

NEW HYMENOPTERA FROM THE PHILIPPINES.

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Nearly all of the species of Hymenoptera described in this contribution were received from Rev. Robert E. Brown, S. J., within the past six weeks, and, since my last paper, Additions to the recorded Hymenopterous Fauna of the Philippine Islands, went to press. Many are in genera not before noticed in the islands. The new genus, *Kriegeria*, was taken by Miss C. S. Ludlow on the Island of Mindanao, and is the first representative of the tribe Xoridini found in the Archipelago.

Family CEROPALIDÆ.

1. PSEUDAGENIA RUFOFEMORATA, new species.

Female.—Length about 7 mm. Black, subopaque, and clothed with an appressed whitish pubescence, slightly silvery beneath the antennæ, on the anterior margin of the clypeus broadly, the cheeks, the pleura, the coxæ beneath, the metanotum posteriorly, and on the sides of the dorsal abdominal segments 2-6; the dorsal abdominal segments 3, 4, 5 and the base of the 6th are rather densely pubescent; the head on the vertex and in front and the thorax are very closely, finely punctate, opaque; the metathorax has a median longitudinal depression or furrow; the palpi, except the first joint of the maxillary palpi, which is fuscous and stouter than the others, are pale ferruginous; the legs, except the front tibiæ and the middle and hind femora which are red, and the front tarsi which are fuscous, are black; claws bifid; the first and second segments of the abdomen are without pubescence and are smooth and shining. Wings hyaline or at most only faintly tinted; the costal veins and the stigma are brown-black, the other veins ferruginous. The pronotum is transverse, not more than half as long as the mesonotum.

Type.—Cat. No. 8436, U.S.N.M.

Manila. One specimen (Father Robert Brown.)

2. PSEUDAGENIA IMITATOR, new species.

Female.—Length 5.5 mm. Resembles *P. rufifemorata*, but is much smaller, less densely pubescent, and more shining, the punctuation different and with different colored legs, the palpi being entirely ferruginous. The middle and hind coxæ, their femora, and the base of the hind tibiæ, are red; the front legs, except the coxæ, trochanters, except narrowly at apex, and the base of the femora, which are black, are dark brownish, the rest of the legs are black, or fuscous black; the thorax, although shiny, is finely shagreened, the pronotum with some sparse scattered punctures, the mesonotum with coarse, thimble-like punctures on each side of a triangular impunctate space down the center; the metathorax is rugulose reticulately sculptured, without a median sulcus, but with a slight median carina or elevated line toward its base, the pubescence at apex dense is silvery white; the abdomen is smooth and highly polished, the first segment being entirely bare; the whitish or silvery white pubescence is distinct and somewhat dense on the sides of the second and third segments, while on the following segments, except the pygidium and the segments medially, it covers most of the surface. The wings are as in the previous species, except that the front wings have a very faint fuscous tinge across their disks, not sufficiently distinct to be called a band. The pronotum is transverse-quadrate and very nearly as long as the mesonotum.

Type.—Cat. No. 8437, U.S.N.M.

Manila. One specimen (Father Robert Brown).

3. SPILOPOMPILUS STANTONI, new species.

Female.—Length 6 mm. Black and shining, marked with white, as follows: A stripe on hind orbits, the front orbits, a large spot on each side of the clypeus anteriorly, a spot at base of the mandibles, the palpi, except the last two joints, the hind margin of the prothorax, a spot above the base of the front coxæ, a spot at the apex of the front femora, a spot at base of tibiæ, the tibial spurs and some of the spines of the legs, a stripe at base of hind tibiæ *behind*, and two large, transverse spots at base of the third dorsal abdominal segment, are white. Wings fuscous, the stigma, except a spot in the center, and the veins being black or brown-black.

Type.—Cat. No. 8438, U.S.N.M.

Manila. This interesting species was received from Father W. A. Stanton nearly two years ago. It resembles a North American species, *Spilopompilus (Pompilus) biguttatus* Fabricius, very closely and could be easily confounded with it; but it is much smaller, with the white markings different. *S. biguttatus* has the legs wholly black, without the white stripe at base of the hind tibiæ, so conspicuous in *S. stantoni*.

Family BETHYLIDÆ.

4. EPYRIS TAGALA, new species.

Male.—Length, 3 mm. Black and shining, with the mandibles, the antennæ, except the five last joints which are fuscous, and the legs, except the front coxæ which are black, and the hind femora which are brownish black medially, are ferruginous; palpi yellowish.

