DESCRIPTIONS OF NEW GENERA AND SPECIES OF HYMENOPTERA FROM THE PHILIPPINE ISLANDS.

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In a paper[a] entitled A List of the Hymenoptera of the Philippine Islands, with descriptions of New Species, I recorded 183 species of these insects from the Philippines, although several doubtful species mentioned by Fr. Castro de Elera in his Catalogo de todo la Fauna Filipinàs were cited but not included in this number. Two genera and thirty-one species were described as new to science in this first paper.

Since the list appeared, however, I have found references to five species overlooked by me. These are: (1) *Ampulex lævigata* Kohl, (2) *Pompilus graphicus* Smith, (3) *Chalcis serrene* Walker, (4) *Pimpla (Euxorides?) furcifer* Bingham, and (5) *Stephanus indicus* Westwood. Mr. P. Cameron, the eminent English hymenopterist, has also kindly called my attention to two species described by Gribodo,[b] viz. *Sphex subcisenta* and *Hemipepsis tagala*, from the island of Mindoro. Father W. A. Stanton continues to send me the Hymenoptera collected by him in the Observatory Garden at Manila, and I am now able, with the new material received from him and from Father Robert Brown, to contribute further toward advancing the knowledge of the hymenopterous fauna of the archipelago. Below I describe four new genera and forty-five new species of Hymenoptera, many of the latter in genera and families not before known to have representatives in the Philippines.

The new genus *Stantonia*, named in honor of Father Stanton, is of special interest, as it is a true Agathine, but departs somewhat in the characters of the venation from all other known genera in the group.

The paper terminates with a check list, systematically arranged, of the Hymenoptera now known to occur in the Philippine Islands.

[a] Jour. New York Ent. Soc., March, 1904, pp. 1–22.

[b] Miscellanea Entomologica, II, 1894, p. 2.

Undoubtedly, however, hundreds still remain unknown to us, and if these insects were systematically collected in the islands the list could be greatly increased by many of the described species known in India, Ceylon, Java, Borneo, and other islands of the Malayan region.

The author would be glad to receive and determine Hymenoptera from any part of the Philippines.

Family IX. MEGACHILIDÆ.

Subfamily II. MEGACHILINÆ.

Genus MEGACHILE Latreille.

MEGACHILE ROBBII, new species.

Female.—Length, 10 mm. Black, the head above (the only portion to be seen on account of the dense pubescence) closely punctured, the thorax sparsely punctured, the abdomen smooth; the first, second, and third dorsal segments are sparsely microscopically punctate toward base, smooth toward apex; the front of the head and the clypeus, the sides of the thorax, the mesothorax laterally, the metathorax, and the basal segment of the abdomen are clothed with rather a dense fulvous pubescence; the legs with a griseous pubescence, the scopa of the tarsi ferruginous, the apical margin of the second abdominal segment and the third, fourth, and fifth laterally with a dirty whitish or griseous pubescence; the ventral scopa is long and dense, and tinged with yellow. Wings subfuscous; the stigma and veins black. Antennæ wholly black.

Type.—Cat. No. 8028, U.S.N.M.

Manila. Described from a single specimen captured by Mr. M. L. Robb.

Family XII. ANDRENIDÆ.

Subfamily II. HALICTINÆ.

Genus HALICTUS Latreille.

HALICTUS PHILIPPINENSIS, new species.

Female.—Length, 5.5 mm. Aeneous black, the thorax above dull bronzed, minutely punctate, clothed with a whitish pubescence, which is rather dense on the face, pronotum above, post-scutellum and the plura; the clypeus is somewhat produced anteriorly, trapezoidal, and sparsely punctate; the face below the ocelli is closely, minutely, opaquely punctate; the vertex is almost smooth and shining; the antennæ are black, the flagellum at apex beneath brownish; the funicle joints, after the first, wider than long, the first joint obconical, hardly longer than thick; the wings are hyaline, with the tegulæ, the stigma, and the veins, except the subcostal vein, testaceous; the subcostal vein

is black; the second cubital cell is small, a little wider (higher) than long and receives the first recurrent nervure very near its apex; the third cubital cell is larger and receives the second recurrent nervure at its apical third. Legs black, the scopa whitish, the hind tarsi with joints 2–4 at apex, the last joint and the claws testaceous. The abdomen is oblong-oval, smooth, and shining, with the dorsal segments 2 and beyond microscopically shagreened, the terminal segment fringed with short, stiff, black hairs; otherwise the abdomen is clothed with a whitish pubescence, the first and second dorsal segments with tufts laterally.

Type.—Cat. No. 7994, U.S.N.M.

Manila. Described from a single specimen taken by Father Stanton.

Family XVI. CRABRONIDÆ.

Subfamily V. RHOPALINÆ.

Genus DASYPROCTUS Lepeletier and Brullé.

DASYPROCTUS PHILIPPINENSIS, new species.

Female.—Length 8 mm. Black, subopaque, finely, closely punctured, the clypeus and lower part of the cheeks clothed with a silvery white pubescence; scape, pedicel, mandibles, except the teeth, the upper margin of the pronotum, the prothoracic tubercles, the scutellum, two small spots at the apex of the abdominal petiole, a large transverse mark on each side of the second dorsal segment, a small spot on each side of the third segment, a stripe at the base of the fourth segment, interrupted at the middle, and the fifth segment, except narrowly at apex, and the legs, except the coxæ, trochanters, the hind femora entirely, the basal two-thirds of the front and middle femora *above*, and a spot on the hind tibiæ beneath toward apex, which are black, are yellow; the two or three apical joints of the hind tarsi are more or less fuscous. Wings hyaline, the stigma and veins blackish.

Male.—Length 6 mm. Agrees well with the female, only the pedicel is black, not yellow; the yellow margin on the pronotum is interrupted at the middle, the scutellum wholly black, the abdomen black, except a yellow spot on each side of the second dorsal segment, a minute yellow spot on each side of the fourth, and a yellow stripe on each side at apex of the fifth, while the legs are mostly black, with the apices of the front and middle femora, their tibiæ outwardly, and their tarsi, except the two or three terminal joints of the middle tarsi, yellow; the three terminal joints of the middle tarsi and the hind tarsi, except at base, are usually fuscous.

Type.—Cat. No. 7909, U.S.N.M.

Manila. Described from specimens found by Father Stanton, forming cells in the pithy stems of various plants.

Genus RHOPALUM Kirby.

RHOPALUM ALBOCOLLARE, new species.

Female.—Length 4.5 mm. Black and shining, impunctate, the pronotum above, the scutellum, the apex of the postscutellum, the middle tarsi, and a broad annulus at base of the hind tarsi, snow-white; scape honey-yellow; flagellum filiform, black; eyes large, strongly convergent anteriorly; metathorax smooth, with a median grooved line which is strongly impressed on the truncature. Wings hyaline, the stigma and veins blackish, the recurrent nervure received by the first cubital cell a little before its middle. Abdomen clavate, longly petiolated, the petiole highly polished and shining; clavate fully two-thirds as long as the body of the abdomen.

Type.—Cat. No. 7995, U.S.N.M.

Manila. Described from a single specimen taken by Father Stanton in the Observatory Garden, at Manila.

Family XIX. LARRIDÆ.

Subfamily I. LARRINÆ.

Genus NOTOGONIA Costa.

NOTOGONIA MANILÆ, new species.

Female.—Length 6.5 mm. Entirely black, pruinose, the pubescence on the face, clypeus, and temples denser and silvery-white, that on the pygidium tinged with ferruginous; head and thorax finely minutely punctured, the scutellum smoother, polished, the metathorax finely rugulose, subopaque, the abdomen polished, shining, the pubescence a little denser and more distinctly silvery at apex of first, second, and third dorsal segments, especially laterally. Wings hyaline, the front wings faintly fuscous at the apical margins, the stigma and veins brown-black. Antennæ 12-jointed; the flagellum is filiform, the joints subequal in length, the first being nearly twice as long as the pedicel. The tarsi are spinous and much longer than their tibiæ; the joints 3 and 4 of front and middle tarsi are short and united scarcely longer than the fifth or last joint; the fourth joint of the hind tarsi is much shorter than the third, the last joint being about as long as the third.

Male.—Length 5 to 5.5 mm. Hardly distinguishable from the female except in being smaller and by the structure of the antennæ and abdomen. The antennæ are 13-jointed, the first joint of the flagellum being nearly thrice as long as the pedicel, which is shorter than in the female, while the terminal abdominal segment is without a pygidial area.

Type.—Cat. No. 7996, U.S.N.M.

Manila. (Father W. A. Stanton.)

Subfamily IV. PISONINÆ.

Genus PISON Spinola.

PISON LAGUNÆ, new species.

Male.—Length 7 mm. Black, clothed with a sparse silvery-white pubescence, rather dense on the clypeus, the head and thorax somewhat closely punctured, the scutellum shining and sparsely punctate, the metathorax truncate behind, its posterior face with a median sulcus, transversely rugulose, the upper surface with a slight median depression posteriorly, the depression with about four transverse raised lines beyond a short median raised line that extends from the base of the postscutellum, the surface on either side to this line with oblique raised lines; tarsi brownish piceous, somewhat reddish beneath. Wings hyaline, the stigma and veins black, the areolet triangular, petiolate; the first recurrent vein is interstitial with the first transverse cubitus; tegulæ testaceous posteriorly, blackish anteriorly. Abdomen smooth and shining, the first and second segment sparsely and minutely punctate.

