

APPENDIX.

DESCRIPTIONS OF SOME UNKNOWN PARASITIC HY-
MENOPTERA IN THE COLLECTION OF THE
KANSAS STATE AGRICULTURAL COL-
LEGE, RECEIVED FROM PROF.
E. A. POPENOE.

By WILLIAM H. ASHMEAD.

Family CYNIPIDÆ.

Sub-Family EUCOILINÆ.

Genus *Cothonaspis* HARTIG.

1. *Cothonaspis Erythropus* n. sp.

Male. Length .13 to .14 inch. Polished black. Antennæ very long, fifteen-jointed, cylindrical, situated far up on the face on the superior line of the eyes, dark red, the third joint slightly shorter than the fourth, fourth and joints beyond of nearly equal length, a little more than thrice longer than thick. Legs red. The disk of the scutellar cup anteriorly with four punctures, two on either side, close to the margin. Wings hyaline, entirely without pubescence, veins very pale yellowish, nearly hyaline, the triangular marginal cell closed.

Described from two specimens, Nos. 683 and 682. One specimen is smaller than the other, and has the wings discolored, evidently due to the cyanide bottle; otherwise it does not differ from the larger form.

Genus *Coptereucoilia* ASHMEAD.

2. *Coptereucoilia rufitarsis* n. sp.

Female. Length .08 inch. Polished black. Antennæ thirteen-jointed, gradually incrossated, moniliform, dark red, sparsely pubescent. The cup of the scutellum is very small, high. The legs are red, with black femora. Abdomen compressed, slightly pointed at apex, much more than is usual in the *Eucoilinae*. Wings hyaline, pubescent, ciliate, and but slightly emarginated at apex; veins reddish, with the marginal cell open along the outer edge.

Described from one specimen, No. 680. This genus was characterized by the writer recently in a paper published in the Transactions of the American Entomological Society, and this is the second species to be described. The genus seems to be closely related to *Ectolyta* FÆRSTER, but may readily be separated from it by the emargination of the apex of fore wings.

Family PROCTOTRUPIDÆ.

Sub-Family DRYININÆ.

Genus *Dryinus* LATREILLE.

3. *Dryinus Popenoei* n. sp.

Male. Length .08 inch. Black. Head sub-opaque, microscopically punctate. Thorax and abdomen polished black. Metathorax and mesopleuræ finely rugose. Antennæ ten-jointed, brown, sparsely covered with long white hairs, second joint smallest, third longer but shorter than fourth, fourth joint and those beyond, excepting the terminal joint, which is longer, of nearly equal length. Legs, including the coxæ, reddish-yellow; tarsi paler. Wings hyaline, stigma large, pale brown; the venation consists of two long basal cells and a short stigmal vein.

Described from one specimen, labeled No. 836.

Sub-Family SCELIONINÆ.

Genus *Telenomus* HALIDAY.4. *Telenomus euschristus* n. sp.

Female. Length .06 inch. This species differs from *T. anasa* ASHMEAD in being slightly larger, the head broader, and the sculpture much smoother, not coarsely, rugose-punctate; the head is finely confluent punctate, and the space between the eyes is very broad. The middle ocellus is placed in a distinct depression. Antennæ dark brown, almost black. Legs dark honey-yellow, the femora black. The abdomen is smooth and polished, excepting some longitudinal lines at base of the large second segment; the first and second segments are separated by a coarse, punctate suture. The parapsidal grooves of the mesothorax are distinctly, sharply defined posteriorly; anteriorly they are wanting, and there is a slight indication of a median groove behind. Wings hyaline, veins pale brown, the post-marginal vein much longer than the long stigmal vein, the marginal vein short.

Described from two specimens, labeled No. 763, and reared from Pentatomid eggs, which apparently belong to some species of *Euschristus* or an allied form.

Sub-Family CERAPHRONINÆ.

There is in the collection a species that cannot be placed in any of the known genera in this group, and I have founded for its reception a new genus, which, although closely allied to the genus *Megaspilus* WESTW., may be readily separated by the aid of the following table:—

Eyes hairy.

A. Head without blunt projections outwardly at base of the antennæ; metathorax unarmed. *Megaspilus* WESTW.

AA. Head with blunt projections outwardly at base of the antennæ; metathorax armed with a prominent blunt spine. *Megaspilodes* n. g.

Genus *Megaspilodes* ASHMEAD.5. *Megaspilodes fuscipennis* n. sp.

