

SYNONYMICAL AND DESCRIPTIVE NOTES ON PARASITIC HYMENOPTERA

By A. B. GAHAN

Of the Bureau of Entomology, United States Department of Agriculture

In this paper will be found notes and descriptions dealing with species referred to the families Braconidae, Chalcididae, Encyrtidae, Pteromalidae, Eulophidae, Scelionidae, and Bethylinidae.

Family BRACONIDAE

OPIUS BELLUS, new species

This species is very distinct from any other represented in the collection of the United States National Museum. *Opius trimaculatus* Spinola is said by Lounsbury,¹ to infest the same host, but according to Brues and Richardson² that species has hyaline wings.

Female.—Length, 3.5 to 4.5 mm. Yellowish testaceous; antennae entirely, tips of mandibles, ocellar triangle, tegulae apically, and ovipositor sheaths black; hind tibiae fuscous, darker at bases and apices; hind tarsi entirely and the apical joint of fore and median tarsi black; wings uniformly strongly fuscous, veins and stigma blackish. Mesoscutum often with a large spot anteriorly and another at each lateral posterior angle, black or blackish. Antenna inserted a little above middle of eyes, 40-jointed in the type (37–40 in the series), a little longer than the body, slightly tapering from base to apex, the first flagellar joint about twice as long as thick, following joints shorter. Head smooth, polished, clothed with pale hairs; viewed from above transverse, as broad as thorax and not quite twice as broad as long, the temples about half as broad as eyes and not at all receding; face hairy, smooth, with very weak setigerous punctures; distance between the eyes below antennae distinctly greater than distance from antennae to apex of clypeus; anterior margin of clypeus somewhat produced; no opening between clypeus and mandibles; mandibles bidentate at apex with a straight ventral

¹ Agr. Journ. Cape of Good Hope, vol. 27, 1905, p. 468.

² Bull. Amer. Mus. Nat. Hist., vol. 32, 1913, p. 503.

margin; malar space equal to width of mandible at base; palpi long and slender, maxillary 6-jointed, labial 4-jointed. Mesoscutum smooth and polished, clothed with pale hairs, without parapsidal grooves and without median fovea or groove posteriorly; transverse groove separating mesoscutum from scutellum divided by three carinae; scutellum smooth, hairy; mesopleuron smooth, without an impression below the middle; propodeum smooth, with a very stout median keel, and densely clothed with pale hairs; wing stigma long; marginal cell extending almost to extreme apex of wing; first radial abscissa shorter than width of stigma, second one and one-half times as long as first transverse cubitus; recurrent entering first cubital; legs normal. Abdomen as long as head and thorax, ovate, entirely smooth and polished; first tergite with a short longitudinal carina on each side extending from base to near middle, the apical half of tergite perfectly smooth and without carinae; ovipositor sheaths extending about half the length of abdomen beyond its apex.

Male.—Length, 3.5 to 4 mm. Antennae 40 to 43 jointed, a little longer than in the female; tergites beyond the third more or less blackish. Otherwise like the female.

Type locality.—Balboa Heights, Panama Canal Zone.

Type.—Cat. No. 41100, U.S.N.M.

Described from 11 females (1 type) and 3 males (1 allotype) reared from *Anastrepha fraterculus* Wiedemann by James Zetek and I. Molino at three different localities in the Panama Canal Zone, as follows: Balboa Heights, August, 1926 (Z-2654); Ancon, November, 1927 (Z-2911 and Z-2913); and Barro Colorado Island, November, 1927 (Z-2909).

OPIUS LECTOIDES, new species

In the writer's published key to species of North American *Opius*³ this runs straight to couplet 22, but is distinguished at once from *fuscipennis* Gahan by the shorter ovipositor and partly black thorax, while it differs from *canaliculatus* Gahan by its darker color, more strongly infuscated middle portion of forewing, and slightly differently sculptured first tergite, and by the fact that there are only three distinct longitudinal carinae in the groove between the mesoscutum and scutellum instead of five as in *canaliculatus*. It is also very similar to *lectus* Gahan,⁴ differing only in that the ovipositor is shorter and the groove at base of the scutellum has fewer foveae.

