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A NEW GENUS AND SPECIES OF MOSQUITO FROM COLOMBIA, *GALINDOMYIA LEEI* (DIPTERA, CULICIDAE, CULICINI)[1]

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Abstract: **GALINDOMYIA,** monobasic for **leei,** a crab hole breeding species of mosquito, is described from Colombia.

Many thousands of mosquitoes were collected in the Río Raposo study area on the Pacific Coast of Colombia in the course of arbovirus studies by the Virus Section of the Faculty of Medicine of the Universidad del Valle. The Río Raposo is a small river which empties into the Pacific Ocean at a point about 40 km S of Buenaventura at 3°40' N latitude and 75°5' W longitude. Near the confluence of the river with the ocean there is a belt of mangrove swamp, upstream from which there is a transitional zone of brackish-fresh water swamp forest that gradually merges landward with the rain forest vegetation on the slopes of the Western Cordillera of the Andes. A general description of the Colombian Pacific Coast is given by West (1957), and a more detailed account of the ecology of the Río Raposo area appears in Lee & Barreto (1968). In 1965 Dr Vernon H. Lee made several collections of mosquitoes from crab holes at the mouth of the Río Raposo. These included *Deinocerites dyari* Belkin & Hogue and a second species which was recognized by Dr Barreto and Dr Lee as having unusual morphological features. Samples of this material were referred to Dr Stone for his opinion.

The specimens bore some resemblance to *Deinocerites* and some to *Culex*, subgenus *Aedinus*, but further examination showed that these resemblances were superficial and that the species could not properly be placed in any described genus. Later, Dr Pedro Galindo of the Gorgas Memorial Laboratory and Major Bruce Eldridge of the Office of the Interoceanic Canal Studies collected further adults at Curiche, on the Pacific coast of Colombia near the Panama border, at 7°0' N latitude and 77°38' W longitude about 350 km N of the Raposo locality. Dr Galindo very generously relinquished his claim to the species and assisted us extensively in preliminary taxonomic studies. We take pleasure in dedicating the genus to him and the species to Dr Lee who made the first collections.

Inasmuch as only 1 species is known, it is difficult to determine what characters have generic importance. For this reason we make the generic description more detailed than may prove to be appropriate if other species are discovered, and we confine the species description primarily to color characters. In the description of the male terminalia we use the terms basimere and telomere for what have often been termed sidepiece and clasper or basistyle and dististyle, respectively, and we use the term flagellomere for a single section of the 3rd antennal segment. In describing the male terminalia it is presumed that the rotation takes place between the 7th and 8th segments, and in order to avoid confusion we orient the structures by reference to the morphological terga and sterna rather than by the less precise terms dorsal and ventral.

Galindomyia Stone and Barreto, **n. gen.**

ADULT (both sexes except as noted). *Head:* Eyes contiguous; vertex with broad recumbent scales, a few narrow erect ones on occiput; torus moderate in size with a few fine setae but no scales; flagellum long and slender, reaching well beyond end of proboscis; in ♀, flagellomere 1 about 8 × as long as wide, 2 about 3/5 length of 1, 3–12 very gradually shortened, and 13 subequal to 1; in ♂, 1 about 9 × as long as wide, 2–4 subequal to 1; 5–7 progressively shorter, 8–12 subequal, about 3/4 length of 1; 13 subequal to 1; flagellar whorls basal, of 4 or 5 long setae; clypeus bare; palpus short, 3-segmented, segment 3 about 2 × length of either 1 or 2; proboscis reaching nearly to apex of fore femur, somewhat widened in distal 1/3.

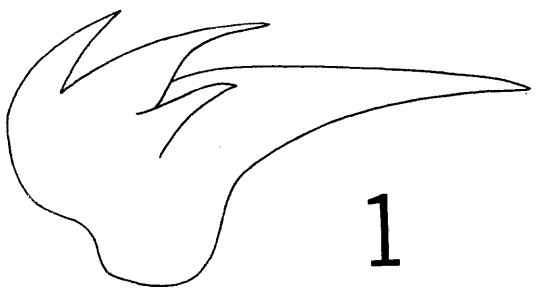

FIG. 1. *Galindomyia leei* n. sp. Inner fore claw of ♂, mesal view. Drawn by Alan Stone.

