THE ANTS OF THE PHILIPPINE ISLANDS

PART I, DORYLINÆ AND PONERINÆ

By WILLIAM MORTON WHEELER

Dean, Bussey Institution, Boston

and

JAS. W. CHAPMAN

Professor of Zoology, Silliman Institute, Dumaguete, Oriental Negros

TWO PLATES

FORMICIDÆ

Subfamily DORYLINÆ Leach

TribeECTONINIFOREL

Genus AENICTUS Shuckard

Aenictus laeviceps F. Smith.


Type locality: BORNEO, Sarawak (A. R. Wallace).

LUZON, Laguna Province, Los Baños (F. X. Williams), 18 workers.

Aenictus aratus Forel.

Aenictus aratus Forel, Ann. Soc. Ent. Belg. 44 (1900) 74.

Type locality: Australia; Queensland, Makay.

LUZON (Williams), 1 specimen.

This specimen from Luzon agrees perfectly with Forel's description and with a specimen of A. aratus in the senior author's collection bearing Forel's label.

Aenictus martini Forel.


Type locality: Malacca; Pahang (R. Martin).

LUZON, Laguna Province, Los Baños (Williams), 8 workers; Mount Maquiling (3083 C. F. Baker), 1 worker. NEGROS,

1 Collaborator, United States Bureau of Entomology.
Oriental Negros Province, Dumaguete, Horns of Negros (J. W. Chapman).

Twenty workers were taken from a foray, Horns of Negros, December 25, 1918, at 450 meters altitude. They were passing over bushes with no definite regularity and were moving quite rapidly. They could not be found a few hours later. Repeated search for them has been made but they have not been seen since, which seems to indicate that they migrate long distances. Specimens from Dumaguete seem to be a little lighter in color than those taken by Williams in Luzon.

Aenictus luzoni sp. nov. Plate 1, figs. 1 and 2.

Worker.—Length, 4.5 millimeters. Head rectangular, one and one-half times as long as broad; sides moderately rounded; occipital corners and occipital border rounded. Antennal hollows deep and moderately far apart. Scape of antennae barely extending to corners of head; joints of flagellum longer than broad. Anterior margin of clypeus rounded. Mandibles triangular, broadest at their apical borders; apical tooth acute and curved; subapical tooth at apical third of mandible.

Thorax with pronotum rounded anteriorly and convex above; narrower than the head. Mesonotum somewhat compressed. Epinotum rounded above; apical part sloping. Nodes of petiole and postpetiole as broad as long, rounded above, a little distance apart. Abdomen large and oval; basal segment petiolate anteriorly.

Smooth and shining. Mandibles finely striated. Mesopleura with a few nearly obsolete longitudinal striae, some of which extend on to the base of epinotum.

Body covered with sparse, recumbent yellow hairs, more abundant on antennae and apical joints of legs.

Reddish brown; darker on vertex. Lateral spots on head yellow, and not placed as high on the sides as in A. martini.

LUZON, Ilocos Norte Province, Bangui (C. S. Banks), 8 workers.

Aenictus camposi sp. nov. Plate 1, figs. 3 and 4.

Worker.—Length, 2.5 millimeters. Head rectangular, almost one and one-half times as long as broad; sides slightly curved; occipital corners and borders rounded. Antennal scape scarcely reaching beyond corners of head. Joints of flagellum longer than broad; first and second twice as long as broad, subequal.
Antennal furrows shallow and approximate. Anterior margin of clypeus convex. Mandibles with finely denticulate borders; apical tooth acute and curved.

Pronotum narrower than head, convex above; mesonotum compressed. Basal portion of epinotum long; apical part short, declivity vertical, margined on its lateral borders. First petiolar node fully twice as long as broad; postpetiolar node slightly shorter and well separated from first. Gaster small and oval; legs long and slender, very little incrassate.


Covered with sparse recumbent yellow hairs, more abundant on antennae and legs.

Yellowish; nodes of petiole and postpetiole, apex of gaster, and undersides of antennae lighter yellow. Head without lateral spots.

Resembles A. wroughtoni Forel, but is easily distinguished by the rugose epinotum, the color, and the slighter femora. A remnant of a male shows filiform antennae, with the second joint of the flagellum longer than the scape. The male A. wroughtoni has the scape spatulate.

NEGROS, Oriental Negros Province, Dumaguete, Horns of Negros, 1,200 meters altitude (Chapman).

A nest of this ant was found beneath the bark of a fallen dead tree by the junior author and one of his students during May, 1918. No sex forms were taken at that time. Unfortunately the vial which contained them was broken during the day and only a few individuals were saved. This log was examined in 1919 and again in 1921, but no trace of them was found. During May, 1922, a large colony consisting of 80 workers, 50 larvae, 200 pupae, and the broken remains of one male were found.

This species is dedicated to Juan D. Campos, who was with the junior author during 1918 when the species was first found.

Aenictus sp.

Males of seven species of Aenictus have been taken at lights by various collectors in the Islands.

LUZON, Laguna Province, Mount Maquiling (Williams), two species; (Baker), one species; (from Staudinger and Bang-Haas), one species: Mountain Province, Baguio (Williams and Chapman), one species: Bataan Province, Limay (from Staudin-

Males have been frequently taken at light at 450 meters altitude, which shows that there are several other species of Aenictus in the Islands, the workers of which have not been seen.

Description of these males will be reserved till further collections are made.

Subfamily CERAPACHYINÆ Forel

Tribe CERAPACHYINI Forel

Genus CERAPACHYS F. Smith

Cerapachys ruithorax sp. nov. Plate 1, figs. 5, 6, and 7.