Female.—Length, 2.4 mm. Head, scape, mandibles, most of the prothorax, mesoscutum, scutellum, axillae, a spot each on mesopleuron below base of wing, and abdomen dark reddish testaceous; palpi and legs, including all coxae, somewhat paler testaceous; an-

³ Proc. U. S. Nat. Mus., 1915, vol. 49, p. 69.

⁴ Proc. Ent. Soc. Wash., vol. 21, 1919, p. 167.

tennal flagellum, eyes, sides of pronotum for the most part, mesopleura except as noted, mesosternum, metathorax, propodeum, and ovipositor sheaths black; forewings from base to near apex of stigma weakly infuscated, the rest hyaline. The vertex and occiput are sometimes blackish and the abdomen frequently stained with piceus. Antennae inserted a little above middle of eyes, 29-jointed in the type (29-31 jointed in the series of paratypes), nearly as long as the body, slightly tapering, the first flagellar joint about twice as long as broad, following joints approximately one and one-half times as long as broad; head smooth, polished, clothed with pale hairs; viewed from above, strongly transverse, the temples about half as broad as the eyes and receding from the eye margins; a line between the eyes below antennae distinctly longer than a line from base of antennae to apex of clypeus; the setigerous punctures of face very weak; malar space slightly shorter than the width of mandibles at base; opening between clypeus and mandibles large; mesoscutum polished, with an elongate median longitudinal groove or slit on the posterior half, the parapsidal grooves deeply impressed at the anterior lateral angles, entirely effaced for nearly two-thirds the length of mesoscutum; groove separating scutellum and mesoscutum deep and divided into four foveae by three distinct carinae; scutellum smooth; mesopleura smooth, with a broad and strongly rugose impression below the middle; propodeum coarsely rugose and with a more or less distinct irregular transverse carina a little nearer base than apex; forewing with the first abscissa of radius shorter than the width of stigma; second abscissa of radius distinctly longer than first intercubitus; recurrent vein entering second cubital cell; abdomen as long as thorax, broadly oval; first tergite a little longer than broad, smooth laterally and basally but with the apical middle longitudinally rugulose; following tergites smooth; ovipositor short, its sheath about two-thirds as long as hind tarsus.

Male.—Length, 2.25 mm. Antennae 36-jointed in the type, a little longer than the body. Color generally somewhat darker than in the female. In addition to the black markings of the female, the occiput, prothorax, and abdomen, except the second tergite, are black in the male.

Type locality.—Corvallis, Oreg.

Type.—Cat. No. 41099, U.S.N.M.

Described from 10 females (1 type) and 5 males reared from *Rhagoletis symphoricarpi* Curran, the snowberry fruit fly, by F. H. Lathrop.

VIPIO MONEILEMAE, new species

Female.—Length, exclusive of ovipositor 7 mm.; length of ovipositor, about 4 mm. Head transverse, about one and one-half times as broad as long, the temples full and very nearly as broad as the

eyes; malar space equal to nearly half the height of eye; face shining, with weak setigerous punctures, and sparsely covered with long pale hairs; frons shining, divided down the middle by a shallow groove, impunctate laterad of the ocelli and narrowly along each side of the groove but with closely set setigerous punctures elsewhere, the punctate areas covered with pubescence which is much finer and shorter than the hairs on the face; vertex and temples polished but with vestiture like that on the face; antennae 45-jointed, about two-thirds as long as the body; scape about twice as long as broad, pedicel broader than long; third joint nearly twice as long as broad, the following joints subquadrate. Thorax smooth, polished, and sparsely hairy; mesonotum without trace of parapsidal grooves; transverse groove between scutellum and mesoscutum narrow and without crenulae; propodeum polished; wings extending beyond apex of abdomen, radial cell short, metacarpus equal to length of stigma and parastigma together; first abscissa of radius equal to width of stigma, second abscissa fully three times the first and very nearly equal to third abscissa; second cubital cell nearly parallel sided; recurrent nervure interstitial; legs normal, the hind tibiae not thickened and without a groove. Abdomen elongate ovate, a little longer than head and thorax, about as broad as thorax; first tergite a little longer than broad, with a broad rounded elevation in the middle which is bounded on each side by a finely crenulate furrow, the elevated portion and the lateral margins polished; second tergite with a triangular elevated smooth area medially at base and mostly smooth elsewhere, but with a broad rugulose depression on each side of the elevation; suturiform articulation strongly crenulate; a transverse groove on the third tergite and the suture between the third and fourth tergites also crenulate; remainder of abdomen polished; ovipositor a little longer than the abdomen. Head, antennae, palpi, tegulae, prosternum, mesopleura for the most part, propodeum, all legs, and the ovipositor sheaths black; prothorax except sternum, mesoscutum, scutellum, metanotum, narrow median longitudinal line on propodeum, and the entire abdomen rufotestaceous; mesosternum and metasternum more or less obscure testaceous; wings uniformly deep fuscous with a small hyaline spot at junction of recurrent vein with cubitus; stigma and veins black.