Type.—Cat. No. 7939, U.S.N.M.

Bay Laguna. (Dr. P. A. Stangl.)

Genus PISONITUS Shuckard.

PISONITUS ARGENTEUS, new species.

Female.—Length 5.5 mm. Black and shining, the temples posteriorly, the cheeks, face, mesopleura, and metathorax, except medially, clothed with a dense silvery-white pubescence; the head and thorax are subopaque, coriaceous, not distinctly punctate, the metathorax somewhat rounded, not distinctly truncate posteriorly, but with a short median sulcus; the upper face has a distinct long median carina that extends from the postscutellum to near the beginning of the median sulcus, the upper surface without oblique raised lines, but laterally it is clothed with a silvery pubescence; legs black, the front tibiæ and tarsi beneath testaceous. Wings hyaline, the stigma and veins piceous black, the areolet triangular, petiolate, receiving the second recurrent nervure slightly beyond its middle; the first recurrent nervure joins the median vein before the first transverse cubitus. Abdomen smooth and shining, but the first segment is microscopically punctate, the depression at apex being clothed with a silvery pubescence; the second and third segments at apex, and especially laterally, are also more or less clothed with a silvery pubescence.

Type.—Cat. No. 7940, U.S.N.M.

Bacoor. (Dr. P. L. Stangl.)

Family XXII. MELLINIDÆ.

Genus MEGALOMMA Smith.

MEGALOMMA QUADRICINCTUM, new species.

Female.—Length, 7 mm. Black; face, clypeus, a line on inner orbits opposite the insertion of the antennæ, a spot at base of mandibles, the palpi, scape, pedicel, the first joint of the flagellum beneath, the two terminal joints of antennæ beneath, a line on the pronotum above and enclosing the tubercles, or the hind angles of the pronotum, the tegulæ, a spot on each side of the mesonotum next the tegulæ, the postscutellum, the apices of femora, all tibiæ, except the hind tibiæ beneath and the last joint of the hind tarsi, two spots on first segment of abdomen at apex, and bands at apex of dorsal segments 2, 3, 4, and 5, yellow. Wings hyaline, the stigma and veins black.

The flagellum is strongly clavate; the eyes are very large, strongly facetted, and converge anteriorly; there is no malar space: the thorax above is rather coarsely punctured, the metathorax less strongly punctured, with a smooth median space at base above, the posterior face with some silvery pile.

Type.—Cat. No. 7997, U.S.N.M.

Manila. (Father Stanton.)

Family XXVII. CEROPALIDÆ.

Subfamily I. PEPSINÆ.

PSEUDOSALIUS, new genus.

This genus is proposed for a ceropalid found in the Philippines, in our catalogues under the name *Salius bipartitus* Lepeletier. A study of a specimen shows that it is not a *Salius*, but comes much closer to the genera *Calicurgus* and *Ferreolomorpha*, but is easily separated by having the submedian cell in the front wings distinctly shorter than the median. The claws, too, are also different from those in *Salius*; in the female they are cleft. The metanotum is transversely wrinkled or striated, the labrum subexserted, the mandibles bidentate, the maxillary palpi 6-jointed, the third joint, the longest, as long as the first and second united, while the labial palpi are 4-jointed, the second joint being the longest.

Genus PALLOSOMA Lepeletier.

To this genus belongs *Salius fulgidipennis* Saussure, which is reported from the Philippines. It agrees perfectly with the structural characters given for this genus, although the wings are not margined with black at apex, as in other species.

Subfamily II. AGENIINÆ.

Genus AGENIA Schiödte.

AGENIA CINGULATA, new species.

Male.—Length, 6 mm. Black, clothed with a glittering pile, silvery on the face, the clypeus, the mesosternum posteriorly, and the hind coxæ; the tips of the front femora, their tibiæ and tarsi, the apical half of the middle femora, and the apical two-thirds of the hind femora rufous; the first segment of the abdomen has a yellowish-white band at the middle, while the pygidium is pure white. Wings hyaline, the tegulæ testaceous, the stigma and veins black.

Type.—Cat. No. 7998, U.S.N.M.

Manila. (W. A. Stanton.)

Family XXVIII. VESPIDÆ.

Subfamily II. POLISTINÆ.

POLISTELLA, new genus.

Plate I, Fig. 1.

This is a new generic term proposed for the smallest social wasp known in the world, named *Polistes manillensis* Saussure.

My generic table of the Vespidæ[a] may be modified to include it as follows:

3. Metathorax transversely striate or aciculate; abdomen long fusiform or elongate ovate, sessile; second cubital cell not small, along the cubitus as long as the third, receiving both recurrent nervures widely separated; eyes not extending to base of the mandibles ..... *Polistes* Latreille
(Type, *Vespa bigumis* Linnæus.)

Metathorax smooth, not transversely striate; abdomen fusiform, subpetiolate; second cubital cell very small and narrow, along the cubitus hardly one-third the length of the third, receiving both recurrent nervures close together; eyes extending to base of mandibles ..... *Polistella* Ashmead
(Type, *Polistes manillensis* Saussure.)

Family XXIX. EUMENIDÆ.

Subfamily IV. EUMENINÆ.

Tribe II. ODYNERINI.

Genus LEIONOTUS Saussure.

LEIONOTUS PUNCTUM Saussure. Manila.

Genus ANCISTROCERUS Westwood.

ANCISTROCERUS BIZONATUS Boisduval.

Odynerus bizonatus BOISDUVAL, Fn. entom. de l'océan Pacif., p. 658.

[a] Canadian Entomologist, June, 1902, p. 165.

Family XXXII. BETHYLIDÆ.

Subfamily I. BETHYLINÆ.

Genus DISSOMPHALUS Ashmead.

DISSOMPHALUS TIBIALIS, new species.

Female.—Length, 2.8 mm. Black, highly polished, impunctate. The scape and pedicel are yellow, the flagellum brownish yellow, the joints transverse, submoniliform. The mandibles, except at apex, are reddish. The tibiæ and tarsi are yellowish white. The head is oblong, about 1½ times as long as wide, without ocelli; the eyes oval, placed on each side anteriorly, while the abdomen is long, conically produced, more than twice as long as the thorax.

Type.—Cat. No. 7999, U.S.N.M.

Manila. (W. A. Stanton.)

Genus GONIOZUS Förster.

GONIOZUS PHILIPPINENSIS, new species.

Female.—Length, about 2 mm. Polished black, shining; the head and thorax faintly pubescent; the oblong head with some minute punctures. The antennæ entirely, and the legs, except the front and hind coxæ and their femora, which are blackish or brownish piceous, are brownish yellow. Wings hyaline; the parastigma and stigma dark brown; the veins pallid or hyaline. The branch from the basal vein is fully as long as the first abscissa of the basal vein, or possibly a little longer. All the flagellar joints after the first are moniliform.

Male.—Length, 1.6 mm. Agrees well with the female, except that the head is proportionately smaller, and the legs are wholly brownish yellow; the tibiæ and tarsi a little paler, more yellowish white.

Type.—Cat. No. 7910, U.S.N.M.

Manila. Described from specimens bred by Father Stanton from a larva of a small Lepidopteron.

Subfamily III. DRYININÆ.

Genus DRYINUS Latreille.

DRYINUS STANTONI, new species.

Female.—Length, 3.5 mm. Black and shagreened, but clothed with a fine sericeous pile; scape except at base, the pedicel at apex, the clypeus except at apex, the legs except as hereafter noted, and the apex of the abdomen rufo-testaceous. The base of the pedicel, the bidentate apex of the clypeus, and the apex of front coxæ and trochanters are whitish, while the middle and hind coxæ and the extreme tips

of femora are more or less blackish or fuscous. Wings hyaline, but with a narrow fuscous band across the basal vein and a broad fuscous band across from the apical half of the stigma and enclosing the stigmal vein.

Type.—Cat. No. 8000, U.S.N.M.

Manila. (Father W. A. Stanton.)

Family XLII. MUTILLIDÆ.

Subfamily I. MUTILLINÆ.

Tribe II. MUTILLINI.

Genus MUTILLA Linnæus.

MUTILLA SEMPERI, new species.

Male.—Length, 6 mm. Black, except the first and second segments of the abdomen, which are red, clothed with glittering white hairs. The pubescence is denser on the face and clypeus, pronotum above, mesopleura anteriorly and narrowly at the base of the metanotum.

The head and thorax are distinctly punctured, the metathorax being coarsely reticulated. The abdomen is punctate, but the punctures are finer and less distinct on the apical three or four segments. Wings hyaline, but broadly margined with fuscous at apex; the veins dark or blackish.

Type.—Cat. No. 8001, U.S.N.M.

Manila. Dedicated to Mr. George Semper, the author of Die Schmetterlinge der Philippinschen Inseln, published during the years 1886 to 1892.

Family LV. CERAPHRONIDÆ.

Genus CERAPHRON Jurine.

CERAPHRON MANILÆ, new species.

Female.—Length, 1 to 1.2 mm. Black and shining, the head and thorax microscopically shagreened; the antennæ, except the last three joints, which are black, and the legs are brownish yellow. The last three joints of the flagellum are large and form a club, the first joint of which is only a little longer than thick, the last being fusiform and twice as long as the first, the funicle joints preceding the club, being small, transverse or submoniliform.

