

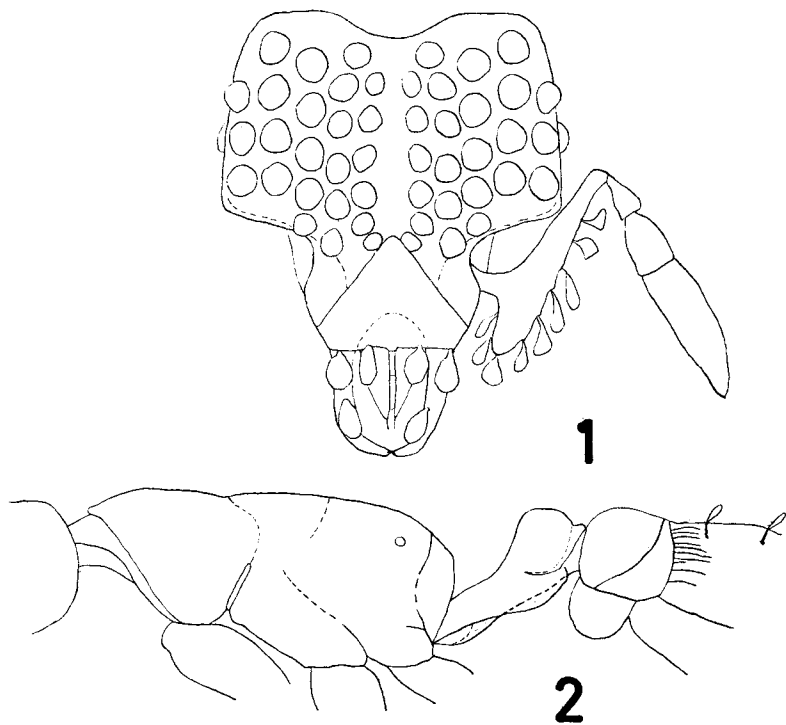
TWO NEW SPECIES OF THE ANT GENUS *EPITRITUS* FROM
GHANA, WITH A KEY TO THE WORLD SPECIES (HYM.,
FORMICIDAE)

By B. BOLTON

Recently Mr. P. M. Room of the University of Ghana, Legon, handed me a number of ants collected from litter samples taken in a cocoa farm in the Eastern Region of Ghana. Amongst them were two new species of the dacetine ant genus *Epitritus*.

Previously only a single species was known from sub-Saharan Africa, *E. laticeps* Brown, 1962, taken in northern Nigeria. The two species described below consequently represent the first records of the genus from the forest zone of West Africa.

I am grateful to Mr. Room for making these specimens available for study.



Figs. 1-2.—*Epitritus minimus* sp. n., holotype worker: 1, dorsal view of head, right antenna omitted; 2, profile of alitrunk, pedicel and base of gaster.

***Epitritus minimus* sp. n. (figs. 1-2)**

Holotype worker: L 1.2, HL 0.29, HW 0.29, (CI 100), ML 0.09, (MI 31), WL 0.32. Scape length 0.17 from tip of subbasal lobe to apex, funiculus length 0.21 (measurements in mm as standardised by Brown, 1953).

General characters as shown in figs. 1 and 2. Mandibles without preapical teeth on the inner margin of the blade, without an elongate, dorsally placed tooth at the apex. Apical armament of mandible indeterminate in holotype, but in a paratype worker with open mandibles six denticulae are visible, consisting of a long, acute, somewhat ventrally directed basal, a prebasal of approximately half the length of the basal, and a dorsally placed group of 4 very small denticulae, 0.5 times or less the length of the prebasal. Antennal scape with a large, anteriorly projecting subbasal lobe; the funiculus of three segments, the apical segment longer than the two preceding segments taken together. Eyes minute; apparently of a single ommatidium.

Pro- and mesonotum fused, the junction marked by a slight impression in profile, which is scarcely visible in dorsal view. Promesonotum broadest in front (maximum width ca. 0.20 mm) gradually narrowing behind, very slightly longer than broad. Propodeal declivity with lateral lamellae. Petiole node about 1.6 times wider than long, 0.6 times as wide as postpetiole; the latter twice as broad as long, the postero-dorsal border emarginate medially in front of the spongiform strips separating postpetiole and gaster. Subpetiolar process a lamella; the posteroventral strip of the anterior portion is more strongly sclerotised than the anterodorsal, giving the appearance of an anteriorly curved tooth (fig. 2). Spongiform appendages reduced to a narrow posterior band on petiole, more massively developed on postpetiole with a posterolateral band and a large ventral lamella.