Male.—Length, 6 mm. Similar in every way to the female (the antennae are lost) except that the hind tibiae are curiously modified in that they are distinctly though not greatly thickened for nearly their whole length and on the dorsal or posterior side a broad deep groove, resembling a slit made with a knife, extends from the basal one-fourth to the apex.

Type localities.—Aguascalientes, Mexico.

Type.—Cat. No. 41098, U.S.N.M.

Described from three females (one type) received from Leith F. Hitchcock and reared by him from *Moneilema* species at Aguascalientes, Mexico, in May, 1927, and four males received from the same collector, reared from *Moneilema* species at Cedar City, Utah, in September, 1926.

Family CHALCIDIDAE

BRACHYMERIA NEPHANTIDIS, new species

Very similar to *Brachymeria thracis* (Crawford) but distinguishable at once by the nearly cylindrical flagellum, the absence of discal cilia on the base of the forewing, and the weaker sculpturing of the sixth tergite. In *thracis* the flagellum is very greatly thickened toward the apex and the discal ciliation extends to the base of the wing.

Female.—Length, 5 mm. Antennal flagellum cylindrical, very slightly narrower at base than beyond; first funicle joint slightly longer than broad, following funicle joints quadrate or subquadrate; club a little longer than two preceding funicle joints; antennal depression smooth; face with a small median area between clypeus and antennal depression smooth; remainder of head coarsely punctate, the punctation of vertex somewhat coarser than that between the antennal depression and inner eye margins; malar space longer than width of mandible at base; carina separating face from cheeks with a well-developed postorbital branch which extends to the occipital margin. Pronotum, mesoscutum, and scutellum with coarse umbilicate punctures, the interstices between punctures distinctly less than the diameter of the punctures and finely rugulose; scutellum rounded at apex, not emarginate; propodeum coarsely rugoso-reticulate, without teeth or projections. Forewing behind submarginal vein practically bare of cilia from base to about midway of submarginal vein; stigmal vein short; postmarginal nearly twice as long as stigmal. Hind coxae polished above, closely punctate beneath, without a tubercle on inner side; hind femur uniformly finely closely punctate on outer side, with about 10 teeth on the lower margin, the basal tooth not larger than some of the others, without an inner tooth near base. Abdomen as long as head and thorax, pointed ovate; first tergite perfectly smooth and polished; second nearly smooth dorsally but finely shagreened and hairy laterally; third to fifth each smooth basally but with an apical band weakly shagreened and hairy; sixth tergite finely shagreened, with about four transverse rows of very weak subobsolete punctures or pits but much less strongly pitted than in most other species; seventh tergite ventrally at apex coarsely punctate; ovipositor tip barely exerted. Tegulae, anterior and middle femora at extreme apices, their tibiae at bases and apices, and all

tarsi yellow; hind femur with a small yellow spot at extreme apex; hind tibia with a yellow spot a short distance from base and its apex yellow; wings hyaline; rest of insect black.

Male.—Length, 3 to 4 mm. Sixth tergite more transverse than in the female and with more distinct pits; otherwise like the female.

The hind tibia basad of the yellow spot is usually black but in some specimens this basal band is reddish. It is always somewhat darker than the yellow spot.

Type locality.—Ayodya patnam, India.

Type.—Cat. No. 42223, U.S.N.M.