Type.—Cat. No. 7911, U.S.N.M.

Manila. Described from 10 specimens, 9 females and 1 male, received from Father Stanton. The single male has lost its head, but is easily recognized by its smaller size and the different shaped abdomen.

Family LXII. CHALCIDIDÆ.

Subfamily II. CHALCIDINÆ.

Tribe I. CHALCIDINI.

Genus CHALCIS Fabricius.

CHALCIS PRODENIÆ, new species.

Male.—Length, 1.5 mm. Black, with whitish colored eyes, the ocelli pale, the head and thorax closely and distinctly punctate, faintly pubescent; the abdomen highly polished, impunctate; the legs are black, but there is a small spot at base of the tibiæ, and all tarsi are yellowish white; the antennæ are black, but the flagellum is brownish at apex and is not quite thrice as long as the scape.

Type.—Cat. No. 7912, U.S.N.M.

Manila. Described from a single specimen bred by Father Stanton from the larva of a *Prodenia* sp. It is probably the smallest species in the genus.

Tribe III. CHALCITELLINI.

Genus ARRETOCERA Kirby.

ARRETOCERA STANTONI, new species.

Female.—Length, 2 mm. Black, the thorax distinctly punctate, the metathorax rugulose; the abdomen is longly petiolated, the petiole cylindrical, fully as long as the long hind coxæ, and furrowed above; the body of the abdomen is compressed, highly polished; seen from the side it is ovate, the first segment occupying most of its entire surface; the scape, pedicle, tegulæ, and most of the legs, except the tarsi, the hind coxæ, and femora, are flavo-testaceous, the flagellum light brown, the hind coxæ black, the hind femora reddish with an obscure dusky tinge outwardly, the tarsi white. Wings hyaline, the long, slender, marginal vein brown, the stigmal vein subsessile, the postmarginal vein not developed.

Male.—Length, 1.8 to 2.1 mm. Agrees well with the female, except that the flagellum is filiform, longer, yellowish, or with three or four terminal joints black; the petiole of the abdomen is longer and more slender than in the female, longer than the hind coxæ; the body of of the abdomen, as seen from the side, pear-shaped, testaceous at base, the hind femora more obscured, in one specimen almost black.

Type.—Cat. No. 7913, U.S.N.M.

Manila. (Father W. A. Stanton.)

Family LXVIII. ENCYRTIDÆ.

Tribe I. ECTROMINI.

TAFTIA, new genus.

Plate II, figs. 1 and 2.

It is interesting to detect a genus in this tribe in the Philippines, and that it should prove to be new, although closely allied to *Anagyrus* Howard, described from Ceylon. The two, however, may be separated as follows:

Lateral ocelli close to the eye margin; scape in female usually broadly compressedly dilated beneath, the flagellum slender, cylindrical; axillæ not quite meeting at inner basal angles; front wings with a hairless line extending obliquely inward from the stigmal vein ..... *Inagyrus* Howard.

Lateral ocelli at least their width from the eye margin; scape in female long, subclavate, the flagellum clavate, the club much enlarged, the funicle joints a little longer than thick; in the male the flagellum is filiform; axillæ transversely wedge-shaped, meeting at inner basal angles; front wings without the hairless line extending obliquely inward from the stigmal vein; stigmal vein strongly curved, the marginal vein short ..... *Taftia* Ashmead.

(Type, *T. prodeniæ* Ashmead.)

This genus is named in honor of the first governor of the Philippines, Hon. William H. Taft, now Secretary of War in President Roosevelt's Cabinet.

TAFTIA PRODENIÆ, new species.

Female.—Length, 1.5 mm. Robust, metallic brown, shagreened; the head in front purplish; the eyes whitish, hairy; the ocelli pale; the scape and legs are flavo-testaceous; the flagellum is long clavate, brown-black, the pedicel nearly twice as long as thick, obconical; wings hyaline, the veins brown. The head is nearly twice as wide as thick antero-posteriorly, as wide as the thorax or a little wider, the eyes only slightly converging above; the pronotum is very short, transverse linear; the mesonotum is much wider than long, hardly as long as the convex scutellum; while the metanotum is very short. Abdomen broadly oval, sessile, not longer than the thorax, above depressed, beneath subcompressed, the hypopygium subprominent.

Male.—Length, 0.8 mm. Smaller and less robust, the head above and the thorax bronzed green, the head in front and beneath dark blue, the flagellum filiform, nearly of a uniform thickness throughout, the legs (except the hind legs, which are brownish piceous) are more yellowish, with all tarsi white or yellowish-white.

Type.—Cat. No. 7914, U.S.N.M.

Manila. Seventeen female and seven male specimens bred by Father Stanton from a *Prodenia* sp.

Family LXX. ELASMIDÆ.

Genus ELASMUS Westwood.

ELASMUS PHILIPPINENSIS, new species.

Female.—Length, 1 mm. Blue-black, the abdomen mostly red, with its pointed tip black, the postscutellum waxy-white, the scape pale yellowish, the flagellum brown-black, pubescent; legs yellowish white, the middle and hind femora dark or blue-black; the black hairs on the hind tibiæ are arranged to form nine or ten oval areas. Wings hyaline, the veins brown.

Type.—Cat. No. 7915, U.S.N.M.

Manila. Four female specimens (Father W. A. Stanton).

Family LXXI. EULOPHIDÆ.

Subfamily I. ENTEDONINÆ.

Tribe II. OMPHALINI.

Genus CLOSTEROCERUS Westwood.

CLOSTEROCERUS BROWNII, new species.

Female.—Length, 0.8 mm. Aeneous black, smooth and shining, the mesonotum metallic greenish and very delicately microscopically reticulated; the scape and pedicel are yellow, the rest of the antennæ being black; the legs, including the coxæ, are yellowish-white, while the abdomen is pointed ovate, sessile. Wings hyaline, the nervures light brownish.

Male.—Length, 0.65 mm. Agrees well with the female, except that it is smaller, the abdomen smaller and oval, the middle mesothoracic lobe with a median furrow posteriorly, while the flagellum is slender, the joints with some long, sparse black hairs.

Type.—Cat. No. 8041, U.S.N.M.

Manila. Described from specimens, representing both sexes, received from Father Robert Brown, and in honor of whom the species is named.

Tribe III. ENTEDONINI.

Genus ASECODES Förster.

ASECODES ELASMI, new species.

Male.—Length, 0.6 mm. Uniformly dark blue, except the tarsi, which are snowy white with the last joint dark brown or fuscous, the head on the vertex and the mesothorax and the scutellum with a metallic greenish tinge; joints of the flagellum loosely joined, moniliform; wings hyaline

Type.—Cat. No. 7916, U.S.N.M.

Manila. Four specimens bred by Father Stanton, from *Elasmus philippinensis*.

Subfamily II. APHELININÆ.

Tribe I. APHELININI.

Genus ASPIDIOTIPHAGUS Howard.

ASPIDIOTIPHAGUS ALEYRODIS, new species.

Female.—Length 0.6 mm. Head and thorax above, brownish-yellow; the face, cheeks, thorax beneath and at sides, and the scape of the antennæ yellowish-white or milky-white; the eyes, the incision or suture on each side of the scutellum, the metanotum, and the abdomen are brown-black; the flagellum is pale brown, with some sparse dark-colored hairs, while the wings are clear hyaline, iridescent, with a long marginal fringe, the marginal vein being pale or yellowish, the stigmal vein not at all developed.

Male.—Length 0.4 to 0.5 mm. Paler colored than the female, the head, except the eyes, the thorax, scape of antennæ, legs, and the base of the abdomen being yellowish-white; rest of the abdomen and the eyes brown-black; the flagellum is slender, tapering at tip, and brownish; otherwise it is similar to the female, but with a much smaller and shorter abdomen.

Type.—Cat. No. 7324, U.S.N.M.

Manila. Described from 3 female and 2 male specimens bred by Father W. A. Stanton from an Aleyrodes affecting the sugar cane.

Family LXXIV. EVANIIDÆ.

Subfamily I. EVANIINÆ.

Genus EVANIA Fabricius.

EVANIA ANNULIPES, new species.

Male.—Length 4.5 mm. Black; the head and thorax coarsely rugosely punctate; face below the insertion of the antennæ and the cheeks anteriorly longitudinally striate; the cheeks posteriorly smooth and highly polished, but with a row of punctures along the eye margin; a spot at base of mandibles, the trochanters (except the hind trochanters), the tibial spurs, and a broad band at base of the hind tibiæ are white or yellowish-white; the base of the front and middle tibiæ and their tarsi are yellowish, their femora, except at apex, are fuscous or dark rufo-piceous; rest of the legs, except as noted, black. The antennæ, except the first five joints, which are honey-yellow, are black; the scape is long, as long as the pedicel, and joints 1 to 5 of the flagellum united; the flagellum is thickened toward the apex from the fourth joint, the first joint being the longest and slenderest—about as long as joints 2 and 3 united; the third joint is the shortest, being only a little longer than thick. The abdomen is very small, polished black, longly petiolated; the petiole yellow beneath at basal

half, with some punctures above. Wings hyaline, with a cloud across from the stigma, the veins blackish, the parastigma separated from the stigma by a white spot.

Type.—Cat. No. 8002, U.S.N.M.

Manila. (Father W. A. Stanton.)

Family LXXVI. ICHNEUMONIDÆ.

Subfamily II. CRYPTINÆ.