The oblong head is very distinctly punctured, but the punctures are separated, or only a few here and there are confluent. The clypeus is triangularly pointed anteriorly, with a distinct median carina that extends between the antennæ. The scape of the antennæ is clavate, slightly curved and a little longer than the pedicel and the first joint of the flagellum united, the pedicel being very little longer than thick. The first three joints of the flagellum are of an equal length, about three and one-half times as long as thick, and cylindrical, the following joints slightly shortening. The depressed collar has some transverse elevated lines. The pronotum is distinctly but sparsely punctate. The mesonotum has two distinct parapsidal furrows that do not quite reach the anterior margin, and on either side is a delicate humeral line. The middle lobe is impunctate, except a row of minute punctures along the parapsidal furrows, the lateral lobes being sparsely but distinctly punctate. The scutellum has a transverse furrow across the base and some sparse minute punctures on its disk. The metathorax is reticulately rugulose. The abdomen is much depressed, highly polished, with pubescence toward apex. The first segment or petiole with five or six grooves at base, separated by folds or carinæ; wings hyaline, with a slight fuscous tinge. The tegulæ and base of costal vein flavo-testaceous; the other veins rufo-testaceous; the stigma darker or reddish brown.

Type.—Cat. No. 8439, U.S.N.M.

Manila. (Father Robert Brown.) This is the first species in the genus noted from the Philippines.

5. DRYINUS BROWNI, new species.

Female.—Length 7 mm. Black; the four terminal joints of the antennæ, the base of the scape, the apical margin of the bidentate clypeus, the palpi, the anterior coxæ beneath and at apex, the middle and hind coxæ very narrowly at apex, and the teeth of the longer jaw of the claspers of the front legs are white; wings hyaline, with two broad fuliginous bands on the front wings, one before the basal nervure, the other much broader extending across the wing from the base of the stigma to the apex of the radius or stigmal vein; the base of the stigma is white, corresponding with the white or hyaline band across the wing.

The sculpture is characteristic; the head is finely rugulose, sub-opaque, with some elevated lines in front of the ocelli, and a delicate carina extending from the front ocellus anteriorly to between the antennæ; the antennæ are slightly thickened toward apex, the third joint being very long and cylindrical, about three times as long as the scape and pedicel united; the large prothorax has a constriction posteriorly and is longitudinally striated, with a smooth space on its disk and at the lower lateral margins; the mesothorax is rugulose, the pleura with some transverse ridges or carinæ. The mesonotum has two delicate parapsidal furrows, the middle lobe, except just in front of the scutellum, being smooth and shining, the lateral lobes being finely, opaquely rugulose; the scutellum is opaque but not rugulose, and has four foveæ across the base; the metathorax is long and rather coarsely reticulated with irregular elevated lines; the abdomen is smooth and highly polished.

Type.—Cat. No. 8440, U.S.N.M.

Manila. (Father Robert Brown.) This is one of the largest and handsomest species yet discovered, and will be found to be parasitic upon some large Rhyngotous insect belonging to the family *Pulgoridae* or *Membracidae*. It shows some affinity with *D. stantoni* Ashmead, recently described from the Philippines, but it is fully twice as large, quite differently sculptured, and with different colored antennæ and legs.

Family FORMICIDÆ.

6. COLOBOPSIS ALBOCINCTA, new species.

Worker.—Length, 5 to 6 mm. Head, except a dusky blotch on the forehead, the mandibles, except the teeth, five in number, the antennæ, the prothorax, except the anterior margin narrowly, and the legs, except the coxæ, trochanters, and the tibial spurs, the tibiae beneath and the middle and hind tarsi, ferruginous or rufous; the blotch on the forehead, teeth of mandibles, middle tibiae beneath, the middle and hind tarsi, and the thorax, except the prothorax, are black or fuscous-black; the coxæ, trochanters, tibial spurs, and the apical margins of dorsal abdominal segments 1, 2, 3, 4, most of the apical segment, and the venter, white. The head and thorax are very finely, coriaceously sculptured or finely, closely punctate, feebly pubescent, and with some sparse, erect hairs; the head shaped much as in *C. corallina* Roger, oblong-quadrate, obliquely truncate anteriorly; the eyes placed far posteriorly at the posterior lateral third; the mandibles broad, coral red, 5-dentate; the scale of the abdominal petiole is transverse, seen from the side twice higher than long, the upper margin rounded with some sparse, erect hairs; the gaster is opaque or subopaque, microscopically coriaceously sculptured, almost smooth on the white apical margins.

