

SOME NEW SPECIES OF PLATYGASTERIDAE FROM
BRAZIL. (HYMENOPTERA).

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The following eight species of Platygasteridae were reared from Brazilian gall insects by Prof. J. Rick and J. Bruggmann, and sent to me by Mr. C. R. Crosby of Cornell University for study and description of new forms. Those Galls of Brazil have been studied by the Professor J. S. Tavares in *Brotéria* (Zoological Series, vol. VIII, 1909) with the title of *Contributio prima ad cognitionem cecidologiae Braziliae*, cum octo tabulis (p. 4-29). Every species included in the lot proved to be undescribed, but this is not surprising since these smaller parasitic Hymenoptera have been hitherto neglected almost entirely outside of Europe and North America. All appear to be referable to previously known genera although several present rather striking peculiarities.

Xestonotus meridionalis sp. nov.

Female. Length 2^{mm}. Black, antennal scape and pedicel and legs, including coxae except tips of hind femora and tibiae, reddish or ferruginous. Head transverse, somewhat more than twice as wide as thick. Vertex and occiput smooth and shining, separated by a distinct raised line. Ocelli in a triangle, the lateral ones slightly nearer to the eye-margin than to the median ocellus. Face smooth. Eyes bare, more than twice as long as the cheeks. Antennae 10-jointed; scape reaching to the ocelli; pedicel moderately short, twice as long as thick; first and second flagellar joints subequal, as long but stouter than the pedicel; third small, quadrate or somewhat narrowed basally; club 5-jointed, quite slender, its first four joints quadrate, the apical one nearly twice as long. Mesonotum elongate, shining, thinly pilose behind, with two deep convergent furrows. Scutellum at the tip armed with a blunt tooth

or sharply elevated protuberance which is densely velvety, yellowish pubescent. Mesopleura smooth. Metapleura thickly pilose. Metathorax short, concealed from above by the projecting scutellar protuberance, above with two well separated carinae. Abdomen as long as the head and thorax together, gradually widening to near the tip of the second segment. First segment as wide as long, fluted; second segment scarcely longer than the following together, with a large oblong depression on each side at the base; these foveae sparsely pilose. Following segments all of about equal length and gradually narrowed to the rounded tip of the abdomen; the apical ones becoming finely punctulate. Tips of hind femora and tibiae more or less infuscated. Wings with a distinct brownish cast.

Numerous specimens, parasites of unknown flies which produce galls in the branches of the *Acnistus* sp. (Cfr. Tavares l. c. n.º 35, Tab. VII, fig. 1, 2, 11, 22; Tab. VIII, fig. 18); and of *Cestrum* sp. (ibid. Tab. III, fig. 1, 2; Tab. IV, fig. 19, 20).

This species appears to be more closely related to *Xestonotus* than to any other described genus, although the form of the scutellum is somewhat different.

***Amblyaspis brasiliensis* sp. nov.**

Female. Length 2^{mm}. Black, the scape of the antennae and the legs, except coxae and thickened part of the hind femora and tibiae, ferruginous. Wings distinctly tinged with reddish brown. Head about twice as wide as thick, narrowed behind: margined behind on the occiput and cheeks and also above on the vertex with a distinct raised line. Ocelli large, in a curved line, the lateral ones removed from the eye-margin by their own diameter. Eyes bare. Surface of head minutely granulate or shagreened. Antennae 10-jointed, with a four jointed club. Scape very stout and somewhat flattened, lanceolate, fully one-fourth as broad as long and two-thirds as long as the flagellum; pedicel slender, two and one-half times as long as thick; first flagellar joint small, shorter and more slender than either the second or third, fourth minute; club-joints about equal, except the last which is longer; the second and third slightly transverse. Thorax long and narrow; me-

sonotum smooth, without furrows; scutellum produced triangularly into a sharp horizontal thorn at the tip, the sides of its base with a large depressed area bounded by a raised lateral margin, its surface and the thorn closely punctulate, the depressions pubescent; in profile it is quite regularly convex including the thorn. Metanotum short, pubescent near the hind coxae, with carinate lateral margins. Mesopleura smooth and shining. Abdomen as long as the head and thorax united acute at the tip; first segment about quadrate, pubescent, second somewhat longer than all the following combined, broadest just beyond its middle; third to fifth slightly lengthened, sixth triangular, as long as the fourth and fifth together. Legs clavate, ferruginous, the thickened parts of the hind femora piceous or blackened. Wings veinless, pubescent, with a distinct brownish cast.