Tribe III. HEMITELINI.

Genus OTACUSTES Förster.

OTACUSTES ALBOANNULUS, new species.

Female.—Length 4 mm. Black, the apex of the abdomen with a white spot; eyes very large, occupying the whole side of the head and whitish in color; temples very flat; the head and thorax are finely punctured, the metathorax finely rugulose, the areas distinct, the two basal lateral areas almost smooth, shining, the apical transverse carina acute at the angles; the basal three joints of the antennæ and the legs are ferruginous, the hind coxæ, tips of hind femora and the hind tibiæ (except a narrow white annulus at base), are dark fuscous; the flagellum, except joints 4 to 6, is black; joints 4 to 6, and the palpi, are white. Wings fuscous, with the base and a band across from before the stigma, white or hyaline.

Type.—Cat. No. 8003, U.S.N.M.

Manila. (Father Stanton.)

Genus ASTOMASPIS Förster.

ASTOMASPIS METATHORACICA, new species.

Female.—Length 4.2 mm.; ovipositor only about half the length of petiole. Black; eyes large, dirty white; ocelli pale; the clypeus, mandibles, the hind angles of the prothorax, the scutellum, the metathorax, the mesopleura, and the first and second segments of the abdomen, are red; the other segments of the abdomen are black, but narrowly margined with white at apex; the scape of the antennæ beneath, the tegulæ, and the costal veins, are yellowish-white; the flagellum is blackish or dark brown above, ferruginous beneath, and very slender; legs red, the apex of the hind femora black, the hind tibiæ with a white annulus at base, outwardly and at the apex, and the hind tarsi, fuscous. Wings hyaline, with a fuscous cloud across from the stigma. The head above and the mesothorax are transversely rugulose, the metathorax completely areolated, rugulose. The abdomen has a

peculiar sculpture, the first three segments being more or less striato-rugulose and punctate, the second and third with a transverse impression or furrow near the middle, similar to the Tryphonine genus *Bassus*.

Type—Cat. No. 8047, U.S.N.M.

Manila. (W. A. Stanton.)

Genus BATHRYTHRIX Förster.

BATHRYTHRIX STRIATUS, new species.

Female.—Length 5 mm. Ovipositor hardly as long as the abdominal petiole. Head black, the thorax and abdomen, except segments 4 to 6, pale ferruginous; the third segment above is more or less dusky; the fourth and following, except narrowly at apex, are black; the face and clypeus are clothed with silvery white hairs; the first and second joints of the antennæ and flagellar joints 1 to 7 beneath are honey-yellow, the rest of antennæ brown black; legs pale ferruginous, the hind tibiæ with a white annulus at base; the rest of tibiæ, the apex of hind femora, and the hind tarsi black or dark fuscous. Wings hyaline, with a broad fuscous fascia across the front wings from the stigma; the stigma and veins dark brown or blackish, the parastigma whitish. The abdomen is longitudinally striated.

Type.—Cat. No. 7917, U.S.N.M.

Manila. One specimen. (W. A. Stanton.)

Genus PARAPHYLAX Förster.

PARAPHYLAX FASCIATIPENNIS, new species.

Male.—Length 3.5 mm. Polished black, shining; the first joint of the antennæ and the legs, except as hereafter noted, honey-yellow; palpi and trochanters ivory-white; hind coxæ black, the apical two-thirds of hind tibiæ and more or less of their tarsi fuscous. Wings hyaline, with a broad fuscous band across the front wings from the stigma.

Type.—Cat. No. 7918, U.S.N.M.

Manila. (W. A. Stanton.)

Genus DIATORA Förster.

DIATORA PRODENIÆ, new species.

Female.—Length 2.5 mm. Head, thorax, and first segment of abdomen polished black, shining; the metathorax above rugulose, completely areolated; the rest of the abdomen ferruginous, dusky at sides toward apex, the second and third dorsal segments yellowish; the

flagellum is fuscous or blackish, the first joint beneath, the scape and pedicel, and the legs, except a spot at base of hind tibiæ and the hind tarsi, which are fuscous, are bright brownish-yellow. Wings hyaline, the stigma and veins brown.

Type.—Cat. No. 7919, U.S.N.M.

Manila. Two specimens. (Father W. A. Stanton.)

Tribe VI. CRYPTINI.

Genus AGROTHEREUTES Förster.

To this genus I should relegate *Cryptus verticalis* Bingham, which is not a true *Cryptus*. *Cryptus praepes* Bingham is unknown to me and very difficult to place generically from the description; it is certainly no *Cryptus* and belongs evidently in the tribe *Phygadeuonini*. It may be placed temporarily, or until I can secure a specimen for examination, in *Microcryptus* Thomson, where I think it belongs.

AGROTHEREUTES UNIFASCIATUS, new species.

Female.—Length 8.5 mm. Head, prothorax and mesothorax, basal two-thirds of second dorsal abdominal segment, and the third, fourth, fifth, and sixth segments, black; the scape beneath, the mesopleura posteriorly, the metathorax, and the legs, except as noted, are ferruginous; the palpi, the base of mandibles, the tegulæ, a spot beneath them, the scutellum, the front coxæ, except at base, the hind tarsi, except base and apex of the first joint and the apices of the following joints, the apex of the first and second dorsal abdominal segments, and the seventh and eighth segments ivory-white. Wings hyaline, the front wings with their apices, and a band across from the apical half of the stigma, fuscous.

Type.—Cat. No. 7920, U.S.N.M.

Manila. (Father Stanton.)

AGROTHEREUTES ALBICOXIS, new species.

Female.—Length 7.5 mm. Ovipositor about one-third the length of the abdomen. Black, marked with white as follows: Antennal joints 6 to 14 *beneath*, the inner orbits broadly, the face below the antennæ, the clypeus, the mandibles except teeth, the palpi, the upper ridge of the collar, the hind margin of the pronotum to the tegulæ, narrowed medially; the tegulæ, a spot beneath, the scutellum, the postscutellum, the apex of the metathorax, a broad stripe on each side; the front and middle coxæ and trochanters, tibial spurs and hind tarsi, except the last joint, bands at apex of dorsal abdominal segments 1 to 4, a streak on each side of the fifth, a streak at apex of the sixth, the seventh and eighth entirely, and the ventral segments, except black

lateral marks, all ivory-white. Wings hyaline, the stigma and veins black, the areolet rather small, pentagonal.

Type.—Cat. No. 8004, U.S.N.M.

Manila. (W. A. Stanton.) Allied to *A. unifasciatus* in structure, but differs decidedly in color of thorax and abdomen, and in having no fuscous band on the front wings.

Tribe VII. MESOSTENINI.

Genus MESOSTENOIDEUS Ashmead.

MESOSTENOIDEUS OCTOZONATUS, new species.

Female.—Length 9.5 mm. Ovipositor a little shorter than the abdomen. Black, marked with white as follows: Joints 7 to 11 of antennæ, the palpi, a spot on the mandibles, the clypeus and the face to the insertion of the antennæ, the inner orbits, the cheeks and hind orbits interrupted above, a transverse line on the collar, the upper margin of the pronotum broadly interrupted medially, a spot on the middle mesothoracic lobe posteriorly, a streak on the lateral ridges of the scutellum, a spot on the scutellum and the lateral ridge from its apex, the post-scutellum and its lateral ridges, the tegulæ, a spot beneath, two spots on the mesopleura, a lateral spot on the mesosternum, the front coxæ more or less, two spots on the metapleura, a spot near the middle of the metanotum, a spot enclosing the metathoracic teeth, and bands at the apex of dorsal segments 4 to 8 of abdomen, white; the white bands on segments 4 to 8 are interrupted at the middle; the ventral segments are also white at apex; legs yellowish-red; the hind tarsi with joints 2 to 5 fuscous. Wings hyaline, the stigma and veins black, the areolet small, closed, longer than wide, the second recurrent nervure interstitial, or very nearly, with the second transverse cubitus.

Type.—Cat. No. 8005, U.S.N.M.

Manila. (Father W. A. Stanton.)

Subfamily III. PIMPLINÆ.

Tribe III. LISSONOTINI.

Genus ATROPHA Kriechbaumer.

ATROPHA CLYPEARIA, new species.

Female.—Length 6 to 8 mm. (very variable in size); ovipositor about as long as the abdomen. Black and shining, marked with white as follows: The mandibles, except the teeth, the clypeus, a small spot on the malar space, a line on the face next to the eyes, a triangular spot on inner orbits above the insertion of the antennæ, the scape beneath, basal joints of palpi, a wedge-shaped spot on each side of the mesonotum anteriorly, the tegulæ, a spot beneath, a spot at the inser-

tion of the hind wings, the scutellum, a spot on metathorax just above the hind coxæ, the front coxæ and trochanters, an annulus at base of hind tibiæ and tarsi, the base of the first abdominal segment, a band at base of the second and third segments, and a band at apex of the third, all white; rest of the legs, except the hind femora toward apex, the hind tibiæ, the tibial spurs, and the tarsi, which are fuscous, red. Wings hyaline, with a large fuscous blotch just before apex, the stigma and veins blackish or dark fuscous. The thorax anteriorly is finely punctate, shining; the metathorax coarser and more closely punctate, without carinæ, and opaque.

Male.—Differs in having the white line on the face dilated and connected with the spot on the upper orbits, leaving a triangular black spot beneath the antennæ, while the apices of abdominal segments 2 to 5, as well as a band at the base, are white.

