

PSYCHODIDAE RECOVERED IN NEW ORLEANS, LOUISIANA

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Vector surveillance in and around international entry points is concerned with both the exclusion of exotic species and the control of indigenous species of known or suspected medical significance. The latter objective involves cataloging the blood-sucking insects in the vicinity of international airports and dock areas. In compiling this list for New Orleans, it was noted that *Phlebotomus vexator* Coquillett has been recovered in northern Louisiana in Jackson Parish (Quate, 1955). As many of the *Phlebotomus* transmit disease-producing organisms, it was deemed advisable to determine if these flies are present, at least in significant numbers, in the New Orleans area. Due to the dearth of published information of the Psychodidae of Louisiana, a contribution to the geographic distribution of these moth flies would also be of value.

Quate (1955) reported examining specimens of *Psychoda lativentris* Berden and *P. alternata* Say from New Orleans.

Although most of the specimens were recovered from a mosquito light trap, 15 armadillo (*Dasypus novemcinctus*) nests and 25 rat (*Rattus norvegicus*) nests recovered around New Orleans were placed in Berlese funnels for the collection of Psychodidae.

A total of 145 specimens of Psychodidae were recovered from 1959 to 1962. No *Phlebotomus* were collected. The adults collected and identified are listed in the following paragraphs. The dates collected are given after the name of each species, followed by the number collected, in parentheses.

Philosepedon interdicta (Dyar)—April, 1962 (1); *P. opposita* (Banks)—August, 1961 (1).

Psychoda alternata Say—March, 1959 (2); August, 1961 (1); November, 1961 (2); *P. alternicula* Quate—October, 1961 (2); *P. cinerea* Banks—April, 1960 (1); *P. lativentris* Berden—March, 1959 (13); May, 1960 (11); August, 1960 (2); March, 1962 (4); *P. phalaenoides* (L.) January, 1960 (16); January, 1962 (1); March, 1959 (2); April, 1962 (2); May, 1960 (1); *P. savaiiensis* Edw.—January, 1960 (1); October, 1959 (1).

Telmatoscopus albipunctatus (Williston)—January, 1962 (1); April, 1962 (5); May, 1960 (1); May, 1962 (7); June, 1961 (2); July, 1961 (18); August, 1961 (14); September, 1959 (1); October, 1959 (9); November, 1961 (2); *T. furcatus* (Kincaid)—January, 1960 (1); March, 1959 (4); March, 1962 (1); April, 1962 (2); May, 1960 (2); May, 1962 (6); *Telmatoscopus varitarsis* (Curran)—October, 1959 (1).

Trichomyia wirthi Quate—August, 1962 (1).

Trichopsychoda insulicola (Quate)—May, 1962 (1); October, 1959 (2).

Total, 145.

Two specimens of *Psychoda lativentris*, one *Telmatoscopus furcatus* (Kincaid), and one *Trichomyia wirthi* Quate were recovered from the armadillo nests. All other recoveries were from the light trap.

Psychoda lativentris, *P. phalaenoides* (L.), *Telmatoscopus albipunctatus* (Williston) and *T. furcatus* were the most common species collected from the light trap. *Philosepedon interdicta* (Dyar), *P. opposita* (Banks), *Psychoda alternicula* Quate, *P. savaiiensis* Edw. (= *arotongensis* Satchell), *Telmatoscopus varitarsis* (Curran), *Trichomyia wirthi*, and *Trichopsychoda insulicola* (Quate) have not been previously reported from Louisiana.

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Literature Cited

QUATE, L. W. 1955. A revision of the Psychodidae (Diptera) in America north of Mexico. Univ. of Calif. Pub. in Ent. 10(3):103-273.

BIOLOGICAL NOTES ON *CULEX TARSALIS* IN THE LOWER RIO GRANDE VALLEY OF TEXAS

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As a primary vector of western and St. Louis encephalitis, *Culex tarsalis* has been intensively studied in a variety of ecological situations. It would be surprising if a species showing such efficient environmental adaptability did not exhibit diverse behavioral characteristics in widely separated parts of its extensive geographical range. Snow and Pickard (1956) observed that east of the Mississippi River *C. tarsalis* occurs from late August to late November, with a population peak in September. In the western United States, the species may become extremely abundant during the summer, with larval development in rain or waste irrigation water. Overwintering is by unfed, fertilized females.

It is the purpose of these notes to comment on two unusual characteristics of *C. tarsalis* in Cameron and Hidalgo Counties in the Lower Rio Grande Valley of Texas, viz., (1) the species is a winter mosquito, with both larvae and adults undetectable by standard population sampling procedures during certain summer months, and (2) it does not appear to utilize chicken houses or other man-made structures as diurnal resting sites to any appreciable extent, even during population peaks.

The seasonal population fluctuation ex-

plains the apparently contradictory statements found in the literature concerning the prevalence of *C. tarsalis* in the Lower Rio Grande Valley. Fisk and LeVan (1940) reported *C. tarsalis* to be abundant in light trap catches in Cameron County from December through April in 1939. Hammon *et al.* (1944) collected 22,768 mosquitoes by hand and light traps in Cameron County, April through June of 1942, only 60 of which were *C. tarsalis*. During a major epidemic of St. Louis encephalitis in Hidalgo County in 1954, Beadle *et al.* (1957) took some 2,000 mosquitoes for virus isolation studies in September, none of which were *C. tarsalis*. Approximately the same number of mosquitoes were obtained during a 1957 St. Louis encephalitis outbreak in Cameron County in August, only three of which were *C. tarsalis*, according to Wiseman *et al.* (1959).

Both Beadle *et al.* (1957) and Wiseman *et al.* (1959) state that *C. tarsalis* is uncommon in the Lower Rio Grande Valley, although conditions appear favorable for its development. Actually, this statement is true only for the summer months. Public Health Service Quarantine Station light trap records for Brownsville indicate that the species is prevalent from October through March, with a population peak in November. One to four light traps have been operated continuously since 1943, in connection with vector surveillance, and the 1962-63 records for two of the traps given in Table 1 are

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