Female. Length .15 inch. Shining black, and covered with long white hairs, especially apparent on the face, eyes, abdomen beneath, and on the posterior tibiae. Head and thorax rugose, face coarsely shagreened, excepting the space occupied by the antennal scape when it is drawn up; no antennal depression. Palpi long, apparently three-jointed, the terminal joint nearly twice as long as the second. Antennæ issuing just above the mouth, eleven-jointed, scape long, obclavate. Prothorax very short, much narrower than the mesothorax, and below the dorsal line. Mesothorax truncate before, with coarse parapsidal grooves which are rendered indistinct, however, by some irregular rugosities of the upper surface. Scutellum with a punctate frenum surrounding its border. Metathorax armed in the middle with a rather long, blunt spine. Abdomen shaped as in *Megaspilus*, with coarse longitudinal lines on the disk of the long first segment which do not, however, reach to the apex; the apex and, indeed, most of the lateral margins being smooth. Legs reddish brown, with black femora, and the tibiae more or less infuscated. Wings pale fusco-hyaline, with a dusky streak beneath the large stigma and stigmal vein.

This interesting new form is described from one specimen, labeled No. 816. It resembles somewhat the genus *Prosacantha* in its thoracic characters, and the genus *Megaspilus* in antennal and wing characters, but cannot be confounded with either; from the former it is separated by its wing characters and the two apical spines on the fore tibiae; from the latter, by the spined metathorax and cephalic differences.

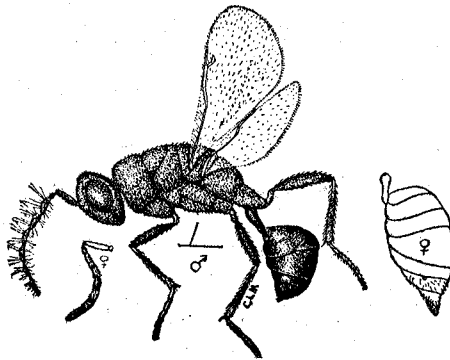
Family CHALCIDIDÆ.

Sub-Family EURYTOMINÆ.

Genus *Eurytoma* ILLIGER.6. *Eurytoma dorcaschema* n. sp.

Male and female. Allied to *Eurytoma obtusiloba* ASHMEAD, and differs only as follows: The mesothorax and metathorax are slightly longer than in that species; the abdominal petiole and the abdomen are longer, the latter more pointed and impunctured, smooth, and shining. The marginal vein of the fore wing is not quite as thick, and proportionally longer than in *E. obtusiloba*. In the male the petiole is shorter and the abdomen very small, while the legs, excepting the knees and tips of the tibiae, are black.

It is difficult to distinguish the male of this species from the male of *E. Bolteri* RILEY, and from larger specimens of *E. studiosa* SAY, but the females are readily separated, and, with more study, characters will probably be discovered to more easily separate the males,



Eurytoma dorcaschema,

This species is described from two female and two male specimens, labeled Nos. 718 and 719, parasitic on *Dorcaschema alternatum*, September 12th, 1887.

This early opportunity is taken to characterize a new genus in this group, the male of which has been in my collection for three years. It has not been described before for the reason that the female remained unknown to me, and I was loath to create a genus founded on the male sex alone. There is in the Kansas collection, however, a single male specimen, and as the female is now known, having been reared by me this spring from a Cecidomyioid larva, found feeding in the berries of the common *Crataegus*, it can now be properly characterized.

The genus is dedicated to my learned friend, Dr. C. V. Riley, who has done so much toward advancing our knowledge of the habits of this intricate group.

Rileya ASHMEAD n. g.

Male and female. Head transverse, as broad as the thorax, and, when viewed from in front, triangular; vertex finely sculptured, face with converging grooves. Antennæ eleven-jointed, scape, two ring joints, five-jointed funicle, and a three-jointed club; the joints of the funicle are a little wider than long. The thorax and abdomen exhibit a very fine transverse, ripple-marked sculpture. The prothorax is sub-quadrate, and slightly longer than the mesothorax. The parapsides are distinct, but delicate. Scutellum convex, rounded behind. Metathorax short. The abdomen is long ovate, attached to the metathorax by a short petiole; the two basal segments short, oblique, their sutures extending forward toward base of petiole; the second is very short; these two segments are smooth, polished, and without sculpture. The third and fourth segments are long, the fourth the longest, fifth and sixth segments short.

The venation of the fore wings is very distinct from any other Eurytomid genus in that the marginal vein is three times as long as the stigmal vein.

