

## A New Species and Subspecies of *Procryptocerus* from Espírito Santo, Brazil (Hymenoptera, Formicidae)

By Walter W. Kempf, O. F. M., Department of Entomology,  
Cornell University, Ithaca, N. Y.

(With 5 figures)

Since the publication of Emery's "Myrmicinae" in "Genera Insectorum" (1922) only two species, one subspecies and two varieties have been described as new in the genus *Procryptocerus*. While working on a revision of this genus, among unidentified material of the Borgmeier collection I have found some specimens from Santa Teresa, State of Espírito Santo, Brazil, evidently representing two new forms, the description of which is given below. I am greatly indebted to Fr. Thomaz Borgmeier both for the use of his collection and kind assistance in the preparation of the present note.

### *Procryptocerus gibbosus*, n. sp. (Fig. 1-4)

**Worker:** Length 4.5-5 mm. Black, shining. Antennae, tibiae and tarsi brown; the first three tarsal segments of middle and hind legs as well as the five apical segments of the antennae darker; the tip of the apical segment of the funiculus light brown. Head without mandibles about as long as wide, truncate behind. Occipital border distinct, crenulate, not forming a sharp crest. Occipital angles with a minute blunt tooth. Frontal carinae slightly lobed behind. Anterior border of clypeus convex, shallowly emarginate in the middle; posterior border vestigial or absent. Mandibles with a distinct apical and a pre-apical tooth. Eyes moderately convex. Second flagellar segment of the antennae broader than long. Pronotum from above about two and a half times as broad as long. Anterior and lateral borders convex, the latter slightly marginate behind; humeral angle obtuse. Pro-mesonotal suture vestigial, strongly arcuate cephalad, not impressed. Pronotum and mesonotum confluent, distinctly convex longitudinally and transversely, forming a very conspicuous hump. Mesonotum not marginate at the sides. Mesopleuron with a small rectangular lobe at the anterior margin, covering part of the front coxae. The thorax is greatly constricted between the mesonotum and epinotum, but the suture is not deeply impressed. Epinotum transversely convex above, twice as broad as long, broadest anteriorly, with lateral marginate lobes. Basal surface of the epinotum shorter than the declivity. Epinotal spines

somewhat divergent, shorter than basal surface of epinotum. Epinotal declivity not marginate laterally. Femora greatly incrassated. Petiole distinctly longer than broad, convex above and laterally, subtruncate anteriorly, ventrally with a straight mesal ridge ending anteriorly in a blunt tooth. Postpetiole distinctly broader than long, subcircular as seen from above, in profile highest behind the middle. Gaster ovate, but slightly depressed.

Mandibles, head, thorax, coxae, petiole, postpetiole and gaster longitudinally and conspicuously striated. The striae are coarsest on the epinotum (14), petiole (9), and postpetiole (about 15), finest on the gaster. Patterns of the striae rather regular, the striae sometimes anastomosing towards the margins. On the pronotum the central striae diverge slightly anteriorly, but run straight backwards; the lateral striae curve sideways close to the pro-mesonotal suture and join the lateral margin. The intervals between the striae are finely shagreened. The occiput is smooth and finely shagreened and shows in the center a few vestigial longitudinal striae. Anterior surface of the petiole finely punctate. Posterior surface of the fore femora completely, of the mid femora but partially longitudinally striated. Dorsal surface of the tibiae longitudinally rugose. Antennal scape finely reticulate-punctate.

Head, mandibles, antennae, dorsum of thorax, petiole, postpetiole, gaster and appendages sparsely covered with white, long and usually erect setae. The setae are somewhat shorter on head, antennae and ventral face of gaster; very short on the mandibles and ventral face of postpetiole. Flagellum of the antennae with short and appressed pubescence.

Two workers (holotype and paratype) from Santa Teresa, State of Espírito Santo, Brazil, O. Conde leg. July 8, 1928.

The paratype differs from the holotype by the slightly shorter petiole and postpetiole, and by the aberrant sculpture of the gaster: the left-side striae of the first gastric segment converge posteriorly mesad, and diverge again further behind.

Type in the Borgmeier Collection (Nr. 4293).

This is a very distinct and characteristic species. To judge from the sculpture alone it could be placed within the *striatus*-group, but by the hump-backed thorax and the structure of mesonotum and epinotum it is strikingly distinct from all other known species of *Procryptocerus*.