Female.—Length 6.25 mm. Closely resembles the worker in structure and size, but a little more robust, the thorax of a different shape, convex above, the mesonotum being fully twice as long as wide, without parapsidal furrows; the humeral grooved line is slightly indicated posteriorly; the scutellum is well defined, with the axillæ widely separated.

The head and thorax are black, very finely closely punctulate or shagreened, and opaque, the pronotum and pleura with delicate wrinkles; the legs are mostly black, with the front and hind tibiae outwardly alone rufous, the tibial spurs being white; the abdomen has the white markings different from the worker. The first and second dorsal segments have an oblong white spot at their apical middle and a white spot at their lower hind angles; the apex of the third dorsal segment is margined with white; while some of the ventral segments are also margined with white, the second broadly so. The scale of the petiole is transverse, rounded above. Wings hyaline, or only faintly dusky, the stigma and veins yellowish, the basal nervure straight, the cubitus arising from above its middle and forked far beyond its union with the radius, which is straight and almost perpendicular.

Type.—Cat. No. 8441, U.S.N.M.

Manila. (Father Robert Brown.)

7. APHOMYRMEX EMERYI, new species.

Female.—Length 2.8 mm. Luteous, smooth and impunctate, without pubescence, the disks of the dorsal abdominal segments broadly tinged with brownish, the tarsi whitish. The head is oblong, quadrangular, fully one and a half times as long as wide, the hind margin almost straight, very slightly emarginate, the angles rounded, the eyes oval, black, faceted and placed much before the lateral middle; mandibles rather large, triangular, decussate, the masticatory margin very broad, the apical half armed with four distinct teeth, the basal half apparently edentate; the antennæ are apparently 10-jointed and widely separated at base, the scapes not quite attaining the apex of the head; the pedicel is obconical, longer than wide at apex, the flagellum subclavate, gradually thickened toward apex, the club not distinctly differentiated. The thorax is about three times as long as wide, not wider than the head, rounded anteriorly, but with a short, distinct neck; posteriorly it is slightly narrowed, the metathorax with a rounded slope; the mesonotum is convex above, without a trace of parapsidal furrows. The abdomen is comparatively large, elongate oval, considerably longer than the head and thorax united and much stouter, its base pressing close to the metathorax and entirely concealing the scale; the scale as seen from the side is wedge-shaped, the gaster is composed of only four visible segments, all of an equal length; legs bare, the hind tibial

spurs well developed, their tarsi much longer than the hind tibiae. Wings hyaline, the veins pale.

Type.—Cat. No. 8442.

Manila. Described from a single specimen, received from Father Brown, found in a vial of alcohol with other small Hymenoptera.

The species is named in honor of Prof. C. Emery, the eminent European myrmecologist, who only recently characterized the genus *Aphomyrmer*.

Family SCELIONIDÆ.

8. HOPLOTELEIA PACIFICA, new species.

Female.—Length 2 mm. Black, with the legs, except the coxæ and a spot toward the apices of the femora, the last joint of the front tarsi, the three last joints of the middle tarsi, and the whole of the hind tarsi, which are black or fuscous, red. Head above and on the temples and cheeks reticulately punctate, the face with a deep, smooth emargination; thorax reticulately punctate, the four lobes of the mesonotum finely shagreened, the surface near the insertion of the wings lineated, the scutellum and the metathorax reticulated; the abdomen has the three basal segments finely punctate, the base of the second and the petiole crenulated, the three apical segments smooth. Wings subhyaline, the tegulæ black, the subcostal vein testaceous, the marginal, postmarginal and stigmal veins black.

Type.—Cat. No. 8443, U.S.N.M.

Manila. (Father Brown.) This is the first species in the genus to be described from Asia, the others being peculiar to North and South America.

Family FIGITIDÆ.

9. PENTAMEROCERA PACIFICA, new species.

Female.—Length 0.8 mm. Black, highly polished; the antennæ, except the last five joints, which are enlarged, are dark red, the last five joints, which constitute the club, are black or dark fuscous; the legs, including the coxæ, are yellowish red; wings hyaline, the veins light brownish, yellowish in the thinner parts. The cup of the scutellum is small, oval, with a puncture anteriorly, and a row of microscopic punctures at the lateral margins. The first two joints of the antennæ are oval, about equal in size and much stouter than the funicle; the first joint of the funicle is subelavate, about thrice as long as thick at apex; the following joints to the club gradually become shorter but thicker; the club joints are enlarged, oval, all a little longer than thick.

