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MEDON VICENTENSIS N. SP., A NEW SPECIES OF EYELESS ROVEBEETLE (COLEOPTERA: STAPHYLINIDAE: PAEDERINAE) FROM A CAVE IN THE ISLAND OF MADEIRA

By ARTUR R. M. SERRANO*

ABSTRACT. *Medon vicentensis* (Coleoptera, Staphylinidae) from the "Cave dos Cardais" (Cave of the thistles) of the Island of Madeira is described and illustrated. This new species is assigned to the subfamily Paederinae, tribe Paederini and is the first record of an eyeless rove beetle of the archipelago of Madeira.

RESUMO. *Medon vicentensis* N. SP., UMA NOVA ESPÉCIE DE ESTAFILINIDEO ANOFTALMO (COLEOPTERA: STAPHYLINIDAE: PAEDERINAE) DUMA GRUTA NA ILHA DA MADEIRA. Neste trabalho é descrita uma nova espécie anoftalma de estafilinídeo - *Medon vicentensis* n. sp.. A nova espécie foi capturada no túnel principal da gruta dos Cardais situada na Madeira. São feitas ainda algumas considerações taxonómicas sobre o género *Medon*.

INTRODUCTION

On recent insect survey trips to the Island of Madeira two specimens of a rove beetle were collected in the "Cave dos Cardais" (Thistle Cave) near the town of S. Vicente. The said beetles are here shown to represent a new species to science of the Paederine tribe Paederini.

The cave beetle fauna of the Madeira archipelago had until recently only been including the carabid *Thalassophylus pieperi* Erber (ERBER, 1990). The present new rove beetle brings to 2 the list of known Madeiran cavernicolous species.

* Departamento de Zoologia e Antropologia, Faculdade de Ciências de Lisboa. Edifício C2, 3o Piso, Campo Grande, 1700 Lisboa, Portugal.

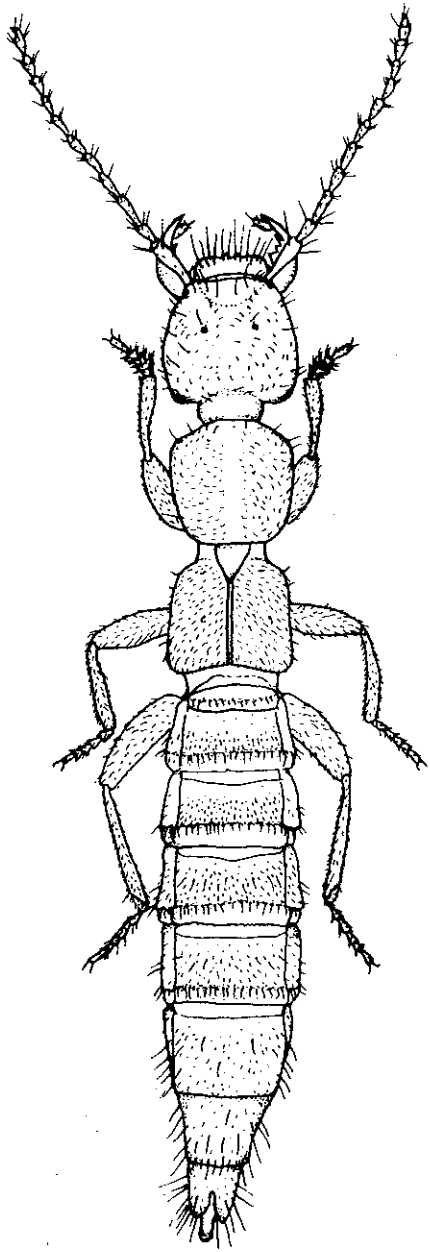

Fig. 1. - Habitus of holotype of *Medon vicentensis* n. sp., scale 1 mm.

