

NOTES AND DESCRIPTIONS OF NORTH AMERICAN  
PARASITIC HYMENOPTERA. V.

By CHARLES T. BRUES.

FAMILY BETHYLIDAE.

*Goniozus hortorum* sp. nov.

Female. Length 2.25 mm. Black; antennae, except apex, pale yellow, legs piceous, the anterior pair and all the tarsi brownish-yellow. Head sub-shining, shagreened and with scattered large punctures; one and one-half times as long as wide. Face with a median carina between the antennae that extends just above the level of the lower eye-margin, and a lateral one of the same extent on each side above the antennae. Seen from above the head is three times as long as the eyes. Eyes bare, ocelli in a small triangle near the posterior margin of the head. Antennae 12-jointed, extending only a short distance beyond the vertex; slender, with the joints submoniliform. Scape stout, two times as long as thick. First flagellar joint only one-half as long as the pedicel; which is a little longer than the second; following subequal, becoming distinctly moniliform before the tip. Mandibles varying from piceous to black. Palpi piceous, malar space very short. Pronotum and mesonotum sculptured like the head, the former evenly narrowed in front, and about two and one-half times as long as the mesonotum, the latter almost two times as wide as long. Scutellum shagreened, distinctly longer than the mesonotum and as broad as long, separated from the mesonotum by a very delicate suture and with a short oblique linear fovea on each side basally. Metanotum strongly shagreened laterally, but smooth and polished medially; the entire lateral margins and the lower edge of the posterior slope margined, but otherwise without carinae, except for a trace of one laterally at the top of the posterior edge. It is slightly longer than the mesonotum and scutellum together, with the posterior face coarsely shagreened. Abdomen oval, polished, as long or slightly longer than the head and thorax together; second and following segments broadly emarginate on their posterior margins. Legs stout but not at all spinose. Claws bifid, with a long slender inner tooth. Wings hyaline, both stigmata piceous, the stigma somewhat but only slightly larger than the parastigma. Basal nervure angularly broken, but without

any stump of a vein, its upper section one-half the length of the lower. Two basal cells defined by pale yellow nervures. Marginal cell open, the radial vein three times as long as the stigma, separated by its own length from the wing tip.

Three females bred by Prof. H. A. Surface from the larva of a microlepidopteron folding the leaf of the Apple; Floradale, Pa.: August 16, issued September 7.

As can be seen from the following table, it is most closely related to *Goniozus foreolatus* Ashmead.

NORTH AMERICAN SPECIES OF GONIOZUS.\*

1. Metanotum smooth medially, without trace of a median carina. . . . .	2
Metanotum with a delicate median carina; stump of cubital vein well developed. . . . .	<i>platynotæ</i> Ashm.
2. Head unusually large; legs piceous; tips of tibiæ and tarsi pale; stump of cubital vein very small. . . . .	<i>megacephalus</i> Ashm.
Head of normal size. . . . .	3
3. Stump of cubital vein as long as the upper section of the basal nervure; legs, except tarsi, black; wings hyaline; head without larger punctures interspersed. . . . .	<i>clarimontis</i> Kieff.
Stump of cubital vein much shorter, often scarcely developed. . . . .	4
4. Abdomen as long the the head and thorax together. . . . .	6
Abdomen shorter than the head and thorax together. . . . .	5
5. Legs including coxæ yellow. . . . .	<i>hubbardi</i> Howard.
Legs piceous, with trochanters, tibiæ and tarsi more or less yellowish. . . . .	<i>columbianus</i> Ashm.
6. Wing veins piceous or brown. . . . .	7
Wing veins testaceous or honey-yellow. . . . .	9
7. Head of female one and one-half times as long as wide, with more or less distinct scattered punctures. . . . .	8
Head of female two times as long as wide, smooth and impunctured. . . . .	<i>politus</i> Ashm.
8. Metanotum not margined laterally, parastigma as large as the stigma. . . . .	<i>longiceps</i> Kieff.
Metanotum margined laterally, stigma larger than the parastigma. . . . .	<i>occipitalis</i> Kieff.

\* Exclusive of West Indian and Mexican species, and also of those with a closed discoidal cell. These latter are more properly to be regarded as forming the Genus *Parasierola* Cameron.