Worker.—Length, 3.75 millimeters. Head rectangular, one-fifth longer than broad, with moderately rounded sides, nearly rectangular occipital corners, and straight occipital border. Eyes large, slightly curved; situated a distance equal to their longest diameter from anterior lateral angles of head. Antennal scape club-shaped, extending barely to posterior border of eyes. First flagellar joint as long as broad; 2 to 11 transverse. Apical joint as long as the preceding eight and two and one-half times as long as broad. Frontal carinae short and separated by about the width of the basal part of scape. Carinae of cheeks smooth. Anterior border of clypeus convex. Mandibles triangular and apical border finely dentate.

Thorax twice as long as broad, sides straight, anterior border rounded, feebly margined, in profile convex above. Epinotal declivity sloping, concave, with the smallest trace of margination on its lateral borders, but none above. Petiolar node subquadrate, truncated anteriorly, marginate about the truncated portion, rounded transversely above; ventral tooth triangular and situated well forward. Postpetiole similar to petiole, but a third broader and higher. Remainder of gaster twice as long as broad.

Shining; mandibles and scape finely punctate and shining. Head and gaster covered with scattered foveolate punctures, nearly obsolete on thorax, which is smoother. Epinotal declivity smooth and shining. Petiolar node and postpetiole finely rugose, subopaque; shining in certain lights. Anterior surface of legs minutely punctured, posterior surface smooth.

Covered with long, dense, recumbent grayish hairs; very dense on petiole and postpetiole, partially hiding the sculpture.
Pleurae of epinotum, anterior face of petiole, postpetiole, antennal clubs, and apical joints of legs covered with dense stiff hairs.


NEGROS, Oriental Negros Province, Dumaguete, Horns of Negros, 450 meters altitude (Chapman).

A nest of more than 40 workers, including larvæ, eggs, and a few pupæ, was found beneath the sheath of a leaf of Palma brava.

Cerapachys negrosensis sp. nov. Plate 1, fig. 8.

Worker.—Length, 3 millimeters. Head rectangular, one-fifth longer than broad, sides feebly rounded, occipital corners rounded with occipital border straight. Eyes moderate in size and placed a distance equal to their longest diameter from base of mandibles. Antennal scapes at their apical end more than twice as thick as first funicular joint. Club as long as preceding five joints and as broad as apical portion of scape. Antennal carinæ short, approximate. Anterior margin of clypeus nearly straight.

Thorax very little convex, rounded transversely, without margination. Base of epinotum rounded into apical portion, not margined at lateral angles or above. Node of petiole cuboidal, as high as base of epinotum, truncated anteriorly, with trace of margination, postpetiole as broad as long, gaster ovate.

Mandibles shining; head, thorax, and apical part of gaster sparsely covered with foveolate punctures, less noticeable on thorax, which is rugose and subopaque, like the node of petiole and postpetiole. Mandibles and scape covered with sparse piligerous punctures.

Entirely covered with recumbent white hairs, more noticeably on petiole and postpetiole; dense, short, stiff hairs on antennae and legs.


Resembles the preceding species, but is very much smaller in every respect. The thorax is less convex in profile and more rugose. The declivity of the epinotum is not margined either laterally or above.

NEGROS, Oriental Negros Province, Dumaguete, Horns of Negros, 700 meters altitude (Chapman), 1 worker.
Cerapachys nitida sp. nov. Plate 1, figs. 9 and 10.

*Worker.*—Length, 3.5 millimeters. Head rectangular, one and one-fourth times as long as broad, posterior angles feebly rounded, occipital border straight. Eyes medium, convex, their longest diameter equal to the breadth of apical portion of scapes; about in the middle line of head. Antennal scapes stout, barely reaching to posterior orbits of eyes. Antennal club as long as the preceding seven joints. Frontal carinae separated from each other by the width of the base of scape. Anterior margin of clypeus almost straight. Mandibles slight, apical border bearing minute teeth.

Thorax rectangular, sides straight, one and one-half times as long as broad, anterior angles rounded. In profile straight and somewhat flat. Epinotal declivity oblique, concave, not margined laterally or above. Node of petiole a little longer than broad, including the ventral spine as high as long. Postpetiole subquadrate, basal segment of gaster longer than broad. Shining; head, mandibles, scape, thorax, postpetiole, and gaster covered with fine piligerous punctures, more obsolete on pleura of thorax and partly covered by the pilosity of gaster. Node of petiole delicately rugose and subopaque.

Body covered with recumbent gray hairs; short, stiff, and more abundant on antennal club, tarsi, lateral pleuræ of epinotum, and node.


NEGROS, Oriental Negros Province, Dumaguete, Horns of Negros, 450 meters altitude (*Chapman*), 6 workers nesting under the bark of a fallen dead tree.

Cerapachys muiri sp. nov. Plate 1, figs. 11 and 12.

*Worker.*—Length, 4.5 millimeters. Head one and one-fourth times as long as broad, slightly broader behind than in front. Eyes moderately convex, their distance from anterior lateral angles of head equal to their longest diameter. Antennal scapes stout, clublike, extending to posterior orbits of eyes. Segments 2 to 11 of flagellum transverse, club two and one-half times as long as broad. Mandibles stout, apical border broad, toothed. Anterior margin of clypeus slightly convex, carinæ of cheeks crenulate.

Thorax twice as long as broad, in profile convex. Base of epinotum rounding into apical portion. Space of declivity marginate at lateral borders but not above. Node of petiole as long
as broad, truncated in front, marginate, rounded anteriorly and posteriorly. Postpetiole as broad as long, basal segment of gaster twice as long as postpetiole.

Shining; head and abdomen covered with piligerous punctures which are coarser on petiole, postpetiole, and posterior angles of epinotum. Epinotal declivity smooth.

