

NOTES AND DESCRIPTIONS OF NORTH AMERICAN PARASITIC HYMENOPTERA. VI.

By CHARLES T. BRUES.

FAMILY BETHYLIDÆ.

Anisepyrus rugosicollis sp. nov.

Female. Length 4.5 mm. Black, the head, mesonotum, and scutellum purplish; pronotum greenish; base of antennæ and posterior legs honey-yellow. Head as wide as long, opaque, finely shagreened, with small, very irregularly arranged punctures interspersed; cheeks much more coarsely sculptured; mandibles honey-yellow with broad tips and four small black teeth. Antennæ 12-jointed; scape, pedicel and base of first flagellar joint honey-yellow; scape rather slender, curved, as long as the following four joints together; pedicel two-thirds longer than the first flagellar joint; second as long as the first, but thicker, quadrate; following joints scarcely growing narrower, quadrate or transverse quadrate. Eyes elongate oval, separated by one-third their length on the vertex and by about the same distance from the base of the mandibles. Ocelli placed in a small equilateral triangle. Pronotum widened behind, where it is nearly twice as wide as long, abruptly declivous in front; its surface greenish, shining, coarsely longitudinally rugose, with a punctate frenum posteriorly; its lateral and posterior edges margined. Mesonotum as long as the pronotum, blue, with greenish reflections anteriorly on the middle lobe; its surface finely shagreened. Parapsidal furrows deep, convergent posteriorly; lateral furrows visible only behind. Scutellum purplish, subshining, with two foveæ connected by an impressed line basally and with several large punctures posteriorly. Metanotum with five longitudinal carinæ, besides the carinate lateral margins and posterior margin. Abdomen shining black. Legs black, the middle and posterior coxæ and trochanters brown; base of posterior femora ferruginous; middle tibiæ not spinous; tarsal claws with a single tooth. Wings brown with a hyaline band beneath the stigma and a pale apex. Venation normal, the marginal vein two and one-half times as long as the basal.

Described from a female specimen collected by Mr. Charles Schaeffer at Esperanza Ranch, Brownsville, Texas. Type in the Museum of the Brooklyn Institute of Arts and Sciences.

This species is similar to *A. fasciipennis* Kieffer from Nicaragua, from which it differs in the sculpture of the head and thorax, particularly the pronotum.

FAMILY SCELIONIDÆ.

Hoploteleia noveboracensis sp. nov.

Male. Length 4.25 mm. Black, very coarsely rugosely punctate; legs, except coxæ, honey-yellow; wings hyaline. Head large, twice as wide as thick anteroposteriorly. Occiput margined. Facial depression deep, margined, extending nearly to the anterior ocellus above, its surface transversely striate, although faintly so on the sides. Lateral ocelli separated from the eyes by less than their own diameter. Eyes ovate, bare, twice as long as the width of the cheeks. Mandibles black, tridentate. Antennæ 12-jointed, long and rather slender, black, the base and apex of the scape rufus; scape as long as the three following joints; pedicel small, triangular; first flagellar joint twice as long as the pedicel, and three times as long as thick; second slightly shorter; third shorter, a little over twice as long as thick; fourth and following about equal, but growing more slender, the fifth two and one-half times as long as thick, others three times; last joint one-third longer and pointed. Mesonotum with three furrows, less deeply impressed than in *H. floridana*, its surface shagreened, with fine scattered punctures and with distinct reticulate sculpture posteriorly. Scutellum coarsely rugoso-punctate, with a regular row of closely placed punctures along the posterior margin. Postscutellum bidentate medially. Metanotum very short, rugose. Pleuræ punctate-rugose, the mesopleuræ medially obliquely striate. Abdomen as long as the head and thorax; first segment and basal half of the second very coarsely striate or fluted; third the longest, faintly aciculate; fourth one-half as long as the third; fifth and sixth shorter, subequal. Legs, except coxæ, honey-yellow, the tarsi piceous. Venter faintly punctate. Wings hyaline, the marginal vein short, only three or four times as long as thick; postmarginal long, two-thirds as long as the submarginal;

stigmal long, straight, with a small knob at apex, about two-fifths as long as the postmarginal.

One specimen, sent by my friend Mr. J. R. de la Torre Bueno, collected at Van Cortlandt Park, New York City.

This species can be distinguished from *H. floridana* Ashmead, the only other one known from the United States, by its longer and more slender antennæ. It is the only species known to extend so far north in its range, most members of the genus belonging to the neotropical region.