Described from one specimen, a parasite of an unknown fly which produces galls in the branches of *Justicia* sp. Cfr. Tavares l. c. n.º 1, Tab. iv, fig. 13, 14, 15.

This species approaches *A. nigricornis* Ashm. from St. Vincent, but differs in color, infuscated wings, and form of the abdominal petiole.

Amblyaspis bisecta sp. nov.

Entirely black, the wings hyaline, and the bases of the tibiae fuscous. Head strongly transverse, twice as broad as thick and wider than the thorax; vertex separated from the occiput by a very distinct raised line; lateral ocelli equidistant from the median ocellus and the eye-margin. Eyes bare. Antennae of the female 10-jointed, with a stout 4-jointed, club as long as the scape; scape nearly attaining the vertex, thickened apically and as long as the funicle; pedicel, first, and third flagellar joints short, second very long and slender. Mesonotum without furrows, with a convex central elevation at the apex, depressed and pubescent on the sides at the apex. Scutellum produced into a moderately long, acute tooth, its dorsal surface as high as that of the tip of the mesonotum, but the two are separated by a transverse depression. Surface of head and thorax subopaque, faintly punctulate; mesopleura opaque, en-

tirely smooth. Metapleura smooth, opaque, pubescent posteriorly. Sides of post scutellum rugose. Abdomen nearly sessile, elongate-ovate, about one-fifth longer than the head and thorax combined. First segment very short, thickly wooly; body of abdomen polished and impunctate; second segment twice as long as the remaining ones taken together, on each side near the base with a longitudinal depression or fovea which extends for nearly one-half its length; third, fourth and fifth segments very short, but gradually growing longer; sixth twice as long and acutely, pointed. Legs stout, the femora short and thick, especially the posterior pair which are very strongly clavate and not over two-thirds the length of the much more slender, clavate tibia; tibial spurs minute; hind tarsi a trifle longer than their tibiae. Wings veinless, hyaline.

One specimen, a parasite living on an undescribed gall.

This species in the form of the scutellum approaches the following species with which it is evidently congeneric; whether the excavated scutellum is indicative of a generic difference between both and typical forms of *Amblyaspis* I should not like to say on the basis of so little material.

Amblyaspis excavata sp. nov.

Female. Length 1.75^{mm}. Black, except the tip of the mesonotum which is fusco-testaceous; legs in great part ferruginous; scape of antennae also ferruginous. Head wide, about two and one-half times as broad as thick. Vertex sharp, faintly carinate. Ocelli in a curved line, equidistant from each other and from the eye-margin. Eyes bare, about twice as long as the cheeks; occiput finely punctulate or shagreened; face and front finely shagreened. Antennae 10-jointed; scape reaching to the vertex, oblanceolate, considerably thickened; pedicel long, equal to the first flagellar joint; funicle very slender, second joint much elongated, nearly twice as long as the first; third short, but slender; fourth still shorter and wider; club composed of four joints, the first three of which are about equal, each a little longer than thick; apical joint one-half longer. Mesonotum shining, very faintly shagreened, with

no parapsidal furrows; at its tip it is polished and produced into a median testaceous lobe in the form of a projecting process which is convex above and rounded at the tip, separated from the pyramidally elevated scutellum by a deep transverse notch; tip of scutellum prolonged posteriorly to form a tooth or short spine, but truncate above at the height of the mesonotum. Pleurae smooth and polished; metathorax thinly pilose, especially on the sides posteriorly. Abdomen as long as the head and thorax together, the first segment densely whitish wooly, second segment polished, its extreme tip and the following segments minutely roughened, about two and one-half times as long as the following together; third, fourth and fifth extremely short; sixth one-half longer than these three together, conically pointed. Legs moderately stout, all tibiae and femora clavate; rufo-ferruginous except coxae, with the four posterior femora darkened. Wings sub-hyaline, quite distinctly tinged with brown.