In female the face is not coarsely striated nor as triangular as in the male, and the abdomen is shaped as in *Eurytoma*, but with the segments differently arranged. The first two are, as in the male, smooth and polished, while the third is much the longest, the following gradually shorter. The ovipositor originates from beneath, anteriorly, as in *Eurytoma*; its other characters similar to the male. This remarkable genus cannot be confounded with any other of the *Eurytomid* group, although the male approaches quite close to *Aidomorphus* WALKER, a genus described from Hong Kong, China.

7. *Rileya cecidomyiæ* n. sp.

Male and female. Length .08 to .11 inch. Black, with some sparse pubescence. The antennæ vary from a black to a fulvous, or pale brown. The Kansas specimen is black, with the tips alone fulvous. In my collection are specimens with antennæ all black and all fulvous. The legs are brownish-yellow; in the Kansas specimen the femora are black toward the base, although this is only slightly apparent in only one of my specimens, all the rest being brownish-yellow. In the Kansas specimen, and two from Florida, the abdomen is entirely black, but in others the whole abdomen is brownish-yellow; and one specimen exhibits but a slight brownish spot near the base. But one female specimen is known to me, and in it the legs are brownish-yellow with the femora blackish toward the base, and an infuscated blotch on tibia; the abdomen is black.

Described from one male specimen from Kansas labeled No. 710, and several males and one female from Florida; two males and one female reared by me from a cecidomyioid larva in the seeds of a common *Crataegus*, the others taken in beating net.

Sub-Family TORYMINÆ.

Genus *Monodontomerus* WESTWOOD.

8. *Monodontomerus pachyphylla* n. sp.

Female. Length .13 to .15 inch; ovipositor .10 to .12 inch. Golden green; collar above, head on occiput, face and cheeks more or less blue; metathorax, mesopleuræ, and abdominal flap steel blue; scape and pedicel of antennæ and legs, including all coxæ, pale brownish-yellow; flagellum and the long ovipositor, brown-black.

The whole surface is finely confluent sculptured, with a few large punctures scattered here and there over it, and sparsely covered with short white hairs. The scutellum has a cross-furrow behind the middle, the abdominal flap, in both sexes, is straight, while the posterior thighs are armed beneath with a large sub-apical tooth. Wings hyaline, veins brown, stigma ovate, with a slight tooth or projection, and a slight dusky shade surrounding it.

Male. Length .07 inch. It differs from the female only in the head being almost entirely green, while the thorax exhibits much more of the blue color of the metathorax.

Described from three specimens, two females and one male, reared from the Psyllid (*Pachyphylla venusta* O. S.), labeled No. 845.

Genus *Megastigmus* DALMAN.

9. *Megastigmus? flavipes* n. sp.

Male. Length .06 inch. Light blue, finely confluent punctate. The abdomen toward the apex æneous. Antennæ brownish-black. Legs yellow. Wings hyaline, stigmal vein rather short, ending in a good-sized knob.

Described from one specimen, labeled No. 776, and reared from a Cedar cecidomyioid larva.

The brevity of the stigmal vein would seem to indicate that this species should be placed in *Torymus*.

Genus *Torymus* DALMAN.10. *Torymus flaviventris* n. sp.

Female. Length .13 inch; ovipositor .08 inch. Near *T. solitaria* O. S. Metallic bluish-green, finely transversely sculptured. Abdomen at base blue, the venter beneath yellowish. Legs yellowish, tarsi whitish, hind coxæ green and blue at base, yellowish toward tips. Wings pale fusco-hyaline, probably due to accumulated dust on the pubescence.

Described from one specimen labeled 794.

Sub-Family EUPELMINÆ.

Genus *Eupelmus* DALMAN.11. *Eupelmus macrocarpæ* n. sp.

Female. Length .12 inch; ovipositor .01 inch. Æneous, with a greenish lustre. Antennæ fulvous, club dusky, scape black. Abdomen brassy-green. Legs, including coxæ, honey-yellow, excepting a large brownish blotch toward the base. Wings clear hyaline.

Described from two specimens labeled No. 689, parasitic on *Acraspis pezomachoides* O. S. from galls on *Quercus macrocarpa*, and No. 692, parasite of *Acraspis erinacei* WALSH. from galls on *Quercus prinus*, September 26th. The species reared from the last has the cheeks decidedly blue.

12. *Eupelmus flavovariegatus* n. sp.