Type.—Cat. No. 8444, U.S.N.M.

Manila. (Father Robert Brown.) This is the first species described in the genus from the Philippines.

10. HEXAMEROCERA KIEFFERI, new species.

Female.—Length 1.3 mm. Black, highly polished; the antennæ are very dark red, the joints of the 6-jointed club ellipsoidal, nearly thrice as long as thick, and beautifully fluted; the scape is a little longer than the pedicel, which is almost round; the funicle is slender, the first joint being about thrice as long as thick, the second joint hardly two-thirds as long as the first, while the following joints gradually become shorter and shorter, the last joint being scarcely longer than thick.

The cup of the scutellum is oval, flat above, with a large puncture posteriorly and two minute punctures near each lateral margin. Wings hyaline, the veins brownish yellow, the subcostal vein pale yellowish.

Type.—Cat. No. 8445, U.S.N.M.

Manila. (Father Brown.)

This species is named in honor of Abbé J. J. Kieffer.

Family EULOPHIDÆ.

11. TETRASTICHOIDES BROWNI, new species.

Female.—Length 1.3 mm. Aeneous black, the thorax above with a slight brassy tinge in certain lights; scape of the antennæ and the legs, including the coxæ, pale yellow; pedicel and flagellum brown-black, the latter pubescent. Wings hyaline, pubescent, the veins, except the stigmal vein which is brown, yellowish. The whole insect is smooth and impunctate, the punctures usually present on the mesonotum, especially along the parapsidal furrows, being entirely absent. The absence of punctures and the color of the legs and antennæ render the species easily recognized.

Type.—Cat. No. 8446, U.S.N.M.

Manila. Only one specimen found in a vial of alcohol with other microhymenoptera.

Family ICHNEUMONIDÆ.

12. CRATICHNEUMON MANILÆ, new species.

Female.—Length 7 mm. Black; a spot on each side of the clypeus, the face, except a median black spot, the front orbits to back of the eyes, the palpi, an annulus on the antennæ, the upper margin of the pronotum broadly on each side to the tegulæ, a spot beneath the tegulæ, a large spot on the mesopleura, the post-tegula and the extreme base of the costæ, the scutellum, a spot on each hind angle of the metathorax, the front coxæ, except a reddish spot beneath, the front trochanters, the apex of the middle coxæ and their trochanters, the apex of the first joint of the hind tarsi, joints 2 and 3 entirely and the fourth joint beneath, a band at apex of the first segment of abdomen, a spot on the hind angles of the second and third segments, a spot on

the middle of the fifth segment and the dorsums of the sixth and seventh segments, white; the rest of the legs, except the hind tibiae outwardly and at apex, the tibial spurs and the rest of hind tarsi which are black or fuscous, are red. The head is sparsely punctate, the mesonotum more closely, distinctly punctate, the metathorax with some small, sparse punctures but completely areolated, the areola being horse-hoof shaped; the abdomen is sparsely punctate on the petiole, thickly, finely, opaquely punctate on the second and third segments, while the following segments, except some minute punctures on the fourth segment basally, are smooth and shining; the gastrocoeli on the second segment are represented by shallow transverse cicatrices near the basal lateral angles. Wings hyaline, the veins black or brown-black, the inner apical margin of the stigma broadly yellowish.

Type.—Cat. No. 8447, U.S.N.M.

Manila. (Father Brown.) A beautiful little species and the first representative of the tribe Ichneumonini to be discovered in the Philippines.

13. *APSILOPS NIGRICEPS*, new species.

Female.—Length, 6 mm.; ovipositor less than one-third the length of the abdomen. Head and the abdomen, except the first segment and a spot at apex, black; the thorax, first segment of abdomen, and the legs, except as hereafter noted, are red; a line on the front tibiae outwardly, the first joint of the middle trochanters, the middle tarsi more or less, the hind tibiae, except a broad annulus at base and the hind tarsi more or less, except a narrow annulus at base, are black or fuscous black; the annuli at base of the hind tibiae and tarsi, and the incisions of the tarsal joints, the palpi, and the large spot at the apex of the abdomen, are white.