Four females and four males received from Remachandra Rao, Coimbatore, India, and all said to have been reared from pupae of *Nephantis serinopa* Meyrich. The holotype female and another female are labeled "Ayodya patnam, S. R. coll. June 28–30–1924"; a male (allotype), "Coimbatore, S. R. coll. July 5, 1924"; two females, "Mangalore, Y. R. Rao coll. Aug. 28, 1925, and October 16, 1924"; one male "Cochin, Rao coll. Nov. 18, 1920"; and two small males, "Samalkot, Godivari district, Mch. 22, 1924, R. N. Chari coll."

Family ENCYRTIDAE

APHIDENCYRTUS APHIDIVORUS (Mayr)

Encyrtus aphidivorus MAYR, Verh. zool.-bot. Ges. Wien, vol. 25, 1875, pp. 712, 713, and 724.

Encyrtus schizoneuræ ASHMEAD, Trans. Amer. Ent. Soc., vol. 12, 1885; Proc. p. 16 (new synonymy).

Encyrtus aphidiphagus ASHMEAD, U. S. Dept. Agr. Div. Ent. Bull. 14, 1887, p. 14 (new synonymy).

Encyrtus megouræ ASHMEAD, U. S. Dept. Agr. Div. Ent. Bull. 14, 1887, p. 19 (new synonymy).

Encyrtus websteri HOWARD, Insect Life, vol. 2, 1890, p. 247, fig. 53 (new synonymy).

Aphidencyrtus schizoneuræ (ASHMEAD), *aphidiphagus* (ASHMEAD), *megouræ* (ASHMEAD), and *websteri* (HOWARD), ASHMEAD, Proc. U. S. Nat. Mus., vol. 22, 1900, pp. 399 and 400.

Aphidencyrtus inquisitor GIRAULT (not Howard), Can. Ent., vol. 48, 1916, p. 342.

Aphidencyrtus aphidiphagus (ASHMEAD) GAHAN, Proc. Ent. Soc. Wash., vol. 25, 1923, p. 187.

Aphidencyrtus inquisitor GRISWOLD (not Howard), Ann. Ent. Soc. Amer., vol. 19, 1926, p. 331.

Aphidencyrtus inquisitor GAHAN (not Howard), Proc. U. S. Nat. Mus., vol. 71, 1927, art. 4, p. 18.

Aphidencyrtus inquisitor GRISWOLD (not Howard), Journ. Econ. Ent., vol. 20, 1927, pp. 91–93.

It was the writer's good fortune in November, 1927, to spend some time at the Naturhistorisches Museum in Vienna, Austria, studying the important collections of Chalcidoid types of G. Mayr,

Arnold Foerster, and other authors located there. Through the abundant courtesy of the custodian, Dr. F. Maidl, cotypes of a number of European species were secured for the United States National Museum collection. Among these were two cotypes of *Encyrtus aphidivorus* Mayr. These have been compared with the common encyrtid parasite of aphids in America and found to agree in every respect.

This parasite, as shown by the above list of synonyms, has been several times described in America and its identity has been somewhat obscured by reason of the fact that it has been confused by both A. A. Girault and the writer with (*Encyrtus*) *Zarhopalus inquisitor* Howard. *Encyrtus inquisitor* was described by Howard from a single female from Jacksonville, Fla. A female specimen in the National collection labeled "Jacksonville Florida" also bears the label "Type No. 2616" and the name label. This specimen was accepted by both Girault and the writer as the actual type specimen without particular reference to the description, and on the basis of a study of the alleged type the writer, in 1927, synonymized *Aphidencyrtus aphidiphagus* (Ashmead), *schizoneuræ* (Ashmead), *websteri* (Howard), and *megouræ* (Ashmead) with *inquisitor* Howard. Howard's description and figure of *inquisitor*, however, can not possibly apply to the alleged type as has been correctly pointed out by P. H. Timberlake.⁵ Timberlake is without much doubt correct in placing *inquisitor* Howard in the genus *Zarhopalus* where Ashmead had previously placed it.

The two references by Griswold (1926 and 1927) under the name *Aphidencyrtus inquisitor* are based upon determinations made by the writer after comparison with the false type and refer to *aphidivorus* Mayr instead of *inquisitor* Howard.