Female. Length .11 to .12 inch; ovipositor .01 inch. Head golden-green, finely confluent punctate. Antennal scape collar, sides of thorax (excepting a dusky blotch at sides near base and toward apex), and the legs (excepting tips of terminal joints, hind coxæ at base, and a streak at apex of posterior femora outwardly) all yellow. The flagellum shades into brown apically. The mesothorax is metallic brown-green. Wings hyaline at base, a transverse band the length of the marginal vein and including stigma, brown, a narrow white band beyond, and then the apex of wings brown. The two basal joints of middle tarsi are armed with a double row of small black teeth. The male is very dissimilar, but .05 inch in length, and might easily be mistaken for another insect. It is entirely metallic green; legs yellow, excepting the posterior tibiae, which are brown. The wings are entirely hyaline, although a faint dusky blotch may be detected beneath the stigma.

This beautiful little species is described from three specimens, one male and two females, labeled Nos. 702 and 703, from galls of *Andricus* ? *dimorphus* ASHMEAD, on *Quercus prinus*, August, 1887.

Genus *Charitopus* FÆRSTER.13. *Charitopus magnificus* n. sp. (Fig. 2, ante.)

Female. Length .25 inch. Robust, purple, and gold-green, finely confluent punctate. The abdomen, at the base, has the first two segments smooth, cupreous, the third, which is very short, golden-green, finely punctate, fourth purplish-green, the fifth, which is the longest segment, and the following, are all dark blue. The face and the thorax sparsely, and the abdomen more densely, more distinct on the sides, covered with a whitish pubescence, and a fine scaly sculpture. The antennæ are obliquely truncate at tips, dark brown, the scape yellowish-brown. The legs are red, with the posterior femora very thick, posterior tibiae with two apical spines, the single tibial spur of the middle legs very long, white. The thorax is not impressed as are all other Eupelmid females known to me, and the parapsides are wanting. The prothorax is transverse quadrate. The wings are hyaline, excepting two large brown blotches, one beneath at the commencement of the marginal vein, the other at the beginning of the post-marginal; they do not, however, extend entirely across the wing, shading off into a dusky cloud before reaching the hind margin. This most lovely species, and the first authentic species to be described in our fauna, is characterized from one female-specimen, labeled No. 720, and reared from *Amphicercus bicaudatus*.

Genus *Ratzburgia* FÆRSTER.

The discovery of a species belonging to this rare genus induces me to draw up a full description of the genus, so that it may be the more easily recognized by the student.

Generic Characters.—Form greatly elongated, linear; the abdomen broadly sessile and about twice as long as the head and thorax together, acuminate produced at apex. Head subglobose, cheeks and face full, bulging, with a deep, broad emargination for the reception of the antennal scape. Ocelli three, triangularly arranged, the anterior one situated in the antennal groove, the lateral ones very close to the inner line of the eye. Clypeus very small, transverse, deeply emarginated in the middle. Eyes oval. Antennæ (?) thirteen-jointed and remarkably slender and attenuated, cylindrical, of nearly a uniform thickness throughout, but becoming very slightly smaller toward the apex, and situated on the middle of the face; the scape extends beyond the ocelli, pedicel about twice as long as thick, the third joint the longest, about eight times as long as thick, the following joints subequal, the terminal one being only about twice as long as thick. The thorax is as high as wide, rounded; the collar and fore part of the mesothorax contracted with the margins well rounded, collar short, transverse. The mesothorax is depressed in front of the scutellum, the disk of the depressed portion being convexly elevated, and giving to it the appearance of two channels, one on either side, somewhat similar to the genus *Eupelmus*. The parapsidal grooves are delicate, converging toward each other and almost meeting on the middle of the mesothorax. Scutellum longer than broad, rounded behind, and contracted anteriorly; scapulae twice as long as wide, and well separated from the scutellum by a deep groove. Metathorax very short, spiracles rounded, attached to the abdomen by its whole breadth. Mesopleurae rounded, long, not divided. Abdomen twice as long as the head and thorax together, acuminate, and ending in ovipositor the length of the hind tarsi; the abdomen is apparently composed of seven segments, above subconvex, beneath boat-shaped. The tarsi are five-jointed, the anterior and posterior pairs being slightly longer than their tibiae, the middle pair being only

a little longer than half the length of their tibiae; a long tibial spine. The wings are hyaline, and when folded extend only two-thirds the length of the abdomen; the submarginal vein is twice the length of the marginal, while the stigmal and post-marginal veins are short.

14. *Ratzburgia amphicerovora* n. sp. (Fig. 3, ante.)

Male. Length .31 inch. Head purple and gold, rather coarsely shagreened in front and on the vertex, the cheeks, however, are finely sculptured and distinctly separated from the face by a groove that extends from the eye to the mouth. Antennae black with aeneous tingeings, the scape more or less polished. The thorax and abdomen are metallic brown, the collar at sides and the metathorax blue, while at the base of the abdomen is a large brassy spot. The sculpture may be defined as finely granulate, although it is more or less finely transverse on the fore part of the mesothorax and on the disk of the abdomen. The whole insect is sparsely covered with white pile, particularly noticeable on the abdomen. The legs are reddish-yellow, with the hind coxae purplish.