The wings are hyaline, but the front pair have two brown-black transverse bands—a narrow one across from and including the basal nervure, and the other, a very broad band, across from the stigma, leaving only the apex of the wings hyaline; the veins are black or brown-black. The head is transverse, sublenticular, the temples very flat, the eyes very large, occupying the whole sides of the head; the thorax is opaque or subopaque, but with the mesosternum and a large spot at the upper hind angles of the mesopleura smooth and shining; the mesonotum is opaque, with two distinct parapsidal furrows that converge posteriorly; the metathorax is more or less shining, clothed with a whitish pubescence at apex and completely areolated; the abdomen is smooth and shining, except segments two and three which are finely, closely, opaquely punctate, except a large spot at their apical middle; the other segments, except the first which has some sparse, minute punctures toward the base, are smooth and practically impunctate.

Type.—Cat. No. 8445, U.S.N.M.

Manila. (Father Brown.)

14. STREPSIMALLUS BICINTUS, new species.

Female.—Length 3.6 mm.; ovipositor the length of the abdominal petiole. Red, with the metathorax, the hind legs except sutures of trochanters, femora, an annulus at base of tibiae and tibial spines, apex of the third abdominal segment and the following segments, black; scutellum yellow; eyes large, white; the nine or ten basal joints of the antennae dusky or blackish above. Wings hyaline, the front pair with two transverse bands—a narrow one from the basal nervure, and a much broader one across from the stigma.

The head is finely rugulose; the thorax also is more or less rugulose, but the mesonotum, except the middle lobe anteriorly, is transversely striated, the middle lobe anteriorly very smooth; the metathorax is rugose, opaque, and completely areolated, the areola being pentagonal, pointed at base; the abdomen is slightly longer than the head and thorax united, smooth and shining, except the first three segments; the first segment is longitudinally striated, except a space at its apex; the second and third segments are finely, opaquely sculptured, except at apical margins where the surface is smooth and shining.

Type.—Cat. No. 8449, U.S.N.M.

Manila. (Father Brown.)

15. CHROMOCRYPTUS ALBOMACULATUS, new species.

Female.—Length 10 mm.; ovipositor half the length of the abdomen. Head, except two large yellowish white spots on vertex, the antennae, except joints 7–13 above which are white, the thorax, except a spot on the middle mesothoracic lobe posteriorly, the scutellum, a spot beneath the tegulae, a larger spot beneath the insertion of the hind wings, the posterior face of the metathorax, including the metanotal teeth, and a spot at apex of abdomen, which are white, base of abdominal petiole, and the sheaths of the ovipositor, black; rest of the abdomen and the legs, except the front coxae and trochanters and the first three joints of the hind tarsi which are mostly white, red. Wings hyaline, the veins blackish or fuscous, the narrow stigma testaceous. The eyes are large and occupy nearly the whole sides of the head; the face below the insertion of the antennae is rugulose wrinkled, the clypeus smooth but with some sparse microscopic punctures; the pro- meso- and meta-pleura are more or less longitudinally striated, or with longitudinal elevated lines or wrinkles; the metathorax is rugulose, with the upper hind angles toothed; the first transverse carina is distinct, the basal median area very short, transverse, the lateral basal areas large, the surface of these areas being smooth basally. The abdomen is smooth, shining, and impunctate.

Type.—Cat. No. 8450, U.S.N.M.

Manila. (Father Robert Brown.)

KRIEGERIA, new genus. .

This new genus is based upon a single male specimen, not in the best condition, the tarsi being more or less broken and not a single claw left, taken by Miss C. S. Ludlow, on the island of Mindanao. It is, however, a true Xoridini, but not closely allied to any of the known genera.

The head is subquadrate, deeply, semicircularly concave behind, the temples and cheeks buccate; the mandibles are strong, bidentate at apex and project sufficiently to leave a slight opening between them and the clypeus; the clypeus has a slight median tooth anteriorly; the thorax is long, about five times as long as wide, the pronotum deeply, concavely depressed into a neck anteriorly; the mesonotum is about two and a half times as long as wide, with deep punctate parapsidal furrows that converge posteriorly and then curve and meet just before reaching the base of the scutellum; the metathorax is much longer than wide, with a transverse carina toward the base, inclosing two large basal areas, but without other carinae or areas; the legs are normal; the abdomen is elongate, much longer than the head and thorax united, slightly narrowed anteriorly, the first segment petioliform, only a little thicker at apex than at base. Seen from the side it is slightly curved, with the spiracles placed a little behind the middle but far from its apex; the following segments are closely punctate, opaque, without furrows or swellings of any kind; segments 3 to 6 are very nearly equal in length, wider than long, about two-thirds the length of the second, which is much longer than wide at apex—as long, or nearly as long, as the first. The wings have a venation similar to a Cryptine, the areolet being pentagonal, the sides strongly convergent above, the stigma lanceolate, the submedian cell a little shorter than the median; the transverse median nervure in the hind wings is angularly broken just a little below the middle.