Completely covered with sparse, recumbent gray hairs, more abundant on petiole, postpetiole, gaster, antennae, and legs. Antennal club covered with a short gray pile.

Deep red. Antennal club reddish yellow.

Luzon, Laguna Province, Los Baños (F. Muir), 1 worker.

Genus LIOPONERA Mayr

Lioponera luzuriagae sp. nov. Plate 1, figs. 13 and 14.

Worker.—Length, 3.5 millimeters. Head rectangular, about one and one-fourth times as long as broad, sides feebly curved, occipital border straight. Antennal scapes club-shaped, barely reaching middle transverse line of head. Antennal carinae short, space between them equal to the width of scape at its base. Flagellar joints 2 to 6 transverse. Eyes large, their diameter little less than one-third length of head, placed well forward on sides of head, less than half their diameter from its anterior angles. Anterior margin of clypeus feebly curved. Mandibles triangular, apical borders minutely dentate.

Thorax rectangular, more than twice as long as broad, front rounded, epinotal declivity oblique. Node of petiole nearly as long as broad, very little convex above and truncated in front, transverse behind. Postpetiole as long as basal segment of gaster and one-third longer than broad.

Subopaque; shining in certain lights. Thorax and abdomen covered with fine, delicate, foveolate, piligerous punctures, more abundant on front of head. Space between eyes at anterior third smooth. Mandibles and scape feebly punctured.

Dense recumbent white pile, hiding the sculpture in large part, covers the body, more abundant on legs, antennae, sides of head, and abdomen.

Reddish brown; head, anterior border of pronotum, antennae, and legs lighter.

Female.—Length, 3.5 millimeters; dealated. Similar to the worker. Head almost one-third longer than broad. Thorax one and one-half times as long as broad, sides very little rounded. Epinotal declivity oblique; gaster long and slender.
NEGROS, Oriental Negros Province, Luzuriaga, Horns of Negros, 450 meters altitude (Chapman), 16 workers and 1 female.

Lioponera bicolor sp. nov. Plate 1, figs. 15 and 16.

Worker.—Length, 2.7 millimeters. Head rectangular, a little longer than broad, sides feebly curved, occipital border straight. Eyes large, slightly convex, placed just back of the base of mandibles. Antennal scapes extend to middle line of head. Mandibles triangular, apical borders broad, finely dentate. Anterior margin of clypeus transverse.

Thorax rectangular, twice as long as broad, in profile very little curved. Epinotal declivity oblique, concave. Node of petiole broader than long, emarginate anteriorly and concave. Basal segment of abdomen twice the length and height of node.


Covered with fine recumbent yellow hairs, more abundant on legs and gaster.

Yellow; head and apical segments of abdomen black. Mandibles, antennæ, thorax, node, and apical segment of abdomen yellowish.

Resembles L. parva Forel, but the head and the abdomen are black.

Female.—Length, 3.5 millimeters. With the exception of the sexual characters and size, the female resembles the worker in all respects.

Male.—Length, 3.5 millimeters. Head including eyes broader than long, convex and somewhat constricted behind; without posterior corners; cheeks very short; eyes large, two-thirds as long as head, very convex; ocelli large; mandibles long, narrow, with relatively broad mascatory margin, with apical tooth acute. Clypeus large, anterior border rounded. Antennal carinæ short, moderately far apart; scape long but not reaching posterior border of eyes; funicular joints 8 to 11 distinctly longer than broad.

Thorax robust, broadest anterior to wings, convex above; scutellum convex, broader than long. Base of epinotum somewhat truncated, equal in length to apical portion.

Petiole as broad as long, rounded above, with anterior-ventral spine prominent. Gaster long.
Smooth and shining. Pilosity similar to that of the worker. Color uniformly brownish throughout.

**Luzon, Laguna Province, Los Baños** (*Williams*), several workers, males, and females.

*Lioponera bakeri* sp. nov. Plate 1, fig. 17.

**Worker.**—Length, 4 millimeters. Head longer than broad, broader behind than in front, occipital border straight. Eyes moderately convex, placed at the sides of head, well toward the front. Antennal scapes club-shaped, reaching to posterior occipital border. Antennal carinae short, distance between them equal to diameter of scape at its apex. Anterior margin of clypeus concave; mandibles triangular, apical borders toothed.


Densely punctured. Head coarsely rugose, finer on the remainder of the body. Covered with fine recumbent pile. Hairs suberect, scattered, more abundant on scape and abdomen.

Brownish black throughout. Undersides of flagellum and distal ends of femora reddish brown.

**Basilan** (*Baker*), 1 worker.

*Subfamily Ponerinae* Lepeltier

*Tribe Amblyoponini* Forel

**Genus Mystrium** Roger

*Mystrium camillae* Emery.


**Type locality:** Birmania.

**Luzon, Laguna Province, Los Baños** (*Williams*), 8 workers.

**Genus Stigmatomma** Roger

*Stigmatomma rothneyi* Forel.


**Type locality:** India (*Rothney*).

**Luzon, Laguna Province, Los Baños and Mount Maquilling** (*Williams*), 37 individuals including males, females, and workers.
Stigmatomma (Fulakora) luzonicum sp. nov. Plate 1, fig. 18.

Female.—Length, 3.5 millimeters. Head in front as broad as long, broader in front than behind, trapezoidal, sides nearly straight, occipital border transverse, frontal groove feeble. Eyes small, placed on the sides at posterior one-third of head. Antennal carinæ approximate, diverging behind. Scapes short, barely reaching to eyes. Joints of flagellum, excepting 1 and 11, transverse. Anterior margin of clypeus convex and armed with six bifid teeth. Mandibles two-thirds as long as head, thickened basal portion with six teeth, the most apical trifid.