This interesting form is described from one male specimen, labelled No. 721, Sept., reared from *Amphicerus bicaudatus*.

Sub-Family EUCYRTINÆ.

Genus *Psilophrys* MAYR.

15. *Psilophrys pallipes* n. sp.

Female. Length .06 inch. Differs from *P. hyalinipennis* How. in having all the legs of a uniform pale brownish-yellow, excepting a blotch on the posterior femora. The head is smooth, thorax gold-green, finely sculptured, while the disk of the scutellum is impressed anteriorly. The metapleurae are distinctively blue and prominently contrasting with the color of the body.

Described from two female specimens, labeled No. 777. Parasitic in larvae of *Gelechia gallsolidaginis* RILEY.

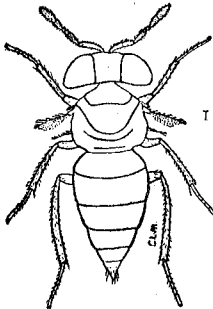
Genus *Bothriothorax* RATZBURG.

16. *Bothriothorax macroglenes* n. sp.

Female. Length .04 inch. All deep blue-black, excepting the fulvous-colored tarsi. The club of the antennae is very large, broad. The eyes are unusually large and the frontal space is in consequence exceedingly narrow. Wings hyaline; the marginal vein is almost as long as the stigmal.

Described from two specimens, one broken, without number.

Genus *Bæocharis* MAYR.



Bæocharis Marlatti.
Larva and pupa.

17. *Bæocharis Marlatti* n. sp.

Male and female. Length .02 to .03 inch. Stout, robust, nearly as broad as long, with only short, rudimentary wings, and of a shining black color, with some aeneous tingeings in certain lights. In the male the head is much broader than the thorax, antero-posteriorly thin; in the female it is much thicker. Eyes large, converging in front. The antennae issue just above the mouth, are apparently but six-jointed, but in reality ten-jointed, the joints of club being very close together, the scape does not reach much beyond the middle of the face, lying in a facial groove, the pedicel is longer than wide, the first and second joints of the funicle short, about as wide as long, the third joint longer than wide, the other broadened and made out with difficulty. The legs are very long, brown, excepting the honey-yellow knees, tips of tibiae and tarsi. The thorax is very short, the scutellum large, broad, convex. The abdomen is sessile, broadly oval, with the first segment the longest.

This species is described from three specimens bred from the greenhouse aphid, and kindly sent me by Mr. C. L. Marlatt of Manhattan, Kansas. It was at first identified as a species belonging to FÖRSTER'S genus *Platöcharis*, but a more careful study convinced me it belonged to MAYR'S genus *Bæocharis*, where it is now placed. But one species is known in Europe, *Bæocharis pascuorum* MAYR.

Sub-Family TRIDYMINÆ.

Genus *Tridymus* RATZBURG.

18. *Tridymus metallicus* n. sp.

Male and female. Length .11 inch. Metallic bronze-green. Abdomen aeneous. Head and thorax finely sculptured, face slightly impressed. The antennae are inserted just above the clypeus, twelve-jointed, pale brownish-yellow, scape a little longer than half the length of the flagellum, sub-clavate; the joints, excepting the first, which is

longer than wide, are wider than long. The parapsidal grooves of the thorax are distinct. Legs pale brownish-yellow: terminal joint of tarsi, black. Wings hyaline, pubescent, veins pale brownish, the marginal and post-marginal about equal in length, the stigmal ending in a small knob, and about half the length of the marginal vein. In the female, the joints of the funicle are dusky, the head more decidedly green, the abdomen pointed and pur-

plish; otherwise similar to male. In two specimens, the thorax is purplish-green, with a greenish-bronze abdomen.

Described from four specimens, one male and three females, labeled Nos. 792, 793, 795, and 796.

Genus *Syntasis* WALKER.

19. *Syntasis purpuriventris* n. sp.

Male and female. Length .1 inch. Head and thorax purplish-green. Abdomen metallic purple, or bluish. The antennae are reddish-brown, the scape brownish-yellow. Legs: femora, excepting tips, purplish, tips brownish-yellow, a large brown spot on tibiae, their tips and the tarsi pale, the apical joints of the tarsi black. Wings clear hyaline, veins pale yellow, the stigmal vein ending in a knob, and two-thirds the length of the marginal vein. In the female, the thighs are not so decidedly purple, exhibiting a greenish lustre, while the marginal vein is longer, being about twice the length of the stigmal vein.

