

DESCRIPTIONS OF SIX NEW GENERA AND TWELVE
NEW SPECIES OF ICHNEUMON-FLIES.

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This paper deals chiefly with reared species sent to the Bureau of Entomology, United States Department of Agriculture, for determination.

The families, genera, and species in this paper are arranged alphabetically.

Family ALYSIIDÆ.

ASOBARA ORIENTALIS, new species.

Type-locality.—India.

Type.—Cat. No. 15288, U.S.N.M.

Female.—Length 1.5 mm. Polished; face including clypeus and mandibles stramineous, the teeth of the latter with dark edges, vertex and upper part of occiput brownish, lower part of occiput and cheeks stramineous, ocelli equidistant or nearly so, the lateral ocelli nearly twice as far from the eye margin as from each other, mouth parts pale stramineous, palpi whitish, scape and pedicel stramineous, flagel 25-jointed, brownish, excepting the last seven joints which are whitish; prothorax stramineous as is the dorsulum and the scutel; notauli present only anteriorly, dorsulum with a median punctiform depression near the posterior edge, mesopleuræ blackish, the sternauli present and rather foveolate, mesosternum brownish; wings with a yellowish tinge; veins and stigma pale brown, legs stramineous; propodeum brownish, with a median longitudinal carina from the base to the oblong areola and an apical transverse carina; metapleuræ blackish and separated from the propodeum by a carina; first, dorsal, abdominal segment stramineous, with two parallel longitudinal carinæ, convex and carinate along the lateral margin, rest of abdomen rather blackish except the hypopygium, ovipositor and sheaths which are pale stramineous.

Labeled, "Fruit fly parasite, 1906; George Compere, collector."

Family BRACONIDÆ.

AMYOSOMA, new genus.

Type-species.—*Amyosoma chilonis*, new species.

Judging from a comparison with *Myosoma pilosipes* Ashmead this genus differs from *Myosoma* Brullé chiefly in the character of the first three dorsal, abdominal segments, the plate of the first being nearly parallel sided and at least three times as long down the middle as wide at the apex, the plate of the second being distinctly narrower at base than long down the middle and in the third which is without oblique lateral furrows. The false suture between the second and third segments is represented by a smooth and rather deep channel.

AMYOSOMA CHILONIS, new species.

Type-locality.—Taihoku, Formosa.

Type.—Cat. No. 15329, U.S.N.M.

Female.—Length 3.5 mm. Polished, head reddish except the vertex and the occiput above a horizontal line drawn tangent to the upper edge of the occipital foramen; lateral ocelli apparently a little nearer to the anterior ocellus than to each other and approximately twice as far from the nearest eye margin as from each other, antennæ blackish; thorax reddish, excepting the metapleuræ which are blackish or black, fore legs with their coxæ, trochanters, tip of femora, tibiæ and tarsi more or less stramineous or brownish stramineous, remaining legs mostly black or blackish, wings brownish, tegulæ and wing base stramineous, stigma darker than the membrane, veins rather blackish brown; abdomen black or blackish except for the membranous portion of the first and second segments and an apical margin of the third and following dorsal segments, the apical margin interrupted medially on the third, fourth, and fifth segments, broadest laterally, all of which are whitish; exerted portion of ovipositor apparently as long as the first and second abdominal segments combined.

Allotype.—Essentially as in the type except the sixth dorsal abdominal segment, which is entirely black.

Labeled, "Ex *Chilo simplex*, July, 1911, No. 28; T. Shiraki, collector."

A male paratopotype has the head mostly blackish where the type is reddish, the fore legs and mid trochanters stramineous throughout, the propodeum partly reddish, the second, dorsal, abdominal segment brownish stramineous, and the third, fourth, and fifth, dorsal segments partly blackish stramineous.

ARICHELONUS, new genus.

Type-species.—*Chelonus aculeatus* Ashmead.

Related to *Chelonus* Panzer, strictly speaking, from which it differs in the nondecurved apex of the abdomen, which recalls the apex of the abdomen in *Omalus* Panzer, barring the emargination, which is not present in this genus.

DIACHASMIMORPHA, new genus.

Type-species.—*Diachasmimorpha comperci*, new species.

Related to *Diachasma* Foerster as represented by *D. crawfordi* Viereck, from which it differs chiefly in the rounded anterior edge of the clypeus and in the presence of sternauli.

