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# THYSDARIELLA, A NEW GENUS OF THE MYRMECOPHILOUS SUPERTRIBE CLAVIGERITAE (COLEOPTERA: STAPHYLINIDAE, PSELAPHINAE) FROM MADAGASCAR

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#### Abstract

A new genus and species of the myrmecophilous supertribe Clavigeritae, *Thysdariella fieldiana*, from Madagascar is described. The genus belongs to the subtribe Thysdariina of the tribe Clavigerini. The key for all genera of Thysdariina is provided. The present status of higher systematics of Clavigeritae is briefly discussed.

Although a group containing morphologically bizarre and interesting species, the Clavigeritae has been poorly studied in recent years. This is may be due to their small size and difficult systematics and because of their myrmecophilous way of life and consequent scarcity in collections. Clavigeritae are strict symphiles. In northern temperate regions (Adranes LeConte in North America and Claviger Preyssler in the Palaearctic region) they are anophthalmous, unable to fly and never leave the colonies of their hosts. In the tropics they have eyes, are able to fly and often can be found outside of ant-nests by sifting debris, using flight intercepts traps or even by sweeping or beating vegetation. During my short visit to the Field Museum of Natural History, Chicago I found a single male of an undetermined Clavigeritae from Madagascar that represents a new genus of the subtribe Thysdariina, and it is described below.

Thysdariina is relatively small subtribe of Clavigerini with seven genera and eight described species. They are restricted to southern Africa and Madagascar, with Eurycheiles Jeannel extending northwards to Angola, Republic of Congo, and Cameroon

# Thysdariella gen. nov. (Figs. 1–3)

Type species: Thysdariella fieldiana sp. nov. (here designated). Gender feminine.

**Etymology.** The name of the genus is derived from the name of the subtribe Thysdariina and to indicate the relationship to *Thysdarius* Fairmaire and *Thysdariopsis* Jeannel

**Diagnosis.** Thysdariella is included in the subtribe Thysdariina through the following characters: (1) 4-segmented antennae; (2) eyes present and large; (3) body smooth, shining, with sparse pubescence; (4) head without constriction behind eyes; (5) humeral angles rounded; (6) lateral margins of pronotum rounded, not diverging posteriorly; and (7) presence of large flat plate on ventral surface of head. Thysdariella differs from Thysdarius Fairmaire and Thysdariopsis Jeannel in having last antennal segment shorter than segment III and pronotum with large, entire, deep median depression.

**Description.** Body (Fig. 1) moderately covered with golden setae, shiny, light reddish brown. Head elongate, about 1.5 times as long as wide, with two basal ventral fovea; eyes large; vertex

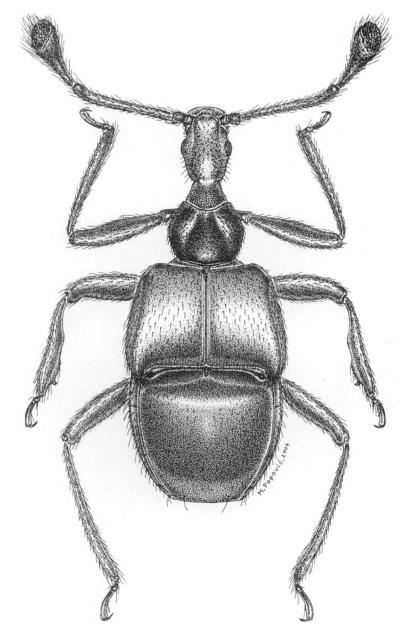
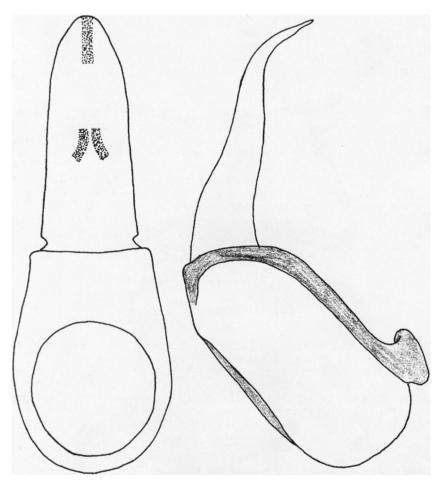


Fig. 1. Thysdariella fieldiana sp. n., habitus.

long, slightly more than twice as long as eyes and slightly convergent, neck large, well separated from head by sharp constriction. Large flat plate on head venter well defined and well visible dorsally. Maxillary palpi minuscule, not visible in dorsal view. Antennae relatively long, reaching the elytral bases, scape slightly longer that pedicel, pedicel quadrate, segment III longest,



Figs. 2-3. Thysdariella fieldiana sp., aedeagus. 2) Dorsal view; 3) lateral view; scale 0.2 mm.

cylindrical, distinctly longer than pedicel and almost twice as long as apical segment. Apical segment expanded and hemispherical apically.

Pronotum approximately circular in outline, with large, entire, deep median depression. Lateral foveae well defined.

Elytra longer than pronotum, with large rounded humerae, lateral margin of elytra slightly diverging posteriorly, with long setae on sides, disc glabrous, outer apical corners of elytra with few long, bristle-like setae that replace trichomes.

Venter with large epipleura, all coxae round, meso and metasternum smooth, metasternum about twice as large as mesosternum, metasternal apex very large, truncate, metacoxae widely separated. Abdomen about as wide as elytra, tergal basin narrow, trichomes absent.

