In the male of *Lauella* the last dorsal segment is broadly and triangularly impressed. In the female seven abdominal segments are visible from above.

Genotype.—*Lauella vitiensis* sp. nov.

***Lauella vitiensis* sp. nov.**

Length 2.50–2.75 mm. (Fig. 1.)

Dark brown, border of abdomen and appendages paler. Head, pronotum and elytra strongly shining, abdomen moderately so. Head, thorax and elytra sparsely and finely punctate; hairs widely separated, long and erect. Abdomen above densely, though superficially punctate; with a covering of fine, short and silky recumbent hairs, most sparse on the dorsum, and a series of long hairs which are suberect on the margins and nearly recumbent on the middle of dorsum.

Head less than half as broad as pronotum. Pronotum about one and one-half times as broad as long, broadest behind, sides little convex. Elytra together twice as broad as long, broadest in front, sides nearly straight, posterior border straight. Abdomen gradually tapering, a little longer than the anterior part of the body.

Described from several specimens taken at Vunisea, Kadavu (type locality); Waquava and Tuvuca, in the Fiji Islands.

The accompanying drawing of the under side of the head and the terminology of the same were kindly prepared by Dr. A. Böving.

NEW DIPTERA FROM TEXAS AND MEXICO.

By CHARLES W. JOHNSON,

Boston Society of Natural History.

***Lepidostola perpolita* sp. nov.**

Male. Black, face shining, nearly perpendicular, with a slight middle convexity, sides of the face depressed, the depressions and orbits yellowish pruinose, inferior orbit yellow, frontal triangle shining, the upper angle yellow, in a certain light, a narrow orbital line is seen, expanding and forming a spot on each side, narrowly

separated from the facial depression, vertical triangle prominent, projecting far above the eyes, occiput shining, antennæ yellow, longer than the face, the first joint longer than the first and second together. Thorax black, with a wide band of bright yellow scale-like tomentum between the shining humeri, a wide arcuate band of the same yellow tomentum in front of the scutellum, between the two bands some scattering yellow scales, pleura and scutellum shining, the latter very prominent, conical and slightly pubescent. Abdomen shining, the first and second segments thinly covered with yellowish hairs. Legs black, shining, bases of all the femora and the tarsi (except the last three joints of the front and the last two on the middle and hind tarsi), yellow. Halteres yellow. Wings yellowish hyaline, the veins, stigma and outer third of the wing slightly darker. Squamæ margined with brown, the lower one fringed with long yellow hairs and the upper one with shorter brown hairs. Length 6 mm.

One specimen, Mexico.

***Spilomyia texana* sp. nov.**

Female. Front and face light yellow with a slight brownish facial stripe and a spot on the inferior orbits; vertex and occiput black, and densely pruinose; antennæ yellow. Thorax black, marked with yellow. The humeri fused with large quadrate spots, occupying about two-thirds of the pronotum, leaving a wide black dorsal and transverse band of equal width, the presutural and post-alar callosities yellow, from the latter extend arcuate markings, the ends of which are separated at the suture by the width of the dorsal line of black, a large triangle in front of the scutellum, pleura with spots above the front and middle coxæ, and a large median spot in front of the wing, a large spot is also present on each side of the metanotum, scutellum entirely yellow. Abdomen yellow, the extreme bases of the first to fourth segments black, the median interrupted bands on the second to fourth segments and occupying slightly oblique depressions, are brown, not black. Ventral segments brownish black, margined with yellow. Legs, including the coxæ, yellow, except the outer half of the front tibiæ and all the front tarsi, which are black. Halteres yellow. Anterior of the wing, as far as the fourth vein, clouded with brown, fifth vein widely margined with brown. Length 18 mm.

Round Mountain, Blanco Co., Texas. Allied to *S. hamifera* Loew, and previously looked upon as a variation, but having so many distinguishing characters that it seems worthy of a specific name.

***Xylota nebulosa* sp. nov.**

Male. Face yellow, front brownish, covered with a yellowish pubescence, cheeks brown, vertical triangle and occiput black, shining, antennæ and aristæ black, the third joint round. Thorax bronze black, the humeri whitish pollinose, pleura and scutellum black, somewhat shining. Abdomen black, the first segment shining, the second with two large yellow spots narrowly divided by dorsal line, expanding posteriorly into a large triangle, base margined with black which does not reach the lateral margin, third segment opaque, the side shining, fourth segment metallic green, covered with a yellow tomentum that is longer towards the posterior margin, fifth segment shining black. Venter brownish black, the second segment entirely yellow. Femora and coxæ black, tibiæ and tarsi yellow, the last two joints of the front and middle, and the last three joints of the hind tarsi, blackish, middle of the tibia brown. Halteres yellow. The outer half of the wing clouded with dark brown, base hyaline. Length 9 mm.

One specimen, Texas.

This resembles somewhat the figure and description of *X. paucilla* Will., but the rounded, not elongated, third antennal joint, the less coarctate abdomen and the more heavily clouded wings, readily distinguish this species.

***Epiplatea dohaniani* sp. nov.**

Male. Front brown, opaque, sparsely covered with short black hairs, the entire orbital margins whitish, face yellow, cheeks brown and about two-thirds the height of the eye, occiput brown, covered with short black hairs and whitish pruinose, sharply defined at the cheeks, antennæ yellow, arista dark brown, base yellow. Thorax dark brown with short black hair, macrochaetæ as in the genotype

(*E. erosa* Loew), pleura whitish pruinose, scutellum and abdomen dark brown, the fourth and fifth segments blackish. Halteres white. Legs light brown. Wings grayish hyaline with the tip beyond the outer cross-band whitish, the inner edge of this band poorly defined, the middle band extending from the costa (between the ends of the first and second veins), across the posterior cross-vein to the tip of the fifth vein, the inner band extending from the end of the auxiliary across the base of the discal cell to the tip of the anal vein, base of the wing yellow. Length 5 mm.

One specimen, collected by Mr. S. M. Dohanian, at Kelley Field, near San Antonio, Texas, April 27, 1918.

***Stegana barretti* sp. nov.**

Female. Face whitish, cheeks brown, shining, front brownish black, opaque, antennæ brown. Thorax, scutellum and abdomen bluish black, shining, sparsely covered with fine black hairs, humeri and a large spot on the pleura below the base of the wing, snow white. Femora and tibiæ black, tarsi yellow. Halteres yellow. Wings hyaline, with a slight yellow tinge. Length 3.5 mm.

Collected at Amecameca, Mexico, Sept., 1900, by Mr. O. W. Barrett.

A SYMBIOTIC ORGANISM IN FULGORIDS.

BY F. MUIR,

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

When working on the natural enemies of the delphacid, *Perkinsiella saccharicida*, in Australia, in the latter part of 1919, I found that about eighty per cent of the eggs of this insect in the field were destroyed, and a fungus always present. At first I took the fungus to be the cause of the destruction of the eggs, but upon further investigation, I found that this was not so, and that these eggs were all punctured and their contents sucked up by a Mirid, *Cyrtorhinus mundulus* (Bred.).

Further observations revealed the fact that the young, adults