

mm., in each of the remaining flasks. Eighty-four to 125 pupae were placed in each flask and the number of adult mosquitoes that emerged was recorded.

Significantly more adult mosquitoes (94.8%) survived in flasks containing emergence discs than in those containing pieces of cork (59.6%). Additional tests using 40-60 and 150-200 larvae per flask had adult survival averages of 92.6 percent and 91.2 percent respectively.

Emergence discs have small areas that resist the movement of surface water, thus increasing the stability of the water-air interface. They also increase the amount of dry surface area for resting adults. Discs allow pupae to be more evenly distributed over the surface, therefore permitting a larger number of pupae per flask.

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#### *Aedes aurifer* (COQUILLET) and *Wyeomyia smithii* (COQUILLET) IN PENNSYLVANIA. (NEW STATE RECORD)

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Brown (1948) listed 37 species of mosquitoes as occurring in Pennsylvania and Carpenter (1947) added 3 more to the list bringing the total to 40. Although Rutschky, Mooney and Vanderberg (1958) noted *Wyeomyia smithii* on their list of Pennsylvania mosquitoes, there was never any reference to location or distribution within the State. The authors have not found any in the collections at State College. The addition of

*Aedes aurifer* and *Wyeomyia smithii* brings the present total of mosquito species in Pennsylvania to 42.

April 17, 1963 six 3rd instar larvae of *Aedes aurifer* were collected from a small woodland pool one and one-half miles northeast of Sharon, Pennsylvania, at Western Reserve. April 26, three more 4th instar larvae, of this species, were collected from the same area and June 18, one female was taken in a midmorning biting collection. The larvae were associated with larvae of *Aedes abserratus*, *Aedes stimulans* and *Aedes canadensis*. A light trap operated in this vicinity from May 28 through July 28, failed to capture any adults of *Aedes aurifer*.

On May 20, 1963 the junior author located a privately-owned sphagnum bog on Route 318 about two miles southwest of the Borough of Mercer. This area is probably one of the largest quaking bogs in the State; pitcher plants (*Sarracenia purpurea*) are very abundant in it. On May 23, fifteen 2nd and 3rd instar larvae of *Wyeomyia smithii* were collected from the leaves of these pitcher plants and taken to Sharon where six were reared to adults, five were preserved at 4th instar, and four were lost. Of the six reared to adults, all were females.

Mr. Richard Sivel of the Bucks County Mosquito Control Commission has also collected larvae of *Wyeomyia smithii* from a small pitcher plant area at Bowmans Hill Wild Flower Refuge in Bucks County. However, as late as June 20, 1963 it was not possible to collect specimens from this area due to lack of rainfall.

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