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Trichoscapa inusitata n. sp., a remarkable dacetine ant from the Orinoco River watershed (Hymenoptera Formicidae)

JOHN E. LATTKE [1]
Fundación Terramar, Apartado 89.000, Caracas 1080-A, Venezuela

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Trichoscapa inusitata n. sp. is described from southern Venezuela. It is unlike any other Neotropical member of short-mandibulate Dacetini, bearing closer resemblance to some species from SE Asia. Its relationship with other dacetines can not be determined until a generic revision of these ants is carried out.

KEY WORDS: Formicidae, Venezuela, Dacetini, leaf litter, rain forest.

INTRODUCTION

The short-mandibulate dacetines centring around *Smithistruma* Brown 1948 are a group of approximately 10 genera (BOLTON 1983: 274), nearly all of which are of questionable status. Doubts as to their validity have arisen due to the continuing discovery of species that bridge gaps between groups previously thought to be distinctly delimited. Additional misgivings have appeared because some characters used in erecting genera have come into question, such as antennal segmentation (BROWN 1973: 35) and mandibular length (BOLTON 1983: 275). The status of the genus *Smithistruma* itself is in doubt and it may be synonymized under *Trichoscapa* Emery 1869 in the future. Consequently this species is described in the genus *Trichoscapa*, the older of the two names.

The distinctness of one recently captured specimen and the possible role it may play in a future revision of the short-mandibulate dacetines justifies the description of this lone ant.

Measurements are mostly defined as in BOLTON (1983: 271). SL was measured with the head in ventral view. The indices constitute convenient indicators *per se* and thus were not multiplied by 100 as is customary.

[1] Present address: Departamento de Entomología, Fundación Museo de Ciencias, Apartado 5883, Caracas 1010-A, Venezuela.

Trichoscapa inusitata n. sp. (Fig. 1)

Holotype. Venezuela, Territorio Federal Amazonas, Alto Río Siapa, 01°40'N 64°35'W, 540 m, 4.II.1989, J. Lattke leg. One worker taken from a sifted leaf litter sample processed through a Winkler Sack. Deposited in the collection of the Museo del Instituto de Zoología Agrícola, Facultad de Agronomía, Universidad Central de Venezuela, Maracay, Venezuela.

Worker. HL 0.69, HW 0.53, SL 0.27, ML 0.04, PW 0.25, AL 0.63 mm, CI 0.77, SI 0.50, MI 0.05. Head in full face view hexagonoid in shape: margin of vertex concave, though a median lamella protrudes dorsoposteriorly from the vertex margin, this lamella has a slightly convex median edge. Posterolateral margins of head fairly straight and diverge anteriorly from one another until reaching greatest head width at same level as eyes. Frontal lobes greatly expanded and translucent, converging anteriorly and slightly notched at the clypeal junction. Anterior clypeal margin broadly convex.

An anteriorly concave carina arches across the posterior cephalic dorsum from eye to eye. Sculpture on cephalic dorsum mostly glabrous; frontal lobes shining, with weak longitudinal rugulae; clypeus smooth and shining with sparse punctures and dominated by an enormous, raised longitudinal keel which is medially cleft on its crest by a shallow sulcus that is widest anteriorly but closes posteriorly to form a narrow fissure (Fig. 1b). The short triangular mandibles as observed *in situ* ventrally show a broadly rounded basal lamella and numerous fine teeth.

Head in lateral view notably depressed: ventral cephalic margin bluntly angular at the eyes, which are on a crest that begins at the posterior apex of the frontal lobes and continues to the posterior mandibular margins. This crest separates the deep antennal scrobe from the cephalic ventrum. Compound eyes have approximately 10 facets. Antenna with 6 segments, funniculus with an apical 2 segmented club, the

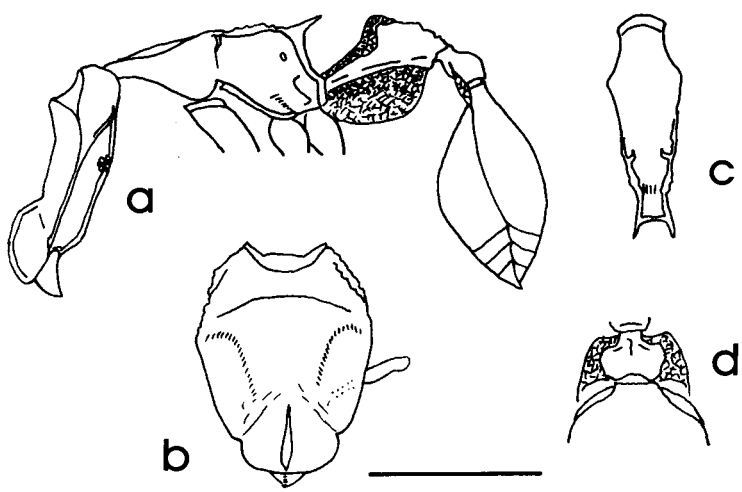

Fig. 1. — *Trichoscapa inusitata* n. sp. (a) lateral view of the body, (b) dorsal view of the head, (c) dorsal view of the mesosoma, (d) dorsal view of the postpetiole and accompanying spongiform processes. Pilosity and hairs omitted. Scale bar = 0.5 mm.

apical segment longer than the rest. Scape narrow and slightly sinuate but its apical third expands into a robust club with a sulcus on the flexor surface.