Thorax rectangular, twice as long as broad. Basal portion of epinotum rounding into apical portion, lateral angles of which are margined, the disk thus formed concave. Node cuboidal, frontal surface rectangularly truncated, with anterior lateral angles slightly rounded, ventral protuberance small. Abdomen as long as thorax. Legs rather long and femora slightly thickened.


Reddish brown. Occiput black; mandibles, clypeus, antennæ, legs, and apical segments of abdomen reddish yellow.

LUZON, Laguna Province, Los Baños (Baker), 1 dealated female.

Stigmatomma (Fulakora) williamsi sp. nov. Plate 1, fig. 19.

Worker.—Length, 5.5 millimeters. Head moderately convex above, rounded on sides, broader in front than behind, with posterior lateral angles rounded, occipital border straight. Anterior lateral angles of head behind base of mandibles provided with a tooth. Eyes minute, placed at sides on upper half of head. Midway of the longitudinal suture on the front is a pit that resembles an ocellus. Antennal carinæ close together. Joints of flagellum distinct, first and eleventh longer than broad. Anterior margin of clypeus convex, provided with a single row of teeth, the most apical four teeth bifid. Apical tooth acute and curved.

Thorax twice as long as broad, promesonotal suture deep, mesoepinotal suture not prominent, declivity of epinotum oblique, basal and apical portions continuous through a gradual curve, apical surface of epinotum broadened with marginate sides. Node of petiole from above slightly longer than broad,
truncated anteriorly, rounded above and on sides; truncated surface slightly concave, much narrower below. Gaster large, very long, basal segment one-third as long as the remainder. Rugose. Head and dorsal part of thorax and abdomen finely and closely punctured. Mandibles striated at base, with smooth apex. Pleuræ finely and vertically striated. Node and gaster shining.

Covered with sparse erect gray hairs, more abundant on antennæ and abdomen. Fine gray pile covers all parts of body. Reddish brown. Antennæ, legs, and apical segments of gaster yellowish.

**Female.**—Length, 6 millimeters; dealated. Very similar to worker, with the usual sexual modifications. Teeth on clypeus crowded together and the number not distinct; bised as in the worker. Pronotum narrower in front. Pilosity and color as in the worker.

**Luzon,** Mountain Province, Baguio, 1,370 meters altitude (**Williams**), 13 workers and 2 females.

**Genus** **Myopopone** Roger

*Myopopone castanea* Smith subsp. *maculata* Roger.


**Luzon,** Laguna Province, Los Baños (**Williams; Baker**), workers and females; Mount Maquiling (3286, 9183, 3285 *Baker*), females. **Mindanao,** Dapitan (12133 *Baker*), female: Lanao, 1 female from Staudinger and Bang-Haas. **Negros,** Oriental Negros Province, Dumagute, Horns of Negros, 450 meters altitude (**Chapman**).

One female taken at light. A female and ten workers nesting beneath the ground in a dead stump. The workers vary in length from 7.5 to 10 millimeters.

*Myopopone castanea* Smith var. *bakeri* Viehmeyer.

*Myopopone castanea* Smith var. *bakeri* Viehmeyer, Ent. Mitteil. 5 (1916) 283. Type locality, Leyte, Tacloban (3285 *Baker*).

One worker with the above number and locality was received from the Bureau of Science, Manila. The number corresponds with that of a female of *M. castanea* subsp. *maculata.* A
further study of the material from Leyte may show that this is merely one of the small workers of the preceding subspecies.

Tribe PLATYTHYREINI Emery

Genus PLATYTHYREA Roger

Platthyrea inermis Forel.


NEGROS, Oriental Negros Province, Dumaguete, Horns of Negros (*Chapman*).

A nest was found in the trunk of a dead tree fern. Also a few individuals on the ground near by. The collection consists of males, workers, and pupæ.

Platthyrea coxalis Emery.


NEGROS, Oriental Negros Province, Dumaguete, Horns of Negros, 450 meters altitude (*Chapman*).

Nineteen individuals, one of which was a male, were nesting on the ground in a hollow dead branch.

Platthyrea coxalis Emery var. philippinensis Viehmeyer.

*Platthyrea coxalis* var. *philippinensis* Viehmeyer, Ent. Mitteil. 5 (1916) 283. Type locality, Luzon, Los Baños (*Baker*).

LUZON, Laguna Province, Los Baños (*Williams*), 22 workers. GUIMARAS, Bureau of Science collection, 1 worker. NEGROS, Oriental Negros Province, Dumaguete, Horns of Negros, 450 meters altitude (*Chapman*), 2 females, 1 male, and 4 workers.

Platthyrea maquilingi sp. nov. Plate 2, figs. 1 and 2.

Thorax one-third as broad as long, premesonotal suture strongly marked, mesoepinotal suture obsolete. Epinotal declivity high, oblique, and concave, lateral angles smooth and rounded. Node of petiole slightly longer than broad. Anterior surface rounded, posterior surface truncated, without lobes above. Gaster large and oval. Basal segment broader than long. Posterior coxae with blunt tooth.

Subopaque, densely and finely punctured, much obscured by fine grayish pubescence. Erect hairs scattered over head and abdomen.

Black; mandibles, antennae, legs, and apical segments of gaster reddish brown.

Resembles P. inermis Forel, but is smaller and has the posterior coxae toothed.

Luzon, Laguna Province, Mount Maquiling (Baker), 3 workers.

Tribe Ectatomini Emery

Genus Stictoponera Mayr

Stictoponera coxale Roger.


Luzon, Laguna Province, Paete, Sarai (R. C. McGregor), 1 worker; Los Baños (Williams), 5 workers; Mount Maquiling (2069 Baker), 1 worker. Mindanao, Kolambogan (Banks), Basilan (12133 Baker), 1 male. Negros, Oriental Negros Province, Dumaguete, Horns of Negros, 450 meters altitude (Chapman).