9. Stump of cubital vein distinct; wings subhyaline, with black stigma and honey yellow veins.....*foveolatus* Ashm.  
 Stump of cubital vein obsolete; wings hyaline, with piceous stigma and pale yellow veins.....*hortorum* sp. nov.

***Phorbas longicornis* sp. nov.**

Male. Length 2.25 mm. Black; the anterior trochanters and all knees pale yellow; tibiae and tarsi fuscous. Wings nearly hyaline, iridescent, stigma and marginal vein fusco-piceous. Head twice as wide as thick, the occiput evenly arcuated and excavated behind. Ocelli distinctly in a triangle, the anterior one being its own diameter in front of the lateral ones. Eyes oval, pubescent. Clypeus strongly protuberant below. Mandibles pale, with black tips, palpi pale. Head everywhere finely shagreened and thinly whitish pubescent. Antennae long and slender, almost as long as the body. Scape and pedicel short, the former a little the longer, the pedicel two times as long as thick; first six flagellar joints subequal, growing gradually shorter, the first fully five or six times as long as thick. Prothorax scarcely visible from above, but attaining the tegulae on the sides. Mesonotum broad, shining, faintly shagreened, with two very fine parapsidal furrows. Scutellum large, subconvex, shining, with a cross-furrow at its base. Metathorax about one and one-half times as long as wide, obliquely truncate behind, its surface regularly and finely rugulose. Abdomen small, flattened, smooth and shining, as long and about as broad as the thorax. Wings large, stigma very narrow, obliquely truncate basally, and prolonged into a thickened postmarginal vein apically. Radial cell nearly closed. Two basal cells indicated by yellow veins. No trace of any discoidal cells, although the subdiscoidal nervure is distinct nearly to the margin of the wing. Both pairs of wings distinctly ciliated. Legs slender, pubescent, the tibiae each with a small very slender spur.

Described from one male sent me for identification by Prof. H. A. Surface of Harrisburg, Pa. It was bred by him from a cocoon thought to be that of a species of microlepidopteron collected at Saegerstown, Pa., January 30. As all members of the group are parasites of leaf-hoppers, feeding externally and later spinning their own cocoons, it is probable that the parasite's own cocoon was mistaken for that of a moth.

The present species differs from the only other described species by its long antennæ, and by the presence of a subdiscoidal vein in the wing.

I think it undoubtedly belongs to Ashmead's genus *Phorbas*, although it will not run to it in Kieffer's recent table (*Genera Insectorum Fascicle 54*, p. 12, 1907). He has placed *Phorbas* in his sub-family Dryininæ, characterized by the short pronotum which does not attain the tegulæ on the sides. Ashmead, in his diagnosis of *Pharbas*, says, "Thorax as in *Aphelopus*, but without distinct parapsidal furrows, the prothorax only slightly visible from above." In *Aphelopus* the prothorax attains the tegulæ. I think, therefore, that Kieffer has incorrectly placed the genus, and that it undoubtedly falls near *Labeo*. It seems probable to me also that Perkins' *Eukolbeia* is a synonym of *Phorbas*.

#### FAMILY SCELIONIDÆ.

##### *Macroteleia surfacei* sp. nov.

Female. Length 4.5 mm. Black; the legs more or less pale rufous. Wings hyaline. Head quadrate, slightly broader than thick. Its surface shagreened and covered with moderately thick regular large punctures. Eyes oval, bare, ocelli in a triangle, the lateral ones as far from the eye-margin as from the median ocellus. Mandibles rufous, with black teeth. Antennæ 12-jointed; the scape about one-half the length of the flagellum. Scape, pedicel and first four flagellar joints more or less rufous or brownish. Pedicel long, a trifle shorter than the first flagellar joint which is about four times as long as thick. Second, third and fourth growing shorter, the fourth slightly longer than wide. Club six-jointed, black; slender, fusiform, the joints quadrate or slightly transverse, and all of nearly equal thickness, except the apical joint, which is more slender and a little longer. Occiput and cheeks margined behind. Mesonotum with well separated round punctures like those of the head, with distinctly impressed parapsidal furrows. Scutellum sculptured like the mesonotum, with a coarsely punctate frenum at its base and a more delicate one at the apex. Metathorax very short, the metanotum scarcely visible from above, elevated into a transverse ridge anteriorly and rugulose behind, without raised lines. Abdomen long, acuminate, seen from the side is two and three-fourth times as long as the head and thorax