DIACHASMIMORPHA COMPEREI, new species.

Type-locality.—India.

Type.—Cat. No. 15330, U.S.N.M.

Female.—Length 4 mm. Brownish stramineous, polished, face punctured, lateral ocelli nearer to the anterior ocellus than to each other and twice or a little more than twice as far from the eye margin as from each other, scape depressed and like the pedicel dark brownish stramineous, flagel blackish and 51-jointed, mandibles with blackish tips; wings with a brownish tinge, stigma and veins dark brown; claws and empodia blackish, as are the hind trochanters, tips of hind femora and most of hind tibiae and tarsi, the joints of the latter beyond the metatarsi stramineous at base, the onychium mostly stramineous; propodeum rather reticulate and with a median longitudinal carina extending from the base to the areopetiolarea, which latter is parallel sided; first, dorsal, abdominal segment with its longitudinal carinae parallel and inclosing a longitudinally striate embossed area, which is convex but not gibbose, the first segment apparently a little longer down the middle than wide at apex, second dorsal segment with a large trapezoidal area of striae the lateral striae of which diverge posteriorly, third dorsal segment with the basal two-thirds black; hypopygium extending beyond the pygidium; sheaths blackish; ovipositor brownish, with its exerted portion a little longer than the body.

Labeled, "Fruit fly parasite, India, 1906; George Compere, collector."

Named for Mr. George Compere.

HABROBRACON MALI, new species.

Type-locality.—Vienna, Virginia.

Type.—Cat. No. 15331, U.S.N.M.

Female.—Length 3 mm. Related to (*Bracon*) *H. xanthonotus* (Ashmead), from which it differs chiefly as follows: Flagel 25-jointed;

posterior half of prescutum black or blackish with the notauli represented by testaceous lines; body mostly black or blackish, second, third, and fourth, dorsal abdominal segments more or less reddish brown.

Allotype.—Flagel 26-jointed; essentially as in the type, but with the reddish brown color of the abdomen replaced by stramineous.

Labeled, "Bred from cocoon under band on apple, Quaintance No. 7862, Aug. 29, 1912; Sept. 1, 1912; J. D. Luckett, collector."

MICROBRACON HISPÆ, new species.

Type-locality.—Taihoku, Formosa.

Type.—Cat. No. 15332, U.S.N.M.

Female.—Length 1.5 mm. Related to *M. rhyssemati* Ashmead, with which it agrees in having the abdomen granular but not leathery throughout above, in the propodeum not being simple, or sculptured all over and in having the dorsum of the head and thorax uniformly stramineous, but differs in the dorsum of the body as well as the rest of the body being uniformly stramineous in the pale stramineous stigma and in the propodeum having simply a median carina but otherwise almost perfectly smooth and polished except for some subtle sculpture near the apex and along the median carina.

Allotype.—Essentially as in the type.

Labeled, "Ex larva, *Hispa callicantha*, Oct., 1911; T. Shiraki, collector; No. 16."

APANTELES (PROTAPANTELES) FORMOSÆ, new species.

Type-locality.—Taihoku, Formosa.

Type.—Cat. No. 15333, U.S.N.M.

Female.—Length 2 mm. Essentially as in *A. (Protapanteles) stauropi* Viereck, of which it may prove to be a race, the principal difference being in the second, dorsal, abdominal plate being more densely sculptured at base than elsewhere instead of being uniformly sculptured throughout, and in the dorsum of the abdomen being black throughout except the extreme lateral edges which are more or less stramineous.

Labeled, "From larva of Notodontid? Dec., 1911, No. 104; T. Shiraki, collector."

APANTELES (PROTAPANTELES) NARANGÆ, new species.

Type-locality.—Taihoku, Formosa.

Type.—Cat. No. 15334, U.S.N.M.