One specimen, a parasite of an unknown fly which produces galls in the branches of *Chuquiragua tomentosa* Bak. (Cfr. Tavares l. c. n.º 7, Tab. iv, fig. 4, 5, 6).

***Polygnotus coronatus* sp. nov.**

Female. Length 1,25^{mm}. Black, the base and tip of the antennal scape, and the legs almost entirely honey yellow. Head barely over twice as broad as thick anteroposteriorly, the occiput transversely aciculated, the striae extending downward behind the eyes. Front from the ocelli to near the insertion of the antennae smooth and highly polished; just above the antennae transversely aciculate, with the striations extending laterally on to the cheeks. Lateral ocelli as far from the median ocellus as from the eye margin. Eyes bare. Antennae 10-jointed; scape distinctly clavate, but only slightly curved; pedicel oval, about as long as the second flagellar joint; first flagellar about one-third the length of the second, small, globular; following about equal, shorter than the second; club stout, five-jointed, the joints except the last nearly quadrate and about three times as broad as the pedicel. Thorax oval, the mesonotum smooth and highly polished except for a fine shagreen-

ed sculpture near the anterior margin. Parapsidal furrows fine but distinct on the posterior half of the mesonotum. Scutellum separated by a deep depression, its surface pubescent; the apex very sharply truncated, the truncation furnished with a cirlet of six to ten very fine spinelets or teeth, placed in a series of three to five on each side. Pleurae slightly shagreened on the prothorax; mesopleurae shining, smooth; metapleurae whitish pubescent. Metanotum with a long, deep and broad median groove margined by two strong carinae. Petiole of abdomen fluted; second segment fluted across the entire base for a distance less than one-half the length of the petiole; along its lateral margins finely longitudinally aciculated for two-thirds its length. Legs, except coxae, honey yellow or brownish yellow, most of the middle and posterior femora and the tips of their tibiae more or less piceous wings pure hyaline.

Described from numerous specimens, parasites of *Asphondylia* sp. which produces galls in the branches of *Mikania Guaco* H. B. K. Cfr. Tavares l. c. n.º 9, Tab. III, fig. 10.

This species is easily recognized by the peculiar truncated scutellum which is margined with fine denticles. I cannot recall a similarly formed scutellum in any member of the family, but I hardly think the character could be considered of generic or subgeneric value.

***Polygnotus caninifrons* sp. nov.**

Female. Length 1,5^{mm}. Black except the basal part of the scape, pedicel, anterior legs, trochanters and bases of four posterior tibiae which are brownish yellow. Head broad, but only slightly wider than the thorax, a little more than two times as wide as thick anteroposteriorly. Occiput irregularly aciculated; vertex transversely so; face below the ocelli nearly smooth. Antennae slender, 10-jointed, the scape strongly bent and quite distinctly clavate apically; pedicel long, oval, nearly as long as the very small first flagellar joint and the second together; second flagellar distinctly longer than the third; fourth, fifth and following about equal, not or scarcely thickened; last considerably longer. Ocelli

rather closely placed, the lateral ones a little closer to the median ocellus than to the eye-margin. Vertex on each side with a strong carina which arises near the lateral ocellus, curves forward and laterally, comes close to the eye-margin, and then curves inward behind toward the median line, fading away at a slight distance from the eye. Eyes bare. Thorax elongate; mesonotum shining, but shagreened, except near the posterior margins. Parapsidal furrows delicate, but distinct on the posterior half of the mesonotum, very strongly converging, close together at the base of the scutellum. Scutellum strongly depressed along the base, punctate and strongly elevated posteriorly, its tip transversely rounded. Propleurae very finely shagreened; mesopleurae very highly polished, with a fovea anteriorly below and another above; metapleurae more or less longitudinally rugose or fluted, finely pubescent. Petiole of abdomen about quadrate, finely longitudinally fluted, the striae extending for about an equal distance along the entire base of the second segment. Wings hyaline, veinless. Legs, except coxae, pale yellowish brown, except for piceous color on the base of the anterior femora and most of the middle and posterior femora and tibiae.