COPIDOSOMA NANELLÆ Silvestri

Copidosoma nanellæ SILVESTRI, Boll. Lab. Zool. Agr. Portici, vol. 16, 1922, p. 296, figs. 47, 48, and 49.

Several specimens of a parasite received from K. A. Salman of the Massachusetts Agricultural College and said to have been reared from larvae of *Recurvaria thujaella* Kearfott collected in Maine during the summer of 1927 seem to agree in every respect with the description of *Copidosoma nanellæ* Silvestri, a species which Silvestri records as parasitic upon *Recurvaria nanella* Hübner in Europe. *R. nanella* is known to occur in America, and the parasite appears to have been accidentally introduced with its host and to have taken to the related American species *R. thujaella*. According

⁵ Univ. Calif. Pub. Tech. Bull., vol. 3, No. 2, 1924, p. 235.

to Salman the the parasite was very active in controlling this pest of arborvitae in Maine during the season of 1927.

Three specimens of the same species were received from C. R. Crosby, reared from *R. thujaella* at Ithaca, N. Y., July 2, 1925.

Family PTEROMALIDAE

HABROCYTUS PHYCIDIS Ashmead

Habrocytus phycidis ASHMEAD, Proc. Ent. Soc. Wash., vol. 4, 1898, p. 157.

Habrocytus duæ GIRAULT, Can. Ent., vol. 49, 1917, pp. 181 and 182 (new synonym).

Habrocytus phycidis Ashmead was described from one specimen said to have been reared by George W. Dimmock from a larva of (*Phycis*) *Acrobasis rubrifasciella* Packard, July 25, 1892, at Canobie Lake, N. H. *Habrocytus duæ* Girault was described from the same specimen and hence is a synonym. The name *phycidis* should be substituted for *duæ* in Girault's key (see above citation), and the name *piercei* Crawford, which is a good species, should replace *phycidis* as treated in the key, since Girault's synonymizing of *piercei* with *phycidis* is based upon a misinterpretation of Ashmead's species.

Family EULOPHIDAE

HORISMENUS DEPRESSUS, new species

Very closely related to *H. popenoei* Ashmead but differs by having the scutellum very nearly flat, the face below antennae entirely very finely wrinkled or with only a small smooth spot between bases of antennae instead of being mostly smooth and polished, and the apical abdominal segments more strongly retracted.

Female.—Length, 1.85 mm. Occiput, vertex, and frons above transverse groove uniformly very finely reticulate-punctate; frons below the transverse groove coarsely punctate; cheeks polished; antennal pedicel very nearly as long as first funicle joint; funicle 3-jointed, the joints hairy and distinctly separated, the first about twice as long as broad, second slightly shorter than first, third a little longer than broad; club ovate, about as long as first funicle joint and scarcely thicker than the funicle joints; thorax broader between the wings than thick dorsoventrally, the scutellum flattened and in the same horizontal plane as the middle of propodeum or very nearly so, the propodeum not declivous; dorsal posterior portion of pronotum short, separated from the declivous anterior portion by a sharp margin, distinctly sculptured along anterior margin, the posterior border smooth; declivous portion of pronotum reticulate-punctate; mesonotum with fine shallow reticulation, shining; foveae at posterior end of parapsidal grooves shallow and elongate; scutellum similarly but not quite

so strongly sculptured as mesoscutum, the lateral grooves punctate; axillae finely reticulated; propodeum with the usual longitudinal depressed area on each side of the middle, these areas granularly rugulose and completely separated by a smooth median area which is of about the same width as one of the depressions; base of propodeum on either side of the middle with a transverse depressed area or large fovea which is faintly rugulose within; spiracular groove rugulose; rest of the propodeum smooth and polished except that the apical neck is more or less granularly sculptured laterally; posterior lateral angle of propodeum forming a short spinelike projection; abdomen shorter than the thorax, truncate at apex, the segments beyond the second almost wholly retracted into the second; petiole a little longer than broad and rugulose; second tergite large, polished basally, with the apical two-thirds very finely shagreened; marginal vein of forewing much longer than submarginal, the latter with two erect spines dorsally. Scape, except at apex, and legs, except their coxae, pallid; occiput and declivous anterior portion of pronotum blackish; remainder of head, pronotum posteriorly, mesoscutum and scutellum, axillae, and smooth portion of propodeum greenish black, with a strong aeneous cast; remainder of propodeum, metanotum, pleura, and coxae black or bluish black; abdomen black, faintly tinged with aeneous; wings hyaline; antennae, except basal three-fourths of scape, black, tinged with aeneous.

