

Article XV.—A COLLECTION OF ANTS FROM BRITISH HONDURAS.

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PLATES XI AND XII.

The collection of ants enumerated in the following pages was made during the autumn and winter of 1905-'06 by Mr. J. D. Johnson at Manatee, British Honduras. Although the specimens all belong to known species, they are interesting on account of the locality in which they were taken, as British Honduras is very rarely mentioned among the localities in Forel's admirable monograph of the Central American and Mexican ants in the 'Biologia Centrali-Americana.'

PONERINÆ.

1. *Pachycondyla harpax* Fabr.—Three workers indistinguishable from the typical form from Texas and Mexico.
2. *Pachycondyla* (*Pseudoponera*) *stigma* Fabr.—Numerous workers and a few males from several colonies.
3. *Anochetus* (*Stenomyrmex*) *emarginatus testaceus* Forel.—Numerous workers closely resembling in color the typical form of this subspecies from the West Indies and in having the anterior surface of the petiole smooth above and only moderately rugose near the base.

DORYLINÆ.

4. *Eciton hamatum* Fabr.—Many soldiers and workers.
5. *Eciton vagans* Oliv.—Numerous workers.
6. *Eciton rogeri* Dalla Torre.—Numerous workers.
7. *Eciton prædator* F. Smith.—Numerous workers.
8. *Cheliomyrmex nortoni* Mayr. (Pl. XI, Figs. 4-9.)—Many workers measuring from 2.5 to 6 mm. in length, from two colonies. There can be no doubt that this ant forages in files like the species of *Eciton*. It is probably hypogæic like *E. cæcum* Latr. As Emery has shown, *C. nortoni* has dimorphic workers. The largest individuals (soldiers) have curved, falcate mandibles with a narrow, hooked apical and two large basal teeth (Pl. XI, Fig. 5) whereas the intermediates and small workers have short and proportionally broad mandibles, with only two large teeth separated by a series

of denticles. (Pl. XI, Fig. 8.) As in the genus *Dorylus* the clypeus is also more convex and projecting in the smaller than in the larger workers.

MYRMICINÆ.

9. *Pseudomyrma belti* Emery var. *fulvescens* Emery.—Many workers of the typical form of this variety.

10. *Pseudomyrma dolichopsis* Forel.—Several workers which agree perfectly with Forel's description except in size. They are only 3–3.3 mm. in length and may belong to an incipient colony.

11. *Pseudomyrma sericea* Mayr.—A single worker.

12. *Pseudomyrma caroli* Forel.—Numerous workers agreeing very closely with Forel's description of specimens from Costa Rica and with a type specimen of the var. *clapii* Forel from the Amazon.

13. *Pseudomyrma delicatula* Forel.—Four workers.

14. *Monomorium carbonarium ebeninum* Forel.—Many workers of the typical form of this subspecies.

15. *Monomorium floricola* Jerdon.—Numerous workers.

16. *Solenopsis geminata rufa* Fabr.—Many workers of the typical East Indian form of this common tropicopolitan ant. They are of a reddish yellow color, with a well developed spine on the mesosternum. The largest specimens measure only 3.5–4 mm.

17. *Pheidole anastasii* Emery var. *johnsoni* var. nov.—Numerous soldiers, workers and males taken from a single colony (Feb. 2). The soldiers and workers resemble the corresponding phases of *anastasii* except in having the whole head, thorax and pedicel opaque as in *punctatissima* Mayr. The color is that of *anastasii*.

18. *Pheidole megacephala* Fabr.—Several soldiers and workers of the typical form.

19. *Cremastogaster brevispinosa* Mayr.—Many workers from several colonies marked "small black house-ant." Among these are a number of pseudogynic individuals not exceeding the largest workers in size (2.3 mm.), with an enlarged mesonotum and sometimes with a small scutellum and minute nodular or strap-shaped vestiges of fore wings. These abnormal individuals are of exactly the same character as the pseudogynic specimens of *Myrmica* which I have described and figured in a former paper.¹

20. *Cryptocerus cristatus* Emery.—A worker and two females. The wings of the latter are smoky brown, with heavy dark brown veins and stigma.

