

GENERAL SYSTEMATICS

The morphological characters used here are based on original observations and characters previously used in the literature. The following general references were especially helpful: Barraud (1934), Mattingly (1957), and Delfinado (1966) for *Ficalbia*, *Mimomyia*, *Hodgesia*, Belkin (1962), Wharton (1962) for *Coquillettidia*, Tyson (1970) for *Aedeomyia*, Apiwathanasorn *et al.* (1991) for *Mansonia*, Peyton (1972, 1977) for *Uranotaenia*, and Rattanaarithikul *et al.* (2005) for the keys to genera and subgenera of mosquitoes.

SYSTEMATICS SPECIFIC TO THAI FAUNA

Primary references dealing specifically with genera and species occurring in Thailand include: Barraud and Christophers, 1931; Causey, 1937a,b; Brug and Bonne-Wepster, 1947; Iyengar and Menon, 1956; Thurman, 1959; Peyton and Klein, 1970; Peyton and Rattanaarithikul, 1970; Harbach *et al.*, 1986; and Harrison *et al.*, 1991.

The genera covered in this section generally breed in ground-water habitats. Most species of *Aedeomyia*, *Ficalbia*, *Mimomyia*, *Coquillettidia*, and *Mansonia* are always found in permanent water associated with various types of the aquatic plants. The larvae and pupae of one species of *Mimomyia* (*i.e.*, *hybrida*) and all species of *Coquillettidia* and *Mansonia* attach to roots of aquatic plants and seldom come to the surface except when the pupae are ready for eclosion. *Hodgesia* and *Uranotaenia* are common in permanent ground-water habitats. A large number of species in *Uranotaenia* are found in different types of natural container habitats, including freshwater crabholes, and in artificial containers to a lesser extent (Table 2).

1. Tribe Aedeomyiini

The tribe Aedeomyiini includes a single genus, *Aedeomyia*, which is divided into two subgenera. *Aedeomyia* (*Ady.*) *catasctica* is the only species found in Thailand. Adults of *Aedeomyia* have dense broad yellow and white wing scales, and the mid- and hind-femora have large apical scaletufts. The larvae have greatly enlarged and strongly curved antennae, and the tip of the siphon bears paired hook-like setae.

Feeding behavior and vector status. *Aedeomyia* (*Ady.*) *catasctica* is not known to be of medical importance. In Thailand, adults commonly bite humans and are collected in light traps.

Habitats of the immature stages. Iyengar and Menon (1956) collected *Ad. (Ady.) catasticta* from rice fields with dense mats of *Spirogyra* in southern Thailand. Since then, the immatures have been collected in a variety of ground-water habitats, e.g., ponds, swamps, marshes, ditches, pits, flood pools, stream pools, stream margins, seepage, and rice fields. They are always found in association with various types of thick aquatic vegetation (e.g., *Pistia* spp.). They are known to stay submerged for long periods of time and are suspected of being capable of cuticular respiration through their enlarged antennae (Tyson, 1970).

2. Tribe Ficalbiini

Mattingly (1957) revised genus *Ficalbia*, which at the time included four subgenera, *Ficalbia*, *Etorleptomyia*, *Mimomyia*, and *Ravenalites*. Thurman (1959) listed eight species in genus *Ficalbia* (as defined by Mattingly, 1957). Mattingly (1971) treated *Ficalbia* as a genus with only one species, *Fi. minima*, and transferred the other three subgenera to genus *Mimomyia*. White (1974) determined that subgenus *Ravenalites* Doucet, is a junior synonym of *Ingramia* Edwards. Harrison *et al.* (1991) transferred *Mi. fusca* to subgenus *Ingramia*. One species of *Ficalbia* and seven species (one with two subspecies) of *Mimomyia* are currently known in Thailand.

Ficalbia and *Mimomyia* are small mosquitoes similar to those of *Hodgesia* and *Uranotaenia*. The speckled wings on *Mi. (Eto.) luzonensis* are similar to those of *Mansonia*, but the shape of the scales is different. The first antennal flagellomere of *Ficalbia* is approximately three times as long of flagellomere 2, but less than three times in *Mimomyia*. Larvae of *Ficalbia* have the distal part of the antenna fused with the basal part, whereas in *Mimomyia* the distal part of antenna has a joint, and the apical part is freely movable.

Feeding behavior and vector status. *Mimomyia (Mim.) hybrida* has been collected biting humans, and *Fi. minima*, *Mi. (Eto.) luzonensis*, *Mi. (Mim.) chamberlainai*, and *Mi. (Mim.) chamberlainai metallica* are commonly found in light traps. Nothing is known about the adult behavior of *Mi. (Mim.) elegans* and *Mi. (Ing.) fusca*. Species of these two genera are of no known medical importance.

Habitats of the immature stages. Breeding sites of *Ficalbia* and *Mimomyia* are similar to those of *Aedeomyia*, i.e., permanent ground-water habitats containing abundant vegetation. The larva of *Mi. (Mim.) hybrida* has a siphon modified for piercing aquatic plants to obtain oxygen (Mattingly, 1957). *Mimomyia (Ing.) fusca* has been collected only from tree holes and bamboo stumps.