Workers of this species were found foraging singly on plants in a cool damp ravine, near a small spring. Complete colony found May, 1924, nesting under moss on a large stone.

Stictoponera menadensis var. bicolor Emery.


Luzon, Laguna Province, Mount Maquiling (2070 Baker), 1 male.

Genus Chalcoponera Emery

Chalcoponera victoria Ern. Andre var. andrei var. nov. Plate 2, figs. 3 and 4.

Worker.—Length, 4.5 millimeters. Head about as broad as long, broadest through occiput. Occipital corners feebly
rounded, occipital border very little concave. Eyes large and convex, placed posterior to middle transverse line of head. Antennal carinae far apart, borders parallel and extending about its breadth beyond corners of head. Joints of funiculi longer than broad. Joints 1 and 11 twice as long as broad. Clypeus convex longitudinally, separated from front by a feeble suture. Mandibles large, triangular, inner apical margin minutely dentate.

Prothorax not as wide as head, twice as long as broad, angulate ventrally at sides, with a distinct tooth. Promesonotal suture distinct, mesoepinotal suture faint or obsolete. Basal part of epinotum rounding into apical portion. Node from above transversely oval, rounded in front, flat behind, and as high as basal segment of gaster, produced on its anterior ventral surface into a trapezoidal spine.

Abdomen as broad as prothorax, twice as long as broad. Anterior legs with pectinate spine. Middle and posterior pair with simple spine. Claws with tooth on basal inner half.


Covered with erect scattered hairs, more abundant on head and apical segments of abdomen.

Reddish brown. Legs lighter red. Mandibles and antennae reddish yellow.

This genus is Australian. On examining the material in the senior author's collection we found this undescribed variety from the mountains of Victoria. Dr. F. X. Williams took one specimen at Los Baños, Luzon, Philippine Islands, that cannot be distinguished from the specimens from Victoria. It would seem probable that this species has been introduced into the Philippines on vegetation shipped from Australia to the College of Agriculture at Los Baños.

Type locality: Victoria Mountains, Australia. Several workers.

Luzon, Laguna Province, Los Baños (Williams), 1 worker.
Genus CENTROMYRMEX Mayr

Centromyrmex feæ Emery.


LUZON, Laguna Province, Los Baños, Mount Maquiling (Baker), 2 females. BASILAN (Baker), 1 female and 1 male.

Genus HARPEGNATHOS Jerdon

Harpegnathos venator Smith var. rugosus Mayr.


LUZON, Laguna Province, Mount Maquiling (Baker), 1 specimen.

This single specimen differs from two specimens of typical H. venator Smith, from Hongkong and Assam, in the senior author’s collection, and from Mayr’s description of the subsp. rugosus in the color of the node and hind legs in which the brown color is replaced by black. The sculpture is that of rugosus. Perhaps the Philippine specimen represents a distinct variety.

Harpegnathos macgregori sp. nov.

Worker.—Length, 20 millimeters. Head without mandibles in front as broad as long. Antennal scapes filiform, extending one-fifth their length beyond corners of head. Joints of flagellum longer than broad, subequal. Mandibles articulating with exterior angles of head, apical border very long, approximate throughout and provided with two rows of teeth which point toward base of mandibles.

Thorax long and cylindrical, promesonotal suture prominent, mesoepinotal suture obsolete. Epinotal declivity oblique, relatively short. Node of petiole two and one-fourth times as long as broad, higher behind than in front, rounded on front and sides. Basal segments of gaster about one-third the length of entire gaster.

Opaque; head, pronotum, and mesonotum coarsely, longitudinally striated. Epinotum with transverse striae. Node rugosely punctate, gaster finely punctate, interspersed with coarser punctures.
Body covered with sparse erect pale gray hairs. Black; mandibles, legs, flagellum, and dorsal spot on first and second segments of gaster yellow.

**BILIRAN (McGregor)**, 1 specimen.

**Genus ODONTOPONERA Mayr**

**Odontoponera transversa Smith.** Plate 2, fig. 5.


**LUZON, Rizal Province, Antipolo (E. Simon):** Laguna Province, Los Baños (Williams; Baker); Mount Banahao (Williams); Paete, Sarai (McGregor); Mount Maquilling (Baker). Bantayan (L. E. Griffin). Romblon (H. M. Smith and L. Morato). Panay, Iloilo Province, Iloilo (L. Ortaliz): Antique Province, Tibiao (McGregor). **BASILAN (Baker).** Jolo (A. C. Duyag). Negros, Occidental Negros Province, Maaö (C. S. Banks): Oriental Negros Province, Dumaguete, Horns of Negros, 450 meters altitude (Chapman).

This ant is very common on the sides of the Horns of Negros from 300 to 600 meters. It lives in the ground, the entrance to the nest often unprotected, and in the barren and worn trails. It is especially fond of termites and is often seen raiding their colonies.

**Odontoponera transversa Smith var. biconcentrica var. nov.** Plate 2, fig. 6.

**Worker.—**Length, 12 millimeters. This variety can be distinguished from *O. transversa* Smith, the only known species of the genus, by the concentric arrangement of the striæ on the pronotum.

**BASILAN (Baker),** a single worker.

**Genus DIACAMMA Mayr**

**Diacamma rugosum** Le Guillou.


Philippines; F. Smith.

*Diacamma rugosum* Le Guillou var. sculptum Jerdon.

*Ponera sculpta* JERDON, Madras Journ. Lit. Soc. 17 (1851) 117. Type locality, Ceylon.