Type.—Cat. No. 8006, U.S.N.M.

Manila. Described from 2 female and 2 male specimens (W. A. Stanton).

Subfamily V. OPHIONINÆ.

Tribe IV. ANOMALINI.

Genus ATROMETUS Förster.

ATROMETUS MINUTUS, new species.

Male.—Length 3.5 to 4 mm. Polished black; first four joints of antennæ, the palpi, the tegulæ, the apices of the coxæ, the trochanters and middle tibiæ, and the base of the abdominal petiole, ivory white; rest of legs, except the hind legs, honey-yellow, the hind legs black or fuscous, the hind coxæ beneath and toward apex, and the hind tibiæ beneath and more or less medially, ferruginous; the hind femora medially are also sometimes ferruginous. The abdominal segments 1, 2, 3, and 4 at base are pale yellowish, or whitish; otherwise, except the ventral segments 1 to 4, the abdomen is black or blackish.

Type.—Cat. No. 7921, U.S.N.M.

Manila. Three specimens (W. A. Stanton).

Tribe VIII. MESOCHORINI.

Genus MESOCHORUS Gravenhorst.

MESOCHORUS PHILIPPINENSIS, new species.

Female.—Length 1.9 mm. Luteous, the head above tinged with reddish, the ocelli on a black spot, the mesonotum, except a spot just in front of the scutellum, blackish; palpi, coxæ, trochanters, tibial spurs, and the hind tibiæ, except at base and apex, whitish, the base and apex of the hind tibiæ fuscous; abdomen above blackish, the apex

of the petiole, a large oval spot on the second and third segments, and the apical three segments luteous or yellowish white. Wings hyaline, the costal vein and stigma dark brown.

Type.—Cat. No. 7922, U.S.N.M.

Manila. One specimen (W. A. Stanton).

Tribe X. PRISTOMERINI.

Genus PRISTOMERUS Holmgren.

PRISTOMERUS FLAVUS, new species.

Male.—Length 6 mm. Uniformly brownish yellow, except the apex of the metathorax and the base of the abdominal petiole, which are slightly whitish; the flagellum, the costal veins, except at base, and the stigma are brown-black; eyes greenish; hind tarsi fuscous. Wings hyaline, the internal veins brownish.

Type.—Cat. No. 7923, U.S.N.M.

Manila. (W. A. Stanton.)

Family LXXVIII. BRACONIDÆ.

Subfamily V. MACROCENTRINÆ.

Tribe I. MACROCENTRINI.

Genus MACROCENTRUS Curtis.

MACROCENTRUS PHILIPPINENSIS, new species.

Female.—Length 7.5 mm.; ovipositor longer than the abdomen. Black and shining, the scape beneath, the palpi, front coxæ and trochanters, a broad band at base of hind tibiæ, a band at base of metathorax and enclosing most of the metapleura, and a band at base of the first and third abdominal segments, yellowish white; legs ferruginous, the hind femora, their tibiæ, except the white band at base, and their tarsi, except the annulus at base of the first joint, black or fuscous. Wings hyaline, the stigma and veins, except the apex of the parastigma, and the poststigmal vein, which are pale or whitish, brown-black.

Type.—Cat. No. 8007, U.S.N.M.

Manila. One specimen (W. A. Stanton).

Subfamily VI. HELCONINÆ.

Tribe I. HELCONINI.

Genus EUSCELINUS Westwood.

EUSCELINUS MANILÆ, new species.

Female.—Length 2.8 mm. Black, the mesonotum brownish; basal two or three joints of the antennæ, the tegulæ, the legs, except the

apical two-thirds of the greatly swollen and finely serrated hind femora and an annulus on the hind tibiæ, which are black or dark fuscous, and the second abdominal segment, testaceous; the front legs and the base of the hind tibiæ are yellowish; the flagellum is brown, becoming blackish toward apex; the ovipositor is yellowish, with the apical third black and a little longer than the abdomen. Wings hyaline.

Type.—Cat. No. 8009, U.S.N.M.

Manila. One specimen. (Robert Brown.)

Subfamily IX. CHELONINÆ.

Genus CHELONUS Jurine.

CHELONUS SEMIHYALINUS, new species.

Female.—Length 3.5 mm. Black, rather coarsely punctured, the abdomen with a transverse white band at base; the front tibiæ basally, all tibial spurs, and an annulus on the hind tibiæ near the base are white; the basal half of the front wings and the hind wings entirely are hyaline, the apical half of the front wings being fuscous.

Type.—Cat. No. 7924, U.S.N.M.

Manila. (W. A. Stanton.)

Subfamily X. AGATHIDINÆ.

Tribe I. AGATHIDINI.

Genus CREMNOPS Förster.

CREMNOPS COLLARIS, new species.

Female.—Length 6.5 mm.; ovipositor the length of the abdomen. Black, but with the head anteriorly from the antennæ, the prothorax, the front legs, except the tibiæ and the middle coxæ, honey-yellow; the apices of the second and third ventral segments are pale. Wings blackish fuscous, with a hyaline spot at the apex of the submedian cell, another across from the first cubital cell, and another across before the apex of the front wing.

Male.—Length 6 mm. In this sex the head and prothorax are sometimes wholly black or only yellowish anteriorly; the legs darker, wholly black, or with only the front coxæ and tarsi yellowish-white; the front wings, too, are darker, with usually only a hyaline spot across from the first cubital cell.

Type.—Cat. No. 7925, U.S.N.M.

Manila. Several specimens. (W. A. Stanton.)

Tribe II. MICRODINI.

STANTONIA, new genus.

This interesting new genus falls naturally in this tribe, but shows some affinity with the genus *Metaricha* Ashmead.

The marginal cell is very large, lanceolate, and extends to the apex of the wing, an unusual character in the subfamily *Agathidinæ;* the

areolet is triangular, the median and submedian cells being of an equal length; otherwise, in the structure of the head, thorax, and in the sessile abdomen, it is similar to *Microdus*. The mouth parts, number of palpial joints, etc., can not be made out in the single specimen, and will have to be described when more specimens are received. The abdomen is compressed toward apex, as in *Zele* Haliday, but the ovipositor is nearly as long as the abdomen, the first and second segments being long, subequal in length, while the following are short, united not longer than the first. If the areolet were removed the front wings would be very similar in venation to that found in the subfamily *Blacinæ*.

The genus is dedicated to Father W. A. Stanton, whose discoveries have done so much toward advancing the knowledge of the Philippine hymenopterous fauna.

STANTONIA FLAVA, new species.

Plate I, fig. 2.

Female.—Length 4.5 mm.; ovipositor about as long as the abdomen. Wholly brownish-yellow, the eyes purplish in certain lights, the flagellum brownish; the apices of the hind tibiæ, the hind tarsi except the first joint basally, and the sheaths of the ovipositor are black. Wings hyaline, smoky at apex; the stigma and veins are blackish fuscous, and there is a small rounded black spot at the apex of the tegulæ. The thorax is normal, with the parapsidal furrows distinct, but that converge and meet just before the base of the scutellum; the metathorax is smooth and without carinæ.

Type.—Cat. No. 8008, U.S.N.M.

Manila. One specimen.

Subfamily XII. MICROGASTERINÆ.

Genus GLYPTAPANTELES Ashmead.

GLYPTAPANTELES MANILÆ, new species.

Female.—Length 1.9 mm. Black and shining, faintly sericeous, the head and thorax smooth and impunctate, the metathorax short, without a median carina; the first and second ventral segments and the legs are brownish-yellow, the tips of hind tibiæ and the hind tarsi only faintly dusky; the abdomen above is polished, impunctate, the second segment with two oblique grooved lines that converge anteriorly; the plate of the first segment is a little longer than wide, with the sides parallel. Wings hyaline, the stigma brown, the internal veins pallid or hyaline.

Male.—Length 1.5 mm. Scarcely distinguishable from the female, except by the smaller abdomen, which lacks the prominent hypopygium, and by the antennæ, which are longer.

Type.—Cat. No. 7926, U.S.N.M.

Manila. Two female and one male specimens. (W. A. Stanton.)

Subfamily XIV. OPIINÆ.

Genus EURYTENES Förster.

EURYTENES NANUS, new species.

Female.—Length, 1 mm. Honey yellow, smooth, and shining, the head above testaceous, the mesonotum and the apical half of the abdomen, black; the eyes, the antennæ, except the scape and an annulus at apex of the pedicel, the tips of the hind femora and their tarsi, are fuscous; scape of antennæ, the annulus on pedicel, and the legs are yellow. Wings hyaline, the stigma and veins dark brown. The antennæ are very long, much longer than the whole insect, and 28-jointed.

Type.—Cat. No. 8011, U.S.N.M.

Manila. (W. A. Stanton.)

Genus OPIUS Wesmael.

OPIUS PHILIPPINENSIS, new species.

Male.—Length, 1.6 mm. Uniformly brownish yellow, the eyes and antennæ brown, the stemmaticum and the apical two-thirds of the abdomen black; the scape beneath and the pedicel are yellow. Wings subfuliginous, the stigma and veins brown, the tegulæ pale yellowish.

Type.—Cat. No. 8012, U.S.N.M.

Manila. (W. A. Stanton.)

Subfamily XV. BRACONINÆ.

Tribe II. BRACONINI.

Genus BRACON Fabricius.

BRACON RICINICOLA, new species.

