

- water management in control of *Aedes sollicitans* in Barrington, R.I. Mosq. News 40:645-647.
- Carpenter, S. J. and W. J. LaCasse. 1974. Mosquitoes of North America (North of Mexico). University of California Press.
- Ferrigno, F., P. Slavín and D. M. Jobbins. 1975. Salt marsh water management for mosquito control. Proc. N.J. Mosq. Control Assoc. 62:30-38.

A NEW RECORD OF *CULISETA ANNULATA*
WITH NOTES ON MOSQUITO SPECIES IN
SUFFOLK COUNTY, LONG ISLAND,
NEW YORK

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On June 16, 1983, a female *Culiseta* was taken in a CDC trap operated in Manorville, Suffolk County, Long Island, NY. Using available keys, this specimen was identified as *Cs. particeps* (Adams) which is characterized by the presence of broad pale-scaled bands on the hindlegs and narrow subapical pale bands on the femora. According to Darsie and Ward (1981) *Cs. particeps* has been reported only from Arizona, California, Washington and Oregon. The specimen was then sent to the National Museum of Natural History, Smithsonian Institution, Washington, DC, for confirmation. Dr. Bruce A. Harrison, Manager, Walter Reed Biosystematics Unit, identified the specimen as *Cs. (Cus.) annulata* (Schrank, 1776) which is a common species in western and central Europe, Scandinavia, the USSR, Middle Asia, the Mediterranean and North Africa (Faran and Bailey 1980).

According to Harrison (personal communication) and Faran and Bailey (1980), the Manorville specimen is the third known female specimen of *Cs. annulata* captured in the USA. The first was collected in 1950 on an airplane arriving at Kennedy International Airport from Stockholm, and the second in 1978 was an overwintering female from Fort McHenry and Historic Shrine, Baltimore, Maryland. Trapping *Cs. annulata* from Manorville which is ca. 88 km NE of Kennedy Airport and 100 km E of New York Harbor would eliminate the possibility of a recent introduction of this species through these ports. Grumman Corporation which is ca. 6 km N of the collection site has a military airport. It is possible that this species was introduced through a military flight. Whether *Cs. annulata* became established or not has to be confirmed by intensifying the larval

surveillance program in this area in the coming mosquito season.

Culiseta annulata is known to breed in natural or artificial fresh water breeding sites which are very common in the Manorville area. It can be distinguished from *Cs. particeps* by the number and width of the light-scaled bands on the tarsomeres and the scales on cross veins r-m and m-cu (Faran and Bailey 1980).

The latest listing of mosquito species from Suffolk County (Guirgis and Sanzone 1978) included 36 species together with *Orthopodomyia* spp. which were collected only in the adult stage from 2 sites and not identifiable to species. Since then, adult *Orthopodomyia* were taken in 8 more traps distributed all over the county. Species identification was not confirmed until the larval stage was located. *Orthopodomyia alba* Baker larvae were collected together with *Aedes triseriatus* (Say) on July 17, 1978, from a hole in a maple tree (*Acer rubrum*) in Bayport, Islip and *Or. signifera* (Coquillett) larvae were found on June 28, 1979 in old tires piled in the yard of an excavating company in Bellport, Brookhaven.

White and White (1980) reported the breeding of *Aedes atropalpus* (Coquillett) in an artificial container on Plum Island. Recently, we found a report (Mosquito Extermination Commission 1940) which indicates that a single *Ae. atropalpus* female was trapped from Shelter Island. Both islands are part of Suffolk County. Unfortunately, this report does not indicate the exact date of trapping nor the name of the person who identified the specimen.

The addition of *Ae. atropalpus*, *Or. alba*, *Or. signifera* and *Cs. annulata* to the Suffolk County mosquito list (Guirgis and Sanzone 1978) brings the number of the county species to 40.

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References Cited

- Darsie, R. F., Jr. and R. A. Ward. 1981. Identification and geographical distribution of the mosquitoes of North America, north of Mexico. Mosq. Syst. Suppl. 1, 313 pp.
- Faran, M. E. and C. L. Bailey. 1980. Discovery of an overwintering adult female of *Culiseta annulata* in Baltimore. Mosq. News 40:284-287.
- Guirgis, S. S. and J. F. Sanzone. 1978. New records of mosquitoes in Suffolk County, Long Island, New York. Mosq. News 38:200-203.
- Mosquito Extermination Commission, Suffolk County. 1940. Annual Report. The Riverhead News Inc. New York 32 pp.
- White, D. J. and C. P. White. 1980. *Aedes atropalpus* breeding in artificial containers in Suffolk County, New York. Mosq. News 40:106-107.