together, slightly depressed on the basal half and compressed apically. Its surface with moderately large regular punctures; the first segment also strongly striated and the second, fifth and sixth slightly so. Second segment one and one-half times as long as the first and equal to the third and sixth. Fourth and fifth equal, each three-fifths the length of the second. Venter finely punctate, weakly aciculated basally. Legs honey-yellow, or pale rufous, the tips of the middle femora, most of the posterior pair, and the apical tarsal joints infuscated. Coxæ black. Wings hyaline, stigmal vein slender, knobbed, one-half as long as the marginal. Postmarginal one-third longer than the marginal. Basal vein obsolete. The wings when folded reach to the base of the fifth segment.

Described from 10 female specimens reared during May by Prof. H. A. Surface from the eggs of a locustid: Chester, N. J.

This is the fifth species of the genus to be discovered within the United States, and may be distinguished from the others by the aid of the following table:

1. Eyes bare .....	2
Eyes pubescent; legs, including coxæ, brownish-yellow; first and second abdominal segments about equal in length.	
	<i>virginiensis</i> Ashm.
2. Flagellum of antennæ wholly or partly reddish-yellow.....	3
Antennæ, except scape, dark brown, marginal vein about two times as long as the stigmal.....	<i>floridana</i> Ashm.
3. Wings fusco-hyaline, marginal vein one and one-half times as long as the stigmal.....	<i>macrogaster</i> Ashm.
Wings hyaline .....	4
4. Head not margined behind, marginal vein one-third longer than the stigmal.....	<i>punctata</i> Kieff.
Occiput and cheeks margined behind, marginal vein almost two times as long as the stigmal.....	<i>surfacei</i> sp. nov.

*Sparaisoa gregarium* sp. nov.

Female. Length 4 mm. Black; legs, except coxæ; mandibles and scape and pedicel of antennæ, honey-yellow. Head coarsely rugoso-reticulate, frontal ridge projecting one-half the diameter of the eye in front of the eye-margin. Seen from above, the head is as wide as thick, the frontal ledge one-half as wide as the front, rounded anteriorly, with a reflexed smooth margin. Face below the ridge areately transversely striated. Mandibles ferruginous. Antennæ 12-jointed,

black, the scape, except extreme tip and the pedicel ferruginous. Scape broadly dilated at the tip; pedicel two-thirds the length of the first flagellar joint; second to seventh slightly wider than long, the following growing more slender, but of equal length. Prothorax very closely and rather finely punctate in front. Pronotum and mesonotum deeply and coarsely punctate, the pronotum closely, but the mesonotum more sparsely apically toward the center. Parapsidal furrows vaguely defined by punctures, scapule punctate, with no trace of any groove. Scutellum with a punctate frenum, two times as wide as long, its surface coarsely punctate, the punctures much sparser toward the center. Postscutellum with a very short spine. Metanotum finely rugose, more or less distinctly areolated anteriorly, and with a V-shaped carina on each side, but no median one anteriorly. Mesopleura with a large smooth space, metapleura with a smaller one. Metanotum with its upper lateral angles produced. Abdomen elongate ovate, as long as the head and thorax, coarsely longitudinally striated above, except along the posterior margins of the segments which are smooth and polished. Apical segments more or less punctate; sutures crenulate. Venter sparsely and rather coarsely punctate. Legs weakly spinous, clothed with glistening hairs. Wings infuscated, the costal cell hyaline. Stigma separated from the submarginal vein; stigmal vein recurved, a trifle longer than the indistinct postmarginal one, with an imperceptible knob at the tip. Marginal vein indistinctly indicated, except at base and tip, where it is not visible.

Two females sent me by Mr. Nathan Banks. They were collected at Falls Church, Va., August 2.

This species can be readily distinguished by the pale legs from any other in our fauna, except *S. famelicum* Say, which, however, has hyaline wings.