¹The Polymorphism of Ants, with an Account of Some Singular Abnormalities due to Parasitism. Bull. Am. Mus. Nat. Hist., Vol. XXIII, 1907, p. 43, pl. iv, figs. 45–49.

21. *Cryptocerus angulosus* F. Smith.

(Plate XI, Figs. 1-3.)

Cryptocerus angulosus F. SMITH, Trans. Ent. Soc. London, 1867, p. 525, pl. xxvi, fig. 7. ♀.

Cryptocerus jucundus F. SMITH, Trans. Ent. Soc. London, 1876, p. 606, pl. xi, Fig. 2, ♀.

Cryptocerus angulosus EMERY, Bull. Soc. Ent. Ital., XXII, 1890, p. 39, tav. ix, fig. 9, ♀.

Soldier. (Pl. XI, Figs. 1 and 2.) Length: 4.6-5 mm.

Head surmounted by a disk, which is as long as broad, with straight, parallel sides and rounded anterior and posterior corners. The floor of the disk is convex in the middle and anteriorly, and very concave on the sides, with a thin, reflected and irregularly crenate border. Its anterior border is semicircularly excised in the middle, and encloses the mandibles, each of which has a long, acute apical, and a few indistinct basal teeth. Posterior corners of head projecting below and beyond the disk, rather acute, turned upwards and irregularly crenate. Thorax as broad as long, about twice as broad in front as behind. Promesonotal and mesoepinotal sutures very distinct, the former subsemicircular, the latter but slightly curved. Pronotum with sharp, flattened anterior angles and a strong transverse, irregularly crenate, posterior crest, narrowly interrupted in the middle. Mesonotum somewhat more than half as broad as the pronotum, produced on each side into a short, sharp angle. Epinotum nearly as broad as the mesonotum, with thin, flat lateral borders, except in front where it is suddenly narrowed and produced into a small rounded lobe on each side. The lateral borders converge posteriorly and have blunt posterior angles. Petiole and postpetiole alike in shape and both with well-developed, recurved lateral spines, these on the petiole being, however, distinctly narrower, more acute and less flattened than those on the postpetiole. Gaster less than twice as long as broad, flattened, bluntly pointed behind, cordate in front, with thin, slightly upturned anterior borders. Legs robust.

Subopaque; upper surface of head shining. Head and thorax foveolate, the former more coarsely and much more sparsely, especially on the concave portions of the disk. Petiole, postpetiole, gaster and legs finely and densely foveolate-punctate.

Hairs glistening white, very short, scale-like and appressed, one to each of the foveolæ on the head and thorax; much smaller and denser on the remainder of the body. Edge of cephalic disc with a fringe of short, erect, clavate hairs.

Black; upper surface of head, pronotum, tibiae, terminal tarsal joints, scapes and basal funicular joints of antennæ, brownish yellow. Lateral borders of epinotum, spines of postpetiole and all but a large lozenge-shaped area on the disc of the first gastric segment, sordid white, as are also the posterior borders of the remaining gastric segments.

Worker. (Pl. XI, Fig. 3.) Length: 3.5-4 mm.

Head not surmounted by a disk, longer than broad, narrower in front than behind, with sides straight and gradually converging in front, and with rounded, thin anterior lobes and distinct posterior angles. Anterior border with a semicircular excision for the mandibles. Thorax nearly $1\frac{1}{2}$ times as long as broad, flattened above, without a pronotal crest; promesonotal suture obsolete, mesoepinotal suture very indistinct. Pro- and epinotum each somewhat broader than

long, with thin, dilated lateral borders, and each with a notch just behind its anterior angle. Mesonotum produced on each side into a short spine. Petiole and postpetiole similar to those of the soldier. Gaster cordate-elliptical, proportionally shorter than in the soldier.

