

**"PHALACROMYRMEX", A NEW ANT GENUS FROM  
SOUTHERN BRAZIL (Hymenoptera, Formicidae) <sup>1</sup>**

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(With 6 text-figures)

A methodical survey of the ant fauna of the soil cover in southern Brazil, carried out during the last few years by Mr. Fritz Plaumann, of Nova Teutônia, S.C., revealed an unsuspected variety of species and led to the discovery of some real myrmecological rarities. Perhaps one of the most interesting of these findings consists in the capture of three specimens which constitute a new species of a new, apparently unrelated genus in the subfamily Myrmicinae. A description of this remarkable ant, with a discussion of its possible affinities, is offered below.

**Phalacromyrmex g.n.**

(phalacros - bald-headed; myrmex - an ant)

*Worker* - Mandibles short, broadly triangular, strongly curved laterad and apicad; chewing border serially dentate, larger teeth alternating with smaller ones. Labrum bilobed. Palpal formula 3:2. Antennae 11-segmented, funiculus with a 2-segmented apical club. Frontal carinae broadly expanded laterad and forward, covering cheeks and eyes in full-face view. Clypeus flanked by the frontal carinae, its anterior border scarcely convex. Eyes small, situated ventrolaterally below the deeply excavate antennal scrobe. Thorax dorsally flattened, laterally marginate; mesoepinotum conspicuously compressed. Epinotum with a pair of upright triangular lamellae. Middle and hind legs without a tibial spur. Petiole strongly pedunculate. Both petiolar and postpetiolar nodes little broader than long, unarmed, lacking spongiform appendages. Gaster ovate, its anterior end not truncate, lacking a transverse crest. Body integument mostly smooth and shining. Erect hairs simple, short,

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very scarce, absent on dorsum of head. Appressed pilosity scarce and inconspicuous.

Type of the genus: *Phalacromyrmex fugax* sp. n.

Although quite distinct in its own right, this new genus seems at least superficially related with the ants of the tribe Dacetini in the subfamily Myrmicinae. As regards the number of antennal segments, it agrees with the *Daceton*-complex, but is otherwise completely different in head shape, short triangular mandibles, position of eyes and development of antennal scrobe. By its general habitus *Phalacromyrmex* seemingly imitates the short-mandibulate members of the *strumigenys*-complex, especially *Codiomyrmex* and *Glamyromyrmex*. However, many important characters, such as the number of antennal segments, the unarmed petiolar and postpetiolar nodes, lacking any trace of spongiform appendages, the normally ovate gaster, lacking an anterior truncation and transverse crest, separate it also from this group. The peculiar palpal formula — maxillary palps with 3, labial palps with 2 segments — removes *Phalacromyrmex* from all known Dacetine genera. As long as the sexual forms and the larvae are unknown, it seems best not to include the present genus in the Dacetini, although it seems even farther removed from all other Myrmecine tribes.

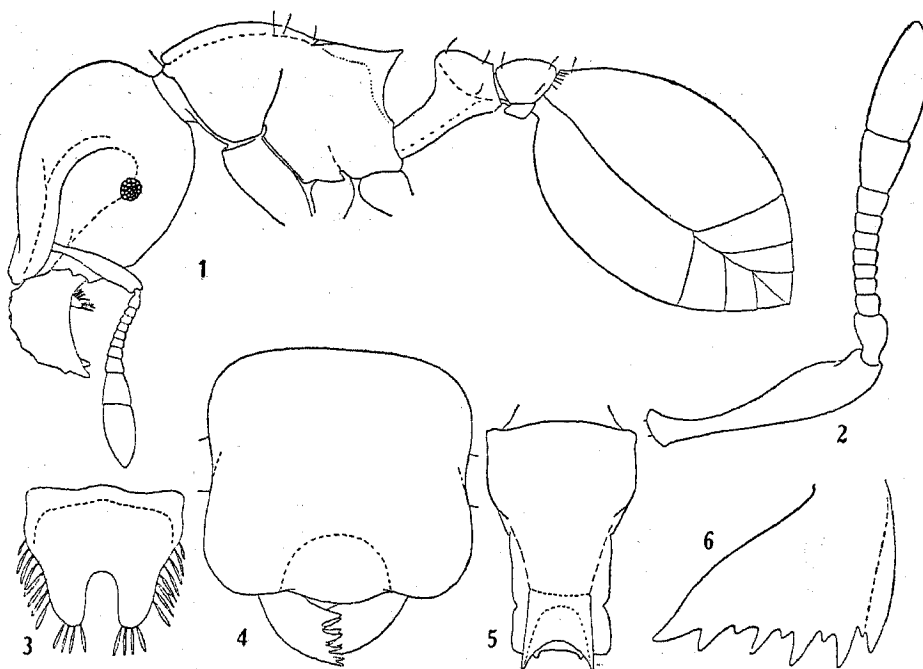
#### *Phalacromyrmex fugax* sp. n.

*Worker* (holotype) — Total length 4,0 mm; maximum length of head capsule 0,94 mm; maximum width of head 0,96 mm; Weber's length of thorax 0,98 mm. Color piceous; mandibles fuscous-ferruginous; antennae, legs and apical segments of gaster brown.