FAMILY SCHNEUMONIDÆ.

SUBFAMILY TRYPHONINÆ.

TRIBE MESOLEPTINÆ.

Oxytorus paludicola, sp. nov.

Male. Length 5—6 mm. Black; antennæ fuscous, most of legs and abdomen ferruginous. Head not quite twice as wide as thick, rather thickly hairy; subshining, the vertex, occiput, and cheeks faintly punctulate; face finely rugoso-punctate, distinctly produced below the base of the antennæ. Clypeus distinctly separated from the face, broad, its anterior margin truncate. Eyes elongate, very sparsely pilose, with not the slightest trace of an emargination between the antennæ. Antennæ stout and tapering, shortly pilose, 26-28 jointed, similar to those of certain Orthocentrine genera. Scape stout, oval; first flagellar joint distinctly longer than the second, which is twice as long as thick; following growing imperceptibly shorter and narrower, those near the tip quadrate. Mesonotum with the parapsidal furrows well marked, its surface punctulate on the sides, with the median lobe more coarsely punctate, especially behind, where it is confluent so. Scutellum with a wide deep fovea at the base divided by a median carina, apically convex and punctulate. Metathorax completely areolated, the lateral angles of the petiolar area produced as distinct teeth. Petiolar area transversely striate, the other areas rugose. Epomial carina of propleura distinct. Abdomen distinctly petiolate, smooth and shining, the petiole curved, more strongly so at the center; spiracles placed distinctly behind the center, where they give off lateral carinæ to the tip; two very strongly elevated median carinæ which

extend only to its posterior third; second and third segments subequal, each slightly broader than long. Legs moderately stout; anterior and middle pairs, except coxæ, fulvous; posterior pair, except coxæ in part, tarsi, tips of tibiæ, and tips of femora above, ferruginous. Clypeus and antennæ rufous, the former somewhat paler below. Palpi pale. Abdomen except the basal two-thirds of the petiole and extreme tip more or less ferruginous. Wings slightly infuscated; stigma elongate, piceous, veins piceous. Areolet very nearly regularly pentagonal; transverse median vein in hind wing broken just below the middle.

Described from two specimens collected by Professor T. D. A. Cockerell in a marsh at Florrissant, Colorado, July 26, 1908.

This species does not agree with the genus as characterized by Davis (Trans. Amer. Ent. Soc., Vol. 24, p. 322 (1897)), and *Mesoleptus facetus* Cress, which he refers to *Oxytorus* is evidently not congeneric with the present species, which however, agrees well with the characters given by Schmiedeknecht (Hym. Mitteleuropas, p. 621.)

TRIBE BASSINI.

***Promethes rohweri*, sp. nov.**

Female. Length 4.25 mm. Black; face, underside of antennæ; marks on thorax and bands on abdomen, light yellow; legs light yellow and fulvous, to a slight extent variegated with black. Head about three times as wide as thick, smooth and polished, with faint indications of punctulation on the vertex and cheeks. Face smooth and highly polished, its central portion slightly elevated. Clypeus sharply separated from the face, rounded above, its lower margin deeply and broadly notched. Cheeks almost half the length of the eyes. Antennæ 22-jointed, distinctly shorter than the body; first flagellar joint as long as the scape; second two-thirds as long and about three times as long as thick; following gradually decreasing, the fifth twice as long as thick. Mesonotum shining, faintly punctulate, without trace of furrows. Scutellum shining, strongly convex. Metathorax incompletely areolated, the basal median, and first lateral areas indicated; second lateral area partly enclosed; petiolar absent. Mesopleuræ smooth and highly polished, pro and metapleuræ punctu-

late. First abdominal segment twice as long as wide at tip, the spiracular protuberances unusually large; lateral carinae distinct, but no trace of any median ones. Second segment as long as the first and somewhat longer than wide at tip, the gastrocoeli unusually large and deep; first and segment except the tip of the latter rugulose; following segments smooth and polished. Legs slender, four anterior ones yellow, their coxae black basally and their femora with a short black stripe inwardly at the base. Posterior coxae black, their tips and the trochanters yellow; femora pale ferruginous, with a black stripe inwardly at the base; tibiae and tarsi pale ferruginous, the tibial spurs weak, only one-third the length of the metatarsus. Wings hyaline, stigma piceous with pale spot at base; veins piceous. Areolet open, indicated as a regular pentagon; transverse median vein in hind wing broken at the middle. Entire face, anterior orbits, mandibles except tips, palpi, underside of antennae, lower part of cheeks, cuneiform marks on mesonotum, tegulae, spot in front and below, large spot on mesopleura on anterior margin below, and line on posterior margin above, and bands on second to fourth abdominal segments more or less emarginate posteriorly, pale yellow.

