

the fan blades resulted in little damage to the mosquitoes.

The kill jars were replaced with cylinders of netting similar to those found on the CDC light traps. Rubber bands held the nets in place on the traps. The collection cage was approximately 12 inches in diameter and 6 inches in height. It provided ample room for the movement of live insects. The downward pressure of the fan prevented loss of insects through the net opening. Moderate rainfall resulted in little loss of material, due to the construction of the light trap. If the nets became wet, they were dried by hanging in the sun.

More live adult mosquitoes could be returned to the laboratory if the cages were collected just after sunrise. Desiccation of the material resulted when the cages were left in the sun. Upon returning to the laboratory, the nets were placed in the freezer compartment of a refrigerator for 15 minutes. Then the contents were sorted and the mosquitoes identified. Viable *Anopheles* specimens were then dissected. In 9 months approximately 2000 *Anopheles* were dissected.

This method of live collecting produced large numbers of viable wild adult *Anopheles* for dissection. It was also inexpensive since standard light traps were used. Nets could be produced

for less than \$3.00. Standard military bed and head nets provided the ideal type of material for construction of the cages (See figure). Had the authors been working in less remote and primitive circumstances, other techniques would have been employed. However, the authors believe that this technique may be of future value to workers who suddenly need live specimens for some purpose when they do not have the benefit of proper collecting equipment.

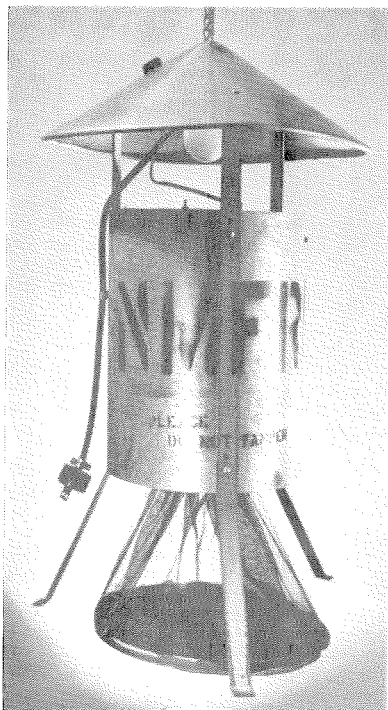
TWO MOSAIC GYNANDROMORPHS OF *Culex tarsalis* COQUILLETT FROM TEXAS

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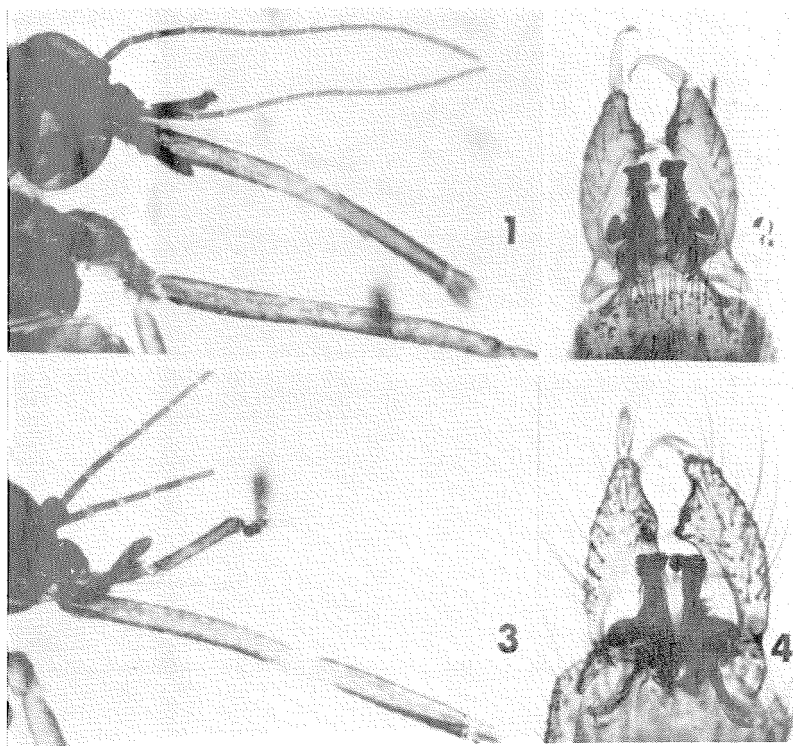
Six gynandromorphs of *Culex tarsalis* Coquillett have been reported previously from field-collected and colonized specimens. Three field-collected, bipolar gynandromorphs, with female heads and male genitalia, are known from California, Arizona, and Texas. One field-collected bipolar specimen with male head and female genitalia is reported from Arizona. Two mosaics, displaying both male and female characters on the head, and male genitalia, are known from a field-collected specimen from Colorado and a colonized individual from the Bakersfield, California, laboratory strain.

The two gynandromorphs under consideration were collected at the Hahn Ranch, about 2½ miles northeast of Hale Center, Texas. Gynandromorph A (Fig. 1-2), was taken in a sentinel chicken shed trap, June 18, 1969. This specimen has normal female antennae; right palp, normal female; left palp, male atrophied; right fore tarsal claws, normal female; left fore tarsal claws, normal male; right middle tarsal claws, inner claw atrophied, male, outer claw, normal female; left middle tarsal claws, normal male; hind tarsal claws, normal. Genitalia normal, male.

Gynandromorph B (Figs. 3-4), was taken in a light trap, September 16, 1969. This specimen has normal antennae; right palp, atrophied male, but more fully developed than the atrophied left palp in Gynandromorph A; left palp, normal female; right fore tarsal claws, normal male;



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FIGS. 1-4, Mosaic gynandromorphs of *Culex tarsalis*. Fig. 1, Gynandromorph A, showing head characters; Fig. 2, Gynandromorph A, genitalic segments. Fig. 3, Gynandromorph B, head characters; Fig. 4, Gynandromorph B, genitalic segments.

left fore tarsal claws, normal female; right middle tarsal claws, normal male; left middle tarsal claws, missing; hind tarsal claws, normal. Genitalia normal, male.

Both specimens collected by Dr. Carl J. Mitchell have been mounted on slides and are in the collection of the Ecological Investigations Program, Center for Disease Control, Public Health Service, U. S. Department of Health, Education, and Welfare, Fort Collins, Colorado.

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