The species of *Sparaison* so far discovered within the United States may be separated by means of the following table:

- |   |                           |   |
|---|---------------------------|---|
| 1. Wings hyaline, scapulae with a distinct grooved longitudinal line, legs, except coxae, honey-yellow..... | <i>famelicum</i> Say.     |   |
| Wings infuscated, scapulae without a distinct grooved line....  |                           | 2 |
| 2. Legs, except coxae, honey-yellow, antennal scape, honey-yellow.  |                           |   |
|   | <i>gregarium</i> sp. nov. |   |
| Legs principally black, sometimes with the tibiae and tarsi lighter, antennae wholly black.....             |                           | 3 |

3. Abdomen smooth and polished except at the sutures.  
     Abdomen longitudinally rugose or striate..... *pacificum* Ashm. 4
4. Metanotum rugulose medially, without a central carina..... 5  
     Metanotum with a distinct carina medially at the base; scapulae  
     punctate ..... *graenicheri* Brues.
5. Frontal ledge broad, on the same plane as the vertex, scapulae  
     impunctate ..... *pilosum* Ashm.  
     Frontal ledge not so broad and not on the same plane as the  
     vertex, more oblique..... *nigrum* Ashm.

*Hadronotus robustus* sp. nov.

Female: Length 1.7 mm. Entirely black; the tibiae and tarsi dull rufous. Head large, considerably wider than the thorax, and three times as wide as thick, the occiput arcuately excavated; its surface coarsely rugose. Occiput above with a finely raised line, vertex without any smooth areas; lateral ocelli about their own diameter from the eye margin. Eyes bare. Facial excavation above the antennae deep, transversely striated and margined by a raised line laterally. Antennae 12-jointed, clavate, black, with the tip of the pedicel rufous. Pedicel and first flagellar joint of equal length, second distinctly shorter, third small, quadrate, club fusiform, not very stout, the joints slightly transverse. Mesothorax and scutellum coarsely rugose; no parapsidal furrows. Metathorax very short. Abdomen short, subglobose, about as wide and as long as the thorax; first segment deeply grooved and ribbed longitudinally near its base, apically rugulose. Second segment twice as long as the first, and one-third as long as wide, rugulose basally and microscopically so near the apex; third segment less than one-half as long as the second; fourth still shorter, both sculptured like the apical half of the second. Venter finely punctulate. Pleurae rugose but still more or less shining. Legs black, knees, tibiae and tarsi, except terminal joint, rufous. Wings hyaline, the venation yellowish brown. Marginal vein short, about one-half the length of the stigmal; postmarginal nearly twice the length of the stigmal.

Described from one female specimen collected by the writer at Austin, Texas.

The species is related to *H. insularis* Ashm. from Grenada, West Indies, and to *H. rugiceps* Ashm. from the United States. It differs from both in the relative lengths of the antennal joints and the segments of the abdomen.

## FAMILY ICHNEUMONIDÆ.

*Orthopelma thompsoni* sp. nov.

Male and female. Length 3.75-4.25 mm. Head and thorax black; legs in part and abdomen beyond the petiole reddish. Head broad, almost three times as wide as thick. Face distinctly narrowed below, more strongly so in the male. Clypeus with an impressed line near the anterior margin which is raised and weakly emarginate. Mandibles black, clypeus reddish in the male. Palpi pale. Antennæ short and rather stout, 18-19-jointed in the female and 22-jointed in the male. Flagellar joints decreasing in length apically except the last, which is twice as long as the preceding; first flagellar joint four times as long as thick, penultimate only slightly longer than thick. Surface of head shining, faintly punctate, more distinctly so on the occiput and cheeks. Eyes bare, elongate, twice as long as wide. Occiput and cheeks margined behind. Mesonotum finely punctate, no trace of parapsidal furrows. Scutellum with a depression anteriorly and strongly convex posteriorly. Metanotum areolated, all the areas separated and distinct. Abdomen with a long petiole, which is at least four times as long as broad; spiracles prominent, placed near the basal third; its surface finely rugose, with a carina on each side from the spiracle nearly to the tip of the segment. Following segments polished. Ovipositor as long or a little longer than the abdominal petiole, reddish, its sheaths narrow, black and nearly bare. Mesopleura polished, with a fovea near the center, margined behind and with a wide finely crenate furrow below. Legs moderately stout; pale ferruginous, hind femora except tip piceous, and hind tibiae darker apically. Coxæ and first joint of hind trochanters black. Tegulae pale yellow, abdomen, except petiole, bright ferruginous, the segments often with darker spots laterally behind, especially in the male. Wings hyaline, stigma and veins piceous, the former broad and paler at the base. Areolet open behind and small in position.

