Genitalia black with some pale hairs above and mostly black below. Male upper forceps with a distinct notch on the under side.

FEMALE.—Similar to male, but more inclined to have the scutellars darker, in some even black.

TYPES.—*Holotype*, male, Isle Royale in Lake Superior (Michigan), August 3-7, 1936 (C. Sabrosky), *allotopotype*, female with same data; both in United States National Museum. *Paratopotypes*, four males, three females, with same data as holotype, except collected by R. R. Dreisbach; in the Bromley, Dreisbach, Steyskal, and U.M.M.Z. collections. *Paratypes*, one male, three females, data as follows: one female, Onota Township, Alger County, Michigan, July 28, 1916 (W. S. McAlpine), U.M.M.Z. collection; one female, Floodwood, Schoolcraft County, Michigan, July 10, 1915 (J. S. Rogers), U.M.M.Z. collection; one male, Naubinway, Mackinac County, Michigan, June 27, 1922 (S. Moore), U.M.M.Z. collection; one female, Bois Blanc Island, Straits of Mackinac, Michigan, June 18, 1935 (C. F. Walker), Bromley collection.

The new species is close to *B. insignis* Banks, but is distinguished by lack of the band of thick red pile on the posterior portion of the mesonotum, which in *insignis* contrasts markedly with the yellow pile on the anterior part. The scutellars are pale in *royalensis*, whereas in the female of *insignis* they are usually black.

In comparing *B. royalensis* with a paratype of *B. posticata* var. *scutellaris* Bromley, I find that in *royalensis* the pale hairs on the first four legs are much fewer, and the third tergite of the female has most of the pile yellowish, whereas in *posticata* there is a patch of black hair in the center of this tergite. The scutellars are black in typical *posticata*.

In males of *B. royalensis* the upper forceps are distinctly notched in a way not exhibited in *B. posticata*. Such a notch occurs in *B. insignis*, but the ventral plate is decidedly shorter.

A NEW *Asilus* FROM FLORIDA

I take pleasure in naming the interesting species described below after the collector, Dr. Theodore H. Hubbell, Curator of Insects in the Museum of Zoology, University of Michigan. I am indebted to him for the opportunity of studying the Asilidae of the Museum collection, and for the use in this paper of his field notes on this and other Florida species.

Asilus hubbelli, new species

DIAGNOSIS.—Total length: 11 to 15 mm. A small black species with scattered fine white hairs on the body and legs. The legs and the abdominal incisures are brown.

MALE.—Head black, face white pruinose. Most of the fine hairs on the head are white, the beard being completely so, but the mystax has some black bristles and the antennae are black with black bristles. The occipitals are short, stout, and black. The thorax bears black bristles and white hairs. The pleura are white pruinose. The legs are brown to piceous with black bristles and white hairs. The femora are black on their anterior aspects, particularly the posterior femora. The two

marginal scutellars are black. The wings are hyaline, the halteres with brown knobs and pale-brown petioles. The abdomen is black with scattered fine white hairs, but the incisures and hypopygium are pale brown. The upper forceps are slender, straight for most of their length, and incurved, meeting at the tips, as seen from above.

FEMALE.—Similar, but ovipositor very dark brown.

TYPES.—*Holotype*, male, Lockhart, Orange County, Florida, October 6, 1944 (T. H. Hubbell, 13); *allotype*, female, Gold Head Branch State Park, Clay County, Florida, October 29, 1942 (T. H. Hubbell, 9); both in U.M.M.Z. collection.

This species is closely related to *Asilus maneei* Hine, but has the legs and hypopygium brown instead of shining black. *A. hubbelli* occurs late in the season, whereas *A. maneei* is a spring and early summer species. Both specimens were taken in the widespread and characteristic environment of the Florida sand hills known as "turkey oak"—open scrubby oak forest composed chiefly of *Quercus laevis*, xeric and often fire-swept, with a ground cover of wire grasses, oak shoots, gopher apple, and many species of herbs, and with many exposed patches of sandy soil.

AN ADDITION TO THE FLORIDA LIST

The following is the ninety-seventh species of Asilidae now known from Florida.

97. *Bombomima affinis* Macquart.

Lake Bird, Taylor County, Florida, October 16, 1942 (T. H. Hubbell 8). One specimen, taken in gallberry-blackberry-palmetto thicket between turkey-oak slope and swamp.

NEW FLORIDA LOCALITY RECORDS

The numbers preceding the species names are those of my forthcoming paper on the Asilidae of Florida. In each case the record is the second for the state.

20. *Heteropogon rubrifasciatus* Bromley.

Orange Springs, Putnam County, Florida, October 29, 1938 (T. H. Hubbell 7). One male, taken in a small patch of "sand scrub" on white St. Lucie sand soil, with characteristic vegetation of scrub oaks (*Quercus geminata*, *Q. myrtifolia*, etc.), rosemary bushes (*Ceratiola ericoides*), and other xerophilous shrubs and herbs.

67. *Neoitamus (Asilus) flavofemoratus* Hine.

"Camp Torreya" Township, 2 N., R. 7 W., Liberty County, Florida, June 1, 1924 (T. H. Hubbell 227). One female, taken in open grove of *Pinus taeda* in pasture at edge of Torreya Ravine.

86. *Ommatius gemma* Brimley.

La Belle, Hendry County, Florida, July 16, 1939 (R. H. Beamer). Four specimens.

