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## AEDES KOMPI VARGAS AND DOWNS 1950, NEW TO THE UNITED STATES

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*Aedes* (*Finlaya*) *kompi* Vargas and Downs 1950 was described from specimens collected in Tepoztlán, Morelos, Mexico during June, 1949 from tree holes and rock holes. Downs (Pers. comm.) states that his collection from a rock hole near a stream bed was made after a period of heavy rain which filled rock holes not usually containing water.

The author collected *Ae. kompi* pupae on 18 August, 1964, 3 miles southwest of Patagonia, Arizona, in Santa Cruz County. The general area southwest of Patagonia is watered by Sonoita Creek which normally flows all year long. There is a large stand of cottonwoods, willows and sycamores along the creek, providing heavy shade and many tree holes.

The author collected and reared all the larvae and pupae from a single, large willow tree hole containing about 10 liters of dark water. Adults of *Ae. kompi*, *Anopheles barberi* Coq., and *Orthopodomyia kummi* Edwards were taken from the sides of the hole, above the water line and on leaves near the hole. Subsequent rear-

ing of the larvae and pupae yielded *Ae. kompi* 74 ♀♀, 7 ♂♂; *An. barberi* 18 ♀♀, 24 ♂♂; and *O. kummi* 260 ♀♀, 227 ♂♂. Periodic collections from the hole from October, 1964 to August, 1965 yielded specimens of *O. kummi* throughout the year and *An. barberi* from April until termination of sampling at the end of July. No larvae, pupae or adults of *Ae. kompi* were found in other tree holes in the area.

The tree hole from which *Ae. kompi* was collected was unusual for Southern Arizona because of its large capacity and because the accumulation of leafy debris remained damp throughout the year. All of the other tree holes the author has examined in Southern Arizona are dry most of the year, containing water only after the heavy summer rains in July and August.

DESCRIPTION OF *Ae. kompi*. Vargas and Downs (1950) described the immature and adult stages of *Ae. kompi*. The following description deals only with the more conspicuous characters of the larva, pupa and adult separating *Ae. kompi* from other tree hole *Aedes* species, and, except for the adult female, is translated from the original description. The pupa, adult

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female, and male genitalia are figured in the original description.

**LARVA.** Head round, broader than long. Upper and lower head hairs simple, larger than the preantennal hair. Antenna cylindrical, basal one-third broader than the apical two-thirds, a simple hair inserted at mid-length and reaching the apex.

Lateral comb of scales on the 8th abdominal segment triangular, with more than twenty teeth. Siphon about 2.3 times as long as broad. Pecten forming a single row, reaching almost to the middle of the siphon; all teeth regularly spaced, the last ones short and thick, not over four times as long as broad. Siphonal tuft placed well beyond the pecten, at the apical third of the siphon, three-branched. Anal plate incomplete, a little longer than broad. Anal gills a little longer than the anal segment, pointed terminally.

**PUPA.** Hair 8 situated far back of the trumpet, very strong and longer than the trumpet; hair 9 more posterior, shorter than the trumpet, finer than hair 8.

Paddle elongate, less than twice the breadth; lacking spicules.

**FEMALE. Head.** Proboscis black with metallic blue reflections. Palpi with similar coloration, about one-quarter the length of the proboscis. Occiput black, surrounded with silvery-white scales and with a broad median line of silvery-white scales. Median posterior area of the occiput with pale, erect, forked scales, becoming pale brown to black laterally. Checks silvery.

**Thorax.** Scutum with a slender median line of narrow, silvery-white scales which divides at the pre-scutellar space and continues to the scutellum. Lateral area of the scutum clothed with a mixture of narrow and broad, flattened, silvery scales which constrict to a narrow line posteriorly.

Pleuron with compact groups of broad, flattened, silvery-white scales.

Scutellum with long brownish bristles; scutellar lobes with distinct patches of narrow silvery scales.

Post-spiracular bristles absent; lower mesepimeral bristles absent.