Described from three specimens, one male and two females, labeled Nos. 799, 804, and 775.

Genus *Metastenus* WALKER.

20. *Metastenus coerules* n. sp.

Female. Length .1 inch. Rather slender and of a blue color, with slight metallic tingeings on the head and thorax. The antennae slender, twelve-jointed, yellowish-brown, dusky toward tips, the joints of the funicle a little longer than wide. Thorax without distinct parapsidal grooves, and very finely granulated punctate. Abdomen sessile, longer than head and thorax together, and acuminate towards tip, the venter compressed into a sharp keel below. Legs honey-yellow; all the femora behind have a slight dusky streak. Wings hyaline, veins pale yellowish, the marginal vein is about twice the length of the stigmal, while the post-marginal is two-thirds the length of the marginal.

Described from one female specimen labeled No. 791.

Sub-Family PTEROMALINÆ.

Tribe SPHEGIGASTRIDES.

Genus *Sphégigaster* SPINOLA.

21. *Sphégigaster ceruleiventris* n. sp.

Female. Length .12 inch. Head and thorax bronze-green, with a scaly punctation. Abdomen metallic blue. Head transverse, wider than thorax; ocelli red; lower part of face slightly impressed. Antennae brown, the scape of which reaches beyond the ocelli, and the legs, yellowish. Abdomen cordate, petiole short. Wings hyaline, veins yellowish, the stigmal vein is long and delicate, almost as long as the marginal vein, and ending in a small knob, the post-marginal vein is longer than the marginal.

Described from one specimen, labeled No. 803.

22. *Sphégigaster aeneiventris* n. sp.

Male. Length .08 inch. Differs from the preceding in that the face is not impressed; the femora, excepting their tips, brown or black. The venation of wings is also different. The marginal vein is more than twice the length of the stigmal vein, while the post-marginal is only a little longer than half the length of the marginal.

Described from one specimen, labeled No. 811.

Genus *Lophocomodia* n. g.

The antennae are long, thirteen-jointed, with the joints of the funicle nodose-pedicellate, and furnished with whorls of long hairs as in the Entedonid genus *Lophocomus* HAL. The head is large, transverse, much wider than the thorax; face sub-convex, the vertex and space between the eyes being very wide, the vertex sub-acute. The thorax is exceedingly short, transverse, the collar hardly visible from above. The parapsidal grooves are indicated only anteriorly. The metathorax is short, and slightly produced over the short abdominal pedicel. The abdomen is very small, flattened, obovate. The wings as in typical Sphégigastriids, the marginal vein being slightly more than twice the length of the stigmal, the post-marginal hardly as long as the marginal. The female unknown.

This peculiar genus does not differ especially from other Sphégigastriids, excepting in the nodose-pedicellate antennae, which at once distinguishes it from any of the others.

23. *Lophocomodia Americana* n. sp.

Male. Length .07 inch. Stout, robust, the thorax being not much longer than wide, and of a dull bronze-green, with a scaly sculpture. The face is pubescent, and there are some very fine sparse hairs on the thorax. The antennae are black, scape long, brownish-yellow. Legs, with the exception of the femora, dark honey-yellow, femora dark brown, tips paler. Wings hyaline.

Described from one specimen, labeled No. 813.

Sub-Family EULOPHINÆ.

Genus *Sympiesis* FÖRSTER.

24. *Sympiesis tischeria* n. sp.

Female. Length .07 to .09 inch. Metallic blue-green, coarsely squamous, covered with a few sparse long hairs. Antennae dark brown, scape at base pale. Head smooth, face blue. Abdomen blue, with an aeneous tinge, and exhibiting, in certain lights, brassy tingeings. The legs are uniformly pale yellowish, excepting the tips of the terminal tarsal joints, which are dusky.

Described from four specimens, two labeled No. 727, and reared from the apple *Tischeria*, (*T. malifoliella*), August, 1887; and two No. 730, reared August 3rd, from a button-bush leaf-miner.

25. *Sympiesis quercicola* n. sp.

Female. Length .1 inch. More robust than *S. tischerie*, and with the thorax and scutellum coarsely squamous and of a beautiful gold-green. The head, the metathorax, and the abdomen, excepting a reddish streak at the sides of the venter, blue. The legs are yellowish-white; the antennæ all black.

Described from two specimens, labeled No. 754, and reared from an oak-leaf miner, August 3rd, 1887.