Opaque; whole surface finely and densely granulate-foveolate, the head, thorax, petiole and postpetiole somewhat more coarsely than the gaster.

Hairs similar to those of the soldier but shorter; finer and denser on the gaster and legs than on the remainder of the body.

Black; anterolateral lobes and posterior corners of head, lateral borders of thorax, spines of petiole and postpetiole, anterolateral corners of first gastric segment, antennæ, knees and tibiæ, sordid or brownish white.

Male. Length: 4.5-5 mm.

Head, excluding eyes, broader than long, convex behind, with very short, concave cheeks. Mandibles with an acute apical and several small basal teeth. Antennæ short, not much incrassated towards their tips; scape much shorter than the second funicular joint, first funicular twice as broad as long, joints 2-11 subequal, less than twice as long as broad, rather robust, terminal joint somewhat shorter than the two preceding joints together. Thorax robust, somewhat broader through the wing insertions than the head through the eyes; Mayrian furrows of pronotum broadly impressed, shallow. Epinotum short, basal surface shorter than the abrupt declivity with which it forms nearly a right angle. Petiole and postpetiole subequal, rectangular from above, a little longer than broad.

Opaque; petiole, postpetiole and gaster shining. Head and thorax densely punctate or granular, the former with small, the latter with larger, shallow foveolæ. Mayrian and parapteral furrows coarsely longitudinally rugose. Petiole, postpetiole and gaster coarsely shagreened.

Hairs whitish, tapering, rather abundant, suberect; conspicuous on the body but much sparser on the legs.

Black; mandibles, antennæ and legs white; bases of mandibles, the scapes and bases of fore femora more or less infuscated. Posterior edges of gastric segments and genitalia yellowish. Wings whitish hyaline, with colorless veins and light brown stigma.

Described from numerous soldiers, workers and males, all taken from the same colony (Jan. 31).

22. *Atta cephalotes* Linn.—Numerous small and medium sized workers of this, “the wee-wee, or mound-builder,” which is one of the few ants also cited by Forel from British Honduras.

23. *Atta* (*Trachymyrmex*) *saussurei* Forel.—Closely related, as Forel has shown, to *A. (T.) septentrionalis* of the United States. The numerous workers received from Mr. Johnson agree well with a typical specimen of *saussurei* given me by Mr. Pergande. They differ from *septentrionalis* in having a narrower head, much more convex and protruding eyes, longer antennal scapes, which surpass the posterior corners of the head by nearly $\frac{1}{2}$ their length, and more acute thoracic spines, of which four instead of three pairs may be seen on the profile of the pro- and mesonotum. The postpetiole is as long as broad instead of broader than long; the tubercles on

the gaster are larger and less numerous than in *septentrionalis* and the median black band is less distinct.

The hitherto undescribed female of *saussurei* differs from that of *septentrionalis* in the longer antennal scapes and postpetiole and the grosser tubercles, especially on the gaster. The first segment of the latter has a median and two lateral streaks of dark brown, and the ventral surface is also infuscated. The mesonotum has a large, triangular anteromedian and two lateral dark brown blotches and there is a similar blotch on the clypeus, one on the vertex and another on the scutellum. The wings are smoky brown, somewhat paler than those of *septentrionalis*.

In the hitherto undescribed male of *saussurei* the head is narrower behind and with blunter spines than in *septentrionalis*; the antennæ and legs are more slender, the postpetiole longer and with a pronounced transverse depression, and the tubercles on the petiole, postpetiole and gaster are much more prominent.

All the specimens received from Mr. Johnson were taken from the same nest (Feb. 9).

24. *Myrmicocrypta dilacerata* Forel.—Two males.

25. *Cyphomyrmex rimosus* Spinola.—Numerous workers of the typical form of this variable species.

