IDENTIFICATION OF AEDES ALBOPICTUS IN GUATEMALA
(Diptera, Culicidae)

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Abstract. The identification of *Aedes albopictus* in Guatemala considering the local fauna as represented by Clark-Gil & Darsie (1983) is discussed.

*Aedes albopictus* (Skuse, 1894), a vector of dengue fever in the Oriental Region, has become established in the southern United States (Sprenger and Wuithiranyagool, 1986; Darsie, 1986). Therefore this species may also be introduced into Latin American countries. Consequently, it is necessary to be able to distinguish it from the indigenous species. With the following information one can identify *Aedes albopictus* adult females and fourth-stage larvae from the mosquito species occurring in Guatemala and surrounding countries.

Using the keys in Clark-Gil and Darsie (1983) with certain modifications one can separate *Aedes albopictus* from the indigenous species of Guatemala. Descriptions of *Aedes albopictus* by Huang (1968, 1971, 1972) and Tanaka et al. (1979) were consulted during the study. Also, adult females from Pahang, Malaysia, and fourth-stage larvae from Houston, Texas, USA, were examined.

**Adult Female (Figure 1)**

Identification of the adult female of *Aedes albopictus* is quite easy once it is recognized as a member of the genus *Aedes*. To do that it is necessary to use the generic key (p. 167). It will pass to couplet 16(14) without difficulty where it must be separated from

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Psorophora. This can be accomplished by observing the absence of the pre-
spiracular setae and by the presence on the abdominal terga of pale-scaled bands basal in position.

In the key to Aedes species (p. 169), Ae. albopictus passes to couplet 20(19) easily, where it must be separated from Aedes aegypti (Linneas). With the following modifications and adding an extra couplet, 20A(20), it is possible to distinguish Ae. albopictus from the mosquito fauna of Guatemala.

20(19). Pale-scaled basal bands on abdominal terga bilobed posteriorly; hindtarsomeres with narrow bands of pale scales . . . . . . vexans

Pale-scaled basal bands on abdominal terga straight or arched; hindtarsomeres 1-4 with wide bands of pale scales . . . . . . . 20A

20A(20). Scutum with pattern of pale scales in form of lyre; sterna II-V entirely pale-scaled . . . . . . aegypti

Scutum with thin longitudinal median line of white scales; sterna II-V with apical or subapical bands of dark scales . . . . . . albopictus

Fourth Stage Larva (Figure 2)

In the generic key (p. 206), larvae of Ae. albopictus will pass to couplet 19(18). The saddle does not completely encircle abdominal segment X and the size of seta 3-VII is small to medium. Since it is difficult to locate seta 3-VII, or it is damaged or absent, it is possible to use the number and morphology of the comb scales.

Larva de Cuarto Estadio (ver Figura 2)

En la clave genérica (pagina 218), las larvas de Ae. albopictus pasarán hasta la pareja 19(18). La silla de montar no rodea el segmento abdominal X y la cerda 3-VII es desde tamaño mediano hasta pequeño. Sin embargo, si no se pudiera localizar la cerda 3-VII o si ésta estuviera dañada, es posible usar el número y la morfología de los dientes
Ae. albopictus larvae have 8-12 comb scales, each with a large, smooth, apical spine and very small, basal spicules. In the Guatemalan species of Haemagogus and Aedes subgenus Howardina, the larvae have more than 12 comb scales, or if fewer than 12 (as in certain species of Haemagogus) then each comb scale has a fringe of fine spicules, including the apical spine (Arnell, 1973, Berlin, 1969). In addition, larvae of the latter two taxa have prominent spicules dorso-posteriorly on the saddle and Ae. albopictus larvae do not.

In the key to species of Aedes (p. 208), the larvae of Ae. albopictus pass easily to couplet 15(14), where an additional couplet needs to be inserted to identify them, as follows:

15(14). Abdominal segment VIII with 8-12 comb scales; seta 4-X with 4 pairs of setae, each usually single; seta 1-A short, not reaching more than 0.75 distance to apex of antenna. Ae. albopictus

Abdominal segment VIII with 18 or more, usually 40 or more, comb scales; seta 4-X with 5-7 pairs of setae, each usually with 2 or more branches; seta 1-A long, at least reaching near to apex of antenna . . . . . . 15A

15A(15). Seta 5-C usually with 4 or more branches and/or seta 14-P branched . . . . . . . . daryi

Seta 5-C usually with 1-3 branches and seta 14-P usually simple, at least on one side. . . .16

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LITERATURE CITED

[IBIBIOGRAFIA]


Figure 1. Adult female of *Aedes albopictus*. Top - lateral view, middle - dorsal view of wing, bottom left - legs and tarsal claws, bottom right - dorsal view (From Tanaka et al. 1979).

Figure 2. Fourth stage instar larva of *Aedes albopictus*. Top-lateral view, middle-dorsal view of wing, bottom left - legs and tarsal claws, bottom right - dorsal view (From Tanaka et al. 1979).

Figure 2. Larva de Cuarto Estadio de *Aedes albopictus*. Arriba-vista lateral, mediana-vista dorsal del ala, abajo a la izquierda - las patas y uñas tarsales, abajo a la derecha - vista dorsal (de Tanaka et al. 1979).