

## DESCRIPTIONS OF NEW SPECIES OF HYMENOPTERA.

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The following paper, which is a contribution from the Branch of Forest Insects, Bureau of Entomology, contains the descriptions of forty-seven new species of Hymenoptera, and notes on certain other species and genera. Many of the species are of economic importance in regard to the forest trees, some of them being important parasites, others of them, defoliators. In the preparation of these descriptions the Zeiss binocular microscope was used with the magnification varying from 27 to 35 diameters.

The types of all the new species are in the United States National Museum.

### Family TENTHREDINIDAE.

#### Genus EMPHYTINA Rohwer.

##### EMPHYTINA VANDUZEEI, new species.

This species is readily differentiated from all the North American species by being entirely black. In the key to the Nearctic species<sup>1</sup> this will fall in with *inornatus* and *canadensis*, but the black legs, black pronotum, and black mesepisternum readily separate it from those species.

*Female*.—Length 6.5 mm. Apical margin of the clypeus depressed, deeply, subangulately emarginate, lobes broad, triangular in outline; basal portion of the clypeus convex; supraclypeal area strongly uniformly convex; supraclypeal foveae deep, not sharply differentiated from the ventral production of the antennal foveae; middle fovea shallow, circular in outline; pentagonal area with sloping walls which unite on the postocellar line; postcellar furrow rather well-defined; postocellar area well defined laterally, convex, indistinctly parted by a median furrow, shining, about twice as wide as the cephalcaudad length; postocellar line slightly shorter than the ocellocular line; antennae short, filiform; flagellum hairy, first joint distinctly but not much longer than the second; head except the postocellar area strongly opaque, with fine reticulations on a granular

<sup>1</sup> Proc. U. S. Nat. Mus., vol. 41, 1911, p. 399.



surface; prescutum subopaque; scutum shining; stigma broader at base, gradually tapering at apex; transverse radius strongly curved, leaving the stigma at the apex and joining the radius, almost interstitial with the third transverse cubitus; third (second) cubital cell longer than its apical width, about one and one-half times broader apically; sheath straight above, oblique from the apex to near the base when it becomes nearly straight. Black; anterior tibiae in front and a small line at the knees of the intermediate legs pale piceous wings hyaline, iridescent, venation black.

Lancaster, New York. Described from one female collected June 2, 1912, by M. C. Van Duzee, for whom the species is named.

*Type*.—Cat. No. 18378, U. S. N. M.

#### Genus DIMORPHOPTERYX Ashmead.

##### DIMORPHOPTERYX COLORADENSIS, new species.

This species is more closely allied to *Dimorphopteryx melanognathus* than any other described species. It may be separated from *melanognathus* by the yellow labrum, more sharply angulate emargination of the clypeus, better defined ocellar basin and the more robust sheath.

*Female*.—Length, 8 mm. Labrum broadly rounded; clypeus flat without a depressed apical edge, apical margin with a deep, broad V-shaped emargination, the lobes broad, triangular, in outline shaped as the shape of the emargination; supraclypeal foveae elongate, deeply, indistinctly connected with the antennal foveae; supraclypeal area small, convex; antennal furrows poorly defined; middle fovea obsolete; ocellar basin well defined above but with the walls obsolete below; postocellar area well defined laterally, anterior margin well defined by the postocellar furrow, narrowing anteriorly; the cephalo-caudad length subequal with the posterior width; the posterior margin raised into two elongate transverse tubercles; head shining; the ocellar and antennal areas punctured; posterior orbits and vertex shining, with very few punctures; prescutum and scutum shining; prescutum anteriorly with a few large punctures; mesepisternum closely punctato-reticulate above; stigma broadly rounded below, the apical margin truncate; transverse radius joining the third cubital cell slightly beyond the middle; third cubital cell on the radius subequal with the first and second; the third transverse radius arched inwardly; sheath robust, slightly concave above, subtruncate at the apex then broadly oblique to the subparallel basal portion. Black; labrum, spot on the mandibles, tegulae and four anterior legs, stramineous; antennae beyond the third joint rufo-piceous; second to fourth inclusive abdominal segments, the posterior femora and tibiae except apices rufous; posterior trochanters



and posterior tarsi stramineous; wings yellowish hyaline, venation except the yellow costa black.

El Paso County, Colorado. Described from one female collected June 14, 1914, by A. B. Champlain.

*Type*.—Cat. No. 18556, U.S.N.M.

Genus TENTHREDELLA Rohwer.

TENTHREDELLA TURNERI, new species.

This species is related to *Tenthredella mordax* (Konow) but may be differentiated from that species by the yellow angles of the pronotum and yellow tegulae. From *Tenthredella cyanata* (Konow) to which it is probably closest, this species may be separated by the color of the wings and different vertex which can not be said to be "quadrato, medio-sub-carinato."

*Female*.—Length, 11.5 mm. Anterior margin of the labrum obtusely pointed; clypeus convex, apical margin with a U-shaped emargination, the lobes broad, truncate; supraclypeal area depressed; supraclypeal foveae obsolete; antennal foveae well defined dorsally but reduced ventrally; antennal furrows shallow beyond the foveae; frontal basin deep, well defined, the bottom glabrous, the walls extending dorsally to the anterior ocellus; ocelli in an equilateral triangle; postocellar area well defined laterally, wider by one-fourth than the cephal-caudad length; postocellar furrow obsolete; head subopaque, finely granular, the median area around the basin and the postocellar area with coarser granulation; antennae long, filiform, third and fourth joints subequal in length; mesoscutum and prescutum granular, opaque; scutellum strongly convex, granular but more closely so than the scutum; scutellar appendage without a well defined longitudinal carina; mesepisternum sculptured like the scutum; stigma narrow, tapering; third cubital cell longer than the first two combined, its apical width as great as two-thirds its length on the radius; abdomen finely transversely aciculate; sheath parallel-sided, narrow, apex subtruncate. Black, abdomen blue; clypeus, labrum, mandibles except teeth, spot below the eye, posterior angles of the pronotum and tegulae, pale stramineous; legs stramineous; apex of the four anterior femora, the four anterior tibiae above, apex of the posterior femora above, the four anterior tarsi, the posterior tibiae and their tarsi, black wings dusky hyaline, the posterior pair paler; venation black.

*Male*.—Length, 9.5 mm. Differs from the female only in having the four anterior femora with the black line complete.

Shillong, Assam. Described from one female, type, and one male, allotype, collected September, 1903, by R. E. Turner, for whom the species is named.

*Type*.—Cat. No. 18532, U.S.N.M.



Genus *PACHYPROTASIS* Hartig.*PACHYPROTASIS BRUNETTI*, new species.

Apparently closest to *Pachyprotasis albocincta* Cameron, but differs in a number of ways from Cameron's description, being readily separated by the black apices of the hind femora. From *Pachyprotasis violaceodorsata* to which it shows affinities it may be separated by the sides and venter being almost entirely black.

*Male*.—Length 7 mm. Anterior margin of the clypeus shallowly, subsquarely emarginate, the lobes triangular, obtusely pointed; labrum longer than the clypeus, truncate at the apex; supraclypeal fovea deep, punctiform; supraclypeal area uniformly convex, rectangular in outline; median fovea punctiform, small; a small crescent shaped fovea in front of the anterior ocellus; antennal furrows poorly defined; ocelli in nearly an equilateral triangle; postocellar area rectangular in outline, twice as broad as the cephal-caudad length; lateral margin of the postocellar area decidedly latrad of the posterior ocelli; antennae long, slender, flattened, beneath with two carinae, the third and fourth joints subequal; head subopaque with rather coarse punctures above the antennae, the remaining portion of the head being rather sparsely punctured; prescutum, scutum, and scutellum shining, with sparse, distinct, well defined punctures; mesepisternum opaque, rather coarsely granular; third cubital cell but little longer than the second, receiving the transverse radius a little beyond the middle; second recurrent joining the cubitus the length of the second transverse cubitus in the third cubital cell. Blue-black, variegated with stramineous; head black; clypeus, labrum, mandibles except piceous apices, head below the antennae, inner orbits almost to the vertex, posterior orbits to above the middle of the eye and an oblique spot from the upper margin of the eyes to the occiput, stramineous; scape with a small yellow spot beneath; palpi piceous thorax blue-black; sides of the prescutum, the posterior margin of the pronotum both dorsally and laterally, tegulae, spot on the anterior margin of the mesepisternum, posterior margin of the mesepimeron, metepisternum, spot on the scutellum, scutellar appendage and metanotum, stramineous; abdomen blue-black; the venter and lozenge shaped spots on the third to sixth tergites stramineous; legs stramineous; the coxae, apices of four anterior femora above, four anterior tibiae above, entire apices of the posterior femora, the posterior tibiae and all of the tarsi, black; wings hyaline with a faint yellowish tinge, iridescent; venation black.

Darjiling, Northern India. Described from three males (one, type), collected at an altitude of 7,000 feet, September 19, 1905, by Brunetti for whom the species is named. The species are labelled as being collected on flowers and hedges in gardens.

*Type*.—Cat. No. 18533, U.S.N.M.



Genus *BLENNOCAMPA* Hartig.*BLENNOCAMPA ASSAMENSIS*, new name.

*Blennocampa gracilicornis* ROHWER, Rec. Indian Mus., vol. 8, 1913, p. 239 [not (*Selandria*, *Blennocampa*) *Rhadinoceraea gracilicornis* (Zaddach) Konow].

Genus *PONTANIA* Costa.*PONTANIA AMENTIVORA*, new species.

From the sheath this species will form a new group which more closely approaches Group 2 as defined by Marlatt in his Revision of the North American Nematinae, but is readily distinct from that species group inasmuch as the ventral portion of the sheath is trilobed.

*Female*.—Length, 4 mm. Labrum obtusely rounded; clypeus with a shallow, narrow median emargination; lobes broad and round; supraclypeal area triangular in outline, convex; supraclypeal foveae represented by an oblique line; middle foveae elongate, obtusely pointed below and rounded above; antennal foveae large, lateral walls sloping and extending to the inner margins of the eyes; ocellar basin represented by an elongate foveae, with sloping walls, in front of the anterior ocellus; antennal furrows complete; postocellar line decidedly longer than the ocellocular line; postocellar area short, not twice the diameter of a lateral ocellus, not sharply defined anteriorly and laterally extending beyond the lateral margin of the lateral ocelli; third antennal joint slightly shorter than the fourth; third cubital cell one-fifth longer than its apical width, slightly wider apically than basally; lower discoidal cell in the hind wings distinctly shorter than the upper; nates broadly rounded apically; cerci prominent, tapering; sheath as viewed from the side narrow, acuminate at the apex; seen from beneath, the sheath, is trilobed, the concave portion filled with fine pubescence; ventral view of the sheath superficially resembles that of *Diprion*; claws cleft, the inner tooth distinctly shorter than the outer one. Black; clypeus, mandibles except apices, labrum, supraclypeal area, cheeks, the apices of the coxae, trochanters, the apices of the femora and the tibiae beneath yellowish or yellowish white; wings hyaline, iridescent, venation dark brown.

Falls Church, Virginia. Described from four females recorded under Bureau of Entomology Number Hopk. U. S. 10128, material collected, and reared, May 13, 1913, by S. A. Rohwer. This species lives, in the larval stage, in the pistillate catkins of a small species of *Salix* and causes the destruction of the ovaries and the premature forming of "cotton." It pupates with in a self-spun cocoon in the ground.



Cocoon of the normal nematine type, dark brown, covered with white silk.

*Type*.—Cat. No. 18313, U.S.N.M.

Genus *PTERONIDEA* Rohwer.

*PTERONIDEA WINNANAE* Rohwer.

This species belongs to the group *trilineatae* as defined by Rohwer,<sup>1</sup> and in his table to the species runs it to *trilineata* Norton, but it may be readily distinguished from that species by the following synopsis which should follow as Number Two coming from the place occupied by *trilineata* in the above-mentioned table:

2. Middle fovea triangular in outline; clypeus broadly, arcuately emarginate, the emargination broader than the lobes; hind tibiae all brown.....*trilineata*.  
Middle fovea elongate; clypeus narrowly emarginate, the emargination narrower than the lobes; hind tibiae pale at base.....*middletonia*.

The male runs in Marlatt's table to *vancouverensis* from which it may be easily distinguished by the black perscutum.

*Female*.—Length, 5.5 mm. Ocellar basin well defined, not extending beyond the posterior margin of the anterior ocellus; frontal crest not broken; postocellar area poorly defined anteriorly, well defined laterally by curved furrows; postocellar line subequal with the ocellular line; third antennal joint noticeably shorter than the fourth; stigma uniformly rounded below; third cubital cell nearly of equal width, longer than its apical width; lower discal cell distinctly shorter than upper; sheath broad, straight above, broadly rounded below; teeth of the claws of equal length. Pale yellow; spot around the ocelli, antennae, spot on the scutum and prescutum, apex of the scutellum, metathorax, dorsal middle of abdomen, apex of the sheath, extreme apices of the hind tibiae and the hind tarsi, black; wings hyaline, iridescent, venation pale brown, stigma pale.