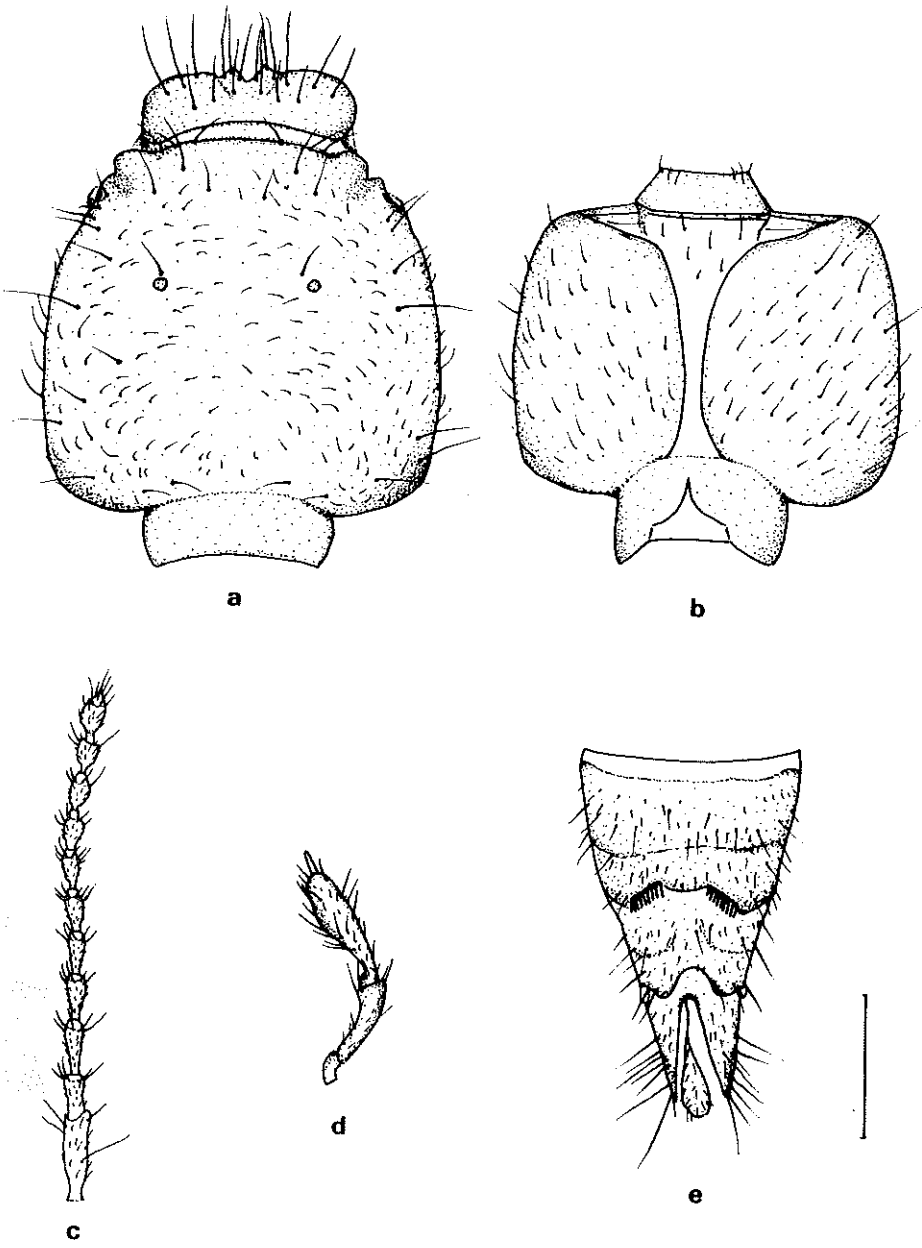

Fig. 2. - *Medon vicentensis* (holotype): a) and b) dorsal and ventral views of head, c) antennae, d) maxillary palpus and e) ventral view of propygidium and pygidium, scale a,b and d 0.25 mm, c and e 0.5 mm.

DESCRIPTION

Medon vicentensis new species (Figs 1 - 3)

Holotype, male: S.Vicente, Gruta dos Cardais, 22.7.1992 to 15.9.1992, A. SERRANO, in author's collection.

Length 5.2 mm; body brownish red. Antennae, mouth parts and legs yellowish brown. Surface covered with dense microsculpture.