Female.—Length 1.5 mm. Black; antennæ labrum and mandibles brownish, palpi yellowish; dorsulum and scutel densely, conspicuously punctured, mesopleuræ without a carinate fold, tegulæ stramineous, wings transparent, with a brownish tinge, stigma, radius,

transverse cubitus, and third abscissa of cubitus brownish stramineous, other veins almost colorless except for a brownish cast, radius and transverse cubitus forming an arc of a circle, legs excepting hind coxæ and all tarsi mostly reddish yellow, tarsi brownish, hind coxæ black, yellowish at apex, hind femora at apex, and hind tibiæ at base and apex more or less dusky; propodeum rugose, indistinctly carinate down the middle; first, dorsal, abdominal plate wider at apex than at base and dullish rugose, distinctly wider at apex than the second plate is long down the middle; second, dorsal plate transversely oblong, rugulose throughout and with a sharp line of demarkation between it in the sculptureless or virtually sculptureless third dorsal abdominal segment, ovipositor hardly exerted, hypopygium not surpassing the pygidium.

Allotopotype.—Essentially as in the type, the pale part of the legs rather stramineous.

Labeled, "From larva of *Naranga diffusa* May, 1911, No. 18; T. Shiraki, collector."

Cocoons yellowish brown, arranged obliquely in rows on blades of grass.

SHIRAKIA, new genus.

Type-species.—*Shirakia schoenobii*, new species.

Related to *Habrobracon* (Ashmead) Johnson in venation but differs radically in the complete crenulated notauli and in the second, dorsal, abdominal segment having an oblique furrow on each side, the furrows converging but not meeting apically.

Named for Dr. T. Shiraki.

SHIRAKIA SCHOENOBII, new species.

Type-locality.—Taihoku, Formosa.

Type.—Cat. No. 15335, U.S.N.M.

Female.—Length 4.5 mm. Head shining, mostly reddish, face with a blackish stain on each side, finely sculptured and indefinitely punctured, front with a large black mark occupying the middle two-fourths and extending from between the insertion of the antennæ upward between and around the ocelli, the latter collectively circumscribed by a furrow that is prolonged below the anterior ocellus and ends in a poorly developed carina between the antennal fossæ, lateral ocelli a little nearer to the anterior ocellus than to each other and nearly three times as far from the nearest eye margin as from each other, occiput brownish stramineous, finely sculptured, and with scattered indefinite punctures; cheeks and malar space stramineous, the former sculptured somewhat like the occiput, the malar space finely sculptured; mandibles with blackish tips, palpi brownish, other mouth parts stramineous, scape stramineous beneath, antennæ else-

where mostly blackish, flagel 50-jointed; pronotum stramineous, its sides stramineous along the upper and lower edge, elsewhere blackish, its furrow foveolate; mesosternum black, fore coxæ internally, distal trochanters of fore legs, fore femora posteriorly and also above the longest axis in front, brownish stramineous, otherwise the fore legs are mostly blackish; dorsulum and scutel reddish, hardly sculptured, the prescutum strongly convex anteriorly, the notauli almost meeting before reaching the hind edge of the mesonotum and continued close to the hind edge almost as one longitudinal furrow; tegulæ, wing base, and the true metanotum stramineous; mesopleuræ blackish and sculptured above the middle, blackish red and almost sculptureless below the middle; mesosternum and metapleuræ black, the latter sculptured somewhat like the upper half of the mesopleuræ; wings brownish, stigma and veins blackish brown; mid and hind femora reddish brown, the remaining parts of the mid and hind legs black except a rather stramineous annulus near the base of the tibiæ, claws with a stout tooth at base, empodia surpassing the tips of the claws, hind onychii as long as the two preceding joints combined; first, dorsal, abdominal segment rugose except on the vertical anterior face which is smooth, blackish, apparently twice or more than twice as wide at apex as long down the middle, the dorsal face convex and flanked by depressed, broad, lateral margins, second to fifth, dorsal segments inclusive mostly rugose and with smooth, lateral lunulæ, one on each side; second, dorsal segment with its furrows stramineous as is the posterior edge between the furrows, the area defined by the furrows, blackish stramineous, the sides beyond the furrows blackish, lunulæ stramineous, the apex of this segment arcuate and more than twice but less than three times as wide at apex as the segment is long down the middle; false suture stramineous and crenulate; third to sixth dorsal segments with a stramineous, rugulose band down the middle, this band broadest at base and becoming attenuate apically; third, fourth, and fifth dorsal segments with lateral margins brownish stramineous, the apical edge of the third and fourth and apical third of fifth segments brownish stramineous to pale stramineous, elsewhere the third to fifth segments, inclusive, are blackish; sixth dorsal segment concealing the seventh, convex, almost semicircular in outline, mostly rather dark stramineous; pygidium in color and outline nearly like the sixth dorsal segment; hypopygium acute, its tip falling far short of the apex of the abdomen; exerted portion of the ovipositor apparently half as long as the abdomen.