*Male*.—Length 4.5 mm. Ocellar basin rather more sharply defined than in the female; third cubital cell almost quadrate; hypopygidium obtusely pointed; prodecentia slightly longer than the apical width, strongly carinate, truncate apically with the angles rounded; otherwise the male agrees in structure with the female. Black; head pale except the area bounded by the antennal furrows; antennae black; pronotum, tegulae, upper margin of the mesepisternum, venter, legs except the apices of the posterior tibiae and the tarsi, pale yellow; wings like the female.

Ballston (Lacy), Virginia. Redescription from one female and three males recorded under Bureau of Entomology Number Hopk. U. S. 11316*b*, material collected, and reared September 9, 1912, by William Middleton. The larvae of this species feeds on *Salix*.

<sup>1</sup> Proc. U. S. Nat. Mus., vol. 43, 1912, p. 244.



## PTERONIDEA ACERIS, new species.

*Female*.—Length 6.5 mm. Anterior margin of the labrum truncate; clypeus short, not strongly convex, anterior margin broadly, arcuately emarginate, the lobes low, obtusely rounded apically and about half the width of the emargination in width; supraclypeal area strongly convex; middle fovea deep, almost circular in outline; frontal crest but slightly broken; antennal furrows complete above the crest; crest sharp; the lateral dorsal walls of the postocellar basin obsolete, the lower walls well defined, sharp, indicating a pentagonal ocellar basin; a small, shining fovea directly in front of anterior ocellus; postocellar line subequal in length with the ocellocular line; postocellar area not well defined laterally; the lateral furrows indicated only anteriorly and originating immediately behind the lateral margin of the lateral ocelli; antennae antenniform, the third and fourth joints subequal; thorax shining, impunctate except the setigerous punctures; stigma angulate slightly basad of the middle, tapering to the apex, broad; second recurrent and second transverse cubitus interstitial; third cubital cell slightly widening apically, about half as long as its apical width; discal cells of the hind wings of equal length; teeth of the claws subequal in length; sheath stout, straight, above, tapering from an obtusely rounded apex to a broad base. Black; labrum, mandibles except apices, clypeus, supraclypeal and lateral supraclypeal areas, spot on the inner posterior orbits, pronotum, tegula, spot on the scutellum, line on the scutellum, spot on the mesepisternum dorsally, and abdomen except infusate basal plates, *ferruginous*; antennae brown, slightly paler beneath; legs except apical joints of the four anterior tarsi, apices of the posterior tibiae and the entire posterior tarsi which are infusate, pallid; wings hyaline, slightly iridescent, venation dark brown.

Charter Oak, Pennsylvania. Described from one female recorded under Bureau of Entomology Number Hopk. U. S. 10708*d*. Material collected by T. E. Snyder and reared June 15, 1913, by S. A. Rohwer.

*Type*.—Cat. No. 18190, U.S.N.M.

This species is related to *populi* and *hudsonica* Dyar. The following table will separate it and the other species which fall in the category entitled "Angles, etc., pale," on page 45 of Marlatt's Revision of the North American Nematinae.

Clypeus, supraclypeal area black (antennal furrows not depressed sharply above the crest) .....	<i>pulchella</i> Rohwer
Clypeus and supraclypeal area pale .....	1
1. Lateral wall of the ocellar basin obsolete; second recurrent and second transverse cubitus interstitial .....	<i>aceris</i> Rohwer
Lateral wall of the ocellar basin well defined; second recurrent antifurcal .....	2
2. Lateral lobes of mesoscutum mostly black, basal segments infuscated.	
	<i>populi</i> Marlatt
Lateral lobes of the mesoscutum reddish, basal segments pale.	
	<i>hudsonii-magnus</i> Dyar



According to Mr. Snyder's notes the larva of *Pteronidea aceris* feeds on *Acer spicatum*. His notes are as follows:

"May 26, 1913. Sawfly larva feeding on under surface of leaf; green with blackish spots; moulted a few hours later to pale green with a yellow band near the end of the abdomen.

"May 27, 1913. Cocoon spun."

Genus *LYGAEONEMATUS* Konow.

*LYGAEONEMATUS ROBINSONAE*, new species.

Readily separated from *Lygaeonematus winnipeg* by having the upper part of the mesepisternum and part of the mesoscutum marked with pale and by characters of the head.

*Female*.—Length 7.5 mm. Apical margin of the labrum obtusely rounded; clypeus short, not as long as the labrum, the apex truncate; supraclypeal area triangular in outline, strongly convex; the upper margin more prominent; supraclypeal foveae deep, small, punctiform, not connected with antennal foveae; middle fovea elongate, confluent with the depression in front of the anterior ocellus; frontal crest obsolete; ocellar basin four-sided, the upper walls nearly obsolete, meeting on the postocellar furrow well above a line drawn tangent to the upper margin of the lateral ocelli; lower wall of the ocellar basin low, rounded, uninterrupted on the median fovea; postocellar area parted by a depression, well defined laterally, a little more than twice as wide as the cephalo-caudad length; postocellar furrow angulate anteriorly and not sharply defined; antennal furrows complete above the lateral angulation made by the ocellar basin; antennae slender, tapering apically, the third joint slightly shorter than the fourth; head and thorax shining; stigma broader at base, gradually tapering to an acute apex; first transverse cubitus obsolete; second recurrent almost interstitial with the second transverse cubitus; third cubital cell parallel-sided, a little more than twice as long as its apical width; upper and lower discoidal cells in the hind wings of nearly equal length, the lower being slightly shorter; abdomen shining; sheath straight above, tapering from an acute apex to a broad base. Black, marked with pale; following parts are black: Antennae, spot opposite the lower lateral walls of the ocellar basin, the ocellar area, spot on the prescutum, spot on the scutum, apex of the scutellum, metanotum, mesepisternum, sides of the episternum, and all the tergites except the apical two; remainder of the insect pale yellow; legs pale; bases of the coxae, bases of the femora (more broadly beneath) and apices of the posterior tibiae black; anterior tarsi apically, and posterior tarsi infuscated; wings hyaline, slightly iridescent; venation black except the pale yellow costa and stigma.

Boulder, Colorado. Described from one female collected May 9, 1914, by Elizabeth Robinson, for whom the species is named; specimens transmitted by Prof. T. D. A. Cockerell.

*Type*.—Cat. No. 14862, U.S.N.M.



## Genus CROESUS Leach.

## CROESUS CASTANEAE, new species.

This species may be readily separated from that group of species which has long gone under the name *latitarsus* by having the apical margin of the clypeus depressed in the interstitial second recurrent nervure and the shining mesepisternum.

*Female*.—Length 8 mm. Apical margin of the clypeus narrowly, subangulately emarginate, the apical margin broadly depressed, the basal area gently convex, shining; labrum much longer than the clypeus, truncate apically, sparsely clothed with long gray hair; supraclypeal area convex, triangular in outline; supraclypeal foveae deep, elongate, connected with the antennal foveae; middle fovea sharply defined, subtriangular in outline, not breaking through the frontal crest; ocellar basin pentagonal, pointed on the postocellar line, the greatest length but little greater than the greatest width; the head not noticeably depressed laterad of the ocellar basin; postocellar area defined laterally by short deep furrows; postocellar furrow nearly obsolete; postocellar line subequal with the ocellocular line; front opaque with fine aciculations; third and fourth antennal joints subequal; mesothorax shining; second recurrent vein interstitial with the second transverse cubitus; third cubital cell much longer than its apical width; sheath straight above, sharply tapering to the apex. Black; apical margin of the clypeus, the basal half of the four anterior tibiae, the basal part of the four anterior tarsi, the apices of the posterior coxae, their trochanters, and the basal third of the posterior tibiae white; wings hyaline; venation black.

*Male*.—Length 6 mm. Agrees with the above description of the female except that the apical margin of the clypeus is hardly depressed, and the second recurrent vein is received slightly basad of the second transverse cubitus; hypopygidium shining, narrowly rounded.

Falls Church, Virginia. Described from three females and two males recorded under Bureau of Entomology No. Hopk. U. S. 10154; material collected August 7, 1912, by William Middleton, adults emerging the following September. The larvae feed gregariously on the leaves of *Castanea dentata*. They are bright yellow with a black head and transverse black bands.

*Type*.—Cat. No. 18527, U.S.N.M.

## Genus EUURA Newman.

## EUURA COSENSII, new species.

"Undescribed gall on *Salix humilis* Marsh," COSENS, Trans. Canad. Institute, vol. 9, 1912, p. 335, 336, fig. 5 and 85.

This species runs, in the published synopsis<sup>1</sup> to *salicis-nodus* Walsh, but is readily differentiated from that species by the shape of the

<sup>1</sup> Journ. N. Y. Ent. Soc., vol. 17, 1909, p. 9.



sheath and different sculpture of the head, as the following description will show:

*Female*.—Length 5 mm. Anterior margin of the labrum obtusely pointed; clypeus broadly, arcuately emarginate, the lobes acute; supraclypeal area triangular in outline, supraclypeal foveae confluent with the antennal foveae, middle fovea elongate, breaking through the crest; ocellar basin with the lateral walls obsolete, the lower walls sloping; as indicated, the basin is pentagonal in outline and meets dorsally a little behind the anterior ocellus; a shining, elongate fovea in front of the anterior ocellus; antennal furrows deep, but not extending much beyond the posterior ocelli; postocellar line slightly longer than the ocellocular line; postocellar furrow deep, well defined, terminating at the inner margins of the ocelli; postocellar area flat, defined laterally by a line-like furrow, rectangular in outline and two and one-half times as broad as the cephal-caudad length; antennae stout, slightly tapering apically, third and fourth joints subequal; mesoscutum shining with a few poorly defined punctures; scutellar appendage with setigerous punctures; stigma gently rounded on the lower margin; upper and lower discal cells of equal length; sheath broad, straight above, tapering from an obtuse apex to a broad base, densely clothed with long, pale hairs; inner tooth of claws shorter than the outer. Black; mandibles except piceous apices, clypeus, labrum, palpi, supraclypeal area, posterior margins of the pronotum and tegulae, *fulvous*; posterior orbits rufo-piceous; legs below the coxae fulvous, the posterior tarsi infuscated; wings hyaline, iridescent; venation dark brown; stigma almost concolorous, pale brown.

*Male*.—Length 3.5 mm. Hypopygidium obtusely pointed apically, otherwise the structure agrees very well with the above description of the female. Color of the male is the same as the female, except that the posterior tarsi are more infuscated and the hypopygidium is pale.

Toronto, Ontario. Described from three females (one, type) and four males (one, allotype) which were reared from galls from the petiole of *Salix humilis*, material collected and reared by A. Cosens, for whom the species is named. This gall is well described by Cosens, and the description need not be repeated here.

*Type*.—Cat. No. 18528, U.S.N.M.

### Family CIMBICIDAE.

#### Tribe CIMBICINI.

The genera belonging to this tribe, as defined in the Proceedings of the Entomological Society of Washington,<sup>1</sup> may be separated as follows:

<sup>1</sup>Vol. 13, 1911, p. 219.



*Table to the genera of the Cimbicini.*

- Propodeum deeply emarginate posteriorly, the emargination without a chitinous covering; third anal vein in the hind wings present; posterior femora simple.....1  
 Propodeum hardly emarginate posteriorly; third anal vein in the hind wing wanting; posterior femora toothed beneath; labrum large, well exerted... *Trichiosoma* Leach.  
 1. Labrum small, not, or but scarcely, exerted..... *Cimbex* Olivier.  
     Labrum large, well exerted..... *Cimbicisoma*, new genus.

## CIMBICISOMA, new genus.

In most of the characters this genus is close to *Cimbex*, but the large well exerted labrum allies it to *Trichiosoma*, from which it may be separated by the foregoing table. Antennae seven jointed, head as in *Cimbex*, except the large labrum, which is as in *Trichiosoma*, legs and body as in *Cimbex*.

*Type*.—*Cimbicisoma dendrobii*, new species.

## CIMBICISOMA DENDROBII, new species.

This species has a superficial resemblance to *Cimbex carinatula* Konow.

*Female*.—Length 18 mm., length of the anterior wing 20 mm., labrum slightly broadening apically, anterior margin rounded, the lateral margins with obtuse carinae, median area with a short well-defined carina, shining without any punctures; anterior margin of the clypeus very slightly arcuately emarginate, the surface granular opaque; superclypeal foveae elongate, well defined; superclypeal area flat; head between the eyes opaque, finely granular, laterally coriaceous with a few sparse setigous punctures; postocellar area narrowing anteriorly, the cephal-caudal length slightly longer than the posterior width, postocellar furrow obsolete; second and third joints of the flagellum subequal in length, the apical joints not well differentiated; anterior lateral margins of the pronotum tuberculate; thorax opaque; scutellum with a median longitudinal impressed line; second recurrent vein received by the second (first) cubital cell about the length of the second transverse cubitus from its apex, transverse radius joining the radius the length of the second transverse cubitus beyond it; abdomen opaque, finely granular, apical segment slightly emarginate medianly; sheath concealed. Rufo-ferruginous; spot on the anterior margin of the prescutum, the sides and thorax beneath, and first two abdominal segments, black; legs black, except the apices of the femora, tibiae, and tarsi, which are the color of the body; wings yellowish hyaline, the submedian, median, first discoidal, radial, and the upper margin of all the cubital cells deeply infuscated, posterior wings yellowish hyaline, venation yellowish brown.