Luzon, Manila (W. A. Stanton): Laguna Province, Mount Maquiling (Williams): Mountain Province, Baguio, 600 to 1,800 meters altitude (Williams); Trinidad (H. M. Smith). Bantayan Bay; Setanki Island; Sibutu Island (H. M. Smith).

*Diacamma rugosum* Le Guillou subsp. sculptum var. vagans Smith.


This species seems to vary considerably and will have to be studied more in detail in the field before we can draw final conclusions in regard to its status.

*Diacamma rugosum* geometricum Smith.


Luzon, Laguna Province, Paete, Sarai (McGregor); Los Baños (Williams): Cagayan Province, Port San Vicente Hills (H. M. Smith): Mountain Province, Mount Pulog (H. M. Curran), Bureau of Science No. 10280. MINDANAO, Davao Province, Davao (Copeland). PANAY, Iloilo Province, Iloilo (L. Ortaliz). Negros, Oriental Negros Province, Dumaguete, Horns of Negros from sea level to 600 meters altitude (Chapman).

About fifty collections of this species were made by the junior author. During 1922 two colonies were found with males, one of which was in copulation with a worker.
Specimens of *D. geometricum* agree perfectly with those in the senior author's collection from North Borneo and Celebes, but differ from those from Hongkong and Burma in the shape of the petiole and length of the spines.

**Diacamma rugosum subsp. geometricum var. vidipurpureum Emery.**


Luzon, Manila (Staudinger and Bang-Haas): Laguna Province, Los Baños (Williams); Paete, Sarai (McGregor); Mount Banahao (Williams; Baker; Staudinger and Bang-Haas): Bataan Province, Limay (Boettcher): Ilocos Norte Province (Banks): Benguet and San Vicente Hills (H. M. Smith). BANTAYAN ISLAND (L. E. Griffin). MARINDUQUE and SANTA CRUZ ISLANDS (H. M. Smith). MINDORO, Calapan (Staudinger and Bang-Haas). MASBATE, Port Cataingan (H. M. Smith). ROMBLON, Romblon (L. Morato). SAMAR, Basiao Island (H. M. Smith). PANAY, Antique Province, Tibiao and Culasi (McGregor). CEBU, Cebu (Williams). NEGROS, Oriental Negros Province, Dumaguete (Chapman), a colony with 16 workers, 5 pupae, and 4 larvae; also numerous isolated workers on other occasions.

**Diacamma palawanicum Emery.**


**Diacamma palawanicum var. concentricum var. nov.** Plate 2, figs. 7 and 8.

Worker.—Length, 16 millimeters. Head longer than broad, broadest in front, occipital corners and border rounded. Eyes prominent, convex. Antennæ filiform, joints 2 and 3 of the funiculus subequal. Clypeus convex and almost angular at the middle anterior border.

Thorax long, slender, epinotal declivity oblique; node of pedicel higher than long, as broad as long, spines one-half as long as node is high; far apart and pointing backward and outward. Node flat anteriorly, truncated posteriorly, concavity between spines reaching one-third the distance from posterior to anterior
border. Distance between spines equal to one-third the breadth of basal segment of gaster.

Head and thorax striated, gaster smooth. Mandibles striated, clypeus multicarinate or longitudinally cibrate. Occiput longitudinally striated but none of the striae pass from occipital border forward to clypeus; all diverge to frontal carinae.

Striae on pronotum concentric. Epinotal declivity submarginate, striae transverse. Node of petiole striate, striae beginning above base of spines of node and continuing horizontally throughout.

Covered with fine gray pile, with sparse erect gray hairs, scattered rather uniformly over body, longer and more abundant on front of head and apical segments of gaster.

Black; mandibles, antennae, and legs reddish brown. Differs from the type in having the stria of the pronotum arranged concentrically instead of longitudinally.

PALAWAN, Binaluan (G. Boettcher); Malampaya (W. Schultze), Bureau of Science No. 14009. Described from five workers.

Diacamma panayensis sp. nov. Plate 2, figs. 9 and 10.

Worker.—Length, 16 millimeters. Head a little longer than broad. Eyes convex, prominent, placed well back on sides of head. Antennae filiform, funicular joints 2, 3, and 4 subequal. Anterior margins of clypeus rounded, convex; mandibles strongly toothed.

Thorax slender, base of epinotum compressed, declivity oblique and feebly concave. Node of petiole longer at base than above; as long as wide. Anterior face concave, posterior face flat, lateral corners rounded. Spines about one-fourth the height of node. Gaster large, as long as thorax and head combined.

Opaque. Mandibles striate, occiput longitudinally striate, the striae passing from occipital border between eyes and antenanal carinae to clypeus. Pronotum transversely striated. The striae on the node of the petiole begin independently of the spines and run more or less horizontally around the node throughout. Basal segment of abdomen smooth.

Pilosity lacking, excepting on head and apical segments of gaster. Gaster smooth and shining and covered with a fine grayish pile.
Black; mandibles, clypeus, flagellum, legs, and sting reddish brown.

This species resembles *D. palawanicum* Emery in having the basal segment of the gaster smooth, but differs from it in the transverse striae on the pronotum and the shape of the node of the petiolo.

**PANAY,** Antique Province, Culasi (*McGregor*), 6 workers.

*Diacamma baguiesen* sp. nov. Plate 2, figs. 11 and 12.

*Worker.*—Length, 11 millimeters. Head very slightly longer than broad, sides straight, occipital corners and border rounded. Antennæ long, filiform; funicular joints 2, 3, and 4 subequal. Median lobe of clypeus angular, its anterior margin rounded; frontal carinæ short and approximate. Mandibles stout, triangular, bearing several teeth on the apical border.

Thorax elongate, narrow, more than twice as long as broad, declivity of epinotum obliquely truncated. Node in front as high as long, one-third higher behind. Anterior face concave, posterior face broad; as broad as its greatest diameter; concave; spines short, pointing backward and inward. Abdomen long and rather massive.