Male.—Length, 1.8 mm. Antennal funicle distinctly 4-jointed; first and second funicle joints subequal and each about twice as long as thick, third joint slightly shorter, fourth about as broad as long; club not twice as long as fourth funicle; segments of abdomen beyond the second wholly retracted; head above and mesonotum somewhat more strongly aeneous than in the female. Otherwise like the female and hard to distinguish from it except by the antennae and genitalia.

Type locality.—Alhambra, Calif.

Type.—Cat. No. 41101, U.S.N.M.

Described from 3 females and 15 males reared from *Bruchus pruininus* Horn by C. K. Fisher.

PLEUROTROPIS DETRIMENTOSUS, new species

Very similar to *nawai*i Ashmead but differs by having the fronto-vertex much smoother and the scutellum with a broader, well-defined, polished area down the middle.

Female.—Length, 1.6 mm. Head slightly broader than thorax; ocellar triangle distinctly rugulose; vertex laterad of lateral ocelli smooth; fronto-vertex with very faint reticulate sculpture, nearly smooth; frons on each side of antennal groove and below the trans-

verse groove distinctly finely punctate; face and cheeks smooth; occiput closely punctate; antennal flagellum with all joints thicker than the pedicel; funicle with three subquadrate and well-separated joints, the first joint a little longer than the pedicel; club ovate, a little shorter than the two preceding funicle joints combined, 3-jointed, the apical joint terminating in a short spine. Prothorax short, slightly narrower than mesothorax; declivous anterior aspect of pronotum sculptured, separated from the dorsal aspect by a delicate transverse carina, the dorsal portion perfectly smooth and shining; mesoscutum shining but distinctly reticulated, the inclosed areas along inner margin of scapulae and on posterior half of praescutum elongate and giving the appearance of delicate striations; parapsidal grooves represented posteriorly by broad shallow depressions, effaced anteriorly; scutellum with a smooth area medially extending from base to apex and occupying approximately one-third the dorsal surface, the lateral portions of scutellum distinctly reticulate-striate like the mesoscutum; propodeum polished, with three carinae medially, a delicate median one and the usual two diverging ones; marginal veins of forewing distinctly longer than submarginal, the stigmal and postmarginal short and subequal; submarginal dorsally with two long bristles; hind tibial spur long and slender, as long as the basitarsus and two-thirds of the second tarsal joint combined. Abdomen conic-ovate, very nearly as long as head and thorax together; petiole thick, slightly longer than the propodeum, very finely granularly sculptured and opaque above; second tergite equal in length to the following tergites combined, smooth at base, the apical half very finely but distinctly reticulated except a narrow band at apex which is smooth; tergites beyond the second weakly reticulated; ovipositor not exerted. General color black with a tinge of bronze; antennal flagellum metallic green; scape black; fronto-vertex slightly tinged with green; propodeum and smooth portion of second tergite bright metallic green; wings hyaline; legs greenish, all tarsi white.

Male unknown.

Type locality.—Palur, South Arcot district, India.

Type.—Cat. No. 42224, U.S.N.M.

Three females received from Ramachandra Rao are said to have been reared from cocoons of *Perisierola* species attacking *Nephantis serinopa* Meyrick. The type is from the above-named type locality, one paratype from Tudyalur and the other from Thirupatur, Coimbatore, India.

Family SCELIONIDAE

TELENOMUS SPHINGIS Ashmead

Teleas sphingis ASHMEAD, Bull. 14, Div. Ent., U. S. Dept. Agric., 1887, p. 18.

Telenomus sphingis ASHMEAD, Bull. 45, U. S. Nat. Mus., 1893, p. 155.

Telenomus monilicornis ASHMEAD, Journ. Linn. Soc. Lond. Zool., vol. 25, 1894, p. 203 (new synonymy).