This interesting new genus is named in honor of Dr. Richard Krieger, of Leipzig, Germany, whose excellent contributions on the exotic *Pimplinæ* are well known to all active Hymenopterologists.

16. KRIEGERIA HEPTAZONATA, new species.

Male.—Length 12 mm. Black; the hind orbits broadly, the inner upper orbits, a broad band across the face beneath the antennæ, a transverse spot on the disk of the clypeus, the palpi, the front and middle coxæ and trochanters, a broad annulus near the base of the middle and hind tibiæ, the hind coxæ at base and a longitudinal stripe above, the anterior margin of the prothorax, the upper hind angles of same, the tegulae, a spot beneath, a large spot on the mesopleura, an elongate spot on the middle mesothoracic lobe posteriorly, the scutellum, the space back of the insertion of the hind wings, a large quadrate spot at the apex of the metanotum, and bands at apex of all the abdominal

segments, yellowish white, or pale yellowish; rest of legs mostly red, but with a spot on the first joint of the middle trochanters above, the middle tibiae toward apex, the middle tarsi, the hind coxae beneath, first joint of hind trochanters, their femora toward apex, an annulus at base of their tibiae and the apical two-thirds of same *above* and the tarsi, black. Wings hyaline, the stigma and veins, except the subcostal vein and the parastigma, which are whitish, black.

Type.—Cat. No. 8470, U.S.N.M.

Mindanao. (Miss Clara S. Ludlow.)

17. *METOPHIUS BROWNI*, new species.

Male.—Length 12 mm. Black, with the face, front orbits to summit of eyes, labrum, spot on mandibles, two basal joints of antennae beneath, a stripe on the upper hind margin of the prothorax, a spot beneath the tegulae, a very large spot just beneath it on the mesopleura anteriorly, the scale on each side of the base of the scutellum, the apical half of the scutellum, the postscutellum, two spots on the metathorax, the first segment of the abdomen, except narrowly at base, bands at apex of all the following segments, and the genitalia, yellow; the flagellum beneath is fulvous; the palpi and the front and middle legs are yellowish white, the hind legs brown with the coxae, the trochanters, and a spot at apex and base of femora, lemon-yellow; wings hyaline; the veins, except the subcostal vein, the parastigma, the stigma, the median, and submedian veins which are pale yellowish, are black or fuscous black. The head and thorax are closely, reticulately punctate.

Type.—Cat. No. 8451, U.S.N.M.

Manila. (Father Brown.)

18. *CHAROPS LONGIVENTRIS*, new species.

Female.—Length 7 mm. Head and thorax black, closely reticulately punctate and clothed with a glittering white pubescence; the abdomen is mostly ferruginous, the petiole medially pale yellowish, at base black, the second segment black above, the rest ferruginous; the abdomen is very long and strongly compressed, about twice as long as the head and thorax united; the palpi, front coxae, and trochanters, front tarsi, middle trochanters, basal joint of middle tarsi, except extreme apex, the hind trochanters, a narrow annulus at base of hind tibiae and at base of first joint of hind tarsi, white; the rest of the legs (except the front and the middle legs), and the middle coxae, black, the front and middle legs yellowish white. Wings hyaline, the tegulae base of the costal, subcostal, and submedian veins yellowish white, the other veins brown-black.

Type.—Cat. No. 8452, U.S.N.M.

Manila. (Father Robert Brown.)

Family BRACONIDÆ.

19. *CARDIOCHILES PHILIPPENSIS*, new species.

Female.—Length 4 mm.; ovipositor about one-third the length of the abdomen. Black, shining, and impunctate, except the metathorax, which is rugulose and areolated, the areola large and lozengoidal; a spot toward base of mandibles and the apex of front femora yellow, the front tibiæ pale fuscous; the three terminal joints of the maxillary palpi, all tarsi, and the hind tibial spurs white; antennæ long, about 34-jointed. Wings hyaline, the front wings with their apical third fuscous, the hind wings with the base and apex fuscous, the stigma and veins black or brown black.