British Burmah. Described from one female which was bred by the United States Department of Agriculture from a cocoon collected on *Dendrobium hardianum* by George Field, the adult issuing May 17, 1902.

*Type*.—Cat. No. 18529, U.S.N.M.



## Family ICHNEUMONIDAE.

## Genus PEZOPORUS Förster.

## PEZOPORUS (SCHENKIA) TENTHREDINARUM, new species.

This species is placed in the subgenus *Schenkia* because of its resemblance to *graminicola*, the type of *Schenkia*. It does not appear to have any described American allies to which it may be compared.

*Female*.—Length 6 mm. Anterior margin of the clypeus truncate with a narrow depressed edge; head below the antennae opaque, granular with a few poorly defined punctures interspread; above the antennae shining, finely granular, almost impunctate; postocellar line subequal with the ocellocular line; posterior orbits as broad as the cephalo-caudad diameter of the eye; flagellum stout, larger apically, the first joint slightly shorter than the second and a little more than twice as long as its apical width; second joint  $2\frac{1}{2}$  times as long as its apical width, the third, fourth, and fifth joints subequal and  $1\frac{1}{2}$  times as long as their apical width; malar furrow well defined and limiting the granular, opaque sculpture of the face, separating it from the shining sculpture of the posterior orbits; mandibles with the teeth of equal length; mesoscutum shining, practically impunctate; suture between the scutum and scutellum broad, shallow, bottom finely foveolate; scutellum shining, practically impunctate; propodeum opaque; the longitudinal carinae defining the basal area and the areola well defined; basal area and areola confluent; basal median lateral areas separated by a poorly defined carina which becomes subobsolete laterally; first tergite smooth, without strong sculpture, the lateral carinae extending from base to apex; second and following tergites smooth, practically impunctate; areolet hexagonal with the basal and apical ends subequal. Black; mandibles except the piceous apices, clypeus, antennae (becoming infuscated and darker apically), and tegulae white or whitish; legs rufo-ferruginous; first three tergites rufo-ferruginous, but the sides of the first and small lateral spots on the second and third, infuscate.

*Male*.—Length 4.5 mm. Sculpture agrees well with the female; the antennae are slightly longer and not so robust apically, the third joint is distinctly longer than the fourth; fourth and fifth are subequal, the sixth is slightly shorter than the fifth. Agrees with the female in color except the bases of the posterior coxae are black and the tergites are black except the small ferruginous spot on the apex of the first, transverse apical bands on the second and third.

Geneva, New York. Described from one female (type) and one male (allotype), reared by B. B. Fulton from a sawfly leaf miner on cherry *Profenusa collaris* MacGillivray.

*Type*.—Cat. No. 18503, U.S.N.M.



## Genus LAGAROTIS Förster.

## LAGAROTIS DIPRIONI, new species.

*Female*.—Length 11 mm. Clypeus shining, practically impunctate, the apical margins very slightly emarginate medianly; head below the antennae opaque, the surface finely granular and in addition with distinct, well-defined, separate punctures; a small, dark, shining tubercle on the level of the lower margin of the antennal sockets; head above the antennae to the level of the anterior ocellus punctured like the face; the vertex, the intraocellar area and posterior orbits opaque with the large punctures widely separated; ocellular line but little longer than the interocular line; third antennal joint subequal with the two following; anterior face of the pronotum longitudinally striate, laterally and dorsally the striae are replaced by punctures similar to those of the scutum; mesoscutum shining, with distinct, well-defined punctures which are a little denser anteriorly; mesepisternum similarly sculptured; scutellum shining, with a few widely scattered, small punctures; propodeum punctured like the scutum, the areola and basal areas defined very indistinctly by irregular short carinae, the carinae defining the spiracular area well defined; first tergite with rather large, distinct punctures; the second with punctures more widely separated; the third and following without large punctures; all of the tergites, when magnified 35 diameters, with fine reticulations. Black with many yellow markings; head black; clypeus, labrum, mandibles except piceous apices, palpi, head below the supraorbital line, except intraocellar area, posterior orbits to near the top, pronotum except a median band, proepisternum, mesosternum and lower part of mesepisternum, two spots on the anterior margin of the mesoscutum which project posteriorly the median ones connected by a transverse spot, tegulae, scutellum, metanotum, and posterior part of the propodeum, yellow; abdomen rufous; the sides and apical margin of the first tergite, apical margin of the second tergite yellow; antennae fulvous; the scape and the first three flagellar joints above, piceous; legs ferruginous; the coxae, trochanters, four anterior femora and tibiae beneath, the base of the posterior tibiae yellow; the apical half of the posterior tibiae and their entire tarsi black; wings hyaline, iridescent; venation black.

*Male*.—Length 10 mm. The description for the female should answer well for the male. The antennae are darker and the first tergite is black; otherwise it is colored the same.

Paratypes indicate that this species may vary slightly as to the extent of the yellow on the propodeum and the yellow on the mesepisternum and mesosternum may be separated by a black line; the flagellum may be completely dusky except the four apical joints.



Falls Church, Virginia. Described from two females, one (type) recorded under Bureau of Entomology No. Hopk. U. S. 11325c and from two males (one, allotype) recorded under Bureau of Entomology No. Hopk. U. S. 10175c. These numbers refer to notes stating that this species is a primary parasite on *Diprion lecontei*, material collected and reared by William Middleton and S. A. Rohwer.

*Type*.—Cat. No. 18521, U.S.N.M.

LAGAROTIS VIRGINIANUS, new species.

This species is very like *Lagarotis diprioni* but may be separated from that species by having the propodeum and most of the mesepisternum black, and by having the abdomen black except whitish bands on the third and fourth tergites.

Falls Church, Virginia. Described from one male recorded under Bureau of Entomology No. Hopk. U. S. 10175c which refers to a note stating that this species is a primary parasite of *Diprion lecontei*, material collected and reared May 16, 1913, by S. A. Rohwer.

*Type*.—Cat. No. 18522, U. S. N. M.

Genus HOMALOMMA Förster.

This Foersterian segregate has as yet had no species placed in it. The following three species seem to agree with Foerster's and subsequent writers' conception of Foerster's genus.

The roughened cheeks, the lack of a depression separating the clypeus from the face readily separate this genus from most of the others. From *Habrodactylis* it is separated by the shorter apical joints on the hind tarsi and by the completely areolated propodeum.

*Type*.—*Homalomma caliroae*, new species.

The following table will differentiate the three species here considered:

Black, with white markings.....	<i>pteronideae</i> .
Ferruginous.....	1
1. Apical middle of the second tergite smooth, impunctate.....	<i>eriocampoides</i> .
Apical middle of the second tergite sculptured like the rest of the segment.....	<i>caliroae</i> .

HOMALOMMA CALIROAE, new species.

*Female*.—Length 4.5 mm. Apical margin of the clypeus slightly depressed, the surface shining, almost impunctate; the entire head opaque with fine granulations, median tubercle much reduced; ocellocular line subequal with the postocellar line; postocellar area parted by a faint furrow; third and fourth antennal joints subequal; mesoscutum opaque, laterally with a few large, separate punctures; scutellum sculptured similar to the scutum but the punctures smaller and sparser; propodeum completely areolated; basal area but little wider anteriorly than posteriorly, hexagonal in outline; the anterior lateral legs subequal in length with the anterior face, and but about



two-thirds the length of the lateral posterior legs; petiolate area hexagonal in outline, the anterior lateral legs slightly longer than the posterior lateral legs; propodeal spiracles round, small; nervulus interstitial; nervellus broken slightly below the middle; areolet truncate in outline, shortly petiolate; first tergite coarsely granular with two faint median carinae which extend slightly beyond the spiracles; the second tergite granular but not as coarsely so as the first, posteriorly somewhat striato-granular; the third and following tergites shining, practically impunctate. Ferruginous; apices of the mandibles piceous; ocellar area, first tergite, anterior margin of the second tergite, fourth and following tergites, apices of the posterior tibiae and their tarsi, *black*; dorsal aspect of the propodeum piceous; antennae dark brown; face and mouth paler than the rest of the insect; wings hyaline, iridescent; venation black.

Falls Church, Virginia. Described from one female recorded under Bureau of Entomology No. Hopk. U. S. 11367, which refers to a note stating that this is a primary parasite on a species of *Eriocampoides* which feeds on *Nyssa sylvatica*, material collected and reared August 19, 1913, by William Middleton.

*Type*.—Cat. No. 18519, U. S. N. M.

**HOMALOMMA ERIOCAMPOIDES, new species.**

*Female*.—Length 4.5 mm. Agrees well with the description of *Homalomma caliroae*, but the following differences are to be noted: Postocellar line slightly shorter than the ocellocular line; postocellar area not parted by a faint furrow; first tergite without a median carina and more finely sculptured; the second tergite shining with fine, close punctures on the basal two-thirds; the apical portion shining, impunctate, as the third and following tergites. Ferruginous; color differs from *caliroae* as follows: The posterior median portion of the head, the sides of the mesoscutum, dorsal aspect of the propodeum, most of the second tergite, the apical margin of the third tergite, black.

Falls Church, Virginia. Described from one female recorded under Bureau of Entomology No. Hopk. U. S. 11383 which refers to a note stating that this species is a primary parasite on a species of *Eriocampoides* which feeds on *Quercus prinus*. Material collected and reared August 18, 1913, by William Middleton.

*Type*.—Cat. No. 18524, U.S.N.M.

**HOMALOMMA PTERONIDEAE, new species.**

*Male*.—Length 4 mm. Clypeus sculptured as the rest of the face, defined laterally by rather deep furrows; entire head rather coarsely granular, median tubercle reduced; postocellar line distinctly longer than the ocellocular line which is but little longer than the intraocellar line; third and fourth antennal joints subequal; mesoscutum finely granular with a few well defined, separate punctures interspread;



scutellum granular; mesepisternum more finely granular than the scutum; basal area about twice as wide anteriorly as posteriorly; the areola much reduced; the basal lateral areas and median lateral areas not separated; first tergite opaque, finely granular, the granulation becoming sparser posteriorly without median carinae; the second tergite uniformly finely granular, almost as long as the third and following tergites; third tergite finely granular basally, apically more shining; the fourth tergite finely granular basally, apically almost impunctate; body clothed with long, white hair. Black; face below the upper margin of the antennal sockets, mandibles except piceous apices, the lower portion of the posterior orbits, scape and pedicel beneath, small spot on the basal angles of the pronotum, tegulae, proepisternum, coxae and trochanters, *white*; legs fulvous; the anterior tibiae and tarsi pallid; apex of the posterior femora the posterior tibiae beneath, and at the apex of the posterior tarsi beyond the middle of the first joint, black; except where mentioned, the posterior tibiae and tarsi white; wings hyaline, iridescent; venation dark brown.

Falls Church, Virginia. Described from one male recorded under Bureau of Entomology No. Hopk. U. S. 11329b<sup>1</sup> which refers to a note stating that this species is a primary parasite of *Pteronidea corylus* (Cresson). Material collected and reared May 9, 1913, by William Middleton. Associated with this as a parasite of *Pteronidea corylus* was *Polyterus olympiae* Ashmead.

*Type*.—Cat. No. 18525, U.S.N.M.

#### Genus GNESIA Förster.

No species has yet been placed in this genus. The following new species goes to *Gnesia* very satisfactorily in Förster's, Davis's, and Ashmead's tables of the genera. It is therefore included and is to be considered as the type.

#### GNESIA CALIROAE, new species.

*Female*.—Length 4.5 mm. Anterior margin of the clypeus truncate, the dorsal margin gently convex, the surface shining; the head finely opaque; the area below the antennae with a few rather well defined punctures; the area above the antennae and the posterior orbits with only granulation, median tubercle short, poorly defined; ocellocular line subequal in length with the interocular line; orbit completely margined; third and fourth antennal joints subequal; mesonotum opaque, surface granular with a number of well defined separate punctures which are larger anteriorly; notauli deeply impressed but not complete; suture between the scutum and scutellum with two obscure longitudinal carinae; scutellum convex with carinae shining; propodeum completely areolated; the basal area one and one-third



times as wide anteriorly as posteriorly; the areola hexagonal with its length and breadth subequal; the petiolate area large; the anterior lateral legs shorter than the posterior legs; first tergite with two longitudinal carinae which are nearly complete; the lateral carina extending to the apex and well defined, its length about one and one-third times as long as its apical width; second and third tergites of subequal length and of equal width, about twice as wide as long; the first tergite with a few poorly defined punctures; second and following tergites almost impunctate; nervellus broken slightly above the middle. Black; clypeus, mandibles except piceous apices, palpi, scape and pedicel beneath, tegulae, four anterior coxae, and the trochanters, yellow; flagellum piceous beneath; legs fulvous, the apical third of the posterior tibiae and their tarsi brownish; wings hyaline, iridescent; venation dark brown.

