DESCRIPTIONS OF AND OBSERVATIONS ON SOME CHALCIDOID HYMENOPTERA—II.

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Eurytoma pachyneuron, new species.

Female—Length 1.16 mm

Agrees with the type of crassineura Ashmead except as follows: The legs are reddish brown except most of the caudal tibia dorsad and a spot on the caudal coxa, also most of the middle tibia and the caudal femur more or less centrally above; the marginal vein is somewhat longer; funicle 1 is much slenderer and longer, over thrice longer than wide at apex (in crassineura only over twice longer than wide); funicle 2 is twice longer than wide (only a third longer than wide in the other species); the size is smaller; the median channel of the propodeum is single (double and wider in the other, no median basin in either). Tegulæ, ventral edge and proximal half of scape, reddish yellow. Umbilicately punctate. Petiole short. Abdomen polished above.

Described from one female reared in connection with *Isosoma*, Glendale, California (T. D. Urbahns).

Type—Catalogue No. 20321, U. S. N. M., the above female on a tag, the wings, caudal legs and antennae on a slide with an antenna of type crassineura female.

A second female from Halliday, Utah (C. W. Creel) but differing in having the sides of the median channel very finely punctate, the sculpture finer than in the types and the legs entirely reddish yellow.

Xanthosoma nigricornis Ashmead. Genotype.

This is merely an Eurytoma with a fine sculpture.

Eurytomocharis minuta Ashmead. Genotype.

Marginal, postmarginal and stigmal veins *subequal*, the stigmal long. Club *solid*. Funicle 1 a little longer than wide, 2 globular, 3–5 each a little wider than long. Caudal tibial spurs double. Otherwise as in *Eurytoma*. Generic characters are the *solid* club and not otherwise. Type examined.

Decatomidea cooki Howard.

This is a varicoloured species of *Eurytoma* and is characterized (besides colours) by bearing a rounded, densely, finely punctate October, 1916

median basin without a median channel through it. Type examined.

Eurytomocharis eragrostidis Howard.

Congeneric with *minuta* but the venation as in typical *Eurytoma*; marginal vein a third longer than the stigmal, the latter somewhat shorter than the postmarginal. A varicoloured species. Funicle 1 one-third longer than wide, wider distad, 2 quadrate. Type examined.

Eurytomocharis triedii Howard.

A species of *Eurytoma*. Venation as in *E. eragrostidis*. Funicle joints subequal, each about two-thirds longer than wide, subequal to club 1. Abdomen lanceolate, its petiole very short. Propodeal basin finely, densely punctate and with a flat bifoveate median channel through; elsewhere, propodeum coarsely foveate. Type examined.

Eurytoma minnesota, new species.

Female—Differs from illinoisensis in having the median channel of the propodeum double for nearly the proximal half, the former is somewhat more slender and the abdominal petiole is longer, approaching quadrate. The species solenozopheriæ Ashmead has the abdominal petiole very short, the abdomen subsessile and the median channel of the propodeum is bifoveate at base only. The three species are very close. The species solenozopheriæ, however, has the median basin of propodeum distinct caudad, there bounded by a V-shaped carina. Petiole finely scaly, tricarinate.

The male has the cephalic tibiae more or less black; funicle 5-jointed.

Described from two males, six females reared from quack, Olmsted, Minnesota (C. N. Ainslie).

Types—Catalogue No. 20322, U. S. N. M., the above specimens, minutien-mounted.

Bruchophagus borealis Ashmead. Genotype.

The postmarginal vein is slightly longer than the stigmal, the latter than the marginal. Antennæ as in *Eurytoma*, the club 2-jointed. Caudal tibial spurs double. Segment 2 of abdomen subequal to 4, longest, 5 a fourth shorter. Petiole much wider than long. Propodeum with a nonchanneled, large, concave

median basin which is finely, densely punctate. Otherwise as in *Eurytoma*. From the female type. The species *funebris* Howard differs in coloration but not much otherwise. In *mexicanus*, the marginal vein is distinctly longer than the short stigmal, but the abdominal segments remain about the same as in the genotype; the venation varies somewhat and *mexicanus* should be compared with *funebris* which it closely resembles. However, the scape is reddish at base and the legs differ a little in colour. Types examined.