Mandibles (fig. 6) opaque, dorsally reticulate-punctate, laterally finely longitudinally striato-rugose; subtriangular in shape, very convex dorsally and laterally; basal border shorter than apical border, the latter bearing 6 prominent, pointed teeth, with a shorter intercalary tooth between each pair except the apical. Labrum (fig. 3) strongly bilobed, the outer and anterior border of each lobe fringed with a row of lanceolate hairs.

Head capsule (figs. 1, 4) almost as long as broad. Clypeus flat, smooth and shining, semicircular, its anterior border very little convex. The platelike, flat and strongly expanded frontal carinae roofing the antennal scrobe and projecting laterad beyond the cheeks and eyes, invisible in full-face view; their anterior border nearly flush with the clypeal margin, their lateral border almost straight and slightly converging caudad. Occiput not excised at the middle, very gently convex, the occipital corners broadly rounded. Vertex gently convex, gradually sloping downwards towards the sides and occiput. Occipital foramen margined above by a very narrow flange which laterally turns forward on the underside of the head in the form of a low ridge. Antennal scrobe deeply excavate in front, shallower behind, ill-delimited at the postero-inferior corner.

Compound eyes rather flat, with about 6 facets across the greatest diameter, situated below the antennal scrobe. Inferior border of cheeks not sharply marginate. Clypeus, front and vertex smooth and shining, with minute and widely spaced punctulae. Dorsum of frontal carinae with several faint longitudinal rugulae which posteriorly curve mesad on the head proper, the mesal ones fusing with those from the opposite side in a semicircular fashion. Between these rugulae the integument is vestigially reticulate-punctate. Cheeks subopaque, reticulate-punctate and longitudinally rugose. Occiput very faintly and longitudinally rugulose. Antennal scrobe mostly smooth and shining, but traversed by several irregular faint rugae or ridges.



*Phalacromyrmex fugax* g.n., sp.n., worker — Fig. 1: Body in profile; fig. 2: antenna; fig. 3: labrum; fig. 4: head in full-face view; fig. 5: thorax in dorsal aspect; fig. 6: mandible. Kempf del.

Antennal scape (fig. 2) attenuate at base, incrassate toward apex. Funicular segments I, IX and X much longer than broad, segments II and VIII nearly as long as broad, all others distinctly broader than long.

Thorax (figs. 1, 5) mostly smooth and shining, except for the opaque and heavily sculptured "neck". Pronotum anteriorly and laterally rather sharply marginate, the dorsal and lateral faces meeting at a right angle. Humeral corners rectangular. Dorsum of pronotum faintly sculptured at each side, with a few longitudinal rugulae and reticulate-punctate microsculpture. Sides of pronotum parallel in front, converging behind toward the much narrower mesonotum. Promesonotal suture absent. Promesonotum longitudinally gently, transversely scarcely convex. Mesoepinotal suture slightly impressed, arching

toward the epinotum. Basal face of epinotum with strongly marginate and scarcely diverging lateral borders, only half as broad as pronotum. Disc of basal face longitudinally excavate, the excavation starting somewhat behind the mesoepinotal suture, separated from the smooth declivous face by a low transverse costa; each posterior corner with a strongly compressed, platelike, upright, triangular lamella, continuing downwards on the declivous face as a prominent crest. Sides of thorax with a few oblique to transverse costulae just above the middle and hind coxae. Legs rather shining, yet sparsely and superficially reticulate-punctate, tibiae and femora also somewhat rugulose.

Petiole (fig. 1) with a long peduncle and posteriorly an elevated node; the latter twice as broad as peduncle, anteriorly marginate, laterally immarginate. Postpetiole trapeziform with convex sides, scarcely broader than petiolar node. Both segments dorsally mostly smooth and shining, ventrally finely reticulate-punctate.

Gaster ovate, smooth and shining, but all tergites also very superficially and finely reticulate. Anterior end of first tergite, in the middle just behind the postpetiolar insertion, with a few very short basidorsal costulae.

Erect hairs very scarce, a pair projecting laterad from each side of the head, one at each humeral corner, about 2-3 pairs on mesonotum, 2 pairs on petiolar node, 3 pairs on postpetiolar node, scarce and scattered on gaster. Appressed hairs longer and rather conspicuous on cheeks, antennae and legs, minute and sparse on cephalic dorsum.

*Types* — 3 workers (holotype and paratypes) from Ibicaré, Santa Catarina State, Brazil, collected in July 1959 by F. Plaumann, deposited in this author's collection [WWK], except for one paratype, deposited in the Museum of Comparative Zoology at Harvard University [MCZ]. The mouthparts were dissected and drawn from a paratype, the head capsule of which was partly destroyed during the dissection.

The paratype workers differ from the holotype in the slightly more pronounced sculpture of the dorsum of head and pronotum. They possess the following measurements: Total length 3,6-3,8 mm; maximum length of head capsule 0,87-0,94 mm; maximum width of head 0,89-0,96 mm; Weber's length of thorax 0,87-0,98 mm.

#### RESUMO

Descreve-se, neste trabalho, *Phalacromyrmex fugax* g.n., sp.n., uma formiga ainda inédita, colecionada em Ibicaré, no Oeste Catarinense.