Falls Church, Virginia. Described from one female recorded under Bureau of Entomology No. Hopk. U. S. 11381, which refers to a note stating that this is a primary parasite on a species of *Eriocampoides* which feeds on *Nyssa sylvatica*. Material collected and reared August 10, 1913, by William Middleton.

*Type*.—Cat. No. 18523, U.S.N.M.

#### Genus POLYTERUS Förster.

##### POLYTERUS CALIROAE, new species.

This species is related to *Polyterus olympiae* (Ashmead), but the black face and pronotum readily differentiate it from Ashmead's species.

*Male*.—Length 4 mm. Head below the antennae coarsely opaque; the surface finely granular with a number of separate, distinct punctures interspread; clypeus shining, anterior margin rounded, the surface with a few separate punctures; head above the antennae finely granular, opaque, without any punctures; posterior orbits and head behind shining, almost impunctate; postocellar line distinctly longer than the ocellular, which is but little longer than the intraocellar line; third and fourth antennal joints subequal; meso-scutum shining, polished, almost impunctate; notauli indicated anteriorly; the suture between the scutum and scutellum without foveolations; the scutellum convex, highly polished; metanotum convex, polished; propodeum shining with a few poorly defined punctures; areolations of the propodeum indicated by strong carinae; the basal area slightly wider anteriorly and not sharply differentiated from the areola which is wider posteriorly where it is defined by a slightly curved carina; the basal lateral and median lateral areas not differentiated; carinae of the first tergite extends a short distance beyond the spiracle, converging posteriorly; surface of the first tergite with irregular, fine granulations except the apex, which is



almost without sculpture; second tergite about twice as wide as its median length, the basal portion with rather rough granulation, the apical portion almost impunctate; the third and following segments shining, almost impunctate. Black; clypeus, mandibles except apices, scape and pedicel beneath and legs fulvous; trochanters pallid; posterior tibiae and tarsi brownish; base of the posterior tibiae, the four anterior tarsi whitish; tegulae white; wings hyaline, iridescent; venation dark brown.

Falls Church, Virginia. Described from two males recorded under Bureau of Entomology No. Hopk. U. S. 10165, which refers to a note stating that this species is parasitic on the species of *Eriocampoides* which feeds on *Quercus rubra*. Material collected and reared June 19, 1913, by William Middleton.

*Type*.—Cat. No. 18520, U.S.N.M.

#### Genus *EXENTERUS* Hartig.

##### *EXENTERUS DIPRIONI*, new species.

This species is closely related to *Exenterus lophyri* Viereck but the propodeum and the first and second tergite are more rugose.

*Female*.—Length, 9 mm. Face with distinct, close, almost confluent punctures; frontal carina poorly defined; occiput with the punctures distinct, close; posterior orbits with the punctures smaller, similar to the occiput; third antennal joint but little shorter than the fourth and fifth; pronotum, mesoscutum, mesepisternum with close, distinct, rather small punctures, in the middle of the mesepisternum and the mesoscutum the punctures become somewhat larger; scutellum with fine, close punctures; lateral median area with distinct rather large punctures; metanotum with a few scattered punctures; propodeum with distinct rather fine punctures; the median basal area is coarsely rugose; first tergite with two longitudinal median carinae which converge posteriorly but do not unite, bending just before the yellow band; sides of the first tergite with a sharply defined carina which is arched inwardly at the basal third; surface of the tergite is coarsely reticulate, with a granular or finely punctured surface; second tergite finely punctured, its basal median area with coarse reticulations; third and following tergites with uniform close, well-defined punctures. Black; clypeus, labrum, mandibles except piceous apices, palpi, front to the top of the eyes except two black lines to the base of the antennae, posterior orbits to near the top of the eyes (narrower dorsally), scape, first three joints of the flagellum, the anterior margin of the pronotum, two lateral spots on the pronotum, two spots anteriorly on the mesoscutum, tegulae, spot anteriorly on the mesepisternum, scutellum, metanotum, two spots on the propodeum and narrow uniform bands on all the tergites, yellow; legs yellow; the apices of the posterior coxae, most of the pos-



terior femora and a dusky spot on the apex of the posterior tibiae black; wings yellowish hyaline, slightly darker at the apex of the cubital area; venation dark brown, stigma ferruginous.

Tomahawk Lake, Wisconsin. Described from one female recorded under Bureau of Entomology No. Hopk. U. S. 10109, which refers to a note stating that this species is a primary parasite of *Diprion lecontei*. The type specimen was collected by P. C. Christensen and emerged from the cocoon October 3, 1912.

*Type*.—Cat. No. 18518, U.S.N.M.

#### Genus MOEROPHORA Förster.

##### MOEROPHORA NEOCLYTI, new species.

This species is readily distinguished from the other species belonging to the genus by its color, sculpture, and areolation of the propodeum.

*Male*.—Length 12 mm. Head below the antennae transversely irregularly striate, above the antennae transversely irregularly striate but more sparsely so; head behind the ocelli and the posterior orbits shining, the occiput with sparse, poorly defined punctures, posterior orbits with distinct, rather close, cephalo-caudad striae; prescutum not dentate, transversely striate and with a broad median depression on the basal portion; sides of the scutum finely transversely striate, the median basal portion with strong slightly oblique striae; suture between the scutum and scutellum not foveolate; sides of the pronotum with small sharp tubercles, the surface coriarious; scutellum granular, over which are fine longitudinal striae; propodeum coriarious; the basal area and the areola confluent; the areola hexagonal in outline; the posterior legs subequal with the anterior lateral legs; the basal lateral area not sharply separated from the median lateral area; the first segment finely transversely reticulate, the base of second and third segments finely longitudinally aciculate; the apices of the second and third and the entire following segments smooth, practically impunctate. Black; inner orbits to the top of the eye and a small spot below the tegula yellow; abdomen rufous; legs, except a small white spot on the outside of the posterior tibiae at the base, black; wings hyaline, iridescent; venation dark brown.

Santa Catalina Mountains, Arizona. Described from one male recorded under Bureau of Entomology No. Hopk. U. S. 10544e which refers to a note stating that this species is parasitic on *Neoclytis capraca* Say, in *Quercus arizonica*. Material collected by Morris Chrisman and reared, November 17, 1913, by H. B. Kirk.

*Type*.—Cat. No. 18421, U.S.N.M.



## Genus AMERSIBIA Förster.

*Alloplasta* FÖRSTER.

This genus may be readily differentiated from *Meniscus* by having the fronds normal, flat or evenly convex and the angulate nervellus, which is broken at or below the middle.

## AMERSIBIA PRIONOXYSTI, new species.

This species is readily differentiated from all other North American species described in this group by its size and color.

*Female*.—Length 19 mm.; length of ovipositor 17 mm. Clypeus shining with widely scattered distinct punctures; face opaque with rather close, distinct punctures; immediately below the antennae is a triangularly-shaped raised tubercle, the top of which is subcarinate; head above the antennae opaque, finely granular, but in addition to the granulation are distinct separate punctures; postocellar line slightly longer than the ocellocular line; third antennal joint one-fourth longer than the fourth; mesoscutum and scutellum shining with sparse, well-defined punctures; mesepisternum similarly sculptured, except at the posterior subdorsal region there is a glabrous spot; sides of the propodeum sculptured like the mesepisternum; dorsal aspect of the propodeum rather coarsely punctato-rugose with the rugosity more developed basally, with two low rounded carinae which are subparallel to near the base, when they diverge sharply; these carinae become subobsolete apically; first tergite one-fifth longer than the second, the lateral margins slightly sinuate at the spiracles, the dorsal aspect with two subcarinate, elevated portions which extend almost to the apical margin at the apex of these raised areas is a shallow fovea; first tergite coarsely coriaceous with the strength of the sculpture diminished apically; disco-cubital vein with a well-defined stump; nervulus slightly postfurcal. Black; scape beneath, anterior lateral margins of the scutum, the posterior angles of the pronotum, tegulae, a spot below on the mesepisternum, and four anterior legs, yellowish or reddish yellow; posterior legs, except the tibiae above and the entire posterior tarsi which are black, rufous; wings yellowish hyaline, vitreous, venation dark brown.

*Male*.—Length 18 mm.; length of the antennae 15 mm. Except for the sexual characters this agrees with the above description of the female, but it has the following additional yellow markings: Clypeus, mandibles, four longitudinal spots on the face and the anterior margin of the pronotum and a spot in front of the intermediate coxae.

*Cocoon*.—Elongate, cylindrical, rounded at each end. Dark brown; composed of an opaque papery substance, in which is interwoven irregular strands of silk.



Falls Church, Virginia. Described from one female and one male recorded under Bureau of Entomology Number Hopk. U. S. 9839<sup>p10</sup>, material collected and reared by Fritz Johansen. This species is a primary parasite on *Prionoxystus* in chestnut, and judging from the observations so far available, it kills the host larva in the fourth or fifth instar.

*Type*.—Cat. No. 18310, U.S.N.M.

Genus SCAMBUS Hartig.

*Epiurus* FÖRSTER.

*Iseropus* FÖRSTER.

As here used the genus *Scambus* Hartig has *Epiurus* Foester and *Iseropus* Förster as synonyms, no generic differences having been observed between the genotypes, as defined by Viereck, Bull. 83, U. S. National Museum, 1914, of the genera in question.

SCAMBUS EVETRIVORUS, new species.

This species may be separated from *Scambus brunneifrons* (Viereck) in the shorter first tergite and in having the sides of the propodeum almost without sculpture. It is closely related to *Scambus nigrifrons* (Viereck) but differs from that species in puncturation and in the relatively longer ovipositor. *Scambus pterophorae* (Ashmead) which is also similar has entirely red legs and stronger carinae on the propodeum.

*Female*.—Length 7 mm.; length of the ovipositor 5.5 mm. Head highly polished, without punctures; the posterior orbits as broad as three-quarters of the cephalo-caudad diameter of the eye; postocellar line distinctly longer than the ocellocular line; the intraocellar line subequal with the diameter of the anterior ocellus; third antennal joint but little shorter than the fourth and fifth combined; the fifth antennal joint slightly shorter than the fourth; mesoscutum polished anteriorly, and laterally with widely separate, setigerous punctures; scutellum polished with a few widely separate, setigerous punctures; suture between the scutum and scutellum not foveolate; sides of the propodeum impunctate except for the setigerous punctures; the dorsal aspect with a few widely separated punctures; two carinae on the propodeum rather poorly defined but extending to the apex of the dorsal aspect; anterior depression of the first tergite highly polished, sharply defined dorsally by carinae; dorsal aspect of the first tergite with separate, poorly defined punctures, first tergite about as long as its apical width; the second tergite longer than the third, hardly as long as its apical width; the second and following tergites with distinct, well defined, rather large separate punctures, the punctures becoming sparser and smaller apically; nervellus broken at the middle. Black;



legs rufo-piceous; anterior coxae, the four anterior tibiae beneath, two basal joints of the four anterior tarsi beneath and tegulae white; posterior tibiae and tarsi dusky; the tibiae except at the apex beneath white; two basal joints of the tarsi, except at apices, white; wings hyaline, iridescent; venation dark brown; base of the stigma pallid.

Fort Bayard, New Mexico. Described from two females recorded under Bureau of Entomology No. Hopk. U. S. 12101c which refers to a note stating that this is a parasite on *Evetria buschnelli* Busck infesting *Pinus ponderosa*, material reared September 7, 1913, by Carl Heinrich.

*Type*.—Cat. No. 18517, U.S.N.M.

Genus ORTHOPELMA Taschenberg.

ORTHOPELMA LUTEOLATOR (Gravenhorst).

This European species has been reared from galls of *Rhodites rosae* (Linnaeus) collected at Weyland, Massachusetts, by F. C. Craighead. Adults reared, May 21, 1913, by William Middleton. The following description may be useful to American students:

*Female*.—Length 4.5 mm. Head below the antennae shining with a few poorly defined, scattered punctures; eyes slightly converging to the clypeus; area above the antennae slightly more opaque than the area below due to rather denser puncturation; postocellar line distinctly longer than the ocellocular line; the intraocellar line not much shorter than the ocellocular line; posterior orbits as broad as the cephalo-caudad diameter of the eyes; third and fourth antennal joints subequal; mesoscutum shining with distinct, well defined, well separated punctures; scutellum more sparsely punctured than the scutum; propodeum with sparse, poorly defined punctures; the basal area and areola confluent; the basal lateral areas sharply defined as is all the aerolation of the propodeum; first abdominal segment longer than the second, spiracles prominent; first tergite shining, almost impunctate. Black; apex of the mandibles piceous; abdomen beyond the first segment rufous; tegulae white; legs below the coxae rufous, the intermediate femora with a dusky streak above and the posterior femora black; posterior tibiae and tarsi with a dusky line above; wings hyaline; iridescent; venation black.

Genus CAMPOSCOPUS Förster.

*Type*.—*Camposcopus aclerivora*, new species.

CAMPOSCOPUS ACLERIVORA, new species.

This species runs to the genus *Camposcopus* in Förster's generic synopsis, very satisfactorily, and inasmuch as no species has heretofore been placed in that genus this may be considered as the type. The nervellus is broken very slightly below the middle.