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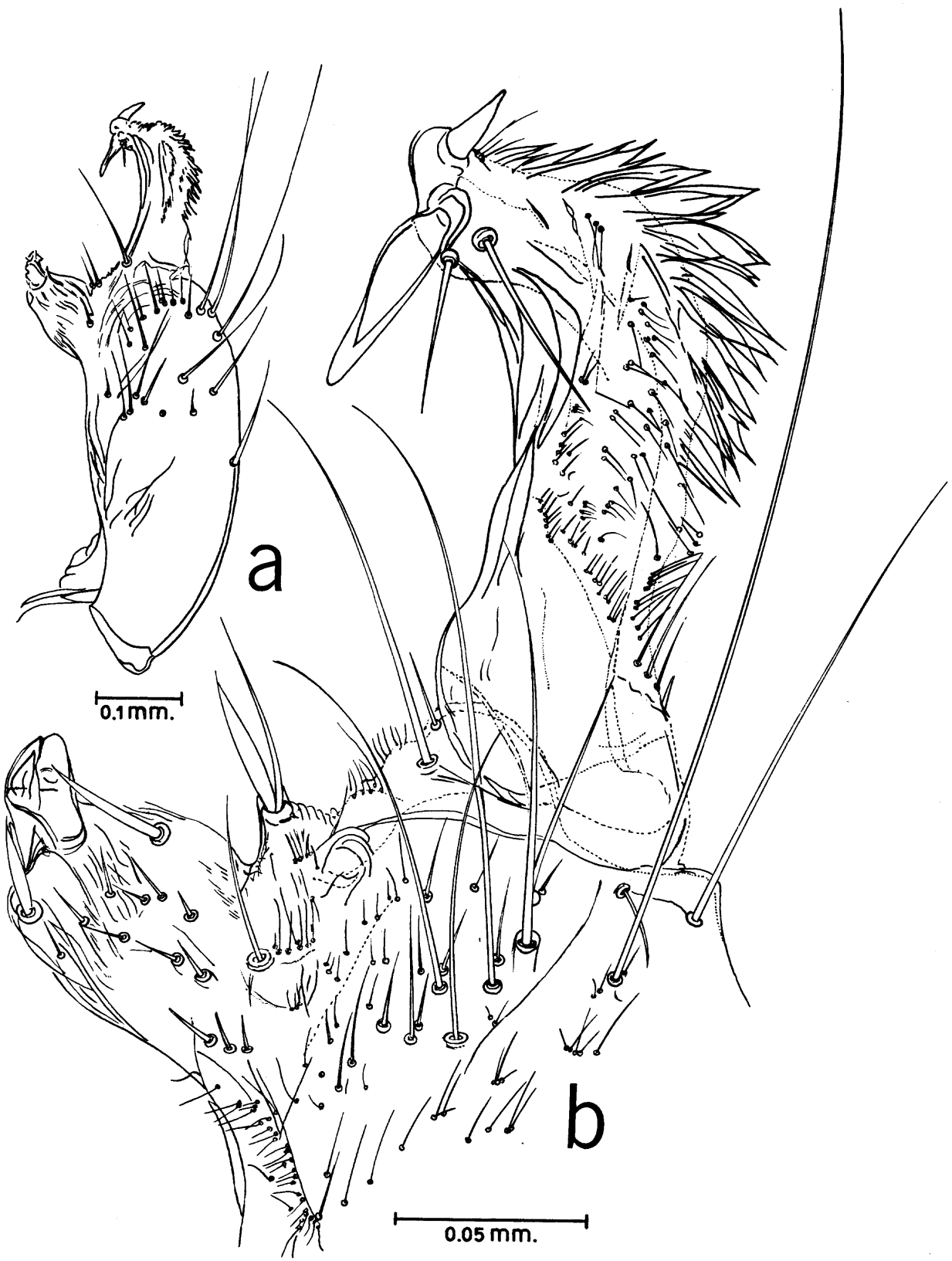

FIG. 2. *Galindomyia leei* n. sp. (a) Paramere, ♂; (b) Telomere and distal portion of basimere, enlarged, ♂. Drawn by Pablo Barreto and Nohemy Vargas.

FIG. 3. *Galindomyia leei* n. sp. (a) Mesosome; (b) Tergum IX and sternum X, ♂. Drawn by Pablo Barreto and Nohemy Vargas.

Thorax: Mesonotum clothed with narrow curved scales; no acrostichal setae except at extreme anterior margin; dorsocentral bristles abundant, long and strong; scutellum clothed with broad, recumbent scales; anterior pronotum heavily bristled, without scales; posterior pronotum with at most a few scales dorsally, but with a strong row of bristles posteriorly; spiracular and postspiracular setae absent; paratergite without scales; pleural scales confined to sternopleuron; a strong row of bristles posteriorly on sternopleuron, a small patch of bristles on upper mesepimeron and 1 lower mesepimeral bristle; top of hind coxa well below top of meron; metameron bare; postnotum occasionally with a small tuft of setae near midline posteriorly. *Wing:* Cell R_2 distinctly longer than vein R_{2+3}; vein 6 ending well beyond fork of vein 5; anterior crossvein well distad of posterior crossvein; membrane with distinct microtrichia; plume scales narrow; alula with narrow marginal scales; squama with a few marginal setae. *Legs:* Of normal size and proportions; claws all simple, except inner fore claw of male, those of hind leg rather small; empodium well developed, hairy; inner fore claw of ♂ quadridentate, the main claw with 3 strong teeth on dorsal, convex surfaces, and a small accessory tooth laterally (FIG. 1). Abdomen fully covered with broad, appressed scales.

