

GYNANDROMORPH OF *Aedes mcINTOSHI* FROM CENTRAL KENYATHOMAS P. GARGAN II,¹ CHRISTINE W. KAMAU,² PAUL C. THANDE,² AND JOHN N. WAGATEH²*U.S. Army Medical Research Unit (WRAIR), Kenya, Box 401, APO New York 09675*

Gynandromorphs, or sexual mosaics, are produced in insects by chromosomal aberrations in cells in the developing embryo, and not by circulating hormones as in mammals (Wigglesworth 1965). Gynandromorphism in mosquitoes is not uncommon and has been described in a number of mosquito species (Bates 1949, Christophers 1960). Van Someren (1939) described gynandromorphs of *Culex (Culicomyia) cinereus* Theobald and *Aedes (Aedimorphus) dentatus* (Theobald) that were collected in Kenya, East Africa.

A gynandromorph of *Aedes (Neomelanicion) mcintoshii* Huang was found while microscopically examining pupae that had been reared from field-collected eggs. The mosquito eggs were removed from soil samples from the Waunyomu Ngeke Estate (1°15'S, 37°06'E, altitude 1,720m) near Kahawa, Kenya, East Africa. This pupa was readily identified as abnormal because it had both male and female genital lobes; however, its tumbling movement in the water was not different from that of normal pupae. The pupa was isolated in a cup of water inside a cage. After eclosion, the adult was maintained in a cage for 24 h, killed by freezing and then mounted on a pin. This is the first report of gynandromorphism in this species.

Huang (1985) described *Ae. mcintoshii* and reported that the morphology of adult male and female mosquitoes was similar except for sexual characteristics of the head, thorax, wing, legs and genitalia. The specimen described here had maxillary palpi that were predominantly of male form with palpomere 5 absent, palpomere 4 slightly upturned with numerous long setae arising laterally and ventrally, and the apical 0.3 of palpomere 3 with similar long setae arising latero-ventrally (Fig. 1). The length of the palpus was ca. 0.76 the length of the proboscis; less than the ratio reported for normal males (1.3–1.4) (Huang 1985). Female characteristics included the antennae (Fig. 1), the lower mesepimeron of the thorax with a seta, and tarsal claws of equal length on the right foreleg. The tarsal claws on the left fore- and both midlegs were

missing. Cell R of the wing was 1.6 times the length of vein R_{2+3} . This ratio was intermediate between the ratios reported by Huang (1985) for normal male (1.0–1.2) and female (1.9–2.0) *Ae. mcintoshii*. The terminal segment of the abdomen was not dissected and contained large fe-

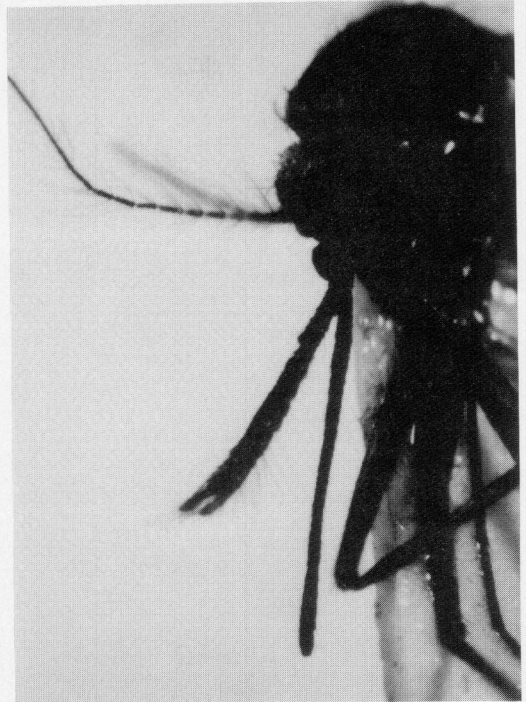


Fig. 1. Head view, gynandromorph of *Aedes mcintoshii*.

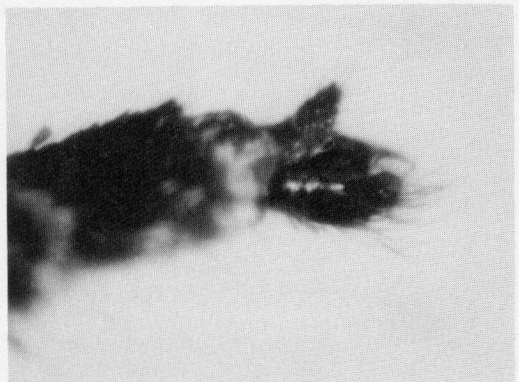


Fig. 2. Terminal segment, gynandromorph of *Aedes mcintoshii*.

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male cerci and male genitalia which had not rotated (Fig. 2).

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