Female.—Length, 3 mm.; ovipositor about the length of the abdomen. Brownish-yellow, the sutures of the metathorax, a line down the metanotum, and oblong spots at the base of dorsal abdominal segments three, four, and five, black; the flagellum is fuscous; the mesopleura medially below are dusky. Wings subhyaline, the stigma and veins brown. The abdomen above is finely shagreened.

Type.—Cat. No. 7927, U.S.N.M.

Manila. (W. A. Stanton.)

Subfamily XVII. SPATHIINÆ.

Tribe II. SPATHIINI.

Genus SPATHIUS Nees.

SPATHIUS PHILIPPINENSIS, new species.

Female.—Length, 2.6 mm.; ovipositor about two-thirds the length of the abdomen. Black; the middle mesothoracic lobe, the cheeks,

the apical third of the petiole of the abdomen, and most of the legs are reddish brown; the tarsi, except last joint, whitish; the hind tibiæ, dark fuscous; the antennæ are very long and slender, much longer than the body, yellowish, but becoming dusky or brown at apex. Wings subfuscous, with the extreme tips, a transverse band at basal third, and another at the apical third, hyaline or whitish: the second band on the wings starts from and includes the basal half of the stigma.

Type.—Cat. No. 8010, U.S.N.M.

Manila. (W. A. Stanton.)

CHECK LIST OF THE PHILIPPINE HYMENOPTERA.

Suborder I. HETEROPHAGA Ashmead.

SUPERFAMILY I. APOIDEA.

FAMILY I. APIDÆ.

Subfamily I. MELIPONINÆ.

Subfamily II. APINÆ.

Genus Megapis Ashmead.

M. zonata Smith.
M. dorsata Fabricius.

Genus Apis Linnæus.

A. mellifera Linnæus.
A. unicolor Latreille.
A. nigrocincta Smith.

Genus Micrapis Ashmead.

M. florea Fabricius.

FAMILY II. BOMBIDÆ.

FAMILY III. EUGLOSSIDÆ.

FAMILY IV. PSITHYRIDÆ.

FAMILY V. ANTHOPHORIDÆ.

Genus Anthophora Latreille.

A. zonata Linnæus.
A. cingulata Fabricius.

FAMILY VI. NOMADIDÆ.

Genus Crocisa Latreille.

C. lamprosoma Boisduval.
C. nitidula Fabricius.

Genus Nomada Scopoli.

N. lusca Smith.

FAMILY VII. CERATINIDÆ.

Genus Ceratina Latreille.

C. compacta Smith.
C. hieroglyphica Smith.
C. philippinensis Ashmead.

Genus Allodape Smith.

A. philippinensis Ashmead.

FAMILY VIII. XYLOCOPIDÆ.

Genus Xylocopa Latreille.

X. bryorum Fabricius.
X. dissimilis Lepeletier.
X. ghilianii Gribodo.
X. philippinensis Smith.
X. bombiformis Smith.
X. trifasciata Gribodo.

Genus Platynopoda Westwood.

P. latipes Drury.
P. tenuicornis Westwood.

FAMILY IX. MEGACHILIDÆ.

Subfamily I. OSMIINÆ.

Subfamily II. MEGACHILINÆ.

Genus Megachile Latreille.

M. atrata Smith.
M. laticeps Smith.
M. robbii Ashmead.

FAMILY X. STELIDIDÆ.

Subfamily I. STELIDINÆ.

Subfamily II. COELIOXINÆ.

Genus Coelioxys Latreille.

C. philippinensis Bingham.

FAMILY XI. PANURGIDÆ.

FAMILY XII. ANDRENIDÆ.

Subfamily I. ANDRENINÆ.

Genus Hoplonomia Ashmead.

H. quadrifasciata Ashmead.

Genus Paranomia Friese.

P. stantoni Ashmead.

Subfamily II. HALICTINÆ.

Genus Halictus Latreille.

H. robbii Ashmead.

Subfamily III. SPHECODINÆ.

FAMILY XIII. COLLETIDÆ.

FAMILY XIV. PROSOPIDÆ.

SUPERFAMILY II. SPHECOIDEA Ashmead.

FAMILY XV. OXYBELIDÆ.

FAMILY XVI. CRABRONIDÆ.

Subfamily I. ANACRABRONINÆ.

Subfamily II. LINDENIINÆ.

Subfamily III. CRABRONINÆ.

Subfamily IV. THYREOPINÆ.

Subfamily V. RHOPALINÆ.

Genus Dasyproctus Lepeletier.

D. philippinensis Ashmead.

Genus Rhopalum Kirby.

R. albocollaris Ashmead.

FAMILY XVII. PEMPHREDONIDÆ.

FAMILY XVIII. BEMBICIDÆ.

FAMILY XIX. LARRIDÆ.

Subfamily I. LARRINÆ.

Genus Notogonia Costa.

N. laboriosa Smith.
N. manilæ Ashmead.

Subfamily IV. PISONINÆ.

Genus Pison Spinola.

P. lagunæ Ashmead.

Genus Pisonitus Shuckard.

P. argenteus Ashmead.

FAMILY XX. PHILANTHIDÆ.

Subfamily I. CERCERINÆ.

Genus Cerceris Wesmael.

C. vafra Bingham.

FAMILY XXI. TRYPOXYLIDÆ.

Genus Trypoxylon Latreille.

T. bicolor Smith.

FAMILY XXII. MELLINIDÆ.

Genus Megalomma Smith.

M. quadricinctum Ashmead.

FAMILY XXIII. NYSSONIDÆ.

FAMILY XXIV. STIZIDÆ.

FAMILY XXV. SPHECIDÆ.

Subfamily I. SPHECINÆ.

Genus Sphex Linnæus.

S. aurulentus Fabricius.
a. var. *ferrugineus* Lepeletier.
aa. var. *lineolus* Lepeletier.
S. sericeus Fabricius.
S. umbrosus Christ.
a. var. *rufipennis* Fabricius.
aa. var. *plumipennis* Costa.
S. sulciscuta Gribodo.

Genus Chlorion Latreille.

C. lobotum Fabricius.

Subfamily II. AMMOPHILINÆ.

Genus Ammophila Kirby.

A. atripes Smith.
A. corinata Costa.
A. superciliaris Saussure.

Subfamily III. SCELIPHRONINÆ.

Genus Sceliphron Smith.

S. violaceum Fabricius.
S. madraspatanum Fabricius.
var. *S. conspicillatum* Costa.

Genus Chalybion Dahlbom.

C. violaceum Dahlbom.

FAMILY XXVI. AMPULICIDÆ.

Subfamily I. DOLICHURINÆ.

Subfamily II. AMPULICINÆ.

Genus Ampulex Jurine.

A. compressa Fabricius.
A. larvigata Kohl.

SUPERFAMILY III. VESPOIDEA.

FAMILY XXVII. CEROPALIDÆ.

Subfamily I. PEPSINÆ.

Genus Salius Fabricius.

S. flavus Fabricius.
S. graphicus Smith.

Genus Hemipepsis Dahlbom.

H. tagala Gribodo.

Genus Pallosoma Lepeletier.

P. fulgidipennis Saussure.

Genus Pseudosalius Ashmead.

P. bipartitus Lepeletier.

Genus Calicurgus Lepeletier.

C. sericosoma Smith.

Subfamily II. AGENIINÆ.

Genus Macromeris Lepeletier.

M. violacea Lepeletier.

Genus Pseudagenia Kohl.

P. unifasciata Ashmead.

Genus Agenia Schiödte.

A. cingulata Ashmead.

Subfamily III. APORINÆ.

Tribe I. ANOPLIINI.

FAMILY XXVIII. VESPIDÆ.

Subfamily I. VESPINÆ.

Genus Vespa Linnæus.

V. dextra Lepeletier.
V. cincta Fabricius.
V. luctuosa Saussure.
V. nigripennis Saussure.
V. philippenensis Saussure.

Genus Provespa Ashmead.

P. dorylloides Saussure.

Subfamily II. POLISTINÆ.

Genus Polistella Ashmead.

P. manillensis Saussure.

Genus Polistes Latreille.

P. dubius Saussure.
P. philippinensis Saussure.
P. hebræus Fabricius.

Genus Icaria Saussure.

I. philippinensis Saussure.

FAMILY XXIX. EUMENIDÆ.

Subfamily I. ISCHNOGASTERINÆ.

Subfamily II. DISCŒLINÆ.

Subfamily III. RAPHIGLOSSINÆ

Subfamily IV. EUMENINÆ.

Tribe I. EUMENINI.

Genus Eumenes Fabricius.

E. conica Fabricius.
E. currata Saussure.
E. fulvipennis Smith.
E. gracilis Saussure.

Tribe II. ODYNERINI.

Genus Rhynchium Spinola.

R. atrum Saussure.

Genus Leionotus Saussure.

L. dyschirus Saussure.
L. punctum Saussure.

Genus Ancistrocerus Saussure.

A. bizonatus Boisduval.

FAMILY XXX. MASARIDÆ.

FAMILY XXXI. CHRYSIDIDÆ.

Subfamily II. CHRYSIDINÆ.

Genus Stilbum Spinola.

S. amethystinum Fabricius.
S. splendidum Fabricius.

Genus Chrysis Linnæus.

C. fascipennis Brullé.

Genus Trichrysis Lichtenstein.

T. aspera Brullé.

FAMILY XXXII. BETHYLIDÆ.