*Female*.—Length 8 mm. Eyes large, inner margins broadly emarginate, strongly converging toward the clypeus; head shining, except the area between the ocelli and the bases of the antennae, almost impunctate; ocelli in a low triangle; postocellar line twice as long as the ocellocular line; third antennal joint one-third longer than the fourth; notauli well defined; prescutum with rather close, distinct punctures; the scutum more sparsely punctured; mesepisternum sculptured like the scutum, except the margin, which is striato-punctate; propodeum coarsely reticulate; on the posterior face the reticulations tend to transverse striations; on the dorsal aspect are two well defined carinae, the area between the carinae being transversely striate. Black; clypeus, mandibles, face above the dorsal margin of the antennae, scape beneath, cheeks, four anterior legs, and venter yellowish; flagellum beneath, tegulae, posterior legs except the dark apices of the tibiae, and the white four apical joints of the tarsi, first tergite, third and fourth tergites rufous; propodeum posteriorly rufo-piceous; wings hyaline, iridescent, venation pale brown, stigma testaceous.

Charter Oak, Pennsylvania. Described from one female recorded under Bureau of Entomology Number Hopk. U. S. 10910. This species is a parasite on *Acleris*, species, occurring on chestnut. It emerges from the pupa. Material collected, and reared March 11, 1913, by W. S. Fisher.

*Type*.—Cat. No. 18311, U.S.N.M.

### Family BRACONIDAE.

#### Genus APANTELES Förster.

#### APANTELES (APANTELES) SIBINIDIS, new species.

Apparently is more closely allied to *tortricis* Ashmead, but the shape of the second dorsal segment and the character of the propodeum will readily separate it from that species.

*Female*.—Length 2 mm.; length of the antennae 1.5 mm. The upper margin of the clypeus well defined; a faint median carina below the antennae; face below the antennae opaque, with some well defined punctures, above the antennae shining, almost impunctate; transfacial line distinctly but not markedly longer than the facial line; postocellar line slightly shorter than the ocellocular line; intra-ocellar line subequal with the diameter of the anterior ocellus; antennae 18-jointed, the third joint subequal with the fourth; meso-scutum uniformly punctured, opaque, punctures well defined; suture between the scutum and scutellum finely foveolate; scutellum shining, with a few distinct punctures; propodeum with poorly defined costulae, the posterior face reticulate, the dorsal aspect with two sub-convex, shining areas; plate of the first tergite with its length and



width subequal, its apical width decidedly greater than the length of the second tergite; second tergite without a well-defined plate, the indefinitely defined plate rectangular in outline; suture between the second and third tergites well defined; the first three tergites longitudinally striato-reticulate, the sculpture becoming weaker at the apex of the third tergite; fourth and following tergites shining, impunctate; ovipositor extending but a short distance beyond the tip of the abdomen. Black; mandibles except the apices piceous; palpi pallid; tegulae dark brown; legs beyond the trochanters stramineous except a black spot on the dorsal apices of the posterior femora, the infusate posterior tibiae and the two basal joints of their tarsi; wings hyaline, iridescent; costa and stigma pale brown, other venation pallid.

*Male*.—Length 1.5 mm.; length of the antennae 1.75 mm. Characters given for the female apply to this sex, except the posterior femora are infuscated and the sculpture of the first three tergites becomes more reticulate and is subobsolete laterally on the third; sides of the first tergite are dark in the male, while in the female they are pale.

Falls Church, Virginia. Described from three females and one male recorded under Bureau of Entomology Number Hopk. U. S. 11197b, material collected, and reared August 21, 1913, by Carl Heinrich, who records it as a parasite of *Sibine stimulea*.

*Type*.—Cat. No. 18502 U.S.N.M.

APANTELES (PROTAPANTELES) PHOBETRI, new species.

This species is related to *acronyctae* Riley, but the antennae are black, the face is more rugose, and it forms definite individual cocoons.

*Female*.—Length 2.5 mm.; length of the antennae about 3 mm. Clypeus not sharply differentiated from the face; face in the middle just below the antennae with rather large distinct punctures, with a defined median tubercle which becomes obsolete and broader toward the clypeus; head above the antennae shining, almost impunctate; the ocelli prominent; postocellar line subequal with the ocellocular line; intraocellar line greater by one-third than the width of the anterior ocellus; antennae 18-jointed; third joint slightly shorter than the fourth; third, fourth, and fifth joints constricted medianly indicating that in some specimens these joints may be partly divided; mesoscutum with large, distinct, separate punctures which become confluent in front of the scutellum; suture between the scutum and scutellum with four longitudinal rugae; scutellum shining, with a few large, shallow, poorly defined punctures; posterior face of the propodeum transversely rugulose dorsally, with two shining subconvex areas which are parted by a sculptured depression; laterally the posterior face is separated from the dorsal aspect by a rather well-defined



carina; first tergite longer than its apical width, slightly broader apically; second tergite with the plate twice as wide as long; surface of the first two tergites striato-reticulate with a few punctures posteriorly; the suture between the second and third tergites well defined; the third and following tergites shining, impunctate. Black; palpi pale yellowish; legs ferruginous; tips of the posterior tibiae and their tarsi infuscated; wings hyaline, iridescent; costa and stigma pale brown, the rest of the venation ferruginous.

Falls Church, Virginia. Described from three females (one, type) recorded under Bureau of Entomology Number Hopk. U. S. 11197*d*, material collected, and reared September 28, 1913, by Carl Heinrich, who records it as a parasite of *Phobethron pitheci*um.

*Type*.—Cat. No. 18501, U.S.N.M.

#### Genus GNAMPTODON Haliday.

##### GNAMPTODON NEPTICULAE, new species.

This species may be readily differentiated from the European genotype by the yellow markings of the abdomen and by the stronger second furrow of the tergites.

*Female*.—Length 1.5 mm. Face finely reticulate, posterior orbits shining; ocelli in a low triangle; the postocellar line slightly shorter than the ocellocular line; third antennal joint slightly longer than the fourth; entire thorax smooth, shining, practically impunctate; first tergite wider than long, surface opaque with fine lines; the basal area of the second tergite smooth, shining, impunctate; second area of the second tergite sculptured similar to the first tergite; the base of the third tergite with a complete foveolate suture which curves anteriorly; the suture between the second and third tergites finely foveolate; the third and following tergites shining, impunctate. Black; first four joints of the antennae, palpi, legs, first two tergites and apical three tergites, yellowish white; wings hyaline, stigma and basal venation pale brown, the venation beyond the stigma and basal vein pallid.

*Male*.—Length 1 mm. Differs, besides the usual sexual characters, from the above description of the female in having the basal joints of the antennae infuscated, the apical abdominal segments black and the posterior tarsi ducky.

Falls Church, Virginia. Described from one female and three males recorded under Bureau of Entomology Number Hopk. U. S. 11148*b*. Mr. Heinrich records this species as a primary parasite on *Nepticula castaneaefoliella* Clements. Material collected and reared by Carl Heinrich. Rearing dates as follows: Female, June 28, 1913; male allotype, August 19, 1913; male paratypes, June 30, 1913, and August 12, 1913.

*Type*.—Cat. No. 18312, U.S.N.M.



## Genus PHANEROTOMA Wesmael.

## PHANEROTOMA LASPEYRESIA, new species.

This species is readily differentiated from other species of *Phanerotoma* by the black body and details in sculpture.

*Male*.—Length 5 mm. Clypeus sparsely punctured; supraclypeal foveae deep, punctiform, posterior orbits and occiput rather coarsely, somewhat irregularly continuously striate; head below the antennae with irregular transverse striae, just below the antennae the striae are continuous from base of one antenna to the base of the other antenna, forming a U-shaped area in which is a shining reticulate tubercle; head above the antennae transversely striato-reticulate; postocellar line subequal with the intraocellar line; malar space about half the diameter of the eye; antennae 23-jointed, the third joint distinctly but not much longer than the fourth; fourth, fifth, and sixth subequal, beyond that the joints gradually diminish until near the apex where the joints are subequal and sharply differentiated; mesoscutum opaque, finely granular; notauli well defined, foveolate, posteriorly reticulate; suture between the scutum and scutellum foveolate; scutellum more shining than the scutum, sparsely punctured medianly, laterally with irregular striae; dorsal aspect of the propodeum coarsely reticulate with a rather poorly defined small V-shaped area in the dorsal middle; mesepisternum shining, with sparse, well-defined punctures, ventrally reticulate; prepectal suture foveolate; sides of the propodeum coarsely reticulate; first recurrent interstitial with the first transverse cubitus; abdomen coarsely longitudinally striato-reticulate; first tergite with two striae predominating which converge until they appropimate near the posterior margin; the false sutures strongly foveolate; third tergite with the striato-reticulations finer posteriorly and becoming concentric; the apical margin of the tergites finely serrate. Black; scape beneath, and legs except the piceous apices of the posterior tibiae and the brownish posterior tarsi, brownish ferruginous; wings hyaline, very slightly dusky, venation dark brown.

Kyburz Station, Eldorado County, California. Described from two males recorded under Bureau of Entomology Number Hopk. U. S. 11477*d*, which refers to a note stating that this species is parasitic in the larval galleries of *Laspeyresia toreuta*, material collected and reared by J. M. Miller.

*Type*.—Cat. No. 18418, U.S.N.M.

## Genus BASSUS Fabricius.

## BASSUS COLEOPHORAE, new species.

Judging from the description, this species is related to *Bassus* (*Microdus*) *annulipes* Cresson, but the black hind femora will serve to separate it from that species.



*Female*.—Length 2 mm. Anterior margin of the clypeus slightly, arcuately emarginate; supraclypeal foveae deep, punctiform; face shining with a few scattered setigerous punctures; head above the antennae and posterior orbits shining without setigerous punctures; area around the anterior ocellus raised; postocellar line slightly longer than the ocellocular line; third and fourth joints of the antennae subequal; mesoscutum shining with scattered fine, setigerous punctures; notauli well defined and when magnified 35 diameters, finely foveolate; suture between the scutum and scutellum with three rugae; scutellum shining; dorsal aspect of the propodeum irregularly reticulate on a granular surface; mesepisternum shining, impunctate; sternauli well defined, finely foveolate; first tergite one-fifth longer than its apical width, opaque, finely granular; second and following tergites shining, impunctate; ovipositor almost as long as head and thorax, densely pilose. Black; labrum, mandibles, palpi, tegulae, and four anterior legs below the coxae fulvous; the apex of the intermediate tibiae and a spot at the base and their tarsi dusky; posterior trochanters fulvous; posterior tibiae with a narrow annulation at base and a broader one at the middle, white; base of the posterior tarsi with a white spot; calcaria white; wings hyaline; venation pale brown, the costa slightly darker; pubescence sparse and gray.

Charter Oak, Pennsylvania. Described from two females (one, type), recorded under Bureau of Entomology No. Hopk. U. S. 11135a, which refers to a note stating that this species is parasitic on *Coleophora leucochrysella* Clemens, feeding on chestnut. Material reared by Carl Heinrich, adults issuing June 3, 1913.

*Type*.—Cat. No. 18181, U.S.N.M.

#### Genus MICROBRACON Ashmead.

##### MICROBRACON COLEOPHORAE, new species.

Resembles *Microbracon furtiosus* (Fyles) but readily separated by details in puncturation and color.

*Female*.—Length 2.5 mm. Face shining; eyes very slightly converging to the mandibles; vertex and occiput shining; postocellar line slightly longer than the diameter of one of the lateral ocelli; inner supraorbital area finely punctured; antennae 29-jointed, the third and fourth joints subequal; mesoscutum shining; notauli with setigerous punctures along their border; suture between the scutum and the scutellum finely, regularly foveolate; propodeum shining, impunctate; first tergite with the area defined by the lateral carinae rectangular in outline, slightly longer than the apical width; the triangular shaped area of the first tergite is well defined and practically the length of the entire segment; first tergite with the lateral



areas irregularly sculptured, the median triangularly shaped area with fine, scattered punctures; second tergite with the basal median area rugose, the remaining part of the segment finely granular; the following tergites shining, impunctate, except for the setigerous punctures under a magnification of 35 diameters. Black; mandibles, inner orbits, spot on the mesoscutum posteriorly, sides of the pronotum, dorsally, abdomen except the rectangular area of the first tergite, and small spots on the third, fourth and fifth tergites rufo-ferruginous; legs rufo-ferruginous except the apical joints on the four anterior tarsi, the apical third of the posterior tibiae and their tarsi, which are black; wings faintly dusky; venation pale brown, stigma and costa darker brown; entire body and legs covered with fine white hair which is especially dense on the posterior tibiae and tarsi.

*Male*.—Length 2 mm. Agrees in general with the female except the head and the thorax are entirely black; the abdomen except the second tergite is black; the four anterior femora, the base and most of their tibiae and tarsi are dusky.

Falls Church, Virginia. Described from one female (type) and one male (allotype) recorded under Bureau of Entomology No. Hopk. U. S. 11135*b* which refers to a note stating that this species is parasitic on *Coleophora leucochrysell*a Clemens feeding on chestnut. Material collected and reared by Carl Heinrich, adults emerging June 7, 1913.