DOLICHODERINÆ.

26. *Dolichoderus hispinosus* Olivier.—Numerous workers from two colonies, together with some Membracids which they were attending. This common and widely distributed neotropical species is cited by Forel from the Rio Hondo, British Honduras. Like several other species of the genus it constructs paper nests.

27. *Dolichoderus championi* Forel.—Numerous workers and a single dealated female. Forel has described all three phases of this insect from Mexico, Costa Rica and Panama, and also a subspecies and variety from Trinidad and Colombia.

28. *Tapinoma melanocephalum* Fabr.—Many workers from a single colony. This species appears to be widely distributed through the tropics of both hemispheres. It is common in the West Indies (Jamaica, Porto Rico, Bahamas) and has also been introduced into well-heated buildings in New York. During the past winter I have seen it visiting the sugar bowls on the tables of the Columbia University commons.

29. *Dorymyrmex pyramicus* Roger.—Numerous workers of the typical form of this species from two colonies.

30. *Azteca instabilis* F. Smith.—Many workers of all sizes and four-

teen winged females from four colonies (Nov. 1 and 14). The females are 9.10 mm. long. The head, excluding the mandibles, is very little longer than broad, convex and rounded on the sides behind the eyes, contracted and concave in the region of the cheeks and with a broad, shallow occipital excision. The tips of the antennal scapes reach to a little more than $\frac{3}{4}$ the distance between the eyes and the posterior corners of the head. The body is dark brown, with the mandibles, clypeus, antennæ, head, pronotum, thoracic sutures, tarsi, venter, anterior and posterior borders of the gastric segments dull orange yellow. The front and a large portion of the upper posterior surface of the head dark brown. The wings have a pronounced yellow tinge, with dark brown stigma and scapular vein; the remaining veins being light brown. Pile and pubescence like those of the worker; antennal scapes and legs with prominent erect hairs.

31. *Azteca foreli* Emery.—Numerous workers of all sizes, agreeing perfectly with Emery's original description of this species.

32. *Azteca schimperi* Emery.—Numerous workers of all sizes taken from a paper nest which Mr. Johnson has forwarded to the American Museum. This nest, which is represented in Plate XII, was suspended from the branches of a tree. It is regularly egg-shaped, 15 cm. long and 9.5 cm. through its greatest diameter, and consists of dark brown, hard and friable carton. The outer surface is ornamented with broad flat carton scales of a paler and slightly reddish color. The numerous openings, scattered irregularly over the surface, are mostly elliptical and vary from 3 to 6 mm. in diameter.

CAMPONOTINÆ.

33. *Prenolepsis longicornis* Fabr.—Numerous workers.

34. *Prenolepsis guatemalensis* Forel.—Several workers and males which agree very closely with typical specimens of this species received from Prof. Forel.

35. *Prenolepsis* sp.—Three workers which I hesitate to refer to any of the described species, as they are not accompanied by males.

36. *Camponotus abdominalis ustulatus* Forel.—A number of soldiers and workers and two winged females taken Nov. 15, from "an empty hornet's nest."

37. *Camponotus abdominalis stercorarius* Forel.—Several soldiers and workers.

38. *Camponotus planatus* Roger.—Several soldiers and workers of a pale variety of this common neotropical species.

39. *Camponotus formicæformis* Forel.—A number of soldiers and workers.

40. *Camponotus lindigi* Mayr.— A few soldiers and several workers.

41. *Camponotus rectangularis* Emery.— Numerous soldiers and workers of the light-colored, typical form of this species.