Allotype.—Compared with the female, this differs chiefly as follows: Basal joints of palpi stramineous; flagel 53-jointed, antennæ colored as in the female; legs stramineous excepting the tibiæ and tarsi, which are rather brownish to dark brown; sixth, dorsal segment almost entirely concealing the tip of the abdomen; otherwise essen-

tially as in the type except that the parts not mentioned as differing in color are uniformly or nearly uniformly stramineous.

Labeled, "Ex larvæ, *Schoenobius bipunctifera*, Dec., 1911, No. 29; T. Shiraki, collector."

APANTELES (STENOPLAURA) NONAGRIÆ, new species.

Type-locality.—Taihoku, Formosa.

Type.—Cat. No. 15336, U.S.N.M.

Female.—Length 1.5 mm. Compared with the original description of *Apanteles (Stenoplaura) chilocida* Viereck this differs as follows: Hind coxæ entirely stramineous; first, dorsal, abdominal plate distinctly wider at apex than the second plate is long down the middle, the second, dorsal plate distinctly shorter than the third, dorsal, abdominal segment, its sides diverging toward the apex, its apical edge nearly twice as long as the basal edge and smooth and polished in part on the apical half, abdomen blackish above and blackish and stramineous beneath.

Allotopotype.—Essentially as in the type except that the antennæ are filiform with the scape dark brown beneath and the second, dorsal plate nearly as wide at base as at apex.

Labeled, "From *Nonagria inferens*, No. 36; T. Shiraki, collector."

APANTELES (STENOPLAURA) SIMPLICIS, new species.

Type-locality.—Taihoku, Formosa.

Type.—Cat. No. 15337, U.S.N.M.

Female.—Length 1.75 mm. Related to *Stenoplaura chilocida* Viereck, from Japan, from which it may be known by the stramineous scape, the entirely stramineous hind coxæ, in the first, dorsal plate being distinctly wider at apex than the second plate is long down the middle, in the second, dorsal plate being distinctly shorter than the third, dorsal, abdominal segment, in the dorsum of the abdomen being black or blackish throughout and in the venter being blackish stramineous.

Allotopotype.—Essentially as in the female except that the antennæ are not submoniliform but filiform and in the abdomen being blackish stramineous except for the first, dorsal plate, which is blackish.

Labeled, "From *Chilo simplex*, No. 37; T. Shiraki, collector."

Family ICHNEUMONIDÆ.

ERIPTERNIMORPHA, new genus.

Type-species.—*Eripternimorpha schoenobii*, new species.

Related to *Eripternus* (Foerster) Szepligeti, from which, as represented by *Eripternus radiolatus* (Provancher), it differs chiefly in the malar line being at least as long as the mandibles are wide at base, in the ocellocipital line being apparently shorter than the greatest

diameter of the lateral ocelli, in the mesopleuræ being apparently higher than long, in the recurrent vein being interstitial with the transverse cubitus, the areola being quadrate in position with the outer and lower sides defined by suggestions of veins, in the nervellus being branched above the middle, in the nervulus being received by the median cell, in the propodeum being without carinæ except for a poorly defined basal and a well-defined apical transverse carina, in the slit-like propodeal spiracles, in the petiole being without a fossa on each side and in the abdomen which is depressed in the male and depressed to fusiform in the female.

ERIPTERNIMORPHA SCHOENOBIL, new species.

Type-locality.—Taihoku, Formosa.

Type.—Cat. No. 15338, U.S.N.M.