*Type*.—Cat. No. 18180, U.S.N.M.

MICROBRACON HEMIMENAE, new species.

The color and sculpture of the abdomen readily distinguish this species from any other species which has been placed in this genus.

*Female*.—Length 3 mm. Clypeus defined above by transverse furrow which connects laterally with two small punctiform areas; the face finely granular, vertex, posterior orbits and occiput polished, impunctate; postocellar line about half as long as the ocellocular line; antennae 26-jointed, first three joints of the flagellum subequal; mesoscutum impunctate, polished; the suture between the scutum and scutellum finely, regularly foveolate; scutellum shining, impunctate; propodeum shining, impunctate and without a median carina or furrow; mesepisternum highly polished, impunctate; first tergite with the length and width of the plate nearly subequal; the median triangular area shining and not as densely sculptured as the lateral areas, the furrows foveolate; second tergite uniformly coarsely irregularly reticulate on a granular surface, apical margin shining; third, fourth, and base of the fifth tergite with distinct, uniform granulation, which becomes sparser and less defined towards the apex of the abdomen; ovipositor about two-thirds the length of the abdomen. Black; abdomen except the first tergite and a small median spot on



the second, rufo-ferruginous; legs black; the four anterior femora beneath and the apical two-thirds of the posterior femora rufo-piceous; wings dusky, venation dusky brown; apical joints of the posterior tarsi subequal in length with the second.

Paratypes indicate that the black spot on the second tergite may be wanting.

Plummers Island, Maryland. Described from three females reared by Mr. August Busck from *Hemimenae plummerana* Busck which feeds on the flowers of pawpaw, specimens issuing May 21, 1914.

*Type*.—Cat. No. 18434, U.S.N.M.

### Family BETHYLIDIDAE.

#### Genus TRISSOMALUS Keiffer.

##### TRISSOMALUS FULVICORNIS, new species.

*Female*.—Length 4 mm. Mandibles tridentate, the two apical teeth larger; supraclypeal area with a sharp median carina; head polished, with a few widely separated punctures; third and fourth antennal joints subequal; ocelli in an equilateral triangle; postocellar line about half as long as ocellocular line; thorax shiny; dorsal aspect of the propodeum finely aciculate; the median furrow deep, not quite reaching to the apex; the carina separating the dorsal aspect from the posterior aspect, notched in the middle; posterior aspect of the propodeum transversely irregularly striate; abdomen shiny, the second and third segments subequal in length. Black; palpi, antennae, tibiae and tarsi fulvous; wings hyaline, iridescent; venation except the brown stigma and parastigma, yellowish; head and thorax with a few white hairs.

Davanhalli, Mysore, India. Described from eight specimens labelled as bred from *Cryptophlebia carpophaga*, November 14, 1911. Received from L. C. Coleman.

*Type*.—Cat. No. 1675, U.S.N.M.

### Family THYNNIDAE.

#### Genus DOLICHOTHYNNUS Turner.

##### DOLICHOTHYNNUS SILVICOLA (Bradley).

*Ornepetes silvicola* BRADLEY, Deutsch. Ent. Zeit., 1911, p. 131.

*Paratype*.—Cat. No. 14507, U.S.N.M.

Doctor Bradley has kindly sent the Museum a paratype of this interesting species. On examination it proves to belong to the genus *Dolichothynnus* Turner.



## Family SCOLIIDAE.

## Genus ELIS Fabricius.

## ELIS XANTHONOTUS, new species.

Readily distinguished by its black color and yellow mesoscutum.

*Female*.—Length 14 mm. Clypeus with large confluent punctures, anterior margin nearly truncate, supraclypeal suture strong; antennal foveae rather sharply defined, smooth, impunctate; front with deep, confluent punctures; following the inner margin of the eye is a low, rounded carina; head above the supraorbital line and posterior orbits polished with a few widely scattered punctures; ocelli in a low triangle, each ocellus situated in a pit, that of the anterior one larger and extending below the ocellus a short distance; postocellar line about one-third longer than the ocelloccipital line; third antennal joint slightly shorter than the fourth; antennae with the joints serrate beneath; anterior face of the pronotum longitudinally striate below; pronotum anteriorly and laterally with large nearly confluent punctures, the rest of the surface shining with small scattered punctures; mesoscutum polished practically impunctate, longitudinal impressed lines strong; scutellum polished with a few scattered punctures; sides of the pronotum with four strong, oblique rugae and a number of fine oblique striae; mesepisternum shining with large, separate, well-defined punctures; dorsal aspect of the propodeum finely granular, a median area with a few large, separated punctures, posterior face of the propodeum separated from the dorsal aspect by three strong transverse (arcuate in the middle) rugae, posterior face of the propodeum shining with a few poorly defined striae laterally, sharply separated in the sides; side of the propodeum strongly, obliquely, striate posteriorly; legs normal but rather more robust than usual; second cubital cell on the radius slightly longer than the third, the first recurrent vein received slightly behind the middle of the second cubital cell; the second cubital vein received slightly basad of the middle of the third cubital cell; transverse median of the fore wings slightly behind the basal vein; abdomen shining, segments with a few fine, little separated punctures; pygidium notched apically, the surface longitudinally striato-granular; hypopygidium sharply curved apically. Black; mesoscutum inside of the first longitudinal furrow yellow; insect clothed with long glistening hair; wings hyaline, dusky; venation pale brown.

Rio Piedras, Porto Rico. Described from one female collected February 1, 1912, by T. H. Jones and given the accession number 113-1912, "P.R.S.G.A."

*Type*.—Cat. No. 15243, U.S.N.M.



## Genus CAMPSOMERIS Lepeletier.

## CAMPSOMERIS (CAMPSOMERIS) PYRURA, new species.

This may be only a race of *Campsomeris fulvohirta* Cresson, but compared with the original description the following differences are to be noted: Female—no yellow spots on the pronotum; polished disk on the mesonotum not divided by a punctured line; the femora red; the first dorsal segment with a continuous band; male—scape rufous; femora red; second and third abdominal segments not divided, indented in the middle.

*Female*.—Length 15 mm. Clypeus longitudinally irregular, striato-punctate in the middle, laterally with distinct, separated punctures, front closely punctured, divided by an impunctate raised area which is impressed in the middle; vertex and posterior orbits polished with a few widely separated punctures; ocelli in a low triangle; the postocellar line about twice as long as intraocellar line; latrad and caudad of each lateral ocellus is a punctiform fovea; the flagellum thickening apically; the apical joint about as long as the two preceding on the outer margin, truncate apically, the first joint slightly longer than the second; pronotum and most of the mesonotum with large, close punctures; disk of the mesonotum not divided by a punctate line; scutellum with a few large, well separated punctures laterally, the median area impunctate; posterior margin and sides of metanotum impunctate; dorsal aspect of the propodeum with rather large, close punctures basally, apically very finely punctured; posterior face impunctate, shiny, higher in the middle; the abdomen very finely granular with a few large punctures, the apical segments with close, nearly confluent punctures; pygidium broadly rounded apically. Black; mandibles and scape piceous; a broad band on the first dorsal segment, a band on the second and third dorsal segments narrowed laterally and indented medianly; a narrow band on the second ventral segment and elongate spots on the third ventral segment yellow; head, somewhat densely so in the front, pronotum, mesonotum, and the apical four dorsal segments with long red hairs; the femora and the venter, sides of the thorax with long yellowish hair; sides of the propodeum with short appressed yellowish pubescence; legs below the trochanters rufous; wings yellowish hyaline, yellow more prominent along the costa, apical margin of the wings with a dusky tinge which is faintly bluish in some lights; venation rufous.

*Male*.—Length 12 mm. Anterior margin of the clypeus gently rounded, front up to the upper margin of the emargination of the eyes closely, finely punctured; between the antennae a faint raised tubercle, the vertex sparsely punctured; postocellar line longer than the ocellocular line; anterior ocellus much larger than the lateral



ocelli; antennae fulviform reaching almost to the apical margin of the first tergite, the third and fourth joints subequal; pronotum and mesonotum shiny with a few fine punctures; dorsal aspect of the propodeum as in the female; first abdominal segment much longer than the second which is subequal in length with the third; the basal four abdominal segments above with a few fine punctures, the apical segments with a number of large punctures; apical margin of the pygidium broadly rounded with the usual median notch. Black; base of mandibles, labrum, clypeus, dorsal margin, and a spot on the side of the pronotum, spot on the tegula, a spot just inside the tegula, two spots on the scutellum, a band on the metanotum, broad band on the first three dorsal segments (on the third the band is rather broader in the middle where it is slightly emarginate), narrow apical margin of the third dorsal segment, apical margin of the second, third, and fourth ventral segments (the second ventral segment has the band broader in the middle) yellow; the scape, legs below the trochanters and three apical abdominal segments rufous; wings color of the female; covered with pubescence as in the female with the exception that that on the thorax to the basal part of the abdomen is reddish yellow.

Mayaguez, Porto Rico. Described from two females (one type) and one male allotype collected by C. W. Hooker.

*Type*.—Cat. No. 15078, U.S.N.M.

### Family PSAMMOCHARIDAE.

#### Genus CEROPALES Latreille.

##### CEROPALES STRETCHII Fox.

*Ceropales stretchii* Fox, Trans. Amer. Ent. Soc., vol. 19, 1892, p. 52. Female.

*Ceropales fraterna*, var. *occidentalis* COCKERELL, Ann. Mag. Nat. Hist., ser. 7, vol. 2, 1898, p. 455. Male.

The type of *Ceropales fraterna*, var. *occidentalis* Cockerell (Cat. No. 15364, U.S.N.M.) is the undescribed male of *C. stretchii* Fox and is closely allied to *fraterna* but may be distinguished from it by the yellow band on the first tergite.

##### CEROPALES NEOMEXICANA, new species.

Related to *albopicta* Cresson, but may be distinguished by the almost entirely black four anterior femora.

*Male*.—Length, 8 mm. Antennae as long as the head and thorax together. Anterior margin of the clypeus truncate; head shining, front with a few widely scattered punctures; frontal impressed line faint, poorly defined; postocellar line one-fourth shorter than the ocellocular line; pronotum shining, impunctate; scutum shining, the middle with large separate punctures; scutellum practically impunctate as is also the metanotum; mesepisternum opaque with large,



well defined, widely separated punctures; sides and the dorsal aspect of the propodeum shining, practically impunctate, posterior face transversely striato-reticulate, with a strong median furrow extending a short distance down the posterior face; legs normal; second cubital cell about twice as long on the cubitus as its greatest width; abdomen subopaque. Black; head below the antennae, the inner eye margins broadly, two spots on the posterior orbits, scape and pedicel beneath, posterior margin of the pronotum, shoulders, tegulae, spot on the scutellum, spot on the metanotum, apical lateral margin of the propodeum, spot on the coxae beneath, spot on the apices of the four anterior femora beneath, four anterior tibiae beneath, anterior tarsi and the base of the intermediate tarsi, spots on the sides of the first tergite and a band on the second and following tergites yellowish white; four posterior legs rufous, piceous at the apices of the tarsi; wings hyaline, iridescent; venation and stigma pale brown.

Northern New Mexico. Described from one male.

*Type*.—Cat. No. 15363, U.S.N.M.

#### Genus BATAZONUS Ashmead.

This genus may be divided into two groups by the salient character habitus. The typical group *Batazonus* has only the type species. The other group, *Pynopompilus*, has a number of closely allied species which are subject to much variation in color. The character Mr. Banks uses to separate *Batazonus* and allies from *Psammochares* seems with the addition of one of the following new species to be subject to slight variation. As a substitute for this character it might be well to use the depressed abdomen in *Batazonus* which has the cross section triangular and not cylindrical as in *Psammochares* and *Arachnophroctonus*. The following table will serve to separate the species of the group *Pynopompilus* into two categories.

Clypeus truncate.....	<i>interruptus</i> (Say).
	<i>navus</i> (Cresson).
	<i>gundlachii</i> (Cresson).
Anterior margin of clypeus slightly emarginate.....	1.
1. Front with two nearly parallel yellow lines; "antennae bright yellow"; (legs yellow with most of four posterior femora black).....	<i>mundus</i> (Cresson).
Front with a single median yellow line (the yellow of inner orbits excepted); antennae dark apically.....	2.
2. Femora rufous; yellow band of the second tergite broader laterally; postocellar line slightly longer than the ocellocular line.....	<i>mundiformis</i> , new species.
Femora mostly black; yellow band of the second tergite nearly uniform in width; postocellar line slightly shorter than the ocellocular line....	<i>hookeri</i> , new species.