The male funicle is 4-jointed and this fact with the *shape* of the abdomen are the true generic differentials.

Systolodes brevicornis Ashmead. Genotype.

The female type is missing, but some males (so identified by Ashmead) I am unable to separate from the males of *Brucho-phagus funebris* Howard and must conclude that the two are the same.

Specimens of *funebris* were found in the U. S. N. M. collections under the generic label, but they were from Washington, D. C. In the original description of *brevicornis*, Ashmead himself states that the two species are much alike. All other specimens placed under this genus by Ashmead were *funebris* or closely allied to it; none had the fourth abdominal segment greatly enlarged unless subjectively to some astigmatic observers). The genus *Systolodes* is a subjective abstraction!

Eurytoma binotata Ashmead.

The name of this Japanese species is preoccupied. The new name *nippon* is substituted for it.

Rileya americana, new species.

Female—Length 2.75 mm.

Robust and resembling a large specimen of *Eurytoma*, the abdomen compressed as in the genus. Pronotum longer than the scutum.

Black, the wings hyaline, the venation brown, the legs (except coxæ), scape and tegulæ reddish yellow, the tarsi, knees and tips of tibiæ whitish; abdomen dark reddish except dorsad and the petiole. Flagellum dark brown. Like *cecidomyiæ* Ashmead but thrice larger, segment 4 of the abdomen is not nearly half the length of 5 as in that species, 3 is much curved circularly, not

transverse, 2 is a round, disk-like plate, the petiole is very short, subobsolete, while the coarse, isolated rugæ on the propodeum are entirely different. Differs from piercei in the colour of the legs, the venation is longer in americana, the size much greater, propodeum different and so on. Scutellum with a rimmed apex and an obtuse cross-ridge before the apex. Segment 5 of abdomen occupying over half the surface, the abdomen densely scaly except segments 2-3. Propodcum with a pair of coarse, median rugæ which are a little separated at base and parallel there for a short distance (joined by a cross-ruga a short distance out), then widely diverging to run disto-laterad (straight) then abruptly looped up toward the spiracle forming a large semicircle; from the point of change to this loop, a straight, short ruga runs to the apex at the side of the neck (and between the two, one on each side, of these, are about three straight rugæ; a V-shaped ruga runs cephalad from the apex of the loop). Propodeum densely scaly, punctate. Femora darker, reddish toward base. Club 3-jointed; funicle 1 somewhat longer than wide, 2, quadrate; ring-joint 1, quadrate, the others wider. Pedicel slightly longer than funicle 1.

Described from three females in the collection of the U. S. National Museum labelled "5140". 9-7-91". U. S.

Types—Catalogue No. 20323, U. S. N. M., the above specimens on tags and a slide bearing a caudal leg, a fore wing and an antenna.

Rileya hegeli, new species.

Female-Length 1.00 mm.

Golden yellow, the wings hyaline, the venation yellow, the following black markings: Pedicel above at base, distal half of scape above, flagellum (brown), scutum (except lateral margins except distad), pronotum distad acress meson for a width equal to the black of the scutum, upper centre of occiput, apex of ovipositor, scutellum except lateral and distal margins and the meson of the abdomen broadly from base to beyond middle of segment 5. Postmarginal vein nearly as long as the marginal, over twice the length of the stigmal. Abdomen as in *cecidomyiæ* but segment 4 transverse-linear, 5 occupying three-fourths of the surface, the petiole very short. Propodeum with a cross-carina between which run longitudinal rugæ from base and from apex. Ring-joints

all cross-linear, 3 widest; funicle 1, quadrate, 5 a little wider than long; pedicel as long as funicle 1. Pronotum shorter than the scutum.