Described from numerous specimens, living on a gall, probably unknown, of *Ficus* sp.

The peculiar curved carinae on the vertex above the eyes will serve to easily recognize the species.

***Polygnotus latescens* sp. nov.**

Female. Length 1,2^{mm}. Black, except the knees and tarsi. Wings tinged with brownish. Head broad and thin anteroposteriorly, about two and three-fourths times as wide as thick. Vertex transversely aciculated, becoming punctulate on the occiput. Front down as far as the insertion of the antennae very shining, but still distinctly transversely aciculated. Ocelli three in a triangle, the lateral ones scarcely nearer to the eye margin than to the median one, their distance from the margin being about three times their own diameter. Antennae 10-jointed, with an unusually stout, five-jointed club; median three joints of club equal, slightly transver-

se, last scarcely longer, first moniliform and smaller; first flagellar joint very small, second and third about equal, about half the length of the pedicel; scape strongly arcuate. Mesonotum about two-thirds as wide as the head, shining and indistinctly longitudinally aciculated. Scutellum finely rugulose, depressed laterally at the base, but quite raised medially at the base. Metapleurae hairy; mesopleurae smooth and shining. Abdomen as long as the head and thorax; petiole finely fluted above; second segment at the base with two elongate foveae, coalescent at their base and giving off a series of short parallel striae from their apices. Second segment about as long as the remaining ones together; these about equal except that the last is longer. Legs piceous black, the knees and tarsi somewhat yellowish. Wings faintly tinged with brownish. Male. Similar, but with more slender antennae.

This appears to be most closely related to *P. meridionalis* Ashm. from Saint Vincent, but there is no trace of parapsidal furrows, the second flagellar joint is much shorter than the pedicel, and the lateral ocelli are farther from the eye-margin.

Parasites of galls undescribed.

Polygnotus mediocris sp. nov.

Female. Length 1^{mm}. Black, most of the legs and the scape and pedicel of the antennae brownish-red. Head scarcely broader than the thorax, barely twice as wide as thick; on the occiput and the vertex behind very finely and not very distinctly transversely aciculate. Front and vertex simple, without elevations or carinae. Lateral ocelli a little nearer to the median one than to the eye-margins. Front below the ocelli smooth and impunctate, polished. Antennae 10-jointed, very weakly clavate, pedicel large, oval, almost globose; first flagellar joint extremely minute; second as long as the pedicel; third to seventh increasing in size, moniliform, last elongated; thorax nearly round and strongly convex. Mesonotum smooth and shining, with only the slightest trace of parapsidal furrows posteriorly. Pleurae smooth and highly polished, the metapleurae very thinly white pilose posteriorly,

with a very distinct carina above. Abdomen as long as the head and thorax together; first segment about quadrate, finely longitudinally fluted; second segment smooth, except for a few fine striae basally on each side of the median line. Following segments together about as long as the second; fourth and fifth successively somewhat longer; sixth obtusely rounded at the tip. Legs brownish yellow, in some specimens slightly infuscated on the hind femora and tibiae. Wings veinless, weakly tinged with yellowish.

A large number of specimens, parasites of *Bruggmannia braziliensis* Tav. Cfr. Tavares l. c. n.° 25, Tab. vi, fig. 8, 9; Tab. vii, fig. 10; and of an unknown fly which produces galls in leaves of *Psychotria* sp. Cfr. Tavares l. c. n.° 33, Tab. v, fig. 3, 4, 5.