Head, body, appendages and pedicel finely and densely punctate, dull, except for anteromedian portion of clypeus where sculpture is reduced, leaving the area shiny. Gaster more shining than alitrunk, granular sculpture weak; with a number of fine longitudinal striae at the extreme base of the first segment which do not extend more than 0.15 times the length of the tergite.

Orbicular hairs abundant on dorsum of head, about 50 in number, arranged in a series of longitudinal rows, absent from a narrow median strip running from the posterior clypeal border to the occiput. Orbicular hairs absent from rest of body. Anterior clypeal margin with 4 long flattened hairs projecting forwards over the labrum and mandibular bases. The mandibular blade dorsally with a single flattened, elongate hair; the apices of the tibiae equipped with one or two similar hairs on the dorsal (external) surface. Profile of alitrunk broken by a number of microscopic, blunt setae; gaster with a number of elongate, clavate hairs dorsally. Legs with numerous simple setae, especially on tarsi.

Colour uniform yellow-brown.

The three paratypes agree with the above description, but one has a slightly broader head, HW 0.31, (CI 107). The holotype and three paratype workers were recovered from a litter sample taken in a cocoa farm at Mampong, Akwapim district of the Eastern Region of Ghana. Collected 27 July, 1970, by P. M. Room. Holotype and one paratype to be deposited in the British Museum (Natural History), London; two paratypes in the Museum of Comparative Zoology, Harvard College.

Epitritus minimus represents the second species of the genus with only three funicular segments. It is distinguished from *E. argiolus* Emery by the lack of orbicular hairs on the promesonotal dorsum and the absence of any preapical mandibular armament. All other described species including the following have five funicular segments.

***Epitritus roomi* sp. n. (figs. 3-4)**

Holotype worker: TL 1.9, HL 0.45, HW 0.58, (CI 129), ML 0.17 (MI 38), WL 0.50, scape length 0.26, funiculus length 0.33.

General characters as shown in figs. 3 and 4. Mandibles with a single preapical tooth situated close to the apex; the apical armament consisting of a long, acute dorsal spiniform tooth subtended by the apical border, the armament of which is not discernable. The long spiniform tooth crosses with its counterpart on the opposite mandible when the jaws are closed. Antennal scapes with a large subbasal lobe; flagellum with 5 segments, the apical about 0.19 mm in length, slightly longer than the preceding four segments taken together. Eyes small, with only 3 ommatidia.

Pro- and mesonotum fused, the suture absent on the dorsum, but with a broad, shallow impression separating the constituent sclerites. Promesonotum as broad as long, broadest in front (maximum width ca. 0.34 mm), abruptly and considerably narrowed at mesonotum, which is approximately half the width of the pronotum. In profile the mesonotum raised medially, the posterior portion forming a continuous, slightly convex slope with the propodeum. Propodeal lamellae present. Node of petiole 1.7 times broader than long, about 0.6 times the width of the postpetiole; the latter twice as broad as long, with a shallow median longitudinal groove dividing the node into two lateral portions. Subpetiolar process a narrow ridge; fungiform appendages of pedicel represented by a narrow strip posteriorly on each segment, and a small subpostpetiolar lamella.