26. *Sympiesis chenopodii* n. sp.

This species is very close to *S. quercicola*, but the thorax is dull metallic green, smoother, and more pubescent, while the metathorax and abdomen are not blue, but aeneous. The abdomen, too, is much shorter. The legs are not so white, and more pubescent; the wings are also more decidedly pubescent, with the stigmal and post-marginal veins brown. The antennæ are black, with a metallic tinge in certain lights, and the scape is pale at base.

Described from one specimen, labeled No. 741, and reared in August from a *Lithocolletis* miner on *Chenopodium hybridum*.

27. *Sympiesis dolichogaster* n. sp.

Female. Length .16 inch. Blue; antennæ and eyes dark brown; legs, excepting the apical tarsal joints, which are brown, pale yellowish-white. The abdomen is greatly elongated, acuminate, and twice the length of the head and thorax together, and shaped as in the Tetrastichid genus *Oxyomorpha*. Wings clear hyaline.

Bred from a lepidopterous leaf-miner of balsam poplar.

28. *Sympiesis nigrifemora* n. sp.

Female. Length .08 to .14 inch. Blue, with sometimes a greenish lustre, more or less distinct on the thorax, scutellum, and head. Antennæ brown black. Abdomen pointed, ovate, slightly longer than the head and thorax combined. Legs yellowish, excepting the black or blue-black femora, which have, also, sometimes a metallic lustre; the coxæ are blue, and the apical joint of the tarsi, brown. Wings hyaline, and, in most of the specimens, nearly devoid of pubescence; veins pale brown.

Described from six specimens, labeled as follows: No. 736, reared from balsam-leaf miner in August; 756, 757, 758, and 790, reared from an oak-leaf miner August 5th, 1887; and No. 728, from apple *Tischeria*.

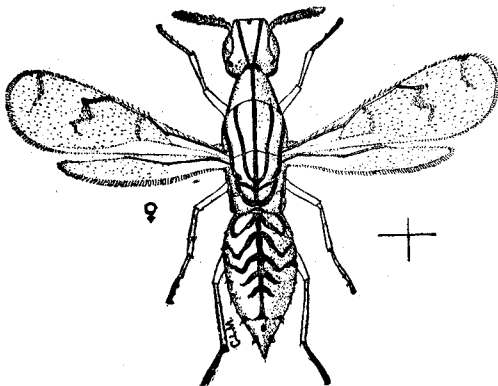
29. *Sympiesis nigripes* n. sp.

Male and female. Length .05 to .07 inch. Aeneous-black. Metathorax blue. Tarsi and knees dull honey-yellow. Wings hyaline; nerves, in one specimen, black, in the others pale.

Described from three specimens, one male and two females, labeled Nos. 725 and 726, and reared from the apple *Tischeria*. No. 753, from a soft maple *Lithocolletis*.

Genus *Hippocephalus* n. g.

This genus differs from *Sympiesis*, and all other Eulophid genera, in the much more elongated, pointed prothorax, and in that the marginal vein of the fore wings is only twice as long as the stigmal vein, and in the peculiarity of its cephalic characters. The head is longer than wide, and, antero-posteriorly, very thin. Face deeply emarginated for the reception of the antennal scape, and the vertex is greatly elevated above the dorsal line of the eye, produced into a sharp, transverse edge, near the margin of which are placed the ocelli. The antennæ are similar to those in *Sympiesis*, but shorter, the joints of the flagellum being flattened, and about as wide as long. The other characters are those of *Sympiesis*.



Hippocephalus multilineatus.

30. *Hippocephalus multilineatus* n. sp.

Female. Length .10 inch. Honey-yellow; eyes, last joint of the funicle, club, and the terminal joint of the tarsi, brown. The species is covered with black lines as follows: A median line on face below the insertion of the antennæ; two lines beneath the eye, and one above the latter extending transversely along the sharp edge of vertex; two lines on occiput; two lateral lines extend the whole length of the thorax; a median line above extending from base of head to tip of scutellum, on each side of which are lines which do not, however, extend the whole length of the collar; metathorax with curved lines; abdomen above with a broad median line from which extend about six curved lines or ribs, conforming somewhat to the

abdominal sutures. Wings hyaline, stigmal vein black, other veins pale.

This unique species is described from two specimens (one imperfect, which may be the male), labeled Nos. 742 and 743, reared Aug. 20th, 1887, from the locust *Lithocolletis L. ornata*.

Sub-Family ENTEDONINÆ.

Genus *Lophocomus* HALIDAY.31. *Lophocomus verticillatus* n. sp.