42. *Camponotus claviscapus* Forel.— Two soldiers and fourteen workers agreeing perfectly with Forel's description. There are also in my collection two females and two males taken in Nicaragua by Mr. Wm. Fluck. None of these specimens has any trace of a carina on the clypeus so that I am unable to refer them to Forel's var. *carinata* of Guatemala. The female resembles the soldier very closely in the structure of the head and the distally incrassated antennal scapes. The thorax and gaster are long and narrow, the mesonotum being somewhat longer than broad and as broad as the head. The petiole is low and very thick, with blunt horizontal superior border when seen from behind. The gaster is nearly four times as long as broad, brown, with the anterior half of the first segment and a pair of large rectangular blotches on each of the succeeding segments, yellow. The wings are yellowish hyaline, with yellow veins and stigma.

43. *Camponotus sericeiventris* Guérin.— Two soldiers and a worker agreeing in all respects with specimens from various parts of Mexico.

EXPLANATION OF PLATES.

PLATE XI.

Fig. 1.—*Cryptocerus angulosus* F. Smith. Soldier.

Fig. 2.—Head of same seen from above.

Fig. 3.—*Cryptocerus angulosus* F. Smith. Worker.

Fig. 4.—*Cheliomyrmex nortoni* Mayr. Soldier.

Fig. 5.—Head of same seen from the front.

Fig. 6.—Terminal tarsal joints of same.

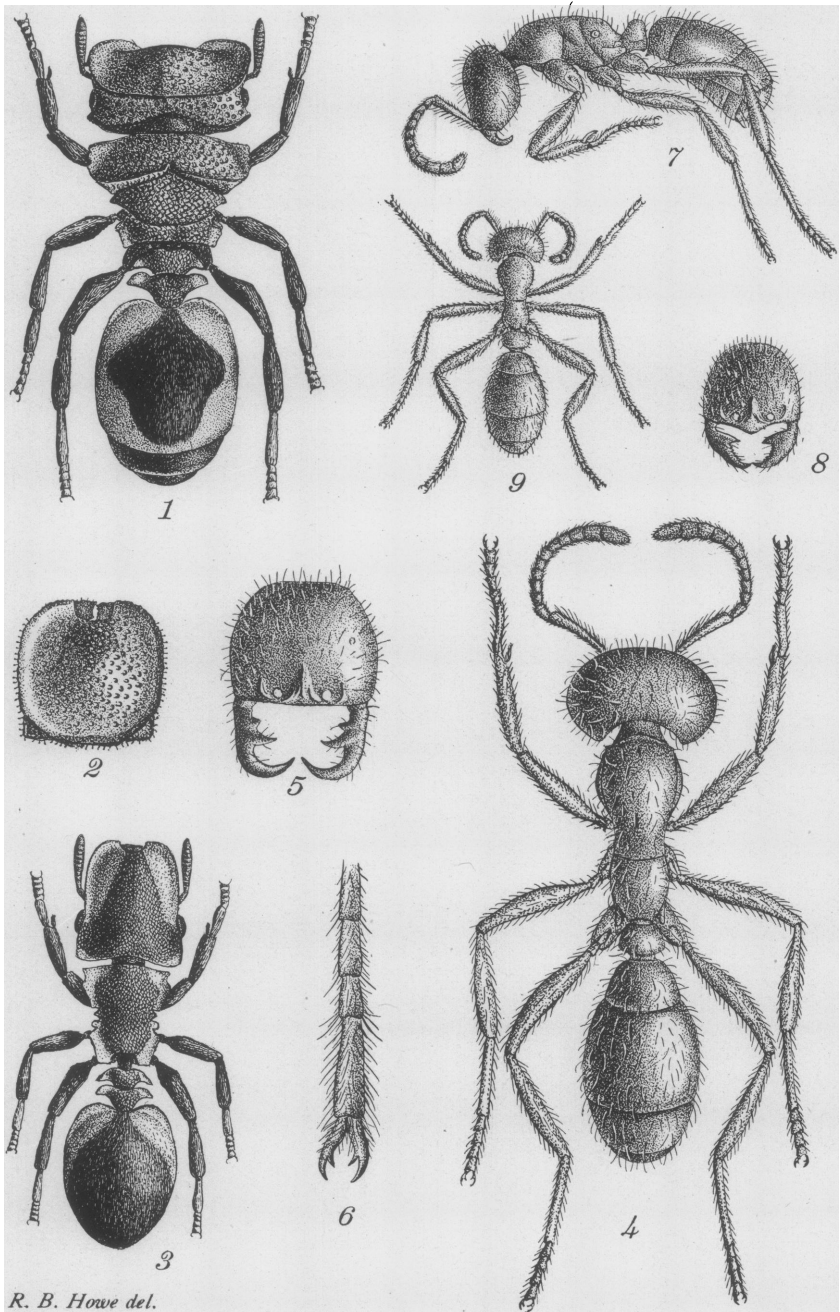
Fig. 7.—*Cheliomyrmex nortoni* Mayr. Intermediate worker, in profile.