Head (Fig. 2 a and b) without mouth parts almost as wide as long; basal angles rounded; temples parallel. Eyes absent. Surface with setiferous punctures some longer than others. Neck width almost one-half that of head. Antennae (Fig. 2 c) about 0.60x as long as body length. Labrum pubescent; anterior margin with one tooth on each side of middle. Mandible elongate; apex acutely pointed; with strong teeth projecting medially near middle of each mandible (left mandible - 3 teeth, right mandible - 4 teeth). Maxillary palpus (Fig. 2 d) finely pubescent with apical segment very narrow.

Pronotum (Fig. 1) as wide as long, widest at anterior third, slightly attenuated behind, with smooth middle line; surface with sparsely setiferous punctures.

Femura and tibiae of legs with dense pubescence. Protarsus with basal four segments expanded, venter densely covered with curved setae, sides of segments with 1-2 longer dark setae projecting laterally.

Scutellum triangular with basal lateral margins parallel; not compressed.

Elytra trapezoidal 1.1 times wider than long; sides subparallel; surface more densely punctate than head and pronotum and with some long setae in basal and lateral regions. Wings obsolete.

Abdomen (Fig. 1) densely and finely punctate; the two posterior thirds with short setae and the apical margins with a fringe of setae. Segments gradually becoming wider from base to segment 3-4 then gradually narrowed to apex; intersegmental membranes with ''brick-wall'' type microsculpture. Sternite 5 (propygidium) (Fig. 2 e) with a posterior median arcuate lobe with nine black spines on each side. Sternite 6 (pygidium) (Fig. 2 e) rounded notched in the middle of the posterior margin.

Aedeagus (Fig. 3) long, shallow truncate at apex and with one short tooth on each side.

Allotype, female: S. Vicente, Gruta dos Cardais, 27.7.1992 to 15.9.1992, A. SERRANO, in author's collection.

Body length 5.4 mm. General features like in male.

Protarsus with the four basal segments not as expanded as in male.

Sternite 5 (propygidium) without arcuate median lobe and spines on posterior margin. Sternite 6 (pygidium) without rounded notch in the middle of the posterior margin.

Etymology. The species name is derived from S. Vicente the village closest to Cardais cave where the specimens were collected.

REMARKS

Medon vicentensis n. sp. shows the characteristic propygidium of the *fusculus* group (trapezoidal notch with a slight median lobe) (sensu COIFFAIT, 1984). The lateral and apical shape of the aedeagus is apparently very close to *M. exquisitum*, a cave species distributed in Armenia and Lebanon.

LUNDBLAD (1958) listed 8 species of the genus *Medon* of Madeira. Some of these species are included now in other genera: *M. vilis* and *M. ochraceus* in the genus *Lithocaris*, *M. debilicornis* in the genus *Chloecharis* and *M. propinquus* and *M. obsoletus in* the genus *Hypomedon*. The remaining 3 species are *M. apicalis* (*apicalis* group), *M. ripicola* (*ripicola* group) and *M. indigena* (*indigena* group). The first 2 have a wide distribution throughout Europe and north Africa and the last one is a Madeiran endemic species. All these species live an exogenous life (under decaying organic matter, under stones, etc.) and present developed eyes. *M. vicentensis* n. sp. does not show adaptations to larger spaces of macro- or meso-caverns (e.g., longer legs and antennae) but is blind (anophthalmic) and without flight wings, truly features for a hypo-endogean life. *Medon vicentensis* n. sp. is not the first known cavernicolous species of the genus. A further 7-8 species from the western palearctic Region were found in cave habitats that show subterranean adaptations (see COIFFAIT, *op. cit.*).

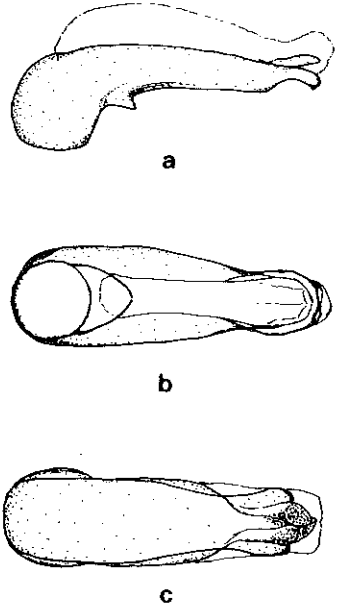

Fig. 3. - *Medon vicentensis* (holotype): a), b) and c) lateral, ventral and dorsal views of aedeagus, scale 0.25 mm.