Male. Length .08 inch. Robust, dull greenish-bronze, finely confluent punctate. Femora bronze-black; tibiae and tarsi, excepting the apex of the terminal joints, pale yellowish. Antennæ very long, as long as the whole body, tip of scape and flagellum black, joints nodose at base, and furnished with whorls of long, coarse bristles; the scape is attached to the middle of the face, and reaches considerably beyond the ocelli, and is of a yellowish color. The parapsides are coarse, deep, distinct. The scutellum is slightly longer than broad, and rounded posteriorly. Abdomen short, ovate. Wings hyaline, pubescent, veins brown, the stigmal very short.

Described from one specimen, labeled No. 787, September.

This remarkable genus was founded by HALIDAY in the Transactions of the Linnean Society, Volume III. (1842), page 297, to contain *Cerrostilus anallis* WALKER, a South American Chalcid, discovered by the celebrated Charles Darwin during the voyage of the "Beagle," and is, I believe, up to the present time, the only species known. The discovery, therefore, of a new species in our fauna, and from a region so widely separated as Kansas and Chili, is, from a geographical point of view, particularly interesting.

Genus *Pleurotropis* FÆRSTER.32. *Pleurotropis tricineta* n. sp.

Female. Length .05 to .06 inch. Indigo blue, excepting the pale tarsi, black antennæ, and a broad black median band on vertex of head, and extending from collar to the apex of the scutellum. Wings hyaline, pubescent, with three dusky, transverse bands, one beyond the middle, another across the stigmal region, and the third at the apical border.

This beautiful little species is described from three specimens, labeled No. 716 and 715, and reared from a *Lithocolletis* larva on Sycamore.

Genus *Entedon* DALMAN.33. *Entedon lithocolletidis* n. sp.

Male and female. Length .05 to .06 inch. Blue, finely squamous. Antennæ black. Legs blue; tips of tibiae and the tarsi white, or yellowish-white, the apical joint of tarsi at tip, dusky. Wings hyaline, veins brown.

Described from two specimens, labeled No. 717, and reared from a *Lithocolletis* larva on *Heliathus grosse-serratus*, September, 1887.

34. *Entedon cupreicollis* n. sp.

Male and female. Length .07 to .08 inch. Blue, coarsely squamous; collar cupreous in the male, but not in the female. Head, antennæ, and legs black, with a decided æneous tinge. The cheeks and metapleuræ in male brassy, the petiole long, one-third longer than the hind coxæ, much shorter in the female. Wings hyaline, the marginal and the short stigmal veins blackish.

Described from three specimens, two males and one female, labeled Nos. 788, 801, and 802, Wallace, Kan., July, 1885.

Genus *Asecodes* FÆRSTER.35. *Asecodes quercicola* n. sp.

Male and female. Length .07 inch. Head and thorax bright, fiery, coppery, the abdomen and legs not so bright; tarsi yellowish; antennæ black, with metallic tinges. The head and the mesothorax are scaly, the scaly punctation much less apparent on the mesothorax, and the scutellum is perfectly smooth. Abdomen pointed-ovate, sub-petiolate, and long as the thorax. Wings hyaline, marginal vein delicate, and with the stigmal vein brownish. The male is much smaller, .04 inch in length, and of a much duller color, lacking the bright metallic color of the female.

Described from three specimens, one male and two females, labeled No. 840 and 841, reared from an oak-apple, June 18th, 1887.

These are unquestionably parasitic on some inquilinous Tineid larva infecting the gall, and are not parasitic on the Cynipid producer.*

Genus *Chrysocharis* FÆRSTER.36. *Chrysocharis oscinidis* n. sp.

Male. Length .05 inch. Dull coppery and purple. Abdomen and face æneous black. Antennæ eight-jointed, covered with a fine whitish pubescence. All legs pale yellowish-white. Abdomen oval, petiole short. Wings hyaline, the veins pale yellowish.

Described from two specimens, labeled Nos. 740 and 746. Reared from mines of dipterous larva in leaves of cottonwood.

Genus *Derostenus* WESTWOOD.37. *Derostenus leucopus* n. sp.

Female. Length .04 to .05 inch. Light blue, finely scaly, the parapsidal grooves deeply impressed. Eyes and antennæ brown, the scape pale at base. Legs waxy-white, ungues black. Wings hyaline, marginal vein long, stigmal short.

Described from one female, labeled No. 752.

*This is still open to question, as over fifty specimens were taken from the center of a single "oak apple" gall of *Amphibolips coccinea* O. S. on *Quercus tinctoria*.—E. A. P.