A CONTRIBUTION TOWARDS THE TAXONOMY OF THE DELPHACIDÆ.

BY F. MUIR.

Hawaiian Sugar Planters' Experiment Station, Honolulu, T.H.

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Three New Genera.

Lanaphora, gen. nov.

Head narrower than thorax; vertex quadrate, the base as broad as the length, apex half the base, a small carina along base and apex; face narrow, sides straight, apex about twice the width of base, a small simple carina down middle; the lateral carinæ of vertex and face developed into deep keels, diminishing in size towards the apex of face; clypeus nearly as long as face, tricarinate. Antennæ longer than face and clypeus together, joints subequal in length, arista apical and long; first joint narrow, slightly flattened, second joint terete with distinct sense organs surrounded with minute hairs; eyes wide with deep antennal emargination on lower edge. Pronotum very slightly emarginate posteriorly, tricarinate, lateral carinæ straight or very slightly convergingly curved, reaching hind margin. Mesonotum tricarinate. First joint of hind tarsus equal to the other two together, spur cultrate, thick, inner surface concave, a minute tooth at apex; no teeth on hind margin, only minute fine hairs; one basal and one median spine on hind tibiæ, five small apical spines. Tegmina pointed at apex, radia not touching media, a short radial cross-vein present, median with two sectors, cubitus touching radia at base of first sector.

This genus differs from *Purohita* in the subequal joints of the antennæ, the basal one of which is not foliaceous, and the lateral carinæ of the face being deeper. If we disregard the spur it comes, along with *Purohita*, next to *Sparnia*.

Type—L. bakeri.

Lanaphora bakeri, sp. n.

Light yellow or yellowish white, darker on face, clypeus, coxæ and basal portion of abdominal segments; some darker brown spots on lateral keels of vertex and face, antennæ, especially a ring at base of second joint, and two small irregular rings on tibiæ; October, 1915.

slightly darker between carinæ of pro- and mesonotum. Tegmina hyaline, veins white speckled with brown dots, six irregular light brown spots in basal half, one at end of clavus, one at base of media, one at middle of costa, one at middle of radia and two in median cells; a broad brown mark from end of clavus across tegmina to near costal margin, and along hind margin to near end of cubitus, along second median cell to apex and from end of costal cell to end of radia; wings hyaline with white veins.

Pygophor round, a small pointed process on medio-ventral edge, lateral edges subangularly produced; anal segment a little longer than broad, tubular with anus situate within apex; styles reaching end of anal segment, narrow, flattened, straight on ventral (inner) edge, slightly sinuous on dorsal (outer) edge, narrowing to near apex, where it broadens out and bends at right angle to main part, apex truncate.

♀ Anal segment shorter than in male, anal style narrowly lanceolate.

Length 2.5 mm.; tegmen 4.3 mm.*

Hab.—Mount Maquilin, living at base of leaf-sheath of bamboos among a white, flocculent secretion. Prof. C. F. Baker called my attention to this and the following species when at Los Banos. (Baker and Muir, February.)

Bambucibatus, gen. nov.

Head narrower than thorax base as wide as length, apex much narrower than base, truncate or but slightly curved, lateral carinæ large, an exceedingly obscure medio-longitudinal carina; length of face more than double the width, base slightly narrower than apex, the simple median and lateral carinæ well developed, clypeus tricarinate; antennæ a little longer than face, joints subequal in length, first broad, flattened narrow at base, wide at apex, subtriangular, a keel down middle, second terete, thick.

Pronotum roundly and shallowly emarginate posteriorly, tricarinate, lateral carinæ straight or slightly convergingly curved, distinctly reaching hind margin; mesonotum tricarinate. Hind tibiæ with one basal, one median and five small apical spines;

^{*}Measurements are from apex of vertex to anus and from base to apex of one tegmen.

spur cultrate, solid, convex on inner surface, a small apical tooth but no teeth on hind margin. Tegmina narrowly rounded at apex, media straight, not bent to touch radia, radial cross-vein present, first median sector bent, touching cubitus.

This genus comes next to Sagotopsis, but differs in having the first segment of antennæ flattened and triangular. If we disregard the nature of the spur it comes near Perkinsiella and Sago opsis near Sparnia.

Type—B. albolineatus.

Bambucibatus albolineatus, sp. n.

- abdomen darker. A white or light yellow median line from apex of vertex to end of mesonotum, bordered on each side with dark brown or black; antennæ darker brown. Tegmina brown with colourless patches, a large colourless patch in middle of costal cell, a large one at end of clavus extending to media, three from end of costal cell to second median sector, a small one at end of radia; wings hyaline with brown veins. Pygophor laterally compressed, long on ventral surface shortening to the very short dorsal surface, two small spines on medio-ventral edge; anal segment short, tubular, anus in apex; styles very short and narrow, widest at base, slender in middle and narrowly spatulate at apex.
- Q Anal segment very short, tubular, anus in apex, anal style spatulate, short, broad.

Length 2.5 mm.; tegmen 3 mm.

Hab.—Singapore, under the leaf-sheaths of bamboo. (Muir, February.)

Several specimens contain Stylops puparia.

Arcofacies, gen. nov.

Vertex at base broader than length, apex narrower than base, truncate with outline broken by facial carina, lateral edges distinctly keeled, no medio-longitudinal carina or exceedingly faint; length of face more than twice the breadth, sides very slightly arcuate, tricarinate, carina deep, especially the median carina at apex; in profile vertex and face at right angles; clypeus strongly curved, at right angles to face, tricarinate; diagonal carina on gena distinct.

Antennæ as long as face, terete, first joint more than half the length of second. Hind margin of pronotum shallowly and roundly emarginate, tricarinate, lateral carinæ convergingly curved, meeting hind margin; mesonotum long, tricarinate. Hind tibiæ only slightly longer than tarsi, one basal, one median and five apical spines; spur cultrate, thick, convex on inner surface, apex with tooth, hind edge without teeth. Tegmina at rest tectiform, sub-acinacicate, radia not quite touching media, a short radial cross-vein below first median sector, cubitus touching first median sector near base, then bent at right angle.

Type—A. fullawayi.

This genus comes near to *Tropidocephala*, especially to such forms as *neoamboinensis*, but its quadrate vertex, long antennæ and tectiform tegmina at once distinguish it.

Arcofacies fullawayi, sp. n.

A Light green or yellowish, a white median line from apex of face to end of mesonotum bordered with black, antennæ indistinctly ringed with dark brown, a light band bordered with brown across the lateral portions of pronotum, pygophor and apex of abdomen brown; tegmina light brown over basal third, rest hyaline broadly marked with black, the markings extending from hind margin over middle of cubitus, base of first median sector, radial cross-vein, along radia and subcosta to costal margin, and over media and second median sector to apex; in the dark portion the veins bear white spots, a series of black spots along cubitus, semi-hyaline mark along inner margin of clavus; apical edge of tegmen sinuous; wings hyaline with brown veins.

Pygophor slightly compressed, ovate, a small rounded projection on lower edges of sides, anal segment short, anus at apex, below anus roundly emarginate with rounded corners projecting, but no spines; styles long, reaching to anal segment, base broadest and flattened, tapering to fine apex which is slightly curved and flattened.

Q Styles (ovipositor sheath) compressed laterally above base. Length 2.5 mm.; tegmen 3 mm.

Hab.—Manila (D. T. Fullaway, March; Muir, February).



Muir, F. 1915. "A contribution towards the taxonomy of the Delphacidae." *The Canadian entomologist* 47, 317–320.

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