Fig. 8.—Head of same seen from the front.

Fig. 9.—*Cheliomyrmex nortoni* Mayr. Small worker, drawn to same scale as Figs. 4 and 7.

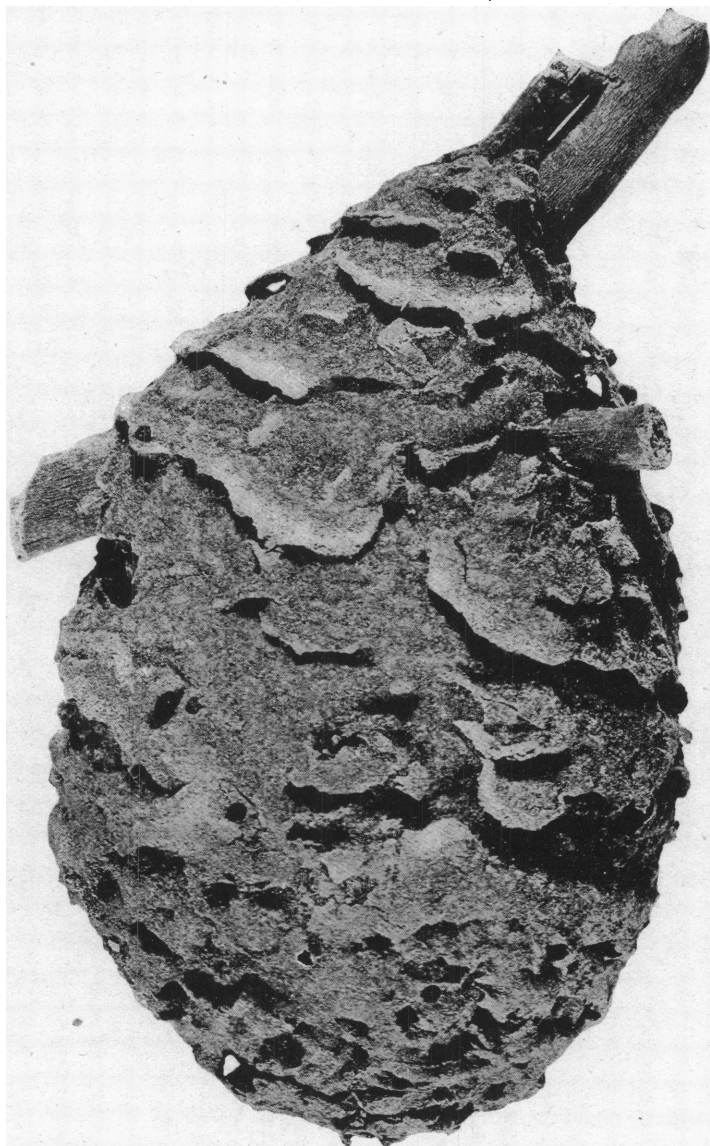
PLATE XII.

Pendent carton nest of *Azteca schimperi* Emery.



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ANTS FROM BRITISH HONDURAS.



PENDANT CARTON NEST OF *Azteca schimperi* EMERY.