Subfamily I. BETHYLINÆ.

Genus Dissomphalus Ashmead.

D. tibialis Ashmead.

Genus Goniozus Förster.

G. philippinensis Ashmead.

Subfamily II. EMBOLEMINÆ.

Subfamily III. DRYININÆ.

Genus Dryinus Latrielle.

D. stantoni Ashmead.

FAMILY XXXIII. TRYGONALIDÆ.

Genus Trigonalys Westwood.

T. lachymosa Westwood.

FAMILY XXXIV. SAPYGIDÆ.

FAMILY XXXV. MYZINIDÆ.

FAMILY XXXVI. SCOLIIDÆ.

Subfamily I. SCOLIINÆ.

Genus Discolia Saussure.

D. erratica Smith.
D. aureipennis Lepeletier.
D. modesta Smith.

Genus Scolia Fabricius.

S. capitata Guérin.
S. whiteheadii Bingham.
S. procera Illiger.
S. manilæ Ashmead.

Subfamily II. ELIDINÆ.

Genus Elis Fabricius.

E. aureicollis Lepeletier.
E. annulata Fabricius.
E. grossa Fabricius.
E. luctuosa Smith.
E. quadrifasciata Fabricius=*E. lindenii* Lepel.
E. albicollis Christ=*E. thoracica* Smith.
E. reticulata Cameron.

Genus Liacos Guérin.

L. analis Fabricius.

FAMILY XXXVII. TIPHIIDÆ.

Genus Tiphia Fabricius.

T. compressa Smith.

FAMILY XXXVIII. COSILIDÆ.

FAMILY XXXIX. RHOPALOSOMIDÆ.

FAMILY XL. THYNNIDÆ.

FAMILY XLI. MYRMOSIDÆ.

FAMILY XLII. MUTILLIDÆ.

Subfamily I. MATILLINÆ.

Tribe I. PHOTOPSIDINI.

Tribe II. MUTILLINI.

Genus Mutilla Linnæus.

M. nigra Smith.
M. philippinensis Smith.
M. semperi Ashmead.
M. suspiciosa Smith.

SUPERFAMILY IV. FORMICOIDEA.

FAMILY XLIII. DORYLIDÆ.

FAMILY XLIV. PONERIDÆ.

Genus Diacaunna Mayr.

D. versicolor Smith.

Genus Odontoponera Mayr.

O. denticulata Smith.

FAMILY XLV. ODONTOMACHIDÆ.

Genus Odontomachus Latreille.

O. infandus Smith.

FAMILY XLVI. MYRMICIDÆ.

Genus Sima Roger.

S. allaborans Walker.

Genus Pheidologiton Mayr.

P. diversus Jerdon.

Genus Plagiolepis Mayr.

P. longipes Jerdon.

Genus Tetramorium Mayr.

P. guinensis Talrimis.

FAMILY XLVII. CRYPTOCERIDÆ.

FAMILY XLVIII. DOLICHODERIDÆ.

Genus Dolichoderus Lund.

D. bituberculatus Mayr.

Genus Technomyrmex Mayr.

T. allipes Smith.

FAMILY XLIX. FORMICIDÆ.

Genus Camponotus Mayr.

C. cinerasceus Fabricius.
C. gigas Latreille.
C. pallidus Smith.

Genus Formica Linnaeus.

F. rubra Fabricius.

Genus Polyrhachis Swainson and Shuckan.

P. aciculata Smith.
P. abdominalis Smith.
P. armata Le Guillon.
P. bellicosa Smith.
P. bicolor Smith.
P. bihamata Drury.
P. cyaniventris Smith.
P. dives Smith.
P. maligna Smith.
P. mayri Roger.
P. philippinensis Smith.
P. rastellata Smith.
P. sexspinosa Latreille.

SUPERFAMILY V. PROCTOTRYPOIDEA.

FAMILY L. PELECINIDÆ.

FAMILY LI. HELORIDÆ.

FAMILY LII. PROCTOTRYPIDÆ.

FAMILY LIII. BELYTIDÆ.

FAMILY LIV. DIAPRIIDÆ.

FAMILY LV. CERAPHRONIDÆ.

Genus Ceraphron Jurine.

C. manilæ Ashmead.

FAMILY LVI. SCELIONIDÆ.

Subfamily I. TELENOMINÆ.

Subfamily II. BAEINÆ.

Subfamily III. TELEASINÆ.

Subfamily IV. SCELIONINÆ.

Genus Hadronotus Förster.

H. philippinensis Ashmead.

FAMILY LVII. PLATYGASTERIDÆ.

SUPERFAMILY VI. CYNIPOIDEA.

FAMILY LVIII. FIGITIDÆ.

Subfamily VI. XYSTINÆ.

Genus Loboscelidia Westwood.

L. rufescens Westwood.

FAMILY LIX. CYNIPIDÆ.

SUPERFAMILY VII. CHALCIDOIDEA.

FAMILY LX. AGAONIDÆ.

FAMILY LXI. TORYMIDÆ.

FAMILY LXII. CHALCIDIDÆ.

Subfamily I. LEUCOSPIDINÆ.

Genus Leucospis Fabricius.

L. regalis Westwood.

Subfamily II. CHALCIDINÆ.

Tribe I. CHALCIDINI.

Genus Chalcis Linnæus.

C. albotibialis Ashmead.
C. argentifrons Ashmead.
C. prodeniæ Ashmead.
C. pulchripes Holmgren.
C. xerxena Walker.

Tribe II. SMICRINI.

Tribe III. CHALCITELLINI.

Genus Arretocera Kirby.

A. stantoni Ashmead.

Tribe IV. HALTICHELLINI.

Genus Neochalcis Kirby.

N. tarsalis Walker.

Genus Haltichella Spinola.

H. nasuta Holmgren.
H. validicornis Holmgren.
H. ludlowæ Ashmead.

Tribe V. DIRHININI.

Genus Dirhinus Dalman.

D. anthracia Walker.

FAMILY LXIII. EURYTOMIDÆ.

Tribe I. AXIMINI.

Tribe II. ISOSOMINI.

Tribe III. EURYTOMINI.

Genus Eurytoma Illiger.

E. manilæ Ashmead.

Tribe IV. RILEYINI.

Tribe V. DECATOMINI.

FAMILY LXIV. PERILAMPIDÆ.

FAMILY LXV. EUCHARIDÆ.

Genus Chalcura Kirby.

C. aegineta Walker.
C. nasua Walker.

FAMILY LXVI. MISCOGASTERIDÆ.

Subfamily I. PIRENINÆ.

Subfamily II. TRIDYMINÆ.

Subfamily III. MISCOGASTERINÆ.

Subfamily IV. LELAPINÆ.

FAMILY LXVII. CLEONYMIDÆ.

Subfamily I. CHALCEDECTINÆ.

Subfamily II. CLEONYMINÆ.

Genus Epistenia Westwood.

E. ania Walker.
E. feretius Walker.

FAMILY LXVIII. ENCYRTIDÆ.

Subfamily I. EUPELMINÆ.

Tribe I. EUPELMINI.

Genus Metapelma Westwood.

M. gloriosa Westwood.

Genus Calosoter Walker.

C. amœnetus Walker.

Genus Anastatus Motschulsky.

A. stantoni Ashmead.

Tribe II. TANAOSTIGMINI.

Subfamily II. ENCYRTINÆ.

Tribe I. ECTROMI I.

Genus Taïtia Ashmead.

T. prodeniæ Ashmead.

Tribe II. ENCYRTINI.

Tribe III. MIRINI.

Genus Coccidencyrtus Ashmead.

C. manilæ Ashmead.

Genus Aphidencyrtus Ashmead.

A. pallidipes Ashmead.

Genus Exoristobia Ashmead.

E. philippinensis Ashmead.

FAMILY LXIX. PTEROMALIDÆ.

Subfamily I. PTEROMALINÆ.

FAMILY LXX. ELASMIDÆ.

Genus Elasmus Westwood.

E. philippinensis Ashmead.

FAMILY LXXI. EULOPHIDÆ.

Subfamily I. ENTEDONINÆ.

Tribe I. TETRACAMPINI.

Tribe II. OPHELININI.

Genus Closterocerus Westwood.

C. brownii Ashmead.

Tribe III. ENTEDONINI.

Genus Asecodes Förster.

A. clasmi Ashmead.

Subfamily II. APHELININÆ.

Tribe I. APHELININI.

Genus Aspidiotiphagus Howard.

A. aleyrodis Ashmead.

Subfamily III. TETRASTICHINÆ.

Tribe I. CERATONEURINI.

Tribe II. TETRASTICHINI.

Genus Tetrastichus Haliday.

T. philippinensis Ashmead.

Subfamily IV. ELACHERTINÆ.

Tribe I. EUPLECTRINI.

Genus Euplectrus Westwood.

E. manilæ Ashmead.
E. philippinensis Ashmead.

SUPERFAMILY VIII. ICHNEUMONOIDEA.

FAMILY LXXIV. EVANIIDÆ.

Genus Evania Fabricius.

E. annulipes Ashmead.
E. appendigaster Linnæus.
E. impressa Schletterer.
E. verrucosa Schletterer.

FAMILY LXXV. AGRIOTYPIDÆ.

FAMILY LXXVI. ICHNEUMONIDÆ.

Subfamily I. ICHNEUMONINÆ.

Tribe I. JOPPINI.