Type.—Cat. No. 8453, U.S.N.M.

Manila. (Father Robert Brown.) This species differs from the European and American species in having very many more joints in the antennæ, but otherwise it seems congeneric.

20. *UROGASTER OPACUS*, new species.

Female.—Length 3 mm.; ovipositor as long as the abdomen. Black, the head and thorax very finely, closely, opaquely punctate, clothed with a whitish pubescence; the palpi, the costal veins to the stigma, and the other veins, except the stigmal vein, front knees, spot at base of middle and hind tibiæ, the front and middle tarsi more or less, and all tibial spurs, white or yellowish white; the rest of the legs, except the front femora and tibiæ, middle tibiæ, and basal half of hind tibiæ, which are yellowish, black; the stigma and the post stigmal vein are brown-black; the metathorax is areolated, the areola rather large, pentagonal; the plate of the first abdominal segment is about four times as long as wide, the sides parallel, and finely wrinkled; the other segments are smooth.

Male.—Length 2.5 mm. Agrees well with the female, except that the front and middle legs from the coxæ, the hind trochanters, and the basal two-thirds of the hind tibiæ are brownish yellow, the first joint of the hind tarsi whitish at base, the ventral membrane of abdominal segments 1 to 4 or 5, yellowish white, while the plate of the first abdominal segment is rugulose sculptured, the sides slightly convergent posteriorly.

Type.—Cat. No. 8454, U.S.N.M.

Manila. (Father Robert Brown.)

21. *UROGASTER ALBINERVIS*, new species.

Male.—Length 2 mm. Black, very minutely punctate, but shining, the mandibles flavo-testaceous with black teeth; the front and middle legs, except the coxæ and the hind femora more or less, are brownish-yellow, the coxæ, the middle femora more or less, and the middle

tibiae toward apex are dusky, the trochanters, knees, and base of tibiae are paler yellowish than the rest of the legs; the metathorax is areolated; the abdomen, except the plate of the first segment, is smooth and shining; the plate of the first segment is hardly twice as long as wide and finely rugulose. Wings hyaline, the stigma and veins, except the parastigma, the outer edge of the stigma, and the poststigmatal vein, which are dark fuscous, are white or clear hyaline.

Type.—Cat. No. 8455, U.S.N.M.

Manila. (Father Brown.)

22. *BRACON ALGUÉI*, new species.

Female.—Length 3 mm.; ovipositor extremely short, projecting just beyond the tip of the abdomen, the sheaths black. Pale brownish yellow, the cheeks and head in front below whitish; the eyes, the middle mesothoracic lobe anteriorly and a streak or line on each side of the three basal segments of the abdomen are black; antennae long, fuscous; the wings hyaline, the stigma, except the outer margin, and the veins yellowish, the costae and poststigmatal vein black. The head and thorax are smooth and shining, impunctate, but the abdomen is closely rugulosely punctate, the three or four terminal segments with a transverse line near apex making the segments appear as if rimmed.

Type.—Cat. No. 8456, U.S.N.M.

Manila. (Father Robert Brown.) Only a single specimen was taken, but it is quite distinct from all other forms known to me. It is named in honor of the Rev. Jose Algué, the able director of the Philippine weather bureau.

23. *SPATHIUS FUSCIPENNIS*, new species.

Male.—Length 3 mm. Head, mesothorax, and scutellum reddish brown, the rest of the thorax and the abdomen black, or the latter is very dark castaneous; the antennae are very long and slender, about twice as long as the whole body, fuscous, except the five or six basal joints, which are yellowish; the legs, or at least the anterior pair (the middle and hind pairs being broken off), are pale yellowish. The mesonotum is shagreened, more or less rugulose posteriorly in front of the scutellum, the latter has a crenulate furrow across its base; the metathorax is rugulose and areolated; the abdomen is very longly petiolated, the petiole being very slender, nearly as long as the thorax, very delicately longitudinally aciculated at the sides, and wrinkled or shagreened above; the body of the abdomen is nearly pear-shaped, concave beneath, and smooth and highly polished.

Type.—Cat. No. 8457, U.S.N.M.

Manila. (Father Robert Brown.)