From one female in the U. S. National Museum from Biscayne Bay, Florida (Ashmead).

Type—Catalogue No. 20324, U. S. N. M., the female on a tag, a fore wing, caudal leg and an antenna on a slide.

Microdontomerus anthonomi Crawford.

Lutesville, Mo., (G. W. Barber). Antennæ 13-jointed with one ring-joint; funicle joints subequal but 7 somewhat wider, each about twice wider than long, shorter than the pedicel. The median carina on the propodeum may be doubled or trebled. In three females from the above locality, it was single, double and treble. The propodeum is more or less glabrous along the meson; it was tricarinate at the meson with one of the type females. Fore femur compressed.

Asympiesiella india, new species.

Female—Agrees with the description of the genotype except that only the caudal coxa is metallic at its proximal half, the scape is brownish black except along the ventral margin, the propodeum is scaly, funicle 1 is only a third longer than 4 which is twice longer than wide, the mandibles are 7-dentate; and the male differs in having the caudal coxa (except at apex), the distal half of the caudal femur and the same of the caudal tibia, black; its scape is pale except at apex, the white on the abdomen is confined to the meson; and funicle 4 is not quite twice the length of the club, the latter subequal to funicles 3 and 5. Rami on funicles 1–3, from the base of each, same side.

Head and thorax in both sexes scaly punctate.

Described from two pairs of each sex reared from *Gracillaria* soyella, the Tar Leaf-folder, Pusa, Behar, India, (T. B. Fletcher).

Types—Catalogue No. 20325, U. S. N. M., the specimens on four slides with a female antenna of Sympiesis dolichogaster Ashmead.

This Indian species differs from the North American Sympiesis dolichogaster Ashmead most notably in having the median carina of the propodeum but half complete and the scape less coloured. The species are congeneric. The validity of Asympiesiella must

be left for later treatment. The genotype is shaped like *dolicho-gaster* and the generic differential may hinge on the greatly clongated abdomen, if the club of *Sympiesis* is not truly 3-jointed and the males do not differ generically. It will do no harm for the present to let them stand but if there is no *true* and *real* difference but only an arbitrary and dermal one, the two must be combined. Here are Australian, North American and Indian species which, superficially, are identical.

Pleurotropis longus, new species.

Female—Length 2.75 mm.

Characterized by the long abdomen which is depressed and conical, distinctly longer than the head and thorax combined; like *perdubius* but the abdomen is more slender and somewhat longer, its segment 2 is glabrous and somewhat longer, the tibiæ are black to tips, funicle 1 is more slender, thrice longer than wide, 2, twice longer than wide. Otherwise the same.

Described from one female reared in connection with *Isosoma*, Lafayette, Indiana, (W. J. Phillips).

Types—Catalogue No. 20326, U. S. N. M., the specimen on a tag, antennæ and a pair of wings on a slide.

Aphidencyrtus inquisitor (Howard).

Many females from Myzus persicæ on peppers, Norfolk, Virginia, (D. E. Fink), October, 1915.

Asaphes americana Girault.

Norfolk, Virginia, September 3, 1915, from *Aphis rumicis* (D. E. Fink). The caudal coxæ may be suffused with yellowish.

Ormyrus unimaculatipennis, new species.

Note—In Ormyrus the parapsidal furrows are distinct, that is, easily seen but they are delicate, not deep. It is an error to say there are no parapsides. However, these furrows are sometimes subobsolete.

Female—Length 2.85 mm.