Female.—Length 8.5 mm.; black, sericeous and with a subtle sculpture; lateral ocelli nearer to the anterior ocellus than to each other but nearer to each other than to the eye margin, front with a carina reaching from between the antennal fossæ almost to the anterior ocellus, anterior edge of the clypeus slightly subemarginate mandibles blackish, reddish at extreme base, the basal half striated, palpi dark brown, scape black, pedicel and flagel blackish brown, flagel 28-jointed; prepectal carina not extending to the upper edge of the mesopleuræ, wings brownish, stigma and veins dark brown, posterior margin of the mesopleuræ reddish as are the mid coxæ at base, nearly all of each femur, hind coxæ and metapleuræ, rest of legs black or blackish, except the fore tibiæ, which are stramineous, mid onychia apparently a little longer than the mid metatarsi, fore coxæ brownish stramineous beneath, propodeum reddish and separated from the metapleuræ by a poorly developed carina, longitudinal propodeal carinæ virtually wanting, the basal and apical transverse carinæ poorly developed, the lateral longitudinal carinæ developed between the apical transverse carinæ and the apex of the propodeum; first, abdominal segment with its petiole subcylindrical, with a poorly developed longitudinal carina on each side above but with a distinct carina between it and the ventral segment, reddish at base and ventrally, elsewhere blackish, postpetiole rather depressed, distinctly wider at apex than at base, with a rather well-defined carina which extends from the spiracles toward the apex, the dorsal carina of the petiole prolonged but still less definite on the basal half of the postpetiole, postpetiole reddish stramineous; second, dorsal, abdominal segment apparently two and one-half times as wide at apex as the first is wide at apex and distinctly wider at apex than at base, with pale, oval thyridia that are nearer the base than to the lateral edge and with a polished embossed area between them and the base, the

spiracles nearly three times as far from the base as from the lateral edge, second segment reddish along the apical edge; third, dorsal segment reddish except along the apical edge, where it is blackish, apparently more than twice as wide at apex as long down the middle, apical half of the eighth segment whitish, membranous, above; exerted portion of the ovipositor approximately as long as the first dorsal abdominal segment.

Allotype.—Essentially as in the type from which it differs chiefly as follows: Flagellar joints beyond the middle concave beneath, mid coxæ mostly reddish, fore metatarsi mostly stramineous, mid onychia somewhat longer than the mid metatarsi; postpetiole almost parallel sided, blackish on the basal half above; second, dorsal abdominal segment apparently three times as wide at apex as the first is wide at apex, the spiracles nearly five times as far from the base as from the lateral edge, second segment stramineous along the apical edge; apical half of the third, dorsal segment and an apical margin to the fourth and fifth, dorsal segments stramineous, the basal half of the third segment mostly blackish; apical half of the seventh dorsal segment like the apical half of the eighth in the female.

Labeled, "Ex larvæ, *Schoenobius bipunctifera*, January, 1910, No. 32; T. Shiraki, collector."

ZAPARAPHYLAX, new genus.

Type-species.—*Zaparaphylax perinæ*, new species.

This genus agrees with Foerster's description of *Diaglypta*, except in the first, dorsal, abdominal segment, which can hardly be regarded as being broad and robust; ignoring the occipital carina it agrees best with *Paraphylax* (Foerster) Ashmead, from which it differs chiefly in the dorsulum having notauli that are relatively as long and as deep as in *Bathythrix* (Foerster) Howard and in the nervellus being branched below but near its middle. Palpi normal

ZAPARAPHYLAX PERINÆ, new species.

Type-locality.—Taihoku, Formosa.

Type.—Cat. No. 15339, U.S.N.M.

Female.—Length, 2.5 mm. Mostly black and polished; face sericeous, finely, closely punctured; lateral ocelli a little nearer to the eye margin than to each other and nearer to the anterior ocellus than to the eye margin; scape mostly and the pedicel beneath, stramineous, the latter brownish above, flagel blackish, 19-jointed; palpi and basal half of mandibles whitish, apical half of latter brownish; tubercles, tegulæ, and wing base whitish; wings almost colorless, faintly tinted with brown, stigma yellowish, veins brownish; fore and mid legs mostly stramineous, their trochanters whitish, their onychii and the

appendages of the latter brownish, their tibiæ with a yellowish annulus medially, hind legs with their coxæ black, their trochanters whitish, their tibiæ brownish, except for a stramineous annulus at base and a yellow annulus in the middle, their tarsi brownish; dorsum of thorax polished, the mesopleuræ sculptured, the propodeum shining and sculptured; abdomen above mostly black and polished, the second segment, however, stramineous, except apically and laterally where it is brownish, the fifth and following, dorsal, abdominal segments with a pale apical edge; exerted portion of the ovipositor apparently as long as the first, dorsal segment.

Allotype.—Essentially as in the type.

Labeled, "Ex larva *Perina nuda*, Dec., 1911; T. Shiraki, collector."