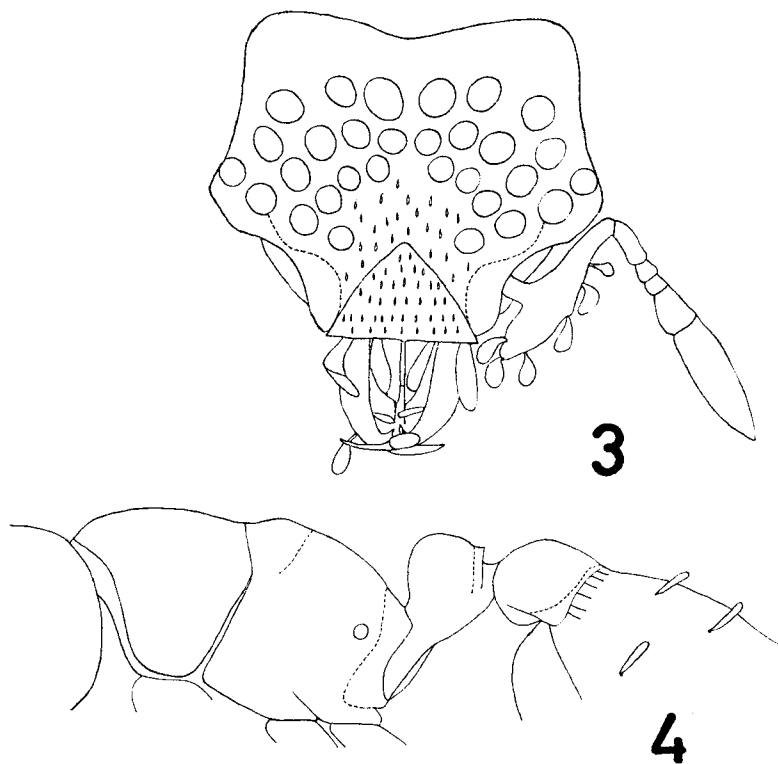


Fig. 3-4.—*Epitritus roomi* sp. n., holotype worker: 3, dorsal view of head, right antenna omitted; 4, profile of alitrunk, pedicel and base of gaster.

Sculpture everywhere of fine, dense puncturation, giving the cuticle a granular appearance. Tergite of first gastral segment with a few short, weak, longitudinal striae basally.

Dorsum of head with 30 orbicular hairs, roughly arranged in a transverse arch behind the clypeus. The clypeus itself, and the region immediately posterior to it equipped with numerous, short spatulate hairs. Anterior clypeal margin with 4 long flat hairs; mandibular blades each with two similar hairs on their dorsal surfaces. Antennal scapes bordered by large flat hairs, a pair of which are also represented on the dorsal (external) margin of each tibial apex. Gaster with scattered long clavate setae and a number of minute thick setae. Hairs on legs simple, apart from those at tibial apex. Colour uniform medium brown.

Paratype female (dealate) with dimensions: HL 0.45, HW 0.57, (CI 126), ML 0.16, WL 0.59, scape length 0.27, funiculus length 0.33. Details of head as worker, but eyes considerably larger (diameter about 0.06 mm) and the region of the ocelli infusate. Alitrunk with flight sclerites, the pro-mesonotal impression distinct. Otherwise as worker.

The holotype worker and paratype female were recovered from a litter sample taken in a cocoa farm at Mampong, Akwapim district of the Eastern Region of Ghana. Collected 10 April, 1970, by P. M. Room.

A further specimen (worker) was found in a sample taken in the same area on 27 July, 1970. This agrees in all respects with the holotype, but has slightly different cephalic dimensions: HL 0.44, HW 0.56, (CI. 127). This specimen to be deposited at the Museum of Comparative Zoology, Harvard College; holotype and paratype (female) in the British Museum (Natural History), London.

Epitritus roomi may be distinguished from its West African congener *E. laticeps* Brown by the presence in the former of a long spiniform tooth in the apical mandibular armament. In the latter species no spiniform tooth is present. The dorsal mandibular surface in *E. laticeps* is devoid of specialised hairs, whilst in *E. roomi* two elongate flattened hairs arise from each mandibular blade.

Since Brown's (1962) paper, three species of the genus *Epitritus* have been described, one by Taylor (1968) from Malaya, and the two described above from Ghana.

In consequence, the key presented by Brown (1962, p. 79) may be modified as follows to accommodate the more recently described species.

- 1.—Funiculus of antenna with 3 segments.....2
- Funiculus of antenna with 5 segments.....3
- 2.—Orbicular hairs present on promesonotal dorsum; mandible with 4 preapical teeth (Mediterranean lands n. to Hungary).....*argiolus* Emery
- Orbicular hairs absent on promesonotum; mandible without preapical teeth (Ghana).....*minimus* Bolton
- 3.—Tooth at dorsal apex of mandible small, about equal to or slightly longer than the other largest teeth of the apical group. (Nigeria).....*laticeps* Brown
- Tooth at dorsal apex of mandible long, straight, spiniform, crossing over tooth from opposite mandible at rest.....4
- 4.—Promesonotum with orbicular hairs like those on dorsum of head, (Japan: Kyushu, Honshu).....*hexamerus* Brown
- Promesonotum without orbicular hairs.....5
- 5.—Mandible with 4 preapical teeth; spongiform appendages of pedicel massively developed. (Malaya).....*murphyi* Taylor
- Mandible with a single preapical tooth; spongiform appendages of pedicel very reduced. (Ghana).....*roomi* Bolton

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