Tribe II. ICHNEUMONINI.

Tribe III. LISTRODROMINI.

Tribe IV. HERESIARCHINI.

Tribe V. ALOMYINI.

Tribe VI. PHÆOGENINI.

Subfamily II. CRYPTINÆ.

Tribe I. STILPNINI.

Tribe II. PHYGADEUONINI.

Genus Microcryptus Thomson.

M. prægs Bingham.

Genus Astomaspis Förster.

A. metathoracica Ashmead.

Genus Coryphus Holmgren.

C. apicalis Holmgren.

Tribe III. HEMITELINI.

Genus Otacustes Förster.

O. alboannulus Ashmead.

Genus Bathythrix Förster.

B. striatus Ashmead.

Genus Paraphylax Förster.

P. fasciatipennis Ashmead.

Genus Diatora Förster.

D. prudentiæ Ashmead.

Tribe IV. PEZOMACHINI.

Tribe V. HEMIGASTERINI.

Tribe VI. CRYPTINI.

Genus Agrothereutes Förster.

A. unifasciatus Ashmead.
A. albicoxis Ashmead.
A. verticalis Bingham.

Tribe VII. MESOSTENINI.

Genus Mesostenoideus Ashmead.

M. octozonatus Ashmead.
M. philippinensis Ashmead.
M. literatus Brullé.
M. marginatus Brullé.

Subfamily III. PIMPLINÆ.

Tribe I. ACŒNITINI.

Tribe II. LABENINI.

Tribe III. LISSONOTINI.

Genus Atropha Kriechbaumer.

A. clypearia Ashmead.

Tribe IV. PIMPLINI.

Genus Pimpla.

P. punctum Brullé.

Tribe V. XORIDINI.

Genus Calliclisis Förster.

C. furcifer Bingham.

Subfamily IV. TRYPHONINÆ.

Tribe I. MESOLEPTINI.

Subfamily V. OPHIONINI.

Tribe I. HELLWIGIINI.

Tribe II. OPHIONINI.

Genus Enicospilus Curtis.

E. ashbyi Ashmead.

Tribe III. NOTOTRACHINI.

Tribe IV. ANOMALINI.

Genus Atrometus Förster.

A. minutus Ashmead.

Tribe V. CAMPOPLEGINI.

Tribe VI. PANISCINI.

Tribe VII. BANCHINI.

Tribe VIII. MESOCHORINI.

Genus Mesochorus Gravenhorst.

M. philippinensis Ashmead.

Tribe IX. PORIZONINI.

Genus Leptopygus Förster.

L. stangli Ashmead.

Genus Temelucha Förster.

T. philippinensis Ashmead.

Tribe X. PRISTOMERINI.

Genus Pristomerus Holmgren.

P. flavus Ashmead.

Tribe XI. CREMASTINI.

Tribe X. PLECTISCINI.

FAMILY LXXVII. ALYSIIDÆ.

FAMILY LXXVIII. BRACONIDÆ.

Subfamily I. APHIDINI.

Subfamily II. PANYLLOMMINÆ.

Subfamily III. EUPHORINÆ.

Subfamily IV. METEORINÆ.

Genus Meteorus Haliday.

M. bacoorensis Ashmead.

Subfamily V. MACROCENTRINÆ.

Tribe I. MACROCENTRINI.

Genus Macrocentrus Curtis.

M. philippinensis Ashmead.

Tribe II. ZELINI.

Subfamily VI. HELCONINÆ.

Tribe I. HELCONINI.

Genus Euscelinus Westwood.

E. manilæ Ashmead.

Tribe II. DIOSPILINI.

Subfamily VII. BLACINÆ.

Subfamily VIII. SIGALPHINÆ.

Subfamily IX. CHELONINÆ.

Genus Chelonus Jurine.

C. semihyalinus Ashmead.

Genus Phanerotoma Wesmael.

P. philippinensis Ashmead.

Subfamily X. AGATHIDINÆ.

Tribe I. AGATHIDINI.

Genus Cremnops Förster.

C. collaris Ashmead.

Tribe II. MICRODINI.

Genus Stantonia Ashmead.

S. flava Ashmead.

Subfamily XI. CARDIOCHILINÆ.

Subfamily XII. MICROGASTERINÆ.

Genus Glyptapanteles Ashmead.

G. manilæ Ashmead.

Genus Apanteles Förster.

A. philippinensis Ashmead.
A. manilæ Ashmead.

Genus Urogaster Ashmead.

U. philippinensis Ashmead.
U. stantoni Ashmead.

Genus Microplitis Förster.

M. manilæ Ashmead.
M. philippinensis Ashmead.

Subfamily XIV. OPIINÆ.

Genus Eurytenes Förster.

E. nanus Ashmead.

Genus Opius Wesmael.

O. philippinensis Ashmead.

Subfamily XV. BRACONINÆ.

Tribe I. APHRASTOBRACONINI.

Tribe II. BRACONINI.

Genus Iphiaulax Förster.

I. luteifrons Brullé.
I. nigrifrons Brullé.
I. deceptor Smith.

Genus Bracon Fabricius.

B. ricinicola Ashmead.

Subfamily XVI. RHOGADINÆ.

Tribe I. EXOTHECINI.

Tribe II. RHYSSALINI.

Tribe III. RHOGADINI.

Tribe IV. DORYCTINI.

Tribe V. HECABOLINI.

Subfamily XVII. SPATHIINÆ.

Tribe I. PAMBOLINI.

Genus Monolexis Förster.

M. manilensis Ashmead.

Tribe II. HORMIINI.

Tribe III. SPATHIINI.

Genus Spathius Nees.

S. philippinensis Ashmead.

FAMILY LXXIX. STEPHANIDÆ.

Genus Stephanus Jurine.

S. coronator Fabricius.
S. indicus Westwood.
S. nigricaudus Sichel.
S. sulcifrons Schletterer.
S. tarsatus Schletterer.
S. unicolor Sichel.

Suborder II. PHYTOPHAGA.

SUPERFAMILY IX. SIRICOIDEA.

FAMILY LXXX. ORYSSIDÆ.

Genus Oryssus Latreille.

O. maculipennis Smith.

FAMILY LXXXI. SIRICIDÆ.

Genus Tremex Jurine.

T. nigricollis Westwood.

FAMILY LXXXII. XIPHYDRIIDÆ.

FAMILY LXXXIII. CEPHIDÆ.

SUPERFAMILY X. TENTHREDINOIDEA.

FAMILY LXXXIV. XYELIDÆ.

FAMILY LXXXV. LYDIDÆ.

FAMILY LXXXVI. HYLOTOMIDÆ.

FAMILY LXXXVII. LOPHYRIDÆ.

FAMILY LXXXVIII. PERRYIIDÆ.

FAMILY LXXXIX. PTERYGOPHORIDÆ.

FAMILY LXC. SELANDRIIDÆ.

Genus Senoclia Cameron.

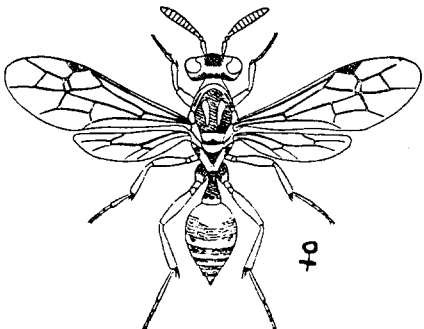
S. albocærulea Bingham.

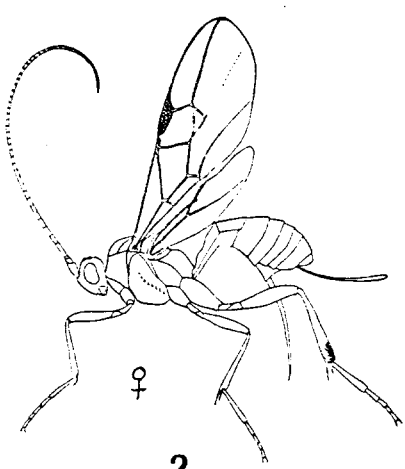
FAMILY LXCI. NEMATIDÆ.

FAMILY LXCII. DINEURIDÆ.

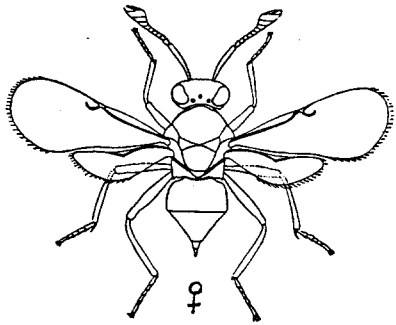
FAMILY LXCIII. TENTHREDINIDÆ.

FAMILY LXCIV. CIMBICIDÆ.





1. POLISTELLA MANILLENSIS SAUSSURE. (SEE PAGE 133.)
2. STANTONIA FLAVA, NEW SPECIES. (SEE PAGE 147.)



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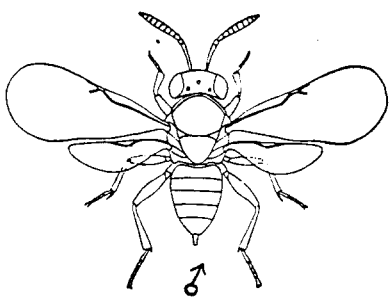

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TAFTIA PRODENIÆ ASHMEAD.

FOR EXPLANATION OF PLATE SEE PAGE 137.