Male. Differs by its more elongate form, 25-jointed antennae and interrupted band on second abdominal segment. Length 6 mm.

Described from four specimens sent me by Mr. G. A. Rohmer of the University of Colorado, who collected them on flowers of *Ribes vallicola* at Florissant, Colo., June 11, 1907.

***Zootrepes similis* sp. nov.**

Female. Length 5 mm. Black; abdomen, except base and apex, and legs ferruginous. Head three times as wide as thick, shining, the face finely punctate. Front and vertex polished, occiput and cheeks finely punctured; clypeus smooth and shining, its anterior edge subemarginate. Upper tooth of mandibles deeply divided. Eyes bare, separated on the front by a distance equal to their length. Antennae black, 22-jointed; basal joint of flagellum one-half longer than the second; following growing shorter, those near the middle twice as long as thick. Pro and mesonotum finely punctulate, shining; no trace of parapsidal furrows. Depression at base of scutellum shallow, polished. Metathorax completely areolated, the carinae very strong. Pleurae shining, almost smooth. Abdomen subopaque, more shining

toward the tip; first segment one-third longer than broad at apex, its basal half with two very strong carinæ which become evanescent just beyond the middle, lateral carinæ strong and well away from the margin; its surface longitudinally rugose. Second segment as broad as long, third wider and shorter, both scabrous or finely rugulose; fourth punctulate at the base, apical ones smooth and shining. Legs ferruginous, the coxæ, particularly the posterior pair, black basally, their tips and the trochanters pale yellow; posterior tarsi piceous. Wings hyaline, the stigma and veins piceous black, the former pale basally; areolet open, its proximal shorter than its lower side; transverse median vein in hind wing broken at the middle. Clypeus, broad anterior orbits, two paired spots on face, mandibles except tips, spots at base of antennæ above, under side of pedicel, tegulæ, spot below and before; cuneiform spot on mesonotum, short line near anterior margin of mesopleura, spot at base of hind wing, and a large mark on scutellum, pale yellow. Second to fourth segments of abdomen ferruginous, the second and third yellowish at apex and the fourth darker at base; following segments with a rufous margin.

Beulah, New Mexico, Aug. 3, 1902, Prof. T. D. A. Cockerell.

This differs from *Z. saginatus* Prov. to which it is most closely related, by the black antennæ, the absence of any transverse line on the third segment, and the entirely black first abdominal segment. It is slightly larger.

***Syrphoctonus lævis* sp. nov.**

Female. Length 6 mm. Black, legs, except tips of posterior tibiae and tarsi which are ferruginous, pale yellow; spots on face and mesonotum pale yellow. Head two and one-half times as wide as thick, finely shagreened, with microscopic punctures intermixed. Face rather strongly depressed on the sides, between the eye-margin and the central convex portion. Clypeus strongly raised, its anterior margin rounded and deeply incised medially. Eyes not quite so long as the width of the face; bare. Antennæ 21-jointed; first flagellar joint one-third longer than the second, which is three times as long as thick and about as long as the scape; third and following growing shorter, the fifth about two times as long as thick. Mesonotum subshining, faintly punctulate; scutellum shagreened and punctulate. Metanotum punctulate or scabrous, without any indications of any areas. Pleuræ shin-

ing, very faintly punctulate and shagreened. Abdomen rather stout, the first segment, basal third of the second, and base of third, scabrous, remaining portions shining. First segment about one-half longer than wide, its lateral carinae well-defined, sharp, no trace of central ones; second segment slightly shorter than its width at tip. Valves of ovipositor black, distinctly projecting. Venter shining black, the sutures of the basal segments whitish. Legs, including coxae and trochanters, very pale ferruginous or honey-yellow. Tips of posterior tibiae and posterior tarsi entirely, deep black; longer spur of hind tibia a little less than one-half the length of the metatarsus. Wings hyaline, stigma piceous, scarcely pale at the base; veins piceous; areolet open, its position indicated as a large almost regular pentagon. Transverse median nervure in hind wing broken considerably below the middle. Face with a median broad yellow stripe extending to the antennae; clypeus and mandibles, except tips, yellow. Mesonotum with lateral cuneiform lines, tegulae, spot at base of hind wing, continued as a narrow stripe between the meso and metapleurae, and scutellum, except center, pale yellow.