**Abdomen.** Tergites black. Tergites VI and VII with distinct lateral, rounded patches of silvery scales which are an extension from the ventral surface. A lateral patch of silvery scales on tergite V visible from above on some specimens. Tergite VIII with a broad, basal band of silvery-white scales, narrowing laterally. Sternites I-VII with the median line bearing a broad band of yellowish-white scales, becoming reduced posteriorly.

**Wings.** Length 4.0 mm, scales all narrow, dark.

**Legs.** Fore and mid-femora clothed with silvery-white scales posteriorly for three-quarters of the length; hind-femur entirely clothed with silvery-white scales for three-quarters of the length; all femora with an apical silvery patch, most pronounced on the hind femur. All tibiae dark, with metallic purple reflections. Fore-tarsus with segment I silvery-white posteriorly for about four-fifths of its length, remaining segments dark; mid-tarsus with segment I entirely silvery-white for three-fourths to four-fifths of its length, remaining segments dark; hind-tarsus entirely dark, with metallic purple reflections.

**MALE.** Markings similar to the female except that the occiput and scutum are clothed entirely with narrow silvery scales.

**Genitalia.** Lobes of the ninth tergite broader than high; each lobe bearing an inner group of three spines somewhat curved outwardly and one isolated outer spine.

Stem of claspette stout, pilose; apical half with two to four small spines; filament of the claspette a little longer than the stem.

Basistyle clothed with broad scales and long setae; setae evenly distributed over the surface of the basistyle.

Dististyle about half the length of the basistyle; inner margin bearing small setae. Claw of the dististyle curved, blunt, about one-third the length of the dististyle.

**DEPOSITION OF SPECIMENS.** Specimens have been deposited by the author as follows: U. S. National Museum, 4 ♀♀

2 ♂ ♂, University of Arizona, Tucson,  
4 ♀ ♀.

DISTRIBUTION. *Mexico*. Tepoztlán, Morelos, Mexico, 29-VI-49, 5000' (between Cuernavaca and Cuautla, W. G. Downs), Holotype, ♀, Allotype, ♂, Paratypes, 2 ♀ ♀ 2 ♂ ♂.

*Arizona*. 3 mi. S.W. of Patagonia, Arizona, Santa Cruz County, 18-VIII-64, 4000', 74 ♀ ♀ 7 ♂ ♂ (collected as pupae, J. F. Burger).

Vargas and Downs (1950) state that the area in which the Mexican collection was made was a neotropical region contiguous with the nearctic region in that area.

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## THE MALAISE TRAP—A SURVEY TOOL IN MEDICAL ENTOMOLOGY

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INTRODUCTION. In a recent issue of *Mosquito News* (Vol. 25, No. 1, March 1965), we reported the performance of the Malaise trap as a mosquito collecting device in connection with TVA's survey of arthropods in the Land Between the Lakes national recreation area of western Kentucky and Tennessee. Subsequent tabulations of other insect specimens have been completed and the richness of medically important species in Malaise collections deserves the attention of medical entomologists.

From April to October 1964, six Malaise traps as described by Townes (1962) were operated at 14 sites as shown in Figure 1. They were placed in habitats favorable to day-flying insects and primarily for the

purpose of trapping tabanids, muscoid flies, wasps, and bees. The results of the survey, of interest to the medical entomologist, are listed below.

RESULTS. A total of 291 Malaise trap collections yielded 2,294 venomous wasps and bees; 1,973 mosquitoes (27 species); 7,057 tabanids, including 9 species of deer flies (*Chrysops*) and 29 species of horse flies in four genera (*Tabanus*, *Hamatobanus*, *Hybomitra*, and *Leucotabanus*); and 8,500 muscoid flies, including 877 *Stomoxys calcitrans*, 6,917 sarcophagids, and 697 calliphorids. In addition, large numbers of anthomyiids (2,938) and tachinids (7,946) were collected.

The potential use of the Malaise trap as a survey tool is shown by a review of its performance in retrospect. For example, an outbreak of *Stomoxys calcitrans* occurred during the period and was observed firsthand. Later, counts of these

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