### Key to Genera of Thysdariina

1	Antennae 3 segmented	2
1'	Antennae 4 or 5 segmented	4

2	Last segment of antennae very long, Zimbabwe Arnoldiella Brauns
2'	Last segment of antennae very short
3	First visible tergite simple without trichomes, pronotum with median and lateral
	foveae, Angola, Cameroon, Rep. Congo Eurycheiles Jeannel
3′	First visible tergite with two pairs of large trichomes, pronotum lacking foveae,
	Madagascar
4	Antennae 4 segmented, Madagascar
4′	Antennae 5 segmented, South Africa
	Last antennal segment shorter than segment III, pronotum with large, entire, deep
	median depression, Madagascar
5′	Last antennal segment longer than segment III, pronotum lacking large, deep
	median depression 6
6	Head not separated from neck by deep constriction, antennal segment III narrower
	than pedicle, Madagascar
6′	Head separated from neck by constriction, antennal segments II and III subequal in
	size, Madagascar

Note: Soalala Dajoz, 1982: 512 assigned to Thysdariina in its original description, belongs to the subtribe Apoderigerina (Besuchet, pers. comm.).

## Thysdariella fieldiana sp. n.

(Figs. 1-3)

Etymology. referring to the Field Museum of Natural History, Chicago (FMNH) where the type of the new genus was held.

Material studied. HOLOTYPE, 1 male: (p) MADAGASCAR: Enakara, (11 km NW), Rés. Andohahela, 24°34′ S, 46°49′E, 800 m, rainforest, 17.XI.1992 / (p) FMNH #92-163, Winkler extraction of sifted litter (leaf mold, rotten wood), B. L. Fisher #492 (1–50), FIELD MUS. NAT. HIST. / (h) "Apoderigerini" genus? (p) M. K. Thayer det. 1993 / (h) red label *Thysdariella fieldiana* sp. nov. (p) P.Hlaváč det, 2003. FMNH.

**Description.** Body (Fig. 1) moderately covered with golden setae, shiny, light reddish brown; length 1.44 mm, maximum width of elytra at base 0.58 mm. Head elongate, about 1.57 times as long as wide, with two basal ventral fovea; eyes large; vertex long, slightly more that twice as long as eyes and slightly convergent, neck large, well separated from head by sharp constriction. Large flat plate on head venter well defined and readily visible dorsally. Maxillary palpi minuscule. Antennae relatively long, reaching elytral bases, scape slightly longer that pedicel, pedicel quadrate, segment III longest, cylindrical, about 7.7 times as long as pedicel and 1.85 times as long as apical segment. Pronotum 1.2 times as wide as long with large, deep, entire, median depression. Elytra about 1.5 times as long as pronotum, with large rounded humerae, lateral margin of elytra slightly diverging posteriorly, with long setae on sides, disc glabrous, outer apical corners of elytra with few long, bristle-like setae that replace trichomes. Legs long and slender, fore and hind legs unmodified, mid tibiae enlarged in the middle by two protuberances, with small preapical spur. Aedeagus as in Figures. 2, 3.

Sexual dimorphism. Female unknown.

Habitat. The host is ant unknown. The only specimen was sifted from leaf mold or rotten wood.

#### Discussion

Tribal concepts of Clavigeritae were established by Jeannel (1954) and later developed by Célis (1969, 1970) who were the main authorities in the modern

taxonomy of Clavigeritae from 1949 to 1980. The result of their studies was 15 defined tribes. Subsequent contributions of Besuchet (1974, 1977, 1986), Coulon (1979, 1982, 1983), Dajoz (1982) and Nomura (1997, 1998, 1999, 2001) did not bring any changes in the higher systematic of the supertribe. Thus this concept is also reflected in the world catalogue of the genera of Clavigeritae (Newton and Chandler 1989). The discovery of a new genus *Colilodion* Besuchet in south-eastern Asia which established a clear link between the Pselaphitae and Clavigeritae, allowed the classification of the Clavigeritae to be redefined (Besuchet 1991). The result of this important study are three tribes (Clavigerinae, Colilodionini, Tiracerini). Two are monogeneric, with the tribe Clavigerini holding 14 subtribes. Further studies will certainly bring more changes in the subtribal concept within the Clavigerini, as well as on the generic classification of the whole supertribe.

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I would like to thank to Margaret Thayer and Al Newton for the opportunity to visit the Field Museum of Natural History in Chicago, and for loan of Clavigeritae from the collections in their care. I also thank Alexey Solodovnikov (FMNH) for his help during my stay in the museum, and to Claude Besuchet, Geneva who is always keen to help me with my studies of Pselaphinae. I also thank Jon Cooter for reading and commenting on the manuscript.

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#### SCIENTIFIC NOTE

#### Justified Emendation in Buprestidae (Coleoptera)

In the original description of *Tetragonoschema trinidadense* Bellamy, 1991, the specific epithet was misspelled (*trinidadensis*) in the paper's abstract, but correctly spelled in the text. The spelling *trinidadensis* is unavailable. This emendation of multiple original spelling is corrected according to the following ICZN (1999) Articles: 24.2.4, 32.2.1, and 33.2.2. I acknowledge Ted MacRae, Monsanto Corp., St. Louis, Missouri, for pointing out the double spelling.

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