

wing-nuts hold the plexiglass cover in place on the basin, and the fragile electrical parts are completely enclosed and protected. Total cost for all parts purchased in Taiwan is approximately US \$5.00, less cost of the transformer converter. These parts would be perhaps slightly more expensive if purchased in the U. S.

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A CHECKLIST OF THE BLACKFLIES OF NEW JERSEY (DIPTERA:SIMULIIDAE)¹

WAYNE J. CRANS AND LINDA G. MCCUISTON

During 1969, a survey was undertaken by the Department of Entomology and Economic Zoology at Rutgers University to ascertain the number and distribution of blackfly species in New Jersey. Although such information is available from neighboring states (Stone and Jamnback, 1955; Frost, 1949; Dimond and Hart, 1953), New Jersey does not at present have a published list of simuliid species. During a survey conducted in Passaic County in 1957, six species were collected and the identifications were confirmed by the U. S. National Museum (Lake, 1970 personal communication). An additional six species were identified from the Rutgers collection by the junior author. No further records are known for the state.

The checklist given here has been based entirely upon larval and pupal collections made in all counties of New Jersey during 1969. Details of the areas included and the methods employed may be found elsewhere (Crans and McCuiston, 1970). Additions to this list will be reported as new records become available.

The authors are indebted to Dr. Alan Stone of the United States National Museum for confirming each of the identifications included in this report.

Genus *Prosimulium* Roubaud

1. *Prosimulium fuscum* Syme & Davies
2. *Prosimulium magnum* Dyar & Shannon
3. *Prosimulium mixtum* Syme & Davies
4. *Prosimulium multiidentatum* (Twinn)
5. *Prosimulium rhizophorum* Stone & Jamnback

Genus *Cnephia* Enderlein

6. *Cnephia dacotensis* (Dyar & Shannon)
7. *Cnephia mutata* (Malloch)

Genus *Simulium* Latreille

8. *Simulium aureum* Fries

¹Paper of the Journal Series, Department of Entomology and Economic Zoology, Rutgers University—The State University of New Jersey, New Brunswick, N. J.

9. *Simulium congregatearum* (Dyar & Shannon)
10. *Simulium decorum* Walker
11. *Simulium gouldingi* Stone
12. *Simulium jenningsi* Malloch
13. *Simulium parnassum* Malloch
14. *Simulium tuberosum* (Lundström)
15. *Simulium verecundum* Stone & Jamnback
16. *Simulium vitatum* Zetterstedt

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THE OCCURRENCE OF *Aedes flavescens* (MÜLLER), *Psorophora cyanescens* (COQUILLETT) AND *Culex erraticus* (DYAR AND KNAB) IN NEW JERSEY.¹

WAYNE J. CRANS

The most recent checklist of New Jersey mosquitoes (Crans, 1967) lists fifty-two species known to occur in the State. Since the time of that publication, three additional mosquito species representing three different genera have been collected and identified by various New Jersey investigators. The details of these initial records are included in this report.

Aedes flavescens (Müller). *Aedes flavescens* is recognized as a northern mosquito species with a single generation each year. Although the adults appear very early in the spring, the females often survive until late in the season (Carpenter and LaCasse, 1955). In all probability, New Jersey now represents the southernmost boundary for this species in the northeast.

A single adult female *Aedes flavescens* was taken in a light trap near Rutherford, New Jersey on 3 June 1968 by Mr. Herman Ehrenberg of the Bergen County Mosquito Extermination Commission. The specimen was identified by Mr. Ehrenberg and forwarded to the author at that time. One additional specimen has since been taken from a neighboring area.

¹Paper of the Journal Series, Department of Entomology and Economic Zoology, Rutgers-The State University of New Jersey, New Brunswick, N. J.

Psorophora cyanescens (Coquillett). *Psorophora cyanescens* is a fairly common mosquito of the southeastern United States, recently reported as far north as Delaware (Lake *et al.*, 1967). It would now appear that southern New Jersey represents the northernmost boundary for this species on the Atlantic seaboard.

Several adult female *Psorophora cyanescens* were taken in a sweep collection by the author near Woodbine, New Jersey on 11 August 1967 and submitted alive to the New Jersey State Department of Health with numerous other species for virus investigations. Mr. George Bordash of the State Department of Health recognized and identified the first record of this species from that collection. Since that time, numerous adults have been taken in light traps from Cape May, Cumberland, Salem and Ocean Counties and it would appear that the species is now well established in the southern portion of the State.

Culex erraticus (Dyar & Knab). *Culex erraticus* is known to occur along the Atlantic coast as far north as New York State (Barr, 1958). Prior to this report, however, the species had not been recorded in New Jersey.

The first record of this species in New Jersey was taken on 12 August 1969 by Dr. Lyle Haggmann of the Department of Entomology and Economic Zoology at Rutgers University and Mr. Boyd Lafferty of the Cape May County Mosquito Extermination Commission from a resting box near Dennisville. Mrs. Linda G. McCuiston made the original identification at Rutgers. Simultaneously, Mr. Walter Gusciora and Mr. George Bordash of the New Jersey State Department of Health collected and identified several specimens from the same area. Additional collections have revealed the species to occur infrequently in the southernmost portion of New Jersey.

The addition of these three mosquito species now brings the New Jersey state list to fifty-five. Each of the original collections herein mentioned were graciously received and confirmed by Dr. Alan Stone of the United States National Museum.

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