Dorsum of mesosoma with flat, smooth and shining pronotal and mesonotal surfaces which form a broad angle. All of mesosomal dorsum separated from lateral areas by sharp margins, mesonotum to dorsal propodeal face laterally bound by lamellae with small convex lobes along the mesonotum and metanotal groove. Metanotal groove not apparent in lateral view. Pleura and lateral pronotal face smooth and shining; anterior mesepisternal margin lamellate. Declivitous propodeal face shining and punctate, laterally bound by lamellae which are protrude as triangular acute teeth at the anterolateral corners of the declivity. Propodeal spiracle round and situated at midheight.

Spongiform lamella present on anterior petiolar node face and also on its ventral surface, forming a convex lobe; dorsal nodal margin very broadly convex with a tubercle just posterior of midlength. Postpetiole dorsally pentagonoid (Fig. 1d) and surrounded by extensive spongiform lamellae which are widest posteriorly and extend to beneath the anterior gastral surface. Gaster strongly depressed anteriorly, dorsum broadly convex, smooth and shining with shallow longitudinal striae that cover the basal 2/3 of the first gastral segment. Body with sparse, paralled-sided, long flat hairs. Eight of these hairs are on the transverse cephalic carina, 4 along the posterior cephalic margin, 4 along the posterolateral cephalic border (between transverse carina and posterior margin), 4 along the lateral cephalic margins at eye level and an additional 3 on the posterolateral cephalic corners. Other such hairs present on the mesosomal dorsum and gaster. At least 3 short hairs that curve mesally at each anterolateral clypeal border are also present.

Femora relatively short and compressed, with a bulbous lateral appearance and each apical ventral surface with two lamellae that converge at the basal third.

Etymology. The Latin adjective *inusitatus*, meaning unusual or extraordinary, is the root for the species name and alludes to the specimen's distinctness within the neotropical short-mandibled dacetines.

Ecology. The lone specimen was taken from leaf litter collected in a rain forest close to the Siapa River. Even though the collection site is at least 4 m above the water's surface, towards the end of a dry season, the vegetation suggests it may occasionally flood.

Discussion. This ant is remarkable in several aspects of its morphology. Among known dacetines the following combination of characters set this species apart: the abruptly clubbed scape, clypeus with a conspicuous median longitudinal keel and sulcus on its crest, and the compressed head with transverse carina. The aforementioned characteristics preclude its assignment into any of the *Smithistruma* species groups considered by BROWN (1953), or BOLTON (1983). It shares with the *alberti* group the largely smooth and shining mesosomal sides and postpetiole but is so dissimilar in almost all other important aspects that any connection is flimsy at best. In BROWN's (1953) key to the Neotropical species of *Smithistruma* it runs to couplet 4, where it becomes stranded. Some SE Asian species have a similar habitus, including one undescribed specimen in the British Museum (Natural History) [The Natural History Museum] with a prominent clypeus (B. BOLTON pers. comm.). It resembles ants of other genera in some aspects. The broad shield-like cephalic dorsum can be

found in genera like *Glamyromyrmex* Wheeler 1915, *Dorisidris* Brown 1948, *Codioxenus* Santschi 1931, and *Chelystruma* Brown 1950. The general mandibular structure of *inusitata*, among other things, precludes its assignment to the first three genera. The mandibles of *S. inusitata* were not removed in order to avoid damaging the sole specimen. *Codioxenus* is known from a sole Cuban specimen, but has a three-segmented funiculus. *Chelystruma* is a monotypic Argentine genus with a sharply marginate mesosomal dorsum. Hopefully more specimens can be found in the future in order permit some dissections that may throw more light on the affinities of *inusitata*, but a generic revision of the aforementioned groups is a prerequisite condition for more precise conclusions.

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REFERENCES

Bolton B. 1983. The Afrotropical dacetine ants (Formicidae). *Bulletin of the British Museum of Natural History (Entomology)* 46 (4): 267-416.

Brown W.L. Jr 1953. Revisionary studies in the ant tribe Dacetini. *American Midland Naturalist* 50: 1-137.

Brown W.L. Jr 1973. A new species of *Miccostruma* (Hymenoptera: Formicidae) from West Africa, with notes on the genus. *Journal of the Kansas Entomological Society* 46: 32-35.