I can see no difference between the types of *sphingis* which were reared from eggs of *Phlegethontius sexta* Johanssen at Jacksonville, Fla., and the type of *monilicornis* Ashmead which is a single male collected on the island of St. Vincent.

The National collection contains in addition to the types a series of 8 specimens reared from *P. sexta* at Clarksville, Tenn., by A. C. Morgan; 31 specimens reared from eggs of the same moth at Gurabo, Porto Rico, by W. V. Tower (identified by J. C. Crawford as *T. monilicornis*); and 2 specimens reared from eggs of *P. sexta* by G. Russo in the Dominican Republic.

TELENOMUS CONNECTANS Ashmead

A single female received from G. Russo, Moca, Dominican Republic, and said to have been reared from the egg of *Phlegethontius sexta* Johanssen has been identified as *Telenomus connectans*. This appears to be the first host record for this parasite, which was originally described from the island of St. Vincent.⁶

Family BETHYLIDAE

CEPHALONOMIA TARSALIS (Ashmead)

Ateleopterus tarsalis ASHMEAD, Bull. U. S. Nat. Mus., No. 45, 1893, p. 45; female, male.

Neoscleroderma tarsale KIEFFER, in Wytsman's Gen. Ins., 1908, fasc. 76, p. 41.

Neoscleroderma tarsale KIEFFER, Das Tierreich, 1914, vol. 41, p. 270.

Cephalonomia kiefferi FOUTS, Proc. Ent. Soc. Wash., 1920, vol. 22, p. 71 (new synonymy).

J. J. Kieffer placed *Ateleopterus tarsalis* Ashmead in *Neoscleroderma* Kieffer along with *Ateleopterus virginienne* Ashmead and named the latter species as type of the genus. The types of both species have been examined by the writer and found to be not congeneric. The antennae of *tarsalis* are 12-jointed in both sexes and the species belongs in *Cephalonomia* Westwood. The antennae of *virginienne* are 13-jointed, and the genus *Neoscleroderma* will therefore stand.

⁶ Proc. Zool. Soc. London, 1895, p. 792.

The types of *Cephalonomia kiefferi* Fouts agree in every way with the types of *tarsalis*.

Cephalonomia tarsalis is apparently the commonest species of Bethyliidae to be found attacking stored-product insects in America. Specimens are in the collection from Saticoy and Fresno, Calif.; Wellington, Kans.; Agricultural College, Michigan; Vienna, Va.; and Washington, D. C. *Oryzaephilus surinamensis* Linneaus and *Sitophilus oryzae* Linneaus are the only species named as hosts in this material.

RHABDEPYRIS ZEAЕ Waterston

In February, 1929, J. J. Davis, of Purdue University, sent to the Bureau of Entomology for identification four females and three males of a bethyloid which he stated were probably parasites of *Tribolium confusum* Duval and which had been taken at Lafayette, Ind., February 10, 1929, by L. F. Steiner. The writer identified these specimens at that time as "*Rhabdepyris* sp. (possibly a new species)." More recently a female of the same insect was received from T. H. Frison, of the Illinois State Laboratory of Natural History, with the information that it was reared from *Tribolium confusum* at Lafayette, Ind. Five males of the same species have also been received from the Louisiana Experiment Station, said to have been reared from stored-corn insects at Baton Rouge, La., November 12, 1928, by C. O. Hopkins. After a careful comparison of this series of specimens with Waterston's description and figures the conclusion was reached that they did not represent a new species but that they were *Rhabdepyris zeaе* Waterston. Specimens were sent to Dr. James Waterston, of the British Museum, for comparison with the type, and he has confirmed the identification.

This species has not hitherto been recorded from America. It was originally described⁷ from a single female specimen taken at Liverpool, England, in a shipment of maize from West Africa. The sample of grain was said to have been infested by *Calandra oryza* Linnaeus, *Tribolium castaneum* Herbst, and *Laemophloeus ferrugineus* Stephens, and Waterston expressed the opinion that the first-named species was almost certainly the host of *Rhabdepyris zeaе*. It appears probable that the species may be found to attack several of the coleopterous pests of stored corn.

⁷ Repts. Grain Pests (War) Committee, Roy. Soc. Lond., No. 9, 1921, p. 27, figs. 14 and 15.