Described from numerous specimens bred by Prof. M. T. Thompson from the galls of *Rhodites rosæ* at Worcester, Mass. Most of the known species of the genus are parasites of various members of the genus *Rhodites*.



## FAMILY BRACONIDÆ.

*Helcon ferrugineus* sp. nov.

Female. Length 9-10 mm. Ovipositor 7-9 mm. Entirely pale, ferruginous, tips of hind tibiae and antennal flagellum except for pale annulus, piceous. Head large, transversely quadrate, about one-half wider than thick. Face irregularly rugose, antennal excavation with a median carina, sharp lateral margins and a few irregular striae below; above immargined, polished and including the anterior ocellus. Antennae setaceous, 35-jointed, piceous, the first two joints rufous. Flagellum with a whitish annulus that occupies about seven joints. The basal joints are long, four or five times as long as thick, while those after the annulus become much shorter, those nearer the apex being only one-half longer than thick. Head above and behind highly polished, occiput and cheeks faintly punctate. Vertex with a finely impressed longitudinal line. Eyes rather small, oval, about as broad as the cheeks. Mandibles slender, edentate, black at tips. Palpi pale rufous. Prothorax rugose, with a small strip above on the sides closely punctate; nowhere striate. Mesonotum shining, sparsely punctured; trilobed, the parapsidal furrows crenulate anteriorly; behind, the space between them is roughly rugose. Scutellum small, narrow, with a broad rugose depression at its base. Metathorax coarsely rugose reticulate, the reticulations defining rather irregularly six longitudinal carinae on the posterior three-fourths. Metapleuræ more finely rugose. Abdomen as long as the head and thorax, clavi-form. First segment twice as long as wide at the tip, coarsely rugose punctate, with two prominent longitudinal carinae on the basal half and a much less distinct median one on the posterior half. Second segment with sparse coarse punctures except along the median line and the posterior margin. Following segments smooth and polished. Legs slender, except the posterior femora which are thickened and furnished with a single stout tooth beneath near the apex. Hind tarsi, except terminal joint, whitish. Ovipositor ferruginous, its sheaths black and hairy. Wings hyaline, stigma and nervures ferruginous. Recurrent nervure received near the posterior third of the first cubital cell; second cubital cell narrowed above, only half as long on the radius as on the cubitus. Submedian cell scarcely longer than the median; subdiscoidal nervure inserted at the lower fourth of the discoidal nervure. Transverse median vein in hind wing not broken.

Two females from Fedor, Lee County, Texas, sent me by Rev. G. Birkmann.

This species is rather closely related to *H. dentipes* Brullé, but is evidently distinct. Although variable in color, the latter is always in considerable part black, and also differs in the sculpture of the prothorax and metanotum. The mesonotum of the present species is also more roughly sculptured, and the recurrent nervure in the wing inserted farther from the transverse cubitus.

*Calyptus collaris* sp. nov.

Female. Length 2.5 mm. Ovipositor 2.8 mm. Black, the pronotum, mesonotum, coxae and legs bright honey yellow. Wings hyaline. Head transverse, slightly more than twice as wide as thick. Face evenly convex, microscopically rugulose and whitish pubescent. Front, vertex, and occiput smooth, polished, and impunctured. Cheeks faintly shagreened. Mandibles and clypeus wholly ferruginous. Eyes rather small, elongate oval, one-half as long as the head height. Antennae 26-jointed, black, the scape and pedicel more or less rufous. Second flagellar joint one-third longer than the first, five times as long as thick, following rapidly growing shorter, becoming quadrate near the apex. Ocelli large and prominent, in a small triangle. Pronotum rugose striate, smooth and polished near the lateral angles. Mesonotum impunctate or nearly so. Parapsidal furrows deep and crenulate, meeting before the scutellum. Scutellum piceous, with a broad fovea anteriorly, which is divided by a delicate median carina. Metanotum rugose, with two small triangular smooth basal areolas side by side anteriorly; a less distinct pentagonal areola behind these which gives off two delicate longitudinal carinae. Abdomen as long as the thorax, with three visible dorsal segments; first segment as long as wide and longitudinally aciculated, with a pair of carinae basally which converge behind. Second segment as long as the first and a little wider, finely aciculated; third smooth and polished. Legs and coxae honey-yellow, the posterior tibiae at tips and hind tarsi fuscous. Ovipositor rufous, its sheaths black, pubescent. Wings hyaline, stigma piceous, pale at the base, venation brownish testaceous. Recurrent nervure received beyond the apical third of the first cubital cell. Submedian cell distinctly longer than the median; second discoidal cell closed at apex, the subdiscoidal nervure interstitial; anal cell with no trace of dividing nervure. Transverse median vein in hind wing not broken.