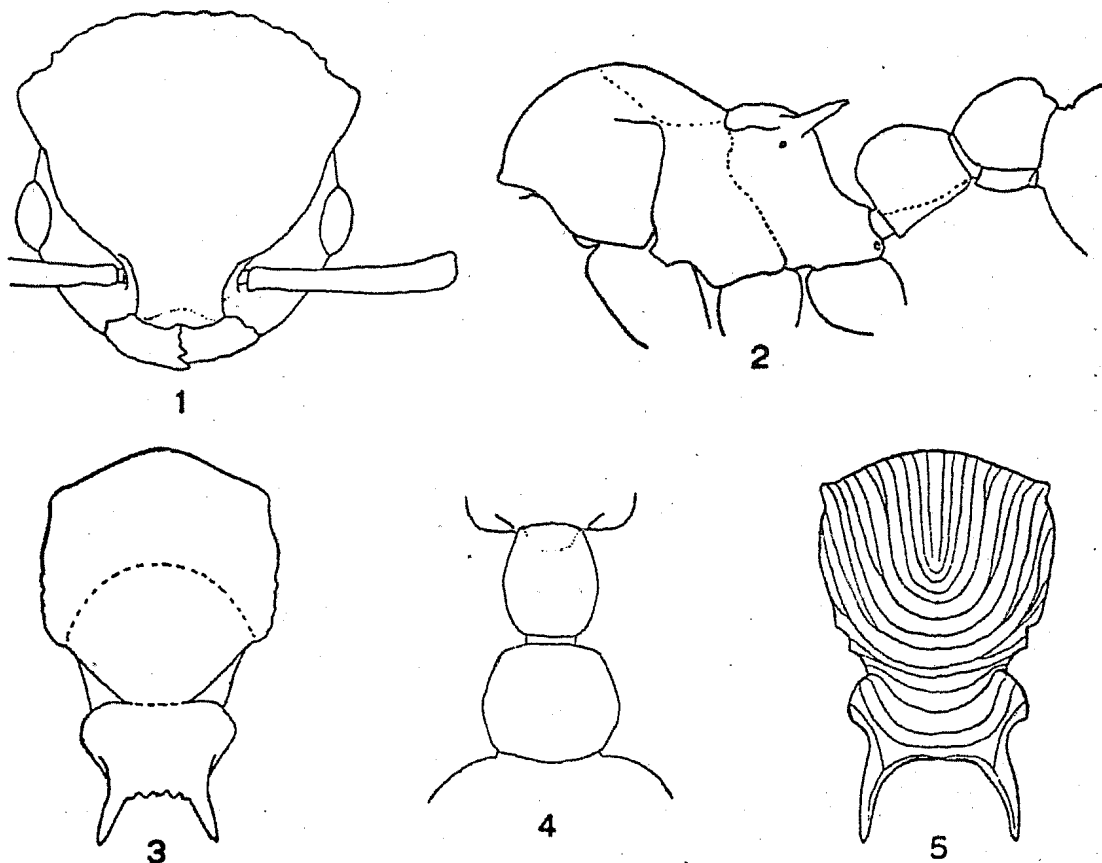


Fig. 1. *Procryptocerus gibbosus*, n. sp., head of worker, dorsal view. — Fig. 2. Idem, thorax and peduncle of worker, lateral view. — Fig. 3. Idem, thorax of worker, dorsal view. — Fig. 4. Idem, petiole and postpetiole of worker, from above. — Fig. 5. *Procryptocerus sulcatus* Emery *curvistriatus*, n. subsp., thorax of worker, dorsal view. (Kempf del.)

*Procryptocerus sulcatus* Emery *curvistriatus*,  
n. subsp. (Fig. 5)

Worker: Length 4.8 mm. Black, the last three tarsal joints ferruginous, antennae dark brown. Head without mandibles a little broader than long (32:30). Clypeus with a distinct notch on the anterior border, posterior border vestigial. Occipital border crenulate; occipital corners without conspicuous tooth. Humeral angles denticulate, lateral borders of pronotum marginate, mesonotum laterally dentate. Epinotum with lateral lobes, which are obtusely angulose posteriorly. Pro-mesonotal suture obsolete; meso-epinotal suture indistinct, not impressed. Meso-epinotum in profile forming a straight line. Epinotal spines as long as basal surface, not very divergent, rather acute. Petiole from above slightly longer than broad, sides somewhat convex, anterior surface oblique from the side. Postpetiole one and a half times broader than long. Gaster ovate, somewhat depressed.

Sculpture consisting of regular longitudinal striae; there are

about 20 of such striae at the occipital crest of the head. Occiput with transverse striation. Prothorax with longitudinal striae, all of which, except two in the center, converging behind semi-circularly and joining on the mesonotum. Sides of the thorax longitudinally striated. Only the fore coxae bear longitudinal striations on the posterior surface. Anterior surface of the petiole punctate, the rest longitudinally striated. On the dorsum of the postpetiole about 8 central striae do not attain the posterior border, but end abruptly; three of the lateral striae converge behind and continue on the posterior surface. Gaster dorsally with about 36-40 longitudinal striae. The intervals between the striae are finely punctate.

Head, mandibles, antennae, dorsum of thorax, legs, petiole, postpetiole and gaster with long, yellowish-white, erect, sparse setae, those on the thorax and gaster longer than the others.

Holotype one worker from Santa Teresa, State of Espírito Santo, Brazil, O. Conde leg. 1928. In the collection of Father Borgmeier.

This specimen represents a rather characteristic form of *Procryptocerus sulcatus* Emery (1894, Bull. Soc. Ent. Ital. vol. 26, p. 200), differing from the typical species chiefly by the curved striae of the pro-mesonotum, the absence of a conspicuous tooth on the occipital angles of the head and the rather long epinotal spines. The striae are otherwise as in *sulcatus* s. str.: regular, coarse and less in number than in the *striatus*-group. I have not seen the type of *sulcatus*, which is from Nova Friburgo, State of Rio de Janeiro, Brazil. But in the Borgmeier collection there are several workers and a winged female from Teresópolis, State of Rio de Janeiro, not very distant from the type locality. These specimens agree very well with the description of the typical *sulcatus*, except for the larger size and the somewhat longer epinotal spines. Thus I suspect that *sulcatus* Emery represents a complex of races morphologically distinct by details of the sculpture pattern.