Terminalia:

♀. Tergum IX a narrow transverse band: cercus reaching little beyond postgenital lobe, blunt apically; postgenital lobe short, truncate, with 2 pr of long setae near apex, 1 pr anterior to the other, and several other setae more basad; sternum VIII large, truncate posteriorly, bearing rather short heavy setae; 3 large subequal spermathecae.

♂. (FIG. 2, 3) Apex of abdomen widened both transversely and vertically; tergum VII deeply concave both anteriorly and posteriorly; sternum VII large; tergum VIII very large, broadly rounded apically, forming a bowl in which the terminalia lie; in profile the lower (morphologically dorsal) surface distinctly concave; sternum VIII with posterior margin nearly straight; tergum IX very narrow with low, rounded, setose lobes; sternum IX convex anteriorly and posteriorly, tapering laterally; basimere in normal position extending about halfway beyond sternum VIII; basimere nearly 2 × as long as greatest width with a stout subapical lobe directed tergally and bearing 2 very short, stout appendages, 1 tapering to a blunt point, the other truncate, broader at apex than at base; between subapical lobe and base of telomere a low rounded lobe bearing a stout and a slender seta; telomere very stout basally, curved tergally, and tapering distally with many heavy spines on the convexity pointing basad; extreme tip curved upward in a short acute tubercle and just before this a pale very stout spine, tapering near apex; mesosome with dorsal arm simple, slender, acutely pointed, heavily sclerotized; 2 sternal arms, the more tergad one shorter than the tergal arm, rather stout and blunt, less sclerotized; sternad of this a very weakly sclerotized arm, curving inward and bearing numerous setae; sternum X bearing a closely set row of blunt parallel teeth; basal piece stout with an inner angle and an outer projection curving distad.

Galindomyia leei Stone and Barreto, **n. sp.**

Morphological characters as given for genus. *Color:* Scutum, postnotum, abdomen, and legs mostly dark brown. Flat scales of head, scutellum, patches at anterolateral margins of terga, and venter paler. Pleura, coxae, hind femur on basal 1/3, and tergum VIII of ♂ pale yellowish brown. Halter stem nearly white, the scales of knob dark brown.

Material examined: From Río Raposo area, S of Buenaventura, Department of Valle, Colombia: 5♂, 4♀, VL-41, 30.III, in mangrove below mouth of Río Raposo, sweeping adults as they flew from crab holes when disturbed. 3♂, 8♀, VL-46, 31.III, same site as VL-41. 1♀, VL-49, 31.III, inland from site VL-41. 2♂, 1♀, VL-69, 17.VIII ex crab holes in mangrove, same site as VL-41. 8♂, 8♀, VL-70, 17.VIII, ex crab holes in mangrove and mixed vegetation, SW of mouth of Río Raposo.

1♀, VL-71, 17.VIII, ex crab holes in brackish-freshwater swamp, NW of mouth of Río Raposo. 2♂, VL-72, 19.VIII, ex crab holes in same type of environment. All collections were made by Dr Vernon H. Lee in 1965. (Terminalia of all of the ♂♂ dissected and mounted, either on whole slides, or on partial slides pinned with the adult specimens).

From Curiche, Department of Chocó, Colombia: 10♂, 9.VII.1965. 1♂, 25.VII.1967, on slide GML-03823.

Holotype ♂: VL-70-a (see data above). Illustrated (FIG. 1–3).

Allotype ♀: VL-70-m (see data above).

Paratypes: 30♂, 21♀ selected from above material.

Holotype, allotype, and 18 paratypes (USNM No. 70209).

Remaining paratypes deposited at the Gorgas Memorial Laboratory, the Departmento de Medicina Preventiva y Salud Pública, Universidad del Valle, and the British Museum.

Comparative notes: This genus is related to both the genus *Deinocerites* and the *Culex* subgenus *Aedinus*, but has striking differences from both. The fore claw of the male is unlike that found in any member of the family. In other genera, where the flagellomeres are elongate and similar in both sexes, the terminal one is much shorter than the first one. The male differs also from *Deinocerites* in lacking the large lobe of tergum IX and in having an elongate subapical lobe on the basimere and in having an upturned apical point and a much more weakly sclerotized appendage at the end of the telomere. The telomere superficially resembles that in *Culex* (*Melanoconion*), but in all *Culex* the mesosomal plate has a long articulated basal process not found in *Galindomyia*.

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