In contrast to the paucity of Madeiran endogean staphylinids (one species), the Canary Islands present a rich fauna of troglophiles and troglobite staphylinids (OUTERELO, 1980; OROMI & MARTIN, 1984, 1990; OROMI & HERNANDEZ, 1986; OUTERELO & OROMI, 1987; HERNANDEZ & AGUIAR, 1988; GAMARRA & HERNANDEZ, 1989; HERNANDEZ & MEDINA, 1990). We think that an insufficient exploration of Madeiran endogean habitats, among other possible reasons (e.g., only small numbers of lava tube caves *versus* a large number of exogean niches) could explain this situation.

Unfortunately destruction and consequent disturbances in the gruta dos Cardais (locality inside the cave) due to human activity during the past months of 1992 causes that survival of *M. vicentensis* will probably be very much endangered. We, therefore, would recommended that influencial personalities should intercede to prevent the extinction of this interesting endemic species.

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REFERENCES

BOHAC, J.:

1985. Review of the subfamily Paederinae (Coleoptera, Staphylinidae) of Czechoslovakia. Part II. *Acta entomologica Bohemoslovaca*, **82**: 431-467.

COIFFAIT, H.:

1984. Coléoptères Staphylinidae de la région paléarctique occidentale. V. Sous-famille Paederinae, Tribu Paederini II. Sous-famille Euaesthetinae. Supplément, *Nouvelle Revue d'Entomologie*, **13** (4): 1-424.

ERBER, D.:

1990. *Thalassophilus pieperi* n. sp., a new cavernicolous carabid beetle from Madeira. *Bocagiana*, 140: 1-7.

GAMARRA, P. & HERNANDEZ, J.J.:

1989. *Apteranopsis outereloi* n. sp. y observaciones sobre los Staphylinoidea (Col.) cavernicolas de Canarias. *Mémoires de Biospéologie*, **16**: 53-62.

HERNANDEZ, J.J. & AGUIAR, A.:

1988. Una nueva especie de *Atlantogoerius* endogeo de Tenerife (Islas Canarias) (Co - leoptera, Staphylinidae). *Fragmenta Entomologica*, **21** (1): 85-92.

HERNANDEZ, J.J. & MEDINA, A.L.:

1990. *Domene jonayi* n. sp. (Col. Staphylinidae, Paederinae) Especie troglobia de La Gomera (Islas Canarias). *Vieraea*, **19**: 287-293.

LUNDBLAD, O.:

1958. Die Arthropodenfauna von Madeira nach den Ergebnissen der Reise von Prof. Dr.O. Lundblad Juli-August 1935. XXXV. Die Käferfauna der Insel Madeira. *Arkiv för Zoologi*, **11**(30): 461-524.

OROMI, P. & HERNANDEZ, J.J.:

1986. Dos nuevas especies cavernico las de *Domene* de Tenerife (Islas Canarias) (Coleoptera, Staphylinidae). *Fragmenta Entomologica*, **19** (1): 129-144.

OROMI, P. & MARTIN, J.L.:

1984. *Apteranopsis canariensis* n. sp., un nuevo coleoptero cavernicola de Tenerife (Coleoptera, Staphylinidae). *Nouvelle Revue d'Entomologie*, (N.S.), **1** (1):41-48.

1990. Una nueva especie de *Domene* (Col., Staphylinidae) de cavidades volcánicas de La Palma (Islas Canarias). *Vieraea*, **18**: 21-26.

OUTERELO, R.:

1980. La Subfamilia Leptotyphlinae nueva en Canarias.*Entomoculia(Stenotyphlus)viti* n. sp. (Col. Staphylinidae). *Vieraea*, **10** (1-2): 71-82.

OUTERELO, R. & OROMI, P.:

1987. *Domene bifossicapitata* n. sp. endogea de las Islas Canarias (Coleoptera:Paederinae). *Actas VIII Bienal Real Sociedad Espanola de Historia Natural*, Pamplona: 135--142.

WOLLASTON, T.V.:

1857. *Catalogue of the Coleopterous insects of Madeira in the collection in the British Museum*. London.