Described from one female collected by Mr. Charles Schaeffer at Esperanza Ranch, Brownsville, Texas.

This resembles in color the West Indian *Calyptus thoracicus* Ashmead, but differs by its much smaller size, and in having only 26 joints instead of 35 joints to the antennæ.

#### FAMILY ALYSIIDÆ.

##### *Acrisis americanus* sp. nov.

Male. Length 1.75 mm. Thorax piceous, head, pleuræ, coxæ, legs, and second abdominal segment brownish-yellow. Wings hyaline. Head smooth and shining, faintly shagreened above; transversely quadrate, the temples rather narrow. Eyes moderately small, bare. Cheeks one-half as long as the greatest length of the eye. Antennæ slender, filiform, not quite as long as the body, about 18-jointed, the joints poorly differentiated and difficult to count; second to sixth joints about equal, each about four or five times as long as thick, following growing shorter. Palpi pale testaceous. Mesonotum shining, shagreened, trilobed, the parapsidal furrows deep anteriorly, approximated and less distinct posteriorly, where they become confused with some other longitudinal striate sculpture. Scutellum shagreened like the mesonotum, with a broad crenulated transverse furrow across the base and a semi-circular fovea just before the center. Metathorax finely rugulose, not at all areolated. Pleuræ rugulose above and shagreened below; dark above, but pale yellowish below on the mesopleuræ. Abdomen ovate, sessile, the first segment piceous, a little longer than wide, its base two-thirds as wide as the apex, surface finely aciculate; second segment aciculate, pale yellow, longer than the first and twice as wide. Following segments indistinctly separated, shining piceous. Legs moderately stout, the posterior femora strongly incrassated, their tibiæ slightly so. Apical joint of all tarsi piceous. Wings hyaline, stigma and venation very pale fuscous. Two cubital cells: first cubital, first discoidal and submedian cells all distinctly separated from one another. Radius and cubitus obsolete beyond the first transverse cubitus; subdiscoidal nervure distinct at its base.

Described from a single male sent me by Dr. M. T. Thompson. It was bred by him from an unidentified gall collected at Worcester, Mass.

This is the first American species to be discovered, and the second member of the genus. To judge from the diagnoses of Förster, Ashmead and Szépligeti, it is a typical representative of the genus.

Public Museum, Milwaukee, Wis.  
June 10, 1907.

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#### BRIEFER ARTICLES.

##### THE OCCURRENCE OF THE SYRPHID FLY, *CONDIDIA LATA* COQ., IN WISCONSIN.

It may be of interest to record the fact that a female specimen of *Condidia lata* Coq. was collected from the flowers of the Sumach, *Rhus glabra*, at Cedar Lake, Washington Co., Wisconsin, July 15, 1907. A male was taken at the same place July 19. These were the only two specimens obtained by two collectors in ten days, although flies were very abundant on the plants during that time. A few days later, Mr. Henry L. Ward obtained a single specimen from Little Cedar Lake, in the same county. The species was first described by Coquillett from North Saugus, Mass., (Can. Ent., Vol. 39, p. 75, March, 1907) and later mentioned by Jones (Journ. N. Y. Entom. Soc., Vol. 15, p. 95, June, 1907) as occurring in several parts of Nebraska. The sudden appearance of this conspicuous fly in a place which has for years been collected over by entomologists is, therefore, of considerable interest.

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