Mandibles finely striated. Head and occiput longitudinally striate, all the striae meeting the antennal carinæ posterior to middle line of head. Pronotum transversely striate. Epinotal striae concentric with anterior part open at the mesoeepinotal suture. Epinotal suture transversely striated. Striae of node begin with spines and run horizontally throughout. Basal segment of gaster covered with prominent striae which run very nearly transversely throughout.

Pilosity wanting, excepting a few scattered hairs on head and apical segments of gaster. Entire body covered with a pale yellowish pile.

Black; antennæ, legs, and apical segment of gaster reddish brown.

**LUZON,** Mountain Province, Baguio, 1,370 meters altitude (*Chapman*), 2 workers:

Genus **ECTOMYRMEX** Mayr

*Ectomyrmex annamitus* Ern. Andre.

*Ectomyrmex annamitus* ERN. ANDRE, Rev. Ent. 11 (1892) 48. Type locality, Birmania.

**LUZON,** Laguna Province, Mount Maquiling (*Baker*), 3 females.
Genus BOTHROPONERA Mayr

Bothroponera glabripes Emery.


Bothroponera tridentata Smith.

Pachycondyla tridentata Smith, Cat. Hym. Brit. 6 (1858) 106. Type locality, Borneo, Sarawak.

TAWITAWI (A. C. Duyag). JOLO (Duyag).

Several workers from the above localities measure 17 to 19 millimeters.

Bothroponera williamsi sp. nov. Plate 2, figs. 13 and 14.

Worker.—Length, 9.5 millimeters. Head as broad as long, sides feebly rounded, occipital border very slightly concave. Eyes small, situated just posterior to base of mandibles. Antennal scapes cylindrical, reaching barely to corners of head. Joints 2 to 10 of flagellum as broad as long. Anterior margin of clypeus rounded, carinate at middle line. Mandibles stout, apical border armed with seven strong teeth.

Thorax two-thirds as broad as long, broader in front than behind, promesonotal suture prominent, mesepinotal suture obsolete. Epinotal declivity oblique, lateral borders emarginate. Node of petiole high, twice as broad as long, convex in front, posterior surface flat, above transversely rounded. Abdomen moderately large.

Opaque; mandibles striate on their outer margins and sparsely covered with foveolate punctures. Clypeus longitudinally rugose. Head and anterior part of thorax rugose. Base of epinotum cribrate, declivity transversely striate.

Covered with dense, erect, reddish yellow hairs, longest on clypeus, base of epinotum, and abdomen; sparse on antennae and legs. A fine recumbent pile abundant on all parts of body excepting declivity of epinotum, anterior surface of gaster, and node.

Black; mandibles, clypeus, antennae, legs, and apical segments of abdomen reddish.

LUZON, Laguna Province, Mount Maquiling (Williams), a single worker.
Genus EUPONERA Forel

Euponera (Trachymesopus) darwinii Forel var. indica Emery.

Euponera (Trachymesopus) darwinii Forel var. indica EMERY, Bull. Ent. Italy 31 (1900) 276, nota; VIERHEYER, Ent. Mitteil. 5 (1916) 284. Type locality, Upper Burmah (Doherty).

LUZON, Laguna Province, Los Baños (Baker and Williams); Mount Maquiling (Baker): Ilocos Norte Province (Banks): Manila (Banks), Bureau of Science Nos. 4767, 6395, and 13258. NEGROS, Oriental Negros Province, Dumaguete, Horns of Negros, 450 meters altitude (Chapman), males and females taken at light.

Euponera (Trachymesopus) stigma Fabr. var. quadridentata Smith.


LUZON, Laguna Province, Los Baños (Baker and Williams); taken by Williams in a rotten log in the forest; Mount Maquiling (Baker); San Antonio (F. W. Foxworthy), Bureau of Science No. 11481. BASILAN (Baker).

Euponera (Brachyponera) luteipes Mayr.


LUZON, Rizal Province, Antipolo (E. Simon): Laguna Province, Los Baños (Williams and R. Thaxter); Mount Maquiling (Williams), 3 females from the summit; Mount Banahao, at 300 to 1,200 meters altitude (Williams). PALAWAN, Binaluan (G. Boettcher). NEGROS, Oriental Negros Province, Dumaguete, Horns of Negros, 1,200 meters altitude (Williams).

Females taken at a light at 450 meters altitude by the junior author on a number of occasions.

Genus PONERA Latreille

Ponera moczaryi Emery.

Ponera moczaryi EMERY, Term. Fuzet. 23 (1900) 316-319, pl. 8, figs. 15-16. Type locality, New Guinea.

LUZON, Laguna Province, Los Baños (Williams), 8 workers. NEGROS, Oriental Negros Province, Dumaguete, Horns of Negros (Chapman), two colonies consisting of males and workers.

Ponera punctatissima Roger subsp. schaunslandi Emery.

Ponera punctatissima Roger subsp. schaunslandi EMERY, Zool. Jahr- buch Syst. 12 (1899) 239. Type locality, Island of Laysan.

LUZON, Manila (R. Thaxter).
Ponera confinis Roger var. javana Forel.


LUZON, Laguna Province, Mount Maquiling (Williams), 9 specimens from the summit; Los Baños (Williams), several workers. NEGROS, Oriental Negros Province, Dumaguete, Horns of Negros, 450 meters altitude (Chapman), several colonies consisting of workers.

Ponera gleadowi Forel.


LUZON, Laguna Province, Los Baños (R. Thaxter), 5 workers.

Genus TRAPEZIOPELTA Mayr

Trapeziopelta breviloba Wheeler.