Dark metallic green, the scape (except a little at apex above) and legs (except the coxe), reddish brown, the caudal tibiæ black, the tarsi white. Fore wings hyaline but with a large, distinct, rectangular (a little longer than wide) fuscous spot under a little less than the distal half of the marginal vein and which touches the apex of the stigmal and extends to the middle of the wing;

postmarginal vein somewhat longer than the nonsessile, curved, stigmal vein. Pedicel twice longer than wide at apex, nearly twice longer than funicle 1, the latter a very little longer than wide, longest yet subequal to 2; 6, twice wider than long; club with the joints (or two divisions) subobsolete. Second ring-joint larger than the first. Head and thorax finely cross-lined, the lines on the thorax not raised. Axillæ, scutellum laterad and the propodeum longitudinally lined, the thorax dorsad (except the propodeum between the spiracles) with prostrate, long pubescence from scattered minute punctures. Propodeum with a pair of widely separated median carinæ. Abdomen glabrous at immediate base, roughly scaly elsewhere; line 1 of large punctures double mesad, base of segment 3; 2, base of segment; 4, double; 3, base of segment; 4, inclined to be triple in places; no others; a median carina from base of segment 3 to middle of 5; segments 3-5 with a scalloped cross-ruga at about middle. Like the Australian species. The basal of the two lines of punctures on abdominal segments is at first of half-punctures but these become more complete distad, complete in line 3

From one female on a tag in the U. S. National Museum from Louisiana (C. F. Baker).

Type—Catalogue .No. 20327, U. S. N. M., the foredescribed specimen and a slide bearing a fore wing and an antenna.

Habrolepoidea depressa, new species.

Female—Length 1.15 mm.

Body depressed, the ovipositor a little extruded yet distinctly so. Dark metallic purple, the wings hyaline, the legs coloured as in *Aphidencyrtus aphidiphagus* (Ashmead) from which this species differs as follows: The mandibles have the third tooth small, subacute (bidentate but the broad second tooth is rather deeply concaved at apex), the frons is moderately broad, the form depressed, the marginal vein is subequal to the stigmal and post-marginal veins. Venation black. Body very finely, microscopically scaly, shining, the axillæ glabrous. Pedicel subelongate, much longer than any funicle joint; funicle joints subquadrate but enlarging distad. Club wider than the funicle and three-fourths its length, obliquely truncate from base of joint 3. Scape with a distinct ventral exfoliation but this is not greatly convexed.

In the male, the band on the middle tibia reaches to the middle, the scape has a distinct convex ventral exfoliation, the pedicel is globular, the marginal vein shorter. The funicle is clothed with rather long, soft hairs, 1 twice longer than wide, 6 somewhat longer than wide; club solid, ovate, somewhat longer than funicle 1, hairy.

Described from two males, three females, reared from the eggs of *Cyllene robiniæ*, Morristown, Illinois, December 8, 1914, (J. R. Malloch).

Types—Catalogue No. 20329, U. S. N. M., the above specimens on tags, a head and fore wing of each sex on a slide.

The species is like a *Zooencyrtus* except the shorter club in that genus. It may represent a new group. *Aphidencyrtus* Ashmead may be retained as a group distinct from *Habrolepoidea* only on the ground of a difference in mandibular shape.

Syrpophagus quadrimaculatæ Ashmead.

A synonym of mesograptæ. Types compared.

Habrolepoidea tarsalis, new species.

Female-Length 1.10 mm.

Like depressa but differing as follows: The scape is cylindrical, slender, the vertex not thin (cephalo-caudad), the form is narrower (moderate in width), the thorax convex, the postmarginal vein somewhat shorter than the stigmal, the scutellum finely longitudinally lined, the abdomen shorter, its ovipositor not extruded. Like aphidiphagus Ashmead but the mandibles with the third tooth acute, the scutellum with very fine longitudinal striation (instead of fine scaliness) and the venation is different. Funicle 1 a little longer than wide, 2 a half longer than wide, longest, 6 as long as 1 but wider. Club two-thirds or more the length of the funicle.

Described from two females in the collection of the U. S. National Museum labelled "Encyrtus tarsalis Ashmead. Type. Indiana." The species does not seem to have been described before.

Type—Catalogue No. 20329, U. S. N. M., the above females on tags, a head and fore wing on a slide.