Described from a female collected by Prof. T. D. A. Cockerell, at Beulah, New Mexico, during July.

This species is related to *pleuralis* Cress. and to *robustus* Davis. It is separable from the former, by its black plurae and metathorax and fewer yellow markings, and from the latter by its much smoother body sculpture, and the absence of any central ridge on the abdomen.

***Enizemum neomexicanum* sp. nov.**

Female. Length 6 mm. Black; legs, except posterior tibiae and tarsi, bright ferruginous. Head about three times as wide as thick, subopaque and minutely punctulate. Occiput with a median groove or depression behind the median ocellus. Face shagreened, with fine punctures interspersed; at the upper edge of the clypeus with a pair of foveae. Clypeus bilobed, with a median emargination. Eyes as long as the width of the face, subemarginate opposite the base of the antennae. Antennae 23-jointed, nearly as long as the body, the first flagellar joint very long, following gradually shorter to the tip, those near the middle about three times as long as thick. Mesonotum shining, finely punctulate, without any trace of parapsidal furrows;

scutellum with somewhat larger punctures. Metanotum finely rugose, the basal median area indicated, also the lateral carinae, and very indistinctly the petiolar area. Pleurae finely punctate, and metapleurae more closely so. First abdominal segment a little longer than wide at apex, with two central carinae which extend to the middle of the second segment, and with lateral carinae which extend nearly to the apex of the second. First and second segments longitudinally rugose; third scabrous, apical ones nearly smooth. Legs entirely bright ferruginous, except the base of the anterior coxae, and the posterior tibiae and tarsi, which are deep black, the former with a white ring at the base. Spurs of posterior tibiae long, the longer one one-half the length of the metatarsus. Wings nearly hyaline, the veins and stigma dark fuscous, latter pale at base. Areolet very small; transverse median vein in hind wing broken at the middle. Clypeus ferruginous; mandibles, except tips, yellow; small lateral mark on mesonotum, tegulae, spot before and behind, spot at base of hind wing, and capillary lines behind scutellum and postscutellum white.

Beulah, New Mexico, Cockerell.

Differs from *Enizemum (Bassus) tibiale* Cress, by the black antennae, scutellum and pleurae, and partially areolated metanotum.

FAMILY BRACONIDÆ,

SUBFAMILY BLACINÆ.

Blacus gracilis sp. nov.

Female. Length 3 mm. Black; base of antennal flagellum, legs in part and venter yellowish. Head transverse, twice as broad as thick antero-posteriorly. Occiput and cheeks broadly rounded, the former impressed medially; surface punctulate, more or less shining, especially on the occiput. Face protuberant above the insertion of the antennae. Front flattened and deeply concave centrally to accommodate the scape. Antennae 23-jointed; scape very thick, rounded, a little longer than the second joint, following decreasing very gradually to the tip. The antennae are pale brownish yellow on the basal half, except the scape, above which is black like the apical part of the flagellum. Clypeus and mouth parts honey-yellow. Face strongly raised medially, the elevation forming a sharp carina above; at the sides of the clypeus with a deep foveate impression. Thorax slender, delicately sculptured,

the parapsidal furrows sharp and deep, meeting far in front of the scutellum. Pleuræ subshining, finely rugulose; metanotum sculptured like the pleuræ, not areolate, with a single very poorly defined median carina, a transverse carina at the upper edge of the posterior slope, and a reflexed margin at its lower edge. Abdomen slender, shagreened at the base, smooth and shining posteriorly. First segment twice as wide as long, its tip less than twice as wide as its base; spiracles strongly protuberant, placed very near the base. Second segment quadrate, following growing shorter, the apical ones whitish at the sutures. Ovipositor slightly longer than the abdomen, pale, its sheaths black. Legs brownish-yellow; the hind coxæ blackish at the extreme base; hind femora and tibiæ dark at tips and their tarsi dusky. Wings hyaline, veins except the costal very pale. Marginal cell narrow, pointed, reaching only three-fifths the distance from the stigma to the wing tip; first and second sections of the radius almost perpendicular to each other. Submedian cell barely longer than the median; recurrent nervure and transverse cubitus interstitial. Discoidal and subdiscoidal nervures uniting in a curve. Stigma very narrow.

One female bred from insects in heads of clover at Minneapolis, Minn., sent me by Mr. A. G. Ruggles of the Minnesota Agricultural Experiment Station.

Public Museum, Milwaukee,

March 26, 1908.