BASILAN (Baker), 1 female.

Genus LÉPTOGENYS Roger

Leptogenys (Leptogenys) maxillosa F. Smith.

Ponera maxillosa F. SMITH, Cat. Hym. Brit. Mus. 6 (1858) 93. Type locality, Maurice Islands.

PANAY, Antique Province, Culasi (McGregor).

Leptogenys (Leptogenys) pruinosa Forel.

Leptogenys pruinosa FOREL, Journ. Bombay Nat. Hist. Soc. 13 (1900) 304. Type locality, Ceylon (Bingham).

LUZON, Manila (R. Brown). NEGROS, Oriental Negros Province, Dumaguete, Horns of Negros, 450 meters altitude (Chapman), one worker.

Leptogenys (Lobopelta) pruqueti Andre.

Lobopelta pruqueti ANDRE, Rev. Ent. 6 (1887) 292. Type locality, Ceylon.

LUZON, Laguna Province, Los Baños (Williams). NEGROS, Oriental Negros Province, Dumaguete, Horns of Negros, 450 meters altitude (Chapman).
Leptogenys (Lobopelta) pequeti Andre var. watsoni Forel.


LUZON, Laguna Province, Los Baños (*Baker and Williams*). PANAY, Antique Province, Tibiao (*McGregor*). NEGROS, Oriental Negros Province, Dumaguete (*Chapman*).

*Leptogenys (Lobopelta) diminuta* F. Smith.


*Leptogenys (Lobopelta) diminuta Smith var. opacinodis* Emery.


NEGROS, Oriental Negros Province, Dumaguete, Horns of Negros, 450 meters altitude (*Chapman*), nesting in an old log.

*Leptogenys (Lobopelta) chinensis* Mayr.


NEGROS, Oriental Negros Province, Dumaguete, Horns of Negros, 1,150 meters altitude (*Chapman*).

Foray crossing the trail. Some were carrying pupæ. The winged forms were taken at light at 450 meters altitude.

*Leptogenys (Lobopelta) iridescentes* F. Smith.


PALAWAN, Binaluan (*Boettcher*).

Workers agree well with Smith's description.

*Leptogenys (Lobopelta) punctiventris* Mayr.


LUZON, Laguna Province, Los Baños (*Williams*). NEGROS, Oriental Negros Province, Dumaguete and on the Horns of Negros (*Chapman*).

Nesting in the ground at sea level. Taken from a foray crossing the trail at 450 meters altitude.
Anochetus punctiventris var. oceanus Emery.

Anochetus punctiventris subsp. oceanus EMERY, Term. Fuzet. 20 (1897) 597. Type locality, New Caledonia.

LUZON, Laguna Province, Los Baños (Williams).

Genus ODONTOMACHUS Latreille

Odontomachus infandus F. Smith.

Odontomachus infandus SMITH, Cat. Hym. Brit. Mus. 6 (1858) 81. Type locality, Luzon, Philippines.

NEGROS, Occidental Negros Province (Banks), Bureau of Science No. 6908.

Odontomachus papuanus subsp. philippinus Emery.


Odontomachus banksi Forel.


LUZON, Mount Banahao (Baker and Williams). Bureau of Science No. 7181, collected by C. S. Banks.

Odontomachus saevissimus F. Smith.

Odontomachus saevissimus SMITH, Cat. Hym. Brit. Mus. 6 (1858) 80. Type locality, Mallowa.


Odontomachus haematoda Linnaeus.

Formica haematodes LINNAEUS, Syst. Nat. ed. 10, 1 (1758) 528. Type locality, South America.

ILLUSTRATIONS

PLATE 1

Fig. 1. Aenictus luzoni sp. nov., lateral view.
2. Aenictus luzoni sp. nov., dorsal view.
3. Aenictus camposi sp. nov., lateral view.
4. Aenictus camposi sp. nov., dorsal view.
5. Cerapachys rufithorax sp. nov., lateral view.
6. Cerapachys rufithorax sp. nov., dorsal view.
7. Cerapachys rufithorax sp. nov., head, front view.
8. Cerapachys negrosensis sp. nov., lateral view.
9. Cerapachys nitida sp. nov., lateral view.
10. Cerapachys nitida sp. nov., head, front view.
11. Cerapachys muiri sp. nov., lateral view.
12. Cerapachys muiri sp. nov., head, front view.
13. Lioperonera luzuriagae sp. nov., lateral view.
14. Lioperonera luzuriagae sp. nov., dorsal view.
15. Lioperonera bicolor sp. nov., lateral view.
16. Lioperonera bicolor sp. nov., dorsal view.
17. Lioperonera bakeri sp. nov., lateral view.
18. Stigmatomma (Fulakora) luzonicum sp. nov., lateral view.
19. Stigmatomma (Fulakora) williamsi sp. nov., lateral view.

PLATE 2

Fig. 1. Platthyreca maquilingi sp. nov., lateral view.
2. Platthyreca maquilingi sp. nov., head, front view.
3. Chalcoponera victoria Ern. Andre var. andrei var. nov., lateral view.
5. Odontoponera transversa Smith, prothorax, dorsal view.
6. Odontoponera transversa Smith var. biconcentrica var. nov., prothorax, dorsal view.
7. Diacamma palawanicum Emery var. concentricum var. nov., petiole, lateral view.
8. Diacamma palawanicum Emery var. concentricum var. nov., petiole, front view.
9. Diacamma panayensis sp. nov., petiole, lateral view.
10. Diacamma panayensis sp. nov., petiole, front view.
11. Diacamma baguiensis sp. nov., petiole, lateral view.
12. Diacamma baguiensis sp. nov., petiole, front view.
13. Bothroponera williamsi sp. nov., lateral view.