#### BATAZONUS HOOKERI, new species.

*Female*.—Length 8.5 mm. Slender. Anterior margin of the clypeus slightly incurved, along the apical margin a number of distinct, well separated punctures, the front viewed from the side



rounded; vertex nearly flat; ocelli small; postocellar line slightly shorter than the ocellocular line; antennae slender, the third joint but little shorter than the fourth and fifth; posterior margin of the pronotum without a median impressed line, posterior margin broadly arcuate; legs rather feebly spined, the longer spur of the posterior tibia but little shorter than the post-basitarsus; claws with an erect inner tooth; the sternites emarginate on the apical margin, the emargination on the fourth deeper and subtriangular, the others broadly, arcuately emarginate; third cubital cell shorter on the radius than the second, the distance between the second and third transverse cubiti subequal in length with the distance between the second transverse cubitus and the second recurrent vein; transverse median on the hind wings about three times the width of the vein beyond the cubitus. Black; antennae beneath and the third, fourth, and fifth joints above rufo-ferruginous; clypeus except a large median spot, which is broader basally and narrowed to the truncate apex, inner orbits more broadly below, single line from the anterior ocellus to between the bases of the antennae, a narrow line on the posterior orbits which nearly meets the occiput, narrow posterior margin of the pronotum, small spot on the sides of the pronotum, two parallel lines on the mesonotum which are confluent posteriorly, spots on the side of the scutellum, metanotum, two other elongate spots on the mesepisternum basally, margin of the metepimeron, two spots on the posterior face of the propodeum basally, abdominal segments above and below, narrow bands on the basal margin of the second, third, and fourth tergites and most of the fifth tergite yellow; legs black, the anterior coxae beneath, small spot sides of the intermediate coxae yellow; apices of the femora (more broadly on the four anterior ones) tibiae and tarsi rufo-ferruginous; calcaria pallid; wings yellowish hyaline, the apices dusky; venation yellowish basally, apically pale brown.

Mayaguez, Porto Rico. Two females, one collected January 27 (type) the other January 25, 1912, by C. W. Hooker, for whom this species is named.

*Type*.—Cat. No. 15079, U.S.N.M.

**BATAZONUS MUNDIFORMIS, new species.**

*Female*.—Length 10 mm. Anterior margin of the clypeus gently emarginate, the apex granular with a few large punctures; front viewed from the side very slightly rounded; vertex viewed from in front flat; anterior ocellus slightly larger than the lateral ocelli; postocellar line slightly longer than the ocellocular line; antennae slender, the third joint about one-third longer than the fourth; posterior margin of the pronotum with the normal line-like depression; posterior margin of the pronotum subtriangularly, emarginate;



venation nearly as in *hookeri*; emargination of the sternites as in *hookeri*. Black, variegated with yellow and ferruginous; clypeus except transverse spot basally, inner orbits (broader below), a line from the median ocellus between the bases of the antennae, narrow posterior orbits almost meeting on the occiput, spot on the anterior margin of the pronotum, spot on the sides of the pronotum, posterior margin of the pronotum broadly, tegula except the fuscous margins, two narrow lines on the mesonotum which converge posteriorly to form a spot, spots on the scutellum, metanotum, two large spots on the mesepisternum, spots on the metapleurae just below the wings, posterior face of the propodeum, the dorsal aspect of the propodeum except in the middle, posterior margin of the metaepimeron, two basal segments above and below at base and the basal margin of the third tergite yellow; legs ferruginous, coxae black, the four anterior ones yellow beneath, the four posterior ones with a yellow spot on the posterior margin, tarsi yellow, the bases of the joints ferruginous; abdomen except where mentioned rufo-ferruginous; antennae rufo-ferruginous to the sixth joint beyond which they are dark brown; head and thorax except where mentioned black; wings yellowish when viewed in certain lights with a strong bluish tinge; venation yellowish to pale brown.

*Male*.—Length 6.5 mm. Agrees very well with the above description of the female, but has the colors of the abdomen more sharply contrasted, the clypeus without black spot, the yellow on the posterior orbits and that on the propodeum is broader, the bases of the four posterior femora black. Third antennal joint is distinctly shorter than the fourth.

Described from three females and two males collected in the West Indies. The type female was collected at Bonwood Valley near Kingston, Jamaica, October 21, at an altitude of eight hundred feet on "second growth." The allotype male was collected near Mount Gay Leeward, Jamaica (?), September 23, at an altitude of three hundred feet in an open space on herbage. One female collected on Windward side of St. Vincent by H. H. Smith. The other specimens bore no definite locality.

*Type*.—Cat. No. 15080, U.S.N.M.

This is the species recorded from the West Indies by Ashmead as *Pycnopompilus marus*.

### Family EUMENIDAE.

Genus ODYNERUS Latreille.

Subgenus STENODYNERUS Saussure.

Group PRECAMPANULATI.

Clypeus much longer than wide, apex truncate; head with separate distinct punctures; inside of lateral ocelli with a tubercle, much



stronger in male; anterior margin of pronotum with a fine carina, angles subdentate; thorax with separate punctures; meso-scuto-scutellar sutures foveolate; scutellum with a median longitudinal furrow; metanotum narrow, raised, emarginate in middle; apical margin of the second dorsal strongly reflexed; suture of second ventral strongly foveolate; base of second ventral with a median sulcus; posterior coxae with a spine. Mostly rufo-ferruginous; wings strongly dusky.

*Odynerus sulciventris* Cameron and *O. congressensis* Cameron, judging from the descriptions are similar in color, but the metanotum is quite different. The species of this group may be separated by the following table:

Head black and yellow; mesoscutum black; anterior ocellus hooded; third dorsal slightly reflexed, male.....	<i>precampanulatus</i> Viereck.
Head rufo-ferruginous or with some black; mesoscutum mostly ferruginous; anterior ocellus not hooded; third dorsal segment not reflexed, female.....	1.
1. No depression behind ocelli; front and posterior orbits with rather close distinct punctures (second dorsal with free yellow spot).....	<i>blawus</i> Rohwer.
A shallow depression behind ocelli; head with poorly defined widely separated punctures.....	<i>odontoschius</i> Rohwer.

ODYNERUS (STENODYNERUS) PRECAMPANULATUS Viereck.

One male which agrees very well with the original description of this species was collected May 5, 1910, at Albuquerque, New Mexico, by J. R. Watson.

ODYNERUS (STENODYNERUS) BLAWUS, new species.

This may be the female of *precampanulatus*, but the head is more strongly punctured, and there is a free yellow spot on the second dorsal segment, as well as some other characters.

*Female*.—Length to apex of second dorsal 7.5 mm. Clypeus striatopunctate; punctures of the head rather large and not separated from each other by more than twice the width of a puncture; first joint of the flagellum slightly longer than the second; mesothorax punctured like the head; lateral aspect of propodeum finely striatopunctate; metanotum not serrate; abdomen punctured similar to head. Rufo-ferruginous; flagellum above, antennal foveae, rectangular spot inclosing ocelli, spot on anterior mesoscutum, sutures of mesothorax and prepectus black; small spot at eye emargination, two small spots on middle of pronotum, band on first, second, and third dorsal segments and a small spot on second dorsal yellow. Wings iridescent, venation black.

Albuquerque, New Mexico. One female collected May 5, 1910, by J. R. Watson.

*Type*.—Cat. No. 14306 U.S.N.M.



## ODYNERUS (STENODYNERUS) ODONTOSCHIUS, new species.

*Female*.—Length to apex of second dorsal segment 7 mm. Clypeus striato-punctate; head with small, well scattered punctures, which are separated from each other by three to five times the width of the punctures (below the emargination of the eye the punctures are larger and better defined); first joint of the flagellum about one-third longer than the second; mesothorax with large, close punctures, more widely separated on the posterior part of scutum; metapleurae and anterior part of latro-propodeum finely striate; posterior part of the sides of the propodeum with nearly confluent punctures; abdomen closely punctured. Rufo-ferruginous; flagellum above, a spot (narrowed posteriorly and emarginate medially anteriorly) enclosing ocelli, spot on anterior mesoscutum, prepectus, sutures of metathorax and a spot at base of second dorsal segment black; apical margins of the first and second dorsal segments broadly yellow; costa and stigma testaceous, venation pale brown.

Paratype differs in having small yellow spots at the emargination of eye and two spots on middle of pronotum.

Las Cruces, New Mexico. Two females, the type, "Ckll. 5091."

*Type*.—Cat. No. 14307, U.S.N.M.

## ODYNERUS (STENODYNERUS) ODONTOSCHIUS, var. DICHROUS, new variety.

*Female*.—Length of apex of second dorsal segment 7 mm. Differs from the typical form in the absence of black markings and in the presence of a yellow spot below the tegulae, four yellow spots on second dorsal and a yellow band on the third dorsal segment.

Las Cruces, New Mexico. One female collected October 5, 1895, by Prof. T. D. A. Cockerell.

*Type*.—Cat. No. 14308, U.S.N.M.

## ODYNERUS (STENODYNERUS) ANACARDIVORA, new species.

Related to *Odynerus (Stenodynerus) australis* Robertson but may be separated from that species by having the anterior face of the first tergite sculptured, by the more sharply dentate clypeus and in being general more coarsely punctured.

*Female*.—Length 11 mm. Clypeus slightly longer than wide, the anterior margin dentate, the teeth broad and obtusely truncate, the surface coarsely striato-punctate with a carina running down each tooth; frontal carina flattened and with a median fovea; head coarsely, distinctly punctured, no tubercle behind the lateral ocelli; postocellar line distinctly longer than the ocellocular line; antennae thickened apically, the third joint about one-half longer than the



fourth; pronotum punctured similarly to the vertex; the lateral anterior angles not dentate; mesoscutum and scutellum punctured similarly to the pronotum; the scutum with faintly indicated notauli posteriorly; the metanotum with widely separated punctures; mesepisternum more sparsely punctured than the mesoscutum; propodeum coarsely, closely punctured, almost reticulate without ridges or elevations; first tergite very coarsely punctured anteriorly so as to be almost reticulate, posteriorly the punctures are more separated; the second tergite with distinct, well defined punctures basally and apically; the median area with setigerous punctures only; second sternite with sparse, well defined punctures; the suture between the first and second sternites strongly foveolate; legs normal. Black; clypeus, frontal carina, a clot at the emargination of the eyes, a spot on the superior posterior orbits, the anterior median area of the pronotum, tegulae, spot below, metanotum, propodeum, first segment, narrow apical margin of the second tergite, dark rufous; legs except the anterior coxae dark rufous; antennae rufous to the sixth joint, beyond that, brown; wings dark smoky; venation black.

Miami, Florida. Described from one female collected August 13, 1913, by E. R. Sasser and recorded as feeding on *Anacardium excelsum*.  
*Type*.—Cat. No. 16853, U.S.N.M.

Subgenus **ODYNERUS** sensu strictu.

**ODYNERUS MARGARETELLUS**, new species.

This species can be readily separated from all other American species by the bright red second tergite, legs, and dense black hair on the body. In structure it is also different from many of the American species as the following description will show.

*Female*.—Length 8 mm. Clypeus wider than long, gently evenly convex, the anterior margin produced into a broad tooth which is deeply emarginate, the lobes being obtusely pointed and well defined, the surface with sparse, well-defined punctures which are smaller medianly than apically; the head below the supraorbital line with close, distinct punctures which around the antennae become confluent; vertex and posterior orbits shining, with sparse, well-defined punctures; postocellar line subequal with the ocellocular line; flagellum short, thickening apically, the third joint distinctly longer than the fourth and fifth which are narrower basally; pronotum with close rather small punctures; mesoscutum more sparsely punctured; punctures denser laterally; notauli well defined, extending to the base of the scutellum, diverging from the anterior third; suture between the scutellum and scutum finely foveolate; scutellum shining, more densely punctured posteriorly, parted by a faint median furrow; metanotum sloping, opaque, finely granular with a few large, irregular punctures; propodeum sculptured similar to the metanotum, without



a concave area and without ridges or teeth; abdomen shining, when highly magnified the apical segments are finely granular; first tergite about four times as wide as long; the second tergite one and one-third times as wide as long, the third tergite retracted; pygidium poorly defined. Black; palpi and mouth parts brown; band on the posterior margin of the first tergite, the second segment except a rectangular spot on the basal middle of the sternite and tergite, legs beyond the apical third of the femora, bright red (this color is not due to cyanide); body densely clothed with black hairs, those on the second tergite becoming shorter and less black; wings dusky hyaline; venation black.

*Male*.—Length 8 mm. Clypeus yellowish white except the apical margin which is piceous, surface with appressed, glistening white hairs with a few large erect hairs interspread; second sternite without a black spot; wings slightly paler than in the female. Otherwise the characters given for the opposite sex apply well to this sex.

Troublesome, Colorado. Described from one female (type) and two males (one allotype) collected at an altitude of 7,345 feet, June 8, 1908, by S. A. Rohwer.

*Type*.—Cat. No. 18526, U.S.N.M.

#### Family SPHECIDAE.

##### Genus DIODONTUS Curtis (not Auctorum).

*Neofoxia* VIERECK.

*Diodontus* CURTIS, Brit. Ent., vol. 11, 1834, p. 496.

*Type*.—*Psen pallipes* Panzer (Original designation).

*Neofoxia* VIERECK, Trans. Amer. Ent. Soc., vol. 27, 1901, p. 338.

*Type*.—*Psen atrata* Panzer (Original designation).

According to the published synonymy *Psen pallipes* Panzer and *Psen atrata* Panzer are the same. Therefore by synonymy *Neofoxia* Viereck becomes isogenotypic with *Diodontus* Curtis (not Auctorum).

