

PSOROPHORA PYGMAEA (THEOBALD), AN EXOTIC MOSQUITO NOW ESTABLISHED IN FLORIDA¹

WILLIAM F. BUREN

Asst. Sanitarian (R), U. S. Public Health Service

Psorophora pygmaea (Theobald) has been reported twice from Key West, Florida; August, 1901, A. Busch, 4 specimens, and April 1-3, 1903, D. A. Schwarz, 6 specimens. These specimens were described as *Culex nanus* Coquilett, Can. Ent., 35, p. 256, 1903. The U. S. National Museum also has a series of specimens collected by Sargent Mead at Key West: 5 specimens, June 13, 1924, and 25 specimens, October 3, 1924 (unpublished records) which show that the species either has persisted at Key West or is being repeatedly introduced. The West Indies is the normal habitat of this species.

That this mosquito may now be established in south Florida is indicated by the capture of a series of specimens in a light trap operated by the Public Health Service at the U. S. Quarantine Station, Fisher's Island, Miami Beach, Florida. This series is as follows: On June 2-3, 1946 (two nights' collection), 23 ♀♀; June 14, 1 ♀; June 15, 1 ♀; June 16-17, 6 ♀♀; June 18, 1 ♀; June 19, 1 ♀; June 20, 2 ♀♀; July 26-27, 1 ♀; July 28-31, 1 ♀; a total of 37 specimens, all females.

Several thorough surveys of Fisher's Island were made during this period but the breeding places or even any places which appeared suspect could not be found. The neighboring parts of Miami Beach across the channel are populated and no *Psorophora* breeding places could

be found. The mainland is rather distant and is also well populated. By a process of elimination, therefore, Virginia Key and Biscayne Key, to the immediate south of Fisher's Island, are regarded as the most likely breeding places. These islands are wild and inaccessible, and probably have numerous places suitable for *Psorophora* breeding. The absence of males in the catches supports the view that the breeding places are at some distance from the light trap.

The manner of introduction of this species is a matter of speculation. *Psorophora pygmaea* is a frequent hitch-hiker aboard planes arriving at Miami from the West Indies. However, the tight insect quarantine maintained at Miami, which includes spraying both in flight and after landing; the distance between the airports and Fisher's Island; and the fact that light traps in the vicinity of the airports have remained negative in regard to *P. pygmaea*, tend to preclude any argument that the species has been recently implanted by plane. The establishment of the species could well be the result of the original implantation at Key West, the species having gradually spread unnoticed northward through the Florida Keys.

Psorophora pygmaea fortunately is of no medical significance. Nevertheless, its establishment in Florida once more emphasizes the need for adequate insect quarantine backed up by thorough entomological surveillance.

¹ From the Foreign Quarantine Division, Bureau of Medical Services, U. S. Public Health Service.