##### Genus XYLOCELIA, new genus.

*Diodontus* SHUCKARD and of Authors.

When Curtis originally founded his genus *Diodontus* he stated that the type was *Psen pallipes* Panzer. In 1837, having discovered his error, he wrote that what he figured as *Diodontus pallipes* (Panzer) was *Pemphredon tristis* Van de Linden and therefore seems to consider Van de Linden's species as the type of *Diodontus*. This he had no right to do, because, "When in the original publication of a genus, one of the species is definitely designated as type, this species shall be accepted as type regardless of any other consideration."<sup>1</sup> Curtis

<sup>1</sup> Science, n. s., vol. 26, No. 668, Oct. 18, 1907. See also opinion 65 of International Commission on Zoological Nomenclature.



definitely said "type of the genus, *Psen pallipes* Panzer." He did not say, type of the genus *Psen pallipes* Panzer as determined by me; therefore *Psen pallipes* Panzer (not Curtis) must be the type of *Diodontus*. This is unfortunate as *Diodontus* will apply to the group of insects known as *Neofoxia* and belong to *Psenninae*. The *Diodontus* of Shuckard and authors is without a name, and may be called *Xylocelia*. The type of *Xylocelia* is *Diodontus occidentalis* Fox.

Genus PSEN Latreille.

PSEN (MIMESA) MODESTA, new species.

*Male*.—Length 6 mm. Anterior margin of the clypeus tridentate; frontal carina complete from the anterior ocellus to between the bases of the antennae; not strongly raised; front coarsely striato-punctate; vertex shiny, finely punctured; ocelli nearly an equilateral triangle; the postocellar line much shorter than the ocellocular line; antennae very slightly thickened apically, densely clothed with pale pile, the third joint much longer than the fourth; mesonotum coarsely striato-punctate in the middle, anteriorly the striae are more prominent, laterally sparsely punctured; scutellum shiny, sparsely punctured; propodeum with triangular-shaped basal depression, coarsely punctured, the sides and posterior face coarsely reticulate; petiole long, almost as long as to the apex of the hind femora, when the hind legs are stretched longitudinally; petiole trisulcate dorsally, unisulcate laterally; abdomen shiny, practically impunctate. Black; cheeks, face below the antennae, pleura and propodeum densely clothed with silvery pile; tarsi pallid; wings dusky hyaline, iridescent; venation dark brown.

Mayaguez, Porto Rico. Described from three males. No collector given.

*Type*.—Cat. No. 15081, U.S.N.M.

Genus AMMOBIA Billberg.

AMMOBIA SPINIGER (Kohl).

A male of this species was collected by W. Büther in the Blue Mountains, vicinity of Gordon Town, Jamaica.

Genus LARROPSIS Patton.

LARROPSIS GRACILIS, new species.

Related to *conferta* (Fox), but may be distinguished from that species by the greater distance between the eyes at the vertex and yellowish wings.

*Female*.—Length 10 mm. Anterior margin of the clypeus rounded, indistinctly dentate laterally; head with distinct, separated punctures, which are more widely separated along the median line; space between



the eyes at the top slightly greater than the length of the second, third, and fourth antennal joints; first joint of flagellum distinctly shorter than the second; dorsal margin of pronotum with a median notch; mesothorax with fine, distinct, close punctures; scutellum not impressed; dorsal surface of propodeum with a raised area which is pointed posteriorly, with transverse fine striae, and a median longitudinal furrow; sides of propodeum finely punctured; third cubital cell longer on the radius than second; pygidium about twice as long as the basal width, rounded apically, with a few scattered punctures. Black; tegulae and tarsi rufo-testaceous; first three abdominal segments orange color; wings hyaline, yellowish; venation yellow.

*Male*.—Length 8 mm. What may be the male differs from the description of the male of *conferta* as follows: space between the eyes at vertex greater than the second, third, and fourth antennal joints; scutellum not impressed. Differs from the female in the hyaline wings, slightly darker venation and in being rather more coarsely sculptured.

Denver, Colorado. One female collected August 1 (type). One male from C. F. Baker Collection, Colorado.

*Type*.—Cat. No. 14409, U.S.N.M.

LARROPSIS DOLOSANA, new species.

Superficially like *vegata* (Fox), but is very distinct from that species. In Fox's table it runs to *dolosa* (Fox), from which it may be separated as follows: Length 13.5 mm.; abdomen black; striae of the posterior face stronger than those of the sides of the propodeum; a narrow area on each side of the frontal line sparsely punctured; tarsi black. Female.

Gowan, Washington. One female collected by J. A. Hyslop, August 24, 1911. Carrying a female Orthopteran belonging to the genus *Phrixocnemis*.

*Type*.—14408, U.S.N.M.

Genus PIAGETIA Ritsema.

*Dicranorhina* SHUCKARD 1840 not Hope 1837.

Turner<sup>1</sup> states that *Dicranorhina* Shuckard should replace *Piagetia* Ritsema (1872) because *Dicranorhina* Hope 1837 was emended to *Dicranorrhina*. This is not in accord with International Code of Zoological Nomenclature. The emendation of *Dicranorhina* Hope will rank as a synonym of the same genus, and *Dicranorhina* Shuckard being preoccupied, can not replace *Piagetia* Ritsema.

<sup>1</sup> Ann. Mag. Nat. Hist., ser. 8, vol. 9, 1912, p. 199.



## Genus PISON Jurine.

## PISON AUREOSERICUM, new species.

This may be a dark form of *Pison peletieri* Le Guillon, but as all of the specimens have the second dorsal mostly black and Le Guillon's description is very short, it is impossible to say with certainty. The following points will serve to separate this species from *virosum* Turner: Space between antennae subequal with space between antenna and eye; postocellar and ocellocular lines equal; no median sulcus on the front; larger; etc. *P. aureosericeum* may belong to the same group as *marginatum* Smith and *auriventra* Turner, but it does not agree with the descriptions of either of these. From *Pison aurifex* Smith, to which *aureosericeum* seems to be closely related, it may be separated by the facial pubescence extending to the vertex; the femora and trochanters entirely ferruginous; and first dorsal segment is nearly all ferruginous.

*Female*.—Length 11 mm. Clypeus about twice as wide as long, apex truncate, sides hardly angled; distance between antennae at base subequal with the distance between an antenna and eye; no median frontal sulcus; the distance between the eyes at clypeus not quite twice as great as at distance between them at the vertex; emargination of eyes not quite twice as deep as the length of pedicellum; third antennal joint distinctly longer than the fourth; ocelli in an acute triangle; postocellar and ocellocular lines subequal; head with fine, distinct punctures, which are quite close on the front; pronotum rounded, but little below the top of mesonotum; mesonotum with the punctures larger and more separate than those of the head; dorsal aspect of the propodeum with a strong median sulcus in which there is a carina, and obliquely striato-punctate; posterior face of the propodeum strongly, transversely striate, and with a partial median sulcus; abdomen finely punctured, first and second dorsal segments feebly depressed apically, and the second slightly constricted basally; recurrent veins and transverse cubiti interstitial; petiole and second cubital cell subequal in height; third cubital about twice as long on the cubitus; transverse median distinctly beyond the basal. Black; mandibles, palpi, three basal joints of antennae, tegulae, legs below coxae, first dorsal segment except a spot at base and apical margins of the following segments ferruginous; insect abundantly clothed with golden pile; wings hyaline, venation testaceous, stigma darker.

*Male*.—The male agrees well with the female except the clypeus has a strong, acute median tooth.

Duaringa, Dawson District, North Queensland, Australia. Seven females and five males from W. F. H. Rosenberg.

*Type*.—Cat. No. 14254, U.S.N.M.



## PISON (PARAPISON) ERYTHROGASTRUM, new species.

Judging from the description this is colored similar to *pertinax* Turner, but that species has "the scape short, scarcely longer than the second joint of the flagellum," the eyes narrowly emarginate and other points of difference. *P. (Parapison) erythrocerum* (Kohl) has the abdomen largely black.

*Female*.—Length 6 mm. Clypeus nearly three times as wide as long, slightly produced in the middle, the production having a broad, low, truncate process; space between the eyes at the clypeus about one-fourth greater than at the vertex; space between bases of antennae about half again as great as that between the antenna and eye; a very obscure impressed line from anterior ocellus, ocelli in an equilateral triangle; postocellar line about one-fifth longer than the ocellocular line; a transverse sulcus behind ocelli so the vertex appears raised; scape longer than the two following joints; antennae short, the third joint subequal with the second and fourth; head finely, closely punctured; pronotum long, not depressed below the mesonotum; pro- and meso-notum very finely, closely punctured; dorsal aspect of the propodeum subequal in length with mesoscutum, a strong median sulcus, which has a median carina, finely obliquely striate; sides of the propodeum separated from the dorsal and posterior aspects by a carina, very finely striato-punctate; posterior face of the propodeum finely, striato-punctate, with an incomplete median sulcus, the ventral margin foveolate; abdomen finely punctured, apical margin of three basal segments depressed, second slightly constricted basally; first recurrent vein slightly basad of apical third; second recurrent vein nearly interstitial with the (second) first transverse cubitus; (third) second cubital nearly pointed on radius; transverse median more than half its length basad of basal. Black; mandibles, palpi, antennae, legs below middle of trochanters, and abdomen ferruginous; face, below antennae and pectus with silvery pile; wings hyaline, iridescent; venation testaceous, stigma and costa brown.

Duaringa, Dawson District, North Queensland, Australia. One female from W. F. H. Rosenberg.

*Type*.—Cat. No. 14255, U.S.N.M.

## Genus NYSSON Latreille.

## NYSSON (BATHYSTEGUS) BASIRUFUS, new species.

Resembles to some extent *Nysson armatus* Cresson, but may be readily separated from that species by having the four anterior legs black.

*Female*.—Length 5.5 mm. Anterior margin of the clypeus broadly rounded; distance between the eyes at the clypeus about half the distance between them at the vertex; head finely granular with a few



large punctures; ocelli in a low triangle; postocellar line slightly shorter than the ocellocular line; the intraocellar area raised; mesonotum finely punctured with a number of large close punctures which are denser anteriorly; scutellum punctured like the mesonotum; mesepisternum punctured like the mesonotum; propodeum finely punctured; dorsal aspect separated from the posterior aspect by a carina, apically the dorsal aspect has three carinae which are united in such manner as to form a double U, which is open anteriorly; legs practically without spines; venation normal; the third cubital cell very narrow on the radius, the distance between the second and third transverse cubiti being subequal with the distance between the second transverse cubitus and the first recurrent vein; abdomen shiny, a number of small, well defined and well separated punctures; pygidium about one and one-half times as long as broad, the apical margin nearly rounded. Black; narrow posterior margin of the pronotum, tubercle, two spots on the scutellum, elongate lateral spots, bands on the tergites from the first to the fourth inclusive (those on the first and second segments are broad) white; first abdominal segment, except where mentioned, and the posterior femora rufous; densely clothed with yellow pile which is denser on the front and cheeks; wings dusky hyaline; venation dark brown; antennae slightly thickening apically, the third and fourth joints subequal in length.

Mayaguez, Porto Rico. Described from one female collected January 27, 1912, by C. W. Hooker.

*Type*.—Cat. No. 15082. U.S.N.M.

#### Genus CERCERIS Latreille.

##### CERCERIS MARGARETELLA, new species.

Apparently related to *Cerceris festiva* Cresson, but may be readily separated from that species by the different colored antennae and the yellow propodeal inclosure.

*Male*.—Length, 9.5 mm. Clypeus gently convex; anterior margin feebly crenulate; frontal carina strong; ocelli in a low triangle; postocellar line a little shorter than the ocellocular line; head closely, regularly punctured except the area around and inclosed by the ocelli, which is shiny, but more sparsely punctured; antennae normal, third joint subequal in length to the fourth; mesonotum shiny, with a few irregular punctures; mesopleura with rather large, close punctures; propodeal inclosure shiny, impunctate; propodeum shiny, with a few widely scattered punctures; sternellum rectangular in outline and without a triangularly shaped depression; abdomen shiny, with a few scattered punctures; pygidium about one and one-half times as long as broad, nearly parallel-sided, the apex truncate; last ventral abdominal segment deeply, arcuately



emarginate, the lobes rather narrow, rounded apically. Black; spot on the base of mandibles, clypeus, inner orbits to a little above the antennae, supraclypeal area, a narrow line on the posterior orbits; pronotum, a spot on the tegula, a large spot below the tegula, a smaller spot below this large spot, scutellum, propodeal inclosure, elongate spots on the side of the propodeum, apical margin of the first tergite, apical margins of the second, third, and fourth tergites (broader laterally, bands on the third and fourth narrower) yellow; legs black; trochanters, the apices of the four anterior femora beneath, the four anterior tibiae and the basal half of the posterior tibiae (broader beneath) yellow; wings dusky hyaline, clear, basally, iridescent; venation dark brown; stigma pale brown; head and thorax clothed with erect gray hair; flagellum beneath piceous; lateral spots on the second, third, and fourth sternites yellow.

Mayaguez, Porto Rico. Three males collected by C. W. Hooker, January 29, 1912.

*Type*.—Cat. No. 15076, U.S.N.M.





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